

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

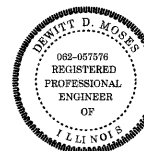
F.A.I. ROUTE 90/94 (DAN RYAN EXPRESSWAY)  
SECTION 2122-921 PT 2-I-5

NORTHBOUND KNEE WALLS  
(43RD ST TO ROOT ST)

COOK COUNTY

C-91-248-05

DESIGN NUMBER  
D-91-417-01



SIGNATURE *D. D. Moore*  
DATE Apr. 25, 2008  
EXPIRES Nov. 30, 2009



SIGNATURE *John D. Colwell*  
DATE April 25, 2008  
EXPIRES Nov. 30, 2009



SIGNATURE *Brian L. Umbricht*  
DATE April 25, 2008  
EXPIRES Nov. 30, 2008



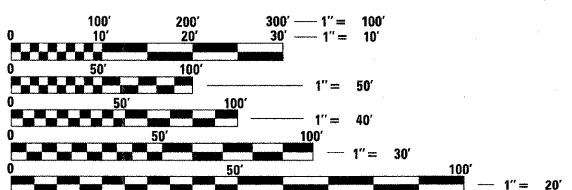
LOCATION OF SECTION INDICATED THUS: - [Symbol] -

PROJECT LOCATED IN CITY OF CHICAGO

DESIGN DESIGNATION

LA SALLE ST: 8275 (20) URBAN COLLECTOR

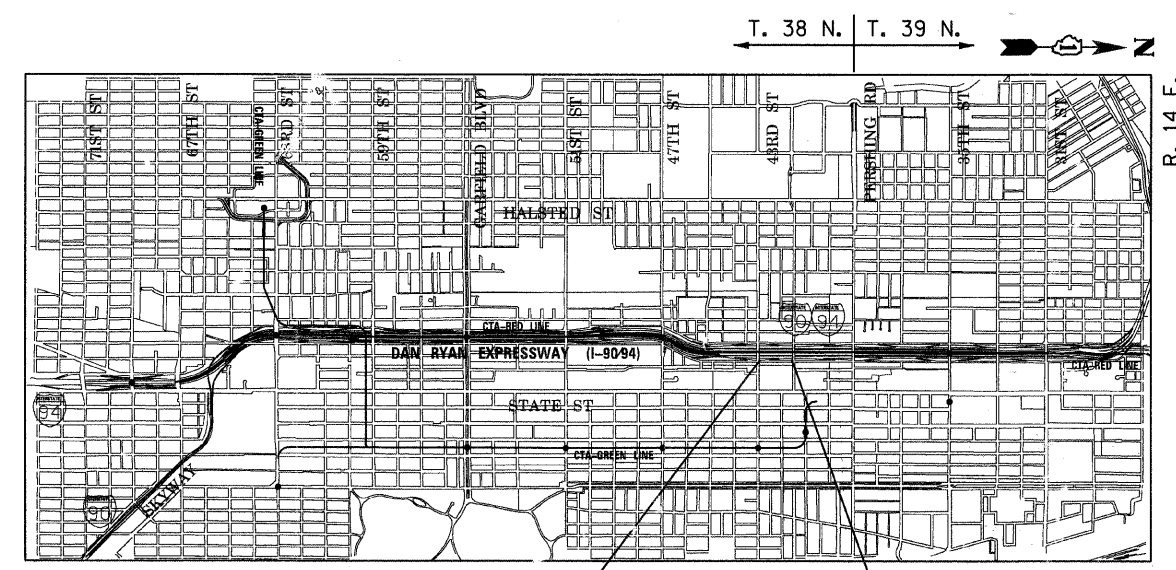
FRONTAGE ROAD:	ADT (2020)	DESIGN SPEED	POSTED SPEED
LA SALLE ST	15,000	30	25



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.

BEFORE EXCAVATING CALL:  
(J.U.L.I.E.) JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123 OR 811

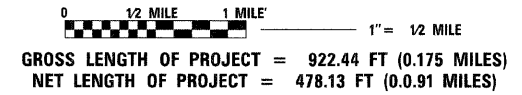
CONTRACT NO. 62990



PROJECT BEGINS  
NB LA SALLE ST  
STA 238 + 65.56

PROJECT ENDS  
NB LA SALLE ST  
STA 247 + 88

LOCATION MAP



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED APRIL 29, 2008

*Diane M. O'Keefe*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

June 27, 2008  
*Eric E. Harms*  
ENGINEER OF DESIGN AND ENVIRONMENT

June 27, 2008  
*Christine M. Reed*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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CONSULTING ENGINEERS  
Chicago, Illinois  
312.228.0100  
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DISTRICT ONE DESIGN/CONSULTANT SERVICES PROJECT MANAGER  
RAJENDRA SHAH (847) 705-4555

PA:660.660.6170.31C\SHEETS\660.31C\COVER.dgn

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

62990

**GENERAL NOTES:**

- THE CONTRACTOR SHALL COORDINATE ALL ACTIVITIES WITH:  
 CONTRACT 60A04 - NB FENCE AND GATES FROM 47TH ST TO 31ST ST  
 CONTRACT 62301 - RECONSTRUCTION OF NORTHBOUND LOCAL LANES AND RAMPS BETWEEN GARFIELD BOULEVARD AND 31ST ST  
 CONTRACT 62583 - LIGHTING AND SURVEILLANCE 31ST ST TO I-57 INTERCHANGE  
 CONTRACT 62989 NORTHBOUND KNEE WALLS (45TH ST TO 43RD ST)  
 CONTRACT 62991 NORTHBOUND KNEE WALLS (ROOT ST TO PERSHING RD)
- CONTRACTOR SHALL MATCH ALL WORK COMPLETED IN CONTRACT 62301
- THE LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THE DRAWINGS, REPRESENT DATA RECEIVED FROM VARIOUS SOURCES. IT IS NOT GUARANTEED TO BE CORRECT OR ALL INCLUSIVE. THE CONTRACTOR MUST CONDUCT HIS OWN INVESTIGATIONS INTO THE LOCATION, SIZE, DEPTH, AND NATURE OF ANY AND ALL EXISTING UTILITIES WHICH MAY IMPACT THE WORK UNDER THIS CONTRACT. ANY EXISTING UTILITIES WHICH ARE TO REMAIN IN SERVICE MUST BE FULLY PROTECTED BY THE CONTRACTOR AND ANY DAMAGE CAUSED BY THE CONSTRUCTION MUST BE IMMEDIATELY REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROTECTION OF ANY AND ALL SURFACE AND UNDERGROUND UTILITIES, EVEN THOUGH THEY MAY NOT BE IDENTIFIED ON THE PLANS.
- THE CONTRACTOR MUST COORDINATE CONSTRUCTION ACTIVITIES WITH THE RESPECTIVE UTILITIES OF THE CITY OF CHICAGO. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR MUST CALL THE CHICAGO UTILITY ALERT NETWORK (C.U.A.N.) AT (312) 744-7000 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRICAL, TELEPHONE, CABLE, AND GAS FACILITIES (48 HOURS NOTIFICATION IS REQUIRED). THE CONTRACTOR MUST CONTACT THE CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT, PERMIT SECTION AT (312) 747-7893 FOR WATER AND CITY SEWER LOCATIONS.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM IDOT.
- WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS, THE CONTRACTOR MUST EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING COMMERCIAL AND RESIDENTIAL AREAS.
- CHAIN LINK FENCE REMOVAL MUST BE CONSIDERED AS PART OF CLEARING.
- IT MUST BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT NO GAP REMAINS BETWEEN PROPOSED KNEE WALLS OR WHERE PROPOSED KNEE WALL TERMINATES AND EXISTING FENCE REMAINS IN PLACE.
- THE CONTRACTOR MUST TAKE ALL NECESSARY SAFETY PRECAUTIONS TO PROTECT AND PROVIDE ACCESS TO ABUTTING PROPERTY, UTILITIES, PEDESTRIANS, AND VEHICULAR TRAFFIC.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER MUST BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR MUST PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS. THE ENGINEER OR AN AUTHORIZED SURVEYOR AGENT WILL WITNESS OR OTHERWISE REFERENCE AND RESET MONUMENTS AS NECESSARY. ALL PROPERTY CORNERS EXCEPT THOSE WITHIN AREAS WHERE THE SCHEDULE, IF PROVIDED, SHOWS PLACEMENT OF R.O.W. MARKERS MUST REMAIN UNDISTURBED.
- ALL ELEVATIONS IN THIS PLAN SET ARE BASED ON THE CHICAGO CITY DATUM. THE CONVERSION EQUATION FROM CCD TO NAVD 88 IS: NAVD 88 ELEVATION = CCD + 579.19.

- BARRICADES: THE CONTRACTOR MUST PROVIDE AND INSTALL TWO WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED - ONE WEIGHTED SANDBAG ACROSS EACH BOTTOM RAIL. ALL TYPE III BARRICADES REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
- SUPERSTRUCTURE RATING COARSE AGGREGATE MUST BE USED IN THE CONCRETE BARRIER WALL CONCRETE MIXTURE.
- LOCATIONS OF ACCESS CONTROL FENCING AS SHOWN ON THE PLANS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO BETTER FIT FIELD CONDITIONS.
- THE LOCATION OF VARIOUS ITEMS SUCH AS PAVEMENT, BARRIER WALLS, ELECTRICAL SYSTEMS AND DRAINAGE STRUCTURES BUILT IN CONTRACTS UNDER CONSTRUCTION DURING THE PREPARATION OF THESE PLANS IS BASED ON THE PUBLISHED CONTRACT PLAN DRAWINGS AVAILABLE DURING DESIGN. THE CONTRACTOR MUST FIELD VERIFY LIMITS, LOCATIONS AND ELEVATIONS OF THESE PREVIOUSLY CONSTRUCTED ITEMS.
- CRUSHING PLANT AND CONCRETE PLANT LOCATIONS REQUIRE CITY OF CHICAGO APPROVAL.
- THE CONTRACTOR IS ALERTED THAT THERE ARE EXISTING CTA UTILITY FACILITIES WITHIN, ADJACENT TO, AND CROSSING UNDER THE EXPRESSWAY FROM THE FRONTAGE ROADS TO THE CTA OPERATING AREA. THE EXACT LOCATION OF THESE FACILITIES IS NOT KNOWN. THE CONTRACTOR MUST CONTACT THE CTA AT 312-681-3860 FOR LOCATIONS OF THESE FACILITIES BEFORE PROCEEDING WITH ANY WORK WITHIN OR ADJACENT TO THE CTA OPERATING AREA. FOR ADDITIONAL INFORMATION REGARDING BURIED CONDUITS, CONTACT MR. RICK STRAUBEL, MANAGER TECH SUPPORT, AT 312-922-0508.
- THE CONTRACTOR MUST USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS THAT WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR MUST BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR MUST MAINTAIN THE SURFACE DRAINAGE OF ALL ROADWAYS DURING CONSTRUCTION OF THIS PROJECT. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR MUST PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS, AND CATCH BASINS. THE CONTRACTOR MUST PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE THE SAME. THE CONTRACTOR MUST PROVIDE AND MAINTAIN A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY CONNECTIONS UNTIL INSTALLATION IS COMPLETE INCLUDING PAVEMENT. THIS WORK MUST NOT BE PAID FOR SEPERATELY BUT MUST BE CONSIDERED INCLUDED IN THE COST OF THIS CONTRACT.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.
- ALL RELOCATION OF EXISTING SIGNS IN CONFLICT WITH PROPOSED CONSTRUCTION SHALL CONFORM TO ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS. EXISTING SIGNS TO BE RELOCATED IN PROPOSED CONCRETE MEDIAN SURFACE SHALL BE INSTALLED USING A SLEEVE OR BY CORING THE CONCRETE MEDIAN SURFACE. THE SLEEVE AND CORING OPERATIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER. EXISTING SIGNS TO BE RELOCATED ONTO PROPOSED KNEE WALL FOOTINGS SHALL BE INSTALLED ACCORDING TO SECTIONS 728 AND 731 OF THE STANDARD SPECIFICATIONS. LABOR AND MATERIALS FOR RELOCATION OF EXISTING SIGNS WILL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE COST OF THE FLUTED KNEE WALL.
- THE INTENT OF THE CONTRACT DOCUMENTS IS TO CONSTRUCT THE FLUTED KNEE WALL BEHIND THE EXISTING CURB AND GUTTER. ANY DAMAGE TO THE EXISTING CURB AND GUTTER SHALL BE REPAIRED TO THE ORIGINAL CONDITION OF THE CURB AND GUTTER BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

**GENERAL NOTES: CITY OF CHICAGO**

- IN CASE OF DAMAGE TO CITY OF CHICAGO SEWERS, PRIVATE AND PUBLIC DRAINS, SEWER STRUCTURES AND/OR BENCH MONUMENTS, THE CONTRACTOR MUST IMMEDIATELY CONTACT THE DEPARTMENT OF WATER MANAGEMENT AT (312) 747-7892 OR (312) 747-7893.
- BENCH MONUMENT LOCATIONS WITHIN THE LIMITS OF THE IMPROVEMENT CAN BE OBTAINED FROM THE DEPARTMENT OF WATER MANAGEMENT AT 333 SOUTH STATE STREET, SUITE 410, CHICAGO, IL 60604. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF REPLACING ANY BENCH MONUMENT DAMAGED OR DESTROYED DURING CONSTRUCTION.
- IN LOCATIONS WHERE THE MAIN SEWERS, DRAINAGE STRUCTURES, PUBLIC, AND PRIVATE DRAIN CONNECTIONS ARE DISTURBED OR DAMAGED DURING CONSTRUCTION BY THE CONTRACTOR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO RESTORE AND REPLACE THE DAMAGED FACILITIES AT HIS/HER OWN EXPENSE TO THE SATISFACTION OF THE DEPARTMENT OF WATER MANAGEMENT. THE SEWER FLOWS MUST BE MAINTAINED AT ALL TIMES.
- EXTREME CAUTION IS TO BE TAKEN TO ENSURE THAT NO FACILITY OWNED AND MAINTAINED BY THE DEPARTMENT OF WATER MANAGEMENT IS DAMAGED DURING CONSTRUCTION. IF ANY DAMAGE OCCURS TO ANY FACILITIES, THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE COST OF REPAIRING OR REPLACING THEM.
- CITY OF CHICAGO WATER VALVE VAULTS AND SEWER STRUCTURES MUST NOT BE CLOSED, COVERED OR OTHERWISE OBSTRUCTED DURING CONSTRUCTION WITHOUT WRITTEN PERMISSION FROM THE CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT.
- THE CHICAGO TRANSIT AUTHORITY (CTA) HAS BUS OPERATIONS ALONG LA SALLE STREET. THE CONTRACTOR MUST INFORM THE CTA REPRESENTATIVE MS. CHARLENE RIFFER (GENERAL MANAGER CONSTRUCTION) OF THE ON-GOING PROJECT SCHEDULE STARTING 28 DAYS BEFORE THE START OF CONSTRUCTION AT (312) 681-3851.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
 NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

**GENERAL NOTES**

SCALE: NONE  
 DATE: 04/25/08  
 DRAWN BY: JDC  
 CHECKED BY: RS

7/6/2008 10:31:30 AM SHEET 2 OF 27

SUMMARY OF QUANTITIES

URBAN

CODE NO.	ITEM	UNIT	QUANTITY	100% STATE
				JO00
20200100	EARTH EXCAVATION	CU YD	108	108
21101645	TOPSOIL FURNISH AND PLACE, 12"	SQ YD	114	114
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	6	6
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	6	6
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	6	6
25001800	SEEDING, CLASS 4 (MODIFIED)	ACRE	0.06	0.06
25100630	EROSION CONTROL BLANKET	SQ YD	273	273
44004250	PAVED SHOULDER REMOVAL	SQ YD	84	84
50300225	CONCRETE STRUCTURES	CU YD	9.4	9.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	8.2	8.2
50300300	PROTECTIVE COAT	SQ YD	41	41
50300510	RUSTICATION FINISH	SQ FT	88	88
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1,780	1,780
66400550	CHAIN LINK FENCE, 4' (SPECIAL)	FOOT	515	515
67100100	MOBILIZATION	L SUM	1	1
70101800	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6	6
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	26	26
X0323973	SEDIMENT CONTROL, SILT FENCE	FOOT	515	515
X0323974	SEDIMENT CONTROL, SILT FENCE MAINTENANCE	FOOT	129	129
X0324640	FLUTED KNEE WALL	FOOT	425	425
X2500322	SEEDING, CLASS 5A, (MODIFIED)	ACRE	0.06	0.06
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1

INDEX OF SHEETS

SHEET	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES AND PROJECT COMMITMENTS
3	SUMMARY OF QUANTITIES / INDEX / HIGHWAY STANDARDS
4	EXISTING AND PROPOSED TYPICAL SECTIONS
5-9	ALIGNMENT PLANS, SURVEY TIES AND CONTROL POINTS
10-12	EXISTING AND PROPOSED KNEE WALL PLANS
13-15	STRUCTURAL DETAILS
16	BD-51 DISTRICT 1, BENCHING DETAIL FOR EMBANKMENT WIDENING
17	TC-10 DISTRICT 1, TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS & DRIVEWAYS
18	TC-17 DISTRICT 1, TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES
19	TC-18 DISTRICT 1, SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS
20	TC-22 DISTRICT 1, ARTERIAL ROAD INFORMATION SIGN
21-27	CROSS SECTIONS

IDOT HIGHWAY STANDARDS

SHEET	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
664001-02	CHAIN LINK FENCE
701601-06	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE, MULTILANE, 1W OR 2W, CROSSWALK OR SIDEWALK CLOSURE, for speeds < 45 mph
701901-01	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
728001-01	TELESCOPING STEEL SIGN SUPPORT
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT

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Rev. 7-18-08

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

SUMMARY OF QUANTITIES

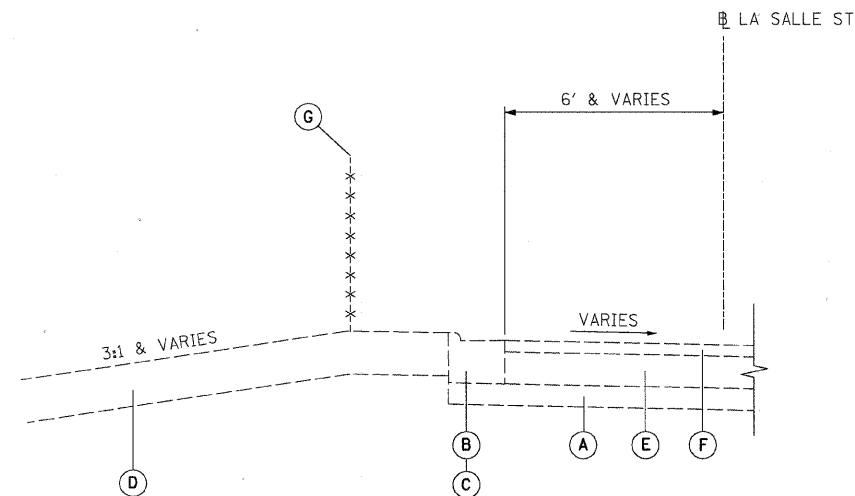
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DATE: 04/25/08

