PRELIMINARY
SITE INVESTIGATION
For the
County Farm Road and Schick Road
Intersection Improvement Project
Village of Hanover Park, DuPage County, Illinois

Prepared for
The DuPage Division of Transportation
421 N. County Farm Road
Wheaton, Illinois

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GLOSSARY OF ACRONYMS

ASTM	ASTM International
BDE	Bureau of Design and Environment
bgs	below ground surface
BLRS	Bureau of Local Roads and Streets
CCDD	Clean Construction or Demolition Debris
COC	Compound of Concern
CW	Construction Worker
EPA	Environmental Protection Agency
ERIS	Environmental Risk Information Service, Ltd.
H&H	Huff & Huff, Inc.
I/C	Industrial/Commercial
IAC	Illinois Administrative Code
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
MAC	Maximum Allowable Concentration
PESA	Preliminary Environmental Site Assessment
PID	Photo-ionization Detector
PIP	Potentially Impacted Property
PSI	Preliminary Site Investigation
REC	Recognized Environmental Condition
RO	Remedial Objective
ROW	Right-of-Way
TACO	Tiered Approach to Cleanup Objectives
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

This Preliminary Site Investigation (PSI) is for the intersection improvement project along County Farm Road and Schick Road in the Village of Hanover Park, DuPage County, Illinois (Project Corridor). The proposed improvements include roadway widening, installation of new traffic signals, improvements of the existing sidewalk, and resurfacing. Excavation is proposed up to 5 feet below ground surface (bgs) along the Project Corridor, with the exception of the areas proposed for traffic signal installation, where the excavation is proposed up to 15 feet bgs.

Huff & Huff, Inc. (H&H) previously completed a Preliminary Environmental Site Assessment PESA (PESA) in December 2015. The 2015 PESA identified one site as a Potentially Impacted Property (PIP) in relation to the Project Corridor, based on a review of database records, historical resources, and visual observations. The purpose of this PSI is to address potential impacts associated with the PIP in relation to the Project Corridor.

On May 17, 2016, two soil borings (SB-1 and SB-2) were advanced to characterize soils within the planned roadway improvement and to determine potential impacts with respect to soil handling, disposal, and construction worker (CW) caution requirements. Soil boring locations were determined based on the PIP identified in the PESA. The PIP (Mallard Lake Landfill) was considered to have potential to impact the Project Corridor based on possible groundwater contamination. Therefore, the soil borings were only advanced in the areas proposed for traffic signal installation, as there was a potential for encountering groundwater[1].

The soil borings were completed with a truck-mounted GeoProbe, and advanced to depths of 15 feet below ground surface (bgs) to both reflect the anticipated depth of excavation and to assess potential groundwater impacts within the Project Corridor. However, groundwater was not encountered during advancement of the soil borings. Samples were collected continuously, and screened both visually and with a photo-ionization detector (PID) for possible signs of soil contamination. Field screening with a PID provided information regarding the potential presence of VOC-based soil contamination and was utilized when determining which samples to have analyzed.

Two samples, one from the 0 to 10 foot horizon and one from the 10 to 15 foot horizon, were submitted for analysis from each soil boring based on PID screening results, geological considerations, and other visual observations. Each sample was analyzed for volatile organic compounds (VOCs) and soil pH.

The sample results were compared to the Illinois Environmental Protection Agency (IEPA) Tiered Approach to Cleanup Objectives (TACO) Tier 1 Remedial Objectives (ROs) for the industrial/commercial and CW receptors to assess construction worker risks and potential reuse on site. Additionally, soil results were compared to the Maximum Allowable Concentrations (MACs) in Part 1100 of 35 Illinois Administrative Code to determine the handling requirements of excavated soils for the proposed project.

Analytical testing results indicate all soils from within the Project Corridor achieve the MACs and soil pH requirement as defined under the Clean Construction or Demolition Debris (CCDD) regulations. All soils are classified as *uncontaminated soil*.

[1] Groundwater in area is known to range from 10 to 15 feet bgs.

1. INTRODUCTION

This Preliminary Site Investigation (PSI) is for the intersection improvement project along County Farm Road and Schick Road in the Village of Hanover Park, DuPage County, Illinois (Project Corridor). Soil sampling was conducted to assess soil conditions associated with a Potentially Impacted Properties (PIP), and to provide rationale in determining final disposition of excavated materials with considerations regarding the suitability of soils for disposal at a clean construction or demolition debris (CCDD) or soil-only facility. Soil sampling activities were performed in accordance with the procedure listed in Chapter 27, Section 27-3 of the Illinois Department of Transportation (IDOT) Bureau of Design and Environment (BDE) Manual.

Huff & Huff, Inc. (H&H) previously completed a Preliminary Environmental Site Assessment PESA (PESA) for this Project Corridor in December 2015. The PESA document. "*Preliminary Environmental Site Assessment – County Farm Road and Schick Road Intersection Improvement Project, December 2015*" was relied upon to perform this PSI and identify PIP(s). The PIP sites are essentially the same as REC sites as defined by ASTM Standard E 1527-13. Based on the establishment of PIPs as the industry standard for describing sites at which special waste management issues may be associated, this PESA uses the term "PIP" to describe sites presenting environmental concern to the Project Corridors.

1.1 Proposed Project Improvements

Proposed improvements exist along the intersection of County Farm Road and Schick Road in the Village of Hanover Park, DuPage County, Illinois. Proposed improvements include widening the south leg of County Farm Road for the addition of a northbound right turn lane, installation of new traffic signals, construction of new sidewalk to fill the gap along the south side of Schick Road east of County Farm Road, improvements to the existing sidewalk at the intersection corners to meet ADA/PROWAG standards, and resurfacing within the project limits.

Project limits extend approximately 100 feet west on Schick Road, 700 feet east on Schick Road, 380 feet north on County Farm Road, and 600 feet south on County Farm Road. The total Project Corridor length is approximately 0.35 miles.

Excavation depths are proposed up to 5 feet below ground surface (bgs) along the Project Corridor, with the exception of the areas proposed for traffic signal installation. The traffic signal installation excavation depth is proposed up to 15 feet bgs. This represents the maximum depth of excavation along the Project Corridor.

Figures 1-1 and 1-2 depict the project location and project layout maps, respectively. Plan and profile sheets depicting the planned improvements are included in Appendix A.

1.2 Purpose of Investigation

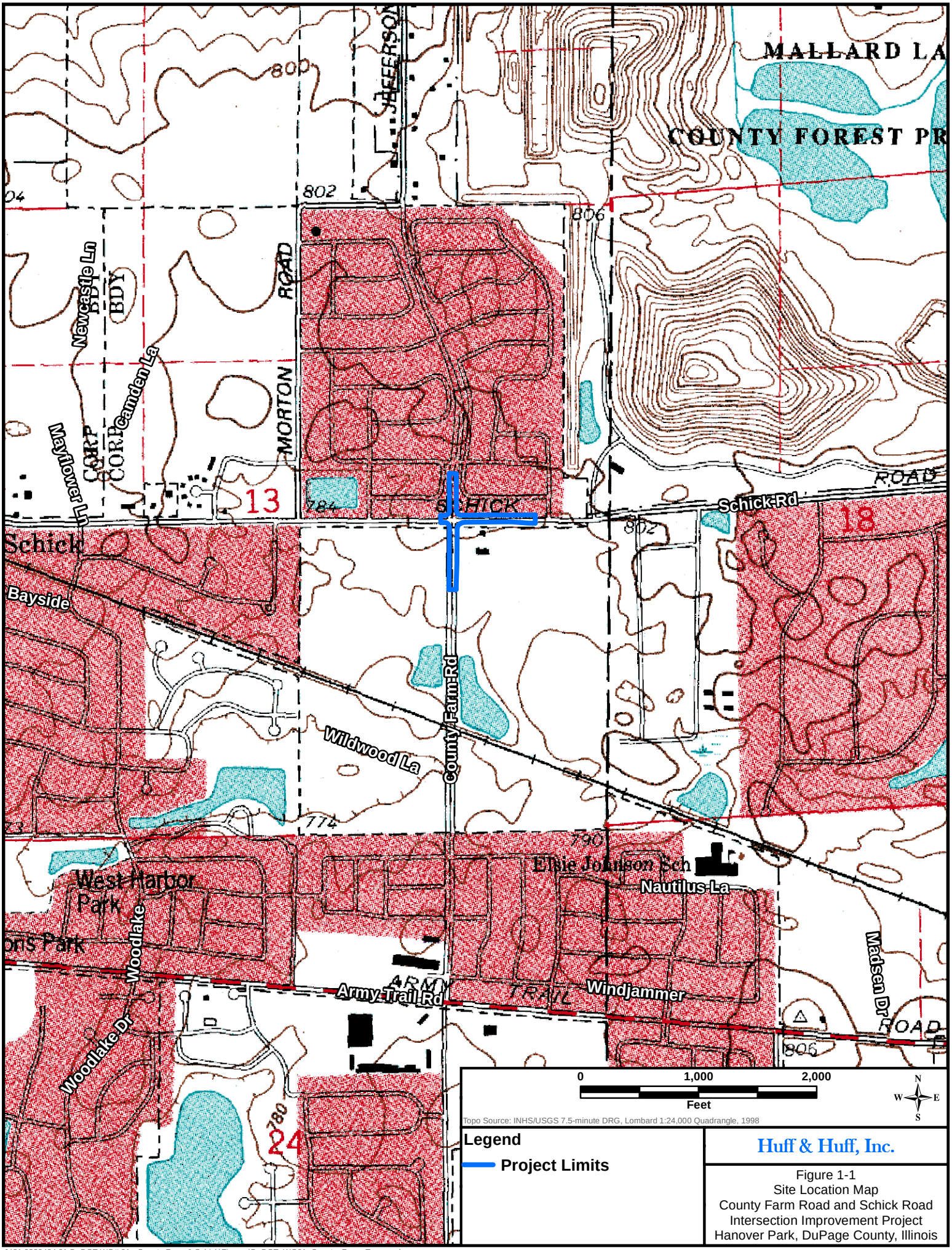
The H&H PESA revealed evidence of one PIP (Mallard Lake Landfill) in connection to the Project Corridor, based on a review of database records, historical resources, and visual observations. Subsequently, a subsurface investigation was recommended along the Project Corridor to address potential impacts associated with the identified PIP.

On May 17, 2016, two soil borings were advanced along the Project Corridor. The soil borings were advanced to characterize soils within the planned roadway improvement and to determine potential impacts with respect to soil handling, disposal, and construction worker (CW) caution requirements. Parameters analyzed included Volatile Organic Compounds (VOCs) and soil pH.

As the proposed scope of this project includes soil excavation activities, soil disposal is anticipated to be a concern as the project progresses. On July 30, 2010, Public Act 96-1416 became effective, which significantly broadened the regulatory oversight on the use of CCDD and uncontaminated soil used as fill. The final regulations, by statute, became effective on August 27, 2012. These regulations include updated Maximum Allowable Concentrations (MACs) of chemical constituents in uncontaminated soil for CCDD disposal and a soil pH requirement for disposal at a CCDD or soil-only facility.

The specific methods used to prepare the assessment are contained in the following:

- ASTM Standard E1527-13
- The IDOT BDE Manual, Chapter 27, Section 27-3 – *Special Waste Procedures*, and any subsequent revisions.
- IDOT Bureau of Local Roads and Streets (BLRS) Manual, Chapter 20-12, Special Waste, July 2013.
- Public Act 96-1416
- CCDD and Uncontaminated Soil Fill Operations: Amendments to 35 Illinois Administrative Code (IAC) 1100. Effective on August 27, 2012.



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Topo Source: INHS/USGS 7.5-minute DRG, Lombard 1:24,000 Quadrangle, 1998

Legend

Project Limits

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Figure 1-2
Site Layout Map
County Farm Road and Schick Road
Intersection Improvement Project
Hanover Park, DuPage County, Illinois

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2. SUBSURFACE INVESTIGATION

The PSI was designed to characterize potential impacts associated with the PIP identified in the 2015 PESA. The following summarizes the site concerns noted in the PESAs:

Site Name	Address	Potential Issue/Observation
Mallard Lake Landfill	26W580 East Schick Road, Hanover Park, IL	Possible Groundwater Contamination (VOCs)

2.1 Parameters of Concern

Constituents of concern (COCs) were selected based on the information provided in the PESA regarding the PIP. COCs selected include volatile organic compounds (VOCs) and soil pH.

2.2 Sampling Methodology

On May 17, 2016, Environmental Soil Probing, under the supervision of H&H, completed two soil borings (SB-1 and SB-2) along the Project Corridor. Soil boring locations were determined based on potential impacts associated with the PIP (Mallard Lake Landfill). Note the Mallard Lake Landfill was considered to have potential to impact the Project Corridor based on possible groundwater contamination. Therefore, the soil borings were only advanced in the areas proposed for traffic signal installation, as there was a potential for encountering groundwater (depth of excavation 15 feet bgs)[2]. The remaining portion of the Project Corridor (depth of excavation 5 feet bgs) was not considered to have potential to be impacted by the Mallard Lake Landfill, and therefore was not sampled for COCs. Figure 2-1 depicts the location of the soil borings in reference to the PIP.

The soil borings were completed with a truck-mounted GeoProbe. Borings were advanced to depths of 15 feet below ground surface (bgs) to reflect the maximum anticipated depth of excavation and to assess potential groundwater impacts within the Project Corridor. However, groundwater was not encountered during advancement of the soil borings. Samples were collected in continuous intervals (0-1 feet, 1-3 feet, 3-5 feet, 5-7 feet, 7-9 feet, 9-10 feet, 10-12 feet, and 12-15 feet), and screened both visually/olfactory and with a photo-ionization detector (PID) for possible signs of soil contamination. Field screening with a PID (10.6 eV) provided information regarding the potential presence of VOC-based contamination in the soil and was utilized when determining which samples to have analyzed. Appendix B contains the PID methodology and boring logs. Table 2-1 presents the PID results and sample/depth intervals.

As presented in Table 2-1, PID readings ranged from 0.0 ppm to 34.4 ppm in the two soil borings. The higher readings were above background, but were not attributed to VOCs, as confirmed by laboratory analysis of soil samples. Elevated soil moisture levels were attributed to the high PID readings. Subsequently, two discrete samples, one from within the 0 to 10 foot horizon and one from within the 10 to 15 foot horizon, were submitted for analysis from each soil boring based on PID screening results, geological considerations, and other visual

[2] Groundwater in area is known to range from 10 to 15 feet bgs.

observations. Efforts were made to analyze the soil sample which each COC would most likely impact based on the COC's characteristics, PID readings, and potential sources. Samples were analyzed for each parameter of concern, as discussed above. The parameters tested were based upon the nature and characteristics of the listed PIPs. Table 2-2 lists the samples, the associated PIPs, and the analyzed parameters.

2.3 Decontamination and Chain of Custody Procedures

All soil sampling equipment was cleaned with the following procedure to prevent cross-contamination between sampling intervals and locations:

- Alconox wash
- Distilled water rinse
- Air dry

Soil samples were collected in 4-ounce glass jars. Those selected for VOC analysis were placed in laboratory-prepared containers utilizing Method 5035 for preservation and secured in individual plastic bags. Samples were preserved in the field inside of a cooler ice bath, transported to H&H, and refrigerated until picked up by a courier for transport to the laboratory.

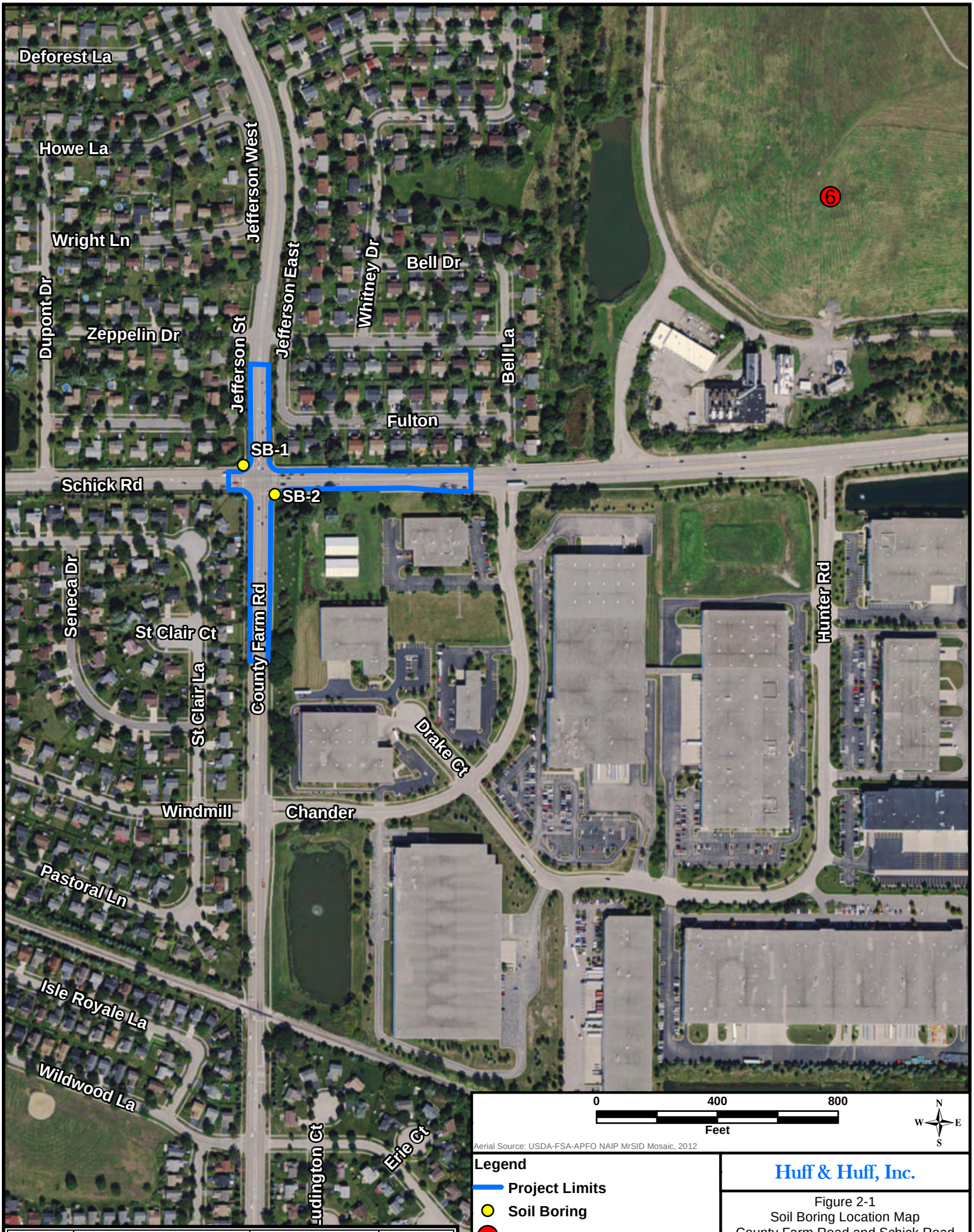
The following information was provided on all samples containers and the Chain-of-Custody form:

- Sampler's name
- Date and time of collection
- Sample interval
- Sample name
- Sample analyses

2.4 Geological Characterization

Geological characterization of soils was previously described in the 2015 PESA based on the *Soil Surveys of Dupage and Part of Cook County, Illinois* and the "Potential for Contamination of Shallow Aquifers in Illinois" (a.k.a. "Berg Map"; Berg et al, 1984). According to the soil survey, a majority of soils along the Project Corridor are considered Varna silt loams. These are very deep, moderately well drained soils on till plains. According to the Berg Map, the Project Corridor consists of uniform, relatively impermeable silty or clayey till at least 50 ft thick. This indicates a low potential for aquifer contamination.

The PSI soil borings encountered materials consistent with this geological characterization. In general, a black silt with trace clay and sand was encountered in the upper 1-3 foot horizon. Underlying this was a brown/gray silty clay with interspersed gravel until boring termination at 15 feet bgs. Groundwater was not encountered during PSI activities.



Site ID	Site Name	Address	Status
6	Mallard Lake Landfill	26W580 E Schick Rd	PIP

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Figure 2-1
Soil Boring Location Map
County Farm Road and Schick Road
Intersection Improvement Project
Hanover Park, DuPage County, Illinois

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TABLE 2-1
PID RESULTS
DuDOT - COUNTY FARM ROAD AND SCHICK ROAD

Boring ID	Depth (feet)	PID (ppm)
SB-1	0-1	30.8
	1-3	28.8
	3-5	**34.4**
	5-7	29.4
	7-9	16.8
	9-10	19.6
	10-12	**13.9**
	12-15	5.1
SB-2	0-1	0.0
	1-3	0.2
	3-5	**10.8**
	5-7	5.5
	7-9	9.8
	9-10	7.7
	10-12	2.2
	12-15	**9.2**

BOLD indicates soil sample selected for analysis

Samples were screened with a 10.6 eV lamp PID

Note: Elevated PID readings due to heavy moisture content in soil

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TABLE 2-2
SOIL SAMPLES, ASSOCIATED PIPS, AND ANALYTICAL PARAMETERS
DuDOT - COUNTY FARM ROAD AND SCHICK ROAD

SB ID	Sample Depth (FT)	Associated PIPs	Reason for Sampling	Analytical Parameters
SB-1	3-5	Mallard Lake Landfill	Possible Groundwater Contamination	VOCs, Soil pH
	10-12	Mallard Lake Landfill	Possible Groundwater Contamination	VOCs, Soil pH
SB-2	3-5	Mallard Lake Landfill	Possible Groundwater Contamination	VOCs, Soil pH
	12-15	Mallard Lake Landfill	Possible Groundwater Contamination	VOCs, Soil pH

3. TIER I AND MAC ASSESSMENT OF SAMPLE RESULTS

3.1 Assessment Procedures

The Tiered Approach to Cleanup Objectives (TACO) is Illinois' risk-based approach to determining site-specific cleanup objectives for the protection of human health and the environment. TACO addresses five exposure routes (outdoor inhalation [inhalation], indoor inhalation [vapor intrusion], soil ingestion, soil-migration-to-groundwater ingestion, and groundwater ingestion) and three types of potential receptors (residential, industrial/commercial [I/C], and CW), referred to as Remedial Objectives (ROs). The Illinois Administrative Code [35 IAC 742] sets forth the three tiers of risk-based assessment that may be conducted under TACO; however, for purposes of this PSI, Tier I objectives are used. A Tier I assessment simply compares the concentration of contaminants detected at a site to screening values listed in "look-up" tables.

The Tier I CW ingestion and inhalation routes are ROs for construction worker safety. If a constituent is detected above its respective Tier I CW RO, a construction worker caution must be placed in this area, and reuse of the soil within the Project Corridor would not be recommended.

MACs are a set of values used to determine if soil is "uncontaminated soil". The MACs are used strictly by CCDD and soil-only facilities to determine if soil can be accepted at these facilities. In general, a MAC value is determined by the most stringent TACO Tier I RO, but there are many exceptions. The MACs are found in Title 35 of the Illinois Administrative Code 1100, Subpart F and were finalized on August 27, 2012. Excavated soil for offsite disposal at a CCDD permitted facility is considered "uncontaminated soil" only if it achieves MAC of Chemical Constituents in Uncontaminated Soil (35 Ill. ADM. Code 1100.Subpart F) and has a soil pH between 6.25 and 9.00.

Analytical results were compared to Tier 1 ROs for I/C and CW receptors (soil inhalation and ingestion routes), as well as the MACs. For purposes of this investigation, soil results were compared to the MAC values to determine the recommended soil disposition method (CCDD-acceptable vs. non-special or special waste) and Tier I ROs (I/C and CW) to evaluate worker exposure during construction activities and potential reuse on site.

3.2 Comparison of Results to MACs and Tier I Objectives

Analytical results were compared to Tier 1 ROs and MACs, and the results are summarized by COC below. A comparison of the soil results to their respective ROs and MACs is presented in Tables 3-1 and 3-2. The full analytical report is included in Appendix C.

3.2.1 *VOCs*

Table 3-1 presents the VOC soil results compared to each of the Tier 1 ROs for ingestion and inhalation (I/C and CW) and MACs. Samples collected at SB-1 (3 to 5 feet; 10 to 12 feet) and SB-2 (3 to 5 feet; 12 to 15 feet) were analyzed for VOCs.

VOCs were not present above the laboratory reporting limits in any of the samples analyzed. Therefore, all VOC concentrations achieved their respective ROs and MACs in each of the borings.

3.2.2 *Soil pH Results*

Table 3-2 presents the soil pH results. CCDD regulations require soil pH to be between 6.25 and 9.00 to be acceptable for disposal at a CCDD or soil-only facility. Samples were submitted for pH analysis from SB-1 (3 to 5 feet; 10 to 12 feet) and SB-2 (3 to 5 feet; 12 to 15 feet). These samples are considered representative of the entire Project Corridor. The pH results ranged from 8.13 to 8.43, within the acceptable 6.25 to 9.00 range.

TABLE 3-1
VOC SOIL RESULTS
DuDOT - COUNTY FARM ROAD AND SCHICK ROAD

	Ingestion Exposure Route[1]		Inhalation Exposure Route[1]		Maximum Allowable Concentration[2]	SB-1		SB-2	
	Industrial / Commercial	Construction Worker	Industrial / Commercial	Construction Worker		3-5'	10-12'	3-5'	12-15'
	mg/kg								
Acetone	---	---	100000	100000	25	<0.200	<0.200	<0.200	<0.200
Benzene	100	2300	1.6	2.2	0.03	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	92	2000	3000	3000	0.6	<0.005	<0.005	<0.005	<0.005
Bromoform	720	16000	100	140	0.8	<0.005	<0.005	<0.005	<0.005
Bromomethane	2900	1000	15	3.9	0.2	<0.010	<0.010	<0.010	<0.010
2-Butanone (MEK)	1000000	120000	25000	710	17	<0.100	<0.100	<0.100	<0.100
Carbon disulfide	200000	20000	720	9	9	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	44	410	0.64	0.9	0.07	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	41000	4100	210	1.3	1	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	41000	41000	1300	1300	0.4	<0.005	<0.005	<0.005	<0.005
Chloroethane	---	---	---	---	---	<0.010	<0.010	<0.010	<0.010
Chloroform	940	2000	0.54	0.76	0.3	<0.005	<0.005	<0.005	<0.005
Chloromethane	---	---	---	---	---	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	200000	200000	1700	130	23	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	63	1400	0.7	0.99	0.02	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	100000	10000	470	3	0.06	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	20000	20000	1200	1200	0.4	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	41000	41000	3100	3100	0.7	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	84	1800	23	0.5	0.03	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	57	1200	2.1	0.39	0.005	<0.004	<0.004	<0.004	<0.004
trans-1,3-Dichloropropene	57	1200	2.1	0.39	0.005	<0.004	<0.004	<0.004	<0.004
Ethylbenzene	200000	20000	400	58	13	<0.005	<0.005	<0.005	<0.005
2-Hexanone	---	---	---	---	---	<0.010	<0.010	<0.010	<0.010
Methyl-tert-butylether (MTBE)	20000	2000	8800	140	0.32	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-pentanone (MTBK)	---	---	---	---	---	<0.010	<0.010	<0.010	<0.010
Methylene chloride	760	12000	24	34	0.02	<0.020	<0.020	<0.020	<0.020
Styrene	410000	41000	1500	430	4	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	---	---	---	---	---	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	110	2400	20	28	0.06	<0.005	<0.005	<0.005	<0.005
Toluene	410000	410000	650	42	12	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	---	---	1200	1200	2	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	8200	8200	1800	1800	0.02	<0.005	<0.005	<0.005	<0.005
Trichloroethene	520	1200	8.9	12	0.06	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	1000000	200000	1600	10	10	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	7.9	170	1.1	1.1	0.01	<0.010	<0.010	<0.010	<0.010
Xylene, Total	410000	41000	320	5.6	5.6	<0.005	<0.005	<0.005	<0.005

[1]Refers to Remediation Objective from Table B, Appendix B, Part 742 - TACO

Metropolitan Area

Bold indicates result above applicable Remedial Objective or MAC

--- Remedial Objective or MAC not established

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TABLE 3-2
SOIL pH RESULTS
DuDOT - COUNTY FARM ROAD AND SCHICK ROAD

	Maximum Allowable Concentration[1]	SB-1		SB-2	
		3-5'	10-12'	3-5'	12-15'
pH	6.25 - 9.00	8.13	8.31	8.15	8.43

[1]Refers to Maximum Allowable Concentrations of Chemical Constituents in Uncontaminated Soil Used as Fill Material at Regulated Fill Operations (35 Ill . Adm. Code 1100. Subpart F) within a Metropolitan Area

Bold indicates value above applicable MAC

4. SOIL MANAGEMENT

As the scope of the proposed improvements includes soil excavation, it is important to review the current regulatory oversight concerning "clean fill" determination. The Illinois Pollution Control Board finalized the CCDD regulations on August 27, 2012, which significantly broadened the regulatory oversight on the use of CCDD and uncontaminated soil used as fill. The regulations include standards for CCDD fill facilities and uncontaminated soil fill operations. These regulations include MACs of chemical constituents in uncontaminated soil and a soil pH requirement for disposal at a CCDD or soil-only facility.

On-site handling and off-site disposal were alternatives considered for management of impacted soil. Soil management and CCDD determination is based upon the following criteria:

1) Achievement of Maximum Allowable Concentrations used to define "uncontaminated soil", including soil pH between 6.25 and 9.00;
2) Physical characteristics compatible with "uncontaminated soil" definition; and,
3) Achievement of Tier I CW ROs used to define construction worker safety.

Excavated soil is considered "uncontaminated soil" only if it achieves MAC of Chemical Constituents in Uncontaminated Soil (35 Ill. ADM. Code 1100.Subpart F) and has a soil pH between 6.25 and 9.00. If a soil contains glass or other debris and has the appearance of "fill" material, it is generally not accepted by CCDD facilities. Excavated soil that has any contaminant level above any MAC, or soil pH outside of the required range, must be disposed of in a sanitary landfill if reuse within the project limits is not possible.

The regulations require completion of Uncontaminated Soil Certification by Licensed Professional Engineer (LPC-663) prior to placement of soils at either a CCDD or soil-only facility, in cases where PIPs have been identified.

Soil Management Areas

Regarding CCDD disposal, all analytical results achieve the MACs (including the soil pH requirement). Hence, all soil along the Project Corridor may be handled as *uncontaminated soil* and may be taken to a CCDD or soil-only facility for off-site disposal.

All soils also achieved the CW (and I/C) ROs and may be reused on-site or used as backfill anywhere along the Project Corridor.

5. CONCLUSIONS

H&H performed a PSI to characterize soils within the planned roadway improvement and to determine potential impacts with respect to soil handling, disposal, and CW caution requirements along the County Farm Road and Schick Road Intersection Improvement Project Corridor in Hanover Park, DuPage County, Illinois.

On May 17, 2016, two soil borings (SB-1 and SB-2) were advanced to assess potential impacts associated with the PIP (Mallard Lake Landfill) identified in the 2015 PESA. Two samples were collected from each boring and analyzed for parameters consistent with the potential impacts including VOCs and soil pH.

Analytical testing from the portions of the Project Corridor associated with the identified PIP indicated achievement of all MACs and ROs. Based off these results, all soils may be handled as *uncontaminated soil* under the CCDD regulations for off-site disposal. The completed LPC-663 Form is included in Appendix D. Field observations and analytical results also indicated the potential for reuse of the soils elsewhere along the Project Corridor.

