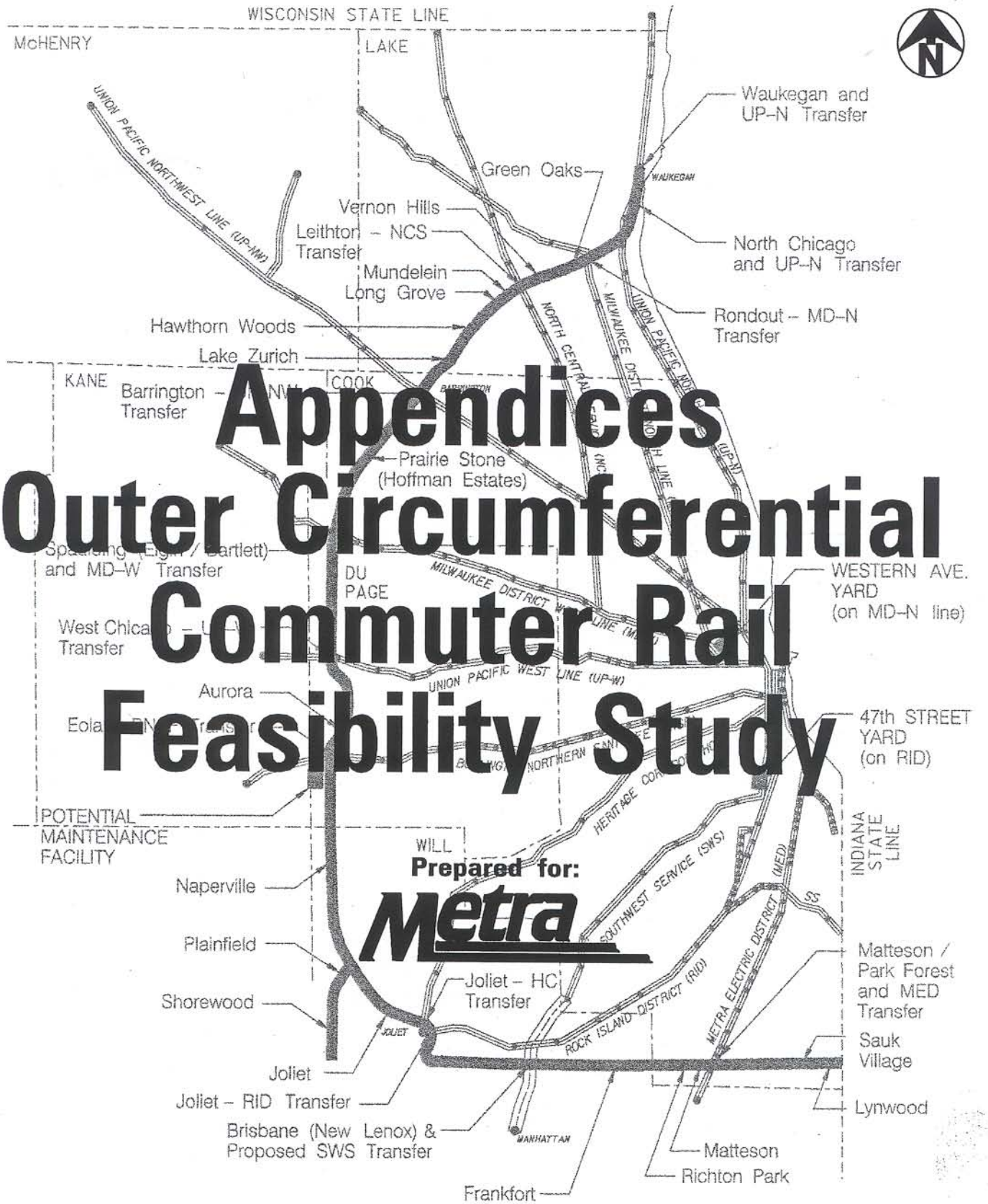


Appendices
Outer Circumferential Commuter Rail Feasibility Study

Prepared for:

Metra

APRIL 1999

TY·LIN INTERNATIONAL · BASCOR

In association with:

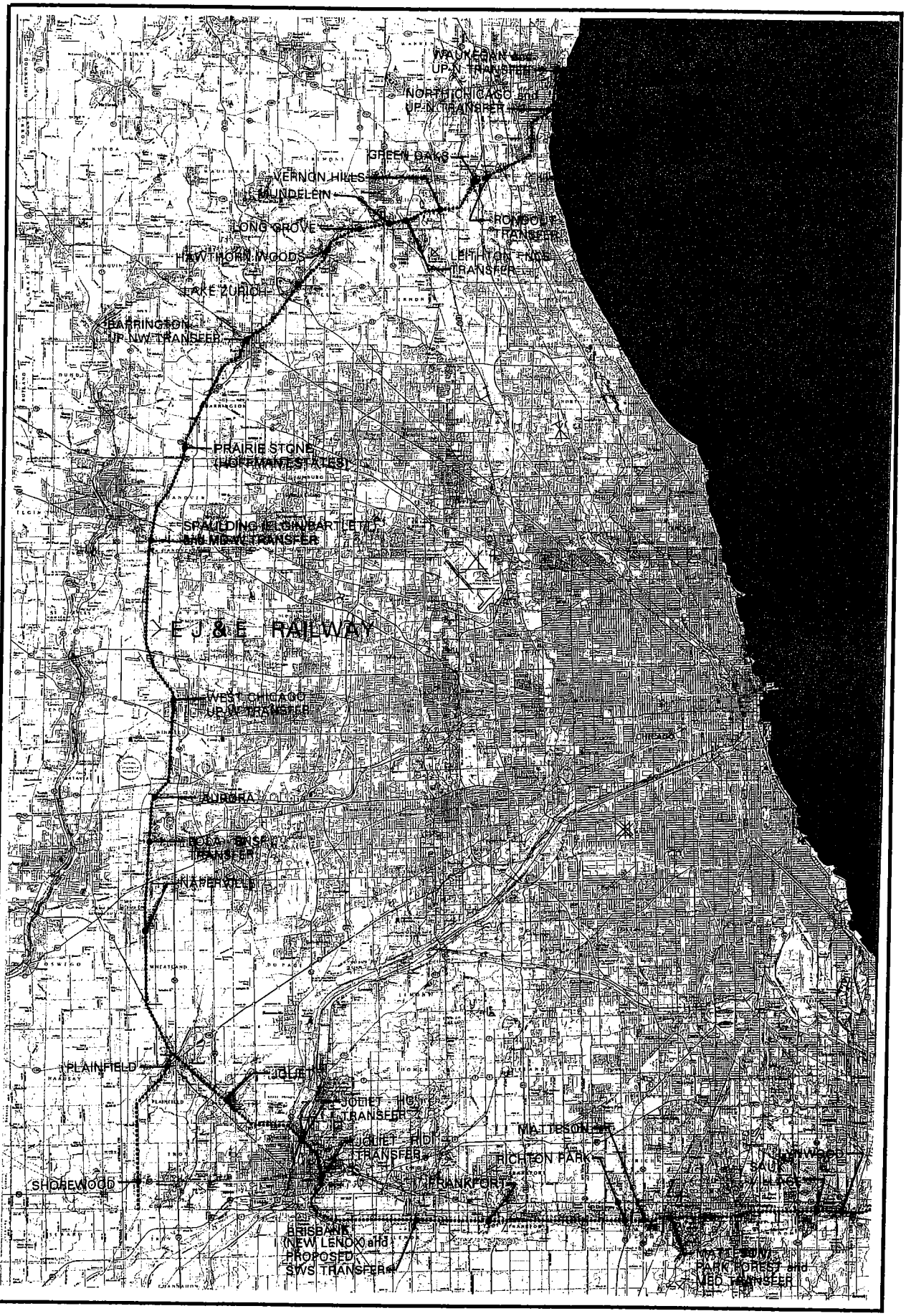
DLK Architecture Inc.

Appendix: A

PROJECT LOCATION MAP

AND

COMMUNITY LISTING



PROJECT LOCATION MAP

A-1

Appendix A: COMMUNITY LISTING

Communities the EJ&E passes through, or runs adjacent to, are listed from north to south, subdivided by county.

Lake County

Waukegan

North Chicago

Lake Bluff

Green Oaks

Mettawa

Libertyville

Vernon Hills

Mundelein

Long Grove

Hawthorn Woods

Lake Zurich

Deer Park

Barrington*

Northern Cook County

Barrington*

Barrington Hills

South Barrington

Hoffman Estates

Streamwood

Elgin

Bartlett*

DuPage County

Bartlett*

Wayne

West Chicago

Warrenville

Aurora

Naperville

Will County

Plainfield

Shorewood

Joliet

Crest Hill

New Lenox

Mokena

Frankfort

Southern Cook County

Richton Park

Matteson

Park Forest

Chicago Heights

Ford Heights

Sauk Village

Lynwood

* Portions of community located in two counties.

Appendix: B

STRUCTURES

Appendix B: STRUCTURES

Note: In the crossing column, over (O) indicates the EJ&E passes over the listed feature. (U) indicates the EJ&E passes under the indicated feature.

Crossing: Under (U) Over (O)	**Structure Number**	**Location (Station)**	**Span Length**
Waukegan River (O)	No. 7	21+80	18’
Foss Park Avenue (O)	No. 14 1/2	132+07	76’
Sheridan Road/UP-N (O)	No. 15	147+49	116’, 64’, 60’
Commonwealth Avenue (O)	No. 16	170+26	2 @ 39’
Green Bay Road (U) (IL 131)	No. 28	290+76	152’
Skokie River (O)	No. 29	316+62	20’
Skokie Highway (O) (US 41)	No. 30	333+73	Unknown
Tri State Tollway (U) (I-294)	No. 34 1/4 No. 34 1/2	451+77 452+53	185’ 185’
Des Plaines River (O)	No. 38	561+73	2 @ 68’
Seavey Drainage Ditch (O)	No. 41	629+69	22’
US 45 (O)	No. 44 1/2	717+28	77’
Rand Road (O) (US 12)	No. 69	1094+56	4 @ 150’
Flint Creek South Branch (O)	No. 86	1302+50	15’
Algonquin Road (U) (IL 62/68)	No. 92 1/2	1444+70	Unknown
Higgins Road (U) (IL 72)	No. 100 1/2 No. 100	1590+69 1590+84	108’-6” 108’-6”
Columbine Boulevard (U)	Not assigned	approximately 1620+00	Unknown
Northwest Tollway (U) (I-90)	No. 103 1/4 No. 103 1/2	1632+00 1632+79	145’ 145’
Golf Road (O) (IL 58)	No. 108	1717+45	97’
Poplar Creek (O)	No. 111	1770+71	36’
Irving Park Road (U) (IL 19)	No. 111 1/2	1782+52	147’
Lake Street (U) (US 20)	No. 114 1/4	1830+50	98’
Illinois Central (O)	No. 123	2011+09	40’
Brewster Creek (O)	No. 125	2027+85.8	26’-6”
North Avenue (U) (IL 64)	No. 131 1/4	2190+46	250’
Illinois Prairie Path (U)	Not assigned	2318+00	Unknown
Roosevelt Road (O) (IL 38)	No. 141 1/2	2400+88	2 @ 30’
Kress Creek (O)	No. 142	2406+45	77’
Butterfield Road (O) (IL 56)	No. 151 1/2	2570+81	166’
Ferry Road (U)	Not assigned	approximately 2636+72	Unknown
East-West Tollway (O) (I-88)	No. 155 1/2	2653+55	2 @ 65’
North Aurora Road (O)	No. 158	2726+80	40’
BNSF (O)	No. 160	2744+68	66’
Aurora Avenue (U) (New York Street)	No. 161 1/2	2804+94	132’

Appendix B: Structures (Continued)

Crossing: Under (U) Over (O)	Structure Number	Location	Span
McCoy Road (O)	No. 161 3/4	2825+00	74'-6"
Pleasant Creek (O)	No. 162	2833+93	96'
Wolf Creek (O)	No. 169	3102+00	23'
Norman Drain (O)	No. 177	3293+23	132'
DuPage River (O)	No. 180	3350+66	2 @ 80'
Division Street (O) (IL 59)	No. 181	3354+64	43'
Lake Renwick (O)	No. 181 1/2	3408+74	28'
Lily Cache Creek (O)	No. 182	3446+23	41'
Mink Creek (O)	No. 185	3485+08	25'
I-55 (U)	No. 185 1/4 No. 185 1/2	3498+97 3498+97	Unknown Unknown
Caton Farm Road (U)	No. 193	3629+17	175'
Weber Road (U)	No. 194	3645+76	115'
Broadway Avenue (O) (IL 53)	No. 197 1/2	3737+79	2 @ 26'
Des Plaines River/BNSF (O)	No. 198	3775+83	306' Vert. Lift, 2 @ 80', 1 @ 60', 1 @ 126'
Access Road (O)	No. 198 1/2	3785+67	1 @ 42', 1 @ 80'
Illinois and Michigan Canal (O)	No. 199	3786+74	86'
IC (O)	No. 201	3790+24	2 @ 30', 1 @ 41'
Collins Street (O) (IL 171)	No. 202	3797+98	2 @ 40'
Charlesworth Avenue (O)	No. 206	3836+03	2 @ 24'
Jackson Street (U)	No. 209 1/4	3880+83	2 @ 120'
Cass Street (U)	No. 209 1/2	3895+55	Unknown
Hickory Creek (O)	No. 211	3911+66	2 @ 63'
I-80 (U)	No. 212 1/2 No. 212 3/4	3955+46	102'
Manhattan Road Ditch (O)	No. 219	4057+94	33'
Metra/Norfolk Southern (U)	No. 226	4301+46	58'
US 45 (O)	No. 238 1/2	4554+77	124'
I-57 (U)	No. 255 1/4 No. 255 1/2	4894+06 4895+01	Unknown Unknown
Crawford Avenue (O)	No. 262 1/2	4981+30	2 @ 33', 50'
Metra/Illinois Central (U)	No. 263 1/2	5005+74	2 @ 32'
North Orchard Drive (O)	No. 268 1/4	5064+99	55'
Thorn Creek (O)	No. 272	5147+39	2 @ 30'
Butler Street (O)	No. 276	5214+65	20'
CHTT (O)	No. 278	5222+23	62'
Deer Creek (O)	No. 281	5322+67	35'
Calumet Expressway (U) (I-394)	No. 284 No. 285	5354+10 5354+74	Unknown Unknown
Lansing Ditch (O)	No. 286	5449+75	26'

Appendix: C

INTERSECTING RAIL LINES

Appendix C:
INTERSECTING RAIL LINES

Intersecting Rail Line	Metra Line	Location	Layout of Connection	Notes on Connection
UP	**UP-N**	Waukegan (ComEd power plant) MP 74.6	Connection track between UP and EJ&E, which parallel each other in this area.	Connection between Union Pacific and northern terminus of EJ&E. Used for freight operations.
UP	**UP-N**	North Chicago/ Waukegan MP 72.8	Connection track between UP and EJ&E, which parallel each other in this area.	At one time, there were several interchange tracks into the old CNW yard. The rails were retired as business dropped off. Right-Of-Way has become overgrown and integrated into local businesses and roads.
UP	**UP-N**	North Chicago MP 69.5	Industrial lead between UP and EJ&E is approx. 1/2 mile long.	The 'Joint Track' is difficult to use as a result of close clearances at industries and sight-distance problems at street crossings.
UP		Upton MP 67.1	Connecting track in NW quadrant.	This connection has recently been reinstalled by the EJ&E.
Metra/CP	**MD-N**	Rondout MP 65.6	Connecting tracks in SW and SE quadrants.	Used for freight traffic interchange with CP, moveable derailers in place. In the SW quadrant, a siding off of the EJ&E connects to a CP siding. In the SE quadrant, the EJ&E main connects to a CP siding.
WC	**NCS**	Leithton MP 60.3	Connecting tracks in NW and SW quadrants.	Heavily used connections. Both connections tied to receiving or siding tracks rather than EJ&E mainline. Thus, no direct connection from main to main.
UP	**UP-NW**	Barrington MP 49.5	Connecting track in SE quadrant. Second connection once existed in SW quadrant.	Existing interchange track connects to UP westbound main. Second connection partially removed, grade remains. There was also a wye in this quadrant at one time.
Metra/CP	**MD-W**	Spaulding MP 37.6	Connecting tracks in SW and SE quadrants.	Both connections heavily used for freight traffic interchange. Both connections are from the EJ&E main to a CP siding.

Appendix C: Intersecting Rail Lines (Continued)

Intersecting Rail Line	Metra Line	Location	Layout of Connection	Notes on Connection
IC (CCP)		Munger MP 35.2	Connecting track in NE quadrant.	EJ&E over CCP via bridge. Receiving track in NE quadrant has long grade. Connects to CCP siding.
UP	**UP-W**	West Chicago MP 28.9	Connection between yards.	Existing connection through EJ&E/UP yards is used regularly for freight traffic. EJ&E trains must go through yards, re-orient and use turnouts at JB tower to access all 3 UP main lines.
BNSF	**BNSF**	Eola MP 21.3	Connecting tracks in SW and NW quadrants.	EJ&E over BNSF via bridge. Steep grade on interchange tracks between BNSF and EJ&E. Connections used for freight traffic interchange. Both connections are from an EJ&E siding to a BNSF siding.
BNSF		Joliet MP 1.7	Connecting track in SW quadrant.	EJ&E over BNSF via bridge. Connecting track at east end of lift bridge spans.
IC	**HC**	Joliet MP 1.5	EJ&E bridge over line, no direct connection.	Interchange possible by way of EJ&E yard in the vicinity of Ohio Street.
Metra/CSX/ IAIS	**RID**	Joliet MP 0.8	Connecting track in NE quadrant.	Connecting track in SW quadrant removed.
NS	**SWS** (Proposed extension)	Brisbane MP 8.2	NS over EJ&E via bridge, no direct connection.	Connecting track in SE quadrant removed. Condition of grade unknown.
Metra Electric/IC	**MED**	Matteson MP 21.6	Connecting track in SE quadrant	Grade-separated, Metra and IC cross over EJ&E. Steep grade on interchange track which connects EJ&E Matteson yard lead to IC diesel tracks.
UP/CSX	(Potential new route currently under study by Metra)	Chicago Heights MP 25.2	Connecting tracks in NW and SE quadrants.	NW quadrant track in place on EJ&E side but retired on UP side. SE quadrant track heavily used but curve is rather tight.
CHTT		Chicago Heights MP 25.7	Connecting track in SE quadrant.	Track connects CHTT to EJ&E and CHTT combined yard.

Appendix: D

AT-GRADE CROSSINGS

Appendix D:
AT-GRADE CROSSINGS

KEY	C	-	Crossbucks
	F	-	Flashers
	B	-	Bells
	G	-	Gates

Note: For purposes of location (milepost) the Joliet yard is designated as mile "0" with all milepost designations showing distance from the yard.

Crossing	Milepost	Crossing Protection	Roadway Lanes
(WAUKEGAN)			
Greenwood Avenue	MP 74.81	C	2
Dahringer Road	MP 74.15	C	2
Clayton Street	MP 73.20	CFB	2
Madison Street	MP 73.11	CFB	2
Washington Street	MP 73.00	CFB	2
Water Street	MP 72.85	CFBG	2
Private Crossing (Roundhouse Crossing)	MP 72.80	None	Gravel Road
Private Crossing (Lake Shore Foundry)	MP 72.15	C	1
Private Crossing (former AS&W Site)	MP 71.97	None	Gravel Road
(NORTH CHICAGO)			
22nd Street (Martin Luther King, Jr. Drive)	MP 69.75	CFB	4
Morrow Avenue	MP 69.60	CFBG	2
Private Crossing (U.S. Navy)	MP 69.32	C	2
Private Crossing	MP 69.10	CF	2 (Road not complete)
Buckley Road (IL 137)	MP 69.00	CFB	4
(UPTON)			
Waukegan Road (IL 43)	MP 66.42	CFBG	4
Rockland Road (IL 176)	MP 65.74	CFBG	2
Arcadia Road	MP 65.64	C	2
(RONDOUT)			
Bradley Road	MP 65.06	CFB	2
Old School Road	MP 63.86	C	2
Saint Mary's Road	MP 63.33	CFB	2
Milwaukee Avenue (IL 21)	MP 62.20	CFB	4
Private Crossing (Cuneo)	MP 61.87	None	Dirt Road
Butterfield Road	MP 60.42	CFB	2

Appendix D: At-Grade Crossings (Continued)

Crossing	Milepost	Crossing Protection	Roadway Lanes
(LEITHTON)			
(DIAMOND LAKE)			
Diamond Lake Road	MP 59.13	CFB	2
IL 60/83	MP 59.02	CFB	2
(GILMER)			
Private Crossing	MP 57.30	None	Dirt Road
Gilmer Road	MP 56.91	CFB	2
Old McHenry Road	MP 55.44	CFB	2
Oakwood Drive	MP 54.73	CFB	3
(LAKE ZURICH)			
Main Street (IL 22)	MP 53.45	CFBG	2
Paine Street (Old Rand Road)	MP 53.26	CFBG	2
Ela Road	MP 52.36	CFB	2
Cuba Road	MP 51.56	CFB	2
Lake Zurich Road	MP 50.42	CF	2
Northwest Highway (US 14)	MP 50.11	CFB	4
Hough Street (IL 59)	MP 49.79	CFBG	3
(BARRINGTON)			
Main Street (County Line Road)	MP 49.29	CFBG	2
Otis Road	MP 47.90	CFB	2
Private Crossing (Klemm Nursery)	MP 44.80	None	Gravel Road
Penny Road	MP 44.48	CFB	2
Sutton Road	MP 43.97	CFB	2
(SUTTON)			
Private Crossing	MP 43.18	None	Dirt Road
Shoe Factory Road	MP 41.90	CFB	2
Private Crossing	MP 37.96	None	Dirt Road
Spaulding Road	MP 37.57	C	2
(SPAULDING)			
West Bartlett Road	MP 36.95	CFBG	2
Stearns Road	MP 35.68	CFBG	2
(MUNGER)			
Army Trail Road	MP 33.89	CFB	2
Pedestrian Crossing (Prairie Path)	MP 33.72	C	Gravel Path
Smith Road	MP 32.94	CFB	2
Hawthorne Lane	MP 30.24	CFBG	2
Private Crossing (West Chicago Depot)	MP 29.29	C	2
Private Crossing (N.W. Chemicals)	MP 28.93	C	2
West Washington Street	MP 28.89	CFBG	2

Appendix D: At-Grade Crossings (Continued)

Crossing	Milepost	Crossing Protection	Roadway Lanes
(WEST CHICAGO)			
Aurora Street	MP 28.87	CFBG	2
Church Street	MP 28.77	CFB	2
George Street (Pedestrian)	MP 28.61	CB	Sidewalk
Ann Street	MP 28.55	CFB	2
Wilson Road	MP 27.00		Closed
Batavia Road	MP 25.64	CFB	2
(WARRENHURST)			
Pedestrian Crossing (Prairie Path)	MP 23.02	C	Gravel Path
Diehl Road	MP 22.81	CFB	2
Pedestrian Crossing (Prairie Path)	MP 22.66	C	Gravel Path
(EOLA)			
(EAST SIDING)			
Liberty Street	MP 20.63	CFB	2
Oswego Road (US 34)	MP 19.05	CFB	4
(FRONTENAC)			
83rd Street	MP 18.19	CFBG	2
87th Street	MP 17.68	CFB	2
91st Street	MP 17.03	C	2
Wolf's Crossing Road (South Oswego Road)	MP 16.20	CFB	2
111th Street	MP 14.60	CFB	2
Private Crossing	MP 14.40	None	Gravel Road
(NORMANTOWN)			
Ferguson Road (119th Street)	MP 13.59	CFB	2
Private Crossing (Hicks Gas)	MP 13.09	C	2
Normantown Road	MP 12.91	C	2
Private Crossing	MP 12.74	None	Gravel Road
Chapins Road (127th Street)	MP 12.56	C	2
Private Crossing	MP 12.37	None	Dirt Road
Pilcher Road (135th Street)	MP 11.44	CFBG	2
(WALKER)			
Van Dykes Road	MP 10.59	C	2
143rd Street	MP 10.33	CFBG	2
Naperville Road (Water Street)	MP 9.61	CFBG	2
Main Street (IL 126)	MP 9.53	CFBG	2
Center Street	MP 9.41	CFBG	2

Appendix D: At-Grade Crossings (Continued)

Crossing	Milepost	Crossing Protection	Roadway Lanes
(PLAINFIELD)			
Eastern Avenue	MP 9.28	CFB	2
Lockport Street	MP 8.99	CFB	2
Renwick Road	MP 7.61	CFB	2
Essington Road	MP 6.87	CFB	2
Private Crossing	MP 6.26	None	Gravel Road
Stateville Road (Division Street)	MP 6.05	CFB	2
(COYNES)			
Gaylord Road	MP 5.56	CFB	2
Private Crossing (Newmann's)	MP 5.12	None	
Private Crossing (Ferguson)	MP 3.73	None	Dirt Road
Oakland Avenue	MP 3.20	CFBG	2
Private Crossing	MP 0.96	None	Dirt Road
Woodruff Road	MP 0.81	CFBG	2
(EAST JOLIET)			
Washington Street	MP 0.95	CFBG	2
North Rowell Avenue	MP 1.80	CFBG	2
(MARBLE FALLS)			
Mills Road	MP 2.50	CFBG	2
South Rowell Avenue	MP 2.86	CFBG	2
Spencer Road (Country Club Road)	MP 3.15	CFBG	2
Briggs Street	MP 4.22	CFBG	4
Private Crossing	MP 4.40	None	Gravel Road
Cherry Hill Road	MP 5.00	CFBG	2
Gougar Road	MP 6.00	CFBG	2
Nelson Road	MP 7.00	CFBG	2
Private Road	MP 7.40	None	Gravel Road
South Cedar Road	MP 8.00	CFBG	2
(BRISBANE)			
Private Crossing	MP 8.39	C	Gravel Road
Spencer Road	MP 9.24	CFBG	2
Schoolhouse Road	MP 10.00	CFBG	2
Private Road	MP 10.64	C	Gravel Road
116th Street (Bobzin Road)	MP 11.49	CFB	2
Wolf Road	MP 12.00	CFBG	2

Appendix D: At-Grade Crossings (Continued)

Crossing	Milepost	Crossing Protection	Roadway Lanes
(FRANKFORT)			
Center Road	MP 14.05	CFBG	2
Private Road	MP 14.60	None	Gravel Road
Old Sauk Trail	MP 14.83	CFBG	2
Pfieffer Road	MP 15.06	CFBG	2
Harlem Avenue (IL 43)	MP 17.06	CFBG	2
Ridgeland Avenue	MP 18.07	CFBG	2
Central Avenue	MP 19.07	CFBG	2
Cicero Avenue (IL 50)	MP 20.12	CFBG	4
Private Crossing (Maple Street)	MP 21.42	C	2
(MATTESON)			
Main Street	MP 21.61	CFBG	2
Western Avenue	MP 23.12	CFBG	4
Euclid Avenue	MP 24.63	CFBG	2
Chicago Road (IL 1)	MP 24.91	CFBG	4
Halsted Street	MP 25.04	CFBG	2
(CHICAGO HEIGHTS)			
East End Avenue	MP 25.19	CFBG	2
Wentworth Avenue	MP 25.92	CFBG	2
State Street	MP 26.16	CFBG	4
Cottage Grove Avenue	MP 27.17	CFBG	4
Private Crossing	MP 27.80	None	Gravel Road
Torrence Avenue	MP 29.18	CFBG	2
Lincoln Highway (US 30)	MP 30.69	CFBG	4
(DYER)			

Appendix: E

METRA STATIONS IN THE VICINITY

OF THE EJ&E

Appendix E:
METRA STATIONS IN THE VICINITY OF THE EJ&E

Metra Line	EJ&E Location	Nearest Metra Station	Distance From EJ&E to Metra Station along Metra Tracks
UP-N Union Pacific North Line	Waukegan	Waukegan	0.1 miles west
UP-N Union Pacific North Line	North Chicago	North Chicago	0.3 miles north
MD-N Milwaukee District North Line	Rondout	Libertyville	3.3 miles west
NCS North Central Service	Leithton	Mundelein	1.7 miles north
UP-NW Union Pacific Northwest Line	Barrington	Barrington	0.4 miles east
MD-W Milwaukee District West Line	Spaulding	Bartlett	2.6 miles east
UP-W Union Pacific West Line	West Chicago	West Chicago	0.5 miles east
BNSF Burlington Northern Santa Fe	Eola	IL 59	1.4 miles east
HC Heritage Corridor	Joliet	Joliet Union Station	2.0 miles south
RID Rock Island District	Joliet	Joliet Union Station	1.2 miles west
SWS SouthWest Service (Proposed Extension)	Brisbane	New Lenox	(Future service)
MED Metra Electric District	Matteson	Matteson	0.3 miles north

Appendix: F

TABLE OF METRA SERVICE LEVELS

Appendix F:
TABLE OF METRA SERVICE LEVELS

Metra Line and Schedule Date	**Location of Intersection with the EJ&E**	**Trains per day Inbound (To Chicago)** Weekday (Sat./Sun.)	**Trains per day Outbound (From Chicago)** Weekday (Sat./Sun.)
UP-N 3/3/96 Union Pacific North Line	Waukegan	AM: 13 (6/3) PM: 12 (5/5)	AM: 4 (3/1) PM: 21 (8/7)
MD-N 7/20/97 Milwaukee District North Line	Rondout	AM: 14 (4/4) PM: 9 (5/5)	AM: 5 (2/2) PM: 18 (7/7)
NCS 2/3/97 North Central Service	Leithton	AM: 4 (0/0) PM: 1 (0/0)	AM: 0 (0/0) PM: 5 (0/0)
UP-NW 3/3/96 Union Pacific Northwest Line	Barrington	AM: 21 (9/2) PM: 10 (5/5)	AM: 6 (2/1) PM: 26 (11/7)
MD-W 9/28/97 Milwaukee District West Line	Spaulding	AM: 16 (5/3) PM: 11 (6/6)	AM: 7 (3/2) PM: 20 (8/7)
UP-W 3/3/96 Union Pacific West Line	West Chicago	AM: 15 (4/3) PM: 11 (6/4)	AM: 5 (2/2) PM: 21 (8/5)
BNSF 6/1/97 Burlington Northern Santa Fe	Eola	AM: 23 (7/3) PM: 11 (6/6)	AM: 5 (3/2) PM: 29 (10/7)
HC 12/18/89 Heritage Corridor	Joliet	AM: 2 (0/0) PM: 0 (0/0)	AM: 0 (0/0) PM: 2 (0/0)
RID 11/4/96 Rock Island District	Joliet	AM: 13 (4/3) PM: 10 (6/5)	AM: 5 (2/2) PM: 18 (8/6)
MED 8/25/96 Metra Electric District	Matteson	AM: 20 (10/4) PM: 13 (13/6)	AM: 6 (5/3) PM: 30 (20/7)

Note: PM service levels include all night (1:00 AM - 2:00 AM operation) trains.

Appendix: G

TABLE OF PACE BUS ROUTES

INTERSECTING OR PARALLELING THE EJ&E

Appendix G:
TABLE OF PACE BUS ROUTES INTERSECTING OR PARALLELING THE EJ&E

Community	Pace Route #	Description of Route (Termini and stops near EJ&E mainline)
Waukegan/ Beach Park	561	Termini: Genesee and Washington to Beach Park Stops: Glen Flora Plaza, Victory Memorial Hospital
Waukegan/Gurnee	562	Termini: Genesee and Washington Terminal to Gurnee Industrial Park Stops: Waukegan East H.S., Jack Benny Jr. H.S., Continental Village
Waukegan/Gurnee	565	Termini: Genesee and Washington Terminal to Gurnee Mills Stops: Great America, Lake County Youth Home
Waukegan/Park City	568	Termini: Genesee and Washington Terminal to Lakehurst Mall Stops: Belvidere Mall, Jefferson Jr. H.S.
Waukegan/Zion	571	Termini: Genesee and Washington Terminal to Downtown Zion (21st and Joppa) Stops: Waukegan Metra Station, Zion Central High School, Northpointe Achievement Center
Waukegan/ North Chicago	563	Termini: Washington and Genesee Terminal to Great Lakes Naval Training Center Stops: Great Lakes and North Chicago Metra Stations, Abbott Labs, Buckley Road and EJ&E; VA Hospital
Waukegan/ North Chicago/ Park City	564	Termini: Genesee and Washington Terminal to Lakehurst Mall Stops: North Chicago Metra Station, East Tower (Sheridan and 18th Street)
North Chicago/ Park City/ Gurnee	567	Termini: Great Lakes Naval Training Center to Gurnee Mills Stops: Great Lakes Naval Training Center Hospital, Great Lakes Metra Station, Buckley Road and EJ&E, Lakehurst Mall, Great America
North Chicago/ Waukegan/Park City	569	Termini: VA Hospital to North Waukegan (Lewis and Edgewood) Stops: North Chicago H.S., Neal Jr. H.S., Belvidere Mall, Waukegan West H.S., Glen Flora Plaza
Waukegan/ Park City/ Gurnee/Libertyville/ Mundelein/ Vernon Hills	572	Termini: Washington and Genesee Terminal to West Vernon Hills (Oakwood and Westmoreland) Stops: St. Therese Medical Center, Great America, College of Lake County, Libertyville MD-N Metra Station, IL 21 and EJ&E, Hawthorn Shopping Center
Elgin-Hoffman Estates-Schaumburg	555	Termini: Elgin transfer station to Woodfield Mall via Prairie Stone (Sears) Stops: Higgins Road and Golf Road, Higgins Road and EJ&E

Appendix G: Table of Pace Bus Routes intersecting or paralleling the EJ&E (Continued)

Community	Pace Route #	Description of Route (Termini and stops near EJ&E mainline)
Hoffman Estates to Rosemont/O'Hare	610	Termini: River Road CTA Station to Prairie Stone (Sears) Stops: Higgins Road and EJ&E, runs on I-90 from O'Hare to IL 59
Hoffman Estates to Cicero	767	Termini: CTA 54th Avenue Station to Prairie Stone Stops: Cermak Plaza, CTA Forest Park Station, Higgins Road and EJ&E
Warrenville/Naperville	790	Termini: BNSF IL 59 station to Warrenville (Batavia and Butterfield Roads) Stops: Batavia Road and EJ&E, IL 59 and Diehl Road
Aurora/Naperville	530	Termini: Aurora Transportation Center to Downtown Naperville (Eagle & Jackson) Stops: Oakhurst, McCoy/New York Street and EJ&E, Fox Valley Mall, Fox River Commons, West Ridge Court, Aurora Market Place
Aurora/Naperville	534	Termini: BNSF IL 59 Station to West Aurora (Ridge & Walcott) Stops: Meridian Business Campus, Spring Lake Subdivision, McCoy/New York Street and EJ&E, Ogden Avenue and EJ&E
Joliet	507	Termini: Louis Joliet Mall to Joliet Union Station Stops: Hillcrest Shopping Center, College of St. Francis
Downers Grove to Joliet	834	Termini: Joliet Union Station to Yorktown Shopping Center Stops: Downers Grove Metra Station, I-55 and IL 53, Lewis University, Lockport Station, State Street and EJ&E
"Midway Airport" to Joliet	831	Termini: Joliet Union Station to CTA Midway Airport Station Stops: CTA Orange Line, St. James at Sag Bridge, Stateville, Broadway Avenue and EJ&E
Joliet	501 Forest Park	Termini: Joliet Union Station to North Joliet (IL 171 and Bruce) Stops: Woodruff Road and EJ&E, Jackson and Henderson, Joliet Central H.S.
Joliet	502 Cass Street	Termini: Joliet Union Station to North Joliet (Parkwood and Bogdan) Stops: Joliet Central H.S., Cass Street and EJ&E, A.O. Marshall, Silver Cross Hospital, Gompers Jr. H.S.
Joliet/New Lenox	506	Termini: Joliet Union Station to New Lenox (Nelson & US 30) Stops: Washington Street and EJ&E, Rowell Avenue, I-80 and EJ&E; Salem Tower/Village, Mills Rd. and EJ&E, Joliet Job Corps, Providence H.S., New Lenox Village Hall

Appendix G: Table of Pace Bus Routes intersecting or paralleling the EJ&E (Continued)

Community	Pace Route #	Description of Route (Termini and stops near EJ&E mainline)
Matteson	753	Termini: Matteson Metra Electric District Station to Ridgeland and Sunflower Stops: Lincoln Mall, Marketplace, Crawford Avenue and EJ&E
Park Forest/ Chicago Heights	366	Termini: Chicago Heights Terminal to the Centre Stops: Norwood Plaza, Western Ave. and EJ&E, St. James Hospital
Chicago Heights to Chicago	352	Termini: Chicago Heights Terminal to 95th Street CTA Station Stops: St. James Hospital, Bloom H.S., Homewood Metra/Amtrak Station; West Pullman, Harvey, Hazel Crest and Calumet Metra Stations
Chicago Heights/ Homewood/Harvey	370	Termini: Chicago Heights Terminal to Harvey Metra Station Stops: St. James Hospital, Prairie State College, Washington Square Mall, Phoenix Multi-Purpose Building
Chicago Heights to Chicago	358	Termini: Chicago Heights Terminal to South Shore Railroad Stops: Bloom Trail H.S., Torrence Avenue and EJ&E, Illiana H.S., River Oaks Shopping Center
Matteson to Ford Heights	357	Termini: Lincoln Mall to Woodlawn and US 30 Stops: Parallels EJ&E on US 30 from I-57 to Bishop Ford Freeway, Chicago Heights Terminal, 211th Street Metra Station

Appendix: H

SURROUNDING LAND USE AT RAIL JUNCTIONS WITH METRA

Appendix H:
SURROUNDING LAND USE AT RAIL JUNCTIONS WITH METRA

Rail Line	Metra Line	Location	Local Land Use- Junction with EJ&E
UP	**UP-N** Union Pacific North Line	**Waukegan** Connecting track between UP and EJ&E tracks, which parallel each other.	W: Amstutz Expressway E: ComEd Plant N &S: (Between UP and EJ&E) Vacant land
UP	**UP-N** Union Pacific North Line	**North Chicago/ Waukegan** Connecting track between UP and EJ&E tracks, which parallel each other.	Right-of-way has become overgrown and integrated into the local businesses and roads. Connection lies between Waukegan Harbor (east), and Metra station (west). Scattered boat facilities and local roads lie between UP and EJ&E.
UP	**UP-N** Union Pacific North Line	**North Chicago** Industrial siding approx. 1/2 mile long.	Connecting track passes through industrial district.
CP	**MD-N** Milwaukee District North Line	**Rondout** Diamond interchange. Connecting tracks in SW and SE quadrants. Former passenger station location.	NW: Industrial and small area of vacant land SW: Vacant land SE: Junction tower and maintenance facility NE: Restaurant (private club)
WC	**NCS** North Central Service	**Leithton** Diamond interchange. Connecting tracks in SW and NW quadrants.	NW: Vacant land with what appears to be a detention pond SW: Industrial use SE: Industrial use NE: Industrial use
UP	**UP-NW** Union Pacific Northwest Line	**Barrington** Diamond interchange. Connecting track in SE quadrant; abandoned connection in SW quadrant.	NW: Langendorf Park SW: Vacant land, Village services SE: School district 220 administration center NE: Industrial use (partially abandoned)
CP	**MD-W** Milwaukee District West Line	**Spaulding** Diamond interchange. Connecting tracks in SW and SE quadrants.	NW: Agricultural/Vacant land SW: Commercial/Industrial SE: Vacant land/Residential NE: Residential/Industrial
UP	**UP-W** Union Pacific West Line	**West Chicago** Diamond interchange. Connection through Union Pacific yard west of EJ&E.	NW: UP yard, industrial and vacant land SW: Residential SE: Residential NE: Commercial district

Appendix H: Surrounding Land Use at Rail Junctions With Metra (Continued)

Rail Line	Metra Line	Location	Local Land Use- Junction with EJ&E
BNSF	**BNSF** Burlington Northern Santa Fe	**Eola** Under EJ&E bridge, connecting tracks in NW and SW quadrants.	NW: Agricultural/Vacant land SW: Vacant land SE: Industrial NE: Open fields Note: Power lines run adjacent to EJ&E r-o-w on west side of EJ&E.
IC	**HC** Heritage Corridor	**Joliet** Under EJ&E bridge, no connection.	W: BNSF rail line, Illinois and Michigan Canal, Sanitary and Ship Canal/Des Plaines River SE: Residential and light industry NE: Auto wrecking yard
Metra/ CSX/ IAIS	**RID** Rock Island District	**Joliet** Diamond interchange. Connecting track in NE quadrant.	NW: Industrial: scrap yard/cartage SW: Industrial/auto wrecking SE: Wooded vacant land NE: Cemetery
NS	**SWS** **(**Proposed Extension) SouthWest Service	**Brisbane** Bridge over EJ&E, no connection.	NW: Industrial SW: Agricultural/Vacant land SE: Agricultural buildings, abandoned connecting track roadbed appears to be free of encroachment NE: Residential Note: Power lines run adjacent to EJ&E r-o-w on north side of EJ&E.
Metra/ IC	**MED** Metra Electric District	**Matteson** Bridge over EJ&E, connecting track in SE quadrant.	NW: Residential SW: Light industry and vacant land SE: Auto rebuilders and light industry NE: Old depot and light industry

Appendix I:

TABLE OF WETLANDS

Appendix I:
TABLE OF WETLANDS, WAUKEGAN TO SPAULDING SEGMENT

Community or Locale	Compass direction in relation to tracks	Local Location	Milepost
Lake Bluff	South	Lake Bluff Golf Course	MP 67.3
Lake Bluff	North and South	Vicinity of Skokie Highway and UP Milwaukee Subdivision	MP 66.8 - MP 67.2
Rondout	South	East of I-94	MP 64.8
Libertyville	North and South	East of Des Plaines River	MP 62.8
Libertyville	North	East of Milwaukee Avenue	MP 62.3
Leithton	North	West of Wisconsin Central	MP 60.2
Mundelein	South	Between US 45 and Wisconsin Central	MP 60.0 and MP 59.7
Mundelein	South	West of US 45	MP 59.6
Mundelein	North and South	Diamond Lake Drain	MP 59.2
Long Grove	North and South	Sylvan Drain	MP 58.1
Long Grove	North and South	Between IL 83 and Gilmer Road	MP 58.4, MP 57.3
Hawthorn Woods	North	Between Gilmer Road and Old McHenry Road	MP 56.3
Lake Zurich	East and West	Between Old McHenry Road and IL 22, multiple wetlands	MP 55.1, MP 55.0, MP 54.7, MP 54.3, MP 54.0, MP 53.7
Lake Zurich	West	Between IL 22 and Rand Road	MP 52.9
Lake Zurich	Northwest	West of Ela Road	MP 52.1
Lake Zurich	East	North of Cuba Road	MP 51.8
Lake Zurich	East and West	Cuba Marsh	MP 50.5 - MP 51.5
Barrington	West	Between Lake-Cook Road (Main St.) and Otis Road	MP 48.6 - MP 49.0
Barrington Hills	South	North of Otis Road (Structure No. 87)	MP 48.3
Barrington Hills	West	North of Algonquin Road	MP 46.1
Barrington Hills	West	South of Algonquin Road, two locations	MP 45.4 - MP 45.6, MP 45.1
Spring Valley Forest Preserve	East	Between Sutton Road and Higgins Road	MP 43.5 and MP 43.7
Hoffman Estates	East and West	Multiple wetlands between Higgins Road and I-90	MP 42.5 - MP 42.9
Hoffman Estates	West	South of I-90	MP 42.2
Hoffman Estates	East	South of Shoe Factory Road	MP 41.5
Hoffman Estates	East and West	Poplar Creek	MP 39.7

Appendix I:
TABLE OF WETLANDS, SPAULDING TO JOLIET SEGMENT

Community or Locale	Compass direction in relation to tracks	Local Location	Milepost
Bartlett	West	Between Spaulding Road and Stearns Road	MP 37.0 - MP 37.4
Bartlett	East	Between Bartlett Road and Stearns Road	MP 36.5 - MP 37.0
Bartlett	East and West	North of Stearns Road	MP 35.8
Munger	East and West	Munger	MP 35.2
Munger	East and West	South of Munger	MP 34.8
Wayne	East and West	Pratt Wayne Woods Forest Preserve	MP 34.3 - MP 34.5
Wayne	West	South of Army Trail Road	MP 33.4 - MP 33.9
Wayne	East	Army Trail Road to Smith Road	MP 32.9 - MP 33.9
Wayne	East	North of North Avenue (IL 64)	MP 32.3 and MP 31.8 - MP 32.0
West Chicago	East and West	Multiple wetlands between Hawthorne Lane and Washington Street	MP 28.1 - MP 30.1
Warrenville	East and West	Between Wilson Road and Batavia Road	MP 26.3 - MP 26.9
Warrenville	East and West	South of Butterfield Road (IL 56)	MP 24.5
Warrenville	East and West	North of I-88	MP 23.1 - MP 23.4
Eola	West	Northwest of BNSF and EJ&E rail crossing	MP 23.3 - MP 23.4
Eola	East and West	South of BNSF Tracks	MP 20.8
Aurora	East and West	South of McCoy Road	MP 19.5
Aurora	East	South of Oswego Road (US 34)	MP 18.9
Aurora	East	North of Montgomery Road	MP 18.3
Aurora	West	Southwest of EJ&E and 87th Street (2 sites)	MP 17.3 and MP 17.6
South of Aurora	West	Between 91st Street and Oswego Road (US 34)	MP 16.4 and MP 16.8
South of Aurora	East and West	Intersection of Oswego Road (US 34) and EJ&E	MP 16.0 and MP 16.2
Normantown	East	Between 119th and 127th Streets	MP 13.1 and MP 13.3
Plainfield	West	South of 135th Street	MP 12.0
Plainfield	East and West	DuPage River	MP 9.8
Lily Cache	East and West	Lake Renwick, flooded quarries	MP 7.0 - MP 9.0
Spragues	South	West of IL 53	MP 2.5
Joliet	North and South	Des Plaines River	MP 1.9
Joliet	North and South	State Prison Quarries	MP 1.1

Appendix I:
TABLE OF WETLANDS, JOLIET TO LYNWOOD SEGMENT

Community or Locale	Compass direction in relation to tracks	Local Location	Milepost
Joliet	West	North of I-80	MP 1.8
Joliet	West	North of Mills Road	MP 2.4
New Lenox	South	Sugar Creek	MP 4.5
Brisbane	South	East and West of Metra/NS tracks	MP 8.1 and MP 8.9
New Lenox	South	East of Spencer	MP 9.3
Frankfort	North and South	East of US 45	MP 13.3
Frankfort	North and South	South of Prestwick Country Club	MP 16.7
Frankfort to Chicago Heights		Steger Quadrangle Map Unavailable	
Chicago Heights	South	East of State Street	MP 26.4
Sauk Village	South	Lakewood Country Club	MP 29.9

Appendix J:

TABLE OF IDOT PROPOSED ROADWAY IMPROVEMENTS

Appendix J:
TABLE OF IDOT PROPOSED ROADWAY IMPROVEMENTS

Roadway	EJ&E community	Project Limits	Improvement
Cook County			
IL 1	Chicago Heights	US 30 to Union Avenue	Widening and Resurfacing, RR Crossing Improvement
IL 62/ IL 72	Barrington Hills	IL 68 to Palatine Road and over EJ&E	Bridge Replacement, Grading, Tree Removal, Widening and Resurfacing
Lake-Cook Road	Barrington	Kane-Cook County Line to US 12	Resurfacing
DuPage County			
Roosevelt Rd (IL 38)	West Chicago	Kane Co. Line to IL 59	Resurfacing
Butterfield Road (IL 56)	Warrenville	Naperville Road to IL 53	Resurfacing
North Avenue (IL 64)	West Chicago	Kautz Road to IL 59	Resurfacing
North Avenue (IL 64)	West Chicago	Over UP and EJ&E and Powis Road	Bridge Rehabilitation, Intersection Reconstruction
Lake County			
US 41	North Chicago	At EJ&E	Pump Station
IL 22	Lake Zurich	US 12 to Mohawk Rd	Resurfacing
IL 53	Long Grove	IL 120 to Lake-Cook Rd	Expressway planning
IL 60	Mundelein	EJ&E to IL 21	Resurfacing
Sheridan Road	North Chicago	South Avenue to 22nd Street	Resurfacing
Will County			
I-55	Joliet	Reed Road to IL 126	Resurfacing
I-80	Joliet	Rowell Avenue and EJ&E	Bridge Rehabilitation
IL 53	Crest Hill	Caton Farm Road to IL 7 and under EJ&E	Phase II engineering

Appendix K:

DEMOGRAPHIC ANALYSIS

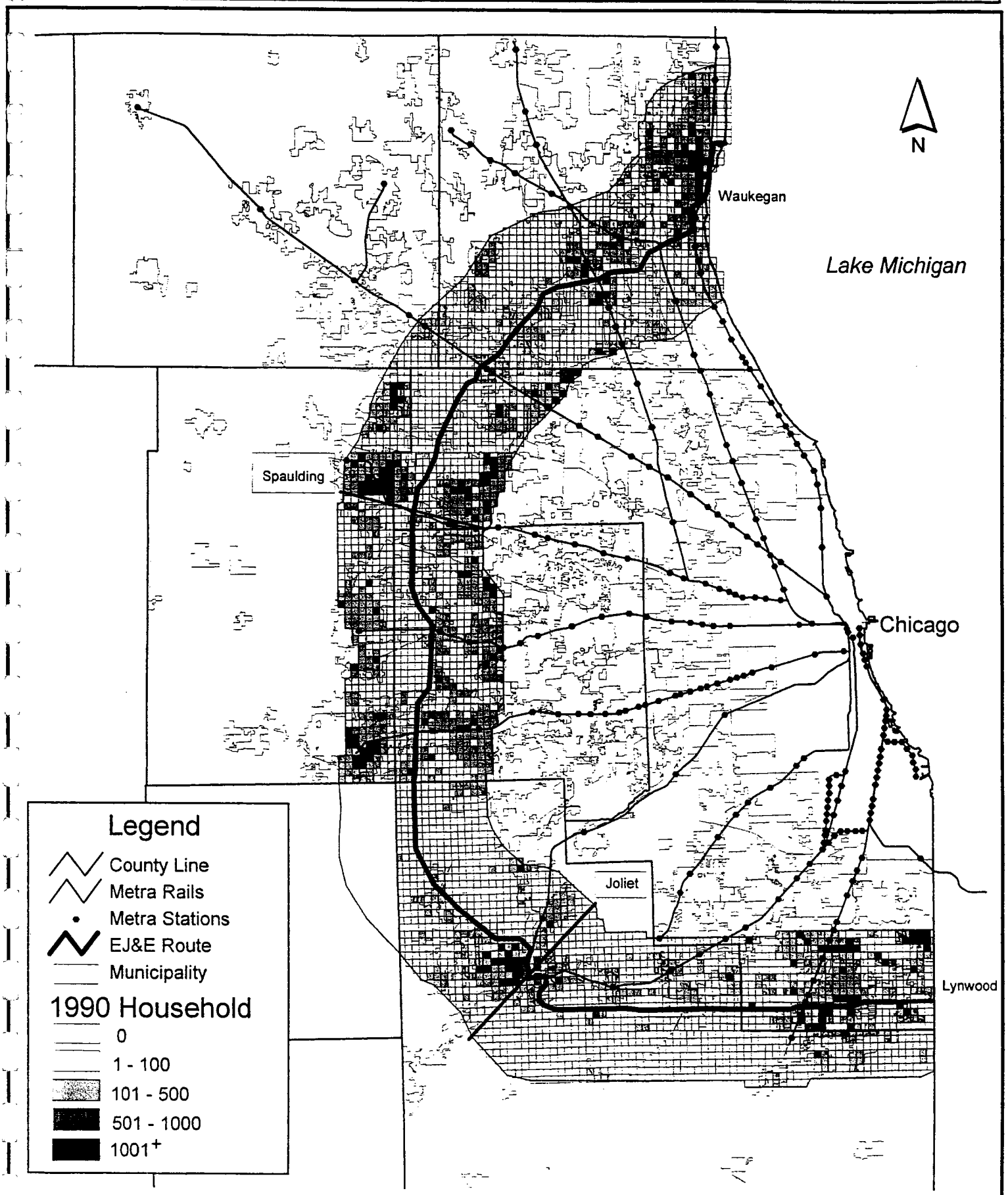
Household Demographic Analysis Maps

Population Demographic Analysis Maps

Employment Demographic Analysis Maps

Land Use Summary

Outer Circumferential Commuter Rail Feasibility Study
Demographic Analysis (1990 Household)



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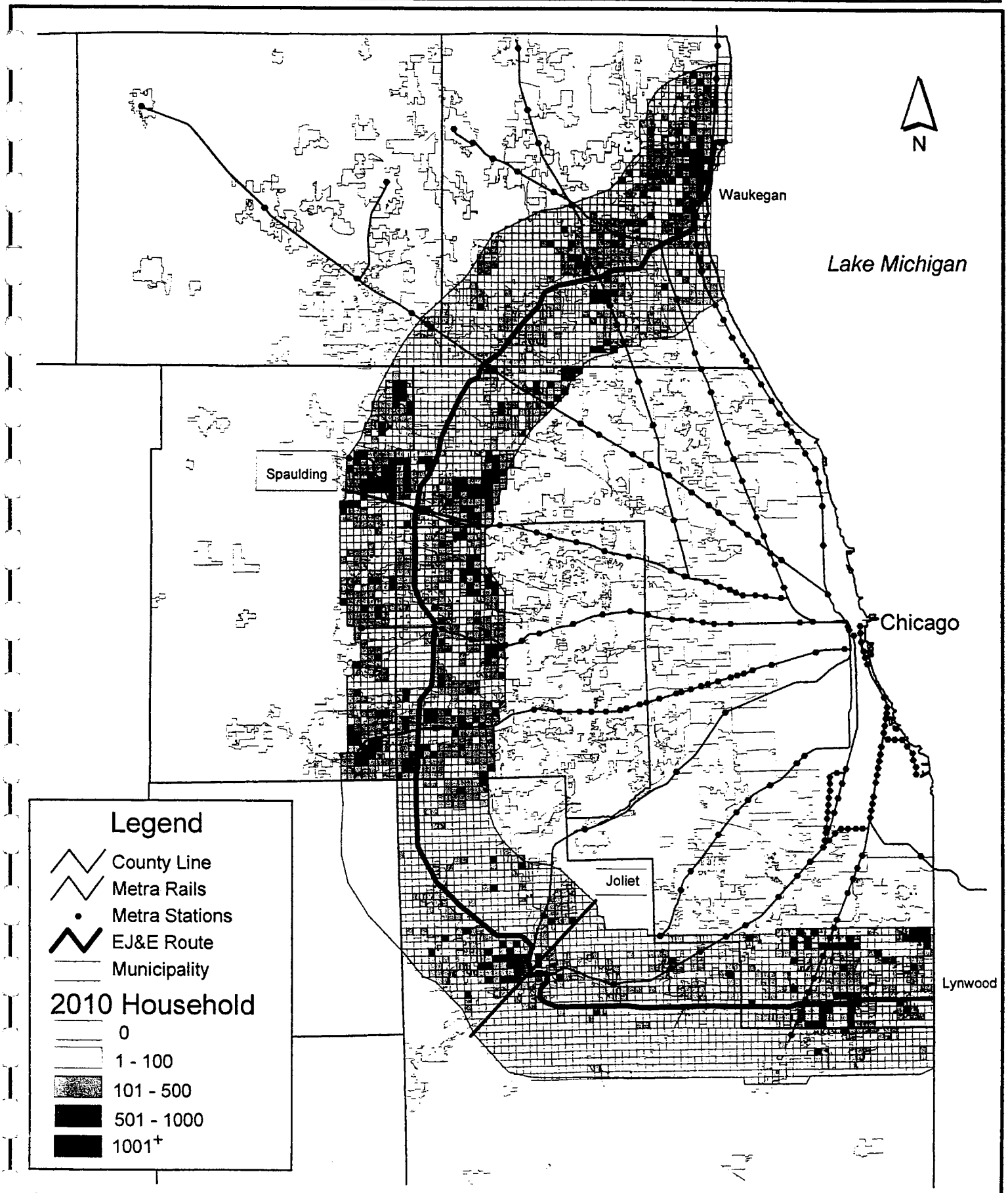
Outer Circumferential Commuter Rail Feasibility Study
Demographic Analysis (2010 Household)



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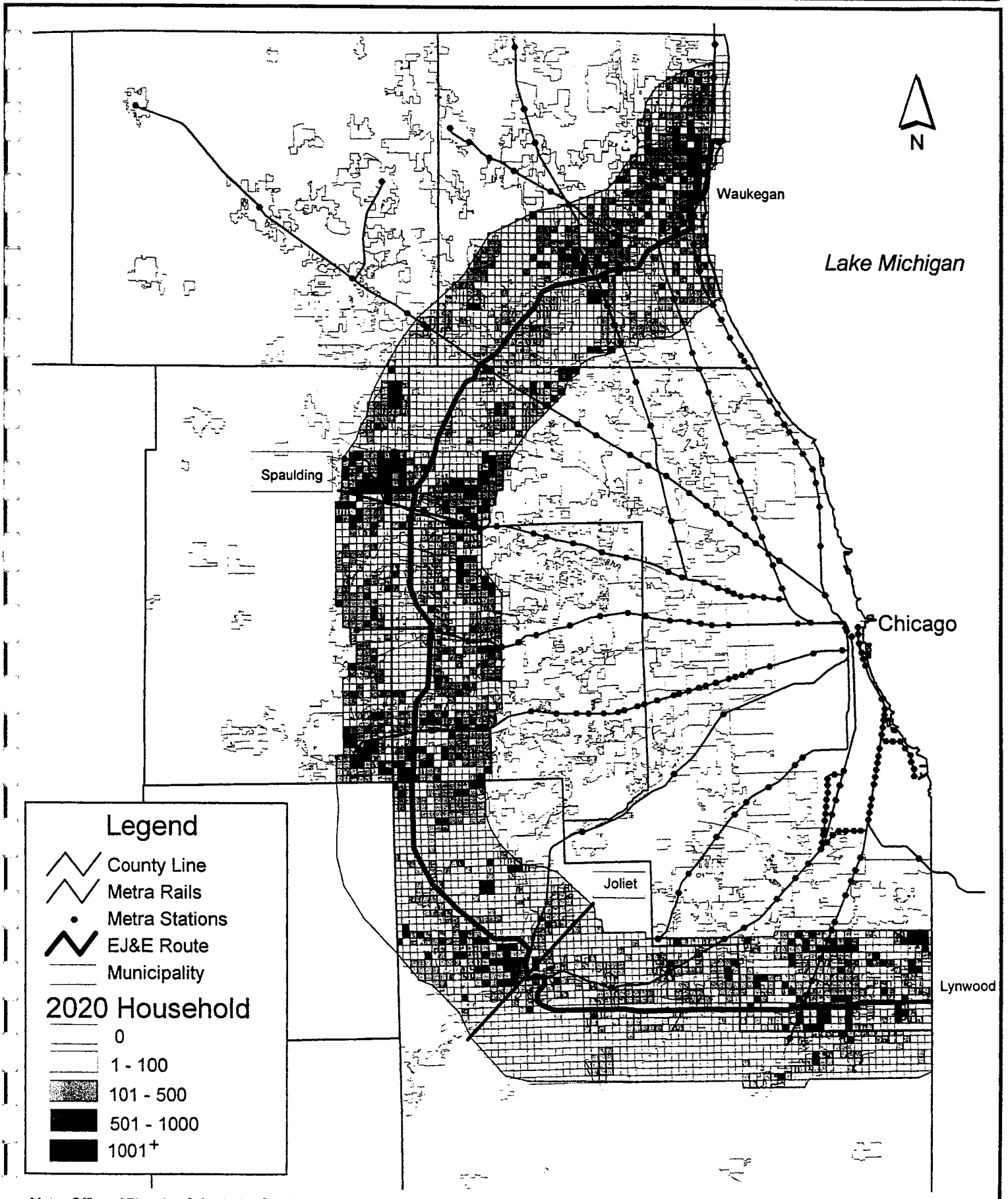
Demographic Analysis (2020 Household no SSA with RTP)



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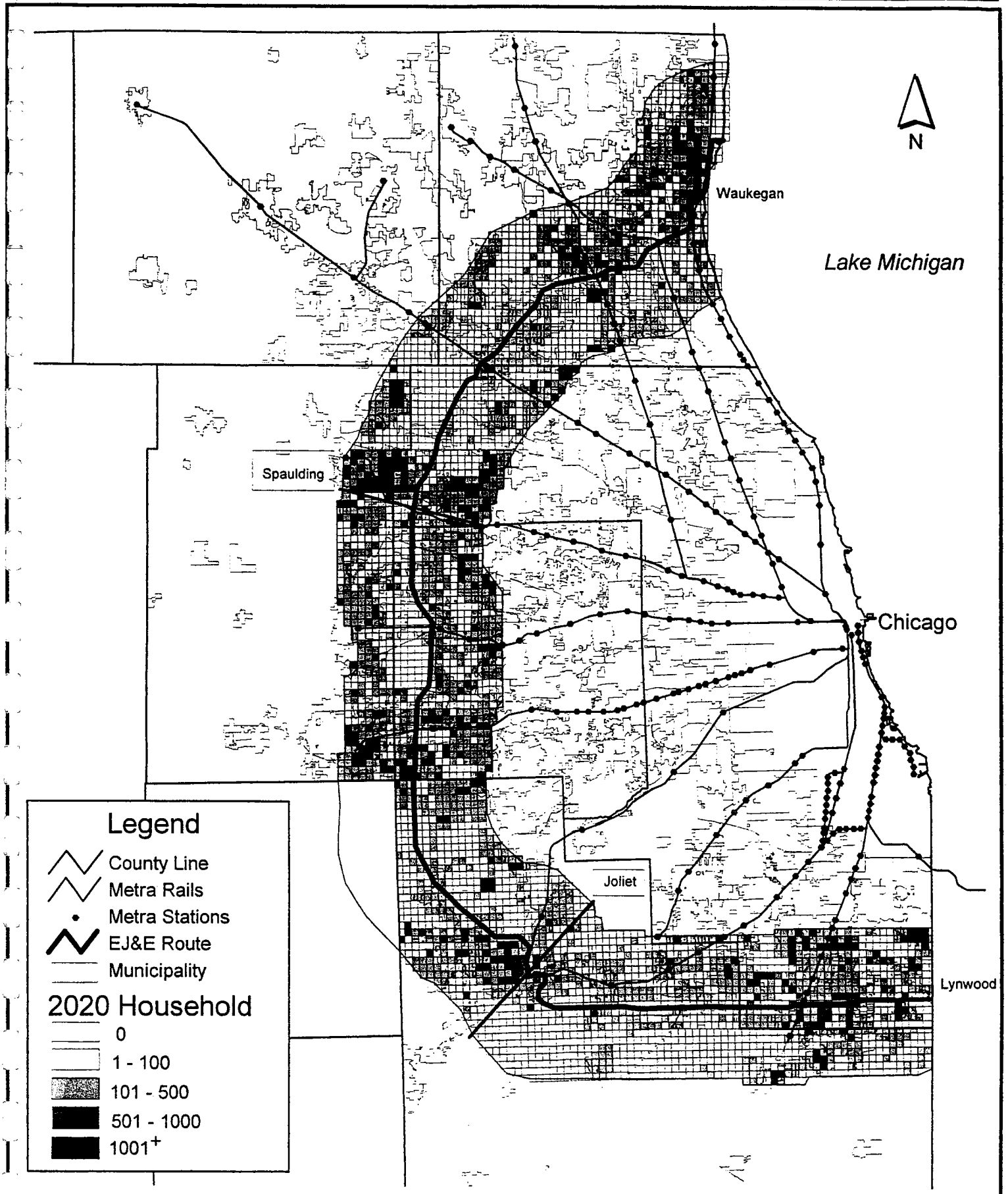
Demographic Analysis (2020 Household with SSA & RTP)



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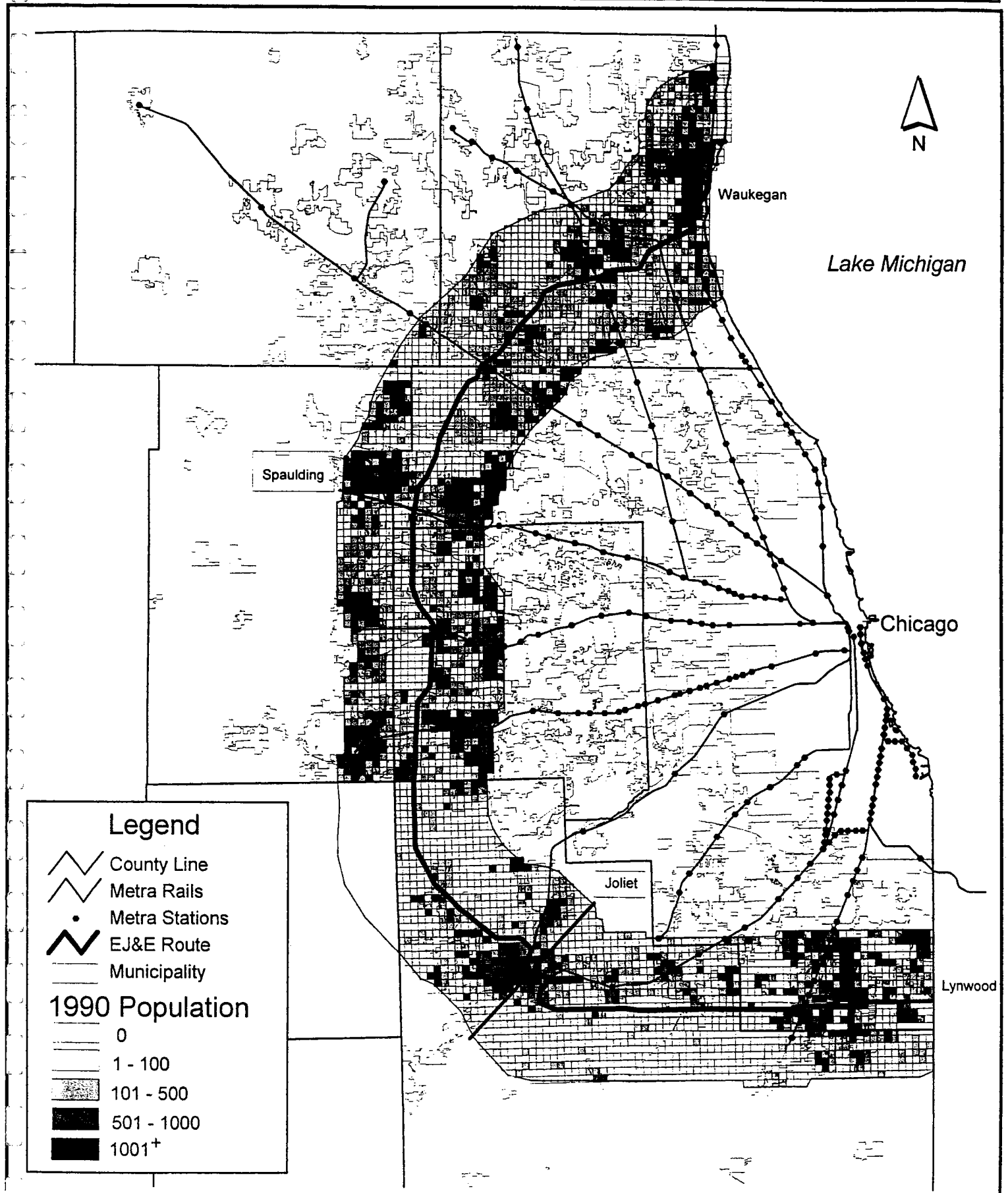
Demographic Analysis (1990 Population)



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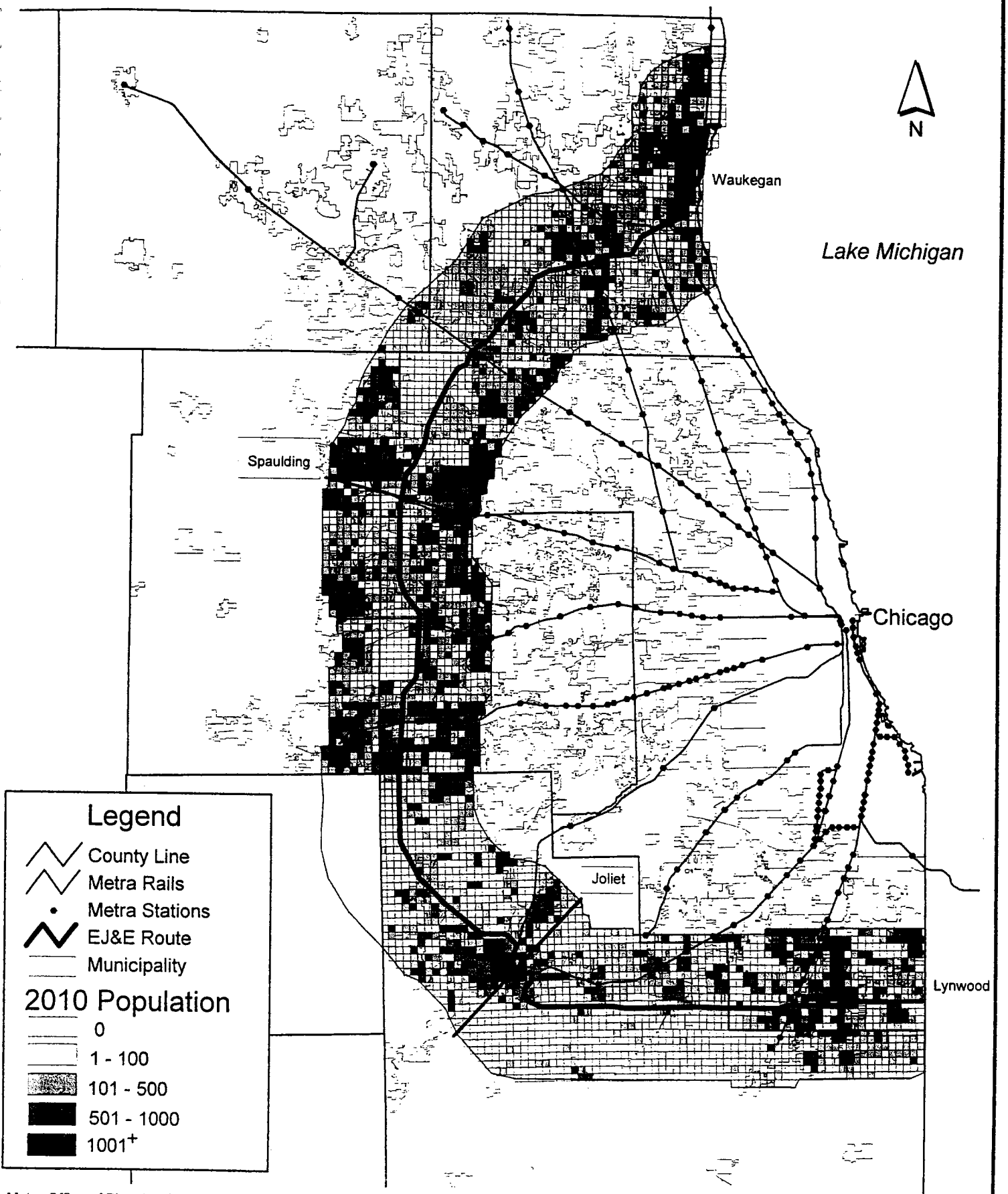
Demographic Analysis (2010 Population)



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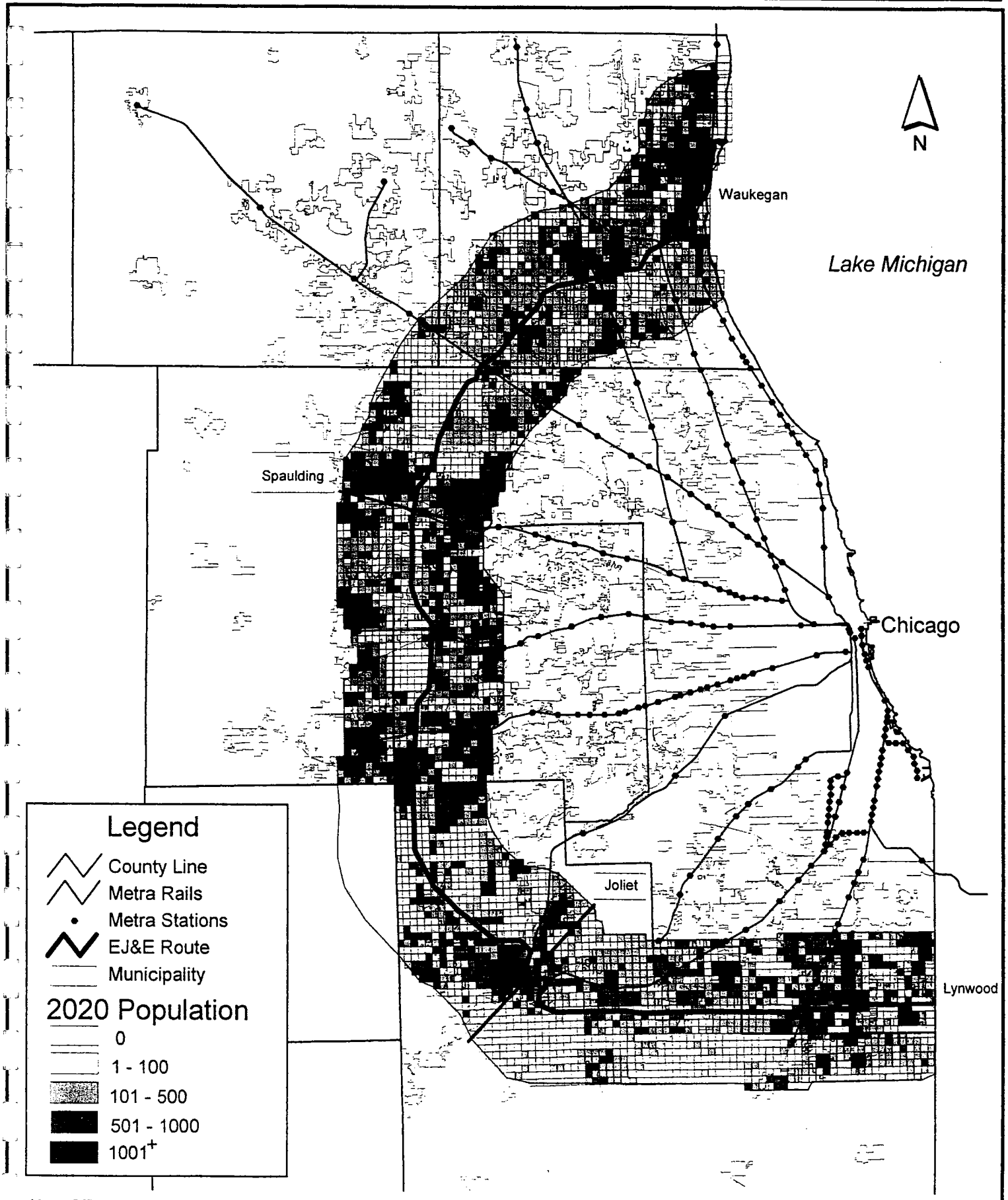
Outer Circumferential Commuter Rail Feasibility Study
Demographic Analysis (2020 Population no SSA with RTP)



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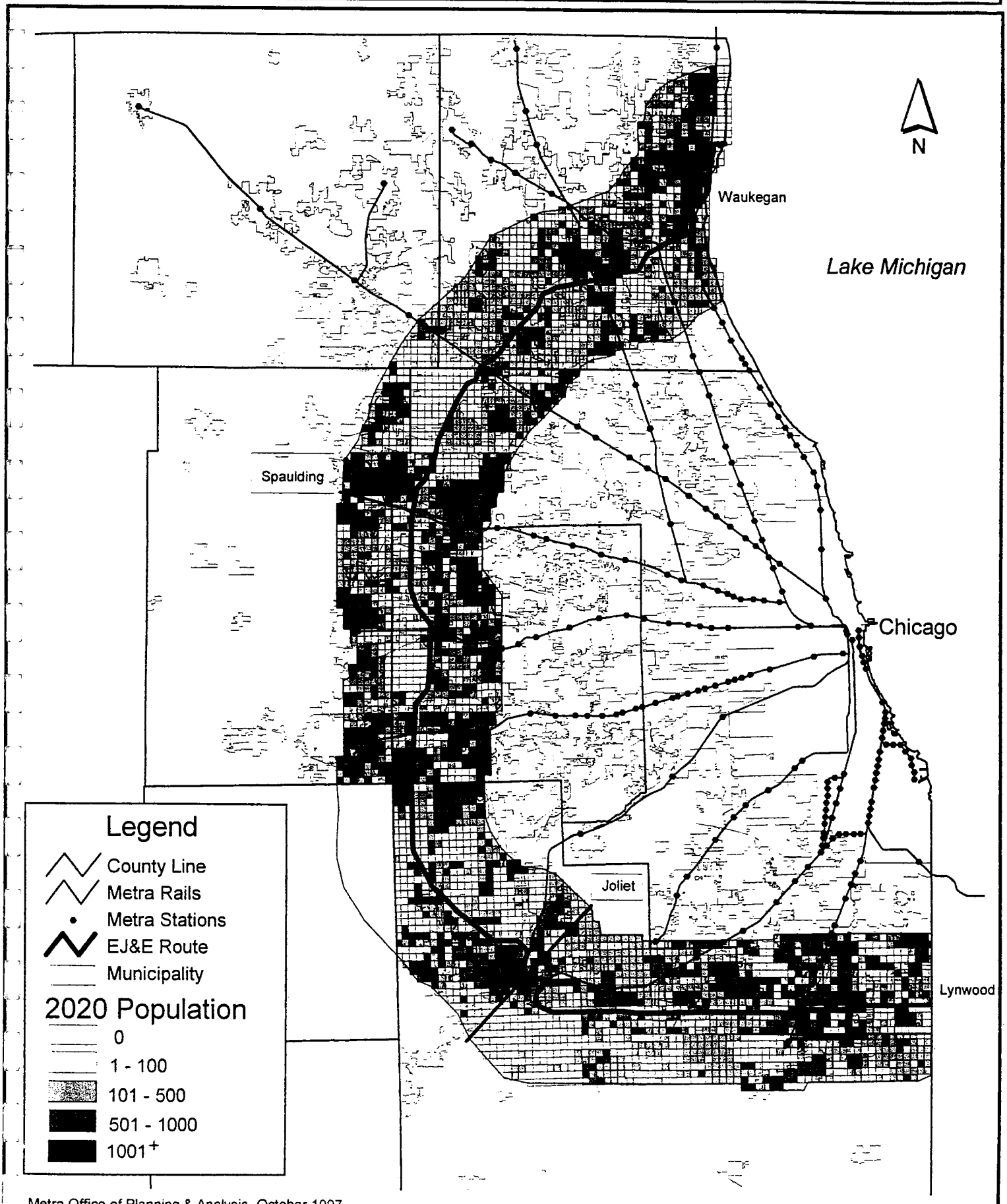
Demographic Analysis (2020 Population with SSA & RTP)



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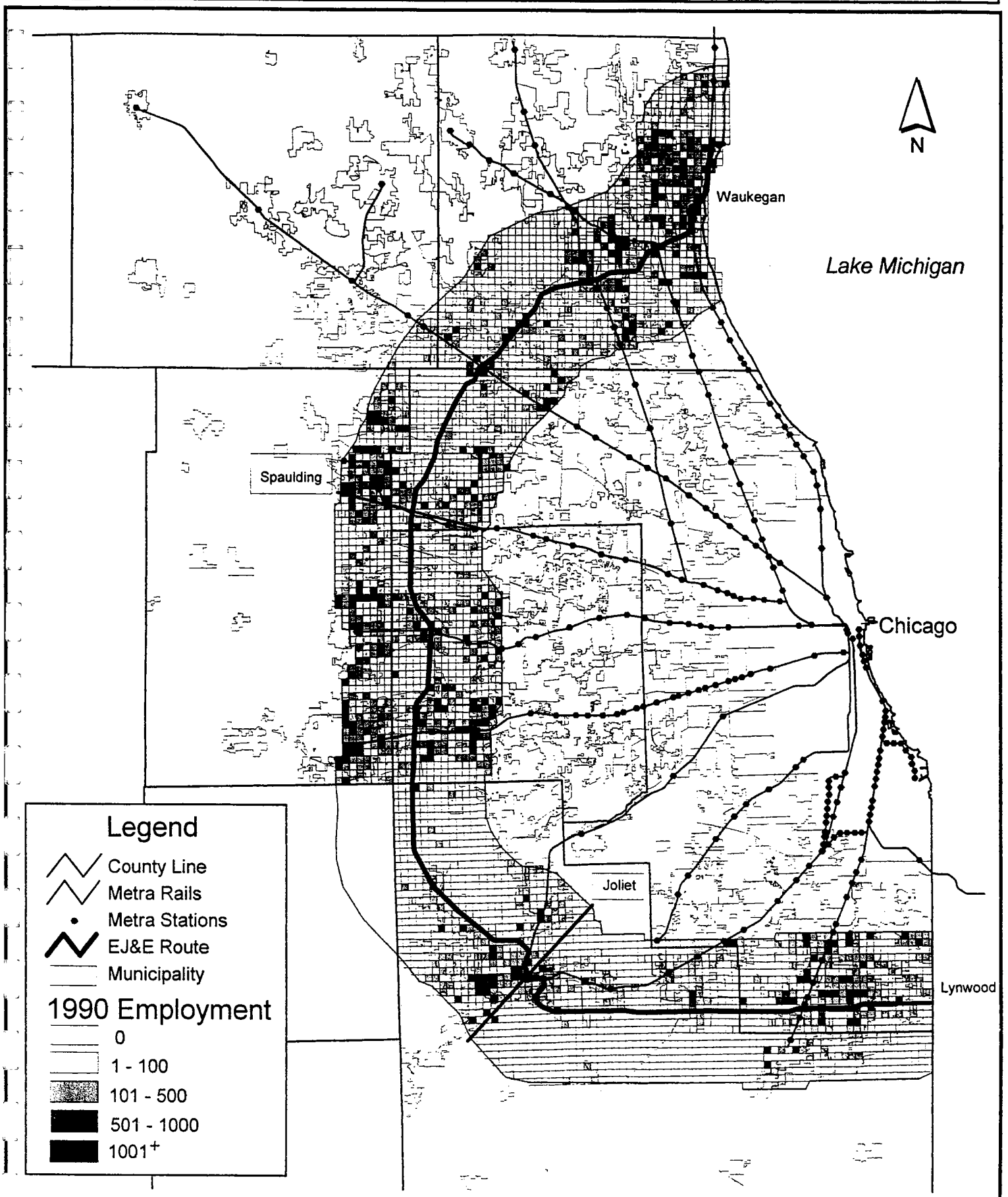
Outer Circumferential Commuter Rail Feasibility Study
Demographic Analysis (1990 Employment)



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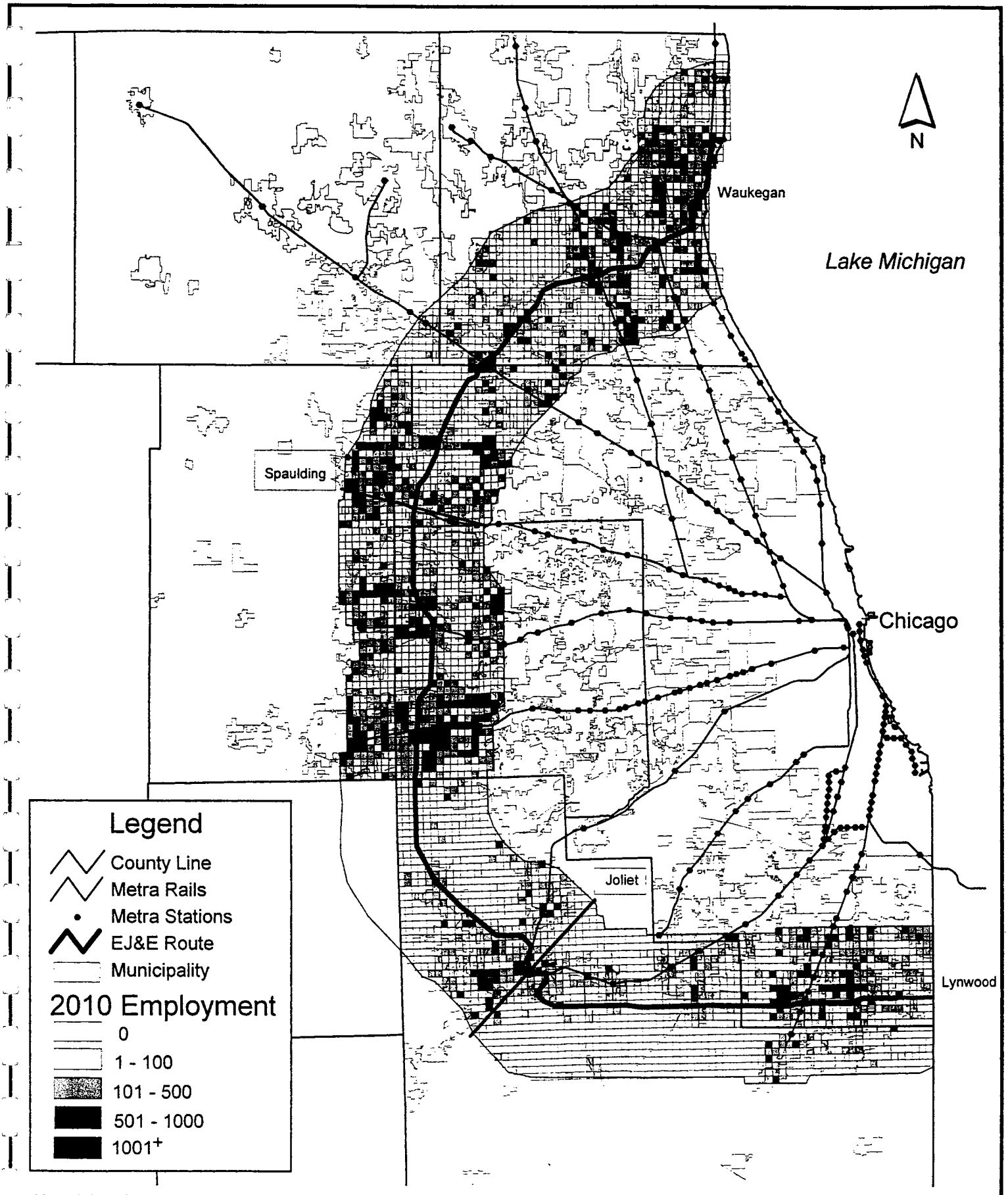
Demographic Analysis (2010 Employment)



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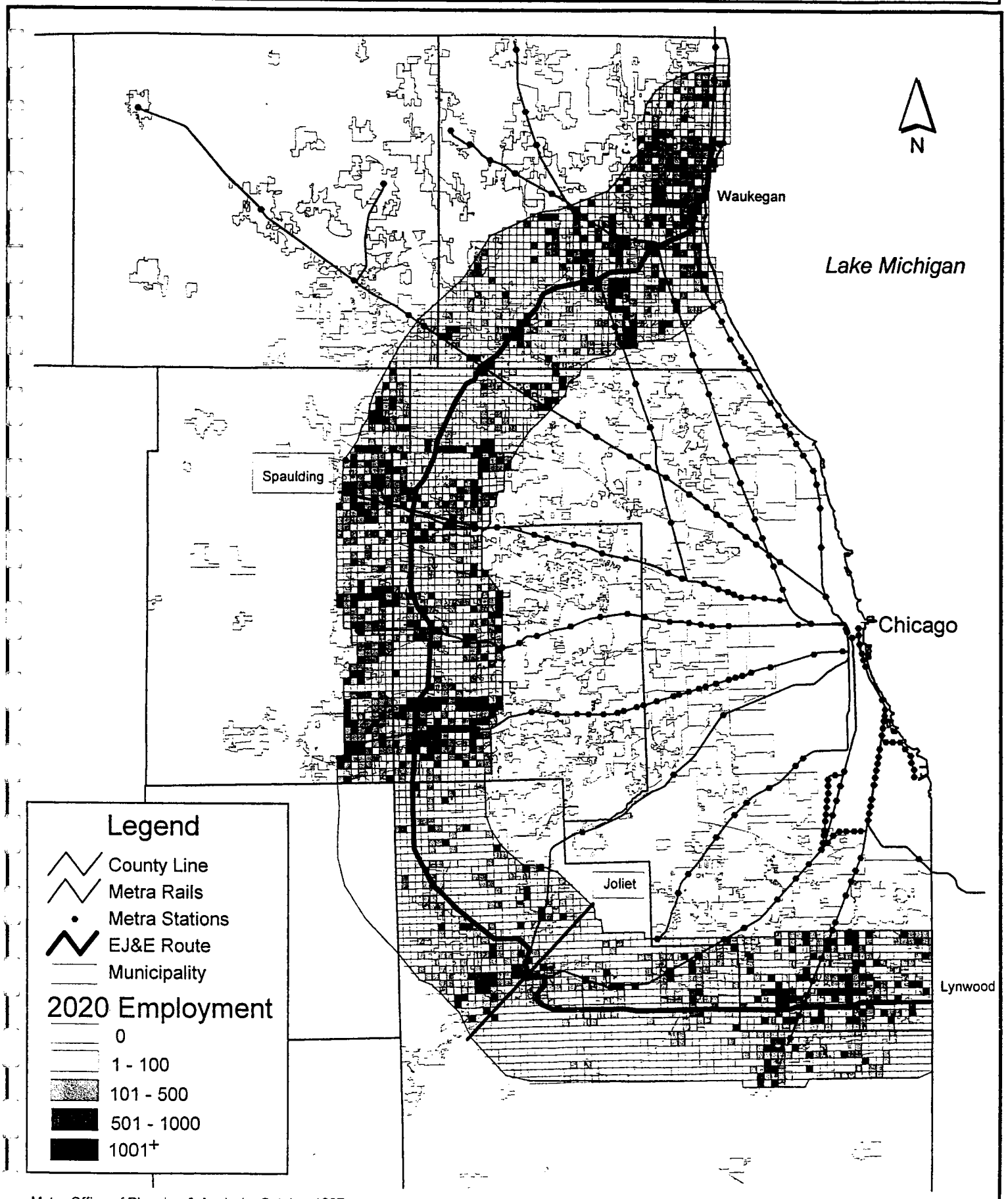
Demographic Analysis (2020 Employment no SSA with RTP)



