

ENGINEERING & OPERATIONS DEPARTMENT

PO Box 1110, Tampa, FL 33601-1110 813-635-5400 | Fax: (813) 272-5811

TRANSPORTATION DESIGN BULLETIN 21-11

DATE: January 11, 2021

TO: County Director of Capital Programs Department,

County Manager of Construction Services,

Division Director of Transportation Maintenance,

County Project Managers and Project Engineers of Record

FROM: County Engineer,

County Director of Engineering & Operations Department,

County Director of Technical Services Division,
County Manager of Transportation Services Section

COPIES: County Director of Geospatial & Land Acquisition Services Department

SUBJECT: PROPOSED ELEVATIONS FOR OVERHEAD SIGNS AND TRAFFIC SIGNALS

This bulletin requires key proposed elevations be provided in all signalization and overhead signing plan sets. The elevations of interest include:

1. The highest elevation of the proposed ground and top of foundation elevations at the structural foundation.

BOARD OF COUNTY

Gwendolyn "Gwen" Myers

COMMISSIONERS Harry Cohen

Kimberly Overman

Mariella Smith

Stacy R. White

ADMINISTRATOR Bonnie M. Wise

COUNTY ATTORNEY
Christine M. Beck

Peggy Caskey

PUBLIC WORKS

ADMINISTRATOR
John W. Lyons

COUNTY

Ken Hagan Pat Kemp

2. The pavement surface elevation on the traffic lane or shoulder directly below the lowest point on the structure, and the elevation of the lowest point on the structure. The difference resulting in the minimum required vertical clearance.

REQUIREMENTS

Signalization plan submittals must show the required elevations on the proposed signalization plan sheets and on the mast arms/strain poles tabulation sheets. Overhead signs and Dynamic Message Signs must show the elevations on the sign cross section sheets. The required elevations are:

- 1. Proposed highest ground elevation at the mast arm, strain pole or overhead sign pole foundation locations.
- 2. Proposed top of foundation elevation at the mast arm or overhead sign pole foundation locations. The top of foundation elevation is not applicable for strain poles.
- 3. Proposed pavement surface elevation on the traffic lane or shoulder directly below the lowest point on the traffic signal or overhead sign structure creating the minimum required vertical clearance to the pavement or shoulder surface.

HCFLGOV.NET Page 1 of 4

4. Proposed elevation of the lowest point on the traffic signal or overhead sign structure resulting in the minimum required vertical clearance to the proposed pavement surface of the traffic lane or shoulder directly below the lowest point on the structure.

These elevations must be documented in the Critical Elevations Certification Letter for Traffic Signals and Overhead Sign Structures, attached as Pages 3 and 4. The letter must be provided at 60%, 90% and 100% plan submittals and electronically signed and sealed.

BACKGROUND

Construction projects that have not identified proposed elevations at foundations, have led to errors in achieving required minimum vertical clearances and placement of foundations horizontally and vertically. The County will require the Critical Elevations Certification Letter for Traffic Signals and Overhead Sign Structures to identify the critical elevations outlined in this bulletin to avoid these errors.

IMPLEMENTATION

Effective Immediately.

CONTACT

Please use the email link below to address any questions or comments in reference to this Design Bulletin:

PW-Standards Inquiry

Recommended / Date:	Approved / Effective Date:				
Leland Dicus, Professional Engineer Technical Services Division Director	Michael J. Williams, Professional Engineer County Engineer				

HCFLGOV.NET Page 2 of 4



ENGINEERING & OPERATIONS DEPARTMENT

PO Box 1110, Tampa, FL 33601-1110 813-635-5400 | Fax: (813) 272-5811

SUBJECT: CRITICAL ELEVATIONS CERTIFICATION LETTER FOR TRAFFIC SIGNALS AND OVERHEAD SIGN STRUCTURES

	0111001011			
TO:				DATE:
	Signalization Eng	gineer of Record		
FROM	:			_
	Roadway Engine	eer of Record		
	County Road N	umber and Street Name	e:	
	County Capital	Improvement Program	Number:	
ELEVA	TIONS AT:	☐ 60% PLANS	□ 90% PLANS	☐ 100% PLANS
	to confirm thatead signs pole ar		following stations and c	offsets for mast arms, strain poles or
		Proposed highest grou foundation locations.	nd elevation at the mast a	rm, strain pole or overhead sign pole
	ELEVATION 2 =	•		arm or overhead sign pole foundation elevation is not applicable.
			ffic signal or overhead sig	fic lane or shoulder directly below the n structure creating the minimum
		resulting in the minimu	m required vertical cleara	affic signal or overhead sign structure nce to the proposed pavement surface lowest point on the structure.
	See Figure 1 for	r a graphic example of E	Elevations Detail in a Mast	Arm Structure.
	MUM REQUIRED		= 17.5 feet new construct	ion, 17 feet retrofit construction
		-		onstruction, 17 feet retrofit construction
		Dynamic Messag	ge Sign (DMS) = 19.5 feet	new construction, 19 feet retrofit
		(Source: Florida	Department of Transporta	ation Design Manual (FDM))

HCFLGOV.NET Page 3 of 4

REFERENCE BASELINE	STATION OFFS	OFFSET	OFFSET ELEVATION (LT/RT) 1	ELEVATION 2	ELEVATION 3	STRUCTURE TYPE			MINIMUM REQUIRED	ELEVATION
OR CENTERLINE		(LT/RT)				SIGNAL	OVERHEAD SIGN	DYNAMIC MESSAGE	VERTICAL	4

I certify that these elevations and clearances are correct. Below is my digital signature, professional engineer seal and date.

Roadway Engineer of Record / Date
Professional Engineer #:

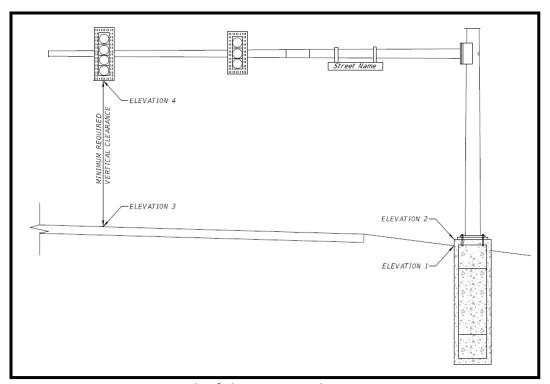


Figure 1. Example of Elevations Detail in a Mast Arm Structure