



ARAPAHOE COUNTY

2025 Infrastructure Design & Construction Standards Revision (IDCS)

Board of County Commissioner
Study Session October 28, 2025



Background

- IDCS had a major update that went into effect June 9, 2025
- This update continues with edits that were identified yet required more research or coordination with other PWD Divisions
- Updates will become more routine and on a yearly basis when needed



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Summary of Highlighted Changes

- Added abbreviations and acronym listing
- Adds statement regarding the Design Professionals–Licensed Engineers/Surveyors
- Clarified the County and South East Metro Stormwater Authority's relationship and administration
- Adds signage example for Private Roads
- Modifies pavement design to composite sections
- Includes pipe abandonment statement



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Summary of Highlighted Changes

- Updated pavement restoration for all street cuts permits
- Updated how the collateral amounts are established
- Adds back in Survey Control requirements
- Updates to as built and digital file requirements
- Clarifies Subsurface Underground Engineering (SUE) Requirements for Utility Construction Plans
- Further defines Clear Sight Distances for intersections and horizontal curves



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County - SEMSWA Relationship

Applicants often submit documents to SEMSWA for review, which delays the review process.

Clarifying how the review process works with all submittals coming to the County who then provides the information to SEMSWA.

Additionally, providing clarity around which permits SEMSWA issues



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Subsurface Underground Engineering

- One of the requirements from SB 18-167 is to complete a certain level of utility locates for projects contracted with a public entity.
- Street Cut/ROW Use Permits are often needed for utility work and staff was finding that not all plans showed utility conflicts
 - Updated IDCS requires that the Engineer of records meet the requirements of CRS Title 9, Article 1.5
 - Site civil construction plans for a land use case are shown to an ASCE Quality Level B
 - Utility Construction Plans will show existing utilities to an ASCE Quality Level A



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Internal Feedback

- No comments were received
- ESD worked with Transportation, Planning and Road & Bridge for edits needed for signage, restoration and moratorium considerations

Pavement moratorium designation from 2 years to Overall Condition Index of 90 or higher

