CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

055213-012
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

055213
SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

◯ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◉ Shop Drawings
- ◯ Samples (_____ copies)
- ◯ LEED Submittal
- ◯ Certification / Qualifications
- ◯ Record Documents
- ◯ Product Data
- ◯ Coordination Drawing
- ◯ Calculations
- ◯ Schedules
- ◯ O&M Manuals
- ◯ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ◯ Information Only ◯ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Joe Voypick
REVIEWED BY

4/3/17
DATE

To be completed by Reviewer

05 5213-012
CANNON DESIGN SUBMITTAL NUMBER

4/4/17
RECEIVED DATE

- ◯ A. No Exceptions Taken
  No further review of submittal is required.
- ◉ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ◯ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ◯ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ◯ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ◯ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◯ See attached sheet(s) for additional comments

- Approval contingent on submittal per spec section 055213, 1.3, D.

- Provide separate LEED submittal per spec section 055213, 1.3, B.

- Finish not approved. Evaluating product data and performance comparison to basis-of-design.

Kelvin Patel
Digitally signed by Kelvin Patel
DN: C=US, E=kpatel@cannondesign.com, O=Cannon Design, OU=Architect, CN=Kelvin Patel
Date: 2017.04.19 14:33:32-05'00'
REVIEWED BY

4/19/17
DATE

77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0545

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 04/03/2017

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: East Rail and Bollard Shop Drawings

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☑ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☐ Other:	☐ Separate Cover Via:	☐ Due Date:

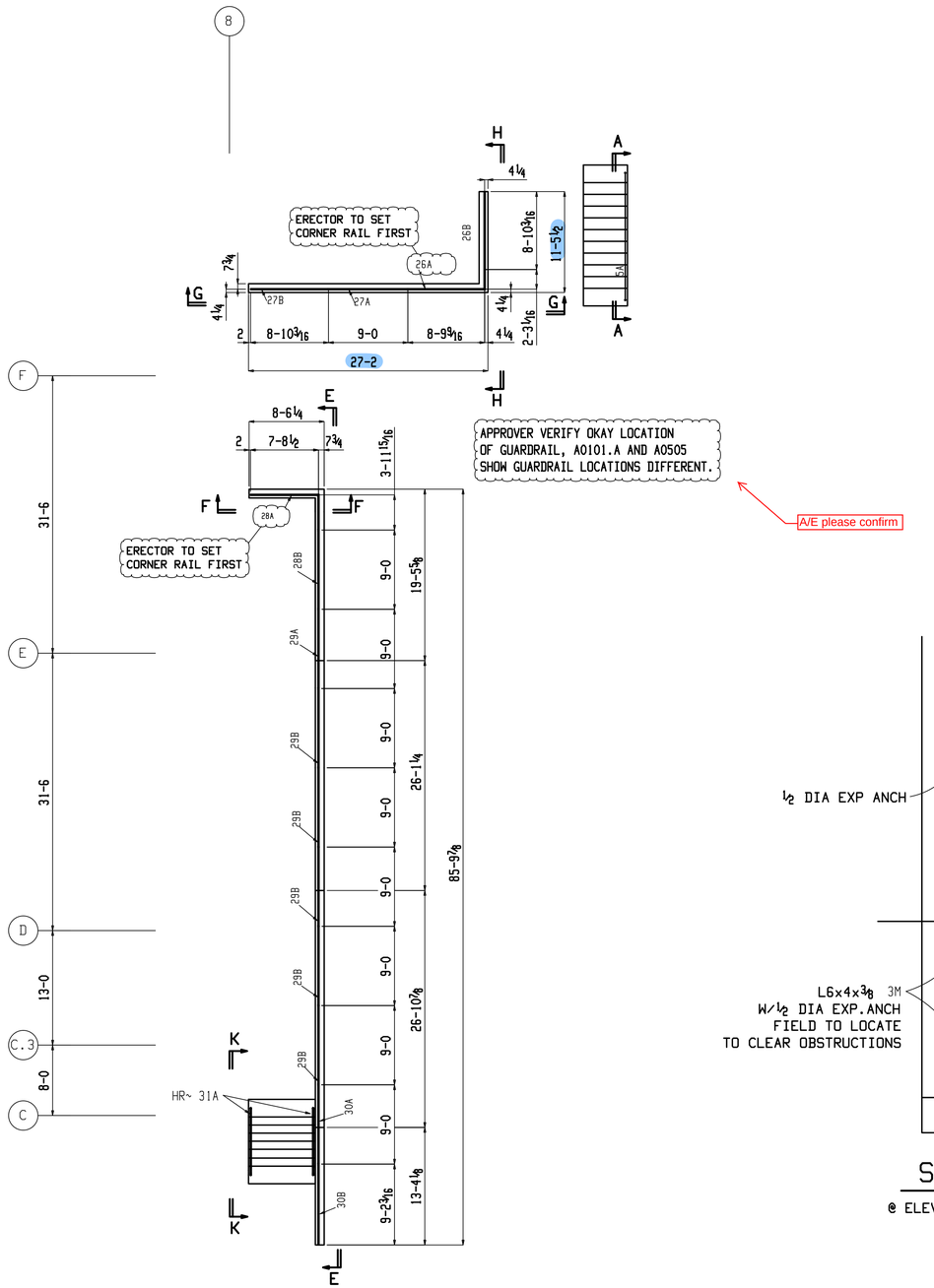
Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		055213-012	1		04/03/2017	East Rail and Bollard Shop Drawings	Submitted

NOTES:

CC:

Signed: _____

Devin Gates

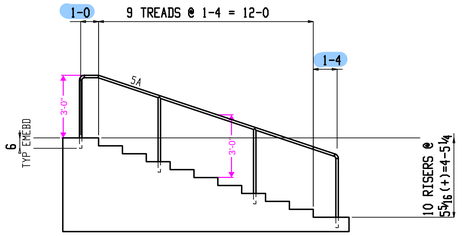


APPROVER VERIFY OKAY LOCATION OF GUARDRAIL, A0101.A AND A0505 SHOW GUARDRAIL LOCATIONS DIFFERENT.

