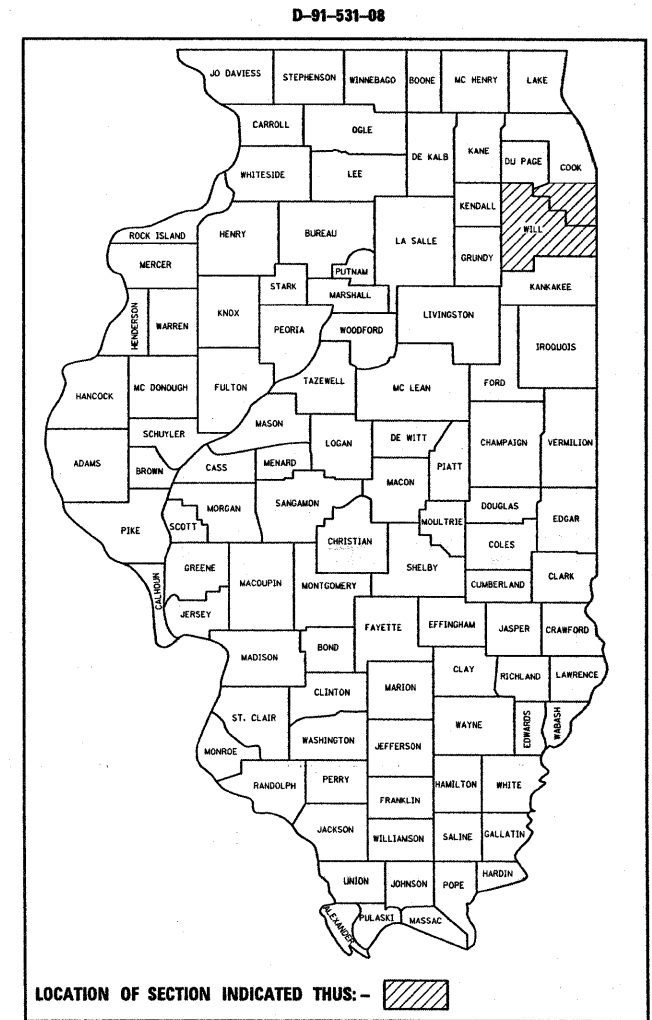


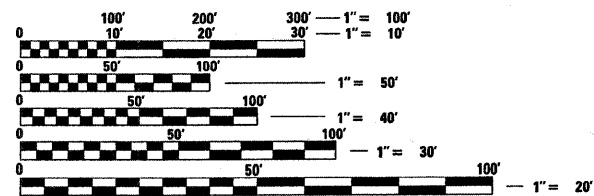
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2008-041 I	COOK & WILL	9	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60E85		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS
VARIOUS ROUTES
SECTION: 2008-041 I
AT VARIOUS EXPRESSWAY MEDIANS
HIGH TENSION CABLE BARRIER REPAIR
COOK & WILL COUNTIES
C-91-531-08

FOR INDEX OF SHEETS, SEE SHEET NO. 2



SEE LOCATION MAP
SHEET 4



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811

PROJECT MANAGER: KEN ENG (847) 705-4247

CONTRACT NO. 60E85

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED August 29, 2008
Diana M. O'Keefe DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 3, 2008
Eric E. Horn INTERIM ENGINEER OF DESIGN AND ENVIRONMENT
October 3, 2008
Christine M. Reed DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET	701400-02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
2	INDEX OF SHEETS, STANDARDS AND GENERAL NOTES	701401-04	LANE CLOSURE, FREEWAY/EXPRESSWAY
3	SUMMARY OF QUANTITIES	701406-04	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
4	LOCATION MAP	701421-01	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY
5	TRAFFIC CONTROL FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	701901	TRAFFIC CONTROL DEVICES
6-7	HIGH TENSION GUARDRAIL DETAILS (BRIFEN USA)		
8	HIGH TENSION GUARDRAIL DETAILS (GIBLARTAR)		
9	HIGH TENSION GUARDRAIL DETAILS (TRINITY HIGHWAY)		

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800)892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- THE CONTRACTOR SHALL CALL STATE ELECTRICAL CONTRACTOR AT (773) 287-7600 TO LOCATE STATE OWNED FACILITIES.
- THE CONTRACTOR SHALL WORK IN THE DIRECTION OF TRAFFIC.
- THE CONTRACTOR WILL NOT BE ALLOWED TO STORE MATERIALS OVERNIGHT IN THE MEDIAN.
- THE PROPOSED DEPTH OF THE CONCRETE SOCKETED FOUNDATIONS SHALL BE 42" (MINIMUM).

FILE NAME =	USER NAME = wjgreendp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CABLE BARRIER REPAIR AT VARIOUS EXPRESSWAY MEDIANS INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\projects\design\2008\dl53108aa.dgn		DRAWN -	REVISED -			VAR.	2008-041 I	COOK & WILL	9	2	
		CHECKED -	REVISED -			CONTRACT NO. 60E85					
		DATE -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2008-041 I	COOK & WILL	9	3
FED. ROAD DIST. NO. 1		ILLINOIS	HIGHWAY PROJECT	
CONTRACT NO. 60E85				

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES				
	HIGH TENSION CABLE MEDIAN BARRIER CABLE REPAIR, TYPE A	EACH	12	6	6		
	HIGH TENSION CABLE MEDIAN BARRIER POST REMOVAL AND REPLACEMENT, TYPE A	EACH	1000	500	500		
	HIGH TENSION CABLE MEDIAN BARRIER TERMINAL REPAIR, TYPE A	EACH	6	3	3		
	HIGH TENSION CABLE MEDIAN BARRIER CABLE REPAIR, TYPE B	EACH	0	2	6		
	HIGH TENSION CABLE MEDIAN BARRIER POST REMOVAL AND REPLACEMENT, TYPE B	EACH	1300	300	1000		
	HIGH TENSION CABLE MEDIAN BARRIER TERMINAL REPAIR, TYPE B	EACH	6	2	4		
	HIGH TENSION CABLE MEDIAN BARRIER CABLE REPAIR, TYPE C	EACH	6	0	6		
	HIGH TENSION CABLE MEDIAN BARRIER POST REMOVAL AND REPLACEMENT, TYPE C	EACH	100	0	100		
	HIGH TENSION CABLE MEDIAN BARRIER TERMINAL REPAIR, TYPE C	EACH	4	0	4		