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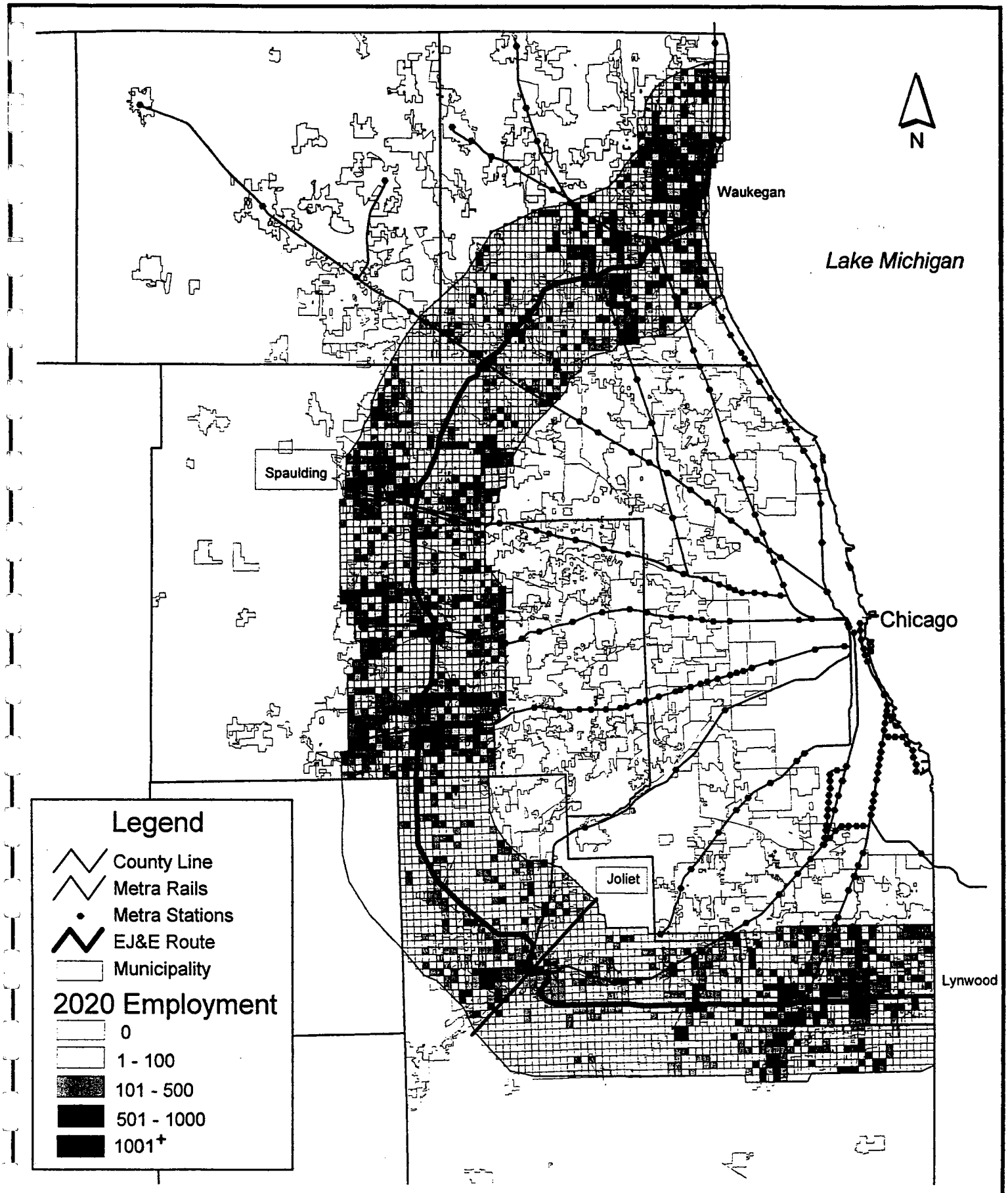
Demographic Analysis (2020 Employment with SSA & RTP)



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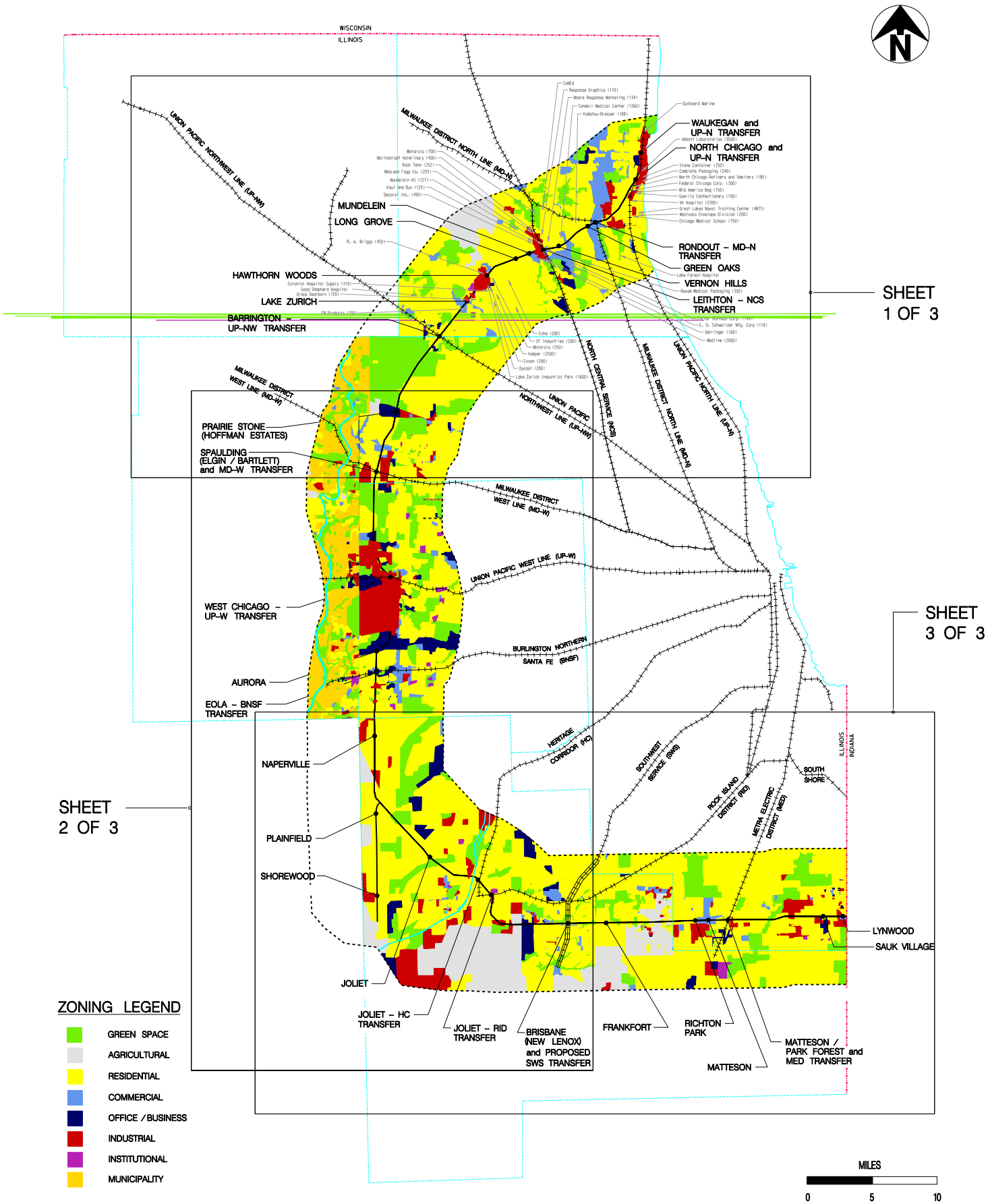
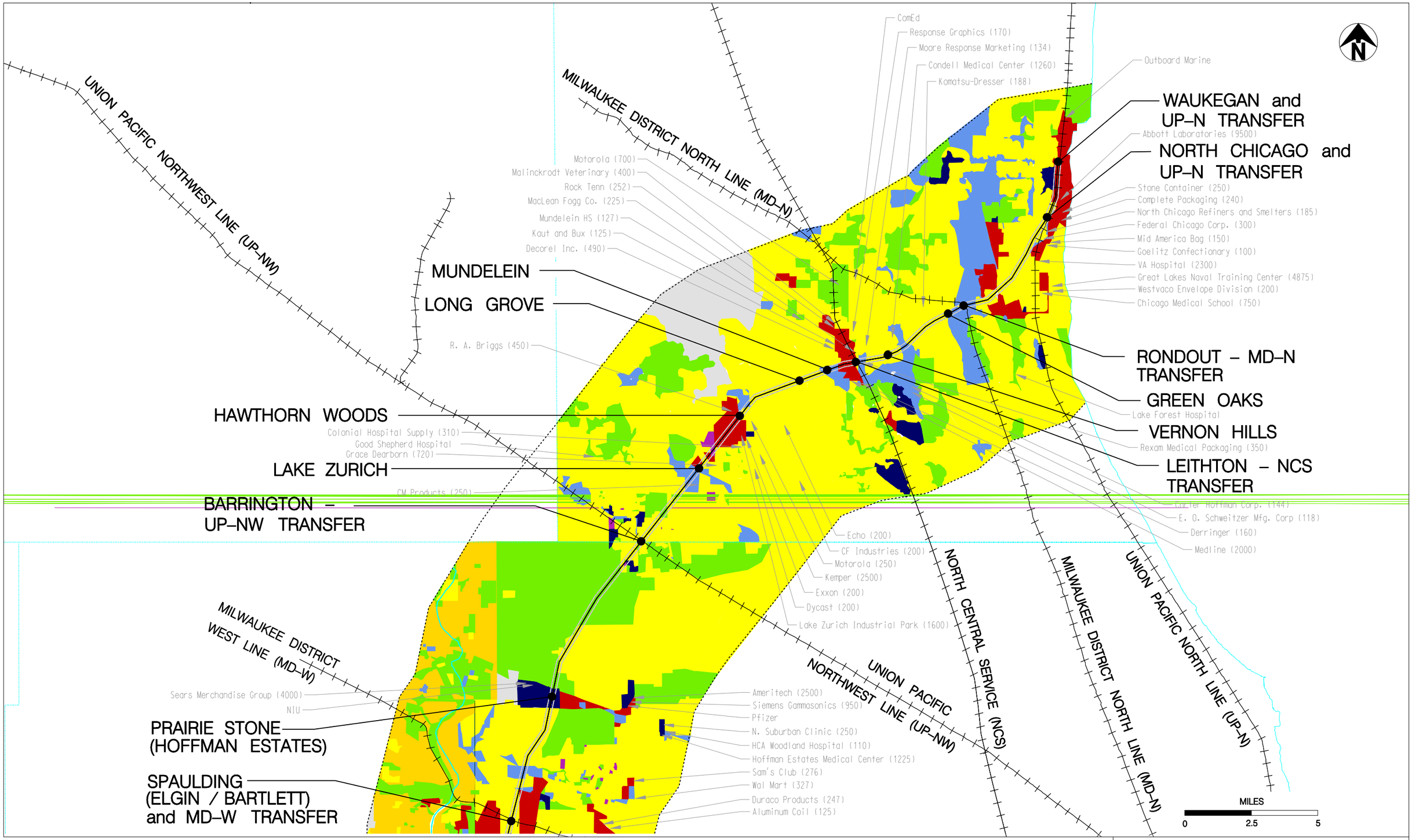
OUTER CIRCUMFERENTIAL COMMUTER RAIL PROJECTED 2000+ LAND USE SUMMARY





ZONING LEGEND

- GREEN SPACE
- AGRICULTURAL
- RESIDENTIAL
- COMMERCIAL
- OFFICE / BUSINESS
- INDUSTRIAL
- INSTITUTIONAL
- MUNICIPALITY

LEGEND

- EJ&E RAIL
- EJ&E POTENTIAL STATION SITE
- METRA RAIL LINE
- PROPOSED RAIL LINE EXTENSION
- STATE BOUNDARY
- COUNTY BOUNDARY
- EJ&E LAND USE STUDY AREA

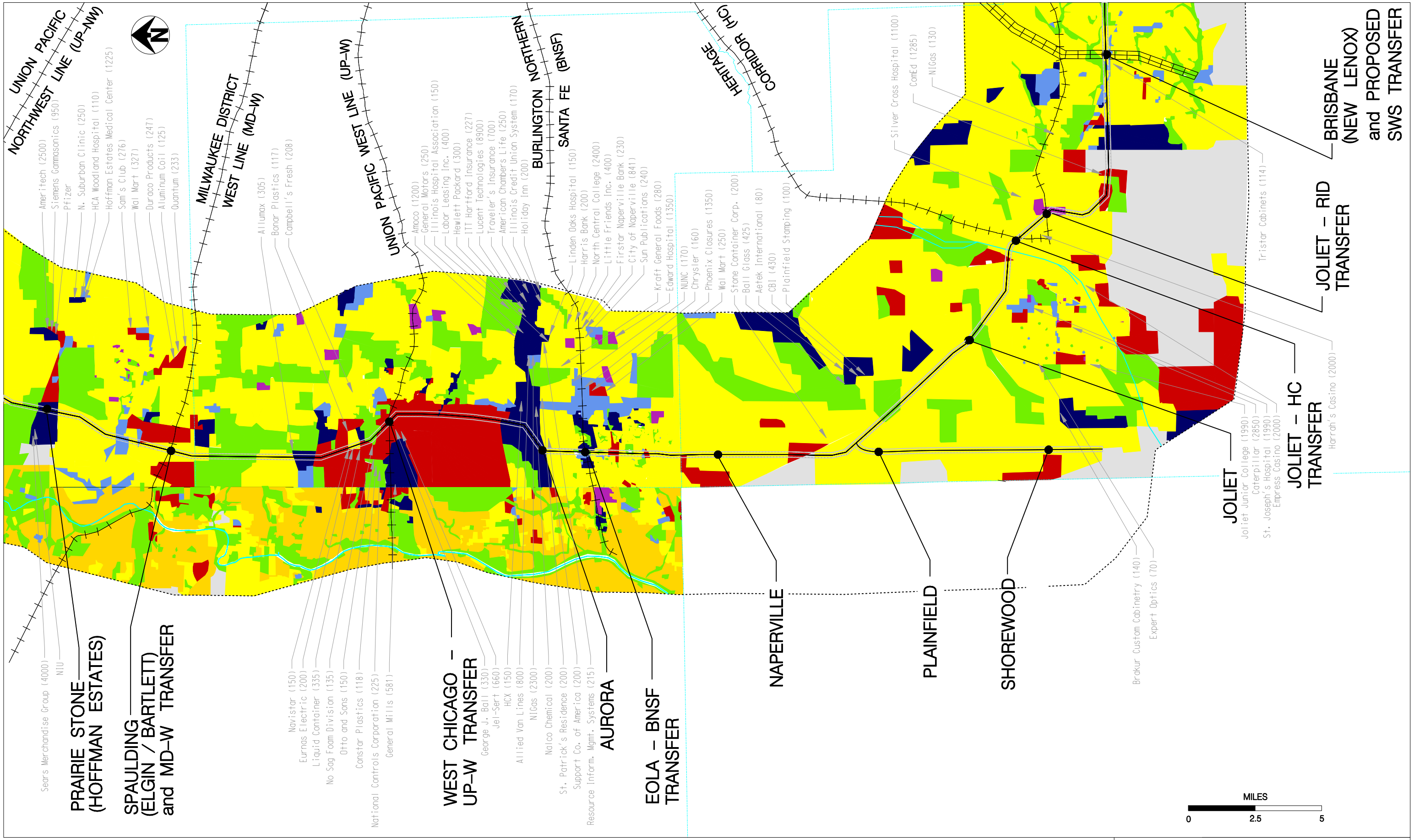
NOTES

1. Major employer locations and number of employees are based on information supplied by the communities.
2. The number in parentheses after the major employer indicates the number of employees. If no number is shown, information was unavailable.

METRA
OUTER CIRCUMFERENTIAL COMMUTER RAIL FEASIBILITY STUDY

WAUKEGAN TO SPAULDING PROJECTED 2000+ LAND USE SUMMARY

SCALE: 1 1/2 " = 5 MILES | K-14



ZONING LEGEND

- GREEN SPACE
- AGRICULTURAL
- RESIDENTIAL
- COMMERCIAL
- OFFICE / BUSINESS
- INDUSTRIAL
- INSTITUTIONAL
- MUNICIPALITY

LEGEND

- EJ&E RAIL
- EJ&E POTENTIAL STATION SITE
- METRA RAIL LINE
- PROPOSED RAIL LINE EXTENSION
- STATE BOUNDARY
- COUNTY BOUNDARY
- EJ&E LAND USE STUDY AREA

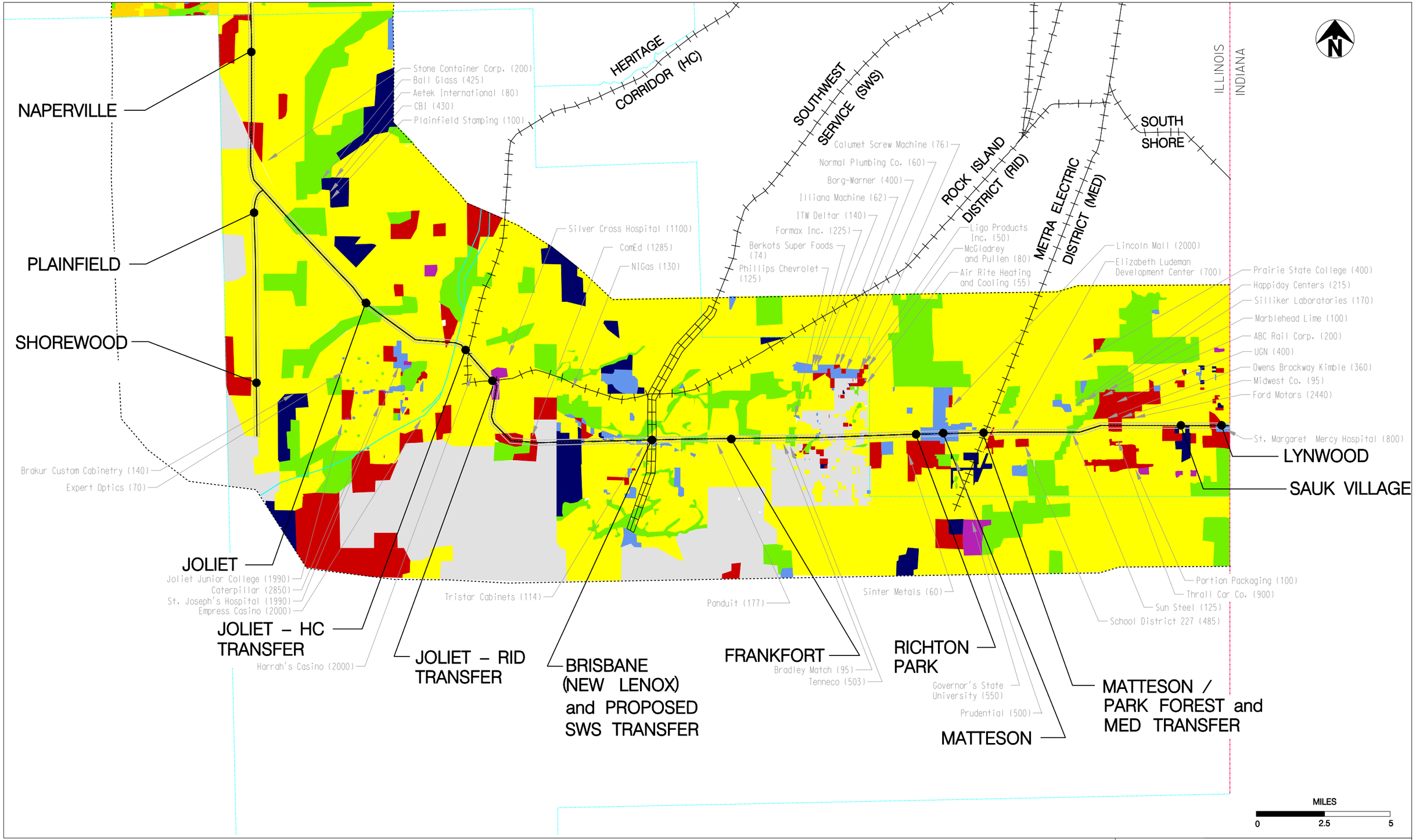
NOTES

1. Major employer locations and number of employees are based on information supplied by the communities.
2. The number in parentheses after the major employer indicates the number of employees. If no number is shown, information was unavailable.

METRA
OUTER CIRCUMFERENTIAL COMMUTER RAIL FEASIBILITY STUDY

SPAULDING TO JOLIET
PROJECTED 2000+ LAND USE SUMMARY

SCALE: 1 1/2 " = 5 MILES | K-15



ZONING LEGEND

- GREEN SPACE
- AGRICULTURAL
- RESIDENTIAL
- COMMERCIAL
- OFFICE / BUSINESS
- INDUSTRIAL
- INSTITUTIONAL
- MUNICIPALITY

LEGEND

- EJ&E RAIL
- EJ&E POTENTIAL STATION SITE
- METRA RAIL LINE
- PROPOSED RAIL LINE EXTENSION
- STATE BOUNDARY
- COUNTY BOUNDARY
- EJ&E LAND USE STUDY AREA

NOTES

1. Major employer locations and number of employees are based on information supplied by the communities.
2. The number in parentheses after the major employer indicates the number of employees. If no number is shown, information was unavailable.

METRA
OUTER CIRCUMFERENTIAL COMMUTER RAIL FEASIBILITY STUDY

JOLIET TO STATE LINE PROJECTED 2000+ LAND USE SUMMARY

SCALE: 1 1/2 " = 5 MILES

K–16

Appendix: L

IMPROVEMENTS NECESSARY FOR COMMUTER SERVICE

Capital Cost Estimates for Joint-Running Single-Track Outer Circumferential Alternative (Table L-1)

Wetland and Floodway Maps for New Potential Siding Locations

Capital Cost Estimates for Metra-Exclusive Single-Track Outer Circumferential Alternative (Table L-2)

Capital Cost Estimates for Double-Track Outer Circumferential Alternative (Table L-3)

TABLE 1
Capital Cost Estimates for Joint-Running Single-Track Outer Circumferential Alternative (1997 dollars)

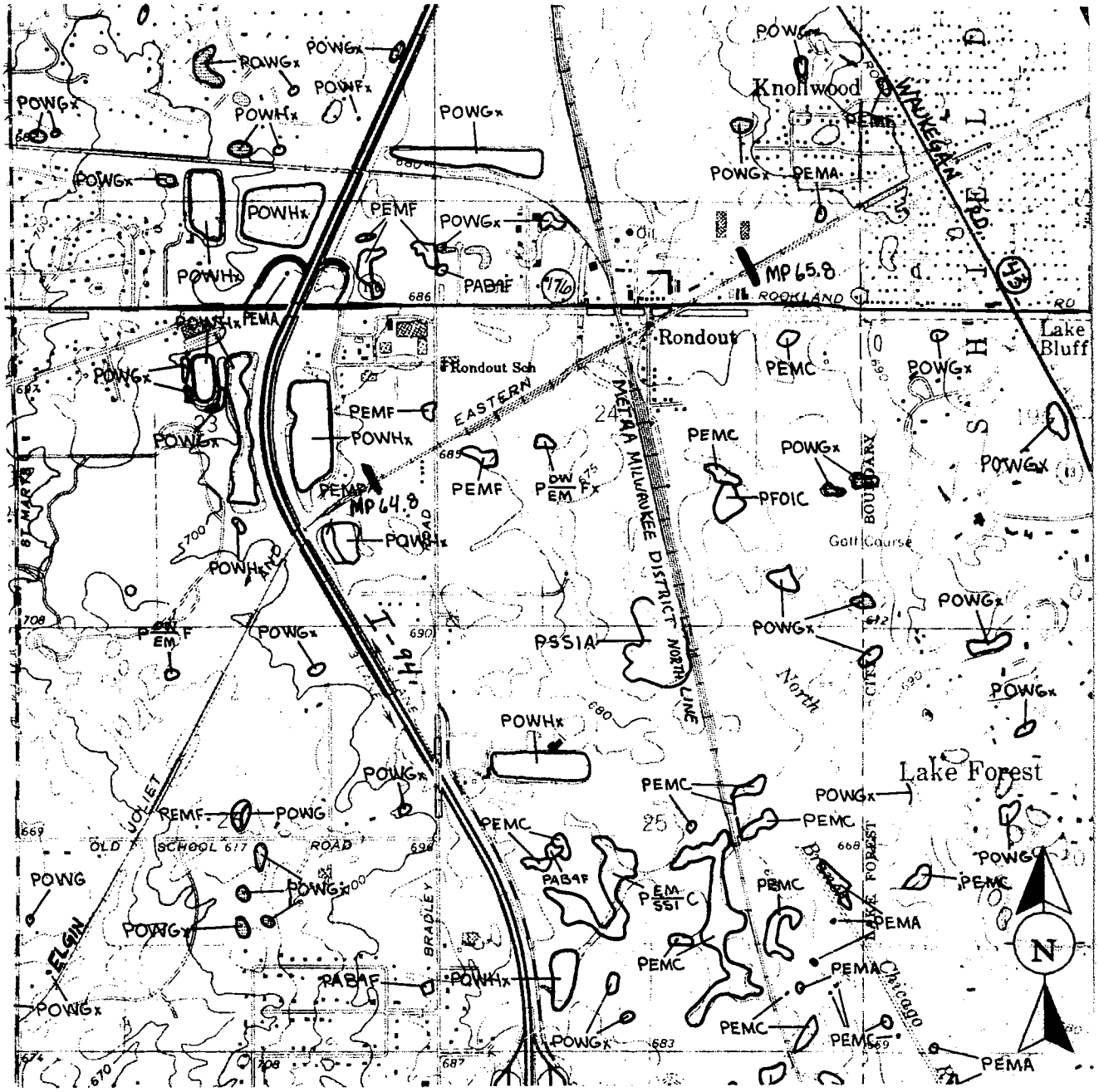
Item	Unit	Unit Cost	Rail Segment 1 Waukegan to Spaulding Quantity	Rail Segment 1 Waukegan to Spaulding Cost	Rail Segment 2 Spaulding to Joliet Quantity	Rail Segment 2 Spaulding to Joliet Cost	Rail Segment 3 Joliet to Lynwood Quantity	Rail Segment 3 Joliet to Lynwood Cost	Other Quantity	Other Cost	Total Quantity	Total Cost
TRACK, RIGHT-OF-WAY, STRUCTURES												
Upgrade Existing Track/New Track Installation												
Track removal	lf	$30	100,200	$3,006,000	80,000	$2,400,000	143,100	$4,293,000			323,300	$9,699,000
Install subballast, ballast, ties, 136# CWR, and OTM	lf	$180	45,000	$8,100,000	51,500	$9,270,000	36,000	$6,480,000			132,500	$23,850,000
Install 136# CWR and OTM	lf	$95	100,200	$9,519,000	80,000	$7,600,000	143,100	$13,594,500			323,300	$30,713,500
Remove existing #10 turnout	ea	$20,000	16	$320,000	27	$540,000	21	$420,000			64	$1,280,000
Install #20 turnout	ea	$150,000	24	$3,600,000	33	$4,950,000	25	$3,750,000			82	$12,300,000
Install universal crossover (#20 turnouts)	ea	$600,000			1	$600,000	1	$600,000			2	$1,200,000
Tie replacement	ea	$80	16,525	$1,322,000	16,980	$1,358,400	28,070	$2,245,600			61,575	$4,926,000
Track surfacing (ballast placement)	lf	$3.50	192,800	$674,800	235,500	$824,250	163,700	$572,950			592,000	$2,072,000
Ballast undercutting	lf	$50	192,800	$9,640,000	235,500	$11,775,000	163,700	$8,185,000			592,000	$29,600,000
Replace rigid bolted frogs with RBM frogs	ea	$12,000	19	$228,000	26	$312,000	24	$288,000			69	$828,000
Track salvage value (80% of track removed)	lf	$10.50	80,160	($841,680)	64,000	($672,000)	114,480	($1,202,040)			258,640	($2,715,720)
Track scrap value (20% of track removed)	lf	$0.50	20,040	($10,020)	16,000	($8,000)	28,620	($14,310)			64,660	($32,330)
OTM scrap value	lf	$0.05	143,500	($7,175)	170,500	($8,525)	156,000	($7,800)			470,000	($23,500)
Turnout scrap value	ea	$500	16	($8,000)	27	($13,500)	21	($10,500)			64	($32,000)
Fill	cy	$15	55,480	$832,200	62,660	$939,900	43,885	$658,275			162,025	$2,430,375
Widen existing bridges (average cost)	lf	$10,000	677	$6,770,000	65	$650,000					742	$7,420,000
Extend existing culverts (average cost)	lf	$150	700	$105,000	525	$78,750	400	$60,000			1,625	$243,750
Ditch cutting/cleaning	lf	$1.50	385,600	$578,400	471,000	$706,500	327,400	$491,100			1,184,000	$1,776,000
Upgrade Existing At-Grade Crossings												
Place 2nd track through grade crossing, rebuild, relocate signals	ea	$355,000	12	$4,260,000	8	$2,840,000	13	$4,615,000			33	$11,715,000
Upgrade existing track crossing to CFBG	ea	$200,000	13	$2,600,000	23	$4,600,000	1	$200,000			37	$7,400,000
Upgrade existing unsignalized pedestrian crossings to CFB	ea	$100,000			4	$400,000					4	$400,000
Subtotal, Track, Right-of-way, Structures =				**$50,688,525**		**$49,142,775**		**$45,218,775**				**$145,050,075**
SIGNALS												
Signal System												
Install interlocking	ea	$1,500,000	2	$3,000,000	2	$3,000,000	1	$1,500,000			5	$7,500,000
Install universal crossover interlocking	ea	$3,000,000			1	$3,000,000	1	$3,000,000			2	$6,000,000
Signal installation, single track	ea	$150,000	15	$2,250,000	8	$1,200,000	8	$1,200,000			31	$4,650,000
Signal installation, bi-directional	ea	$450,000	17	$7,650,000	21	$9,450,000	16	$7,200,000			54	$24,300,000
Intermediate signal installation, bi-directional	ea	$450,000	6	$2,700,000	2	$900,000					8	$3,600,000
Modify existing signals	ea	$100,000	15	$1,500,000	41	$4,100,000	36	$3,600,000			92	$9,200,000
Remove existing signal	ea	$50,000	2	$100,000	6	$300,000	4	$200,000			12	$600,000
Install electric lock	ea	$100,000	25	$2,500,000	32	$3,200,000	15	$1,500,000			72	$7,200,000
Subtotal, Signals =				**$19,700,000**		**$25,150,000**		**$18,200,000**				**$63,050,000**
JOLIET RAIL YARD MODIFICATIONS[1]												
New Through Track												
Remove existing #10 turnout	ea	$20,000							9	$180,000	9	$180,000
Track removal	lf	$30							1,070	$32,100	1,070	$32,100
Install #20 turnout	ea	$150,000							10	$1,500,000	10	$1,500,000
Install subgrade, subballast, ballast, ties, 136# CWR, and OTM	lf	$305							7,800	$2,379,000	7,800	$2,379,000
Install ties, 136# CWR, and OTM	lf	$145							5,705	$827,225	5,705	$827,225
Install diamond crossing	ea	$300,000							1	$300,000	1	$300,000
New structure	lf	$10,000							1,520	$15,200,000	1,520	$15,200,000
Relocate retaining wall	lf	$300							675	$202,500	675	$202,500
Subtotal, Joliet Rail Yard Modifications =										**$20,620,825**		**$20,620,825**

TABLE 1
Capital Cost Estimates for Joint-Running Single-Track Outer Circumferential Alternative (1997 dollars)

			Rail Segment 1		Rail Segment 2		Rail Segment 3		Other			
			Waukegan to Spaulding		Spaulding to Joliet		Joliet to Lynwood				Total	
Item	Unit	Unit Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Total Cost
COMMUTER STATION FACILITIES[2]												
Commuter stations with park-and-ride[3]	ls		1	$3,850,000	1	$8,432,000	1	$2,937,500			1	$15,219,500
Combined park-and-ride and transfer stations[4]	ls		1	$2,875,000			1	$1,875,000			1	$4,750,000
Transfer-only stations[4]	ls		1	$2,150,000	1	$5,345,000	1	$800,000			1	$8,295,000
Subtotal, Commuter Station Facilities =				**$8,875,000**		**$13,777,000**		**$5,612,500**				**$28,264,500**
STORAGE AND MAINTENANCE FACILITIES												
Rail Facilities												
Layover facility (overnight train storage, crew welfare building)	ls	$4,900,000							2	$9,800,000	2	$9,800,000
Heavy maintenance facility	ls	$24,852,000							1	$24,852,000	1	$24,852,000
Spare parts inventory	ls	$1,925,000							1	$1,925,000	1	$1,925,000
Subtotal, Storage and Maintenance Facilities =										**$36,577,000**		**$36,577,000**
ROLLING STOCK												
Traditional Train Sets[5]												
Locomotive (includes 1 spare)	ea	$2,400,000	5	$12,000,000	7	$16,800,000	5	$12,000,000			17	$40,800,000
Passenger coach (includes 2 spares)	ea	$2,000,000	22	$44,000,000	30	$60,000,000	22	$44,000,000			74	$148,000,000
Subtotal, Traditional Rolling Stock =				**$56,000,000**		**$76,800,000**		**$56,000,000**				**$188,800,000**
Diesel Multiple Units[6]												
Passenger/Operating units	ea	$3,000,000	22	$66,000,000	30	$90,000,000	22	$66,000,000			74	$222,000,000
Subtotal, Diesel Multiple Units =				**$66,000,000**		**$90,000,000**		**$66,000,000**				**$222,000,000**
Capital Improvements Subtotal (Traditional Rolling Stock) =				$135,263,525		$164,869,775		$125,031,275		$57,197,825		$482,362,400
Capital Improvements Subtotal (Diesel Multiple Units) =				$145,263,525		$178,069,775		$135,031,275		$57,197,825		$515,562,400
30% Contingency[7] =				$23,824,852		$26,461,852		$20,784,972		$17,038,436		$88,110,112
12% Preliminary Engineering, Design, & Construction Management[7] =				$9,511,623		$10,568,373		$8,283,753		$6,863,739		$35,227,488
Capital Improvements Total Cost (Traditional Rolling Stock) [8] =				**$168,600,000**		**$201,900,000**		**$154,100,000**		**$81,100,000**		**$605,700,000**
Capital Improvements Total Cost (Diesel Multiple Units) [8] =				**$178,600,000**		**$215,100,000**		**$164,100,000**		**$81,100,000**		**$638,900,000**

NOTES :

1. Modifications are to permit commuter trains to travel through the Joliet rail yard area without interfering with freight operations or being restricted by operations of the existing lift bridge over the Des Plaines River. Costs do not include modifications to allow transfer of trains to serve the existing Joliet Union Station, via non-EJ&E tracks.
2. Costs do not include land acquisition.
3. Communities were broadly evaluated based on current and projected population numbers, to produce a general estimate of how many small, medium, or large stations might be required in each segment. Small, medium, and large station site estimated costs were based on stations built for Metra's NCS. Estimated costs include paved parking lots (parking spaces, drive aisles, access road, parking lot striping, signage, curb and gutter, lighting, and drainage), depot facilities, and boarding platforms. In general, the following parameters were used in assessing the estimated costs for the station sites:
   - A small station was assumed to consist of 135 parking spaces, a 325 sf depot, and a 215 lf platform.
   - A medium station was assumed to consist of 215 parking spaces, a 835 sf depot, and a 380 lf platform.
   - A large station was assumed to consist of 480 parking spaces, a 1125 sf depot, and a 635 lf platform.
4. Unit costs are not applicable for these items, as each transfer station has elements which vary the cost. Thus, costs are grouped together for the transfer stations.
5. For this study, a traditional train set is assumed to consist of one locomotive, three passenger coaches, and one cab car.
6. For this study, Diesel Multiple Units are assumed to be grouped into four units per train set.
7. Not applied to rolling stock.
8. These costs are estimates only based on existing and projected future conditions. Actual freight traffic and operations at the time of design may affect these estimates.



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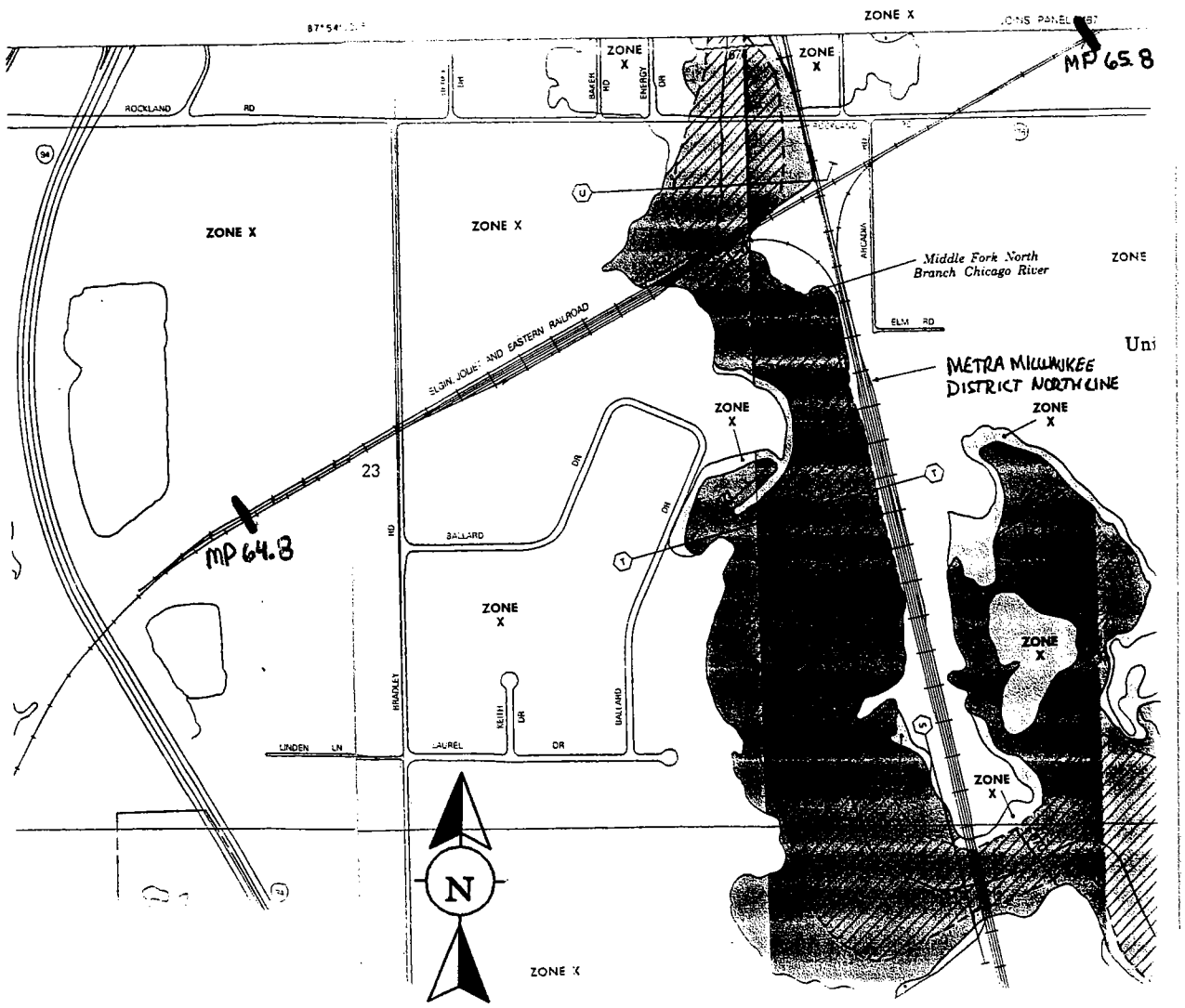
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 65.8 - MP 64.8

Wetland Inventory Map
Preliminary Site Location



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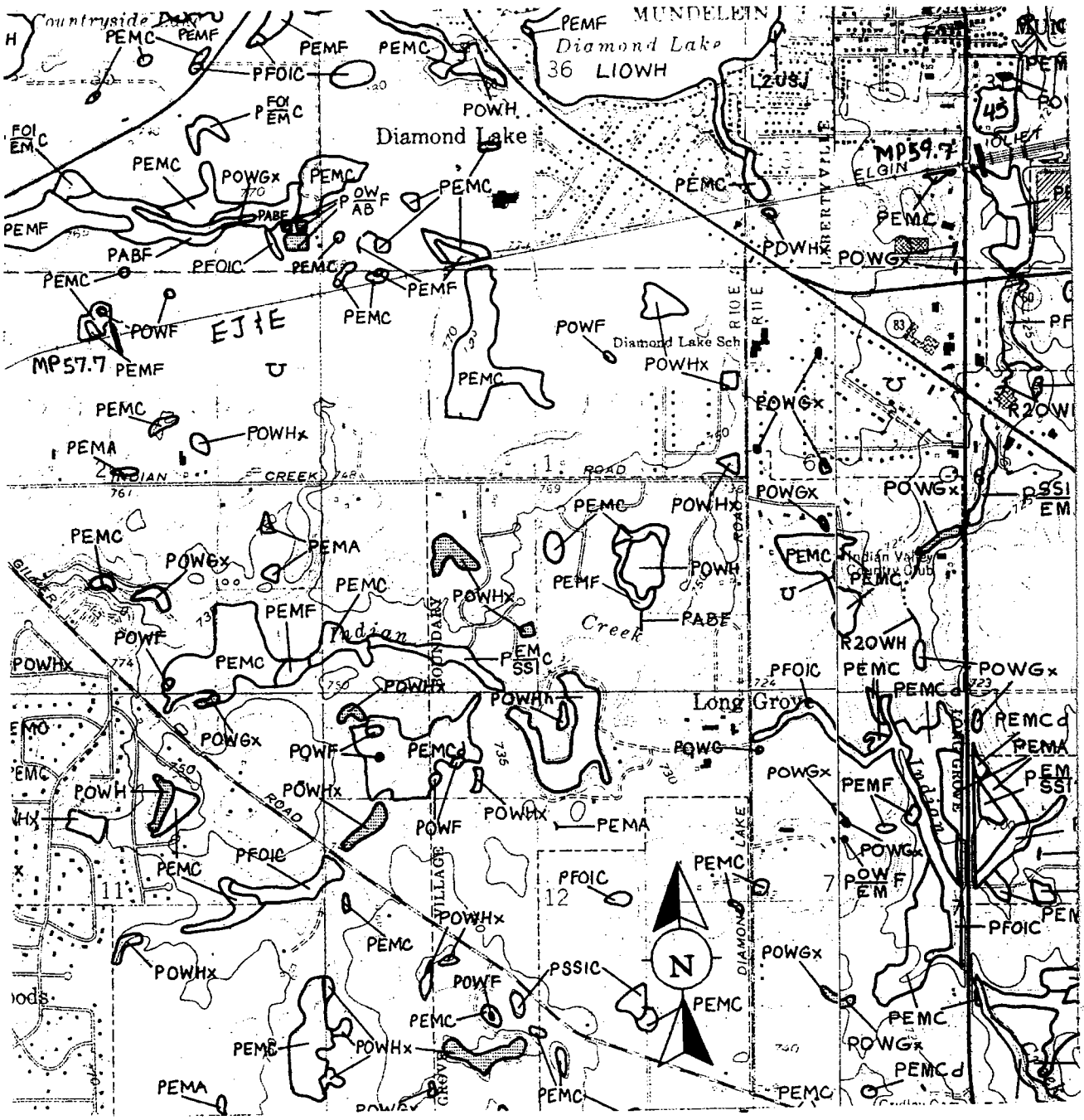

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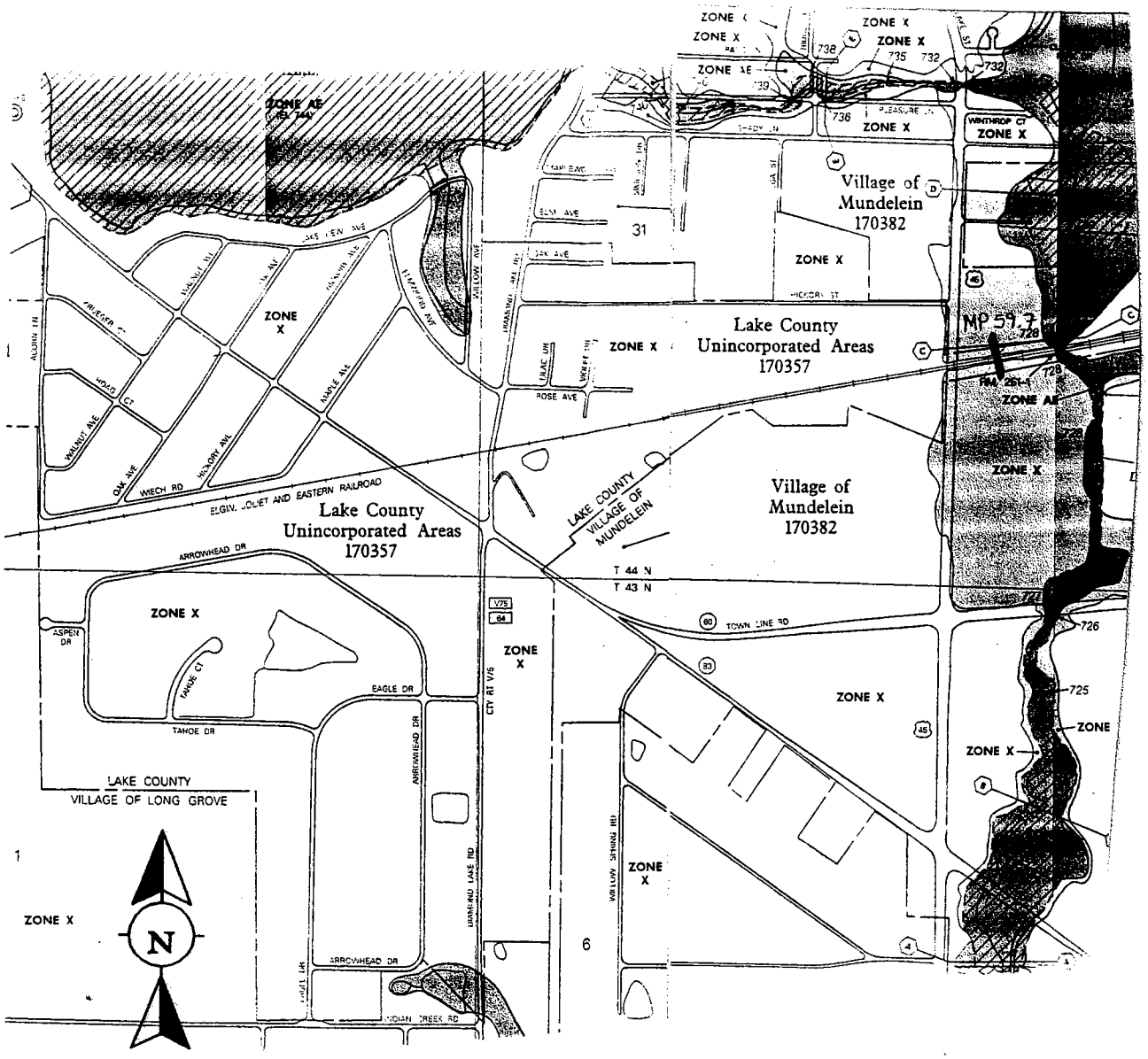
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 59.7 - MP 57.7

Wetland Inventory Map
Preliminary Site Location



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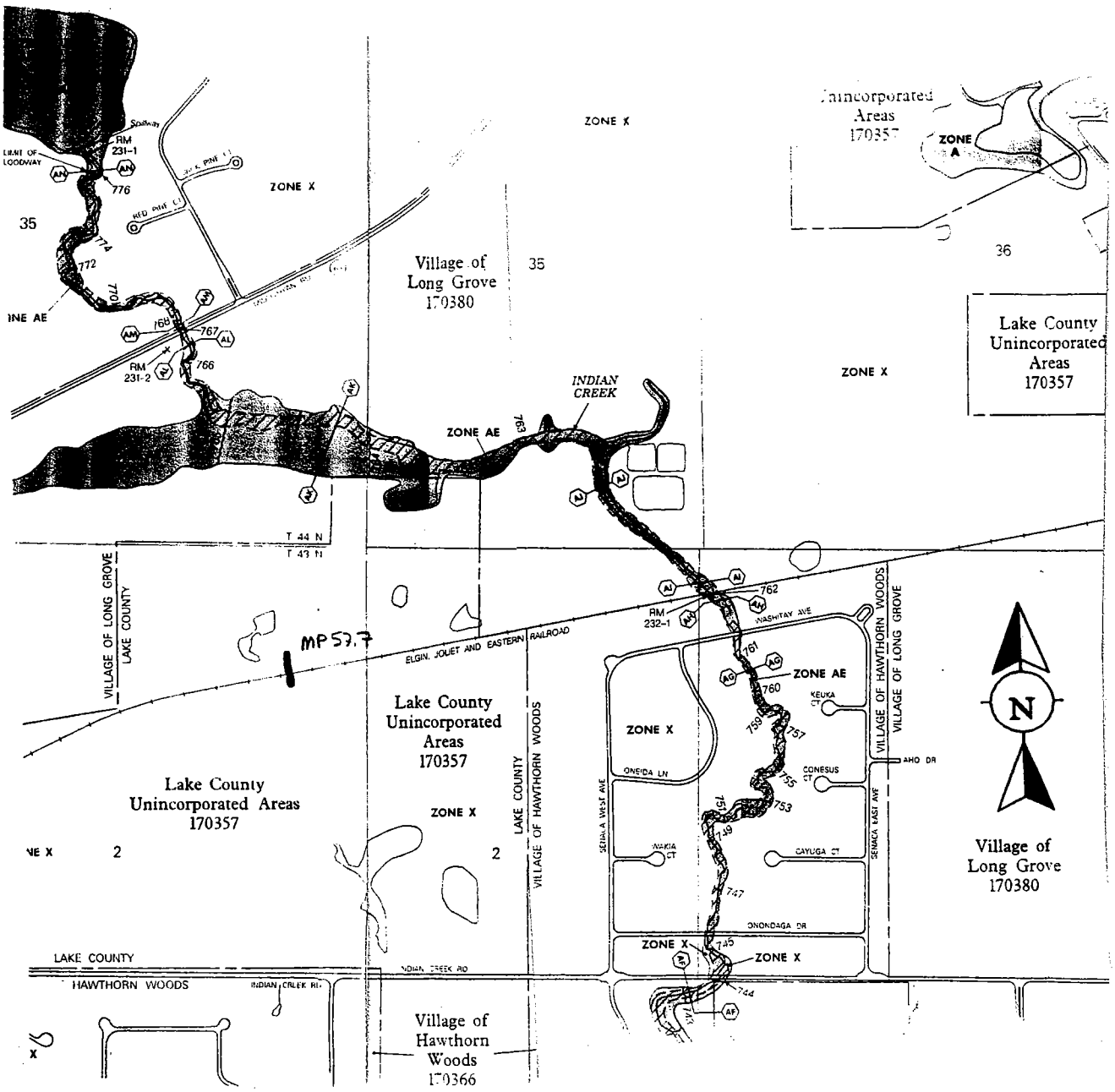
Potential Siding
MP 59.7 - MP 57.7
Part 1 of 2

Floodway/Floodplain Boundary Map
Preliminary Site Location



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Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 59.7 - MP 57.7
Part 2 of 2

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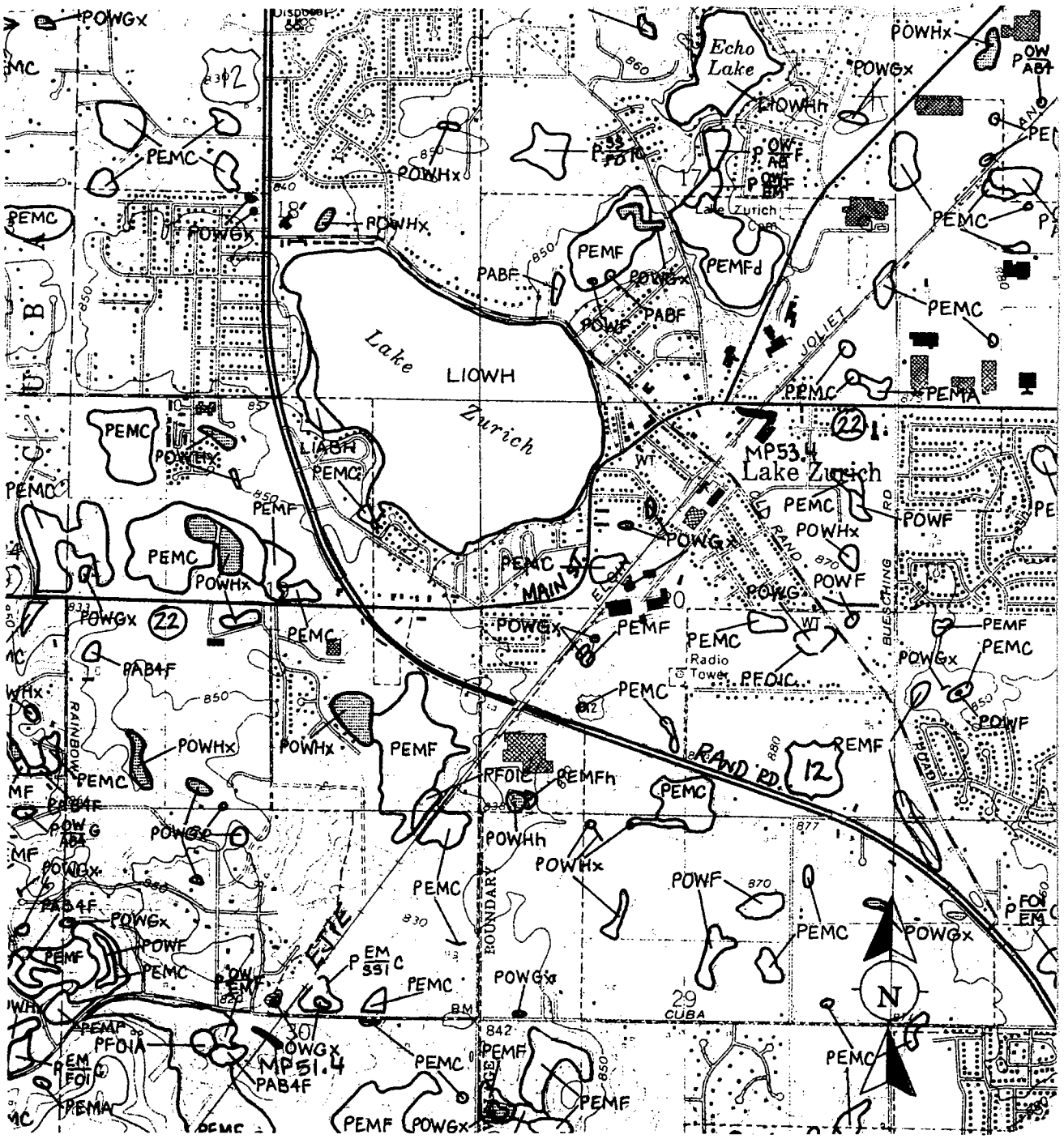
Preliminary Site Location



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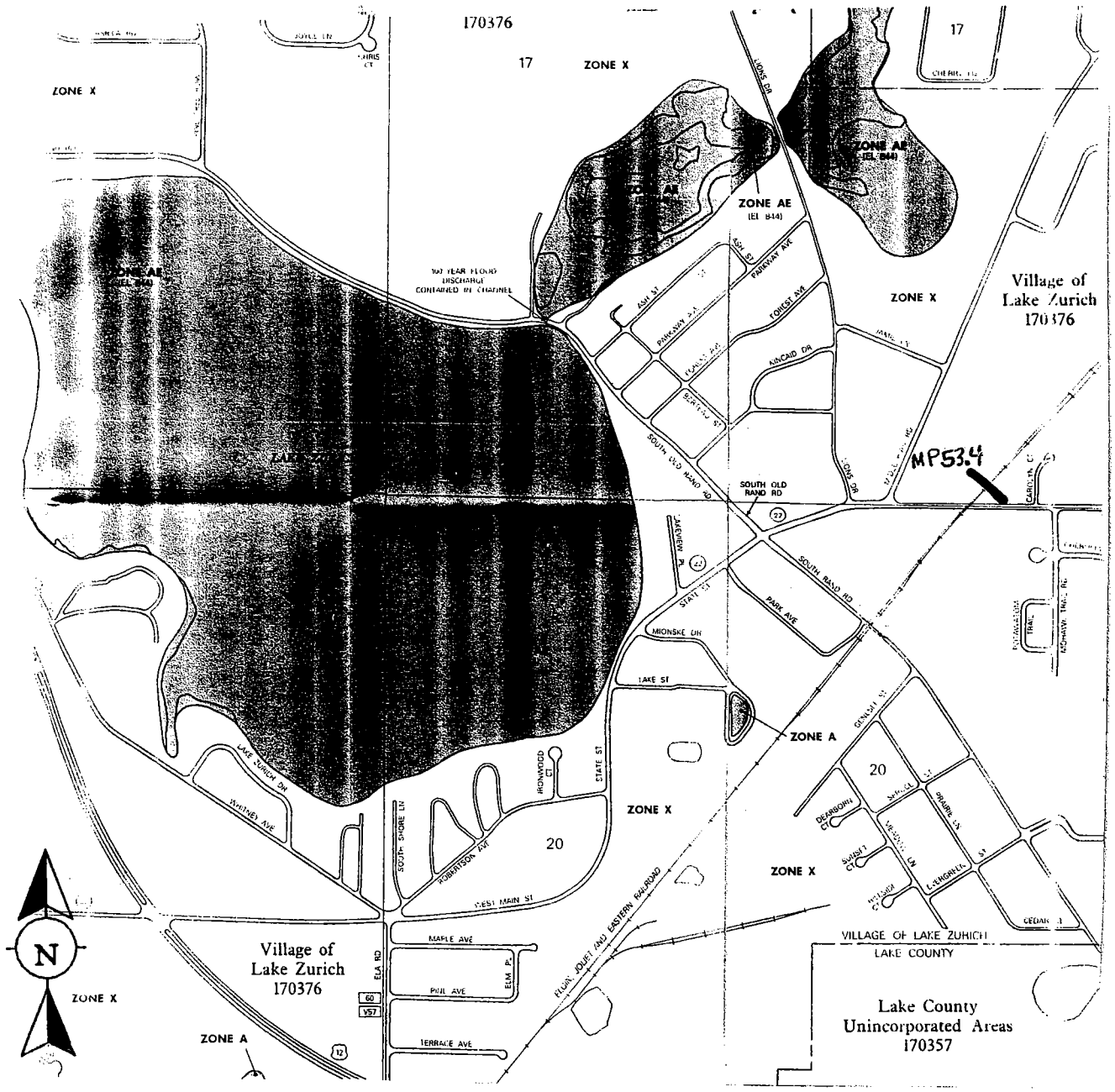
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 53.4 - MP 51.4

Wetland Inventory Map
Preliminary Site Location



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Potential Siding
MP 53.4 - MP 51.4
Part 1 of 2

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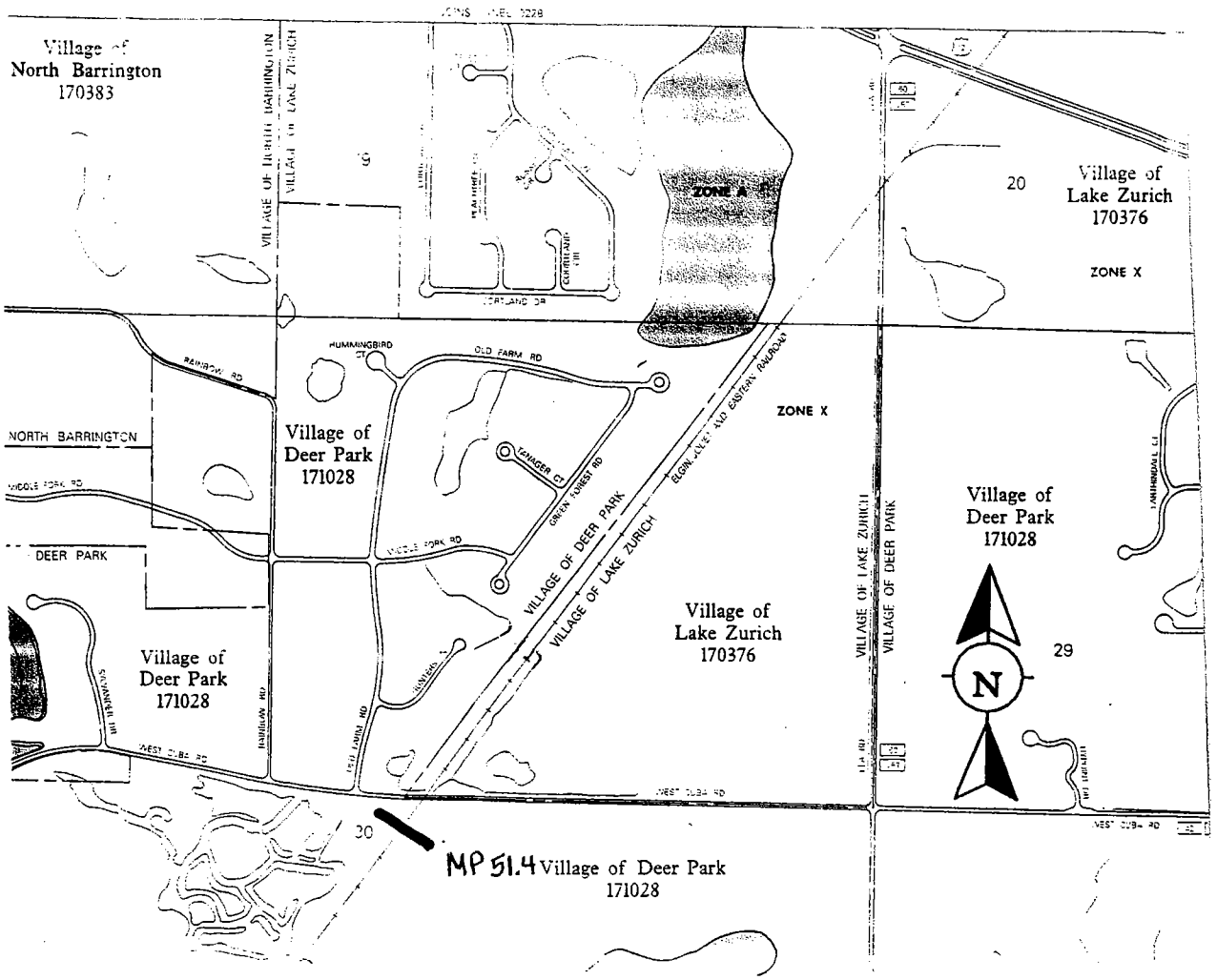

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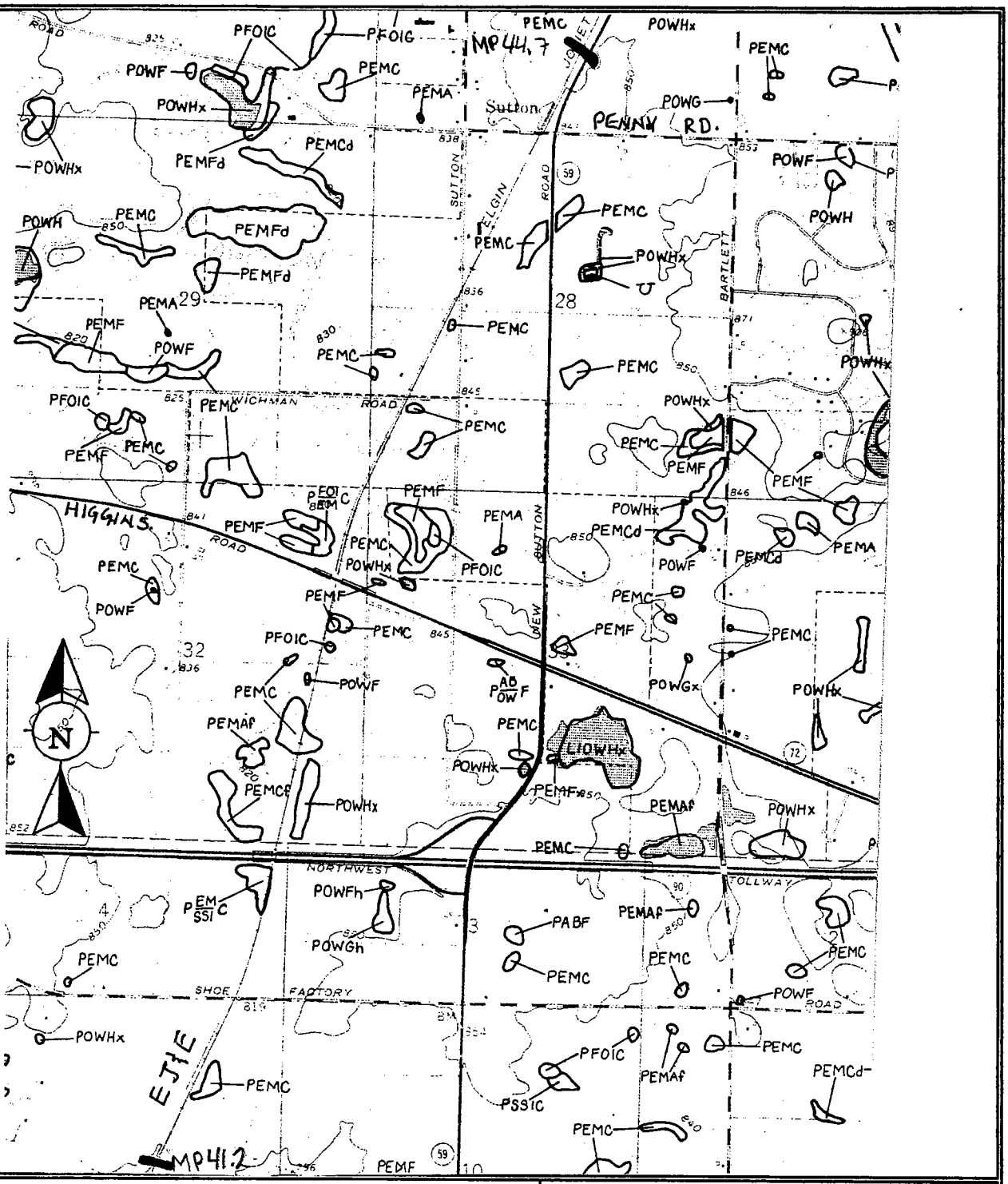

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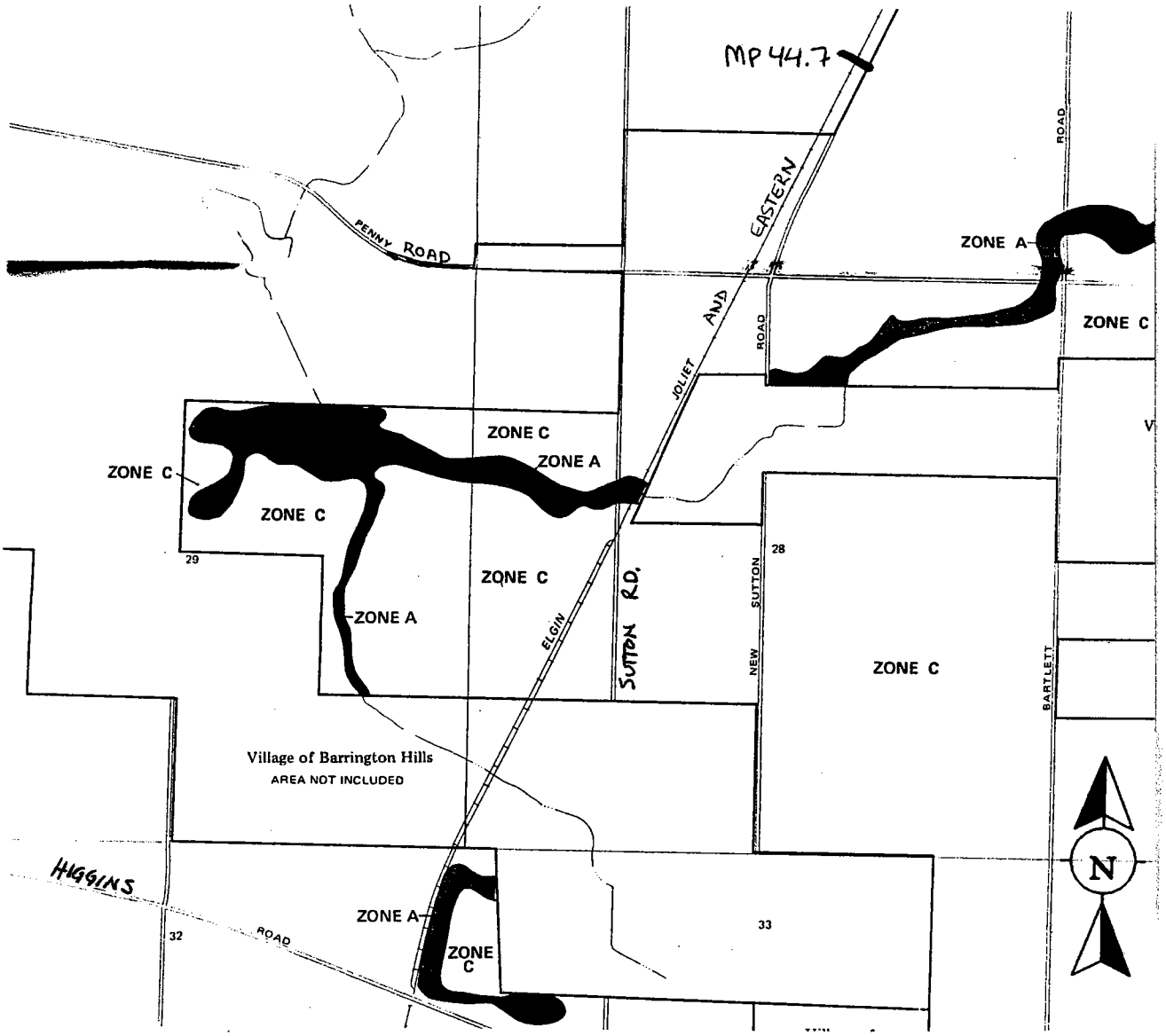
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 44.7 - MP 41.2

Wetland Inventory Map
Preliminary Site Location



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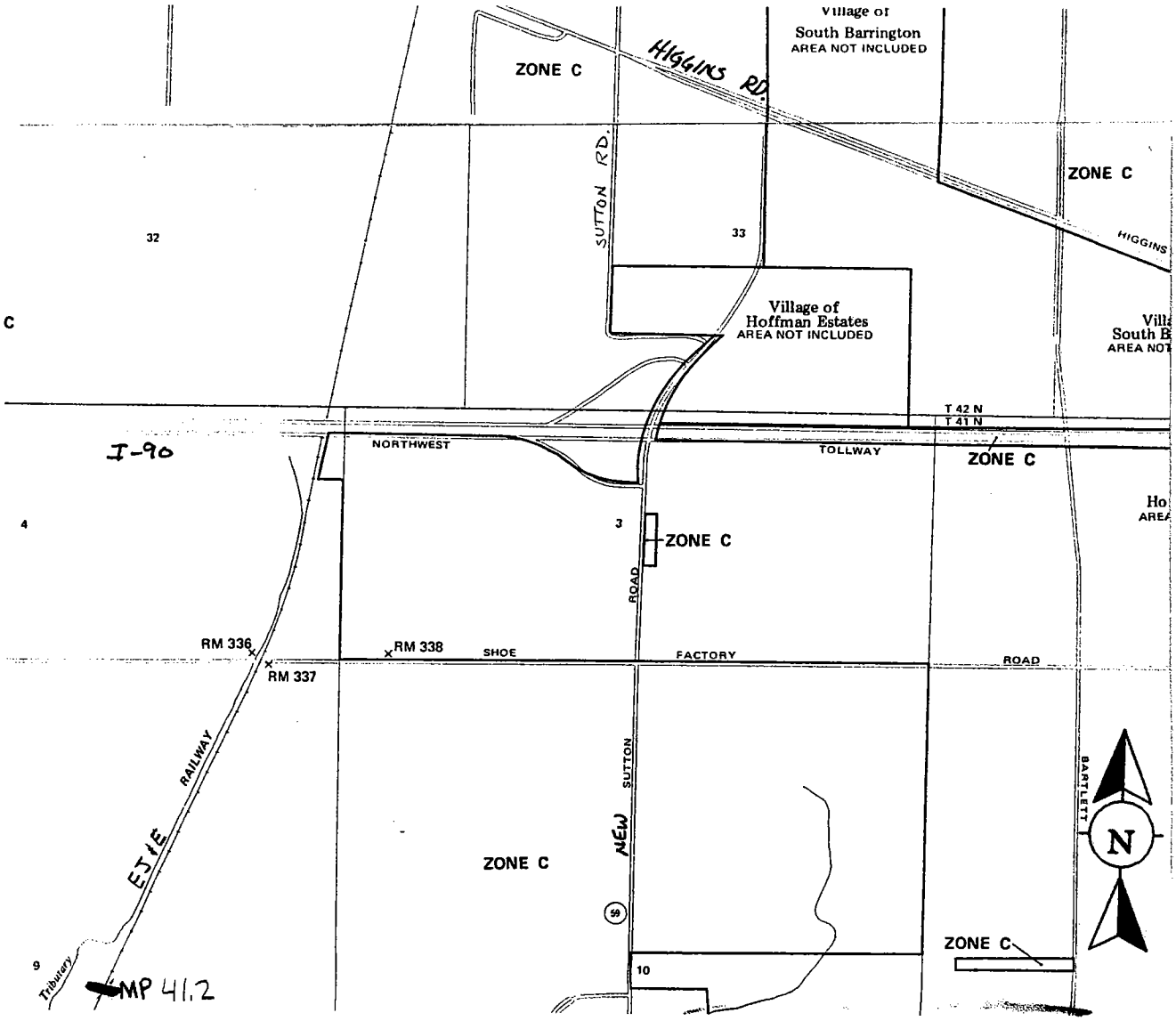
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 44.7 - MP 41.2
Part 1 of 2

Floodway/Floodplain Boundary Map
Preliminary Site Location



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Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 44.7 - MP 41.2
Part 2 of 2

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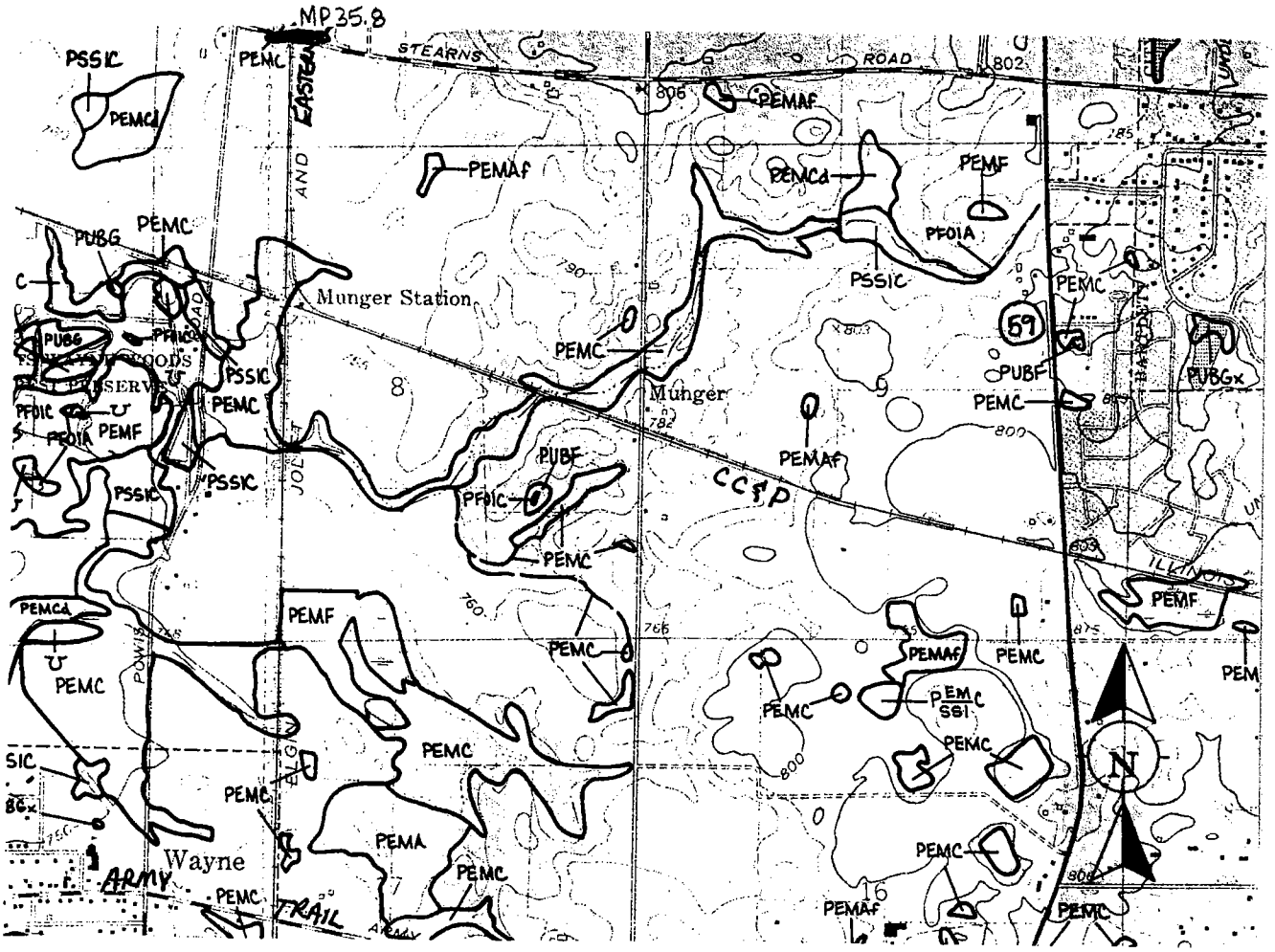

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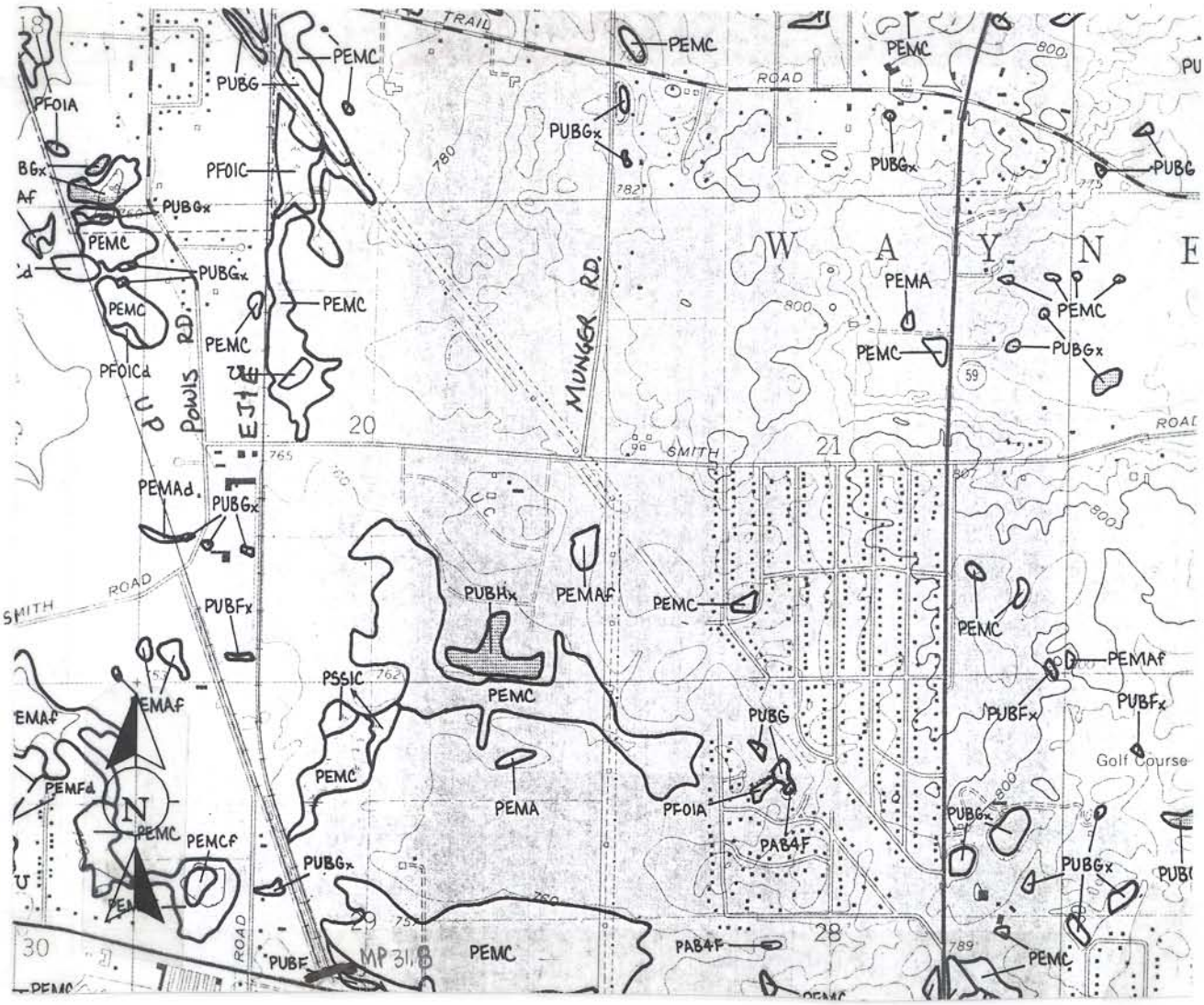
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 35.8 - MP 31.8
Part 1 of 2

Wetland Inventory Map
Preliminary Site Location



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Potential Siding
MP 35.8 - MP 31.8
Part 2 of 2

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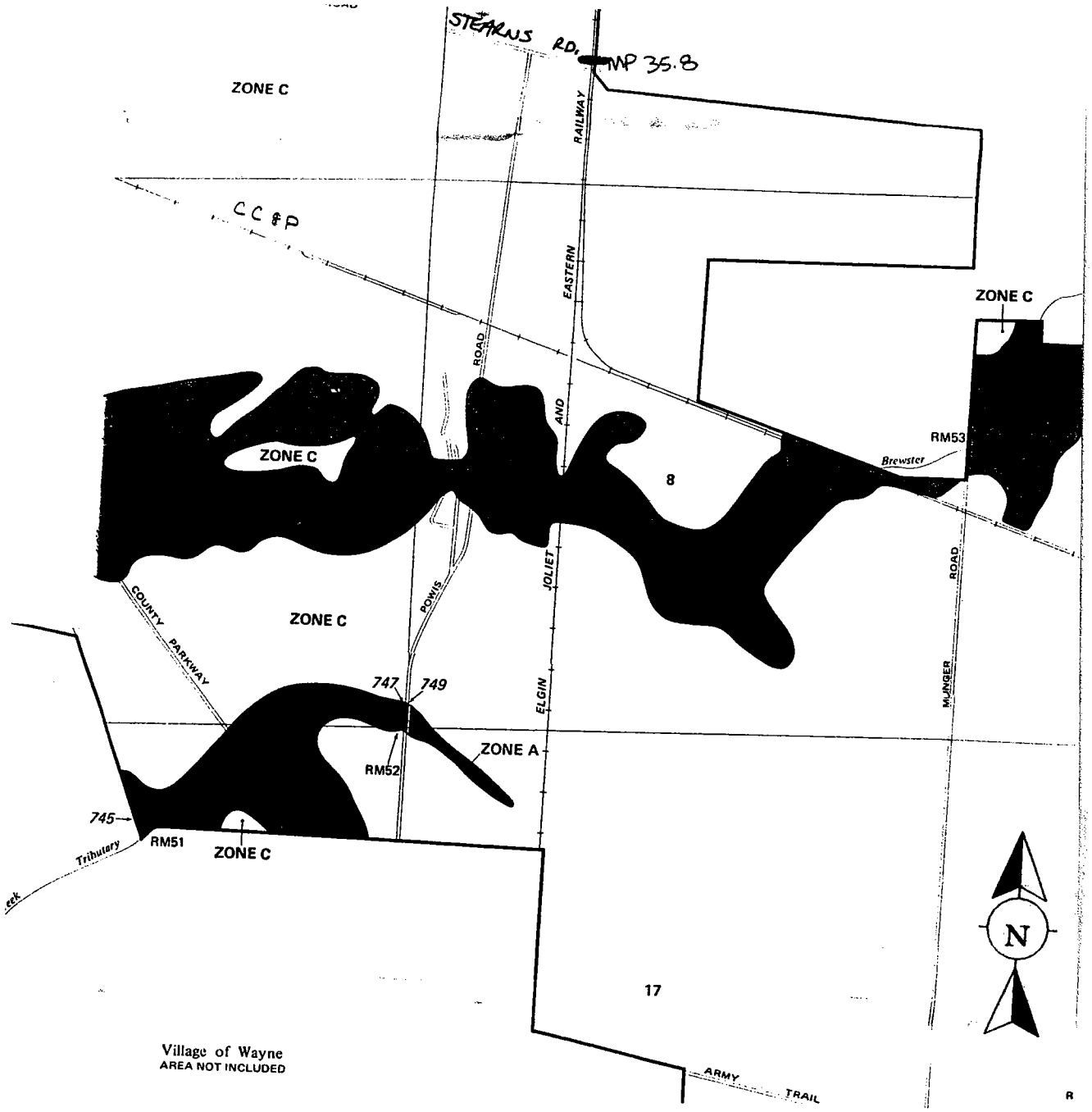

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Potential Siding
MP 35.8 - MP 31.8
Part 1 of 2

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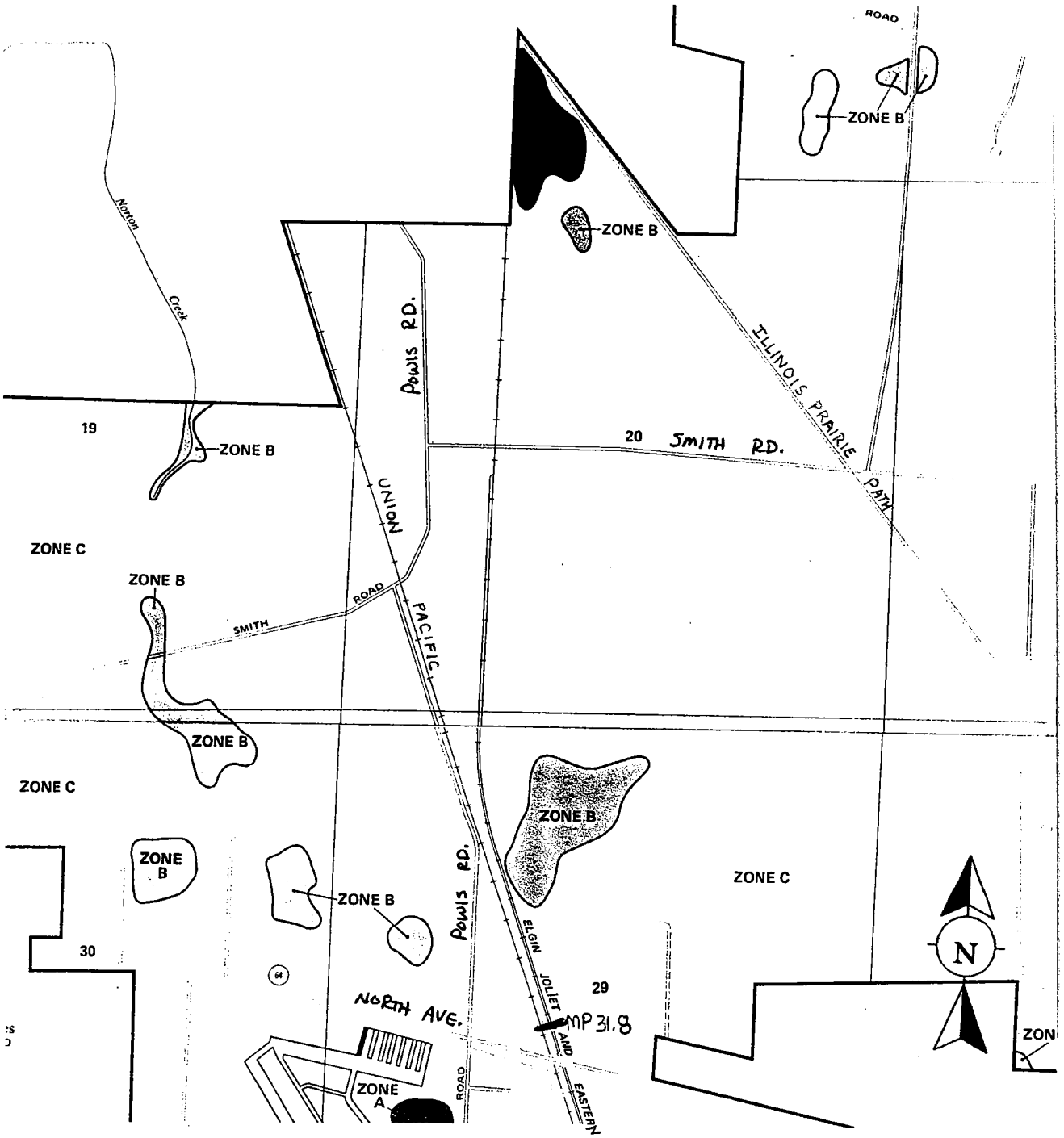

