

FOR INDEX OF SHEETS, SEE SHEET NO. 2

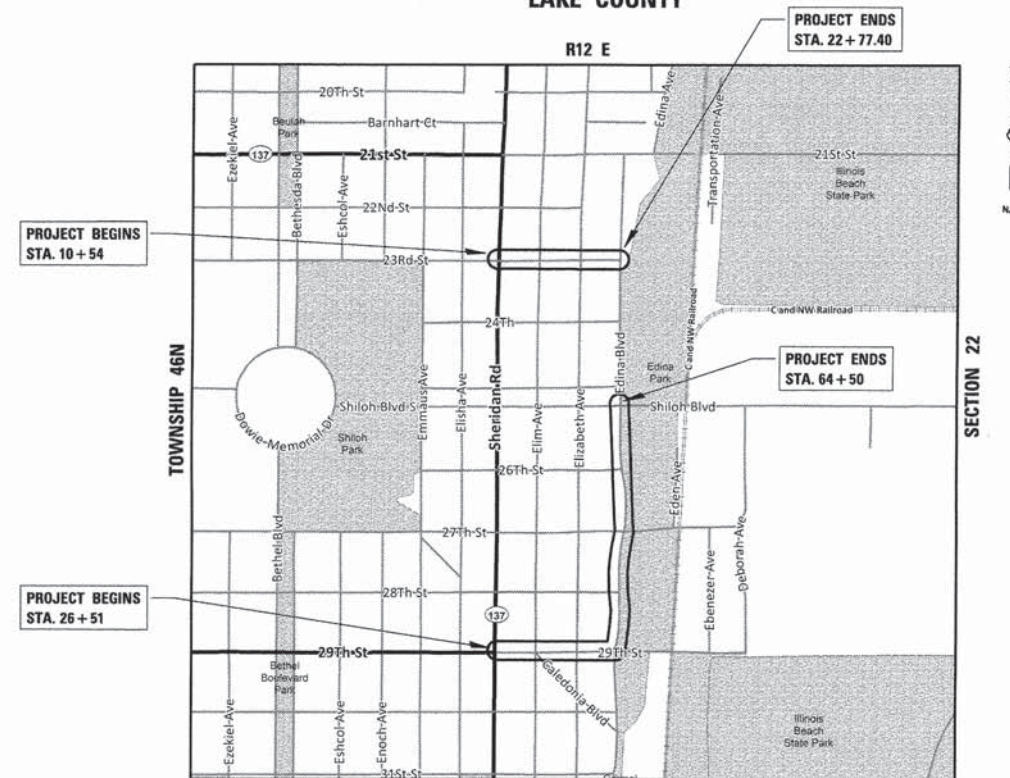
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FAU 1203 (23rd STREET) ; FAU 1207/FAU 2769 (29th STREET/EDINA BOULEVARD)
FAP 352 (SHERIDAN ROAD) TO FAU 2769 (EDINA BOULEVARD) ; FAP 352 (SHERIDAN ROAD) TO SHILOH BOULEVARD
RESURFACING

SECTION NO. 15-00086-00-RS
PROJECT NO. M-4003(551)
JOB NO. C-91-424-15
CITY OF ZION
LAKE COUNTY

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 61C03		



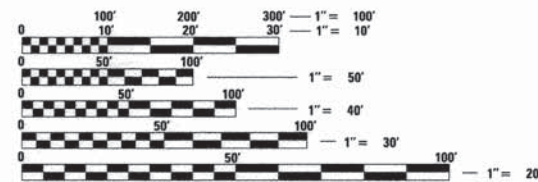
LOCATION MAP

23rd STREET / 29th STREET / EDINA BOULEVARD
GROSS LENGTH OF PROJECT = 3,375 LINEAL FEET (0.73 MILES)
NET LENGTH OF PROJECT = 3,375 LINEAL FEET (0.73 MILES)

TRAFFIC DATA

23rd STREET / 29th STREET / EDINA BOULEVARD
ADT (YEAR) = 1,900 / 175 / 1,500 (2011)
POSTED SPEED LIMIT = 25 MPH

DESIGN DESIGNATION: MAJOR COLLECTOR



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.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
8-1-1 OR 1-800-892-0123

CB CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018 (847) 823-0500

PROFESSIONAL DESIGN FIRM NO. 184-001175
EXPIRATION DATE: 04/30/17

CONTRACT NO. 61C03



LOCATION OF SECTION INDICATED THIS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED SEPTEMBER 30 2015

[Signature]
PUBLIC WORKS DIRECTOR, CITY OF ZION

PASSED OCT. 13 2015

[Signature]
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW DECEMBER 7 2015

[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

Professional Engineer Seal for Lee M. Fell, No. 062-053708, Registered Professional Engineer of Illinois. Includes a signature and the date 11/30/2015.

PROGRAM AND OFFICE ENGINEER: FAWAD AQUEEL, P.E. (847) 705-4021
SCHAUMBURG, ILLINOIS

GENERAL NOTES

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE LATEST REVISION; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", (IMUTCD); "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", JUNE 2014 SEVENTH EDITION, THE "DETAILS" IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST IDOT HIGHWAY STANDARD. CODES OF THE IEPA TITLE 35, AND O.S.H.A. SHALL BE ADHERED TO FOR THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 700 OF THE STANDARD SPECIFICATIONS.

ALL REQUIRED PERMITS FROM THE PROPER GOVERNING AGENCY SHALL BE OBTAINED FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHEETING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE AGENCY, AT THE CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC.

UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING UTILITY FACILITIES SO THAT THE UTILITIES AND THEIR APPURTENANCES MAY BE LOCATED AND ADJUSTED OR MOVED, IF NECESSARY, PRIOR TO THE START OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY OWNERS AS PROVIDED FOR IN THE STANDARD SPECIFICATIONS.

THE LOCATIONS OF EXISTING DRAINAGE STRUCTURES, STORM AND SANITARY SEWERS, WATER SERVICE LINES AND OTHER UTILITY LINES ARE APPROXIMATE, AND THE CITY DOES NOT GUARANTEE THEIR ACCURACY. THEIR EXACT HORIZONTAL AND VERTICAL LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR THE CITY. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 8-1-1 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS AND CABLE.

THE CONTRACTOR SHALL CONTACT IDOT'S BUREAU OF MATERIALS (PHONE 847-705-4337) AT LEAST 24 HOURS BEFORE PLACING HOT-MIX ASPHALT OR PORTLAND CEMENT CONCRETE.

STAKING

THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE CITY, ITS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

WATER, STORM SEWER AND SANITARY SEWER

WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF INLET FILTERS.

ALL EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AND INCLUDED IN THE COST OF HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH.

THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS. CONTACT THE CITY OF ZION WATER DEPARTMENT (TEL. 847-746-4060) FOR THEM TO TURN VALVES OR OPERATE HYDRANTS. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.

MISCELLANEOUS

ACCESS: THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT, EXCEPT FOR PERIODS OF SHORT DURATION. THE COST TO PROVIDE ACCESS SHALL BE PAID FOR AND INCLUDED IN THE ITEM TEMPORARY ACCESS (ROAD) OR TEMPORARY ACCESS (PRIVATE ENTRANCE).

DIMENSIONS: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.

ALL SAWCUTTING SHALL BE INCLUDED TO REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL. ANY ITEMS OF WORK REMOVED PRIOR TO SAWCUTTING WILL NOT BE MEASURED FOR PAYMENT.

COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT, SIDEWALK REMOVAL AND REPLACEMENT, DRIVEWAY REMOVAL AND REPLACEMENT, AND STRUCTURES TO BE ADJUSTED WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND WILL NOT EXCEED THE PLANNED QUANTITY.

THE THICKNESSES OF HOT-MIX ASPHALT MIXTURES SHOWN IN THE PLANS ARE NOMINAL. DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASIS ON WHICH THEY ARE TO BE PLACED. PLAN THICKNESSES SHOULD BE CONSIDERED THE MINIMUM THICKNESS PERMITTED.

DETECTABLE WARNINGS FOR THE HANDICAPPED SHALL BE INSTALLED AT INTERSECTING STREETS, DRIVEWAYS, AND ALLEYS AS SHOWN ON THE PLANS (SEE DETAIL ON SHEET 18).

PAVEMENT GRADES: THE ELEVATIONS INDICATED ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSE, UNLESS OTHERWISE INDICATED.

RELOCATING EXISTING SIGNS: EXISTING SIGNS WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REINSTALLED UPON COMPLETION OF CONFLICTING IMPROVEMENTS IN ACCORDANCE WITH ARTICLE 107.25 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". STOP SIGNS, SPEED LIMIT SIGNS, AND STREET NAME SIGNS SHALL BE UP AND VISIBLE AT ALL TIMES. THIS WORK SHALL BE INCLUDED IN THE APPLICABLE TRAFFIC CONTROL PAY ITEMS.

ADVANCED WARNING CHANGEABLE MESSAGE BOARDS SHALL BE POSTED AT BOTH ENDS OF THE ROADWAY 2 WEEKS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WITHIN THE CITY'S RIGHT-OF-WAY NOTIFYING THE MOTORING PUBLIC OF THE UPCOMING WORK (ROAD CONSTRUCTION/LANE REDUCTION BEGINNING _____, EXPECT DELAYS, SEEK ALTERNATE ROUTES, ECT.). THE LANGUAGE MUST BE PROVIDED TO THE ENGINEER FOR REVIEW/APPROVAL PRIOR TO THEIR ACTIVATION. THE MESSAGE BOARD LOCATION SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. THIS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CALENDAR MONTH AS "CHANGEABLE MESSAGE SIGN."

FRESH OIL SIGNS SHALL BE POSTED AT BOTH ENDS OF THE ROADWAY AND ALL SIDE STREETS AS DIRECTED BY THE ENGINEER. CONSTRUCTION AHEAD SIGNS SHALL BE PLACED AT ALL SIDE STREETS AND BOTH ENDS OF THE ROADWAY WHILE CONSTRUCTION IS IN PROGRESS. THIS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL PAY ITEMS FOR STANDARD 701501.

PROPOSED CONCRETE CURB AND GUTTER SHALL BE TRANSITIONED TO EXISTING CURB AND GUTTER OVER A LENGTH OF 5 FEET. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT.

CONTRACTOR SHALL NOT PLACE SOD UNTIL THE TEMPERATURE IS 80° OR LESS AND THE FORECAST FOR THE NEXT 7 DAYS SHOWS TEMPERATURES OF 80° OR LESS. IF ALL OTHER PAY ITEMS ARE COMPLETED, THE CONTRACTOR WILL NOT BE CHARGED WORKING DAYS FOR DELAYS IN PARKWAY RESTORATION DUE TO TEMPERATURE.

NO CONSTRUCTION SHALL BEGIN UNTIL ALL PROPER TEMPORARY SIGNS AND BARRICADES HAVE BEEN INSTALLED.

AT NO TIME SHALL LESS THAN HALF OF THE STREET BE AVAILABLE FOR PARKING.

ALL ROADS MUST HAVE ONLY ONE LONGITUDINAL JOINT WHILE PAVING.

ANY REPAIRS FOR DAMAGE BY THE CONTRACTOR OUTSIDE THE LIMITS OF WORK TO SIDEWALKS AND DRIVEWAY APRONS SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

VANDALISM - SPECIAL ATTENTION IS CALLED TO THE SPECIAL PROVISION FOR "INSPECTION" AS WELL AS ARTICLE 107.30 OF THE "STANDARD SPECIFICATIONS." ANY DEFACED WORK AS DETERMINED AND DIRECTED BY THE CITY SHALL BE CORRECTED OR REPLACED TO THE SATISFACTION OF THE ENGINEER BY THE CONTRACTOR AT HIS SOLE EXPENSE PRIOR TO FINAL PAYMENT. THE CITY OF ZION WILL COOPERATE WITH THE CONTRACTOR TO MINIMIZE VANDALISM, BUT THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE TO CORRECT ANY DAMAGE. THE CITY WILL NOT BE RESPONSIBLE FOR THE SECURITY OF THE WORK SITE IN THIS REGARD, OTHER THAN NORMAL PATROLLING AND RESPONSE TO EMERGENCIES. THE COST OF ADDITIONAL SECURITY REQUIRED TO MEET THIS SPECIAL PROVISION SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY.

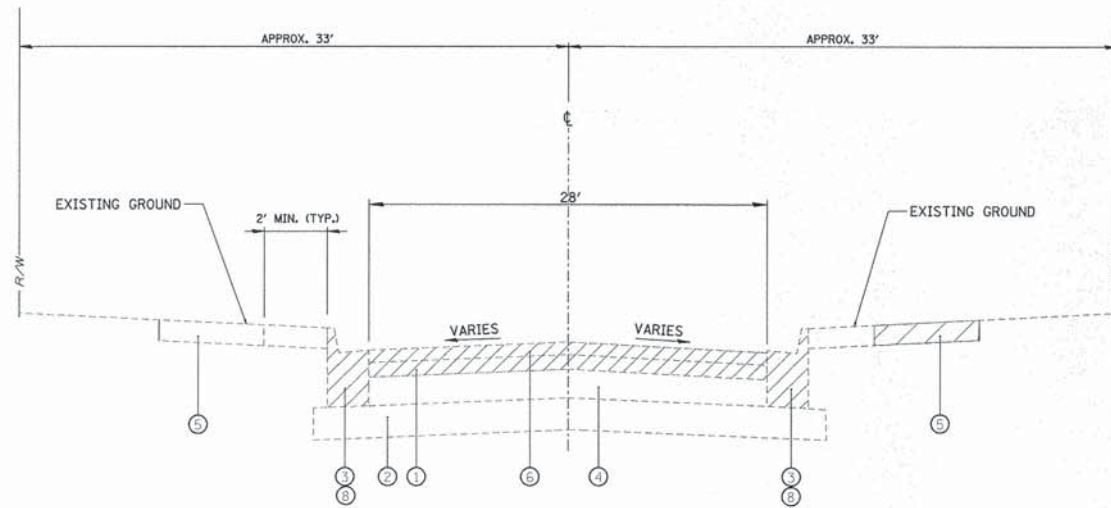
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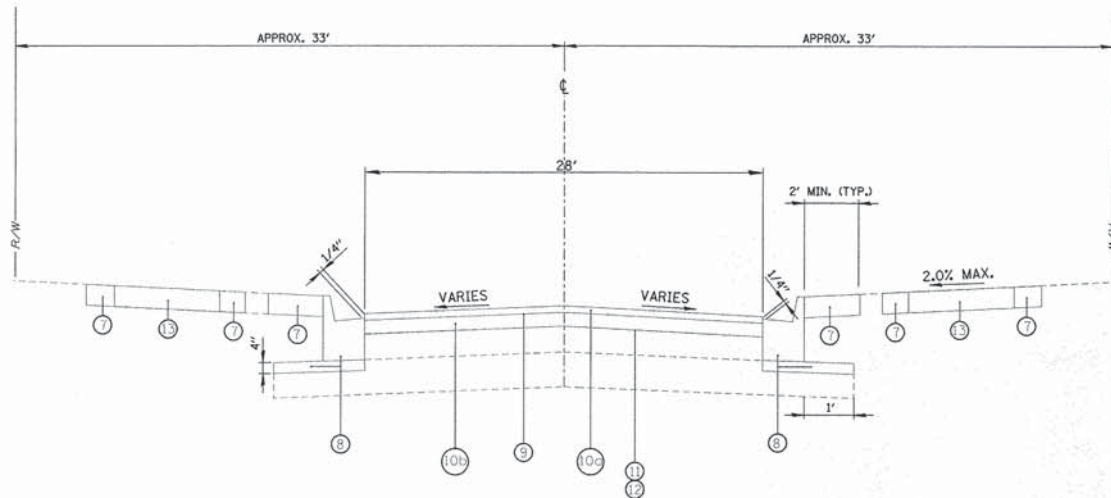
HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
424001-08	CURB RAMPS FOR SIDEWALKS
602301-04	INLET TYPE A
604001-04	FRAME AND LIDS TYPE 1
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006-05	OFF ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER, OR CROSSWALK CLOSURE
701901-04	TRAFFIC CONTROL DEVICES

FILE NAME =	USER NAME = rhowellindgron	DESIGNED = LMF	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	23rd STREET / 29th STREET / EDINA BOULEVARD GENERAL NOTES AND HIGHWAY STANDARDS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\ZION\150341\Civil\150341-01.sht		DRAWN = EDT	REVISED =			1203/1207/2769	15-00086-00-RS	LAKE	34	2	
		CHECKED = JGS	REVISED =			CONTRACT NO. 61C03					
		DATE = 06/30/15	REVISED =			SCALE: 20'	SHEET NO. 2 OF 34 SHEETS	STA.	TO STA.	[ILLINOIS] FED. AID PROJECT	



EXISTING TYPICAL SECTION
 23rd STREET: STA. 10+54 to STA. 22+77.40
 29th STREET: STA. 26+51 to STA. 38+97.10
 EDINA BOULEVARD: STA. 38+91.99 to STA. 64+50



PROPOSED TYPICAL SECTION
 23rd STREET: STA. 10+54 to STA. 22+77.40
 29th STREET: STA. 26+51 to STA. 38+97.10
 EDINA BOULEVARD: STA. 38+91.99 to STA. 64+50

NOTE:
 PAVING OF THE FULL ROADWAY WIDTH SHALL BE COMPLETED AT THE END OF EACH DAY OF PAVING TO PREVENT A LONGITUDINAL COLD JOINT FROM APPEARING WHEN OPPOSITE SIDES OF THE ROAD ARE PAVED ON DIFFERENT DAYS. THE CONTRACTOR SHALL ALSO ENSURE THAT AT THE END OF EACH DAY EACH PASS ENDS AT APPROXIMATELY THE SAME STATION TO PREVENT A COLD JOINT.

LEGEND

- ① EXISTING HOT-MIX ASPHALT PAVEMENT
- ② EXISTING AGGREGATE SUBBASE
- ③ EXISTING CURB AND GUTTER
- ④ EXISTING AGGREGATE BASE
- ⑤ EXISTING PCC SIDEWALK
- ⑥ PAVEMENT REMOVAL - 4" (PAID FOR AS HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH)
- ⑦ SODDING, SALT TOLERANT (INCIDENTAL TO COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT AND SIDEWALK REMOVAL AND REPLACEMENT)
- ⑧ COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AS DIRECTED BY THE ENGINEER), INCLUDES 4" SUBBASE GRANULAR MATERIAL TYPE B.

- ⑨ PROPOSED BITUMINOUS MATERIAL (PRIME COAT)
- ⑩c HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 - 1.5"
- ⑩b HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 - 2.5"
- ⑪ PREPARATION OF BASE
- ⑫ AGGREGATE BASE REPAIR
- ⑬ PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL AS DIRECTED BY THE ENGINEER (SIDEWALKS THROUGH DRIVEWAYS SHALL BE 6 INCHES THICK - THIS WORK WILL BE INCLUDED IN THE PAY ITEM FOR PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH, SPECIAL)

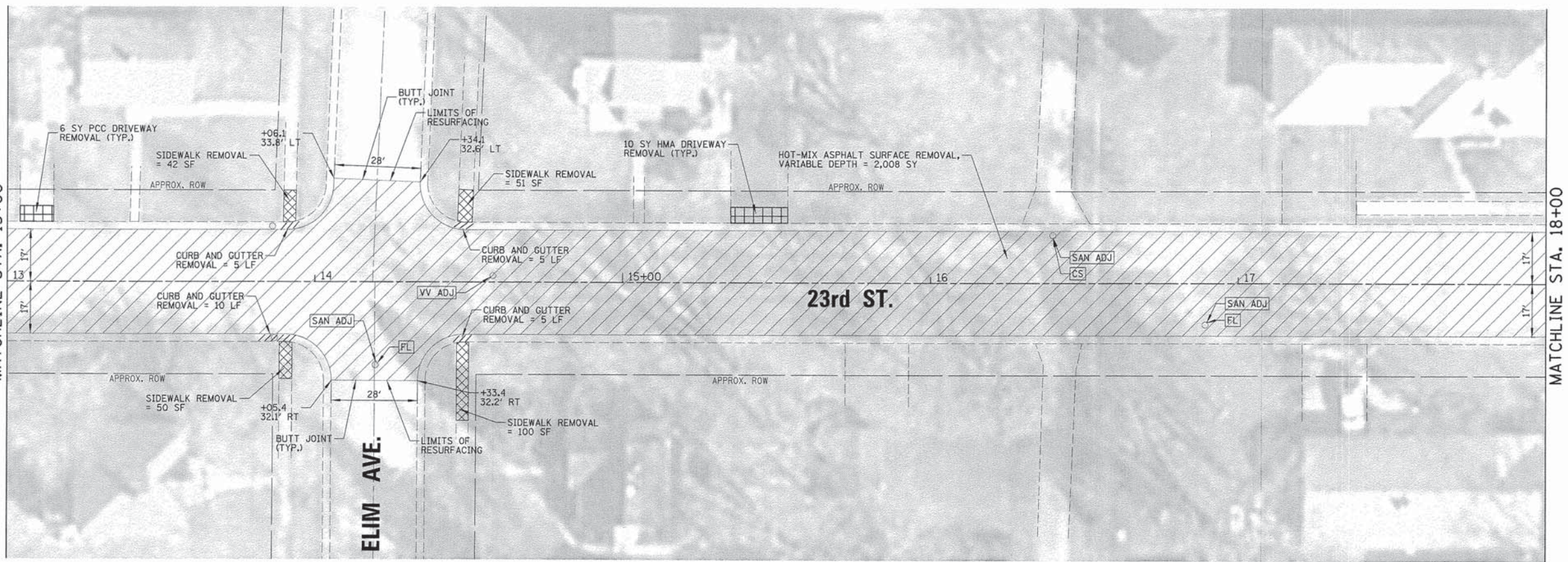
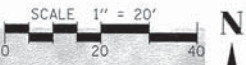
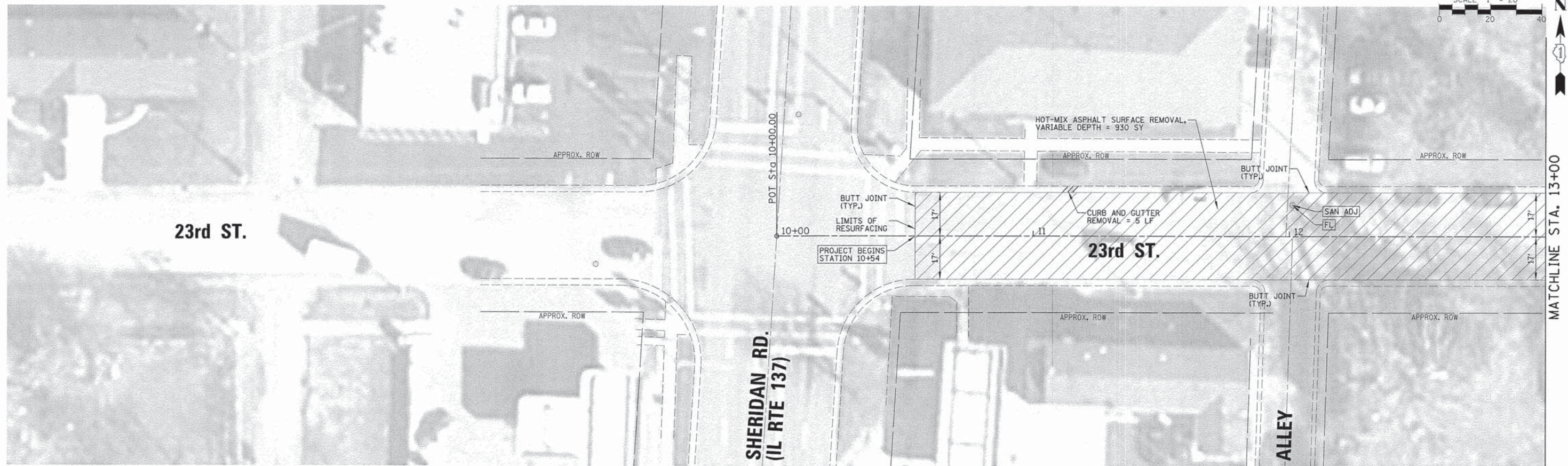
NOTES:

1. THE HIGH SIDE OF THE ROADWAY SHALL BE PAVED FIRST.
2. AGGREGATE BASE REPAIR - ANY NEW MATERIAL NECESSARY TO BRING THE EXISTING SUBBASE TO THE GRADE MIN. DEPTH 9" CROSS SLOPE OR WIDTH SHOWN SHALL BE PAID FOR UNDER THIS ITEM.
3. ANY AGGREGATE BASE REMOVAL DUE TO PROPOSED ASPHALT SHALL BE CONSIDERED INCLUDED IN THE COST OF HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH.
4. ANY EXCAVATION OF STONE NECESSARY TO OBTAIN THE NECESSARY DEPTH FOR THE PROPOSED PAVEMENT SHALL BE INCLUDED IN THE COST OF THE PAVEMENT RESURFACING.
5. ANY EXCAVATION OF DIRT/CLAY NECESSARY TO OBTAIN THE NECESSARY DEPTH FOR THE PROPOSED PAVEMENT SHALL BE PAID FOR AS REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
ITEM	VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 1.5"	4% @ 50 GYR.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2.5" (SHALL BE PLACED IN 1 LIFT)	4% @ 50 GYR.

