Derek S. Mihaly
Project Manager II
4 Neshaminy Interplex; Suite 205
Trevose, PA. 19053
Derek_Mihaly@csx.com
(215) 218-3391 phone
(904) 245-3059 fax

November 12, 2015

Ms. Rosemary Chiavetta
Secretary
Commonwealth of Pennsylvania
Public Utility Commission
P. O. Box 3265
Harrisburg, PA 17105-3265

Subject: PUC Docket A-2015-2469144 New Oxford, Adams County, Pa. – Alterations of the at-grade crossing with installation of new Automatically Operated flashing light warning devices where Hanover Street (SR 1015) crosses the single track of CSXT (DOT# 832125X, Milepost BAS-57.35); Baltimore Division, Hanover Subdivision; CSXT OP# PA0262

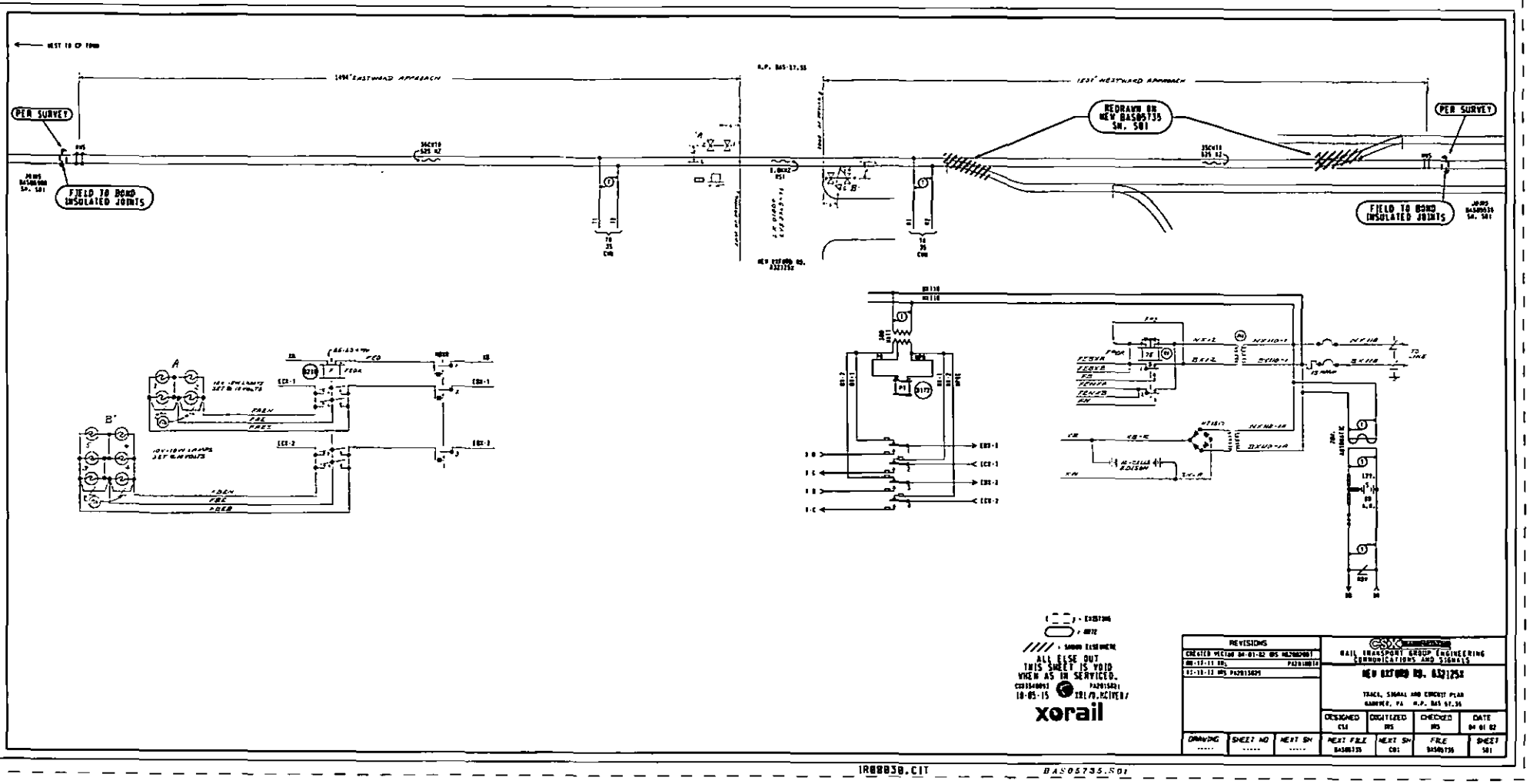
Dear Ms. Chiavetta:

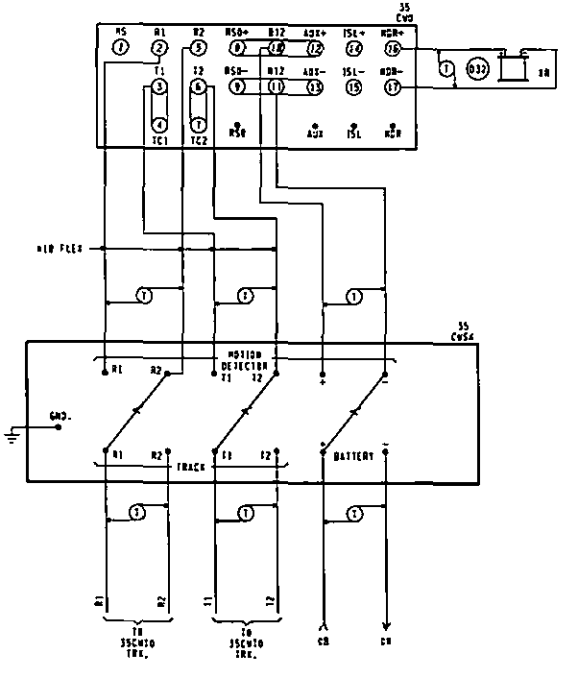
In reference to the PAPUC Notice of field investigation issued under the subject proceeding dated September 29, 2015, enclosed for PAPUC's approval is a copy of the CSXT situation and detailed circuit plans describing the signal work proposed to be performed by CSXT in conjunction with the subject project.

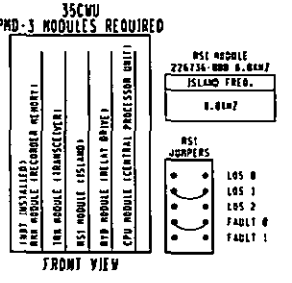
CSXT awaits receipt of the PAPUC's advice as to the approval of these documents.

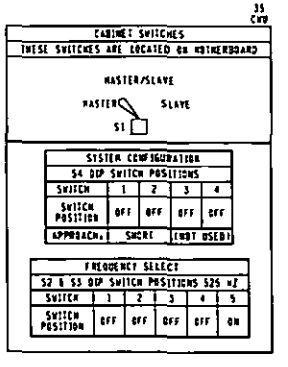
Sincerely,

Derek S. Mihaly
Project Manager II
CSX Transportation









ALL OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.
C3015400B3 PAZ015021
10-05-15 ERE/D.MCIVER/

xorail

REVISIONS
13-10-13 IRS PAZ013029

RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

NEW OXFORD RD. 032125X

CROSSING DETECTION CIRCUITRY
HANOVER, PA M.P. BAS-57.35

DESIGNED	DIGITIZED	CHECKED	DATE
CSX	IRS/TCH	IRS/LLB	13-10-13

DRAWING	SHEET NO	NEXT SH	NEXT FILE	NEXT SH	FILE	SHEET
.....	.....	.....	BAS05735	C02	BAS05735	C01

35CV0

TRM LOCAL PARAMETERS PMD-3 DESIGN CARD

		DEFAULTS & JOB STYLE	FIELD RECORD
OPERATING PROGRAM PROG	VERSION AND COMPILE DATE	35.0 MM/DD/YY	45.2 10/17/13
SYSTEM MONITOR PROGRAM EPRM	VERSION AND COMPILE DATE	28.2 MM/DD/YY	28.2 10/17/13
ADJUSTMENT	RANGE	DEFAULT	TRACK 1
#1 RA	100 IS INTENDED	NA	
#2 PH (PHASE)	INTENDED ABOVE 32 (NOT ADJUSTABLE)	NA	
#3 CW / MD	CW OR MD NOT ADJUSTABLE FROM MD TOWARD CW (SEE TCR 430-01 FOR CONSTRAINTS)	MD	MD
#4 UW1/W1 (IF CW IS CHOSEN IN #3)	ONE OF 81	81	81
#5 L1A (IF CW IS CHOSEN IN #3)	-9 TO +9	(1A+0	NA
#6 W1 (IF CW IS CHOSEN IN #3)	25 TO 99	W1+59	NA
#7 TC	WHEN IN CONFORMANCE WITH PMD-3 MANUAL, ADJUST TC FOR A TRANSMITTER CHECK MONITOR VALUE LESS THAN 470	NA	
#8 B (BALLAST COMPENSATION)	50 TO 250 (FIELD ADJUSTMENT - ADJUST ONLY WHEN IN CONFORMANCE WITH DATA ACCUMULATED AT THIS SITE AND IN COMPLIANCE WITH SUPERVISOR INSTRUCTIONS & PMD-3 MANUAL)	NA	
#9 PC (PHASE COMPENSATION)	0 TO +10 (FIELD ADJUSTMENT - ADJUST ONLY WHEN IN CONFORMANCE WITH SUPERVISOR INSTRUCTIONS & PMD-3 MANUAL)	PC+0	
#10 FREQ	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	525 HZ
#11 FS-T (FALSE SHUNT TIMER)	ENTRANCE TO SUBDEM FALSE SHUNT SUB-MENU	NA	NA
#12 FR (FALSE SHUNT % OF 8X APPROACH)	0 TO 80 NOT ADJUSTABLE FROM ZERO UNTIL AFTER STRICT DESIGN REVIEW FOR SITE APPLICATION CONFLICTS. FR:0 MEANS DISABLED (SEE TCR 430-01 FOR CONSTRAINTS)	FR+0	FR+0
#13 FT (FAULT TIMER)	0 TO 99 MINUTES (FACTORY DEFAULT IS 10)	FT+10	NA
#14 AR-T (APPROACH RELEASE TIMER)	ENTRANCE TO SUB-MENU FOR RESIDUAL FALSE SHUNT STARTED DURING TRAIN PASSAGE	NA	NA
#15 AR (FALSE SHUNT % OF 8X APPROACH)	0 TO 80 NOT ADJUSTABLE FROM ZERO UNTIL AFTER STRICT DESIGN REVIEW FOR SITE APPLICATION CONFLICTS AR:0 MEANS DISABLED (SEE TCR 430-01 FOR CONSTRAINTS)	AR+0	AR+0
#16 AT (FAULT TIMER)	0 TO 99 MINUTES (FACTORY DEFAULT IS 10)	AT+10	AT+10
#17 MS (HIGHEST STABLE R VALUE)	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	NA
#18 LP (LOWEST STABLE PHASE)	REFERENCE, NOT ADJUSTABLE FROM MENU	NA	NA
#19 SD (SELF DIAGNOSTICS)	REFERENCE, NOT ADJUSTABLE FROM MENU. DOT MENU CAN REVIEW, THEN CLEAR DIAGNOSTIC CODES	NA	NA
#20 REC (TRAIN RECORD DISPLAY)	REFERENCE, SEQUENTIAL DISPLAY OF PREVIOUS WARNING TIME RECORDS (NO ADJUSTMENT)	NA	NA
#21 PRN (PRINTER/LAPTOP READY)	STARTS DOWNLOAD OF INTERNAL TRAIN EVENT LOG WHEN SERIAL PORT CABLE CONNECTED	NA	NA
#22 LSP (LOCAL SERIAL PORT)	ENTRANCE TO SUB-MENU FOR SETTING SPEED OF SERIAL PORT DOWNLOADS	NA	NA
#23 @ (BAUD RATE)	BAUD RATE OF 38,400 IS 384 AND DEFAULT	@+384	@+384
#24 DB (DATA BITS)	7 OR 8 8 IS DEFAULT	DB+8	DB+8
#25 PA (PARITY)	O, E, OR N N IS DEFAULT	PA+N	PA+N
#26 AB (AUTO BI)	UP OR DN DN IS FACTORY DEFAULT (FIELD ADJUSTMENT - ADJUST TO "UP" ONLY WHEN BC HAS BEEN PREVIOUSLY STABILIZED THROUGH ADJUSTMENT, AND ONLY WHEN IN CONFORMANCE WITH SUPERVISOR INSTRUCTIONS AND PMD-3 MANUAL)	AB+DN	AB+DN
#27 RX (POTENTIOMETER VALUE)	REFERENCE, DISPLAY ONLY	NA	NA
#28 VERS (PROGRAM VERSION)	REFERENCE, SEQUENTIAL DISPLAY OF EPROM AND SOFTWARE VERSIONS	NA	NA