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CHECKED BY:

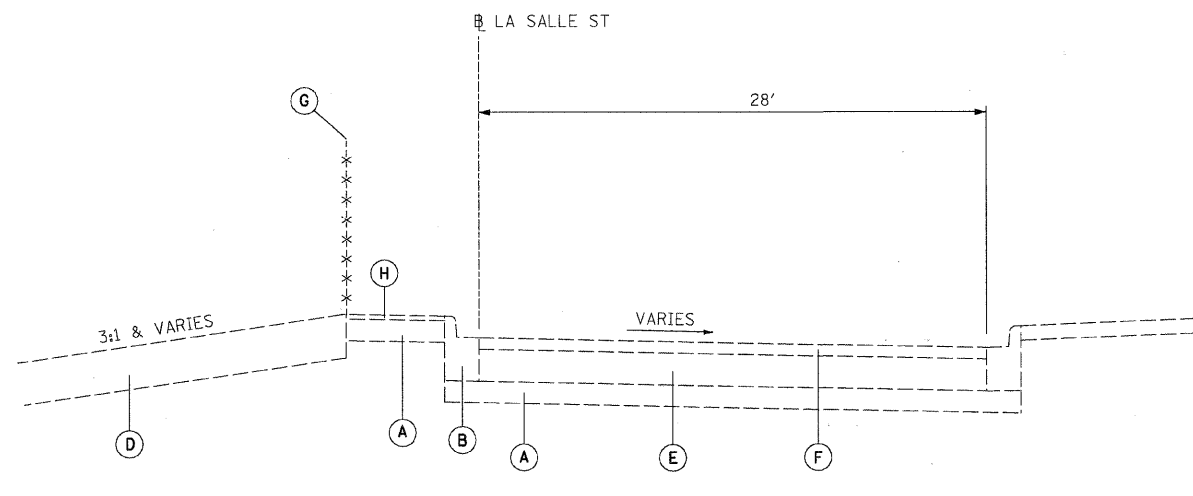
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4/24/2008

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	27	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62990				

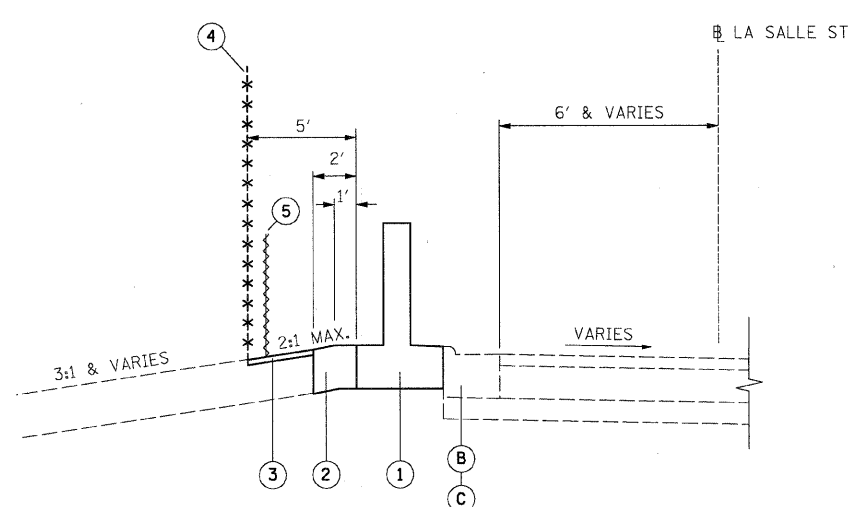


**EXISTING TYPICAL SECTION**  
STA. 238+65.56 to 240+91

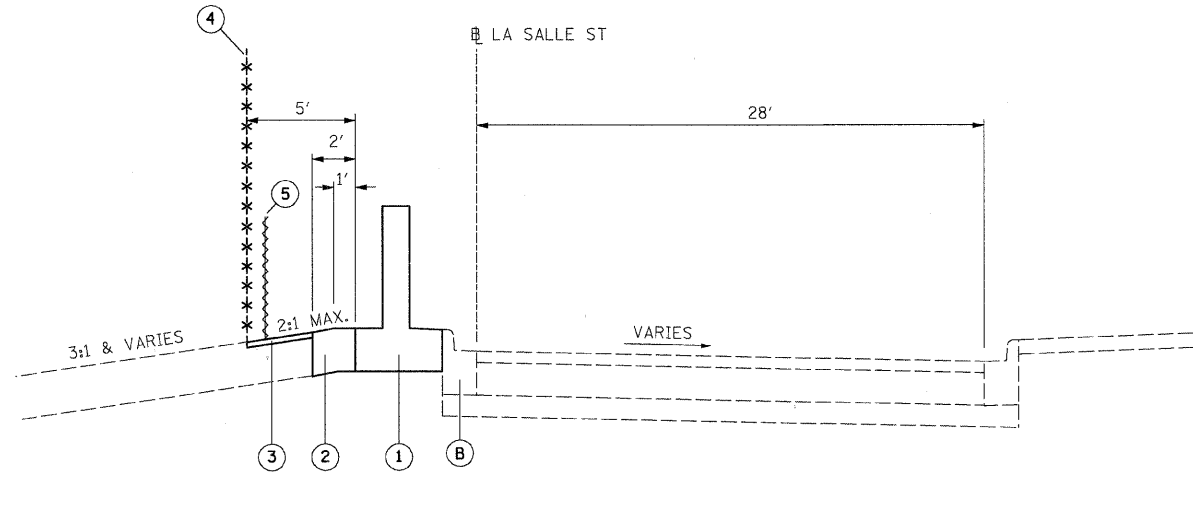


**EXISTING TYPICAL SECTION**  
STA. 245+35.18 to 247+78

- EXISTING LEGEND**
- (A) GRANULAR MATERIAL, 6"
  - (B) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
  - (C) COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24
  - (D) TOPSOIL, 12"
  - (E) PORTLAND CEMENT CONCRETE PAVEMENT, 9"
  - (F) BITUMINOUS CONCRETE, 3"
  - (G) CHAIN LINK FENCE, 4'
  - (H) BITUMINOUS MEDIAN SURFACE, 1/2"



**PROPOSED TYPICAL SECTION**  
STA. 238+72 to 240+91



**PROPOSED TYPICAL SECTION**  
STA. 245+35.18 to 247+78

- PROPOSED LEGEND**
- (1) FLUTED KNEE WALL
  - (2) SEEDING, CLASS 4 (MODIFIED) / SEEDING, CLASS 5A (MODIFIED) / TOPSOIL FURNISH AND PLACE, 12" / EROSION CONTROL BLANKET
  - (3) SEEDING, CLASS 4 (MODIFIED) / SEEDING CLASS 5A (MODIFIED) / EROSION CONTROL BLANKET
  - (4) CHAIN LINK FENCE, 4' (SPECIAL)
  - (5) SEDIMENT CONTROL, SILT FENCE (TO BE REMOVED AT PROJECT COMPLETION)

**NOTES:**

1. THICKNESS OF EXISTING PAVEMENT AND GRANULAR MATERIAL ARE TAKEN FROM RECORD DRAWING PLANS.
2. TYPICAL SECTIONS NEED TO BE VERIFIED WITH THE PLANS AS THEY ARE A REPRESENTATION OF THE PLANS. THEY DO NOT SHOW ALL CONFIGURATIONS, JUST THE MOST PREDOMINANT.

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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

**TYPICAL SECTIONS**

SCALE: NTS  
DATE: 04/25/08

DRAWN BY: JDC  
CHECKED BY: RS

TYP-1

14-660(04/04/01) 3100 SHEETS 660-3100 3/00/04/01 5-4409 PM 4/24/2008

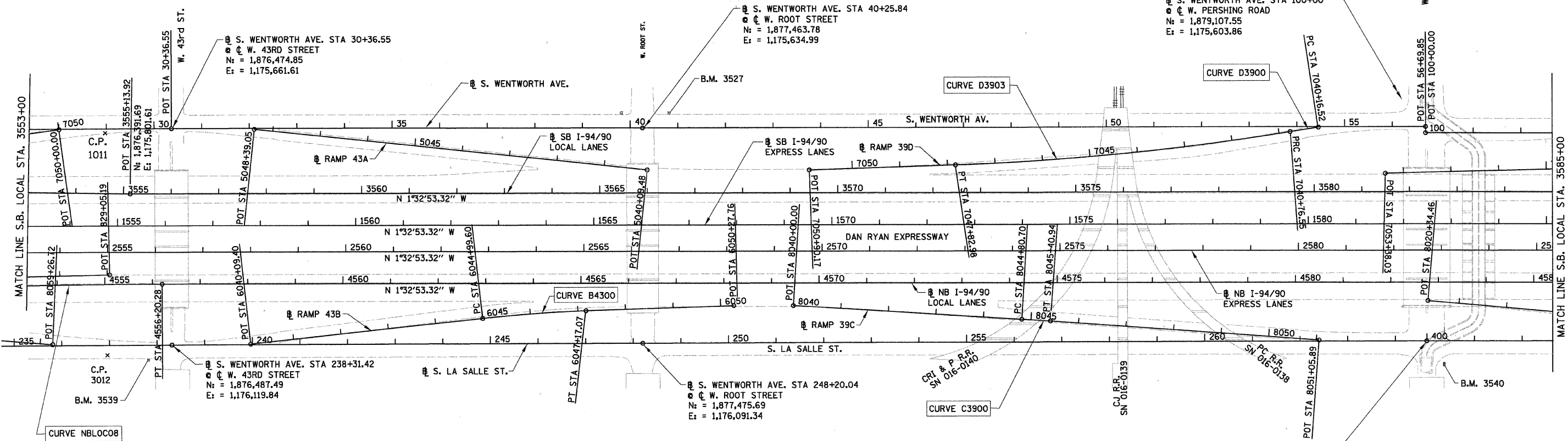


F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

62990

PROP. CURVE D3903  
P.I. STA = 7044+30.25  
Nt = 1,878,475.96  
E = 1,175,675.24  
Δ = 7° 22' 41" (RT)  
D = 1° 02' 40"  
R = 5,486.00'  
T = 353.70'  
L = 706.43'  
E = 11.39'  
P.C. STA = 7040+76.55  
Nt = 1,878,823.36  
E = 1,175,608.75  
P.T. STA = 7047+82.98  
Nt = 1,878,122.90  
E = 1,175,696.57

PROP. CURVE D3900  
P.I. STA = 7040+46.54  
Nt = 1,878,852.84  
E = 1,175,603.11  
Δ = 0° 47' 26" (LT)  
D = 1° 19' 02"  
R = 4,350.00'  
T = 30.02'  
L = 60.03'  
E = 0.10'  
P.C. STA = 7040+16.52  
Nt = 1,878,882.40  
E = 1,175,597.87  
P.T. STA = 7040+76.55  
Nt = 1,878,823.36  
E = 1,175,608.75



PROP. CURVE NBLOC08  
P.I. STA = 4554+19.42  
Nt = 1,876,262.66  
E = 1,175,997.17  
Δ = 1° 32' 04" (RT)  
D = 0° 22' 55"  
R = 15,000.00'  
T = 200.89'  
L = 401.75'  
E = 1.35'  
P.C. STA = 4552+18.53  
Nt = 1,876,062.07  
E = 1,176,007.97  
P.T. STA = 4556+20.28  
Nt = 1,876,463.47  
E = 1,175,991.74

PROP. CURVE B4300  
P.I. STA = 6046+08.39  
Nt = 1,877,246.14  
E = 1,176,032.59  
Δ = 4° 21' 02" (RT)  
D = 2° 00' 02"  
R = 2,864.00'  
T = 108.79'  
L = 217.47'  
E = 2.07'  
e = 3.0%  
S.A. = STA 6044+79.60  
TO 6045+09.60  
S.R. = STA 6047+07.07  
TO 6047+37.07  
P.C. STA = 6044+99.60  
Nt = 1,877,138.36  
E = 1,176,047.37  
P.T. STA = 6047+17.07  
Nt = 1,877,354.72  
E = 1,176,026.03

PROP. CURVE C3900  
P.I. STA = 8045+10.82  
Nt = 1,878,300.55  
E = 1,176,021.08  
Δ = 0° 41' 25" (RT)  
D = 1° 08' 45"  
R = 5,000.00'  
T = 30.12'  
L = 60.24'  
E = 0.09'  
P.C. STA = 8044+80.70  
Nt = 1,878,270.25  
E = 1,176,020.07  
P.T. STA = 8045+40.94  
Nt = 1,878,330.44  
E = 1,176,022.46

S. WENTWORTH AVE. STA 56+69.85  
C. W. PERSHING ROAD  
Nt = 1,879,107.55  
E = 1,175,590.76

S. WENTWORTH AVE. STA 100+00  
C. W. PERSHING ROAD  
Nt = 1,879,107.55  
E = 1,175,603.86

S. LASALLE ST. STA 400+00.00 AH  
STA 264+66.03 BK  
C. W. PERSHING ROAD  
Nt = 1,879,121.00  
E = 1,176,043.89

- NOTES:**
- AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360
  - FOR BENCH MARK INFORMATION, SEE SHEET ALT-16 OF ALIGNMENT PLAN SHEETS.
  - FOR RAMP P.O.T. INFORMATION, SEE SHEET ALT-16 OF ALIGNMENT PLAN SHEETS.

ALT-02

REVISIONS	
NAME	DATE

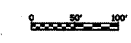
ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

**ALIGNMENT PLAN**

SCALE: 1"=100'  
DATE: 04/25/08

DRAWN BY: JDC  
CHECKED BY: RS

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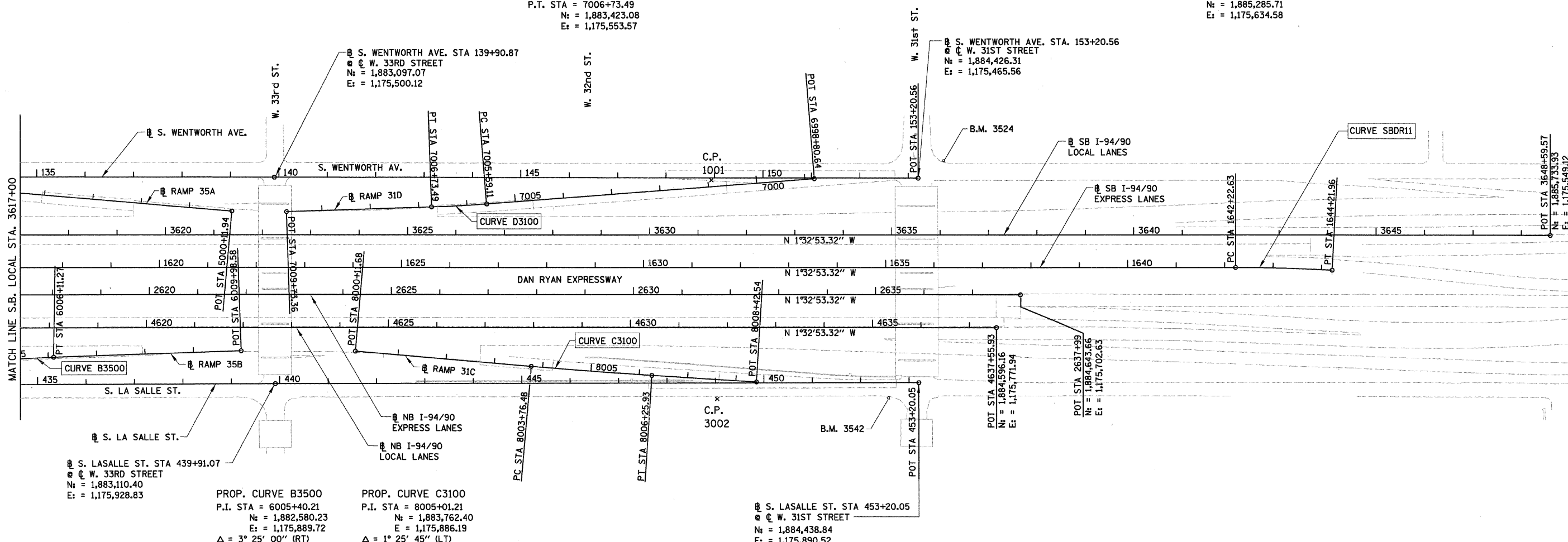


F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	27	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

62990

PROP. CURVE D3100  
P.I. STA = 7006+16.31  
Nt = 1,883,480.18  
E = 1,175,550.12  
 $\Delta = 2^\circ 35' 11''$  (RT)  
D = 2° 15' 40"  
R = 2,534.00'  
T = 57.20'  
L = 114.38'  
E = 0.65'  
e = 2.6%  
S.A. = STA 7005+43.11  
TO 7005+63.11  
S.R. = STA 7006+69.49  
TO 7006+89.49  
P.C. STA = 7005+59.11  
Nt = 1,883,537.06  
E = 1,175,544.09  
P.T. STA = 7006+73.49  
Nt = 1,883,423.08  
E = 1,175,553.57

PROP. CURVE SBDR11  
P.I. STA = 1643+22.32  
Nt = 1,885,186.06  
E = 1,175,631.95  
 $\Delta = 3^\circ 03' 18''$  (RT)  
D = 1° 31' 57"  
R = 3,738.57'  
T = 99.69'  
L = 199.33'  
E = 1.33'  
e = ±2.5% (MATCH EXISTING)  
S.A. = STA 1641+95.99  
TO 1642+35.95  
S.R. = N/A  
P.C. STA = 1642+22.63  
Nt = 1,885,086.40  
E = 1,175,634.65  
P.T. STA = 1644+21.96  
Nt = 1,885,285.71  
E = 1,175,634.58



S. LASALLE ST. STA 439+91.07  
C. W. 33RD STREET  
Nt = 1,883,110.40  
E = 1,175,928.83

PROP. CURVE B3500  
P.I. STA = 6005+40.21  
Nt = 1,882,580.23  
E = 1,175,889.72  
 $\Delta = 3^\circ 25' 00''$  (RT)  
D = 2° 24' 12"  
R = 2,384.00'  
T = 71.10'  
L = 142.16'  
E = 1.06'  
e = 2.7%  
S.A. = STA 6004+53.11  
TO 6004+73.11  
S.R. = STA 6006+07.27  
TO 6006+27.27  
P.C. STA = 6004+69.11  
Nt = 1,882,509.63  
E = 1,175,898.23  
P.T. STA = 6006+11.27  
Nt = 1,882,651.20  
E = 1,175,885.43

PROP. CURVE C3100  
P.I. STA = 8005+01.21  
Nt = 1,883,762.40  
E = 1,175,886.19  
 $\Delta = 1^\circ 25' 45''$  (LT)  
D = 0° 34' 23"  
R = 10,000.00'  
T = 124.73'  
L = 249.45'  
E = 0.78'  
P.C. STA = 8003+76.48  
Nt = 1,883,637.89  
E = 1,175,878.68  
P.T. STA = 8006+25.93  
Nt = 1,883,887.05  
E = 1,175,890.60

S. LASALLE ST. STA 453+20.05  
C. W. 31ST STREET  
Nt = 1,884,438.84  
E = 1,175,890.52

- NOTES:**
- AVERAGE GRID TO GROUND CONVERSION FACTOR = 1.000010988654360
  - FOR BENCH MARK INFORMATION, SEE SHEET ALT-16 OF ALIGNMENT PLAN SHEETS.
  - FOR RAMP P.O.T. INFORMATION, SEE SHEET ALT-16 OF ALIGNMENT PLAN SHEETS.

