



REPORT/RECOMMENDATION

To: MAYOR AND COUNCIL	Agenda Item Item No: <u>VI.B.</u>
From: Wayne D. Houle, PE City Engineer	<input checked="" type="checkbox"/> Action <input type="checkbox"/> Discussion <input type="checkbox"/> Information
Date: May 15, 2012	
Subject: Public Hearing – Bike Boulevard Improvement A-238, Resolution No. 2012-75.	

ACTION REQUESTED:

Approve attached Resolution No. 2012-75, approving the proposed layout and no parking requirements for the Bike Boulevard Improvements, Improvement No. A-238.

INFORMATION/BACKGROUND:

As you will recall the City of Edina was granted \$250,000 for a bike boulevard project through the Transit for Livable Communities (TLC) grant program. The City Council did adopt Resolution No. 2011-70 supporting the project.

Staff along with our consultant, Alliant Engineering has been working very diligently with MNDOT to gain approvals of some newer pavement markings for this project. Staff and consultant have hosted two public informational meetings; the first meeting on October 6, 2011 and the second on April 12, 2012 to share the proposed design, see attached map indicating the mailing area. Staff and consultant also presented the project to the Edina Transportation Commission on April 19, 2012.

The engineering fees did not allow for a conceptual type set of plans, therefore the design plans are included. The elimination of on-street parking is proposed in selected areas, therefore requiring this request be part of the resolution. Attached is a TLC acceptable option for West 54th Street from Minnehaha Boulevard to Halifax Avenue (see Exhibit 3 of the plan set). Staff is recommending the option as shown in the attached updated plan set for the project.

Correspondences received regarding this project are attached, along with the April 19 draft Edina Transportation Commission meeting minutes when this project was presented.

ATTACHMENTS:

- Resolution 2012-75
- Phase 1 Project Overview
- Updated Plans for Bike Boulevard Improvements, Improvement No. A-238
- Exhibit 3 – West 54th Street, Minnehaha Boulevard to Halifax Avenue
- Draft ETC Minutes of April 19, 2012
- Resolution No. 2011-70
- Map of mailing area for informational meetings and public hearing notices.
- Correspondences



**RESOLUTION NO. 2012-75
 APPROVING PROPOSED BIKE BLVD LAYOUT
 AND
 PARKING RESTRICTIONS ON 54th STREET
 FROM WOODDALE AVENUE TO FRANCE AVENUE**

WHEREAS, on June 7, 2011, the City Council of the City of Edina, adopted a resolution supporting this project; and

WHEREAS, the City of Edina has planned the addition of bicycle lanes on 54th Street from Wooddale Avenue to France Avenue, State Project No. 120-091-002; and

WHEREAS, the City of Edina will be expending Federal Aid Funds on the improvements on 54th Street; and

WHEREAS, this improvement does not provide adequate width for parking on both sides of the street; approval of the proposed construction as a Municipal State Aid street project must therefore be conditioned upon certain restrictions;

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Edina, Minnesota, that the City Council of the City of Edina hereby approves the proposed Bike Blvd layout and bans the parking of motor vehicles on the following portions of 54th Street:

1. The north side of the roadway from the easterly limits of Wooddale Avenue (east leg) to the westerly limits of France Avenue (west leg).
2. On the south side of the roadway from the easterly limits of Wooddale Avenue (east leg) to approximately the westerly limits of Minnehaha Boulevard (west leg)

ADOPTED this 15th day of May, 2012.

Attest: _____
 Debra A. Mangen, City Clerk

_____ James B. Hovland, Mayor

STATE OF MINNESOTA)
 COUNTY OF HENNEPIN)SS
 CITY OF EDINA)

CERTIFICATE OF CITY CLERK

I, the undersigned duly appointed and acting City Clerk for the City of Edina do hereby certify that the attached and foregoing Resolution was duly adopted by the Edina City Council at its Regular Meeting of May 15, 2012, and as recorded in the Minutes of said Regular Meeting.

WITNESS my hand and seal of said City this _____ day of _____, 20____.

_____ City Clerk

Edina Bicycle Blvd – Phase 1 Project Overview

Project Goal: In 2008, the City of Edina Bicycle Transportation Plan vision was adopted; which is, to provide a bicycle-friendly community by improving conditions for cycling through reducing hazards, by developing the City's bicycle transportation infrastructure, and by inviting residents, workers and visitors of the community to include this safe, comfortable and convenient mode of transportation into their lives. The 54th Street, Wooddale Avenue and Valley View Road corridors are identified in the City's Bicycle Transportation Plan as primary bicycle routes within the City. In recognition of the selected corridors regional connectivity, and significance to the City's Bicycle Transportation Plan, Edina was awarded federal funds (Non-Motorized Transportation Pilot Program) to implement an on-street bicycle facility along these corridors. The design of these bicycle facilities must improve conditions for cycling and serve to encourage increased bicycling. The project has been reviewed in accordance with best practices for on-street bicycle design and the governing Minnesota State Aid design standards. Recommendations for each roadway segment are discussed below.

54th Street – France Avenue to Zenith Avenue (Sheets 35-36)

Vehicle Traffic: <800 vehicles per day

Constraint: None. Low traffic volume and non-MSA road.

Recommendation: Share the Road.

- Supplement share the road signing with large "Bike Blvd" pavement message at key locations. Message is consistent with Minneapolis design for residential bicycle boulevard streets, as this segment will connect to future share the road design on Zenith Avenue S.
- Add residential traffic circle at Drew Avenue and Beard Avenue. Traffic circle will be landscaped (maintained by neighbors or Engineering). Traffic circles are designed for 10 mph vehicle speed.
- Remove eastbound/westbound stop signs at Drew Avenue and Beard Avenue and replace with a 4-way Yield condition.

Alternative Design: None

54th Street – Minnehaha Avenue to France Avenue (Sheets 34-35)

Vehicle Traffic: 2,700 vehicles per day

Constraint: Share the road design is not expected to provide the necessary level of comfort or preferred designation of space to encourage bicycle riding on-street. Dedicated bicycle lanes do, but require 1-side on-street parking removal due to MSA minimum street width requirement.

Recommendation: Dedicated Bicycle Lanes.

- Provide dedicated bicycle lanes in both eastbound and westbound directions.

- Remove center yellow dashed line.
- Stop westbound bicycle lane at top of steep portion of hill (across from Community Church) and allow bicycles to use full lane.
- Maintain on-street parking on south side of 54th Street.
- Remove on-street parking on north side of 54th Street. Removes approximately 20 legal on-street parking stalls between Minnehaha Avenue and Halifax Avenue. Removes approximately 14 legal on-street parking stalls between Halifax Avenue and France Avenue. (34 total on-street parking spaces). Parking will be maintained on the south side of 54th Street, and sufficient on-street parking (although less convenient) exists along Halifax Avenue to support parking loss, if and when the south side on-street parking is full.

Alternative Design: The alternative to dedicated bicycle lanes (in the event parking on north side of 54th Street is not removed), is the advisory bike lane design (similar to the design for Wooddale Avenue).

54th Street – Wooddale Avenue to Minnehaha Avenue (Sheets 27 and 33)

Vehicle Traffic: 2,700 vehicles per day

Constraint: Share the road design is not expected to provide the necessary level of comfort or preferred designation of space to encourage bicycle riding on-street. Dedicated bicycle lanes do, but require on-street parking removal on both sides of street due to MSA minimum street width requirement.

Recommendation: Dedicated Bicycle Lanes.

- Provide dedicated bicycle lanes in both eastbound and westbound directions.
- Stop eastbound bicycle lane at top of steep portion of hill (Brookview Avenue) and allow bicycles to use full lane.
- Remove on-street parking on both north side and south side of 54th Street. The on-street parking along this segment are the side yards to adjacent property owners. The homes along this segment have driveways, plus front yard parking along north/south streets.

Alternative Design: The alternative to dedicated bicycle lanes is the advisory bike lane design (similar to the design for Wooddale Avenue). Under the advisory lane concept, on-street parking would need to be removed from one side of 54th Street.

Wooddale Avenue – Valley View Road to West 50th Street (Sheets 22 to 29)

Vehicle Traffic: 3,300 to 4,500 vehicles per day

Constraint: Share the road design will not provide the necessary level of comfort or preferred designation of space to encourage bicycle riding on-street. Dedicated bicycle lanes do, but require on-street parking removal on both sides of street due to MSA minimum street width requirement. Removal

of on-street parking is not considered due to long blocks, direct property frontage and the removal would render the entire street without any on-street parking.

Recommendation: Advisory Bike Lane.

- Allows on-street parking to be maintained on the east side of Wooddale Avenue.
- The advisory bike lane concept will remove the existing yellow dashed centerline and will provide a designated bicycle space that provides a continuous longitudinal lane marking. The advisory bike lane is not quite a fully dedicated bicycle lane, since motorists are permitted to drive in the bicycle lane area to pass on-coming motorists if needed.
- The inside longitudinal white bike lane line will be dashed, as opposed to solid.
- The dashed longitudinal line (much like a dashed white lane line) sends a permissive message to the motorists they should operate next to the line, and are allowed to enter or cross the bicycle lane as necessary.
- The advisory bike lane is experimental (due to dashed longitudinal bike lane line instead of solid). Engineering is working with FHWA to receive permission to install and expect this request to be granted. (Similar design located on 14th Street E in Minneapolis).

Alternative Design: The alternative to the advisory bike lane design would be a share the road concept. A share the road concept would provide a shared lane marking at 200 foot intervals and would be located in the same spot as the proposed advisory lane bicycle symbols. It should be noted, the motorist-motorist and motorist-bicycle interaction is nearly identical between share the road and advisory lane designs (where conflict exists between presence of both cyclist and/or on-coming motorists); except, the advisory lane design is far superior in providing a continuous reference to both the bicyclist and motorist the intended position in the roadway space, thus resulting in greater comfort for cyclists to be on the roadway.

Valley View Road – Wooddale Avenue to West 62nd Street (Sheets 22 and 30)

Vehicle Traffic: 6,700 vehicles per day

Constraint: Center left turn lane is needed. Dedicated bicycle lanes are preferred, but cannot fit within the existing street space to both meet the MSA minimum street width requirements and maintain the center left turn lane. Shared lane markings by themselves are not expected to provide sufficient bicycle designation to encourage on-street cycling.

Recommendation: Shared lane marking with a continuous green background.

- Maintain center left turn lane
- Provide a 4 foot wide, continuous green bicycle lane (located next to curb) along with the shared lane markings. The green background is consistent with bicycle facilities throughout the country and within Minneapolis.

- The green lane marking is experimental (due to use of solid color green). Engineering is working with FHWA to receive permission to install and expect this request to be granted. (Similar design throughout Minneapolis, particularly Hennepin Avenue in Downtown Minneapolis).

Alternative Design: Green background could be omitted. In this case, an enhanced shared lane markings at more frequent intervals (100 feet) would be provided. The shared lane marking would be supplemented with a longitudinal white dash at the location of marking (also an FHWA request to experiment).

Valley View Road – West 62nd Street to Hwy 62 (Sheets 30 to 32)

Vehicle Traffic: 6,700 vehicles per day

Constraint: Dedicated bicycle lanes are preferred, but cannot fit within the existing street space to both meet the MSA minimum street width requirements and maintain the center left turn lane. Shared lane markings by themselves are not expected to provide sufficient bicycle designation to encourage on-street cycling.

Recommendation: Dedicated Bike Lanes.

- Remove center left turn lane
- Maintain existing on-street parking along northeast side.
- Provide dedicated bicycle lanes. The bike lanes will begin at the end of the green pavement markings provided in the Wooddale to 62nd Street segment.

Alternative Design: Maintain center left turn lane. This would then require shared lane markings. Due to the overall segment length, the continuous green background would be cost prohibited. In this case, an enhanced shared lane marking design at more frequent intervals (100 feet) would be considered.

Southern Connection – Valley View Road to West 70th Street (Sheets 16 to 22)

Vehicle Traffic: <500 vehicles per day

Constraint: None. Low traffic volume and non-MSA road.

Recommendation: Share the Road

- Provide a signed bicycle route via Wooddale Avenue to use the existing pedestrian bridge over Hwy 62 in access of Cornelia Park. The bike route would follow the frontage road, Southdale Road to West 68th Street, W 68th Street to Cornelia Drive and Cornelia Drive to West 70th Street.
- No change in pavement markings
- Provide route marker and way-finding signs to designate the route.

Alternative Design: None



MINNESOTA DEPARTMENT OF TRANSPORTATION

CITY OF EDINA

EDINA BIKE BLVD - PHASE 1

CONSTRUCTION PLAN FOR: BIKE LANE IMPROVEMENTS, SIGNALS, SIGNING AND PAVEMENT MARKING

LOCATED ON: WOODDALE AVE S BETWEEN W 50TH ST AND TH 62
 W 54TH ST BETWEEN WOODDALE AVE S AND ZENITH AVE S
 VALLEY VIEW RD BETWEEN WOODDALE AVE S AND W 64TH ST
 SOUTHDALE RD BETWEEN TH 62 AND W 68TH ST
 CORNELIA DR BETWEEN W 68TH ST AND W 70TH ST

STATE PROJ. NO. 120-091-002

FED. PROJ. NO. NMTP 2012 (079)

GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE SPECIFICATIONS FOR CONSTRUCTION BY THE CITY OF EDINA SHALL GOVERN THIS PROJECT

NOTE: ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM AND BE INSTALLED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD) AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

INDEX

SHEET NO	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	TYPICAL SECTIONS AND TRAFFIC CIRCLE DETAIL
4	CONSTRUCTION NOTES
5-7	TRAFFIC CONTROL DETAILS
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36-38	SIGN DETAILS
39-40	TYPE C & D SIGN PANELS
41	SIGNAL DETAIL
42	INTERSECTION SIGNAL LAYOUT

THIS PLAN CONTAINS 42 SHEETS

APPROVED FOR STATE & FEDERAL AID FUNDING: STATE AID ENGINEER _____ DATE _____

STATE AID ENGINEER-REVIEWED FOR COMPLIANCE WITH FEDERAL AID RULES/POLICY: _____ DATE _____

APPROVED: CITY OF EDINA CITY ENGINEER _____ DATE _____

APPROVED: MINNEAPOLIS CITY ENGINEER OR DEPUTY CITY ENGINEER _____ DATE _____

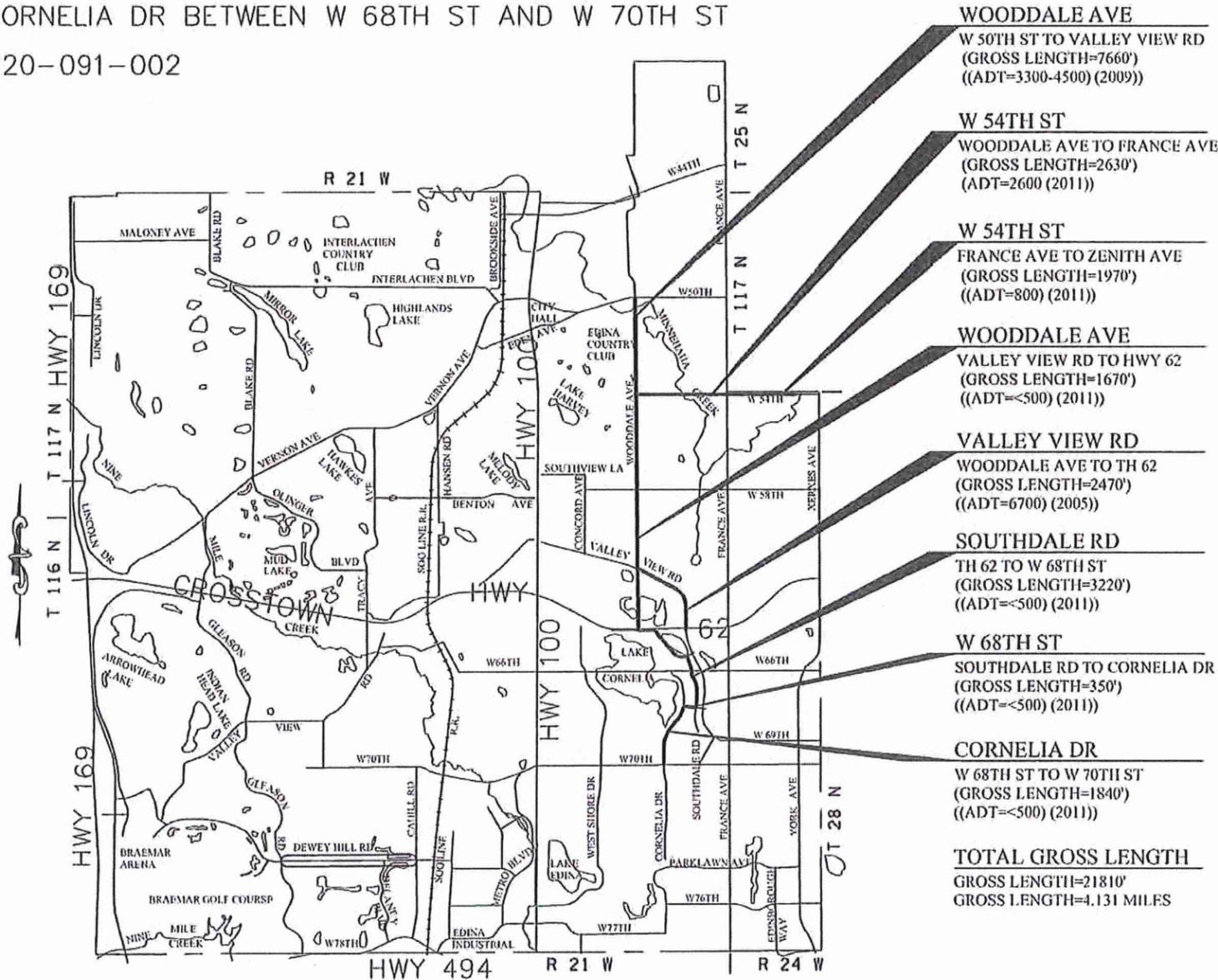
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.


 MICHAEL R ANDERSON 42828 05/08/12
 LIC. NO. DATE

CITY OF EDINA CONTRACT NO. X

STATE PROJ. NO: 120-091-002 SHEET 1 OF 42

- ⊗ CATCH BASIN
- ⊗ BEE HIVE CATCH BASIN
- ⊗ STORM MH, DRAINAGE
- ⊗ SUMP DRAIN CLEAN OUT
- ⊗ SANITARY MH
- ⊗ SANITARY CLEAN OUT
- ⊗ HYDRANT
- ⊗ WATER VALVE
- ⊗ WATER VALVE MH
- ⊗ STOP BOX
- ⊗ POST INDICATOR VALVE
- ⊗ ELECTRIC MH
- ⊗ UTILITY POLE
- ⊗ LIGHT POLE
- ⊗ UTILITY POLE W/LIGHT
- ⊗ GUY WIRE
- ⊗ GUY POLE
- ⊗ GROUND LIGHT
- ⊗ TRAFFIC SIGNAL
- ⊗ HAND HOLE
- ⊗ TELEPHONE PEDESTAL
- ⊗ TELEPHONE MH
- ⊗ TELEVISION PEDESTAL
- ⊗ GAS VALVE
- ⊗ MAIL BOX
- ⊗ RETAINING WALL
- ⊗ CHAIN LINK FENCE
- ⊗ WOOD FENCE
- ⊗ SILT FENCE
- ⊗ SAWCUT
- >— STORM SEWER
- >— SUMP DRAIN
- I — WATER LINE
- >— SANITARY SEWER
- G — GAS LINE
- T — TELEPHONE UG LINE
- P — ELECTRIC UG LINE
- OH — OVERHEAD
- PROPOSED=BOLD\SOLID



- WOODDALE AVE**
W 50TH ST TO VALLEY VIEW RD
(GROSS LENGTH=7660')
((ADT=3300-4500) (2009))
- W 54TH ST**
WOODDALE AVE TO FRANCE AVE
(GROSS LENGTH=2630')
(ADT=2600 (2011))
- W 54TH ST**
FRANCE AVE TO ZENITH AVE
(GROSS LENGTH=1970')
((ADT=800) (2011))
- WOODDALE AVE**
VALLEY VIEW RD TO HWY 62
(GROSS LENGTH=1670')
((ADT=<500) (2011))
- VALLEY VIEW RD**
WOODDALE AVE TO TH 62
(GROSS LENGTH=2470')
((ADT=6700) (2005))
- SOUTHDALE RD**
TH 62 TO W 68TH ST
(GROSS LENGTH=3220')
((ADT=<500) (2011))
- W 68TH ST**
SOUTHDALE RD TO CORNELIA DR
(GROSS LENGTH=350')
((ADT=<500) (2011))
- CORNELIA DR**
W 68TH ST TO W 70TH ST
(GROSS LENGTH=1840')
((ADT=<500) (2011))
- TOTAL GROSS LENGTH**
GROSS LENGTH=21810'
GROSS LENGTH=4.131 MILES

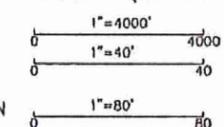
PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".



PROJECT LOCATION
 COUNTY: HENNEPIN
 DIVISION: METRO

SCALES (IN FEET)



INDEX MAP
 PLAN
 SIGNING AND MARKING PLAN

STATEMENT OF ESTIMATED QUANTITIES

TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY SP 120-091-002
I	12	2102.501	PAVEMENT MARKING REMOVAL	SQ FT	180.00
I	12	2102.502	PAVEMENT MARKING REMOVAL	LIN FT	9826.00
		2104.505	REMOVE BITUMINOUS PAVEMENT (1)	SQ YD	110.00
E	11	2104.509	REMOVE SIGN TYPE C	EACH	4
		2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH) (1)	LIN FT	170.00
		2105.501	COMMON EXCAVATION (EV) (P)	CU YD	25.00
		2105.507	SUBGRADE EXCAVATION (EV) (P)	CU YD	35.00
		2105.607	TOPSOIL BORROW SPECIAL 1 (CV) (3)	CU YD	30.00
		2123.601	STREET SWEEPER (WITH PICK UP BROOM)	HOUR	2.00
		2211.503	AGGREGATE BASE (CV) CLASS 5	CU YD	18.00
		2355.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	10.00
		2360.501	TYPE SP 12.5 WEARING COURSE MIX (5,L)	TON	20.00
		2506.522	ADJUST FRAME AND RING CASTING	EACH	4
		2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	110.00
		2563.601	TRAFFIC CONTROL	LUMP SUM	1.00
F	12	2564.531	SIGN PANELS TYPE SPECIAL	SQ FT	94.64
A	11	2564.531	SIGN PANELS TYPE C	SQ FT	94.20
C	11	2564.531	SIGN PANELS TYPE D	SQ FT	36.25
B	11	2564.533	FURNISH SIGN PANELS TYPE C	SQ FT	19.25
D	11	2564.533	FURNISH SIGN PANELS TYPE D	SQ FT	5.25
G	12	2564.533	FURNISH SIGN PANELS TYPE SPECIAL	SQ FT	14.35
B	11	2564.536	INSTALL SIGN TYPE C	EACH	6
D	11	2564.536	INSTALL SIGN TYPE D	EACH	1
G	12	2564.536	INSTALL SIGN TYPE SPECIAL	EACH	16
		2565.616	REVISE SIGNAL SYSTEM	SYS	1.00
		2571.503	ORNAMENTAL TREE 6' HT B&B	TREE	2.00
		2571.505	DECIDUOUS SHRUB 18" HT CONT	SHRUB	6.00
		2571.507	PERENNIAL 1 GAL CONT	PLANT	66.00
		2573.530	STORM DRAIN INLET PROTECTION	EACH	3
		2575.607	MULCH MATERIAL TYPE SPECIAL (2)	CUYD	6.00
H	12	2582.501	PAVT MSSG (BIKER) EPOXY	EACH	55
H	12	2582.501	PAVT MSSG (BIKE LANE ARROW) EPOXY	EACH	55
H	12	2582.502	4" SOLID LINE WHITE-POLY PREF (GR IN)	LIN FT	2046.00
H	12	2582.502	24" SOLID LINE YELLOW-POLY PREF (GR IN)	LIN FT	121.00
H	12	2582.502	4" BROKEN LINE YELLOW-POLY PREF (GR IN)	LIN FT	230.00
H	12	2582.502	4" DB SOLID LINE YELLOW-POLY PREF (GR IN)	LIN FT	674.00
H	12	2582.502	4" SOLID LINE WHITE-EPOXY	LIN FT	7552.00
H	12	2582.502	12" SOLID LINE WHITE-EPOXY	LIN FT	22.00
H	12	2582.502	4" DOTTED LINE WHITE-EPOXY	LIN FT	2892.00
H	12	2582.502	4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN FT	550.00
H	12	2582.618	PAVEMENT MARKING SPECIAL 1	SQ FT	4458.00
H	12	2582.618	PAVEMENT MARKING SPECIAL 2	SQ FT	16.33
H	12	2582.618	PAVEMENT MARKING SPECIAL 3	SQ FT	116.78
H	12	2582.618	PAVEMENT MARKING SPECIAL 4	SQ FT	59.20

NOTES:
 (1) REGARDLESS OF DEPTH
 (2) SHREDDED HARDWOOD
 (3) PLANTING BEDS

TAB	SHEET NO.	TABULATION
A	11	SIGN PANELS TYPE C
B	11	FURNISH SIGN PANELS TYPE C
C	11	SIGN PANELS TYPE D
D	11	FURNISH SIGN PANELS TYPE D
E	11	REMOVE SIGN TYPE C
F	12	SIGN PANELS TYPE SPECIAL
G	12	FURNISH SIGN PANELS TYPE SPECIAL
H	12	TABULATION OF PAVEMENT MARKING QUANTITIES
I	12	REMOVE PAVEMENT MARKING

ITEM	BASIS
BITUMINOUS MIXTURE	110 POUNDS / SQ YD / INCH OF MIX
BITUMINOUS TACK COAT	0.03 TO 0.05 GAL / SQ YD ON NEW PAVEMENTS
BITUMINOUS TACK COAT	0.07 TO 0.10 GAL / SQ YD ON CONCRETE PAVEMENT AND MILLED SURFACES

THESE STANDARD PLATES AS APPROVED BY THE FHWA SHALL APPLY	
PLATE NO.	DESCRIPTION
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
7100H	CONCRETE CURB AND GUTTER (DESIGN B AND DESIGN V)
8000I	STANDARD BARRICADES

EDINA BIKE BLVD - PHASE I
 STATEMENT OF ESTIMATED QUANTITIES
 BASIS OF ESTIMATED QUANTITIES
 STANDARD PLATES

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55425-3037
 PH: 952-826-0371
 FAX: 952-826-0392



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
 DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 2 of 42

3:27:51 PM 5/8/2012 X:\2012\120007\DESIGN\PIans\Sheets\vol120007_r101.dgn

INSET A

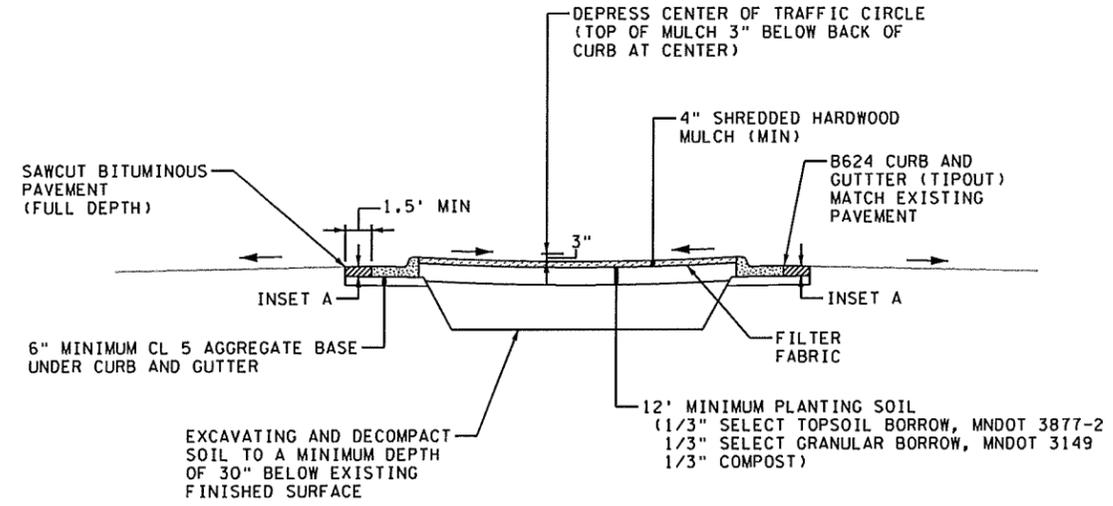
W 54TH STREET AT DREW AVENUE
W 54TH STREE AT BEARD AVENUE



- 2" TYPE SP 12.5 WEARING COURSE (5,L)
SPWEB540L MNDOT SPEC 2360
- 2" TYPE SP 12.5 WEARING COURSE (5,L)
SPWEB540L MNDOT SPEC 2360
- 3" TYPE SP 12.5 WEARING COURSE (5,L)
SPWEB540L MNDOT SPEC 2360
- 6" CL 5 AGGREGATE BASE
MNDOT SPEC 2211
- APPROVED SUBGRADE

NOTES:

- ① INSTALL BITUMINOUS TACK COAT BETWEEN ALL NEW BITUMINOUS LIFTS AND ADJACENT SURFACES.
- ② PAVEMENT SECTION IS ASSUMED INPLACE PAVEMENT SECTION BASED ON THE BEST AVAILABLE INFORMATION. ACTUAL REPLACEMENT PAVEMENT SECTION SHALL BE AS SHOWN ABOVE OR MATCH THE INPLACE DEPTHS OF THE CORRESPONDING LAYERS, WHICHEVER IS GREATER.



TRAFFIC CIRCLE DETAIL
NOT TO SCALE

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
TYPICAL SECTIONS AND
TRAFFIC CIRCLE DETAIL

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55435-5037
Ph: 952-626-0371
Fax: 952-626-0392



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
[Signature]
DATE: 05/08/12 LIC. NO. 40545

DRAWN: KAS
CHECKED: SAW
APPROVED: SAW
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 3 of 42

GENERAL

1. THE GOVERNING SPECIFICATIONS FOR THIS PROJECT SHALL BE THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE SPECIFICATIONS FOR CONSTRUCTION BY THE CITY OF EDINA.
2. STREET CENTERLINE AND RIGHT-OF-WAY SHOWN IN THIS PLAN ARE BASED ON CITY OF EDINA GIS INFORMATION. THE PROJECT SURVEYOR SHALL LOCATE PROPERTY CORNERS AND STAKE RIGHT OF WAY LIMITS IN THE FIELD PRIOR TO CONSTRUCTION BEGINNING TO CONFIRM RIGHT-OF-WAY LIMITS AS NECESSARY.
3. ALL WORK SHALL OCCUR WITHIN PUBLIC RIGHT-OF-WAY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ADJACENT FACILITIES AND SAFETY OF THE PUBLIC DURING CONSTRUCTION OF THE PROJECT WITHIN AND ADJACENT TO THE PROJECT LIMITS.
5. WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT SHALL MEAN THIS WORK WILL BE INCIDENTAL FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.
6. REFER TO THE TRAFFIC CONTROL PLANS FOR TRAFFIC CONTROL NOTES.

EROSION AND SEDIMENT CONTROL

7. REMOVE ALL SEDIMENTS AND SOILS TRACKED OR OTHERWISE DEPOSITED ONTO PUBLIC AND PRIVATE PAVEMENT AREAS. REMOVAL SHALL BE ON A DAILY BASIS WHEN TRACKING OCCURS AND MAY BE ORDERED BY CITY INSPECTORS AT ANY TIME IF CONDITIONS WARRANT. SWEEPING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE CONSTRUCTION AND DONE IN A MANNER TO PREVENT DUST BEING BLOWN TO ADJACENT PROPERTIES.
8. INSTALL INLET PROTECTION AT ALL PUBLIC AND PRIVATE CATCH BASIN INLETS, WHICH RECEIVE RUNOFF FROM THE DISTURBED AREAS. CONTRACTOR SHALL CLEAN, REMOVE SEDIMENT OR REPLACE STORM DRAIN INLET PROTECTION DEVICES ON A ROUTINE BASIS SUCH THAT THE DEVICES ARE FULLY FUNCTIONAL FOR THE NEXT RAIN EVENT. SEDIMENT DEPOSITED IN AND/OR PLUGGING DRAINAGE SYSTEMS IS THE RESPONSIBILITY OF THE CONTRACTOR. HAY AND STRAW BALES OR FILTER FABRIC WRAPPED GRATES ARE NOT ALLOWED FOR INLET PROTECTION.
9. LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN TWO FEET FROM THE DRAINAGE/GUTTER LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS.
10. MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES ON A DAILY BASIS AND REPLACE DETERIORATED, DAMAGED, OR ROTTED EROSION CONTROL DEVICES IMMEDIATELY.
11. TEMPORARILY OR PERMANENTLY STABILIZE ALL CONSTRUCTION AREAS WHICH HAVE UNDERGONE FINAL GRADING, AND ALL AREAS IN WHICH GRADING OPERATIONS ARE NOT ACTIVELY UNDERWAY AGAINST EROSION DUE TO RAIN, WIND AND RUNNING WATER WITHIN 7-14 DAYS. USE SEED AND MULCH, EROSION CONTROL MATTING, AND/OR SCDDING AND STAKING IN GREEN SPACE AREAS. REMOVE ALL TEMPORARY SYNTHETIC, STRUCTURAL, NON-BIODEGRADABLE EROSION AND SEDIMENT CONTROL DEVICES AFTER THE SITE HAS UNDERGONE FINAL STABILIZATION WITH PERMANENT VEGETATION ESTABLISHMENT. FINAL STABILIZATION FOR PURPOSES OF THIS REMOVAL IS 70% ESTABLISHED COVER OVER DENUDED AREA.
12. ALL CONCRETE RELATED PRODUCTION, CLEANING AND MIXING ACTIVITIES SHALL BE DONE IN THE DESIGNATED AREAS. UNDER NO CIRCUMSTANCE MAY WASHOUT WATER DRAIN ONTO THE PUBLIC RIGHT OF WAY OR INTO ANY PUBLIC OR PRIVATE STORM DRAIN CONVEYANCE.
13. REFER TO THE CITY STANDARD SPECIFICATIONS FOR ADDITIONAL EROSION AND SEDIMENT CONTROL INFORMATION AND REQUIREMENTS.

REMOVALS

14. REMOVAL LIMITS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY EXACT LIMITS WITH THE ENGINEER IN THE FIELD.
15. BITUMINOUS AND CONCRETE ITEMS DISTURBED BY THE CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OUTSIDE THE RIGHT OF WAY IN ACCORDANCE WITH SPEC. 2104.3C3.

MISCELLANEOUS CONSTRUCTION

16. THE CONTRACTOR SHALL CONDUCT OPERATIONS TO MAINTAIN PEDESTRIAN AND TRAFFIC MOVEMENTS THROUGH THE PROJECT LIMITS AT ALL TIMES.
17. THE CONTRACTOR SHALL PLACE A MINIMUM OF 6" CLASS 5 AGGREGATE BASE UNDER PROPOSED CURB AND GUTTER, OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER, UNLESS OTHERWISE NOTED.