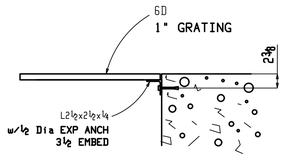
A/E please confirm

PARTIAL EAST RAIL PLAN

SEE E8 FOR SECTIONS NOT SHOWN

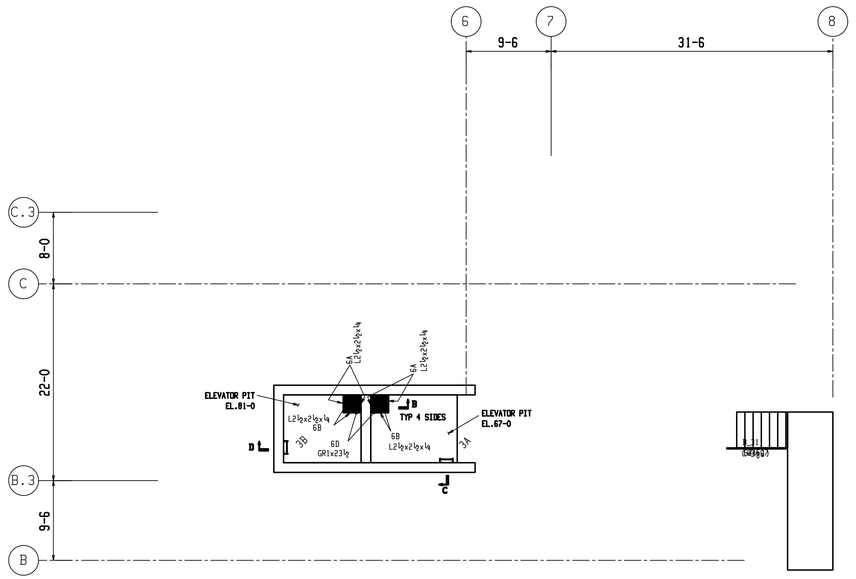


Section A-A

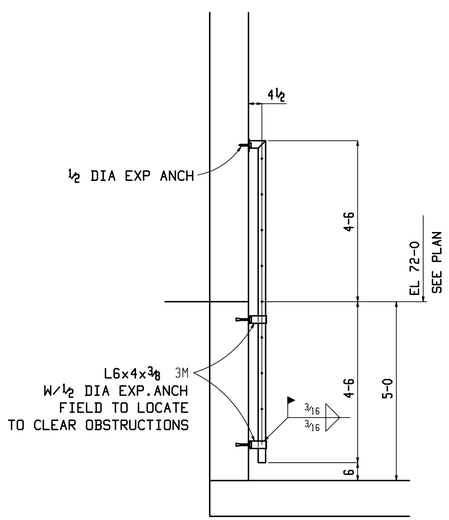


SECTION B

TYPICAL SECTION AT SUMP PITS

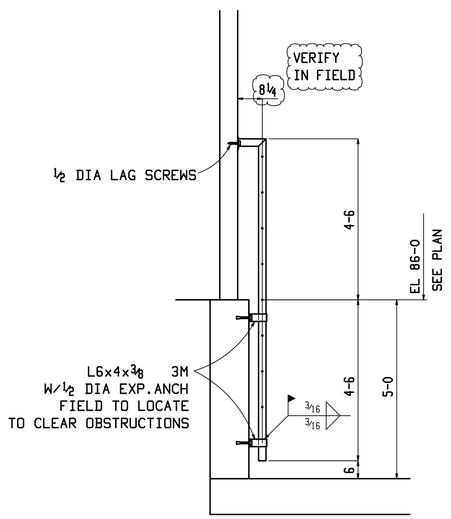


PARTIAL INTERIOR PLAN



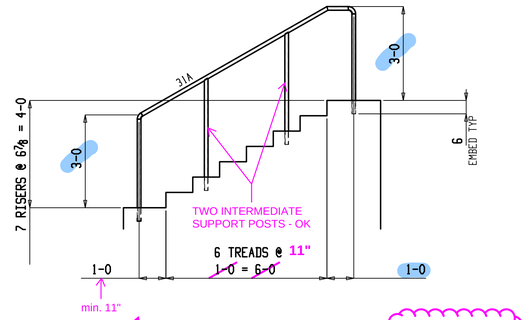
SECTION C

@ ELEVATOR PIT LADDER 3A



SECTION D

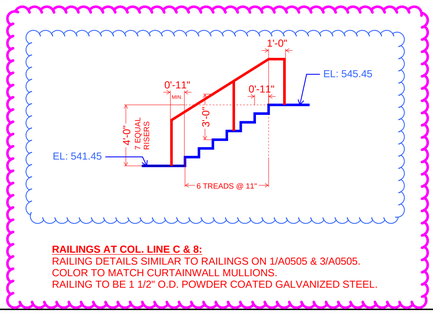
@ ELEVATOR PIT LADDER 3B



REVISE PER RFI-370

SECTION K-K

RFI-370

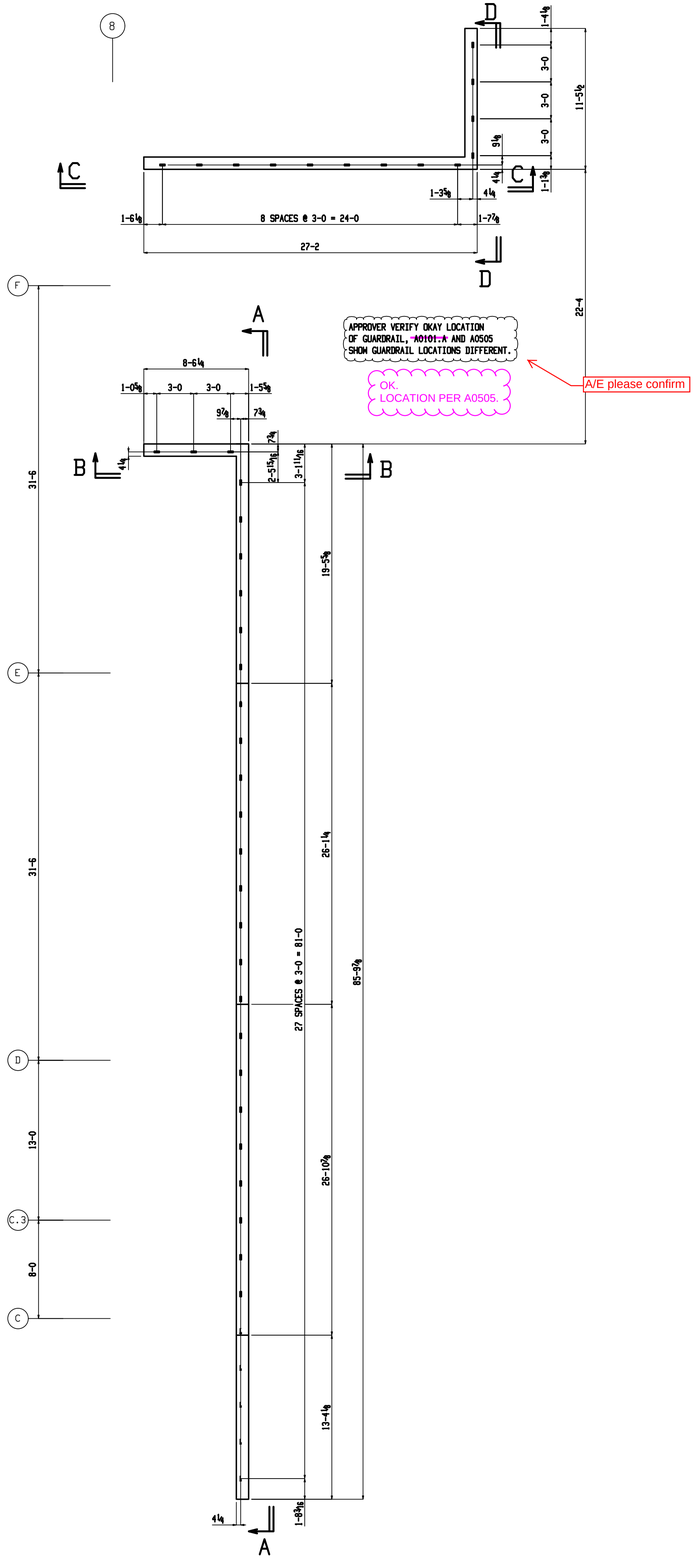


RAILINGS AT COL. LINE C & 8:
RAILING DETAILS SIMILAR TO RAILINGS ON 1/A0505 & 3/A0505.
COLOR TO MATCH CURTAINWALL MULLIONS.
RAILING TO BE 1 1/2" O.D. POWDER COATED GALVANIZED STEEL.

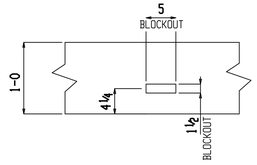
△	
△2	04-03-17: FOR APPROVAL
△1	03-16-17: FOR FABRICATION
△0	9-19-16: FOR APPROVAL

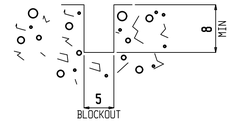
ATLAS IRON WORKS — EST. 1928

Project: WEBSTER UNIVERSITY
Customer: PARIC
Owner: WEBSTER UNIVERSITY
Location: WEBSTER GROVES, MO.
Dwn: KRT Date: 9-14-16 Ckd: BD Date: 9-19-16
Job No. A16013M DWG#: E1



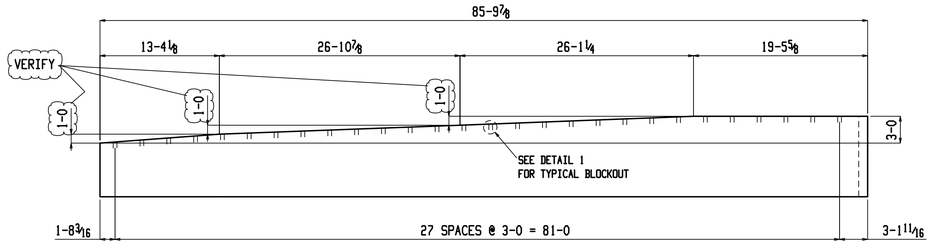
EAST RETAINING WALLS POCKET LAYOUTS





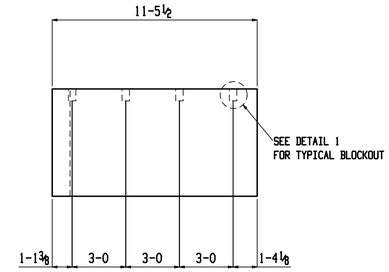
DETAIL 1

(TYPICAL CONCRETE BLOCKOUT DETAIL)