ALT-04

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

**ALIGNMENT PLAN**

SCALE: 1"=100'  
DATE: 04/25/08

DRAWN BY: JDC  
CHECKED BY: RS

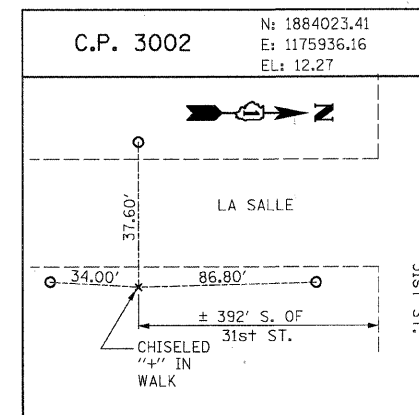
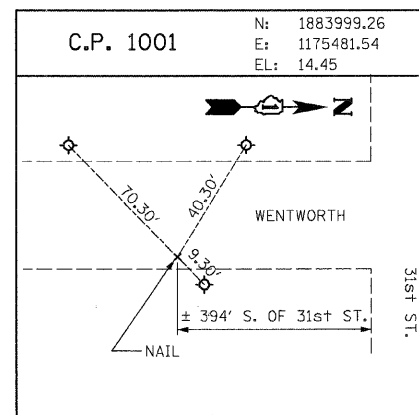
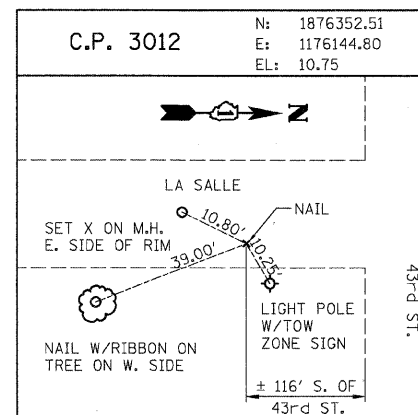
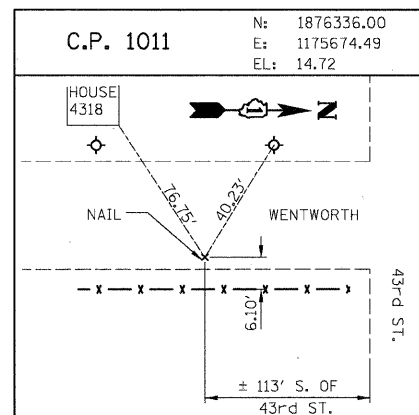
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 4/24/2008



62990



RAMP P.O.T. COORDINATE INFORMATION

POINT	DESCRIPTION	STATION	NORTH	EAST
BEGIN	RAMP 47A	5060+00.00	1,875,185.77	1,175,764.15
END	RAMP 47A	5074+13.97	1,873,854.99	1,175,322.86
BEGIN	RAMP 47B	6059+26.00	1,874,166.99	1,175,887.94
END	RAMP 47B	6069+64.12	1,875,168.85	1,176,104.15
BEGIN	RAMP 43C	7050+00.00	1,876,238.80	1,175,669.59
END	RAMP 43C	7059+84.92	1,875,259.95	1,175,764.44
BEGIN	RAMP 43D	8051+00.00	1,875,411.12	1,176,092.10
END	RAMP 43D	8059+26.72	1,876,237.16	1,176,124.86
BEGIN	RAMP 43A	5040+09.48	1,877,475.98	1,175,723.30
END	RAMP 43A	5048+39.05	1,876,648.91	1,175,658.90
BEGIN	RAMP 43B	6040+09.40	1,876,652.70	1,176,113.96
END	RAMP 43B	6050+27.76	1,877,664.85	1,176,007.29
BEGIN	RAMP 39D	7040+16.52	1,878,882.40	1,175,597.87
END	RAMP 39D	7050+90.17	1,877,816.27	1,175,715.09
BEGIN	RAMP 39C	8040+00.00	1,877,789.82	1,176,003.91
END	RAMP 39C	8051+05.89	1,878,894.81	1,176,048.24

POINT	DESCRIPTION	STATION	NORTH	EAST
BEGIN	RAMP T35D	7040+08.53	1,880,349.18	1,175,584.62
END	RAMP T35D	7053+38.03	1,879,025.07	1,175,691.43
BEGIN	RAMP T35C	8020+34.46	1,879,121.15	1,175,958.93
END	RAMP T35C	8029+64.40	1,880,049.40	1,176,014.92
BEGIN	RAMP T39A	5020+12.77	1,881,685.70	1,175,610.45
END	RAMP T39A	5028+45.01	1,880,854.96	1,175,560.34
BEGIN	RAMP T39B	6019+89.02	1,880,556.70	1,175,995.95
END	RAMP T39B	6033+30.58	1,881,892.23	1,175,884.04
BEGIN	RAMP 35A	5000+11.94	1,883,011.02	1,175,573.65
END	RAMP 35A	5008+14.74	1,882,209.69	1,175,525.14
BEGIN	RAMP 35B	6000+06.87	1,882,050.72	1,175,953.56
END	RAMP 35B	6009+98.58	1,883,037.81	1,175,862.08
BEGIN	RAMP 31D	6998+80.64	1,884,211.76	1,175,472.66
END	RAMP 31D	7009+73.36	1,883,123.75	1,175,571.65
BEGIN	RAMP 31C	8000+11.68	1,883,273.75	1,175,856.72
END	RAMP 31C	8008+42.54	1,884,103.52	1,175,898.24

**BENCH MARK NO. 3524** ELEV. 15.17  
DESCRIPTION:  
CROSS CUT ON NORTH FLANGE BOLT OF FIRE HYDRANT AT THE NORTHWEST CORNER OF 31st ST. AND WENTWORTH AVE.

**BENCH MARK NO. 3525** ELEV. 16.93  
DESCRIPTION:  
CROSS CUT ON NORTHWEST FLANGE BOLT OF FIRE HYDRANT AT THE NORTHWEST CORNER OF 35th ST. AND WENTWORTH AVE.

**BENCH MARK NO. 3526** ELEV. 17.37  
DESCRIPTION:  
CROSS CUT ON NORTHWEST FLANGE BOLT OF FIRE HYDRANT AT THE WENTWORTH GARDEN OFFICE ALONG THE WEST SIDE OF WENTWORTH AVE.

**BENCH MARK NO. 3527** ELEV. 15.63  
DESCRIPTION:  
CROSS CUT ON NORTHERLY FLANGE BOLT OF FIRE HYDRANT AT THE NORTHWEST CORNER OF ROOT ST. AND WENTWORTH AVE.

**BENCH MARK NO. 3539** ELEV. 13.10  
DESCRIPTION:  
CROSS CUT ON EASTERLY BOLT OF LIGHT POLE BASE AT THE SOUTHEAST CORNER OF 43rd ST. AND LA SALLE ST.

**BENCH MARK NO. 3540** ELEV. 12.33  
DESCRIPTION:  
SQUARE CUT ON THE SOUTHWEST CORNER OF THE TRAFFIC CONTROL BOX AT THE NORTHEAST CORNER OF 39th ST. AND LA SALLE ST.

**BENCH MARK NO. 3541** ELEV. 14.78  
DESCRIPTION:  
CROSS CUT ON THE SOUTHWEST BOLT OF LIGHT POLE BASE AT THE SOUTH EAST CORNER OF 35th ST. AND LA SALLE ST.

**BENCH MARK NO. 3542** ELEV. 13.57  
DESCRIPTION:  
CROSS CUT ON THE EASTERLY FLANGE BOLT OF THE FIRE HYDRANT AT THE INTERSECTION OF 31st ST. AND LA SALLE ST.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

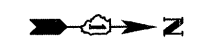
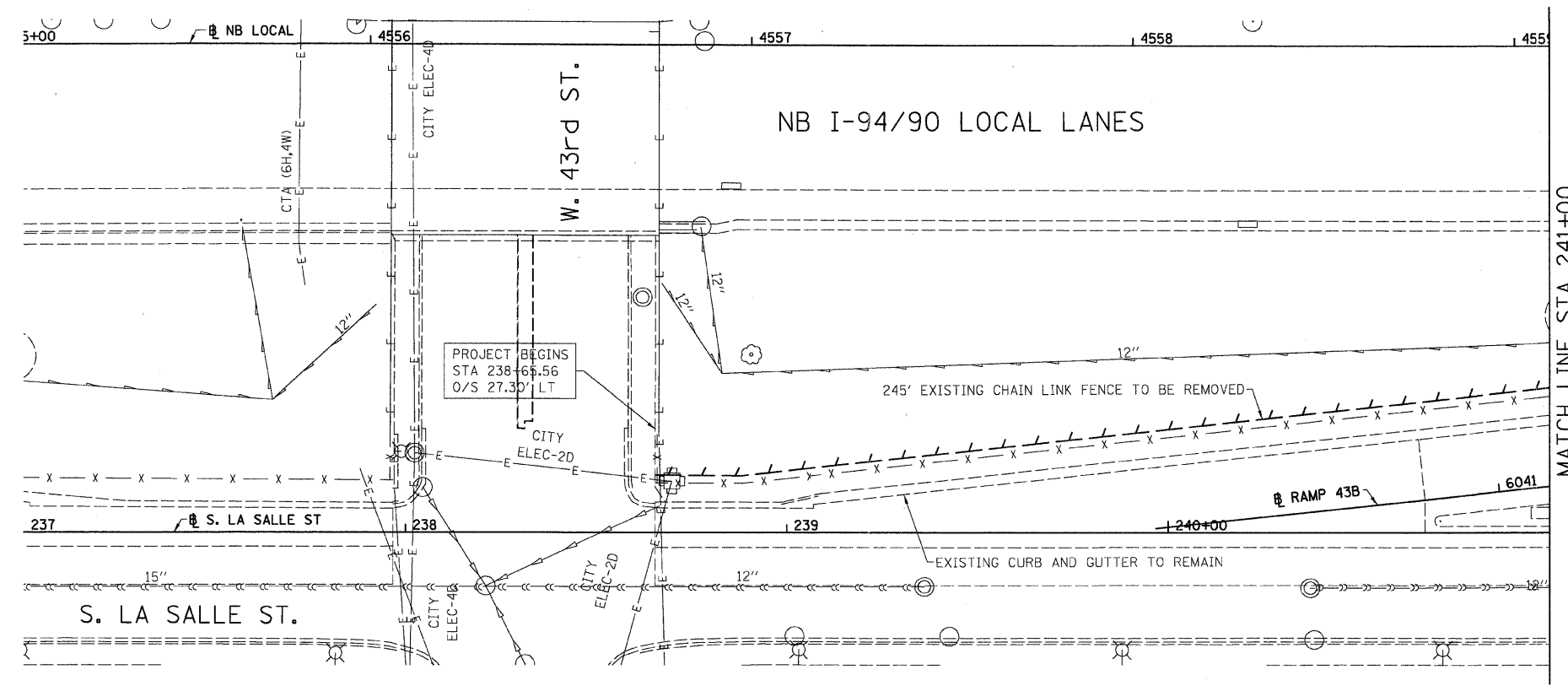
**ALIGNMENT PLAN**

SCALE: 1"=100'  
DATE: 04/25/08

DRAWN BY: JDC  
CHECKED BY: RS

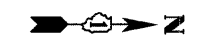
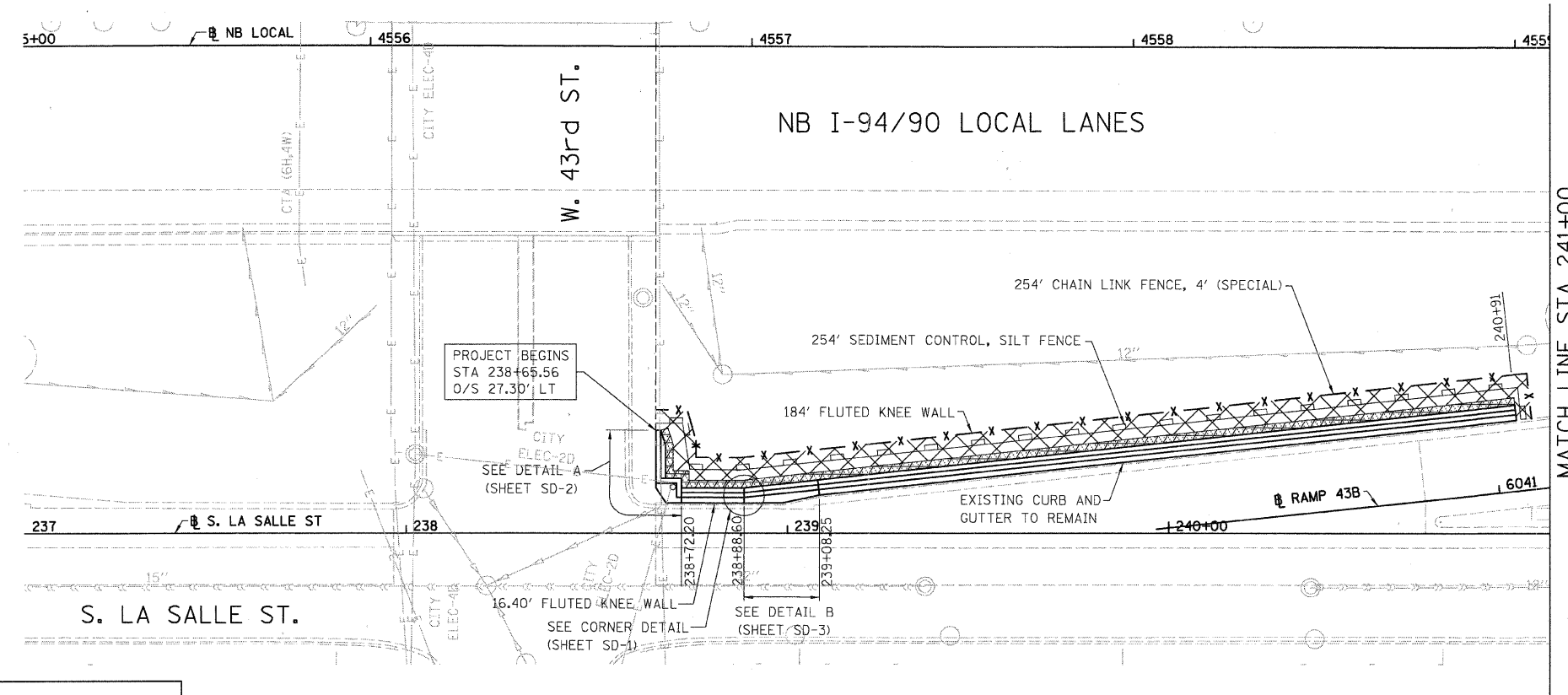
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	27	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
		62990		



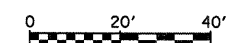
- LEGEND:
- PAVED SHOULDER REMOVAL
  - LINEAR REMOVALS

EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS



- LEGEND:
- SEEDING, CLASS 4 (MODIFIED)  
SEEDING CLASS 5A (MODIFIED)  
EROSION CONTROL BLANKET
  - TOPSOIL FURNISH AND PLACE, 12"  
SEEDING, CLASS 4 (MODIFIED)  
SEEDING, CLASS 5A (MODIFIED)  
EROSION CONTROL BLANKET

- NOTES:
1. SEE STRUCTURAL DETAIL FOR FLUTED KNEE WALL DETAILS.
  2. ALL POINT CALLOUTS ARE TAKEN AT THE EDGE OF THE KNEE WALL BASE.



