

PRE-DESIGN REPORT

SD 17, SD 42 TO 41ST STREET
WITH ACCESS PLAN TO LENNOX

Prepared by
South Dakota Department of Transportation
Planning and Programs

June, 2004

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Introduction

The SDDOT Office of Planning and Programs has prepared this analysis to provide pre-design information for P 3017()53 Minnehaha County, PCEMS 6962, SD 17 from 41st Street to SD 42. Rural residential development has been occurring in Minnehaha and Lincoln Counties as part of overall regional growth. Therefore, this report also provides an access plan for SD 17, from SD 44 to SD 42.

Study Area

The area studied includes the SD 17 right-of-way and adjacent properties. The access and accident analyses also include a one-mile section of SD 44, south of the Lennox city limits. Pre-design analysis was performed for the area covered by the upcoming Minnehaha 6962 project, a distance of 2 miles.

Along this section of SD 17, land uses range from agricultural to commercial and residential. The roadway is mostly flanked by farms, with scattered rural residential and commercial development. Within the City of Lennox, low intensity commercial uses mix with residences.

The roadway is two lanes throughout the study area. Traffic is controlled by stop signs.

Existing Conditions

SD 17 currently exhibits characteristics similar to many county roads surrounding Sioux Falls. Traffic volumes are relatively low during much of the day, but spike in the morning and afternoon with drivers traveling to work and school. Trucks are a fairly high percentage of the total traffic because of the presence of construction sites, materials sites and the regional landfill in the area.

Traffic Volumes

Current ADT's range from about 1400 to 2400 vehicles per day, depending on the source. Table 1 shows current traffic volumes for the section of SD 17 between 41st Street and SD 42. Traffic volumes south of 41st Street are approximately 2,500 vehicles per day. Turning volumes were collected for the SD 17/41st Street and SD 17/SD 42 intersections for AM, Midday and PM peak time periods. The turning movement counts are summarized in the Appendix.

Table 1 – Current Traffic Volumes

Source	Volume
Scope Document	2365
Needs Book	1525
Count Database (unadjusted)	1426

Operations

Operations were observed on SD 17 between November, 2003 and May, 2004. Traffic appears to flow without restriction, even during peak activity periods.

Capacity analysis was conducted for the roadway section between 41st Street and SD 42 and at the 41st Street and SD 42 intersections for three periods in the day; morning peak, midday peak and evening peak. The analysis was conducted using Highway Capacity Software or manual HCM techniques. The results of the capacity analysis are displayed in Table 2.

Table 2 – Capacity Analysis

Condition	Level of Service
Two-lane AM	A
Two-lane Midday	A
Two-lane PM	A
41 st /SD 17 AM	Approaches A, Intersection A
41 st /SD 17 Midday	Approaches A, Intersection A
41 st /SD 17 PM	EB-A, WB-C, NB-A, SB-B, Intersection B
SD 42/SD 17 AM	SD 42 lefts-A, NB-B, SB-B
SD 42/SD 17 Midday	SD 42 lefts-A, NB-A, SB-B
SD 42/SD 17 PM	SD 42 lefts-A, NB-B, SB-C

Accidents

Accident reports for five consecutive years (1998-2002) were plotted and analyzed to determine trends and the need for safety improvements. Overall, 95 accidents were reported within the 5 years, which averages to about 19 accidents per year and an annual rate of about 1.5 accidents per mile. Accident rates range from about 1.6 to 2.7 accidents per million vehicle miles. This is considered low to moderate accident incidence and normally wouldn't drive the need for roadway safety improvements.

The text of the accident reports, however, reveal some background trends that might be addressed during future reconstruction projects:

- Quite a number of the accidents involved drivers leaving the roadway during winter weather. Wider shoulders and a more forgiving clear zone would give drivers more room to recover without ending up in the ditch.
- A significant portion of the accidents involved drivers hitting deer or cattle in the roadway. Again, updated clear zones and better visibility along the roadway may make it easier for drivers to avoid animal obstacles.

Future Conditions

Analysis was conducted for the planning horizon year 2025 to estimate future roadway needs. The analysis included land use, planned transportation improvements, traffic volumes, and traffic operations.

Land Use

The Sioux Falls Planning Department has mapped the planned growth area for 2025. The map, reproduced in the Appendix, shows planned residential growth extending as far as 1.5 miles west of Tea-Ellis Road at the planning horizon. This leaves approximately 1.5 miles between the city limits and SD 17. Land uses along SD 17 are expected to remain agricultural and rural residential within this time period.

Planned Transportation Improvements

Currently, SDDOT has only one programmed project in the vicinity of the SD 17 corridor. That project is the SD 17 reconstruction, from 41st Street to SD 42, in 2008.

The City of Sioux Falls is completing an environmental assessment for a Westside arterial corridor. The proposed roadway is expected to run roughly parallel to SD 17, as close as 2.5 miles east of SD 17. The Westside arterial is planned to carry large traffic volumes and will affect the traffic demand for SD 17. The effect of the Westside arterial has been considered in the traffic forecasts for this report.

The City is also expected to build smaller collector and local streets to serve new development. None of these roadways is expected to be any closer than 1.5 miles from SD 17 within the planning time period.

Traffic Volumes

Future traffic volumes were forecast using the travel demand forecasting model maintained by the Sioux Falls MPO. Table 3 displays 24-hour traffic volume forecasts within the study area. Turning movement forecasts were also developed for the SD 17/41st Street and SD 17/SD 42 intersections. The turning movement forecasts are included in the Appendix.

Table 3 – Forecast Traffic Volumes, 2025

Location	24-Hour Volume Forecast
SD 17, 41 st to SD 42	3000
SD 17, south of 41st	4000
SD 42, east of SD 17	10800
SD 42, west of SD 17	8300

Operations

Capacity analysis was conducted for future conditions, using Highway Capacity Software and manual HCM techniques. The results of the analysis are shown in Table 4.

Table 4 – Future Level of Service, 2025

Condition	Level of Service
Two-lane AM	B
Two-lane Midday	A
Two-lane PM	B
41 st /SD 17 AM	Approaches A, Intersection A
41 st /SD 17 Midday	Approaches A, Intersection A
41 st /SD 17 PM	EB-A, WB-C, NB-A, SB-B, Intersection B
SD 42/SD 17 AM	SD 42 lefts-A, NB-D, SB-C
SD 42/SD 17 Midday	SD 42 lefts-A, NB-B, SB-C
SD 42/SD 17 PM	SD 42 lefts-A, NB-F, SB-F

The analysis indicates that a two-lane roadway will continue to provide good service until the planning horizon. It also indicates that the all-way stop control at the intersection of SD 17 and 41st Street will continue to provide good service. The two-way stop control at the intersection of SD 17 and SD 42, however, will experience peak hour flow problems on the stopped legs. While it is not unusual for stopped approaches onto arterial roadways to experience peak hour slowdowns, the intersection of SD 17/SD 42 should be monitored for the need of changes in traffic control.

Recommendations

Lane Demand

The forecast traffic volumes fall within the operation range for a two-lane roadway. The capacity analysis confirms that a two-lane road will provide satisfactory service until 2025.

There are several concentrations of rural residential development along SD 17. These developments have resulted in areas with closely spaced residential driveways. Guidelines in the Road Design Manual show that a continuous left turn lane is not warranted to serve these driveways, based solely on 2025 traffic conditions. Continuous left-turn lanes have been installed, however, to prevent future accidents in similar sites.

Safety

Upgrading the roadway to current shoulder, inslope and clear zone standards will likely reduce some of the run-off-road and animal-related accidents. Installing continuous left-turn lanes at concentrations of rural residential driveways appears to make sense to prevent future accidents.

Corridor Preservation

While the growth of Sioux Falls is not expected to reach the SD 17 corridor by 2025, it is fairly certain that the current SD 17 will become an urban roadway within this century. So, sufficient right-of-way should be preserved to allow future construction of a typical urban arterial roadway. The Road Design Manual recommendation for a typical five-lane urban roadway is 100' of right-of-way, which appears reasonable to allow for a utility corridor, uncertainty of lane demand beyond 2025, and the potential need for other roadway amenities.

Access Management

An access plan for the SD 17 corridor has been prepared and is provided in the subsequent section of this report. It also appears to be wise to acquire the right of access along with right-of-way acquisition on the upcoming construction project.

Access Plan

This access plan serves as part of local and state access management efforts. Access management is the process of providing safe, efficient ways of getting on and off our streets and highways. The concept “concentrates on restricting the number of direct accesses to major surface streets, providing reasonable indirect access, effectively designing driveways, and enforcing safe and efficient spacing and location of driveways and signals,” according to Ron Giguere, former chairman of the Transportation Research Board Access Management Committee. “There are a variety of techniques available for achieving access control. These include geometric design considerations such as medians and channelized islands that prohibit certain turning movements, consolidation actions such as shared driveways and service roads, and others such as removal and relocation of existing access and the introduction of auxiliary lanes for left and right turns. If these types of improvements are implemented correctly, users can expect smoother vehicle flow, reduced delay and fewer crashes. These benefits equate to larger aggregate cost savings in travel time, fuel consumption, property damage and injuries. In addition, there is potential for expanding market area for local businesses, reducing vehicular emissions and fostering quicker emergency response.”

This plan includes the following work items:

- Inventory of existing access points,
- Consideration of land ownership, zoning, planned infrastructure, access criteria and physical constraints,
- Analysis of future transportation service,
- Determination of future access points

Existing Access Points

The existing access points were identified through field survey. They are listed in Table 5 by MRM (mile reference marker). The MRM system is used to locate features along all state highways. The access points listed in the table are also mapped on Maps 1-15 in the Appendix.

Land Ownership

Land ownership adjacent to the roadway was reviewed to determine whether existing parcels are served by existing access points, or whether new access points may be needed. Land ownership records for this area are not fully mapped and are too voluminous to copy in this report.

Access Criteria

South Dakota administrative rules 70:09 provide criteria for spacing of new access points on the State-administered highway system. Access points determined by a detailed planning effort, like this one, take precedence over the criteria contained in the rules. The criteria, however, can serve as useful guidelines for planning.

The access criteria indicate that new access points on SD 17 should be spaced no closer than 1000' apart, except within Lennox where 100' spacing is used. Existing access points have grandfathered approval under the rules for their existing uses. When the uses change, the access points and spacing need to be re-evaluated.

Physical Constraints

The SD 17 corridor traverses an area of flat farm ground, with fairly widely-spaced drainages. There appear to be few physical conditions that will affect access locations.

