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**QUADGUARD® M WIDE SYSTEM TL-3 (Permanent)
APL 544-XXX-XXX**

- The energy absorbing system represented on these Approved Products List (APL) drawings is a proprietary design by Energy Absorption Systems, of Valtir, and marketed under the name QUADGUARD® M WIDE System (QG M WIDE).
- The QG M WIDE is a redirective, non-gating crash cushion which is well suited for shielding hazards. The QG M WIDE is used for permanent installations. The beginning length of need shall be at the point of intersection between the face of the crash cushion and the departure line.
- The 6-bay QG M WIDE has been evaluated to MASH crash test criteria and is suitable for Test Level 3 crash cushion applications.
- The QG M WIDE shall be assembled and installed in accordance with the manufacturer's detailed drawings, procedures and specifications, product manual or installation guide. Information and copies of the above documents are available on the Approved Product List (APL).
- The QG M WIDE is available in 69" nominal width.
- Only the QG M WIDE Type I and Type II energy absorbing cartridges shall be used as shown on the drawings.
- All metallic compounds shall meet the galvanizing requirements for guardrail, FDOT Specification Section 967.

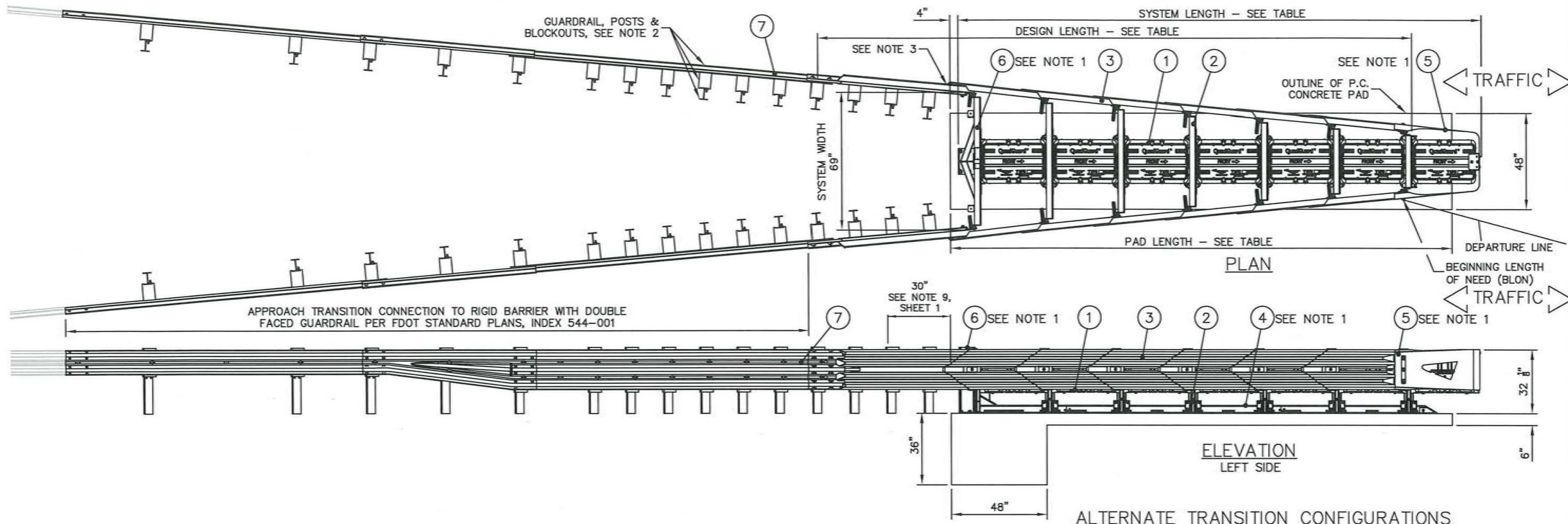
- Units of measurements are in English units.
- Ensure adequate space is provided for all rear fender panels to slide rearward 30" upon impact.
- QG M WIDE shall be placed on a min. 6" thick reinforced 4000 PSI Portland Cement concrete pad as detailed in the drawings. As an alternate, a min. 8" thick concrete, 4000 psi Portland Cement concrete roadway measuring at least 12'-0" wide by 50'-0" long. Existing concrete pads or new pads with below ground obstructions are acceptable with anchor blocks located at the front of the pad.
- See the QUADGUARD® M WIDE 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 current manual are available on the APL.
- For proper impact performance, the QG M WIDE system must be restored to its original length and condition after each impact.
- The QG M WIDE tension strut backup is the primary backup to be used on Florida Department of Transportation projects.



DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: N/A	QUADGUARD® M WIDE TL-3 (PERMANENT)		
CHECKED: B. ECKERT	DATE: 5/27/2021	TRAFFIC DIRECTION: N/A			
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.			DO NOT SCALE DRAWING		
REVISION DESCRIPTION	ECO	DATE	REV	BY	CHK
INITIAL RELEASE	7351	/	/	/	/
REBRANDING	8167	10/18/22	A	JMS	KWL
DRAWING: 60-45-90			REV: A	SHEET: 1 of 15	

FLORIDA

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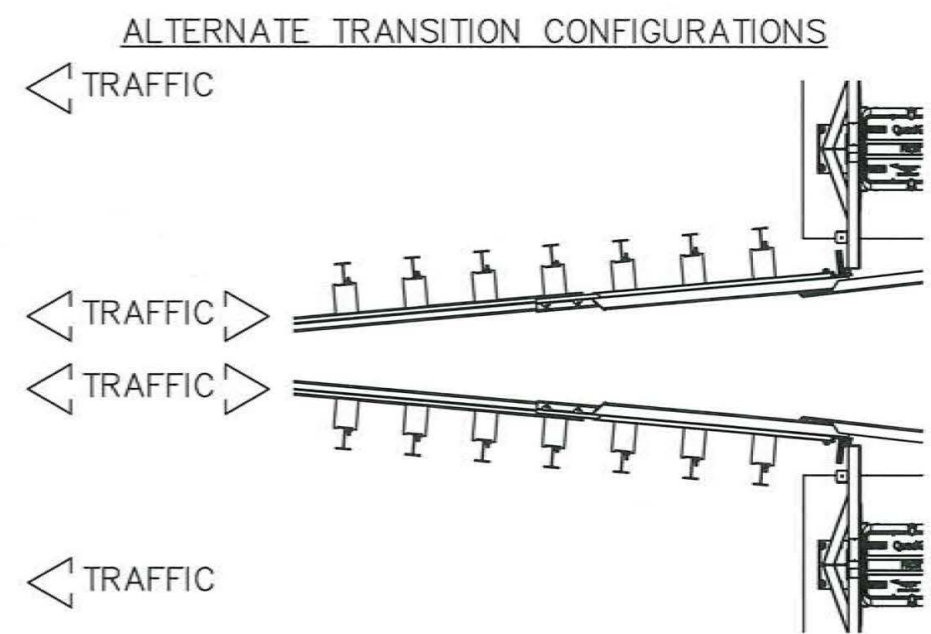
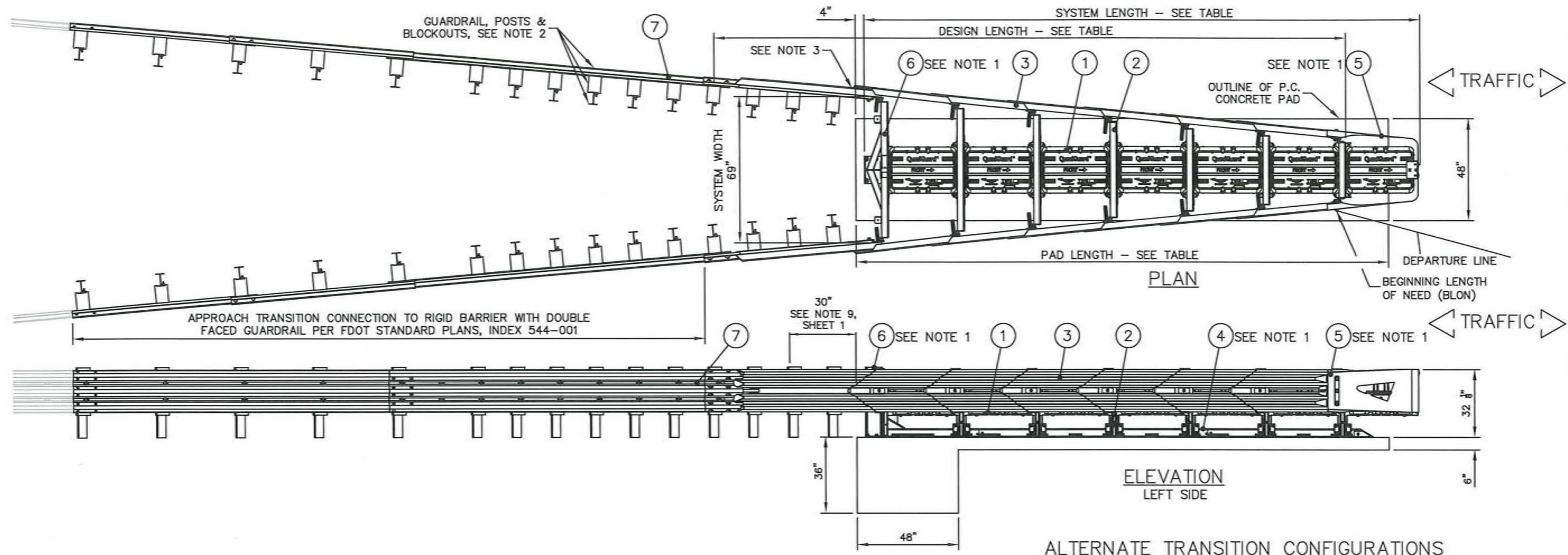
- NOTES:
1. BACKUP, MONORAIL, NOSE, AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
 2. GUARDRAIL, POSTS, BLOCKOUTS, AND HARDWARE ARE STANDARD HIGHWAY ISSUE AND ARE NOT INCLUDED WITH QUADGUARD M WIDE SYSTEM.
 3. THE TRANSITION PANEL TO FENDER PANEL OVERLAP GAP SHALL NOT EXCEED 1".



BAYS	69" WIDTH MODEL #	SYSTEM LENGTH	DESIGN LENGTH	PAD LENGTH	DESIGN SPEED	TEST LEVEL	NO. OF CARTRIDGES	
							TYPE I	TYPE II
6	QM10069	22'-0"	24'-10"	21'-0"	60 mph	TL-3	4	3

NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.

KEY		DRAWN:	DATE:	MODEL:	QUADGUARD® M WIDE TL-3 (PERMANENT) TO 31" W-BEAM GUARDRAIL APL-544-001-005			
① CARTRIDGE	⑥ BACKUP	J. SIMMONS	5/12/2021	QM10069	TRAFFIC DIRECTION: BIDIRECTIONAL			FLORIDA
② DIAPHRAGM	⑦ TRANSITION	B. ECKERT	5/27/2021		DO NOT SCALE DRAWING			
③ FENDER PANEL		UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (MM); DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		ECO	DATE	REV	BY	CHK
④ MONORAIL		REVISION DESCRIPTION		7351	/	/	/	/
⑤ NOSE ASSEMBLY		INITIAL RELEASE		8167	10/18/22	A	JMS	KWL
		REBRANDING		DRAWING:		60-45-90	REV:	A
				SHEET:		2 of 15	© Valtir, LLC. All rights reserved.	



