

ITEM NO.	Description	PART NUMBER	QTY.
1	ENG-310-01	Block Left End	1
2	ENG-310-02	Block Left Top	1
3	ENG-310-03	Block Left Angle	1
4	ENG-310-04	Block Left Piston Top	1
5	ENG-310-05	Block left Side	1
6	ENG-310-06	Block Gear Side	1
7	ENG-310-07	Block Gear Back	1
8	ENG-310-08	Pyston Cylinder	6
9	ENG-310-09	Piston Cylinder Cap	6
10	ENG-310-10	Block Base	1
11	ENG-310-11	Block Right Side	1
12	ENG-310-12	Block Right Piston Top	1
13	ENG-310-13	Block Right Angle	1
14	ENG-310-014	Block Right Top 2	1
15	ENG-310-15	Block Right Top 1	1
16	ENG-310-16	Block Right End 2	1
17	ENG-310-17	Block Crank Side 2	1
18	ENG-310-18	Block Crank Bottom	1
19	ENG-310-19	Block Crank Side	1

Note:
• Questions? Email Joshua.Sapers@students.olin.edu

ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994

TOLERANCES UNLESS OTHERWISE SPECIFIED:
X.X ±0.03
X.XX ±0.01
X.XXX ±0.005

±0.5° 125/

REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX

UNLESS OTHERWISE SPECIFIED:

QTY: 1

DIMENSIONS ARE IN INCHES.

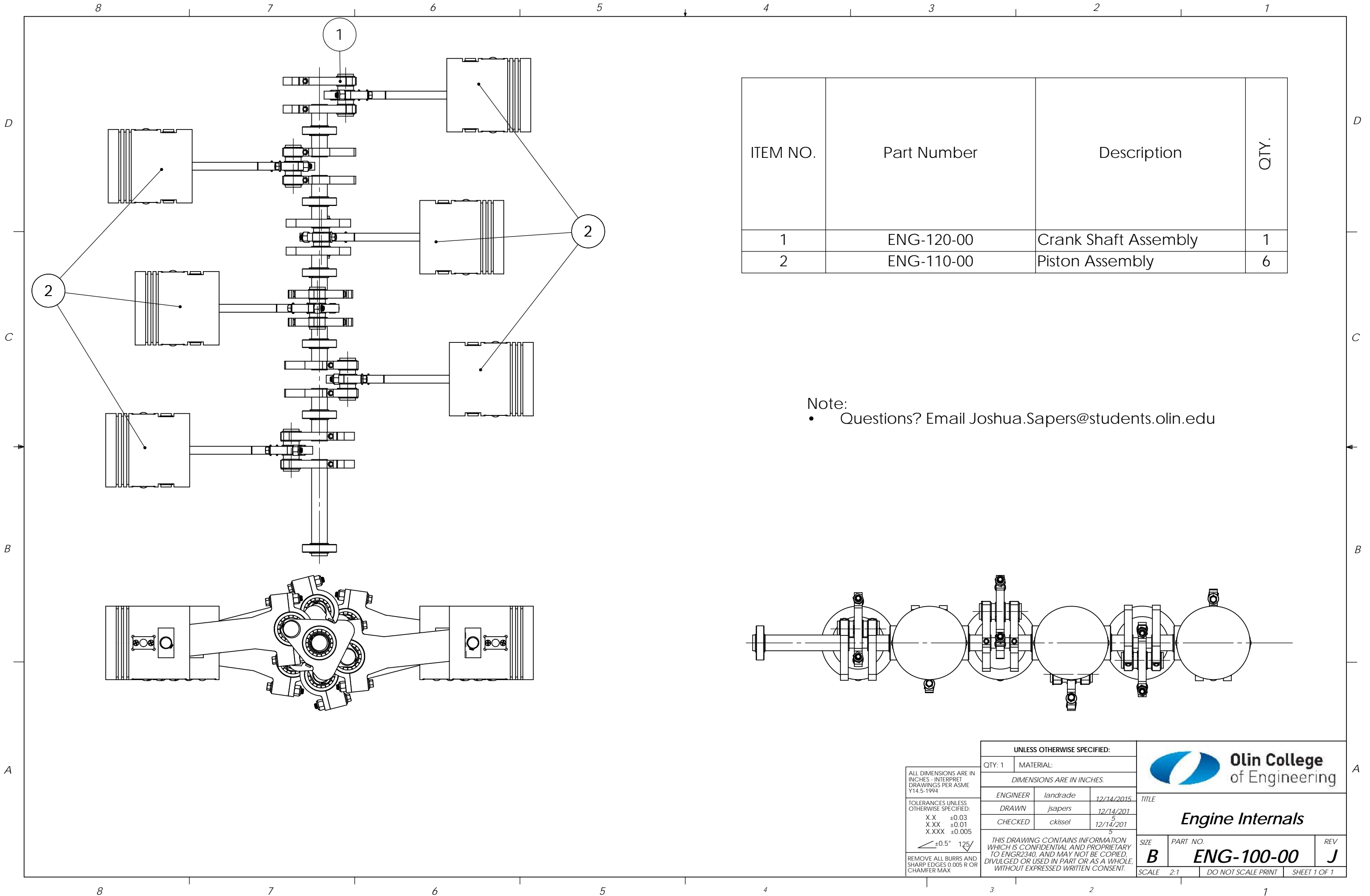
ENGINEER	jsapers	12/14/2015
DRAWN	jsapers	12/14/2015
CHECKED	ckissel	12/14/2015

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Olin College
of Engineering

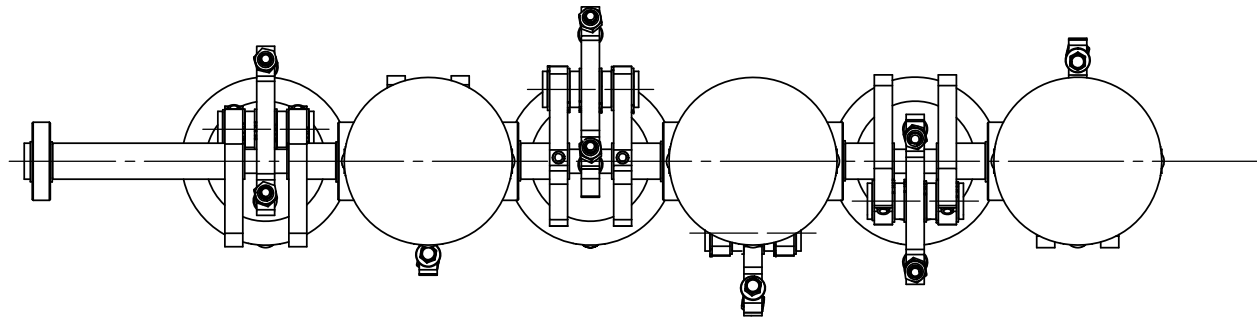
TITLE
Block Weld Assem

SIZE B	PART NO. ENG-310-00	REV A
SCALE 2:1	DO NOT SCALE PRINT	SHEET 1 OF 1



ITEM NO.	Part Number	Description	QTY.
1	ENG-120-00	Crank Shaft Assembly	1
2	ENG-110-00	Piston Assembly	6

Note:
• Questions? Email Joshua.Sapers@students.olin.edu



ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994

TOLERANCES UNLESS OTHERWISE SPECIFIED:
X.X ±0.03
X.XX ±0.01
X.XXX ±0.005

±0.5° 125/

REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX

UNLESS OTHERWISE SPECIFIED:

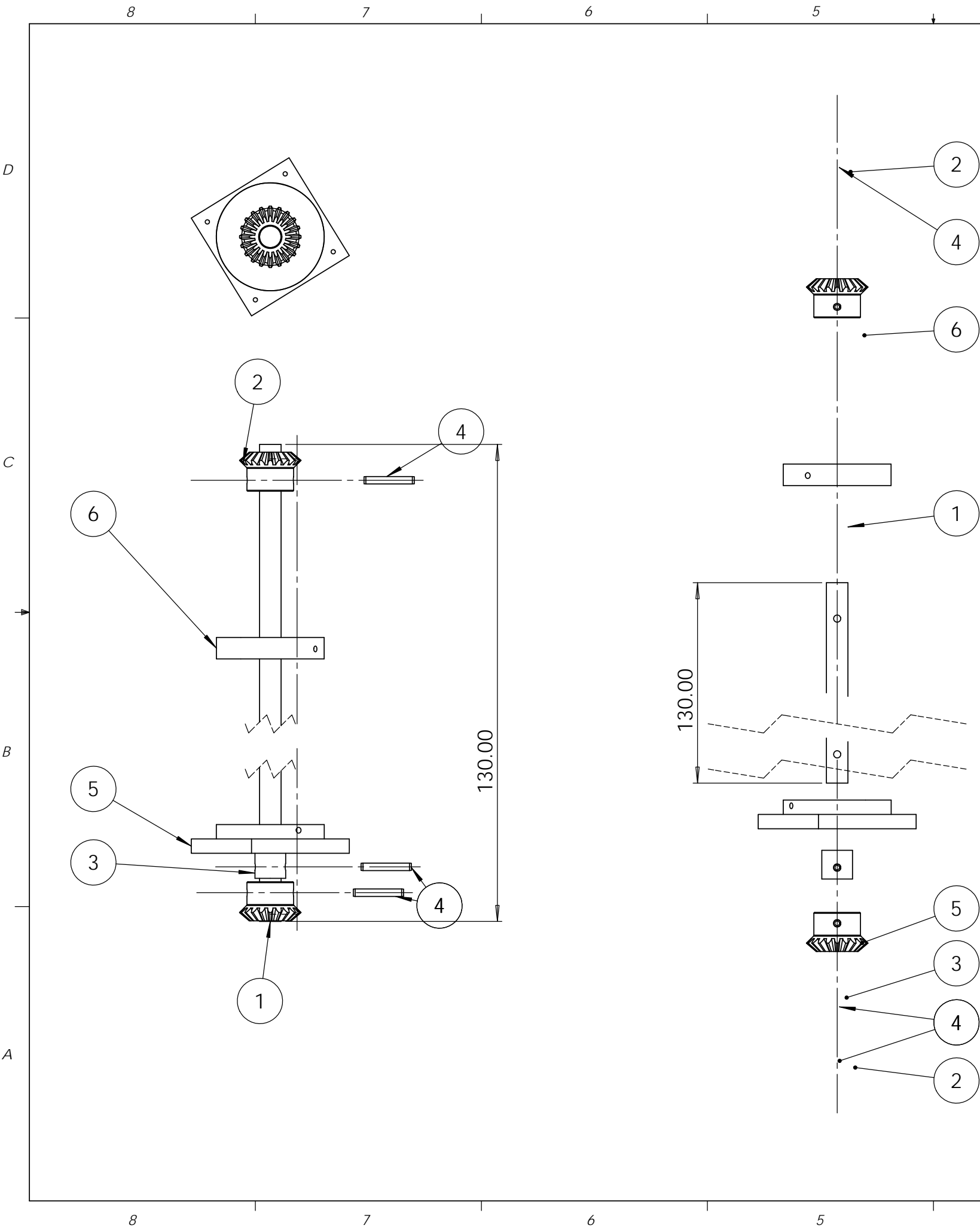
QTY: 1	MATERIAL:	
DIMENSIONS ARE IN INCHES.		
ENGINEER	landrade	12/14/2015
DRAWN	jsapers	12/14/2015
CHECKED	ckissel	12/14/2015

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TITLE


Engine Internals

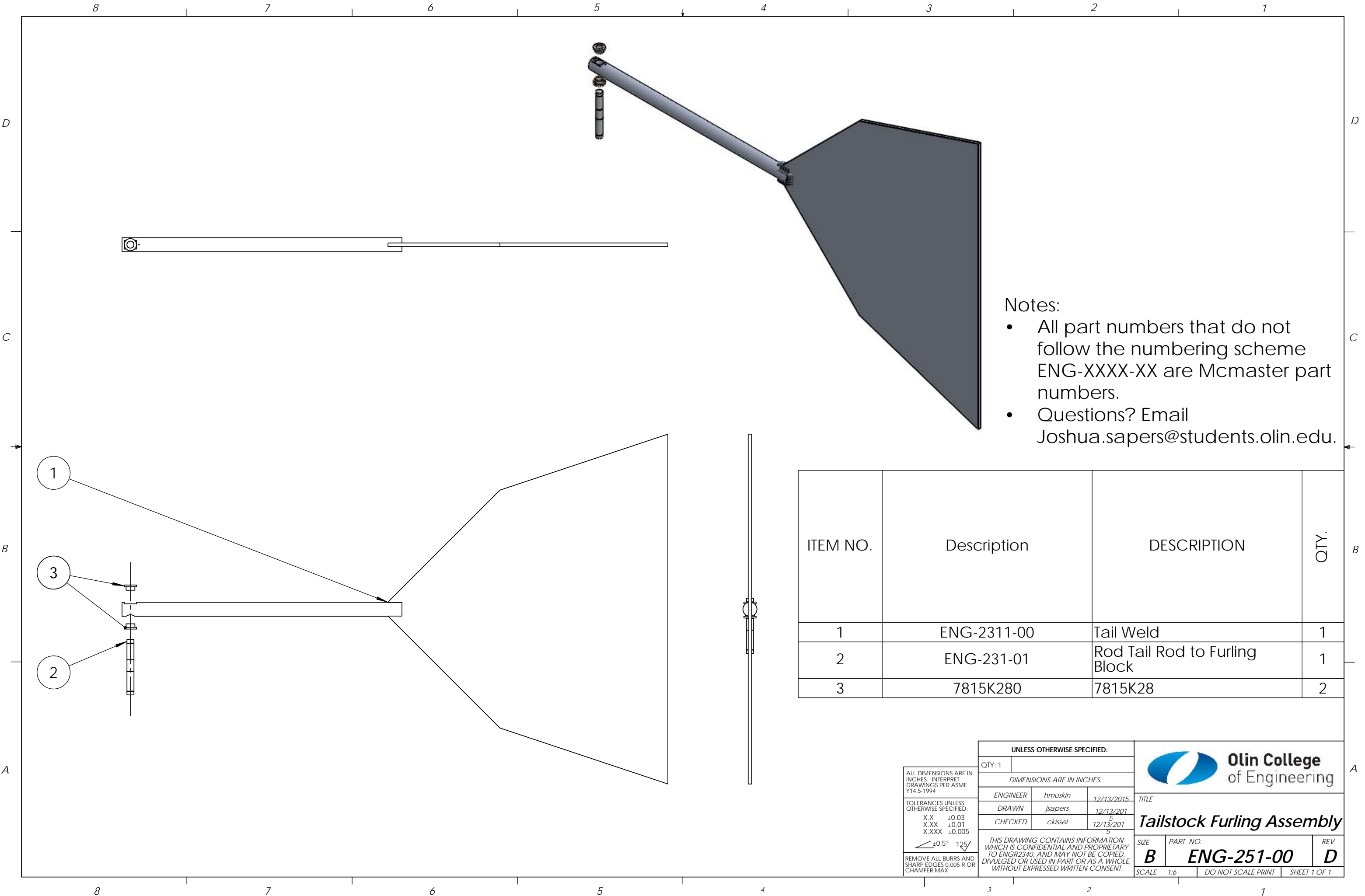
SIZE	PART NO.	REV
B	ENG-100-00	J
SCALE 2:1	DO NOT SCALE PRINT	SHEET 1 OF 1



ITEM NO.	Description	PART NUMBER	QTY.
1	ENG-220-02	driveshaft .75in long	1
2	6529K250	miter gear 20 teeth 10 pitch .75in shaft	2
3	ENG-220-01	.75in collar for driveshaft	1
4	90692A748	90692A748	3
5	ENG-222-00	upper bearing housing assembly	1
6	ENG-221-00	lower bearing assembly	1

- Notes:
- All part numbers that do not follow the numbering scheme ENG-XXXX-XX are McMaster part numbers.
 - Questions? Email Joshua.sapers@students.olin.edu.