SOILS, EXCAVATION, PAVING, AND RESTORATION

18. SOIL DECOMPACTION - AFTER REMOVAL OF INPLACE PAVEMENT STRUCTURE AND PRIOR TO PLACEMENT OF TOPSOIL AND TURF OR PLANTINGS IN AREAS THAT WERE PREVIOUSLY SURFACED WITH PAVEMENTS OR SIDEWALKS, THE CONTRACTOR SHALL DECOMPACT THE INPLACE SUBGRADE SOILS. THE CONTRACTOR SHALL EXCAVATE DOWN A MINIMUM OF 30" FROM THE EXISTING GRADE, COMPLETELY REMOVE ALL PAVEMENTS AND AGGREGATE BASE MATERIALS, AND BLEND THE REMAINING SUBGRADE SOILS FOR UNIFORMITY, REPLACE TO FINISHED GRADE, AND LIGHTLY COMPACT. THIS WORK SHALL BE PAID FOR UNDER THE ITEM "SUBGRADE EXCAVATION".
19. GRADING GRADE IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE, TYPICALLY CLASS 5 AGGREGATE BASE MATERIALS (MN/DOT SPECIFICATION 3138).
20. WHERE CONNECTING NEW SURFACING ADJACENT TO ANY IN PLACE PAVEMENTS, CUT VERTICALLY TO THE BOTTOM OF THE IN-PLACE SURFACING OR TOP OF GRADING GRADE, WHICHEVER IS DEEPER, THEN TAPER TRANSVERSELY AT 1:1 (V:H) TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
21. IN ALL PROPOSED CONSTRUCTION, THE CONTRACTOR SHOULD STRIVE TO SUBSTANTIALLY MATCH THE SOILS IN-PLACE UNDER THE ROADWAYS. FOR EXAMPLE, GRANULAR BACKFILL SHALL NOT BE PERMITTED ADJACENT TO NON-GRANULAR SOILS, IN ORDER TO PREVENT AN ABRUPT SOILS DIFFERENTIAL.
22. PAVEMENT PATCHING - UNLESS OTHERWISE SPECIFICALLY DIRECTED BY THE ENGINEER, PAVEMENT PATCHES SHALL BE CONSTRUCTED TO MATCH EXACTLY THE THICKNESSES AND MATERIAL TYPES OF THE ADJACENT PAVEMENT, AGGREGATE BASE, AND GRANULAR SUBBASE LAYERS. PAVEMENT INFORMATION PROVIDED BY THE CITY OF EDINA DURING PROJECT DESIGN AS DETERMINED FROM EXISTING CONSTRUCTION PLAN DATA AND UTILITY CUT INFORMATION IS DEPICTED IN THE PAVEMENT DETAILS IN THESE PLANS. THE CONTRACTOR SHALL NOTE THAT THE ACTUAL PAVEMENT SECTIONS IN PLACE MAY DIFFER FROM THE SECTIONS SHOWN IN THESE PLANS. PAYMENT SHALL BE MADE FOR ACTUAL QUANTITIES OF MATERIALS PLACED UNDER THE APPROPRIATE PAY ITEMS.
23. OBTAIN COMPACTION ON THE GRADING PORTIONS OF PERMANENT CONSTRUCTION IN ACCORDANCE WITH THE "SPECIFIED DENSITY METHOD" REQUIREMENTS, MNDOT SPECIFICATION 2105.3F1.
24. COMPACTION OF AGGREGATE BASE SHALL BE IN ACCORDANCE WITH THE "PENETRATION INDEX METHOD" REQUIREMENTS.
25. COMPACTION OF BITUMINOUS WEAR AND NON-WEAR PAVEMENTS SHALL BE BY THE MAXIMUM DENSITY METHOD.
26. USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURE LIFTS AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING PAVEMENT. THE ROADWAY SURFACE SHALL BE CLEAN AND FREE OF DEBRIS PRIOR TO APPLYING TACK. BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GAL/SQ YD BETWEEN ALL BITUMINOUS LAYERS AND A RATE OF 0.07 TO 0.10 GAL/SQ YD ON CONCRETE PAVEMENT AND MILLED BITUMINOUS SURFACES PRIOR TO BEING OVERLAID. THESE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY) OR MC AND RC LIQUID ASPHALT. THE ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH MN/DOT 2357.
27. AS A PRECAUTIONARY MEASURE FROM A SAFETY STANDPOINT, TRAFFIC LANES TO BE USED DURING CONSTRUCTION MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE ADJACENT EXCAVATION. THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY PROJECTING 1:2 OR GREATER (FLATTER) SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND THE BOTTOM OF THE EXCAVATION.
28. ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF SITE BY THE CONTRACTOR IN ACCORDANCE WITH MN/DOT SPECIFICATIONS.
29. ANY DEBRIS WHICH MAY BE ENCOUNTERED DURING GRADING SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE PROJECT RIGHT OF WAY IN A SUITABLE DISPOSAL AREA AS APPROVED BY THE ENGINEER.
30. DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH SPECIFICATION 2105.3D.

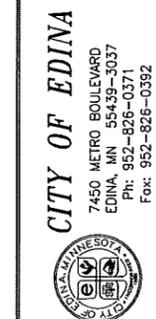
UTILITY CONTACT LIST		
UTILITY	CONTACT	PHONE
COMCAST	KELLY DOONAN	612-369-5939
CENTERPOINT ENERGY	DEAN NICHOLAS	612-321-5561
CENTURY LINK	GARY ROBACK MARK HEMMESCH	612-663-0887 612-861-8149
XCEL ENERGY	GREGG WENZEL	952-829-4513
CITY OF MINNEAPOLIS - SURFACE WATERS & SEWER	KEVIN DANEN	612-673-5627
CITY OF MINNEAPOLIS - WATER DISTRIBUTION	MARIE ASGIAN	612-673-5682

UTILITY NOTES

1. IF THE CONTRACTOR DISCOVERS UTILITY PROPERTY WHOSE EXISTENCE WAS NOT KNOWN, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE ENGINEER.
2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY OWNERS AND TO ASCERTAIN THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES BEFORE PERFORMING EXCAVATION OPERATIONS. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN THE VICINITY OF EXISTING UNDERGROUND UTILITIES IN A MANNER THAT WILL PREVENT DAMAGE TO ANY OF THEM.
3. STATE LAW REQUIRES ANYONE EXCAVATING OR DRILLING IN THE GROUND IN THE STATE OF MINNESOTA WITH POWER EQUIPMENT TO CALL GOPHER STATE "ONE CALL" AT 651-454-0002 FOR UTILITY LOCATIONS AT LEAST 48 HOURS BEFORE STARTING WORK.
4. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".
5. THE EXISTING UTILITY LOCATIONS SHOWN IN THE PLANS WERE DETERMINED FROM DRAWINGS FURNISHED BY THE UTILITY OWNERS AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATIONS IN THE FIELD.
6. CITY OF EDINA AND MINNEAPOLIS OWNED UTILITIES SHALL BE ADJUSTED, RELOCATED, OR REMOVED UNDER THIS CONTRACT UNLESS OTHERWISE NOTED IN THE PLANS. ALL OTHER PRIVATE UTILITY WORK SHALL BE BY OTHERS UNLESS OTHERWISE NOTED IN THE CONTRACT.

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EDINA BIKE BLVD - PHASE I
CONSTRUCTION NOTES
UTILITY CONTACT LIST AND NOTES



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
John W. [Signature]
DATE: 05/08/12 LIC. NO. 40545

DRAWN: KAS
CHECKED: SAW
APPROVED: SAW
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 4 OF 42

TRAFFIC CONTROL NOTES & GUIDELINES

GENERAL INFORMATION:

1. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE DEVICES IN THIS TRAFFIC CONTROL PLAN UNLESS OTHERWISE NOTED. IN PLACE SIGNING MUST ALSO BE MAINTAINED OR TEMPORARILY RELOCATED FOR CONSTRUCTION ACTIVITIES.
2. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER.
3. ALL DISTANCES ARE APPROXIMATE. PLANS ARE NOT DRAWN TO SCALE.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH THE MNMUTCD.
5. SIGN INSTALLATIONS SHALL NOT OBSTRUCT EXISTING SIGNS.
6. THE ITEM ''TRAFFIC CONTROL'' COVERS ALL DEVICES SHOWN ON THE PLAN SHEETS AND OTHER SETUPS REQUIRED BY THE CONTRACTOR'S OPERATIONS.

SIGNING:

1. ALL TRAFFIC CONTROL DEVICES, INCLUDING OVERHEAD SIGNS ON ROADS OPEN TO TRAFFIC THAT ARE NOT CONSISTENT WITH TRAFFIC OPERATION SHALL BE COVERED, REMOVED OR REVISED AS DIRECTED BY THE ENGINEER.
2. WHEN SIGNS ARE INSTALLED, THEY SHALL BE MOUNTED ON POSTS DRIVEN INTO THE GROUND AT THE PROPER HEIGHT AND LATERAL OFFSET AS DETAILED IN THE ATTACHED TYPICAL SIGN FRAMING AND INSTALLATION DETAILS. IF THIS IS NOT POSSIBLE, THEY WILL BE MOUNTED ON PORTABLE SUPPORTS AS APPROVED BY THE ENGINEER. WHEN THE SIGNS ARE REMOVED THE SIGN POSTS SHALL ALSO BE REMOVED WITHIN 2 WEEKS (5-18.4(B)).
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXTRA SIGNING NEEDED TO FACILITATE TRAFFIC SWITCHES OR FOR TRANSITIONING TRAFFIC FROM ONE STAGE TO ANOTHER.
4. ALL TEMPORARY RIGID ORANGE WARNING AND RIGID ORANGE GUIDE SIGNS SHALL BE FABRICATED WITH TYPE HP FLO (HIGH PERFORMANCE FLUORESCENT SIGN SHEETING FOR RIGID TEMPORARY OR PERMANENT SIGNS). ALL RIGID SIGNS INSTALLED, OTHER THAN THOSE WITH ORANGE BACKGROUNDS, ON A TEMPORARY BASIS SHALL BE FABRICATED WITH TYPE HP (HIGH PERFORMANCE SHEETING FOR RIGID PERMANENT SIGNS). INPLACE SIGNS THAT STILL APPLY DURING TEMPORARY OPERATIONS MAY REMAIN IN PLACE WITH NO CHANGE IN SIGN SHEETING REQUIRED.

BARRICADES FABRICATED WITH EITHER ASTM TYPE VII, SIGN SHEETING FOR RIGID TEMPORARY SIGNS OR TYPE HP (HIGH PERFORMANCE SHEETING FOR RIGID PERMANENT SIGNS) MAY BE INTERMIXED AND USED ON ANY PROJECT UNTIL THE JANUARY 1, 2010 IMPLEMENTATION DATE.

5. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" FIELD MANUAL UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
6. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE INSTALLED AS NEEDED, OR PROVIDE TEMPORARY SIGNING AT THEIR EXPENSE UNTIL THE FINAL SIGNING IS INSTALLED.

PAVEMENT MARKING:

1. OBLITERATE ANY CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
2. PAINT, POLYMER LANE TAPE AND/OR TRPM'S ARE ACCEPTABLE TEMPORARY STRIPING ALTERNATIVES ACCORDING TO ACTUAL CONDITIONS ENCOUNTERED AS DIRECTED BY THE ENGINEER. GENERALLY, ONLY PAINT WILL BE USED BEFORE MAY 1ST OR WHEN THE OTHER MANUFACTURERS SPECIFICATIONS CAN NOT BE MET.
3. TRPM'S (TEMPORARY RAISED PAVEMENT MARKERS) SHOULD BE USED TO SUPPLEMENT THE LONG TERM (MORE THE 3 DAYS) EDGELINES ON ALL TRANSITION AREAS WHEN THE CONDITIONS ARE WITHIN THE MANUFACTURERS SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND INSTALLATION OF TEMPORARY AND FINAL STRIPING.

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL DESCRIPTION

-  - TYPE A FLASHING WARNING LIGHTS
-  - RETROREFLECTIVE DRUM, TYPE I OR TYPE II BARRICADE, VERTICAL PANEL
-  - SIGN (SHOWN FACING LEFT)
-  - TYPE III BARRICADE

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**EDINA BIKE BLVD - PHASE I
TRAFFIC CONTROL DETAILS**

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392



**ALLIANT
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233 PARK AVENUE SOUTH
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612-758-3086
612-758-3087 FAX

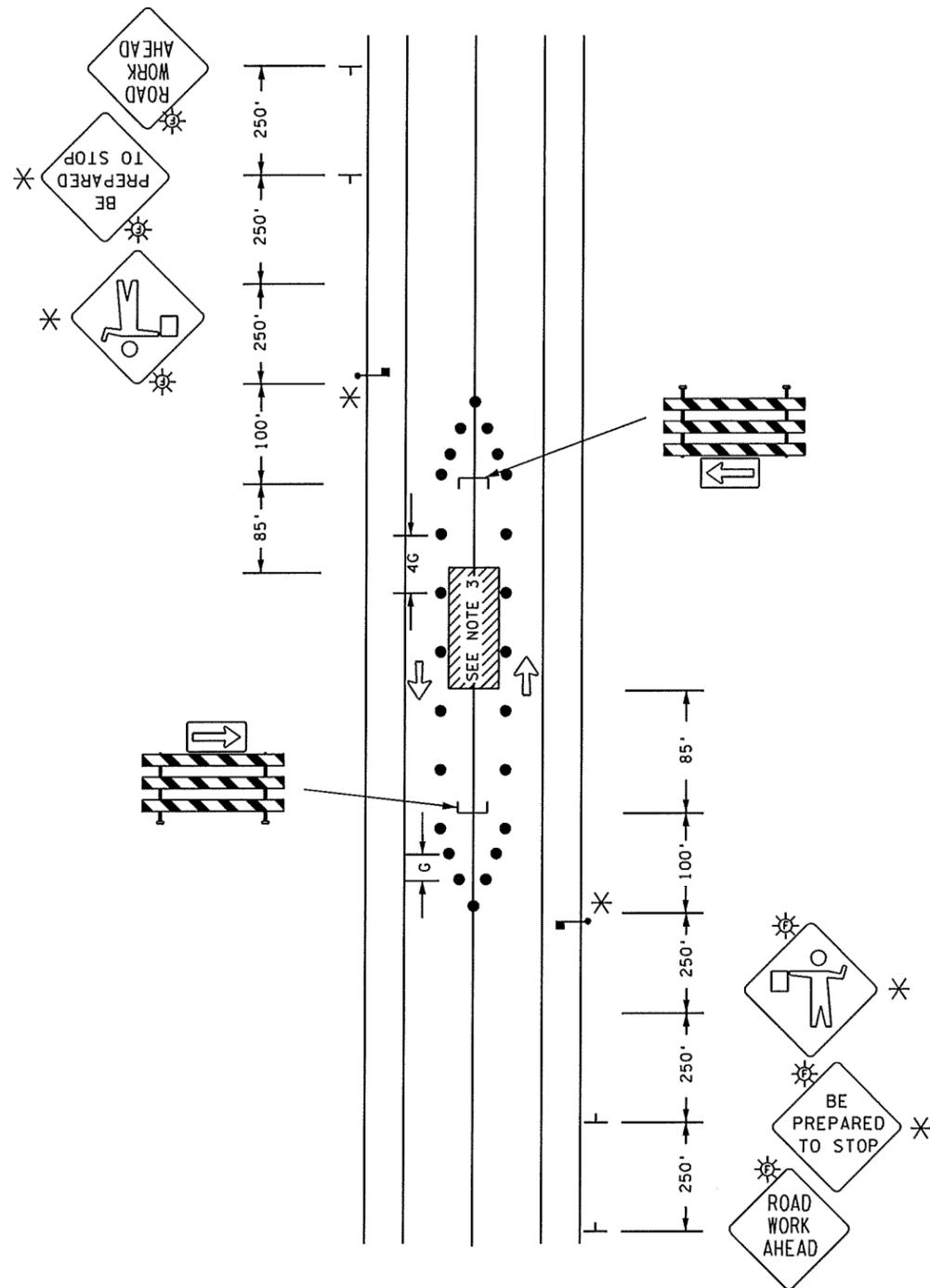
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
[Signature]
DATE: 05/08/12 LIC. NO. 40545

DRAWN: KAS
CHECKED: TJJ
APPROVED: SAW
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 5 of 42

REVISIONS

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WORK SPACE IN CENTER OF ROAD
TWO LANE TWO WAY ROAD 30 MPH
NOT TO BE USED FOR MORE THAN THREE CALENDAR DAYS

NOTES:

1. MINIMUM PAVED LANE WIDTH FROM THE CHANNELIZING DEVICES TO THE EDGE OF PAVEMENT OR OUTSIDE EDGE OF THE SHOULDER SHALL BE 10 FT.
2. ✖ - REQUIRED IF THERE IS LESS THAN 10 FT. OF PAVED SURFACE AVAILABLE TO PASS THE WORK SPACE.
3. PARKING AND STOPPING SHALL BE PROHIBITED ALONG THE WORK AREA AND TAPERS.
4. TAPER LENGTH (L) IS BASED ON A 8 FT. OFFSET. ADJUST FOR DIFFERENT OFFSETS.

● DRUMS, TYPE I OR TYPE II BARRICADE OR VERTICAL PANEL.

NOTE: ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM AND BE INSTALLED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD) AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

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EDINA, MN 55495-3037
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SUITE 300
MINNEAPOLIS, MN 55415
(612) 558-1088 FAX

I HEREBY CERTIFY THAT THIS WORK WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
[Signature]
DATE: 05/08/12 LIC. NO. 40545

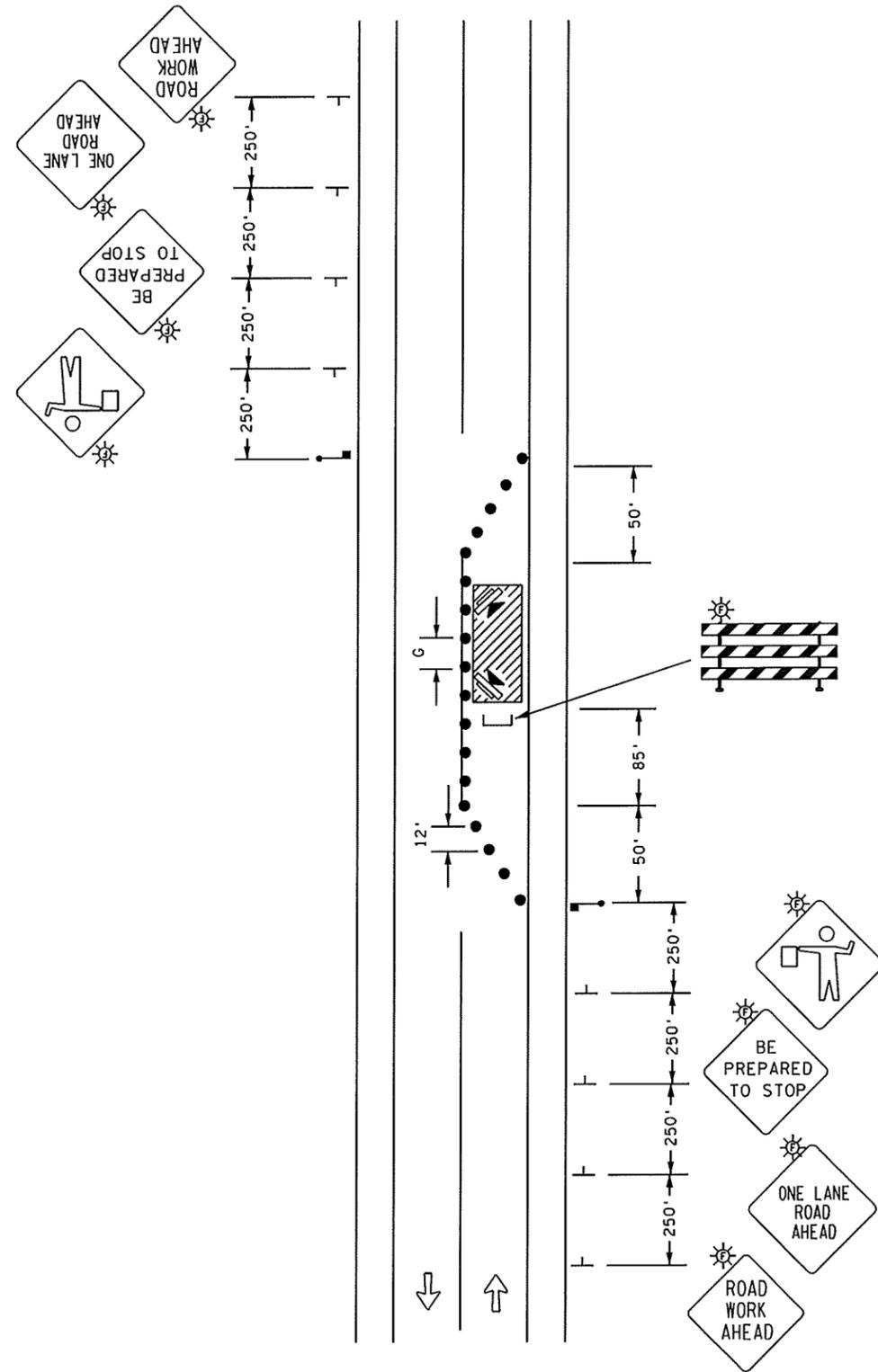
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DATE: 05/08/12
IMP.# X3-XXX
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SHEET 6 of 42

STATE PROJ.#: 120-091-002

NO.	DATE BY	REMARKS

EDINA BIKE BLVD - PHASE 1
TRAFFIC CONTROL DETAILS

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LANE CLOSURE, TWO FLAGGERS
TWO LANE TWO WAY ROAD (30 MPH)

NOT TO BE USED FOR MORE THAN THREE CALENDAR DAYS

NOTES:

1. FOR ANY EXCAVATION OR DROP-OFF IN EXCESS OF 12 IN.,
SEE THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL
DEVICES SECTION 6F, PORTABLE BARRIERS.

● DRUMS, TYPE I OR TYPE II
BARRICADE OR VERTICAL PANEL.

NOTE: ALL TRAFFIC CONTROL DEVICES AND SIGNING
SHALL CONFORM AND BE INSTALLED IN ACCORDANCE
TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC
CONTROL DEVICES" (MN MUTCD) AND PART VI, "FIELD
MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".

**EDINA BIKE BLVD - PHASE I
TRAFFIC CONTROL DETAILS**

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(612) 554-0808 FAX

I HEREBY CERTIFY THAT THIS
PLAN WAS PREPARED BY ME OR
UNDER MY SUPERVISION
AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE
OF MINNESOTA
Steve W.
DATE: 05/08/12 LIC. NO. 40545

DRAWN: KAS
CHECKED: TJJ
APPROVED: SAW
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X

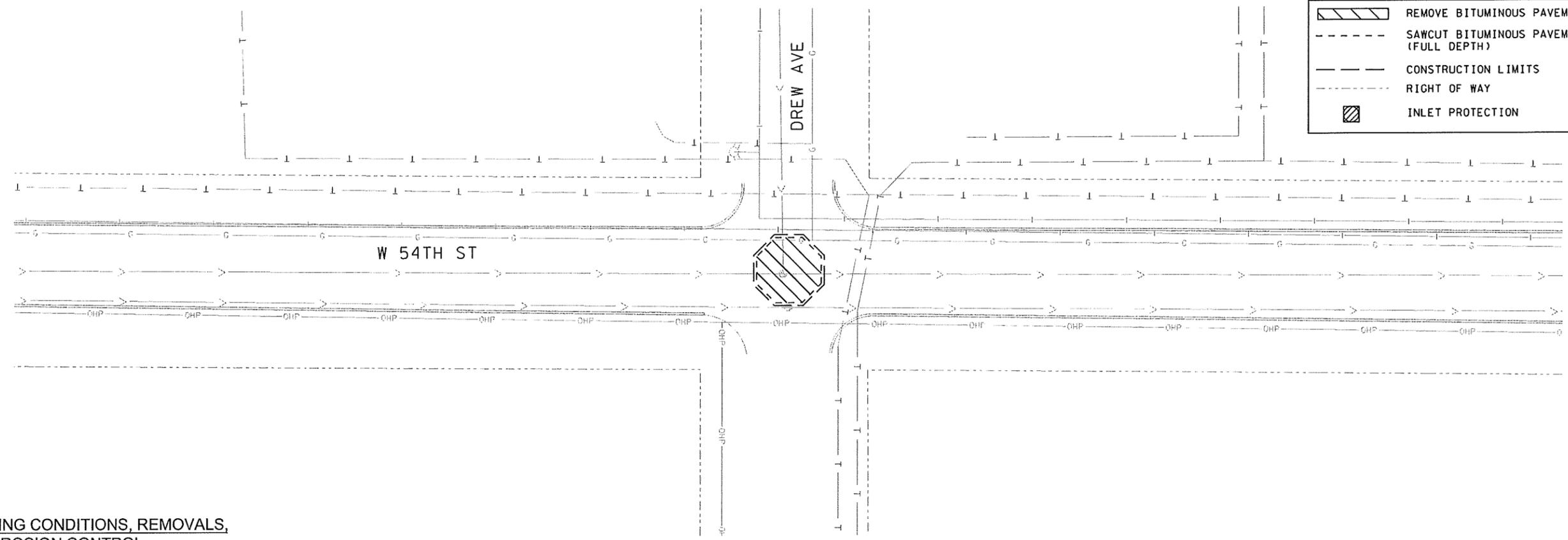
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LEGEND	
	REMOVE BITUMINOUS PAVEMENT
	SAWCUT BITUMINOUS PAVEMENT (FULL DEPTH)
	CONSTRUCTION LIMITS
	RIGHT OF WAY
	INLET PROTECTION

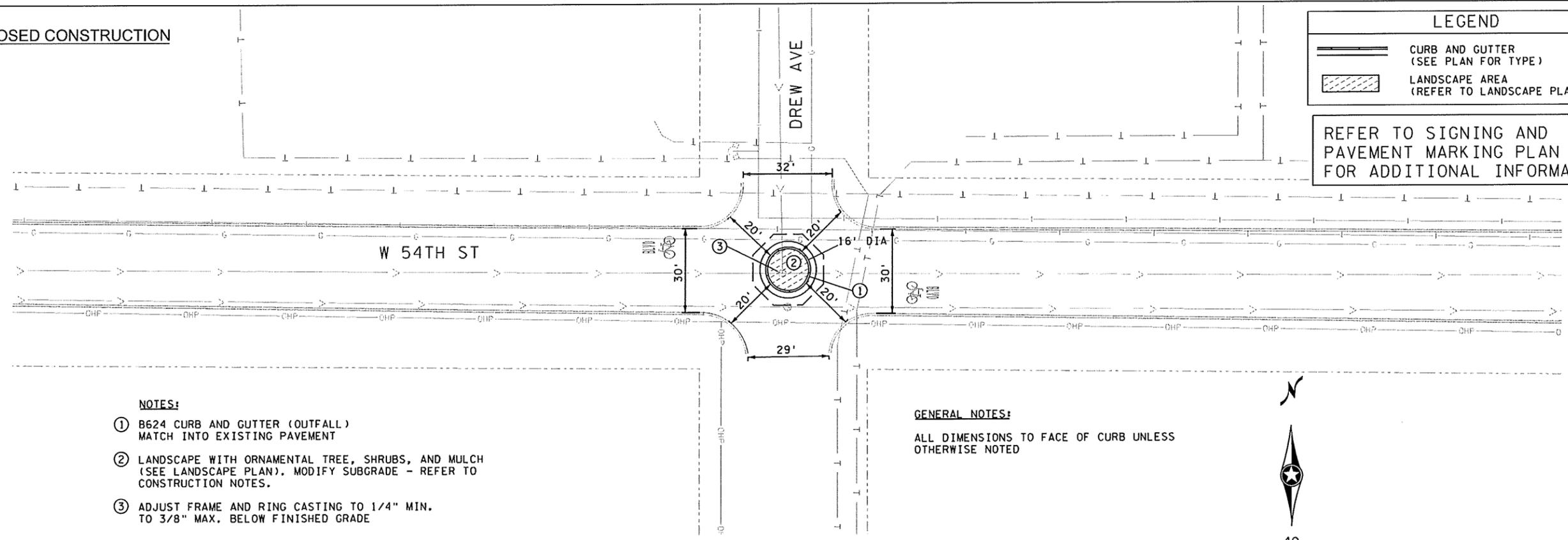


EXISTING CONDITIONS, REMOVALS,
AND EROSION CONTROL

W 54TH ST AND DREW AVE

LEGEND	
	CURB AND GUTTER (SEE PLAN FOR TYPE)
	LANDSCAPE AREA (REFER TO LANDSCAPE PLAN)

REFER TO SIGNING AND
PAVEMENT MARKING PLAN
FOR ADDITIONAL INFORMATION



PROPOSED CONSTRUCTION

W 54TH ST AND DREW AVE

- NOTES:**
- ① B624 CURB AND GUTTER (OUTFALL) MATCH INTO EXISTING PAVEMENT
 - ② LANDSCAPE WITH ORNAMENTAL TREE, SHRUBS, AND MULCH (SEE LANDSCAPE PLAN). MODIFY SUBGRADE - REFER TO CONSTRUCTION NOTES.
 - ③ ADJUST FRAME AND RING CASTING TO 1/4" MIN. TO 3/8" MAX. BELOW FINISHED GRADE

GENERAL NOTES:
ALL DIMENSIONS TO FACE OF CURB UNLESS OTHERWISE NOTED



NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
CONSTRUCTION PLAN
EXISTING CONDITIONS, REMOVALS, AND
EROSION CONTROL

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55499-3037
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233 PARK AVENUE SOUTH
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(612) 559-8885 FAX

I HEREBY CERTIFY THAT THIS OR
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

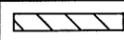
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DATE: 05/08/12 LIC. NO. 40545

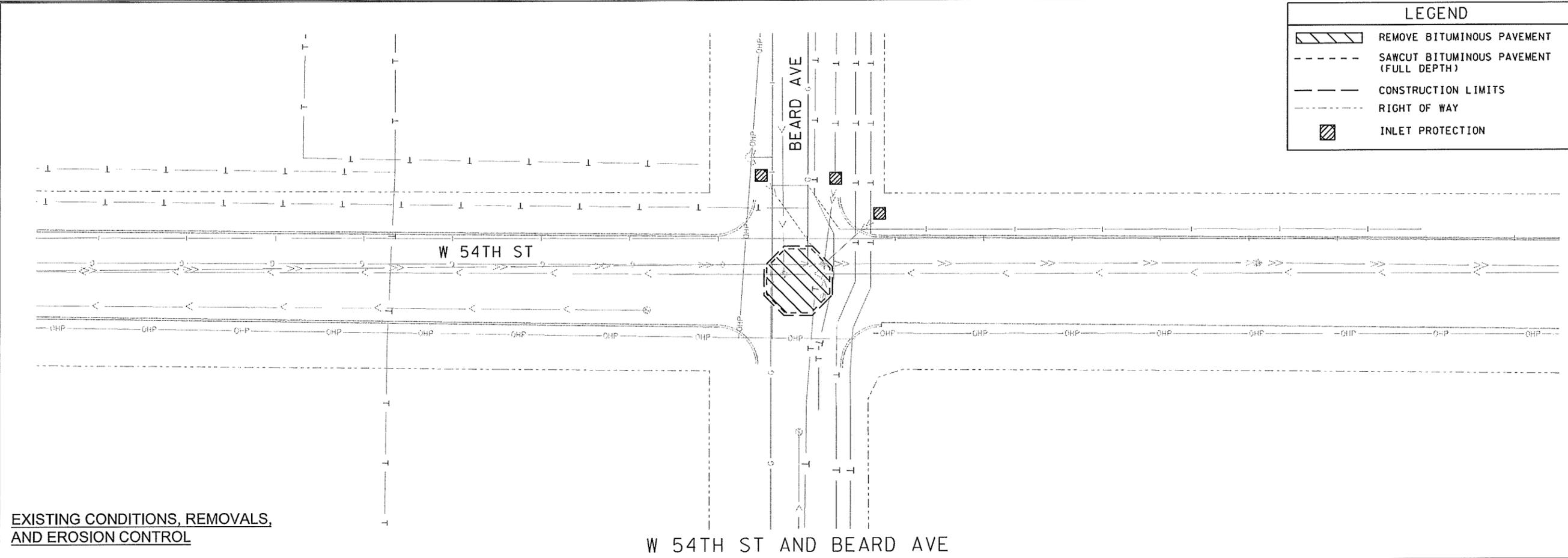
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SHEET 8 OF 42

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LEGEND

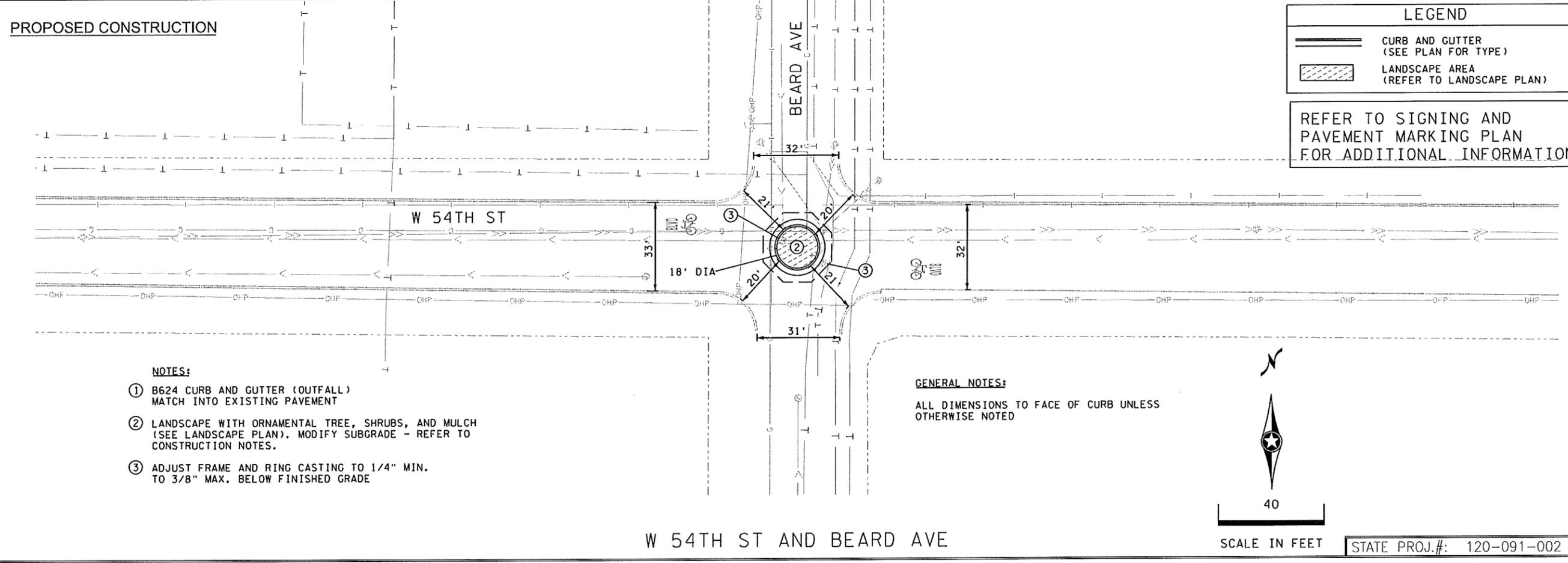
-  REMOVE BITUMINOUS PAVEMENT
-  SAWCUT BITUMINOUS PAVEMENT (FULL DEPTH)
-  CONSTRUCTION LIMITS
-  RIGHT OF WAY
-  INLET PROTECTION



LEGEND

-  CURB AND GUTTER (SEE PLAN FOR TYPE)
-  LANDSCAPE AREA (REFER TO LANDSCAPE PLAN)

REFER TO SIGNING AND
PAVEMENT MARKING PLAN
FOR ADDITIONAL INFORMATION



- NOTES:**
- ① B624 CURB AND GUTTER (OUTFALL) MATCH INTO EXISTING PAVEMENT
 - ② LANDSCAPE WITH ORNAMENTAL TREE, SHRUBS, AND MULCH (SEE LANDSCAPE PLAN). MODIFY SUBGRADE - REFER TO CONSTRUCTION NOTES.
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GENERAL NOTES:
ALL DIMENSIONS TO FACE OF CURB UNLESS OTHERWISE NOTED



STATE PROJ.#: 120-091-002

NO.	DATE	BY	REVISIONS

**EDINA BIKE BLVD - PHASE 1
CONSTRUCTION PLAN
EXISTING CONDITIONS, REMOVALS, AND
EROSION CONTROL**

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55495-3037
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233 PARK AVENUE SOUTH
SUITE 300
MINNETONKA, MN 55345
TEL: 952-895-8888 FAX: 952-895-8888



I HEREBY CERTIFY THAT THIS OR PLAN WAS PREPARED BY ME OR THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

[Signature]
DATE: 05/08/12 LIC. NO. 40545

DRAWN: KAS
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APPROVED: SAW
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 9 OF 42

PLANTING NOTES:

INSTALL 12" PLANTING SOIL TO ALL PLANTING AREAS.

STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. HAVE OWNERS REPRESENTATIVE APPROVE ALL STAKING PRIOR TO INSTALLATION.

ALL SHRUB AREAS TO BE BED MULCHED WITH 4" DEPTH OF DOUBLE SHREDDED HARDWOOD MULCH OVER FILTER FABRIC.

PLANTING SOIL SHALL CONSIST OF ONE PART EXISTING SOIL BY VOLUME, ONE PART SELECT TOPSOIL BORROW BY VOLUME, AND ONE PART COMPOST BY VOLUME.

COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).

ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.

ALL TREE TRUNKS SHALL BE WRAPPED WITH BROWN CREPE TREE WRAP. APPLY WRAP IN NOVEMBER AND REMOVE IN APRIL.

CALL GOPHER STATE ONE CALL AT 651-454-0002 FOR LOCATING ALL UNDERGROUND UTILITIES AND AVOID DAMAGE TO UTILITIES DURING THE COURSE OF THE WORK.

MAINTAIN ALL PLANT MATERIALS, INCLUDING WATERING, UNTIL THE TIME OF ACCEPTANCE.

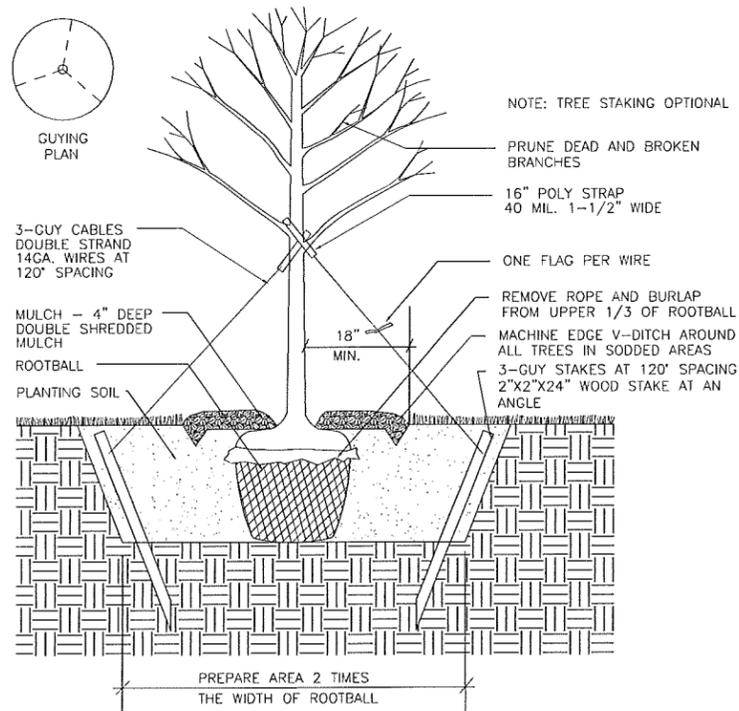
STAKING AND GUYING OF TREES OPTIONAL: MAINTAIN PLUMBNESS OF TREES FOR DURATION OF WARRANTY PERIOD.

SWEEP AND WASH ALL PAVED SURFACES AND REMOVE ALL DEBRIS RESULTING FROM LANDSCAPE OPERATIONS.

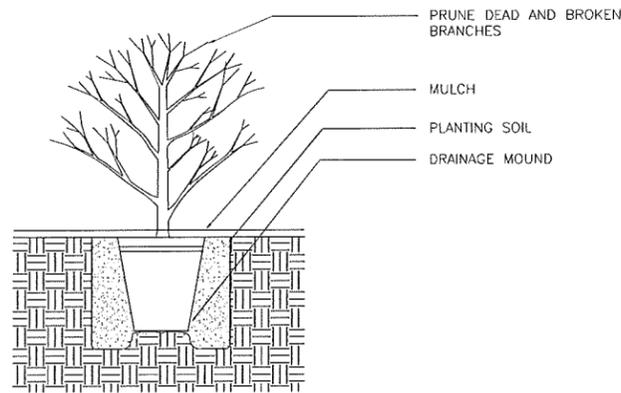
TYPICAL LANDSCAPE SCHEDULE – TRAFFIC CIRCLE

QTY.	KEY	COMMON NAME/ BOTANICAL NAME	SIZE	REMARKS
ORNAMENTAL TREES				
1	SB	CLUMP SERVICEBERRY Amelanchier x grandiflora 'Autumn Brilliance'	6' B&B	STRAIGHT TRUNK, NO V-CROTCH
SHRUBS				
3	NF	NEON FLASH SPIREA Spirea japonica 'Neon Flash'	18" HT., CONT.	MIN. 5 CANES AT HT. SPEC.
PERENNIALS				
8	BS	BLUE SALVIA Salvia 'Viola Klose'	1 GAL., CONT.	
9	CM	WALKER'S LOW CATMINT N. x faassenii 'Walker Low'	1 GAL., CONT.	
8	PD	PARDON ME DAYLILY Hemerocallis 'Pardon Me'	1 GAL., CONT.	
8	SD	STELLA SUPREME DAYLILY Hemerocallis 'Stella Supreme'	1 GAL., CONT.	

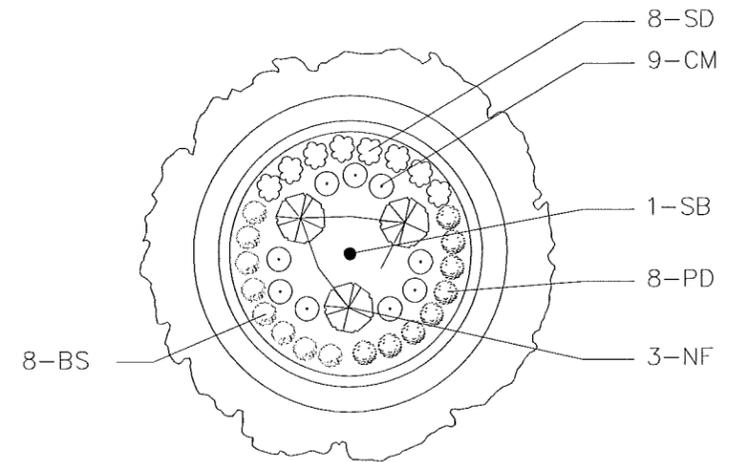
NOTES: QUANTITIES ON PLAN SUPERSEDE LIST QUANTITIES IN EVENT OF DISCREPANCY.



TREE PLANTING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE



TYPICAL TRAFFIC CIRCLE LANDSCAPING
W 54TH ST/BEARD AVE
W 54TH ST/DREW AVE

EDINA BIKE BLVD – PHASE I
LANDSCAPE PLAN

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-5037
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING
233 PARK AVENUE SOUTH
SUITE 300
EDINA, MN 55445
(612) 558-1088 FAX

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA
Mark W. K...
DATE: 05/08/12 LIC. NO. 26222

DRAWN: KAS
CHECKED: SAW
APPROVED: MK
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 10 of 42

SIGN PANELS TYPE C											
SIGN NO	QTY	POSTS				MTG HT (1) (2)	PANEL			CODE NO	PANEL LEGEND
		NO & TYPE	KNEE BRACES QTY	LEN FEET	SPACING INCH		SIZE INCH	AREA SQ FT	TOTAL AREA SQ FT		
C-1	2	2-U		16	7	30 x 24	0.79	1.58	R3-17	BIKE SYMBOL, BIKE LANE	
						30 x 12	2.50	5.00	R3-17B (MOD)	BEGINS	
						12 x 12	1.00	2.00	R8-3	NO PARKING SYMBOL	
						12 x 12	(3)		S-7	THRU ARROW, BIKE ROUTE	
C-2	5	1-U		12	7	12 x 12	1.00	5.00	R8-3	NO PARKING SYMBOL	
C-3	2	2-U		14	7	30 x 24	0.79	1.58	R3-17	BIKE SYMBOL, BIKE LANE	
						12 x 12	1.00	2.00	R8-3	NO PARKING SYMBOL	
C-4	1	2-U		13	7	30 x 30	6.25	6.25	R4-11	BIKE SYMBOL, MAY USE FULL LANE	
C-5	1	2-U		15	7	30 x 24	5.00	5.00	R3-17	BIKE SYMBOL, BIKE LANE	
						12 x 12	1.00	1.00	R8-3	NO PARKING SYMBOL	
						12 x 12	(3)		S-7	THRU ARROW, BIKE ROUTE	
C-6	1	2-U		14	7	30 x 24	5.00	5.00	R3-16	BIKE SYMBOL, BIKE LANE	
						12 x 12	(3)		S-7	THRU ARROW, BIKE ROUTE	
C-7	3	2-U		14	7	30 x 24	5.00	15.00	R3-16	BIKE SYMBOL, BIKE LANE	
						30 x 12	2.50	7.50	R3-17B	ENES	
C-8	4	2-U		13	7	24 x 24	4.00	16.00	R1-2	YIELD	
						30 x 24	5.00	5.00	R3-16	BIKE SYMBOL, BIKE LANE	
C-9	1	2-U		15	7	30 x 12	2.50	2.50	R3-17B	ENES	
						42 x 18	(4)		D-10	DIRECTIONAL SIGN PANEL	
						30 x 24	5.00	5.00	R3-17	BIKE SYMBOL, BIKE LANE	
C-10	1	2-U		13	7	30 x 12	2.50	2.50	R3-17B (MOD)	BEGINS	
						30 x 12	(3)		S-9	ENDS AT HWY 62	
						30 x 24	0.79	0.79	R3-17	BIKE SYMBOL, BIKE LANE	
C-11	1	2-U		13	7	30 x 12	2.50	2.50	R3-17B (MOD)	BEGINS	
						12 x 12	(3)		S-7	THRU ARROW, BIKE ROUTE	
						12 x 18	1.50	3.00	R10-22	TO REQUEST GREEN WAIT ON SYMBOL	
TOTAL	24						TOTAL	94.20			

NOTES:
(1) MOUNTING HEIGHT MINIMUM. SEE SHEET NO. 36 FOR TYPICAL MOUNTING.
(2) FOR PUNCHING AND MOUNTING DETAILS SEE SHEET NO. 38.
(3) SIGN PANEL AREA FOR SPECIAL SIGNS IS CALCULATED AND INCLUDED IN FURNISH SIGN PANELS TYPE SPECIAL TAB.
(4) SIGN PANEL AREA FOR TYPE D SIGNS IS CALCULATED AND INCLUDED IN FURNISH SIGN PANELS TYPE D TAB.

GENERAL NOTES:
1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE A
2. SEE SHEETS 36 TO 38 FOR STRUCTURAL DETAILS.
3. SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE C SIGN PANELS.
4. 3 LB/FT POSTS ARE ASSUMED.

SIGN PANELS TYPE D										
SIGN NO	QTY	POSTS				MTG HT (1)	PANEL			PANEL LEGEND
		NO & TYPE	KNEE BRACES QTY	LEN FEET	SPACING INCH		SIZE INCH	AREA SQ FT	TOTAL AREA SQ FT	
D-1	2	2-U		12		7	42 x 18	5.25	10.50	THRU ARROW, BIKE SYMBOL, Lake Cornelia Park
D-2	1	1-U		11		7	30 x 6	1.25	1.25	THRU ARROW, BIKE SYMBOL, Wooddale Ave
D-3	1	2-U		12		7	30 x 18	3.75	3.75	THRU ARROW, BIKE SYMBOL, W 54th St
										LT ARROW, BIKE SYMBOL, W 44th St
D-4	1	2-U		12		7	42 x 18	5.25	5.25	THRU ARROW, BIKE SYMBOL, Lake Cornelia Park
										LT ARROW, BIKE SYMBOL, W 70th St
D-5	1	1-U		12		7	30 x 12	2.50	2.50	THRU ARROW, BIKE SYMBOL, W 54th St
										THRU ARROW, BIKE SYMBOL, W 44th St
D-6	1	2-U		12		7	42 x 12	3.50	3.50	THRU ARROW, BIKE SYMBOL, Lake Cornelia Park
										THRU ARROW, BIKE SYMBOL, W 70th St
D-7	1	1-U		12		7	36 x 12	3.00	3.00	THRU ARROW, BIKE SYMBOL, W 44th St
										BIKE SYMBOL, S France Ave, RT ARROW
D-8	1	2-U		12		7	42 x 18	5.25	5.25	THRU ARROW, BIKE SYMBOL, Lake Cornelia Park
										THRU ARROW, BIKE SYMBOL, W 70th St
D-9	1	1-U		11		7	30 x 6	1.25	1.25	THRU ARROW, BIKE SYMBOL, France Av
										THRU ARROW, BIKE SYMBOL, W 44th St
TOTAL	10							TOTAL	36.25	

NOTES:
(1) MOUNTING HEIGHT MINIMUM. SEE SHEET NO. 36 FOR TYPICAL MOUNTING.

GENERAL NOTES:
1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
2. SEE SHEETS 36 TO 38 FOR STRUCTURAL DETAILS.
3. SEE SHEET 40 FOR TYPE D SIGN PANEL LAYOUTS.
4. 3 LB/FT POSTS ARE ASSUMED.

FURNISH SIGN PANELS TYPE C							
SIGN NO	QTY	PANEL			CODE NO	PANEL LEGEND	
		SIZE INCH	AREA SQ FT	TOTAL AREA SQ FT			
C-13	1	30 x 30	6.25	6.25	R4-11	BIKE SYMBOL, MAY USE FULL LANE	
C-14	1	12 x 12	1.00	1.00	R8-3	NO PARKING SYMBOL	
C-15	1	24 x 24	4.00	4.00	R1-2	YIELD	
C-16	2	24 x 24	4.00	8.00	R1-2	YIELD	
C-17	1	24 x 24	4.00	4.00	R1-3	YIELD	
TOTAL	6		TOTAL	19.25			

NOTES:
(1) SIGNS SHALL BE INSTALLED ON EXISTING SIGN AND POST ASSEMBLIES.
(2) SEE SHEET 39 FOR SPECIAL SIGN LAYOUTS.
(3) YIELD SIGN SHALL BE INSTALLED ON EXISTING ROUND POST WITH EXISTING STREET NAMES. SEE MOUNTING DETAIL ON SHEET 39.
(4) YIELD SIGN SHALL BE INSTALLED ON EXISTING POST.

REMOVE SIGN PANEL TYPE C				
SIGN NO	QTY	PANEL		PANEL LEGEND
		SIZE INCH	TOTAL AREA SQ FT	
C-101	2	24 x 24		STOP
C-102	1	24 x 24		STOP
C-103	1	24 x 24		STOP
TOTAL	4			

NOTES:
(1) REMOVE SIGN PANEL ONLY (2104.509). UTILIZE POLE WITH NEW FURNISH SIGN PANEL TYPE C.

FURNISH SIGN PANELS TYPE D						
SIGN NO	QTY	PANEL			PANEL LEGEND	
		SIZE INCH	AREA SQ FT	TOTAL AREA SQ FT		
D-10	1	42 x 18	5.25	5.25	LT ARROW, BIKE SYMBOL, Lake Cornelia Park	
					LT ARROW, BIKE SYMBOL, W 70th St	
					BIKE SYMBOL, W 44th St, RT Arrow	
TOTAL	1		TOTAL	5.25		

NOTES:
(1) SIGN SHALL BE INSTALLED ON EXISTING SIGN AND POST ASSEMBLIES.
(2) SEE SHEET 40 FOR TYPE D SIGN LAYOUTS.

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EDINA BIKE BLVD - PHASE I TABULATIONS

REVISIONS

NO. DATE BY

CITY OF EDINA

7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING

233 PARK AVENUE SOUTH
SUITE 300
EDINA, MN 55439
612-719-1000
612-719-1009 FAX

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE: 05/08/12 UC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 11 OF 42

SIGN PANELS TYPE SPECIAL										
SIGN NO	QTY	POSTS			MTG HT (1) FEET	PANEL			CODE NO	PANEL LEGEND
		NO & TYPE	KNEE BRACES QTY	LEN FEET		SIZE	AREA	TOTAL AREA		
						INCH	SQ FT	SQ FT		
S-1	11	1-U		13	7	24 x 12	2.00	22.00	SPECIAL E	EDINA SHARES THE ROAD
						12 x 12	0.79	8.69	SPECIAL A	THRU ARROW, BIKE ROUTE
S-2	5	1-U		12	7	12 x 12	0.79	3.95	SPECIAL A	THRU ARROW, BIKE ROUTE
S-3	5	1-U		13	7	24 x 24	4.00	20.00	SPECIAL E	EDINA SHARES THE ROAD
S-4	8	1-U		9	3	24 x 30	5.00	40.00	SPECIAL G	ROUNDAABOUT FISH HOOK
TOTAL		29		TOTAL		94.64				

NOTES:

- (1) MOUNTING HEIGHT MINIMUM. SEE SHEET NO. 36 FOR TYPICAL MOUNTING.
- (2) FOR PUNCHING AND MOUNTING DETAILS SEE SHEET NO. 38.
- (3) SEE SHEET 39 FOR SPECIAL SIGN LAYOUTS.

FURNISH SIGN PANELS TYPE SPECIAL										
SIGN NO	QTY	PANEL			CODE NO	PANEL LEGEND				
		SIZE	AREA	TOTAL AREA						
		INCH	SQ FT	SQ FT						
S-5	2	12 x 12	0.79	1.58	SPECIAL C	RT ARROW, BIKE ROUTE				
S-6	2	12 x 12	0.79	1.58	SPECIAL B	LT ARROW, BIKE ROUTE				
S-7	10	12 x 12	0.79	7.90	SPECIAL A	THRU ARROW, BIKE ROUTE				
S-8	1	12 x 12	0.79	0.79	SPECIAL D	DOUBLE ARROW, BIKE ROUTE				
S-9	1	30 x 12	2.50	2.50	SPECIAL F	ENDS AT HWY 62				
TOTAL		16		TOTAL		14.35				

NOTES:

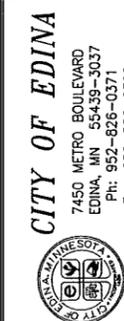
- (1) SIGNS SHALL BE INSTALLED ON EXISTING SIGN AND POST ASSEMBLIES.
- (2) SEE SHEET 39 FOR SPECIAL SIGN LAYOUTS.

TABULATION OF PAVEMENT MARKING QUANTITIES						
H	ITEM	UNITS	Valley View Rd	Wooddale Ave	W 54th St	TOTAL
	PAVT MSSG (BIKE SYMBOL) EPOXY	EACH	8	33	14	55
	PAVT MSSG (BIKE LANE ARROW) EPOXY	EACH	8	33	14	55
	4" SOLID LINE WHITE-POLY PREF (GR IN)	LIN FT	2046			2,046
	24" SOLID LINE YELLOW-POLY PREF (GR IN)	LIN FT	121			121
	4" BROKEN LINE YELLOW-POLY PREF (GR IN)	LIN FT	230			230
	4" DB SOLID LINE YELLOW-POLY PREF (GR IN)	LIN FT	674			674
	4" SOLID LINE WHITE-EPOXY	LIN FT		3363	4,189	7,552
	12" SOLID LINE WHITE-EPOXY	LIN FT			22	22
	4" DOTTED LINE WHITE-EPOXY	LIN FT		2745	147	2,892
	4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN FT		350	200	550
	PAVEMENT MARKING SPECIAL 1 - GREEN COLORIZED PAVEMENT MARKING - PAINT	SQ FT	4,458			4,458
	PAVEMENT MARKING SPECIAL 2 - BIKE DETECTOR PAVEMENT MARKING - EPOXY	SQ FT			16	16
	PAVEMENT MARKING SPECIAL 3 - BIKE BOULEVARD PAVEMENT MARKING - POLY PREF	SQ FT			117	117
	PAVEMENT MARKING SPECIAL 4 - SHARED LANE PAVEMENT MARKING - POLY PREF (GR	SQ FT	59			59

REMOVE PAVEMENT MARKING						
I	DESCRIPTION	UNITS	Valley View Rd	Wooddale Ave	W 54th St	TOTAL
	PAVEMENT MARKING REMOVAL	SQ FT	180			180
	PAVEMENT MARKING REMOVAL	LIN FT	1,665	6,640	1,521	9,826

- (1) REMOVAL OF DOUBLE YELLOW CENTERLINE IS MEASURED ONCE FOR EACH 4" LINE.
- (2) THE 4" BROKEN YELLOW PAVEMENT MARKINGS ARE MEASURED ONLY FOR THE MARKED AREA AND NOT THE GAP. A 8' STRIPE WITH A 32' GAP IS USED.
- (3) REMOVAL OF CENTER LEFT TURN LANE PAVEMENT MARKING LINES IS MEASURED ONCE FOR THE 4" SOLID YELLOW AND ONCE FOR THE 4" BROKEN YELLOW.

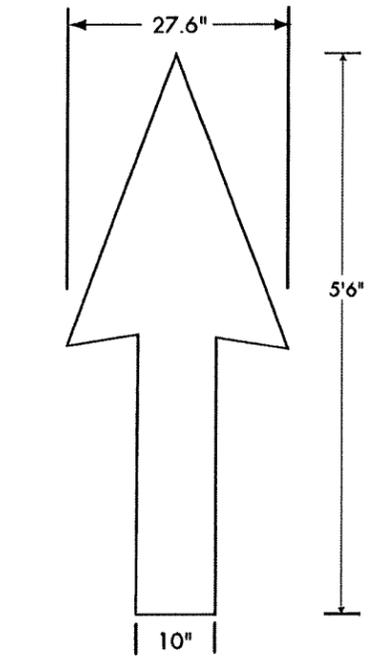
EDINA BIKE BLVD - PHASE 1
TABULATIONS



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
DATE: 05/08/12 U.C. NO. 42828

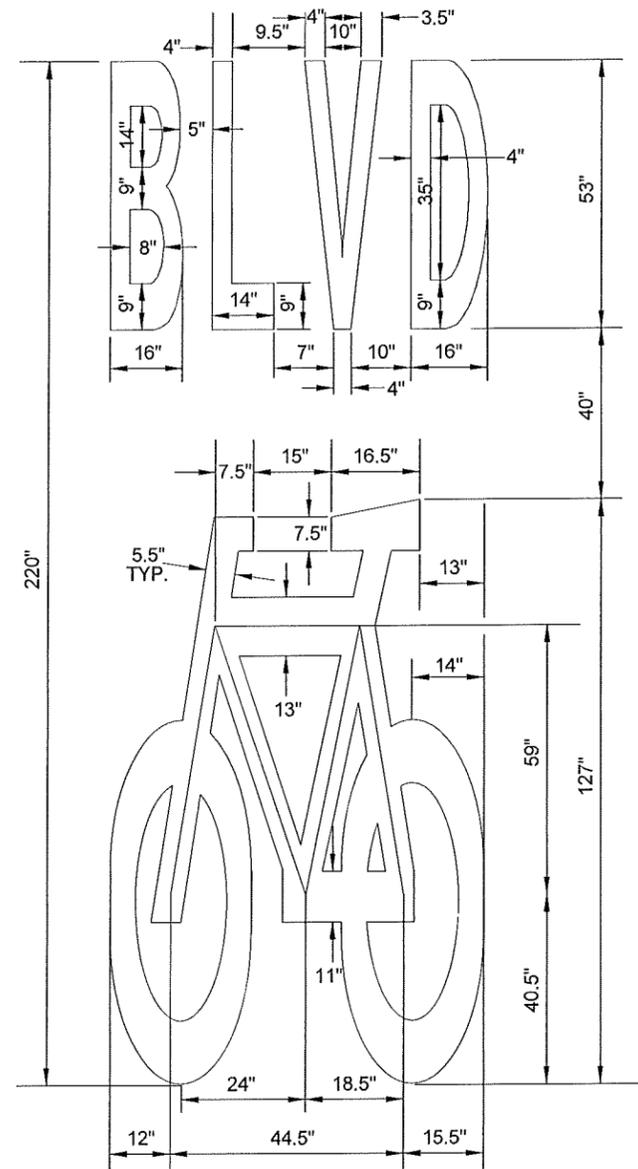
DRAWN: KAS
CHECKED: SAW
APPROVED: SAW
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 12 of 42

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BICYCLE SYMBOL WITH ARROW MESSAGE SHALL BE WHITE EPOXY

BICYCLE LANE PAVEMENT MARKING

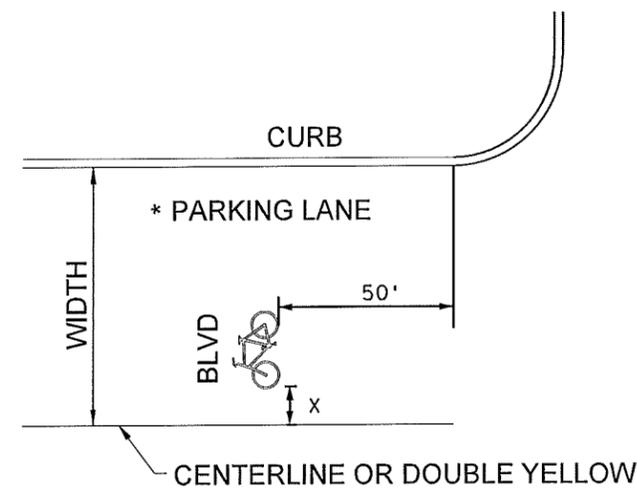


PAVEMENT MESSAGE POLY PREFORM



PAVEMENT MESSAGES SHALL BE POSITIONED ACCORDING TO DIRECTION OF APPROACHING TRAFFIC

**BIKE BOULEVARD PAVEMENT MARKING DETAIL
 PAVEMENT MARKING SPECIAL 3**

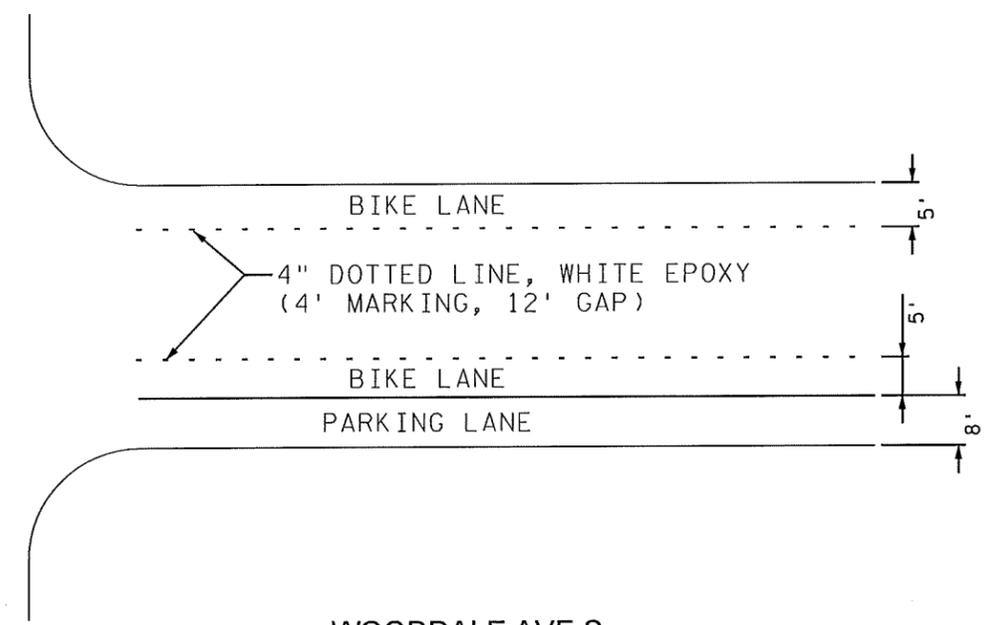


WIDTH	X
14 - 15'	1'
>15 - 17'	2'
>17 - 19'	3'
>19 - 21'	4'

PAVEMENT MESSAGES SHALL BE POSITIONED AS DETAILED ABOVE AND ACCORDING TO DIRECTION OF APPROACHING TRAFFIC.

* IF NO PARKING LANE THEN PLACE BIKE SYMBOL WITH BLVD MESSAGE IN THE CENTER OF THE LANE

BICYCLE BOULEVARD PAVEMENT MARKING DETAIL



**WOODDALE AVE S
 ADVISORY LANE PAVEMENT MARKING DETAIL**

NO.	DATE	BY	REMARKS

**EDINA BIKE BLVD - PHASE 1
 PAVEMENT MARKING DETAILS**

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55435-3037
 Ph: 952-626-0371
 Fax: 952-626-0392



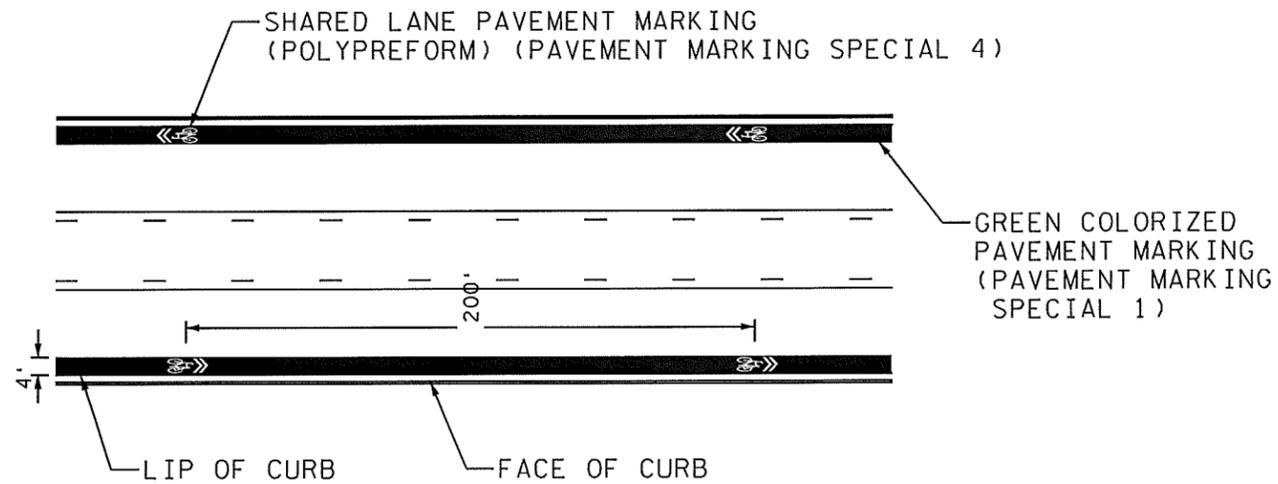
**ALLIANT
 ENGINEERING**
 A CORPORATION
 233 PARK AVENUE SOUTH
 MINNEAPOLIS, MN 55415
 (612) 758-1000 FAX
 (612) 758-1001 FAX



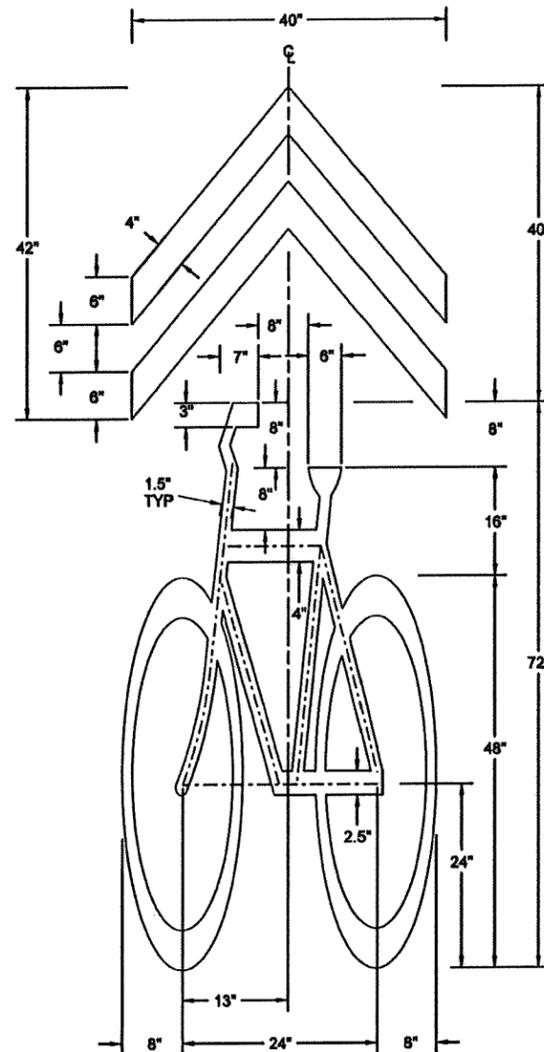
I HEREBY CERTIFY THAT THIS OR PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

[Signature]
 DATE: 05/08/12 LIC. NO. 42828

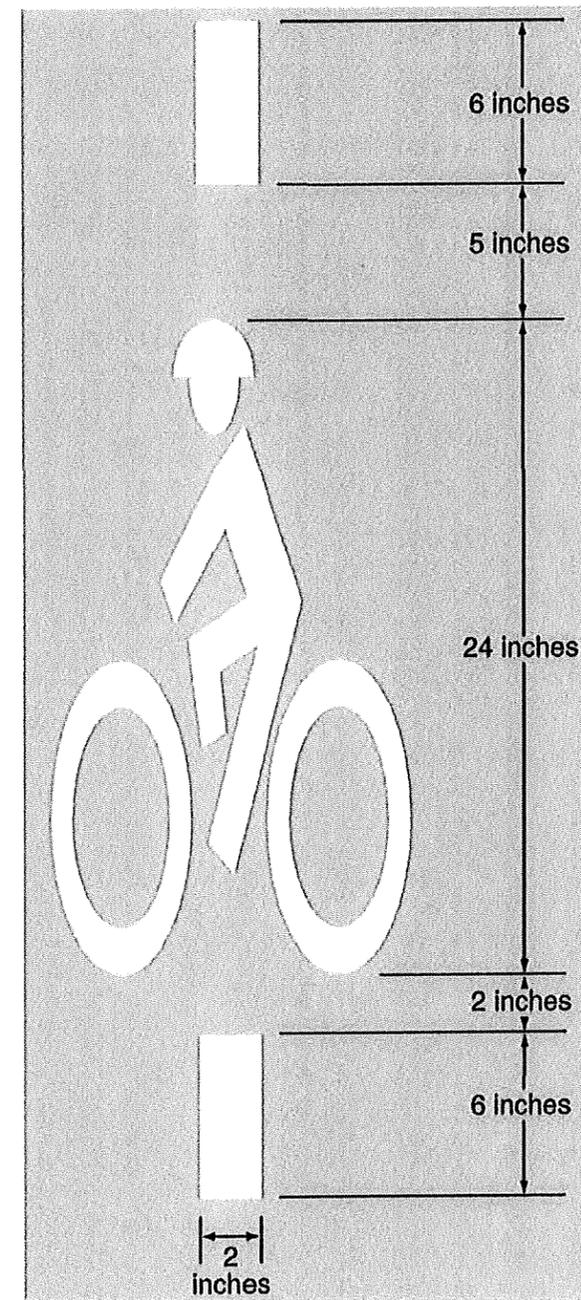
DRAWN: KAS
 CHECKED: TJJ
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 13 OF 42



VALLEY VIEW RD
GREEN COLORIZED SHARED LANE PAVEMENT MARKING DETAIL



SHARED LANE PAVEMENT MARKING
PAVEMENT MARKING SPECIAL 4



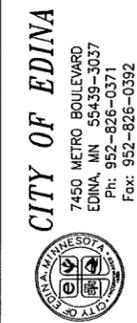
THE CENTER OF THE BIKE DETECTOR PAVEMENT MESSAGES SHALL BE POSITIONED ON TOP OF THE EXISTING VISIBLE "PUCK-LIKE" DETECTORS AS INDICATION ON THE SIGNING AND STRIPING PLANS.

