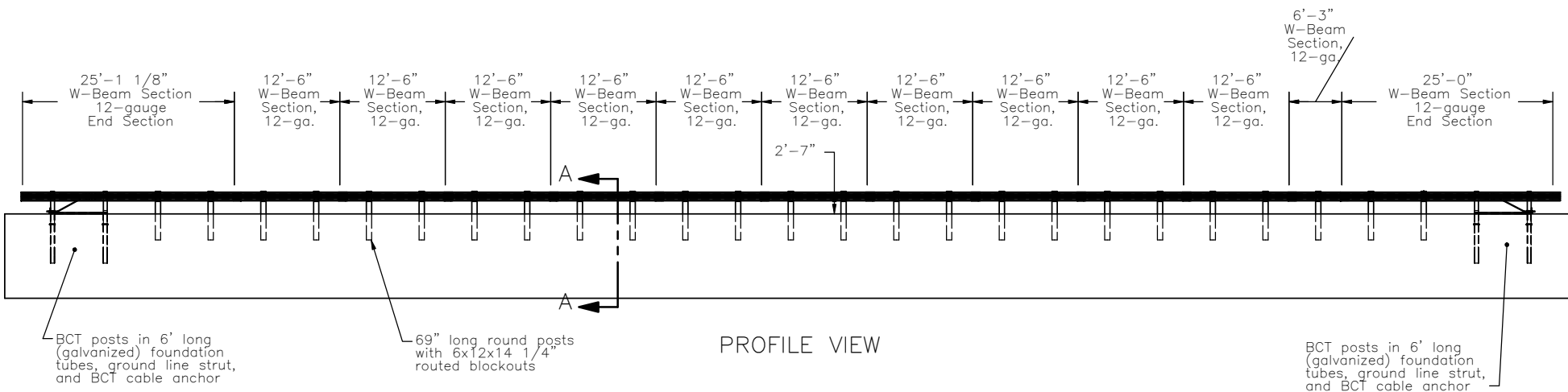


PLAN VIEW



PROFILE VIEW



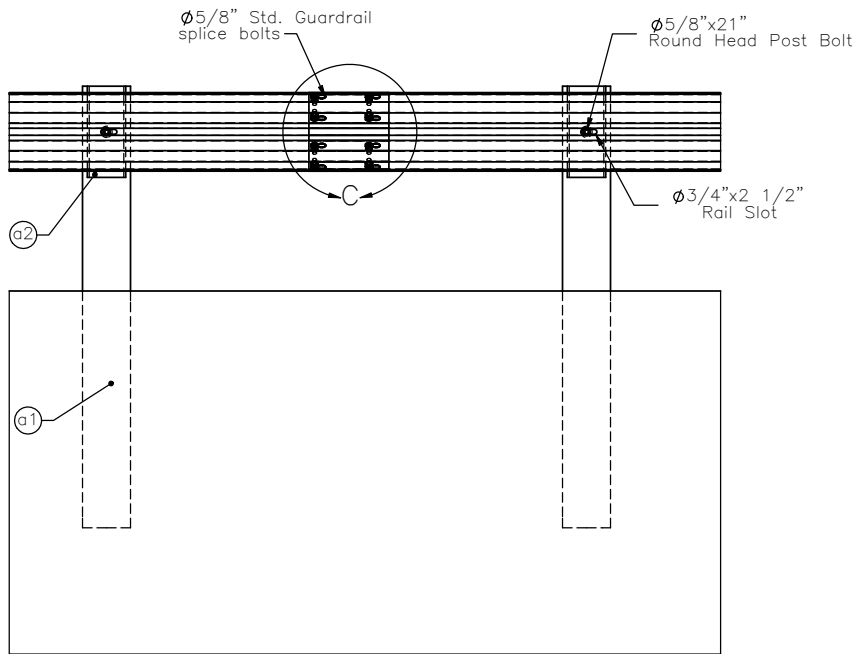
Midwest Roadside  
Safety Facility

Round-Post MGS  
with Southern Pine  
System Layout

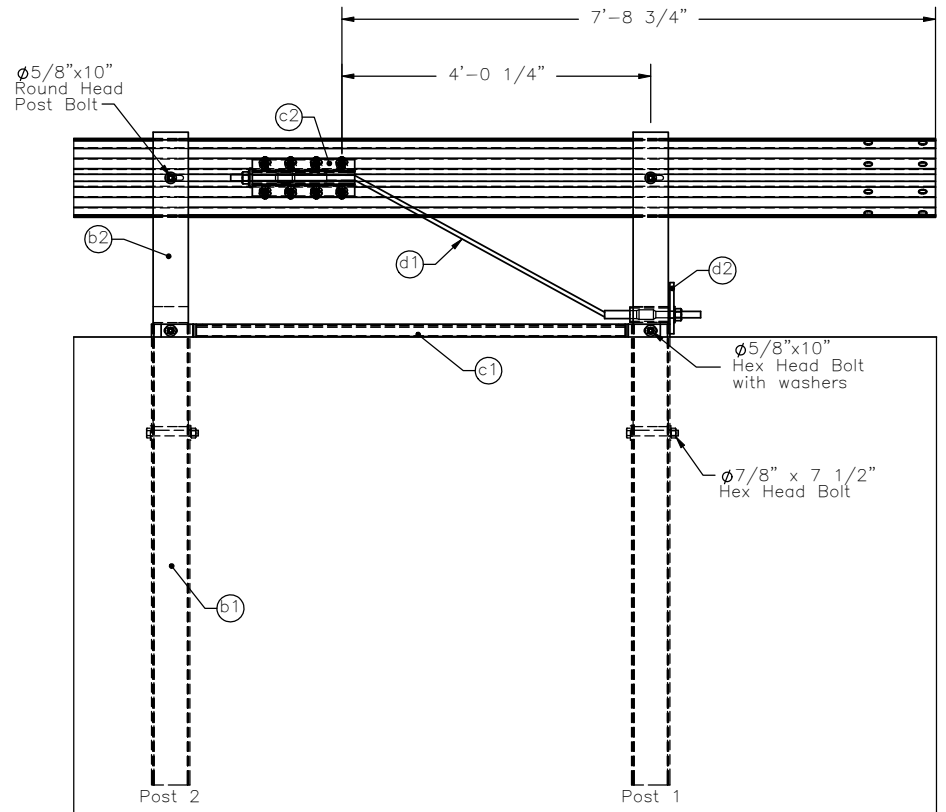
DWG. NAME:  
FPL\_MGS\_SP\_R0

SCALE: None  
UNITS: Inches

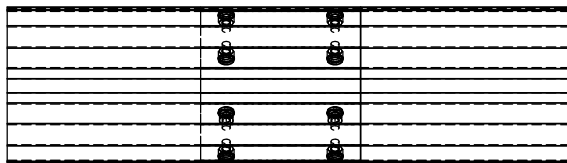