It should be noted that during CCDD disposal of soils, if PID results of any load are above background, the loads will be rejected and the soil is no longer allowed to be directed to other CCDD facilities and would require profiling and disposal at a sanitary landfill (non-special waste). Where excessive moisture is present in the excavated soil, the soil may need to be air dried prior to taking to a CCDD permitted facility. Should soils be encountered within the areas identified as CCDD acceptable that are not representative of the soils encountered during the PSI boring activities (odors, staining, or debris), those soils would need to be reassessed prior to disposal at a “clean fill” facility.

6. ENDORSEMENTS

The scope and depth of this study are consistent with those proposed and accepted by The DuPage County Division of Transportation. The field observations and results reported herein are considered sufficient in detail and scope to form an informed and professional opinion as to the obvious potential environmental hazards along the Project Corridor. This assessment is complete and is believed to be accurate. Huff & Huff, Inc. cannot guarantee or warrant that the information provided is fully representative of all conditions across the entire Project Corridor.

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APPENDIX A
Plan and Profile Sheets

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	1
	ILLINOIS	CONTRACT NO. XXXXX		

STATE STANDARDS

000001–06	Standard Symbols, Abbreviations and Patterns
280001–07	Temporary Erosion Control Systems
424001–08	Perpendicular Curb Ramps for Sidewalks
424006–02	Diagonal Curb Ramps for Sidewalks
424011–02	Corner Parallel Curb Ramps for Sidewalks
424021–03	Depressed Corner for Sidewalks
442201–03	Class C & D Patches
602301–04	Inlet, Type A
604001–04	Frame and Lids, Type 1
604086–03	Frame and Grate, Type 23
606001–06	Concrete Curb Type B and Combination Concrete Curb and Gutter
701101–05	Off–Road Operations, Multilane, 15' (4.5 m) to 24"(600 mm) From Pavement Edge
701106–02	Off–Road Operations, Multilane, More Than 15' (4.5 m) Away
701606–10	Urban Single Lane Closure, Multilane, 2W with Mountable Median
701701–10	Urban Lane Closure, Multilane Intersection
701801–06	Sidewalk, Corner or Crosswalk Closure
701901–05	Traffic Control Devices
780001–05	Typical Pavement Markings
781001–04	Typical Applications Raised Reflective Pavement Markers
814001–03	Handholes
814006–02	Double Handholes
836001–02	Light Pole Foundation
838001	Breakaway Devices
857001–01	Standard Phase Designation Diagrams and Phase Sequences
873001–02	Traffic Signal Grounding & Bonding
877001–06	Steel Mast Arm Assembly and Pole 16' Through 55'
877011–07	Steel Combination Mast Arm Assembly and Pole 16' Through 55'
878001–10	Concrete Foundation Details
880006–1	Traffic Signal Mounting Details
886001–01	Detector Loop Installations
886006–01	Typical Layout for Detection Loops

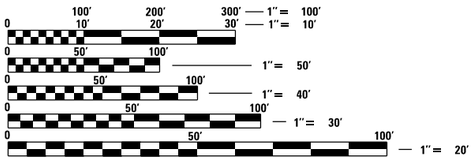
DESIGN DESIGNATION

COUNTY FARM ROAD – OTHER PRINCIPAL ARTERIAL

DESIGN SPEED: COUNTY FARM ROAD = 50 MPH (45 MPH POSTED)
SCHICK ROAD = 55 MPH (50 MPH POSTED)

2017 ADT: COUNTY FARM ROAD 29,000
SCHICK ROAD 22,800

PROJECT LOCATED IN THE VILLAGE OF HANOVER PARK



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CONTRACT NO. XXXXX

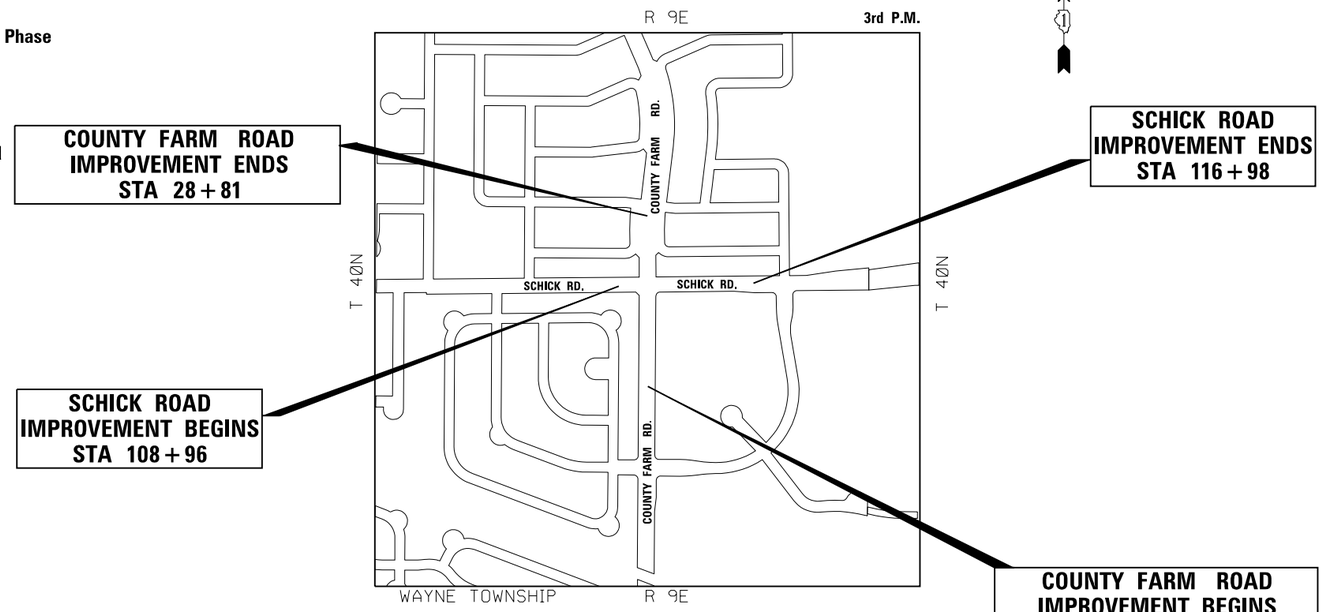
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PRE–FINAL

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A.P. ROUTE 0362 COUNTY HIGHWAY 43 (COUNTY FARM RD.)
COUNTY FARM ROAD AT SCHICK ROAD
SIGNAL MODERNIZATION AND NEW TURN LANE
SECTION 14–00179–30–SP
PROJECT HSIP–0043 (032)
DUPAGE COUNTY

C–91–274–15



SCALE: N.T.S.

LOCATION MAP

GROSS LENGTH OF COUNTY FARM RD. = 981.00 FT. = 0.186 MILES
NET LENGTH OF COUNTY FARM RD. = 981.00 FT. = 0.186 MILES
GROSS LENGTH OF SCHICK RD. = 802.00 FT = 0..152 MILES
NET LENGTH OF SCHICK RD. = 802.00 FT = 0.152 MILES
GROSS AND NET LENGTH OF PROJECT = 1783.00 FT = 0.34 MILES

LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED _____ 20 _____

DUPAGE COUNTY ENGINEER

PASSED _____ 20 _____

DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW _____ 20 _____

REGION ONE ENGINEER

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

_____ DATE _____

DAVID G. TWOREK
ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-043896
MY LICENSE EXPIRES ON 11-30-17.

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FEDERAL AID PROGRAM ENGINEER: FAWAD AQUEEL, P.E. - (847)-705-4021 SCHAUMBURG, IL

GENERAL NOTES

INDEX OF SHEETS

UTILITY CONTACT INFORMATION

UTILITY	CONTACT	PHONE NUMBER
WIDE OPEN WEST	PAUL FLINKOW	630-536-3139
AT&T DISTRIBUTION		630-573-5450
COMED		630-576-7094
COMCAST	MARTHA GIERAS	630-600-6352
HANOVER PARK	RICHARD RUSCH	630-823-5721
NICOR	BRUCE KOPPANG	630-388-2362

GENERAL NOTES

NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.

ALL UTILITIES, SCHOOL DISTRICTS, LOCAL POLICE, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

UNLESS AUTHORIZED BY THE ENGINEER, ALL EXISTING ACCESS POINTS SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.

DURING CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED, AT HIS EXPENSE, TO HAVE AVAILABLE A WATER TRUCK OR SIMILAR EQUIPMENT TO CONTROL DUST. IF NECESSARY, THE CONTRACTOR SHALL BE REQUIRED TO CONTROL DUST DURING NON-WORKING HOURS.

ALL EXCESS MATERIAL (BROKEN CONCRETE, CULVERT PIPE, WASTE ROADWAY EXCAVATION, SURPLUS MATERIAL FROM SEWER TRENCHES, ETC.) SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT DUMP SITES AND OBTAIN PERMISSION AND ALL NECESSARY PERMITS TO USE SUCH DUMP SITES. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

TREE REMOVAL, CLEARING, HEDGE REMOVAL

TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05 OF THE STANDARD SPECIFICATIONS.

ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY.

ALL CLEARING, REMOVAL OF BUSHES, HEDGES AND TREES UNDER SIX (6) INCHES IN DIAMETER WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

OVERHANGING LIMBS

OVERHANGING LIMBS ARE TO BE TRIMMED OR CUT OFF TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF TWENTY (20) FEET FROM THE FINISHED SURFACE OF THE ROAD. CLEARANCE TO SIDEWALKS OR PATHS SHALL BE AS DIRECTED BY THE ENGINEER.

LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED TREE EXPERT AS STATED IN THESE SPECIAL PROVISIONS AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION.

ALL CUTS OVER ONE (1) INCH IN DIAMETER SHALL BE MADE AT THE GROWTH RING AT THE NEXT LARGE BRANCH.

ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY.

THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR MOBILIZATION.

TOPSOIL

TOPSOIL SHALL BE PLACED TO A DEPTH OF SIX (6) INCHES AND BE MEASURED IN SQUARE YARDS.

THE CROSS SECTIONS INDICATE THE FINISHED GRADE OF TOPSOIL.

TOPSOIL SHALL NOT BE STOCKPILED WITHIN THE LIMITS OF CONSTRUCTION; THE LOCATIONS OF TOPSOIL STOCKPILES WITHIN THE RIGHT-OF-WAY MUST BE APPROVED BY THE ENGINEER.

ROADWAY EXCAVATION

ALL EXISTING CULVERTS, STORM SEWERS, OR DRAINAGE STRUCTURES MARKED FOR REMOVAL ON THE PLANS OR DESIGNATED IN THE FIELD BY THE ENGINEER TO BE REMOVED SHALL BE REMOVED AND ANY EXCAVATION SHALL BE BACKFILLED WITH A GRANULAR MATERIAL MEETING THE SPECIFICATIONS FOR FA-1 OR FA-2. THE COST OF ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR STORM SEWER OR PIPE CULVERT UNLESS PAID FOR AS A SPECIFIC ITEM.

ALL EXISTING GRANULAR AND ASPHALT MATERIALS TO BE REMOVED AND NOT PAID AS A SPECIFIC ITEM SHALL BE CONSIDERED EARTH EXCAVATION AND WILL BE PAID FOR AT THE UNIT PRICE FOR EARTH EXCAVATION. THE CONTRACTOR WILL HAVE THE OPTION OF REMOVING THE EXISTING ASPHALT MATERIAL BY GRINDING OR EXCAVATING THE MATERIAL. IF THE ASPHALT MATERIAL IS REMOVED BY EXCAVATION, IT MAY NOT BE USED IN EMBANKMENT AREAS UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER. ASPHALT MATERIAL REMOVED BY GRINDING MAY BE USED AS EMBANKMENT MATERIAL. NO ASPHALT MATERIAL SHALL BE REMOVED IN AREAS TO BE USED FOR TEMPORARY ROADWAY.

THE CONTRACTOR SHALL NOT CROSS COMPLETED BASE COURSE OR EXISTING PAVEMENT, NOT SCHEDULED TO BE REMOVED, WITH LOADED SCRAPERS OR TRACK EQUIPMENT.

ALL EMBANKMENTS AND SUB-GRADE SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER PRIOR TO PLACING AGGREGATE SUBGRADE OR SUB-BASE GRANULAR MATERIAL.

ALL EXISTING DOMESTIC BUFFALO BOXES ARE TO BE ADJUSTED BY THE CONTRACTOR. THE COST OF THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

STORM SEWERS, STRUCTURES, UTILITIES

THE STATION / OFFSET / ELEVATIONS NOTED FOR ALL DRAINAGE STRUCTURES LOCATED IN THE CURB LINE REFER TO THE POSITION OF THE ADJACENT PROPOSED EDGE OF PAVEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE OFFSET NECESSARY FOR THE STRUCTURES TO SET THE FRAME AND GRATES IN THE PROPER LOCATION. ALL OTHER STRUCTURES ARE DIMENSIONED TO THE CENTER OF THE STRUCTURE; ELEVATION INDICATES RIM GRADES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING LOCAL AGENCIES MAINTAINING SANITARY SEWERS, WATERMAINS, AND STREET LIGHTS TO VERIFY THE MATERIALS AND METHODS ALLOWED FOR THE ADJUSTMENT, RELOCATION, OR EXTENSION OF THE UTILITY INVOLVED.

THE LOCATION AND ELEVATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE PROVIDED BY THE OWNERS. THE EXACT LOCATIONS AND ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR THROUGH THE OWNER OF THE UTILITY.

EMBANKMENTS SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER PRIOR TO EXCAVATION FOR STORM SEWER.

THE COST OF MAKING STORM SEWER CONNECTIONS TO EXISTING OR PROPOSED SEWER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STORM SEWER BEING CONNECTED.

MANHOLES AND CATCH BASINS TYPE A WHERE THE DIFFERENCE BETWEEN THE RIM ELEVATION AND INVERT ELEVATION IS LESS THAN SIX (6) FEET, SHALL BE CONSTRUCTED WITH FLAT TOPS.

ALL ADJUSTMENTS OR RECONSTRUCTIONS SHALL INCLUDE THE REMOVAL AND REPLACEMENT, AT THE CONTRACTOR'S EXPENSE, OF ALL UNSUITABLE TWO (2) FOOT INSIDE DIAMETER ADJUSTING RINGS.

ADJUSTMENT OF STRUCTURES MAINTAINED BY OTHER AGENCIES SHALL BE MADE TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY MAINTAINING THE SYSTEM OF THE STRUCTURE INVOLVED.

ALL MANHOLES AND INLETS SHALL HAVE POURED INVERTS. THE COST OF INVERTS SHALL BE INCLUDED IN THE COST OF THE STRUCTURE.

ALL AGRICULTURAL FIELD TILES ENCOUNTERED SHALL BE CAREFULLY PRESERVED AND CONNECTED TO PROPOSED DRAINAGE STRUCTURES, SEWERS, OR DITCHES, AS DIRECTED BY THE ENGINEER; THIS WORK WILL BE PAID FOR AT THE APPLICABLE CONTRACT UNIT PRICE OR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

SEWER OR CULVERT TRENCHES CROSSING TRAFFIC LANES SHALL BE TEMPORARILY PATCHED WITH FOUR (4) INCHES HOT-MIX ASPHALT BINDER COURSE; THE COST OF THE HOT-MIX ASPHALT BINDER COURSE WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE SEWER OR CULVERT. THIS PRICE SHALL INCLUDE THE COST OF MAINTAINING THE PATCH TO THE SATISFACTION OF THE ENGINEER.

STORM SEWER, WATER MAIN REQUIREMENTS IS TO BE USED AT LOCATIONS WHERE:
- HORIZONTAL SEPARATION BETWEEN THE SEWER AND WATER MAIN IS LESS THAN 10-FEET AND THE WATER MAIN INVERT IS LESS THAN 18-INCHES ABOVE THE STORM SEWER CROWN;
- OR WHEN WATER MAIN CROSSES OVER STORM SEWER AND THE WATER MAIN INVERT IS LESS THAN 18-INCHES ABOVE THE STORM SEWER CROWN;
- OR WHEN WATER MAIN CROSSES UNDER STORM SEWER AND THE WATER MAIN CROWN IS LESS THAN 18-INCHES UNDER THE STORM SEWER THE STORM SEWER SHALL BE ENCASED IN WATER MAIN QUALITY PIPE.

HOT-MIX ASPHALT SURFACE COURSE, AND BINDER COURSE

HOT-MIX ASPHALT SURFACE COURSE SHALL NOT BE PLACED UNTIL ALL EARTH EXCAVATION, TOPSOIL PLACEMENT, AGGREGATE BASE COURSE, AND HOT-MIX ASPHALT BINDER COURSE HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.

SAWCUT CONSTRUCTION JOINTS SHALL BE PROVIDED AT PAVED COMMERCIAL OR PRIVATE ENTRANCES AND AT ALL SIDE ROADS. THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR HOT-MIX ASPHALT PAVEMENT ITEMS.

THE MAXIMUM COMPACTED THICKNESS OF ANY LIFT OF HOT-MIX ASPHALT BINDER OR SURFACE COURSE SHALL BE 2.5 INCHES.

THE MAXIMUM COMPACTED THICKNESS OF A LIFT OF BASE COURSE WILL BE FOUR (4) INCHES UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

BASE COURSE SHALL NOT BE PLACED ADJACENT TO CURB AND GUTTER UNTIL THE CURB AND GUTTER HAS BEEN BACKFILLED TO THE SATISFACTION OF THE ENGINEER.

THE UNIT PRICES FOR ITEMS USED TO CONSTRUCT TEMPORARY PAVEMENT OR ACCESS ROADS SHALL INCLUDE ALL EQUIPMENT, LABOR AND MATERIAL REQUIRED TO PLACE, REMOVE, AND DISPOSE OF THE TEMPORARY PAVEMENT OR ACCESS ROAD.

TRENCH BACKFILL

WHERE TRENCH BACKFILL IS REQUIRED, THE MATERIAL USED SHALL BE COMPACTED AS SPECIFIED IN ARTICLE 550.07 OF THE STANDARD SPECIFICATIONS USING METHOD ONE.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: N/A | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	2
			CONTRACT NO.	
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

SPECIALTY ITEM	ITEM NUMBER	ITEMS	UNIT	QUANTITY	ROADWAY	TRAFFIC SIGNALS
	20100210	TREE TRUNK PROTECTION	EACH	1	1	
	20200100	EARTH EXCAVATION	CU YD	414	414	
	20800150	TRENCH BACKFILL	CU YD	4	4	
	21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	932	932	
	25000210	SEEDING, CLASS 2A	ACRE	0.19	0.19	
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	17	17	
	25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	17	17	
	25000600	POTASSIUMFERTILIZER NUTRIENT	POUND	17	17	
	25100630	EROSION CONTROL BLANKET	SQ YD	932	932	
	28000400	PERIMETER EROSION BARRIER	FOOT	350	350	
	28000510	INLET FILTERS	EACH	14	14	
	30300112	AGGREGATE SUBGRADE IMPROVEMENT, 12"	SQ YD	514	514	
	31101180	SUBBASE GRANULAR MATERIAL, TYPE B 2"	SQ YD	353	353	
	31101600	SUBBASE GRANULAR MATERIAL, TYPE B 8"	SQ YD	22	22	
	35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8"	SQ YD	316	316	
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	8062	8062	
	40600400	MIXTURE FOR CRACKS, JOINT, AND FLANGEWAYS	TON	12	12	
	40600827	POLYMERIZED LEVLING BINDER (MACHINE METHOD), IL-4.75, N50	TON	506	506	
	40600990	TEMPORARY RAMP	SQ YD	212	212	
	40603090	HOT MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	39	39	
	40603335	HOT MIX ASPHALT SURFACE COURSE, MIX"D", N50	TON	4	4	
	40603565	POLYMERIZED HOT MIX ASPHALTSURFACE COURSE, MIX"E", N70	TON	1181	1181	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	3176	3176	
	42400800	DETECTABLE WARNINGS	SQ FT	98	98	
	44000159	HOT MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	11735	11735	
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	32	32	
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	764	764	
	44000600	SIDEWALK REMOVAL	SQ FT	2223	2223	
	44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	7	7	
	44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	20	20	
	44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	20	20	
	44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	7	7	
	44201798	CLASS D PATCHES, TYPE I, 13 INCH	SQ YD	8	8	
	44201803	CLASS D PATCHES, TYPE II, 13 INCH	SQ YD	25	25	
	44201807	CLASS D PATCHES, TYPE III, 13 INCH	SQ YD	25	25	
	44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SQ YD	8	8	
	44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	577	577	

SPECIALTY ITEM	ITEM NUMBER	ITEMS	UNIT	QUANTITY	ROADWAY	TRAFFIC SIGNALS
	550A0050	STORM SEWRS, CLASS A, TYPE 1 12"	FOOT	21	21	
	60237460	INLETS, TYPE A, TYPE 23 FRAME AND GRATE	EACH	3	3	
	60260400	INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID	EACH	1	1	
	60261530	INLETS TO BE ADJUSTED WITH NEW TYPE 23 FRAME AND GRATE	EACH	8	8	
	60500090	REMOVING INLETS TO MAINTAIN FLOW	EACH	2.00	2.00	
	60604400	COMBINATION CONCRETE CURB AND GUTTE, TYPE B6.18	FOOT	750	750	
	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	200	200	
	66900450	SPECIAL WASTE PLANS AND REPORTS	LSUM	1	1	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
	67100100	MOBILIZATION	LSUM	1	1	
	70106800	CHANGEABLE MESSAGE SIGN	WEEK	8	8	
	70300100	SHORT TERM PAVEMENT MARKING	FOOT	3750	3750	
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1238	1238	
X	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	385	385	
X	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4703	4703	
X	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1634	1634	
X	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	690	690	
X	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	161	161	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	70	70	
X	80500100	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1		1
X	81028750	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, HDPE, SCH 80 2" DIA.	FOOT	816		816
X	81028760	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, HDPE, SCH 80 2 1/2" DIA.	FOOT	51		51
X	81028770	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, HDPE, SCH 80 3" DIA.	FOOT	95		95
X	81028790	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, HDPE, SCH 80 4" DIA.	FOOT	273		273
X	81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	9		9
X	81400740	DOUBLE HANDHOLE, COMPOSITE CONCRETE	EACH	2		2
X	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	837.5		837.5
X	82102310	LUMINAIRE, LED, HORIZONTAL MOUNT, 250 WATT	EACH	4		4
X	82103400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EACH	4		4
X	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1		1
X	85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1		1
X	86200200	UNINTERRUPTABLE POWER SUPPLY, STANDARD	EACH	1		1
X	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1180		1180
X	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1543		1543
X	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1564		1564
X	87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1863		1863
X	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	32		32

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	3
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

SPECIALTY ITEM	ITEM NUMBER	ITEMS	UNIT	QUANTITY	ROADWAY	TRAFFIC SIGNALS
X	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1697		1697
X	87500600	TRAFFIC SIGNAL POST, 10 FT.	EACH	3		3
X	87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4		4
X	87702920	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1		1
X	87702930	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1.00		1
X	87702940	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	2		2
X	87702960	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1		1
X	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	28		28
X	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4		4
X	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	44		44
X	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7		7
X	88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3		3
X	88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	5		5
X	88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1		1
X	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6		6
X	88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1		1
X	88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	13		13
X	88500100	INDUCTIVE LOOP DETECTOR	EACH	11		11
X	88600100	DETECTOR LOOP, TYPE I	FOOT	1136		1136
X	88700090	CONFIRMATION BEACON	EACH	4		4
X	88700200	LIGHT DETECTOR	EACH	4		4
X	88700300	LIGHT DETECTOR AMPLIFIER	EACH	1		1
X	88800100	PEDESTRIAN PUSH-BUTTON	EACH	8		8
X	89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1
X	89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1
X	89502380	REMOVE EXISTING HANDHOLE	EACH	5		5
X	89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	2		2
X	89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	8		8
X	X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 203/C	FOOT	291		291
X	X0327698	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4		4
	X2130010	TEST HOLES	EACH	10	10	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	1	
X	X7810300	RECESSED REFLECTIVE PAVEMENT MARKER	EACH	189	189	
	Z0013798	CONSTRUCTION LAYOUT	LSUM	1	1	
	Z0033700	LONGITUDINAL JOINT SEALANT	FOOT	7132	7132	
	Z0076600	TRAINEES	HOUR			
	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR			

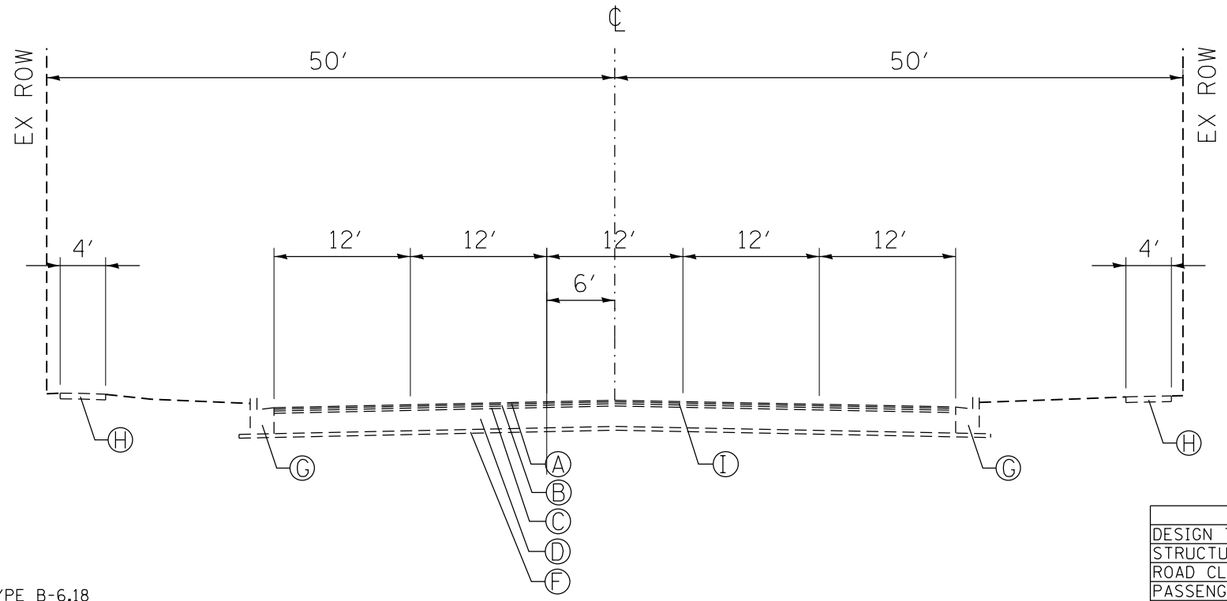
FILE NAME =	USER NAME = hwsjm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 4/21/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	4
			CONTRACT NO.	
	ILLINOIS	FED. AID PROJECT		



EXISITNG

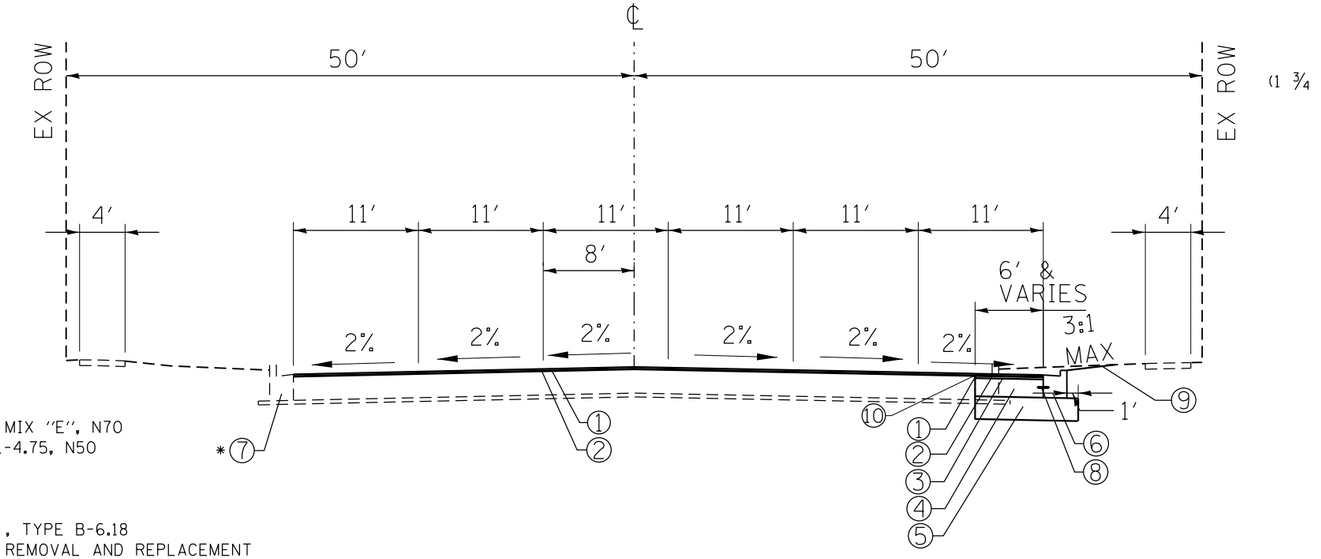
Ⓐ 1 ½″ BITUMINOUS CONCRETE SURFACE COURSE
Ⓑ 2″ BITUMINOUS CONCRETE BINDER COURSE
Ⓒ 2 ½″ LEVELING BINDER
Ⓓ 9″ BITUMINOUS BASE COURSE
Ⓔ 8″ P.C.C. BASE COURSE
Ⓕ 4″ SUB-BASE GRANULAR MATERIAL
Ⓖ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18
Ⓗ P.C.C. SIDEWALK
Ⓘ 2 ½″ HMA SURFACE REMOVAL

ITEM	COUNTY FARM RD	
DESIGN TYPE	FLEXIBLE	COMPOSITE
STRUCTURAL DESIGN TRAFFIC (20 YEARS)	30,000	30,000
ROAD CLASSIFICATION	1	1
PASSENGER CARS	28,110	28,110
SINGLE UNITS	270	270
MULTIPLE UNITS	1620	1620
TRAFFIC FACTOR	7.4	10.5
DESIGN THICKNESS	1.75+0.75+2.25+8	

