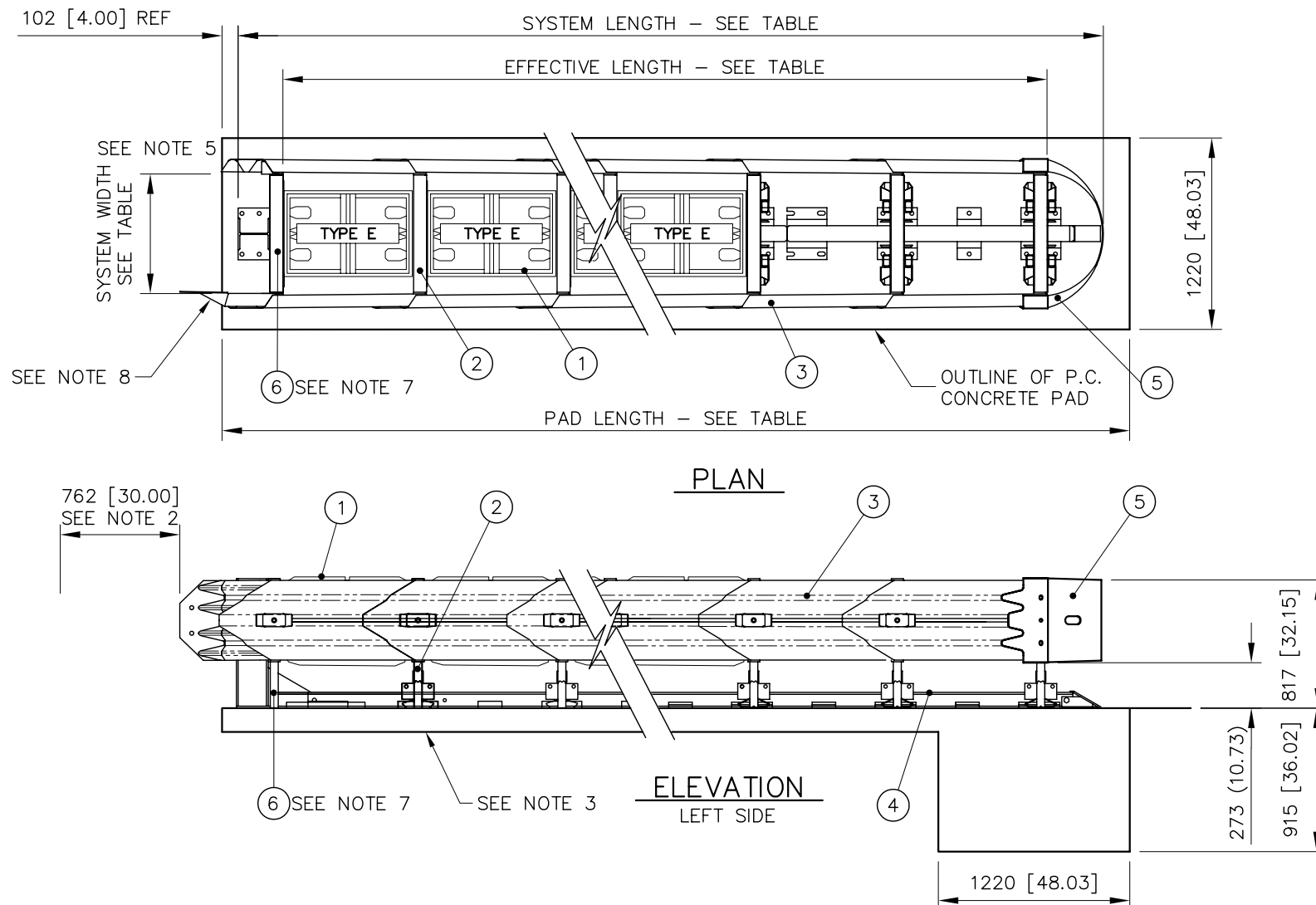


OPTIONS



NOTES:

1. IN COMPLIANCE WITH THE AASHTO 2002 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
2. PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD UPON IMPACT 762 [30.00] MIN.
3. 150 [6.00] MIN. REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE PAD OR 200 [8.00] MIN. NON-REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE ROADWAY MEASURING AT LEAST 3.6m [12ft] WIDE BY 15.2m [50ft] LONG.
4. SEE THE "QUADGUARD CEN SYSTEM PRODUCT MANUAL", FOR A DESCRIPTION OF ITS IMPACT PERFORMANCE CHARACTERISTICS AND DESIGN LIMITATIONS BEFORE PLACING A SYSTEM AT A GIVEN SITE. INFORMATION AND COPIES OF ABOVE MANUAL ARE AVAILABLE BY CALLING CUSTOMER SERVICE DEPARTMENT AT (312) 467-6750.
5. WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE QUADGUARD SYSTEM TO THE OBJECT BEING SHIELDED.
6. UNITS OF MEASUREMENT ARE MILLIMETERS [INCHES], UNLESS OTHERWISE NOTED.
7. BACKUP, MONORAIL AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY. TRANSITION ASSEMBLY IS AN ACCESSORY.
8. TRANSITION PANEL SHALL BE ANGLED SUCH THAT MAXIMUM GAP FROM FENDER PANEL OVERLAP DOES NOT EXCEED 20 [.78].

TABLE


	MODEL NO.	OVERALL WIDTH	SYSTEM WIDTH	SYSTEM LENGTH	EFFECTIVE LENGTH	PAD LENGTH	DESIGN SPEED
5 BAY	QI2405*	810 [32.00]	610 [24.00]	5.22m [17'-1 1/2"]	4.57m [15'-0"]	5.49m [18'-0"]	80 km/h
	QI3005*	965 [38.00]	760 [30.00]				
	QI3605*	1120 [44.00]	915 [36.00]				
6 BAY	QI2406*	810 [32.00]	610 [24.00]	6.13m [20'-1 1/2"]	5.49m [18'-0"]	6.40m [21'-0"]	100 km/h
	QI3006*	965 [38.00]	760 [30.00]				
	QI3606*	1120 [44.00]	915 [36.00]				
8 BAY	QI2408*	810 [32.00]	610 [24.00]	7.97m [26'-1 1/2"]	7.32m [24'-0"]	8.23m [27'-0"]	110 km/h
	QI3008*	965 [38.00]	760 [30.00]				
	QI3608*	1120 [44.00]	915 [36.00]				

\* B = BLACK NOSE, Y = YELLOW NOSE, G = GRAY NOSE  
UNIDIRECTIONAL

KEY	① QUADGUARD CARTRIDGE	④ MONORAIL	⑦ BUMPER			
	② DIAPHRAGM	⑤ NOSE ASSY				
	③ FENDER PANEL	⑥ BACKUP				
Revisions		Date	Rev.	By	Ckd.	App.
REVISED NOTE 7, (ADDED MONORAIL), PCN 2053		10/12/05	A	DDS	STT	KWL
FENDER PANEL ASSY WAS 35-40-04;ECO 2224		9/20/06	B	DDS	STT	KWL

REFERENCES			
SERIAL#	_____	DIAPHRAGM ASSY.	3540571-0000
SALES ORDER#	_____	NOSE ASSY.	3540550-0000
EH PROJECT#	_____	FENDER PANEL ASSY.	3540041-0000
DESIGN SPEED	SEE CHART ABOVE	BACKUP ASSY.	3540561-0000
NOSE COLOR	_____	MONORAIL ASSY.	3540060-OCEN
NUMBER OF UNITS	_____	CONCRETE PAD	3540110-OCEN
		BUMPER ASSY.	3540564-0000
		TRANSITION ASSY.	35-40-15
		WHEEL DEFLECTOR ASSY.	N/A

DRAWN:	R. VENZON	DATE:	06/15/04
DESIGNED:		DATE:	
CHECKED:	K. LOONEY	DATE:	06/16/04
APPROVED:	F. POWELL	DATE:	06/16/04
CAD FILE:	QCTSCVR-ES.dwg		