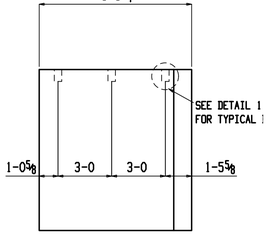
SECTION A-A

ELEVATION VIEW LOOKING WEST



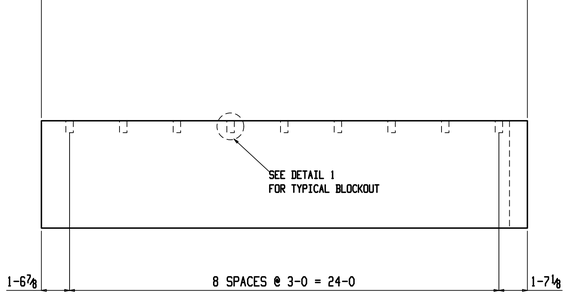
SECTION D-D

ELEVATION VIEW LOOKING WEST



SECTION B-B

ELEVATION VIEW LOOKING NORTH



SECTION C-C

ELEVATION VIEW LOOKING NORTH

△

△0 4-03-17: FOR APPROVAL

ATLAS IRON WORKS — EST. 1888

Project: WEBSTER UNIVERSITY

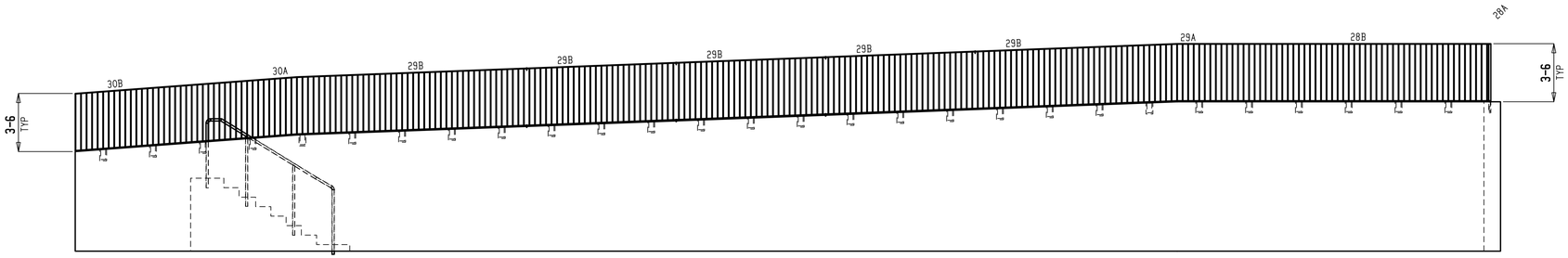
Customer: PARIC

Owner: WEBSTER UNIVERSITY

Location: WEBSTER GROVES, MO.

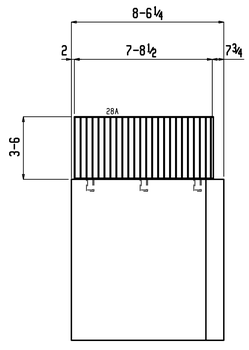
Dwn: KRT Date: 03-24-17 Ckd: BD Date: 4-03-17

Job No. A16013M DWG#: E7



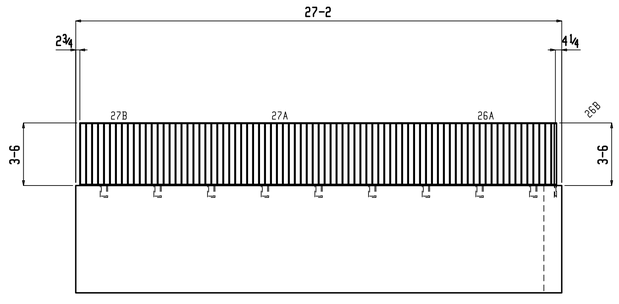
SECTION E-E

ELEVATION VIEW LOOKING WEST



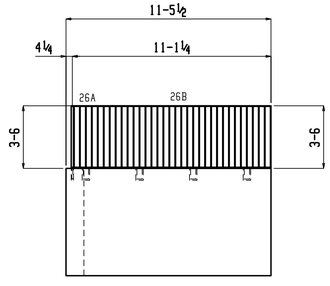
SECTION F-F

ELEVATION VIEW LOOKING NORTH



SECTION G-G

ELEVATION VIEW LOOKING NORTH



SECTION H-H

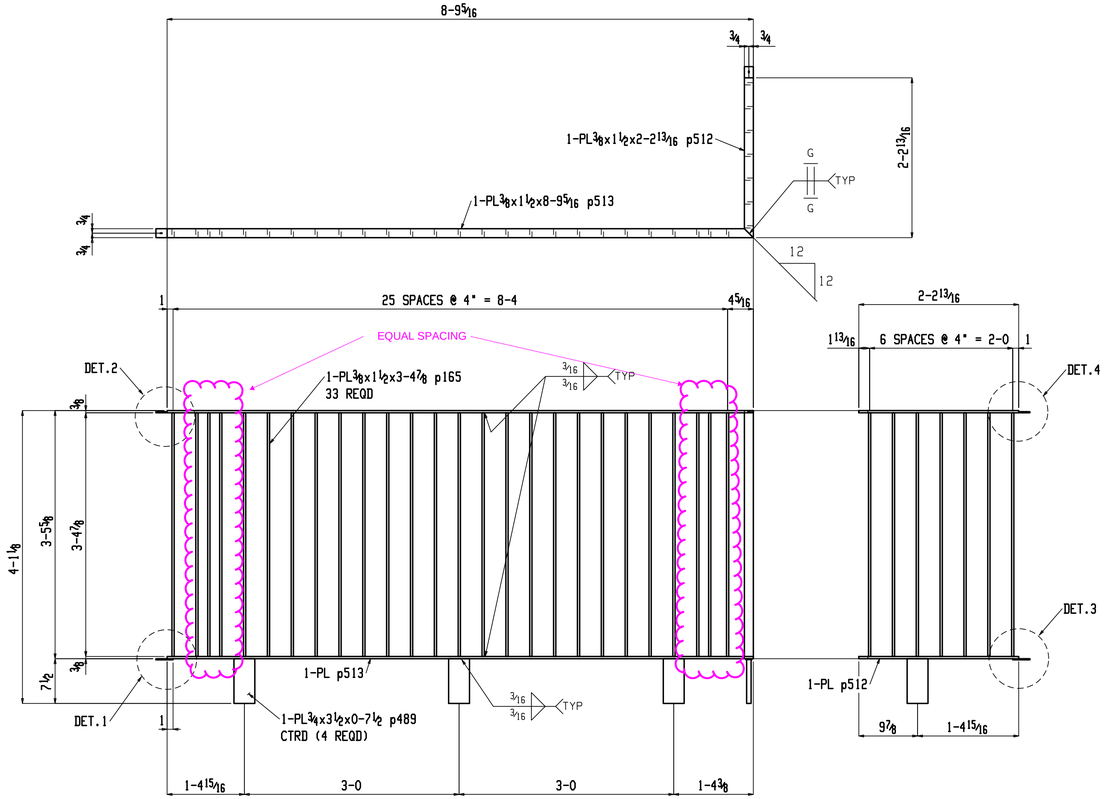
ELEVATION VIEW LOOKING WEST

△

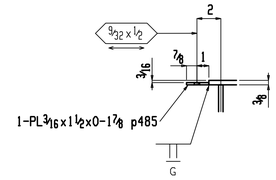
0 4-03-17: FOR APPROVAL

ATLAS IRON WORKS - EST. 1922

Project: WEBSTER UNIVERSITY
Customer: PARIC
Owner: WEBSTER UNIVERSITY
Location: WEBSTER GROVES, MO.
Dwn: KRT Date: 03-22-17 Ckd: BD Date: 4-03-17
Job No. A16013M DWG#: E8