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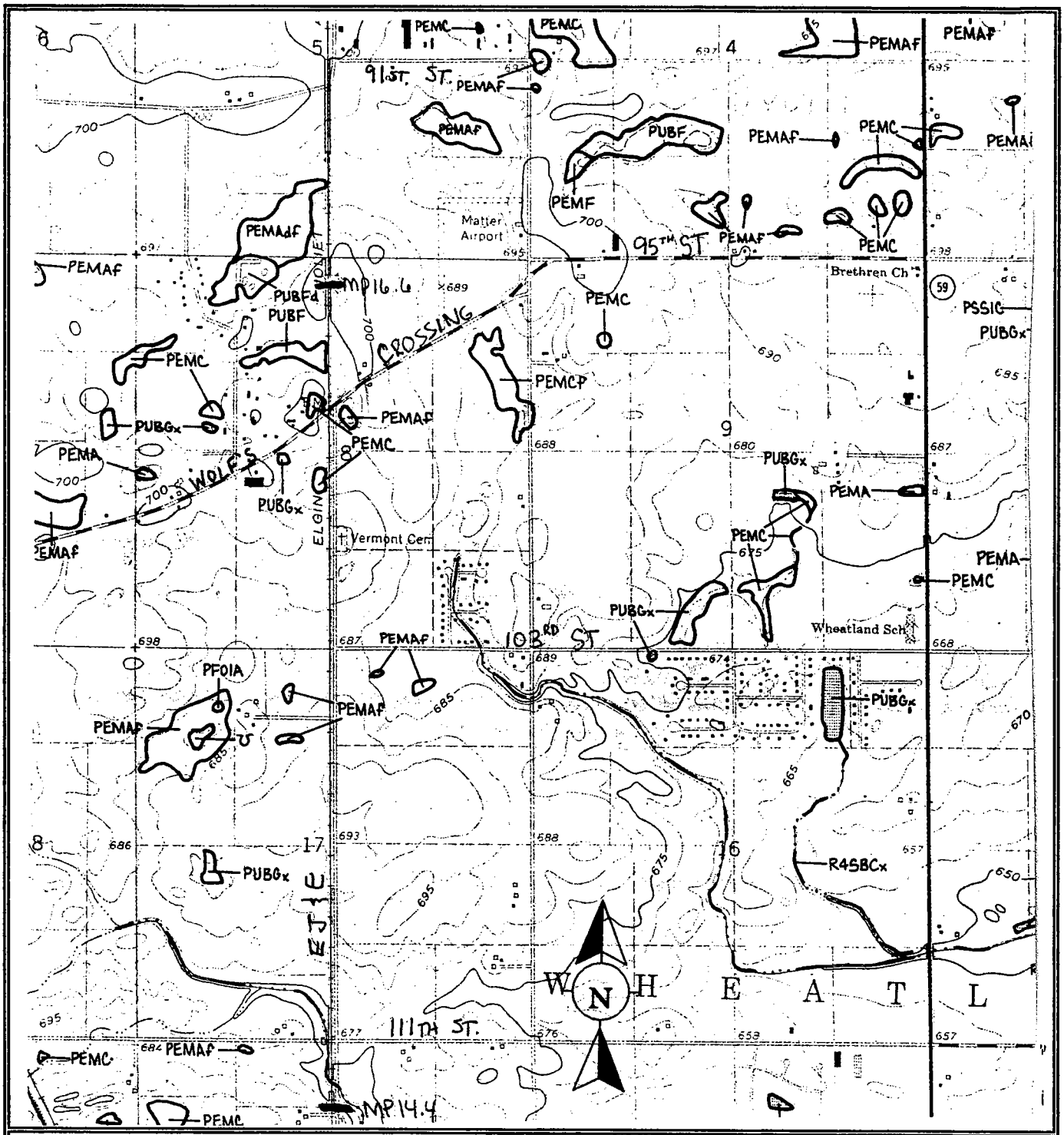

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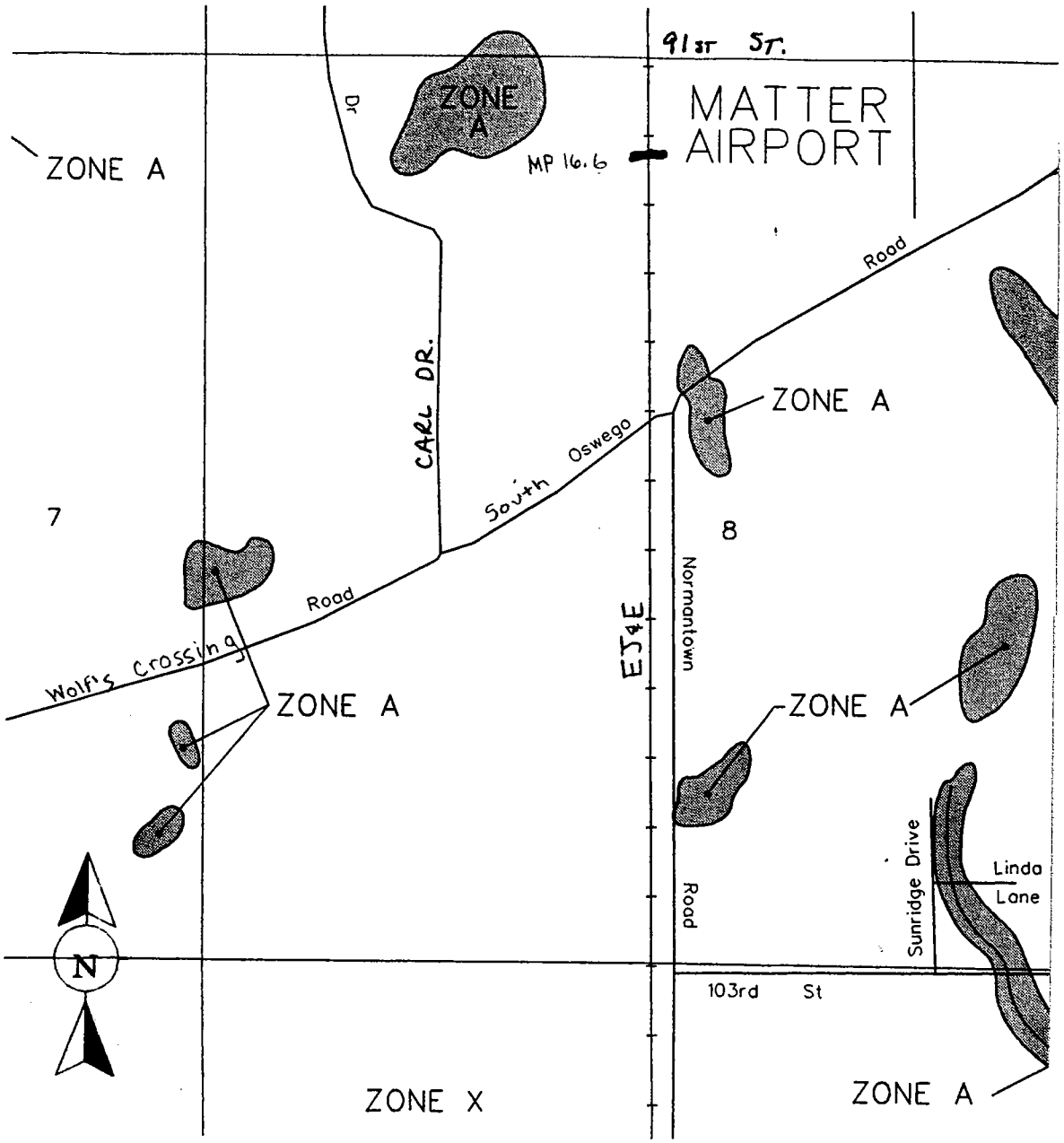
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 16.6 - MP 14.4

Wetland Inventory Map
Preliminary Site Location



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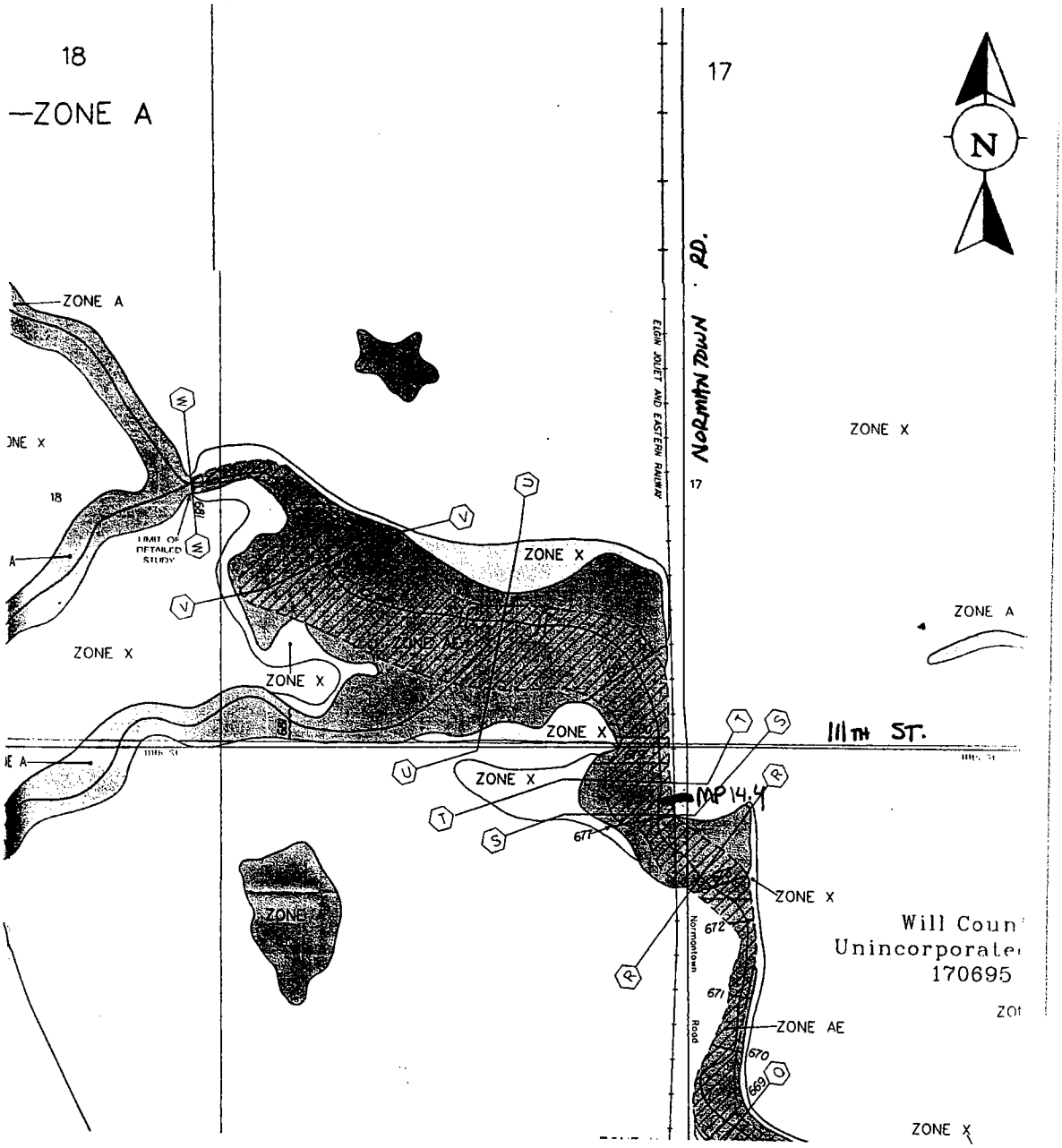
Potential Siding
MP 16.6 - MP 14.4
Part 1 of 2

Floodway/Floodplain Boundary Map
Preliminary Site Location



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Potential Siding
MP 16.6 - MP 14.4
Part 2 of 2

Floodway/Floodplain Boundary Map
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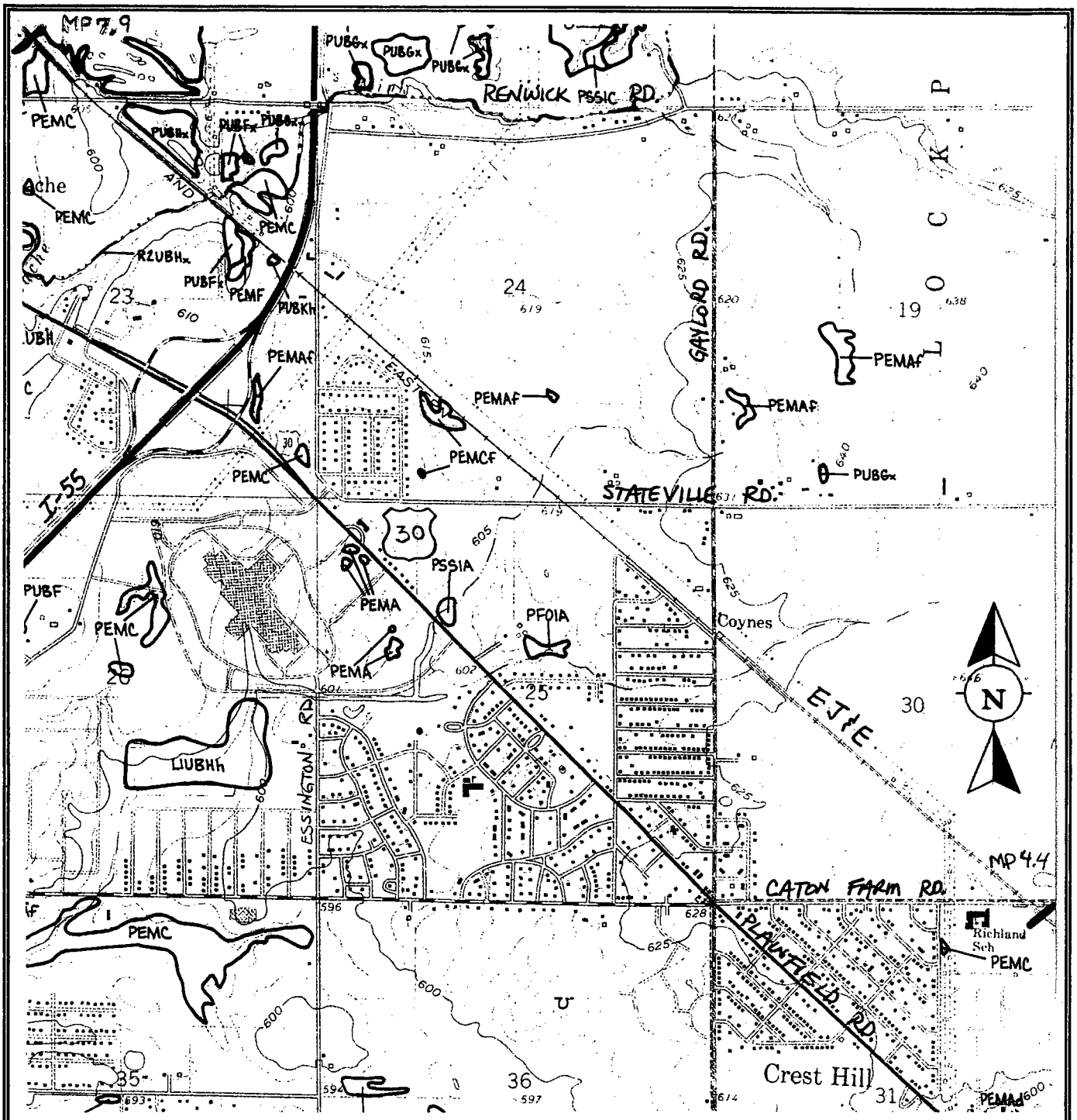

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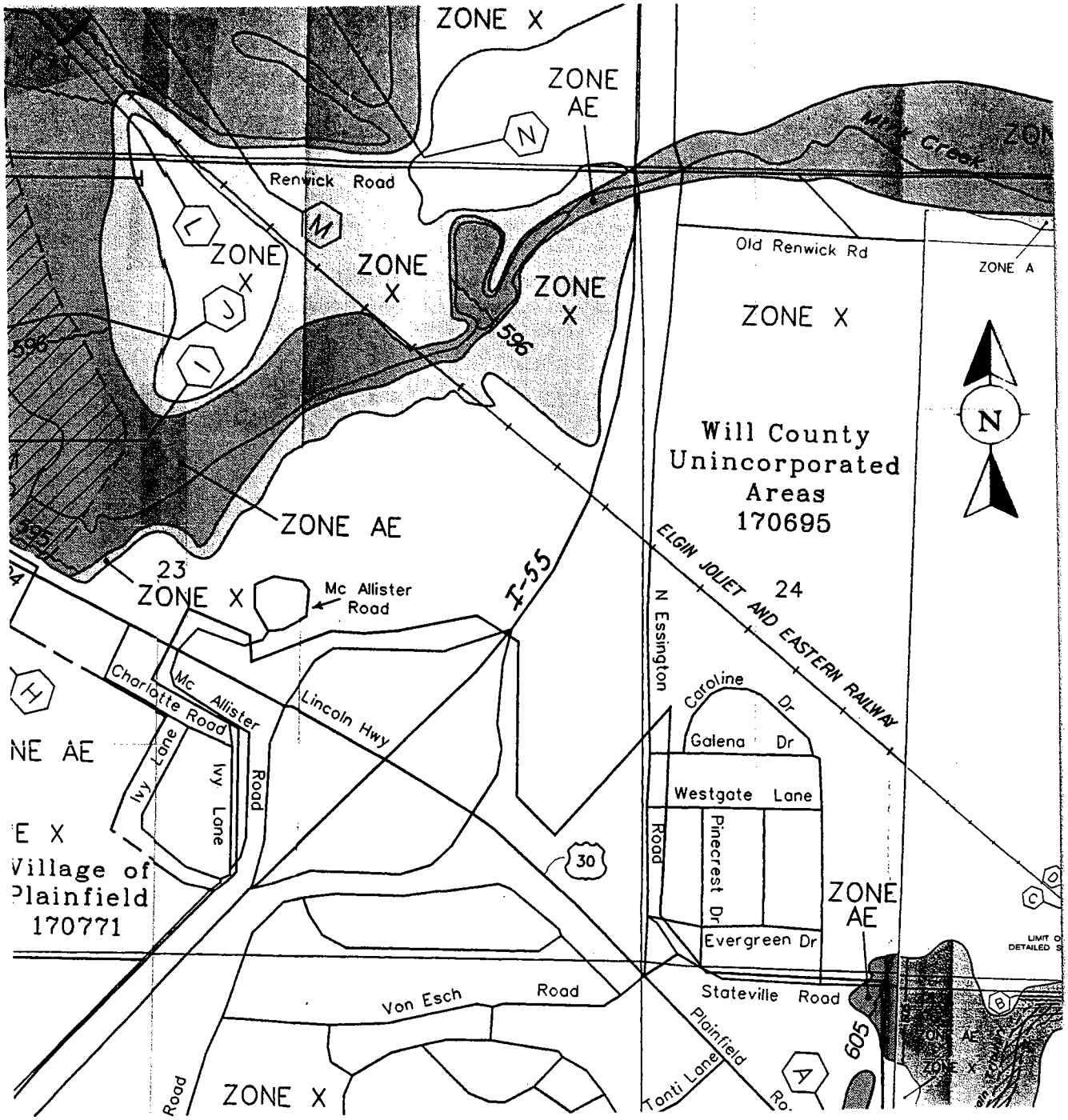
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 7.9 - MP 4.4

Wetland Inventory Map
Preliminary Site Location



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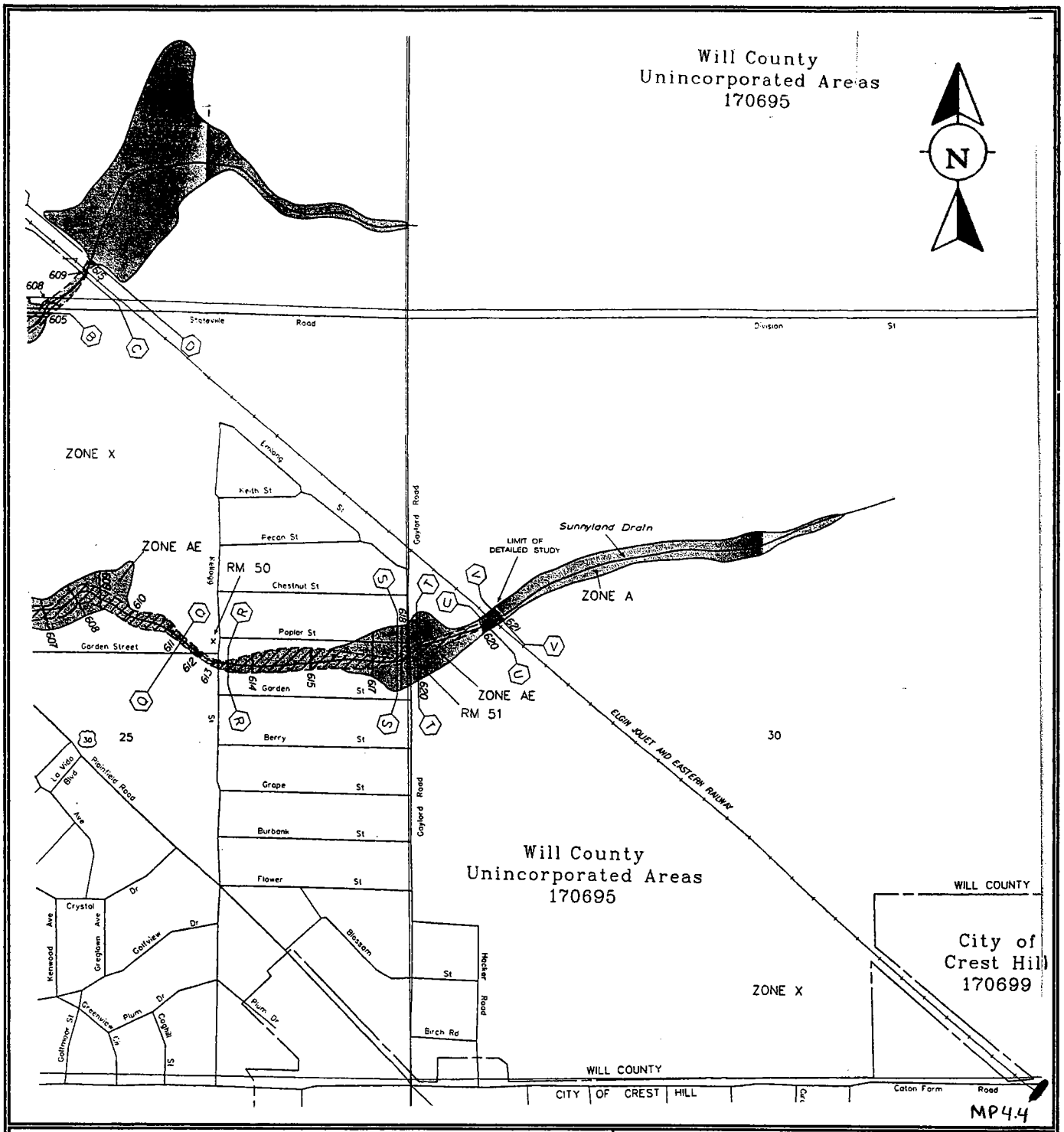
Potential Siding
MP 7.9 - MP 4.4
Part 1 of 2

Floodway/Floodplain Boundary Map
Preliminary Site Location



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Potential Siding
MP 7.9 - MP 4.4
Part 2 of 2

Floodway/Floodplain Boundary Map
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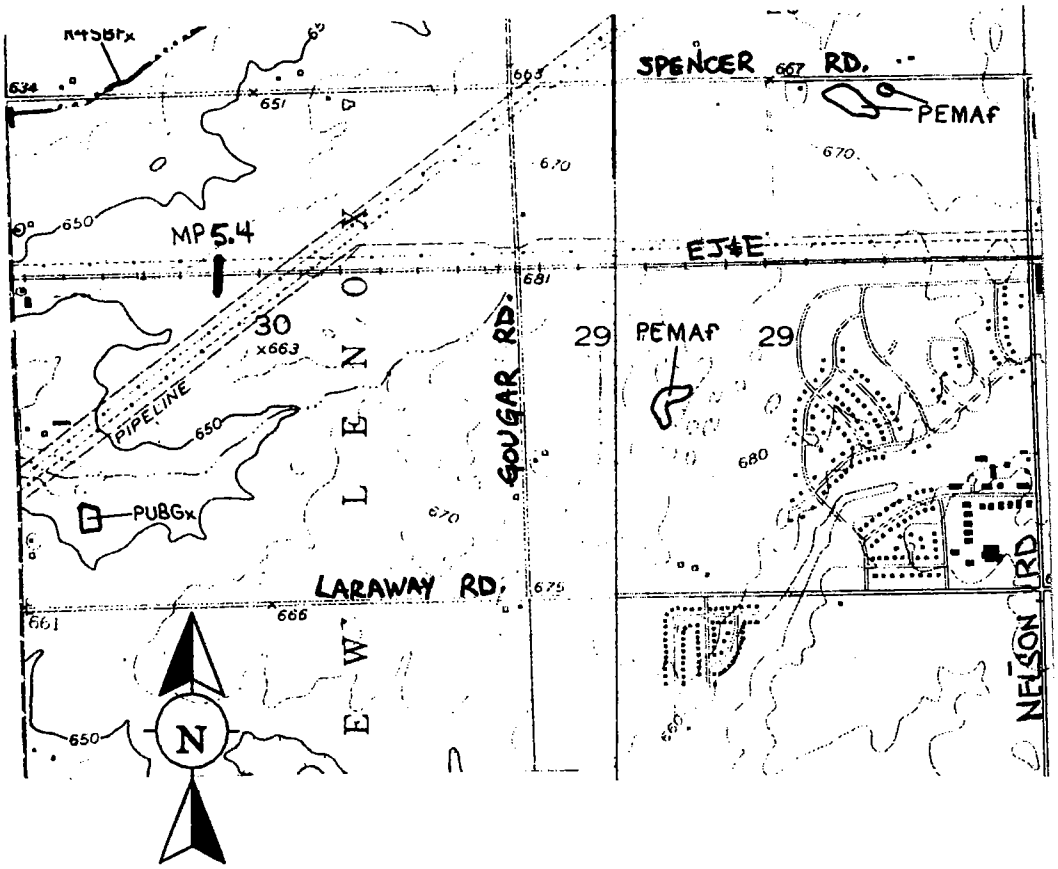

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Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 5.4 - MP 8.2

Part 1 of 2
Wetland Inventory Map
Preliminary Site Location

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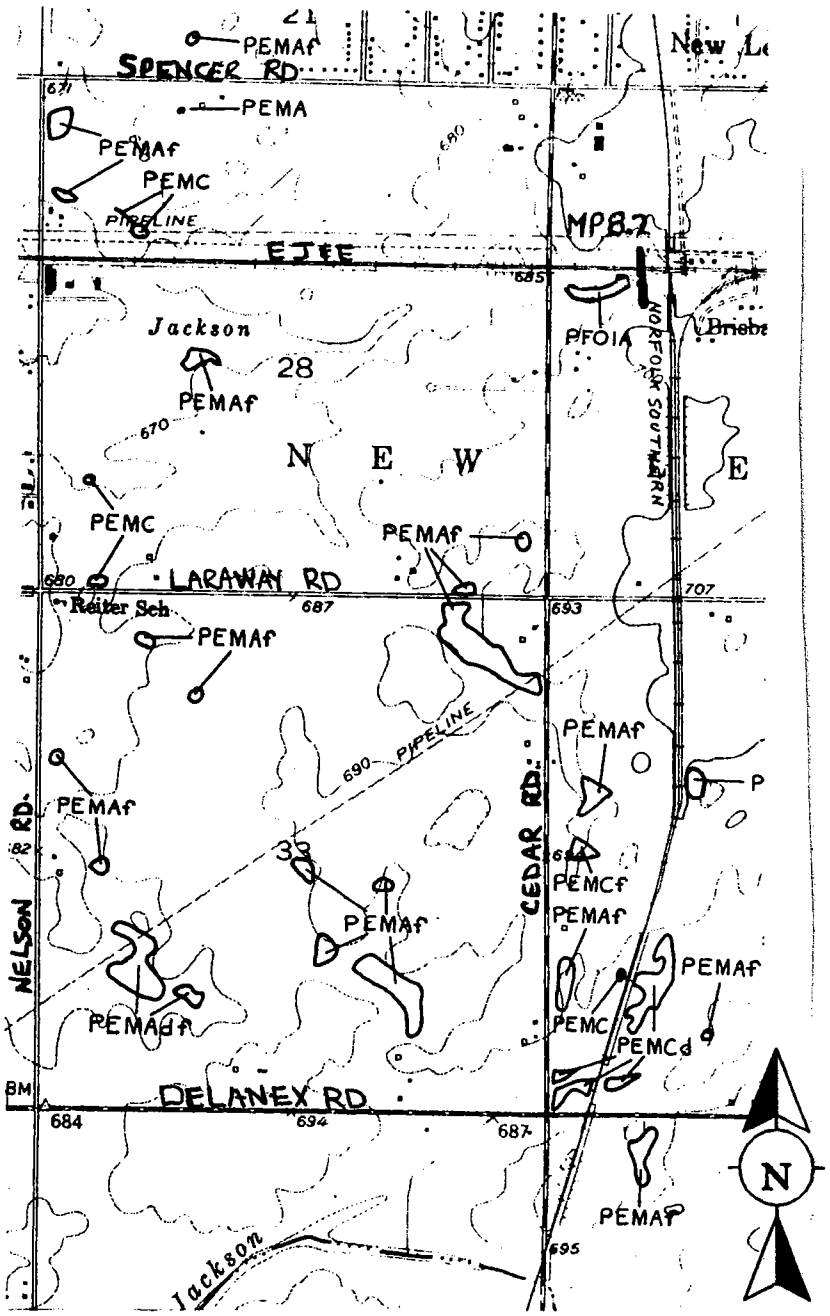

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Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 5.4 - MP 8.2

Part 2 of 2
Wetland Inventory Map
Preliminary Site Location

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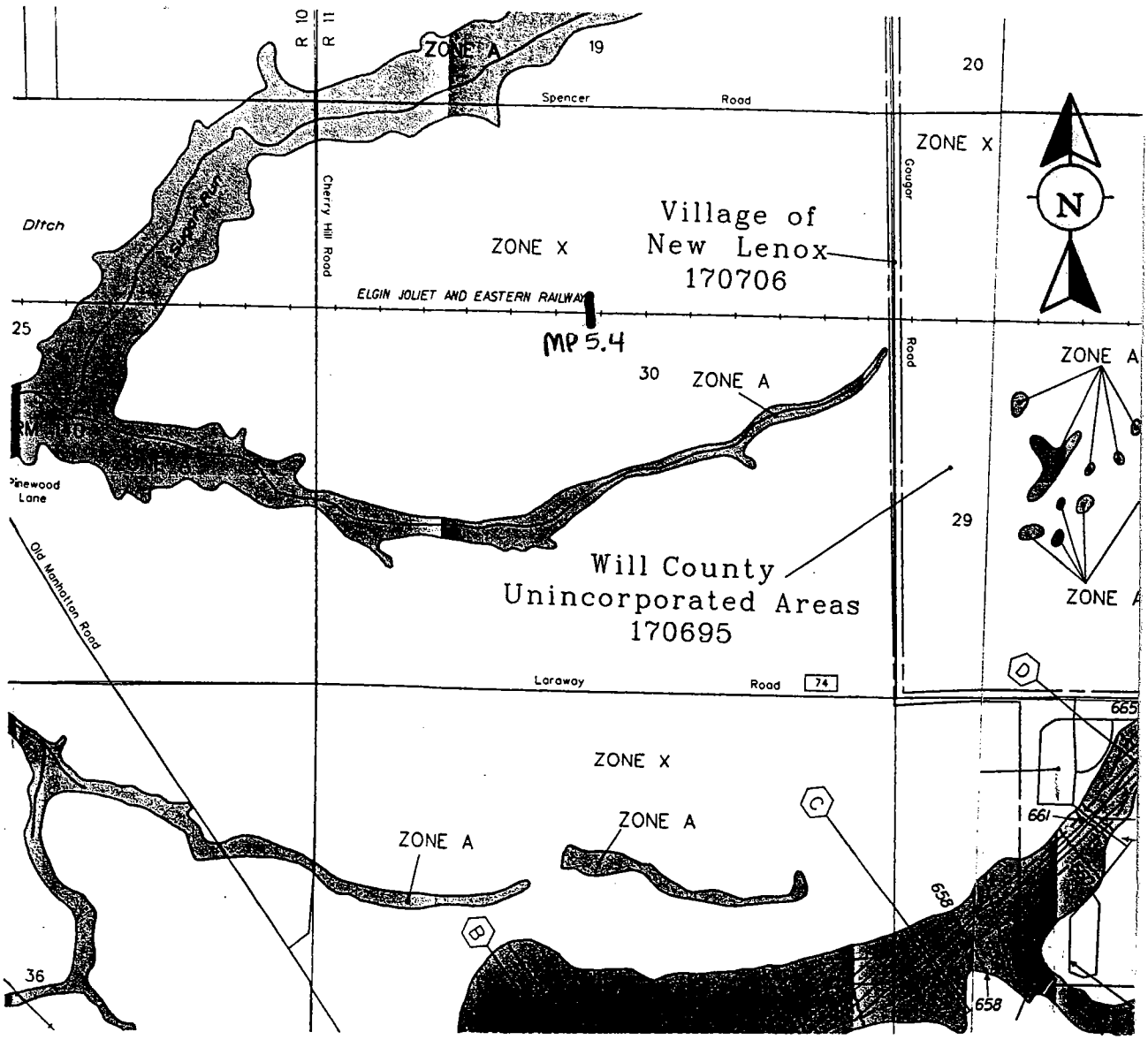

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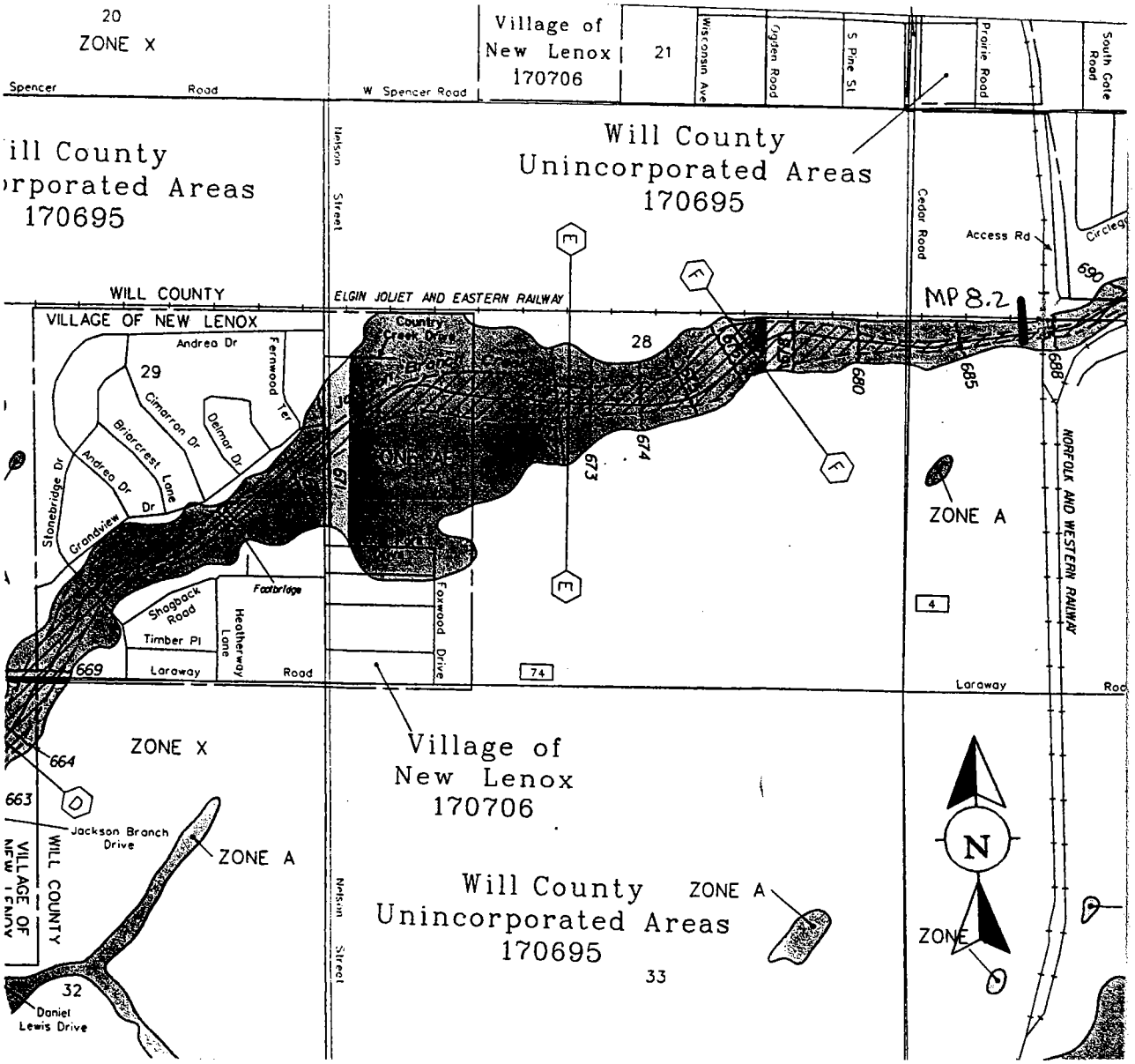
Part 1 of 2

Floodway/Floodplain Boundary Map
Preliminary Site Location



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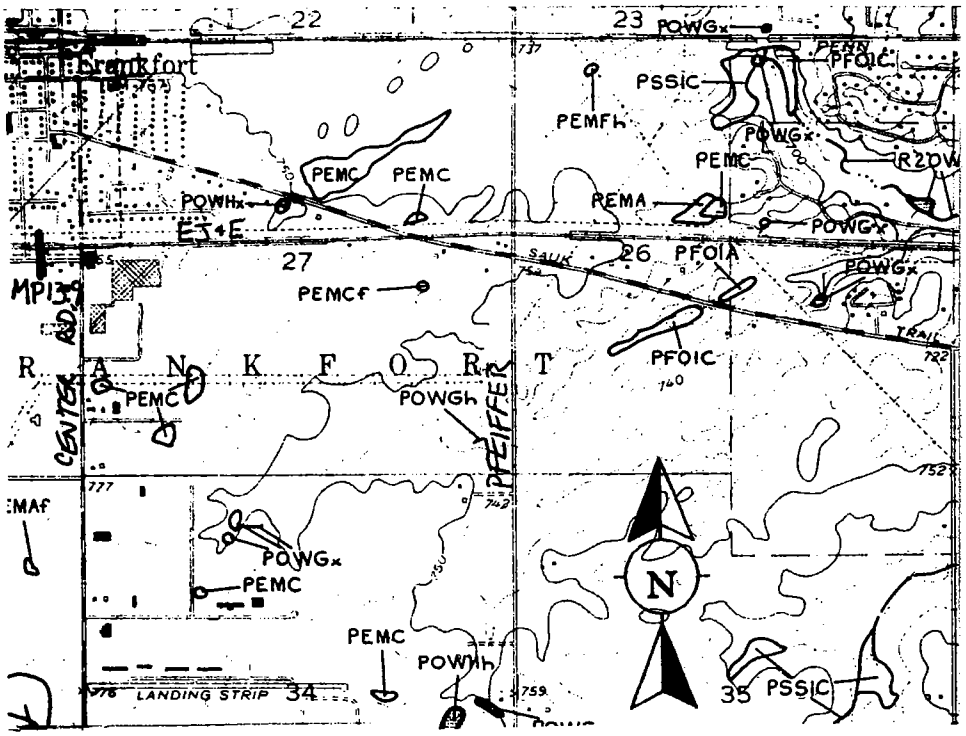
Potential Siding
MP 5.4 - MP 8.2
Part 2 of 2

Floodway/Floodplain Boundary Map
Preliminary Site Location



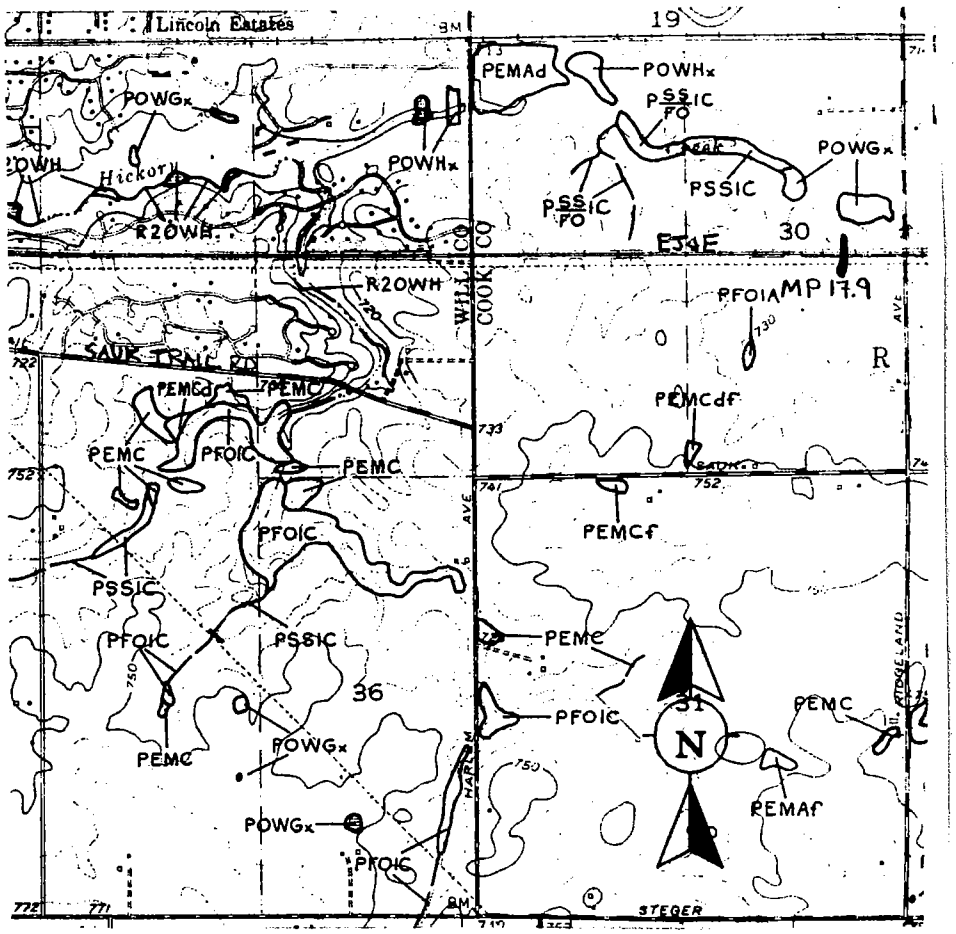
Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 13.9 - MP 17.9

Part 1 of 2
Wetland Inventory Map
Preliminary Site Location

T.Y. LinInternationalBASCOR



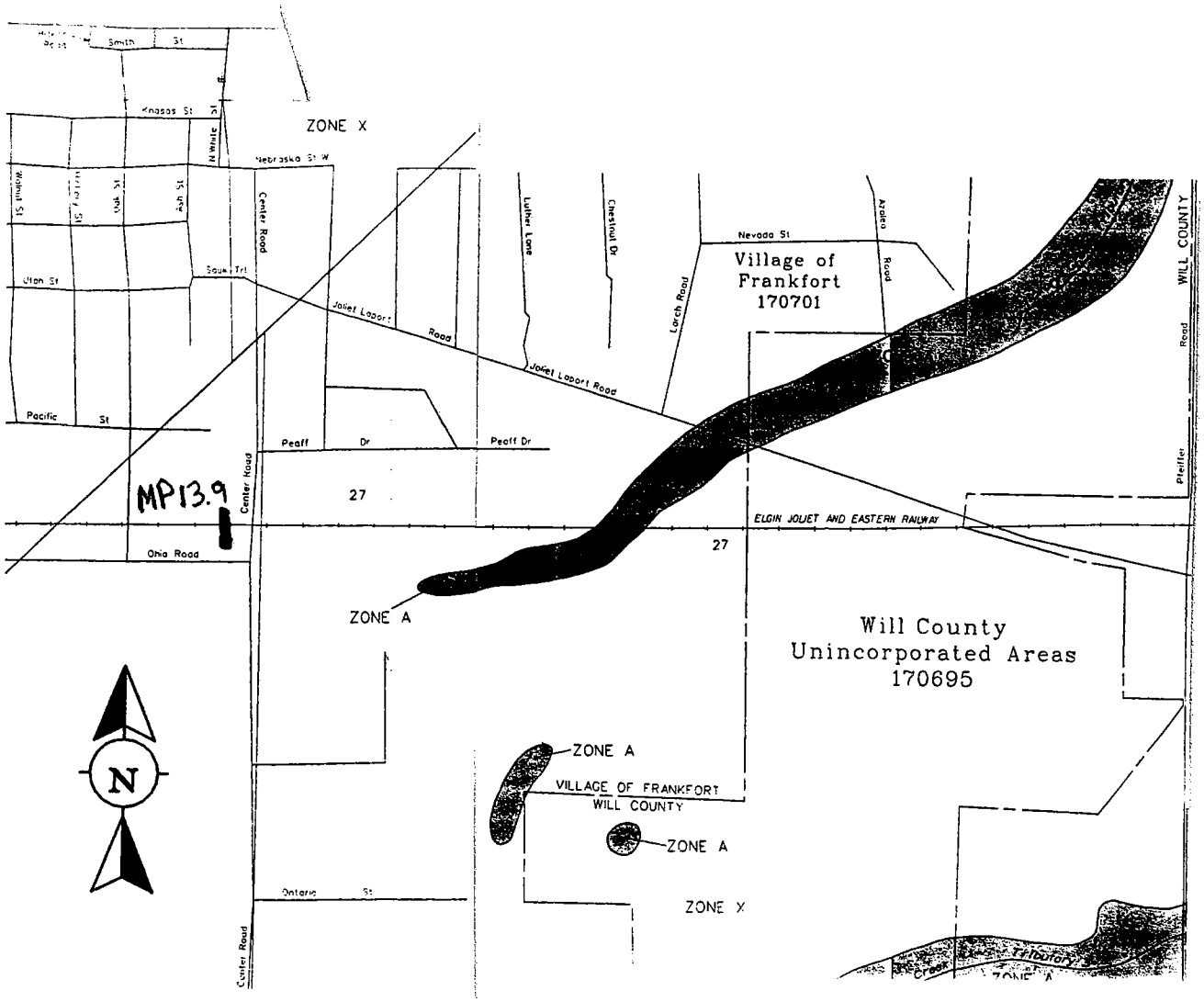
Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 13.9 - MP 17.9

Part 2 of 2
Wetland Inventory Map
Preliminary Site Location

T.Y. LinInternationalBASCOR



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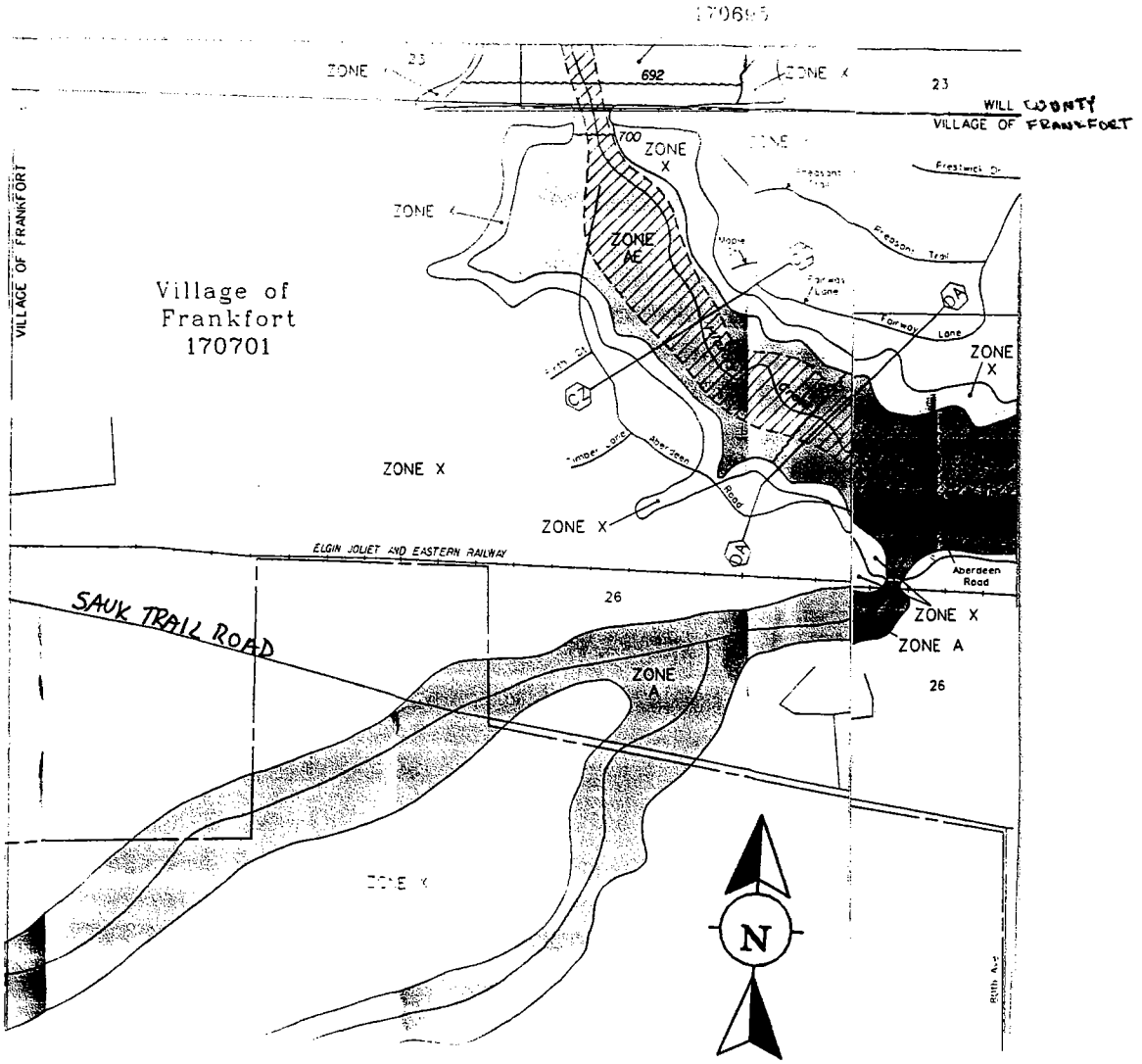
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 13.9 - MP 17.9
Part 1 of 4

Floodway/Floodplain Boundary Map
Preliminary Site Location



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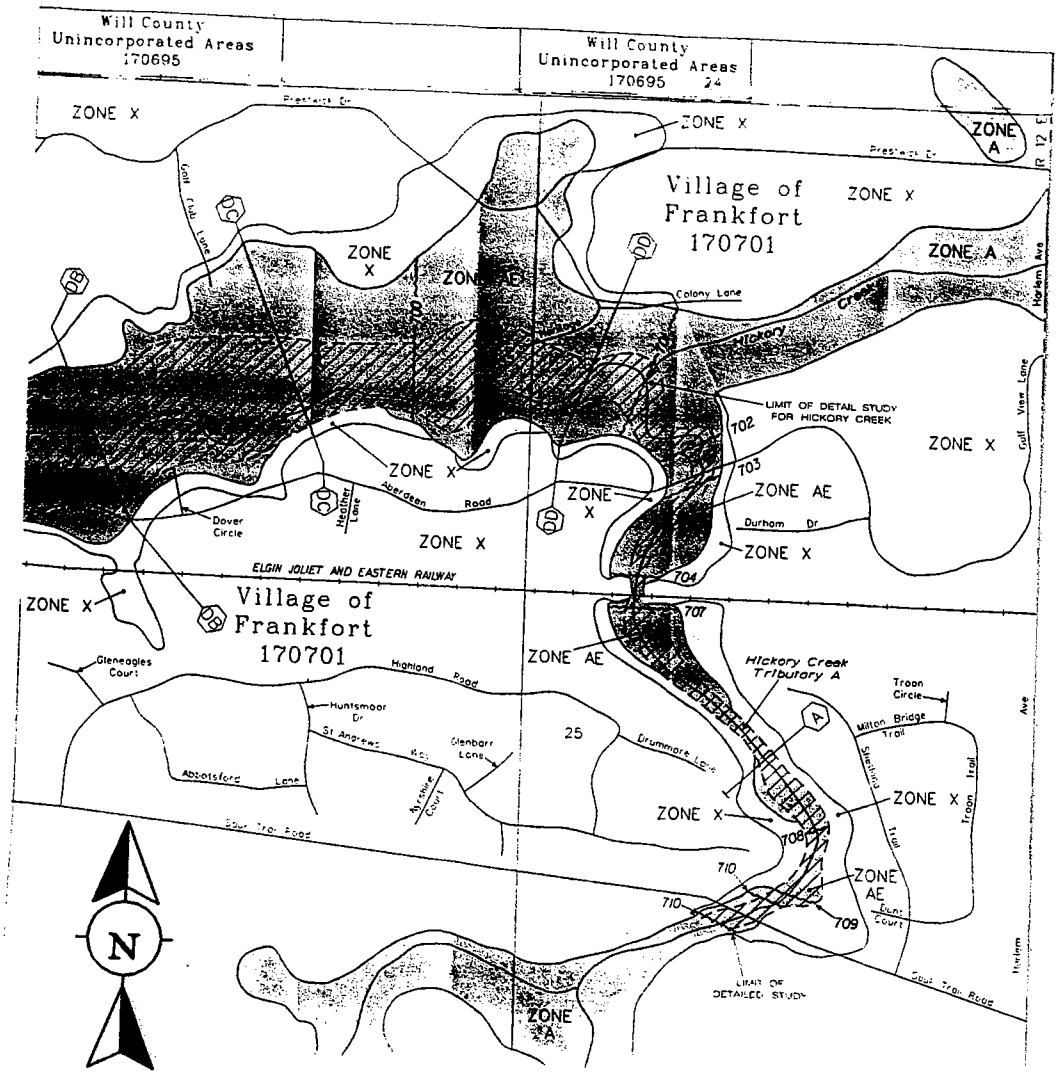
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 13.9 - MP 17.9
Part 2 of 4

Floodway/Floodplain Boundary Map
Preliminary Site Location



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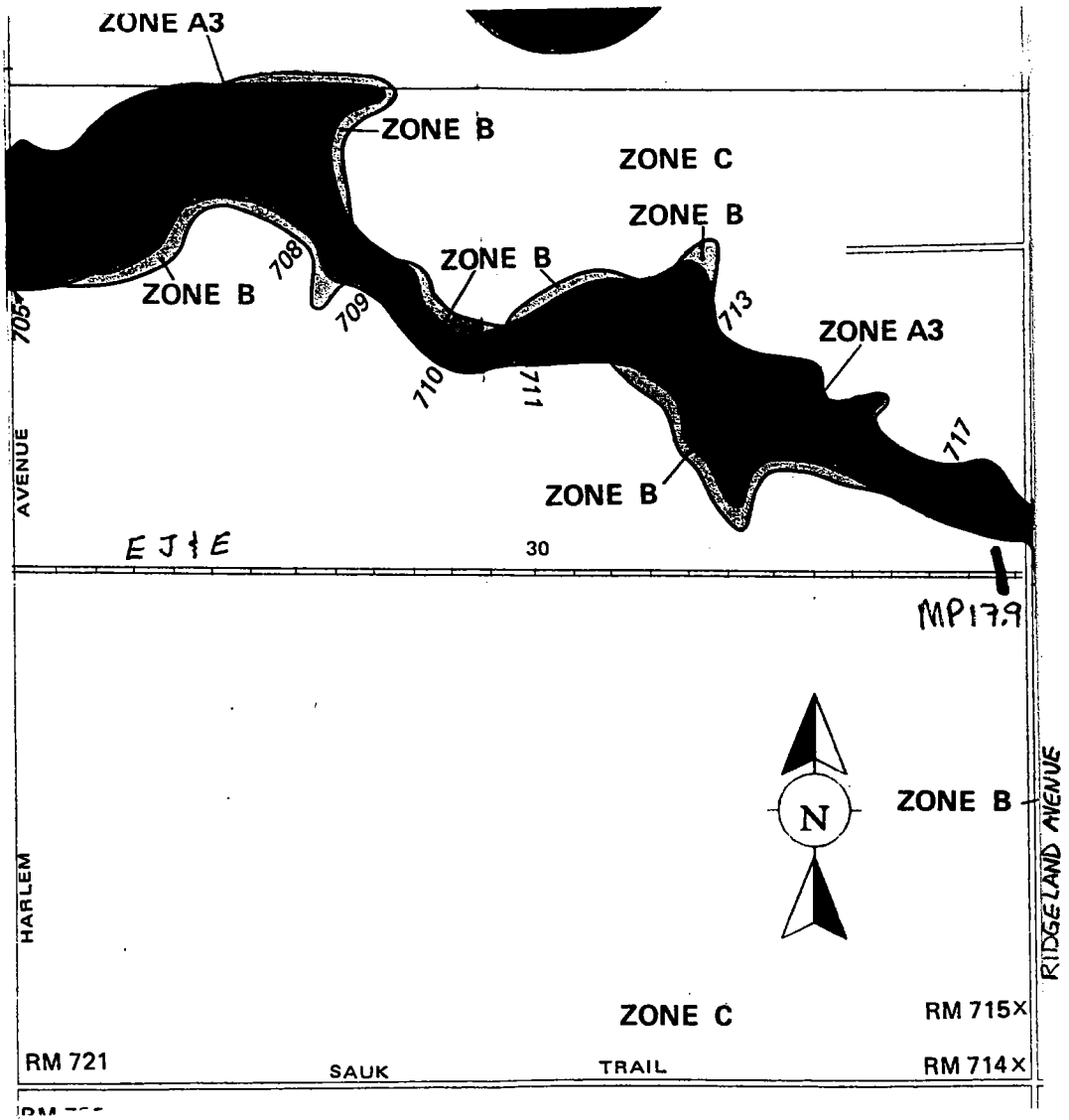
Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 13.9 - MP 17.9
Part 3 of 4

Floodway/Floodplain Boundary Map
Preliminary Site Location



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Outer Circumferential Commuter Rail Feasibility Study

Potential Siding
MP 13.9 - MP 17.9
Part 4 of 4

Floodway/Floodplain Boundary Map
Preliminary Site Location

TABLE 2
Capital Cost Estimates for Metra-Exclusive Single-Track Outer Circumferential Alternative (1997 dollars)

			Rail Segment 1 Waukegan to Spaulding		Rail Segment 2 Spaulding to Joliet		Rail Segment 3 Joliet to Lynwood		Other		Total	
Item	Unit	Unit Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Total Cost
TRACK, RIGHT-OF-WAY, STRUCTURES												
Upgrade Existing Track/New Track Installation												
Track removal	lf	$30	11,620	$348,600	41,720	$1,251,600	30,625	$918,750			83,965	$2,518,950
Install subballast, ballast, ties, 136# CWR, and OTM	lf	$180	238,660	$42,958,800	273,510	$49,231,800	199,100	$35,838,000			711,270	$128,028,600
Install 136# CWR and OTM	lf	$95	11,620	$1,103,900	41,720	$3,963,400	30,625	$2,909,375			83,965	$7,976,675
Remove existing #10 turnout	ea	$20,000	3	$60,000	1	$20,000	1	$20,000			5	$100,000
Relocate #10 turnout	ea	$80,000	14	$1,120,000	24	$1,920,000	15	$1,200,000			53	$4,240,000
Install #10 turnout	ea	$110,000	5	$550,000	34	$3,740,000	33	$3,630,000			72	$7,920,000
Install universal crossover (#10 turnouts)	ea	$440,000	1	$440,000	3	$1,320,000					4	$1,760,000
Install #20 turnout	ea	$150,000	8	$1,200,000	6	$900,000	4	$600,000			18	$2,700,000
Install universal crossover (#20 turnouts)	ea	$600,000			1	$600,000	1	$600,000			2	$1,200,000
Install diamond crossing	ea	$300,000	11	$3,300,000	3	$900,000	4	$1,200,000			18	$5,400,000
Tie replacement	ea	$80	1,000	$80,000	3,600	$288,000	5,255	$420,400			9,855	$788,400
Track surfacing (ballast placement)	lf	$3.50	11,620	$40,670	41,720	$146,020	30,625	$107,188			83,965	$293,878
Ballast undercutting	lf	$50	11,620	$581,000	41,720	$2,086,000	30,625	$1,531,250			83,965	$4,198,250
Replace rigid bolted frogs with RBM frogs	ea	$12,000	16	$192,000	27	$324,000	15	$180,000			58	$696,000
Track salvage value (80% of track removed)	lf	$10.50	9,295	($97,598)	33,375	($350,438)	24,500	($257,250)			67,170	($705,285)
Track scrap value (20% of track removed)	lf	$0.50	2,325	($1,163)	8,345	($4,173)	6,125	($3,063)			16,795	($8,398)
OTM scrap value	lf	$0.05	11,620	($581)	41,720	($2,086)	30,625	($1,531)			83,965	($4,198)
Turnout scrap value	ea	$500	3	($1,500)	1	($500)	1	($500)			5	($2,500)
Fill	cy	$15	291,700	$4,375,500	334,290	$5,014,350	243,345	$3,650,175			869,335	$13,040,025
Widen existing bridges (average cost)	lf	$10,000	2,165	$21,650,000	1,347	$13,465,000	799	$7,990,000			4,311	$43,105,000
Extend existing culverts (average cost)	lf	$150	2,470	$370,500	2,230	$334,500	2,025	$303,750			6,725	$1,008,750
Ditch cutting/cleaning	lf	$1.50	385,440	$578,160	440,350	$660,525	319,970	$479,955			1,145,760	$1,718,640
Upgrade Existing At-Grade Crossings												
Place 2nd track through grade crossing, rebuild, relocate signals	ea	$355,000	22	$7,810,000	33	$11,715,000	25	$8,875,000			80	$28,400,000
Place two additional tracks through grade crossing, rebuild, relocate signals	ea	$460,000	11	$5,060,000	9	$4,140,000	7	$3,220,000			27	$12,420,000
Upgrade existing unsignalized pedestrian crossings to CFB	ea	$100,000			4	$400,000					4	$400,000
Upgrade existing track crossings to CFBG	ea	$200,000	2	$400,000							2	$400,000
Subtotal, Track, Right-of-way, Structures =				**$92,118,289**		**$102,062,999**		**$73,411,499**				**$267,592,787**
SIGNALS												
Signal System												
Install interlocking	ea	$1,500,000	11	$16,500,000	7	$10,500,000	4	$6,000,000			22	$33,000,000
Install universal crossover interlocking	ea	$3,000,000			3	$9,000,000	1	$3,000,000			4	$12,000,000
Install absolute signal, one direction	ea	$150,000	28	$4,200,000	28	$4,200,000	33	$4,950,000			89	$13,350,000
Install absolute signal, bi-directional	ea	$450,000	8	$3,600,000	16	$7,200,000	18	$8,100,000			42	$18,900,000
Install approach signal, one direction	ea	$150,000	4	$600,000	6	$900,000	5	$750,000			15	$2,250,000
Install approach signal, bi-directional	ea	$450,000	16	$7,200,000	21	$9,450,000	20	$9,000,000			57	$25,650,000
Install absolute signal, bi-directional CTC and approach signals, one direction	ea	$600,000	1	$600,000	14	$8,400,000	4	$2,400,000			19	$11,400,000
Install absolute signal, bi-directional CTC and approach signals, bi-directional CTC	ea	$900,000			7	$6,300,000	1	$900,000			8	$7,200,000
Install electric lock	ea	$100,000	5	$500,000	28	$2,800,000	9	$900,000			42	$4,200,000
Subtotal, Signals =				**$33,200,000**		**$58,750,000**		**$36,000,000**				**$127,950,000**
JOLIET RAIL YARD MODIFICATIONS[1]												
New Through Track												
Remove existing #10 turnout	ea	$20,000							9	$180,000	9	$180,000
Track removal	lf	$30							1,070	$32,100	1,070	$32,100
Install #20 turnout	ea	$150,000							10	$1,500,000	10	$1,500,000
Install subgrade, subballast, ballast, ties, 136# CWR, and OTM	lf	$305							7,800	$2,379,000	7,800	$2,379,000
Install ties, 136# CWR, and OTM	lf	$145							5,705	$827,225	5,705	$827,225
Install diamond crossing	ea	$300,000							1	$300,000	1	$300,000
New structure	lf	$10,000							1,520	$15,200,000	1,520	$15,200,000
Relocate retaining wall	lf	$300							675	$202,500	675	$202,500
Subtotal, Joliet Rail Yard Modifications =										**$20,620,825**		**$20,620,825**

TABLE 2
Capital Cost Estimates for Metra-Exclusive Single-Track Outer Circumferential Alternative (1997 dollars)

Item	Unit	Unit Cost	Rail Segment 1 Waukegan to Spaulding Quantity	Rail Segment 1 Waukegan to Spaulding Cost	Rail Segment 2 Spaulding to Joliet Quantity	Rail Segment 2 Spaulding to Joliet Cost	Rail Segment 3 Joliet to Lynwood Quantity	Rail Segment 3 Joliet to Lynwood Cost	Other Quantity	Other Cost	Total Quantity	Total Cost
COMMUTER STATION FACILITIES[2]												
Commuter stations with park-and-ride[3]	ls		1	$4,250,000	1	$9,032,000	1	$2,937,500			1	$16,219,500
Combined park-and-ride and transfer stations[4]	ls		1	$2,875,000			1	$1,875,000			1	$4,750,000
Transfer-only stations[4]	ls		1	$2,150,000	1	$5,545,000	1	$800,000			1	$8,495,000
Subtotal, Commuter Station Facilities =				**$9,275,000**		**$14,577,000**		**$5,612,500**				**$29,464,500**
STORAGE AND MAINTENANCE FACILITIES												
Rail Facilities												
Layover facility (overnight train storage, crew welfare building)	ls	$4,900,000							2	$9,800,000	2	$9,800,000
Heavy maintenance facility	ls	$24,852,000							1	$24,852,000	1	$24,852,000
Spare parts inventory	ls	$1,925,000							1	$1,925,000	1	$1,925,000
Subtotal, Storage and Maintenance Facilities =										**$36,577,000**		**$36,577,000**
ROLLING STOCK												
Traditional Train Sets[5]												
Locomotive (includes 1 spare)	ea	$2,400,000	5	$12,000,000	7	$16,800,000	5	$12,000,000			17	$40,800,000
Passenger coach (includes 2 spares)	ea	$2,000,000	22	$44,000,000	30	$60,000,000	22	$44,000,000			74	$148,000,000
Subtotal, Traditional Rolling Stock =				**$56,000,000**		**$76,800,000**		**$56,000,000**				**$188,800,000**
Diesel Multiple Units[6]												
Passenger/Operating units	ea	$3,000,000	22	$66,000,000	30	$90,000,000	22	$66,000,000			74	$222,000,000
Subtotal, Diesel Multiple Units =				**$66,000,000**		**$90,000,000**		**$66,000,000**				**$222,000,000**
Capital Improvements Subtotal (Traditional Rolling Stock) =				$190,593,289		$252,189,999		$171,023,999		$57,197,825		$671,005,112
Capital Improvements Subtotal (Diesel Multiple Units) =				$200,593,289		$265,389,999		$181,023,999		$57,197,825		$704,205,112
30% Contingency[7] =				$40,455,516		$52,663,201		$34,573,121		$17,038,436		$144,730,274
12% Preliminary Engineering, Design, & Construction Management[7] =				$16,151,195		$21,046,800		$13,802,880		$6,863,739		$57,864,614
Capital Improvements Total Cost (Traditional Rolling Stock) [8] **=**				**$247,200,000**		**$325,900,000**		**$219,400,000**		**$81,100,000**		**$873,600,000**
Capital Improvements Total Cost (Diesel Multiple Units) [8] **=**				**$257,200,000**		**$339,100,000**		**$229,400,000**		**$81,100,000**		**$906,800,000**

NOTES :

1. Modifications are to permit commuter trains to travel through the Joliet rail yard area without interfering with freight operations or being restricted by operations of the existing lift bridge over the Des Plaines River. Costs do not include modifications to allow transfer of trains to serve the existing Joliet Union Station, via non-EJ&E tracks.
2. Costs do not include land acquisition.
3. Communities were broadly evaluated based on current and projected population numbers, to produce a general estimate of how many small, medium, or large stations might be required in each segment. Small, medium, and large station site estimated costs were based on stations built for Metra's NCS. Estimated costs include paved parking lots (parking spaces, drive aisles, access road, parking lot striping, signage, curb and gutter, lighting, and drainage), depot facilities, and boarding platforms. In general, the following parameters were used in assessing the estimated costs for the station sites:
   - A small station was assumed to consist of 135 parking spaces, a 325 sf depot, and a 215 lf platform.
   - A medium station was assumed to consist of 215 parking spaces, a 835 sf depot, and a 380 lf platform.
   - A large station was assumed to consist of 480 parking spaces, a 1125 sf depot, and a 635 lf platform.
4. Unit costs are not applicable for these items, as each transfer station has elements which vary the cost. Thus, costs are grouped together for the transfer stations.
5. For this study, a traditional train set is assumed to consist of one locomotive, three passenger coaches, and one cab car.
6. For this study, Diesel Multiple Units are assumed to be grouped into four units per train set.
7. Not applied to rolling stock.
8. These costs are estimates only based on existing and projected future conditions. Actual freight traffic and operations at the time of design may affect these estimates.

TABLE L-3
Capital Cost Estimates for Double-Track Outer Circumferential Alternative (1997 dollars)

Item	Unit	Unit Cost	Rail Segment 1 Waukegan to Spaulding Quantity	Rail Segment 1 Waukegan to Spaulding Cost	Rail Segment 2 Spaulding to Joliet Quantity	Rail Segment 2 Spaulding to Joliet Cost	Rail Segment 3 Joliet to Lynwood Quantity	Rail Segment 3 Joliet to Lynwood Cost	Other Quantity	Other Cost	Total Quantity	Total Cost
TRACK, RIGHT-OF-WAY, STRUCTURES												
Upgrade Existing Track/New Track Installation												
Track removal	lf	$30	16,900	$507,000	43,830	$1,314,900	38,550	$1,156,500			99,280	$2,978,400
Install subballast, ballast, ties, 136# CWR, and OTM	lf	$180	382,280	$68,810,400	428,210	$77,077,800	316,275	$56,929,500			1,126,765	$202,817,700
Install 136# CWR and OTM	lf	$95	16,900	$1,605,500	43,830	$4,163,850	38,550	$3,662,250			99,280	$9,431,600
Remove existing #10 turnout	ea	$20,000	3	$60,000			1	$20,000			4	$80,000
Relocate #10 turnout	ea	$80,000	16	$1,280,000	27	$2,160,000	15	$1,200,000			58	$4,640,000
Install #10 turnout	ea	$110,000	8	$880,000	42	$4,620,000	35	$3,850,000			85	$9,350,000
Install universal crossover (#10 turnouts)	ea	$440,000	1	$440,000	2	$880,000					3	$1,320,000
Install #20 turnout	ea	$150,000	6	$900,000	26	$3,900,000	22	$3,300,000			54	$8,100,000
Install universal crossover (#20 turnouts)	ea	$600,000	11	$6,600,000	8	$4,800,000	4	$2,400,000			23	$13,800,000
Install diamond crossing	ea	$300,000	18	$5,400,000	6	$1,800,000	8	$2,400,000			32	$9,600,000
Tie replacement	ea	$80	1,450	$116,000	3,760	$300,800	6,610	$528,800			11,820	$945,600
Track surfacing (ballast placement)	lf	$3.50	16,900	$59,150	43,830	$153,405	38,550	$134,925			99,280	$347,480
Ballast undercutting	lf	$50	16,900	$845,000	43,830	$2,191,500	38,550	$1,927,500			99,280	$4,964,000
Replace rigid bolted frogs with RBM frogs	ea	$12,000	16	$192,000	32	$384,000	15	$180,000			63	$756,000
Track salvage value (80% of track removed)	lf	$10.50	13,520	($141,960)	35,060	($368,130)	30,840	($323,820)			79,420	($833,910)
Track scrap value (20% of track removed)	lf	$0.50	3,380	($1,690)	8,770	($4,385)	7,710	($3,855)			19,860	($9,930)
OTM scrap value	lf	$0.05	16,900	($845)	43,830	($2,192)	38,550	($1,928)			99,280	($4,964)
Turnout scrap value	ea	$500	3	($1,500)			1	($500)			4	($2,000)
Fill	cy	$15	863,670	$12,955,050	967,440	$14,511,600	714,550	$10,718,250			2,545,660	$38,184,900
Widen existing bridges - EJ&E over feature (average cost)	lf	$10,000	3,130	$31,300,000	2,660	$26,600,000	1,315	$13,150,000			7,105	$71,050,000
Widen existing bridges - EJ&E under feature (average cost)	lf	$20,000	760	$15,200,000	520	$10,400,000	715	$14,300,000			1,995	$39,900,000
Extend existing culverts (average cost)	lf	$150	3,400	$510,000	3,120	$468,000	2,800	$420,000			9,320	$1,398,000
Ditch cutting/cleaning	lf	$1.50	385,440	$578,160	440,350	$660,525	319,970	$479,955			1,145,760	$1,718,640
Upgrade Existing At-Grade Crossings												
Place two additional tracks through grade crossing, rebuild, relocate signals	ea	$460,000	33	$15,180,000	42	$19,320,000	32	$14,720,000			107	$49,220,000
Upgrade existing unsignalized pedestrian crossings to CFB	ea	$100,000			4	$400,000					4	$400,000
Upgrade existing track crossings to CFBG	ea	$200,000	2	$400,000							2	$400,000
Subtotal, Track, Right-of-way, Structures =				**$163,672,265**		**$175,731,674**		**$131,147,578**				**$470,551,516**
SIGNALS												
Signal System												
Install interlocking	ea	$1,500,000	6	$9,000,000	10	$15,000,000	9	$13,500,000			25	$37,500,000
Install universal crossover interlocking	ea	$3,000,000	10	$30,000,000	9	$27,000,000	4	$12,000,000			23	$69,000,000
Install absolute signal, one direction	ea	$150,000	12	$1,800,000	20	$3,000,000	12	$1,800,000			44	$6,600,000
Install approach signal, one direction	ea	$150,000	2	$300,000	2	$300,000					4	$600,000
Install approach signal, bi-directional	ea	$450,000	4	$1,800,000	8	$3,600,000	6	$2,700,000			18	$8,100,000
Install absolute and approach signals, one direction	ea	$600,000	52	$31,200,000	58	$34,800,000	44	$26,400,000			154	$92,400,000
Install electric lock	ea	$100,000	12	$1,200,000	53	$5,300,000	21	$2,100,000			86	$8,600,000
Subtotal, Signals =				**$75,300,000**		**$89,000,000**		**$58,500,000**				**$222,800,000**
JOLIET RAIL YARD MODIFICATIONS[1]												
New Through Track												
Remove existing #10 turnout	ea	$20,000							9	$180,000	9	$180,000
Track removal	lf	$30							7,934	$238,020	7,934	$238,020
Install #20 turnout	ea	$150,000							11	$1,650,000	11	$1,650,000
Install subgrade, subballast, ballast, ties, 136# CWR, and OTM	lf	$305							10,776	$3,286,680	10,776	$3,286,680
Install ties, 136# CWR, and OTM	lf	$145							12,569	$1,822,505	12,569	$1,822,505
Install diamond crossing	ea	$300,000							1	$300,000	1	$300,000
New structure	lf	$10,000							1,520	$15,200,000	1,520	$15,200,000
Relocate retaining wall	lf	$300							675	$202,500	675	$202,500
Subtotal, Joliet Rail Yard Modifications =										**$22,879,705**		**$22,879,705**

TABLE L-3
Capital Cost Estimates for Double-Track Outer Circumferential Alternative (1997 dollars)

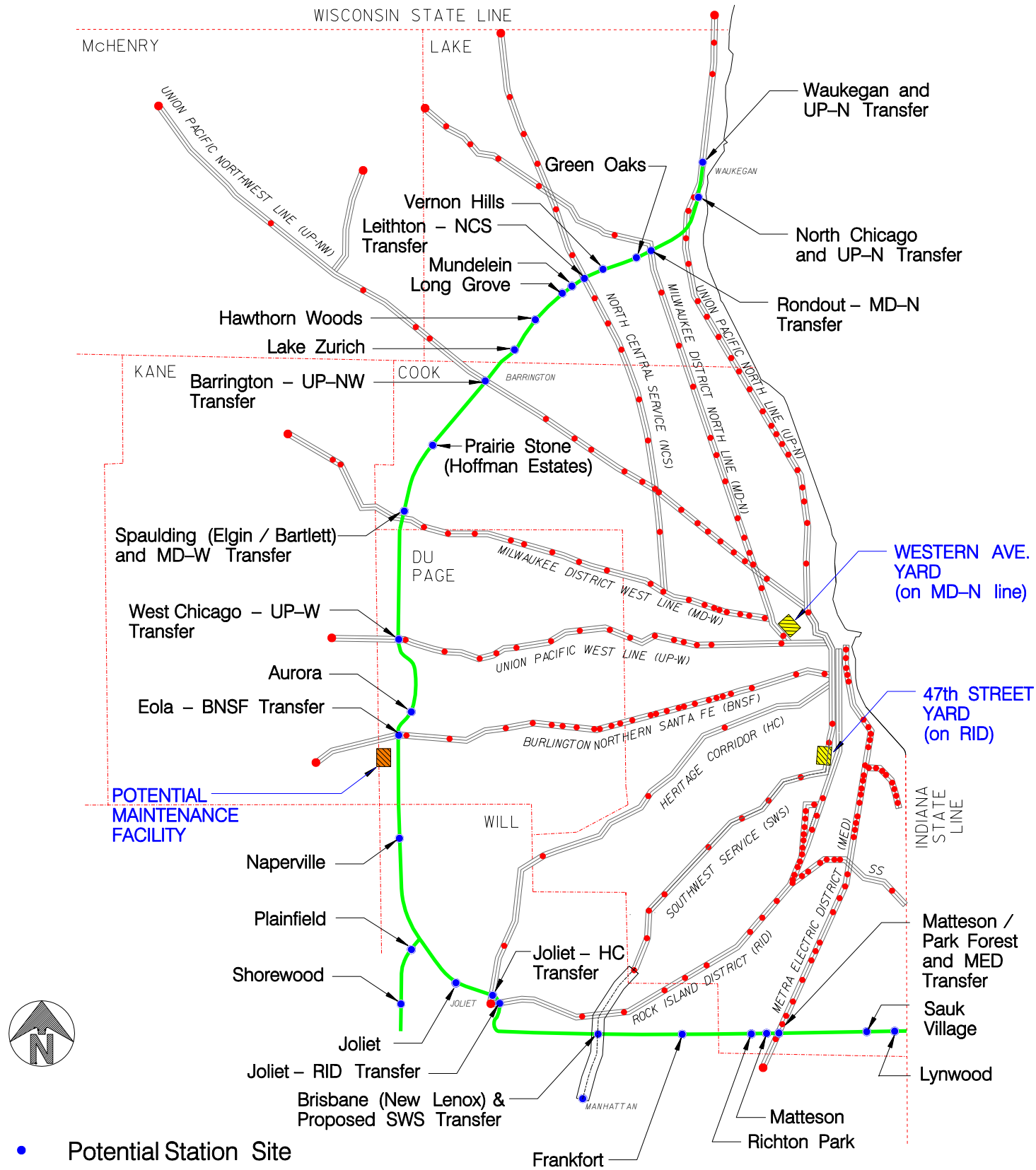
Item	Unit	Unit Cost	Rail Segment 1 Waukegan to Spaulding Quantity	Rail Segment 1 Waukegan to Spaulding Cost	Rail Segment 2 Spaulding to Joliet Quantity	Rail Segment 2 Spaulding to Joliet Cost	Rail Segment 3 Joliet to Lynwood Quantity	Rail Segment 3 Joliet to Lynwood Cost	Other Quantity	Other Cost	Total Quantity	Total Cost
COMMUTER STATION FACILITIES[2]												
Commuter stations with park-and-ride[3]	ls		1	$6,780,000	1	$9,575,000	1	$4,887,500			1	$21,242,500
Combined park-and-ride and transfer stations[4]	ls		1	$4,045,000			1	$2,655,000			1	$6,700,000
Transfer-only stations[4]	ls		1	$3,320,000	1	$7,250,000	1	$1,190,000			1	$11,760,000
Subtotal, Commuter Station Facilities =				**$14,145,000**		**$16,825,000**		**$8,732,500**				**$39,702,500**
STORAGE AND MAINTENANCE FACILITIES												
Rail Facilities												
Layover facility (overnight train storage, crew welfare building)	ls	$4,900,000							2	$9,800,000	2	$9,800,000
Heavy maintenance facility	ls	$24,852,000							1	$24,852,000	1	$24,852,000
Spare parts inventory	ls	$1,925,000							1	$1,925,000	1	$1,925,000
Subtotal, Storage and Maintenance Facilities =										**$36,577,000**		**$36,577,000**
ROLLING STOCK												
Traditional Train Sets[5]												
Locomotive (includes 1 spare)	ea	$2,400,000	5	$12,000,000	7	$16,800,000	5	$12,000,000			17	$40,800,000
Passenger coach (includes 2 spares)	ea	$2,000,000	22	$44,000,000	30	$60,000,000	22	$44,000,000			74	$148,000,000
Subtotal, Traditional Rolling Stock =				**$56,000,000**		**$76,800,000**		**$56,000,000**				**$188,800,000**
Diesel Multiple Units[6]												
Passenger/Operating units	ea	$3,000,000	22	$66,000,000	30	$90,000,000	22	$66,000,000			74	$222,000,000
Subtotal, Diesel Multiple Units =				**$66,000,000**		**$90,000,000**		**$66,000,000**				**$222,000,000**
Capital Improvements Subtotal (Traditional Rolling Stock) =				$309,117,265		$358,356,674		$254,380,078		$59,456,705		$981,310,721
Capital Improvements Subtotal (Diesel Multiple Units) =				$319,117,265		$371,556,674		$264,380,078		$59,456,705		$1,014,510,721
30% Contingency[7] =				$75,908,663		$84,456,526		$59,514,313		$17,908,490		$237,787,991
12% Preliminary Engineering, Design, & Construction Management[7] =				$30,374,072		$33,786,801		$23,805,609		$7,134,805		$95,101,288
Capital Improvements Total Cost (Traditional Rolling Stock) [8] **=**				**$415,400,000**		**$476,600,000**		**$337,700,000**		**$84,500,000**		**$1,314,200,000**
Capital Improvements Total Cost (Diesel Multiple Units) [8] **=**				**$425,400,000**		**$489,800,000**		**$347,700,000**		**$84,500,000**		**$1,347,400,000**

NOTES :

1. Modifications are to permit commuter trains to travel through the Joliet rail yard area without interfering with freight operations or being restricted by operations of the existing lift bridge over the Des Plaines River. Costs do not include modifications to allow transfer of trains to serve the existing Joliet Union Station, via non-EJ&E tracks.
2. Costs do not include land acquisition.
3. Communities were broadly evaluated based on current and projected population numbers, to produce a general estimate of how many small, medium, or large stations might be required in each segment. Small, medium, and large station site estimated costs were based on stations built for Metra's NCS. Estimated costs include paved parking lots (parking spaces, drive aisles, access road, parking lot striping, signage, curb and gutter, lighting, and drainage), depot facilities, and boarding platforms. In general, the following parameters were used in assessing the estimated costs for the station sites:
   - A small station was assumed to consist of 135 parking spaces, a 325 sf depot, and a 215 lf platform.
   - A medium station was assumed to consist of 215 parking spaces, a 835 sf depot, and a 380 lf platform.
   - A large station was assumed to consist of 480 parking spaces, a 1125 sf depot, and a 635 lf platform.
4. Unit costs are not applicable for these items, as each transfer station has elements which vary the cost. Thus, costs are grouped together for the transfer stations.
5. For this study, a traditional train set is assumed to consist of one locomotive, three passenger coaches, and one cab car.
6. For this study, Diesel Multiple Units are assumed to be grouped into four units per train set.
7. Not applied to rolling stock.
8. These costs are estimates only based on existing and projected future conditions. Actual freight traffic and operations at the time of design may affect these estimates.

Appendix M:

POTENTIAL STATION SITES



Appendix M – Potential Station Sites

Waukegan

Location

The area best-suited for a station site is adjacent to the existing station serving the Metra/UP-N Line, and would utilize the existing UP station (depot and parking). The EJ&E is approximately 450 feet east of the Metra/UP-N station. The platform would run south, paralleling Pershing Road along the west side of the EJ&E, beginning at Madison Street. The platform would be connected to the existing station with a sidewalk along the south side of Madison Street. This station would also serve as a transfer station, allowing passengers to transfer between the two rail lines.

Community Characteristics

According to the 1990 census, Waukegan had a population of 69,392. A 1994 special census estimated a population of 67,751, and a 1998 special census discovered that the population had reached 77,357. NIPC has estimated the population in 2020 to be 85,825.

The NIPC 1990 employment allocation for the City was 34,402, with a 2020 projection of 41,631.

Site Description (Preferred Site)

The site is relatively level with overhead electric lines paralleling the EJ&E on the east side of the track. This site involves only sidewalk, platform and warming shelter, since the existing Metra station can be utilized for longer waits out of the elements.

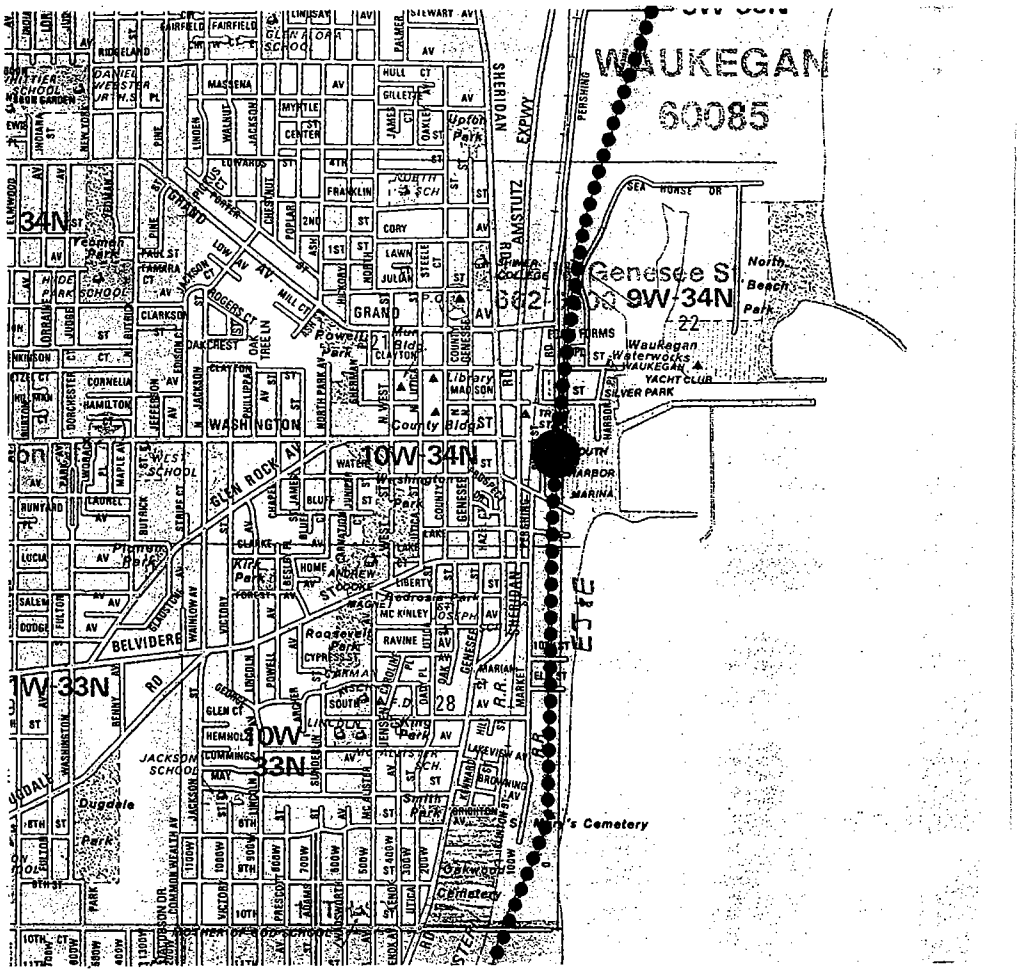
Access: Access to the site would be from Pershing Road and Madison Street.

Environmental Concerns

None were noted during a cursory review of this site, nor has the City indicated any potential environmental concerns.

Transfer Potential

There is the potential of utilizing this site as a transfer station allowing passengers to transfer between the UP-N and EJ&E. During the week, trains operate along the UP-N Line to and from Chicago at least once per hour, and during peak rush hours there are as many as five per hour stopping in Waukegan. On the weekends and holidays there are trains to and from Chicago ranging from one per hour to one every two to three hours.

