

P:\PROJECTS\2014_OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\FINAL PLAN\TITLE.DWG

PLAN SYMBOLS

- STATE LINE
- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPERTY LINE
- CORPORATE OR CITY LIMITS
- RAILROAD
- RAILROAD RIGHT-OF-WAY
- RIVER OF CREEK
- CULVERT
- GUARDRAIL
- WOOD FENCE
- BARBED WIRE FENCE
- WOVEN WIRE FENCE
- CHAIN LINK FENCE
- TIMBER WALL
- STONE WALL
- HEDGE
- RAILROAD CROSSING SIGN
- CROSSING GATE
- MEANDER CORNER
- SLOPE EASEMENT (CONST. LIMITS)
- MARSH
- DECIDUOUS TREE
- CONIFEROUS TREE
- BUSH OR SHRUB
- WOODS
- CATCH BASIN
- BRIDGE
- IRON PIPE OR ROD
- MONUMENT (STONE, CONCRETE OR METAL)
- WOODEN HUB

UTILITY SYMBOLS

- UTILITY POLE
- GUY OR ANCHOR
- STREET LIGHT
- TELEPHONE PEDESTAL
- GAS MAIN
- WATER MAIN
- TELEPHONE VAULT
- ELECTRIC VAULT
- TELEPHONE CABLE
- ELECTRIC CABLE
- STORM SEWER
- SANITARY SEWER
- SEWER MANHOLE
- GATE VALVE
- CONTROLLER CABINET
- EXISTING HYDRANT
- CABLE TELEVISION-BURIED
- FIBER OPTIC CABLE
- TRAFFIC SIGNAL LINE
- TRAFFIC SIGNAL HAND HOLE

FOR PLANS AND UTILITIES SYMBOLS SEE MN/DOT TECHNICAL MANUAL.

-GOVERNING SPECIFICATIONS-

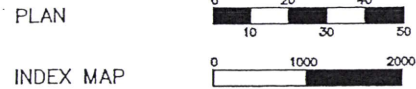
THE 2014 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE 2014 EDITION OF THE "MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MMUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, SEE [HTTP://WWW.DOT.STATE.MN.US/TRAFFICENG/](http://www.dot.state.mn.us/trafficing/)

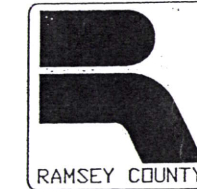
ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.



SCALES IN FEET



GROSS LENGTH 4606 FEET 0.87 MILES
 BRIDGE LENGTH -----
 EXCEPTIONS -----
 NET LENGTH 4606 FEET 0.87 MILES



RAMSEY COUNTY
 DEPARTMENT OF PUBLIC WORKS

PLAN FOR THE BITUMINOUS MILL & OVERLAY OF

HAMLIN AVE.
 S.A.P. No. 062-650-012

BETWEEN: FLORAL DRIVE W. AND COUNTY HIGHWAY CSAH 96

COUNTY PROJECT P5010

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES
3	TYPICAL SECTIONS
4	DETAILS
5-8	PLAN SHEETS
9-12	STRIPING PLAN

THIS PLAN CONTAINS 12 SHEETS

END S.A.P. 062-650-012
 HAMLIN AVE.
 STA. 46+05.85



BEGIN S.A.P. 062-650-012
 HAMLIN AVE.
 STA. 0+00.00

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.

Nicklaus Fischer
 NICKLAUS FISCHER REG. NO. 50791 DATE 4/30/2014

RECOMMENDED FOR APPROVAL *[Signature]* DATE 5/14/14
 RAMSEY COUNTY ENGINEER

APPROVED *[Signature]* DATE 5/14/14
 CITY OF ARDEN HILLS

DESIGN DESIGNATION

HAMLIN AVENUE BETWEEN FLORAL DRIVE W. TO COUNTY HIGHWAY 96

PRESENT ADT (2014)	10325
PROJECTED ADT (2034)	12390
FUNCTIONAL CLASS	B MINOR ARTERIAL
TRAFFIC LANES	2
PARKING LANES	0
SOILS R-VALUE	50

BASED ON STOPPING DISTANCE
 HEIGHT OF EYE: 3.50 FEET
 HEIGHT OF OBJECT: 2.00 FEET

DRAWN BY D. BODELSON DATE 2-13-2013
 CHECKED BY L. LORTIE DATE 4-29-2013

PLAN REVISIONS		
DATE	SHEET NO. & DESCRIPTION	BY

MINNESOTA DEPARTMENT OF TRANSPORTATION

[Signature] DATE 5/19/14
 DISTRICT STATE AID ENGINEER
 REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY
[Signature] DATE 5/19/14
 APPROVED FOR STATE AID FUNDING: STATE AID ENGINEER

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\TOP SECTIONS.DWG May 19, 2014 7:30 AM

ESTIMATED QUANTITIES

Item Number	Item	Unit	Estimated Quantity 100% S.A.P. 062-650-012
2021.501	Mobilization	LS	1
2104.501	Remove Curb & Gutter	LF	192
2104.503	Saw Concrete Curb & Walk Full Depth	LF	170
2104.511	Saw Bituminous Pavement Full Depth	LF	100
2104.513	Remove & Replace Bit Pavement (Fulldepth) ADA	LF	192
2104.603	Remove Concrete Walk	SF	1,476
2123.610	Street Sweeper	Hour	20
2232.501	Mill Bituminous Surface (2")	SY	26,585
2357.502	Bituminous Material for Tack Coat	Gal.	1,329
2360.501	Type SPWEB340F Wearing Course Mixture	Ton	3,057
2360.505	Bituminous Mixture for Patching	Ton	100
2506.522	Adjust Valve Box	Each	20
2521.501	Adjust Frame Ring & Casting	Each	26
2521.501	Construct Survey Control Structure	Each	1
2531.501	6" Concrete Walk (ADA)	SF	1,524
2531.501	Concrete Curb & Gutter Design B618 (ADA)	LF	216
2531.502	Concrete Curb Design V (ADA)	LF	48
2531.618	Truncated Domes	SF	144
2563.601	Traffic Control	LS	1
2563.601	Storm Drain Inlet Protection	Each	25
2573.530	Site Restoration (ADA)	Each	12
2575.602	Pavement Message LT Arrow - Epoxy	Each	42
2582.501	Pavement Message LT/Thru Arrow - Epoxy	Each	2
2582.501	4" Solid Line White - Epoxy	LF	7,888
2582.502	4" Dashed Line White - Epoxy	LF	50
2582.502	12" Solid Line White - Epoxy	LF	20
2582.502	4" Solid Line Yellow - Epoxy	LF	6,616
2583.502	4" Dashed Line Yellow - Epoxy	LF	1,654
2582.502	4" Double Line Yellow - Epoxy	LF	360
2582.502	Crosswalk Marking-Epoxy	SF	505

SIGNAL REVISION NOTES

APS SYSTEM- Complete with 8 Buttons and Signs. Remove and salvage old buttons and signs. Plug old holes. Includes 2/c#14 cable as needed. See plan. Must be listed on Mn/DOT approved/qualified products list web site for signals. <http://www.dot.state.mn.us/products/index.html>