THICKNESS = HMA SURFACE + LEVEL BINDER + HMA BINDER + PCC BASE COURSE

EXISTING TYPICAL SECTION, COUNTY FARM ROAD

SOUTH OF SCHICK ROAD
STA. 19+00.00 TO STA. 24+69.74



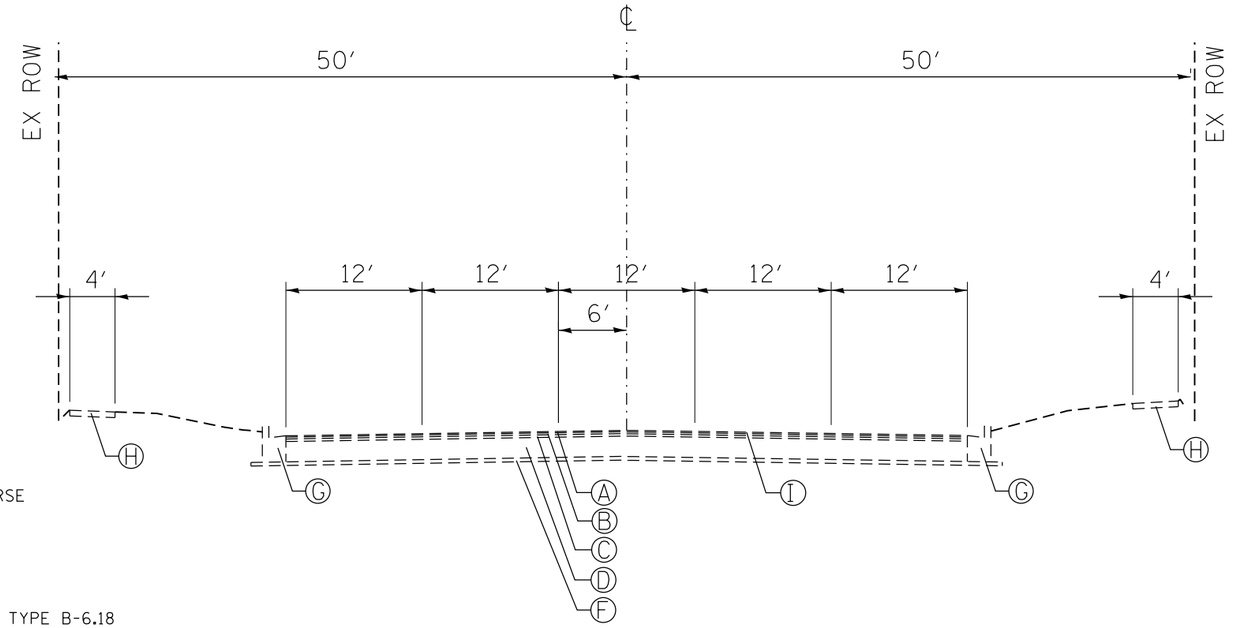
PROPOSED

① 1 ¾″ POLYMERIZED HMA SURFACE COURSE, MIX "E", N70
② ¾″ POLYMERIZED LEVELING BINDER, MM, IL-4.75, N50
③ 2 ¼″ HMA BINDER COURSE, IL 19.0, N90
④ 8″ P.C.C. BASE COURSE
⑤ 12″ AGGREGATE SUB-BASE
⑥ COMBINATION CONCRETE CURB AND GUTTER , TYPE B-6.18
⑦ COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
⑧ #6 TIE BAR @ 24″ C-C (INCLUDED IN THE COST OF COMBINATION CONCRETE CURB AND GUTTER)
⑨ 6″ TOPSOIL, SEEDING CLASS 2A
⑩ STRIP REFLECTIVE CRACK CONTROL

PROPOSED TYPICAL SECTION, COUNTY FARM ROAD

SOUTH OF SCHICK ROAD
STA. 19+00.00 TO STA. 24+69.74
* AS DIRECTED BY THE ENGINEER

FILE NAME =	USER NAME = hwsjm	DESIGNED - DN	REVISED -	DUPAGE COUNTY DIVISION OF TRANSPORTATION	TYPICAL SECTIONS COUNTY FARM ROAD					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - SM	REVISED -							0362	14-00179-30-SP	DuPAGE	43	5
	PLOT SCALE = 20.0000 ' / in.	CHECKED - DT	REVISED -									CONTRACT NO.		
	PLOT DATE = 4/22/2016	DATE -	REVISED -		SCALE: N/A	SHEET 1	OF 3	SHEETS	STA. 19+00	TO STA. 24+69		ILLINOIS FED. AID PROJECT		

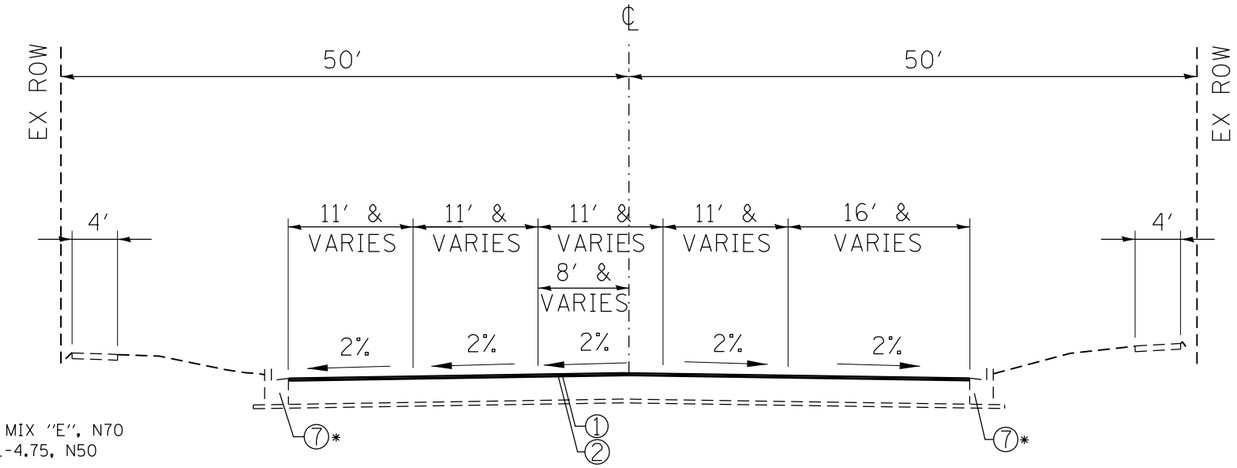


EXISITNG

Ⓐ 1 ½″ BITUMINOUS CONCRETE SURFACE COURSE
Ⓑ 2″ BITUMINOUS CONCRETE BINDER COURSE
Ⓒ 2 ½″ LEVELING BINDER
Ⓓ 9″ BITUMINOUS BASE COURSE
Ⓔ 8″ P.C.C. BASE COURSE
Ⓕ 4″ SUB-BASE GRANULAR MATERIAL
Ⓖ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18
Ⓗ P.C.C. SIDEWALK
Ⓘ 2 ½″ HMA SURFACE REMOVAL

EXISTING TYPICAL SECTION, COUNTY FARM ROAD

NORTH OF SCHICK ROAD
STA. 25+28.21 TO STA. 28+81.45



PROPOSED

① 1 ¾″ POLYMERIZED HMA SURFACE COURSE, MIX ″E″, N70
② ¾″ POLYMERIZED LEVELING BINDER, MM, IL-4.75, N50
③ 2 ¼″ HMA BINDER COURSE, IL 19.0, N90
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⑦ COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
⑧ #6 TIE BAR @ 24″ C-C (INCLUDED IN THE COST OF COMBINATION CONCRETE CURB AND GUTTER)
⑨ 6″ TOPSOIL, SEEDING CLASS 2A
⑩ STRIP REFLECTIVE CRACK CONTROL

PROPOSED TYPICAL SECTION, COUNTY FARM ROAD

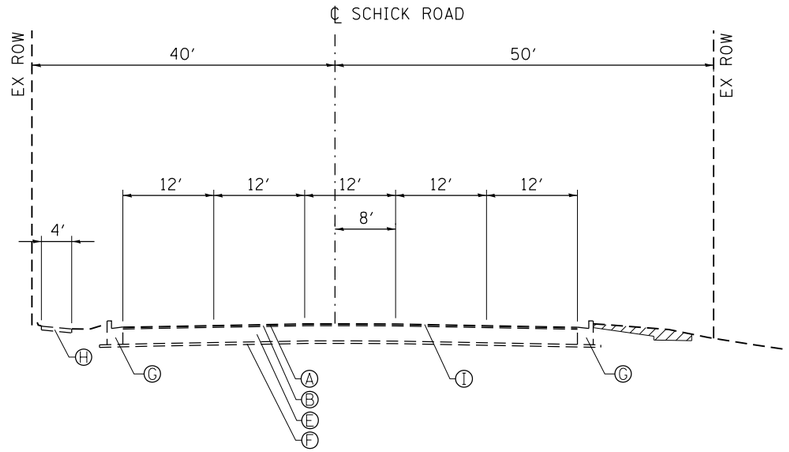
NORTH OF SCHICK ROAD
STA. 25+28.21 TO STA. 28+81.45
* AS DIRECTED BY THE ENGINEER

FILE NAME =	USER NAME = hwsjm	DESIGNED - DN	REVISED -	DUPAGE COUNTY DIVISION OF TRANSPORTATION	TYPICAL SECTIONS COUNTY FARM ROAD				
		DRAWN - SM	REVISED -						
	PLOT SCALE = 20.0000 ′ / in.	CHECKED - DT	REVISED -						
	PLOT DATE = 4/22/2016	DATE -	REVISED -		SCALE: N/A	SHEET 2 OF 3 SHEETS	STA. 25+28	TO STA. 28+81	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	6
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

EXISITNG

Ⓐ 1 ½'' BITUMINOUS CONCRETE SURFACE COURSE
Ⓑ 2'' BITUMINOUS CONCRETE BINDER COURSE
Ⓒ 2 ½'' LEVELING BINDER
Ⓓ 9'' BITUMINOUS BASE COURSE
Ⓔ 8'' P.C.C. BASE COURSE
Ⓕ 4'' SUB-BASE GRANULAR MATERIAL
Ⓖ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18
Ⓗ P.C.C. SIDEWALK
Ⓘ 2 ½'' HMA SURFACE REMOVAL

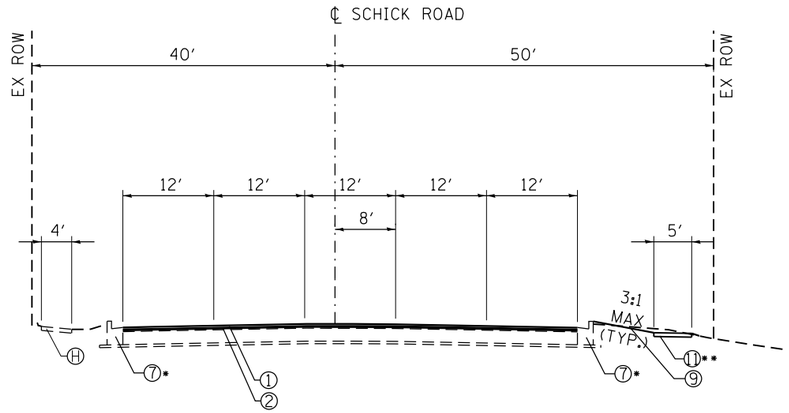


EXISITNG TYPICAL SECTION, SCHICK ROAD

STA. 108+95.85 TO STA. 116+97.82

PROPOSED

① 1 ¾'' POLYMERIZED HMA SURFACE COURSE, MIX ''E'', N70
② ¾'' POLYMERIZED LEVELING BINDER, MM, IL-4.75, N50
③ 2 ¼'' HMA BINDER COURSE, IL 19.0, N90
④ 8'' P.C.C. BASE COURSE
⑤ 12'' AGGREGATE SUB-BASE
⑥ COMBINATION CONCRETE CURB AND GUTTER , TYPE B-6.18
⑦ COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
⑧ #6 TIE BAR @ 24'' C-C (INCLUDED IN THE COST OF COMBINATION CONCRETE CURB AND GUTTER)
⑨ 6'' TOPSOIL, SEEDING CLASS 2A
⑩ STRIP REFLECTIVE CRACK CONTROL
⑪ PCC SIDEWALK, 5'', WITH 2'' SUB-BASE GRANULAR MATERIAL



PROPOSED TYPICAL SECTION, SCHICK ROAD

STA. 108+95.85 TO STA. 116+97.82
* AS DIRECTED BY THE ENGINEER
** STA. 111+49.11 TO STA. 113+99.65

FILE NAME =	USER NAME = hws.jm	DESIGNED - DN	REVISED -	DUPAGE COUNTY DIVISION OF TRANSPORTATION	TYPICAL SECTIONS SCHICK ROAD			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - SM	REVISED -					0362	14-00179-30-SP	DuPAGE	43	7
	PLOT SCALE = 20.0000 ' / in.	CHECKED - DT	REVISED -							CONTRACT NO.		
	PLOT DATE = 4/22/2016	DATE -	REVISED -		SCALE: N/A	SHEET 3 OF 3 SHEETS	STA. 108+96 TO STA. 116+98			ILLINOIS FED. AID PROJECT		

EXIST. CURVE COUNTYFARM-1
PI STA. = 28+89.19
Δ = 7° 23' 06" (RT)
D = 5° 43' 46"
R = 1,000.00'
T = 64.54'
L = 128.89'
E = 2.08'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 28+24.65
P.T. STA. = 29+53.55

CP #2099
Cut Cross
N. 1924722.303
E. 1034029.071
Elev. 783.91

PI Sta 25+00.00

PC Sta 28+24.65

PI Sta 28+89.19

PT Sta 29+53.55

POT Sta 31+53.55

N 0° 21' 24" E

20+00

PI Sta 110+00.00 N 0° 24' 04" W

EQUATION
STA. 110+00 SCHICK =
STA. 25+00 COUNTY FARM

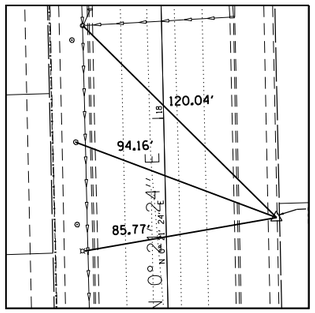
30+00 N 6° 48' 18" E

CP #5
Cut Cross in walk
N. 1925600.015
E. 1034042.779
Elev. 797.53

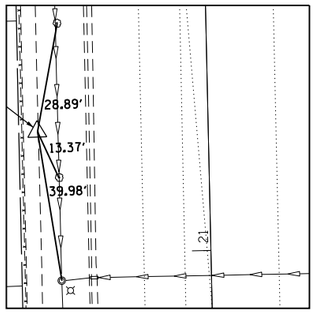
CP #2098
Cut Cross in Walk
N. 1924344.481
E. 1034120.469
Elev. 780.37

CP #4
Cut cross in walk
N. 1925035.240
E. 1034125.466
Elev. 793.36

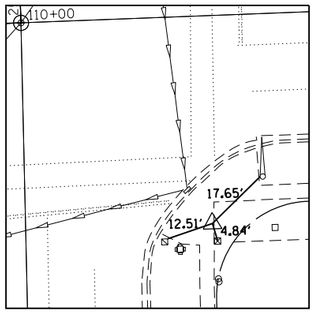
N



CP #2098



CP #2099



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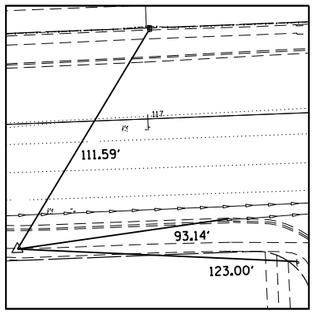
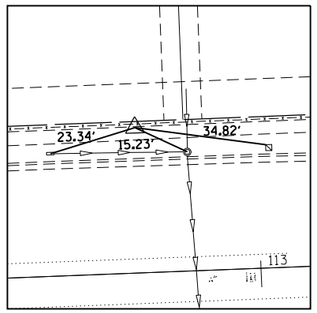
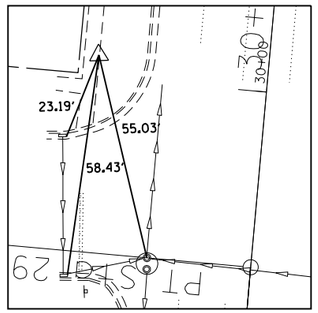


CP #2097



CP #2096



CP #5

CP #2096
Cut Cross in Walk
N. 1925130.689
E. 1034344.264
Elev. 794.02

DUPAGE COUNTY
BENCHMARK #0013
Elev. 767.00
Geodetic Survey Monument
Located at the SW Corner
of Army Trail Rd. and Gerber
Rd. Approximately 29.7' South
of the South Back of Curb

115+00

N 89° 25' 27" E

CP #2097
Cut Cross in Walk
N. 1925041.070
E. 1034717.556
Elev. 792.47

FILE NAME =	USER NAME = hwsjm	DESIGNED - DN	REVISED -
		DRAWN - SM	REVISED -
Default	PLOT SCALE = 100.0000 ' / in.	CHECKED - DT	REVISED -
	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES AND BENCHMARKS

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	8
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
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NO.
BY
DATE

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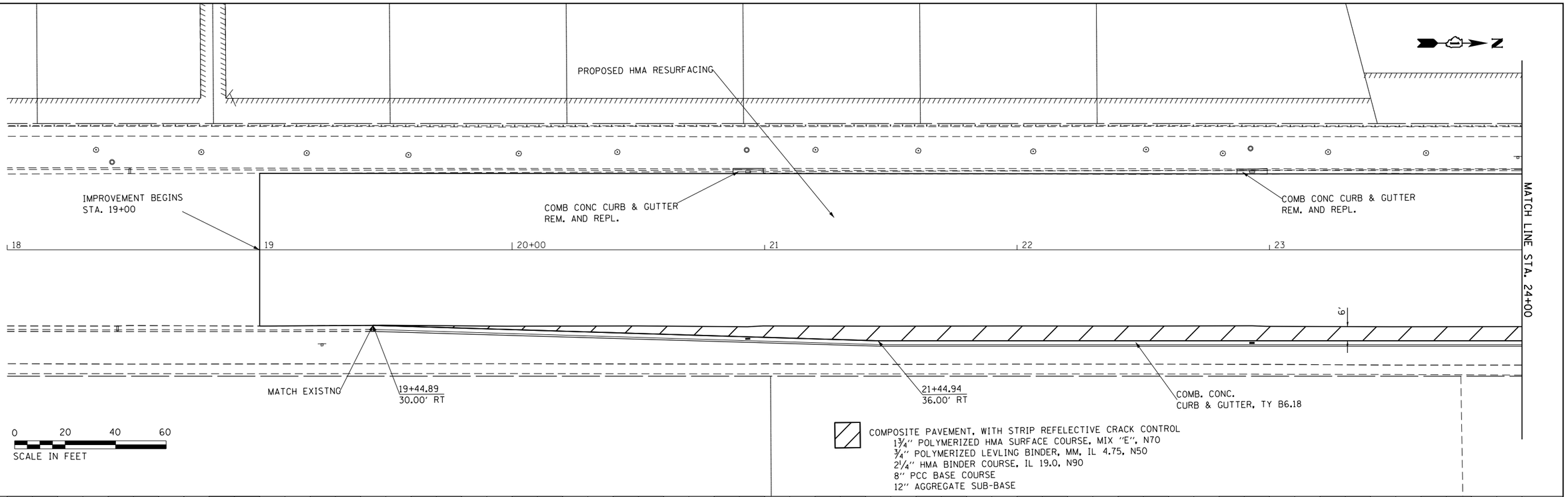

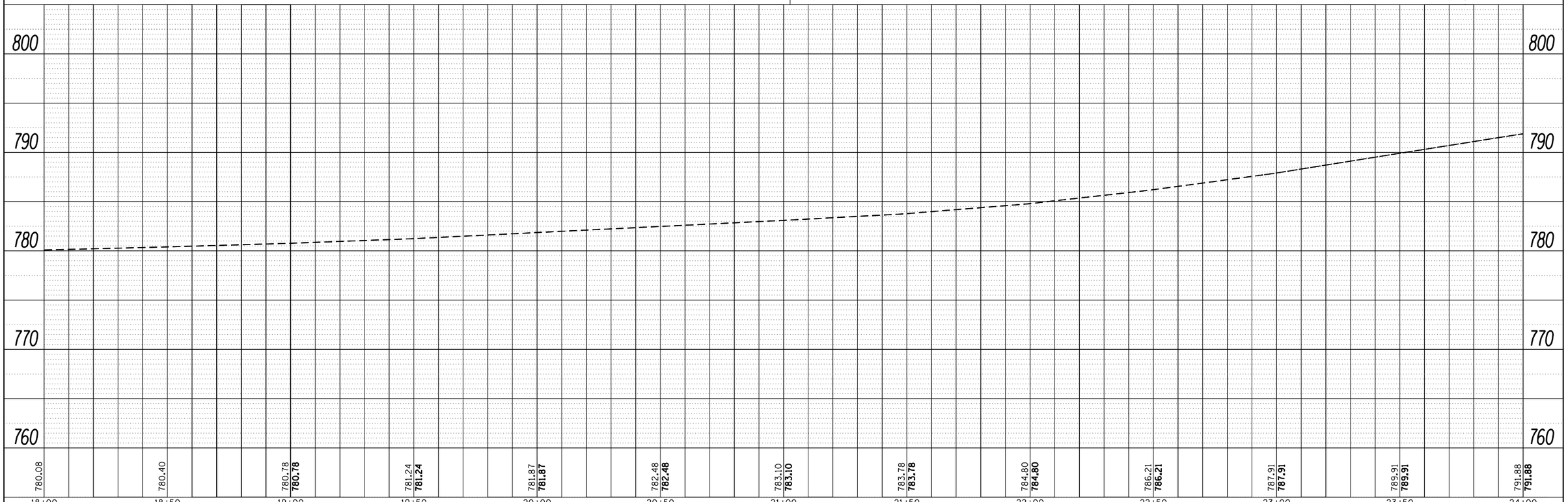

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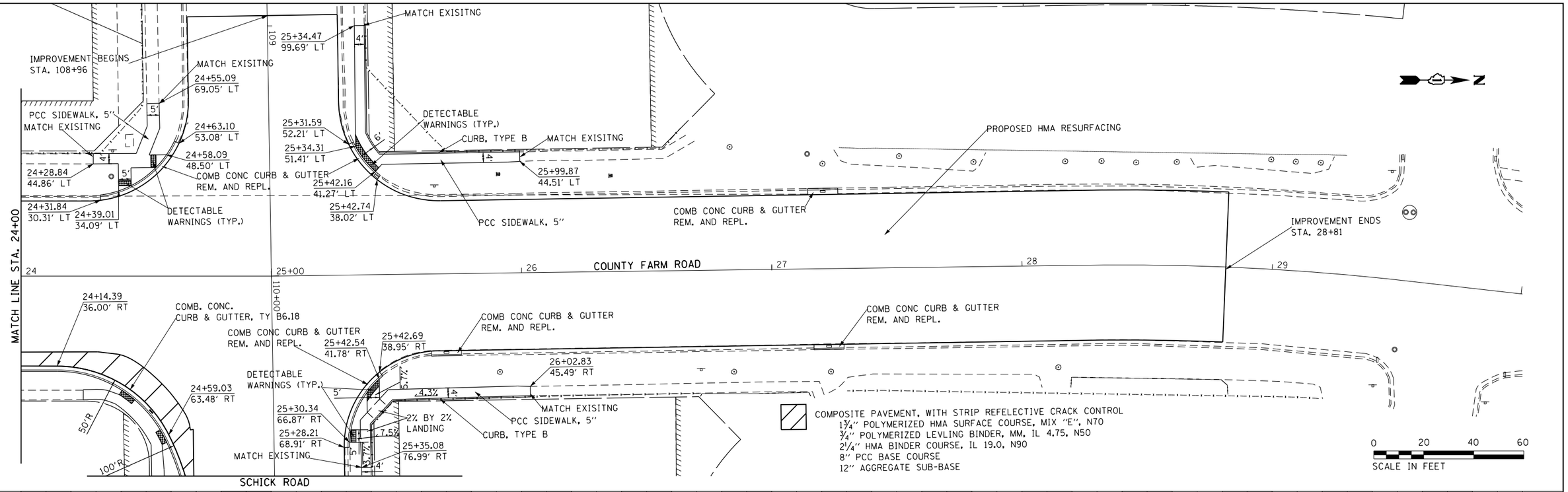
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED - DT	REVISED -
	PLOT DATE = 4/22/2016	DATE -	REVISED -

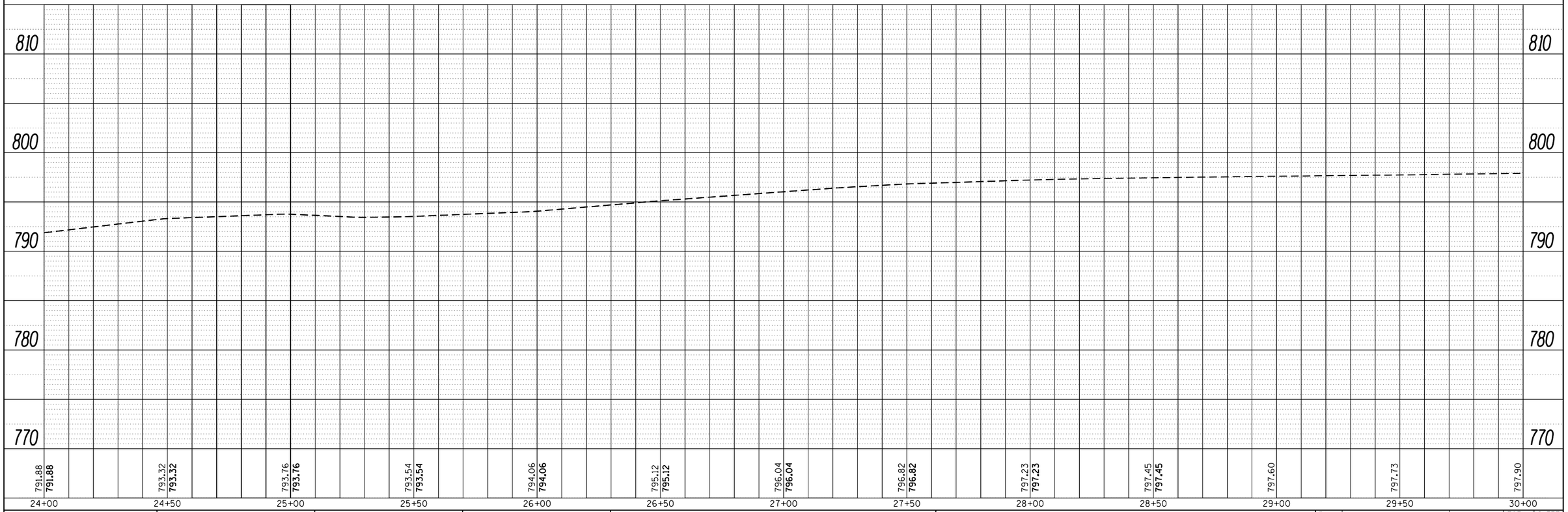
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
COUNTY FARM ROAD

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 18+00 TO STA. 24+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	9
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			





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FILE NAME =	USER NAME = hwsjm	DESIGNED - DN	REVISED -
		DRAWN - SM	REVISED -
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED - DT	REVISED -
	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
COUNTY FARM ROAD

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. 24+00 | TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	10
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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COUNTY FARM ROAD

PROPOSED HMA RESURFACING

IMPROVEMENT BEGINS
STA 108+96

108 | 109 | 25+00 | 110+00 | 111 | 112 | SCHICK ROAD | 113

MATCH LINE STA. 114+00

111+06.39
32.00' RT
MATCH EXISTING

HMA DRIVEWAY
PAVEMENT

PCC SIDEWALK, 5"
(See Sht XX for Sidewalk P&P)

110+65.77
42.91' RT

DETECTABLE
WARNINGS (TYP.)

110+44.71
60.44' RT

110+44.21
75.93' RT
MATCH EXISTING

COMPOSITE PAVEMENT, WITH STRIP REFELECTIVE CRACK CONTROL
1¾" POLYMERIZED HMA SURFACE COURSE, MIX "E", N70
¾" POLYMERIZED LEVLING BINDER, MM, IL 4.75, N50
2¼" HMA BINDER COURSE, IL 19.0, N90
8" PCC BASE COURSE
12" AGGREGATE SUB-BASE

0 20 40 60
SCALE IN FEET

COUNTY FARM ROAD

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NOTE BOOK
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DATE
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810	800	790	780	770
792.03	792.49	792.95 **792.95**	793.48 **793.48**	793.76 **793.76**
794.09 **794.09**	794.29 **794.29**	794.44 **794.44**	794.47 **794.47**	794.35 **794.35**
794.18 **794.18**	793.95 **793.95**	793.76 **793.76**		

108+00 | 108+50 | 109+00 | 109+50 | 110+00 | 110+50 | 111+00 | 111+50 | 112+00 | 112+50 | 113+00 | 113+50 | 114+00

FILE NAME = Default	USER NAME = hwsjm	DESIGNED - DN	REVISED -
		DRAWN - SM	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - DT	REVISED -
	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
SCHICK ROAD

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 108+00 | TO STA. 114+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	11
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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NOTE BOOK
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BY
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NOTE BOOK
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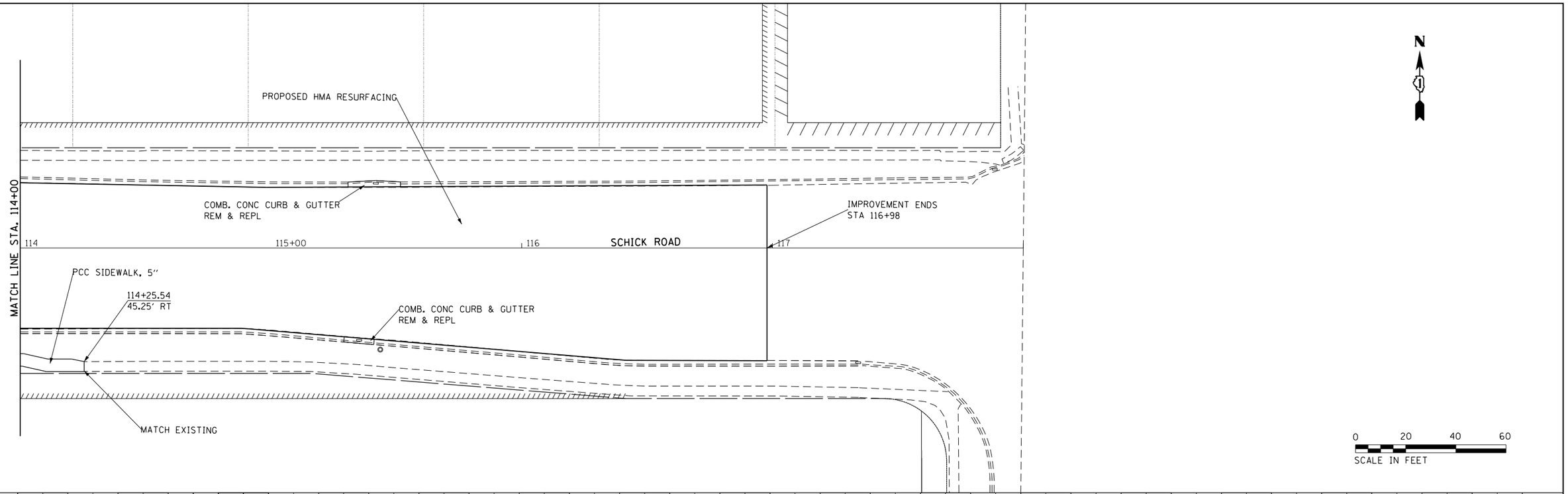

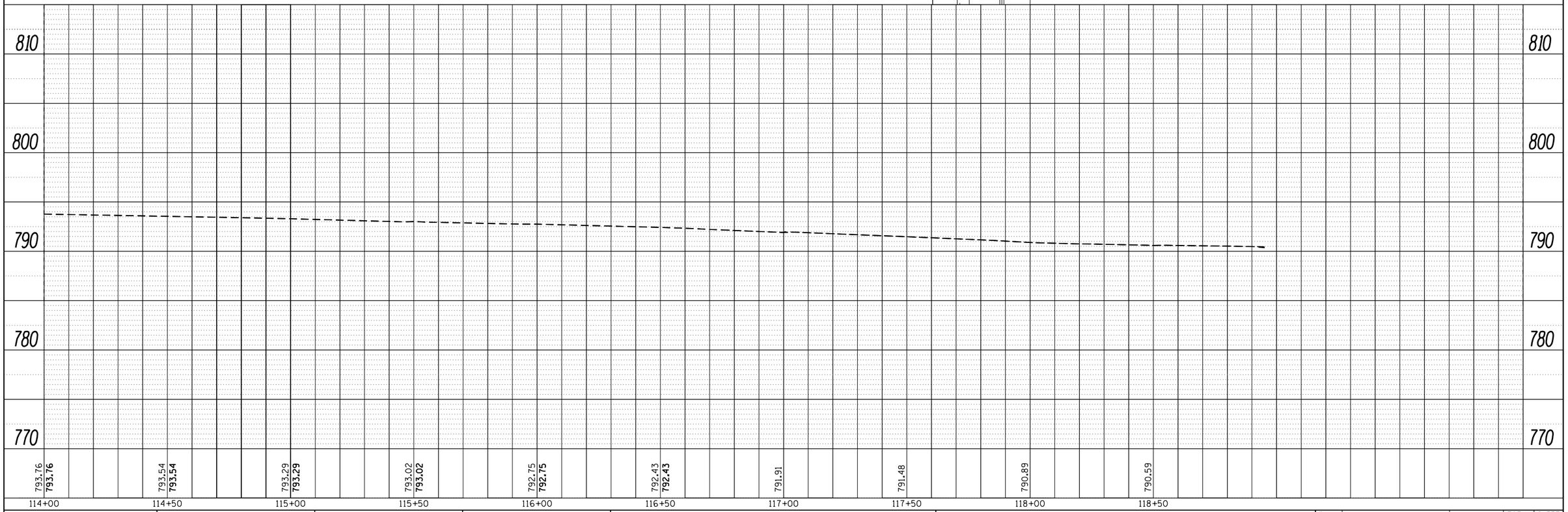

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Default	PLOT SCALE = 40.0000 ' / in.	CHECKED - DT	REVISED -
	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
SCHICK ROAD

