

DIVISION ONE

STANDARDS FOR STREETS

CHAPTER I. INTRODUCTION

Sec. 101-1 Purpose

These standards apply to and regulate all land development improvements and are intended to provide for adequate, coordinated, modern development with the required facilities to serve and protect the potential uses and users of the various areas of the County of Kern.

Sec. 101-2 Plan Review

Plans submitted with road improvements to be included in the County Road Maintenance System shall be reviewed and approved by the Kern County Public Works Department.

CHAPTER II. DEFINITIONS AND GENERAL POLICY

Sec. 102-1 The following definitions shall be applicable to these standards:

102-1.01 "INTERSECTION": is the area embraced within the prolongation of the lateral curb lines, or, if none, then the lateral boundary lines of the roadways of two highways which join one another at approximately right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict.

102-1.02 "BRIDGES": Structures of a span of more than 20 feet, measured under the copings along the centerline of the road and multiple span structures where the individual spans are in excess of 10 feet, measured from center to center of supports along the centerline of the road.

Sec. 102-2 Other Documents Referred to in Standards

The following documents referred to in these standards may be applicable and are on file in the Public Works Department. References are to be current editions unless specified otherwise.

102-2.01 "Planning Manual of Instructions" published by the California Department of Transportation.

102-2.02 "California Manual on Uniform Traffic Control Devices (CMUTCD)" of California Department of Transportation.

- 102-2.03** **"Standard Specifications for Highway Bridges", "A Policy on Geometric Design of Rural Highways", and "A Policy on Arterial Highways in Urban Areas"** of the American Association of State Highway Officials.
- 102-2.04** **"AASHTO LRFD Bridge Design Specifications, Eighth Edition with California Amendments (AASHTO-CA BDS-8)"** of the Office of Structures, California Department of Transportation.
- 102-2.05** **"Highway Design Manual"** of California Department of Transportation (HDM).
- 102-2.06** **"General and Specific Plans"** of County of Kern.
- 102-2.07** **"Standard Plans and Specifications"** of California Department of Transportation.
- 102-2.08** **"Subdivision Map Act"** of the State of California.
- 102-2.09** **"Land Division Ordinance"** of County of Kern.
- 102-2.10** **"Hydrology Manual"** of County of Kern.
- 102-2.11** **"Federal and/or State Regulations pertinent to accessibility guidelines & requirements."**
- 102-2.12** **"California Fire Safe Regulations, Title 14-California Code of Regulations."**
- 102-2.13** **"Federal and/or State Regulations pertinent to Wildland fire protection on State Responsibility Areas."**
- 102-2.14** **"California Department of Forestry and Fire Protection."**

Sec. 102-3 Plans to be Approved by Director

The developer shall cause to be prepared, in accordance with these standards, and submitted to the Director for approval, plans, profiles and specifications for the proposed improvement of all streets, and related improvements. The developer shall obtain the approval of the Director of said plans, profiles and specifications prior to commencing any construction.

Sec. 102-4 Where no Standard Specified: Requirements to be Prescribed by Director

Where the requirements for street improvements are not specified in these standards, or the documents referenced in these standards, the requirements shall be established by the Director. Such requirements shall conform to accepted engineering standards.

Sec. 102-5 Payment for Improvement

102-5.01 All improvements required by these standards shall be constructed and installed by the developer at his expense unless expressly agreed by the Board of Supervisors that the County will bear the expense or any portion of the expense.

102-5.02 Arterial or Collector Streets Alignment in Development:

In case of an arterial or collector street alignment lying within the development, improvement thereof shall be subject to the following provisions:

- a. If it appears to the Board that the County may within a reasonable period, not exceeding five (5) years, undertake construction of an arterial or collector street along such alignment, it may make an order requiring the Developer to contribute to and deposit with the County an amount equal to the cost of construction as determined by the Board. Such contribution shall be filed with the County Road Fund through the Director.
- b. The Director may require expanded intersections where arterial and/or collector alignments cross in urban areas, see Plate Nos. R-34 thru R-38.

Sec. 102-6 Access

(See Section 18.55.030 A.5 Land Division Ordinance).

Sec. 102-7 Widening and Improvement of Existing Streets

Where land abuts an existing substandard street is to be developed, the developer shall dedicate any necessary additional right-of-way and improve such street, including drainage improvements, modifications to traffic control devices, and all necessary improvements needed to conform to these standards in order to provide adequate traffic capacities.

Sec. 102-8 Design of Street Systems

The design of street systems, including right of way and improvement widths shall provide:

- a. Adequate local circulation for the area being developed.

- b. Consistency with adopted General Plans, Specific Plans, and other plan routes where appropriate.
- c. Expanded intersections as may be required at arterial and collector street intersections as shown on the County General Plan or Specific Plans, or as required by the Director.
- d. Bike Lanes shall be designed and constructed in conformance with Caltrans Highway Design Manual, Chapter 1000, Bikeway Planning and Design.

Sec. 102-9 Utilities, Design and Installation

All utilities shall be designed, constructed, and installed by the Developer in accordance with all applicable County requirements and State laws. Underground utilities including services to be located within street right-of-way shall be installed prior to surfacing the streets. Underground utility construction shall be in accordance with the provisions of Public Utility Commission General Order 95. The Director of Kern County Department of Planning & Natural Resources Department may require aboveground cabinets or facilities to be screened in an approved manner. Any aboveground cabinets or facilities located within the road right-of-way shall be permitted only upon approval by the Director. Compliance with this requirement may result in the need to create public utility easements outside of the right-of-way.

CHAPTER III. STREET IMPROVEMENT REQUIREMENTS

Sec. 103-1 Improvement Requirements

Wherever the standards mentioned in the Land Division Ordinance are related to lot area, the reference to the area shall be deemed to be either net area or gross area, depending on whether the minimum lot area for the zoning classification is determined by net area or gross area.

103-1.01 Type "A" Subdivision requirements are as follows:

- a. Concrete curb and gutters, sidewalks and drive approaches are required on all streets (Residential, Commercial and Industrial) and highways within the development. For Phased Improvements by parcel or lot size, see Appendix B of the Land Division Ordinance.
- b. Surfacing shall be asphalt concrete, except as provided in Section 104-4.
- c. Structural section shall be designed in accordance with the current Caltrans Highway Design Manual based on the following criteria:

1. Local streets - TI = 5.0
 2. Residential and commercial alley - TI = 3.0
 3. Industrial streets and alleys - TI = to be designated by the Director.
 4. Arterial and Collector streets - TI to be designated by the Director.
- d. The minimum asphalt concrete thickness shall be 0.20 foot.
 - e. For details, see Plate No. R-32 and Chapter IV.
 - f. Shoulder and/or median areas shall be paved or otherwise treated as necessary to comply with the Air Pollution Control District PM-10 (fugitive dust) regulations.

103-1.02 Type "B" Subdivision requirements are as follows:

- a. Surfacing shall be asphalt concrete, except as provided in Section 104-4.
- b. Structural Section shall be designed in accordance with the current Caltrans Highway Design Manual based on the following criteria:
 1. Local streets - TI = 4.0
 2. Residential and commercial alley - TI = 3.0
 3. Industrial streets and alleys - TI = to be designated by the Director.
 4. Arterial and collector streets - TI to be designated by the Director.
- c. For details see Plate No. R-32 and Chapter IV.
- d. The minimum asphalt concrete thickness shall be 0.20 foot.
- e. For Phased Improvements by parcel or lot size, see Appendix B of the Land Division Ordinance.
- f. Shoulder and/or median areas shall be paved or otherwise treated as necessary to comply with the Air Pollution Control District PM-10 (fugitive dust) regulations.

103-1.03 Type "C" Subdivision requirements are as follows:

- a. Roads shall be graded to a minimum width of twenty (20) feet.
- b. Maximum grade of roads shall be fifteen percent (15%).
- c. Roads shall be traversable by a standard passenger car.

- d. Road surfacing is not required except as required by the Air Pollution Control District's regulations.
- e. As an alternative, roads may be designed utilizing the requirements of the California Fire Code upon approval of a limited exception by the Fire Chief.

103-1.04 Secondary and emergency access shall be constructed per Plate No. R-29

Sec. 103-2 Limited Exceptions

- a. Where multi-family residential, commercial, or industrial development is proposed in conjunction with a subdivision which would otherwise qualify for a type other than Type "A," limited exceptions may be approved by the Director with respect to Type "A" subdivision street improvement requirements, including but not limited to industrial or commercial street cross-section (Plate No. R-13).
- b. Where commercial or industrial development is proposed in conjunction with a Type "A" subdivision which also includes residential development, limited exceptions may be approved by the Director with respect to street improvements shown on industrial or commercial street cross-section (Plate No. R-13) and alleys.

Sec. 103-3 Private Streets

The use of private streets within a subdivision requires a Development Variation as specified by the Land Division Ordinance. When private streets are approved for use, an acceptable entity shall be formed for street and drainage maintenance prior to recordation.

The following notes shall be placed on the street improvement plans before the Director signs them:

- 1. The Subdivider's engineer shall be responsible for inspection of all improvements outside of County road right-of-ways and certify such to the County, with cursory inspections conducted by the County as required by the Director. No changes shall be made to these plans without the approval of the Director.
- 2. Subdivider shall obtain the necessary building, grading, and encroachment permits prior to starting any work required by these plans.
- 3. Private streets shall comply with all requirements of the Kern County Fire Department and Land Division Ordinance. Also, private streets

located within the State Responsibility Area (SRA) shall comply with all requirements of the California Department of Forestry and Fire Protection.

Sec. 103-4 Pedestrian Accessibility Guidelines

Federal and state regulations require that each facility or part thereof shall be designed and constructed in such a manner that the facility is readily accessible to and usable by individuals with disabilities.

Every project, including encroachment permit projects, within the R/W that proposes to construct sidewalk/pedestrian walkway must be designed in compliance with the accessibility requirements of ADA, ADAAG, and Title 24 requirements. If it is found that an accessibility design standard can not be fully incorporated in a design, an accessibility design exception will be required, subject to the Director's approval. For an exception to be approved, it will be necessary to document that it is technically infeasible to do so because existing physical structural conditions or because other existing physical or site constraints prohibit modification or when a unique characteristic of terrain prevents the incorporation of the accessibility standard.

CHAPTER IV. DESIGN AND CONSTRUCTION STANDARDS

Sec. 104-1 Alignment Criteria for Streets

104-1.01 Minimum centerline radius of horizontal curvature shall be as follows:

- a. Arterial/Collector Streets – 2000 feet.
- b. Local or Industrial Streets – 500 feet.
- c. Limited exceptions to the above minimums may be approved by the Director when topography or other conditions warrant within the following limits:
 1. Arterial and Collector Streets not less than 300 feet.
 2. In mountainous areas, minimum local streets radii may be reduced to 100 feet or as approved by the Director. Curve widening to provide adequate sight distance shall be determined by the Director.

104-1.02 Intersections

- a. Streets shall intersect at right angles where practicable. When topography or other physical feature makes this requirement impracticable, a Limited Exception may be granted by the Director. In general, the maximum deviation which may be granted shall not exceed 15° skew beginning at the ultimate curb line from a right-angle intersection. A knuckle shall be

considered an intersection for skew angles, along with roundabouts, see Section 104-1.04.

b. Curb return radii shall be:

1. Residential and commercial = 30 feet
2. Industrial = 50 feet

Wheel path plots of the design vehicle shall be provided to verify the curb return radii as required by the Traffic Engineer.

c. Property line cut off at intersections shall be in accordance with Plate No. R-41.

d. Where the angle of intersection is acute, or where a sight distance problem may be anticipated, an increased property line cutoff may be required by the Director.

e. All streets entering upon any given street shall have their center lines directly opposite each other or separated by at least 150 feet, see Plate Nos. R-48 thru R-50.

f. Tangent distance between end of horizontal curve and intersection centerline shall be a minimum of 150 feet.

104-1.03

Dead-end streets in excess of 150 feet in length shall be constructed to permit vehicles to turn around at the end. The Director may increase the length to 200' providing no access is provided by the road. The maximum length of a dead-end street, including all dead-end streets accessed from that dead-end street shall not exceed the following cumulative lengths, regardless of the number of parcels or tracts served:

- | | |
|-------------------------------------|-----------|
| 1. Zoned for less than one acre | 800 feet |
| 2. Zoned for 1 acre to 4.99 acres | 1320 feet |
| 3. Zoned for 5 acres to 19.99 acres | 2640 feet |
| 4. Zoned for 20 acres or larger | 5280 feet |

Where a dead-end street serves areas in which several different length limits could apply because of several different parcel sizes, the shortest allowable length shall apply.

Sec. 104-1.04 Roundabouts

Roundabouts generally have the following characteristics:

- a. A circular travel lane operating in a counter-clockwise direction for collecting and distributing traffic

- b. A raised center island
- c. Mountable apron
- d. Channelized approaches
- e. Yield control at all approaches
- f. Tapered approaches to encourage entering vehicles to travel in the correct direction through the circular travel lane

The use of roundabouts is primarily constrained by traffic volumes and by geometrics, therefore roundabout design shall be in accordance with the National Cooperative Research Program (NCHRP) Report 672, current edition and the California Department of Transportation (CALTRANS) Highway Design Manual (HDM), Section 405.10 (ROUNDABOUTS), current edition and Plate R-57. It is understood that roundabouts are not appropriate for all traffic conditions and intersection volumes, therefore requests for roundabouts will be processed through the Traffic Engineer with final approval given by the Director.

When constructed in appropriate locations based on criteria contained herein, roundabouts can provide increased efficiency of operation, enhanced safety, cost savings, enhanced aesthetics, and diminished impacts on surrounding property and the elimination of conflict points.

Sec. 104-2 Gradient

104-2.01 Minimum grade on any street or alley shall be 0.5%. Where concrete curb and gutter or gutter in the case of an alley, is constructed, minimum grade shall be 0.2%.

104-2.02 The maximum grade on any street or alley shall be as follows:

- a. Arterial and Collector Streets - 6%.
- b. Local Streets and Residential Cul-de-sac Streets (including street turning area) - 8%.
- c. All classes of Industrial and Commercial streets - 8%.
- d. Alleys - 8%.

Exceptions to the maximum or minimum grades may be granted by the Director as follows:

- a. Arterial and Collector Streets - 8% maximum.

- b. Local and Cul-de-sac Streets (excluding street turning area) - 15% maximum.
 - c. All classes of Industrial or Commercial Streets - 8% maximum. (No exceptions allowed).
 - d. Alleys - 15% maximum.
- 104-2.03** Superelevation shall be provided for all streets where required by the Director.
- 104-2.04** Vertical curves shall be as follows:
- a. Residential and Industrial streets shall be designed to provide a minimum stopping sight-distance corresponding to a design speed of 25 MPH.
 - b. Arterial and Collector streets shall be designed to accommodate minimum vehicle speeds of 65 MPH. An exception may be granted by the Director to reduce the vertical curve design speed.
 - c. Vertical curves shall be used when change in grade exceeds 0.50% and shall have a minimum length of 50 feet.
 - d. Alleys shall be designed for 20 MPH stopping sight distance.
 - e. The sight distance to be used for all streets and highways, including vertical curves, shall be in accordance with the current edition of California Department of Transportation Highway Design Manual.
- 104-2.05** The maximum grade for cul-de-sac street turning area shall be 8%.
- 104-2.06** The maximum grade through any intersection of two streets shall be 8% within the intersection (P.I. to P.I.).
- 104-2.07** When any road is extended to a subdivision boundary for the purpose of providing a future connection to adjoining property, the subdivider shall submit an alignment and profile demonstrating the feasibility of such future extension. (Minimum distance beyond tract line shall be 100 feet, 200 feet in mountains).
- 104-2.08** The minimum grade for any cross gutter shall be 0.35% measured from BCR to ECR.

Sec. 104-3 Grading

- 104-3.01** Roadways shall be graded by the developer to full width as shown on the standard typical cross-sections.
- 104-3.02** The maximum grade tolerance in roadway sections for aggregate base, aggregate subbase and original ground shall be 0.05 of a foot high.
- 104-3.03** Grading beyond the right-of-way may be required by the Director to provide for safe sight-distance, stability and to control drainage.
- 104-3.04** All grading or excavating in an existing county road, city street, or state highway shall be first authorized by a valid encroachment permit.
- 104-3.05** Where improvements are required outside of the right-of-way as part of the development improvements, the subdivider shall provide satisfactory easements to allow construction and/or maintenance of the improvements. The easements shall conform to all subdivision requirements including, but not limited to, free and clear dedication, removal of obstructions and guarantee of title.

Sec. 104-4 Pavement, Structural Sections

All streets shall be surfaced by the developer in accordance with the following specifications:

- 104-4.01** Streets shall be designed in accordance with Chapter III "Street Improvement Requirements" of these standards and the following sections.
- 104-4.02** Road surfacing on all classes of streets and alleys shall be of asphalt concrete, except as hereinafter provided.
- a. Road-Mixed Asphalt Surfacing (RMAS) may be used, in lieu of asphalt concrete, in those areas of the County more than 50 miles along the shortest practical route from a commercial asphalt concrete plant.
 - 1. RMAS shall conform to design mix approved by the Director.
 - 2. Minimum thickness of a road-mixed asphalt surfacing shall be 0.25 foot.
 - b. Alleys: Surfacing shall be of asphalt concrete or RMAS, whichever is used in the streets of the development.

- c. The minimum thickness of aggregate base or aggregate subbase shall be 0.35 foot.

104-4.03 Aggregate Bases - In addition to the specified R-Value for aggregate bases, the R-Value at 150 psi exudation pressure shall be 90% of the R-Value at 300 psi exudation pressure.

Sec. 104-5 Utility Placement Within Streets

Underground utilities including services to be installed in streets shall be installed prior to surfacing of the streets.

The minimum cover of any underground utility within a street right-of-way shall be 30 inches.

Sec. 104-6 Street Lights

All street lights installed shall be light emitting diode (LED).

Unless otherwise approved by the Director, street lighting to be designed in conformance with these specifications, RP-8, "American National Standards Practice for Roadway Lighting, Illuminating Engineering Society of North America, Kern County Zoning Ordinance and/or other approved design guidelines.

All material and work shall conform to the requirements of the California Electrical Code, National Electrical Code, and other pertinent codes and regulations.

104-6.01 Residential Areas - Street lights shall be located at intersections, at midblock with blocks greater than 600 feet between intersections, at ends of cul-de-sacs greater than 150 feet in length, and on curved streets as required by the Director. Street lights on arterial and collector streets or intersections with an arterial street shall be 9,500 lumens. Street lights on local streets shall be 5,800 lumens. Lumen output and light sources may vary depending on new technology. Street lights shall have an acceptable maintenance entity formed and be energized prior to acceptance of the improvements. Street light construction shall be in accordance with Plate No. R-75 unless approved otherwise by the Director.

104-6.02 Commercial and Industrial Areas - Street lights shall be located at intersections and ends of cul-de-sacs greater than 150 feet in length. Luminaires shall be as provided in the above paragraph.

On all streets, the pull box shall be installed, and the light wired from the pull box at the pole per Plate No. R-76. Electrical service shall be provided to the street light from the adjacent parcel (on either side of the street) as it is developed. Electrical service easements shall be granted as required. Street lights shall be installed per Plate No. R-75.

- 104-6.03** Additional street lights - In commercial, industrial, or residential areas, additional street lights shall be installed as required by the Director.
- 104-6.04** Street light shall be installed at post office approved community mailboxes.
- 104-6.05** Street light shall be installed at all passenger bus loading/unloading zones.
- 104-6.06** All County Service Area maintained street lights shall be Rate Schedule LS2 "PG&E – owned street and Highway Lighting". Rate and Ownership of street lights shall be verified by the Public Works Department. Luminaires shall be full cutoff optics.
- 104-6.07** Street light location plan and general plan details shall be submitted for review and approval by the engineer. The plans shall show and identify all street lights to be installed, distance between poles, height of poles, wattage of lamps, lumens, type of luminaire, irrigation pedestals and all other pertinent information. Also, all existing street lights within 400 feet of the project shall be clearly identified and shown on the plans.

CHAPTER V. ACCESS

Sec. 105-1 State Highways

Access to state highways, is regulated by Caltrans. Requests for access and changes to existing access shall be coordinated with Caltrans. Encroachment permits for access to state highways shall be obtained from Caltrans.

Sec. 105-2 City Streets

Access to city streets, is regulated by the incorporated city who has jurisdiction. Requests for access and changes to existing access shall be coordinated with the respective incorporated city. Encroachment permits for access to city streets must be obtained from the respective incorporated city.

Sec. 105-3 County Roads – Access Limitations and Intersection Locations

Arterial streets are designed primarily for the movement of through traffic (80% to 90%) with minor usage as access to abutting properties (10% to 20%). Collector streets operate at approximately 40% to 60% either way. Local street's function is to provide nearly 100% access to abutting properties and should be designed to eliminate through traffic.

Driveway access on arterials shall be kept to a minimum as determined by safety, topography, zoning and prior parcelization constraints or other special circumstances. Waivers of access on subdivisions shall be provided along major streets except where driveway access is permitted.

- 105-3.01** Minimum full access intersection spacing on arterials shall be limited

to one-third mile. Closer spacing may be permitted if a traffic signal synchronization study is approved which demonstrates the location to be feasible for a signal. The signal, if allowed, shall be funded and installed by the developer.

105-3.02 Minimum spacing and type of local street access along arterial and collector streets shall conform to details in Plate Nos. R-49 and R-50.

Access points along arterial streets shall be restricted to right turn in and right turn out movements only. Full access median openings or openings limited to allow left turn in with no left turn out may be permitted where an approved traffic study provides justification for said access. The design of limited access openings shall conform to applicable details in Plate Nos. R-42 through R-57.

105-3.03 Multiple-Family residential projects having more than 100 dwelling units shall be equipped throughout with two (2) separate and approved fire apparatus access roads. (**Exception:** Projects having up to 200 dwelling units shall have not fewer than one (1) approved fire apparatus access road where all buildings, including nonresidential occupancies are equipped throughout with approved automatic sprinkler systems installed in accordance with the California Fire Code.

Multiple-Family residential projects having more than 200 dwelling units shall be provided with two (2) separate and approved fire apparatus access roads regardless of whether they are equipped with an approved automatic sprinkler system.

Developments of one- or two-family dwellings, where the number of dwelling units exceed 30, shall be provided with two (2) separate and approved fire apparatus access roads. (**Exception:** Where there are more than 30 dwelling units accessed from a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system installed in accordance with the California Fire Code, access from two (2) directions shall not be required. Additional dwelling units shall not be increased along this single access road, unless it will connect with future development as determined by the Public Works Department in consultation with the Kern county fire Department.)

Access points on collectors within 300 feet of the curb return at an arterial intersection shall be limited to right turn in and right turn out movements.

This provision in no way limits more restrictive secondary access requirements, imposed for public safety purposes.

Sec. 105-4 County Roads – Driveway Approaches

All construction to connect driveway approaches to county roads must first be authorized by a valid Encroachment Permit. The design, number and location of driveway approaches must comply with the standards and policies contained herein and must be approved by the County.

105-4.01 Driveway approaches will not be permitted for parking or loading areas which would require backing into county roads with the exception of single family (R-1) residences.

105-4.02 Driveway approaches constructed along arterial streets shall be restricted to right turn in and right turn out movements only. Full access median openings or openings limited to allowing left turn in with no left turn out may be permitted where an approved traffic study provides justification for said access. The design of limited access openings shall conform to applicable details in Plate Nos. R-42 through R-57.

Driveway approaches constructed along collector streets within 300 feet of the curb return at an arterial intersection shall be limited to right turn in and right turn out movements.

105-4.03 Only one driveway approach per property per street is permitted for single family (R-1) lots excepted on local streets. Additional driveway approaches may be permitted where an approved traffic study is provided which demonstrates that more than one access is required to adequately handle driveway volumes and will not adversely affect traffic flow on county roads.

a. Where a property has access to more than one street, at a double frontage location, access will be limited to the lower classification street to minimize the impact upon traffic flow, except as allowed herein. Access to only the higher classification street will be required in the case of incompatible land uses, i.e., the lower classification street serves residential development and the access is to serve commercial or industrial development.

Addition of access to the higher classification street may be allowed provided an approved traffic study provides sufficient justification. Access to the higher classification street may be denied and may also be subject to other constraints contained in these standards and by County regulations.

105-4.04 After all improvements have been accepted by the Public Works Department, the reconstruction, repairs, and maintenance of all driveways, driveway approaches and sidewalk will be the responsibility of the property owner. During construction all such

activities will be the responsibility of the permittee.

105-4.05 Arrangements must be made by the developer or permittee, for the necessary removal or relocation of any public utilities, structures, trees or plants with the person or entity having ownership or control prior to commencing work. Removal or relocations must be accomplished at no cost to the County.

105-4.06 Driveway profiles shall comply with the Kern County Type "A" Street Improvement Details, Plate Nos. R-53 thru R-54.

105-4.07 Private road approach permits are issued only to the property owner as the County assumes no maintenance.

The maximum width of private road approach for residential zoning shall be 20' with three (3) feet radius returns. The maximum width of private road approach for commercial zoning shall be 24' with a 20' radius returns.

No drainage from the private road approach shall enter the County right-of-way. No natural drainage is to be disturbed.

Drainage culvert, if needed, shall be a minimum of 18" in diameter. The drainage culvert shall have a minimum of 12" cover and to be placed approximately three (3) feet from the property line.

During routine road maintenance, the County assumes no liability for damage to the pavement.

Sec. 105-5 County Roads – Turn Lanes

105-5.01 Arterial Streets: Left turn storage lanes are required to all streets and access points where left turn ingress is permitted along arterial streets. Right turn storage lanes are required at all streets and access points where one of the following criteria is met:

- a. The 85th percentile speed is less than 45 MPH and the peak hour turning volume is over 200.
- b. The 85th percentile speed is 45 MPH or greater, the arterial is shown ultimately having six (6) lanes and the peak hour turning volume is 25.

105-5.02 Collector Streets: Left and right turn storage lanes are required on all collector streets at arterial street intersections. Striping for left turn channelization shall be provided for any access leading to a development, which, at build out, generates more than 50 peak hour trips.

105-5.03 Design of left and right turn storage lanes shall comply with the applicable requirements of details in these standards. Bay tapers for turn lanes shall be 90 feet in length for single turn lanes and 120 feet in length for dual turn lanes. 60' bay tapers will be permitted on streets where the 85th percentile speed is 40 MPH or less, provided the turn lane is accessing either a driveway or a local street.

105-5.04 In the absence of turning volume data showing the need for greater storage, the following minimum lengths shall be used:

Dual left and single right turn storage lanes from arterial street into another arterial street shall be designed for a minimum length of 200 feet (measured from end of taper to limit line). Left and right turn storage into local streets or major private entrances shall be 150 feet minimum. Left and right turn storage into minor private entrances shall be 100 feet minimum on collector streets and 150 feet minimum on arterial streets.

105-5.05 Upon subdivision or other development which accesses onto an arterial or collector street, the following minimum improvements will be required to provide left turn channelization, where insufficient width would otherwise be available due to existing or proposed street improvements.

On and off-site road improvements are required from any collector or arterial street to provide left turn channelization into each street (or access point) within the subdivision (or development). Said channelization shall be developed to provide necessary transitions and turn lanes to meet the current Caltrans standards for the design speed of the roadway in question.

Sec. 105-6 Bus Turnout

Bus turnouts and associated speed change lanes will be required on future and existing bus routes at locations identified by Golden Empire Transit (GET)/Kern Regional Transit (KRT). Design shall be based upon standards contained in Plate Nos. R-66.

CHAPTER VI. SITE ACCESS DESIGN

Sec. 106-1 Introduction

This chapter is intended to serve as a standard for the placement, size and configuration of site access improvements.

Sec. 106-2 Access Widths and Spacing

Access widths and spacing shall be designed per Plate No. R-56.

Sec. 106-3 Alignment

Access drive or road must intersect a public street at 90 degrees or as close as possible to 90 degrees or minus a maximum deviation of 15 degrees on local streets.

Minimum sight distance shall be provided at all access points in accordance with the provisions of this Division and Chapter V of Division Nine.

CHAPTER VII. STREET AND HIGHWAY DRAINAGE

Sec. 107-1 Street and Highway Drainage Easements and Improvements

Any drainage easements and improvements necessary for street and highway drainage shall be provided by the Developer, in accordance with the provisions of this section.

Sec. 107-2 Requirements for Street and Highway Drainage

The following criteria shall be applied to the design and construction of drainage facilities for streets and highways:

107.2.01 Street Drainage

(See Drainage - Division Four, Chapter V.).

107.2.02 Cross Drainage

(See Drainage - Division Four, Chapter VI.).

Sec. 107-3 Design Standards for Culverts and Bridges

Structural Design

- a. Bridge and culvert design standards shall conform to "AASHTO LRFD Bridge Design Specifications, Eighth Edition with California Amendments (AASHTO-CA BDS-8)", all bridge design guidelines and "Standard Plans and Specifications" of

the Division of Engineering Services, California Department of Transportation.

- b. Design loading shall be H20-S16-44 with alternate.
- c. Bridge width shall equal the approach roadway width plus one (1) pedestrian walkway in accordance with the standard typical cross-sections included. Where a designated bike way exists, additional width may be required by the Director.

Sec. 107-4 Miscellaneous Provisions

Street or highway crossings below check dams and/or spillways shall require special investigation and design. Plans for such crossings shall be submitted to the Director for review and approval.

Where special design or variation from standards is necessary for any drainage facility, crossing a street or highway, said design shall be subject to the approval of the Director.

CHAPTER VIII. LANDSCAPING

Sec. 108-1 Landscaping

Landscaping shall comply with Division Five – Landscaping, of these standards. When landscaping within or adjacent to street intersections, the following sight distance and safety criteria shall be provided:

- 108-1.01** The standards apply only to those intersections which meet at normal skews and where the grade difference between the intersecting streets is not greater than 10 percent.
- 108-1.02** The clear sight triangle for roadways intersecting arterial and collector streets (55 mph design speed) and stopping sight distance is three hundred (300) feet (near lane approach) and one hundred and fifty-three (153) feet (far lane approach).
- 108-1.03** The maximum height of shrubs and other obstruction within the above area shall be maintained at a height of thirty (30) inches or less above the sidewalk grade.
- 108-1.04** For local street intersections; nothing greater than a thirty (30) inch height (above sidewalk grade) within sixty (60) feet of the curb lines extended (normal skew and grades).
- 108-1.05** See Division Nine, Standards for Traffic Engineering, Plate No. T-7 for illustrations of the above standards.
- 108-1.06** The maximum trunk diameter for trees located in the road right-of-way of any street shall be four (4) inches or less at 10-year growth.

- 108-1.07** To maintain appropriate sight distances, no shrubs or trees with a height greater than 30 inches shall be located in a median area within three hundred (300) feet from the centerline of the intersecting cross street, pedestrian walkways, bikeways, or median openings.
- 108-1.08** All landscaping facilities shall be designed and maintained so as not to present a hazard to the traveling public.

CHAPTER IX. TEMPORARY STREET CLOSURES

Sec. 109-1

Street closures for business purposes require a Special Event Permit approved and issued by the Planning & Natural Resources Department, a Traffic Control Plan and Encroachment Permit approved and issued by the Kern County Public Works Department.

CHAPTER X. SUBDIVISION STREET IMPROVEMENT PLAN NOTES

The following general notes shall be included on Subdivision Street Improvement Plans:

1. All improvements shall be in accordance with Kern County Development Standards and other County adopted policy; street improvements shall be as required for Type _____ Subdivisions.
2. Improvements shall be in accordance with California State Transportation Agency, Department of Transportation (Caltrans) Standard Specifications, current edition, as modified and determined applicable by the Director.
3. All streets have been designed in accordance with the Traffic Index as shown on the typical cross-sections.
4. All streets have been designed using a minimum "R" value as shown on typical cross-sections. Should further testing show a lower "R" value of the actual in-place material, streets shall be redesigned according to the lower "R" value.
5. Any layer of "R" value material specified in the typical cross-section may be increased in depth provided that the material above that layer has no less than the minimum thickness shown.
6. If approved in writing by the Director, an alternate pavement design using Class III Aggregate Base and a thicker A.C. section may be used.
7. Any work which affects any existing County maintained road or the traffic thereon shall be completed within 20 working days from start of work.
8. Elevations and grades shown on the profiles are gutter flowlines (inverts).

9. Maximum plus grade tolerance for A.B., A.S.B/ and O.G. shall be 0.05 of a foot.
10. Concrete for curbs, sidewalks, and their appurtenances, must be minor concrete containing at least 505 pounds of cementitious material per cubic yard. For extruded or slip form curb construction, the maximum aggregate size must be from 3/8 to 1 inch. The cementitious material content must be at least 505 lbs. per cubic yard if a maximum of 3/8-inch aggregate is used. Completely coat the exposed faces of the concrete with curing compound in accordance with Caltrans Standard Specifications, Section 90-1.03B (3).
11. Permanent traffic control signing and other safety devices (not shown on these plans) shall be installed per plans approved by the Engineer.
12. Street lighting shall be installed, and a means provided to contract for public utility services and maintenance.
13. Prior to start of any earthwork, the Subdivider shall obtain a Grading Permit as required by Kern County Code of Building Regulations and Grading Ordinance.
14. Wheelchair ramps shall be constructed at all curb returns per Plate No. R-60 of the Kern County Development Standards and as directed by the engineer. Curb ramps shall have a detectable warning surface in accordance with Plates R-59 through R-61.
15. All existing facilities, including but not limited to structures, poles, pipelines, conduits, canals, and appurtenances, which are considered to be obstructions by the County Engineer, shall be relocated at the expense of the Subdivider.
16. New streets shall be extended at intersections as directed by the County Engineer in order to provide a safe connection to the existing street pavement.
17. Storm drainage sump shall not be allowed to accept water until secured by permanent fencing or in the case of shallow unfenced sumps not until compliance with depth and side slope criteria as set by the Kern County Development Standards, Division Four.
18. Asphalt rejuvenating agent shall be applied to new asphalt concrete pavement, as directed by the Engineer, in accordance with the provisions in Section 37 "Bituminous Seals" of the Standard Specifications and the State Department of Transportation's Standard Special Provisions currently in effect.
19. Pavement grinding in accordance with Section 42 of the Standard Specifications shall be provided as directed by the Engineer where new pavement meets existing pavement.

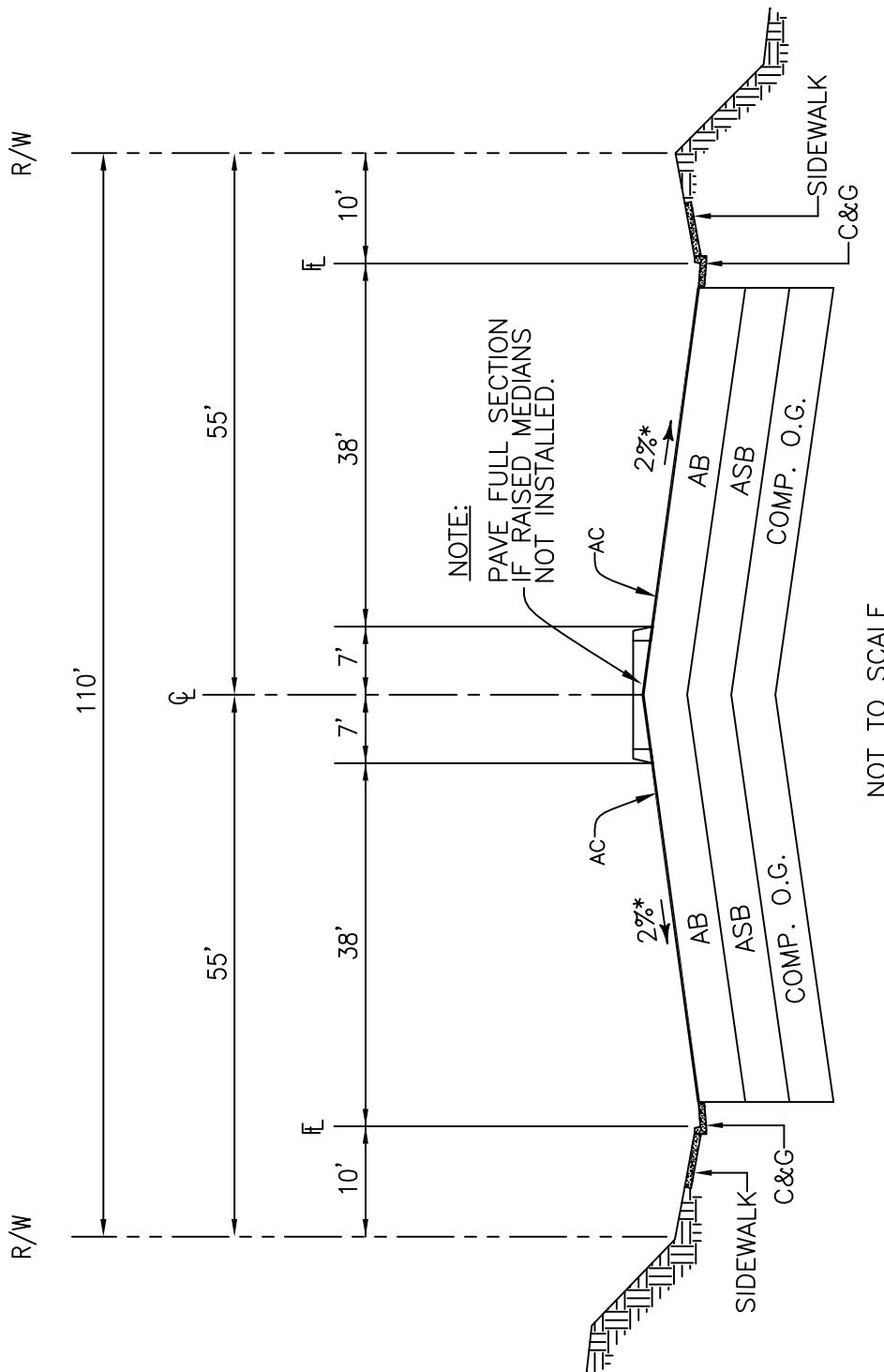
20. All frames and covers within the roadway shall be raised to finish grade per Plate No. R-69.
21. Underground utilities including services to be located within right-of-way shall be installed prior to surfacing the streets.
22. Utility vaults installed in sidewalk area shall have non-skid surfaces/lids.
23. When bike lanes are required along a street or highway, the curb line shall be extended three (3) feet and the parkway area reduced three (3) feet.
24. Prior to acceptance of improvements, the developer shall submit a letter to the Kern County Public Works Department requesting "No Stopping" along _____ and _____.
25. Street sweeping, walls, drainage, streetlights, etc. shall be maintained by _____.

NOTE: Any additional notes, not required by the Engineer, will be listed under a heading of "The Engineer of Record's Notes" and will not be considered to be a part of the County approval.

REQUIRED STREET TYPICAL SECTIONS FOR LOT SIZE AND DEVELOPMENT TYPE-LOT SIZE (ACRES)						
PLATE NO.	STANDARD ROAD DETAILS	TRACT MAP		PARCEL MAP		PAGE
R-1	TYPE "A" ARTERIAL STREET		< 5		≤ 3	28
R-2	TYPE "A" ARTERIAL STREET	≥ 5	< 20	> 3	< 20	29
R-3	HALF WIDTH TYPE "A" ARTERIAL STREET		< 5		≤ 3	30
R-4	HALF WIDTH TYPE "A" ARTERIAL STREET	≥ 5	< 20	> 3	< 20	31
R-5	TYPE "A" COLLECTOR STREET		< 5		≤ 3	32
R-6	TYPE "A" COLLECTOR STREET	≥ 5	< 20	> 3	< 20	33
R-7	HALF WIDTH TYPE "A" COLLECTOR STREET		< 5		≤ 3	34
R-8	HALF WIDTH TYPE "A" COLLECTOR STREET	≥ 5	< 20	> 3	< 20	35
R-9	TYPE "A" LOCAL, ZONES "R" & "E"		< 5		≤ 3	36
R-10	TYPE "A" LOCAL, ZONES	≥ 5	< 20	> 3	< 20	37
R-11	PART WIDTH TYPE "A" LOCAL ZONES "A" & "E"		< 5		≤ 3	38
R-12	PART WIDTH TYPE "A" LOCAL	≥ 5	< 20	> 3	< 20	39
R-13	TYPE "A" COMMERCIAL ZONES "C" & "M"					40
R-14	PART WIDTH TYPE "A" COMMERCIAL ZONES "C" & "M"					41
R-15	TYPE "B" ARTERIAL STREET		< 2.5		< 2.5	42
R16	TYPE "B" ARTERIAL STREET	≥ 2.5	< 20	≥ 2.5	< 20	43
R-17	HALF WIDTH TYPE "B" ARTERIAL STREET		< 2.5		< 2.5	44
R-18	HALF WIDTH TYPE "B" ARTERIAL STREET	≥ 2.5	< 20	≥ 2.5	< 20	45
R-19	TYPE "B" COLLECTOR STREET		< 2.5		< 2.5	46
R-20	TYPE "B" COLLECTOR STREET	≥ 2.5	< 20	≥ 2.5	< 20	47
R-21	HALF WIDTH TYPE "B" COLLECTOR STREET		< 2.5		< 2.5	48
R-22	HALF WIDTH TYPE "B" COLLECTOR STREET	≥ 2.5	< 20	≥ 2.5	< 20	49
R-23	TYPE "B" LOCAL ZONES "R" & "E"		< 2.5		< 2.5	50
R-24	TYPE "B" LOCAL	≥ 2.5	< 20	≥ 2.5	< 20	51
R-25	PART WIDTH TYPE "B" LOCAL ZONES "R" & "E"		< 2.5		< 2.5	52
R-26	PART WIDTH TYPE "B" LOCAL	≥ 2.5	< 20	≥ 2.5	< 20	53
R-27	FRONTAGE ROAD					54
R-28	ALLEYS					55
R-29	STANDARD SECONDARY & EMERGENCY ACCESS					56
R-30	PARKWAY AREAS (SHOULDER) TYPE "B"					57
R-31	PARKWAY AREAS TYPE "A"					58

NOTES

1. When bike lanes are required along a highway, the curb line shall be extended three (3) feet and the parkway area reduced three (3) feet.
2. A Special design for wheelchair ramps on arterial and collector highways to allow for the safe movement of pedestrians may be required by the Director.



NOTE:
PAVE FULL SECTION
IF RAISED MEDIANS
NOT INSTALLED.

NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS	NOTE:	PARCEL MAPS
LOT SIZE (ACRES)		LOT SIZE (ACRES)
$\geq 2 \frac{1}{2} < 5$	DELETE SIDEWALK AND C & G	$> 3 < 5$

NOTES:
SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER)
MAXIMUM SLOPE TO LOW GUTTER SHALL NOT EXCEED 2.5%.
*GRADE FROM HIGH GUTTER.



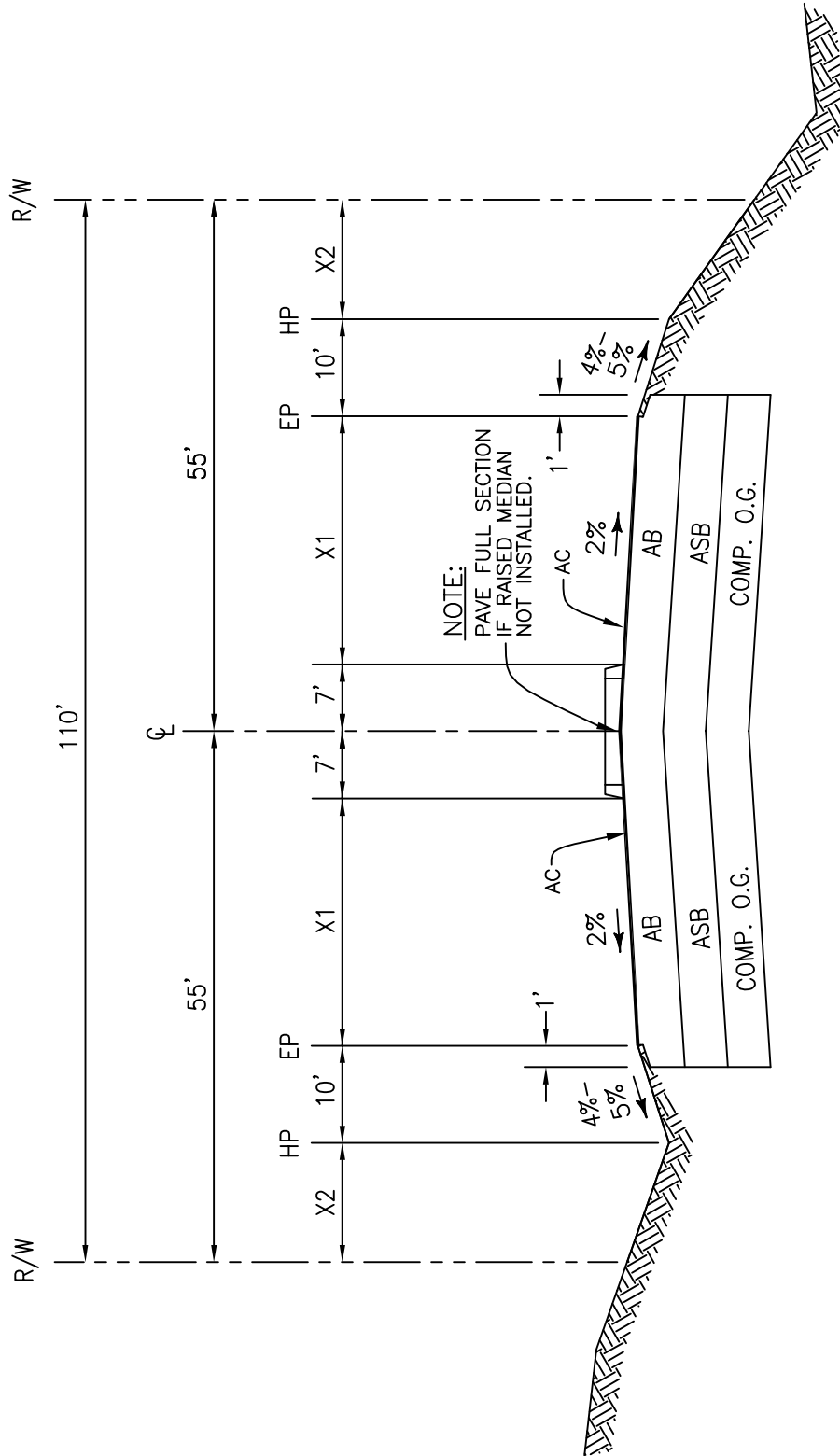
TYPE "A" ARTERIAL STREET LOT SIZE: < 5 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-1



NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS		PARCEL MAPS	
LOT SIZE (ACRES)	X1	X2	LOT SIZE (ACRES)
≥ 5 < 10	28' 10"		
≥ 10 < 20	16' 22"		> 3 < 20

NOTES:
SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER)



TYPE "A" ARTERIAL STREET LOT SIZE > 3 < 20 ACRES

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PLATE NO.
R-2

* NO DIKE NEEDED IF SIDE
SLOPE IS 4:1 OR FLATTER

*** SLOPE EASEMENT REQUIRED
WHEN CUT OR FILL EXCEEDS
ONE FOOT AT R/W.

**** SLOPE EASEMENT REQUIRED
WHEN CUT OR FILL EXCEEDS
ONE FOOT AT R/W.**

SEE PLATE R-31 FOR
PARKWAY AREA (SHOULDER).

PAVING SECTION SHALL
CONTINUE FULL WIDTH
OF DIKE



TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE <u>R-32</u> FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS	PARCEL MAPS
LOT SIZE (ACRES)	LOT SIZE (ACRES)
$\geq 2 \frac{1}{2} < 5$	DELETE SIDEWALK AND C & G > 3



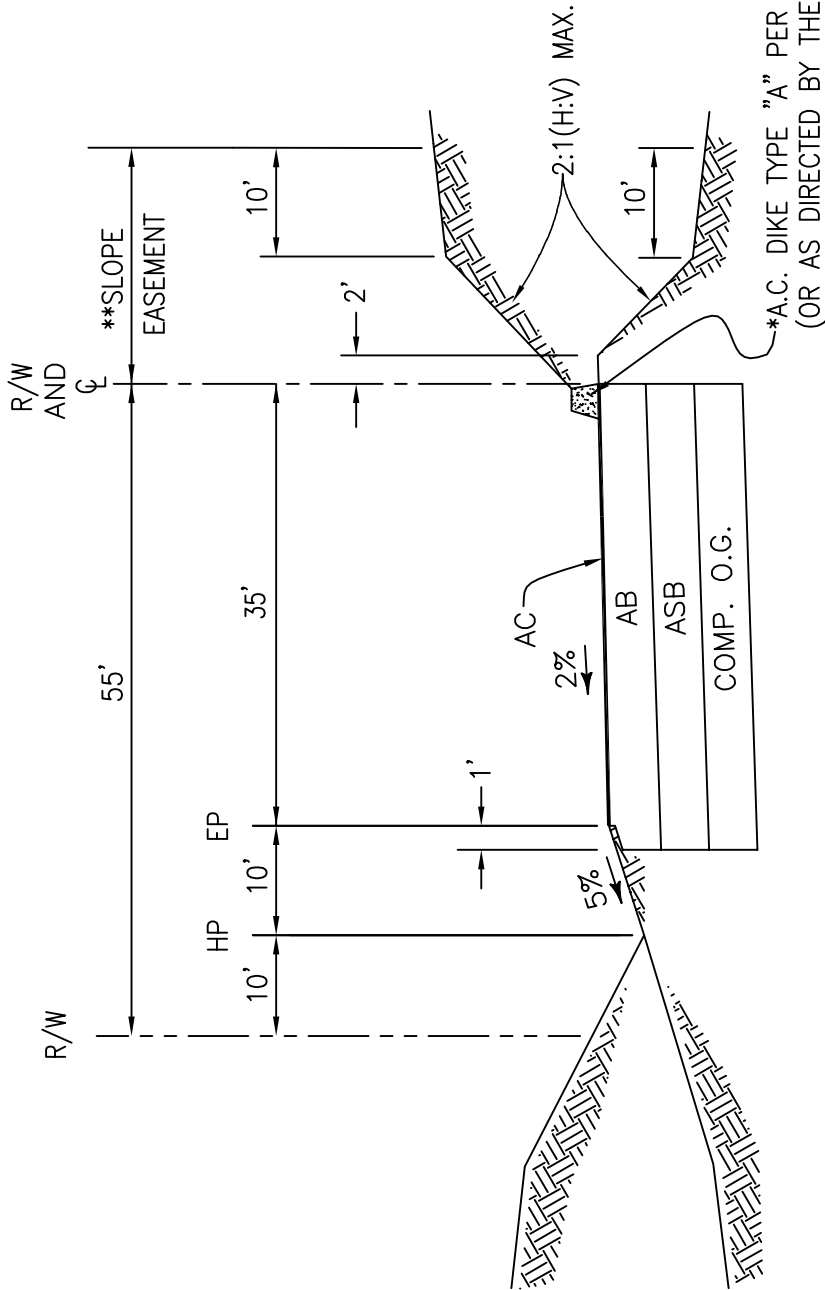
HALF WIDTH TYPE "A" ARTERIAL
STREET LOT: < 5 ACRES

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STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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PLATE NO.
R-3



NOT TO SCALE

NOTES:

TRACT MAPS: LOTS $\geq 5 < 20$ ACRES

PARCEL MAPS: LOTS $> 3 < 20$ ACRES

* NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER.

** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W.

SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).

PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



HALF WIDTH TYPE "A" ARTERIAL
STREET LOT SIZE: $> 3 < 20$ ACRES

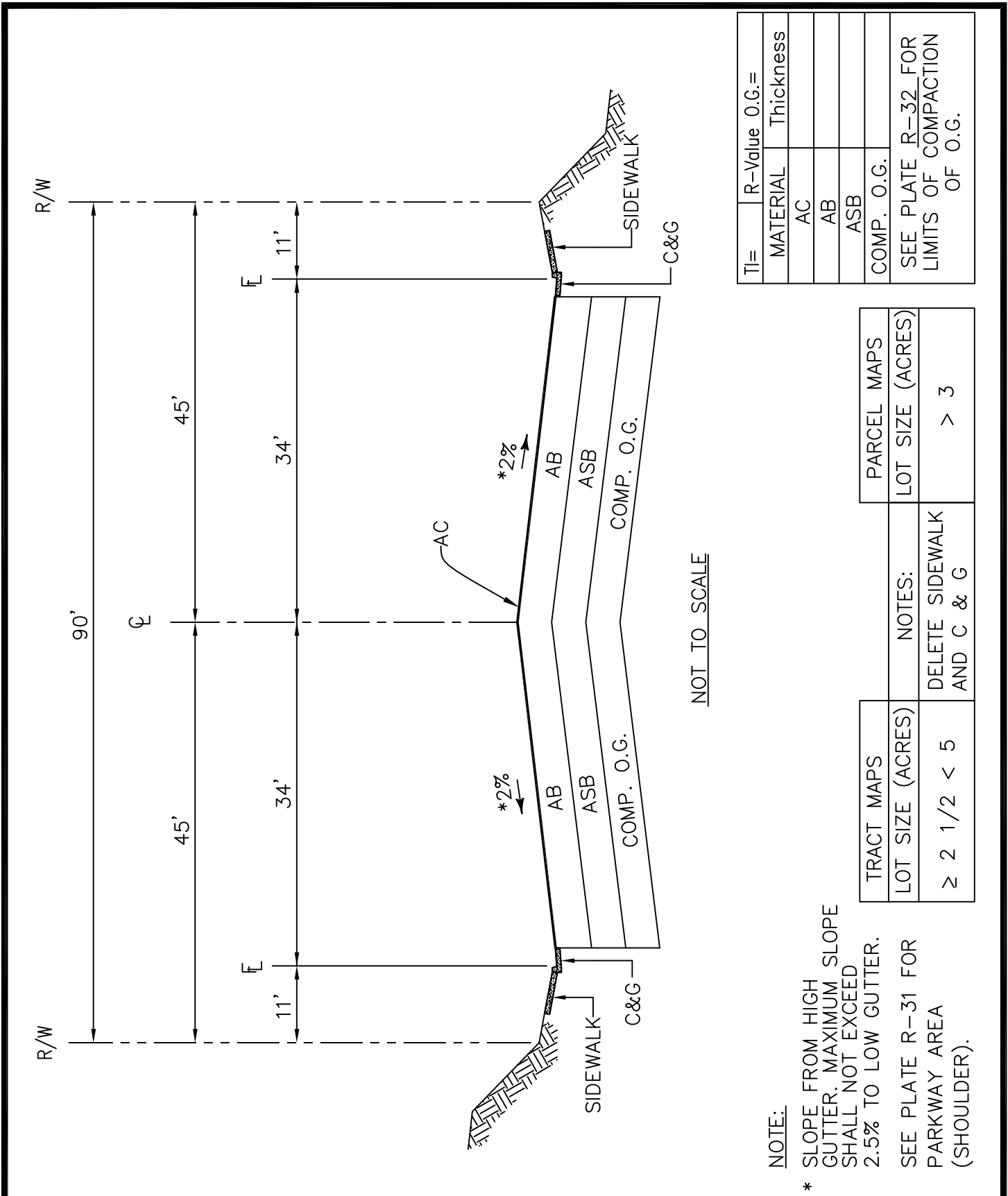
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PLATE NO.

R-4



TI=	R-Value	O.G.=
MATERIAL	Thickness	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

NOTE:

* SLOPE FROM HIGH SLOPE GUTTER. MAXIMUM SLOPE SHALL NOT EXCEED 2.5% TO LOW GUTTER.

SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).

NOT TO SCALE

TRACT MAPS	NOTES:	PARCEL MAPS
LOT SIZE (ACRES)	DELETE SIDEWALK AND C & G	LOT SIZE (ACRES)
$\geq 2 \frac{1}{2} < 5$		> 3



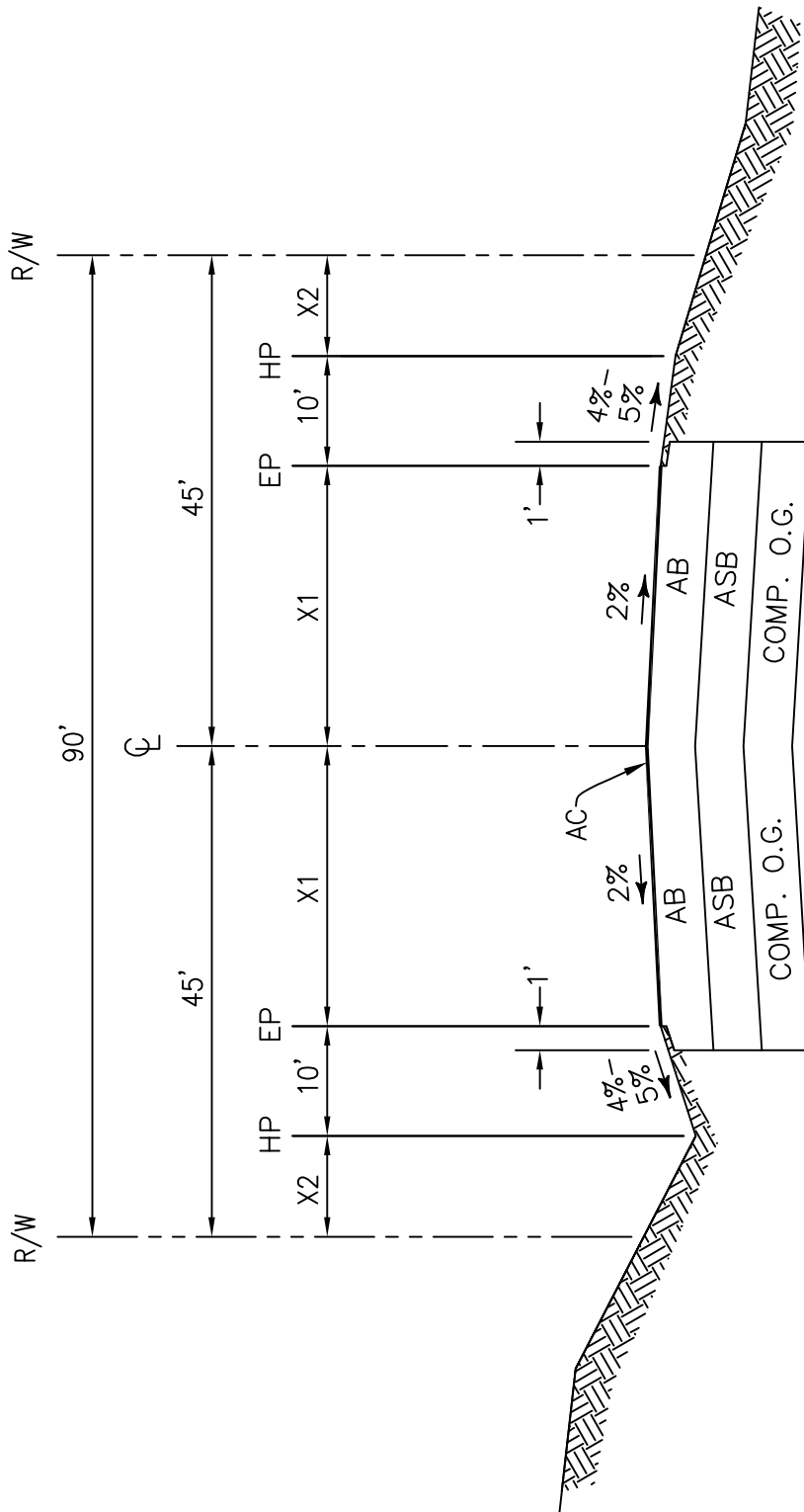
TYPE "A" COLLECTOR STREET LOT SIZE < 5 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
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PLATE NO.
R-5



NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP.	O.G.	
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS		PARCEL MAPS	
LOT SIZE (ACRES)	X1	X2	LOT SIZE (ACRES)
≥ 5 < 10	24'	11'	
≥ 10 < 20	12'	23'	> 3 < 20

NOTE:
SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).



TYPE "A" COLLECTOR STREET LOT SIZE: > 5 < 20 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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APPROVED BY: J.R.C.

PLATE NO.
R-6

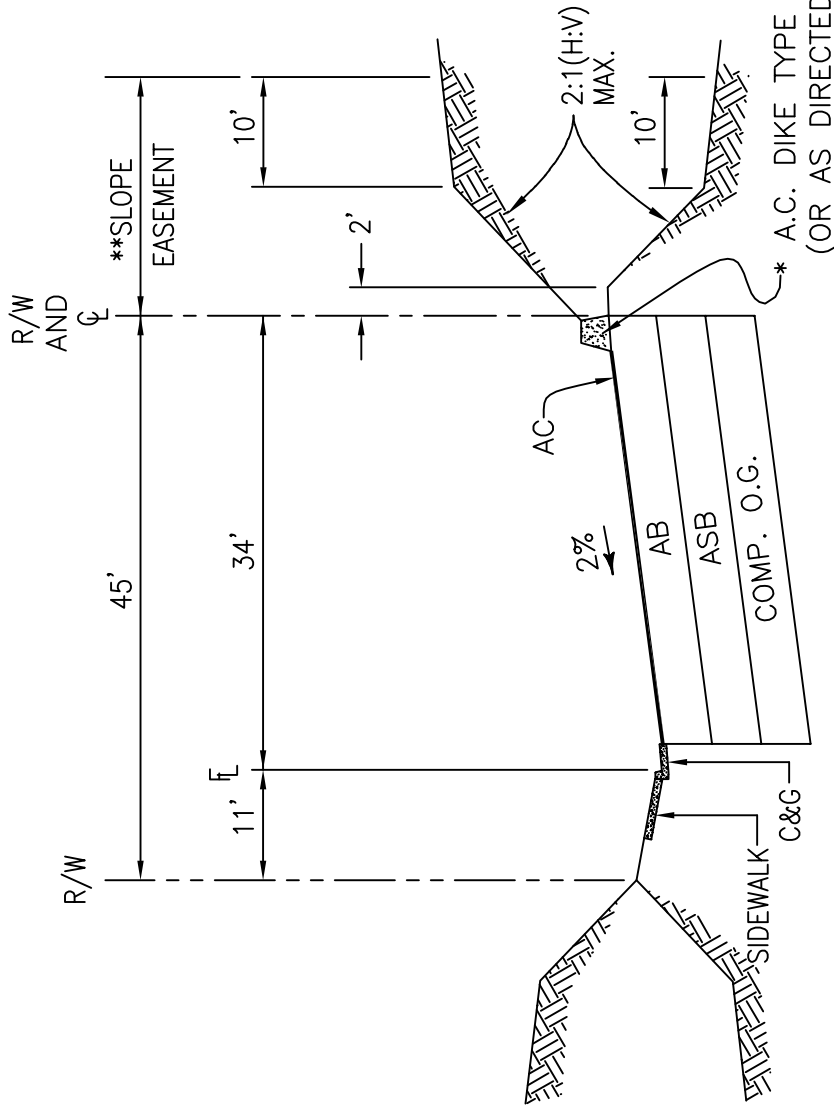
HALF WIDTH TYPE "A" COLLECTOR
STREET LOT SIZE: < 5 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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PLATE NO.
R-7



NOT TO SCALE

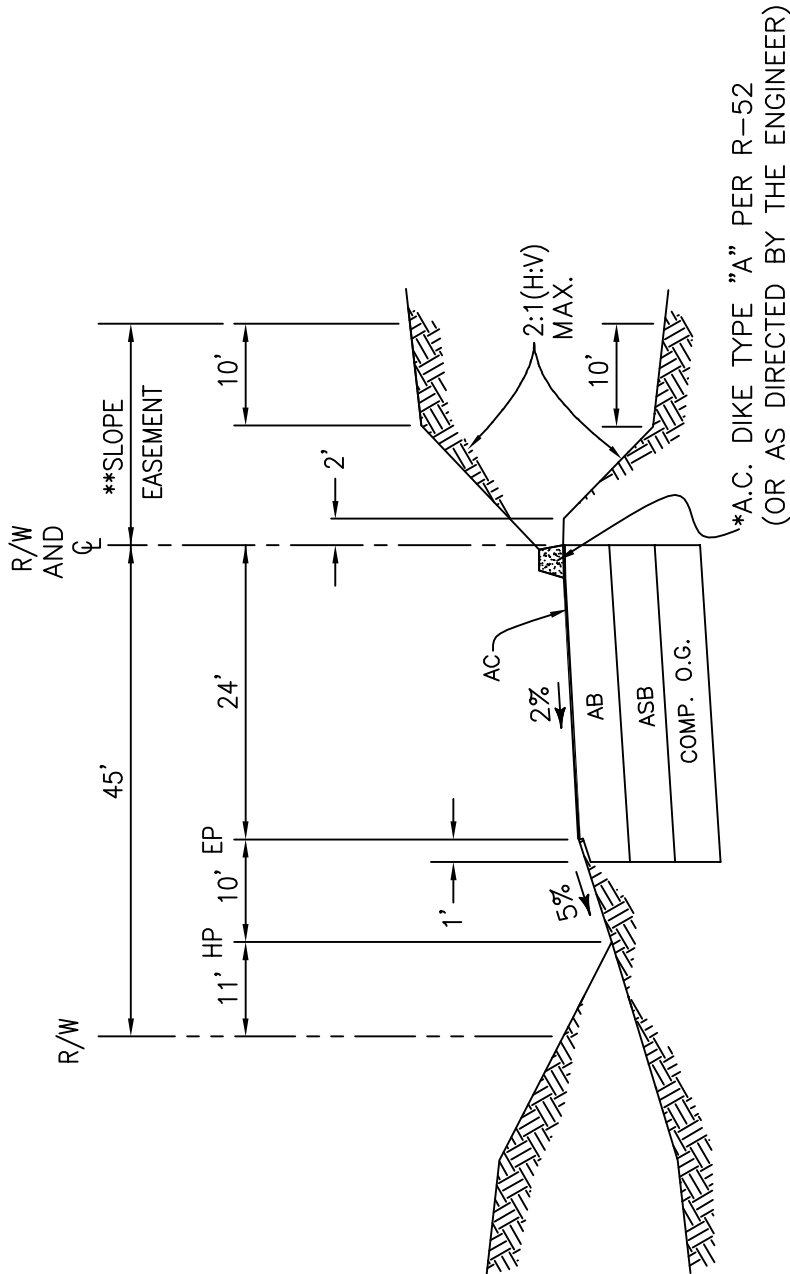
NOTES:

- * NO DIKE NEEDED IF SIDE SLOPE IS 4:1 OR FLATTER
- ** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W. PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE

SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).

TRACT MAPS	PARCEL MAPS
LOT SIZE (ACRES)	LOT SIZE (ACRES)
≥ 2 1/2 < 5	DELETE SIDEWALK AND C & G

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



NOT TO SCALE

NOTES:

TRACT MAPS: LOTS $\geq 5 < 20$ ACRES
 PARCEL MAPS: LOTS $> 3 < 20$ ACRES

* NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER.

** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W.

SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).

PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



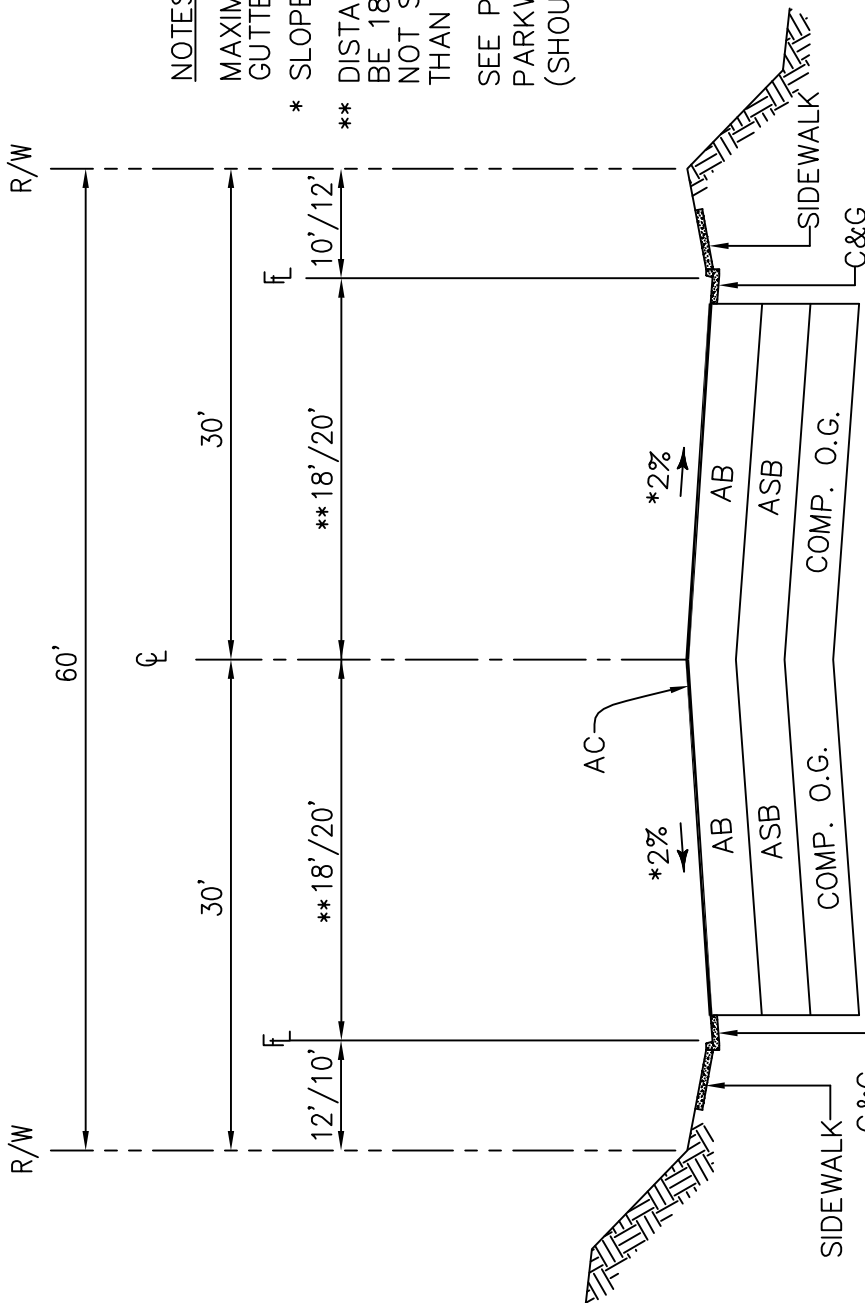
HALF WIDTH TYPE "A" COLLECTOR
 STREET LOT SIZE: $> 3 < 20$ ACRES

COUNTY OF KERN
 STATE OF CALIFORNIA
 DEVELOPMENT STANDARD

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APPROVED BY: J.R.C.

PLATE NO.
 R-8



NOTES:

- MAXIMUM CROSS FALL, LOW GUTTER SHALL BE 0.5'.
- * SLOPE FROM HIGH GUTTER.
- ** DISTANCE FROM CL TO F MAY BE 18' WHERE STREET WILL NOT SERVE MORE THAN 30 THAN 30 SINGLE-FAMILY LOTS.
- SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).

NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP.	O.G.	
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS	PARCEL MAPS
LOT SIZE (ACRES)	LOT SIZE (ACRES)
≥ 2 1/2 < 5	> 3
NOTES:	
DELETE SIDEWALK AND C & G	



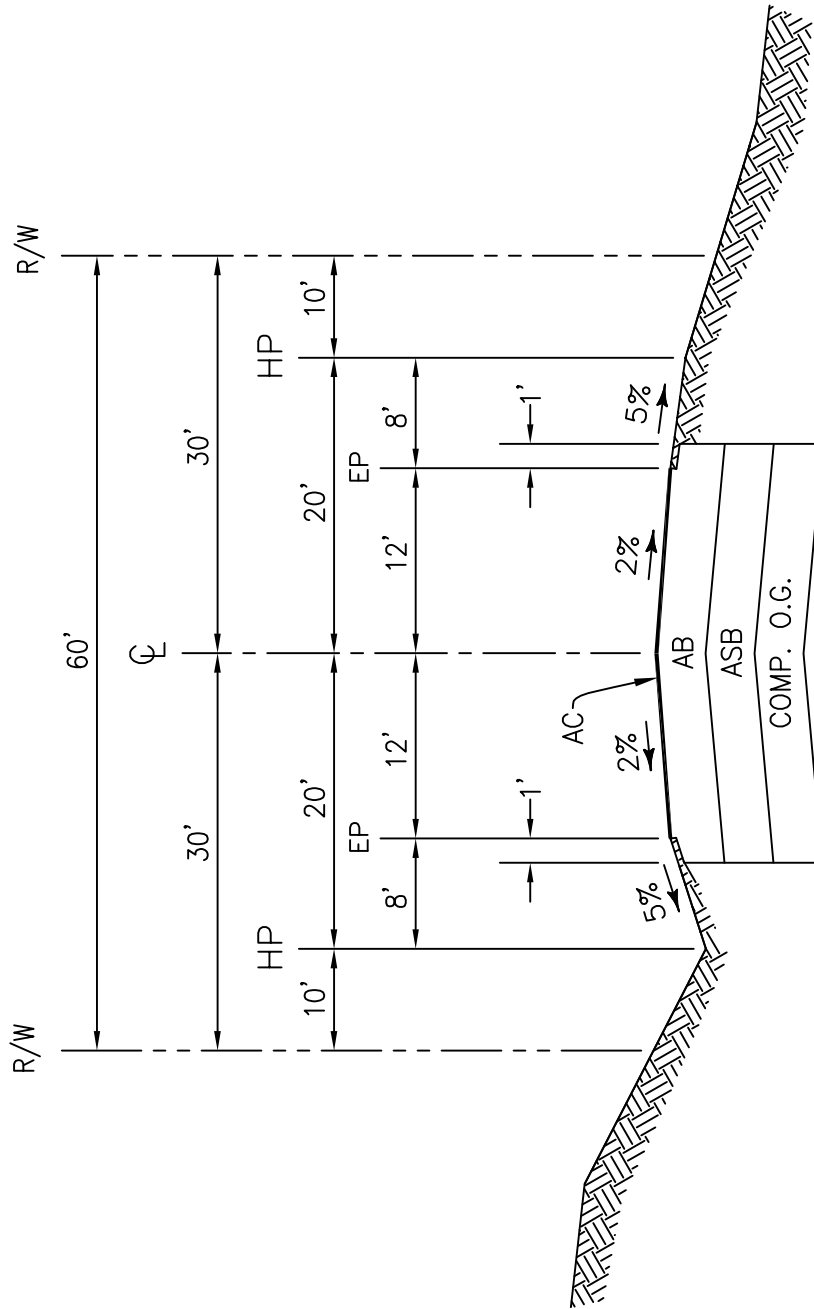
TYPE "A" LOCAL STREET ZONE "R" AND ZONE "E" LOT SIZE: < 5 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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PLATE NO.
R-9



NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

NOTES:
 TRACT MAPS: LOTS $\geq 5 < 20$ ACRES
 PARCEL MAPS: LOTS $> 3 < 20$ ACRES
 SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).



TYPE "A" LOCAL STREET LOT SIZE: $> 3 < 20$ ACRES

COUNTY OF KERN
 STATE OF CALIFORNIA
 DEVELOPMENT STANDARD

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PLATE NO.
 R-10



PART WIDTH TYPE "A"
LOCAL STREET ZONE "R" AND ZONE "E"
LOT SIZE: < 5 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

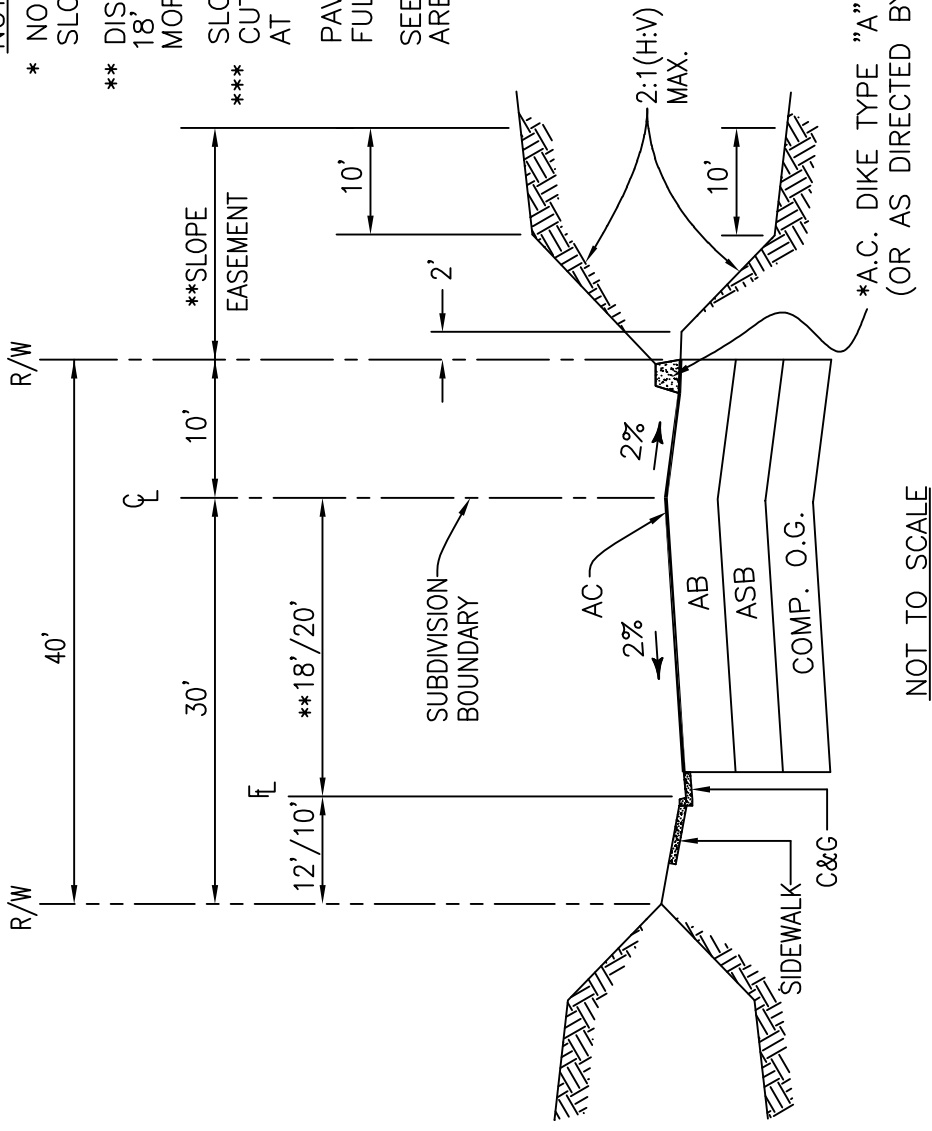
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DATE	DESC

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DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-11

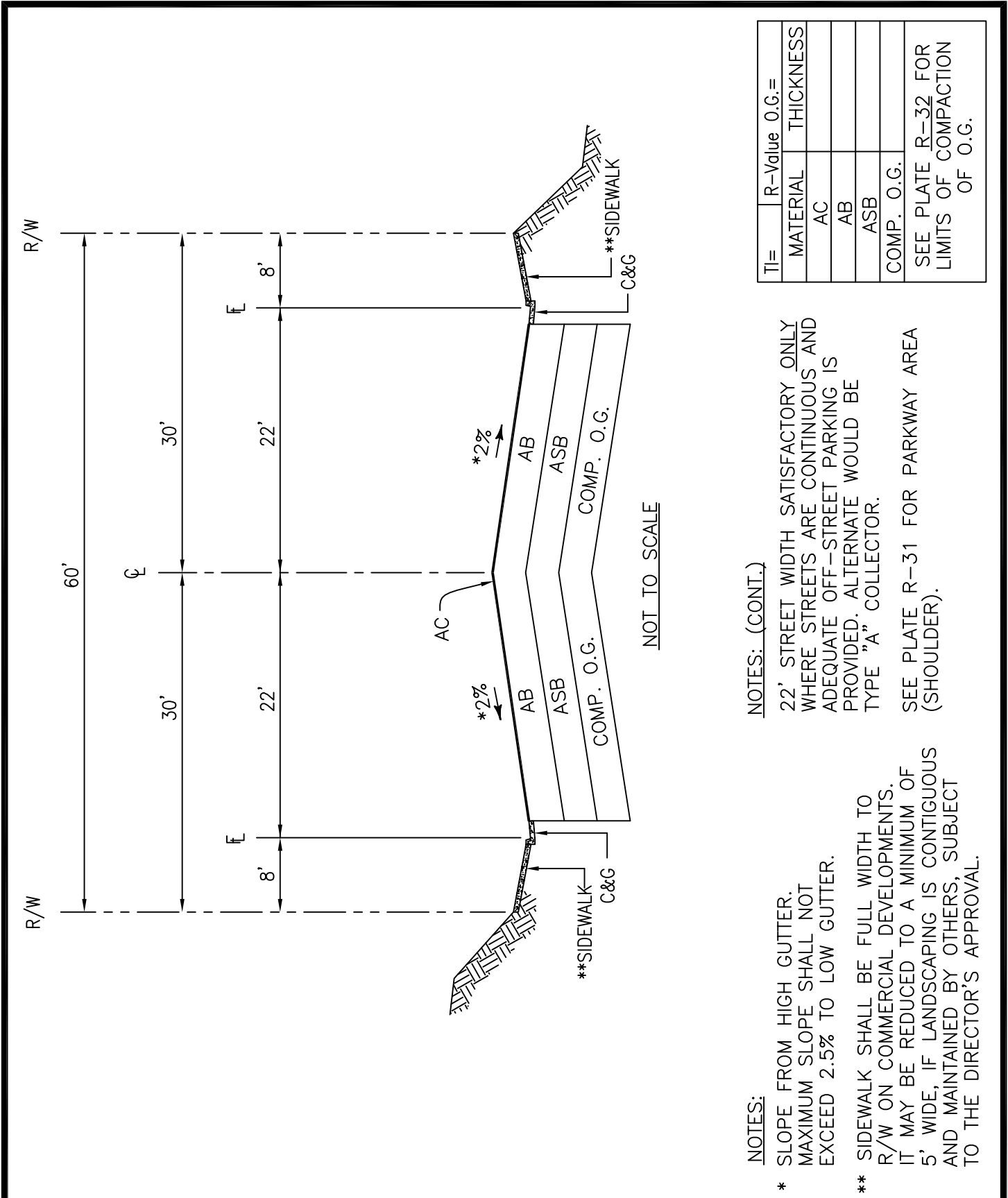
NOTES:

- * NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER
 - ** DISTANCE FROM $\bar{C}$ TO $\bar{f}_L$ MAY BE 18', WHERE STREET WILL NOT SERVE MORE THAN 30 SINGLE-FAMILY LOTS.
 - *** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W.
- PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE
- SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).



TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS	PARCEL MAPS
LOT SIZE (ACRES)	LOT SIZE (ACRES)
$\geq 2 \frac{1}{2} < 5$	> 3
NOTES: DELETE SIDEWALK AND C & G	



NOTES:

* SLOPE FROM HIGH GUTTER. MAXIMUM SLOPE SHALL NOT EXCEED 2.5% TO LOW GUTTER.

** SIDEWALK SHALL BE FULL WIDTH TO R/W ON COMMERCIAL DEVELOPMENTS. IT MAY BE REDUCED TO A MINIMUM OF 5' WIDE, IF LANDSCAPING IS CONTIGUOUS AND MAINTAINED BY OTHERS, SUBJECT TO THE DIRECTOR'S APPROVAL.

NOTES: (CONT.)

22' STREET WIDTH SATISFACTORY ONLY WHERE STREETS ARE CONTINUOUS AND ADEQUATE OFF-STREET PARKING IS PROVIDED. ALTERNATE WOULD BE TYPE "A" COLLECTOR.

SEE PLATE R-31 FOR PARKWAY AREA (SHOULDER).

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



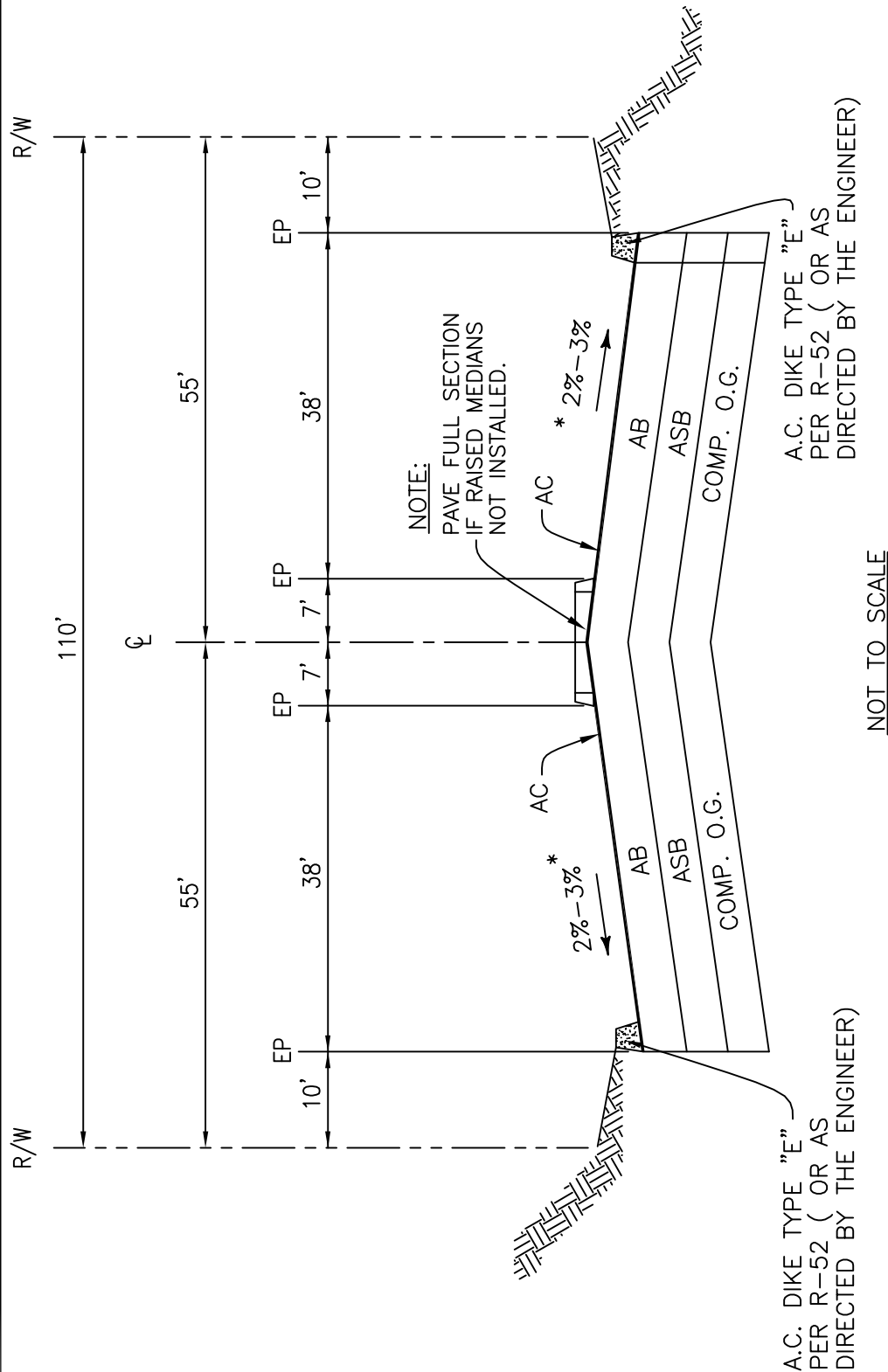
**TYPE "A" COMMERCIAL STREET ZONE
"C" AND ZONE "M"**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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APPROVED BY:	J.R.C.

PLATE NO.
R-13



TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

NOTES:

SEE PLATE R-30 FOR PARKWAY AREA
(SHOULDER).

* GRADE FROM HIGH GUTTER.

PAVING SECTION SHALL CONTINUE
FULL WIDTH OF DIKE



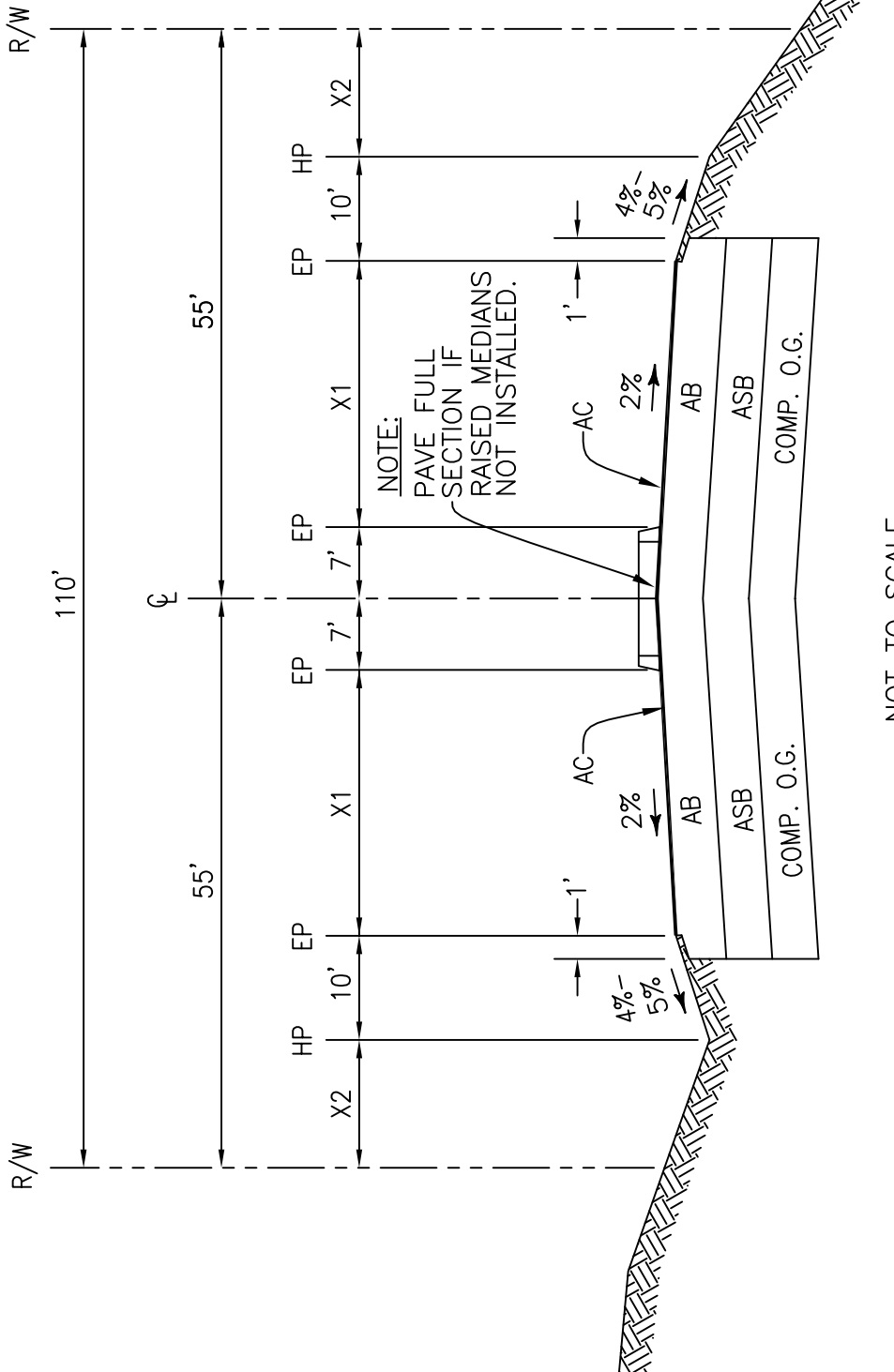
TYPE "B" ARTERIAL STREET LOT SIZE: < 2 1/2 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
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DESIGNED BY:	J.R.C.
DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-15



TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS AND PARCEL MAPS		
LOT SIZE (ACRES)	X1	X2
≥ 2 1/2 < 10	28'	10'
≥ 10 < 20	18'	20'

NOTES:
SEE PLATE R-30 FOR PARKWAY AREA (SHOULDER).



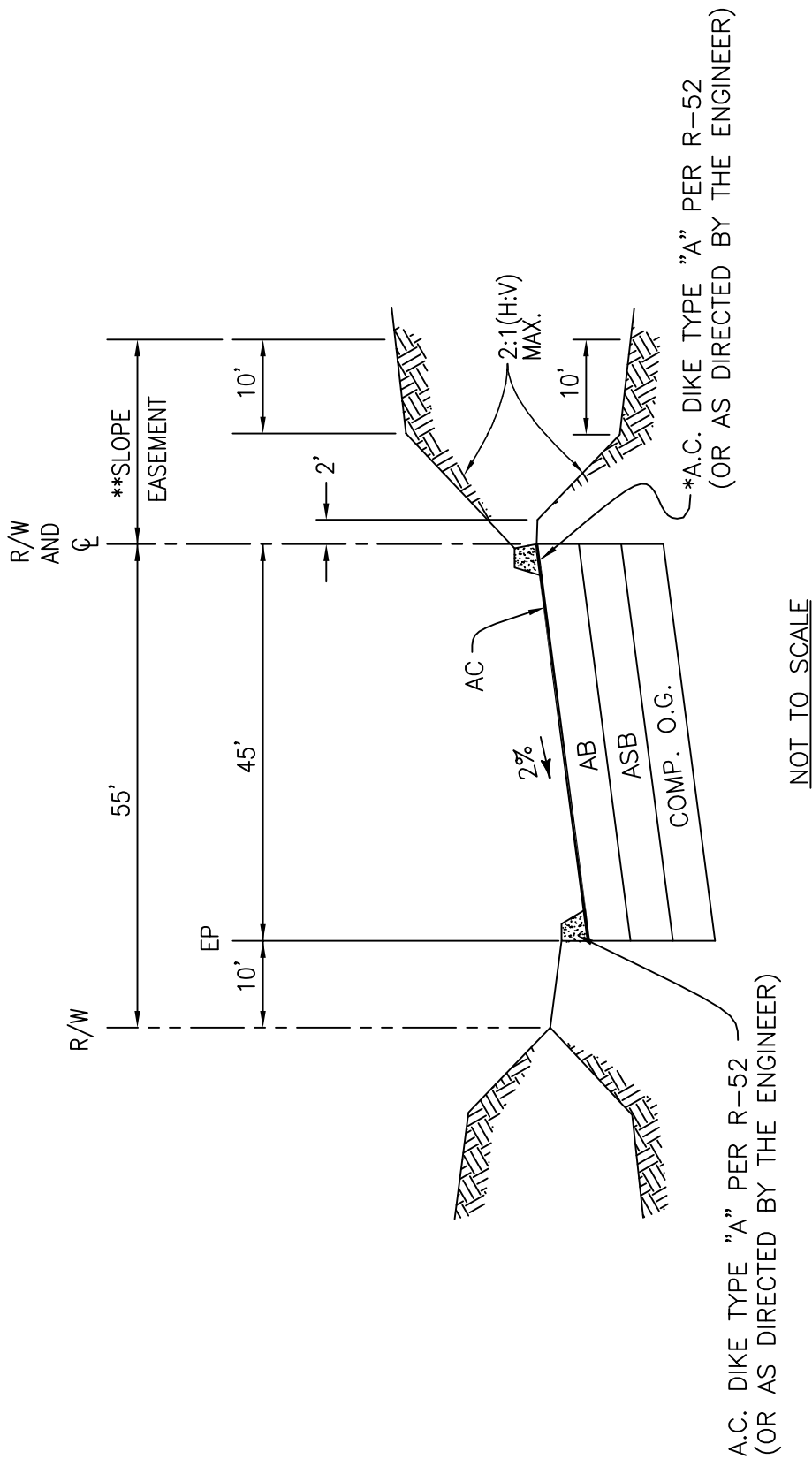
TYPE "B" ARTERIAL STREET LOT SIZE: $\geq 2\frac{1}{2} < 20$ ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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APPROVED BY: J.R.C.

PLATE NO.
R-16



NOT TO SCALE

NOTES:

- SEE PLATE R-30 FOR PARKWAY AREA (SHOULDER).
- ** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W.
- * NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER
- PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



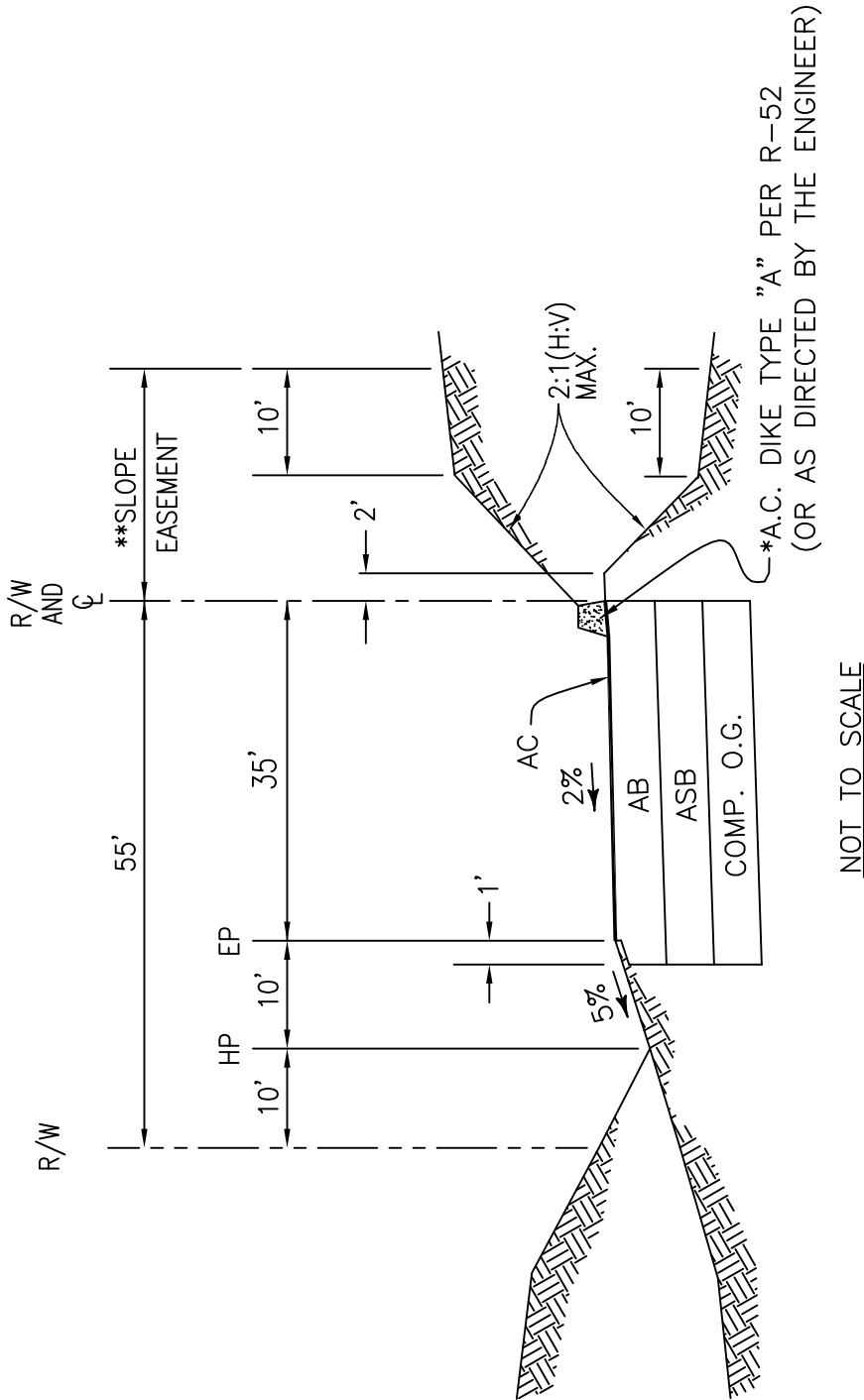
HALF WIDTH TYPE "B" ARTERIAL STREET LOT SIZE : < 2 1/2 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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APPROVED BY:	J.R.C.

PLATE NO.
R-17



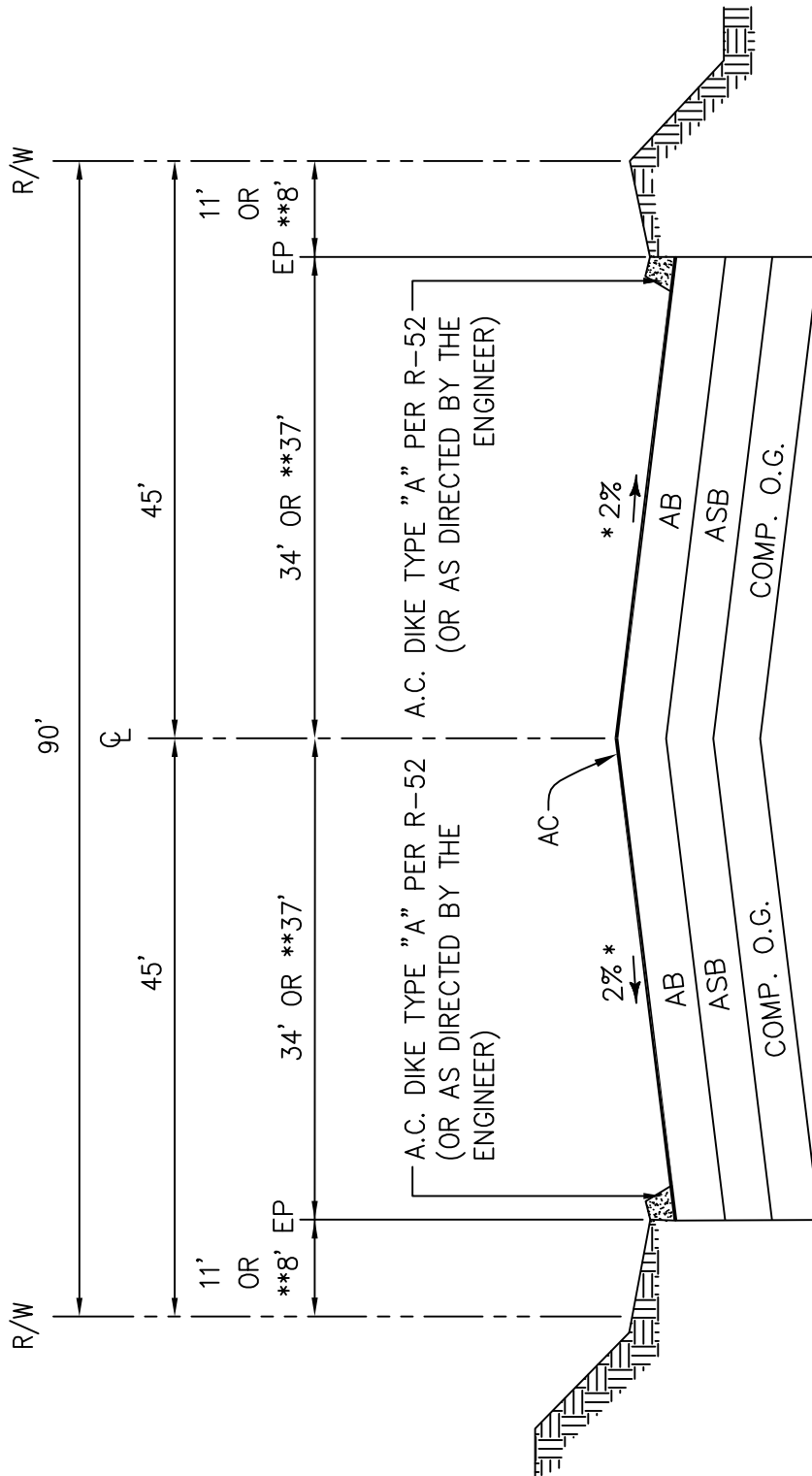
NOTES:

SEE PLATE R-30 FOR PARKWAY AREA (SHOULDER)

* NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER

** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W. PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE

TI=	R-Value	O.G. =
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



NOT TO SCALE

NOTES:

* SLOPE FROM HIGH GUTTER. MAXIMUM SLOPE SHALL NOT EXCEED 2.5% TO LOW GUTTER.