- NOTES:
1. BACKUP, MONORAIL, NOSE, AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
 2. GUARDRAIL, POSTS, BLOCKOUTS, AND HARDWARE ARE STANDARD HIGHWAY ISSUE AND ARE NOT INCLUDED WITH QUADGUARD M WIDE SYSTEM.
 3. THE TRANSITION PANEL TO FENDER PANEL OVERLAP GAP SHALL NOT EXCEED 1".

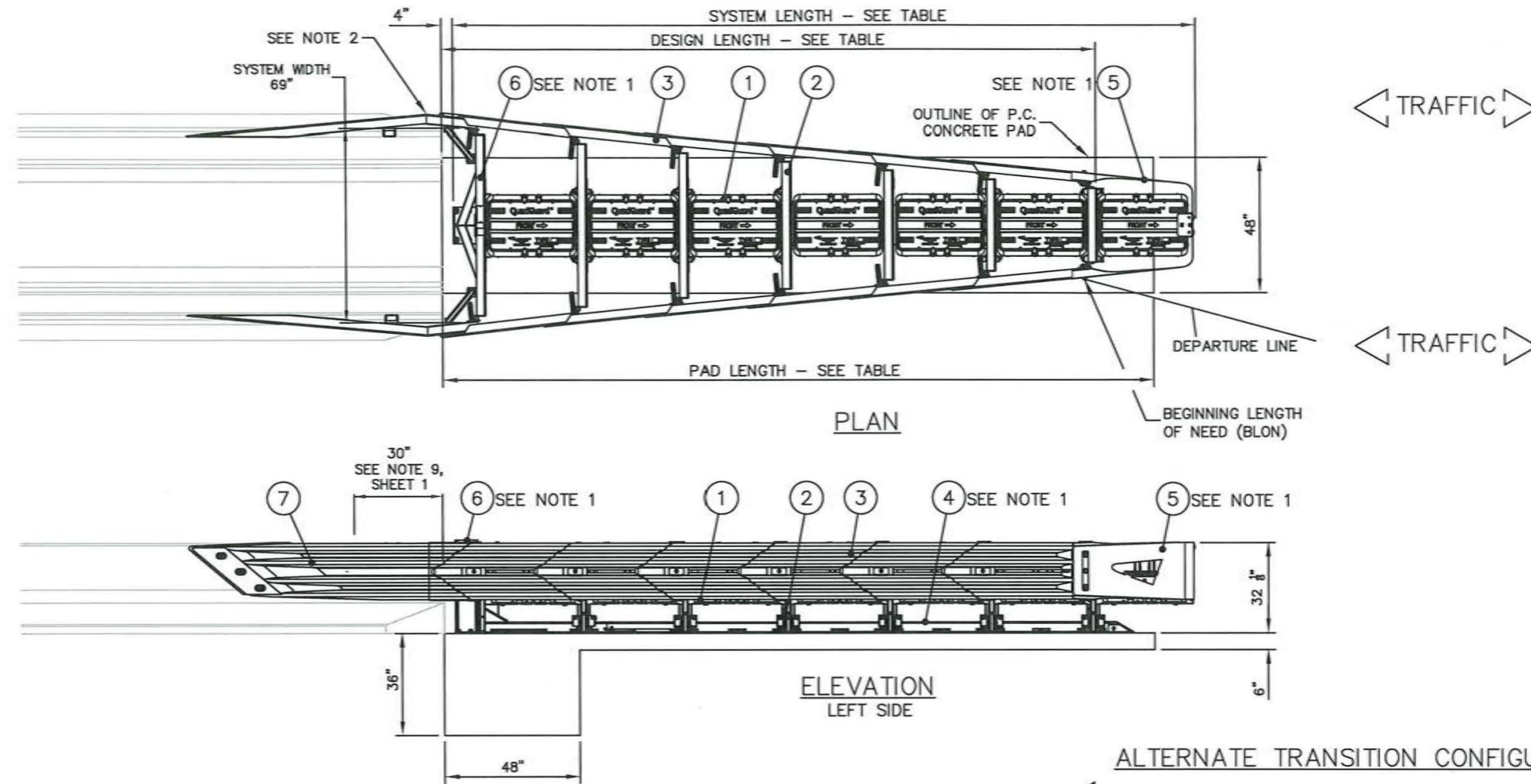


BAYS	69" WIDTH MODEL #	SYSTEM LENGTH	DESIGN LENGTH	PAD LENGTH	DESIGN SPEED	TEST LEVEL	NO. OF CARTRIDGES	
							TYPE I	TYPE II
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NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.

KEY		DRAWN:	DATE:	MODEL:	QUADGUARD® M WIDE TL-3 (PERMANENT) TO THRIE-BEAM GUARDRAIL APL-544-001-005		FLORIDA DRAWING: 60-45-90 REV: A SHEET: 3 of 15
① CARTRIDGE	⑥ BACKUP	J. SIMMONS	5/12/2021	QM10069	TRAFFIC DIRECTION: BIDIRECTIONAL		
② DIAPHRAGM	⑦ TRANSITION	CHECKED: B. ECKERT	DATE: 5/27/2021	DO NOT SCALE DRAWING	UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (MM), DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		
③ FENDER PANEL		REVISION DESCRIPTION	ECO	DATE	REV	BY	CHK
④ MONORAIL		INITIAL RELEASE	7351	/	/	/	/
⑤ NOSE ASSEMBLY		REBRANDING	8167	10/18/22	A	JMS	KWL

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NOTES:

- 1. BACKUP, MONORAIL, NOSE, AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
- 2. THE TRANSITION PANEL TO FENDER PANEL OVERLAP GAP SHALL NOT EXCEED 1".

PERMANENT CRASH CUSHION DESIGN TABLE								
BAYS	69" WIDTH MODEL #	SYSTEM LENGTH	DESIGN LENGTH	PAD LENGTH	DESIGN SPEED	TEST LEVEL	NO. OF CARTRIDGES	
							TYPE I	TYPE II
6	QM10069	22'-0"	19'-3"	21'-0"	60 mph	TL-3	4	3

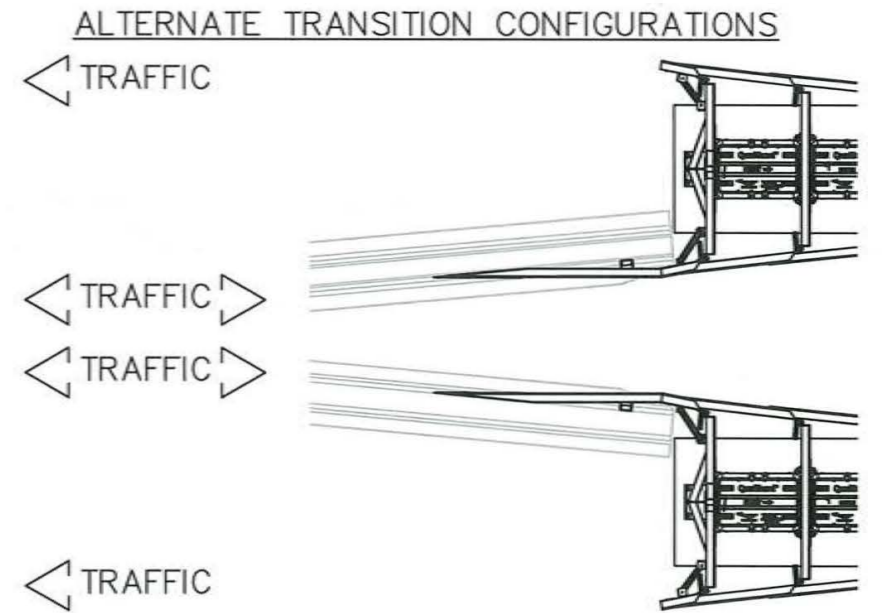
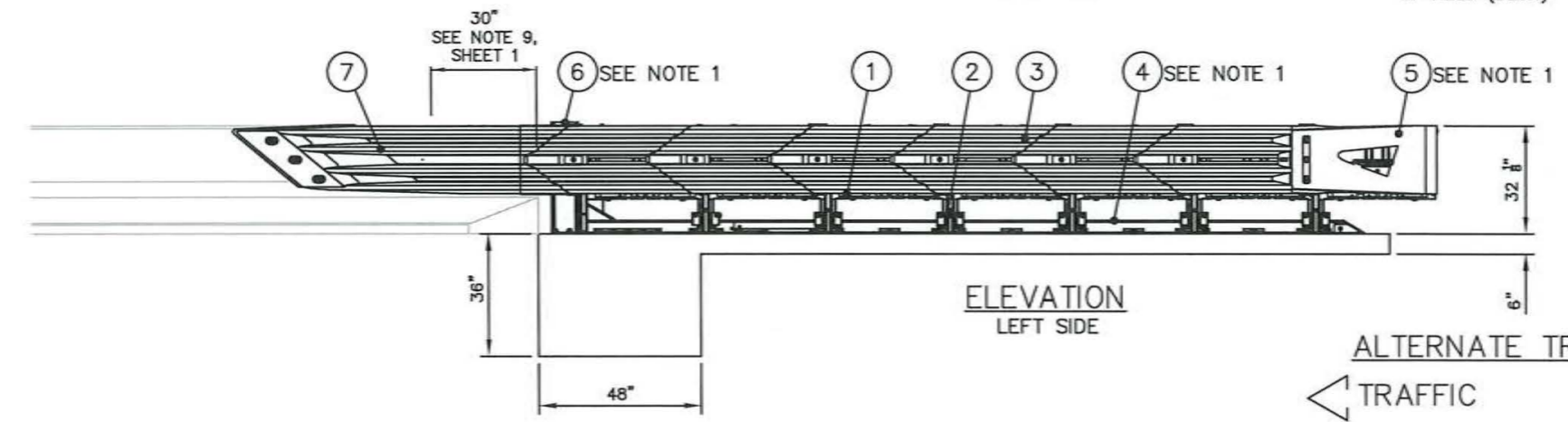
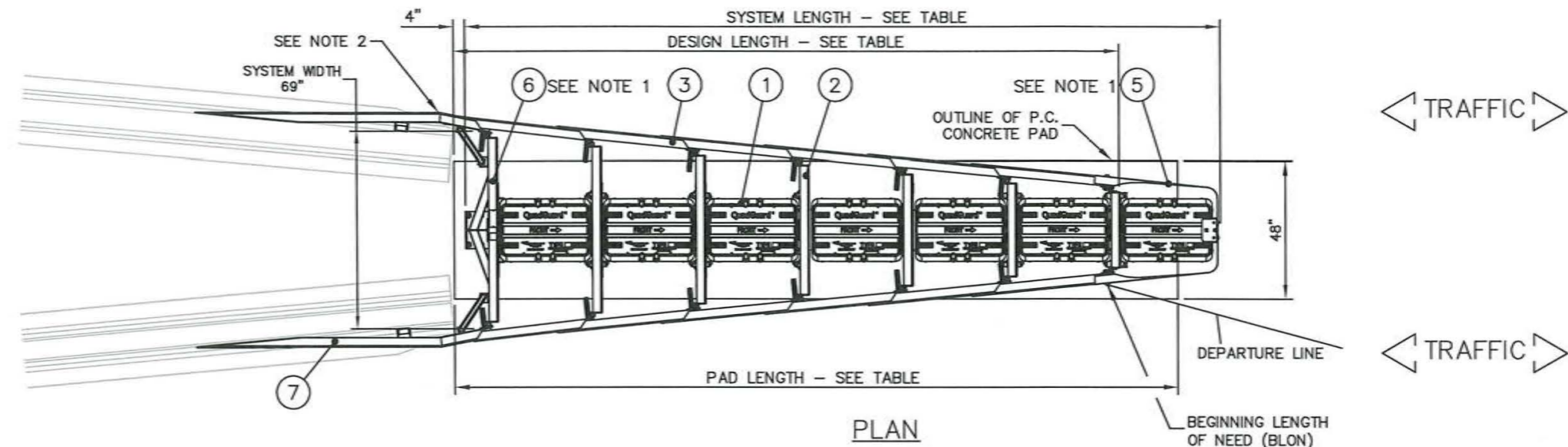
NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.