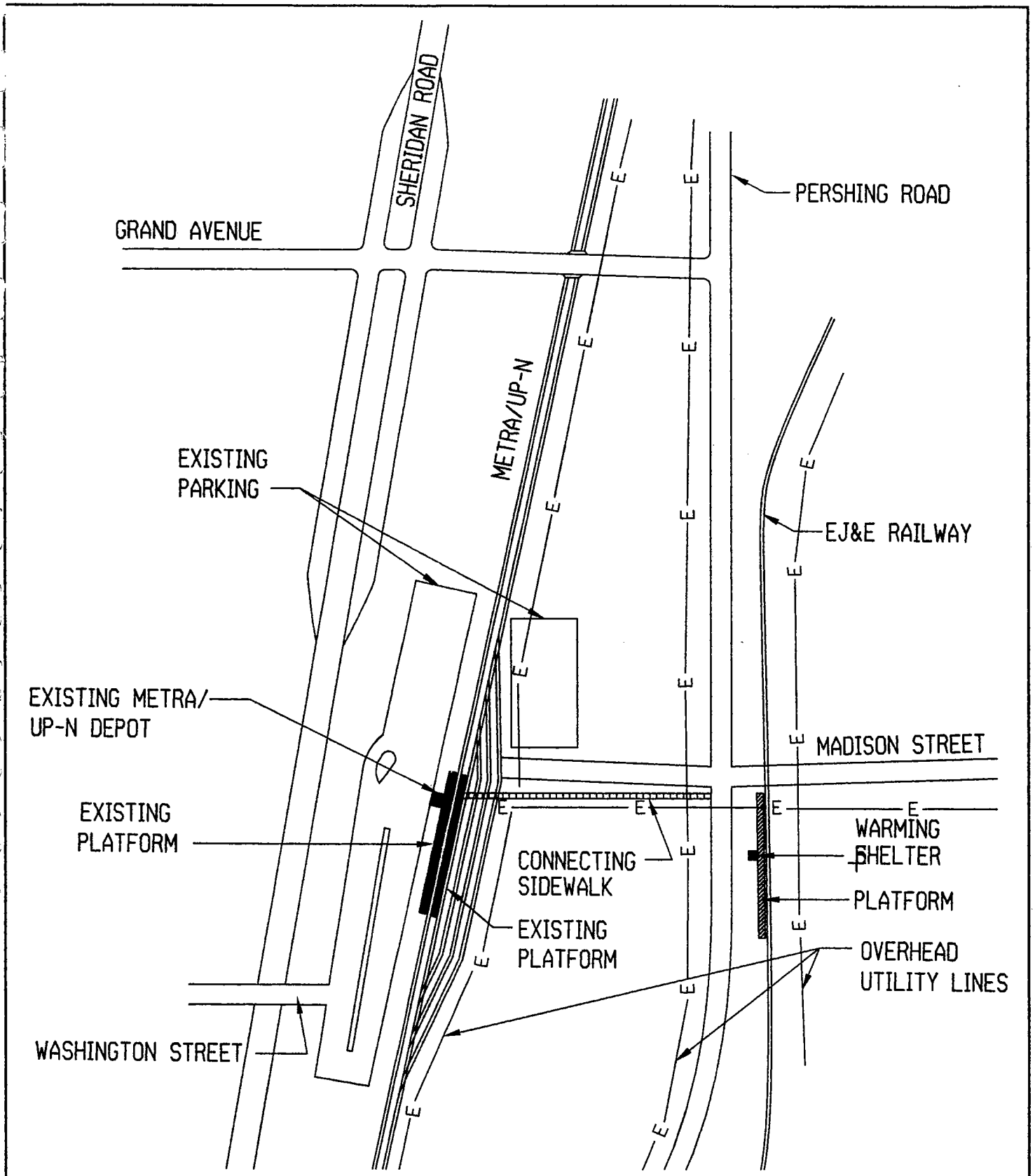


LOCATION MAP - WAUKEGAN STATION AND TRANSFER STATION (EJ&E/UP-N)

SCALE: N.T.S.

PREFERRED SITE

NORTH



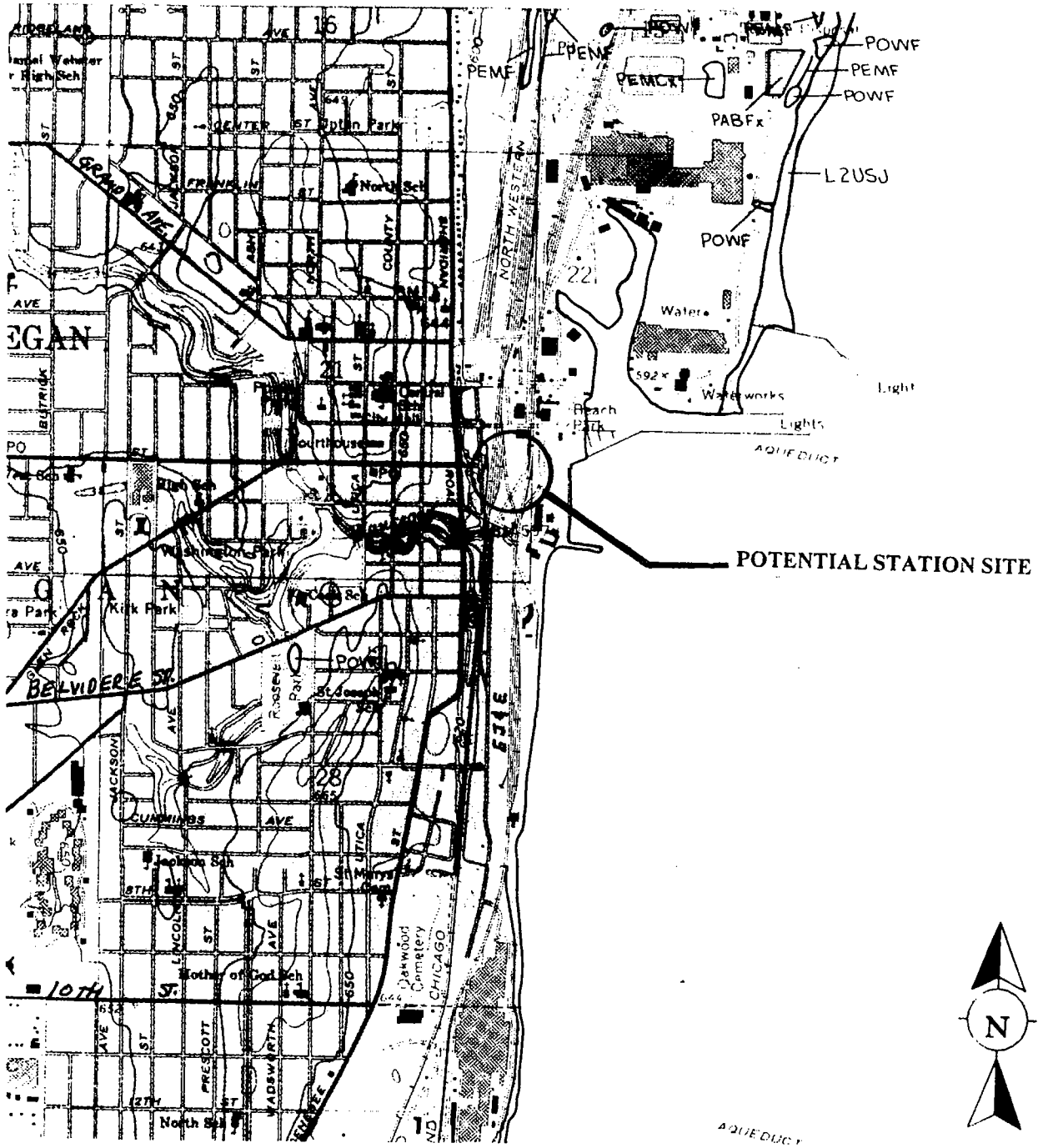
SITE PLAN - WAUKEGAN STATION AND TRANSFER STATION (EJ&E/UP-N)

NORTH

SCALE: 1" = 200'

PREFERRED SITE

PS-F01
ASK-F012



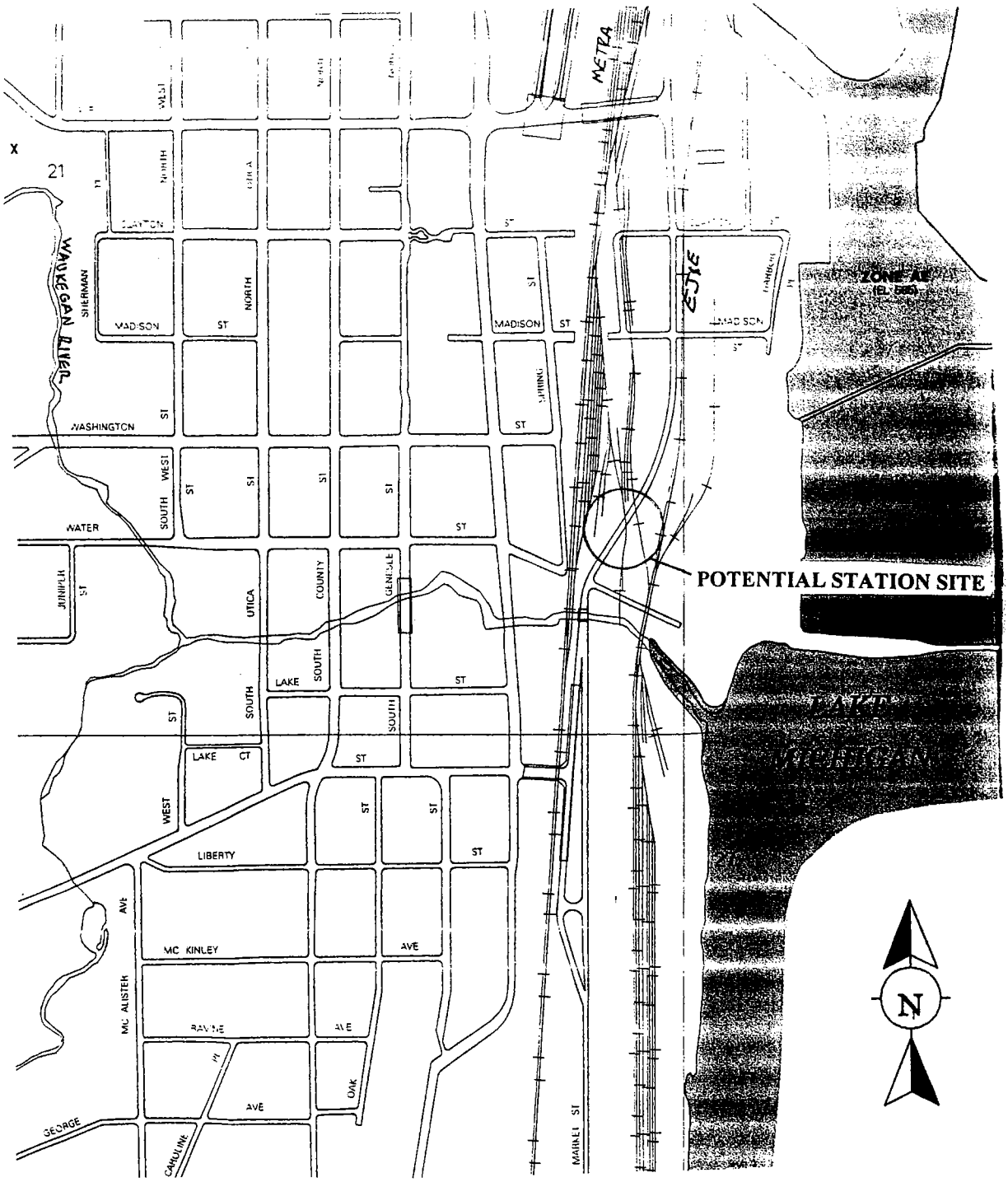
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site and Transfer Station Waukegan (EJ&E/UP-N)

Wetland Inventory Map Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site and Transfer Station Waukegan (EJ&E/UP-N)** **Floodway/Floodplain Boundary Map Preliminary Site Location**

North Chicago

Location

The City has indicated that their preferred site is located north of the intersection of the EJ&E and the Metra/UP-N Line at the existing Metra station serving the UP-N (Lakeside Avenue and Foss Park Avenue). The EJ&E is approximately 400 feet east of this station and would be connected with a sidewalk along the south side of Foss Park Avenue. This station would also serve as a transfer station, allowing passengers to transfer between the two rail lines.

Community Characteristics

According to the 1990 census, North Chicago had a population of 34,978, while a 1997 special census estimated a population of 42,435. NIPC has estimated the population in 2020 to be 49,273.

The NIPC 1990 employment allocation for the City was 17,998, with a 2020 projection of 18,884.

Site Description (Preferred Site)

The site is relatively flat at the track level, but the grade drops sharply toward Foss Park Avenue. A pedestrian ramp would be required to traverse the grade difference between the sidewalk and the track platform. Overhead electric lines parallel the EJ&E on both sides of the track. This site involves only sidewalk, platform, and warming shelter, since the existing Metra station can be utilized for longer waits out of the elements.

The City has also discussed the possibility of building a transit center/retail shops in the area between the rail lines. This would be part of a larger effort, including a TIF District, to revitalize shops along nearby Sheridan Road. The transit center could include a common depot.

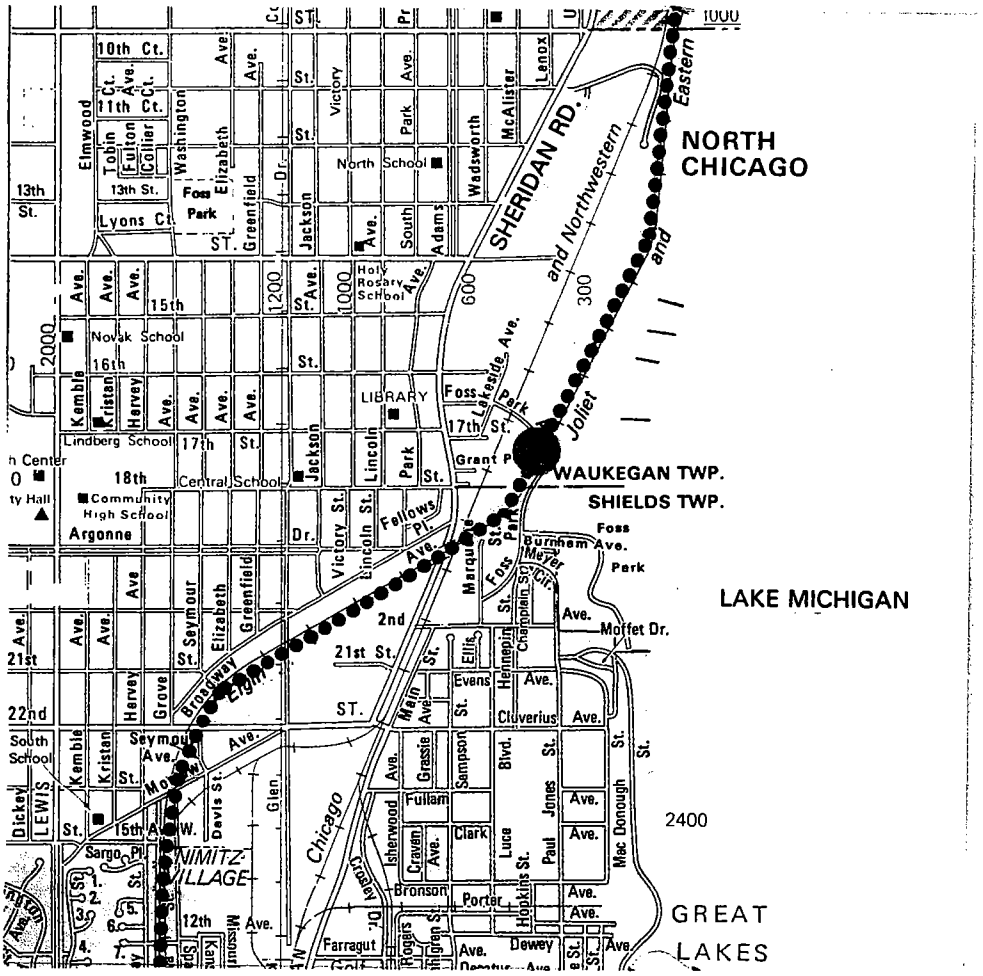
Access: Access to the site would be off of Foss Park Avenue.

Environmental Concerns

None were noted during a cursory review of this site, nor has the City indicated any potential environmental concerns.

Transfer Potential

During the week, trains operate along the UP-N Line to and from Chicago at least once per hour, and during peak rush hours there are as many as four per hour stopping in North Chicago. On the weekends and holidays there are trains to and from Chicago ranging from one per hour to one every two to three hours.

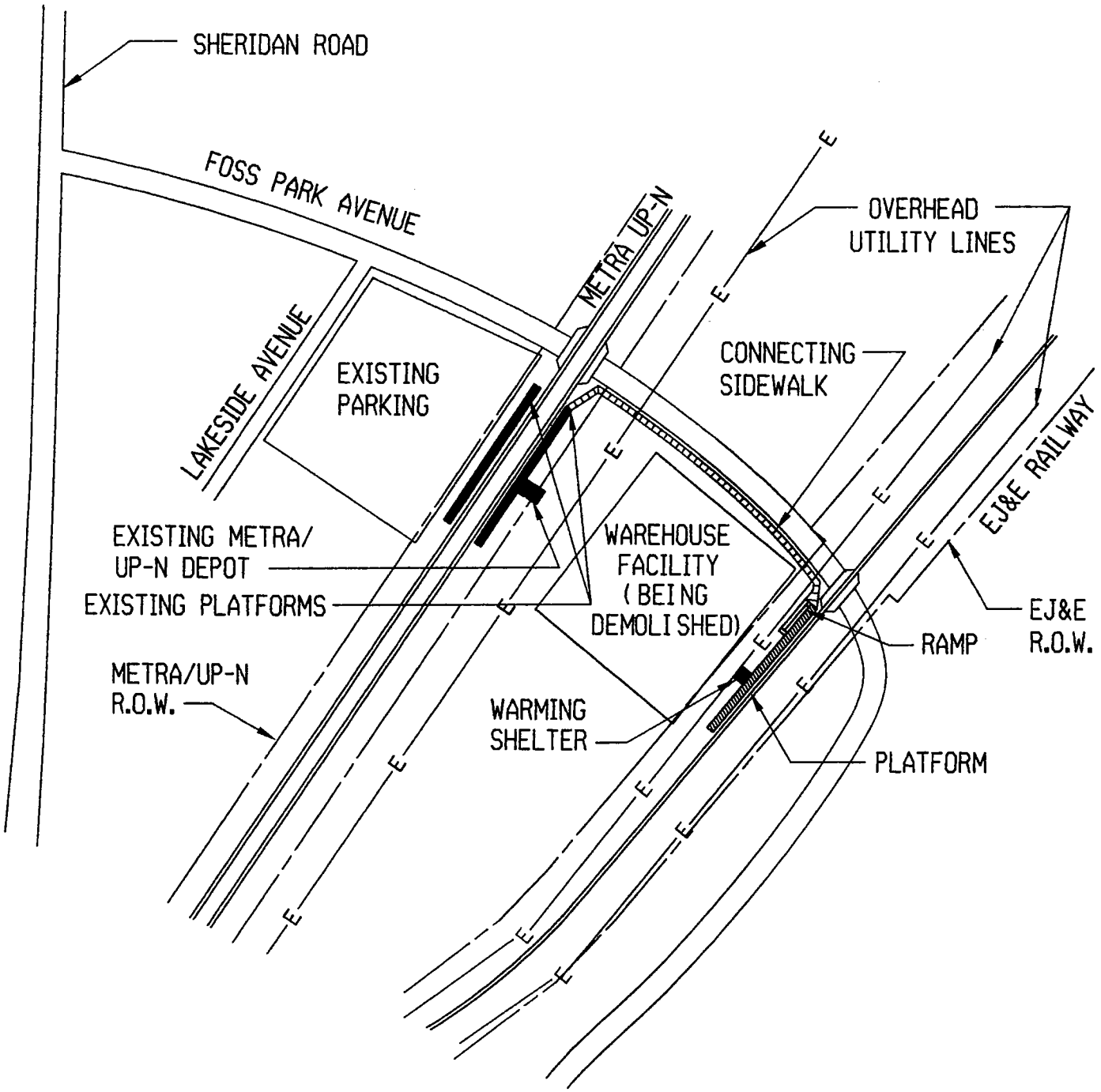


LOCATION MAP - NORTH CHICAGO STATION AND TRANSFER STATION (EJ&E/UP-N)

SCALE: N.T.S.

PREFERRED SITE

NORTH



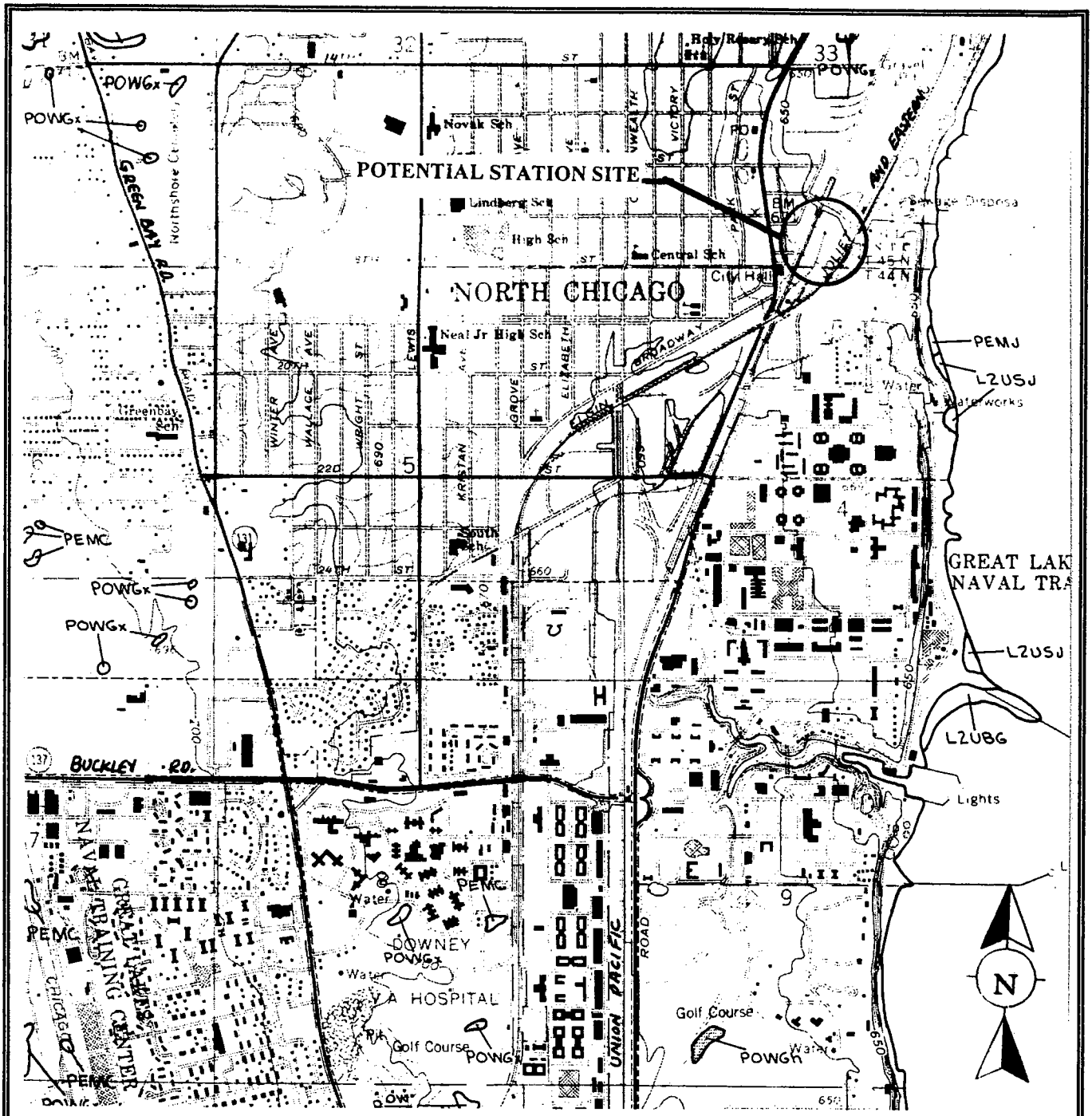
SITE PLAN - NORTH CHICAGO STATION AND TRANSFER STATION (EJ&E/UP-N)

NORTH

SCALE: 1" = 200'

PREFERRED SITE

PS-G01
ASK-G012



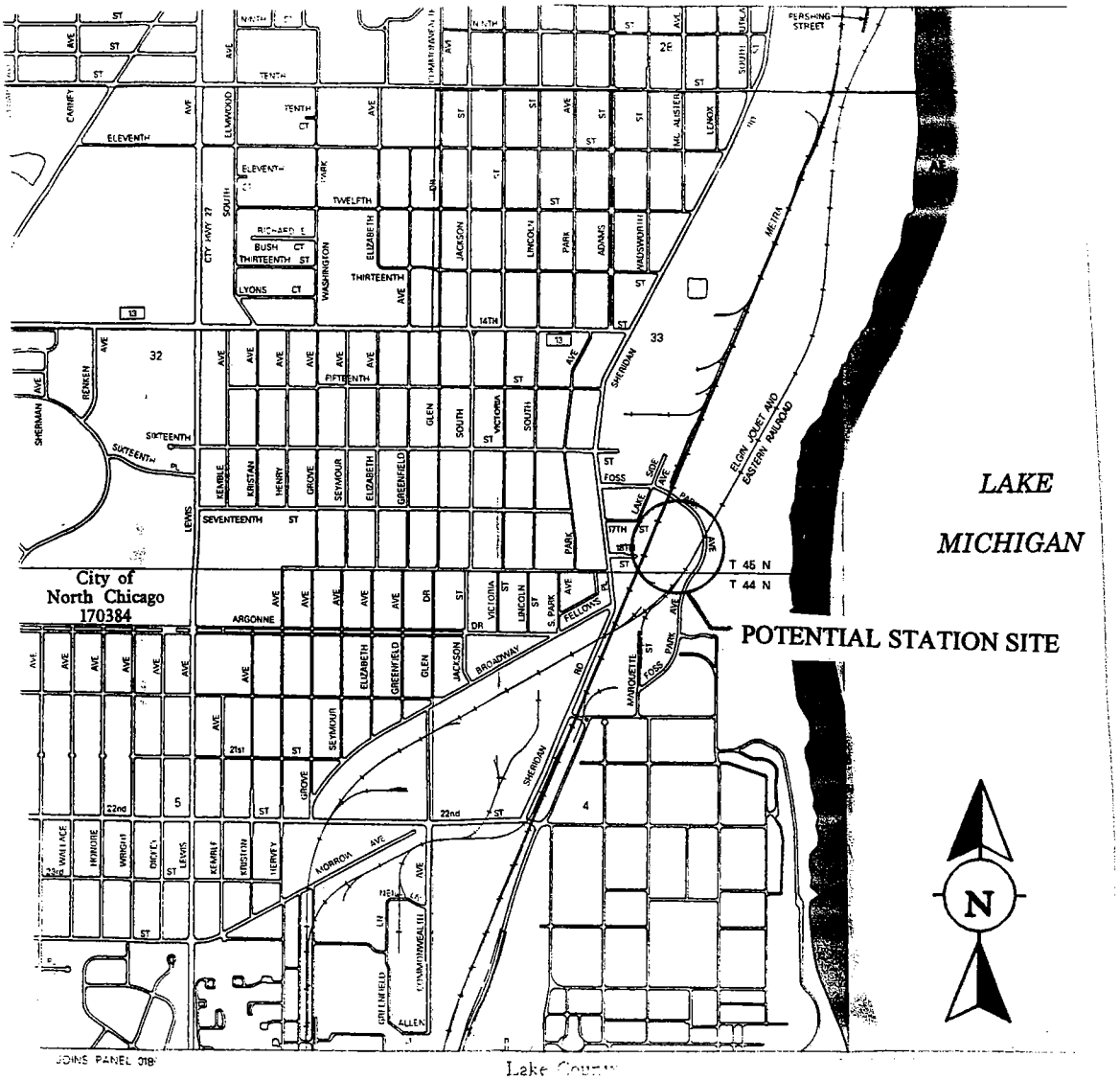
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site and Transfer Station North Chicago (EJ&E/UP-N)

Wetland Inventory Map Preliminary Site Location



T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site and Transfer Station North Chicago (EJ&E/UP-N)

Floodway/Floodplain Boundary Map Preliminary Site Location

Rondout Transfer Station (EJ&E/MD-N)

Location and Site Description

This station site is located at the intersection of the EJ&E and the Milwaukee District North (MD-N) Line. It would be solely a transfer station without any commuter parking, allowing passengers to transfer between the two rail lines. The transfer station would consist of platforms and a warming shelter; no parking would be provided.

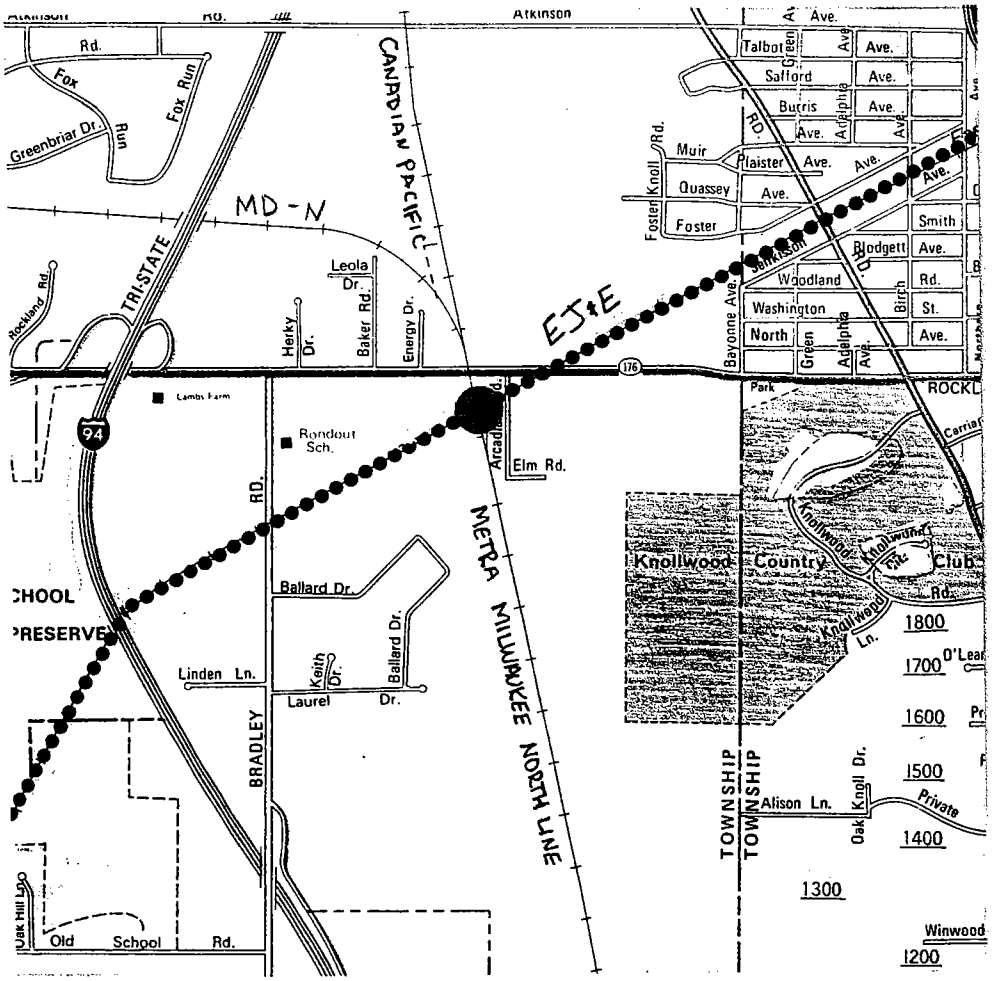
This site formerly was a station along the MD-N Line until 1984; the former platforms still remain. Under this option, these platforms would be removed and reconstructed in addition to providing new platforms to the north of the EJ&E track (unless a new passing siding is added here). In the southeast quadrant of this intersection, there is an existing Metra control tower. Overhead electric lines parallel the MD-N on both sides of the tracks, and parallel the EJ&E on the south side of the track.

Environmental Concerns

Based on the floodway/floodplain maps it appears that this site may encroach upon the 100-year flood boundary. The layout of this site will attempt to avoid encroaching on the flood boundary, but if the floodway/floodplain is impacted, appropriate compensatory mitigation will be created.

Transfer Potential

This potential site is located along the MD-N, between the Libertyville and Lake Forest Stations. During the week, the MD-N operates trains to and from Chicago ranging from four trains per hour (peak morning rush hour) to one every hour passing in the vicinity of this site. On the weekends and holidays, there are trains to and from Chicago ranging from one per hour to one every two to three hours.

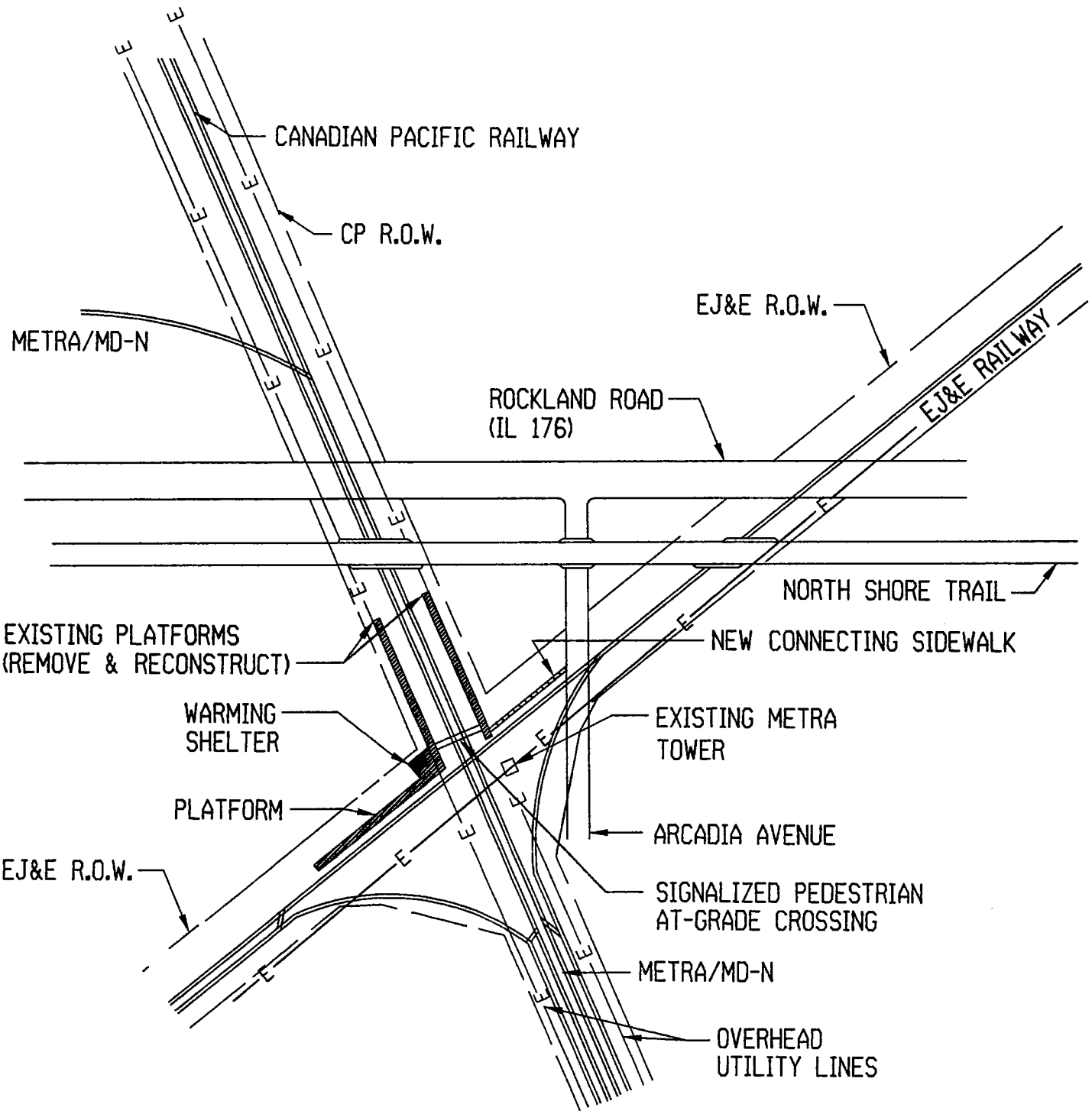


LOCATION MAP - RONDOUT TRANSFER STATION (EJ&E/MD-N)

NORTH

SCALE: N.T.S.

PREFERRED SITE



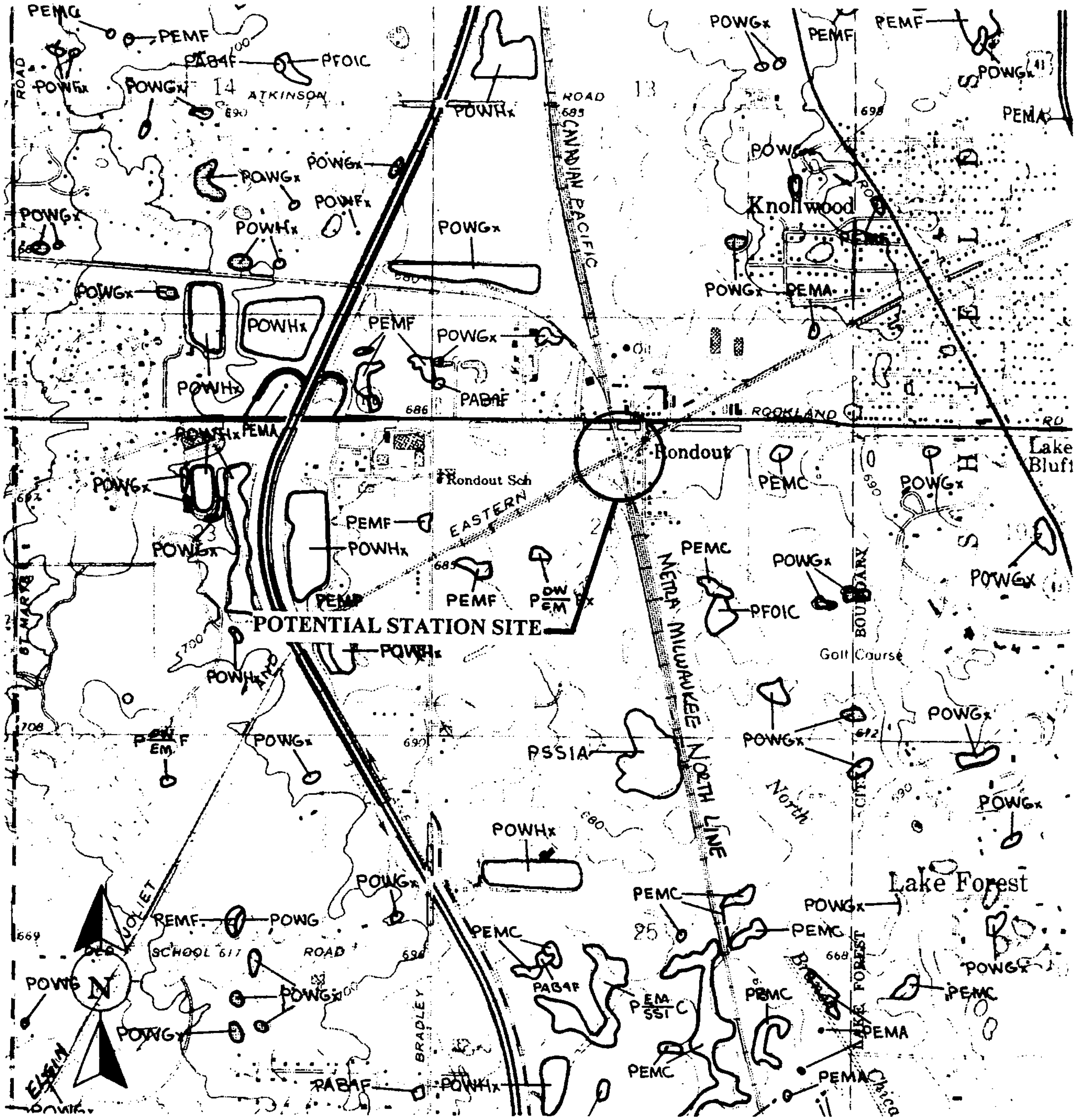
SITE PLAN - RONDOUT TRANSFER STATION (EJ&E/MD-N)

NORTH

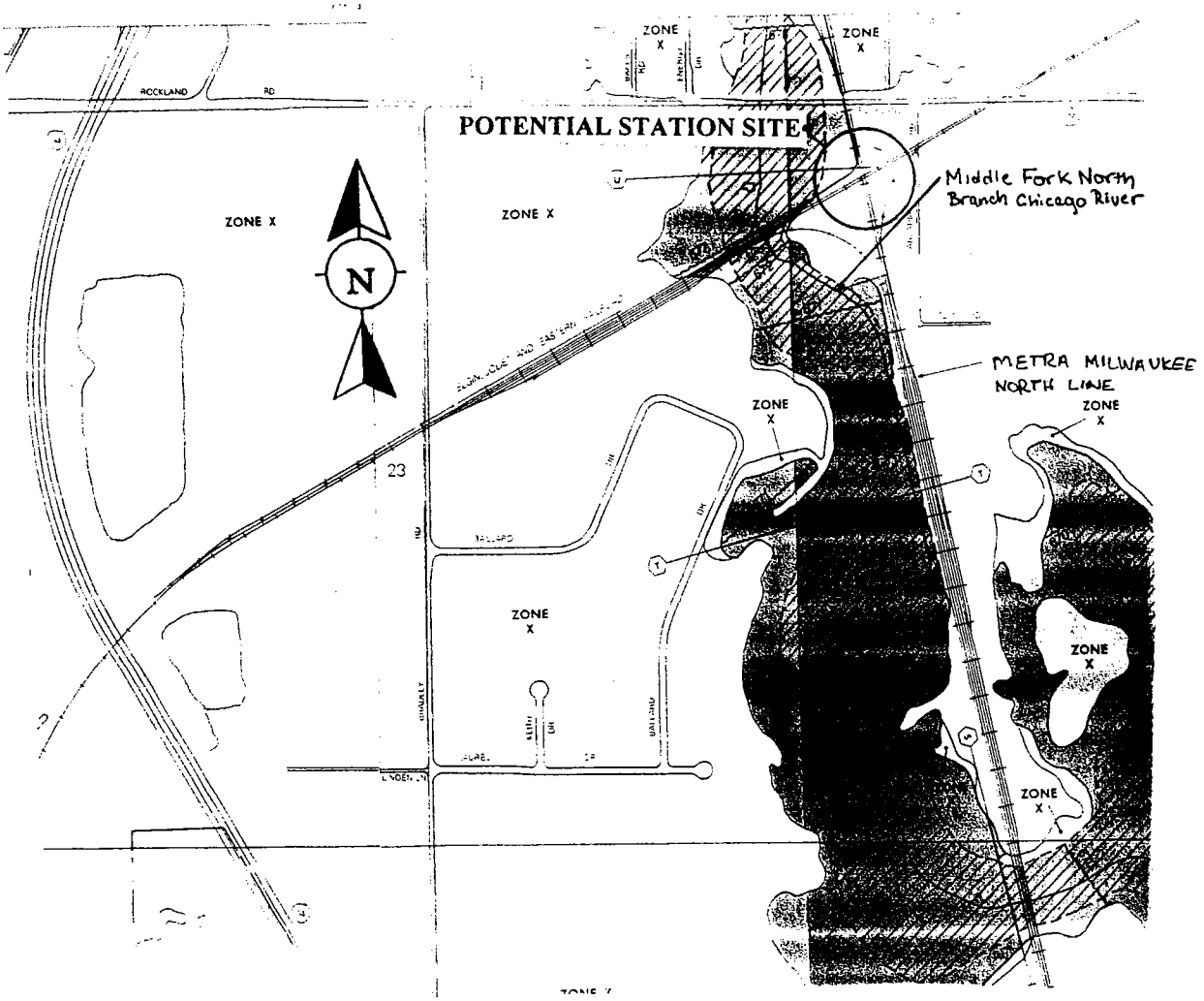
SCALE: 1" = 200'

PREFERRED SITE

PS-I01
ASK-I012



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site Rondout (EJ&E/MD-N)** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site** **Rondout** **(EJ&E/MD-N)** **Floodway/Floodplain Boundary Map** **Preliminary Site Location**

Green Oaks

Location

The Village has indicated that their preferred site is located ¼ mile south of Rockland Road (IL 176), in the northeast quadrant of the intersection of Bradley Road with the EJ&E. A small industrial park is located to the southeast of this intersection.

Community Characteristics

According to the 1990 census, Green Oaks had a population of 2,101. A 1994 special census estimated a population of 2,416, and a 1997 special census discovered that the population had reached 3,010. NIPC has estimated the population in 2020 to be 4,202.

The NIPC 1990 employment allocation for the Village was 1,919, with a 2020 projection of 3,060.

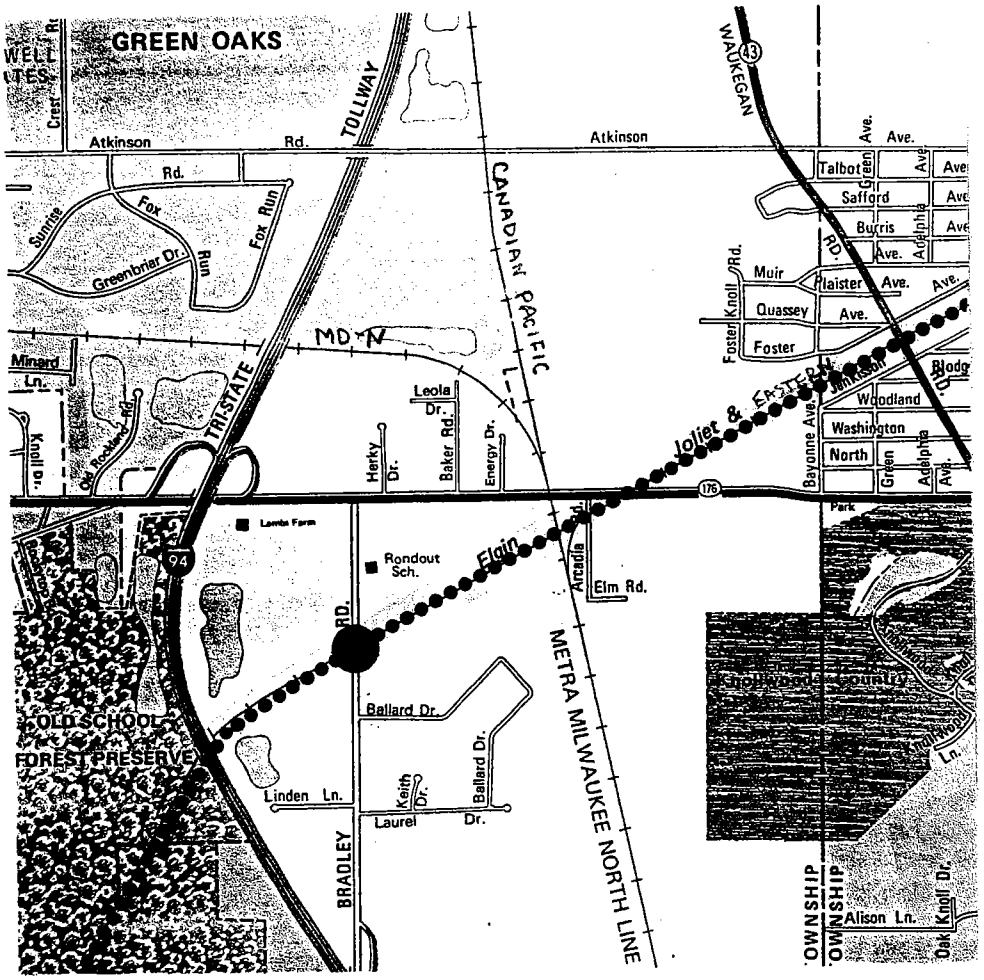
Site Description (Preferred Site)

The site is relatively level, with a drainage ditch located just to the north of the overhead power lines which are approximately 60 feet north of the EJ&E.

Access: Access to the site would be off of Bradley Road.

Environmental Concerns

None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.

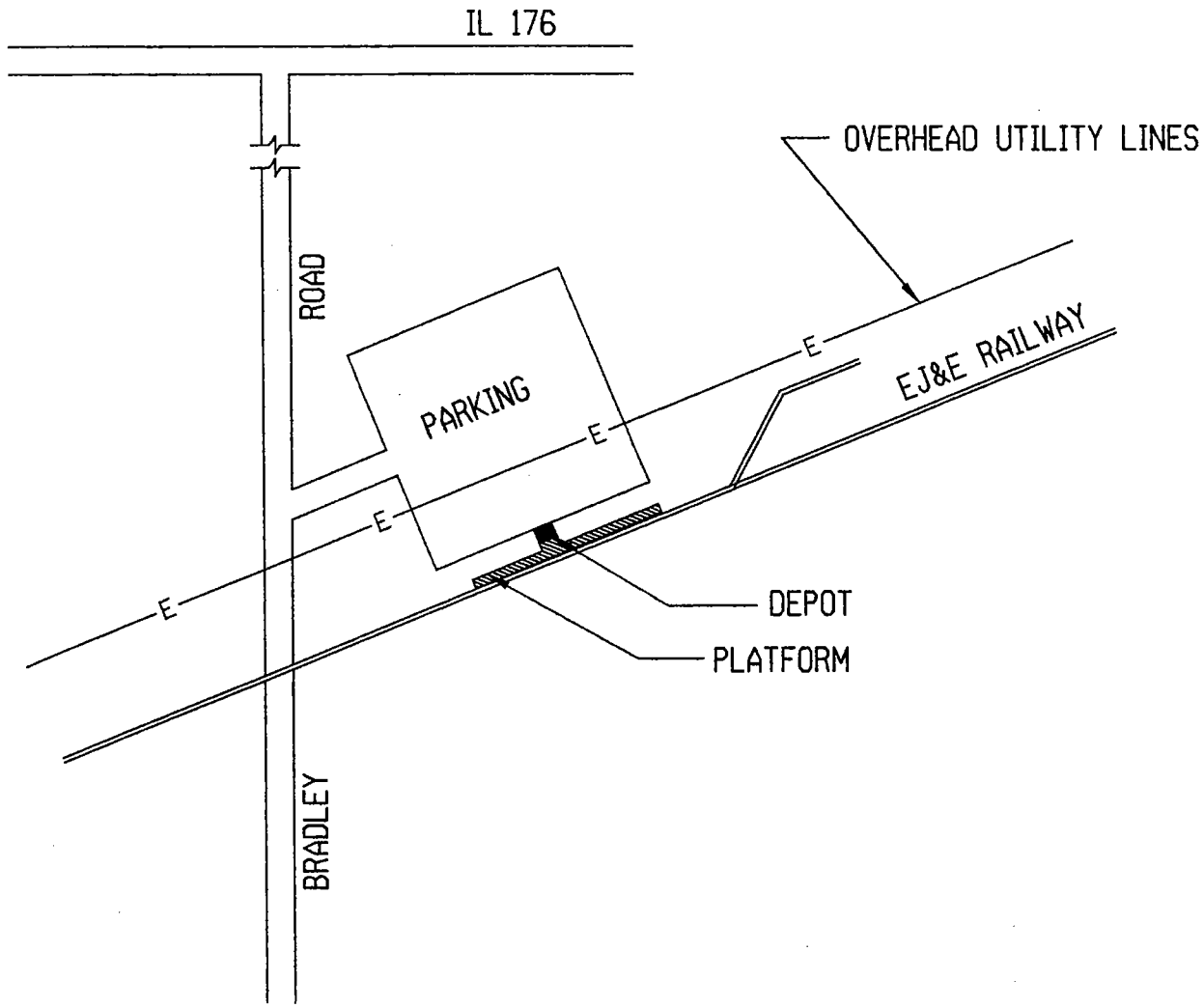


LOCATION MAP - GREEN OAKS STATION

SCALE: N.T.S.

PREFERRED SITE

NORTH



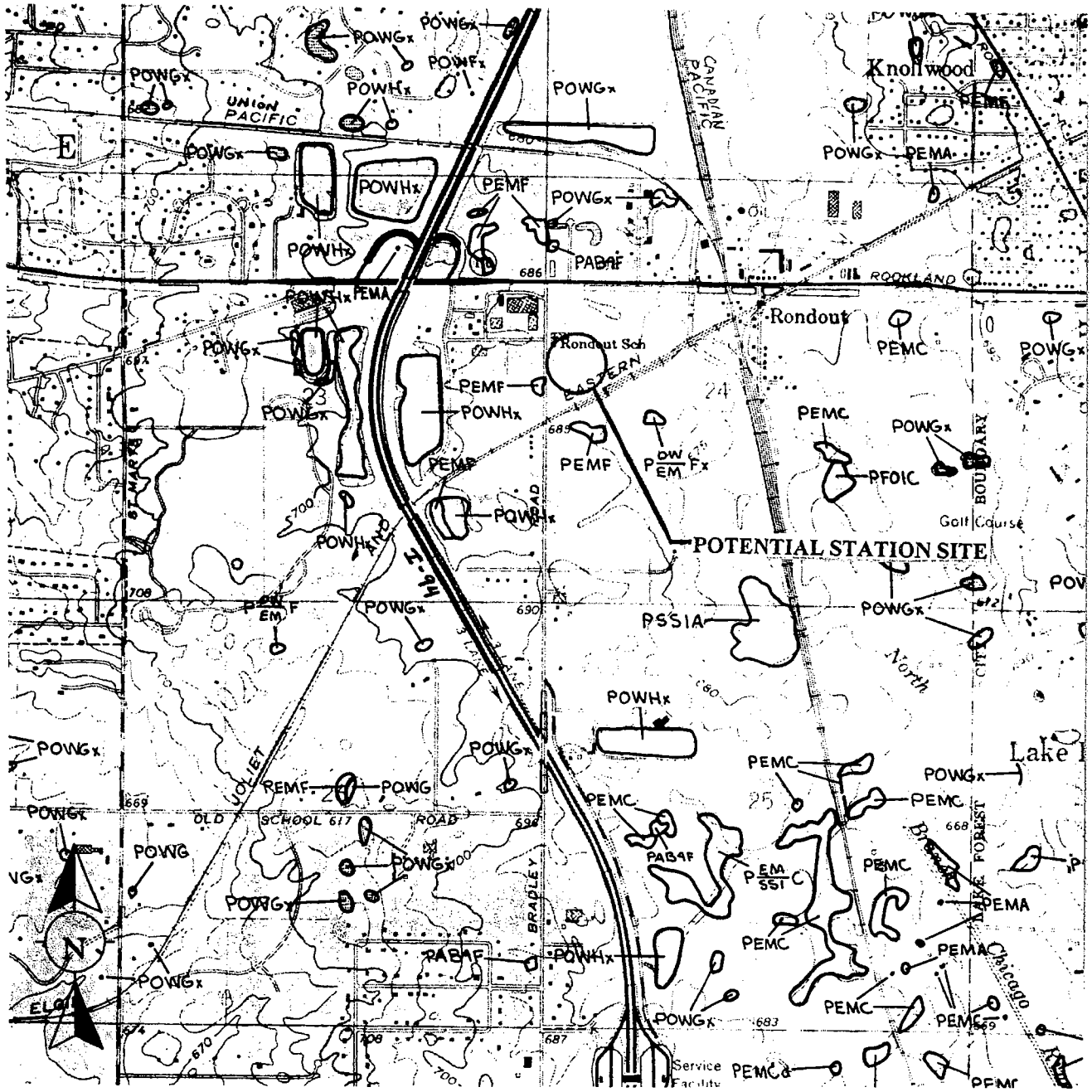
NORTH

SITE PLAN - GREEN OAKS STATION

SCALE: 1"= 200'

PREFERRED SITE

PS-A01
ASK-A012



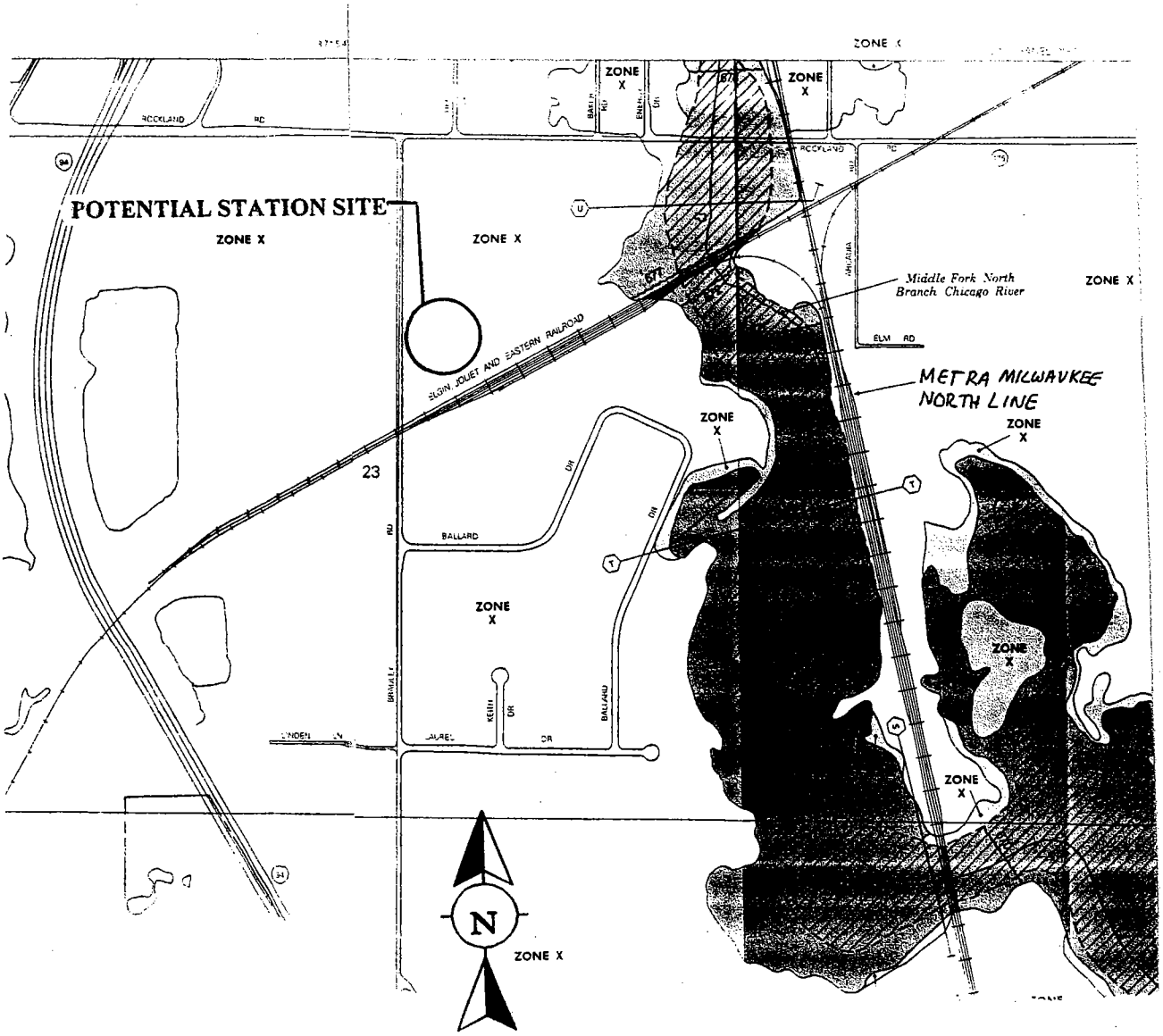
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Green Oaks

Wetland Inventory Map
Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Green Oaks** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Vernon Hills

Location

The Village's preferred site is located in the northeast quadrant of the intersection of the EJ&E and Metra/North Central Service (NCS). However, this site is currently occupied by an active business, therefore an alternate location is portrayed as the potential site. It is located in the northwest quadrant of the intersection of the EJ&E and Milwaukee Avenue (IL 21). This location is planned for commercial uses as part of the Cuneo development (mostly residential). It may be possible to coordinate future station planning with the developer.

Community Characteristics

According to the 1990 census, Vernon Hills had a population of 15,319, while a 1994 special census estimated a population of 18,830. NIPC has estimated the population in 2020 to be 28,005.

The NIPC 1990 employment allocation for the Village was 6,907, with a 2020 projection of 19,847.

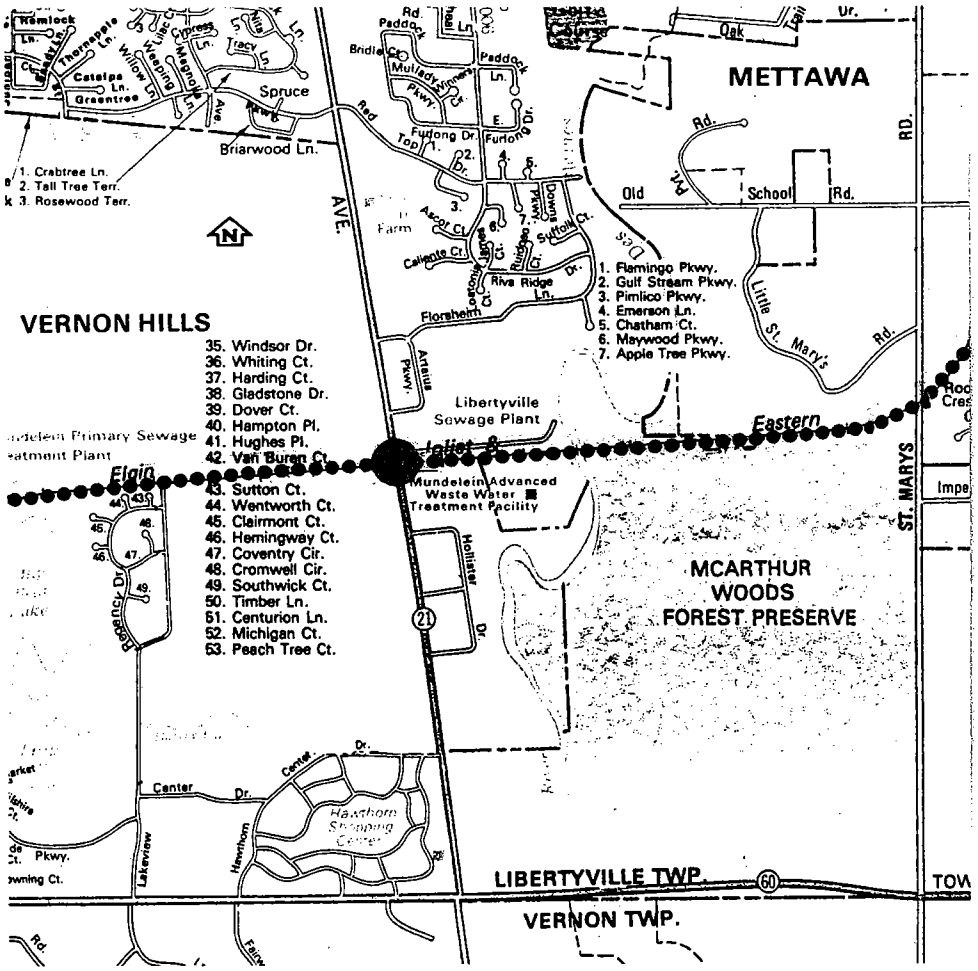
Site Description (Preferred Site)

Milwaukee Avenue crosses the EJ&E at grade level. The site is relatively level.

Access: Access to the site would be off of Milwaukee Avenue.

Environmental Concerns

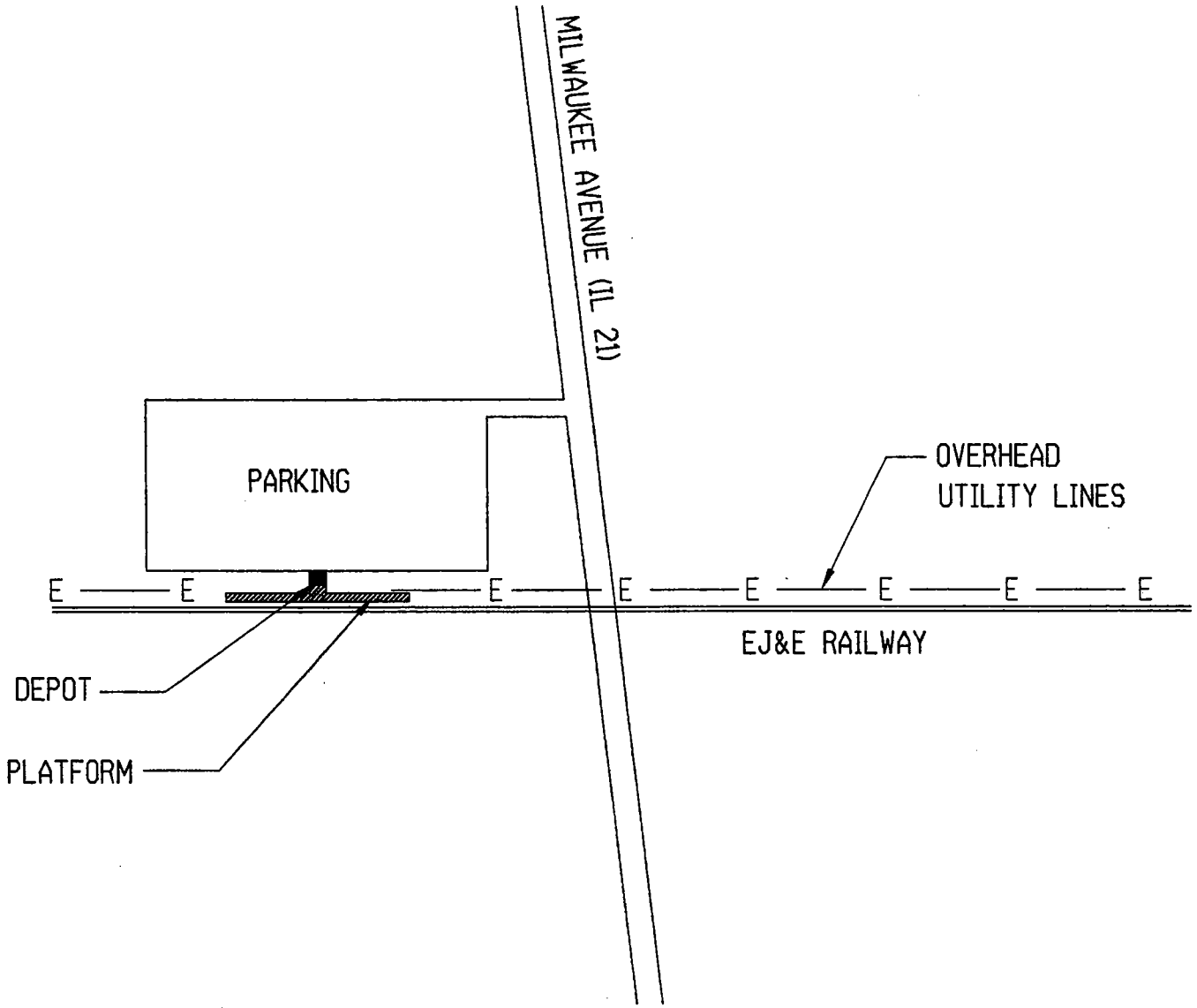
None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.



LOCATION MAP - VERNON HILLS STATION

SCALE: N.T.S.

NORTH

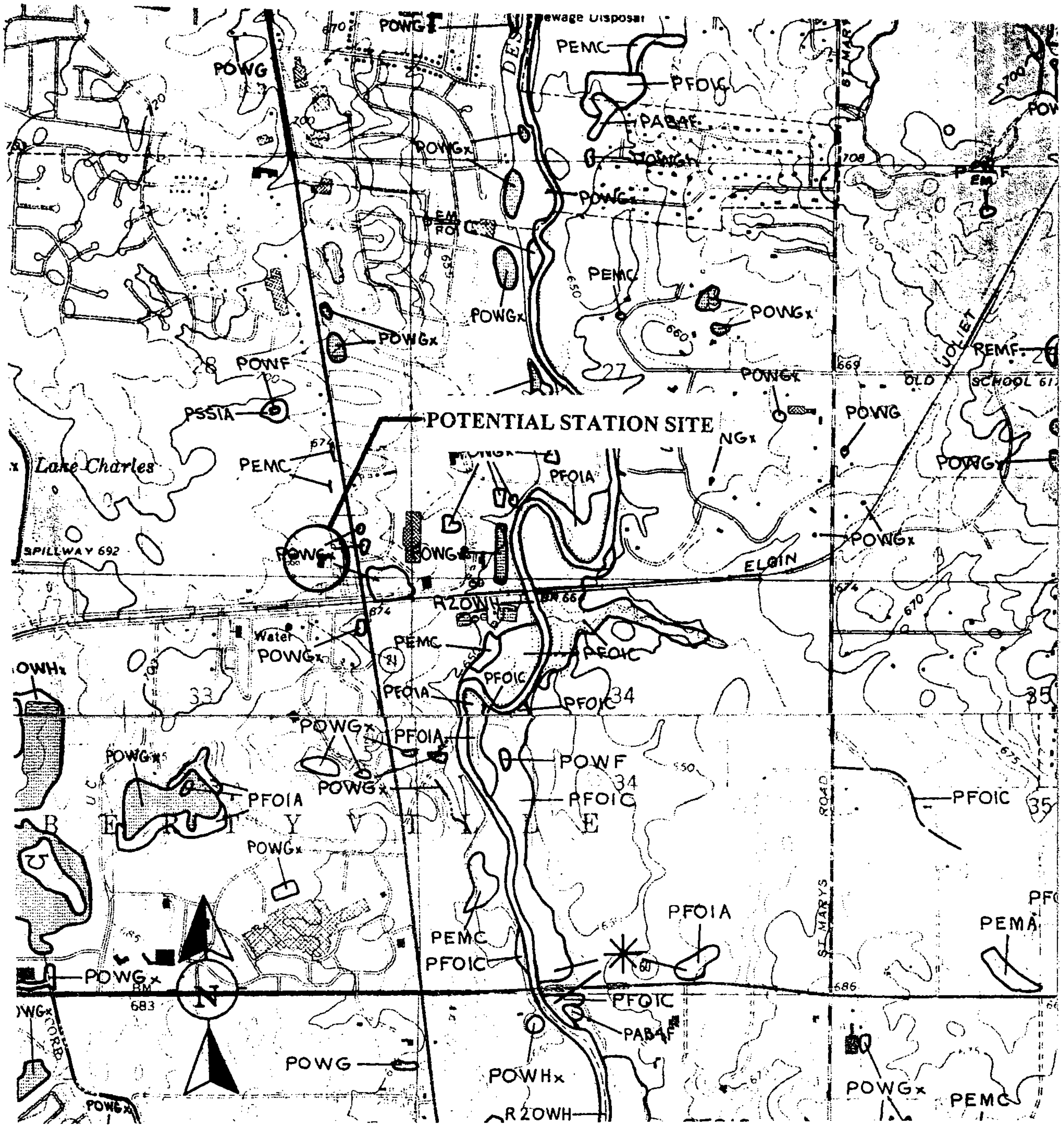


NORTH

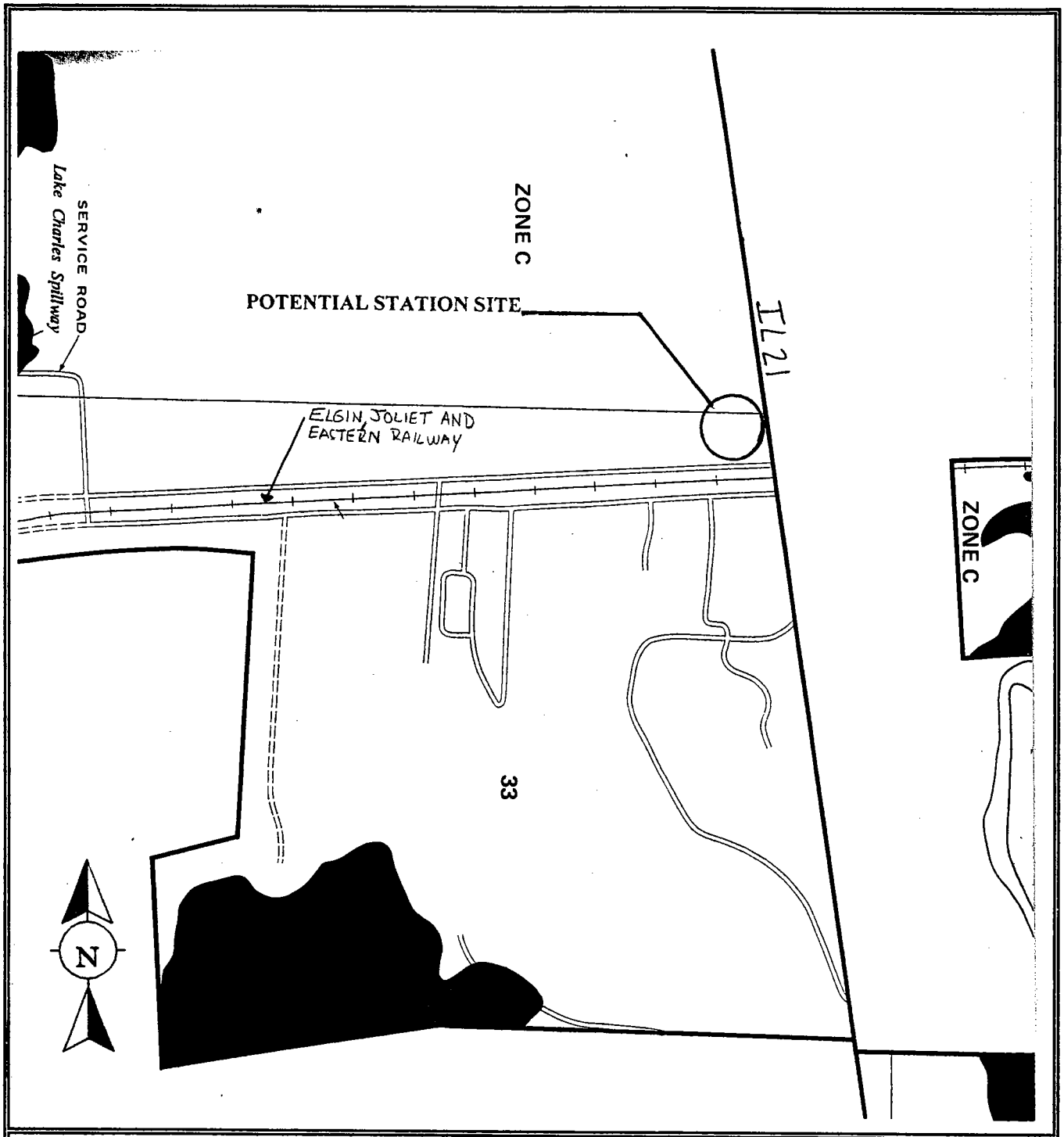
SITE PLAN - VERNON HILLS STATION

SCALE: 1"= 200'

PS-Y02
ASK-Y012



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Vernon Hills** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Vernon Hills** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Leithton Transfer Station (EJ&E/NCS)

Location and Site Description

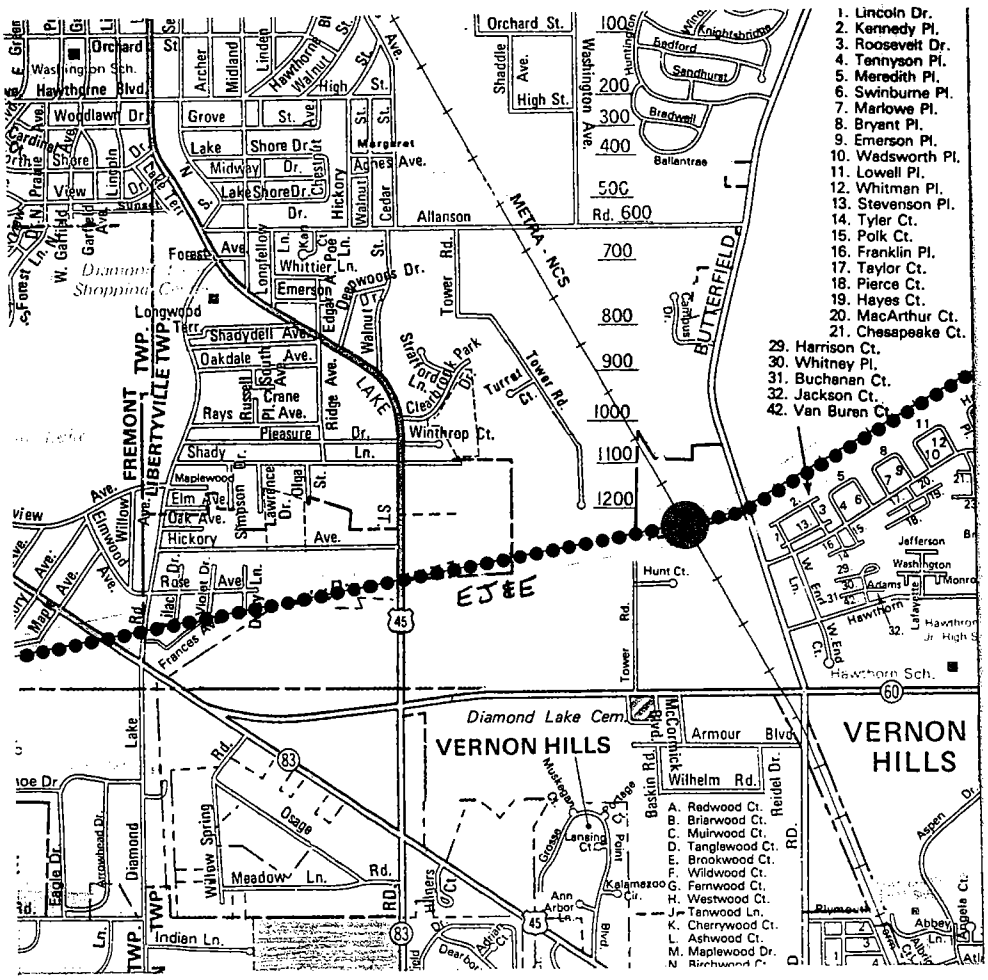
This station site is located at the intersection of the EJ&E and the Metra/North Central Service (NCS) Lines. It would be solely a transfer station without any commuter parking, allowing passengers to transfer between the two rail lines. The transfer station would consist of platforms and a warming shelter.

Environmental Concerns

There are wetlands located along both sides of the NCS track. The layout of this site will attempt to avoid impacts to the wetland areas. However, if avoidance is not possible, appropriate mitigation will be done.

Transfer Potential

During the week, the NCS operates four morning trains and one afternoon train to Chicago and five afternoon/evening trains from Chicago. There is no weekend or holiday service offered on the NCS.

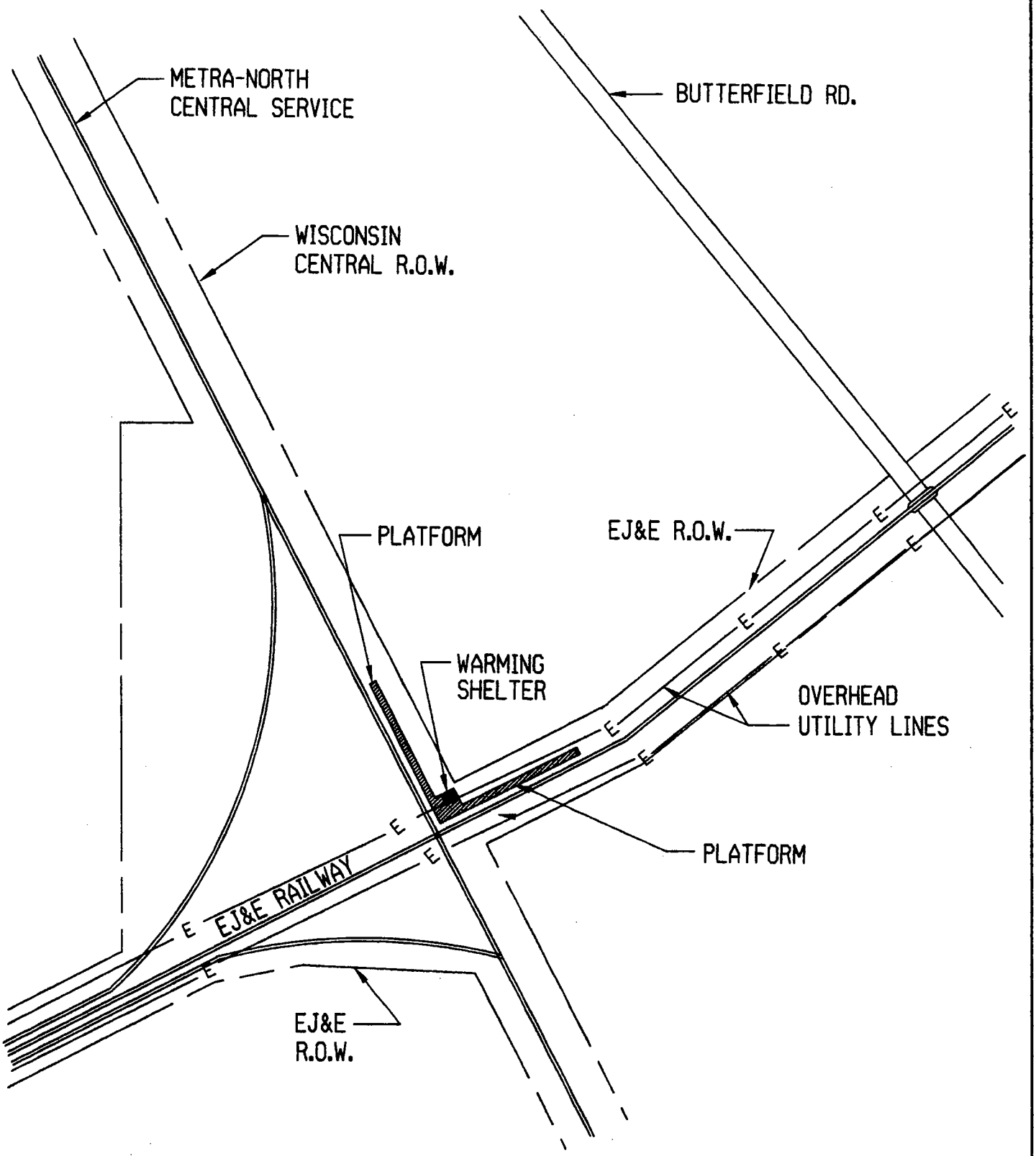


LOCATION MAP - LEITHTON TRANSFER STATION (EJ&E/NCS)

SCALE: N.T.S.

PREFERRED SITE

NORTH



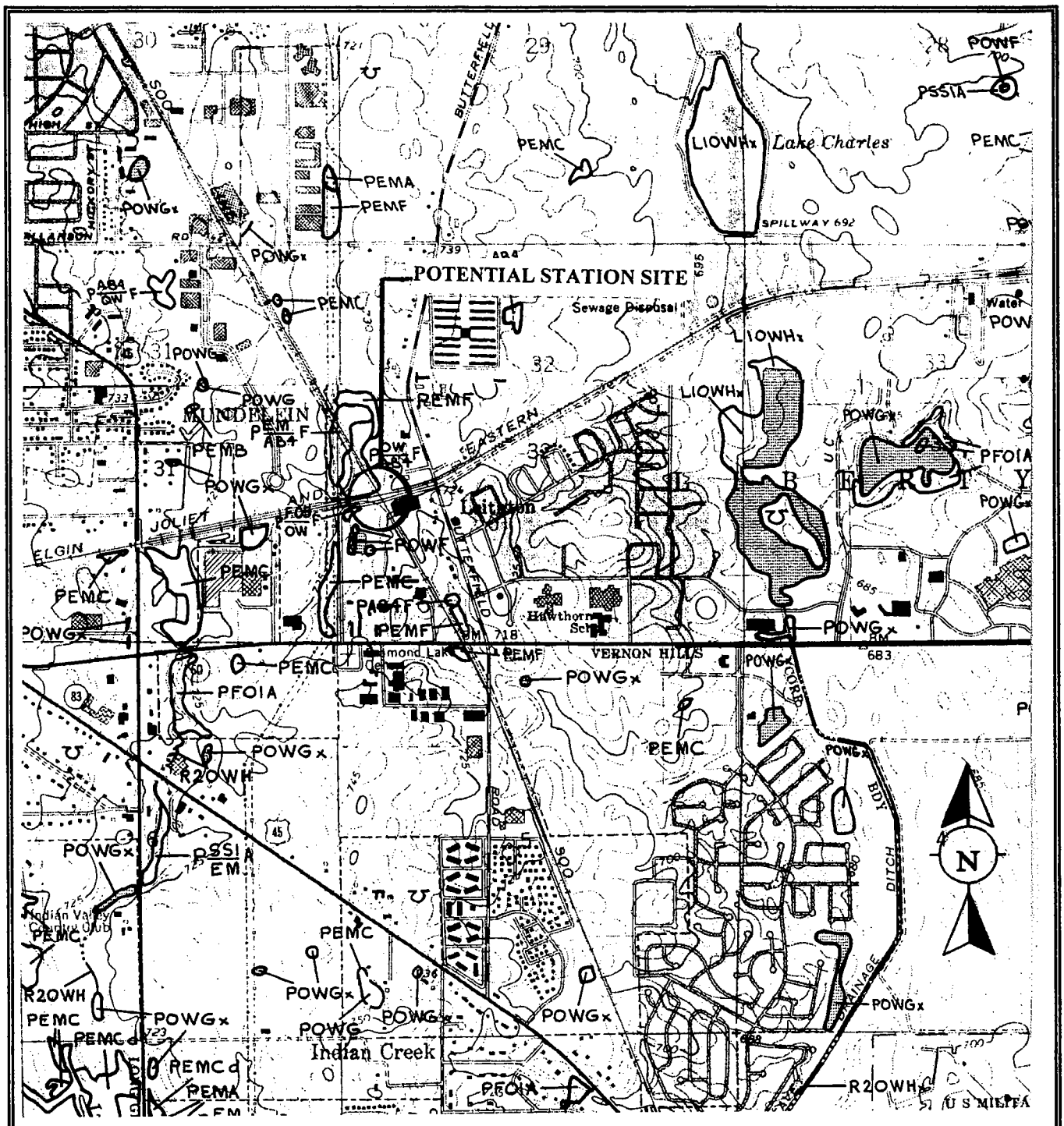
SITE PLAN - LEITHTON TRANSFER STATION (EJ&E/NCS)

NORTH

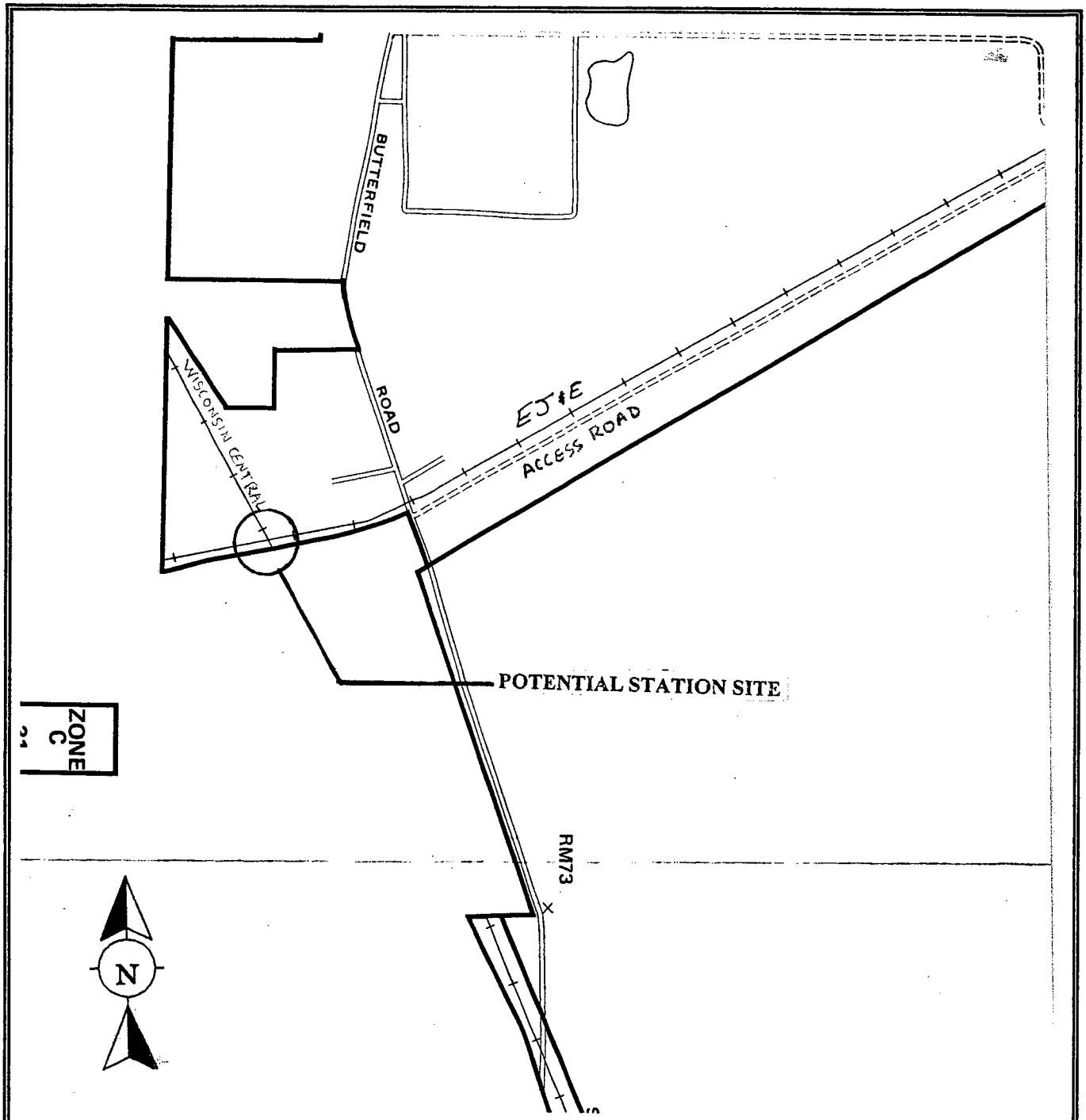
SCALE: 1" = 200'

PREFERRED SITE

PS-J01
ASK-J012



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site** **Leithton** **(EJ&E/NCS)** **Wetland Inventory Map** **Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site** **Leithton** **(EJ&E/NCS)** **Floodway/Floodplain Boundary Map** **Preliminary Site Location**

Mundelein

Location

Preferred: The Village's preferred site is located west of the intersection of US 45 and the EJ&E, in unincorporated Lake County. The area best-suited for a station is approximately 200 feet west of US 45 on the south side of the tracks.

