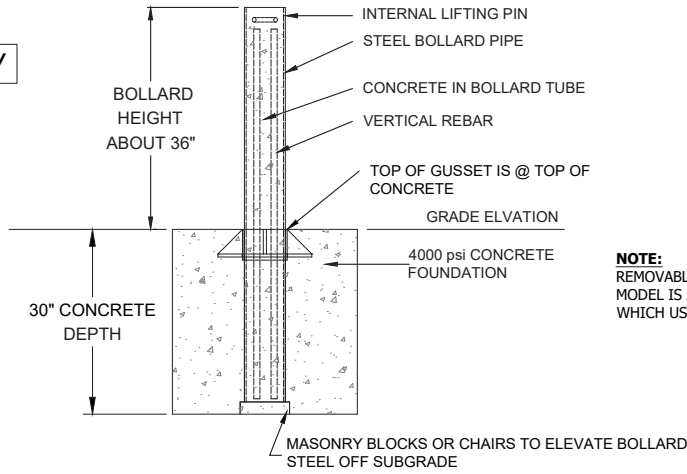


**TRAFFIC IMPACT BOLLARD (MODEL TIB-67-SA)  
SINGLE STAND ALONE, UNRESTRICTED SPACING, SET AND POUR FEATURE**

ENGINEERED & DESIGNED FOR C40, P1 (CRASH TESTED PROTOCOL) PROPERLY INSTALLED, STOPPED 2430 lbs PASSENGER CAR AT 40MPH OR STOREFRONT EQUIVALENT ASTM F2656

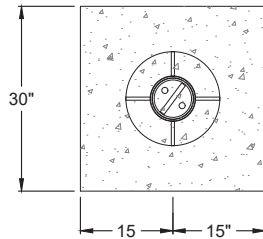
**SINGLE STAND ALONE BOLLARD  
INSTALLATION**

**FRONT VIEW**



**NOTE:**  
REMOVABLE BOLLARD  
MODEL IS AVAILABLE  
WHICH USES THE SAME COMPONENTS.

**TOP VIEW**



**KEY CAPABILITIES:**

1. UNRESTRICTED SPACING BETWEEN BOLLARDS
2. EASY AND QUICK INSTALLATION; EXCAVATE SET BOLLARD AND POUR CONCRETE
3. NO FIELD WELDING, BOLTING OR ASSEMBLY. BOLLARD IS DELIVERED PREFABRICATED AS 1 UNIT
4. SYMMETRICAL BOLLARD DESIGN, IMPACT FROM ANY ANGLE TO BOLLARD PROVIDES THE SAME STOPPING CAPABILITY

Jointly Developed



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DETAILS  
ASTM F2656 C40 PROTOCOL  
SET & POUR BOLLARD

DRAWINGS

SHEET: 1 OF 5

20190603-01-PD

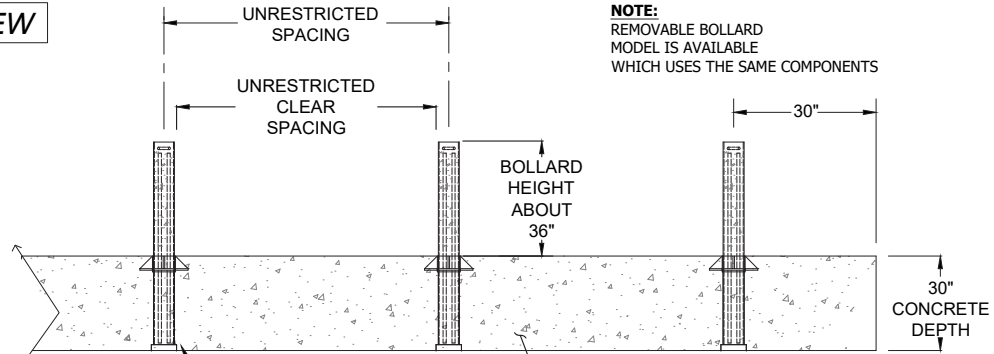
SCALE: N.T.S.

**TRAFFIC IMPACT BOLLARD (MODEL TIB-67-SA)  
SINGLE STAND ALONE, UNRESTRICTED SPACING, SET AND POUR FEATURE**

ENGINEERED & DESIGNED FOR C40, P1 (CRASH TESTED PROTOCOL) PROPERLY INSTALLED, STOPPED 2430 lbs PASSENGER CAR AT 40MPH OR STOREFRONT EQUIVALENT ASTM F2656