KEY	
① CARTRIDGE	⑥ BACKUP
② DIAPHRAGM	⑦ TRANSITION
③ FENDER PANEL	
④ MONORAIL	
⑤ NOSE ASSEMBLY	

DRAWN: J. SIMMONS CHECKED: B. ECKERT DATE: 5/12/2021 DATE: 5/27/2021	MODEL: QM10069 TRAFFIC DIRECTION: BIDIRECTIONAL DO NOT SCALE DRAWING	QUADGUARD® M WIDE TL-3 (PERMANENT) TO SAFETY SHAPE CONCRETE BARRIER APL-544-001-005	
REVISION DESCRIPTION INITIAL RELEASE REBRANDING	ECO DATE REV BY CHK 7351 / / / / 8167 10/18/22 A JMS KWL	DRAWING: 60-45-90 REV: A SHEET: 4 of 15	

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- NOTES:
1. BACKUP, MONORAIL, NOSE, AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
 2. THE TRANSITION PANEL TO FENDER PANEL OVERLAP GAP SHALL NOT EXCEED 1".

BAYS	69" WIDTH MODEL #	SYSTEM LENGTH	DESIGN LENGTH	PAD LENGTH	DESIGN SPEED	TEST LEVEL	NO. OF CARTRIDGES	
							TYPE I	TYPE II
6	QM10069	22'-0"	19'-3"	21'-0"	60 mph	TL-3	4	3

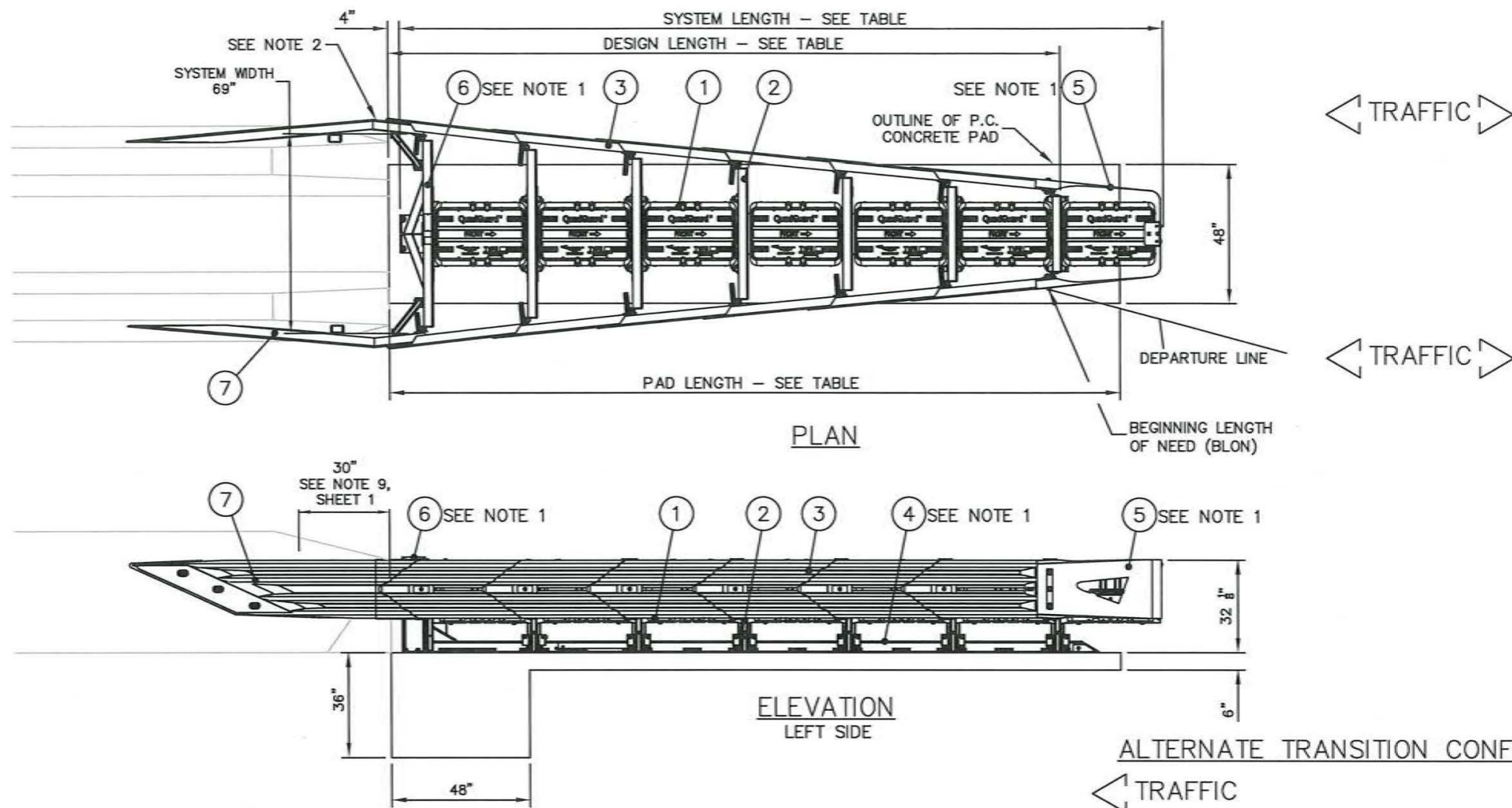
NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.



KEY		DRAWN:	DATE:	MODEL:	QUADGUARD® M WIDE TL-3 (PERMANENT) TO SAFETY SHAPE FLARED CONCRETE BARRIER APL-544-001-005		FLORIDA DRAWING: 60-45-90 REV: A SHEET: 5 of 15			
① CARTRIDGE	⑥ BACKUP	J. SIMMONS	5/12/2021	QM10069	TRAFFIC DIRECTION: BIDIRECTIONAL					
② DIAPHRAGM	⑦ TRANSITION	B. ECKERT	5/27/2021	DO NOT SCALE DRAWING						
③ FENDER PANEL		UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH); DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		REVISION DESCRIPTION	ECO		DATE	REV	BY	CHK
④ MONORAIL		INITIAL RELEASE	7351	/	/		/	/	/	/
⑤ NOSE ASSEMBLY		REBRANDING	8167	10/18/22	A	JMS	KWL			

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NOTES:

- 1. BACKUP, MONORAIL, NOSE, AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
- 2. THE TRANSITION PANEL TO FENDER PANEL OVERLAP GAP SHALL NOT EXCEED 1".

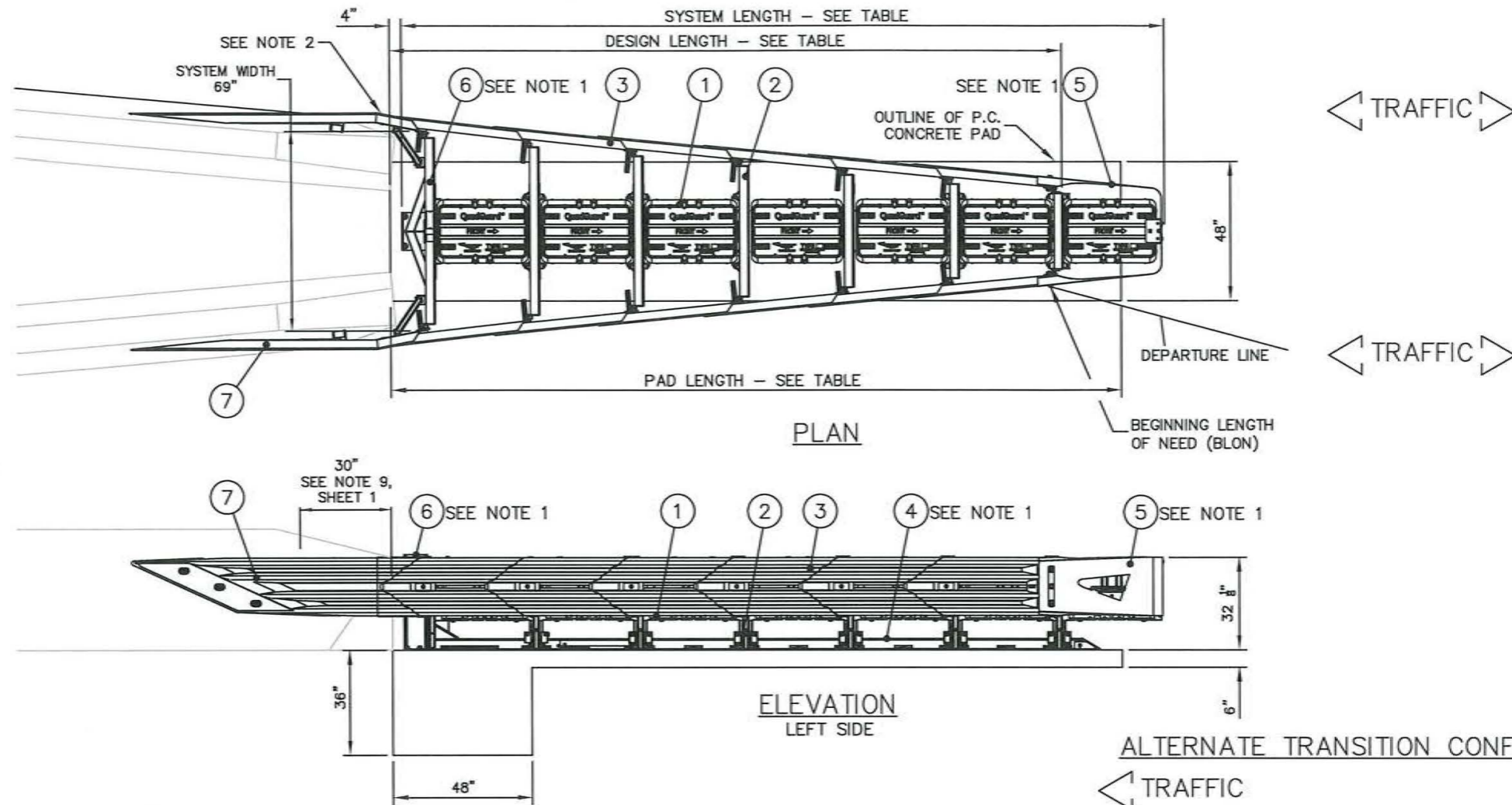
PERMANENT CRASH CUSHION DESIGN TABLE

BAYS	69" WIDTH MODEL #	SYSTEM LENGTH	DESIGN LENGTH	PAD LENGTH	DESIGN SPEED	TEST LEVEL	NO. OF CARTRIDGES	
							TYPE I	TYPE II
6	QM10069	22'-0"	19'-3"	21'-0"	60 mph	TL-3	4	3

NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.