** USE WITH BIKE LANES. OR FILL EXCEEDS ONE FOOT AT R/W.

PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE
SEE PLATE R-30 FOR PARKWAY AREA (SHOULDER)

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



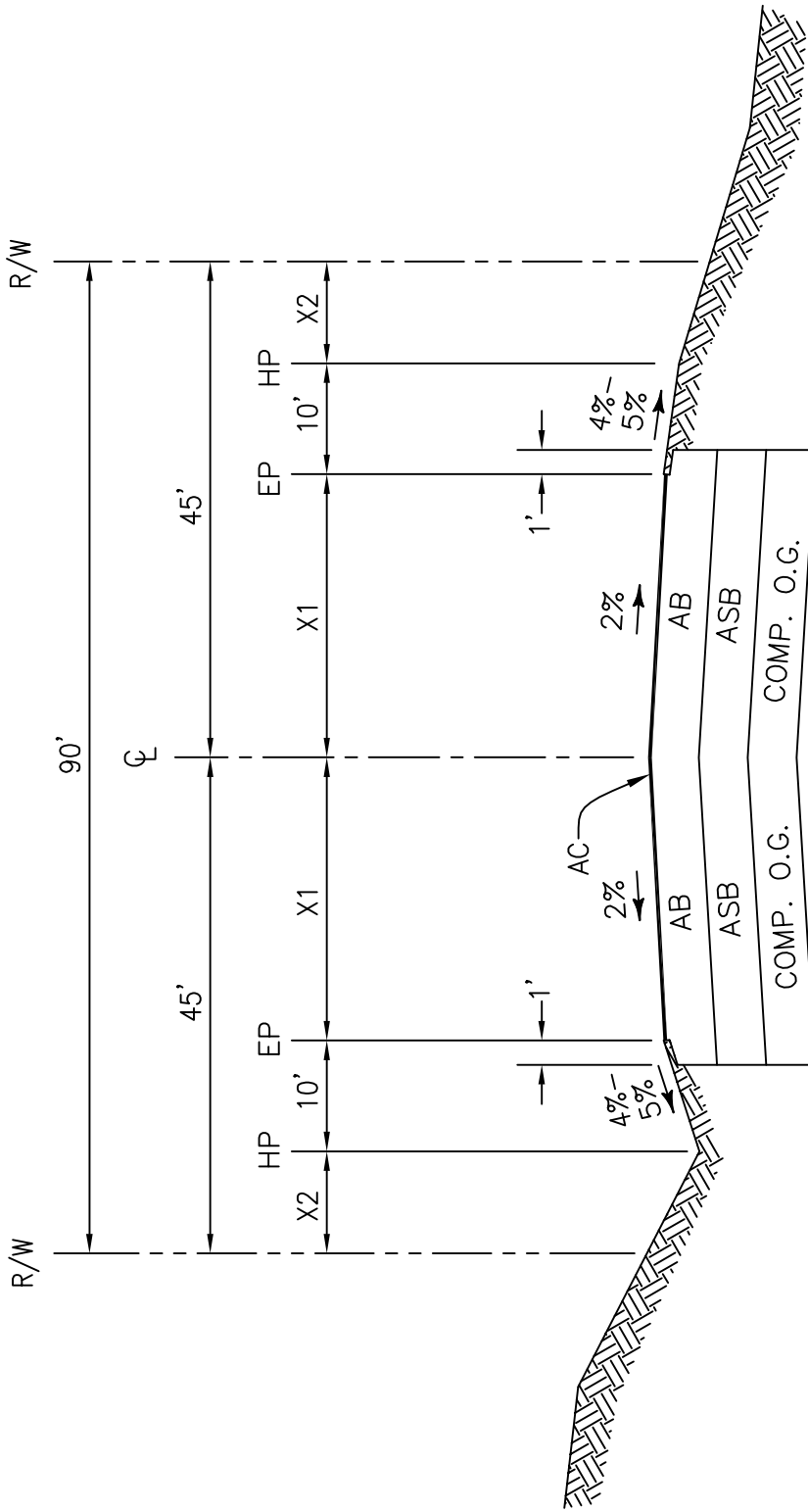
TYPE "B" COLLECTOR STREET
LOT SIZE: < 2 1/2 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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PLATE NO.
R-19



NOT TO SCALE

NOTES:

WHERE 4:1(H:V) OR FLATTER
FILL SLOPES ARE USED, THE
MINIMUM FILL AT THE HINGE
POINT SHALL AVERAGE 0.5 FEET.

SEE PLATE R-30 FOR PARKWAY
AREA (SHOULDER)

TI=	R-Value	O.G. =
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

TRACT MAPS AND PARCEL MAPS		
LOT SIZE (ACRES)	X1	X2
≥ 2 1/2	< 10	24' 11'
≥ 10	< 20	12' 23'



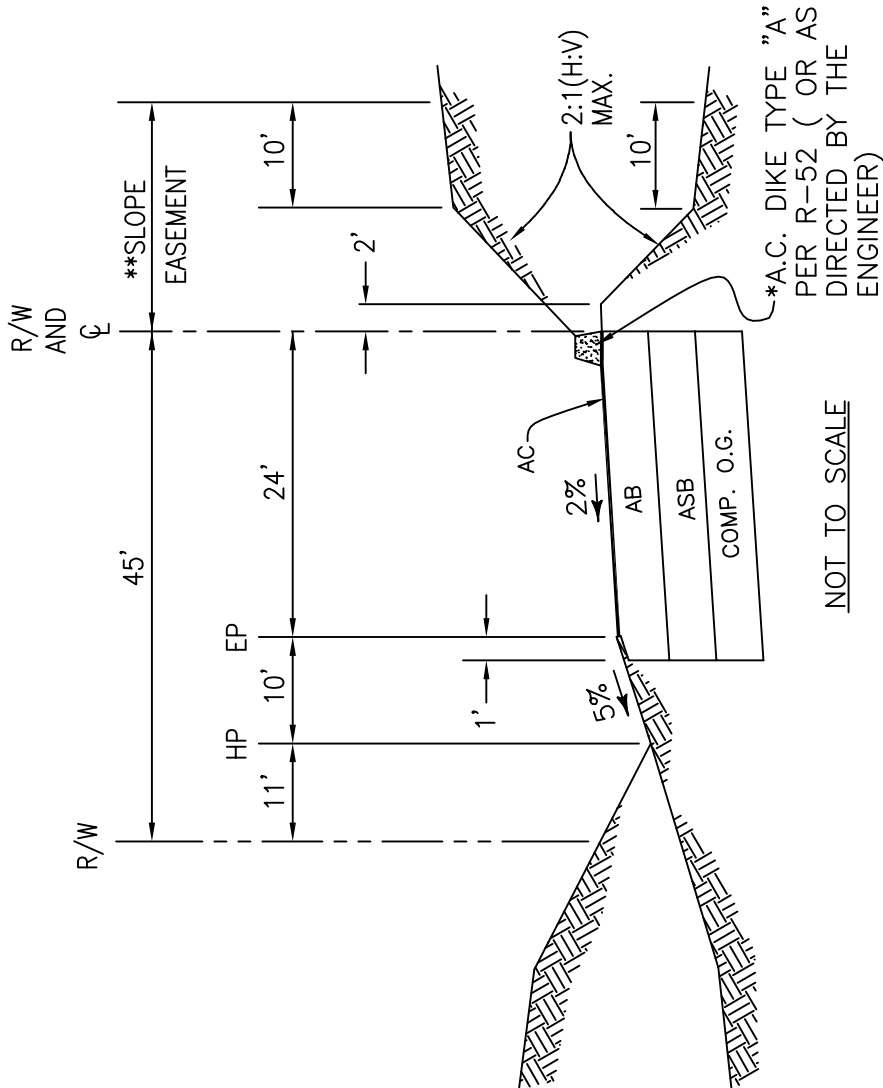
TYPE "B" COLLECTOR STREET
LOT SIZE: > 2 1/2 < 20 ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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PLATE NO.
R-20



TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

NOTES:

SEE PLATE R-30 FOR PARKWAY AREA (SHOULDER)

* NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER

** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W. PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE



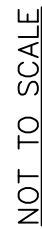
HALF WIDTH TYPE "B" COLLECTOR STREET LOT SIZE: $> 2\frac{1}{2} < 20$ ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

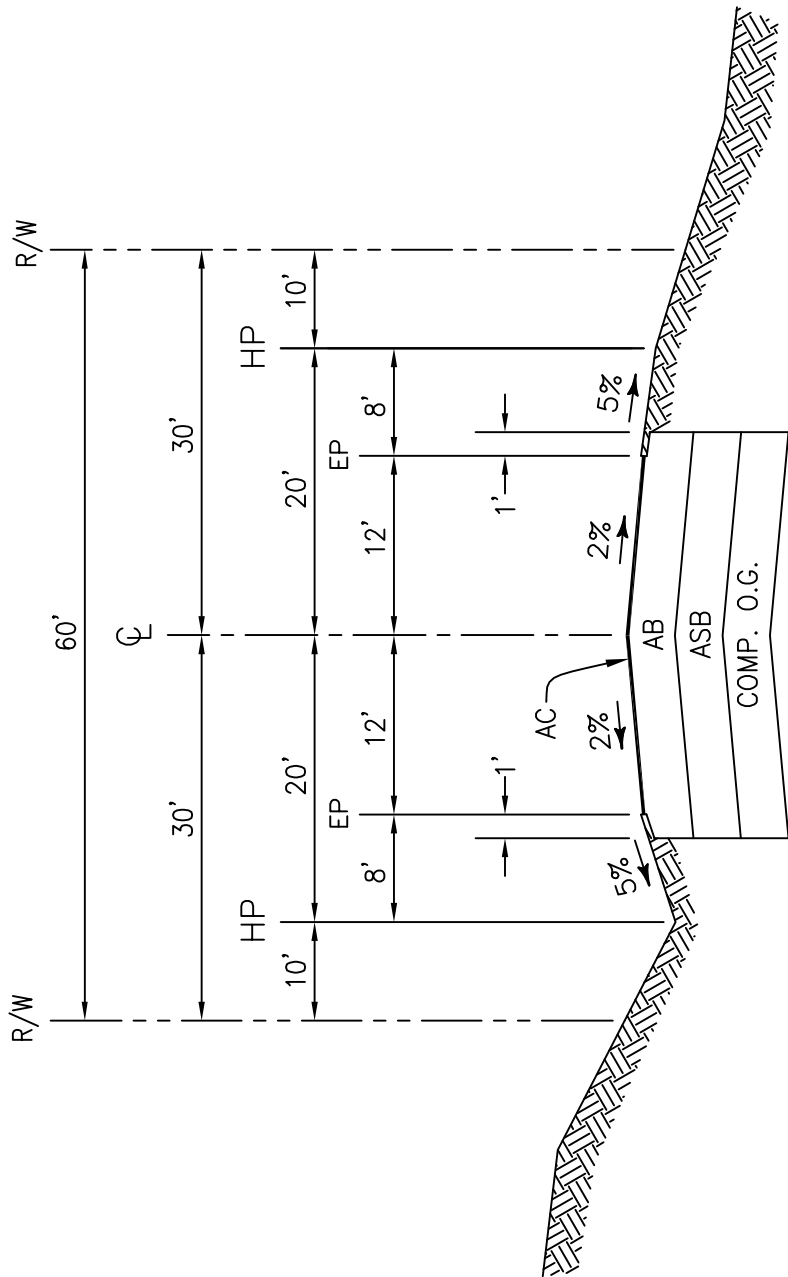
REVISIONS	
DATE	DESC

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DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-22



PAVING SECTION SHALL CONTINUE
FULL WIDTH OF DIKE



NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		

NOTE:
SEE PLATE R-30 FOR PARKWAY
AREA (SHOULDER)



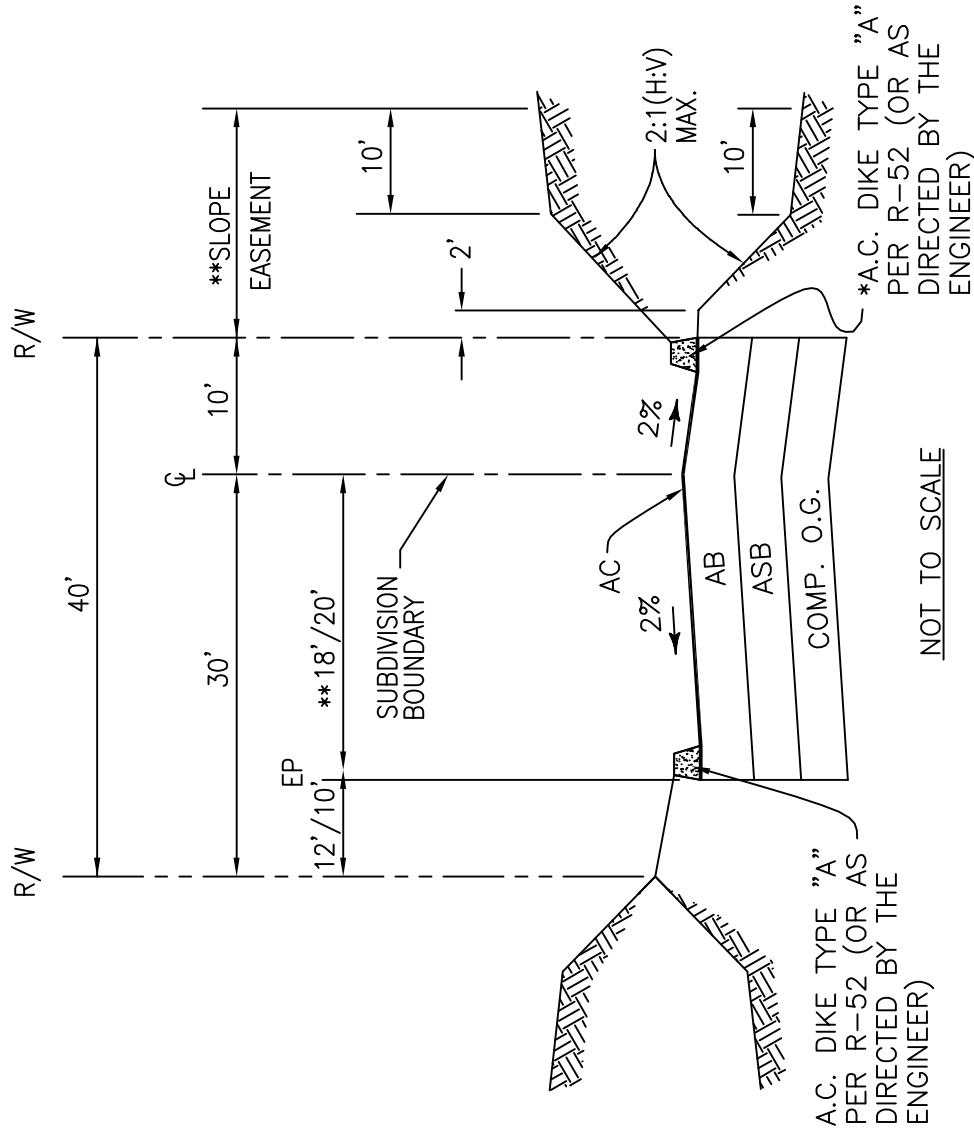
TYPE "B" LOCAL STREET LOT SIZE: $\geq 2\frac{1}{2} < 20$ ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	
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PLATE NO.
R-24



NOT TO SCALE

NOTES:

SEE PLATE R-30 FOR PARKWAY AREA (SHOULDER)

- * NO DIKE NEEDED IF SIDE SLOPE IS 4:1 (H:V) OR FLATTER
- ** DISTANCE FROM $\bar{C}$ TO $\bar{E}$ MAY BE 18' WHERE STREET WILL NOT SERVE MORE THAN 30 SINGLE-FAMILY LOTS.
- *** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W. PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE

TI=	R-Value	O.G.=
MATERIAL		THICKNESS
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



PART WIDTH TYPE "B" LOCAL STREET ZONE "R"
AND ZONE "E" LOT SIZE: $< 2 \frac{1}{2}$ ACRES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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PLATE NO.
R-25



NOTES:

* NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER

**** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W.
PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE**

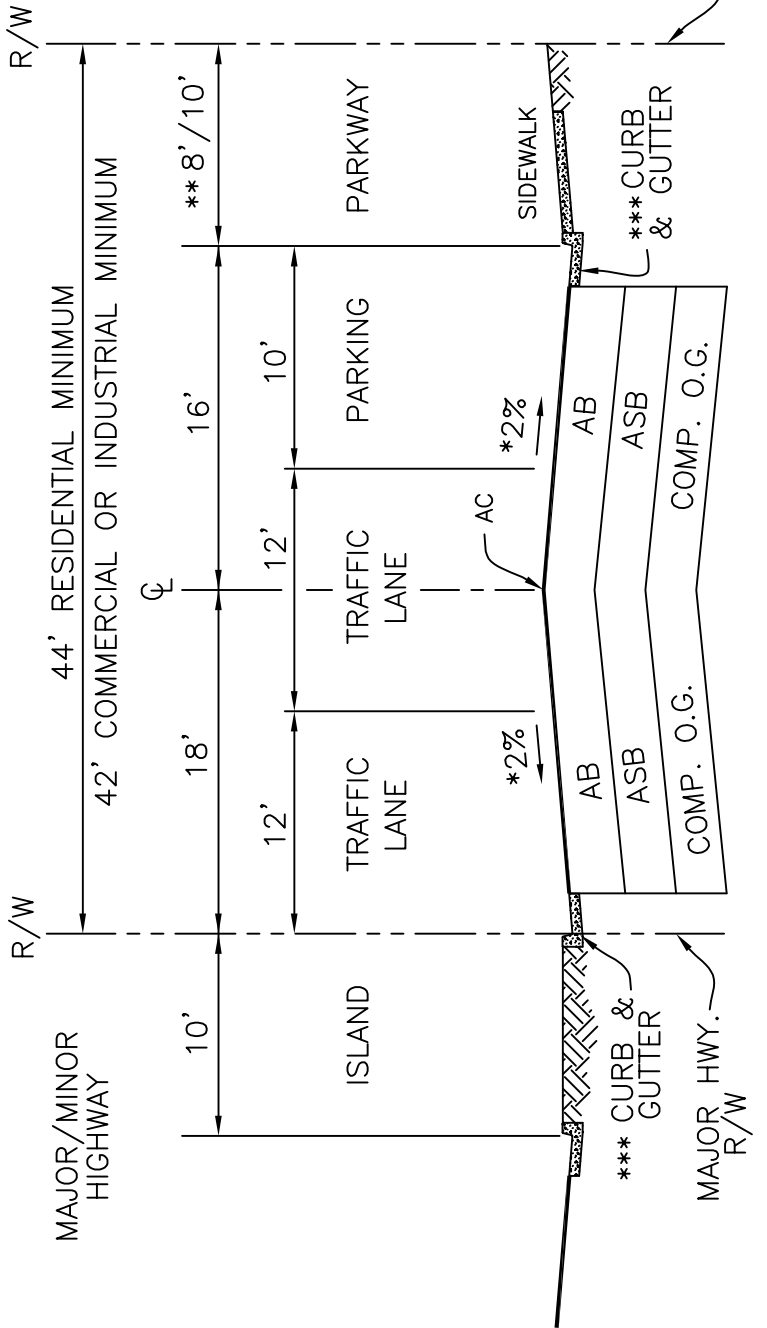
NOTES:

SEE PLATE R-30 FOR PARKWAY
AREA (SHOULDER)

* NO DIKE NEEDED IF SIDE SLOPE IS 4:1(H:V) OR FLATTER

**** SLOPE EASEMENT REQUIRED WHEN CUT OR FILL EXCEEDS ONE FOOT AT R/W.
PAVING SECTION SHALL CONTINUE FULL WIDTH OF DIKE**

PLATE NO.
R-26



NOTES:

- * GRADE FROM HIGH GUTTER. MAXIMUM SLOPE TO LOW GUTTER SHALL NOT EXCEED 2.5%.
- ** 10' RESIDENTIAL, 8' COMMERCIAL OR INDUSTRIAL.
- *** AC DIKE FOR TYPE 'B' RESIDENTIAL. SEE PHASED DEVELOPMENT APPENDIX "B", KERN COUNTY LAND DIVISION ORDINANCE.
- SPECIAL PAVEMENT DESIGN WILL BE REQUIRED IN ZONE "C" & ZONE "M"
- SEE PLATE R-30/R-31 FOR PARKWAY AREA (SHOULDER).

NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL		THICKNESS
AC		
AB		
ASB		
COMP. O.G.		
SEE PLATE R-32 FOR LIMITS OF COMPACTION OF O.G.		



FRONTAGE ROAD

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC

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APPROVED BY:	J.R.C.

PLATE NO.
R-27

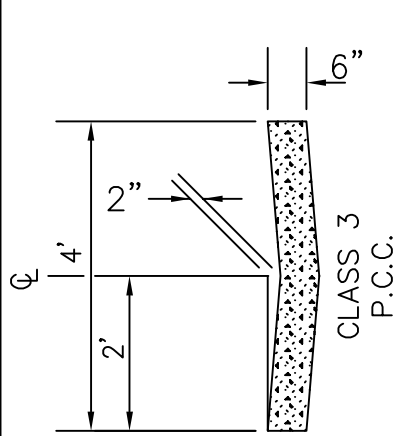
ALLEYS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

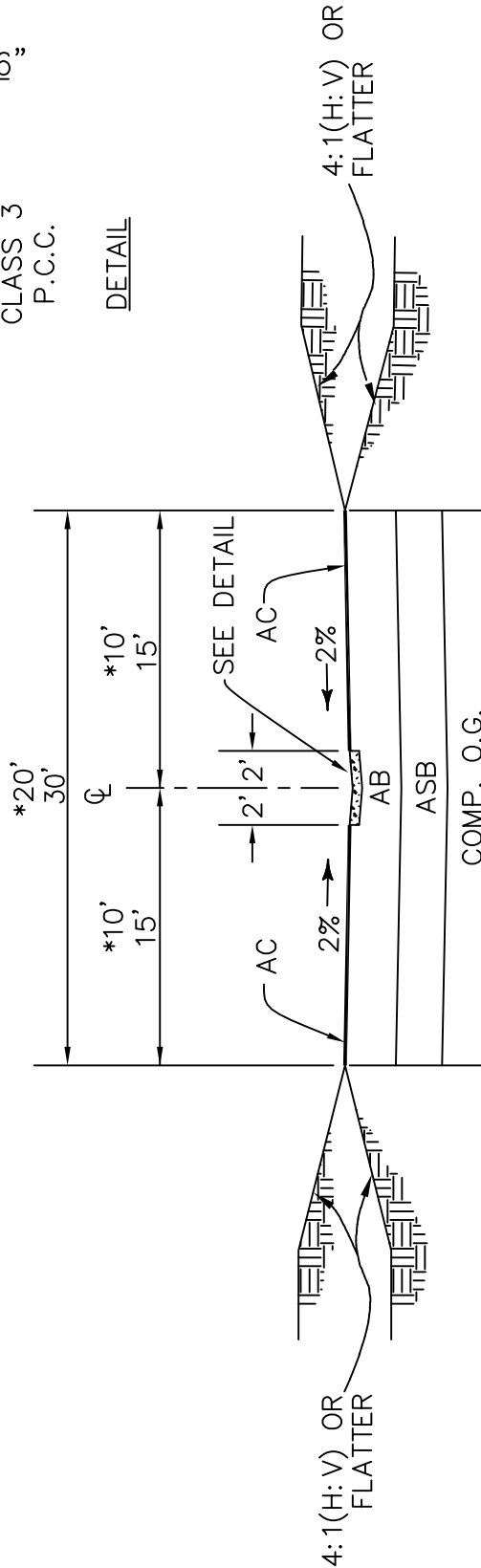
REVISIONS DATE	DESC

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PLATE NO.
R-28



DETAIL



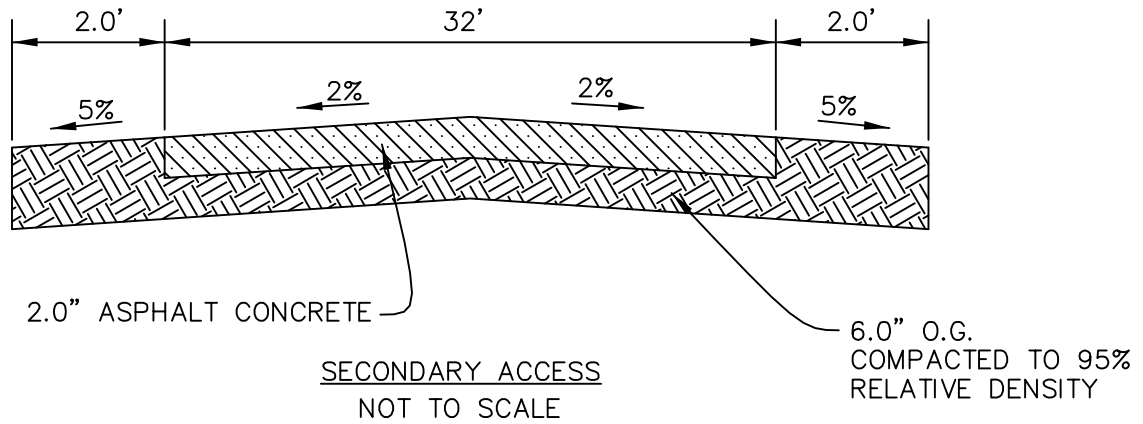
INDUSTRIAL, COMMERCIAL, AND MULTIPLE
RESIDENTIAL ZONES OR INTENDED USES

NOT TO SCALE

TI=	R-Value	O.G.=
MATERIAL	THICKNESS	
AC		
AB		
ASB		
COMP.	O.G.	

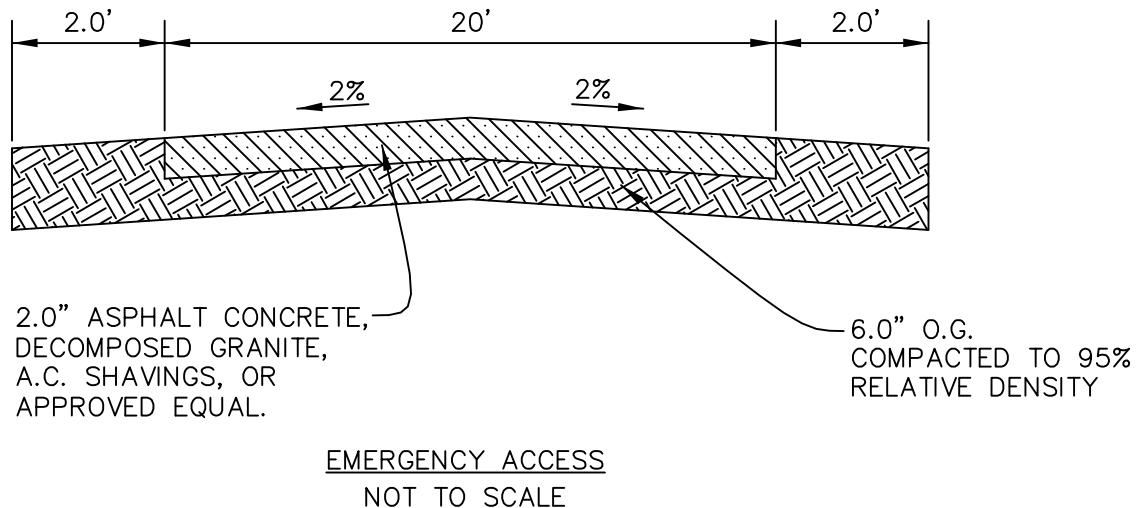
NOTE:

* USE FOR R-1 RESIDENTIAL DEVELOPMENTS.



NOTES:

1. AS REQUIRED BY THE ENGINEER FOR CIRCULATION.
2. PAVEMENT SECTION MAY BE REQUIRED TO BE A FULL DEPTH DESIGNED SECTION IF IN ALIGNMENT WITH A FUTURE STREET.
3. A SECONDARY ACCESS EASEMENT OR STREET RIGHT-OF-WAY DEDICATION IS REQUIRED.



NOTES:

1. AS REQUIRED BY THE FIRE DEPARTMENT FOR ALL SECONDARY ACCESSSES.
2. FOR EMERGENCY ACCESS, BARRICADES MAY BE REQUIRED TO RESTRICT ACCESS.
3. AN EMERGENCY ACCESS EASEMENT IS REQUIRED FOR ALL EMERGENCY ACCESSSES.



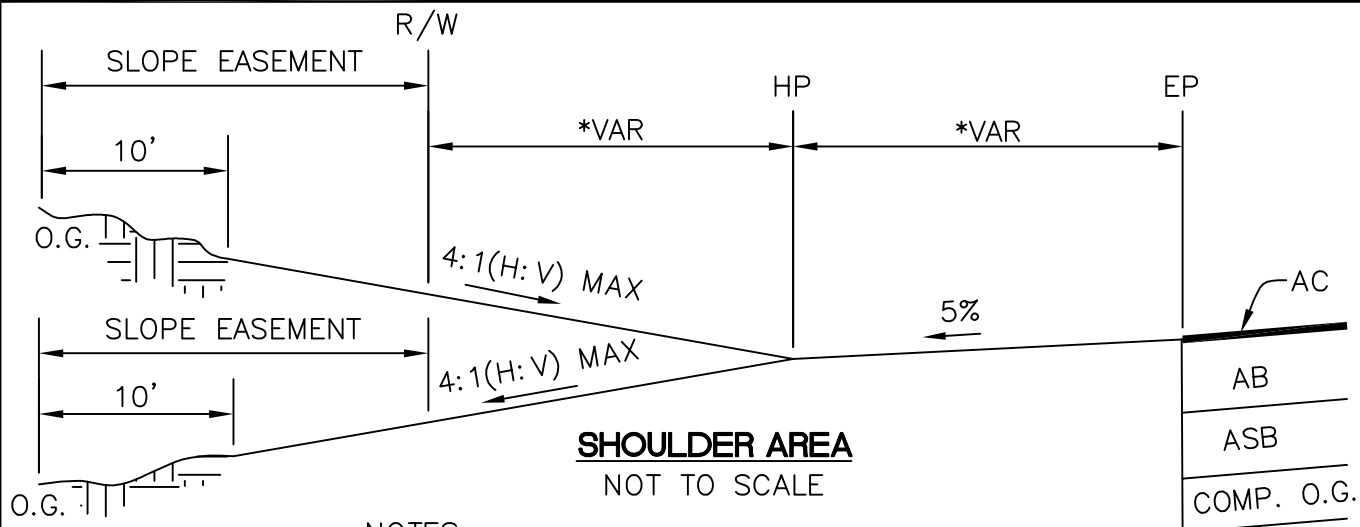
**STANDARD
SECONDARY AND EMERGENCY ACCESS**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
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PLATE NO.
R-29

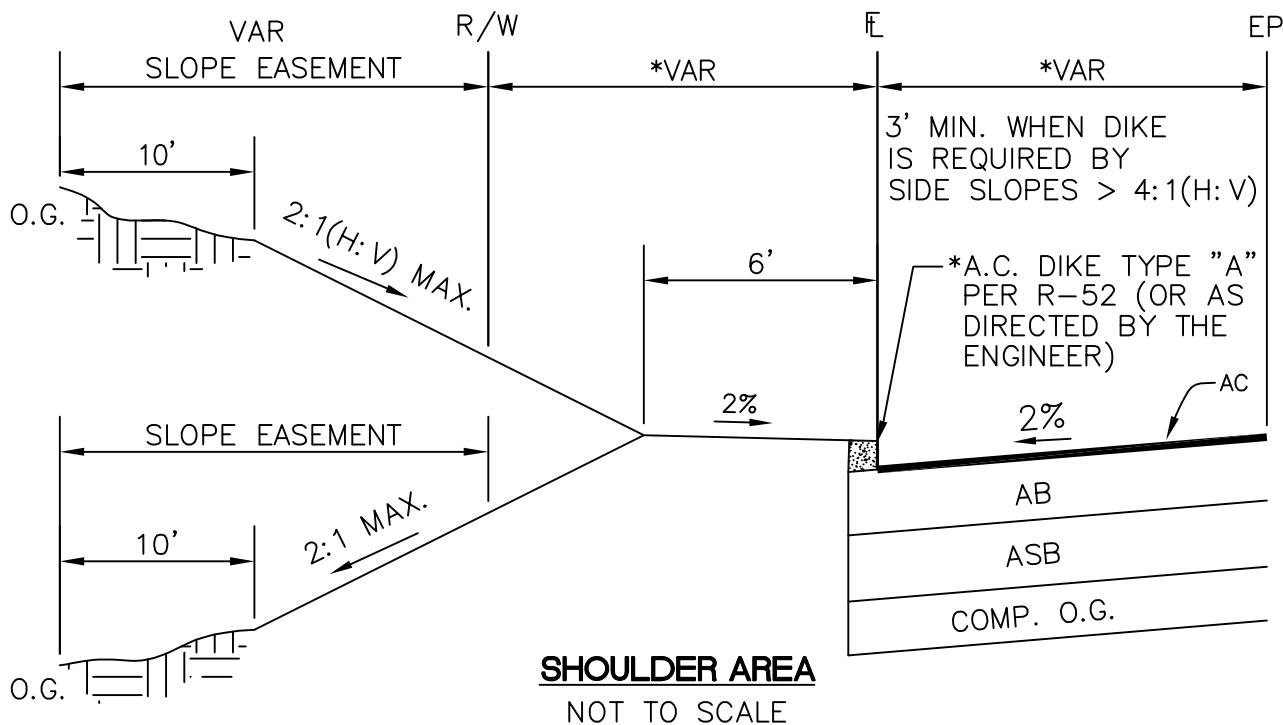


NOTES:

*FOR PHASE CONSTRUCTION, THE AREA BETWEEN HP AND R/W WILL VARY IN ACCORDANCE TO IMPROVEMENTS REQUIRED.

CUT/FILL SLOPES 4:1(H:V) OR FLATTER

(SEE TYPICAL SECTION)



NOTES:

WHEN CUT/FILL EXCEEDS 1 FOOT AT R/W LINE, SLOPE EASEMENT IS REQUIRED.

CUT/FILL SLOPES EXCEED 4:1(H:V)



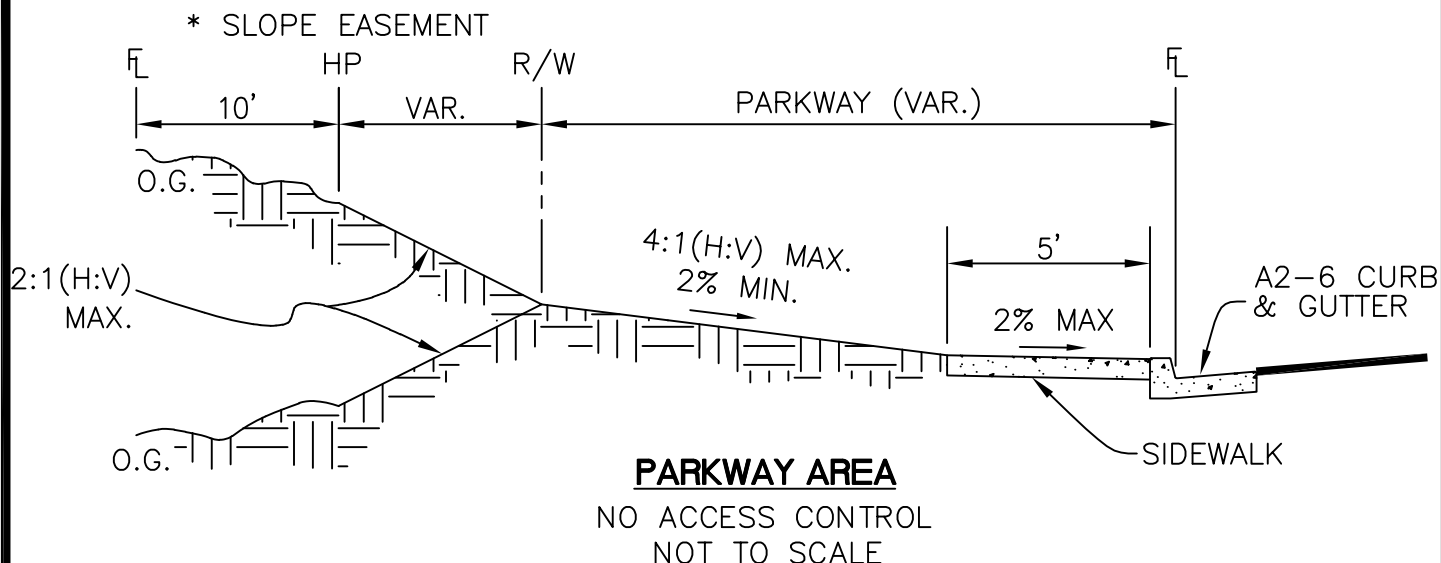
**PARKWAY AREAS
(SHOULDER) TYPE "B"**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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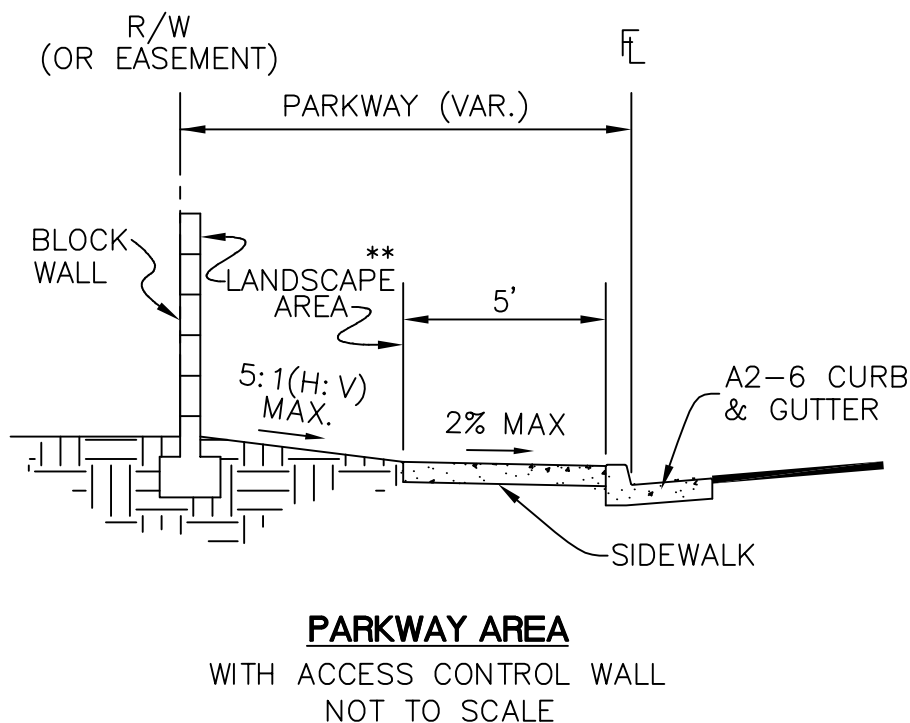
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PLATE NO.
R-30



NOTE:

- * SLOPE EASEMENT MAY BE DELETED WHEN GRADING PERMIT IS PROVIDED OR CUT/FILL IS LESS THAN ONE FOOT AT R/W LINE.
- FOR PHASE CONSTRUCTION USE TYPE "3" SHOULDER STANDARD.



NOTES:

- ** MAY INCLUDE LANDSCAPE EASEMENT.
- IF NOT LANDSCAPED, SIDEWALK SHALL EXTEND TO ACCESS-CONTROL WALL AT 2%



**PARKWAY AREAS TYPE "A"
(SHOULDERS)**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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PLATE NO.
R-31

T.I.-LIMITS OF COMPACTION OF O.G.

T.I.	COMPACTION DEPTH
0-5	ONE FOOT
5.5-6.5	1.5 FEET
7-8	2.0 FEET
8.5+	2.5 FEET

COMPACT O.G. IS MEASURED FROM
TOP OF AC TO BOTTOM OF COMPACT
O.G. MINIMUM COMPACTION OF O.G.
SHALL BE 95 % FOR 0.5 FEET.

R-VALUE TESTS

THE DEVELOPER IS REQUIRED TO HAVE R-VALUE TESTS PERFORMED
FOR DEVELOPMENTS IN KERN COUNTY. TESTS SHALL BE PROVIDED
BY REGISTERED GEOTECHNICAL ENGINEER/CIVIL ENGINEER.

THE MINIMUM NUMBER OF TESTS IS BASED ON CENTERLINE
DISTANCE OF STREETS TO BE CONSTRUCTED. SEE CHART BELOW.

STREET C/L DISTANCE	NO. OF R-VALUE TESTS
0-1500'	2
1501'-3000'	3
3001'-4500'	4
4501'-6000'	5
ETC.	.

CLASS 3 AGGREGATE BASE AND AGGREGATE SUBBASES

REQUIREMENTS FOR CLASS 3 AB AND ALL ASB'S SHALL
BE SET FORTH ON THE PLANS FOR THE DEVELOPMENT.
SPECIFICATIONS SHALL BE APPROVED BY THE DIRECTOR.

LEGEND

AC- ASPHALT CONCRETE
AB- AGGREGATE BASE
ASB- AGGREGATE SUB-BASE
OG- ORIGINAL GROUND
COMP..- COMPACT
T.I.- TRAFFIC INDEX
HP- HINGE POINT
EP- EDGE OF PAVEMENT



T.I. LIMITS OF COMPACTION OF O.G. AND R-VALUE TESTS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
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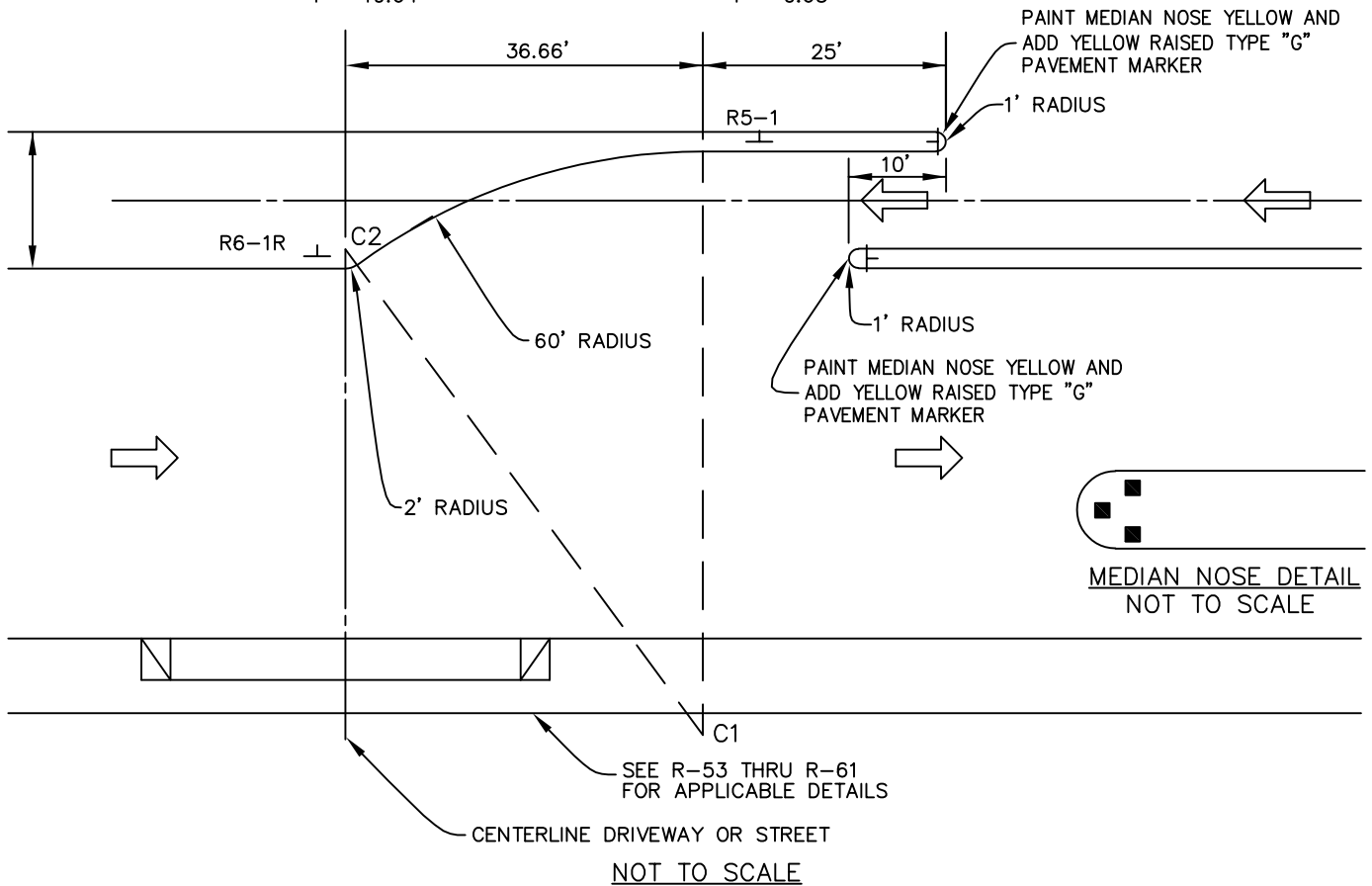
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PLATE NO.
R-32

CURVE DATA

C1
D = 36°14'58"
R = 60.00'
L = 37.96'
T = 19.64'

C2
D = 36°14'58"
R = 2.00'
L = 1.27'
T = 0.65'



NOTES:

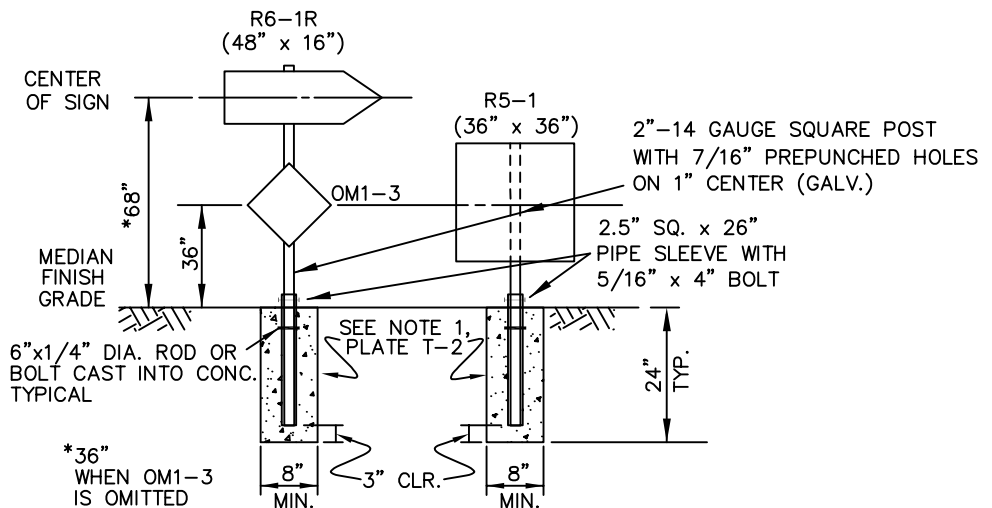
TYPE OM1-3 MARKERS ARE USED ONLY AT STREET INTERSECTIONS

SIGN PANELS SHALL BE ALUMINUM, .080" IN THICKNESS

R6-1R - DENOTES "ONE WAY" SIGN PER CA MUTCD

R5-1 - DENOTES "DO NOT ENTER" SIGN PER CA MUTCD

TYPE OMI-3 MARKER-ALL-YELLOW RETRO REFLECTIVE DIAMOND PANEL



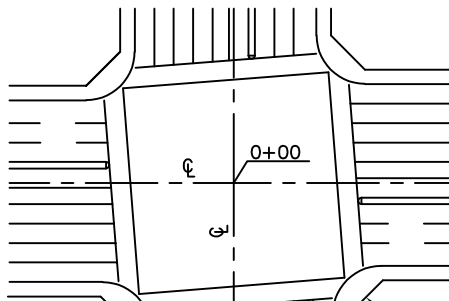
STANDARD ONE-WAY MEDIAN OPENING WITH 14' WIDE MEDIAN

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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PLATE NO.
R-33



SEE SECTION 104-1.02(b)

STA. 2+70
RW ANGLE POINT
BEGIN 120' BAY
TAPER, MEDIAN & FL

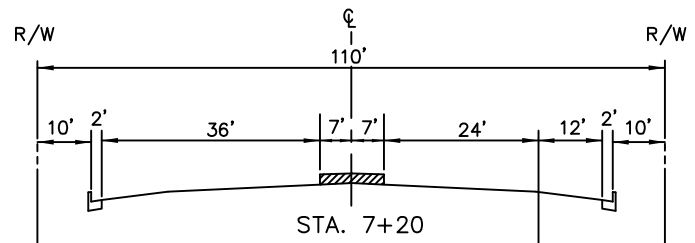
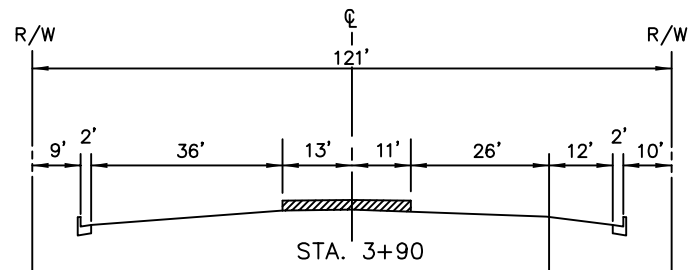
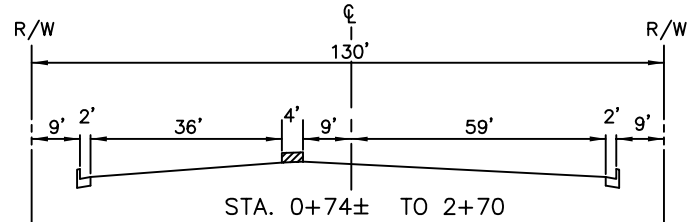
STA 3+90
END 120' BAY TAPER,
MEDIAN & FL
RW ANGLE POINT
BEGIN TAPER

ARTERIAL

USE 1500' RADIUS
CURVE AT CURB
ANGLE POINTS
FOR SMOOTH
TRANSITION (TYPICAL)

STA 7+20
RW ANGLE POINT
END TAPER, MEDIAN & CL

TRANSITION TAPER DATA		
STA.	OFFSET FROM CL CONSTRUCTION	
	MEDIAN CURB E	CURB & GUTTER F
2+70	9.00' RT.	61.00' LT.
2+80	8.69' RT.	60.84' LT.
2+90	7.75' RT.	60.37' LT.
3+00	6.19' RT.	59.59' LT.
3+10	4.00' RT.	58.50' LT.
3+20	1.50' RT.	57.25' LT.
3+30	1.00' LT.	56.00' LT.
3+40	3.50' LT.	54.75' LT.
3+50	6.00' LT.	53.50' LT.
3+60	8.19' LT.	52.41' LT.
3+70	9.75' LT.	51.62' LT.
3+80	10.69' LT.	51.16' LT.
3+90	11.00' LT.	51.00' LT.