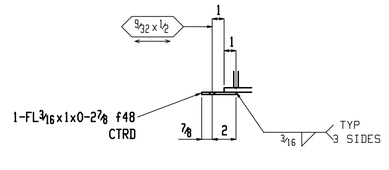


ONE GUARDRAIL 26A



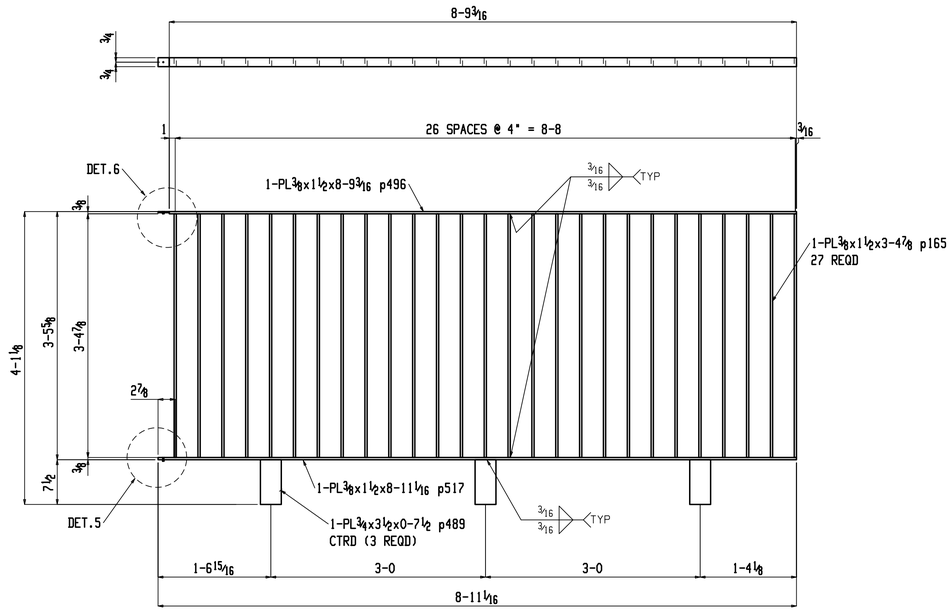
DETAIL 2 (AS SHOWN)

DETAIL 4 (OPP HAND)

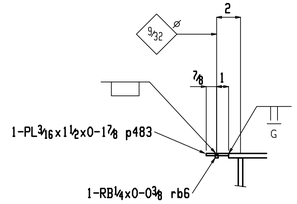


DETAIL 1 (AS SHOWN)

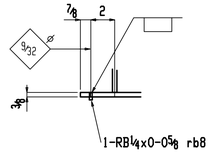
DETAIL 3 (OPP HAND)



ONE GUARDRAIL 26B



DETAIL 6



DETAIL 5

Provide product data.
Color to match
curtainwall mullions.

BILL OF MATERIAL

QTY TOTAL	QTY UNIT	PC MARK	DESCRIPTION	LENGTH		REMARKS
ONE		26A	GUARDRAIL			E1,E8
4	4	p489	PL 3/4x3 1/2	0	7 1/2	A36
2	2	p513	PL 3/8x1 1/2	8	9 5/16	A36
33	33	p165	PL 3/8x1 1/2	3	4 7/8	A36
2	2	p512	PL 3/8x1 1/2	2	2 13/16	A36
2	2	p485	PL 3/16x1 1/2	0	1 7/8	A36
2	2	f48	FL 3/16x1	0	2 7/8	A36
ONE		26B	GUARDRAIL			E1,E8
3	3	p489	PL 3/4x3 1/2	0	7 1/2	A36
1	1	p517	PL 3/8x1 1/2	8	11 1/16	A36
1	1	p496	PL 3/8x1 1/2	8	9 3/16	A36
27	27	p165	PL 3/8x1 1/2	3	4 7/8	A36
1	1	p483	PL 3/16x1 1/2	0	1 7/8	A36
1	1	rb8	RB 1/4	0	0 5/8	A36
1	1	rb6	RB 1/4	0	0 3/8	A36

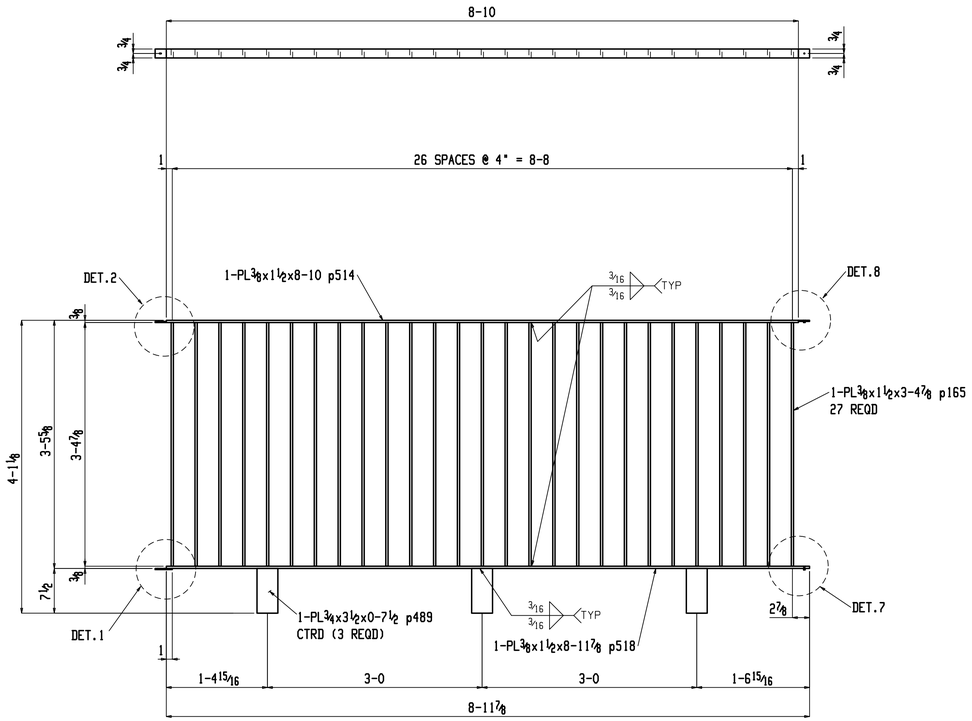
△

0 4-03-17: FOR APPROVAL

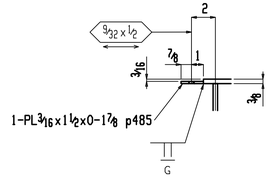
ATLAS IRON WORKS — EST. 1928

Sequence: -
Ref. E-Plans: SEE BOM
Material: ASTM A36 U.N.O.
Edge Dist.: 1 1/4" U.N.O.
Holes: 13/16" UNO
Bolts: NOTED
Cleaning: SSPC-SP7 BRUSH BLAST
Paint: EPOXY POWDER COAT PRIMER (2-3MILS)
POWDER-COAT FINISH (COLOR) COAT (2-3MILS)

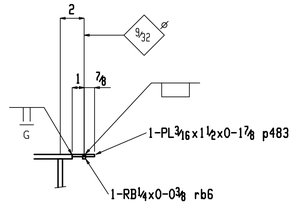
Project: WEBSTER UNIVERSITY
Customer: PARIC
Owner: WEBSTER UNIVERSITY
Location: WEBSTER GROVES, MO.
Dwn: KRT Date: 3-24-17 Ckd: BD Date: 4-03-17
Job No. A16013M
DWG#: 26