KEY		DRAWN:	DATE:	MODEL:	QUADGUARD® M WIDE TL-3 (PERMANENT) TO SINGLE SLOPE CONCRETE BARRIER APL-544-001-005				
① CARTRIDGE	⑥ BACKUP	J. SIMMONS	5/12/2021	QM10069	TRAFFIC DIRECTION: BIDIRECTIONAL			FLORIDA DRAWING: 60-45-90 REV: A SHEET: 6 of 15	
② DIAPHRAGM	⑦ TRANSITION	B. ECKERT	5/27/2021		DO NOT SCALE DRAWING				
③ FENDER PANEL		UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (MM), DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		REVISION DESCRIPTION	ECO	DATE	REV	BY	CHK
④ MONORAIL				INITIAL RELEASE	7351	/	/	/	/
⑤ NOSE ASSEMBLY				REBRANDING	8167	10/18/22	A	JMS	KWL



NOTES:


1. BACKUP, MONORAIL, NOSE, AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
2. THE TRANSITION PANEL TO FENDER PANEL OVERLAP GAP SHALL NOT EXCEED 1".

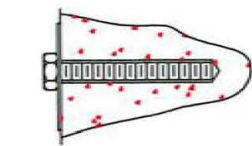
PERMANENT CRASH CUSHION DESIGN TABLE

BAYS	69" WIDTH MODEL #	SYSTEM LENGTH	DESIGN LENGTH	PAD LENGTH	DESIGN SPEED	TEST LEVEL	NO. OF CARTRIDGES	
							TYPE I	TYPE II
6	QM10069	22'-0"	19'-3"	21'-0"	60 mph	TL-3	4	3

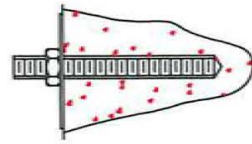
NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.



KEY		DRAWN:	DATE:	MODEL:	QUADGUARD® M WIDE TL-3 (PERMANENT) TO SINGLE SLOPE FLARED CONCRETE BARRIER APL-544-001-005		 VALTIR	
① CARTRIDGE	⑥ BACKUP	J. SIMMONS	5/12/2021	QM10069	TRAFFIC DIRECTION: BIDIRECTIONAL			FLORIDA
② DIAPHRAGM	⑦ TRANSITION	B. ECKERT	5/27/2021		DO NOT SCALE DRAWING		DRAWING: 60-45-90 REV: A SHEET: 7 of 15	
③ FENDER PANEL		UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		ECO	DATE	REV		BY
④ MONORAIL		REVISION DESCRIPTION		7351	/	/	/	/
⑤ NOSE ASSEMBLY		INITIAL RELEASE		8167	10/18/22	A	JMS	KWL
		REBRANDING						

