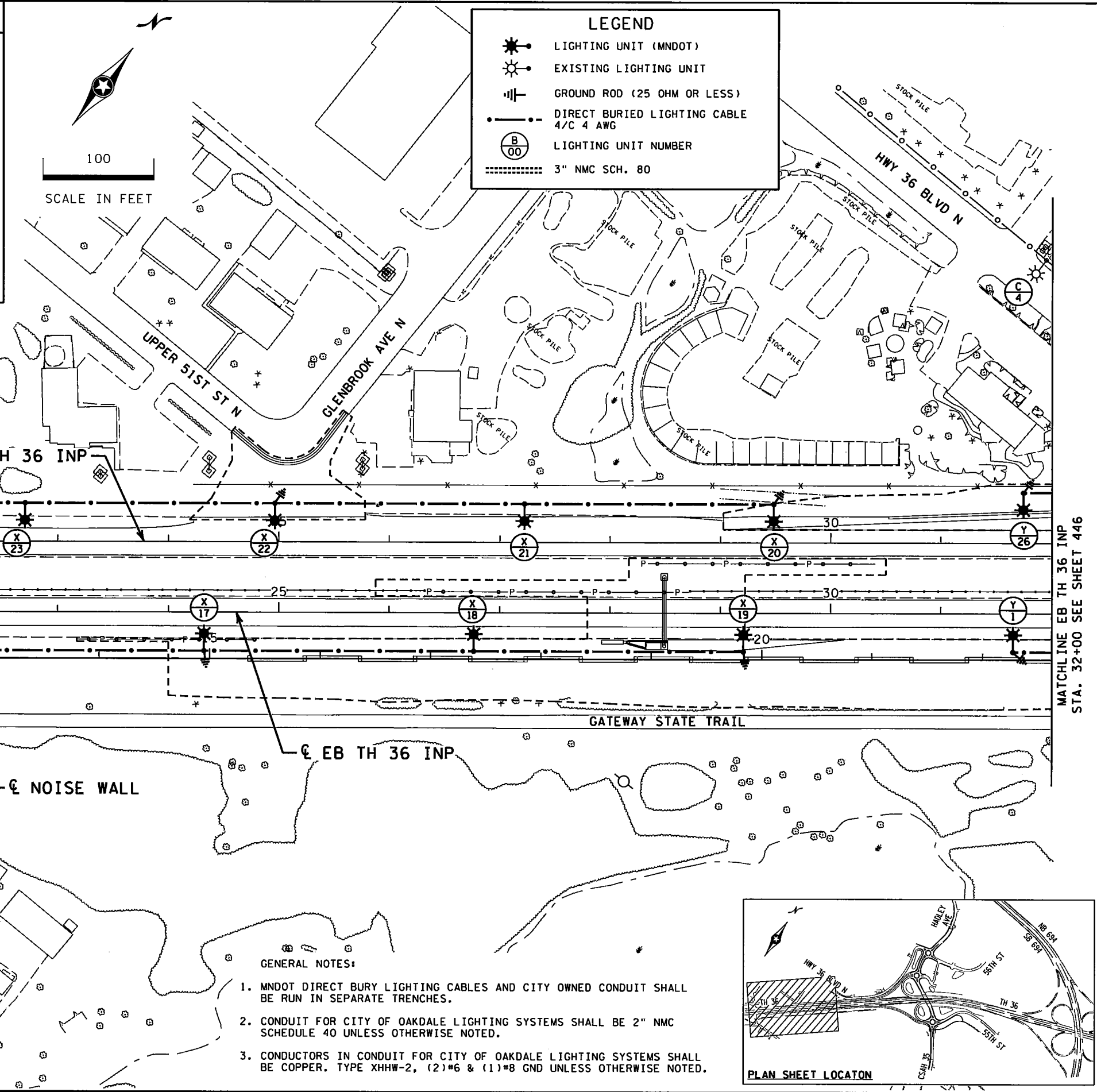
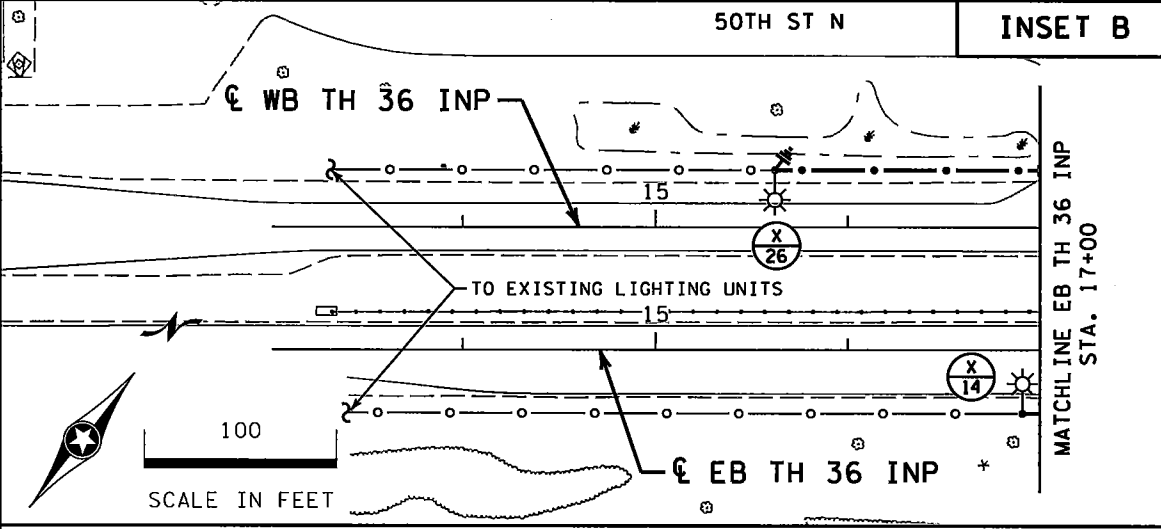