SELECTED CROSS SECTIONS



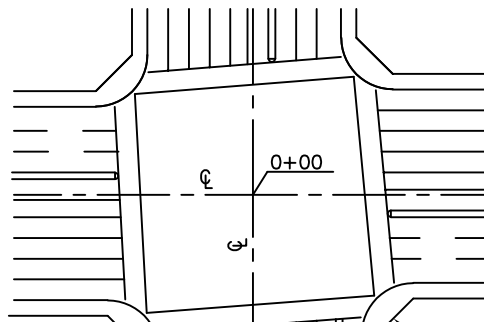
STANDARD ARTERIAL TRANSITION AT INTERSECTION WITH ARTERIAL OR COLLECTOR

COUNTY OF KERN
STATE OF CALIFORNIA
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REVISIONS	DATE	DESC
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PLATE NO.
R-34



SEE SECTION 104-1.02(b)

STA. 2+70
BEGIN 120' BAY TAPER,
MEDIAN & $\bar{E}$
R/W ANGLE POINT

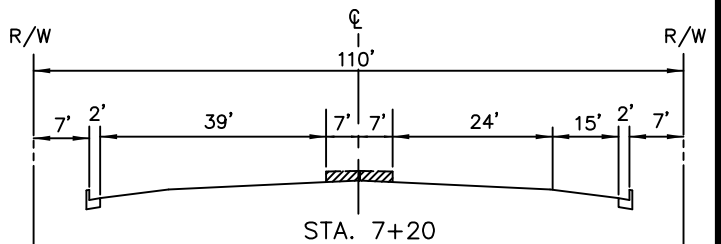
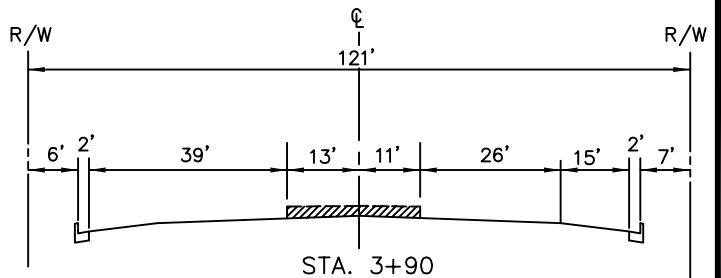
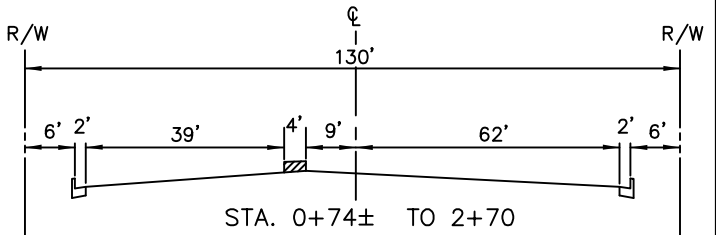
STA 3+90
END 120' BAY TAPER,
MEDIAN & $\bar{E}$
BEGIN TAPER, MEDIAN
& $\bar{E}$ R/W ANGLE POINT

ARTERIAL

STA 7+20
R/W ANGLE POINT
END TAPER, MEDIAN & $\bar{E}$

USE 1500' RADIUS
CURVE AT CURB
ANGLE POINTS FOR
SMOOTH TRANSITION
(TYPICAL)

TRANSITION TAPER DATA		
STA.	OFFSET FROM $\bar{C}$ CONSTRUCTION	
	MEDIAN CURB $\bar{E}$	CURB & GUTTER $\bar{E}$
2+70	9.00' RT.	64.00' LT.
2+80	8.69' RT.	63.84' LT.
2+90	7.75' RT.	63.37' LT.
3+00	6.19' RT.	62.59' LT.
3+10	4.00' RT.	61.50' LT.
3+20	1.50' RT.	60.25' LT.
3+30	1.00' LT.	59.00' LT.
3+40	3.50' LT.	57.75' LT.
3+50	6.00' LT.	56.50' LT.
3+60	8.19' LT.	55.41' LT.
3+70	9.75' LT.	54.63' LT.
3+80	10.69' LT.	54.16' LT.
3+90	11.00' LT.	54.00' LT.



SELECTED CROSS SECTIONS



STANDARD ARTERIAL TRANSITION WITH BIKE LANES
AT INTERSECTION WITH ARTERIAL OR COLLECTOR

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	
DATE	DESC
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DRAFTED BY: R.R.P.

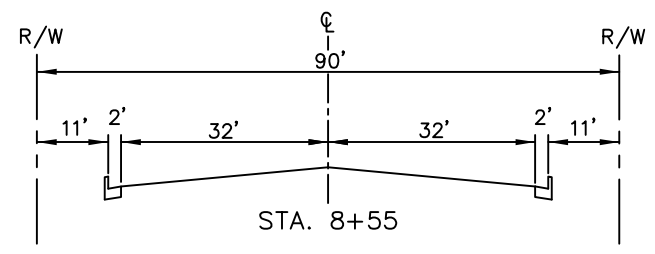
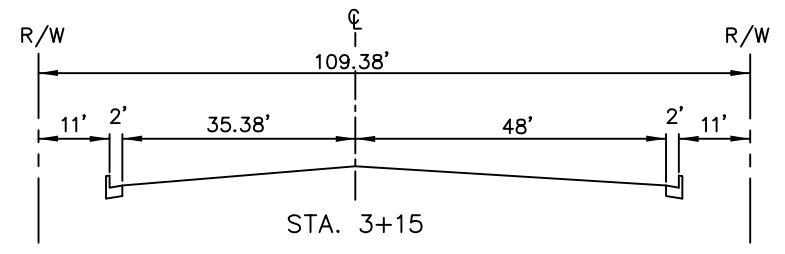
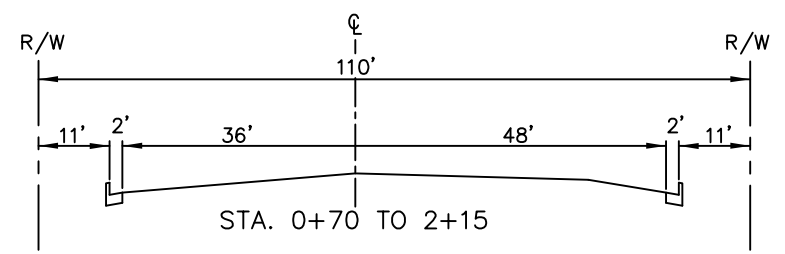
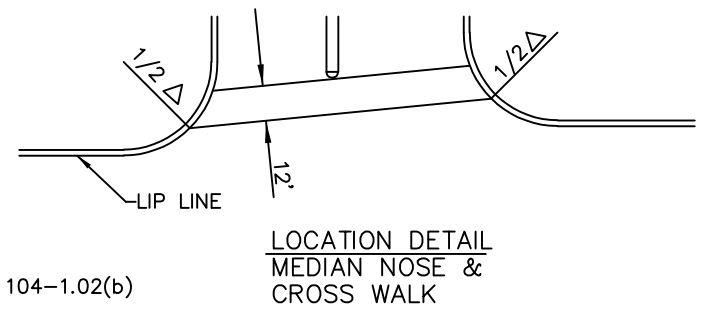
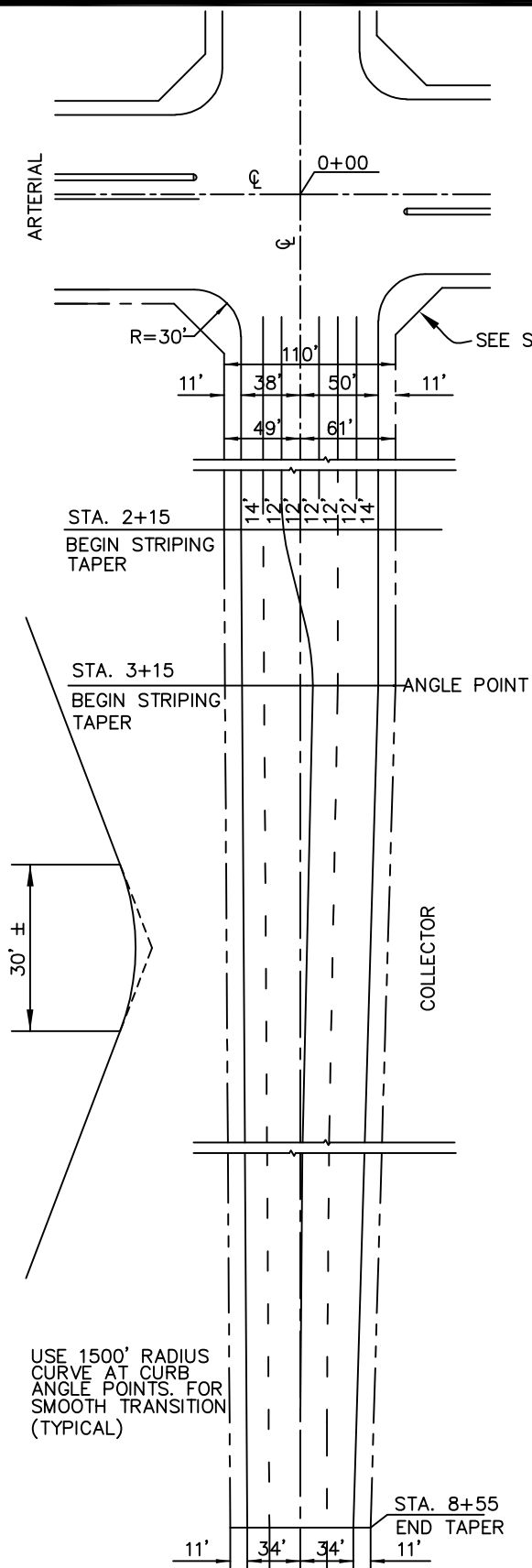
DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

APPROVED BY: J.R.C.

PLATE NO.

R-35



SELECTED CROSS SECTIONS



STANDARD COLLECTOR AT
INTERSECTION WITH ARTERIAL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
-	-	-
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-36

STA.7+12, 7' LT
& 45' LT
END MEDIAN & GFL TAPER

STA.7+12, 7' RT & 45' RT
END MEDIAN & GFL TAPER

STA.3+82, 11' LT
& 51' LT
END MEDIAN &
BEGIN GFL TAPER

STA.3+82, 13' RT & 51' RT
BEGIN MEDIAN & GFL TAPER

STA.2+62, 9' RT
BEGIN 20' x 120'
PARABOLIC BAY TAPER

STA.2+72, 5' RT
BEGIN 20' x 120' PARABOLIC
BAY TAPER

STA.3+92, 15.00' LT
END PARABOLIC BAY TAPER
BEGIN STRAIGHT TAPER

STA.8+02, 7.00' LT
END STRAIGHT TAPER

STA.0+68, 11' RT
CTR 2' RAD

STA.0+74
4.50' LT
CTR 8.5' RAD

STA.0+74, 4' RT
BEGIN 9' x 45'

STA.1+19, 51' RT
BEGIN TAPER

STA.1+19, 13' LT & RT
BEGIN MEDIAN TAPER

STA.3+29, 61' LT
BEGIN 16' x 120' PARABOLIC
BAY TAPER

STA.4+49,
7' RT & LT
END MEDIAN TAPER
45' RT
END GFL TAPER

STA.4+49, 45' LT
END BAY PARABOLIC
BAY TAPER

SEE SECTION 104-1.02(b)

NOTES:

STATIONS RUN FROM 0+00 EACH WAY FOR CLARITY.

GUTTER FLOWLINE OFFSET IS INCREASED 3' FOR STREETS DESIGNATED FOR BIKE LANES.



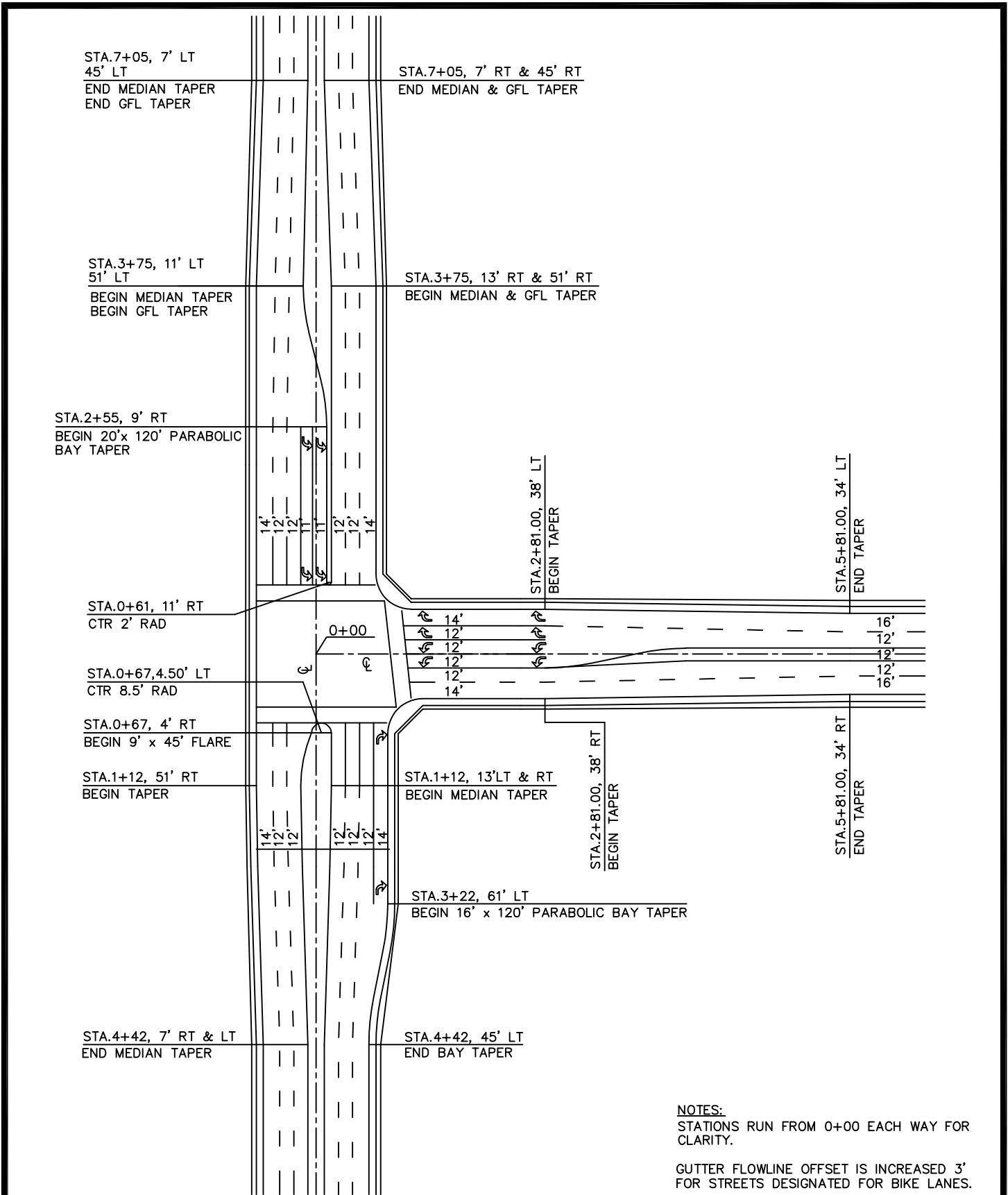
**STANDARD "T" INTERSECTION EXPANDED
ARTERIAL / ARTERIAL CONFIGURATION**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

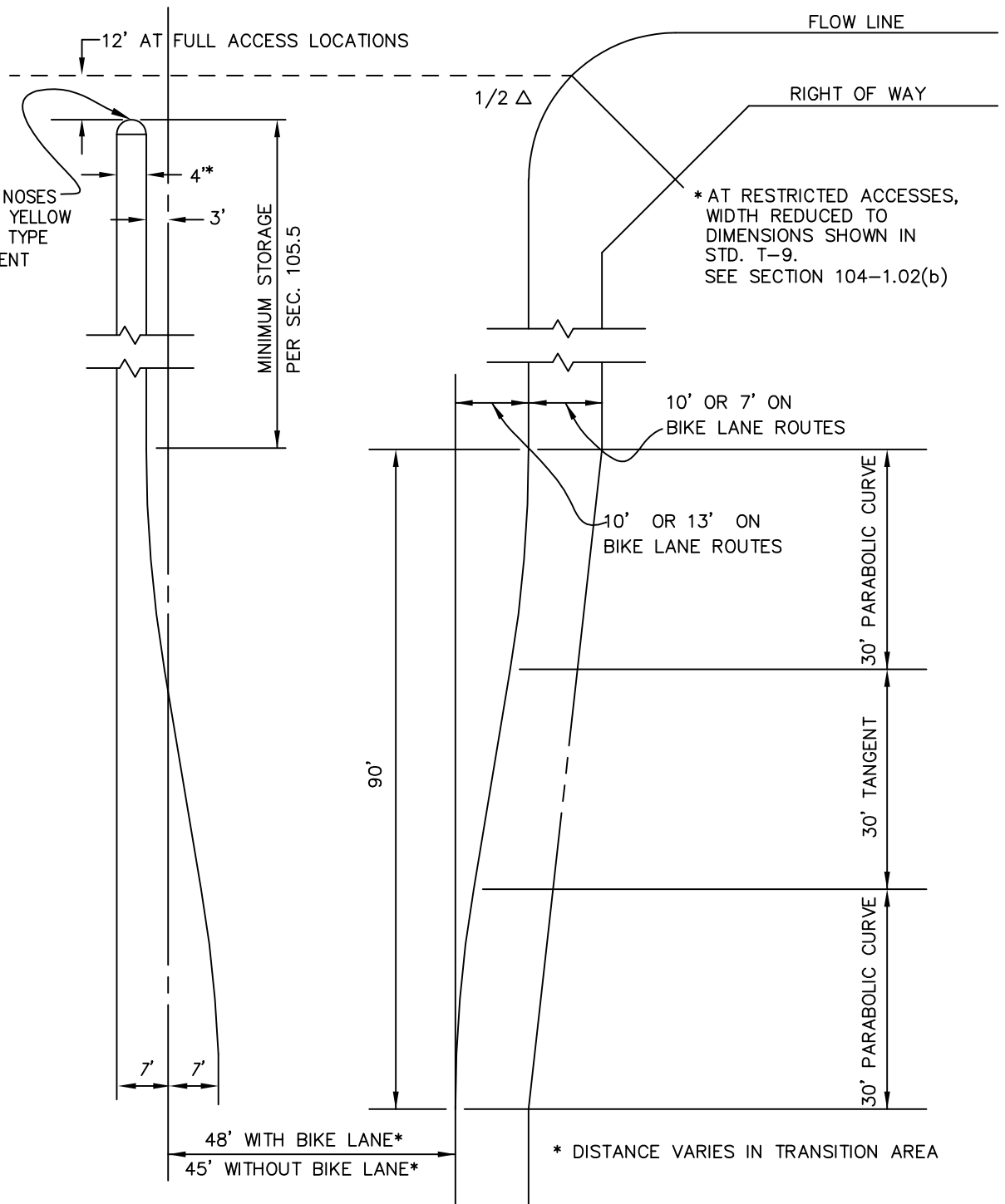
PLATE NO.
R-37



NOTES:
 STATIONS RUN FROM 0+00 EACH WAY FOR CLARITY.
 GUTTER FLOWLINE OFFSET IS INCREASED 3' FOR STREETS DESIGNATED FOR BIKE LANES.

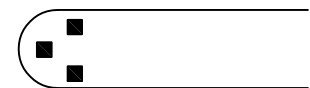
	STANDARD "T" INTERSECTION EXPANDED ARTERIAL / COLLECTOR STD CONFIGURATOIN	REVISIONS		DRAFTED BY: R.R.P.	PLATE NO. R-38
		DATE	DESC		
	-	-	DESIGNED BY: J.R.C.		
	-	-			
	-	-	DATE DRAFTED: 09/30/23		
	-	-	APPROVED BY: J.R.C.		
	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD		-	-	
	-	-			

ALL CONC MEDIAN NOSES SHALL BE PAINTED YELLOW AND HAVE YELLOW TYPE "G" RAISED PAVEMENT MARKERS



NOTE

DETAIL TO BE USED WHERE FULL EXPANSION OF INTERSECTION AS SHOWN IN DETAILS R-34 THRU R-38 ARE NOT POSSIBLE DUE TO PRIOR DEVELOPMENT OR PARCELIZATION. ALSO AT DRIVEWAYS AND OTHER PUBLIC ACCESSSES WHERE TURN LANES ARE REQUIRED OR PERMITTED.



MEDIAN NOSE DETAIL
NOT TO SCALE



STANDARD LEFT AND RIGHT TURN LANES ARTERIAL / COLLECTOR

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

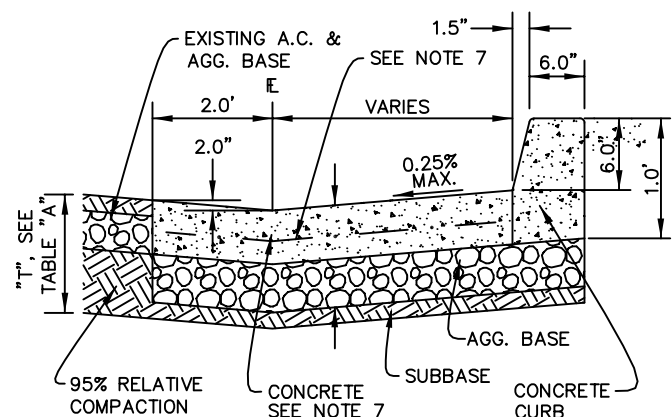
PLATE NO.
R-39

NOTES:

1. THIS DETAIL MAY BE USED WHEN SLOPE CONSTRAINTS EXIST. DETAIL R-39 MAY BE USED UNDER OTHER CONDITIONS.
2. SEE COUNTY OF KERN STANDARD R-52, TYPE "B" CURB AND GUTTER, FOR ALL APPLICABLE DIMENSIONS AND NOTES.
3. CONCRETE TO HAVE 0.125" WIDE BY 2.0" DEEP WEAKENED PLANE JOINT AT 15' O.C. AND 0.5" EXPANSION JOINTS AT 90' O.C.
4. SAWCUT EXISTING EDGE OF PAVEMENT AS DIRECTED BY THE ENGINEER.
5. REMOVE, REPLACE, OR RELOCATE ANY NECESSARY SIGNS PER COUNTY REQUIREMENTS OR AS DIRECTED BY THE ENGINEER.
6. ANY DESIGN DEVIATIONS FROM THIS STANDARD MUST BE APPROVED IN WRITING BY THE ENGINEER.
7. CONCRETE FOR TURN LANE AND CURB SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 590LB/CY). CONCRETE SHALL CONTAIN NO ADDITIVES WITHOUT PRIOR APPROVAL OF THE COUNTY ENGINEER.
8. THIS DETAIL MAY BE USED WHEN SLOPE CONSTRAINTS EXIST. REBAR: #4 AT 24" O.C. BOTH WAYS, THE ENTIRE LENGTH OF THE TURN LANE WITH 2" CLEARANCE FROM THE BOTTOM OF THE CONCRETE.

TABLE "A"

THE FOLLOWING SHALL APPLY FOR CONCRETE STRUCTURAL THICKNESSES:			
T.I.	CONCRETE DEPTH	AS DEPTH	SUBBASE (AS) DEPTH
6.0 - 7.0	0.5'	1.00'	0.50'
7.5 - 8.0	0.6'	1.00'	0.50'
8.5 - 10.0	0.7'	1.00'	0.50'
10.5 - 12.0	0.8'	1.00'	0.50'
12.5 +	0.9'	1.00'	0.50'



SECTION A-A

NOT TO SCALE



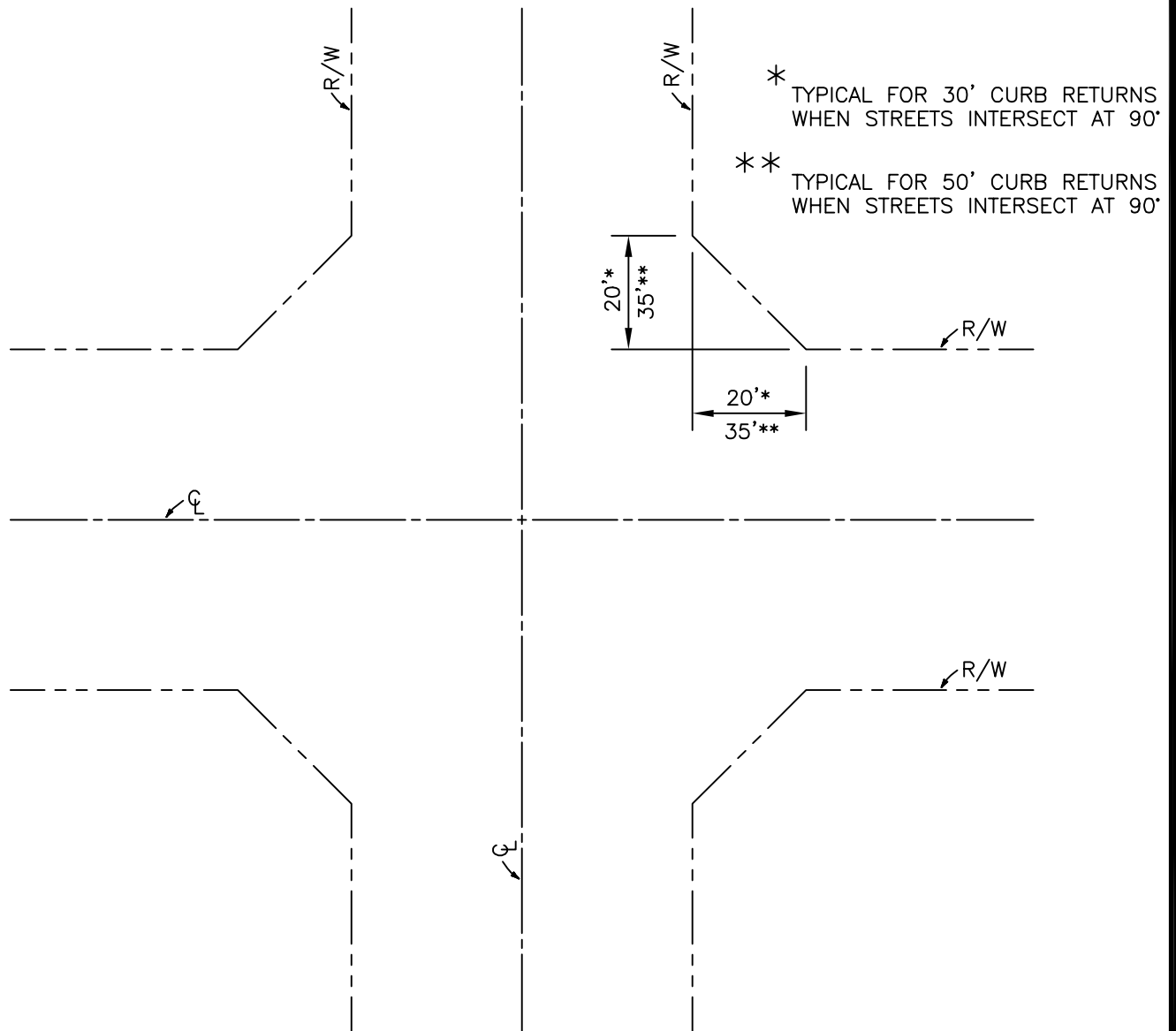
STANDARD RIGHT TURN LANE INTO COMMERCIAL OR PRIVATE DEVELOPMENT

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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-	-	-
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DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-40



NOT TO SCALE

NOTE:

PROPERTY LINE DETAIL TO BE USED AT INTERSECTIONS OF ALL STREETS ADJACENT TO OR WITHIN NEW DEVELOPMENTS.



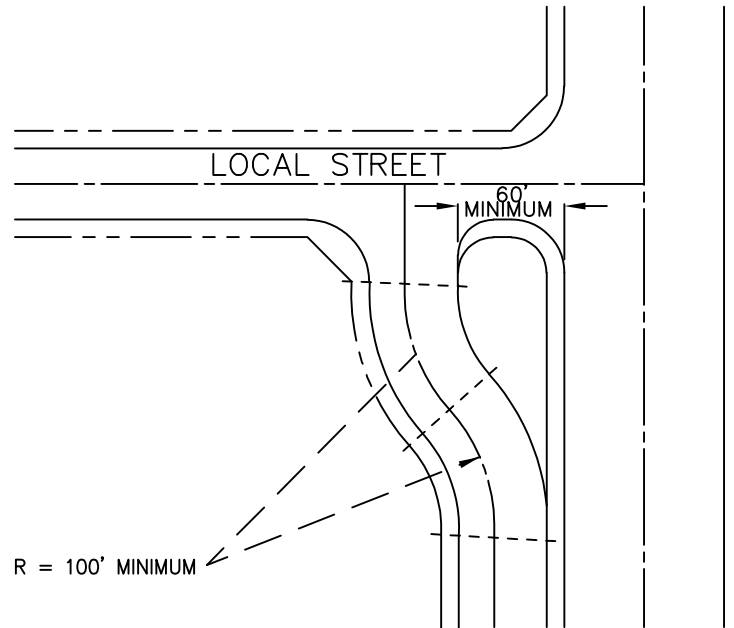
**PROPERTY LINE CORNER
CUTOFF DETAIL**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
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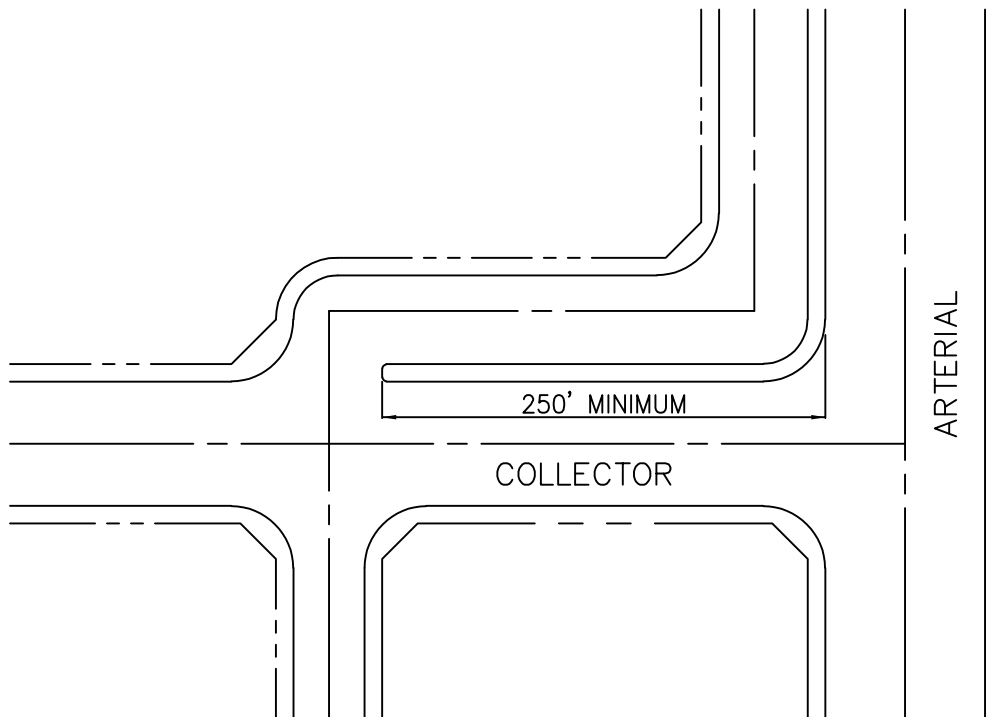
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DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-41



NOTE
FOR CURB RETURN RADII
SEE SECTION 104-1.02(b)

NOT TO SCALE



NOT TO SCALE



FRONTAGE ROADS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
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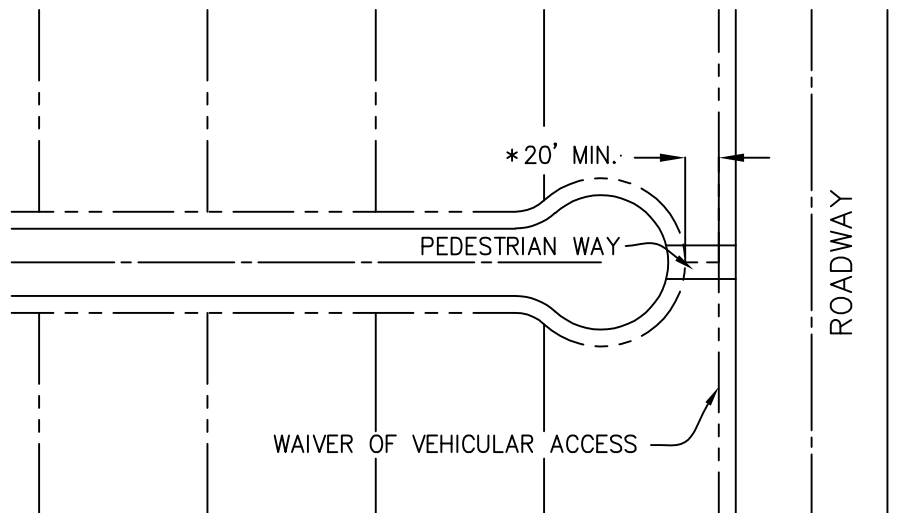
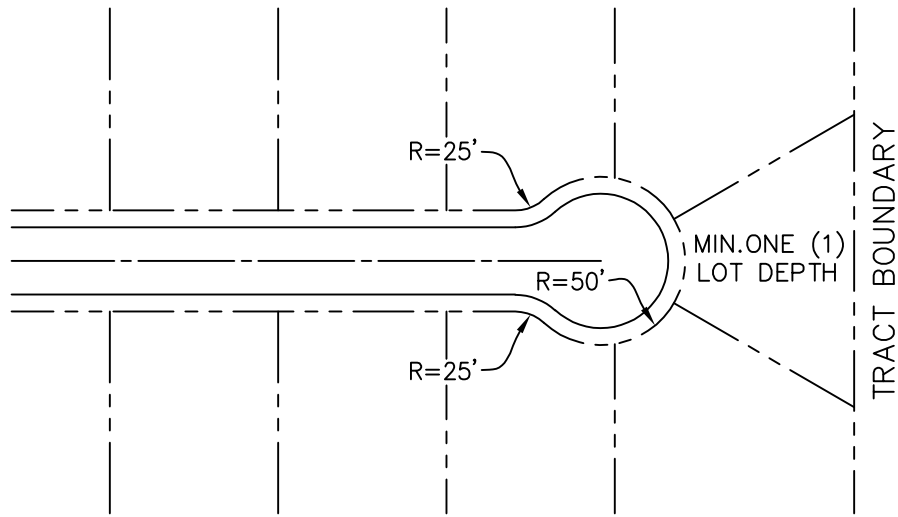
DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

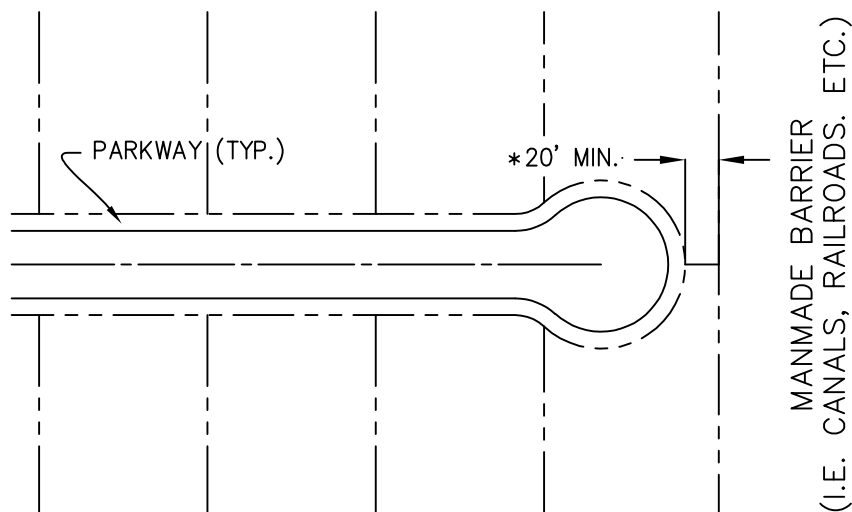
APPROVED BY: J.R.C.

PLATE NO.

R-42



* MAY BE REDUCED TO "0"
BY DIRECTOR.



NOT TO SCALE

NOTE: PARKWAY WIDTH TO BE MAINTAINED AT A UNIFORM WIDTH AROUND CUL-DE-SAC



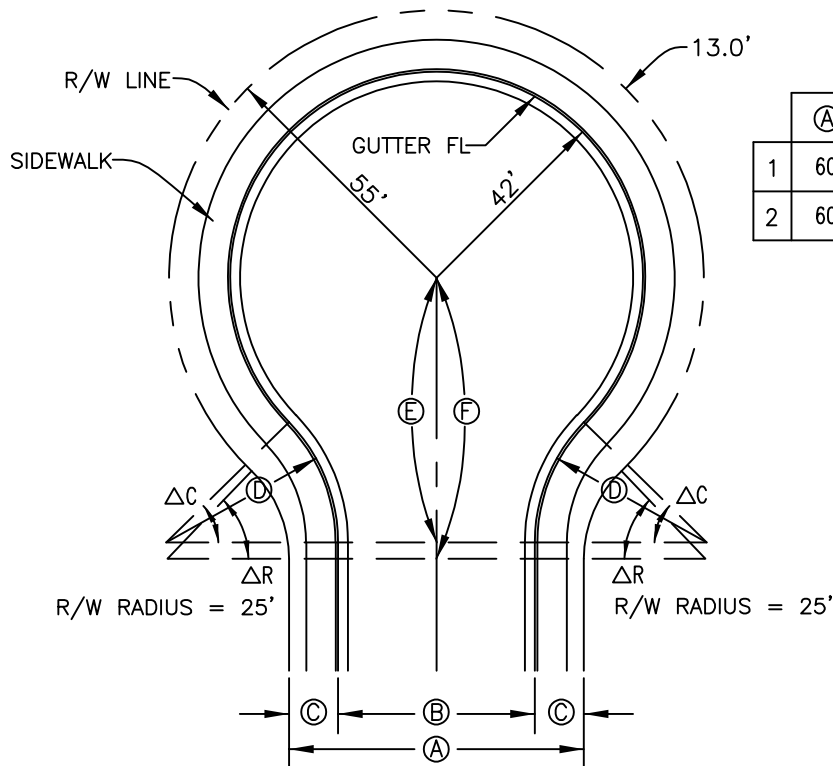
TYPICAL CUL-DE-SAC LOCATIONS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
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DESIGNED BY:	J.R.C.
DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

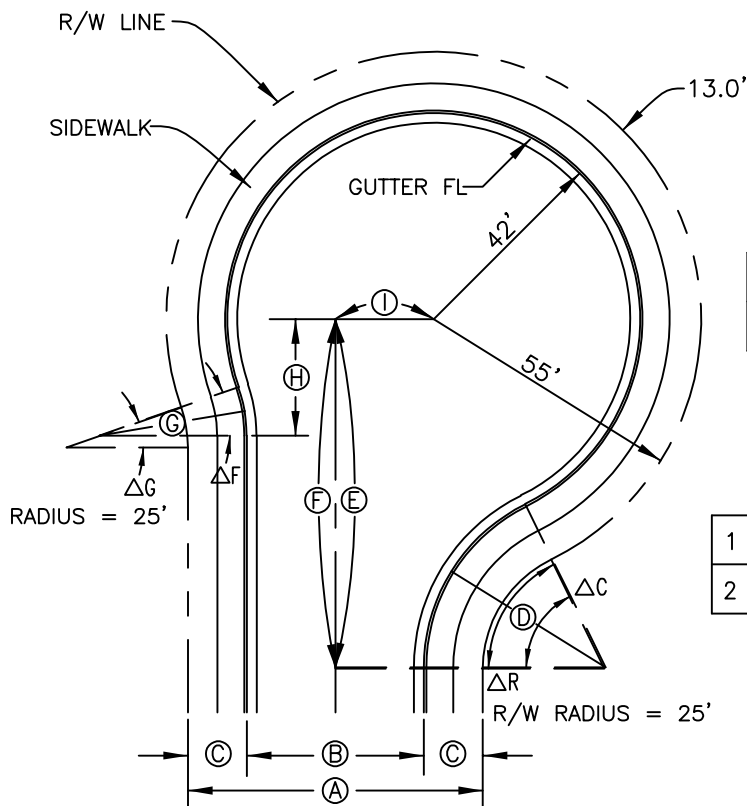
PLATE NO.
R-43



	(A)	(B)	(C)	(D)	(E)	(F)
1	60'	36'	12'	37'	56.71'	58.10'
2	60'	40'	10'	35'	53.89'	58.10'

	ΔR R/W	ΔC CURB
1	46° 34' 03"	45° 52' 37"
2	46° 34' 03"	44° 24' 35"

SYMMETRICAL CUL-DE-SAC



	(A)	(B)	(C)	(D)	(E)	(F)	(H)
1	60'	36'	12'	37'	70.82'	71.89'	28.72'
2	60'	40'	10'	35'	65.56'	71.89'	28.72'

	ΔG R/W	ΔR R/W	ΔC CURB	ΔF CURB	(G)	(I)
1	19° 45' 00"	64° 03' 20"	63° 42' 08"	19° 11' 17"	30'	20'
2	19° 45' 00"	64° 03' 20"	62° 57' 52"	13° 32' 10"	30'	20'

NOT TO SCALE

OFFSET CUL-DE-SAC



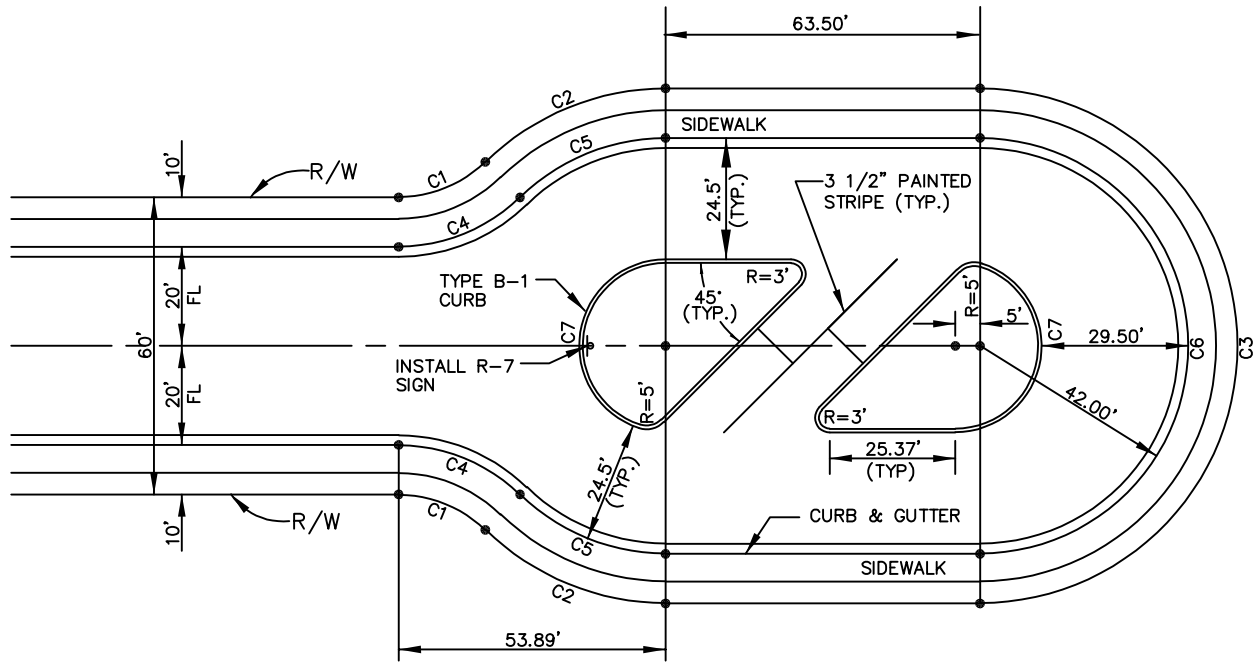
TYPICAL CUL-DE-SAC STANDARDS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

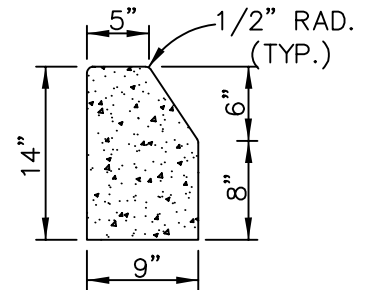
REVISIONS	DATE	DESC
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DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-44



NOT TO SCALE



TYPE B-1 CURB
(SEE K.C.D.S. PLATE R-52)
N.T.S.

NOTE:
PARKWAY WIDTH TO BE MAINTAINED AT A UNIFORM
WIDTH AROUND (PADDLE) CUL-DE-SAC.

CURVE TABLE				
CURVE	RADIUS	LENGTH	TANGENT	DELTA
C1	25.00'	19.38'	10.21'	44°24'55"
C2	52.00'	40.31'	21.23'	44°24'55"
C3	52.00'	163.36'	—	180°00'00"
C4	35.00'	27.13'	14.29'	44°24'55"
C5	42.00'	32.56'	17.15'	44°24'55"
C6	42.00'	131.95'	—	180°00'00"
C7	17.50'	49.50'	110.80'	162°02'56"



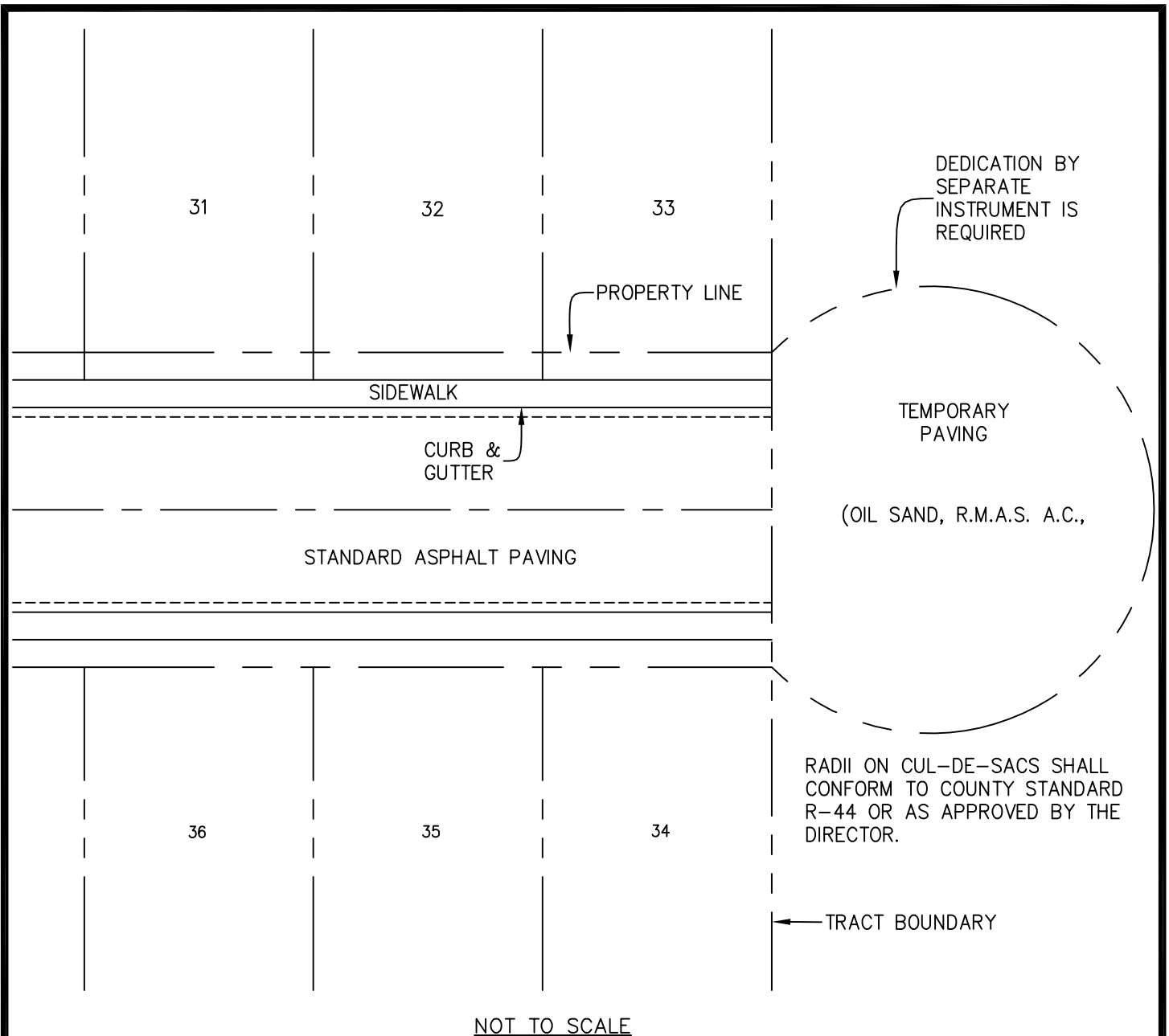
(PADDLE) CUL-DE-SAC CONSTRUCTION STANDARDS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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PLATE NO.
R-45



NOT TO SCALE

OFF-SITE TURNAROUND

(REQUIRED WHEN THE TRACT AND
OFF-SITE HAVE THE SAME OWNER)

NOTE:

TEMPORARY PAVING SHALL BE 2" THICK, MINIMUM OVER 6" COMPACTED
SUBGRADE COMPACTED TO 95% RELATIVE DENSITY. PAVING SHALL INCLUDE
TYPE "A" AC DIKE. PER K.C.D.S. PLATE R-52. AROUND THE CUL-DE-SAC OR
OTHER APPROVED METHODS FOR DRAINAGE AS DIRECTED BY THE ENGINEER.



