

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	104+71	1

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

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62A BUTT JOINT AND BITUMINOUS TAPER DETAIL (BD32)

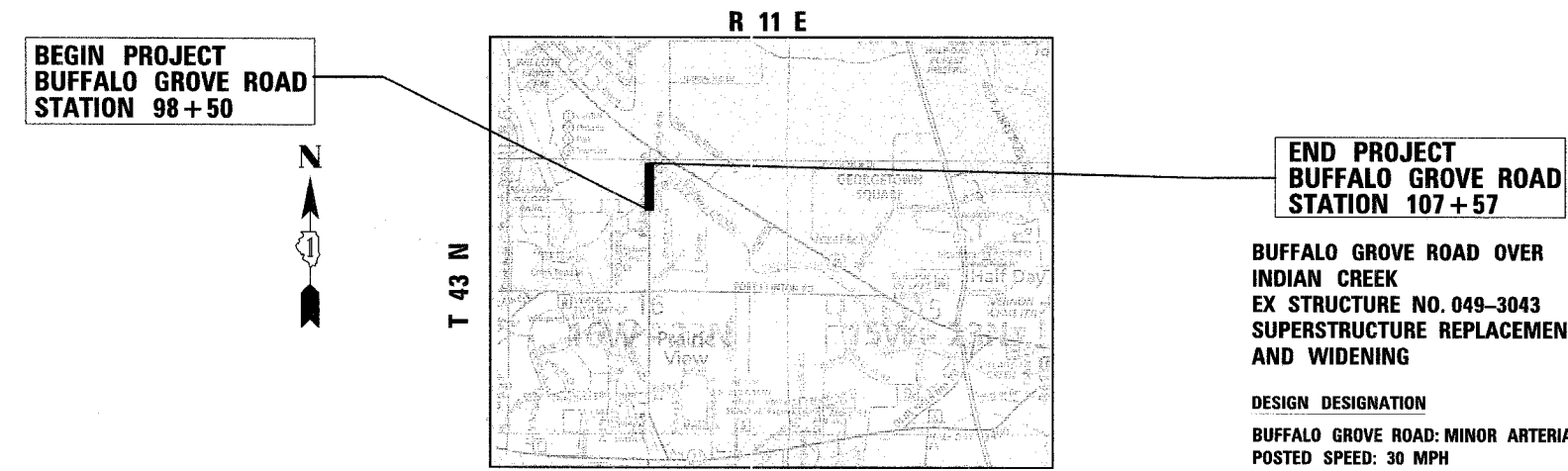
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED FEDERAL AID HIGHWAY**

**FAU ROUTE 2666 (BUFFALO GROVE ROAD) OVER INDIAN CREEK  
BRIDGE REHABILITATION  
RECONSTRUCTION: NORTH AND SOUTH OF INDIAN CREEK  
SECTION 00-00254-01-BR  
PROJECT ACBHM-8003(213)  
VILLAGE OF VERNON HILLS AND VILLAGE OF BUFFALO GROVE  
LAKE COUNTY  
JOB NO. C-91-258-02**



LOCATION OF SECTION INDICATED THUS: — ■ —



BEGIN PROJECT  
BUFFALO GROVE ROAD  
STATION 98+50

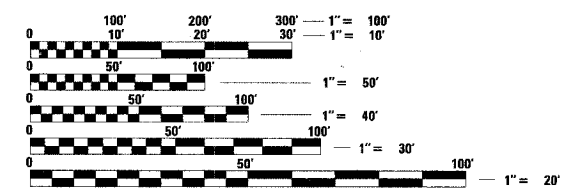
END PROJECT  
BUFFALO GROVE ROAD  
STATION 107+57

**BUFFALO GROVE ROAD OVER INDIAN CREEK  
EX STRUCTURE NO. 049-3043  
SUPERSTRUCTURE REPLACEMENT AND WIDENING**

**DESIGN DESIGNATION  
BUFFALO GROVE ROAD: MINOR ARTERIAL  
POSTED SPEED: 30 MPH  
DESIGN SPEED: 35 MPH**

ADT - 5200 (1998)  
29858 (2025)

**VERNON TOWNSHIP  
GROSS LENGTH OF PROJECT = 907' (.17 MILES)  
NET LENGTH OF PROJECT = 907' (.17 MILES)  
MAP SCALE: 1" = 1800'**



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  
1-800-892-0123  
VERNON HILLS PUBLIC WORKS  
(847) 367-3726  
BUFFALO GROVE PUBLIC WORKS  
(847) 459-2545

AGENCY RESPONSIBLE FOR LETTING	
Approved	<i>M.G. Buehler / AB</i> 8-3-06 Lake County, Division of Transportation, Martin G. Buehler
Passed	SEPTEMBER 5, 2006 <i>CHT CHRISTOPHER HOLT</i> District Engineer of Local Roads & Streets
Releasing for Bid Based on Limited Review	Sept 11, 2006 <i>Diane O'Keefe / sd</i> Deputy Director of Highways, Region 1 Engineer

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
600 NORTH COMMONS DR. STE. 107  
AURORA, ILLINOIS 60504  
(630) 820-1022

EXPERIMENTAL ENGINEER  
AHMAD TALAL S. IDRIS  
081-005753  
SPRINGFIELD  
ILLINOIS  
STATE OF ILLINOIS  
EXPIRES 11/30/06

SUBMITTED BY: *Ahmad T. Idries*  
DATE: 8/3/2006

**PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**

FEDERAL AID DESIGN ENGINEER: JESSICA MILLER P.E. (847) 705-4487

83875

**GENERAL NOTES**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	2
STA. N/A	TO STA. N/A			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

DATE	BY
DATE	BY
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DATE	BY

- NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.
  - MAIL BOXES SHALL BE RELOCATED AS DIRECTED BY THE LOCAL POSTAL AUTHORITY.
  - ALL UTILITIES, SCHOOL DISTRICTS, LOCAL POLICE, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
  - UNLESS AUTHORIZED BY THE ENGINEER, ALL EXISTING ACCESS POINTS SHALL BE MAINTAINED AT ALL TIMES BY THE CONTRACTOR.
  - DURING THE CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED, AT HIS EXPENSE, TO HAVE AVAILABLE A WATER TRUCK OR SIMILAR EQUIPMENT TO CONTROL DUST. IF NECESSARY, THE CONTRACTOR SHALL BE REQUIRED TO CONTROL DUST DURING NON-WORKING HOURS.
  - ALL EXCESS MATERIAL (BROKEN CONCRETE, CULVERT PIPE, WASTE ROADWAY EXCAVATION, SURPLUS MATERIAL FROM SEWER TRENCHES, ETC.) SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT DUMP SITES AND OBTAIN PERMISSION AND ALL NECESSARY PERMITS TO USE SUCH DUMP SITES. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.
  - ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JAN. 1, 2002; THE DETAILS IN THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
  - WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
  - THE CONTRACTOR WILL BE REQUIRED TO RELOCATE OR REMOVE AND REPLACE SIGNS THAT INTERFERE WITH HIS CONSTRUCTION OPERATIONS, AND TO TEMPORARILY RESET ALL SUCH SIGNS DURING CONSTRUCTION OPERATIONS. THIS WORK WILL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.  
  
ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY THE FOLLOWING REQUIREMENTS:  
A. SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK REQUIRES IT.  
B. EVERY SIGN REMOVED MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO TRAFFIC FOR WHICH IT IS INTENDED. ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND CLEAN FOR THE DURATION OF THE TEMPORARY SETTING.  
C. ALL SIGNS SHALL BE RE-ERECTED IN PERMANENT LOCATIONS AS THE ROADWAY IS COMPLETED. HORIZONTAL LOCATION FROM THE EDGE OF PAVEMENT SHALL BE AS DESIGNATED BY THE ENGINEER.  
D. ALL UNUSED SIGNS WILL BE RETURNED TO THE COUNTY.  
E. LONGER POSTS MAY BE REQUIRED AT SOME TEMPORARY OR PERMANENT SIGN LOCATIONS TO MAINTAIN PROPER SIGN ELEVATIONS.
  - PUBLIC AND PRIVATE UTILITIES: THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATIONS OF UTILITIES AND EXERCISE CARE DURING HIS CONSTRUCTION OPERATIONS SO AS NOT TO DAMAGE THEM. ALL COSTS ASSOCIATED WITH DAMAGE TO UTILITIES DUE TO CONTRACTOR'S NEGLIGENCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - ALL ELEVATIONS SHOWN ON THESE PLANS ARE ON U.S.G.S. DATUM.
  - ANY REFERENCE TO STANDARDS IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE LATEST STANDARDS OF THE DEPARTMENT.
  - THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT SOME QUANTITIES ARE GIVEN IN BOTH SUMMARY FORM AND ON THE PLAN SHEETS. CARE SHOULD BE TAKEN TO AVOID DUPLICATION OF QUANTITIES.
  - THE CONTRACTOR IS REQUIRED TO TEMPORARILY RESET MAILBOXES THAT INTERFERE WITH CONSTRUCTION. THE COST IS INCIDENTAL TO THE CONTRACT.
- TREE REMOVAL      CLEARING      HEDGE REMOVAL**
- TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05 OF THE "STANDARD SPECIFICATIONS."
  - ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY.
  - ALL CLEARING, REMOVAL OF BUSHES, HEDGES AND TREES UNDER SIX (6) INCHES IN DIAMETER WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.