**ENERGY ABSORPTION SYSTEMS, INC.**  
ENGINEERING AND RESEARCH DEPARTMENT

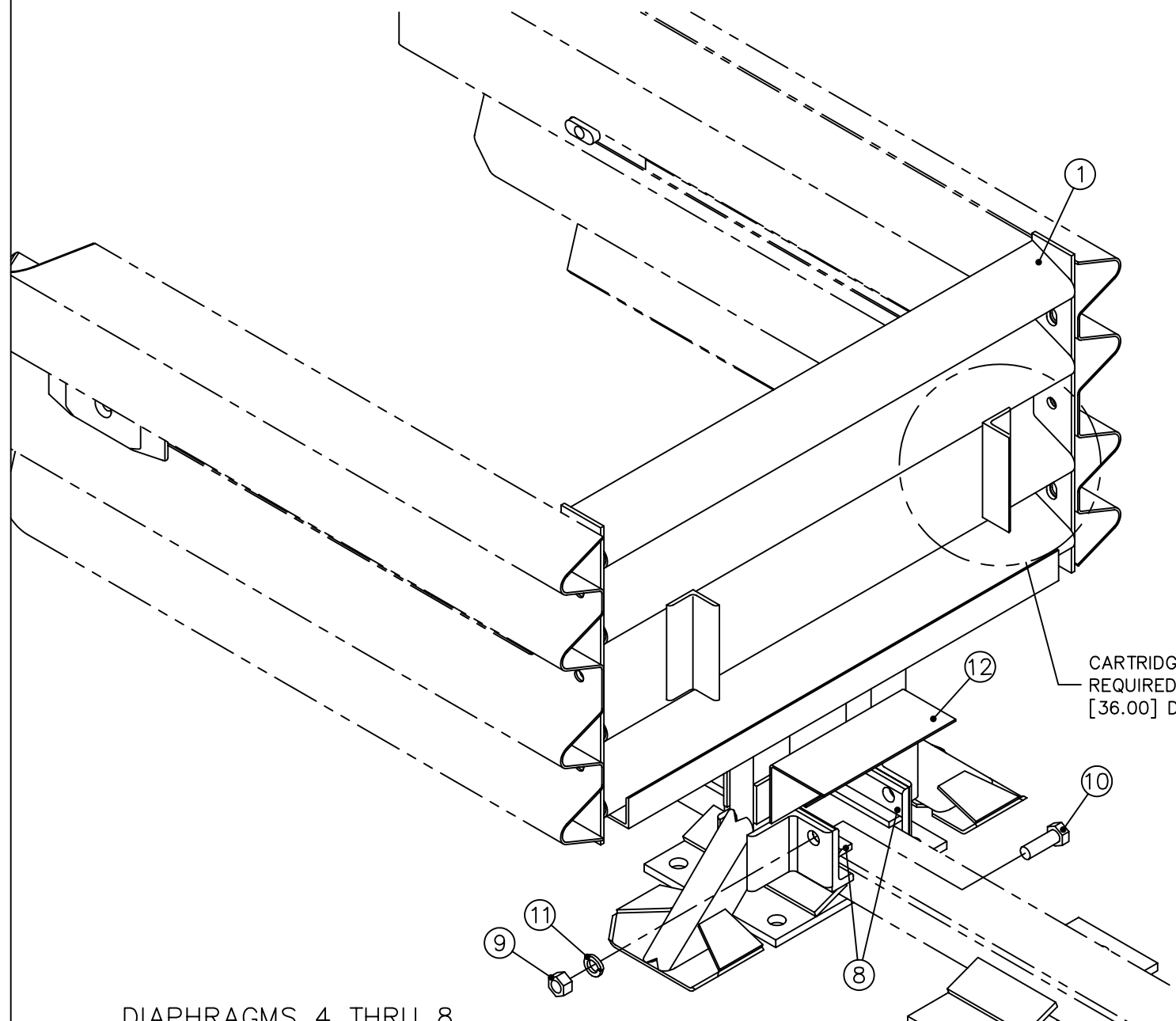
**QUADGUARD® CEN SYSTEM**  
W/ TENSION STRUT BACKUP AND END SHOES

SCALE	1=40	DWG.	QCTSCVR-ES	SHEET	1 of 1	REV	B
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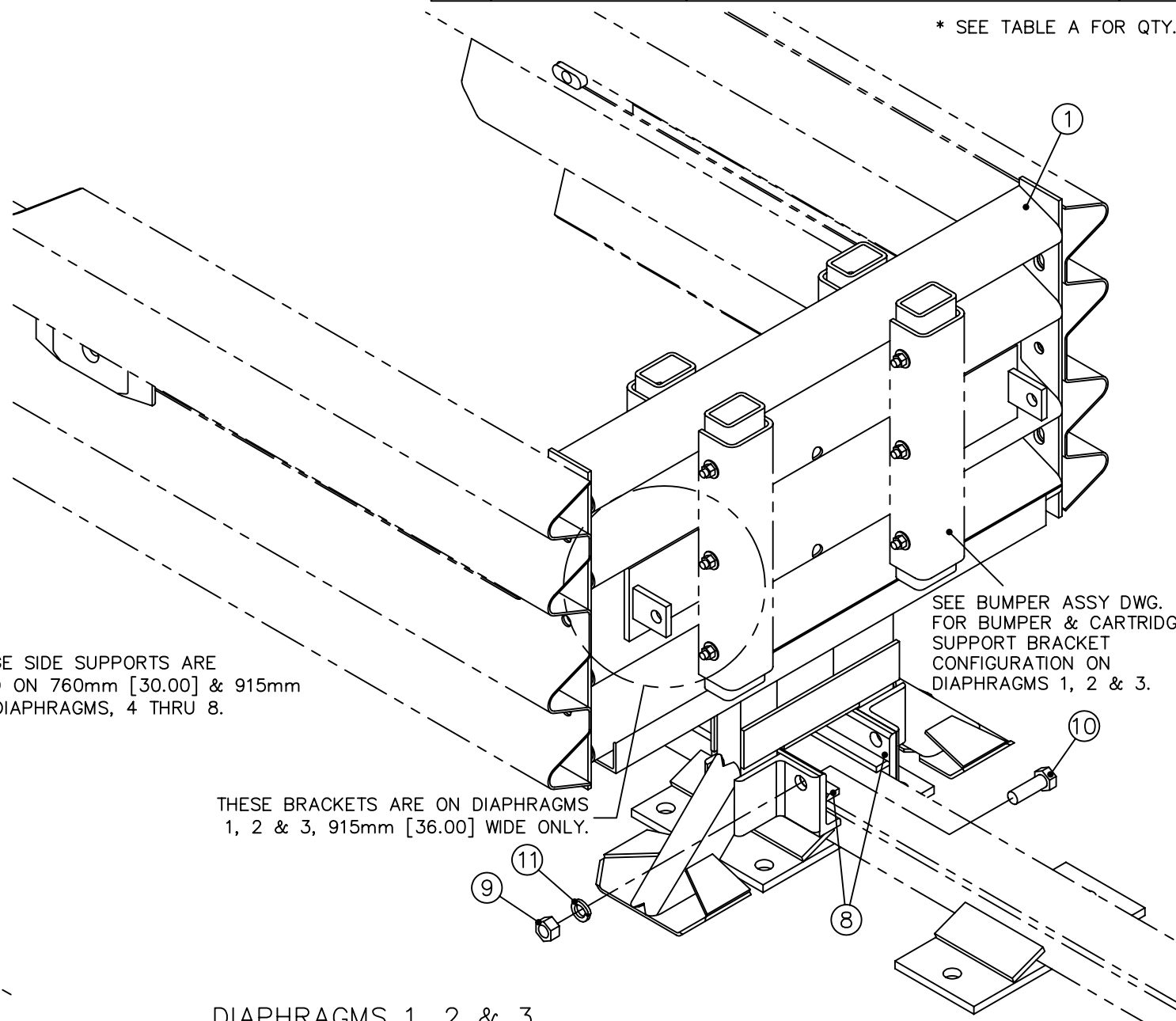
		TABLE A					
5 BAY DIAPHRAGM NO.	6 BAY DIAPHRAGM NO.	8 BAY DIAPHRAGM NO.	* QTY ITEM 12 PER DIAPHRAGM	ASSY. NO.	STOCK NO.	DESCRIPTION	WIDTH
4 & 5 QTY. 2	4 Thru 6 QTY. 3	4 Thru 8 QTY. 5	2	3540071-0000	2761011-0000	DIAPHRAGM,QB,24,QG,G	610 [24.00]
				3540072-0000	2761021-0000	DIAPHRAGM,QB,30,QG,G	760 [30.00]
				3540073-0000	2761031-0000	DIAPHRAGM,QB,36,QG,G	915 [36.00]
1, 2 & 3 QTY. 3	1, 2 & 3 QTY. 3	1, 2 & 3 QTY. 3	0	3540487-0000	2761014-0000	DIAPHRAGM,QB,24,QGE,G	610 [24.00]
				3540488-0000	2761024-0000	DIAPHRAGM,QB,30,QGE,G	760 [30.00]
				3540489-0000	2761091-0000	DIAPHRAGM,QB,36,QGE,G	915 [36.00]

PARTS LIST			
ITEM	STOCK NO.	DESCRIPTION	REQ'D
1	SEE TABLE A	DIAPHRAGM,QB,QG,G	1.00
8	2760091-0000	MONORAIL GUIDE,QG,G	2.00
9	2704341-0000	NUT,HX,3/4,G,GR DH	4.00
10	2699121-0000	BOLT,HX,3/4X2,G8,G	4.00
11	2708201-0000	WASHER,LOCK,3/4,G	4.00
12	2760292-0000	BRACKET,CART SUPPORT,DIAPHRAGM	*

\* SEE TABLE A FOR QTY.



DIAPHRAGMS 4 THRU 8



DIAPHRAGMS 1, 2 & 3

ASSEMBLY NO. (SEE TABLE A)

Revisions	Date	Rev.	By	Ckd.	App.
REMOVED EDGE GUARD ON ITEM 1, DIA 1,2 & 3	08/22/02	F	LWC	DMO	STT
REVISED TABLE A & NOTES, DELETED 9 BAY, ADDED EDGE GUARD	12/18/01	D	DPH	DMO	FJP
REMOVED REMAINING REFERENCES TO 9 BAY IN TABLE A AND IN NOTES AND CALLOUTS	2/8/02	E	DDW	STT	DMO

REFERENCES

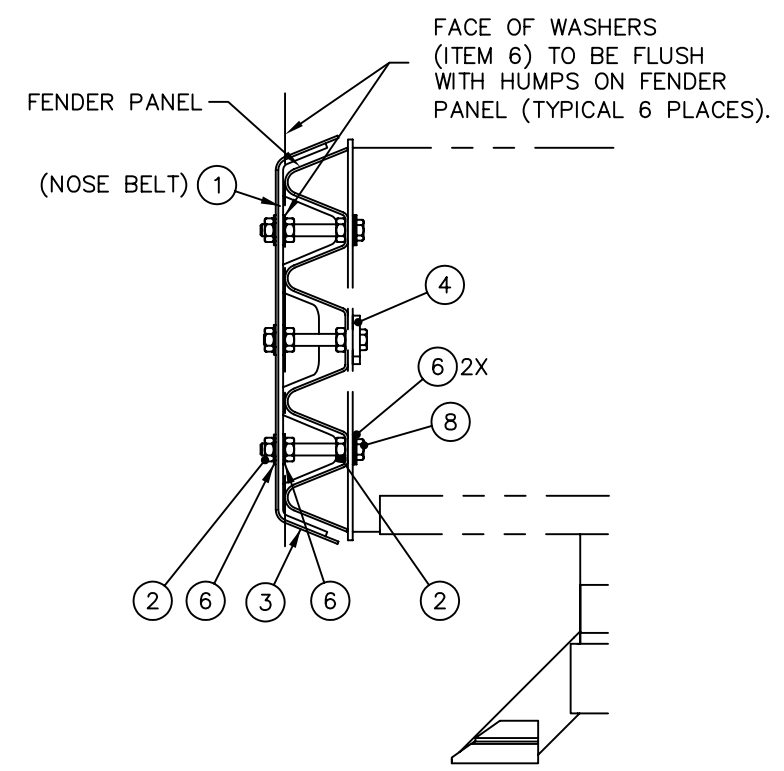
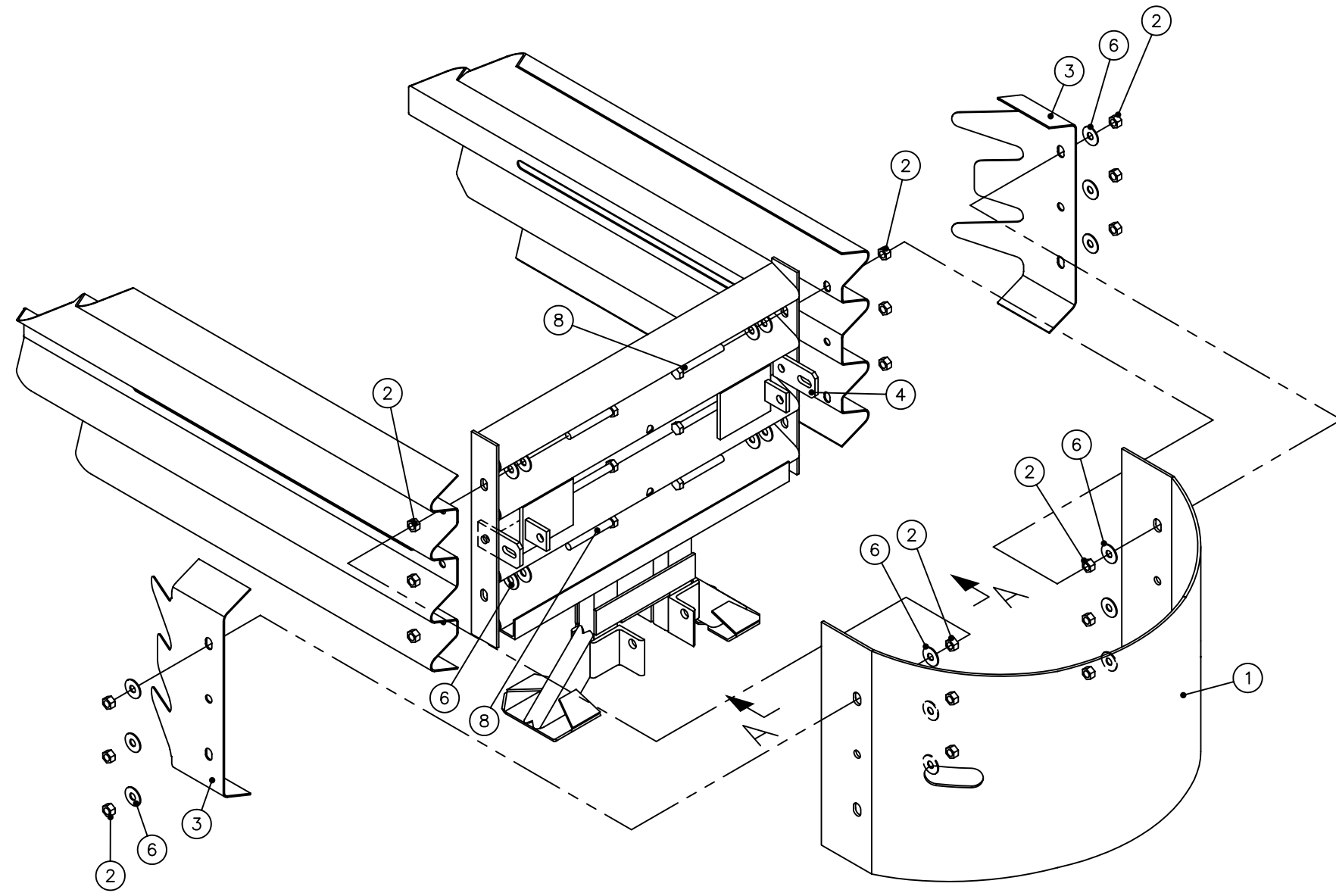
DRAWN: D. Staus	DATE: 10/20/99
DESIGNED:	DATE:
CHECKED: KRM	DATE: 11/30/99
APPROVED RB	DATE: 12/1/99
CAD FILE: 3540571-0000.dwg	
NEXT ASSEMBLY:	

