

RESOLUTION NO. 2007-259

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE
ADOPTING THE RURAL ROADS IMPROVEMENT POLICY AND
RURAL ROADS IMPROVEMENT STANDARDS**

WHEREAS, the City Council is the appropriate authority to hear and take action on this project after a recommendation by the Planning Commission; and

WHEREAS, the City determined that the Elk Grove Rural Roads project was subject to the California Environmental Quality Act; and

WHEREAS, the Elk Grove Rural Roads project is consistent with the City of Elk Grove General Plan; and

WHEREAS, the Planning Commission considered the Rural Roads project at a public hearing on October 4, 2007 and recommended City Council approval of the project.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby adopts a Resolution for the Rural Roads Improvement Policy, attached hereto as Exhibit A, and the Rural Roads Improvement Standards, attached hereto as Exhibit B, based on the following findings:

Findings

CEQA

Finding: CEQA Guidelines Section 15183 exempts from environmental review projects which are being carried out consistent with an adopted General Plan for which an Environmental Impact Report (EIR) was prepared, unless there are project specific effects that are significant and peculiar to the project. The Rural Road Improvement Policy and the Improvement Standards project implements the provisions of the Land Use and Circulation elements of the General Plan. An EIR which analyzed the environmental effects of the implementation of the city's General Plan was certified by the City Council in October, 2003 (SCH#2002062082). The proposed Rural Road Improvement Policy and Improvement Standards project will assist in the design of roadways in the City's rural area to meet the goals of the General Plan and they do not represent the approval nor commit to the funding of any future roadway project. As such, there are no project specific effects and no special circumstances exist that would create a reasonable possibility that the proposed Rural Road Improvement Policy and Improvement Standards project will have a significant adverse effect on the environment.

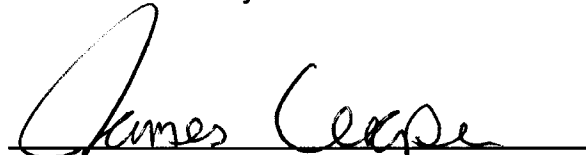
Evidence: The General Plan EIR was certified by the City Council in 2003. The Elk Grove Rural Roads project is consistent with the General Plan EIR. Based on the record of proceeding, there have been no substantial changes to the proposed project, no substantial changes to the circumstances under which the project was undertaken, and there is no new information which was not known or could not have been known at the time of the certification of the prior EIR that would require preparation of a subsequent or supplemental EIR.

General Plan

Finding: The project is consistent with the goals and policies of the Elk Grove General Plan.


Evidence: The proposed project has been reviewed for consistency with the goals and policies of the General Plan. The project is consistent Land Use Element Focused Goal 5-2 which reads, "Maintenance of those features that provide the character of Elk Grove's rural areas, including: large oak and other trees, small local roadways, animal keeping and raising, equestrians, agriculture, and limited commercial opportunities.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 14th day of November 2007.



JAMES COOPER, MAYOR of the
CITY OF ELK GROVE

ATTEST:



PEGGY E. JACKSON, CITY CLERK

APPROVED AS TO FORM:



SUSAN COCHRAN, CITY ATTORNEY

ELK GROVE

RURAL ROAD
IMPROVEMENT
POLICY

NOVEMBER 14, 2007

RURAL ROAD IMPROVEMENT POLICY

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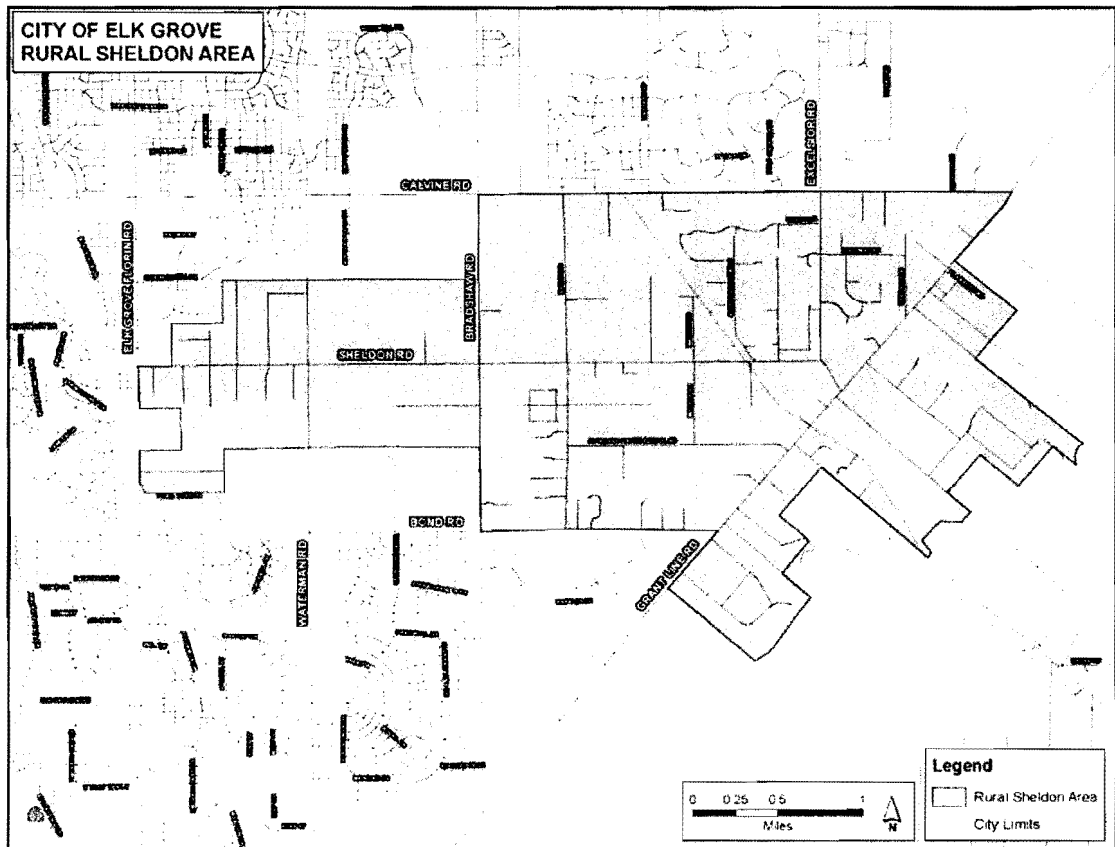
RURAL ROAD IMPROVEMENT POLICY

I. PURPOSE AND APPLICABILITY

The purpose of the Rural Road Improvement Policy is to preserve and maintain the rural roadways in the City's rural residential area. This policy establishes a value based approach for incremental (rather than ultimate) road improvements that solve specific traffic issues identified through periodic evaluations of traffic conditions. Road improvements within the City's defined rural residential area shall be implemented in response to traffic impacts.