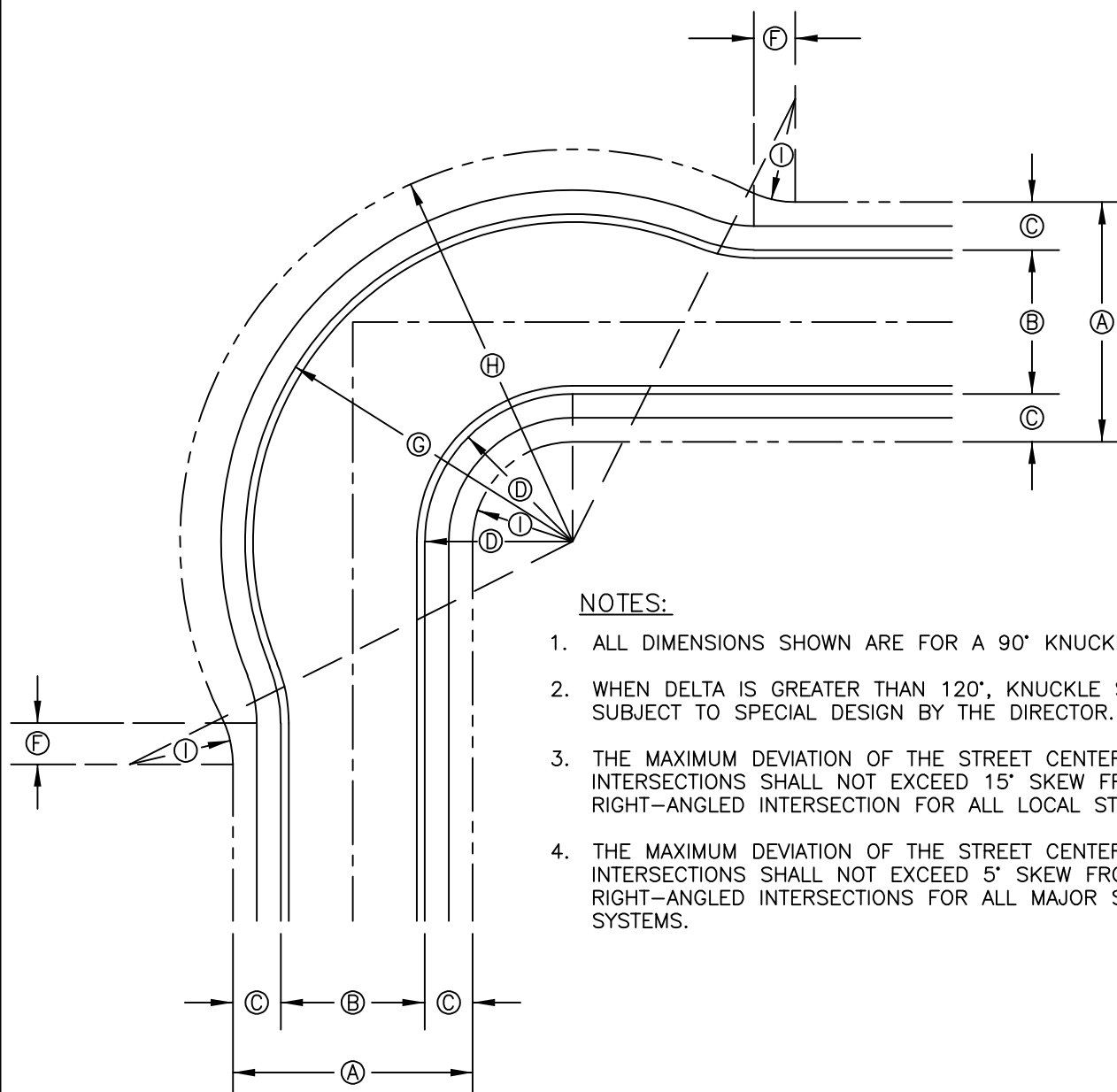
STANDARD TEMPORARY TURNAROUND

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-46



NOTES:

1. ALL DIMENSIONS SHOWN ARE FOR A 90° KNUCKLE ONLY.
2. WHEN DELTA IS GREATER THAN 120', KNUCKLE SHALL BE SUBJECT TO SPECIAL DESIGN BY THE DIRECTOR.
3. THE MAXIMUM DEVIATION OF THE STREET CENTERLINES AT INTERSECTIONS SHALL NOT EXCEED 15° SKEW FROM A RIGHT-ANGLED INTERSECTION FOR ALL LOCAL STREETS.
4. THE MAXIMUM DEVIATION OF THE STREET CENTERLINES AT INTERSECTIONS SHALL NOT EXCEED 5° SKEW FROM A RIGHT-ANGLED INTERSECTIONS FOR ALL MAJOR STREET SYSTEMS.

NOT TO SCALE

	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓕ	Ⓖ	Ⓗ	Ⓘ
1	60'	36'	12'	37'	5.05'	82'	95'	25'
2	60'	40'	10'	35'	4.59'	84'	95'	25'
3	60'	44'	8.0'	33'	4.13'	86'	95'	25'



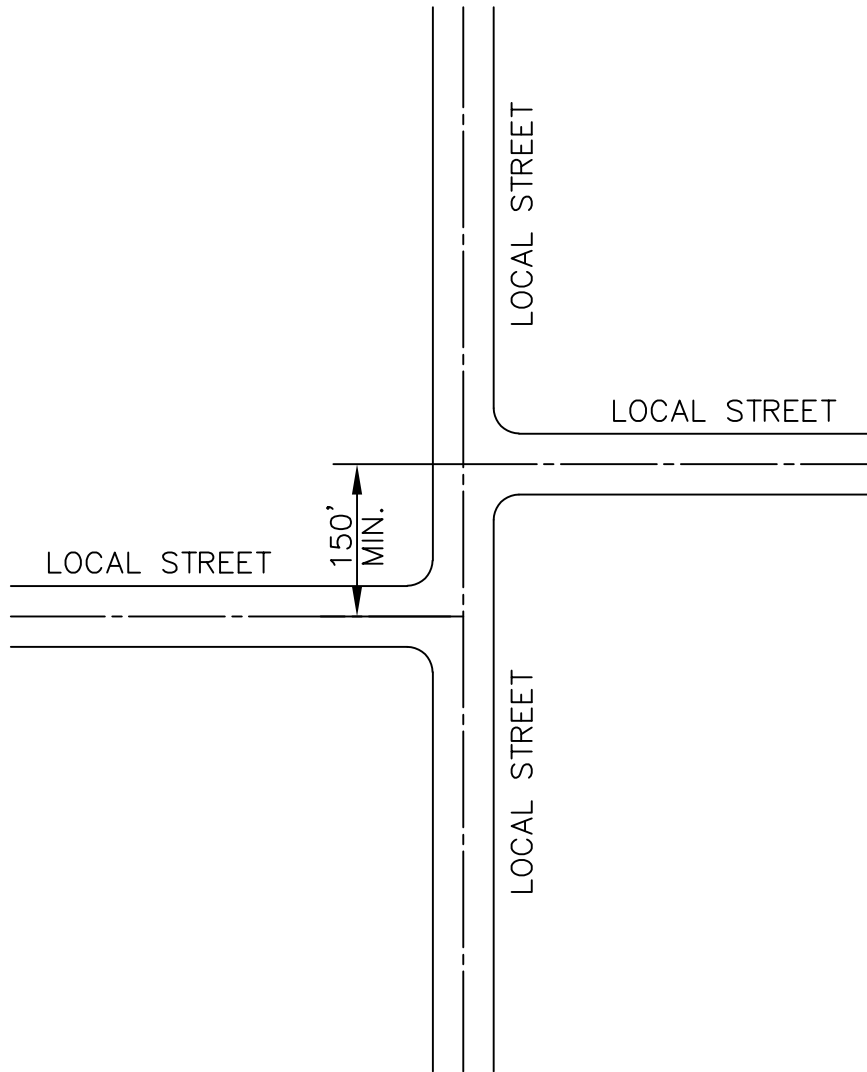
STANDARD KNUCKLE TREATMENT LOCAL STREETS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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APPROVED BY: J.R.C.

PLATE NO.
R-47



LOCAL INTERSECTION OFFSETS

NOT TO SCALE



LOCAL INTERSECTION OFFSETS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	
DATE	DESC
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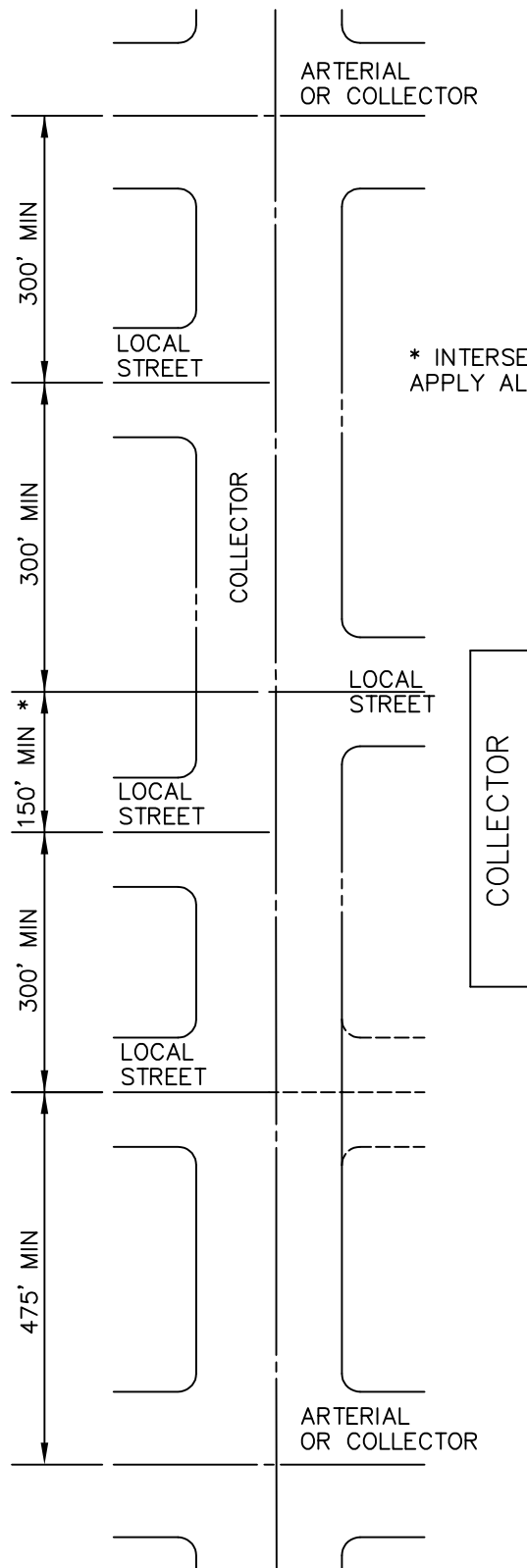
DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

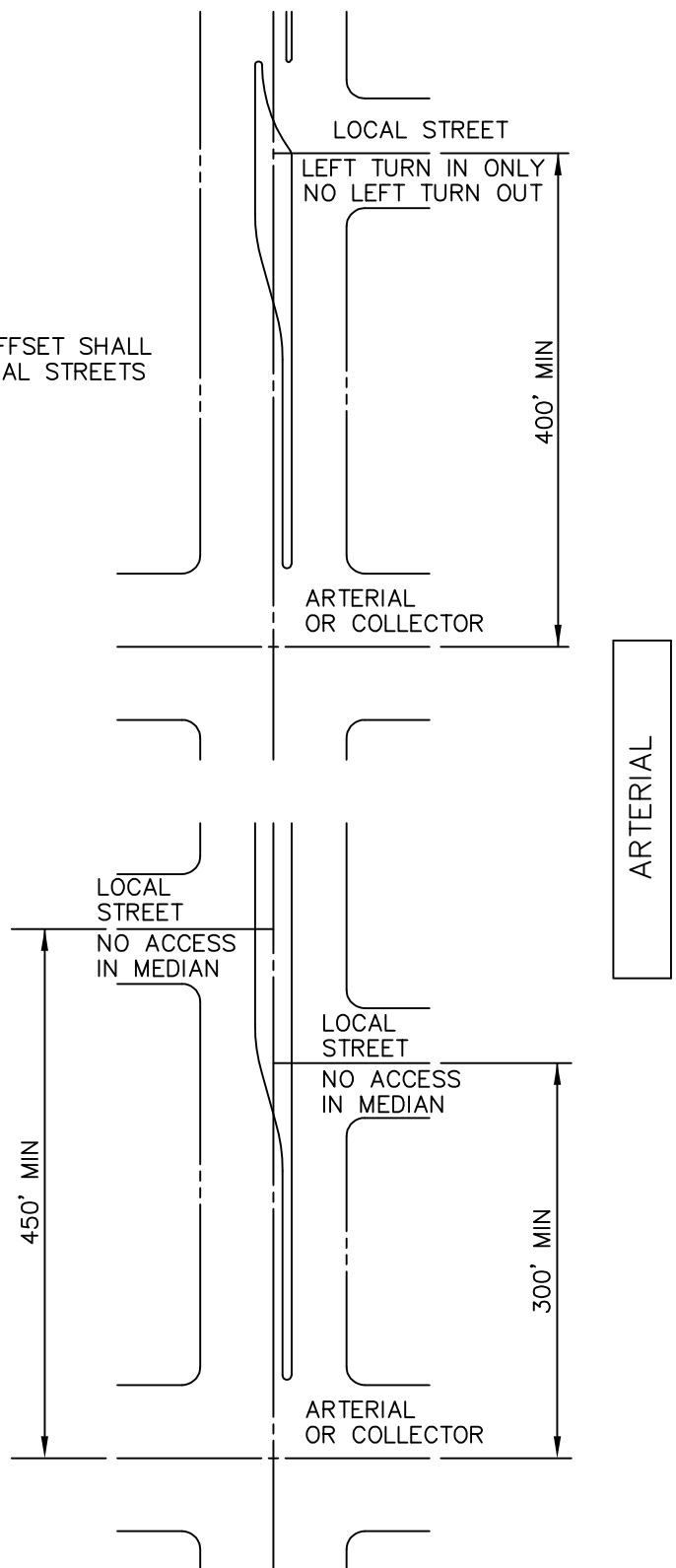
APPROVED BY: J.R.C.

PLATE NO.

R-48



NOT TO SCALE



NOT TO SCALE



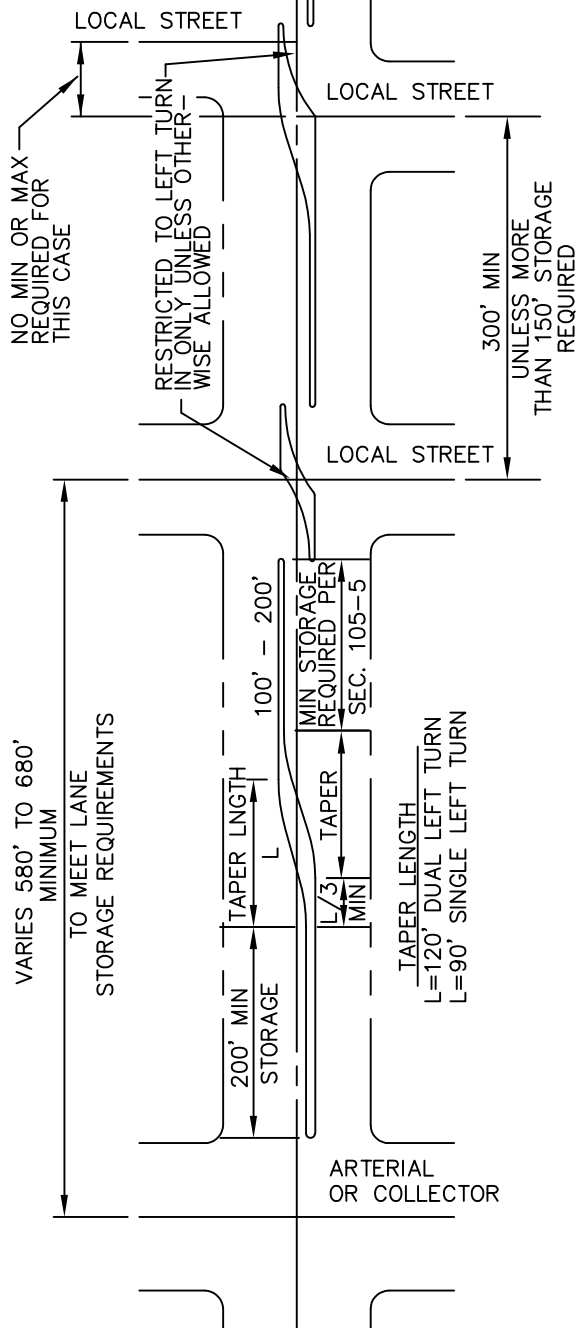
STANDARD MINIMUM STREET ACCESS SPACING ON ARTERIALS AND COLLECTORS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

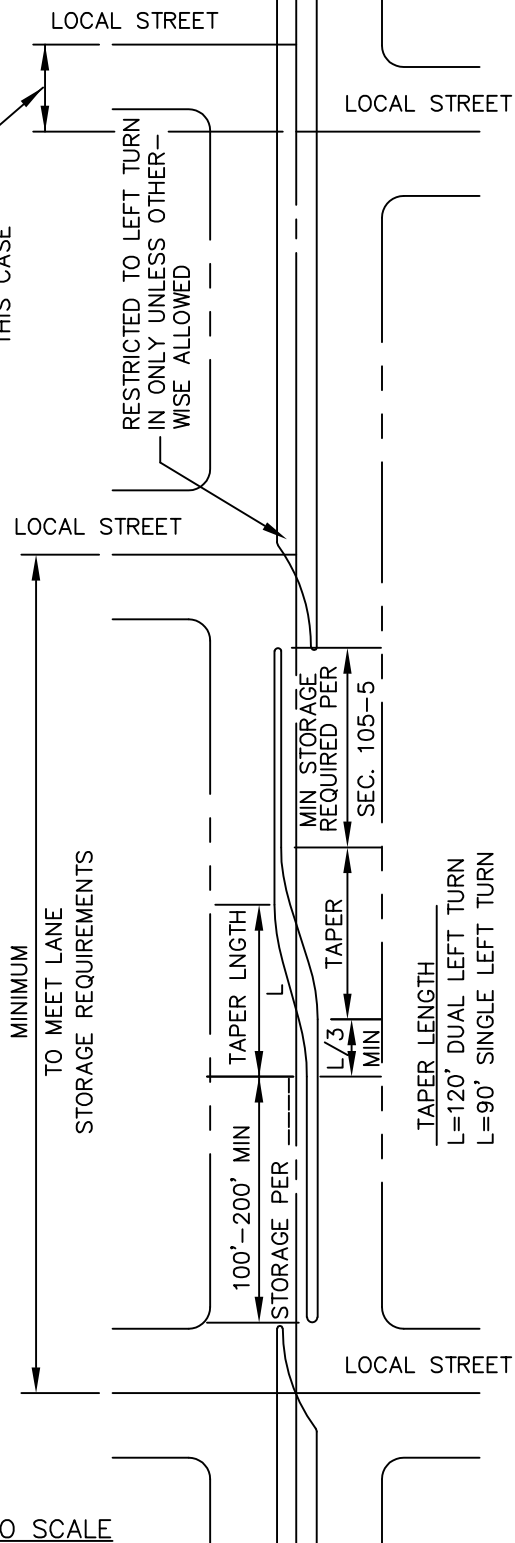
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-49



NOTE:
NUMBER OF ACCESS POINTS SHOWN TO ARTERIAL
STREETS IS FOR ILLUSTRATIVE PURPOSES ONLY
TO COVER TYPICAL ACCESS CONFIGURATIONS.
ARTERIALS ARE PRIMARILY DESIGNED FOR
MOVEMENT OF THROUGH TRAFFIC AS INDICATED
SEC. 105.3 ACCESS POINTS TO ARTERIAL
STREETS SHALL BE MINIMIZED TO THE GREATEST
EXTENT POSSIBLE.



NOT TO SCALE



STANDARD MINIMUM STREET ACCESS SPACING ON ARTERIALS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
-	-
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-50

UNDEVELOPED LAND

SUBDIVISION BOUNDARY

1' NON-ACCESS STRIP

60'

SUBDIVISION BOUNDARY

SUBDIVISION

NOT TO SCALE



LOCATION OF 1' NON-ACCESS STRIPS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	
DATE	DESC
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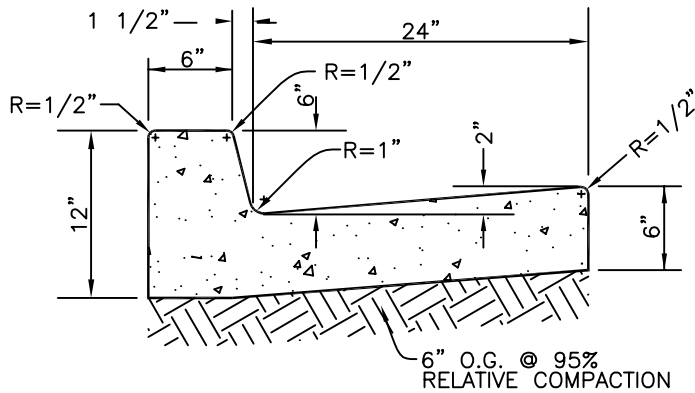
DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

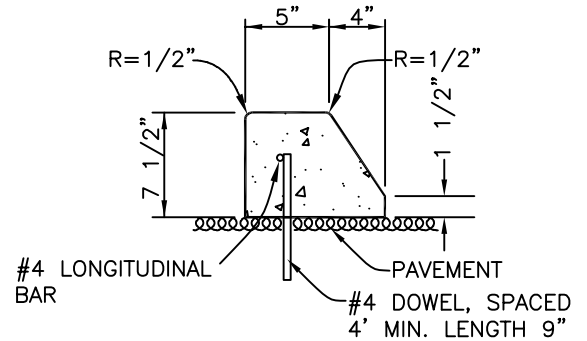
APPROVED BY: J.R.C.

PLATE NO.

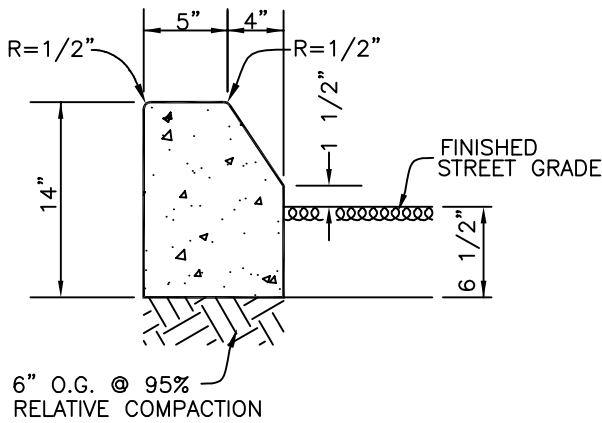
R-51



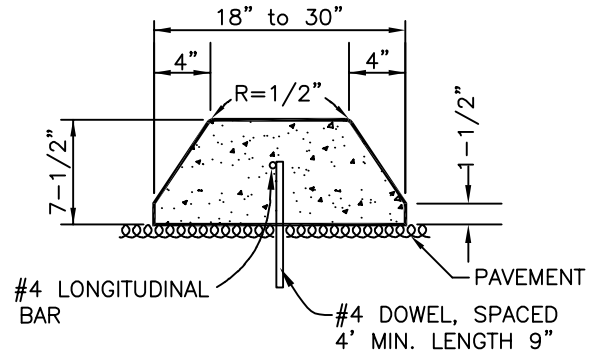
TYPE A2-6 CURB AND GUTTER



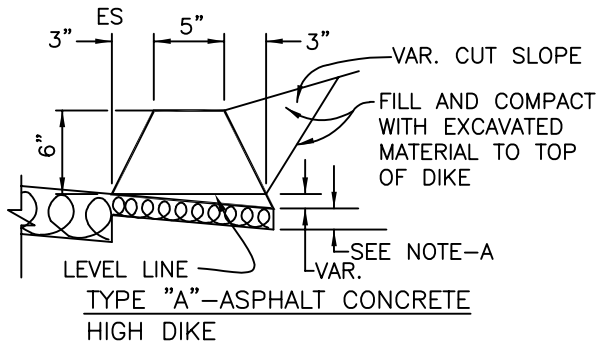
TYPE B5 CURB



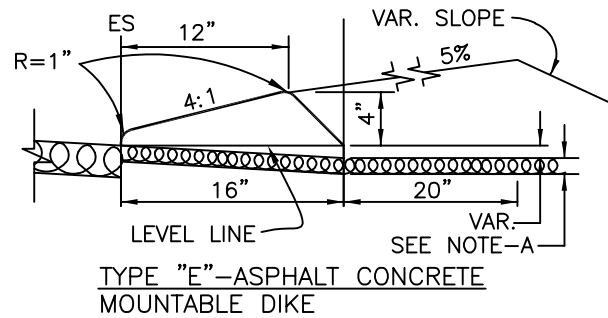
TYPE B1 CURB



TYPE B6 CURB



TYPE "A"-ASPHALT CONCRETE
HIGH DIKE



TYPE "E"-ASPHALT CONCRETE
MOUNTABLE DIKE

NOT TO SCALE

NOTE:

1. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.) CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS APPROVED PRIOR APPROVAL IS OBTAINED FROM THE COUNTY ENGINEER.
2. NO COLORING SHALL BE ADDED.
3. FOR EPOXY GLUE ON CURB, ELIMINATE THE REBAR AND SEE CALTRANS STANDARD SPECIFICATIONS FOR EPOXY INSTALLATION.

NOTE-A:

1. EXTEND TOP LAYER OF AC PLACED ON THE SHOULDER UNDER DIKE WITH NO JOINT AT THE ES.



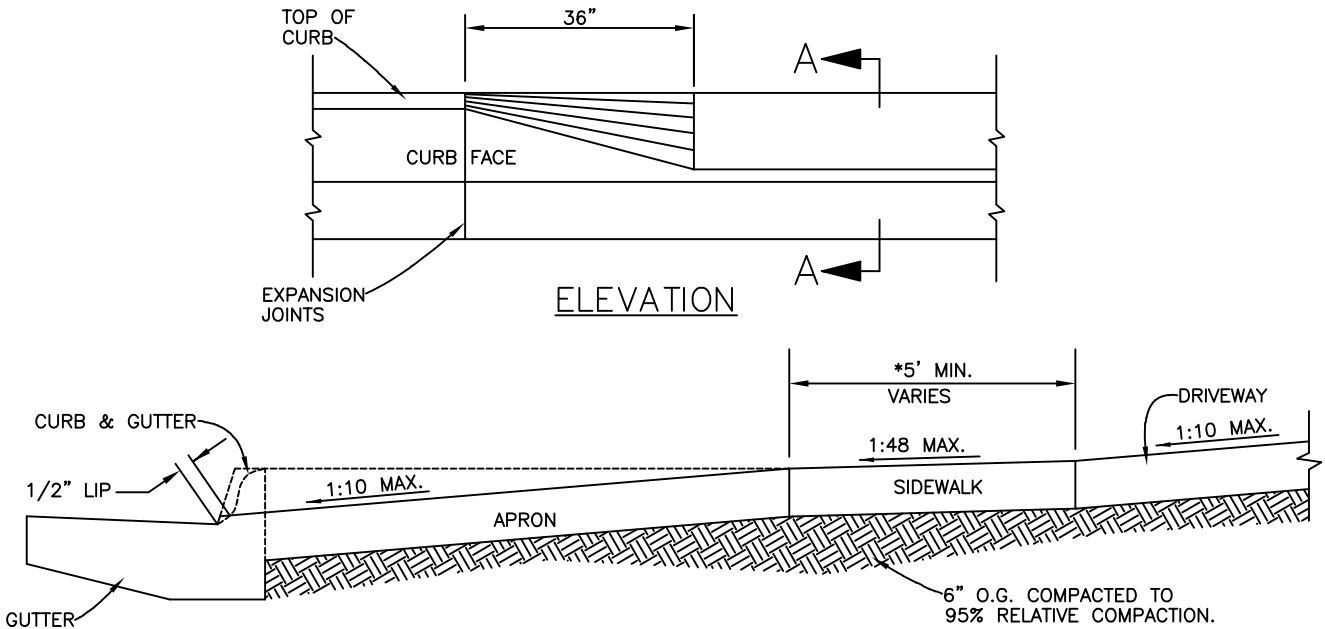
STANDARD CURBS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

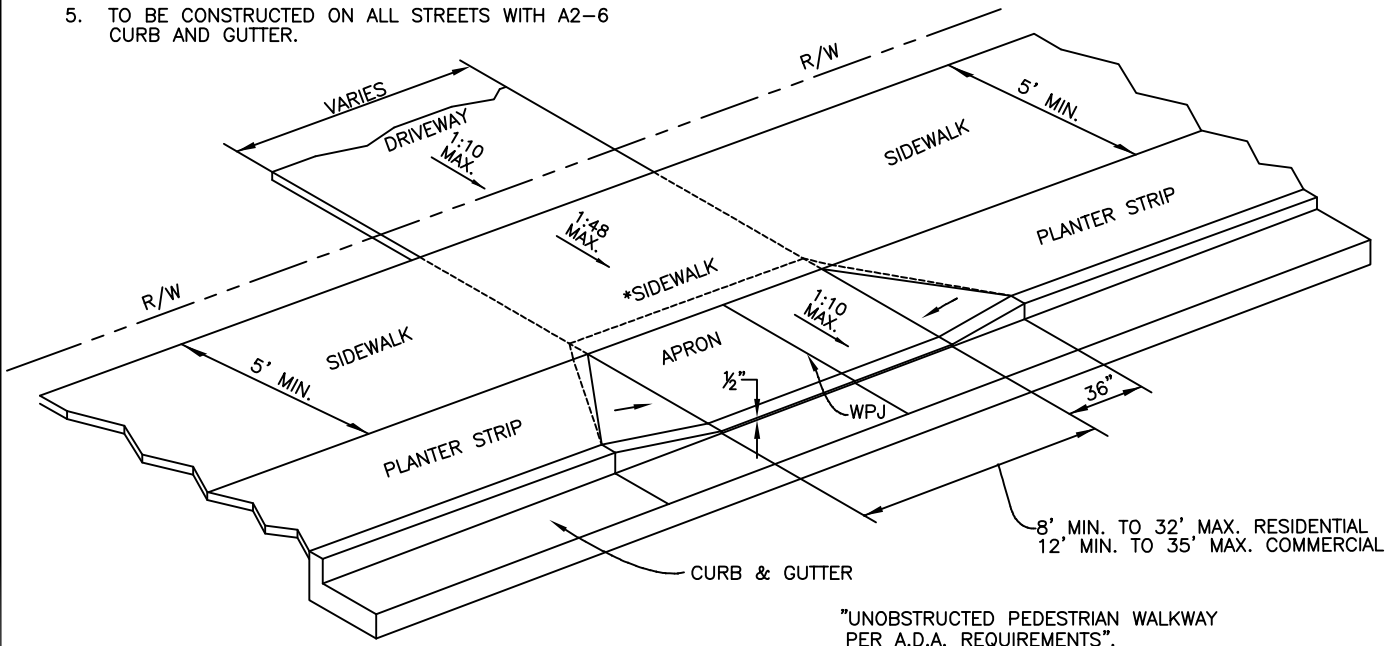
PLATE NO.
R-52



SECTION A-A WITH VERTICAL CURB

NOTES:

1. EXPANSION JOINTS SHALL BE EITHER (A) 1/4" TO 1/2" PREMOLDED EXPANSION JOINT FILLER PER THE STANDARD SPECIFICATIONS, SEC. 51-1-12 OR (B) 2" DEEP SCORED JOINT.
 2. WEAKENED PLANE JOINTS (WPJ) REQUIRED ON CENTERLINE FOR DRIVEWAYS 10' TO 20' WIDE. DRIVEWAYS 22' TO 35' WIDE SHALL HAVE TWO WPJ EVENLY SPACED AT 1/3 AND 2/3 POINTS.
 3. ALL CONSTRUCTION AND MATERIALS SHALL BE IN CONFORMANCE WITH STANDARD SPECIFICATIONS.
 4. THICKNESS OF APRONS AND SIDEWALK BETWEEN APRON & DRIVEWAY SHALL BE 6" OF CONCRETE.
 5. TO BE CONSTRUCTED ON ALL STREETS WITH A2-6 CURB AND GUTTER.
 6. LANDSCAPE PLANTER STRIP AS PER 503-14.02.
 7. CONCRETE SHALL BE MINOR CONCRETE.
 8. NO COLORING SHALL BE ADDED.
- * PROVIDE REQUIRED PEDESTRIAN EASEMENT IF OUTSIDE R/W. SIDEWALK MAY BE REDUCED TO 4'-2" WIDE BETWEEN APRON AND DRIVEWAY.
- ** IF CURB AND GUTTER ARE POURED SEPARATE OF APRON THEN DOWELS ARE REQUIRED AT BACK OF CURB. 3" IN CURB AND 9" IN CENTER OF APRON.



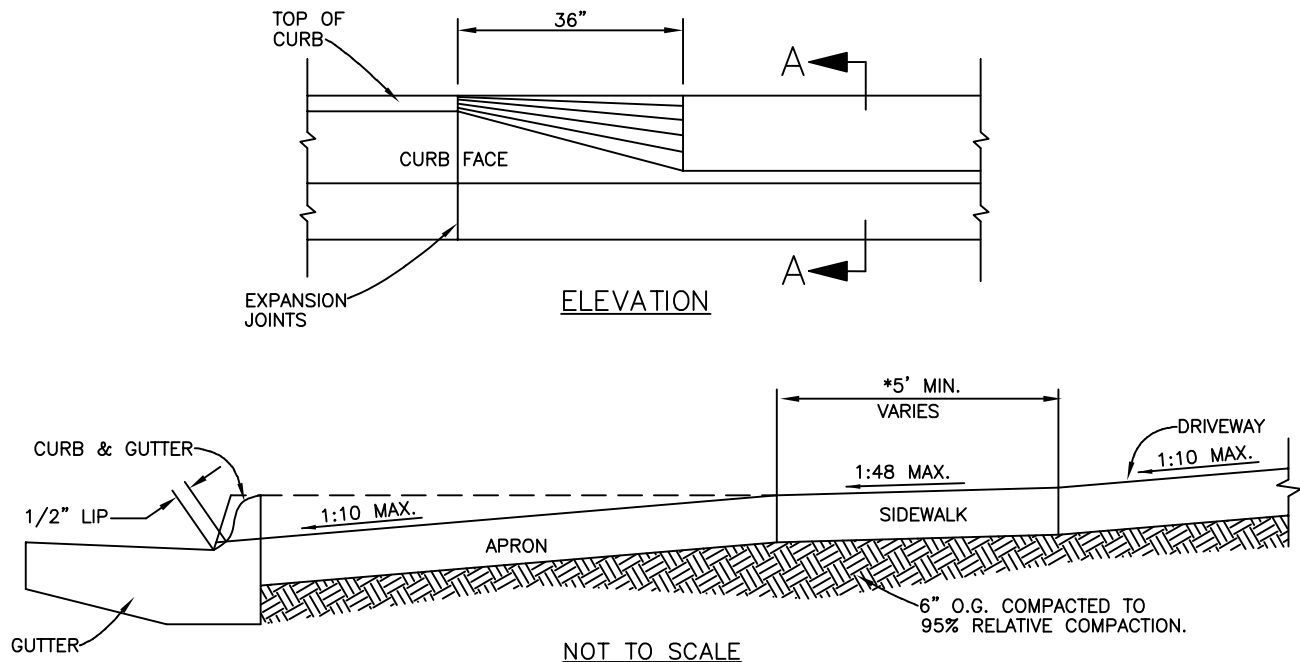
SIDEWALK & PLANTER STRIP DRIVEWAY DETAIL TYPE "A" RESIDENTIAL/COMMERCIAL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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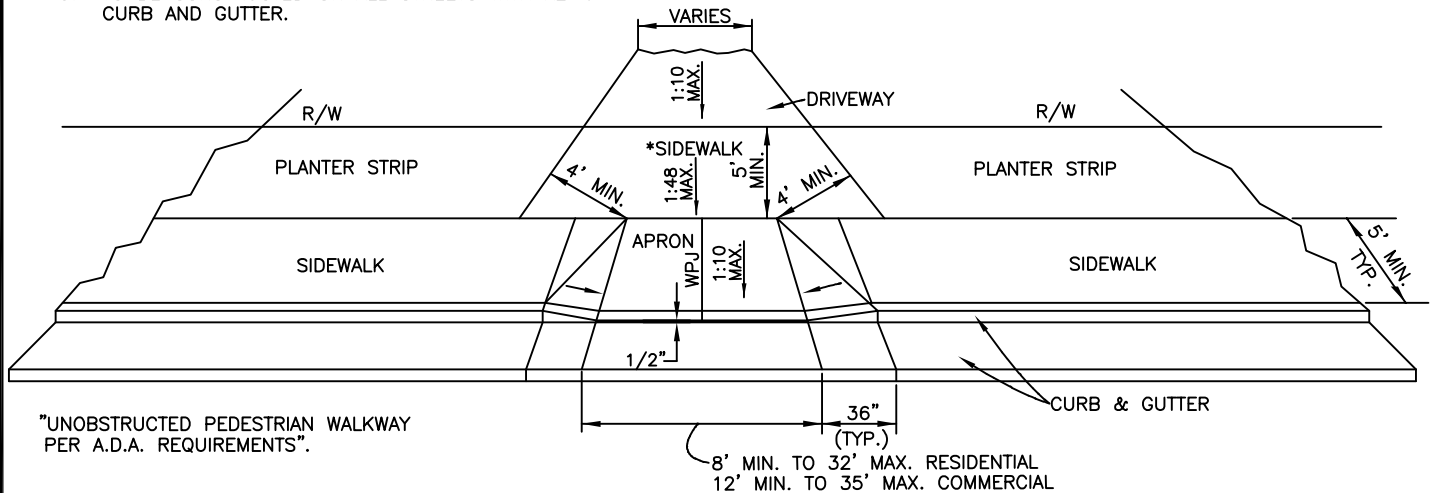
DRAFTED BY:	R.R.P.
DESIGNED BY:	J.R.C.
DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-53



NOTES

- EXPANSION JOINTS SHALL BE EITHER (A) 1/4" TO 1/2" PREMOLDED EXPANSION JOINT FILLER PER THE STANDARD SPECIFICATIONS, SEC. 51-1-12 OR (B) 2" DEEP SCORED JOINT.
 - WEAKENED PLANE JOINTS (WPJ), REQUIRED ON CENTERLINE FOR DRIVEWAYS 10' TO 20' WIDE. DRIVEWAYS 22' TO 35' WIDE SHALL HAVE TWO WPJ EVENLY SPACED AT 1/3 AND 2/3 POINTS.
 - ALL CONSTRUCTION AND MATERIALS SHALL BE IN CONFORMANCE WITH STANDARD SPECIFICATIONS.
 - THICKNESS OF APRONS AND SIDEWALK BETWEEN APRON & DRIVEWAY SHALL BE 6" OF CONCRETE.
 - TO BE CONSTRUCTED ON ALL STREETS WITH A2-6 CURB AND GUTTER.
 - LANDSCAPE PLANTER STRIP AS PER 503-14.02.
 - CONCRETE SHALL BE MINOR CONCRETE.
 - NO COLORING SHALL BE ADDED.
- * PROVIDE REQUIRED PEDESTRIAN EASEMENT IF OUTSIDE R/W. SIDEWALK MAY BE REDUCED TO 4'-2" WIDE BETWEEN APRON AND DRIVEWAY.
- ** IF CURB AND GUTTER ARE POURED SEPARATE OF APRON THEN DOWELS ARE REQUIRED AT BACK OF CURB. 3" IN CURB AND 9" IN CENTER OF APRON.



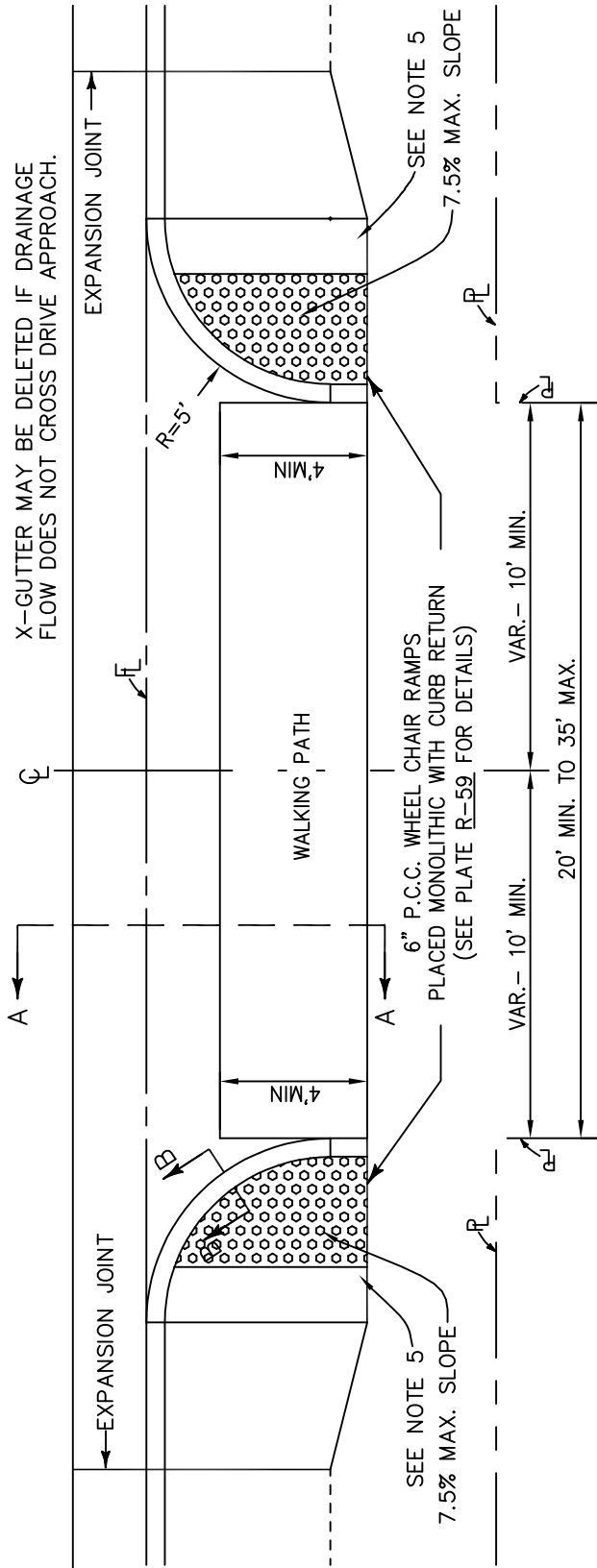
SIDEWALK DRIVEWAY DETAIL TYPE "B" RESIDENTIAL/COMMERCIAL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

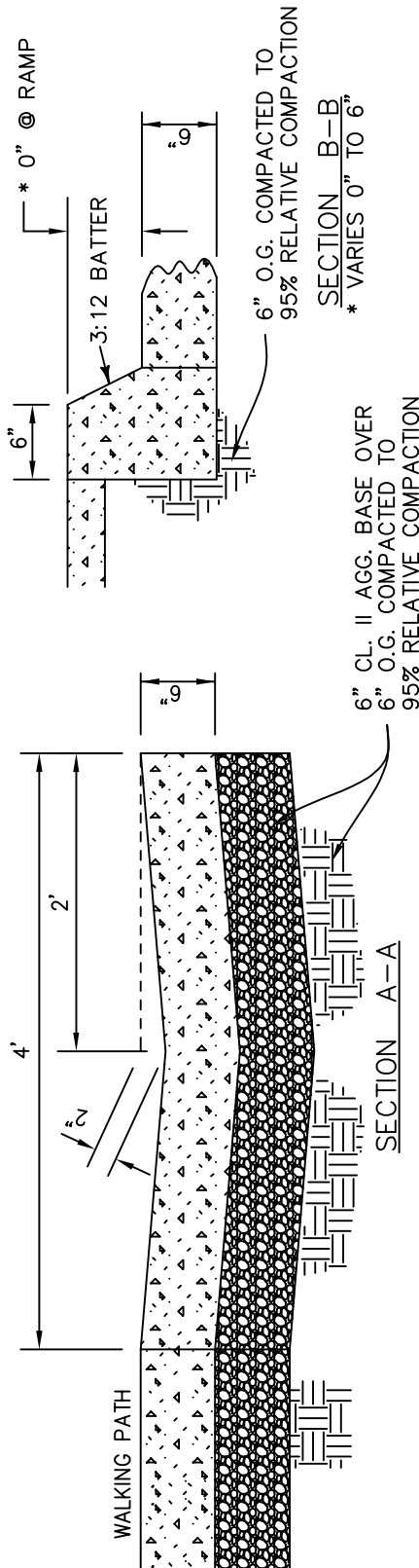
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PLATE NO.
R-54



PLAN



NOTES:

1. CONCRETE SHALL BE MINOR CONCRETE. NO COLORING SHALL BE ADDED.
2. TO INCREASE THE RADIUS IN COMMERCIAL DEVELOPMENTS, LIMITED EXCEPTIONS MAY BE GRANTED BY THE DIRECTOR.
3. EXPANSION JOINTS SHALL BE EITHER (A) 1/4" TO 1/2" PREMOLDED EXPANSION JOINT FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2" DEEP SCORED JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).
4. ADDITIONAL EXPANSION JOINT REQUIRED AT CENTERLINE WHEN APPROACH IS GREATER THAN 20'.
5. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AT THE BOTTOM AND 3'-0" IN DEPTH OF THE RAMP, EXCLUDING THE FLARED SIDES.



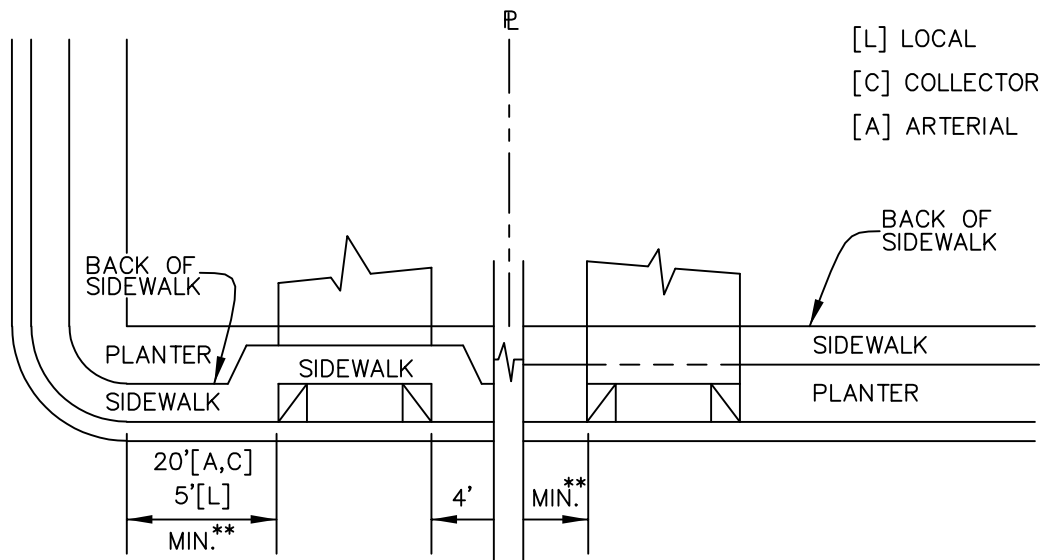
STANDARD DRIVEWAY APPROACH
TYPE "C" COMMERCIAL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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APPROVED BY:	J.R.C.

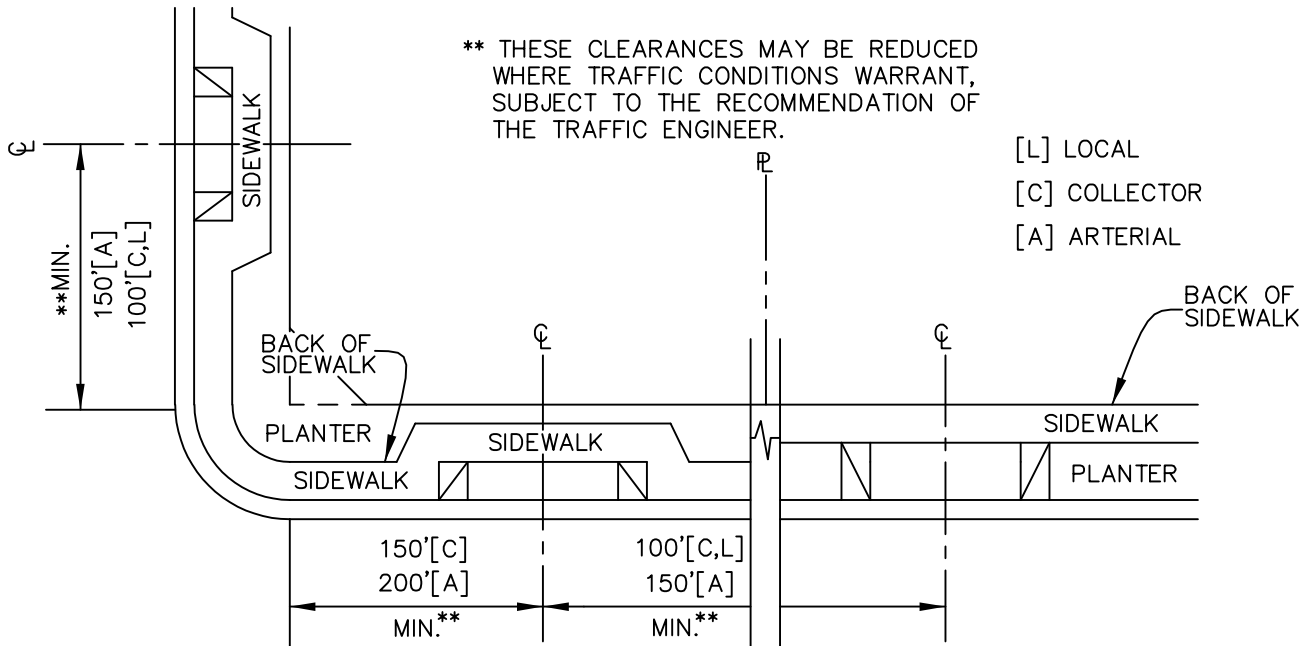
PLATE NO.
R-55



NOT TO SCALE

R1, R2

THIS STANDARD APPLIES TO RESIDENTIAL ACCESS ON LOCAL STREETS. FOR ARTERIALS AND COLLECTORS OR WHERE THE SIDE STREET IS AN ARTERIAL OR COLLECTOR, THE DIMENSION FROM THE CORNER WILL BE 20'.



NOT TO SCALE

NON R1, R2

THIS STANDARD APPLIES TO ALL TYPES OF ACCESSES, EXCEPT R1,R2 FOR ALL STREETS. THE 200' & 150' DIMENSION FROM THE CORNER MAY REQUIRE ADDITIONAL CLEARANCE FOR LEFT & RIGHT TURN STORAGE. ACCESSES WILL NOT BE ALLOWED WITHIN TURN LANE TRANSITIONS.



