

A Line (Snelling) Bus Rapid Transit

July 24, 2014

Technical Advisory
Committee
Meeting #7



A Line - Approved Plan Summary



*Corridor Planning
& Pre-Design Community
Engagement*

Concept Plan

**Community
Input on
Concept Plan**

Recommended Plan

**Comments on
Recommended
Plan**

**Action
to Approve
Recommended
Plan**

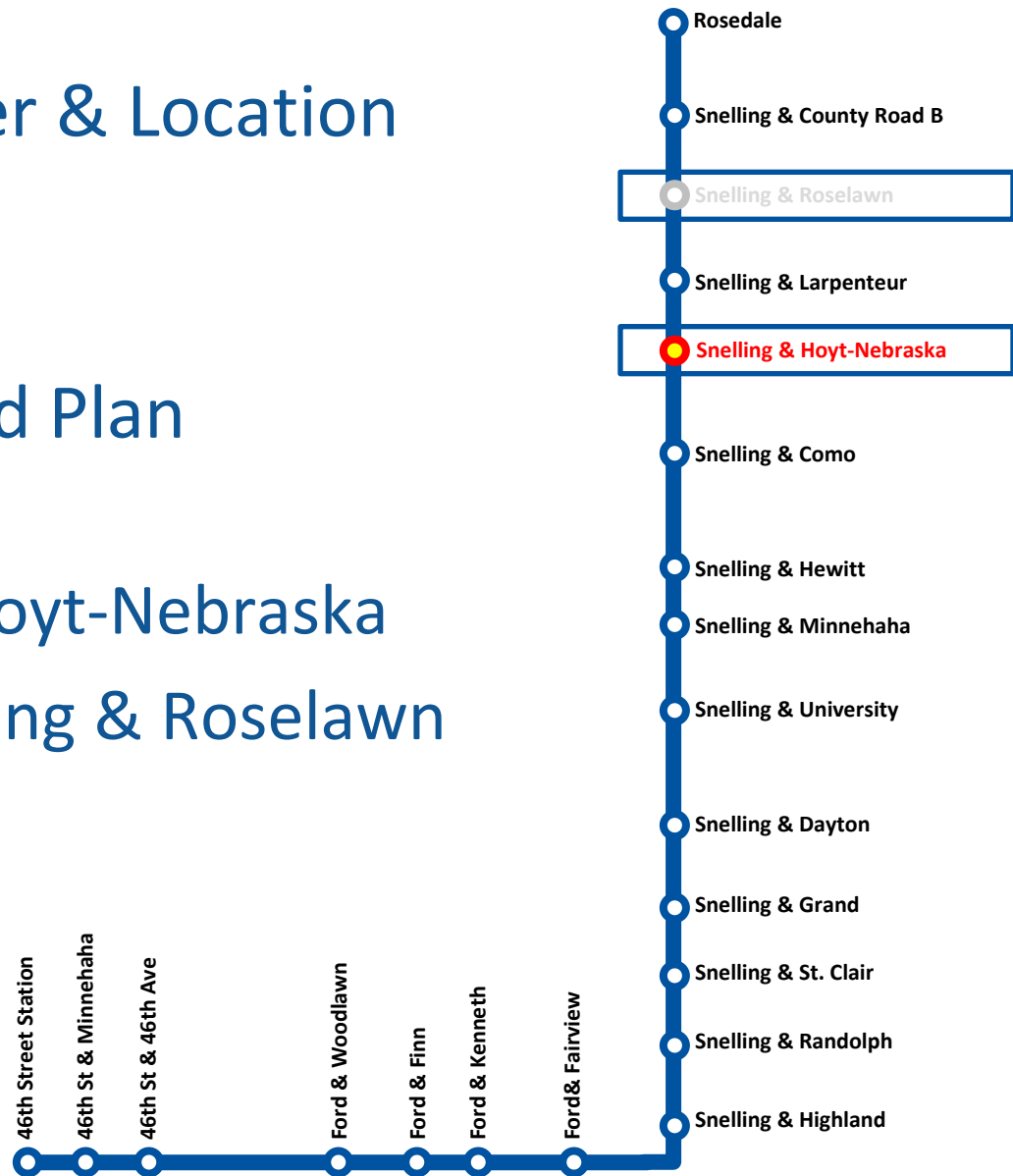
- Extensive pre-design (2012-2013) technical analysis of station locations and community engagement
- Shared for public review May 2014
- Included multiple alternatives for two stations of interest
- The **final number and location of stations**
- A **specific location for each platform**

**Approved
Plan***

Final Design

*pending MnDOT layout approval

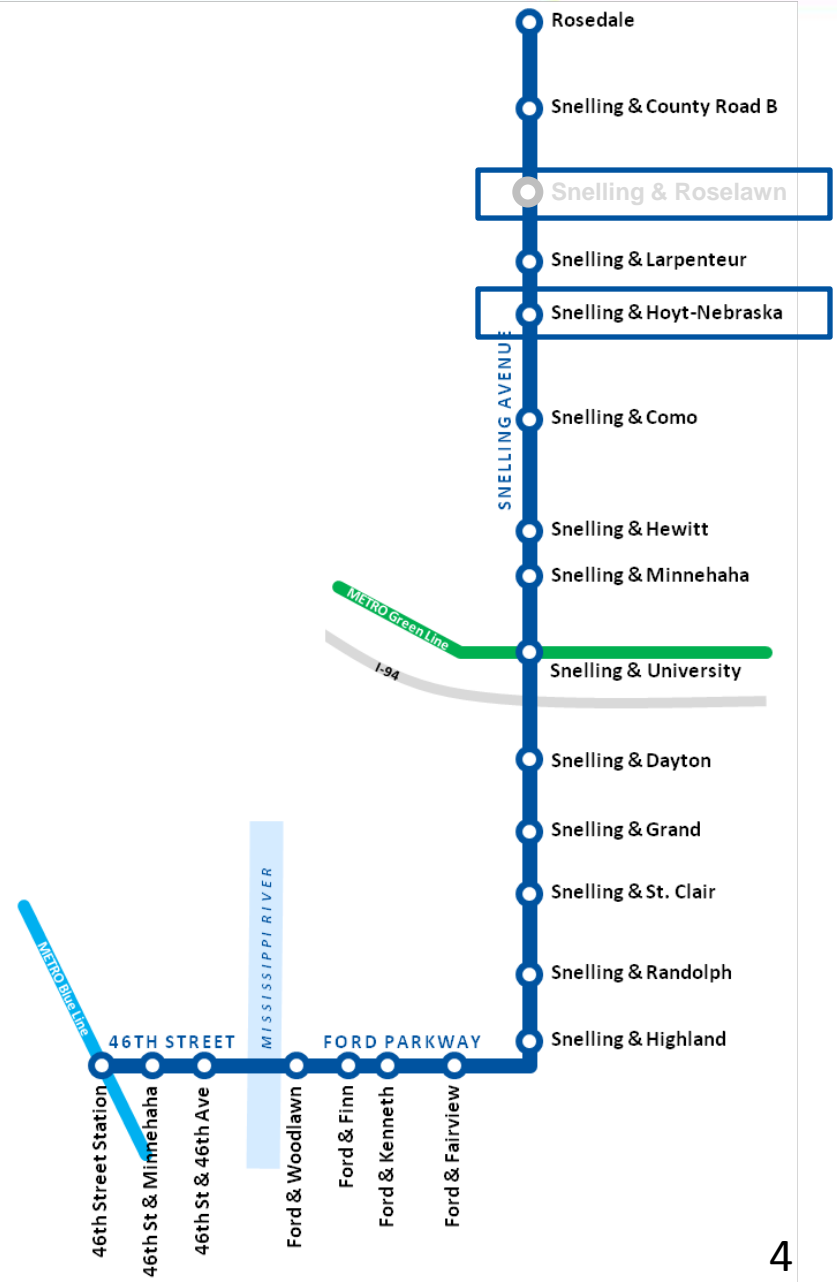
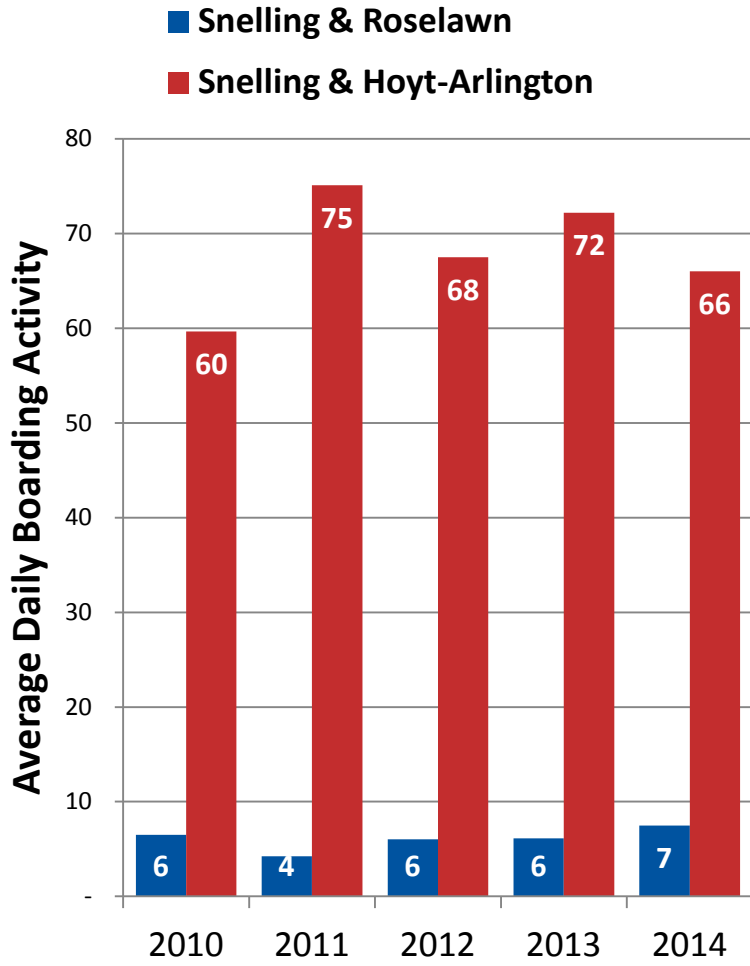
- Part 1: Number & Location of Stations
- 20 Stations in Recommended Plan
- Includes Snelling & Hoyt-Nebraska
 - Defers Snelling & Roselawn