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	QTY: 1					
	DIMENSIONS ARE IN INCHES.					
	ENGINEER	hmskin	12/13/2015			
TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005	DRAWN	jsapers	12/13/201	TITLE Outer Shaft Assembly		
	CHECKED	ckissel	12/13/201			
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REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX			SIZE B		PART NO. ENG-240-00	REV T
±0.5° 125/			SCALE 2:1		DO NOT SCALE PRINT	SHEET 1 OF 1



- Notes:
- All part numbers that do not follow the numbering scheme ENG-XXXX-XX are McMaster part numbers.
 - Questions? Email Joshua.sapers@students.olin.edu.

ITEM NO.	Description	DESCRIPTION	QTY.
1	ENG-2311-00	Tail Weld	1
2	ENG-231-01	Rod Tail Rod to Furling Block	1
3	7815K280	7815K28	2

ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994

TOLERANCES UNLESS OTHERWISE SPECIFIED:
X.X ±0.03
X.XX ±0.01
X.XXX ±0.005

±0.5° 125/

REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX

UNLESS OTHERWISE SPECIFIED:

QTY: 1

DIMENSIONS ARE IN INCHES.

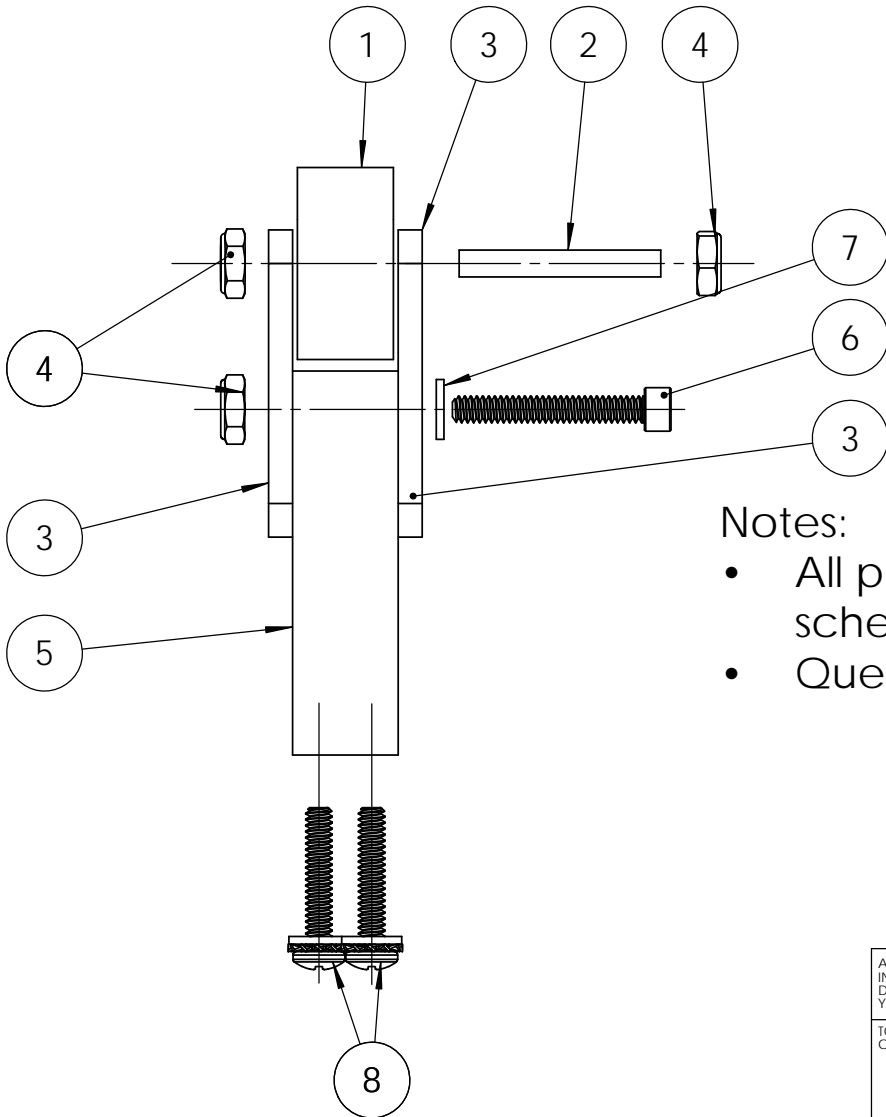
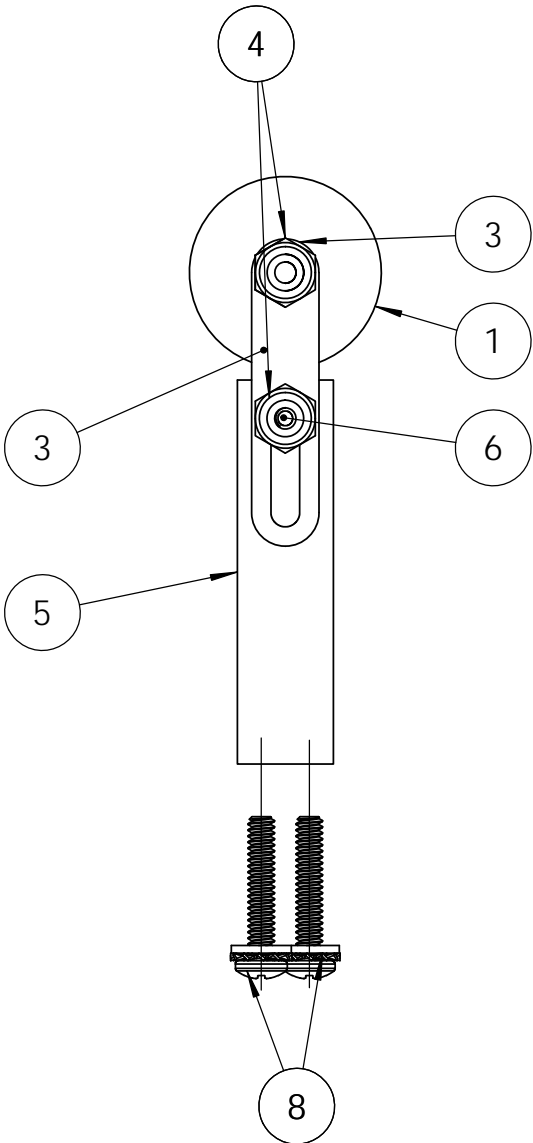
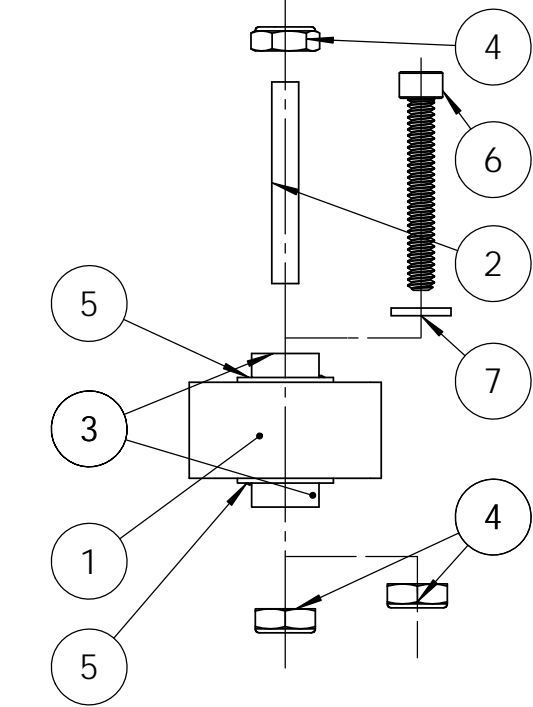
ENGINEER	hmuskin	12/13/2015
DRAWN	jsapers	12/13/2015
CHECKED	ckissel	12/13/2015

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of Engineering

TITLE
Tailstock Furling Assembly

SIZE B	PART NO. ENG-251-00	REV D
SCALE 1:6	DO NOT SCALE PRINT	SHEET 1 OF 1



- Notes:
- All part numbers that do not follow the numbering scheme ENG-XXXX-XX are McMaster part numbers.
 - Questions? Email Joshua.sapers@students.olin.edu.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ENG-900-02	Tensioner Roller	1
2	ENG-900-01	Tensioner Pivot	1
3	ENG-900-03	Tensioner Slide	2
4	90633A007	90633A007	3
5	ENG-900-04	Tensioner Stand	1
6	91274A028	91274A028	1
7	92141A008	92141A008	1
8	ENG-220-00	6-32 screw assembly	2

ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994

TOLERANCES UNLESS OTHERWISE SPECIFIED:

X.X ±0.03
X.XX ±0.01
X.XXX ±0.005

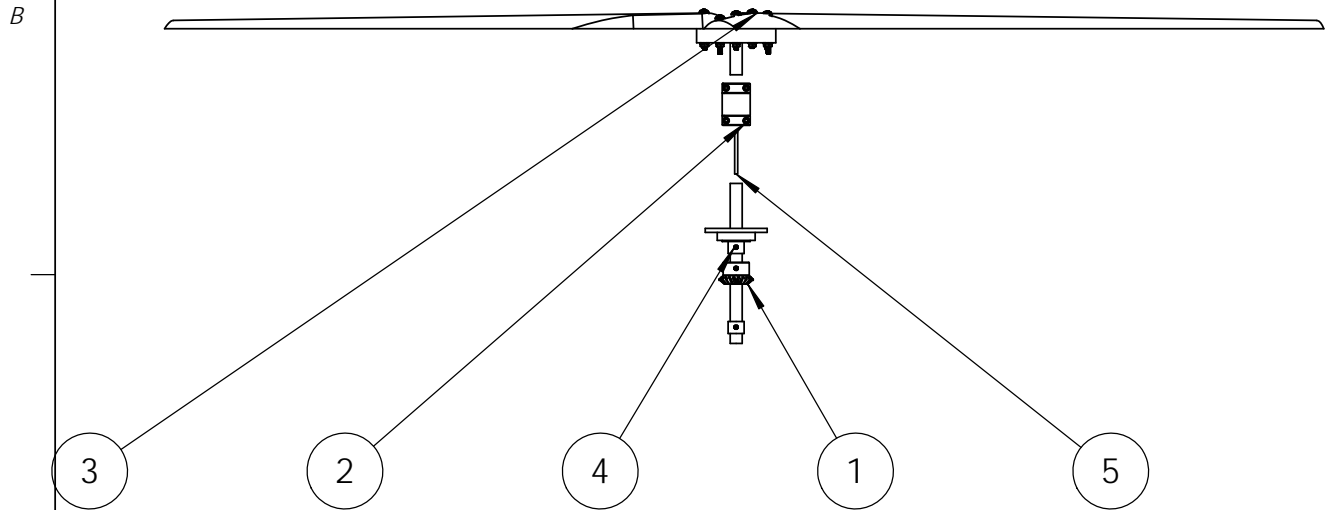
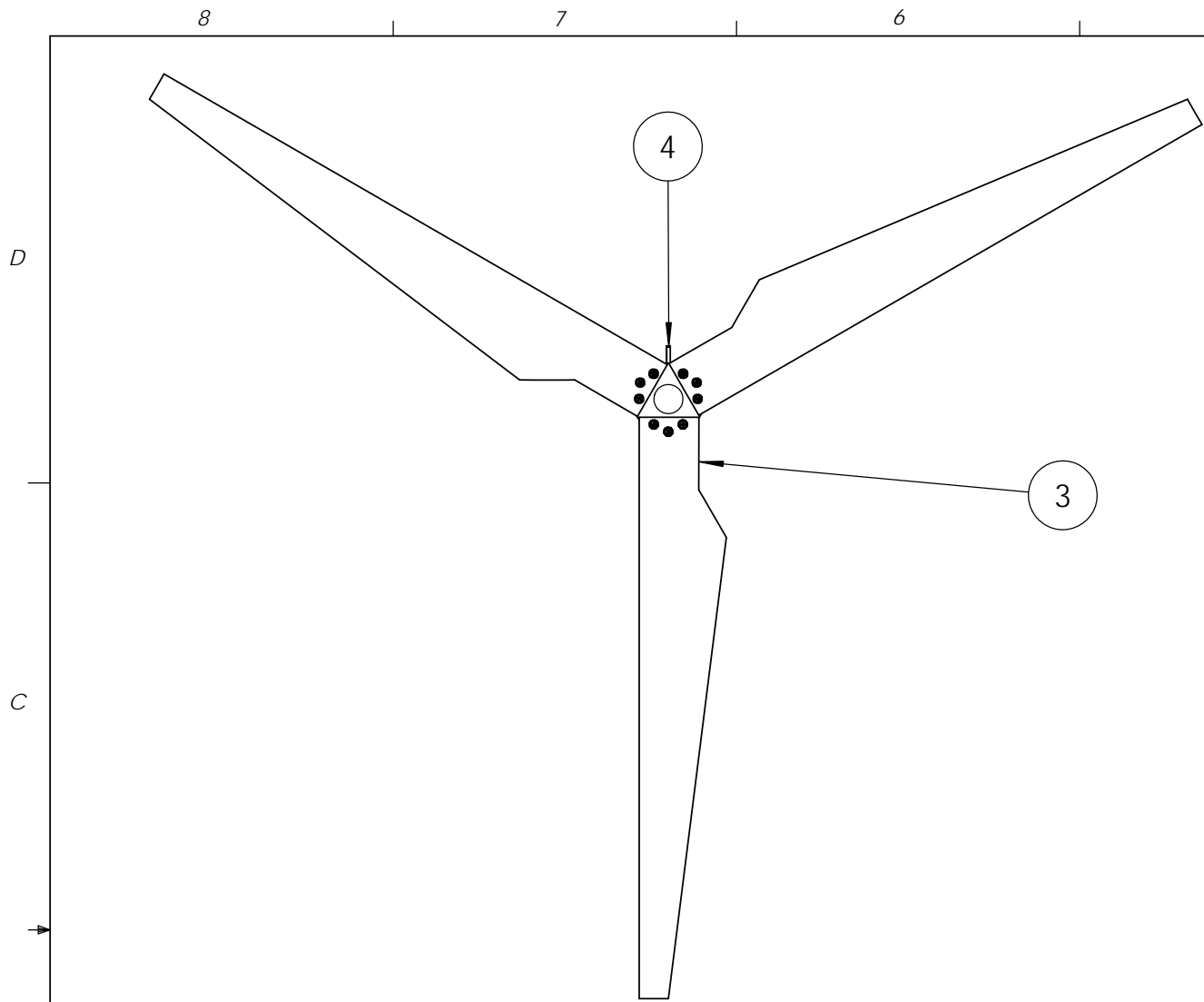
±0.5° 125/

REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX

UNLESS OTHERWISE SPECIFIED:		
QTY: 1		
DIMENSIONS ARE IN INCHES.		
ENGINEER	landrade	12/13/2015
DRAWN	jsapers	12/13/201
CHECKED	ckissel	12/13/201
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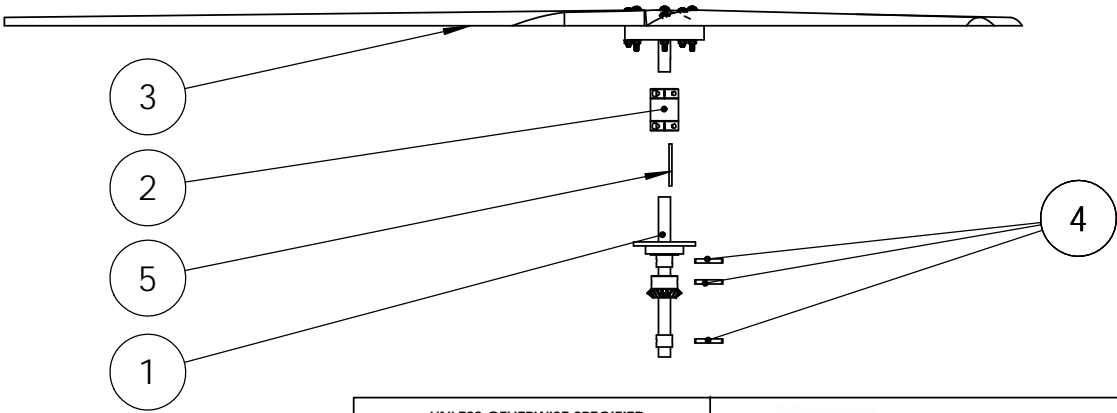
TITLE		
Timing Belt Tensioner		
SIZE	PART NO.	REV
B	ENG-900-00	A
SCALE	2:1	SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	ENG-2532-00	Turbine Power Shaft Assembly	1
2	9800T300	9800T3	1
3	ENG-2531-00	Engine Turbine Blades and Center Assembly	1
4	90692A748	90692A748	3
5	ENG-253-01	key for coupler turbine	1

Notes:

- All part numbers that do not follow the numbering scheme ENG-XXXX-XX are McMaster part numbers.
- Questions? Email Joshua.sapers@students.olin.edu.



ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994

TOLERANCES UNLESS OTHERWISE SPECIFIED:

X.X	±0.03
X.XX	±0.01
X.XXX	±0.005

±0.5° 125°

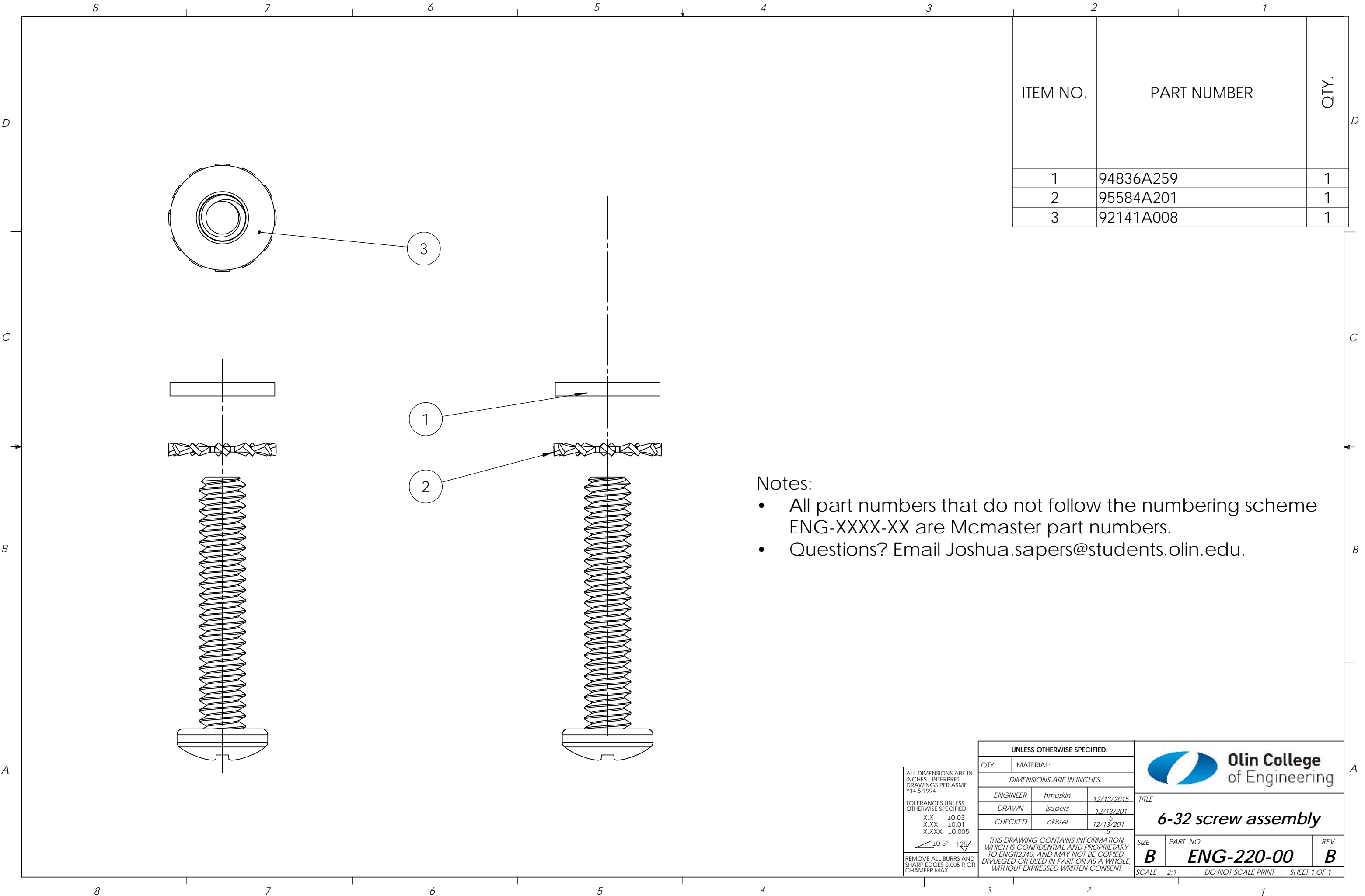
REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX

UNLESS OTHERWISE SPECIFIED:		
QTY: 1		
DIMENSIONS ARE IN INCHES.		
ENGINEER	hmskin	12/13/2015
DRAWN	jsapers	12/13/2015
CHECKED	ckissel	12/13/2015
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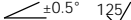
TITLE: **Turbine blades and shaft assembly**