ALL OUT
THIS SHEET IS VOID
WHEN AS IN SERVICED.
CADI540093 PA2015022
10-05-15 IRL/O.MCIVER/

xorail

REVISIONS
11-08-13 IRS PA2013029

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

NEW OXFORD RD. 032125I

DETECTION DEVICE PROGRAM
HANOVER, PA M.P. BAS-57.35

DESIGNED	DIGITIZED	CHECKED	DATE
CSI	IRS/ELN	IRS/LLB	11-18-13

DRAWING	SHEET NO	NEXT SH	NEXT FILE	NEXT SH	FILE	SHEET
-----	-----	-----	-----	-----	BAS05735	C02

INDEX

CONTENTS

SH. NO.		REVISION NO. 1	2	3	4	5	6	7	8	9
101	INDEX AND REVISIONS									
501	TRACK AND SIGNAL PLAN									
E01	POWER DISTRIBUTION									
C01	DETECTION DEVICE CONSIST CWE-35									
C02	DETECTION CIRCUITRY CWE-35									
C03	CROSSING WARNING DEVICE GATE CIRCUITRY									
C04	CROSSING WARNING DEVICE LIGHT CIRCUITRY									
C05	SEAR II CIRCUITS									
C06	SEAR II CONFIGURATION AND FUNCTIONS									
C07	SEAR II CHANNELS									
C08	WAYSIDE ACCESS GATEWAY									

= DESIGN COMPLETED

= REVISION COMPLETED

= NOTE

NEW WORK
CXO1540893 PA2015821
18-05-15 XRL/O.MCIVER/
xorail

MS4000WSR.101
REV. 09-04-15

DESIGN DATE	REV. NO.
18-05-15	1

REVISIONS

REV. NO.	PROJECT NO.	DESIGN DATE	IN SERVICE DATE	REVISION DATE
1	PA2015821	18-05-15		

TO BE COMPLETED ON A.I.S.

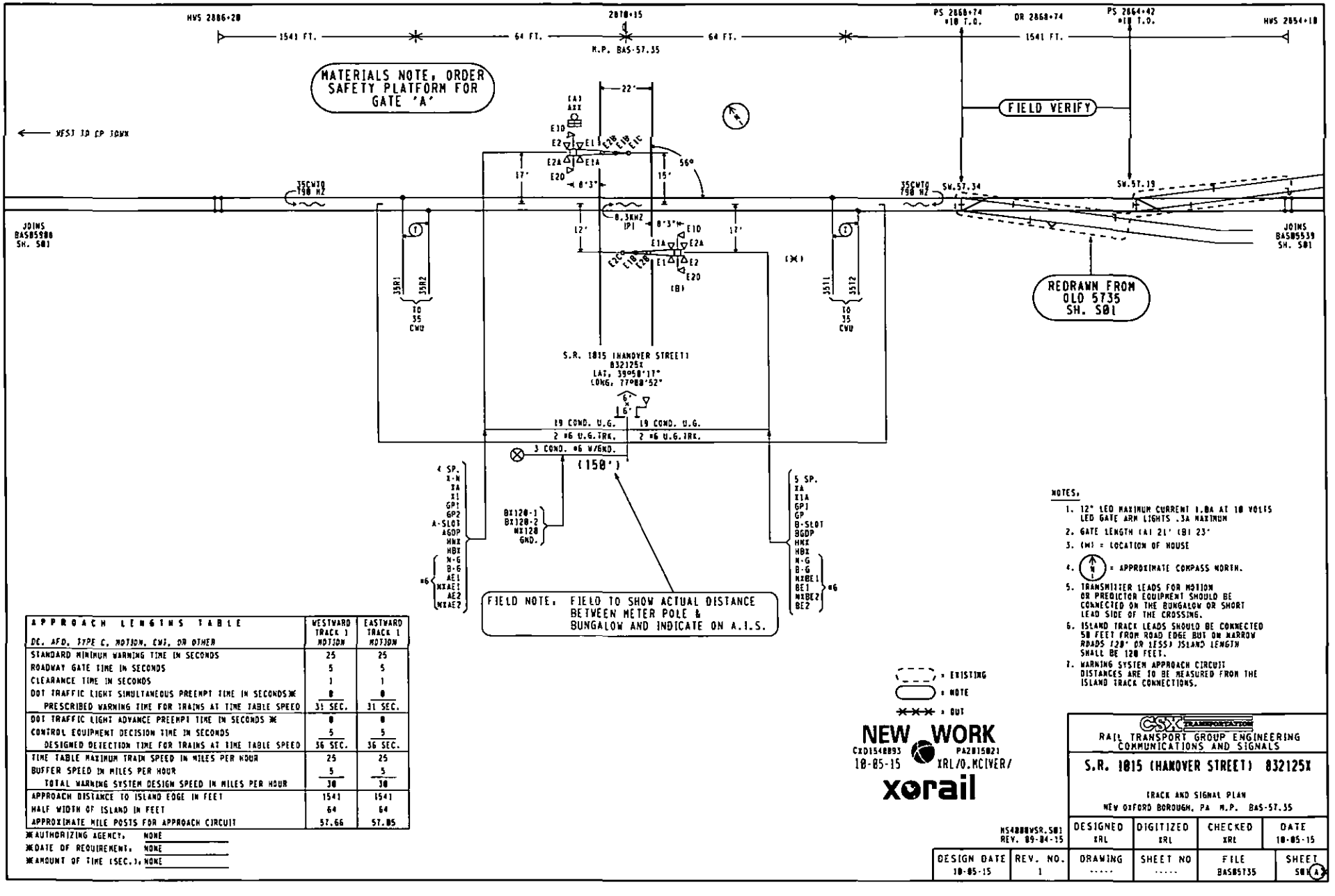
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

S.R. 1015 (HANOVER STREET) 032125X

INDEX AND REVISIONS
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	18-05-15

DRAWING	SHEET NO	FILE	SHEET
-----	-----	BAS05735	101



NOTES.

1. 12" LED MAXIMUM CURRENT 1.8A AT 10 VOLTS LED GATE ARM LIGHTS .3A MAXIMUM
2. GATE LENGTH (A) 21' (B) 23'
3. (M) = LOCATION OF HOUSE
4. (N) = APPROXIMATE COMPASS NORTH.
5. TRANSMITTER LEADS FOR MOTION OR PREDICTOR EQUIPMENT SHOULD BE CONNECTED ON THE BUNGALOW OR SHORT LEAD SIDE OF THE CROSSING.
6. ISLAND TRACK LEADS SHOULD BE CONNECTED 50 FEET FROM ROAD EDGE BUT ON NARROW ROADS (20' OR LESS) ISLAND LENGTH SHALL BE 120 FEET.
7. WARNING SYSTEM APPROACH CIRCUIT DISTANCES ARE TO BE MEASURED FROM THE ISLAND TRACK CONNECTIONS.

APPROACH LENGTHS TABLE DC, AFD, TYPE C, MOTION, EMI, OR OTHER	WESTWARD TRACK 1 MOTION	EASTWARD TRACK 1 MOTION
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25
ROADWAY GATE TIME IN SECONDS	5	5
CLEARANCE TIME IN SECONDS	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS*	0	0
PRESCRIBED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	31 SEC.	31 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS*	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	5	5
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	36 SEC.	36 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	25	25
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	30	30
APPROACH DISTANCE TO ISLAND EDGE IN FEET	1541	1541
HALF WIDTH OF ISLAND IN FEET	64	64
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	57.66	57.05

*AUTHORIZING AGENCY, NONE
*DATE OF REQUIREMENT, NONE
*AMOUNT OF TIME (SEC.), NONE

= EXISTING
= NOTE
= OUT

NEW WORK
CXD1548893 PA2B15021
10-05-15 XRL/O.MCIVER/
xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