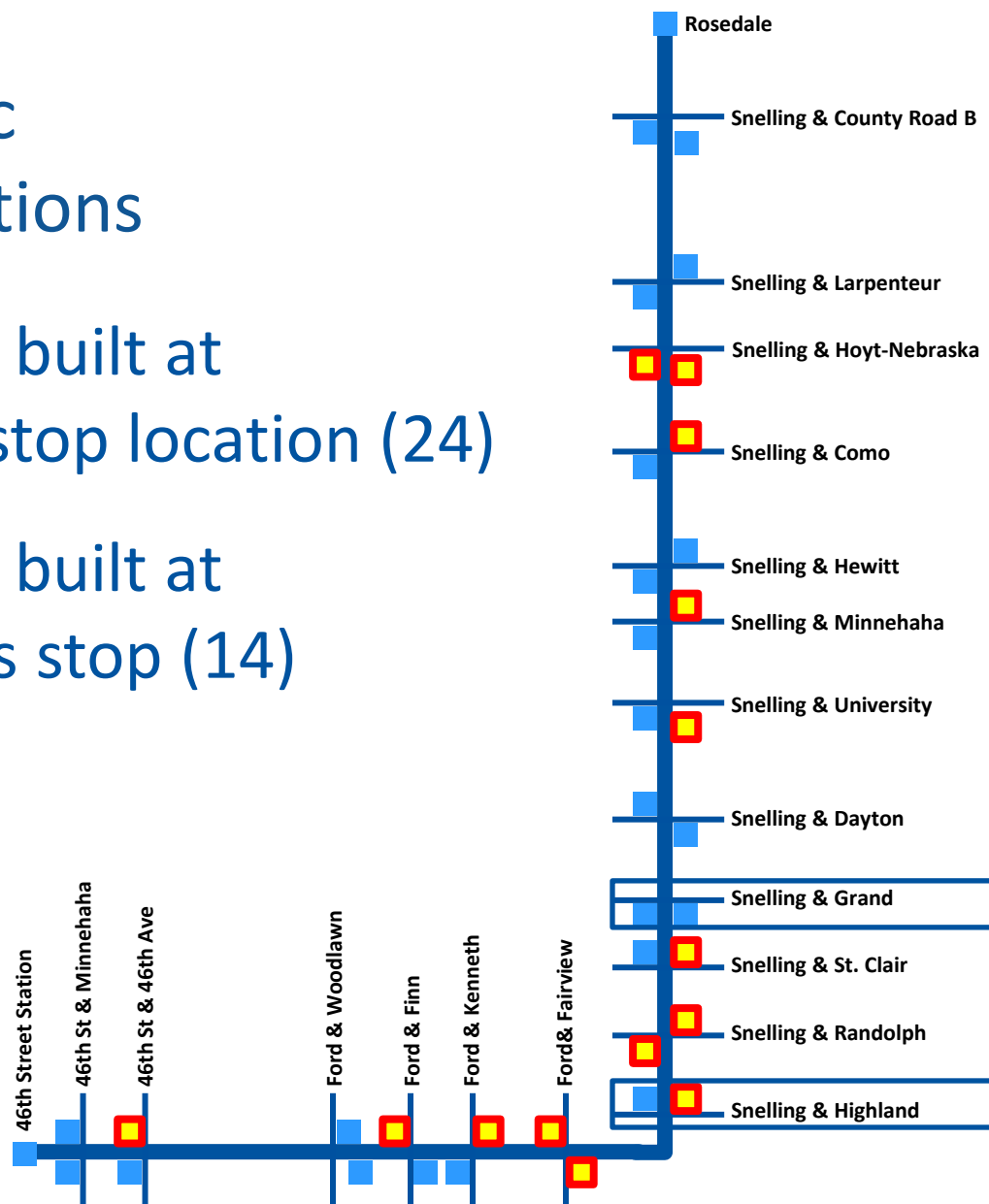
Roselawn Station Deferral



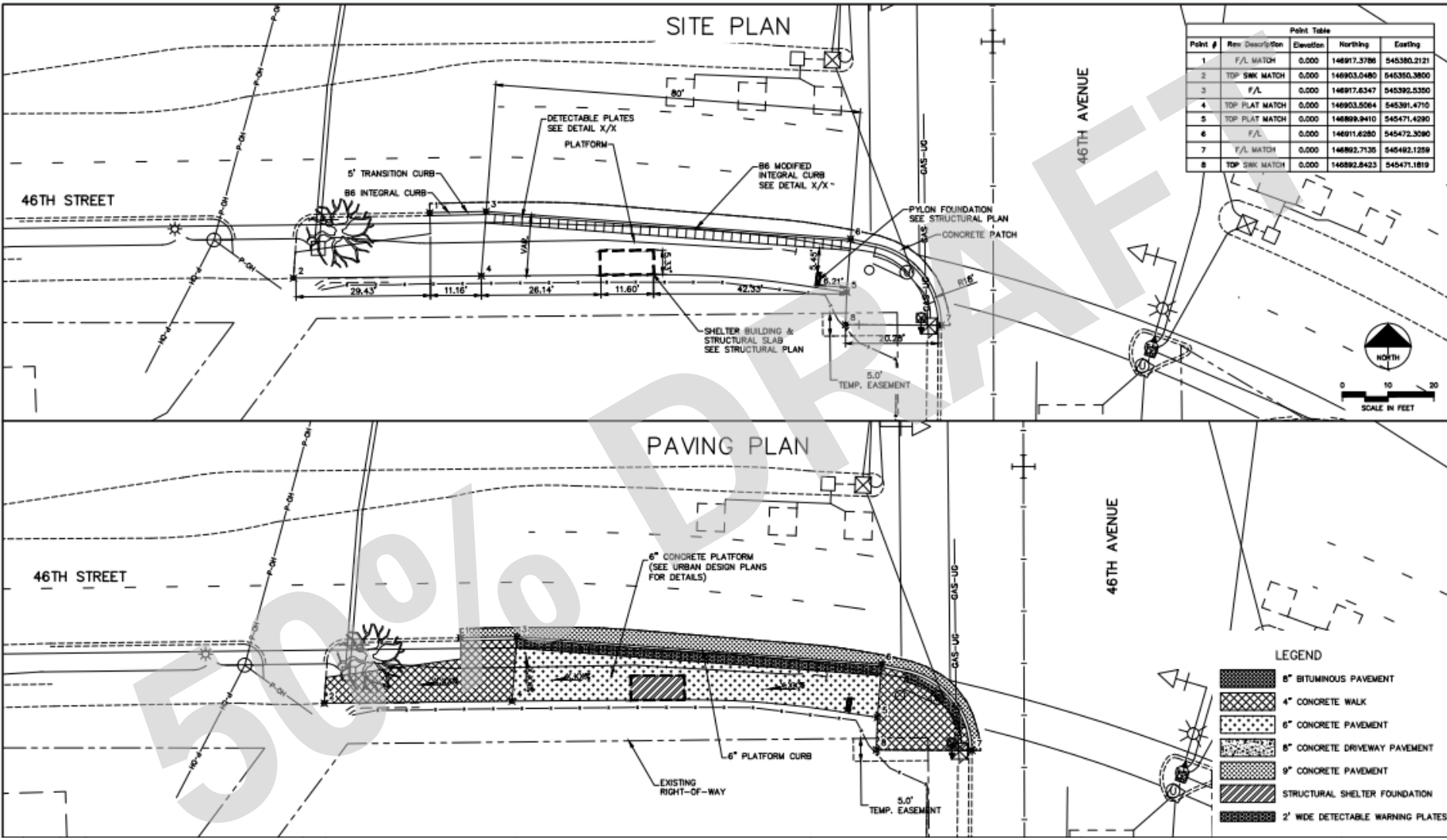
- Consistently higher ridership at Hoyt-Arlington



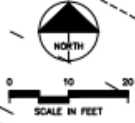
- Part 2: Specific Platform Locations
 - Station to be built at existing bus stop location (24)
 - Station to be built at relocated bus stop (14)



46th Street & 46th Avenue - EB



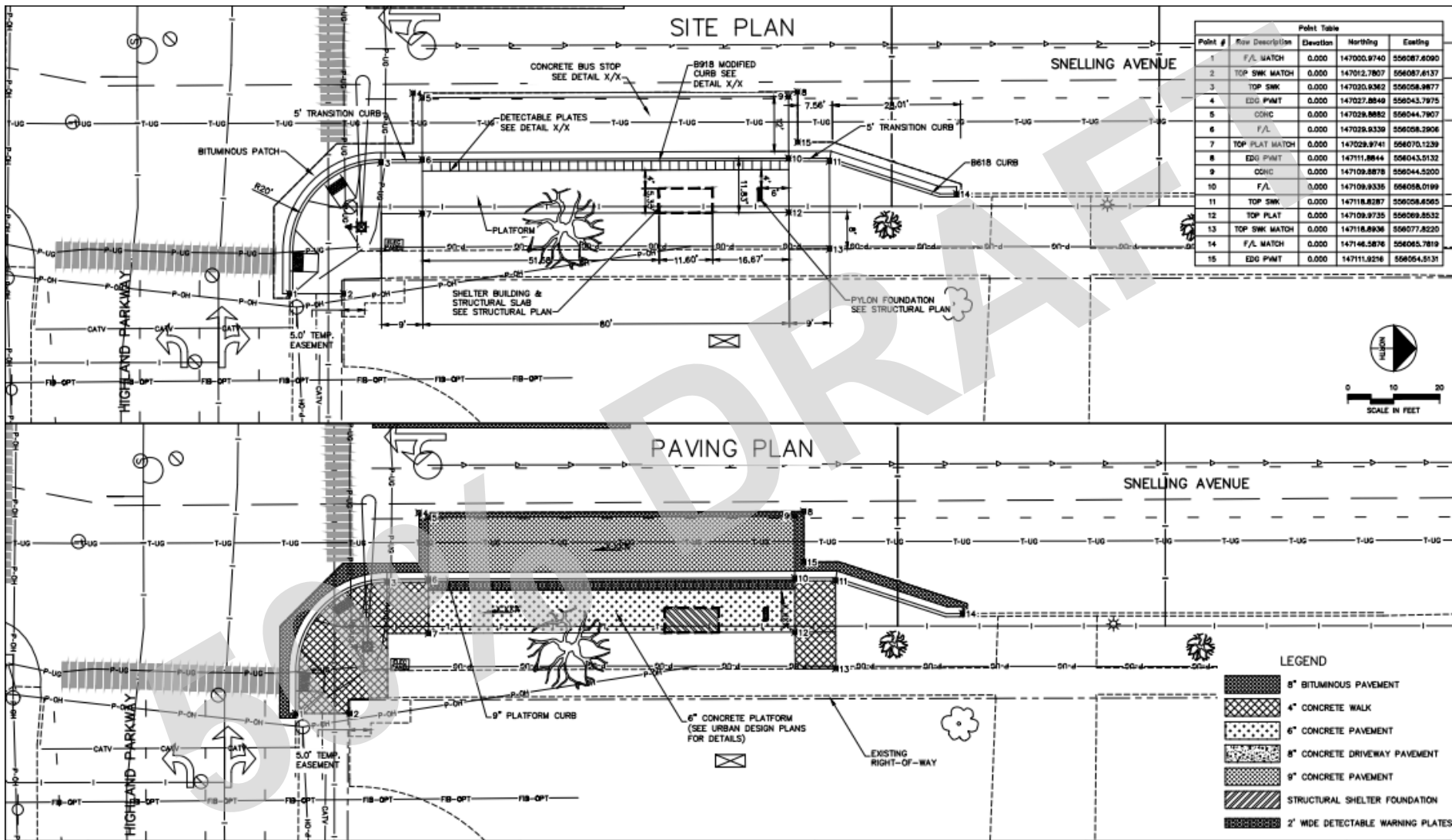
Point Table				
Point #	Raw Description	Elevation	Northing	Easting
1	F/A MATCH	0.000	146917.3786	545380.2121
2	TOP SWK MATCH	0.000	146903.0480	545350.3800
3	F/A	0.000	146917.6347	545392.5350
4	TOP PLAT MATCH	0.000	146903.0264	545391.4710
5	TOP PLAT MATCH	0.000	146899.9410	545471.4280
6	F/A	0.000	146911.6280	545472.3080
7	F/A MATCH	0.000	146892.7130	545492.1259
8	TOP SWK MATCH	0.000	146892.8423	545471.1819