PEDESTRIAN- push button station-see detail
Furnish & Install pedestal pole and base. Install pedestal base includes remount the ped head on the **TOP** of the new pedestal pole

MN/DOT STANDARD PLATES

7038A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
8000I	STANDARD BARRICADES
8112F	PEDESTAL FOUNDATION
8122E	PEDESTAL & PEDESTAL BASE

QUANTITY NOTES

- To be used for restoration of curb removal areas.
- Common excavation is measured 3 feet from the back of curb at a depth of 6 inches.
- Topsoil is measured 3 feet from back of curb at a depth of 6 inches.
- Tack coat is estimated at 0.05 gallons / square yard bituminous / lift
- Bituminous is estimated at 115 lbs / square yard / inch of bituminous
- Bituminous patching mix is SPWEB340F
- Rapid stabilization method 3 is estimated at 6,000 gallons / acre

NO.	REV-DATE	BY:	DESCRIPTION

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.
SIGNED: *Ruben S. ...*
REG NO: 50791 DATE: 5-19-2014

HAMLIN AVE.
FLORAL DR. TO COUNTY HWY. # 96

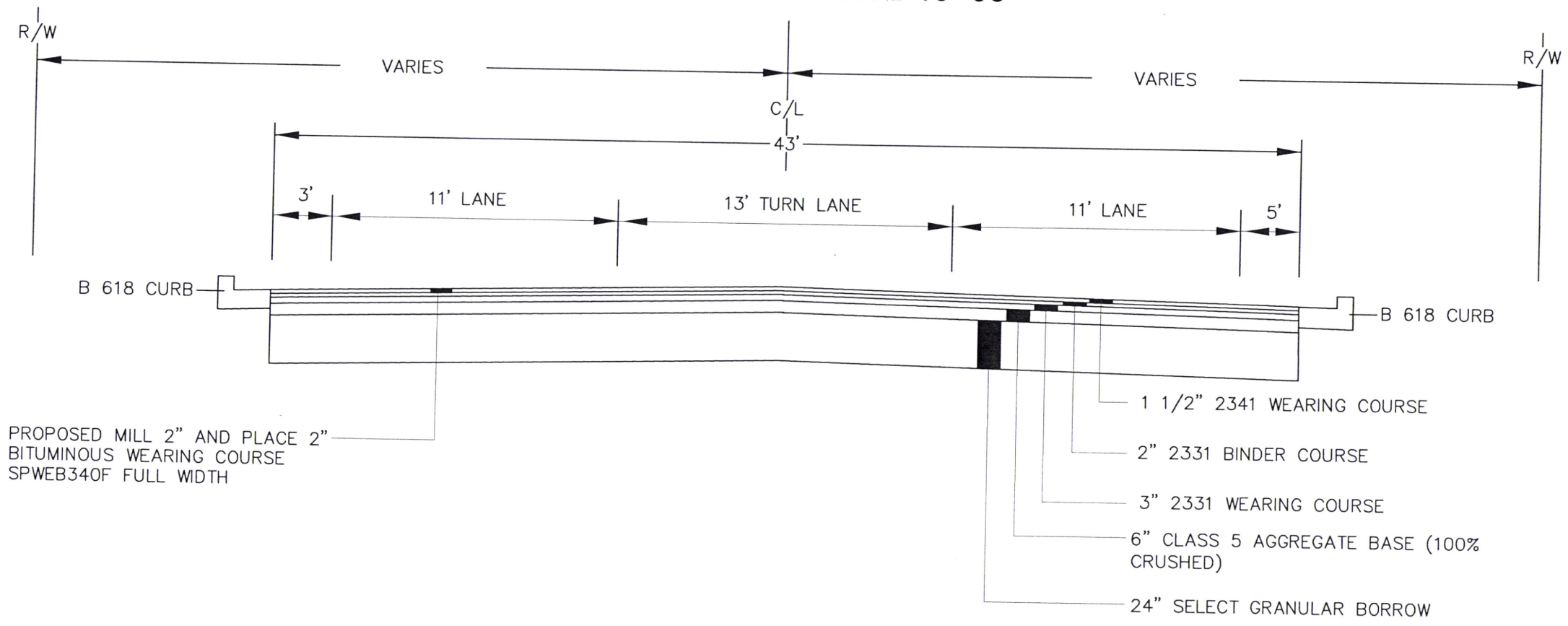
062-650-012

COUNTY PROJ.P-5010



ESTIMATED QUANTITIES
SHEET 2 OF 12 SHEETS

TYPICAL SECTION - HAMLINE AVENUE STA. 0+00 TO STA. 46+06



P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\TYP SECTIONS.DWG May 6, 2014 9:32 AM

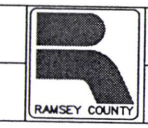
NO.	REV-DATE	BY:	DESCRIPTION

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.

SIGNED: *[Signature]*
 REG NO: 50791 DATE: 5-6-2014

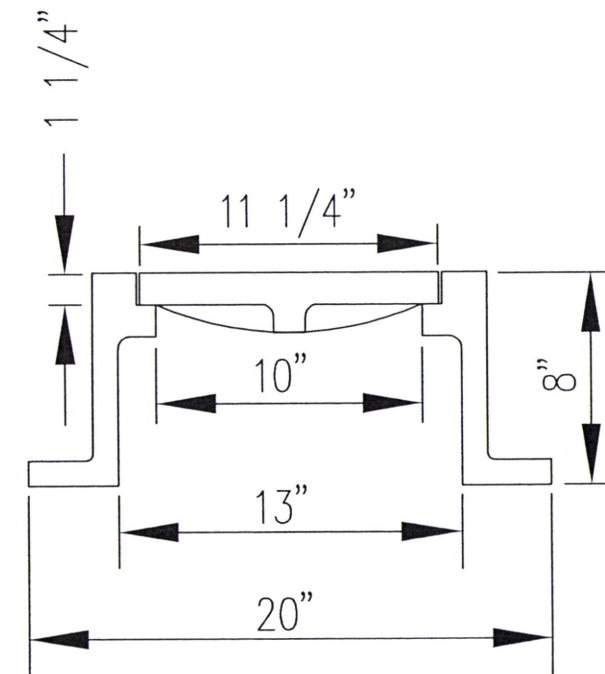
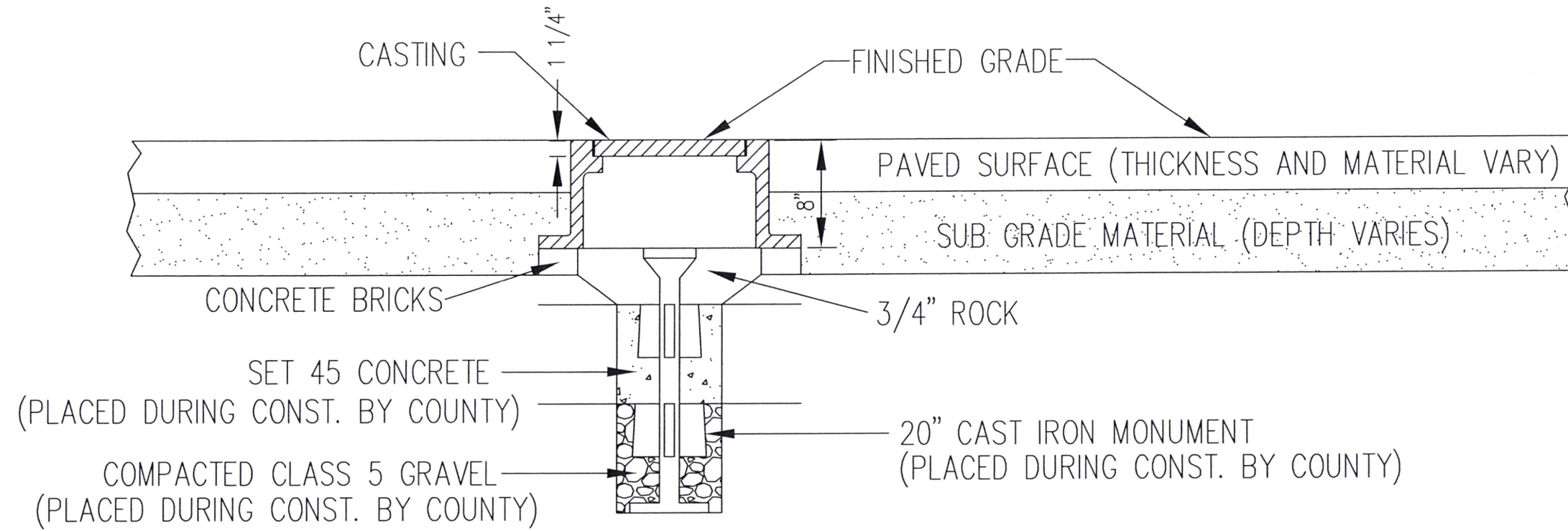
HAMLIN AVENUE
FLORAL DR. W TO CSAH 96