SHEET:  
1 of 9  
DATE:  
05/02/2006  
DRAWN BY:  
GEP  
REV. BY:  
KAP/RKF



SPLICE DETAIL



END RAIL DETAIL



DETAIL C  
SCALE 1 : 15



Midwest Roadside  
Safety Facility

Round-Post MGS

End Rail Detail  
Splice Detail

SHEET:  
2 of 9

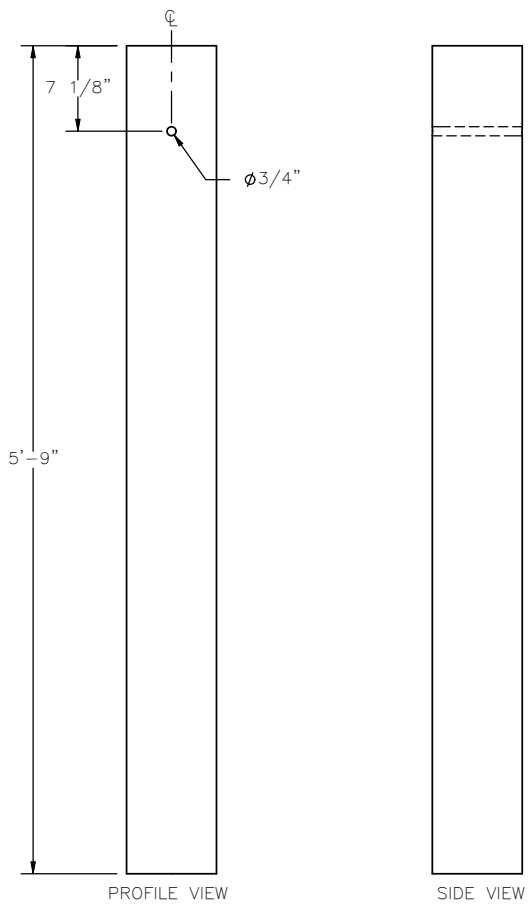
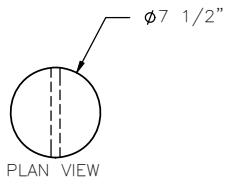
DATE:  
05/02/2006