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. 114+00 | TO STA. 118+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	12
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

PLAN
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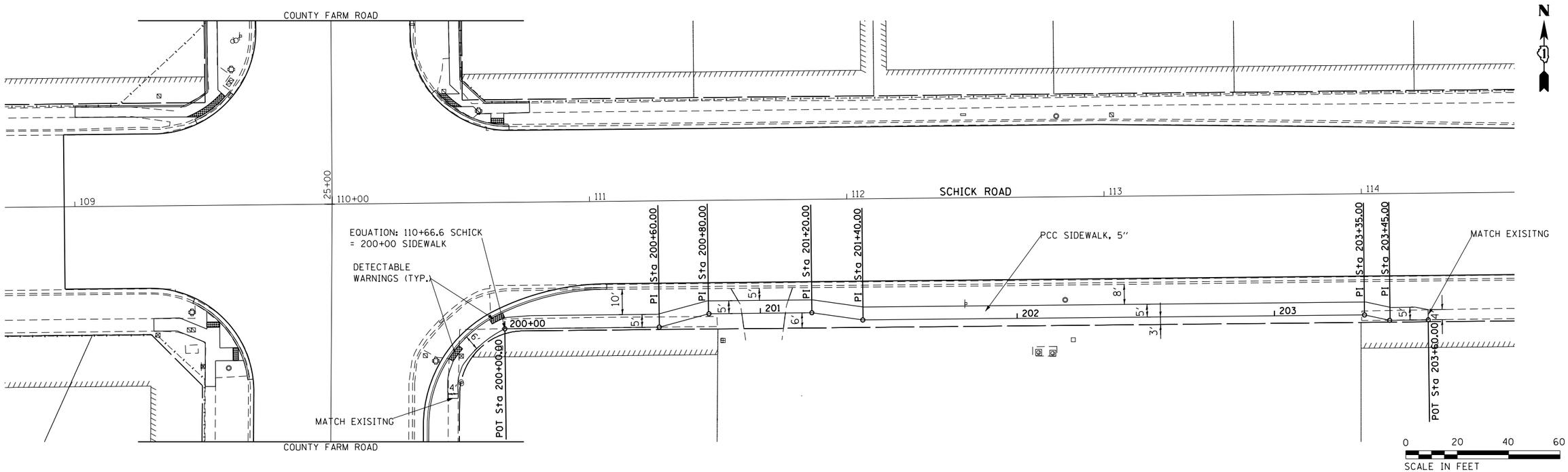
PLOTTED
DRAWN
CHECKED
QUANTITIES CHECKED
R/T. OF WAY CHECKED
NOTE BOOK
CADD FILE NAME
NO.
BY
DATE



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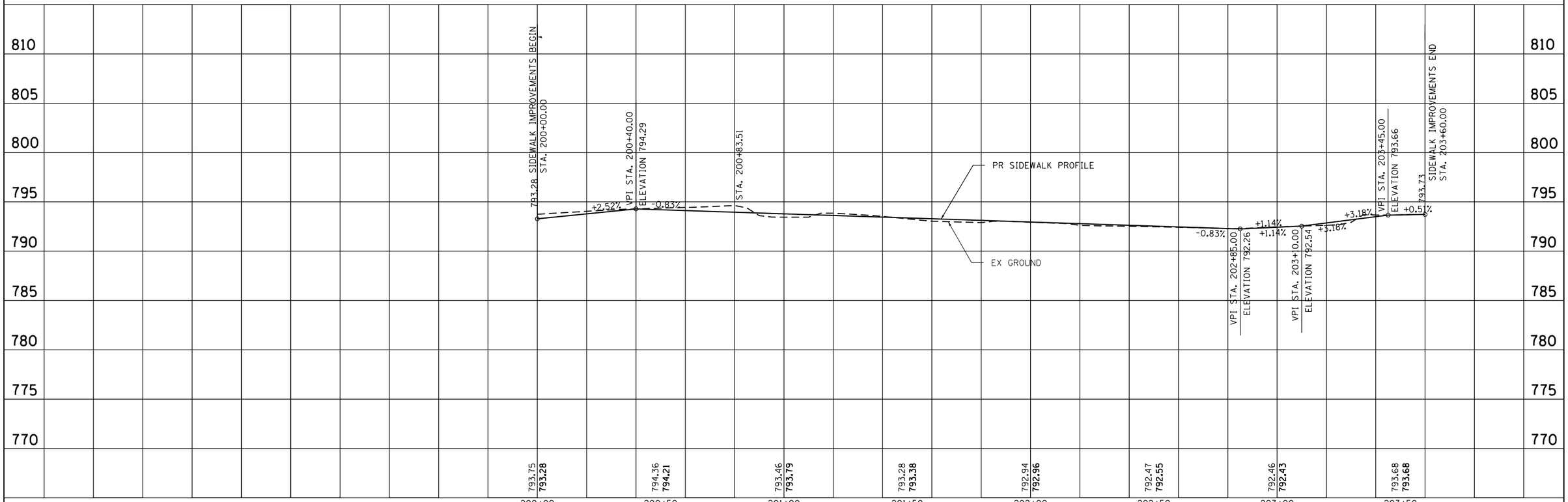

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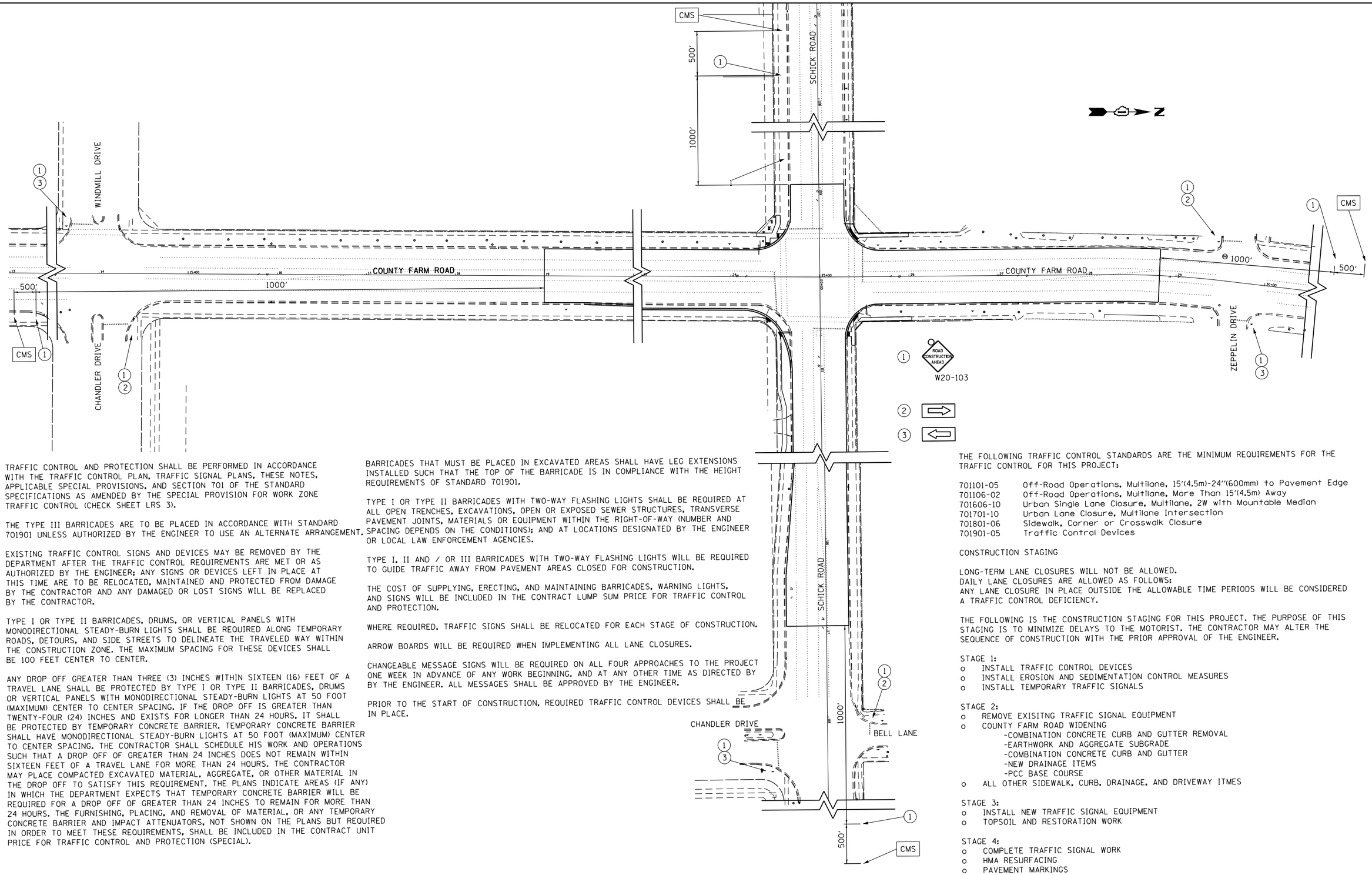
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK PLAN AND PROFILE
SCHICK ROAD

SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 200+00 TO STA. 203+60

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	13
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



TRAFFIC CONTROL AND PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN, TRAFFIC SIGNAL PLANS, THESE NOTES, APPLICABLE SPECIAL PROVISIONS, AND SECTION 701 OF THE STANDARD SPECIFICATIONS AS AMENDED BY THE SPECIAL PROVISION FOR WORK ZONE TRAFFIC CONTROL (CHECK SHEET LRS 3).

THE TYPE III BARRICADES ARE TO BE PLACED IN ACCORDANCE WITH STANDARD 701901 UNLESS AUTHORIZED BY THE ENGINEER TO USE AN ALTERNATE ARRANGEMENT.

EXISTING TRAFFIC CONTROL SIGNS AND DEVICES MAY BE REMOVED BY THE DEPARTMENT AFTER THE TRAFFIC CONTROL REQUIREMENTS ARE MET OR AS AUTHORIZED BY THE ENGINEER; ANY SIGNS OR DEVICES LEFT IN PLACE AT THIS TIME ARE TO BE RELOCATED, MAINTAINED AND PROTECTED FROM DAMAGE BY THE CONTRACTOR AND ANY DAMAGED OR LOST SIGNS WILL BE REPLACED BY THE CONTRACTOR.

TYPE I OR TYPE II BARRICADES, DRUMS, OR VERTICAL PANELS WITH MONODIRECTIONAL STEADY-BURN LIGHTS SHALL BE REQUIRED ALONG TEMPORARY ROADS, DETOURS, AND SIDE STREETS TO DELINEATE THE TRAVELED WAY WITHIN THE CONSTRUCTION ZONE. THE MAXIMUM SPACING FOR THESE DEVICES SHALL BE 100 FEET CENTER TO CENTER.

ANY DROP OFF GREATER THAN THREE (3) INCHES WITHIN SIXTEEN (16) FEET OF A TRAVEL LANE SHALL BE PROTECTED BY TYPE I OR TYPE II BARRICADES, DRUMS OR VERTICAL PANELS WITH MONODIRECTIONAL STEADY-BURN LIGHTS AT 50 FOOT (MAXIMUM) CENTER TO CENTER SPACING. IF THE DROP OFF IS GREATER THAN TWENTY-FOUR (24) INCHES AND EXISTS FOR LONGER THAN 24 HOURS, IT SHALL BE PROTECTED BY TEMPORARY CONCRETE BARRIER. TEMPORARY CONCRETE BARRIER SHALL HAVE MONODIRECTIONAL STEADY-BURN LIGHTS AT 50 FOOT (MAXIMUM) CENTER TO CENTER SPACING. THE CONTRACTOR SHALL SCHEDULE HIS WORK AND OPERATIONS SUCH THAT A DROP OFF OF GREATER THAN 24 INCHES DOES NOT REMAIN WITHIN SIXTEEN FEET OF A TRAVEL LANE FOR MORE THAN 24 HOURS. THE CONTRACTOR MAY PLACE COMPACTED EXCAVATED MATERIAL, AGGREGATE, OR OTHER MATERIAL IN THE DROP OFF TO SATISFY THIS REQUIREMENT. THE PLANS INDICATE AREAS (IF ANY) IN WHICH THE DEPARTMENT EXPECTS THAT TEMPORARY CONCRETE BARRIER WILL BE REQUIRED FOR A DROP OFF OF GREATER THAN 24 INCHES TO REMAIN FOR MORE THAN 24 HOURS. THE FURNISHING, PLACING, AND REMOVAL OF MATERIAL, OR ANY TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS, NOT SHOWN ON THE PLANS BUT REQUIRED IN ORDER TO MEET THESE REQUIREMENTS, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).

BARRICADES THAT MUST BE PLACED IN EXCAVATED AREAS SHALL HAVE LEG EXTENSIONS INSTALLED SUCH THAT THE TOP OF THE BARRICADE IS IN COMPLIANCE WITH THE HEIGHT REQUIREMENTS OF STANDARD 701901.

TYPE I OR TYPE II BARRICADES WITH TWO-WAY FLASHING LIGHTS SHALL BE REQUIRED AT ALL OPEN TRENCHES, EXCAVATIONS, OPEN OR EXPOSED SEWER STRUCTURES, TRANSVERSE PAVEMENT JOINTS, MATERIALS OR EQUIPMENT WITHIN THE RIGHT-OF-WAY (NUMBER AND SPACING DEPENDS ON THE CONDITIONS); AND AT LOCATIONS DESIGNATED BY THE ENGINEER OR LOCAL LAW ENFORCEMENT AGENCIES.

TYPE I, II AND / OR III BARRICADES WITH TWO-WAY FLASHING LIGHTS WILL BE REQUIRED TO GUIDE TRAFFIC AWAY FROM PAVEMENT AREAS CLOSED FOR CONSTRUCTION.

THE COST OF SUPPLYING, ERECTING, AND MAINTAINING BARRICADES, WARNING LIGHTS, AND SIGNS WILL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL AND PROTECTION.

WHERE REQUIRED, TRAFFIC SIGNS SHALL BE RELOCATED FOR EACH STAGE OF CONSTRUCTION.

ARROW BOARDS WILL BE REQUIRED WHEN IMPLEMENTING ALL LANE CLOSURES.

CHANGEABLE MESSAGE SIGNS WILL BE REQUIRED ON ALL FOUR APPROACHES TO THE PROJECT ONE WEEK IN ADVANCE OF ANY WORK BEGINNING. AND AT ANY OTHER TIME AS DIRECTED BY BY THE ENGINEER. ALL MESSAGES SHALL BE APPROVED BY THE ENGINEER.

PRIOR TO THE START OF CONSTRUCTION, REQUIRED TRAFFIC CONTROL DEVICES SHALL BE IN PLACE.

THE FOLLOWING TRAFFIC CONTROL STANDARDS ARE THE MINIMUM REQUIREMENTS FOR THE TRAFFIC CONTROL FOR THIS PROJECT:

701101-05	Off-Road Operations, Multilane, 15'(4.5m)-24'(600mm) to Pavement Edge
701106-02	Off-Road Operations, Multilane, More Than 15'(4.5m) Away
701606-10	Urban Single Lane Closure, Multilane, 2W with Mountable Median
701701-10	Urban Lane Closure, Multilane Intersection
701801-06	Sidewalk, Corner or Crosswalk Closure
701901-05	Traffic Control Devices

CONSTRUCTION STAGING

LONG-TERM LANE CLOSURES WILL NOT BE ALLOWED.
DAILY LANE CLOSURES ARE ALLOWED AS FOLLOWS:
ANY LANE CLOSURE IN PLACE OUTSIDE THE ALLOWABLE TIME PERIODS WILL BE CONSIDERED A TRAFFIC CONTROL DEFICIENCY.

THE FOLLOWING IS THE CONSTRUCTION STAGING FOR THIS PROJECT. THE PURPOSE OF THIS STAGING IS TO MINIMIZE DELAYS TO THE MOTORIST. THE CONTRACTOR MAY ALTER THE SEQUENCE OF CONSTRUCTION WITH THE PRIOR APPROVAL OF THE ENGINEER.

STAGE 1:
- o INSTALL TRAFFIC CONTROL DEVICES
- o INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES
- o INSTALL TEMPORARY TRAFFIC SIGNALS

STAGE 2:
- o REMOVE EXISITNG TRAFFIC SIGNAL EQUIPMENT
- o COUNTY FARM ROAD WIDENING
  - -COMBINATION CONCRETE CURB AND GUTTER REMOVAL
  - -EARTHWORK AND AGGREGATE SUBGRADE
  - -COMBINATION CONCRETE CURB AND GUTTER
  - -NEW DRAINAGE ITEMS
  - -PCC BASE COURSE
- o ALL OTHER SIDEWALK, CURB, DRAINAGE, AND DRIVEWAY ITMES

STAGE 3:
- o INSTALL NEW TRAFFIC SIGNAL EQUIPMENT
- o TOPSOIL AND RESTORATION WORK

STAGE 4:
- o COMPLETE TRAFFIC SIGNAL WORK
- o HMA RESURFACING
- o PAVEMENT MARKINGS

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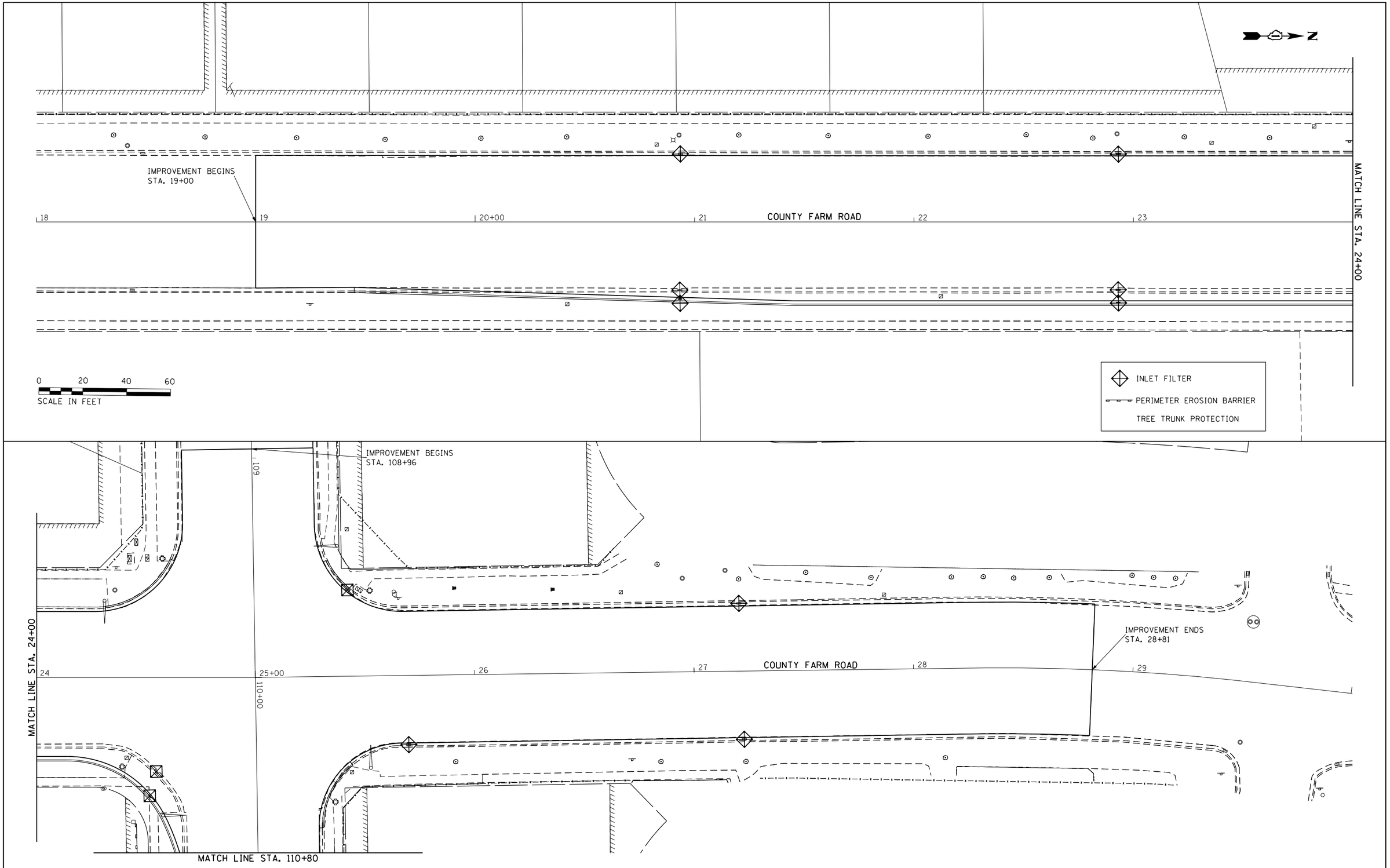
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

SCALE: N/A | SHEET 1 OF 1 SHEETS | STA. 13+00 TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	14
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



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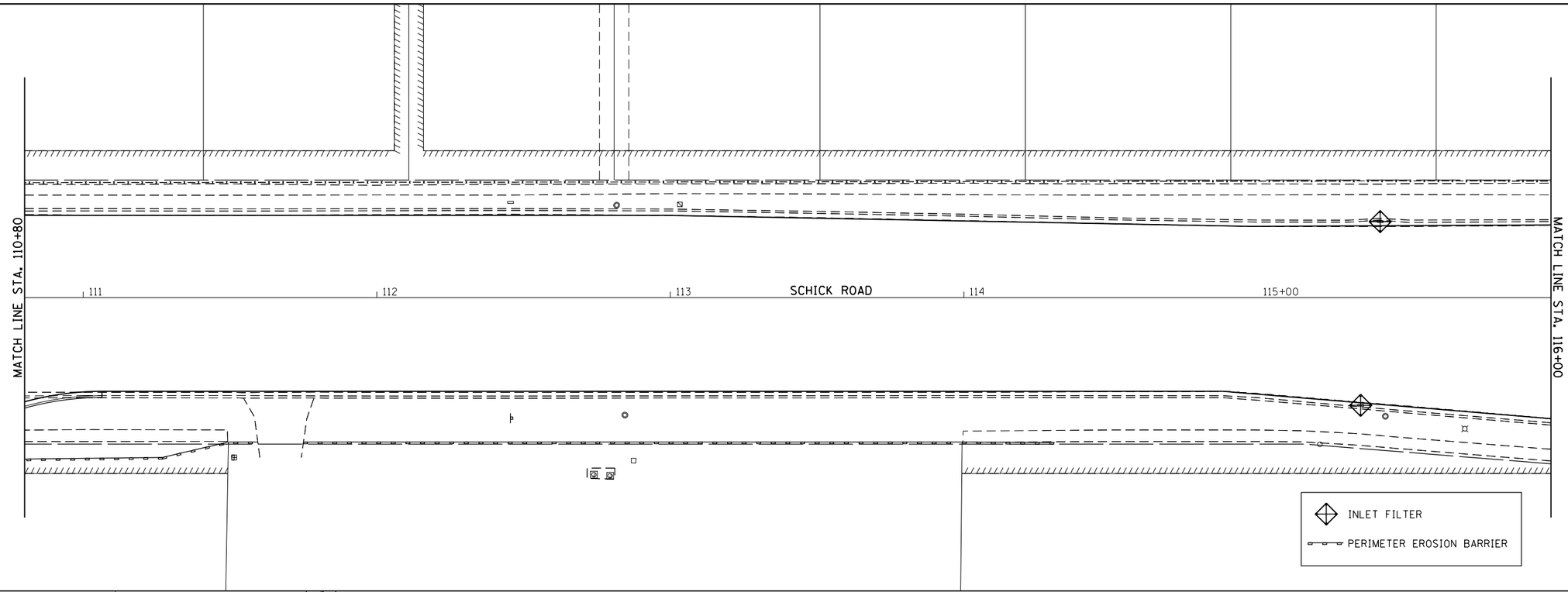
	PLOT DATE = 4/22/2016	DATE -	REVISED -

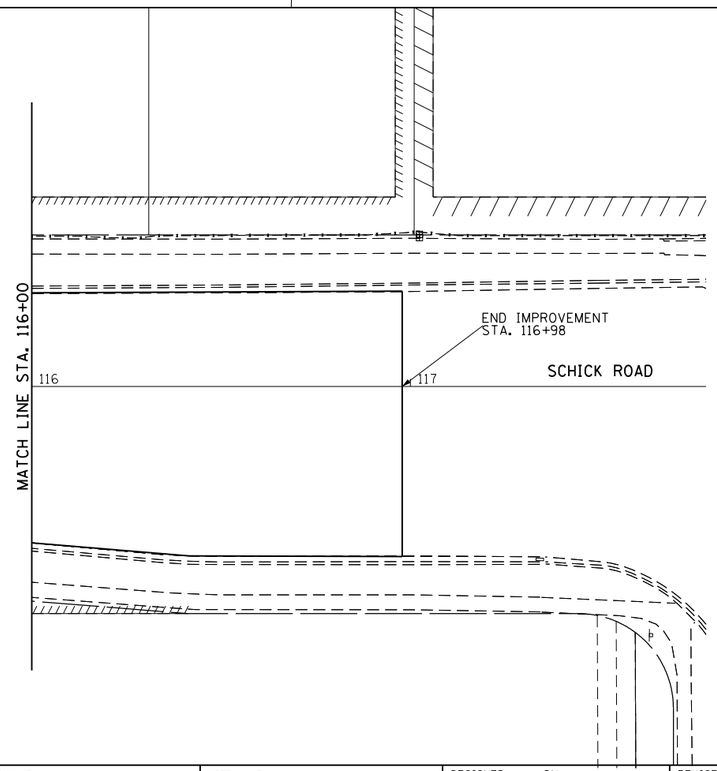
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
COUNTY FARM ROAD

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 18+00 TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	15
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			





EROSION CONTROL NOTES

ALL WORK SHALL BE DONE IN ACCORDANCE WITH ARTICLE VII OF THE DuPAGE COUNTY COUNTYWIDE STORMWATER AND FLOOD PLAIN ORDINANCE, EFFECTIVE APRIL 2013 AND ALL SUBSEQUENT REVISIONS. ALL SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED PER IDOT STANDARD 280001 OR AS SPECIFIED HEREIN AND PAID FOR IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS. ALL CONSTRUCTION ACTIVITIES WILL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMITS ILR10 AND ILR40.

EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE SEQUENCE OF STAGE CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE FOR APPROVAL.

SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE THE PROJECT SITE IS OTHERWISE DISTURBED.

ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE CONCLUDED. ALL ERODABLE/BARE AREAS SHALL BE SEEDED EVERY 7 DAYS WITH TEMPORARY EROSION CONTROL SEEDING. IF A TOPSOIL STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, EROSION CONTROL MEASURES WILL BE PROVIDED.

WHERE WETLANDS ARE TO REMAIN, THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT WETLANDS FROM DAMAGE BY SEDIMENT, CONSTRUCTION EQUIPMENT OR BY HIS WORK CREWS. THE CONTRACTOR SHALL ASSURE THAT DEBRIS OR ANY CONSTRUCTION MATERIAL IS NOT DISPOSED OF OR STOCKPILED IN WETLANDS.

RECEPTACLES FOR CONSTRUCTION DEBRIS, INCLUDING CONCRETE TRUCK WASHOUT WASTE, SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR. THESE WILL NOT BE ALLOWED IN SPECIAL MANAGEMENT AREAS. RECEPTACLES AND THEIR LOCATIONS MUST BE APPROVED BY THE ENGINEER AND HAVE PROPER EROSION CONTROL MEASURES. THIS WORK WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE APPLICABLE ITEMS OF WORK.

HAY OR STRA BALES WILL NOT BE ALLOWED AS PERIMETER EROSION BARRIER OR AS A DITCH CHECK.

WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE FILTERED

WHEN TEMPORARY DRAINAGE IS ESTABLISHED, EROSION CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER.

GRAVEL ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES IF NECESSARY, SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORKDAY AND AS NEEDED.

CLEANING OF VEHICLES AND EQUIPMENT, INCLUDING CONCRETE MIXERS, SHALL BE PERFORMED IN A MANNER TO REDUCE THE AMOUNT OF POLLUTANTS TRIBUTARY TO STORM SEWERS AND OPEN WATERS TO THE MAXIMUM EXTENT PRACTICAL.

ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUNOFF. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM EROSION CONTROL SYSTEMS WHEN THE HEIGHT OF THE SEDIMENT EXCEEDS ONE-HALF OF THE HEIGHT OF THE FILTER DEVICE.

ALL EROSION CONTROL MEASURES SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SEDIMENT AND EROSION CONTROL MEASURES ARE OPERATIONAL.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED.

THE ENGINEER SHALL INSPECT EROSION CONTROL MEASURES PERIODICALLY AND WITHIN 24 HOURS OF ANY STORM EXCEEDING ½ INCH PRECIPITATION. DAMAGED AND INEFFECTIVE EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN 24 HOURS. EROSION CONTROL SYSTEMS REPLACED DUE TO SEDIMENT LOADING WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE APPLICABLE EROSION CONTROL ITEM.

THE COST OF REMOVING SEDIMENT OR REPAIRING EROSION CONTROL SYSTEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPLICABLE EROSION CONTROL ITEM.