MIXTURE REQUIREMENT NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE IS 112 LBS/SY/IN. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
2. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.



- LEGEND:**
- CURB AND GUTTER REMOVAL
 - HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
 - SIDEWALK REMOVAL
 - DRIVEWAY PAVEMENT REMOVAL (HMA OR PCC AS NOTED)
 - STRUCTURES TO BE ADJUSTED
 - NEW FRAME AND LID
 - STRUCTURES TO RECEIVE CONCRETE SEAL
 - EXISTING STRUCTURE

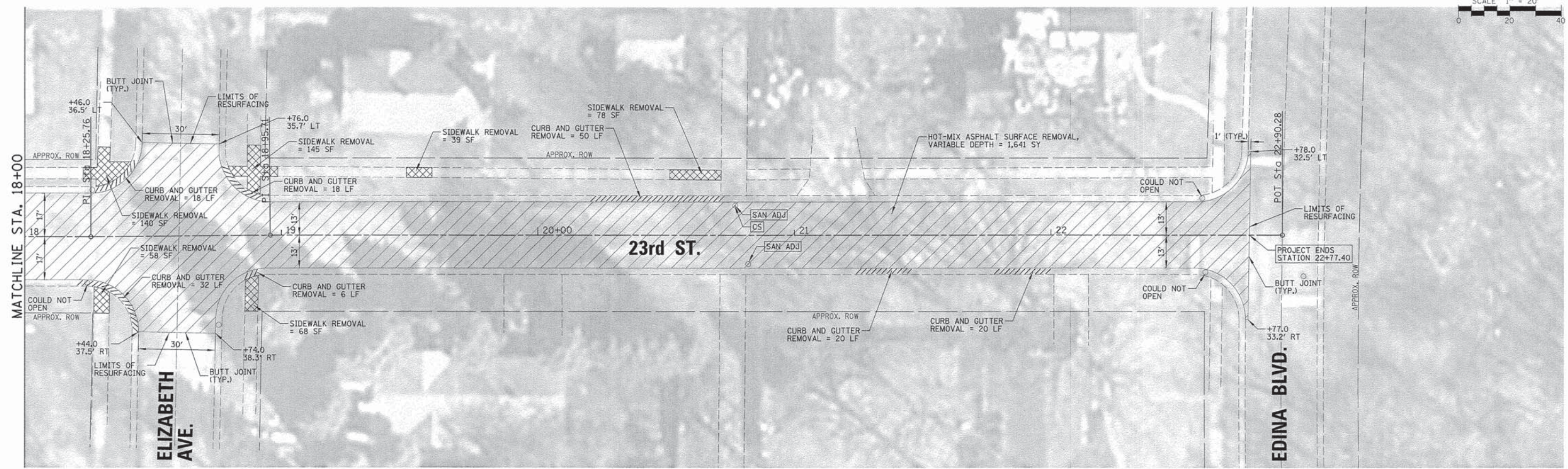
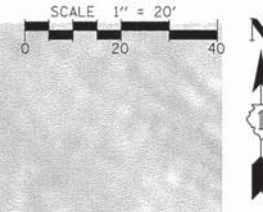
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		DRAWN - EDT	REVISED -
		CHECKED - JGS	REVISED -
		DATE - 06/30/15	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**23rd STREET
EXISTING CONDITIONS AND PLAN**

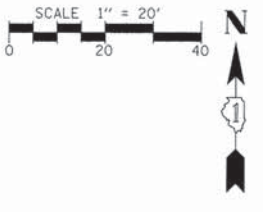
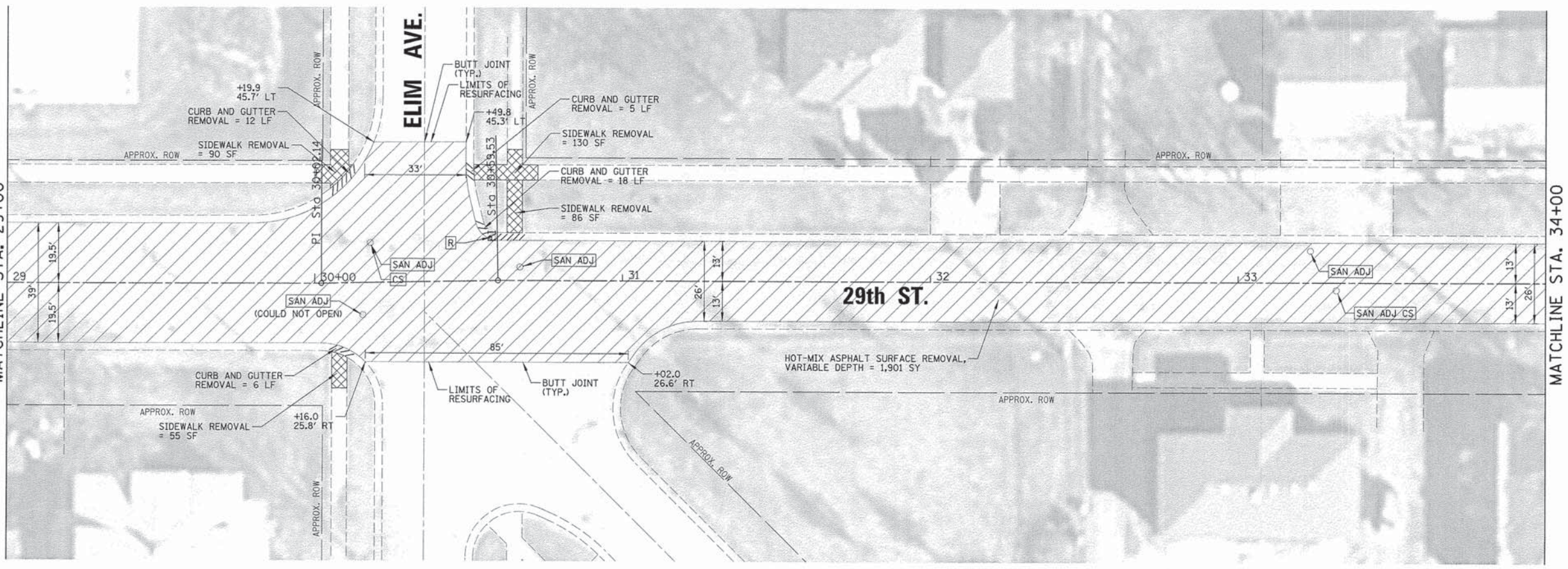
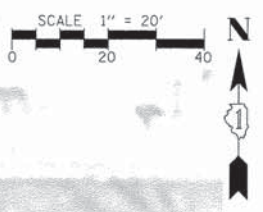
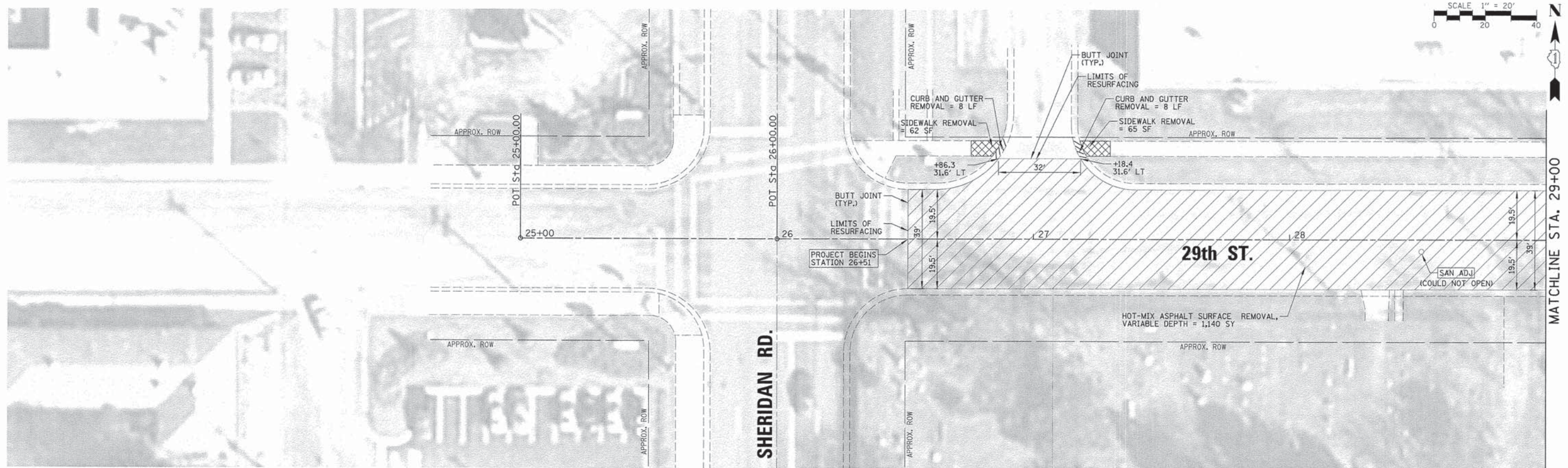
SCALE: 28" SHEET NO. 5 OF 34 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	5
CONTRACT NO. 61C03				
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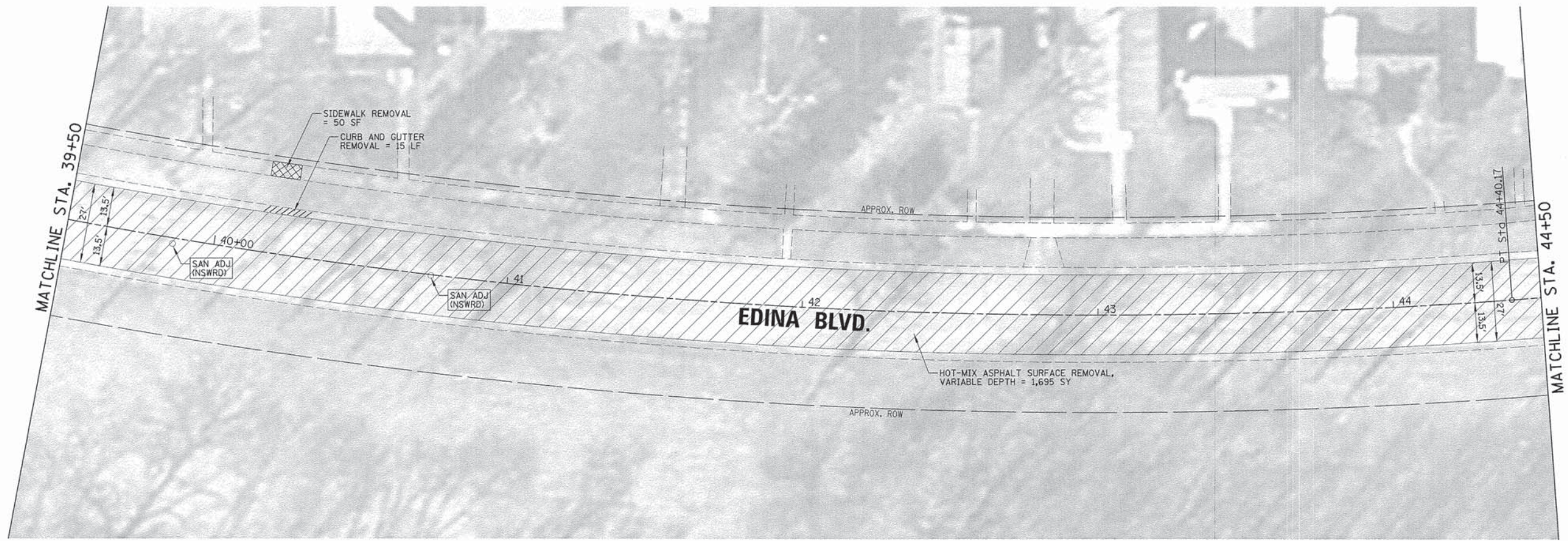
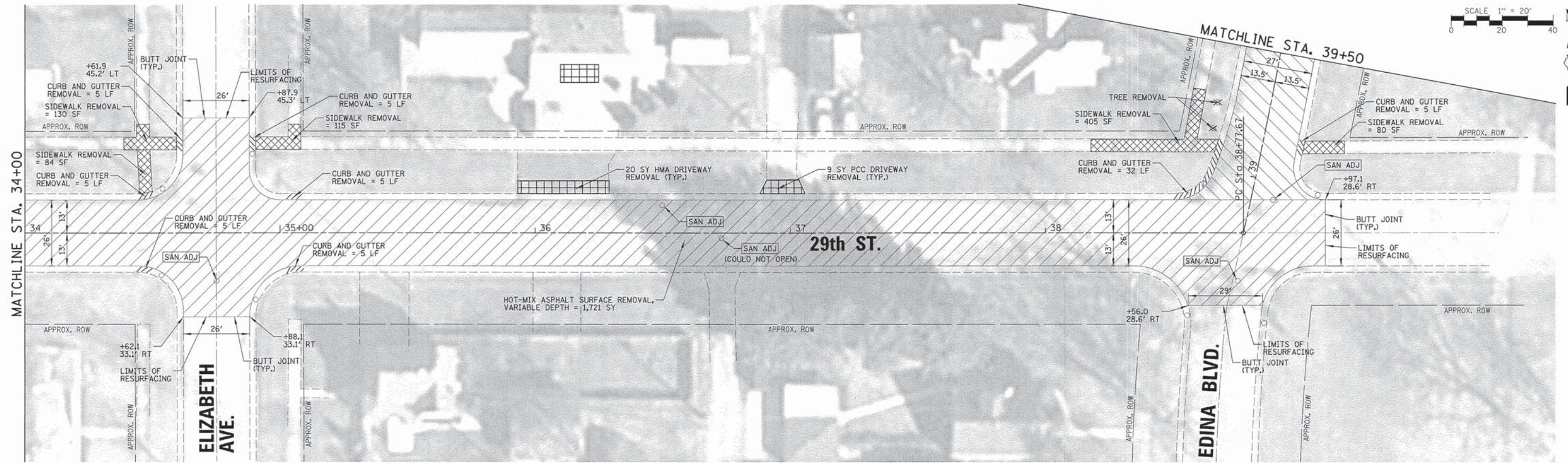
- LEGEND:**
- CURB AND GUTTER REMOVAL
 - HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
 - SIDEWALK REMOVAL
 - DRIVEWAY PAVEMENT REMOVAL (HMA OR PCC AS NOTED)
 - STRUCTURES TO BE ADJUSTED
 - NEW FRAME AND LID
 - STRUCTURES TO RECEIVE CONCRETE SEAL
 - EXISTING STRUCTURE

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	PLT SCALE = 20'	DRAWN - EDT	REVISED -		1203/1207/2769	15-00086-00-RS	LAKE	34	6		
	PLT DATE = 10/5/2015	CHECKED - JGS	REVISED -		CONTRACT NO. 61C03			ILLINOIS FED. AID PROJECT			
DATE - 06/30/15				SCALE: 20'		SHEET NO. 6 OF 34 SHEETS		STA.		TO STA.	



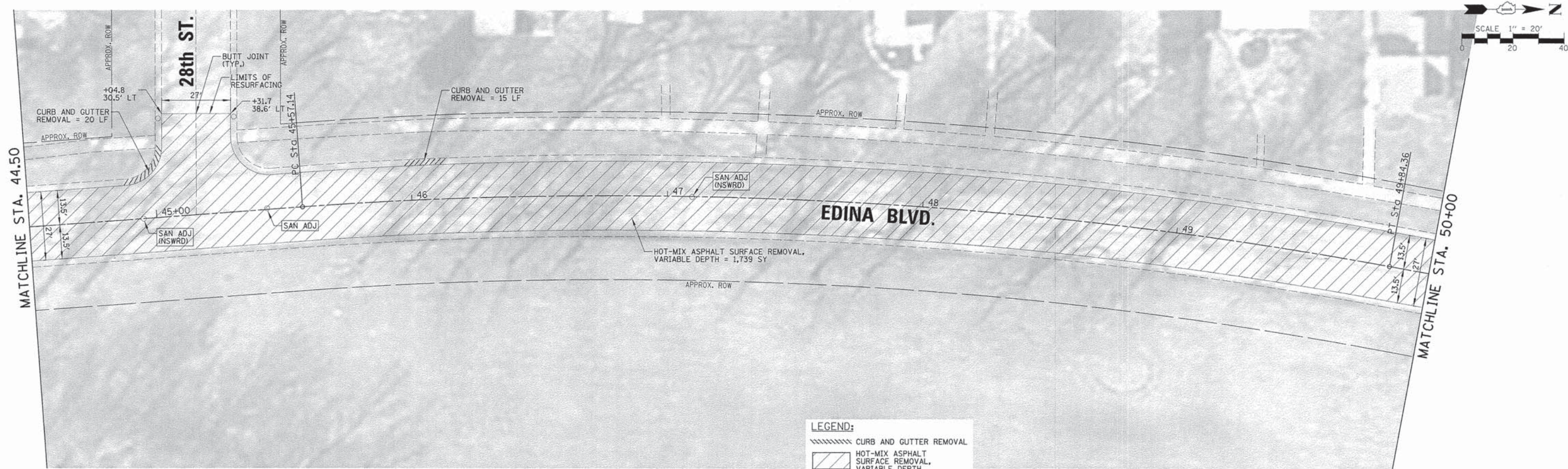
- LEGEND:**
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FILE NAME = N:\Z\ION\150342\Civil\rem_150342-01.sht	USER NAME = rhowellindgren	DESIGNED - LMF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	29th STREET / EDINA BLVD EXISTING CONDITIONS AND PLAN				F.A.U. RTE. 1207/2769	SECTION 15-00086-00-RS	COUNTY LAKE	TOTAL SHEETS 34	SHEET NO. 7
	PLOT SCALE = 20'	DRAWN - EDT	REVISED -		SCALE: 20'	SHEET NO. 7 OF 34 SHEETS	STA.	TO STA.	CONTRACT NO. 61C03				
	PLOT DATE = 10/5/2015	CHECKED - JGS	REVISED -		ILLINOIS FED. AID PROJECT								
		DATE - 06/30/15	REVISED -										



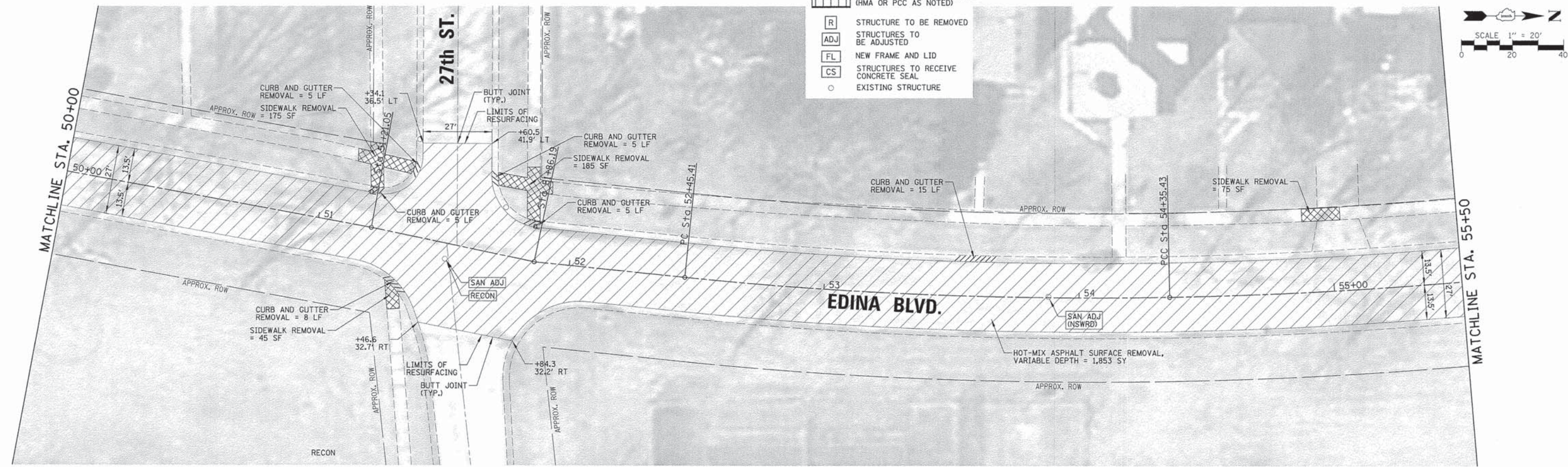
- LEGEND:**
- CURB AND GUTTER REMOVAL
 - HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
 - SIDEWALK REMOVAL
 - DRIVEWAY PAVEMENT REMOVAL (HMA OR PCC AS NOTED)
 - STRUCTURE TO BE REMOVED
 - STRUCTURES TO BE ADJUSTED
 - NEW FRAME AND LID
 - STRUCTURES TO RECEIVE CONCRETE SEAL
 - EXISTING STRUCTURE

FILE NAME =	USER NAME = rhowellindgren	DESIGNED - LMF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	29th STREET / EDINA BLVD EXISTING CONDITIONS AND PLAN		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
NS\ZIDN\158342\Civil\rem_158342-02.sht	PLOT SCALE = 20'	DRAWN - EDT	REVISED -		SCALE: 20'	SHEET NO. 8 OF 34 SHEETS	STA.	1207/2769	15-00086-00-RS	LAKE	34	8
	PLOT DATE = 10/5/2015	CHECKED - JGS	REVISED -				TO STA.					
		DATE - 06/30/15	REVISED -					CONTRACT NO. 61C03				
ILLINOIS FED. AID PROJECT												

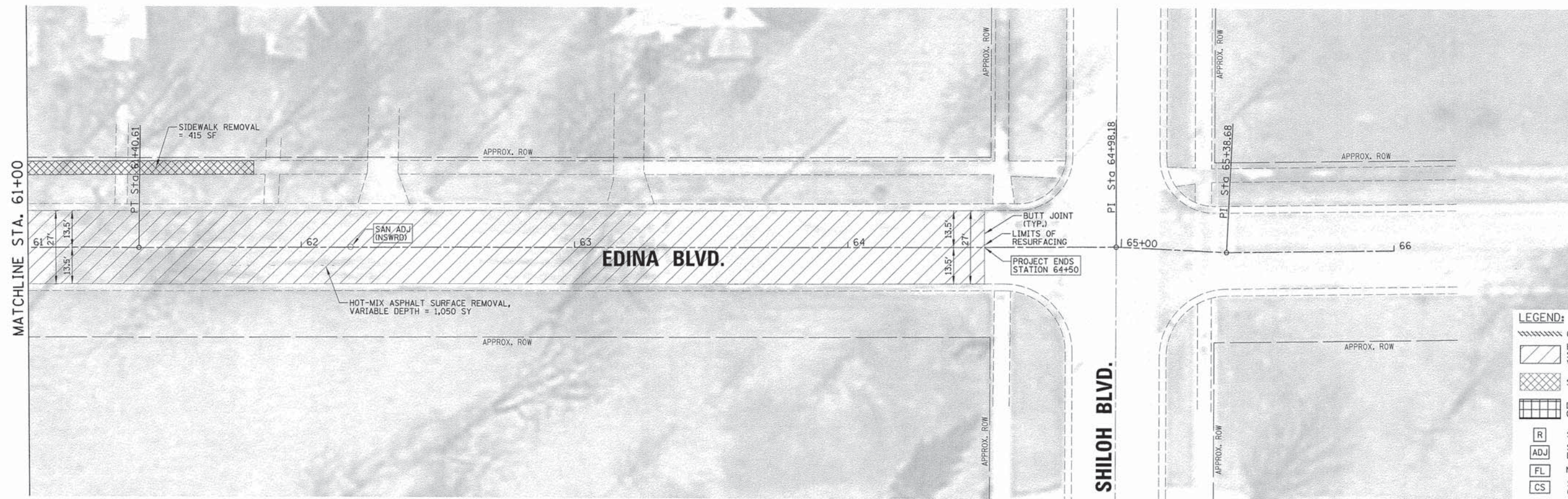
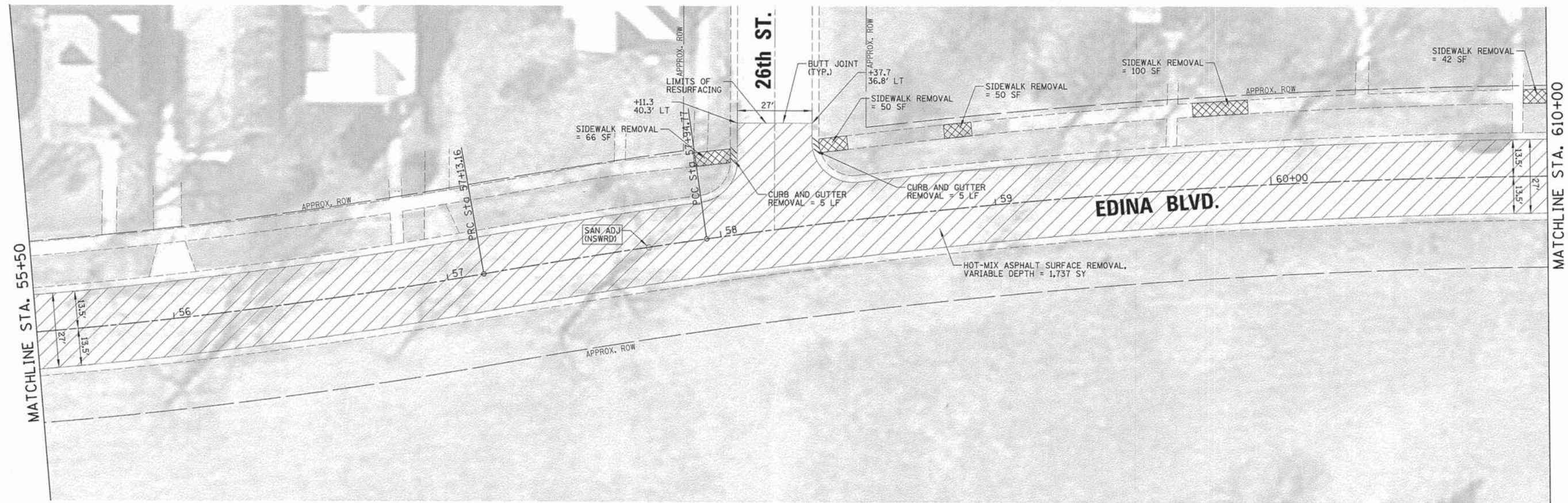