REVISIONS	
NAME	DATE

PL-1

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

**EXISTING AND PROPOSED  
KNEE WALL PLANS**

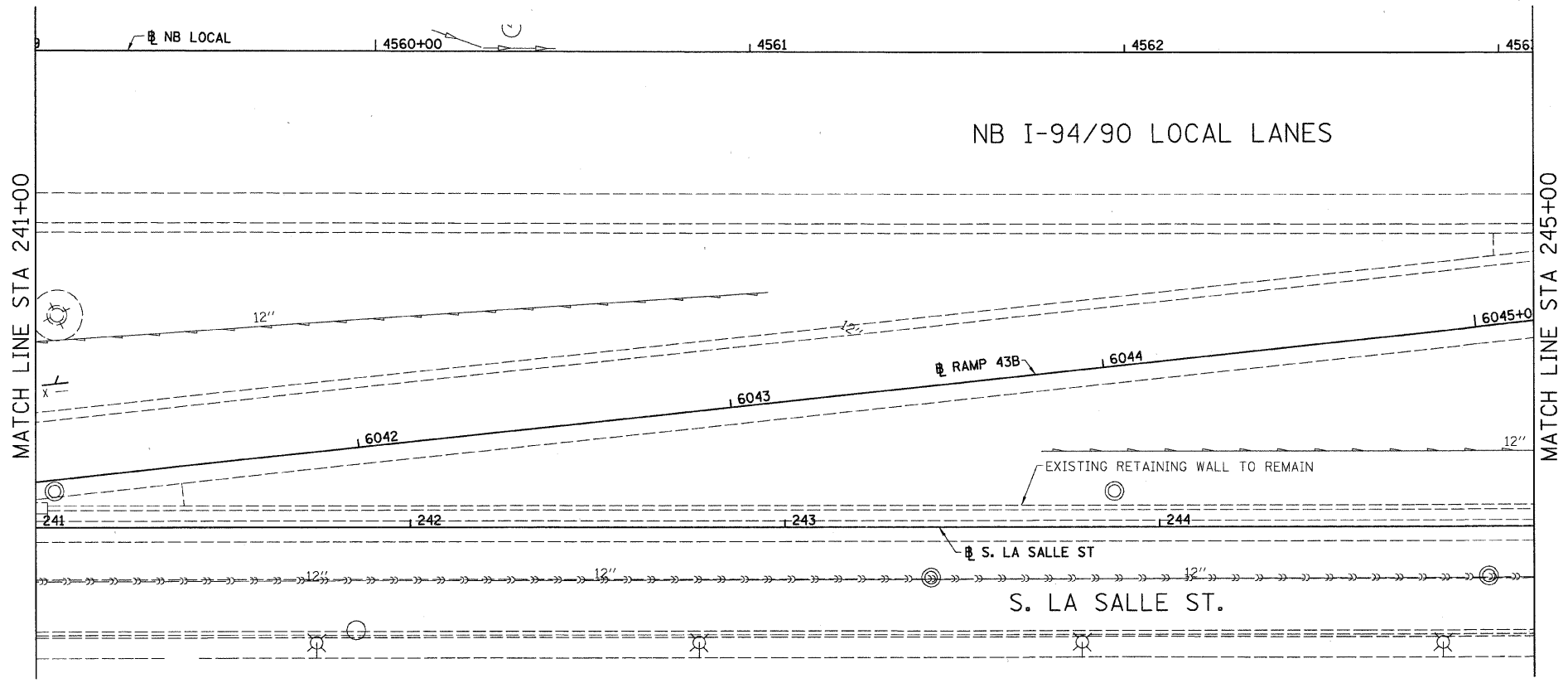
SCALE: 1"=20'  
DATE: 04/25/08



DRAWN BY: JDC  
CHECKED BY: DDM

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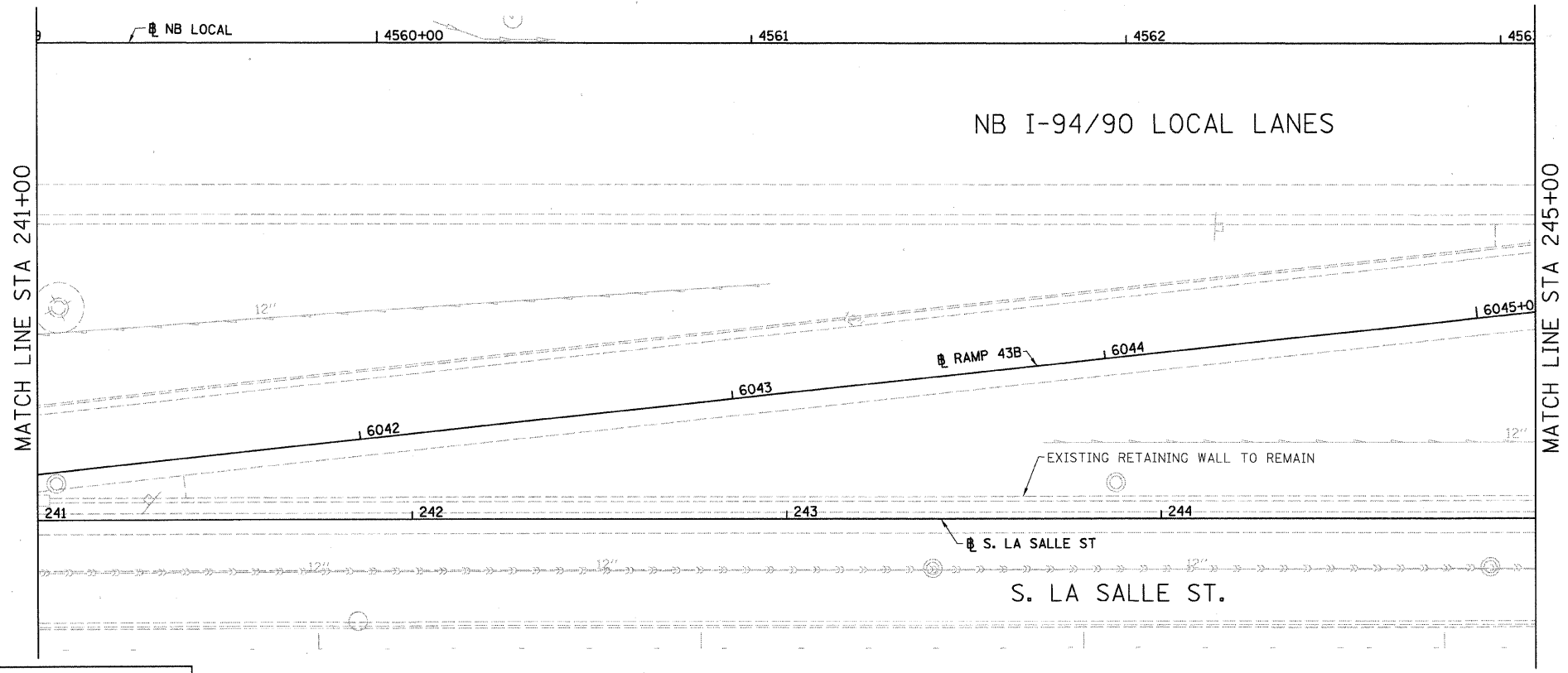
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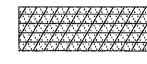
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94/90		COOK	27	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
62990				



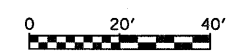
- LEGEND:
-  PAVED SHOULDER REMOVAL
  -  LINEAR REMOVALS

EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS



- LEGEND:
-  SEEDING, CLASS 4 (MODIFIED)  
SEEDING CLASS 5A (MODIFIED)  
EROSION CONTROL BLANKET
  -  TOPSOIL FURNISH AND PLACE, 12"  
SEEDING, CLASS 4 (MODIFIED)  
SEEDING, CLASS 5A (MODIFIED)  
EROSION CONTROL BLANKET

- NOTES:
1. SEE STRUCTURAL DETAIL FOR FLUTED KNEE WALL DETAILS.
  2. ALL POINT CALLOUTS ARE TAKEN AT THE EDGE OF THE KNEE WALL BASE.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

EXISTING AND PROPOSED  
KNEE WALL PLANS

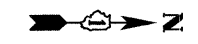
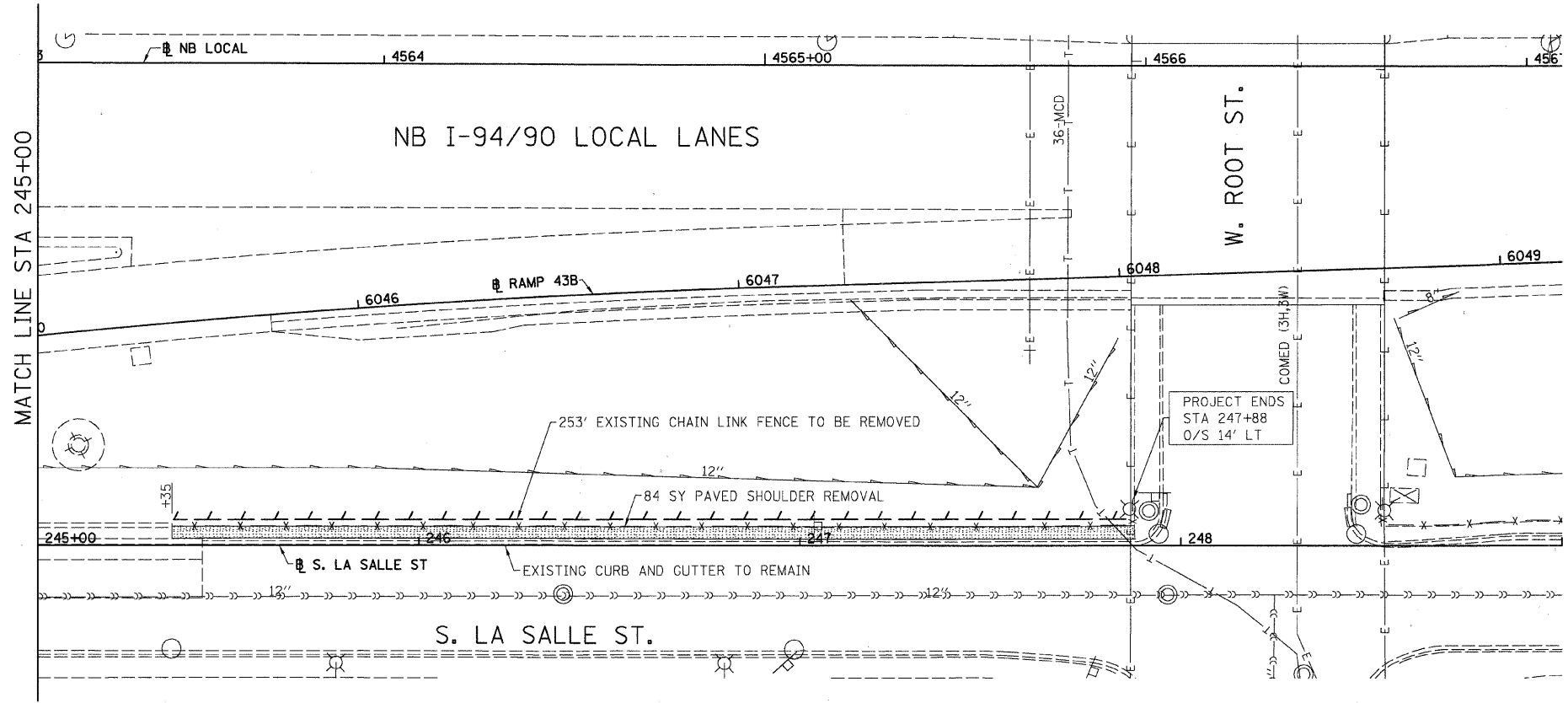
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DATE: 04/25/08

DRAWN BY: JDC  
CHECKED BY: DDM

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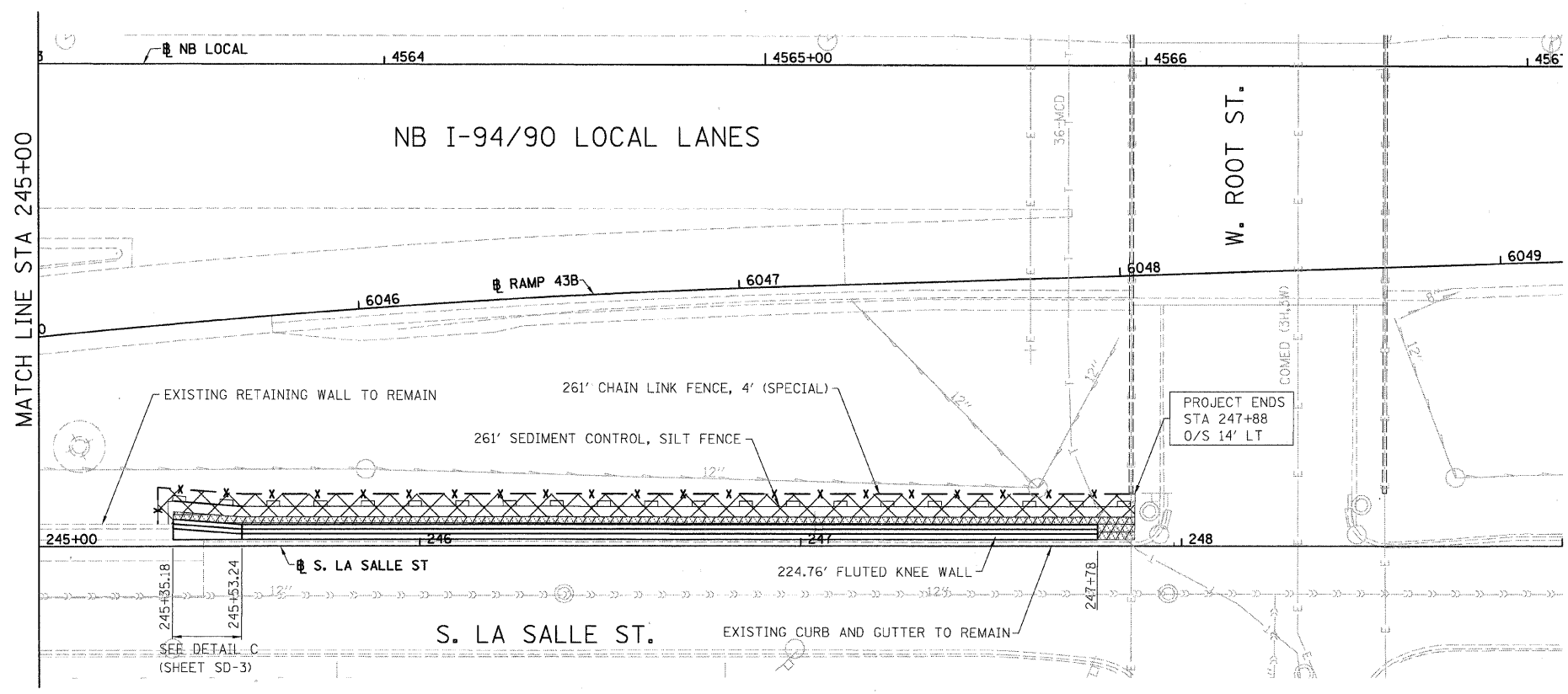
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	27	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62990				



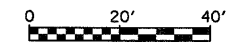
- LEGEND:
- PAVED SHOULDER REMOVAL
  - LINEAR REMOVALS

EXISTING CONDITIONS AND REMOVAL  
PROPOSED IMPROVEMENTS



- LEGEND:
- SEEDING, CLASS 4 (MODIFIED)  
SEEDING CLASS 5A (MODIFIED)  
EROSION CONTROL BLANKET
  - TOPSOIL FURNISH AND PLACE, 12"  
SEEDING CLASS 4 (MODIFIED)  
SEEDING, CLASS 5A (MODIFIED)  
EROSION CONTROL BLANKET

- NOTES:
1. SEE STRUCTURAL DETAIL FOR FLUTED KNEE WALL DETAILS.
  2. ALL POINT CALLOUTS ARE TAKEN AT THE EDGE OF THE KNEE WALL BASE.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

**EXISTING AND PROPOSED  
KNEE WALL PLANS**

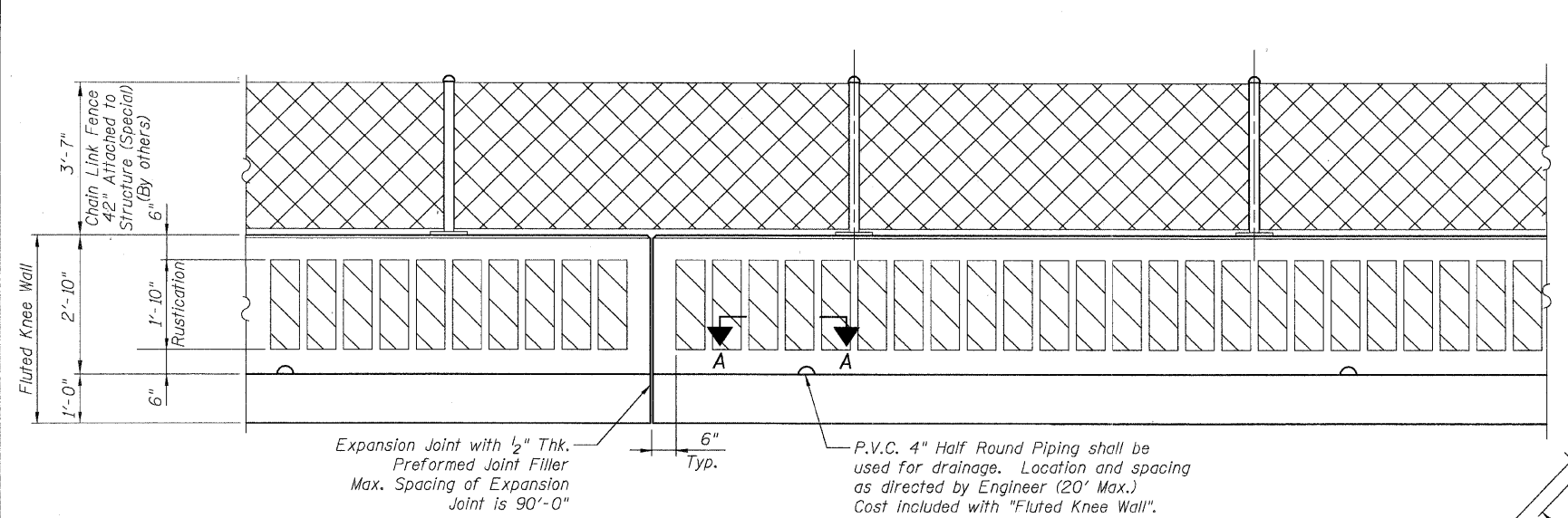
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DATE: 04/25/08

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CHECKED BY: DDM

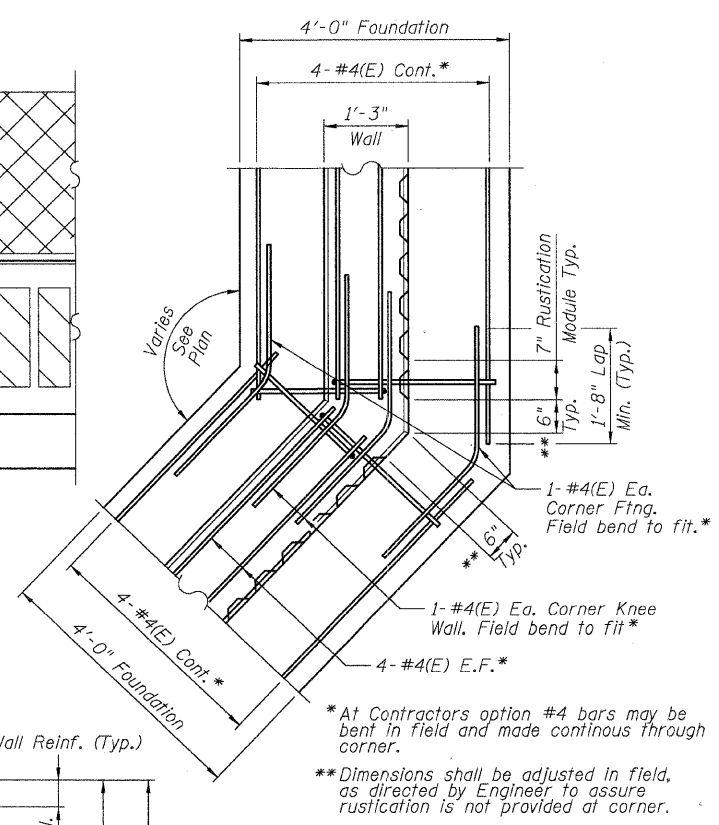
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PL-3  
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62990				