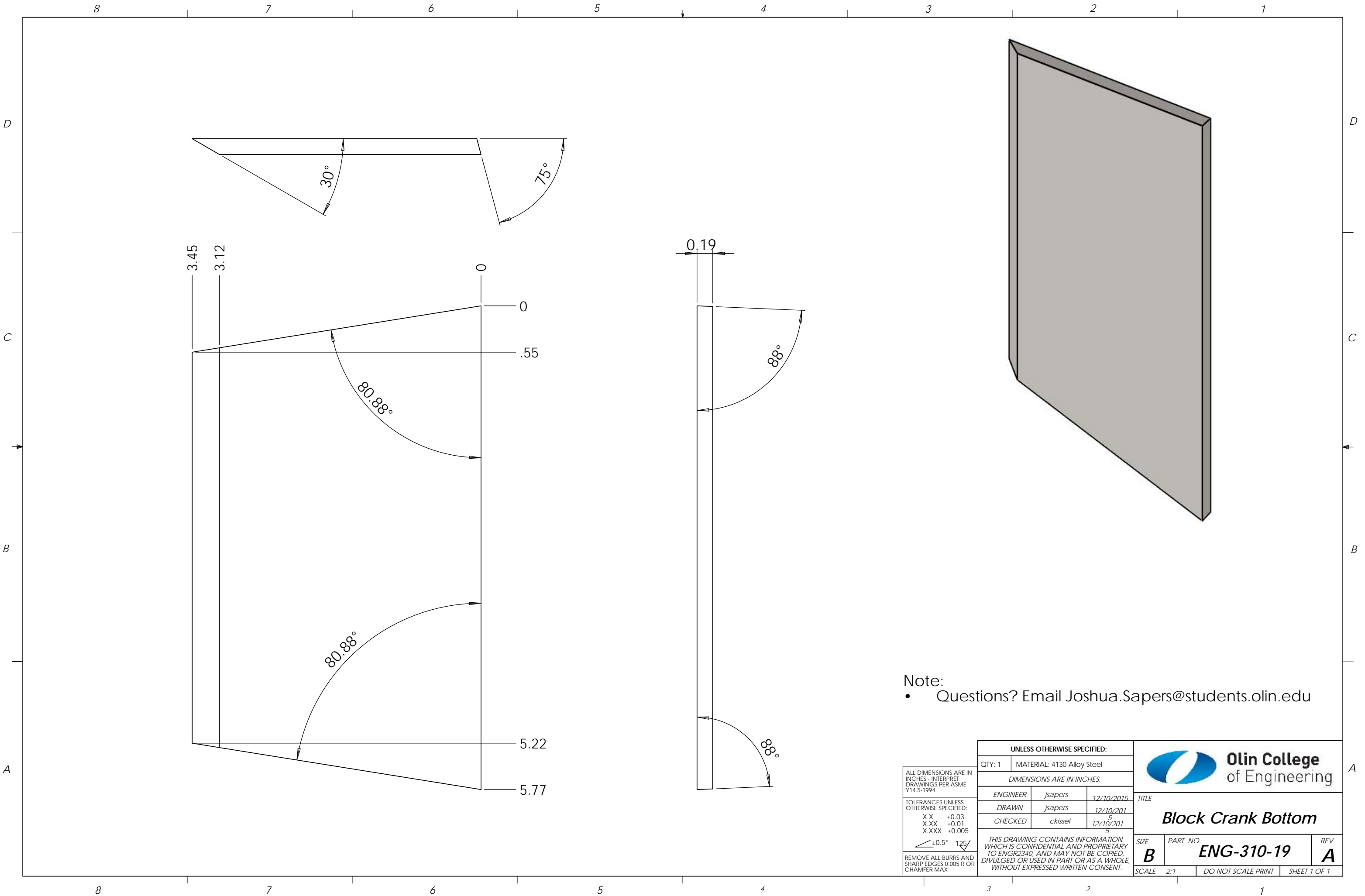
SIZE	PART NO.	REV
B	ENG-253-00	H
SCALE	1:12	DO NOT SCALE PRINT
SHEET 1 OF 1		

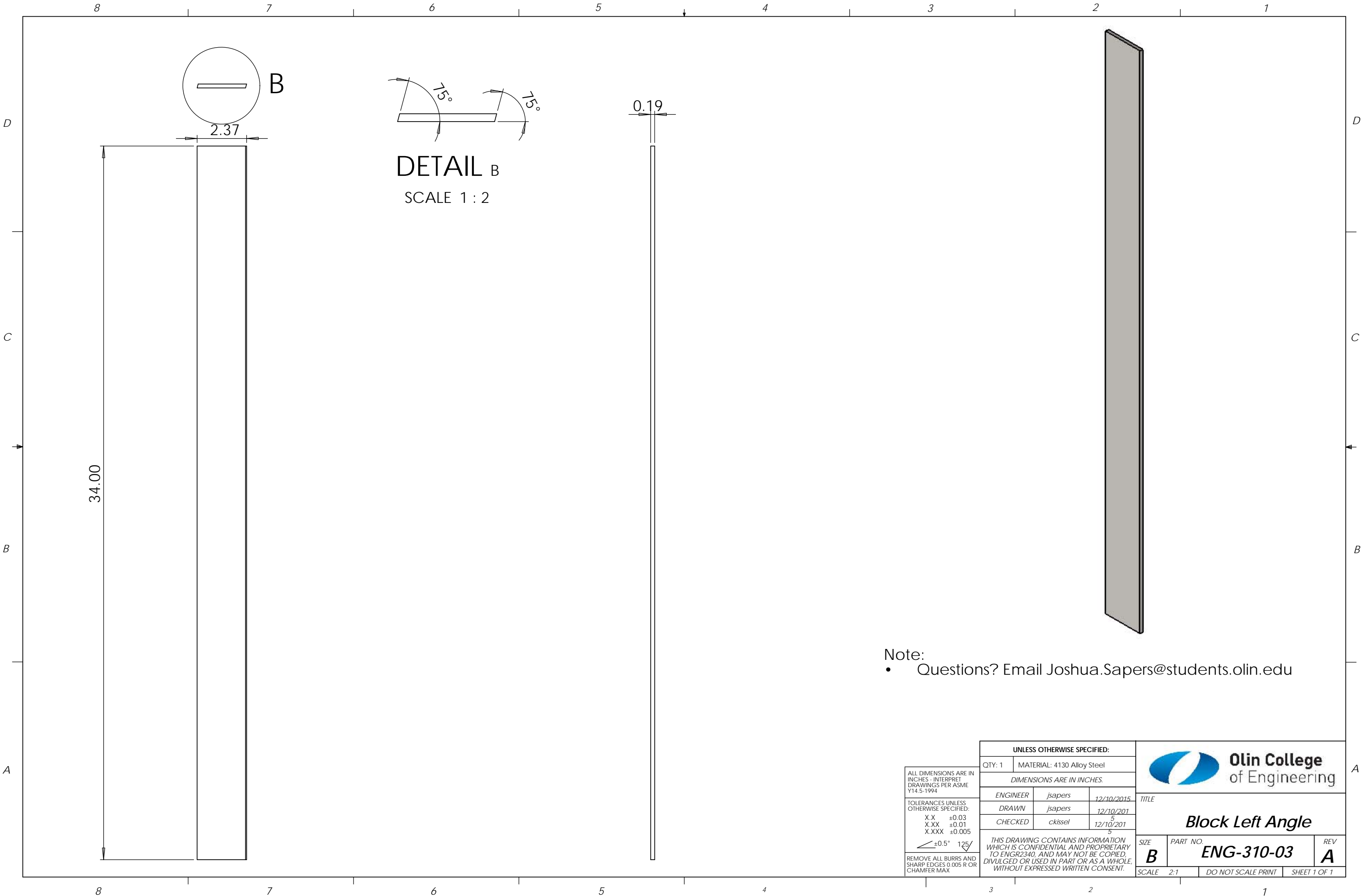


ITEM NO.	PART NUMBER	QTY.
1	94836A259	1
2	95584A201	1
3	92141A008	1

- Notes:
- All part numbers that do not follow the numbering scheme ENG-XXXX-XX are McMaster part numbers.
 - Questions? Email Joshua.sapers@students.olin.edu.


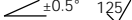
		UNLESS OTHERWISE SPECIFIED:		 Olin College of Engineering			
QTY:		MATERIAL:					
ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994		DIMENSIONS ARE IN INCHES.		TITLE 6-32 screw assembly			
		ENGINEER	hmskin			12/13/2015	
TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005		DRAWN	jsapers			12/13/201	
		CHECKED	ckissel	12/13/201 ⁵			
 ±0.5° 125/		THIS DRAWING CONTAINS INFORMATION WHICH IS CONFIDENTIAL AND PROPRIETARY TO ENGR2340, AND MAY NOT BE COPIED, DIVULGED OR USED IN PART OR AS A WHOLE, WITHOUT EXPRESSED WRITTEN CONSENT.			SIZE B	PART NO. ENG-220-00	REV B
		REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX			SCALE 2:1	DO NOT SCALE PRINT	SHEET 1 OF 1

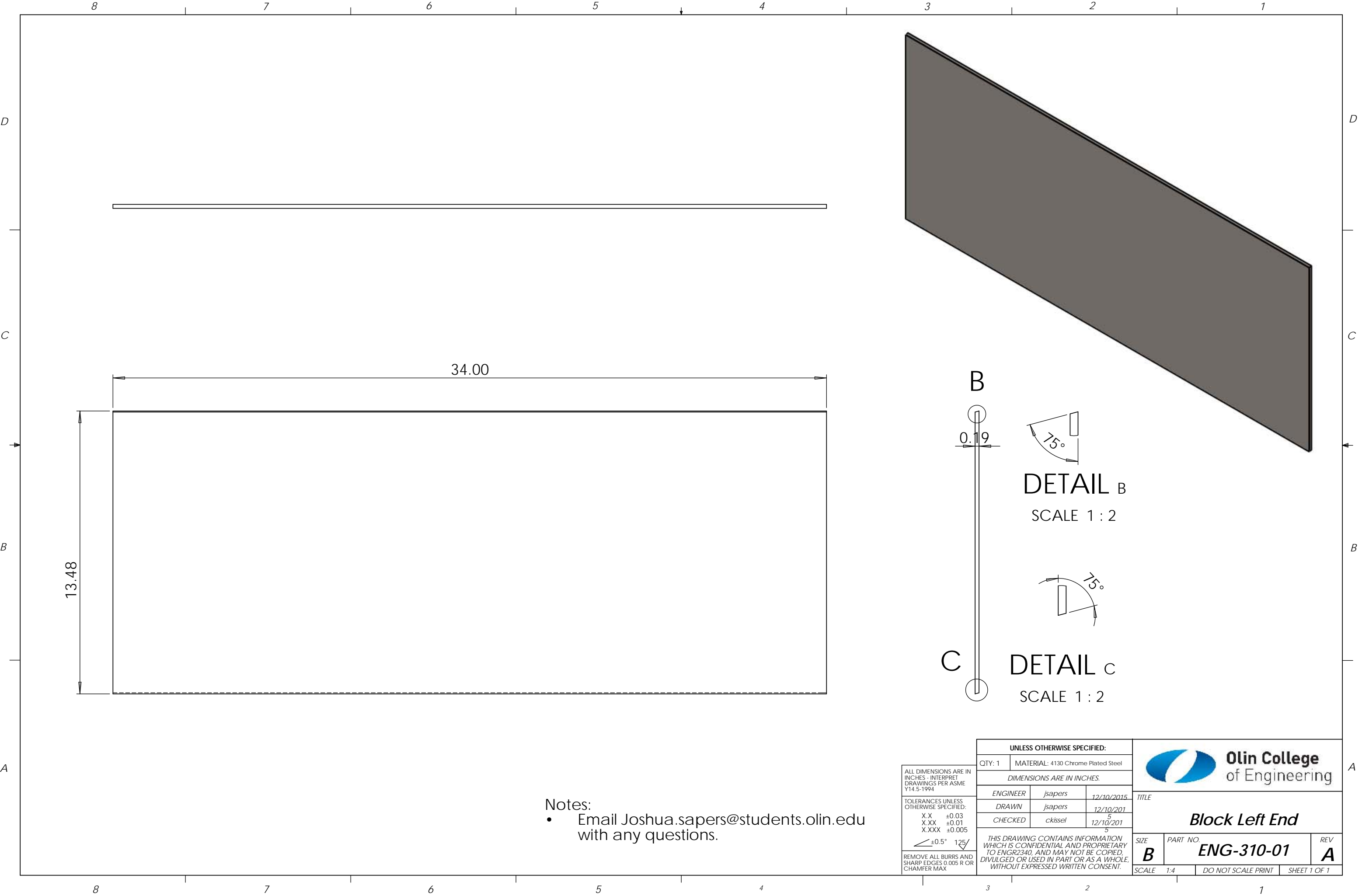


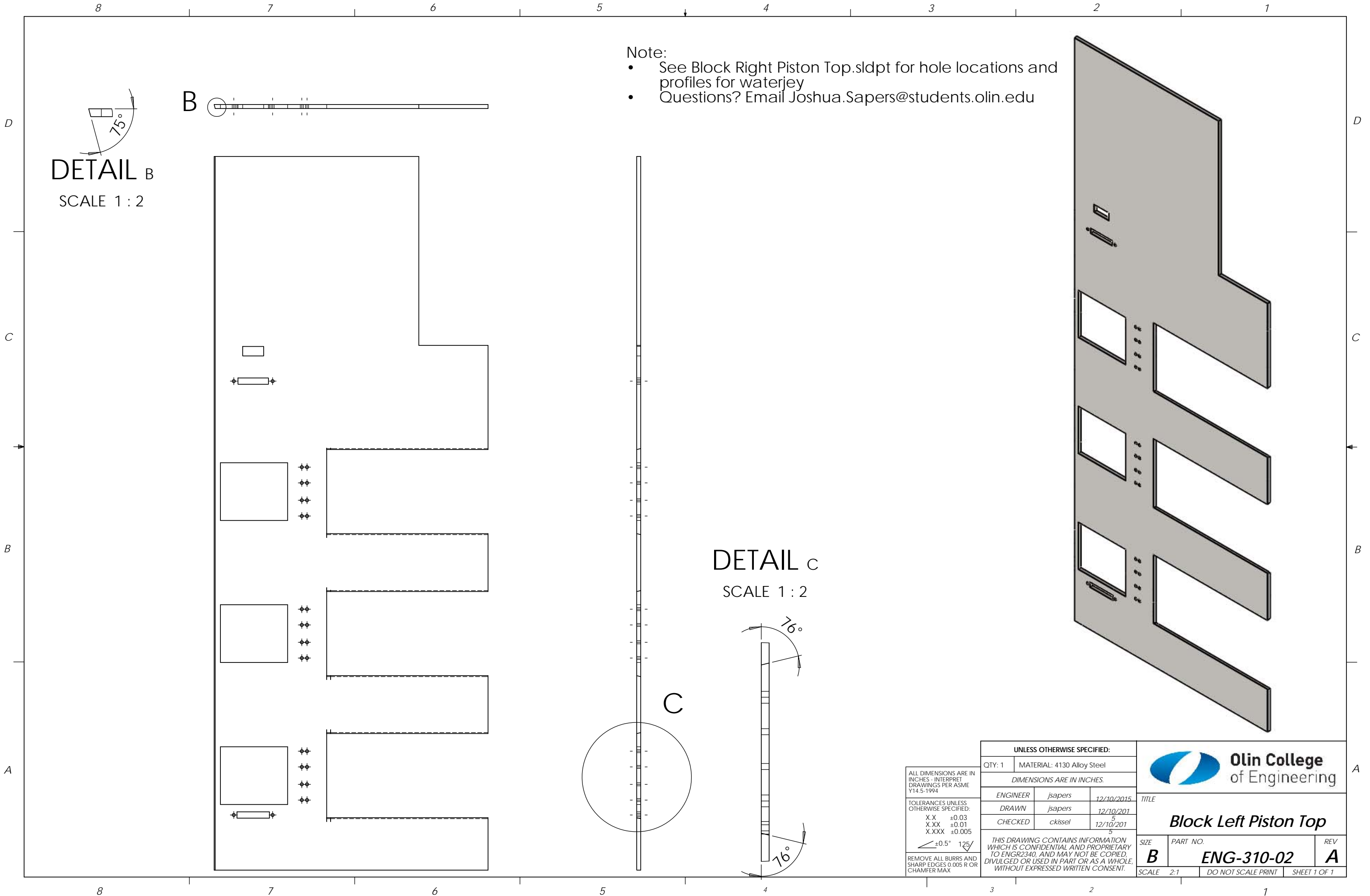


Note:


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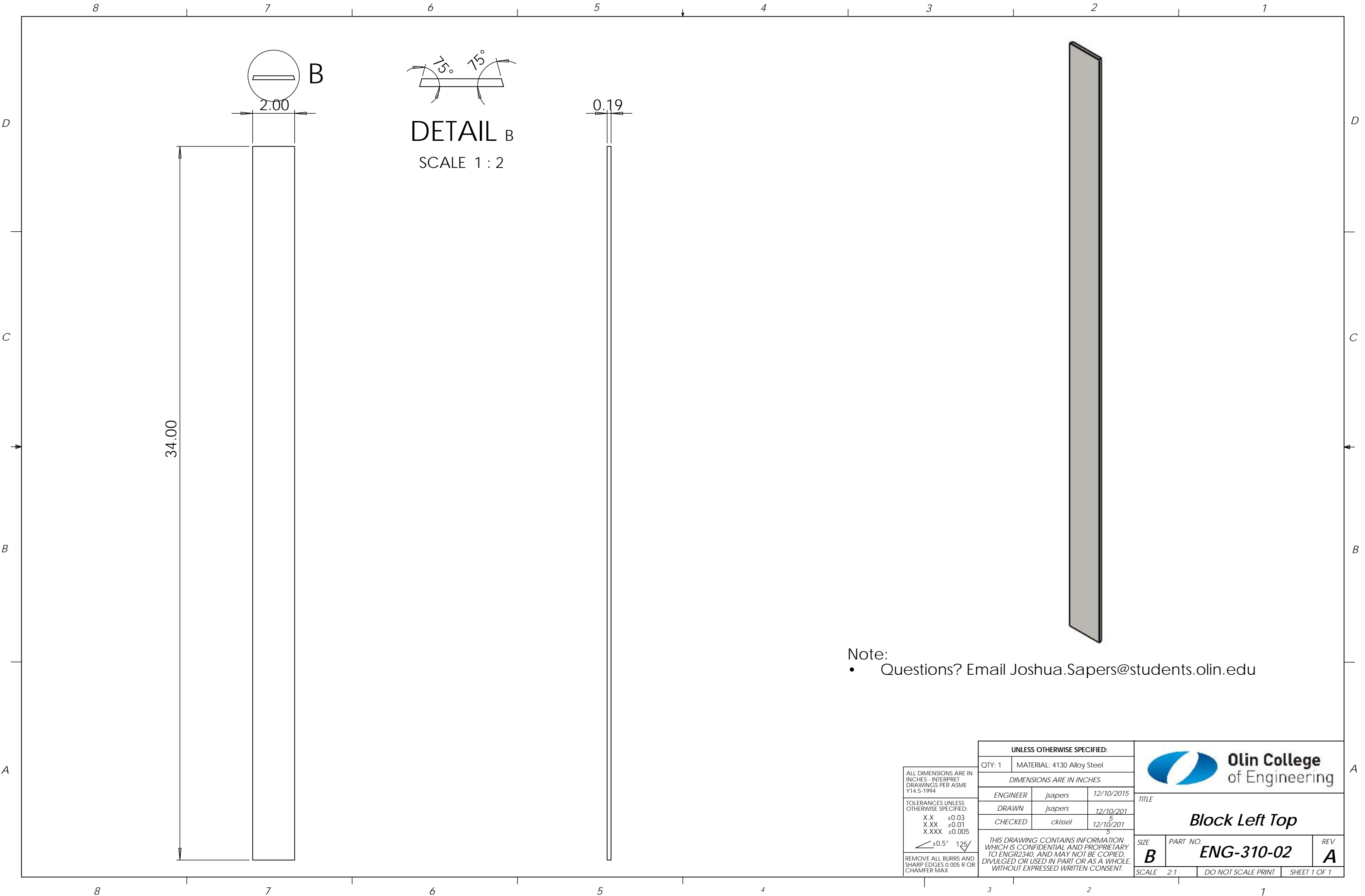
		UNLESS OTHERWISE SPECIFIED:		 Olin College of Engineering			
QTY: 1		MATERIAL: 4130 Alloy Steel					
DIMENSIONS ARE IN INCHES.							
ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994		ENGINEER	jsapers	12/10/2015	TITLE Block Left Angle		
		DRAWN	jsapers	12/10/201			
		CHECKED	ckissel	12/10/201			
TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005  ±0.5° 125/		THIS DRAWING CONTAINS INFORMATION WHICH IS CONFIDENTIAL AND PROPRIETARY TO ENGR2340, AND MAY NOT BE COPIED, DIVULGED OR USED IN PART OR AS A WHOLE, WITHOUT EXPRESSED WRITTEN CONSENT.			SIZE B	PART NO. ENG-310-03	REV A
		REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX		SCALE 2:1	DO NOT SCALE PRINT	SHEET 1 OF 1	