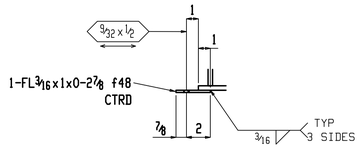
ONE GUARDRAIL 27A



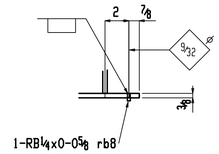
DETAIL 2



DETAIL 8



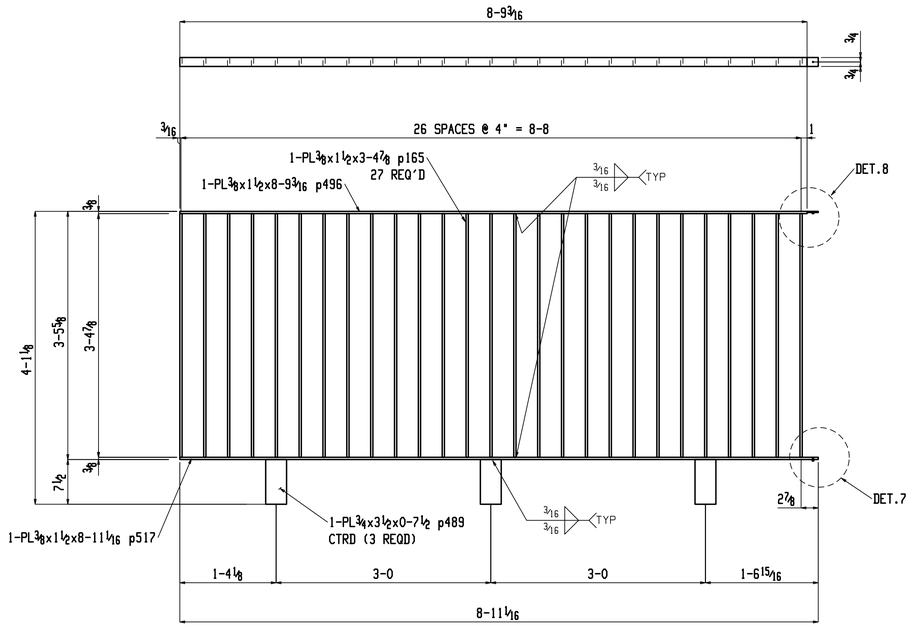
DETAIL 1



DETAIL 7

BILL OF MATERIAL

QTY TOTAL	QTY UNIT	PC MARK	DESCRIPTION	LENGTH		REMARKS
ONE		27A	GUARDRAIL			E1,E8
3	3	p489	PL 3/4x3 1/2	0	7 1/2	A36
1	1	p518	PL 3/8x1 1/2	8	11 7/8	A36
1	1	p514	PL 3/8x1 1/2	8	10	A36
27	27	p165	PL 3/8x1 1/2	3	4 7/8	A36
1	1	p483	PL 3/16x1 1/2	0	1 7/8	A36
1	1	p485	PL 3/16x1 1/2	0	1 7/8	A36
1	1	f48	FL 3/16x1	0	2 7/8	A36
1	1	rb8	RB 1/4	0	0 5/8	A36
1	1	rb6	RB 1/4	0	0 3/8	A36
ONE		27B	GUARDRAIL			E1,E8
3	3	p489	PL 3/4x3 1/2	0	7 1/2	A36
1	1	p517	PL 3/8x1 1/2	8	11 1/16	A36
1	1	p496	PL 3/8x1 1/2	8	9 3/16	A36
27	27	p165	PL 3/8x1 1/2	3	4 7/8	A36
1	1	p483	PL 3/16x1 1/2	0	1 7/8	A36
1	1	rb8	RB 1/4	0	0 5/8	A36
1	1	rb6	RB 1/4	0	0 3/8	A36



ONE GUARDRAIL 27B

Provide product data.
Color to match
curtainwall mullions.

△

△0 4-03-17: FOR APPROVAL

Sequence: - Ref. E-Plans: SEE BOM

Material: ASTM A36 U.N.O. Edge Dist.: 1 1/4" U.N.O.

Holes: 13/16" UNO Bolts: NOTED

Cleaning: SSPC-SP7 BRUSH BLAST

Paint: EPOXY POWDER COAT PRIMER (2-3MILS)
POWDER-COAT FINISH (COLOR) COAT (2-3MILS)

ATLAS IRON WORKS - EST. 1928

Project: WEBSTER UNIVERSITY

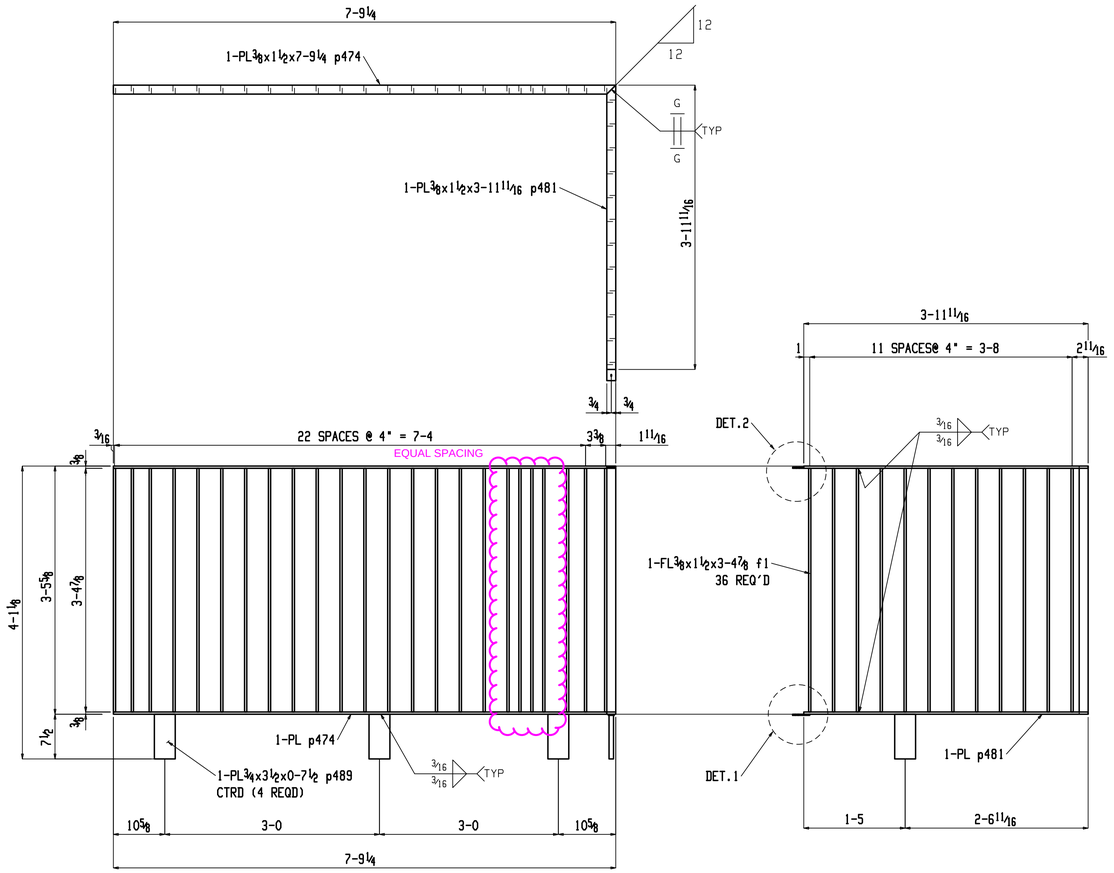
Customer: PARIC

Owner: WEBSTER UNIVERSITY

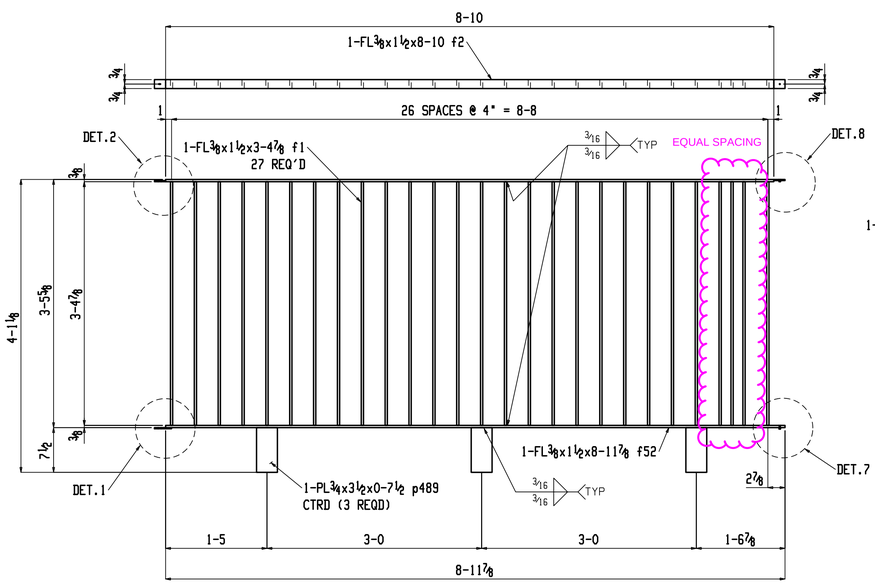
Location: WEBSTER GROVES, MO.