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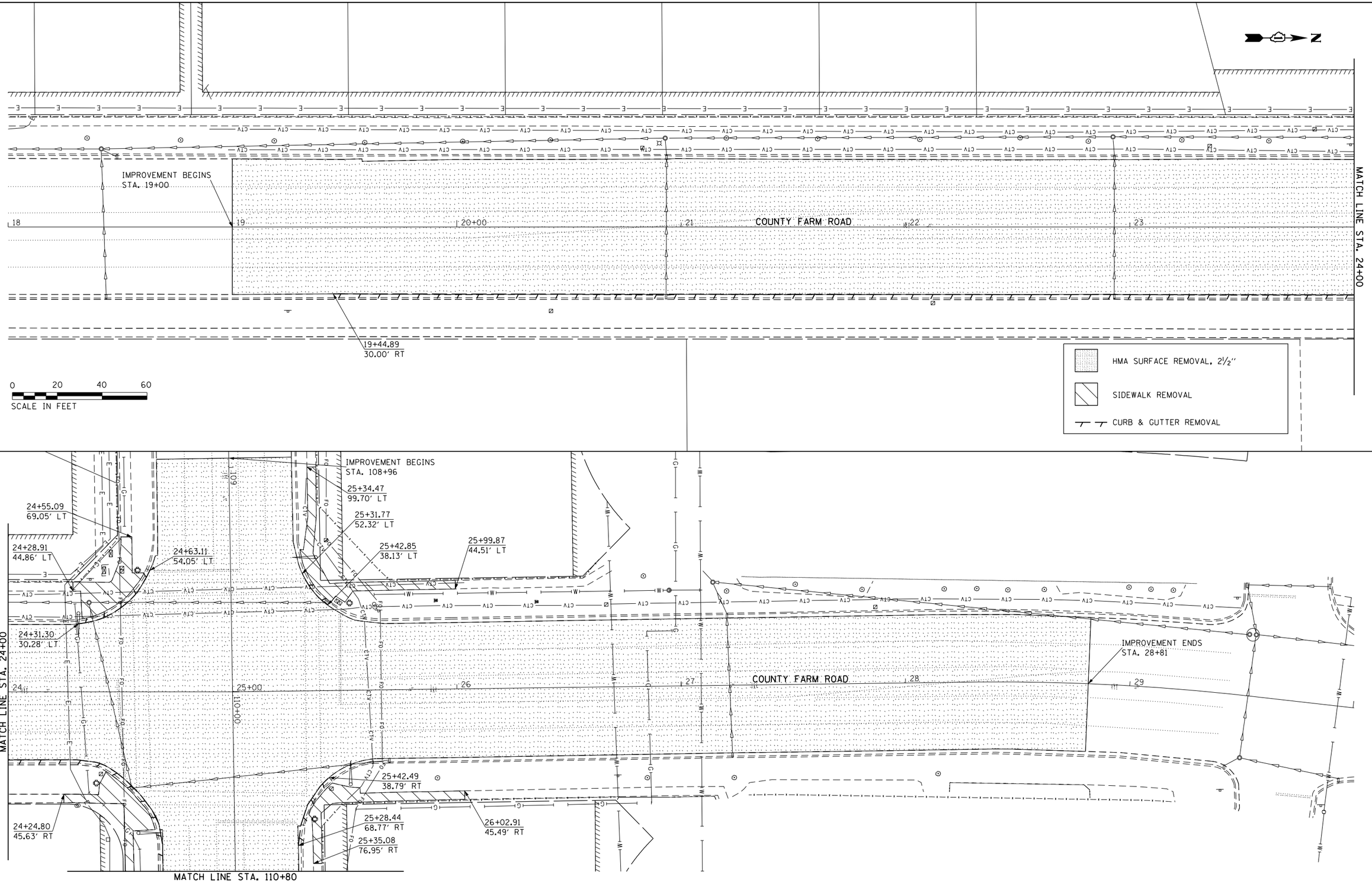
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
SCHICK ROAD

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. 110+80 TO STA. 119+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	16
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



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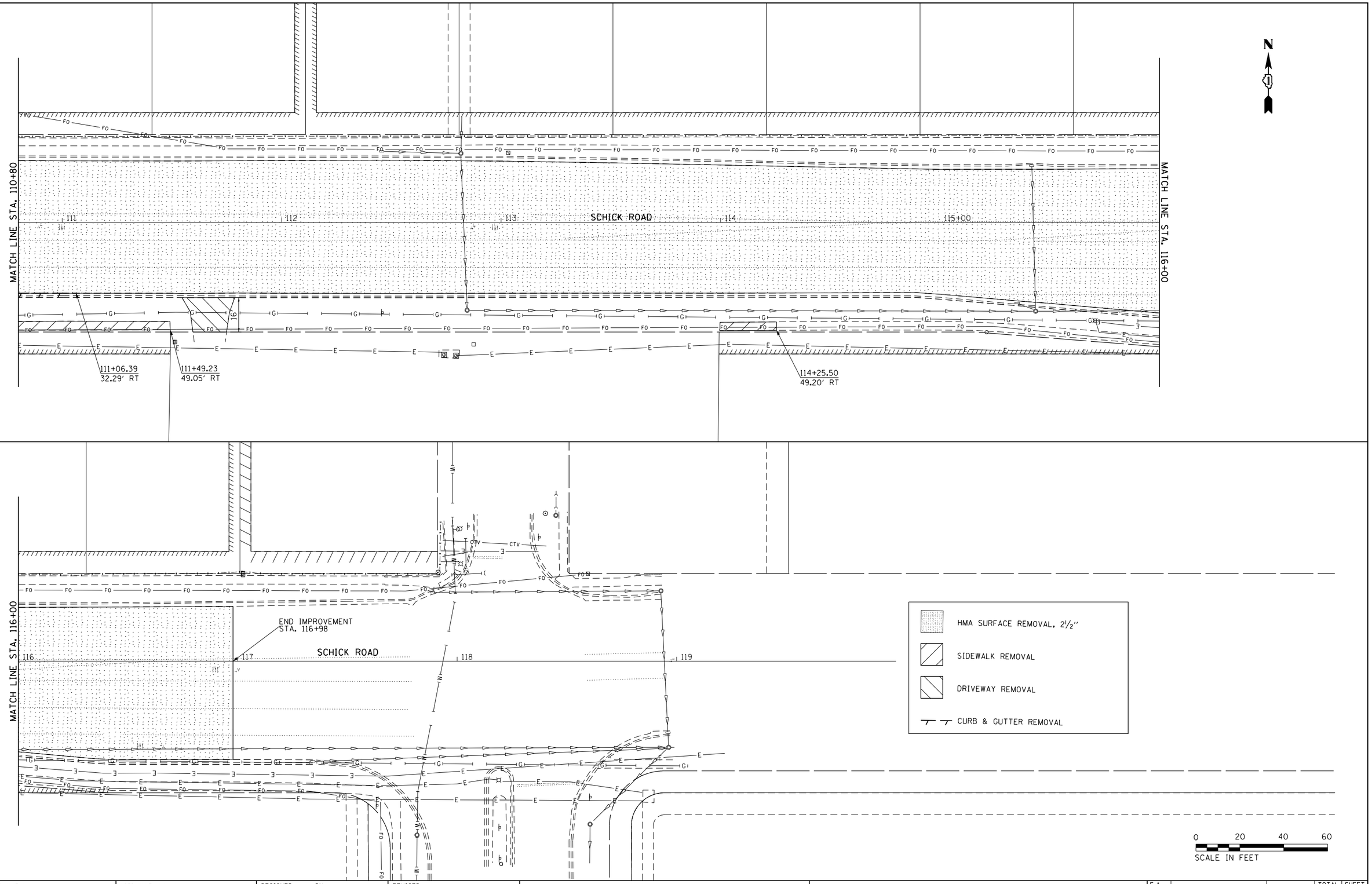
Default	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND REMOVAL
COUNTY FARM ROAD

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 18+00 TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	17
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



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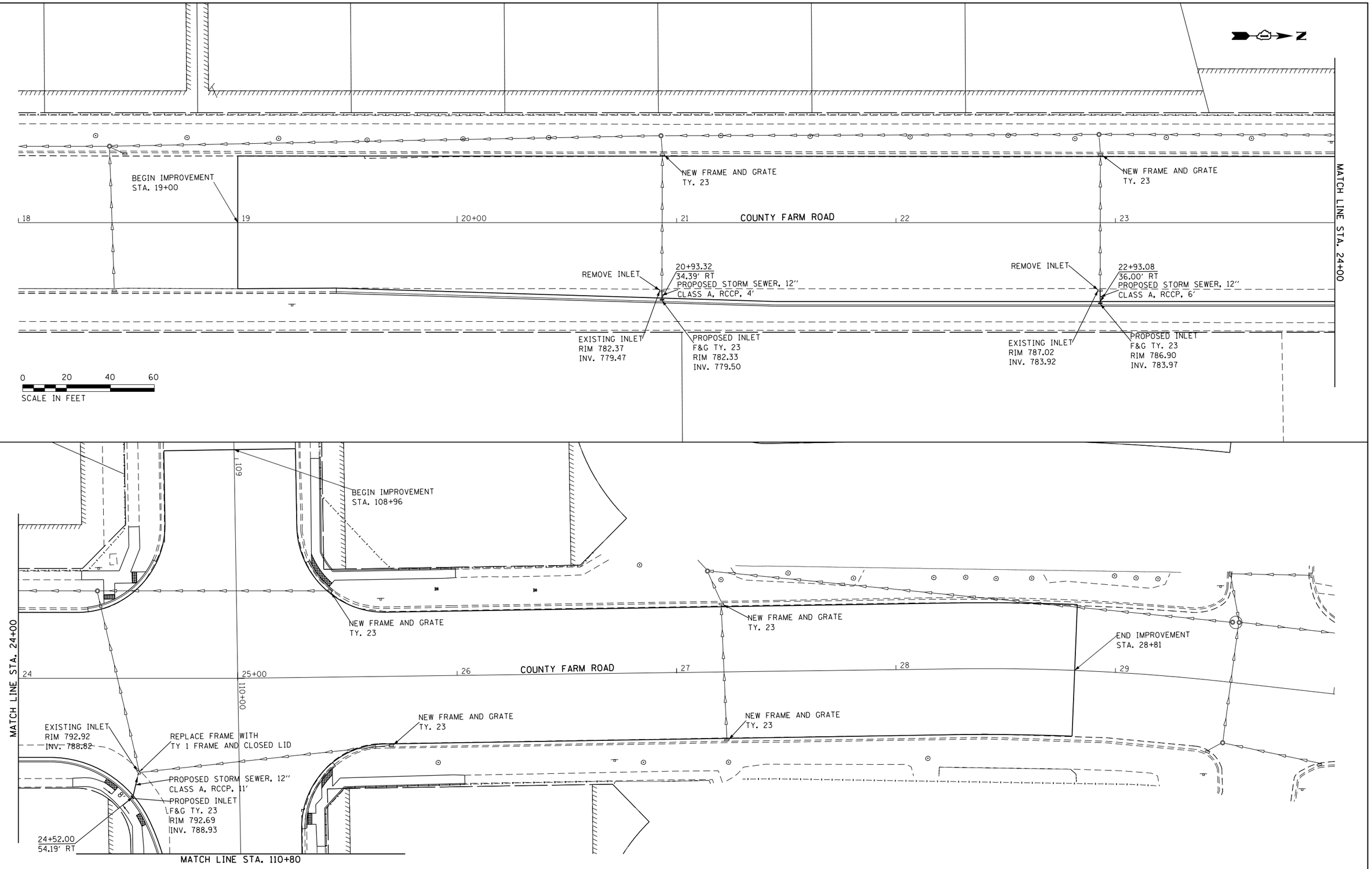
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND REMOVAL
SCHICK ROAD

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. 110+80 | TO STA. 119+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	18
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	



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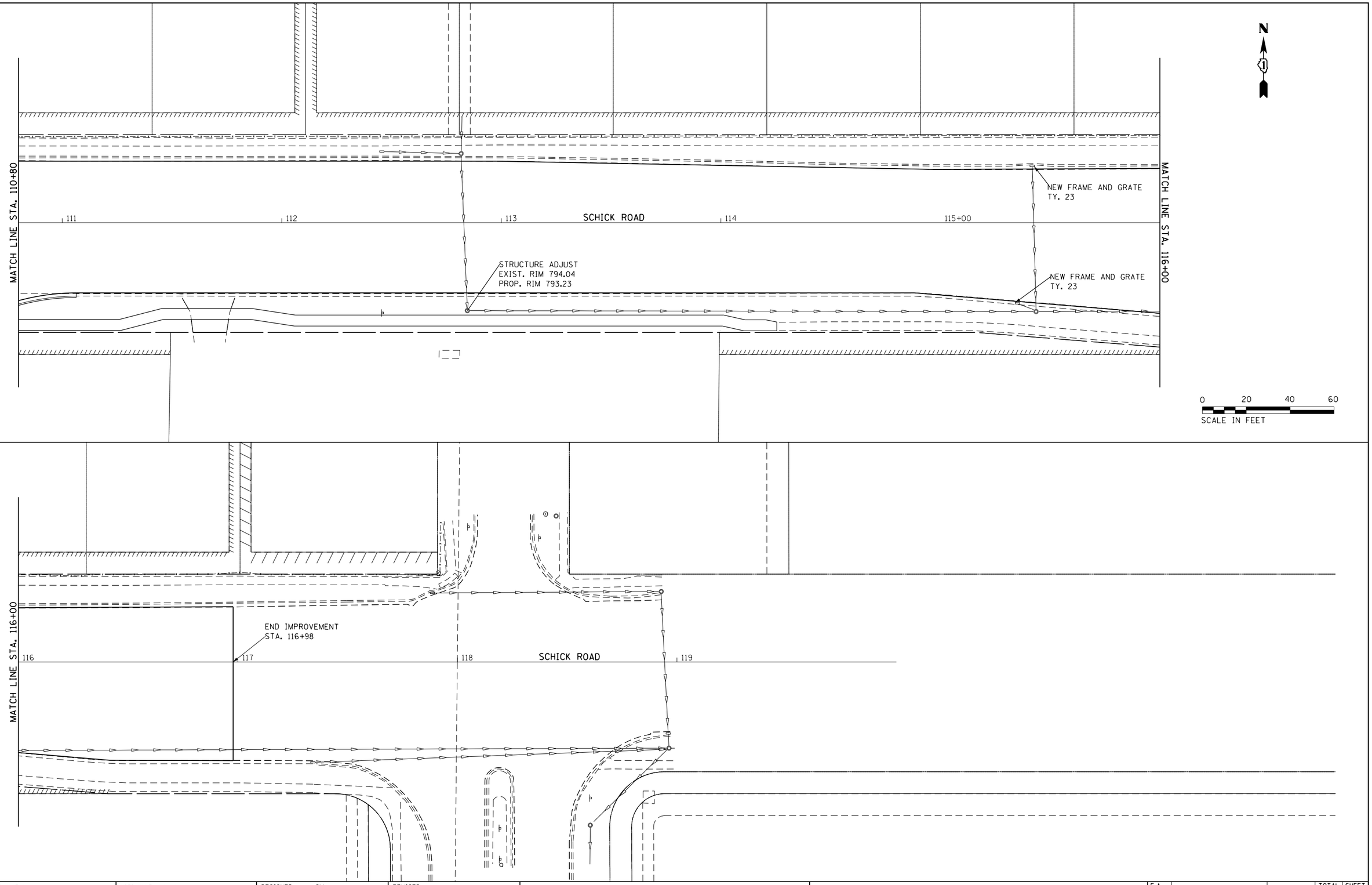
Default	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN
COUNTY FARM ROAD

SCALE: 1"=20' | SHEET 1 OF 2 SHEETS | STA. 18+00 TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	19
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



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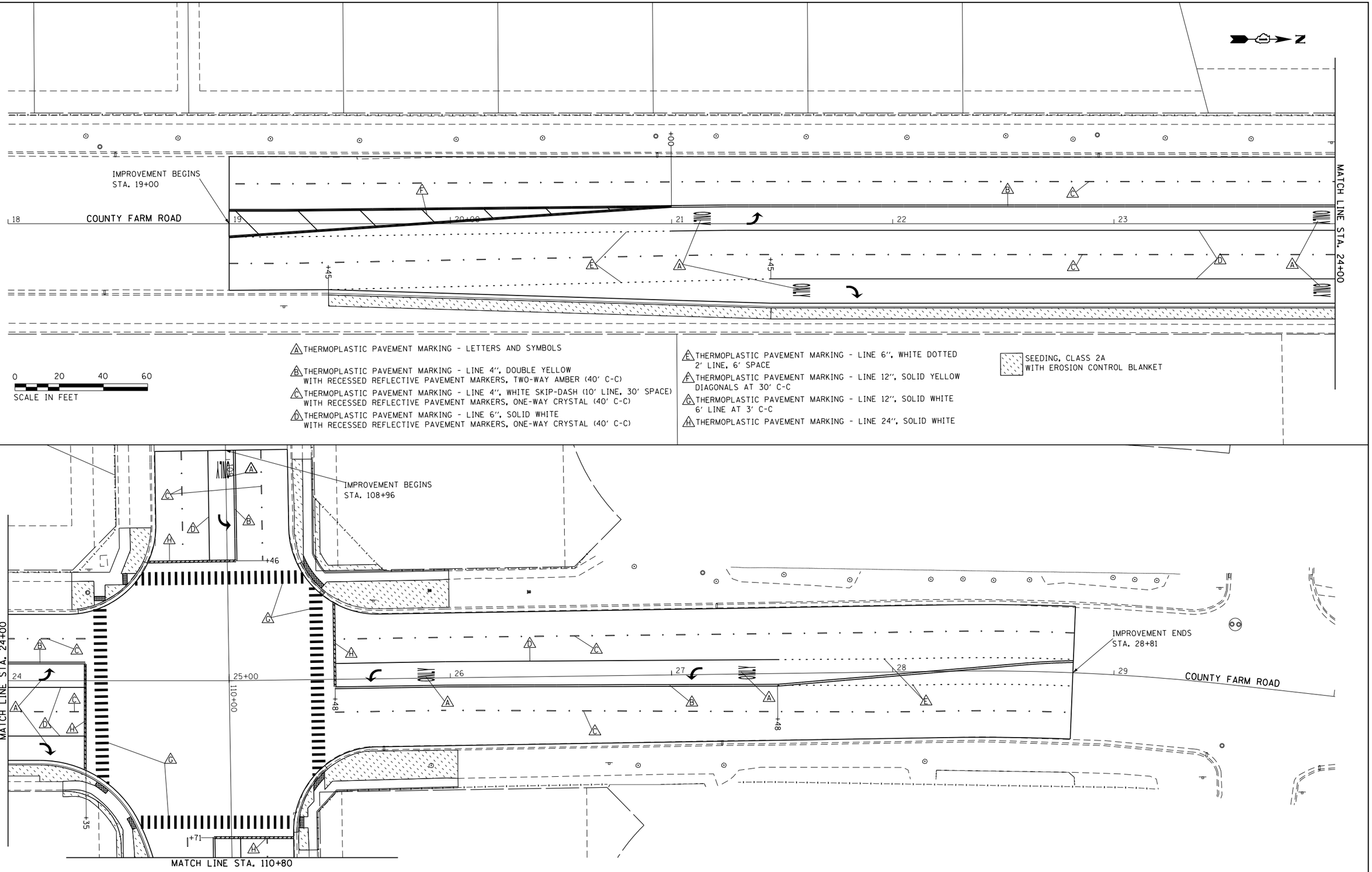
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN
SCHICK ROAD

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. 110+80 TO STA. 119+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	20
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



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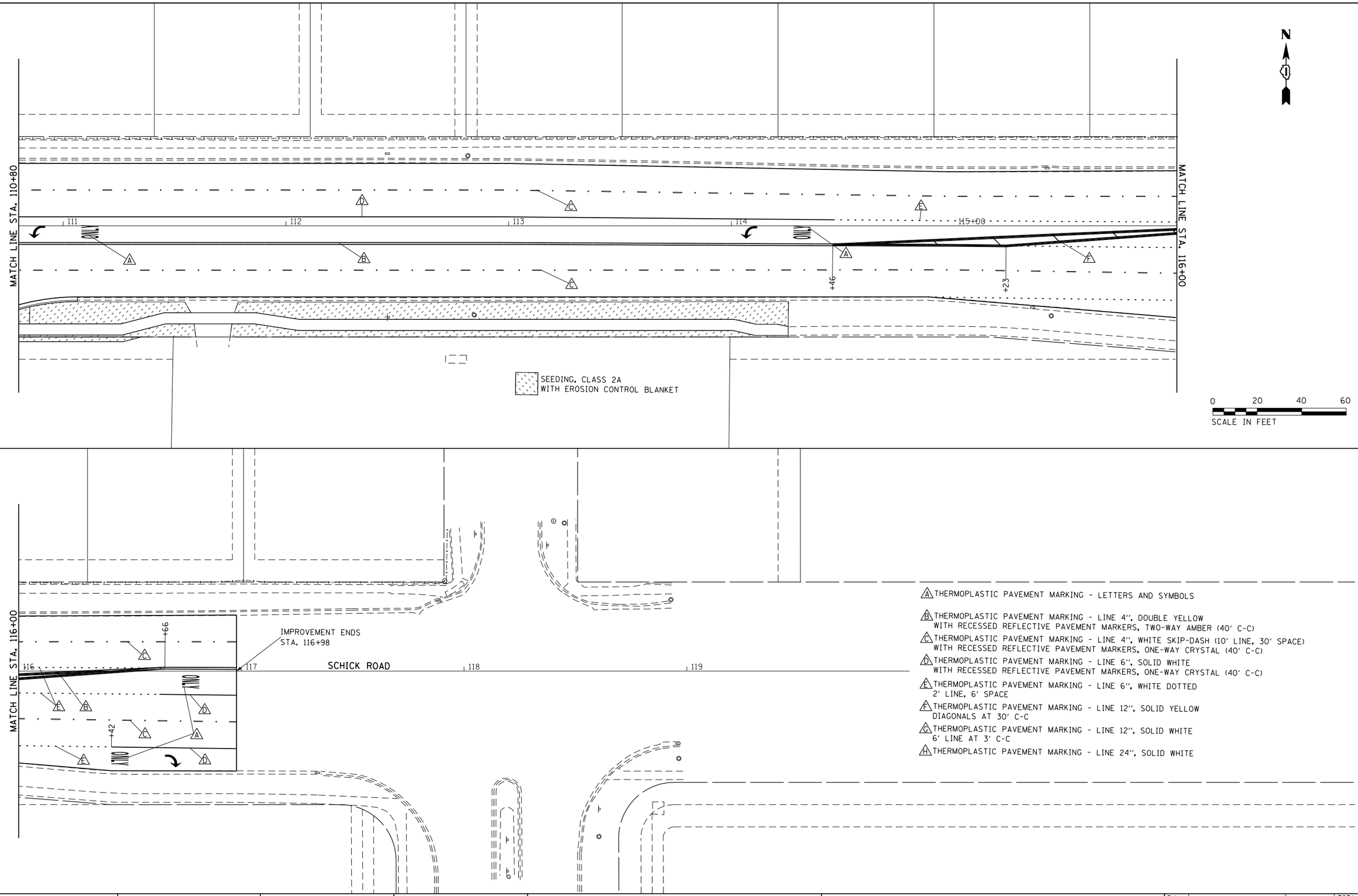
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND LANDSCAPING
COUNTY FARM ROAD

SCALE: 1"=20' | SHEET OF 2 SHEETS | STA. 18+00 TO STA. 30+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	21
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



A THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS

B THERMOPLASTIC PAVEMENT MARKING - LINE 4", DOUBLE YELLOW
WITH RECESSED REFLECTIVE PAVEMENT MARKERS, TWO-WAY AMBER (40' C-C)

C THERMOPLASTIC PAVEMENT MARKING - LINE 4", WHITE SKIP-DASH (10' LINE, 30' SPACE)
WITH RECESSED REFLECTIVE PAVEMENT MARKERS, ONE-WAY CRYSTAL (40' C-C)

D THERMOPLASTIC PAVEMENT MARKING - LINE 6", SOLID WHITE
WITH RECESSED REFLECTIVE PAVEMENT MARKERS, ONE-WAY CRYSTAL (40' C-C)

E THERMOPLASTIC PAVEMENT MARKING - LINE 6", WHITE DOTTED
2' LINE, 6' SPACE

F THERMOPLASTIC PAVEMENT MARKING - LINE 12", SOLID YELLOW
DIAGONALS AT 30' C-C

G THERMOPLASTIC PAVEMENT MARKING - LINE 12", SOLID WHITE
6' LINE AT 3' C-C

H THERMOPLASTIC PAVEMENT MARKING - LINE 24", SOLID WHITE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND LANDSCAPING
SCHICK ROAD

SCALE: 1"=20' | SHEET 2 OF 2 SHEETS | STA. 110+80 TO STA. 119+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	22
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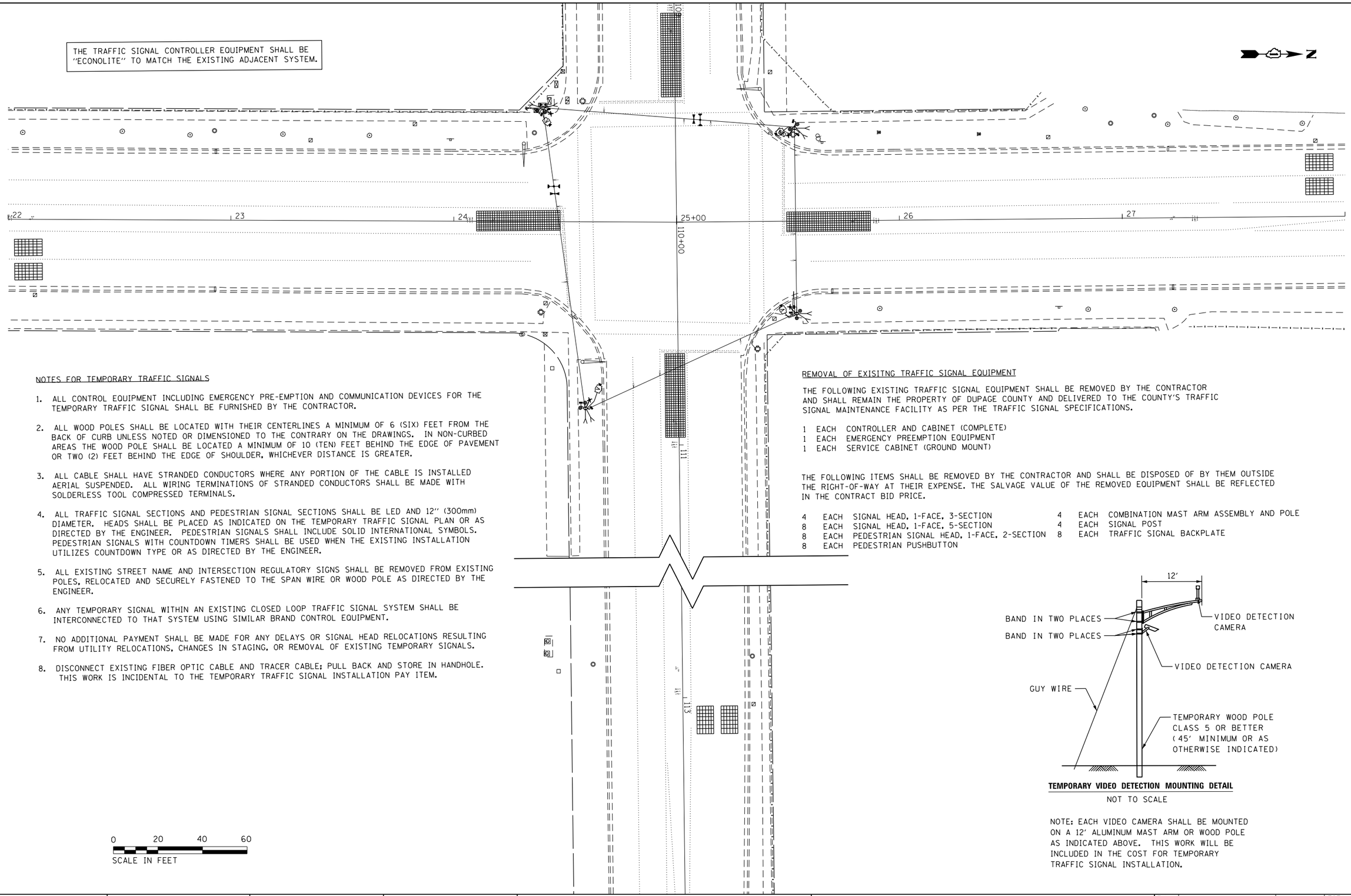
		ILLINOIS FED. AID PROJECT		

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL SHALL BE FURNISHED BY THE CONTRACTOR.

2. ALL WOOD POLES SHALL BE LOCATED WITH THEIR CENTERLINES A MINIMUM OF 6 (SIX) FEET FROM THE BACK OF CURB UNLESS NOTED OR DIMENSIONED TO THE CONTRARY ON THE DRAWINGS. IN NON-CURBED AREAS THE WOOD POLE SHALL BE LOCATED A MINIMUM OF 10 (TEN) FEET BEHIND THE EDGE OF PAVEMENT OR TWO (2) FEET BEHIND THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER.

3. ALL CABLE SHALL HAVE STRANDED CONDUCTORS WHERE ANY PORTION OF THE CABLE IS INSTALLED AERIAL SUSPENDED. ALL WIRING TERMINATIONS OF STRANDED CONDUCTORS SHALL BE MADE WITH SOLDERLESS TOOL COMPRESSED TERMINALS.

4. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER.

5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

6. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

7. NO ADDITIONAL PAYMENT SHALL BE MADE FOR ANY DELAYS OR SIGNAL HEAD RELOCATIONS RESULTING FROM UTILITY RELOCATIONS, CHANGES IN STAGING, OR REMOVAL OF EXISTING TEMPORARY SIGNALS.

8. DISCONNECT EXISTING FIBER OPTIC CABLE AND TRACER CABLE; PULL BACK AND STORE IN HANDHOLE. THIS WORK IS INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.

0 20 40 60
SCALE IN FEET

REMOVAL OF EXISITNG TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF DUPAGE COUNTY AND DELIVERED TO THE COUNTY'S TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)
1 EACH EMERGENCY PREEMPTION EQUIPMENT
1 EACH SERVICE CABINET (GROUND MOUNT)

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION	4	EACH	COMBINATION MAST ARM ASSEMBLY AND POLE
8	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION	4	EACH	SIGNAL POST
8	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE, 2-SECTION	8	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN PUSHBUTTON			

TEMPORARY VIDEO DETECTION MOUNTING DETAIL
NOT TO SCALE

NOTE: EACH VIDEO CAMERA SHALL BE MOUNTED ON A 12' ALUMINUM MAST ARM OR WOOD POLE AS INDICATED ABOVE. THIS WORK WILL BE INCLUDED IN THE COST FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION.