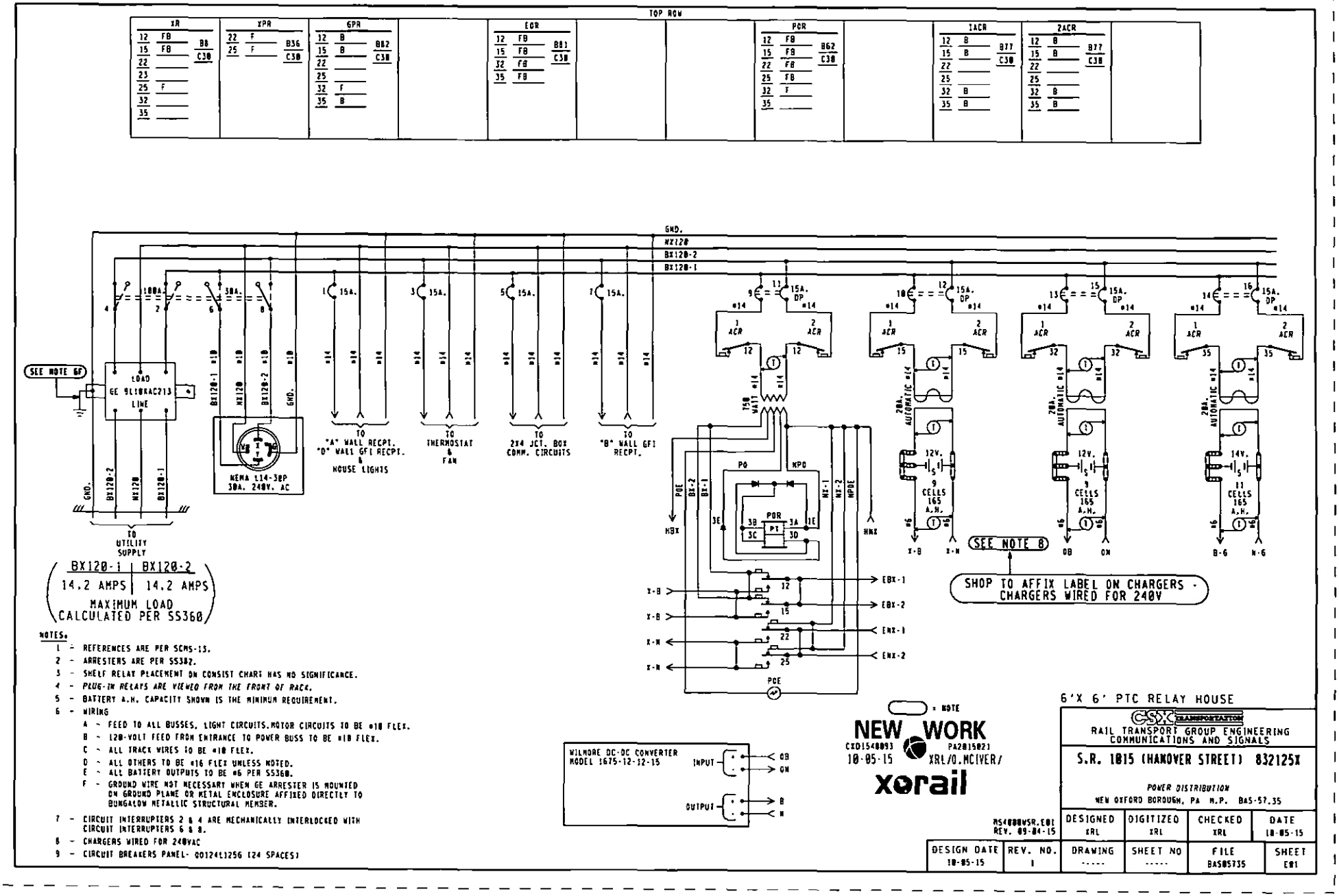
S.R. 1015 (HANOVER STREET) 832125X

TRACK AND SIGNAL PLAN
NEW OXFORD BOROUGH, PA N.P. BAS-57.35

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	-----	-----	BAS05735	S01 (A)

NS4888VSR.S01
REV. 09-04-15



NOTES:

1 - REFERENCES ARE PER SCMS-13.
2 - ARRESTERS ARE PER SS382.
3 - SHELF RELAY PLACEMENT ON CONSIST CHART HAS NO SIGNIFICANCE.
4 - *PLUG-IN RELAYS ARE VIEWED FROM THE FRONT OF RACK.*
5 - BATTERY A.H. CAPACITY SHOWN IS THE MINIMUM REQUIREMENT.
6 - WIRING
  A - FEED TO ALL BUSSES, LIGHT CIRCUITS, MOTOR CIRCUITS TO BE #18 FLEX.
  B - 120-VOLT FEED FROM ENTRANCE TO POWER BUSS TO BE #18 FLEX.
  C - ALL TRACK WIRES TO BE #18 FLEX.
  D - ALL OTHERS TO BE #16 FLEX UNLESS NOTED.
  E - ALL BATTERY OUTPUTS TO BE #6 PER SS360.
  F - GROUND WIRE NOT NECESSARY WHEN GE ARRESTER IS MOUNTED ON GROUND PLANE OR METAL ENCLOSURE AFFIXED DIRECTLY TO BUNGALOW METALLIC STRUCTURAL MEMBER.
7 - CIRCUIT INTERRUPTERS 2 & 4 ARE MECHANICALLY INTERLOCKED WITH CIRCUIT INTERRUPTERS 6 & 8.
8 - CHARGERS WIRED FOR 240VAC
9 - CIRCUIT BREAKERS PANEL- 0012413256 (24 SPACES)

6'X 6' PTC RELAY HOUSE

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

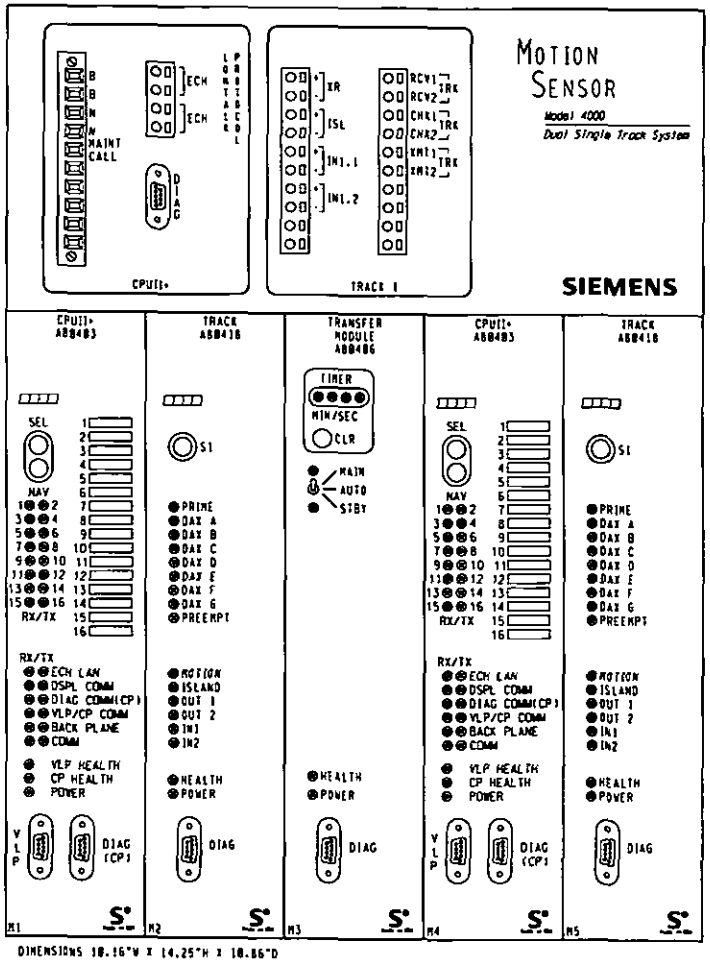
S.R. 1815 (HANOVER STREET) 832125X

POWER DISTRIBUTION
NEW OXFORD BOROUGH, PA M.P. BA5-57.35

RS4000WSR.E01
REV. 09-04-15

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	-----	-----	BA505735	E01



DIMENSIONS 18.16"W X 14.25"H X 10.86"D

MS 4888 APPLICATION NOTES,

1. THE MOTION SENSOR (MS) IS A MODULAR MICROPROCESSOR CONTROLLED SYSTEM THAT IS DEPLOYED TO CONTINUALLY MONITOR THE APPROACHES TO RAILROAD GRADE CROSSINGS AND TO CONTROL THE LAMPS, GATES AND BELLS ASSOCIATED WITH THOSE CROSSINGS.

2. THE MS 4888 (A88498) IS A SINGLE TRACK REDUNDANT UNIT THAT INCLUDES THE FOLLOWING MODULES.

SLOT	MODULE	FUNCTION	PART NO.
M1	CPU-II+	MAIN	A88483
M2	TRACK-I	MAIN	A88418
M3	TRANSFER UNIT		A88486
M4	CPU-II+	STANDBY	A88483
M5	TRACK-I	STANDBY	A88418

3. EACH TRACK MODULE HAS TWO PROGRAMMABLE INPUTS AND TWO PROGRAMMABLE OUTPUTS.

4. LOCATED ON THE FRONT OF EACH MODULE THERE ARE LED LIGHTS TO INDICATE THE ACTIVITY OF CERTAIN FUNCTIONS OCCURRING INSIDE THE MS.

5. BETWEEN SLOT 1 & 2 THERE IS A CHASSIS INDENTIFICATION CHIP (CIC) SOCKET AND AN ECO CONNECTOR (DB-25 FEMALE).

6. UPON THE FAILURE OF A MODULE IN SLOTS M1-M2 THE AUTOMATIC TRANSFER UNIT SWITCHES TO THE STANDBY MODULES IN SLOTS M4-M5.

XXX : OUT

NEW WORK
CX01548093 PA2015021
10-05-15 XRL/O.MCIVER/

xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

S.R. 1015 (HANOVER STREET) 832125X

DETECTION DEVICE CONSIST CWE-55
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

MS4888WSR.CDI
REV. 09-04-15

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	.....	.....	BAS05735	COVER A

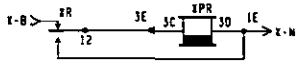
4000 MS APPLICATION DESIGN CARD

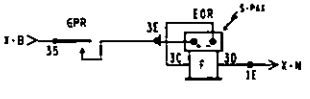
PROGRAM

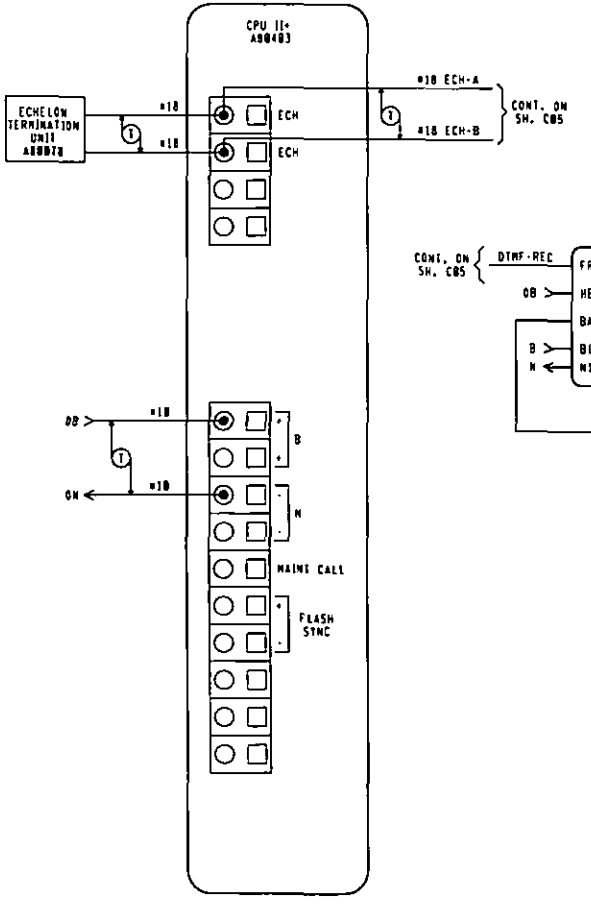
AFRQ (APPROACH FREQUENCY)	798	HZ
DIRN (APPROACH DIRECTION)	UNI [ ] BI [■] BIND [ ]	
TLVL (TRANSMIT LEVEL)	MED [■] HI [ ]	
APKU (APPROACH PICKUP DELAY)	75 ★	SEC.
UAX (UPSTREAM ADJACENT CROSSING)	81	SEC.
ISL (ISLAND FREQUENCY)	8.3	KHZ
IPKU (ISLAND PICKUP DELAY)	8 ★	SEC.
IN1 (INPUT 1)	UAX	
IN2 (INPUT 2)	NOT USED ★	