LEGEND:

	CURB AND GUTTER REMOVAL
	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
	SIDEWALK REMOVAL
	DRIVEWAY PAVEMENT REMOVAL (HMA OR PCC AS NOTED)
	STRUCTURE TO BE REMOVED
	STRUCTURES TO BE ADJUSTED
	NEW FRAME AND LID
	STRUCTURES TO RECEIVE CONCRETE SEAL
	EXISTING STRUCTURE



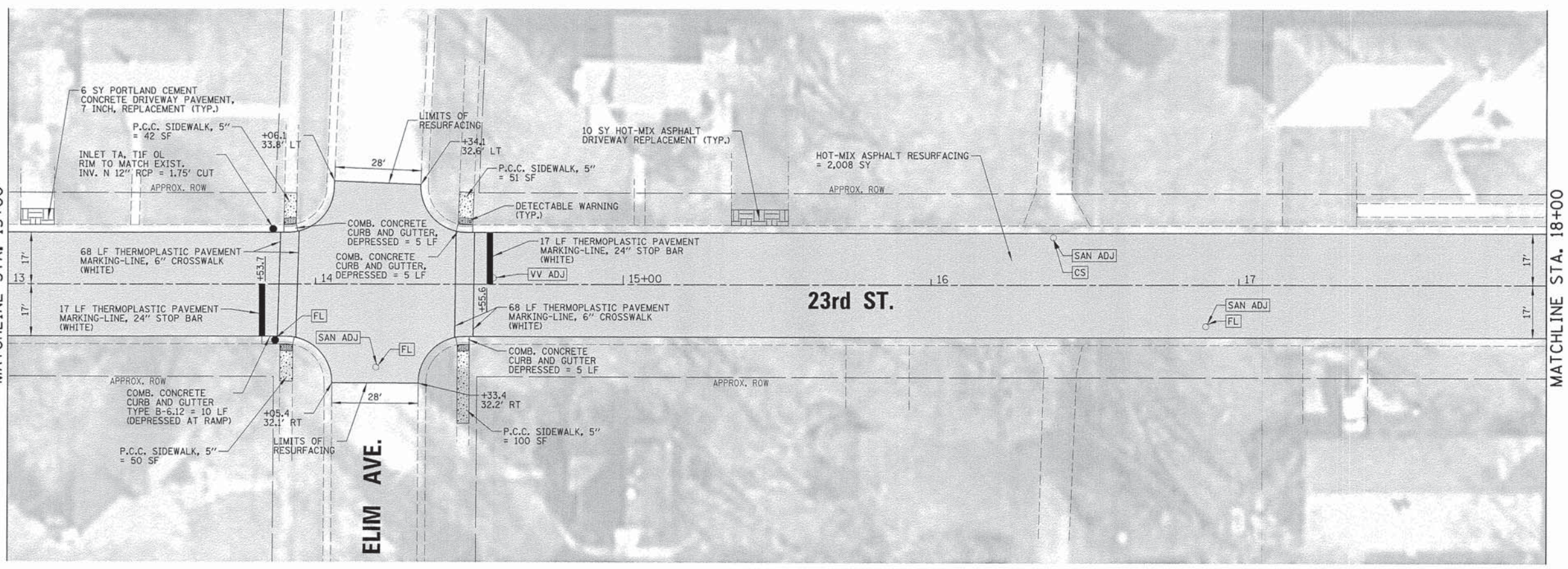
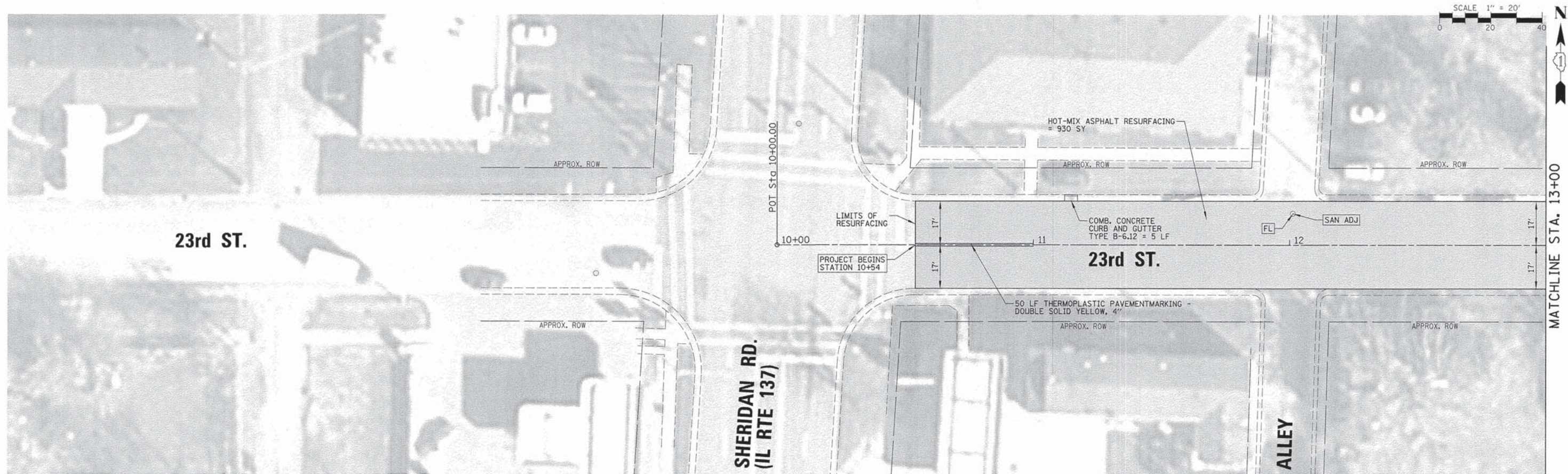
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PLOT SCALE = 20'	PLOT DATE = 10/5/2015	DRAWN - EDT	REVISED -		SCALE: 20'	SHEET NO. 9 OF 34 SHEETS	STA.	TO STA.	CONTRACT NO. 61C03			
CHECKED - JGS	DATE - 06/30/15	REVISOR -	REVISOR -		ILLINOIS FED. AID PROJECT							



LEGEND:

	CURB AND GUTTER REMOVAL
	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
	SIDEWALK REMOVAL
	DRIVEWAY PAVEMENT REMOVAL (HMA OR PCC AS NOTED)
	STRUCTURE TO BE REMOVED
	STRUCTURES TO BE ADJUSTED
	NEW FRAME AND LID
	STRUCTURES TO RECEIVE CONCRETE SEAL
	EXISTING STRUCTURE

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	PLOT SCALE = 20'	DRAWN - EDT	REVISED -		SCALE: 20'	SHEET NO. 10 OF 34 SHEETS	STA. TO STA.	CONTRACT NO. 61C03				
	PLOT DATE = 10/5/2015	CHECKED - JGS	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - 06/30/15	REVISED -									



- LEGEND:**
- COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
 - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5"
 - HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50, 2.5"
 - PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL
 - DRIVEWAY PAVEMENT REPLACEMENT (HMA OR PCC AS NOTED)
 - DETECTABLE WARNING
 - STRUCTURES TO BE ADJUSTED
 - NEW FRAME AND LID
 - STRUCTURE TO RECEIVE CONCRETE SEAL
 - EXISTING STRUCTURE

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 PLOT SCALE: 20"
 PLOT DATE: 10/5/2015

DESIGNED - LMF
 DRAWN - EDT
 CHECKED - JGS
 DATE - 06/30/15

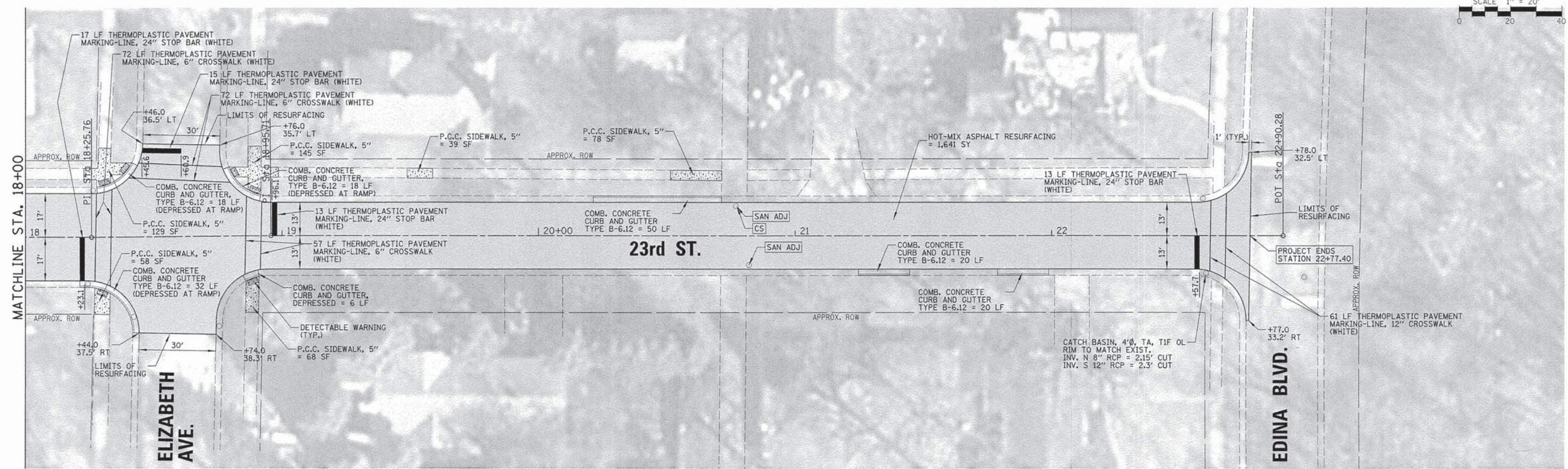
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**23rd STREET
 PROPOSED PLAN**

SCALE: 20" SHEET NO. 11 OF 34 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	11
CONTRACT NO. 61C03				
ILLINOIS FED. AID PROJECT				



- LEGEND:**
- COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
 - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5" HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50, 2.5"
 - PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL
 - DRIVEWAY PAVEMENT REPLACEMENT (HMA OR PCC AS NOTED)
 - DETECTABLE WARNING
 - STRUCTURES TO BE ADJUSTED
 - NEW FRAME AND LID
 - STRUCTURE TO RECEIVE CONCRETE SEAL
 - EXISTING STRUCTURE

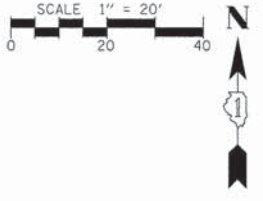
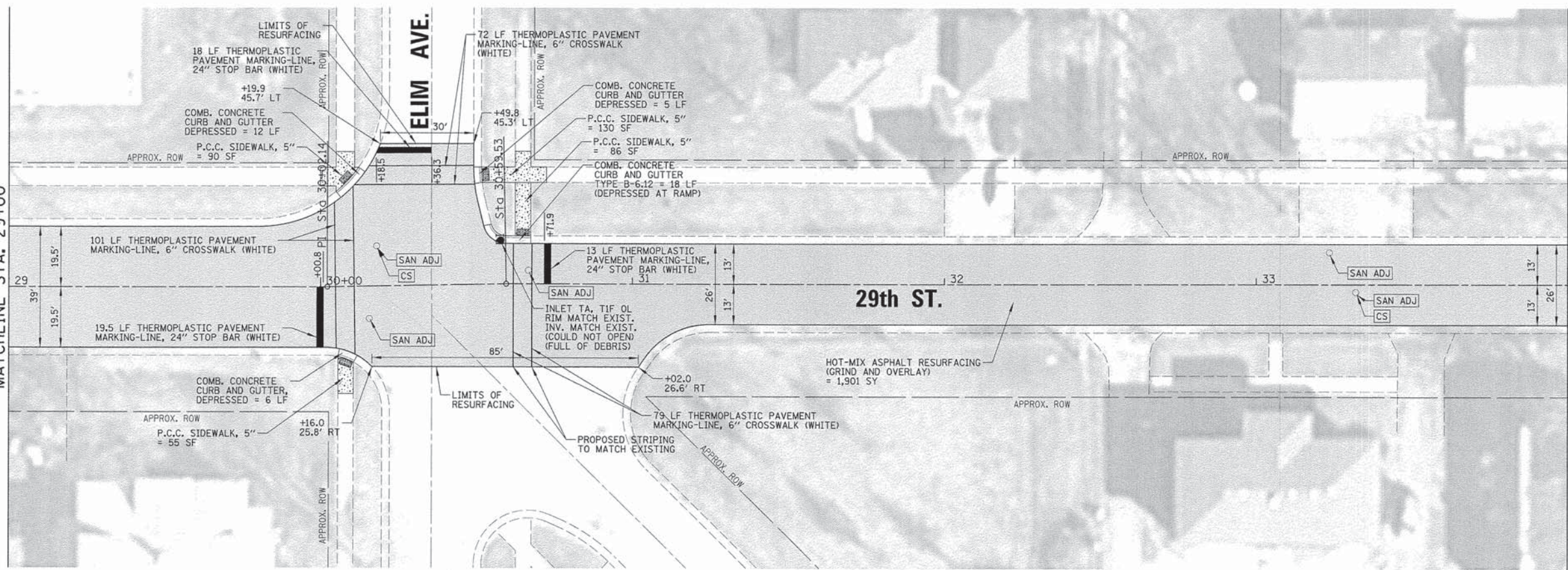
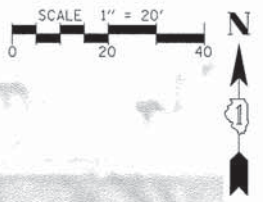
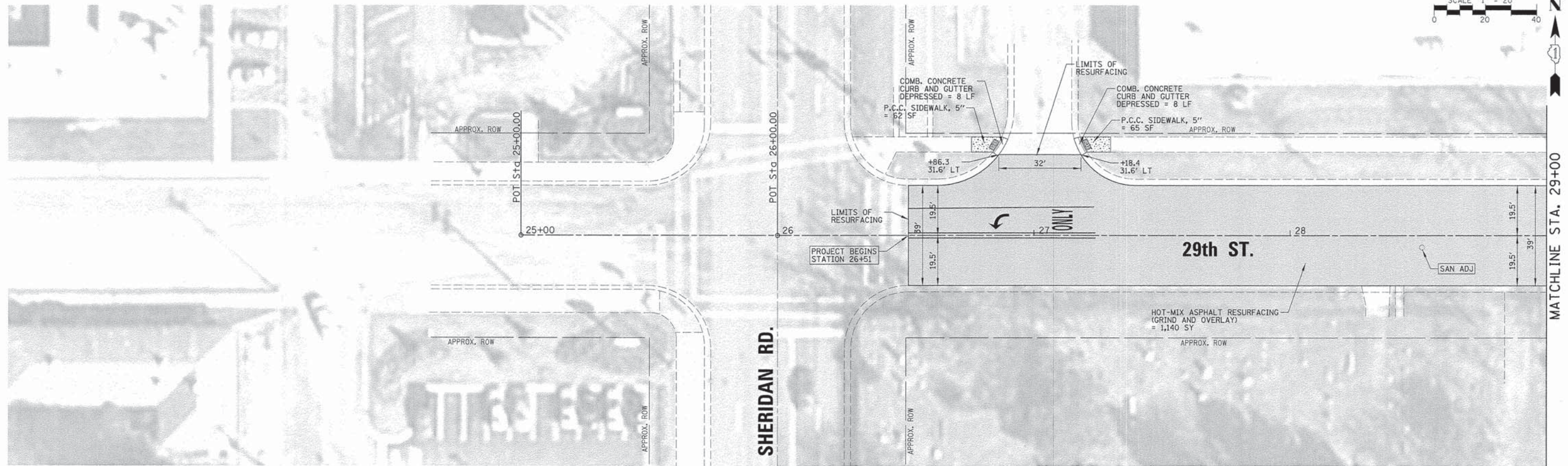
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PLOT SCALE = 20'		DRAWN - EDT	REVISED -
PLOT DATE = 10/5/2015		CHECKED - JGS	REVISED -
		DATE - 06/30/15	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**23rd STREET
PROPOSED PLAN**

SCALE: 20' SHEET NO. 12 OF 34 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	12
CONTRACT NO. 61C03				
ILLINOIS FED. AID PROJECT				



- LEGEND:**
- COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
 - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5"
 - HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50, 2.5"
 - PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL
 - DRIVEWAY PAVEMENT REPLACEMENT (HMA OR PCC AS NOTED)
 - DETECTABLE WARNING
 - STRUCTURES TO BE ADJUSTED
 - NEW FRAME AND LID
 - STRUCTURE TO RECEIVE CONCRETE SEAL
 - EXISTING STRUCTURE

FILE NAME =	USER NAME = rhowellindgren	DESIGNED - LMF	REVISED -
NS\ZIDN\150342\Civil\proj\150342-01.sht		DRAWN - EDT	REVISED -
	PLOT SCALE = 20"	CHECKED - JGS	REVISED -
	PLOT DATE = 10/5/2015	DATE - 06/30/15	REVISED -

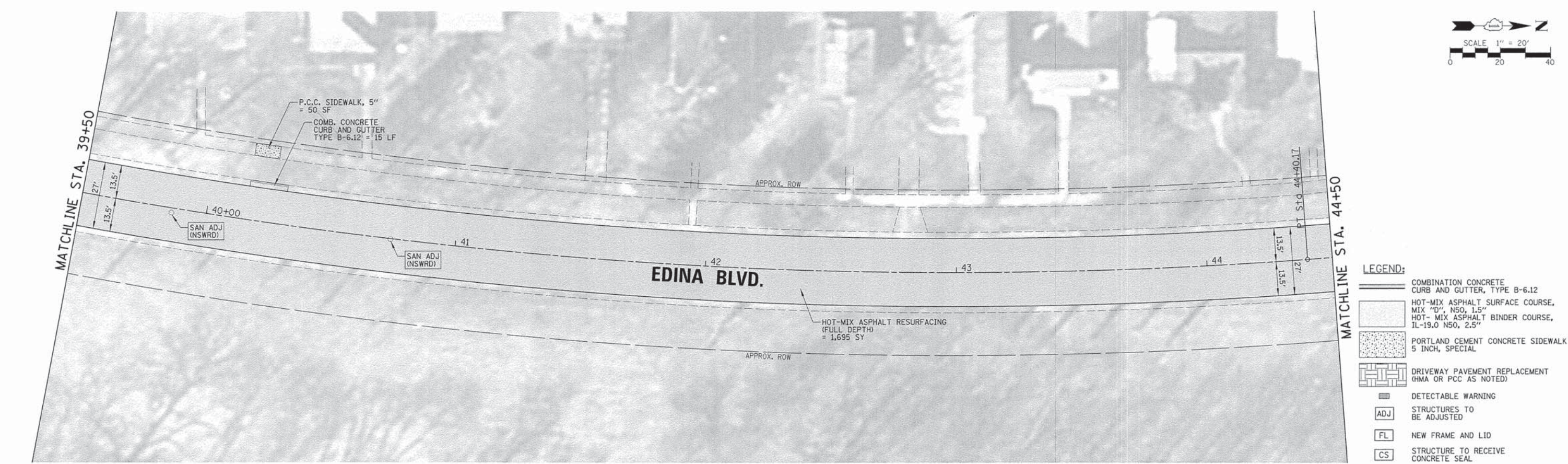
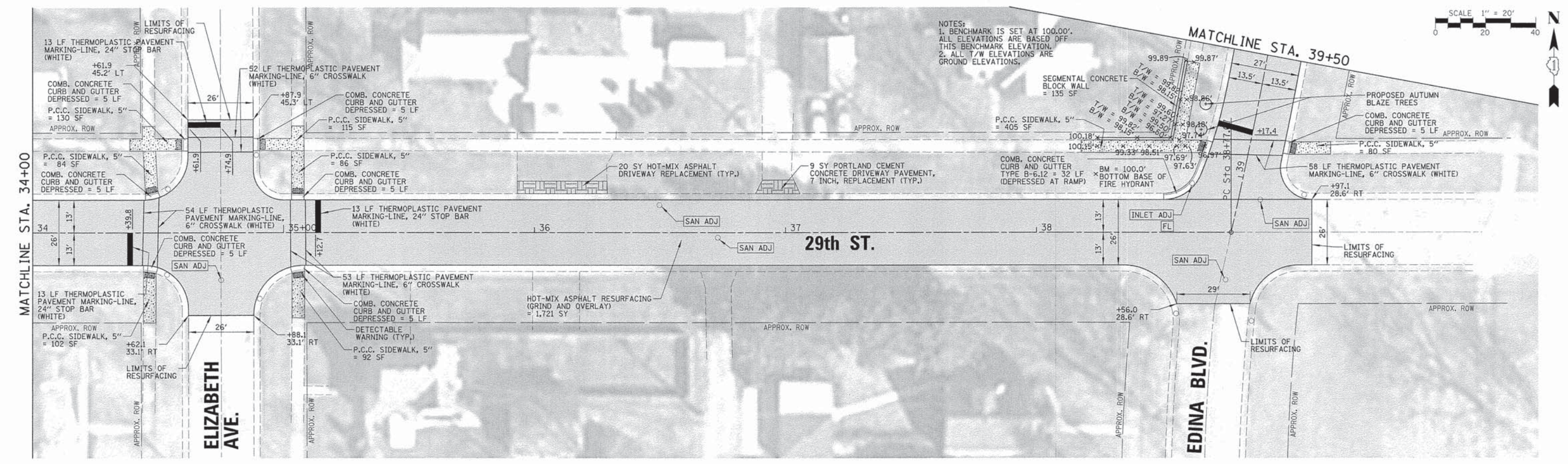
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**29th STREET
PROPOSED PLAN**

SCALE: 20" SHEET NO. 13 OF 34 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1207/2769	15-00086-00-RS	LAKE	34	13
			CONTRACT NO. 61C03	

ILLINOIS FED. AID PROJECT



FILE NAME :
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 PLOT DATE : 08/5/2015