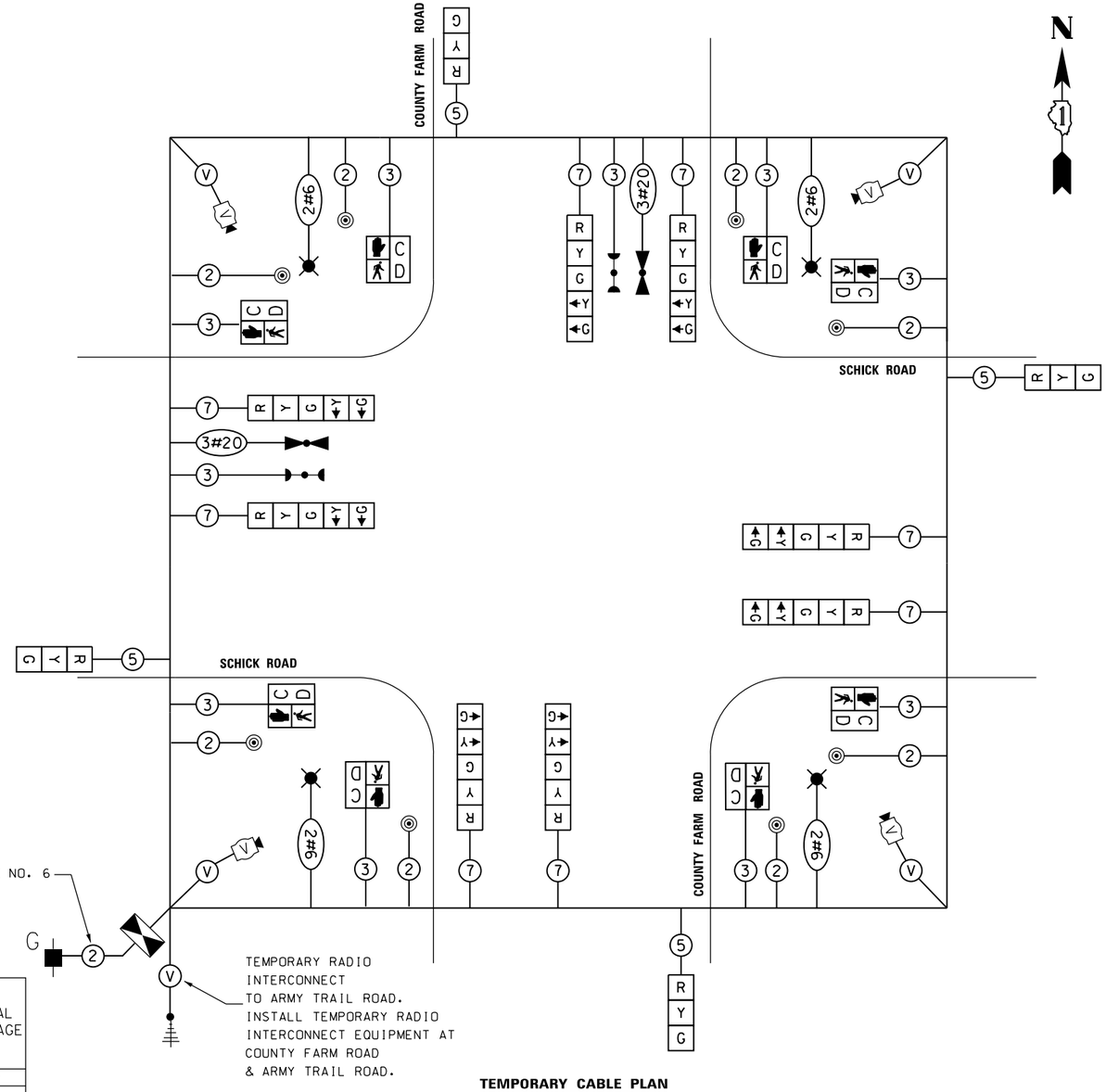
FILE NAME =	USER NAME = hwsjm	DESIGNED - MS	REVISED -
		DRAWN - MS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - BG	REVISED -
Default	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SIGNAL PLAN

SCALE: 1" = 20' | SHEET 1 OF 7 SHEETS | STA. 22+00 TO STA.28+00

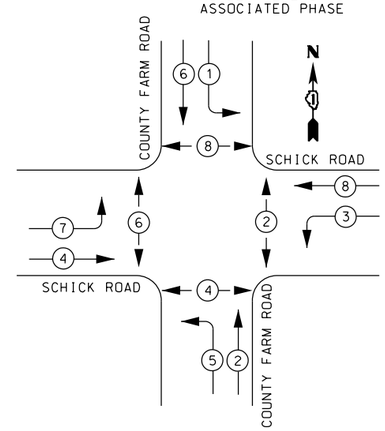
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	23
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



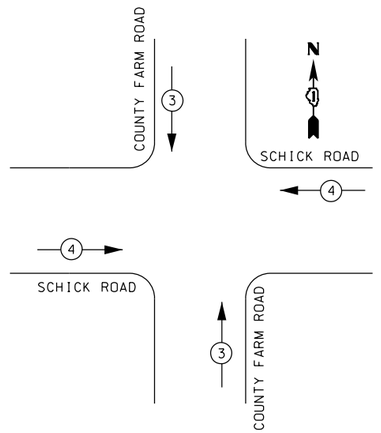
TEMPORARY CABLE PLAN

LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE



TEMPORARY PHASE DESIGNATION DIAGRAM



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS		WATTAGE			TOTAL WATTAGE
TYPE	NO. OF LAMPS x	INCAND.	LED x	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	20
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
VIDEO SYSTEM	1		150	1.00	150
LUMINAIRE	4		310	0.50	620
FLASHER				0.50	—
ENERGY COSTS TO:				TOTAL =	1162

DUPAGE COUNTY DIVISION OF TRANSPORTATION
421 N. COUNTY FARM ROAD
WHEATON, ILLINOIS 60187-2553

ENERGY SUPPLY: CONTACT: JOE STACHO
PHONE: (630) 424-5704
COMPANY: COMED

ALL PEDESTRIAN HEADS SHALL BE BAGGED AND DISCONNECTED AT LOCATIONS WHERE EXISTING PAVEMENT IS REMOVED. ALL PEDESTRIAN SIGNAL HEADS SHALL REMAIN BAGGED UNTIL THE PAVEMENT IS RESTORED TO PROVIDE A SAFE CROSSING AREA. USAGE OF PEDESTRIAN SIGNALS IS BASED ON CONSTRUCTION STAGING AND SHALL BE DETERMINED BY THE RESIDENT ENGINEER. IF SIDEWALKS AND PEDESTRIAN CROSSINGS ARE NOT PROVIDED, THE PEDESTRIAN SIGNAL EQUIPMENT SHALL REMAIN DISCONNECTED UNTIL WARRANTED PRIOR TO THE PERMANENT SIGNAL TURN-ON.

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↓ ↑	← →

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

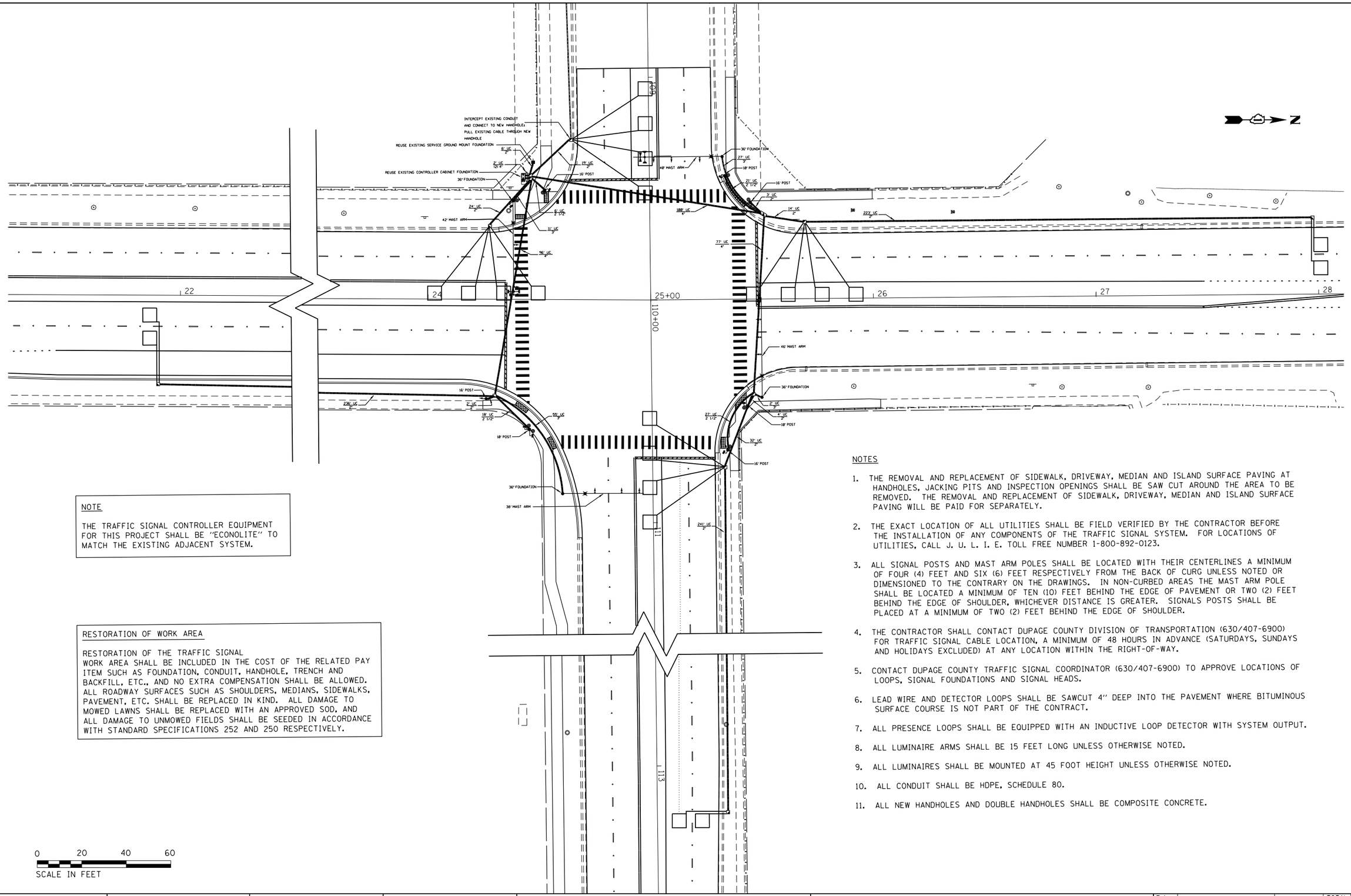
FILE NAME =	USER NAME = hwsjm	DESIGNED MS	MS	REVISED -
		DRAWN MS	MS	REVISED -
	PLOT SCALE = 100.00 ' / in.	CHECKED BG	BG	REVISED -
Default	PLOT DATE = 4/22/2016	DATE -		REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN

SCALE: N/A | SHEET 2 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	24
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



NOTE

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE COST OF THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

0 20 40 60
SCALE IN FEET

NOTES

1. THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING AT HANDHOLES, JACKING PITS AND INSPECTION OPENINGS SHALL BE SAW CUT AROUND THE AREA TO BE REMOVED. THE REMOVAL AND REPLACEMENT OF SIDEWALK, DRIVEWAY, MEDIAN AND ISLAND SURFACE PAVING WILL BE PAID FOR SEPARATELY.
2. THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE TRAFFIC SIGNAL SYSTEM. FOR LOCATIONS OF UTILITIES, CALL J. U. L. I. E. TOLL FREE NUMBER 1-800-892-0123.
3. ALL SIGNAL POSTS AND MAST ARM POLES SHALL BE LOCATED WITH THEIR CENTERLINES A MINIMUM OF FOUR (4) FEET AND SIX (6) FEET RESPECTIVELY FROM THE BACK OF CURG UNLESS NOTED OR DIMENSIONED TO THE CONTRARY ON THE DRAWINGS. IN NON-CURBED AREAS THE MAST ARM POLE SHALL BE LOCATED A MINIMUM OF TEN (10) FEET BEHIND THE EDGE OF PAVEMENT OR TWO (2) FEET BEHIND THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. SIGNALS POSTS SHALL BE PLACED AT A MINIMUM OF TWO (2) FEET BEHIND THE EDGE OF SHOULDER.
4. THE CONTRACTOR SHALL CONTACT DUPAGE COUNTY DIVISION OF TRANSPORTATION (630/407-6900) FOR TRAFFIC SIGNAL CABLE LOCATION, A MINIMUM OF 48 HOURS IN ADVANCE (SATURDAYS, SUNDAYS AND HOLIDAYS EXCLUDED) AT ANY LOCATION WITHIN THE RIGHT-OF-WAY.
5. CONTACT DUPAGE COUNTY TRAFFIC SIGNAL COORDINATOR (630/407-6900) TO APPROVE LOCATIONS OF LOOPS, SIGNAL FOUNDATIONS AND SIGNAL HEADS.
6. LEAD WIRE AND DETECTOR LOOPS SHALL BE SAWCUT 4" DEEP INTO THE PAVEMENT WHERE BITUMINOUS SURFACE COURSE IS NOT PART OF THE CONTRACT.
7. ALL PRESENCE LOOPS SHALL BE EQUIPPED WITH AN INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT.
8. ALL LUMINAIRE ARMS SHALL BE 15 FEET LONG UNLESS OTHERWISE NOTED.
9. ALL LUMINAIRES SHALL BE MOUNTED AT 45 FOOT HEIGHT UNLESS OTHERWISE NOTED.
10. ALL CONDUIT SHALL BE HDPE, SCHEDULE 80.
11. ALL NEW HANDHOLES AND DOUBLE HANDHOLES SHALL BE COMPOSITE CONCRETE.

FILE NAME =	USER NAME = hwsjm	DESIGNED - MS	REVISED -
		DRAWN - MS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - BG	REVISED -
Default	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

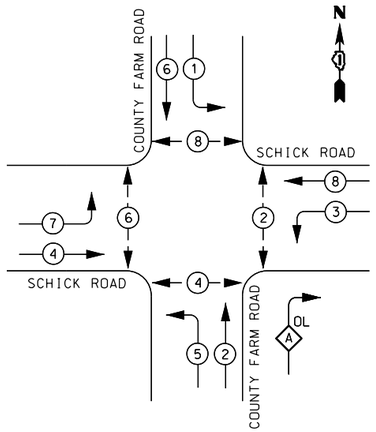
PROPOSED TRAFFIC SIGNALS

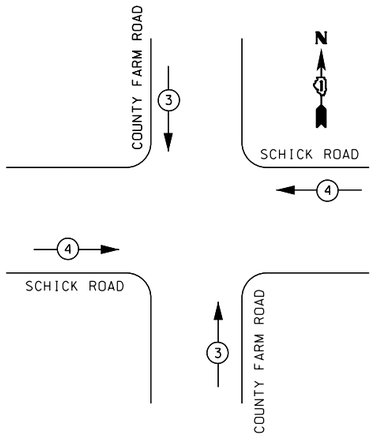
SCALE: 1"=20' | SHEET 3 OF 7 SHEETS | STA. 21+00 TO STA.28+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	25
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

LEGEND

- DUAL ENTRY PHASE
- OL — OVERLAP
- P — PEDESTRIAN PHASE
- * — NUMBER REFERS TO ASSOCIATED PHASE





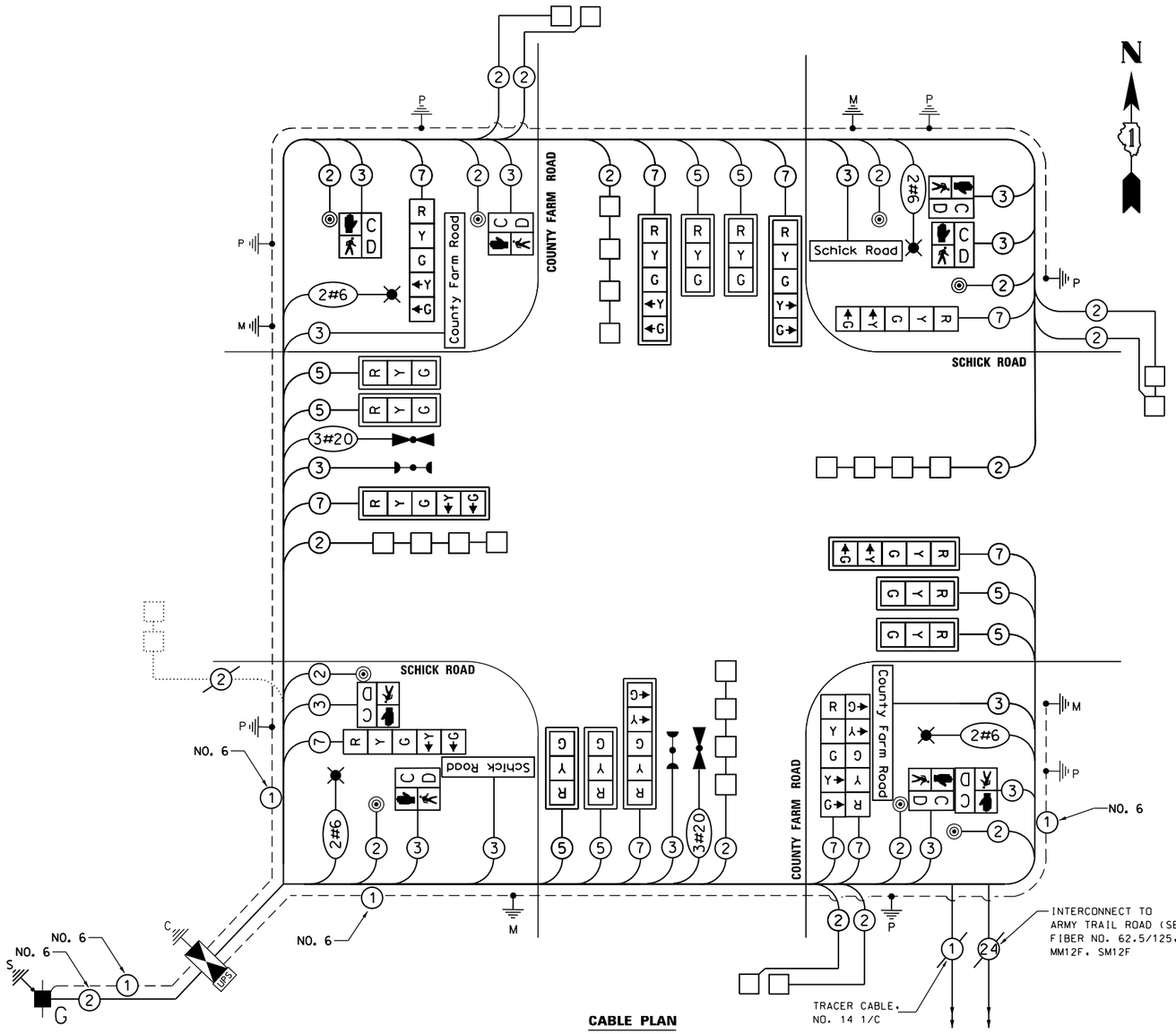
OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3

PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↓ ↑	← →

NOTE: TERMINATE ALL RIGHT TURN OVERLAPS DURING EMERGENCY VEHICLE PREEMPTION

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS ×	WATTAGE INCAND.	LED ×	% OPERATION	
SIGNAL (RED)	18		17	0.50	119
(YELLOW)	18		25	0.25	88
(GREEN)	18		15	0.25	53
ARROW	20		12	0.10	24
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
ILLUM. SIGN	4		90	0.50	180
LUMINAIRE	4		250	0.50	500
FLASHER				0.50	—
ENERGY COSTS TO:				TOTAL =	1264

DUPAGE COUNTY DIVISION OF TRANSPORTATION
421 N. COUNTY FARM ROAD
WHEATON, ILLINOIS 60187-2553

ENERGY SUPPLY: CONTACT: JOE STACHO
PHONE: (630) 424-5704
COMPANY: COMED

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTES

1. SCHICK ROAD TRAFFIC SIGNAL SHALL REMAIN PART OF ECONOLITE SYSTEM #21 (COUNTY FARM ROAD & KELLY DRIVE).

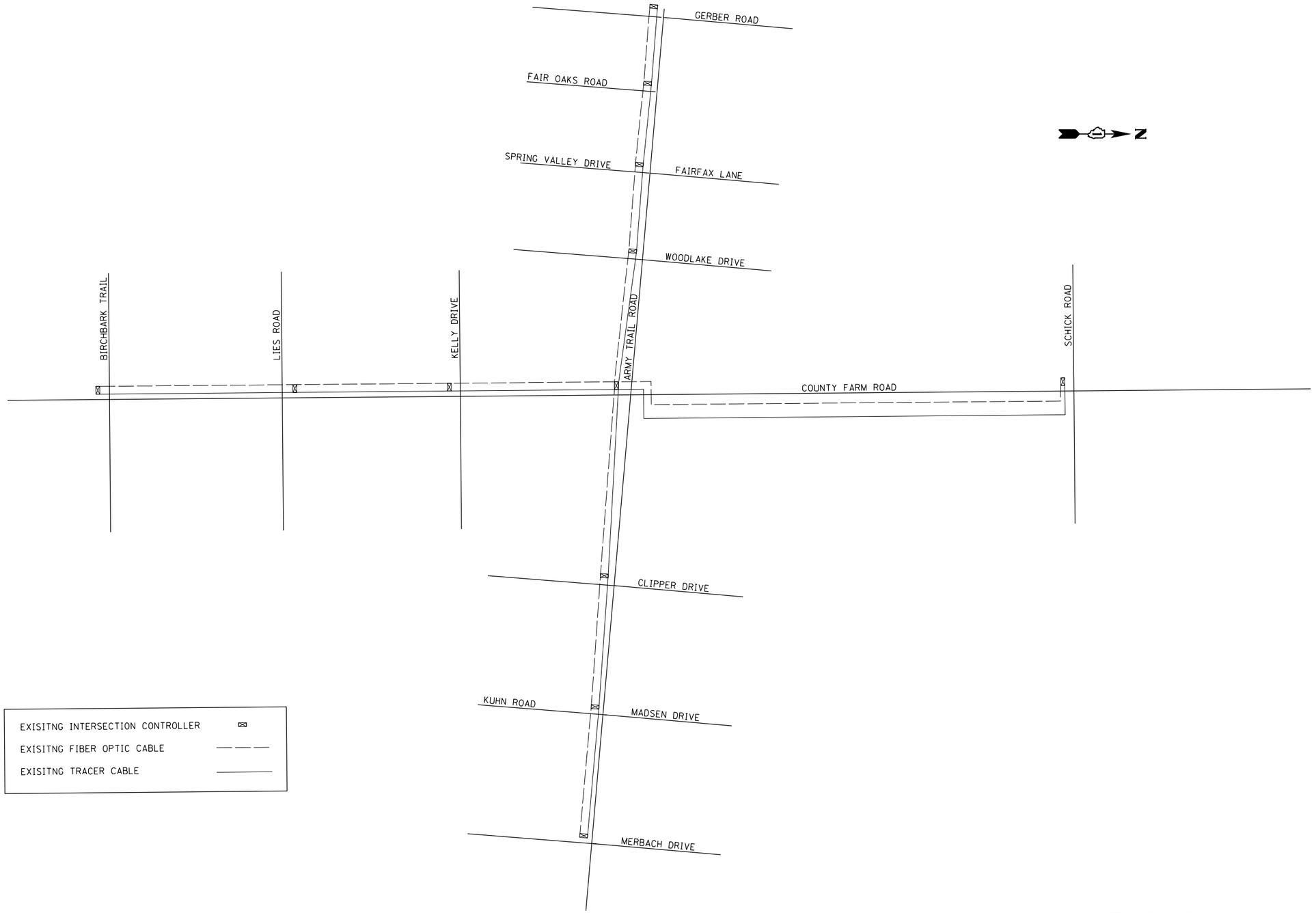
FILE NAME =	USER NAME = hws_jm	DESIGNED MS	REVISED -
		DRAWN MS	REVISED -
	PLOT SCALE = 100.00 ' / in.	CHECKED BG	REVISED -
Default	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMANENT CABLE PLAN

SCALE: N/A | SHEET 4 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	26
		CONTRACT NO.		
		ILLINOIS FED. AID PROJECT		



EXISITNG INTERSECTION CONTROLLER ⊠

EXISITNG FIBER OPTIC CABLE — — —

EXISITNG TRACER CABLE ————

FOR REFERENCE ONLY

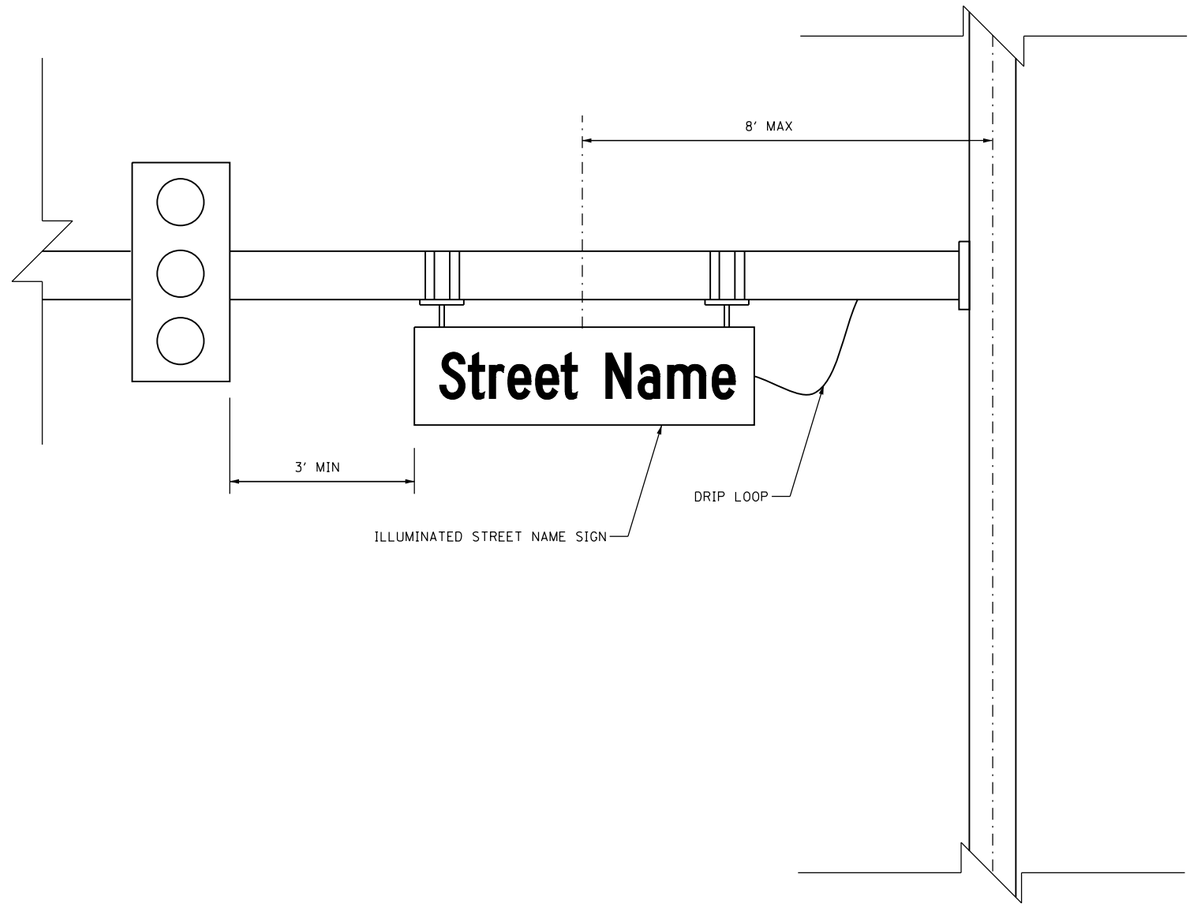
FILE NAME =	USER NAME = hwsjm	DESIGNED -	REVISED -
		DRAWN - SM	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 4/22/2016	DATE -	REVISED -

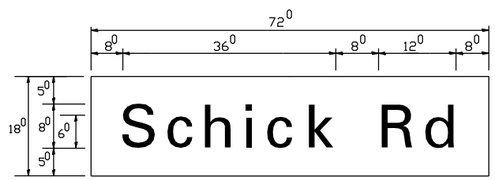
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING INTERCONNECT PLAN

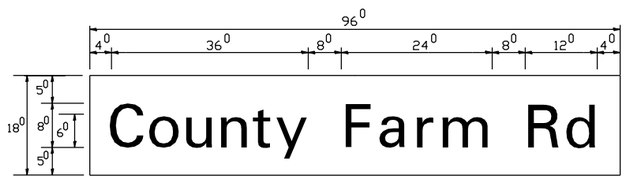
SCALE: N/A | SHEET 5 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	27
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			





____ SINGLE-SIDED REQUIRED
X DOUBLE-SIDED REQUIRED
9.0 Sq. Ft. each
2 Required
Design Series D



____ SINGLE-SIDED REQUIRED
X DOUBLE-SIDED REQUIRED
12.0 Sq. Ft. each
2 Required
Design Series C

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

FILE NAME =	USER NAME = hws_jm	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 4/22/2016	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLUMINATED STREET NAME SIGN

SCALE: N/A | SHEET 6 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	28
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET		R	R
COMMUNICATIONS CABINET	R CC	ECC	CC
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G ◄Y ◄G	R Y G ◄Y ◄G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. "RB" INDICATES REFLECTIVE BACKPLATE		R Y G ◄Y ◄G "P"	R Y G ◄Y ◄G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		J	J
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F		36F	36F
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RPF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
QUEUE DETECTOR		Q	Q
PREFORMED QUEUE DETECTOR		PQ	PQ
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

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		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	29
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

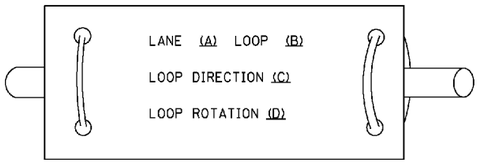
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

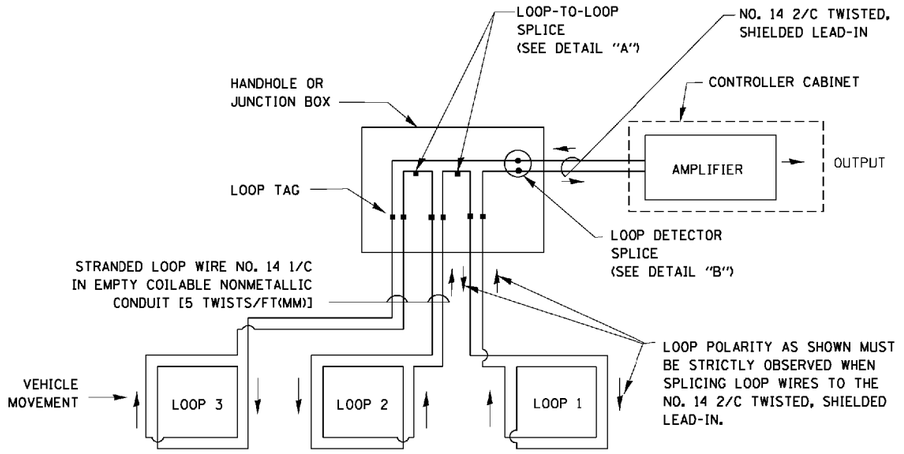


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

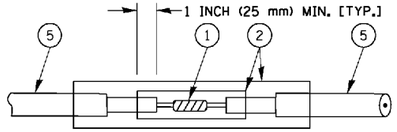
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

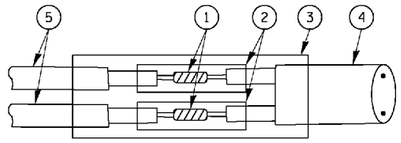


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

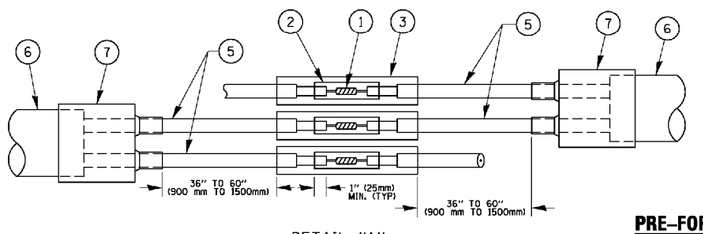


DETAIL "A"
LOOP-TO-LOOP SPLICE



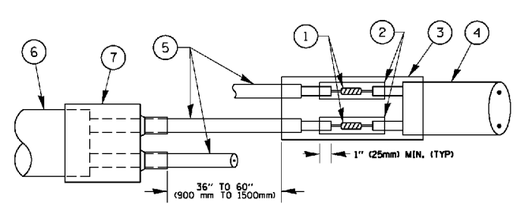
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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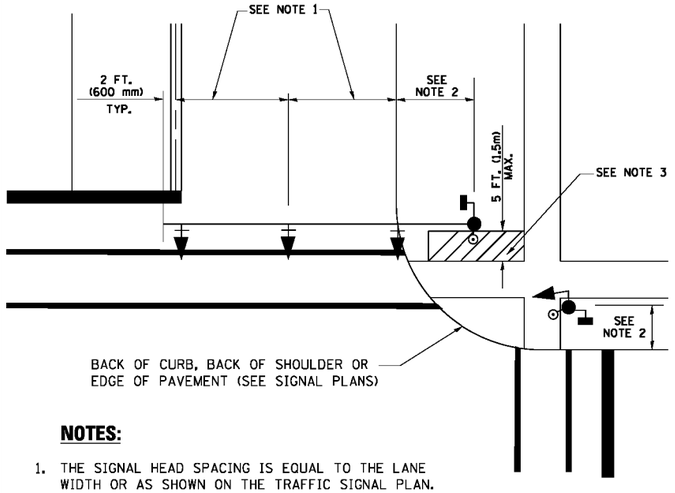
		DRAWN - BCK	REVISED -					0362	14-00179-30-SP	DuPAGE	43	30
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -						TS-05	CONTRACT NO.		
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