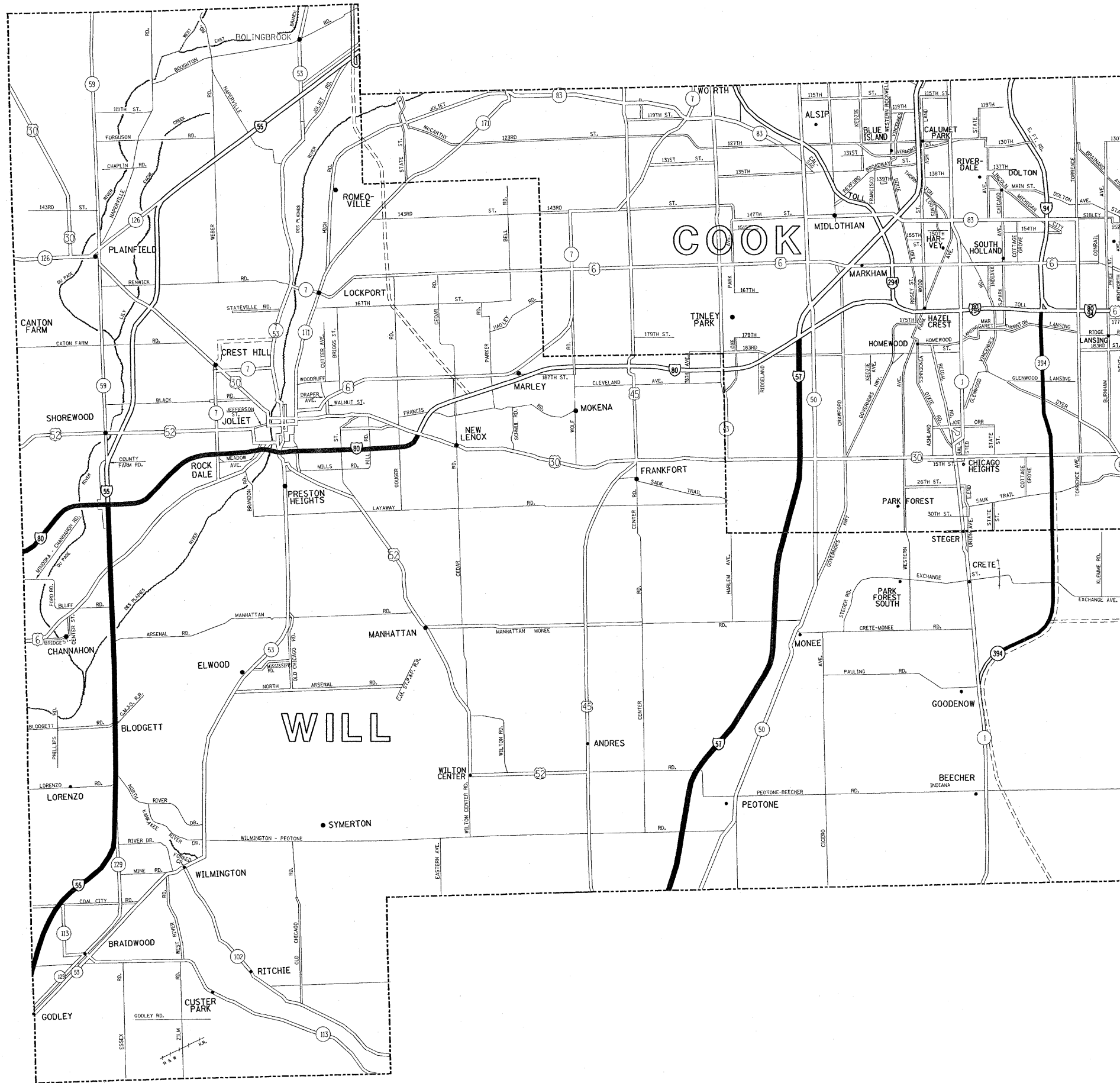
SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	100% STATE SFTY-4A COOK CO.	100% STATE SFTY-4A WILL CO.		
X0325256	REPAIR HIGH TENSION CABLE (BRIFEN)	FOOT	240	120	120		
X0326204	REPAIR POSTS (BRIFEN)	EACH	1000	500	500		
X0325258	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (BRIFEN)	EACH	6	3	3		
X0325899	REPAIR HIGH TENSION CABLE (GIBRALTAR)	FOOT	160	40	120		
X0325901	REPAIR POSTS (GIBRALTAR)	EACH	1300	300	1000		
X0325975	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (GIBRALTAR)	EACH	6	2	4		
X0326201	REPAIR HIGH TENSION CABLE (TRINITY)	FOOT	120		120		
X0326202	REPAIR POSTS (TRINITY)	EACH	100		100		
X0326203	REPAIR HIGH TENSION CABLE SYSTEM END SECTION (TRINITY)	EACH	4		4		

9/27/2008 8:28:48 AM C:\p1\60E85\60E85.dgn

REVISONS		ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES
NAME	DATE	

Rev.

PLOT DATE: 8/27/2008



FILE NAME =
c:\projects\design\2008\dl53108aa.dgn

USER NAME = wjgreendp

DESIGNED -
DRAWN -

REVISED -
REVISED -

PLOT SCALE = 50.0000' / IN.
PLOT DATE = 8/27/2008

CHECKED -
DATE -

REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

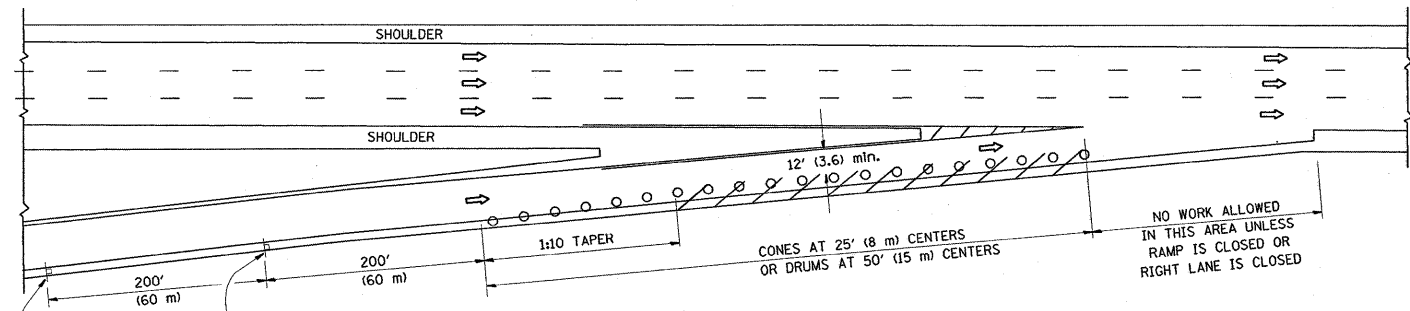
**CABLE BARRIER REPAIR
AT VARIOUS EXPRESSWAY MEDIANS
LOCATION MAP**

SCALE: SHEET NO. OF SHEETS STA. TO STA.

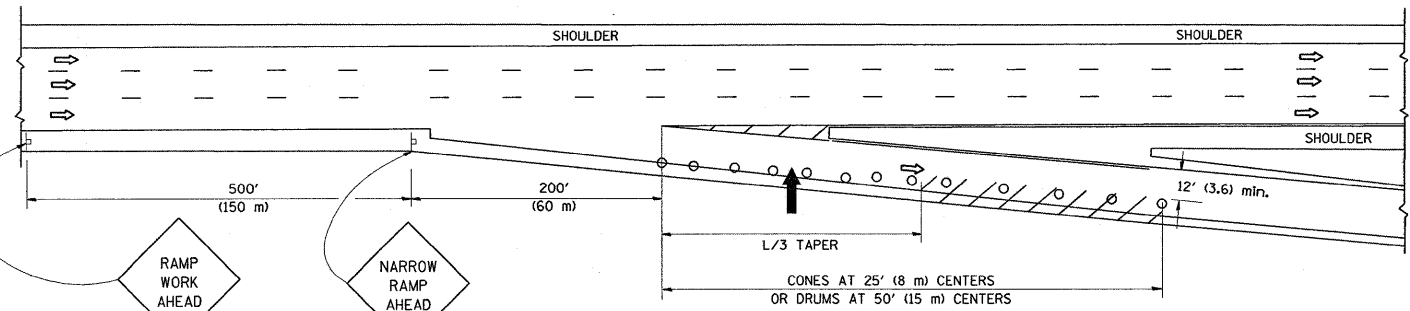
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2008-041 I	COOK & WILL	9	4
CONTRACT NO. 60E85				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PARTIAL RAMP CLOSURE DETAILS