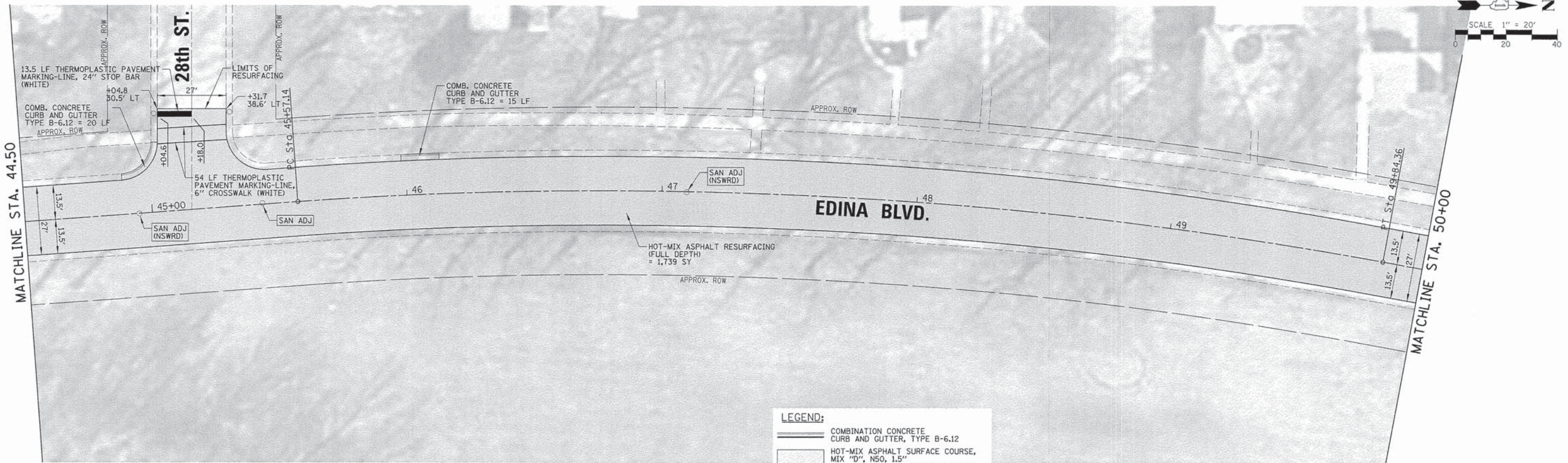
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 DRAWN - EDT
 CHECKED - JGS
 DATE - 06/30/15

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

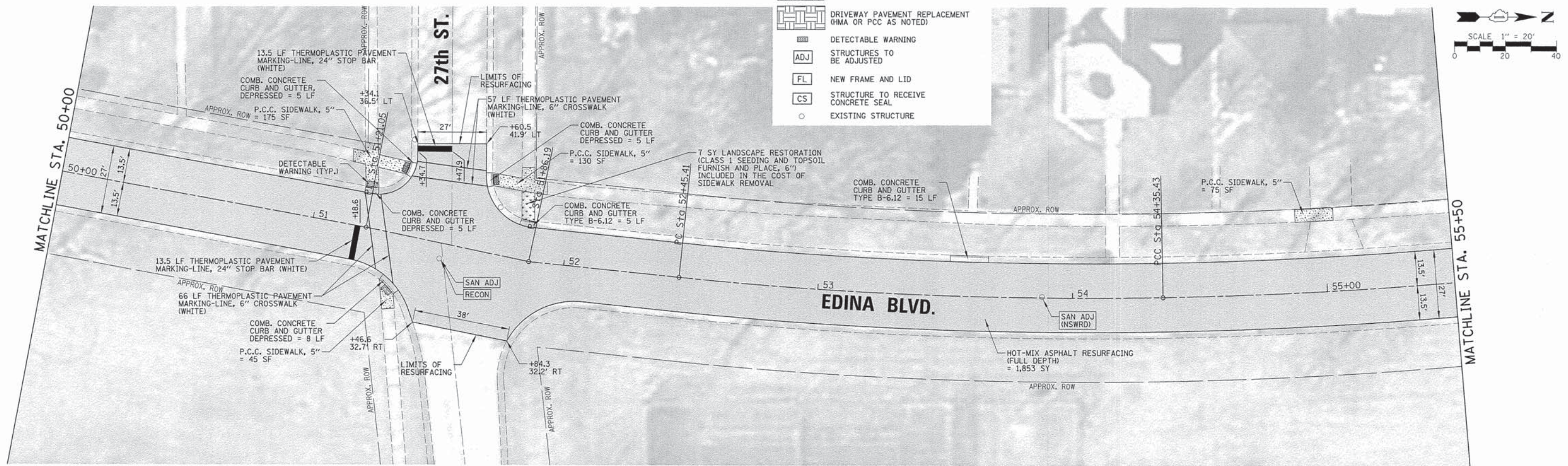
**29th STREET - EDINA BLVD
 PROPOSED PLAN**
 SCALE: 20' SHEET NO. 14 OF 34 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1207/2769	15-00086-00-RS	LAKE	34	14
CONTRACT NO. 61C03				
ILLINOIS FED. AID PROJECT				

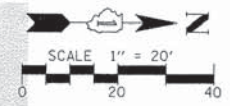
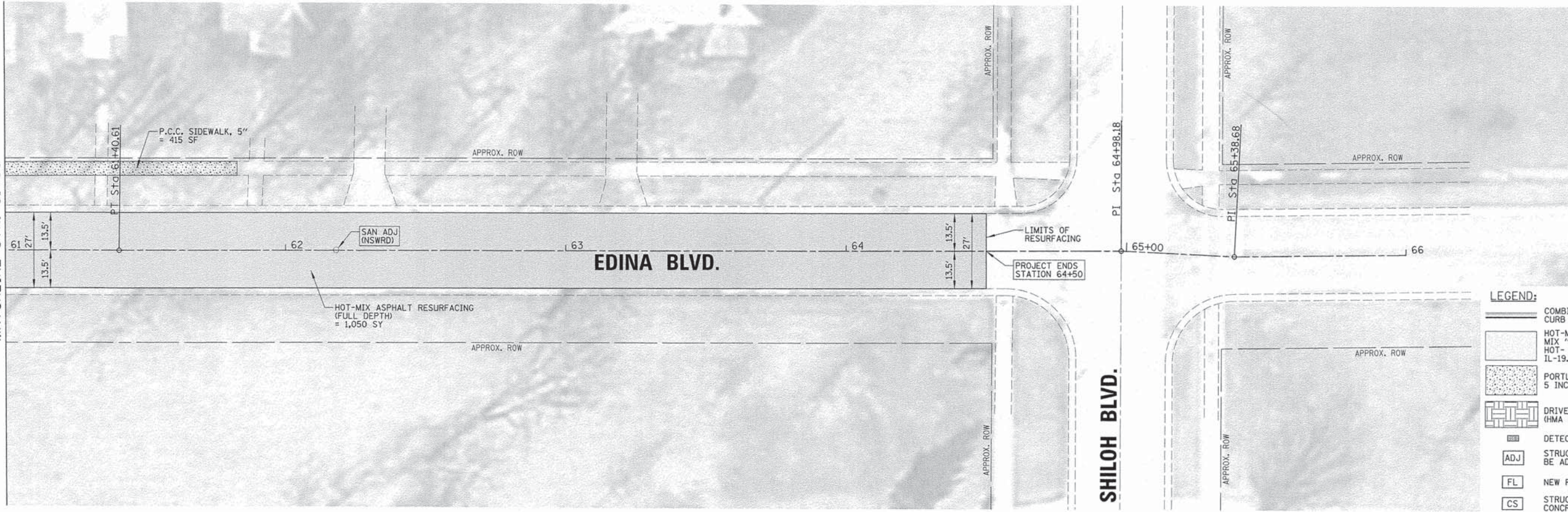
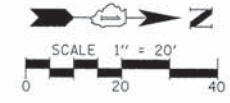
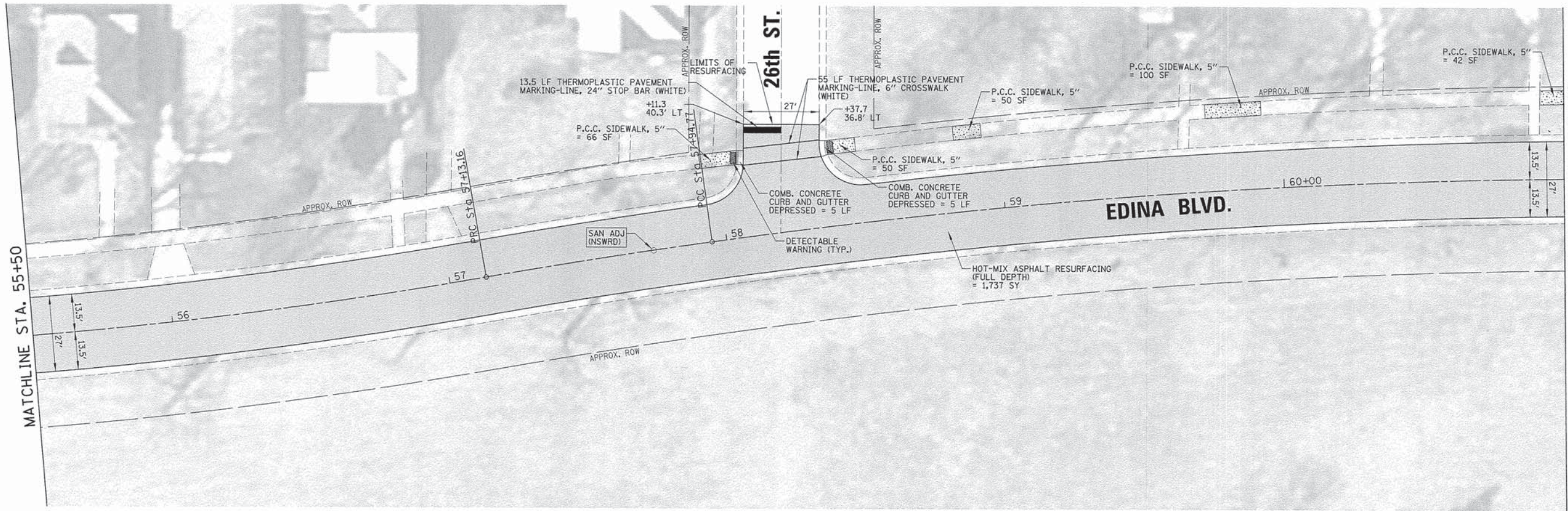


LEGEND:

	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5"
	HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50, 2.5"
	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL
	DRIVEWAY PAVEMENT REPLACEMENT (HMA OR PCC AS NOTED)
	DETECTABLE WARNING
	STRUCTURES TO BE ADJUSTED
	NEW FRAME AND LID
	STRUCTURE TO RECEIVE CONCRETE SEAL
	EXISTING STRUCTURE



FILE NAME = N:\ZION\150342\Civil\pro_150342-03.sht	USER NAME = rhowellindgren	DESIGNED - LMF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EDINA BLVD PROPOSED PLAN	F.A.U. RTE. = 1207/2769	SECTION = 15-00086-00-RS	COUNTY = LAKE	TOTAL SHEETS = 34	SHEET NO. = 15		
PLOT SCALE = 20'	CHECKED - JGS	REVISED -	SCALE: 20'			SHEET NO. 15 OF 34 SHEETS	STA. TO STA.	CONTRACT NO. 61C03				
PLOT DATE = 10/5/2015	DATE = 06/30/15	REVISED -	ILLINOIS FED. AID PROJECT									



- LEGEND:**
- COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
 - HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1.5" / HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50, 2.5"
 - PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL
 - DRIVEWAY PAVEMENT REPLACEMENT (HMA OR PCC AS NOTED)
 - DETECTABLE WARNING
 - STRUCTURES TO BE ADJUSTED
 - NEW FRAME AND LID
 - STRUCTURE TO RECEIVE CONCRETE SEAL
 - EXISTING STRUCTURE

FILE NAME =	USER NAME = rhowellindgren	DESIGNED - LMF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EDINA BLVD PROPOSED PLAN		F.A.U. RTE. = 1207/2769	SECTION = 15-00086-00-RS	COUNTY = LAKE	TOTAL SHEETS = 34	SHEET NO. = 16
NS\ZION\150342\Civil\proj\150342-04.dwg	PLOT SCALE = 20'	DRAWN - EDT	REVISED -		SCALE: 20'	SHEET NO. 16 OF 34 SHEETS	STA. TO STA.	CONTRACT NO. 61C03		ILLINOIS FED. AID PROJECT	
	PLOT DATE 10/5/2015	CHECKED - JGS	REVISED -								
		DATE - 06/30/15	REVISED -								

CONSTRUCTION PROCEDURES

STAGE I (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12" OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36" DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1" THICK HOT-MIX MATERIAL APPROVED BY THE ENGINEER.

STAGE II (AFTER PAVEMENT MILLING)

- A) REMOVE THE HOT-MIX MATERIAL AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS II CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602 AND 603 OF THE STANDARD SPECIFICATIONS.

LOCATION OF STRUCTURES

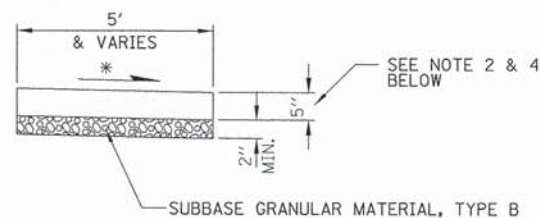
THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT

STRUCTURES TO BE ADJUSTED, SPECIAL

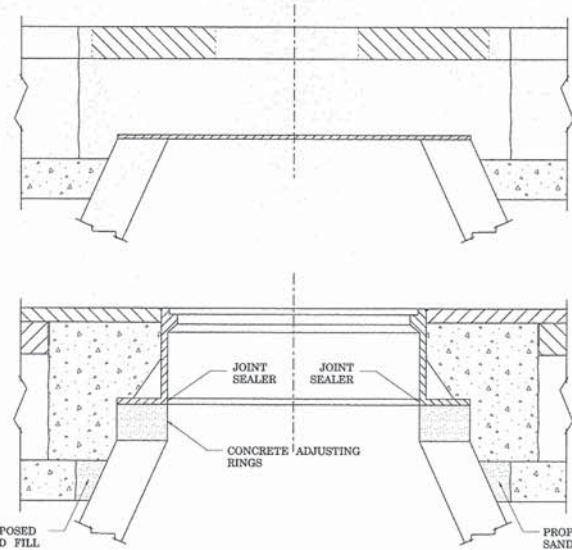
NOTES

- 1. EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS AS FRAMES AND LIDS, TYPE 1, OF THE APPROPRIATE LID ACCORDING TO THE ENGINEER.
- 2. IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.
- 3. THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- 4. EXTERNAL MANHOLE CHIMNEY SEAL SHALL BE PROVIDED AND SHALL CONSIST OF A RUBBER SLEEVE, COMPRESSION BAND AND EXTENSION SKIRT. RUBBER SLEEVE SHALL BE HIGH GRADE RUBBER COMPOUND CONFORMING TO ASTM C293 WITH A HARDNESS OF 45 PLUS OR MINUS 5. COMPRESSION BANDS SHALL BE 16 GAUGE TYPE 304 STAINLESS STEEL WITH A MINIMUM WIDTH OF 1 INCH. EXTENSION WEIGHT OF 12 OUNCES PER SQUARE YARD. EXTERNAL MANHOLE CHIMNEY SEAL SHALL BE MANUFACTURED BY CANUSA, INFISHIELD OR APPROVED EQUAL.

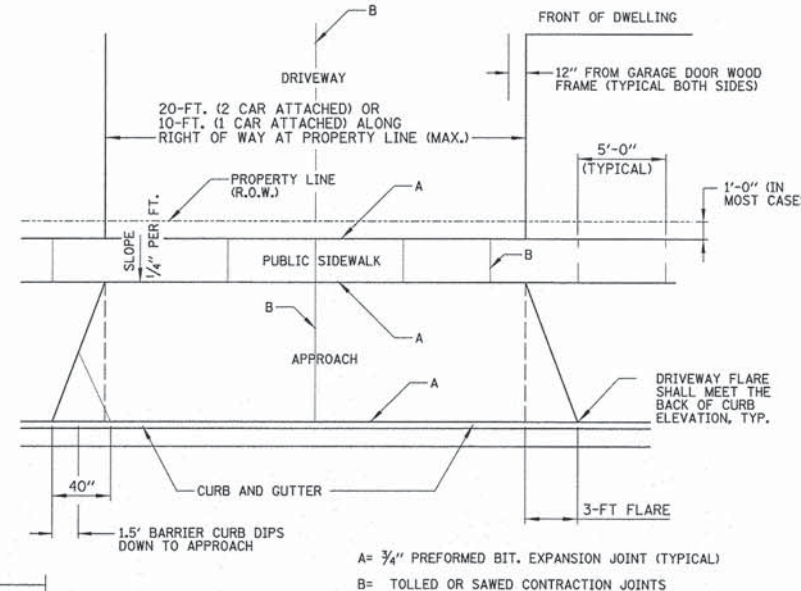


- CROSS SLOPE 2% OR AS SHOWN ON CROSS SECTIONS
- 1. ALL REQUIRED EARTH EXCAVATION TO CONSTRUCT P.C.C. SIDEWALK SHALL BE INCLUDED IN THE COST OF P.C.C. SIDEWALK 5 INCH, REMOVE AND REPLACE
- 2. WHEN FORMS ARE REMOVED FROM THE SIDEWALK EITHER THE SIDEWALK SHALL BE BARRICADED OR BACKFIELD WITHIN 24 HOURS.
- 3. SEEDING AND TOPSOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF SIDEWALK REMOVAL AND REPLACEMENT.
- 4. PUBLIC SIDEWALK SHALL BE 6" AT RESIDENTIAL DRIVEWAYS AND 8" AT COMMERCIAL/INDUSTRIAL DRIVEWAYS.

P.C.C. SIDEWALK DETAIL



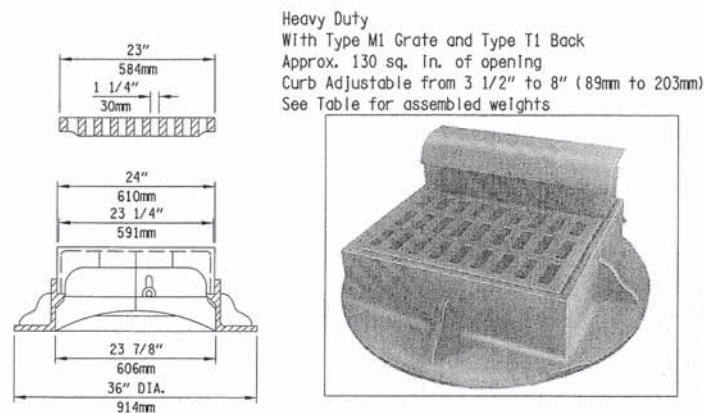
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING



DRIVEWAY WITH A CURB AND GUTTER

- GENERAL NOTES:
- 1. DRIVEWAY SHALL HAVE A MIN. SLOPE OF 2% AND MAX. SLOPE OF 6%.
 - 2. APPROACH SHALL HAVE A MIN. SLOPE OF 2% AND MAX. OF 6%.
 - 3. ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED. (95% PROCTOR)
 - 4. PUBLIC SIDEWALK SHALL BE 6" AT RESIDENTIAL DRIVEWAYS AND 8" AT COMMERCIAL/INDUSTRIAL DRIVEWAYS. (NO WIRE MESH)
 - 5. MINIMUM THICKNESS FOR APPROACH. (NO WIRE MESH), THIS WILL BE PAID FOR BY THE FOLLOWING ITEMS:
 - A. 7" THK. P.C. CONCRETE ON 2" AGGREGATE BASE COURSE TYPE B OR
 - B. 3" THK. HOT-MIX ASPHALT SURFACE, MIX "D" N50 ON 6" AGGREGATE BASE COURSE TYPE B
 - 6. SEEDING AND TOPSOIL, 4" (100) RESTORATION WILL BE PAID FOR SEPARATELY AS THEIR RESPECTIVE PAY ITEMS.

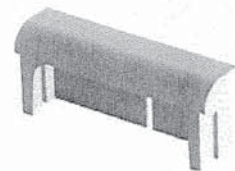
- FRAME AND LID:
ALL LIDS SHALL HAVE A 1" CONCEALED PICK HOLE AND THE WORD "STORM" AND CITY OF ZION LOGO CAST IN LID.
- ALL FLAT TOP STRUCTURES SHALL HAVE A 4" CAST RING (TO BE INCLUDED IN THE COST OF "STRUCTURES TO BE ADJUSTED IF THE STRUCTURE IS EXISTING, OR IN THE COST OF THE PROPOSED STRUCTURE IF THE STRUCTURE IS NEW).
- CHIMNEY SEAL TO BE CANUSA RAPID SEAL TYPE OR APPROVED EQUAL TO CAPTURE 4" OF FRAME. ALL RINGS AND 4" OF BARREL SECTION. CHIMNEY SEAL TO BE USED ON ALL SANITARY MANHOLES, AND ANY CATCH BASINS OR INLETS IN THE ROADWAY.
- WALLS:
PRECAST REINFORCED CONCRETE RISER UNITS
MINIMUM THICKNESSES:
5" FOR 4'-0" INSIDE DIAMETER
6" FOR 5'-0" INSIDE DIAMETER
- BOTTOM:
PRECAST REINFORCED AND CAST INTEGRAL WITH FIRST VERTICAL SECTION.
- INSIDE DIAMETERS:
4'-0" FOR 18" MAIN SEWER AND UNDER
FOR MANHOLES 20" DEEP OR LESS
5'-0" FOR 21" TO 42" MAIN SEWER
FOR MANHOLES 20" DEEP OR DEEPER
BOTH INCLUSIVE
- ADJUSTMENT RINGS:
TOP ADJUSTMENT RING OR RISER RING TO BE "INFRA-RISER" TYPE
GNR RECYCLED RUBBER OR APPROVED EQUAL
TOTAL OF 3 RINGS MAY BE USED FOR A 8" MAX ADJUSTMENT
- RISER JOINTS AND FRAME AND COVER:
ALL JOINTS BETWEEN PRE-CAST ELEMENTS, ADJUSTING RINGS AND MANHOLE FRAMES ON ALL UNDERGROUND STRUCTURES- ALL MANHOLES IN THE ROADWAY AND PARKWAY, SHALL BE SET IN PLACE WITH ONE OF THE FOLLOWING BUTYL RUBBER JOINT SEALANTS: CONCRETE PRODUCTS SUPPLY CO. - EZ STIK 8, HAMILTON-KENT GASKET CO. - KENT SEAL, AS APPROVED BY DISTRICT ENGINEER AND ALL JOINTS TO BE TUCKPOINTED WITH HYDRAULIC CEMENT.