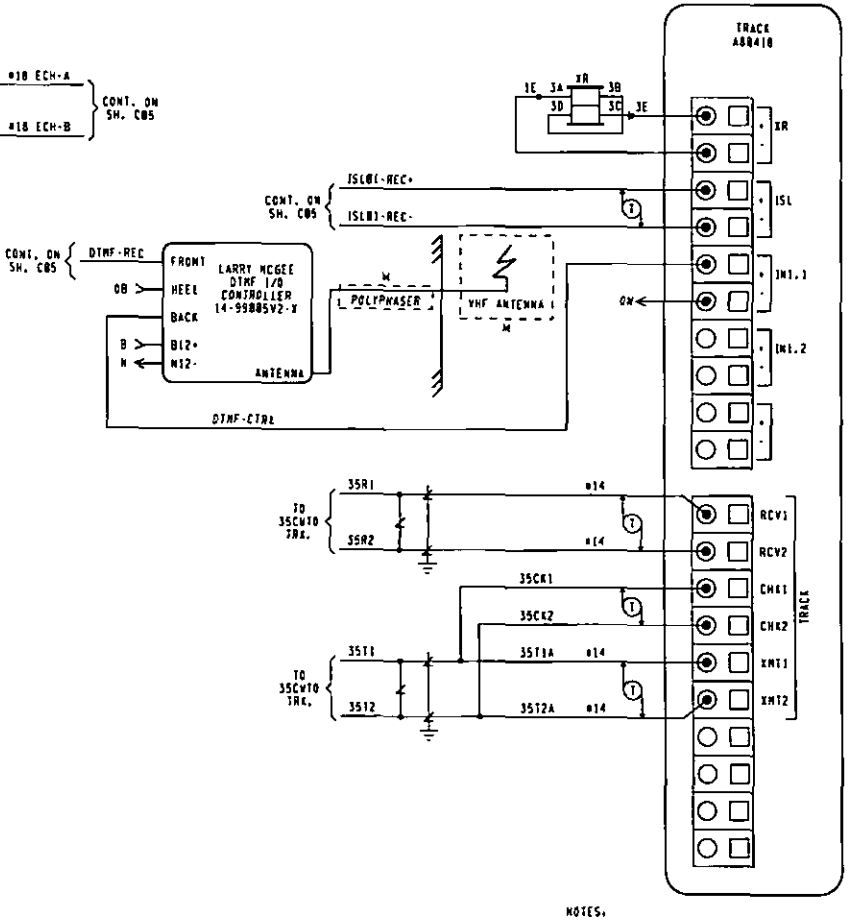
ADVANCED MENU

PSTR (POSITIVE START)	OFF ★	
PTIM (POSITIVE START TIMER)	N/A	MIN.
SHNT (SUDDEN SHUNT)	OFF ★	
LWEZ (LOW EZ DETECT)	OFF ★	
LWEX (LOW EX ADJUSTMENT)	39 ★	
COMP (COMPENSATION LEVEL)	1388 ★	
PRED (PREDICTOR)	NO ★	
WTIM (WARNING TIME)	N/A	SEC.









NOTES:

1. ★ = FACTORY DEFAULT (IF FIELD ADJUSTMENTS ARE NEEDED REFER TO MS4000 MANUAL, (SIG 00-11-02).
2. ⋈ = COMMUNICATIONS TO SUPPLY

PROGRAMMING FOR DTMF RADIO

REMOTE DTMF CROSSING ACTIVATION (ACTIVATES ENTIRE CROSSING)	
TO ACTIVATE PRESS,	125#
TO DE-ACTIVATE PRESS,	125#
(ACTIVATION WILL TIME OUT AFTER 60 SEC.)	

★★★★ = OUT

NEW WORK
CXD1540893 PA2015821
10-05-15 XRL/D.MCIVER/

xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

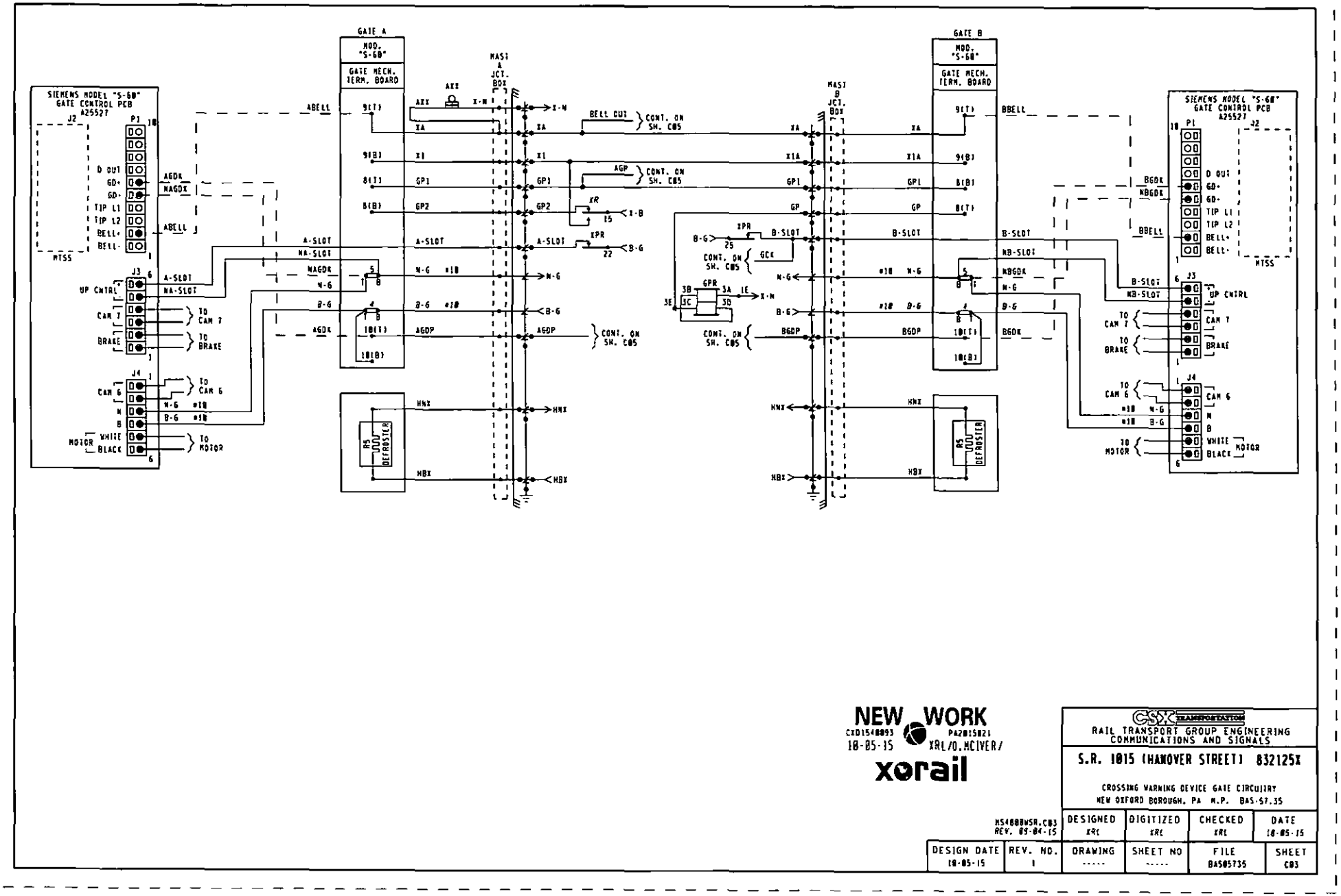
S.R. 1015 (HANOVER STREET) 832125X

DETECTION CIRCUITRY CWE-35
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

MS4000VSR.C02
REV. 09-04-15

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	-----	-----	BAS85735	C02 A



NEW WORK
CRD1548893 PA2015821
10-05-15 XRL/D.MCIVER/
xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