**OVERHANGING LIMBS**

- OVERHANGING LIMBS ARE TO BE TRIMMED OR CUT OFF TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF TWENTY (20) FEET FROM THE FINISHED SURFACE OF THE ROAD.  
  
LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED TREE EXPERT AS STATED IN THESE SPECIAL PROVISIONS AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION.  
  
ALL CUTS OVER ONE (1) INCH IN DIAMETER SHALL BE MADE FLUSH WITH THE NEXT LARGE BRANCH.  
  
ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY.  
  
THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR TREE REMOVAL.

**TOPSOIL**

- TOPSOIL SHALL BE PLACED TO A DEPTH OF FOUR (4) INCHES AND BE MEASURED IN SQUARE YARDS.
- THE CROSS SECTIONS INDICATE THE FINISHED GRADE OF TOPSOIL.
- TOPSOIL SHALL NOT BE STOCKPILED WITHIN THE LIMITS OF CONSTRUCTION; THE LOCATIONS OF TOPSOIL STOCKPILED WITHIN THE RIGHT-OF-WAY MUST BE APPROVED BY THE ENGINEER.

**ROADWAY EXCAVATION**

- THE CONTRACTOR SHALL NOT CROSS COMPLETED BASE COURSE OR EXISTING PAVEMENT, NOT SCHEDULED TO BE REMOVED, WITH LOADED SCRAPERS OR TRACK EQUIPMENT.
- ALL EXISTING DOMESTIC BUFFALO BOXES ARE TO BE ADJUSTED BY THE CONTRACTOR. THE COST OF THIS WORK WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.
- EXCAVATION REQUIRED TO CLEAN SIDE ROAD DITCHES, CONSTRUCT DRIVEWAYS OR CONSTRUCT SIDE ROAD APPROACHES SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION.
- ALL SUITABLE EXCESS MATERIAL FROM SEWER TRENCHES, SIDEROADS, ENTRANCES OR OTHER NECESSARY EXCAVATIONS SHALL BE USED IN THE CONSTRUCTION OF THE ROADWAY. PLACEMENT AND COMPACTION OF THIS MATERIAL SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

**STORM SEWERS      STRUCTURES      UTILITIES**

- THE STATION / OFFSET / ELEVATIONS NOTED FOR ALL DRAINAGE STRUCTURES LOCATED IN THE CURB LINE REFER TO THE POSITION OF THE ADJACENT PROPOSED EDGE OF PAVEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE OFFSET NECESSARY FOR THE STRUCTURES TO SET THE FRAME AND GRATES IN THE PROPER LOCATION. ALL OTHER STRUCTURES ARE DIMENSIONED TO THE CENTER OF THE STRUCTURE; ELEVATION INDICATES RIM GRADES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING LOCAL AGENCIES MAINTAINING SANITARY SEWERS, WATERMANS, AND STREET LIGHTS TO VERIFY THE MATERIALS AND METHODS ALLOWED FOR THE ADJUSTMENT, RELOCATION, OR EXTENSION OF THE UTILITY INVOLVED.
- THE LOCATION AND ELEVATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE PROVIDED BY THE OWNERS. THE EXACT LOCATIONS AND ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR THROUGH THE OWNER OF THE UTILITY.
- ALL ADJUSTMENTS OR RECONSTRUCTIONS SHALL INCLUDE THE REMOVAL AND REPLACEMENT, AT THE CONTRACTOR'S EXPENSE, OF ALL UNSUITABLE TWO (2) FOOT INSIDE DIAMETER ADJUSTING RINGS.
- ADJUSTMENT OF STRUCTURES MAINTAINED BY OTHER AGENCIES SHALL BE MADE TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY MAINTAINING THE SYSTEM OF THE STRUCTURE INVOLVED.
- THE COST OF CONNECTING EXISTING STORM SEWERS TO THE PROPOSED DRAINAGE SYSTEM AND CONNECTING PROPOSED STORM SEWER TO EXISTING STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, HOWEVER, THE NECESSARY PIPE USED WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "STORM SEWER" OF THE SIZE REQUIRED.

- ALL EXISTING DRAINAGE FACILITIES, HEADWALLS AND FENCES NO LONGER REQUIRED, IN THE OPINION OF THE ENGINEER, SHALL BE REMOVED. THE COST OF REMOVAL OF EXISTING PIPE CULVERTS, STORM SEWERS, DRAINAGE STRUCTURES, CONCRETE HEADWALLS, FENCING OR OTHER OBSTRUCTIONS WHICH INTERFERE WITH THE PROPOSED IMPROVEMENTS AND WHICH ARE NOT SHOWN TO BE REMOVED AS A SEPARATE PAY ITEM SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.  
  
ANY OF THESE MATERIALS CONSIDERED SUITABLE FOR SALVAGE BY THE ENGINEER SHALL BE STORED WITHIN THE RIGHT-OF-WAY FOR LATER REMOVAL BY THE LAKE COUNTY DIVISION OF TRANSPORTATION. UNUSABLE MATERIALS SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH SECTION 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.  
  
THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. TRENCH BACKFILL AND/OR PAVEMENT REPLACEMENT AND/OR AGGREGATE BASE COURSE TYPE A WILL BE PAID FOR WHEN THE WORK LIES UNDER EXISTING PAVEMENT AREAS.

- DURING THE CONSTRUCTION OPERATION WHEN ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR DRAINAGE STRUCTURES SO THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS ALL DRAINAGE STRUCTURES SHALL BE FREE FROM ALL DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

- FRAME ELEVATIONS GIVEN ON THE PLANS ARE ONLY TO ASSIST THE CONTRACTOR IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES ON ALL NEW STRUCTURES WILL BE ADJUSTED TO THE FINAL ELEVATION OF THE AREA IN WHICH THEY ARE LOCATED AS PART OF THE STRUCTURE COST.

- UNLESS OTHERWISE NOTED, LOCATIONS SHOWN ON THE PLANS ARE TO THE CENTER OF STRUCTURES. FLAT TOPS AND CONES ARE TO BE TURNED SO THAT THE FRAME IS CLOSEST TO THE CENTER LINE OF THE ROAD, UNLESS OTHERWISE NOTED ON THE STRUCTURE IN THE PLANS. ALL FLAT TOPS AND CONES ARE ASSUMED TO BE ECCENTRIC.

- BITUMINOUS OR CONCRETE PAVEMENT CROSSINGS SHALL NOT BE LEFT IN GRAVEL OVERNIGHT. THIS WILL INCLUDE THE MAIN ROAD, SIDE STREETS, PRIVATE ENTRANCES, COMMERCIAL ENTRANCES AND PARKING AREAS. TEMPORARY BITUMINOUS PATCHING AT THE CONTRACTOR'S EXPENSE MAY BE USED IN LIEU OF IMMEDIATE PAVEMENT REPLACEMENT.

- AT LOCATIONS WHERE THE PROPOSED STORM SEWER CROSSES OVER UTILITIES, A 4" STYROFOAM CUSHION SHALL BE PLACED UNDER THE STORM SEWER WHEN DIRECTED TO DO SO BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

**BITUMINOUS CONCRETE AND BITUMINOUS BASE COURSE**

- BITUMINOUS CONCRETE SURFACE COURSE SHALL NOT BE PLACED UNTIL ALL EARTH EXCAVATION, TOPSOIL PLACEMENT, AGGREGATE BASE COURSE, AND BITUMINOUS CONCRETE BINDER COURSE HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.
- SAWCUT CONSTRUCTION JOINTS SHALL BE PROVIDED AT PAVED COMMERCIAL OR PRIVATE ENTRANCES AND AT ALL SIDE ROADS. THE COST SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BITUMINOUS CONCRETE SURFACE COURSE.
- THE MINIMUM COMPACTED THICKNESS OF ANY LIFT OF SURFACE COURSE SHALL BE 1.5 INCHES. THE MAXIMUM COMPACTED THICKNESS OF ANY LIFT OF BINDER COURSE SHALL BE 2.25 INCHES.