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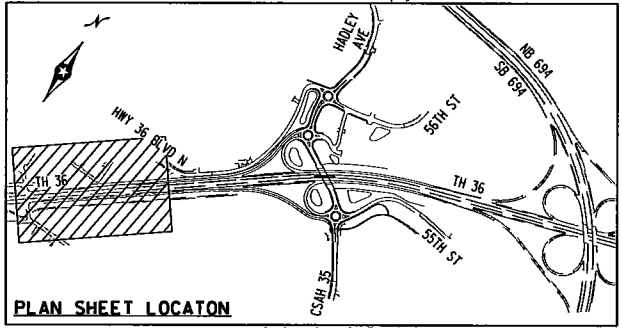
LEGEND

- LIGHTING UNIT (MNDOT)
- EXISTING LIGHTING UNIT
- GROUND ROD (25 OHM OR LESS)
- DIRECT BURIED LIGHTING CABLE 4/C 4 AWG
- LIGHTING UNIT NUMBER
- 3" NMC SCH. 80

3" NMC SCH 80 DIRECTIONAL BORE. ROUTE NEW DIRECT BURY LIGHTING CABLE 4/C 4AWG THROUGH CONDUIT TO EXISTING LIGHTING UNIT T6X-26. CONNECT TO EXISTING CIRCUITRY IN BASE OF LIGHTING UNIT.

3" NMC SCH 80 DIRECTIONAL BORE. ROUTE NEW DIRECT BURY LIGHTING CABLE 4/C 4AWG THROUGH CONDUIT TO EXISTING LIGHTING UNIT T6X-14. CONNECT TO EXISTING CIRCUITRY IN BASE OF LIGHTING UNIT.

- GENERAL NOTES:**
- MNDOT DIRECT BURY LIGHTING CABLES AND CITY OWNED CONDUIT SHALL BE RUN IN SEPARATE TRENCHES.
 - CONDUIT FOR CITY OF OAKDALE LIGHTING SYSTEMS SHALL BE 2" NMC SCHEDULE 40 UNLESS OTHERWISE NOTED.
 - CONDUCTORS IN CONDUIT FOR CITY OF OAKDALE LIGHTING SYSTEMS SHALL BE COPPER. TYPE XHHW-2, (2)*6 & (1)*8 GND UNLESS OTHERWISE NOTED.



DESIGN TEAM			
DRAWN BY:	MIT		
DESIGNER:	AKF		
CHECKED BY:	PHC		
NO.	BY	DATE	REVISIONS

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Certified By: *Peter H. Christensen* Lic. No. 52213
 Printed Name: PETER H. CHRISTENSEN Date: 10/19/2018



MINNESOTA DEPARTMENT OF TRANSPORTATION
 CITY OF OAKDALE
T.H. 36 / HADLEY AVENUE
 S.P. 8204-72 (T.H. 36)
 S.P. 082-090-007, S.P. 185-241-002, S.P. 082-596-005

