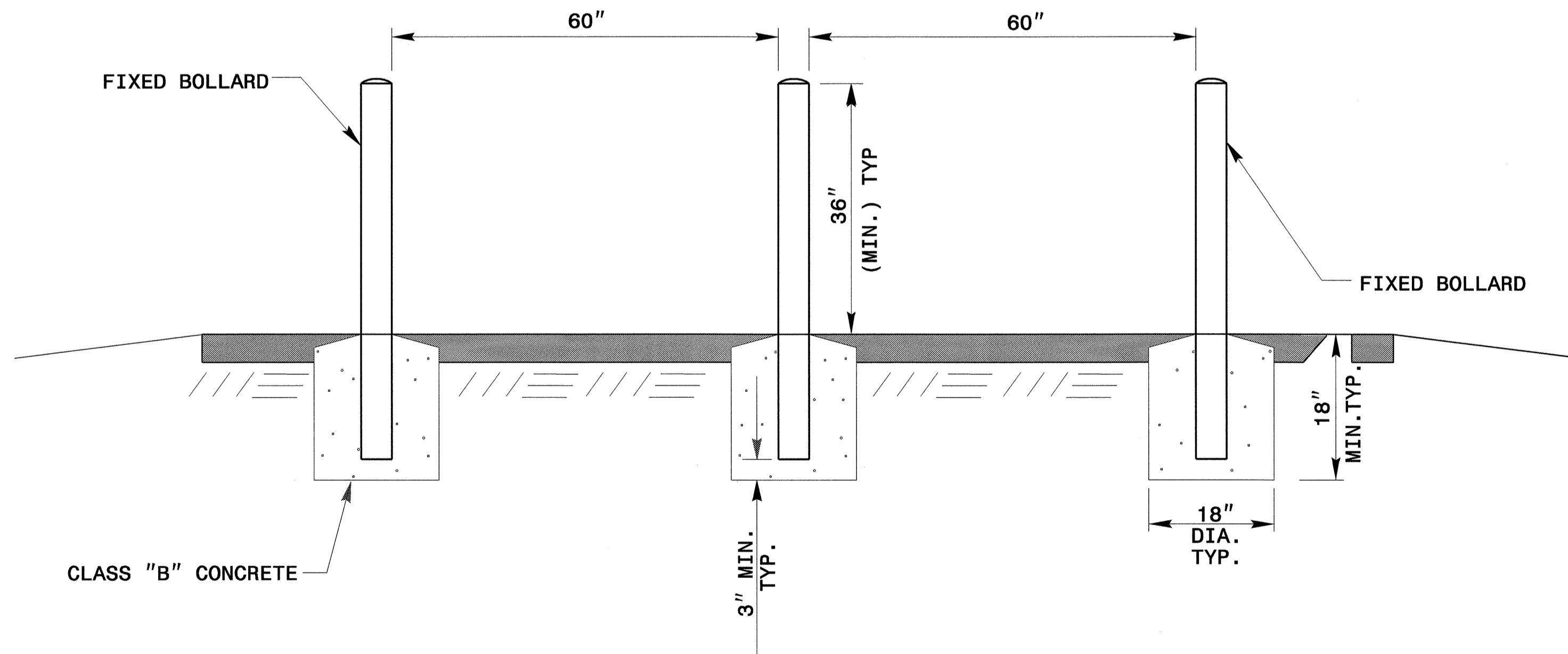


**PLAN**



**SECTION**

**NOTES :**

BOLLARDS SHALL BE OF A TYPE DESIGNED TO PROHIBIT ENTRY OF UNAUTHORIZED VEHICLES AND SHALL BE A MINIMUM OF 4-1/2" OUTSIDE DIAMETER FOR ROUND BOLLARDS OR 4-1/2" EDGE DIMENSION FOR SQUARE BOLLARDS. BOLLARDS SHALL HAVE A SURFACE THAT IS GENERALLY SMOOTH AND FREE OF PROTRUSIONS, BURRS, ETC.

LOCKABLE REMOVABLE BOLLARDS SHALL HAVE A LOCKING DEVICE MEETING THE APPROVAL OF THE ENGINEER AND SHALL BE DESIGNED TO BE REMOVED OR FOLDED FLAT WHEN UNLOCKED TO PERMIT ENTRY OF AUTHORIZED VEHICLES. LOCKABLE REMOVABLE BOLLARDS SHALL BE DESIGNED SO THAT, WHEN LOCKED IN PLACE, THEY HAVE THE SAME GENERAL OUTWARD APPEARANCE AS THE FIXED BOLLARDS.

BOLLARDS SHALL BE PRIMED AND PAINTED IN A HIGH VISIBILITY YELLOW COLOR AS APPROVED BY THE ENGINEER.

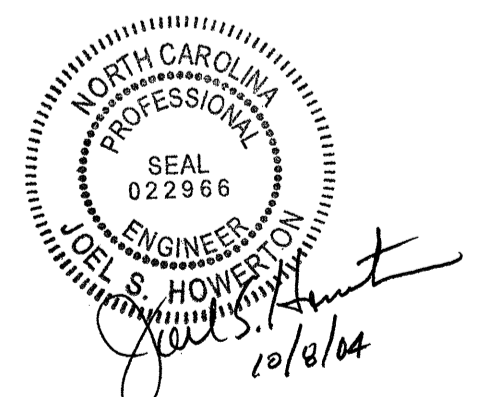
BOLLARDS SHALL HAVE REFLECTORIZED SHEETING MEETING THE APPLICABLE REQUIREMENTS OF SECTION 1088-1(B)(2) OF THE STANDARD SPECIFICATIONS ATTACHED TO ALL SIDES IN AN AMOUNT, LOCATION AND BY A METHOD MEETING THE APPROVAL OF THE ENGINEER.

THE PAVED SURFACE SHALL BE CLEANED AND REPAIRED AROUND THE INSTALLED BOLLARDS AS APPROVED BY THE ENGINEER.

PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF SECTION 1087 AND DIVISION 12 OF THE STANDARD SPECIFICATIONS.

INSTALLATION OF BOLLARDS SHALL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER. INSTALLATION OF BOLLARDS SHALL BE IN ACCORDANCE WITH THE PLANS, THE SPECIAL PROVISIONS, THE STANDARD SPECIFICATIONS, ALL APPLICABLE MANUFACTURER'S INSTRUCTIONS, AND AS DIRECTED BY THE ENGINEER.

PLACE BOLLARDS 3 FT. FROM EACH END OF EXISTING BRIDGE.



**DESIGN SERVICES UNIT  
STANDARDS AND SPECIAL DESIGN**  
Office 919-250-4128 FAX 919-250-4119

**BIKE PATH RESTRICTION  
CONCRETE BOLLARD**

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