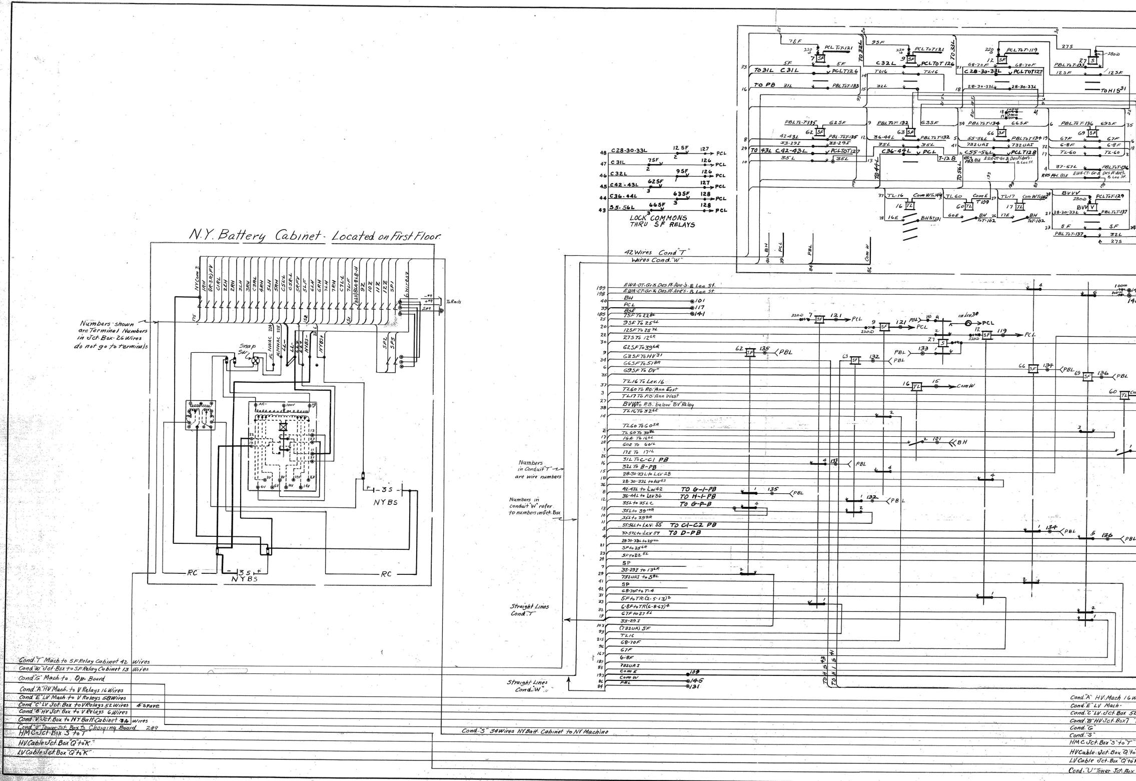
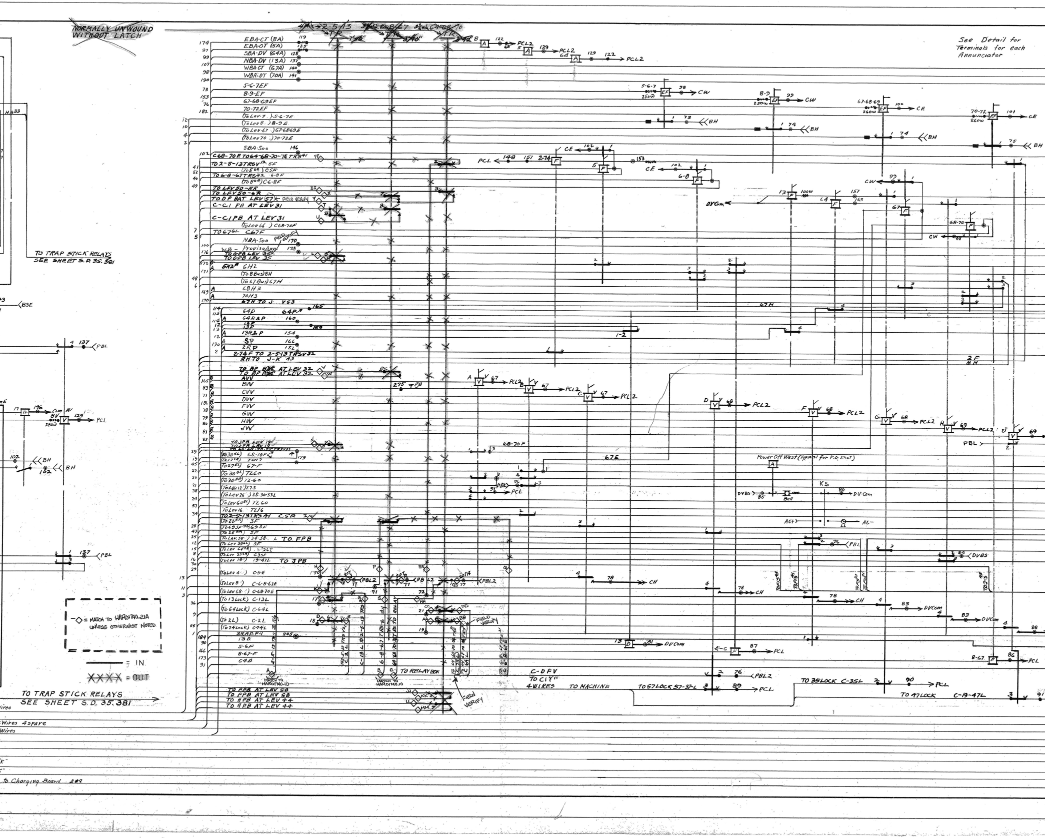
MATCH TO SHEET I. S.D.35.3 TOWER WIRING-DEVAL, ILL.