**ENERGY ABSORPTION SYSTEMS, INC.**  
ENGINEERING AND RESEARCH DEPARTMENT

**QUADGUARD® CEN SYSTEM**  
DIAPHRAGM ASSY,  
QGC,24,30,36 - 5, 6, & 8 BAY

SCALE 1=15    DWG. 3540571-0000    SHEET 1 of 1    REV F

PARTS LIST			
ITEM	STOCK NO.	DESCRIPTION	REQ'D
1	SEE TABLE	BELT,NOSE,QG CEN	1.00
2	2704141-0000	NUT,HX,5/8,G	18.0
3	2760504-0000	CLAMP,BELT,LMC	2.00
4	2760251-0000	BRACKET,PULL OUT,QG	2.00
6	2708291-0000	WASHER,FLAT,5/8X1 3/4,G	20.0
8	2701994-0000	BOLT,HX,5/8X5,G5,G,ALL THREAD	6.00



VIEW A-A  
SCALE - 1:10

SYSTEM WIDTH	BELT LENGTH	COLOR	ASSY NO.	ITEM 1 PART NO.
610mm [24"] OR 760mm [30"]	1524	GRAY	3540550-0000	2718106-0000
	1524	YELLOW	3540550-0100	2718106-0100
	1524	BLACK	3540550-0200	2718106-0200
915mm [36"]	1780	GRAY	3540551-0000	2718108-0000
	1780	YELLOW	3540551-0100	2718108-0100
	1780	BLACK	3540551-0200	2718108-0200

ASSEMBLY NO. - SEE TABLE

REFERENCES

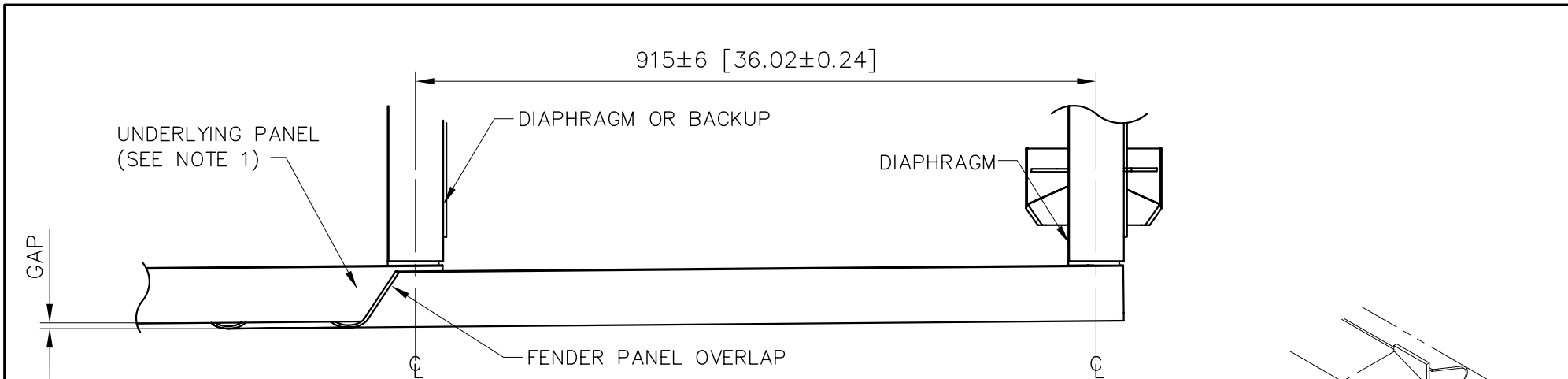
DRAWN: D. Staus	DATE: 10/12/99
DESIGNED:	DATE:
CHECKED: KRM	DATE: 11/1/99
APPROVED RB	DATE: 11/1/99
CAD FILE: 3540550-0000.dwg	
NEXT ASSEMBLY:	

**ENERGY ABSORPTION SYSTEMS, INC.**  
ENGINEERING AND RESEARCH DEPARTMENT

**QUADGUARD® CEN SYSTEM**  
NOSE ASSY, 24, 30 & 36,  
QGC

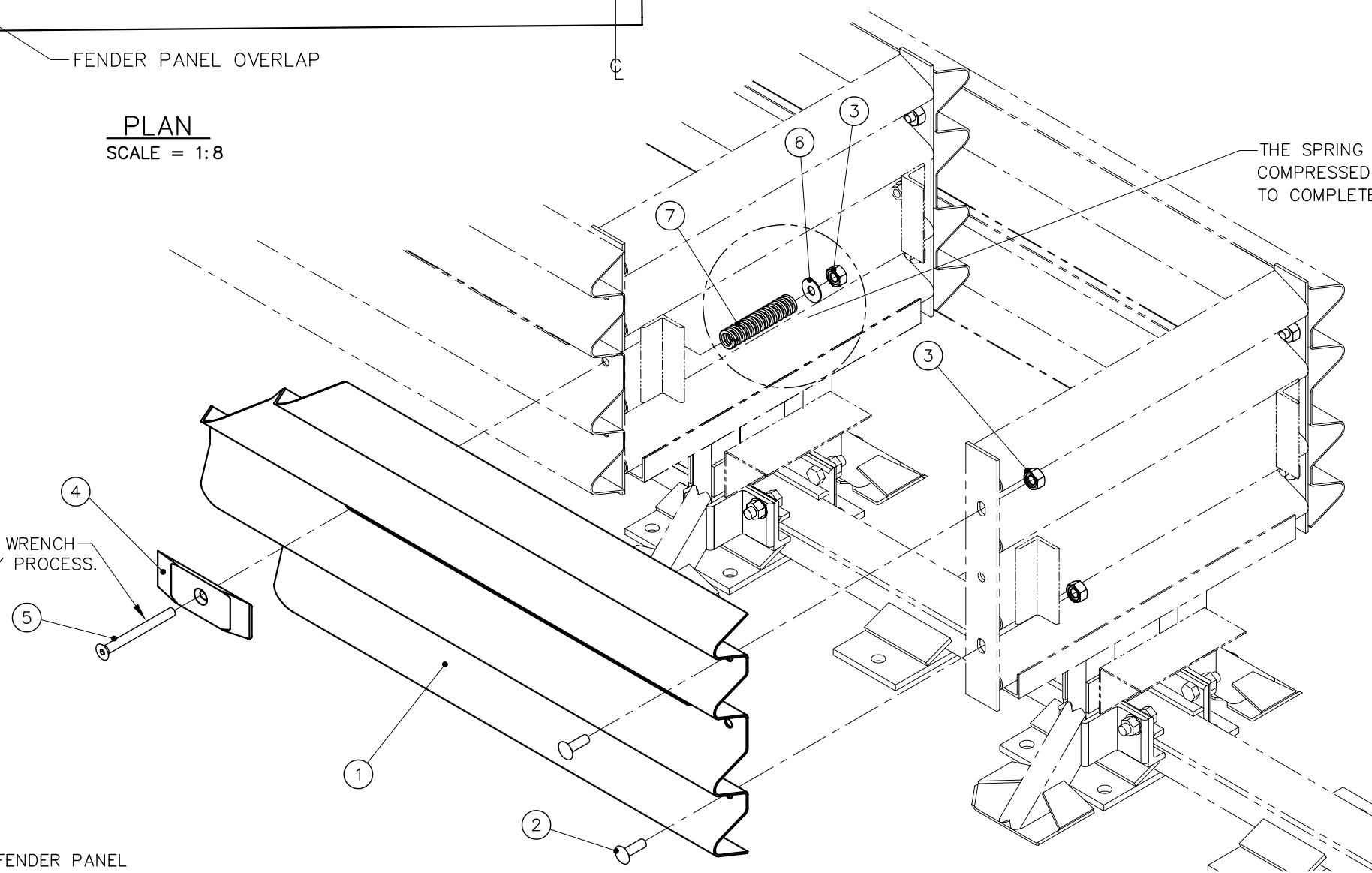
SCALE: 1:15    DWG: 3540550-0000    SHEET: 1 of 1    REV: C

Revisions	Date	Rev.	By	Ckd.	App.
REMOVED ITEMS 5 & 7, ITEM 8 WAS 2698241-0000	3/15/00	A	DK	JME	DLJ
ADDED (mm) TO TABLE	11/01/01	B	DPH	DMO	FJP
PCN 1882, ADDED BLACK NOSE BELT	06/01/04	C	RGC	STT	KWL



PARTS LIST			
ITEM	STOCK NO.	DESCRIPTION	REQ'D
1	2760081-0000	PANEL,FENDER,QG,G	1.00
2	2699341-0000	BOLT,RAIL,5/8X2,G	2.00
3	2704191-0000	NUT,HX,5/8,G,RAIL	3.00
4	2708841-0000	WASHER,MUSHROOM,CAST,QG,G	1.00
5	2706605-0000	SCREW,FL,5/8X8 1/2,G8,G,SOCKET	1.00
6	2708291-0000	WASHER,FLAT,5/8X1 3/4,G	1.00
7	2715044-0000	SPRING,DIE,1 1/2 OD X3/4X6,GALV	1.00

TWO FENDER PANEL ASSEMBLIES REQUIRED PER BAY.