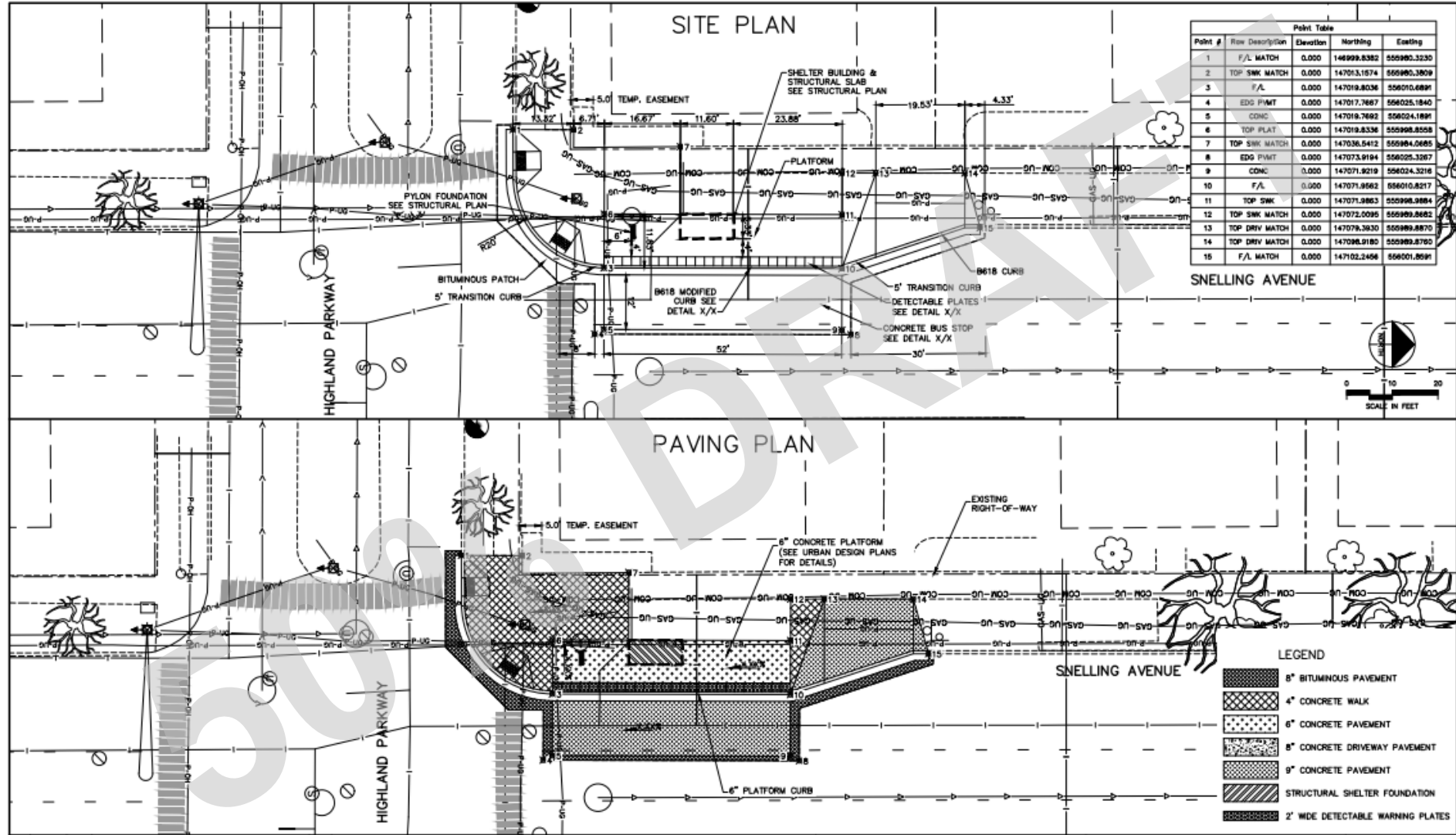
LEGEND

6" BITUMINOUS PAVEMENT
4" CONCRETE WALK
6" CONCRETE PAVEMENT
6" CONCRETE DRIVEWAY PAVEMENT
9" CONCRETE PAVEMENT
STRUCTURAL SHELTER FOUNDATION
2" WIDE DETECTABLE WARNING PLATES

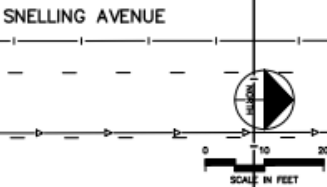
Snelling & Highland Parkway - NB



Snelling & Highland Parkway - SB



Point Table				
Point #	Row Description	Elevation	Northing	Easting
1	F/L MATCH	0.000	146999.8382	559980.3230
2	TOP SWK MATCH	0.000	147013.1574	559980.3809
3	F/L MATCH	0.000	147019.8036	559970.6891
4	EDG P/MT	0.000	147017.7667	559925.1840
5	CONC	0.000	147019.7692	559924.1691
6	TOP PLAT	0.000	147019.8336	559984.8558
7	TOP SWK MATCH	0.000	147036.5412	559984.0685
8	EDG P/MT	0.000	147073.9194	559925.3267
9	CONC	0.000	147071.9219	559924.3216
10	F/L MATCH	0.000	147071.9562	559910.8217
11	TOP SWK	0.000	147071.9863	559908.9884
12	TOP SWK MATCH	0.000	147072.0095	559909.8682
13	TOP DRIV MATCH	0.000	147079.3930	559989.8870
14	TOP DRIV MATCH	0.000	147088.9180	559989.8780
15	F/L MATCH	0.000	147102.2456	559901.8591



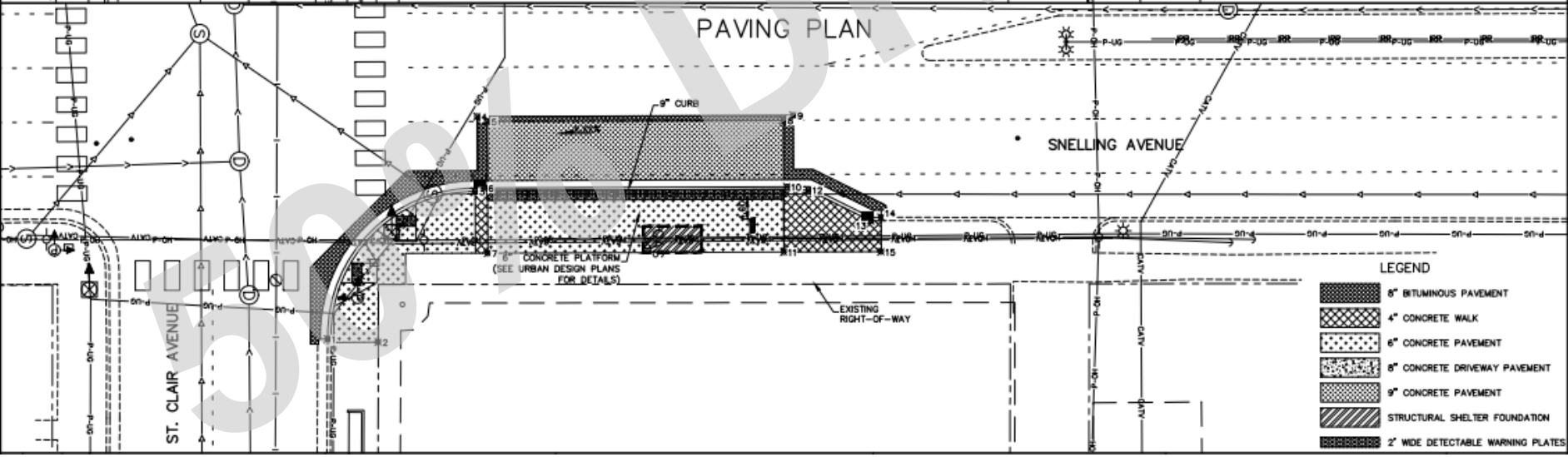
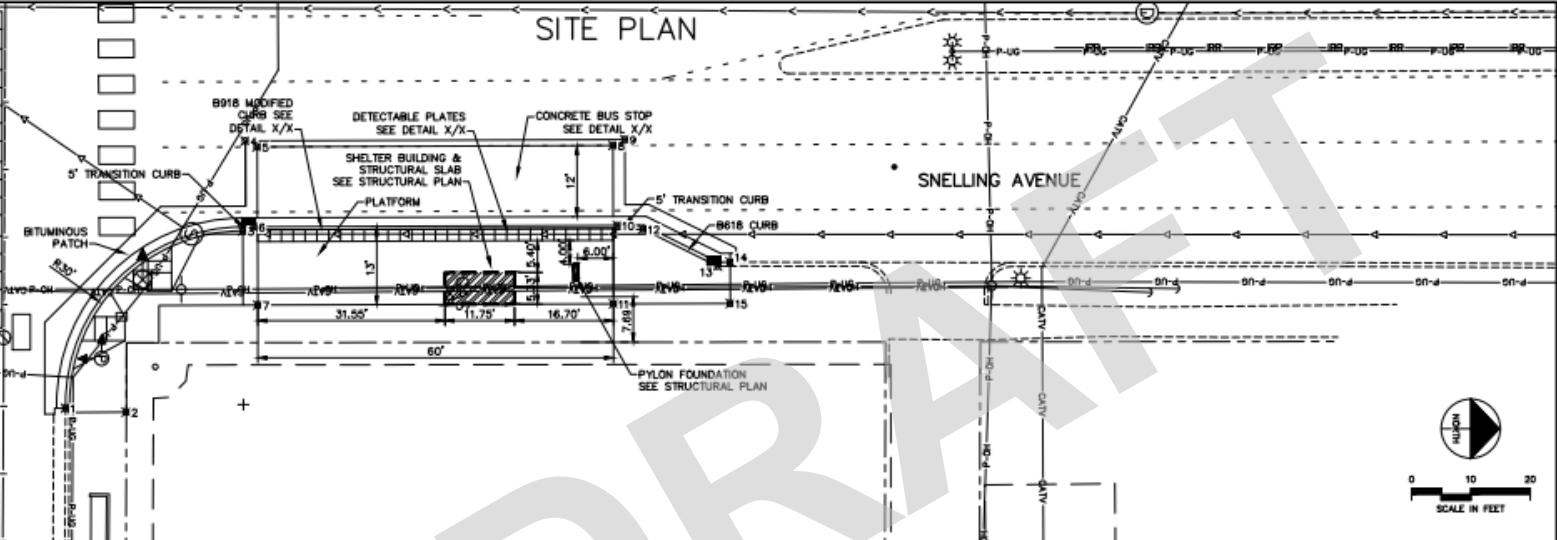
LEGEND