Dwn: KRT Date: 3-24-17 Ckd: BD Date: 4-03-17

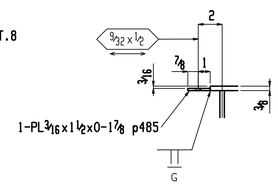
Job No. A16013M DWG#: 27



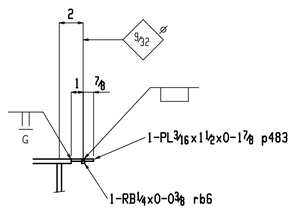
ONE GUARDRAIL 28A



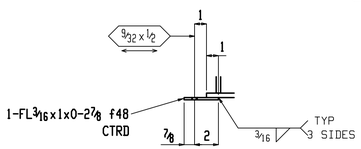
ONE GUARDRAIL 28B



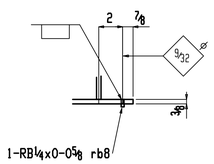
DETAIL 2



DETAIL 8



DETAIL 1



DETAIL 7

Provide product data. Color to match curtainwall mullions.

BILL OF MATERIAL

QTY TOTAL	QTY UNIT	PC MARK	DESCRIPTION	LENGTH		REMARKS
ONE		28A	GUARDRAIL			E1,E8
4	4	p489	PL¾x3½	0	7½	A36
2	2	p474	PL⅜x1½	7	9¼	A36
2	2	p481	PL⅜x1½	3	11 11/16	A36
36	36	f1	FL⅜x1½	3	4⅞	A36
1	1	p485	PL3/16x1½	0	1⅞	A36
1	1	f48	FL3/16x1	0	2⅞	A36
ONE		28B	GUARDRAIL			E1,E8
3	3	p489	PL¾x3½	0	7½	A36
1	1	f52	FL⅜x1½	8	11⅞	A36
1	1	f2	FL⅜x1½	8	10	A36
27	27	f1	FL⅜x1½	3	4⅞	A36
1	1	p483	PL3/16x1½	0	1⅞	A36
1	1	p485	PL3/16x1½	0	1⅞	A36
1	1	f48	FL3/16x1	0	2⅞	A36
1	1	rb8	RB¼	0	0⅝	A36
1	1	rb6	RB¼	0	0⅜	A36

△

△0 4-03-17: FOR APPROVAL

Sequence: - Ref. E-Plans: SEE BOM

Material: ASTM A36 U.N.O. Edge Dist.: 1¼" U.N.O.

Holes: 13/16" UNO Bolts: NOTED

Cleaning: SSPC-SP7 BRUSH BLAST

Paint: EPOXY POWDER COAT PRIMER (2-3MILS)
POWDER-COAT FINISH (COLOR) COAT (2-3MILS)

ATLAS IRON WORKS — EST. 1928

Project: WEBSTER UNIVERSITY

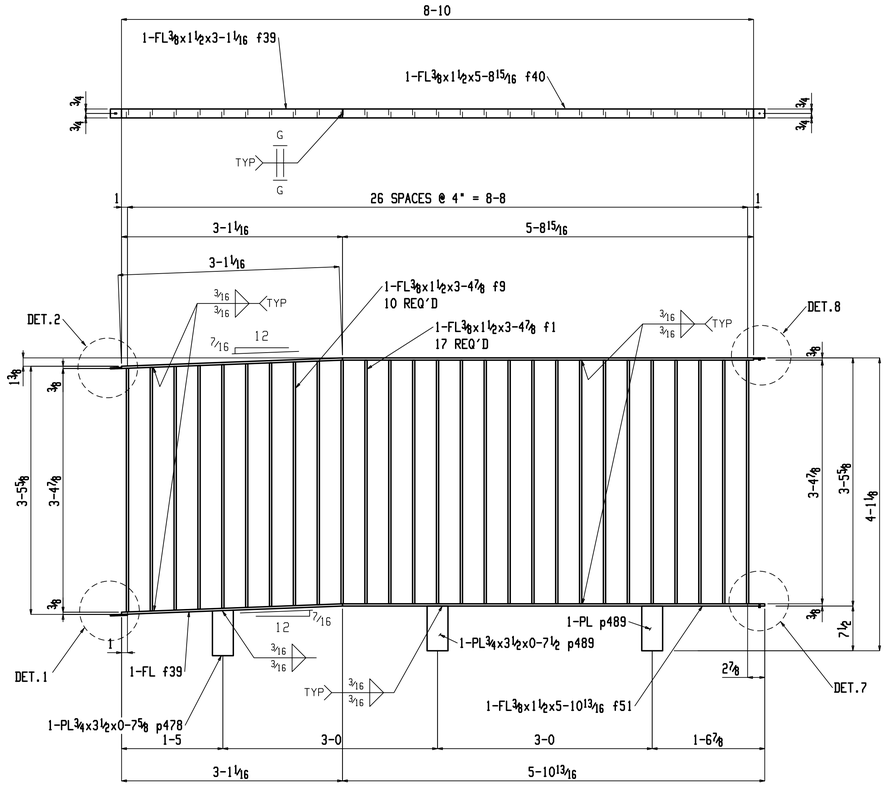
Customer: PARIC

Owner: WEBSTER UNIVERSITY

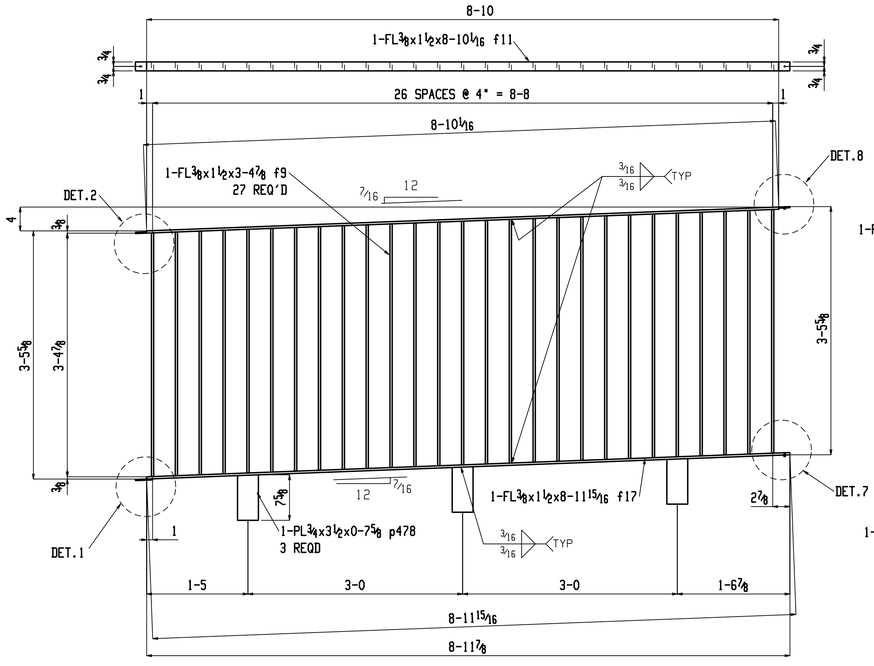
Location: WEBSTER GROVES, MO.

Dwn: KRT Date: 3-24-17 Ckd: BD Date: 4-03-17

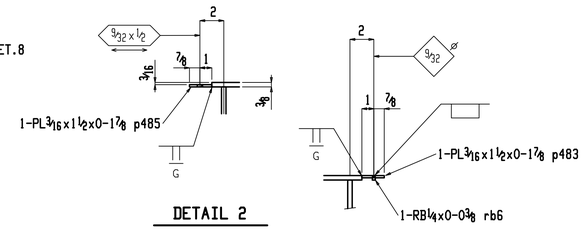
Job No. A16013M DWG#: 28



ONE GUARDRAIL 29A

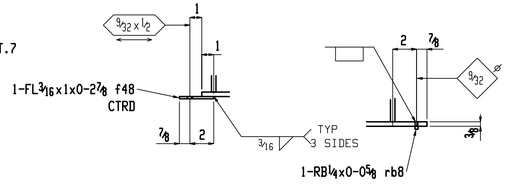


5 GUARDRAILS 29B



DETAIL 2

DETAIL 8



DETAIL 1

DETAIL 7

BILL OF MATERIAL

QTY TOTAL	QTY UNIT	PC MARK	DESCRIPTION	LENGTH		REMARKS
ONE		29A	GUARDRAIL			EI,E8
1	1	p478	PL 3/4x3 1/2	0	7 5/8	A36
2	2	p489	PL 3/4x3 1/2	0	7 1/2	A36
10	10	f9	FL 3/8x1 1/2	3	4 7/8	A36
1	1	f51	FL 3/8x1 1/2	5	10 13/16	A36
1	1	f40	FL 3/8x1 1/2	5	8 15/16	A36
17	17	f1	FL 3/8x1 1/2	3	4 7/8	A36
2	2	f39	FL 3/8x1 1/2	3	1 1/16	A36
1	1	p483	PL 3/16x1 1/2	0	1 7/8	A36
1	1	p485	PL 3/16x1 1/2	0	1 7/8	A36
1	1	f48	FL 3/16x1	0	2 7/8	A36
1	1	rb8	RB 1/4	0	0 5/8	A36
1	1	rb6	RB 1/4	0	0 3/8	A36
5		29B	GUARDRAIL			EI,E8
15	3	p478	PL 3/4x3 1/2	0	7 5/8	A36
135	27	f9	FL 3/8x1 1/2	3	4 7/8	A36
5	1	f17	FL 3/8x1 1/2	8	11 15/16	A36
5	1	f11	FL 3/8x1 1/2	8	10 1/16	A36
5	1	p485	PL 3/16x1 1/2	0	1 7/8	A36
5	1	p483	PL 3/16x1 1/2	0	1 7/8	A36
5	1	f48	FL 3/16x1	0	2 7/8	A36
5	1	rb8	RB 1/4	0	0 5/8	A36
5	1	rb6	RB 1/4	0	0 3/8	A36