USE A 3/8" ALLEN WRENCH DURING THE ASSEMBLY PROCESS.

- NOTES:
1. UNDERLYING PANEL IS EITHER ANOTHER FENDER PANEL OR, IN THE CASE OF THE LAST FENDER PANEL IT COULD BE A BACKUP SIDE PANEL, EXTENSION PANEL OR TRANSITION PANEL.
  2. UNITS OF MEASUREMENT ARE IN MILLIMETERS [INCHES] UNLESS OTHERWISE NOTED.

ASSEMBLY NO. 3540041-0000

Revisions	Date	Rev.	By	Ckd.	App.

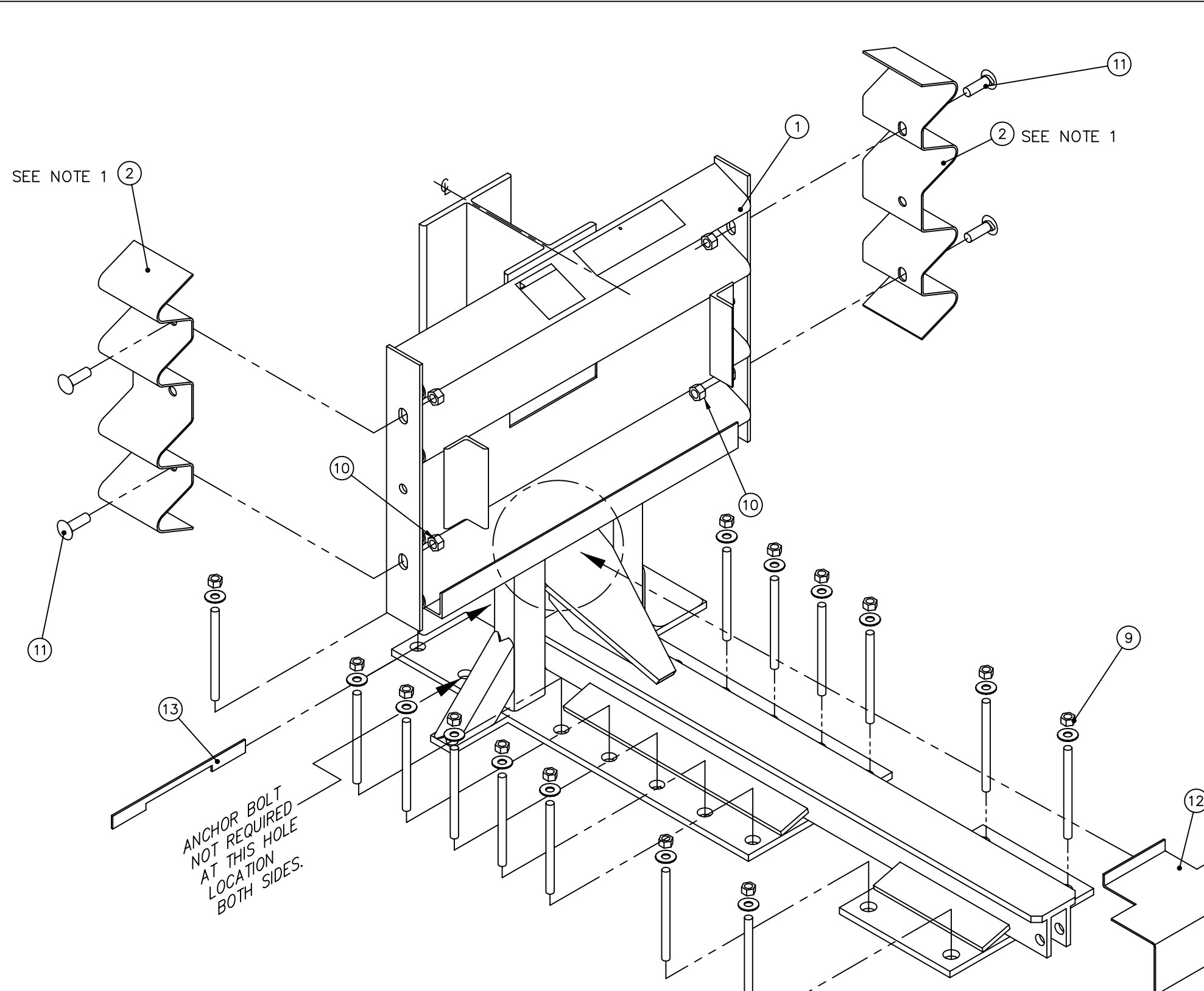
REFERENCES

DRAWN: D. Standridge	DATE: 9/20/06
DESIGNED:	DATE:
CHECKED: STT	DATE: 9/29/06
APPROVED: K. Looney	DATE: 9/28/06
CAD FILE: 3540041-0000.dwg	
NEXT ASSEMBLY: ALL MODELS	

ENERGY ABSORPTION SYSTEMS, INC.  
ENGINEERING AND RESEARCH DEPARTMENT

**QUADGUARD® CEN SYSTEM**  
**FENDER PANEL ASSY, QG CEN**

SCALE 1:12	DWG. 3540041-0000	SHEET 1 of 1	REV
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PARTS LIST			
ITEM	STOCK NO.	DESCRIPTION	REQ'D
1	SEE TABLE A	BACKUP,TS,QGC,G	1.00
2	2760141-0000	PANEL,SIDE,QG,G	2.00
9	3525300-0000	ANCHOR,MP-3,PT-KIT,3/4X7,VT	3.00
10	2704191-0000	NUT,HX,5/8,G,RAIL	4.00
11	2699341-0000	BOLT,RAIL,5/8X2,G	4.00
12	2760293-0000	BRACKET,CARTRIDGE SUPPORT,TS B/U	1.00
13	2760294-0000	LOCKING BAR,CARTRIDGE SUPPORT	1.00

TABLE A

ASSY. NO.	STOCK NO.	DESCRIPTION	WIDTH
3540561-0000	2760541-0000	BACKUP,TS,24,QGC,G	610 [24.00]
3540562-0000	2760551-0000	BACKUP,TS,30,QGC,G	760 [30.00]
3540563-0000	2760561-0000	BACKUP,TS,36,QGC,G	915 [36.00]

NOTES:  
 1. WHEN TRANSITIONING QUADGUARD SYSTEM TO EXISTING BARRIER REFER TO THE TRANSITION ASSEMBLY DRAWINGS FOR PROPER USE OF SIDE PANEL PART NO. 2760141-0000.

ANCHOR BOLT NOT REQUIRED AT THIS HOLE LOCATION BOTH SIDES.

ASSEMBLY NO. SEE TABLE A

REFERENCES

DRAWN: D. Staus	DATE: 10/14/99
DESIGNED: JVM/MHO	DATE: 3-1-96
CHECKED: KRM	DATE: 11/1/99
APPROVED: RB	DATE: 11/1/99
CAD FILE: 3540561-0000.dwg	
NEXT ASSEMBLY:	

 ENERGY ABSORPTION SYSTEMS, INC.  
ENGINEERING AND RESEARCH DEPARTMENT

QUADGUARD® CEN SYSTEM  
 BACKUP ASSY, TS, QGC

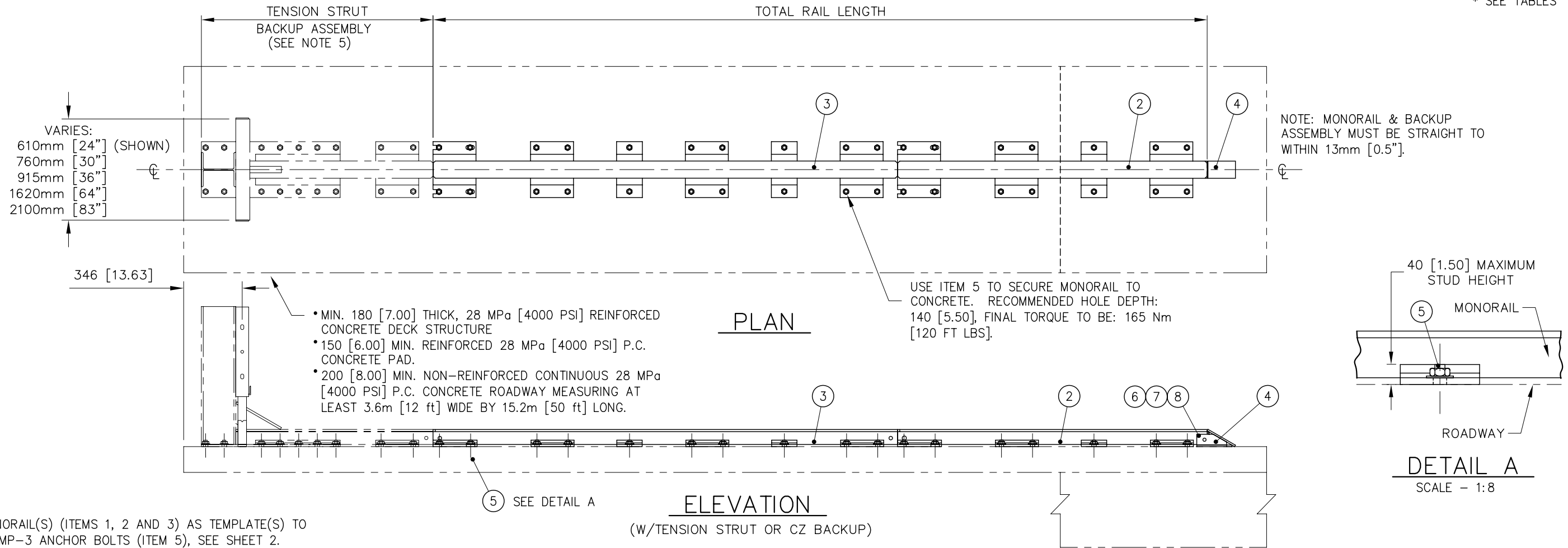
SCALE N.T.S.	DWG. 3540561-0000	SHEET 1 of 1	REV
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TABLE 1: RAIL ASSEMBLIES W/ 1 THRU 3 BAY SECTIONS						
ASSEMBLY NO.	TOTAL RAIL LENGTH	*ITEM 1	*ITEM 2	*ITEM 3	*ITEM 5	NO. OF BAYS
3540060-0500	3660 [144.1]	1	0	1	5	5
3540060-0600	4575 [180.1]	0	1	1	6	6
3540060-0800	6405 [252.1]	1	0	2	8	8