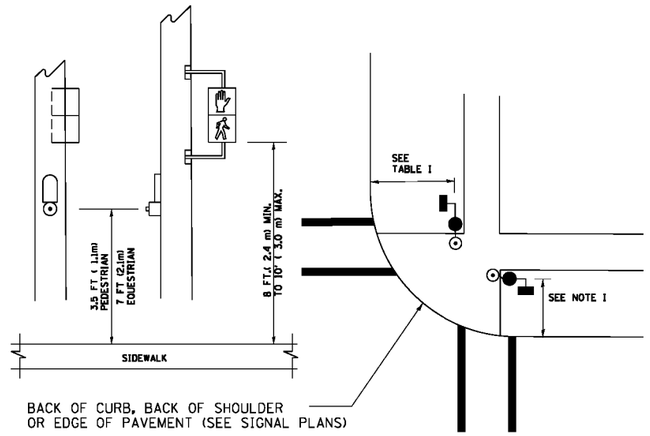
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

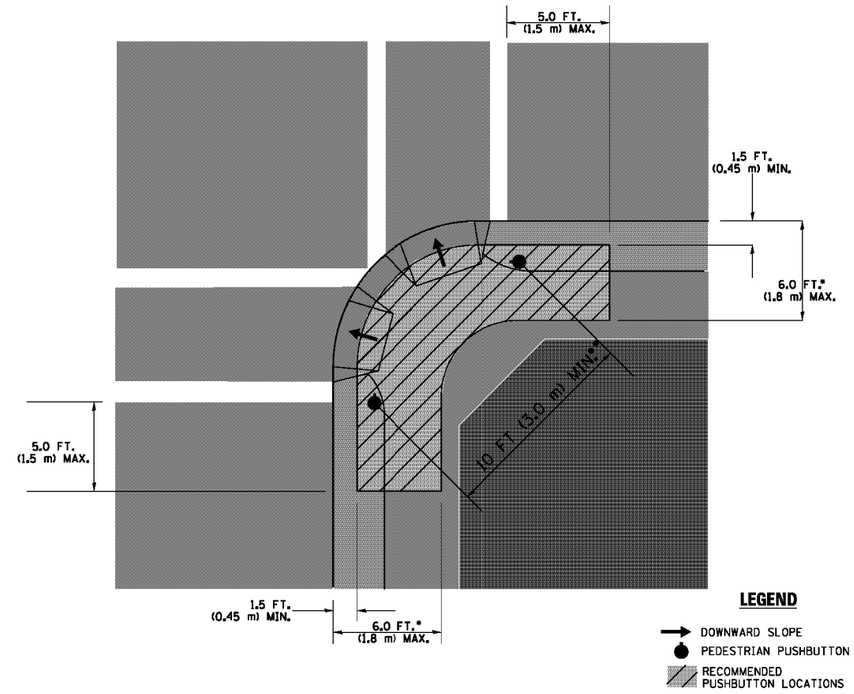
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

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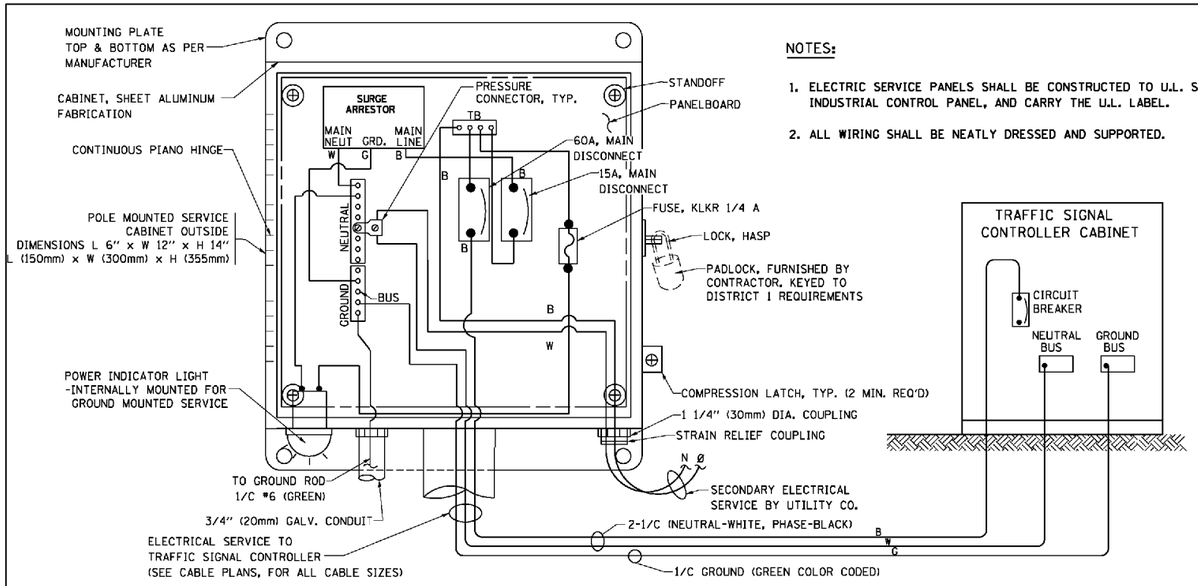
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



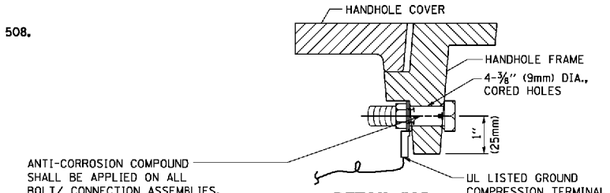
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

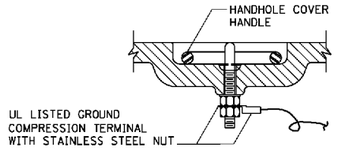
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)



DETAIL "A"

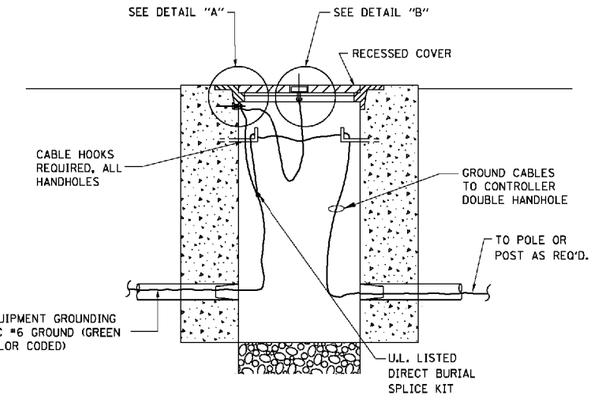


DETAIL "B"

NOTES:

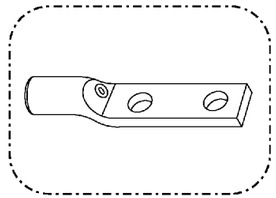
GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC,). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

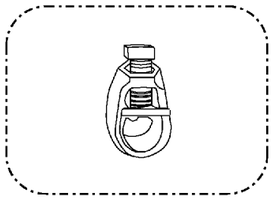


HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



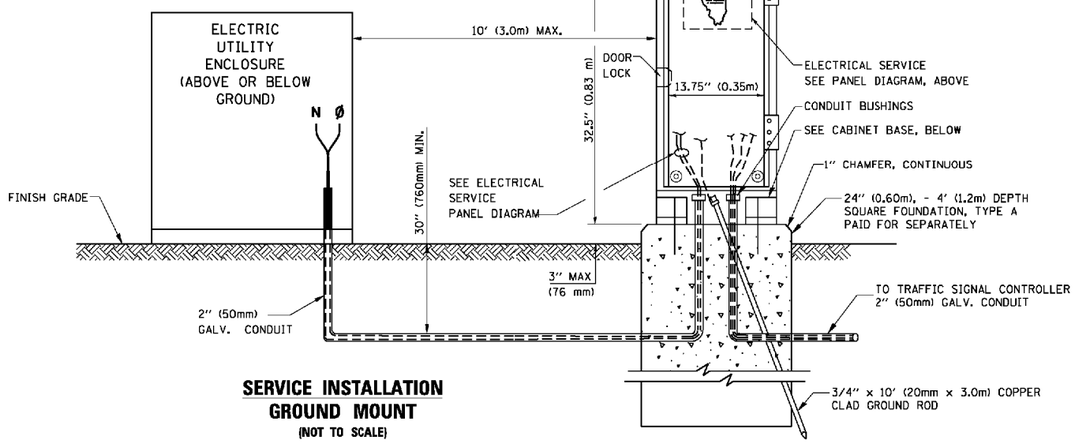
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



¾" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

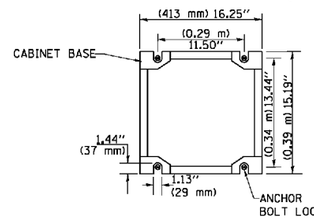
NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



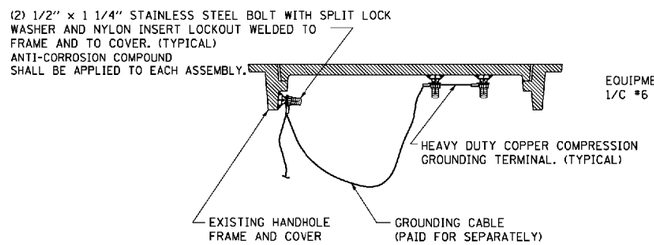
SERVICE INSTALLATION GROUND MOUNT

(NOT TO SCALE)



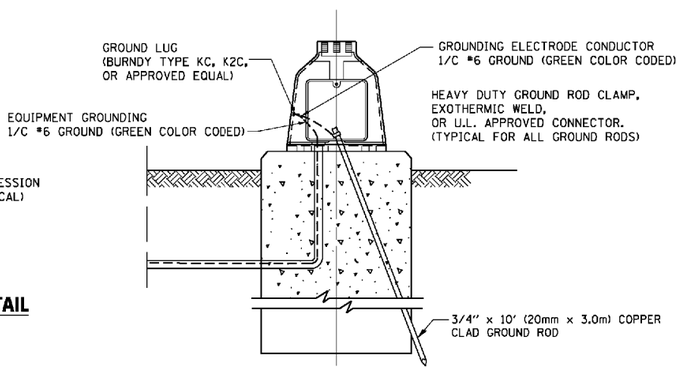
CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

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		DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
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DISTRICT ONE
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SCALE: NONE | SHEET NO. 4 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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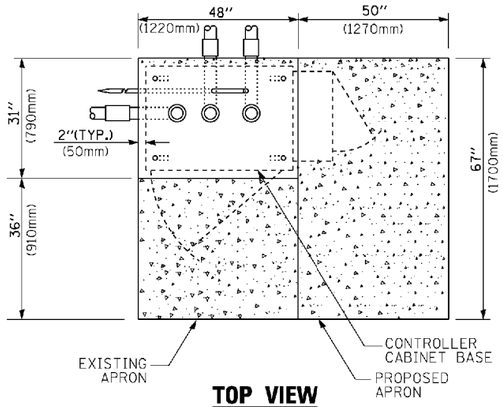
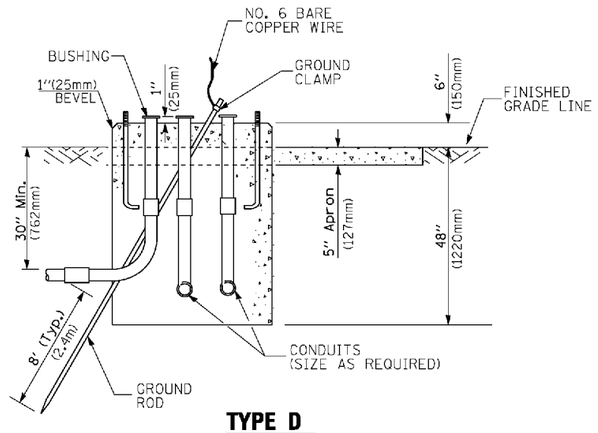
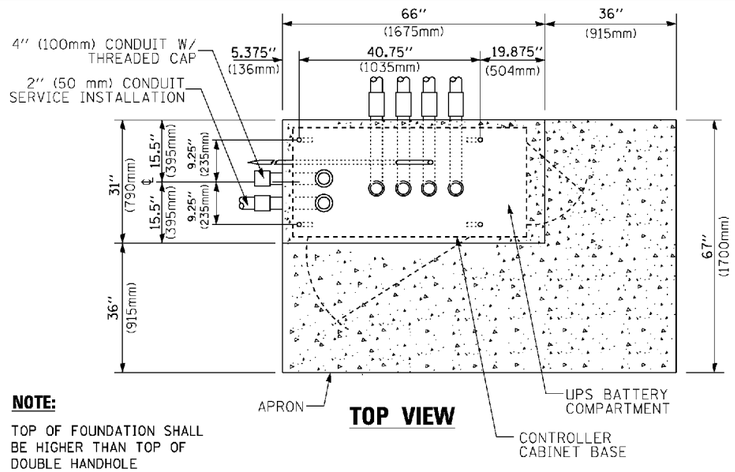


TOP VIEW



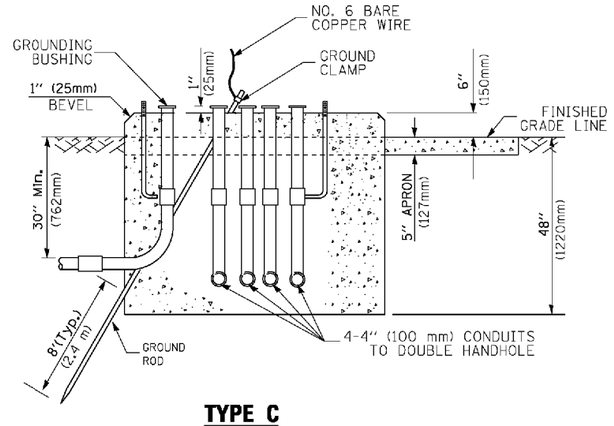
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



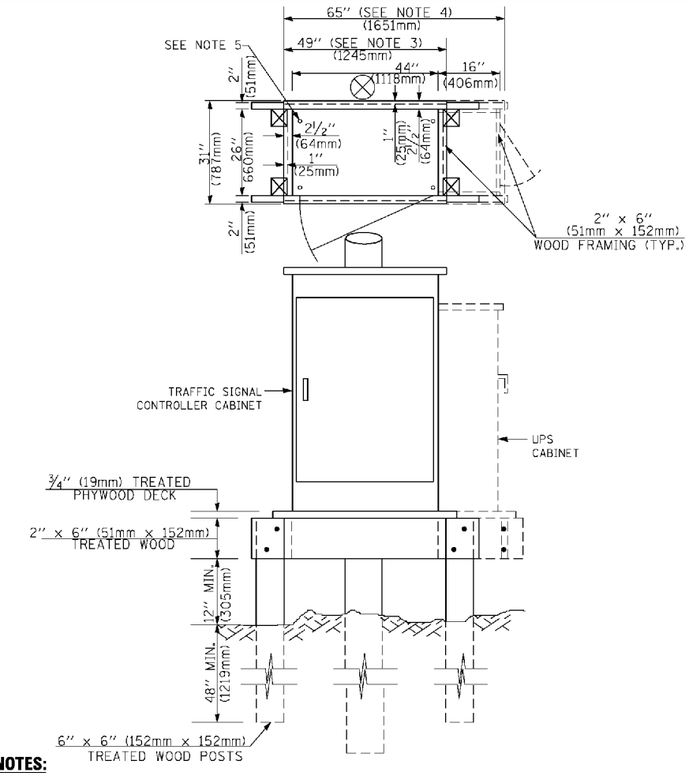
NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

TOP VIEW



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

FILE NAME = c:\pw_work\pwidot\footemj\d0188315\ta05.dgn	USER NAME = footemj	DESIGNED - DAG	REVISED - DAG 1-1-14
		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

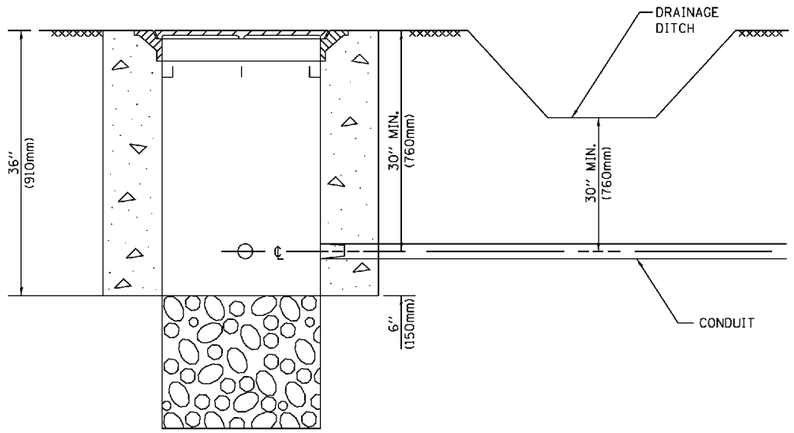
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	33
	TS-05	CONTRACT NO.		

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT

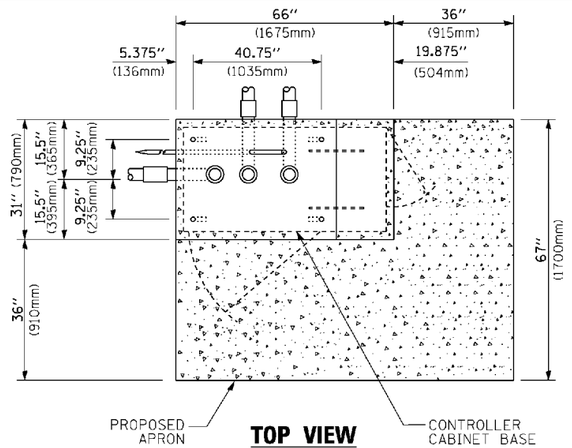


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

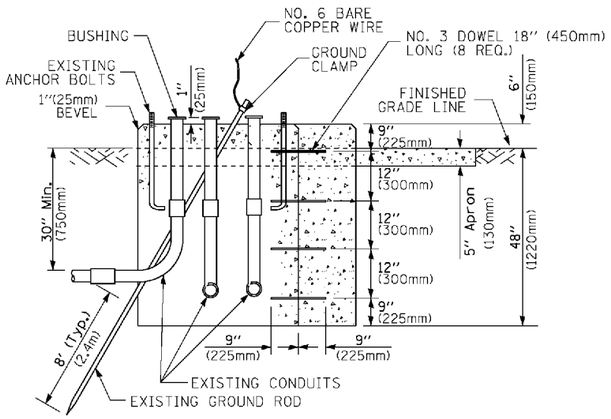
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



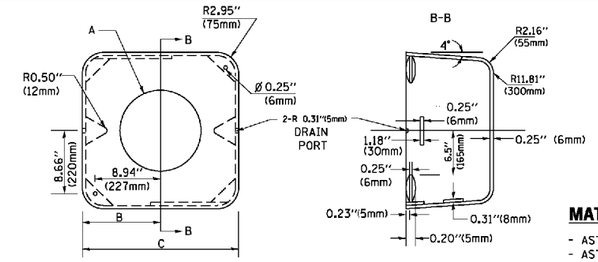
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

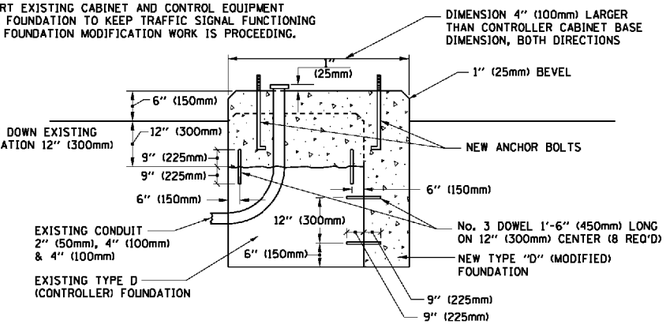
SHROUD

NOTES:

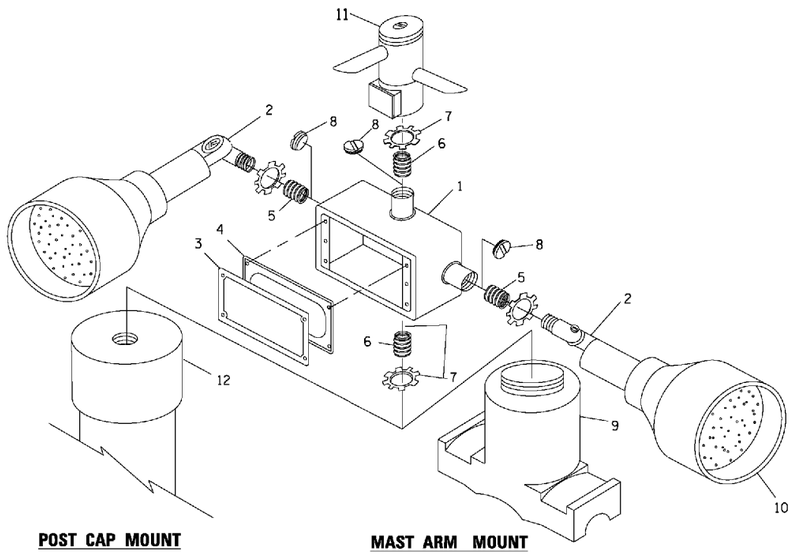
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NJTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



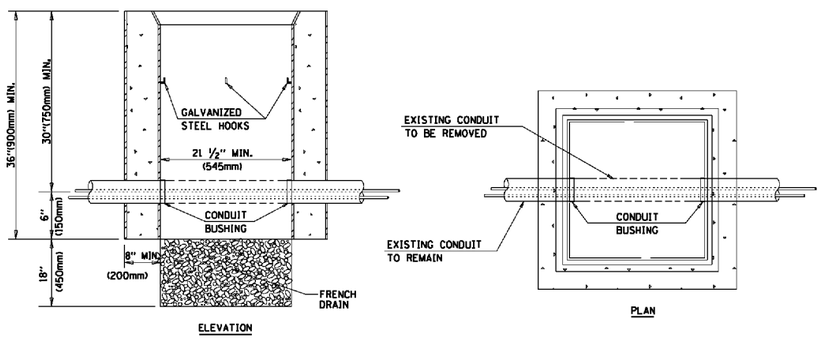
POST CAP MOUNT **MAST ARM MOUNT**

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

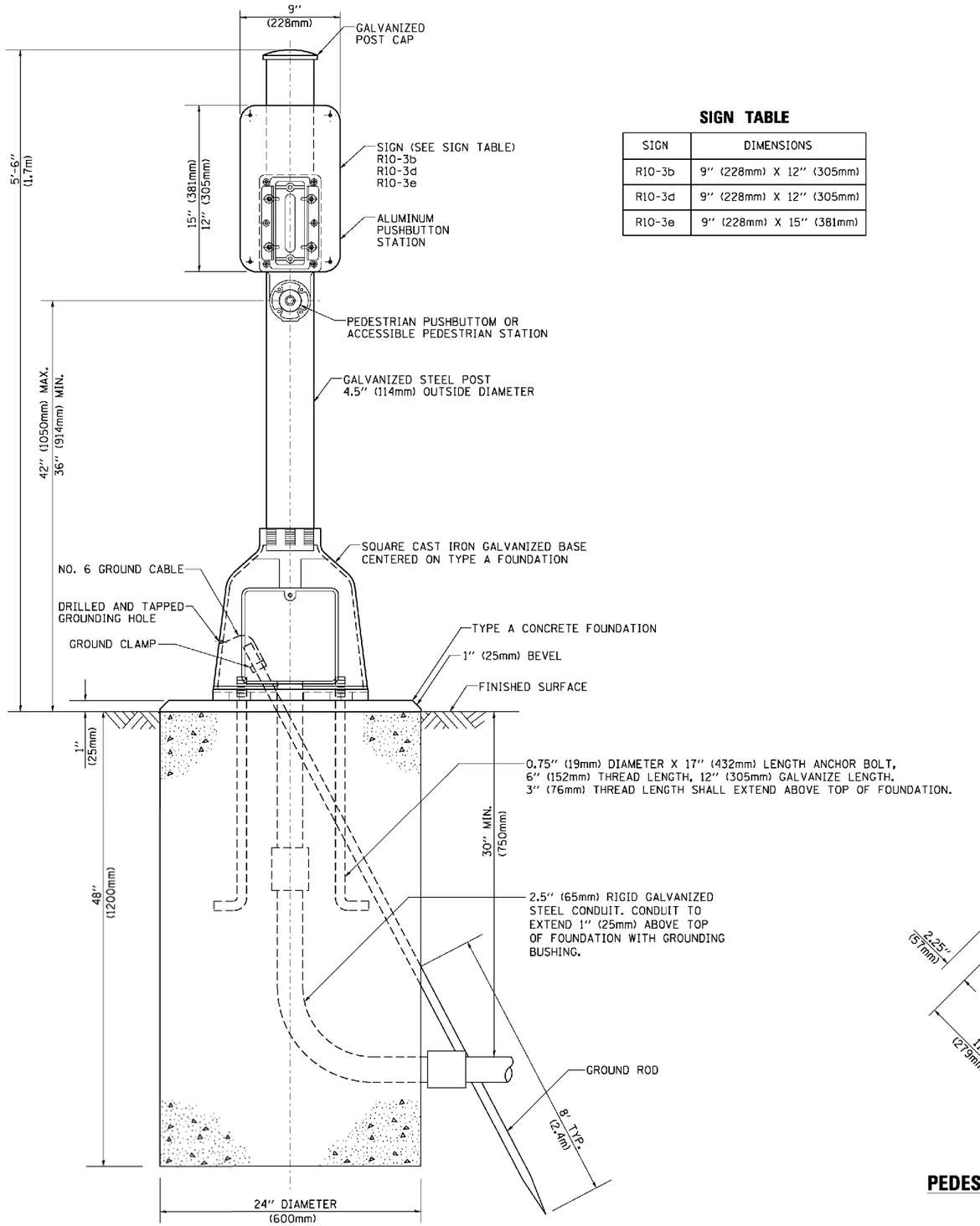
FILE NAME = c:\pw_work\dwidot\footemj\d0108315\ta05.dgn	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
		DRAWN - BCK	REVISED -
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

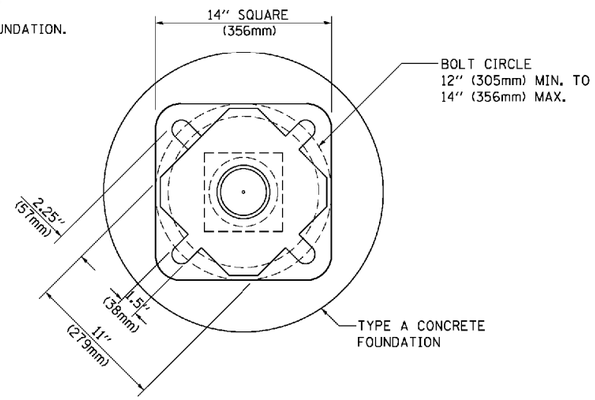
SCALE: NONE | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0362	14-00179-30-SP	DuPAGE	43	34
	TS-05	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9'' (228mm) X 12'' (305mm)
R10-3d	9'' (228mm) X 12'' (305mm)
R10-3e	9'' (228mm) X 15'' (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

FILE NAME = c:\pw_work\pwidot\footemj\d0108315\ta05.dgn	USER NAME = footemj	DESIGNED - DAG	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - GND	REVISED -						0362	14-00179-30-SP	DuPAGE	43	35
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -							TS-05	CONTRACT NO.		
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -		SCALE: NONE	SHEET NO. 7 OF 7 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

APPENDIX B

Boring Logs

PID Screening Methodology

SB-1

DUPAGE COUNTY
COUNTY FARM RD & SCHICK RD

HANOVER PARK, IL

Date Started	: 05/17/16	Casing (Size/Material)	:
Date Completed	: 05/17/16	Northing Coord.	:
Weather Conditions	:	Easting Coord.	:
Drilling Company	: ESP	Elevation	:
Driller	: Marcus	Logged By	:

KEY
- SILTY CLAY
- CLAY

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Sample Number	PID 10.6 eV (PPM)	REMARKS
0	F45		SILTY CLAY, black, trace roots at top, no odors, no staining	1	30.8	0'-4' 2' Recovery
				2	28.8	
4	CH		CLAY, brown with orange-gray mottling, compact, dry, no odors, no staining	3	34.4	4'-8' 3.5' Recovery
				4	29.4	
8			Trace gravel, less compact	5	16.8	8'-12' 4' Recovery
				6	19.6	
				7	13.9	
12				8	5.1	12'-16' 4' Recovery
16			END OF BORING, SAMPLING COMPLETE			The following depth(s) submitted for analysis: 3'-5' 12'-15'
20						

SB-2

DUPAGE COUNTY
COUNTY FARM RD & SCHICK RD

HANOVER PARK, IL

Date Started	: 05/17/16	Casing (Size/Material)	:
Date Completed	: 05/17/16	Northing Coord.	:
Weather Conditions	:	Easting Coord.	:
Drilling Company	: ESP	Elevation	:
Driller	: Marcus	Logged By	:

KEY
- SILTY CLAY
- CLAY

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Sample Number	PID 10.6 eV (PPM)	REMARKS
0	F45		SILTY CLAY, black, trace roots at top, no odors, no staining	1	0.0	0'-4' 2' Recovery
				2	0.2	
4	CH		CLAY, brown, trace gravel, no odors or staining from 3-5 ft	3	10.8	4'-8' 3.5' Recovery
			Black staining at 5 ft, no odors	4	5.5	
8			No staining below 7 ft	5	9.8	8'-12' 3.5' Recovery
				6	7.7	
12				7	2.2	
				8	9.2	12'-16' 4' Recovery
16			END OF BORING, SAMPLING COMPLETE			The following depth(s) submitted for analysis: 3'-5' 10'-12'
20						

PID Screening Methodology

PID Field Screening. Samples were assessed for the presence of impact upon collection. Field screening assisted in selection for laboratory analysis. Samples were screened with a 10.6 eV lamp photo-ionization detector (PID) using a closed cup head space procedure.

Samples were visually inspected for soil type and color, water content, and contaminant impact apparent either visually or through odors.

A PID was used to screen the samples for the presence of volatiles, using a headspace protocol. A composited portion of the soil sample was placed in a plastic baggie, approximately 1/4-full. The baggie was sealed, set aside for approximately 15 minutes in a warmed area, to allow the headspace volatile compound concentration to come into equilibrium with the soil volatile compound concentration. The baggie was then slightly opened and the PID probe was inserted into the headspace. PID responses provided parts per million (ppm) readings, and the readings were recorded on the respective borehole log.

The sample's peak PID response was recorded as the PID reading for the sample. The PID meter has a detection range from 1 ppm to 2,000 ppm, and was calibrated to read in equivalent ppm of benzene. This headspace method allows detection of volatiles at relatively low detection levels, and the method is reproducible.