CATCH BASIN CURB INLETS

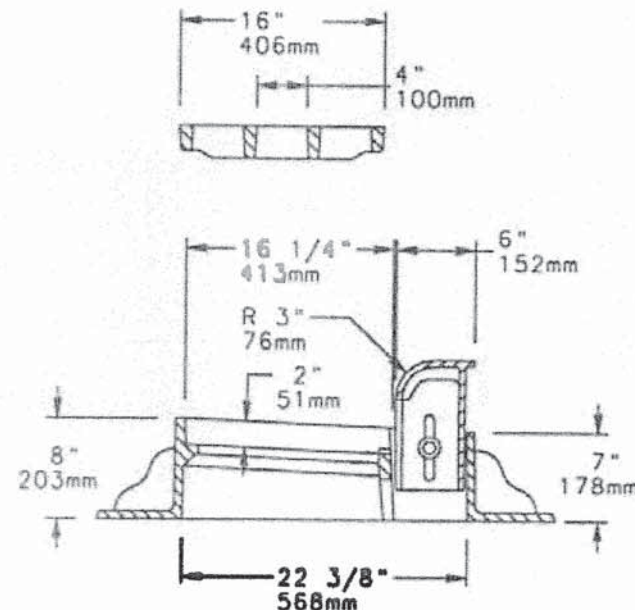


TYPE M4 Vane Grate
Approx. 125 sq. in. of opening



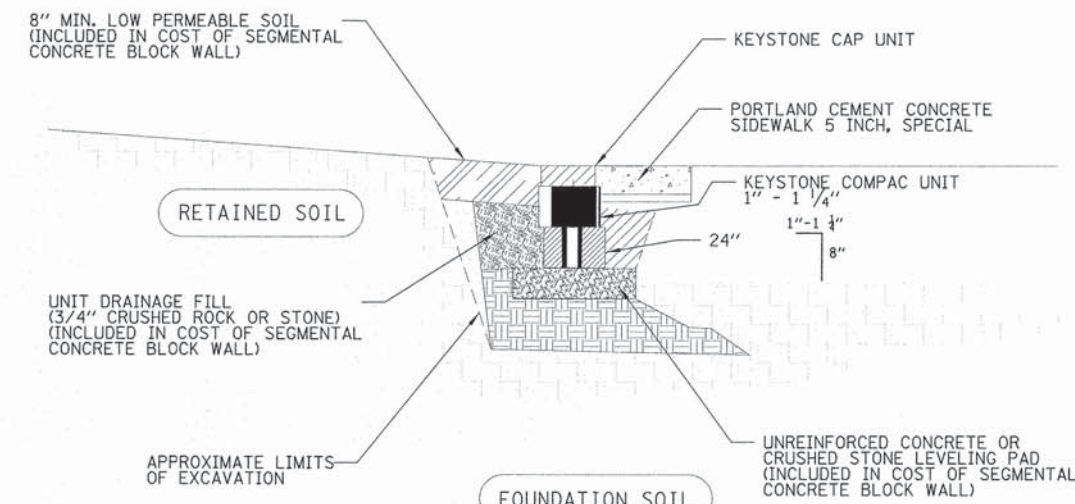
TYPE T1 Back
Curb Adjustable from 3 1/2" to 8" (89mm to 203mm)

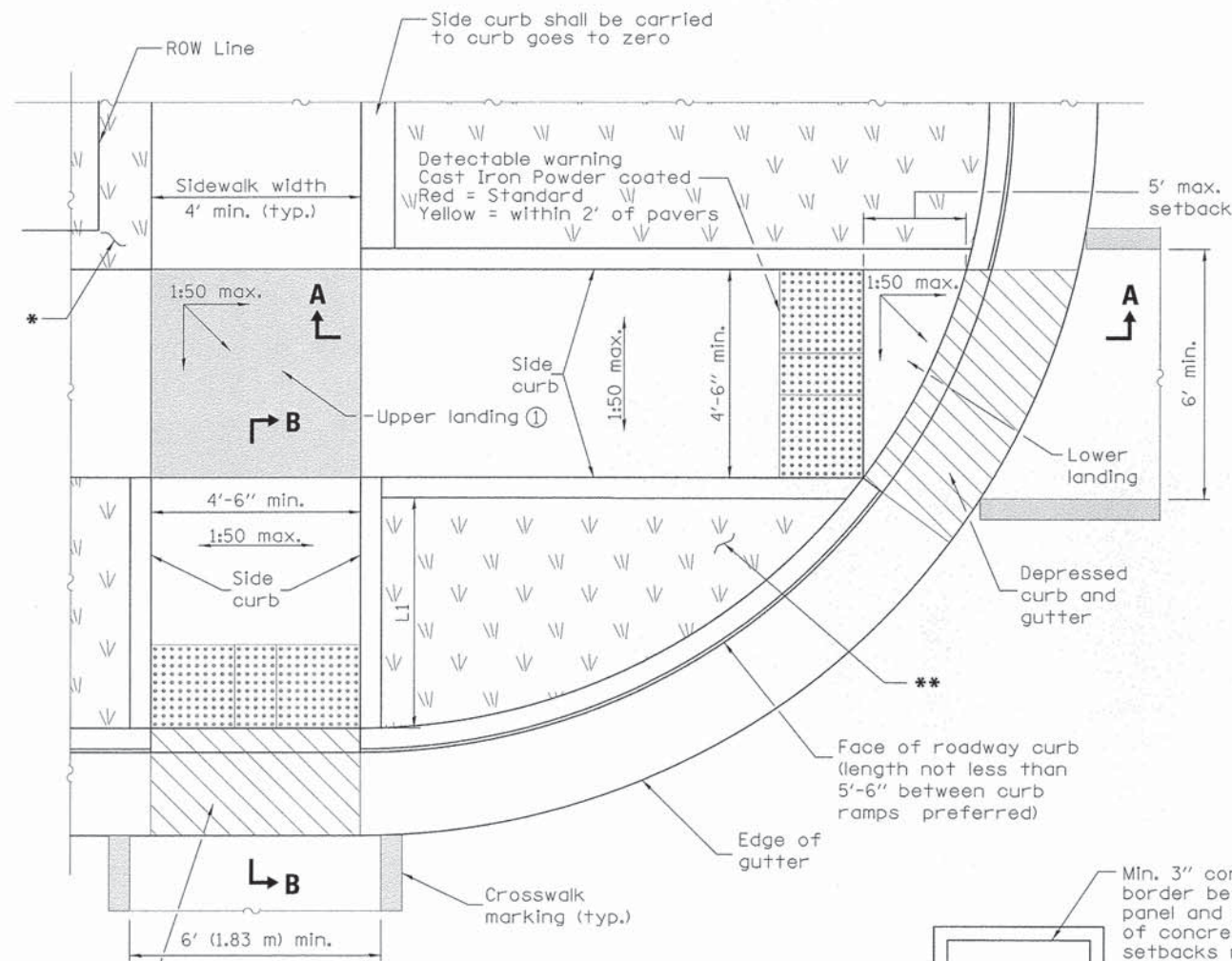
CATALOG NUMBER	GRATE TYPE			
	M1	M3	M4	M5
Type T1 Back	390lbs (177kg)	390lbs (177kg)	390lbs (177kg)	380lbs (172kg)
Type T2 Back	375lbs (170kg)	375lbs (170kg)	375lbs (170kg)	365lbs (166kg)



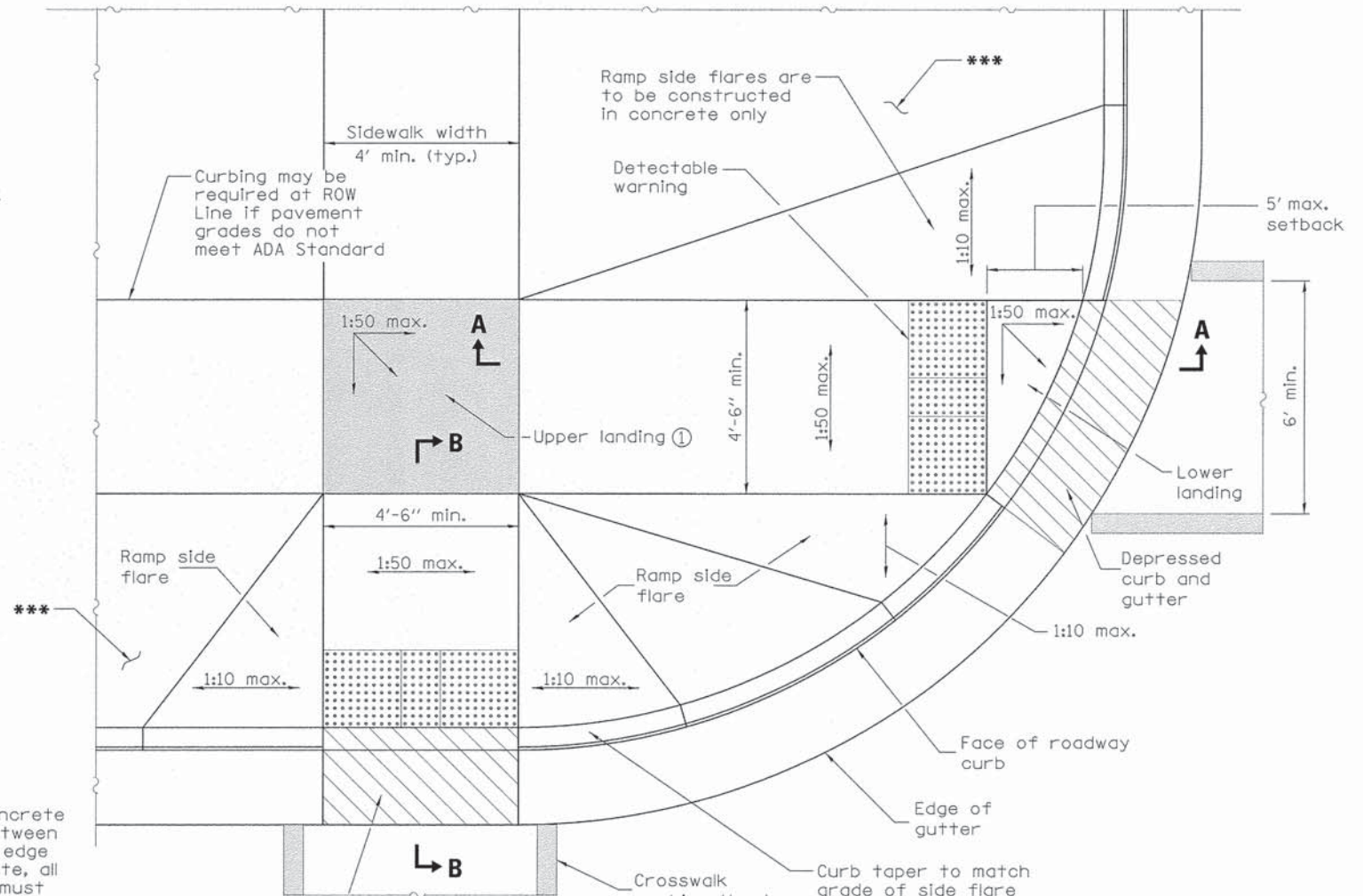
SEGMENTAL CONCRETE BLOCK WALL

NTS



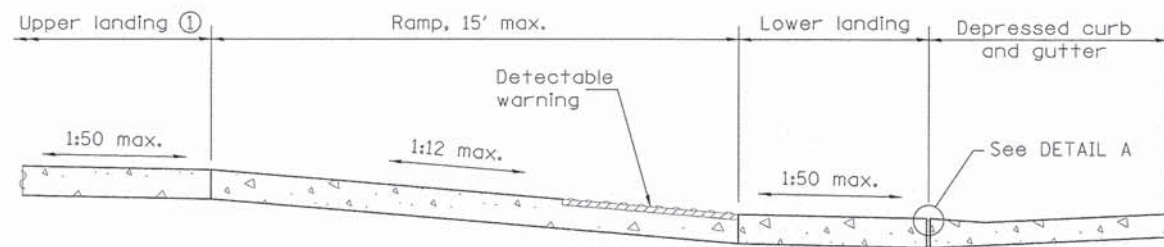


**RAMPS IN LANDSCAPED AREA
SETBACK ≤ 5'**



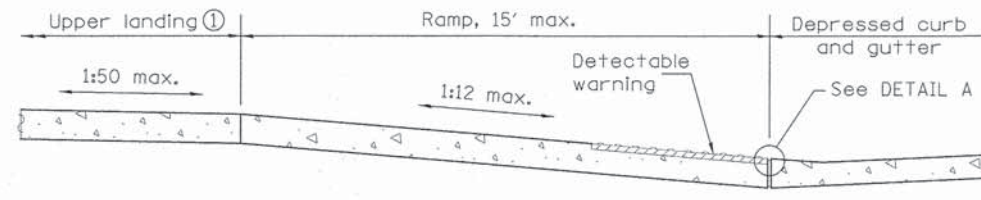
**RAMPS IN HARDSCAPE AREA
SETBACK ≤ 5'**

*** When adjacent hardscape is brick paver, ramp and side flare to be constructed in concrete.



SECTION A-A

① Upper landing not required for ramp slopes flatter than 1:20.



SECTION B-B

① Upper landing not required for ramp slopes flatter than 1:20.

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

Where 1:50 maximum slope is shown, 1:64 is preferred.

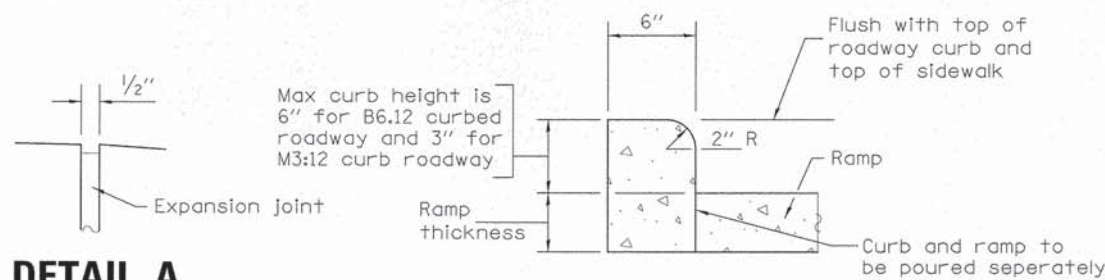
All dimensions are in inches.

* If Grading exceeds 3:1 from walk to ROW then install back of walk side curb. If grade from top of back of walk curb to ROW exceeds 3:1 then a temporary easement is required for grading.

** Trapped Material must be:

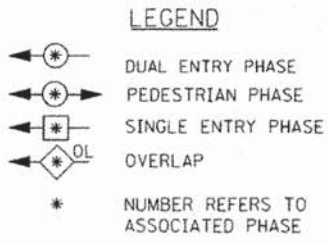
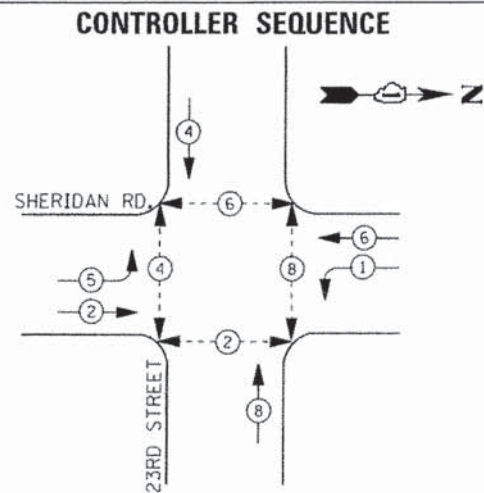
L1 Length	TOPSOIL & SEED		BRICK PAVER	
	B6:12	M3:12	B6:12	M3:12
3 ft or less			x	x
3 - 6 feet		x	x	
6 - 9+ feet	x	x		

Must have mower access (3' wide uncurbed area from sidewalk to trapped material) in all cases. In order for Topsoil & Seed to be installed, otherwise brick pavers are required.

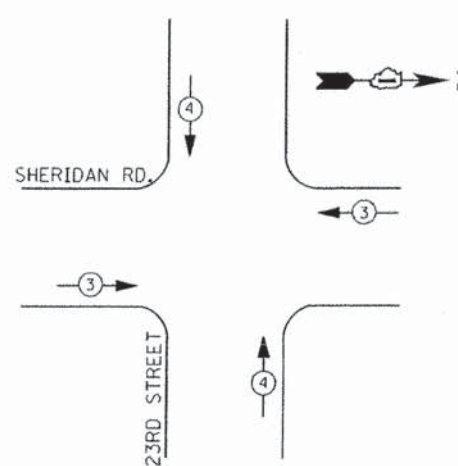


DETAIL A

SIDE CURB DETAIL



PHASE DESIGNATION DIAGRAM

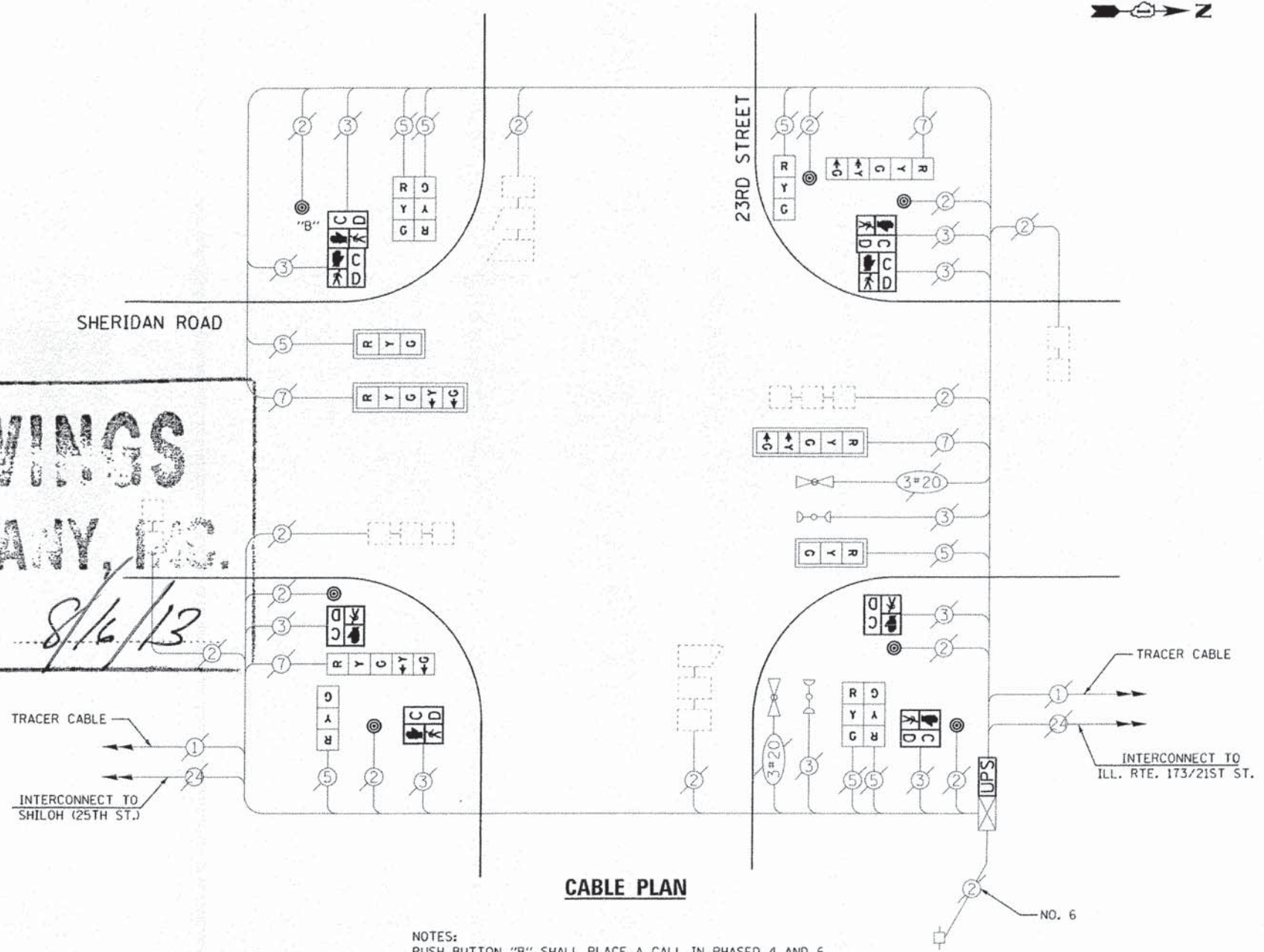


EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

RECORD DRAWINGS
HECKER AND COMPANY, INC.
 By *[Signature]* Date *8/16/13*

TRACER CABLE
 INTERCONNECT TO SHILOH (25TH ST.)



CABLE PLAN

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
TOTAL =					532

ENERGY COSTS- BILLED TO: CITY OF ZION
 2828 SHERIDAN RD
 ZION, IL 60099

ENERGY SUPPLY - CONTACT TERRI BLECK
 PHONE 847-816-5239
 COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

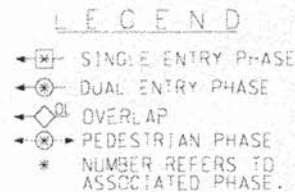
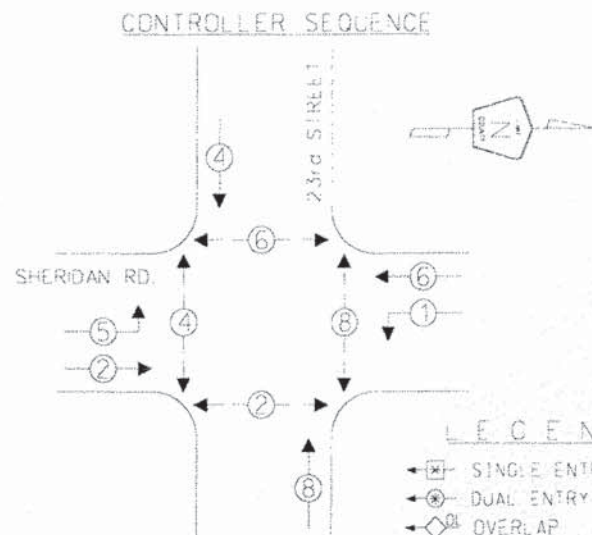
QUANTITY	UNIT	ITEM
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
7	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

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.

8 EACH PEDESTRIAN SIGNAL HEAD
 7 EACH PEDESTRIAN PUSH-BUTTON

"FOR INFORMATION ONLY"
 TS# 20902
 ZION

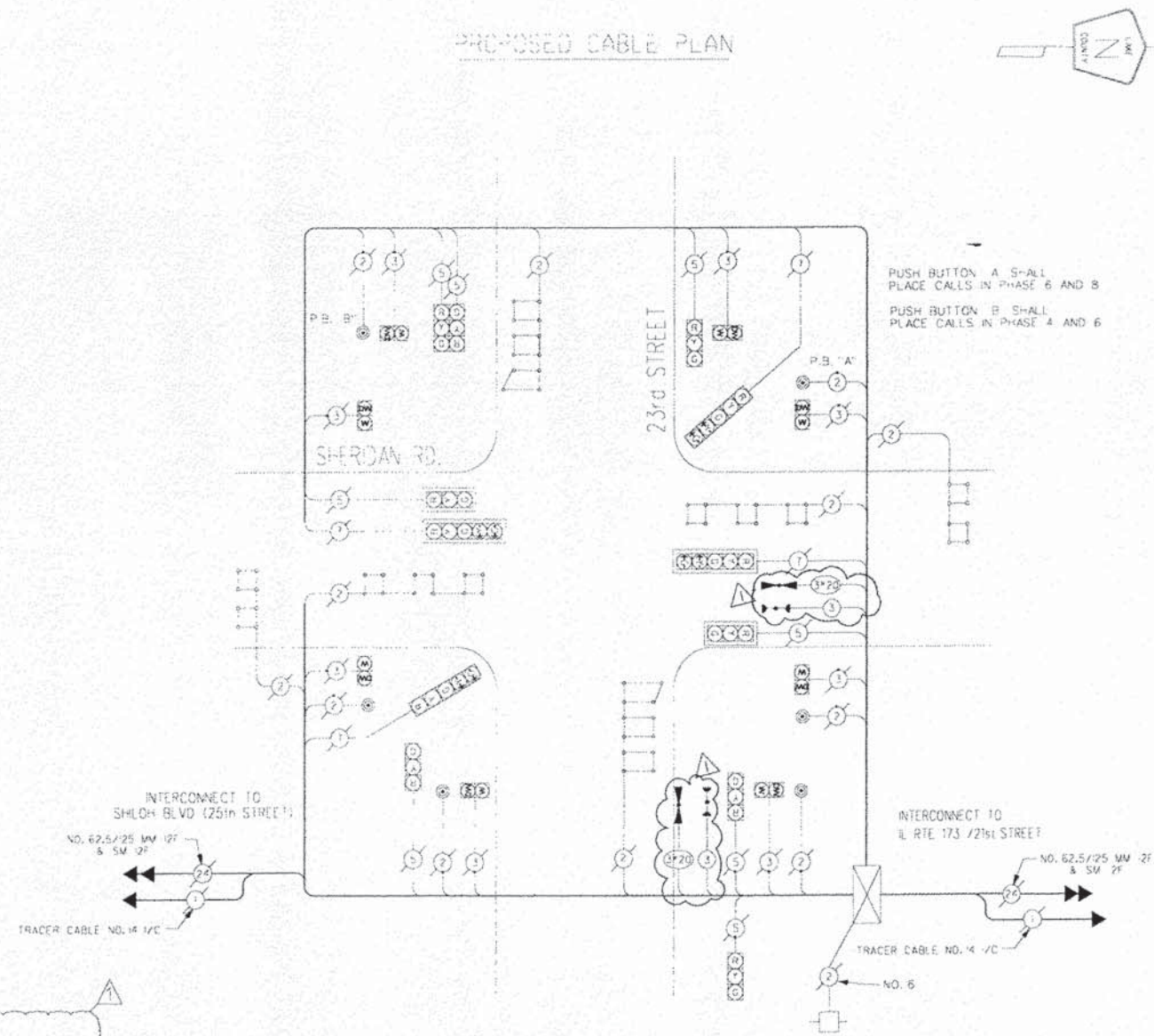


PHASE DESIGNATION DIAGRAM

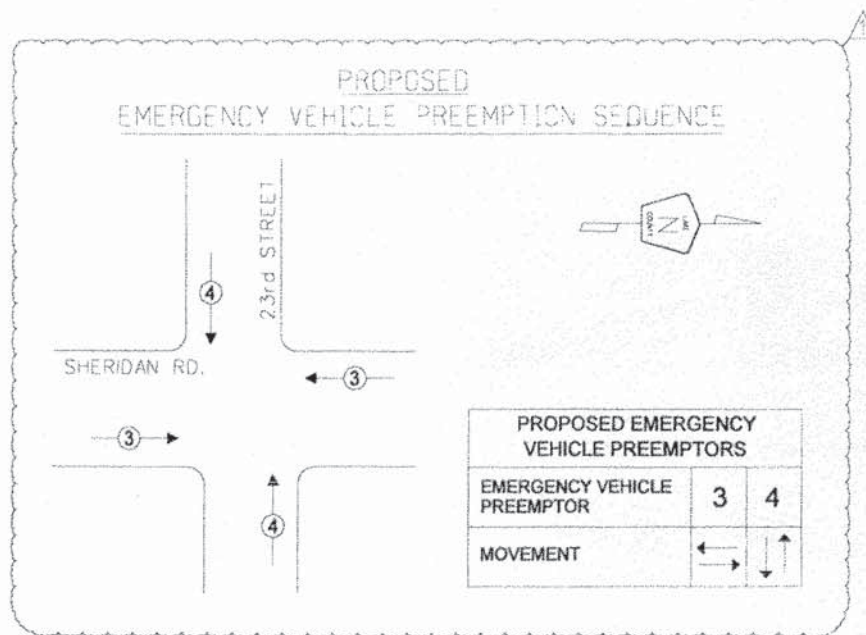
CABLE PLAN LEGEND

- | | | |
|--|--|-------------------------------------------------------------------------------------------------------------|
| | | 8" (222mm) TRAFFIC SIGNAL SECTION |
| | | 12" (322mm) TRAFFIC SIGNAL SECTION |
| | | 12" (322mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (322mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSH-BUTTON DETECTOR |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| | | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H) OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN) |
| | | NO. 62.5/25 MM 12F & SM 12F, FIBER OPTIC CABLE |
- NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 12" 2" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

PROPOSED CABLE PLAN



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	TRAFFIC CONTROL AND PROTECTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
150	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
150	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
2	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
1	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL POST
1	EACH	EAGLE CR-1 CONTROLLER RACK

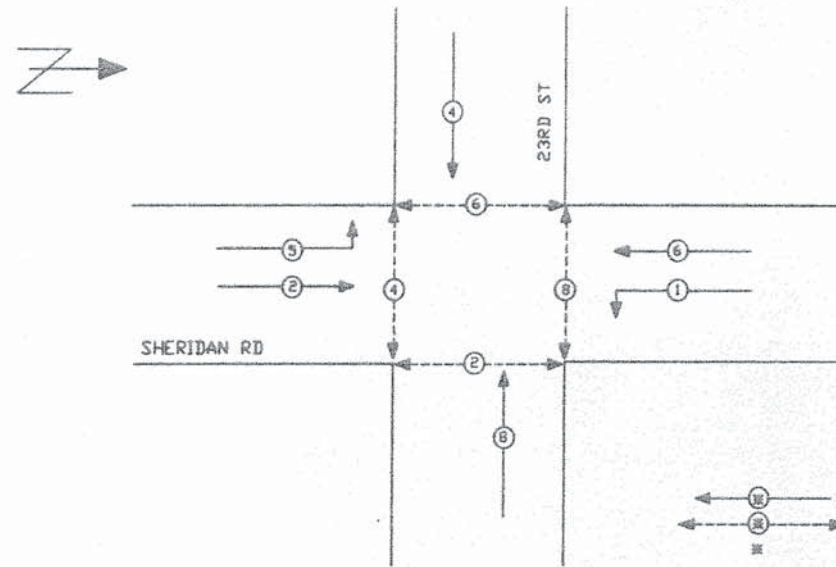
NOTE: LIGHT DETECTORS ARE 2 DIRECTIONAL

8-306 ADDED BY METRO TRANSPORTATION GROUP, INC.