DRAWN BY:  
GEP

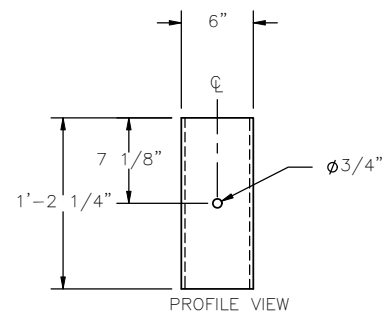
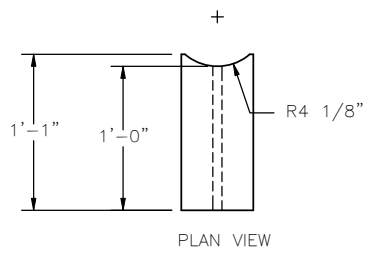
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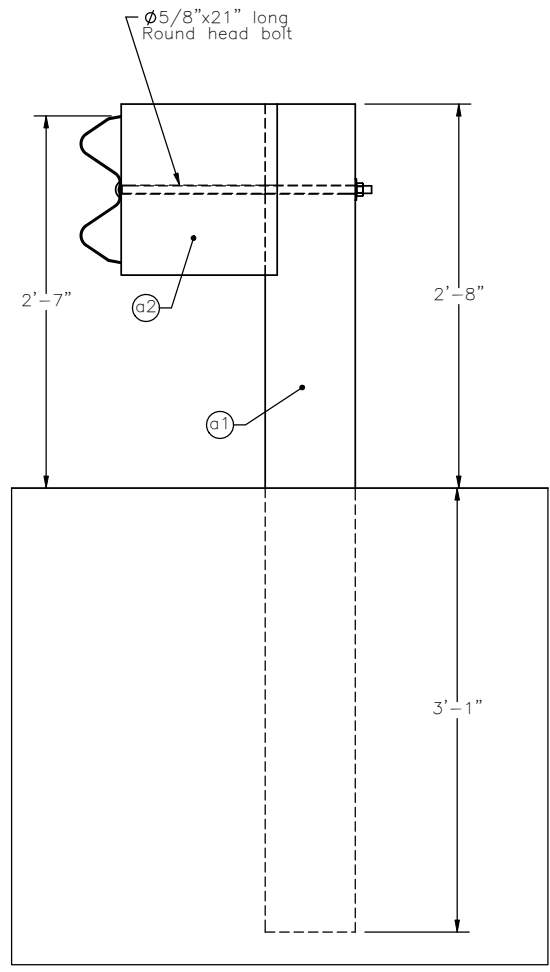
REV. BY:  
KAP/RKF



Southern Round Post  
Part a1



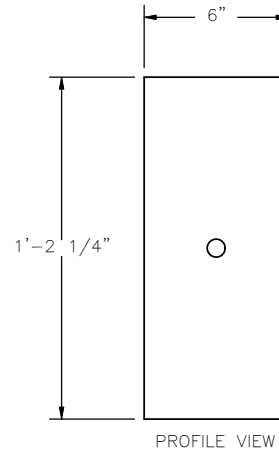
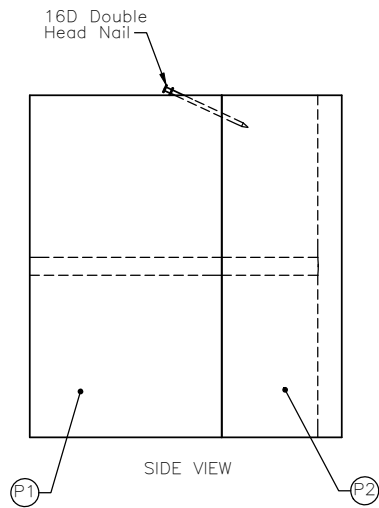
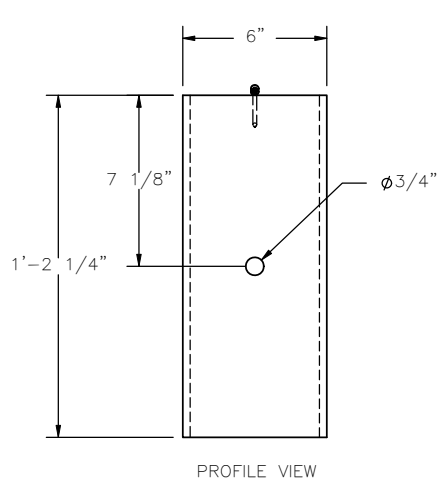
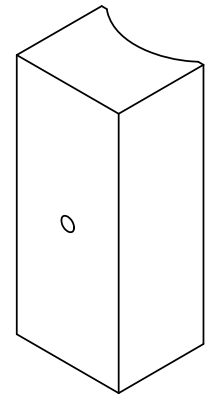
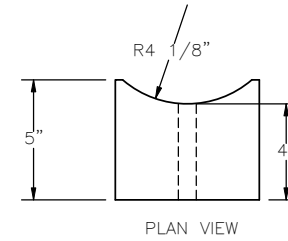
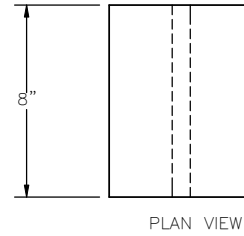
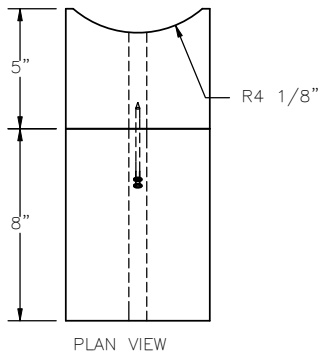
Southern Blockout  
Part a2