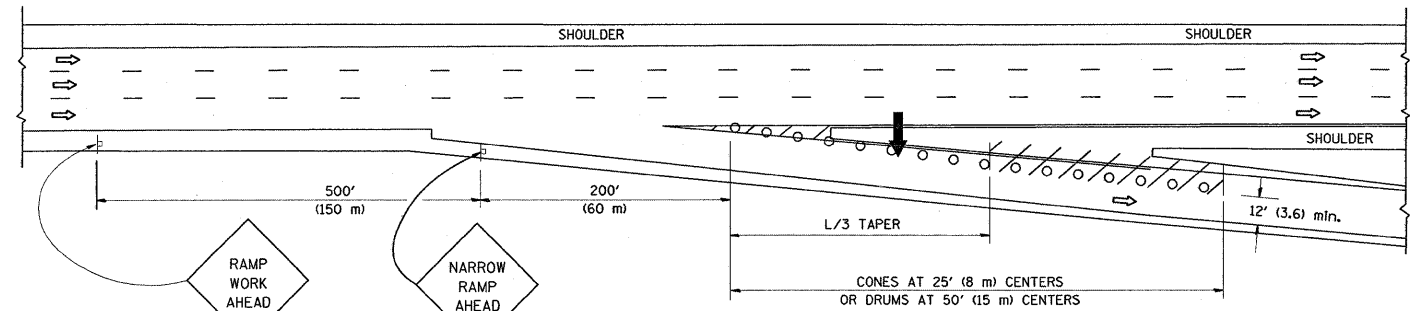
SHOULDER CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

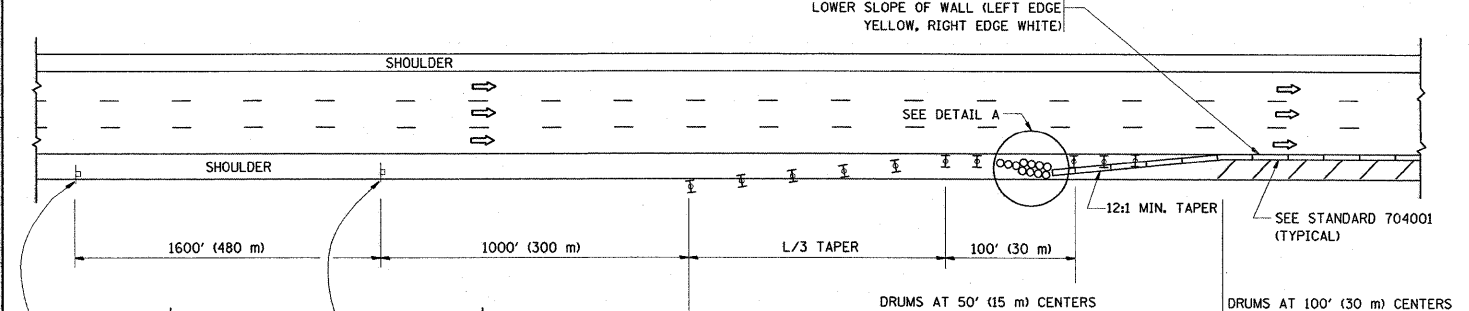
SYMBOLS

- ARROWBOARD
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

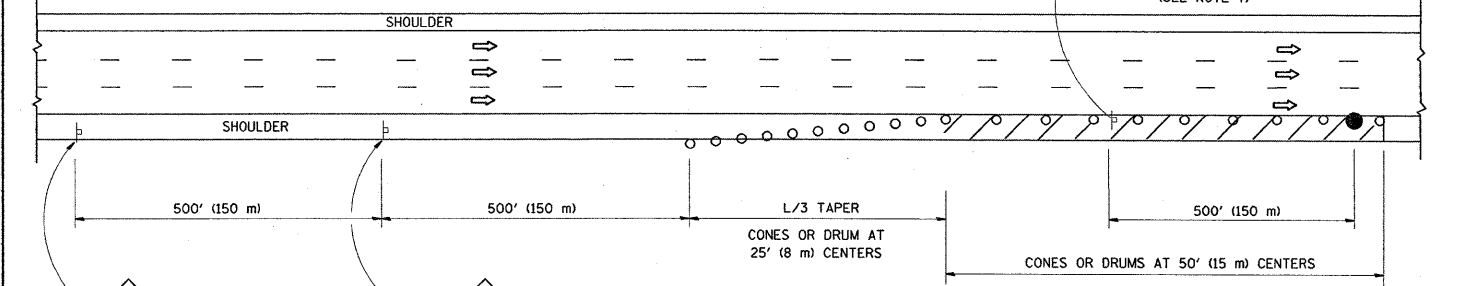
GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH $L=0.65(W)(S)$ $L=(W)(S)$
	W = WIDTH OF OFFSET IN FEET (METERS) S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

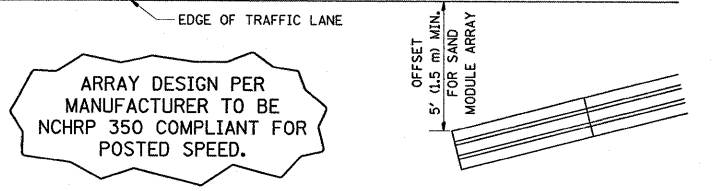


PERMANENT SHOULDER CLOSURE



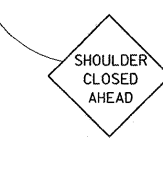
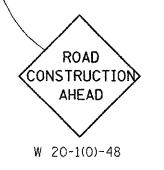
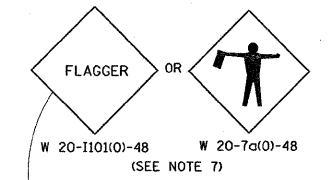
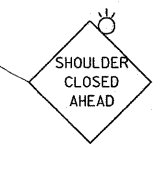
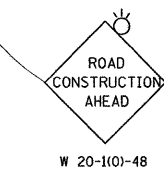
DAYTIME SHOULDER CLOSURE

THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



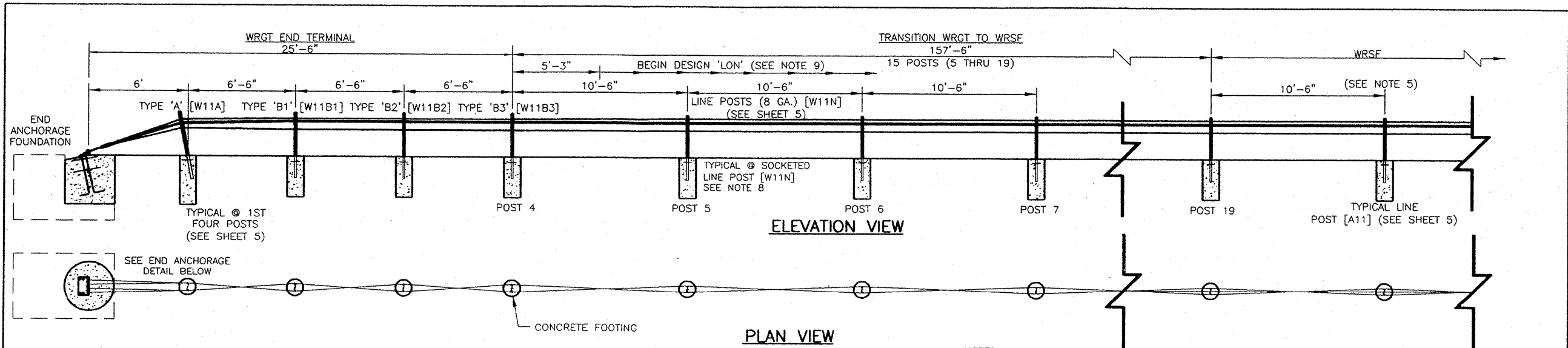
DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



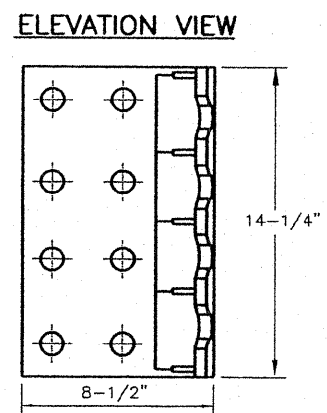
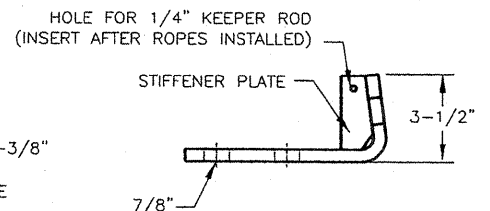
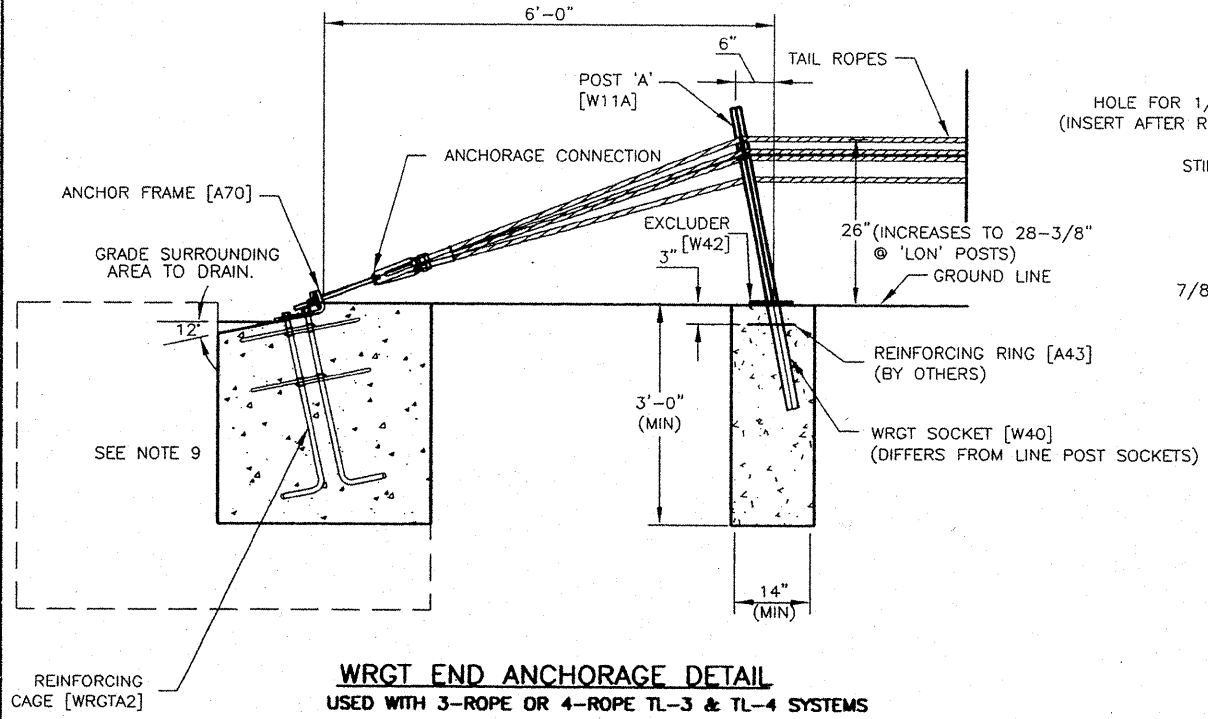
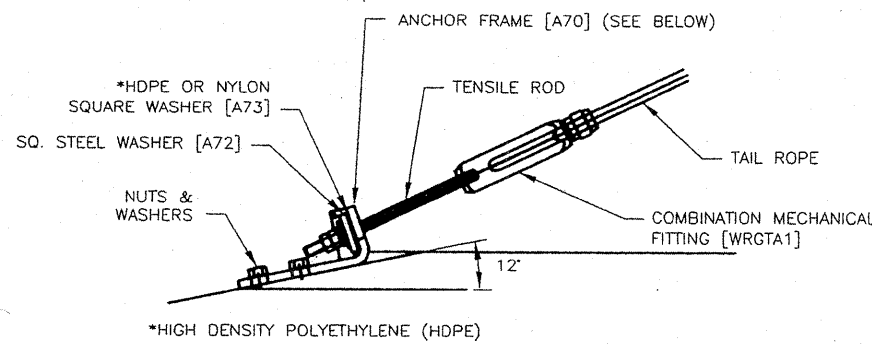
FILE NAME = \\dist\ntfs2\users\w1greendp\Desk top\td7.dgn	USER NAME = w1greendp	DESIGNED - J.A.F. 12-02	REVISED - J.A.F. 12-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN - D.W.S.	REVISED - 04-03		SCALE: NONE	SHEET NO. 1 OF 1	SHEETS	STA.	TO STA.	9	5
		CHECKED -	REVISED - J.A.F. 12-06				TC-17		CONTRACT NO. 60E85		
		DATE - 11-96	REVISED - S.P.B. 01-07				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY



NOTES:

