

# **CHAPTER 1 – POLICIES AND ENGINEERING DEVELOPMENT STANDARDS**

## **1.1 INTRODUCTION**

The purpose of the City of Surprise Engineering Development Standards (EDS) is to provide specific guidelines for the design and construction of public and private infrastructure. The information contained herein is limited to engineering standards, specifications, and guidelines that complement and support developments within the city. The city issues, adopts, and utilizes other documents as listed in Section 1.3 that pertain to the development process. These documents must be used in conjunction with this document according to their jurisdiction. The design concepts and specific technical data outlined in this document are not intended to supersede sound engineering judgment. All plans and engineering documents shall be prepared in accordance with this document and will be reviewed accordingly.

This document is not intended to repeal, abrogate, annul, or in any way impair or interfere with existing provisions of other laws or ordinances. Where these standards impose greater restrictions than those imposed or required by such existing provisions of law, ordinance, contract, or deed, the provisions of these standards shall prevail.

## **1.2 OVERVIEW OF THE ENGINEERING DEVELOPMENT STANDARDS**

This document is divided into ten chapters that cover specific elements of the engineering design and development process, with Supplemental Standard Details following Chapter 10. Updates will be published and made available periodically. The user of this document must ensure that the latest update is being employed in the design. Please check the city website at <http://www.surpriseaz.gov/> for the current EDS. The following is a list of the chapters included in this document:

- Chapter 1 - Policies and Engineering Development Standards
- Chapter 2 - Land Development Design and Construction Standards
- Chapter 3 - Street Design Standards
- Chapter 4 - Traffic Engineering Standards
- Chapter 5 - Storm Water Standards
- Chapter 6 - Water and Reclaimed Water Standards
- Chapter 7 - Sewer System Design Standards
- Chapter 8 - Landscaping and Irrigation Standards
- Chapter 9 - Construction Plans
- Chapter 10 - Construction Inspection Guidelines
  
- Supplemental Standard Details

### **1.3 APPLICABLE POLICIES, CODES, AND STANDARDS**

The applicant is responsible for obtaining and complying with current applicable policies, codes, and standards, including but not limited to the following:

1. Surprise Unified Development Code (SUDC)
2. City of Surprise General Plan
3. City of Surprise Integrated Water Master Plan (Water Resources and Water Infrastructure)
4. City of Surprise Water and Wastewater Facility Design Guidelines and Standards
5. City of Surprise Fire Department Emergency Access Book and Fire Code
6. City of Surprise Street Light Improvement District Process
7. City of Surprise Georeferencing Standards
8. City of Surprise Floodplain Management Ordinance
9. Federal, State, and County Regulations, including ADWR, FEMA, ADA, ADOT, MCDOT, MAG, NPDES, FCDMC, and MCDES
10. ADEQ Bulletins, including but not limited to Bulletins No. 8, 10 and 11
11. Arizona Game and Fish Department Guidelines for Bridge and Culvert Construction
12. Bell Road Access Management Plan
13. International Fire Code (IFC)

All developments shall be designed and constructed according to the standards mentioned above unless specific variances are approved by the city. Any deviation from the provisions presented in this document must be approved by the city through an Engineering Standards Modification Request as described in Section 1.4.

In the event there is a discrepancy or conflict among documents, the order of precedence in which documents shall govern is as follows: City approved Standard Modification Requests; Special Provisions; Project Plans; Standard Specifications and Details.

## **1.4 ENGINEERING STANDARDS MODIFICATION REQUESTS**

The Engineering Standards referenced in the EDS are not intended to prevent the use of alternative design methods. The City Engineer or designee may approve modifications to the standards provided that:

- a. The proposed modification meets the intent of this EDS and addresses health, life, and safety considerations.
- b. There are practical difficulties that prevent the application of the standards outlined in the EDS. Economic or self-imposed hardships are not to be considered practical difficulties. The applicant is responsible for supplying necessary information to determine whether or not there are practical difficulties that prevent application of the Standards.