APPENDIX C
Laboratory Report

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

May 24, 2016

Mr. Cory Wilson
HUFF & HUFF INC.
915 Harger Road
Suite 330
Oak Brook, IL 60523

Project ID: DuPage DOT - County Farm Rd
First Environmental File ID: 16-2642
Date Received: May 18, 2016

Dear Mr. Cory Wilson:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 003811: effective 02/17/2016 through 02/28/2017.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Bill Mottashed
Project Manager

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

HUFF & HUFF INC.

Lab File ID: **16-2642**

Project ID: **DuPage DOT - County Farm Rd**

Date Received: **May 18, 2016**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
16-2642-001	SB-1 (3-5)	5/17/2016 14:27
16-2642-002	SB-1 (10-12)	5/17/2016 14:35
16-2642-003	SB-2 (3-5)	5/17/2016 15:08
16-2642-004	SB-2 (12-15')	5/17/2016 15:18

Sample Batch Comments:

Sample acceptance criteria were met.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	L	LCS recovery outside control limits.
C	Sample received in an improper container for this test.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	P	Chemical preservation pH adjusted in lab.
E	Estimated result; concentration exceeds calibration range.	Q	Result was determined by a GC/MS database search.
G	Surrogate recovery outside control limits.	S	Analysis was subcontracted to another laboratory.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-1 (3-5)
Sample No: 16-2642-001

Date Collected: 05/17/16
Time Collected: 14:27
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 05/18/16				
Total Solids	86.51		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 05/23/16				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

First Environmental Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-1 (3-5)
Sample No: 16-2642-001

Date Collected: 05/17/16
Time Collected: 14:27
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds	**Method: 5035A/8260B**			
Analysis Date: 05/23/16				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
pH @ 25°C, 1:2	**Method: 9045D 2004**			
Analysis Date: 05/19/16				
pH @ 25°C, 1:2	8.13		Units	

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Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-1 (10-12)
Sample No: 16-2642-002

Date Collected: 05/17/16
Time Collected: 14:35
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 05/18/16				
Total Solids	84.47		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 05/23/16				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Laboratories, Inc.
IL ELAP / NELAC Accreditation # 100292
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Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-1 (10-12)
Sample No: 16-2642-002

Date Collected: 05/17/16
Time Collected: 14:35
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 05/23/16				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
pH @ 25°C, 1:2 **Method: 9045D 2004**				
Analysis Date: 05/19/16				
pH @ 25°C, 1:2	8.31		Units	

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Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-2 (3-5)
Sample No: 16-2642-003

Date Collected: 05/17/16
Time Collected: 15:08
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 05/18/16				
Total Solids	79.88		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 05/23/16				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-2 (3-5)
Sample No: 16-2642-003

Date Collected: 05/17/16
Time Collected: 15:08
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 05/23/16				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
pH @ 25°C, 1:2 **Method: 9045D 2004**				
Analysis Date: 05/19/16				
pH @ 25°C, 1:2	8.15		Units	

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Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-2 (12-15')
Sample No: 16-2642-004

Date Collected: 05/17/16
Time Collected: 15:18
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540B**				
Analysis Date: 05/18/16				
Total Solids	86.98		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 05/23/16				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: HUFF & HUFF INC.
Project ID: DuPage DOT - County Farm Rd
Sample ID: SB-2 (12-15')
Sample No: 16-2642-004

Date Collected: 05/17/16
Time Collected: 15:18
Date Received: 05/18/16
Date Reported: 05/24/16

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 05/23/16				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
pH @ 25°C, 1:2 **Method: 9045D 2004**				
Analysis Date: 05/19/16				
pH @ 25°C, 1:2	8.43		Units	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
E-mail: firstinfo@firstenv.com
IEPA Certification #100292

Company Name: Huff & Huff, Inc.
Street Address: 915 Harger Road, Suite 330
City: Oak Brook State: IL Zip: 60523
Phone: 630-684-9100 e-mail: cory.wilson@gza.com
Send Report To: Cory Wilson, Eric Stein
Sampled By: Cory Wilson, Mark Pfeiffer

Project I.D.: DuPage DOT - County Farm Rd.
P.O. #:

Matrix Codes: S = Soil W = Water O = Other

Analyses

Date/Time Taken	Sample Description	Matrix	TH	VOC	Hold – Do Not Analyze	Comments	Lab I.D.
5/17/16 2:23	SB-1 (0-1)	S			X		
2:25	SB-1 (1-3)				X		
2:27	SB-1 (3-5)		X	X			16-2642-001
2:29	SB-1 (5-7)				X		
2:31	SB-1 (7-9)				X		
2:33	SB-1 (9-10)				X		
2:35	SB-1 (10-12)		X	X			002
2:37	SB-1 (12-15')				X		
3:04	SB-2 (0-1')				X		
3:06	SB-2 (1-3)				X		
3:08	SB-2 (3-5)		X	X			003
3:10	SB-2 (5-7)				X		

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6ºC Yes__ No.__ _____ºC
Received within 6 hrs. of collection:_____
Ice Present: Yes__ No__

Sample Refrigerated: Yes__ No__
Refrigerator Temperature:_____ºC
5035 Vials Frozen: Yes__ No__
Freezer Temperature:_____ºC

Program: ☐ TACO ☐ CCDD ☐ NPDES ☐ LUST

Notes and Special Instructions: _____

Relinquished By: _____ Date/Time 5/18/16 1050 Received By: _____ Date/Time 5/18/16 1050

Relinquished By: _____ Date/Time _____ Received By: _____ Date/Time _____

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

First Environmental Laboratories
1600 Shore Road, Suite D
Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
E-mail: firstinfo@firstenv.com
IEPA Certification #100292

Company Name: Huff & Huff, Inc.
Street Address: 915 Harger Road, Suite 330
City: Oak Brook State: IL Zip: 60523
Phone: 630-684-9100 e-mail: cory.wilson@gza.com
Send Report To: Cory Wilson, Eric Stein
Sampled By: Cory Wilson, Mark Pfeiffer

Project I.D.: DuPage DOT - County Farm Rd.
P.O. #:

Matrix Codes: S = Soil W = Water O = Other

Date/Time Taken	Sample Description	Matrix	PH	VOCs	Hold – Do Not Analyze	Comments	Lab I.D.
5/17/16 3:12	SB-2 (7-9')	S			X		
3:14	SB-2 (9-10')				X		
3:16	SB-2 (10-12')				X		
3:18	SB-2 (12-15')		X	X			16-2642-004

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6ºC Yes__ No.__ _____ºC
Received within 6 hrs. of collection:_____
Ice Present: Yes__ No__

Sample Refrigerated: Yes✓ No__
Refrigerator Temperature: 4 ºC
5035 Vials Frozen: Yes__ No__
Freezer Temperature:_____ºC

Program: ☐ TACO ☐ CCDD ☐ NPDES ☐ LUST

Notes and Special Instructions:

Relinquished By: [signature] Date/Time 5/18/16 1050 Received By: [signature] Date/Time 5/18/16 1050
Relinquished By: _____ Date/Time _____ Received By: _____ Date/Time _____

Rev. 8/15

APPENDIX D
LPC-663 Form

Illinois Environmental Protection Agency

Bureau of Land ● 1021 North Grand Avenue East ● P.O. Box 19276 ● Springfield ● Illinois ● 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663 Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Intersection Improvement (County Farm and Schick) Office Phone Number, if available: (630) 407-6900

Physical Site Location (address, inclduding number and street):

The intersection of County Farm Road and Schick Road

City: Hanover Park State: IL Zip Code: 60133

County: DuPage Township: Hanover

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.95176 (Decimal Degrees) Longitude: -88.15018 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☐ Map Interpolation ☐ Photo Interpolation ☐ Survey ☒ Other

Google Maps - latitude/longitude above refer to the approx. center of the Project Corridor

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	DuPage County Division of Transportation	Name:	DuPage County Division of Transportation
Street Address:	421 N. County Farm Road	Street Address:	421 N. County Farm Road
PO Box:		PO Box:	
City:	Wheaton State: IL	City:	Wheaton State: IL
Zip Code:	60187 Phone: (630)-407-6900	Zip Code:	60187 Phone: (630)-407-6900
Contact:	Christopher C. Snyder, P.E.	Contact:	Christopher C. Snyder, P.E.
Email, if available:	Christopher.Snyder@dupageco.org	Email, if available:	Christopher.Snyder@dupageco.org

Project Name: Intersection Improvement (County Farm and Schic

Latitude: 41.95176 Longitude: -88.15018

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

A Preliminary Environmental Site Assessment (PESA) was completed for the Project Corridor in December 2015. The PESA identified one PIP due to potential groundwater impacts. Subsequently, two soil borings were advanced in area of maximum anticipated excavation, and results are included in a PSI. Refer to the attached narrative for further details and Figures.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

Soils in connection to the PIP were analyzed for contaminants of concern (COCs) based on the PIP. Samples were analyzed for VOCs and soil pH. All analytical results achieved their respective MACs. Soil pH ranges from 8.13 to 8.43 for all samples analyzed, within the acceptable range. Refer to the attached narrative for further details and Figures.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, James E. Huff, P.E. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Huff & Huff, Inc., A Subsidiary of GZA

Street Address: 915 Harger Road, Suite 330

City: Oak Brook State: IL Zip Code: 60523

Phone: 630-684-9100

James E. Huff, P.E.
Printed Name:

James E Huff
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

June 29 2016
Date:

JAMES E. HUFF
062-032933
REGISTERED PROFESSIONAL ENGINEER
P.E. or P.G. Seal
ILLINOIS

11/30/17

Uncontaminated Soil Certification
by Licensed Professional Engineer or Licensed Professional Geologist for Use of
Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation.
LPC-663

Owner: The DuPage County Division of Transportation
Project Name: County Farm Road and Schick Road Intersection Improvement Project

III. Basis for Certification and Attachments

Explain the basis upon which you are certifying that the soil from this site is uncontaminated soil.

This form pertains to soils excavated from the County Farm Road and Schick Road Intersection Improvement Project in Hanover Park, DuPage County, Illinois (Project Corridor). Project limits extend approximately 100 feet west on Schick Road, 700 feet east on Schick Road, 380 feet north on County Farm Road, and 600 feet south on County Farm Road. The total Project Corridor length is approximately 0.35 miles.

The proposed improvements include roadway widening, installation of new traffic signals, improvements of the existing sidewalk, and resurfacing. Excavation is proposed up to 5 feet below ground surface (bgs) along the Project Corridor, with the exception of the areas proposed for traffic signal installation, where the excavation is proposed up to 15 feet bgs.

A map depicting the Project Corridor, potentially impacted property (PIP), and sample locations has been included in **Attachment A**.

Due Diligence Summary

In December 2015, Huff & Huff, Inc. (H&H) completed a Preliminary Environmental Site Assessment (PESA), "*Preliminary Environmental Site Assessment – County Farm Road and Schick Road Intersection Improvement Project, December 2015,*" for the Project Corridor. The PESA report has been included in **Attachment B (on CD)** and includes a description of the Project Corridor, the screening process, and the identified sites. The contents of the PESA are summarized below.

Based on a review of database records, historical resources, and visual observations (site reconnaissance), one potentially impacted property (PIP) was identified in relation to the Project Corridor. The findings are summarized herein. Refer to the PESA in **Attachment B** for additional details.

Historical Review
A review of historic aerial photographs for the Project Corridor was performed as part of the PESA. Aerial photographs were provided by Environmental Risk Information Services (ERIS) for the years of 1939, 1946, 1954, 1961, 1967, 1974, 1978, 1983, 1988, 1994, 1998, 2002, 2009, and 2014. Based on the review of the photographs, the Project Corridor consisted of agricultural land in 1939, with three farm residences visible along Schick Road. County Farm road had yet to be constructed. Between 1938 and 1967, conditions remained the same. Between 1967 and 1974,

the ground became disturbed in the present day location of the Mallard Lake Landfill, approximately 450 feet east of the Project Corridor. Between 1974 and 1978, large tracts of land north of Schick Road and southeast of the Project Corridor were disturbed in order to construct the present day housing additions. By 1983, the subdivision north of the Project Corridor was constructed. Between 1983 and 1988, County Farm Road was extended south to Schick Road. Between 1988 and 1994, residential development continued to occur surrounding the Project Corridor. Additionally, Chandler Drive now exists with two new industrial buildings present. Between 1994 and 2002, industrial development continued to occur in the area surrounding Chandler Drive. No significant changes were observed after 2002. The historic aerial photographs are included with the PESA reports in **Attachment B**.

One site (Mallard Lake Landfill) was determined to be of potential concern based off of the historic record. It was determined to be a PIP and is discuss further below.

Site Reconnaissance

Site reconnaissance was performed as part of the PESA on November 6, 2015. The Project Corridor was inspected to identify areas of potential concern, such as drums, storage areas, pits, and underground storage tank (UST) vents. A photo log of site reconnaissance activities is included with the PESA report in **Attachment B**. No areas of potential concern were identified during the site reconnaissance.

Records Search

A database report for the Project Corridor was received from ERIS in November 2015. Three (3) unique sites were identified in the database, and all were considered within a reasonable distance to impact the Project Corridor. Each site was then further reviewed to determine its status as a PIP. The following table summarizes the three identified sites, including whether or not the site is considered a PIP. The database reports are included with the PESA report in **Attachment B**. Refer to **Attachment A** for a figure depicting the three identified sites.

Site Name	Address	Database	Distance & Direction	PIP?[1]
Mallard Lake Land Fill	26W580 East Schick Road, Hanover Park, IL	SSU, SWF/LF, NIPC, CERCLIS, LUST, SPILLS, FINDS/FRS, UST	450 feet, East	**Yes**
M.S. Steam Cleaners	4423 Bell Lane, Hanover Park, IL	SPILLS	160 feet, East	NO
Barnes Dist. / Industrial Developments International	1575 Hunter Road, Hanover Park, IL	LUST, RCRA, TSD	1700 feet, Southeast	NO

[1]For PIP reasoning, see below.

Mallard Lake Landfill: located at 26W580 East Schick Road in Hanover Park, IL. The Mallard Lake Landfill is approximately 450 feet east of the Project Corridor, with the buildings on site located approximately 700 feet east and landfill areas located approximately 925 feet northeast. The Mallard Lake Landfill was listed in the States Sites Unit (SSU), Solid Waste (SWF/LF), Northeastern Illinois Planning Commission (NIPC), Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), CERCLIS No Further Remedial Action Planned (NFRAP), Leaking Underground Storage Tank (LUST), Illinois Spills (SPILLS), Facility Index System (FINDS/FRS), and Underground Storage Tank (UST) databases. The SWF/LF and NIPC listings indicate that this site has been used for solid waste disposal purposes. It was indicated that the facility is approved to receive non-hazardous waste.

One CERCLIS entry identified the site as a landfill that was emitting methane gas, one CERCLIS entry only noted preliminary assessment and stated that the site does not qualify for the National Priority List, and the third CERCLIS entry identified vinyl chloride contamination in the groundwater affecting 300 to 600 private drinking water wells in Wayne Township. The vinyl chloride groundwater contamination was noted as closed in 2007. The site also appears on the CERCLIS NFRAP list which indicates that no further remediation is required under the aegis of the federal superfund program.

One LUST event occurred on October 15, 1998 involving the release of diesel fuel. This incident has not received closure with IEPA. The second LUST incident also occurred on October 15, 1998 involving the release of gasoline. This incident has not received closure with IEPA. A SPILLS incident occurred on July 31, 1998 involving a release due to a fueling hose breaking off. A SPILLS incident occurred on January 18, 1999; however, no further information was available about this event. A SPILLS incident occurred on November 17, 1998; however no further information was available about this event.

The following USTs were listed for the site:
- One 2,000-gallon diesel fuel UST (removed 1998)
- Two 15,000-gallon diesel fuel UST (removed 1998)
- One 6,000-gallon used oil UST (removed 1990)
- One 500-gallon heating oil UST (exempt from registration)
- One 10,000-gallon diesel fuel UST (in use)
- One 500-gallon used oil UST (in use)

Based on the database information and proximity to the Project Corridor, **this site is considered a PIP.**

M.S. Steam Cleaners: located at 4423 Bell Lane in Hanover Park, IL. The site is located 160 feet east of the Project Corridor and appeared in the SPILLS database. According to the report 20 gallons of detergent rug cleaning solution was dumped down a storm drain in 2007. During the site visit there was no evidence of outdoor storage or staining. Based on the separation distance and size of the release, this site is not considered a PIP.

Barnes Dist. / Industrial Developments Intl.: located at 1575 Hunter Road in Hanover Park, IL. The site is located approximately 1,700 feet southeast of the Project Corridor and appeared in the LUST, Resource Conservation and Recovery Act (RCRA), and Treatment, Storage, and Disposal

(TSD) databases. According to the RCRA database, corrosive waste (D002), methyl ethyl ketone (D035), ignitable waste (D001), and reactive waste (D003) have been generated on the property. Additionally, the LUST database indicates that a fuel oil leak occurred and the incident is closed. Based on the separation distance, this site is not considered a PIP.

PIP Summary

Based on the evidence provided above, there is evidence of 1 PIP in connection to the Project Corridor. The following table provides the name, address, and reason for each PIP. Refer to **Attachment A** for a figure depicting the PIP locations.

Site Name	Address	Reason(s)
Mallard Lake Land Fill	26W580 East Schick Road, Hanover Park, IL	Possible Groundwater Contamination (VOCs)

Analytical Summary

In order to assess impacts to the Project Corridor associated with the one identified PIP, and to determine CCDD suitability (and soil management) of soils, two soil borings (SB-1 and SB-2) were advanced along the Project Corridor. The soil borings were advanced as part of a Preliminary Site Investigation (PSI), performed based on recommendations provided in the PESA. Refer to **Attachment A** for a figure depicting the soil boring locations. The PSI, with soil sampling results, is included in **Attachment B (on CD).**

The two soil borings were advanced under the supervision of H&H on May 17, 2016. Soil boring locations were determined based on potential impacts associated with the PIP, and to best represent the Project Corridor from a soil management perspective. The PIP was considered to have potential to impact the Project Corridor based on possible groundwater contamination. Therefore, the soil borings were only advanced in the areas proposed for traffic signal installation, as there was a potential for encountering groundwater[1]. The remaining portion of the Project Corridor (depth of excavation 5 feet bgs) was not considered to have a potential to be impacted by the PIP, and therefore was not sampled for COCs.

Samples were collected continuously in the following intervals 0-1 feet, 1-3 feet, 3-5 feet, 5-7 feet, 7-9 feet, 9-10 feet, 10-12 feet, and 12-15 feet, as recovery allowed. Two samples, from the 0 to 10 foot horizon and the 10 to 15 foot horizon, were submitted for analysis from each soil boring based on photo-ionization detector (PID) screening results, geological considerations, and other visual observations. All samples were analyzed for the COCs based upon the nature and characteristics of the listed PIP which included volatile organic compounds (VOCs) and soil pH. For further details regarding sampling activities and methods, refer to the PSI in **Attachment B.**

Analytical results were compared to the Maximum Allowable Concentrations (MACs), and the results are summarized by COC below. Associated tables, which compare COC soil results to their respective MACs, are included in **Attachment C.** The laboratory analytical report is included with the PSI report in **Attachment B**.

[1] Groundwater in area is known to range from 10 to 15 feet bgs.

VOCs

Samples collected at SB-1 (3 to 5 feet; 10 to 12 feet) and SB-2 (3-5 feet; 12 to 15 feet) were analyzed for VOCs.

VOCs were not present above the laboratory reporting limits in any of the samples analyzed. Therefore, all VOC concentrations achieved their respective MACs in each of the borings.

Soil pH

Four samples were submitted for analysis of soil pH. The results are summarized in the following table:

Sample ID	**Depth, ft**	**Soil pH result**
CCDD Soil pH Requirement: Between 6.25 and 9.00		
SB-1	3-5	8.13
	10-12	8.31
SB-2	3-5	8.15
	12-15	8.43

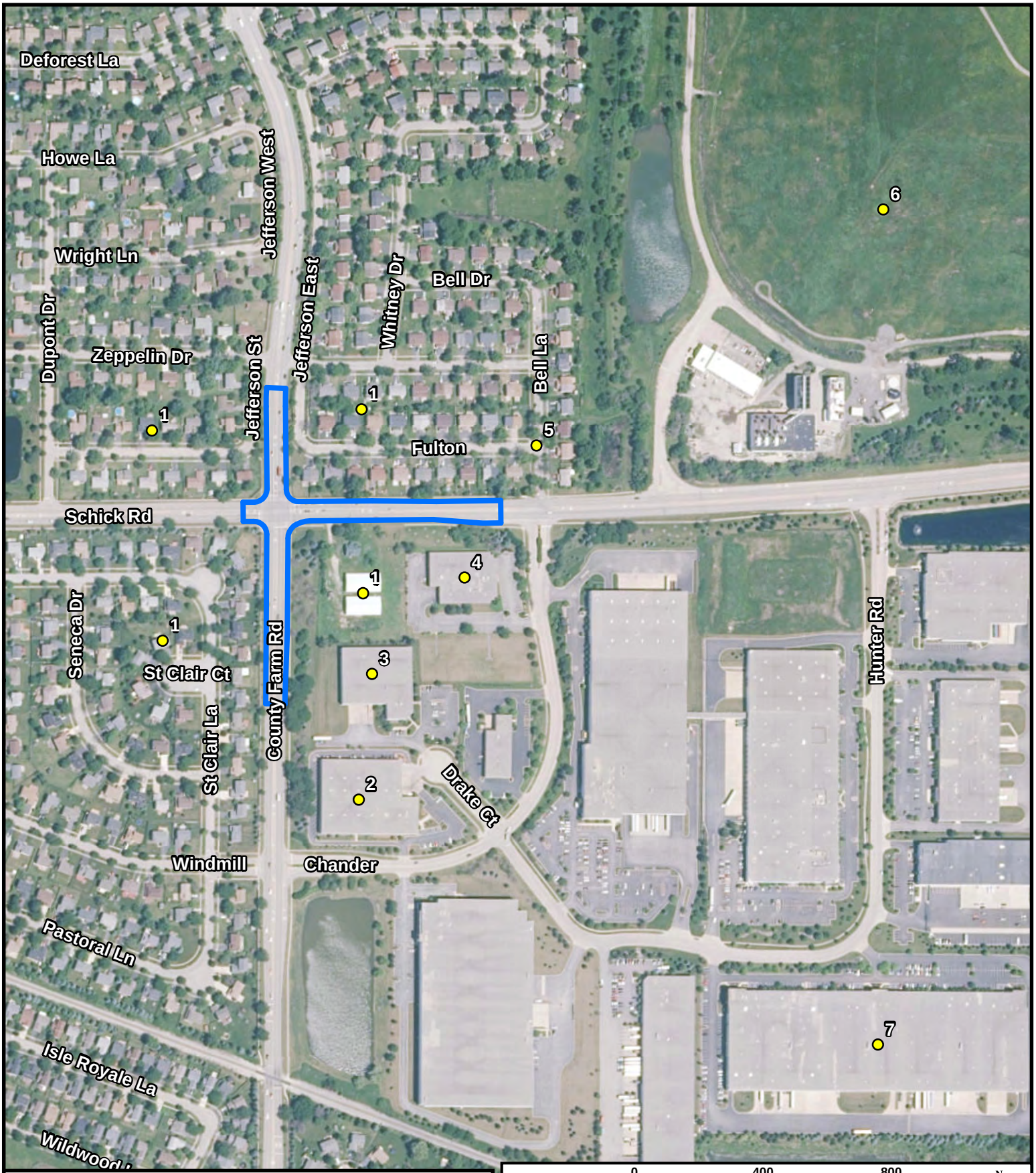
The soil pH results range from 8.13 to 8.43, achieving the soil pH requirement for CCDD disposal (between 6.25 and 9.00). These results are considered representative of the entire Project Corridor.

CCDD Determination

Based on the due diligence and analytical testing conducted, soils generated from the County Farm Road and Schick Road Intersection Improvement Project **achieve the requirements for CCDD disposal**.

Should conditions within the Project Corridor change, such as unusual staining, odors, or if loads become rejected, additional analytical assessment may be required for final disposition of spoils from this project corridor. If you have any questions regarding this matter, please contact us at 630-684-9100.

ATTACHMENT A



Site ID	Site Name	Address	Status
1	Residence	Various	None
2	Clarke Packing & Crating Co	4150 Chandler Drive	None
3	Mid-State Graphics Ltd	1700 Drake Ct	None
4	Quintessence Publishing	4350 Chandler Drive	None
5	SPILLS Location	4423 Bell Lane	None
6	Mallard Lake Landfill	26W580 E Schick Rd	PIP
7	Barnes Distribution/ Industrial Developments International	1575 Hunter Rd	None

0 400 800
Feet

N
W E
S

Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

Legend

- Project Limits
- Identified Property

Huff & Huff, Inc.

Figure 5-1
Identified Properties Map
County Farm Road and Schick Road
Intersection Improvement Project
Hanover Park, DuPage County, Illinois

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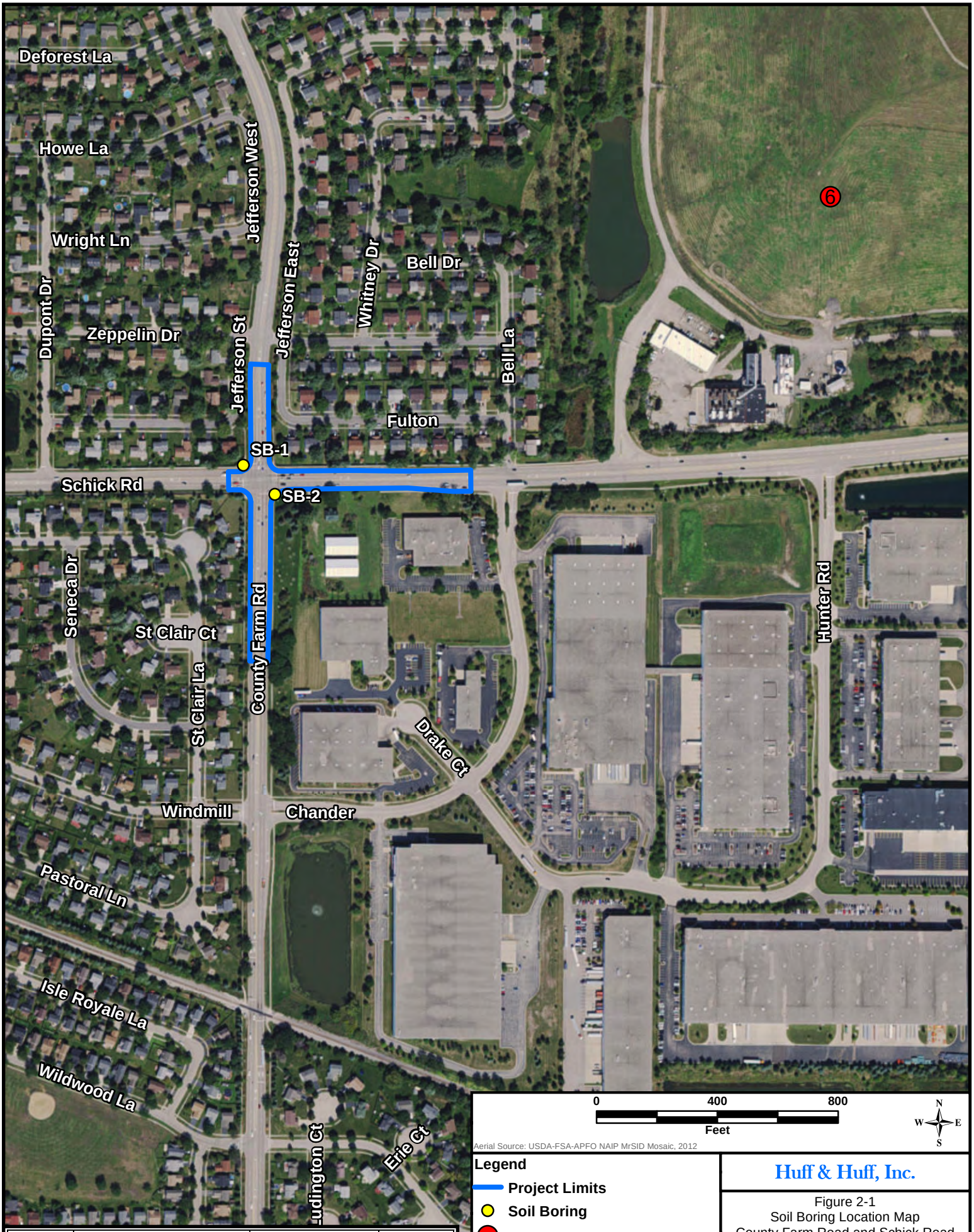

Site ID	Site Name	Address	Status
6	Mallard Lake Landfill	26W580 E Schick Rd	PIP

Huff & Huff, Inc.

Figure 2-1
Soil Boring Location Map
County Farm Road and Schick Road
Intersection Improvement Project
Hanover Park, DuPage County, Illinois

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ATTACHMENT B

ATTACHMENT C

TABLE C-1
VOC SOIL RESULTS
DuDOT - COUNTY FARM ROAD AND SCHICK ROAD

	Maximum Allowable Concentration[1]	SB-1		SB-2	
		3-5'	10-12'	3-5'	12-15'
Acetone	25	<0.200	<0.200	<0.200	<0.200
Benzene	0.03	<0.005	<0.005	<0.005	<0.005
Bromodichloromethane	0.6	<0.005	<0.005	<0.005	<0.005
Bromoform	0.8	<0.005	<0.005	<0.005	<0.005
Bromomethane	0.2	<0.010	<0.010	<0.010	<0.010
2-Butanone (MEK)	17	<0.100	<0.100	<0.100	<0.100
Carbon disulfide	9	<0.005	<0.005	<0.005	<0.005
Carbon tetrachloride	0.07	<0.005	<0.005	<0.005	<0.005
Chlorobenzene	1	<0.005	<0.005	<0.005	<0.005
Chlorodibromomethane	0.4	<0.005	<0.005	<0.005	<0.005
Chloroethane	---	<0.010	<0.010	<0.010	<0.010
Chloroform	0.3	<0.005	<0.005	<0.005	<0.005
Chloromethane	---	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethane	23	<0.005	<0.005	<0.005	<0.005
1,2-Dichloroethane	0.02	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethene	0.06	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	0.4	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene	0.7	<0.005	<0.005	<0.005	<0.005
1,2-Dichloropropane	0.03	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene	0.005	<0.004	<0.004	<0.004	<0.004
trans-1,3-Dichloropropene	0.005	<0.004	<0.004	<0.004	<0.004
Ethylbenzene	13	<0.005	<0.005	<0.005	<0.005
2-Hexanone	---	<0.010	<0.010	<0.010	<0.010
Methyl-tert-butylether (MTBE)	0.32	<0.005	<0.005	<0.005	<0.005
4-Methyl-2-pentanone (MTBK)	---	<0.010	<0.010	<0.010	<0.010
Methylene chloride	0.02	<0.020	<0.020	<0.020	<0.020
Styrene	4	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane	---	<0.005	<0.005	<0.005	<0.005
Tetrachloroethene	0.06	<0.005	<0.005	<0.005	<0.005
Toluene	12	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane	2	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane	0.02	<0.005	<0.005	<0.005	<0.005
Trichloroethene	0.06	<0.005	<0.005	<0.005	<0.005
Vinyl acetate	10	<0.010	<0.010	<0.010	<0.010
Vinyl chloride	0.01	<0.010	<0.010	<0.010	<0.010
Xylene, Total	5.6	<0.005	<0.005	<0.005	<0.005

[1]Refers to Maximum Allowable Concentrations of Chemical Constituents in Uncontaminated Soil Used as Fill Material at Regulated Fill Operations (35 Ill . Adm. Code 1100. Subpart F) within a Metropolitan Area

Bold indicates result above applicable MAC

--- MAC not established

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