062-650-012
COUNTY PROJ. P5010



TYPICAL SECTION
SHEET 3 OF 12 SHEETS

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR. TO HWY 96\HAMLINE AVE - FLORAL DR. TO HWY 96\FINAL PLAN\M & O, PEDS.DWG April 17, 2014 8:50 AM



CAST IRON CASTING

WEIGHT = 95 lbs

NO.	REV-DATE	BY:	DESCRIPTION

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.

SIGNED: *Nehemiah F. Fisher*

REG NO: 50791 DATE: 4-30-2014

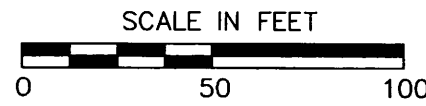
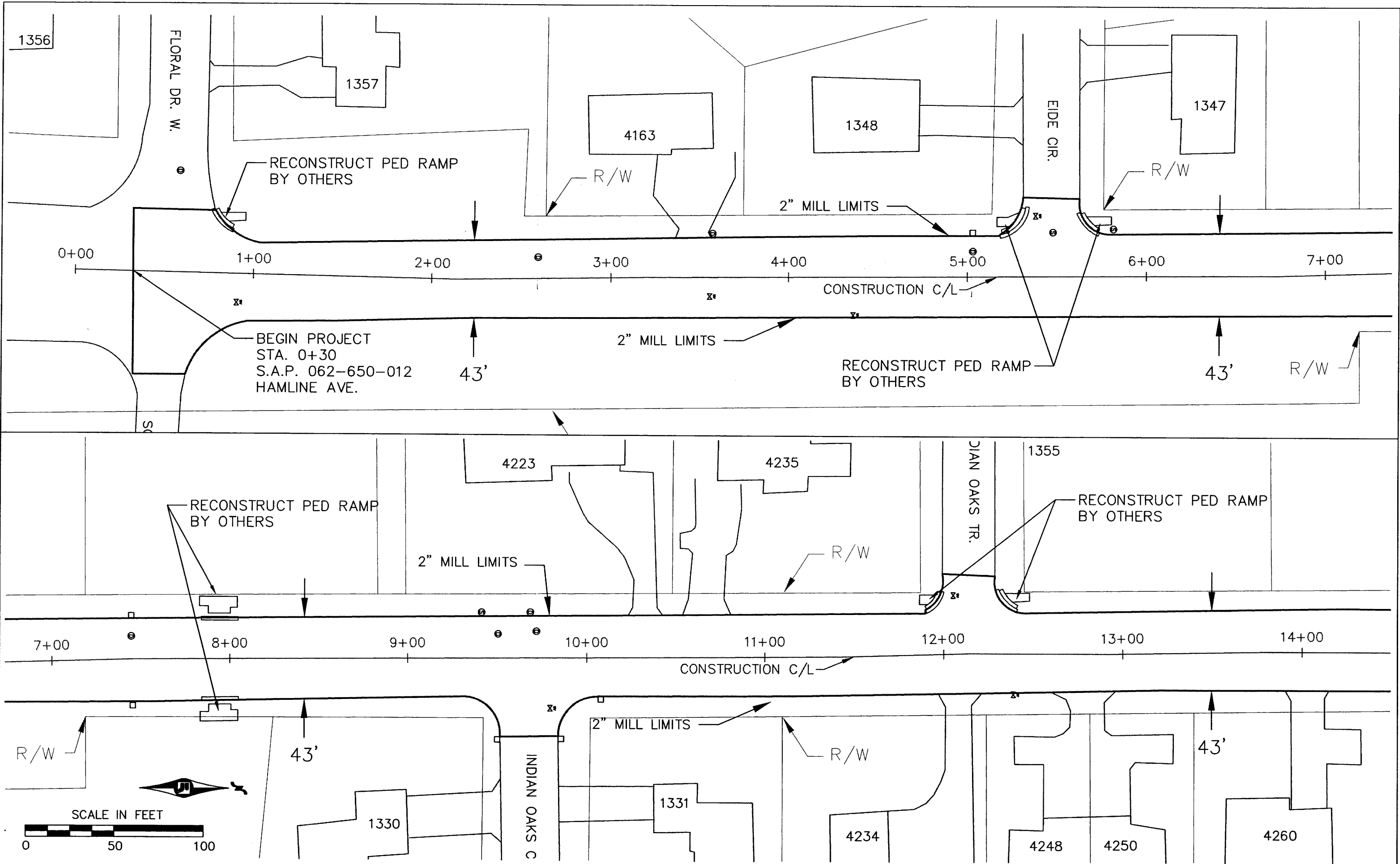
HAMLIN AVENUE
FLORAL DR. W. TO CSAH 96

S.A.P. 062-650-012
COUNTY PROJ. P-5010



DETAIL
SHEET 4 OF 12 SHEETS

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\A & O, PEDS.DWG April 17, 2014 8:50 AM



NO.	REV-DATE	BY:	DESCRIPTION

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.
 SIGNED: *[Signature]*
 REG NO: 50791 DATE: 4-30-2014