- BRIFEN DRAWINGS, SPECIFICATIONS & PRODUCT MANUAL SHOULD BE REVIEWED PRIOR TO STARTING AN INSTALLATION. FOR ASSISTANCE OR ADDITIONAL INFORMATION CALL 1-866-427-4336 TOLL FREE.
- WIRE ROPE SAFETY FENCE (WRSF) IS RECOMMENDED FOR INSTALLATIONS ON SLOPES OF 6:1 OR FLATTER. THE AREA SHOULD BE RELATIVELY SMOOTH, WITHOUT EDGE DROP-OFFS, ABRUPT SLOPE CHANGES, HOLES, DEBRIS, ETC. THAT COULD PREVENT A VEHICLE FROM IMPACTING THE WRSF WITH ALL WHEELS ON THE GROUND AND SUSPENSION NORMAL. SOME FILLING AND/OR GRADING AND COMPACTION MAY BE NECESSARY. THE ROPES MUST BE PLACED AT DESIGN HEIGHT ABOVE GROUND LINE. TOLERANCE IS ± 1".
- WRSF MAY BE INSTALLED ON EITHER SIDE OF THE ROADWAY. THE RADIUS EDGE OF POSTS SHALL BE ON THE APPROACH SIDE OF TRAFFIC. WEAKENING CUT (RELIEF NOTCH) AT GROUND LINE ON POST A & B TO BE PLACED TOWARD THE END ANCHOR. ALSO SEE SHEET 5.
- ALL POSTS ARE SET IN SOCKETS UNLESS OTHERWISE SPECIFIED. ALL CONCRETE (BY OTHERS) TO BE 3500 PSI MINIMUM. EXPOSED SURFACES TO BE HAND TROWELED.
- LINE POST SPACING AT 10'-6" SHOWN; MAY BE DECREASED IF NECESSARY. ADEQUATE CLEARANCE TO RIGID OBSTACLES SUCH AS BRIDGE PIERS, SIGN SUPPORTS, POWER POLES, TREES, ETC. IS CRITICAL. SEE PRODUCT MANUAL OR CONTACT MANUFACTURER.
- WRGT END TERMINAL IS NCHRP 350 APPROVED AND MAY BE LOCATED WITHIN THE HORIZONTAL CLEAR ZONE. END TERMINAL FLARE RATE MAY NOT EXCEED 25:1; 50:1 OR LESS IS PREFERRED. USED FOR BOTH TL-3 & TL-4 SYSTEMS. NO MAXIMUM LIMIT TO LENGTH BETWEEN END TERMINALS.
- WRGT END TERMINAL IS SUPPLIED AS A PACKAGE UNLESS OTHERWISE SPECIFIED. INCLUDES ANCHOR FRAME, REINFORCING CAGE, CONNECTION HARDWARE, COMBINATION MECHANICAL FITTING, POSTS TYPE A AND B, WRGT SOCKETS, PEGS, EXCLUDERS AND TAIL ROPES.
- THE 15 TRANSITION LINE POSTS ADJACENT TO WRGT END TERMINAL DO NOT HAVE TOP ROPE SLOT. ALL THE ROPES WEAVE ON EITHER SIDE OF THE POSTS UNTIL THE FIRST LINE POST WITH A SLOT (POST 20). SEE SHEET 5
- END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.

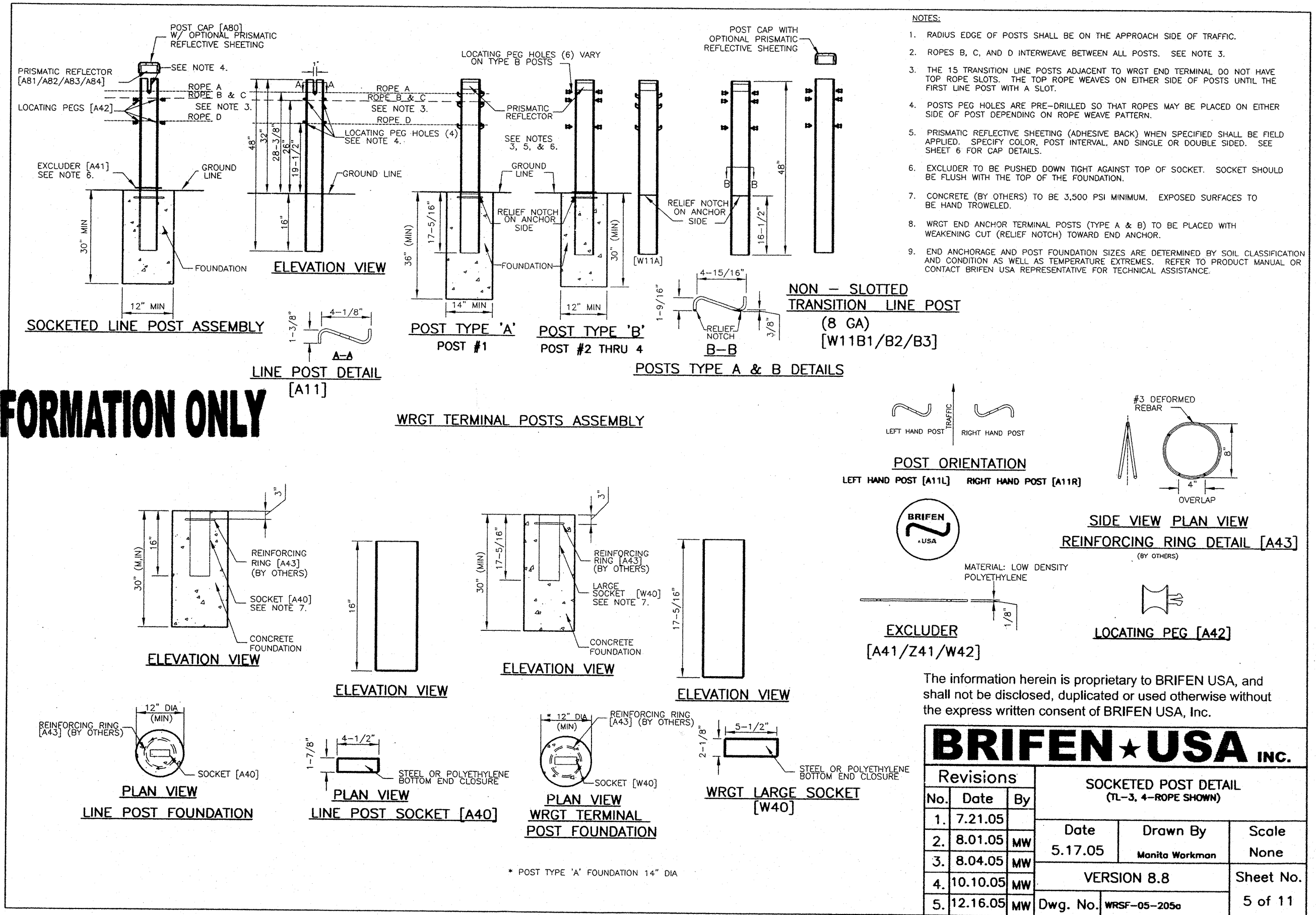


ANCHORAGE CONNECTION DETAILS

The information herein is proprietary to BRIFEN USA, and shall not be disclosed, duplicated or used otherwise without the express written consent of BRIFEN USA, Inc.

