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McMahon's expertise in nighttime lighting plans can make construction zones a safer place. Construction zones can be dangerous places, for both the roadway worker and the traveling public. Public officials are under more pressure than ever to minimize the impact on the traveling public resulting in an increase in the number of nighttime construction zones.

According to research noted in the National Cooperative Highway Research Program (NCHRP) *Report 627 – Traffic Safety Evaluation of Nighttime and Daytime Work Zones Research* that daytime and nighttime highway construction zones, when compared to normal operations,

have an increased rate of accidents. Accident rates in active work zones increase even further during nighttime operations. The FHWA and State Highway Departments across the country are seeking ways to lower these accident rates. The report also noted that inadequate nighttime lighting, as well as improperly mitigated lighting glare, are some of the contributing factors to nighttime work zone accidents. As a result, MassDOT is placing a new emphasis on the lighting design and approval process for illuminating the work areas, and lane drop transition areas, through their construction zone projects.

Under this new initiative MassDOT is requiring the submission of nighttime lighting plans, and associated lighting design calculations, for approval in accordance with Section 850.56 — Temporary Illumination for Paving and Planing Operations of the MassDOT Supplemental Specifications to the Standard Specifications for Highway and Bridge dated June 15, 2012. The lighting plan shall be prepared by a Professional Electrical Engineer and consist of the means and methods of the proposed lighting and contain supporting calculations.



Due to a new emphasis placed on an issue, contractors can be caught off guard without a full understanding of the requirements. McMahon Associates has been leading the way on this complex design requirement and as a result of our understanding and knowledge of the requirements, we have been able to achieve prompt approval by MassDOT of our lighting plans. This ensures that contractors have the approvals they need without unnecessary delay and, most importantly, the work zone lighting is properly designed for worker and public safety.

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#### McMAHON PROJECTS

##### Resurfacing & Related Work:

- Westport , MA— Section of Route 88 (Main Highway) - including repair of 3 bridges
- Bourne , MA — Section of Route 28 (MacArthur Blvd.)
- North Attleborough - Section of I-95
- New Bedford/Fairhaven – I-195 Project
- Sharon/Walpole- Section of I-95 - including 7 bridges
- Various Locations in MA—Scheduled & Emergency Bridge Joint Repairs