**EROSION CONTROL NOTES**

- EROSION CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE SEQUENCE OF STAGE CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE FOR APPROVAL.
- SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE THE PROJECT SITE IS OTHERWISE DISTURBED.
- ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE CONCLUDED. AREAS THAT HAVE BEEN STRIPPED AND WILL NOT RECEIVE PERMANENT LANDSCAPING BEFORE THE END OF THE FALL SEEDING RESTRICTION SHALL RECEIVE CLASS 7 SEEDING - TEMPORARY EROSION CONTROL MIXTURE.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT WETLANDS FROM DAMAGE BY SEDIMENT, CONSTRUCTION EQUIPMENT OR BY HIS WORK CREWS. THE CONTRACTOR SHALL ASSURE THAT DEBRIS OR ANY CONSTRUCTION MATERIAL IS NOT DISPOSED OF IN WETLANDS.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**  
BUFFALO GROVE ROAD

SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PWK



**GENERAL NOTES (CONTINUED)**

**TRAFFIC CONTROL AND PROTECTION**

49. TRAFFIC CONTROL AND PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN AND SECTION 701 OF THE STANDARD SPECIFICATIONS.
  50. THE TYPE III BARRICADES ARE TO BE PLACED IN ACCORDANCE WITH STANDARD 702001 UNLESS AUTHORIZED BY THE ENGINEER TO USE AN ALTERNATE ARRANGEMENT.
  51. NOT USED.
  52. TYPE I OR TYPE II BARRICADES, OR VERTICAL PANELS WITH MONODIRECTIONAL STEADY-BURN LIGHTS SHALL BE REQUIRED ALONG TEMPORARY ROADS, DETOURS, AND SIDE STREETS TO DELINEATE THE TRAVELED WAY WITHIN THE CONSTRUCTION ZONE. THE MAXIMUM SPACING FOR THESE DEVICES SHALL BE 100 FEET CENTER TO CENTER.
  53. ANY DROP OFF GREATER THAN THREE (3) INCHES BUT LESS THAN SIX (6) INCHES, WITHIN EIGHT (8) FEET OF THE PAVEMENT EDGE, SHALL BE PROTECTED BY TYPE I OR TYPE II BARRICADES, OR VERTICAL PANELS WITH MONODIRECTIONAL STEADY-BURN LIGHTS AT 100 FOOT CENTER TO CENTER SPACING. IF THE DROP OFF WITHIN EIGHT (8) FEET OF THE PAVEMENT EDGE EXCEEDS SIX (6) INCHES, THE BARRICADES, OR VERTICAL PANELS MENTIONED ABOVE SHALL BE PLACED AT FIFTY (50) FOOT CENTER TO CENTER SPACING. BARRICADES THAT MUST BE PLACED IN EXCAVATED AREAS SHALL HAVE LEG EXTENSIONS INSTALLED SUCH THAT THE TOP OF THE BARRICADE IS IN COMPLIANCE WITH THE HEIGHT REQUIREMENTS OF STANDARD 702001.
  54. TYPE I OR TYPE II BARRICADES WITH TWO-WAY FLASHING LIGHTS SHALL BE REQUIRED AT ALL OPEN TRENCHES, EXCAVATIONS, OPEN OR EXPOSED SEWER STRUCTURES, TRANSVERSE PAVEMENT JOINTS, MATERIALS OR EQUIPMENT WITHIN THE RIGHT-OF-WAY (NUMBER AND SPACING DEPENDS ON THE CONDITIONS); AND AT LOCATIONS DESIGNATED BY THE ENGINEER OR LOCAL LAW ENFORCEMENT AGENCIES.
  55. TYPE I, II AND / OR III BARRICADES WITH TWO-WAY FLASHING LIGHTS WILL BE REQUIRED TO GUIDE TRAFFIC AWAY FROM PAVEMENT AREAS CLOSED FOR CONSTRUCTION.
  56. THE COST OF SUPPLYING, ERECTING, AND MAINTAINING BARRICADES, WARNING LIGHTS, AND SIGNS WILL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL AND PROTECTION.
  57. WHERE REQUIRED, TRAFFIC SIGNS SHALL BE RELOCATED FOR EACH STAGE OF CONSTRUCTION.
  58. ARROW BOARDS WILL BE REQUIRED WHEN IMPLEMENTING ALL LANE CLOSURES.
  59. THE PURPOSE OF THIS STAGING IS TO MINIMIZE DELAYS TO THE MOTORIST. THE CONTRACTOR MAY ALTER THE SEQUENCE OF CONSTRUCTION WITH THE PRIOR APPROVAL OF THE ENGINEER.
  60. PRIOR TO THE START OF CONSTRUCTION, REQUIRED TRAFFIC CONTROL DEVICES SHALL BE IN PLACE.
- DRIVEWAYS OR ENTRANCES**
61. EXISTING BITUMINOUS, CONCRETE, AND GRAVEL DRIVEWAYS AND ENTRANCES SHALL BE SURFACED TO 1 FOOT INSIDE THE RIGHT-OF-WAY WITH BITUMINOUS CONCRETE SURFACE COURSE AS SCHEDULED IN THE PLANS.
  62. EXISTING FIELD ENTRANCES SHALL BE BUILT UP IN PLACE TO THE RIGHT-OF-WAY WITH AGGREGATE BASE COURSE.
  63. THE CONTRACTOR SHALL CONSTRUCT ALL COMMERCIAL AND PRIVATE DRIVEWAYS IN ACCORDANCE WITH THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	3
STA. N/A	TO STA. N/A			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

**IDOT STANDARDS**

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT REBARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
420401-05	BRIDGE APPROACH PAVEMENT
424001-04	CURB RAMP FOR SIDEWALKS
503001-02	CONCRETE PARAPET SLIP-FORMING OPTION
515001-02	NAME PLATE FOR BRIDGES
602301-01	INLET, TYPE A
602306-01	INLET, TYPE B
602401-01	MANHOLE TYPE A
602601	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
604001-02	FRAME AND LIDS, TYPE 1
604091-01	FRAME AND GRATE TYPE 24
606001-02	CONCRETE CURB TYPE B AND COMBINATION CURB AND GUTTER
606301-02	PC CONCRETE ISLANDS AND MEDIANS
630001-06	STEEL PLATE BEAM GUARDRAIL
631031-05	TRAFFIC BARRIER TERMINAL TYPE 6
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
637001-02	CONCRETE BARRIER
701321-08	LANE CLOSURE, 2L 2W, BRIDGE REPAIR WITH BARRIER
701502-01	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-04	URBAN LANE CLOSURE, MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
702001-06	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER
720001	SIGN MOUNTING DETAILS
720006	SIGN PANEL ERECTION DETAILS
720011	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001	APPLICATION OF TYPE A AND B METAL POSTS
780001-01	TYPICAL PAVEMENT MARKINGS

**LAKE COUNTY STANDARDS**

LC1015	DRY RUBBLE STONE OR BROKEN CONCRETE TREE WELLS
LC1018	SHOULDER BREAK AT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL W/COMB C&G
LC1019	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)
LC4012	MAILBOX TURNOUT ALONG CURBED ROADS
LC4024	TYPICAL MINOR ACCESS (PRIVATE ENTRANCE)
LC4026	TYPICAL SECTION BITUMINOUS BIKEPATH
LC6002	UNDERCUT DETAIL
LC6004	CURB & GUTTER SUBGRADE OPTIONS
LC6005	CURB & GUTTER TRANSITION (B-6.24 / B-15.60) FOR 16' (4.8m) OFFSET
LC6009	TRENCH WIDTHS FOR TRENCH BACKFILL & PAVEMENT REPLACEMENT
LC6010	SUB-SURFACE DRAINS
	TYPICAL PAVEMENT MARKING FOR COUNTY HIGHWAYS
LC7006	DIRECTION INDICATOR BARRICADES