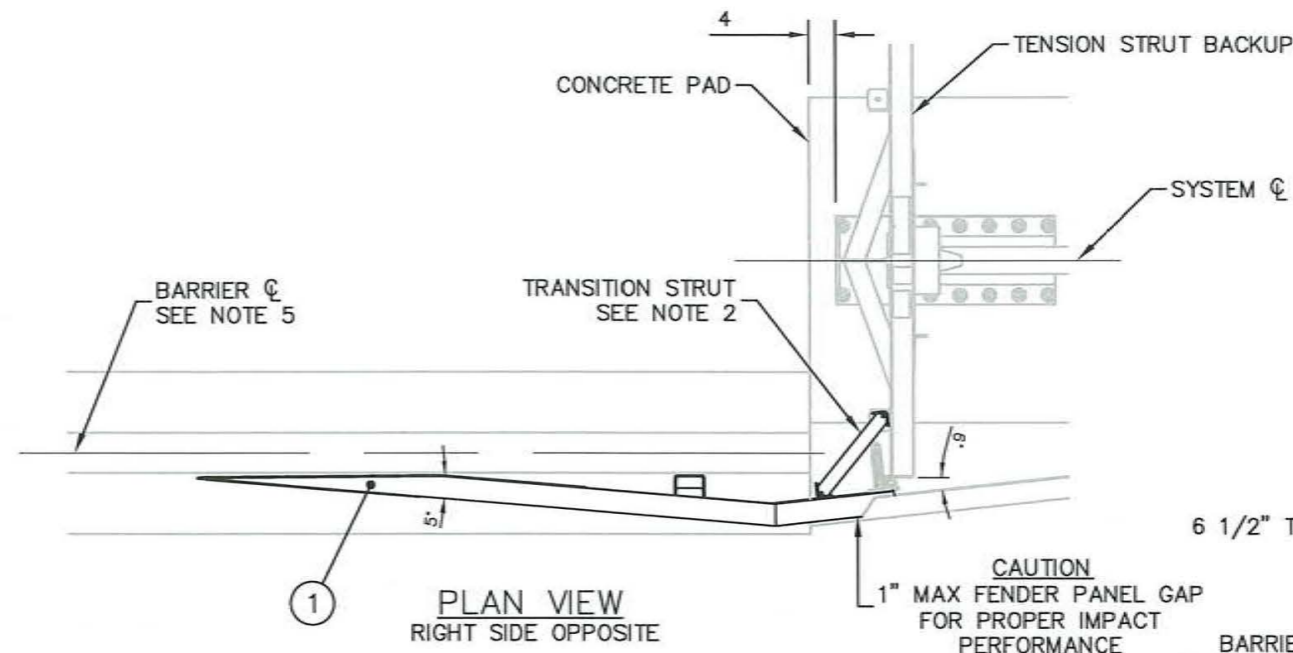


CORRECT

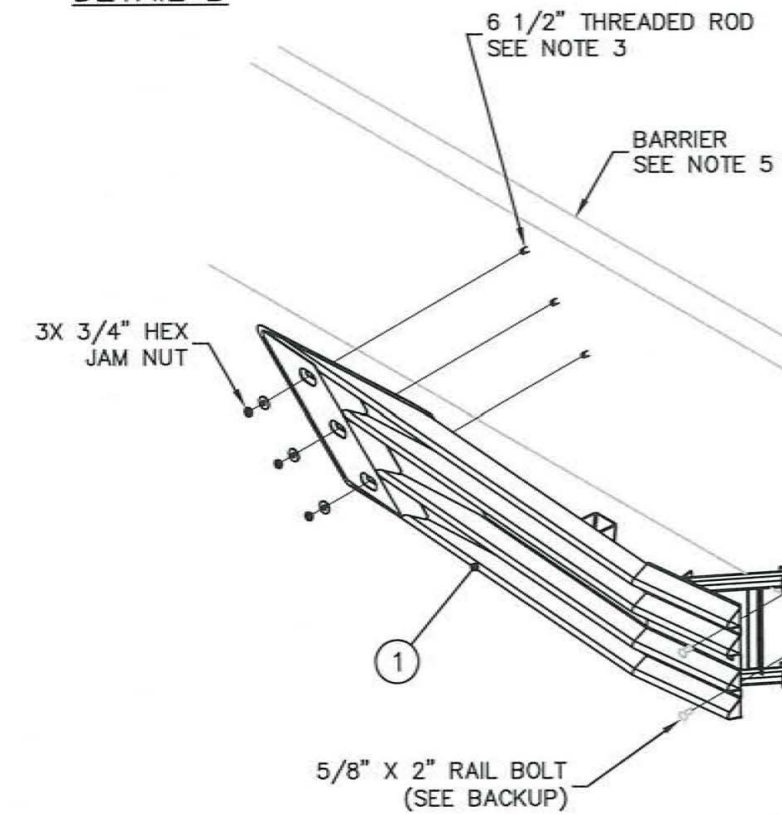


INCORRECT

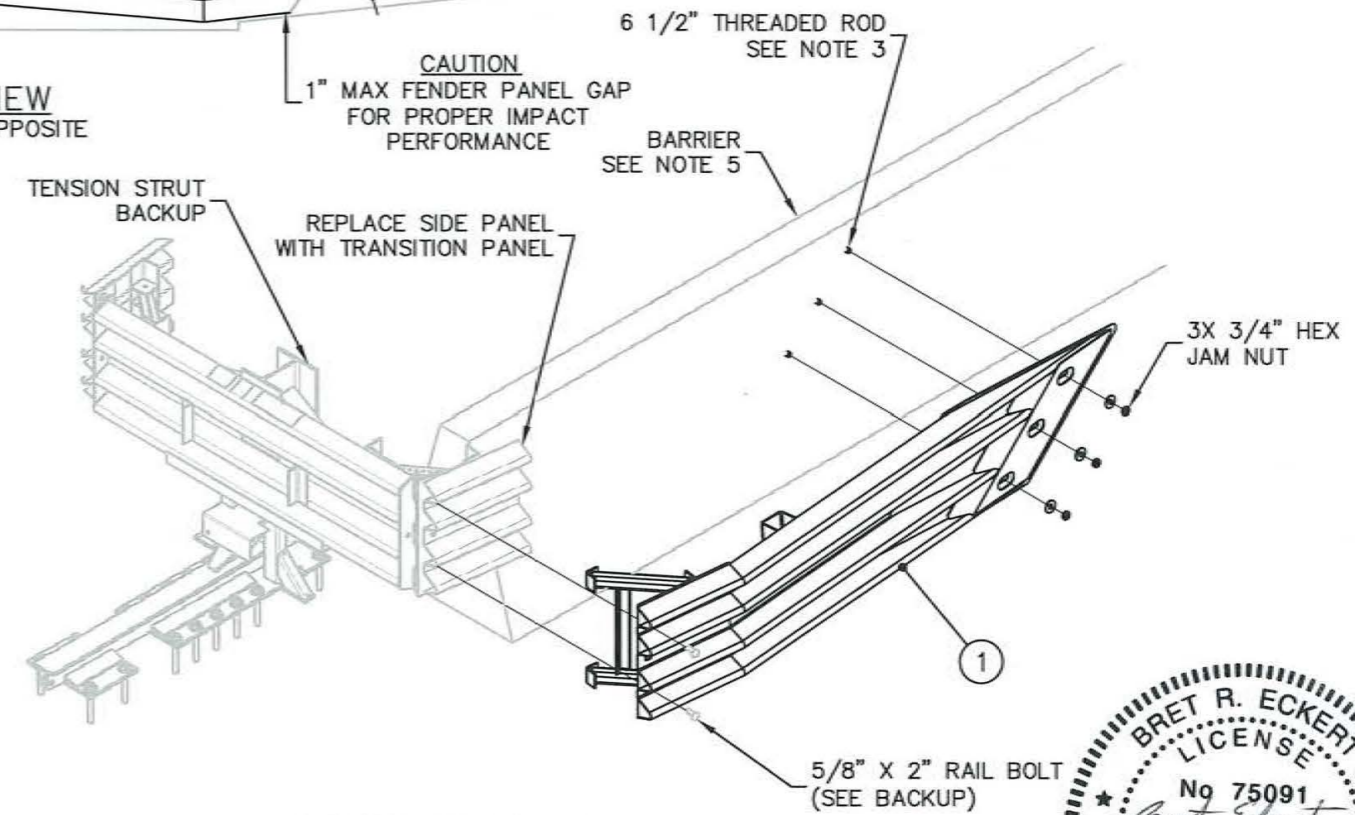
DETAIL B



PLAN VIEW
RIGHT SIDE OPPOSITE



LEFT TRANSITION



RIGHT TRANSITION

- NOTES:
1. IMPACT FORCES COULD BE TRANSFERRED INTO TERMINAL END OF THE BARRIER. ADEQUATE ANCHORAGE IS REQUIRED FOR PROPER IMPACT PERFORMANCE.
 2. POSITION TRANSITION STRUT TO CONTACT (1/4 GAP ACCEPTABLE) BACKUP BEFORE ATTACHING TO BACKUP AND ANCHORING TO BARRIER.
 3. USE TRANSITION PANEL AS TEMPLATE FOR DRILLING. ENSURE FLUSH FIT TO BARRIER. RECOMMENDED HOLE DEPTH IN BARRIER 5 1/4". FINAL TORQUE TO BE 100 FT-LBS (TYP).
 4. ANCHOR STUD END SHOULD BE FLUSH WITH OUTSIDE SURFACE OF ANCHOR NUT, SEE DETAIL B.
 5. STATE APPROVED SINGLE SLOPE BARRIER.

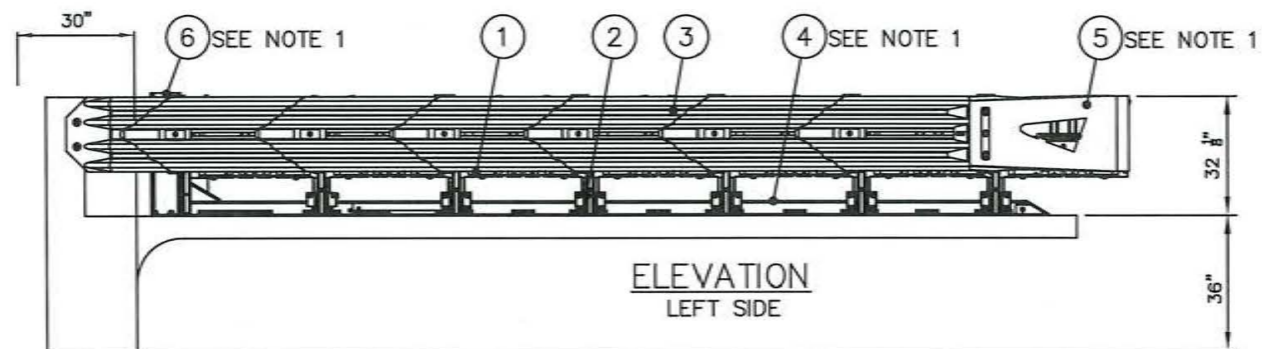
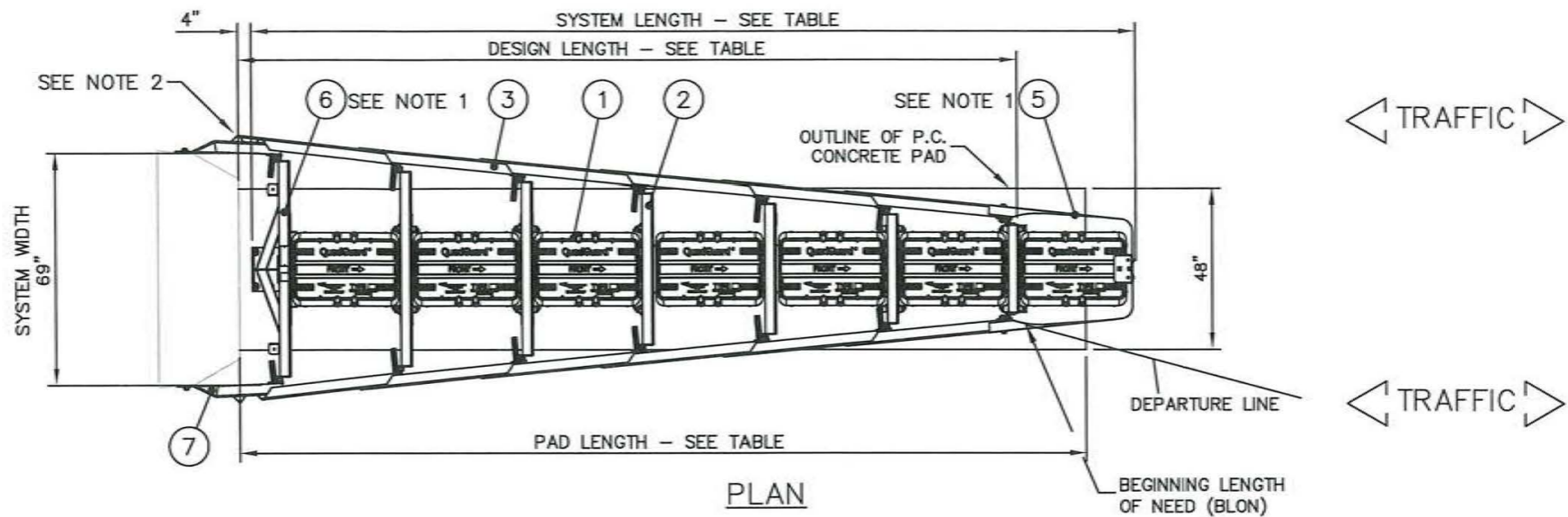


KEY		DRAWN:	DATE:	MODEL:	QUADGUARD® M WIDE TL-3 (PERMANENT) TO SINGLE SLOPE CONCRETE BARRIER APL-544-001-005	
① TRANSITION ASSY, 6 IN		J. SIMMONS	5/12/2021	N/A	TRAFFIC DIRECTION: BIDIRECTIONIONAL DO NOT SCALE DRAWING 	
		B. ECKERT	5/27/2021			
		UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.				
REVISION DESCRIPTION		ECO	DATE	REV	BY	CHK
INITIAL RELEASE		7351	/	/	/	/
REBRANDING		8167	10/18/22	A	JMS	KWL
		DRAWING:		60-45-90	REV:	A
				FLORIDA		SHEET: 8 of 15

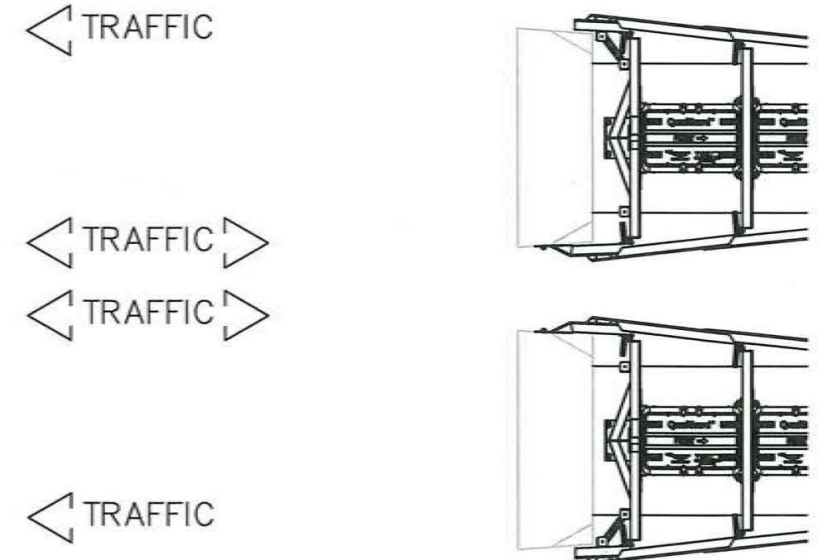


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ALTERNATE TRANSITION CONFIGURATIONS



- NOTES:
 1. BACKUP, MONORAIL, NOSE, AND TRANSITION ASSEMBLIES ARE NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
 2. THE TRANSITION PANEL TO FENDER PANEL OVERLAP GAP SHALL NOT EXCEED 1".