**BACK FACE ELEVATION - FLUTED KNEE WALL**



**TYPICAL FLUTED KNEE WALL CORNER DETAIL**

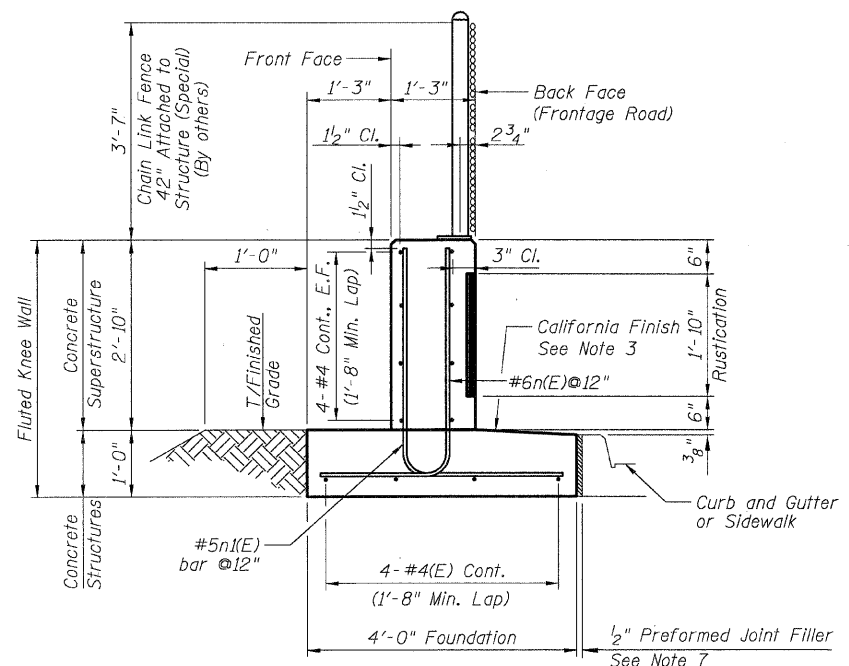
**BILL OF MATERIAL**

Item	Unit	Qty.*
Concrete Structures	Cu. Yd.	0.15
Concrete Superstructure	Cu. Yd.	0.13
Reinforcement Bars, Epoxy Coated	Pound	22.69
Rustication Finish	Sq. Ft.	1.83
Protective Coat	Sq. Yd.	0.62

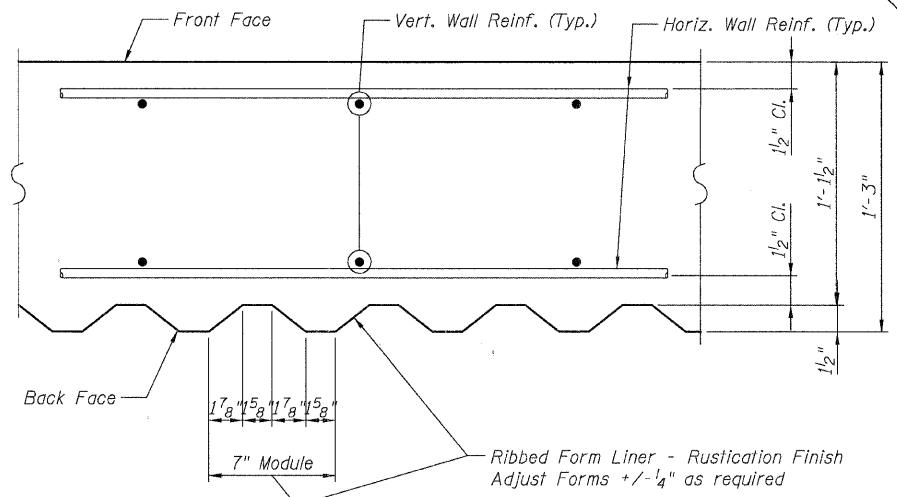
\* Quantities are per foot of Fluted Knee Wall and are provided for estimating purposes only. See Note 5.

**NOTES:**

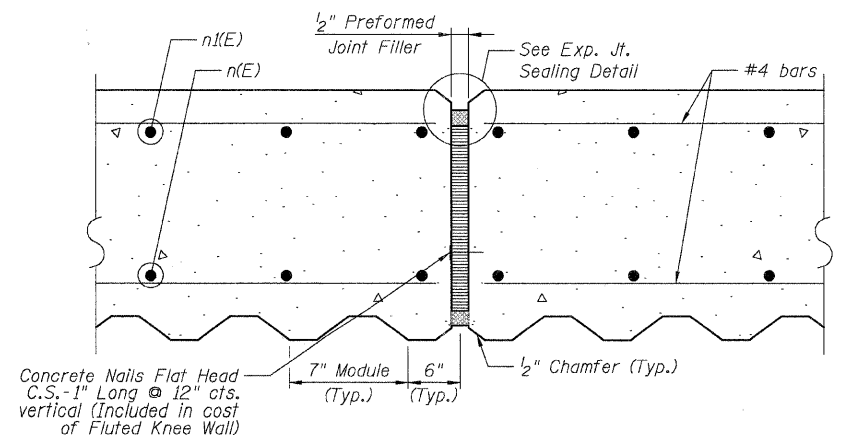
1. Back Face is face adjacent to Frontage Rd. and Front Face is face adjacent to Expressway.
2. Concrete:  $f'c = 3500$  psi
3. Provide California Finish on top of foundation between stem and Frontage Road. See Roadway Details. Cost included with "Fluted Knee Wall".
4. At locations where Fluted Knee Wall abuts a rigid Structure, a 1/2" thick Preformed Expansion Joint Filler conforming to the shape of the Structure shall be installed between the Wall and the Structure.
5. "Fluted Knee Wall" shall include Concrete Superstructure stem, Concrete Structures foundation, Reinforcement Bars, Epoxy Coated, all form liners for Rustication Finish, Protective Coat and Preformed Joint Filler (P.J.F.).
6. Apply Protective Coat to top and front face of stem and top of Frontage Road side of foundation.
7. Cost included with "Fluted Knee Wall."
8. Chain Link Fence 42" Attached to Structure (Special) will not be paid for in this Contract, but shall be furnished and installed in a future Contract by others.
9. See Roadway Plans for limits of excavation for Fluted Knee Wall.



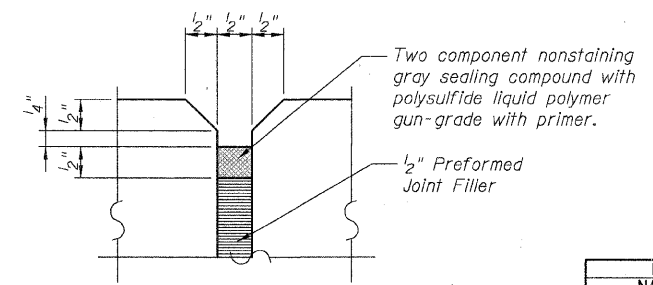
**TYPICAL SECTION FLUTED KNEE WALL**



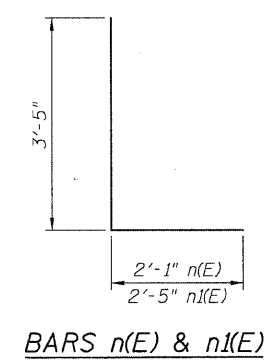
**SECTION A-A**



**EXPANSION JOINT DETAIL**



**EXPANSION JOINT SEALING DETAIL**



**BARS n(E) & n(E)**

**LEGEND:**

- Chain Link Fabric
- Rustication Finish
- E.F. = Each Face

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
 NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

**FLUTED KNEE WALL**

SCALE: NTS  
 DATE: 04/25/08

DRAWN BY: LAM  
 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.  
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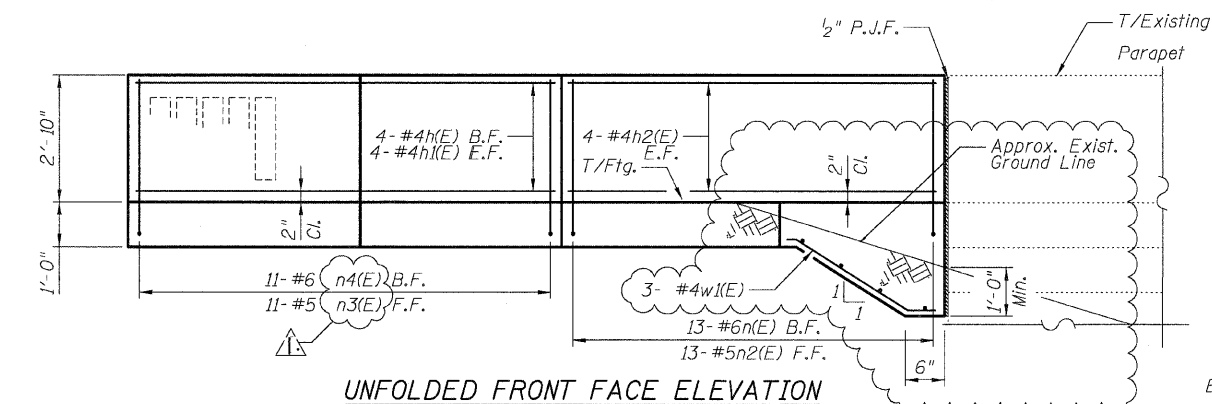
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### DETAIL A REINFORCEMENT SCHEDULE AND BILL OF MATERIAL

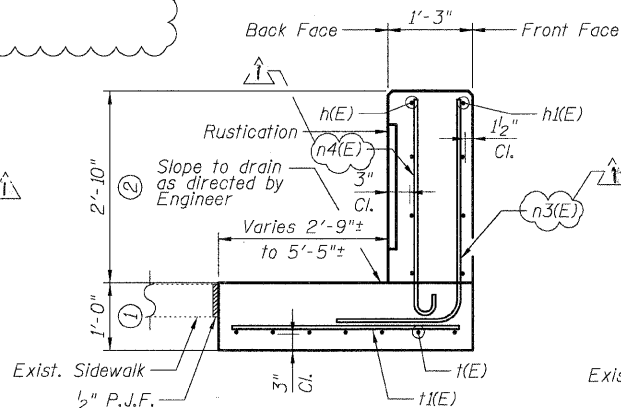
Bar	No.	Size	Length	Shape
h(E)	4	#4	9'-2"	┌
h1(E)	4	#4	11'-0"	┌
h2(E)	8	#4	12'-4"	┌
n(E)	13	#6	5'-6"	L
n2(E)	13	#5	4'-0"	┌
n3(E)	11	#5	5'-6"	L
n4(E)	11	#6	4'-0"	┌
1(E)	7	#6	6'-2"	┌
11(E)	7	#6	6'-4"	┌
12(E)	13	#6	2'-2"	┌
w(E)	3	#4	8'-4"	┌
w1(E)	3	#4	3'-8"	┌
Item		Unit	Qty.	
Concrete Structures		Cu. Yd.	2.8	
Concrete Superstructure		Cu. Yd.	3.1	
Reinforcement Bars, Epoxy Coated		Pound	610	
Rustication Finish		Sq. Ft.	17	
Protective Coat		Sq. Yd.	14	

#### NOTES:

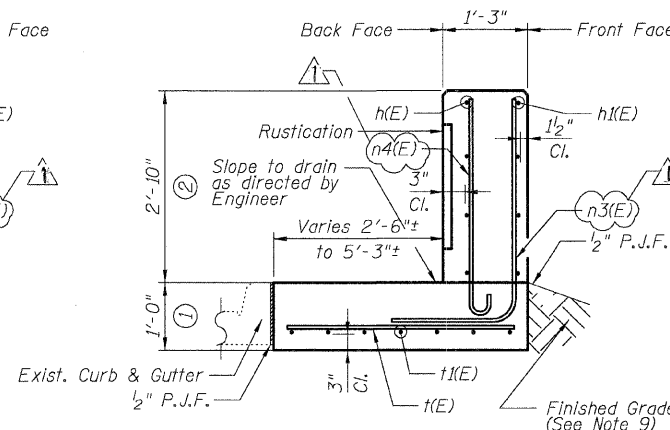
- All stations and offsets measured from S. La Salle St. E.
- Back Face is face adjacent to Frontage Rd. and Front Face is face adjacent to Expressway.
- Concrete:  $f'c = 3500$  psi
- Provide California Finish on top of foundation between stem and Frontage Road. See Roadway Details.
- At locations where Fluted Knee Wall abuts a rigid structure, a 2" thick Preformed Expansion Joint Filler conforming to the shape of the structure shall be installed between the Fluted Knee Wall and the structure.
- Apply Protective Coat to top and back face of stem and top of Frontage Road side of foundation.
- For Fluted Knee Wall standard details, see Sheet SD-1
- B.F. = Back Face (Frontage Road Side)  
F.F. = Front Face (Expressway Side)  
E.F. = Each Face
- Shape finished grade as required to match existing conditions.
- P.J.F. included in cost of concrete structures.



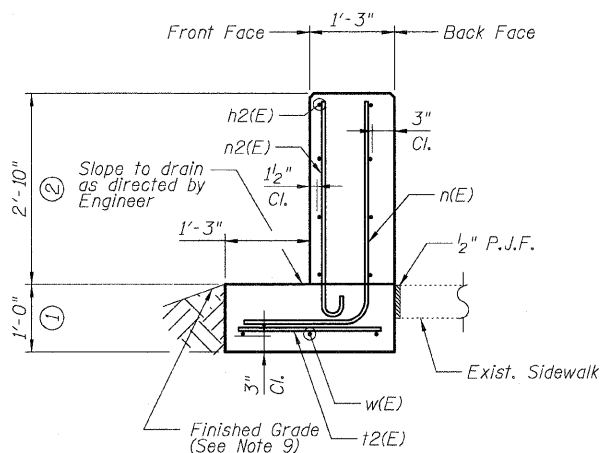
UNFOLDED FRONT FACE ELEVATION



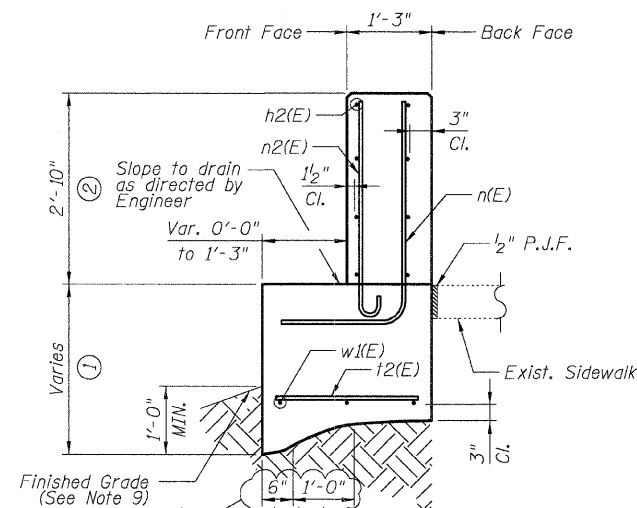
SECTION A-A



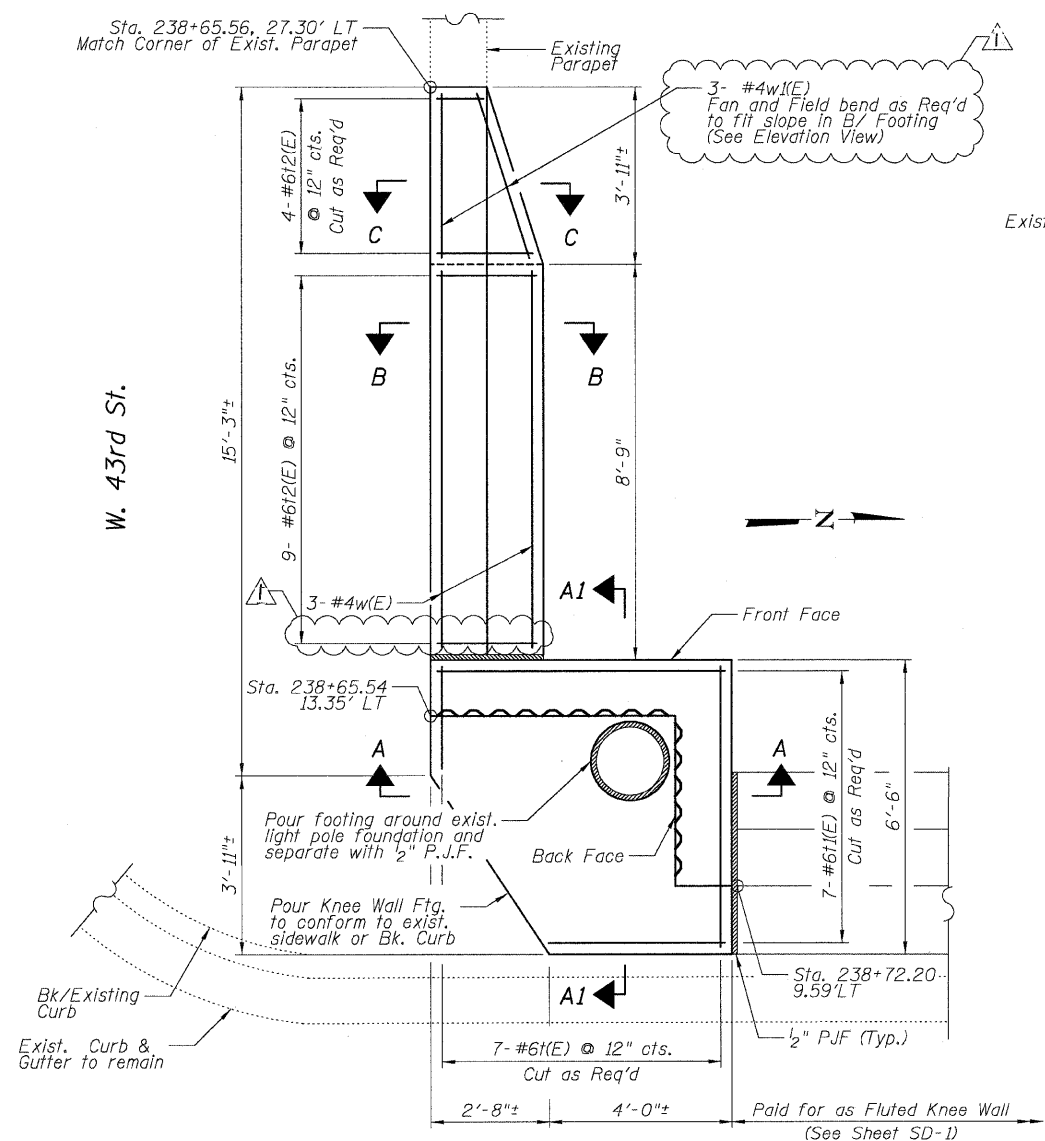
SECTION A1-A1



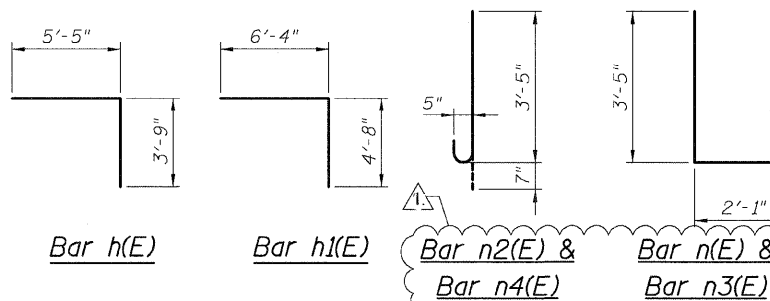
SECTION B-B



SECTION C-C



DETAIL A - PLAN



Bar h(E)