The Rural Road Improvement Policy implements the General Plan goals, policies, and actions. Specifically, this policy implements the provisions of the Land Use and Circulation Elements regarding the preservation and maintenance of features that contribute to the rural residential character, including small local roadways with minimum paving, natural landscape, and preservation of existing mature trees.

The Rural Road Improvement Policy applies to the area defined in the General Plan as the Rural Sheldon/Rural Residential Area (hereafter Rural Residential Area) shown on the map below.



Once adopted by the City Council, the Rural Road Improvement Policy shall apply to all future road improvement planning within the Rural Residential Area. This policy may also apply to previously

RURAL ROAD IMPROVEMENT POLICY

approved road improvement projects not yet constructed as determined by the City Council on a case-by-case basis.

The Rural Road Improvement Policy works in conjunction with the Rural Road Improvement Standards. The policy identifies when the improvement will take place and the standards determine what the improvements shall look like.

RURAL ROAD IMPROVEMENT POLICY

II. ROADWAY PHASING/IMPROVEMENT CONCEPT

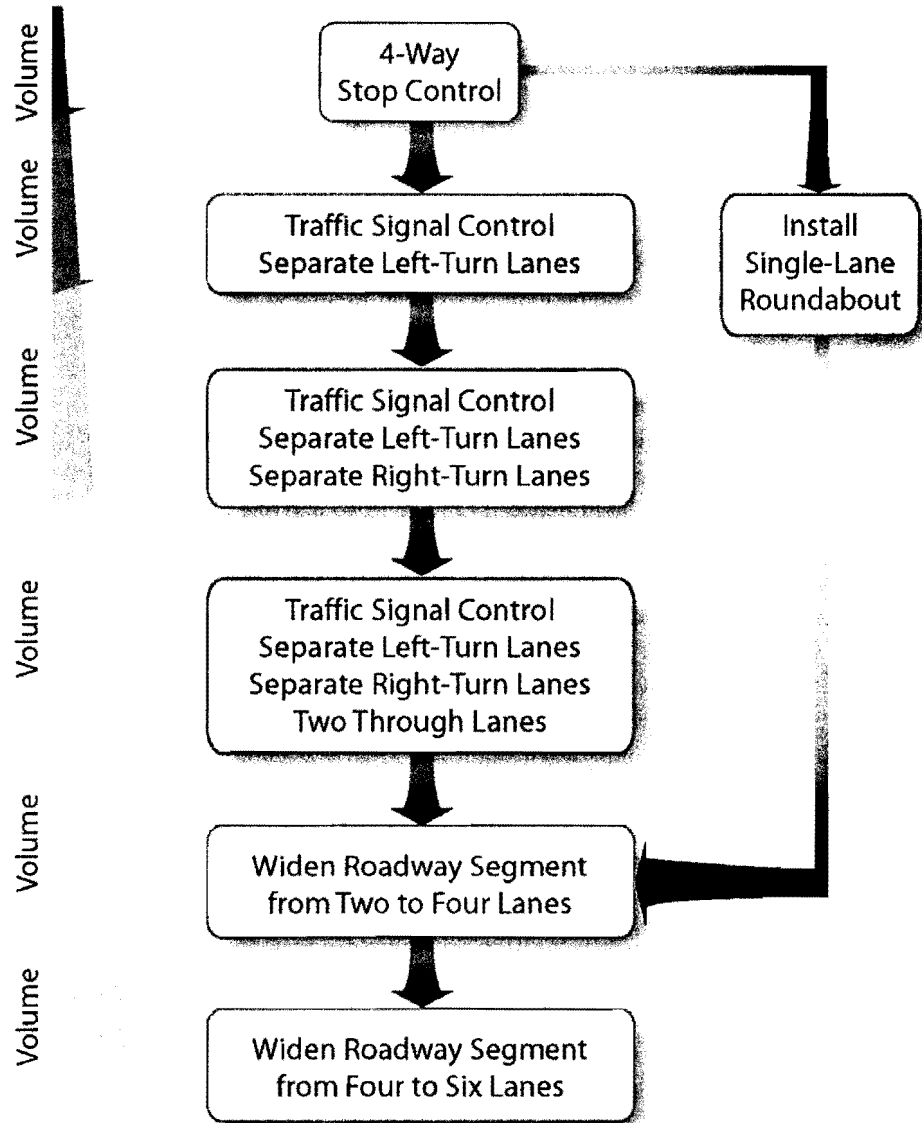
Within the City's Rural Residential Area, roadway and intersection improvements shall be implemented in response to traffic impact and not as a result of forecasted travel demand. The phasing of improvements is based on periodic evaluations of traffic conditions through regular traffic counts, safety criteria, and tolerance for delay (level of service). Improvements will only be planned and constructed when the actual need exists. This need will be evaluated by taking traffic counts at regular intervals, when a roadway project of citywide significance is completed, or as needed to address safety (based on accident data). Daily roadway traffic counts will be taken at the following locations with other locations counted as needed:

- Sheldon Road between Waterman Road to Rubia Drive
- Sheldon Road between Waterman Road and Bradshaw Road
- Sheldon Road between Waterman Road and Bader Road
- Sheldon Road between Bader Road and Mackey Road
- Waterman Road between Sheldon Road and Rubia Drive
- Waterman Road between Sheldon Road and Bond Road
- Wilton Road east of Grant Line Road
- Excelsior Road between Calvine Road and Sheldon Road
- Grant Line Road between Calvine Road and Sheldon Road
- Grant Line Road between Bond Road and Wilton Road
- Grant Line Road between Bond Road and Elk Grove Florin Road
- Bradshaw Road between Sheldon Road and Norman Lane
- Bradshaw Road between Sheldon Road and Bond Road
- Bradshaw Road between Bond Road and Silvergate Lane
- Bond Road between Bradshaw Road and Salmon Creek Drive
- Bond Road between Bradshaw Road and Bader Road
- Bond Road between Bader Road and Grant Line Road
- Bader Road between Sheldon Road and Pleasant Grove School Road
- Bader Road between Bond Road and Pleasant Grove School Road
- Bader Road between Sheldon Road and Mix Lane

The City of Elk Grove recognizes that investing in intersection improvements can delay or eliminate the need for widening adjoining roadway segment. Thus, the roadway phasing concept targets incremental improvements to intersections to solve current traffic problems. Roadway and intersection improvements must be implemented as needed to improve demonstrated safety needs regardless of traffic levels. Periodic monitoring of traffic volumes and accidents will be needed to effectively implement this policy.