**DISTRICT ONE STANDARD DETAILS**

BD 32	BUTT JOINT AND BITUMINOUS TAPER DETAIL
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PLAN	DATE
BY	
REVIEWED	
DATE	
BY	
DATE	
BY	
DATE	

PROFILE	DATE
BY	
REVIEWED	
DATE	
BY	
DATE	
BY	
DATE	

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**  
**BUFFALO GROVE ROAD**

SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PWK



# SUMMARY OF QUANTITIES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

X071-2A

X071-2A

ITEM NO.	SPECIALTY ITEM	PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL EST. QUANTITY
1		20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	169
2		20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	30
3		20101100	TREE TRUNK PROTECTION	EACH	2
4	+	20101200	TREE ROOT PRUNING	EACH	5
5	+	20101300	TREE PRUNING (1 TO 10" INCH DIAMETER)	EACH	8
6	+	20101350	TREE PRUNING (OVER 10" INCH DIAMETER)	EACH	4
7	+	20101400	NITROGEN FERTILIZER NUTRIENT	POUND	67
8	+	20101600	POTASSIUM FERTILIZER NUTRIENT	POUND	67
9		20200100	EARTH EXCAVATION	CU YD	376
10		20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	396
11		20400800	FURNISHED EXCAVATION	CU YD	754
12		20700220	POROUS GRANULAR EMBANKMENT	CU YD	397
13		20700300	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	74
14		20800150	TRENCH BACKFILL	CU YD	99
15		21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	4230
16	+	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	2280
17		21301072	EXPLORATION TRENCH 72" DEPTH	FOOT	100
18		25000310	SEEDING, CLASS 4	ACRE	0.25
19		25000314	SEEDING, CLASS 4B	ACRE	0.25
20	+	25002300	TEMPORARY SEEDING	ACRE	0.25
21	+	25200110	SODDING, SALT TOLERANT	SQ YD	1725
22		25200200	SUPPLEMENTAL WATERING	UNIT	45
23		28000300	TEMPORARY DITCH CHECKS	EACH	2
24		28000400	PERIMETER EROSION BARRIER	FOOT	1293
25		28000500	INLET AND PIPE PROTECTION	EACH	4
26		28000510	INLET FILTERS	EACH	5
27		40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1808
28		40600300	AGGREGATE (PRIME COAT)	TON	4
29		40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	223
30		42000405	PORTLAND CEMENT CONCRETE PAVEMENT 9 1/4"	SQ YD	758
31		42001165	BRIDGE APPROACH PAVEMENT	SQ YD	455
32		42001300	PROTECTIVE COAT	SQ YD	2620
33		42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2106
34		42400800	DETECTABLE WARNINGS	SQ FT	6
35		44000007	BITUMINOUS SURFACE REMOVAL 2"	SQ YD	223
36		44000100	PAVEMENT REMOVAL	SQ YD	1982
37		44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	84
38		44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	973
39		44000600	SIDEWALK REMOVAL	SQ FT	440
40		44000700	APPROACH SLAB REMOVAL	SQ YD	235
41		44003100	MEDIAN REMOVAL	SQ FT	1113
42		50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
43		50102400	CONCRETE REMOVAL	CU YD	22.3
44		50104650	SLOPE WALL REMOVAL	SQ YD	401
45		50200100	STRUCTURE EXCAVATION	CU YD	417
46		50300100	FLOOR DRAINS	EACH	8
47		50300150	NEOPRENE EXPANSION JOINT 2"	FOOT	283
48		50300225	CONCRETE STRUCTURES	CU YD	270.4
49		50300255	CONCRETE SUPERSTRUCTURES	CU YD	494.7
50		50300260	BRIDGE DECK GROOVING	SQ YD	741
51		50300300	PROTECTIVE COAT	SQ YD	1576
52		50300310	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	32
53		50300320	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	16
54		50301245	FORMED CONCRETE REPAIR (DEPTH EQUAL TO OR LESS THAN 5")	SQ FT	44
55		50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
56		50500505	STUD SHEAR CONNECTORS	EACH	6496
57		50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	122730
58		50900805	PEDESTRIAN RAILING	FOOT	362
59		51100300	SLOPE WALL 6"	SQ YD	957
60		51201000	FURNISHING METAL PILE SHELLS 12"	FOOT	3060
61		51202600	DRIVING AND FILLING SHELLS	FOOT	3060
62		51203200	TEST PILE METAL SHELLS	EACH	4
63		51500100	NAME PLATES	EACH	1
64		54213456	END SECTIONS 21"	EACH	1
65		550A0050	STORM SEWER CLASS A, TYPE 1 12"	FOOT	239
66		550A0340	STORM SEWER CLASS A, TYPE 2 12"	FOOT	291
67		550A0360	STORM SEWER CLASS A, TYPE 2 15"	FOOT	52
68		550A0400	STORM SEWER CLASS A, TYPE 2 21"	FOOT	19
69		55100200	STORM SEWER REMOVAL 6"	FOOT	23
70		55100400	STORM SEWER REMOVAL 10"	FOOT	42
71		55100500	STORM SEWER REMOVAL 12"	FOOT	309
72		58700200	BRIDGE SEAT SEALER	SQ FT	1454
73		59000100	EPOXY CRACK SEALING	FOOT	104
74		60100905	PIPE DRAINS 4"	FOOT	100
75		60100915	PIPE DRAINS 6"	FOOT	100
76		60218400	MANHOLES, TYPE A, 4-DIA., TYPE I FRAME, CLOSED LID	EACH	5
77		60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	4
78		60240328	INLETS, TYPE B, TYPE 24 FRAME AND GRATE	EACH	3

ITEM NO.	SPECIALTY ITEM	PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL EST. QUANTITY
79		60240385	INLETS, TYPE B, WITH SPECIAL FRAME AND GRATE	EACH	2
80		60500040	REMOVING MANHOLES	EACH	2
81		60500060	REMOVING INLETS	EACH	5
82		60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	174
83		60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1174
84		60618740	CONCRETE MEDIAN, TYPE M-2.12	SO FT	9015
85		63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2
86		63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	2
87		63200310	GUARDRAIL REMOVAL	FOOT	357
88		67100100	MOBILIZATION	L SUM	1
89		70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
90		70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	5810
91		70301000	WORKZONE PAVEMENT MARKING REMOVAL	SO FT	5810
92		70400100	TEMPORARY CONCRETE BARRIER	FOOT	238
93		70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	401
94		72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	2
95		72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	2
96		72400900	REMOVE SIGN PANEL	EACH	2
97	+	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	37
98	+	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1365
99	+	78000300	THERMOPLASTIC PAVEMENT MARKING - LINE 5"	FOOT	1002
100	+	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	229
101	+	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	129
102	+	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	12
103	+	78008300	POLYUREA PAVEMENT MARKING TYPE II - LETTERS & SYMBOLS	SO FT	37
104	+	78008310	POLYUREA PAVEMENT MARKING TYPE II - LINE 4"	FOOT	1070
105	+	78008320	POLYUREA PAVEMENT MARKING TYPE II - LINE 5"	FOOT	1506
106	+	78008330	POLYUREA PAVEMENT MARKING TYPE II - LINE 6"	FOOT	60
107	+	78008350	POLYUREA PAVEMENT MARKING TYPE II - LINE 12"	FOOT	123
108	+	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	15
109	+	78100200	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER	EACH	20
110		78200400	GUARDRAIL REFLECTORS	EACH	6
111		78300100	PAVEMENT MARKING REMOVAL	SO FT	173
112		78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	20
113		Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	4230
114		Z0002600	BAR SPLICERS	EACH	642
115		Z0003900	BICYCLE RAILING	FOOT	421
116		Z0013798	CONSTRUCTION LAYOUT	L SUM	1
117		Z0022800	FENCE REMOVAL	FOOT	162
118		Z0040530	PIPE UNDERDRAIN REMOVAL	FOOT	618
119		Z0030280	IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW), TEST LEVEL 3	EACH	1
120		Z0030360	IMPACT ATTENUATORS, RELOCATE (SEVERE USE) TEST LEVEL 3	EACH	1
121		Z0036600	PARAPET RAILING	FOOT	274
122	Δ	Z0076600	TRAINEES	FOOT	1500
123		XX006677	TREE WELL	EACH	3
124		X0323350	FURNISHING AND SETTING BRICK PAVERS	SO FT	2550
125		X0323491	SLOPE WALL CRACK SEALING	FOOT	120
126		X0712400	TEMPORARY PAVEMENT	SO YD	201
127		X4066426	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70	TON	333
128		X4066616	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N70	TON	1199
129		X4402200	PAVEMENT REMOVAL (CONCRETE)	SQ YD	760
130		X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1
131		X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1
132		X6013600	PIPE UNDERDRAINS 4" (MODIFIED)	FOOT	971
133		X6700405	ENGINEER'S FIELD OFFICE, TYPE A (MODIFIED)	CAL MO	4
134		XX004056	MECHANICALLY STABILIZED EARTH RETAINING WALL	SO FT	6315
135	+	XX005307	TREE QUERCUS BICOLOR (SWAMP WHITE OAK), 3" CALIPER, BALLED & BURLAPPED	EACH	3
136		XX006334	AGGREGATE BASE COURSE, TYPE A (SPECIAL)	TON	64
137	+	A2001024	TREE, ACER RUBRUM (RED MAPLE), 3" CALIPER, BALLED AND BURLAPPED	EACH	3
138	+	A2003824	TREE, FRAXINUS PENNSYLVANICA (GREEN ASH) 3" CALIPER, BALLED AND BURLAPPED	EACH	3
139	+	B2004216	TREE, MALUS PROFUSION (PROFUSION CRAB APPLE), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	9
140	+	B2005520	TREE, PYRUS CALLERYANA ARISTOCRAT (ARISTOCRAT CALLERY PEAR), 2-1/2" CALIPER, TREE FORM, BALLED AND BURLAPPED	EACH	6
141		XX006696	TREATMENT STRUCTURES	EACH	2
142		XX006678	TURBIDITY BARRIER	L SUM	1
143		XX006676	FLOCCULATION SOCK	EACH	1