"FOR INFORMATION ONLY"

CONTROLLER SEQUENCE IV

REFERRING TO STANDARD 2393-1, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



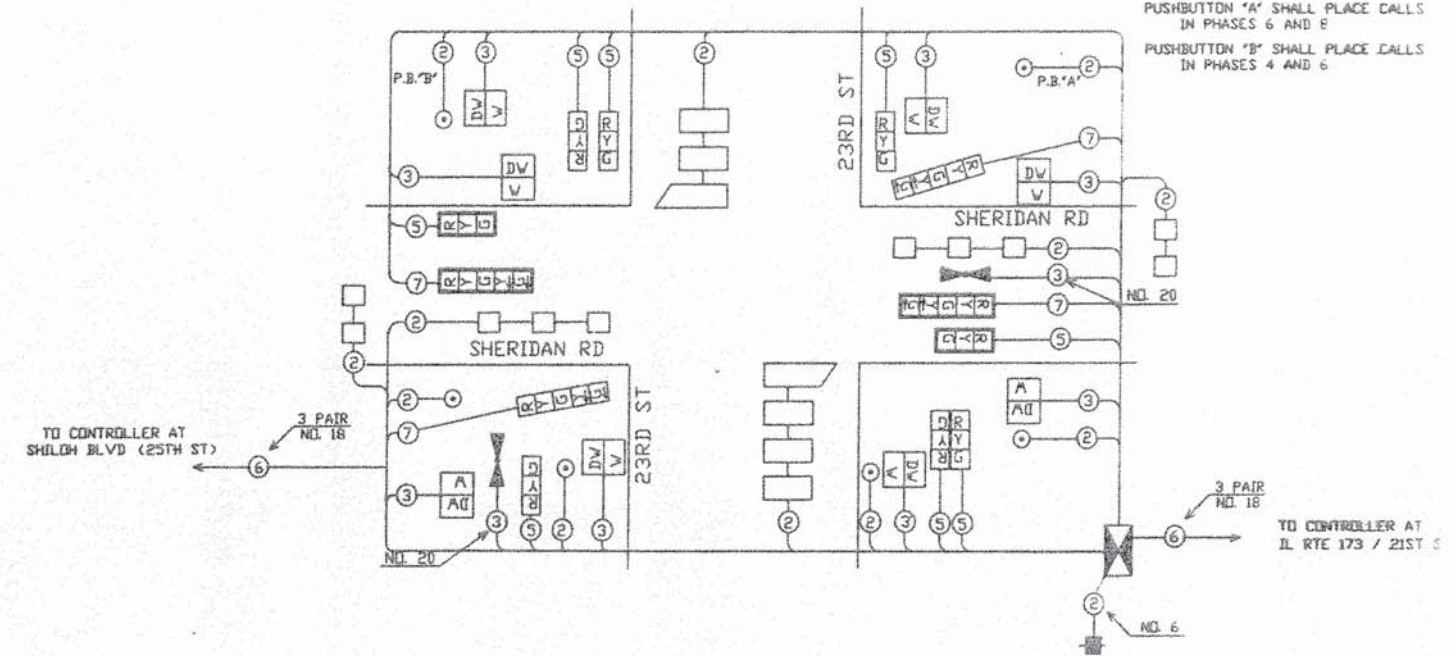
LEGEND

- VEHICULAR MOVEMENT
- PEDESTRIAN MOVEMENT
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
12	SQ.FT.	SIGN PANEL, TYPE 1
2	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION, WAST ARM MOUNTED
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION, WAST ARM MOUNTED
4	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE, LIVERED
4	EACH	TRAFFIC SIGNAL POST, FERROUS 14'
2	EACH	TRAFFIC SIGNAL POST, FERROUS 16'
1	EACH	STEEL WAST ARM ASSEMBLY AND POLE 20 FT.
1	EACH	STEEL WAST ARM ASSEMBLY AND POLE 24 FT.
1	EACH	FULL-ACTUATED CONTROLLER, STANDARD SEQUENCE IV, 8 PHASES IN TYPE IV CABINET
1	EACH	TRANSCIVER
6	EACH	INDUCTION LOOP DETECTOR AMPLIFIER
899	LN.FT.	DETECTOR LOOP, TYPE 1
6	EACH	PEDESTRIAN PUSHBUTTON
30	LN.FT.	GALVANIZED STEEL CONDUIT IN TRENCH 1 1/2"
527	LN.FT.	GALVANIZED STEEL CONDUIT IN TRENCH 2"
12	LN.FT.	GALVANIZED STEEL CONDUIT IN TRENCH 2 1/2"
18	LN.FT.	GALVANIZED STEEL CONDUIT IN TRENCH 4"
121	LN.FT.	GALVANIZED STEEL CONDUIT, PUSHED 2"
77	LN.FT.	GALVANIZED STEEL CONDUIT, PUSHED 3"
170	LN.FT.	GALVANIZED STEEL CONDUIT, PUSHED 4"
215	LN.FT.	UNIT DUCT, WITHOUT CABLE IN TRENCH 1"
30	LN.FT.	ELECTRIC CABLE IN CONDUIT NO. 6 2/C
691	LN.FT.	ELECTRIC CABLE IN CONDUIT NO. 14 2/C
1053	LN.FT.	ELECTRIC CABLE IN CONDUIT NO. 14 3/C
1132	LN.FT.	ELECTRIC CABLE IN CONDUIT NO. 14 5/C
539	LN.FT.	ELECTRIC CABLE IN CONDUIT NO. 14 7/C
1209	LN.FT.	ELECTRIC CABLE IN CONDUIT NO. 14 2/C TWISTED, SHIELDED
194	LN.FT.	EMERGENCY VEHICLE PRIORITY SYSTEM LEAD-IN CABLE IN CONDUIT
1	EACH	SERVICE INSTALLATION, TYPE C
18	LN.FT.	CONCRETE FOUNDATION, TYPE A
3.5	LN.FT.	CONCRETE FOUNDATION, TYPE B
20	LN.FT.	CONCRETE FOUNDATION, TYPE E 24-INCH DIAMETER
6	EACH	CONCRETE HANDHOLE
2	EACH	CONCRETE HEAVY-DUTY HANDHOLE
1	EACH	CONCRETE DOUBLE HANDHOLE
562	LN.FT.	TRENCH AND BACKFILL
241	LN.FT.	TRENCH AND BACKFILL (SPECIAL)
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
79	LN.FT.	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT
102	SQ.FT.	SIDEWALK REMOVAL AND REPLACEMENT
195	SQ.FT.	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2	EACH	REMOVE EXISTING SIGNAL POST GUARD
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION



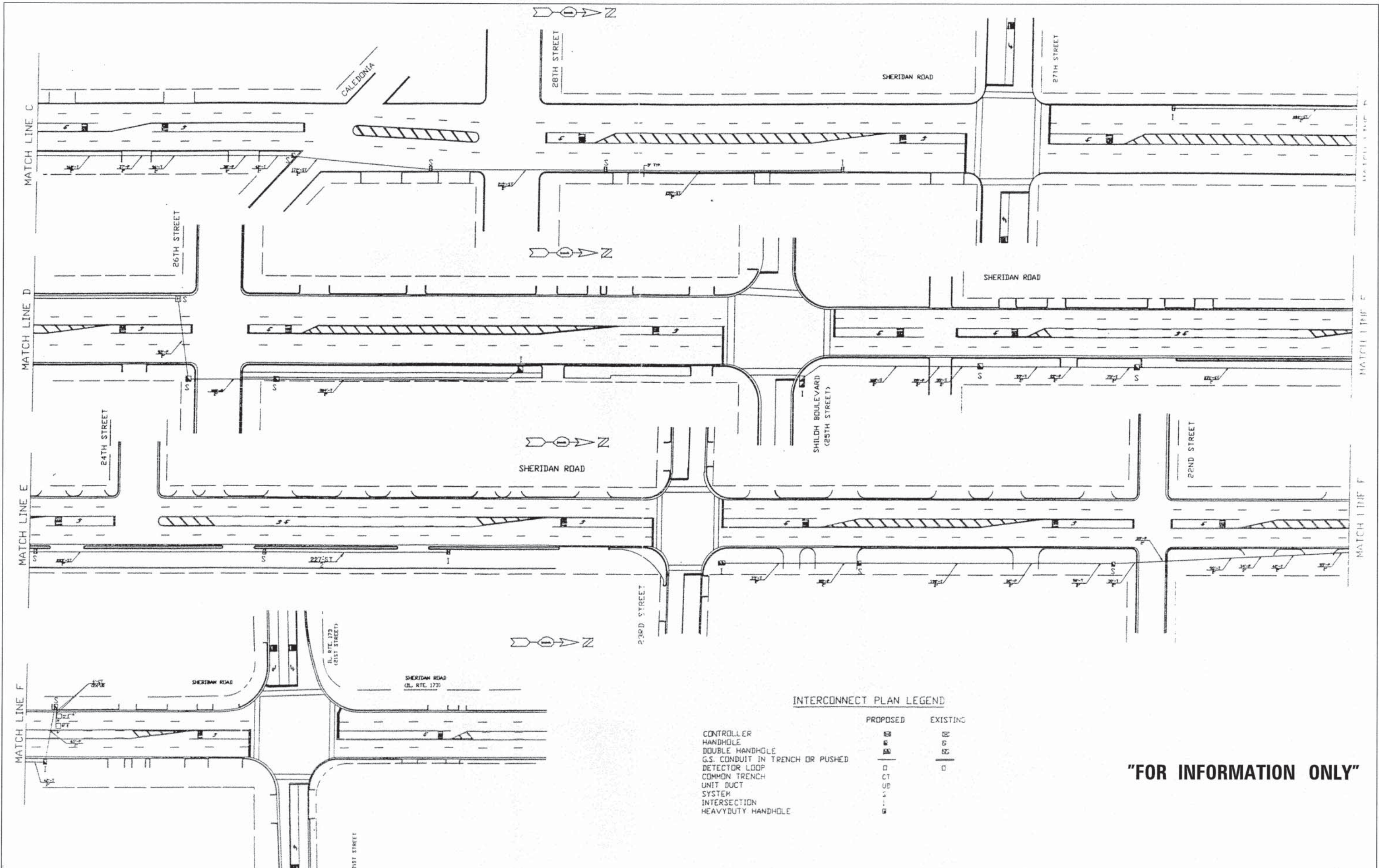
CABLE PLAN

CABLE PLAN LEGEND

- 8" TRAFFIC SIGNAL SECTION
- 12" TRAFFIC SIGNAL SECTION
- 12" PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- PUSHBUTTON DETECTOR
- DENOTES NUMBER OF CONDUCTORS (NEW), ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
- INDICATES EXISTING CABLE
- SIGNAL FACE WITH BACKPLATE
- "P" INDICATES PROGRAMMED
- EXISTING SIGNAL SECTION
- MAGNETIC DETECTOR
- OPTICAL DETECTOR (FUTURE)

"FOR INFORMATION ONLY"

FILE NAME =	USER NAME = ohowellindgren	DESIGNED = LMF	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CABLE PLAN PHASE DESIGNATION DIAGRAM SCHEDULE OF QUANTITIES SHERIDAN ROAD AT 23RD STREET	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
NO. ZIDON\150341\Civil\std.150341-02.dwt		DRAWN = EDT	REVISED =			1203/1207/2769	15-00086-00-RS	LAKE	34	23	
		CHECKED = JGS	REVISED =			CONTRACT NO. 61C03					
		DATE = 06/30/15	REVISED =			ILLINOIS FED. AID PROJECT					



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	⊠	⊠
HANDHOLE	⊠	⊠
DOUBLE HANDHOLE	⊠	⊠
G.S. CONDUIT IN TRENCH OR PUSHED	—	—
DETECTOR LOOP	□	□
COMMON TRENCH	—	—
UNIT DUCT SYSTEM	—	—
INTERSECTION	⊠	⊠
HEAVYDUTY HANDHOLE	⊠	⊠

"FOR INFORMATION ONLY"

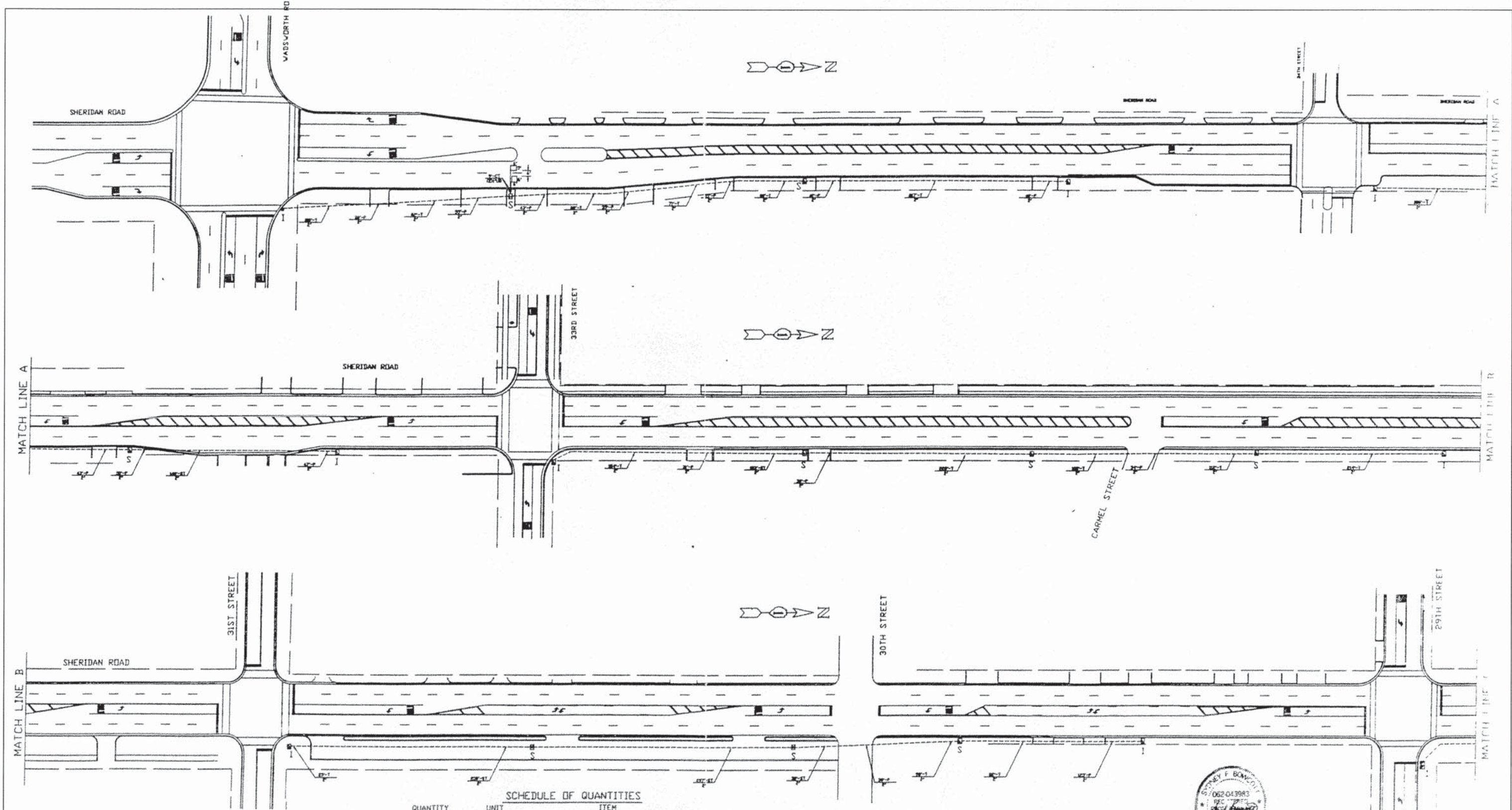
FILE NAME = N:\210\N150341\Civil\std_150341-02.sht	USER NAME = rhowellindgran	DESIGNED - LMF	REVISED -
		DRAWN - EDT	REVISED -
		CHECKED - JGS	REVISED -
		DATE - 06/30/15	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SHERIDAN ROAD
INTERCONNECT PLAN
STRIPPING PLAN**

SCALE: 20' SHEET NO. 24 OF 34 SHEETS STA. TO STA.

F.A.U. RTE. 1203/1207/2769	SECTION 15-00086-00-RS	COUNTY LAKE	TOTAL SHEETS 34	SHEET NO. 24
				CONTRACT NO. 61C03
ILLINOIS FED. AID PROJECT				



SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
4	EACH	INDUCTION LOOP DETECTOR AMPLIFIER WITH SYSTEM OUTPUT
140	LIN. FT.	DETECTOR LOOP, TYPE 1
6096	LIN. FT.	GALVANIZED STEEL CONDUIT IN TRENCH 2"
1268	LIN. FT.	GALVANIZED STEEL CONDUIT, PUSHED 2"
30	LIN. FT.	UNIT DUCT, WITHOUT CABLE IN TRENCH 1"
1684	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 14, 2/C TWISTED, SHIELDED
11141	LIN. FT.	ELECTRIC CABLE IN CONDUIT NO. 18, 3 PAIR TWISTED, SHIELDED
13	EACH	CONCRETE HANDHOLE
9	EACH	CONCRETE HEAVYDUTY HANDHOLE
1	EACH	MASTER CONTROLLER
3389	LIN. FT.	TRENCH AND BACKFILL
2707	LIN. FT.	TRENCH AND BACKFILL (SPECIAL)
1253	SQ. FT.	THERMOPLASTIC PAVEMENT MARKINGS-LETTERS AND SYMBOLS
31029	LIN. FT.	THERMOPLASTIC PAVEMENT MARKINGS-LINE 4"
8088	LIN. FT.	THERMOPLASTIC PAVEMENT MARKINGS-LINE 6"
2548	LIN. FT.	THERMOPLASTIC PAVEMENT MARKINGS-LINE 12"
1298	LIN. FT.	THERMOPLASTIC PAVEMENT MARKINGS-LINE 24"

INTERCONNECT PLAN LEGEND

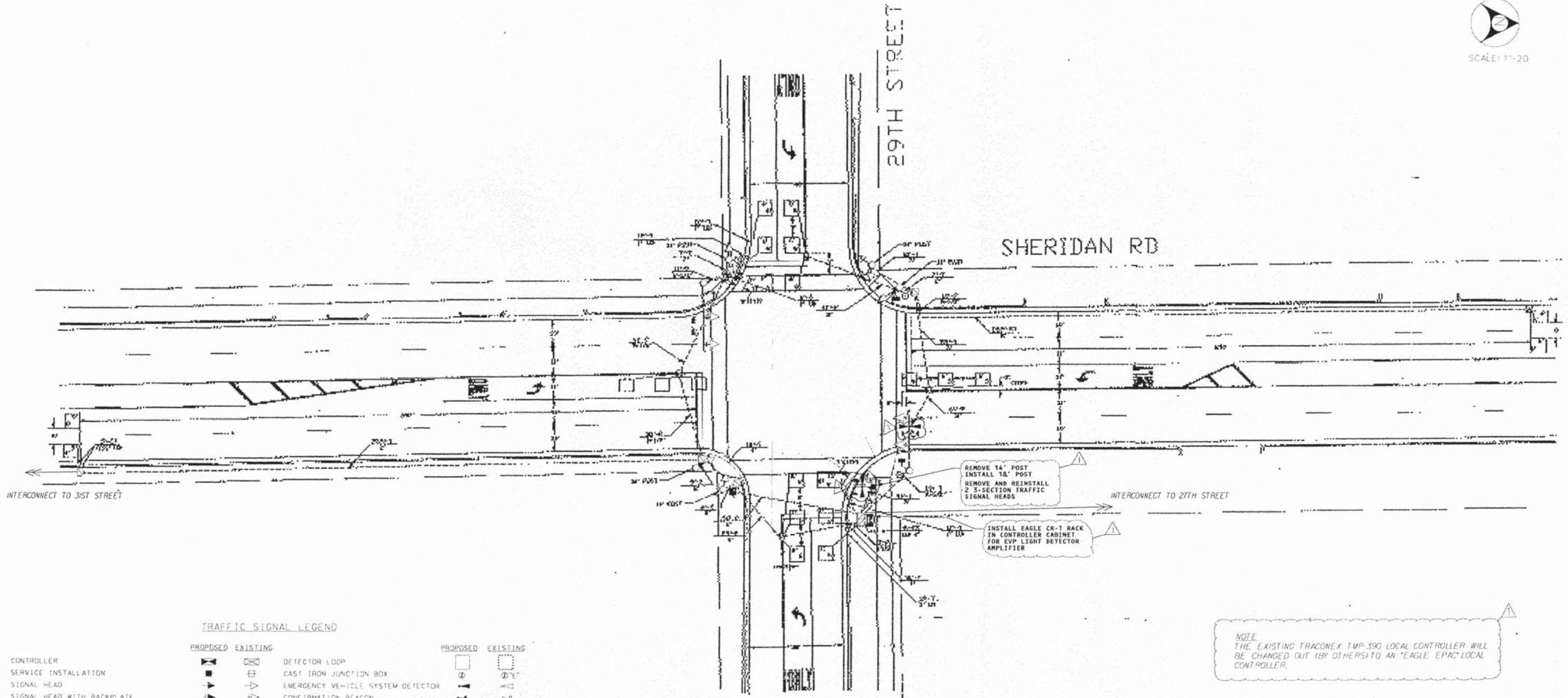
	PROPOSED	EXISTING
CONTROLLER	☐	☐
HANDHOLE	☐	☐
DOUBLE HANDHOLE	☐	☐
G.S. CONDUIT IN TRENCH OR PUSHED	—	—
DETECTOR LOOP	○	○
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	I	
HEAVYDUTY HANDHOLE	⊞	



"FOR INFORMATION ONLY"



SCALE: 1"=20'



TRAFFIC SIGNAL LEGEND

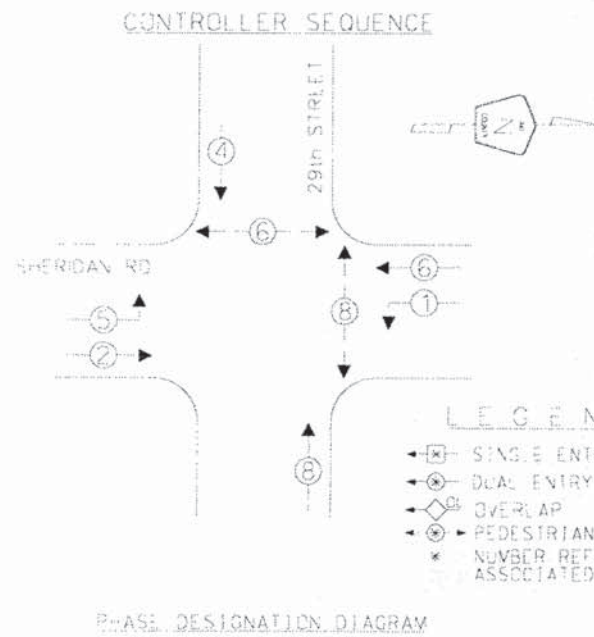
	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]	DETECTOR LDDP	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE 1 OR TYPE 2	[Symbol]	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]	STREET LIGHT	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]			
C.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]			
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]			

NOTE
THE EXISTING TRACONEX TMP-350 LOCAL CONTROLLER WILL BE CHANGED OUT (BY OTHERS) TO AN "EAGLE EPAC" LOCAL CONTROLLER.