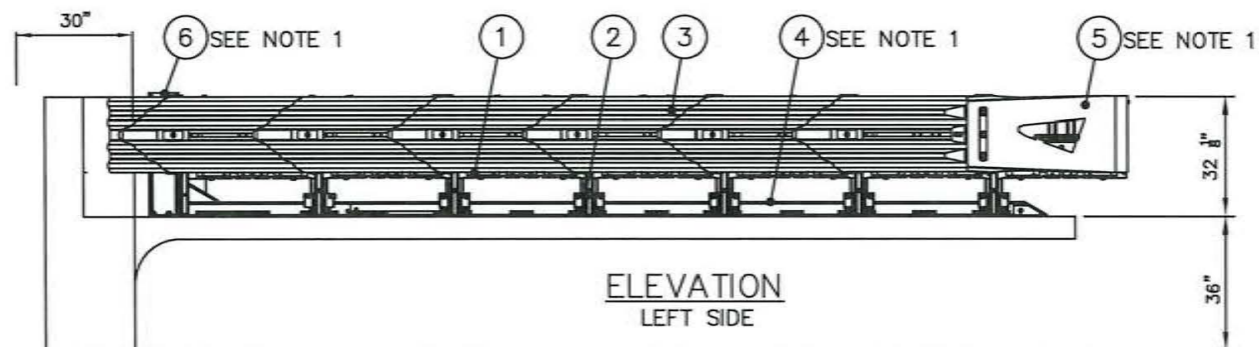
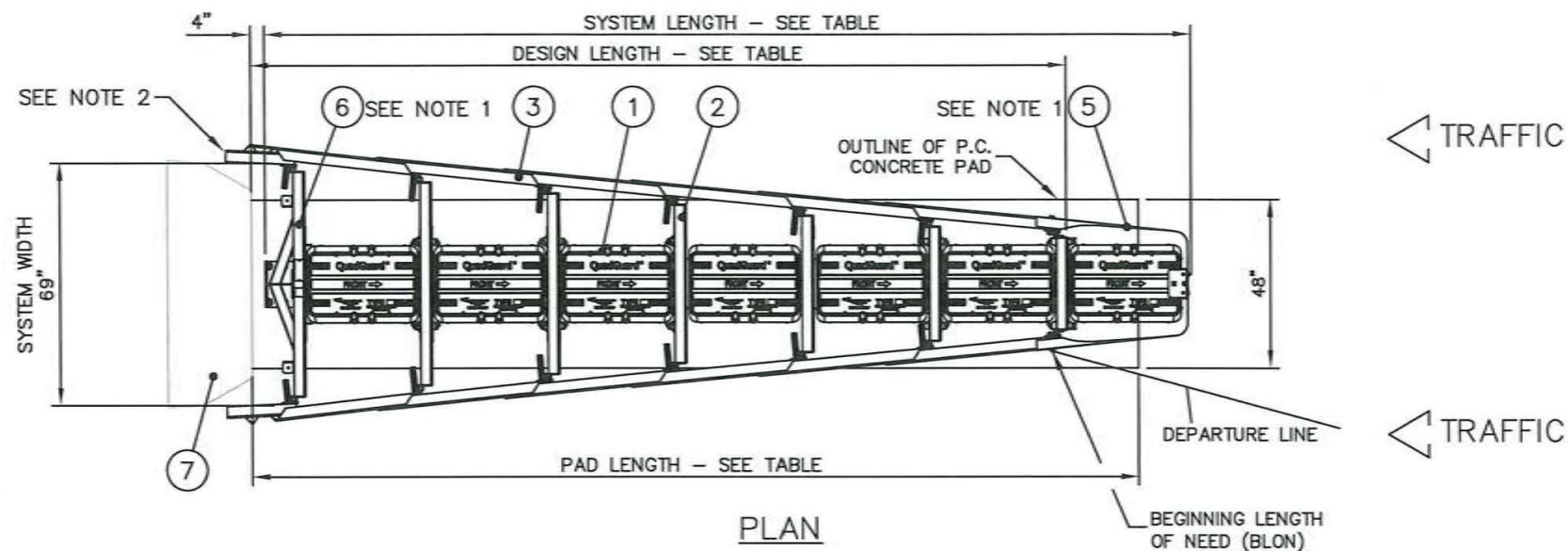


PERMANENT CRASH CUSHION DESIGN TABLE								
BAYS	69" WIDTH MODEL #	SYSTEM LENGTH	DESIGN LENGTH	PAD LENGTH	DESIGN SPEED	TEST LEVEL	NO. OF CARTRIDGES	
							TYPE I	TYPE II
6	QM10069	22'-0"	19'-3"	21'-0"	60 mph	TL-3	4	3

NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.

KEY		DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: QM10069	QUADGUARD® M WIDE TL-3 (PERMANENT) TO VERTICAL CONCRETE BARRIER APL-544-001-005									
① CARTRIDGE	⑥ BACKUP	CHECKED: B. ECKERT	DATE: 5/27/2021	TRAFFIC DIRECTION: BIDIRECTIONAL	DO NOT SCALE DRAWING									
② DIAPHRAGM	⑦ TRANSITION	UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		REVISION DESCRIPTION						ECO	DATE	REV	BY	CHK
③ FENDER PANEL		INITIAL RELEASE	7351	/						/	/	/	/	
④ MONORAIL		REBRANDING	8167	10/18/22	A	JMS	KWL							
⑤ NOSE ASSEMBLY				DRAWING:	60-45-90			REV:	A					
								FLORIDA	SHEET:					
									9 of 15					

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NOTES:

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PERMANENT CRASH CUSHION DESIGN TABLE								
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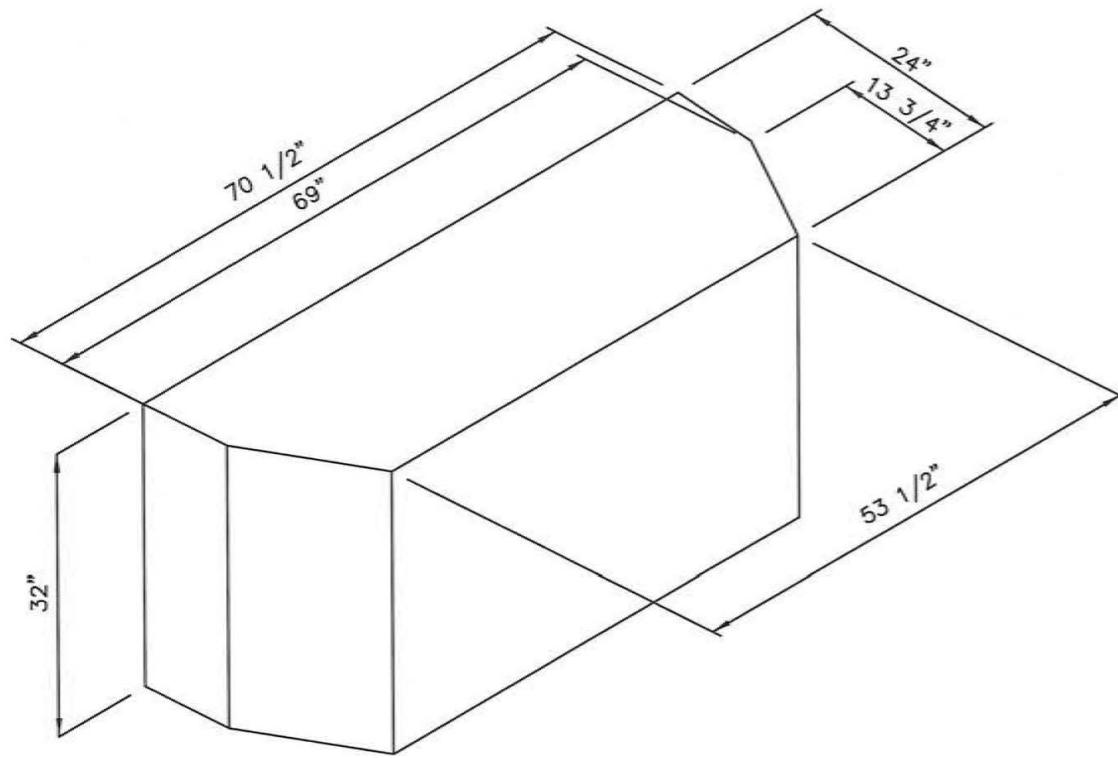
NOTE: FOR HIGH SPEED FACILITIES WITH A DESIGN SPEED OF ≥ 50 MPH USE A TL-3 SYSTEM.



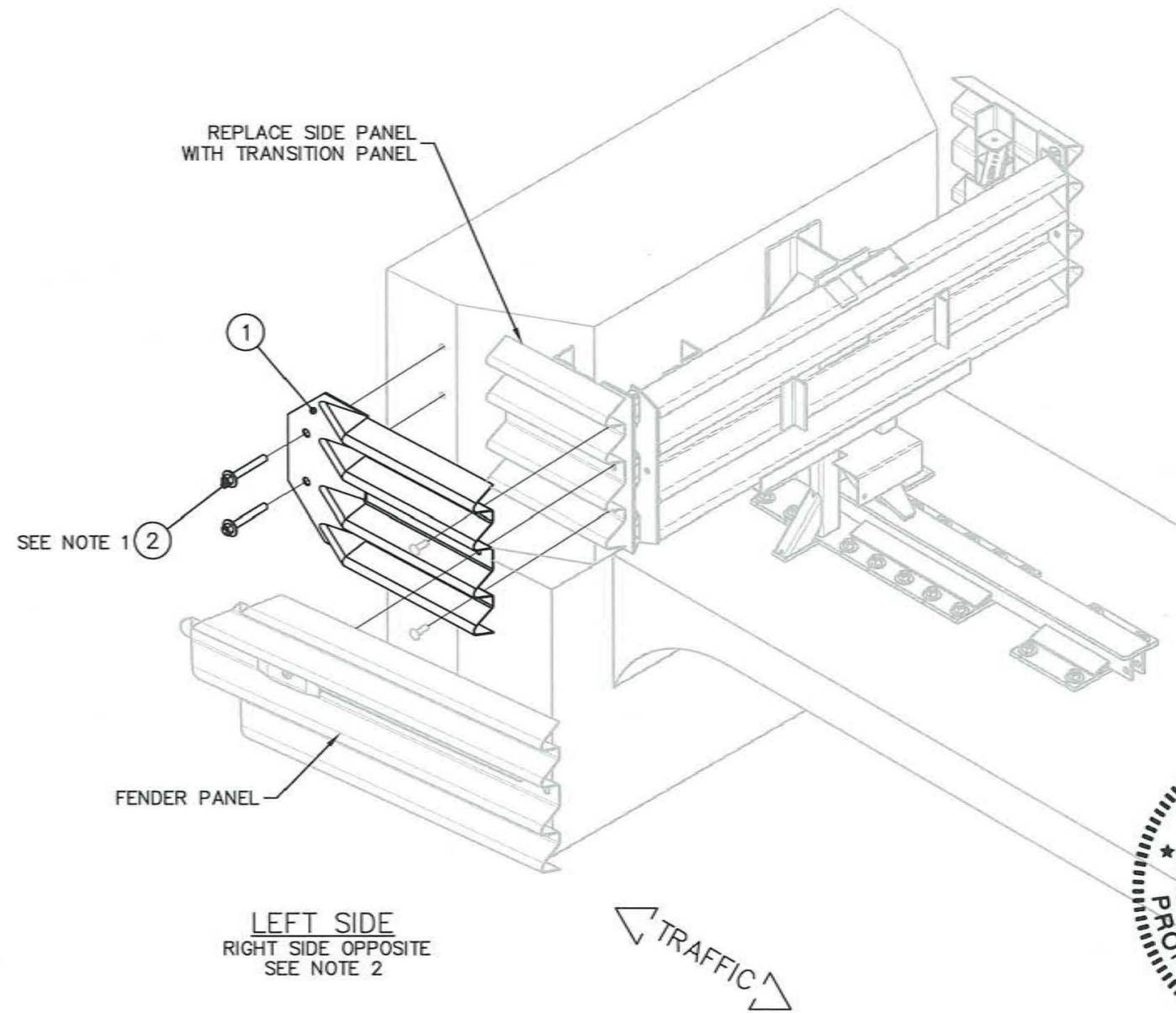
KEY		DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: QM10069	QUADGUARD® M WIDE TL-3 (PERMANENT) TO VERTICAL CONCRETE BARRIER APL-544-001-005			
① CARTRIDGE	⑥ BACKUP	CHECKED: B. ECKERT	DATE: 5/27/2021	TRAFFIC DIRECTION: UNIDIRECTIONAL	DO NOT SCALE DRAWING			FLORIDA
② DIAPHRAGM	⑦ CONCRETE PAD W/ BLOCK	UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH) DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		ECO	DATE	REV	BY	
③ FENDER PANEL		REVISION DESCRIPTION		7351	/	/	/	/
④ MONORAIL		INITIAL RELEASE		8167	10/18/22	A	JMS	KWL
⑤ NOSE ASSEMBLY		REBRANDING						
				DRAWING:	60-45-90	REV:	A	SHEET: 10 of 15

PARTS LIST

ITEM	DESCRIPTION
1	END SHOE, QG, 31, G
2	ANCH KIT, HIL, 3/4X6, 1/2 (4)



CONCRETE DETAIL



- NOTES:
1. USE TRANSITION PANEL AS TEMPLATE FOR DRILLING. ENSURE FLUSH FIT TO CONCRETE. RECOMMENDED HOLE DEPTH: 5 1/4". FINAL TORQUE TO BE 100 lf-ft.
 2. RIGHT SIDE OF ROAD APPLICATION SHOWN. ASSEMBLY MAY BE USED ON EITHER OR BOTH SIDES FOR LEFT, RIGHT, MEDIAN OR GORE APPLICATIONS.
 3. TRINITY HIGHWAY SUPPLIES THE ITEMS SHOWN. ALL OTHER COMPONENTS TO BE SUPPLIED BY OTHERS.