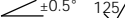
- Note:
- See Block Right Piston Top.sldpt for hole locations and profiles for waterjey
 - Questions? Email Joshua.Sapers@students.olin.edu

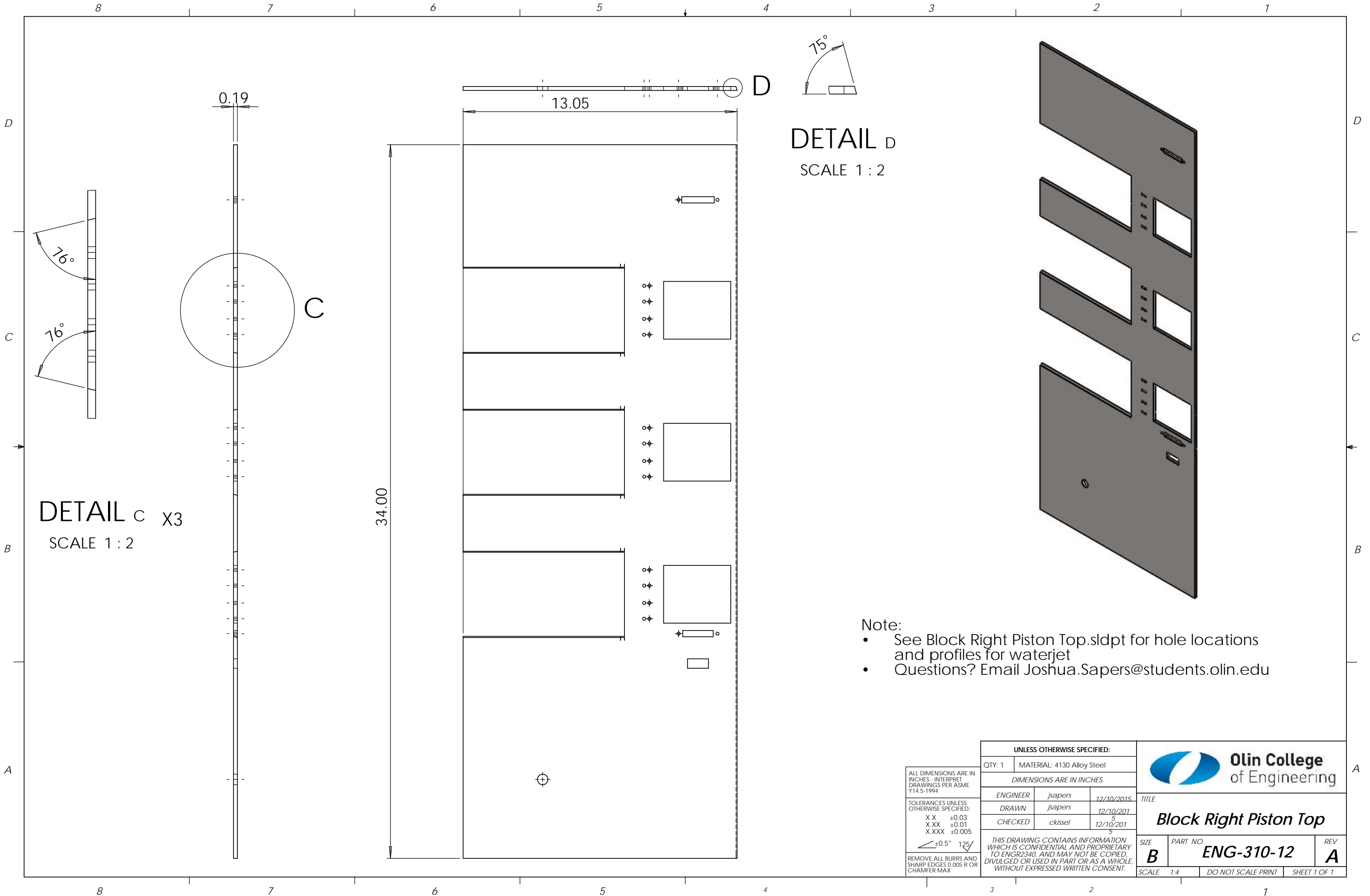
UNLESS OTHERWISE SPECIFIED:			 Olin College of Engineering			
QTY: 1	MATERIAL: 4130 Alloy Steel					
ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994	DIMENSIONS ARE IN INCHES.			TITLE Block Left Piston Top		
	ENGINEER	jsapers	12/10/2015			
	DRAWN	jsapers	12/10/201			
	CHECKED	ckissel	12/10/201 ⁵			
	TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005 ∠±0.5° 125/					
THIS DRAWING CONTAINS INFORMATION WHICH IS CONFIDENTIAL AND PROPRIETARY TO ENGR2340, AND MAY NOT BE COPIED, DIVULGED OR USED IN PART OR AS A WHOLE, WITHOUT EXPRESSED WRITTEN CONSENT.			SIZE B	PART NO. ENG-310-02	REV A	
REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX			SCALE 2:1	DO NOT SCALE PRINT	SHEET 1 OF 1	




Note:

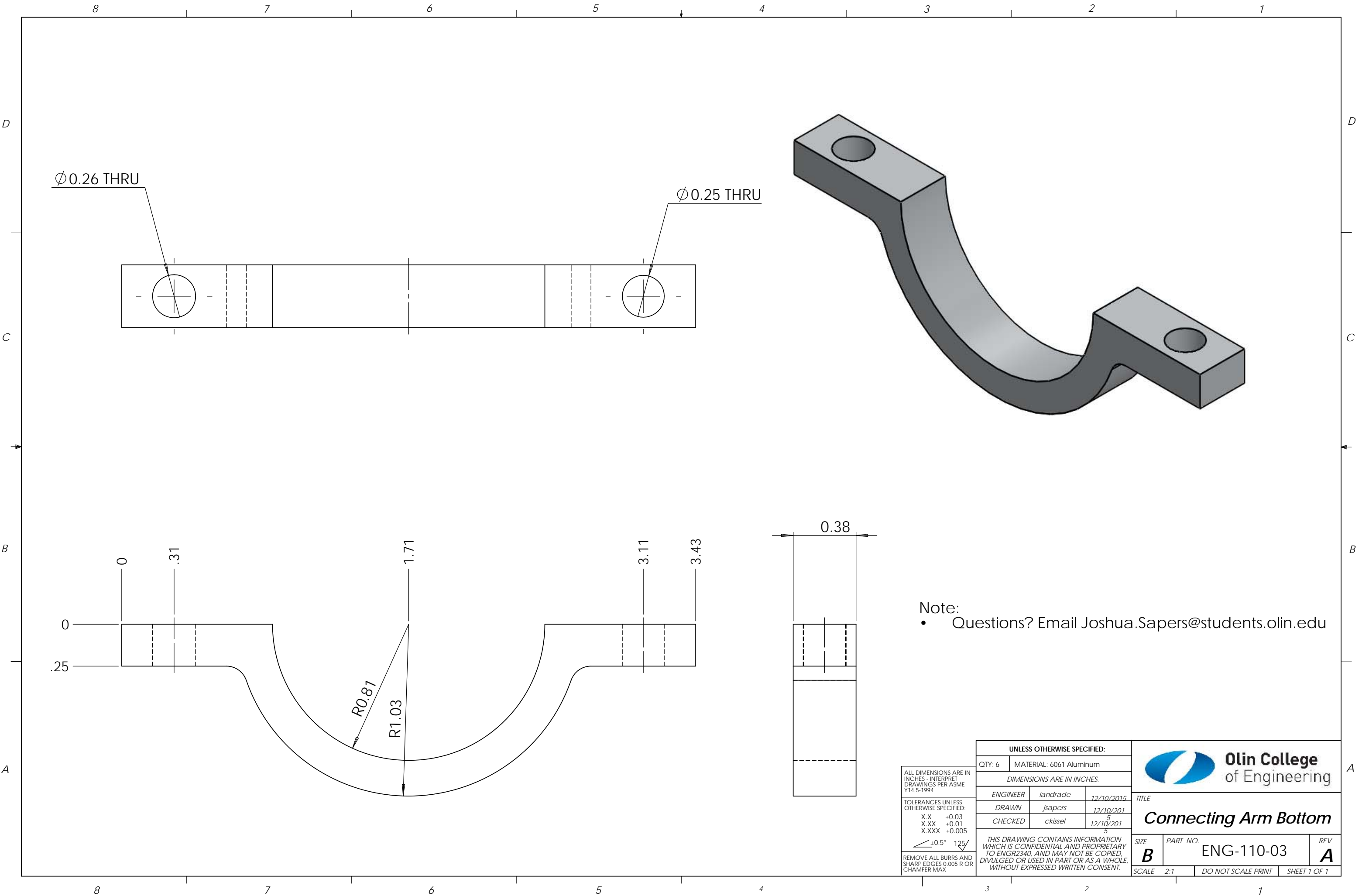
- Questions? Email Joshua.Sapers@students.olin.edu

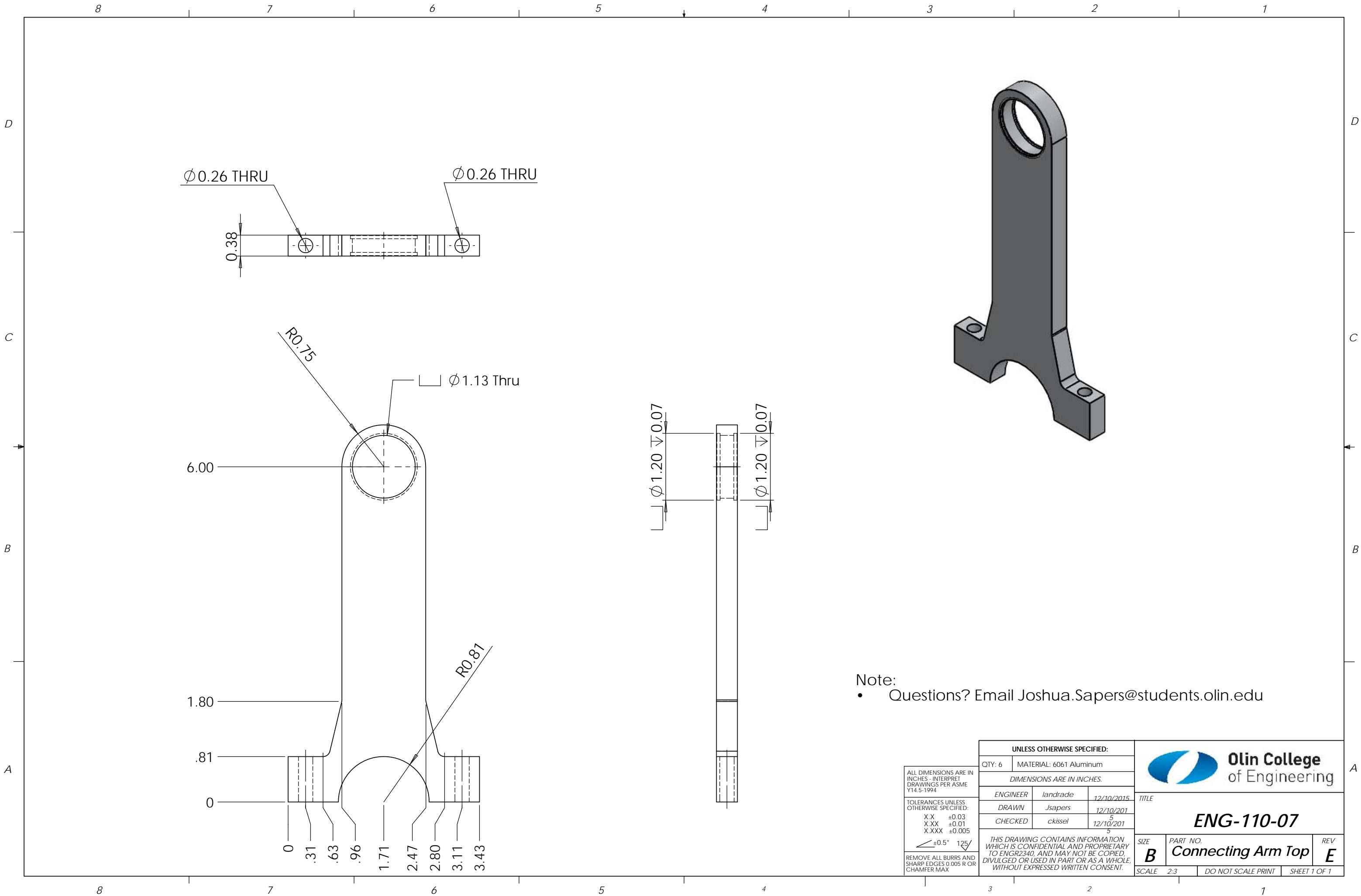
ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994	UNLESS OTHERWISE SPECIFIED:			<div> Olin College of Engineering</div>			
	QTY: 1	MATERIAL: 4130 Alloy Steel					
	DIMENSIONS ARE IN INCHES.						
TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005  ±0.5° 125/	ENGINEER	jsapers	12/10/2015	TITLE Block Left Top			
	DRAWN	jsapers	12/10/201				
	CHECKED	ckissel	12/10/201 ⁵				
REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX	THIS DRAWING CONTAINS INFORMATION WHICH IS CONFIDENTIAL AND PROPRIETARY TO ENGR2340, AND MAY NOT BE COPIED, DIVULGED OR USED IN PART OR AS A WHOLE, WITHOUT EXPRESSED WRITTEN CONSENT.			SIZE B	PART NO. ENG-310-02	REV A	
				SCALE 2:1	DO NOT SCALE PRINT	SHEET 1 OF 1	