B.3.06 ADDED BY METRO TRANSPORTATION GROUP, INC.

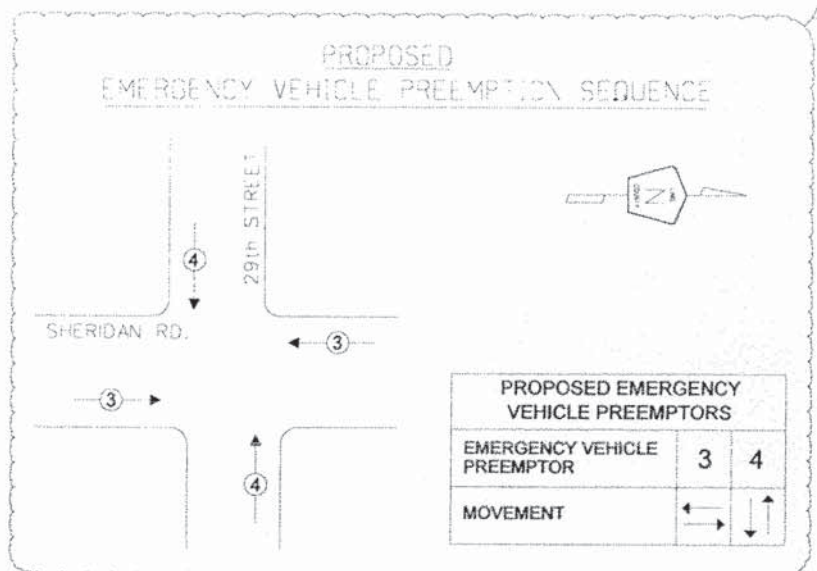
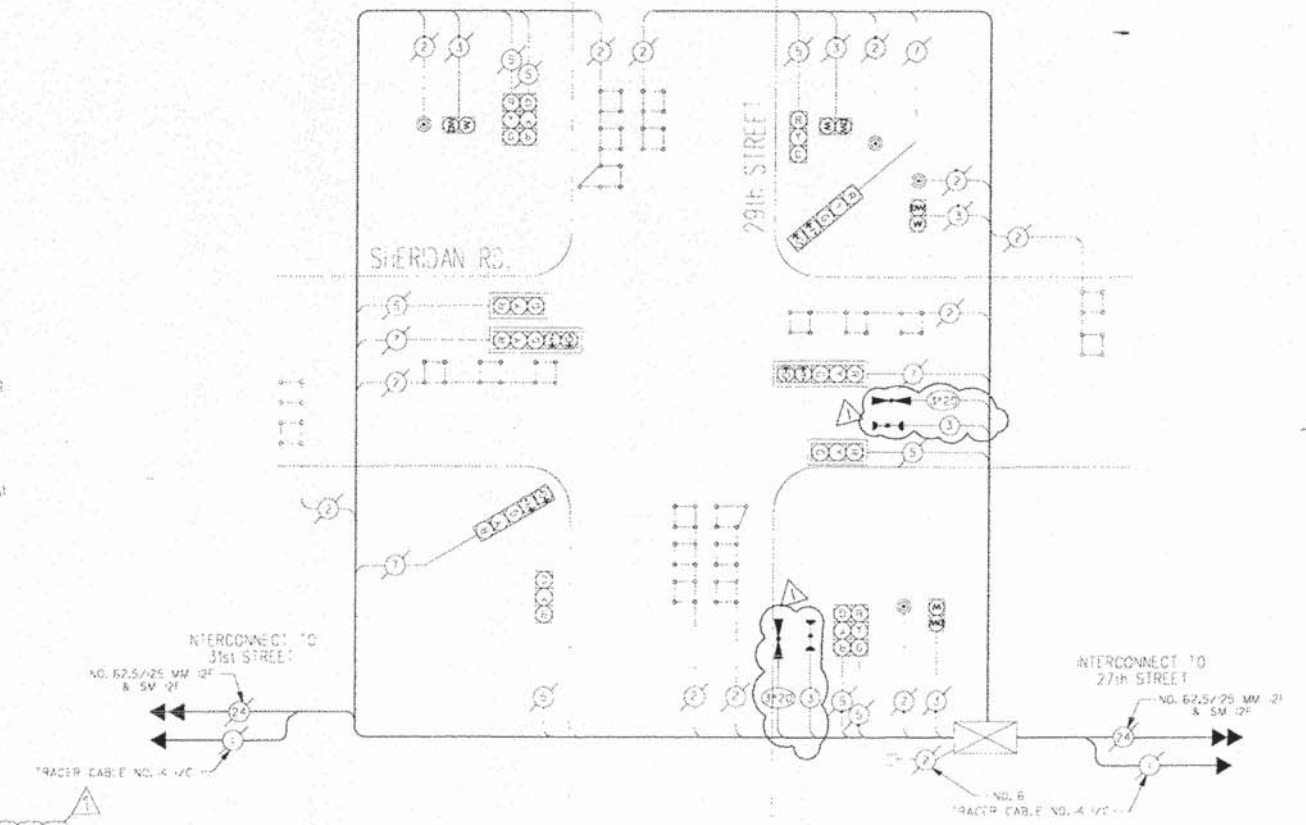
"FOR INFORMATION ONLY"

FILE NAME = N:\ZION\150342\Civil\std_150342-02.sht	USER NAME = rhowellindgren	DESIGNED - LMF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN SHERIDAN ROAD AT 23RD STREET ZION, ILLINOIS	F.A.U. RTE. 1207/2769	SECTION 15-00086-00-RS	COUNTY LAKE	TOTAL SHEETS 34	SHEET NO. 26		
PLOT SCALE = NOT TO SCALE	CHECKED - JGS	REVISIED -	SCALE: 20'			SHEET NO. 26 OF 34 SHEETS	STA. TO STA.	CONTRACT NO. 61C03				
PLOT DATE = 10/5/2015	DATE - 06/30/15	REVISIED -	ILLINOIS FED. AID PROJECT									



- ### CABLE PLAN LEGEND
- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|---------------------------------------------------------------------------------------------------------------|
| ⊙ | ⊙ | 8' (22mm) TRAFFIC SIGNAL SECTION |
| ⊙ | ⊙ | 12' (32mm) TRAFFIC SIGNAL SECTION |
| ⊙ | ⊙ | 12' (32mm) PEDESTRIAN SIGNAL SECTION |
| ⊙ | ⊙ | 12' (32mm) PEDESTRIAN SIGNAL SECTION |
| ⊙ | ⊙ | CONTROLLER CABINET |
| ⊙ | ⊙ | SERVICE INSTALLATION |
| ⊙ | ⊙ | TO TELEPHONE CONNECTION |
| ⊙ | ⊙ | MAGNETIC DETECTOR |
| ⊙ | ⊙ | EMERGENCY VEHICLE LIGHT DETECTOR |
| ⊙ | ⊙ | CONFIRMATION BEACON |
| ⊙ | ⊙ | PUSH-BUTTON DETECTOR |
| ⊙ | ⊙ | VEHICLE DETECTOR, INDUCTION LOOP |
| ⊙ | ⊙ | INDICATES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| ⊙ | ⊙ | SIGNAL FACE WITH BACKPLATE |
| ⊙ | ⊙ | ⊙ INDICATES PROGRAMMED HEAD |
| ⊙ | ⊙ | RAILROAD CONTROL CABINET |
| ⊙ | ⊙ | ILLUMINATED SIGN, FIBER OPTIC NO LEFT TURN |
| ⊙ | ⊙ | ILLUMINATED SIGN, FIBER OPTIC NO RIGHT TURN |
| ⊙ | ⊙ | GROUND ROD AT HANDS/DOUBLE HANDS/DOUBLE HANDS OR CONTROLLER IS |
| ⊙ | ⊙ | GROUND ROD AT PDS OR VAST ARM PDS (MA) |
| ⊙ | ⊙ | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| ⊙ | ⊙ | ⊙ GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER GREEN |
| ⊙ | ⊙ | ⊙ NO. 62.5/125 MM 12F & SM 12F, FIBER OPTIC CABLE |
- NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 10' LONG COPPER C.A.S. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

PROPOSED CABLE PLAN



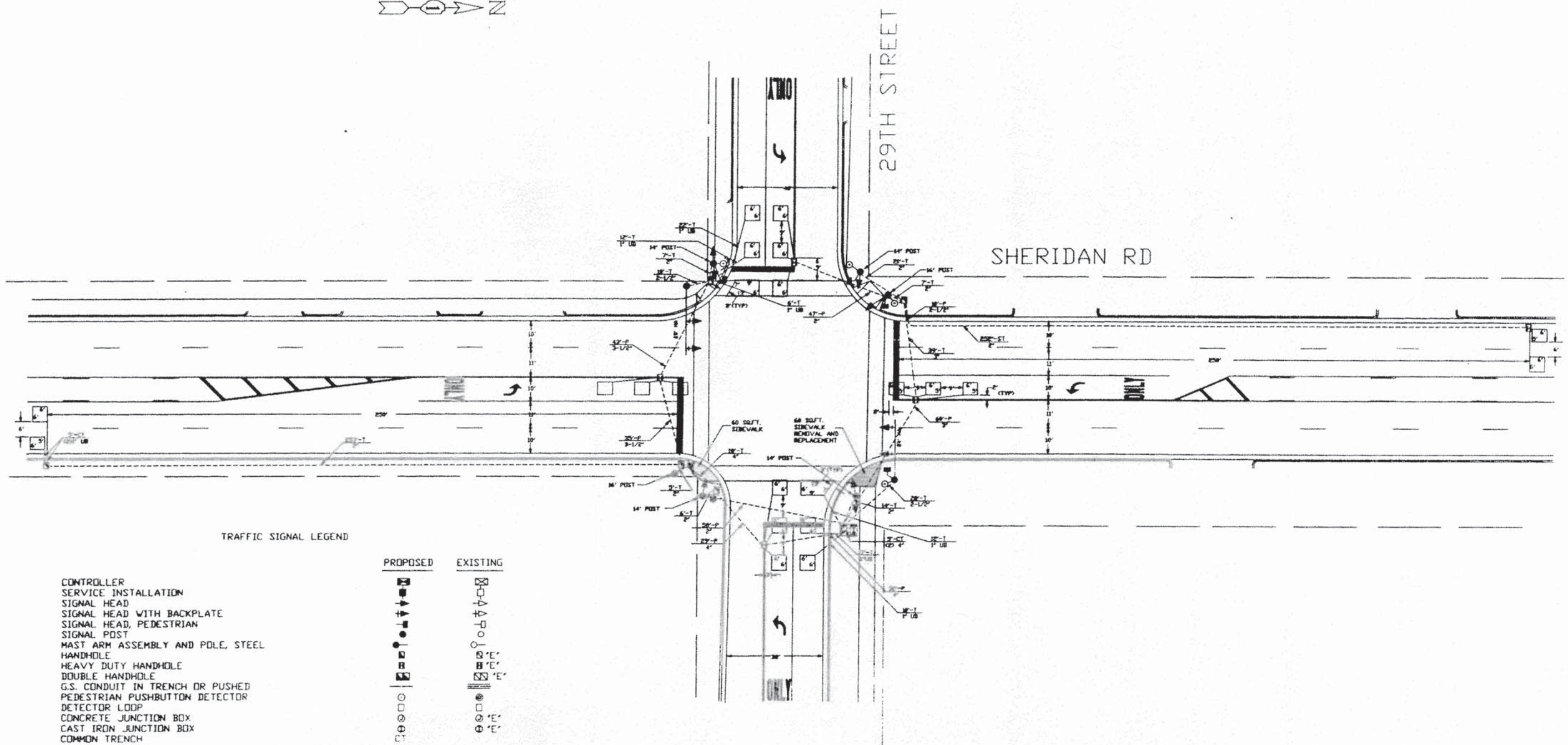
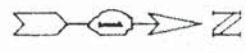
SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	TRAFFIC CONTROL AND PROTECTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
161	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
161	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
2	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	MODIFY EXISTING CONTROLLER CABINET
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL POST
1	EACH	EAGLE CR-1 CONTROLLER RACK

NOTE: LIGHT DETECTORS ARE 2 DIRECTIONAL

B.3.06 ADDED BY METRO TRANSPORTATION GROUP, INC.

"FOR INFORMATION ONLY"



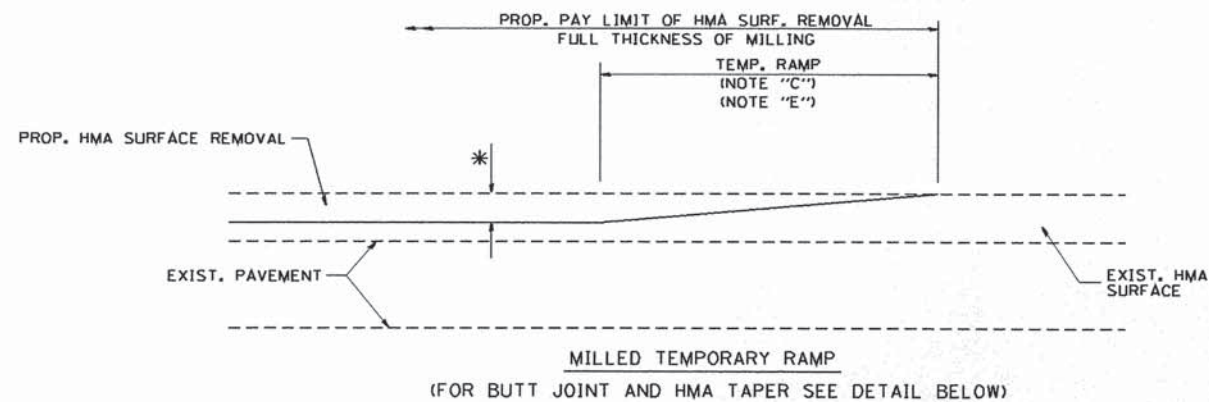
TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CONCRETE JUNCTION BOX
- CAST IRON JUNCTION BOX
- COMMON TRENCH
- SPECIAL TRENCH
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- EMERGENCY VEHICLE SYSTEM DETECTOR
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- SIDEWALK RAMPS

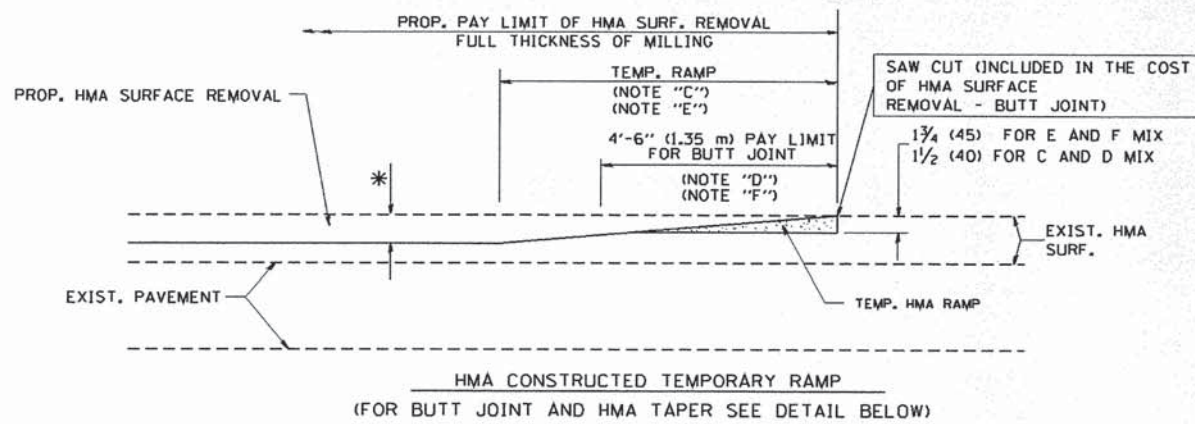
PROPOSED	EXISTING

"FOR INFORMATION ONLY"

FILE NAME = N:\ZION\150342\Civil\std.150342-02.sht	USER NAME = rhowellindgren	DESIGNED - LMF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION SHERIDAN ROAD AT 23RD STREET	F.A.U. RTE. 1207/2769	SECTION 15-00086-00-RS	COUNTY LAKE	TOTAL SHEETS 34	SHEET NO. 28	
PLOT SCALE = NOT TO SCALE	CHECKED - JGS	REVISED -	SCALE: 20'			SHEET NO. 28 OF 34 SHEETS	STA. TO STA.	CONTRACT NO. 61C03		ILLINOIS FED. AID PROJECT	
PLOT DATE 10/5/2015	DATE - 06/30/15	REVISED -									

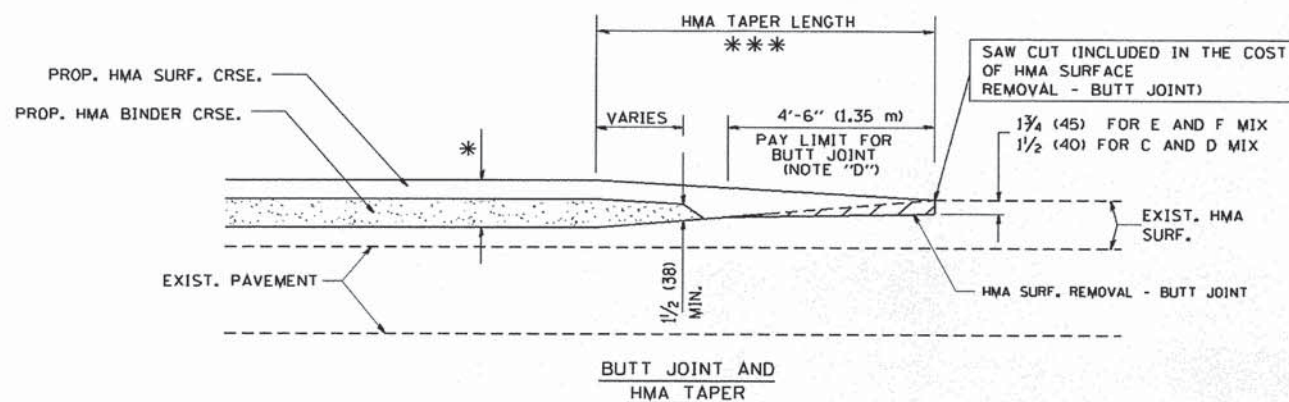


OPTION 1

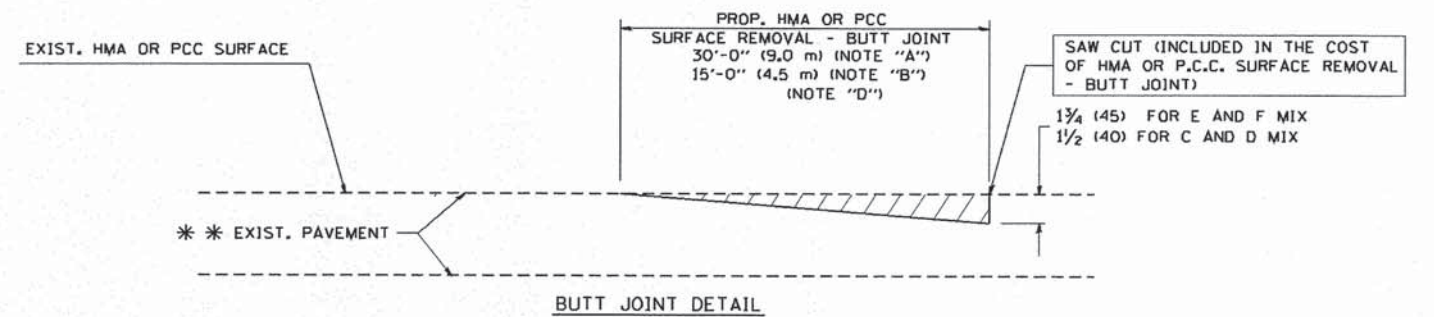


OPTION 2

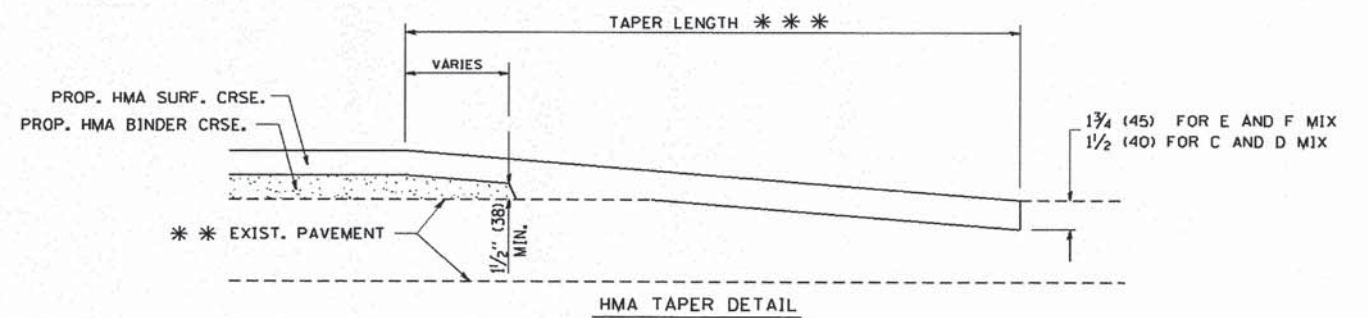
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- ** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

ALL BUTT JOINTS ARE INCIDENTAL TO THE SURFACE COURSE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\distatd\22x34\bd32.dgn

USER NAME = goglienobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
PLOT SCALE = 50.0000' / 1IN.	CHECKED -	REVISED - A. ABBAS 03-21-97
PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - M. GOMEZ 04-06-01
		REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER DETAILS

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

F.A. - RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203	15-00086-00-RS	LAKE	34	29
1207	BD400-05 BD32			
2769				
CONTRACT NO. 61C03				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

1/4" (5) **

18" (450) MAX.

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT, DRIVEWAY REMOVAL AND REPLACEMENT, AND/OR SIDEWALK REMOVAL AND REPLACEMENT.