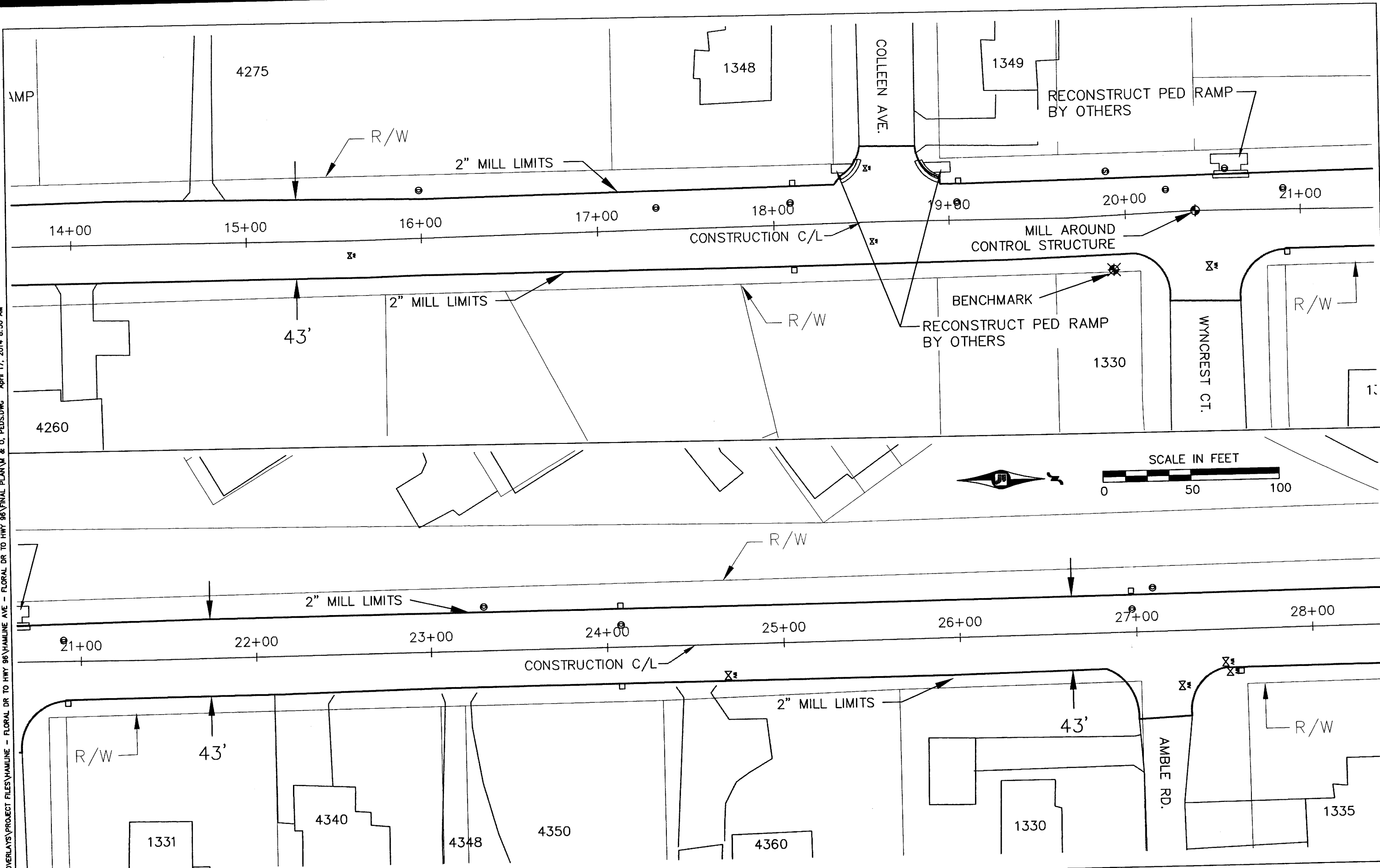
HAMLIN AVENUE
 FLORAL DR. W. TO CSAH 96

S.A.P. 062-650-012
 COUNTY PROJ. P-5010



ROADWAY PLAN
 SHEET 5 OF 12 SHEETS

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE - FLORAL DR TO HWY 96\FINAL PLAN\M & C, PEDS.DWG April 17, 2014 8:50 AM



NO.	REV-DATE	BY:	DESCRIPTION

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.
 SIGNED: *Niklaus J. [Signature]*
 REG NO: 50791 DATE: 4-30-2014

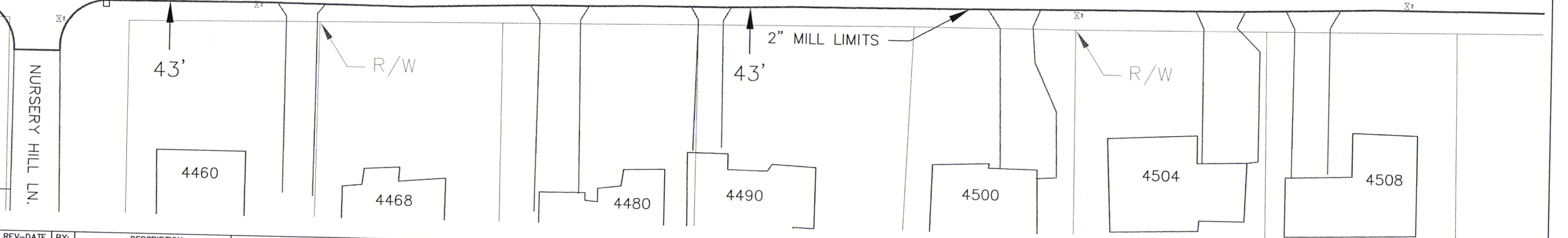
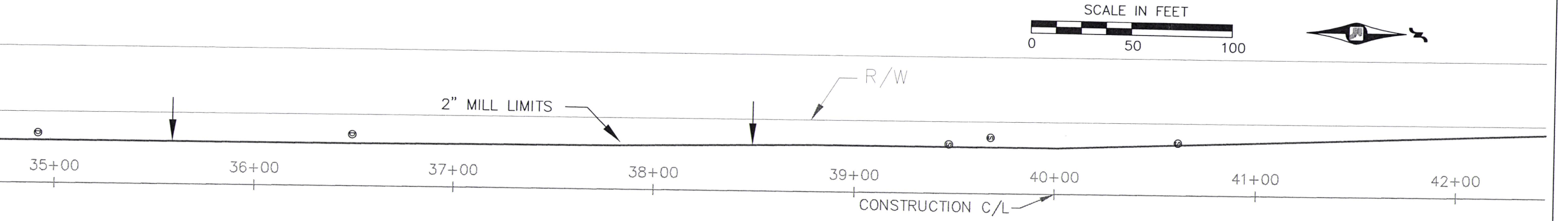
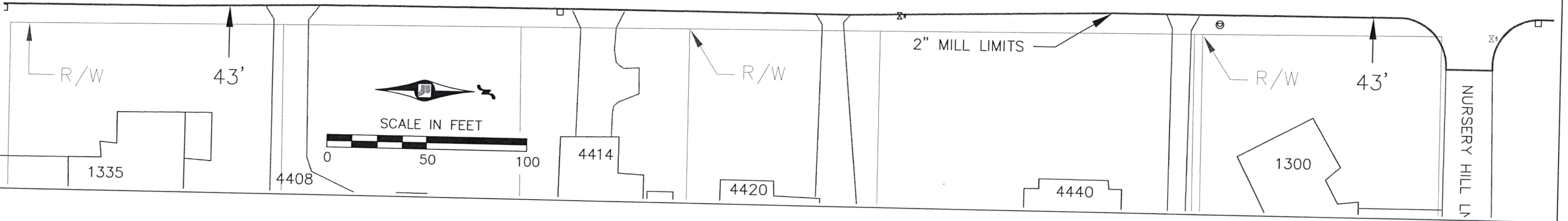
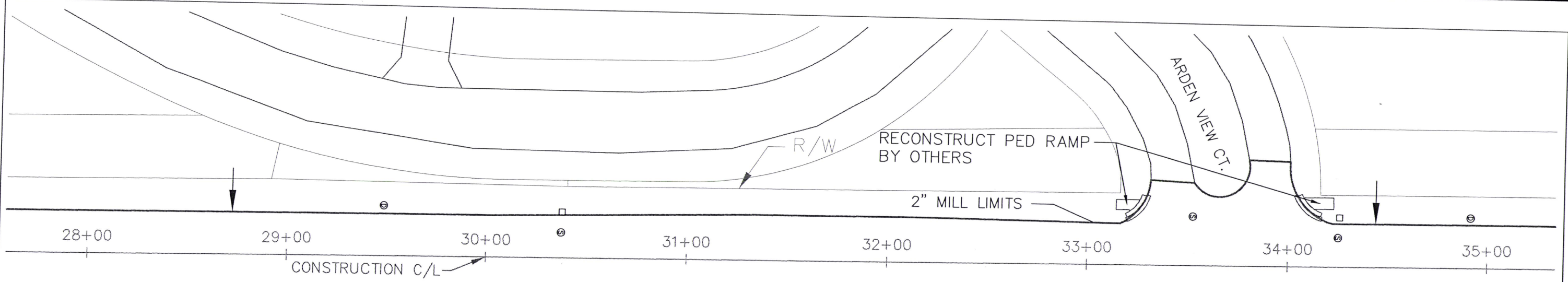
HAMLIN AVENUE
 FLORAL DR. W. TO CSAH 96