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_  
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 CHECKED BY: \_\_\_\_\_  
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 CHECKED BY: \_\_\_\_\_

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**SUMMARY OF QUANTITIES**  
**BUFFALO GROVE ROAD**



SCALE: VERT.: N.T.S.      DRAWN BY: GLD  
 HORIZ.: N.T.S.              CHECKED BY: ATI  
 DATE: 7/21/06



BUFFALO GROVE ROAD ALIGNMENT DATA

DESCRIPTION	STATION	OFFSET	NORTHING	EASTING
B.O.P.	98+50.00	0.0	2,019,008.59	1,086,741.35
CURVE #1 P.I.	104+80.05	3.58' RT	2,019,638.64	1,086,740.40
E.O.P.	107+57.00	0.0	2,019,911.02	1,086,687.92



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	5

STA. 98+50.00 TO STA. 106+85.00  
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

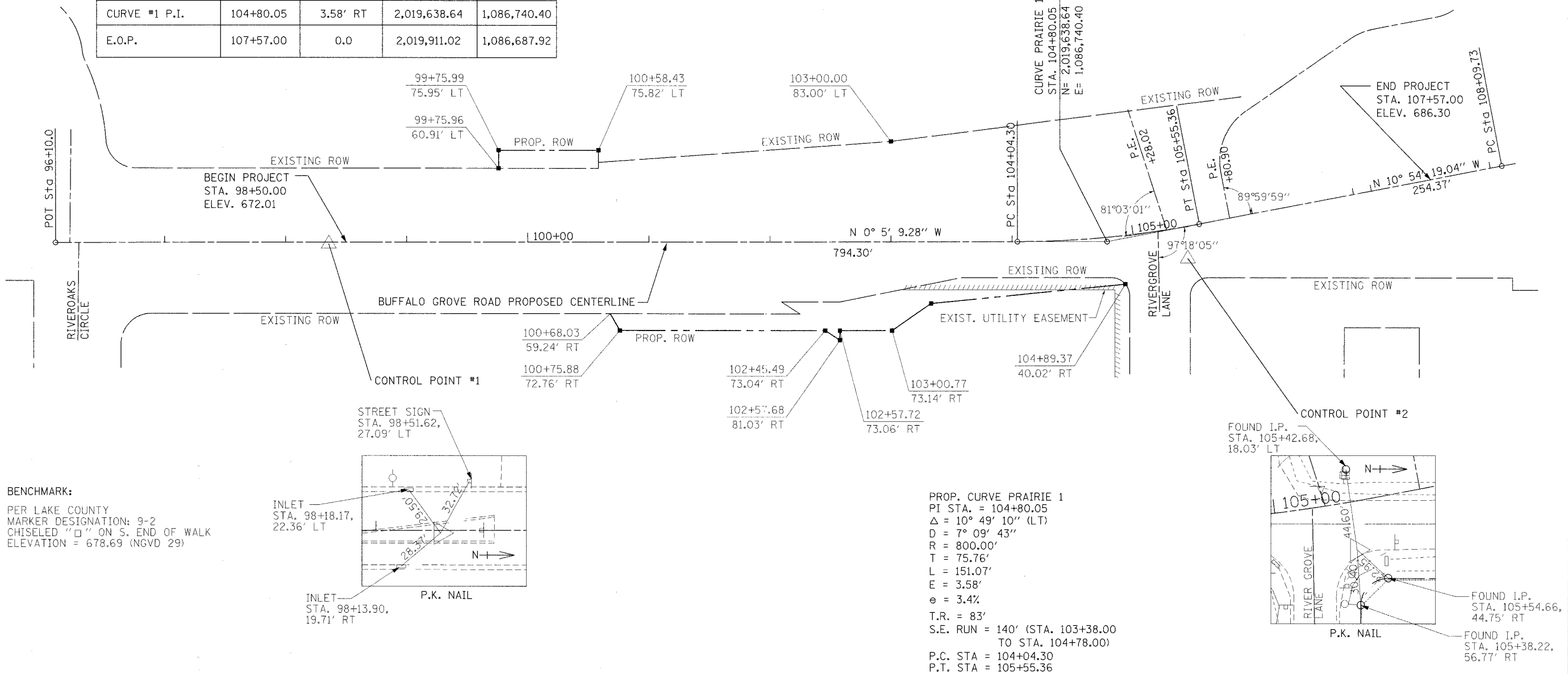
PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

DATE	BY

PLAN  
 SURVEYED, PLANNED, PLOTTED, CHECKED, REVISIONS, DATE, NO., NO. OF WALK CHECKED, NO. OF WALK CHECKED, NO. OF WALK CHECKED, NO. OF WALK CHECKED

DATE	BY

PROFILE  
 SURVEYED, PLANNED, PLOTTED, CHECKED, REVISIONS, DATE, NO., NO. OF WALK CHECKED, NO. OF WALK CHECKED, NO. OF WALK CHECKED, NO. OF WALK CHECKED



HORIZONTAL AND VERTICAL CONTROL

DESCRIPTION	NORTHING	EASTING	ELEVATION	STATION	OFFSET
BENCHMARK #1 CHISELED SQUARE ON SOUTH END OF WALK AT LEIKAMS TAP. AT INT. OF IL 21 AND US 45, GO NW 1 MILE TO MARK	-	-	678.69	-	-
CONTROL POINT #1 SET P.K. IN CONCRETE ISLAND S. OF INDIAN CREEK	2,018,994.180	1,086,742.800	672.765	98+35.59	1.43' RT
CONTROL POINT #2 SET PK. IN ASPHALT N.E. CORNER OF PRAIRIE & RIVER GROVE	2,019,703.750	1,086,754.756	677.25	105+41.20	26.43' RT

**NOTE:**  
 THREE POINT TIES ARE PROVIDED ONLY TO FIND GENERAL LOCATION OF CONTROL POINT NOT TO ACCURATELY RECREATE POINT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**ALIGNMENT, TIES AND BENCHMARK**  
**BUFFALO GROVE ROAD**  
 SCALE: VERT.: 1"=50'  
 HORIZ.:  
 DATE: 7/21/06  
 DRAWN BY: SMH  
 CHECKED BY: PWK