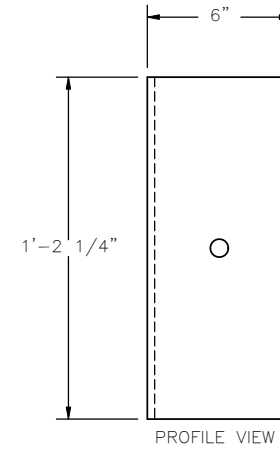
SECTION A-A

Midwest Roadside  
Safety Facility

<p><b>Round-Post MGS</b> Post 3-27 Detail</p>		<p>SHEET: 3 of 9</p>
<p>DWG. NAME: FPL_MGS_SP_R0</p>		<p>DATE: 05/02/2006</p>
<p>SCALE: None UNITS: Inches</p>		<p>DRAWN BY: GEP</p>
<p>REV. BY: KAP/RKF</p>		



6x8x14.25" Blockout  
Part 1



6x5x14.25" Blockout  
Part 2



Midwest Roadside  
Safety Facility

Round-Post MGS

Segmented Blockout Option

SHEET:  
4 of 9

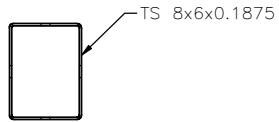
DATE:  
05/02/2006

DRAWN BY:  
GEP

REV. BY:  
KAP/RKF

DWG. NAME:  
FPL\_MGS\_SP\_R0

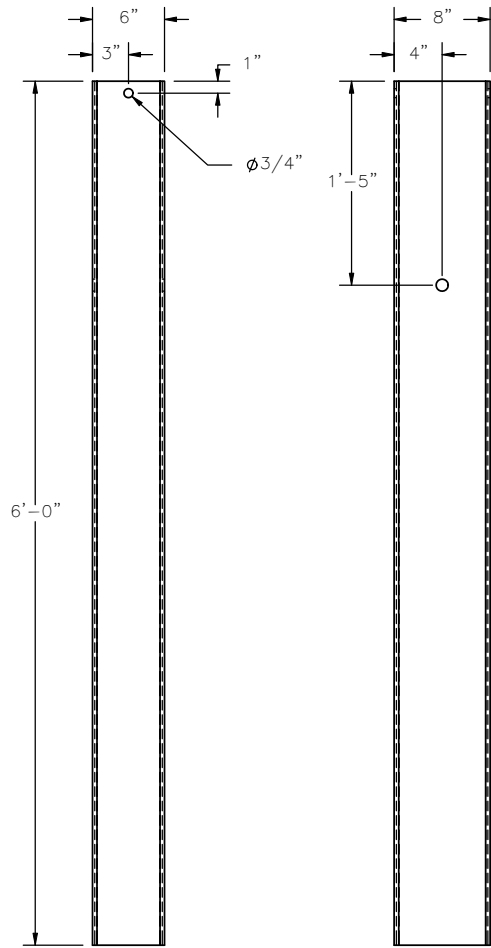
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UNITS: Inches