THE BIKE DETECTOR PAVEMENT MESSAGE SHALL BE WHITE EPOXY

BIKE DETECTOR PAVEMENT MARKING
PAVEMENT MARKING SPECIAL 2

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
PAVEMENT MARKING DETAILS

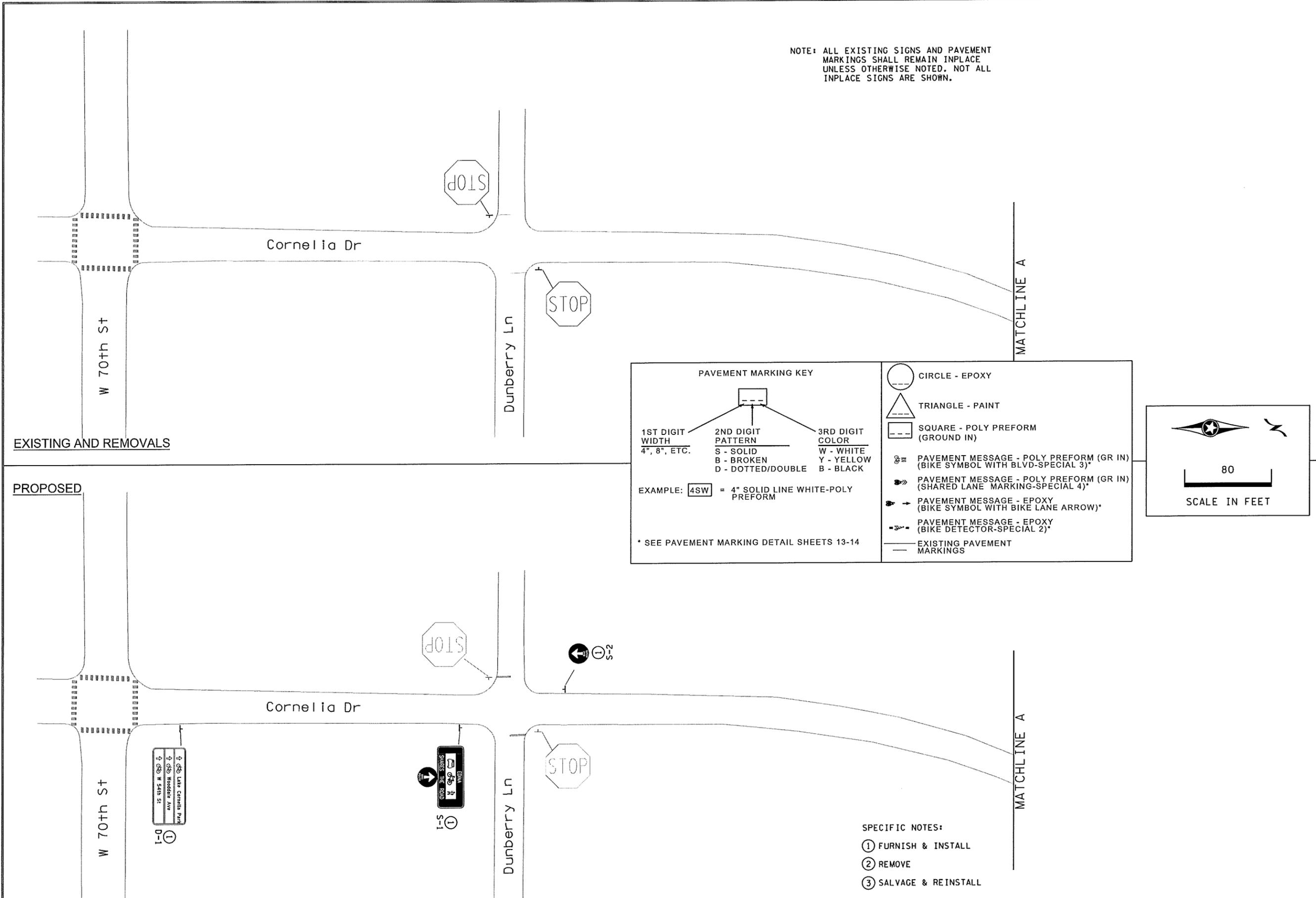


I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

[Signature]
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: TJJ
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 14 OF 42

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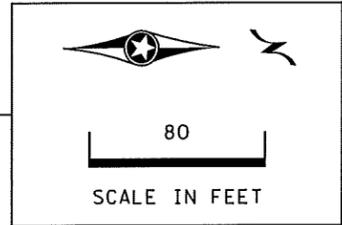
NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



SPECIFIC NOTES:

- ① FURNISH & INSTALL
- ② REMOVE
- ③ SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55435
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING
A CORPORATION
233 PARK AVENUE SOUTH
SUITE 300
EDINA, MN 55443
TEL: 952-826-0088 FAX: 952-7158-1088

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
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 15 OF 42

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

EXISTING AND REMOVALS

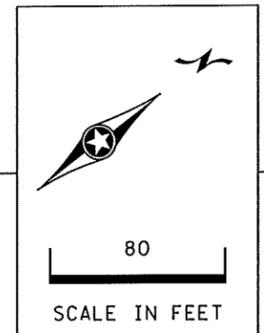
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55439-3037
 PH: 952-826-0371
 FAX: 952-826-0392

ALLIANT ENGINEERING
 A CORPORATION
 233 PARK AVENUE SOUTH
 SUITE 200
 EDINA, MN 55413
 PH: 952-758-1888
 FAX: 952-758-1889

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

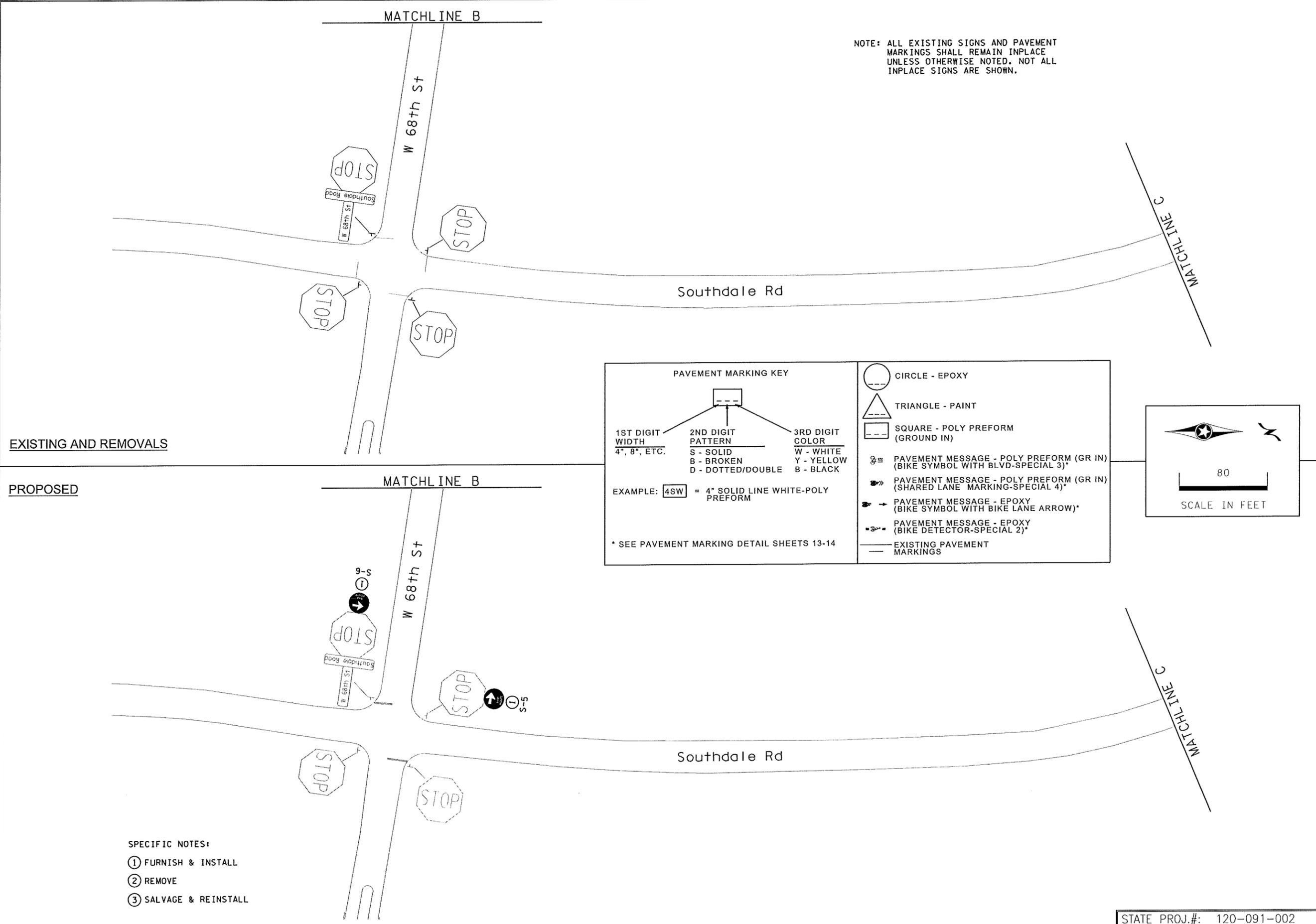
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 DATE: 05/08/12 UC. NO. 42828

DRAWN: KAS
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 16 of 42

STATE PROJ.#: 120-091-002

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5/8/2012
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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

EXISTING AND REMOVALS

PROPOSED

SPECIFIC NOTES:

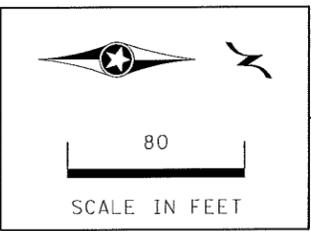
- ① FURNISH & INSTALL
- ② REMOVE
- ③ SALVAGE & REINSTALL

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

- CIRCLE - EPOXY
- △ TRIANGLE - PAINT
- SQUARE - POLY PREFORM (GROUND IN)
- ⊞ PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
- ⊞ PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
- ⊞ PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
- ⊞ PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
- EXISTING PAVEMENT MARKINGS



NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING
A CORPORATION
233 PARK AVENUE, SOUTH
SUITE 300
EDINA, MN 55439
612-158-1086
612-158-1088 FAX

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

[Signature]
DATE: 05/08/12 U.C. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 17 OF 42

STATE PROJ.#: 120-091-002

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MATCHLINE C

EXISTING AND REMOVALS

PROPOSED

MATCHLINE C

SPECIFIC NOTES:

- ① FURNISH & INSTALL
- ② REMOVE
- ③ SALVAGE & REINSTALL

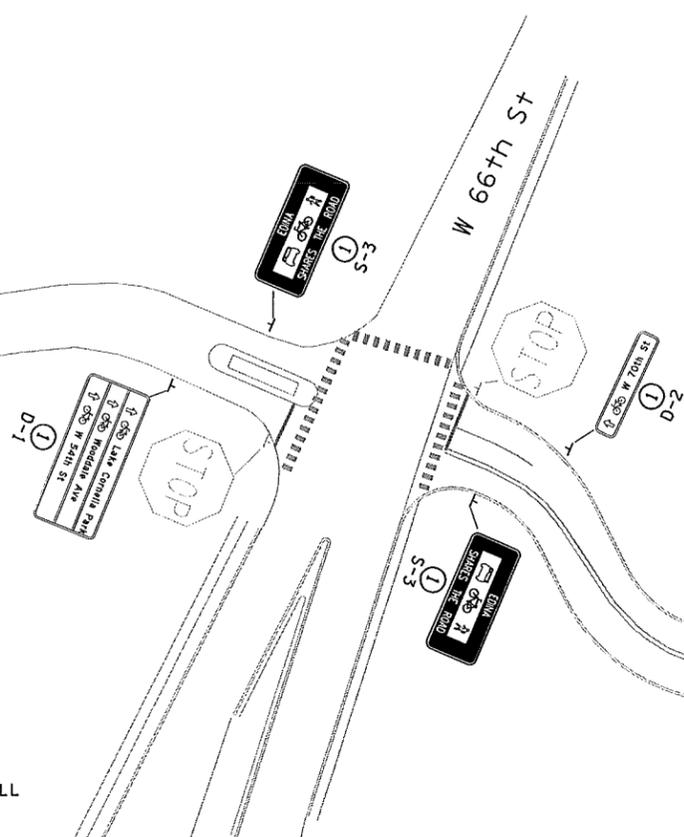
Southdale Rd

W 66th St



Southdale Rd

W 66th St



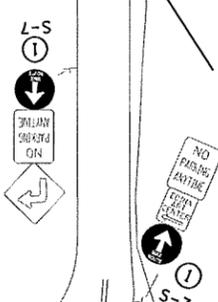
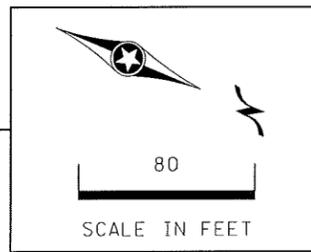
NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



STATE PROJ.#: 120-091-002

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
PH: 952-826-0371
FAX: 952-826-0392

ALLIANT ENGINEERING
A CORPORATION
233 PARK AVENUE SOUTH
SUITE 300
EDINA, MN 55435
TEL: 952-826-1088
FAX: 952-826-1098

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR DIRECTLY SUPERVISED AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

[Signature]
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 18 OF 42

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

MATCHLINE D

MATCHLINE E

Southdale Rd

W 64th St

MN 62

EXISTING AND REMOVALS

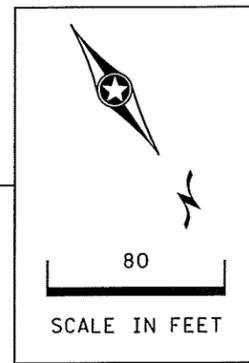
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

- CIRCLE - EPOXY
- TRIANGLE - PAINT
- SQUARE - POLY PREFORM (GROUND IN)
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- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
- PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
- PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
- EXISTING PAVEMENT MARKINGS

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14



MATCHLINE D

MATCHLINE E

Southdale Rd

W 64th St

MN 62

- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

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STATE PROJ.#: 120-091-002

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55439-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

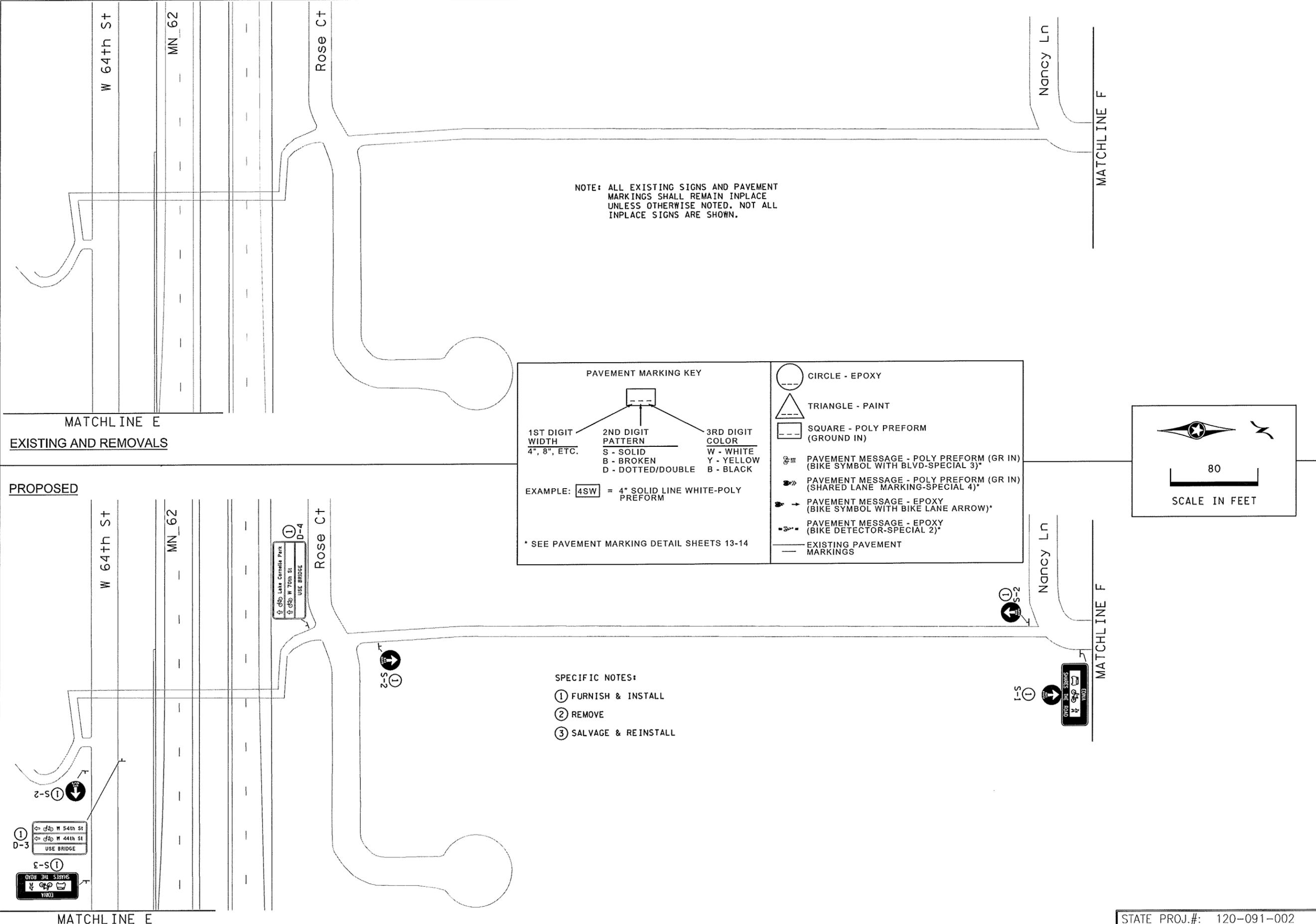
ALLIANT ENGINEERING
 INCORPORATED
 233 PARK AVENUE SOUTH
 SUITE 300
 EDINA, MN 55435
 (612) 758-1880 FAX

I HEREBY CERTIFY THAT THIS OR THIS PROJECT WAS DESIGNED OR UNDER THE DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 19 OF 42

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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

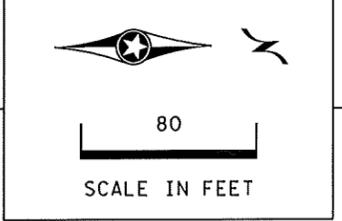
PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

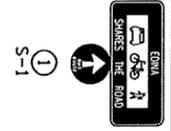
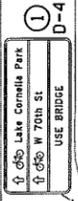
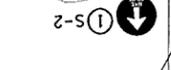
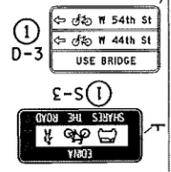
- CIRCLE - EPOXY
- TRIANGLE - PAINT
- SQUARE - POLY PREFORM (GROUND IN)
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
- PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
- PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
- EXISTING PAVEMENT MARKINGS

- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL



MATCHLINE E
EXISTING AND REMOVALS

PROPOSED



EDINA BIKE BLVD - PHASE 1

SIGNING AND PAVEMENT MARKING PLAN

BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
PH: 952-826-0371
FAX: 952-826-0392

ALLIANT ENGINEERING
233 PARK AVENUE SOUTH
SUITE 200
EDINA, MN 55425
PH: 952-758-3088
FAX: 952-758-3088

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DATE: 05/08/12 UC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X

STATE PROJ.#: 120-091-002
SHEET 20 OF 42

NO.	DATE	BY	REMARKS

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

MATCHLINE F

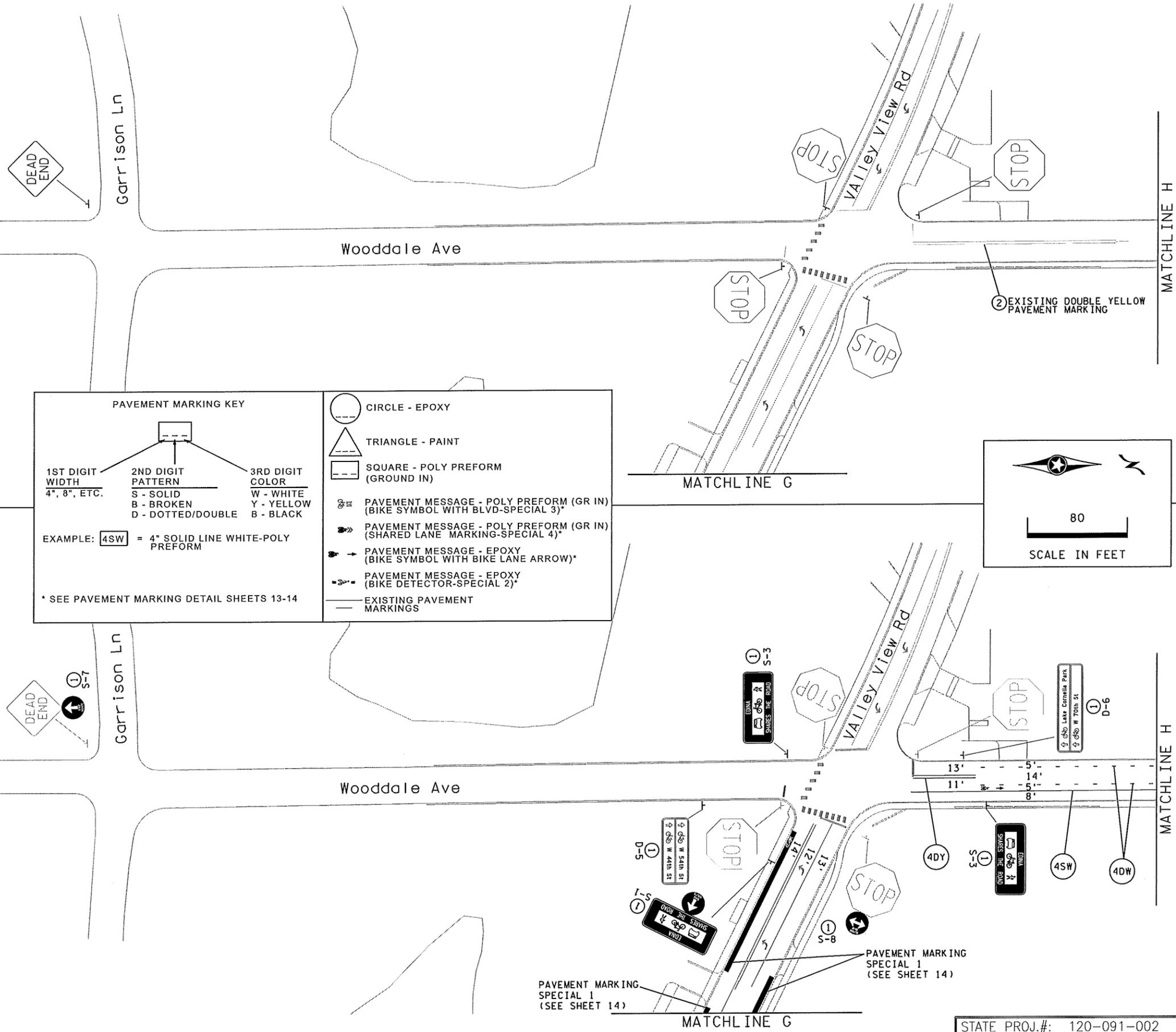
EXISTING AND REMOVALS

PROPOSED

MATCHLINE F

SPECIFIC NOTES:

- ① FURNISH & INSTALL
- ② REMOVE
- ③ SALVAGE & REINSTALL



PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS

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NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

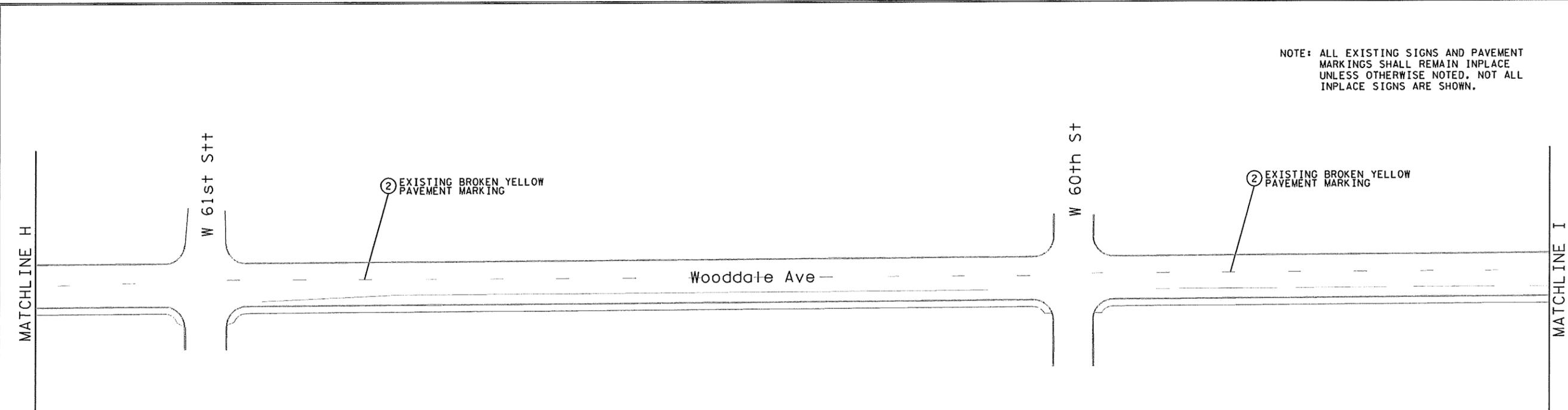
ALLIANT ENGINEERING
INCORPORATED
233 PARK AVENUE SOUTH
SUITE 200
EDINA, MN 55441
612-758-3086 FAX

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
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 21 OF 42

STATE PROJ.#: 120-091-002

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

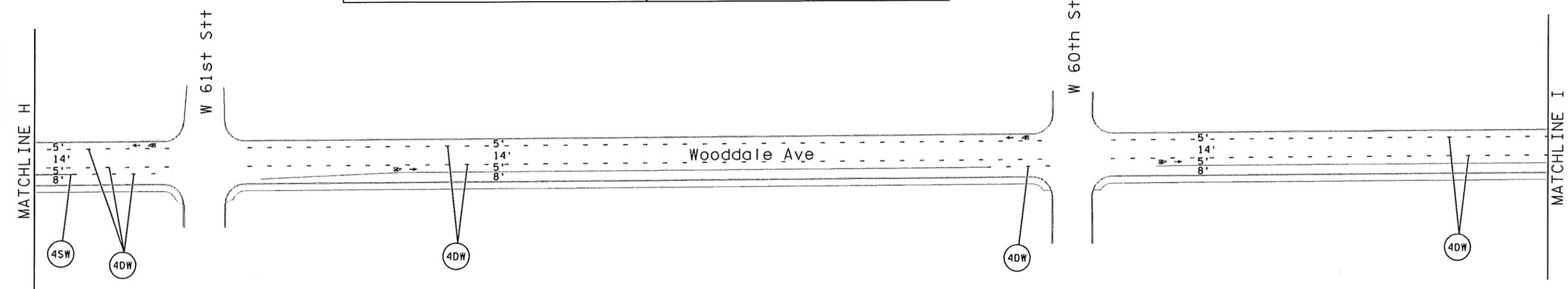
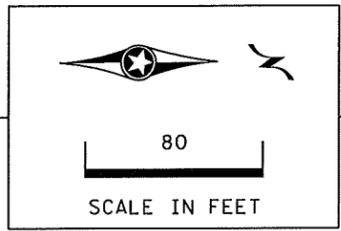
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

- CIRCLE - EPOXY
- TRIANGLE - PAINT
- SQUARE - POLY PREFORM (GROUND IN)
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH 'BLVD-SPECIAL 3')
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)
- PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)
- PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)
- EXISTING PAVEMENT MARKINGS



- SPECIFIC NOTES:**
- 1 FURNISH & INSTALL
 - 2 REMOVE
 - 3 SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55439-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

ALLIANT ENGINEERING
 PROFESSIONAL ENGINEERS
 233 PARK AVENUE SOUTH
 SUITE 200
 EDINA, MN 55439
 612-718-1088
 612-718-3599 FAX

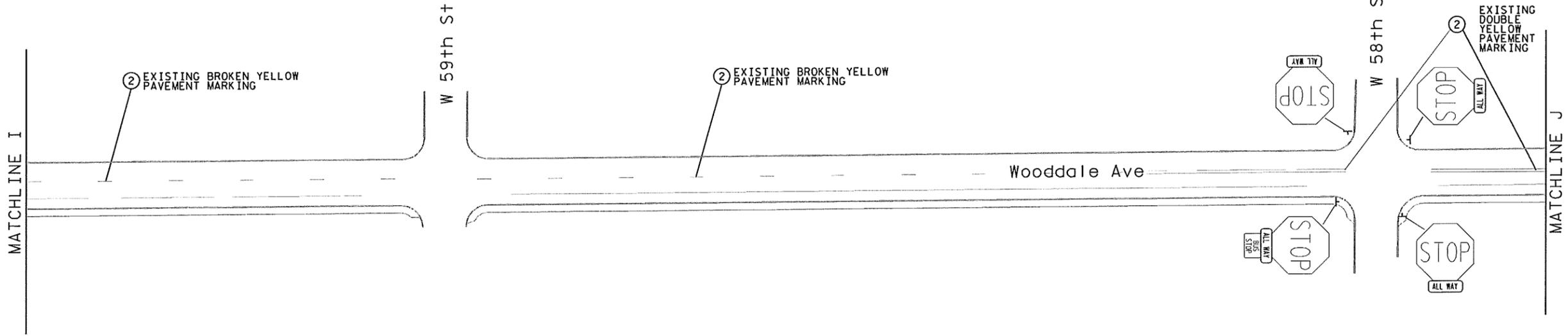
I HEREBY CERTIFY THAT THIS OR PART THEREOF WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

[Signature]
 DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
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 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 22 OF 42

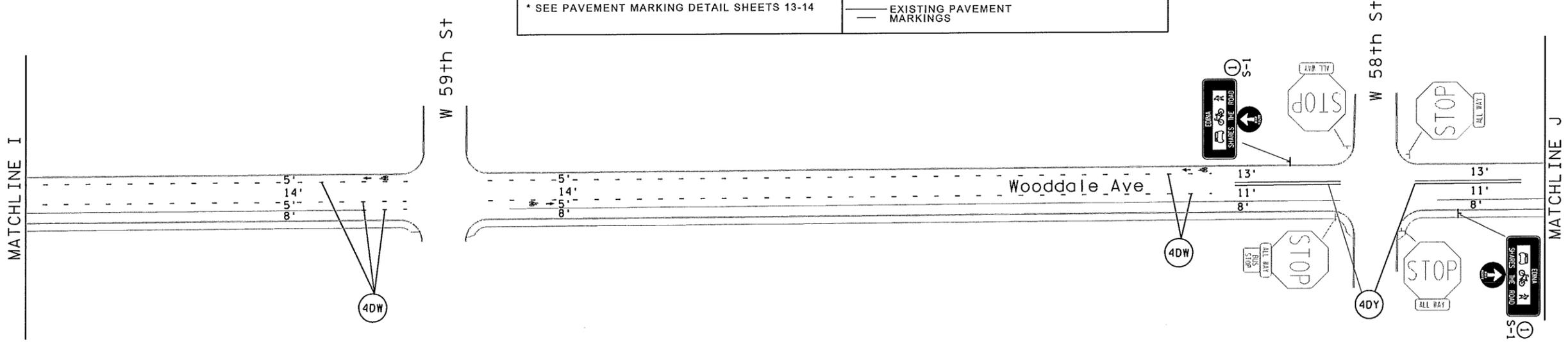
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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

PROPOSED

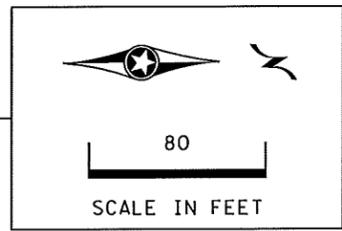


PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

- CIRCLE - EPOXY
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- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
- PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
- PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
- EXISTING PAVEMENT MARKINGS

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14



- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING
233 PARK AVENUE SOUTH
SUITE 200
EDINA, MN 55439
1612758-1088
1612758-0599 FAX

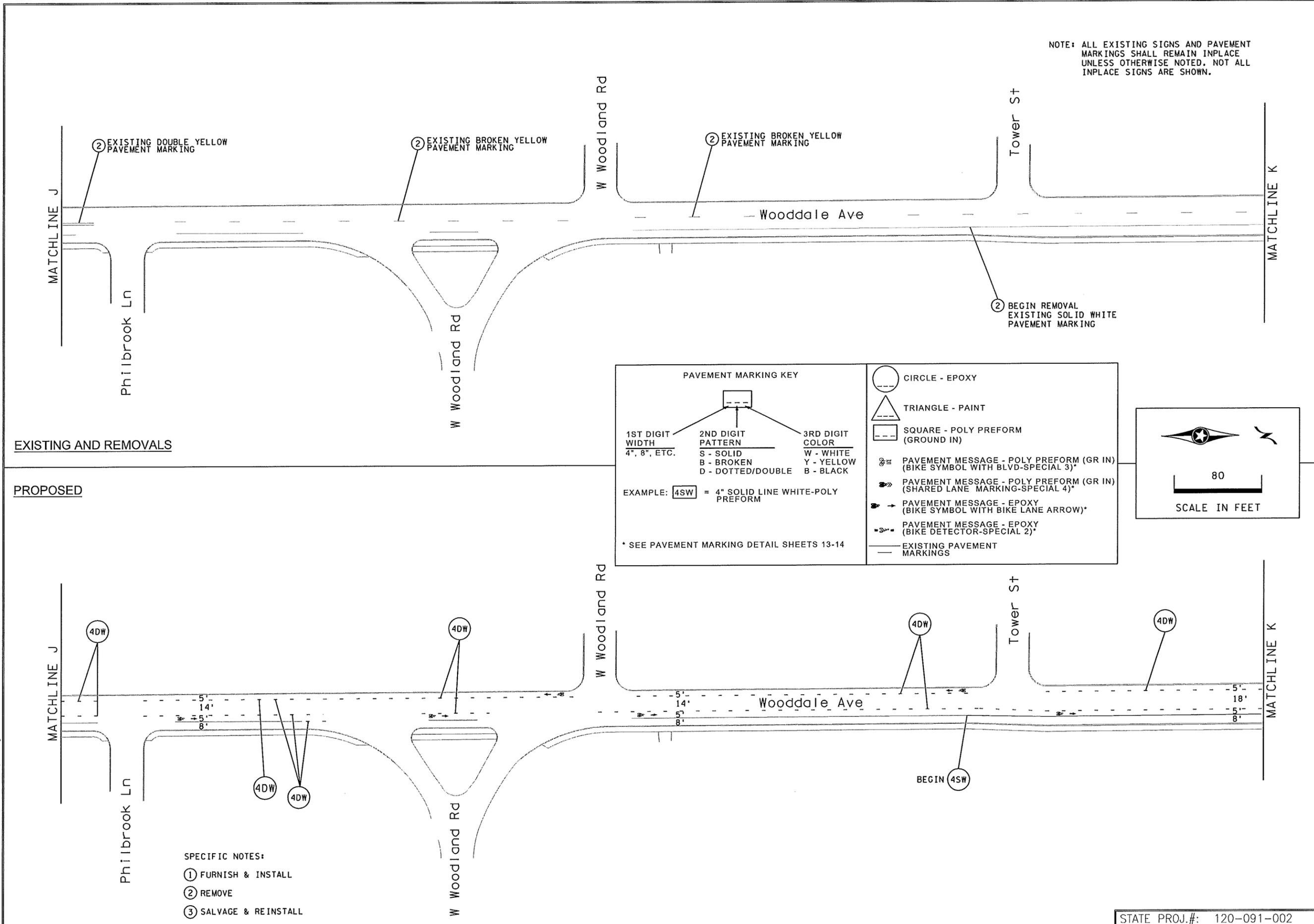
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
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DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 23 OF 42

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5/8/2012
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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

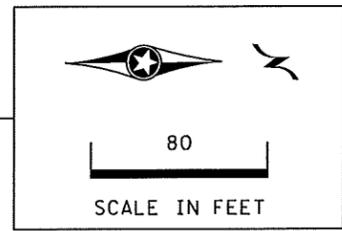
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

