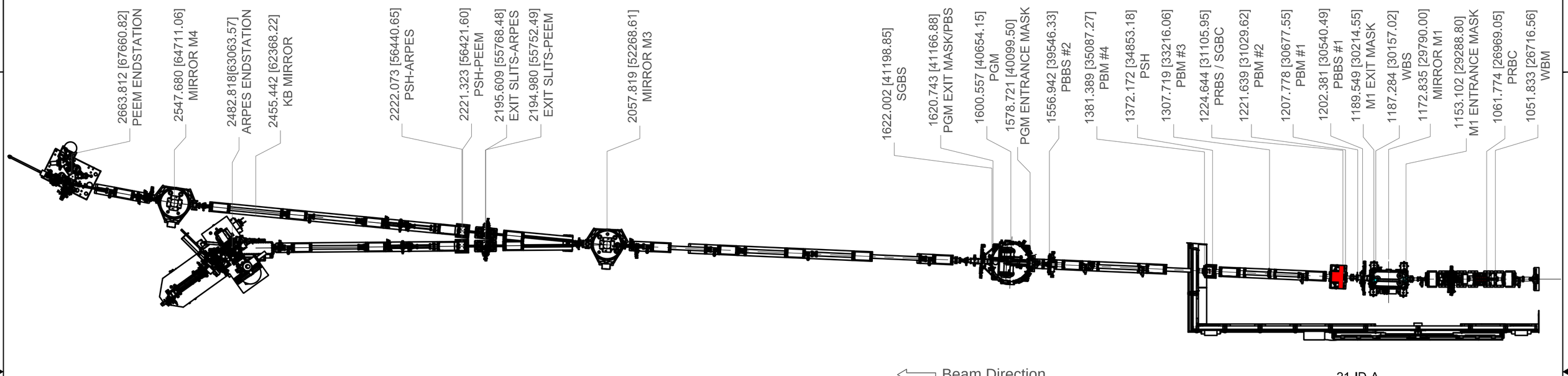
REVISION HISTORY					
REV	DESCRIPTION	DATE	DESIGNER	CHECKED BY	ENGINEER
A	RELEASE PER ECO 003834	3/28/2016	S. PJEROV	C. STELMACH	Y. ZHU

NOTES:
1. FE REFERENCE DRAWING SR-FE-EPU21-1001 REV. C
2. THE CENTER OF STRAIGHT IS THE ORIGIN FOR ALL DIMENSIONS UNLESS OTHERWISE NOTED.
3. BLUE AND MAGENTA COLORED RAYS ARE DETERMINED BY TOLERANCED APERTURES. GREEN COLORED RAYS ARE DETERMINED BY NOMINAL APERTURES.
4. DIMENSIONS PBM #1, #2, #3 AND #4 ARE TO GLIDCOP BLOCK FRONT SUFRACE.



SPECIFICATIONS		REFERENCE
Project	NEXT PROJECT	NX-C-XFD-RSI-001
Source	EPU105, EPU 57	NX-C-XFD-RSI-001
Beam Line Name	ELECTRON SPECTRO-MICROSCOPY	NX-C-XFD-RSI-001
Abbreviation	ESM	NX-C-XFD-RSI-001
Period of insertion device	105 mm, 57 mm	NX-C-XFD-RSI-001
Long / Short Straight / Cell	SHORT/21-ID	NX-C-XFD-RSI-001
Length of Source	2800 mm, 1400 mm	NX-C-XFD-RSI-001
Location of Center of Source (from Center of Straight)	+790 mm, -1492 mm	NX-C-XFD-RSI-001
Ray Tracing Procedure		PS-C-XFD-PRC-008 (Version 2)
Front End Ray Tracing Drawing		SR-FE-EPU21-1001 (REV. C)

ESM BEAMLINE LAYOUT
SCALE 1:30

ABBREVIATIONS:
ARPES - ANGLE - RESOLVED PHOTO EMISSION SPECTROSCOPY
DS - DOWNSTREAM
LCO - LEAD COLLIMATOR
PBBS - PINK BEAM BAFFLE SLITS
PBM - PINK BEAM MASK
PBS - PINK BEAM STOP
PEEM - PHOTO EMISSION ELECTRON MICROSCOPES
PRBC - PRIMARY BREMSSTRAHLUNG COLLIMATOR
PRBS - PRIMARY BREMSSTRAHLUNG STOP
PGM - PLANE GRATING MONOCHROMATER
PSH - PHOTON SHUTTER
SGBC - SECENDARY GAS BREMSSTRAHLUNG COLLIMATOR
SGBS - SECENDARY GAS BREMSSTRAHLUNG STOP
US - UPSTREAM
WBM - WHITE BEAM MASK
WBS - WHITE BEAM STOP

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN INCHES
DIMENSIONS IN BRACKETS [xx.xx] (WHERE PRESENT) ARE MILLIMETERS AND ARE FOR REFERENCE ONLY
INTERPRET DRAWING AS PER ANSI Y14.5-1994 OR Y32.2-1975
DIMENSIONAL TOLERANCES: X. ± 0.060, .X ± 0.030, .XX ± 0.015, .XXX ± 0.005
ANGULAR TOLERANCE: ± .5
FINISH: 125
BREAK EDGES & SHARP CORNERS 0.005 MIN. TO 0.030 MAX.
THIRD ANGLE PROJECTION
SCALE: NOTED

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UPTON, NEW YORK 11973
Exploring Life's Mysteries, Protecting its Future

DRAWN BY	S. PJEROV	3/2016
CHECKED BY	C. STELMACH	4/2016
VACUUM APPROVAL		
ENGINEER APPROVAL	Y. ZHU	4/2016
SUPERVISOR APPROVAL	E. VESCOVO	4/2016
SAFETY APPROVAL	L. STIEGLER	4/2016
QA APPROVAL	J. ZIPPER	4/2016

PHOTON DIVISION
ESM RAY TRACING
ESM BEAMLINE RAY TRACING

NEXT ASSY:
PROJECT: ESM BEAMLINES
WBS# 2,05.02.02
ESH&Q RISK LEVEL A-1
SHEET SIZE: E
DRAWING/PART NUMBER: PD-ESM-RAYT-0001
REVISION: A
SHEET 1 OF 9

PD\ESM\RAYT\PD-CSX-RAYT-0001