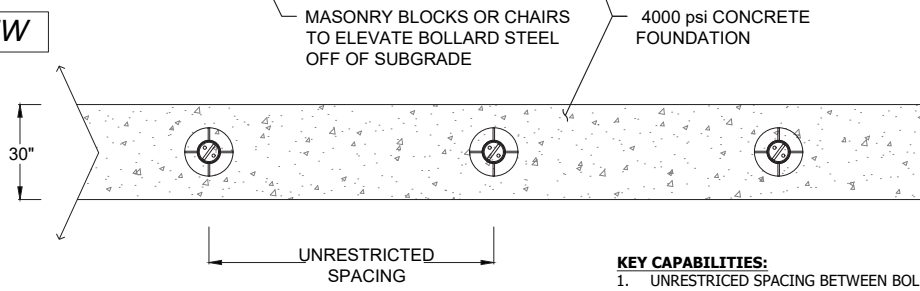
**TYPICAL BOLLARD ARRAY INSTALLATION**

**FRONT VIEW**



**NOTE:**  
REMOVABLE BOLLARD  
MODEL IS AVAILABLE  
WHICH USES THE SAME COMPONENTS

**TOP VIEW**



- KEY CAPABILITIES:**
1. UNRESTRICTED SPACING BETWEEN BOLLARDS
  2. EASY AND QUICK INSTALLATION; EXCAVATE SET BOLLARD AND POUR CONCRETE
  3. NO FIELD WELDING, BOLTING OR ASSEMBLY. BOLLARD IS DELIVERED PREFABRICATED AS 1 UNIT
  4. SYMMETRICAL BOLLARD DESIGN, IMPACT FROM ANY ANGLE TO BOLLARD PROVIDES THE SAME STOPPING CAPABILITY

Jointly Developed



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TYPICAL ARRAY  
ASTM F2656 C40 PROTOCOL  
SET & POUR BOLLARD

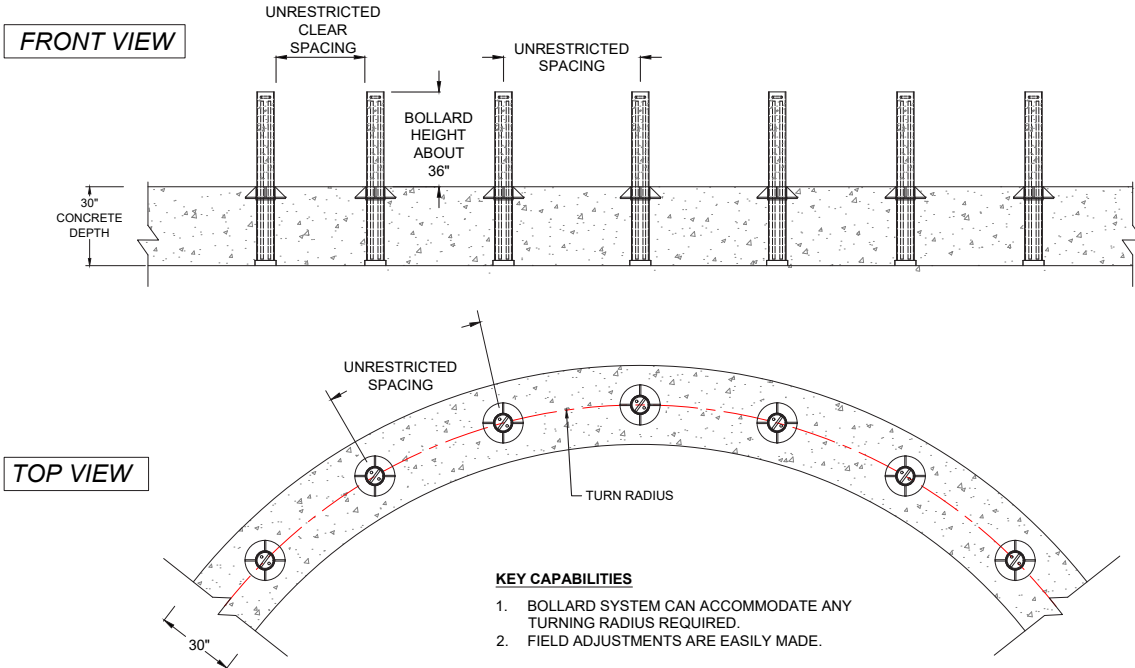
DRAWINGS

SHEET: 2 OF 5  
20190603-01-PD  
SCALE: N.T.S.