Future Access Points

The location of future access points was determined by comparing property boundaries, planned zoning, planned infrastructure, physical constraints, existing access points, and SDDOT access spacing criteria. The goals of the analysis were:

- To maintain existing access points for existing property uses, and
- To provide access to undeveloped parcels while maintaining the safety and efficiency of the transportation facility.

The planned access is shown on Table 6. Note that many of these access points do not meet current access standards, but are allowed because they predate current access rules. If properties adjacent to the roadway redevelop, they are subject to being re-evaluated.

TABLE 5 - EXISTING ACCESS POINTS

SD 17

NUMBER	MRM	+DISP	SIDE	NOTE
1	407.33	+0.00	RIGHT	SD 44 TURNS EAST*
2	407.33	+0.122	LEFT	RESIDENTIAL DRIVEWAY*
3	407.33	+0.053	RIGHT	FIELD ENTRANCE*
4	406.32	+0.611	LEFT	FIELD ENTRANCE*
5	406.32	+0.588	RIGHT	RESIDENTIAL DRIVEWAY*
6	406.32	+0.546	RIGHT	RESIDENTIAL DRIVEWAY*
7	406.32	+0.283	LEFT	FIELD ENTRANCE*
7A	406.32	+0.193	RIGHT	DEVELOPMENT DRIVEWAY*
8	406.32	+0.103	LEFT	RESIDENTIAL DRIVEWAY*
9	406.32	+0.103	RIGHT	DEVELOPMENT DRIVEWAY*
10	406.32	+0.000	LEFT	SD 44 TURNS WEST*
11	42.05	+0.010	RIGHT	279TH STREET
12	42.05	+0.137	LEFT	LENNOX ATHLETIC FIELD
12A	42.05	+0.167	LEFT	CITY STREET
13	42.05	+0.246	RIGHT	GAS UTILITY STATION
14	42.05	+0.260	RIGHT	FIELD ENTRANCE
15	42.05	+0.260	LEFT	FIELD ENTRANCE
16	42.05	+0.290	RIGHT	RESIDENTIAL DRIVE
17	42.05	+0.322	RIGHT	RESIDENTIAL DRIVE
18	42.36	+0.000	LEFT	SIXTH AVENUE IN LENNOX
19	42.36	+0.008	RIGHT	RESIDENTIAL DRIVE
20	42.42	+0.000	LEFT	FIFTH AVENUE
21	42.42	+0.048	RIGHT	LENNOX BUS BARN
22	42.42	+0.074	LEFT	CENEX CONVENIENCE STORE
23	42.42	+0.078	RIGHT	LENNOX BUS BARN
24	42.55	+0.000	LEFT	FOURTH AVENUE
25	42.55	+0.017	LEFT	BOSSMAN ELECTRIC
26	42.55	+0.037	RIGHT	RESIDENTIAL DRIVE
26A	42.55	+0.062	RIGHT	RESIDENTIAL DRIVEWAY
27	42.55	+0.083	LEFT	SUNRISE MANOR
28	42.69	+0.000	LEFT	SECOND AVENUE
29	42.69	+0.067	BOTH	RAILROAD CROSSING
30	42.69	+0.093	LEFT	WATER UTILITY SITE
31	43.00	+0.033	LEFT	RESIDENTIAL DRIVE
32	43.00	+0.188	LEFT	COMMERCIAL DRIVEWAY
33	43.00	+0.204	LEFT	CASEY'S CONVENIENCE STORE
34	43.00	+0.220	BOTH	278TH STREET/BOYNTON AVENUE
35	43.00	+0.316	RIGHT	JERRY'S AUTO
36	43.00	+0.349	RIGHT	JERRY'S AUTO
37	43.00	+0.412	LEFT	RESIDENTIAL DRIVE
38	43.00	+0.414	RIGHT	RESIDENTIAL DRIVE
39	43.00	+0.549	RIGHT	RESIDENTIAL DRIVE
40	43.00	+0.558	LEFT	FIELD ENTRANCE
41	43.00	+0.720	RIGHT	FIELD ENTRANCE

42	43.00	+ .724	LEFT	RESIDENTIAL DRIVE
43	43.00	+ .826	RIGHT	RESIDENTIAL DRIVE
44	43.00	+ .909	RIGHT	FIELD ENTRANCE
45	43.00	+ .947	LEFT	FIELD ENTRANCE
46	43.00	+1.059	RIGHT	RESIDENTIAL DRIVE
47	43.00	+1.107	LEFT	GOEMAN AUCTION
48	44.00	+ .065	BOTH	277TH STREET
49	44.00	+ .136	RIGHT	FIELD ENTRANCE
50	44.00	+ .242	LEFT	RESIDENTIAL DRIVE
51	44.00	+ .264	RIGHT	RESIDENTIAL DRIVE
52	44.00	+ .567	BOTH	FIELD ENTRANCE
53	45.00	+ .064	BOTH	276TH STREET
54	45.00	+ .316	RIGHT	FIELD ENTRANCE
55	45.00	+ .407	LEFT	FIELD ENTRANCE
56	45.00	+ .457	LEFT	RESIDENTIAL DRIVE
57	45.00	+ .814	RIGHT	RESIDENTIAL DRIVE
58	45.00	+ .836	LEFT	RESIDENTIAL DRIVE
59	45.00	+ .881	LEFT	FIELD ENTRANCE
60	46.00	+ .064	BOTH	275TH STREET
61	46.00	+ .202	RIGHT	FIELD ENTRANCE
62	46.00	+ .513	RIGHT	FIELD ENTRANCE
63	46.60	+ .067	RIGHT	RESIDENTIAL DRIVE
64	46.60	+ .256	RIGHT	RESIDENTIAL DRIVE
65	47.00	+ .117	BOTH	274TH STREET
66	47.00	+ .335	BOTH	FIELD ENTRANCE
67	47.00	+ .532	RIGHT	FIELD ENTRANCE
68	47.48	+ .067	LEFT	RESIDENTIAL DRIVE
69	47.48	+ .321	LEFT	RESIDENTIAL DRIVE
70	47.48	+ .447	LEFT	FIELD ENTRANCE
71	48.00	+ .068	BOTH	273RD STREET
72	48.00	+ .298	RIGHT	FIELD ENTRANCE
73	48.00	+ .298	LEFT	RESIDENTIAL DRIVE
74	48.00	+ .449	RIGHT	RESIDENTIAL DRIVE
75	48.00	+ .571	LEFT	FIELD ENTRANCE
76	48.00	+ .780	RIGHT	RESIDENTIAL DRIVE
77	48.00	+ .863	RIGHT	RESIDENTIAL DRIVE
78	49.00	+ .040	RIGHT	TROPHIES FOREVER TAXIDERMY
79	49.00	+ .077	BOTH	272ND STREET
80	49.00	+ .315	RIGHT	FIELD ENTRANCE
81	49.00	+ .568	LEFT	FIELD ENTRANCE
82	49.00	+ .572	RIGHT	FIELD ENTRANCE
83	49.00	+ .722	RIGHT	RESIDENTIAL DRIVE
84	49.00	+ .844	LEFT	FIELD ENTRANCE
85	50.00	+ .076	BOTH	271ST STREET
86	50.00	+ .106	LEFT	RESIDENTIAL DRIVE
87	50.00	+ .116	RIGHT	GORDY'S AUTO
88	50.00	+ .226	LEFT	FIELD ENTRANCE
89	50.00	+ .370	RIGHT	RESIDENTIAL DRIVE
90	50.00	+ .421	LEFT	FIELD ENTRANCE
91	50.00	+ .824	BOTH	FIELD ENTRANCE

92	51.00	+0.017	RIGHT	RESIDENTIAL DRIVE
93	51.00	+0.076	BOTH	270TH STREET
94	51.00	+0.211	RIGHT	FIELD ENTRANCE
95	51.00	+0.365	LEFT	FIELD ENTRANCE
96	51.00	+0.579	LEFT	FIELD ENTRANCE
97	51.00	+0.596	RIGHT	RESIDENTIAL DRIVE
98	51.00	+0.653	RIGHT	RESIDENTIAL DRIVE
99	51.00	+0.723	LEFT	RESIDENTIAL DRIVE
100	51.00	+0.789	LEFT	RESIDENTIAL DRIVE
101	51.00	+0.823	RIGHT	FIELD ENTRANCE
102	51.00	+0.984	LEFT	RESIDENTIAL DRIVE
103	51.00	+1.036	LEFT	RESIDENTIAL DRIVE
104	52.00	+0.012	BOTH	269TH STREET
105	52.00	+0.171	RIGHT	RESIDENTIAL DRIVE
106	52.00	+0.325	LEFT	RESIDENTIAL DRIVE
107	52.00	+0.514	RIGHT	RESIDENTIAL DRIVE
108	52.00	+0.514	LEFT	FIELD ENTRANCE
109	52.77	+0.000	BOTH	MINNEHAHA COUNTY/268TH STREET
110	52.77	+0.108	RIGHT	RESIDENTIAL DRIVE
111	52.77	+0.142	LEFT	RESIDENTIAL DRIVE
112	52.77	+0.209	RIGHT	RESIDENTIAL DRIVE
113	53.00	+0.145	LEFT	WILD WATER WEST
114	53.15	+0.089	LEFT	WILD WATER WEST
115	53.15	+0.260	LEFT	FIELD ENTRANCE
116	53.15	+0.257	RIGHT	FIELD ENTRANCE
117	53.15	+0.610	LEFT	COMMERCIAL DRIVEWAY
118	53.81	+0.000	BOTH	41ST STREET
119	53.81	+0.037	LEFT	RESIDENTIAL DRIVE
120	53.81	+0.137	LEFT	RESIDENTIAL DRIVE
121	54.00	+0.452	RIGHT	FIELD ENTRANCE
122	54.00	+0.472	LEFT	RESIDENTIAL DRIVE
123	54.00	+0.572	RIGHT	RESIDENTIAL DRIVE
124	54.00	+0.741	LEFT	RESIDENTIAL DRIVE
125	54.00	+0.809	LEFT	RESIDENTIAL DRIVE
126	54.00	+0.823	BOTH	266TH STREET
127	54.00	+0.877	RIGHT	RESIDENTIAL DRIVE
128	54.00	+0.906	RIGHT	RESIDENTIAL DRIVE
129	54.00	+0.961	RIGHT	RESIDENTIAL DRIVE
130	54.00	+0.984	RIGHT	RESIDENTIAL DRIVE
131	55.00	+0.037	RIGHT	RESIDENTIAL DRIVE
132	55.00	+0.067	RIGHT	RESIDENTIAL DRIVE
133	55.00	+0.210	RIGHT	FIELD ENTRANCE
134	55.00	+0.221	LEFT	RESIDENTIAL DRIVE
135	55.27	+0.153	RIGHT	RESIDENTIAL DRIVE
136	55.27	+0.220	RIGHT	RESIDENTIAL DRIVE
137	55.27	+0.303	LEFT	RESIDENTIAL DRIVE
138	55.80	+0.000	BOTH	SD 17 ENDS AT SD 42