Alternate: North of the EJ&E, between US 45 and the Wisconsin Central line. This site is also in unincorporated Lake County. Due to its remoteness, potential for wetlands throughout the site, and its limited size (approximately 10-12 acres), this site is not a likely candidate for a potential station.

Community Characteristics

According to the 1990 census, Mundelein had a population of 21,215, while a 1993 special census estimated a population of 23,995. NIPC has estimated the population in 2020 to be 36,486.

The NIPC 1990 employment allocation for the Village was 11,400, with a 2020 projection of 19,208. Within the Village there are 29 major employers, with an approximate total of 5,970 employees.

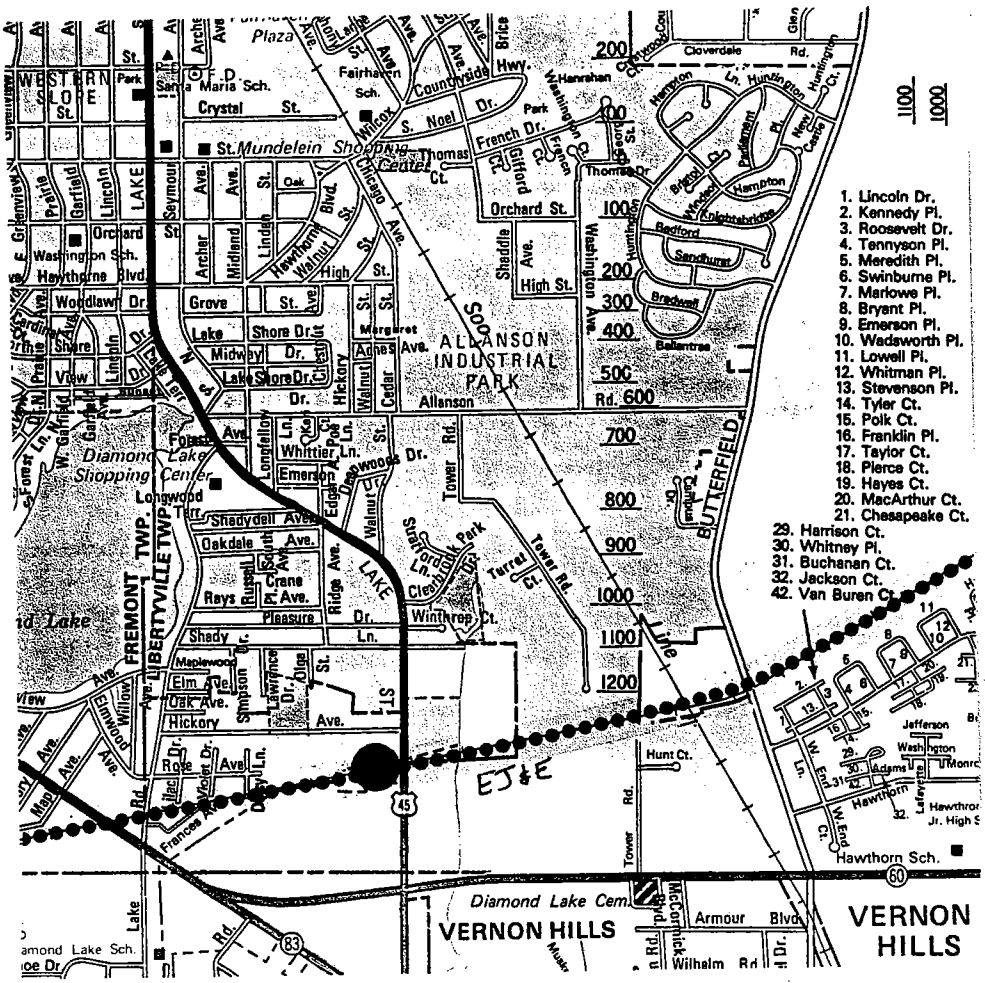
Site Description (Preferred Site)

There is a significant rise in grade along the western edge of Route 45, after which the grade levels off. The land adjacent to the track is open, although several communication towers have been placed on the property. Further south, a vacant building and parking lot exists. There are overhead electric lines parallel to the EJ&E on the north side of the track.

Access: Access to the site would be off of US 45 and/or IL 60/83. However, sight distance studies would need to be performed for the access road off US 45 due to the proximity of the roadway underpass just to the north.

Environmental Concerns

There is a wetland located adjacent to the site area. The layout of this site will avoid the wetland area.

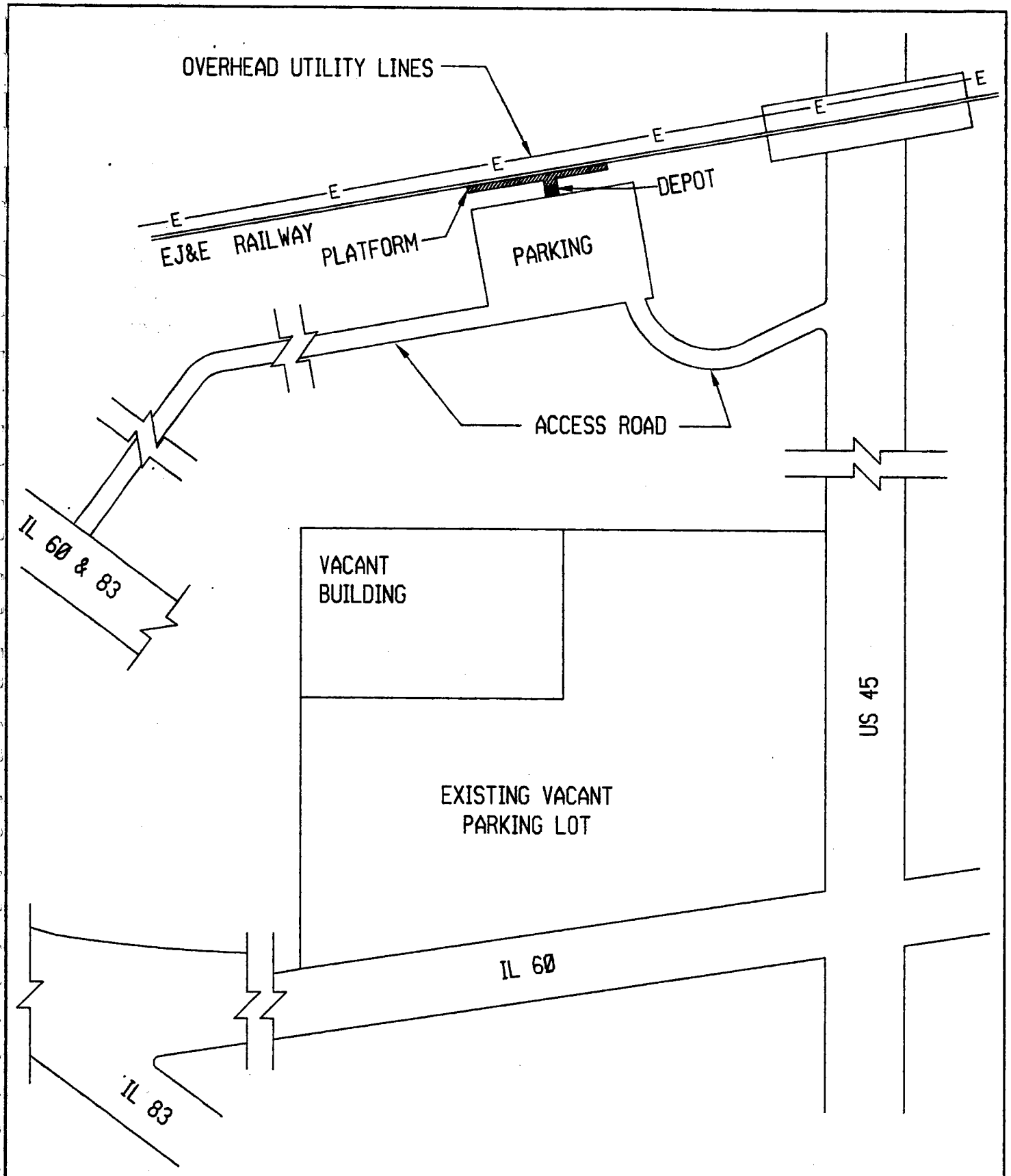


LOCATION MAP - MUNDELEIN STATION

SCALE: N.T.S.

PREFERRED SITE

NORTH



SITE PLAN - MUNDELEIN STATION

SCALE: 1"= 200'

PREFERRED SITE PS-A02
ASK-A022

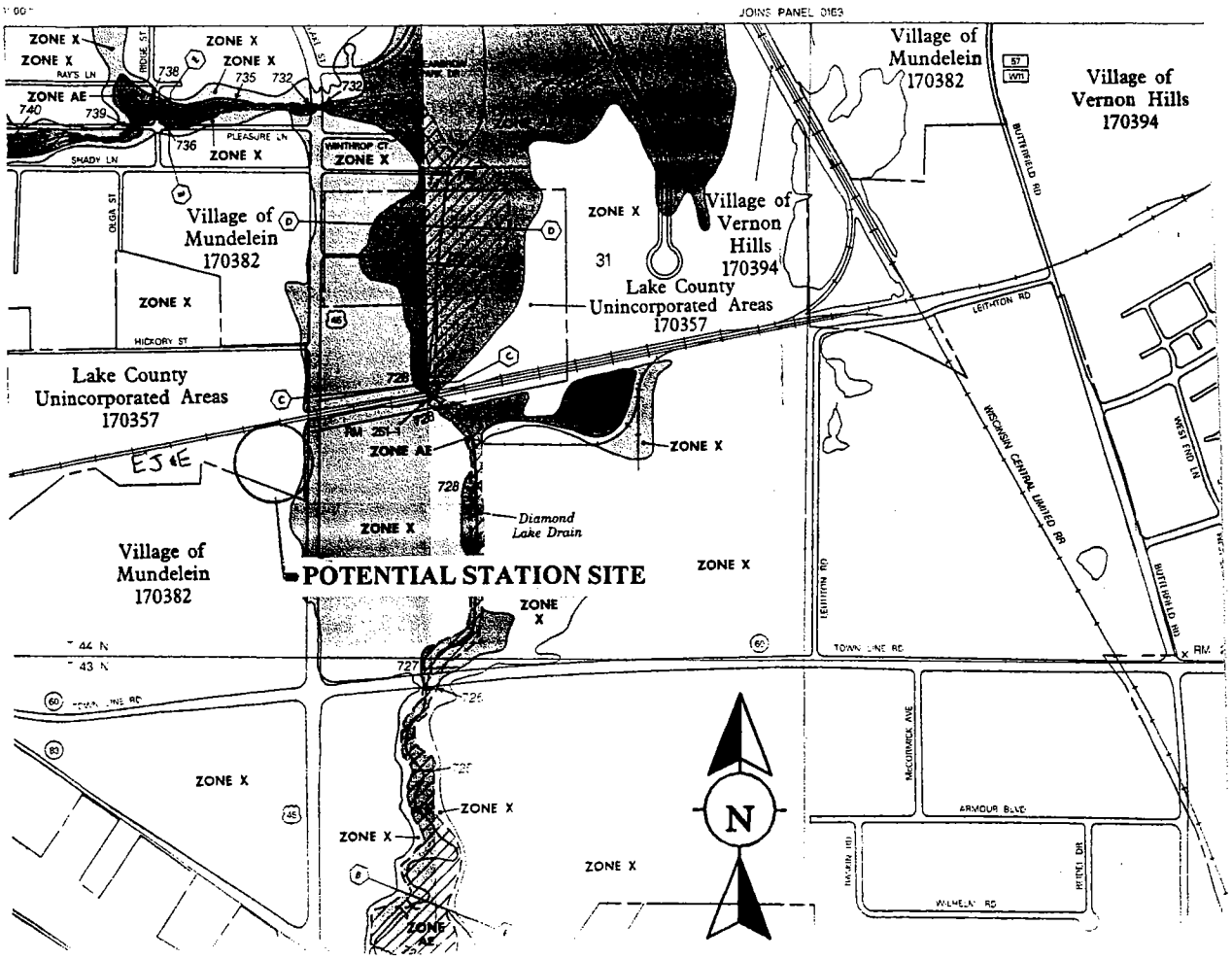
Metra

Outer Circumferential Commuter Rail Feasibility Study

T.Y. Lin International BASCOR

Potential Station Site
Mundelein

Wetland Inventory Map
Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Mundelein** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Long Grove

Location

Preferred: The Village has indicated that their preferred site would be located within the Long Grove Station Planning Subarea. This area is bordered on the south by the EJ&E, on the north by Midlothian Road, on the east (partially) by US 45 and on the west by the Village limits. This Subarea Plan is a 459-acre planned development where a commuter rail station would be a vital part of a transit-oriented community.

Alternate: If the Village is unable to purchase the land for their preferred site (i.e., if the IL 53 extension is constructed), then the station site could be moved to the west and reduced in size.

Community Characteristics

According to the 1990 census, Long Grove had a population of 4,740, while a 1995 special census estimated a population of 7,254. NIPC has estimated the population in 2020 to be 11,761; however, the Village projects a population of 7,700 to 8,200 by 2020.

The NIPC 1990 employment allocation for the Village was 2,238, with a 2020 projection of 7,635.

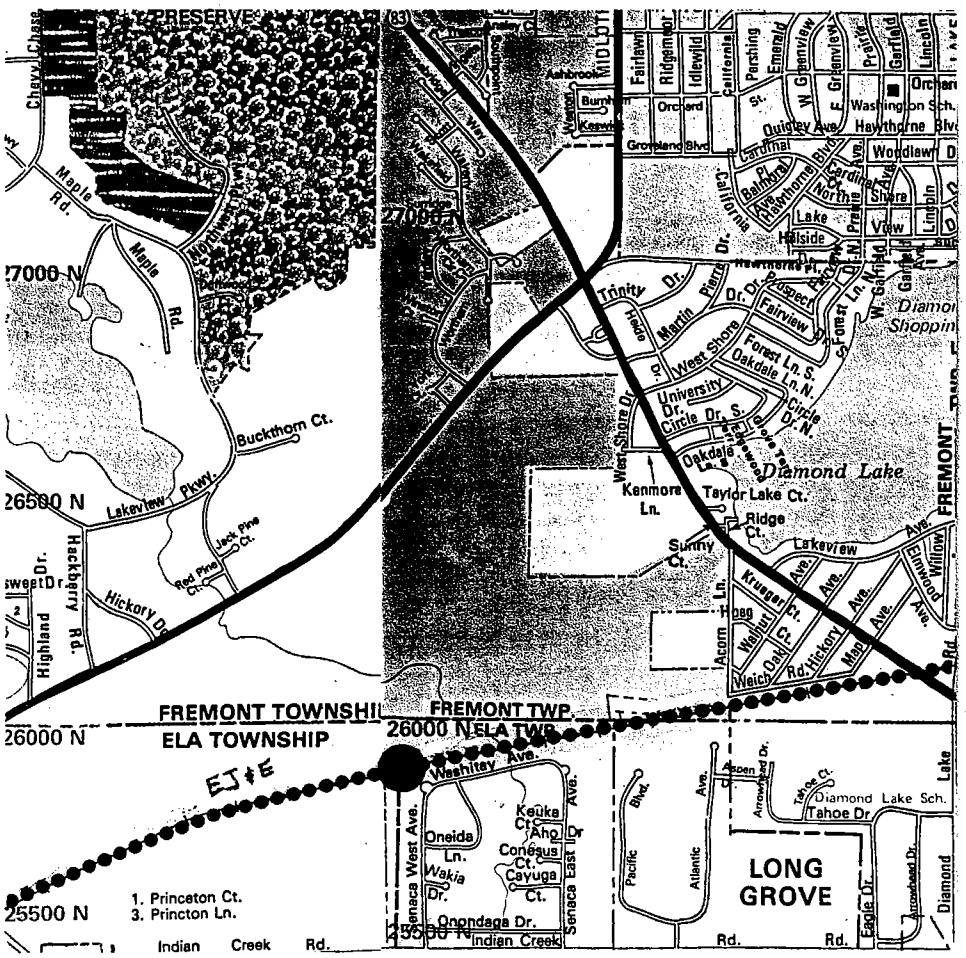
Site Description (Preferred Site)

The land adjacent to the tracks is currently used for agricultural purposes. The site has a relatively flat grade. Overhead utility lines run parallel to the tracks along the north side.

Access: Access would be off of Midlothian Road.

Environmental Concerns

There are areas of wetlands located within the vicinity of this site which may require mitigation depending on the actual site location. However, the Village's conceptual plan for the planned residential/commercial development in this area portrays the wetlands as being incorporated into the development as amenities. Thus, these wetlands will not be affected by the proposed commuter station.

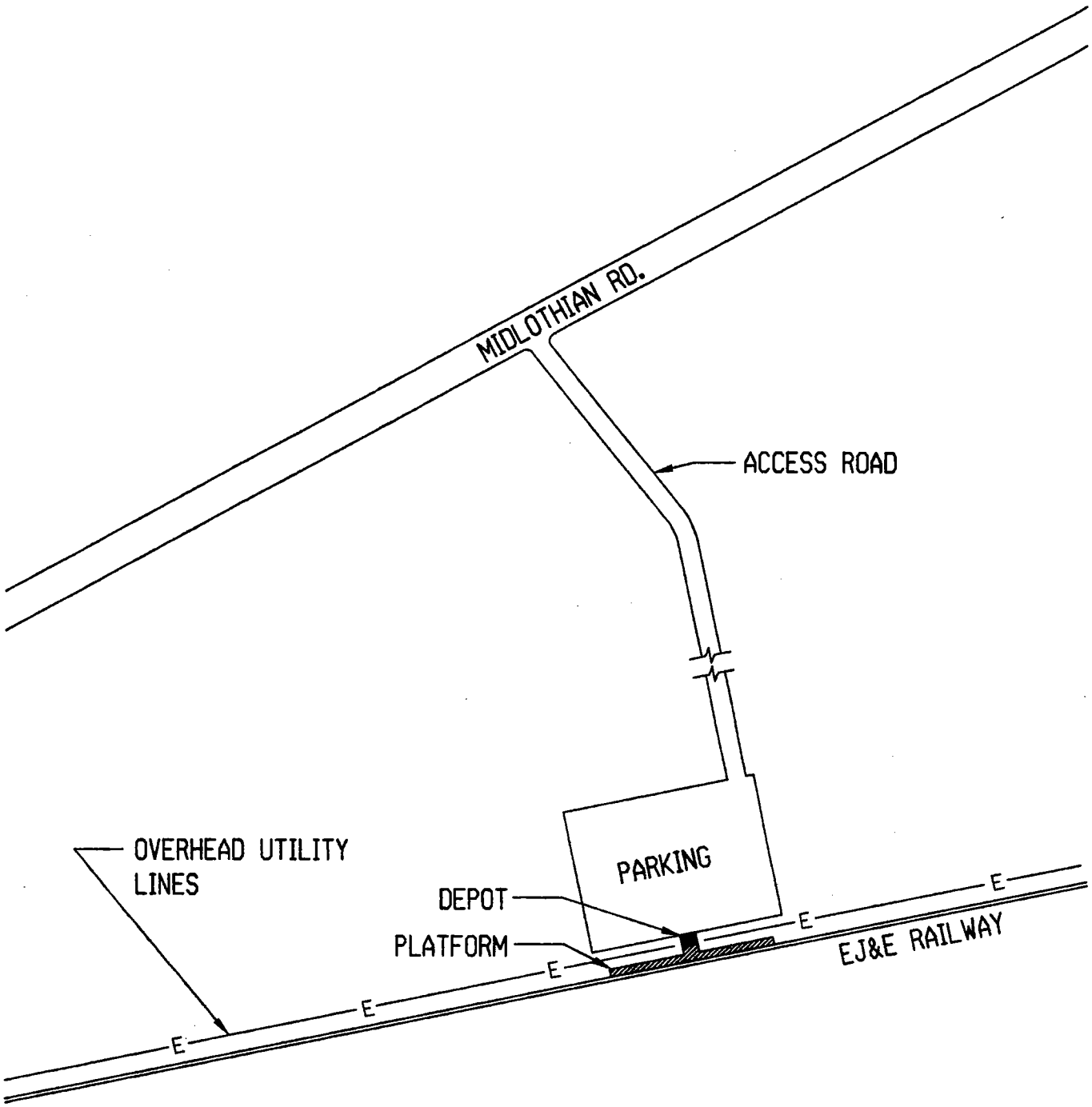


LOCATION MAP - LONG GROVE STATION

SCALE: N.T.S.

PREFERRED SITE

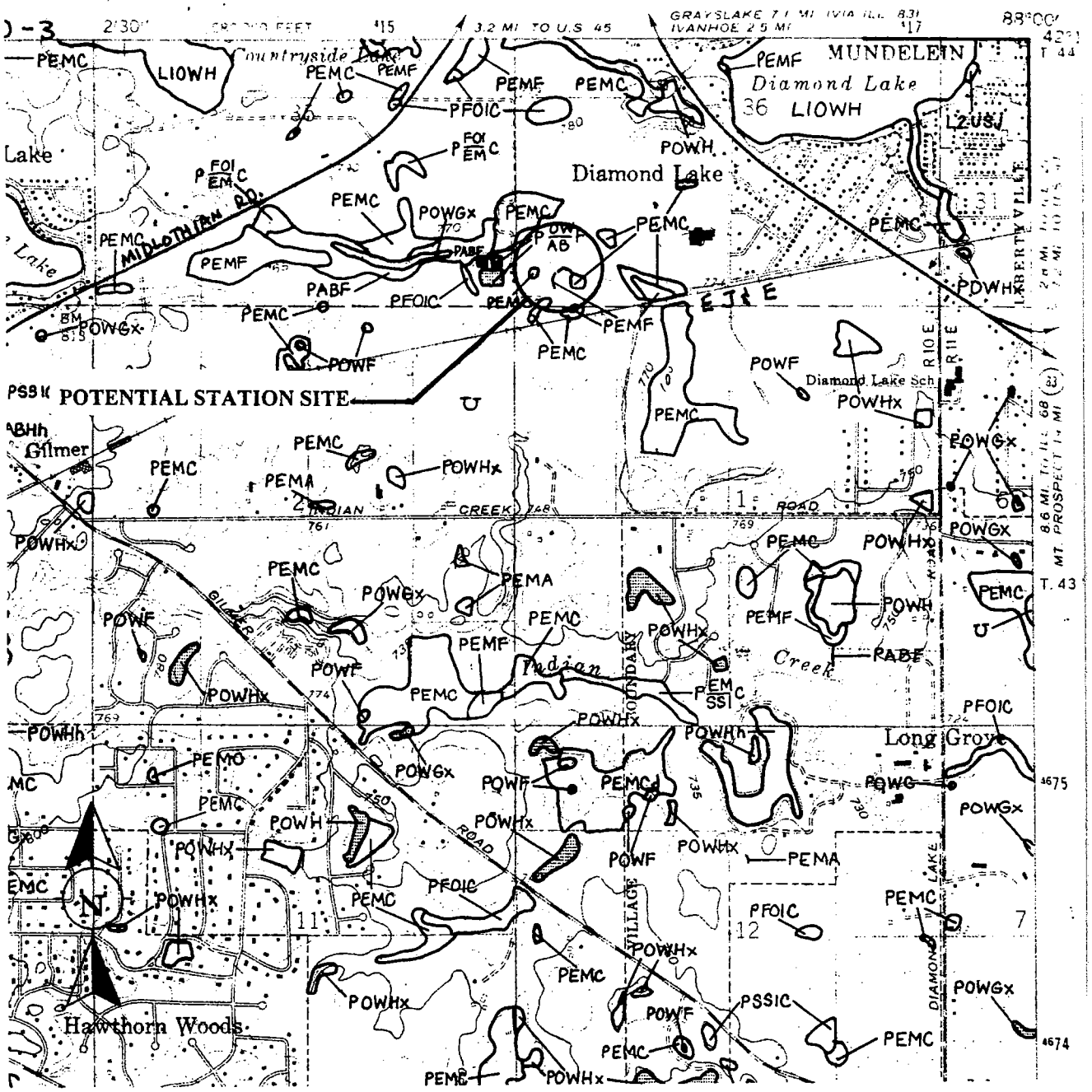
NORTH



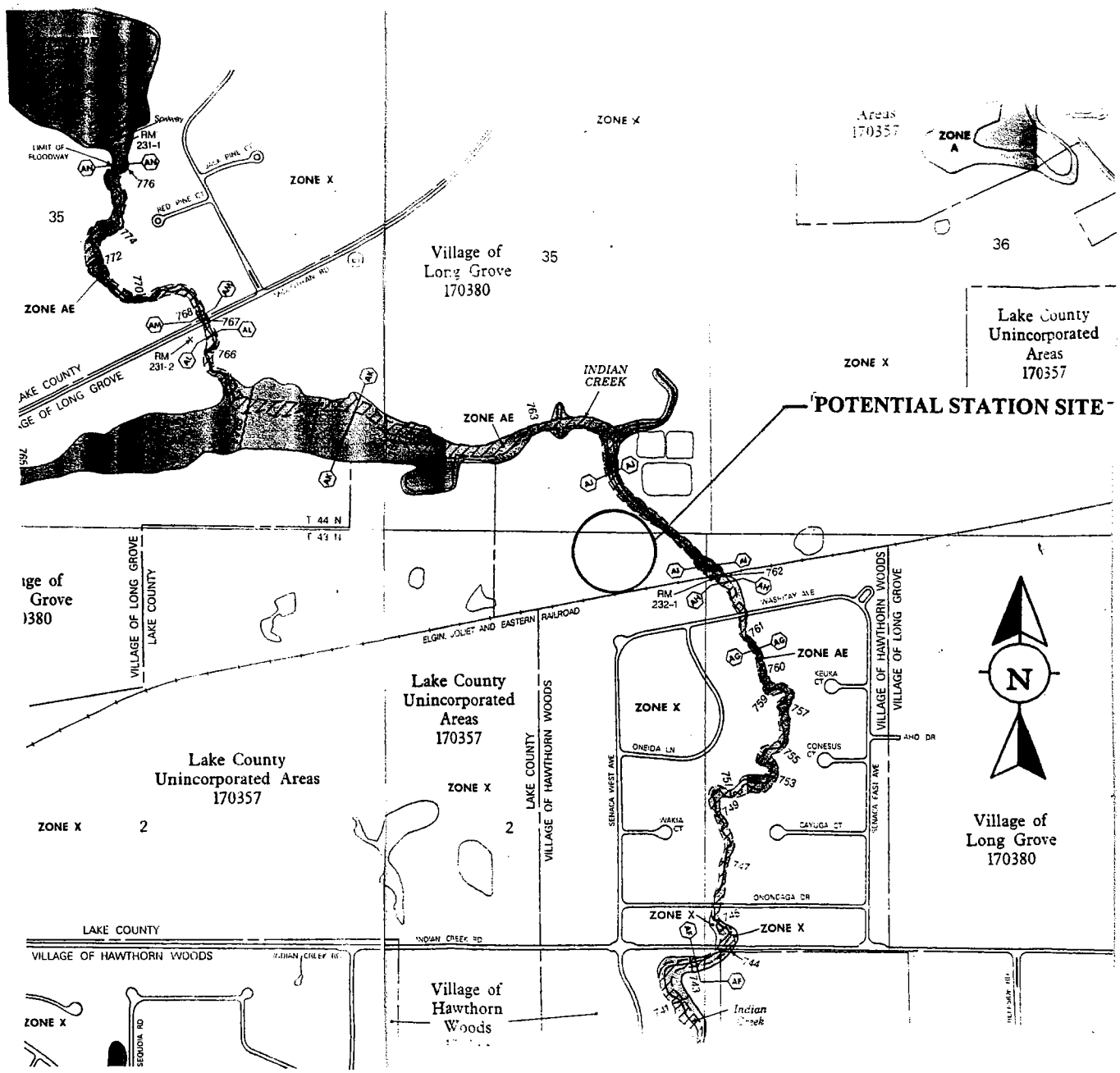
SITE PLAN - LONG GROVE STATION

SCALE: 1" = 200'

PREFERRED SITE PS-A05 ASK-A052



T.Y. Lin International BASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site** **Long Grove** **Wetland Inventory Map** **Preliminary Site Location**



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Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Long Grove

Floodway/Floodplain Boundary Map
Preliminary Site Location

Hawthorn Woods

Location

Preferred: The Village's preferred site is located directly off Old McHenry Road, just east of Midlothian Road, in the northwest quadrant of the intersection with the EJ&E. The Village has indicated that this site is included within their Comprehensive Plan for the Midlothian Road Business Area.

Alternate: Northwest or southwest quadrant of the intersection of Gilmer Road and the EJ&E.

Community Characteristics

According to the 1990 census, Hawthorn Woods had a population of 4,423, while a 1994 special census estimated a population of 5,617. NIPC has estimated the population in 2020 to be 12,705. However, the Village has indicated that they do not agree with NIPC's projected population numbers.

The NIPC 1990 employment allocation for the Village was 589, with a 2020 projection of 2,496.

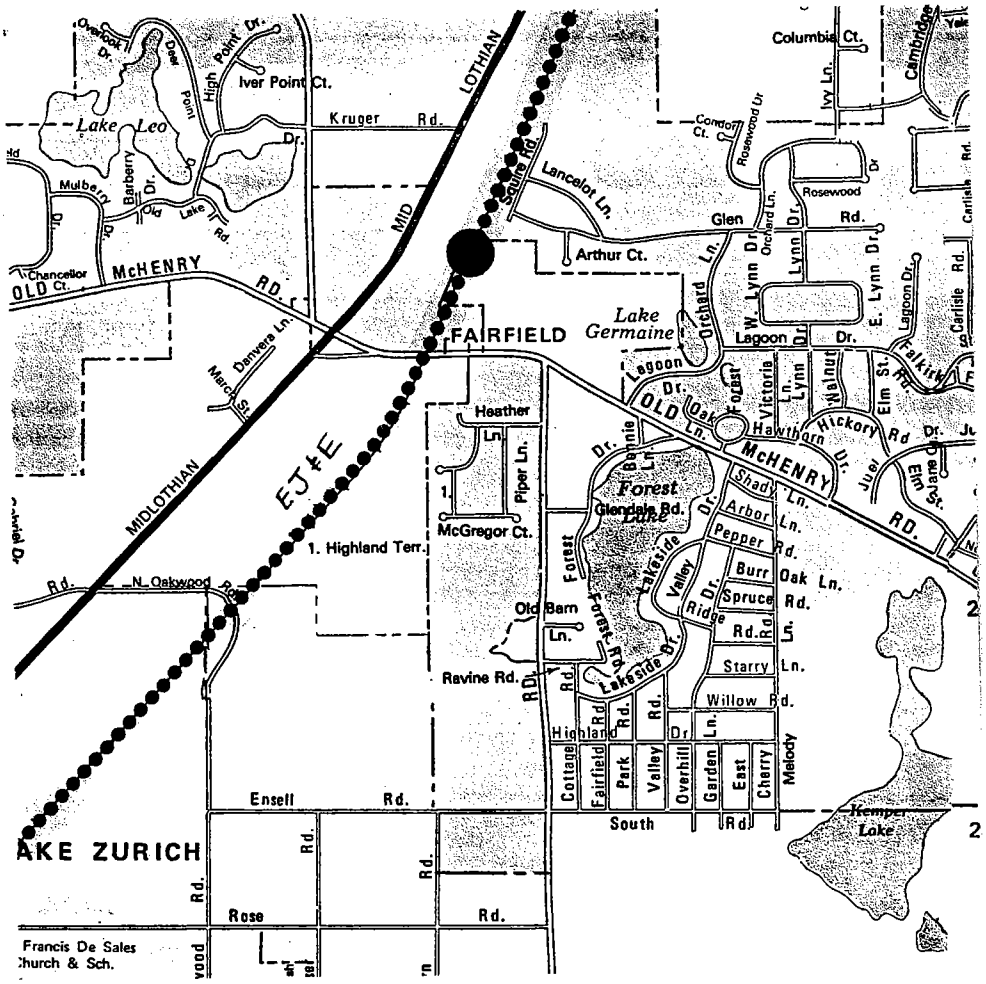
Site Description (Preferred Site)

The site is relatively flat with good access off of Old McHenry Road. Off of Midlothian Road, there is a significant rise in grade along the eastern edge, after which the grade levels off. Currently, there is a farm with related structures located within the northwest quadrant.

Access: Access would be off of Old McHenry Road and/or Midlothian Road.

Environmental Concerns

None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.

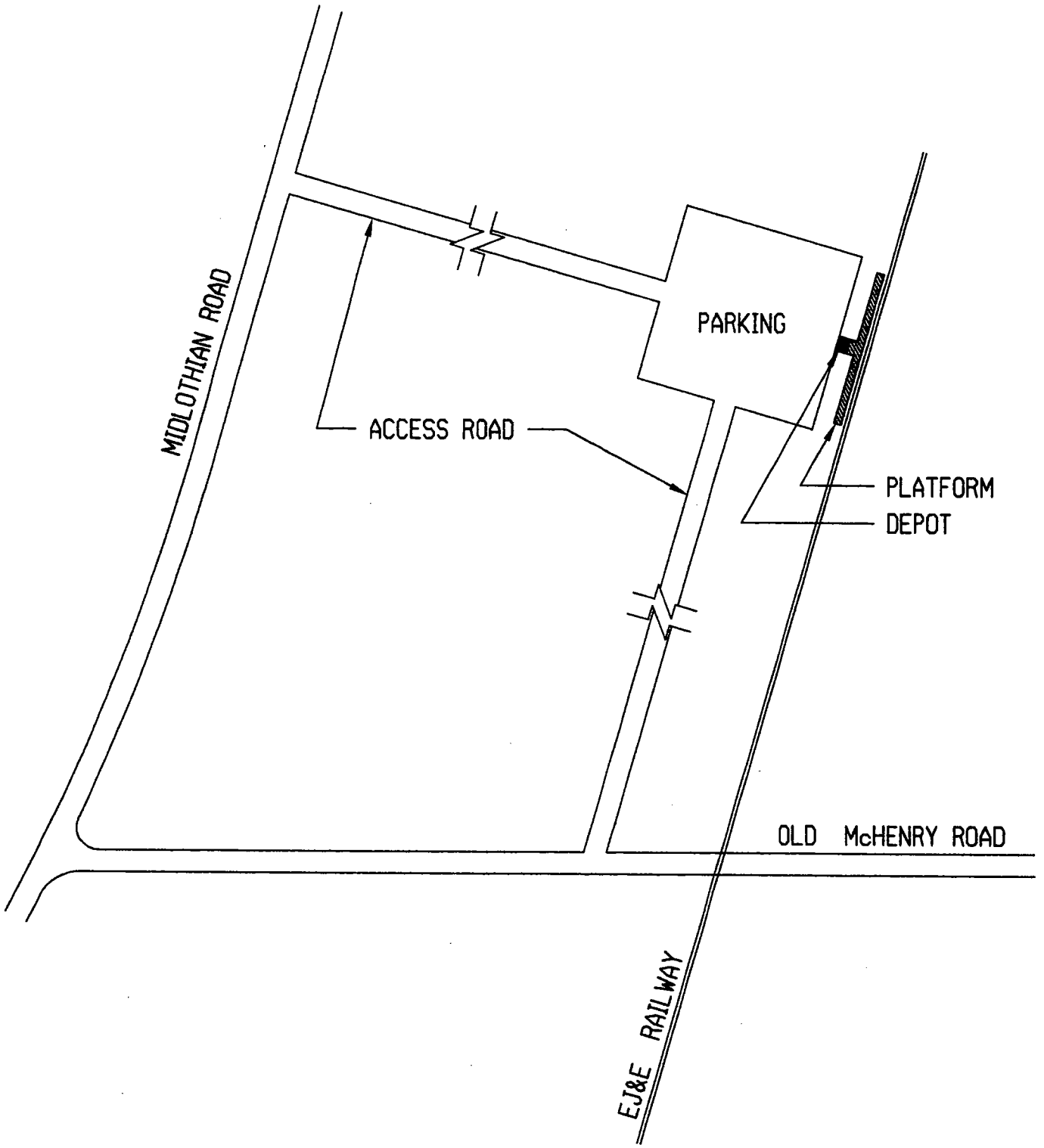


NORTH

LOCATION MAP - HAWTHORN WOODS STATION

SCALE: N.T.S.

PREFERRED SITE

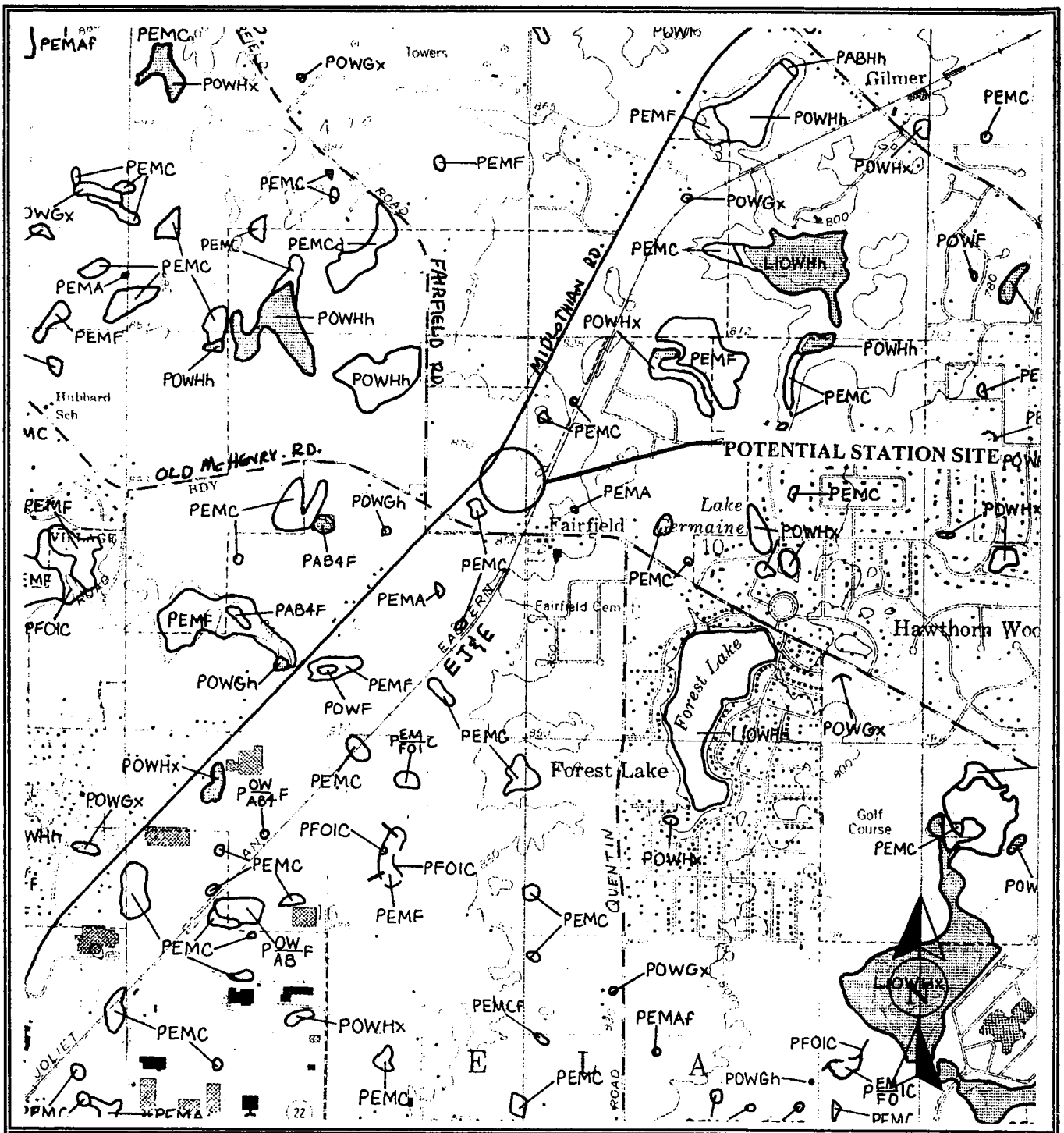


SITE PLAN - HAWTHORN WOODS STATION

NORTH

SCALE: 1" = 200'

PREFERRED SITE PS-A03 ASK-A032



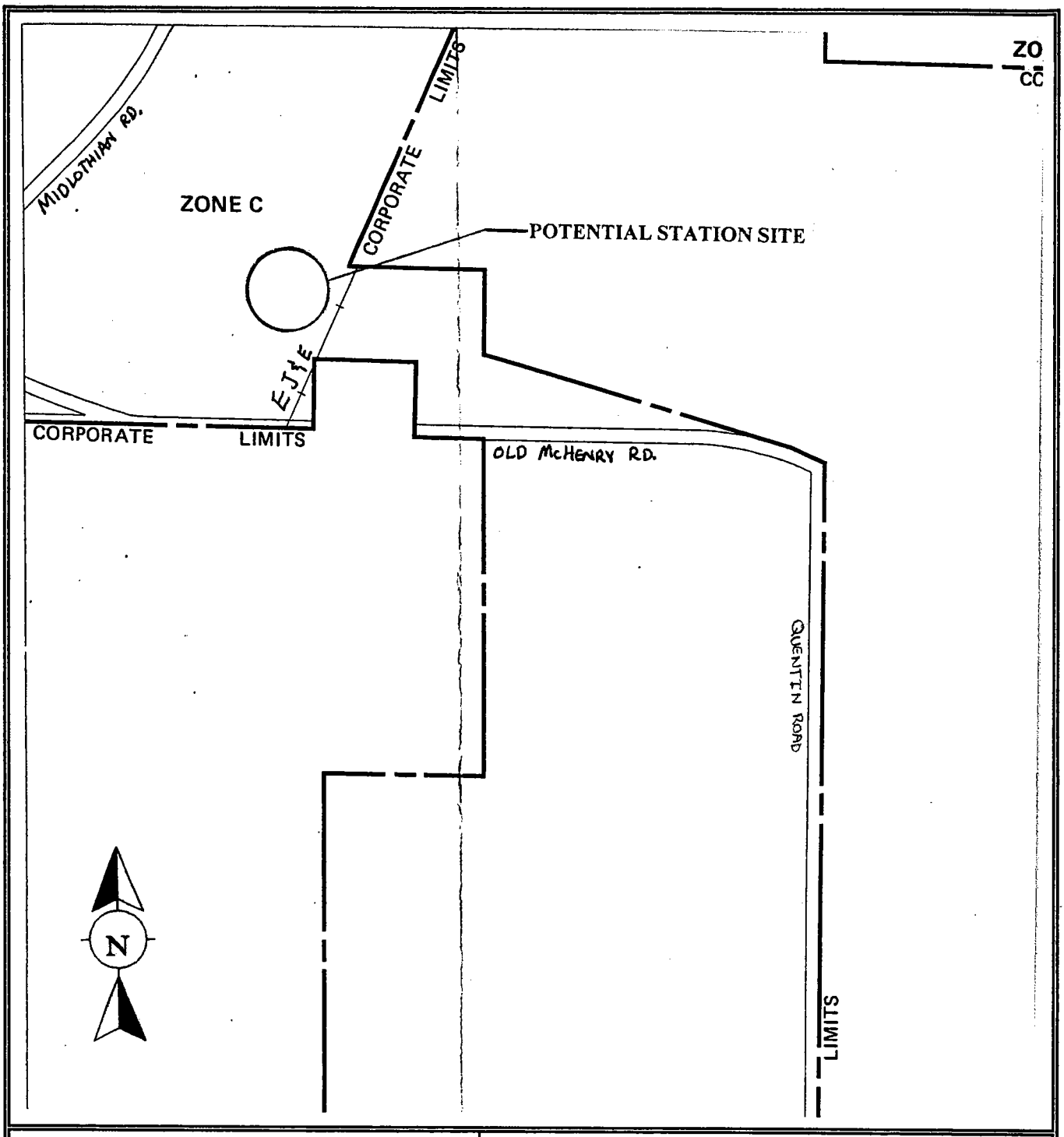
Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Hawthorn Woods

Wetland Inventory Map
Preliminary Site Location

T.Y. LinInternationalBASCOR



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Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Hawthorn Woods

Floodway/Floodplain Boundary Map
Preliminary Site Location

Lake Zurich

Location

Preferred: The Village's preferred site is located in downtown Lake Zurich, along the south side of the EJ&E, along the proposed IL 22 bypass, west of Old Rand Road. IDOT has plans to re-route IL 22 east of the EJ&E track, which the Village hopes will create favorable conditions for downtown redevelopment. The Village is working with a consultant on a downtown revitalization plan. It is expected to be completed by the end of 1998, at which time the depot location will be finalized.

Alternates: Northwest of the intersection of Old Rand Road and EJ&E tracks, possibly utilizing the old depot as the commuter station.

East of Old Rand Road, on either side of the EJ&E tracks.

Community Characteristics

According to the 1990 census, Lake Zurich had a population of 14,947, while a 1994 special census estimated a population of 17,586. NIPC has estimated the population in 2020 to be 19,699.

The NIPC 1990 employment allocation for the Village was 6,088, with a 2020 projection of 13,069. Within the Village, there are seven major employers with a total of approximately 2,380 employees.

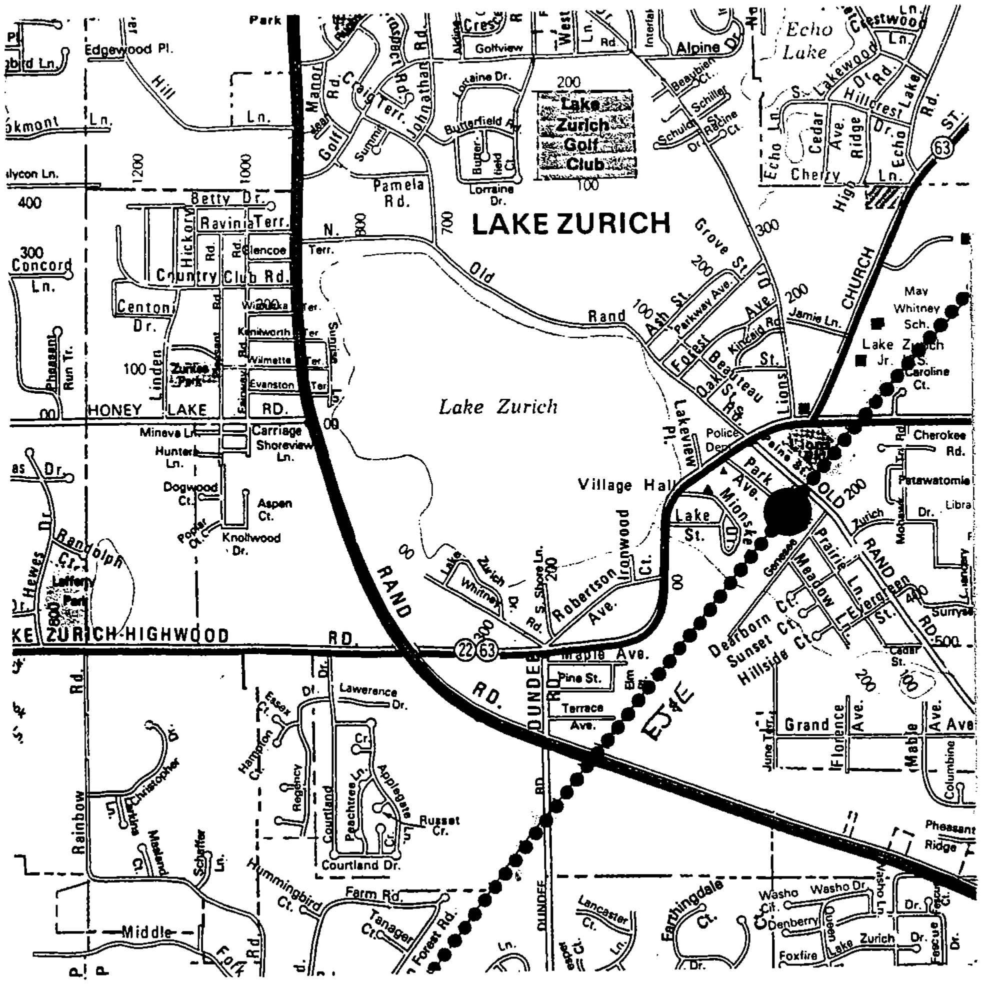
Site Description (Preferred Site)

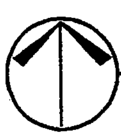
The site is relatively flat. Overhead utility lines are approximately 50 feet south of the EJ&E and parallel to the tracks.

Access: Access from Old Rand Road on the southern end of the site and/or IL 22 on the northern end of the site.

Environmental Concerns

None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.

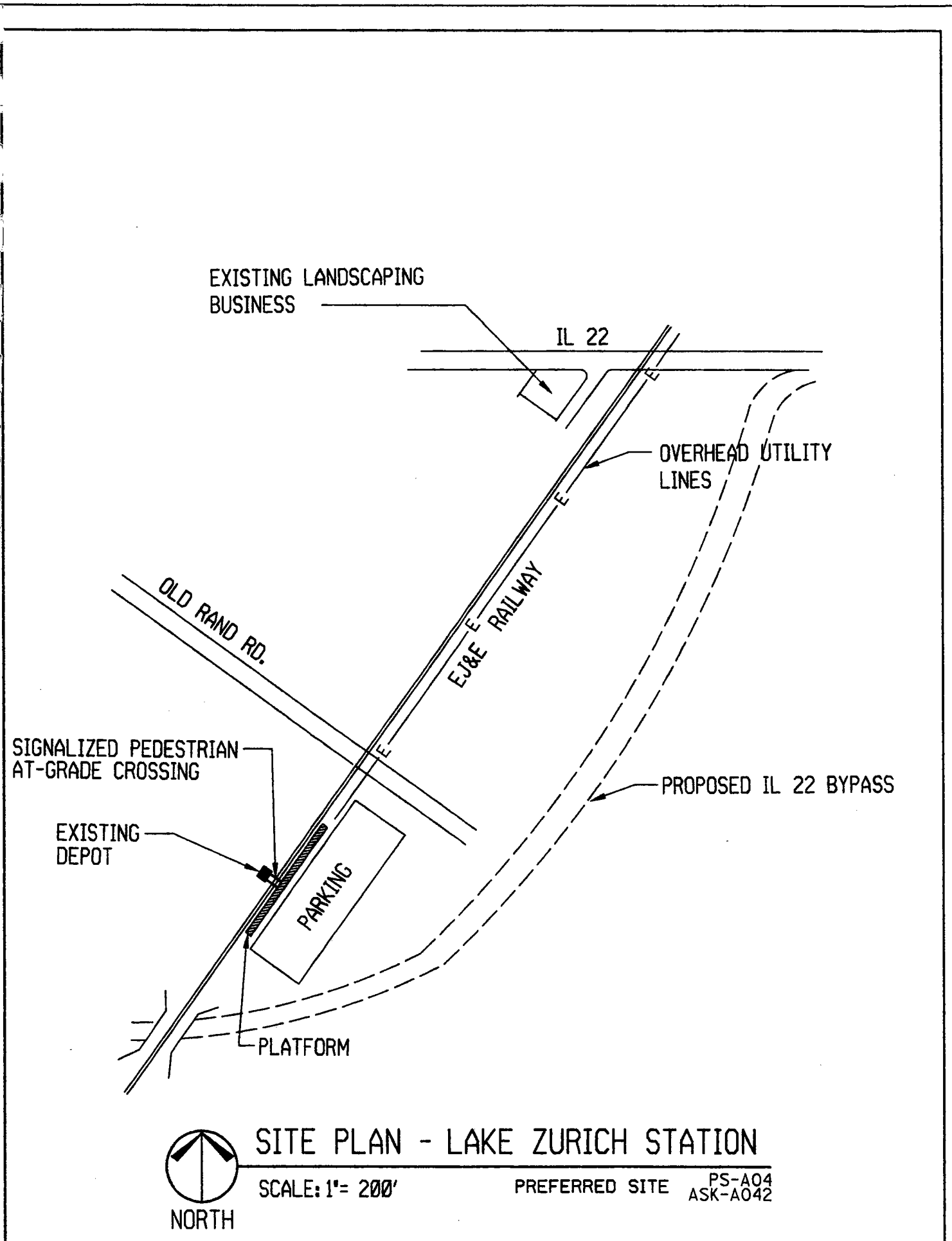




LOCATION MAP - LAKE ZURICH STATION

SCALE: N.T.S.

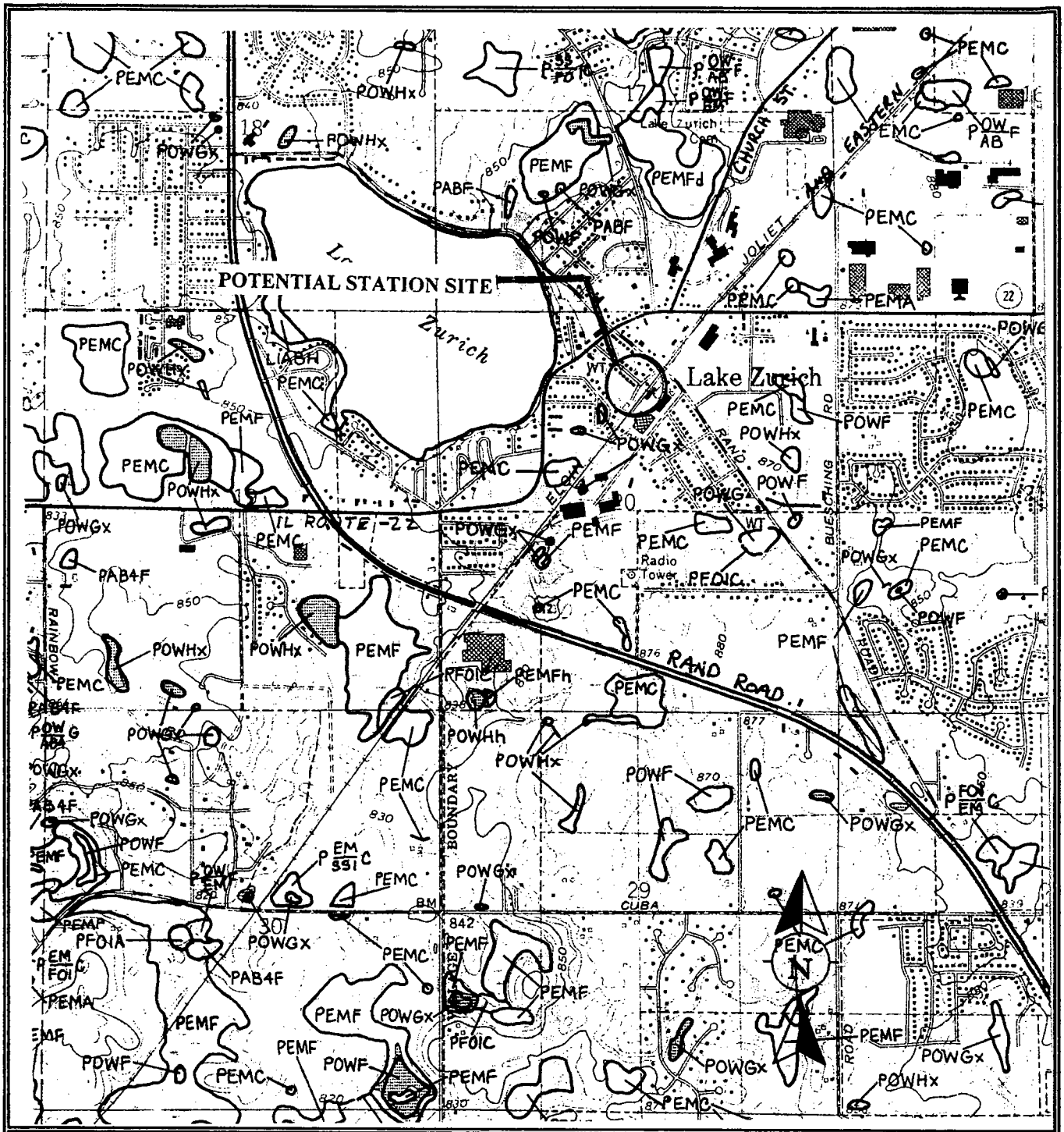
PREFERRED SITE



SITE PLAN - LAKE ZURICH STATION

SCALE: 1"= 200'

PREFERRED SITE PS-A04 ASK-A042



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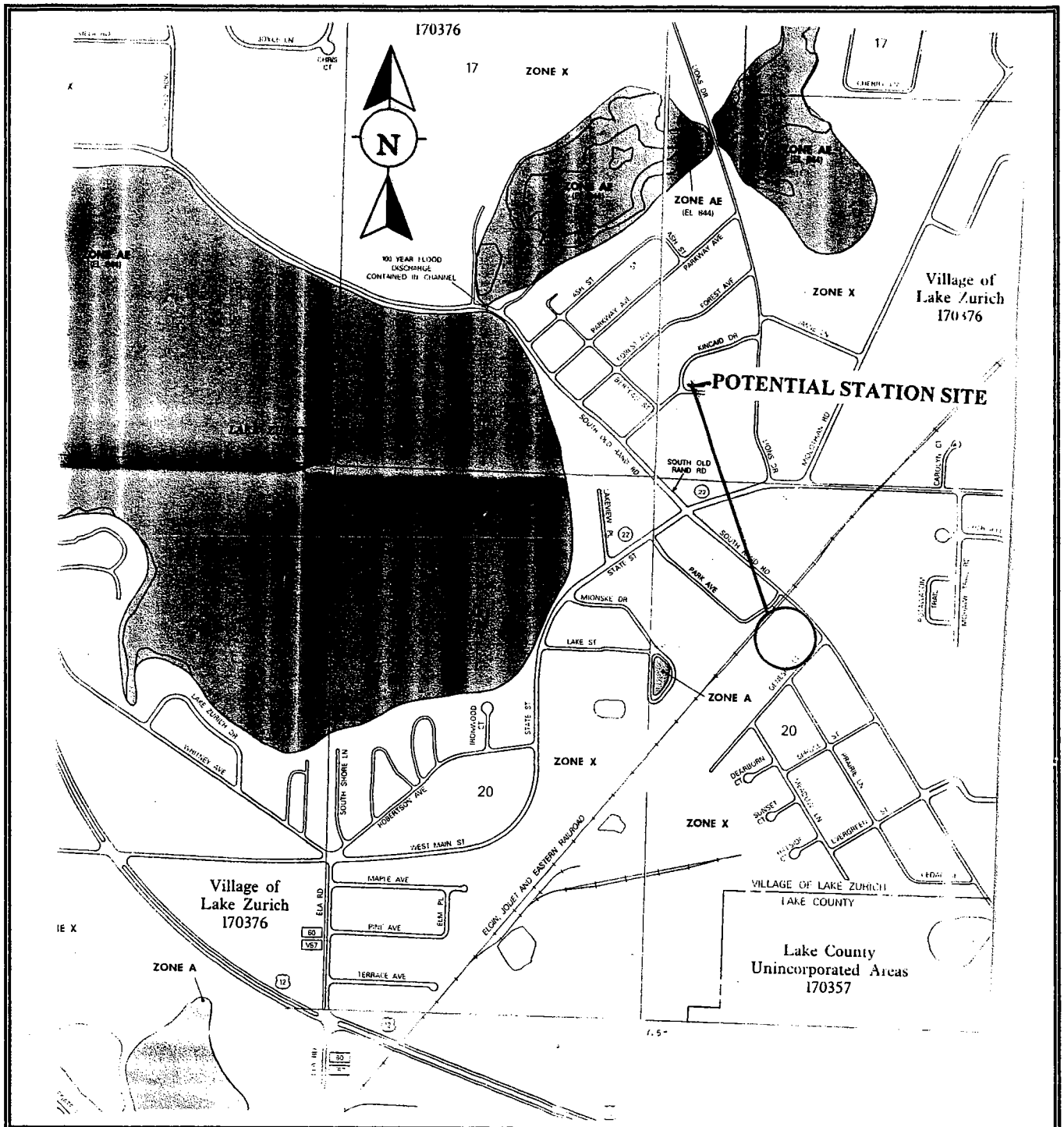
Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Lake Zurich

Wetland Inventory Map
Preliminary Site Location



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Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Lake Zurich

Floodway/Floodplain Boundary Map
Preliminary Site Location

Barrington Transfer Station (EJ&E/UP-NW)

Location and Site Description

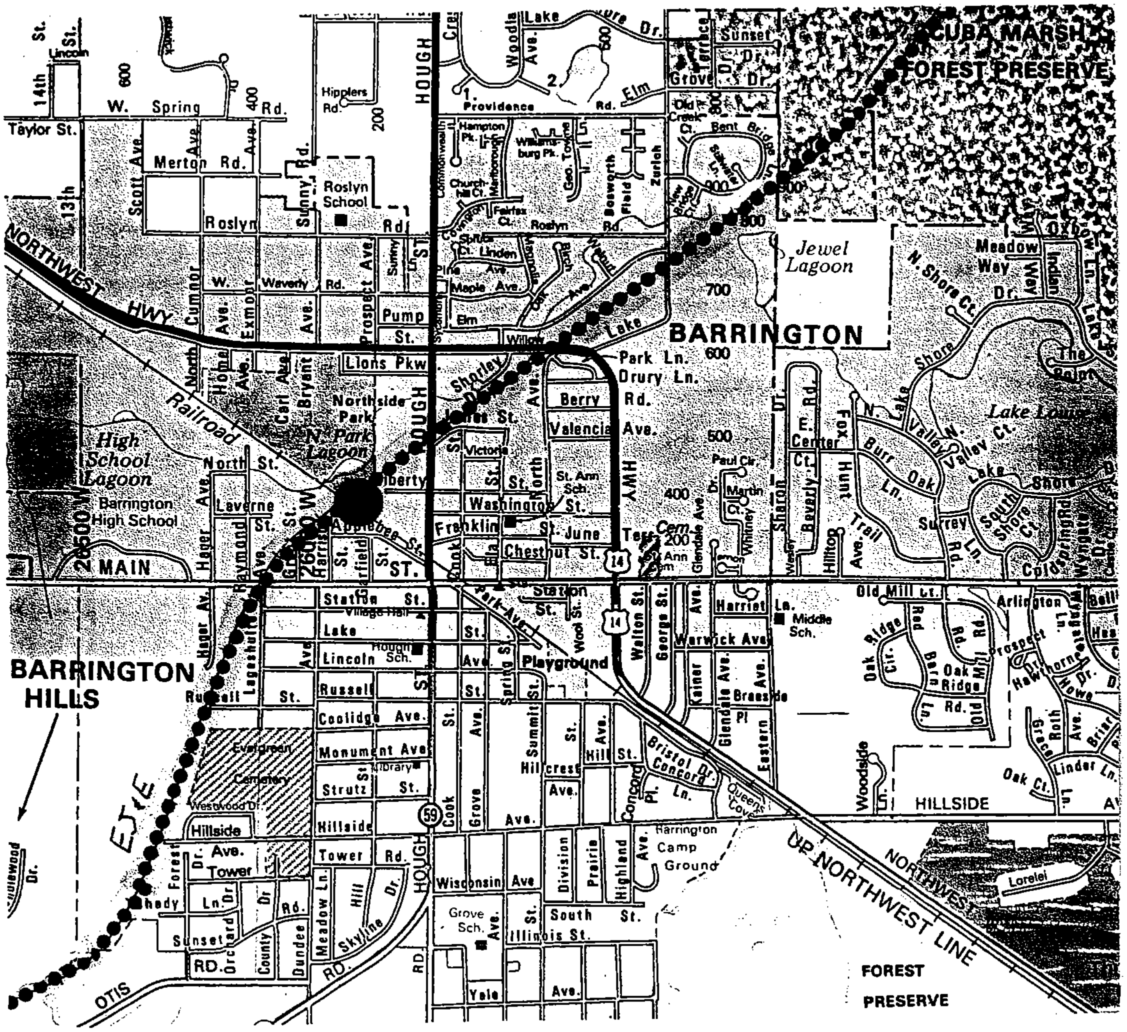
This site is located at the intersection of the EJ&E and the Metra/Union Pacific Northwest Line (UP-NW). The north quadrant of this intersection is best-suited for development of solely a transfer station without any commuter parking, allowing passengers to transfer between the EJ&E and the UP-NW. The tracks of both the UP-NW and EJ&E are higher in elevation than the adjacent park, which is relatively level.

Transfer Potential

During the week, trains operate along the UP-NW Line to and from Chicago at least once per hour, with as many as six per hour during the peak morning and evening rush hours. On the weekends and holidays there are trains to and from Chicago ranging from one per hour to one every two hours.

Other Concerns

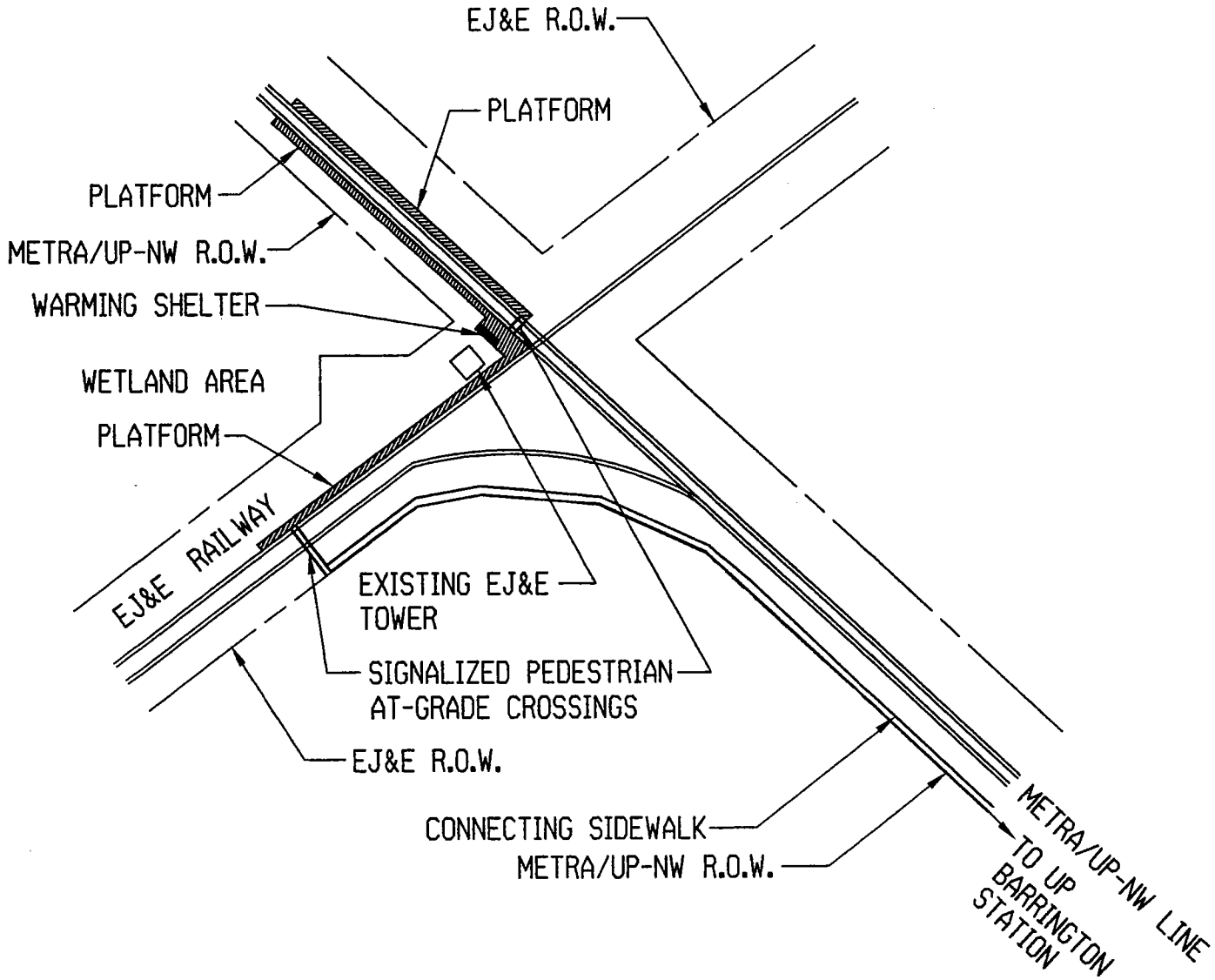
The Village has expressed concern regarding disruption to traffic at the at-grade crossings at IL 59 (Hough Street), US 14 (Northwest Highway), and Lake-Cook Road due to commuter rail service being implemented on the EJ&E Line. As such, local officials have requested that consideration be given to placing the rail below grade through the Village. The Village has been advised to take this matter up with IDOT and the Cook County Highway Department, as well as the Illinois Commerce Commission. Also, IDOT is currently conducting an SRA study along IL 59, examining the possible relocation with proposed grade separations at IL 59, the EJ&E Line, and the UP-NW Line.



LOCATION MAP - BARRINGTON TRANSFER STATION (EJ&E/UP-NW)

SCALE: N.T.S.

NORTH

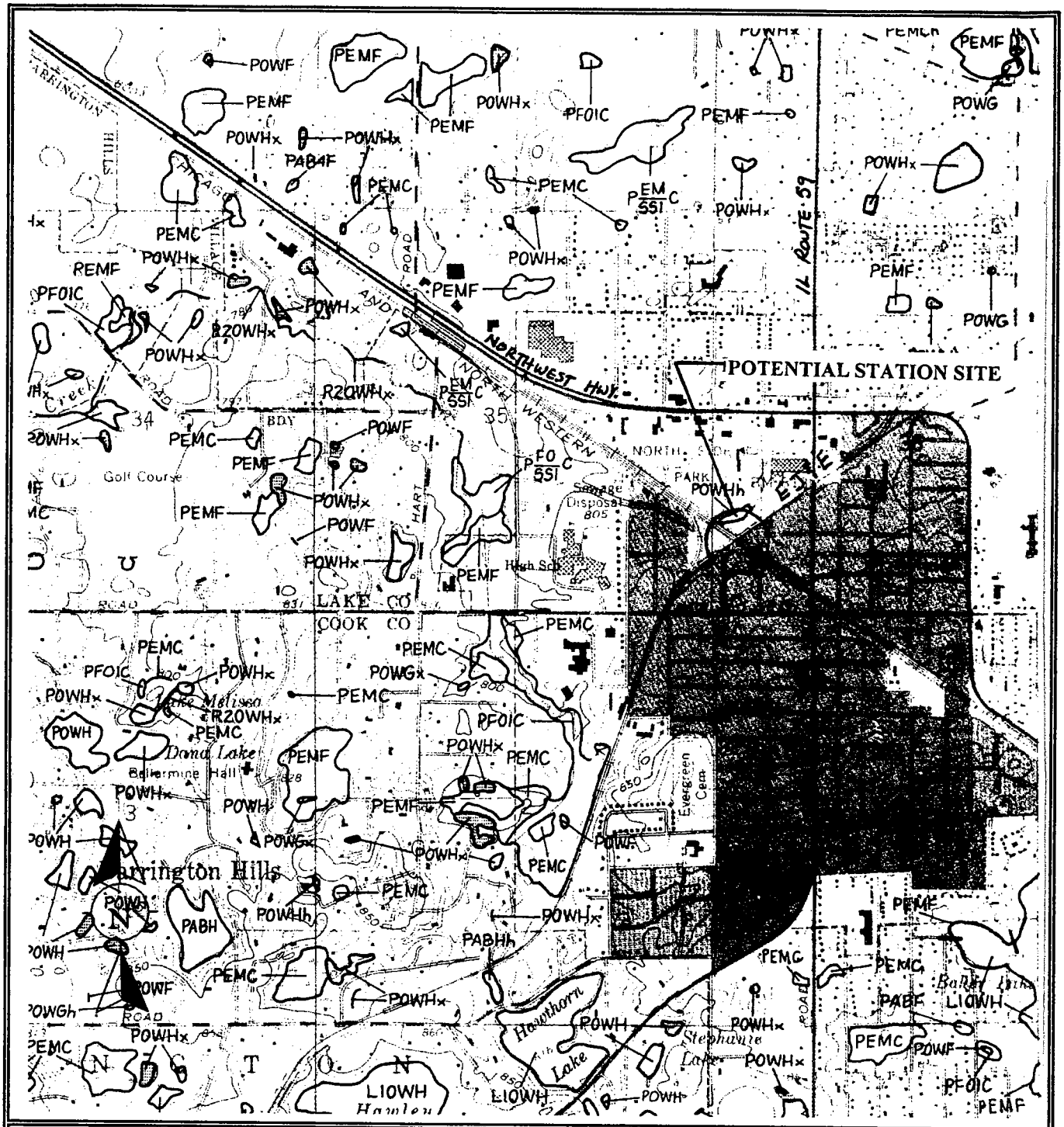


SITE PLAN - BARRINGTON TRANSFER STATION (EJ&E/UP-NW)

SCALE: 1" = 200'

NORTH

PS-A06
ASK-A062



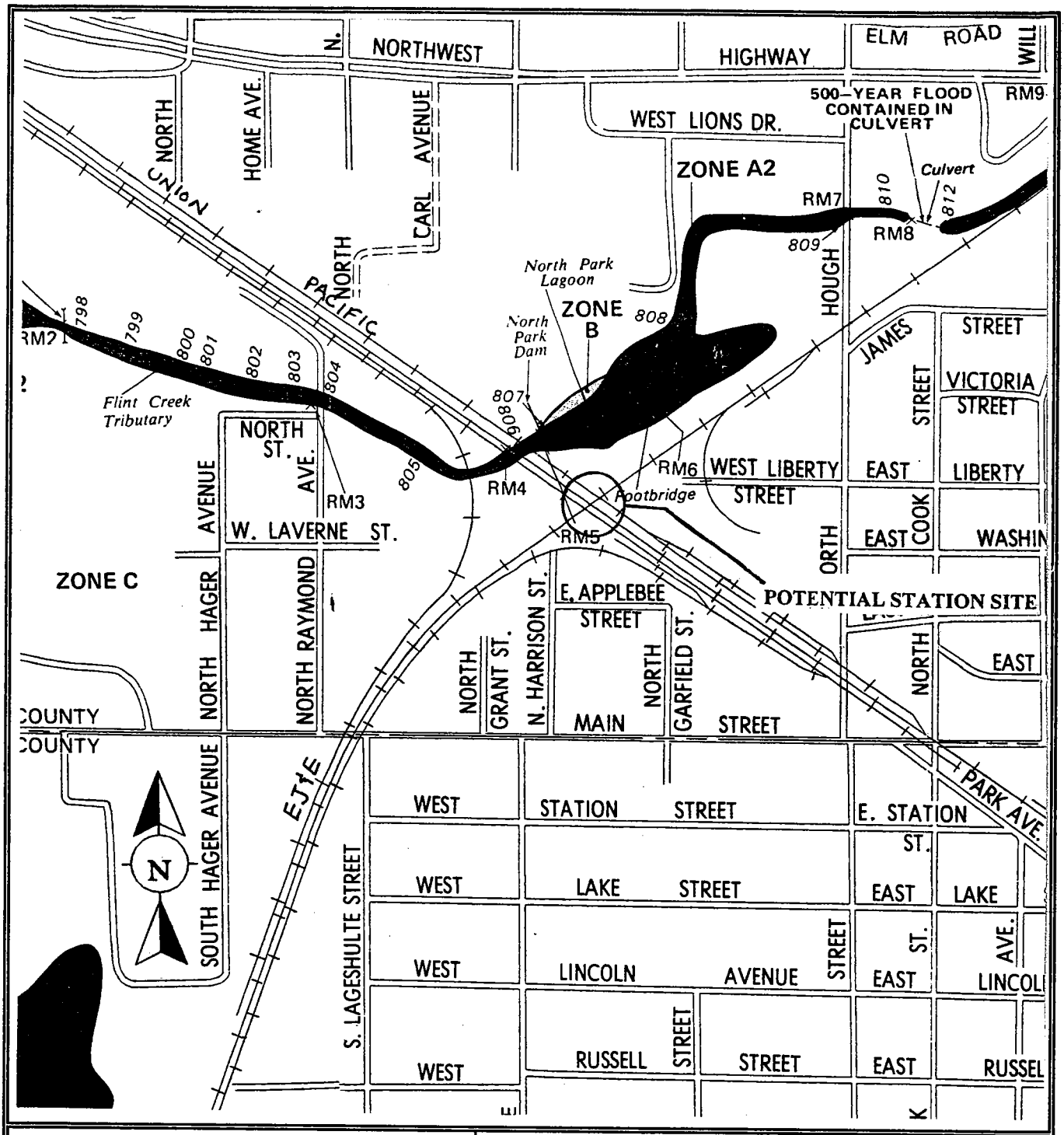
Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Transfer Station Site
Barrington
(EJ&E/UP-NW)

Wetland Inventory Map
Preliminary Site Location

T.Y. LinInternationalBASCOR



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Outer Circumferential Commuter Rail Feasibility Study

Potential Transfer Station Site
Barrington
(EJ&E/UP-NW)

Floodway/Floodplain Boundary Map
Preliminary Site Location

Prairie Stone (Hoffman Estates)

Location

Preferred: The Village's preferred site is located in the southwest quadrant of Sedge Boulevard and the EJ&E. This location is in the Prairie Stone Business Park near the Sears Roebuck and Company headquarters. This location would serve as a destination station for Prairie Stone, and would not be available for commuter parking.

Alternates: North of IL 72 (Higgins Road) and east of the EJ&E. This site would serve originating commuters with a parking lot and shuttle bus connected to the Prairie Stone Business Park. This land is currently vacant.

Intersection of Golf Road and the EJ&E, in the southwest quadrant. This land is currently vacant, and in unincorporated Cook County.

Community Characteristics

According to the 1990 census, Hoffman Estates had a population of 46,561, while a 1997 special census estimated a population of 48,832. NIPC has estimated the population in 2020 to be 60,023.

The NIPC 1990 employment allocation for the Village was 14,836 with a 2020 projection of 43,804.

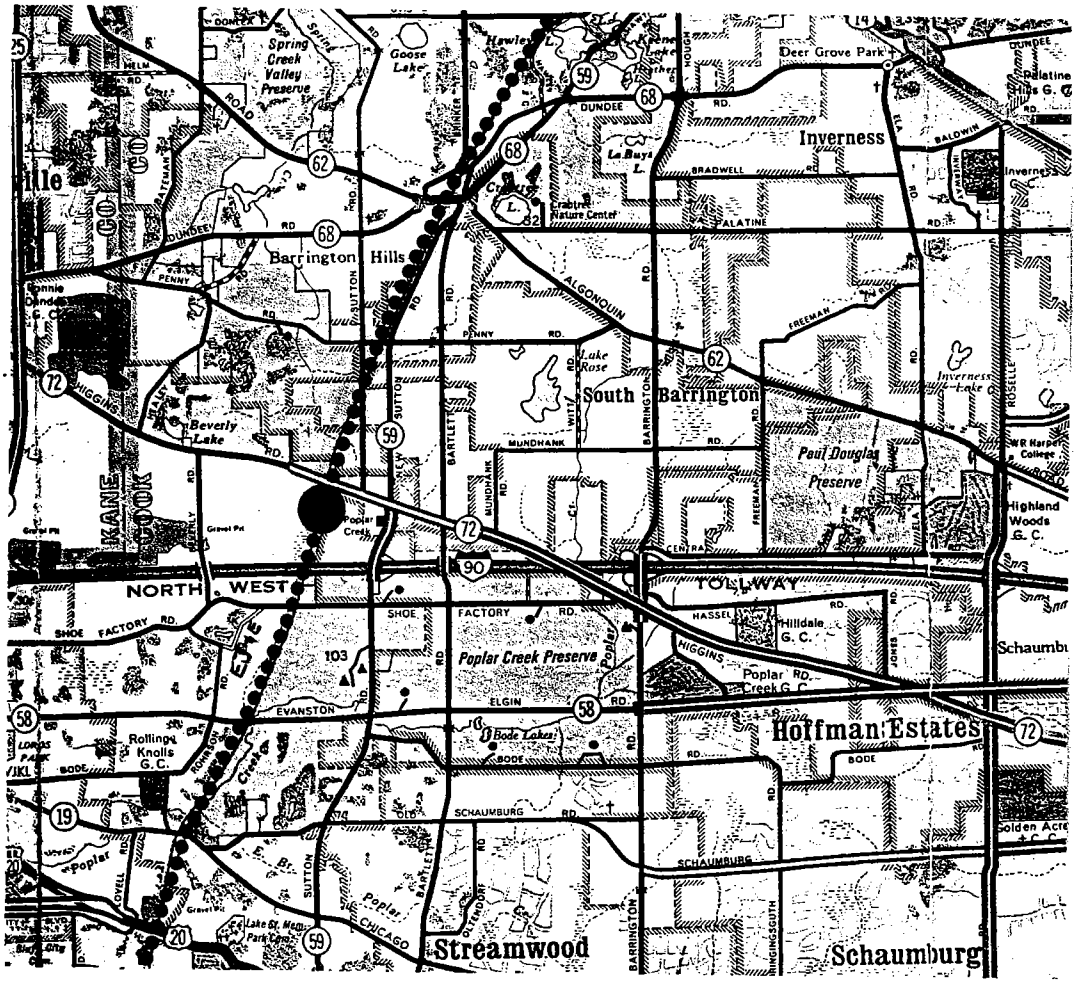
Site Description (Preferred Site)

The site is relatively flat and open, but includes wetlands.

Access: Access to the site would be off of Sedge Boulevard.

Environmental Concerns

There are wetlands located on the west side of the EJ&E, and adjacent to the site area. As avoidance of the wetlands does not appear to be possible, appropriate mitigation will need to be provided for impact to the wetlands.

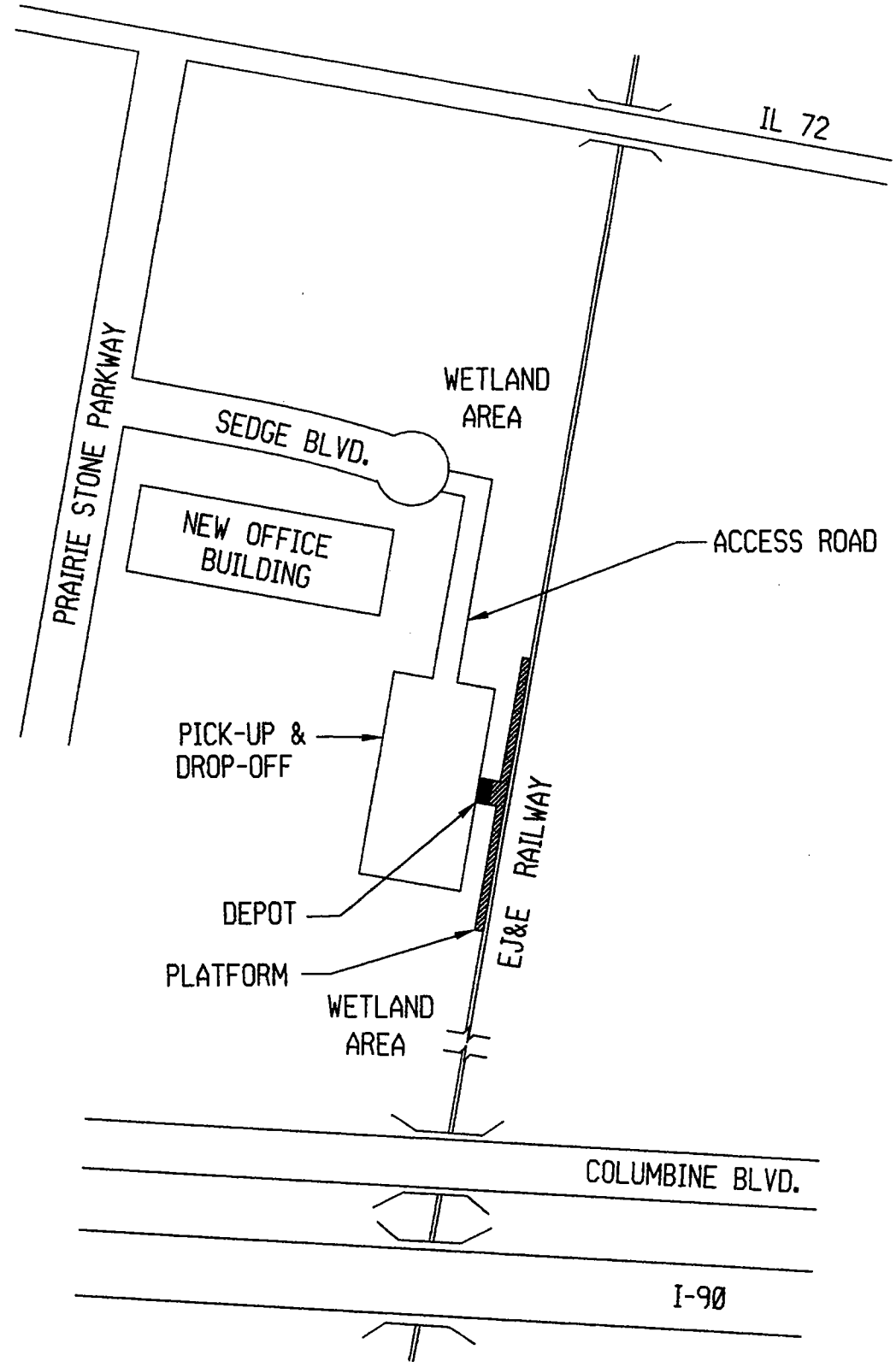


LOCATION MAP - PRAIRIE STONE (HOFFMAN ESTATES) STATION

NORTH

SCALE: N.T.S.