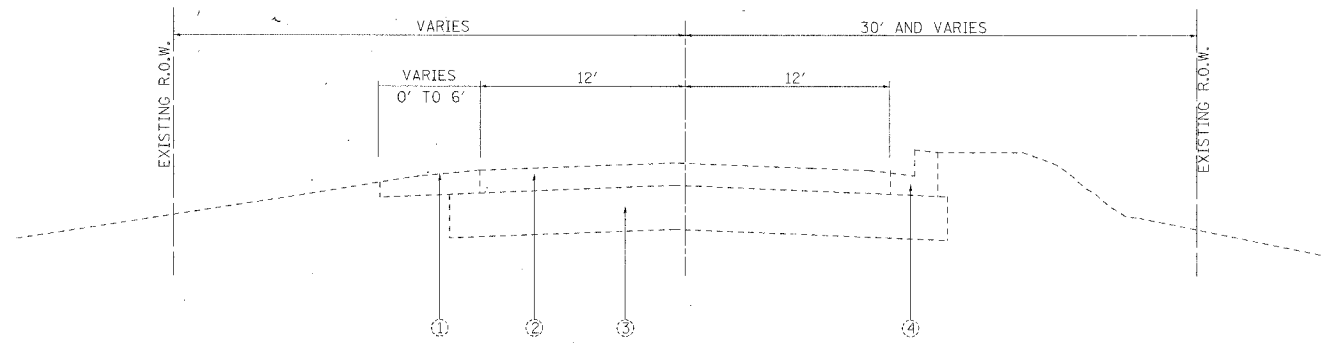
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	6
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

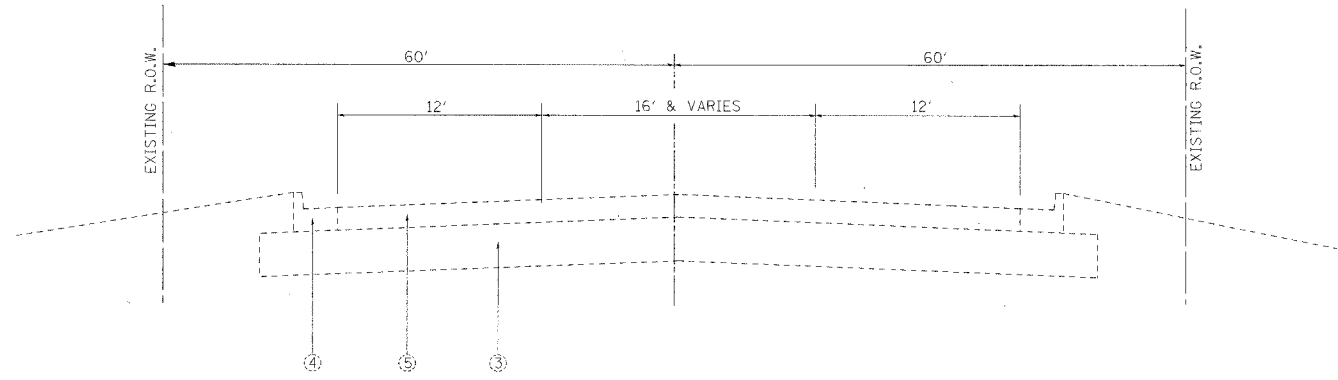
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

PLAN	DATE
BY	
REVISIONS	
NOTED	
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DATE	
BY	
FILE NAME	

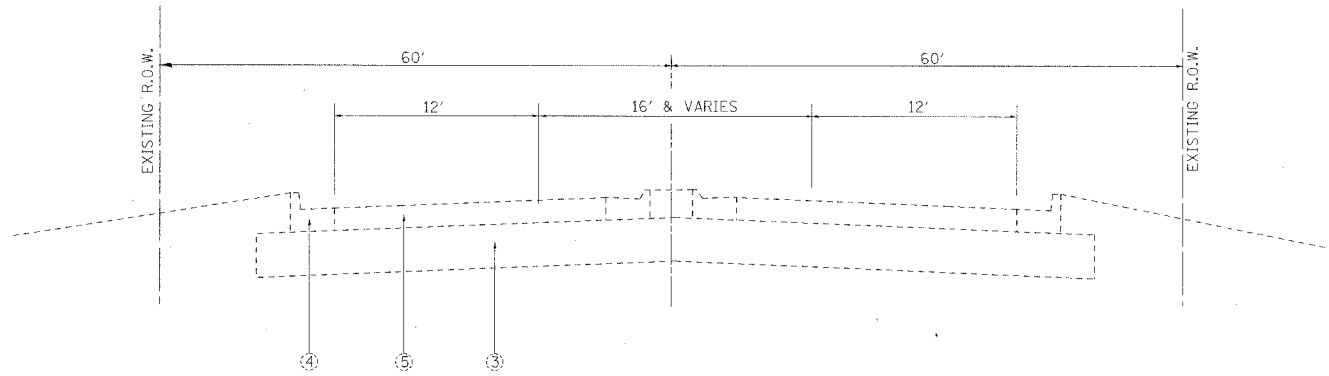
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NOTED	
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FILE NAME	



**EXISTING PRAIRIE ROAD NORTH OF INDIAN CREEK**  
STA. 102+51.10 TO STA. 106+85



**EXISTING BUFFALO GROVE ROAD SOUTH OF INDIAN CREEK**  
STA. 98+65.37 TO STA. 100+48.90



**EXISTING BUFFALO GROVE ROAD SOUTH OF INDIAN CREEK**  
STA. 98+50 TO STA. 98+65.37

**EXISTING LEGEND**

- ① EXISTING AGGREGATE SHOULDER -WIDTH VARIES 0' TO 6'
- ② EXISTING BITUMINOUS PAVEMENT
- ③ EXISTING SUB-BASE
- ④ EXISTING CONCRETE CURB AND GUTTER, TYPE B-6.24
- ⑤ EXISTING PCC PAVEMENT

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTIONS**  
**BUFFALO GROVE ROAD**



SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06

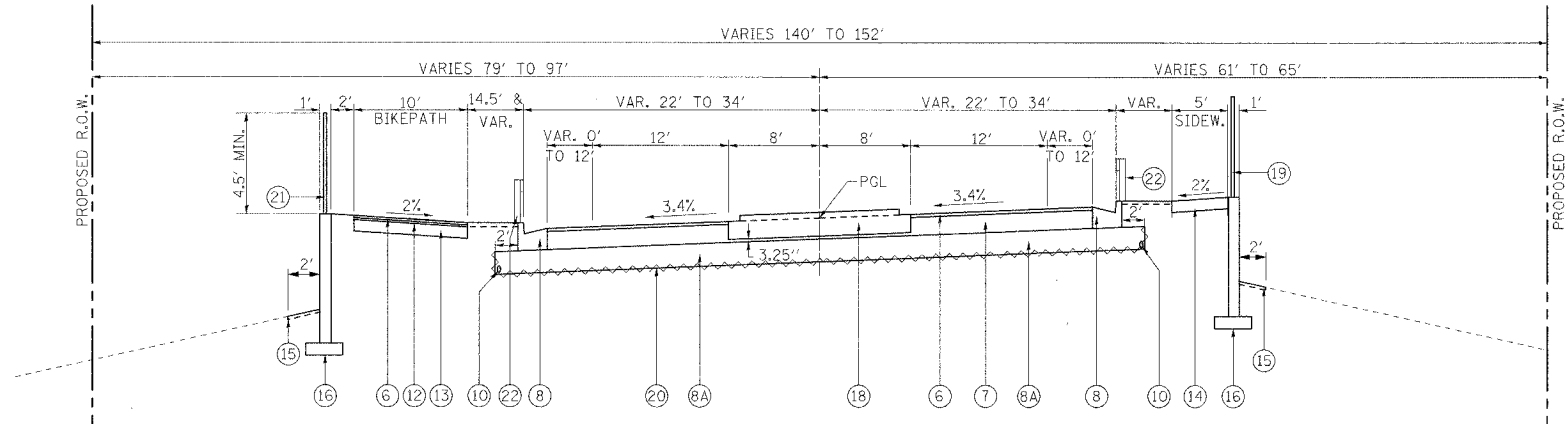
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	7
STA. N/A	TO STA. N/A			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