Bar h1(E)

Bar n2(E) & Bar n4(E)

Bar n(E) & Bar n3(E)

REVISIONS	
NAME	DATE
ADDENDUM 1	7-16-08

ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

#### DETAIL A

SCALE: NTS  
DATE: 04/25/08

DRAWN BY: TL  
CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC  
CONSULTING ENGINEERS  
Chicago, Illinois  
312.228.0100  
www.bbndainc.com

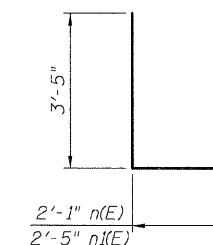
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62990				

**DETAIL B REINFORCEMENT SCHEDULE AND BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	8	#4	19'-7"	
n(E)	21	#6	5'-6"	L
n(E)	21	#5	5'-10"	L
t(E)	21	#6	4'-8"	
w(E)	4	#4	19'-7"	
Item	Unit	Qty.		
① Concrete Structures	Cu. Yd.	3.4		
② Concrete Superstructure	Cu. Yd.	2.7		
Reinforcement Bars, Epoxy Coated	Pound	610		
Rustication Finish	Sq. Ft.	37		
Protective Coat	Sq. Yd.	14		

**DETAIL C REINFORCEMENT SCHEDULE AND BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	8	#4	17'-9"	
n(E)	19	#6	5'-6"	L
n(E)	19	#5	5'-10"	L
t(E)	19	#6	5'-1"	
w(E)	4	#4	17'-9"	
Item	Unit	Qty.		
① Concrete Structures	Cu. Yd.	3.2		
② Concrete Superstructure	Cu. Yd.	2.4		
Reinforcement Bars, Epoxy Coated	Pound	560		
Rustication Finish	Sq. Ft.	34		
Protective Coat	Sq. Yd.	13		



Bar n(E) & h(E)

SHEET SD-3

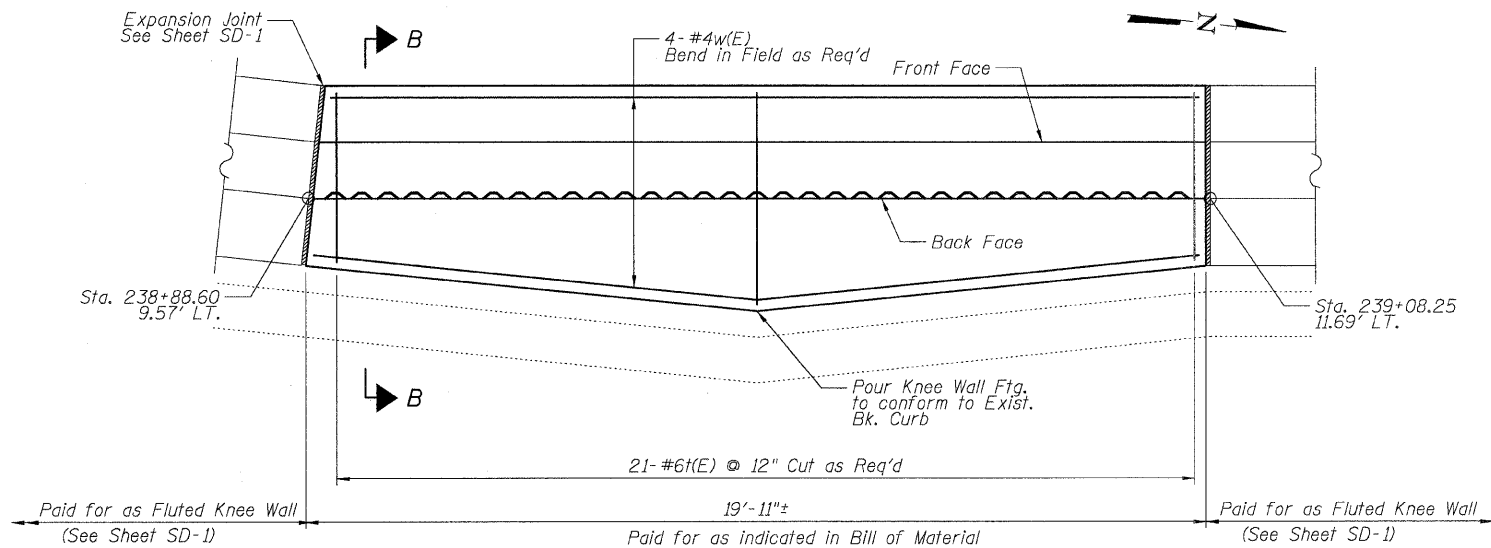
ILLINOIS DEPARTMENT OF TRANSPORTATION  
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)  
NORTHBOUND KNEE WALLS (43RD ST TO ROOT ST)

DETAILS B & C

SCALE: NTS  
DATE: 04/25/08

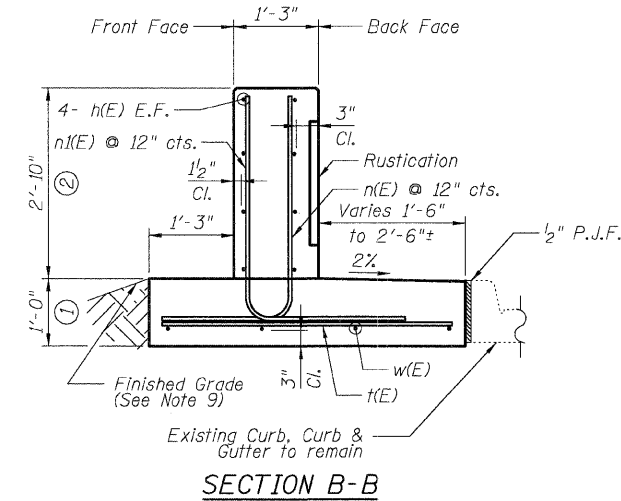
DRAWN BY: TL  
CHECKED BY: BLU

REVISIONS	
NAME	DATE
ADDENDUM 1	7-16-08

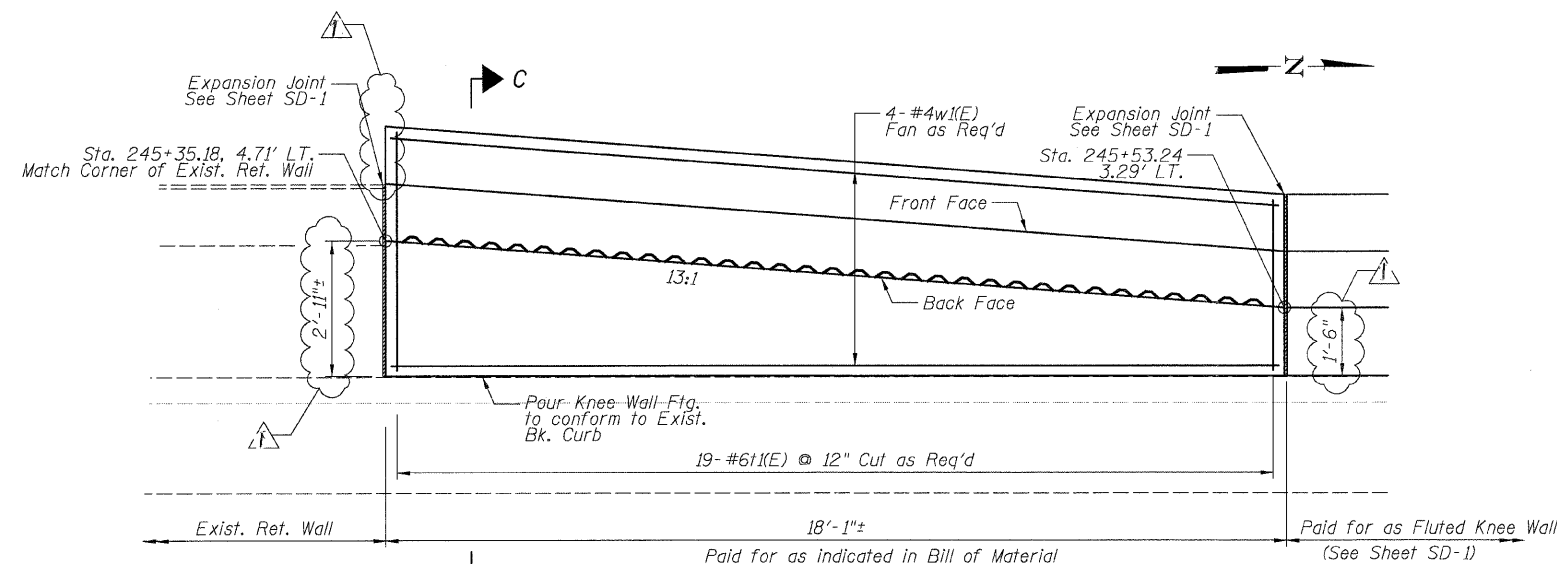


S. LA SALLE ST.

DETAIL B

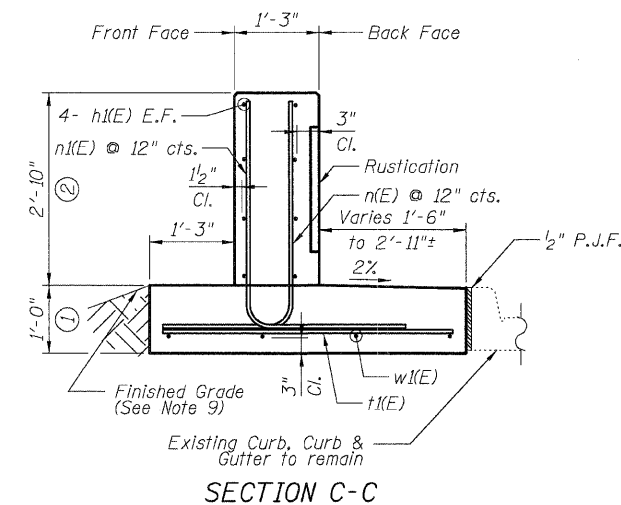


SECTION B-B



S. LA SALLE ST.

DETAIL C



SECTION C-C

**NOTES:**

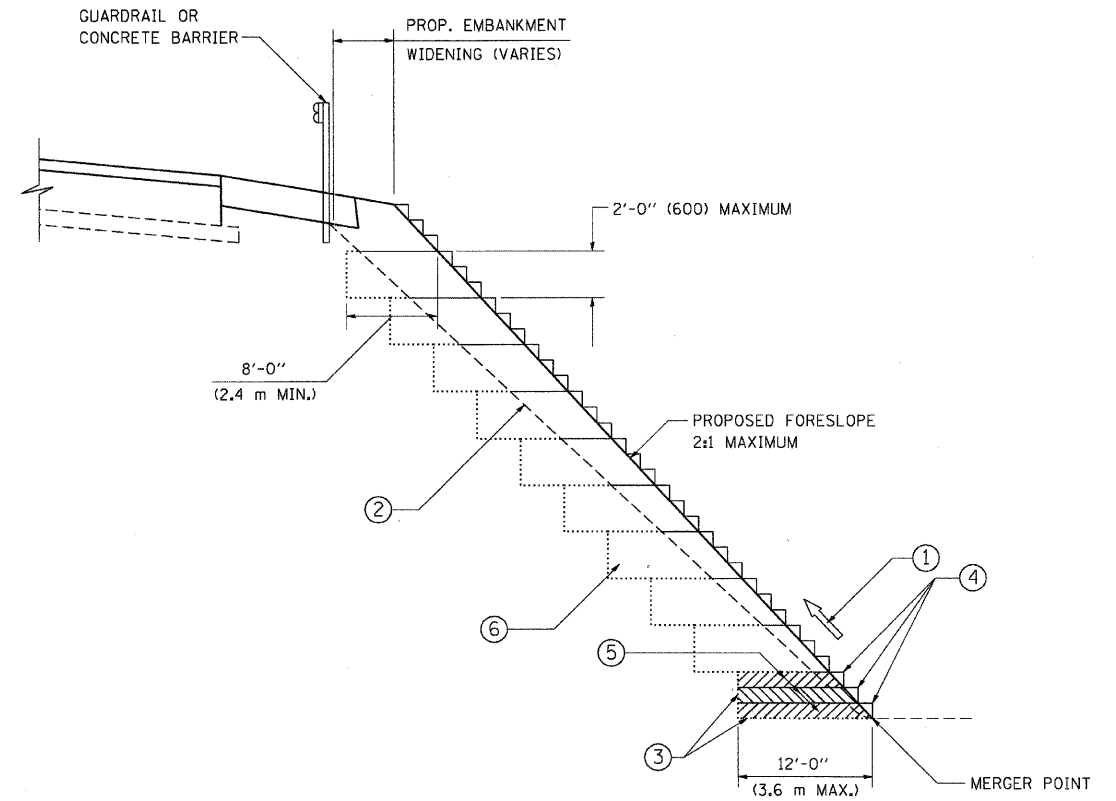
- All stations and offsets measured from S. La Salle St. @.
- Back Face is face adjacent to Frontage Rd. and Front Face is face adjacent to Expressway.
- Concrete:  $f'c = 3500$  psi
- Provide California Finish on top of foundation between stem and Frontage Road. See Roadway Details.
- At locations where Fluted Knee Wall abuts a rigid Structure, a  $\frac{1}{2}$ " thick Preformed Expansion Joint Filler conforming to the shape of the Structure shall be installed between the Fluted Knee Wall and the Structure.
- Apply Protective Coat to top and back face of stem and top of Frontage Road side of foundation.
- For Fluted Knee Wall standard details, see Sheet SD-1
- B.F. = Back Face (Frontage Road Side)  
F.F. = Front Face (Expressway Side)  
E.F. = Each Face
- Shape finished grade as required to match existing conditions.
- P.J.F. included in cost of concrete structures.

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5/24/08 PM 7/16/2008

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	16
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



**TYPICAL BENCHING DETAIL  
FOR EMBANKMENT**

**NOTES:**

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

REVISIONS	
NAME	DATE
	06/16/04

ILLINOIS DEPARTMENT OF TRANSPORTATION

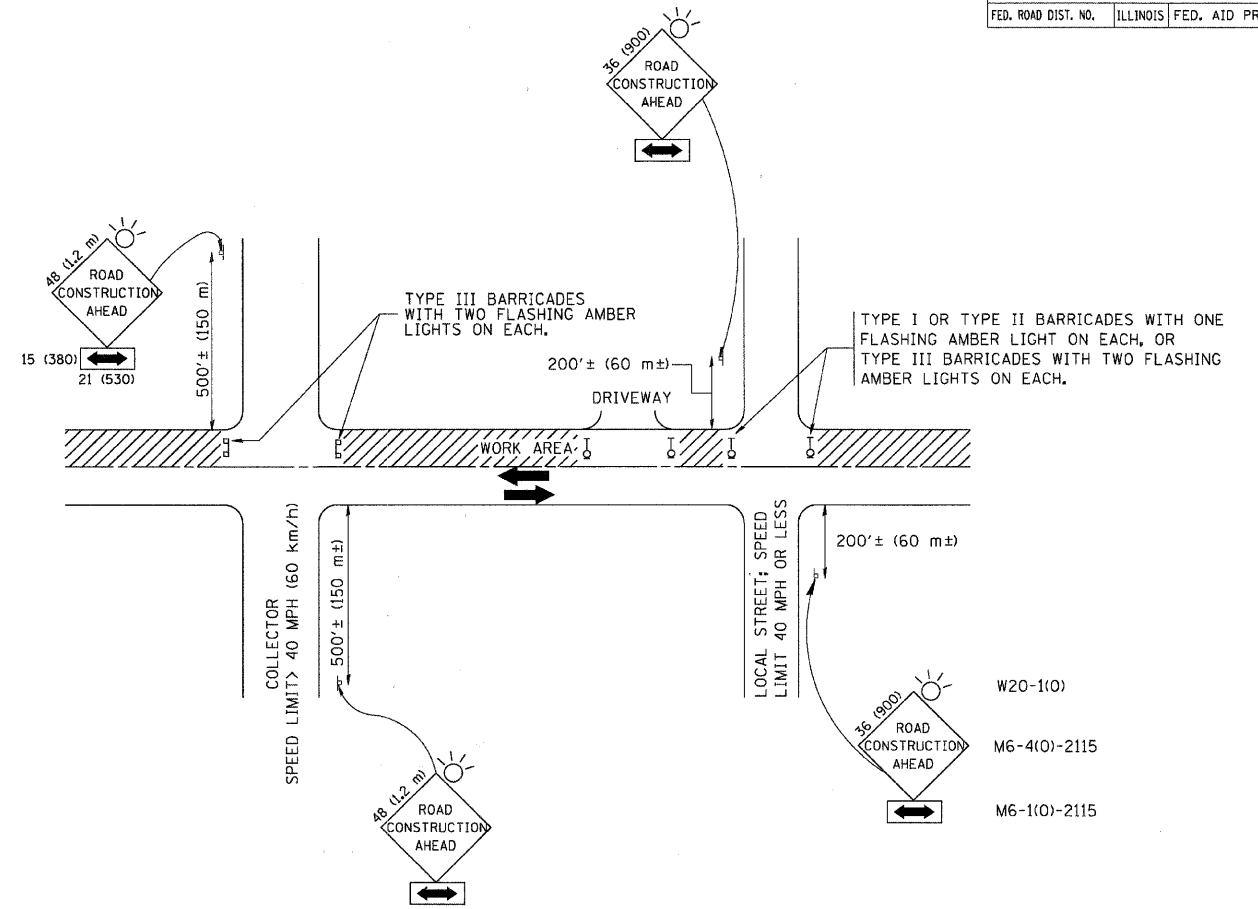
**BENCHING DETAIL  
FOR EMBANKMENT  
WIDENING**

SCALE: VERT. NONE  
HORIZ.