PREFERRED SITE



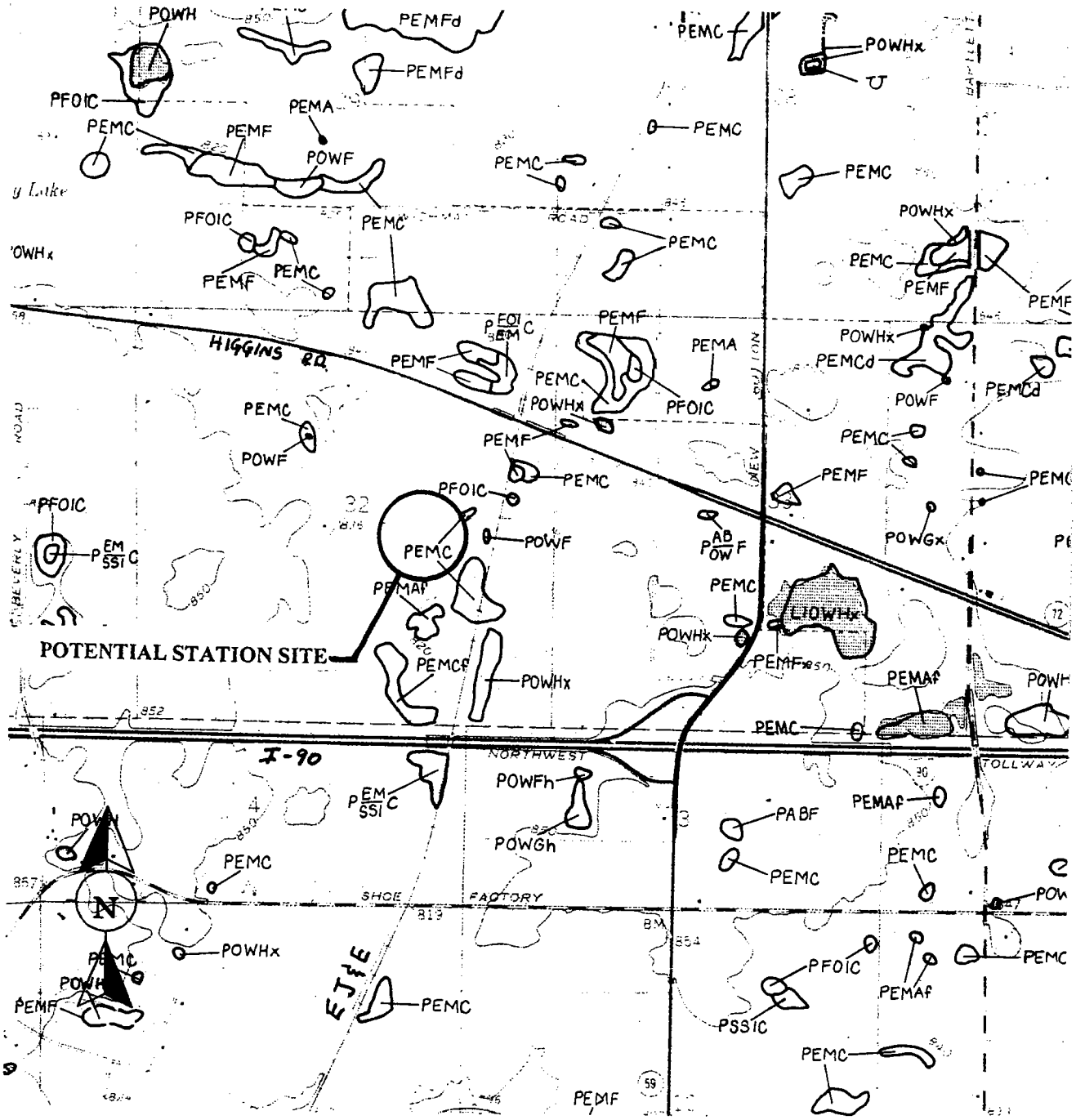
SITE PLAN - PRAIRIE STONE (HOFFMAN ESTATES) STATION

NORTH

SCALE: 1" = 200'

PREFERRED SITE

PS-B01
ASK-B012



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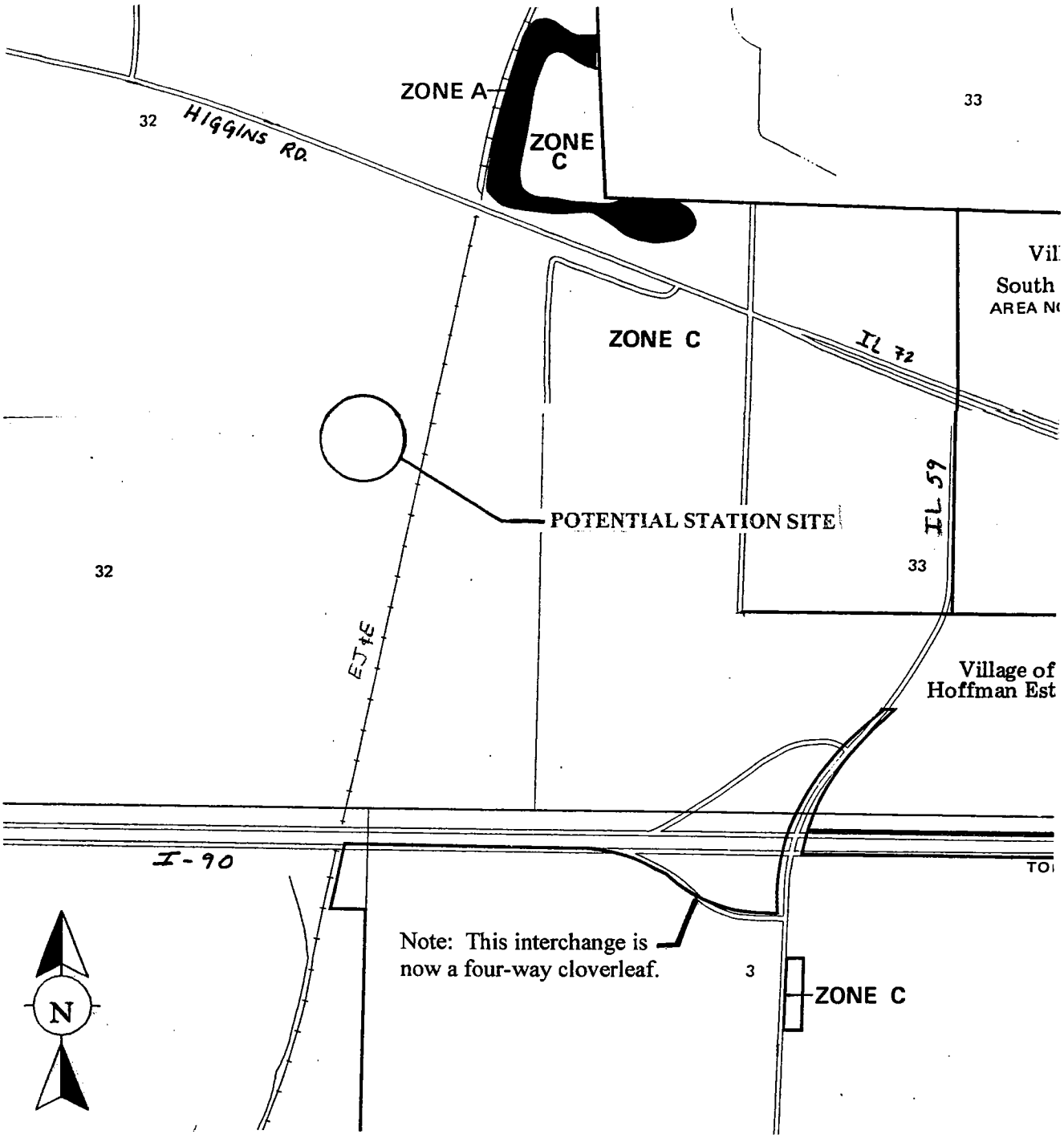
Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Prairie Stone (Hoffman Estates)

Note: This map dates to 4/84 - Prairie Stone Development has caused substantial alteration

Wetland Inventory Map
Preliminary Site Location



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Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Prairie Stone (Hoffman Estates)

Note: This map dates to 12/84 - Prairie Stone Development has caused substantial alteration

Floodway/Floodplain Boundary Map
Preliminary Site Location

Spaulding (Elgin/Bartlett) Station and Transfer Station (EJ&E/MD-W)

Bartlett

Location

The Village has indicated that their preferred site is located adjacent to the junction of Spaulding Road, the Metra/Milwaukee District West (MD-W) Line and the EJ&E. The site is north of the Metra/MD-W Line and is separated from these tracks by an industrial facility. This station would also be a transfer station, allowing passengers to transfer between the two rail lines.

Currently, this site is unincorporated, although the Village would like to annex the land up to the EJ&E tracks. The Village has indicated they have plans for a mixed-use light industrial and residential development in the area to the north and east of the site; this station site would be a component of this development. The City of Elgin also has indicated they have plans to develop the area to the west of Bartlett's site as a station site and transfer station for their community (see Elgin discussion on next page).

Community Characteristics

According to the 1990 census, Bartlett had a population of 19,373, while a 1995 special census estimated a population of 31,628. NIPC 1990 and 2020 population and employment figures for Bartlett were not available.

Within the Village there are seven major employers with about 3,800 employees.

Site Description

The site is relatively level.

Access: Access would be off of Spaulding Road east of the MD-W grade crossing.

Environmental Concerns

There is a wetland located toward the northwest corner of this potential site. The layout of this site will attempt to avoid impacts to the wetland area. However, if avoidance is not possible, appropriate mitigation will be done.

Transfer Potential

During the week, the MD-W operates trains to and from Chicago at least once per hour, while during the peak morning and evening rush hours there are as many as three trains per hour passing in the vicinity of the site. On the weekends and holidays there are trains to and from Chicago ranging from approximately one per hour to one every two hours.

Spaulding (Elgin/Bartlett) Station and Transfer Station (EJ&E/MD-W)

Elgin

Location

Preferred: Northwest quadrant of the intersection of the Metra/Milwaukee District West (MD-W) Line and the EJ&E. This site is just west of the preferred site selected by the Village of Bartlett. In this instance, a transfer station is combined with a park-and-ride station location (shared by two communities).

Alternates: Northwest quadrant of the intersection of Lake Street (US 20) and the EJ&E.

Intersection of Golf Road (IL 58) and the EJ&E.

Intersection of Irving Park Road (IL 19) and the EJ&E.

Community Characteristics

According to the 1990 census, Elgin had a population of 77,010, while a 1994 special census estimated a population of 85,339. NIPC has estimated the population in 2020 to be 122,333. However, the City indicated that they do not agree with NIPC's projected population numbers.

The NIPC 1990 employment allocation for the City was 41,972, with a 2020 projection of 66,544.

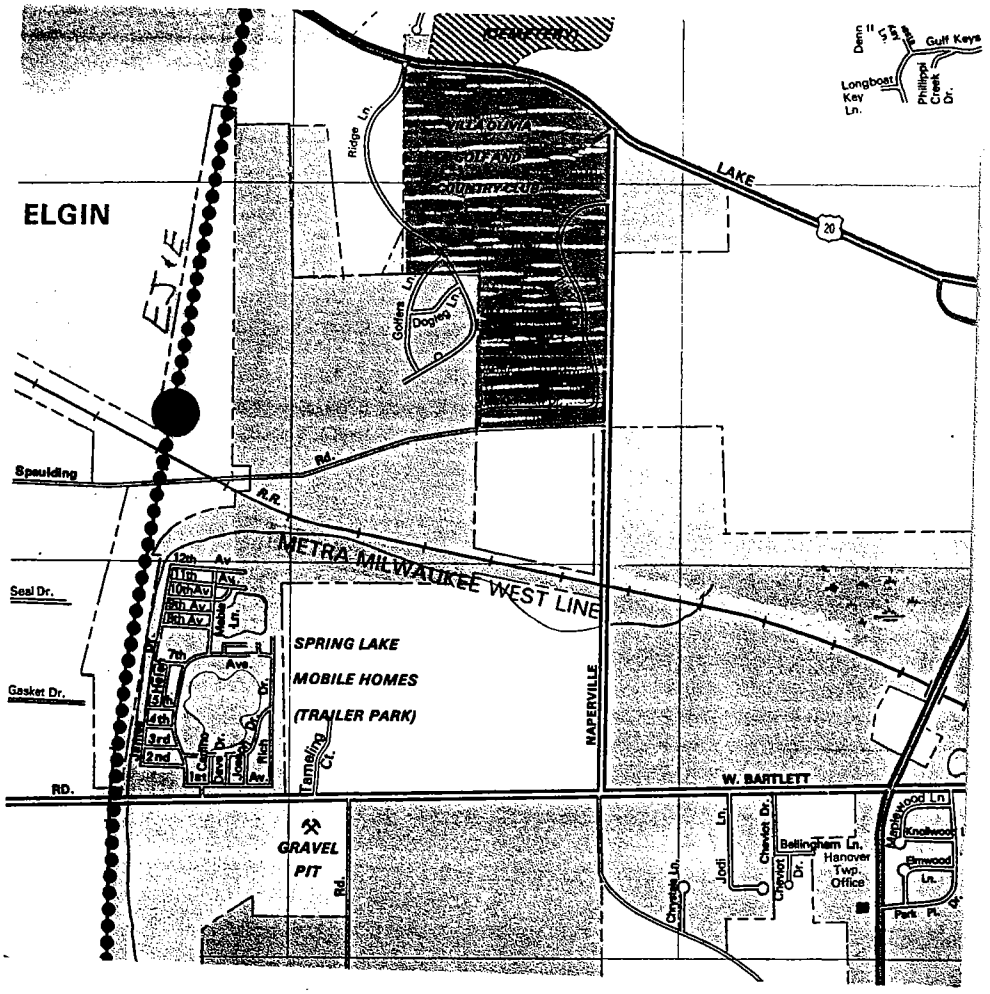
Site Description (Preferred Site)

The site is fairly level. There is scattered industrial development adjacent to the site.

Access: Access would be from the west off of Gifford Road.

Environmental Concerns

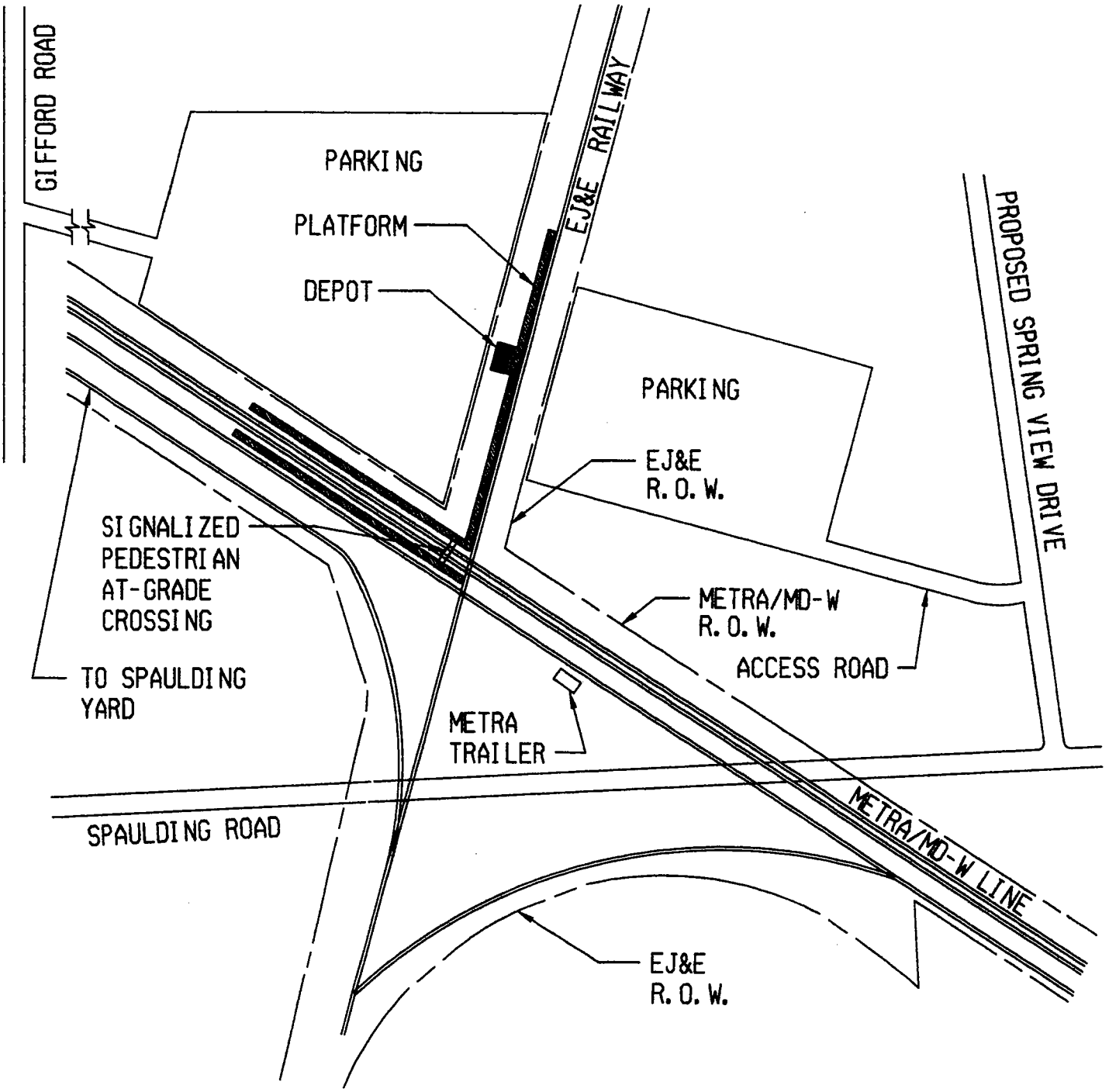
There is a wetland located toward the southwest corner of this potential site. The layout of this site will attempt to avoid impacts to the wetland area. However, if avoidance is not possible, appropriate mitigation will be done.



LOCATION MAP - SPAULDING (ELGIN/BARTLETT) STATION AND TRANSFER STATION (EJ&E/MD-W)

NORTH

SCALE: N.T.S.

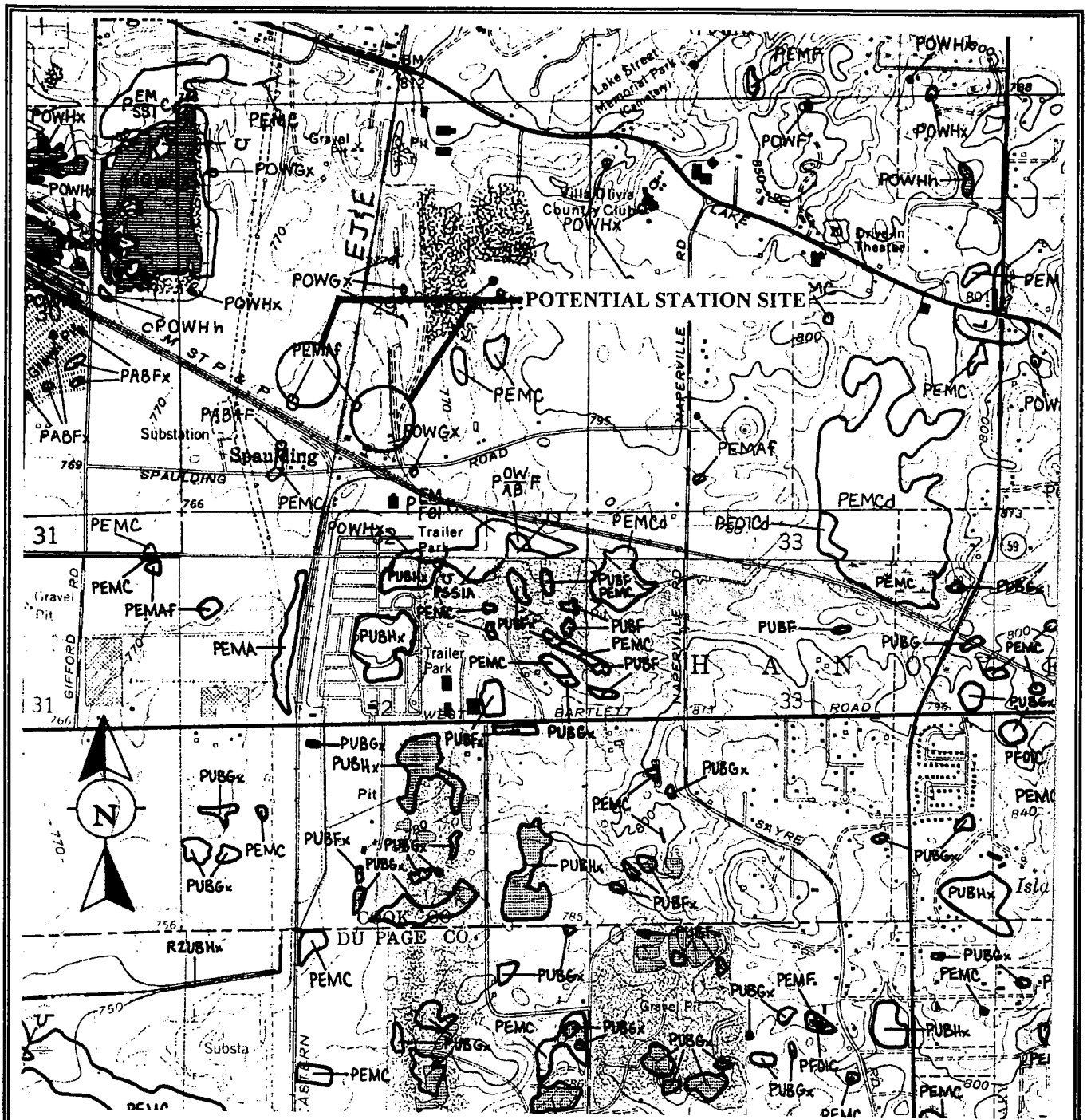


SITE PLAN - SPAULDING (ELGIN/BARTLETT) STATION AND TRANSFER STATION (EJ&E/MD-W)

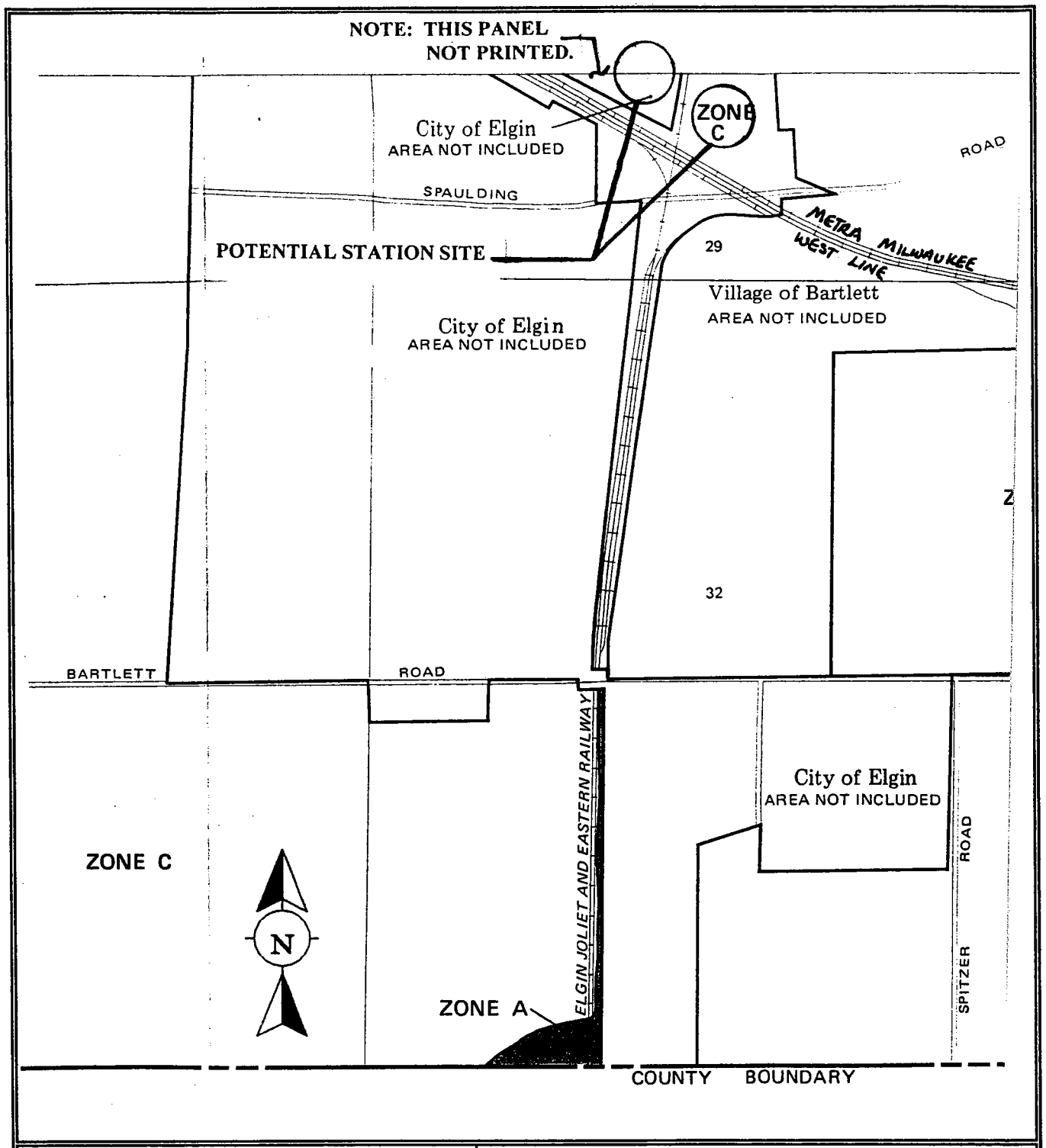
NORTH

SCALE: 1"= 200'

PS-B02
ASK-B022



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site and Transfer Station Spaulding (Elgin/Bartlett) (EJ&E/MD-W)** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site and Transfer Station Spaulding (Elgin/Bartlett) (EJ&E/MD-W)

Floodway/Floodplain Boundary Map Preliminary Site Location

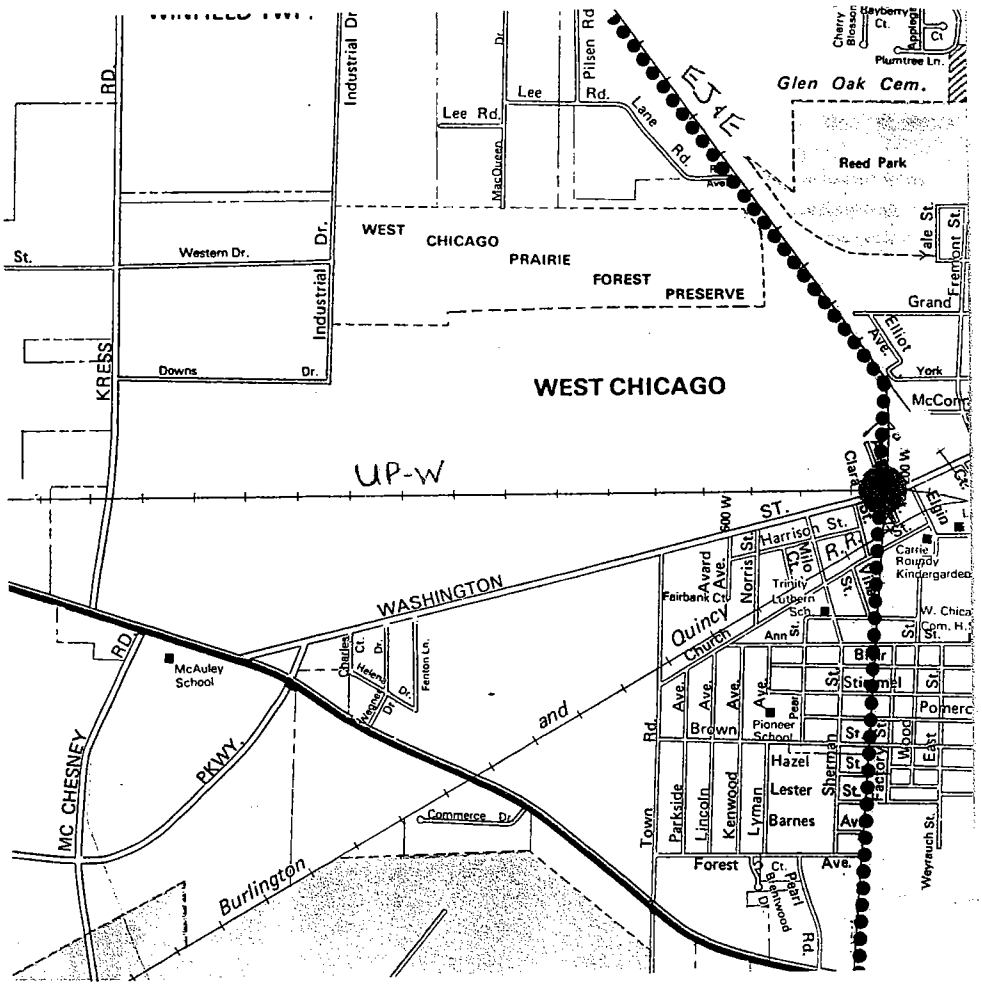
West Chicago Transfer Station (EJ&E/UP-W)

Location and Site Description

This station site is located at the intersection of the EJ&E and the Union Pacific West (UP-W) Line. It would be solely a transfer station without any commuter parking, allowing passengers to transfer between the two rail lines. The transfer station would consist of platforms and a warming shelter. There is an EJ&E control tower located in the northeast quadrant of this junction, along with an EJ&E maintenance facility. The location of the warming shelter would be adjacent to this maintenance facility. Overhead electric lines parallel the EJ&E on the east side of the track, and parallel the UP-W on the north side of the track.

Transfer Potential

During the week, trains operate along the UP-W Line to and from Chicago at least once per hour, and during peak rush hours there are as many as three to five trains per hour passing in the vicinity of this site. On the weekends and holidays there are trains to and from Chicago ranging from one per hour to one every two to three hours.

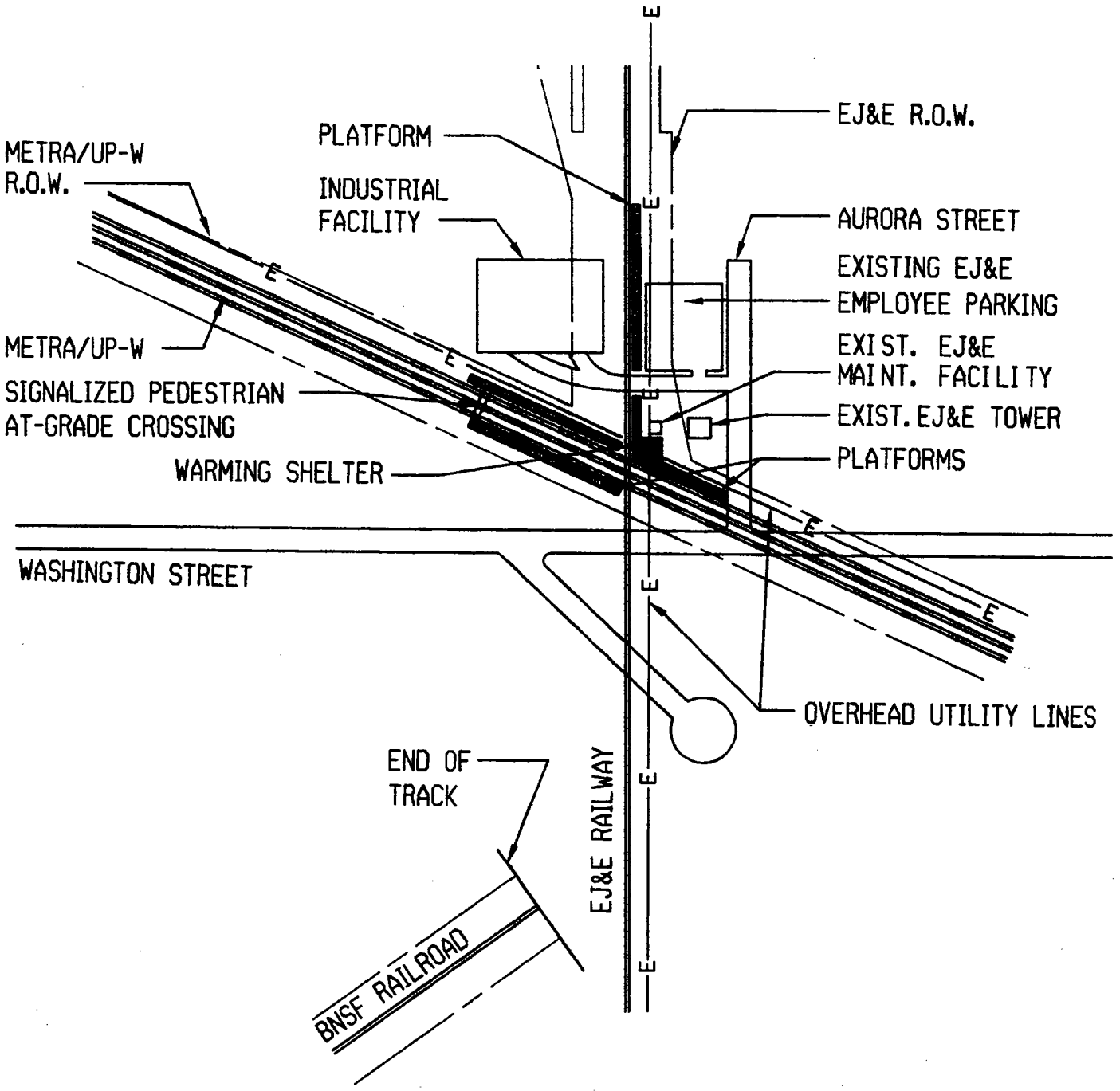


LOCATION MAP - W. CHICAGO TRANSFER STATION (EJ&E/UP-W)

SCALE: N.T.S.

PREFERRED SITE

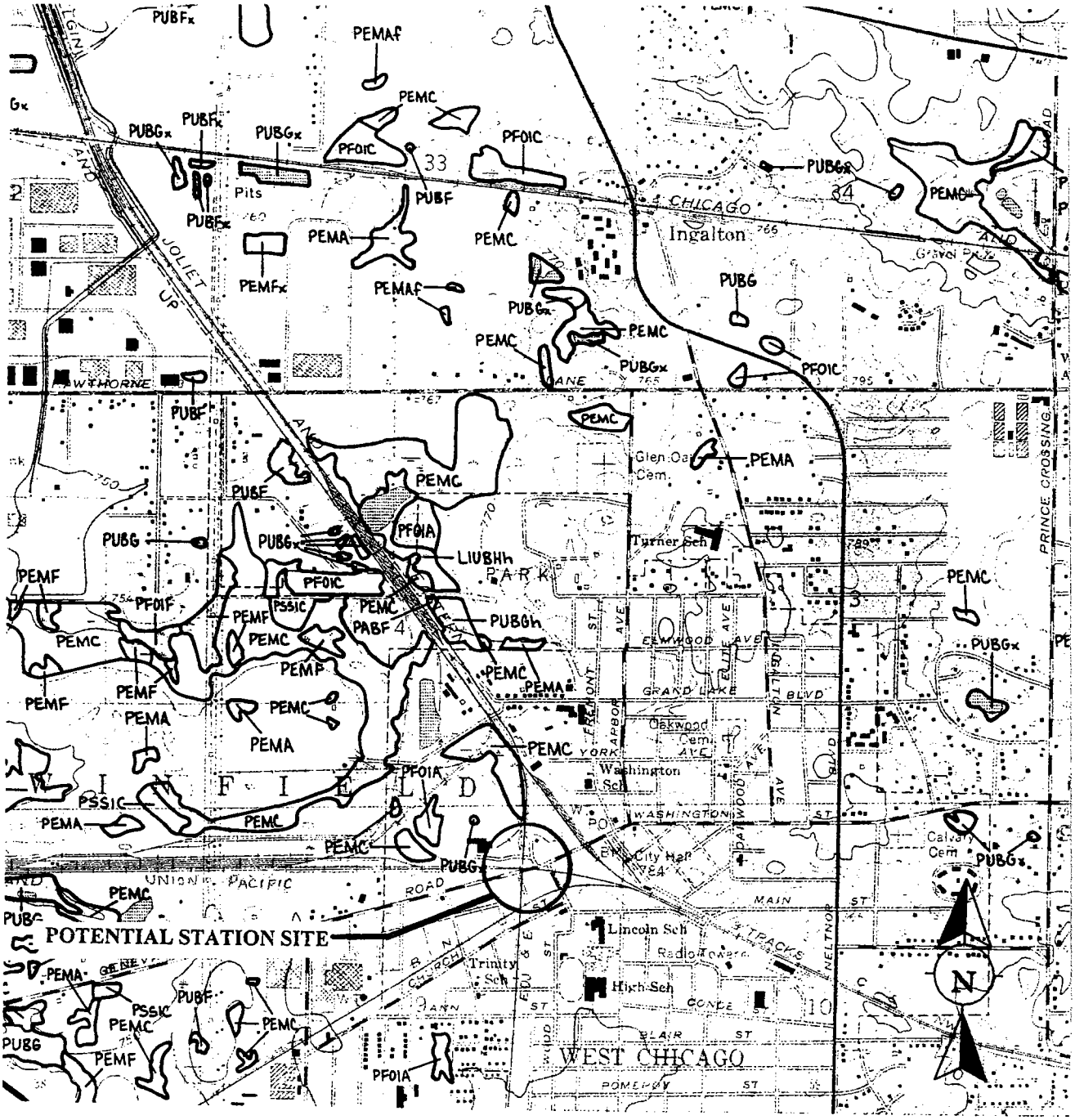
NORTH



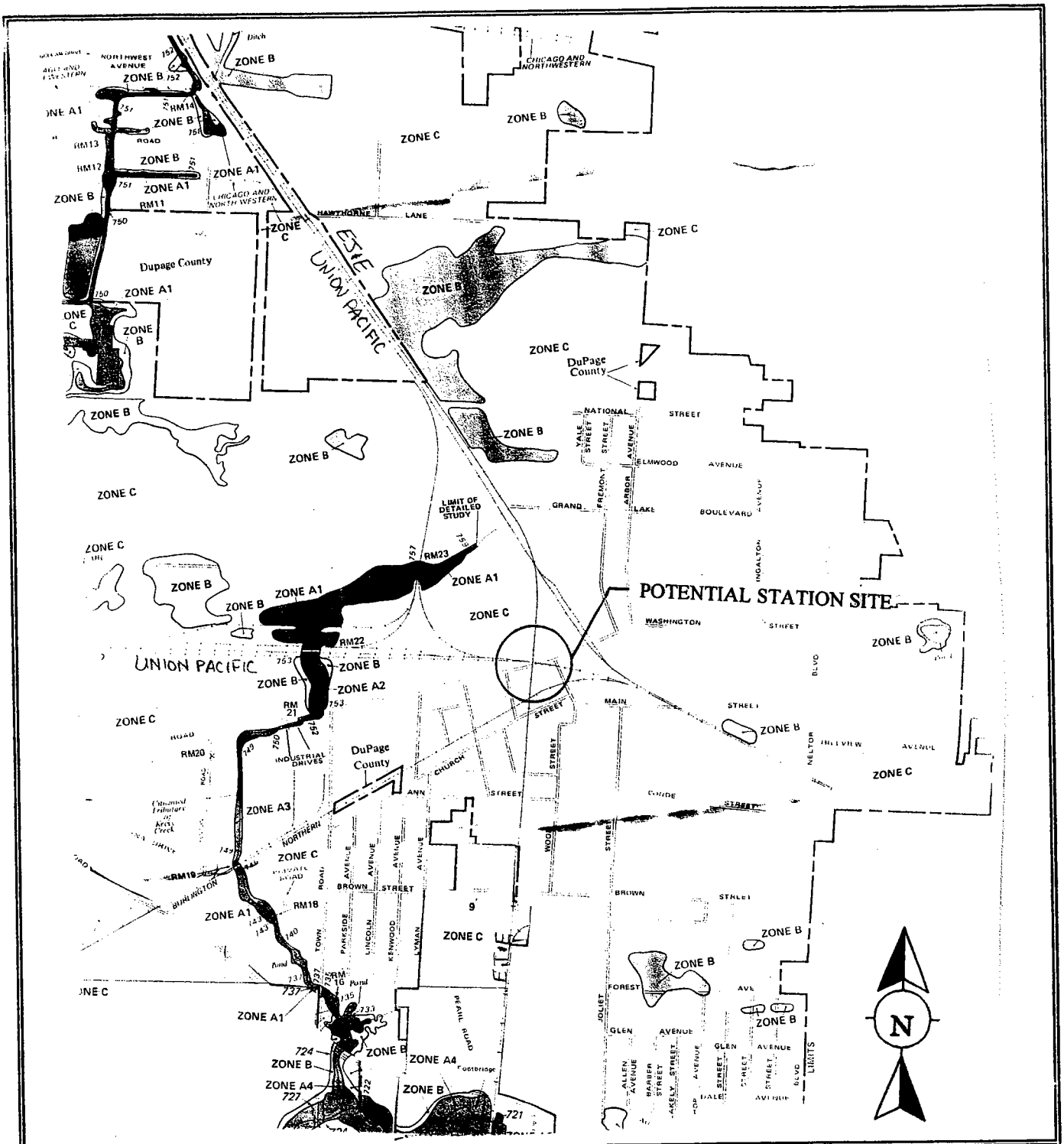
SITE PLAN - W. CHICAGO TRANSFER STATION (EJ&E/UP-W)

SCALE: 1" = 200'

PREFERRED SITE PS-L01B ASK-L012



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site West Chicago (EJ&E/UP-W)** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Transfer Station Site
West Chicago
(EJ&E/UP-W)

Floodway/Floodplain Boundary Map
Preliminary Site Location

Aurora

Location

Based on review of information supplied by the City, as well as discussions with the City staff, it appears that the area best-suited for a commuter station is located in the northeast quadrant of the intersection of Ferry Road and the EJ&E. Note that Ferry Road has been realigned to the south of its original location, and is now grade-separated from the EJ&E.

Community Characteristics

According to the 1990 census, Aurora had a population of 99,581, while a 1996 special census estimated a population of 117,372. NIPC 1990 and 2020 population and employment figures for Aurora were not available.

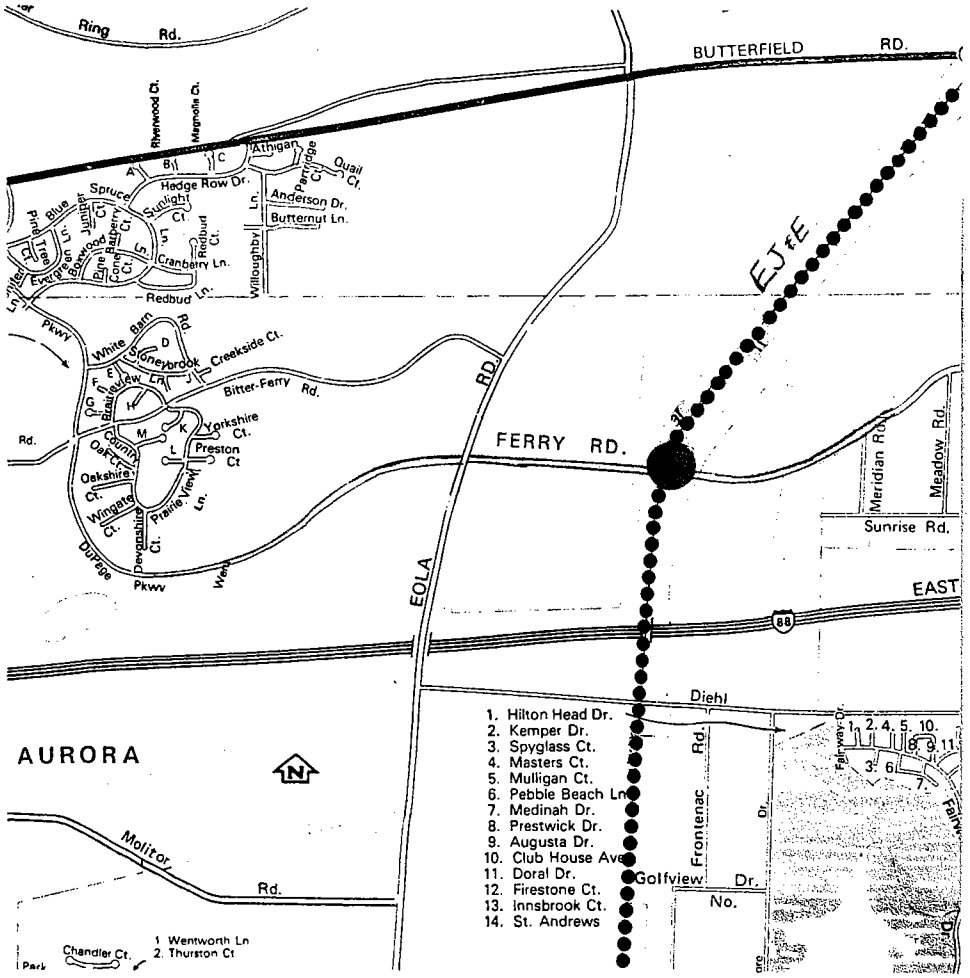
Site Description (Preferred Site)

The site is relatively level.

Access: Access to the site would be from Ferry Road.

Environmental Concerns

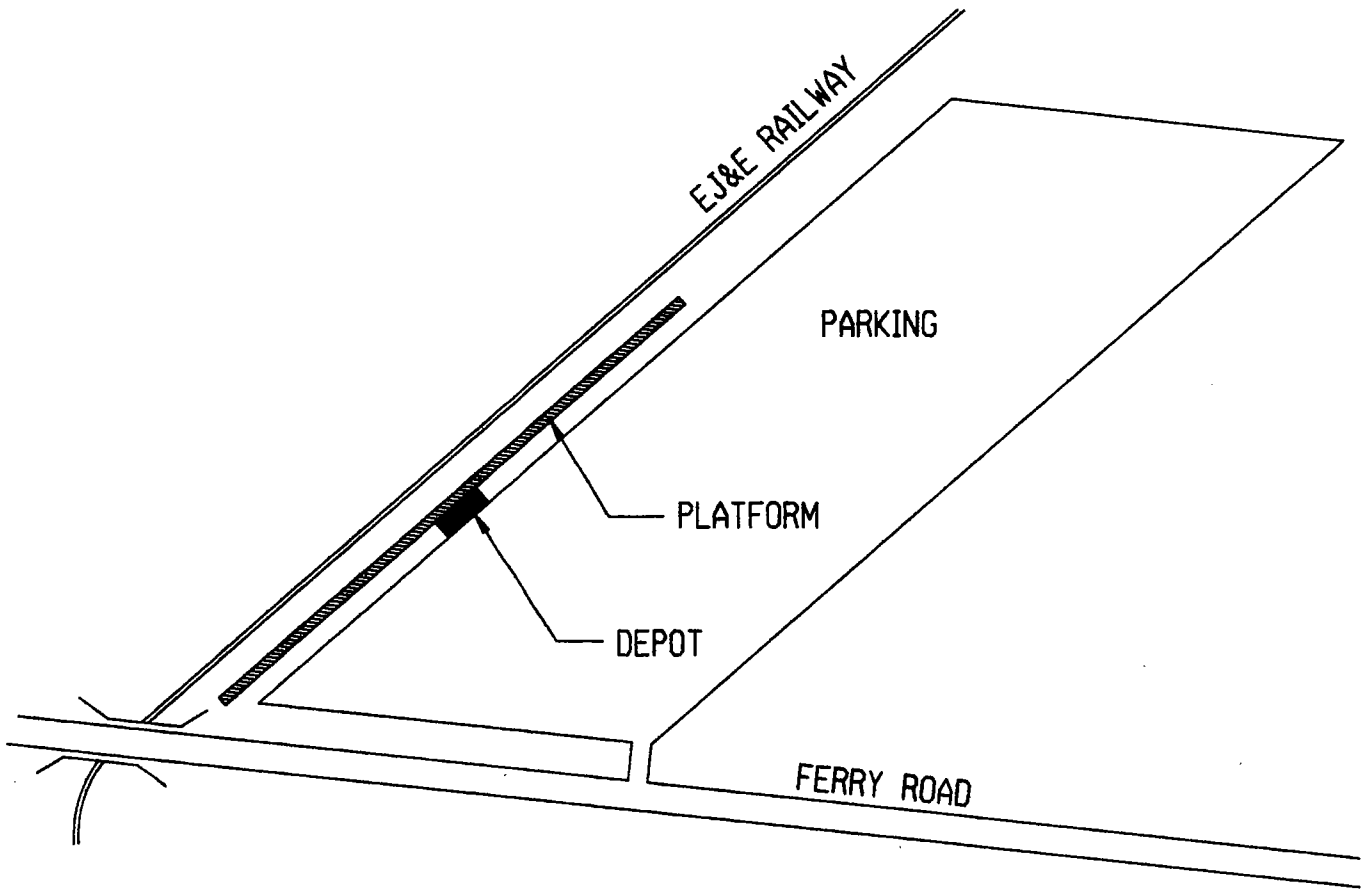
None were noted during a cursory review of this site, nor has the City indicated any potential environmental concerns.



LOCATION MAP - AURORA STATION

SCALE: N.T.S.

NORTH

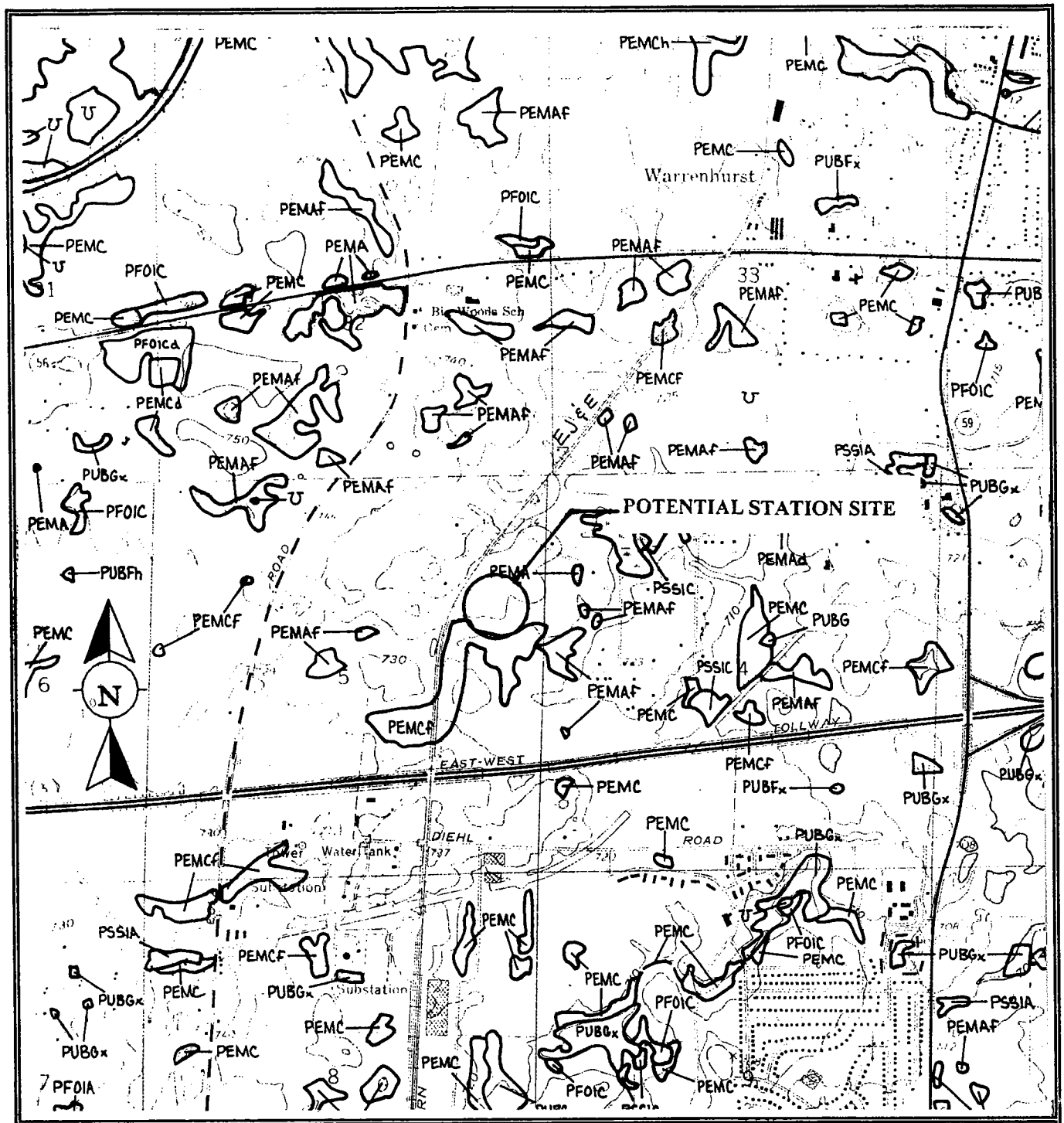


NORTH

SITE PLAN - AURORA STATION

SCALE: 1"= 200'

PS-AA03
ASK-AA13



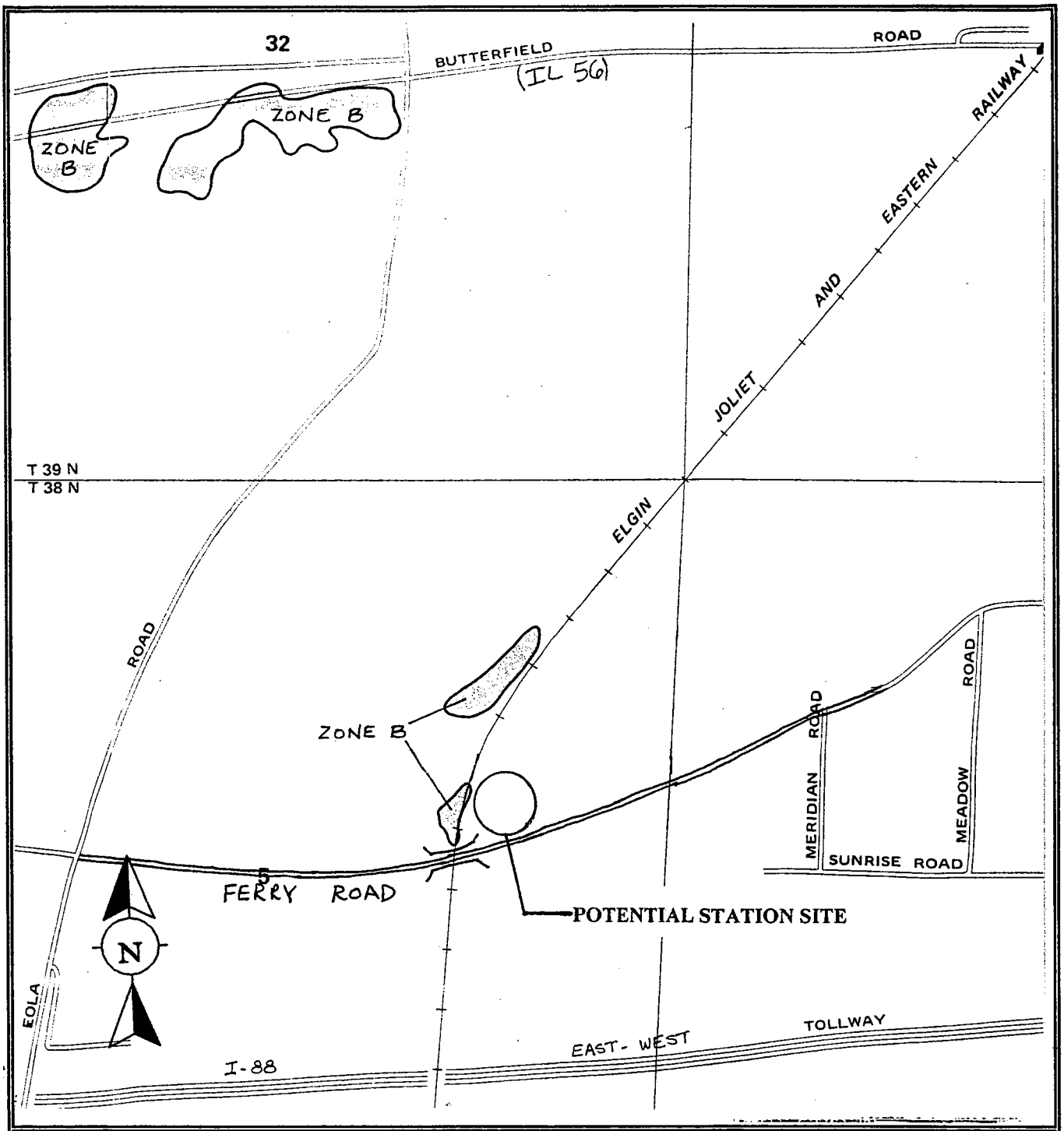
Metra

Outer Circumferential Commuter Rail Feasibility Study

T.Y. Lin International BASCOR

Potential Station Site
Aurora

Wetland Inventory Map
Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Aurora** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Eola Transfer Station (EJ&E/BNSF)

Location and Site Description

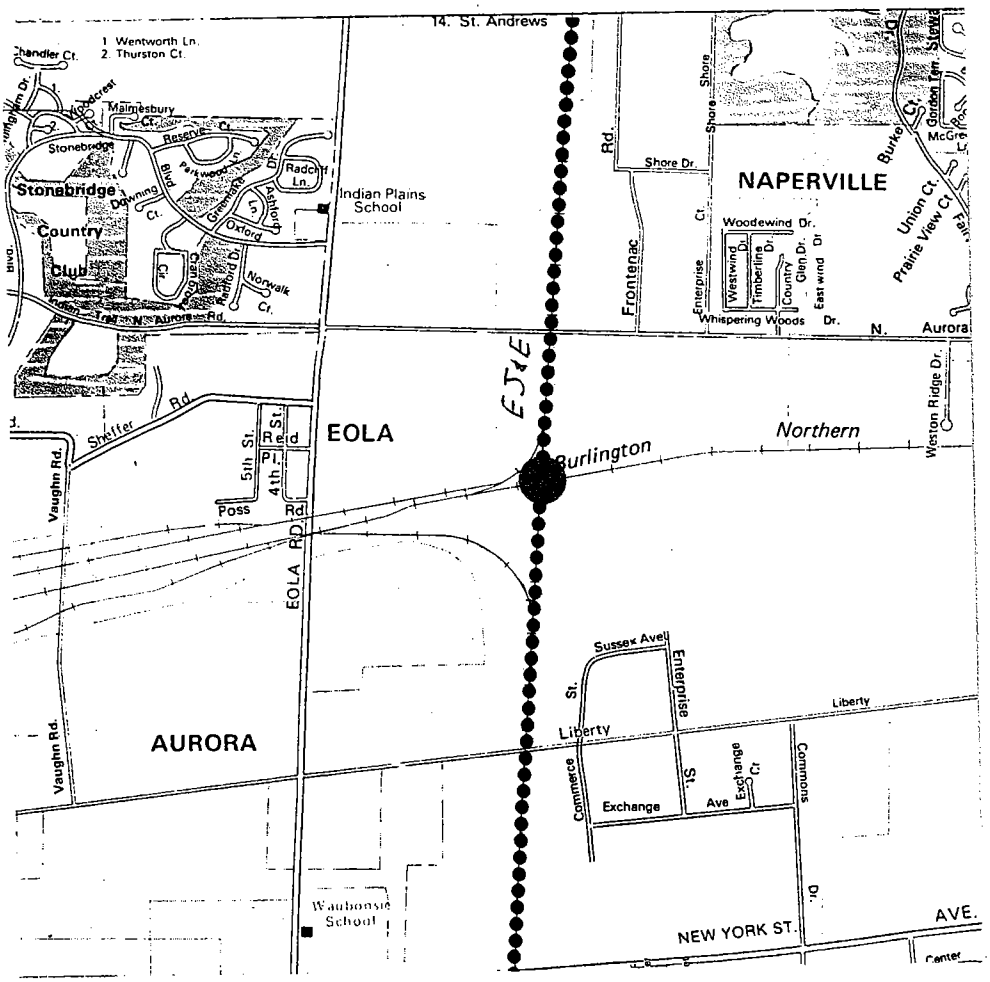
This station site is located at the intersection of the EJ&E and the Burlington Northern Santa Fe (BNSF) Line. It would be solely a transfer station without any commuter parking, allowing passengers to transfer between the two rail lines. The transfer station would consist of platforms and a warming shelter. Since the rail lines are grade-separated at this location, ramps and stairs would also be provided.

Transfer Potential

During the week, Metra operates trains to and from Chicago at least once per hour, with as many as five per hour during the peak morning and evening rush hours. On the weekends and holidays there are trains to and from Chicago ranging from one per hour to one every two to three hours

Environmental Concerns

There are several wetland areas adjacent to the proposed site. The layout of this site will avoid these wetland areas.

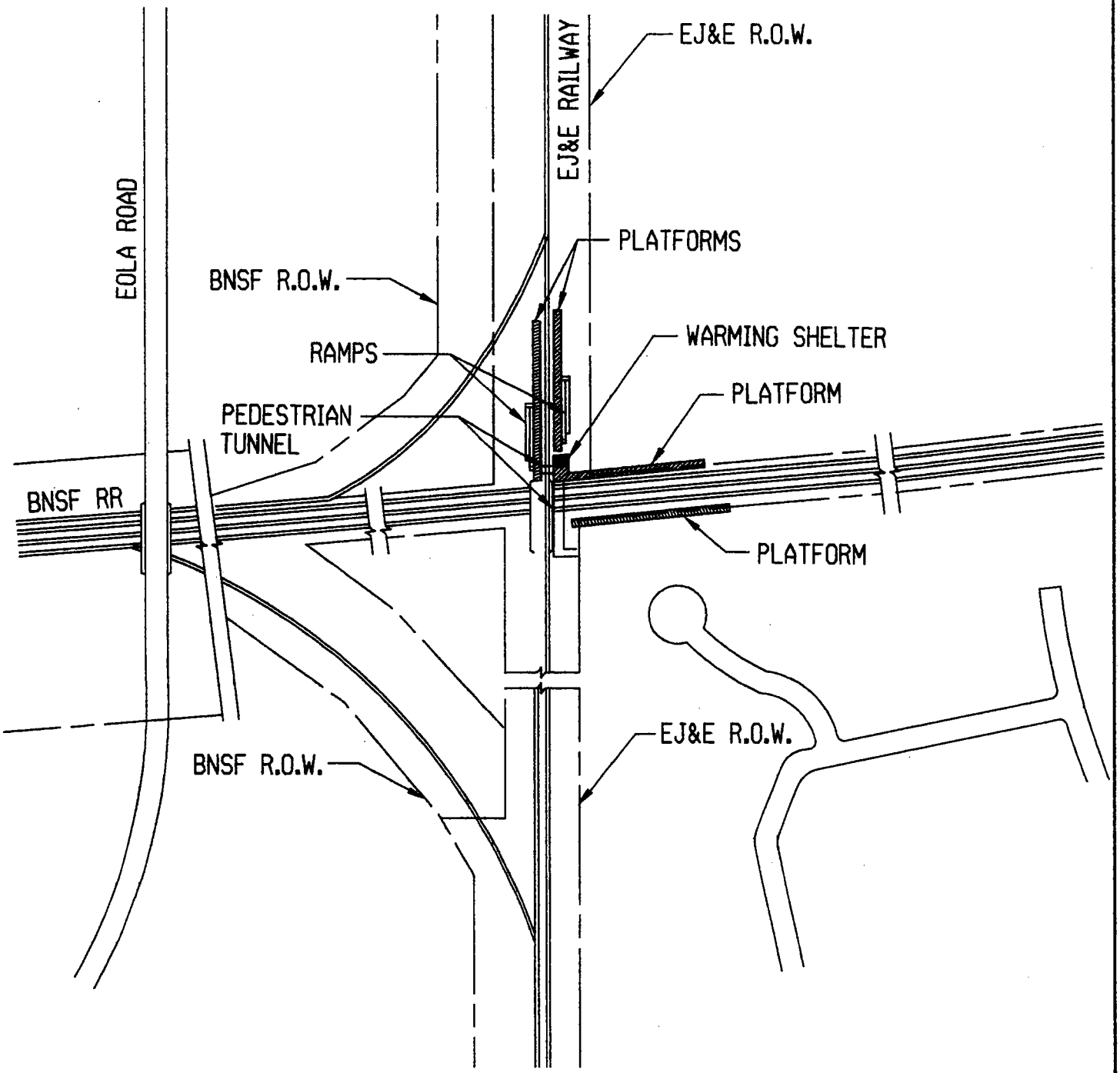


LOCATION MAP - EOLA TRANSFER STATION (EJ&E/BNSF)

SCALE: N.T.S.

PREFERRED SITE

NORTH

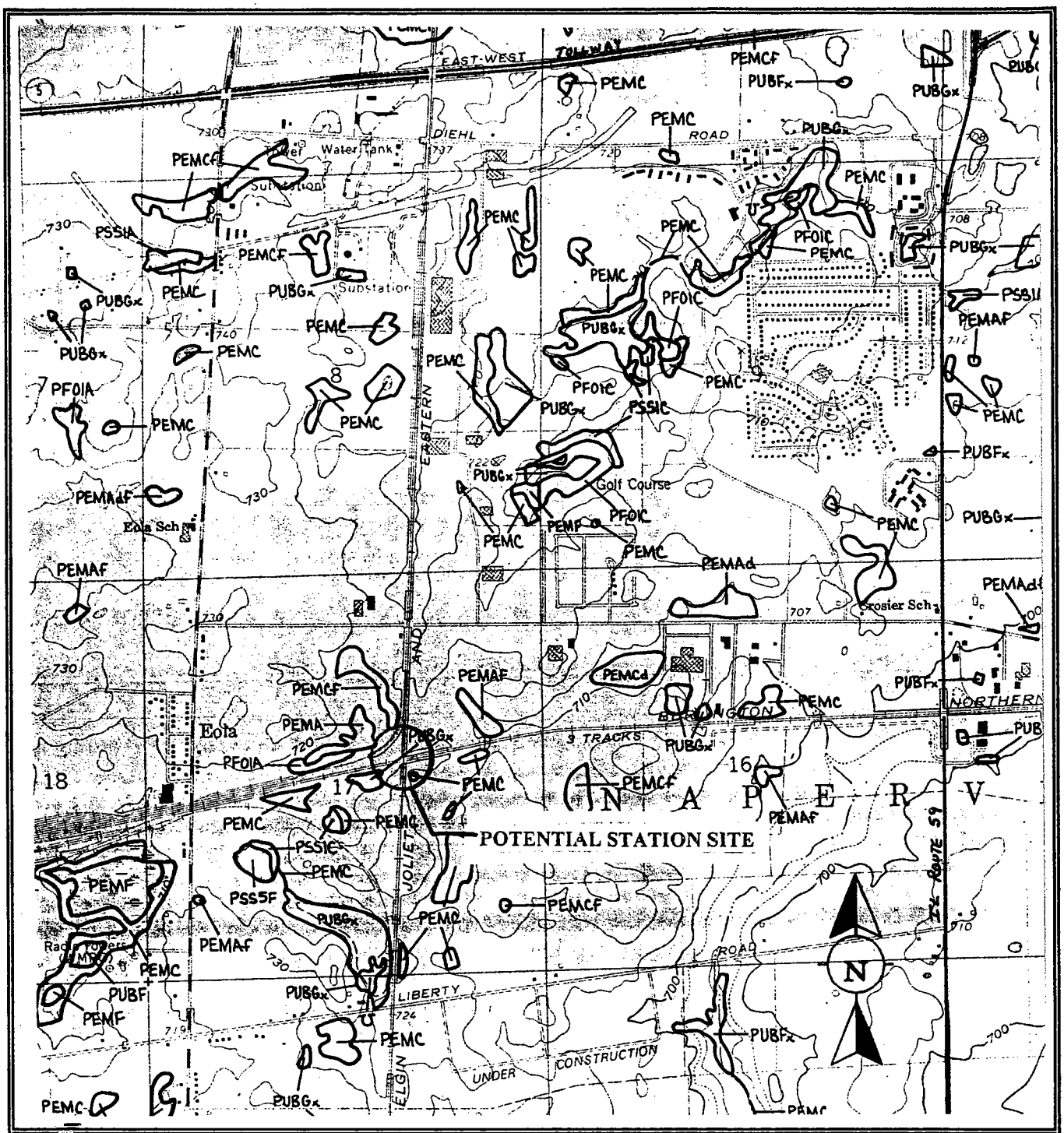


SITE PLAN - EOLA
TRANSFER STATION (EJ&E/BNSF)

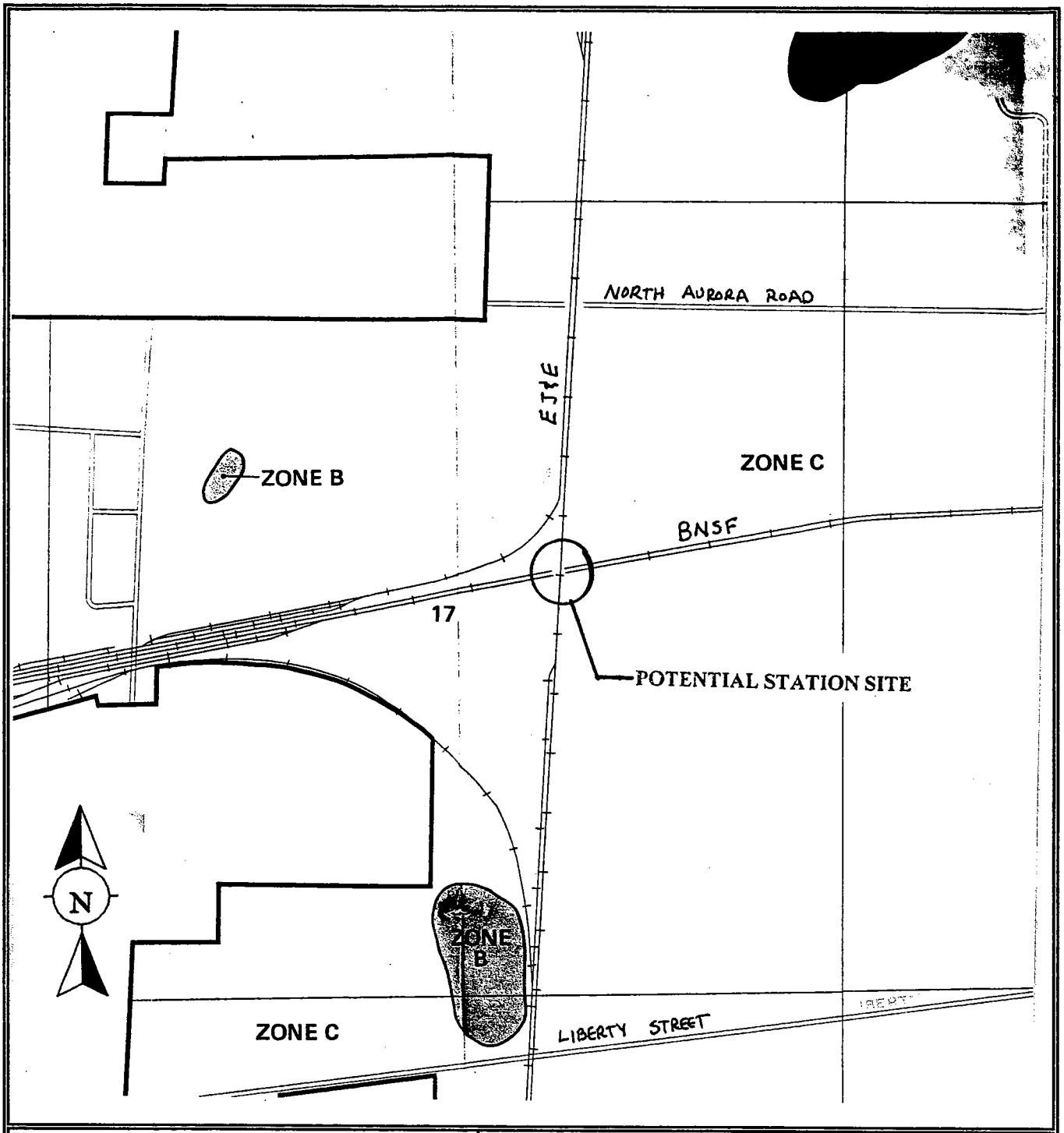
NORTH

SCALE: 1"= 200'

PREFERRED SITE PS-M01
ASK-M012



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site** **Eola** **(EJ&E/BNSF)** **Wetland Inventory Map** **Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site** **Eola** **(EJ&E/BNSF)** **Floodway/Floodplain Boundary Map** **Preliminary Site Location**

Naperville

Location

Preferred: Based on review of information supplied by the City, as well as discussion with the City staff, it appears that the site best-suited for a commuter station is in the northeast quadrant at the intersection of the EJ&E and the proposed westward extension of 95th Street. This area of Naperville is one of their biggest growth areas, and several developments are underway in the general vicinity of this site. This appears to be the most logical choice for a station site to serve this sector of Naperville, as well as nearby Aurora on the west side of the EJ&E.

Alternates: Southeast quadrant of the intersection of the EJ&E and the proposed westward extension of 95th Street.

Intersection of the BNSF and the EJ&E (Eola). Only the northeast quadrant is controlled by the City of Naperville.

Community Characteristics

According to a 1991 special census, Naperville had a population of 100,422. The City of Naperville has been working with NIPC to resolve discrepancies with the 2020 population and employment projections.

Within the City, there are 39 major employers with an approximate total of 26,417 employees.

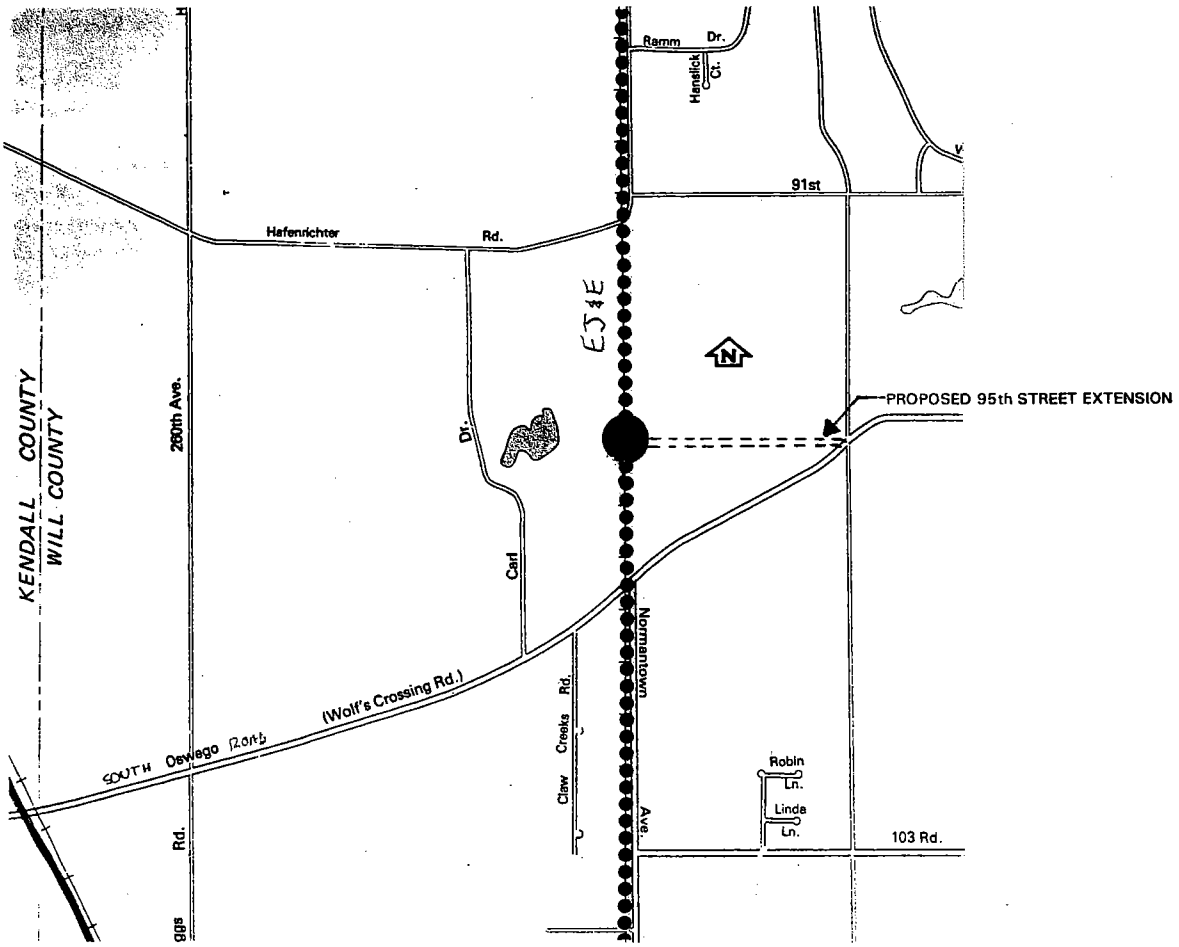
Site Description (Preferred Site)

This site is fairly level with two sets of overhead electric lines, both running parallel to the tracks on the west side. This area is currently being used for agricultural purposes.

Access: Access would be via the proposed 95th Street extension.

Environmental Concerns

None were noted during a cursory review of this site, nor has the City indicated any potential environmental concerns.

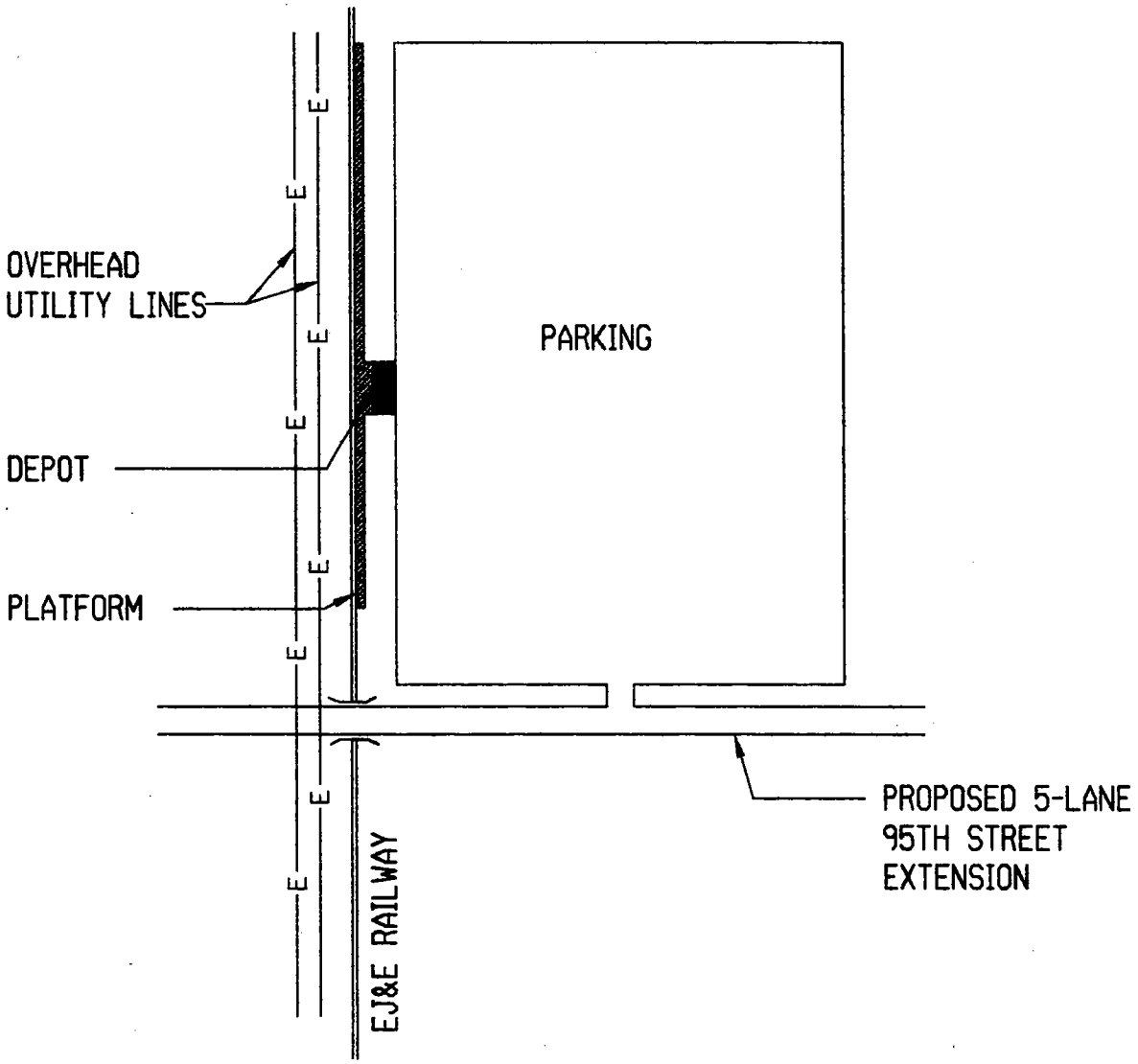


LOCATION MAP - NAPERVILLE STATION

SCALE: N.T.S.

PREFERRED SITE

NORTH

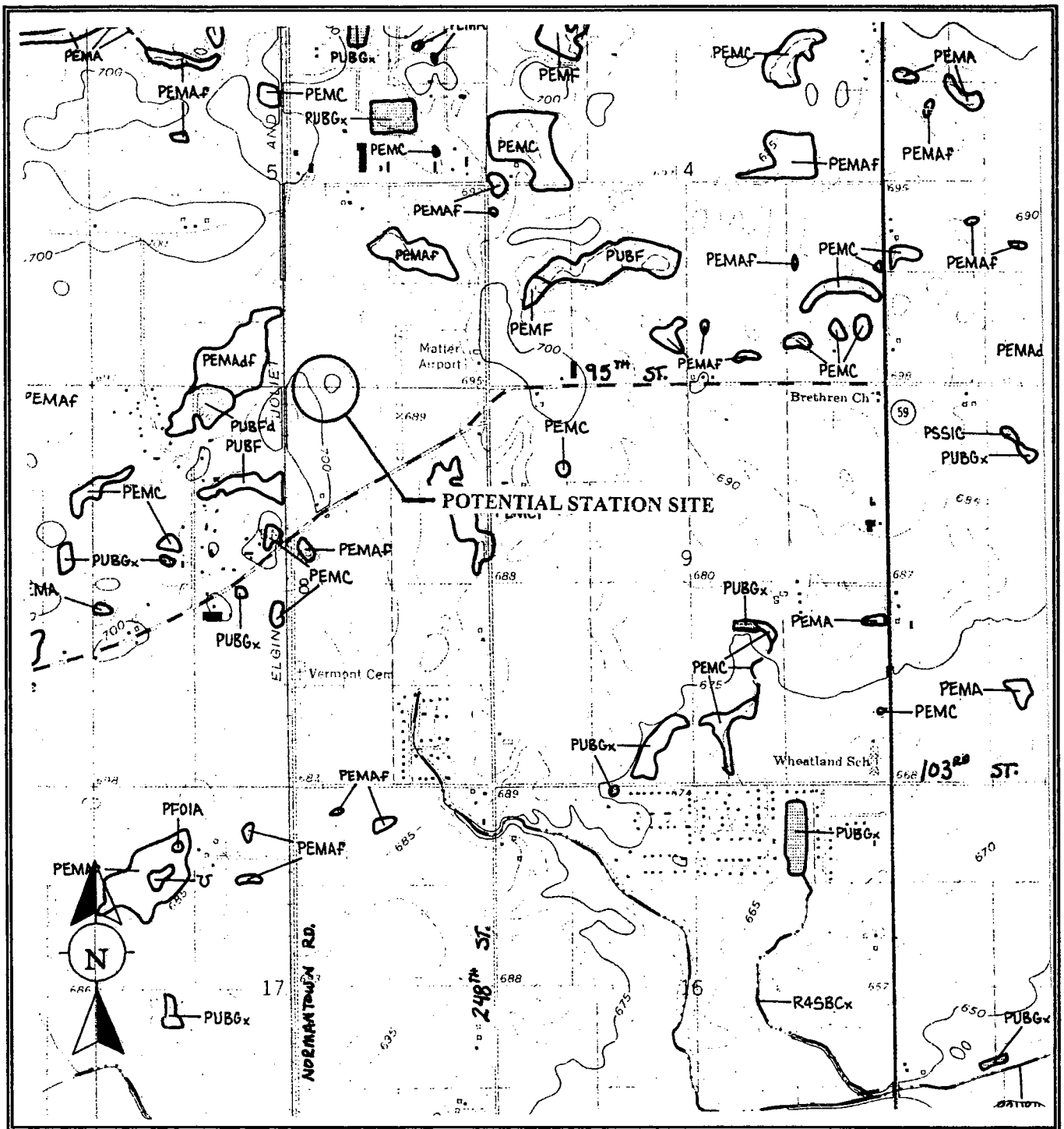


NORTH

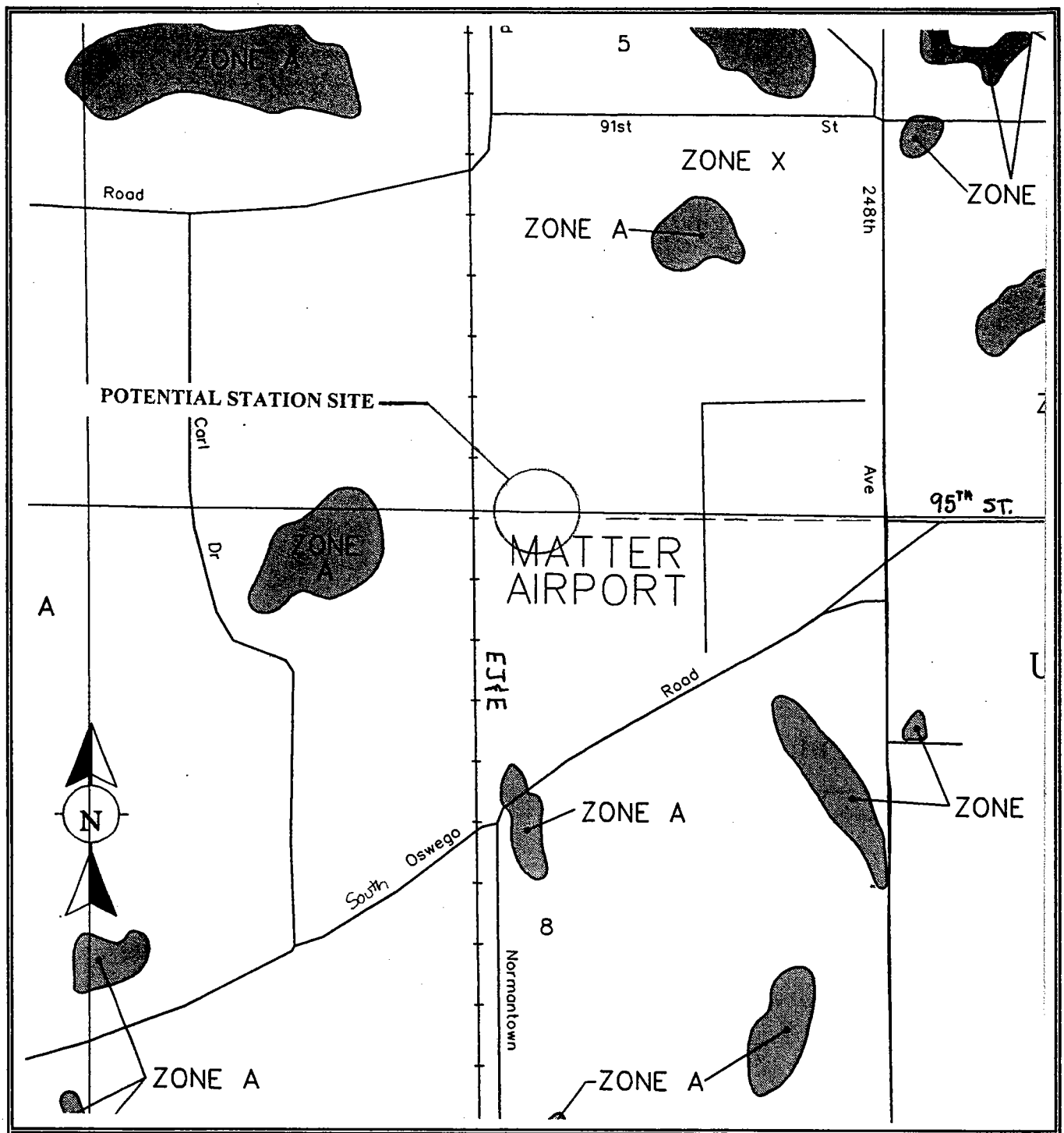
SITE PLAN - NAPERVILLE STATION

SCALE: 1" = 200'

PREFERRED SITE PS-E03 ASK-E032



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Naperville** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Naperville** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Plainfield

Location

Preferred: The Village's preferred site is located at the western edge of downtown Plainfield, where the EJ&E Illinois River Line crosses IL126/US 30, with the DuPage River forming the eastern boundary of the site. The area best-suited for the station is on the north side of the highway and east of the EJ&E.

Alternates: West quadrant of the intersection of IL 126 and the EJ&E on the main line, particularly if service on the Illinois River Line is not considered for implementation. This site is in the current downtown area, but the Village is looking into redeveloping and expanding their business district. Significant redevelopment would be necessary to provide adequate space for a station, as the area is currently built-up. Also, the Village indicated there may be some environmental concerns at this site, as there is a granary which may have handled fertilizer at one time.

Intersection of 135th Street and the EJ&E. There is a potential environmental concern at this site, around the concrete plant on the west side of the tracks.

Intersection of 119th Street and the EJ&E.

Intersection of Brown Street (Renwick Road), and the EJ&E. The location of this site is considered not desirable and is not a centralized location. Also, there is a potential for environmental concerns in the northwest and southeast quadrants of this intersection.

Community Characteristics

According to the 1990 census, Plainfield had a population of 4,557. A 1993 special census estimated a population of 5,672, and a 1998 special census discovered that the population had reached 9,040. NIPC has estimated the population in 2020 to be between 26,209 and 28,154.

The NIPC 1990 employment allocation for the Village was 3,719 with a 2020 projection of 10,282. Within the Village, there are 13 major employers with an approximate total of 2,105 employees.

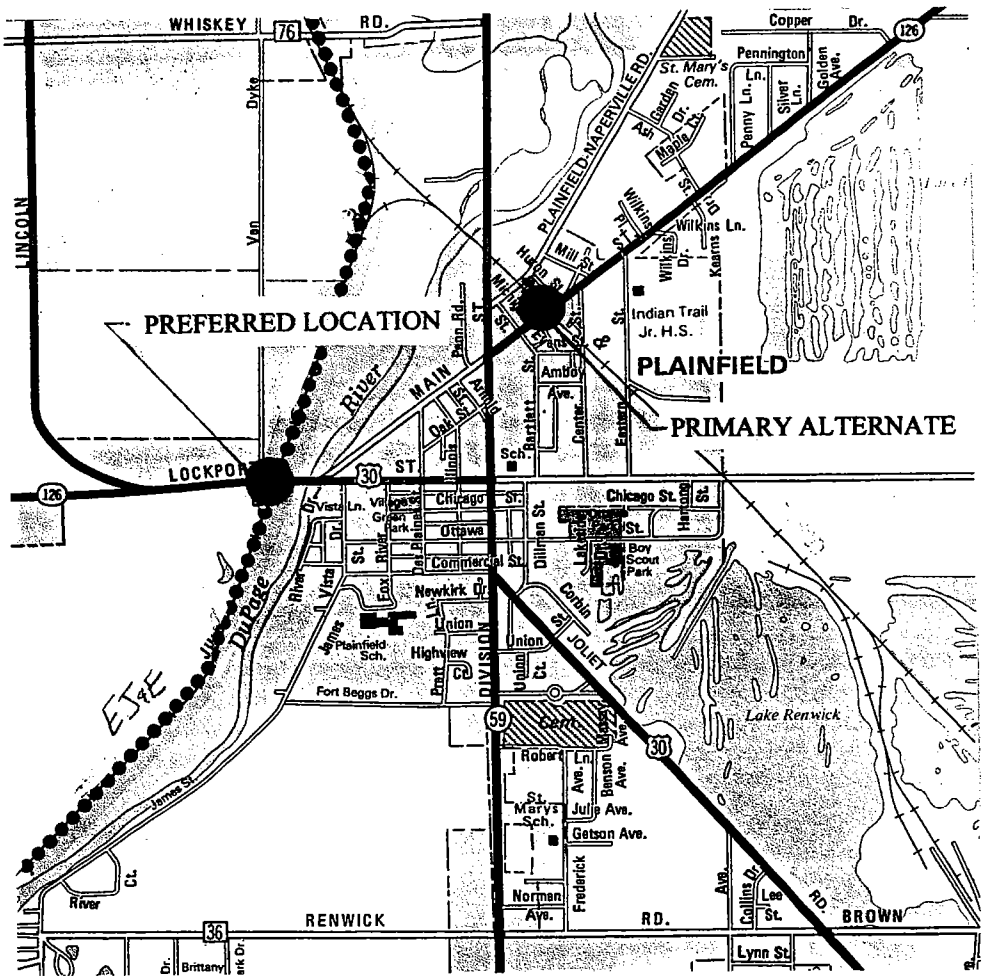
Site Description (Preferred Site)

The Village is looking at redeveloping this area into an extension of their downtown. The site area is down in elevation from the tracks as well as from IL 126/ US 30. Otherwise, the site is relatively flat and open. An overhead electric line runs parallel to the track along the east side.

Access: Access would be via IL 126/US 30.