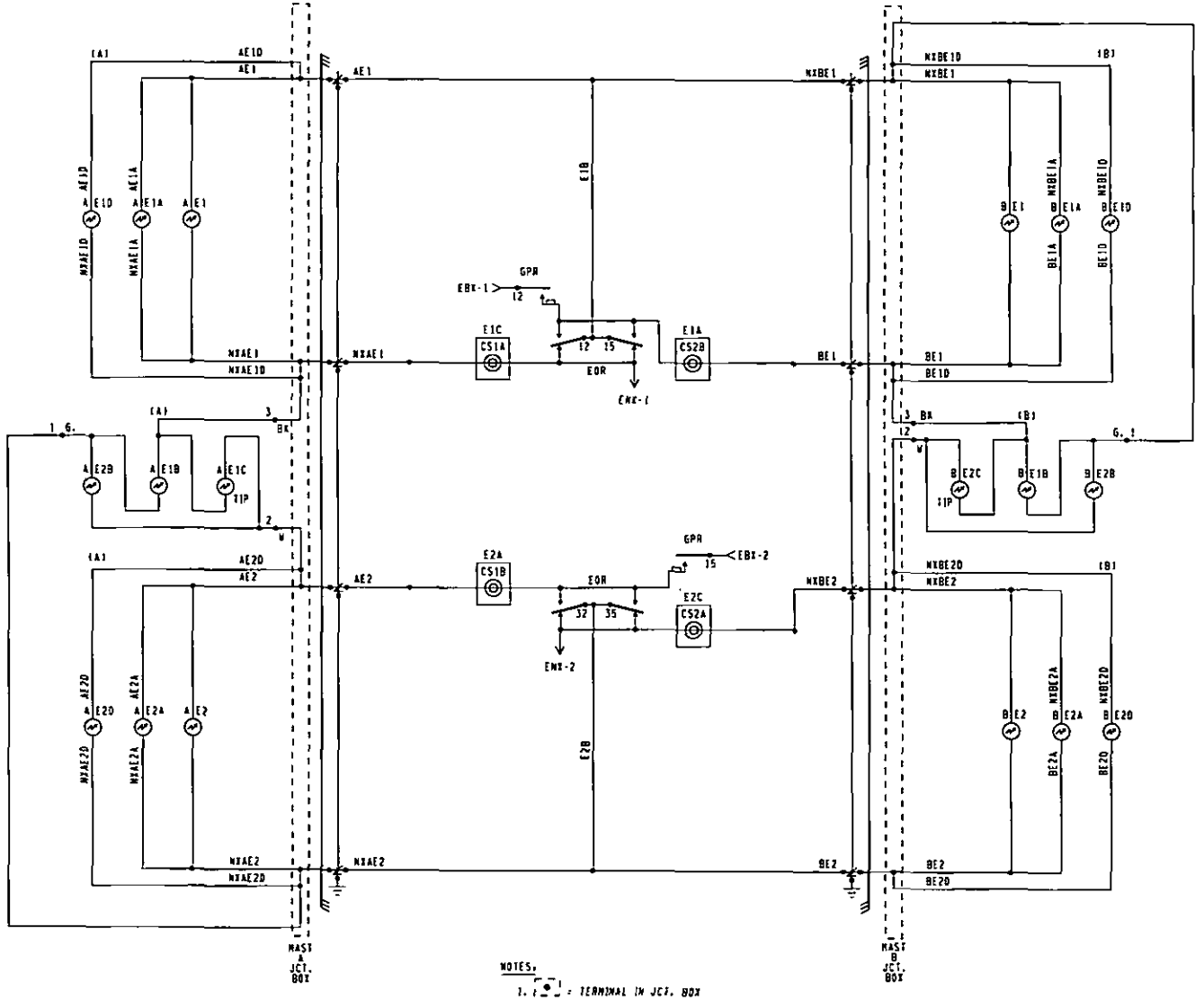
S.R. 1015 (HANOVER STREET) 832125X

CROSSING WARNING DEVICE GATE CIRCUITRY
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

MS4000WSR.CD3
REV. 09-04-15

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	-----	-----	BAS05735	CD3



NOTES:

1. (●) = TERMINAL IN JCT. BOX
2. WHEN 7 OR MORE LIGHTS ON A SINGLE STRUCTURE REFER TO SS-382 FOR REQUIRED ARRESTER RATING.

NEW WORK
CXD1548893 PA2815821
10-05-15 XRL/D.MCIVER/

xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

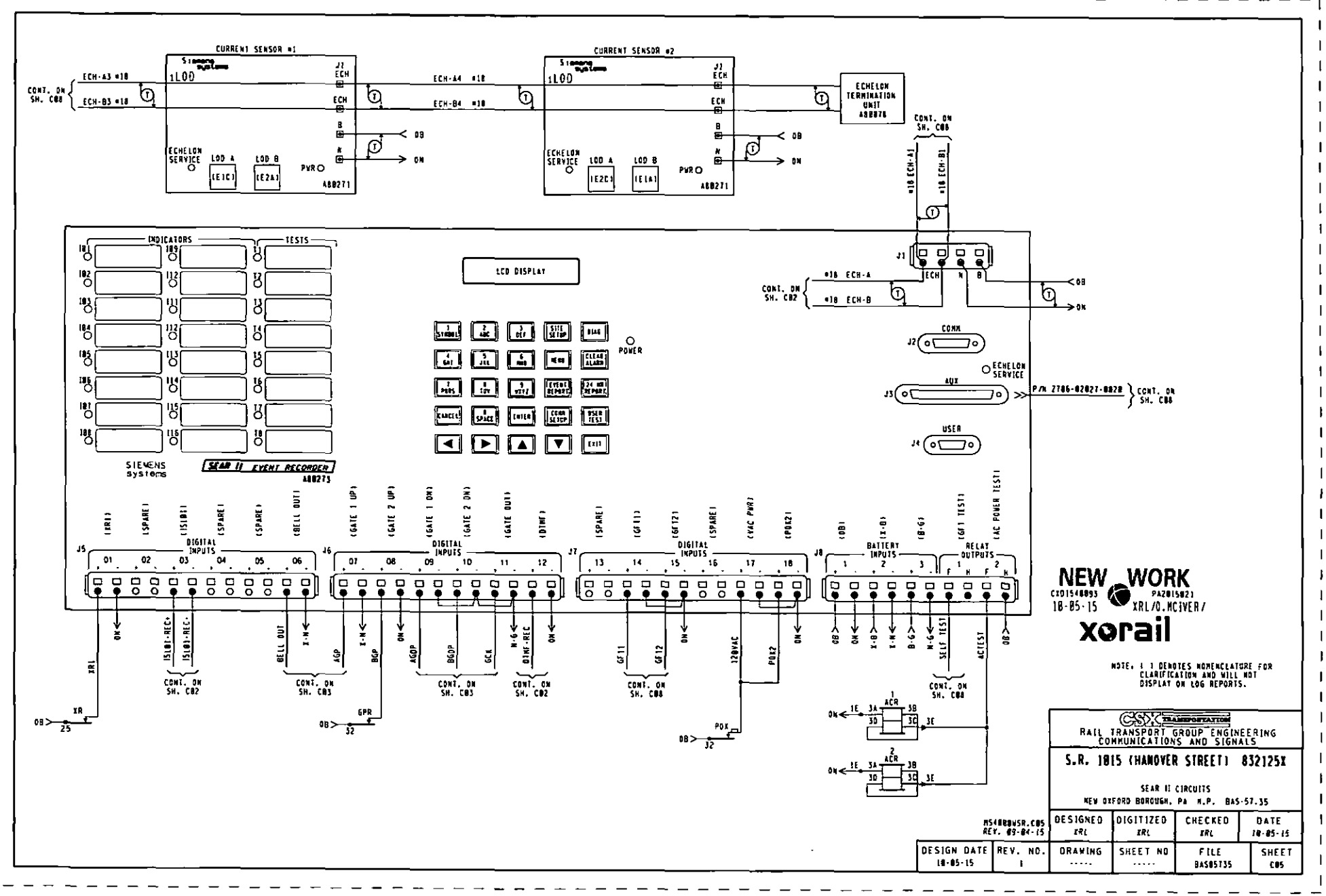
S.R. 1015 (HANOVER STREET) 832125X

CROSSING WARNING DEVICE LIGHT CIRCUITRY
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

M54888WSR.CD4
REV. 09-04-15

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	-----	-----	BAS05735	CD4


CURRENT SENSOR #1
CURRENT SENSOR #2
ECHELON TERMINATION UNIT A88878
ECHELON SERVICE
LOD A
LOD B
PWR
A88271
CONT. ON SH. C08
#18 ECH-A3
#18 ECH-B3
#18 ECH-A4
#18 ECH-B4
#18 ECH-A1
#18 ECH-B1
#18 ECH-A
#18 ECH-B
INDICATORS
TESTS
LCD DISPLAY
POWER
SIEMENS Systems
SEAR II EVENT RECORDER
A88273
COMM
AUX
USER
P/N 2786-02027-0828
DIGITAL INPUTS
BATTERY INPUTS
RELAY OUTPUTS
(IRI)
(SPARE)
(ISLOI)
(BELL OUT)
(GATE 1 UP)
(GATE 2 UP)
(GATE 1 DN)
(GATE 2 DN)
(GATE OUT)
(DTMF)
(GF11)
(GF12)
(VAC PWR)
(POX2)
(OB)
(X-O)
(B-G)
(GF1 TEST)
(AC POWER TEST)
CONT. ON SH. C02
CONT. ON SH. C03
CONT. ON SH. C04
CONT. ON SH. C08
IRI
ISLOI-REC+
ISLOI-REC-
BELL OUT
X-N
AGP
BGP
AGDP
BGDP
GCN
N-G
DTMF-REC
GF11
GF12
12OVAC
POX2
SELF TEST
ACTEST
XR
GPR
POX
ACR
NEW WORK
C101548093
PA2015021
10-05-15
XRL/O.MCIVER/
xorail
NOTE, ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS
S.R. 1815 (HANOVER STREET) 832125X
SEAR II CIRCUITS
NEW OXFORD BOROUGH, PA M.P. BAS-57.35
MS4000WSR.C05
REV. 09-04-15
DESIGNED XRL
DIGITIZED XRL
CHECKED XRL
DATE 10-05-15
DESIGN DATE 10-05-15
REV. NO. 1
DRAWING -----
SHEET NO -----
FILE BAS05T35
SHEET C05

	DEFAULTS AND/OR STYLE	FIELD RECORD
SEAR II EXECUTIVE PROGRAM	VERSION. 9V645A01T	VERSION.
APPLICATION PROGRAM (IF LOADED)	VERSION. _____	VERSION.

FIELD TO PROVIDE SEARII PROGRAM INFORMATION ON AIS

SITE SET UP OPTIONS	
OPTION	SELECTION
DATE	XX-XX-XXXX
TIME	(XX:XX:XX)
DAYLIGHT SAVINGS TIME	YES ■ NO □
TIME ZONE	■ EST □ CST
SITE NAME	S.R. 1815 (HANOVER STREET)
MILEPOST	BAS-57.35
DOT NUMBER	832125E
TESTER TYPE	■ CROSSING □ WAYSIDE
DATE FORMAT	■ MM-DD-YYYY □ DD-MM-YYYY
TEMP FORMAT	■ FAHRENHEIT □ CELSIUS
INDICATE HOLDOFF	0
INDICATE REFRESH	60
SITE TYPE	□ NO COMMUNICATION □ DIAL-UP ■ COLLECTOR □ NODE □ BULLHORN/MODE □ CDS902X
SITE ATCS ADDRESS	7.125.460.010.99.01 (7.RRR.LLL.GGG.99.01) NOTE 5
OFFICE ADDRESS	2.125.00.0000 (2.RRR.NN.0000)
OFFICE SITE ADDRESS	NA
BACK UP SITE ADDRESS 1	NA
BACK UP SITE ADDRESS 2	NA
POLL ID (1-99)	1
GEN/ATCS MODE	□ GENISYS ■ GEN/ATCS
XID DISABLED	■ YES □ NO
OFFICE COM. DEVICE	□ DIRECT □ MCM (RS232) □ MCM (ECM) ■ WAG (ECHELON) NOTE 6 □ DIAL UP (RS232) □ S200 RADIO (RS422)
RADIO ATCS ADDRESS	7.125.460.010.99.01
OFFICE PHONE NUMBER	1-XXX-XXX-XXXX
INIT. STRING	
FIELD COMM	□ VHF (ECM) □ VHF (RS232) □ WAG (ECM) □ SS (RS232) ■ NONE
USER PORT	BAUD RATE (9600) NOTE 7
AUX PORT	BAUD RATE (9600)
COMM PORT	BAUD RATE (9600)