RURAL ROAD IMPROVEMENT POLICY

Volume Thresholds – How it Works



RURAL ROAD IMPROVEMENT POLICY

III. ROADWAY PHASING/IMPROVEMENT CRITERIA

To implement the Rural Road Improvement Policy, the City developed phasing/improvement criteria based on traffic volumes thresholds, safety, and tolerance for delay. This policy establishes incremental road segment and intersection improvements that solve specific traffic issues identified through periodic evaluations of traffic conditions. The roadway phasing criteria were developed using the following methodology

- STEP 1: Conducted intersection and roadway traffic counts at locations throughout the study area.
- STEP 2: Compared the roadway and intersection counts throughout the project area.
- STEP 3: Analyzed intersection traffic operations at each intersection using the updated traffic counts.
- STEP 4: Identified traffic volumes at each intersection that would result in congested (i.e., stop-and-go) operations based on the current intersection turn lanes and traffic control, which included stop sign control and one lane on each approach.
- STEP 5: Converted the intersection volumes from Step 4 to equivalent roadway volumes using the comparison from Step 2. This was done for each leg of each intersection and averaged.
- STEP 6: The roadway volumes at each intersection from Step 5 were averaged to develop the roadway volume threshold for the improvement step.
- STEP 7: Steps 4, 5 and 6 were repeated for each remaining improvement step until widening the adjoining roadway segment was needed.

Improvements will only be planned and constructed when it is determined through the criteria below that an improvement is required.

VOLUME THRESHOLDS/CRITERIA

The City has established daily traffic volume thresholds for intersection operations to identify when an intersection would need to be evaluated for particular improvements. Traffic counts will be done every 3 years to determine if any intersections in the project area meet the volume thresholds. If one or more intersections meet the volume thresholds, the process will commence to identify needed improvements. Improvements will only be planned and constructed when it is determined through the criteria below that the need exists.

RURAL ROAD IMPROVEMENT POLICY

Intersection Volume Thresholds Table (1)

Improvement Step	Configuration	Daily Volume Threshold
1	All-way stop control	< 8,000
2	Traffic signal control Separate left turn lanes or Single-Lane roundabout	8,000-15,000
3	Traffic signal control Separate left turn lanes Separate right turn lanes or Single-Lane roundabout	15,001-18,000
4	Traffic signal control Separate left turn lanes Separate right turn lanes Two through lanes	18,001-24,000
5	Widen roadway segment from 2 lanes to 4 lanes	>24,001 – 36,000
6	Widen roadway segment from 4 lanes to 6 lanes	> 36,001

(1) Center turn lanes may be considered for implementation at any time to improve safety and convenience independent of intersection improvements. The need for center turn lanes will be determined on a case-by-case basis. This improvement does not increase roadway capacity, but does improve the flow.

SAFETY CRITERIA

While volume thresholds are a key indicator or trigger for determining needed improvements, roadway and intersection improvements must be implemented as needed to improve demonstrated safety needs regardless of traffic levels based on Federal and State guidelines specifically for rural areas.

TOLERANCE FOR DELAY

Related to the volume threshold is tolerance for delay. This is a human measure of acceptance for certain traffic conditions.

There may be indirect impacts to residents in the Rural Residential Area that need to be addressed. For example, if a resident is unable to access their driveway for several minutes because of queuing at an intersection, that may be an unacceptable delay. Similarly, if a resident cannot safely turn out of a driveway with a horse trailer for several minutes, that may be an unacceptable delay. As identified in the Intersection Volume Threshold Table above, center turn lanes may be considered to improve safety, convenience, and traffic flow where these types of impacts are identified. Tolerance for delay by residents of the Rural Residential Area will be considered during the process of determining specific improvements and may need to be evaluated separately based on resident input.

