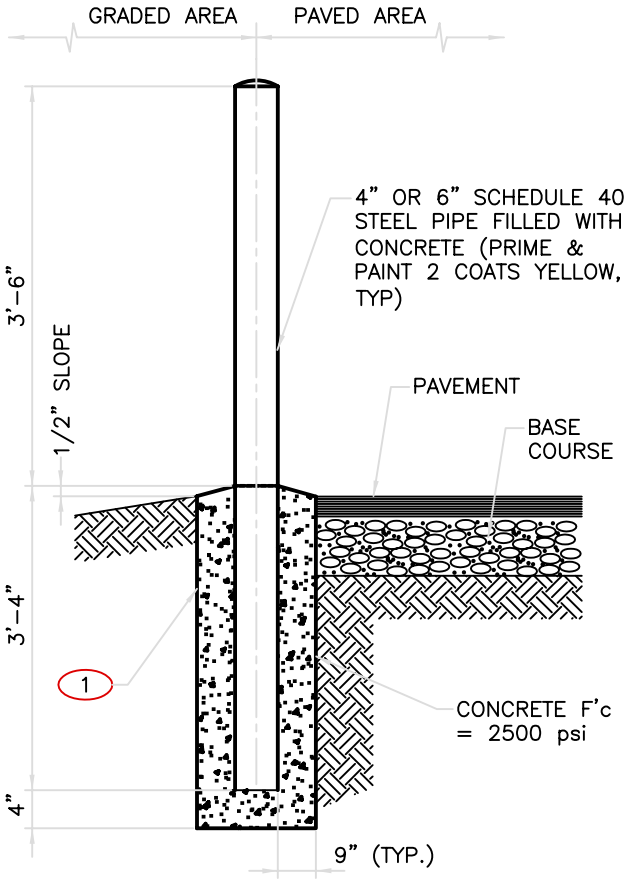

BOLLARD DETAIL

SCALE: NONE

KEYED NOTES

1. CONSULT STRUCTURAL ENGINEER OF RECORD BEFORE POURING CONCRETE FOUNDATION FOR BOLLARD IF SIDE OF FOUNDATION WILL BE WITHIN 18" OF BELOW-GRADE OBJECTS (E.G., PIPES, CONDUITS, ETC.) THAT OCCURS WITHIN THE HEIGHT OF THE FOUNDATION.

DRAWING DEVELOPED FOR ML-3/ML-4 PROJECTS. FOR ML-1/ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE).

NOTES FOR DESIGNER: (DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)

1. WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. TO SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS, CONTACT THE ESM CIVIL POC.

2. USE BOLLARDS FOR PROTECTION FROM HAZARDS OF SIGNIFICANCE. DO NOT USE NEAR ROADWAY WHERE IT IS DANGEROUS TO VEHICLES TRAVELING AT HIGH SPEEDS.

NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP
3	1-18-06	U	DY	DELETED BOLLARD LOCATION DETAIL AND GENERAL REVISION.	RP	MS	MS	EH	TO
2	9-15-05	U	DY	ADDED KEYED NOTE 1 AND REVISED BOLLARD FOUNDATION PER CALC. NO. TA-DD-CALC-C-0001-R0 (3'-4" WAS 2'-8" AND 9" WAS 4").	RP	GP	TH	EH	TO
1	8-23-02	U		GENERAL REVISION AND DWG. NO. WAS ST3011.	RP	EH	MS	EH	TO

ENGINEERING STANDARDS PROGRAM

ENGINEERING STANDARDS MANUAL

BOLLARD DETAIL

DRAWN R.PEARSON
DESIGN E.HOTH
CHECKED M.SMITHOUR
DATE 6-28-99

BLDG X TA-X

SUBMITTED
DISCIPLINE POC: E. HOTH

APPROVED FOR RELEASE
STANDARDS MANAGER: TOBIN ORUCH

Los Alamos NATIONAL LABORATORY
PO Box 1663
Los Alamos, New Mexico 87545

SHEET 1
1 OF 1

CLASSIFICATION: U
REVIEWER: LARRY BAYS
DATE:

PROJECT ID: CHAPTER 3
DRAWING NO: ST-G30GEN-1
REV: 3