- 8" BITUMINOUS PAVEMENT
- 4" CONCRETE WALK
- 6" CONCRETE PAVEMENT
- 8" CONCRETE DRIVEWAY PAVEMENT
- 9" CONCRETE PAVEMENT
- STRUCTURAL SHELTER FOUNDATION
- 2" WIDE DETECTABLE WARNING PLATES

Snelling & St. Clair - NB

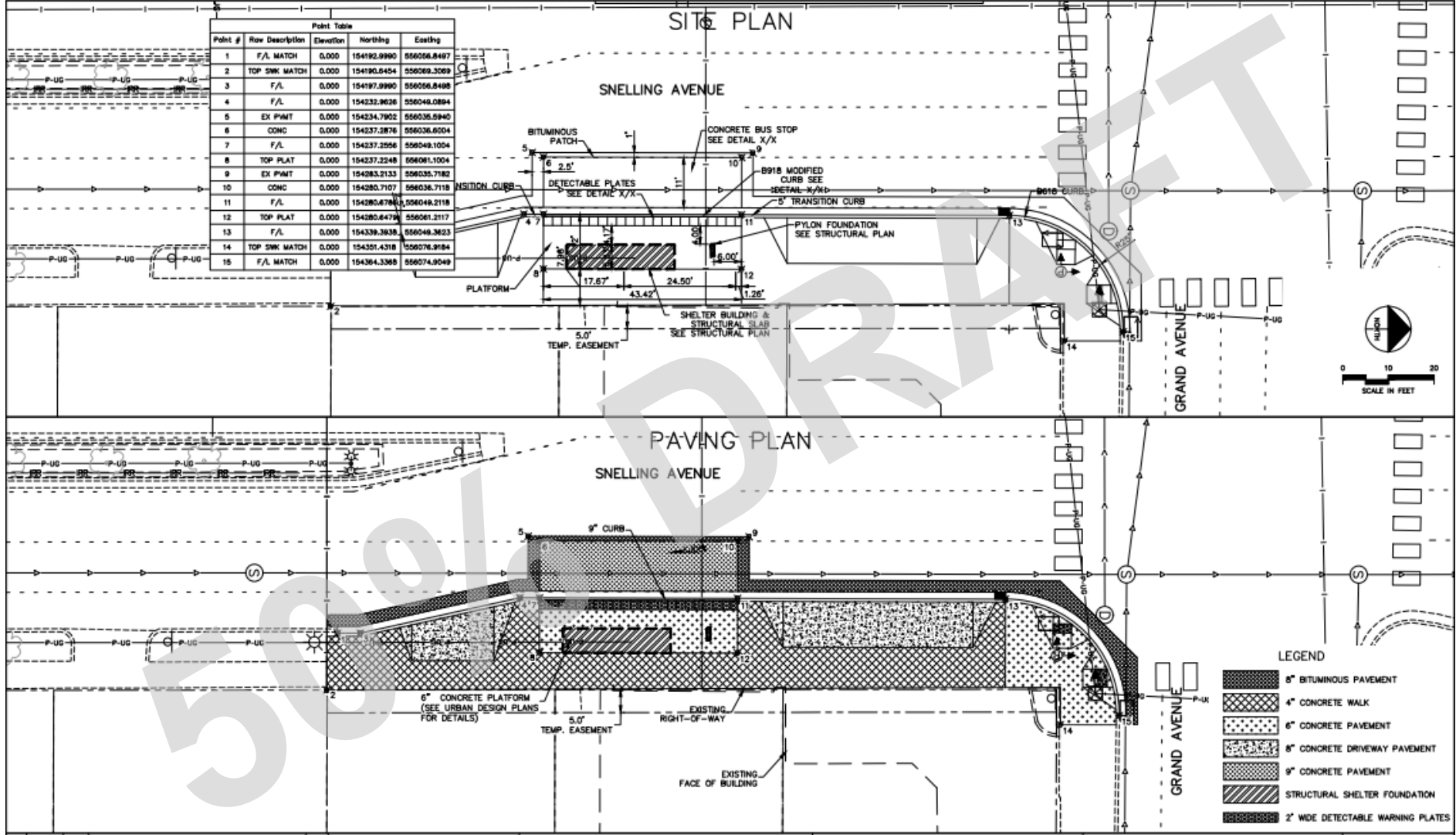


Point Table				
Point #	Row Description	Elevation	Northing	Easting
1	F/L MATCH	0.000	152288.9120	556082.3469
2	TOP SWK MATCH	0.000	152290.1059	556082.9655
3	TOP SWK	0.000	152316.7985	556052.4222
4	EX PMNT	0.000	152319.2307	556037.2498
5	CONC	0.000	152321.2346	556038.2419
6	F/L	0.000	152320.6897	556051.7448
7	TOP PLAT	0.000	152321.3460	556064.9386
8	CONC	0.000	152381.2401	556036.0051
9	EX PMNT	0.000	152383.2362	556036.9972
10	F/L	0.000	152381.9748	556051.5028
11	TOP PLAT	0.000	152381.3456	556064.7330
12	TOP SWK	0.000	152386.2960	556052.1558
13	TOP SWK	0.000	152396.8098	556058.3758
14	F/L MATCH	0.000	152401.0153	556057.8973
15	TOP SWK MATCH	0.000	152401.5428	556064.8655