Provide product data.
Color to match
curtainwall mullions.

△

△0 4-03-17: FOR APPROVAL

Sequence: - Ref. E-Plans: SEE BOM

Material: ASTM A36 U.N.O. Edge Dist.: 1 1/4" U.N.O.

Holes: 13/16" UNO Bolts: NOTED

Cleaning: SSPC-SP7 BRUSH BLAST

Paint: EPOXY POWDER COAT PRIMER (2-3MILS)
POWDER-COAT FINISH (COLOR) COAT (2-3MILS)

ATLAS IRON WORKS - EST. 1925

Project: WEBSTER UNIVERSITY

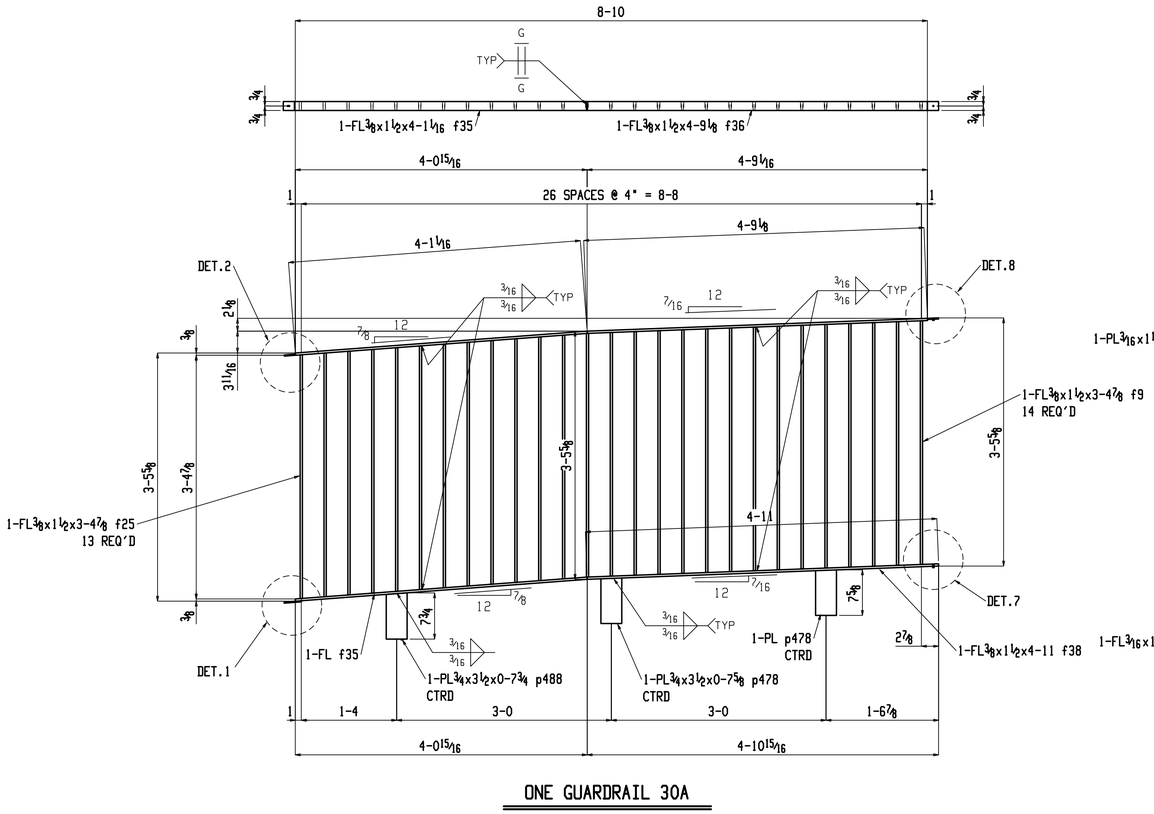
Customer: PARIC

Owner: WEBSTER UNIVERSITY

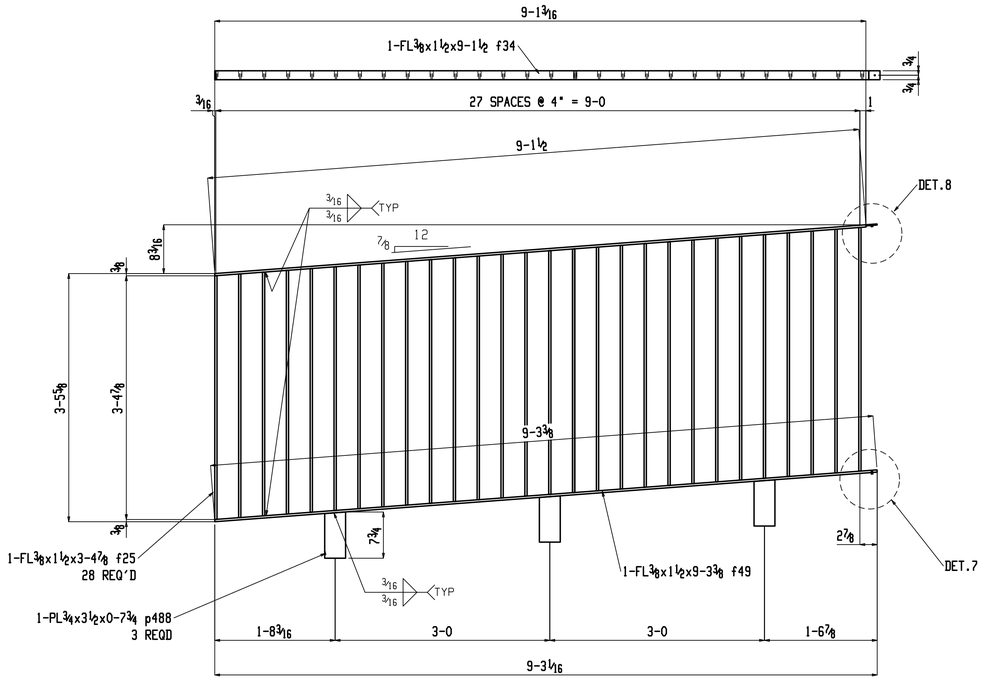
Location: WEBSTER GROVES, MO.