BRIFEN★USA INC.				
Revisions				
No.	Date	By	GENERAL LAYOUT USING WRGT END TERMINAL (NCHRP-350) AND TRANSITION	
1.	7.21.05	MW	Date	Drawn By
2.	8.01.05	MW	5.17.05	Manita Workman
3.	8.04.05	MW	VERSION 8.8	
4.	10.10.05	MW	Sheet No.	
5.	12.16.05	MW	Dwg. No.	1 of 11
			WRSF-05-201a	

FOR INFORMATION ONLY

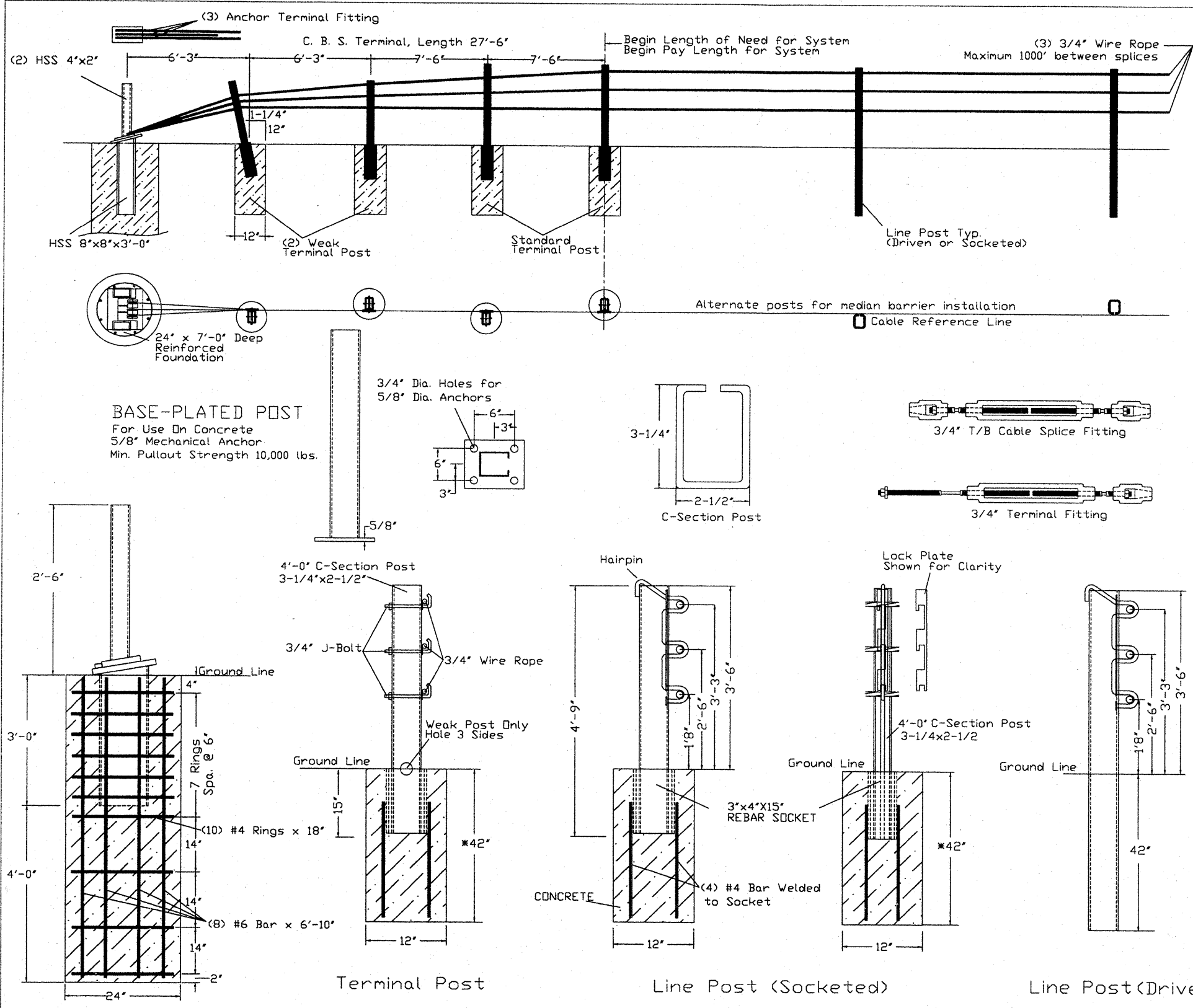


- NOTES:**
- RADIUS EDGE OF POSTS SHALL BE ON THE APPROACH SIDE OF TRAFFIC.
 - ROPES B, C, AND D INTERWEAVE BETWEEN ALL POSTS. SEE NOTE 3.
 - THE 15 TRANSITION LINE POSTS ADJACENT TO WRGT END TERMINAL DO NOT HAVE TOP ROPE SLOTS. THE TOP ROPE WEAVES ON EITHER SIDE OF POSTS UNTIL THE FIRST LINE POST WITH A SLOT.
 - POSTS PEG HOLES ARE PRE-DRILLED SO THAT ROPES MAY BE PLACED ON EITHER SIDE OF POST DEPENDING ON ROPE WEAVE PATTERN.
 - PRISMATIC REFLECTIVE SHEETING (ADHESIVE BACK) WHEN SPECIFIED SHALL BE FIELD APPLIED. SPECIFY COLOR, POST INTERVAL, AND SINGLE OR DOUBLE SIDED. SEE SHEET 6 FOR CAP DETAILS.
 - EXCLUDER TO BE PUSHED DOWN TIGHT AGAINST TOP OF SOCKET. SOCKET SHOULD BE FLUSH WITH THE TOP OF THE FOUNDATION.
 - CONCRETE (BY OTHERS) TO BE 3,500 PSI MINIMUM. EXPOSED SURFACES TO BE HAND TROWELED.
 - WRGT END ANCHOR TERMINAL POSTS (TYPE A & B) TO BE PLACED WITH WEAKENING CUT (RELIEF NOTCH) TOWARD END ANCHOR.
 - END ANCHORAGE AND POST FOUNDATION SIZES ARE DETERMINED BY SOIL CLASSIFICATION AND CONDITION AS WELL AS TEMPERATURE EXTREMES. REFER TO PRODUCT MANUAL OR CONTACT BRIFEN USA REPRESENTATIVE FOR TECHNICAL ASSISTANCE.



BRIFEN USA INC.

Revisions			SOCKETED POST DETAIL (TL-3, 4-ROPE SHOWN)		
No.	Date	By	Date	Drawn By	Scale
1.	7.21.05		5.17.05	Manita Workman	None
2.	8.01.05	MW			
3.	8.04.05	MW	VERSION 8.8		
4.	10.10.05	MW			
5.	12.16.05	MW	Dwg. No.	WRSF-05-205a	
					Sheet No.
					5 of 11



GENERAL NOTES

- For additional information contact Gibraltar, Inc. at 1-800-495-8957, or see the manufacture's product manual.
- All concrete shall be minimum 2500 PSI.
- Alternate Post for bi-directional traffic flow. If installed for traffic in one direction install cables on traffic side of posts.
- The Cable Barrier System shall be installed on shoulders or on medians with slopes of 6:1 or flatter. If installed on slopes steeper than 6:1 up to 4:1 the TL-4 system performs as a TL-3 and Gibraltar must be contacted for various guidelines related to placement.
- The Cable Barrier System is accepted by the FHWA Test Level - 4
- See the MUTCD for proper 'Barrier' delineation
- Rock Clause: Where solid rock is encountered:
 - For socketed post, continue digging 12' diameter, 15' deep into rock or the required plan depth, whichever comes first.
 - For driven post, core drill a 4' diameter hole 18' deep into rock or the required plan depth, whichever comes first.
 - For Anchor post, continue digging 24' diameter, 30' deep into rock or the required plan depth, whichever comes first.
- The Gibraltar cable barrier system shall be installed in NCHRP Report 350 standard compacted soil. Soil must be well drained.
- Every component to be galvanized.