N.Y. Battery Cabinet - Located on First Floor
Numbers shown are Terminal Numbers in Jct. Box - 26 Wires do not go to terminals
NY Com
1RH
(1R-3R)FV
C1RL
2LH
2RH
3LH
3RH
C3RL
4RH
5LH
5RH
C5LR-L
C5R-L
C5R-FV
5LF
6LH
6RH
7LH
7RH
C7L-L
7L-F
(BLH)BL4-8LB-H
9Z
10Z
11Z
12Z
SP1
6 Wires B.S.+
To Rails
2#9
Snap Sw.
NWAC
NWAC
LL-
LL+
NYBS-
NYBS+
SP2
SP3
AC
100V
0V
6V
10V
14V
NYBS
3S
RC
RC
3S
NYBS
LOCK COMMONS THRU SF RELAYS
C28-30-33L
C31L
C32L
C42-43L
C36-44L
55-56L
12 SF
7SF
9SF
62SF
63SF
66SF
PCL
TO 31L C31L
TO PB 31L
PCL T126
PCL ToT-133
PCL ToT-121
PCL ToT 126
PCL ToT-119
C32L
TL16
C28-30-33L
28-30-33L
TO HIS 31
PBL To T-133
PBL To T-135
PBL ToT 132
PBL To T-134
PBL To T-136
TO 43L C42-43L
PCL T127
C36-44L
T-12B
C55-56L
PCL T128
732UAI
EWA-OT-Gr. & Des Pl. Ave's. & Lee St.
EWA-CT-Gr. & Des Pl. Ave's. & Lee St.
TO 44L
TO 56L
TL-16
Com W
TL60
Com E
T109
TL-17
BH ToT-102
BVVV
BVV
PCL ToT-129
PBL ToT-137
SF
32L
27S
BH
PCL
PBL
Com W
42 Wires Cond "T"
Wires Cond. "W"
199 EWA-OT-Gr. & Des Pl. Ave's. & Lee St.
198 EWA-CT-Gr. & Des Pl. Ave's. & Lee St.
40 BH 101
39 PCL 117
185 BSE 141
25 7SF To 22 8L
20 9SF To 25 6L
22 12SF To 25 7L
30 27S To 12 6R
9 62SF To 39 6R
34 63SF To HV 31
6 66SF To 51 8R
35 69SF To DV 11
37 TL16 To Lev. 16
3 TL60 To P.O. Ann East
27 TL17 To P.O. Ann West
38 BVW To P.B. below "BV" Relay
14 TL16 To 32 6L
TL60 To 60 5R
2 TL 60 To 30 8L
17 16E To 16 6L
28 60E To 60 1L
1 17E To 17 1L
26 31L To C-C1 PB
16 32L To B-PB
15 28-30-33L to Lev 28
18 28-30-33L to AV 43
36 42-43L to Lev 42 TO G-1-PB
8 36-44L to Lev 36 TO H-1-PB
12 35L to 35LC TO G-P-B
13 35L to 39 10R
10 35L to 39 9R
11 55-56L to Lev. 55 TO C1-C2 PB
5 37-57L to Lev 57 TO D-PB
4 28-30-33L to 25 10L
21 SF to 25 6R
23 SF to 22 5L
24 SP
7 33-29I to 13 6R
29 732UAI to 5 8L
41 SP
42 68-70F to T-4
31 5F to TR (2-5-13) 2
33 6-8F to TR (6-8-67) 4
32 67F to 27 5L
19 33-29I
103 (732UA) 5F
93 TL1C
215 68-70F
96 67F
167 6-8F
187 782UAI
85 Com E 109
193 Com W 145
86 PBL 131
84
Numbers in Conduit "T" are wire numbers
Numbers in conduit "W" refer to numbers in Jct. Box
Straight Lines Cond. "T"
Straight Lines Cond. "W"
TO H S 43
TO H S 41
on Lev. 30
Cond. "T" Mach. to SF Relay Cabinet 42 Wires
Cond "W" Jct. Box to SF Relay Cabinet 13 Wires
Cond. "G" Mach. to Op. Board
Cond. "A" HV Mach. to V Relays 16 Wires
Cond "E" LV Mach to V Relays 58 Wires
Cond "C" LV Jct. Box to V Relays 52 Wires 4 Spare
Cond "B" HV Jct. Box to V Relays 6 Wires
Cond. "V" Jct. Box to NY Batt. Cabinet 34 Wires
Cond "U" Tower Jct. Box to Charging Board 2#9
HMC Jct. Box "S" to "T"
HV Cable Jct. Box "Q" to "K"
LV Cable Jct. Box "Q" to "K"
Cond. "S" 34 Wires NY Batt. Cabinet to NY Machine
Cond. "A" HV Mach 16 W
Cond. "E" LV Mach.
Cond. "C" LV Jct. Box 52
Cond. "B" HV Jct. Box
Cond. "G"
Cond. "S"
HMC Jct. Box "S" to "T"
HV Cable Jct. Box "Q" to
LV Cable Jct. Box "Q" to
Cond. "U" Tower Jct. Box