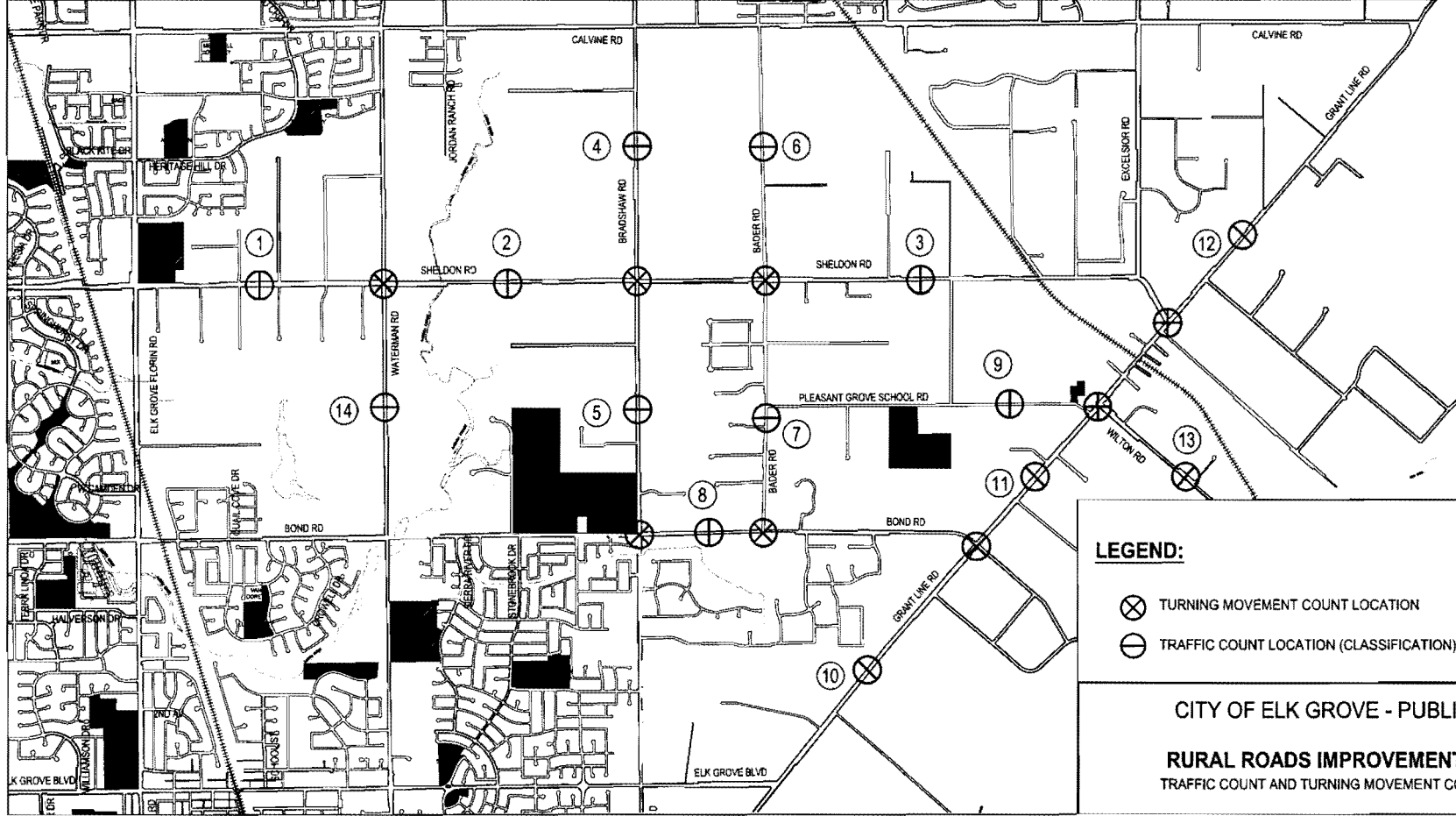
RURAL ROAD IMPROVEMENT POLICY

IV. IMPLEMENTATION PROCESS

The implementation process for the Rural Road Improvement Policy is as follows:

- 1) The City shall monitor/measure daily traffic (two-way total) volumes every three years or as needed to measure the effect of a significant roadway project (e.g. interchange upgrade) or large development that may alter traffic volumes and/or travel patterns in the study area. Traffic counts will be done using the same methodology as the baseline counts for this policy (see details in appendix).
- 2) The City shall compare measured daily traffic volumes to the improvement thresholds. The threshold is satisfied if the daily traffic (two-way total) volume on any leg of the intersection meets or exceeds the lower volume threshold for identified improvement step.
- 3) When the next improvement threshold is satisfied, the City will commence a more detailed traffic analysis to identify specific (i.e., minimum) improvements required to alleviate actual traffic impacts. Exceptions include an improvement that is needed to improve demonstrated safety impacts of a roadway or intersection.
- 4) The City shall host at least one public workshop with the residents in the Rural Residential Area to present the traffic data, threshold analysis, and range of alternative improvements to address the traffic impact. Notices for the workshop(s) shall be mailed to all property owners of record within the Rural Residential Area as defined herein. Input from that workshop will be presented to the City Council for direction to proceed with the Capital Improvement process.

	SHELDON RD									BRADSHAW RD						BADER RD						BOND RD			PLEASANT GROVE SCHOOL RD			GRANT LINE RD						WILTON RD			WATERMAN RD					
	①			②			③			④			⑤			⑥			⑦			⑧			⑨			⑩			⑪			⑫			⑬			⑭		
	EB	WB	TOTAL	EB	WB	TOTAL	EB	WB	TOTAL	NB	SB	TOTAL	NB	SB	TOTAL	NB	SB	TOTAL	NB	SB	TOTAL	EB	WB	TOTAL	EB	WB	TOTAL	NB	SB	TOTAL	NB	SB	TOTAL	NB	SB	TOTAL	EB	WB	TOTAL	NB	SB	TOTAL
MON	4246	4472	8718	3230	3495	6725	2287	2539	4826	4321	4315	8636	3502	4037	7539	1519	1352	2871	1668	1525	3193	4315	4297	8612	614	503	1117	4525	4393	8918	7157	6893	14050	5481	5628	11109	5249	5152	10401	4041	4149	8190
TUE	4469	4587	9056	3283	3656	6939	2260	2674	4934	4622	4661	9283	3843	4430	8273	1636	1440	3076	1713	1636	3349	4426	4568	8994	685	583	1268	4627	4467	9114	7505	7015	14520	5634	5898	11532	5351	5237	10588	4149	4250	8399
WED	4265	4748	9013	3367	3722	7089	2317	2702	5019	4527	4747	9274	3484	4556	8040	1702	1508	3210	1788	1626	3414	4423	4468	8891	653	531	1184	4852	4673	9525	7322	7305	14627	5865	6018	11883	5456	5507	10963	3982	4002	7984
THU	4444	4718	9162	3406	3647	7053	2420	2688	5108	4590	4667	9257	3574	4535	8109	1879	1317	3196	1858	1626	3484	4849	4600	9449	666	589	1255	4820	4715	9535	7515	7355	14870	6156	6155	12311	5598	5510	11108	4137	4324	8461
FRI	4645	4759	9404	3487	3683	7170	2396	2720	5116	4881	4991	9872	3389	4764	8153	1718	1441	3159	1847	1681	3528	4831	4709	9540	664	538	1202	5173	5039	10212	8130	7724	15854	6254	6303	12557	5723	5707	11430	4306	4456	8762
SAT	3220	3760	6980	2770	2851	5621	1898	2086	3984	2798	3060	5858	2180	2952	5132	1435	1103	2538	1436	1182	2618	3688	3499	7187	453	430	883	3854	3782	7636	5494	5807	11301	4166	3984	8150	4613	4520	9133	2803	2922	5725
SUN	3145	3285	6430	2508	2545	5053	1701	1779	3480	2608	2841	5449	1734	2483	4217	1163	916	2079	1086	902	1988	2883	2785	5668	368	353	721	3226	3230	6456	4725	4808	9529	3447	3361	6808	3707	3587	7294	2688	2803	5471



LEGEND:

- ⊗ TURNING MOVEMENT COUNT LOCATION
- ⊕ TRAFFIC COUNT LOCATION (CLASSIFICATION)