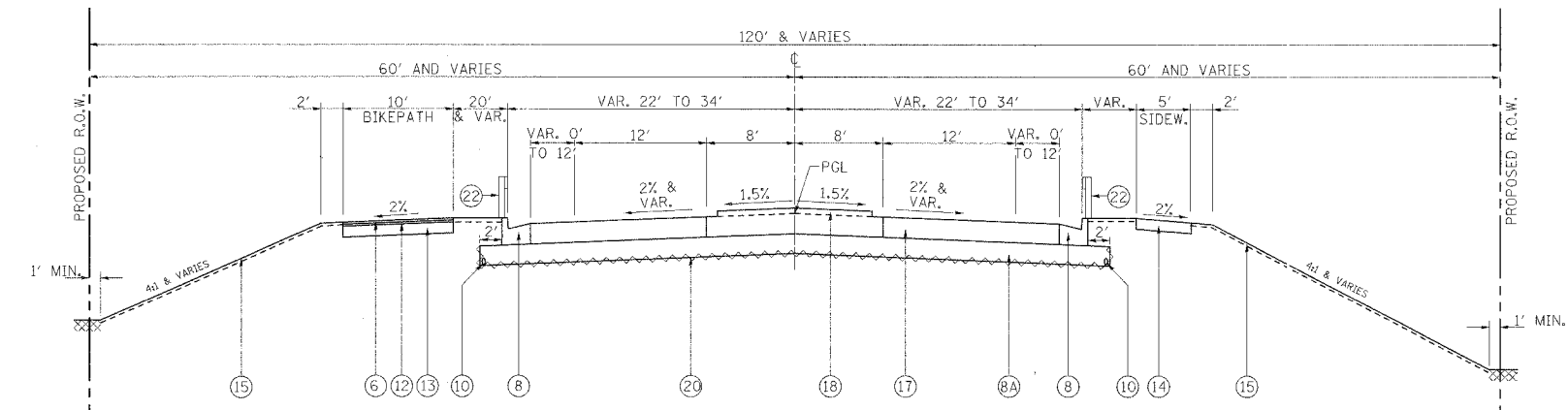
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

**PROPOSED LEGEND**

- ⑥ PROPOSED BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE, MIX "D", N70, 2"
- ⑦ PROPOSED BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE, IL-19.0, N70, 1 1/4"
- ⑧ PROPOSED B-6.24 CONCRETE CURB AND GUTTER
- ⑧A AGGREGATE SUBGRADE 12"
- ⑩ PROPOSED PIPE UNDERDRAIN, 4" (MODIFIED) (X6013600)
- ⑫ PROPOSED BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE, IL-19.0, N70, 1 3/4"
- ⑬ PROPOSED AGGREGATE BASE COURSE, TYPE A (SPECIAL) 6"
- ⑭ PROPOSED PCC SIDEWALK, 5"
- ⑮ PROPOSED FURNISHING AND PLACING TOPSOIL, 4"
- ⑯ PROPOSED MSE WALL
- ⑰ PROPOSED PCC PAVEMENT, 9 1/4"
- ⑱ CONCRETE MEDIAN, TYPE M-2.12
- ⑲ PROPOSED PEDESTRIAN RAILING
- ⑳ GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- ㉑ BICYCLE RAILING
- ㉒ TRAFFIC BARRIER TERMINAL (SEE SHEET 14 OF 70 FOR TYPE & LOCATION)



**PROPOSED BUFFALO GROVE ROAD NORTH OF INDIAN CREEK**  
FULL SUPERELEVATION STA. 104+78.00 TO STA. 105+35  
TRANSITION SECTION FROM STA. 102+51.27 TO STA. 104+78.00  
TRANSITION SECTION FROM STA. 105+35.00 TO STA. 107+57.00 (END OF IMPROVEMENT)  
MSE WALL ENDS AT STA. 104+30 ON THE WEST  
MSE WALL ENDS AT STA. 104+70 ON THE EAST



**PROPOSED BUFFALO GROVE ROAD SOUTH OF INDIAN CREEK**  
STA. 98+50 TO 100+48.73

**SUPERPAVE TABLE**

LOCATION	ITEM	PG:	RAP%	DESIGN A.R. VOIDS
ROADWAY & BIKE PATH: STA. 102+51.27 TO STA. 107+57.00	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70	PG 64-22	10%	4% @ 70 GYR
ROADWAY & BIKE PATH: STA. 102+51.27 TO STA. 107+57.00	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19, N70	PG 64-22	15%	4% @ 70 GYR
TEMPORARY PAVEMENT	BITUMINOUS BASE COURSE, SUPERPAVE, 10"	PG 58-22	50%	2% @ 50 GYR

**NOTE:**  
THE UNIT WEIGHT USED TO CALCULATE ALL BITUMINOUS SURFACE MIXTURE QUANTITIES IS 112 LBS./SQ.YD./IN.

STRUCTURAL DESIGN TRAFFIC: Year <u>2015</u>
PV= <u>28,644 (96%)</u> SU= <u>597 (2%)</u> MU= <u>597 (2%)</u>
ROAD/STREET CLASSIFICATION: Class <u>1</u>
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
P= <u>96%</u> S= <u>2%</u> M= <u>2%</u>
TRAFFIC FACTOR:
Actual TF= <u>3.72</u> AC Type= _____
Minimum TF= <u>0.50</u>
PG GRADE: Binder= <u>PG 64-22</u> Surface= <u>PG 64-22</u>
SUBGRADE SUPPORT RATING:
SSR= <u>POOR</u> (Sta. _____ to _____)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**TYPICAL SECTIONS**  
**BUFFALO GROVE ROAD**

SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PWK

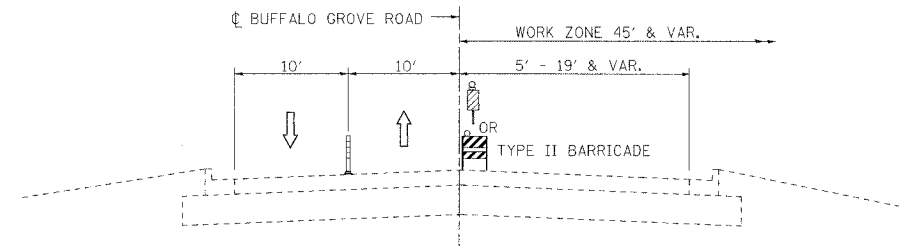


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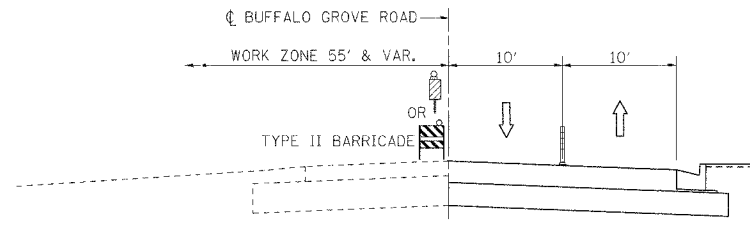
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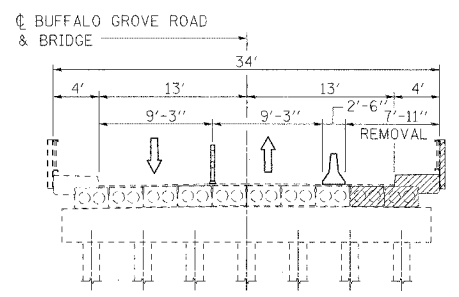
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				



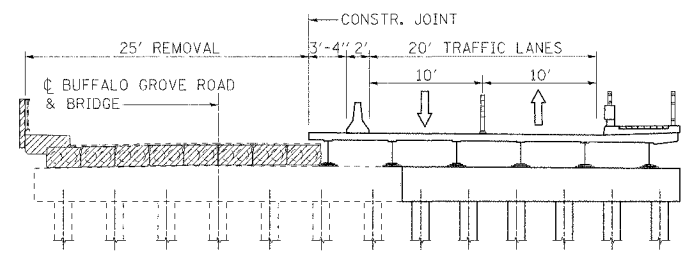
STAGE 1 - BUFFALO GROVE ROAD SOUTH OF INDIAN CREEK BRIDGE



STAGE 2 - BUFFALO GROVE ROAD NORTH & SOUTH OF INDIAN CREEK BRIDGE



STAGE 1 - INDIAN CREEK BRIDGE  
(LOOKING NORTH)



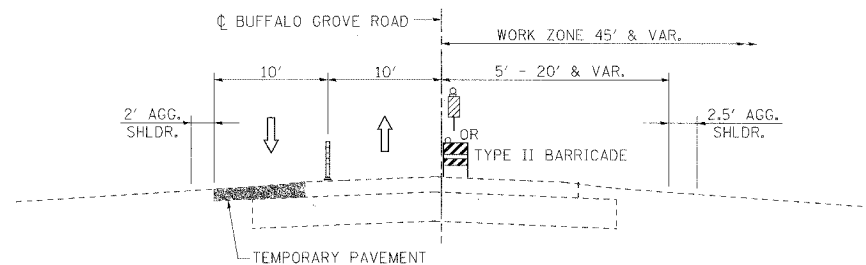
STAGE 2 - INDIAN CREEK BRIDGE  
(LOOKING NORTH)