Environmental Concerns (Preferred Site)

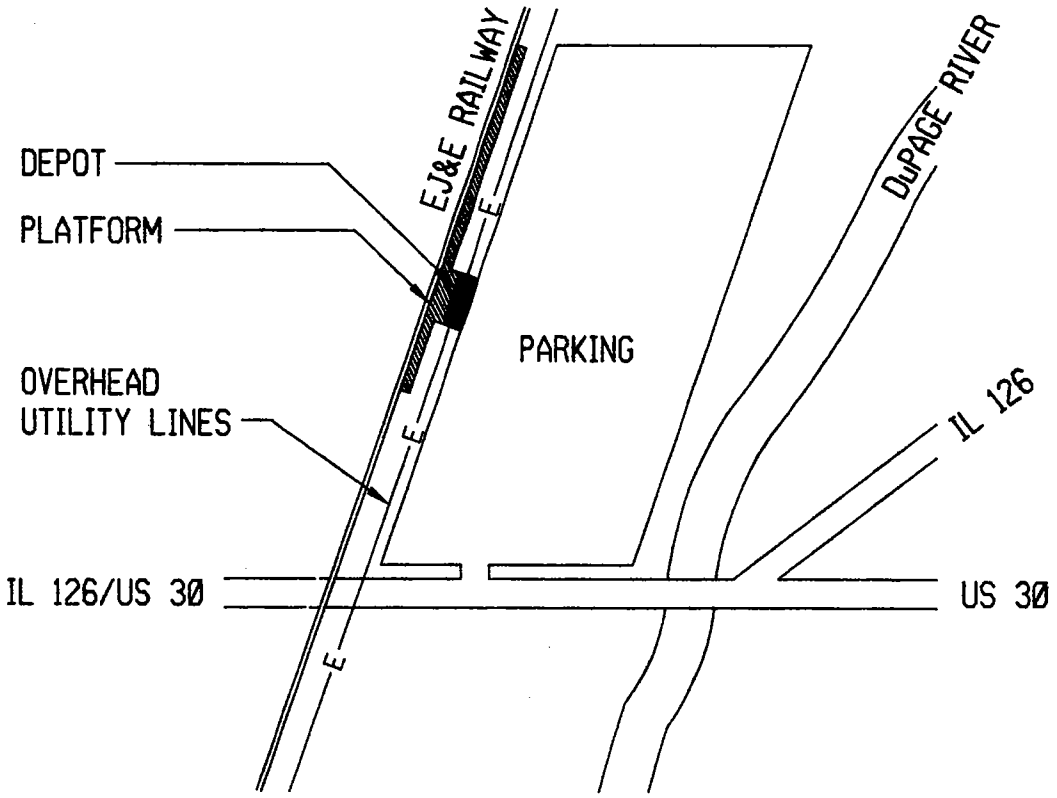
The preferred site is located in a large wetland area and within the 100-year flood boundary. As avoidance of these large areas does not appear to be possible, appropriate compensatory storage and mitigation would have to be provided for impacts to the wetlands and floodway/floodplain.



NORTH

LOCATION MAP - PLAINFIELD STATION

SCALE: N.T.S. PREFERRED SITE



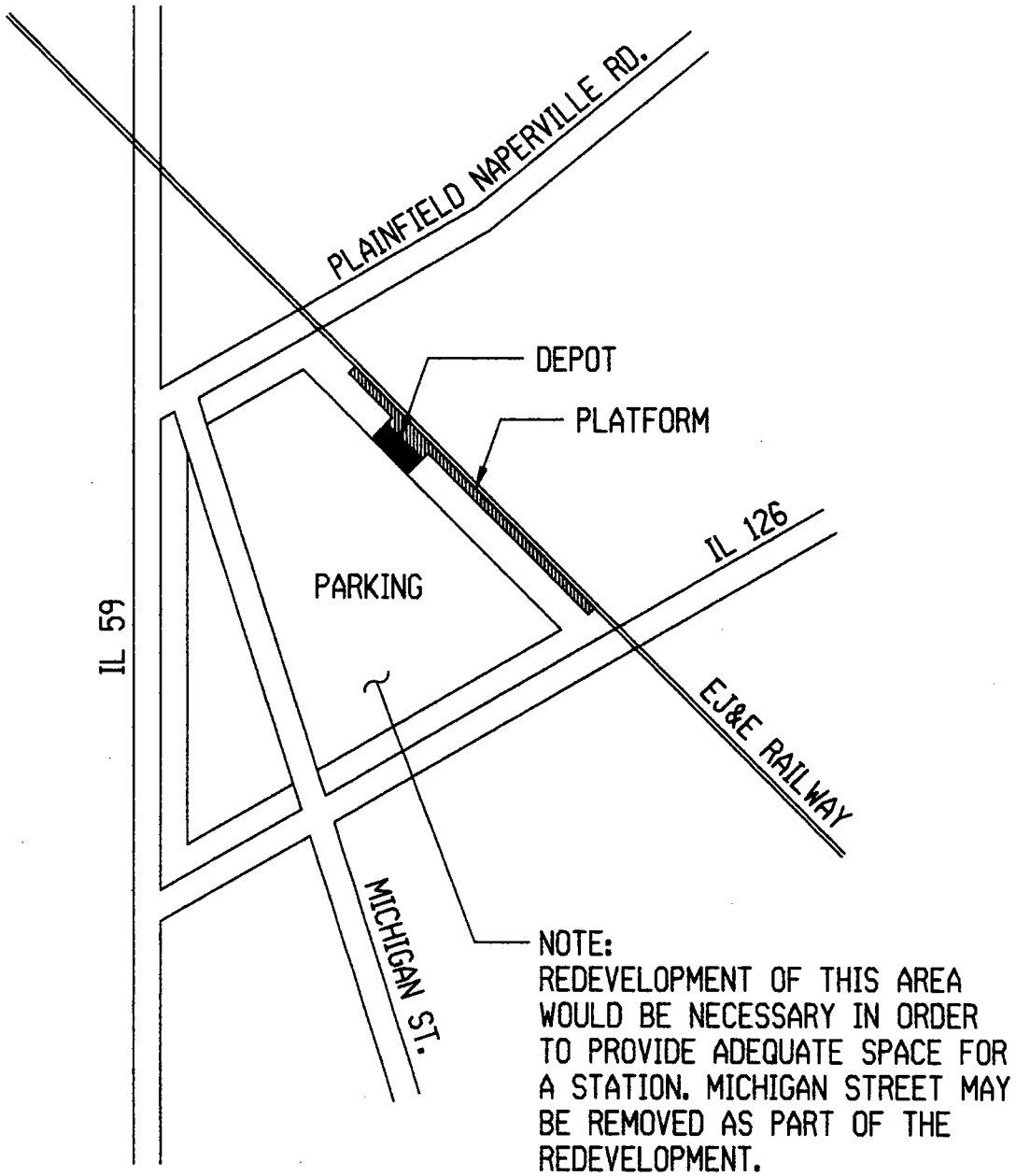
SITE PLAN - PLAINFIELD STATION (PREFERRED SITE)

NORTH

SCALE: 1" = 200'

PREFERRED SITE

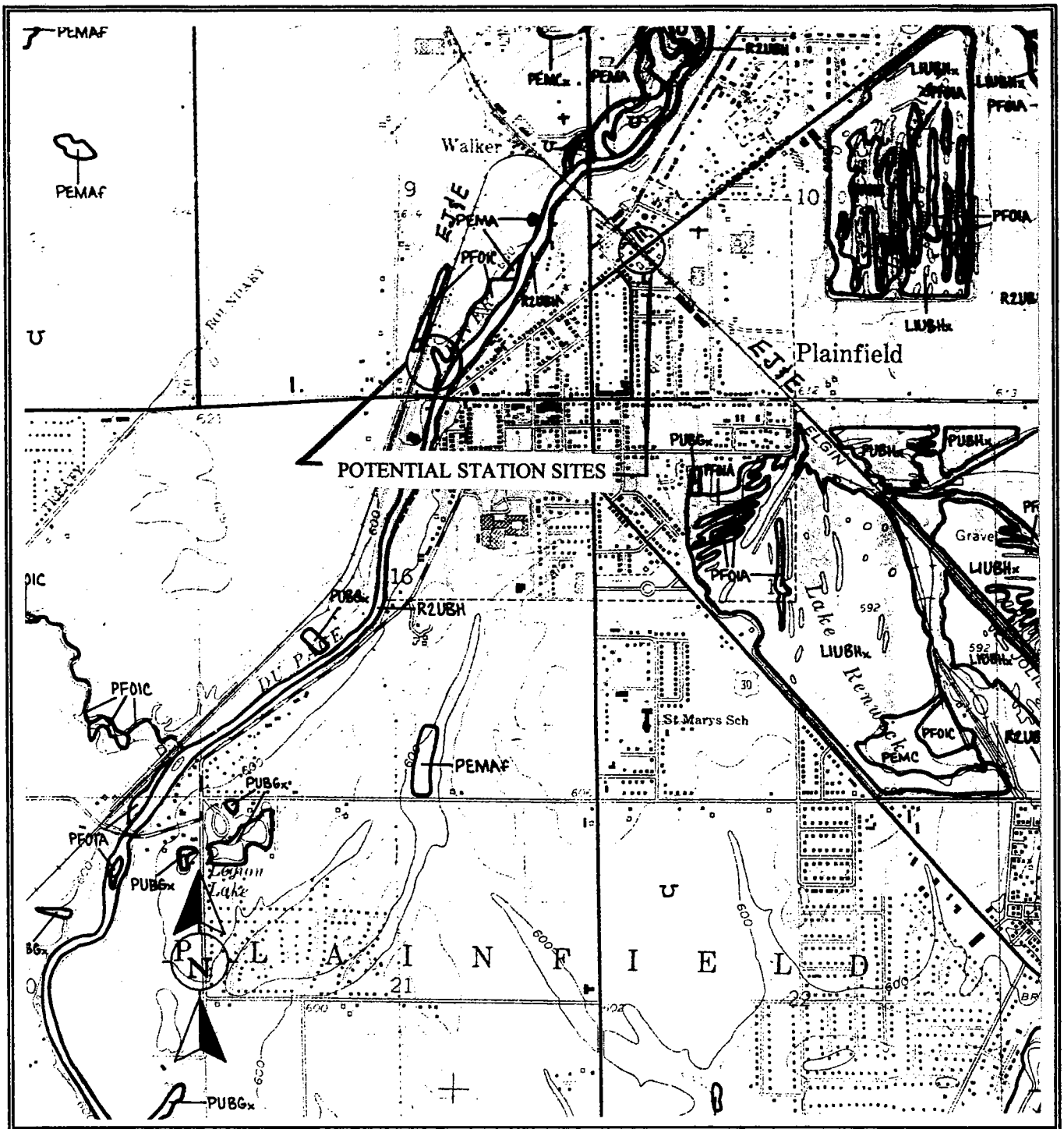
PS-E02
ASK-E022



SITE PLAN - PLAINFIELD STATION (PRIMARY ALTERNATE)

NORTH

SCALE: 1" = 200' PREFERRED SITE ASK-E042



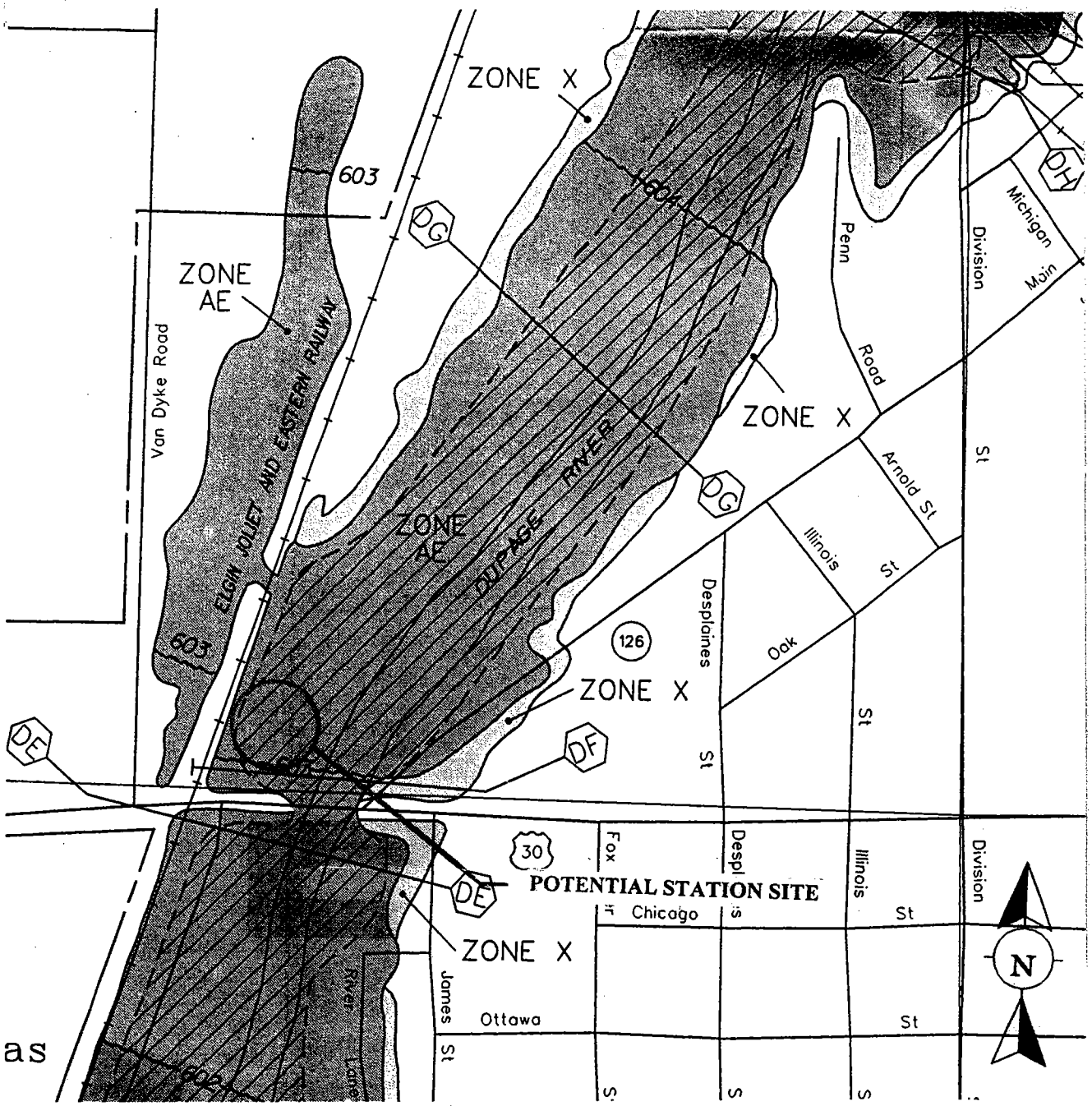
T.Y. LinInternationalBASCOR

Metra

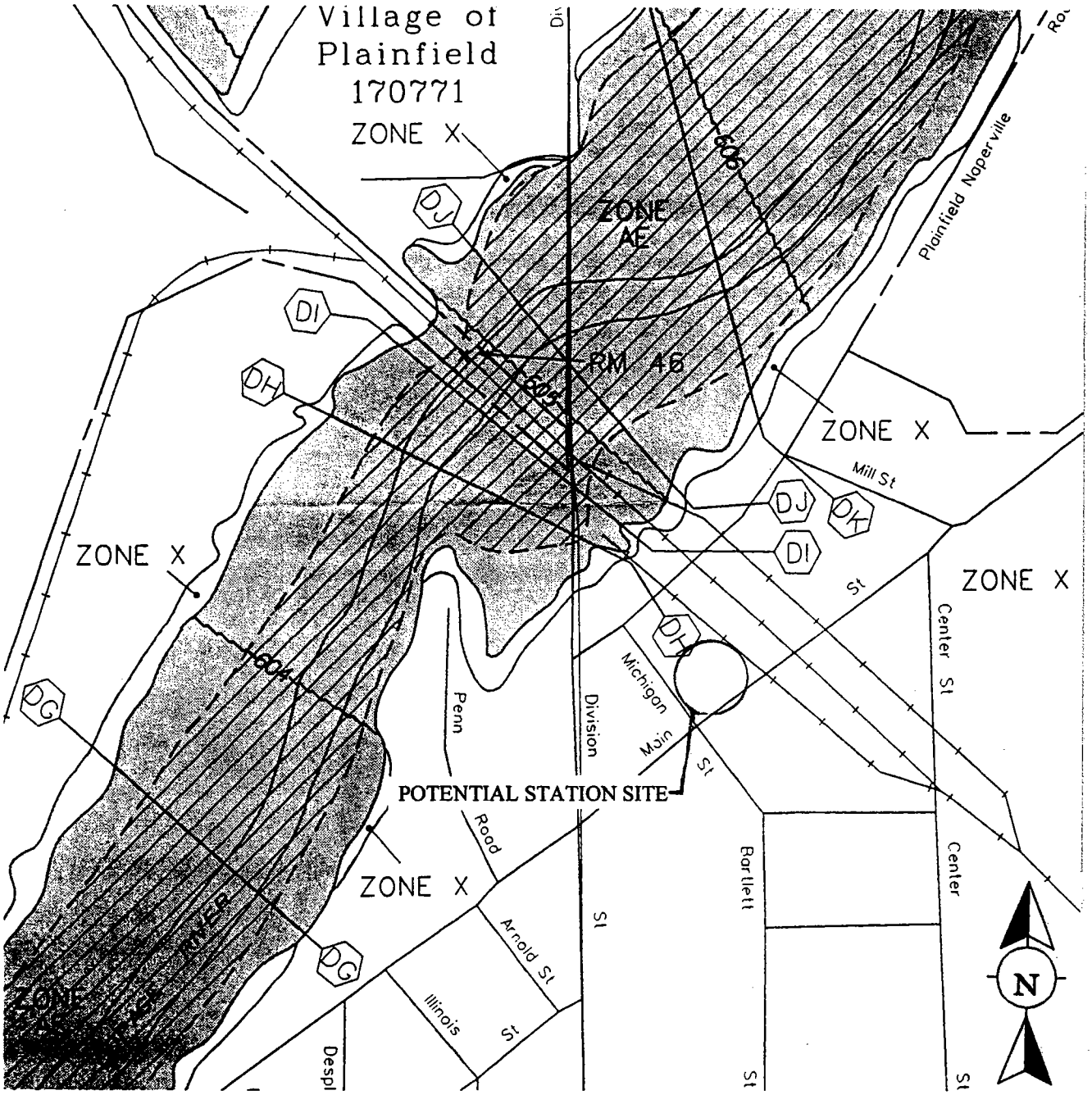
Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site Plainfield

Wetland Inventory Map Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site** **Plainfield** **(Preferred Site)** **Floodway/Floodplain Boundary Map** **Preliminary Site Location**



T.Y. Lin International**BASCOR**	**Metra** **Outer Circumferential** **Commuter Rail Feasibility Study** **Potential Station Site** **Plainfield** **(Primary Alternate)** **Floodway/Floodplain Boundary Map** **Preliminary Site Location**

Shorewood

Location

This site is located along the EJ&E Illinois River Line. The area best-suited for development of a station is in the southwest quadrant of the intersection of the EJ&E Illinois River Line and US 52. This area is just outside of the Village limits, but is included in the Village's planning area.

Community Characteristics

According to the 1990 census, Shorewood had a population of 6,264, while a 1994 special census estimated a population of 7,330. NIPC has estimated the population in 2020 to be 21,426. The Village has indicated that they do not agree with NIPC's population projections, as NIPC did not include some pre-annexation-agreement areas.

The NIPC 1990 employment allocation for the Village was 1,526, with a 2020 projection of 2,871. Within the Village, there are 11 major employers with an approximate total of 634 employees.

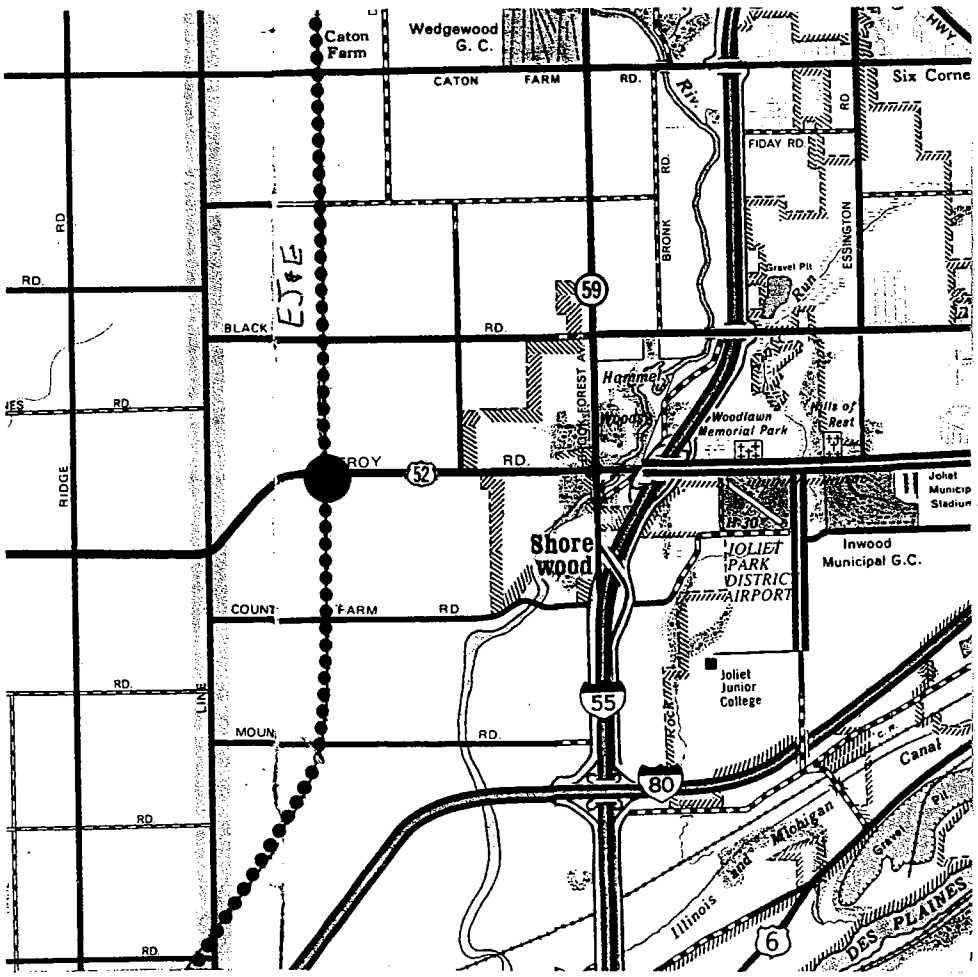
Site Description (Preferred Site)

The site area is lower in elevation than US 52 and the railroad track, although the site itself is relatively flat and level. There are two sets of overhead electric lines running parallel to the tracks on the east side of the EJ&E.

Access: Access to the site would be off of US 52.

Environmental Concerns

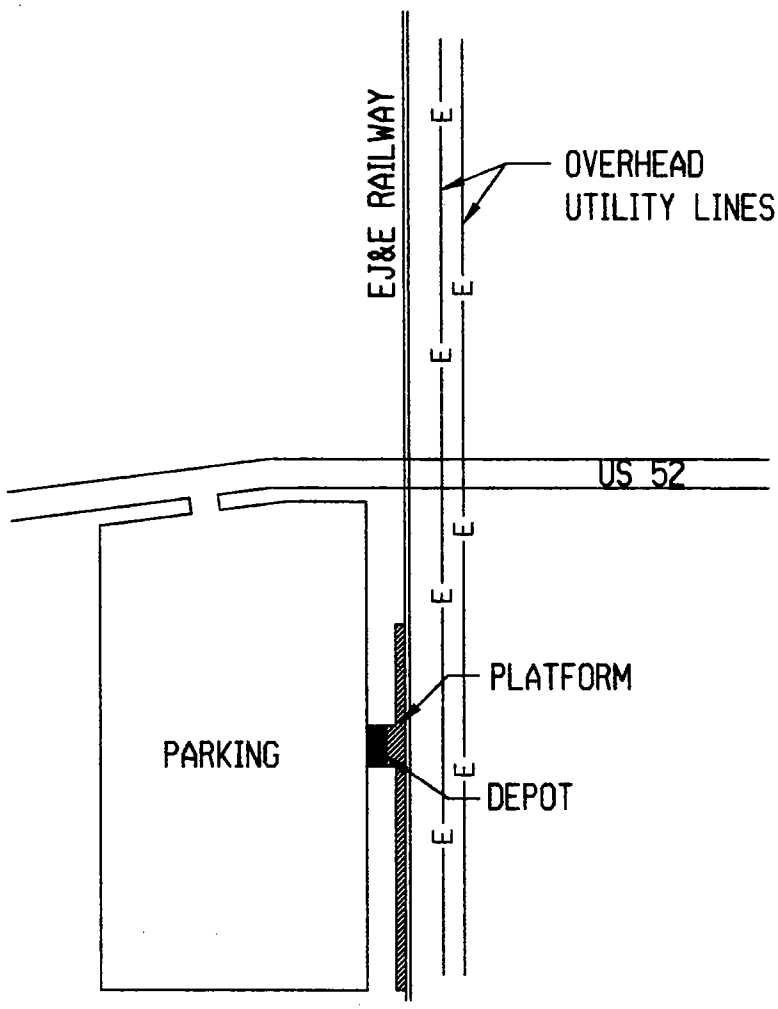
None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.



NORTH

LOCATION MAP - SHOREWOOD STATION

SCALE: N.T.S.

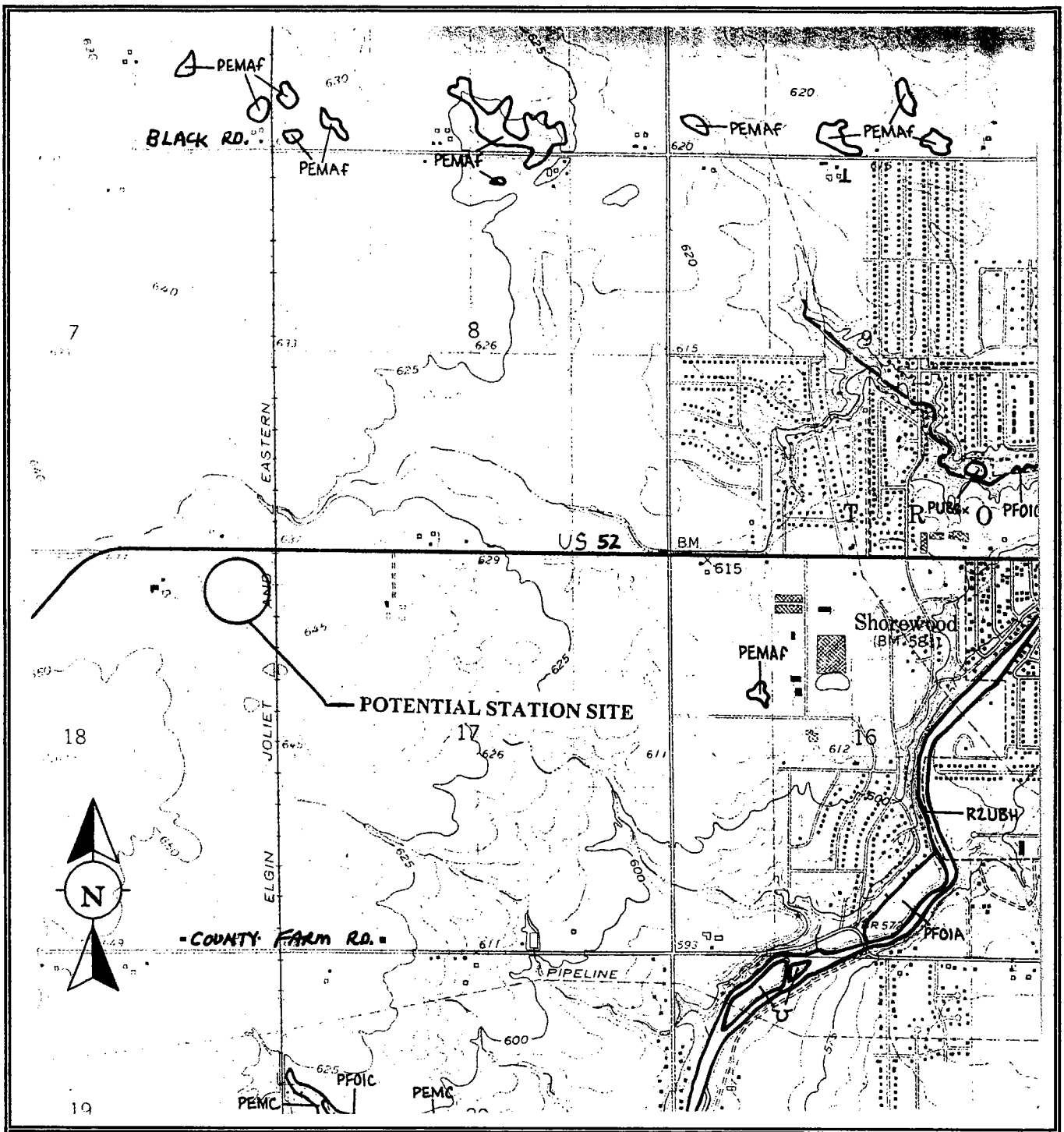


NORTH

SITE PLAN - SHOREWOOD STATION

SCALE: 1" = 200'

PS-D05
ASK-D052



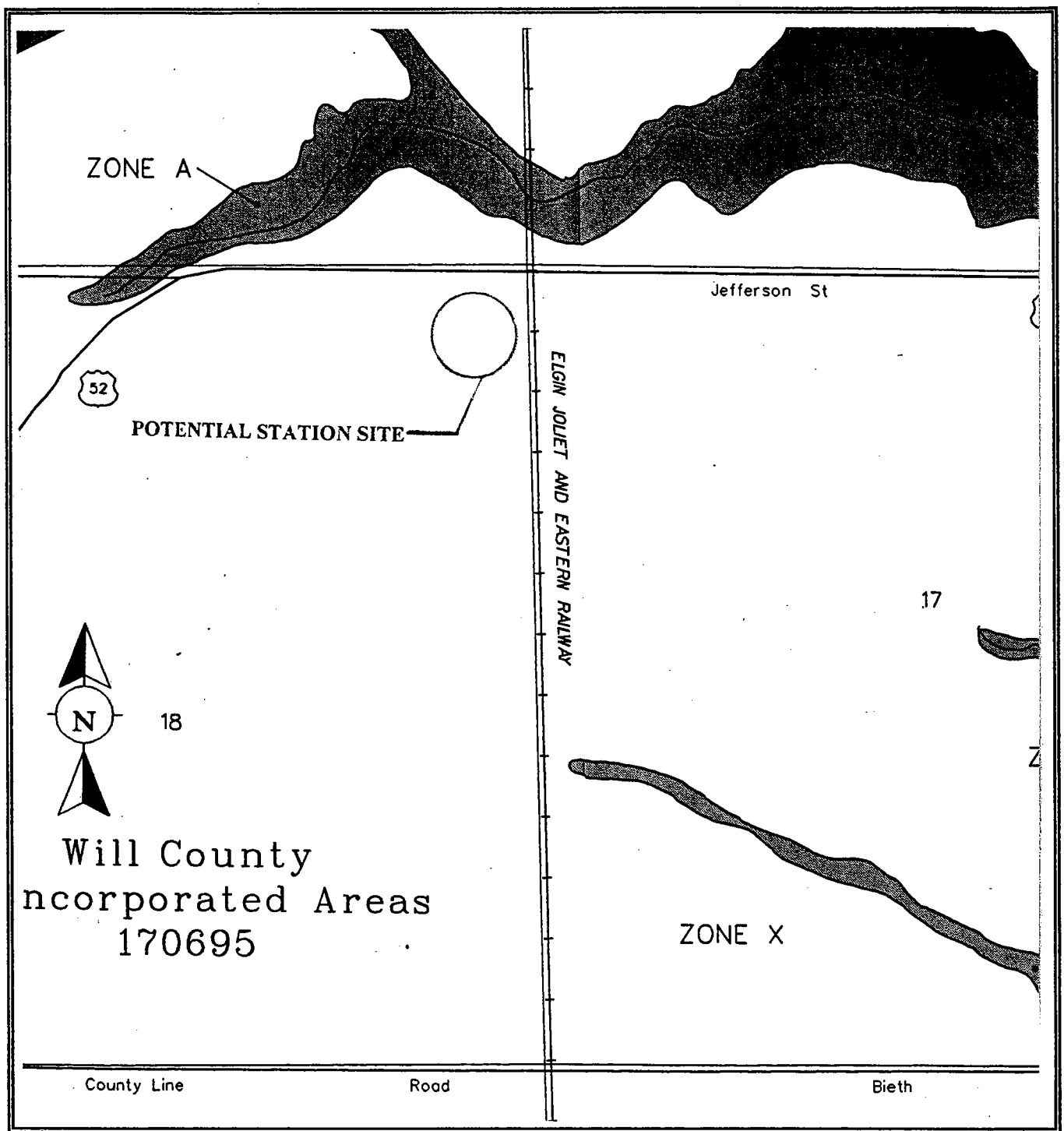
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Shorewood

Wetland Inventory Map
Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Shorewood** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Joliet

Location

Preferred: The City's preferred site is located at Stateville Road, Hennepin Drive and the intersection of the EJ&E. The site would be on the north side of Stateville Road, west of where Hennepin Road currently terminates.

Alternates: Same intersection but just to the east of the City's preferred site.

Southwest quadrant of the intersection of I-55 and the EJ&E.

Southeast quadrant of the intersection of I-55 and the EJ&E.

Community Characteristics

According to the 1990 census, Joliet had a population of 76,836, while a 1994 special census estimated a population of 79,492. NIPC has estimated the population in 2020 to be 119,852.

The NIPC 1990 employment allocation for the City was 37,481, with a 2020 projection of 52,778. The City of Joliet has been working with NIPC to revise their 2020 projection of employment figures. Currently, the City has eight major employers with an approximate total of 12,733 employees.

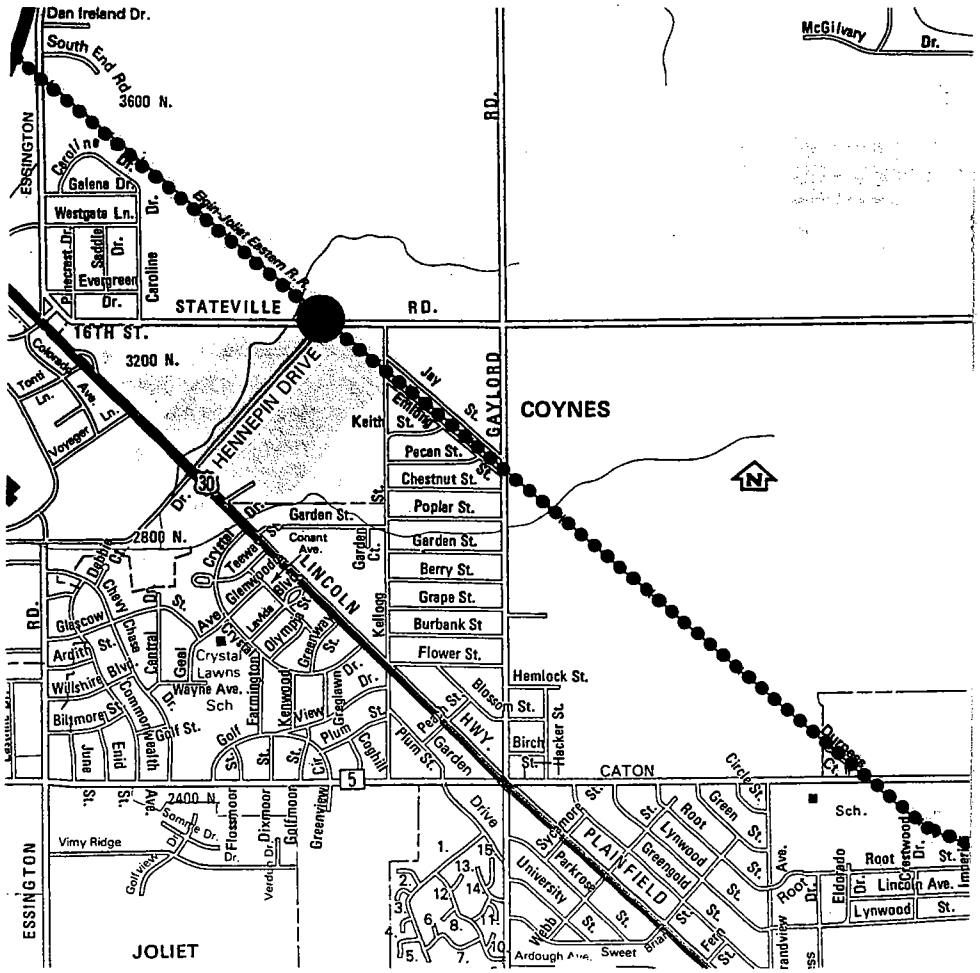
Site Description (Preferred Site)

The site is a few feet lower than Stateville Road and the tracks, but otherwise the site is relatively flat. The site is currently open space, and is in close proximity to the Louis-Joliet Mall.

Access: Access to the site would be off of Stateville Road.

Environmental Concerns

None were noted during a cursory review of this site, nor has the City indicated any potential environmental concerns. However, the site is located adjacent to the 100-year flood boundary. The layout of this site will avoid the floodway/floodplain limits.

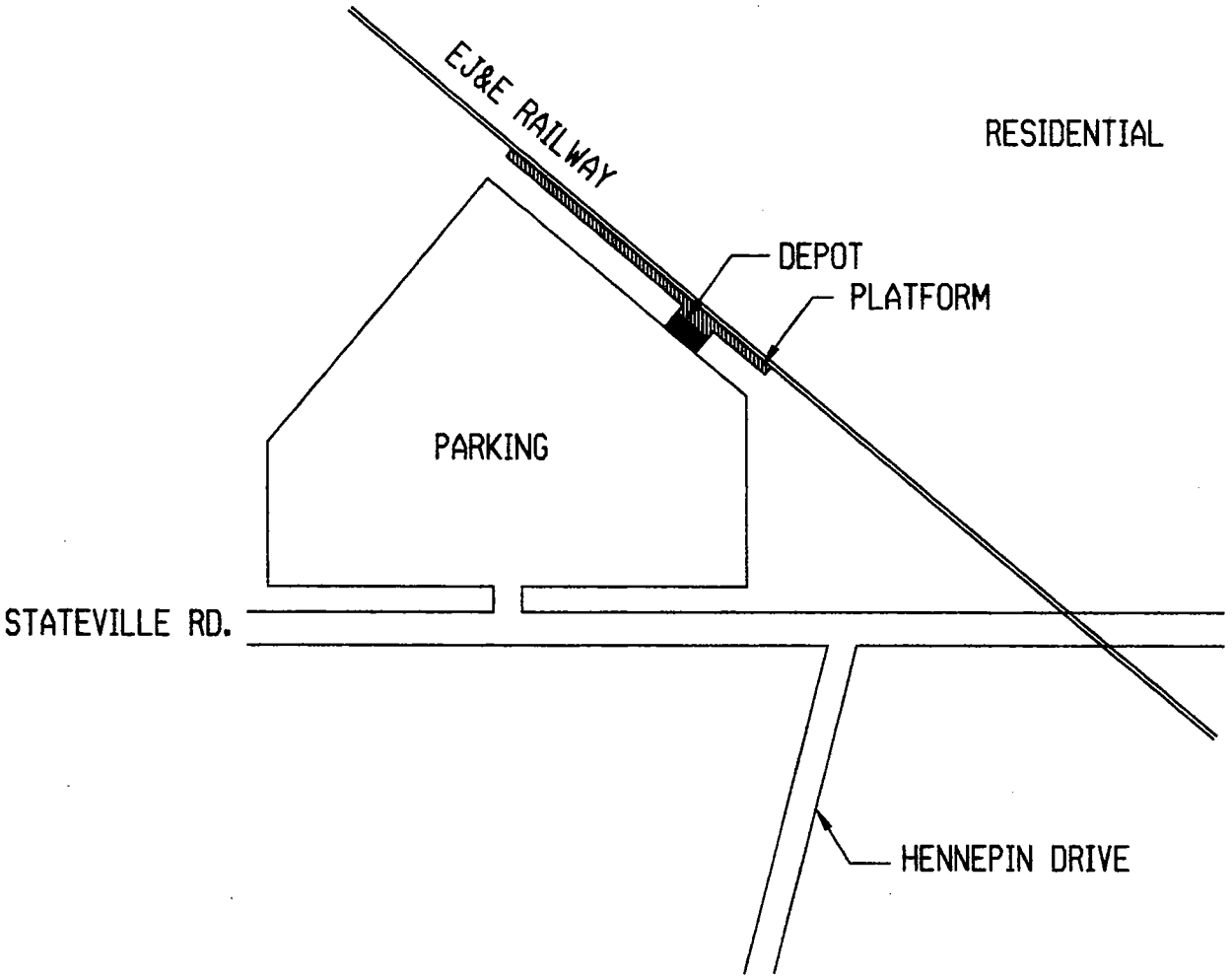


LOCATION MAP - JOLIET STATION

SCALE: N.T.S.

PREFERRED SITE

NORTH



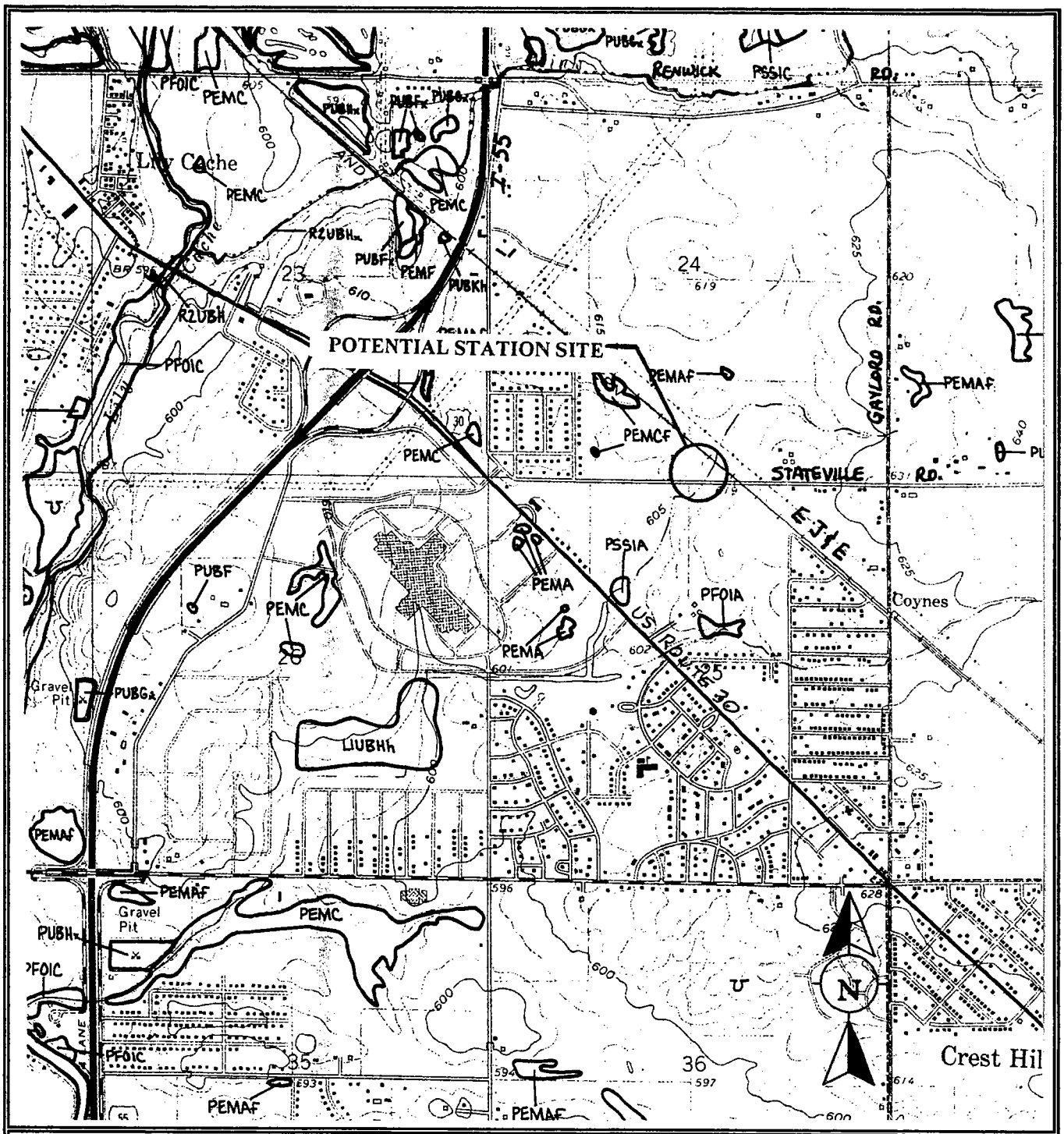
NORTH

SITE PLAN - JOLIET STATION

SCALE: 1" = 200'

PREFERRED SITE

PS-E01
ASK-E012



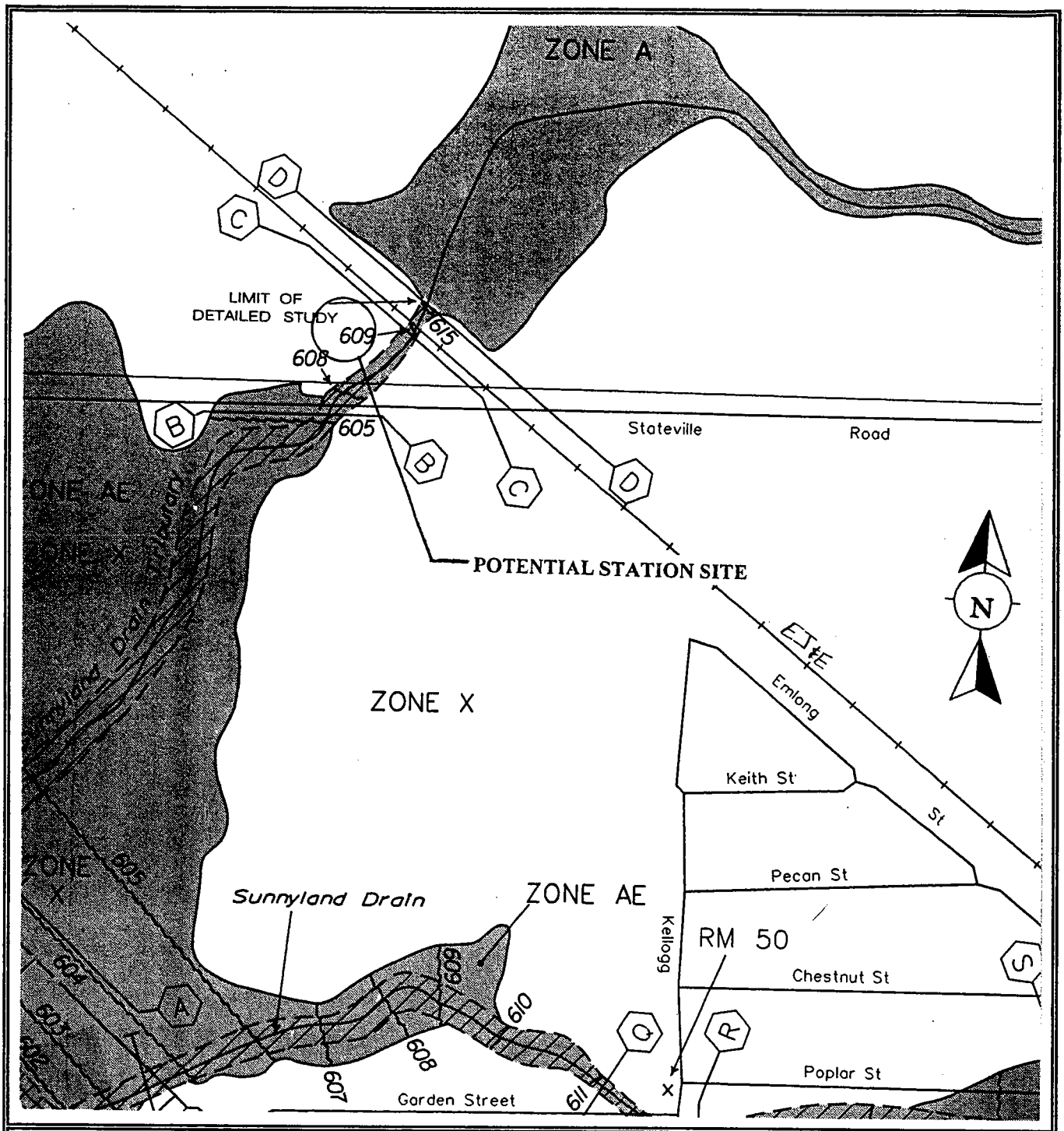
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Joliet

Wetland Inventory Map
Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Joliet** **Floodway/Floodplain Boundary Map Preliminary Site Location**

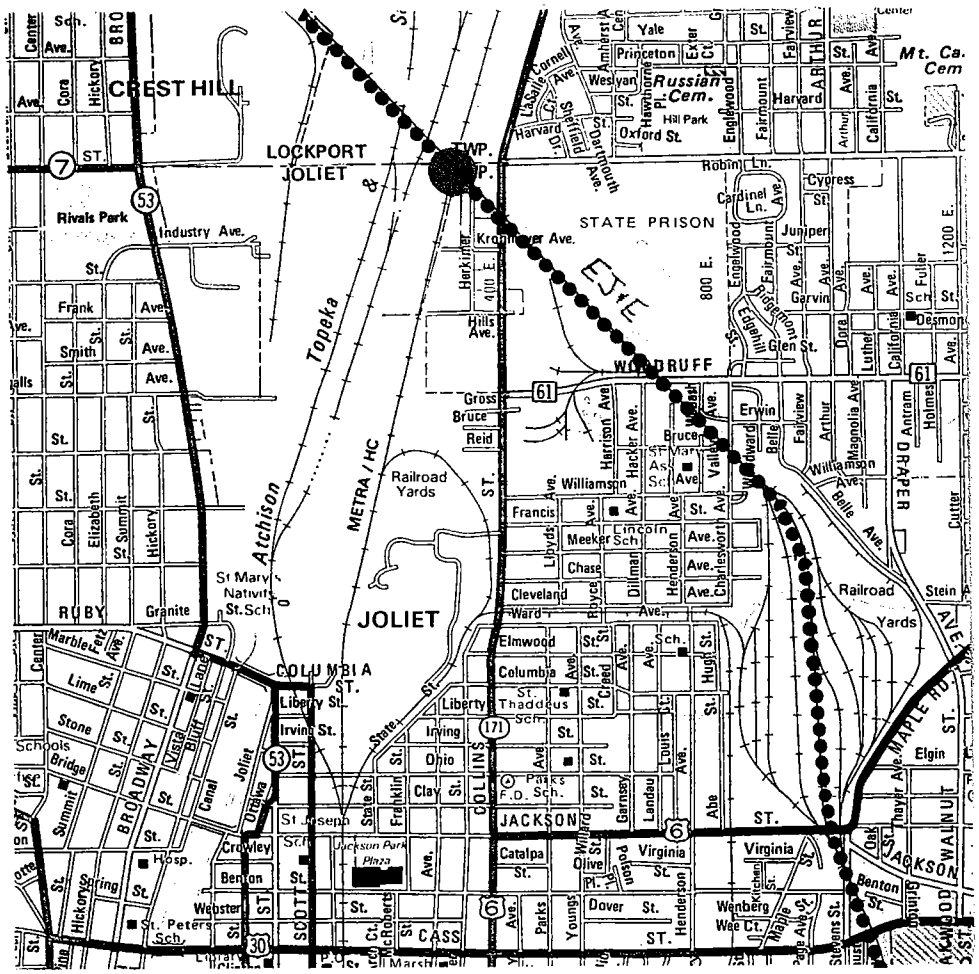
Joliet Transfer Station (EJ&E/Heritage Corridor)

Location and site description

This station site is located at the intersection of the EJ&E and the Heritage Corridor (HC) Line and would be solely a transfer station without any commuter parking, allowing passengers to transfer between the two rail lines which are grade-separated. The transfer station would consist of platforms, pedestrian ramps and a warming shelter.

Transfer Potential

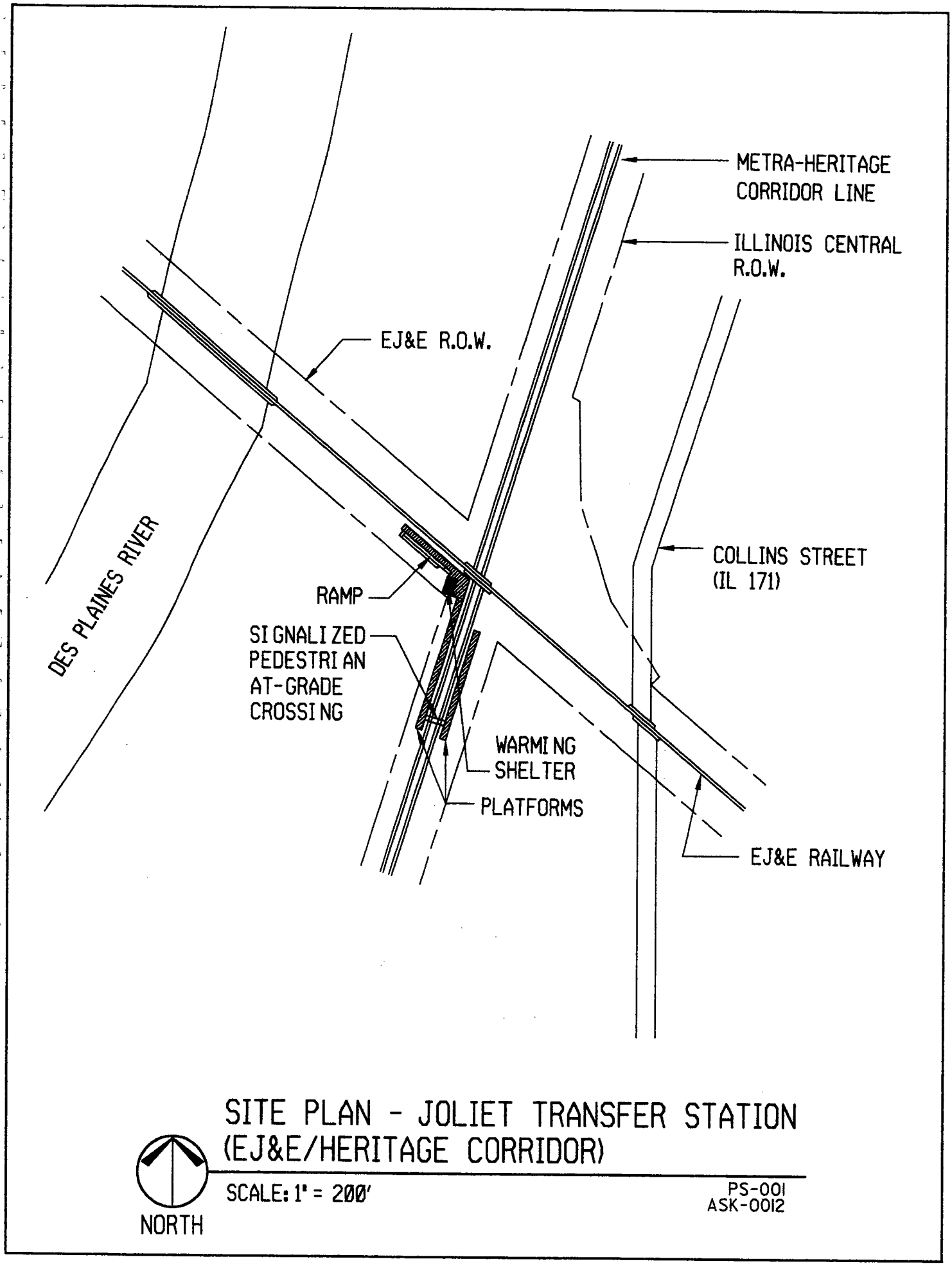
During the week, two morning trains to Chicago and two afternoon/evening trains from Chicago operate along the HC. There is no weekend or holiday service offered on the HC. The transfer potential would remain small as a result, until such time that there are increased levels of service on the Heritage Corridor.



LOCATION MAP - JOLIET TRANSFER STATION (EJ&E/HERITAGE CORRIDOR)

SCALE: N.T.S.

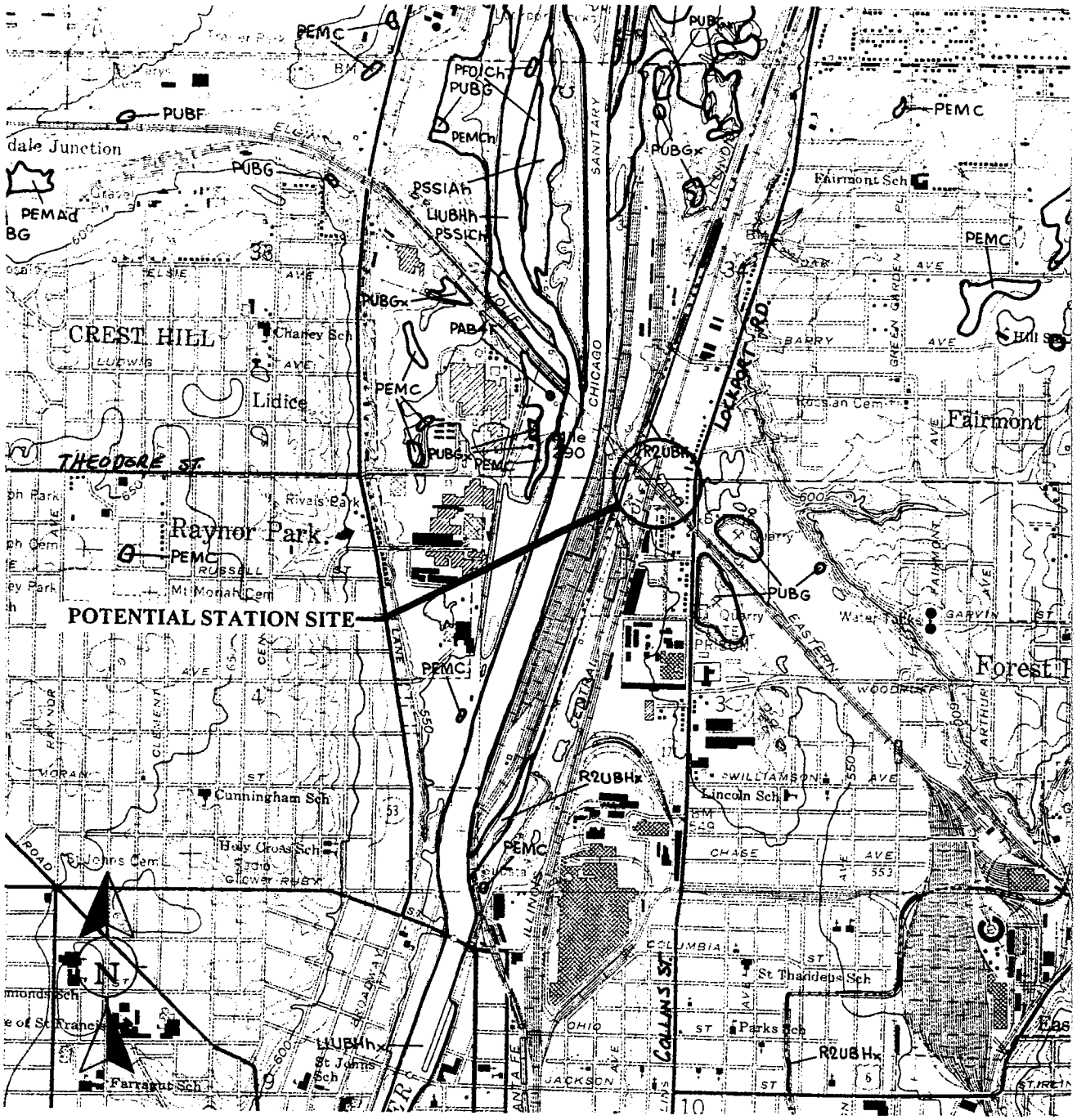
NORTH



SITE PLAN - JOLIET TRANSFER STATION (EJ&E/HERITAGE CORRIDOR)

SCALE: 1" = 200'

PS-001
ASK-0012



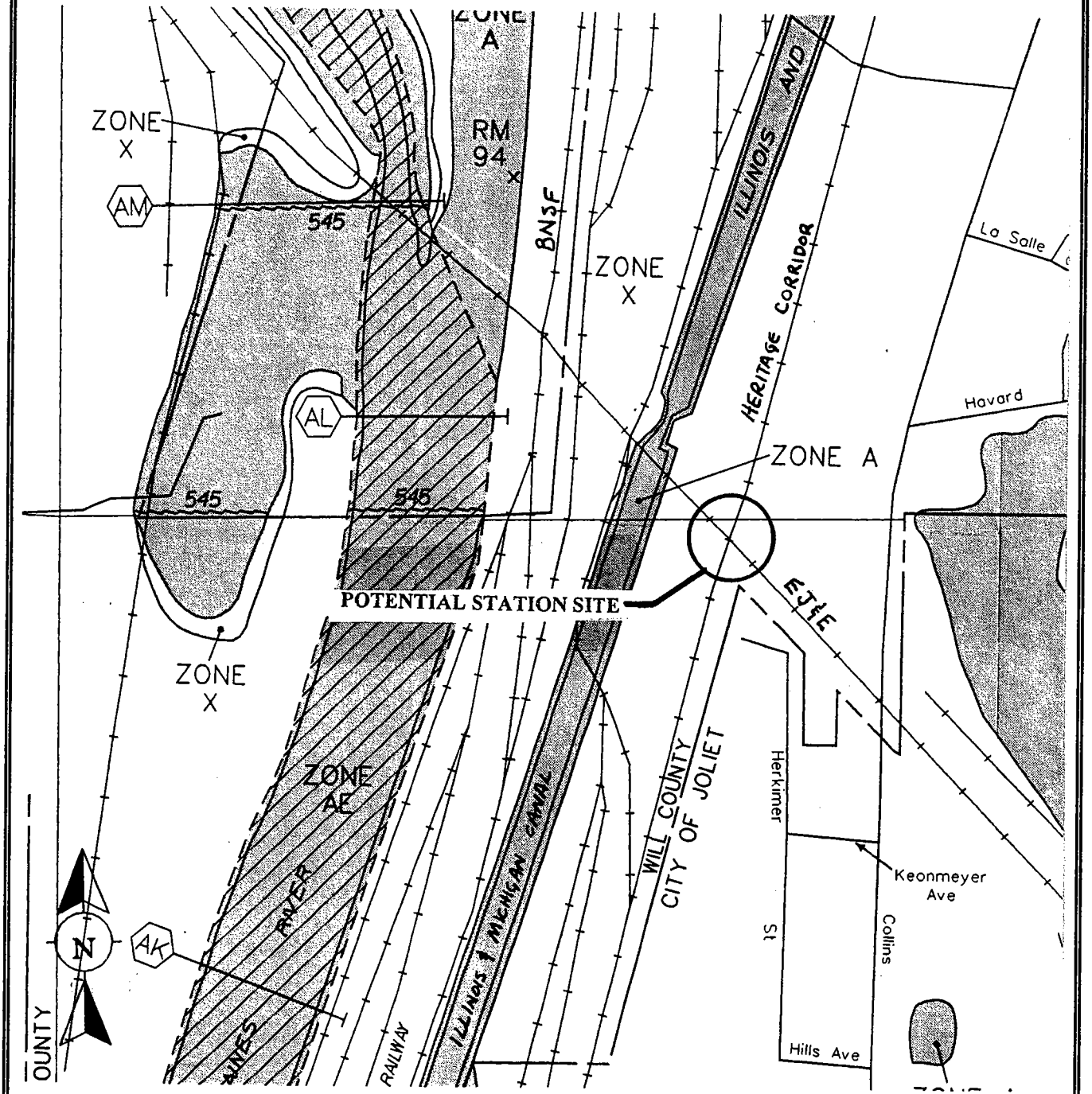
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Transfer Station Site
Joliet
(EJ&E/HC)

Wetland Inventory Map
Preliminary Site Location



T.Y. Lin International BASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site** **Joliet** **(EJ&E/HC)** **Floodway/Floodplain Boundary Map** **Preliminary Site Location**

Joliet Transfer Station (EJ&E/ Rock Island District)

Location and Site Description

This station site is located at the intersection of the EJ&E and the Rock Island District (RID) Line and would be solely a transfer station without any commuter parking, allowing passengers to transfer between the two rail lines. The transfer station would consist of platforms and a warming shelter.

Transfer Potential

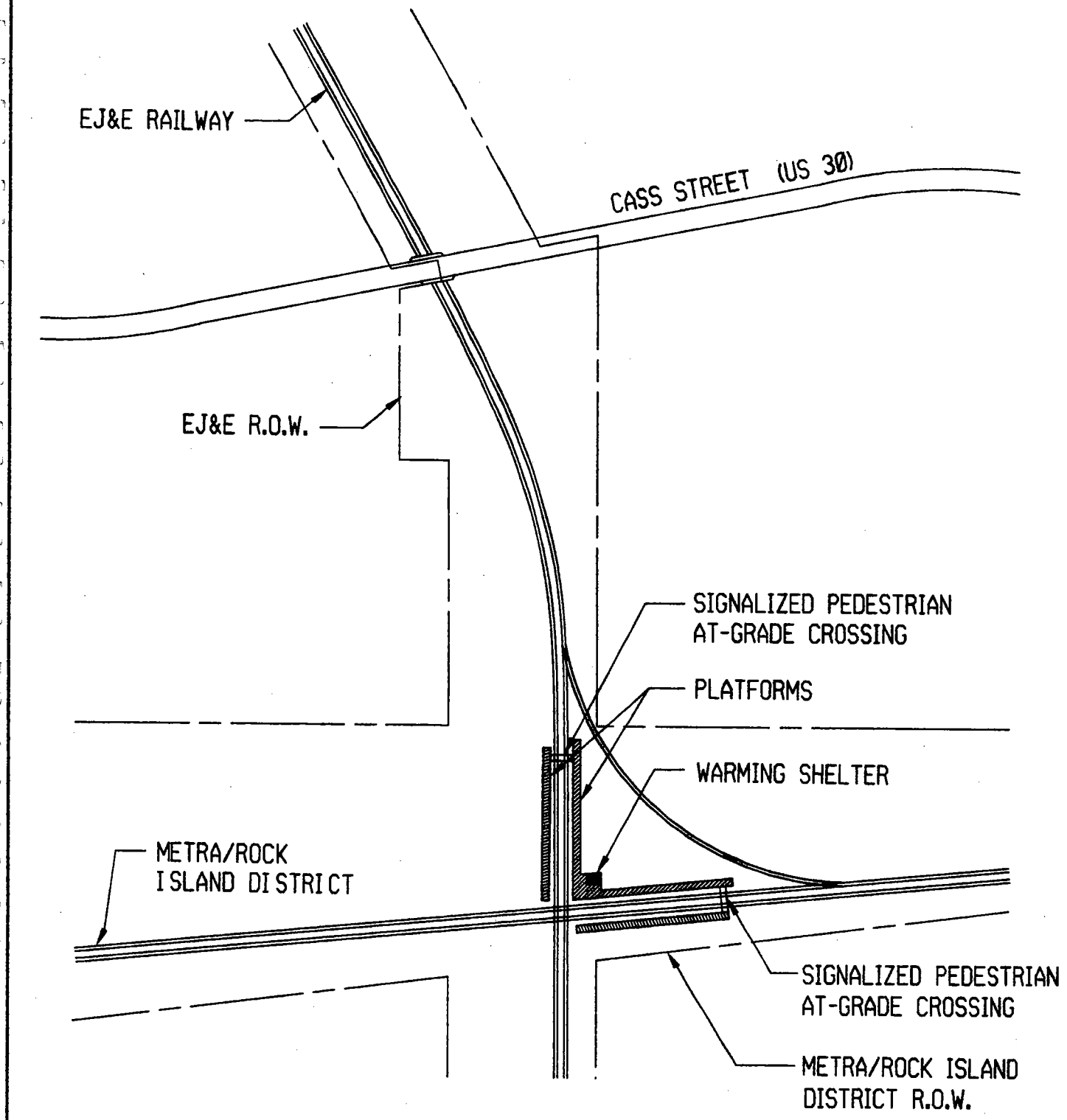
During the week, trains operate along the RID to and from Chicago at least once per hour, and during peak rush hours there are as many as three per hour. On the weekends and holidays, there are trains to and from Chicago ranging from one per hour to one every two hours.

LOCATION MAP - JOLIET TRANSFER STATION (EJ&E/ROCK ISLAND DISTRICT)

SCALE: N.T.S.

PREFERRED SITE

NORTH



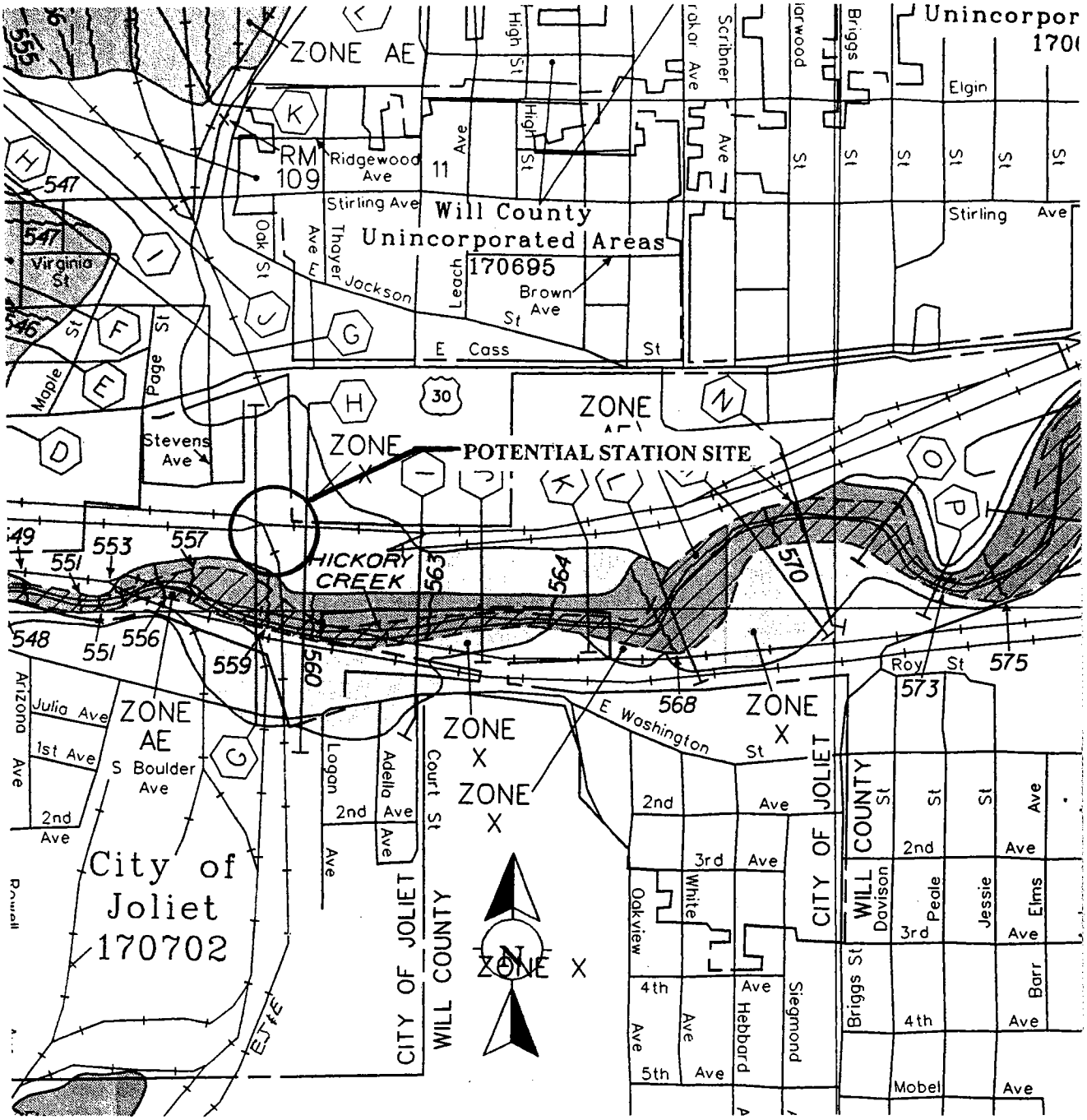
SITE PLAN - JOLIET TRANSFER STATION (EJ&E/ROCK ISLAND DISTRICT)

NORTH

SCALE: 1" = 200'

PREFERRED SITE PS-P01 ASK-P012

T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site Joliet (EJ&E/RID)** **Wetland Inventory Map Preliminary Site Location**



Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Transfer Station Site
Joliet
(EJ&E/RID)

Floodway/Floodplain Boundary Map
Preliminary Site Location

T.Y. LinInternationalBASCOR

Brisbane (New Lenox)

Location

This site is located at the intersection of the Norfolk Southern Line and the EJ&E, approximately ¼ mile east of Cedar Road. The southwest quadrant is best suited for development of a station. The site can provide a station not only on the EJ&E, but also to serve the planned Metra/Southwest Service (SWS) extension to Manhattan. Transfers between the two lines would also be possible.

Community Characteristics

According to the 1990 census, New Lenox had a population of 9,627. A 1996 special census estimated a population of 12,692, and a 1998 special census discovered that the population had reached 14,786. NIPC has estimated the population in 2020 to be 26,370. However, the Village is anticipating a 2020 population of approximately 40,000.

The NIPC 1990 employment allocation for the Village was 2,926, with a 2020 projection of 12,304. Within the Village there are seven major employers with an approximate total of 541 employees.

Site Description

Along the south side of the EJ&E tracks there is drainage ditch which parallels the tracks. The site is relatively flat and contains approximately 40 acres of open land. Since the rail lines are grade-separated at this location, ramps and stairs would be required to accommodate the grade difference between the EJ&E and the future SWS.

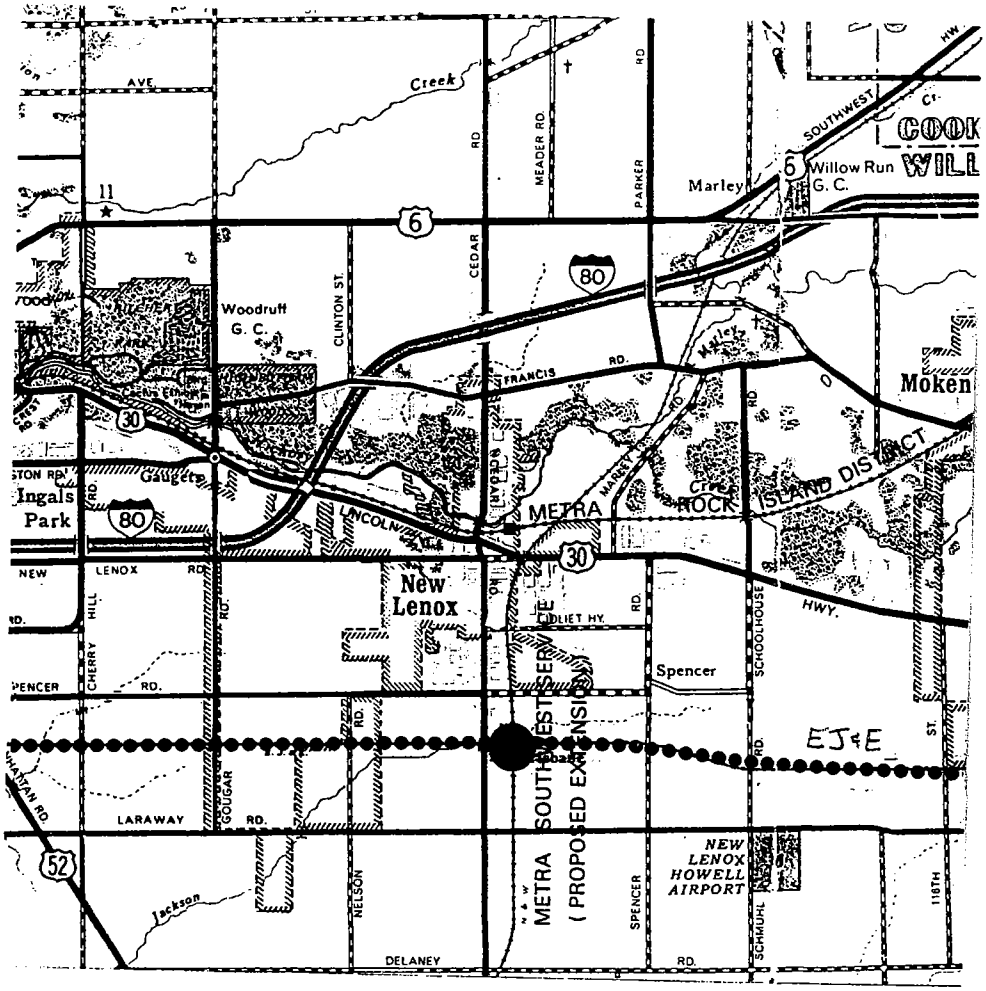
Access: Access to the site would be from Cedar Road.

Environmental Concerns

There is a wetland and 100-year flood boundary located along the south edge of the EJ&E. The site will be located to avoid impact to the actual wetland and floodway/floodplain.

Transfer Potential

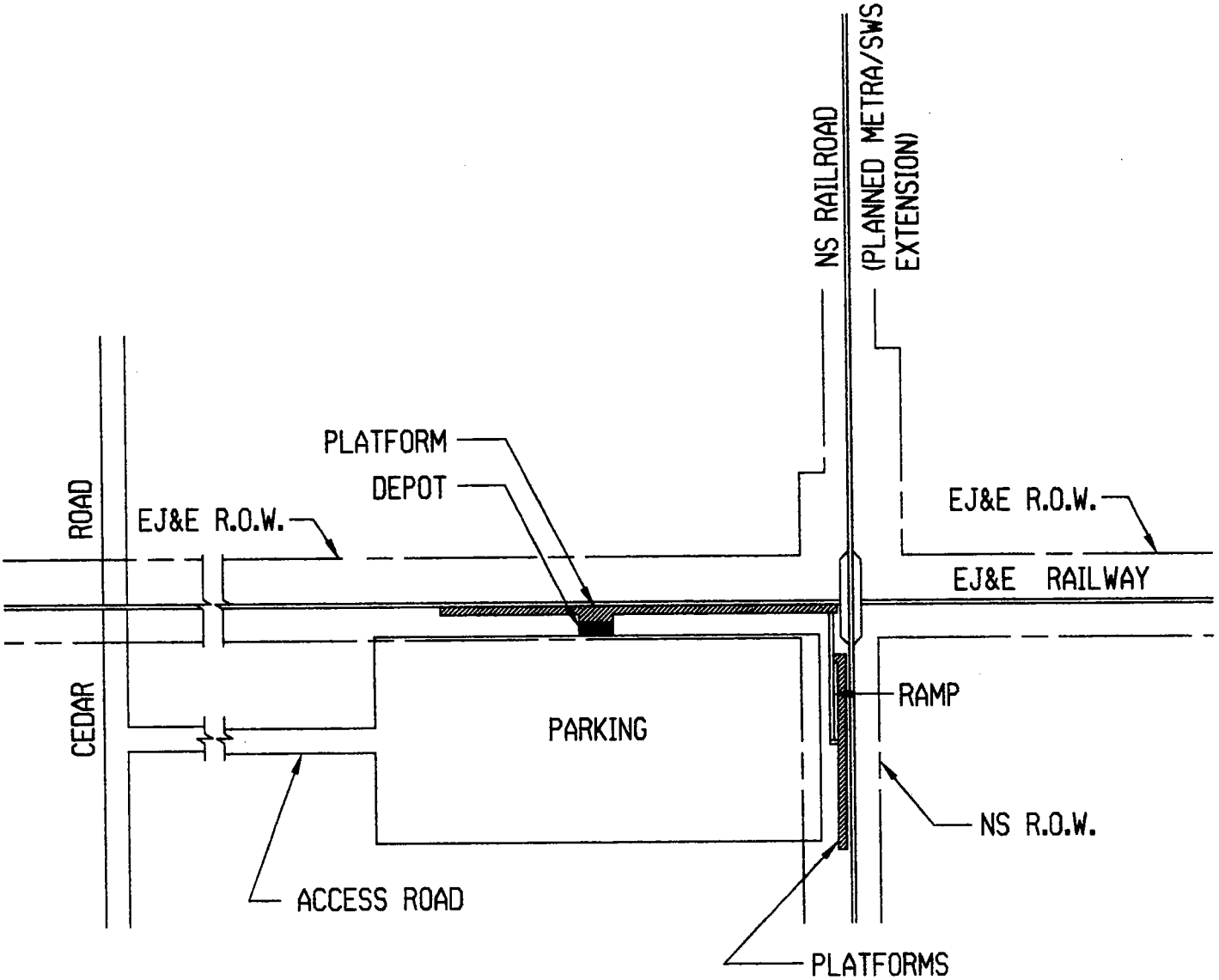
The transfer potential on the extended SWS cannot really be estimated until such time that the number of trains extended to Manhattan is determined.



LOCATION MAP - BRISBANE (NEW LENOX) STATION AND TRANSFER STATION (EJ&E/SWS)

SCALE: N.T.S.

NORTH

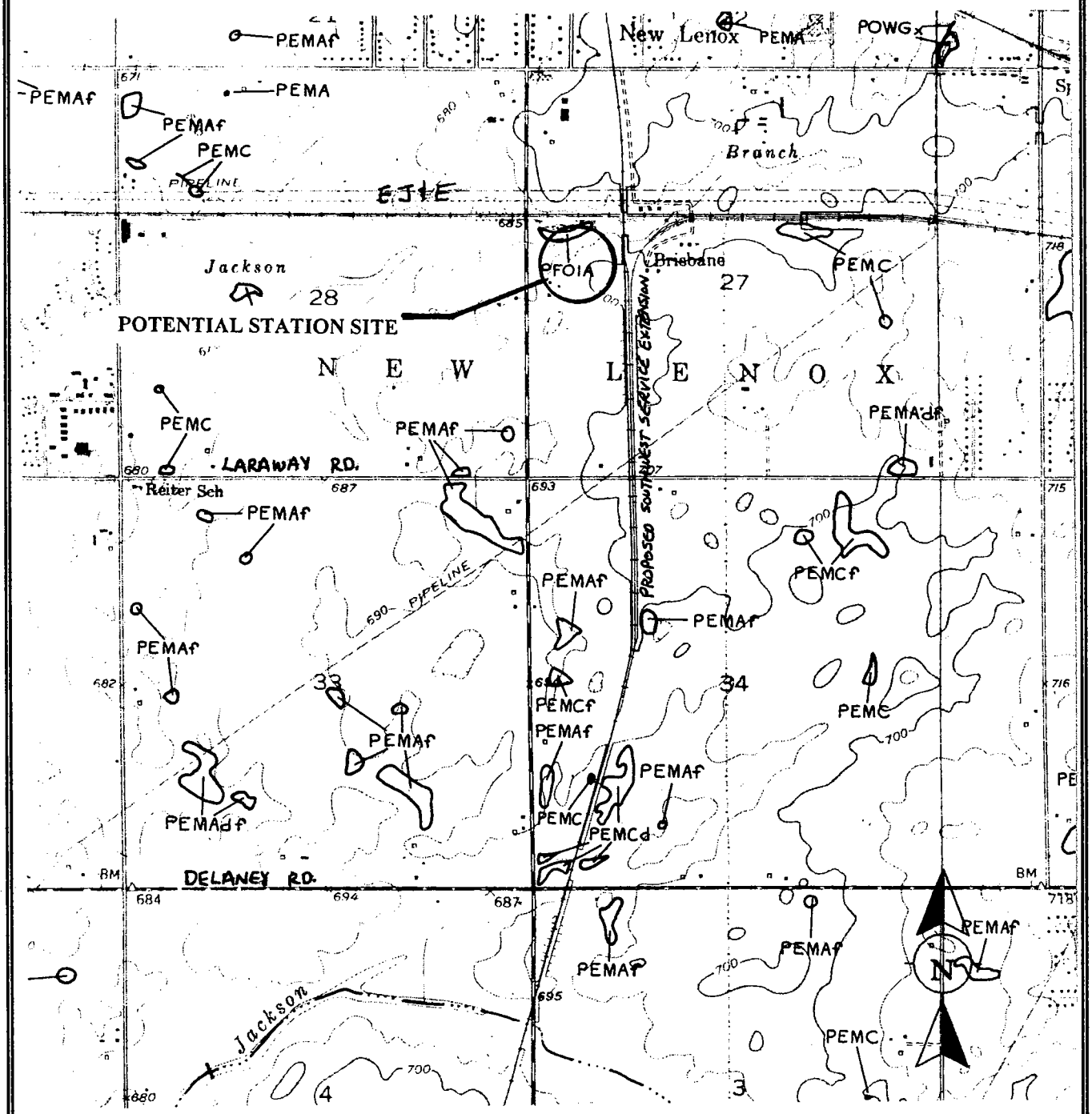


SITE PLAN - BRISBANE (NEW LENOX) STATION AND TRANSFER STATION (EJ&E/SWS)

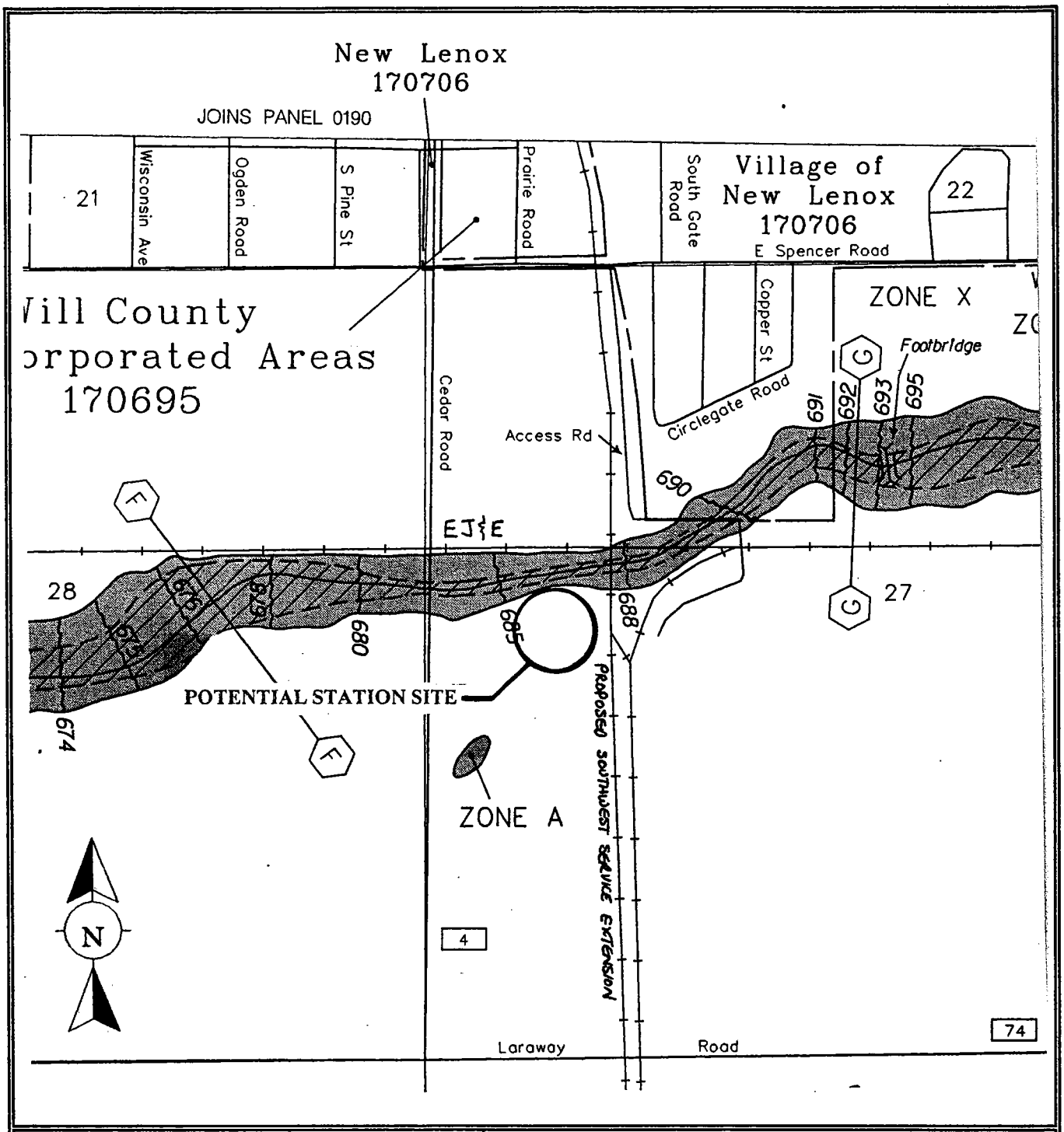
NORTH

SCALE: 1" = 200'

PS-D04
ASK-D042



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site and Transfer Station Brisbane (New Lenox) (EJ&E/SWS)** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site and Transfer Station Brisbane (New Lenox) (EJ&E/SWS)** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Frankfort

Location

Preferred: Based upon review of the information supplied by the Village, as well as discussion with the Village staff, it appears that the site best-suited for a commuter station is located in the southeast quadrant of the intersection of Wolf Road and the EJ&E. This site has recently been annexed by the Village of Frankfort.

Alternates: North of the EJ&E, east of Wolf Road.

North side of the intersection of Route 45 and the EJ&E.

Intersection of Sauk Trail, Pfeiffer Road and the EJ&E.

Between Ridgeland Road and Harlem Avenue.

Community Characteristics

According to the 1990 census, Frankfort had a population of 7,180, while a 1996 special census estimated a population of 9,079. NIPC has estimated the population in 2020 to be 32,265. The Village's 2020 projections are close to NIPCs.