NOT TO SCALE

CITY OF ELK GROVE - PUBLIC WORKS

RURAL ROADS IMPROVEMENT PROJECT

TRAFFIC COUNT AND TURNING MOVEMENT COUNT LOCATIONS



ELK GROVE

RURAL ROAD
IMPROVEMENT
STANDARDS

NOVEMBER 14, 2007

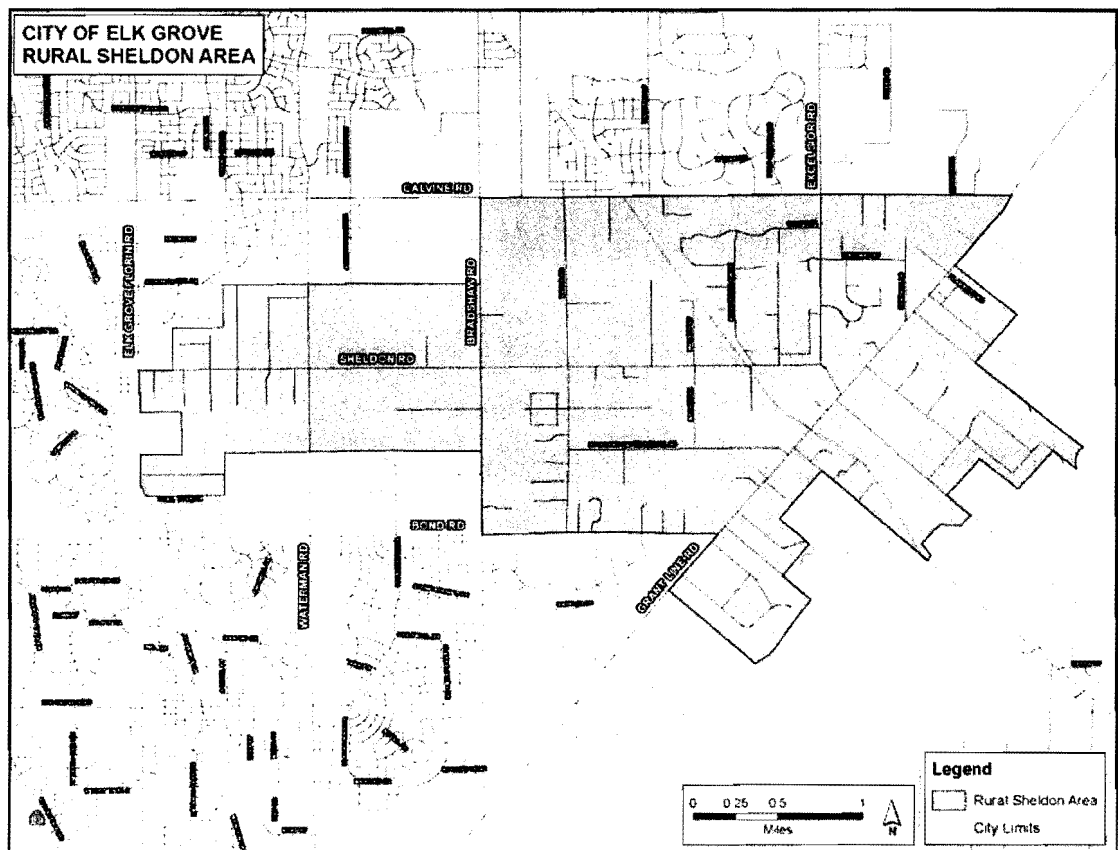
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RURAL ROAD IMPROVEMENT STANDARDS

I. PURPOSE AND APPLICABILITY

The purpose of the Rural Road Improvement Standards is to establish unique road improvement design standards that are rural (rather than urban) in character for future road improvements in the designated Rural Residential area of the City. The intent of the Rural Road Improvement Standards is to preserve and enhance the existing rural character of the Rural Residential Area consistent with the policy direction in the General Plan. It is not the intent of these new design standards to change the planned roadway improvements outlined in the adopted General Plan, but rather to affect the design and potentially construction timing of those future improvements to be more rural in character.



The project area subject to the Rural Road Improvement Standards is the existing Rural Sheldon/Rural Residential Area (hereafter Rural Residential Area) as outlined in the General Plan and shown on the map above. Specifically, the following roadways are included as part of this project; Excelsior Road, Bradshaw Road, Waterman Road, Elk-Grove Florin Road, Calvin Road, Bond Road, and Sheldon Road.

Once adopted by the City Council, the Rural Road Improvement Standards shall apply to all future road improvements within the project area, including all new road widening and intersection improvements, as well as new road construction. These design standards shall also apply to previously approved road

RURAL ROAD IMPROVEMENT STANDARDS

improvement projects within the project area that are not yet constructed or otherwise vested. For example, design specifications for intersection light standards outlined herein will be utilized on all public roadways where other intersection light fixtures have not already been purchased and/or placed.

The Rural Road Improvement Standards is a companion document to the Rural Road Improvement Policy. The Rural Road Improvement Policy is a value based approach for incremental (rather than ultimate) road improvements that solve specific traffic issues identified through periodic evaluations of traffic conditions. The Rural Road Improvement Policy (and the Rural Road Improvement Standards) documents are based on principles of Context Sensitive Design. Under this policy, roads are not simply built to the projected ultimate improvement unless the actual demand exists. By phasing road improvements the character of the rural residential area can be maintained.

RURAL ROAD IMPROVEMENT STANDARDS

II. RELATIONSHIP TO OTHER CITY-ADOPTED PLANS AND POLICIES

GENERAL PLAN

The Rural Road Improvement Standards implement the General Plan goals, policies, and actions. These standards implement the provisions of the Land Use and Circulation Elements regarding the maintenance of features that create the rural character, including small local roadways, roadways which preserve the areas mature trees, and preservation of large oak trees. Pursuant to State law, implementing documents must be consistent with the City's adopted General Plan.

ZONING ORDINANCE

The Rural Road Improvement Standards supplement the allowed use and development standards in the City's adopted Zoning Code. Both documents are planning tools used by the City to guide the physical form and function of the community consistent with the General Plan. While most of the City's zoning regulations apply to land outside the public right-of-way, these standards focus on improvements within the public right-of-way. The Zoning Code does include special development standards for improvements within and adjacent to the right-of-way, including but not limited to fencing, special signage, and clear visibility requirements at the intersections of streets and driveways.

CITY WIDE IMPROVEMENT STANDARDS

The Rural Road Improvement Standard document replaces the Citywide Improvement Standards for design details associated with road improvements for the City's designated rural/residential area. This document contains design standards and details that are unique to the Rural Residential Area of the City as defined by Land Use Elements policy LU-18. Standards and details that are not part of the Rural Road Improvement Standards are addressed in the Citywide Improvement Standards documents.

ELK GROVE TRAILS MASTER PLAN

The Trails Master Plan is an expression of the City's desire to have an exemplary off-street multi-use trail system that provides connectivity throughout the City and wider Sacramento region in order to offer recreational opportunities and an alternative method for transportation for Elk Grove residents. The Trails Master Plan discusses the use of off-street multi-use trails throughout the City and is not part of this Rural Roads project since the Rural Road Improvement Standards focus on improvements in the right of way.