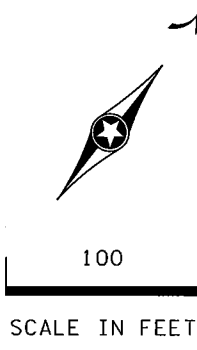
LIGHTING PLAN
 PROPOSED

FILE NO.	445
WASHC-138230	
LT8	452
OF LT15	

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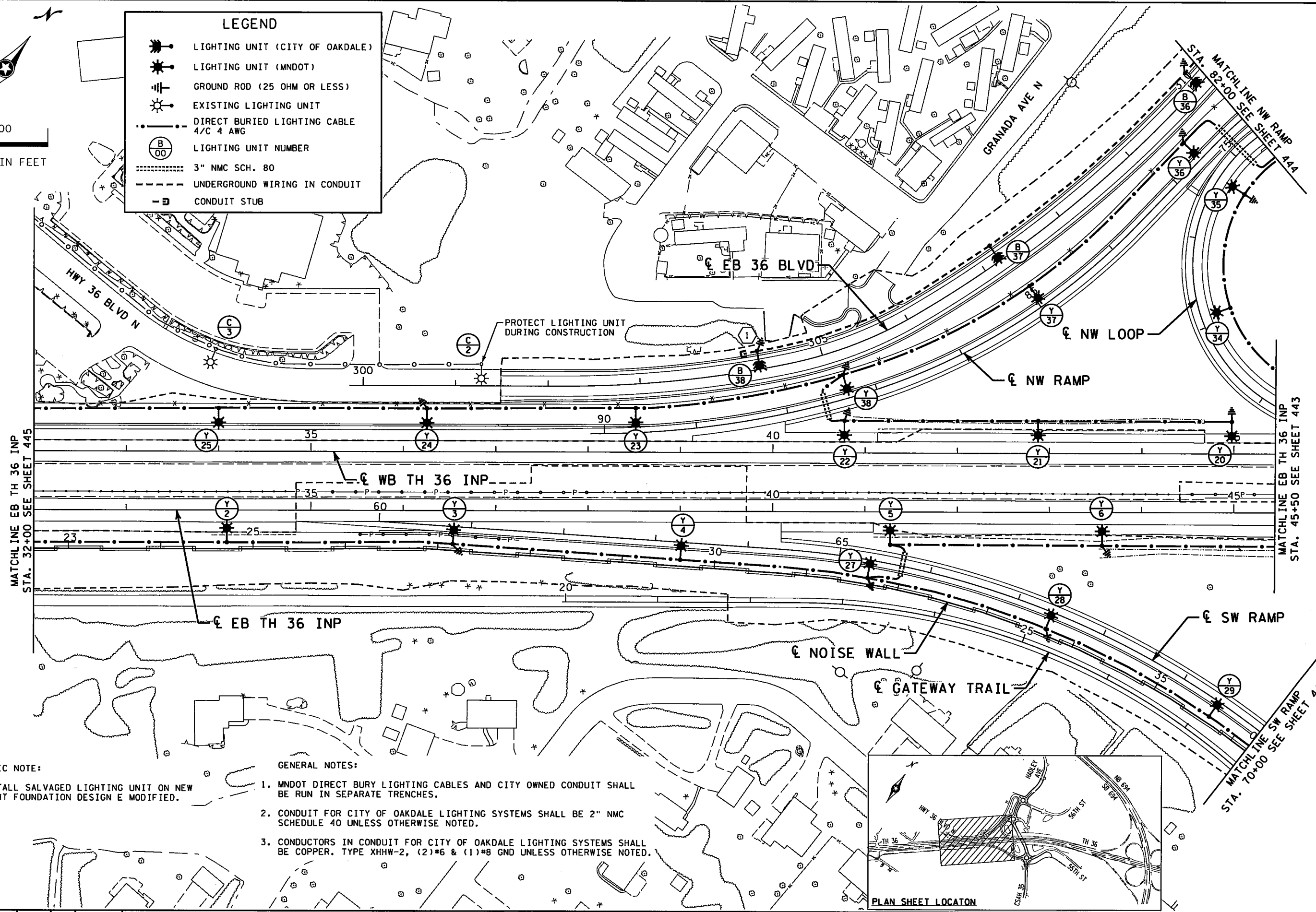
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LEGEND

- LIGHTING UNIT (CITY OF OAKDALE)
- LIGHTING UNIT (MNDOT)
- GROUND ROD (25 OHM OR LESS)
- EXISTING LIGHTING UNIT
- DIRECT BURIED LIGHTING CABLE 4/C 4 AWG
- LIGHTING UNIT NUMBER
- 3" NMC SCH. 80
- UNDERGROUND WIRING IN CONDUIT
- CONDUIT STUB

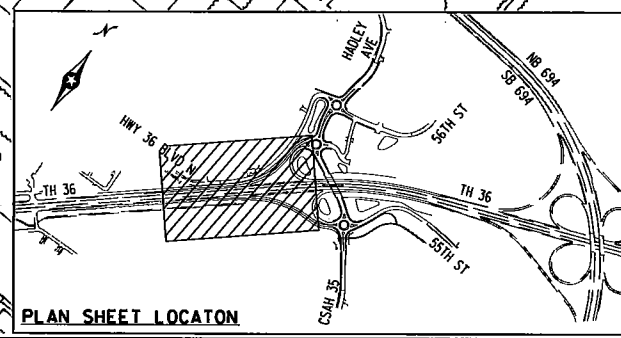


SPECIFIC NOTE:

- 1. INSTALL SALVAGED LIGHTING UNIT ON NEW LIGHT FOUNDATION DESIGN E MODIFIED.

GENERAL NOTES:

1. MNDOT DIRECT BURY LIGHTING CABLES AND CITY OWNED CONDUIT SHALL BE RUN IN SEPARATE TRENCHES.
2. CONDUIT FOR CITY OF OAKDALE LIGHTING SYSTEMS SHALL BE 2" NMC SCHEDULE 40 UNLESS OTHERWISE NOTED.
3. CONDUCTORS IN CONDUIT FOR CITY OF OAKDALE LIGHTING SYSTEMS SHALL BE COPPER. TYPE XHHW-2, (2)*#6 & (1)*#8 GND UNLESS OTHERWISE NOTED.



DESIGN TEAM			
DRAWN BY:	MTT		
DESIGNER:	AKF		
CHECKED BY:	PHC		
NO.	BY	DATE	REVISIONS

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MINNESOTA DEPARTMENT OF TRANSPORTATION
 CITY OF OAKDALE
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 S.P. 8204-72 (T.H. 36)
 S.P. 082-090-007, S.P. 185-241-002, S.P. 082-596-005

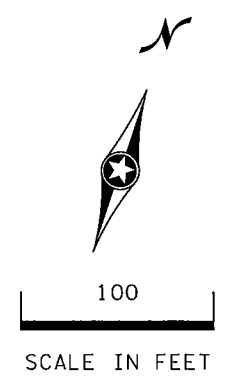
LIGHTING PLAN
 PROPOSED

FILE NO.	446
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LT9	452
OF LT15	