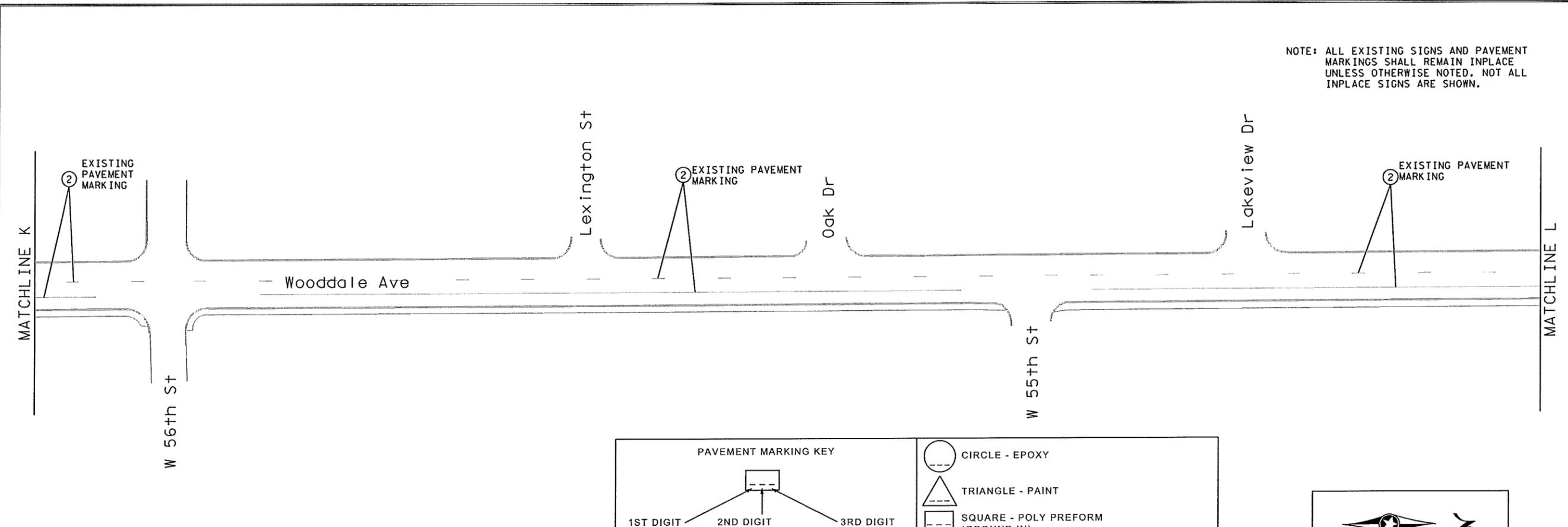
- CIRCLE - EPOXY
- TRIANGLE - PAINT
- SQUARE - POLY PREFORM (GROUND IN)
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
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- PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
- PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
- EXISTING PAVEMENT MARKINGS



- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

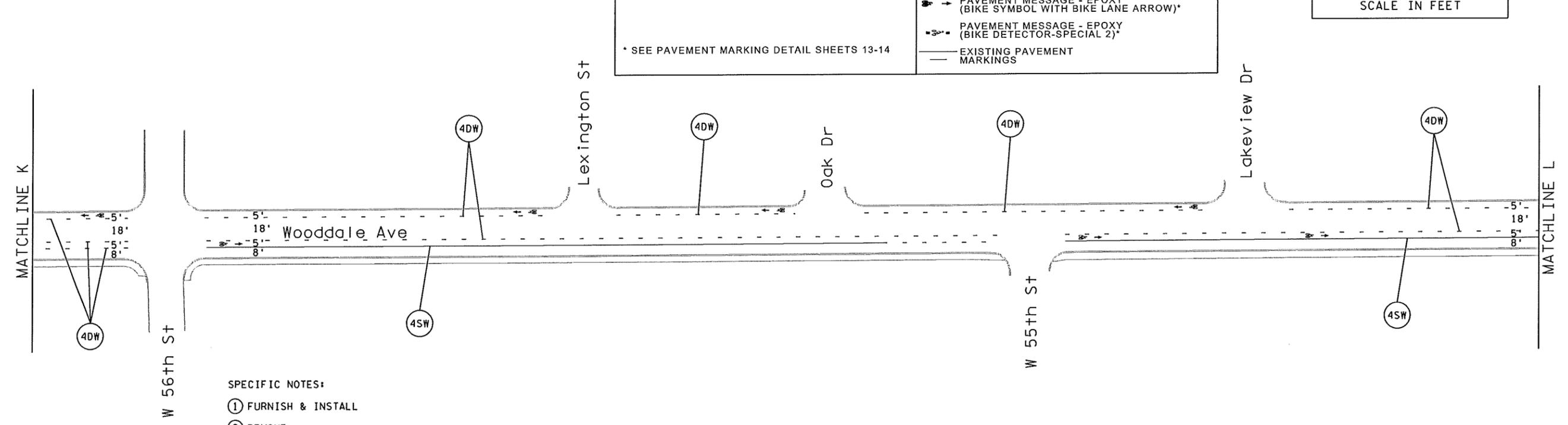
EDINA BIKE BLVD - PHASE I	
SIGNING AND PAVEMENT MARKING PLAN	
BIKE LANE IMPROVEMENTS	
CITY OF EDINA	7450 METRO BOULEVARD EDINA, MN 55439-3037 PH: 952-826-0371 FAX: 952-826-0392
	
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	
DATE: 05/08/12 LIC. NO. 42828	
DRAWN: KAS CHECKED: KAB APPROVED: MRA	DATE: 05/08/12 IMP.# X3-XXX CONTR.# ENG 00-X
STATE PROJ.#: 120-091-002 SHEET 24 OF 42	

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

PROPOSED

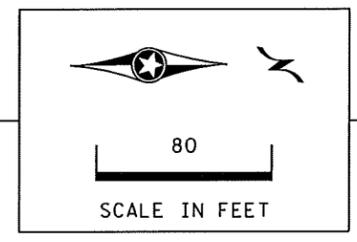


PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
4	S	W
EXAMPLE: 4SW = 4" SOLID LINE WHITE-POLY PREFORM		

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

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NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I

SIGNING AND PAVEMENT MARKING PLAN

BIKE LANE IMPROVEMENTS

CITY OF EDINA

7450 METRO BOULEVARD
 EDINA, MN 55435-5037
 Ph: 952-826-0371
 Fax: 952-826-0392

ALLIANT ENGINEERING

233 PARK AVENUE SOUTH
 SUITE 200
 MINNEAPOLIS, MN 55415
 (612) 558-3088 FAX

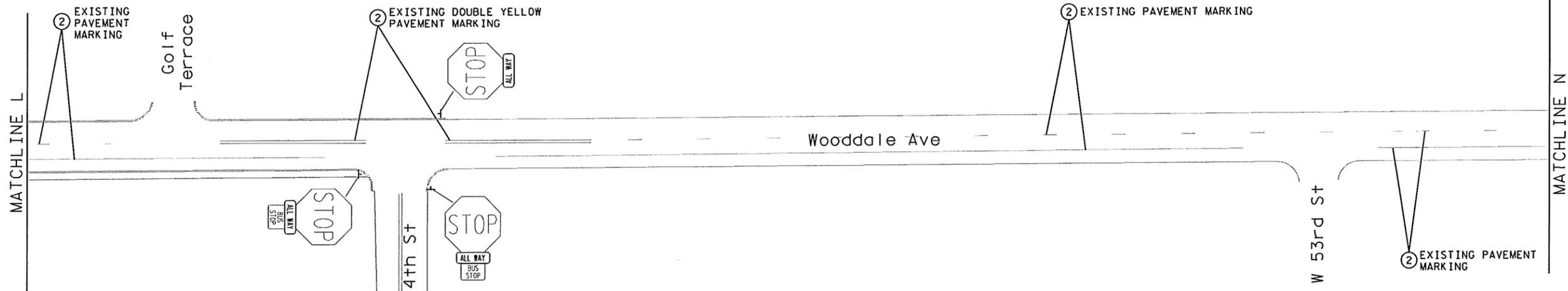
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET **25** OF **42**

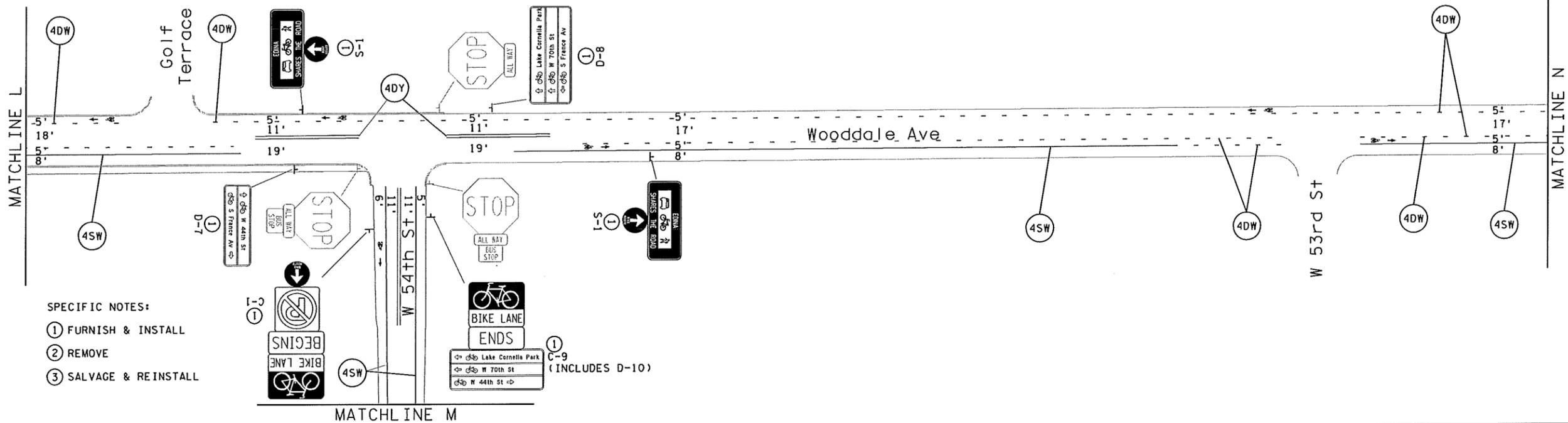
STATE PROJ.#: 120-091-002

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

PROPOSED



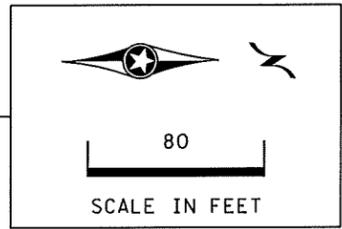
- SPECIFIC NOTES:
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



NO.	DATE BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55495-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

ALLIANT ENGINEERING
 233 PARK AVENUE SOUTH
 SUITE 300
 EDINA, MN 55495
 (612) 758-1880 FAX

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

DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 26 OF 42

STATE PROJ.#: 120-091-002

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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.

NO.	DATE BY	REMARKS

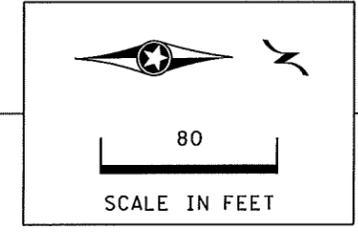
EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55439-3037
 PH: 952-926-0371
 FAX: 952-926-0392



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
 DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 27 of 42



PAVEMENT MARKING KEY

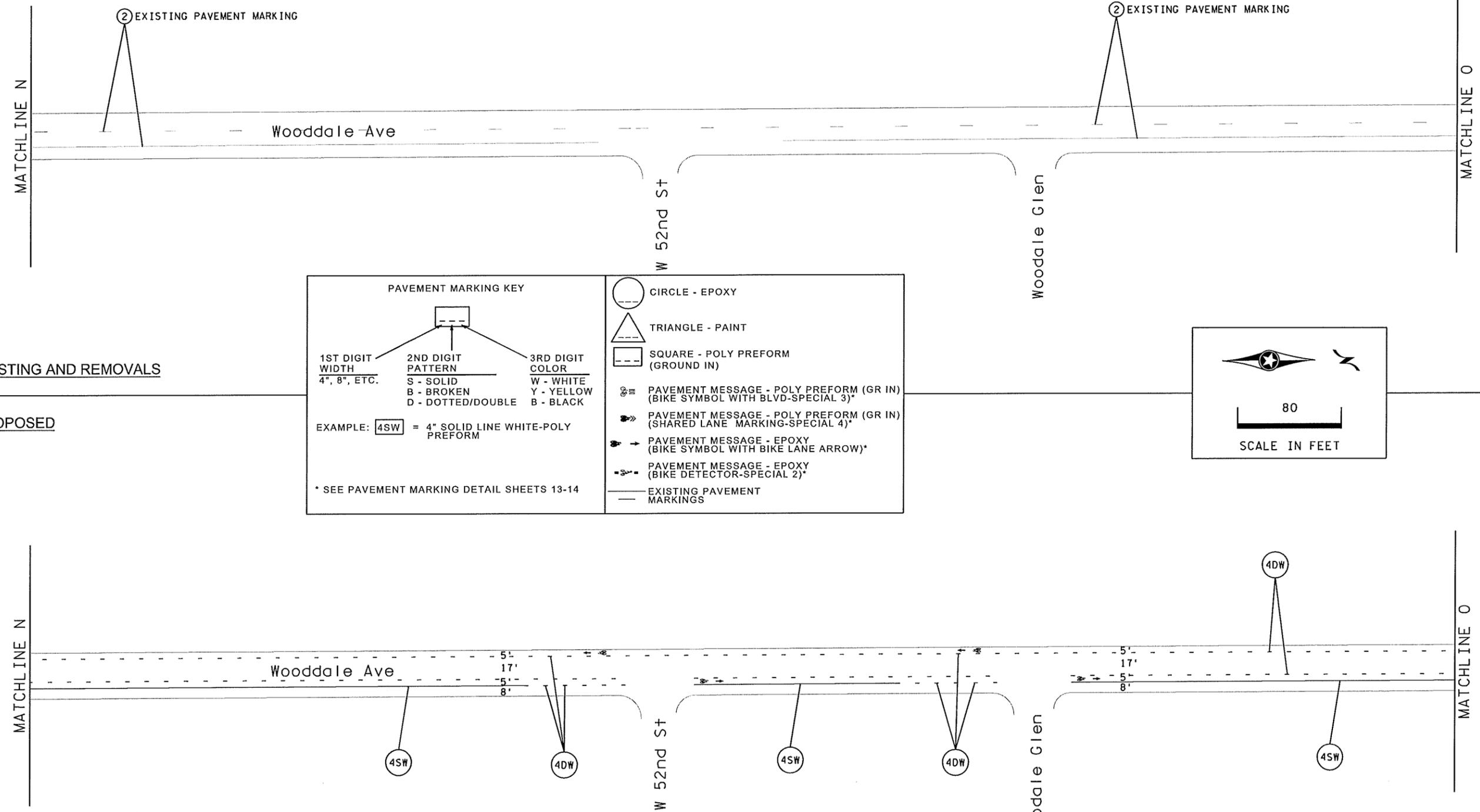
1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS

EXISTING AND REMOVALS

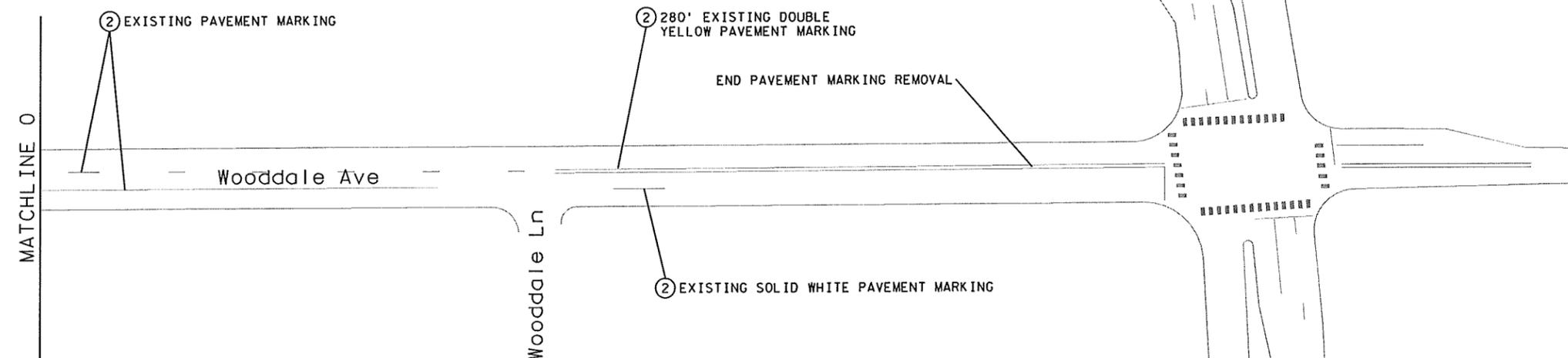
PROPOSED



- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

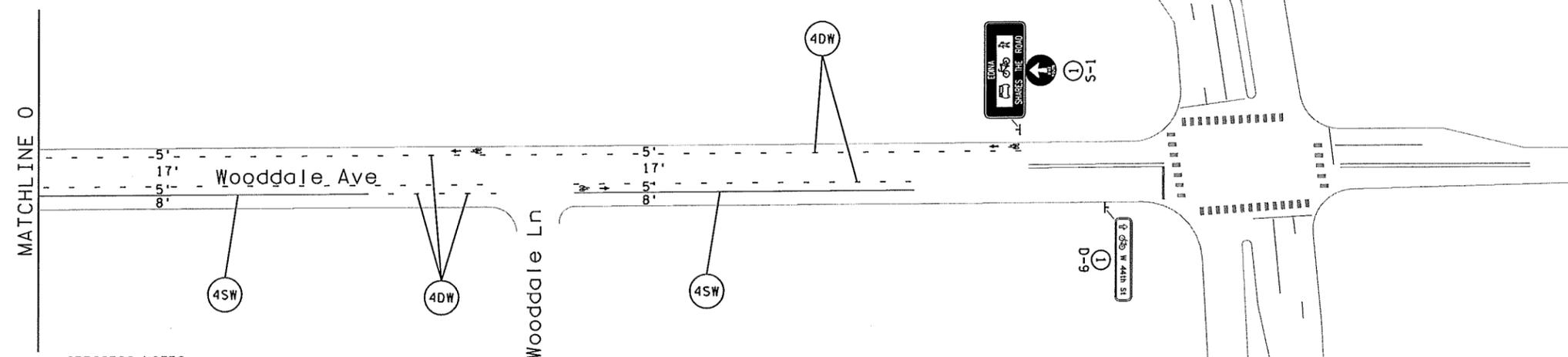
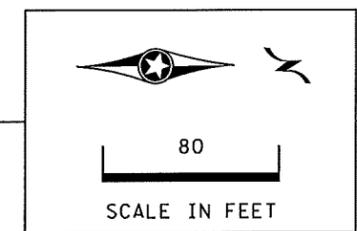
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

- CIRCLE - EPOXY
- TRIANGLE - PAINT
- SQUARE - POLY PREFORM (GROUND IN)
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
- PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
- PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
- EXISTING PAVEMENT MARKINGS

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14



- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

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NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55435-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

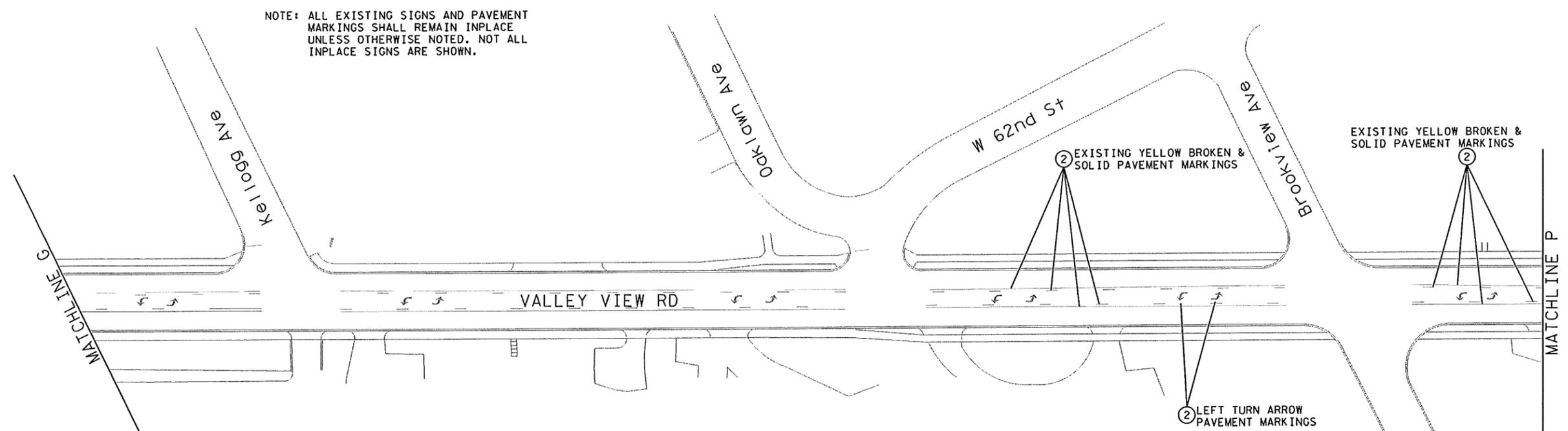
ALLIANT ENGINEERING
 A CORPORATION
 233 PARK AVENUE SOUTH
 SUITE 300
 EDINA, MN 55435
 (612) 758-1000 FAX (612) 758-1095

I HEREBY CERTIFY THAT THIS OR 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

[Signature]
 DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 28 of 42

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

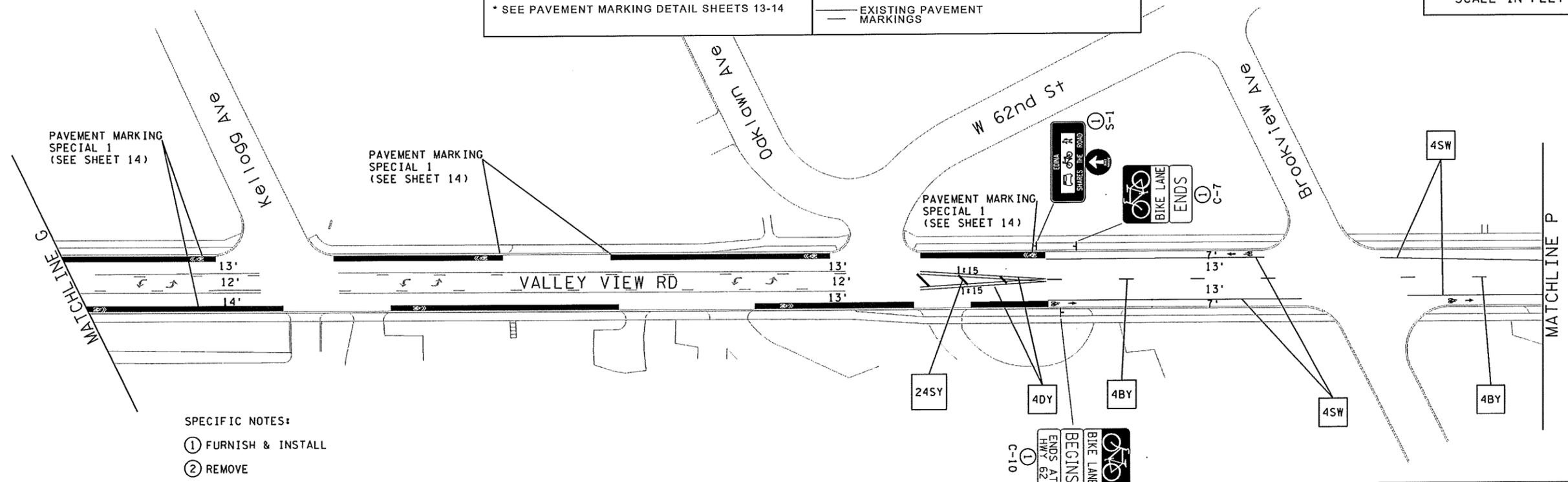
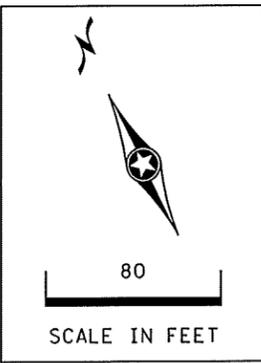
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
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	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



SPECIFIC NOTES:

- ① FURNISH & INSTALL
- ② REMOVE
- ③ SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING
333 PARK AVENUE SOUTH
SUITE 300
EDINA, MN 55435
1612178-3086
1612178-3089 FAX

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR DIRECTLY SUPERVISED AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

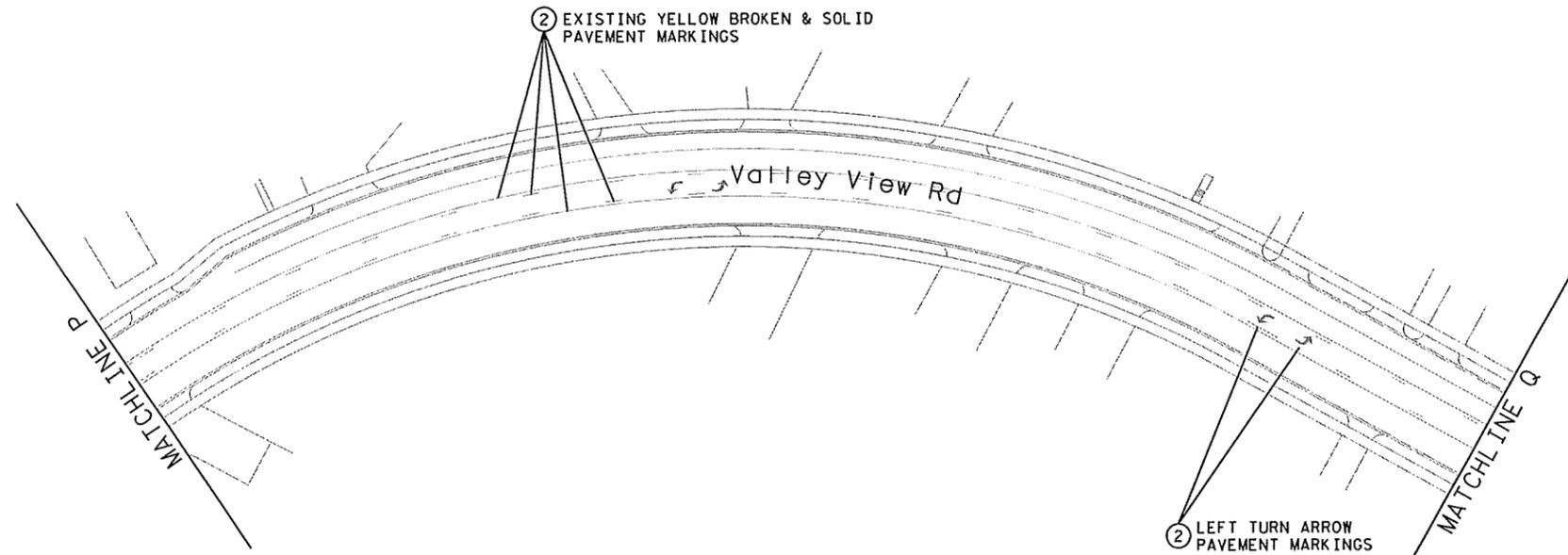
[Signature]
DATE: 05/08/12 UC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 29 OF 42

STATE PROJ.#: 120-091-002

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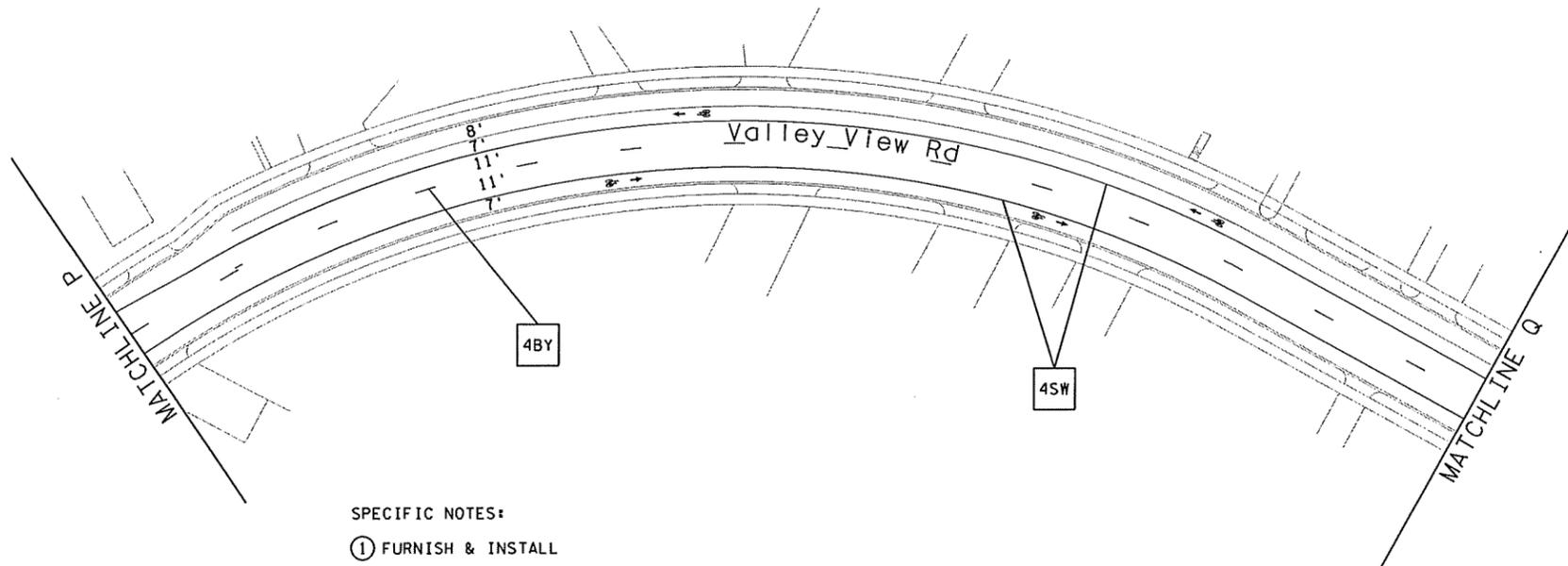
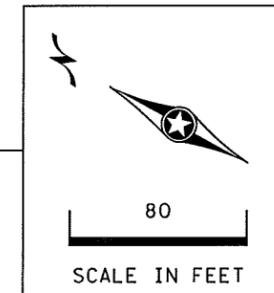
NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

PROPOSED

PAVEMENT MARKING KEY		
1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW = 4" SOLID LINE WHITE-POLY PREFORM		
* SEE PAVEMENT MARKING DETAIL SHEETS 13-14		
	CIRCLE - EPOXY	
	TRIANGLE - PAINT	
	SQUARE - POLY PREFORM (GROUND IN)	
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*	
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	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*	
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*	
	EXISTING PAVEMENT MARKINGS	



SPECIFIC NOTES:

- ① FURNISH & INSTALL
- ② REMOVE
- ③ SALVAGE & REINSTALL

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55499-3037
Ph: 952-826-0371
Fax: 952-826-0392

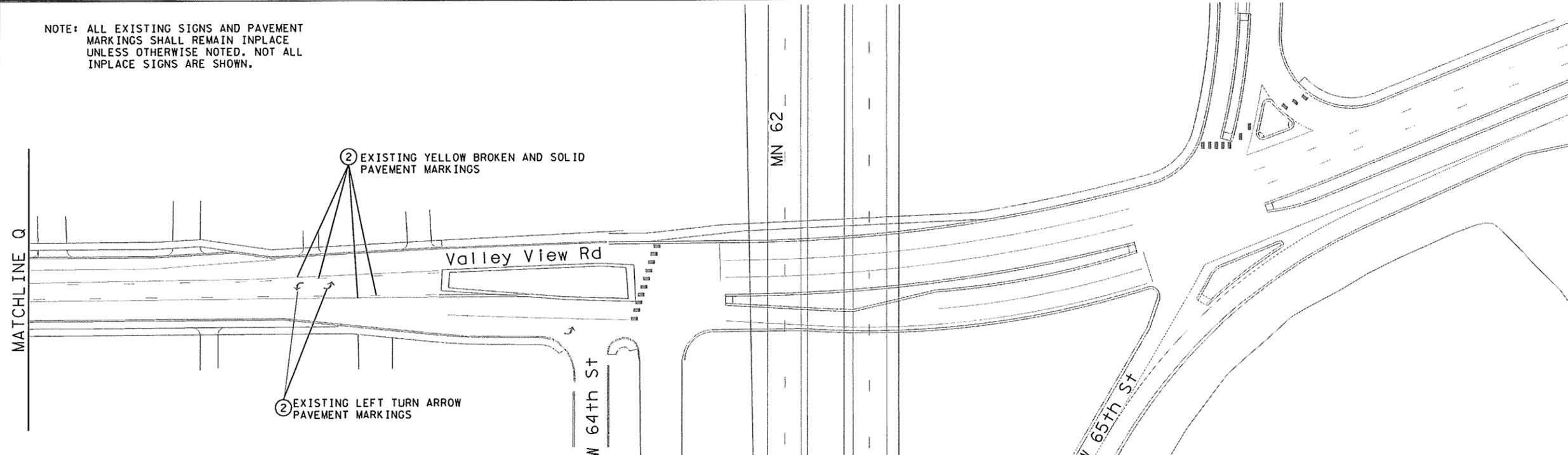
ALLIANT ENGINEERING
233 PARK AVENUE SOUTH
SUITE 200
MINNEAPOLIS, MN 55413
TEL: 763-551-1000 FAX: 763-551-1001

I HEREBY CERTIFY THAT THIS OR 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
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 30 OF 42

STATE PROJ.#: 120-091-002

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

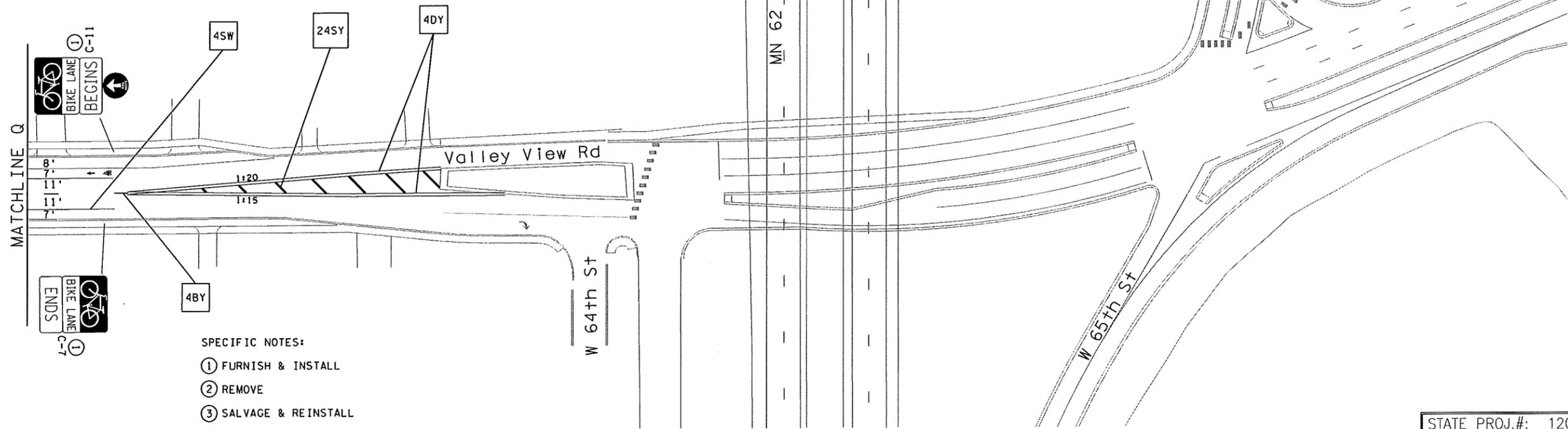
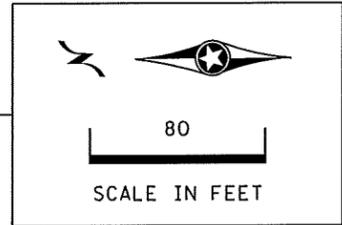
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

	CIRCLE - EPOXY
	TRIANGLE - PAINT
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	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14



SPECIFIC NOTES:

- ① FURNISH & INSTALL
- ② REMOVE
- ③ SALVAGE & REINSTALL

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NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55439-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

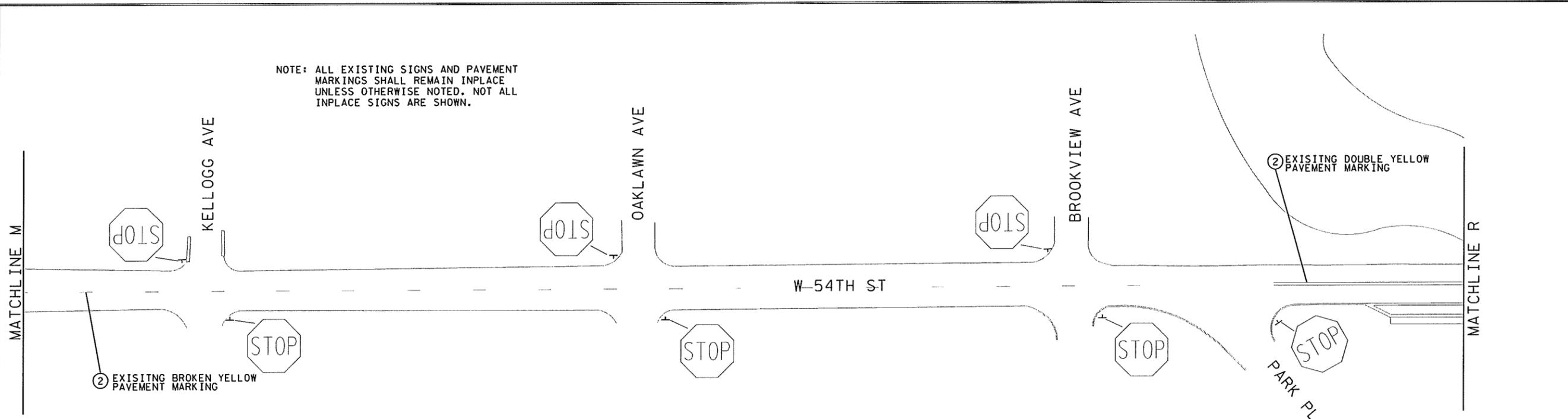
ALLIANT ENGINEERING
 PROFESSIONAL ENGINEERS
 233 PARK AVENUE SOUTH
 SUITE 300
 EDINA, MN 55431
 952-7158-3086 FAX

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
 DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAB
 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X
 SHEET 31 OF 42

STATE PROJ.#: 120-091-002

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

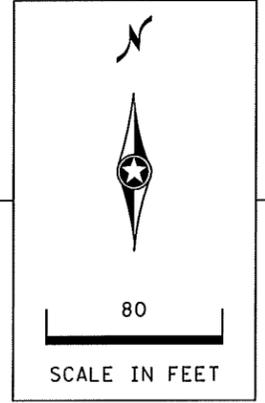
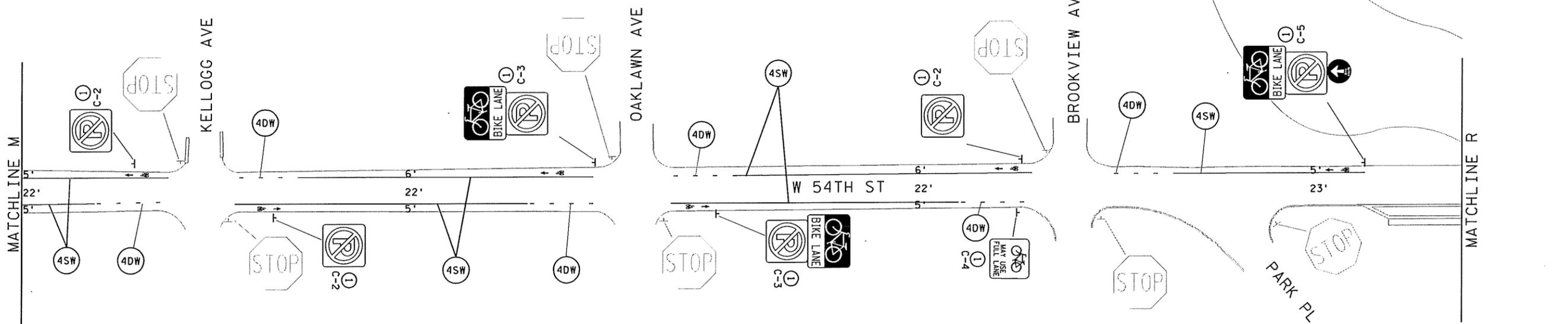
PROPOSED

PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
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	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

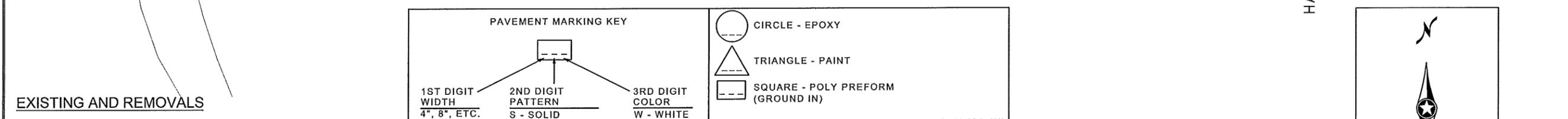
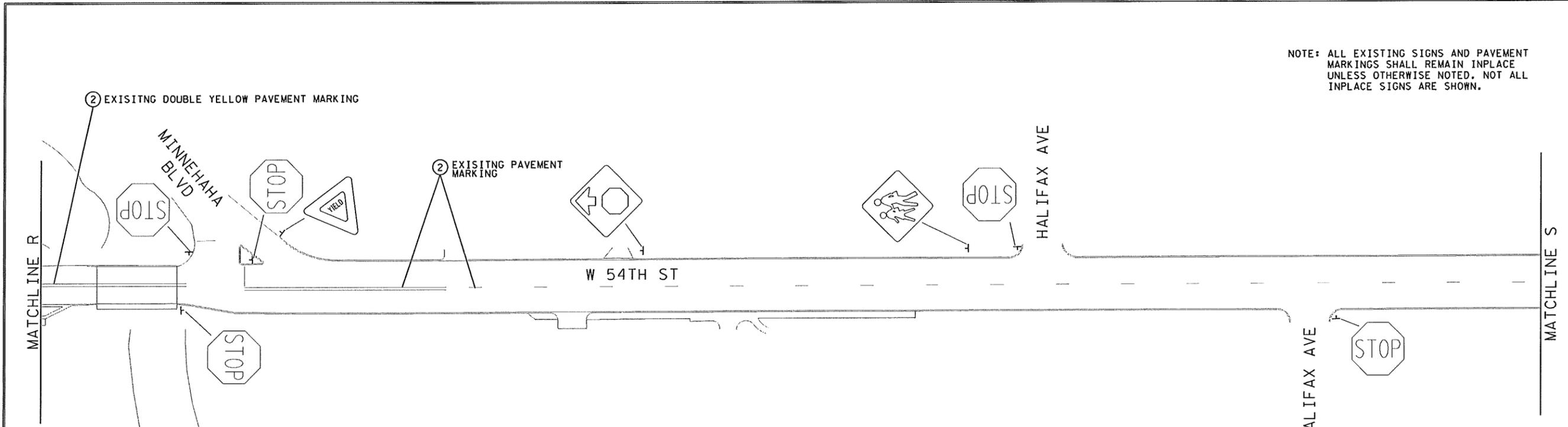
CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING
233 PARK AVENUE SOUTH
MINNEAPOLIS, MN 55413
Ph: 763-758-1088
Fax: 763-758-1088

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
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 32 OF 42

NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



PAVEMENT MARKING KEY		
1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW = 4" SOLID LINE WHITE-POLY PREFORM		
* SEE PAVEMENT MARKING DETAIL SHEETS 13-14		
	CIRCLE - EPOXY	
	TRIANGLE - PAINT	
	SQUARE - POLY PREFORM (GROUND IN)	
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*	
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	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*	
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*	
	EXISTING PAVEMENT MARKINGS	

EXISTING AND REMOVALS

PROPOSED

- SPECIFIC NOTES:
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55495-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

ALLIANT ENGINEERING
 233 PARK AVENUE SOUTH
 SUITE 300
 EDINA, MN 55425
 (612) 758-1888 FAX

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
 DATE: 05/08/12 LIC. NO. 42828

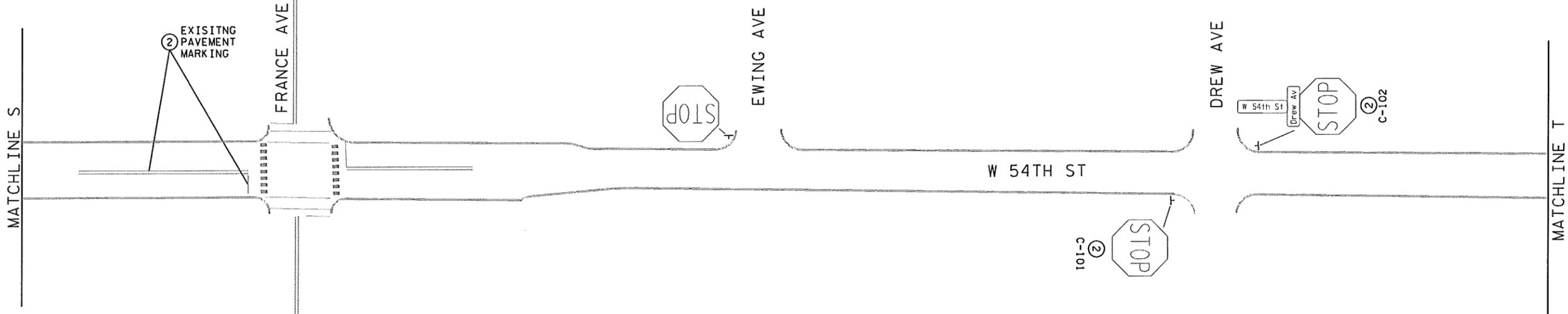
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 CHECKED: KAB
 APPROVED: MRA
 DATE: 05/08/12
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 CONTR.#: ENG 00-X
 SHEET 33 of 42

STATE PROJ.#: 120-091-002

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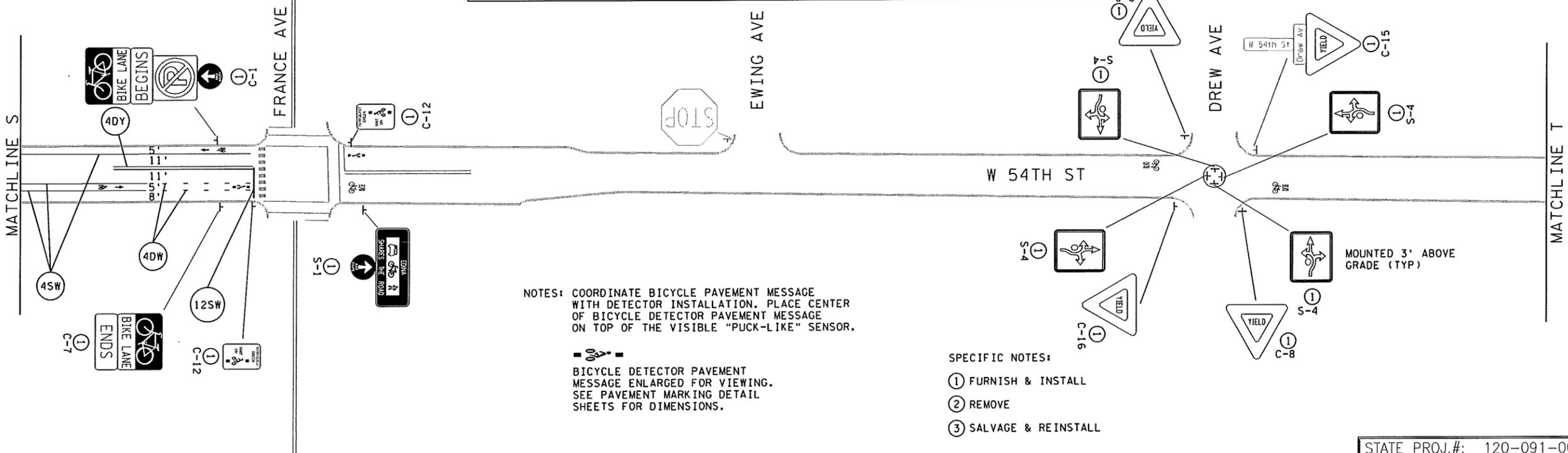
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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN INPLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

PROPOSED

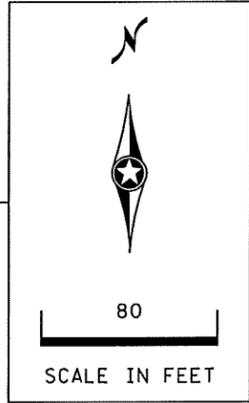


PAVEMENT MARKING KEY

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

	CIRCLE - EPOXY
	TRIANGLE - PAINT
	SQUARE - POLY PREFORM (GROUND IN)
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
	PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
	PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
	PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
	EXISTING PAVEMENT MARKINGS



NOTES: COORDINATE BICYCLE PAVEMENT MESSAGE WITH DETECTOR INSTALLATION. PLACE CENTER OF BICYCLE DETECTOR PAVEMENT MESSAGE ON TOP OF THE VISIBLE "PUCK-LIKE" SENSOR.

BICYCLE DETECTOR PAVEMENT MESSAGE ENLARGED FOR VIEWING. SEE PAVEMENT MARKING DETAIL SHEETS FOR DIMENSIONS.

- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

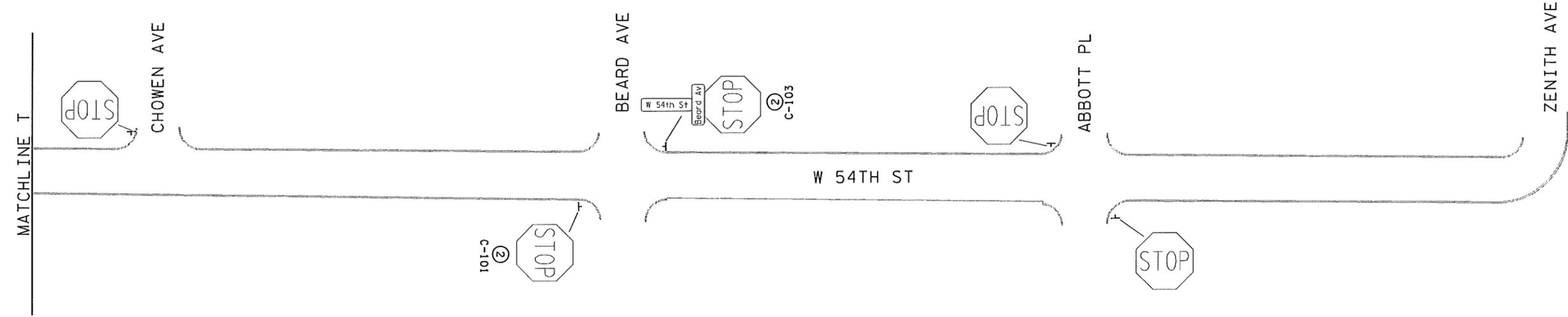
ALLIANT ENGINEERING
PA CONSULTANTS
233 PARK AVENUE SOUTH
SUITE 300
EDINA, MN 55413
(612) 758-1086 FAX

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 34 OF 42

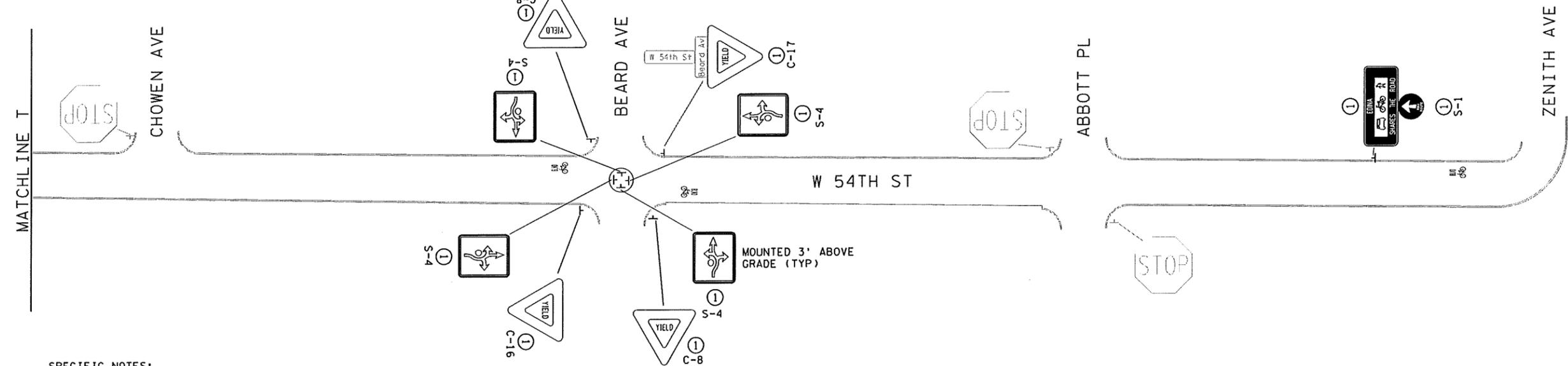
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NOTE: ALL EXISTING SIGNS AND PAVEMENT MARKINGS SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED. NOT ALL INPLACE SIGNS ARE SHOWN.



EXISTING AND REMOVALS

PROPOSED

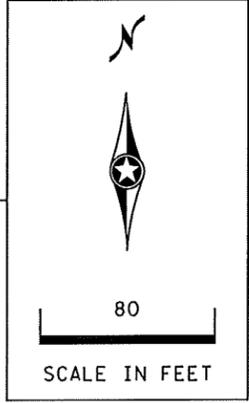


PAVEMENT MARKING KEY

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EXAMPLE: 4SW	= 4" SOLID LINE WHITE-POLY PREFORM	

* SEE PAVEMENT MARKING DETAIL SHEETS 13-14

- CIRCLE - EPOXY
- TRIANGLE - PAINT
- SQUARE - POLY PREFORM (GROUND IN)
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (BIKE SYMBOL WITH BLVD-SPECIAL 3)*
- PAVEMENT MESSAGE - POLY PREFORM (GR IN) (SHARED LANE MARKING-SPECIAL 4)*
- PAVEMENT MESSAGE - EPOXY (BIKE SYMBOL WITH BIKE LANE ARROW)*
- PAVEMENT MESSAGE - EPOXY (BIKE DETECTOR-SPECIAL 2)*
- EXISTING PAVEMENT MARKINGS



- SPECIFIC NOTES:**
- ① FURNISH & INSTALL
 - ② REMOVE
 - ③ SALVAGE & REINSTALL

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE I
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392

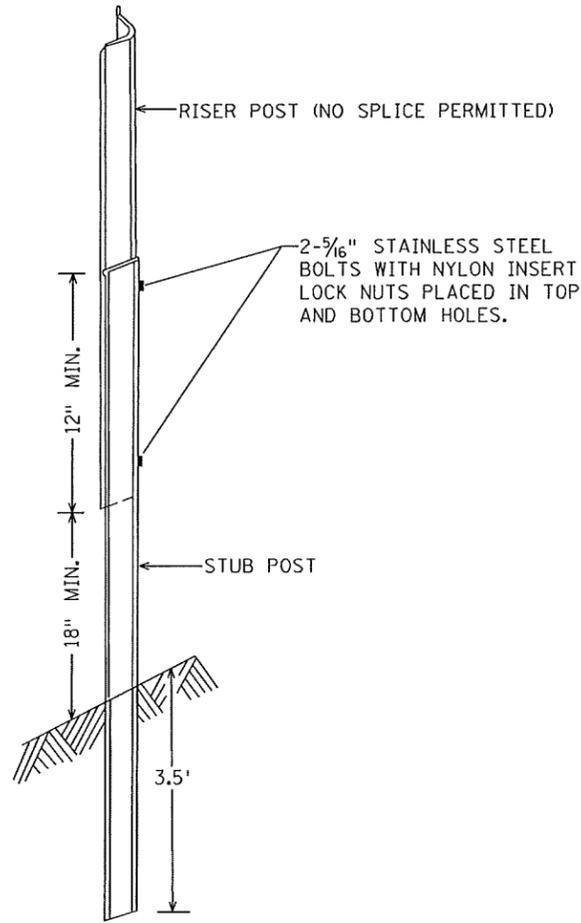
ALLIANT ENGINEERING
A CORPORATION
233 PARK AVENUE, SOUTH
SUITE 300
EDINA, MN 55435
612-758-1088 FAX

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THAT I DIRECTLY SUPERVISED AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

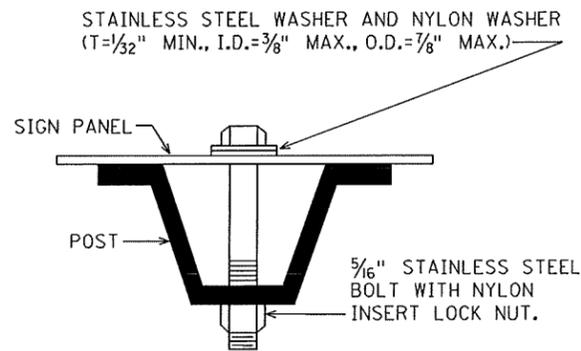
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DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 35 OF 42

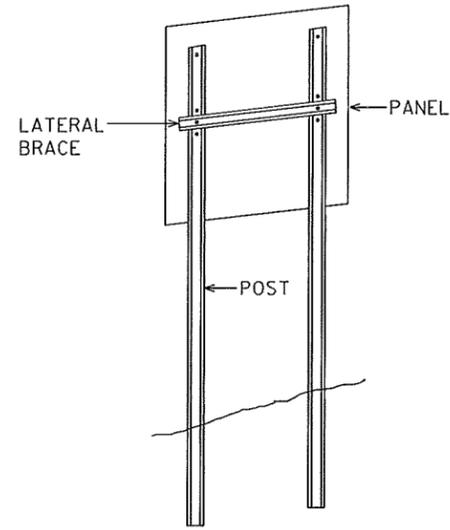
TYPE C & D POST



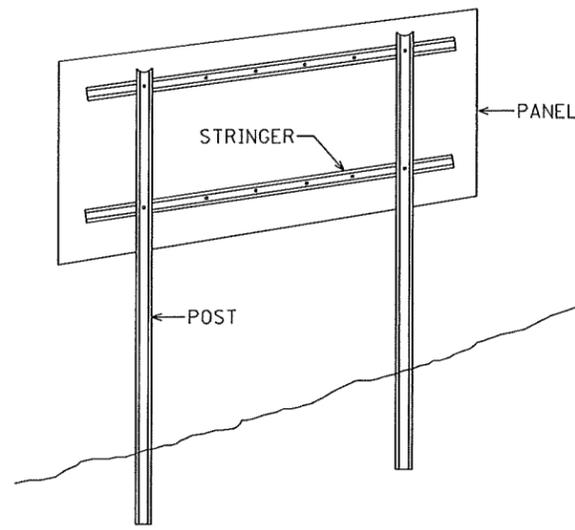
U POST SPLICE



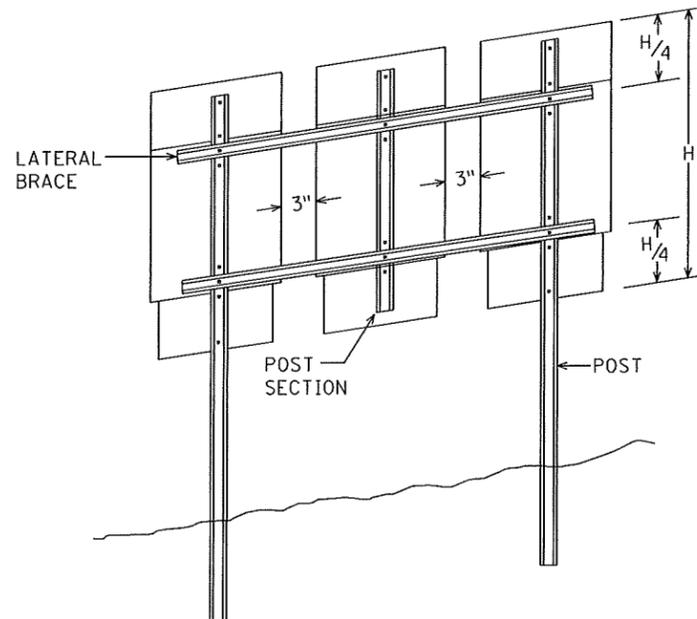
U POST MOUNTING
TYPE C SIGNS



TYPICAL TYPE C INSTALLATION



TYPICAL TYPE D INSTALLATION



MODIFIED TYPE C INSTALLATION

NOTES:

1. USE 3 LB/FT STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 3401.
2. FOR TYPE D SIGN POSTS LENGTHS AND SPACINGS, SEE SIGN DATA SHEET.
3. TYPE D SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 24" MAXIMUM INTERVALS IN ACCORDANCE WITH THE TYPE D STRINGER AND PANEL-JOINT DETAIL (SEE STANDARD SIGNS MANUAL).
4. MOUNTING (PUNCH CODE) FOR TYPE C SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE SPECIFIED.
5. ALL RISER (VERTICAL) U POSTS SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 7' LONG.
6. USE STAINLESS STEEL 5/16" BOLTS, WASHERS AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
7. STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
8. BRACING STUBS SHALL BE NO MORE THAN 4" ABOVE GROUND AND EMBEDDED AT LEAST 3 1/2'.
9. A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394.
10. COLLARS SHALL BE USED TO SHIM OVERLAYS AND DEMOUNTABLE LEGEND AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MN/DOT 3352.2A5.
11. 2 POST TYPE C SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 60" OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
12. WHERE 2 SINGLE POST TYPE C SIGNS ARE INSTALLED SIDE BY SIDE, THEY SHALL BE REINFORCED Laterally BY AT LEAST 2 BRACES, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS.
13. WHERE 3 OR MORE TYPE C SIGNS ARE INSTALLED SIDE BY SIDE, THEY SHALL BE REINFORCED Laterally BY AT LEAST 2 BRACES, BOLTED AT EACH POST AND POST SECTION AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN MODIFIED TYPE C INSTALLATION.

TYPE C & D SIGN
STRUCTURAL DETAILS

Sheet 1 of 3

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGN DETAILS

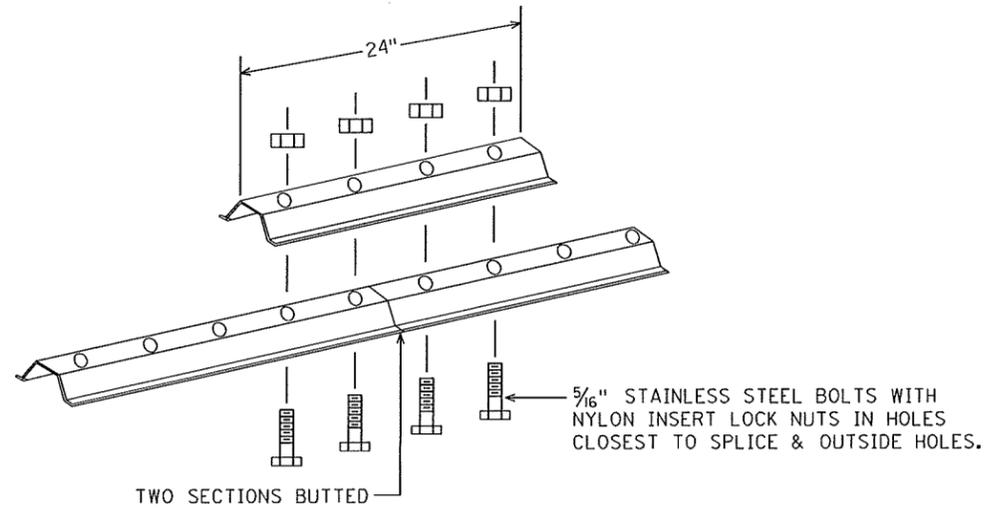
CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-5037
Ph: 952-826-0371
Fax: 952-826-0392

ALLIANT ENGINEERING
A CORPORATION
233 PARK AVENUE SOUTH
SUITE 300
MINNEAPOLIS, MN 55415
(612) 758-1098 FAX
(612) 758-1098

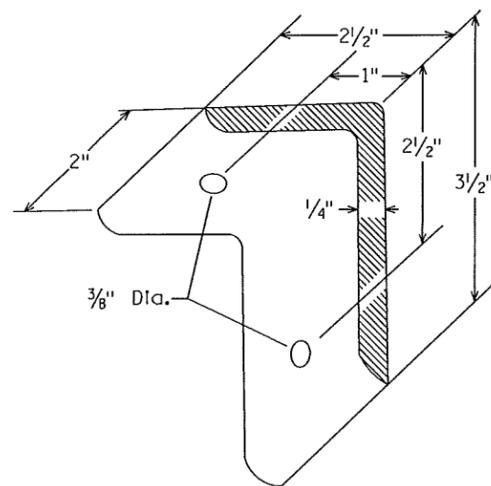
I HEREBY CERTIFY THAT THIS OR
PLACED UNDER MY DIRECT SUPERVISION
AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE
OF MINNESOTA

Michael A. Hill
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: MRA
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X

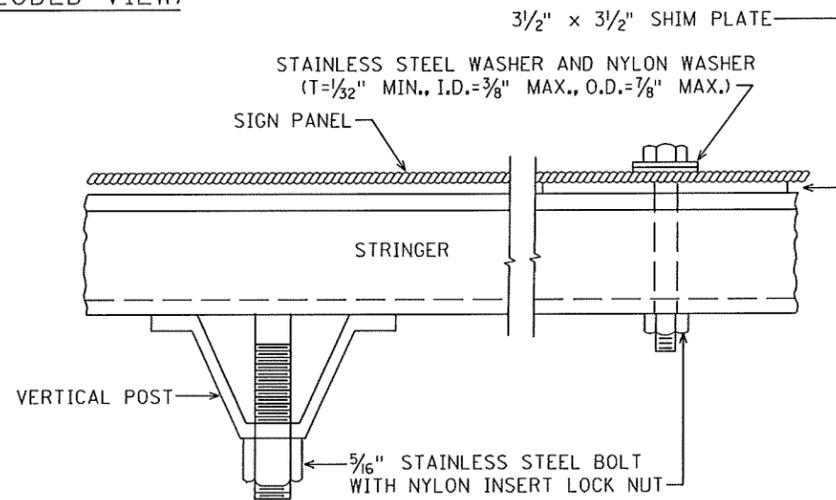


LATERAL BRACE OR STRINGER
SPLICE DETAIL (EXPLODED VIEW)

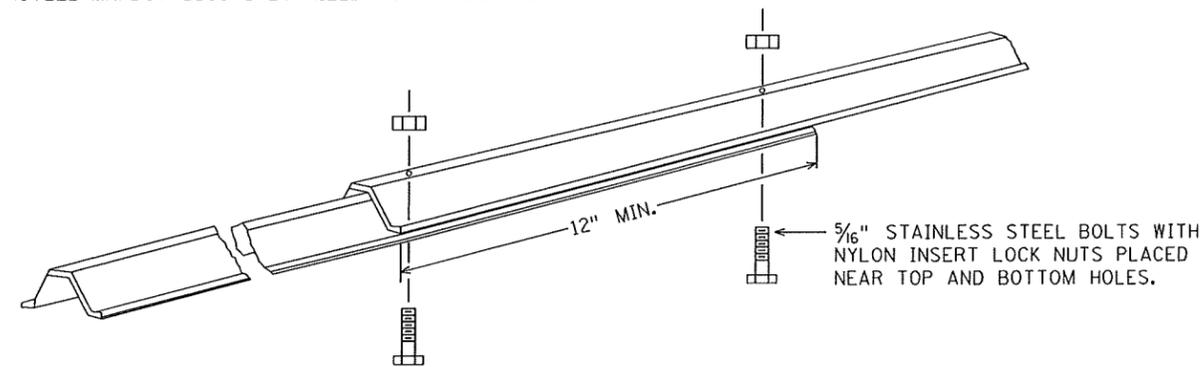


A-FRAME BRACKET

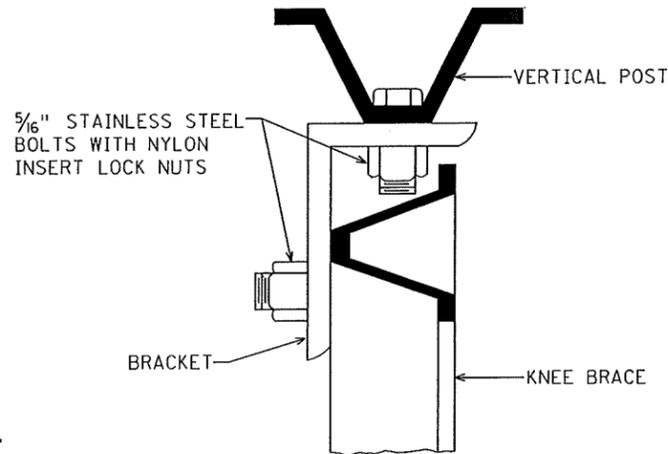
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



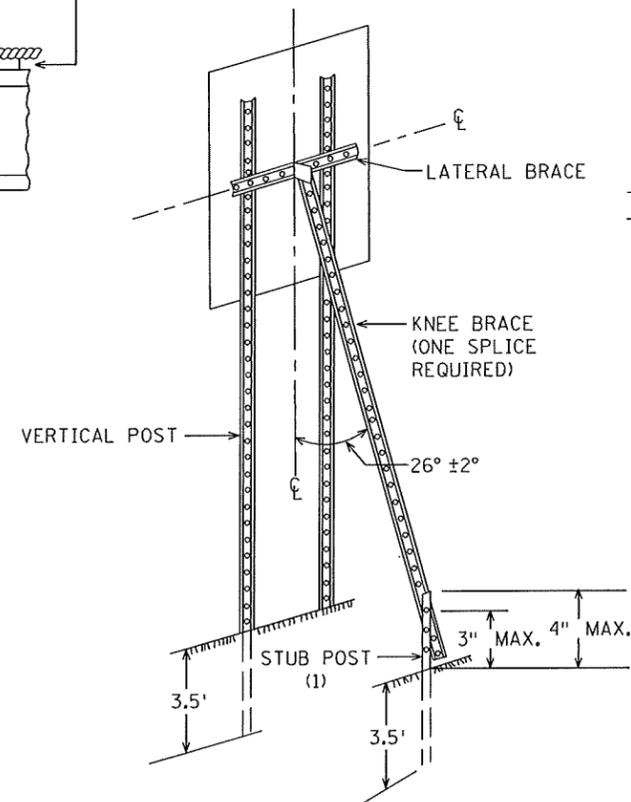
SECTION B-B



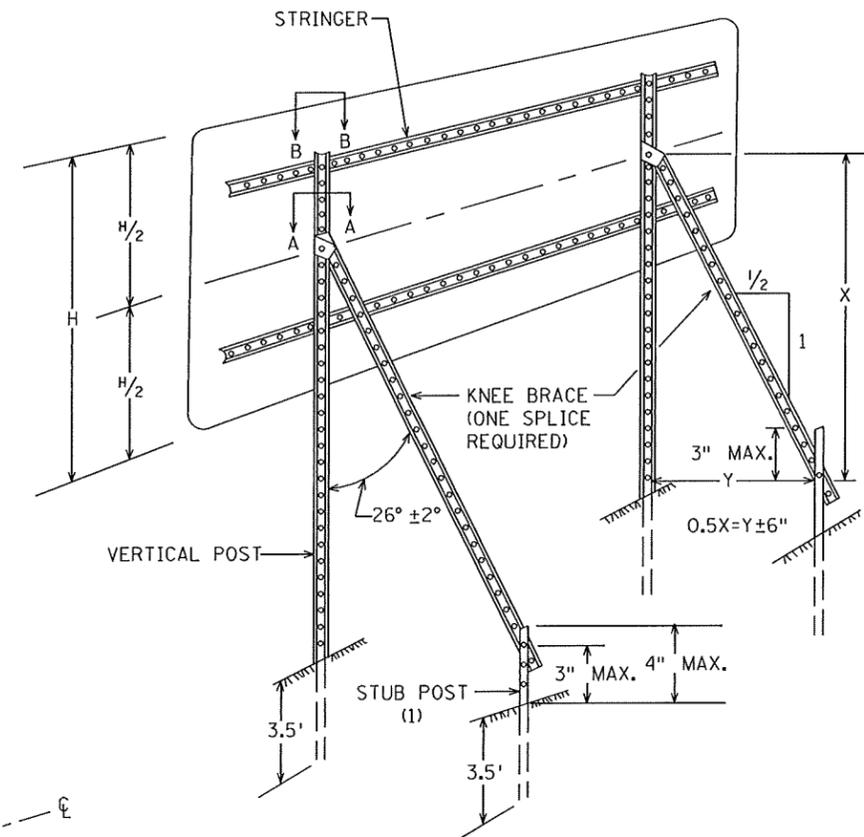
KNEE BRACE SPLICE



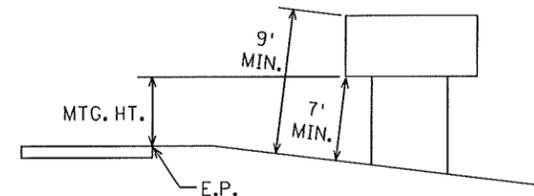
SECTION A-A



TYPICAL "A-FRAME" INSTALLATION
TYPE "C" SIGNS



TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS



TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY
RELATIVE TO VERTICAL POST. ATTACH STUB
POST AND KNEE BRACE BACK TO BACK.