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

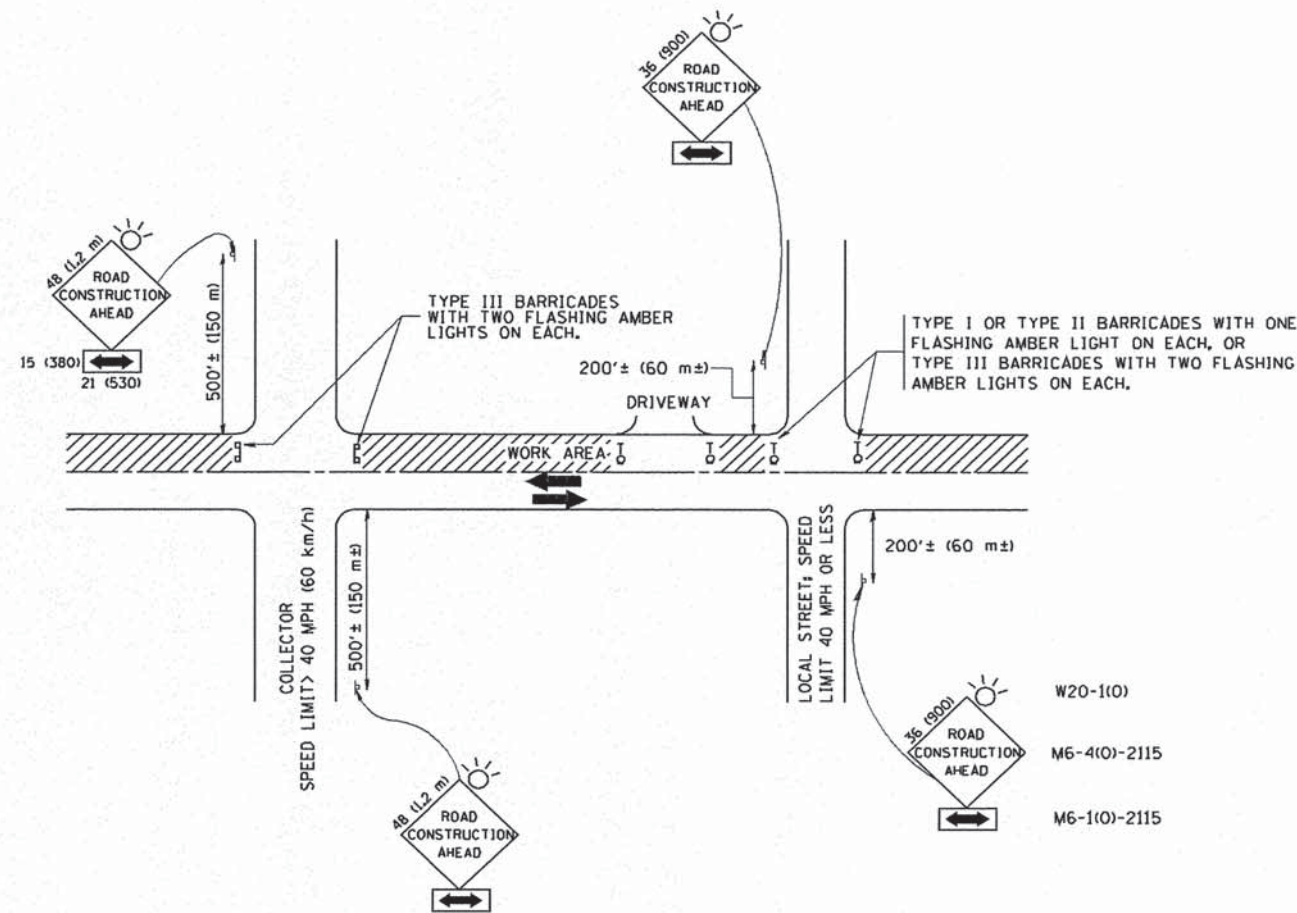
BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	DESIGNED -	REVISED -	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
n:\pwork\pwork\dot\dr\svakosgn\10100315\bc24.dgn	DRAWN -	REVISED -					1203	15-00086-00-RS	LAKE	34	30
	CHECKED -	REVISED -					1207			CONTRACT NO. 61C03	
	DATE -	REVISED -					2769			ILLINOIS FED. AID PROJECT	
			SCALE: NONE	SHEET NO. 30 OF 34 SHEETS	STA.	TO STA.					



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

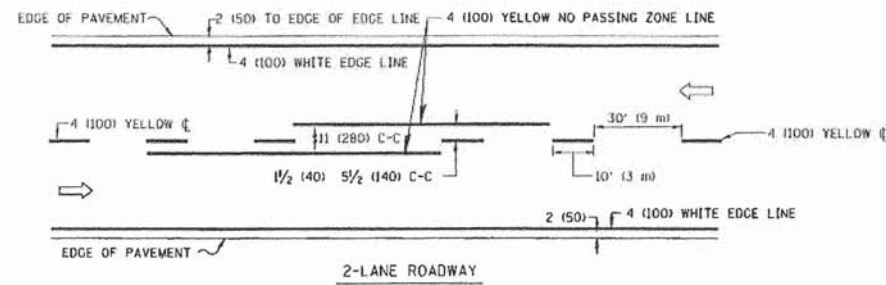
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = W:\diststd\22x34\tcl8.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
		CHECKED -	REVISED - A. HOUSEH 10-15-96
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

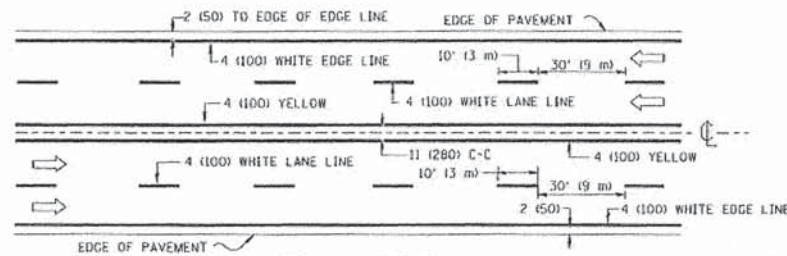
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS	
SCALE: NONE	SHEET NO. 34 SHEETS
STA.	TO STA.

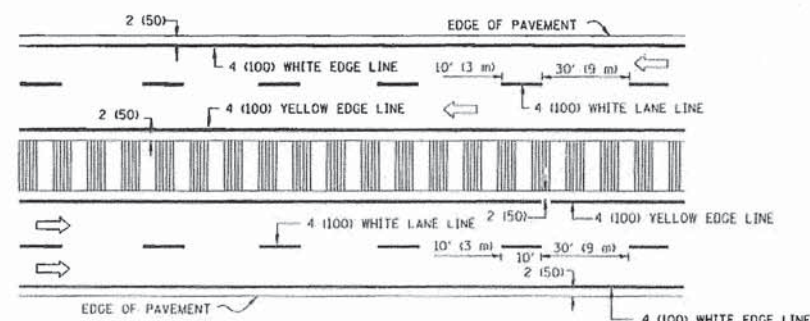
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203	15-00086-00-RS	LAKE	34	31
1207	TC-10			
2769				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 61C03				



2-LANE ROADWAY



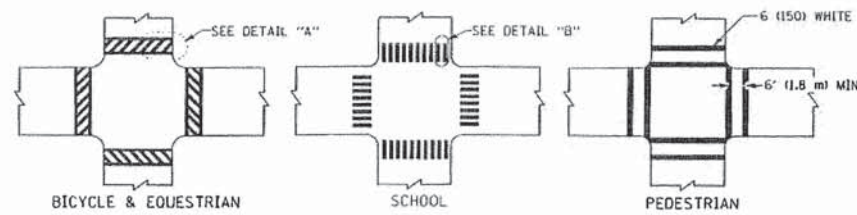
MULTI-LANE UNDIVIDED



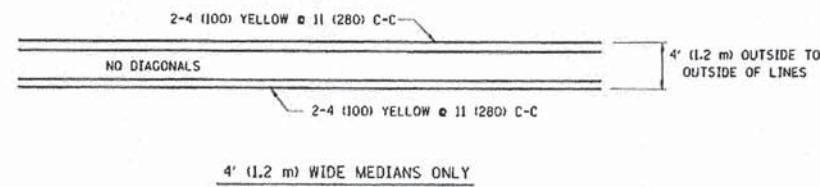
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

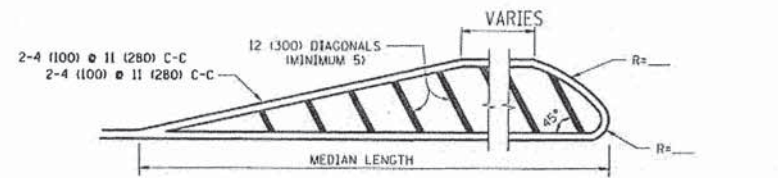
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

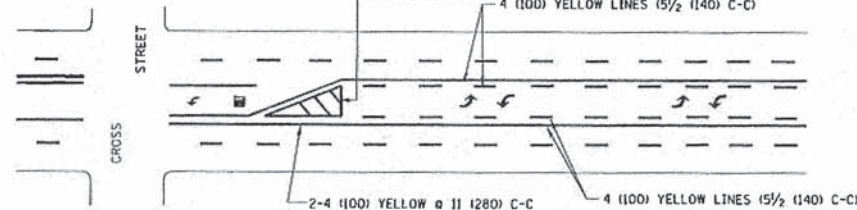


4' (1.2 m) WIDE MEDIANS ONLY



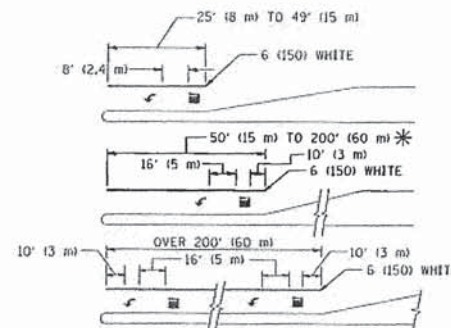
DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE



MEDIAN WITH TWO-WAY LEFT TURN LANE

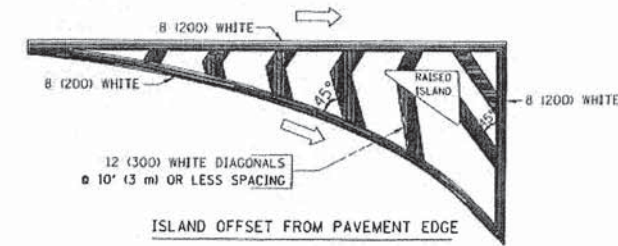
TYPICAL PAINTED MEDIAN MARKING



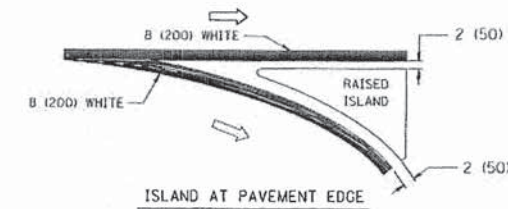
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS 16' (2.4m)	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30 MPH (50 km/h) TO 45MPH (70 km/h) 150' (45 m) C-C (OVER 45MPH (70 km/h))

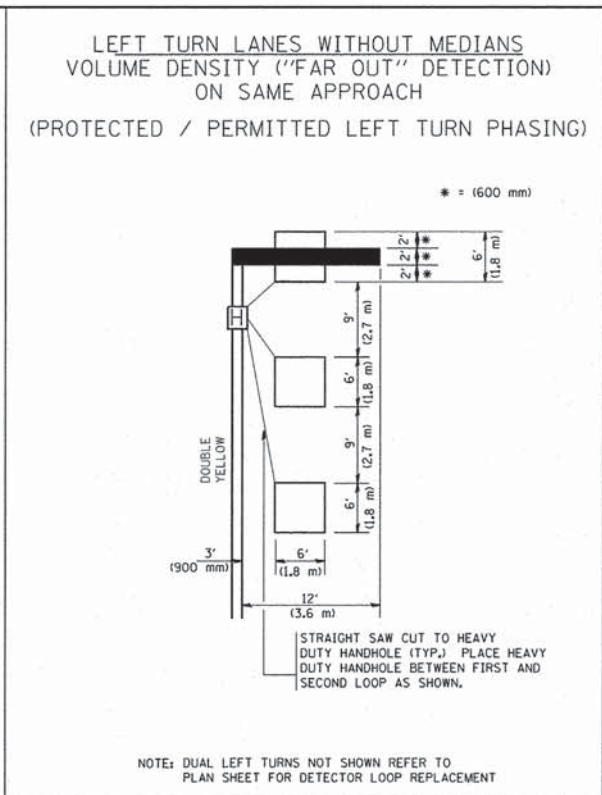
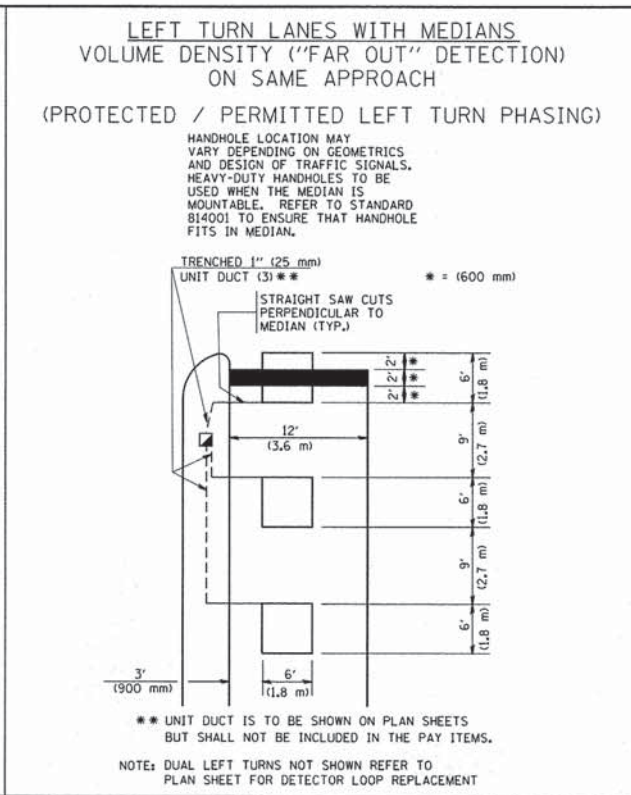
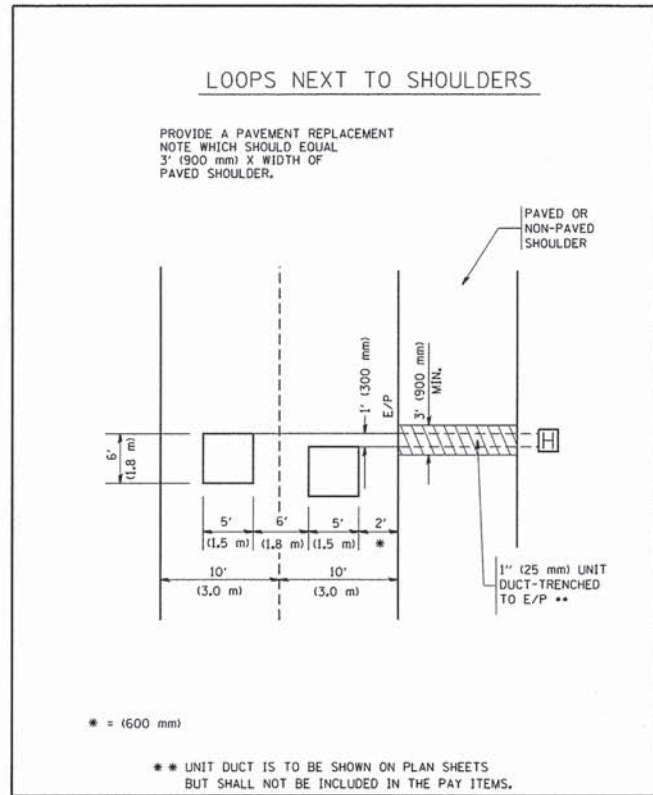
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drvakosgn	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
o:\pwork\pvidot\drvakosgn\0100915\to	3.dgn	DRAWN -	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 "/ IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

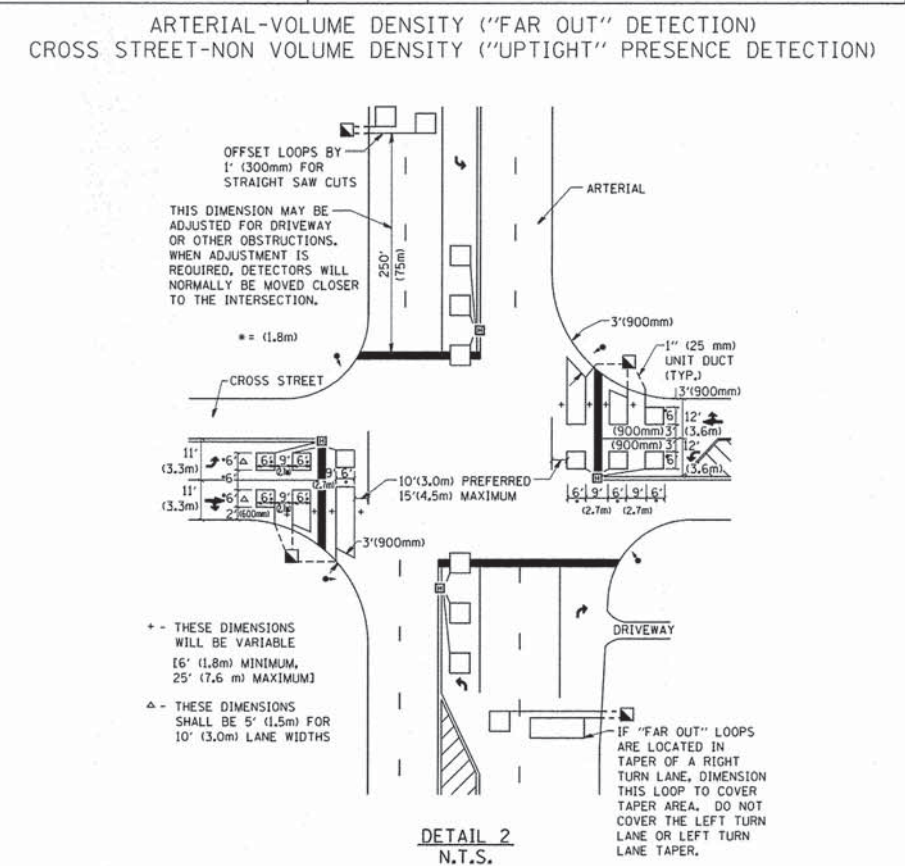
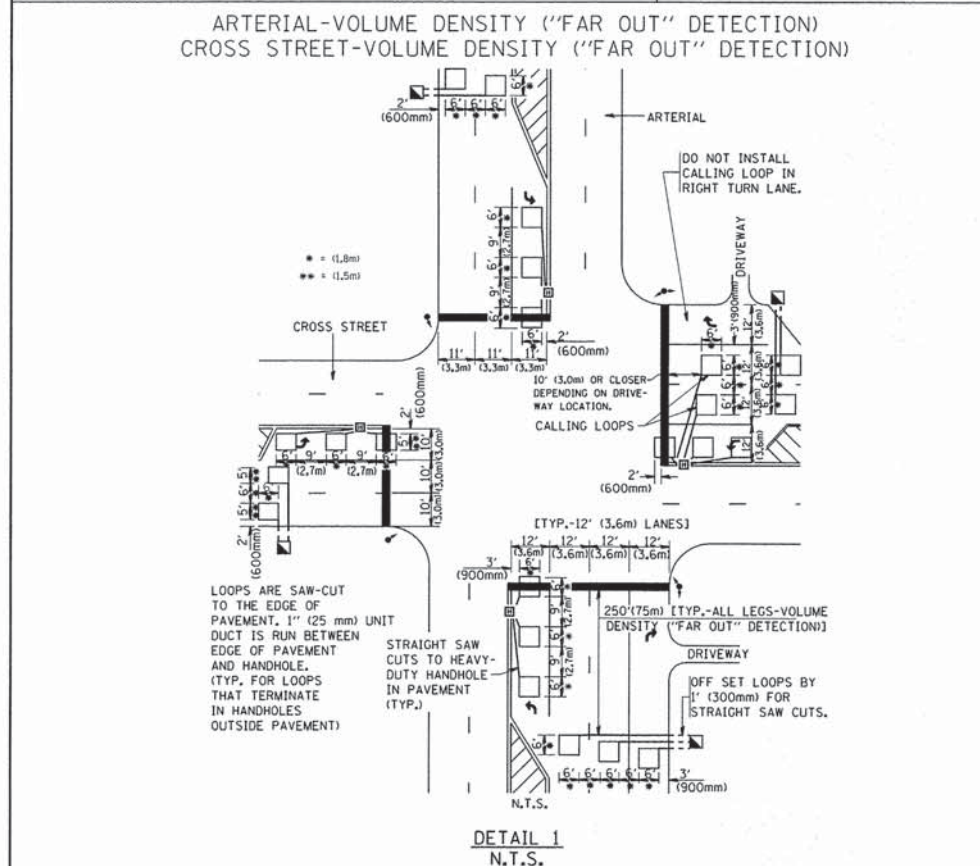
DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		1203	15-00086-00-RS	LAKE	34	32
		1207	TC-13			
		2769				
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT						



NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.



PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	33
CONTRACT NO.			61C03	

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PLOT DATE = 10/5/2015	DATE - 06/30/15	REVISIONS - -	REVISED - -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING**

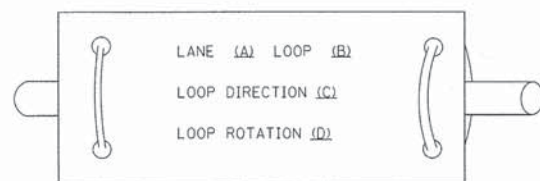
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	33
CONTRACT NO.			61C03	

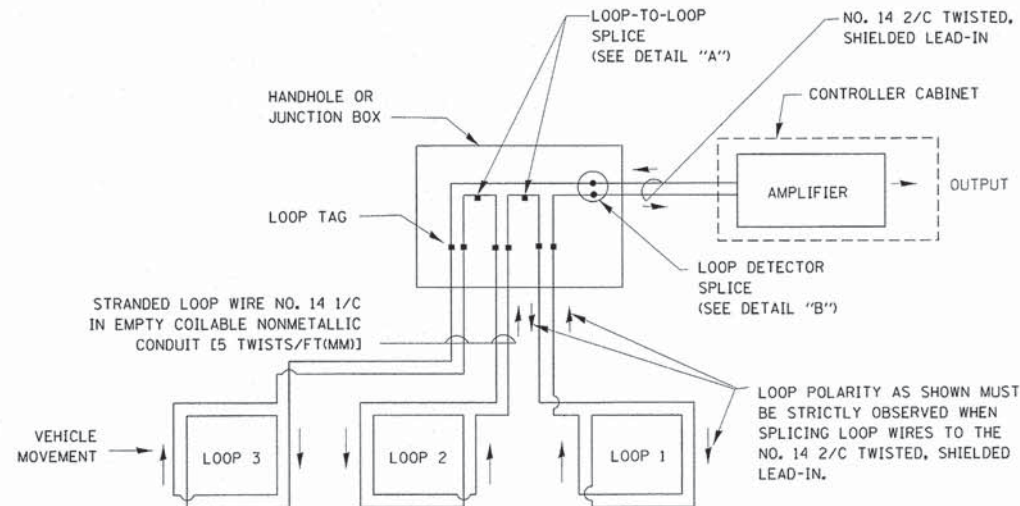
LOOP DETECTOR NOTES

- 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.
- 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES 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.
- 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.
- 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

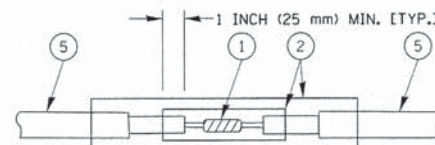


- LANE #1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

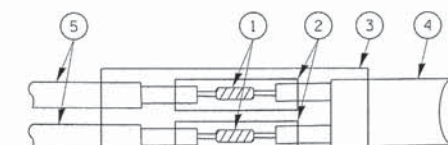


DETECTOR LOOP WIRING SCHEMATIC

- 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.

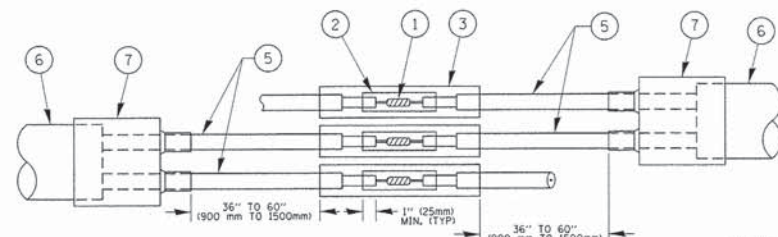


DETAIL "A"
LOOP-TO-LOOP SPLICE

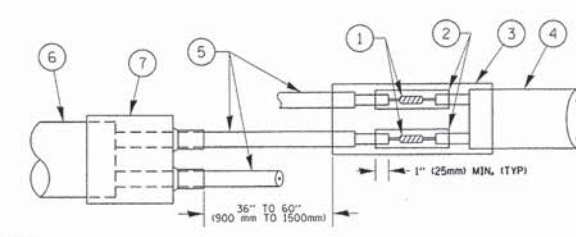


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PREFORMED LOOP

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE	
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	34
TS-05			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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PLOT SCALE = NOT TO SCALE		CHECKED - JGS	REVISED -
PLOT DATE = 10/15/2015		DATE - 06/30/15	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: 1"	SHEET NO. 34 OF 34 SHEETS STA. TO STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1203/1207/2769	15-00086-00-RS	LAKE	34	34
CONTRACT NO. 61C03			ILLINOIS FED. AID PROJECT	