S.A.P. 062-650-012
 COUNTY PROJ. P-5010



ROADWAY PLAN
 SHEET 6 OF 12 SHEETS

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\M & O, PEDS.DWG April 17, 2014 8:50 AM

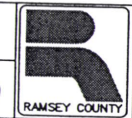


NO.	REV-DATE	BY:	DESCRIPTION

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.
 SIGNED: *[Signature]*
 REG NO: 50791 DATE: 4-30-2014

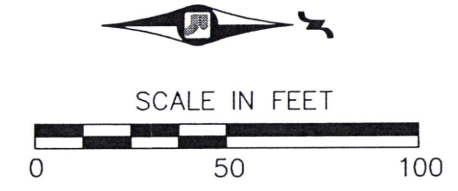
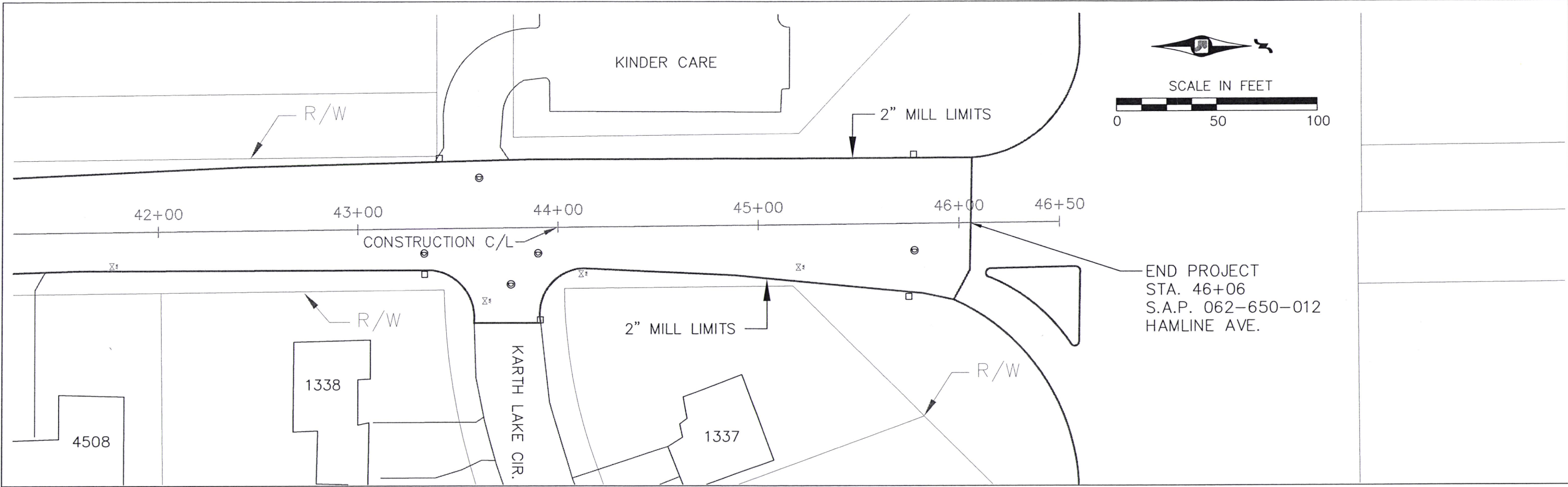
HAMLINE AVENUE
 FLORAL DR. W. TO CSAH 96

S.A.P. 062-650-012
 COUNTY PROJ. P-5010



ROADWAY PLAN
 SHEET 7 OF 12 SHEETS

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\M & O, PEDES.DWG April 17, 2014 8:50 AM



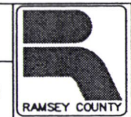
END PROJECT
 STA. 46+06
 S.A.P. 062-650-012
 HAMLINE AVE.

NO.	REV-DATE	BY:	DESCRIPTION

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.
 SIGNED: *Michael J. Iselin*
 REG NO: 50791 DATE: 4-30-2014