TYPE C & D SIGN
STRUCTURAL DETAILS

Sheet 2 of 3

STATE PROJ.#: 120-091-002

NO.	DATE	BY	REVISIONS

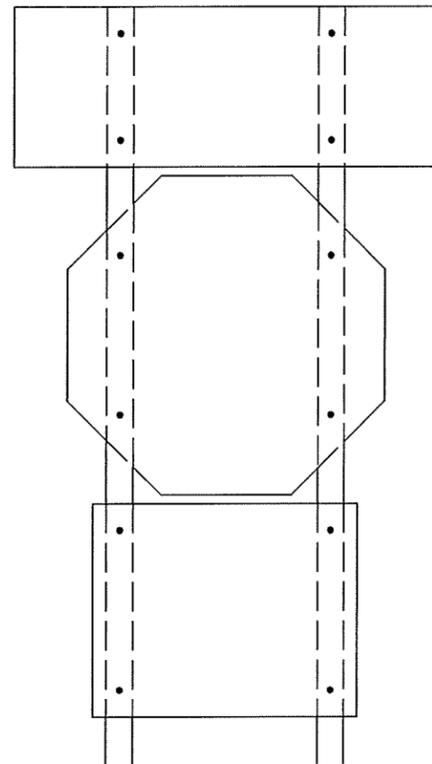
EDINA BIKE BLVD - PHASE I
SIGN DETAILS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55435-3037
Ph: 952-626-0371
Fax: 952-626-0392

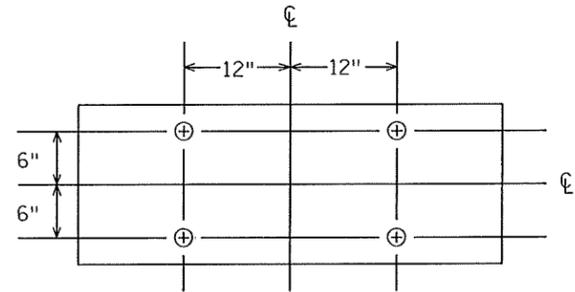
ALLIANT
ENGINEERING
CONSULTANTS
233 PARK AVENUE SOUTH
MINNEAPOLIS, MN 55413
612-708-1000 FAX
612-708-1001

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OF MINNESOTA

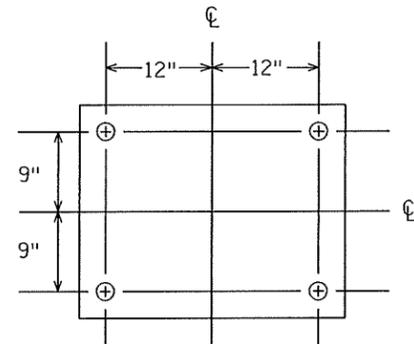
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APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 37 of 42



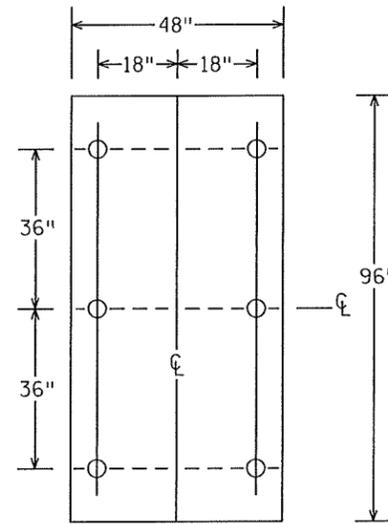
R6-1, R1-1 & (R6-3 OR R6-3a)
MOUNTING



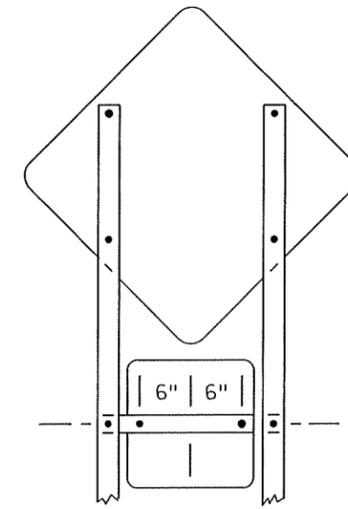
PUNCHING FOR R6-1(48" x 18")



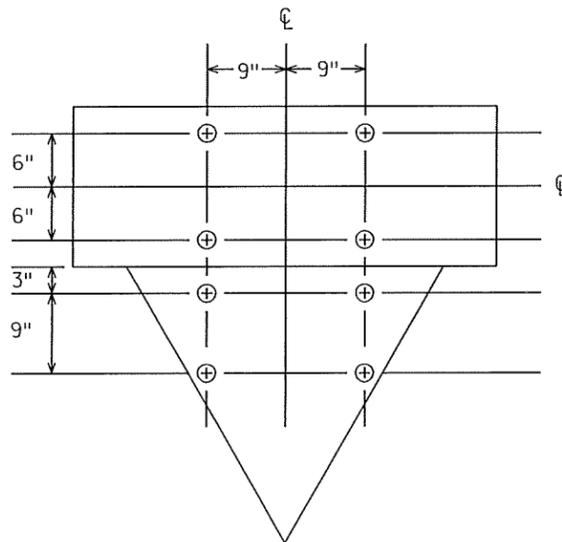
PUNCHING FOR R6-3 OR R6-3a(30" x 24")



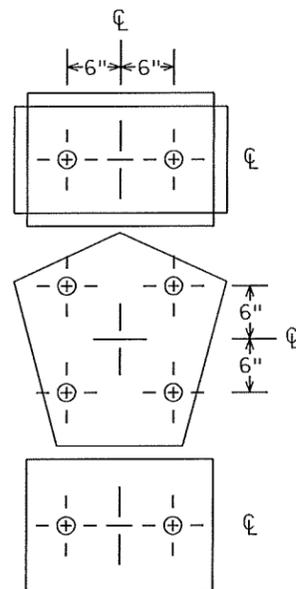
PUNCHING FOR R2-4b
SPEED LIMIT



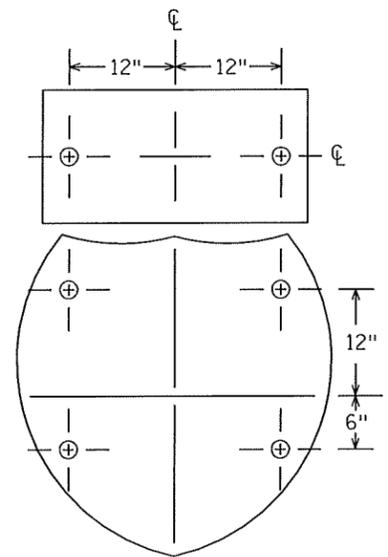
(W1-1, W1-2, W1-3, W1-4 OR W1-5) & W13-1
MOUNTING



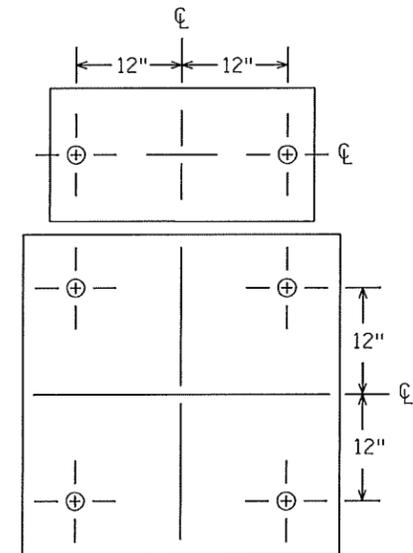
PUNCHING FOR R6-1(48" x 18")
& R1-2(36" x 36" x 36")



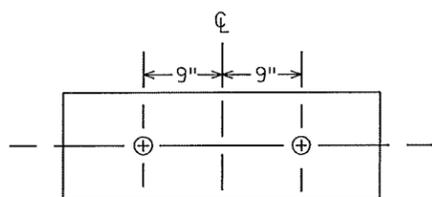
M2-1A [21" x 15"] OR
(M3-1A, M3-2A, M3-3A OR M3-4A) [24" x 12"] AND
M1-6 [24" x 24"] AND
(M5-1A, M5-2A, M6-1A, M6-2A, M6-3A M6-4A, M6-5A OR M6-6A) [21" x 15"]
PUNCHING



(M3-1A, M3-2A, M3-3A OR M3-4A) [30" x 15"] AND
M1-1 [45" x 36" OR 36" x 36"]
PUNCHING



(M3-1, M3-1A, M3-2, M3-2A, M3-3, M3-3A M3-4 OR
M3-4A) [30" x 15"] AND (M1-4 OR M1-5A) [36" x 36"]
PUNCHING



PUNCHING FOR R6-1(36" x 12")

TYPE C & D SIGN
STRUCTURAL DETAILS

Sheet 3 of 3

STATE PROJ.#: 120-091-002

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CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-5037
Ph: 952-826-0371
Fax: 952-826-0392

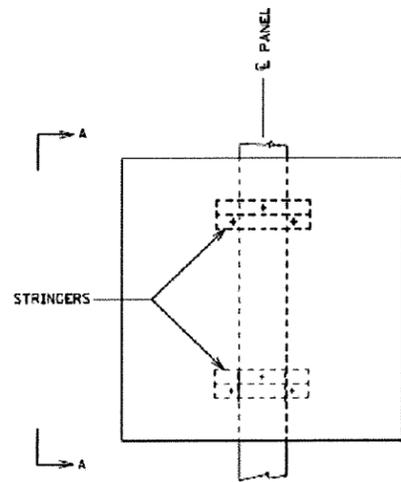
ALLIANT ENGINEERING
A CORPORATION
233 PARK AVENUE SOUTH
MINNEAPOLIS, MN 55413
(612) 758-1888 FAX
(612) 758-1889 FAX

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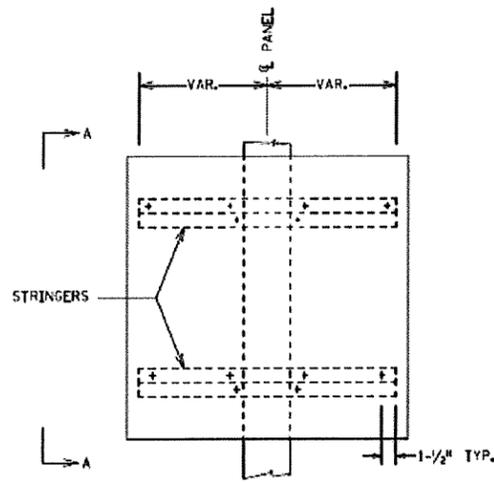
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CHECKED: MRA
APPROVED: MRA
DATE: 05/08/12
IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 38 OF 42

EDINA BIKE BLVD - PHASE 1
SIGN DETAILS

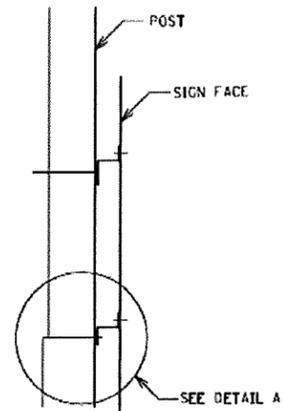
NO.	DATE	BY	REMARKS



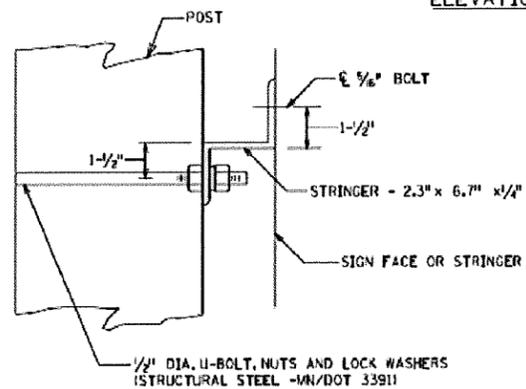
TYPE "C" SIGNS WITH SINGLE POST PUNCHING



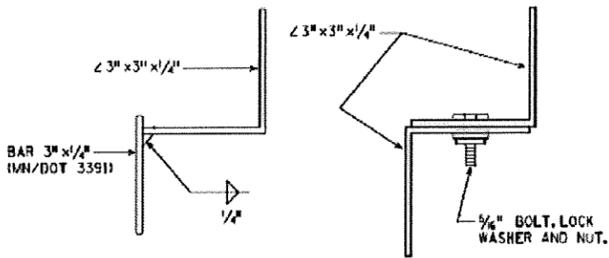
TYPE "C" SIGNS WITH 2-POST PUNCHING



VIEW A-A



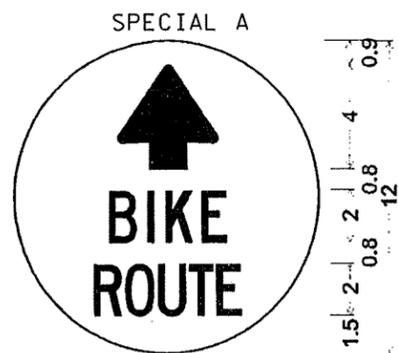
DETAIL A



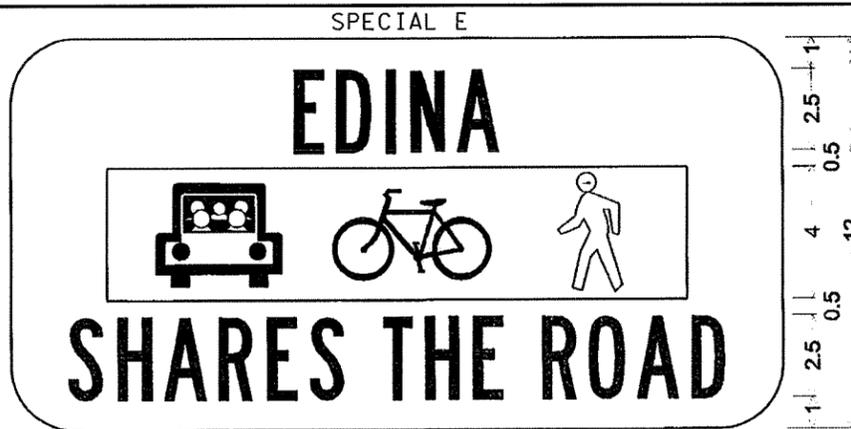
DETAIL A STRINGER ALTERNATES

- NOTES:
- FOR BACK TO BACK MOUNTINGS, ROTATE STRINGERS FOR ONE PANEL 180° FROM WHAT IS SHOWN SUCH THAT PANELS CAN BE MOUNTED AT SAME ELEVATION.
 - DETAIL A STRINGER MAY BE ONE OF THE THREE DESIGNS DETAILED OR AN APPROVED EQUAL. STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394. FASTENERS SHALL BE IN ACCORDANCE WITH MN/DOT 3391.2B AND SHALL BE GALVANIZED EITHER BY THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, OR BY THE MECHANICAL PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50 OR GREATER.

TYPE C SIGNS MOUNTED ON O-POSTS,
OR SIGN POSTS OR SIGNAL STANDARDS



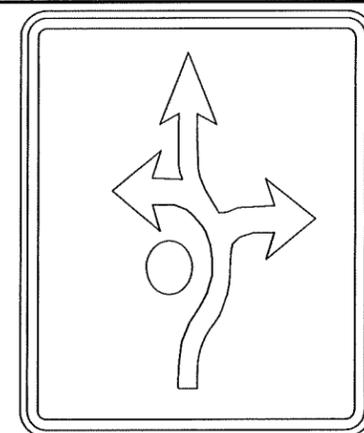
SPECIAL A
 12
 ; No border, Green;
 Arrow Custom - 4.0" 90° White;
 [BIKE] White C;
 [ROUTE] White C 33% spacing;



SPECIAL E
 24
 2.0" Radius, No border, White on Green;
 [EDINA] B; Rectangle Black;
 [SHARES THE ROAD] B;



SPECIAL F
 30 X 12, BLACK ON WHITE
 USED IN SIGN ASSEMBLY C-10



SPECIAL G
 ROUNDABOUT FISH HOOK
 24 X 30, BLACK ON WHITE
 USED IN SIGN ASSEMBLY S-4

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 5/8/2012
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SPECIAL B; LEFT ARROW WITH BIKE ROUTE
 SPECIAL C; RIGHT ARROW WITH BIKE ROUTE
 SPECIAL D; DOUBLE ARROWS WITH BIKE ROUTE

STATE PROJ.#: 120-091-002

NO.	DATE	BY	REMARKS

EDINA BIKE BLVD - PHASE 1
SIGN DETAILS AND TYPE C SIGNS - SPECIAL
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

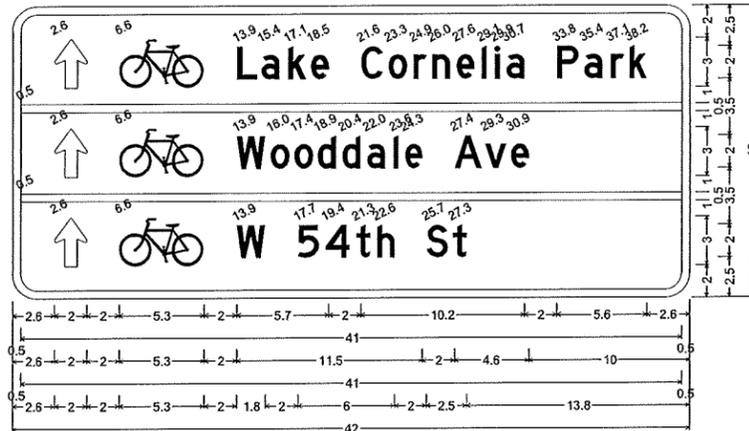
CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55435-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

ALLIANT ENGINEERING
 A CORPORATION
 233 PARK AVENUE SOUTH
 MINNEAPOLIS, MN 55415
 (612) 758-1088 FAX

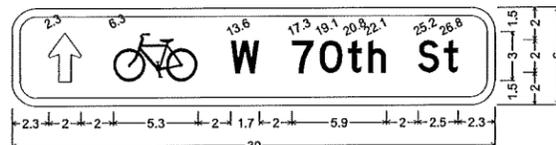
I HEREBY CERTIFY THAT THIS OR
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 DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
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 IMP.# X3-XXX
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 SHEET 39 OF 42

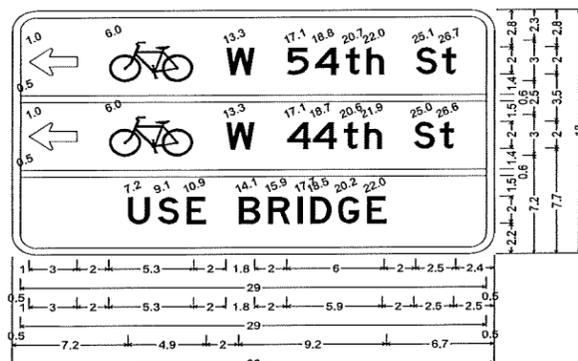
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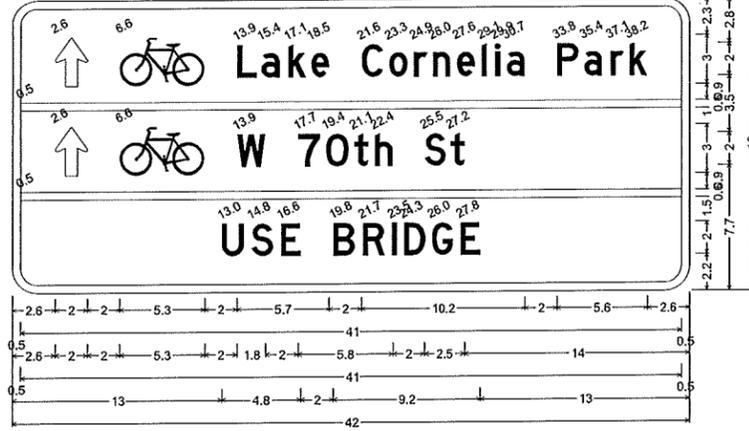
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[Wooddale Ave] D; Arrow Custom - 3.0° 90°; Symbol RG025; [W 54th St] D;



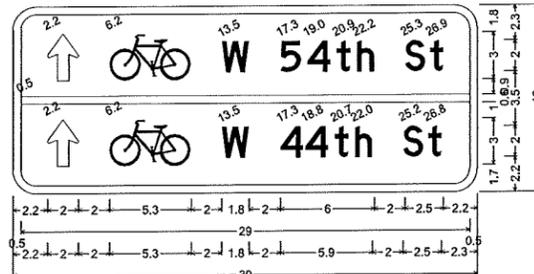
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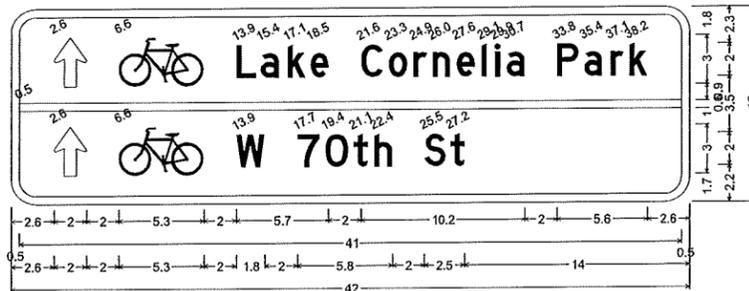
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Arrow Custom - 3.0° 180°; Symbol RG025; [W 44th St] D;
[USE BRIDGE] D;



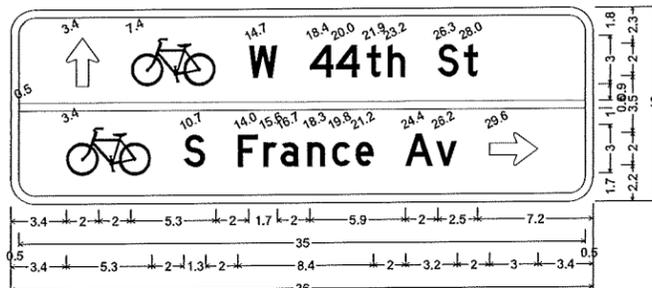
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[W 70th St] D; [USE BRIDGE] D;



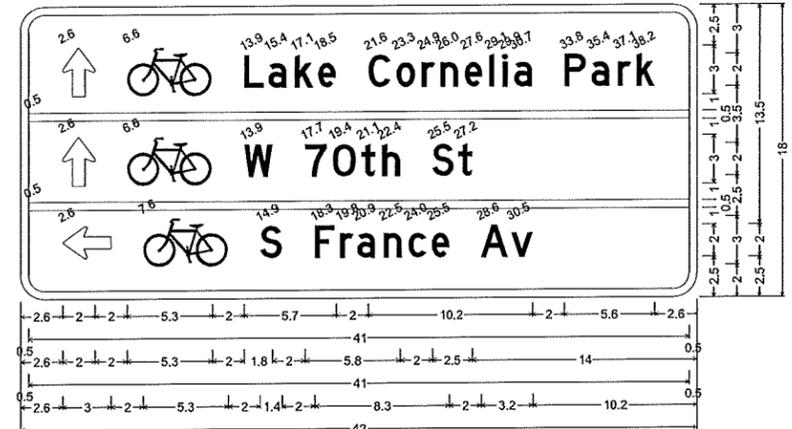
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Arrow Custom - 3.0° 90°; Symbol RG025; [W 44th St] D;



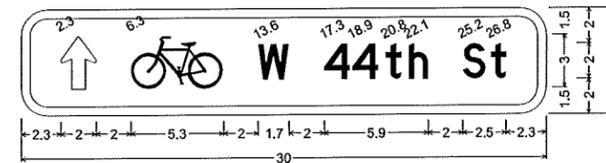
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[W 70th St] D;



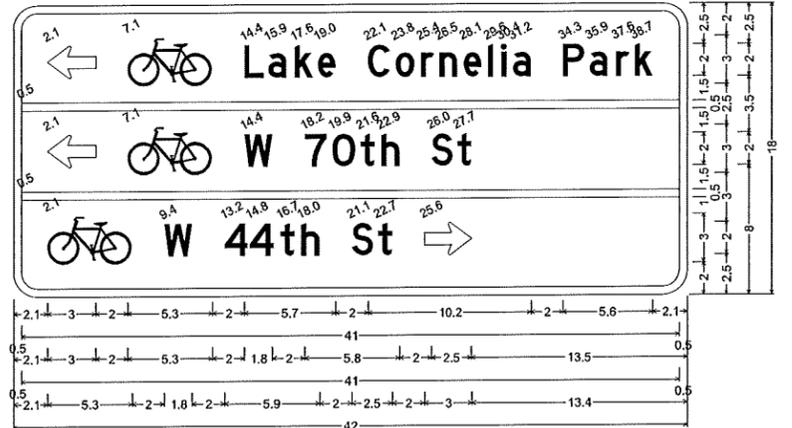
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Arrow Custom - 3.0° 0°;



D-8; 1.5" Radius, 0.5" Border, White on Green;
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[W 70th St] D; Arrow Custom - 3.0° 180°; Symbol RG025; [S France Av] D;



D-9; 1.5" Radius, 0.5" Border, White on Green;
Arrow Custom - 3.0° 90°; Symbol RG025; [W 44th St] D;



D-10; 1.5" Radius, 0.5" Border, White on Green;
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Symbol RG025; [W 70th St] D; Symbol RG025; [W 44th St] D; Arrow Custom - 3.0° 0°;

EDINA BIKE BLVD - PHASE I
TYPE D SIGNS
SIGNING AND PAVEMENT MARKING PLAN
BIKE LANE IMPROVEMENTS

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392



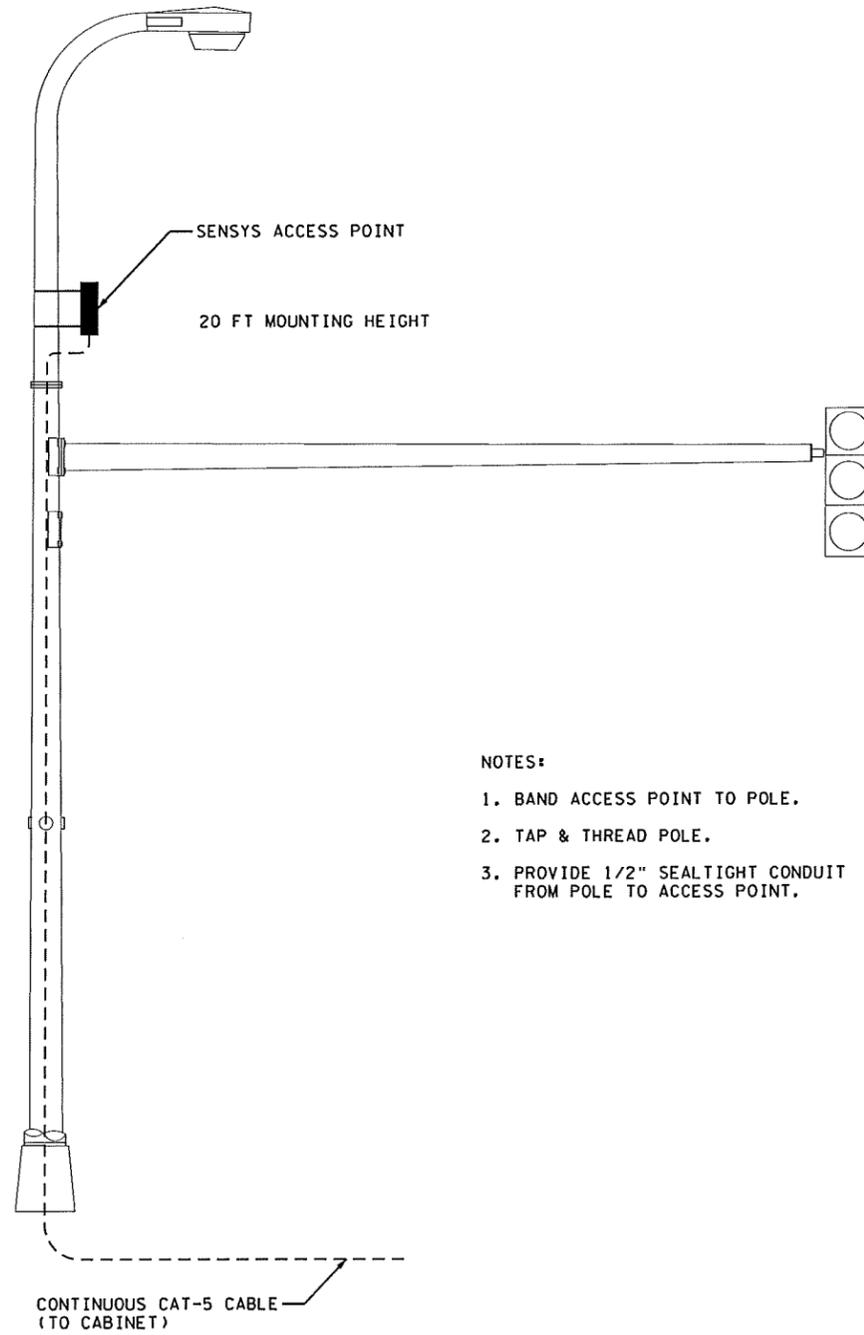
ALLIANT ENGINEERING
10000 UNIVERSITY AVENUE, SUITE 300
EDINA, MN 55425
Ph: 952-826-0371
Fax: 952-826-0392



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
CHECKED: KAB
APPROVED: MRA
DATE: 05/08/12
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SHEET 40 OF 42

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NOTES:

1. BAND ACCESS POINT TO POLE.
2. TAP & THREAD POLE.
3. PROVIDE 1/2" SEALTIGHT CONDUIT FROM POLE TO ACCESS POINT.

NOTE: NO SCALE

SENSYS ACCESS POINT MOUNTING DETAIL

EDINA BIKE BLVD - PHASE 1
 SIGNAL DETAIL

CITY OF EDINA
 7450 METRO BOULEVARD
 EDINA, MN 55439-3037
 Ph: 952-826-0371
 Fax: 952-826-0392

ALLIANT
 ENGINEERING
 A CORPORATION
 233 PARK AVENUE, SOUTH
 SUITE 200
 EDINA, MN 55413
 612-758-1086
 612-758-0589 FAX

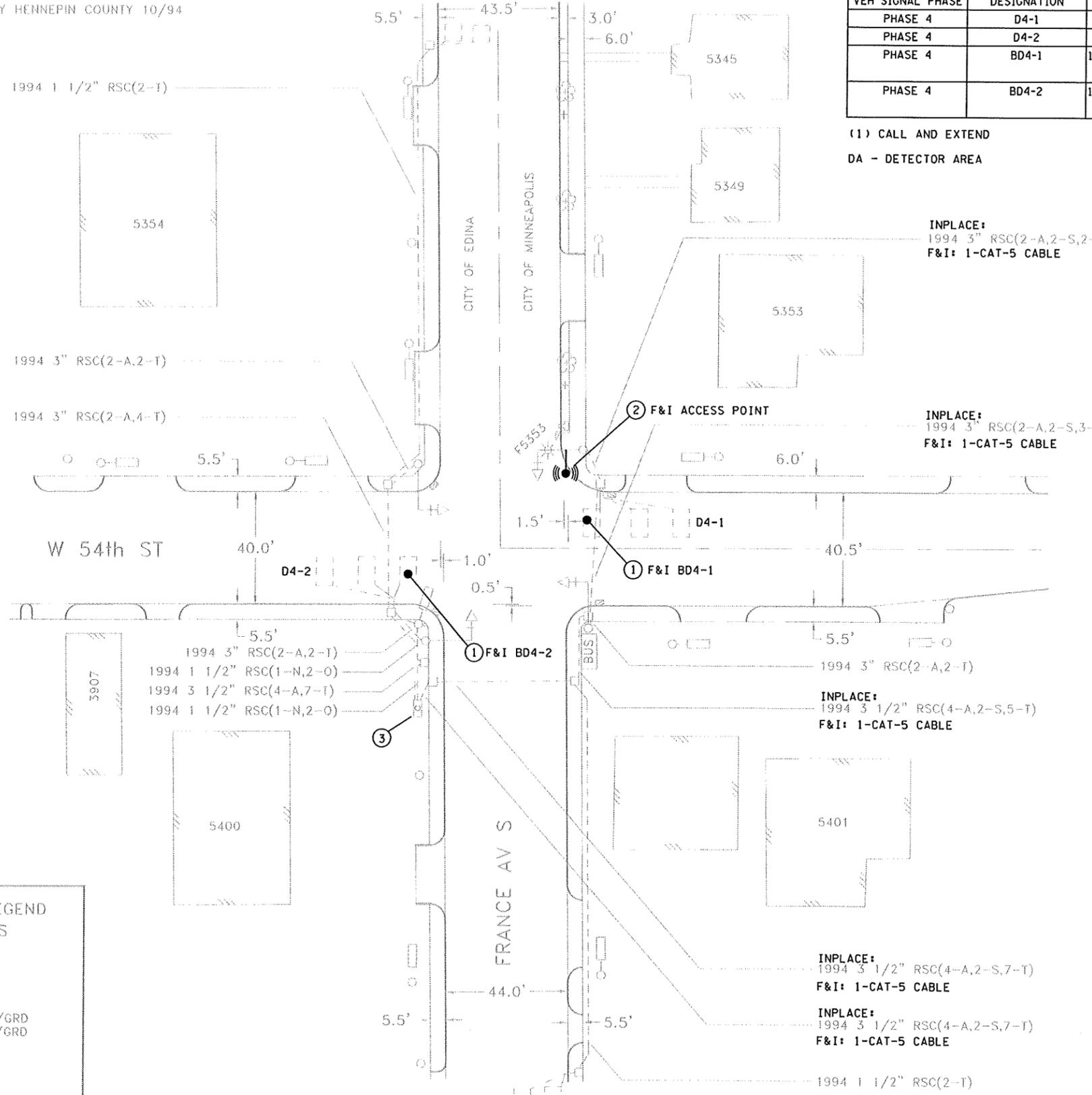
I HEREBY CERTIFY THAT THIS
 PLAN WAS PREPARED BY ME OR
 UNDER MY DIRECT SUPERVISION
 AND THAT I AM A FULLY LICENSED
 PROFESSIONAL ENGINEER UNDER
 THE LAWS OF THE STATE
 OF MINNESOTA
 DATE: 05/08/12 LIC. NO. 42828

DRAWN: KAS
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 APPROVED: MRA
 DATE: 05/08/12
 IMP.# X3-XXX
 CONTR.# ENG 00-X

SHEET 41 OF 42

NO.	DATE	BY	REMARKS

NOTE: TRAFFIC SIGNAL SYSTEM INSTALLED BY HENNEPIN COUNTY 10/94



LOOP DETECTOR CHART					
VEH SIGNAL PHASE	DESIGNATION	NO	FUNCTION	LOCATION	INSTALLATION
PHASE 4	D4-1	3-6x10	(1)	INPLACE	INPLACE
PHASE 4	D4-2	3-6x10	(1)	INPLACE	INPLACE
PHASE 4	BD4-1	1-3x3 (DA)	(1)	2' FROM STOP BAR 8' FROM CURB FACE	CORE DRILL
PHASE 4	BD4-2	1-3x3 (DA)	(1)	2' FROM STOP BAR 10' FROM CURB FACE	CORE DRILL

(1) CALL AND EXTEND

DA - DETECTOR AREA

INPLACE:
1994 3" RSC(2-A,2-S,2-T)
F&I: 1-CAT-5 CABLE

INPLACE:
1994 3" RSC(2-A,2-S,3-T)
F&I: 1-CAT-5 CABLE

INPLACE:
1994 3 1/2" RSC(4-A,2-S,5-T)
F&I: 1-CAT-5 CABLE

INPLACE:
1994 3 1/2" RSC(4-A,2-S,7-T)
F&I: 1-CAT-5 CABLE

INPLACE:
1994 3 1/2" RSC(4-A,2-S,7-T)
F&I: 1-CAT-5 CABLE

- ① INSTALL SENSYS SENSORS (SEE DETECTOR CHART)
- ② INSTALL WIRELESS SENSYS ACCESS POINT ON LUMINAIRE EXTENSION, INSTALL CAT-5 CABLE TO CABINET, SEE NOTE 3.
- ③ INPLACE CABINET:
F&I: SENSYS CONTACT CLOSURE CARD (NEMA TS1-RACK MOUNTED)
SENSYS ACCESS BOX

NOTES:

1. ALL ITEMS ARE INPLACE AND SHALL REMAIN INPLACE UNLESS OTHERWISE DENOTED AS F&I (FURNISH AND INSTALL).
2. WIRELESS SENSORS BD4-1 AND BD4-2 SHALL BE F&I BY CONTRACTOR. SEE SPECIAL PROVISIONS. EXACT LOCATION SHALL BE DETERMINED IN THE FIELD BY ENGINEER.
3. WIRELESS ACCESS POINT SHALL BE INSTALLED ON LUMINAIRE EXTENSION (20 FEET HEIGHT), FACE SOUTH AND A CAT-5 CABLE SHALL RUN FROM THE ACCESS POINT TO THE CONTROLLER CABINET.
4. CONTRACTOR SHALL LOCATE EXISTING INPLACE LOOP DETECTORS PRIOR TO INSTALLATION OF WIRELESS SENSORS BD4-1 AND BD4-2. LOCATION OF BD4-1 AND BD4-2 MAY NEED TO BE ADJUSTED TO AVOID INPLACE LOOP DETECTORS.

