



**DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)**

A deviation from the standards of or in Section **4.3.6.A.3** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

Storm Sewer Lines: At no time shall storm sewer lines be placed less than 2 feet in depth measured perpendicularly to the finished road surface.

State the reason for the requested deviation:

The proposed Joyful View culvert at N. Peyton Hwy being constructed within an existing roadway ditch along N. Peyton Hwy. The existing ditch has been deepened however the 2 feet cover over the two 23"x14" RCEP cannot be attained.

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

Section 3.3.2.1.7 states "minimum and maximum cover for culverts shall be determined based on loading, type and class of pipe, manufacturer's recommendation, and soil bedding conditions." Manufacturer's minimum cover requirements for concrete pipe per the American Concrete Pipe Association have been followed. The proposed culvert has been designed as two 23"x14" concrete elliptical pipes with flowable fill and will replace the existing 21"x15" cmp arch with 0.5' cover. The proposed minimum culvert cover is 1.01', which will produce a D-Load of approximately 1,140 lb/ft/ft\*. This will require a Class HE-III pipe to be used.

\*Based on an AASHTO HL-93 live load, and Type 2 Bedding

**LIMITS OF CONSIDERATION**

(At least one of the conditions listed below must be met for this deviation request to be considered.)

- The ECM standard is inapplicable to the particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

Section 3.3.2.1.7 states "minimum and maximum cover for culverts shall be determined based on loading, type and class of pipe, manufacturer's recommendation, and soil bedding conditions." Manufacturer's minimum cover requirements for concrete pipe is 12". The proposed culvert has been designed as elliptical pipes to provide greater cover. The proposed culvert cover is 1.01' which is meets the manufacturer's recommendations. The culvert cover is dictated by the slope of the existing N. Peyton Hwy ditch which is currently 0.8% downstream of the culvert location. The ditch grade has been lowered to provide the 1.01' of cover over the culvert.

**CRITERIA FOR APPROVAL**

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

The cover depth of the culvert meets manufacturer's recommendations for the anticipated loading and therefore is comparable to the intent of the design.

The deviation will not adversely affect safety or operations.

The deviation will not adversely affect safety or operations since the existing culvert cover meets the manufacturer's recommendation for the proposed loading.

The deviation will not adversely affect maintenance and its associated cost.

The deviation will not adversely affect maintenance and its associated cost. The maintenance and associated costs will be similar to that of a culvert with a minimum cover of 2'.

The deviation will not adversely affect aesthetic appearance.

The deviation will not adversely affect aesthetic appearance. It will look similar to that of a culvert with a minimum cover of 2'.

The deviation meets the design intent and purpose of the ECM standards.

The deviation meets the design intent and purpose of the ECM standards to provide an appropriate culvert crossing that does not affect safety, operations, maintenance or cost.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

The deviation does not change how the standards meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable. The site will meet these standards by following to guideline of Runoff Reduction.

**REVIEW AND RECOMMENDATION:**

**Approved by the ECM Administrator**

This request has been determined to have met the criteria for approval. A deviation from Section \_\_\_\_\_ of the ECM is hereby granted based on the justification provided.

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**Denied by the ECM Administrator**

This request has been determined not to have met criteria for approval. A deviation from Section \_\_\_\_\_ of the ECM is hereby denied.

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**ECM ADMINISTRATOR COMMENTS/CONDITIONS:**

## **1.1. PURPOSE**

The purpose of this resource is to provide a form for documenting the findings and decision by the ECM Administrator concerning a deviation request. The form is used to document the review and decision concerning a requested deviation. The request and decision concerning each deviation from a specific section of the ECM shall be recorded on a separate form.

## **1.2. BACKGROUND**

A deviation is a critical aspect of the review process and needs to be documented to ensure that the deviations granted are applied to a specific development application in conformance with the criteria for approval and that the action is documented as such requests can point to potential needed revisions to the ECM.

## **1.3. APPLICABLE STATUTES AND REGULATIONS**

Section 5.8 of the ECM establishes a mechanism whereby an engineering design standard can be modified when if strictly adhered to, would cause unnecessary hardship or unsafe design because of topographical or other conditions particular to the site, and that a departure may be made without destroying the intent of such provision.

## **1.4. APPLICABILITY**

All provisions of the ECM are subject to deviation by the ECM Administrator provided that one of the following conditions is met:

- The ECM standard is inapplicable to a particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

## **1.5. TECHNICAL GUIDANCE**

The review shall ensure all criteria for approval are adequately considered and that justification for the deviation is properly documented.

## **1.6. LIMITS OF APPROVAL**

Whether a request for deviation is approved as proposed or with conditions, the approval is for project-specific use and shall not constitute a precedent or general deviation from these Standards.

## **1.7. REVIEW FEES**

A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.