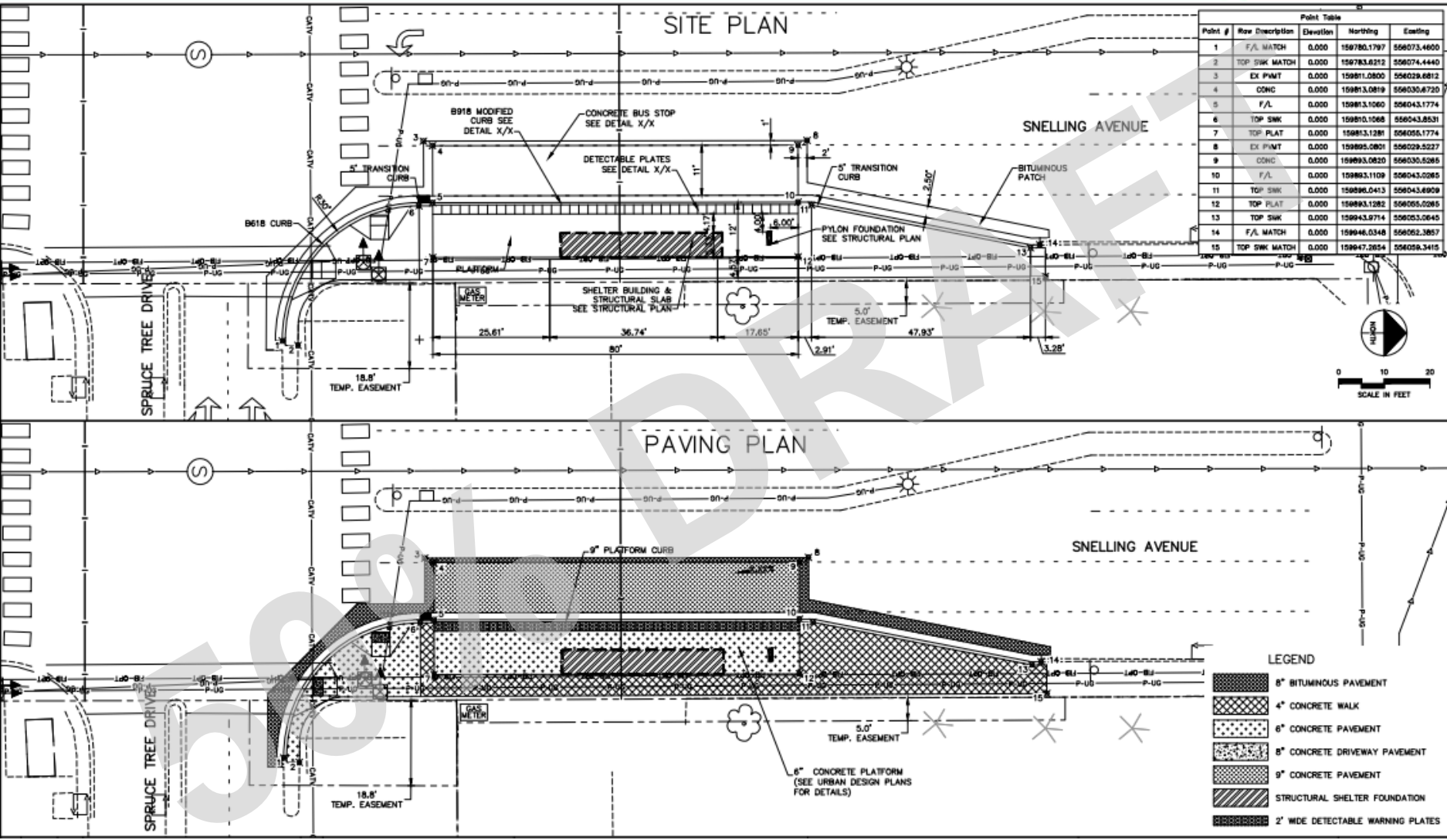
LEGEND

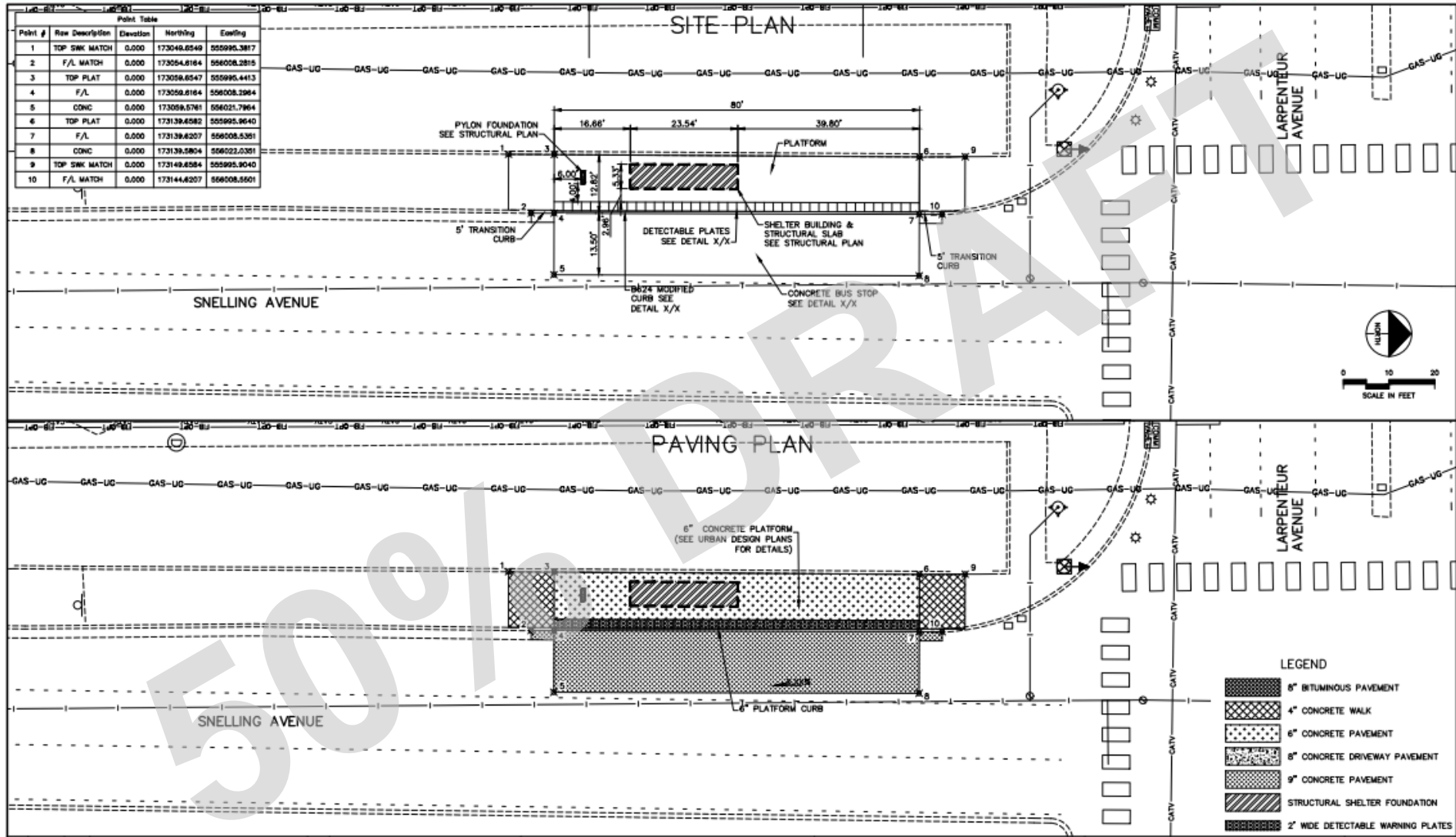
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- 2" WIDE DETECTABLE WARNING PLATES



Point #	Row Description	Elevation	Northing	Easting
1	F/L MATCH	0.000	154192.9990	956056.8497
2	TOP SWK MATCH	0.000	154190.8454	956269.3269
3	F/L	0.000	154197.9990	956056.8498
4	F/L	0.000	154232.9626	956049.0894
5	EX PWMT	0.000	154234.7902	956036.5940
6	CONC	0.000	154237.2876	956036.6204
7	F/L	0.000	154237.2956	956049.1004
8	TOP PLAT	0.000	154237.2248	956061.1004
9	EX PWMT	0.000	154283.2133	956035.7182
10	CONC	0.000	154280.7107	956036.7118
11	F/L	0.000	154280.6786	956049.2118
12	TOP PLAT	0.000	154280.6479	956061.2117
13	F/L	0.000	154339.3938	956049.3623
14	TOP SWK MATCH	0.000	154301.4318	956076.9184
15	F/L MATCH	0.000	154364.3368	956074.9049

Snelling & Spruce Tree - NB



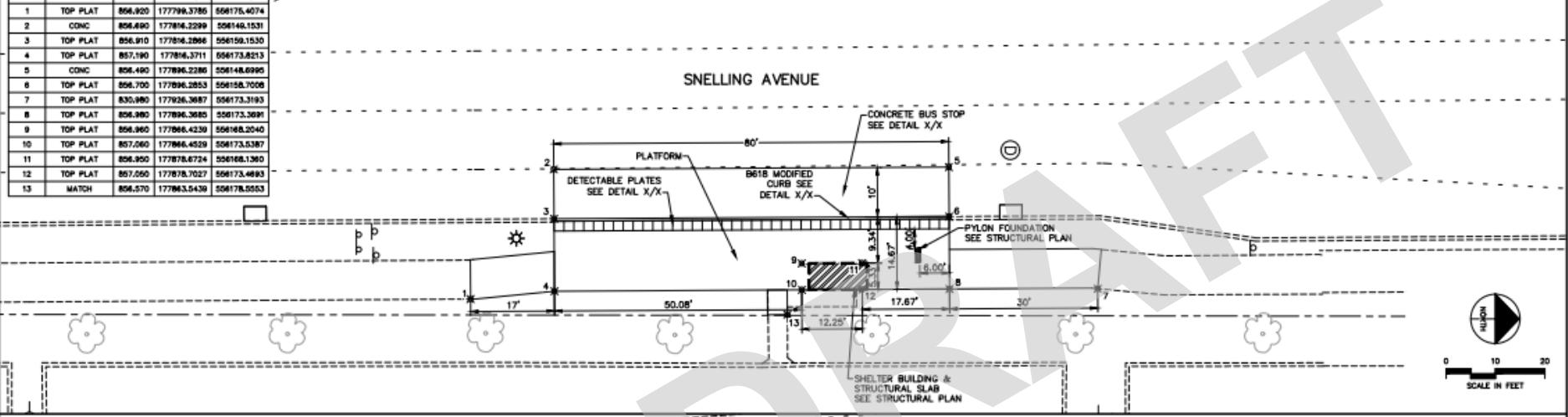


Snelling & County Road B - NB

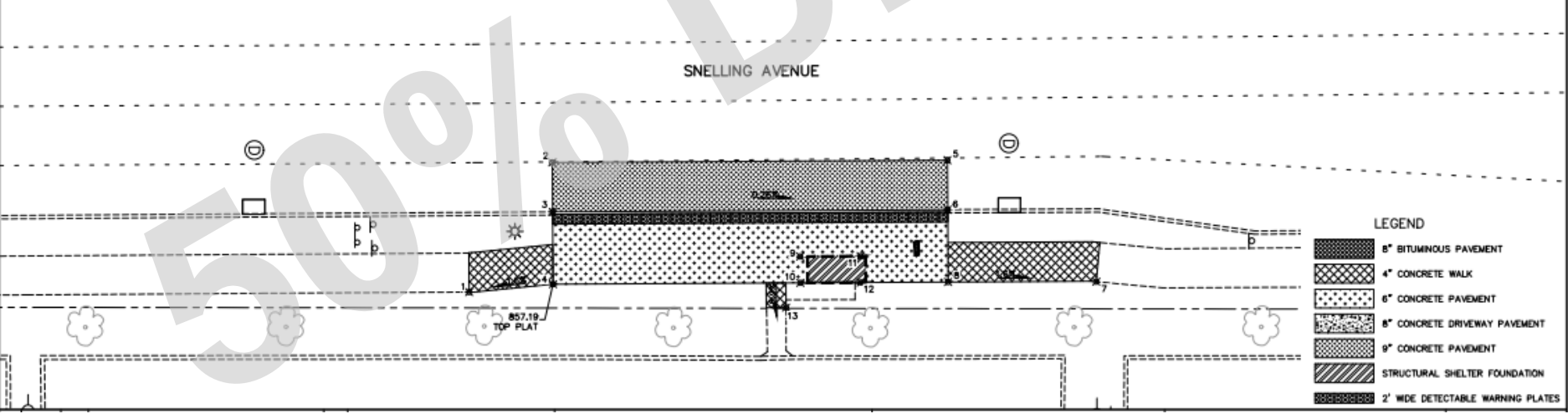


Point #	Raw Description	Elevation	Northing	Easting
1	TOP PLAT	856.820	177799.3786	556175.4074
2	CONC	856.890	177806.2299	556140.1531
3	TOP PLAT	856.810	177806.2866	556158.1530
4	TOP PLAT	857.190	177806.3711	556173.8213
5	CONC	856.490	177806.2286	556148.6980
6	TOP PLAT	856.700	177806.2853	556158.7006
7	TOP PLAT	830.980	177926.3687	556173.3193
8	TOP PLAT	856.980	177806.3680	556173.3691
9	TOP PLAT	856.860	177806.4239	556168.2040
10	TOP PLAT	857.060	177806.4529	556173.5387
11	TOP PLAT	856.950	177878.6724	556168.1360
12	TOP PLAT	857.250	177878.7027	556173.4883
13	MATCH	856.570	177863.5439	556178.0553