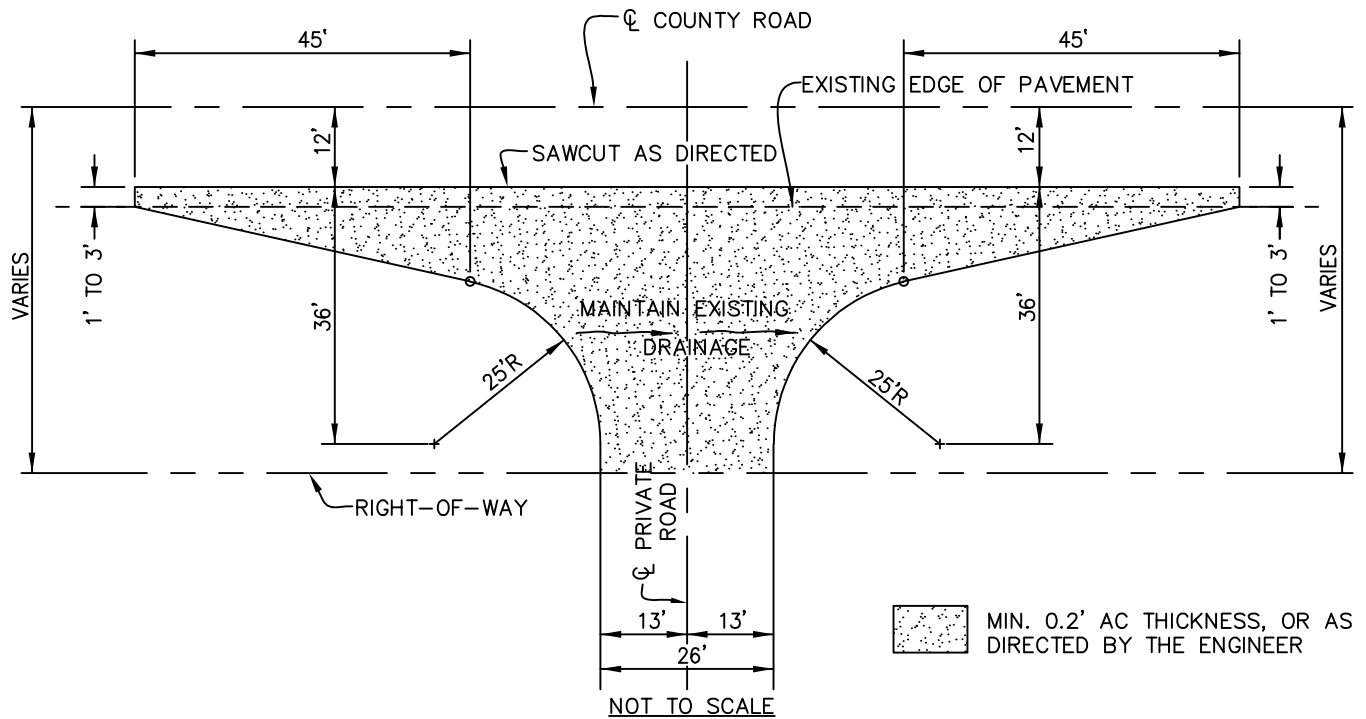
STANDARD MINIMUM ACCESS DESIGN

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

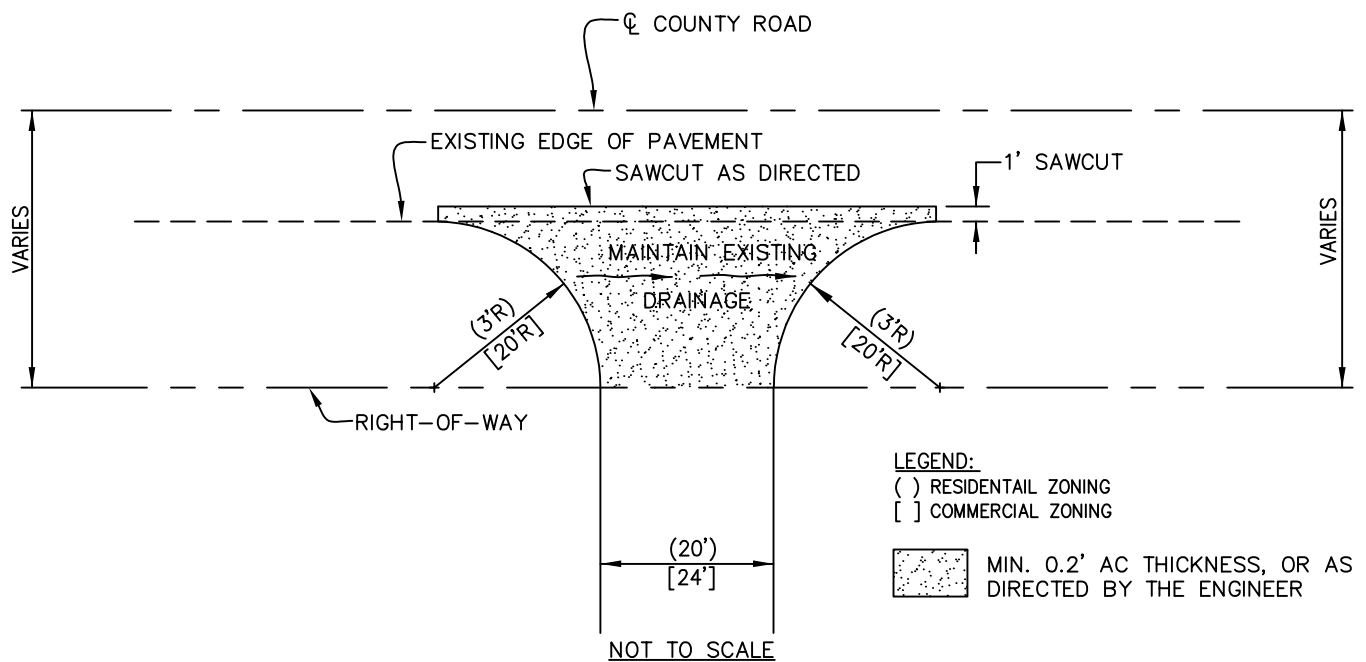
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PLATE NO.
R-56



AGRICULTURAL AND INDUSTRIAL COMMERCIAL ZONING



COMMERCIAL AND RESIDENTIAL ZONING



PRIVATE ROAD APPROACH

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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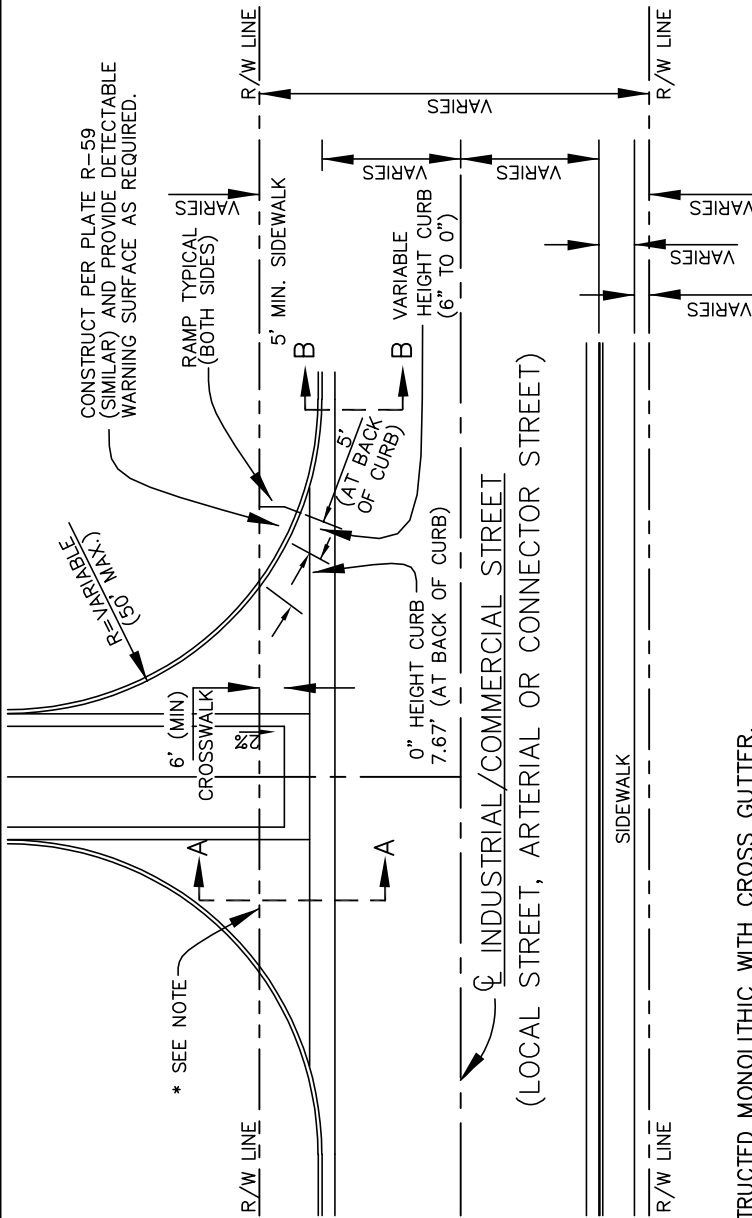
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DATE DRAFTED: 09/30/23

APPROVED BY: J.R.C.

PLATE NO.

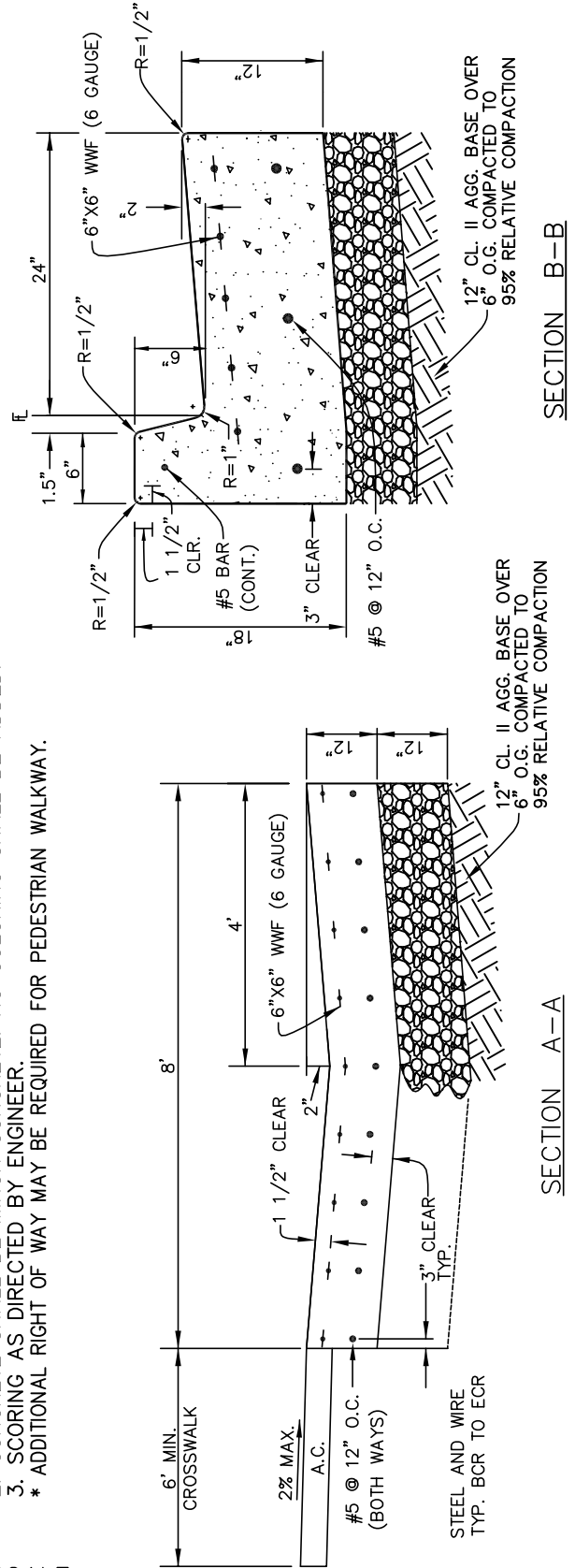
R-57



NOTES:

1. CURBS TO BE CONSTRUCTED MONOLITHIC WITH CROSS GUTTER.
2. CONCRETE SHALL BE MINOR CONCRETE. NO COLORING SHALL BE ADDED.
3. SCORING AS DIRECTED BY ENGINEER.
- * ADDITIONAL RIGHT OF WAY MAY BE REQUIRED FOR PEDESTRIAN WALKWAY.

NOT TO SCALE



MODIFIED TYPE "C" APPROACH HEAVY TRUCK USAGE AREAS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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APPROVED BY:	J.R.C.

PLATE NO.
R-58

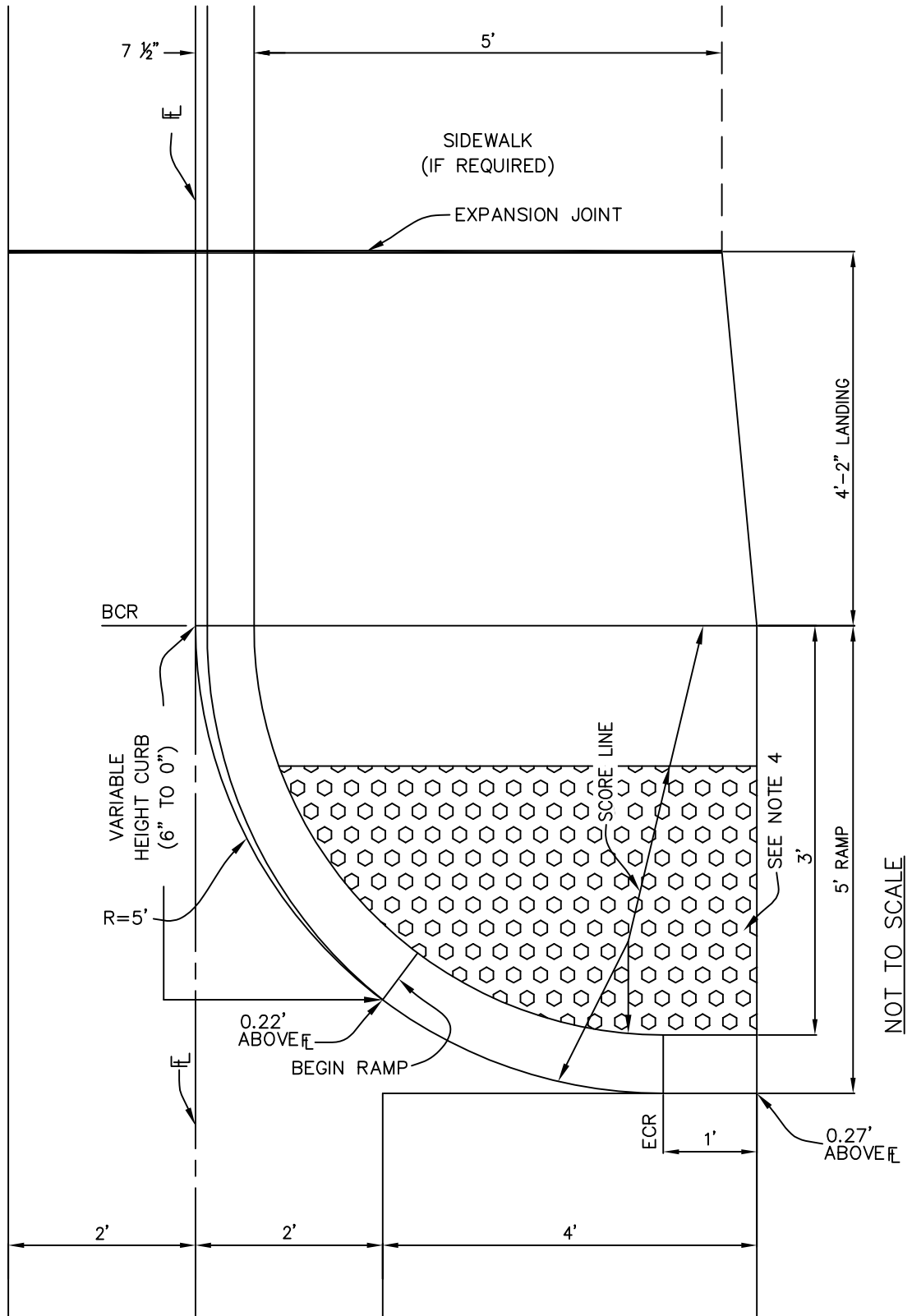
1. CONCRETE SHALL BE MINOR CONCRETE. NO COLORING SHALL BE ADDED.

2. EXPANSION JOINTS SHALL BE EITHER (A) 1/4" TO 1/2" PREMOLDED EXPANSION JOINT FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS OR (B) 2" DEEP SCORED JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).

3. CONCRETE 0.5' THICK (MONOLITHIC WITH CURB RETURN).

4. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" IN DEPTH OF THE RAMP, EXCLUDING THE FLARED SIDES. DETECTABLE WARNING PRODUCTS SHALL BE DSA-AC APPROVED.

5. TRANSITION GUTTER PAN SLOPE FROM 1" OF DEPTH FOR EACH 2'-0" OF WIDTH TO MATCH TYPICAL GUTTER PAN SLOPE.



WHEELCHAIR RAMP DETAIL TYPE "C" DRIVE APPROACH

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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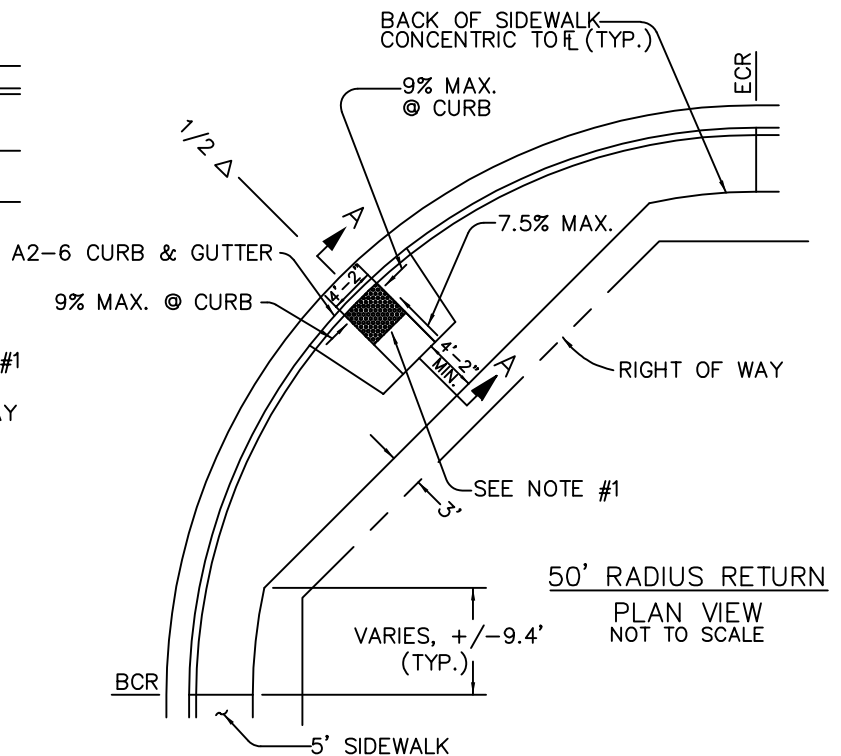
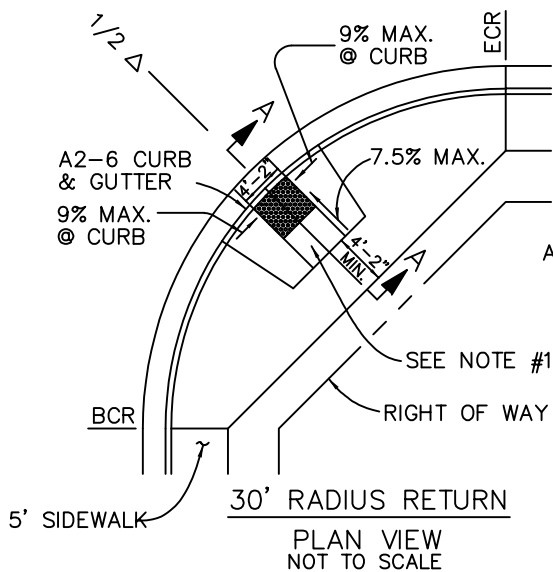
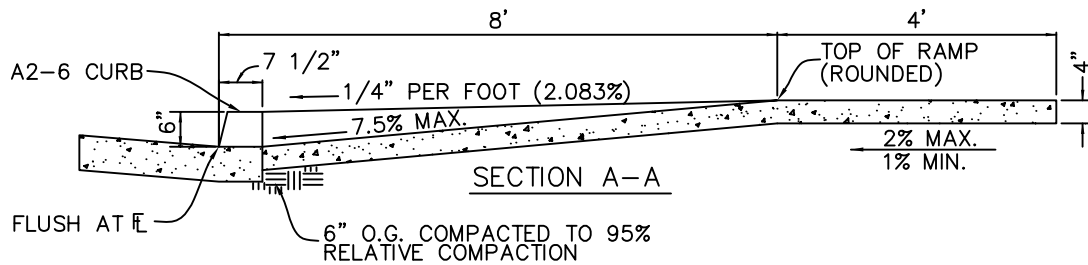
DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

APPROVED BY: J.R.C.

PLATE NO.

R-59



NOTES:

1. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" IN DEPTH OF THE RAMP, EXCLUDING THE FLARED SIDES. DETECTABLE WARNING PRODUCTS SHALL BE DSA-AC APPROVED.
2. CONCRETE SHALL BE MINOR CONCRETE. NO COLORING SHALL BE ADDED.
3. CONSTRUCT WHEELCHAIR RAMP AT ALL RETURNS.
4. ARTERIAL AND COLLECTOR INTERSECTIONS MAY REQUIRE DUAL WHEELCHAIR RAMPS.
5. TRANSITION GUTTER PAN SLOPE FROM 1" OF DEPTH FOR EACH 2'-0" OF WIDTH TO MATCH TYPICAL GUTTER PAN SLOPE.



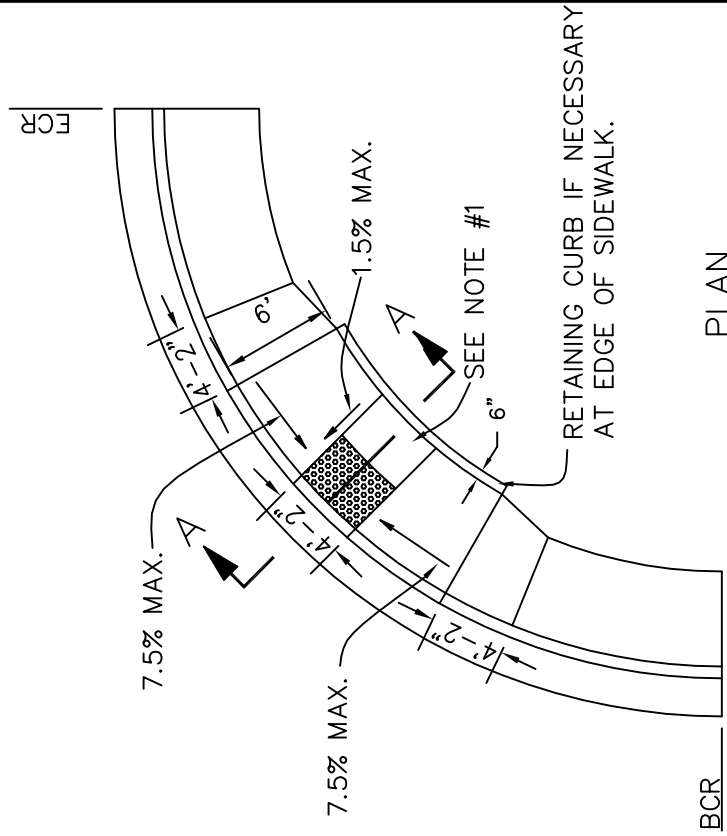
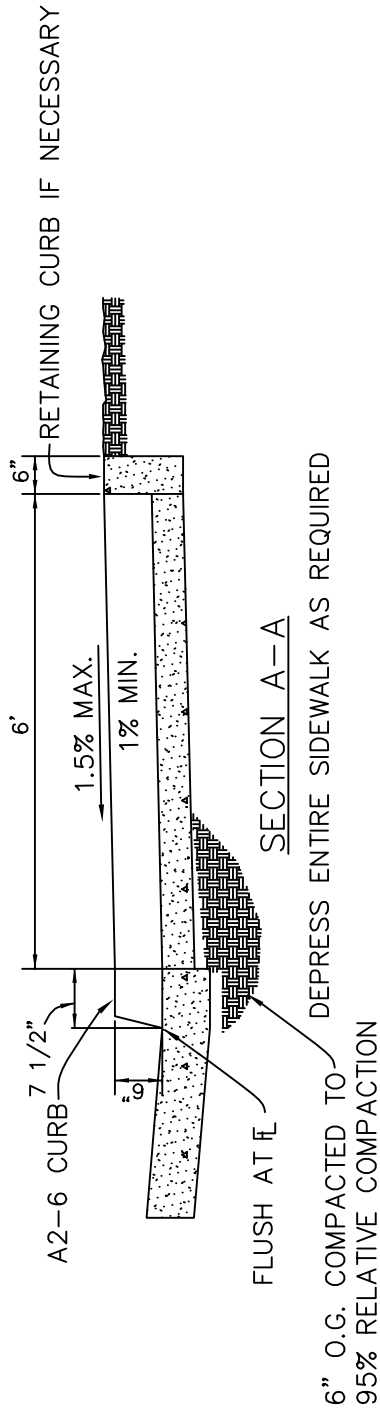
WHEELCHAIR RAMP CURB SIDE SIDEWALK

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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APPROVED BY: J.R.C.

PLATE NO.
R-60



NOTES:

1. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" IN DEPTH OF THE RAMP, EXCLUDING THE FLARED SIDES. DETECTABLE WARNING PRODUCTS SHALL BE DSA-AC APPROVED.
2. CONCRETE SHALL BE MINOR CONCRETE. NO COLORING SHALL BE ADDED.
3. CONSTRUCT WHEELCHAIR RAMP AT ALL RETURNS.
4. ARTERIAL AND COLLECTOR INTERSECTIONS MAY REQUIRE DUAL WHEELCHAIR RAMPS.
5. TRANSITION GUTTER PAN SLOPE FROM 1" OF DEPTH FOR EACH 2'-0" OF WIDTH TO MATCH TYPICAL GUTTER PAN SLOPE.
6. ONLY TO BE USED WHERE ADEQUATE R/W IS NOT AVAILABLE.

NOT TO SCALE



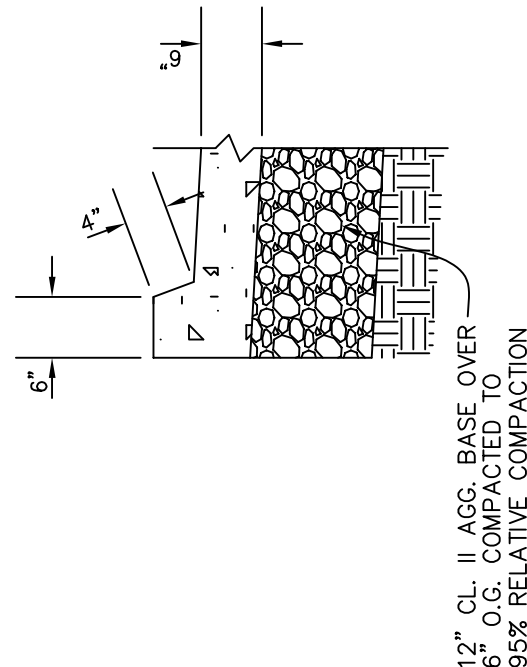
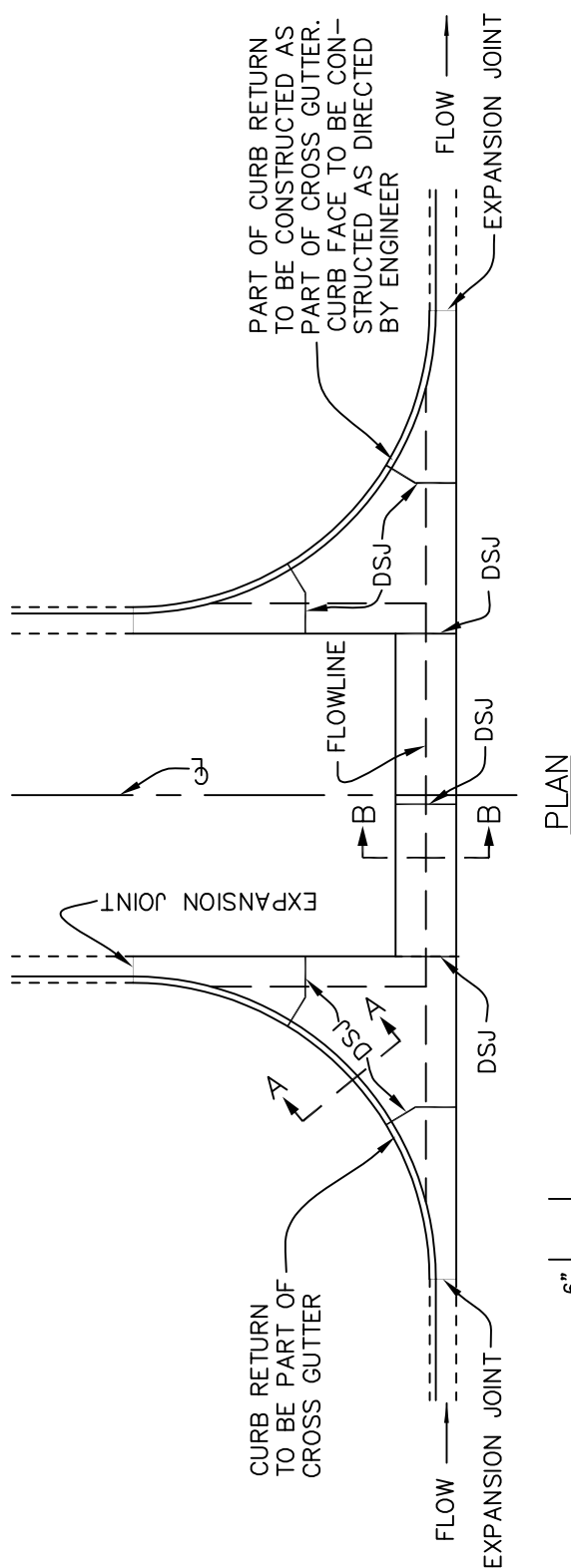
WHEELCHAIR RAMP PROPERTY LINE SIDEWALK

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

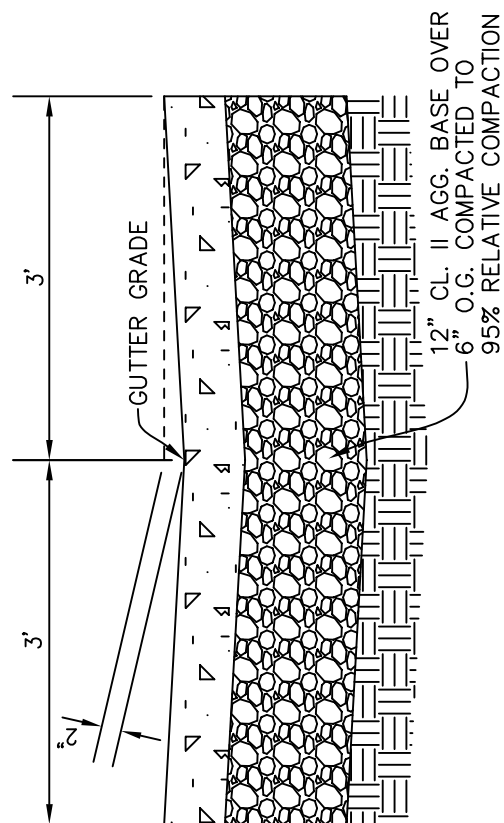
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PLATE NO.
R-61



NOT TO SCALE



SECTION B-B

SECTION A-A

NOTE:

1. JOINT EXPANSION JOINTS SHALL BE EITHER (A) 1/4" PREMOLDED EXPANSION FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2" DEEP SCORED JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).
2. DEEP SCORED JOINTS (DSJ) TO BE CONSTRUCTED AT LOCATIONS APPROVED BY THE ENGINEER.

2. DEEP SCORED JOINTS (DSJ) TO BE CONSTRUCTED AT LOCATIONS APPROVED BY THE ENGINEER.

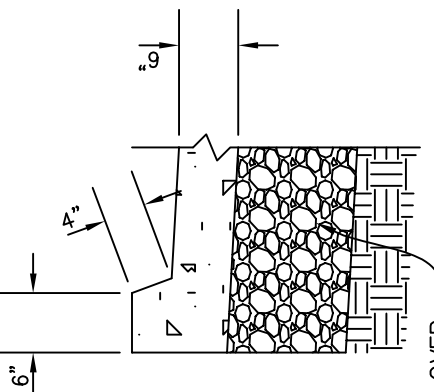


STANDARD CONCRETE CROSS DRAIN TYPICAL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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PLATE NO.
R-62



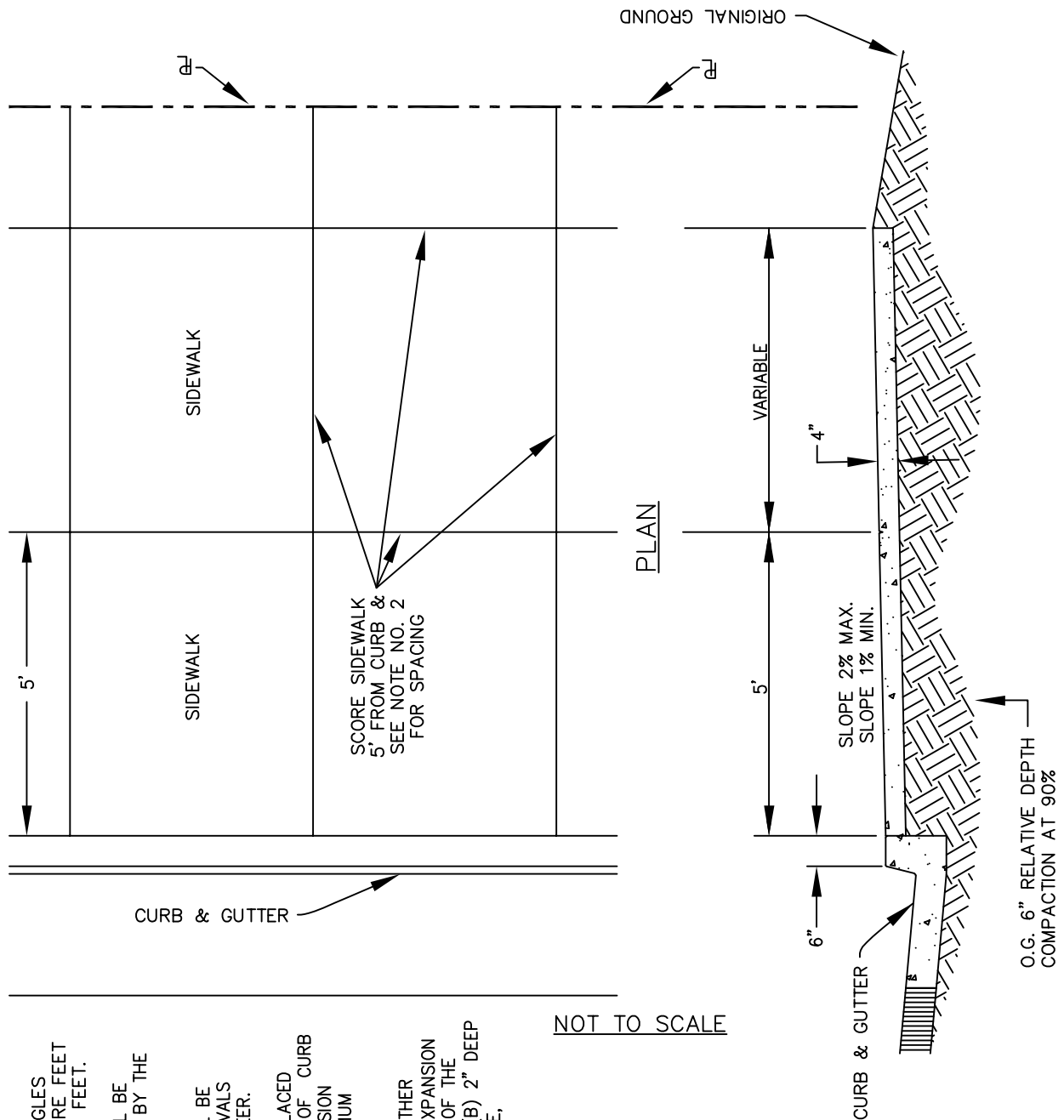
SECTION B-B

NOTE:

1. JOINT EXPANSION JOINTS SHALL BE EITHER (A) 1/4" PREMOLDED EXPANSION FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2" DEEP SCORED JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).
2. DEEP SCORED JOINTS (DSJ) TO BE CONSTRUCTED AT LOCATIONS APPROVED BY THE ENGINEER.

NOTES:

1. SLOPE IS PLUS 2% MAX FROM TOP OF CURB TO PROPERTY LINE.
2. SCORE SIDEWALK IN RECTANGLES OF NOT LESS THAN 12 SQUARE FEET NOR MORE THAN 20 SQUARE FEET.
3. CONCRETE FOR SIDEWALK SHALL BE MINOR CONCRETE AS APPROVED BY THE "COUNTY OF KERN".
4. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 8 FOOT INTERVALS OR AS DIRECTED BY THE ENGINEER.
5. EXPANSION JOINTS SHALL BE PLACED AT SIDES OF STRUCTURES, END OF CURB RETURNS, AND OPPOSITE EXPANSION JOINTS IN EXISTING CURB. MAXIMUM SPACING - 60 FT.
6. EXPANSION JOINTS SHALL BE EITHER (A) 1/4" TO 1/2" PREMOLED EXPANSION JOINT FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2" DEEP SCORED JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).



NOT TO SCALE



**STANDARD SIDEWALK DETAIL
TYPE 1**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

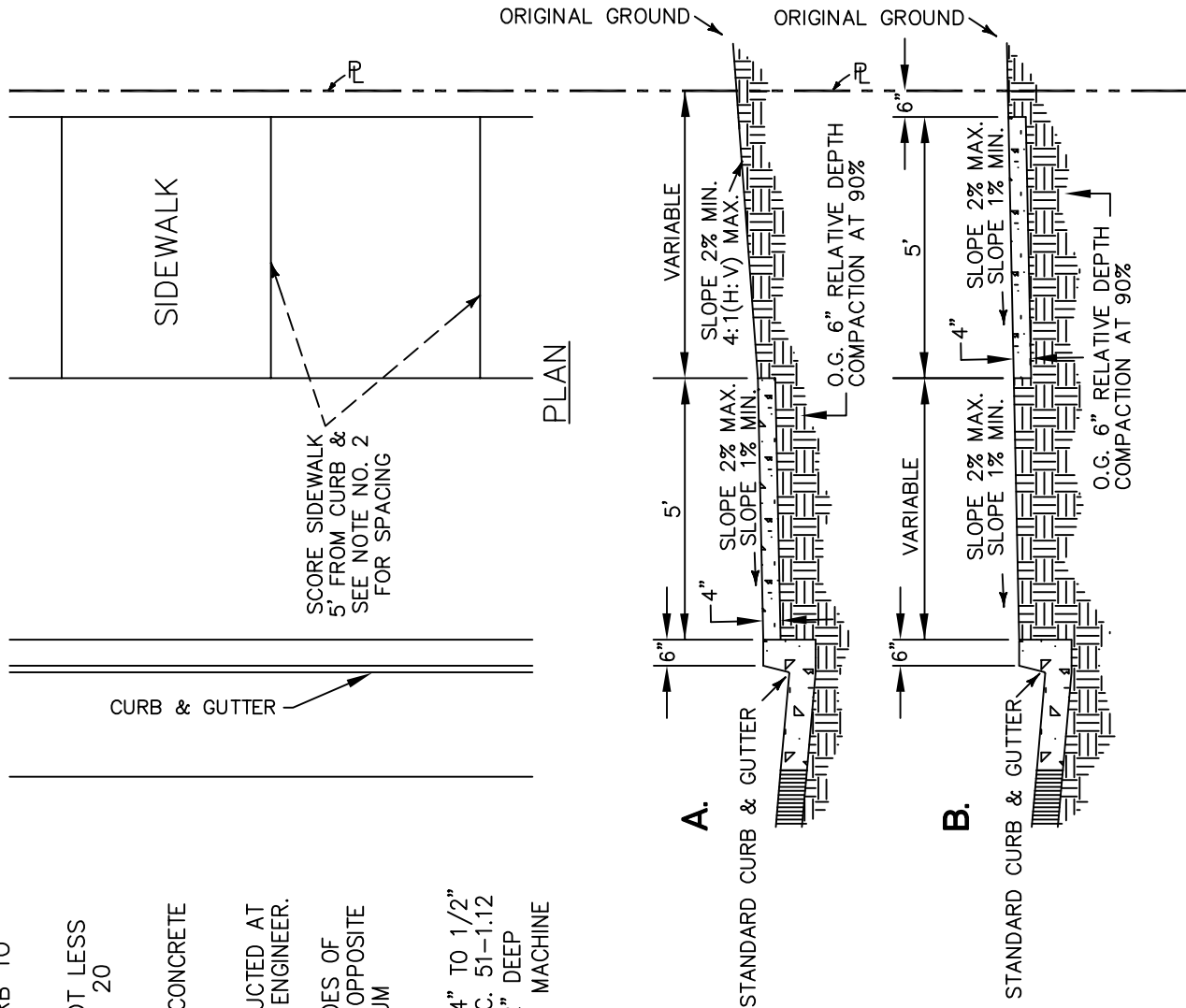
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APPROVED BY:	J.R.C.

PLATE NO.
R-64

NOTES:

1. SLOPE IS PLUS 2% MAX FROM TOP OF CURB TO PROPERTY LINE.
2. SCORE SIDEWALK IN RECTANGLES OF NOT LESS THAN 12 SQUARE FEET NOR MORE THAN 20 SQUARE FEET.
3. CONCRETE FOR SIDEWALK SHALL BE MINOR CONCRETE AS APPROVED BY THE "COUNTY OF KERN".
4. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 8 FOOT INTERVALS OR AS DIRECTED BY THE ENGINEER.
5. EXPANSION JOINTS SHALL BE PLACED AT SIDES OF STRUCTURES, END OF CURB RETURNS, AND OPPOSITE EXPANSION JOINTS IN EXISTING CURB. MAXIMUM SPACING - 60 FT.
6. EXPANSION JOINTS SHALL BE EITHER (A) 1/4" TO 1/2" PREMOLDED EXPANSION JOINT FILLER PER SEC. 51-1.12 OF THE STANDARD SPECIFICATIONS, OR (B) 2" DEEP SCORED JOINT (WEAKENED PLANE, EXTRUSION MACHINE ONLY).



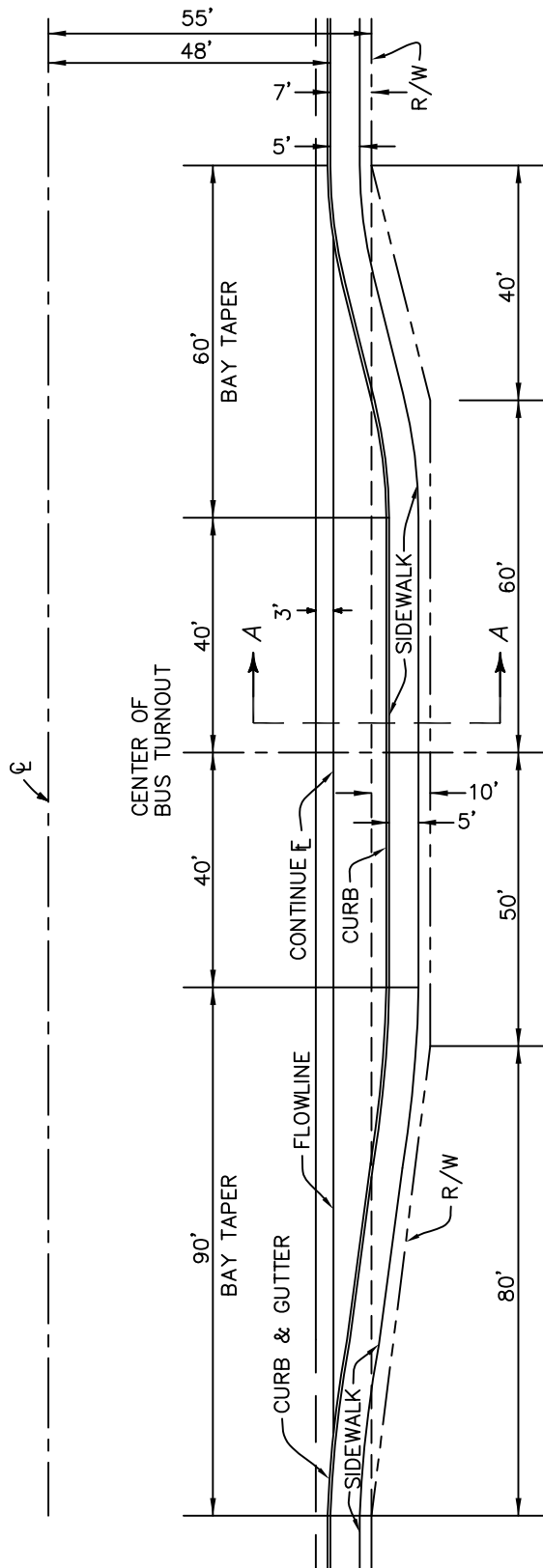
**STANDARD SIDEWALK DETAIL
TYPE 2**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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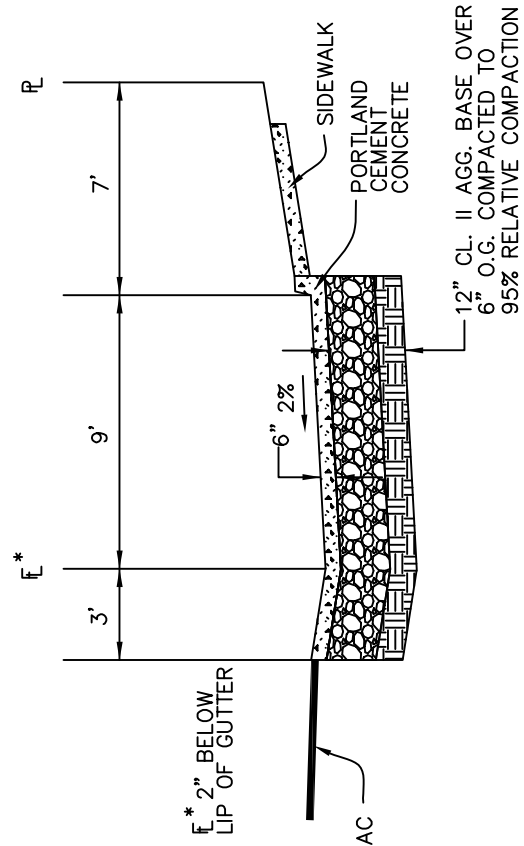
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-65



NOTE:

1. WITHOUT BIKE LANE, CURB LINE IS 45', WITH 10' TO PROPERTY LINE. ADDITIONAL RIGHT-OF-WAY IS REDUCED FROM 10' TO 7'.
2. FLOWLINE TO EXTEND THROUGH TURNOUT.
3. COMPACT 18 INCHES OF O.G. TO 95% UNDER CONCRETE FOR TURNOUT.
4. CONCRETE FOR TURNOUT TO BE SAME AS FOR C & G.
5. PROVIDE NECESSARY PASSENGER WAITING PAD AND/OR SHELTER AS REQUIRED BY GOLDEN EMPIRE TRANSIT (GET) OR KERN REGIONAL TRANSIT (KRT).



SECTION A-A

NOT TO SCALE



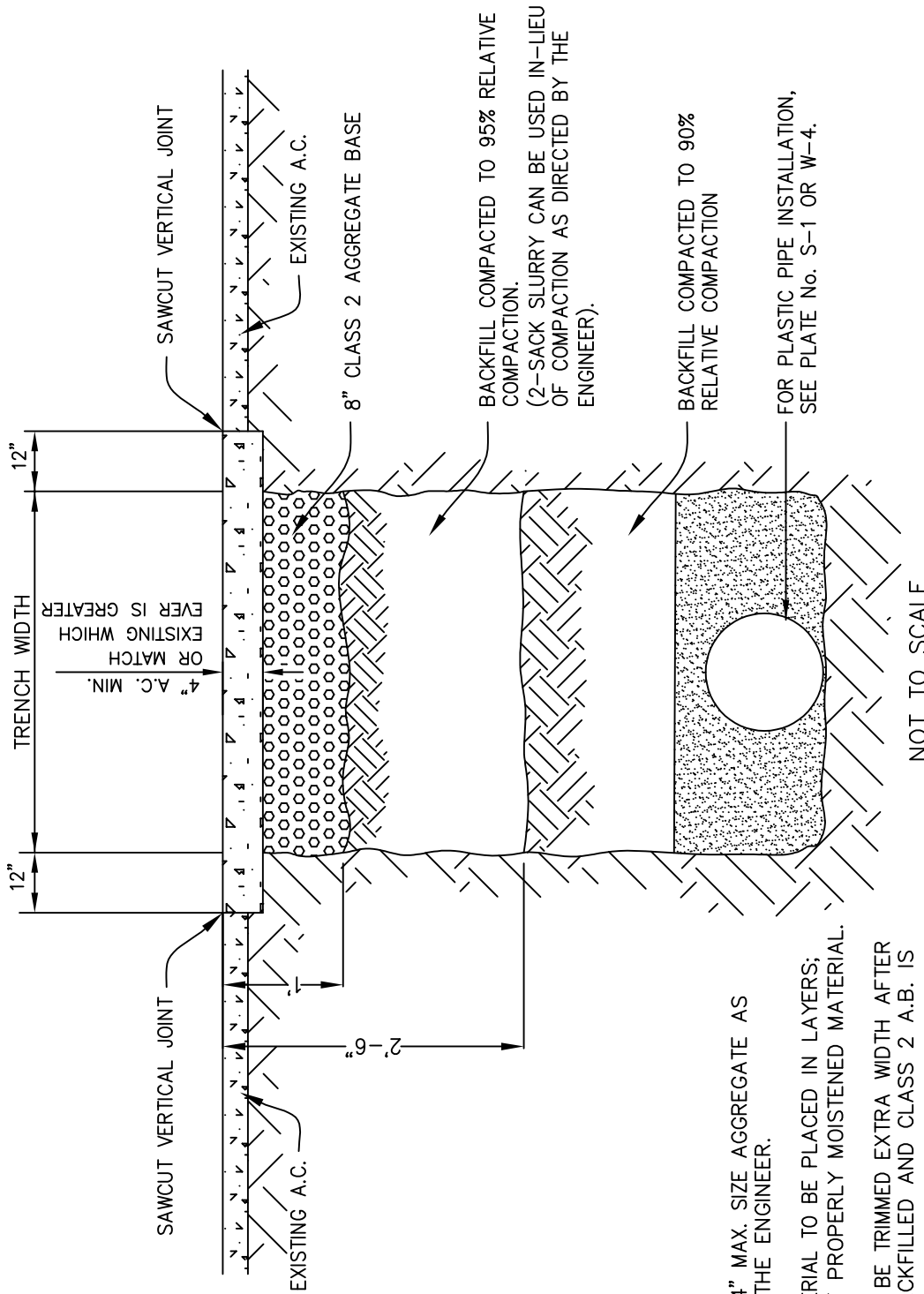
BUS TURNOUT ON ARTERIAL AND COLLECTOR WITH BIKE LANE

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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PLATE NO.
R-66



NOTES:

1. A.C. TO BE 3/4" MAX. SIZE AGGREGATE AS DIRECTED BY THE ENGINEER.
2. BACKFILL MATERIAL TO BE PLACED IN LAYERS; 8" LAYERS OF PROPERLY MOISTENED MATERIAL.
3. SURFACING TO BE TRIMMED EXTRA WIDTH AFTER TRENCH IS BACKFILLED AND CLASS 2 A.B. IS IN PLACE.
4. ALL WORK TO CONFORM TO CALIF. DEPT. OF TRANS. STANDARD SPECIFICATIONS, CURRENT EDITION, AND AS SHOWN ON THIS SHEET.
5. SAWCUTS SHALL BE MADE PARALLEL OR AT RIGHT ANGLES TO THE CENTERLINE OF THE ROAD.
6. PATCHES LESS THAN 2' FROM EXISTING PATCHES, EDGES OF PAVEMENT, CENTERLINE, LANE LINE, OR GUTTER SHALL BE EXTENDED TO INCLUDE THE INTERMEDIATE ISOLATED STRIP OF EXISTING PAVEMENT.