SITE SET UP OPTIONS CONT.		
	OPTION	SELECTION
	RAILROAD NUMBER	125
NOTE 1	CROSSING CONFIGURATION	STANDARD ■ LARGE □ REMOTE □ SPLIT GATE □ ISL ONLY □ CP COLLECTOR □
	NUMBER OF XR INPUTS	0 □ 1 ■ 2 □ 3 □ 4 □
	NUMBER OF ISL INPUTS	0 □ 1 ■ 2 □ 3 □ 4 □
	CONSTANT WARNING DEVICE	GCP □ OTHER ■ NONE □
	TOTAL NUMBER OF GCP NODES	1 □ 2 □ 3 □ 4 □ 5 □
	NUMBER OF REDUNDANT GCP	1 □ 2 □ 3 □ 4 □
	CROSSING CONTROLLER 1	SSCC IIIA / PLUS □ SSCC IV □ OTHER □ NONE ■
	POR2	YES ■ NO □
NOTE 2	MAIN / STANDBY	YES □ NO ■
	AUXILIARY TRACKS	0 ■ 1 □ 2 □
	ENTRANCE GATE	0 □ 1 □ 2 ■ 3 □ 4 □ 5 □ 6 □ 7 □ 8 □
	EXIT GATES	0 ■ 1 □ 2 □ 3 □ 4 □
	GATE POSITION FAIL 10-60 SEC	25
	NUMBER OF UAX INPUTS	0 ■ 1 □ 2 □
	BATTERY BANKS	1 □ 2 □ 3 ■ 4 □ 5 □ 6 □
	CB RESOLUTION	.2 □ .5 □ 1.0 ■
	X-B RESOLUTION	.2 □ .5 □ 1.0 ■ NOT PRESENT □
	B-G RESOLUTION	.2 □ .5 □ 1.0 ■ NOT PRESENT □
	X-B2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	B-G2 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	X-B3 RESOLUTION	.2 □ .5 □ 1.0 □ NOT PRESENT ■
	PREEMPTION	NORMAL □ ADVANCED □ NO ■
	4OR INPUT	*YES ■ NO □*
NOTE 3	VHF COMMUNICATOR	YES □ NO ■
	ACTIVATION CODE 1	XXX
NOTE 4	ACTIVATION CODE 2	XXX
	ACTIVATION CODE 3	XXX
	ACTIVATION TIMEOUT (30 TO 600 SECONDS)	60
	ILOD MODULES	0 □ 1 □ 2 ■ 3 □ 4 □ 5 □ 6 □
	ANY LED BULBS	NO □ YES ■
	AUTO INSPECTIONS	YES ■ NO □
	BELL ON	GATES LOWERING ■ GATES MOVING □ ALWAYS □
	GROUND FAULT DETECTORS	YES ■ NO □
	BATTERIES ON GFDI	1 □ 2 ■
	FULL APPROACH MOVE ALARMS	ACTIVATED ■ DO NOT ACTIVATE □

NOTES:

1. *LARGE CONFIGURATION ASSIGNS* RECORDER INPUTS FOR USE WHEN DIGITAL I/O MODULE REQUIRED.
2. IF WARNING DEVICE = NONE MAIN/STANDBY OPTION NOT SHOWN.
3. IF VHF COMMUNICATIONS = NO THEN DTMF ACTIVATION AND CHANNEL OPTIONS ARE NOT SHOWN.
4. *LAST 3 DIGITS OF DOT NO. FOR* FIRST ACTIVATION CODE.
5. DEFAULT ADDRESS 7.628.188.188.99.01 USED FOR STAND ALONE LOCATIONS.
6. OPTIONS NOT SHOWN IF SITE TYPE = NO COMMUNICATIONS.
7. FORMAT AS: BAUD, DATA BITS, PARITY STOP BITS, FLOW CONTROL.

FIELD TO PROVIDE BATTERY VOLTAGES ON AIS

MEASURE BATTERY VOLTAGE AT INPUT		
BATTERY VOLTAGE	CB	XXXX VOLTS
BATTERY VOLTAGE	X-B	XXXX VOLTS
BATTERY VOLTAGE	B-G	XXXX VOLTS

LIT BULB COUNT ON EACH CIRCUIT	NO.	TYPE OF BULB	CURRENT READING IN AMP. AT APPROX. 10.0 V BULB VOLTAGE
CURRENT SENSOR (1) E1C, LAMP SET UP	5	□BULBS ■LED	3.6
CURRENT SENSOR (1) E2A, LAMP SET UP	5	□BULBS ■LED	3.6
CURRENT SENSOR (2) E2C, LAMP SET UP	5	□BULBS ■LED	3.6
CURRENT SENSOR (2) E1A, LAMP SET UP	5	□BULBS ■LED	3.6

= NOTE

NEW WORK
CX01540893 PA2815021
10-05-15 XRL/0.MCIVER/
xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

S.R. 1815 (HANOVER STREET) 832125E

SEAR II CONFIGURATION AND FUNCTIONS
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

MS4800WSR.C06
REV. 09-04-15

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	-----	-----	BAS05735	C06

DISCRETE INPUTS	DI 01	DI 02	DI 03	DI 04	DI 05	DI 06
CHANNEL	1	2	3	4	5	6
NAME	XR1		ISLAND 1 (TRACK)			BELL OUT (BELL PWR)
TAG	XR1 (XR)	SP	ISL1	SP	SP	BELL OUT (BELL PWR)
OFF NAME	DOWN (XR)		DOWN (ISL1)			OFF (BELL PWR)
ON NAME	UP (XR)		UP (ISL1)			ON (BELL PWR)
ON DEBOUNCE TIME	100 ms	1000 ms	100 ms	1000 ms	1000 ms	100 ms
OFF DEBOUNCE TIME	100 ms	1000 ms	100 ms	1000 ms	1000 ms	100 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms	1000 ms	1000 ms	1000 ms

TSS INPUTS	DI 07	DI 08	DI 09	DI 10
CHANNEL	7	8	9	10
NAME	AGP	BGP	AGDP	BGDP
TAG	AGP (GP)	BGP (GP)	AGDP	BGDP
OFF NAME	LIGHTS FLASH	LIGHTS FLASH	NOT HORIZ	NOT HORIZ
ON NAME	GATE VERTICAL	GATE VERTICAL	GATE HORIZ	GATE HORIZ
ON DEBOUNCE TIME	100 ms	100 ms	100 ms	100 ms
OFF DEBOUNCE TIME	100 ms	100 ms	100 ms	100 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms	1000 ms

DISCRETE INPUTS	DI 11	DI 12	DI 13
CHANNEL	11	12	13
NAME	GATE CONTROL	DTMF	
TAG	GCOUT1 (GCR)	DTMF-REC	SP
OFF NAME	OFF (DESCENT)	OFF (NO GATE KEYED)	
ON NAME	ON (ASCENT ON)	ON (ACTIVATE)	
ON DEBOUNCE TIME	100 ms	100 ms	1000 ms
OFF DEBOUNCE TIME	100 ms	100 ms	1000 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms

GFT INPUTS	DI 14	DI 15
CHANNEL	14	15
NAME	GND FAULT TESTER 1 (GFT1,2)	GND FAULT TESTER 2 (GFT3,4)
TAG	GFT1 (GFT1 DATA)	GFT2 (GFT2 DATA)
BATTERY 1 NAME	OB (GND FAULT)	B-G (GND FAULT)
BATTERY 1 TAG	OB (GND FAULT)	B-G (GND FAULT)
BATTERY 2 NAME	X-B (GND FAULT)	SP.
BATTERY 2 TAG	X-B (GND FAULT)	SP.

DISCRETE INPUTS	DI 16	DI 17	DI 18
CHANNEL	16	17	18
NAME		120 VAC	POX2
TAG	SP	120 VAC	POX2
OFF NAME		OFF (ALL POWER OFF)	OFF (ALL POWER OFF)
ON NAME		ON (ALL POWER ON)	ON (ALL POWER ON)
ON DEBOUNCE TIME	1000 ms	100 ms	100 ms
OFF DEBOUNCE TIME	1000 ms	100 ms	100 ms
TOGGLE PERIOD	1000 ms	1000 ms	1000 ms

BATTERY INPUTS	BI1	BI2	BI3
CHANNEL	1	2	3
NAME	OB (ELECTRONIC BATT)	X-B (BULB BATT)	B-G (GATE BATT)
TAG	OB	X-B	B-G
SAMPLE PERIOD (ms)	500 (ms)	500 (ms)	500 (ms)
RESOLUTION (V)	0.2 (VOLTS)	0.2 (VOLTS)	1.0 (VOLTS)
AVGERAGING SAMPLES	32 SAMPLES	32 SAMPLES	32 SAMPLES

RELAYS	RO1	RO2
CHANNEL	1	2
NAME	GFT TEST	AC POWER TEST (ACRLY)
TAG	SELF TEST	AC POWER TEST (ACRLY)
OFF STATE NAME	NOT TESTING	OFF (ACR ON)
ON STATE NAME	TESTING	ON (ACR UP)
UNKNOWN STATE NAME	PULSE	PULSE
ON PULSE TIME (s)	1 (s)	1 (s)
OFF PULSE TIME (s)	1 (s)	1 (s)
TOGGLE PERIOD (s)	1 (s)	1 (s)
DUTY CYCLE	50	50

NOTE, ( ) DENOTES NOMENCLATURE FOR CLARIFICATION AND WILL NOT DISPLAY ON LOG REPORTS.