~~NORMALLY UNWOUND WITHOUT LATCH~~
EBA-CT (8A)
EBA-OT (5A)
SBA-DV (64A)
NBA-DV (13A)
WBA-CT (67A)
WBA-OT (70A)
5-6-7EF
8-9-EF
67-68-69EF
70-72EF
SBA-Soo
NBA-Soo
W.B. - ProvisoAnn
C-C1 PB AT LEV 31
TO LEV 50-5R
TO LEV 50-6R
TO DP BAT LEV 57
FIELD VERIFY
6H2
68H3
70H3
67H TO J V63
64P
64R&P
13P
13R&P
SP
2RP
2-74F TO 2-5-13TRSV 32
8H TO J-K 43
AVV
BW
CVV
DVV
FVV
GW
HW
JW
67E
68-70F
CE
CW
BH
PCL
PCL2
PBL
DVCom
CH
Power Off West (Typical for P.O. East)
DVBS
Bell
KS
D-V-Com
AC+
AC-
2F
8H
C-DFV
TO C1Y" 4WIRES
TO MACHINE
TO 57LOCK 57-37-L
TO 35LOCK C-35L
TO 47LOCK C-19-47L
TO FPB AT LEV 58
TO HPB AT LEV 44
TO RELAY BOX
MATCH TO HAR01740.10
DIAG. 2
C-13L
C-64L
C-2L
C-74L
2RAP F-1
13D
5-6F
8-67-F
64D
8-67
E-C
VERIFY