PLAN VIEW



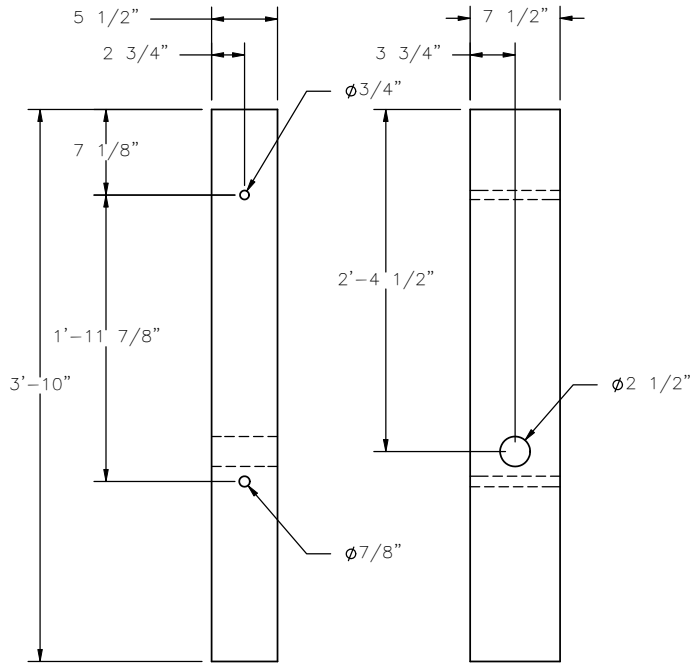
PLAN VIEW



PROFILE VIEW

SIDE VIEW

Foundation Tube  
Part b1



PROFILE VIEW

SIDE VIEW

BCT (MGS) Timber Post  
Part b2



Midwest Roadside  
Safety Facility

Round-Post MGS

BCT Timber Posts &  
Foundation Tube Detail

SHEET:  
5 of 9

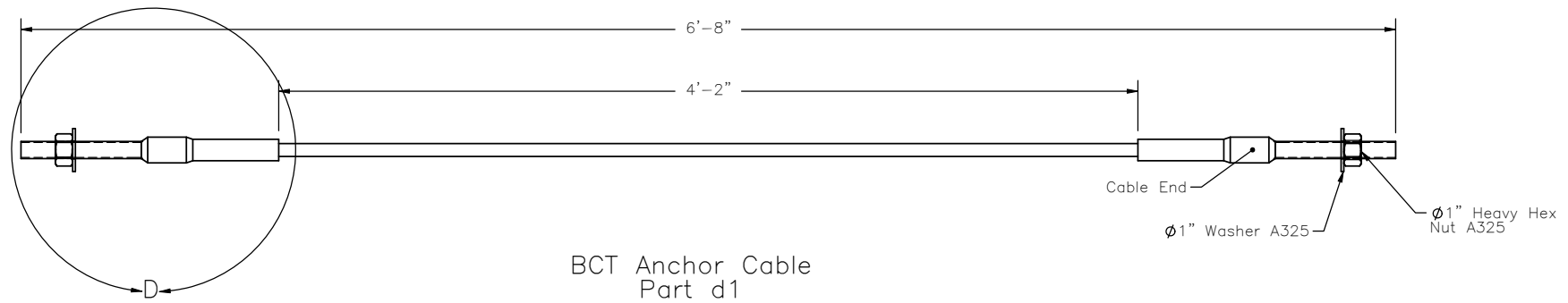
DATE:  
05/02/2006

DRAWN BY:  
GEP

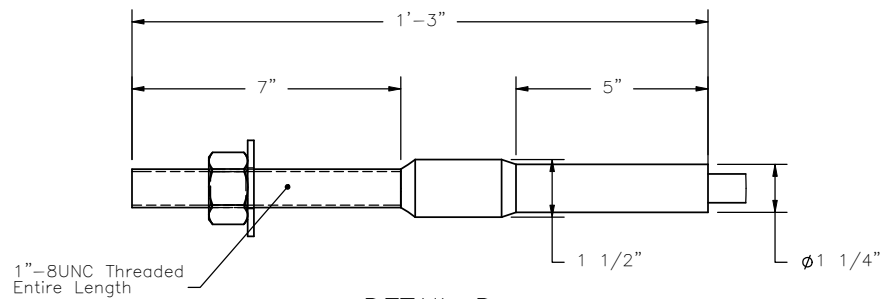
REV. BY:  
KAP/RKF

DWG. NAME:  
FPL\_MGS\_SP\_R0

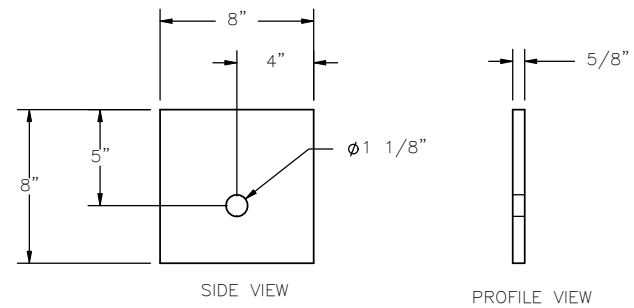
SCALE: None  
UNITS: Inches



BCT Anchor Cable  
Part d1



DETAIL D  
SCALE 1 : 5