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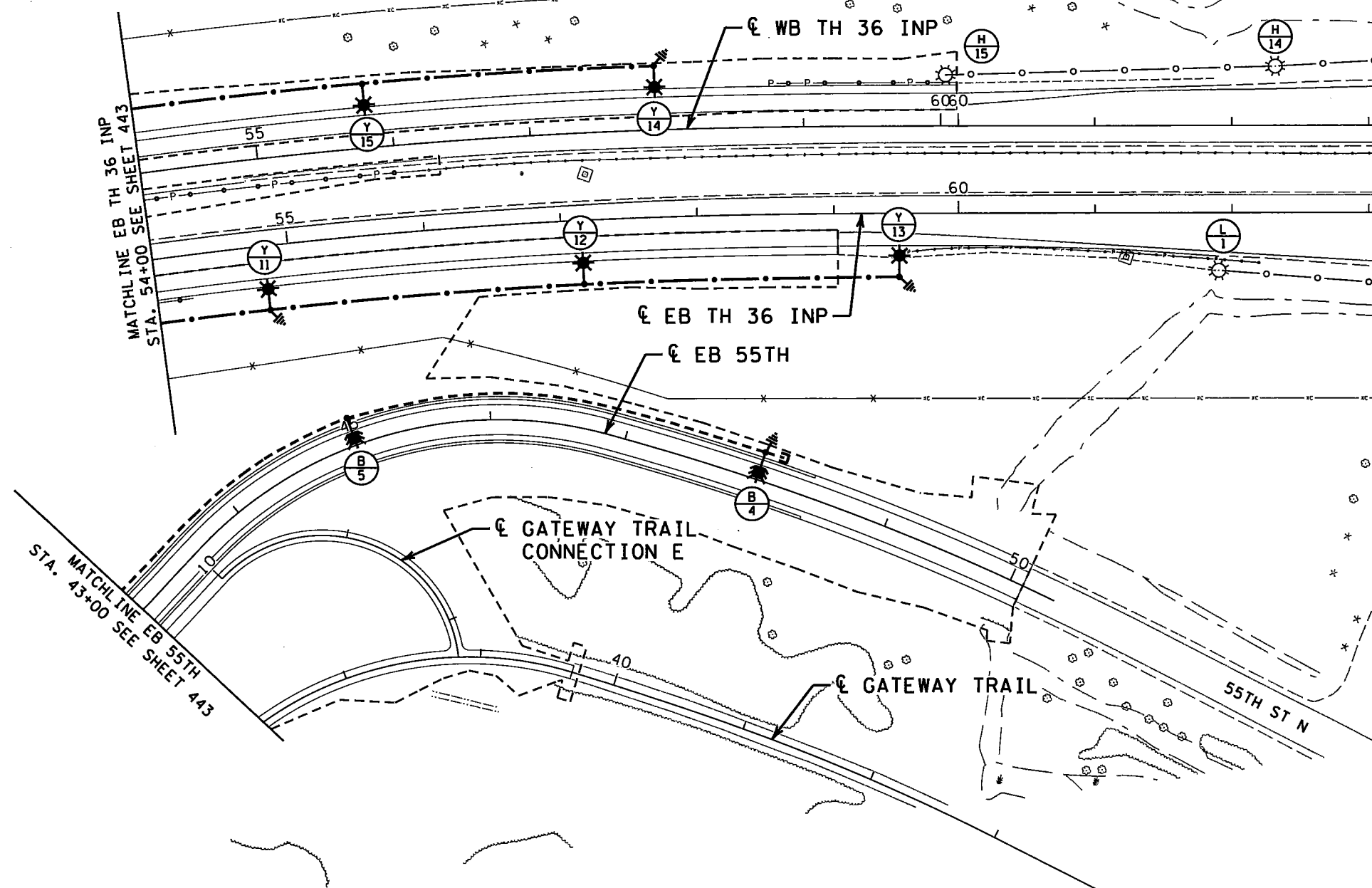


LEGEND

- LIGHTING UNIT (CITY OF OAKDALE)
- LIGHTING UNIT (MNDOT)
- GROUND ROD (25 OHM OR LESS)
- EXISTING LIGHTING UNIT
- DIRECT BURIED LIGHTING CABLE 4/C 4 AWG
- EXISTING CIRCUITING
- LIGHTING UNIT NUMBER
- 3" NMC SCH. 80
- UNDERGROUND WIRING IN CONDUIT
- CONDUIT STUB

GENERAL NOTES:

- MNDOT DIRECT BURY LIGHTING CABLES AND CITY OWNED CONDUIT SHALL BE RUN IN SEPARATE TRENCHES.
- CONDUIT FOR CITY OF OAKDALE LIGHTING SYSTEMS SHALL BE 2" NMC SCHEDULE 40 UNLESS OTHERWISE NOTED.
- CONDUCTORS IN CONDUIT FOR CITY OF OAKDALE LIGHTING SYSTEMS SHALL BE COPPER. TYPE XHHW-2, (2)*#6 & (1)*#8 GND UNLESS OTHERWISE NOTED.