See Detail for Terminals for each Annunciator

TO TRAP STICK RELAYS SEE SHEET S.D. 35.381

TO TRAP STICK RELAYS SEE SHEET S.D. 35.381

◇ = MATCH TO HAR01740.21A UNLESS OTHERWISE NOTED

—— = IN

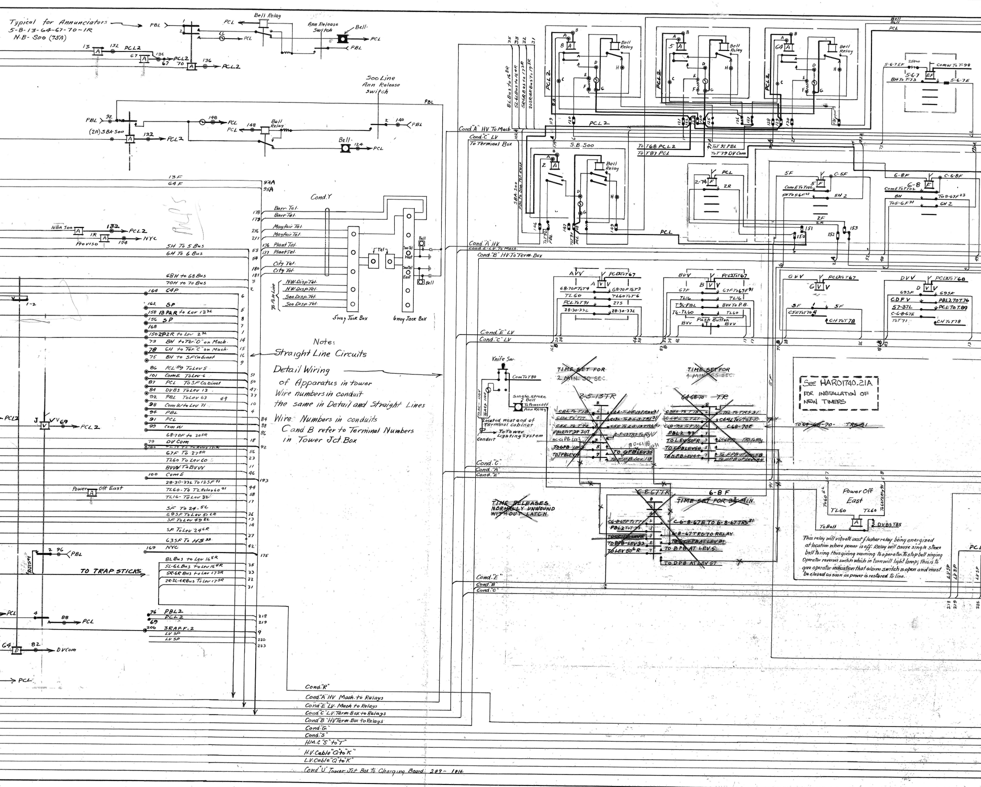
XXXX = OUT

Wires 4 spare

Wires

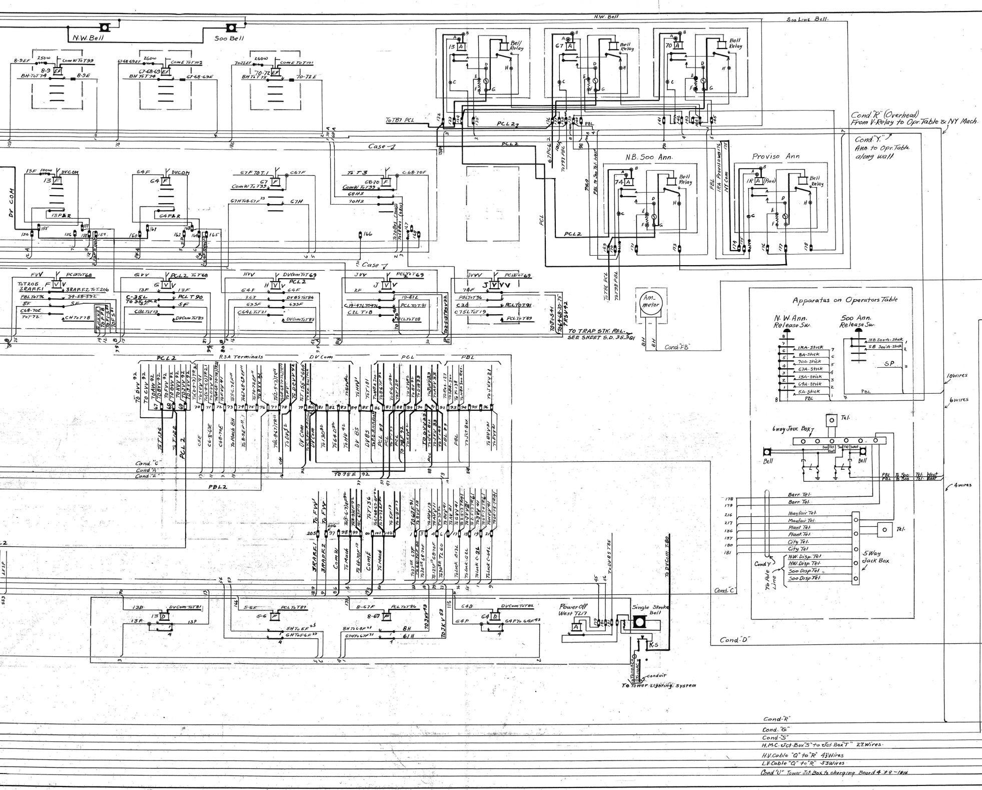
to Charging Board 279

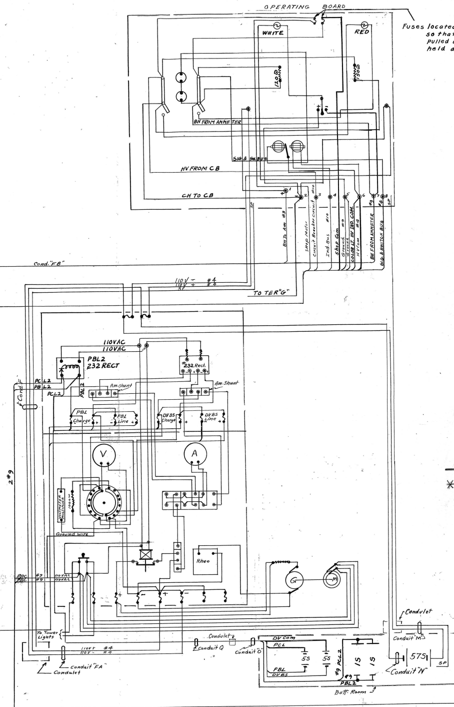
12-14-61
RAB


Typical for Annunciators 5-B-13-64-67-70-1R N.B-Soo (75A)
PBL
PCL
PCL2
Bell Relay
Ann Release Switch
Bell
Soo Line Ann Release switch
(2A) SBA-Soo
NBA Soo
Proviso
NYC
Cond. Y
Barr Tel.
Mayfair Tel.
Plant Tel.
City Tel.
N.W. Disp Tel.
Soo Disp. Tel.
To B&O Line
5 way Jack Box
6 way Jack Box
Soo Tel West
Soo Tel East
13F
64F
5H To 5 Bus
6H To 6 Bus
68H to 68 Bus
70H to 70 Bus
64P
SP
13 P&R to Lev 13
2P2R to Lev 2
BH to Ter. "D" on Mach.
CH to Ter. "C" on Mach.
BH to SF Cabinet
PCL #9 To Lev 5
Com E To Lev 6
PCL To SF Cabinet
DVBS To Lev 13
PBL To Lev 63
Com W to Lev 71
PBL
PCL
Com W
68-70F to 30 SR
DV Com
67F To 27 SR
TL60 To Lev 60
BVV To BVV
Com E
28-30-33L To 125F
TL60 To TL Relay 60
TL16 To Lev 32
SF To 24-5L
G95F To Lev 51 SR
SF To Lev 49 8L
SF To Lev 24 6R
G35F To HS
NYC
8L Bus to Lev 16 8R
5L-6L Bus to Lev 16 9R
5R-6R Bus to Lev 17 3R
2R-2L-4R Bus To Lev 17 5R
TO TRAP STICKS
PBL2
PCL2
3RAP F-2
LV SP