The NIPC 1990 employment allocation for the Village was 3,971, with a 2020 projection of 15,029.

Site Description (Preferred Site)

The site is approximately level with the tracks. Currently, the EJ&E has a maintenance shed west of Wolf Road, just south of the tracks. The site is relatively flat and open. There are overhead electric lines along the north side and parallel to the tracks.

Access: Access to the site would be off of Wolf Road.

Environmental Concerns

None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.

Mokena

The following information is conveyed as the boundary of the Village of Mokena is quite close to the Village of Frankfort potential site.

Location

Preferred: The Village of Mokena has also expressed interest in a Wolf Road site, but currently the preferred quadrant location is within the limits of the Village of Frankfort. Since Mokena is adjacent in the northwest quadrant, it is possible that parking expansion could occur someday within the corporate limits of Mokena.

Community Characteristics

According to the 1990 census, Mokena had a population of 6,128. A 1996 special census estimated a population of 11,680, and a 1998 special census discovered that the population had reached 12,613. NIPC has estimated the population in 2020 to be 21,501.

The NIPC 1990 employment allocation for the Village was 2,200, with a 2020 projection of 11,185.

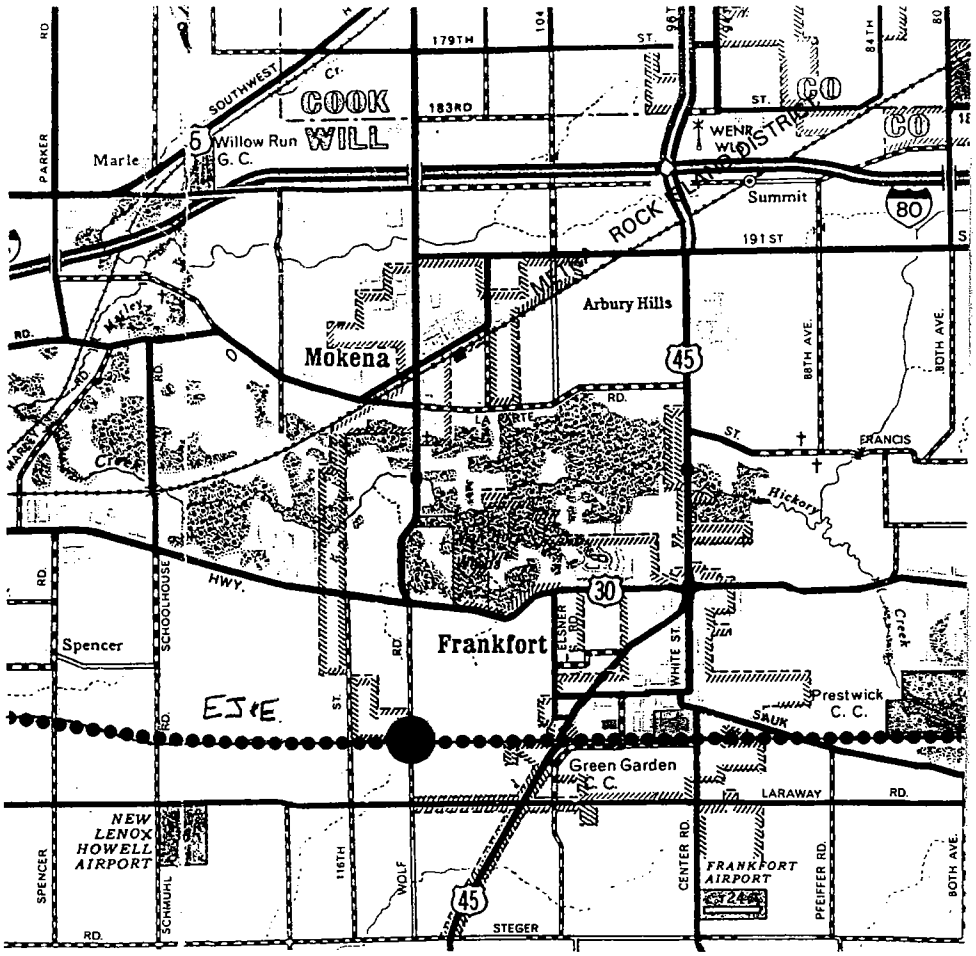
Site Description (Preferred Site)

The site is approximately level with the tracks. It is relatively flat and open. There are overhead electric lines along the north side and parallel to the tracks.

Access: Access to the site would be off of Wolf Road.

Environmental Concerns

None were noted during a cursory review of the site, nor has the Village indicated any potential environmental concerns.

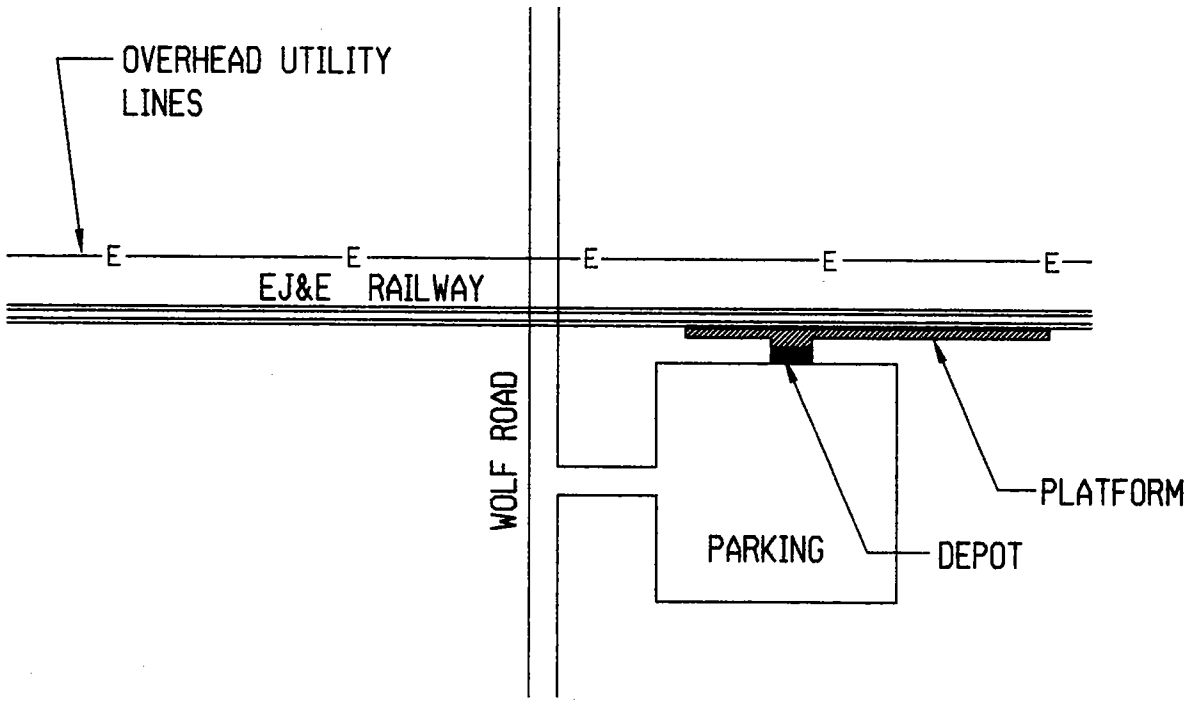


LOCATION MAP - FRANKFORT

SCALE: N.T.S.

PREFERRED SITE

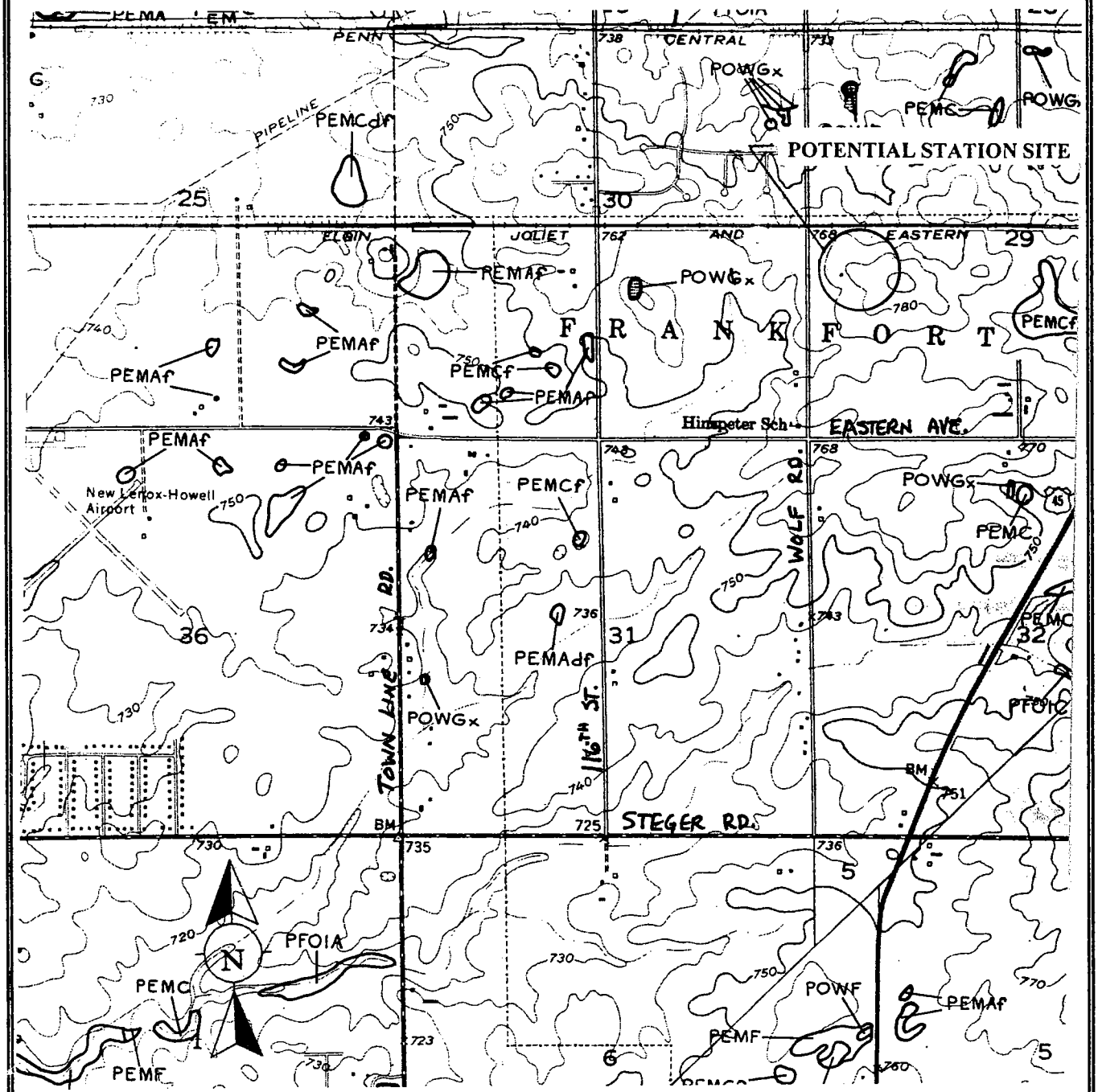
NORTH



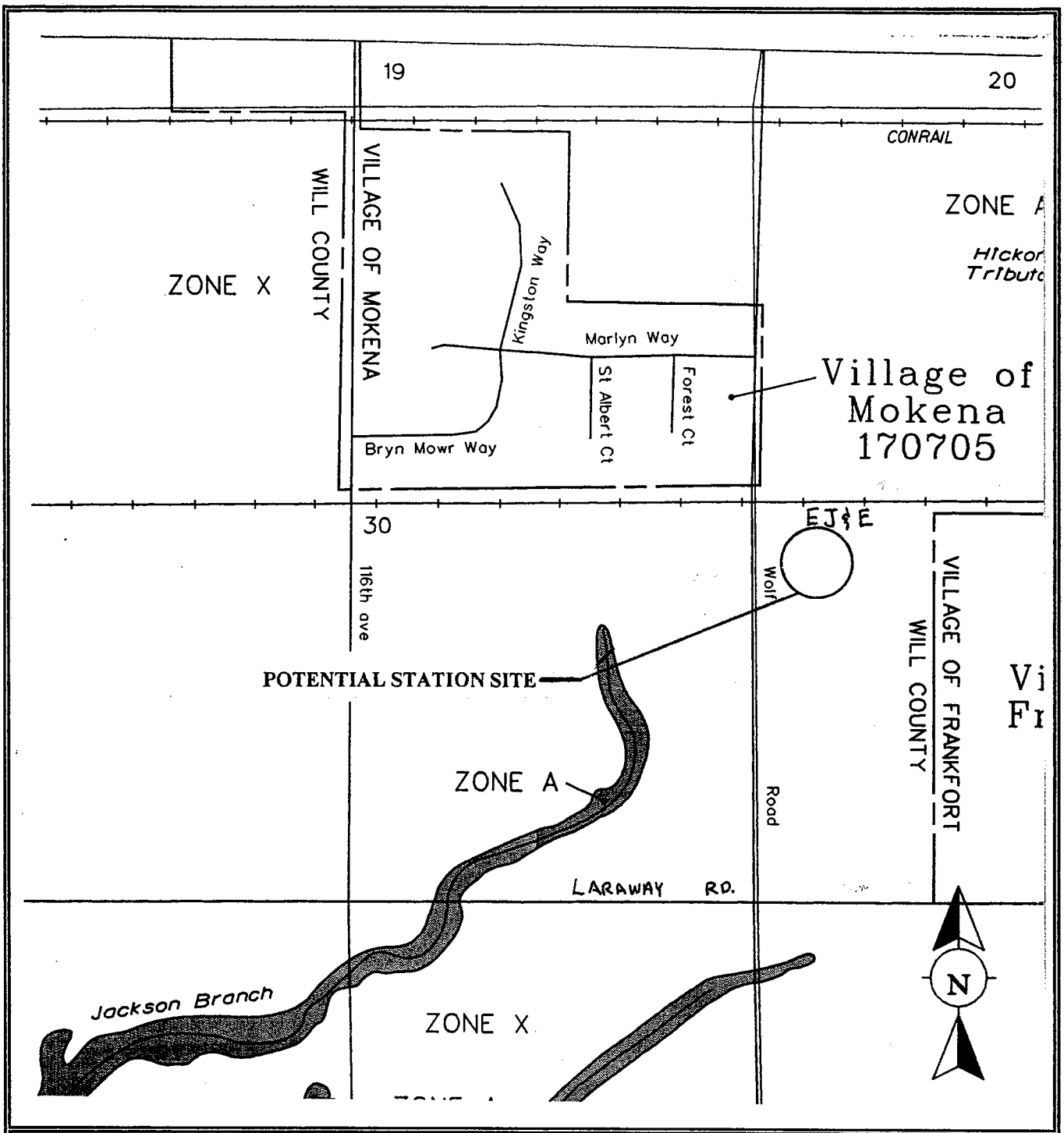
SITE PLAN - FRANKFORT

SCALE: 1"= 200'

PREFERRED SITE PS-D03 ASK-D033



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Frankfort** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Frankfort** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Richton Park

Location

Preferred: Based on review of information supplied by the Village, as well as discussions with the Village staff, it appears that the area best-suited for a commuter station is located in the southwest quadrant of the intersection of Central Avenue and the EJ&E.

Alternates: Intersection of Ridgeland Avenue and the EJ&E.

Intersection of Harlem Avenue and the EJ&E.

Community Characteristics

According to the 1990 census, Richton Park had a population of 10,523, while a 1997 special census resulted in a population of 12,474. NIPC has estimated the population in 2020 to be 19,971. The Village does not agree with NIPC's projected population numbers.

The NIPC 1990 employment allocation for the Village was 1,389, with a 2020 projection of 6,587. Within the Village there are three major employers with an approximate total of 595 employees.

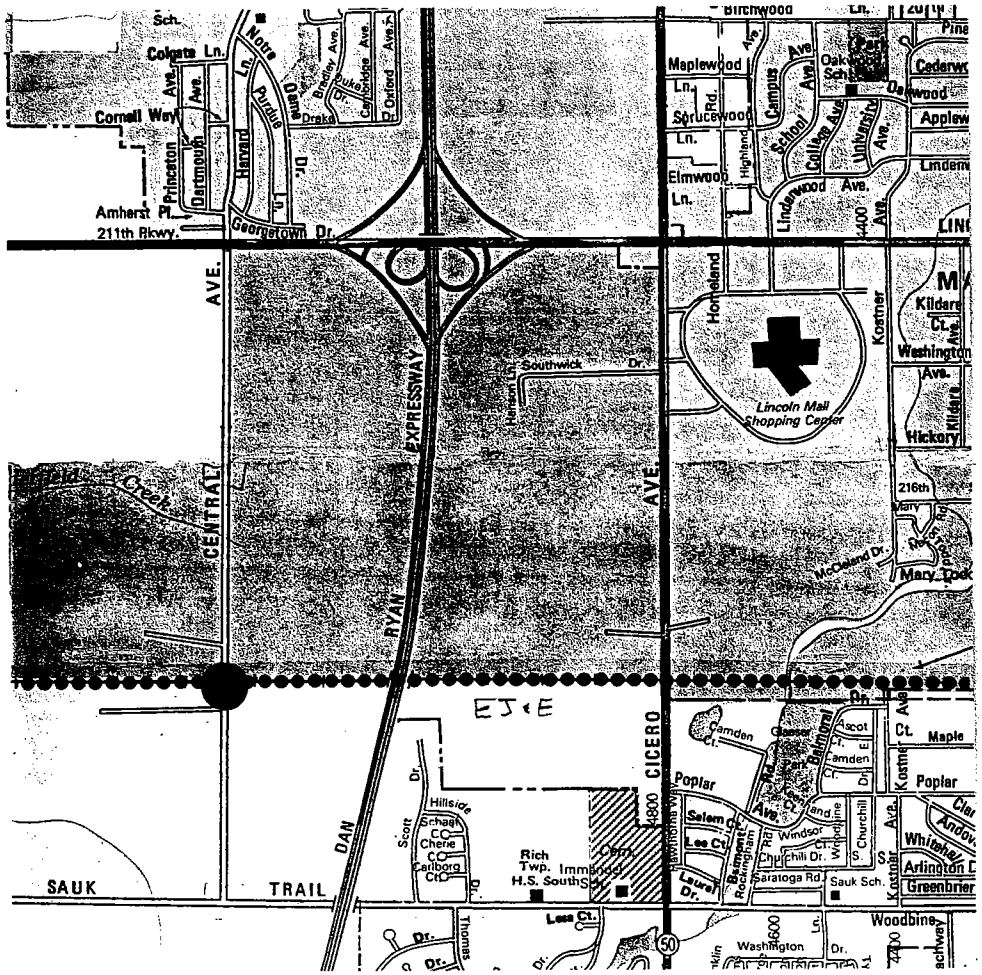
Site Description (Preferred Site)

The area around this site is relatively level with two sets of overhead electric lines running parallel to the EJ&E, 50 feet and 85 feet south of the tracks. There is an access road located approximately 400' south of the EJ&E, paralleling the rail line. This access road leads to a utility facility located approximately 1100' west of Central Avenue.

Access: Access to the site would be off of Central Road.

Environmental Concerns

None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.

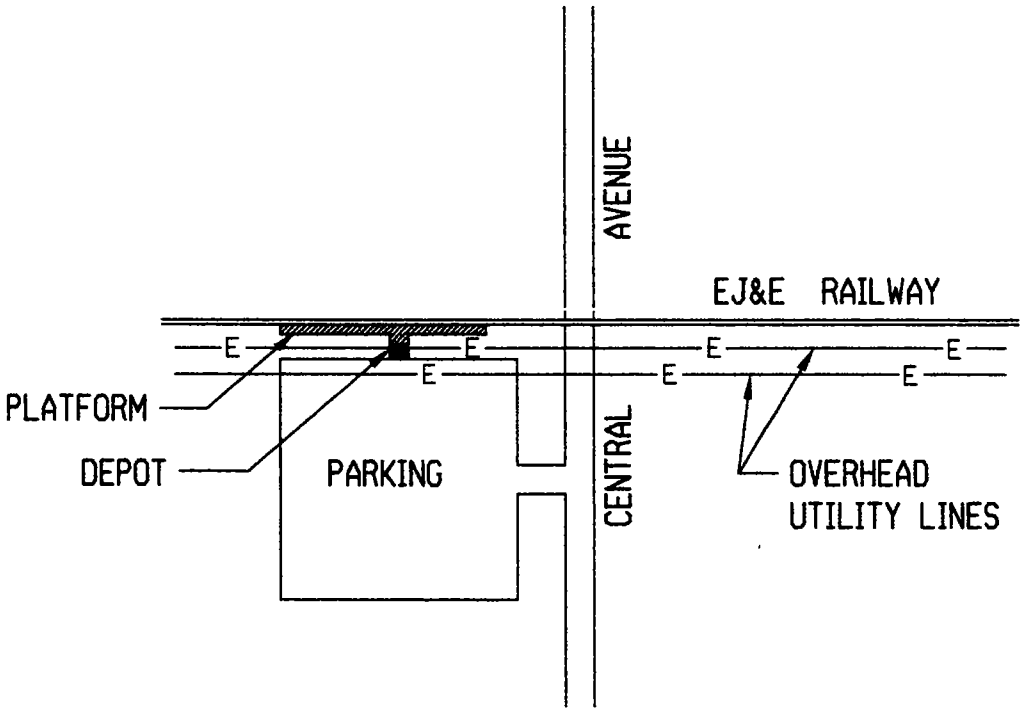


LOCATION MAP - RICHTON PARK STATION

SCALE: N.T.S.

PREFERRED SITE

NORTH



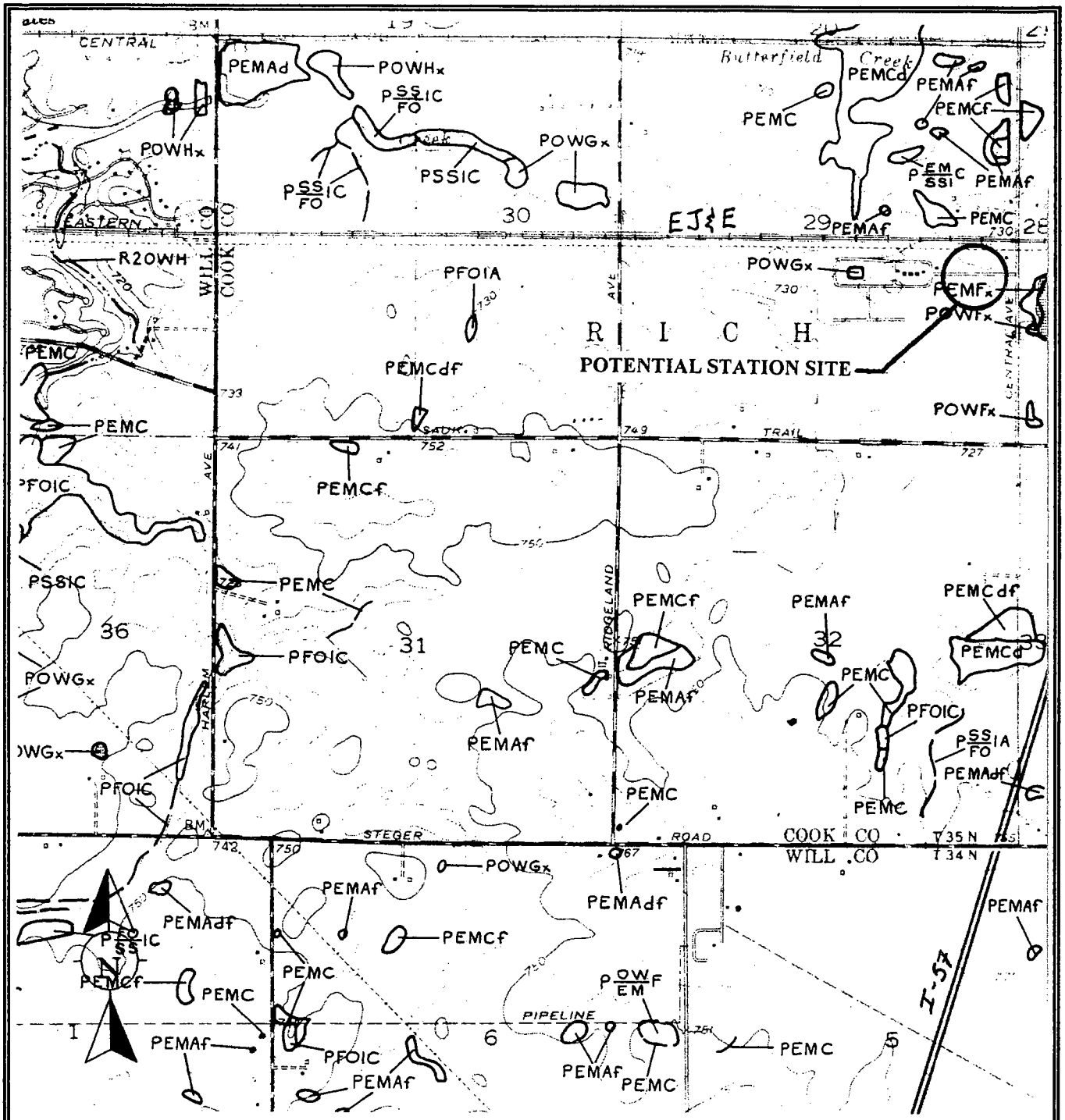
NORTH

SITE PLAN - RICHTON PARK STATION

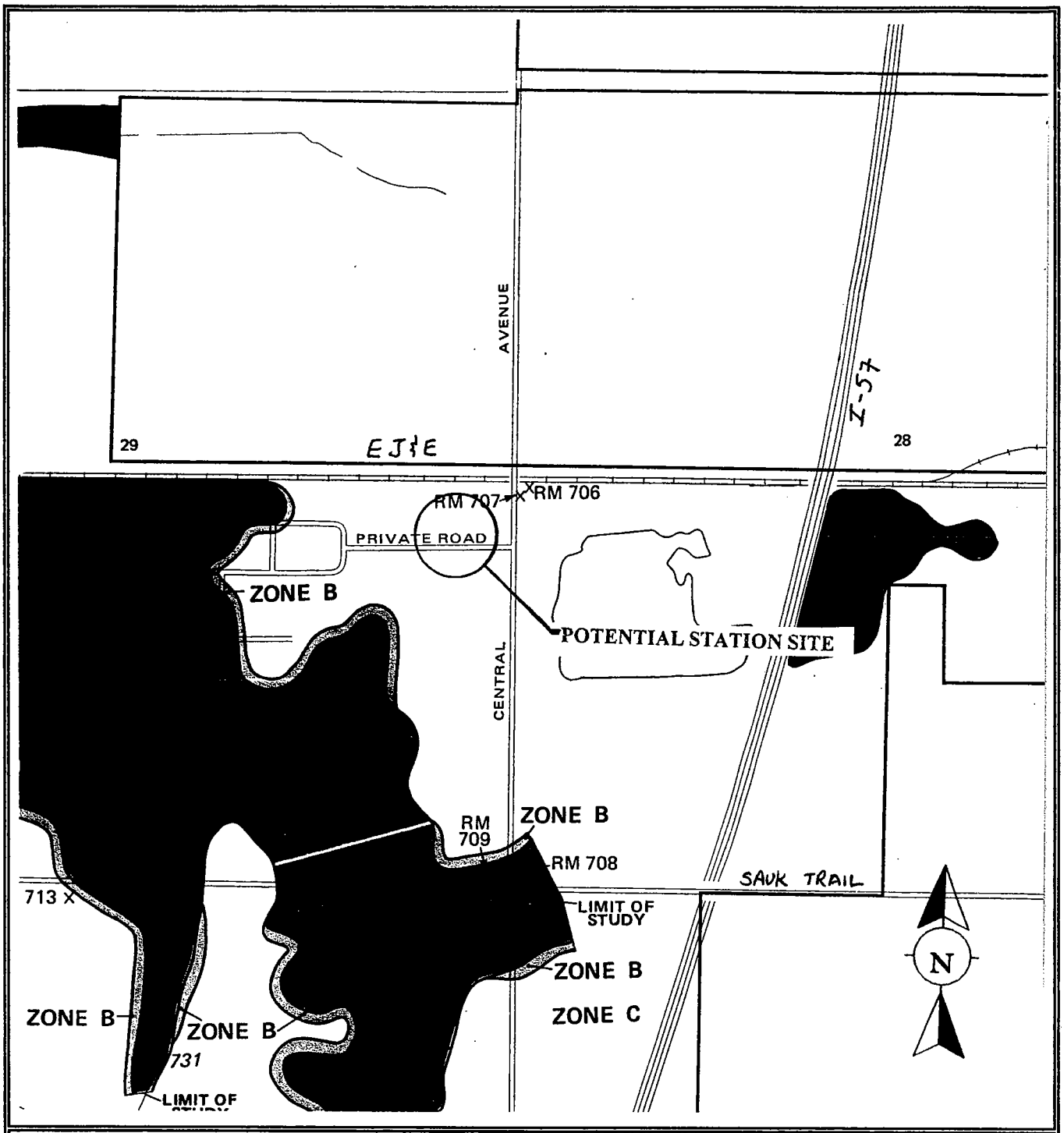
SCALE: 1"= 200'

PREFERRED SITE

PS-C03
ASK-C032



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site** **Richton Park** **Wetland Inventory Map** **Preliminary Site Location**



T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Richton Park

Floodway/Floodplain Boundary Map
Preliminary Site Location

Matteson

Location

The Village has indicated that their preferred site is located in the northeast quadrant of the intersection of Cicero Avenue and the EJ&E.

Community Characteristics

According to the 1990 census, Matteson had a population of 11,378, while a 1994 special census estimated a population of 12,389. NIPC has estimated the population in 2020 to be 24,306.

The NIPC 1990 employment allocation for the Village was 8,375, with a 2020 projection of 24,518.

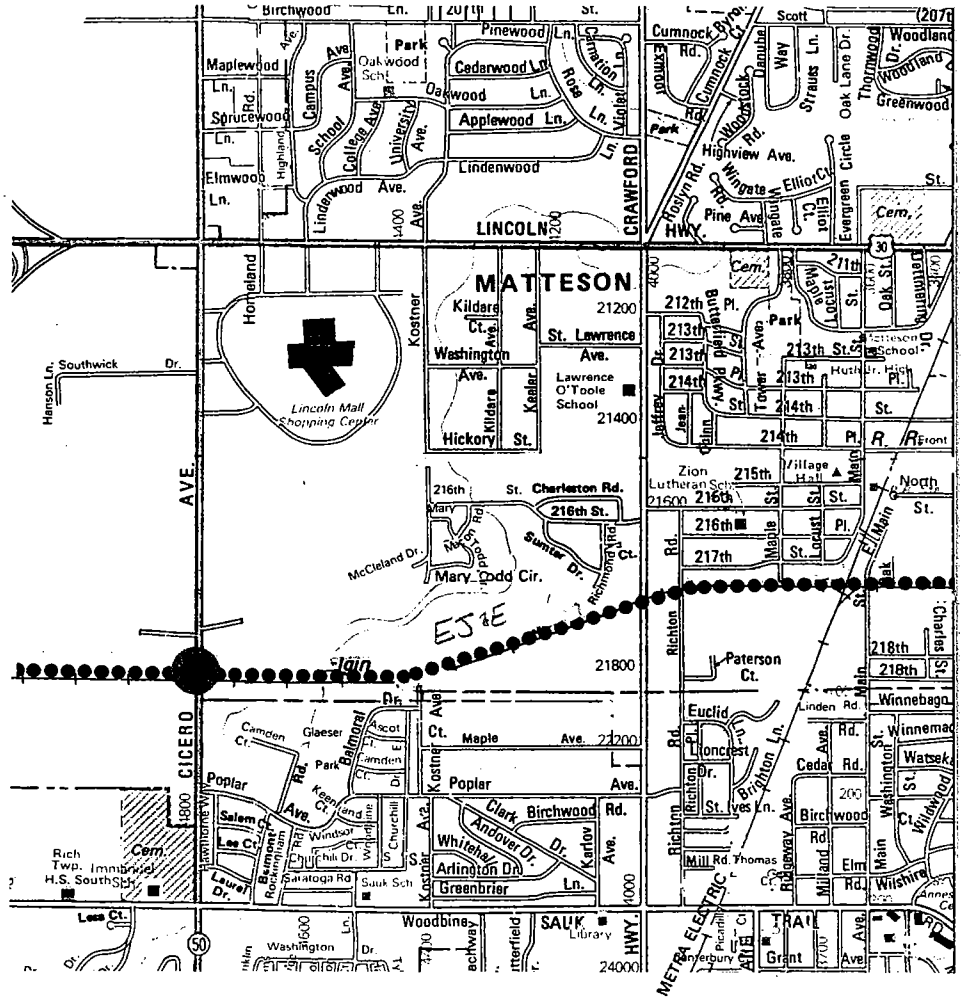
Site Description

The site is relatively level.

Access: Access to the site would be from Cicero Avenue.

Environmental Concerns

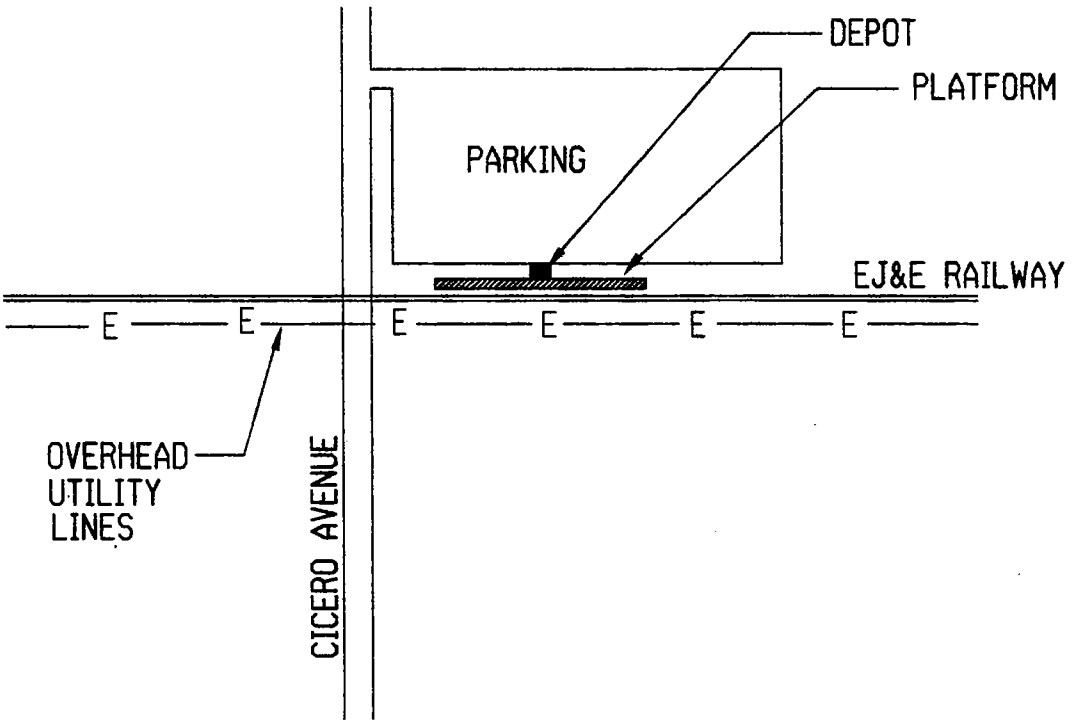
The site is located in a wetland area and near the 100-year flood boundary. As avoidance of the wetland area does not appear to be possible, appropriate mitigation would have to be provided for impacts to the wetlands. The layout of this site will attempt to avoid impacts to the flood boundary. However, if avoidance is not possible, appropriate compensatory storage will be provided.



LOCATION MAP - MATTESON STATION

SCALE: N.T.S.

NORTH

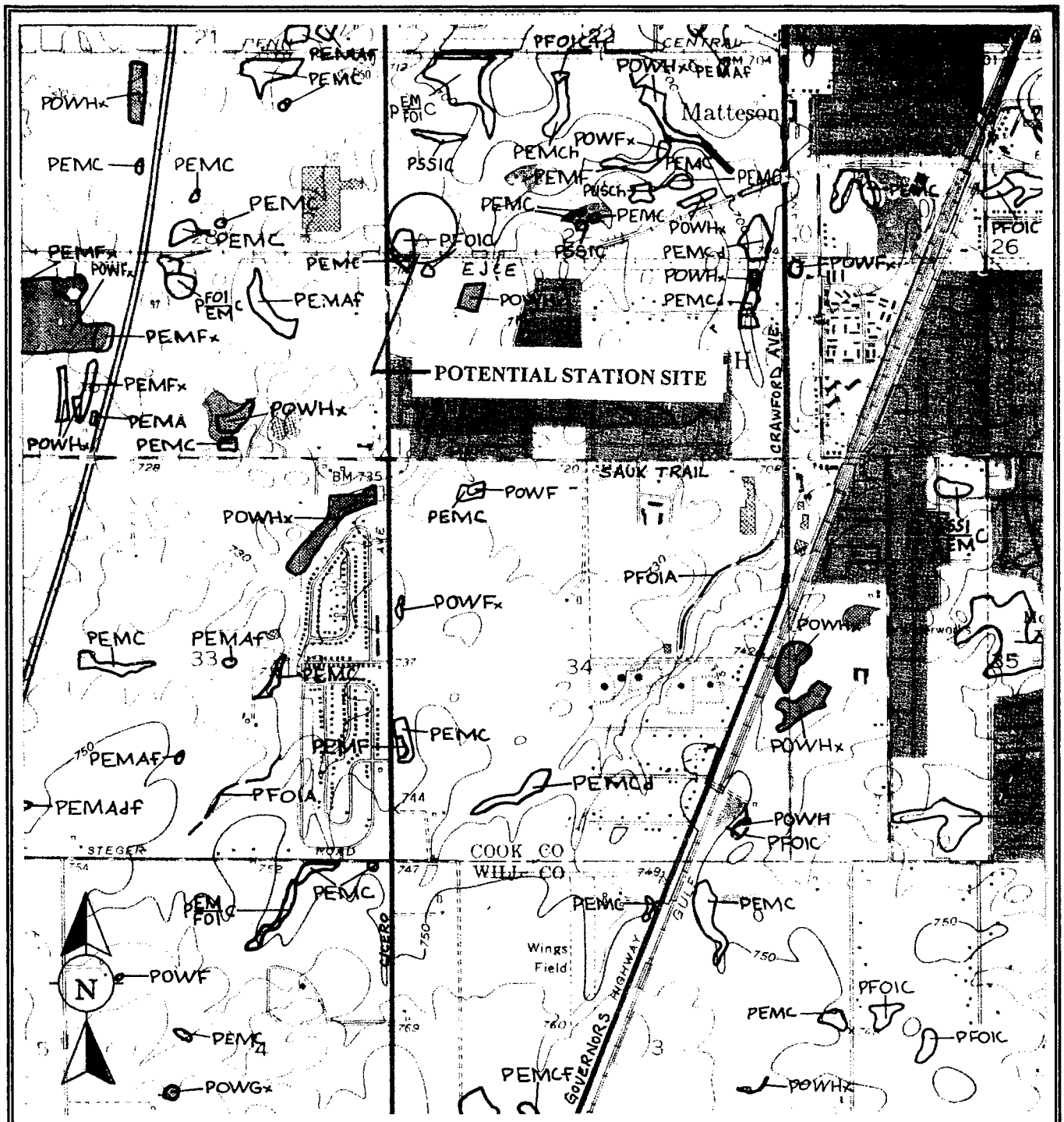


NORTH

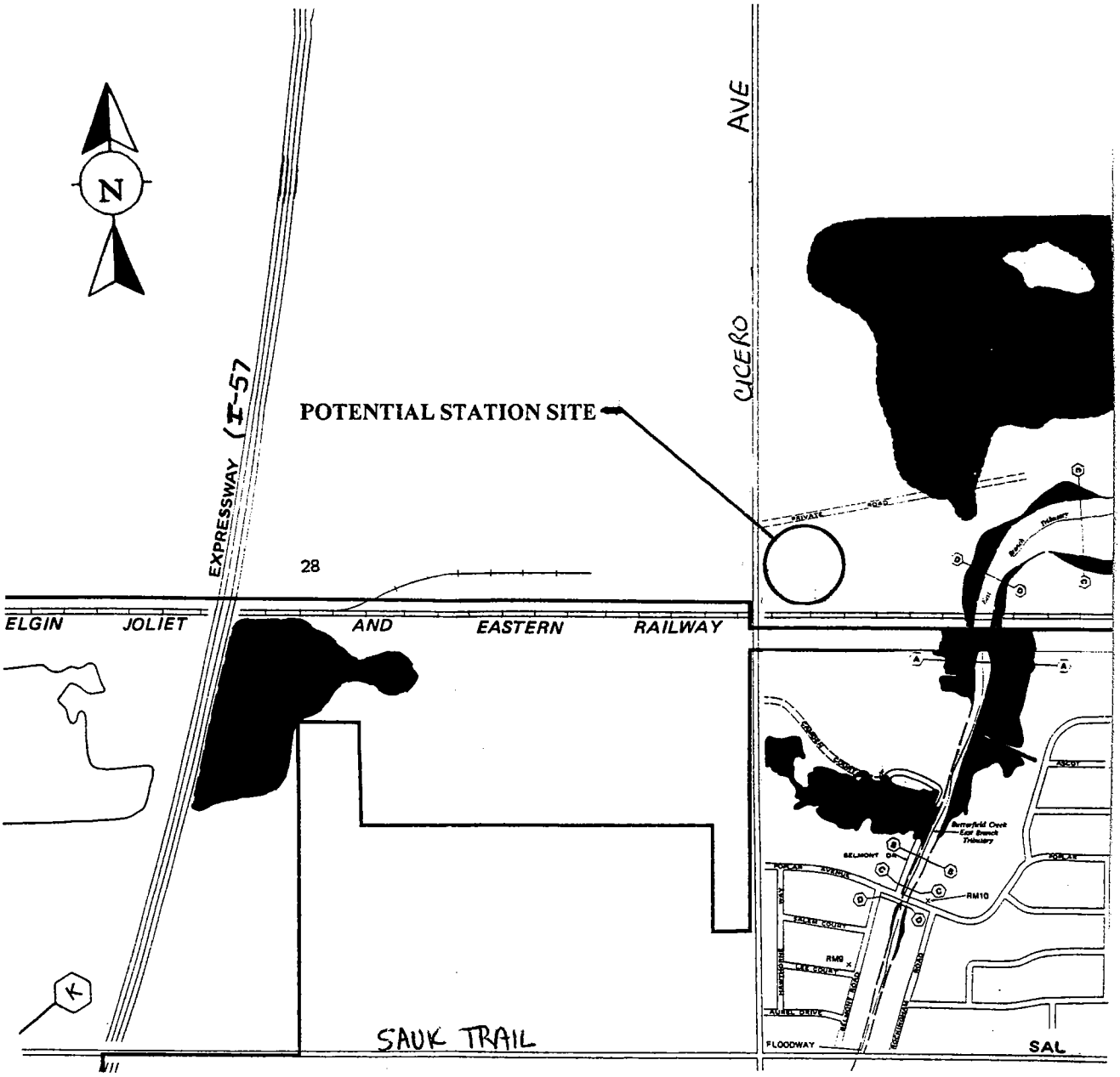
SITE PLAN - MATTESON STATION

SCALE: 1"= 200'

PS-BB02
ASK-BB12



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Matteson** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Matteson

Floodway/Floodplain Boundary Map
Preliminary Site Location

Matteson/Park Forest Transfer Station (EJ&E/Metra Electric District)

Park Forest

Location

The existing Metra Electric District Line (MED) station is within two blocks of the EJ&E Line. The Village of Park Forest owns the parking lot on the east side of the MED station, while the Village of Matteson owns the lot on the west side. (See previous site at Cicero Avenue for information on Matteson.) Both communities are in favor of this becoming a transfer station for the EJ&E; commuters could also use the existing parking lots for access to the EJ&E station.

Community Characteristics

According to the 1990 census, Park Forest had a population of 24,656 and a 1994 special census estimated a population of 25,297. NIPC has estimated the population in 2020 to be 26,021.

The NIPC 1990 employment allocation for the Village was 5,418, with a 2020 projection of 7,254. Within the Village there are 12 major employers with an approximate total of 2,103 employees.

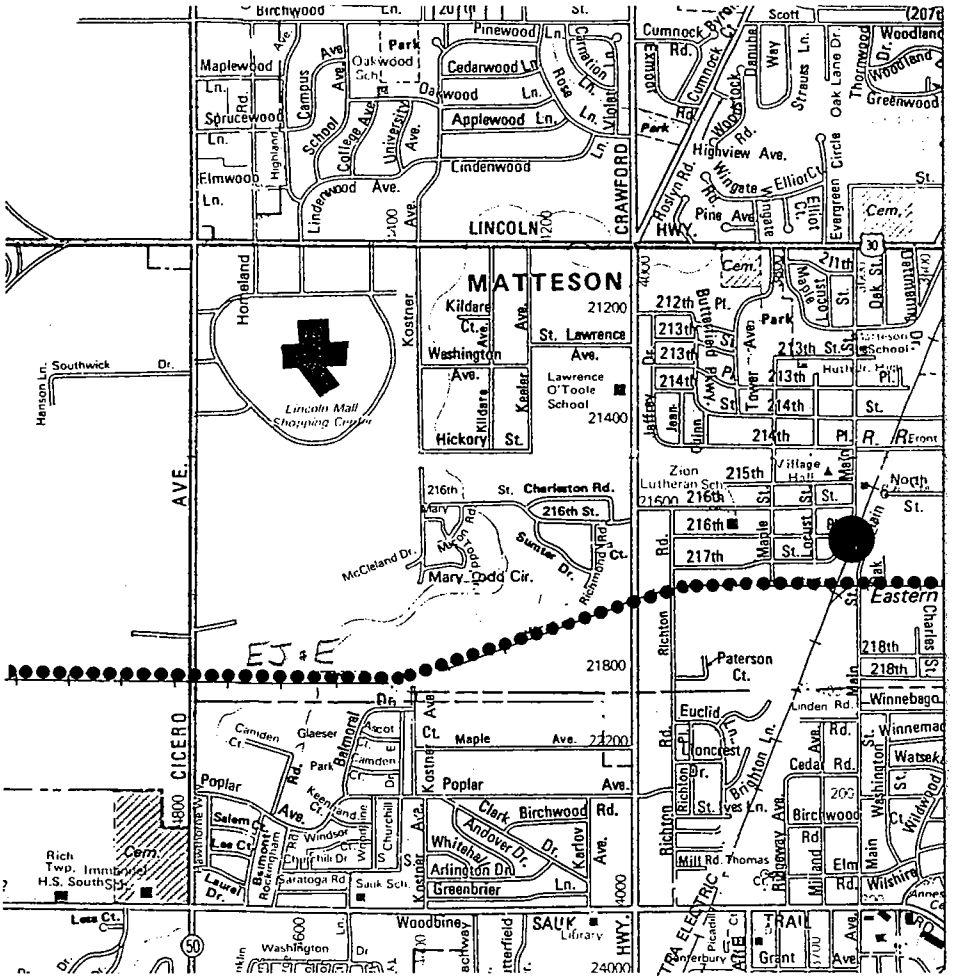
Site Description (Preferred Site)

The EJ&E passes under the MED line, so a pedestrian tunnel/ramp from a southerly extension of the existing platform would be necessary to accommodate the grade separation between the two lines for the transfer station. The existing depot and parking would be used for this potential station site.

Access: Current access to the existing station is via Main Street.

Environmental Concerns

None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.

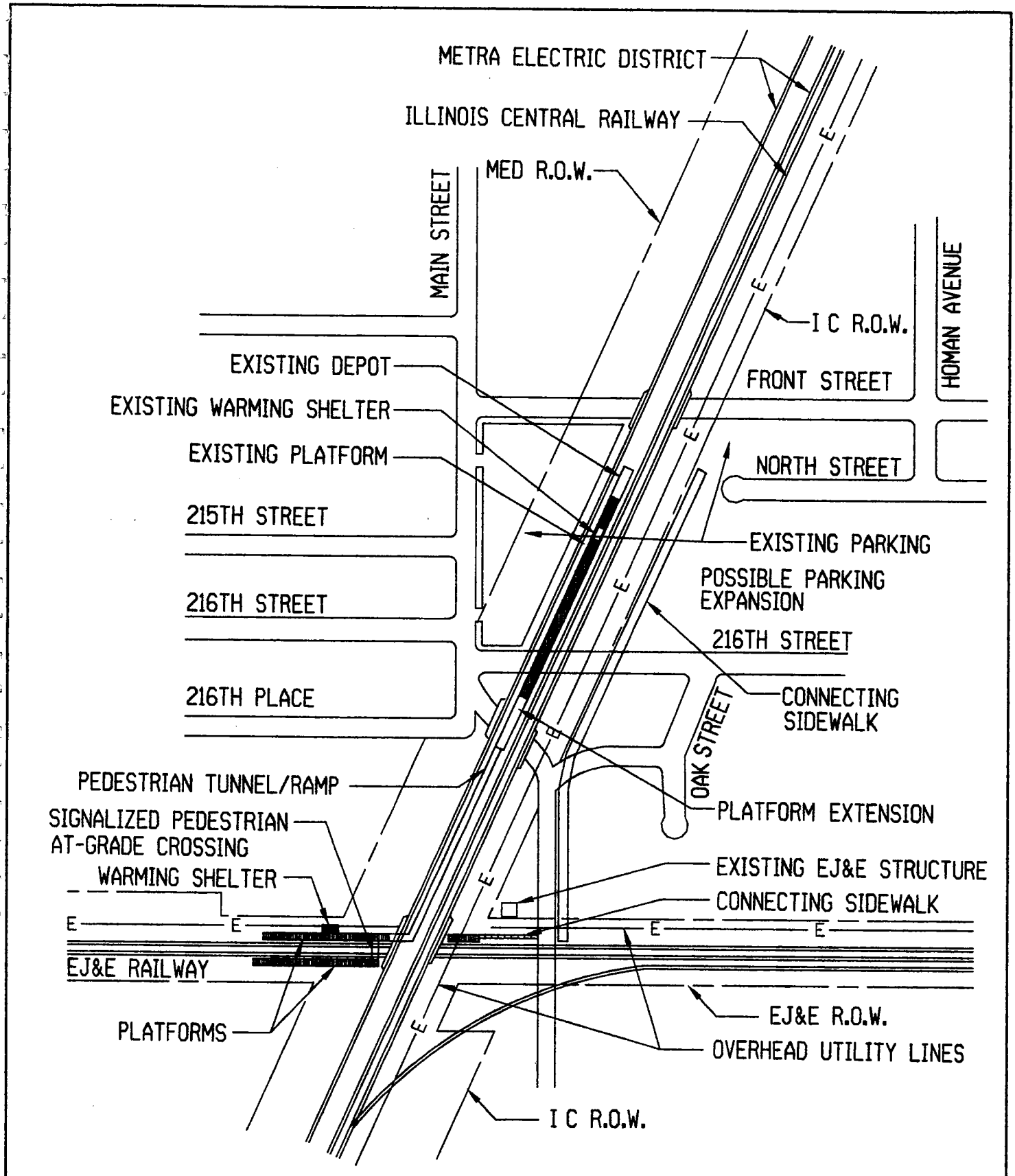


LOCATION MAP - MATTESON/PARK FOREST TRANSFER STATION (EJ&E/METRA ELECTRIC DISTRICT)

NORTH

SCALE: N.T.S.

PREFERRED SITE

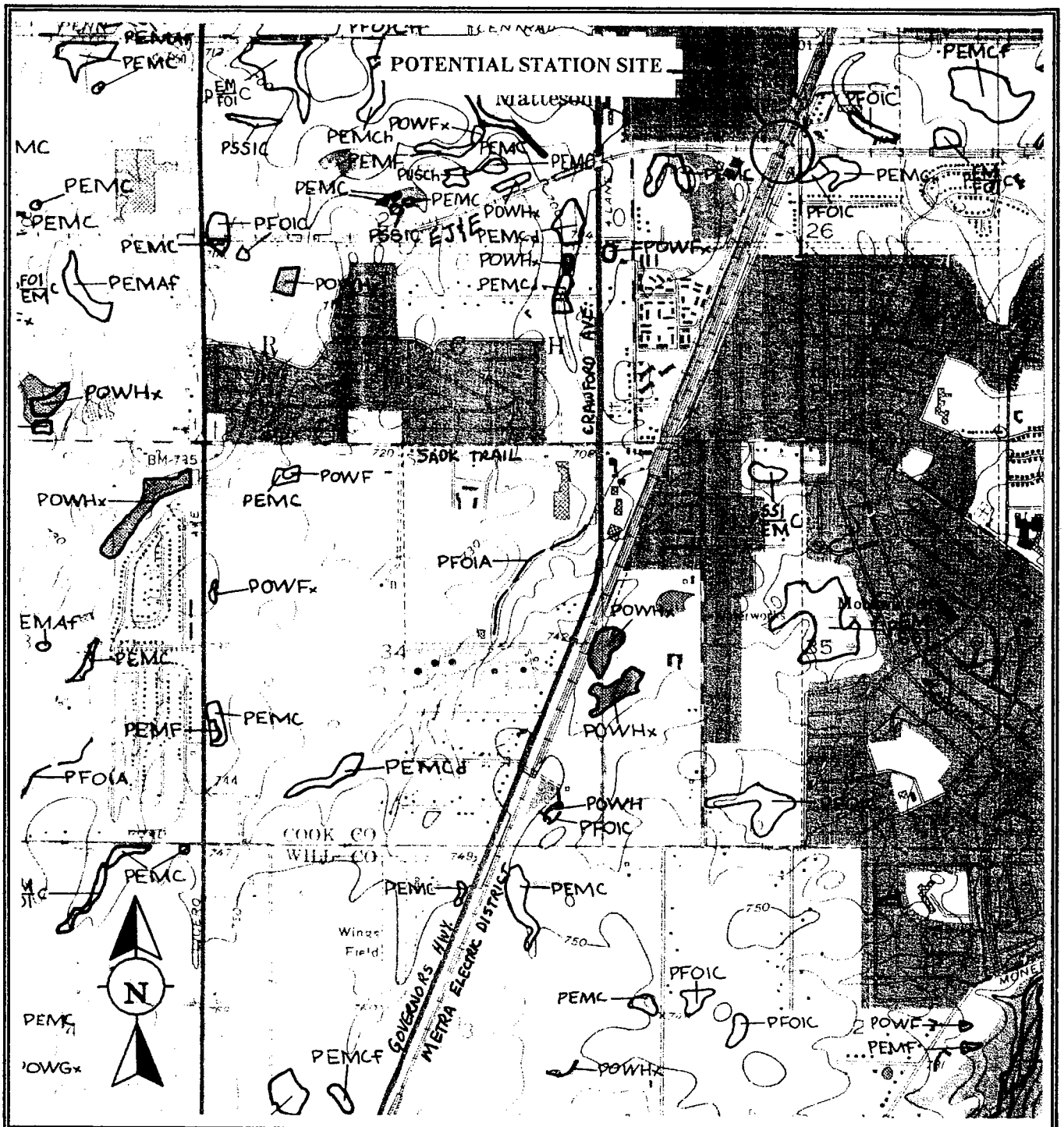


SITE PLAN - MATTESON/PARK FOREST TRANSFER STATION (EJ&E/METRA ELECTRIC DISTRICT)

NORTH

SCALE: 1" = 200'

PREFERRED SITE PS-R01 ASK-R012



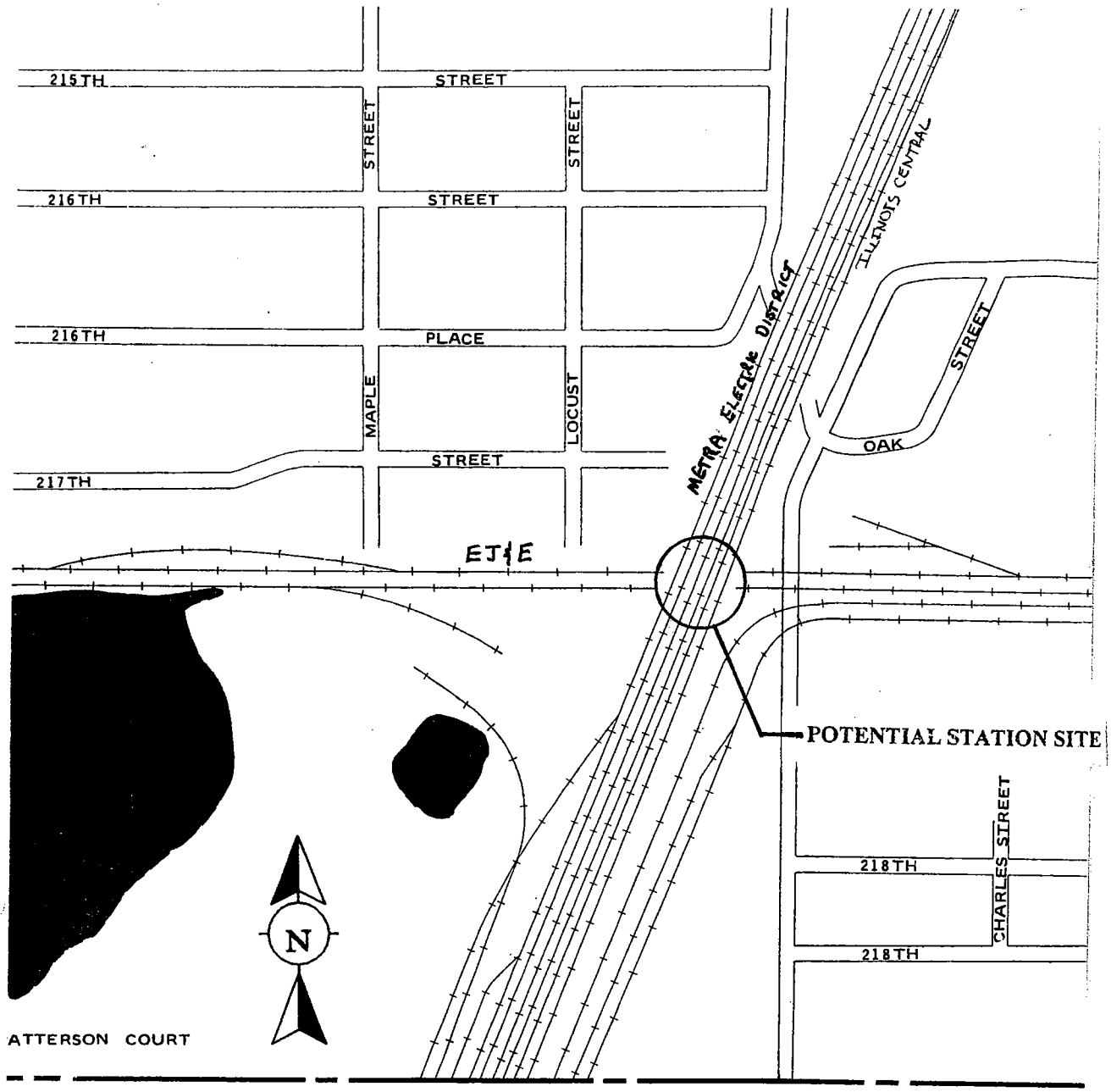
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Transfer Station Site Matteson/Park Forest (EJ&E/MED)

Wetland Inventory Map Preliminary Site Location



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Transfer Station Site Matteson/Park Forest (EJ&E/MED)** **Floodway/Floodplain Boundary Map Preliminary Site Location**

Sauk Village

Location

Preferred: This site is located in the southeast quadrant of the intersection of the EJ&E and Torrence Avenue.

Alternate: Southwest quadrant of the intersection of the EJ&E and Torrence Avenue.

Community Characteristics

According to the 1990 census, Sauk Village had a population of 9,926, with a current population of 11,000. NIPC has estimated the population in 2020 to be 17,137.

The NIPC 1990 employment allocation for the Village was 5,310, with a 2020 projection of 9,292. Within the Village there are ten major employers with an approximate total of 5,346 employees.

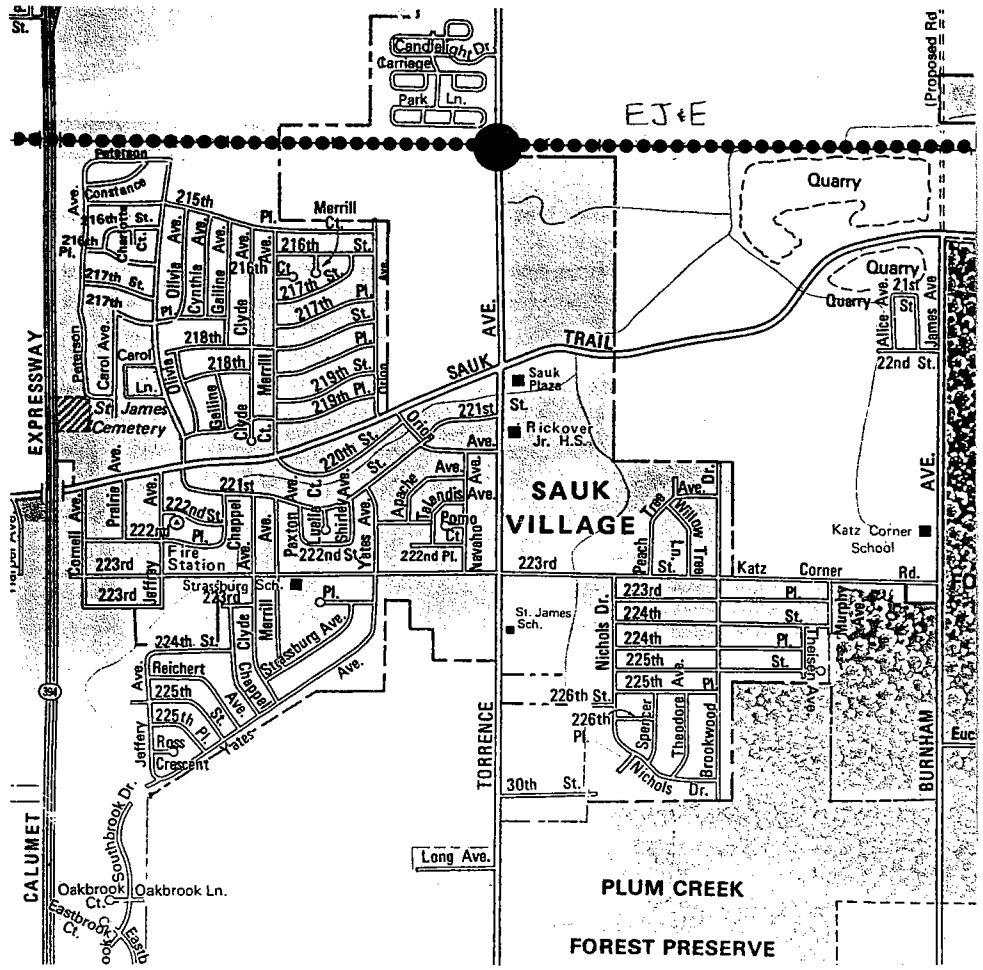
Site Description (Preferred Site)

The site is relatively level. There is a drainage ditch just to the south of and parallel to the tracks. There are overhead electric lines in the southeast quadrant, running parallel to the tracks.

Access: Access to the site would be off of Torrence Avenue.

Environmental Concerns

None were noted during a cursory review of this site, nor has the Village indicated any potential environmental concerns.

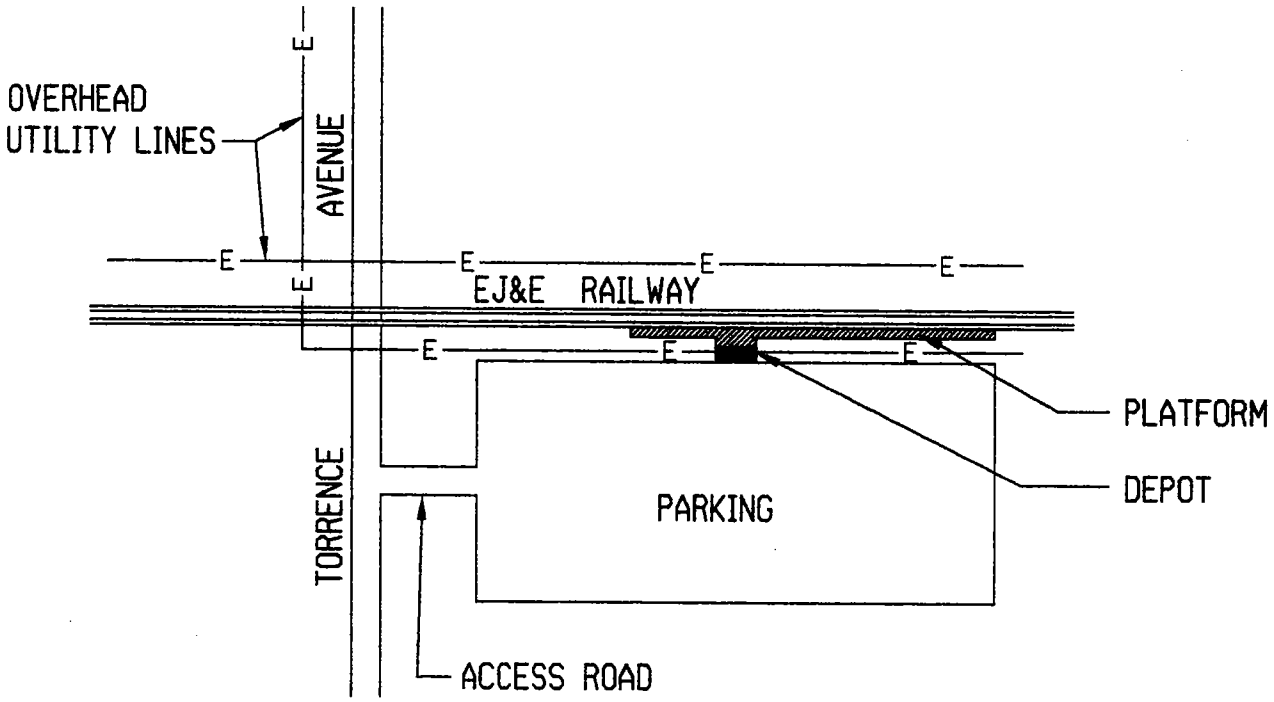


LOCATION MAP - SAUK VILLAGE STATION

SCALE: N.T.S.

PREFERRED SITE

NORTH

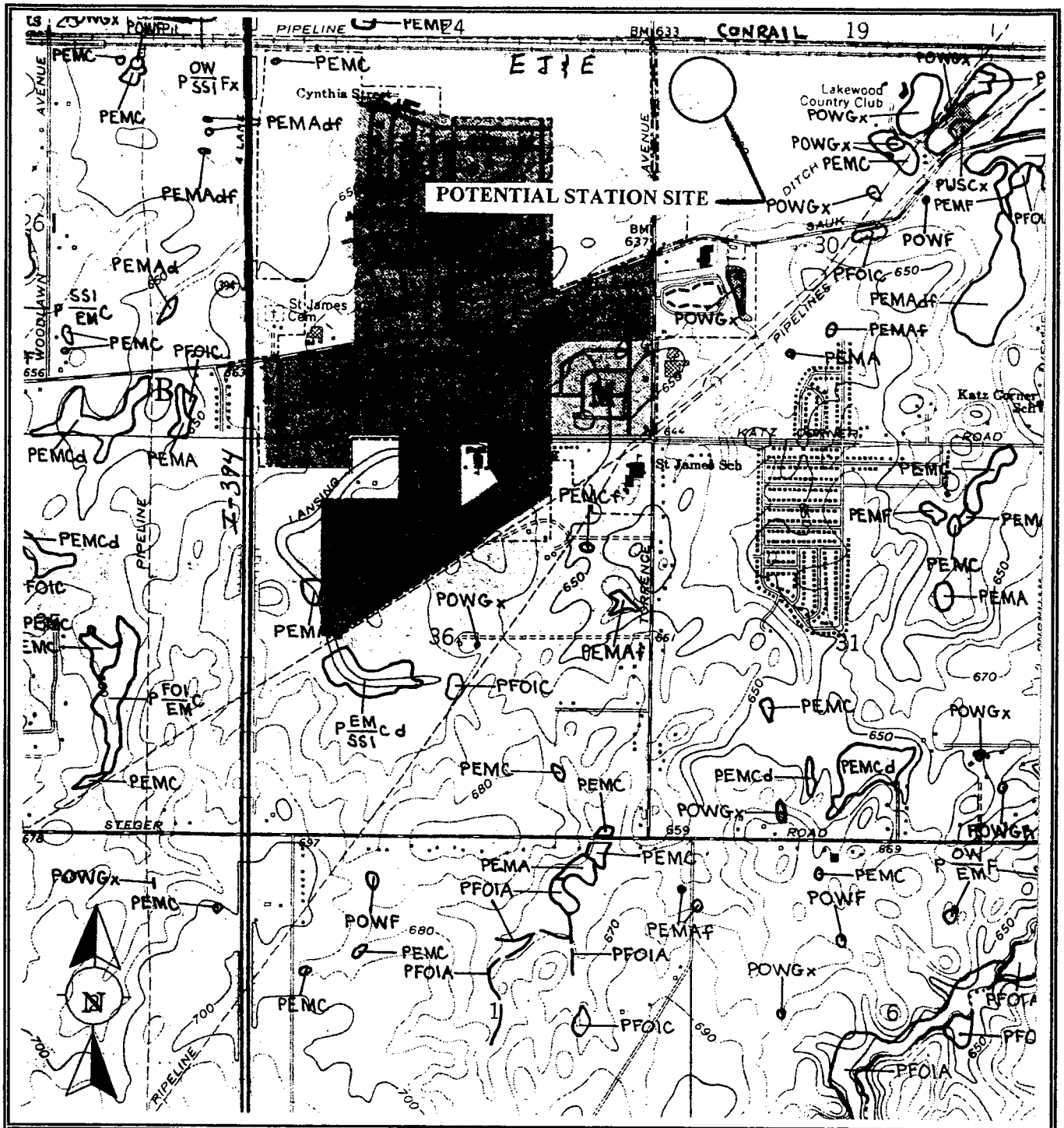


SITE PLAN - SAUK VILLAGE STATION

SCALE: 1"= 200'

PREFERRED SITE PS-C02 ASK-C022

NORTH



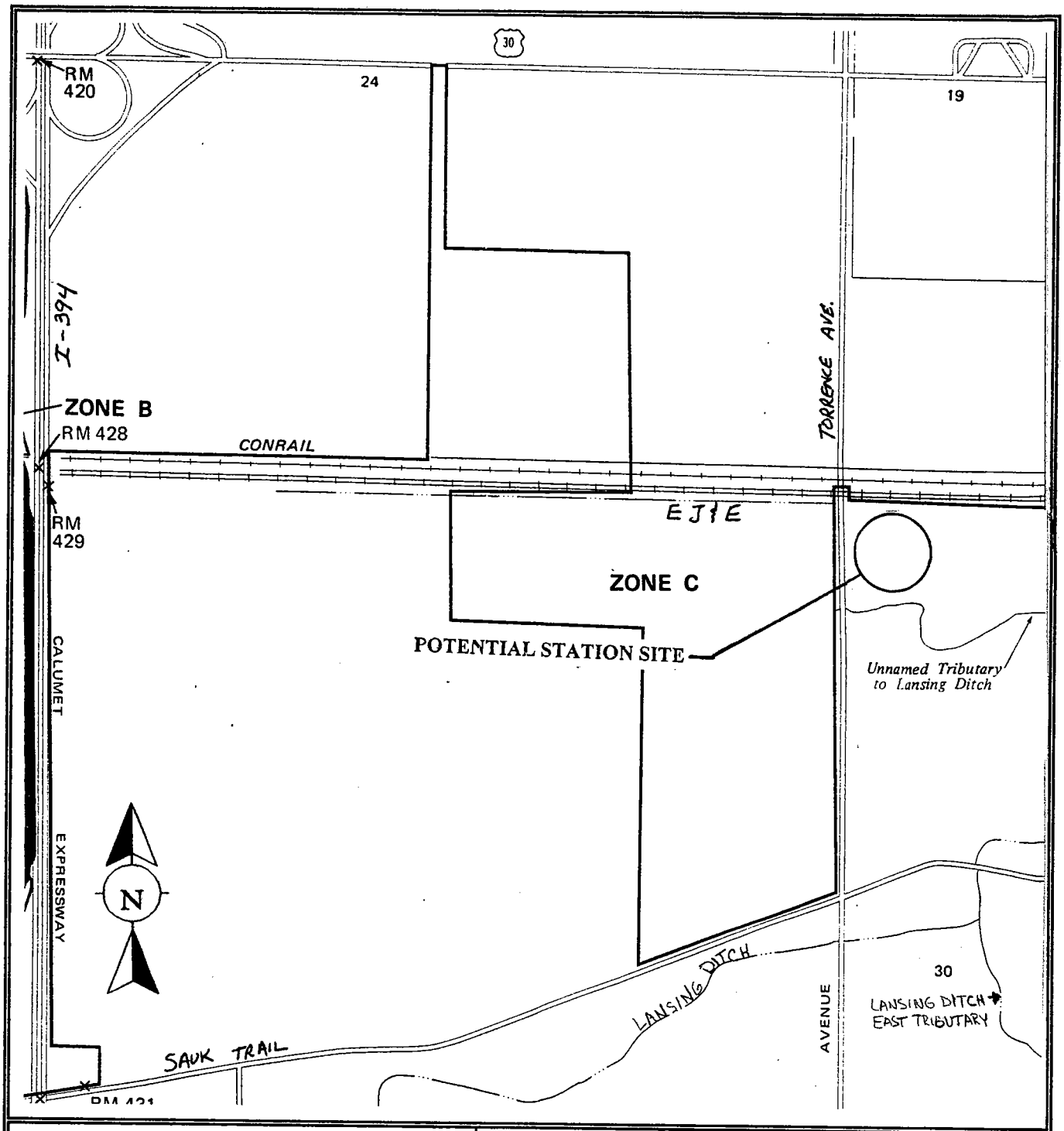
T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Sauk Village

Wetland Inventory Map
Preliminary Site Location



T.Y. LinInternationalBASCOR

Metra

Outer Circumferential Commuter Rail Feasibility Study

Potential Station Site
Sauk Village

Floodway/Floodplain Boundary Map
Preliminary Site Location

Lynwood

Location

The Village has indicated that their preferred site is located on the south side of the EJ&E tracks between Burnham Avenue and US 30. There are several parcels of land available within this area, ranging in size from 12 to 16.5 acres.

Community Characteristics

According to the 1990 census, Lynwood had a population of 6,535 and a 1995 special census estimated a population of 7,254. NIPC has estimated the population in 2020 to be 13,724.

The NIPC 1990 employment allocation for the Village was 962, with a 2020 projection of 5,323.

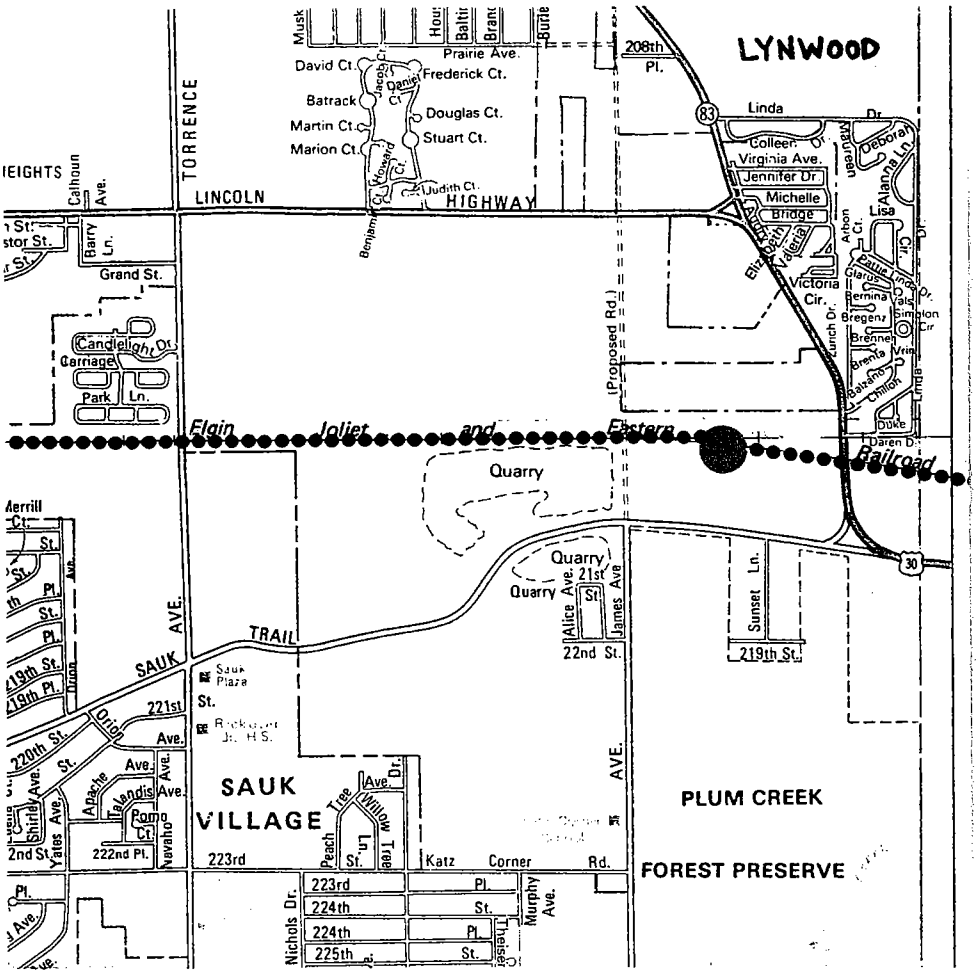
Site Description (Preferred Site)

The site is fairly level with adjacent areas of agricultural use.

Access: Access to the site would be from IL 83.

Environmental Concerns

Based on the floodway/floodplain boundary maps it appears that this site is located within a 100-year flood boundary. However, the Mary Woodlawn Flood Reservoir is currently being studied by the Illinois Department of Natural Resources. If this study is approved, the floodway surrounding the potential station site will be removed.

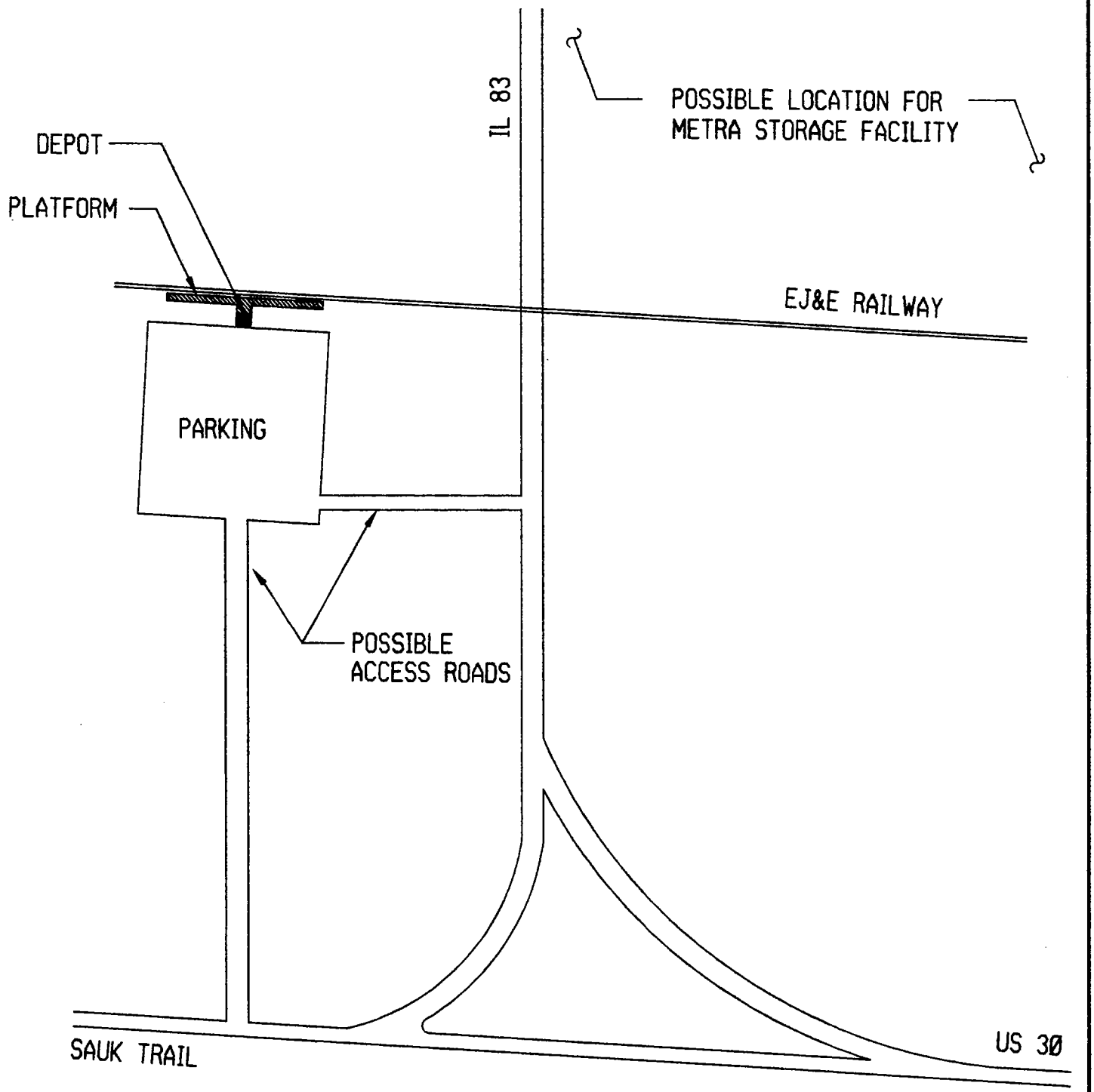


LOCATION MAP - LYNWOOD STATION

SCALE: N.T.S.

PREFERRED SITE

NORTH



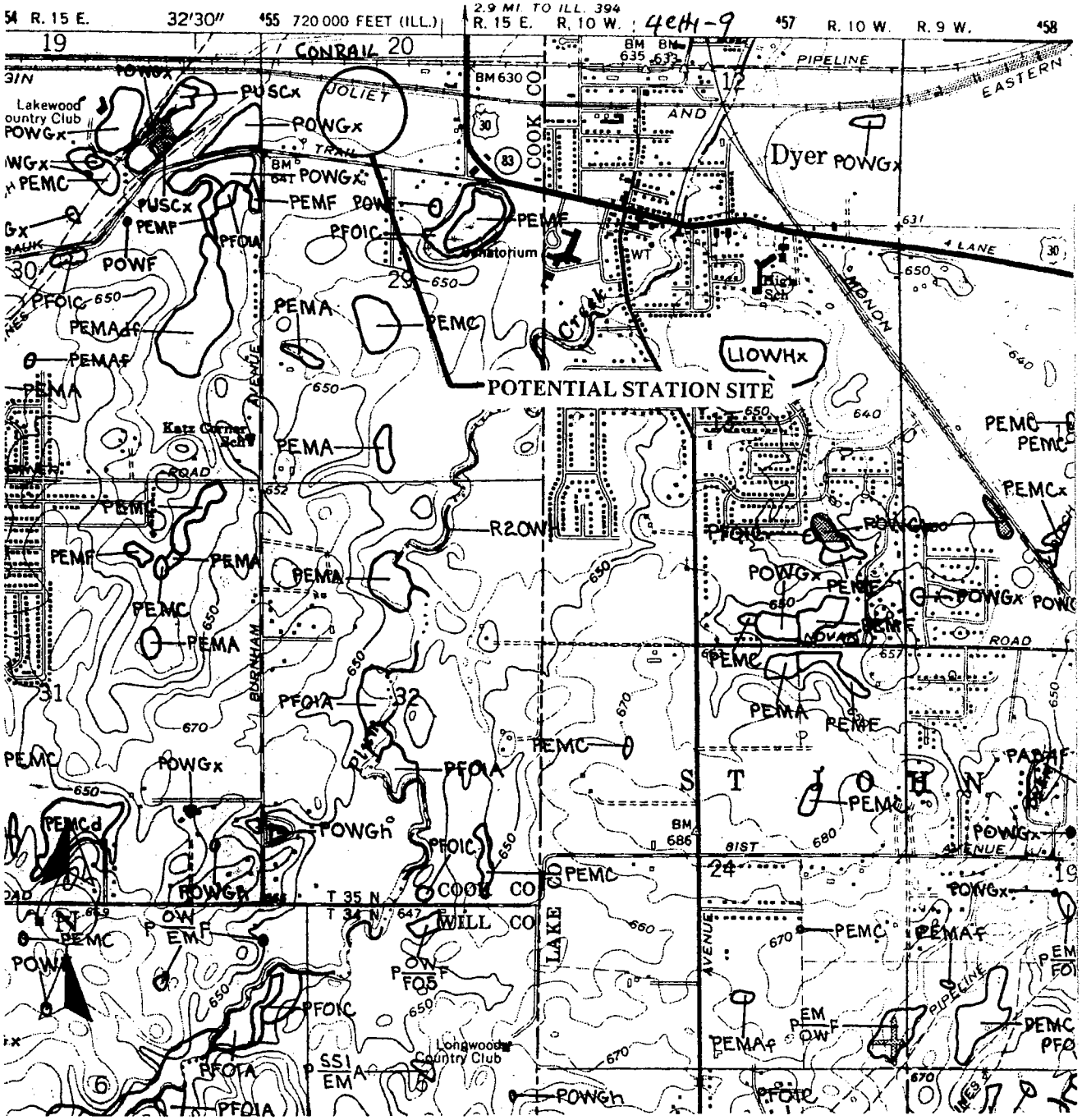
NORTH

SITE PLAN - LYNWOOD STATION

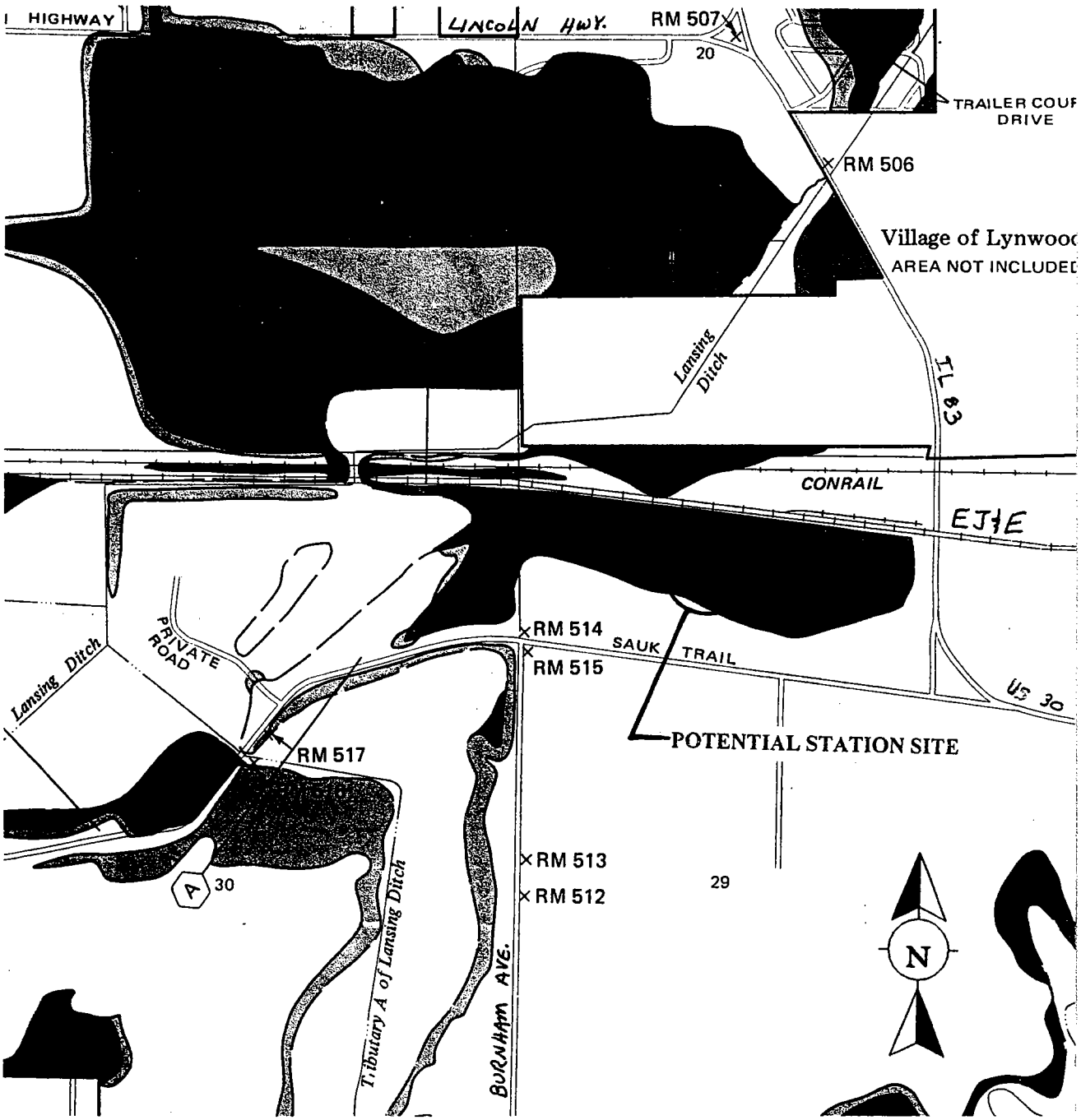
SCALE: 1" = 200'

PREFERRED SITE

PS-S01
ASK-S012



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Lynwood** **Wetland Inventory Map Preliminary Site Location**



T.Y. LinInternationalBASCOR	**Metra** **Outer Circumferential Commuter Rail Feasibility Study** **Potential Station Site Lynwood** **Floodway/Floodplain Boundary Map Preliminary Site Location**