TABLE 2: RAIL ASSEMBLIES W/ 1 AND 2 BAY SECTIONS					
ASSEMBLY NO.	TOTAL RAIL LENGTH	*ITEM 1	*ITEM 2	*ITEM 5	NO. OF BAYS
3540060-5CEN	3660 [144.1]	0	2	5	5
3540060-6CEN	4575 [180.1]	1	2	6	6
3540060-8CEN	6405 [252.1]	1	3	8	8

PARTS LIST			
ITEM	STOCK NO.	DESCRIPTION	REQ'D
1	2760051-0000	MONORAIL, ONE BAY, QG, G	*
2	2760061-0000	MONORAIL, TWO BAYS, QG, G	*
3	2760071-0000	MONORAIL, THREE BAYS, QG, G	*
4	2760041-0000	END CAP, MONORAIL, QG, G	1.00
5	3525300-0000	ANCHOR, MP-3, PT-KIT, 3/4X7, VT	*
6	2699571-0000	BOLT, HX, 5/8X3 1/2, G5, G	1.00
7	2704141-0000	NUT, HX, 5/8, G	1.00
8	2708231-0000	WASHER, LOCK, 5/8, G	1.00

\* SEE TABLES



NOTES:

- USE MONORAIL(S) (ITEMS 1, 2 AND 3) AS TEMPLATE(S) TO LOCATE MP-3 ANCHOR BOLTS (ITEM 5), SEE SHEET 2.
- CROSS SLOPE OF PAD SHALL NOT EXCEED 8 % & NOT VARY MORE THAN 2% FROM FRONT TO BACK.
- UNITS OF MEASUREMENT ARE MILLIMETERS [INCHES] UNLESS OTHERWISE NOTED.
- EVERY STUD MUST BE EMBEDDED TO A DEPTH OF 140 [5.5]. IF REBAR IS ENCOUNTERED IN A P.C. CONCRETE PAD, DRILL THROUGH IT. IF REBAR IS ENCOUNTERED ON A DECK STRUCTURE, ASK PROJECT ENGINEER FOR DIRECTION.

REFERENCES

DRAWN: D. HAYES JR	DATE: 11/05/01
DESIGNED: MHO/JVM	DATE: 3-1-96
CHECKED: D. OLLOM	DATE: 1/14/02
APPROVED: F. POWELL	DATE: 1/10/02
CAD FILE: 3540060-OCEN.dwg	
NEXT ASSEMBLY:	

ASSEMBLY NO. SEE TABLES 1 & 2



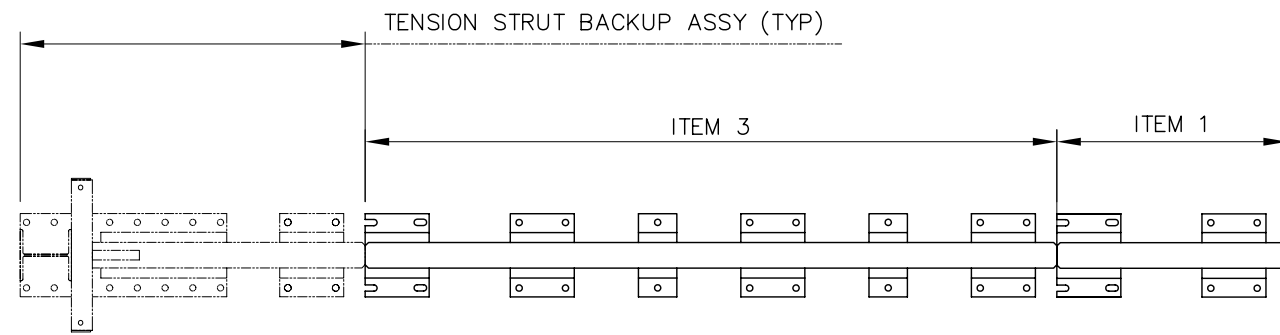
ENERGY ABSORPTION SYSTEMS, INC.  
ENGINEERING AND RESEARCH DEPARTMENT

QUADGUARD® CEN SYSTEM

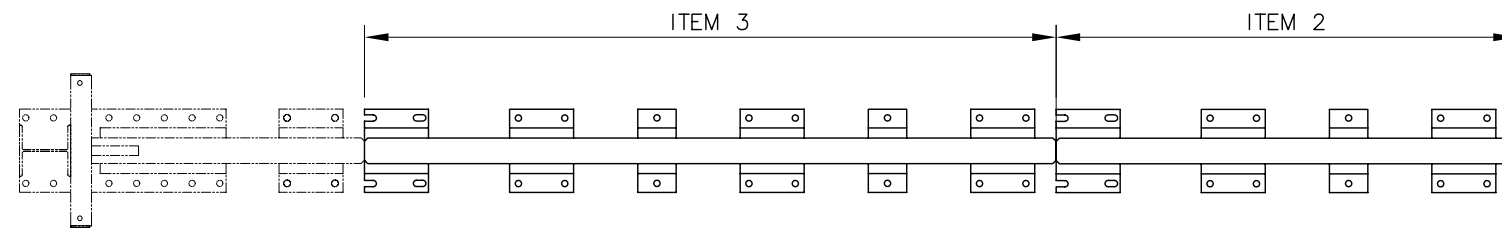
MONORAIL ASSY, QGC

SCALE N.T.S.	DWG. 3540060-OCEN	SHEET 1 of 3	REV B
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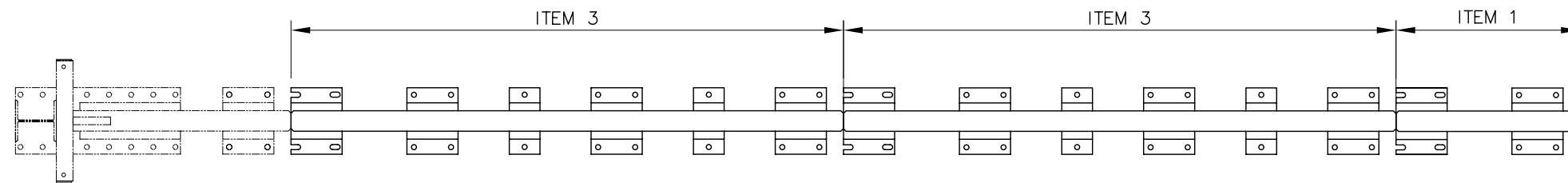
Revisions	Date	Rev.	By	Ckd.	App.
REV CHANGE TO MATCH SHEET 2	09/11/02	A	RGC	DMO	SPT
ADDED 1-2 BAY TABLE & SHT 3, PCN 2053	10/13/05	B	DDS	KM	KWL



5 BAY SYSTEM



6 BAY SYSTEM



8 BAY SYSTEM

ASSEMBLY NO. (SEE TABLE 1 ON SHEET 1)

REFERENCES

DRAWN: D. HAYES JR	DATE: 11/05/01
DESIGNED: MHO/JVM	DATE: 3-1-96
CHECKED: D. OLLOM	DATE: 1/15/02
APPROVED: F. POWELL	DATE: 12/19/01
CAD FILE: 3540060-0CEN SH03.dwg	
NEXT ASSEMBLY:	

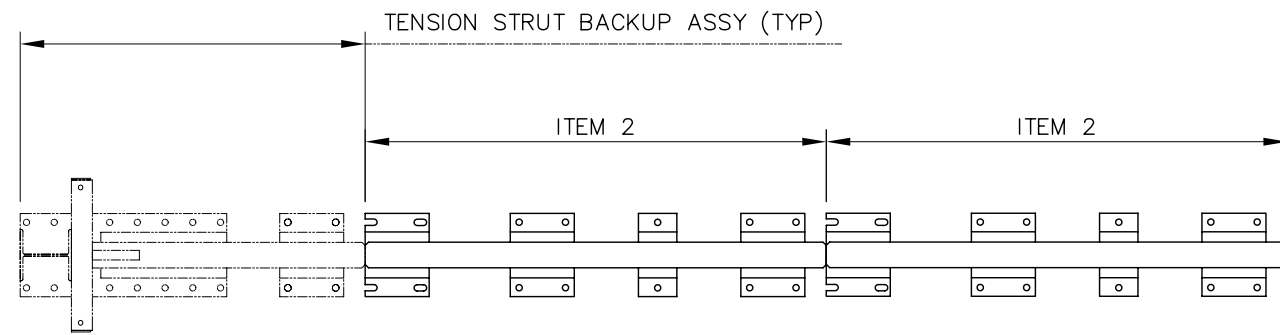


**ENERGY ABSORPTION SYSTEMS, INC.**  
ENGINEERING AND RESEARCH DEPARTMENT

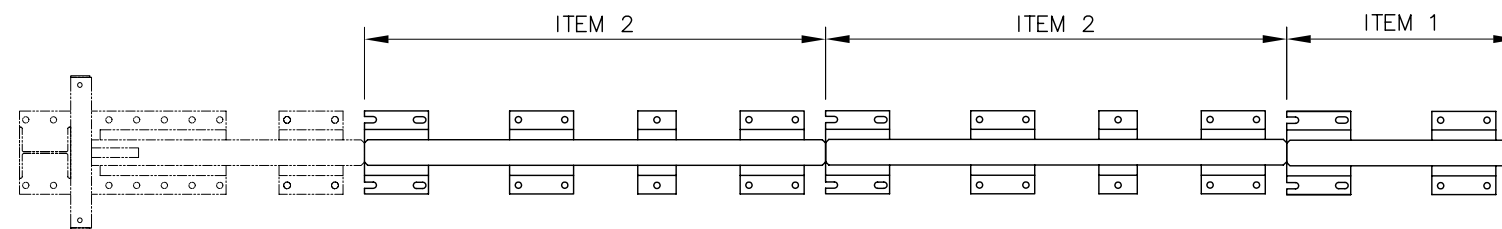
**QUADGUARD® CEN SYSTEM**  
**MONORAIL ASSY, QGC**

Revisions	Date	Rev.	By	Ckd.	App.
REMOVED SHT 3 & CONCRETE BACKUP OPTION	09/11/02	A	RGC	DMO	SPT
SEE SHEET 1, PCN 2053	10/13/05	B	DDS	KM	KWL