- Note:
- See Block Right Piston Top.sldpt for hole locations and profiles for waterjet
 - Questions? Email Joshua.Sapers@students.olin.edu


ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994	UNLESS OTHERWISE SPECIFIED:			 <div>Olin College of Engineering</div>		
	QTY: 1	MATERIAL: 4130 Alloy Steel			TITLE <i>Block Right Piston Top</i>	
	DIMENSIONS ARE IN INCHES.					
	ENGINEER	jsapers	12/10/2015			
TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005	DRAWN	jsapers	12/10/2015	SIZE <i>B</i>	PART NO. <i>ENG-310-12</i>	REV <i>A</i>
	CHECKED	ckissel	12/10/2015			
	THIS DRAWING CONTAINS INFORMATION WHICH IS CONFIDENTIAL AND PROPRIETARY TO ENGR2340, AND MAY NOT BE COPIED, DIVULGED OR USED IN PART OR AS A WHOLE, WITHOUT EXPRESSED WRITTEN CONSENT.					
REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX	±0.5° 125/			SCALE 1:4	DO NOT SCALE PRINT	SHEET 1 OF 1

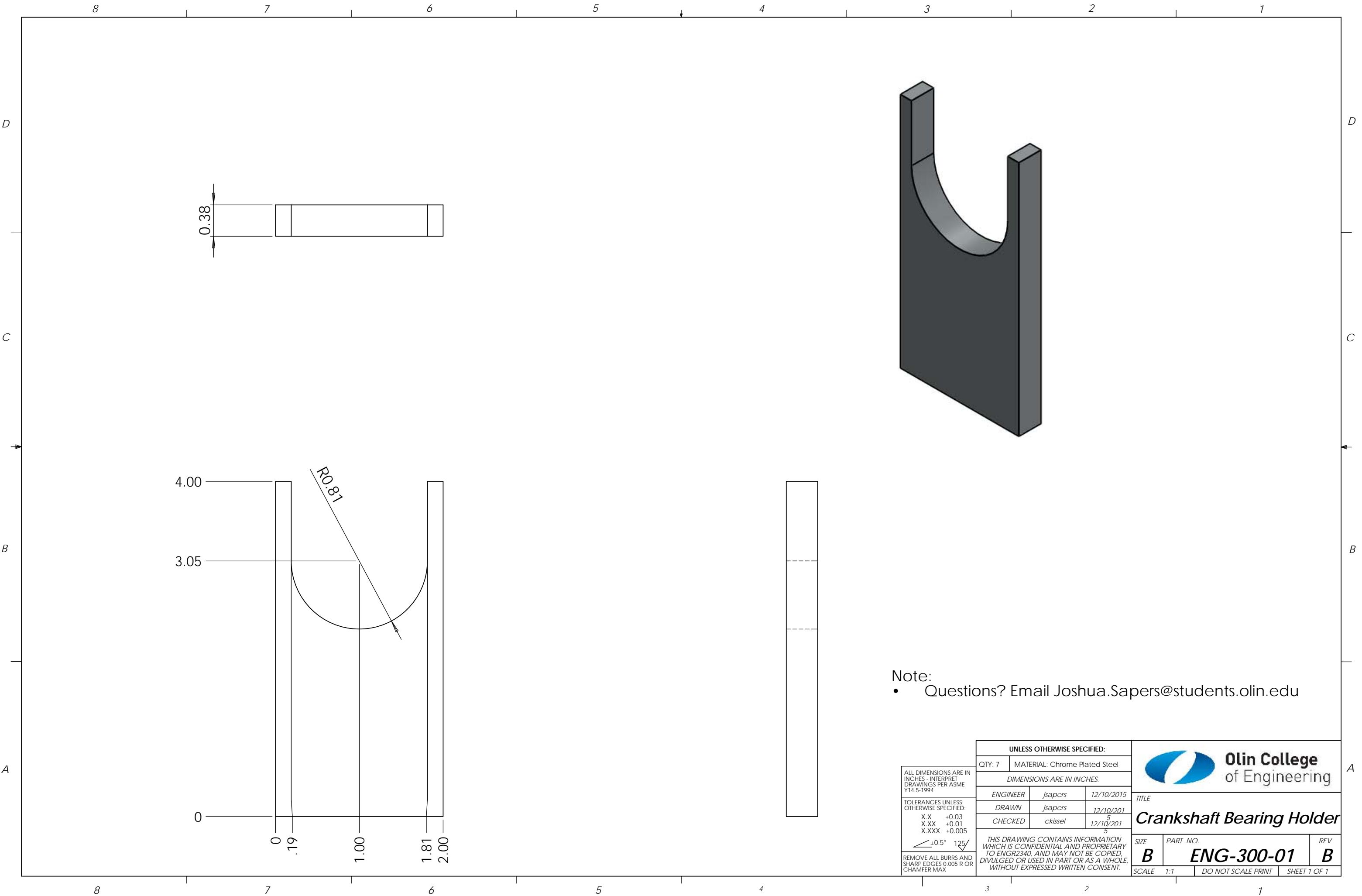




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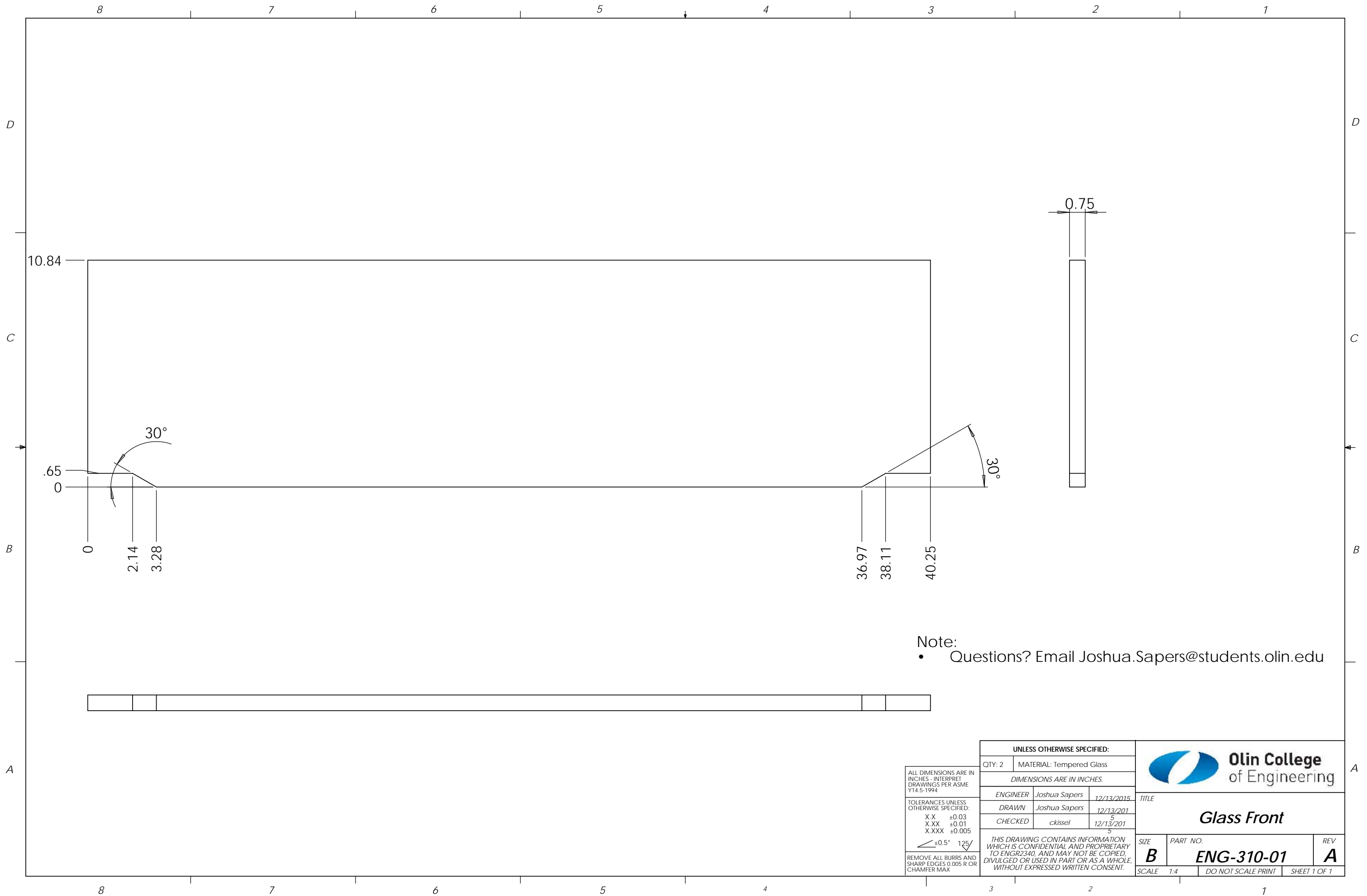
- Questions? Email Joshua.Sapers@students.olin.edu

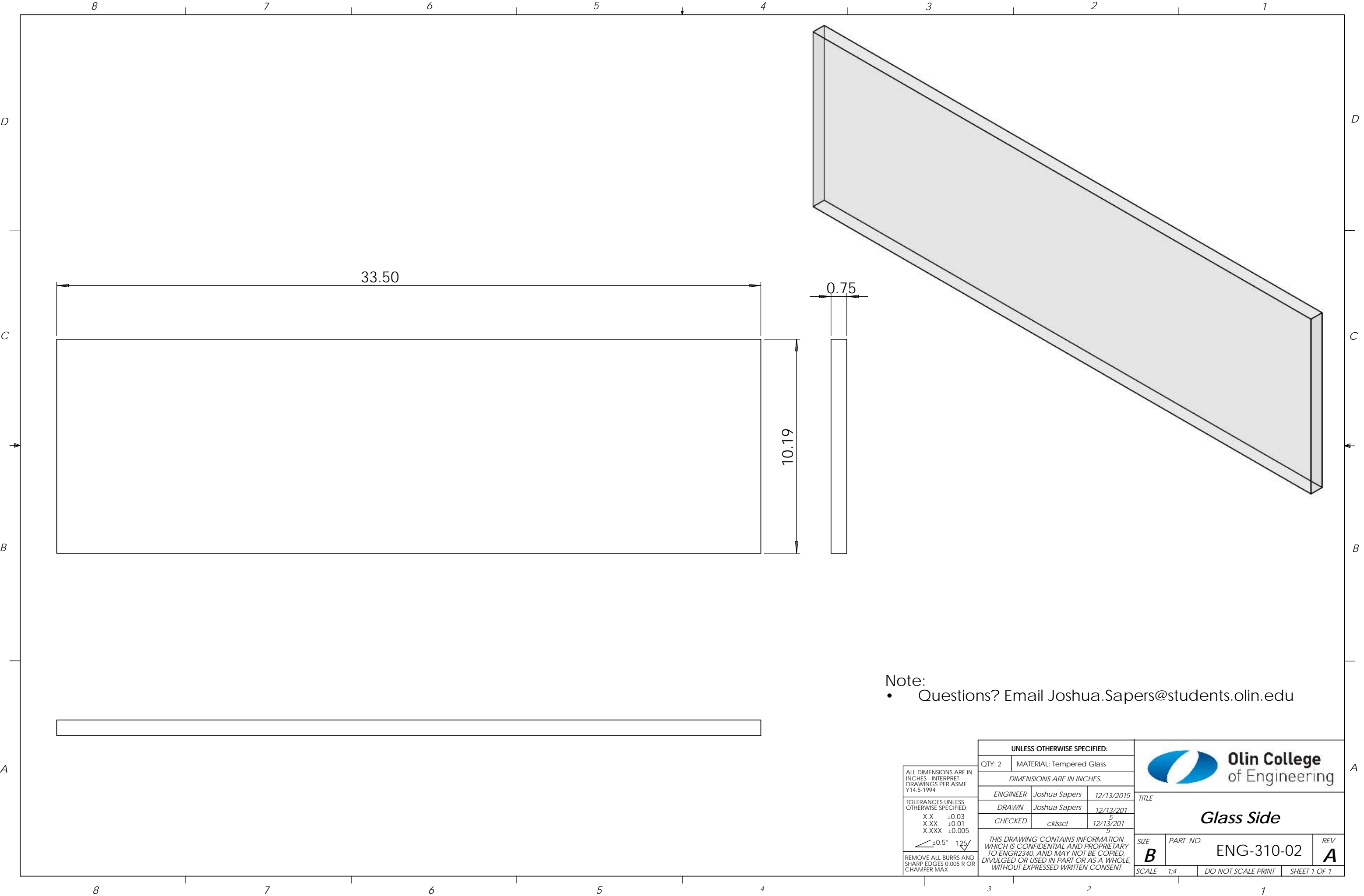
ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994	UNLESS OTHERWISE SPECIFIED:			 Olin College of Engineering		
	QTY: 6	MATERIAL: 6061 Aluminum				
	DIMENSIONS ARE IN INCHES.			TITLE ENG-110-07		
ENGINEER	landrade	12/10/2015				
DRAWN	Jsapers	12/10/201				
CHECKED	ckissel	12/10/201				
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TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005				SIZE B	PART NO. Connecting Arm Top	REV E
REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX	±0.5° 125/			SCALE 2:3	DO NOT SCALE PRINT	SHEET 1 OF 1