**TRAFFIC IMPACT BOLLARD (MODEL TIB-67-SA)  
SINGLE STAND ALONE, UNRESTRICTED SPACING, SET AND POUR FEATURE**

ENGINEERED & DESIGNED FOR C40, P1 (CRASH TESTED PROTOCOL) PROPERLY INSTALLED, STOPPED 2430 lbs PASSENGER CAR AT 40MPH OR STOREFRONT EQUIVALENT ASTM F2656

**BOLLARD INSTALLATION WITH TURN**



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ARRAY ON CURVE  
ASTM F2656 C40 PROTOCOL  
SET & POUR BOLLARD

DRAWINGS

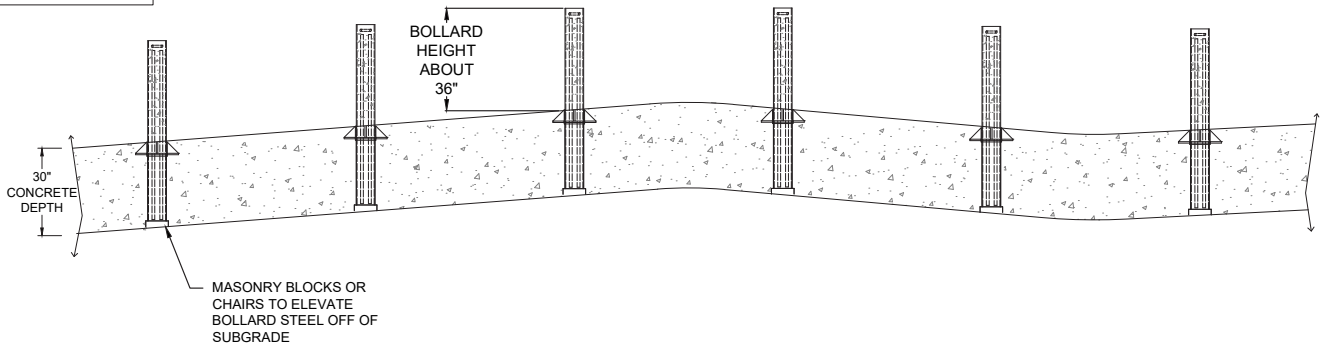
SHEET: 3 OF 5
20190603-01-PD
SCALE: N.T.S.

**TRAFFIC IMPACT BOLLARD (MODEL TIB-67-SA)  
SINGLE STAND ALONE, UNRESTRICTED SPACING, SET AND POUR FEATURE**

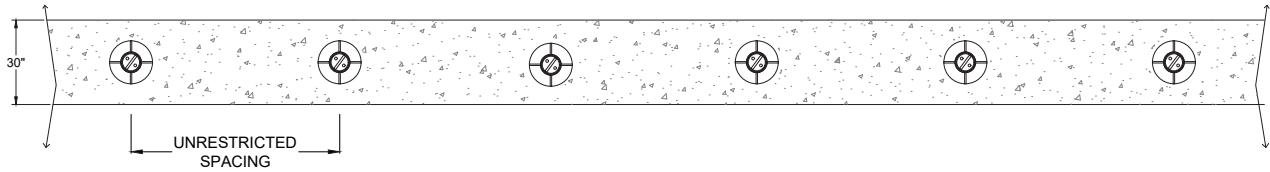
ENGINEERED & DESIGNED FOR C40, P1 (CRASH TESTED PROTOCOL) PROPERLY INSTALLED, STOPPED 2430 lbs PASSENGER CAR AT 40MPH OR STOREFRONT EQUIVALENT ASTM F2656

**BOLLARD INSTALLATION ACROSS GRADE CHANGES**

**FRONT VIEW**



**TOP VIEW**



Jointly Developed



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ARRAY ON SLOPE  
ASTM F2656 C40 PROTOCOL  
SET & POUR BOLLARD

DRAWINGS

SHEET: 4 OF 5

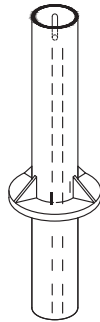
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**TRAFFIC IMPACT BOLLARD (MODEL TIB-67-SA)  
SINGLE STAND ALONE, UNRESTRICTED SPACING, SET AND POUR FEATURE**

ENGINEERED & DESIGNED FOR C40, P1 (CRASH TESTED PROTOCOL) PROPERLY INSTALLED, STOPPED 2430 lbs PASSENGER CAR AT 40MPH OR STOREFRONT EQUIVALENT ASTM F2656

PREFABRICATED BOLLARD MATERIALS PROVIDED



(QTY 1) EACH:  
BOLLARD TUBE



(QTY 2) EACH:  
PRE-CUT VERTICAL REBAR  
(INSIDE BOLLARD)



(QTY 1) EACH:  
BOLLARD COVER  
STYLE PER CUSTOMER

MATERIALS PROVIDED BY INSTALLER

1. CONCRETE, 1.5 CUBIC YARDS PER BOLLARD
2. CHAIRS TO ELEVATE BOLLARDS ABOVE SUBGRADE

Jointly Developed



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MATERIALS PROVIDED

DRAWINGS

SHEET: 5 OF 5

20190603-01-PD

SCALE: N.T.S.