FD. PT. A 120/240

LIGHTING STANDARDS AND FOUNDATIONS

NO.	LOCATION	STATION	LT.	RT.	TYPE
A-3	NB HADLEY	100+62	-	-	INPLACE

FD. PT. B 120/240

LIGHTING STANDARDS AND FOUNDATIONS

NO.	LOCATION	STATION	LT.	RT.	TYPE
B-1	NB HADLEY	105+75	-	-	SPECIAL 2
B-2	NB HADLEY	107+46	-	-	SPECIAL
B-3	EB 55TH	40+22	-	-	SPECIAL
B-4	EB 55TH	48+01	-	-	SPECIAL 2
B-5	EB 55TH	45+00	-	-	SPECIAL 2
B-6	EB 55TH	42+00	-	-	SPECIAL 2
B-7	WB 55TH	50+55	-	-	SPECIAL
B-8	NB HADLEY	109+51	-	-	SPECIAL
B-9	NB HADLEY	111+27	-	-	SPECIAL
B-10	NB HADLEY	113+85	-	-	SPECIAL
B-11	NB HADLEY	116+67	-	-	SPECIAL
B-12	EB GAS	10+17	-	-	SPECIAL
B-13	EB GAS	11+85	-	-	SPECIAL 2
B-14	WB GAS	30+48	-	-	SPECIAL
B-15	NB HADLEY	118+50	-	-	SPECIAL
B-16	NB HADLEY	120+10	-	-	SPECIAL 1
B-17	NB HADLEY	121+10	-	-	SPECIAL
B-18	EB 56TH	65+16	-	-	SPECIAL
B-19	EB 56TH	69+92	-	-	SPECIAL 2
B-20	EB 56TH	72+50	-	-	SPECIAL 2
B-21	WB 56TH	87+10	-	-	SPECIAL 2
B-22	WB 56TH	85+53	-	-	SPECIAL
B-23	NB HADLEY	123+14	-	-	SPECIAL
B-24	NB HADLEY	127+29	-	-	SPECIAL 2
B-25	NB HADLEY	129+58	-	-	SPECIAL 2
B-26	SB HADLEY	225+37	-	-	SPECIAL 2
B-27	SB HADLEY	223+95	-	-	SPECIAL
B-28	WB 36BLVD	400+88	-	-	SPECIAL
B-29	EB 36BLVD	312+96	-	-	SPECIAL 2
B-30	EB 36BLVD	315+82	-	-	SPECIAL 2
B-31	EB 36BLVD	317+16	-	-	SPECIAL
B-32	SB HADLEY	221+83	-	-	SPECIAL
B-33	SB HADLEY	220+30	-	-	SPECIAL 1
B-34	SB HADLEY	219+07	-	-	SPECIAL
B-35	NW RAMP	80+30	-	-	SPECIAL
B-36	EB 36BLVD	310+08	-	-	SPECIAL 2
B-37	EB 36BLVD	307+19	-	-	SPECIAL 2
B-38	EB 36BLVD	304+31	-	-	EX
B-39	NW LOOP	76+29	-	-	SPECIAL
B-40	SB HADLEY	217+13	-	-	SPECIAL
B-41	SB HADLEY	215+18	-	-	SPECIAL
B-42	SB HADLEY	212+65	-	-	SPECIAL
B-43	SB HADLEY	209+94	-	-	SPECIAL
B-44	SW LOOP	90+16	-	-	SPECIAL
B-45	SW RAMP	73+57	-	-	SPECIAL
B-46	SB HADLEY	207+94	-	-	SPECIAL
B-47	NB HADLEY	103+17	-	-	SPECIAL 2
B-48	FF_CONN	70+68	-	-	SPECIAL 2
B-49	FF_CONN	72+64	-	-	SPECIAL 2
B-50	FF_CONN	74+05	-	-	SPECIAL 2

FD. PT. X 240/480

LIGHTING STANDARDS AND FOUNDATIONS

NO.	LOCATION	STATION	LT.	RT.	TYPE
X-14	EB 36	16+91	-	-	INPLACE
X-15	EB 36	19+44	-	-	9-40
X-16	EB 36	21+88	-	-	9-40
X-17	EB 36	24+32	-	-	9-40
X-18	EB 36	26+77	-	-	9-40
X-19	EB 36	29+21	-	-	9-40
X-20	WB 36	29+48	-	-	9-40
X-21	WB 36	27+22	-	-	9-40
X-22	WB 36	24+96	-	-	9-40
X-23	WB 36	22+70	-	-	9-40
X-24	WB 36	20+45	-	-	9-40
X-25	WB 36	18+19	-	-	9-40
X-26	WB 36	15+62	-	-	INPLACE

