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The contractor is responsible for verifying that the mast arm attachment height (H1) will provide the "Design Height" clearance from the roadway before submitting final Compartment

DESIGN REFERENCE

- . Design the • The 1st Ec
- Signs, Lumir
- The 2024
- the speci-
- The 2024 • The traff
- The NCDOT

https://co

DESIGN REQUIREM

- 2. Design the views. These loads that w traffic sign
- 3. Design all sign 4. The camber
- pitched arch horizontalwh 5. A clamp-type
- stiffened bo requirements
- . Design base 7. The mast ar a.Mast arm
- height as b. Signalhead c. The roadw
- d. The top o e.Refer to
- foundatior 3. The pole man the following
- Mast arm • H1 plus 1/2 9. If pole loca-
- Engineer as contractor assistance a
- 0.The contract proper posit 11.The contract
- manufacture



N / A

METAL POLE No. 1									PROJECT REFERENCE NO. SHEET NO.				
	WEIAL FULE NU. I								R-2577A S		Sig. 28.3		
		MAST ARM LOADING SCHEDULE											
	SYMBOL			DESCRIPTIC			AREA	SIZE		EIGHT			
			IGID MOL 7-3 SECTI				9.3 S.F.	23.3 X 52.5″I	60) LBS			
			IGID MOL 7-4 SECTI				11.5 S.F.	25.5″ X 66.0″	74	4 LBS			
	2		RIG	SIGN ID MOUN	NTED		7.5 S.F.	30.0″ X 36.0″	14	1 LBS			
tr di N(fi N(<u>CE MATERIAL</u> raffic signalstructure and foundation in accordance with: dition 2015 AASHTO LRFD "Standard Specifications for StructuralSupports for Highway naires, and Traffic Signals, including all of the latest interim revisions. NCDOT "Standard Specifications for Roads and Structures." The latest addenda to fications can be found in the traffic signalproject specialprovisions. NCDOT Roadway Standard Drawings. ic signalproject plans and specialprovisions.												
Or	"MetalPole Standards" located at the following NCDOT website: onnect.ncdot.gov/resources/safety/Pages/ITS-Design-Resources.aspx												
<u>MENTS</u> raffic signal structure using the loading conditions shown in the elevation are anticipated worst case "design loads" and may not represent the actual vill be applied at the time of the installation. The contractor should refer to the al plans for the actual loads that will be applied at the time of the installation. nal supports using force ratios that do not exceed 0.9. design for the mast arm deflection should provide an appearance of a low n where the tip or the free end of the mast arm does not deflect below then fully loaded. a bolted mast arm-to-pole connection may be used instead of the welded ring by connection shown as long as the connection meets all of the design													
s. plate with 8 anchor bolt holes. Provide 2 inch x 60 inch anchor bolts. m attachment height (H1) shown is based on the following design assumptions: slope and deflection are not considered in determining the arm attachment they are assumed to offset each other. ds are rigidly mounted and vertically centered on the mast arm. vay clearance height for design is as shown in the elevation views. of the pole base plate is 0.75 feet above the ground elevation. the Elevation Data Chart for the elevation differences between the proposed n ground leveland the high point of the roadway. hufacturer will determine the total height (H2) of each pole using the greater of g:													
attachment height (H1) plus 2 feet, or 2 of the totalheight of the mast arm attachment assembly plus 1 foot. tion adjustments are required, the contractor must gain approval from the this may affect the mast arm lengths and arm attachment heights. The may contact the Signal Design Section Senior Structural Engineer for at (919) 814-5000. For is responsible for verifying that the mast arm length shown will allow tioning of the signal heads over the roadway. For is responsible for providing soil penetration testing data (SPT) to the pole er so site specific foundations can be designed.													
DT Wind Zone 4 (90 mph) Wind Zone 4 (90 mph) Wind Zone 4 (90 mph) \$87950 \$87950 Forks Road Suite 700 Raleigh, North Carolina 27615-2965 sees Construction Managers Planners Scientists kk.com nsive People Creative Solutions repared for the Offices of: upbility one US 158 WB (Reidsville Rd.)													
	Design Section SCALE		Division PLAN DATE:	SR 23 9 F Februar	and the second s	at arrow	Road) W	alkert ars		DocuSig	•		
0		A								Porter	Jones	2/12/2024	

- - SIGNATURE N/A

DATE

SIG. INVENTORY NO. 09-0984T