TABLE 6 - PLANNED ACCESS POINTS
SD 17

NUMBER	MRM	+DISP	SIDE	NOTE	PLANNED ACCESS ACTION
1	407.33	+0.00	RIGHT	SD 44 TURNS EAST*	MAINTAIN EXISTING ACCESS POINT
2	407.33	+0.122	LEFT	RESIDENTIAL DRIVEWAY*	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
3	407.33	+0.053	RIGHT	FIELD ENTRANCE*	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
4	406.32	+0.611	LEFT	FIELD ENTRANCE*	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
5	406.32	+0.588	RIGHT	RESIDENTIAL DRIVEWAY*	CONSOLIDATE WITH #6 WITH RECONSTRUCTION OR IF LAND USE CHANGES
6	406.32	+0.546	RIGHT	RESIDENTIAL DRIVEWAY*	CONSOLIDATE WITH #5 WITH RECONSTRUCTION OR IF LAND USE CHANGES
7	406.32	+0.283	LEFT	FIELD ENTRANCE*	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
7A	406.32	+0.193	RIGHT	DEVELOPMENT DRIVEWAY*	MAINTAIN EXISTING ACCESS POINT
8	406.32	+0.103	LEFT	RESIDENTIAL DRIVEWAY*	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
9	406.32	+0.103	RIGHT	DEVELOPMENT DRIVEWAY*	MAINTAIN EXISTING ACCESS POINT
10	406.32	+0.000	LEFT	SD 44 TURNS WEST*	MAINTAIN EXISTING ACCESS POINT
11	42.05	+0.010	RIGHT	279TH STREET	MAINTAIN EXISTING ACCESS POINT
12	42.05	+0.137	LEFT	LENNOX ATHLETIC FIELD	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
12A	42.05	+0.167	LEFT	CITY STREET	MAINTAIN EXISTING ACCESS POINT
13	42.05	+0.246	RIGHT	GAS UTILITY STATION	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
14	42.05	+0.260	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
15	42.05	+0.260	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
16	42.05	+0.290	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
17	42.05	+0.322	RIGHT	RESIDENTIAL DRIVE	ELIMINATE WITH RECONSTRUCTION
18	42.36	+0.000	LEFT	SIXTH AVENUE IN LENNOX	MAINTAIN EXISTING ACCESS POINT
19	42.36	+0.008	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
20	42.42	+0.000	LEFT	FIFTH AVENUE	MAINTAIN EXISTING ACCESS POINT
21	42.42	+0.048	RIGHT	LENNOX BUS BARN	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
22	42.42	+0.074	LEFT	CENEX CONVENIENCE STORE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
23	42.42	+0.078	RIGHT	LENNOX BUS BARN	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
24	42.55	+0.000	LEFT	FOURTH AVENUE	MAINTAIN EXISTING ACCESS POINT
25	42.55	+0.017	LEFT	BOSSMAN ELECTRIC	ELIMINATE WITH RECONSTRUCTION, USE SIDE STREET ACCESS

26	42.55	+0.037	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
26A	42.55	+0.062	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
27	42.55	+0.083	LEFT	SUNRISE MANOR	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
28	42.69	+0.000	LEFT	SECOND AVENUE	MAINTAIN EXISTING ACCESS POINT
29	42.69	+0.067	BOTH	RAILROAD CROSSING	MAINTAIN EXISTING ACCESS POINT
30	42.69	+0.093	LEFT	WATER UTILITY SITE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
31	43.00	+0.033	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
32	43.00	+0.188	LEFT	COMMERCIAL DRIVEWAY CASEY'S CONVENIENCE	CONSOLIDATE WITH #33 WITH RECONSTRUCTION OR IF LAND USE CHANGES
33	43.00	+0.204	LEFT	STORE 278TH STREET/BOYNTON	CONSOLIDATE WITH #32 WITH RECONSTRUCTION OR IF LAND USE CHANGES
34	43.00	+0.220	BOTH	AVENUE	MAINTAIN EXISTING ACCESS POINT
35	43.00	+0.316	RIGHT	JERRY'S AUTO	CONSOLIDATE WITH #36 WITH RECONSTRUCTION OR IF LAND USE CHANGES
36	43.00	+0.349	RIGHT	JERRY'S AUTO	CONSOLIDATE WITH #35 WITH RECONSTRUCTION OR IF LAND USE CHANGES
37	43.00	+0.412	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
38	43.00	+0.414	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
39	43.00	+0.549	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
40	43.00	+0.558	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
41	43.00	+0.720	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
42	43.00	+0.724	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
43	43.00	+0.826	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
44	43.00	+0.909	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
45	43.00	+0.947	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
46	43.00	+1.059	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
47	43.00	+1.107	LEFT	GOEMAN AUCTION	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
48	44.00	+0.065	BOTH	277TH STREET	MAINTAIN EXISTING ACCESS POINT
49	44.00	+0.136	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
50	44.00	+0.242	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
51	44.00	+0.264	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
52	44.00	+0.567	BOTH	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
53	45.00	+0.064	BOTH	276TH STREET	MAINTAIN EXISTING ACCESS POINT

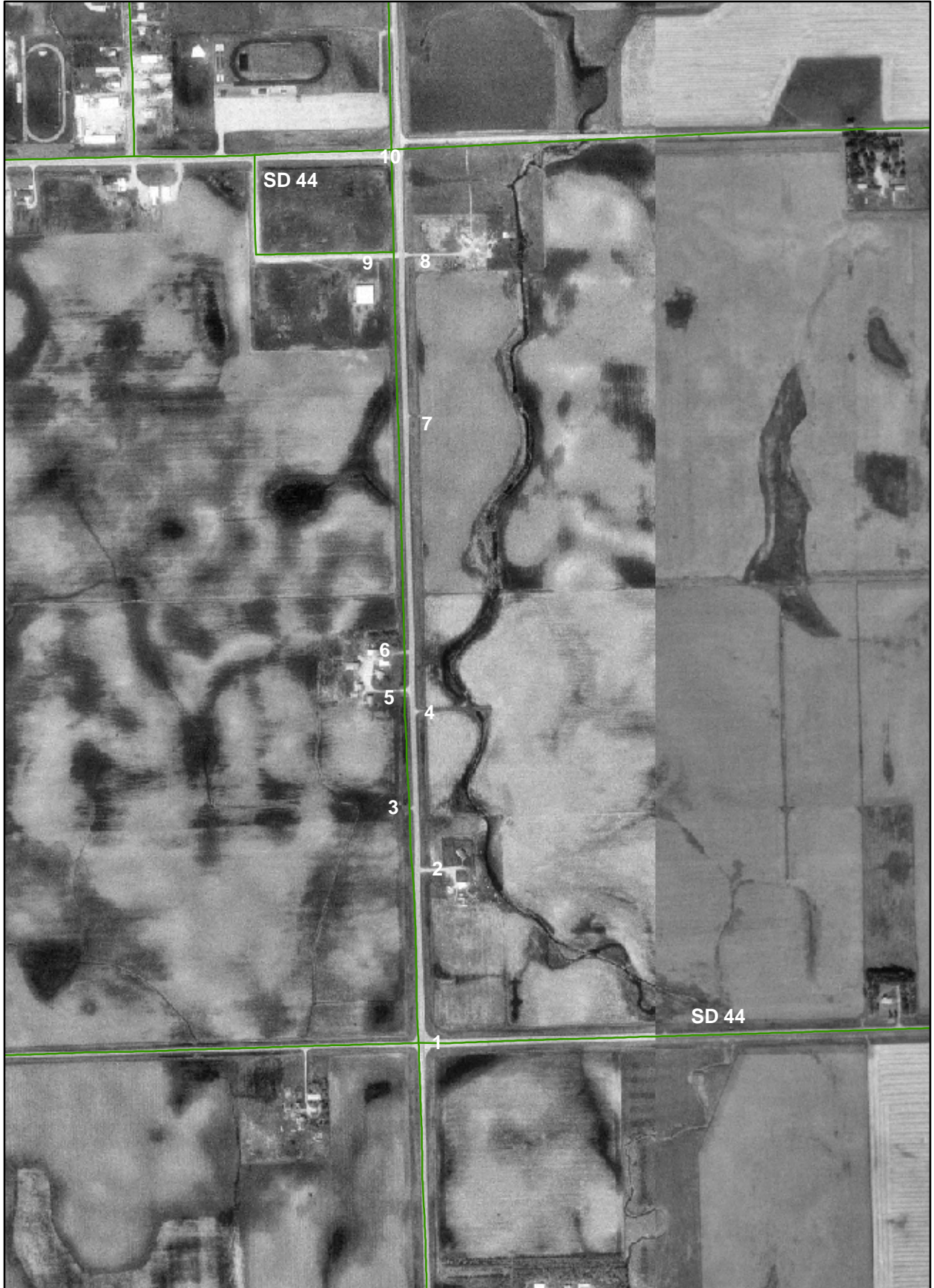
54	45.00	+ .316	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
55	45.00	+ .407	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
56	45.00	+ .457	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
57	45.00	+ .814	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
58	45.00	+ .836	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
59	45.00	+ .881	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
60	46.00	+ .064	BOTH	275TH STREET	MAINTAIN EXISTING ACCESS POINT
61	46.00	+ .202	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
62	46.00	+ .513	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
63	46.60	+ .067	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
64	46.60	+ .256	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
65	47.00	+ .117	BOTH	274TH STREET	MAINTAIN EXISTING ACCESS POINT
66	47.00	+ .335	BOTH	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
67	47.00	+ .532	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
68	47.48	+ .067	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
69	47.48	+ .321	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
70	47.48	+ .447	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
71	48.00	+ .068	BOTH	273RD STREET	MAINTAIN EXISTING ACCESS POINT
72	48.00	+ .298	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
73	48.00	+ .298	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
74	48.00	+ .449	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
75	48.00	+ .571	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
76	48.00	+ .780	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
77	48.00	+ .863	RIGHT	RESIDENTIAL DRIVE TROPHIES FOREVER	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
78	49.00	+ .040	RIGHT	TAXIDERMY	ELIMINATE WITH RECONSTRUCTION, USE SIDE STREET ACCESS
79	49.00	+ .077	BOTH	272ND STREET	MAINTAIN EXISTING ACCESS POINT
80	49.00	+ .315	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
81	49.00	+ .568	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
82	49.00	+ .572	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
83	49.00	+ .722	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
84	49.00	+ .844	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
85	50.00	+ .076	BOTH	271ST STREET	MAINTAIN EXISTING ACCESS POINT
86	50.00	+ .106	LEFT	RESIDENTIAL DRIVE	ELIMINATE WITH RECONSTRUCTION, USE SIDE STREET ACCESS