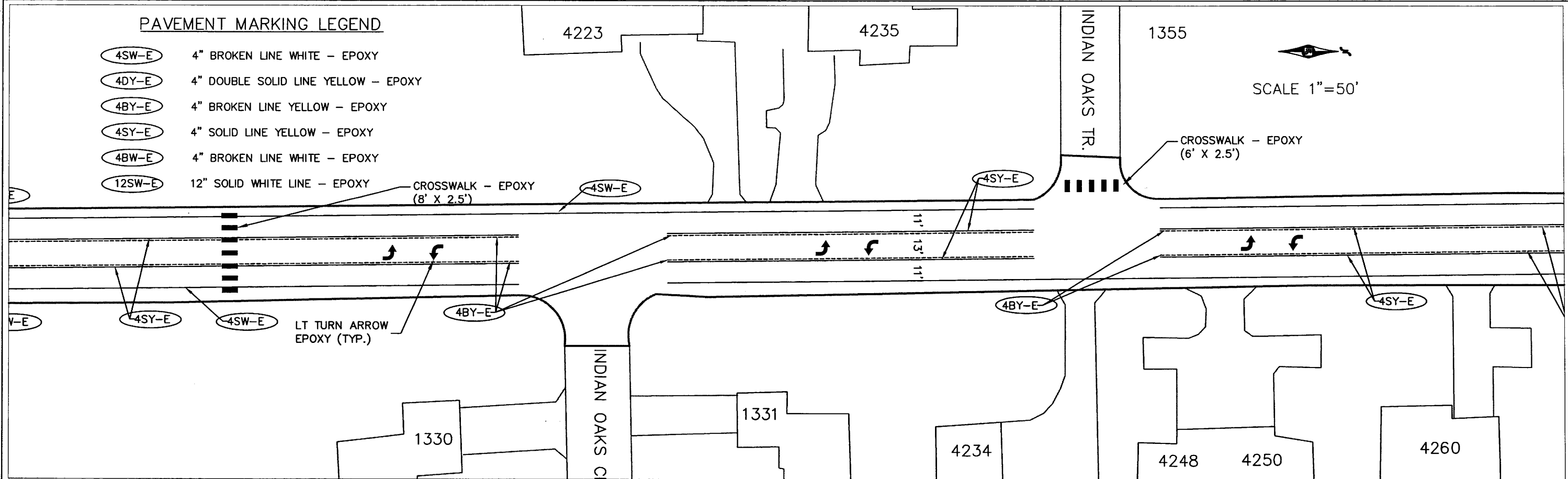
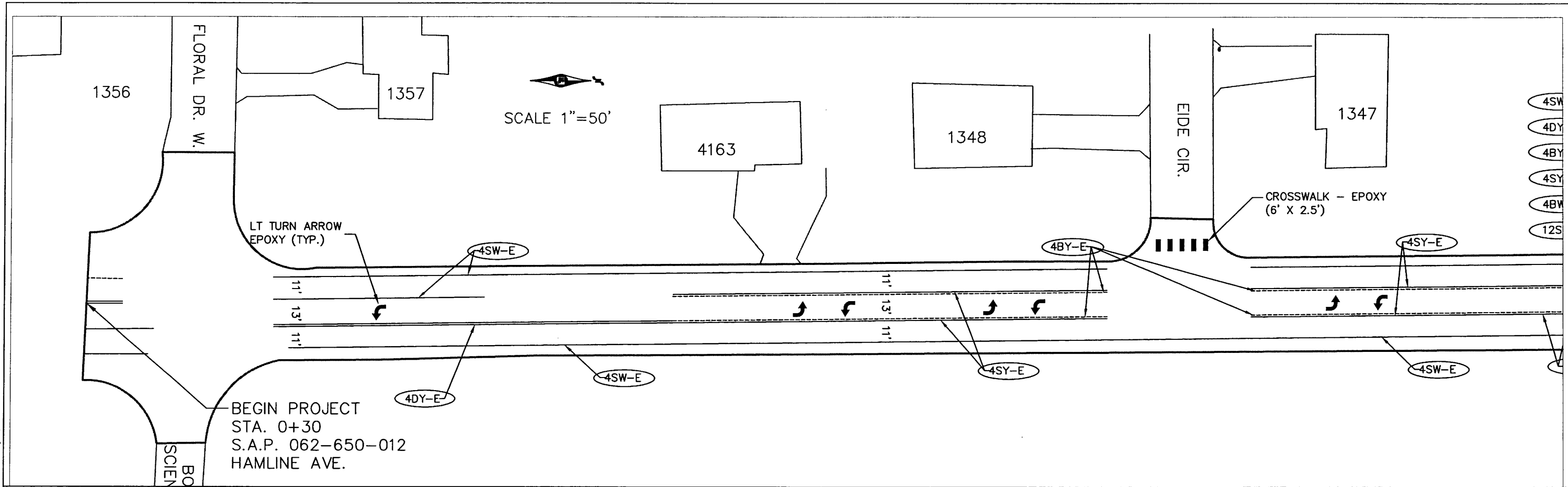
HAMLIN AVENUE
 FLORAL DR. W. TO CSAH 96

S.A.P. 062-650-012
 COUNTY PROJ. P-5010

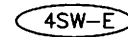
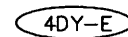
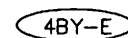
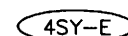

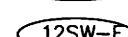

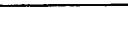


ROADWAY PLAN
 SHEET 8 OF 12 SHEETS

P:\PROJECTS\2014_OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\PM.DWG May 6, 2014 8:27 AM



PAVEMENT MARKING LEGEND

-  4" BROKEN LINE WHITE - EPOXY
-  4" DOUBLE SOLID LINE YELLOW - EPOXY
-  4" BROKEN LINE YELLOW - EPOXY
-  4" SOLID LINE YELLOW - EPOXY
-  4" BROKEN LINE WHITE - EPOXY
-  12" SOLID WHITE LINE - EPOXY
-  CROSSWALK - EPOXY (6' X 2.5')
-  CROSSWALK - EPOXY (8' X 2.5')

NO.	REV-DATE	BY:	DESCRIPTION

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.
 SIGNED: *Richard Fisher*
 REG NO: 50791 DATE: 5-6-2014

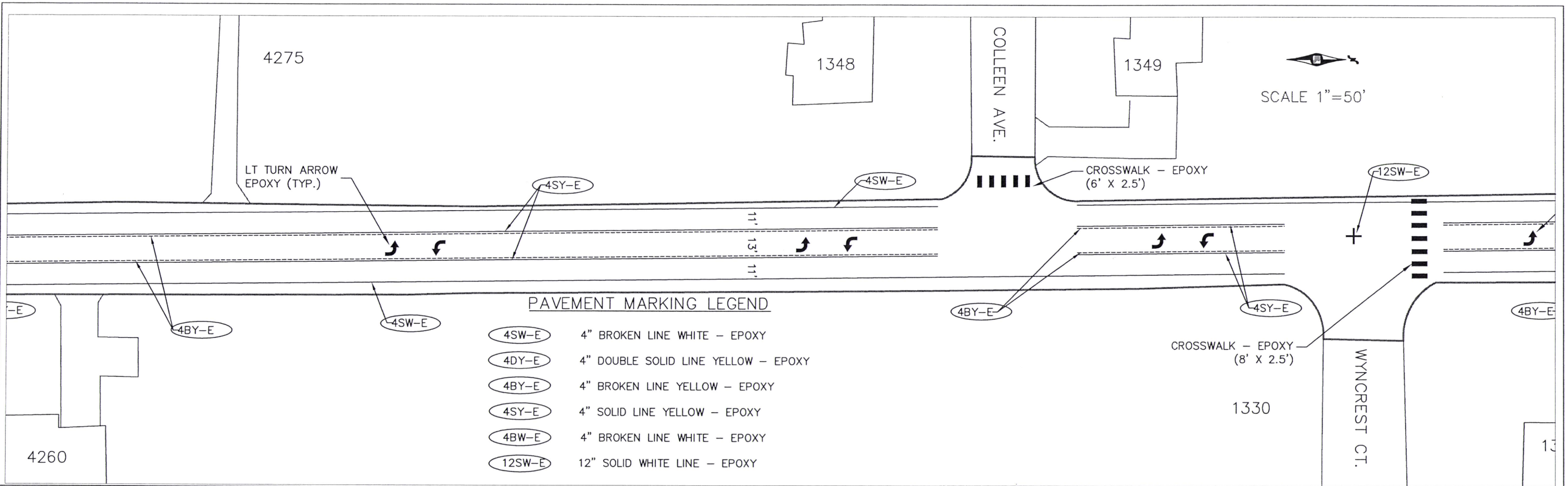
HAMLINE AVENUE
 FLORAL DR. W. TO COUNTY ROAD 96