Dwn: KRT Date: 3-24-17 Ckd: BD Date: 4-03-17

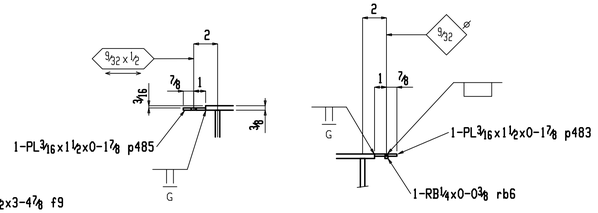
Job No. A16013M DWG#: 29



ONE GUARDRAIL 30A

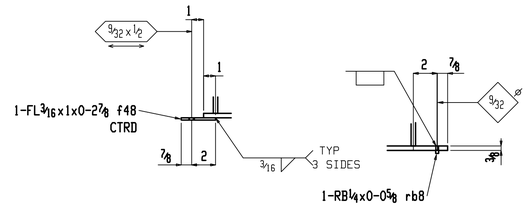


ONE GUARDRAIL 30B



DETAIL 2

DETAIL 8



DETAIL 1

DETAIL 7

BILL OF MATERIAL

QTY TOTAL	QTY UNIT	PC MARK	DESCRIPTION	LENGTH		REMARKS
ONE		30A	GUARDRAIL			EI,E8
2	2	p478	PL 3/4x3 1/2	0	7 5/8	A36
1	1	p488	PL 3/4x3 1/2	0	7 3/4	A36
2	2	f35	FL 3/8x1 1/2	4	1 1/16	A36
13	13	f25	FL 3/8x1 1/2	3	4 7/8	A36
14	14	f9	FL 3/8x1 1/2	3	4 7/8	A36
1	1	f38	FL 3/8x1 1/2	4	11	A36
1	1	f36	FL 3/8x1 1/2	4	9 1/8	A36
1	1	p485	PL 3/16x1 1/2	0	1 7/8	A36
1	1	p483	FL 3/16x1 1/2	0	1 7/8	A36
1	1	f48	FL 3/16x1	0	2 7/8	A36
1	1	rb8	RB 1/4	0	05/8	A36
1	1	rb6	RB 1/4	0	03/8	A36
ONE		30B	GUARDRAIL			EI,E8
3	3	p488	PL 3/4x3 1/2	0	7 3/4	A36
1	1	f49	FL 3/8x1 1/2	9	3 3/8	A36
1	1	f34	FL 3/8x1 1/2	9	1 1/2	A36
28	28	f25	FL 3/8x1 1/2	3	4 7/8	A36
1	1	p483	FL 3/16x1 1/2	0	1 7/8	A36
1	1	rb8	RB 1/4	0	05/8	A36
1	1	rb6	RB 1/4	0	03/8	A36

Provide product data.
Color to match
curtainwall mullions.

0 4-03-17: FOR APPROVAL

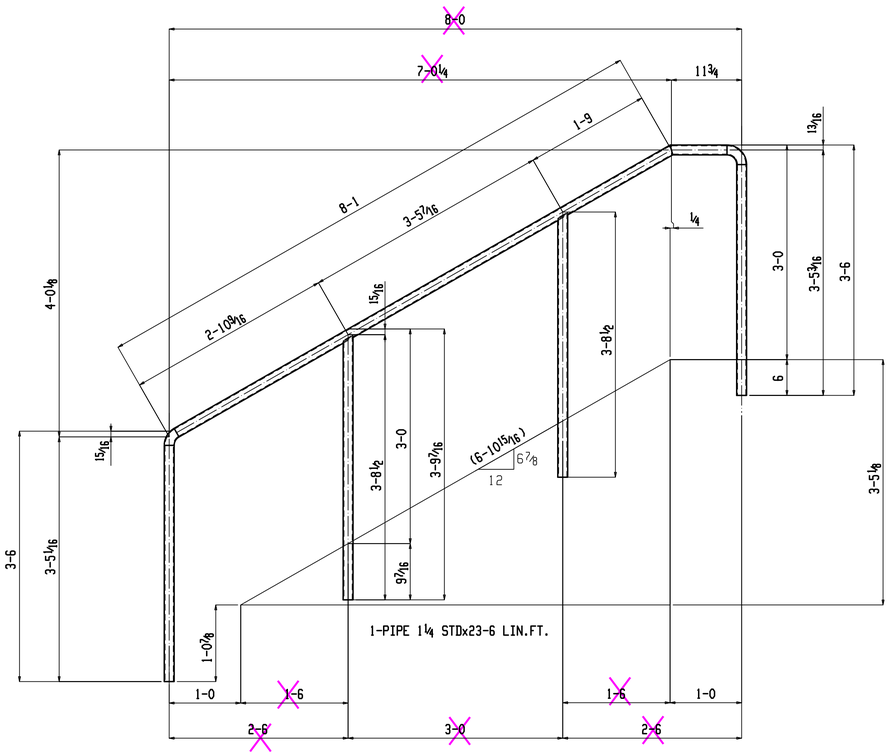
Sequence: - Ref. E-Plans: SEE BOM
Material: ASTM A36 U.N.O. Edge Dist.: 1 1/4" U.N.O.
Holes: 13/16" UNO Bolts: NOTED
Cleaning: SSPC-SP7 BRUSH BLAST
Paint: EPOXY POWDER COAT PRIMER (2-3MILS)
POWDER-COAT FINISH (COLOR) COAT (2-3MILS)

ATLAS IRON WORKS — EST. 1928

Project: WEBSTER UNIVERSITY
Customer: PARIC
Owner: WEBSTER UNIVERSITY
Location: WEBSTER GROVES, MO.
Dwn: KRT Date: 3-24-17 Ckd: BD Date: 4-03-17
Job No. A16013M DWG#: 30

BILL OF MATERIAL

QTY TOTAL	QTY UNIT	PC MARK	DESCRIPTION	LENGTH		REMARKS
2		31A	HANDRAIL			E1
2	1	31A	PIPE 1¼ STD	23	6	LIN.FT. A53



1-PIPE 1¼ STDx23'-6 LIN.FT.

2 HANDRAILS 31A

REVISE PER COMMENTS ON DWG# E1

Provide product data. Color to match curtainwall mullions.

△

△0 4-03-17: FOR APPROVAL

ATLAS IRON WORKS — EST. 1928

Sequence: – Ref. E-Plans: SEE BOM

Material: ASTM A36 U.N.O. Edge Dist.: 1¼" U.N.O.

Holes: 13/16" UNO Bolts: NOTED

Cleaning: SSPC-SP7 BRUSH BLAST

Paint: EPOXY POWDER COAT PRIMER (2-3MILS)
POWDER-COAT FINISH (COLOR) COAT (2-3MILS)

Project: WEBSTER UNIVERSITY

Customer: PARIC

Owner: WEBSTER UNIVERSITY

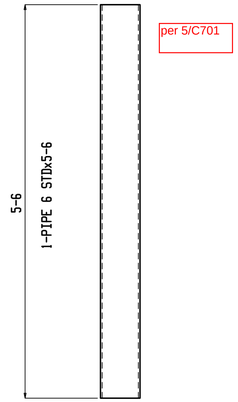
Location: WEBSTER GROVES, MO.

Dwn: KRT Date: 3-24-17 Ckd: BD Date: 4-03-17

Job No. A16013M DWG#: 31

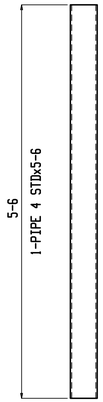
BILL OF MATERIAL

QTY TOTAL	QTY UNIT	PC MARK	DESCRIPTION	LENGTH		REMARKS
20		32A	BOLLARD			
20	1	32A	PIPE 6 STD	5	6	A53
2		32B	BOLLARD			
2	1	32B	PIPE 4 STD	5	6	A53



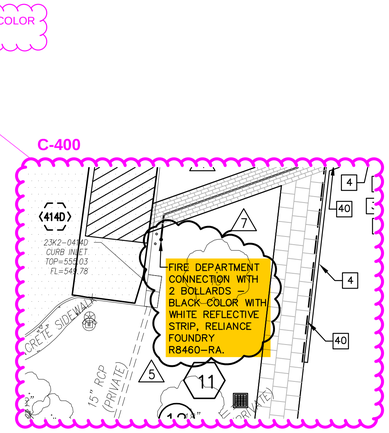
20 BOLLARDS 32A

REFERENCE DRAWING: A0101.A



2 BOLLARDS 32B

REFERENCE DRAWING: FP0601



VERIFY

ACCEPTABLE FOR BOLLARD TYPE 32A ON EAST SIDE OF BUILDING.

△

0 4-03-17: FOR APPROVAL

Sequence: - Ref. E-Plans: SEE BOM

Material: ASTM A36 U.N.O. Edge Dist.: 1¼" U.N.O.

Holes: 13/16" UNO Bolts: NOTED

Cleaning: SSPC-SP7 BRUSH BLAST

Paint: EPOXY POWDER COAT PRIMER (2-3MILS)
POWDER-COAT FINISH BLACK COAT (2-3MILS)

ATLAS IRON WORKS — EST. 1925

Project: WEBSTER UNIVERSITY

Customer: PARIC

Owner: WEBSTER UNIVERSITY

Location: WEBSTER GROVES, MO.

Dwn: KRT Date: 3-24-17 Ckd: BD Date: 4-03-17

Job No. A16013M DWG#: 32