DRAWN BY: CADD  
CHECKED BY: S.E.B.  
BD-51



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 TRAFFIC CONTROL AND PROTECTION  
 FOR  
 SIDE ROADS, INTERSECTIONS, AND  
 DRIVEWAYS

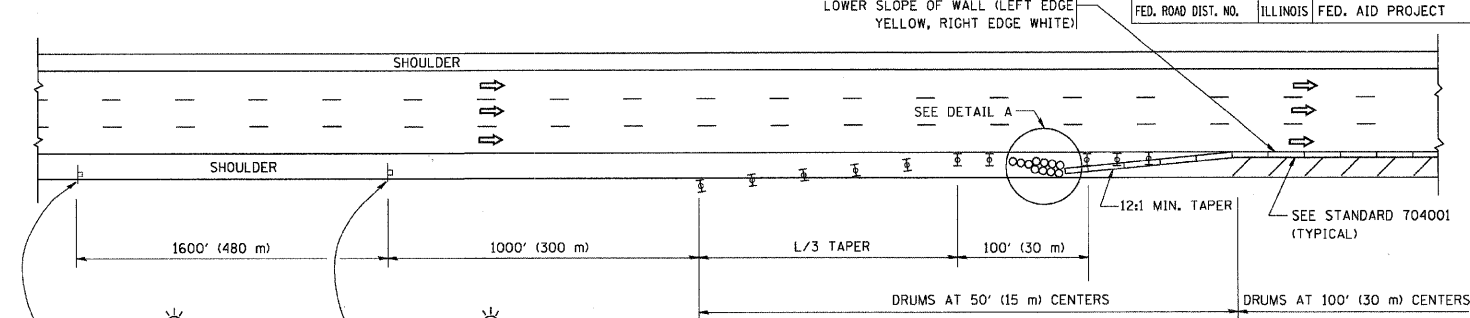
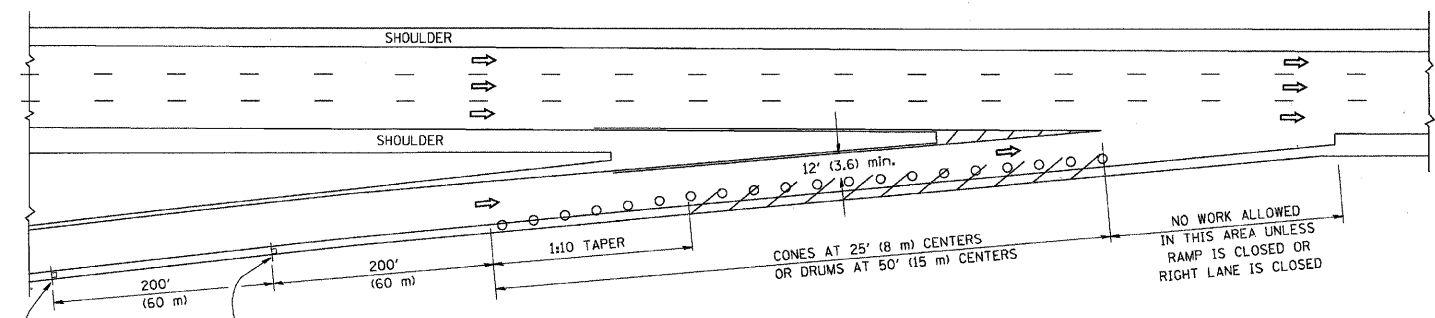
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 CHECKED BY

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 USER NAME = bward1

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	18
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

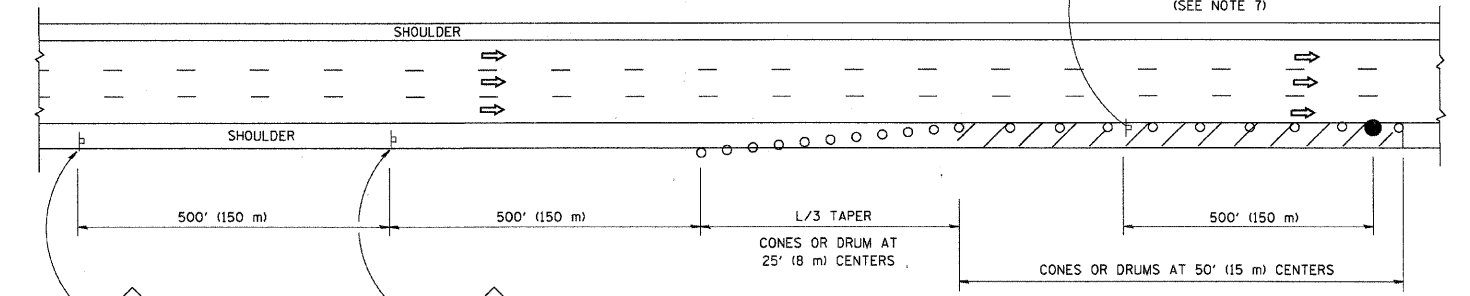
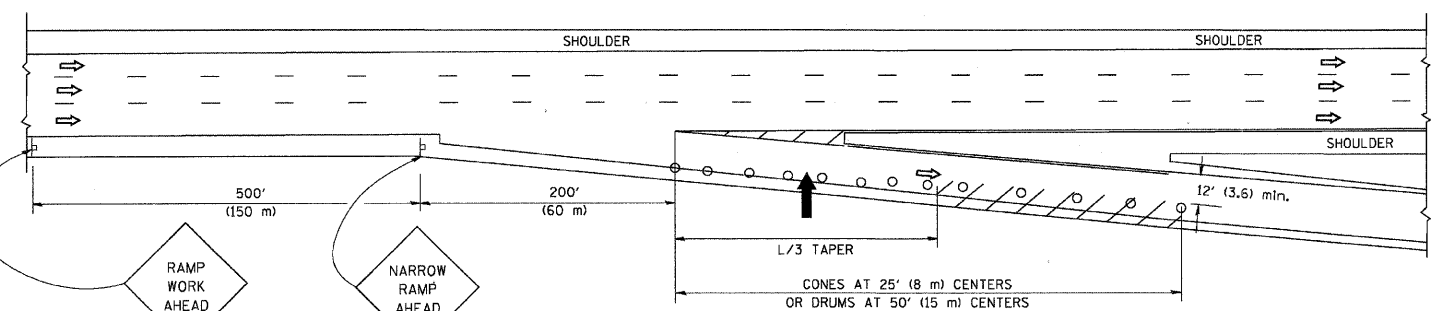
PARTIAL RAMP CLOSURE DETAILS

SHOULDER CLOSURE DETAILS



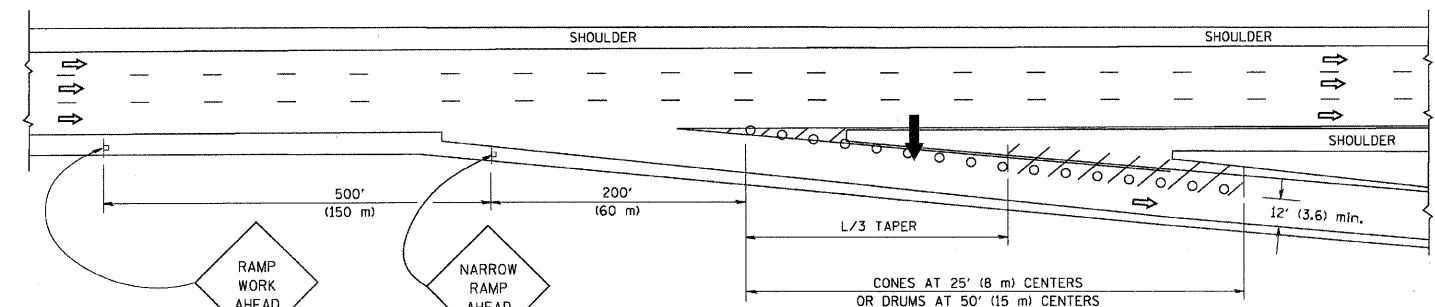
TYPICAL ENTRANCE RAMP

PERMANENT SHOULDER CLOSURE



TYPICAL EXIT RAMP

DAYTIME SHOULDER CLOSURE



TYPICAL EXIT RAMP

SYMBOLS

- ➔ ARROWBOARD
- ▨ WORK AREA
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

- THE "L" DISTANCE EQUALS:  
SPEED LIMIT FORMULAS  
45 mph (80 km/h) OR GREATER: METRIC  $L=0.65(W)(S)$  ENGLISH  $L=(W)(S)$   
W = WIDTH OF OFFSET IN FEET (METERS)  
S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350 FOR POSTED SPEED.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
  - FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
  - THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

DETAIL "A"  
IMPACT ATTENUATOR, TEMPORARY  
(SEE NOTE 5)

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT FOR POSTED SPEED.

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

REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
TRAFFIC CONTROL DETAILS  
FOR FREEWAY  
SHOULDER CLOSURES  
PARTIAL RAMP CLOSURES

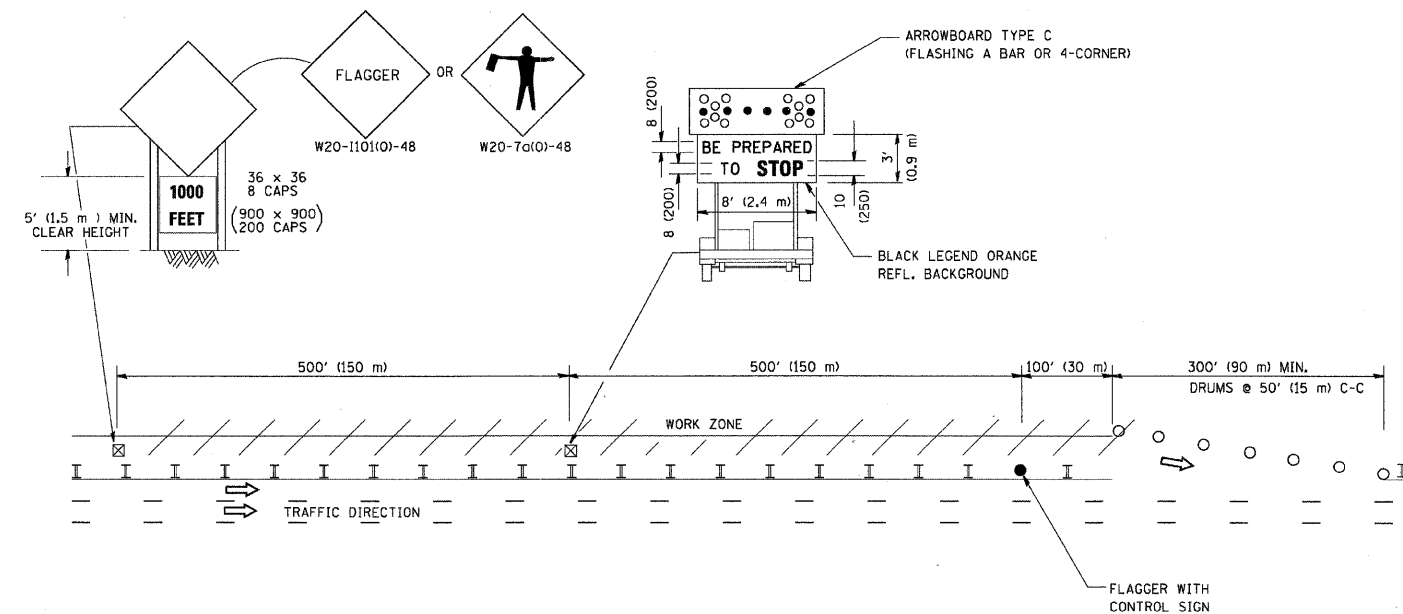
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DRAWN BY  
CHECKED BY  
TC-17

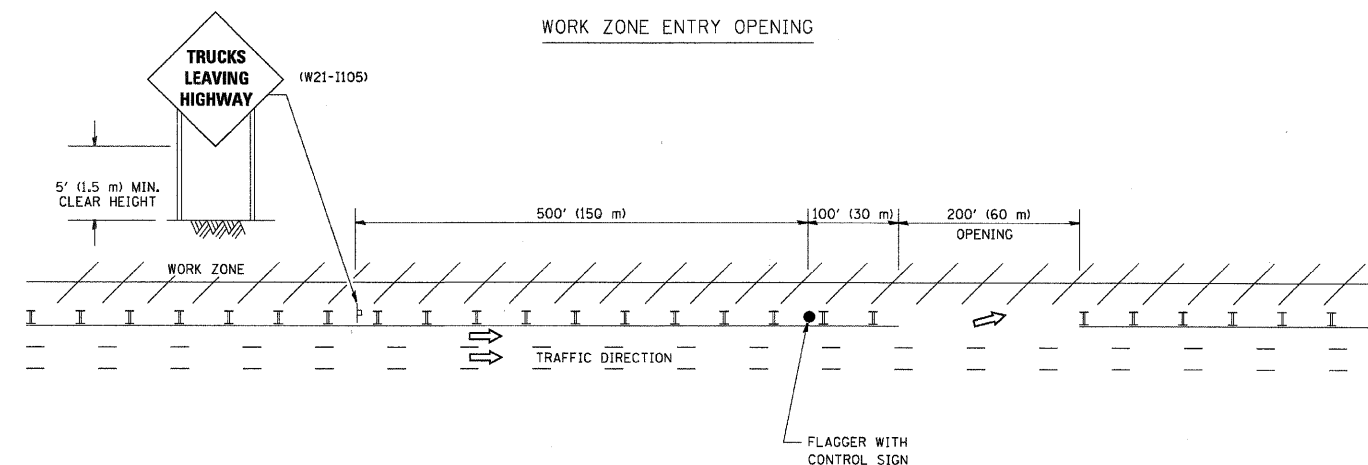
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	19
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

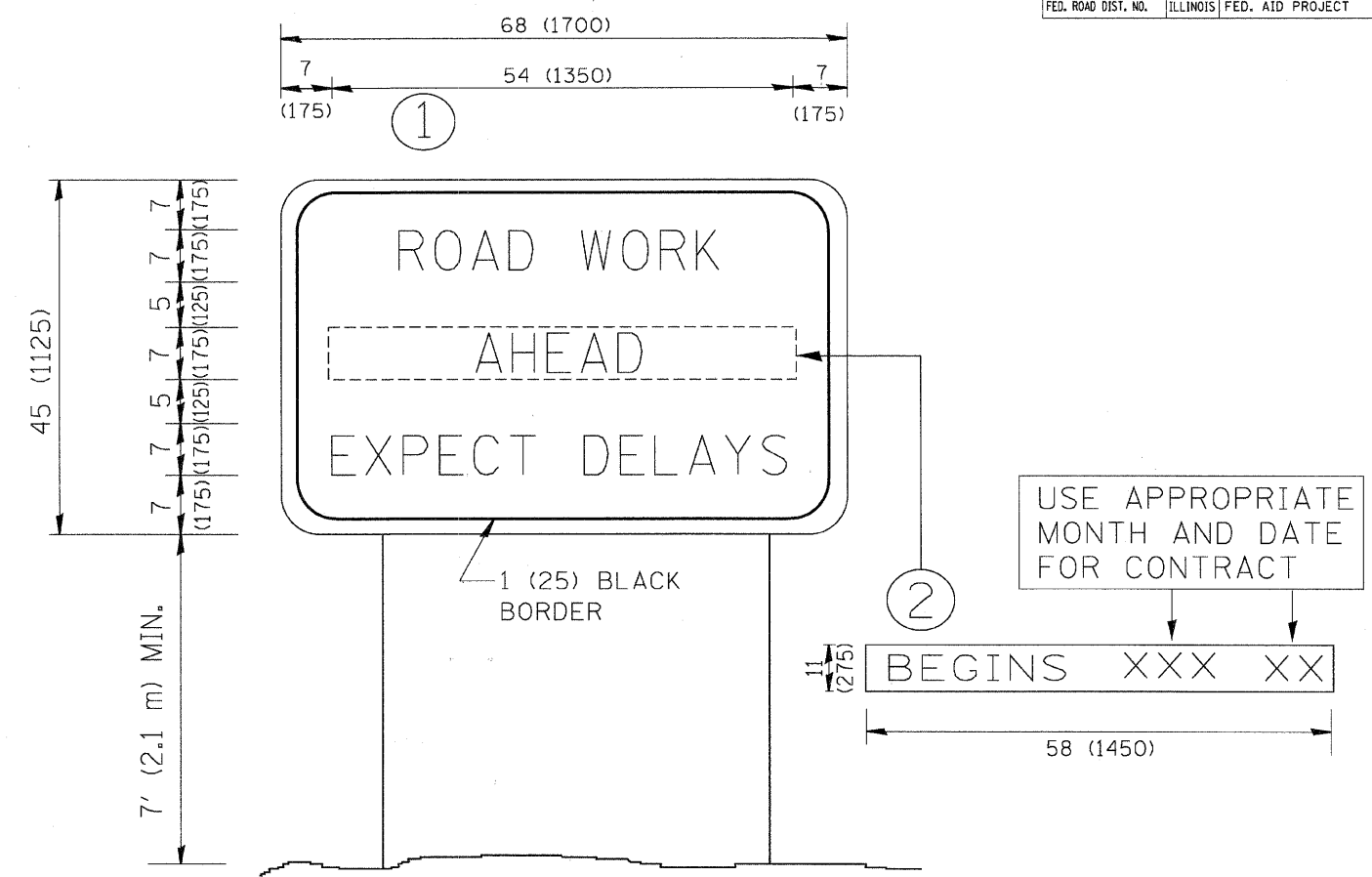
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DRAWN BY CADD

CHECKED BY

TC-18

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	27	20
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ARTERIAL ROAD INFORMATION SIGN**

SCALE: NONE

DRAWN BY DESIGN

CHECKED BY

TC22

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USER NAME = bauer-dl

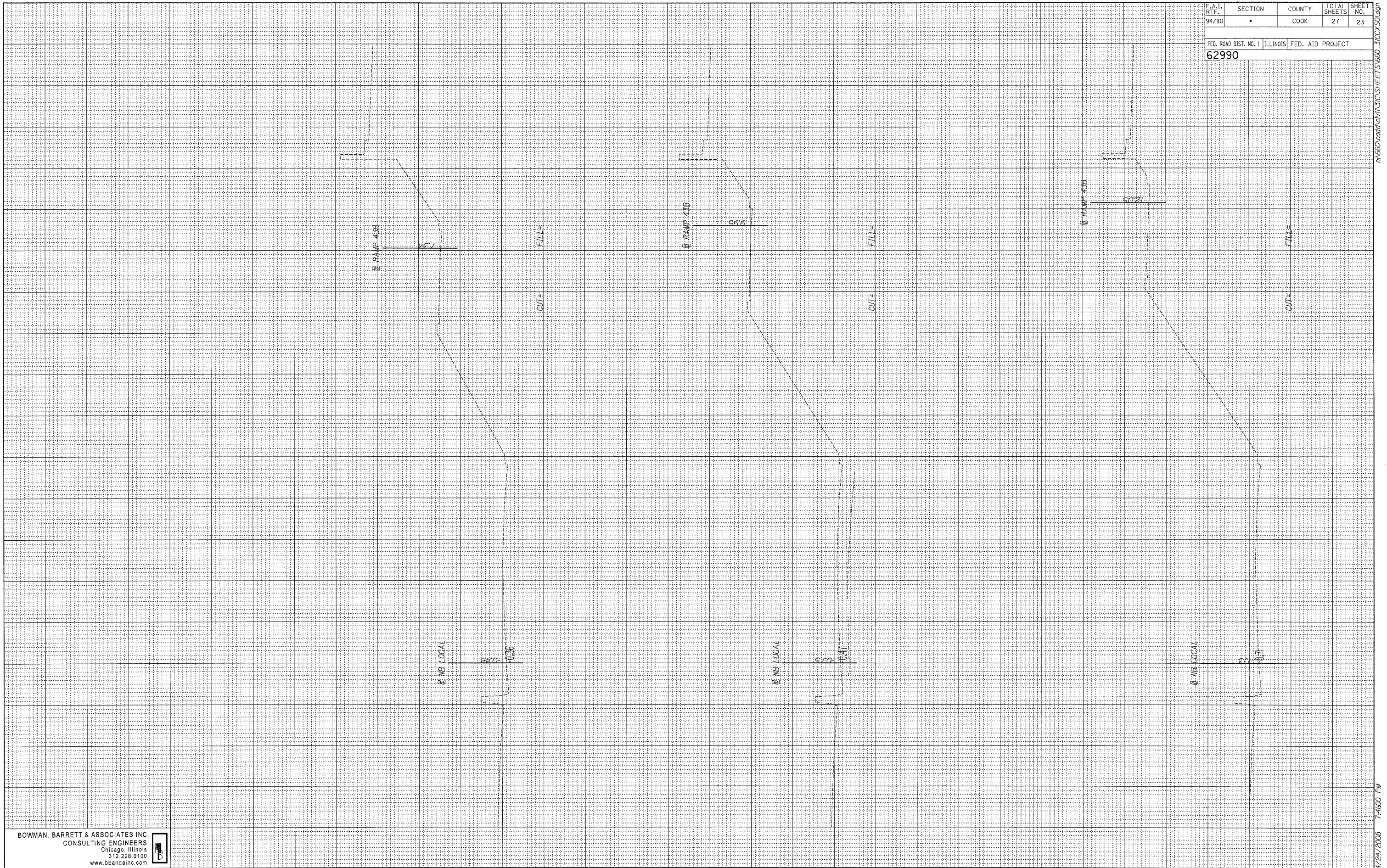




FINAL SURVEY BY DATE  
 SURVEYED BY  
 NOTE BOOK NO.  
 TEMPLATE AREAS CHECKED

ORIGINAL SURVEY BY DATE  
 SURVEYED BY  
 NOTE BOOK NO.  
 TEMPLATE AREAS CHECKED

F.A.I. RTE. 94/90	SECTION •	COUNTY COOK	TOTAL SHEETS 27	SHEET NO. 23
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT
62990				