The following applies to Engineering Standards Modification Requests:

1. Each modification request is site specific. Approval of a modification request is not a precedent for the approval of any subsequent request.
2. The applicant must submit two copies of the plan that specifically show the modification being requested and a completed 'Engineering Standards Modification Request Summary Form'. The form must be sealed by an Arizona Registered Professional Civil Engineer. See Appendix 1-1 for example form.
3. The City Engineer or designee shall approve or deny the modification request in writing and provide a copy to the applicant.

## **1.5 INSURANCE REQUIREMENTS**

Contractors and developers must provide a Certificate of Insurance naming the City of Surprise as an additional insured, including Liability, Auto, and Workers' Compensation.

### **1.5.1 Permittee Liability**

The permittee shall be responsible for all liability imposed by law for damages arising from or related to work performed, or failed to be performed, by the permittee, permittee's agents, contractors, and all tiers of subcontractors under the permit. If any claim of such liability is made against the city, its officers, or its employees, permittee shall defend, indemnify, and hold harmless the city from any such claim.

### **1.5.2 Insurance Limits**

No applicant shall be entitled to a permit unless they have filed and maintain on file with the city a current Certificate of Insurance certifying that the permittee carries public liability and property damage insurance issued by an insurance carrier authorized to do business in the State of Arizona, insuring the applicant, the city, and its agents against loss by reason of injuries to or death of persons, or damage to property arising out of or

related to work performed by the applicant, its agents, or its employees while performing work under the permit. Such insurance shall be primary and provide coverage for liability assumed by the applicant under this agreement and shall be provided by the permittee in the amounts established by the city.

### **1.5.3 Effective Timeframe of Insurance**

Failure of the applicant to provide the city with such a certificate, and failure by the city to demand the filing by the permittee of such a certificate before such a permit is issued shall not be deemed sufficient to waive the permittee's obligation to provide insurance. Such insurance certificate shall remain in effect and shall be kept on file with the city until all work being performed by the permittee has been completed. Where an encroachment involves a permanent obstruction, such insurance certificate requirements shall remain in effect until such obstruction is removed. The insurance certificate shall provide coverage that cannot be canceled or expire without providing ten days written notice of such action to the city.

### **1.5.4 Insurance of Permittee's Agents, Contractors, and Subcontractors**

Prior to permit issuance, permittee must identify and list all agents, contractors, and all tiers of subcontractors who will perform work for permittee under the subject permit. All such agents, contractors, and subcontractors must comply with all of the above provisions, including but not limited to providing a Certificate of Insurance to the City of Surprise containing all of the insurance requirements set forth in this section. The permittee shall be responsible for advising all subcontractors of these provisions and for ensuring compliance. If permittee engages any other agents, contractors, or any tier of subcontractor not initially scheduled prior to work commencing, permittee must notify the City of Surprise of such agent, contractor, or subcontractor and such agent, contractor, or subcontractor shall submit the appropriate Certificate of Insurance in compliance with this section.

**APPENDIX 1-1**

**ENGINEERING STANDARDS MODIFICATION REQUEST  
SUMMARY FORM**



**City of Surprise, Public Works Dept.**  
**Engineering Division**  
16000 N. Civic Center Plaza  
Surprise, AZ 85374-7470

## **ENGINEERING STANDARDS MODIFICATION REQUEST SUMMARY FORM**

*The following request is made per City of Surprise Engineering Development Standards Section 1.5. This request is only applicable to the below project location and shall not be considered a standard acceptable design method within the City of Surprise. This request must be sealed by an Arizona registered Professional Civil Engineer.*

<b>Project Name:</b>	
<b>Project Location:</b>	
<b>Project Number:</b>	
<b>Engineering Number:</b>	
<b>Date:</b>	

**BACKGROUND:**

**REASON FOR REQUEST:**

**PROPOSED REQUEST/SOLUTION:**

*\*Attach additional pages if required*

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\*\*\*The following section is for City of Surprise use only\*\*\*

\_\_\_\_\_ Engineering Services staff has reviewed the above request and determine the proposed to adhere to commonly practiced engineering principles. The request is approved for this project only.

\_\_\_\_\_ Engineering Services staff has reviewed the above request and determine the proposed to be in conflict with commonly practiced engineering principles. It is not recommended for approval for the following reasons:


**APPROVAL:**

\_\_\_\_\_  
City Engineer or Designee