87	50.00	+116	RIGHT	GORDY'S AUTO	ELIMINATE WITH RECONSTRUCTION, USE SIDE STREET ACCESS
88	50.00	+226	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
89	50.00	+370	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
90	50.00	+421	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
91	50.00	+824	BOTH	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
92	51.00	+017	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
93	51.00	+076	BOTH	270TH STREET	MAINTAIN EXISTING ACCESS POINT
94	51.00	+211	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
95	51.00	+365	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
96	51.00	+579	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
97	51.00	+596	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
98	51.00	+653	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
99	51.00	+723	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
100	51.00	+789	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
101	51.00	+823	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
102	51.00	+984	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
103	51.00	+1.036	LEFT	RESIDENTIAL DRIVE	ELIMINATE WITH RECONSTRUCTION, USE SIDE STREET ACCESS
104	52.00	+012	BOTH	269TH STREET	MAINTAIN EXISTING ACCESS POINT
105	52.00	+171	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
106	52.00	+325	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
107	52.00	+514	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
108	52.00	+514	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
109	52.77	+000	BOTH	MINNEHAHA COUNTY/268TH STREET	MAINTAIN EXISTING ACCESS POINT
110	52.77	+108	RIGHT	RESIDENTIAL DRIVE	CONSOLIDATE WITH #112 WITH RECONSTRUCTION
111	52.77	+142	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
112	52.77	+209	RIGHT	RESIDENTIAL DRIVE	CONSOLIDATE WITH #110 WITH RECONSTRUCTION
113	53.00	+145	LEFT	WILD WATER WEST	CONSOLIDATE WITH #114 WITH RECONSTRUCTION
114	53.15	+089	LEFT	WILD WATER WEST	CONSOLIDATE WITH #113 WITH RECONSTRUCTION
115	53.15	+260	LEFT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
116	53.15	+257	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
117	53.15	+610	LEFT	COMMERCIAL DRIVEWAY	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
118	53.81	+000	BOTH	41ST STREET	MAINTAIN EXISTING ACCESS POINT
119	53.81	+037	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES

120	53.81	+ .137	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
121	54.00	+ .452	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
122	54.00	+ .472	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
123	54.00	+ .572	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
124	54.00	+ .741	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
125	54.00	+ .809	LEFT	RESIDENTIAL DRIVE	ELIMINATE WITH RECONSTRUCTION, USE SIDE STREET ACCESS
126	54.00	+ .823	BOTH	266TH STREET	MAINTAIN EXISTING ACCESS POINT
127	54.00	+ .877	RIGHT	RESIDENTIAL DRIVE	ELIMINATE WITH RECONSTRUCTION, USE SIDE STREET ACCESS
128	54.00	+ .906	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
129	54.00	+ .961	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
130	54.00	+ .984	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
131	55.00	+ .037	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
132	55.00	+ .067	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
133	55.00	+ .210	RIGHT	FIELD ENTRANCE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
134	55.00	+ .221	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
135	55.27	+ .153	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
136	55.27	+ .220	RIGHT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
137	55.27	+ .303	LEFT	RESIDENTIAL DRIVE	MAINTAIN ACCESS POINT, REVIEW IF LAND USE CHANGES
138	55.80	+ .000	BOTH	SD 17 ENDS AT SD 42	MAINTAIN EXISTING ACCESS POINT