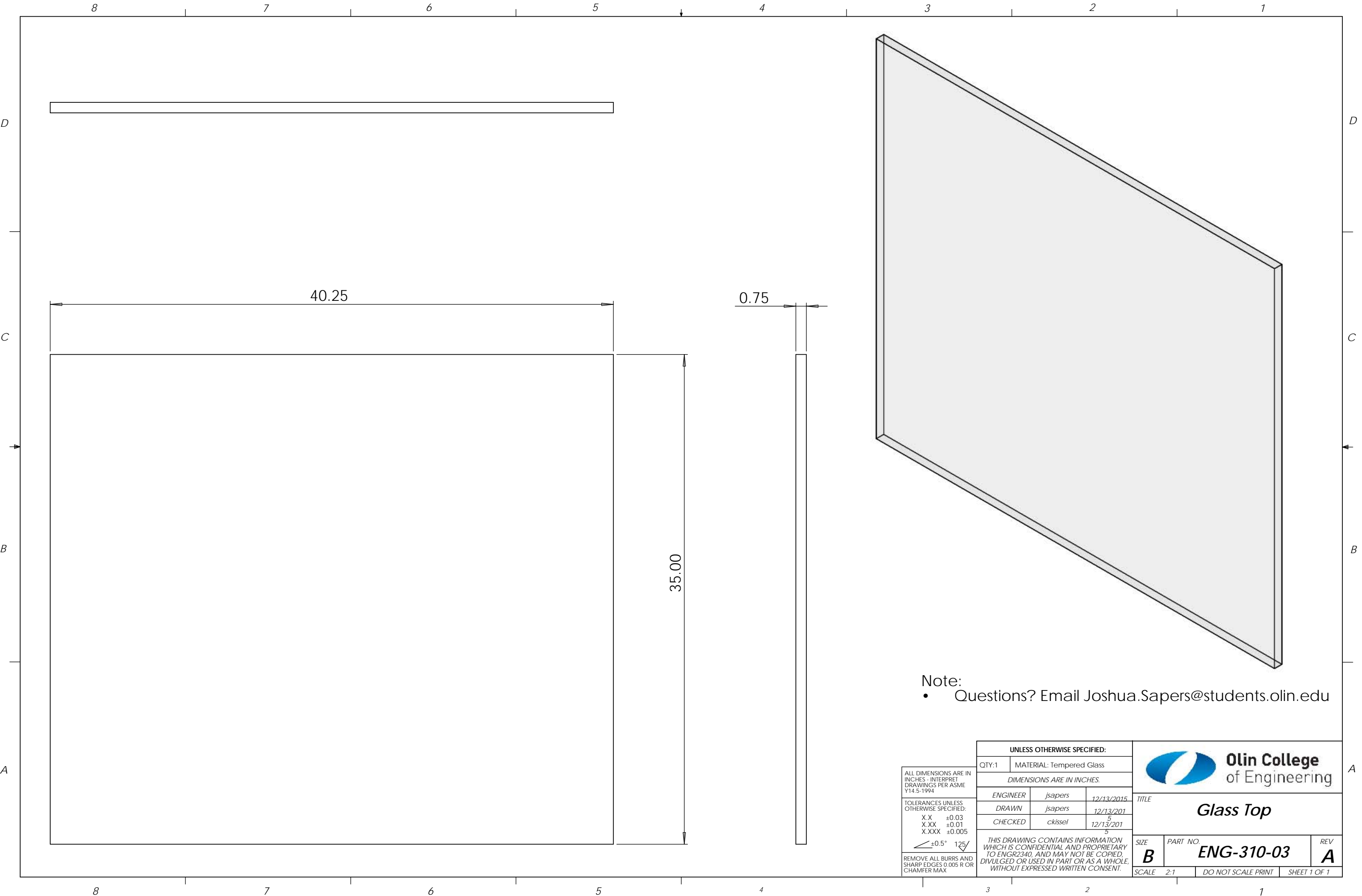


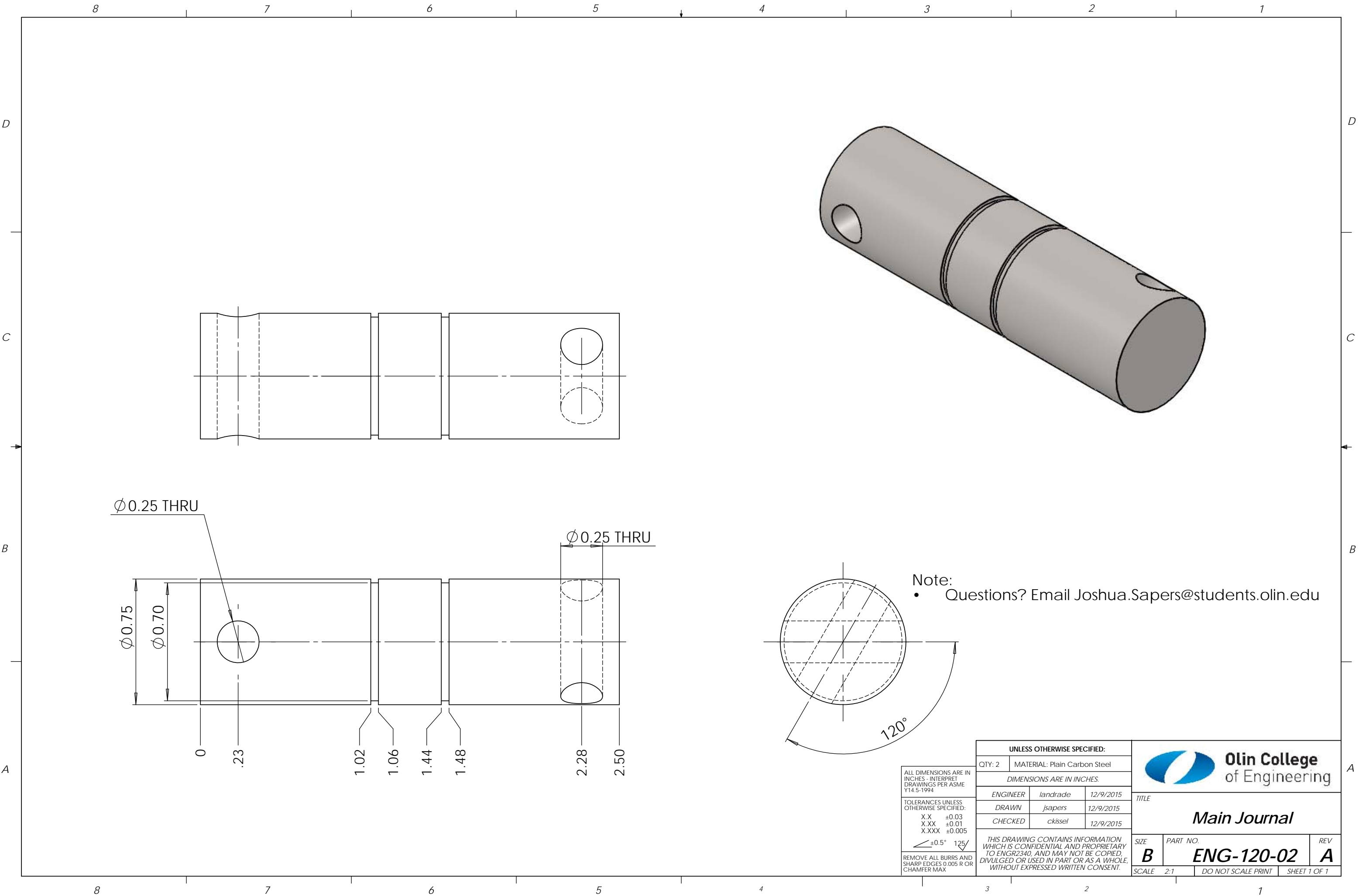
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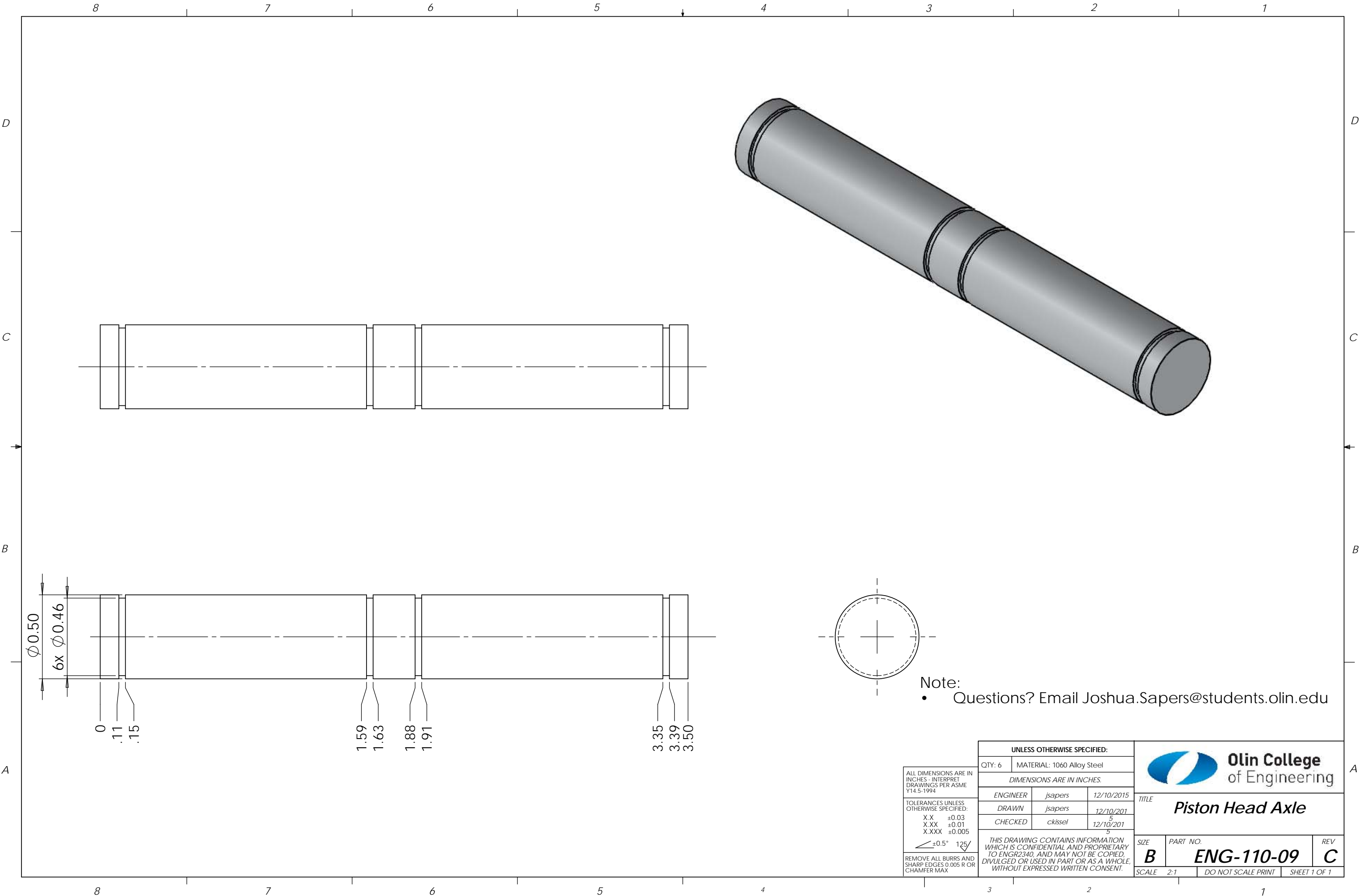
- Questions? Email Joshua.Sapers@students.olin.edu