Anchor Cable  
Bearing Plate  
Part d2



Midwest Roadside  
Safety Facility

Round-Post MGS

BCT Anchor Cable Detail

SHEET:  
6 of 9

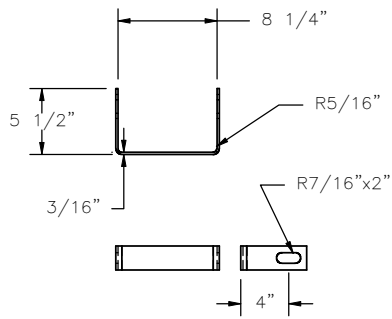
DATE:  
05/02/2006

DRAWN BY:  
GEP

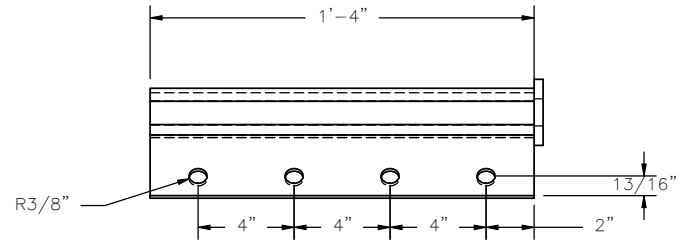
DWG. NAME:  
FPL\_MGS\_SP\_R0

SCALE: None  
UNITS: Inches

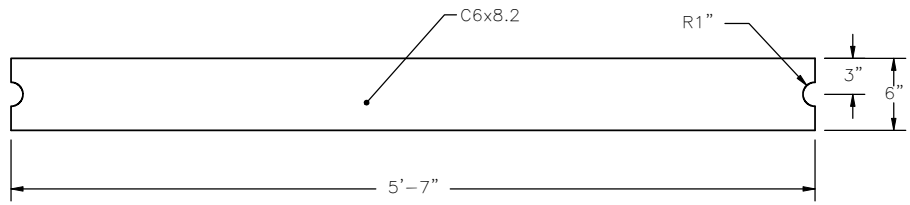
REV. BY:  
KAP/RKF



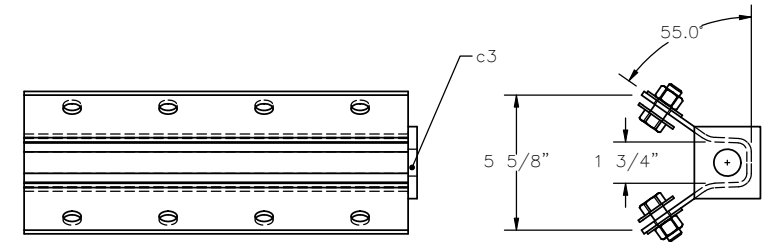
Yoke Detail



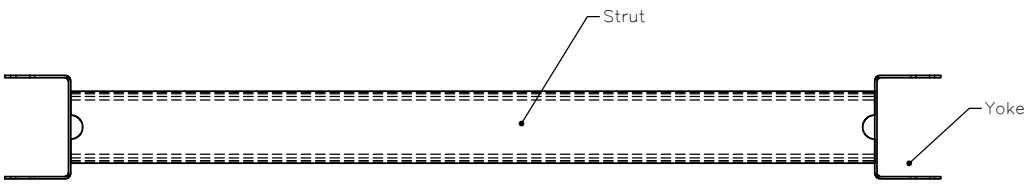
Anchor Bracket  
Part c2



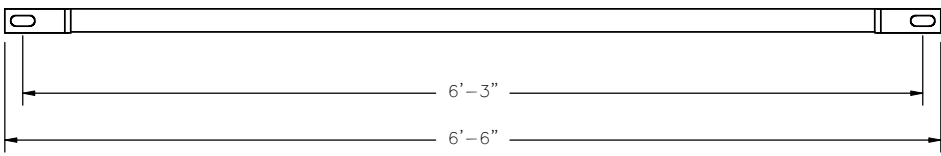
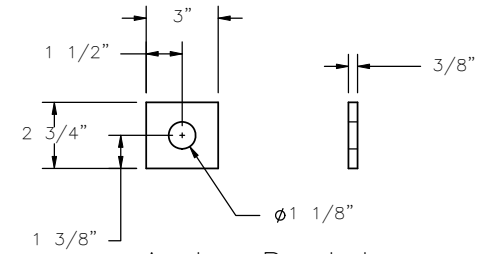
Strut Detail