SITE PLAN



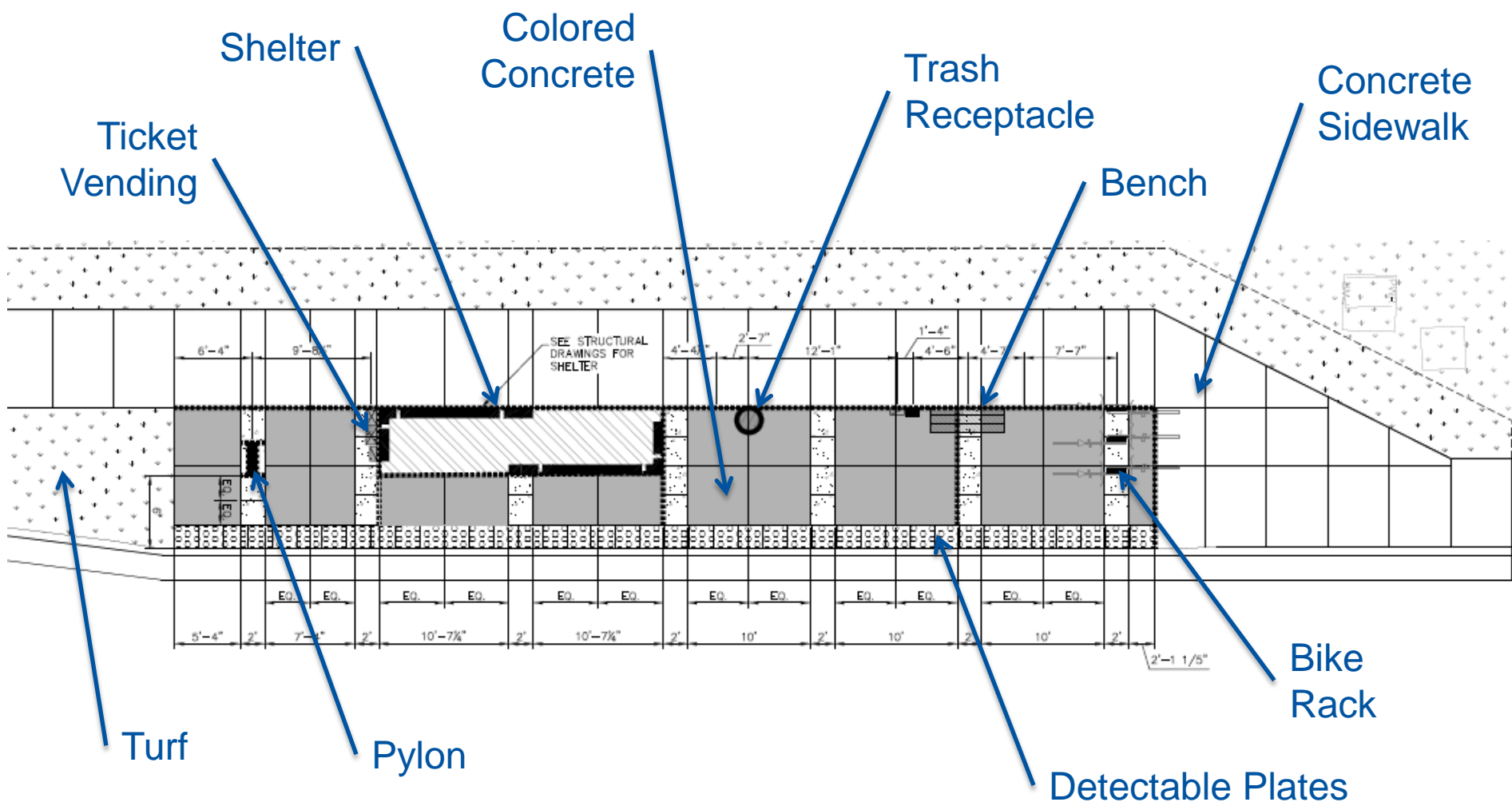
PAVING PLAN



LEGEND

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- 4" CONCRETE WALK
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Urban Design Elements