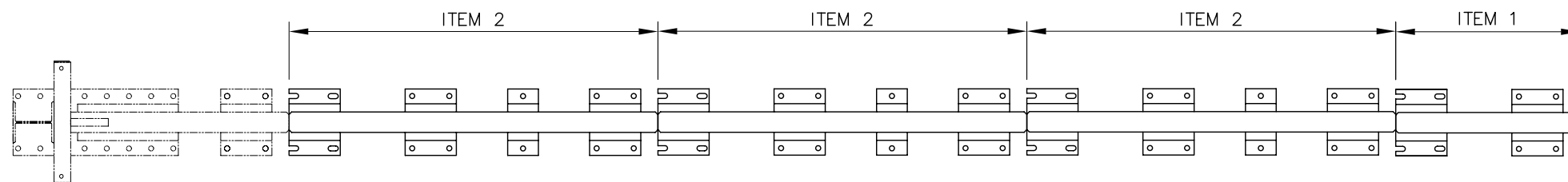
SCALE N.T.S.	DWG. 3540060-0CEN	SHEET 2 of 3	REV B
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5 BAY SYSTEM



6 BAY SYSTEM



8 BAY SYSTEM

ASSEMBLY NO. (SEE TABLE 2 ON SHEET 1)

REFERENCES

DRAWN: D. Standridge	DATE: 10/13/05
DESIGNED: K. Looney	DATE: 8/16/05
CHECKED:	DATE:
APPROVED:	DATE:
CAD FILE: 3540060-0CEN SH03.dwg	
NEXT ASSEMBLY:	

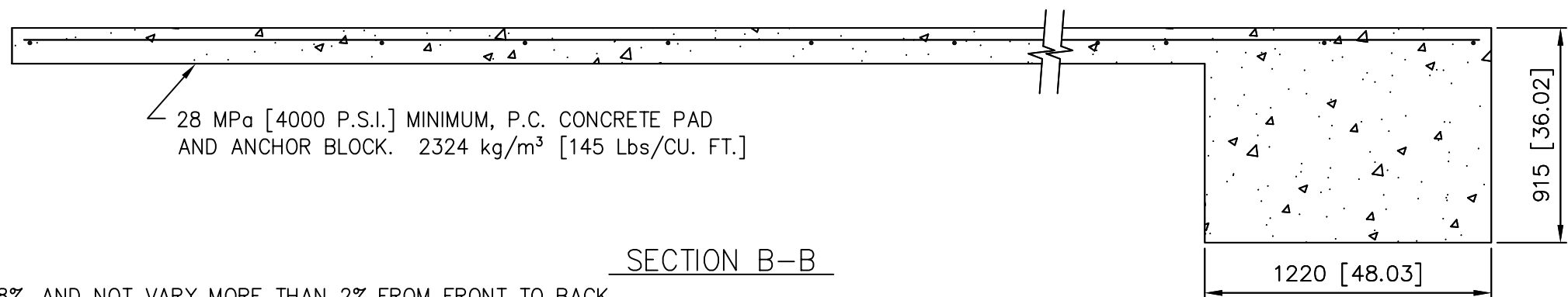
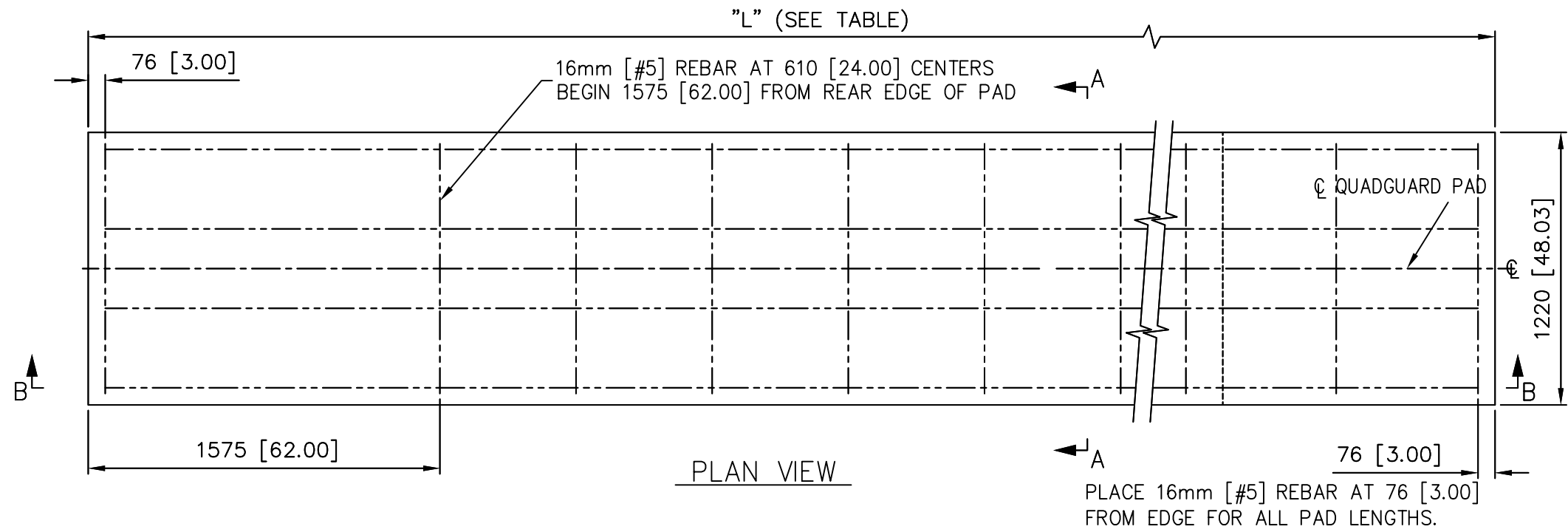
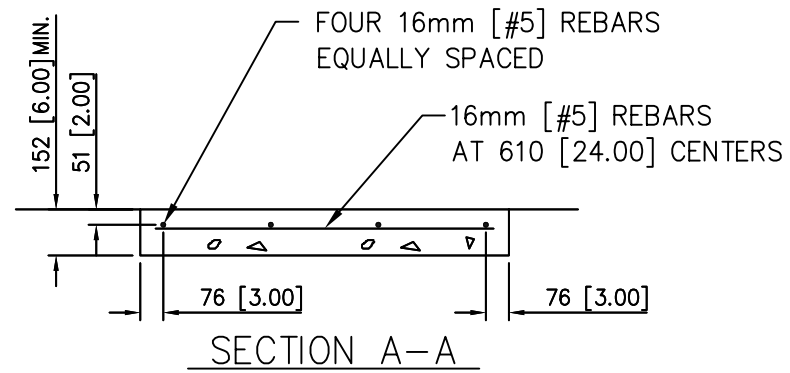
 **ENERGY ABSORPTION SYSTEMS, INC.**  
ENGINEERING AND RESEARCH DEPARTMENT

**QUADGUARD® CEN SYSTEM**  
**MONORAIL ASSY, QGC**

Revisions	Date	Rev.	By	Ckd.	App.
REMOVED SHT 3 & CONCRETE BACKUP OPTION	09/11/02	A	RGC	DMO	SPT
ADDED THIS SHEET, SEE SHEET 1, PCN 2053	10/13/05	B	DDS	KM	KWL

SCALE N.T.S.	DWG. 3540060-0CEN	SHEET 3 of 3	REV B
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TABLE					YARDS OF CONCRETE IN PAD	
NO. OF BAYS	"L" (PAD LENGTH)		REBAR REQUIRED			
	[m]	[ft-in]	[m]	[ft-in]	m <sup>3</sup>	[YARDS <sup>3</sup> ]
5	5.49	[18'-0"]	31.39	[103'-0"]	2.12	[2.8]
6	6.40	[21'-0"]	36.17	[118'-8"]	2.35	[3.1]
8	8.23	[27'-0"]	46.84	[153'-8"]	2.66	[3.5]



NOTES:

- CROSS SLOPE OF PAD SHALL NOT EXCEED 8%, AND NOT VARY MORE THAN 2% FROM FRONT TO BACK.
- UNITS OF MEASUREMENT ARE MILLIMETERS [INCHES] UNLESS OTHERWISE NOTED.

REFERENCES

DRAWN: D. HAYES JR	DATE: 12/18/01
DESIGNED: WGK	DATE: 3/1/96
CHECKED: D. OLLOM	DATE: 12/20/01
APPROVED: F. POWELL	DATE: 12/19/01
CAD FILE: 3540110-OCEN.DWG	
NEXT ASSEMBLY:	