CABLE LEGEND
SIGNAL

- A: 12/C#12
- B: 5/C#12
- C: 3/C#12
- D: 2/C#10 W/GRD
- E: 3/C#10 W/GRD
- F: 2/C#14 SH
- G: 50PR#19
- H: 25PR#19
- I: 18PR#19
- J: 12PR#19
- K: 3PR#19
- T: 2/C#12 SH

CABLE LEGEND
LIGHTS

- L: 1/C#1/0
- M: 1/C#2
- N: 1/C#4
- O: 1/C#6
- P: 1/C#8
- Q: 2/C#10 W/GRD
- R: 3/C#10 W/GRD
- S: 1/C#10

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EDINA BIKE BLVD - PHASE I
INTERSECTION SIGNAL LAYOUT
W 54TH ST AND FRANCE AVE S
REVISE SIGNAL SYSTEM

CITY OF EDINA
7450 METRO BOULEVARD
EDINA, MN 55439-3037
Ph: 952-826-0371
Fax: 952-826-0392



ALLIANT
ENGINEERING
CONSULTANTS
233 PARK AVENUE SOUTH
MINNEAPOLIS, MN 55415
612-718-2009 FAX

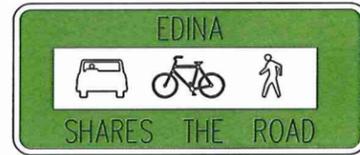
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
DATE: 05/08/12 LIC. NO. 42928

DRAWN: KAS
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IMP.# X3-XXX
CONTR.# ENG 00-X
SHEET 42 OF 42

SEGMENT 2A - OPTION 2 - ADVISORY LANES (54th AVE - FRANCE AVE TO MINNEHAHA CREEK)

CONSTRUCTION PHASE:	PHASE 1
MSA ROUTE:	YES
MEETS STATE AID DESIGN STANDARDS:	NO
REQUEST TO EXPERIMENT:	YES
PARKING:	YES - BOTH SIDES
ADT:	2,600 VPD

SHARED LANE SIGNAGE



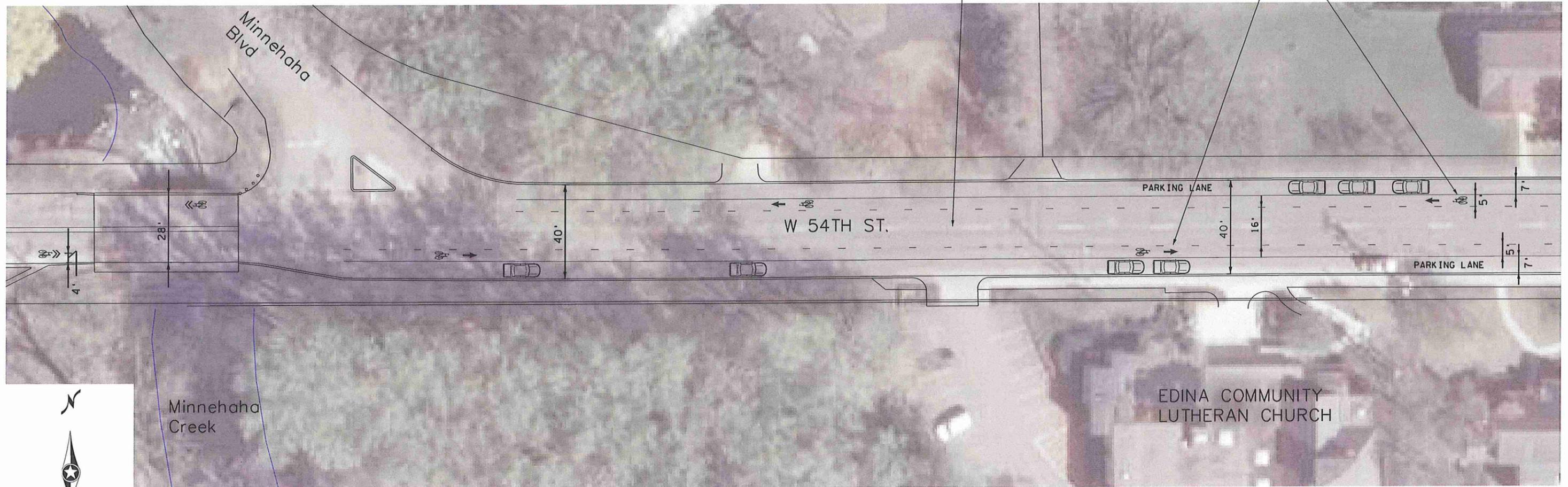
ADVISORY BIKE LANE

BIKE LANE PAVEMENT MARKINGS

- ONE PER BLOCK PER TRAVEL DIRECTION



VEHICLE TRAFFIC WILL SHARE THE CENTER LANE. EASTBOUND & WESTBOUND VEHICLES WILL BE ABLE TO YIELD TO BIKES AND MERGE INTO THE BIKE LANE TO PASS ONCOMING TRAFFIC. SHARED CENTER LANE WIDTH WILL BE 16'.



**MINUTES OF
CITY OF EDINA, MINNESOTA
TRANSPORTATION COMMISSION
COUNCIL CHAMBERS
April 19, 2012
6:00 P.M.**

ROLLCALL Answering roll call was Members Bass, Braden, Iyer, Janovy, LaForce, Nelson, Schweiger, Thompson, and Whited.

APPROVAL OF MEETING AGENDA

Motion was made by member LaForce and seconded by member Thompson approving the revised meeting agenda – moving item 1A. Election of Chair and Vice Chair to after Approval of Minutes. All voted aye. Motion carried.

APPROVAL OF MINUTES - REGULAR MEETING OF FEBRUARY 16, 2012

Motion was made by member Nelson and seconded by member Braden to approve the minutes. All voted aye. Motion carried.

APPROVAL OF MINUTES - REGULAR MEETING OF MARCH 15, 2012

Motion was made by member Thompson and seconded by member LaForce to approve the minutes. All voted aye. Motion carried.

ELECTION OF CHAIR

Member Thompson thanked outgoing chair Janovy for serving as the chair and nominated member Nelson. Member Nelson accepted the nomination. **There being no other nomination, member LaForce motioned to close the nomination and approve member Nelson as the chair and the motion was seconded by member Bass. All voted aye. Motion carried.**

Chair Nelson thanked outgoing chair Janovy for her service and opened up for election of vice-chair. Member Janovy nominated member Bass and this was seconded by member Thompson. Member Bass accepted the nomination. **There being no other nomination, member Laforce motioned to close the nomination and approve member Bass as the vice chair and the motion was seconded by member Thompson. All voted aye. Motion carried.**

COMMUNITY COMMENT – None.

Andrew Kasid, 5401 Wooddale Avenue, a 42 year resident, said he has seen the TLC Bike Blvd plan and requested consideration of parking needs of neighbors and pedestrian safety. He asked that some parking be maintained on 54th between Wooddale and Kellogg. He said they've had issues with drivers not stopping at the intersection at 54th and Wooddale and have had police patrol from time to time and if parking is eliminated it would be a traffic concern for monitoring.

Eileen Supple, 7332 West Shore Drive, said she is speaking as a resident and a member of the Edina Community Lutheran Church. (A letter was distributed to the ETC from the church.) She said they are excited about the bike path because they have a lot of bikers in the congregation, including a pastor who is a commuting cyclist but they are concerned with losing on-street parking that they have relied on for 64 years. She said they have avoided adding parking and does not want to add more surface that would cause run-off into the creek. She encouraged the ETC to look at share the road between France and Wooddale or to some other point to allow on-street parking.

REPORT/RECOMMENDATIONS

TLC Bike Boulevard Project Presentation

Mr. Houle said Mr. Mike Anderson, traffic engineer, with Alliant Engineering will be giving the presentation and explaining staff's recommendation, and that Mr. Steve Clark with TLC is also in attendance and available to answer questions. Mr. Houle said an informational meeting was held on April 12. (A plan set was distributed to the ETC.)

Mr. Anderson said the project limits have change since the February 16 meeting. He said the new Phase I project limits include Wooddale Avenue, 54th Street, Valley View Road and a southern portion of Wooddale Avenue connecting to W. 70th Street. The route will connect to bike facility on 44th Street, 70th Street and future bikeway that city of Minneapolis has planned for Zenith Avenue. Phase II was originally part of this grant but was eliminated due to construction cost and Phase I was extended down Wooddale Avenue over the pedestrian bridge and connect to 70th Street via Southdale Road and Cornelia Drive. The tentative schedule include City Council public hearing on May 15, submittal to State Aid early May with construction starting end of August and completion end of September.

Mr. Anderson said the objective of the project is to provide on-street bicycle facility that will encourage increased bicycling and improve safety for cyclists and, while the goal is to have dedicated lanes for roadway with vehicles of 2000 or more, the challenge is meeting the specific design standards for the mostly State Aid roads governed by MnDOT and also adhering to the Minnesota Manual on Uniform Traffic Control Devices (MMUTCD). He said no variance is required from MnDOT; however, two Requests to Experiment are required from the Federal Highway Administration (FHWA). Road treatments are as follow:

54th Street from France Avenue to Zenith Avenue: recommendation is a share the road designated by a bike boulevard pavement message, share the lane roadway signs, and two landscaped traffic circles and a recommendation to remove the stop signs at Beard and Drew Avenues.

54th Street from Minnehaha Blvd to France Avenue: recommendation is designated bike lanes with on-street parking on the south side and no parking on the north side; however, staff is considering a variance to have parking on Sunday mornings only. A variance would be needed because there is only 16 ft. of space and 19 ft. is required for parking. Removal of stop signs at Minnehaha Blvd is recommended and this is currently being studied.

54th from Wooddale Avenue to Minnehaha Blvd: this area is narrower and the recommendation is dedicated bike lanes with removal of on-street parking on both sides.

Wooddale Avenue from Valley View Road to 50th Street: recommendation is advisory lane and an FHWA Request to Experiment because they would be using a dashed line instead of a solid line.

Southern connection - Wooddale Avenue to 70th Street: the route is Wooddale Avenue over the pedestrian bridge to Southdale Road to 68th Street to Cornelia Drive to 70th Street. Cyclists would be guided by marked signs only. Member LaForce asked if the existing bridge would remain in place. Mr. Houle said staff is working with MnDOT to replace the pedestrian bridge over TH62 in the near future, including the ramps, but in the meantime there is a u-channel to assist with getting bikes up and down the bridge. Member Iyer said in this area it is a missed opportunity to combine with Safe Routes to School to connect to Cornelia Elementary. Mr. Houle said the project ends here because of limited funds and that he is working with Alliant on a design plan for when additional funding becomes available. Member Janovy said this is a good solution given the available funding and a plan to finish in the 2nd phase.

Valley View Road from Wooddale Avenue to 62nd Street: project ends here with share the road and a 4 ft. wide green painted sharrow because of the volume of traffic. The painted sharrow requires an FHWA Request to Experiment.

Valley View Road from 62nd Street to TH62: removal of center turn lane and dedicated bike lane. The project terminates here.

The traffic signal at France Avenue and 54th will have bike detection and marking where bikes are to stop and the signal light will change automatically.

Route Marking – Wayfinding: destination signs and route markers will be installed behind the curb along the corridor. Member Janovy said they will need to have a discussion on wayfinding signs before they are established.

Discussion

Member Janovy asked about the kind of paint that will be used and she also asked if there is data to support that the turn lane is needed? In reference to the paint, Mr. Anderson said it is about cost. He said they will be looking for a paint that is durable but will not be looking at high end paint because it is experimental. Regarding the center left turn lane, he said Engineering staff did a study this past December and it was determined that it was needed.

Member Braden asked if the different section treatments will be intuitive for cyclists/drivers. Mr. Anderson said they are trying to be as consistent as possible and the treatments are similar to the ones in city of Minneapolis. Member Laforce does not think they are intuitive. Member Thompson said an educational component should be included to minimize confusion. He said this is similar to roundabouts where drivers were against them but have since learned how to use them. He said it is a good compromise. Member Whited said she had an incident this evening with one of her bus drivers and a cyclist who was going from one treatment to another and her bus driver did not see him. She asked how do you educate everyone. Member Janovy said she likes what has been done and that it will take a lot of education for drivers to know that they are to yield to cyclists and pedestrians. Mr. Clark said Edina and Mr. Anderson have done a good job. He said there were some challenges and they have looked at best practices. As a funder, he asked if they are making conditions better or more confusing and he said they are making it better. He said he has advocated for removal of the entire center lane but if there is a significant amount of turning then it should stay in place. He encouraged support of the project.

Member Bass said it is not perfect for cyclist/drivers but it moves the City forward until they can achieve the ultimate goal. She said it should be clear that children under certain age should not ride in the streets.

Member Thompson motioned to accept the project as presented with one caveat to consider the variance allowing parking on 54th Street between Minnehaha Blvd and Halifax Avenue on Sunday mornings only. The motion was seconded by member Bass. All voted aye. Motion carried.

Gallagher Drive Roadway and Nine Mile Creek Regional Trail Improvements Presentation

Mr. Houle said a petition was sent in by adjoining property owners two years ago requesting resurfacing of Gallagher Drive. He said this project will be done jointly with the Three Rivers Park District to include their on-street bike trail. Mr. Toby Muse, project manager with SEH presented the plan.

Mr. Muse said the project boundary is Parklawn Avenue to France Avenue and that it is budgeted in the 2011-15 Capital Improvement Plan. He said the road is 42 ft. with concrete curb and gutter, 5 ft. sidewalks, no parking, ten commercial driveway entrances, no pedestrian crossings, no roadway lighting and five Metro Transit bus stops. He said the plan is to do a mill and overlay, narrow the road to 28 ft. (requires a variance) to include a 9 ft. boulevard, a 10 ft. bike trail, no on-street parking, relocating one bus stop and marked pedestrian crossings. Total project cost is \$472,000 and funding will be mostly State Aid (\$346,000), Three Rivers Trail (\$120,000) and the balance from the City's utility fund. An open house was held on March 27 and a public hearing is scheduled for May 15 with construction beginning early September and ending mid-November.

Discussion

Onsite meetings took place with Metro Transit to determine proper placement of bus stops and meetings with the owners of Cedars of Edina regarding proper placement of pedestrian crossings because their pool, tennis courts and other facilities are across the street in another complex and this was also taken into consideration with the bus stop relocation.

Staff was asked if bike parking was discussed and Mr. Muse said no. Mr. Houle they can include bike parking. Member Iyer said the meeting was attended by six Parklawn residents but the project is on Gallagher. He asked if a sample size is considered to determine moving forward. Mr. Houle said all impacted residents are generally invited to the informational meeting but staff does not look for a sample size to move forward.

Streetlighting was asked about. Ms. Kelly Grissman with Three Rivers District said they do not light any of their regional trails; however, the local agency can provide lighting if they so desire. Member Janovy would like consideration for lighting, similar to the Promenade. Mr. Houle said because this is only a mill and overlay they cannot add lighting but they can install conduits for future lighting.

Member Janovy asked if there will be a striped center line because at their last BETF meeting some members talked about having on-street bike lanes. Mr. Houle said the straight-away would not be striped but the curve would be striped. He said the trend is not to stripe lower volume roadways. No trees will not be impacted by project.

Member Janovy motioned approval of the plan as presented with 1)the transit stops to be connected to the trail as described by Mr. Muse; 2)bike parking be included; and 3)installation of conduit for future streetlight. The motion was seconded by member LaForce. All voted aye. Motion carried.

Transportation Options Working Group – Election of Co-chair

Member Janovy said the bylaws require that this working group be chaired by a member of the ETC and member Whited has agreed to be the chair. **Member Janovy nominated member Whited as chair and the nomination was seconded by member LaForce. Member LaForce motioned to close the nomination and it was seconded by member Bass. All voted aye. Motion carried.**

Chair Whited nominated Elin Schold-Davis as the co-chair and the nomination was seconded by member Janovy. All voted aye. Motion carried.

Updates

Student Member

None.

Bike Edina Task Force – Minutes of March 8, 2012

Member Janovy said a bike rodeo is scheduled for this Saturday, April 21, 10 a.m. to noon, at Cornelia School, and there is new feature on the website, BikeEdina.org with new articles every couple of weeks. Member Whited enquired about expansion of bike lanes on W. 58th Street as noted in the minutes. Mr. Houle will follow with an answer at the next meeting.

Grandview Small Area Study

Chair Nelson said the City Council unanimously approved the framework on April 17. He said he is not sure how they will be moving forward but eventually it will come back to the ETC.

France Avenue Pedestrian Crossings Improvements Update

Mr. Houle said they are designing the pedestrian crossings that were approved by City Council. He said the City Council discussed the need to have an urban landscape architect and WSB did a search of the area, including Wisconsin, and

LHB, Inc. seem to be a good fit. He said because of the size of the project it would be difficult to attract a national firm. He requested feedback from the ETC regarding the landscape architect and also stakeholders meetings which he would like to schedule in conjunction with the ETC meetings.

Member Janovy asked if landscaping is included in WSB's contract and Mr. Houle said yes. She said the City Council wants a strong urban design but they did not say what they were looking for and she does not know what this company can do. She said further that it makes her uncomfortable when a contract goes to individuals involved with the City. Mr. Houle asked if they would like to set up a working group for this project. Member Janovy said she likes the idea of the entire ETC being involved in the stakeholders meetings and also like a couple being part of the design group. Member Braden volunteered to be part of the design group.

Living Streets Working Group Update

Member Thompson, chair of the working group gave a presentation on Living Streets from its inception in Edina to where it is today. He said discussions started in early 2011, and in May, the City Council adopted a resolution supporting it. A working group was created that has met twice (Dec 8 and Mar 30) and on February 15 they held a policy development workshop. He said Living Streets creates a vision for the future that includes safe walking, education, aesthetics, green sustainability, solutions to traffic concerns, etc. Continuing, he said Barr Engineering was selected to conduct policy review, identify stakeholders, etc.

CORRESPONDENCE AND PETITIONS – None

CHAIR AND COMMISSION MEMBER COMMENTS

Member Whited asked how to share articles with the group. She was told to email them to Mr. Houle for distribution. She volunteered to help with developing an education program for the public for the Bike Blvd project.

Member Iyer said he would like to be part of the Safe Routes to School working group.

Member Braden noted that the ETC has done a lot in the past year.

Member Janovy said the BETF would love to have volunteers to help with education and this will probably be the same for Living Streets. She said Edina is part of Bloomington Health's Safe Routes to School and they've just had their first meeting and could use more representation from citizens and ETC and suggested possibly setting up a working group. To echo what member Braden said, she said the Council has been very engaged.

Chair Nelson said they had joint working session on Tuesday with the City Council to review the ETC's priorities for the year.

Member Thompson echoed what member Braden said.

Member Bass thanked staff for their persistence in pursuing the France Avenue scope change. She said it is a huge win for residents. She thanked outgoing chair Janovy for her service and welcomed new chair Nelson.

STAFF COMMENTS

Mr. Houle thanked the Mayor, City Manager, and member Janovy for their involvement with the France Avenue scope change.

A group photo has been requested, probably to be posted to the website, and there is a release form for everyone to sign. A copy of the final bylaws was handed out.

ADJOURNMENT

Member LaForce motioned to adjourn the meeting at 8:10 p.m. and the motion was seconded by member Janovy.

ATTACHMENT

Attendance Spreadsheet

DRAFT



RESOLUTION NO. 2011-70
SUPPORTING BIKE BOULEVARD GRANT
FROM TRANSIT FOR LIVABLE COMMUNITIES

City of Edina

WHEREAS, the City of Edina is committed to supporting the bicycling community by adopting a Comprehensive Bicycle Transportation Plan in 2007;

WHEREAS, the Transit for Livable Communities has granted the City of Edina a grant for bike boulevard in the City; and

WHEREAS, the City of Edina is committed to the completion of a successful project; and

WHEREAS, the Edina Transportation Commission will be conducting the public process for this project and will require additional time to ensure the best project possible; and

NOW, THEREFORE, BE IT RESOLVED, the City Council requests the Transit for Livable Communities grant additional time to complete this project.

ADOPTED this 7th day of June, 2011.

Attest:

Debra A. Manger, City Clerk

James B. Hovland, Mayor

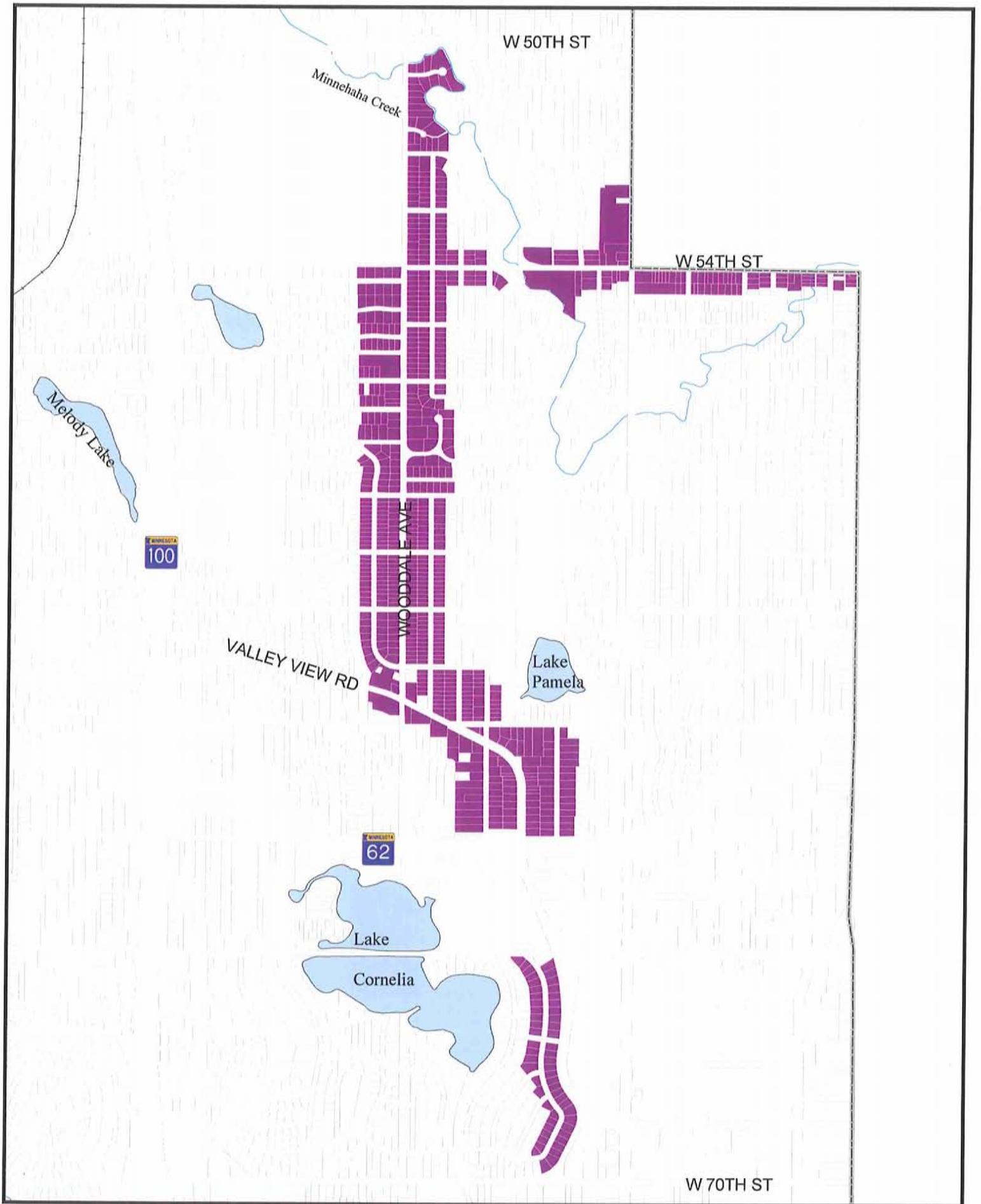
STATE OF MINNESOTA)
COUNTY OF HENNEPIN) SS
CITY OF EDINA)

CERTIFICATE OF CLERK

I, the undersigned duly appointed and acting City Clerk for the City of Edina, do hereby certify that the attached and foregoing Resolution is a true and correct copy of the Resolution duly adopted by the Edina City Council at its Regular Meeting of June 7, 2011, and as recorded in the Minutes of said Regular Meeting.

WITNESS my hand and seal of said City this 17th day of June 20 11.

Debra A. Manger City Clerk



Bike Blvd Mailing Area





5525 Kellogg Ave.
Edina, MN 55424
952 922-8171
4 May 2012

Shannon Allison
Engineering Department
City of Edina
7450 Metro Blvd.
Edina, MN 55439

RE: Comments, Bikeway Improvement Project

Dear Shannon Allison

Enclosed are my comments on the proposed project.

Sincerely,

encl


John R. Plotnicky

BIKEWAY IMPROVEMENT PROJECT

ITEM	COMMENTS
<p>Traffic circle at Beard and Drew Avenues. Removal of stop signs there.</p>	<p>This seems to be only a marginal, if any if any, improvement from both a safety and ease of biking view point. Traffic is not heavy there and for a bike rider, stopping at the signs is not a problem.</p>
<p>54th Street from France Avenue to Wooddale. Install bike lane and eliminate parking on the north side.</p>	<p>A bike lane would be a safety improvement. If the east/west stop signs near the bridge were removed it would make it easier to ride a bike. Now, if you're riding east or west when going downhill you have to stop at the stop signs. At that point you've lost your forward momentum and face a long climb from that stopping point.</p>
<p>Road conditions at 54th St.</p>	<p>If those east/west stop signs near the bridge are removed, I recommend the stop sign on Minnehaha Blvd. and 54th remain.</p>
<p>Road conditions at 54th St.</p>	<p>If parking was permitted on the north side of 54th in the vicinity of Edina Lutheran Church during church functions that would be acceptable to me.</p>
<p>Road conditions at 54th St.</p>	<p>The single biggest road hazard and safety concern now is the condition of the road. The pot holes are dangerous for car travel and particularly so for bike travel. Correcting that situation would be the biggest bike improvement.</p>

Wayne Houle

From: Lynette Biunno on behalf of Edina Mail
Sent: Tuesday, May 08, 2012 11:18 AM
To: Wayne Houle
Cc: Susan Howl
Subject: FW: TLC Bike Boulevard Project

Importance: High

Good morning,

This message has been forwarded to Mayor Hovland and Wayne Houle.



Lynette Biunno, Receptionist

952-927-8861 | Fax 952-826-0389
lbiunno@EdinaMN.gov | www.EdinaMN.gov

...For Living, Learning, Raising Families & Doing Business

Please make note of my new email address.
We're a *do.town* ... working to make the healthy choice the easy choice!

From: Donahue, Charles [<mailto:Charles.Donahue@bsci.com>]
Sent: Tuesday, May 08, 2012 11:10 AM
To: Edina Mail; jonibennett12@comcast.net; Mary Brindle; joshsprague@edinarealty.com; swensonann1@gmail.com
Subject: TLC Bike Boulevard Project
Importance: High

Ladies and Gentlemen of the Edina City Council,

I want to express my outrage that ANY tax dollars-Federal or Local- would be spent on this project. I don't believe this "project" is needed or wanted by the majority of the citizens in Edina.

Further, this would cause automobile traffic issues and inconvenience travelers on Wooddale Avenue which would far outweigh the convenience rendered to bicyclists.

I will call each of you to discuss this further.

Sincerely,

Chuck Donahue
5105 Indianola Ave.
Edina

Wayne Houle

From: Lynette Biunno on behalf of Edina Mail
Sent: Tuesday, May 08, 2012 9:47 AM
To: Wayne Houle
Cc: Susan Howl
Subject: FW: TLC Bike Boulevard Project

Good morning,

This message has been forwarded to Mayor Hovland and Wayne Houle.

Lynette Biunno, Receptionist
952-927-8861 | Fax 952-826-0389
lbiunno@EdinaMN.gov | www.EdinaMN.gov
...For Living, Learning, Raising Families & Doing Business -----Original Message-----
From: tpaulson@1992ventures.com [mailto:tpaulson@1992ventures.com]
Sent: Tuesday, May 08, 2012 9:25 AM
To: Edina Mail; jonibennett12@comcast.net; Mary Brindle; joshsprague@edinarealty.com; swensonann1@gmail.com
Subject: TLC Bike Boulevard Project

Dear City Council Members:

I am writing today in opposition of the proposed TLC Bike Boulevard Project as recommended by Wayne D. Houle in his April 19, 2012 report to the Edina Transportation Commission. I am not opposed to bike lanes that are properly conceived, designed, constructed, and funded, but I am opposed to this project as I believe it fails several of these criteria.

First, I oppose this project based on its funding mechanism. The legislation appropriating the funding for this grant included a very specific purpose, which was to "demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities". I have not heard a single reference to this purpose during my discussions with city staff, the city's consultant on the project, or the administrator of the grant nor have I seen or heard reference to it in any documentation or presentations. I have, however, seen and heard a city goal to "provide dedicated bicycle lanes" and an objective to "encourage increased bicycling and improve safety for cyclists". I have also heard the grant administrator state that he would like to make conditions better for bicyclists and pedestrians and make it much safer so it will "encourage more people, probably, to try bicycling".

If the purpose of the legislation, and therefore the grant, was to simply increase bicycling the legislators would have stated the purpose as such. They did not. In my view bicyclists carrying a significant part of the transportation load is very different than increasing bicycling. Does the city have any evidence that past projects funded from this legislation have demonstrated that bicyclist can carry a "significant" part of the transportation load? Does the city even know the current bicycle and pedestrian load on the proposed route? What does the city consider to be a "significant" part of the transportation load?

I also find it ironic that the funding source for the grant, the Highway Trust Fund, is funded through taxes on motor vehicle fuel and tires, truck and trailer sales, and heavy use vehicles, but the purpose of the grant is to remove motor vehicles (and therefore taxes for funding projects) from the roads.

According to city staff and the city's consultant all of the costs of the project would be covered by the grant. However, I have not seen or heard what the on-going costs might be. Does the city have estimates of what it will cost to maintain

the traffic circles, paint, and signs? How about costs to educate the public on how to use the new bike, and motor vehicle traffic, lanes? At the April 19, 2012 Transportation Commission meeting some commissioners expressed concern that the new markings and use would not be “intuitive” and that motor vehicle operators might not know what the markings mean. Michael Thompson and Jennifer Janovy were quick to reply that the Transportation Commission would need to reach out to the public in different ways and educate the public. How does the city plan to educate the public? How much will this cost the city?

Second, I oppose this project based on the design standards that are being recommended. Two sections of the project, Wooddale Avenue and Valley View Road, are considered “experimental” as they have “sub-standard lane widths”. Safety is not the first thing that comes-to-mind when I hear “experimental” or “sub-standard lane widths”. Could this create liability for the city? In addition, the grant administrator has stated that “bike/walk street projects” are generally characterized and most appropriate on streets with posted speed limits of 25 mph and average motor vehicle counts not exceeding 3,000 per day. According to city data Wooddale Avenue is traveled by about 3,850 motor vehicles per day and has a posted speed limit of 30 mph. It’s also worth noting that Wooddale Avenue, which represents about 34% of the surface miles covered by the project, would be one of the “experimental” sections of the project.

I find it interesting how the city communicated the proposed project to the residents living on, and around, the project route – namely two letters to residents. In the event of a zoning variance the city requires notices to be sent to property owners within 200 feet of the proposed variance. In the event of a rezoning the city requires the petitioner to erect a three foot by five foot sign and requires notices to be sent to property owners with 1,000 feet of the proposed rezoning. The proposed project would drastically change the road markings with the stated goal of trying to increase bicycling (and legislative purpose of reducing motor vehicle use) and the only notices the city sent were two letters inviting residents to an open house and an informational meeting. Neither letter mentioned the fact that the purpose of the grant was to change the way the road would be used by restriping the roads in an effort to make them more bicycle friendly and less motor vehicle friendly. Neither city staff nor the city consultant could tell me who received the letters or the process for determining who would receive them. City staff thought they “probably” sent letters to property owners on the proposed route. There are about 140 homes on Wooddale Avenue from W. 50th Street to Valley View Road so, based on comments by city staff, we can assume about 140 homes along this section of the project received letters. However, approximately 3,850 motor vehicles use Wooddale Avenue every day so there are more people with an interest in the use of this road than just those property owners living on Wooddale Avenue. Why does the city have such specific requirements for notice regarding variances and rezoning, which generally deal with private residences or private businesses, and seem to have no requirements for notice for attempting to change the use of public roads?

Specifically regarding 54th Street, the final recommendation included two bike lanes of 6’ to 7’ and two motor vehicle lanes of 11’ with a reported width of 35’ for the street. According to the recommendation these will be dedicated bike lanes as they meet the “ideal” standards of 5’ for bike lanes and 11’ for motor vehicle lanes. However, I took eight measurements of the width of 54th Street between Minnehaha Avenue and Wooddale Avenue and four of them were not as wide as the “ideal” standards (28’4” at the bridge, 30’ west of the parking near the bridge, 31’ at Kellogg, and 31’10” at the second driveways east of Wooddale). Will these sections need to be striped as advisory bike lanes and be deemed “experimental”?

Finally, I oppose this project because it proposes to use funds that could/should be saved or spent elsewhere. Our nation is approaching \$16 trillion dollars in debt with no plan to end our annual deficits and no idea how to begin paying down the debt. The City of Edina rejecting a \$250,000 grant would be a very small step in the right direction, but at least it would be a step.

Please vote against the TLC Bike Boulevard Project.

In the interim, I look forward to your responses to the ten questions raised herein.

Respectfully,
Troy Paulson

5116 Juanita Avenue