NOTES: (CONT.)

7. MINIMUM PATCH WIDTH SHALL BE 2' AT ITS SMALLEST DIMENSION UNLESS OTHERWISE APPROVED BY THE ENGINEER.
8. WHEN A POTHOLE OCCURS WITHIN AN EXISTING PATCH, ENTIRE PATCH SHALL BE REPLACED.



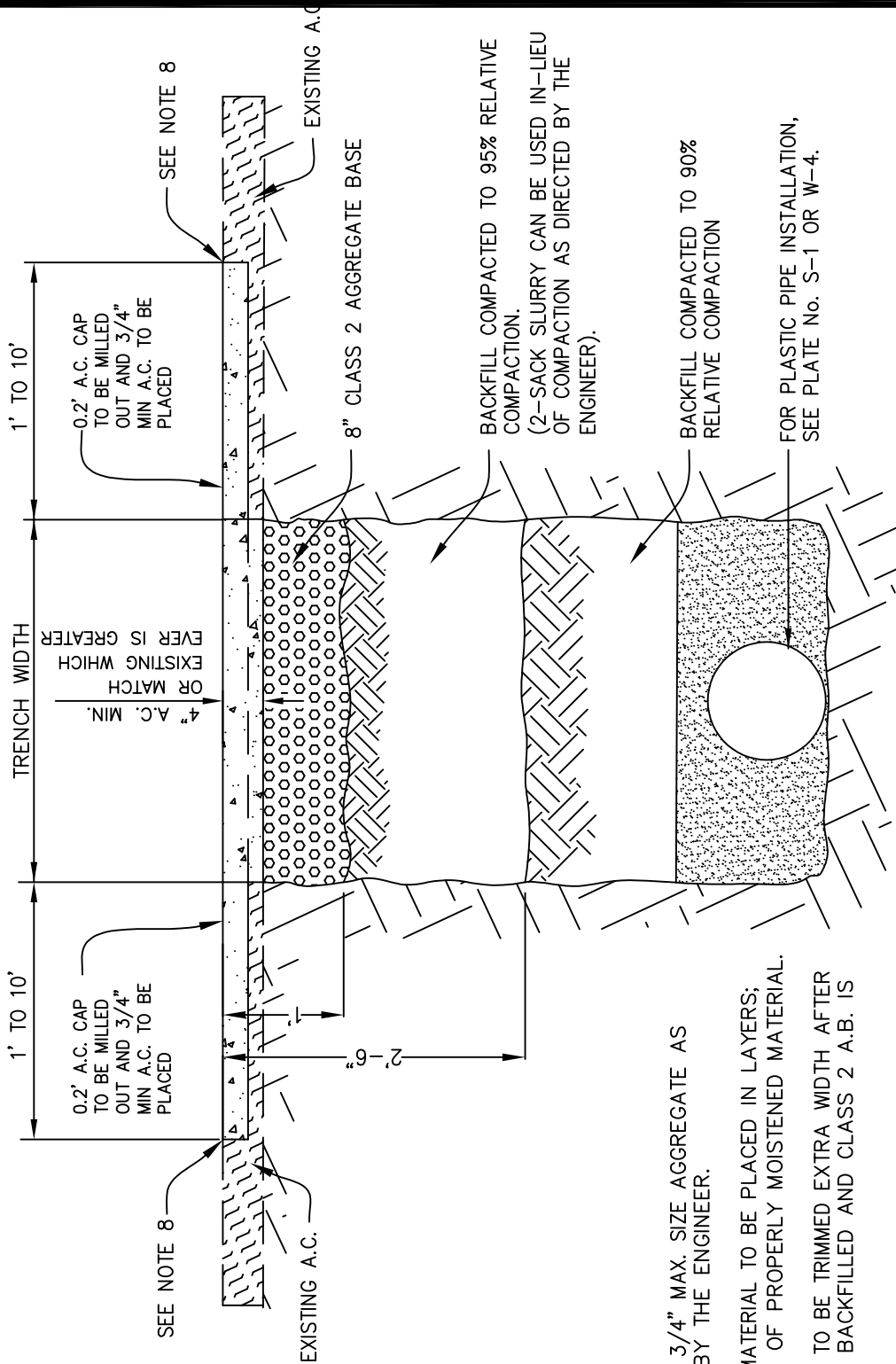
BACKFILL REQUIREMENTS ON A/C STREETS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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DRAFTED BY:	R.R.P.
DESIGNED BY:	J.R.C.
DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-67A



NOT TO SCALE

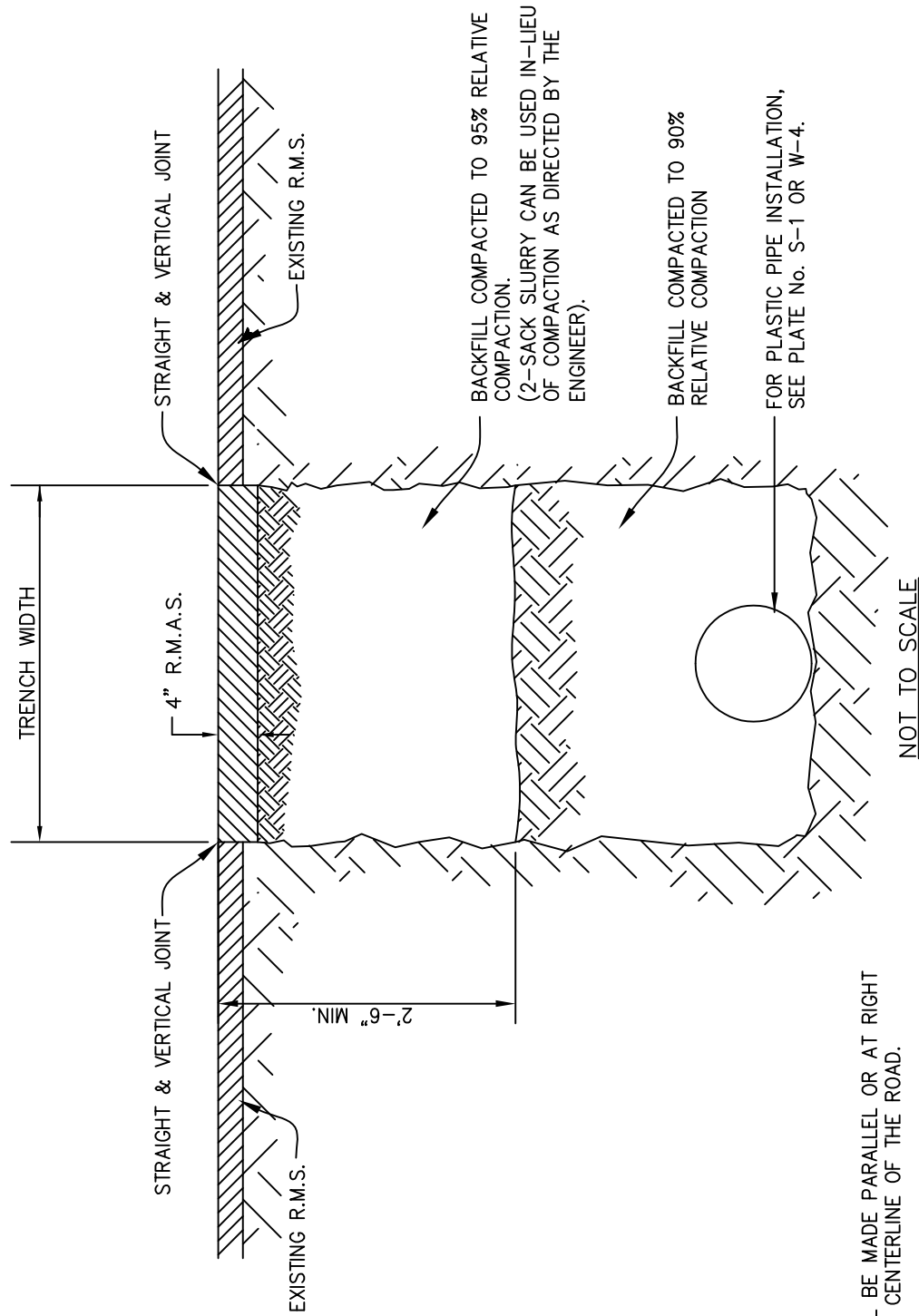
NOTES: (CONT.)

7. MINIMUM PATCH WIDTH SHALL BE 2' AT ITS SMALLEST DIMENSION UNLESS OTHERWISE APPROVED BY THE ENGINEER.

8. WHEN A POTHOLE OCCURS WITHIN AN EXISTING PATCH, ENTIRE PATCH SHALL BE REPLACED.

NOTES:

1. A.C. TO BE 3/4" MAX. SIZE AGGREGATE AS DIRECTED BY THE ENGINEER.
2. BACKFILL MATERIAL TO BE PLACED IN LAYERS; 8" LAYERS OF PROPERLY MOISTENED MATERIAL.
3. SURFACING TO BE TRIMMED EXTRA WIDTH AFTER TRENCH IS BACKFILLED AND CLASS 2 A.B. IS IN PLACE.
4. ALL WORK TO CONFORM TO CALIF. DEPT. OF TRANS. STANDARD SPECIFICATIONS, CURRENT EDITION, AND AS SHOWN ON THIS SHEET.
5. SAWCUTS SHALL BE MADE PARALLEL OR AT RIGHT ANGLES TO THE CENTERLINE OF THE ROAD.
6. PATCHES LESS THAN 2' FROM EXISTING PATCHES, EDGES OF PAVEMENT, CENTERLINE, LANE LINE, OR GUTTER SHALL BE EXTENDED TO INCLUDE THE INTERMEDIATE ISOLATED STRIP OF EXISTING PAVEMENT.



NOTES:

1. SAWCUTS SHALL BE MADE PARALLEL OR AT RIGHT ANGLES TO THE CENTERLINE OF THE ROAD.
2. PATCHES LESS THAN 2' FROM EXISTING PATCHES, EDGES OF PAVEMENT, OR GUTTER SHALL BE EXTENDED TO INCLUDE THE INTERMEDIATE ISOLATED STRIP OF EXISTING PAVEMENT.
3. MINIMUM PATCH WIDTH SHALL BE 2' AT ITS SMALLEST DIMENSION UNLESS OTHERWISE APPROVED BY THE ENGINEER.
4. WHEN A POTHOLE OCCURS WITHIN AN EXISTING PATCH, ENTIRE PATCH SHALL BE REPLACED.



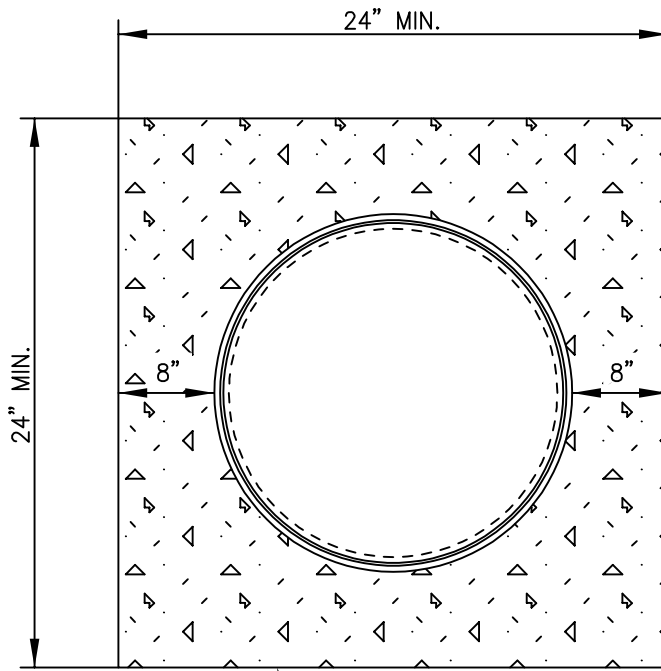
BACKFILL REQUIREMENTS ON R.M.A.S STREETS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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DESIGNED BY:	J.R.C.
DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-68

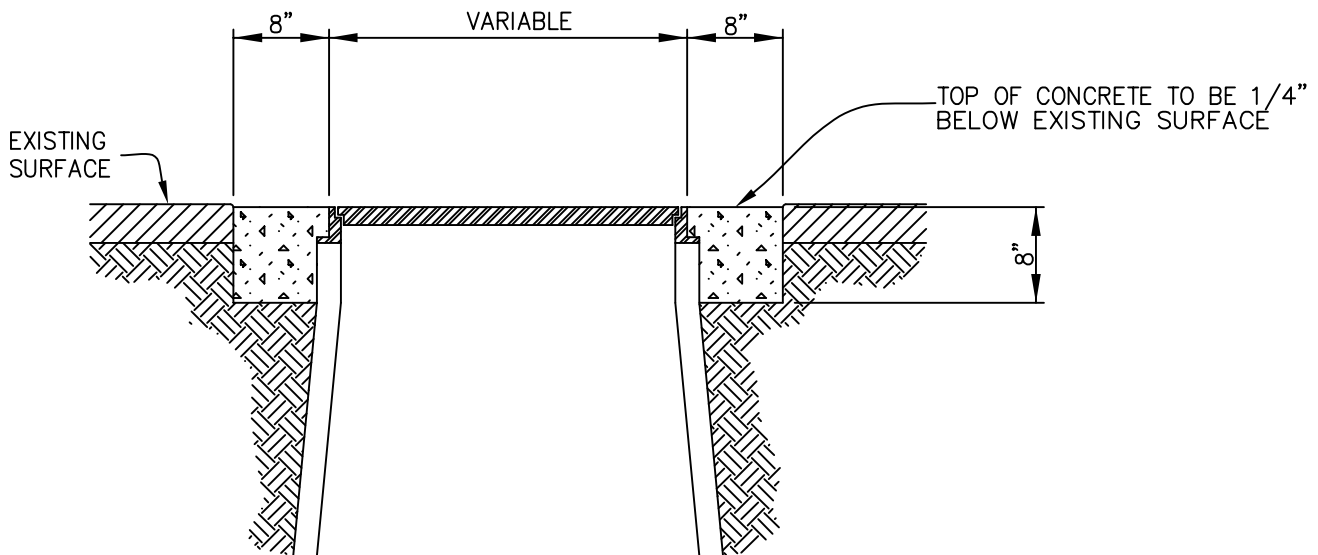


CONCRETE TO BE PLACED

PLAN

NOTE:

1. CONCRETE SHALL BE EITHER:
 (A) MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.), WHERE STREET IS NOT COUNTY MAINTAINED OR OPEN TO TRAFFIC FOR 2 WEEKS AFTER PLACING.
 (B) MINOR CONCRETE (MIN. CEMENT CONTENT 590 LB/CU.YD.) WHERE IN EXISTING STREET OR STREET BEING USED BY PUBLIC TRAFFIC.
2. WHEN OUTSIDE OF PAVED SURFACE, TOP OF CONCRETE SHALL BE FLUSH WITH EXISTING SURFACE AS APPROVED BY THE ENGINEER.
3. CONCRETE MAY BE DELETED ON ROAD MIX STREETS UPON APPROVAL OF COUNTY ENGINEER.
4. DIMENSIONS SHOWN TO BE THE SAME FOR ALL SIZES OR TYPES OF OPENINGS ON COUNTY ROADS OR AS MODIFIED TO FIT FIELD CONDITIONS BY ENGINEER.



SECTION

NOT TO SCALE



ADJUST COVERS TO GRADE

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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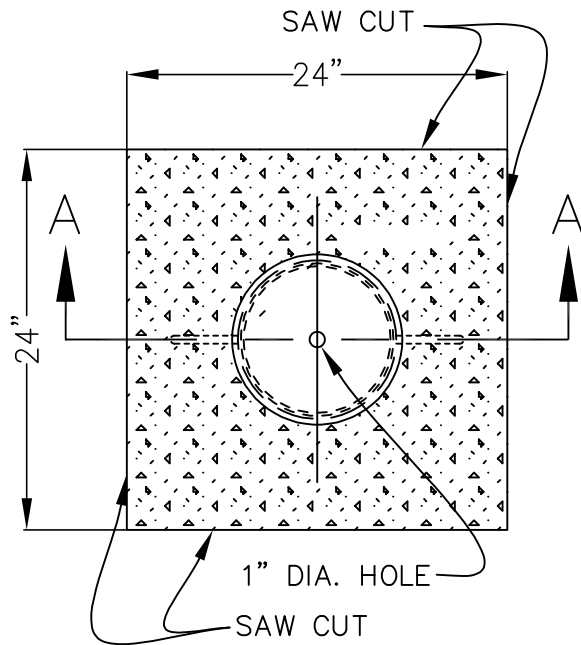
DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

APPROVED BY: J.R.C.

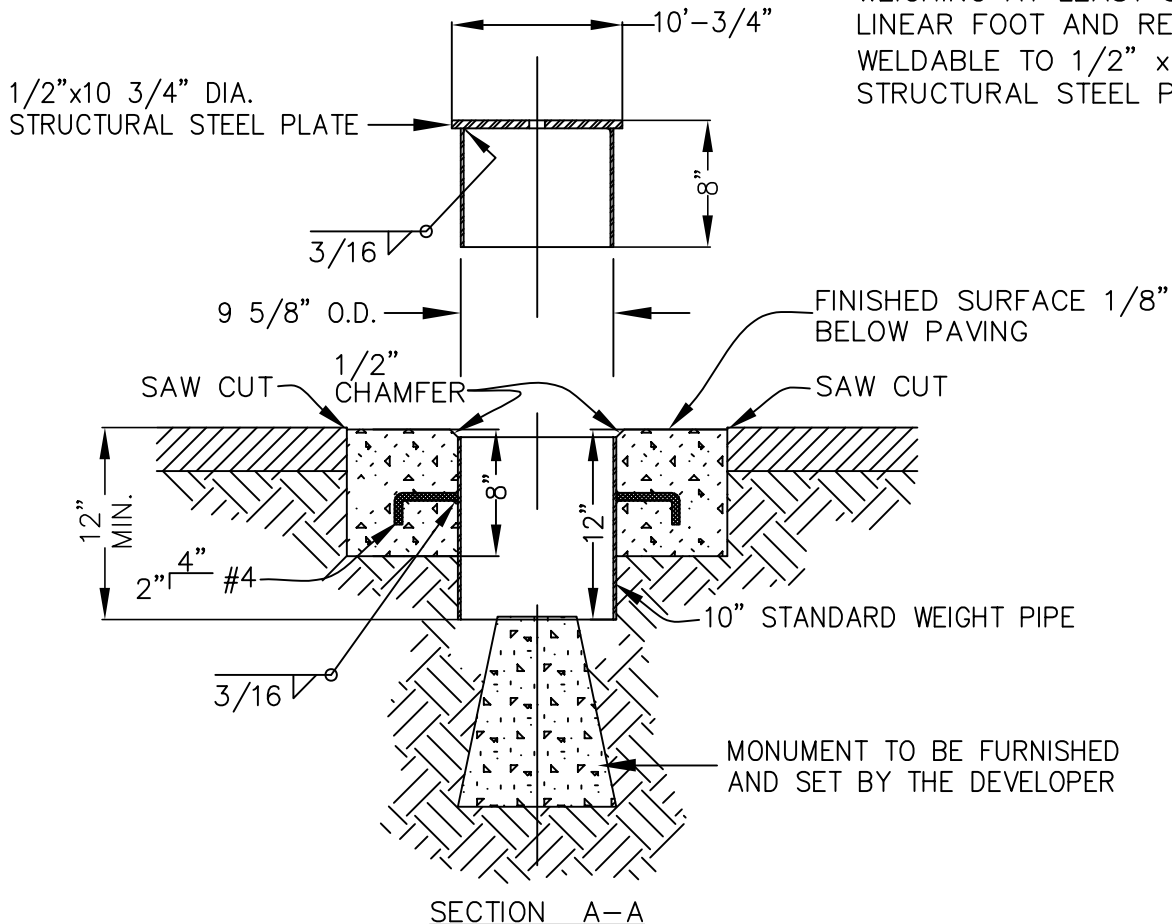
PLATE NO.

R-69



NOTE:

1. CONCRETE SHALL BE EITHER:
 (A) MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.), WHERE STREET IS NOT COUNTY MAINTAINED OR OPEN TO TRAFFIC FOR 2 WEEKS AFTER PLACING.
 (B) MINOR CONCRETE (MIN. CEMENT CONTENT 590 LB/CU.YD.) WHERE IN EXISTING STREET OR STREET BEING USED BY PUBLIC TRAFFIC.
2. FABRICATE IN ACCORDANCE WITH SECTION 55-1.02E "FABRICATION", OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
3. COVER TO BE 9 5/8" O.D. CASING PIPE WEIGHING AT LEAST 32 LBS. PER LINEAR FOOT AND READILY WELDABLE TO 1/2" x 10 3/4" DIA. STRUCTURAL STEEL PLATE.



SECTION A-A

NOT TO SCALE



**STANDARD SURVEY MONUMENT
ENCASEMENT**

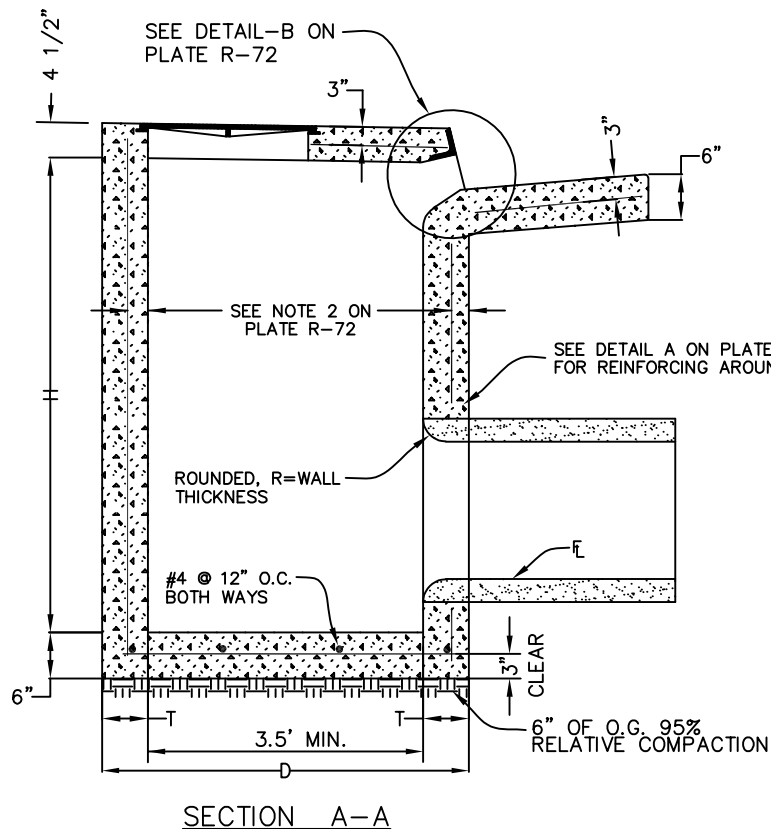
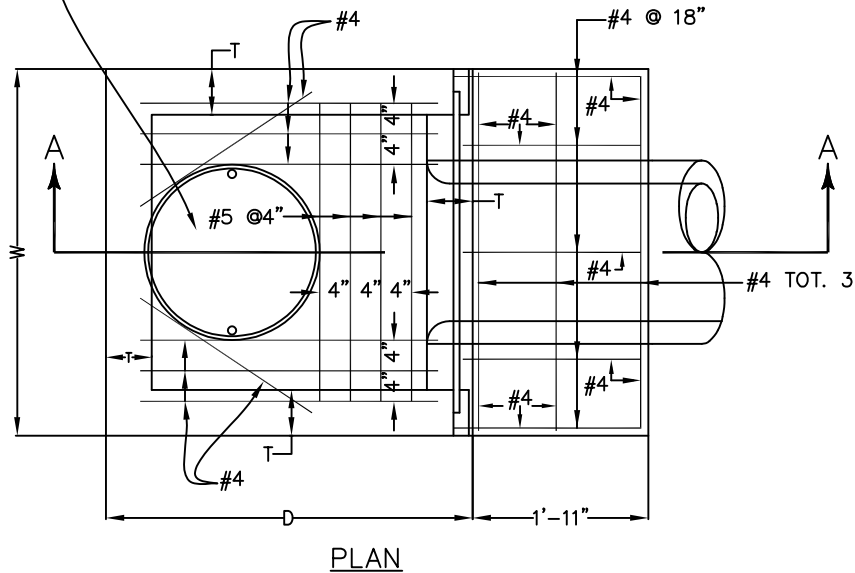
COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-70

ALHAMBRA FOUNDRY 22" GALVANIZED FRAME & COVER # A-1530
WITH TWO 3/4" STAINLESS STEEL SOCKET HEAD SET SCREWS,
(SET OPPOSITE AND FINISHED FLUSH) OR EQUAL.
SEE NOTE 8 ON PLATE R-72.



NOTE:
SEE PLATE R-72 FOR NOTES
PERTAINING TO THIS PLATE.

NOT TO SCALE



TYPE "A" MINOR STRUCTURE

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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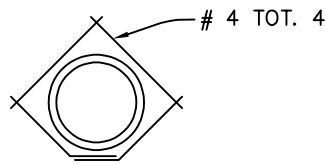
DRAFTED BY: R.R.P.

DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

APPROVED BY: J.R.C.

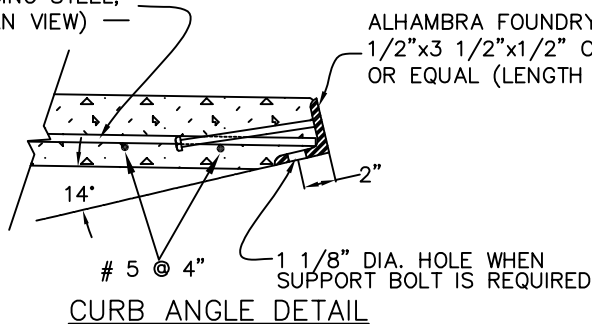
PLATE NO.
R-71



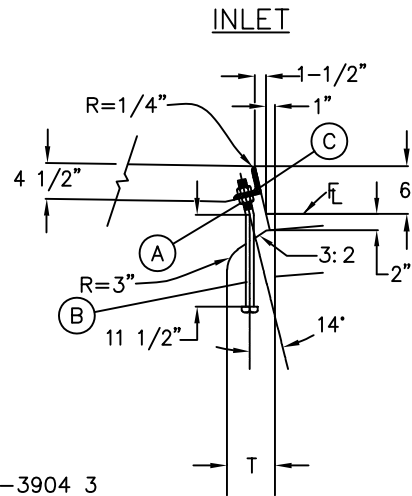
DETAIL A

SEE PLATE R-71 FOR PLAN
AND SECTIONAL VIEWS

REINFORCING STEEL,
(SEE PLAN VIEW)



NOT TO SCALE



DETAIL B

SEE PLATE R-71 FOR PLAN
AND SECTIONAL VIEWS

A. ADJUSTING NUTS TO BE TIGHTENED AND
SECURED IN PLACE WHEN ANGLE IS IN
PROPER POSITION.

B. 1"x16" SUPPORT BOLT WITH HEX NUTS.
(SEE NOTE 5 & 6)

C. CURB ANGLE, SEE DETAIL THIS SHEET.

NOTES (FOR PLATES R-71 & R-72):

NOTES:

1. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 590 LB/CU.YD.) CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS APPROVED PRIOR APPROVAL IS OBTAINED FROM THE COUNTY ENGINEER.
2. WALL REINFORCING NOT REQUIRED WHEN H=8' OR LESS OR THE UNSUPPORTED WIDTH OR LENGTH = 7' OR LESS. WALLS EXCEEDING THESE LIMITS SHALL BE REINFORCED WITH NO. 4 BARS AT 18" CENTERS PLACED 1 1/2" CLEAR TO INSIDE OF BOX UNLESS OTHERWISE SHOWN.
3. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AFTER FABRICATION.
4. SUPPORT BOLTS SHALL BE INSTALLED WHEN LENGTH OF OPENING EXCEEDS 7'-0" AND SHALL BE SPACED NOT MORE THAN 7'-0" O.C. AND NOT LESS THAN 5'-0" O.C.
5. WHEN STRUCTURE IS LOCATED WITHIN CURB RETURN, THE CURB ANGLE SHALL BE FABRICATED IN CHORD SECTIONS OF EQUAL LENGTH NOT TO EXCEED 4 FEET WITH ONE SUPPORT BOLT AT EACH ANGLE POINT. WHEN "W"=5' THE CURB ANGLE MAY BE FABRICATED STRAIGHT.

NOTES: (CONT.)

6. WALL THICKNESS, T=6" EXCEPT: H > 8', T=8" W > 8', T=8"(FRONT & BACK WALLS ONLY) D > 8', T=8"(SIDE WALLS ONLY)
7. LOCATION OF FRAME AND COVER TO BE DETERMINED BY THE ENGINEER.
8. CAST-IN-PLACE OR PRECAST ALTERNATIVE IS OPTIONAL WITH CONTRACTOR, SEE SECTION 51-7 OF STANDARD SPECIFICATIONS.
9. THE MINIMUM OPENING SHALL BE 3.5 FEET.
10. THE DEPRESSED FLOWLINE SHALL BE TRANSITIONED IN 6 FEET ON UPSTREAM SIDE, AND 3 FEET ON DOWNSTREAM SIDE OF THE INLET.
11. WHEN CURB OPENING EXCEEDS 4 1/2", A PLAIN ROUND STEEL PROTECTION BAR 1" IN DIAMETER SHALL BE INSTALLED. BAR SHALL BE IMBEDDED 5" AT EACH END.



TYPE "A"
MINOR STRUCTURE DETAILS

COUNTY OF KERN
STATE OF CALIFORNIA
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REVISIONS	DATE	DESC
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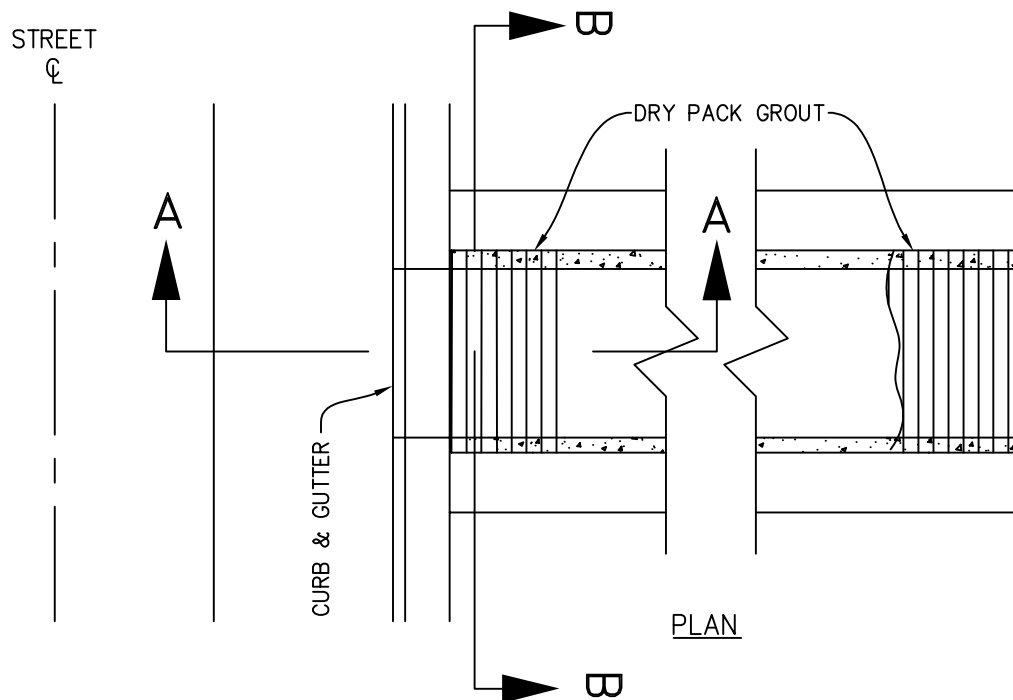
DRAFTED BY: R.R.P.

DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

APPROVED BY: J.R.C.

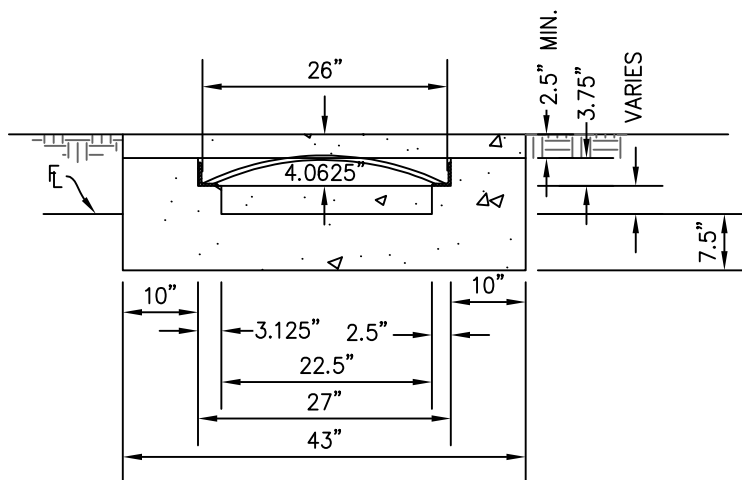
PLATE NO.
R-72



2 1/2"X2 1/2"X1/4" GALVANIZED
STEEL ANGLE BENT TO RADIUS OF
PART CIRCLE PLATE.

2 @ 1/4"Ø BARS 4' LONG IMBEDDED IN
WINGWALLS AT EACH END OF CULVERTS.

SECTION A-A



SECTION B-B

NOT TO SCALE

NOTE:

1. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.) CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS APPROVED PRIOR APPROVAL IS OBTAINED FROM THE COUNTY ENGINEER.
2. PART CIRCLE CULVERT SHALL BE FABRICATED OF 8 GAUGE CORRUGATED METAL.
3. FOR RUNS LONGER THAN 20', INSTALL AN ALHAMBRA FOUNDARY A-1530 FRAME AND COVER WITH SET SCREWS IN THE MIDDLE OF RUN.
4. PART CIRCLE CULVERT SHALL EXTEND AT LEAST TO THE RIGHT-OF-WAY LINE.



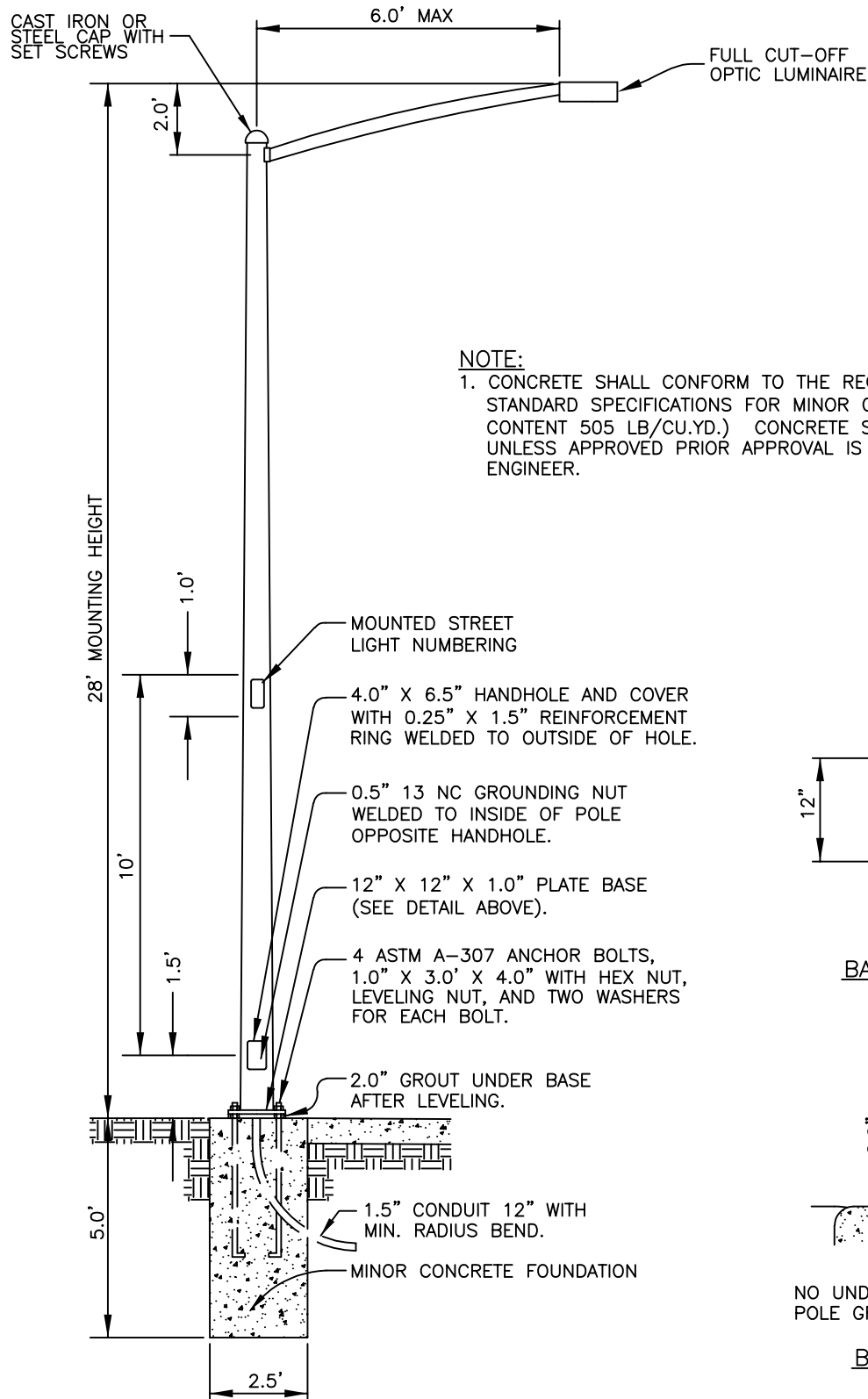
**STANDARD 26 INCH PART CIRCLE
CULVERT**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC

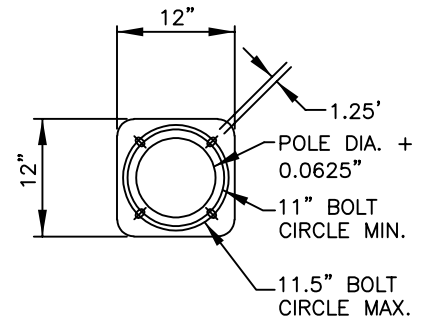
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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-73

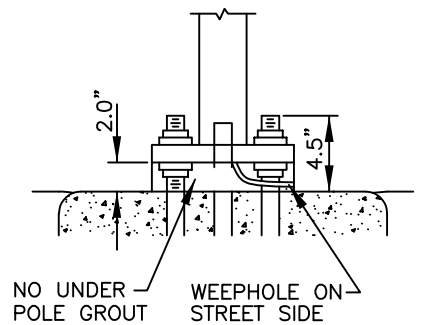


NOTE:

1. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.) CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS APPROVED PRIOR APPROVAL IS OBTAINED FROM THE COUNTY ENGINEER.



BASE PLATE-PLAN



BASE PLATE-PROFILE

NOT TO SCALE



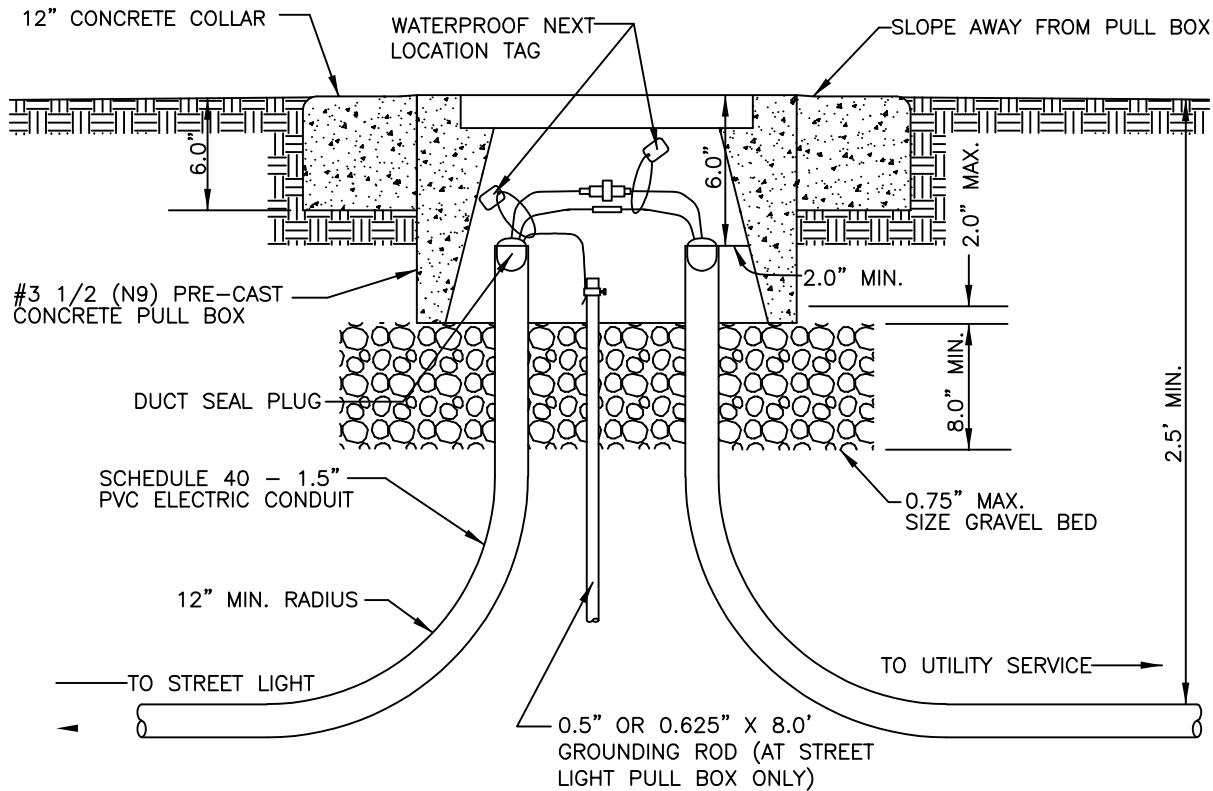
STANDARD STREET LIGHT MAST ARM DETAIL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

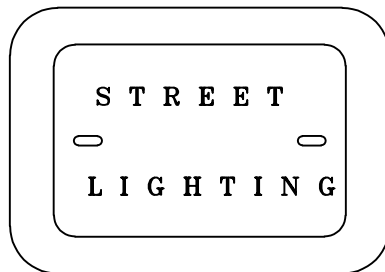
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DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-75

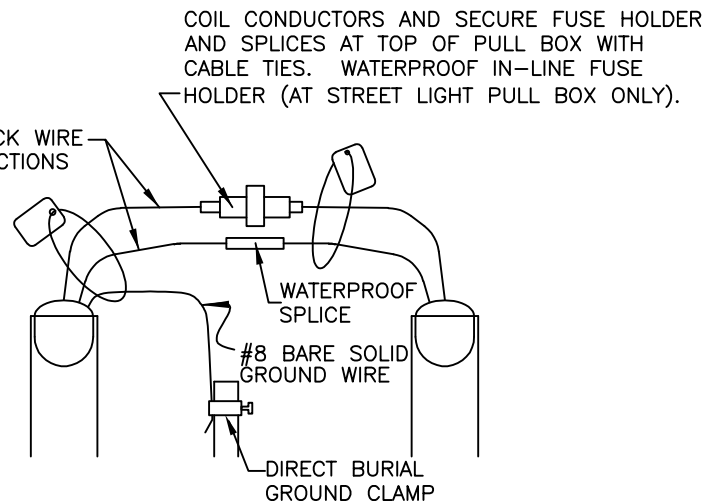


PULL BOX DETAIL



COVER DETAIL

1.5' - 2.0' SLACK WIRE
BETWEEN CONNECTIONS



INNER BOX DETAIL

NOTES:

1. REMOVE COVER BEFORE PLACING CONCRETE. KEEP INSIDE OF BOX FREE OF OVERSPILL.
2. PULL BOX SHALL BE SIZE 3 1/2 AND SHALL BE LOCATED WITHIN 5.0' OF THE STREET LIGHT AND INSTALLED FLUSH WITH THE SIDEWALK. GRAVEL (0.75" MAX.) SHALL BE PLACED UNDER THE PULL BOX FOR DRAINAGE. PULL BOX COVER SHALL BE MARKED TO IDENTIFY IT AS STREET LIGHTING. PULL BOX SHALL BE PRE CAST CONCRETE.
3. CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.) CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS APPROVED PRIOR APPROVAL IS OBTAINED FROM THE COUNTY ENGINEER.



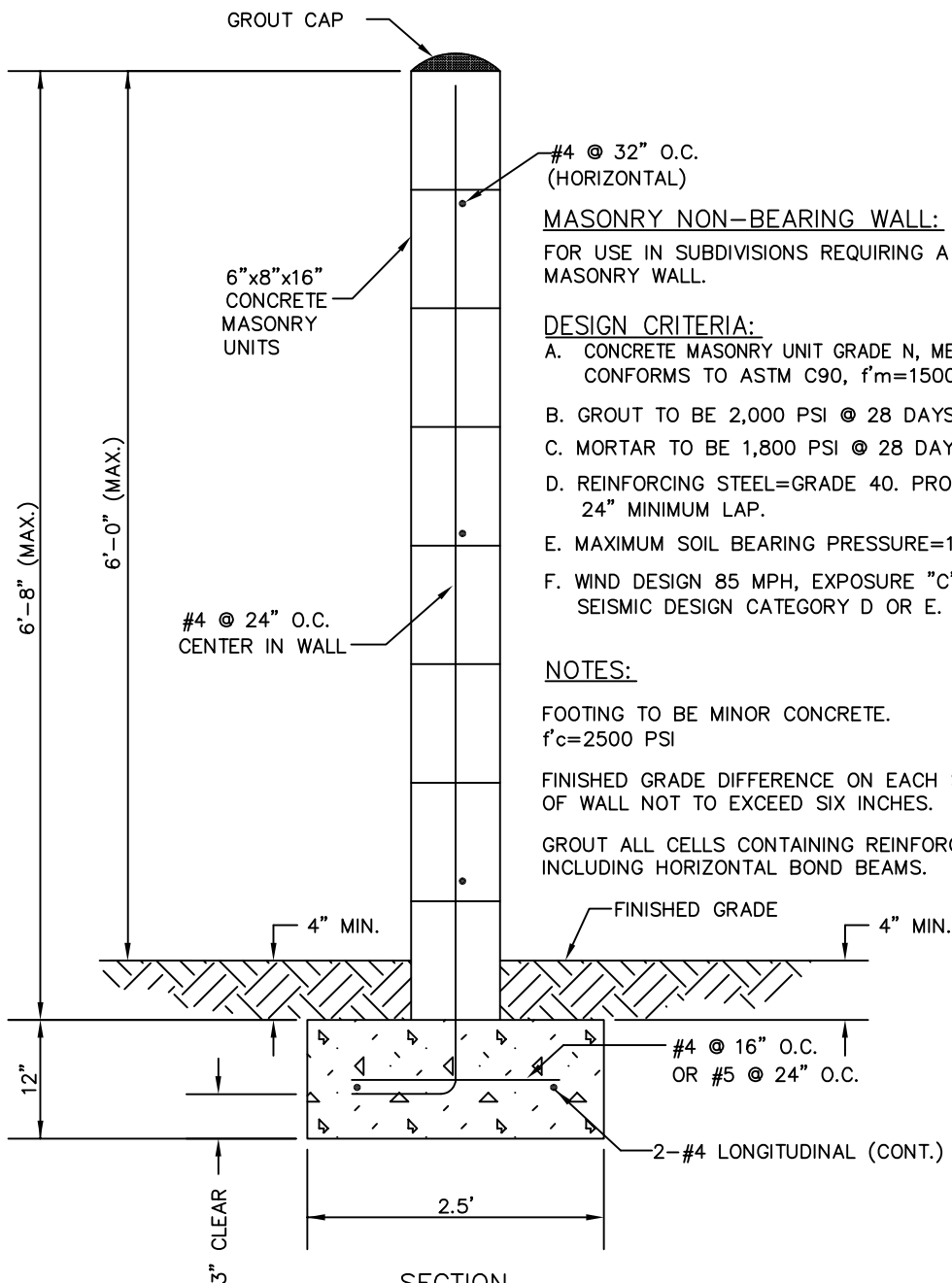
STREET LIGHT PULL BOX DETAILS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-76



MASONRY NON-BEARING WALL:

FOR USE IN SUBDIVISIONS REQUIRING A SIX FOOT MASONRY WALL.

DESIGN CRITERIA:

- CONCRETE MASONRY UNIT GRADE N, MEDIUM WEIGHT CONFORMS TO ASTM C90, $f'_m=1500$ PSI
- GROUT TO BE 2,000 PSI @ 28 DAYS
- MORTAR TO BE 1,800 PSI @ 28 DAYS
- REINFORCING STEEL=GRADE 40. PROVIDE 24" MINIMUM LAP.
- MAXIMUM SOIL BEARING PRESSURE=1500 PSF.
- WIND DESIGN 85 MPH, EXPOSURE "C" AND SEISMIC DESIGN CATEGORY D OR E.

NOTES:

FOOTING TO BE MINOR CONCRETE.
 $f'_c=2500$ PSI

FINISHED GRADE DIFFERENCE ON EACH SIDE OF WALL NOT TO EXCEED SIX INCHES.

GROUT ALL CELLS CONTAINING REINFORCEMENT, INCLUDING HORIZONTAL BOND BEAMS.