Cable Tension	
-10F	8000
0	7600
10	7200
20	6800
30	6400
40	6000
50	5600
60	5200
70	4800
80	4400
90	4000
100	3600
110	3200

Allowable Deviation from Chart +/- 10%

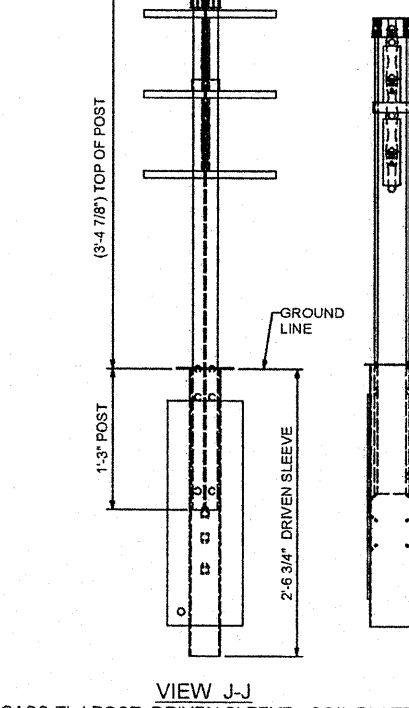
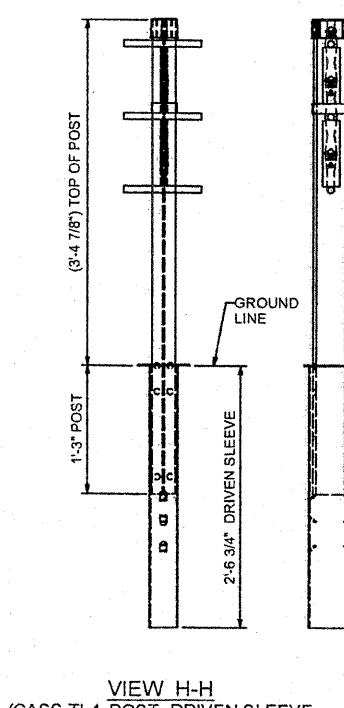
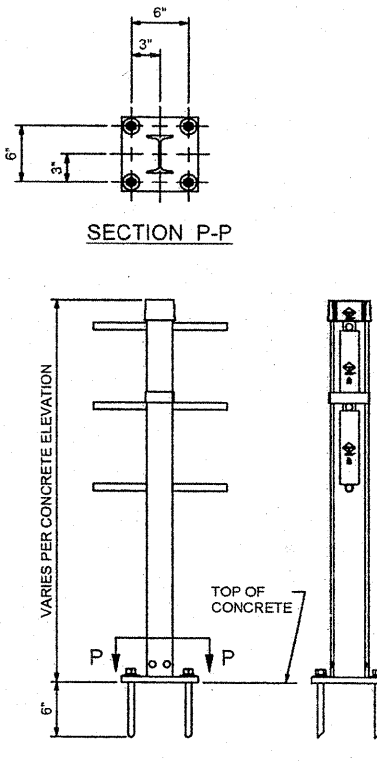
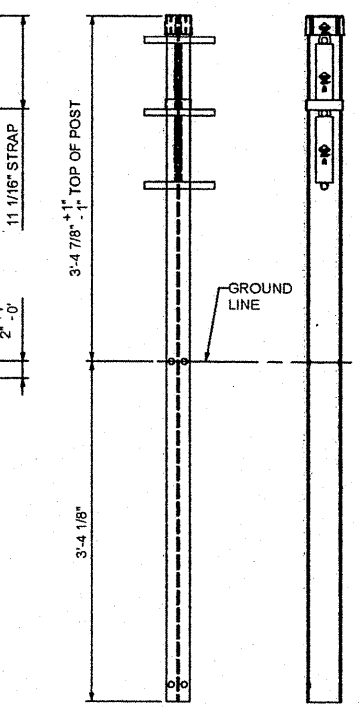
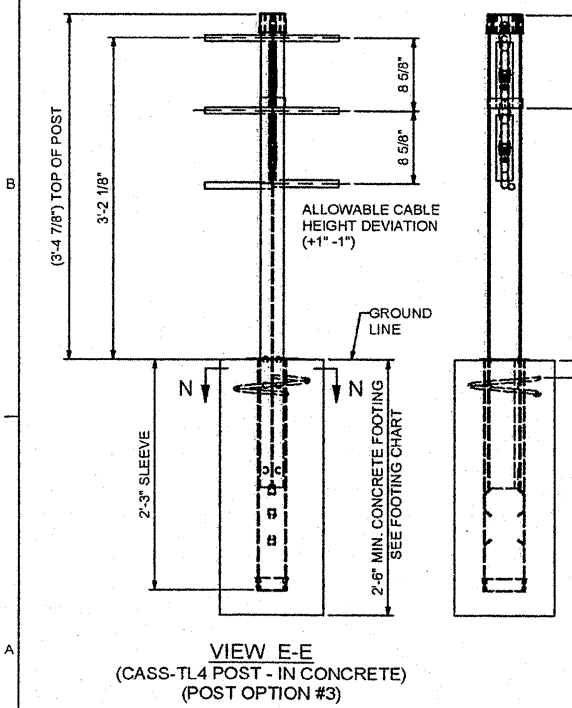
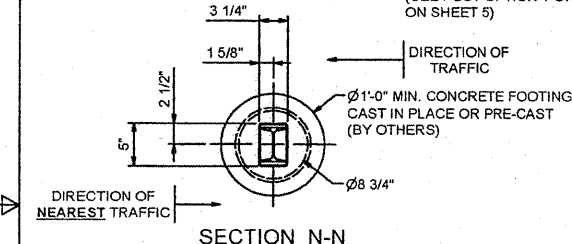
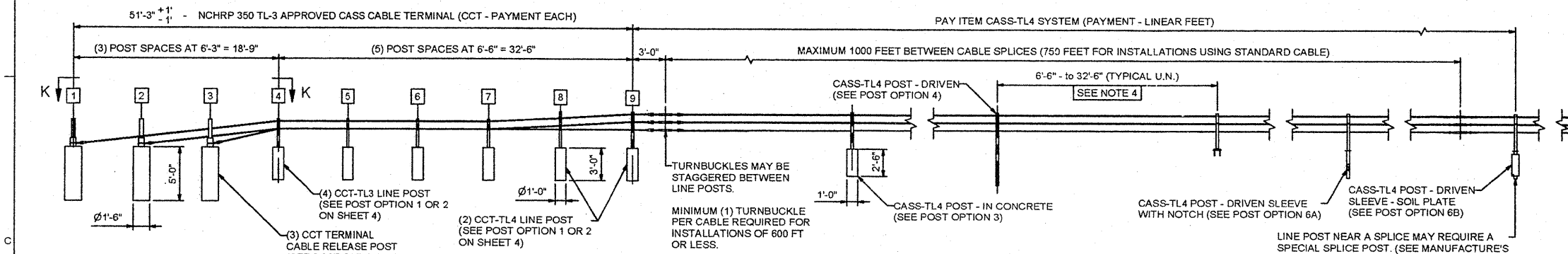
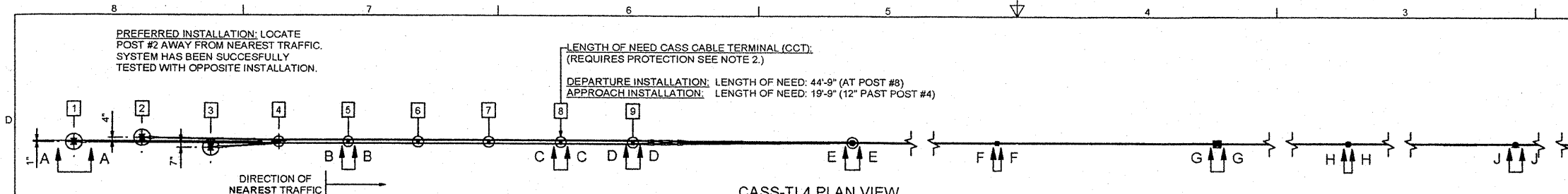
Deflection	Post Spacing
9'3"	30.FT
9'	28.FT
8'	20.FT
7'	12.FT
6'8"	10.FT