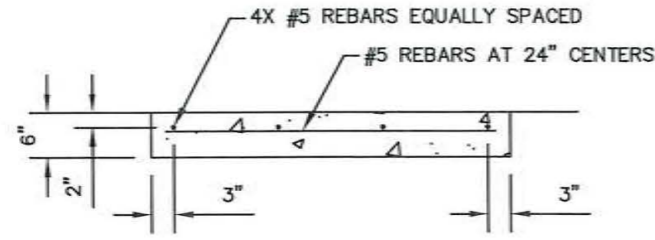
DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: N/A
CHECKED: B. ECKERT	DATE: 5/27/2021	TRAFFIC DIRECTION: BIDIRECTIONAL
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		DO NOT SCALE DRAWING
REVISION DESCRIPTION	ECO	DATE
INITIAL RELEASE	7351	/ / / / /
REBRANDING	8167	10/18/22 A JMS KWL

QUADGUARD® M WIDE TL-3
(PERMANENT)
TO VERTICAL CONCRETE BARRIER
APL-544-001-005

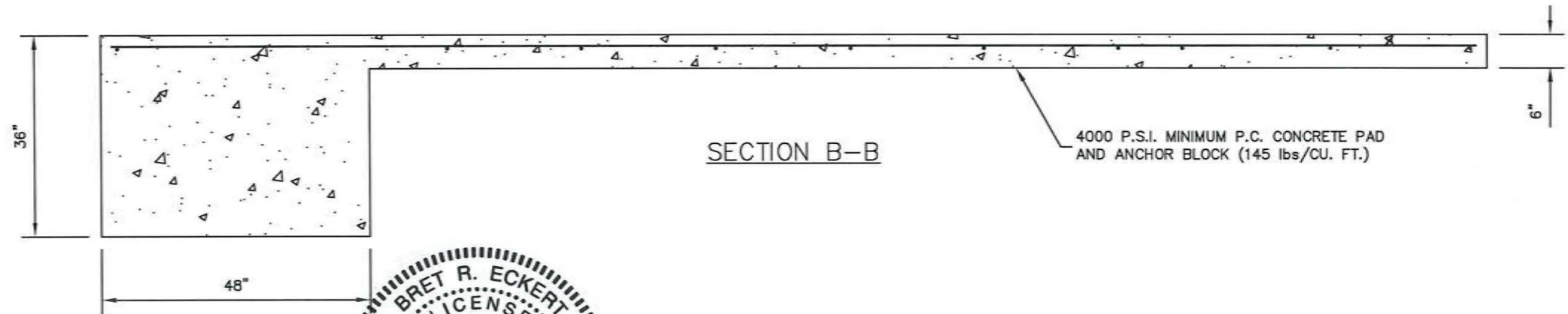
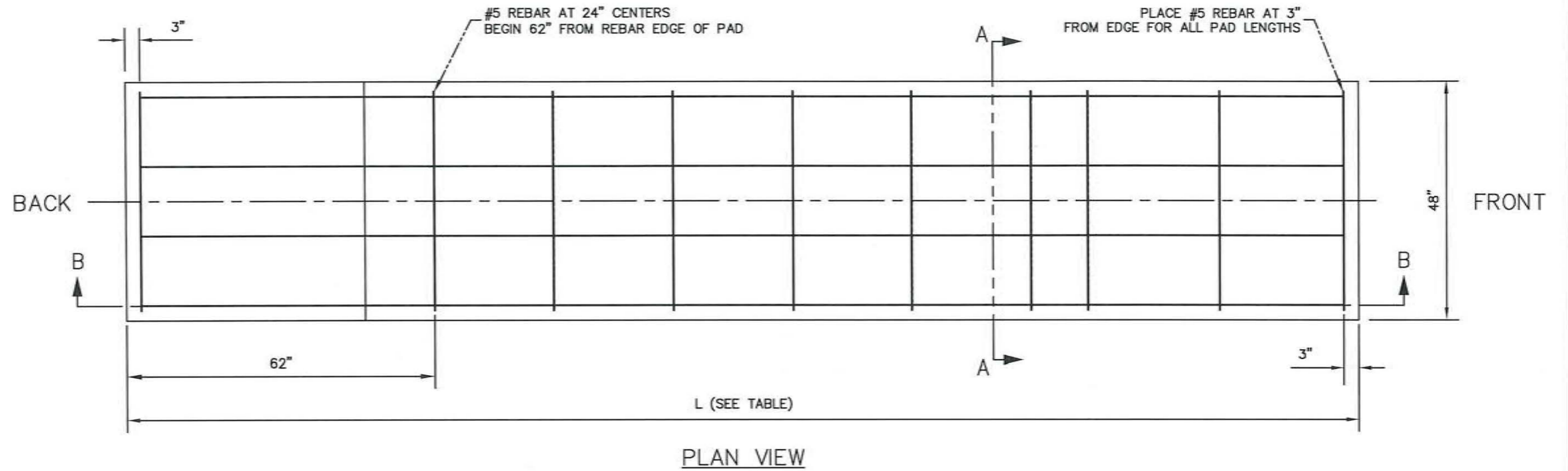


DRAWING: 60-45-90	REV: A	SHEET: 11 of 15
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TABLE			
NO. OF BAYS	"L" (PAD LENGTH)	REBAR REQUIRED	YARDS ³ OF CONCRETE IN PAD
6	21'-0"	118'-8"	3.1



SECTION A-A



- NOTES:
- CROSS SLOPE OF PAD SHALL NOT EXCEED 1:10 AND NOT VARY MORE THAN 2% FROM FRONT TO BACK.
 - ANCHOR BLOCK LOCATION IS RECOMMENDED AT BACK OF CONCRETE PAD. EXISTING CONCRETE PADS OR NEW PADS WITH BELOW GROUND OBSTRUCTIONS ARE ACCEPTABLE WITH ANCHOR BLOCKS LOCATED AT THE FRONT OF THE PAD.



DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: N/A
CHECKED: B. ECKERT	DATE: 5/27/2021	TRAFFIC DIRECTION: N/A
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH); DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		
DO NOT SCALE DRAWING		
REVISION DESCRIPTION	ECO	DATE
INITIAL RELEASE	7351	/ / / / /
REBRANDING	8167	10/18/22

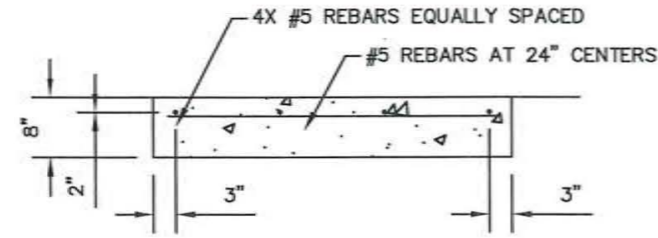
QUADGUARD[®] M WIDE TL-3
(PERMANENT)
CONCRETE PAD WITH ANCHOR BLOCK
APL-544-001-005



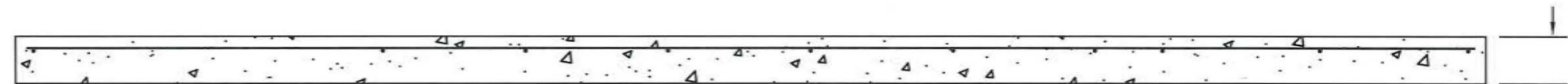
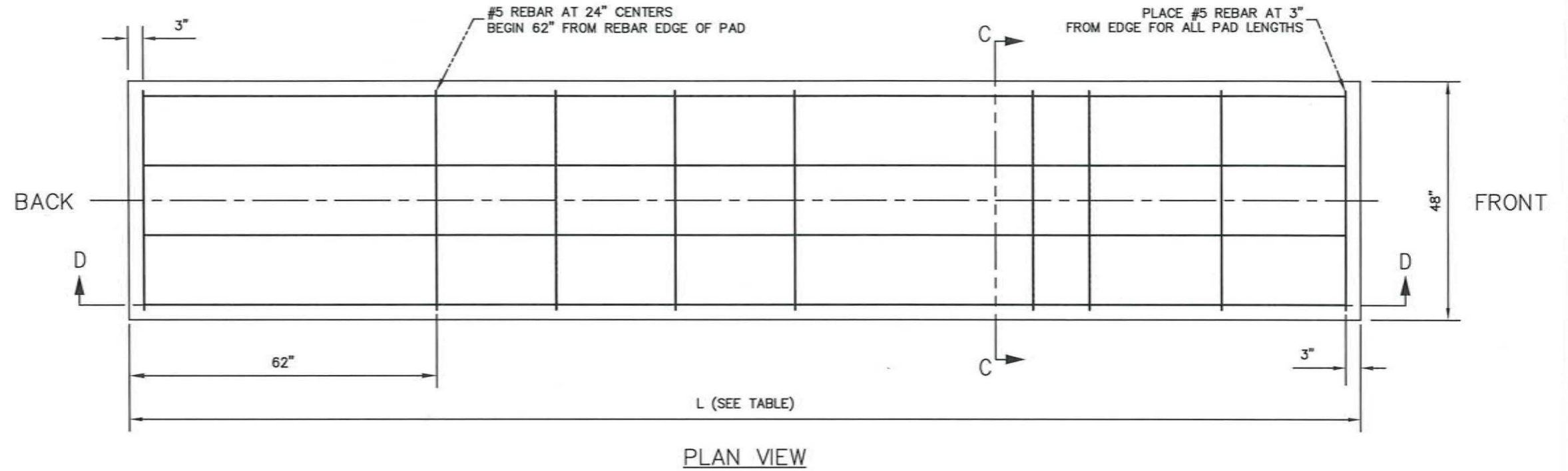
DRAWING:	60-45-90	REV:	A	SHEET:	12 of 15
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TABLE			
NO. OF BAYS	"L" (PAD LENGTH)	REBAR REQUIRED	YARDS ³ OF CONCRETE IN PAD
6	21'-0"	118'-8"	2.1



SECTION C-C



SECTION D-D

4000 P.S.I. MINIMUM P.C. CONCRETE PAD
(145 lbs/CU. FT.)

NOTES:

- CROSS SLOPE OF PAD SHALL NOT EXCEED 1:10 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.