S.A.P. 062-650-012
 COUNTY PROJ. P-5010



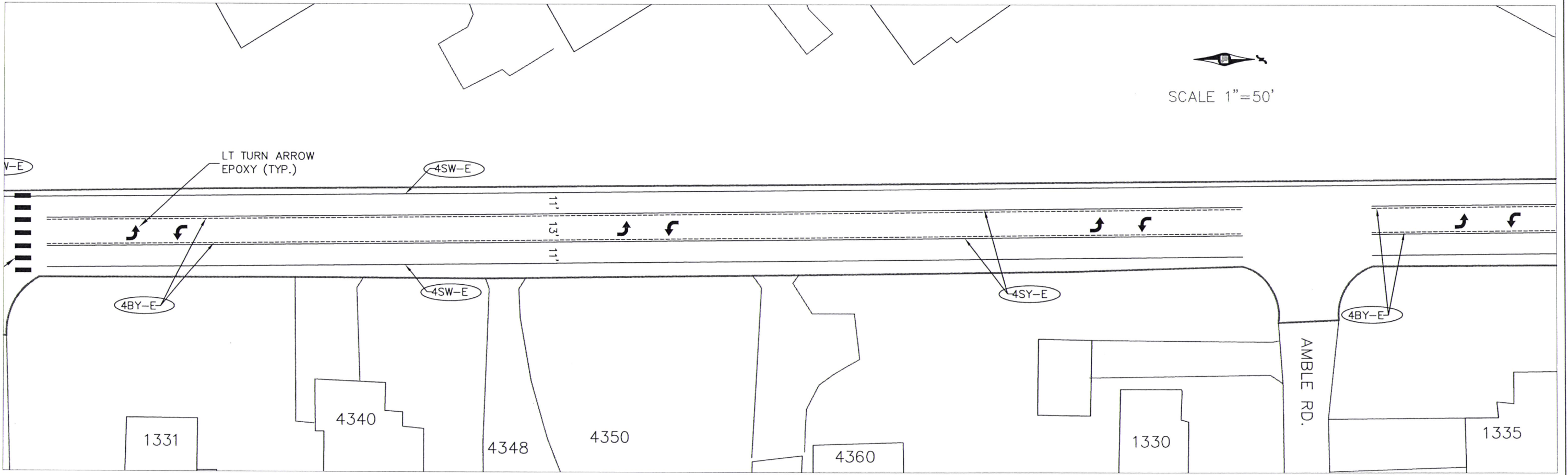
PAVEMENT MARKING PLAN
 SHEET 9 OF 12 SHEETS

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\PM.DWG May 6, 2014 8:27 AM



PAVEMENT MARKING LEGEND

- (4SW-E) 4" BROKEN LINE WHITE - EPOXY
- (4DY-E) 4" DOUBLE SOLID LINE YELLOW - EPOXY
- (4BY-E) 4" BROKEN LINE YELLOW - EPOXY
- (4SY-E) 4" SOLID LINE YELLOW - EPOXY
- (4BW-E) 4" BROKEN LINE WHITE - EPOXY
- (12SW-E) 12" SOLID WHITE LINE - EPOXY



NO.	REV-DATE	BY:	DESCRIPTION

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.
 SIGNED: *Andrew J. ...*
 REG NO: 50791 DATE: 5-6-2014

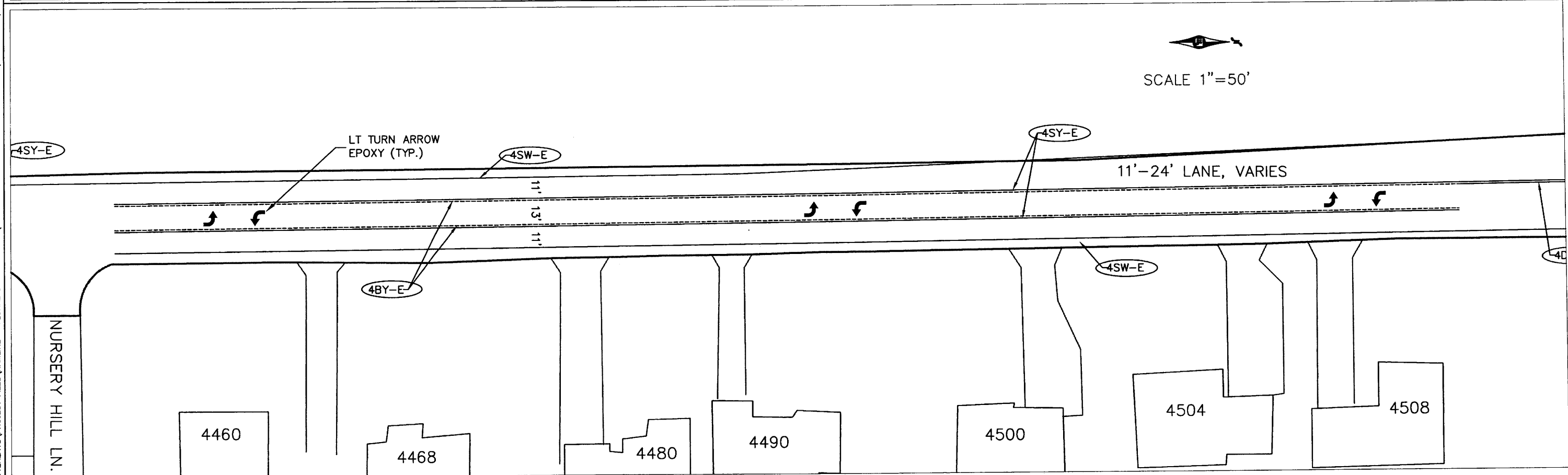
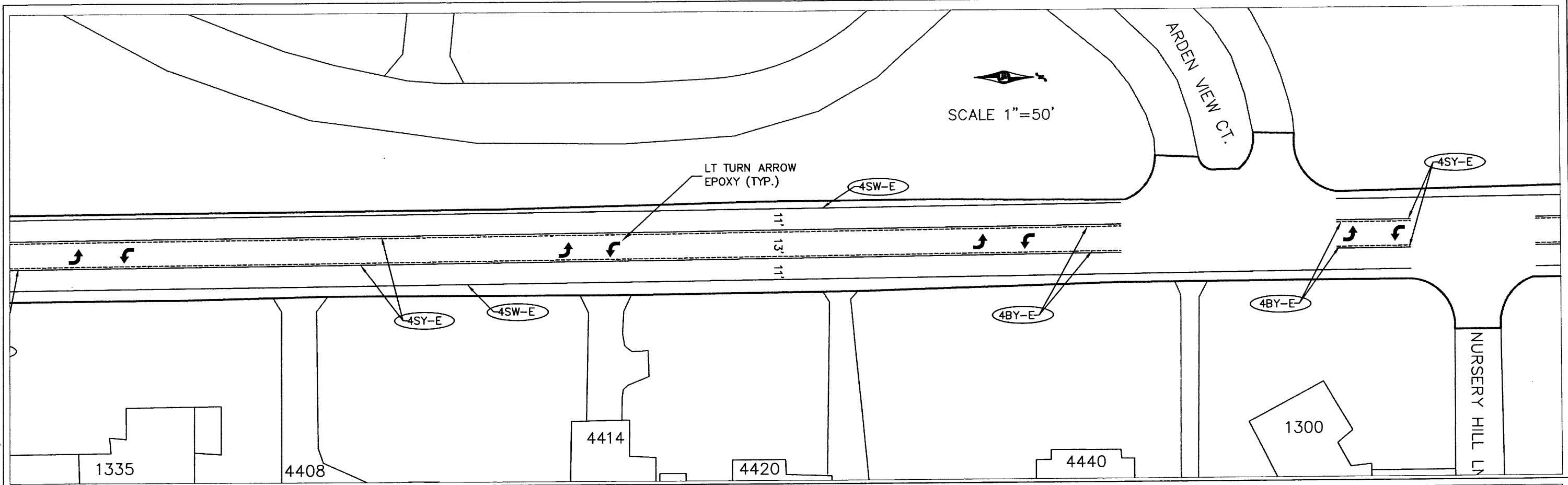
HAMLINE AVENUE
 FLORAL DR. W. TO COUNTY ROAD 96