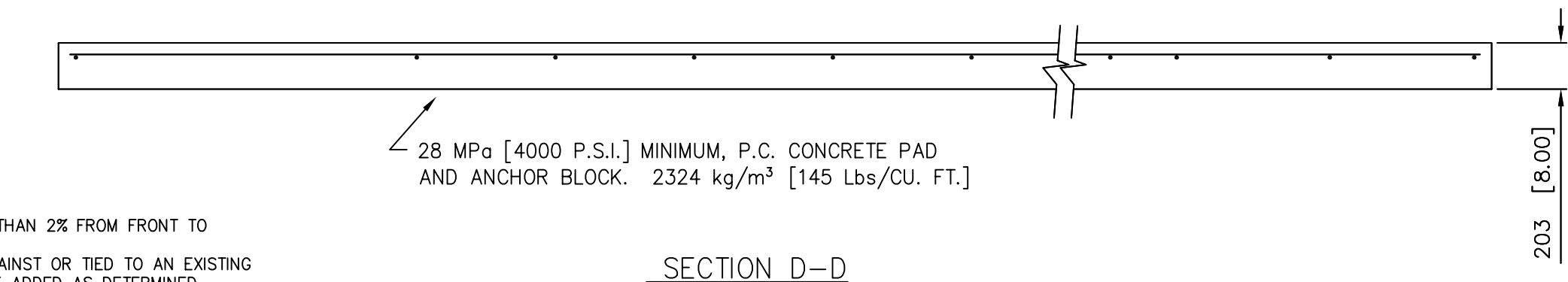
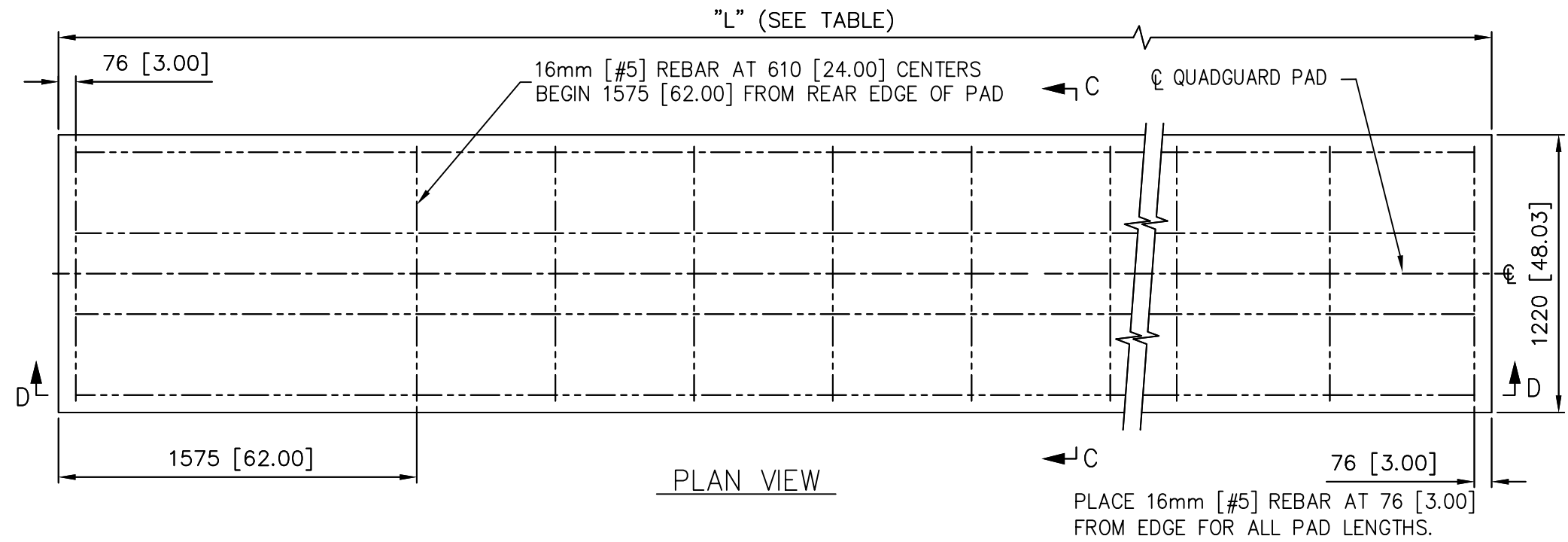
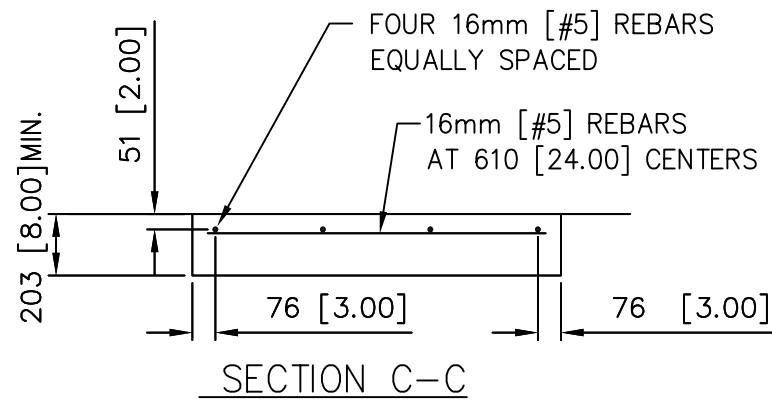
ENERGY ABSORPTION SYSTEMS, INC.  
ENGINEERING AND RESEARCH DEPARTMENT

QUADGUARD® CEN SYSTEM  
CONCRETE PAD, TENSION STRUT, QGC

SCALE NTS	DWG. 3540110-OCEN	SHEET 1 of 2	REV A
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Revisions	Date	Rev.	By	Ckd.	App.
ADDED SHEET 2	02/05/04	A	RGC	STT	ACF

NO. OF BAYS	"L" (PAD LENGTH)		REBAR REQUIRED		YARDS OF CONCRETE IN PAD	
	[m]	[ft-in]	[m]	[ft-in]	m <sup>3</sup>	[YARDS <sup>3</sup> ]
5	5.49	[18'-0"]	31.39	[103'-0"]	1.4	[1.8]
6	6.40	[21'-0"]	36.17	[118'-8"]	1.6	[2.1]
8	8.23	[27'-0"]	46.84	[153'-8"]	2.1	[2.7]



NOTES:

- CROSS SLOPE OF PAD SHALL NOT EXCEED 8%, AND NOT VARY MORE THAN 2% FROM FRONT TO BACK.
- TO PREVENT SLIDING DURING AN IMPACT, PAD MUST BE INSTALLED AGAINST OR TIED TO AN EXISTING STRUCTURE. OTHERWISE ADDITIONAL BELOW GRADE SUPPORTS MUST BE ADDED AS DETERMINED NECESSARY BY THE PROJECT ENGINEER.
- UNITS OF MEASUREMENT ARE MILLIMETERS [INCHES] UNLESS OTHERWISE NOTED.

REFERENCES

DRAWN: R. Cummins	DATE: 2/4/04
DESIGNED: WGW	DATE: 3/1/96
CHECKED:	DATE:
APPROVED:	DATE:
CAD FILE: 3540110-OCEN SH02.DWG	
NEXT ASSEMBLY:	



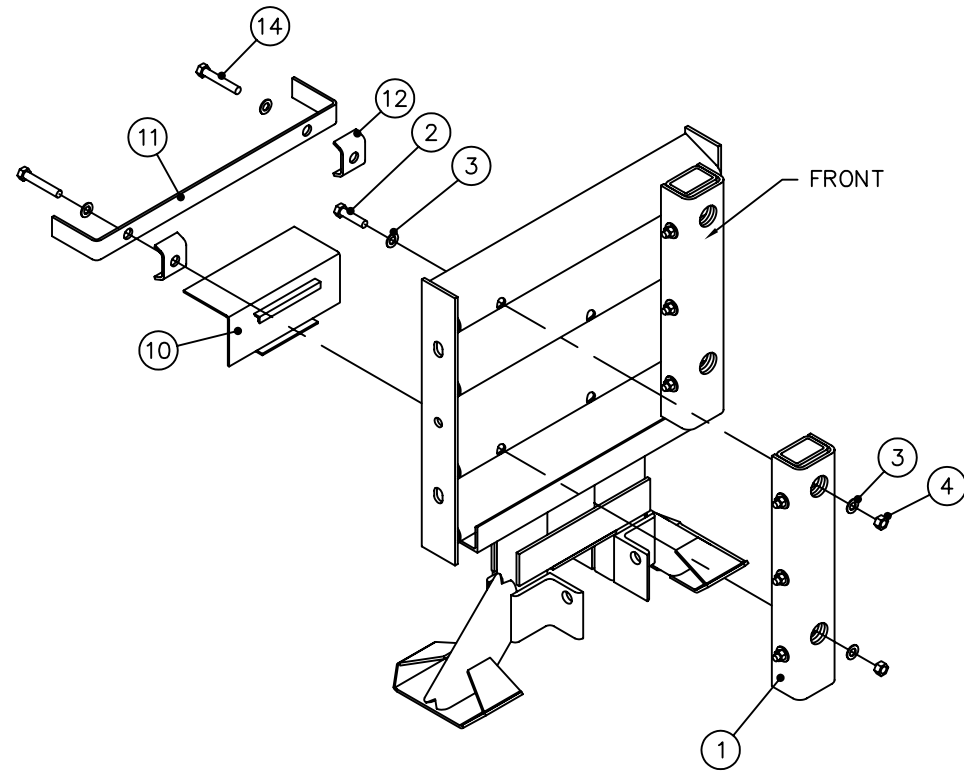
ENERGY ABSORPTION SYSTEMS, INC.  
ENGINEERING AND RESEARCH DEPARTMENT

QUADGUARD® SYSTEM  
OPTIONAL 8" CONCRETE PAD  
FOR TENSION STRUT BACKUP

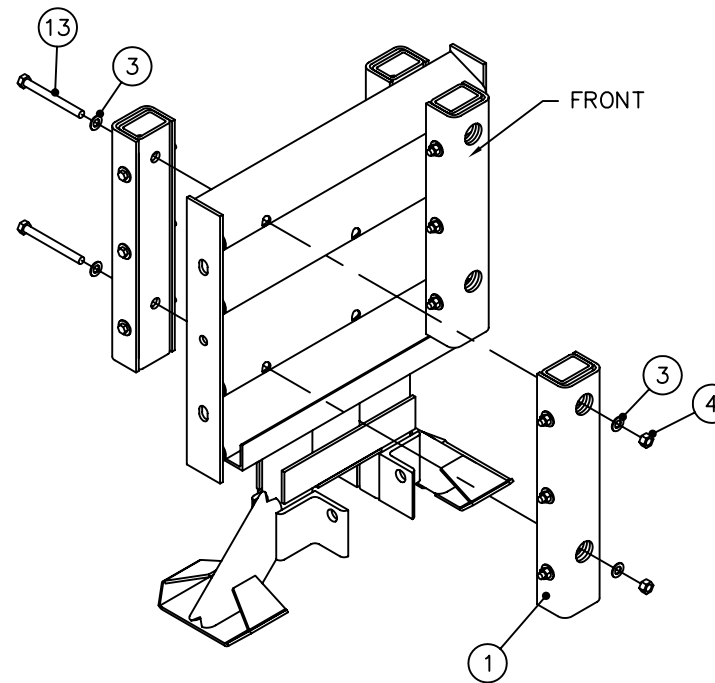
Revisions	Date	Rev.	By	Ckd.	App.
ADDED THIS SHEET	02/04/04	A	RGC	STT	ACF

SCALE NTS	DWG. 3540110-OCEN	SHEET 2 of 2	REV A
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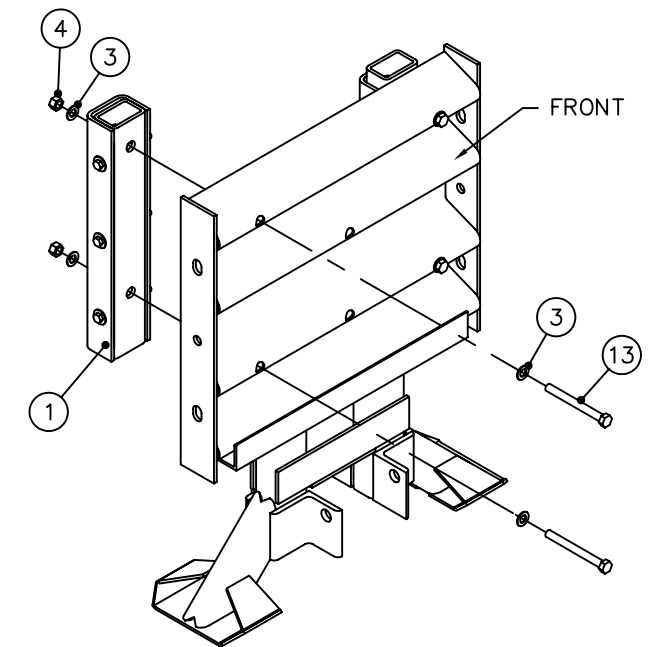
PARTS LIST			
ITEM	STOCK NO.	DESCRIPTION	REQ'D
1	3540574-0000	BUMPER ASSY,QG CEN	8.00
2	2701071-0000	BOLT,HX,1/2X2,G2,G	2.00
3	2708011-0000	WASHER,FLAT,1/2X1 3/8,G	24.0
4	2704011-0000	NUT,HX,1/2,G	12.0
10	2760292-0000	BRACKET,CARTRIDGE SUPPORT,DIAPHRAGM	1.00
11	2760574-0000	BRACKET,CARTRIDGE SUPPORT,CEN	1.00
12	2760507-0000	SHIM,NOSE CLAMP,G	2.00
13	2701591-0000	BOLT,HX,1/2X5,G2,G	8.00
14	2701361-0000	BOLT,HX,1/2X3,G2,G	2.00