FD. PT. Y 240/480

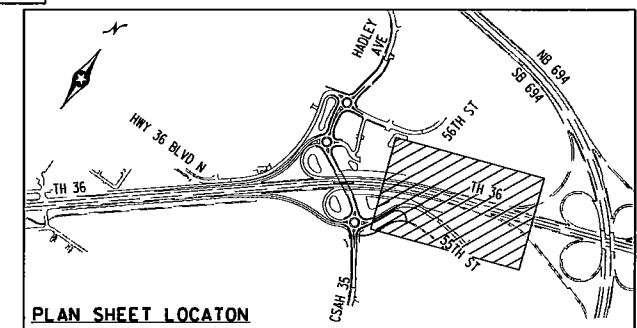
LIGHTING STANDARDS AND FOUNDATIONS

NO.	LOCATION	STATION	LT.	RT.	TYPE
Y-1	EB 36	31+65	-	-	9-40
Y-2	EB 36	34+09	-	-	9-40
Y-3	EB 36	36+54	-	-	9-40
Y-4	EB 36	39+01	-	-	9-40
Y-5	EB 36	41+27	-	-	9-40
Y-6	EB 36	43+57	-	-	9-40
Y-7	EB 36	45+92	-	-	9-40
Y-8	SW LOOP	95+97	-	-	9-40
Y-9	EB 36	50+17	-	-	9-40
Y-10	EB 36	52+49	-	-	9-40
Y-11	EB 36	54+82	-	-	9-40
Y-12	EB 36	57+15	-	-	9-40
Y-13	EB 36	59+48	-	-	9-40
Y-14	WB 36	57+92	-	-	9-40
Y-15	WB 36	55+81	-	-	9-40
Y-16	WB 36	53+70	-	-	9-40
Y-17	WB 36	51+59	-	-	9-40
Y-18	WB 36	49+47	-	-	9-40
Y-19	WB 36	47+33	-	-	9-40
Y-20	WB 36	44+98	-	-	9-40
Y-21	WB 36	42+88	-	-	9-40
Y-22	WB 36	40+78	-	-	9-40
Y-23	WB 36	38+52	-	-	9-40
Y-24	WB 36	36+26	-	-	9-40
Y-25	WB 36	34+00	-	-	9-40
Y-26	WB 36	31+47	-	-	9-40
Y-27	SW RAMP	65+34	-	-	9-40
Y-28	SW RAMP	67+39	-	-	9-40
Y-29	SW RAMP	69+45	-	-	9-40
Y-30	SW RAMP	71+51	-	-	9-40
Y-31	SW LOOP	92+09	-	-	9-40
Y-32	SW LOOP	94+03	-	-	9-40
Y-33	NW LOOP	71+54	-	-	9-40
Y-34	NW LOOP	73+12	-	-	9-40
Y-35	NW LOOP	74+70	-	-	9-40
Y-36	NW RAMP	82+63	-	-	9-40
Y-37	NW RAMP	84+97	-	-	9-40
Y-38	NW RAMP	87+31	-	-	9-40

FD. PT. FF

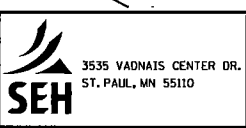
LIGHTING STANDARDS AND FOUNDATIONS

NO.	LOCATION	STATION	LT.	RT.	TYPE
FF-1	FF CONN	72+49	-	-	INPLACE
FF-2	EB 56 ST	69+10	-	-	EX



DESIGN TEAM			
DRAWN BY:	MIT		
DESIGNER:	AKF		
CHECKED BY:	PHC		
NO.	BY	DATE	REVISIONS

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
 Certified By: *Peter H. Christensen* Lic. No. 52213
 Printed Name: PETER H. CHRISTENSEN Date: 07/02/2018



MINNESOTA DEPARTMENT OF TRANSPORTATION
 CITY OF OAKDALE
T.H. 36 / HADLEY AVENUE
 S.P. 8204-72 (T.H. 36)
 S.P. 082-090-007, S.P. 185-241-002, S.P. 082-596-005

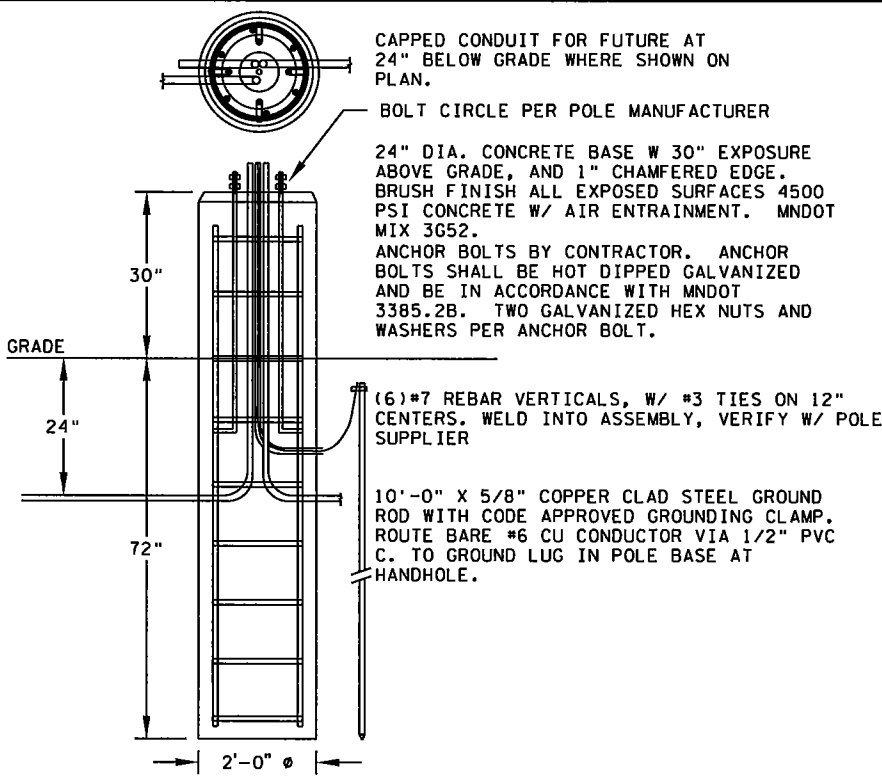
LIGHTING PLAN
 PROPOSED

FILE NO.	447
WASHC-138230	
LT10	452
OF LT15	

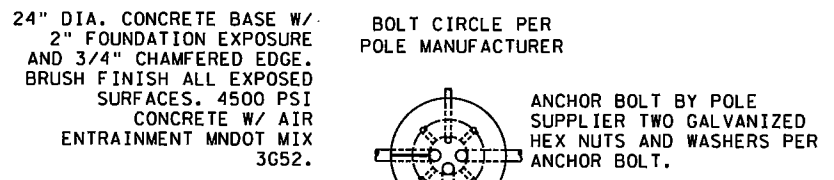
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9/4/2018