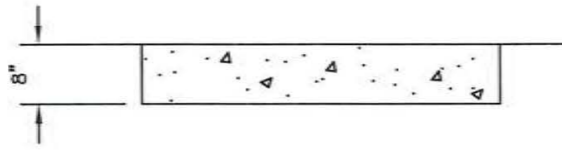
DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: N/A
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UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		
DO NOT SCALE DRAWING		
REVISION DESCRIPTION	ECO	DATE
INITIAL RELEASE	7351	/ / / / /
REBRANDING	8167	10/18/22 A JMS KWL

QUADGUARD[®] M WIDE TL-3
(PERMANENT)
CONCRETE PAD, 8" REINFORCED
APL-544-001-005

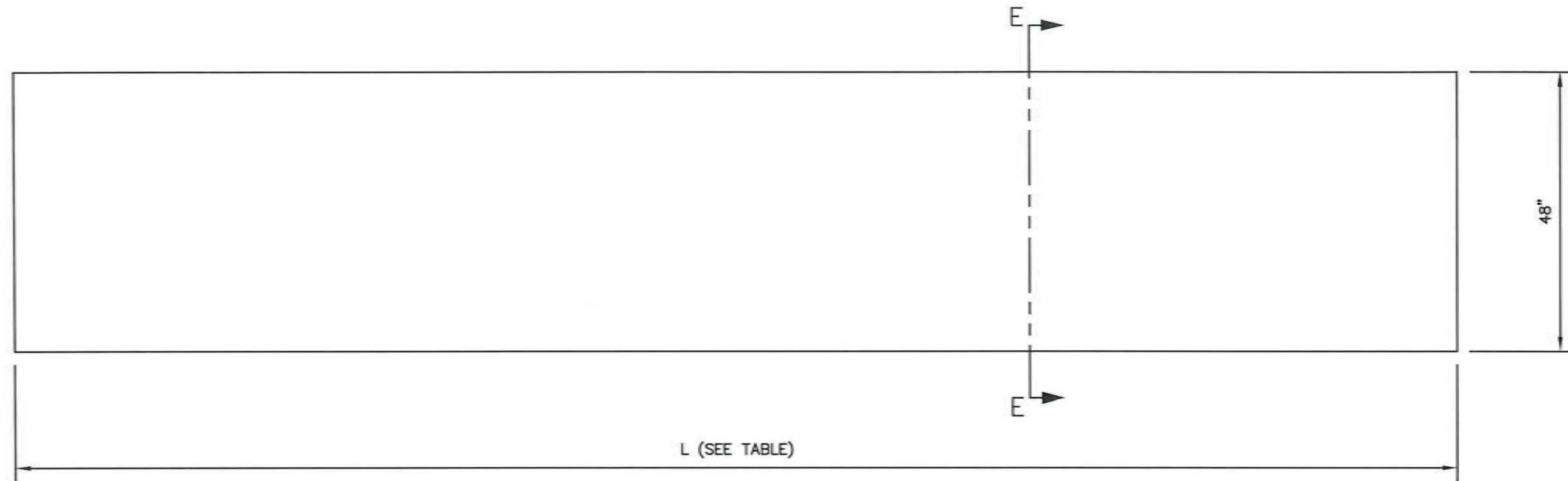


DRAWING:	60-45-90	REV:	A	SHEET:	13 of 15
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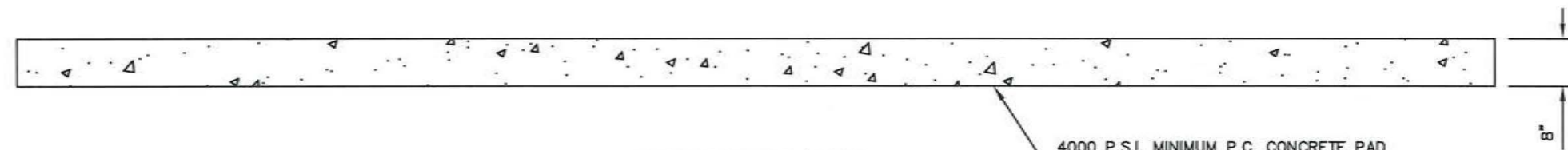
TABLE		
NO. OF BAYS	"L" (PAD LENGTH)	YARDS ³ OF CONCRETE IN PAD
6	21'-0"	2.1



SECTION E-E



PLAN VIEW



ELEVATION VIEW

NOTES:

- CROSS SLOPE OF PAD SHALL NOT EXCEED 1:10 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.

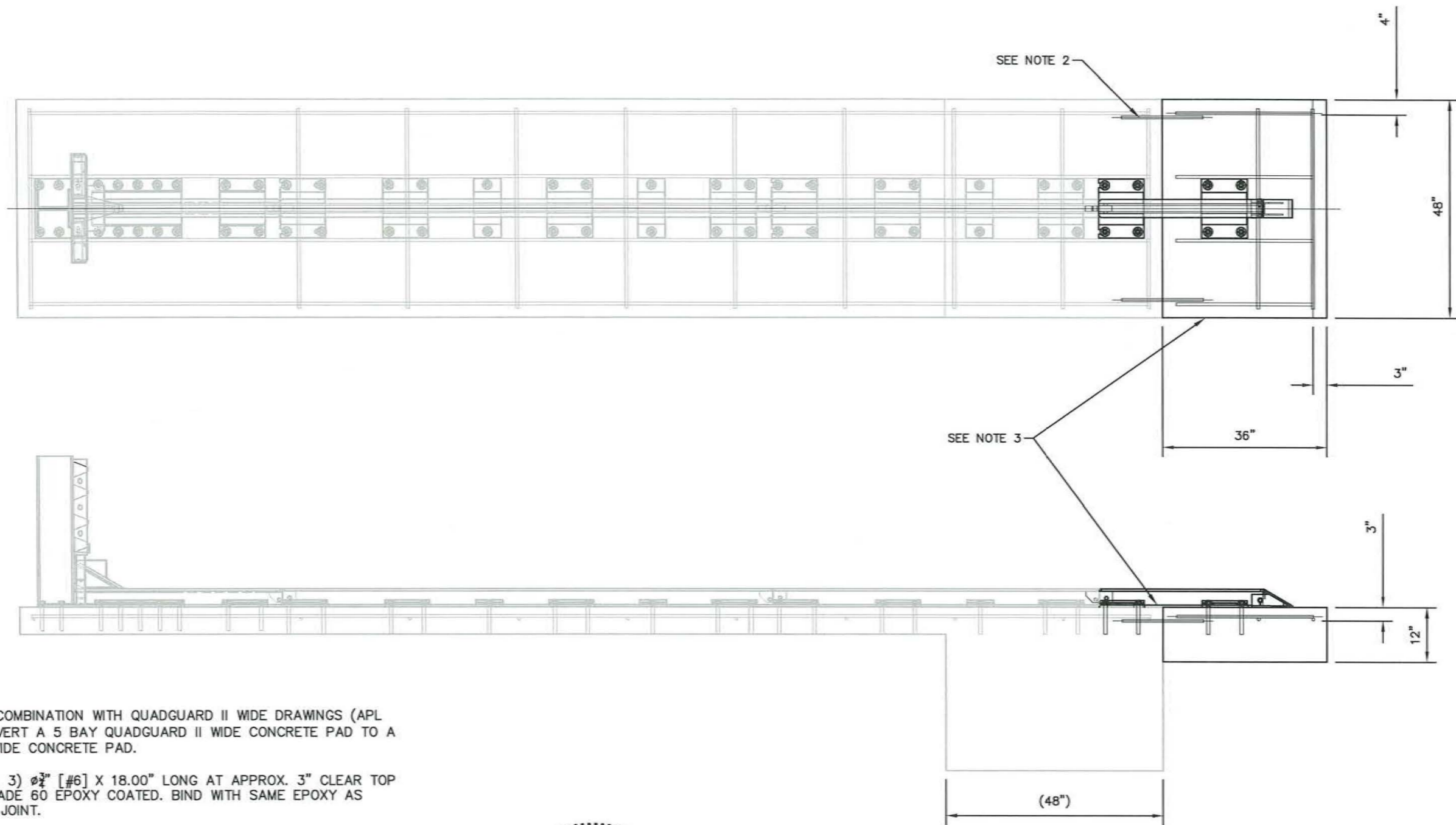


DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: N/A
CHECKED: B. ECKERT	DATE: 5/27/2021	TRAFFIC DIRECTION: N/A
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		DO NOT SCALE DRAWING
REVISION DESCRIPTION	ECO	DATE
INITIAL RELEASE	7351	/ / / / /
REBRANDING	8167	10/18/22 A JMS KWL

QUADGUARD[®] M WIDE TL-3
(PERMANENT)
CONCRETE PAD, 8" NON-REINFORCED
APL-544-001-005



DRAWING: 60-45-90	REV: A	SHEET: 14 of 15
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NOTES:

1. USE THESE DETAILS IN COMBINATION WITH QUADGUARD II WIDE DRAWINGS (APL 544-000-043) TO CONVERT A 5 BAY QUADGUARD II WIDE CONCRETE PAD TO A 6 BAY QUADGUARD M WIDE CONCRETE PAD.
2. DOWEL PADS WITH (QTY. 3) $\phi\frac{3}{4}$ " [#6] X 18.00" LONG AT APPROX. 3" CLEAR TOP FACE. REBAR TO BE GRADE 60 EPOXY COATED. BIND WITH SAME EPOXY AS USED FOR SURFACE OF JOINT.
3. EXTEND CONCRETE PAD 3' LONG X 4' WIDE. EXISTING CONCRETE SURFACE TO BE TREATED WITH EPOXY (SIKADUR 32 OR BURKE HI-VIS OR EQUAL). PAD ADDITION TO BE 12.00" MIN. THICK, 4000 PSI MIN. REINFORCE WITH $\phi\frac{5}{8}$ " [#5] BOTH WAYS AT 12" MAX. CENTERS AT 2" MIN. CLEAR TOP FACE.



DRAWN: J. SIMMONS	DATE: 5/12/2021	MODEL: N/A
CHECKED: B. ECKERT	DATE: 5/27/2021	TRAFFIC DIRECTION: N/A
UNLESS OTHERWISE NOTED, DIMENSIONS ARE IN MILLIMETERS (INCH). DIMENSIONS ACCORDING TO ASME Y14.5-2018 AND QMS-SE-003 UNLESS OTHERWISE SPECIFIED.		DO NOT SCALE DRAWING
REVISION DESCRIPTION	ECO	DATE
INITIAL RELEASE	7351	/ / / / /
REBRANDING	8167	10/18/22

**QUADGUARD® M WIDE TL-3
(PERMANENT)
CONVERSION
EXTENSION CONCRETE PAD, 1 BAY
APL-544-001-005**

FLORIDA

DRAWING: 60-45-90 REV: A SHEET: 15 of 15



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