NEW WORK
CXD1540893 PA2015021
18-05-15 XRL/D.KCIVER/
xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

S.R. 1015 (HANOVER STREET) 832125X

SEAR II CHANNELS
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

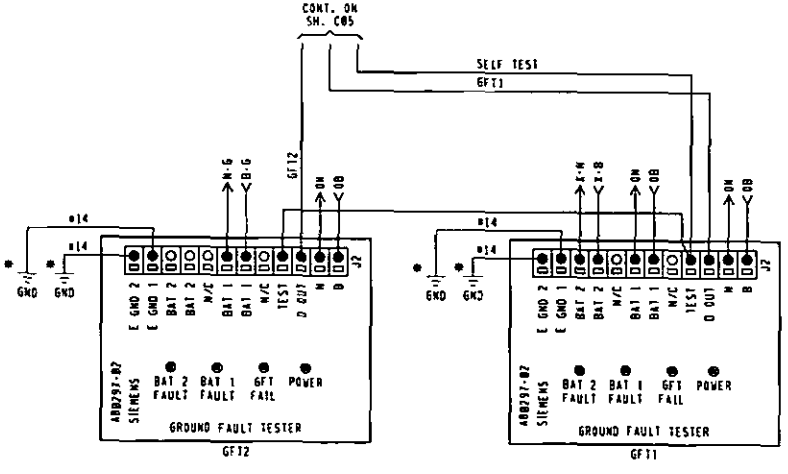
MS4000VSR.CDT
REV. 09-04-15

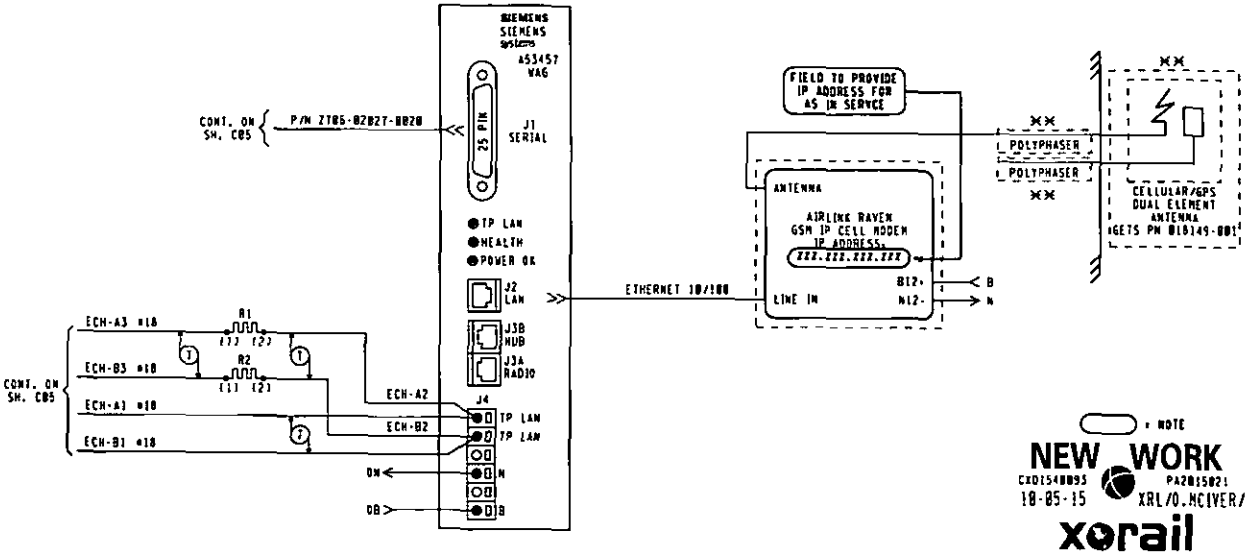
DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	18-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
18-05-15	1	-----	-----	BAS05735	CDT

WAYSIDE ACCESS GATEWAY CONFIGURATION	
SITE AEIS ADDRESS	7.125.460.010.01.01 7.125.LLL.666.SS.DD
SERIAL INTERFACE	9600,NONE,8,1/XOFLOW
SERIAL FORMAT	RAW
WAG TEST MODE	DISABLED
ECHELON ADDRESS	01.01
UDP PORTS	5000, 5001, 5002, 5003
ROUTE TABLE EXPIRY	5400 SEC
BROADCAST MEDIUM	IP ETHERNET
TCP PORTS	6001
DHCP SERVER	DISABLED
IP ADDRESS	192.168.13.1
TYPE 7 ROUTE LENGTH	12--7RRRLLLGGGSS
IP NETWORK MASK	255.255.255.000

NOTE TO INSPECTOR,
AT INSTALLATION OF CDMA BY COM.
MARK-UP CONFIGURATION TABLE FOR
AS IN SERVICE PLANS





COMM NOTES,
1. WAG J3A PINOUTS,
4 & 5 = +12VDC RADIO OUT
7 & 8 = GND RADIO RETURN

NOTE,
1. ALL WIRING #16 UNLESS NOTED OTHERWISE.
2. ⏚ = EARTH GROUND REF. TERMINALS REQUIRED FOR DETECTION. DO NOT JUMPER TERMINALS. MUST BE CONNECTED TO DIFFERENT POINTS OF BUNGALOW.
3. R1 & R2 = .5 WATT, 20Ω RESISTOR
4. ✕✕ = COMMUNICATIONS TO SUPPLY.

= NOTE

NEW WORK
CXD1540093 PA2015021
10-05-15 XRL/O.NCIVER/
xorail

CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

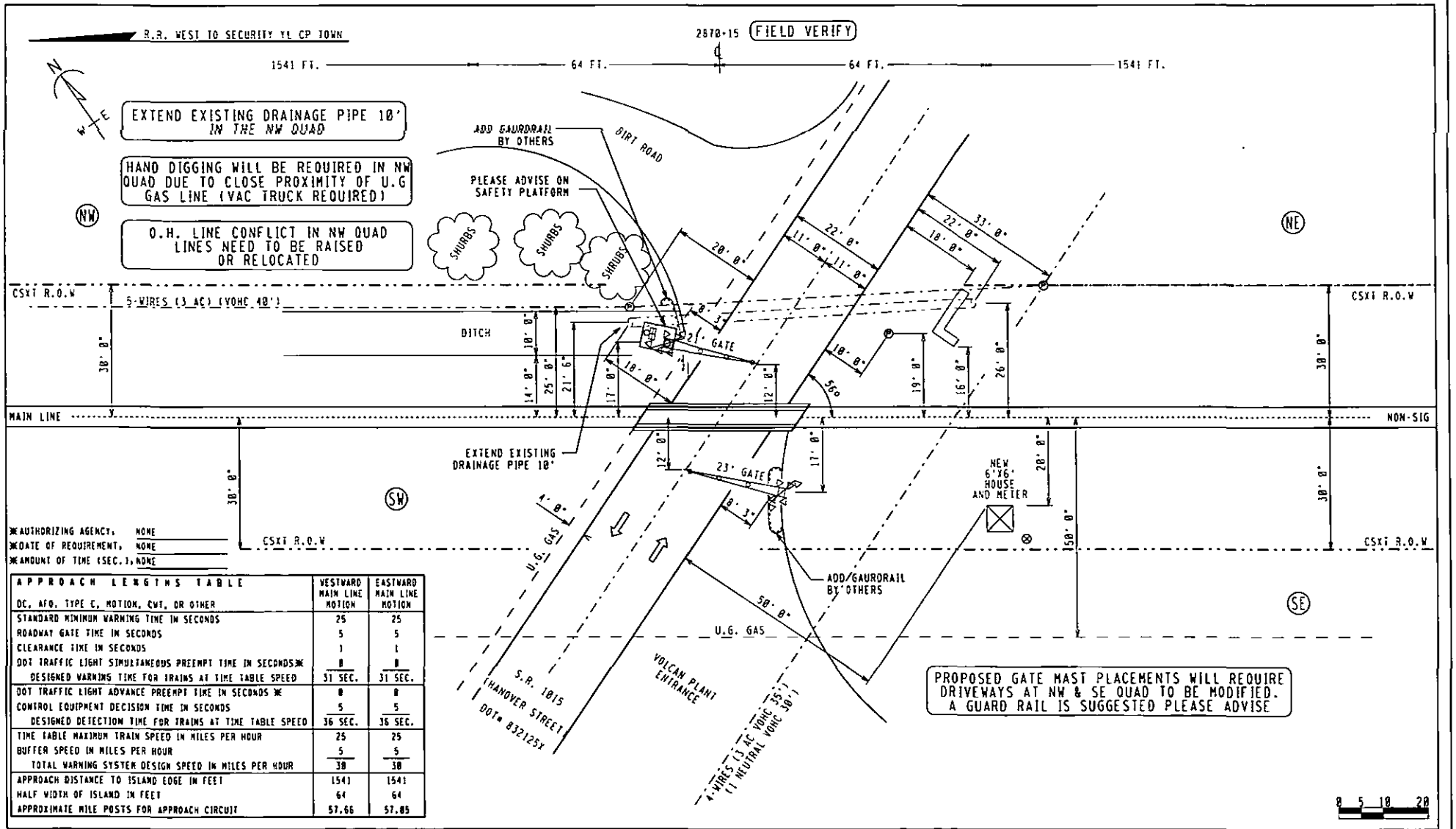
S.R. 1015 (HANOVER STREET) 832125X

WAYSIDE ACCESS GATEWAY
NEW OXFORD BOROUGH, PA M.P. BAS-57.35

MS4000WSR.C08
REV. 09-04-15

DESIGNED	DIGITIZED	CHECKED	DATE
XRL	XRL	XRL	10-05-15

DESIGN DATE	REV. NO.	DRAWING	SHEET NO	FILE	SHEET
10-05-15	1	-----	-----	BAS05735	C08



*AUTHORIZING AGENCY: NONE
*DATE OF REQUIREMENT: NONE
*AMOUNT OF TIME (SEC.): NONE

APPROACH LENGTHS TABLE DC, AFO, TYPE C, MOTION, CWT, OR OTHER	WESTWARD MAIN LINE MOTION	EASTWARD MAIN LINE MOTION
STANDARD MINIMUM WARNING TIME IN SECONDS	25	25
ROADWAY GATE TIME IN SECONDS	5	5
CLEARANCE TIME IN SECONDS	1	1
DOT TRAFFIC LIGHT SIMULTANEOUS PREEMPT TIME IN SECONDS*	0	0
DESIGNED WARNING TIME FOR TRAINS AT TIME TABLE SPEED	31 SEC.	31 SEC.
DOT TRAFFIC LIGHT ADVANCE PREEMPT TIME IN SECONDS *	0	0
CONTROL EQUIPMENT DECISION TIME IN SECONDS	5	5
DESIGNED DETECTION TIME FOR TRAINS AT TIME TABLE SPEED	36 SEC.	36 SEC.
TIME TABLE MAXIMUM TRAIN SPEED IN MILES PER HOUR	25	25
BUFFER SPEED IN MILES PER HOUR	5	5
TOTAL WARNING SYSTEM DESIGN SPEED IN MILES PER HOUR	30	30
APPROACH DISTANCE TO ISLAND EDGE IN FEET	1541	1541
HALF WIDTH OF ISLAND IN FEET	64	64
APPROXIMATE MILE POSTS FOR APPROACH CIRCUIT	57.66	57.85