GIBRALTAR
 320 Southland Road
 Burnet, Texas 78611
 1-800-495-8957

Cable Barrier System
 Patent Pending

SYSTEM: TL-4 SCALE: NTS DRAFTERS: EJ&TJ DATE: 09/13/07

FOR INFORMATION ONLY



FOR INFORMATION ONLY

- NOTES:**
- CASS-TL4 HAS BEEN SUCCESSFULLY TESTED TO NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 TEST LEVEL 4 (NCHRP 350 TL4) AND ACCEPTED BY FHWA FOR VARIOUS POST SPACINGS. CASS CABLE TERMINAL (CCT) HAS BEEN SUCCESSFULLY TESTED AND APPROVED TO NCHRP TL3.
 - AN NCHRP 350 TL3 APPROVED TERMINAL (CCT) OR CASS-TL4 TRANSITION (VARIOUS) SHALL BE USED ON APPROACH AND DEPARTURE TERMINATIONS WHEN CASS-TL4 IS INSTALLED ON THE NATIONAL HIGHWAY SYSTEM (NHS). IF THE TERMINATION POINT IS LOCATED OUTSIDE THE CLEAR ZONE AND/OR PROTECTED BY OTHER MEANS (CRASHWORTHY BARRIER, TERMINALS, ETC.), A NON-NCHRP 350 TL3 ANCHOR (CCA) MAY BE USED ON APPROACH AND DEPARTURE TERMINATIONS.
 - CASS-TL4 SHALL BE INSTALLED ON SHOULDERS OR MEDIANS WITH SLOPES OF 6:1 OR FLATTER WITHOUT OBSTRUCTIONS, DEPRESSIONS, ETC. THAT MAY SIGNIFICANTLY AFFECT THE STABILITY OF AN ERRANT VEHICLE. GRADING OF SITE AND/OR APPROPRIATE FILL MATERIALS MAY BE REQUIRED. THE DESIGNER/INSTALLER SHALL "FLATTEN" OR "ROUND" VARIOUS TOPOGRAPHICAL INCONSISTENCIES THAT COULD INTERFERE WITH THE ABILITY OF THE INSTALLER TO CONSISTENTLY MAINTAIN THE DESIGN HEIGHT (IN RELATION TO THE TERRAIN) OF THE CABLES. PLEASE CONSULT THE CASS MANUAL(S) FOR INSTALLATIONS IN "DITCH SECTIONS".
 - CASS-TL4 POST SPACING MAY BE MODIFIED TO AVOID OBSTACLES THAT CONFLICT WITH THE INSTALLATION OF CASS-TL4 LINE POSTS. NO POST SPACE CAN EXCEED THE MAXIMUM POST SPACE LIMIT OF 32'-6". OR MAXIMUM POST SPACING ALLOWED BY PROJECT ENGINEER - WHICHEVER IS LESS. REDUCING OR INCREASING POST SPACING AFFECTS DEFLECTION. CASS-TL4 MAY BE LATERALLY TRANSFERRED AT A RATE NOT TO EXCEED 30:1.
 - POST FOUNDATIONS MAY BE DRILLED THROUGH EXISTING PAVEMENT. TRINITY MAY ALLOW THE USE OF ALTERNATE LINE POST FOOTINGS IF SYSTEM IS INSTALLED WITH AN ACCEPTABLE MOWSTRIP APPLICATION - PLEASE CONTACT TRINITY.
 - FOR AESTHETIC PURPOSES TRINITY RECOMMENDS ALL SLEEVES, DRIVEN POSTS, AND LOWER CABLE RELEASE POSTS TO BE INSTALLED REASONABLY PLUMB (APPROXIMATELY 1/8" PER FOOT).
 - ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. PRIOR TO TENSIONING THE SYSTEM. TRINITY RECOMMENDS THE CONCRETE TO BE VIBRATED IN ACCORDANCE WITH THE LATEST APPLICABLE AGENCY SPECIFICATION.
 - CASS-TL4 SHALL BE INSTALLED IN WELL-DRAINED, COMPACTED, NCHRP REPORT 350 STANDARD SOILS. IF SOIL DOESN'T MEET THIS CLASSIFICATION, IF SOLID ROCK/CONCRETE IS ENCOUNTERED BELOW GRADE OR IF SOIL IS SUSCEPTIBLE TO SEVERE FREEZE/THAW CYCLES, PLEASE CONTACT TRINITY ABOUT ALTERNATE FOOTING DESIGN(S). TRINITY SUGGESTS THE USE OF "MOW STRIPS" FOR EROSION PREVENTION AND EASE OF MAINTENANCE / INSTALLATION.
 - PLEASE SEE SPECIFYING AGENCY (OR MUTCD) FOR PROPER "BARRIER" DELINEATION.
 - PLEASE CONTACT TRINITY OR CONSULT THE DESIGN, INSTALLATION, OR REPAIR MANUAL(S) FOR ADDITIONAL INFORMATION.

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MOW STRIP DETAIL*			CONCRETE FOOTING CHART		
MOW STRIP	DEPTH	WIDTH	FOOTING	TUBE SLEEVE	REBAR RING
NONE			30" MIN	27" MIN	YES
HMA	6" MIN.	3" MIN.	27" MIN	15" MIN.	NO
HMA	8" MIN.	3" MIN.	24" MIN	15" MIN.	NO
RC	3" MIN.	3" MIN.	24" MIN	15" MIN.	NO

CHART DOES NOT APPLY TO TERMINAL POSTS 1 THRU 9
 * MOW STRIP OR PAVEMENT
 HMA = HOT MIX ASPHALT (NOT RECYCLED ASPHALT PAVEMENT)
 RC = REINFORCED CONCRETE (3,000 P.S.I. MINIMUM)

No.	CASS-TL4 POST OPTIONS
1	CCT - TERMINAL POST 1 - 9 - IN CONCRETE
2	CCT - TERMINAL POST 1 - 9 - WITH SOIL PLATE
3	CASS-TL4 POST - IN CONCRETE
4	CASS-TL4 POST - DRIVEN
5	CASS-TL4 POST - BASE-PLATED
6	CASS-TL4 POST - IN DRIVEN SLEEVE
	6A - DRIVEN SLEEVE - WITH NOTCH
	6B - DRIVEN SLEEVE - WITH SOIL PLATE

CASS-TL4 3-CABLE GUARDRAIL SAFETY SYSTEM

TRINITY HIGHWAY PRODUCTS, LLC

GALV SPEC: SHIPPING WT: DRW: E.A.S. 4/11/2008 CHK: G.N. 4/11/2008 SHT: 1 OF 5 SIZE: D REV: DWG NO: SS-740 3