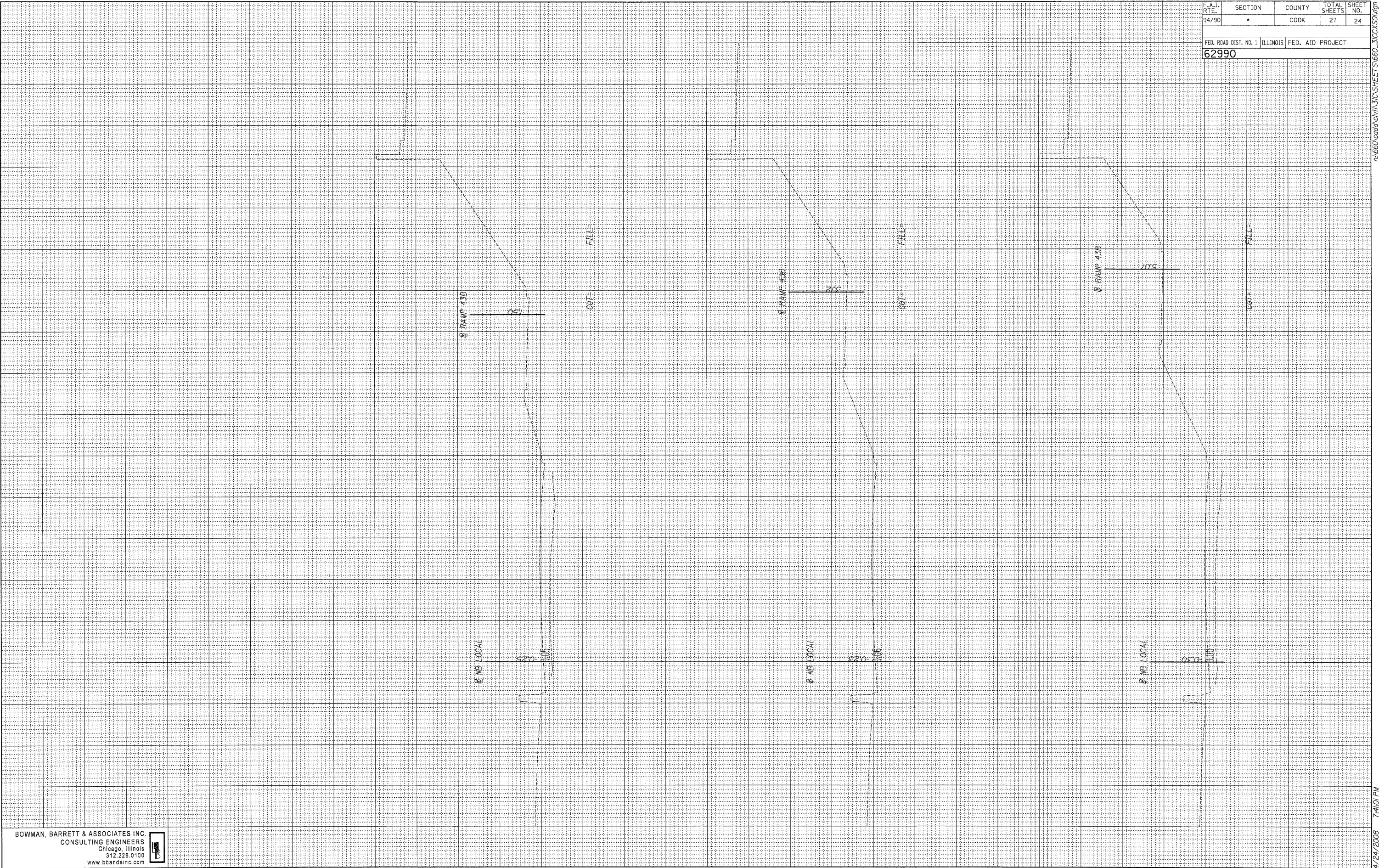
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F.A.I. RTE. 94/90	SECTION *	COUNTY COOK	TOTAL SHEETS 27	SHEET NO. 24
FED. ROAD DIST. NO. 1 62990		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		



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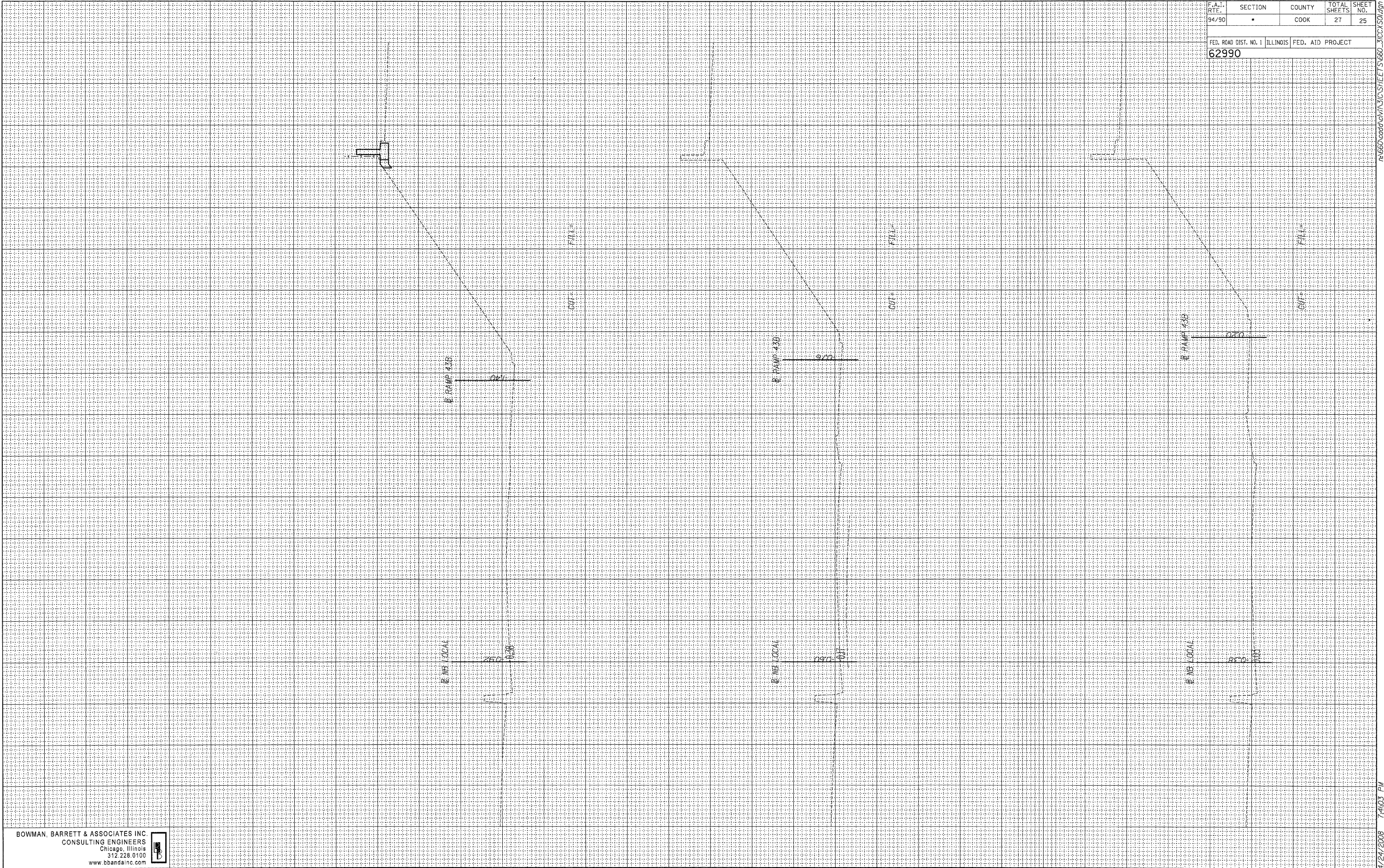


FINAL SURVEY BY DATE  
 SURVEYED BY  
 NOTE BOOK NO.  
 TEMPLATE AREAS CHECKED

ORIGINAL SURVEY BY DATE  
 SURVEYED BY  
 NOTE BOOK NO.  
 TEMPLATE AREAS CHECKED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	•	COOK	27	25

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT  
**62990**



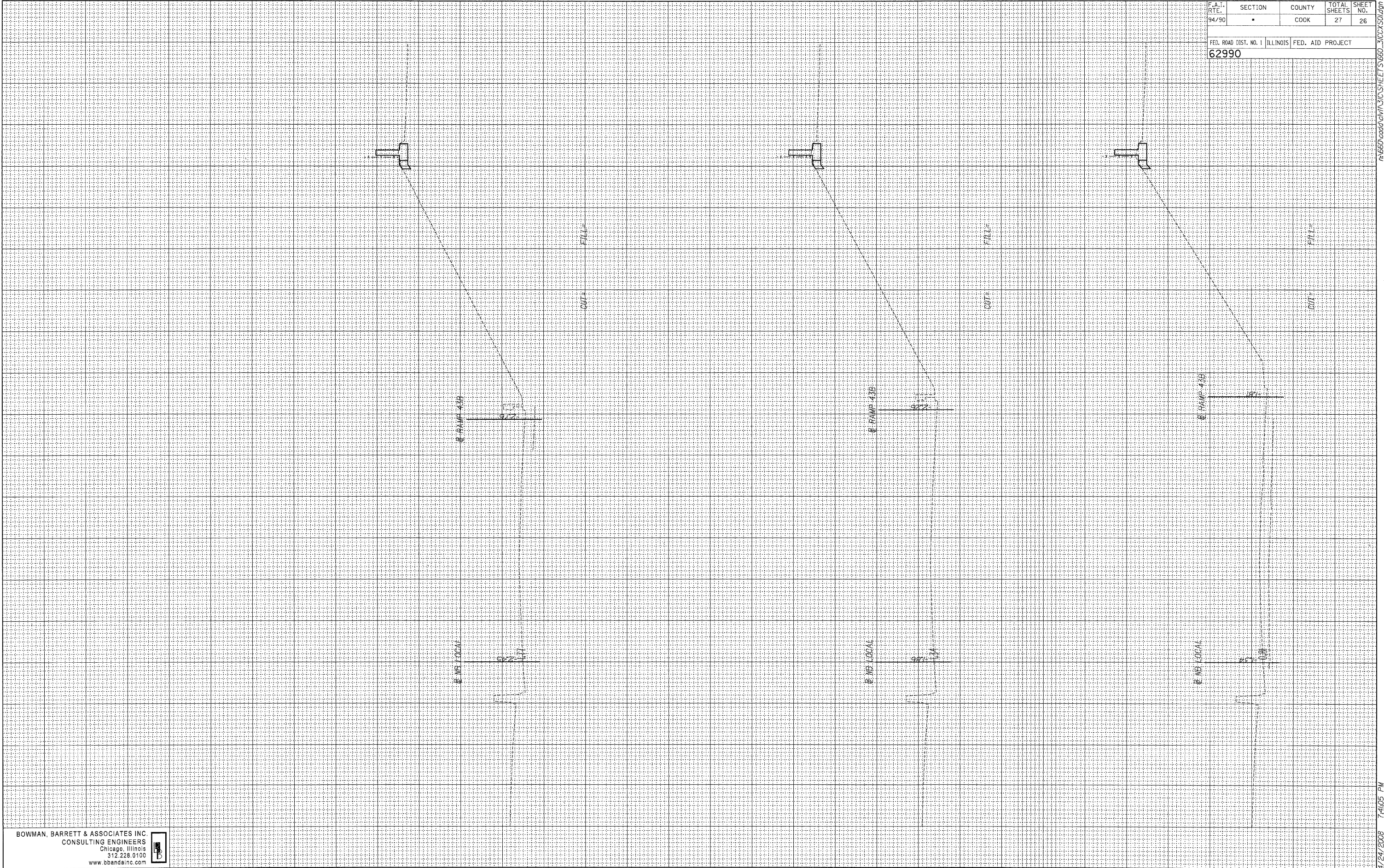
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FINAL SURVEY BY DATE  
 SURVEYED BY  
 NOTE BOOK NO.  
 TEMPLATE AREAS CHECKED

ORIGINAL SURVEY BY DATE  
 SURVEYED BY  
 NOTE BOOK NO.  
 TEMPLATE AREAS CHECKED

F.A.I. RTE. 94/90	SECTION •	COUNTY COOK	TOTAL SHEETS 27	SHEET NO. 26
FED. ROAD DIST. NO. 1 62990		ILLINOIS FED. AID PROJECT		



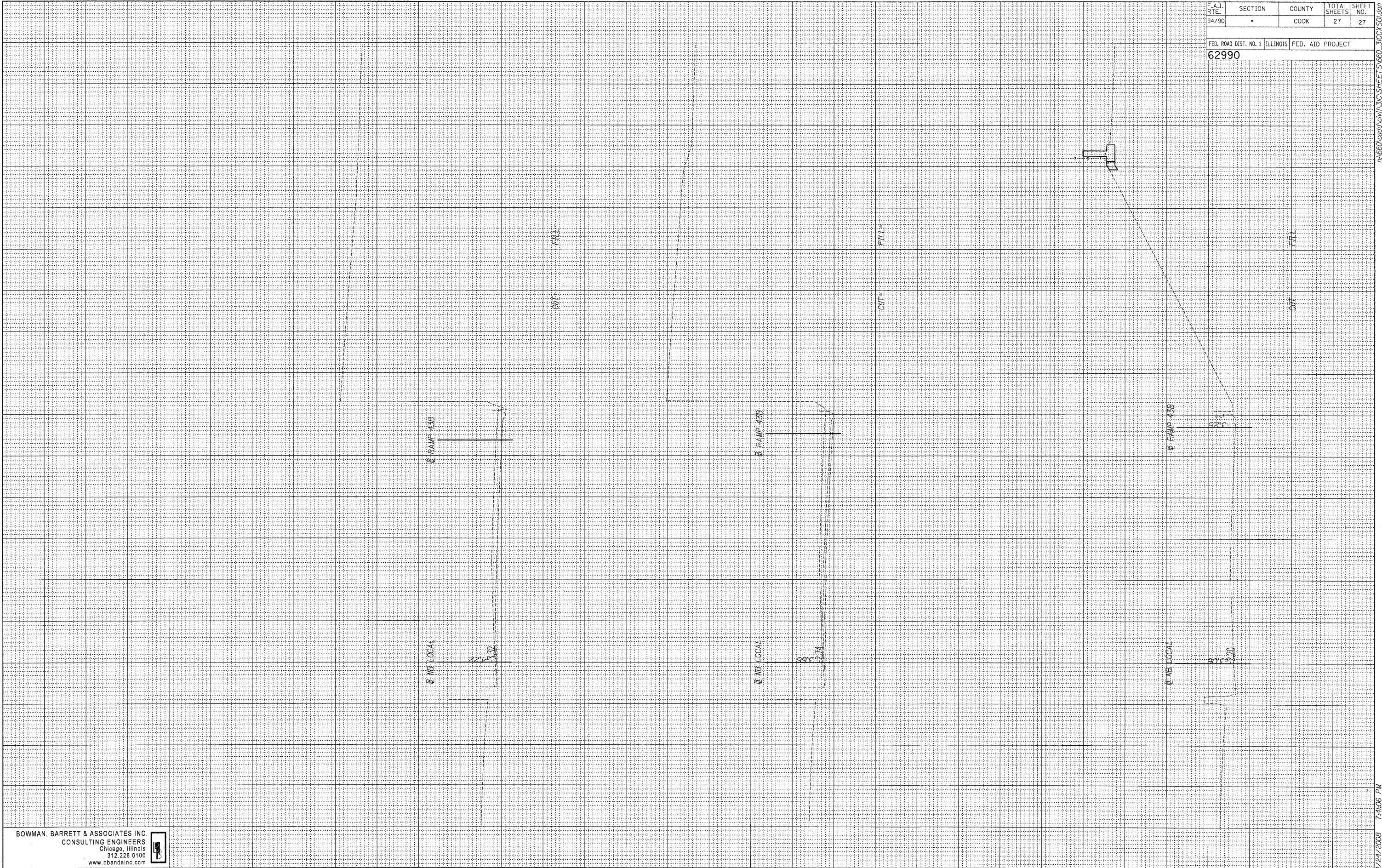
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 CONSULTING ENGINEERS  
 Chicago, Illinois  
 312.228.0100  
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FINAL SURVEY NO. \_\_\_\_\_  
 SURVEYED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEY TEMPLATE \_\_\_\_\_  
 NOTE BOOK AREAS CHECKED \_\_\_\_\_

ORIGINAL SURVEY NO. \_\_\_\_\_  
 SURVEYED BY \_\_\_\_\_ DATE \_\_\_\_\_  
 SURVEY TEMPLATE \_\_\_\_\_  
 NOTE BOOK AREAS CHECKED \_\_\_\_\_

F.A.I. RTE. 94/90	SECTION •	COUNTY COOK	TOTAL SHEETS 27	SHEET NO. 27
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
62990				



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