Power Off East
Cond. "R"
Cond. "A" HV Mach. to Relays
Cond. "E" LV. Mach to Relays
Cond. "C" LV. Term. Box to Relays
Cond. "B" HV Term. Box to Relays
Cond. "G"
Cond. "S"
HM.C "S" to "T"
H.V. Cable "Q" to "K"
L.V. Cable "Q" to "K"
Cond. "U" Tower Jct. Box to Charging Board 2#9 - 1#14
Cond. "A" HV To Mach.
Cond. "C" LV
To Terminal Box
Cond. "A" HV.
Cond. E-LV. To Mach.
Cond. "B" HV. To Term. Box
Cond. "E" LV
Cond. "C" LV
S.B. Soo
SBA-Soo
To T68 PCL2
To T87 PCL
To T 92 PBL
To T 79 DV Com
AVV
BVV
CVV
DVV
Push Button
5F
6-8F
2-74F
Knife Sw.
Com To T80
Single-Stroke Bell
To Power off Ann Relay
Located West end of Terminal cabinet
To Tower Lighting System
Conduit
~~TIME SET FOR 2 MIN. 30 SEC.~~
~~TIME SET FOR 4 MIN. 55 SEC.~~
2-5-13 TR
64-68-70 TR
~~6-8-67 TR~~
6-8 F
~~TIME SET FOR 3 MIN.~~
~~TIME RELEASES NORMALLY UNWOUND WITHOUT LATCH~~
TO GPB LEV 35
TO EPB LEV 58
C-6-8-67E TO 6-8-67 TRS
C68-70E
TO BPB AT LEV 5
TO DPB AT LEV 57
Cond. "C"
Cond. "A"
Cond. "E"
Cond. "B"
SEE HAR01740.21A FOR INSTALLATION OF NEW TIMERS
~~To 64-68-70- TRS 41~~
Power Off East
TL60
To Bell
DVBS T85
LV SP

Note:
Straight Line Circuits
Detail Wiring of Apparatus in tower
Wire numbers in conduit the same in Detail and Straight Lines
Wire Numbers in conduits C and B refer to Terminal Numbers in Tower Jct. Box