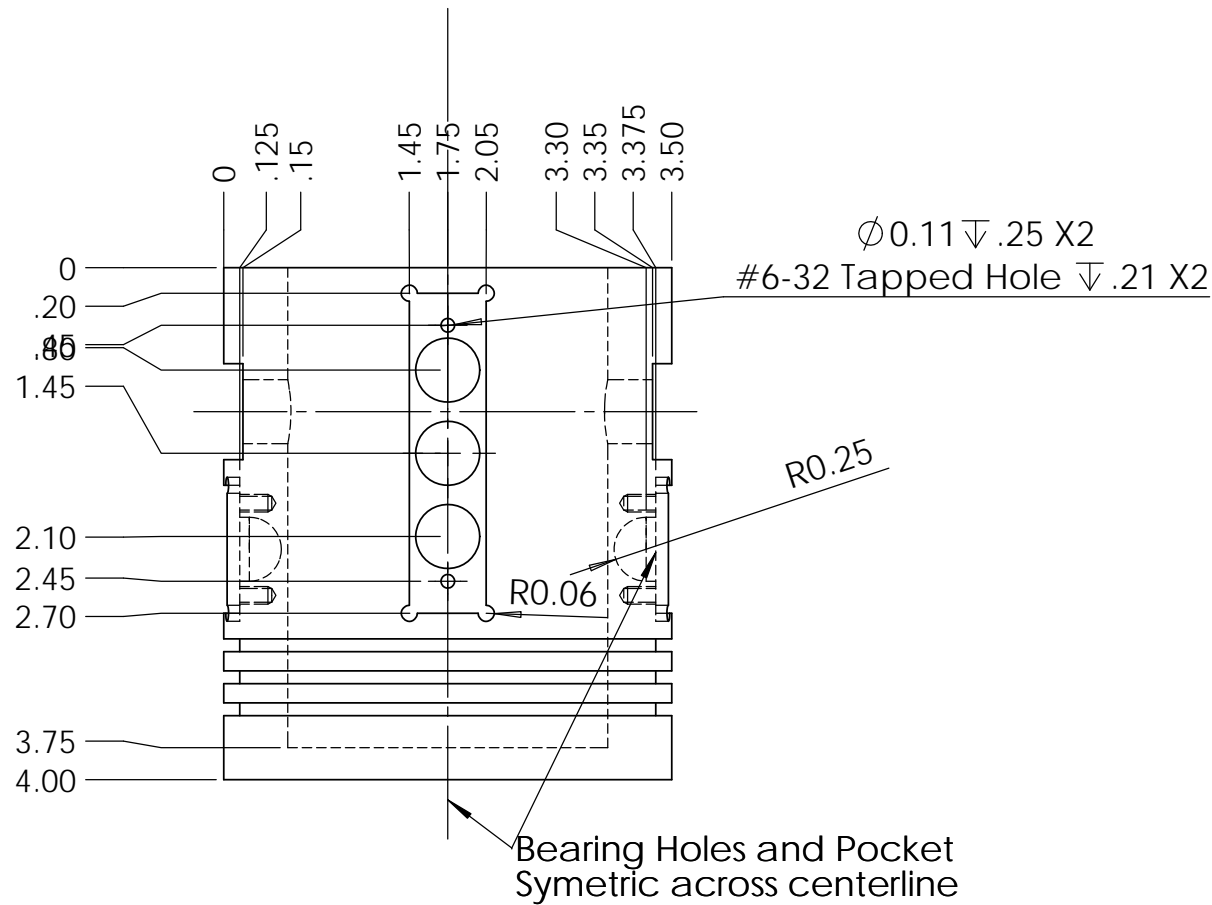
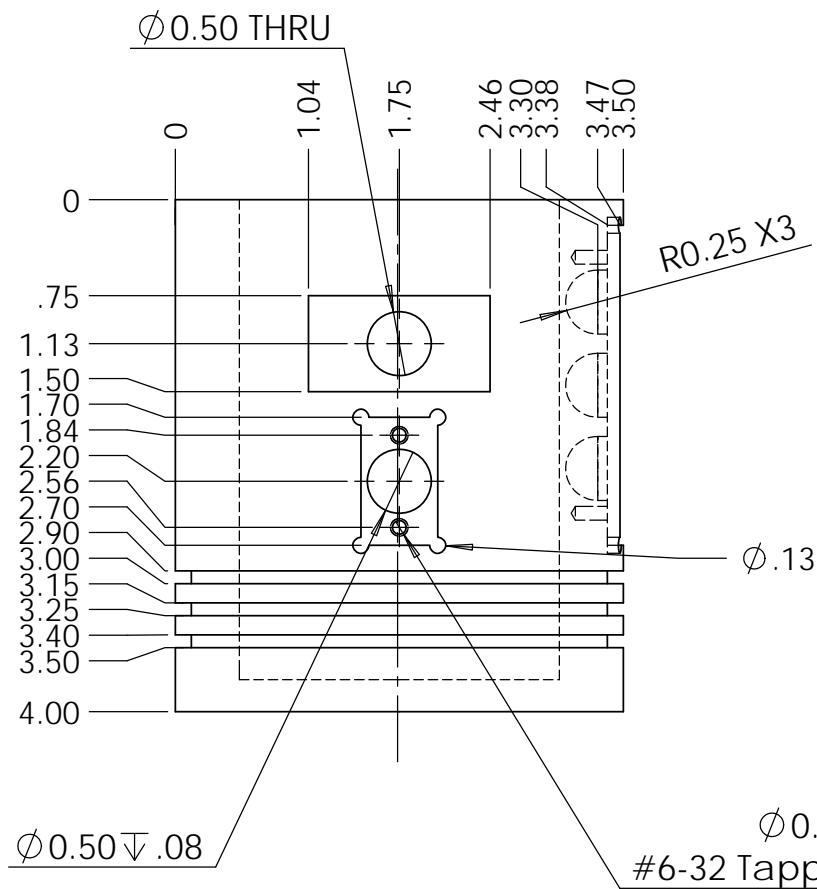
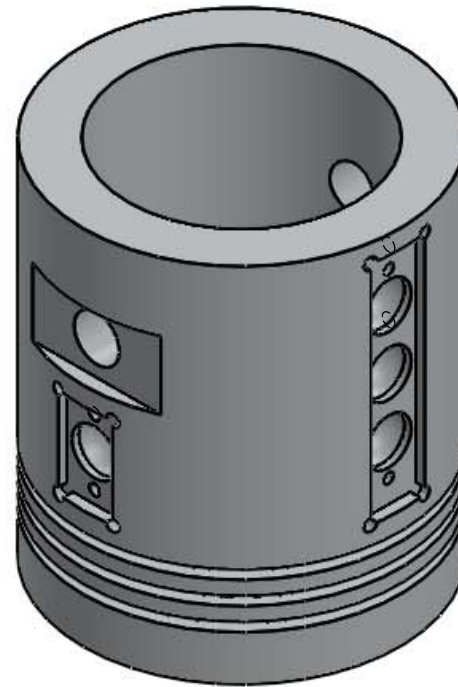
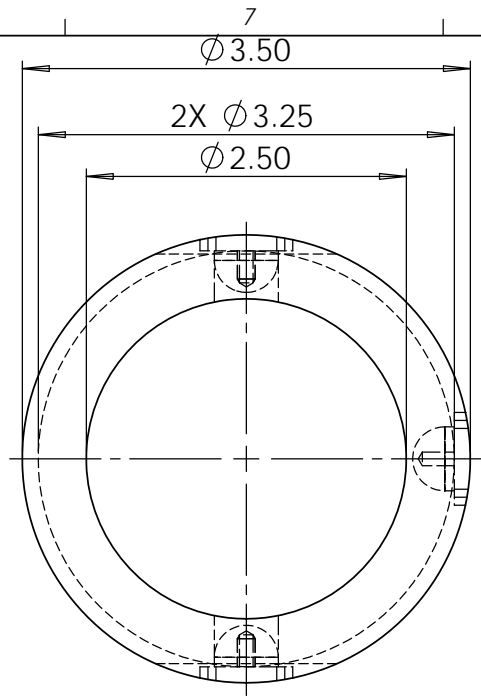












Note:

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TOLERANCES UNLESS OTHERWISE SPECIFIED:

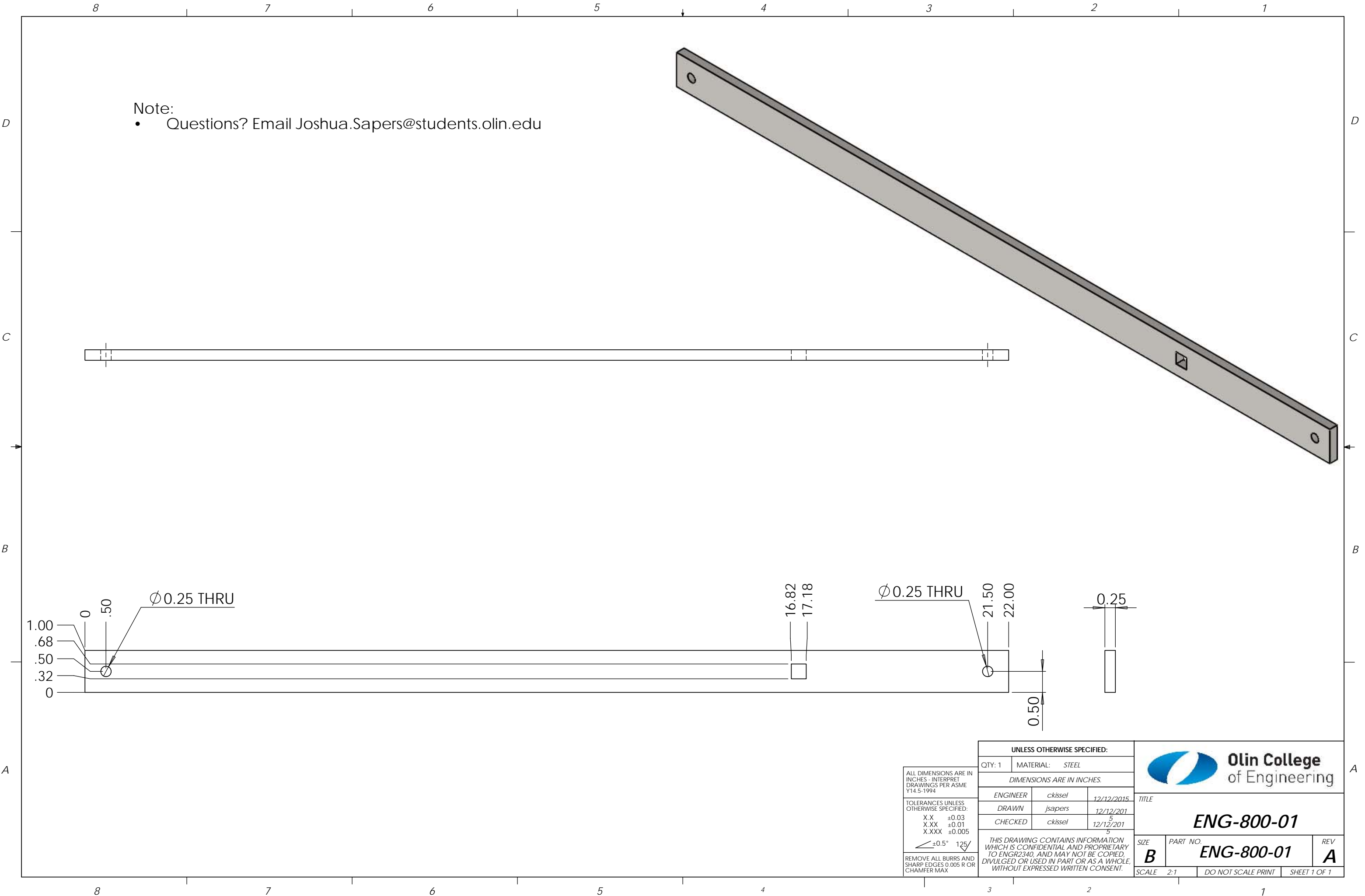
X.X ±0.03
X.XX ±0.01
X.XXX ±0.005

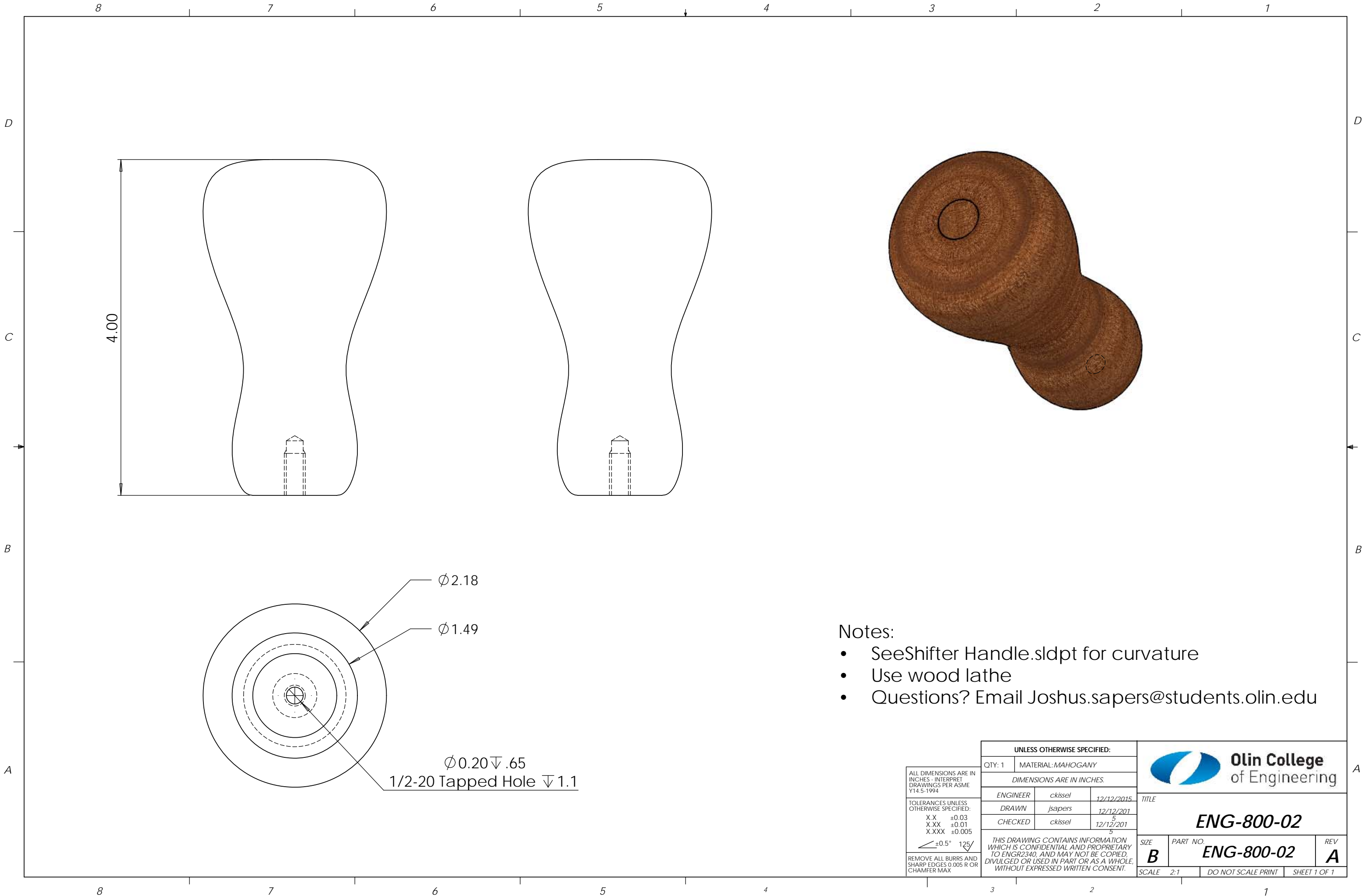
±0.5° 125/

REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX


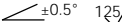
UNLESS OTHERWISE SPECIFIED:		
QTY: 6	MATERIAL: 6061Aluminum	
DIMENSIONS ARE IN INCHES.		
ENGINEER	jsapers	12/13/2015
DRAWN	jsapers	12/13/2015
CHECKED	ckissel	12/13/2015
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TITLE		
ENG-110-01		
SIZE	PART NO.	REV
B	Piston Head	H
SCALE	2:1	DO NOT SCALE PRINT
SHEET 1 OF 1		





- Notes:
- SeeShifter Handle.sldpt for curvature
 - Use wood lathe
 - Questions? Email Joshus.sapers@students.olin.edu

ALL DIMENSIONS ARE IN INCHES - INTERPRET DRAWINGS PER ASME Y14.5-1994	UNLESS OTHERWISE SPECIFIED:			 <div>Olin College of Engineering</div>		
	QTY: 1	MATERIAL: MAHOGANY				
	DIMENSIONS ARE IN INCHES.					
TOLERANCES UNLESS OTHERWISE SPECIFIED: X.X ±0.03 X.XX ±0.01 X.XXX ±0.005	ENGINEER	ckissel	12/12/2015	TITLE ENG-800-02		
	DRAWN	jsapers	12/12/2015			
	CHECKED	ckissel	12/12/2015			
 ±0.5° 125/	THIS DRAWING CONTAINS INFORMATION WHICH IS CONFIDENTIAL AND PROPRIETARY TO ENGR2340, AND MAY NOT BE COPIED, DIVULGED OR USED IN PART OR AS A WHOLE, WITHOUT EXPRESSED WRITTEN CONSENT.					
	REMOVE ALL BURRS AND SHARP EDGES 0.005 R OR CHAMFER MAX					
SCALE 2:1			DO NOT SCALE PRINT		SHEET 1 OF 1	