ELK GROVE BICYCLE AND PEDESTRIAN MASTER PLAN

The Bicycle and Pedestrian Master Plan is a companion document to the Trails Master Plan and addresses on-street bicycle and pedestrian facilities. The purpose of the Bicycle and Pedestrian Master Plan is to improve and encourage bicycle and pedestrian transportation within the City of Elk Grove and allow connections with the surrounding area. The Bicycle and Pedestrian Master Plan addresses facilities within the public right-of-way which are designated Bike Trails (Class I) along portions of Calvine Road and Bond Road, Bike Lanes (Class II) and Bike Routes (Class III) facilities. A map of the Bicycle and Pedestrian Master Plan (adopted in 2004) is included in Appendix A of this document. Completion of the routes shown on the map will be completed as funding is available. The Rural Road Standards are consistent with the Bicycle and Pedestrian Master Plan. The table in this document accounts for the on-street routes in the paved shoulder width column. Bike routes have signing only

RURAL ROAD IMPROVEMENT STANDARDS

and do not have a minimum pavement width. Bike lanes require 4 (four) feet of minimum pavement width without gutters and without parking. Bike lanes will be 5 (five) feet wide unless there are physical constraints such as trees, ditches, or right-of-way issues. The City Council will approve the final design.

RURAL ROAD IMPROVEMENT STANDARDS

III. DEFINITIONS

Arterial streets- The arterial system carries the major portion of trips entering and leaving the urban area, as well as the majority of through movements. In addition, significant intra-area travel, such as between residential areas and commercial or business should be served by this system.

Average Daily Traffic (ADT) - The average of 24-hour mid-week (Tuesday-Thursday) traffic flows on a roadway segment (both directions) measured over multiple days, typically over a week or longer, measured under typical operating conditions excluding holidays, non-recurrent conditions (i.e., accidents), and times when schools are not in session.

Class I Bikeway/(Bike Trail) - A paved route not on a street or roadway and expressly reserved for bicycles traversing on otherwise unpaved area.

Class II Bikeway/(Bike Lane) - Bike lane that provides restricted right-of-way designated for the semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted.

Class III Bikeway/(Bike Route) - Bike route provides a right-of-way designated by signs or permanent markings and shared with pedestrians or motorists.

Collector Streets - Provide both land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. Collectors penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Conversely, the collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system.

Context Sensitive Design - Tailoring roadway design to adjacent land use with sensitivity to community values and considers cultural, historic, environmental and economic as well as traffic issues. Community members and City staff are involved in a collaborative process that includes people/stakeholders with diverse expertise in order to reach solutions.

Local streets - Primary function is to provide direct access to abutting land and access to collector streets. It offers the lowest level of mobility.

Median - Generally raised and curbed area separating opposing lanes of traffic.

Native Landscaping - Landscaping that is native and does not contain ornamental plantings.

Off Street - Improvements that are not located in the public right of way

On-Street - Improvements that are located in the public right of way

Right of Way - A strip of land occupied or intended to be occupied by certain transportation and public use facilities such as roadways and utilities.

RURAL ROAD IMPROVEMENT STANDARDS

Roundabout – A roundabout is larger than a traffic circle and used to allocate right-of-way for competing movements.

Rural Area – Map of Rural Residential Area of Elk Grove as defined by the Elk Grove General Plan.

Rural Road – A roadway that is located within the Rural Residential Area of the City.

Traffic Circle – A traffic circle is used as a traffic calming device at intersections that typically fit within the existing curb line.

Traffic Control Device –Traffic control devices shall be defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, or bikeway by authority of a public agency having jurisdiction.

RURAL ROAD IMPROVEMENT STANDARDS

IV. GENERAL PROCESS

A. *Implementation of Rural Road Improvement Policy*

The process for implementation of the Rural Road Improvement Policy is outlined in that Policy document. In summary, once the need for an improvement is identified, the City will work with affected property owners and rural residents in the project area to discuss impacts and alternatives. City Council will provide direction on the alternatives and the Capital Improvement Process outlined below will commence.

B. *Capital Improvement Project Process*

Roadway and intersection improvements are carried out by the City Public Works Department and are listed as Capital Improvement Projects (CIP). Listed below are the steps of a CIP project.

- 1) Preliminary roadway evaluation to identify options, opportunities and constraints;
- 2) Community outreach meetings with affected property owners, homeowner associations, and the Rural Residential Area;
- 3) Preliminary project design and environmental evaluation;
- 4) Circulate environmental document (Draft Environmental Impact Report (EIR) and request public comment;
- 5) Refine project and environmental evaluation as needed and proceed with certification;
- 6) Certification of the Final EIR for the preferred project alternative;
- 7) Right-of-way engineering and negotiations-primarily with individual property owners;
- 8) Final design with more details in the defined right-of-way (e.g., landscape, lighting design, driveways) for review, comment, and approval by the City Council after recommendations from the affected property owners, homeowners associations and the Rural Residential Area;
- 9) Request bids for construction, award contract, and commence construction.

RURAL ROAD IMPROVEMENT STANDARDS

V. STREET DESIGN

This section includes basic street typologies describing the range of public roads within the Rural Residential Area. The Rural Road Standards table on page 9 identifies the roadway design specifics for each of those road typologies. As stated in the Rural Roads Improvement Policy document, roadway widening shall occur when certain thresholds are met. The street sections shall be refined on a case-by-case basis for preservation of trees. All roads will have minimal lane width with open drainage and native landscape. Roads within the Rural Residential Area will not include curb, gutter, or sidewalk. Except for demonstrated safety needs or for necessary tree preservation, there shall be no medians in the Rural Residential Area.

A. STREET SECTIONS

Roadways in the Rural Residential Area shall have a rural character that will include minimal lane widths. Roadway section standards are shown in the Rural Roads Standards table on page 9 of this document and include provisions for center turn lanes for improved access and safety.

B. PATHS

There may be places within the Rural Residential Area where informal paths are necessary or desired (e.g., designated pedestrian access to schools and community facilities or commercial uses, connection to Citywide trail system). If included within the Rural Residential Area, paths shall be constructed with a surface such as decomposed granite or other similar surface, that is appropriate for the intended use!

C. BIKEWAYS

Bike lanes and bike routes will be included as part of the roadways within the Rural Residential area as shown on the adopted Bicycle and Pedestrian Master Plan Map (Appendix A). Bicycle circulation through the rural area will be provided with the use of bike routes and bike lanes for connectivity to Citywide trail system. Bike routes and bike lanes have been accounted for in the Rural Road Standards table in this document in the paved shoulder column.