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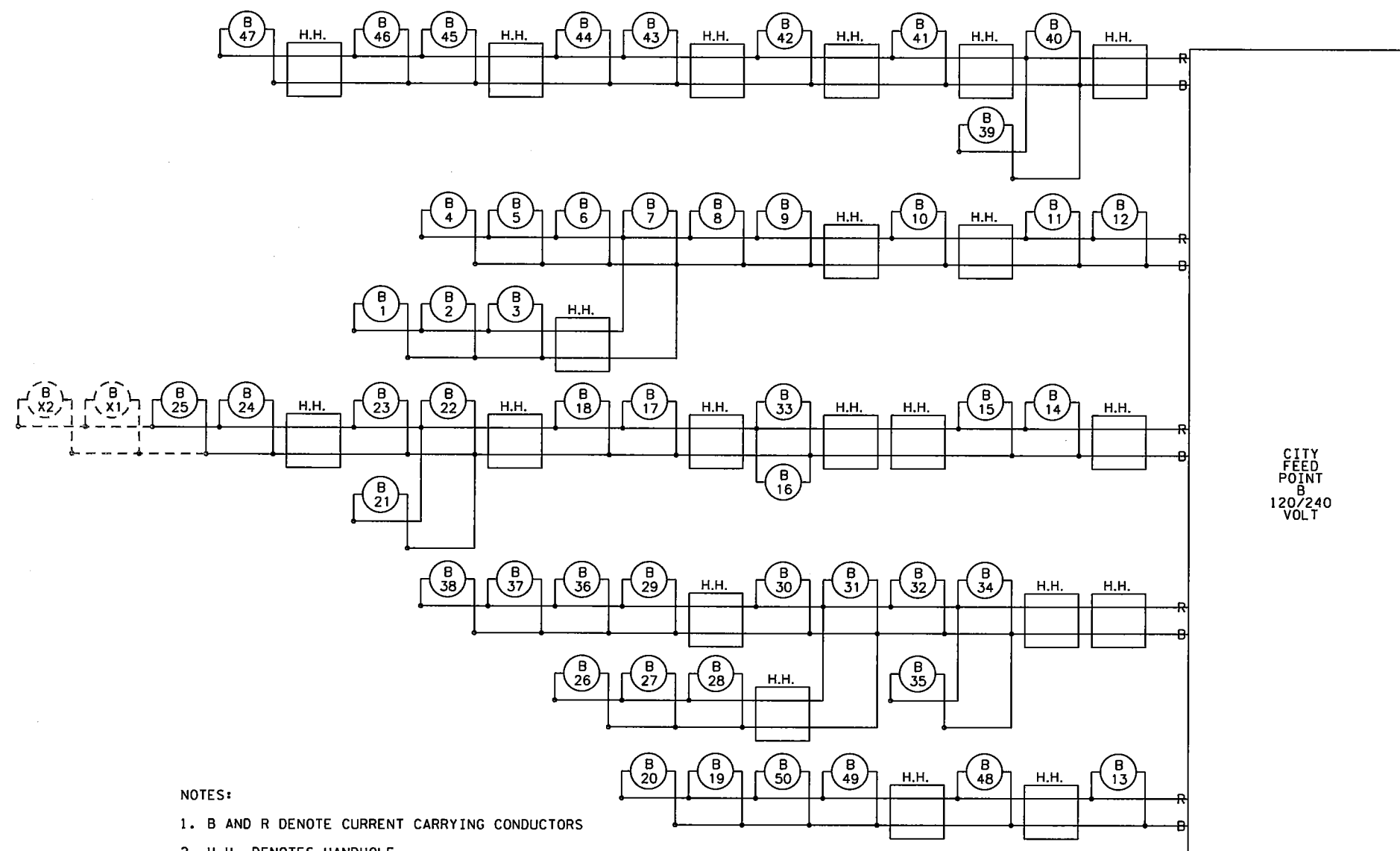


LIGHT FOUNDATION DESIGN SPECIAL DETAIL



LIGHT FOUNDATION DESIGN E MODIFIED DETAIL

EQUIPMENT SCHEDULE - FOR INFORMATION ONLY					
SYMBOL	DESCRIPTION	LAMP SOURCE	MOUNTING	OPTICS	MANUFACTURER & SERIES #
	LIGHTING UNIT TYPE SPECIAL LED PENDANT LUMINAIRE ON ROUND ALUMINUM POLE WITH BANNER ARMS AND EYELETS	131 WATT 80 LED 4000K	29' POLE ON LIGHT FOUNDATION DESIGN E MOD.	TYPE III	PHILIPS - LUMINAIRE: DMS50-135W80LED4K-T-LE3F-240-DMG-SMB-BKTX BRACKET: VR6-1A-R4-BKTX HAPCO - POLE: SKTB041614A-BA27400-EYELET
	LIGHTING UNIT TYPE SPECIAL 1 TWIN LED PENDANT LUMINAIRE ON ROUND ALUMINUM POLE WITH BANNER ARMS AND EYELETS	(2) 131 WATT 80 LED 4000K	29' POLE ON LIGHT FOUNDATION DESIGN E MOD.	TYPE III	PHILIPS - LUMINAIRE: DMS50-135W80LED4K-T-LE3F-240V-DMG-SMB-BKTX BRACKET: VR6-2-R4-BKTX HAPCO - POLE: SKTB041614A-BA27400-EYELET
	LIGHTING UNIT TYPE SPECIAL 2 LED PENDANT LUMINAIRE ON ROUND ALUMINUM POLE WITH BANNER ARMS AND EYELETS	131 WATT 80 LED 4000K	25' POLE ON LIGHT FOUNDATION DESIGN E MOD.	TYPE III	PHILIPS - LUMINAIRE: DMS50-135W80LED4K-T-LE3F-240V-DMG-SMB-BKTX BRACKET: VR6-1A-R4-BKTX HAPCO - POLE: SKTB041614A-BA27400-EYELET
	LIGHTING UNIT TYPE 9-40	LED 4000K	40' POLE ON LIGHT FOUNDATION DESIGN E	TYPE II OR TYPE III	SEE MNDOT APPROVED PRODUCTS LIST