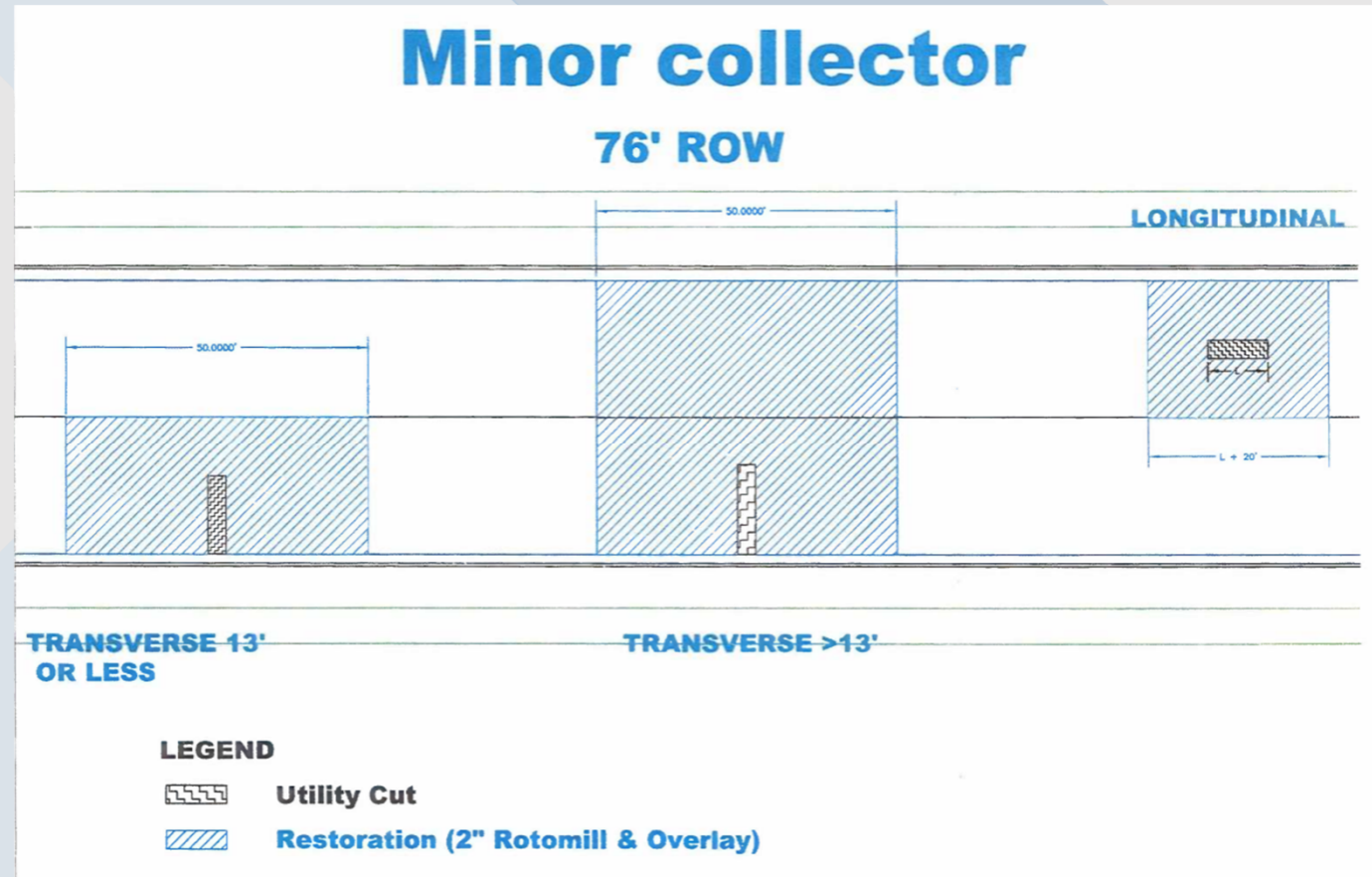




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Internal Feedback

- Pavement restoration examples

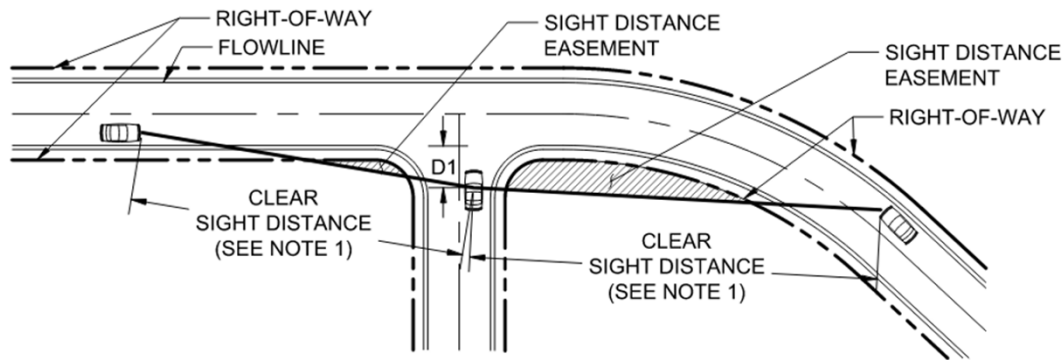




Internal Feedback

- Sight Distance

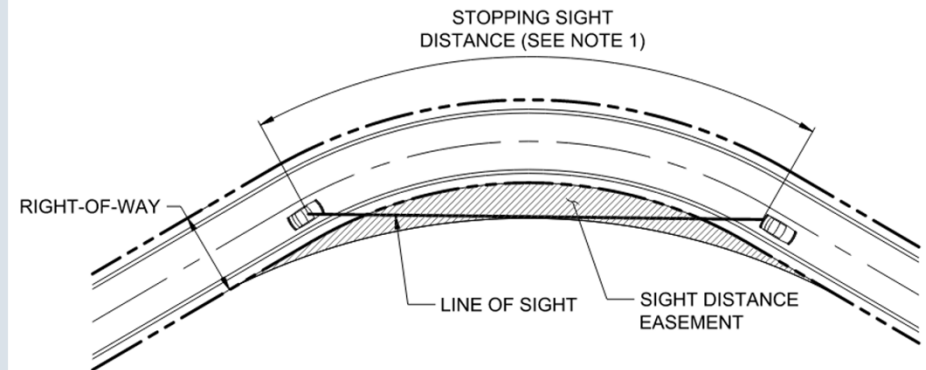
Figure 4.2 – Clear Sight Distance at Intersections



NOTES

1. APPROACH AND DEPARTURE SIGHT DISTANCES ARE TO BE CALCULATED FROM AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS (GREEN BOOK) CHAPTER 9, LATEST EDITION.

Figure 4.1 – Stopping Distance on Horizontal Curves



NOTES

1. STOPPING SIGHT DISTANCES ARE TO BE CALCULATED FROM AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS (GREEN BOOK) CHAPTER 3, LATEST EDITION.



Internal Feedback

- ESD working with County Attorney's Office for Collateral modifications

The engineer's estimate of cost to be current when the Subdivision Improvement Agreement is signed.

Included 15% for administration of contract in the Letter of Credit.



External Feedback

- One comment was received
- “Most of these changes appear non-substantive and/or reflect best industry practices. I particularly appreciate the updated pavement restoration requirements and doubling of fees during the moratorium periods.”



Future Revisions - Update

- Updated roadway cross-sections – 2026 Update
- Updates to Chapter 6 and 14 – 2026 Update
- Add abbreviations and acronyms list along with definitions – Done, definitions are in the LDC
- Provide private parking lot requirements for sectional thickness – Reviewed and found no other agencies has this requirement
- Annual and biannual updates for materials, references, and procedural refinements – Done and will be completed again in 2026
- Explanation of SEMSWAs SPIP permit and Probationary Acceptance updates for detentions and WQ ponds – Incorporated into this edit



Future Revisions Identified

- Update details in Appendix A
- Access for multiple 35 acre lots in rural areas
- Procedures better defined for traffic signal escrow agreement
- Establish a fee for variance requests
- Identified need to adjust both review fees and permit fees



Next Steps

- Address concerns or comments from BOCC
- Another Study Session if needed
- If no concerns, request adoption after a public hearing in January 13, 2026

Questions?

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Engineering Services Division





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From www.FHWA.dot.gov

Standard Of Care

The American Society of Civil Engineers (ASCE) has developed an important standard of care guideline, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, CI/ASCE 38-02.

This standard guideline describes four quality levels of utility depiction:

Quality Level D - Information derived from existing records or oral recollections.

Quality Level C - Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to Quality Level D.

Quality Level B - Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities.

Quality Level A - Precise horizontal and vertical location of utilities obtained by the actual exposure and subsequent measurement of subsurface utilities, usually at a specific point.

To order a copy of ASCE Standard 38-02, please go to the ASCE Bookstore: <http://www.pubs.asce.org/> or call 1-800-548-2723.

Project Application