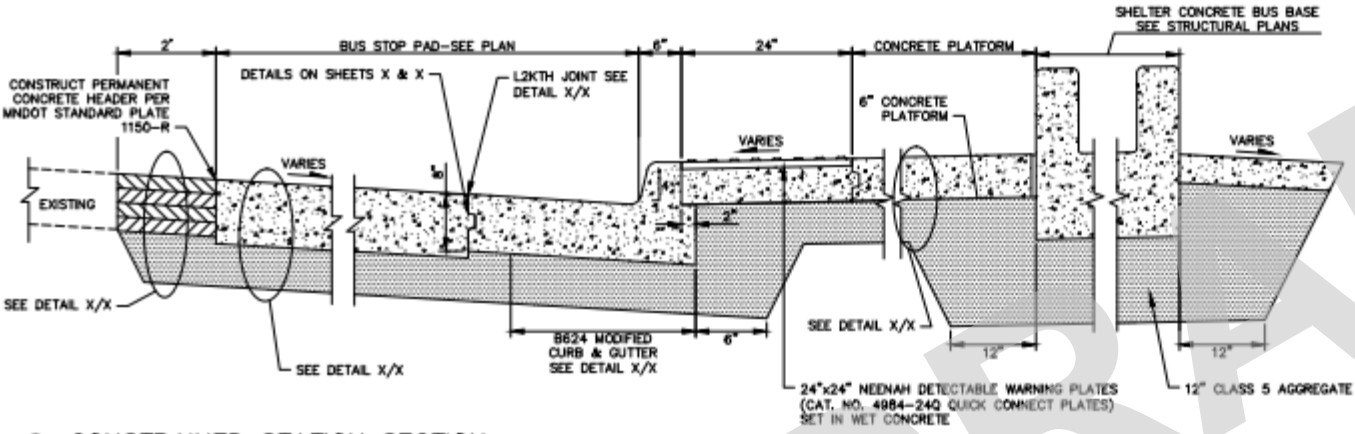


Bike Loop

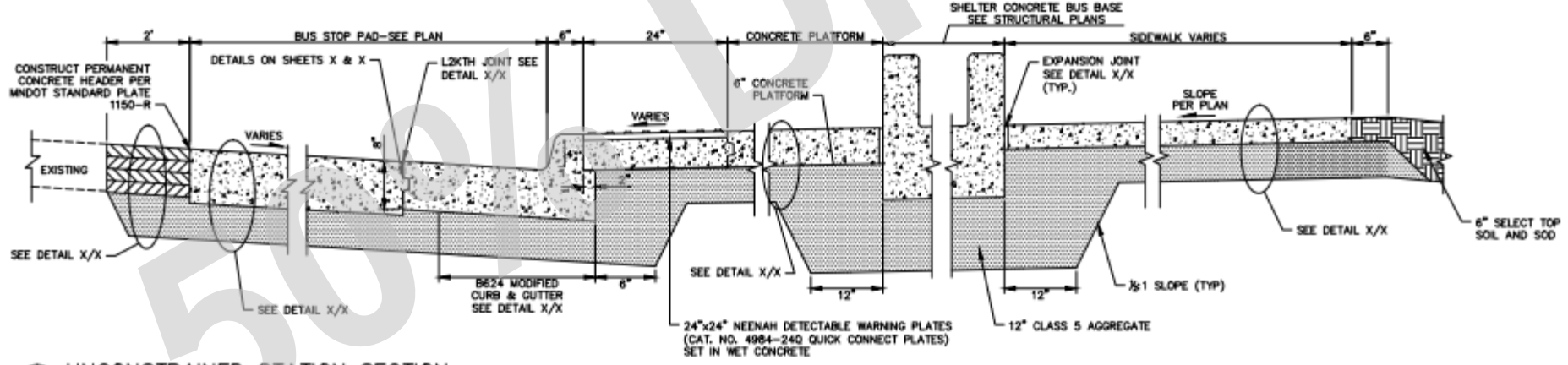


Bench

Platform Typical Sections

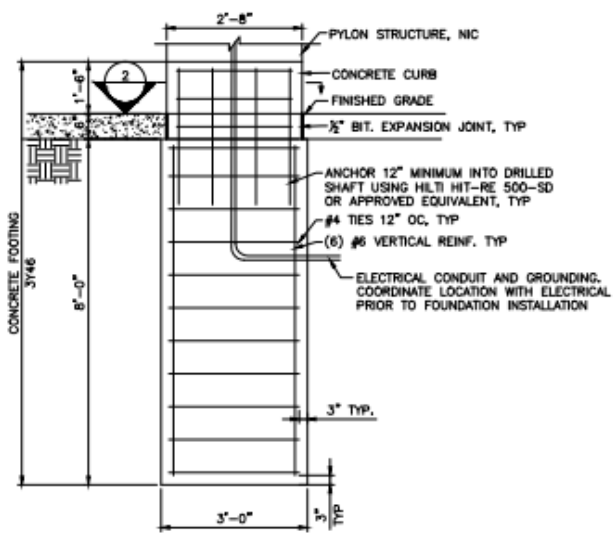


1 CONSTRAINED STATION SECTION

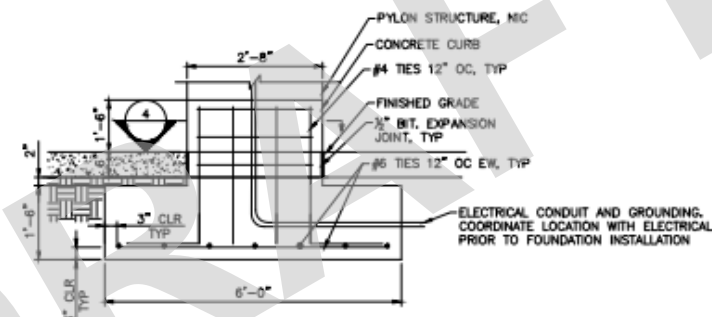


2 UNCONSTRAINED STATION SECTION

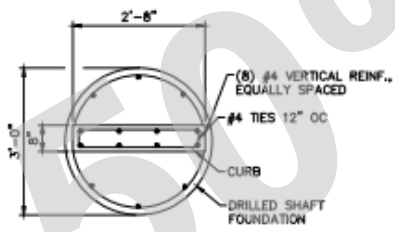
Pylon Foundation



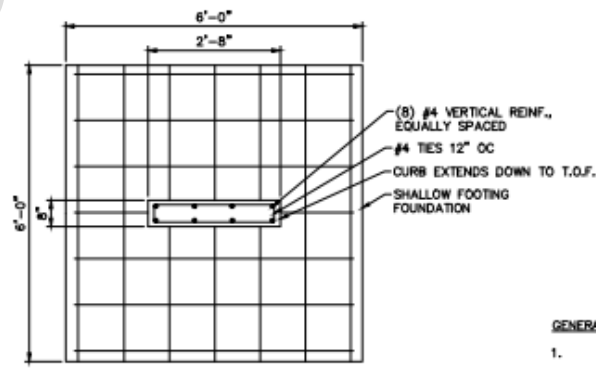
1 PYLON FOOTING DETAIL - OPTION 1



3 PYLON FOOTING DETAIL - OPTION 2



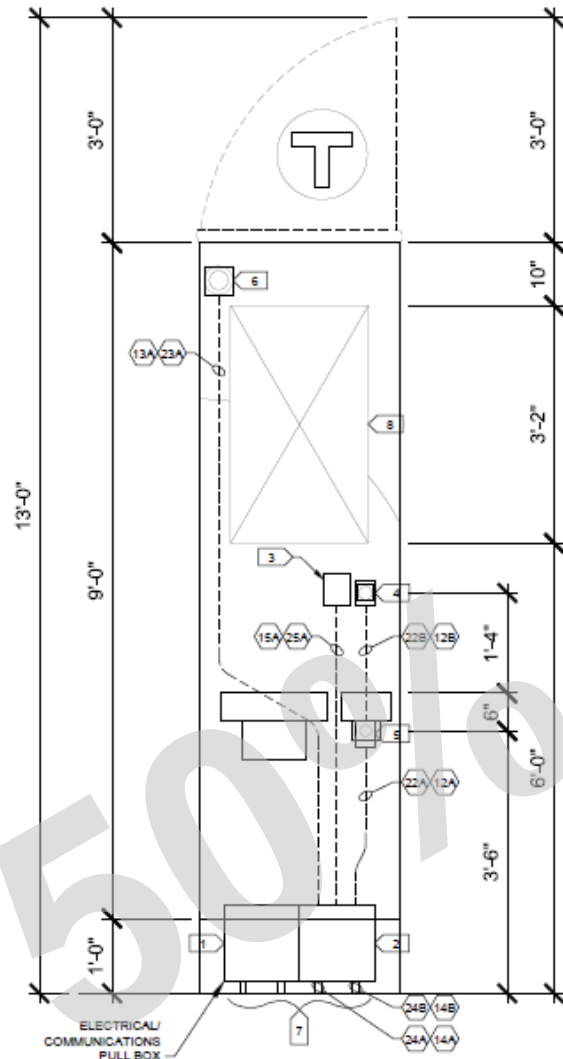
2 PYLON FOOTING SECTION - OPTION 1



4 PYLON FOOTING SECTION - OPTION 2

GENERAL NOTE:

1. TWO FOUNDATION OPTIONS PROVIDED. OPTION 1 SHOULD BE UTILIZED AT ALL FEASIBLE LOCATIONS UNLESS EXISTING UTILITY CONFLICTS OCCUR.
2. SEE SITE GRADING FOR LOCATION AND GRADES



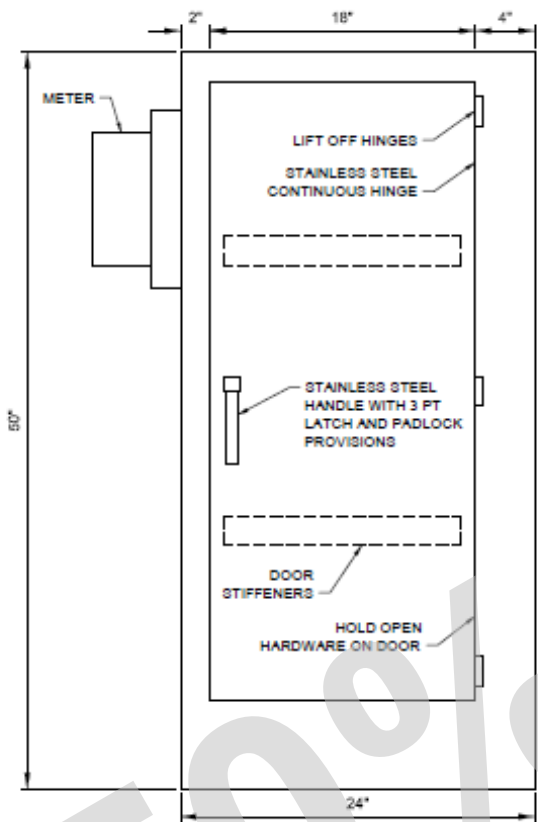
A Line Package:

- Electrical & Communication cabinets
- Communication equipment (not sole-sourced)
- Underground infrastructure
- Installation of shelters, pylons, and equipment

Included in Other Packages:

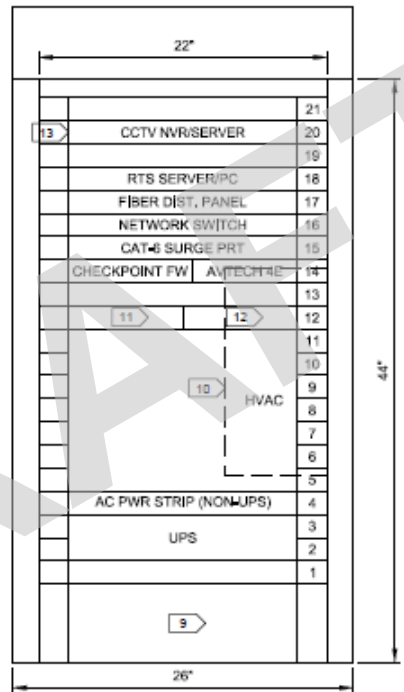
- Sole-sourced communication equipment to be procured by Metro Transit
- Fare collection
- Shelters & Pylons

1 PYLON COMMUNICATION ELEVATION
1" = 1'-0"
0 8" 16" 32"
SCALE



1 FRONT & REAR EXTERIOR VIEW
NOT TO SCALE

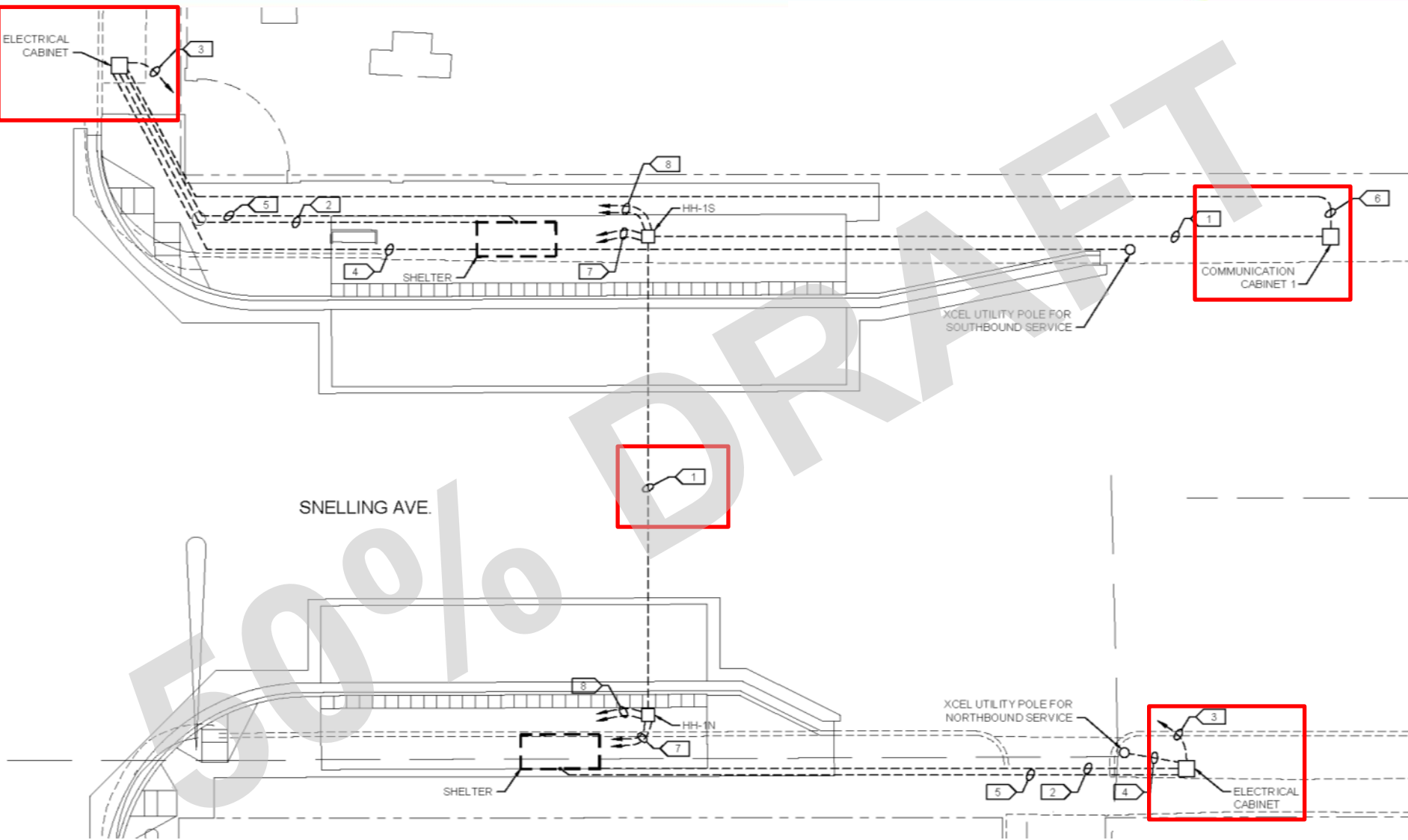
Electrical Cabinet
(~24"x20"x50")