RURAL ROAD IMPROVEMENT STANDARDS

Rural Road Standards Table

Rural Road Classification	Lane Width	Paved Shoulder*	Unpaved shoulder/transition	Roadside Ditch	Total Pavement Width	Turn Lane Width
Local (<400 ADT)	9-ft	2-ft	1-ft	Open, slope varies (dependent on capacity)	22-ft	0
Local (>400 ADT)	10-ft	2 to 4-ft	1-ft	Open, slope varies (dependent on capacity)	24 to 28-ft	0
Collector	10-ft	2 to 4-ft	1-ft	Open, Varies	24 to 28-ft	0
Arterial						
2-lane	11-ft	3 to 5-ft	3-ft	Open, Varies	28 to 32-ft	0
2-lane + center turn lane	11-ft	3 to 5-ft	3-ft	Open, Varies	40 to 44-ft	12-ft
4-lane	11-ft	3 to 5-ft	3-ft	Open, Varies	50 to 54-ft	0
4-lane + center turn lane	11-ft	3 to 5-ft	3-ft	Open, Varies	62 to 66-ft	12-ft
6-lane + center turn lane	11-ft	3 to 5-ft	3-ft	Open, Varies	84 to 88-ft	12-ft

Source: City of Elk Grove Public Works Department

* Consistent with the City of Elk Grove Bicycle and Pedestrian Master Plan and as discussed in the Section V.(C) Bikeways of this document.

RURAL ROAD IMPROVEMENT STANDARDS



D. CENTER TURN LANES

For the Rural Residential Area, use of center turn lanes will have a negligible effect on roadway capacity since the volume of turning traffic into and out of adjacent properties is low. However, the benefit of a center turn lane may be substantial for local residents that may have difficulty accessing their property. Consequently, center turn lanes may be considered for implementation at any time to improve safety and convenience independent of intersection improvements, which are discussed in Chapter

VI. The need for center turn lanes will be determined on a case-by case basis.

Except for demonstrated safety needs or for necessary tree preservation, there shall be no medians in the Rural Residential area. If needed for tree preservation, the inside travel lane (closest to the median) will be 12 feet and include a curb between the travel lane and median and will include curb cuts in order to facilitate drainage from around the tree.

E. LANDSCAPE

Rural roadways shall have native landscaping within the public right-of-way. Ornamental plantings shall not be part of the improvements unless they are pre-existing. The landscaping will not be irrigated except as necessary for establishment. Healthy, viable trees shall be saved wherever possible.



F. DRAINAGE

Rural roadways shall include open ditches for drainage. Native vegetation will be allowed to grow within the open ditch as long as the vegetation does not reduce the efficiency of the ditch or create a fire hazard. The ditches will continue to be maintained by the City. Ditch width shall be the minimum necessary to accommodate the drainage requirements of the particular roadway and adjacent properties.

Roadside ditches shall be designed and constructed as necessary to accommodate the drainage requirements of the particular roadway and adjacent properties. Roadway drainage improvements shall incorporate sound engineering practices to maintain the integrity of the roadway and the conveyance of storm water runoff.

RURAL ROAD IMPROVEMENT STANDARDS

VI. INTERSECTION DESIGN

As stated in the Rural Road Improvement Policy, intersection improvements shall be phased and constructed as needed based on traffic counts. Intersections will be designed in keeping with the rural character of the area and shall not include curb, gutter, and sidewalks and will have only minimal safety lighting.

Phased Intersection improvements are based on traffic volumes and outlined in the Rural Road Improvement Policy. The intersection improvements are the maximum that would be made at an intersection. Once the threshold is met, the intersection will be evaluated to see if all the improvements listed are warranted.

A. INTERSECTION IMPROVEMENTS

Intersections shall not adversely affect nor alter or detract from the existing rural residential appearance, appeal, or quality of life. Improvements will include designs and scale that minimizes pavement and use of turn lanes whenever possible.

Luminaires may not be required on all four corners of an intersection. Lighting analysis software shall be used to determine the minimum number of luminaires required at an intersection to meet standard illumination requirements. Lighting requirements at specific intersections will be evaluated on a case-by-case basis.

The installation of curb, gutter and sidewalk is not required and shall not be a part of the signalization of an intersection. Other options that may be considered when an intersection is signalized are placing signal poles farther from the edge of travel way, placing berms around signal poles or signal cabinets, and providing small pedestrian refuge areas at the edge of the road where a crosswalk is proposed.

B. DRIVEWAY SEPARATION (NEW DRIVEWAYS ONLY)

When existing driveways are near an intersection and their access is impacted by intersection improvements then a special evaluation is required. The City shall work with affected property owners to determine appropriate action to maintain property access.

RURAL ROAD IMPROVEMENT STANDARDS

VII. INTERSECTION LIGHTING STANDARDS AND DESIGN

The least intrusive intersection lighting is to be considered when improvements are made at an intersection, lighting is needed for safety reasons, or when a new intersection is constructed. Continuous roadway lighting is not to be installed. Computer software shall be used to calculate the optimum location, height and spacing for alternative lighting solutions at each intersection.

A. LIGHTING SOURCES

Metal Halide (MH) is preferred due to the more natural color rendition and pure white light. MH is energy efficient and has a very long service life. High pressure sodium lamps are not permitted.

B. DARK SKY

To minimize trespass lighting to the skies, full cutoff luminaires are recommended. Full cutoff luminaires are designed so that they do not emit any light above 90 degrees, thereby reducing sky glow. Insure the design results in good uniformity to improve visibility and minimize reflected light into the sky.

C. POLE HEIGHTS

The amount of light required for an intersection should be based on Caltrans minimum requirements. A T-intersection should have at least one luminaire to meet these requirements. On a four-legged intersection, the above values will be maintained using at least two luminaires.

To avoid adding more luminaires, consider increasing the wattage of the lamps or the height of the pole to introduce better lighting levels. These need to be engineered and dealt with on a case-by-case basis. Note that it is more difficult to control glare and minimize the number of lighting standards if lower luminaire mounting heights are used.

D. BULB SIZE

Use of 100 watt to 200 watt bulbs is recommended, depending on the type of fixture and local conditions.

E. SHIELDS

Use internal or external shields when necessary to minimize light trespass onto neighboring properties. Use of shields should be evaluated to insure they do not impact the required intersection lighting levels.

RURAL ROAD IMPROVEMENT STANDARDS

VIII. SPECIAL SIGNAGE

Signage can be used for many purposes in the Rural Residential Area. Signs can identify that a motorist is entering a Rural Residential Area as well as posting a speed limit for the area.