This relay will vibrate acct flasher relay being energized at location where power is off. Relay will cause single stroke bell to ring thus giving warning to operator. To stop bell ringing Operator reverses switch which in turn will light lamp; this is to give operator indication that alarm switch is open and must be closed as soon as power is restored to line.


N.W. Bell
Soo Bell
N.W. Bell
Soo Line Bell
Bell Relay
PCL 2
PCL
Case 1
Case 7
N.B. Soo Ann.
Proviso Ann
Cond "R" (Overhead) From V-Relay to Opr. Table & NY Mach.
Cond "Y." Ann. to Opr. Table along wall
DV COM
PBL
Am-meter
Cond "FB"
TO TRAP STK. REL. SEE SHEET S.D. 35.381
PCL 2
RSA Terminals
DV Com
PCL
PBL
Cond "C"
Cond "A"
Cond "E"
PBL 2
Apparatus on Operators Table
N.W. Ann. Release Sw.
Soo Ann. Release Sw.
1RA-Stick
8A-Stick
70A-Stick
67A-Stick
13A-Stick
64A-Stick
5A-Stick
PBL
NB Soo A-Stick
SB Soo A-Stick
SP
6 way Jack Box
Tel.
Bell
10 wires
6 wires
4 wires
Barr. Tel.
Mayfair Tel.
Plant Tel.
City Tel.
NW Disp. Tel.
Soo Disp. Tel.
5 Way Jack Box
Cond Y
To Pole Line
Cond "C"
Cond "D"
Power Off West TL17
Single Stroke Bell
K.S.
conduit
To Tower Lighting System
Cond "R"
Cond "G"
Cond "S"
H.M.C. Jct Box "S" to Jct Box "T" 27 Wires.
H.V. Cable "Q" to "R" 43 Wires
L.V. Cable "Q" to "R" 53 Wires
Cond "U" Tower Jct Box to charging Board 4 #9 - 18/16