APPENDIX

Maps Turning Movements



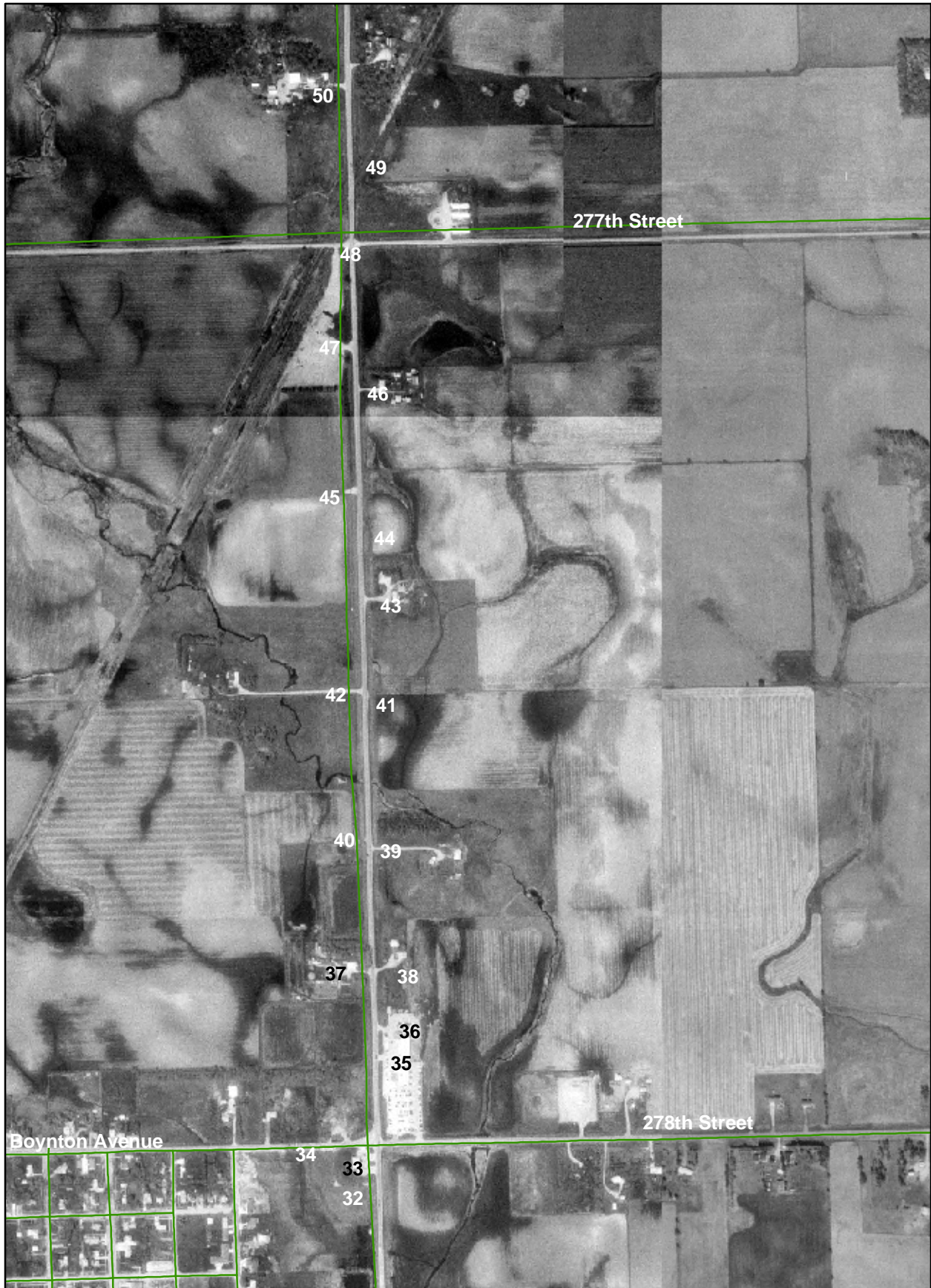
SD 17 Study

**ACCESS LOCATIONS
Map 1**



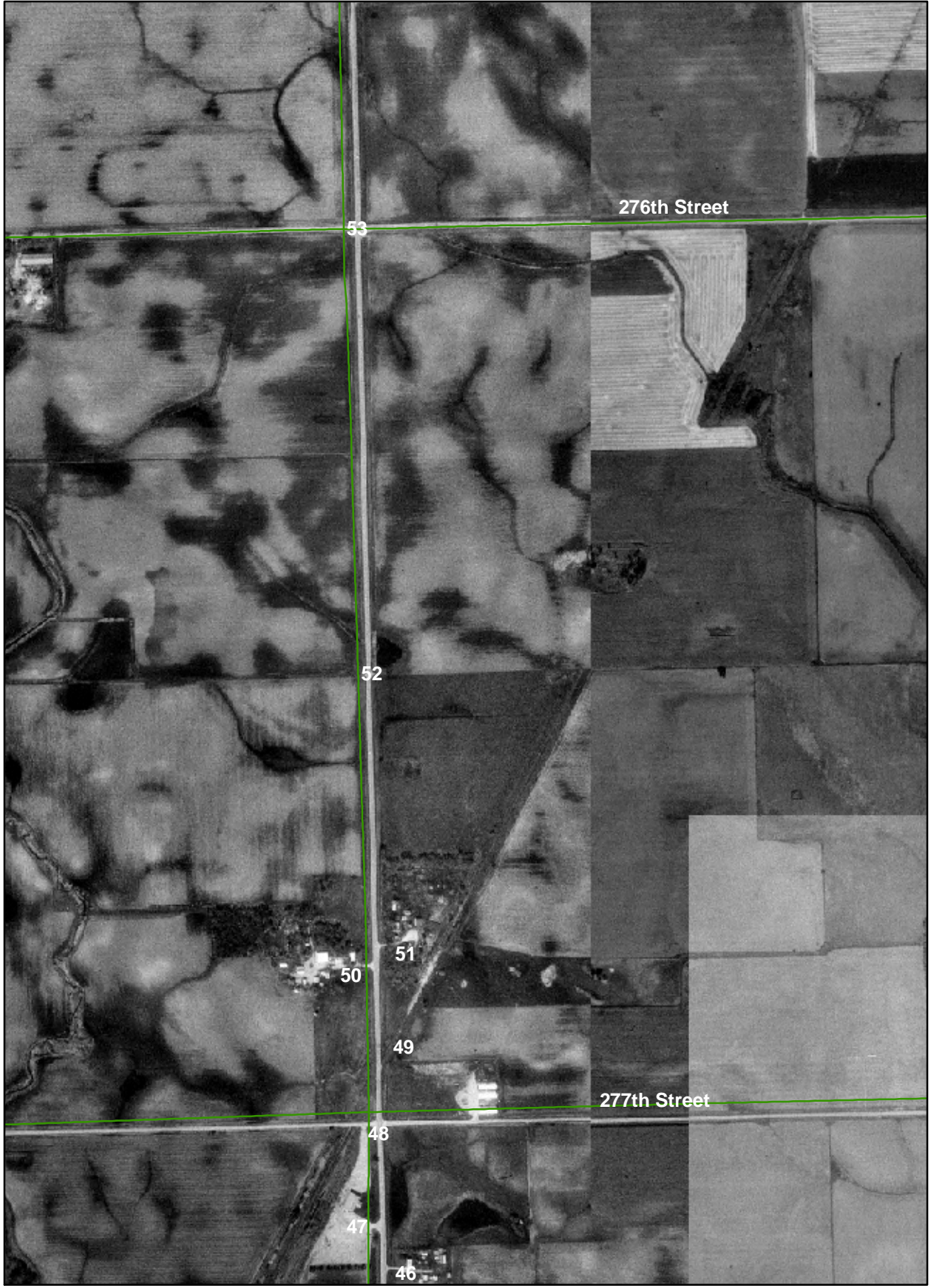
SD 17 Study

**ACCESS LOCATIONS
Map 2**



SD 17 Study

**ACCESS LOCATIONS
Map 3**



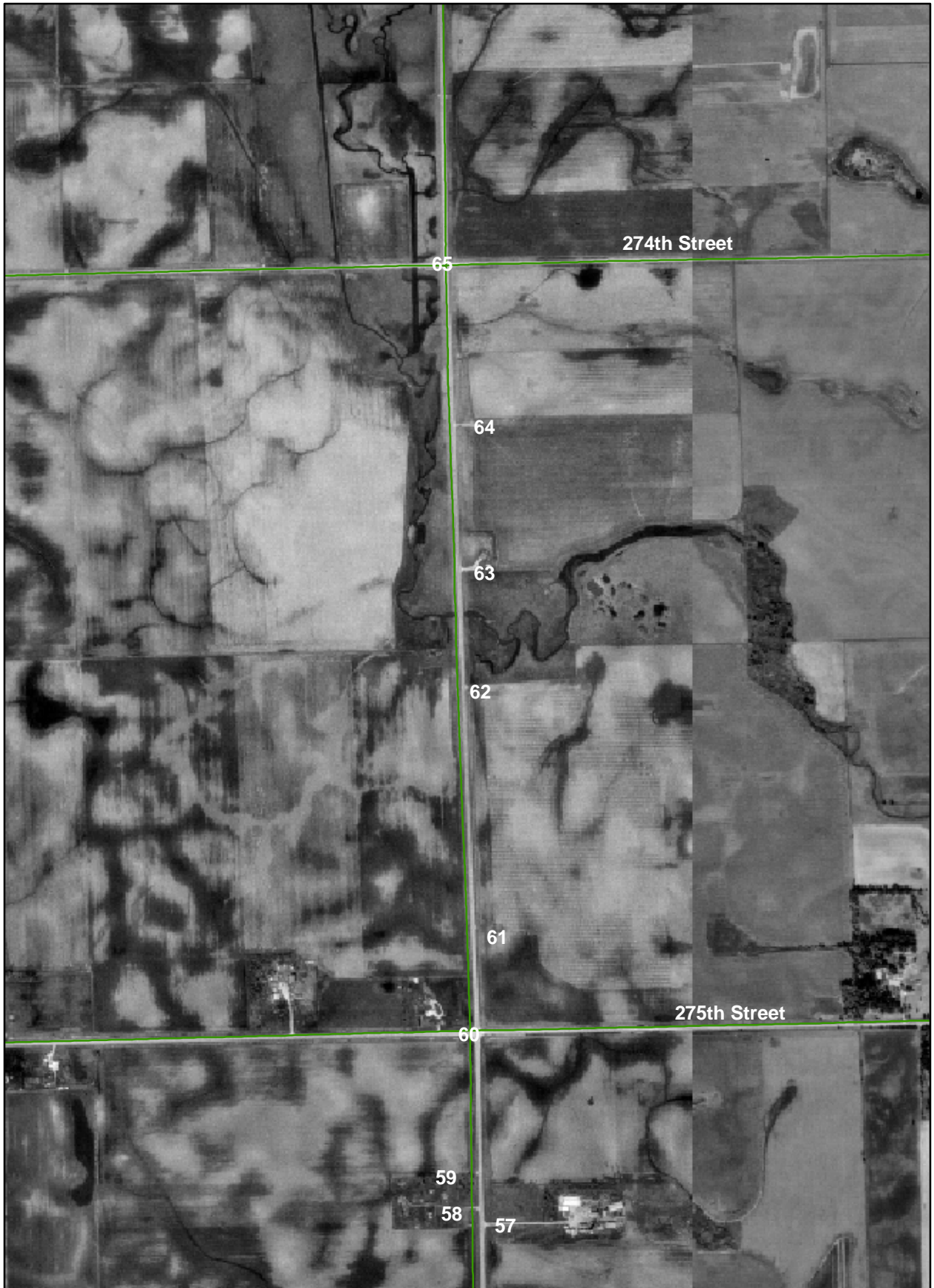
SD 17 Study

**ACCESS LOCATIONS
Map 4**



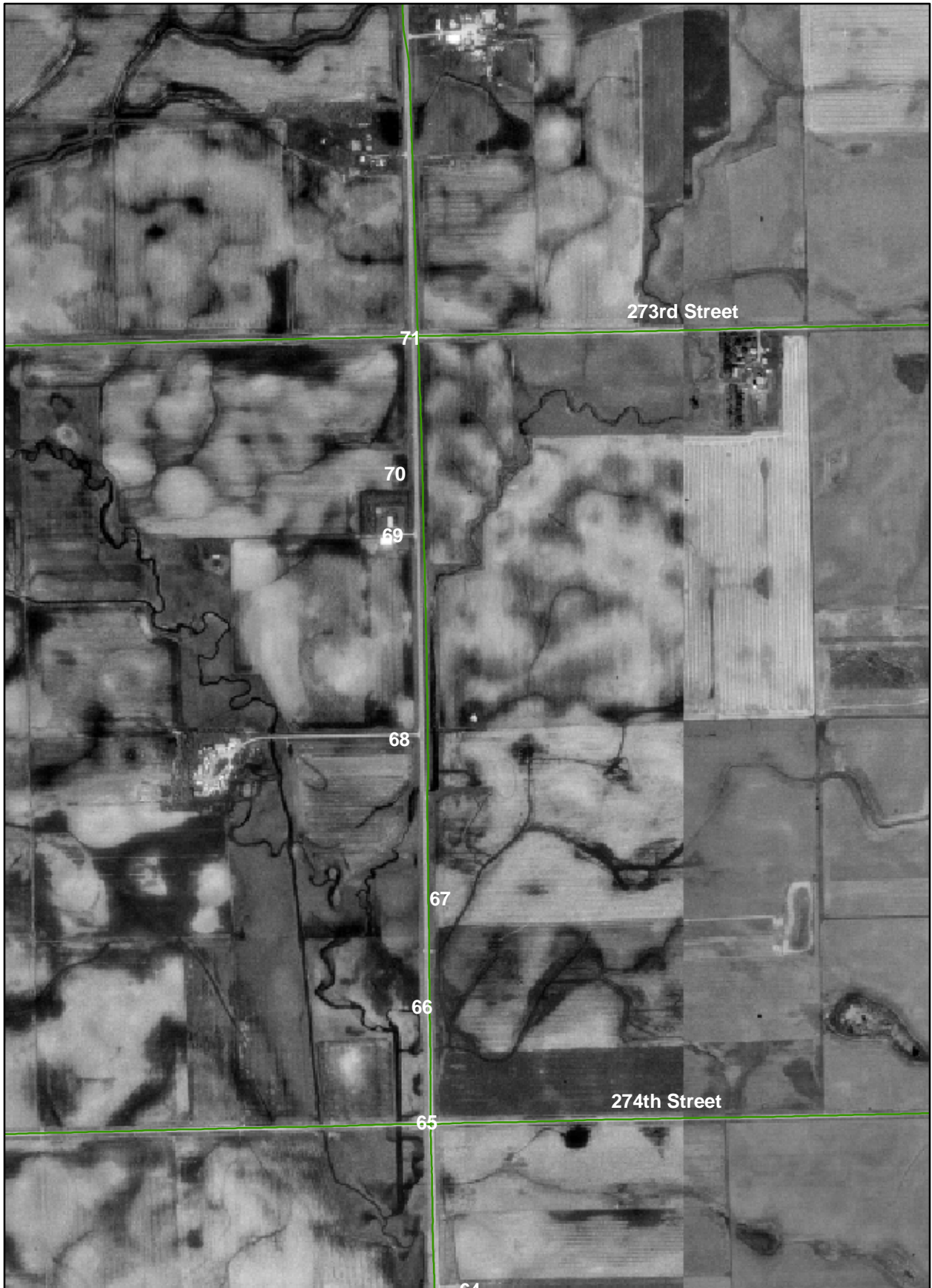
SD 17 Study

**ACCESS LOCATIONS
Map 5**



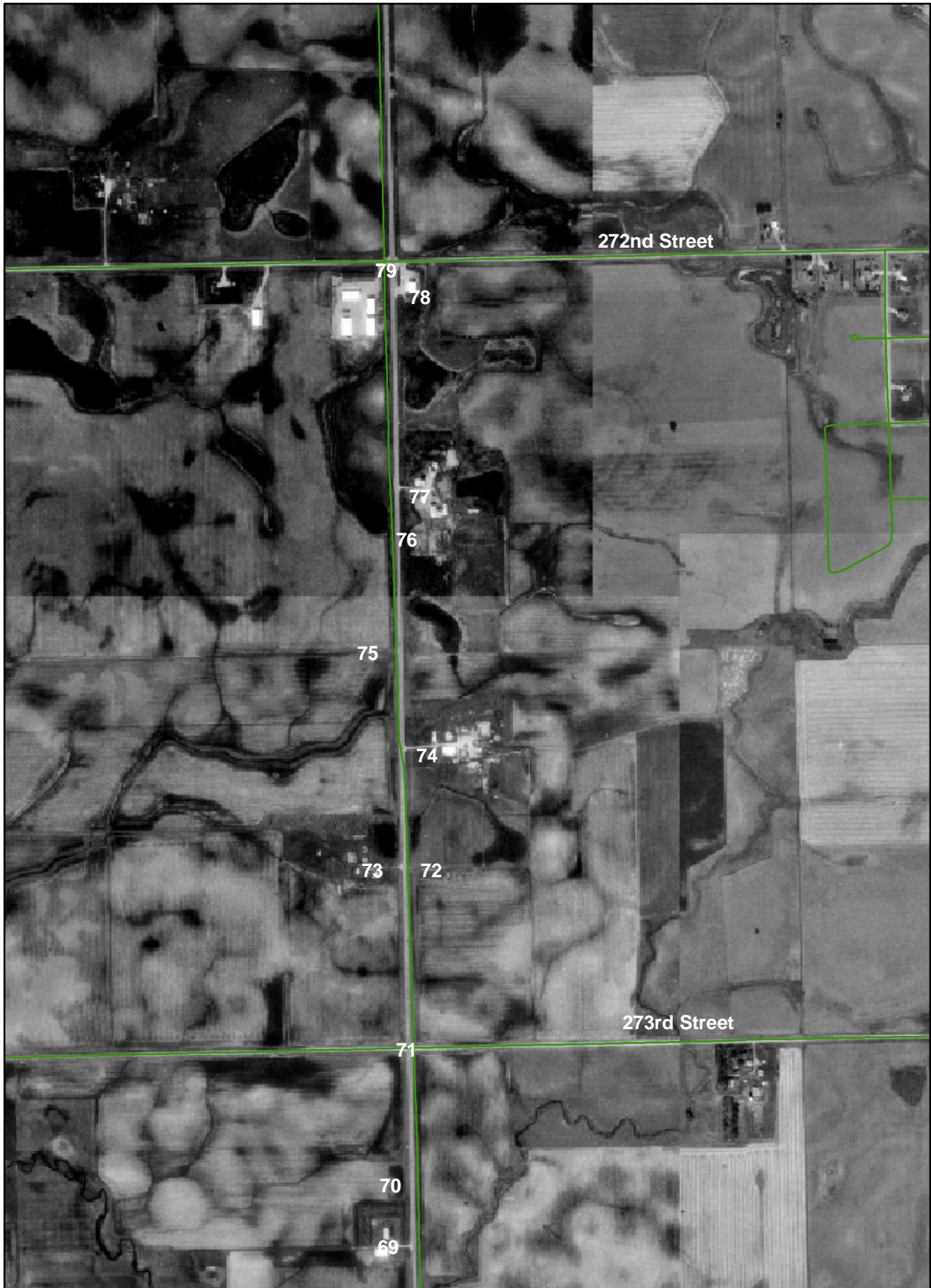
SD 17 Study

**ACCESS LOCATIONS
Map 6**



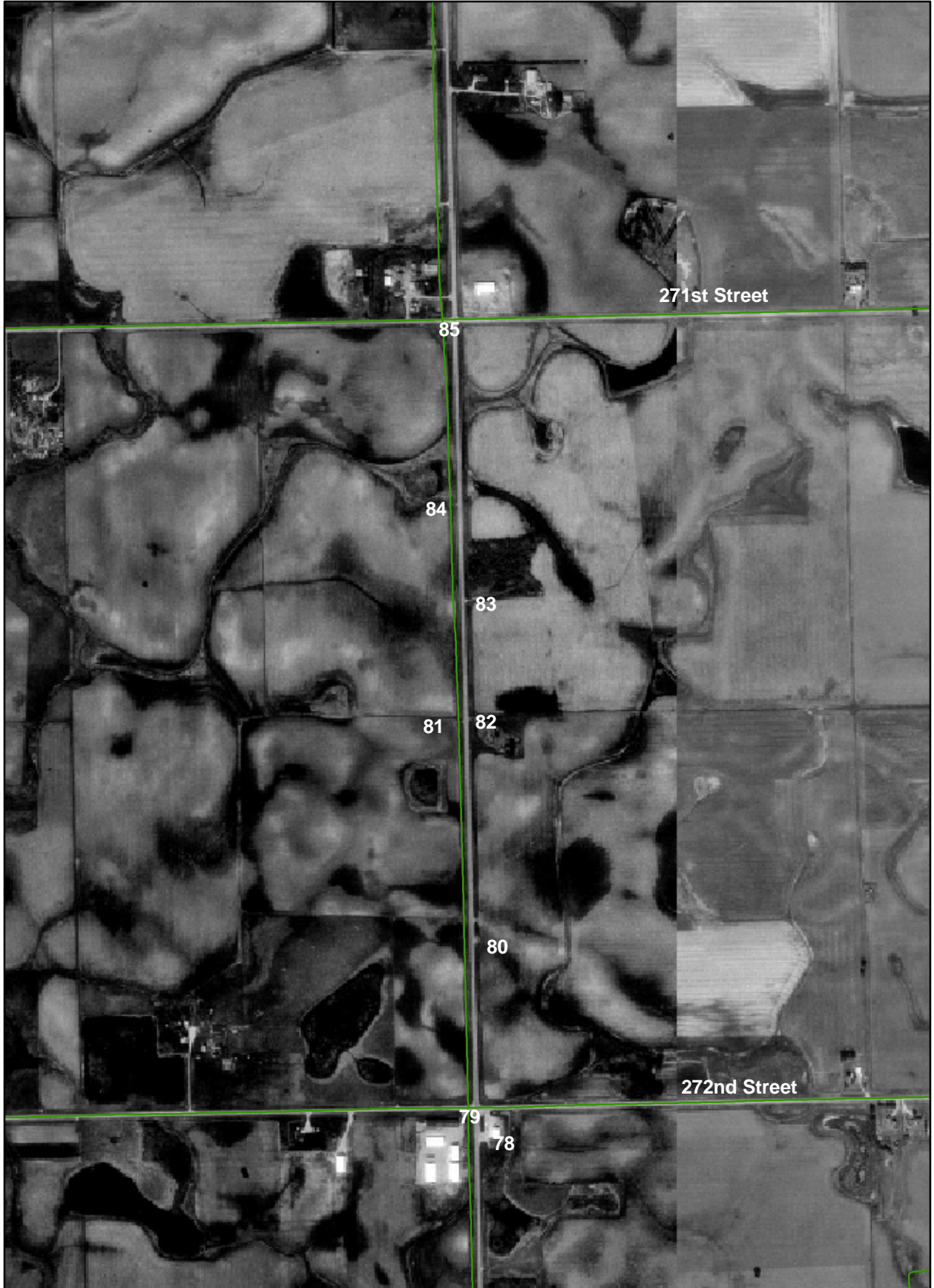