S.A.P. 062-650-012
 COUNTY PROJ. P-5010



PAVEMENT MARKING PLAN
 SHEET 10 OF 12 SHEETS

P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\PM.DWG May 6, 2014 8:27 AM



NO.	REV-DATE	BY:	DESCRIPTION

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.

SIGNED: *William Fisher*

REG NO: 50791 DATE: 5-6-2014

HAMLIN AVENUE

FLORAL DR. W. TO COUNTY ROAD 96

S.A.P. 062-650-012

COUNTY PROJ. P-5010

PAVEMENT MARKING PLAN

SHEET 11 OF 12 SHEETS

KINDER CARE



SCALE 1"=50'

END PROJECT
STA. 46+06
S.A.P. 062-650-012
HAMLINE AVE.

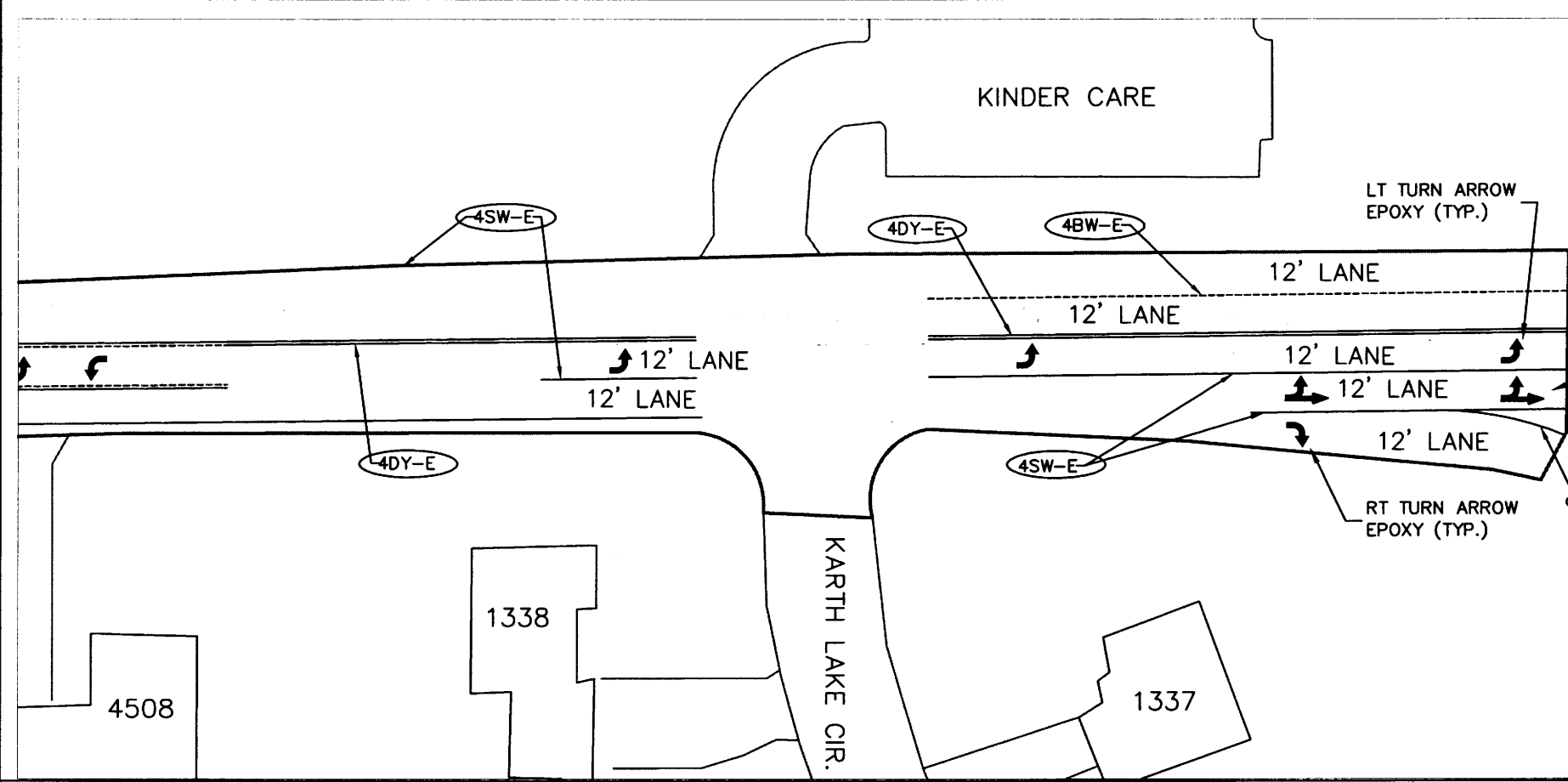
PAVEMENT MARKING LEGEND

- (4SW-E) 4" BROKEN LINE WHITE - EPOXY
- (4DY-E) 4" DOUBLE SOLID LINE YELLOW - EPOXY
- (4BY-E) 4" BROKEN LINE YELLOW - EPOXY
- (4SY-E) 4" SOLID LINE YELLOW - EPOXY
- (4BW-E) 4" BROKEN LINE WHITE - EPOXY
- (12SW-E) 12" SOLID WHITE LINE - EPOXY

LT TURN ARROW
EPOXY (TYP.)

LT/THRU TURN
ARROW-EPOXY (TYP.)

RT TURN ARROW
EPOXY (TYP.)



P:\PROJECTS\2014 OVERLAYS\PROJECT FILES\HAMLINE - FLORAL DR TO HWY 96\HAMLINE AVE - FLORAL DR TO HWY 96\FINAL PLAN\PM.DWG May 6, 2014 7:29 AM

NO.	REV-DATE	BY:	DESCRIPTION

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.

SIGNED: _____

REG NO: _____ DATE: _____

HAMLINE AVENUE
FLORAL DR. W. TO COUNTY ROAD 96

S.A.P. 062-650-012
COUNTY PROJ. P-5010



PAVEMENT MARKING PLAN
SHEET 12 OF 12 SHEETS