A. AGRICULTURAL VEHICLE, LIVESTOCK, HORSE CROSSING, AND PEDESTRIAN CROSSING SIGNS

Signs that indicate to motorists they are in a Rural Residential Area are encouraged. These signs may be used at appropriate locations in the Rural Residential Area.

B. SPECIAL SPEED LIMIT SIGNS

Speed limit signs that utilize radar for detecting speed shall be used whenever possible in key locations along 2- and 4-lane arterials with City approval.



W11-7



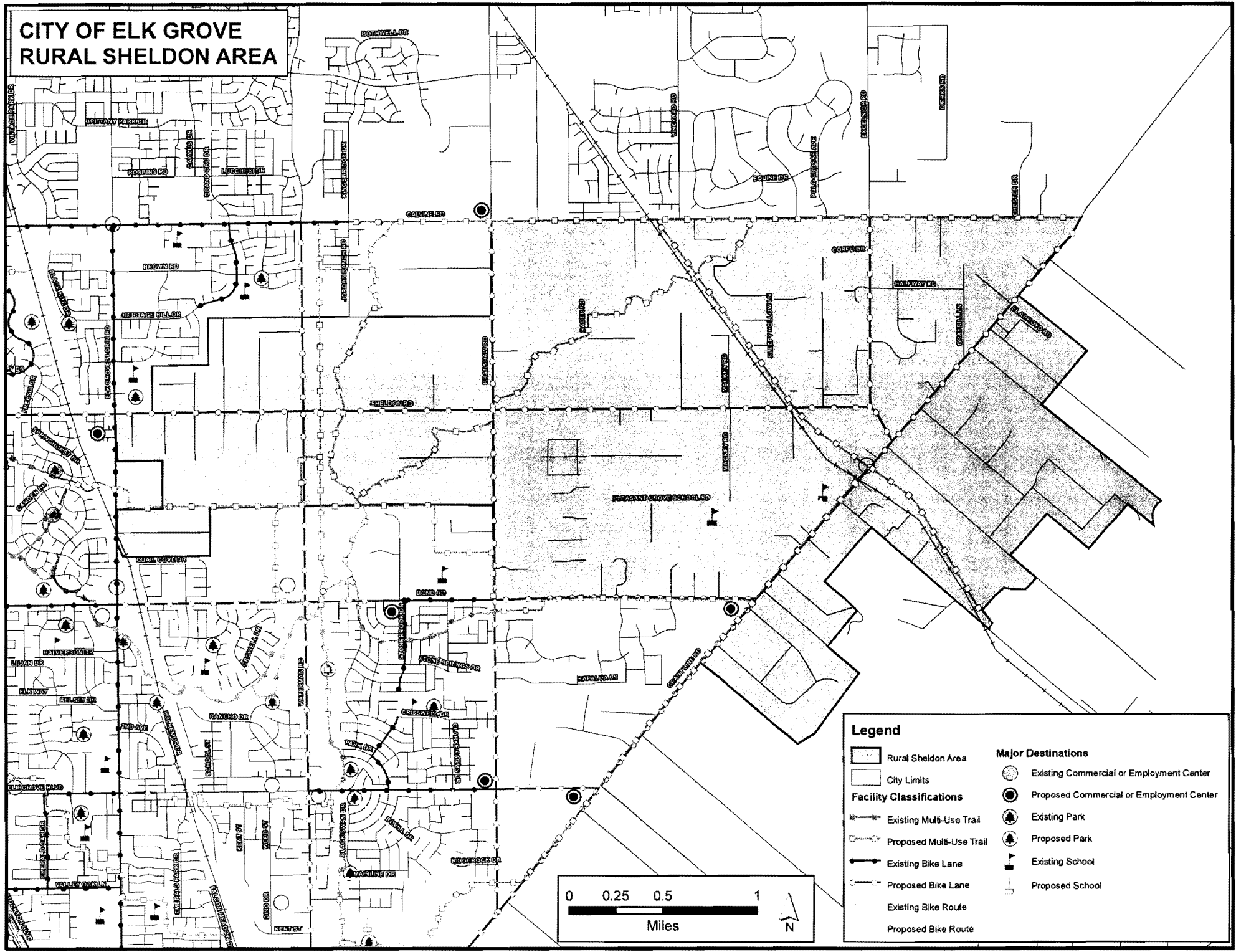
W11-5

RURAL ROAD IMPROVEMENT STANDARDS

IX. SCREENING AND NOISE ATTENUATION DESIGN OPTIONS

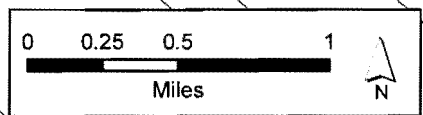
Unless required as mitigation by a noise study, sound walls shall not to be utilized in the Rural Residential area. If they are required, they shall be located in the public right of way and not on private property. Additionally, there shall be no City mandated landscaping or berms. The use of rubberized roadway materials shall be utilized to the maximum extent feasible.

CITY OF ELK GROVE RURAL SHELDON AREA



Legend

Rural Sheldon Area	Major Destinations
City Limits	Existing Commercial or Employment Center
Facility Classifications	Proposed Commercial or Employment Center
Existing Multi-Use Trail	Existing Park
Proposed Multi-Use Trail	Proposed Park
Existing Bike Lane	Existing School
Proposed Bike Lane	Proposed School
Existing Bike Route	
Proposed Bike Route	



**CERTIFICATION
ELK GROVE CITY COUNCIL RESOLUTION NO. 2007-259**

STATE OF CALIFORNIA)
COUNTY OF SACRAMENTO) ss
CITY OF ELK GROVE)

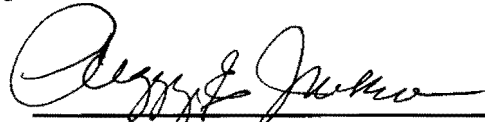
I, Peggy E. Jackson, City Clerk of the City of Elk Grove, California, do hereby certify that the foregoing resolution was duly introduced, approved, and adopted by the City Council of the City of Elk Grove at a regular meeting of said Council held on November 14, 2007 by the following vote:

AYES : **COUNCILMEMBERS:** *Cooper, Leary, Scherman, Hume, Davis*

NOES: **COUNCILMEMBERS:** *None*

ABSTAIN : **COUNCILMEMBERS:** *None*

ABSENT: **COUNCILMEMBERS:** *None*



**Peggy E. Jackson, City Clerk
City of Elk Grove, California**