SD 17 Study

**ACCESS LOCATIONS
Map 7**



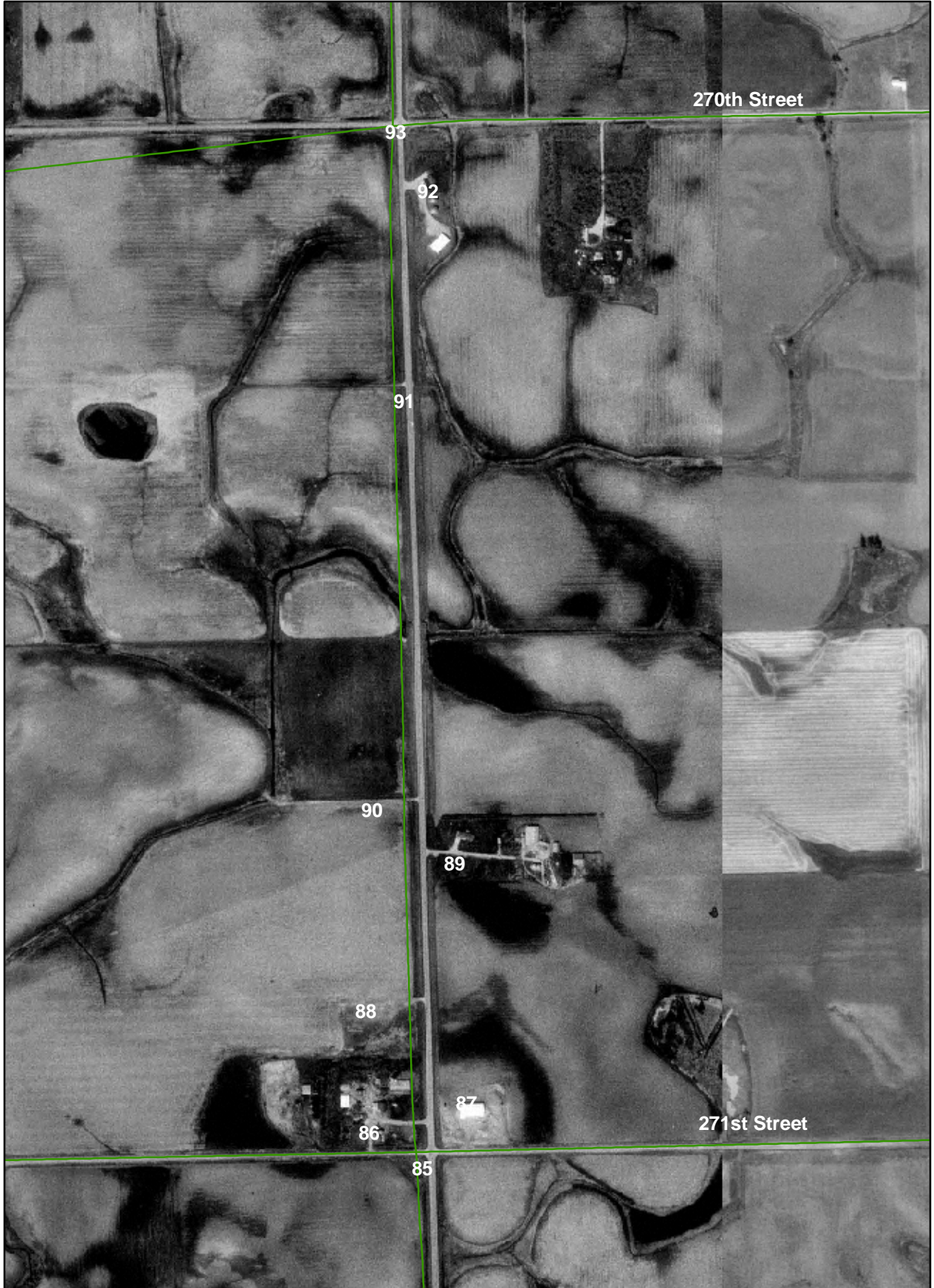
SD 17 Study

**ACCESS LOCATIONS
Map 8**



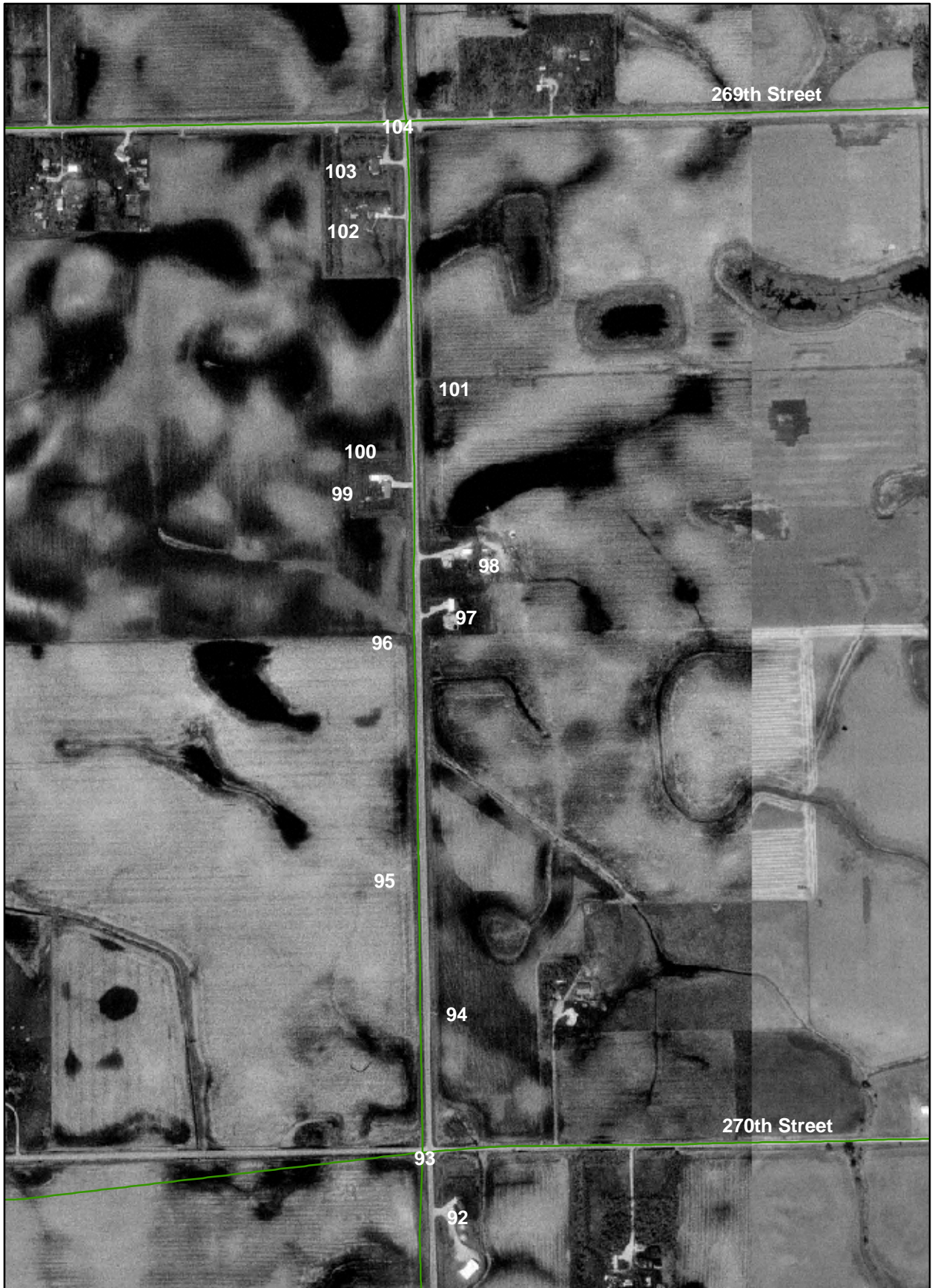
SD 17 Study

**ACCESS LOCATIONS
Map 9**



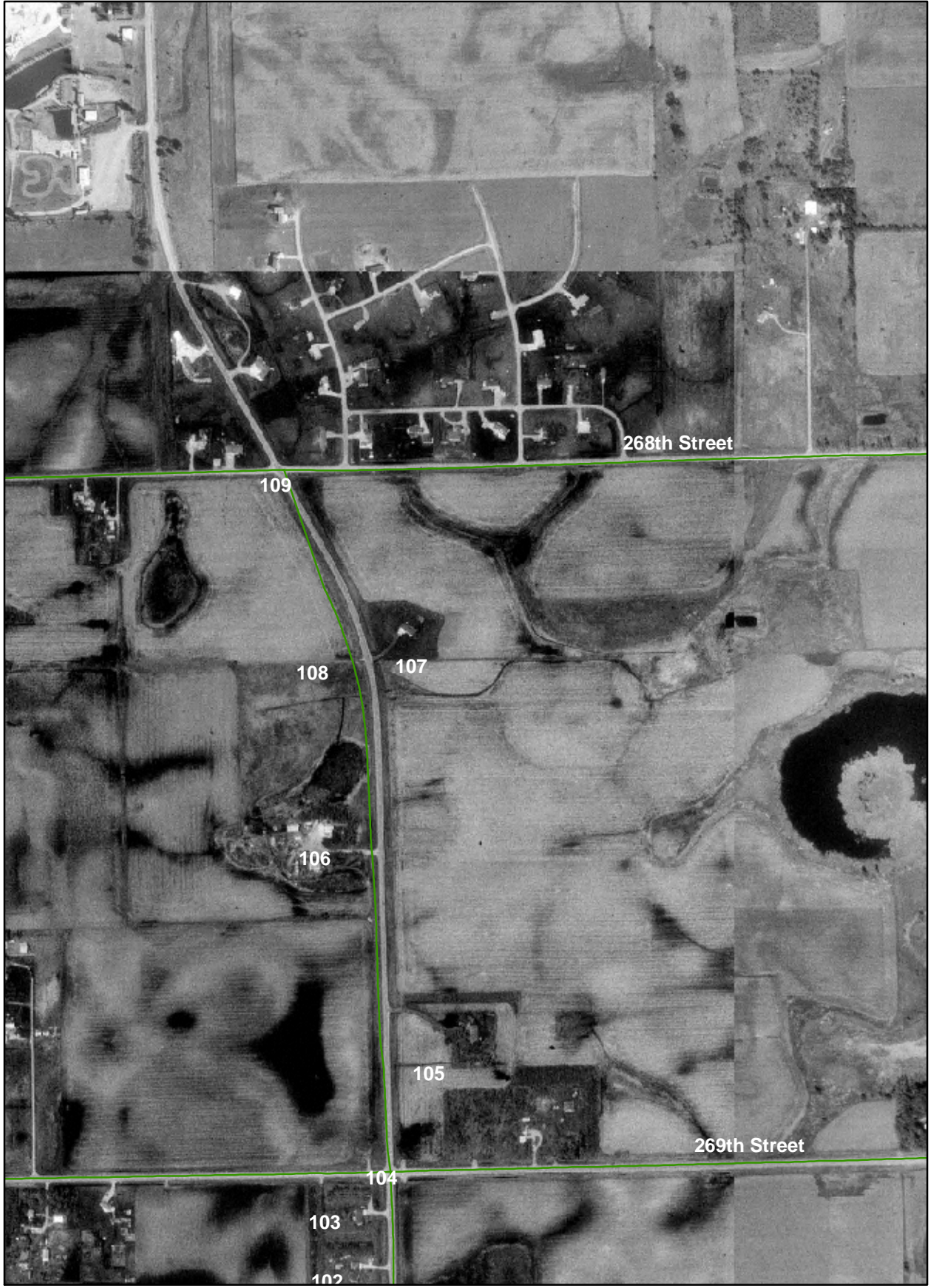
SD 17 Study

**ACCESS LOCATIONS
Map 10**



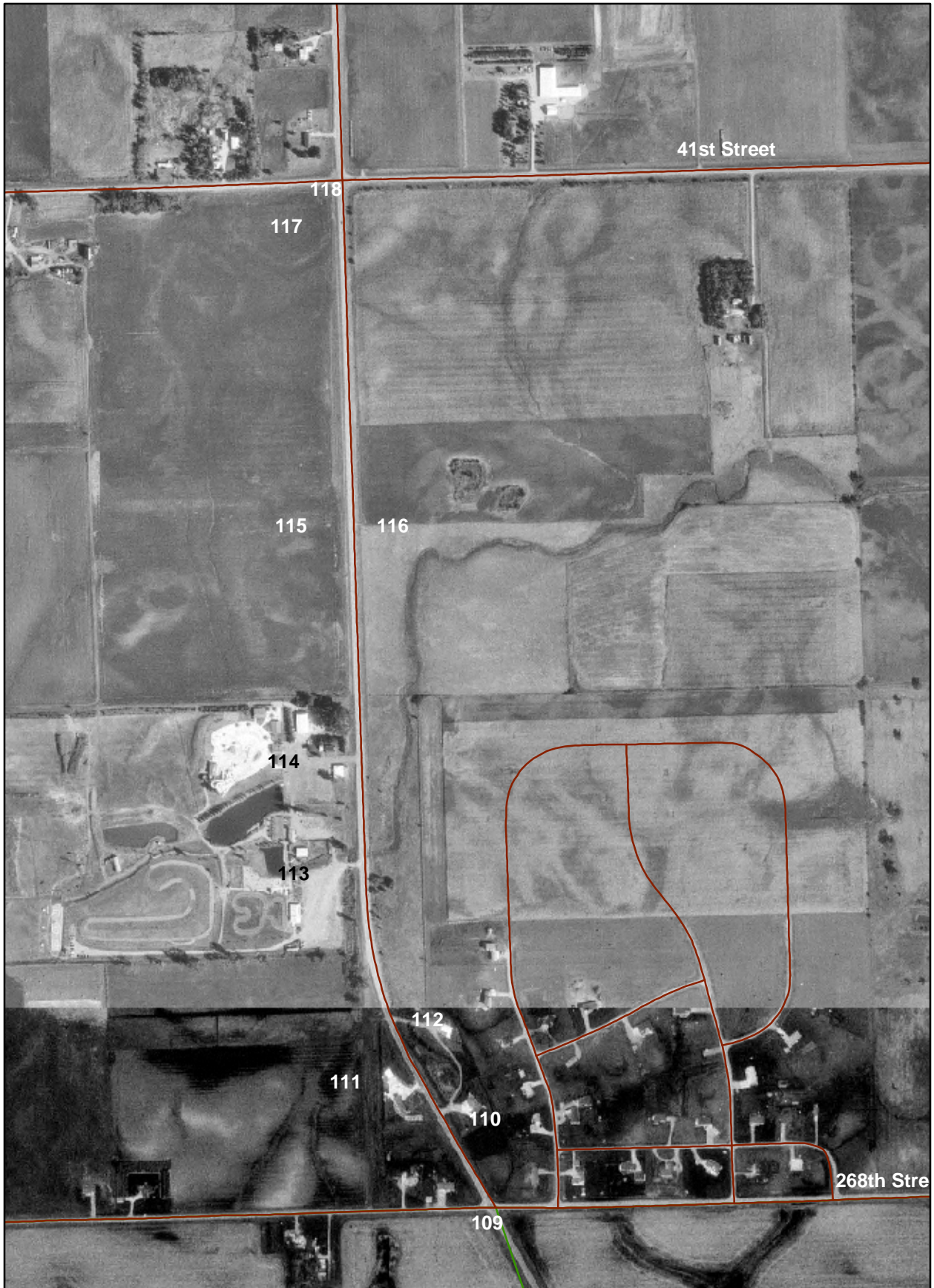
SD 17 Study

**ACCESS LOCATIONS
Map 11**



SD 17 Study

**ACCESS LOCATIONS
Map 12**



SD 17 Study

**ACCESS LOCATIONS
Map 13**



SD 17 Study

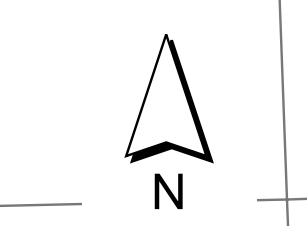