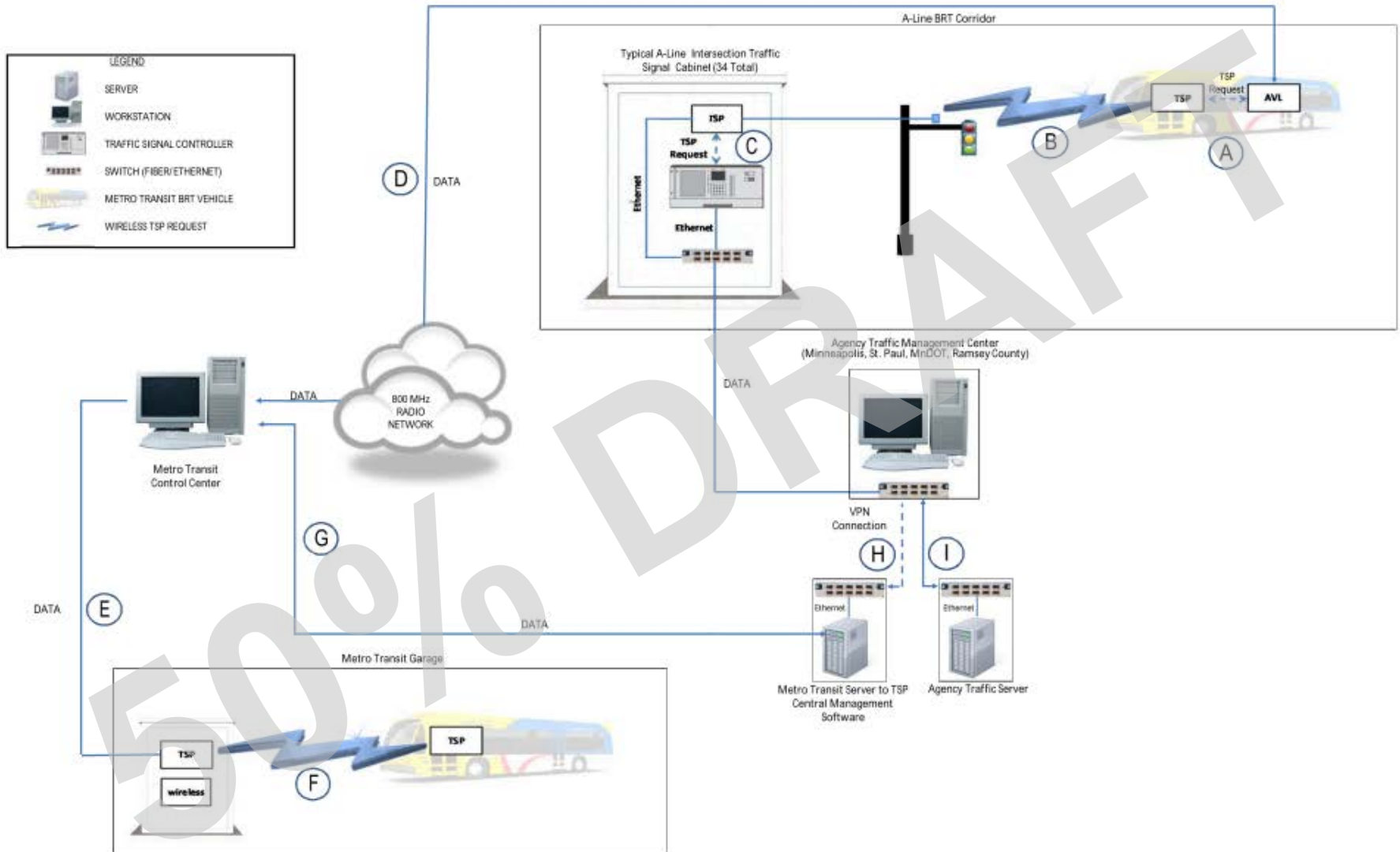
2 COMMUNICATION CABINET ELEVATION
NOT TO SCALE

Communication Cabinet
(~26"x32"x44")

Communication/Electrical Plan



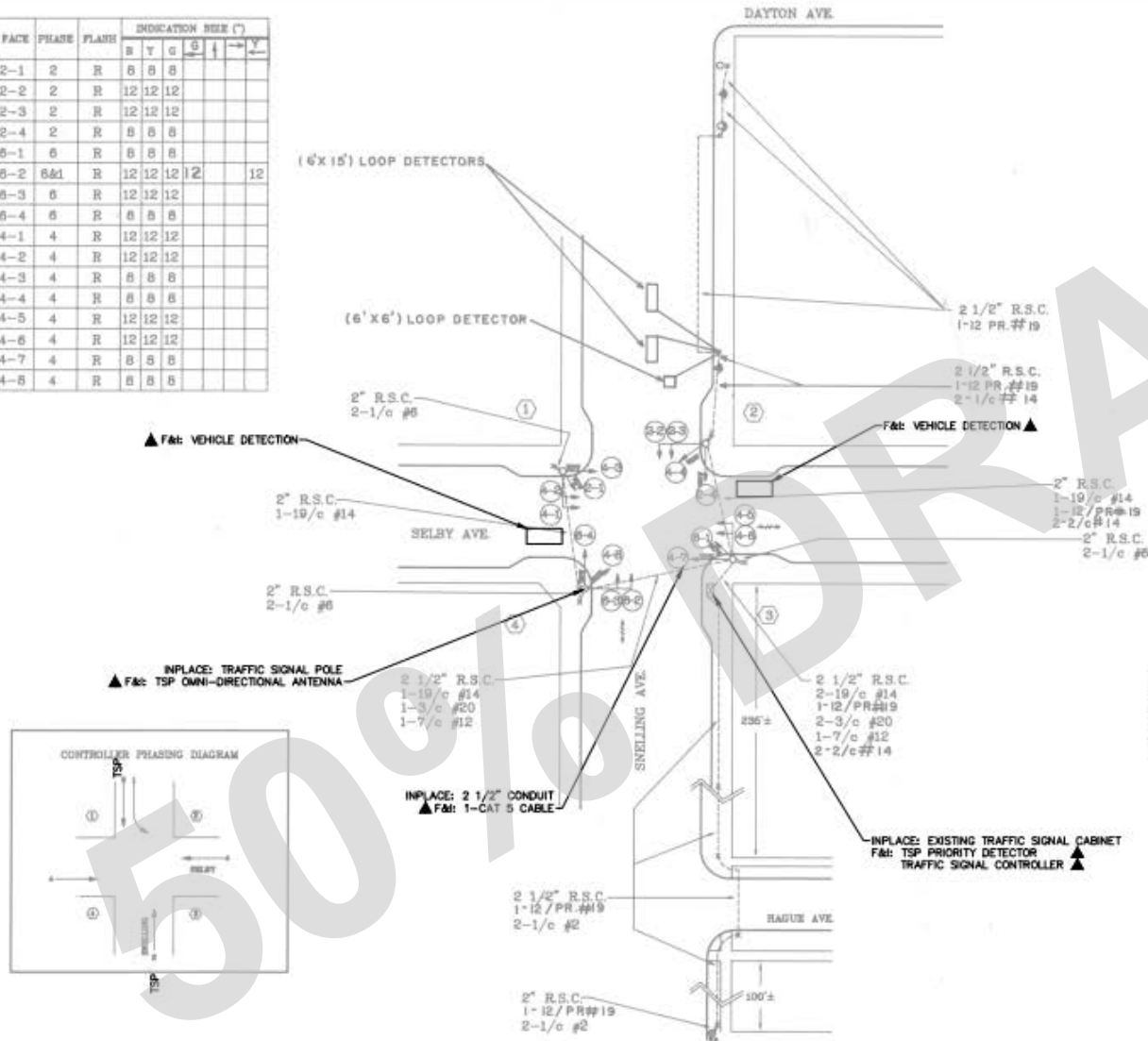
Sample TSP Plans



Sample TSP Plans

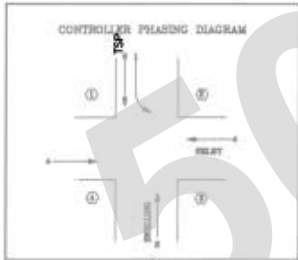


FACE	PHASE	FLASH	INDICATION RATE (°)					
			B	Y	G	←	→	Y
2-1	2	R	8	8	8			
2-2	2	R	12	12	12			
2-3	2	R	12	12	12			
2-4	2	R	8	8	8			
6-1	6	R	8	8	8			
6-2	6A1	R	12	12	12	12		12
6-3	6	R	12	12	12			
6-4	6	R	8	8	8			
4-1	4	R	12	12	12			
4-2	4	R	12	12	12			
4-3	4	R	8	8	8			
4-4	4	R	8	8	8			
4-5	4	R	12	12	12			
4-6	4	R	12	12	12			
4-7	4	R	8	8	8			
4-8	4	R	8	8	8			



LEGEND

SIGNAL INSTALLATION NO.	100
SIGNAL FACE NO.	101
CONTROLLER CABINET ASSEMBLY & FOUNDATION	102
CONTROLLER CABINET ASSEMBLY-IN PLACE	103
PULLBOX	104
PULLBOX-IN PLACE	105
RIGID STEEL CONDUIT (RSC)	106
RIGID STEEL CONDUIT (RSC) IN PLACE	107
SIGNAL FACE	108
SIGNAL FACE IN PLACE	109
PERIPHERAL INDICATORS (10 INCH)	110
PERIPHERAL INDICATORS (12 INCH)	111
PERIPHERAL PUSH BUTTON STATION	112
PERIPHERAL PUSH BUTTON ON VERTICAL OR POLE	113
SIGNAL POLE BASE & FOUNDATION	114
MAST ARM ASSEMBLY & FOUNDATION	115
MAST ARM ASSEMBLY-IN PLACE	116
STREET LIGHT POLE-IN PLACE	117
MAST ARM ASSEMBLY & LUMINAIRE AND FOUNDATION	118
MAST ARM ASSEMBLY & LUMINAIRE-IN PLACE	119
WOOD POLE	120
WOOD POLE-IN PLACE	121
POWER SOURCE	122
OPTICOM DETECTOR	123
LOOP DETECTOR	124
TEMPORARY SIGNAL	125



- NOTES:
1. THE EXACT LOCATION OF ALL TRAFFIC SIGNAL COMPONENTS IS APPROXIMATE AND SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD.
 2. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO INSTALLATION.
 3. SEE INSTALLATION DETAIL SHEET FOR TSP RECEIVER ON TRAFFIC SIGNAL POLE.
 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT TSP SIGNAL TIMING PARAMETERS ON THE SIGNAL CONTROLLER AT THIS LOCATION.

ALL ITEMS INPLACE UNLESS OTHERWISE NOTED WITH ▲