Anchor Bracket  
Bearing Plate  
Part c3



PLAN VIEW



PROFILE VIEW

Ground Strut  
Part c1



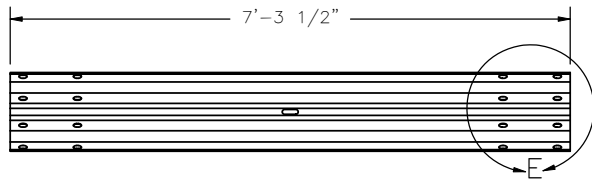
Midwest Roadside  
Safety Facility

Round-Post MGS  
Ground Strut & Anchor  
Bracket Details

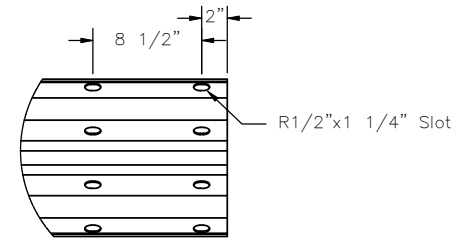
DWG. NAME:  
FPL\_MGS\_SP\_R0

SCALE: None  
UNITS: Inches

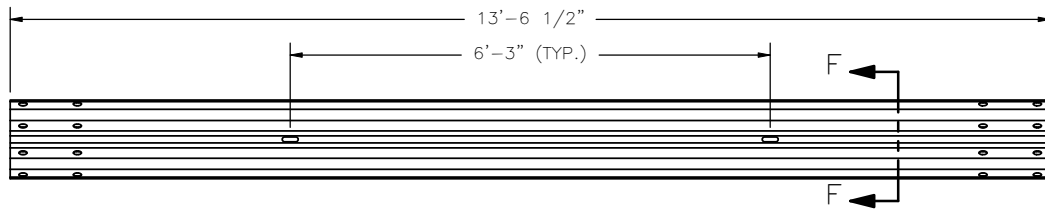
SHEET:  
7 of 9  
DATE:  
05/02/2006  
DRAWN BY:  
GEP  
REV. BY:  
KAP/RKF



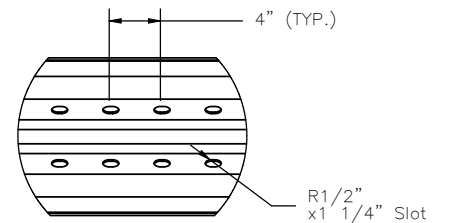
6'-3" W-Beam Section, 12 gauge



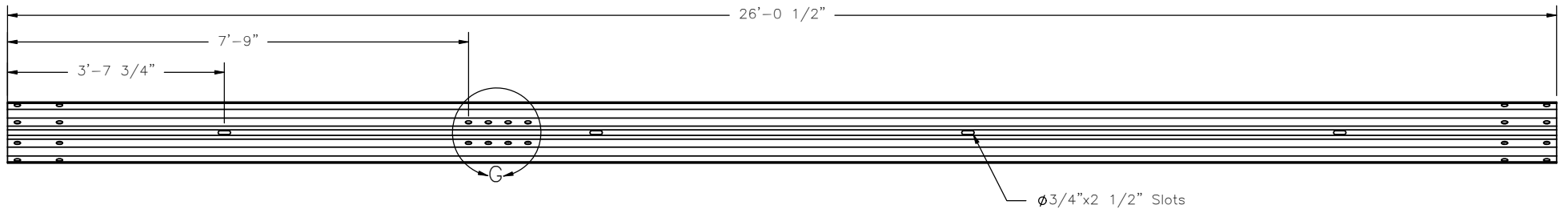
DETAIL E  
SCALE 1 : 15



12'-6" W-Beam Section, 12 gauge



DETAIL G  
SCALE 1 : 15



25' W-Beam Section, 12 gauge, End Section



Midwest Roadside  
Safety Facility

Round-Post MGS  
Rail Section Details

DWG. NAME:  
FPL\_MGS\_SP\_R0

SCALE: None  
UNITS: Inches

SHEET:  
8 of 9  
DATE:  
05/02/2006  
DRAWN BY:  
GEP  
REV. BY:  
KAP/RKF



**Guardrail Post Grading Criteria**

**General**

All posts shall meet the current quality requirements of the American National Standards Institute (ANSI) 05.1, "Wood Poles" except as supplemented herein:

**Manufacture:**

All posts shall be smooth shaved by machine. No "ringing" of the posts, as caused by improperly adjusted peeling machine, is permitted. All outer and inner bark shall be removed during the shaving process. All knots and knobs shall be trimmed smooth and flush with the surface of the posts. The guardrail posts will be a minimum of 1.75 m (69 in.) long. The use of peeler cores is prohibited.

**Ground—line:**

The ground—line, for the purpose of applying these restrictions of ANSI 05.1 that reference the ground—line, shall be defined as being located 914 mm (36 in.) from the butt end of each post.

**Size:**

The size of the posts shall be classified based on their diameter at the ground—line and their length and will be species specific. The ground—line diameter shall be specified by diameter in 6 mm (¼ in.) breaks. The length shall be specified in 300 mm (1 ft) breaks. Dimension shall apply to fully seasoned posts. When measured between their extreme ends, the post shall be no shorter than the specified lengths but may be up to 75 mm (3 in.) longer.

**Scars:**

Scars are permitted in the middle third as defined in ANSI 05.1 provided that the depth of the trimmed scar is not more than (1 in.).

**Shape and Straightness:**

All timber posts shall be nominally round in cross section. A straight line drawn from the centerline of the top to the center of the butt of any post shall not deviate from the centerline of the post more than 32 mm (1¼ in.) at any point. Posts shall be free from reverse bends.

**Splits and Shakes:**

Splits or ring shakes are not permitted in the top two thirds of the post. Splits not to exceed the diameter in length are permitted in the bottom third of the post. A single shake is permitted in the bottom third, provided it is not wider than one—half the butt diameter.

**Decay:**

Allowed in knots only.

**Holes:**

Pin holes 1 mm (1/16 in.) or less are not restricted.

**Slope of Grain:**

1 in 10.

**Compression Wood:**

Not allowed, in the outer 25 mm (1 in.) or if exceeding ¼ of the radius.

**Timber Spacers:**

When timber spacers are required, the timber species shall be the same as those furnished for the timber posts. The size and hole location shall be as shown on the plans, with a tolerance of 6 mm (¼ in.). Spacers shall be of medium grain, at least four (4) rings per inch on one end, and free from splits, shakes, compression wood or decay in any form. Individual knots, knot clusters or knots in the same cross section of a face are permitted, provided they are sound or firm, and are limited in cumulative width (when measured between lines parallel to the edges) to no more than one—half the width of the face. Wane or the absence of wood is limited to one—third of the face on no more than 10 percent of the lot. Slope of grain deviation is limited to one in six. The material may be rough sawn or surfaced, full size, hit or miss, with a tolerance of 6 mm (¼ in.) for all dimensions.

**Treatment:**


Treating — American Wood—Preservers' Association (AWPA) — Book of Standards (BOS) U1—05 use category system UCS: user specification for treated wood; commodity specification B; Posts; Wood for Highway Construction must be met using the methods outlined in AWPA BOS T1—05 Section 8.2.

Each post treated shall have a minimum sapwood depth of 19 mm (¾ in.) as determined by examination of the tops and butts of each post. Material that has been air dried or kiln dried shall be inspected for moisture content in accordance with AWPA standard M2 prior to treatment. Tests of representative pieces shall be conducted. The lot shall be considered acceptable when the average moisture content does not exceed 25 percent. Pieces exceeding 29 percent moisture content shall be rejected and removed from the lot.

**Species Specific Criteria**

**Southern Pine:**

Knot diameter for posts of Southern Pine shall not exceed 64 mm (2½ in.). Ring density for the species shall be at least 4 rings—per—inch as measured over a 76 mm (3 in.) distance. The diameter of the Southern Pine posts shall be 190 mm (7½ in.). at the ground line with a upper limit of 210 mm (8¼ in.).

 <b>Midwest Roadside Safety Facility</b>	<b>Round—Post MGS</b> Grading Specifications		SHEET: 9 of 9
			DATE: 05/02/2006
		DWG. NAME: FPL_MGS_SP_R0	DRAWN BY: GEP
		SCALE: None UNITS: Inches	REV. BY: KAP/RKF