PRODUCED FOR:
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

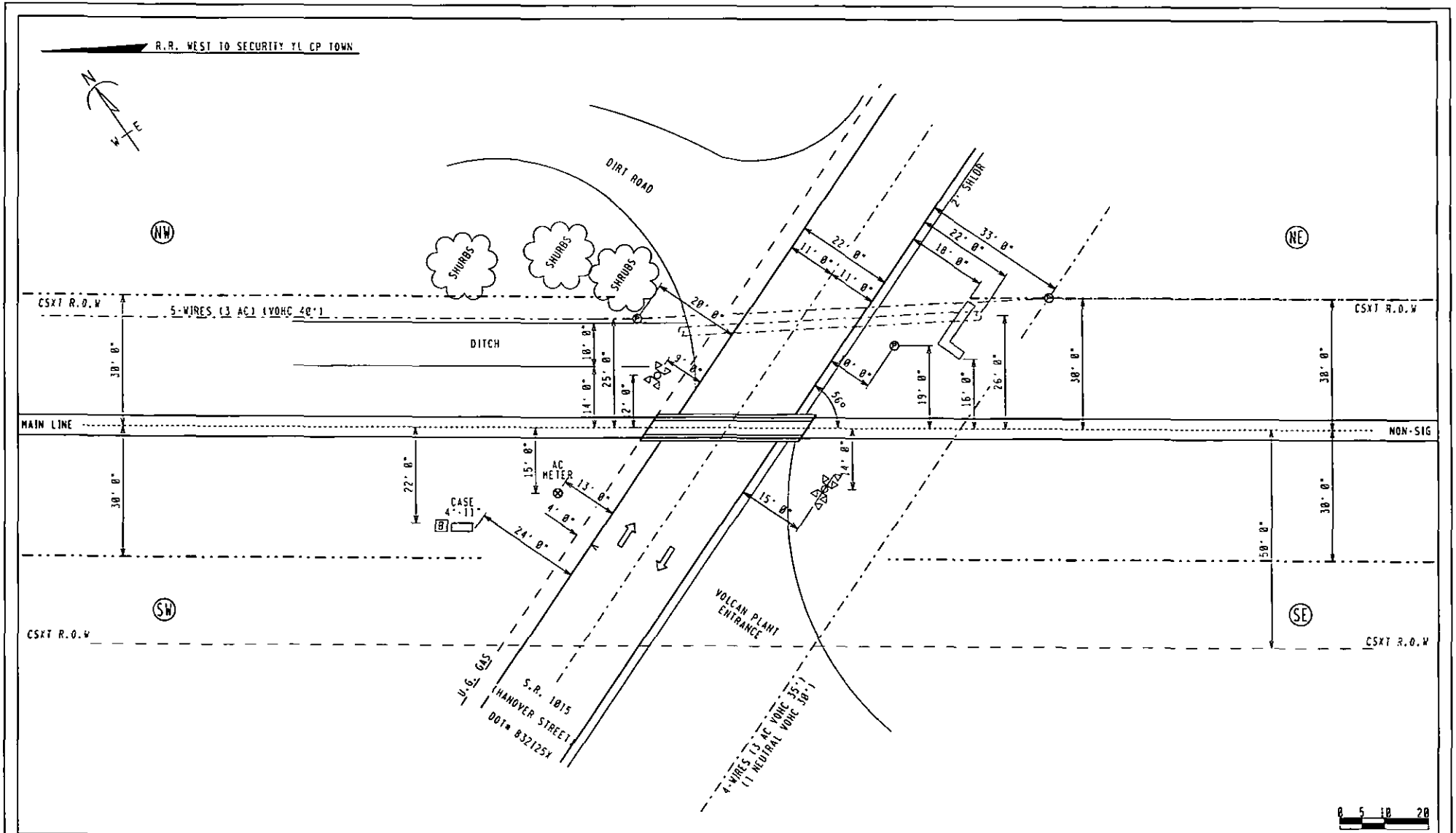
PRODUCED BY:
Xorail
A Wabtec Company

LEGEND			
CSX ROW	O.H. POWER	POLE	METER SERVICE ⊗
R/R POLELINE	FENCE	FIRE PLUG	Ⓕ
GAS	WATER	SEWER CAP	Ⓢ
FIBER OPTIC	SEWER	GAS VENT	Ⓥ

GPS COORDINATES	39°58'17" N	REVISION DATES	10-05-2015
	77°20'52" W		- -
	ELEV. 530'		- -
			- -

FILE NAME: BAS05735.H01	STREET NAME: S.R. 1015 (HANOVER STREET)
DATE DRAWN: 09-09-2015	CITY & STATE: NEW OXFORD BOROUGH, PA / M.P. BAS-57.35
DRAWN BY: XRL	DOT: 832125X
CHECKED BY: XRL	PROJECT #: PA2015021
XRL #: CXS15-39825	OP #: PA0262

PROPOSED CROSSING LAYOUT
SCALE = 20:1



PRODUCED FOR:
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING COMMUNICATIONS AND SIGNALS

PRODUCED BY:
Xorail
A Wabtec Company

LEGEND			
CSX ROW	O.H. POWER	POLE	
R/R POLELINE	FENCE	FIRE PLUG	
GAS	WATER	SEWER CAP	
FIBER OPTIC	SEWER	GAS VENT	

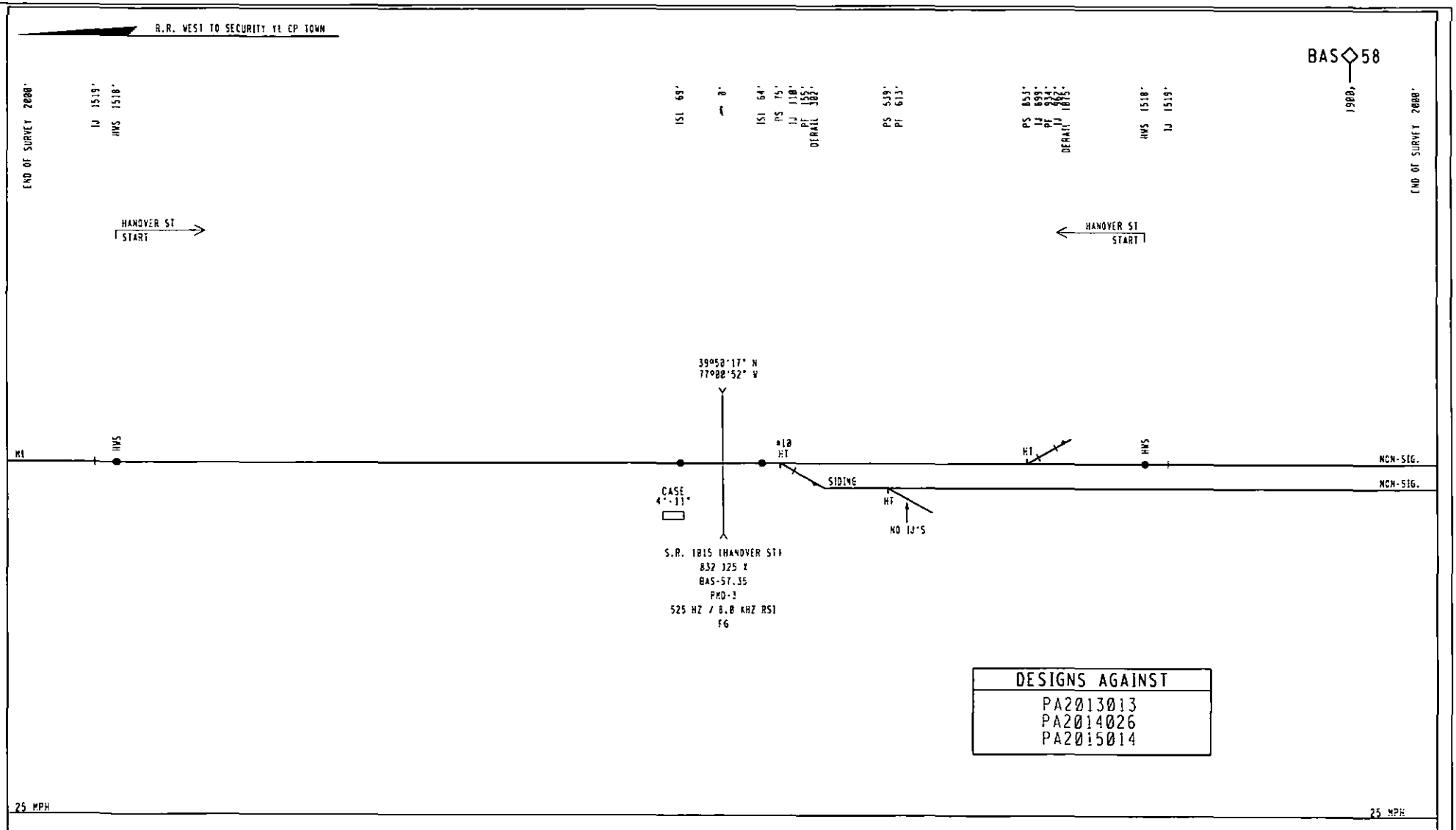
GUARD RAIL
METER SERVICE

GPS COORDINATES	REVISION DATES
39°50'17" N	- -
77°00'52" W	- -
ELEV. 530'	- -
	- -

FILE NAME: BAS05735.H02	STREET NAME: S.R. 1015 (HANOVER STREET)
DATE DRAWN: 09-09-2015	CITY & STATE: NEW OXFORD BOROUGH, PA / M.P. BAS-57.35
DRAWN BY: XRL	DOT: 832125X
CHECKED BY: XRL	PROJECT #: PA2015021
XRL #: CXS15-39825	OP #: PA0262

EXISTING CROSSING LAYOUT

SCALE = 20.1



PRODUCED FOR:
CSX TRANSPORTATION
RAIL TRANSPORT GROUP ENGINEERING
COMMUNICATIONS AND SIGNALS

PRODUCED BY:
Xorail
A Wabtec Company

LEGEND			
CSx ROW	GUARD RAIL	METER SERVICE	
R/R POLELINE	O.H. POWER	POLE	
GAS	FENCE	FIRE PLUG	
FIBER OPTIC	WATER	SEWER CAP	
	SEWER	GAS VENT	

GPS COORDINATES	REVISION DATES
39°58'17" N	10-05-2015
77°08'52" W	- -
ELEV. 530'	- -
	- -

FILE NAME: BAS05735.H03
DATE DRAWN: 09-09-2015
DRAWN BY: XRL
CHECKED BY: XRL
XRL #: CXS15-39825

STREET NAME: S.R. 1015 (HANOVER STREET)
CITY & STATE: NEW OXFORD BOROUGH, PA / M.P. BAS-57.35
DOT: 832125X
PROJECT #: PA2015021
OP #: PA0262

EXISTING TRACK LAYOUT

UPS Internet Shipping: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS StoreÂ®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, UPS Alliances (Office DepotÂ® or StaplesÂ®) or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the 'Find Locations' Quick link at ups.com. Schedule a same day or future day Pickup to have a UPS driver pickup all of your Internet Shipping packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
A PLUS PHARMACY
13023 BUSTLETON AVE
PHILADELPHIA ,PA 19116

UPS Access Point™
THE UPS STORE
148 EAST STREET RD
FEASTERVILLE TREVOSE ,PA 19053

UPS Access Point™
BEERTOWN BEVERAGE
12345 ACADEMY RD
PHILADELPHIA ,PA 19154

FOLD HERE