SECTION
NOT TO SCALE

95 MPH WIND SPEED
EXPOSURE C
(3-SECOND GUST)
FLAT TERRAIN



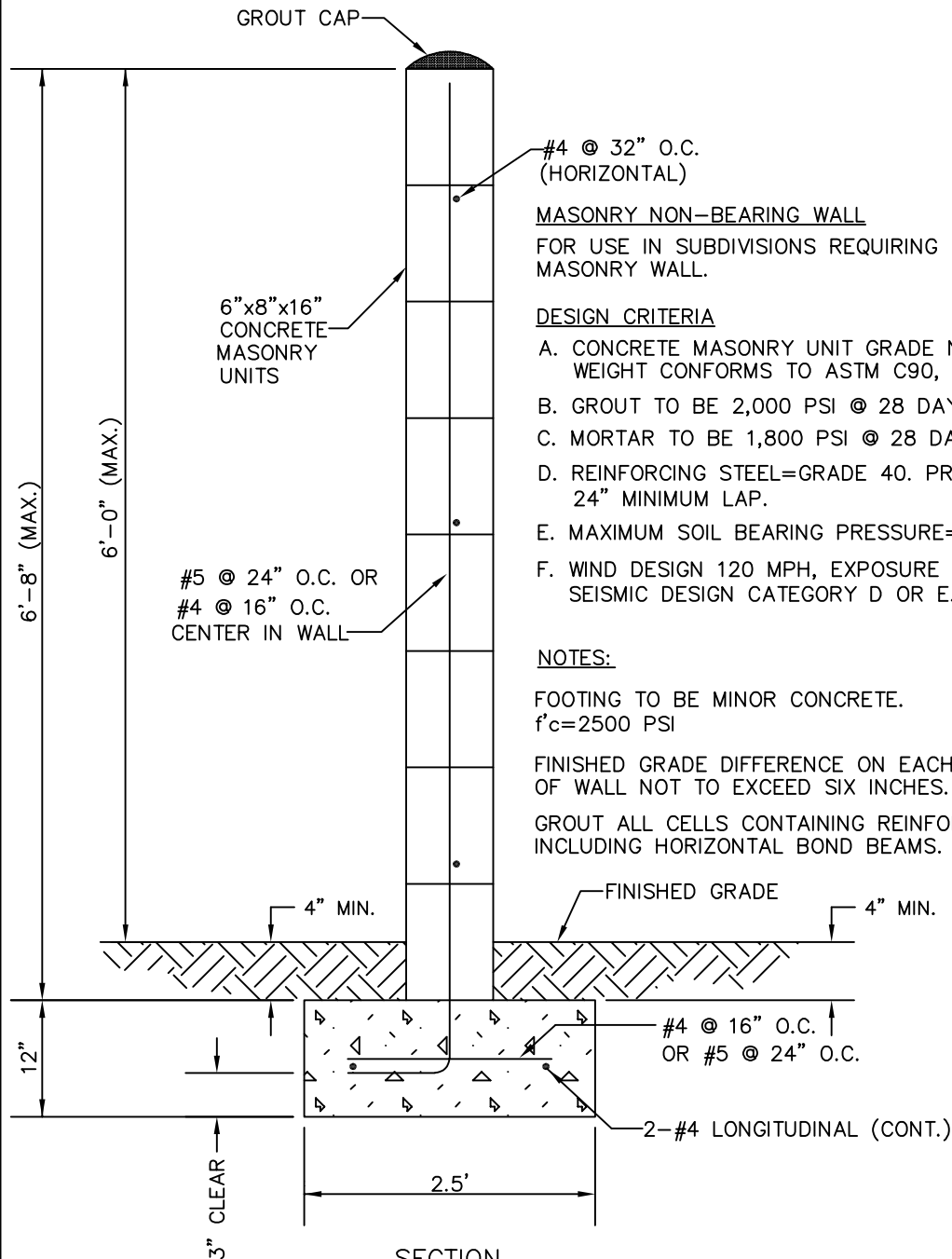
MASONRY NON-BEARING WALL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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DESIGNED BY: J.R.C.
DATE DRAFTED: 09/30/23
APPROVED BY: J.R.C.

PLATE NO.
R-77



MASONRY NON-BEARING WALL

FOR USE IN SUBDIVISIONS REQUIRING A SIX FOOT MASONRY WALL.

DESIGN CRITERIA

- CONCRETE MASONRY UNIT GRADE N, MEDIUM WEIGHT CONFORMS TO ASTM C90, $f'_m=1500$ PSI
- GROUT TO BE 2,000 PSI @ 28 DAYS
- MORTAR TO BE 1,800 PSI @ 28 DAYS
- REINFORCING STEEL=GRADE 40. PROVIDE 24" MINIMUM LAP.
- MAXIMUM SOIL BEARING PRESSURE=1500 PSF.
- WIND DESIGN 120 MPH, EXPOSURE "C" AND SEISMIC DESIGN CATEGORY D OR E.

NOTES:

FOOTING TO BE MINOR CONCRETE.
 $f'_c=2500$ PSI

FINISHED GRADE DIFFERENCE ON EACH SIDE OF WALL NOT TO EXCEED SIX INCHES.

GROUT ALL CELLS CONTAINING REINFORCEMENT INCLUDING HORIZONTAL BOND BEAMS.

120 MPH WIND SPEED
EXPOSURE C
(3-SECOND GUST)
FLAT TERRAIN



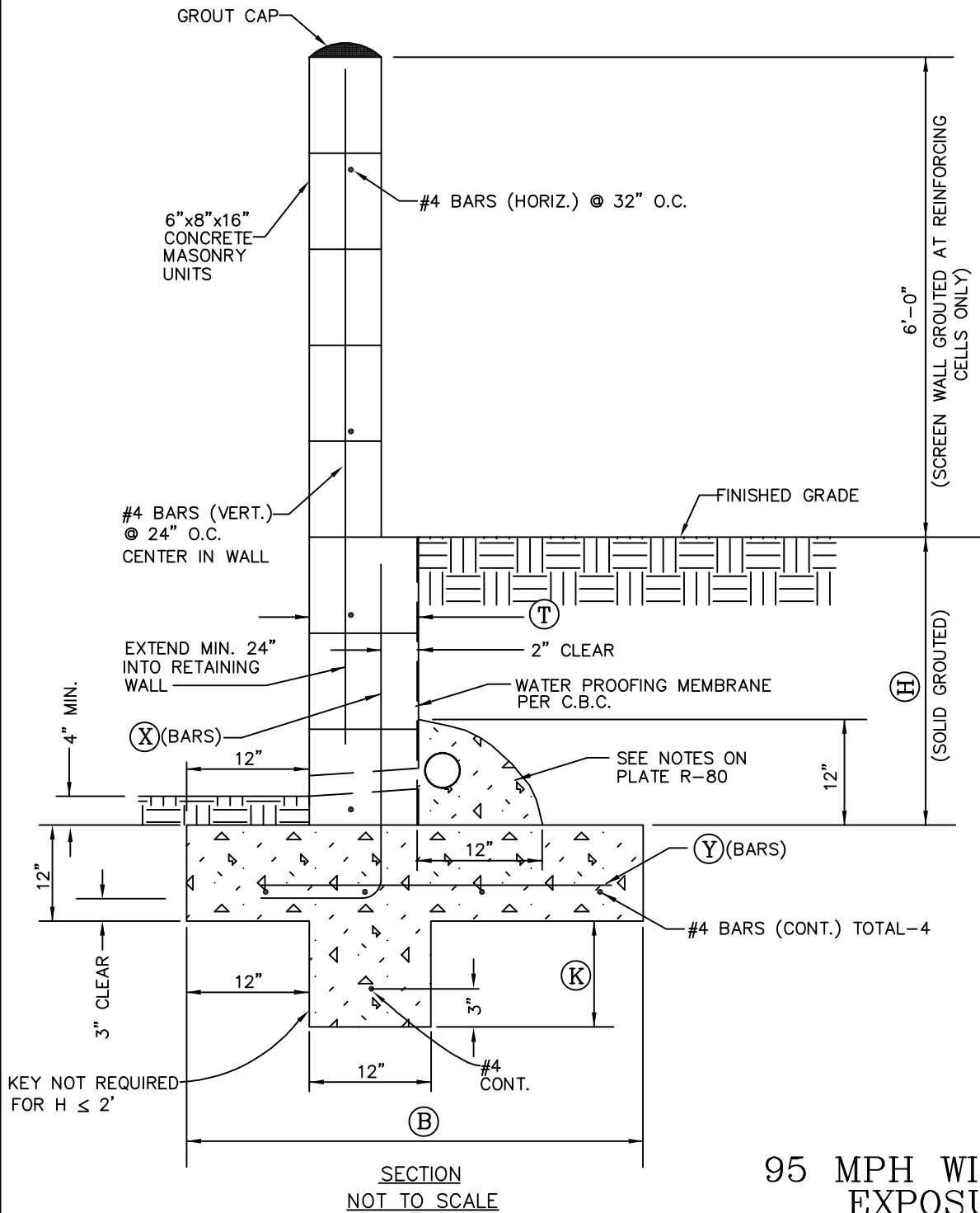
MASONRY NON-BEARING WALL

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-78



95 MPH WIND SPEED
EXPOSURE C
(3-SECOND GUST)
FLAT TERRAIN



MASONRY SCREEN / RETAINING WALL COMBINATION 1 OF 2

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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DATE DRAFTED:	09/30/23
APPROVED BY:	J.R.C.

PLATE NO.
R-79

MASONRY NON-BEARING WALL:
FOR USE IN SUBDIVISIONS REQUIRING
A SIX FOOT MASONRY WALL.

95 MPH WIND SPEED
EXPOSURE C
(3-SECOND GUST)
FLAT TERRAIN

DESIGN CRITERIA:

- A. SOIL EQUIVALENT FLUID PRESSURE = 45 PCF. ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF.
- B. CONCRETE MASONRY UNIT GRADE N, MEDIUM WEIGHT, CONFORMS TO ASTM C90, $f'_m=1500$ PSI.
- C. GROUT TO BE 2000 PSI @ 28 DAYS.
- D. MORTAR TO BE 1800 PSI @ 28 DAYS.
- E. FOOTING TO BE MINOR CONCRETE. $f'_c=2500$ PSI @ 28 DAYS.
- F. REINFORCING STEEL TO BE GRADE 40.
- G. MAXIMUM SLOPE OF RETAINED AREA SHALL NOT EXCEED 2%.
- H. IF RETAINING HEIGHT EXCEEDS 2', PROVIDE 4" PERFORATED PVC DRAIN LINE WITH A MINIMUM OF 1 CUBIC FOOT PER FOOT COMPACTED 1/2" GRAVEL BETWEEN WALL. PROVIDE 1 1/2" WEEP HOLE AT 100' O.C. MAXIMUM OR AT EACH PROPERTY LINE, WHICH EVER IS CLOSER OR OMIT HEAD JOINT IN 1ST COURSE @ 32" O.C. MAXIMUM FOR WEEP HOLE.
- I. MINIMUM SET BACK FOR STRUCTURES FROM WALL (RETAINED SIDE) IS "H" PLUS 2'.

NOTE:

CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.) CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS APPROVED PRIOR APPROVAL IS OBTAINED FROM THE COUNTY ENGINEER.

RETAINING HEIGHT (H)	WALL THICKNESS (T)	KEY DEPTH (K)	FOOTING WIDTH (B)	(X)(BARS)	(Y)(BARS)
0.5' - 2'	8"	-	2'-6"	#4 @ 24" O.C.	#4 @ 16" O.C. OR #5 @ 24" O.C.
2' - 4'	8"	12"	3'-3"	#4 @ 8" O.C. OR #5 @ 16" O.C.	#4 @ 16" O.C. OR #5 @ 24" O.C.
4' - 6'	12"	16"	5'-3"	#4 @ 8" O.C. OR #5 @ 16" O.C.	#4 @ 12" O.C. OR #5 @ 24" O.C.

	MASONRY SCREEN / RETAINING WALL COMBINATION 2 OF 2 COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	REVISIONS DATE DESC	DRAFTED BY: R.R.P.	PLATE NO. R-80
		- -	DESIGNED BY: J.R.C.	
		- -	DATE DRAFTED: 09/30/23	
		- -	APPROVED BY: J.R.C.	
		- -		



120 MPH WIND SPEED
EXPOSURE C
(3-SECOND GUST)
FLAT TERRAIN

MASONRY NON-BEARING WALL:
FOR USE IN SUBDIVISIONS REQUIRING
A SIX FOOT MASONRY WALL.

DESIGN CRITERIA:

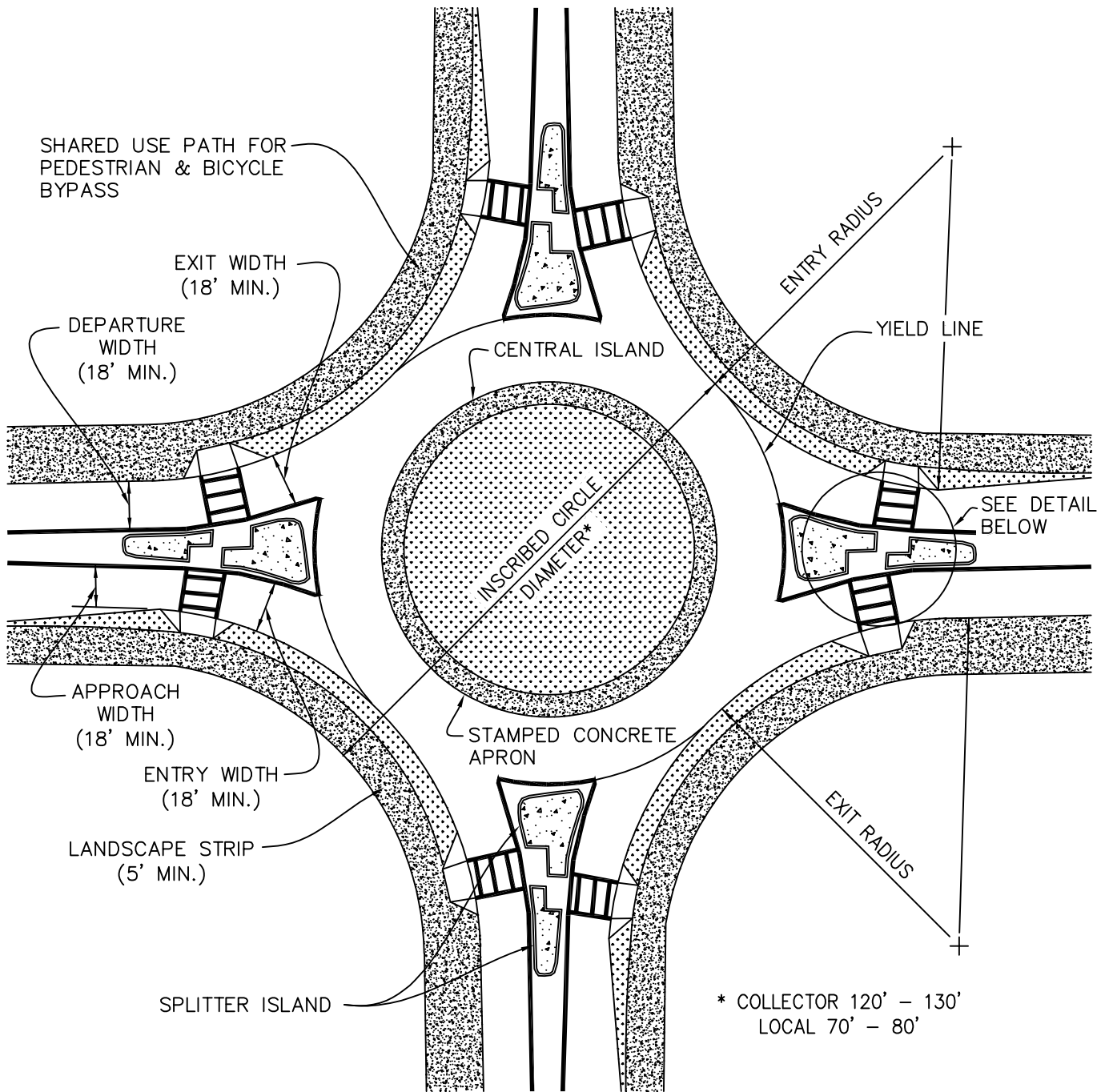
- A. SOIL EQUIVALENT FLUID PRESSURE = 45 PCF. ALLOWABLE SOIL BEARING PRESSURE = 1500 PSF.
- B. CONCRETE MASONRY UNIT GRADE N, MEDIUM WEIGHT, CONFORMS TO ASTM C90, $f'_m=1500$ PSI.
- C. GROUT TO BE 2000 PSI @ 28 DAYS.
- D. MORTAR TO BE 1800 PSI @ 28 DAYS.
- E. FOOTING TO BE MINOR CONCRETE. $f'_c=2500$ PSI @ 28 DAYS.
- F. REINFORCING STEEL TO BE GRADE 40.
- G. MAXIMUM SLOPE OF RETAINED AREA SHALL NOT EXCEED 2%.
- H. IF RETAINING HEIGHT EXCEEDS 2', PROVIDE 4" PERFORATED PVC DRAIN LINE WITH A MINIMUM OF 1 CUBIC FOOT PER FOOT COMPACTED 1/2" GRAVEL BETWEEN WALL. PROVIDE 1 1/2" WEEP HOLE AT 100' O.C. MAXIMUM OR AT EACH PROPERTY LINE, WHICH EVER IS CLOSER OR OMIT HEAD JOINT IN 1ST COURSE @ 32" O.C. MAXIMUM FOR WEEP HOLE.
- I. MINIMUM SET BACK FOR STRUCTURES FROM WALL (RETAINED SIDE) IS "H" PLUS 2'.

NOTE:

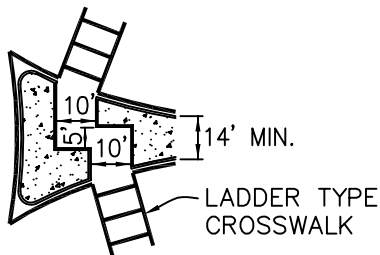
CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR MINOR CONCRETE (MIN. CEMENT CONTENT 505 LB/CU.YD.) CONCRETE SHALL CONTAIN NO ADDITIVES UNLESS APPROVED PRIOR APPROVAL IS OBTAINED FROM THE COUNTY ENGINEER.

RETAINING HEIGHT (H)	WALL THICKNESS (T)	KEY DEPTH (K)	FOOTING WIDTH (B)	(X)(BARS)	(Y)(BARS)
0.5' - 2'	8"	-	3'-0"	#4 @ 16" O.C.	#4 @ 16" O.C. OR #5 @ 24" O.C.
2' - 4'	8"	12"	3'-6"	#4 @ 8" O.C. OR #5 @ 16" O.C.	#4 @ 16" O.C. OR #5 @ 24" O.C.
4' - 6'	12"	16"	5'-6"	#4 @ 8" O.C. OR #5 @ 16" O.C.	#4 @ 12" O.C. OR #5 @ 24" O.C.

	MASONRY SCREEN / RETAINING WALL COMBINATION 2 OF 2	REVISIONS	DRAFTED BY: R.R.P.	PLATE NO. R-82
		DATEDESC		
	-	-	DESIGNED BY: J.R.C.	
	-	-		
	-	-	DATE DRAFTED: 09/30/23	
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	-	-	APPROVED BY: J.R.C.	
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COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD				



NOT TO SCALE



CROSSWALK SPLITTER ISLAND DETAIL



TYPICAL ROUNDABOUT STANDARDS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS	DATE	DESC
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DRAFTED BY: R.R.P.

DESIGNED BY: J.R.C.

DATE DRAFTED: 09/30/23

APPROVED BY: J.R.C.

PLATE NO.

R-83A

NOTES:

1. PROPOSED USE OF ROUNDABOUT INTERSECTIONS IS SUBJECT TO APPROVAL OF THE PUBLIC WORKS DIRECT.
2. EACH PROPOSAL SHALL BE DEVELOPED IN ACCORDANCE WITH THE NATIONAL COOPERATIVE RESEARCH PROGRAM (NCHRP) REPORT 672 (REPORT), CURRENT EDITION AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) HIGHWAY DESIGN MANUAL (HDM), SECTION 405.10 (ROUNDABOUTS), CURRENT EDITION AND THESE STANDARDS.
3. THE REPORT WILL GOVERN WHERE THERE ARE DIFFERENCES WITH THE HDM. THESE STANDARDS WILL GOVERN OVER BOTH HDM AND REPORT.
4. ONLY SINGLE LANE ROUNDABOUTS WILL BE ALLOWED AND PERMITTED UNDER THE FOLLOWING CONDITIONS:
 - A. COLLECTOR-COLLECTOR INTERSECTIONS WHERE NEITHER STREETS BUILD-OUT VOLUME EXCEEDS 10,000 VEHICLES PER DAY.
 - B. LOCAL STREET INTERSECTION ON LOCAL COLLECTOR STREETS, AT A SPACING OF NO CLOSER THAN EVERY OTHER INTERSECTION.
 - C. PEAK HOUR APPROACH VOLUMES WILL NOT EXCEED 80% OF APPROACH CAPACITY.
 - D. PEAK HOUR EXIT VOLUMES WILL NOT EXCEED 80% OF EXIT CAPACITY.
5. GEOMETRIC DESIGN FOR ROUNDABOUTS SHALL BE DESIGNED TO INCLUDE THE FOLLOWING PARAMETERS:
 - A. DESIGN SHALL ACCOMMODATE THE MORE RESTRICTIVE OF EITHER THE LARGEST COUNTY FIRE TRUCK CURRENTLY IN USE OR THE WB-50 DESIGN VEHICLE. WHEEL PATH PLOTS SHALL BE PROVIDED.
 - B. TYPICALLY CROSS SECTIONS AND TRAVERSABLE CONCRETE TRUCK APRONS SHALL BE IN ACCORDANCE WITH EXHIBITS 6-76 THROUGH 6-78 OF THE REPORT.
 - C. MAXIMUM DESIGN SPEED SHALL BE IN ACCORDANCE WITH THE REPORT. (EXCEPTION: COLLECTORS SHALL BE 20 MPH AND ON LOCAL STREETS SHALL BE 5 MPH).
 - D. STOPPING SIGHT DISTANCE SHALL BE IN ACCORDANCE WITH THE REPORT AND THE COUNTY STANDARDS. PLOTS OF SIGHT LINE VIEW SHEDS SHALL BE PROVIDED.
 - E. BICYCLE ENTRY RAMP AND SHARED USE PATH SHALL BE PROVIDED ON COLLECTOR STREETS IN ACCORDANCE WITH THE REPORT TO PROVIDE FOR CYCLISTS WHO PREFER NOT USE THE CIRCULATORY ROADWAY. IN ALL CASES, ENTRY, EXIT, AND CIRCULATORY, ROADWAY WIDTH SHALL BE SHARABLE AND SUFFICIENT TO ACCOMMODATE CYCLISTS.
 - F. TRANSITIONS FROM STANDARD STREET WIDTHS TO AND FROM THE APPROACHES SHALL BE IN ACCORDANCE THE COUNTY AND THE HDM GEOMETRIC DESIGN STANDARDS.
6. SIGNING, STRIPING, AND MARKING SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD).



TYPICAL ROUNDABOUT STANDARDS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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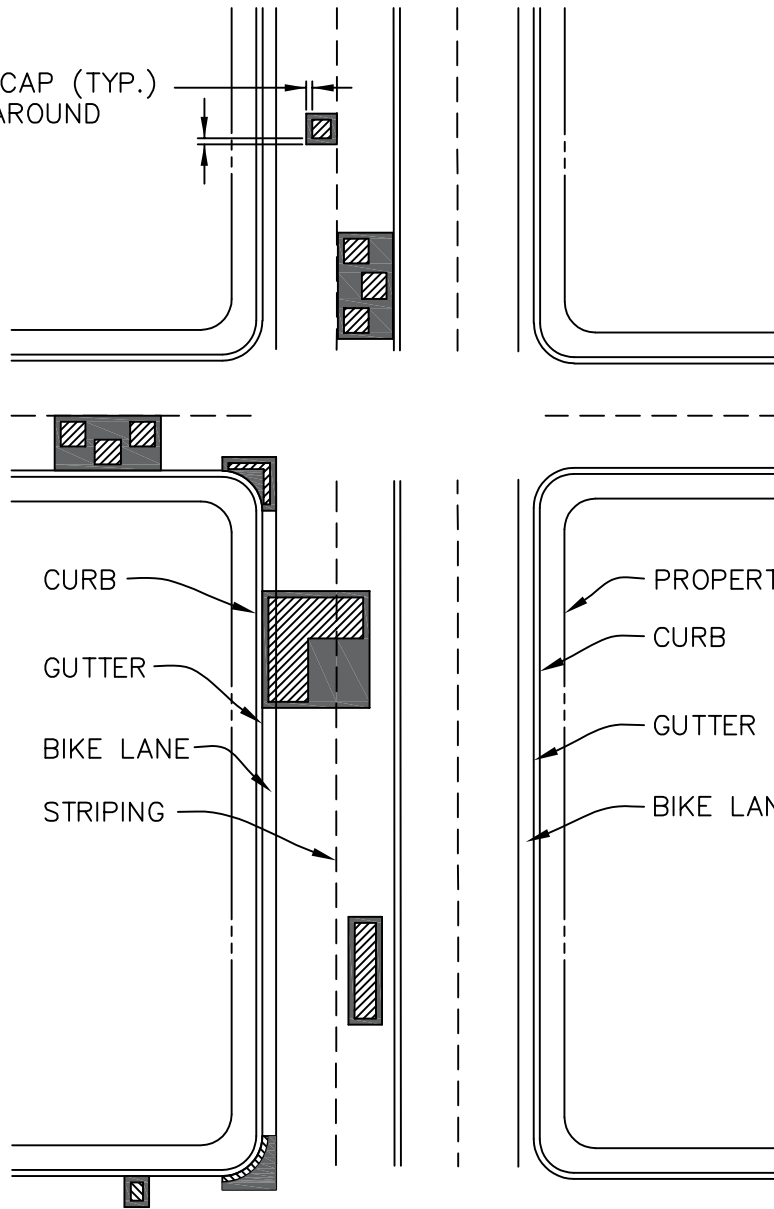
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PLATE NO.
R-83B

1' T-CAP (TYP.)
ALL AROUND



2' T-CAP (TYP.)

1' T-CAP (TYP.) W/10'
C&G ON EACH SIDE

1' T-CAP (TYP.)

LEGEND

TRENCH "T"-SECTION
"T-CUT" LIMITS

GRIND & RESURFACE
"T-CAP" LIMITS

NOT TO SCALE



GRIND AND RESURFACE "T-CAP" LIMITS

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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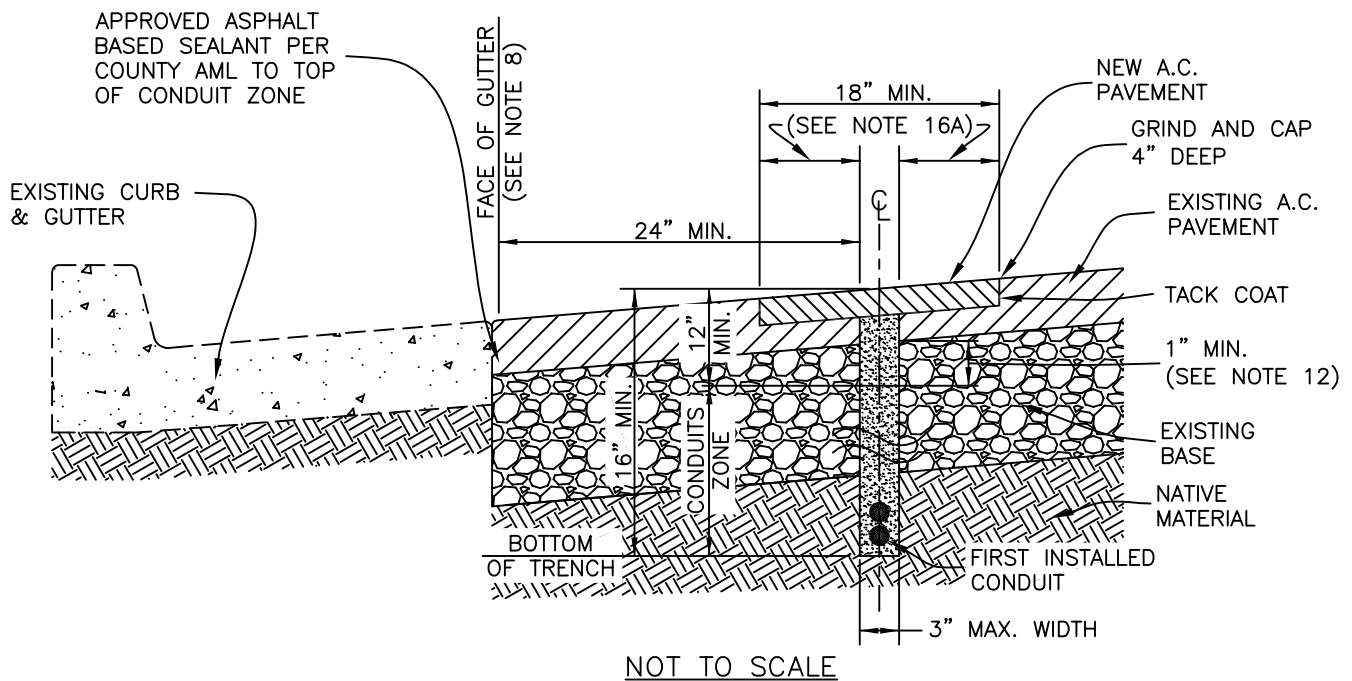
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PLATE NO.

R-84



NOTES:

1. MICRO-TRENCHING SHALL ONLY BE USED TO INSTALL TELECOMMUNICATION CONDUITS.
2. MICRO-TRENCHING SHALL NOT BE ALLOWED IN CONCRETE PAVED STREETS, NOR SIDEWALKS, PARKWAYS, CURBS, AND GUTTERS.
3. THE CONTRACTOR SHALL IDENTIFY ALL EXISTING UTILITIES, INCLUDING SERVICE CONNECTIONS IN THE FIELD. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (U.S.A.) AT LEAST 48 HOURS PRIOR TO START OF WORK AT 8-1-1, OR TOLL-FREE AT 1-800-422-4133. THE CONTRACTOR SHALL FURTHER SUPPLEMENT THE FINDINGS OF U.S.A. TO DETERMINE THE EXACT LOCATIONS AND DEPTHS OF ALL UTILITIES BY USING A MOBILE GROUND PENETRATING RADAR SYSTEM. THE CONTRACTOR SHALL POTHOLE ALL CROSSING UTILITIES AND PARALLEL UTILITIES WITHIN 18-INCHES OF THE PROPOSED ALIGNMENT TO A DEPTH OF 6-INCHES BELOW THE BOTTOM OF THE MICRO-TRENCH, TO DETERMINE THE EXISTING UTILITY ALIGNMENT AND ELEVATION. POTHOLES SHALL BE IMMEDIATELY BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS OR RESTORED AS DIRECTED BY THE ENGINEER.
4. IF EXISTING UTILITIES ARE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE INSPECTOR, ENGINEER AND UTILITY OWNER TO PERFORM THE REPAIRS PROMPTLY ACCORDING TO THEIR REQUIREMENTS AND PER ASSOCIATED CITY PERMITS.
5. THE FOLLOWING ITEMS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR APPROVAL:
 - A. PROVIDE A DETAILED SITE PLAN PER THE LATEST EXCAVATION "U" PERMIT CHECKLIST FOUND IN THE DEVELOPMENT SERVICES PROCEDURES MANUAL.
 - B. A STREET CROSS-SECTION THAT INCLUDES THE FOLLOWING INFORMATION:
 - (1) THE CURB AND GUTTER, ASPHALT CONCRETE (A.C.) ROADWAY APPROXIMATE THICKNESS, BASE, DEPTH AND WIDTH OF MICRO-TRENCH, DEPTH OF TOPMOST CONDUIT, DISTANCES OF MICRO-TRENCH TO FACE OF GUTTER, CURB, CONCRETE PAVEMENT OR STRUCTURE AS APPLICABLE, AND BACKFILL MATERIAL.
 - (2) A.C. REINSTATEMENT INCLUDING WIDTH AND DEPTH OF GRIND AND CAP, STARTING FROM GUTTER FACE, CURB, SLAB OR STRUCTURE AS APPLICABLE.



MICRO-TRENCH BACKFILL FOR DRY UTILITIES

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

REVISIONS DATE	DESC
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PLATE NO.
R-85

NOTES (CONT.):

- C. DETAIL SHOWING CONDUIT FROM MAIN MICRO-TRENCH ALIGNMENT TO LATERAL SURFACE CONNECTIONS INCLUDING TO ANY JUNCTION/PULL BOX. INCLUDE SPECIFIC INFORMATION OF DEPTH, SIZE, AND METHOD OF EXCAVATION BELOW EXISTING CURB AND GUTTER.
- D. CUT SHEETS OF THE PROPOSED EQUIPMENT PARTICULARLY SUITABLE FOR MICRO-TRENCHING, INCLUDING:
- (1) MICRO-TRENCHER CAPABLE OF MEETING TARGET DEPTH AND WIDTH IN A SINGLE PASS WITH AN INTEGRAL HOOD AND ASSOCIATED VACUUM SYSTEM. SELECTION OF CUTTING WHEEL SHALL BE SUCH THAT IT MINIMIZES DAMAGE TO THE ADJACENT A.C. SURFACE.
 - (2) MOBILE CONCRETE/SLURRY PLACEMENT WITH AN ON-BOARD VIBRATOR AND NARROW TROUGH TO MATCH MICRO-TRENCH WIDTH.
 - (3) MOBILE GROUND PENETRATING RADAR SYSTEM THAT IS CAPABLE OF LOCATING BOTH METALLIC AND NON-METALLIC PIPES AND CABLES TO A DEPTH OF 24-INCHES.
- E. OTHER SITE SPECIFIC ITEMS AS REQUIRED BY THE ENGINEER.

LIMITS OF REMOVALS, TRENCH WIDTH, AND LOCATION

6. THE MICRO-TRENCH SHALL BE CONSTRUCTED WITH CONTINUOUS UNIFORM STRAIGHT AND NEAT EDGES.
7. MICRO-TRENCH ALIGNMENTS SHALL CONSIST OF RUNS PARALLEL TO THE CENTERLINE OF THE STREET. STREET CROSSING MAY BE DONE PROVIDED THE ALIGNMENT IS PERPENDICULAR TO THE STREET CENTERLINE TO THE EXTENT POSSIBLE.
8. THE EDGE OF THE MICRO-TRENCH SHALL BE A MINIMUM OF 24-INCHES FROM THE EXISTING FACE OF THE GUTTER, EXISTING CONCRETE STRUCTURE, OR CURB IF GUTTER IS NOT PRESENT.
9. THE MICRO-TRENCH WIDTH SHALL BE A MINIMUM OF 1-INCH AND A MAXIMUM OF 2-INCHES.
10. MICRO-TRENCHING MAY BE PERMITTED UPON THE ENGINEER'S DISCRETION ON SPECIAL PAVEMENTS SUCH AS DECORATIVE ASPHALT PAVING, AND THROUGH EXISTING IMPROVEMENTS SUCH AS PERPENDICULAR TO SPEED BUMPS. SPECIAL PAVEMENTS AND EXISTING IMPROVEMENTS SHALL BE RESTORED IN KIND AS APPROVED BY THE ENGINEER. HOWEVER, MICRO-TRENCHING THROUGH EXISTING CURB, GUTTER, CROSS GUTTER, BUS PAD, SIDEWALK, FLOATING CURB EXTENSION, BUS BULB, TRUCK PILLOW, RAISED CROSSWALK, ISLAND, MINI-ROUNDBOUT, OR SIMILAR ELEMENTS IS NOT PERMITTED.
11. UP TO TWO (2) VERTICALLY STACKED CONDUITS CAN BE PLACED WITHIN A MICRO-TRENCH.
12. THE CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 12-INCHES BELOW THE EXISTING A.C. PAVEMENT SURFACE, AT LEAST 1-INCH BELOW THE BOTTOM OF THE A.C. PAVEMENT, AND THE BOTTOM OF THE MICRO-TRENCH SHALL BE AT A MINIMUM DEPTH OF 16-INCHES BELOW THE EXISTING A.C. PAVEMENT SURFACE.
13. ANCHORS/SPACERS SHALL BE PLACED AT A MAXIMUM OF 10-Feet APART ALONG THE ALIGNMENT TO ENSURE THE CONDUIT DOES NOT RISE FROM THE BOTTOM OF THE MICRO-TRENCH AND DOES NOT TOUCH THE WALLS OF THE MICRO-TRENCH DURING INSTALLATION.

BACKFILL

14. ALL MICRO-TRENCHES SHALL BE COMPLETELY BACKFILLED WITH A CEMENT SAND SLURRY 2500 PSI TO FINISH GRADE BY THE END OF THE WORK DAY.

GRIND AND RESURFACE SECTION

15. COMMENCEMENT OF SURFACE PREPARATION SUCH AS GRINDING/CHIPPING FOR ASPHALT CONCRETE PAVING REPLACEMENT WILL OCCUR NO SOONER THAN 48 HOURS AFTER SLURRY BACKFILL OF TRENCH. FIELD CONDITIONS OR MATERIAL USED MAY NECESSITATE A LONGER WAIT AS DETERMINED BY THE INSPECTOR.
16. AS SOON AS BACKFILL HAS CURED, NOT TO EXCEED 30 CALENDAR DAYS, ASPHALT CONCRETE SHALL BE GROUND AND CAPPED AS FOLLOWS:
 - A. EXISTING A.C. AND SLURRY BACKFILL SHALL BE GROUND DOWN 4-INCHES, FOR A WIDTH OF 18-INCHES BUT NO LESS THAN 6-INCHES FROM BOTH EDGES OF THE MICRO-TRENCH AND RESURFACED WITH CLASS C2 ASPHALT AND BINDER GRADE PER BROWNBOK TABLE 302-5.1 (A).
 - B. TACK COAT ALL EDGES WITH EITHER SS-1H EMULSIFIED ASPHALT OR PG 64-10 PAVING ASPHALT IMMEDIATELY BEFORE THE ADJOINING ASPHALT CONCRETE IS PLACED.

	MICRO-TRENCH BACKFILL FOR DRY UTILITIES	REVISIONS		DRAFTED BY: R.R.P.	PLATE NO. R-86
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	—	—	APPROVED BY: J.R.C.		
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COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD					

NOTES (CONT.):

- C. WHERE ANGULAR CROSSING OR ANY LENGTH-WISE CUTS OF A BIKE LANE OCCUR BY MICRO-TRENCHING, THE CAPPING LIMITS SHALL EXTEND THE FULL WIDTH OF THE BIKE LANE. PERPENDICULAR CROSSINGS MAY RECEIVE TYPICAL CAPPING WIDTH PER NOTE 16.A. ABOVE. PAVEMENT MARKINGS SHALL BE RESTORED IN KIND. WHERE NO BIKE LANE MARKINGS EXIST, CONTRACTOR SHALL CONSULT WITH THE KERN COUNTY PUBLIC WORKS DEPARTMENT – TRAFFIC DIVISION TO DETERMINE LOCATION OF ANY PLANNED BIKE LANES SO THAT IMPACT OF PAVEMENT SURFACE MAY BE AVOIDED.
- D. PAVEMENT SHALL BE LEVEL WITH ADJACENT ROADWAY ELEVATIONS AND SHALL PROVIDE A SMOOTH SURFACE PER GREENBOOK SECTION 302-5 AS AMENDED BY THE BROWNBOOK AND SUBJECT TO ACCEPTANCE BY THE INSPECTOR.

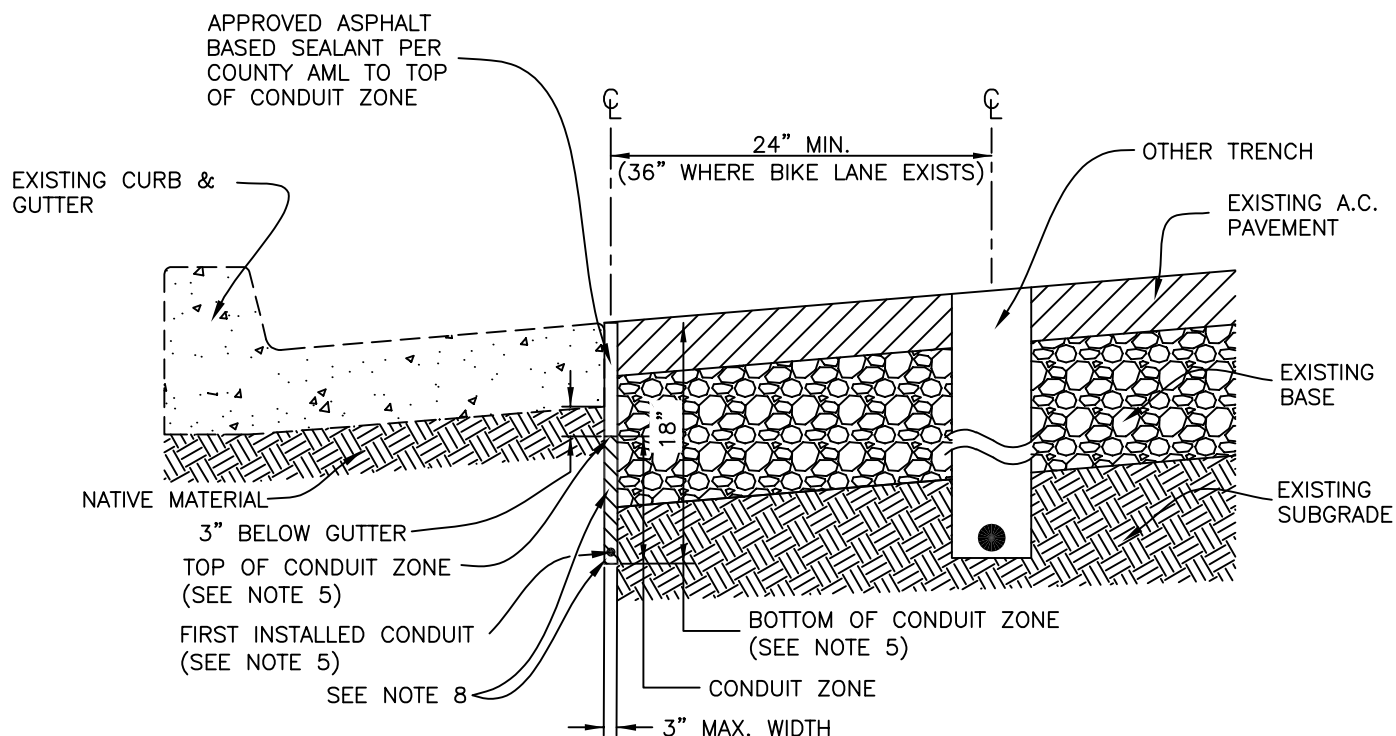
VAULTS AND SERVICE CONNECTIONS

17. CONNECTION TO SERVICE LATERALS, JUNCTION BOXES, ETC., SHALL BE DONE SUCH THAT CURB AND GUTTER IS NOT DISTURBED, SETTLED OR DAMAGED. REMOVAL LIMITS OF SIDEWALK SHALL FOLLOW APPLICABLE STANDARDS AND REQUIREMENTS AS APPROVED BY THE ENGINEER.
18. THE USE OF HYDRO-JETTING IS NOT PERMITTED. TRENCHLESS METHODS SHALL NOT CREATE A VOID TWO TIMES GREATER THAN CONDUIT. VOID SHALL BE COMPACTED AND BACKFILLED WITH APPROVED CONTROLLED LOW-STRENGTH MATERIAL (CLSM).

IDENTIFICATION

19. EACH MICRO-TRENCH SHALL BE IDENTIFIED WITH A METAL IDENTIFICATION TAG LISTING THE OWNER, YEAR OF CONSTRUCTION, AND INCLUDE THE WORDS "NOT A SURVEY POINT". IF THE WORK IS MORE THAN 50 FEET IN LENGTH, PLACE THE TAG NEAR EACH END OF THE MICRO-TRENCH AND AT INTERVALS NOT TO EXCEED 50 FEET.

	MICRO-TRENCH BACKFILL FOR DRY UTILITIES	REVISIONS	DRAFTED BY: R.R.P.	PLATE NO. R-87
		DATE DESC		
	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	- -	DESIGNED BY: J.R.C.	
		- -	DATE DRAFTED: 09/30/23	
		- -	APPROVED BY: J.R.C.	
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NOT TO SCALE

LEGEND:

—MTC— MICRO-TRENCH CONDUIT (MTC)

NOTES:

- PAVEMENT CUTS SHALL BE STRAIGHT AND CLEAN. SPALLS AND POTHOLES WITHIN 12-INCHES OF MICRO-TRENCH SHALL BE REPAIRED PRIOR TO TRENCHING TO FACILITATE STRAIGHT PAVEMENT CUTS.
- INSTALL 1-INCH WIDE (FOLDED) WARNING/IDENTIFICATION TAPE PER SDM-105.
- TRENCH LOCATION SHALL BE AT EDGE OF CURB AND GUTTER. NO MICRO-TRENCHES ALONG MEDIAN CURBS SHALL BE ALLOWED. THE LOCATION OF MICRO-TRENCH IN RELATION TO THE CURB SHALL NOT DEVIATE ALONG ITS ALIGNMENT UNLESS OTHERWISE APPROVED BY THE COUNTY.
- WHERE THERE IS NO EXPOSED OR VISIBLE CONCRETE GUTTER, THE CONDUIT SHALL BE INSTALLED IN A NARROW TRENCH PER SDG-117.
- FIRST INSTALLED CONDUIT SHALL BE PLACED AT A DEPTH OF 18-INCHES WITHIN THE CONDUIT ZONE. THE CONDUIT ZONE SHALL BE 3-INCHES FROM BOTTOM OF GUTTER THROUGH 18-INCHES FROM LIP OF GUTTER. ADDITIONAL CONDUIT(S) SHALL BE INSTALLED WITHIN CONDUIT ZONE, UNLESS OTHERWISE APPROVED BY THE COUNTY.
- ONLY ONE MICRO-TRENCH PER SIDE OF THE STREET IS ALLOWED. IF A MICRO-TRENCH EXISTS AND NO ADDITIONAL CONDUIT CAN BE INSTALLED IN THE SAME TRENCH, THE NEW CONDUIT SHALL BE INSTALLED IN NARROW TRENCH PER SDG-117.
- AT STREET INTERSECTIONS, CONDUIT SHALL BE INSTALLED IN NARROW TRENCH PER SDG-117 WITH PAVEMENT RESURFACING AND ANY OTHER REQUIREMENTS PER COUNTY REGULATIONS, OR USE TUNNELING PER COUNTY STANDARDS.
- BACKFLOW/BEDDING BELOW ASPHALT BASED SEALANT SHALL BE DRY SAND (SE 50 OR BETTER). ONCE PLACED, SAND SHALL BE THOROUGHLY CONSOLIDATED BY FLOODING.



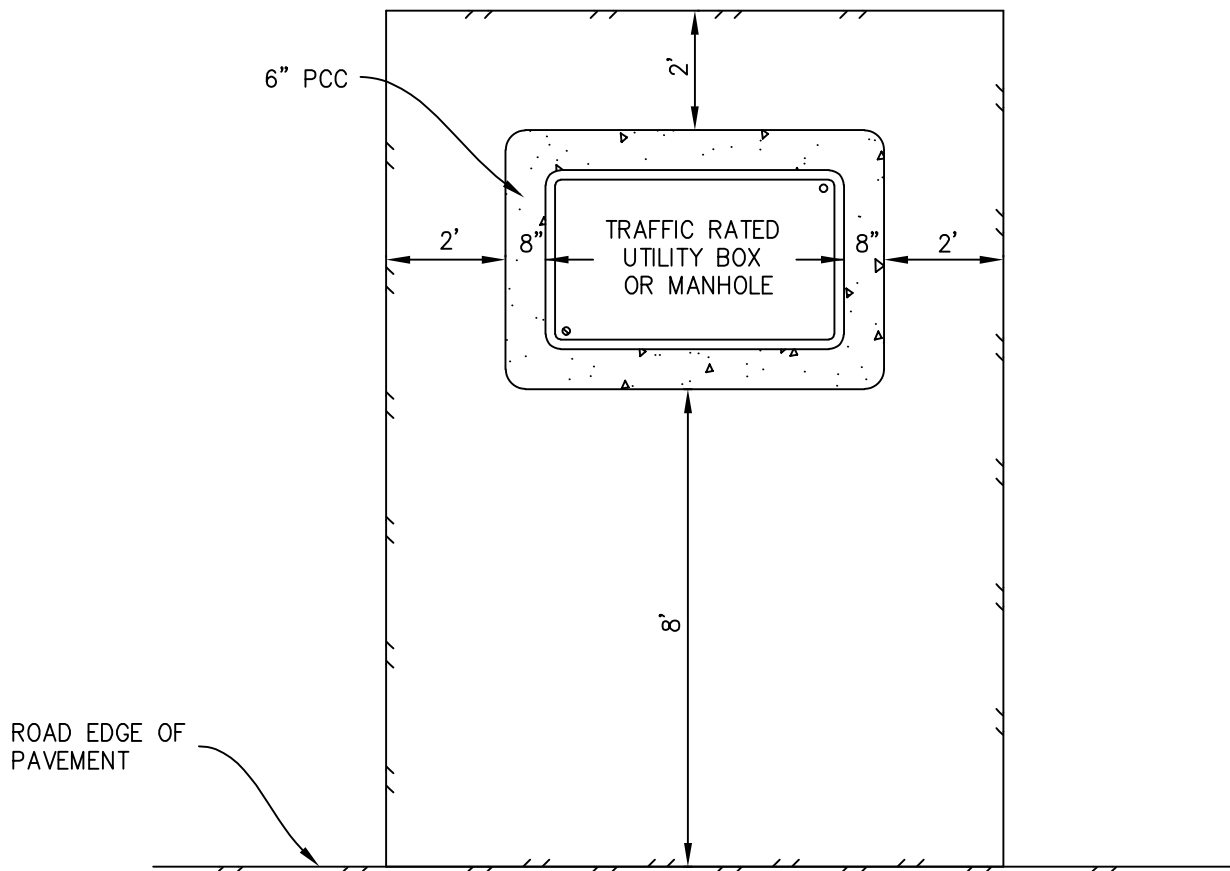
**MICRO-TRENCH BACKFILL
FOR DRY UTILITIES**

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

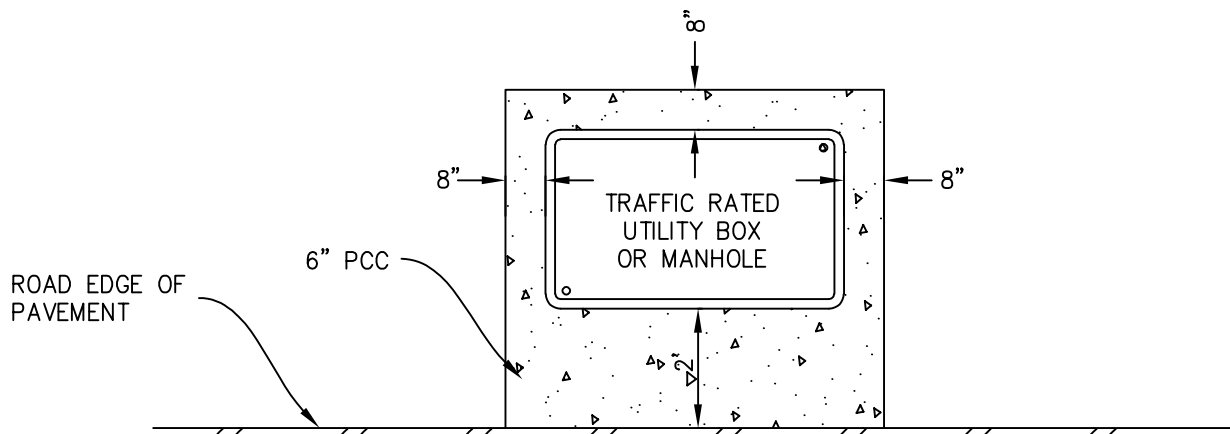
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PLATE NO.
R-88



INSTALLED IN ASPHALT CONCRETE WITH CONCRETE COLLAR



INSTALLED IN PORTLAND CEMENT CONCRETE

NOT TO SCALE



TRAFFIC RATED UTILITY BOX IDetail

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

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APPROVED BY: J.R.C.

PLATE NO.
R-89