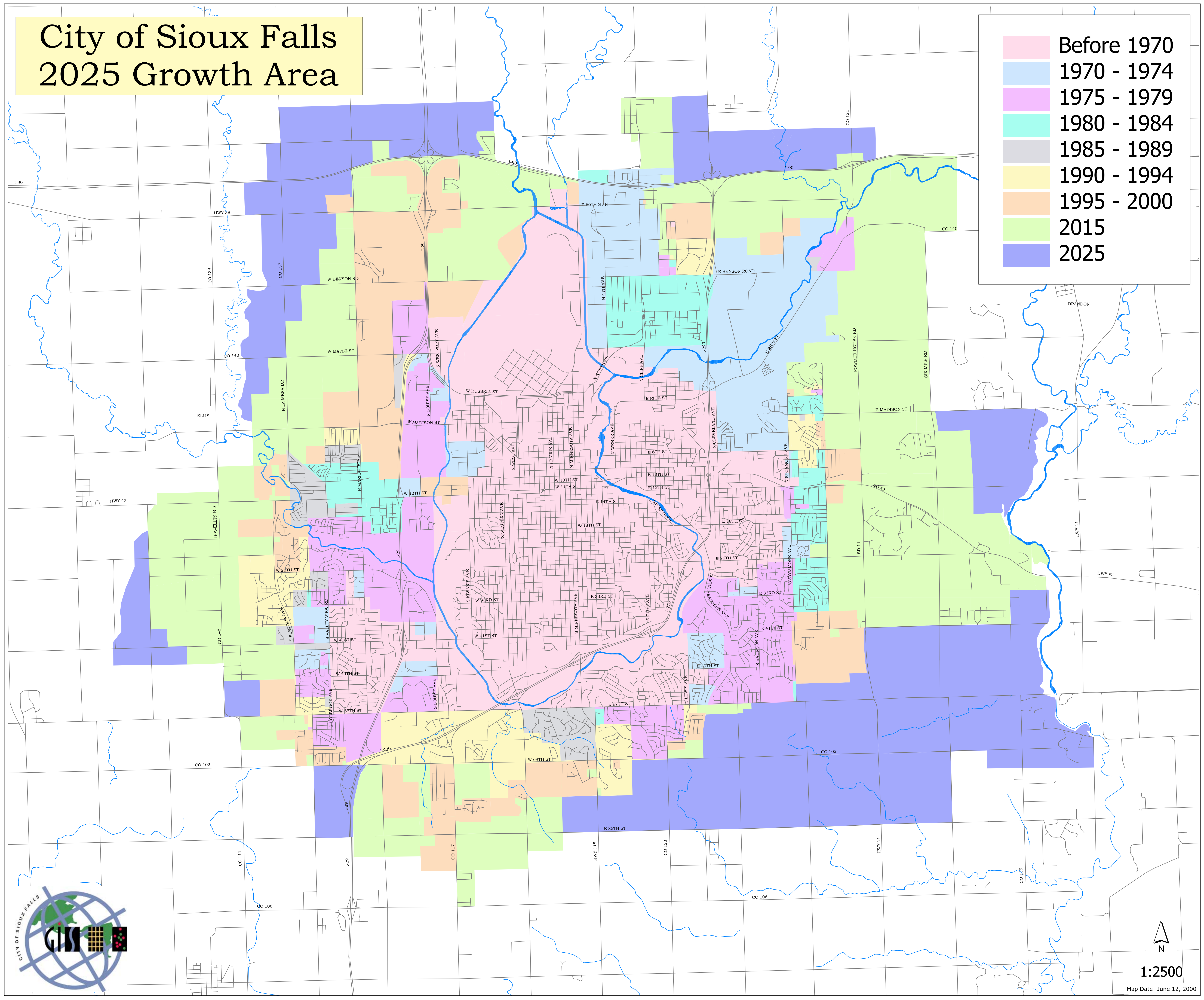
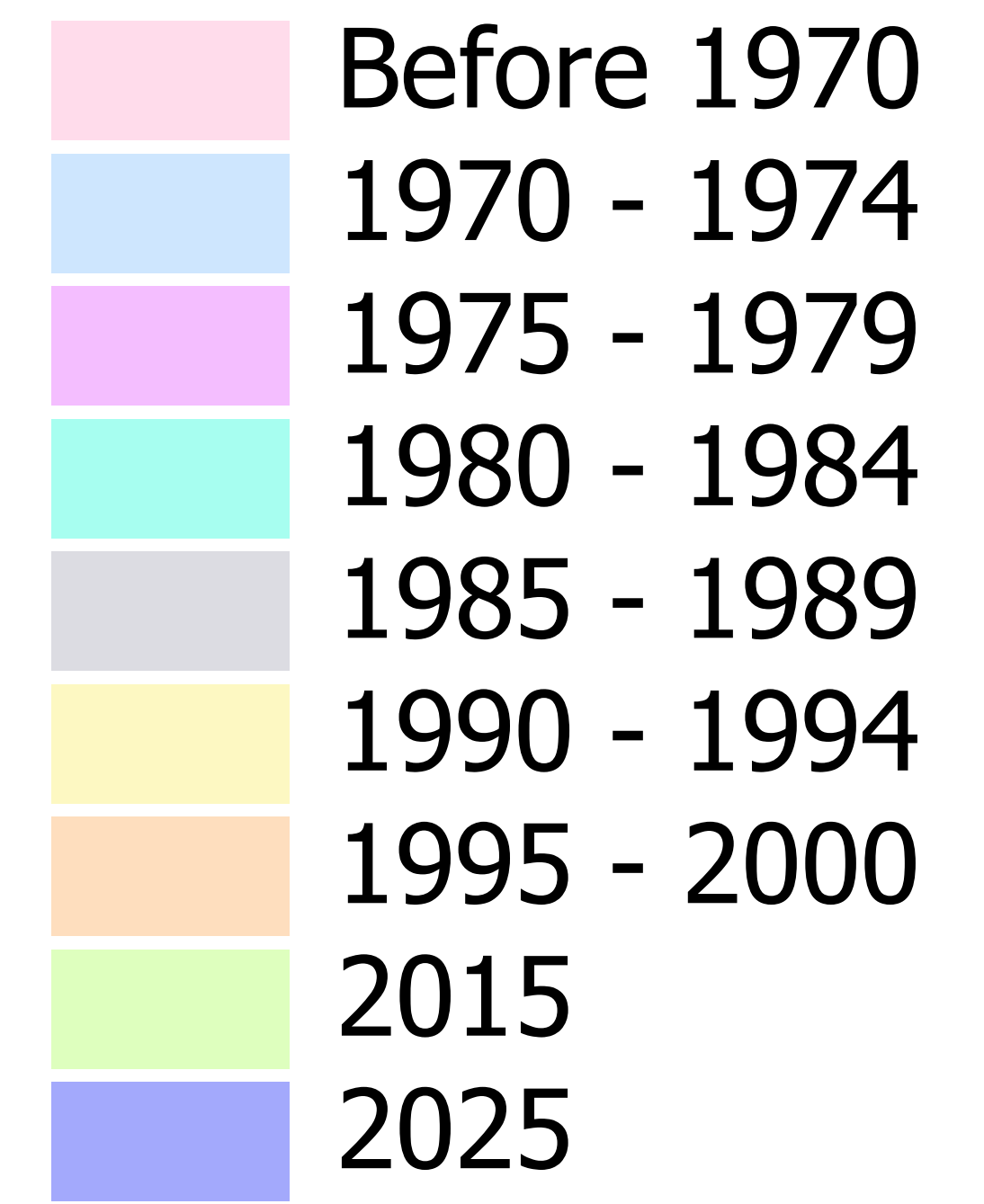
**ACCESS LOCATIONS
Map 14**



SD 17 Study

**ACCESS LOCATIONS
Map 15**

City of Sioux Falls 2025 Growth Area



1:2500

Map Date: June 12, 2000

TURNING MOVEMENT SUMMARY

LOCATION: SD 17/41ST ST

TIME PERIOD	SOUTHBOUND			WESTBOUND			NORTHBOUND			EASTBOUND		
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
EXISTING AM	20	22	14	25	36	11	4	73	64	25	101	10
EXISTING MIDDAY	7	17	20	29	62	9	5	14	36	24	33	5
EXISTING PM	13	61	21	75	117	32	11	32	33	21	60	11
2025 AM	28	33	30	54	78	24	5	96	84	31	126	12
2025 MIDDAY	42	14	15	71	76	70	15	14	43	15	46	15
2025 PM	34	99	21	162	253	69	15	20	64	24	75	15

TURNING MOVEMENT SUMMARY

LOCATION: SD 17/SD 42

TIME PERIOD	SOUTHBOUND			WESTBOUND			NORTHBOUND			EASTBOUND		
	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
EXISTING AM	0	8	1	24	88	4	25	8	81	1	321	25
EXISTING MIDDAY	3	2	0	37	83	2	6	1	34	1	78	5
EXISTING PM	4	6	0	65	328	0	34	8	26	1	121	9
2025 AM	2	2	9	43	204	3	41	2	141	25	487	359
2025 MIDDAY	3	1	3	61	195	6	29	1	36	4	165	41
2025 PM	9	1	4	205	614	26	30	1	79	5	288	37