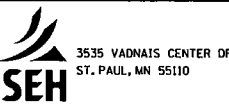
- NOTES:
1. B AND R DENOTE CURRENT CARRYING CONDUCTORS
 2. H.H. DENOTES HANDHOLE
 3. DASHED AND SHADED LINES DENOTE EXISTING CONDUCTORS AND EQUIPMENT

CIRCUIT DIAGRAM 1
(CITY FEED POINT B)

DESIGN TEAM				REVISIONS			
DRAWN BY:	MTT			NO.	BY	DATE	
DESIGNER:	AKF						
CHECKED BY:	PHC						

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

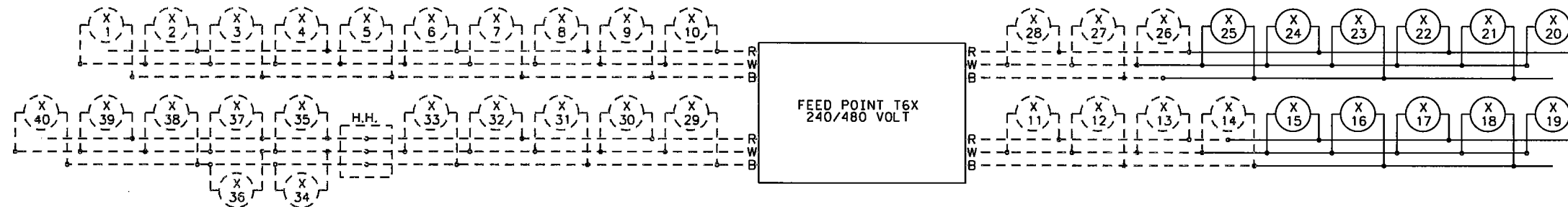
Certified By: *Peter H. Christensen* Lic. No. 52213
 Licensed Professional Engineer
 Printed Name: PETER H. CHRISTENSEN Date: 07/02/2018



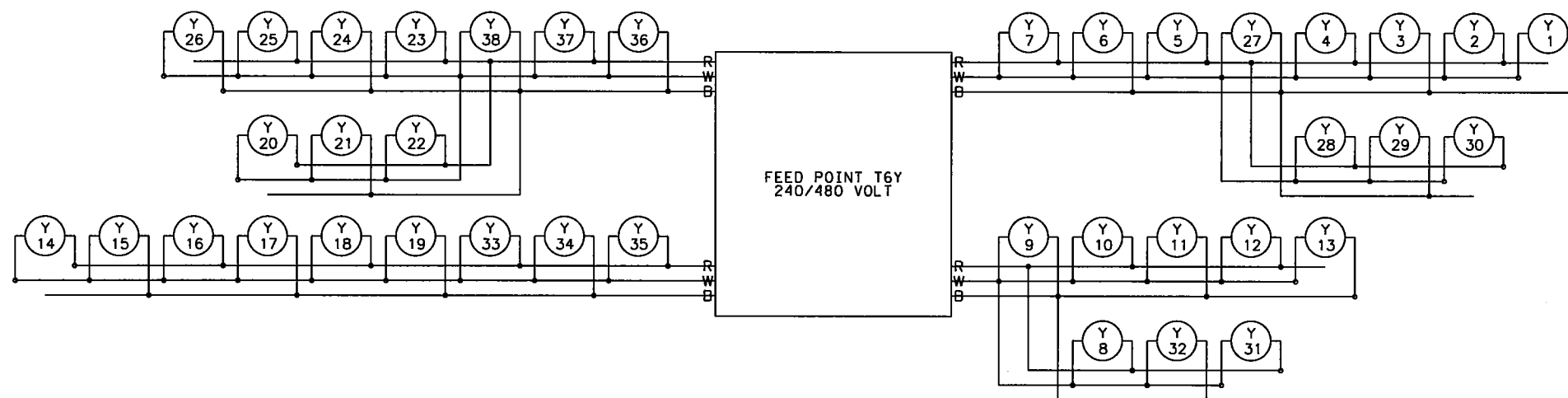
MINNESOTA DEPARTMENT OF TRANSPORTATION
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T.H. 36 / HADLEY AVENUE
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 S.P. 082-090-007, S.P. 185-241-002, S.P. 082-596-005

LIGHTING PLAN
 LIGHTING DETAILS

FILE NO. **448**
 WASHC-138230
 LT11
 OF LT15 **452**



CIRCUIT DIAGRAM 2
(MNDOT FEED POINT T6X)



CIRCUIT DIAGRAM 3
(MNDOT FEED POINT T6Y)

- NOTES:
1. B AND R DENOTE CURRENT CARRYING CONDUCTORS
 2. W DENOTES NEUTRAL CONDUCTOR
 3. H.H. DENOTES HANDHOLE
 4. DASHED AND SHADED LINES DENOTE EXISTING CONDUCTORS AND EQUIPMENT

DESIGN TEAM				REVISIONS			
DRAWN BY:	MTI			NO.	BY	DATE	
DESIGNER:	AKF						
CHECKED BY:	PHC						

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LIGHTING PLAN
 LIGHTING DETAILS

FILE NO.	449
WASHC-138230	
LT12	452
OF LT15	