OPERATING BOARD
WHITE
RED
120Ω
150Ω
BH FROM AMMETER
SIG. & SW. BUS
HV FROM CB
CH TO CB
SP
BH To Am #9
Shop Motor
Circuit Breaker Circuit #10
Ind. Bus #10
Shop Com
Ground #9
Ground
COLOR LT. HV IND. COM.
HV Com #4
#9
BH FROM AMMETER
#4
SIG. & SWITCH BUS
SP
Cond. "FB"
110V − #4
110V + #4
SP
TO TER "G"
110VAC
110VAC
PBL2
232 RECT
#232 Rect.
PC L2
PB L2
PCL2
PBL2
Cond. F
Am. Shunt
Am. Shunt
PBL Charge
PBL Line
DVBS Charge
DVBS Line
V
A
VOLTMETER MULTIPLIER
1000Ω
Ground wire
2#9
PAC #9 110VAC
PAC #9 110VAC
Rheo
G
M
To Tower Lights
110V+ #4
110V− #4
Conduit "FA"
Condulet
Condulet
Conduit Q
Conduit "O"
DV Com
PCL
PBL
DVBS
5S
5S
#9 PCL2
#9
PBL2
1S
1S
Batt. Room
Condulet
Conduit "M"
575
SP
Conduit "N"

Fuses located on rear of board.
so that fuse can not be
pulled and circuit breaker
held at the same time.

MADE-4-28-19
REVISIONS
Supersedes S.D. 35.31 D of 3-14-28 Redrawn acct. of Third Track Extension and remote control control of NY
E 10-1-30 Revised as per field check of C.G.S. of 7-17-31 NJC.
F 7-27-31 HH Revised as per field check of C.G.S. of 9-2-31. Fuses moved to rear of operating board NJC.
G 9-10-31 HH Changes acct. installation of Ann. at Des Plaines & Graceland Aves. per check of C.G.S. dated 10-3-32 were not shown.
H 10-13-32 Sw. 28G was shown. See field check of 10-28-32 by C.J.M.G.P.
J 11-21-32 HH REV. AS PER FIELD CHECK OF L.H.G. 3-27-42 JmR
K 4-2-51 REV. AS PER FIELD CHECK OF L.C. 1-25-46 JmR
L 4-5-51
M 6-7-66 RAR REV. PER O.R. OF 10-2-64 ACCT. REMOVE TWO H.T. X-OVERS EAST OF DEVAL PER PHONE CONVERSATION OF S.H. 6-7-66. DES PLAINES, ILL. ✓DVP
N 11-21-66 DVP REV. TO DATE
8-3-88 CDM REV PER F.C. BY H. MERKIN DATED 1-26-86 CHANGED TIME ON TIMERS #2-5-13 AND #64-68-70.
3-1-99 BJB REPLACE MECHANICAL TIMERS WITH ELECTRONIC TIMERS

—— = IN
~~XXXX~~ = ~~OUT~~

C.&N.W.RY.
TOWER WIRING
DEVAL, ILL.
OFFICE OF SIGNAL ENGINEER
CHICAGO, ILL. NOT TO SCALE

Cond. "R" V-Relay to NY Mach-4 Wires	
Cond. "S" NY-Batt. to N.V. Mach.	34 Wires
H.M.C. Jct Box "S" to "T"	27 Wires
HV Cable "Q" to "K"	43 Wires
LV Cable "Q" to "K"	53 Wires

DRAWN BY: NJC.
TRACED BY: CAM.
CHECKED BY: HH

C.&N.W.RY.
S.D.35.31 M

MATCH HERE TO S.D.35.32 TOWER WIRING-DEVAL, ILL.

HAR 01740.21