DIAPHRAGM 3



DIAPHRAGM 2



DIAPHRAGM 1

REFERENCES

Revisions	Date	Rev.	By	Ckd.	App.
ITEM 1 WAS ITEMS 1, 5-7, & 9; REMV'D ITEM 8	3/15/00	A	DK	JME	DLJ
ITEM 2 WAS P/N 2701841-0000	3/10/03	B	WWL	JME	DMW

DRAWN: D. Staus	DATE: 10/18/99
DESIGNED:	DATE:
CHECKED: KRM	DATE: 11/1/99
APPROVED RB	DATE: 11/1/99
CAD FILE: 3540564-0000.dwg	
NEXT ASSEMBLY:	

ASSEMBLY NO. 3540564-0000

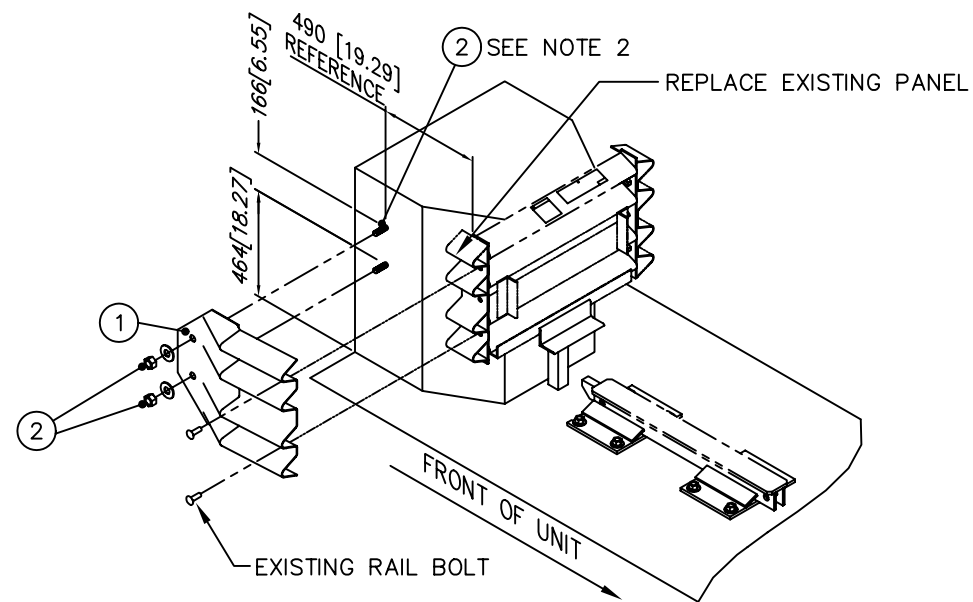


**ENERGY ABSORPTION SYSTEMS, INC.**  
ENGINEERING AND RESEARCH DEPARTMENT

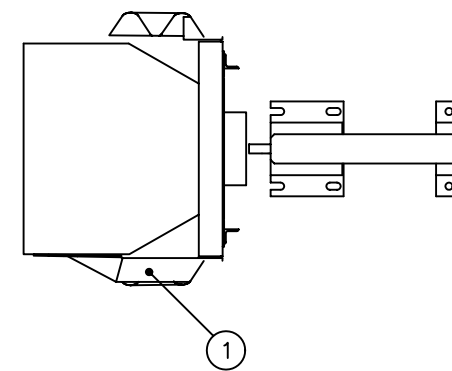
QUADGUARD® CEN SYSTEM  
BUMPER ASSY,DIA. 1, 2 & 3,  
QGC,24,30,36

SCALE 1/15	DWG. 3540564-0000	SHEET 1 of 1	REV B
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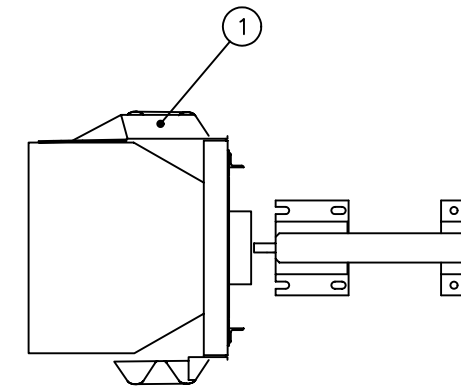
PARTS LIST			
ITEM	STOCK NO.	DESCRIPTION	REQ'D
1	2760271-0000	SIDE PANEL,END SHOE,QG,G	1.00
2	3525130-0000	ANCHOR,MP-3,PT KIT,3/4X6 1/2 HOR	1.00



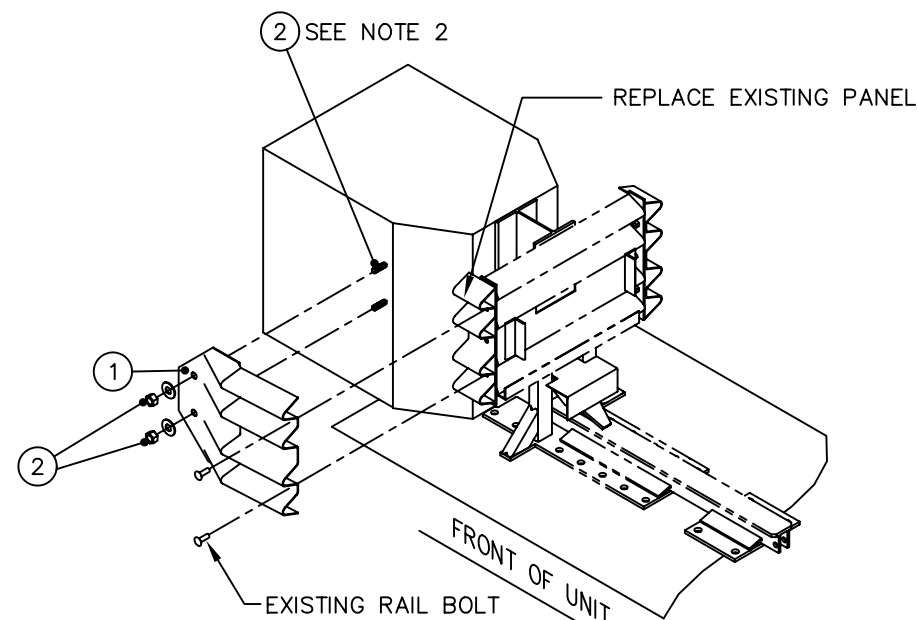
CONCRETE BACKUP



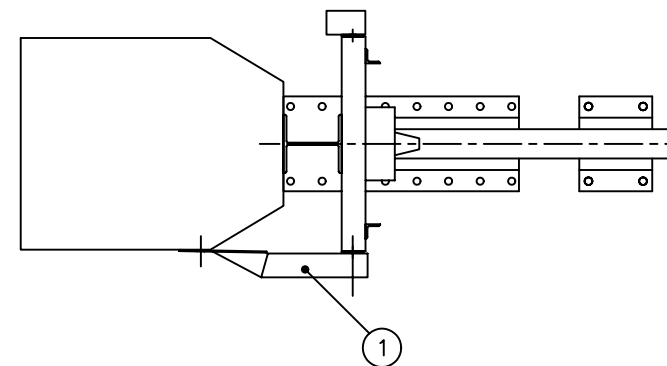
LEFT SIDE APPLICATION



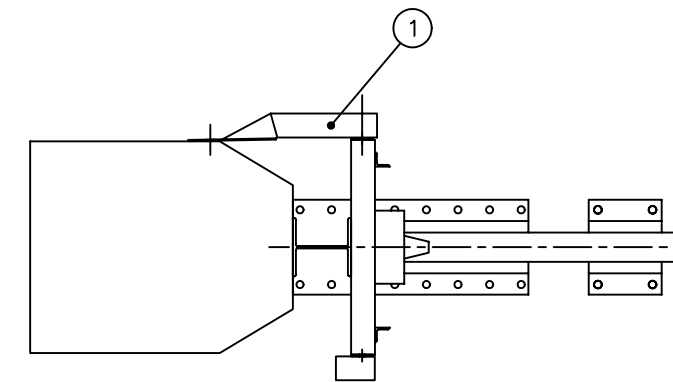
RIGHT SIDE APPLICATION



TENSION STRUT BACKUP



LEFT SIDE APPLICATION



RIGHT SIDE APPLICATION

NOTES:  
 1. DIMENSIONS ARE IN MILLIMETERS [INCHES].  
 2. USE END SHOE AS TEMPLATE FOR DRILLING.  
 RECOMMENDED HOLE DEPTH 127 [5.00].  
 FINAL TORQUE TO BE 163Nm [120 FT-LBS] (TYP).  
 ANCHOR STUD END SHOULD BE FLUSH WITH  
 OUTSIDE SURFACE OF ANCHOR NUT.

Revisions	Date	Rev.	By	Ckd.	App.
UPDATED TITLE BLOCK TEXT WAS TM, NOW (R)	04/05/99	G	LWC	KM	SPT
COMBINED DWG 3540270-0000 WITH 35-40-15	04/14/99	H	LWC	KM	SPT
REV TO SHOW 1 LEG FOR CONC B/U	9/17/99	I	DLS	KM	BB

REFERENCES

DRAWN: D. Staus	DATE: 5/24/96
DESIGNED: W.GK	DATE: 3/1/96
CHECKED: S. Trageser	DATE: 6/5/96
APPROVED: W. Krage	DATE: 6/5/96
CAD FILE: 354015.dwg	
NEXT ASSEMBLY:	

ASSEMBLY NO. 3540150-0000



**ENERGY ABSORPTION SYSTEMS, INC.**  
 ENGINEERING AND RESEARCH DEPARTMENT

QUADGUARD® SYSTEM  
 END SHOE ASSY,QG

SCALE N.T.S.	DWG. 35-40-15	SHEET 1 of 1	REV I
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