LEGEND

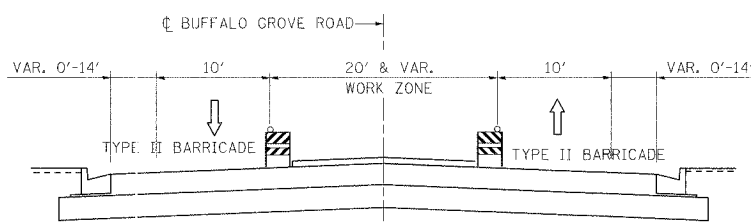
- DIRECTION OF TRAFFIC FLOW
- FLEXIBLE DELINEATOR
- VERTICAL PANEL ON POST
- TYPE II BARRICADE

WORK SEQUENCE

- PRELIMINARY STAGE**
- REMOVE EXISTING CONCRETE MEDIAN STA. 97+XX TO STA. 98+00.
  - CONSTRUCT BITUMINOUS CONCRETE BASE COURSE, 10" FOR TEMPORARY TRAFFIC.
  - INSTALL TRAFFIC CONTROL FOR STAGE I CONSTRUCTION.
- STAGE 1** NORTHBOUND LANE - BRIDGE & ROADWAY CONSTRUCTION, EAST MSE WALL
- STAGE 2** SOUTHBOUND LANE - BRIDGE & ROADWAY CONSTRUCTION, WEST MSE WALL
- STAGE 3** RAISED MEDIAN CONSTRUCTION



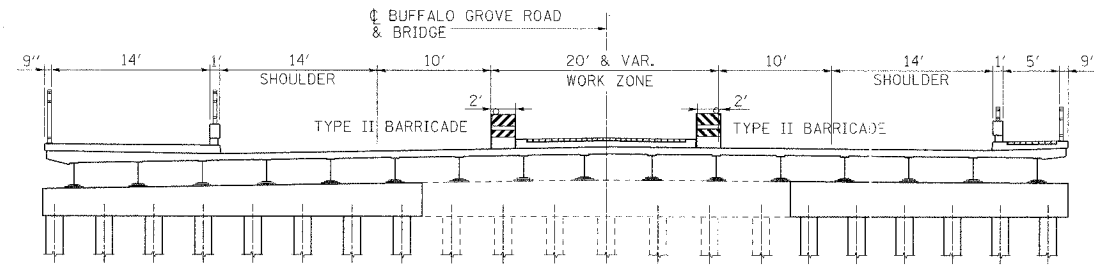
STAGE 1 - BUFFALO GROVE ROAD NORTH OF INDIAN CREEK BRIDGE



STAGE 3 - BUFFALO GROVE ROAD NORTH & SOUTH OF INDIAN CREEK

MAINTAINANCE OF TRAFFIC - GENERAL NOTES

- LATERAL CLEARANCE OF TEMPORARY POST-MOUNTED SIGNS SHALL BE 2' BEHIND FACE OF CURB.

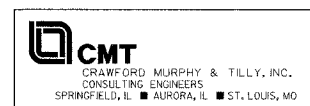


STAGE 3 - INDIAN CREEK BRIDGE  
(LOOKING NORTH)

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DATE	

PROFILE	DATE
BY	
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DATE	

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**M.O.T. TYPICAL SECTIONS AND GENERAL NOTES**

**BUFFALO GROVE ROAD**

SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06

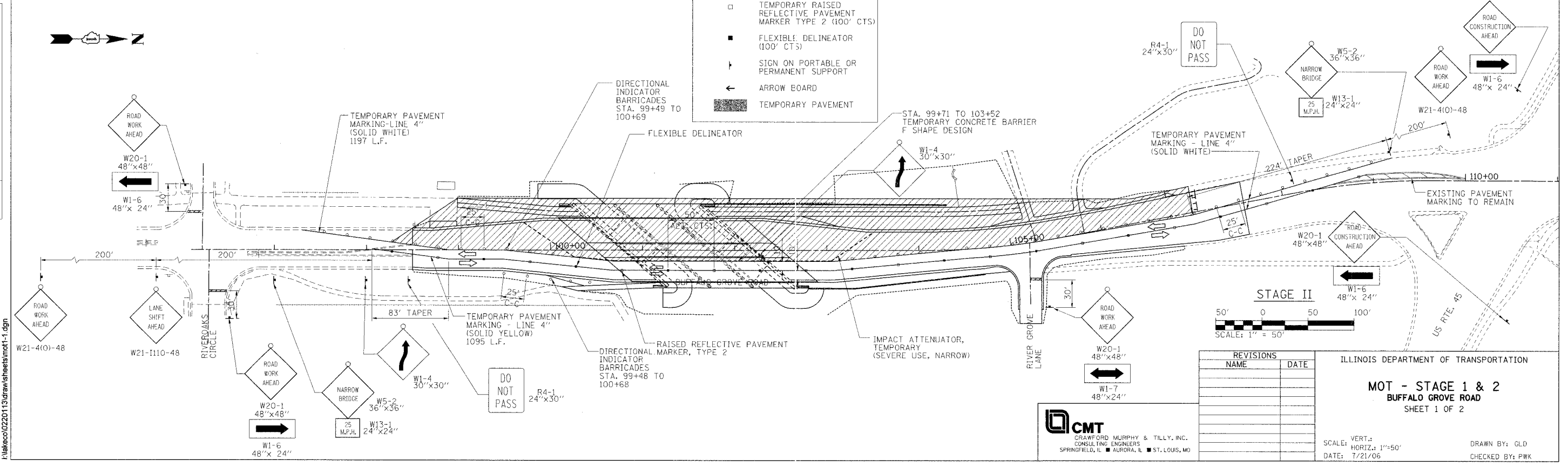
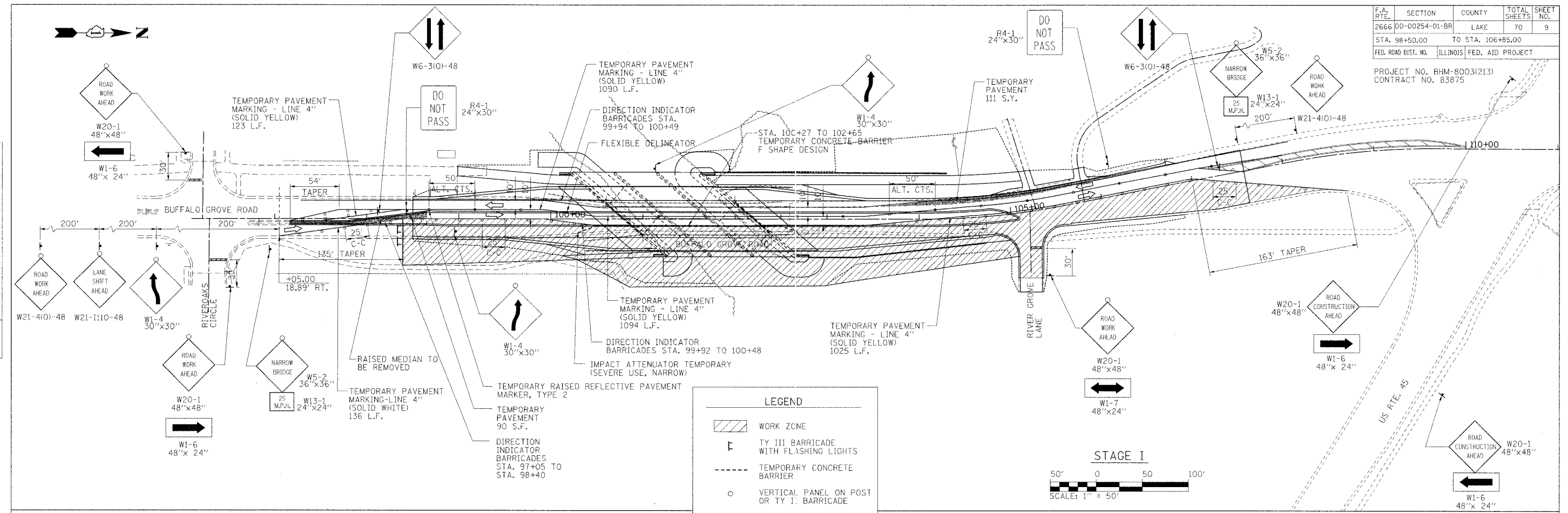
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CHECKED BY: WRD

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	9
STA. 98+50.00		TO STA. 106+85.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

DATE	BY	REVISION

DATE	BY	REVISION



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REVISIONS	
NAME	DATE

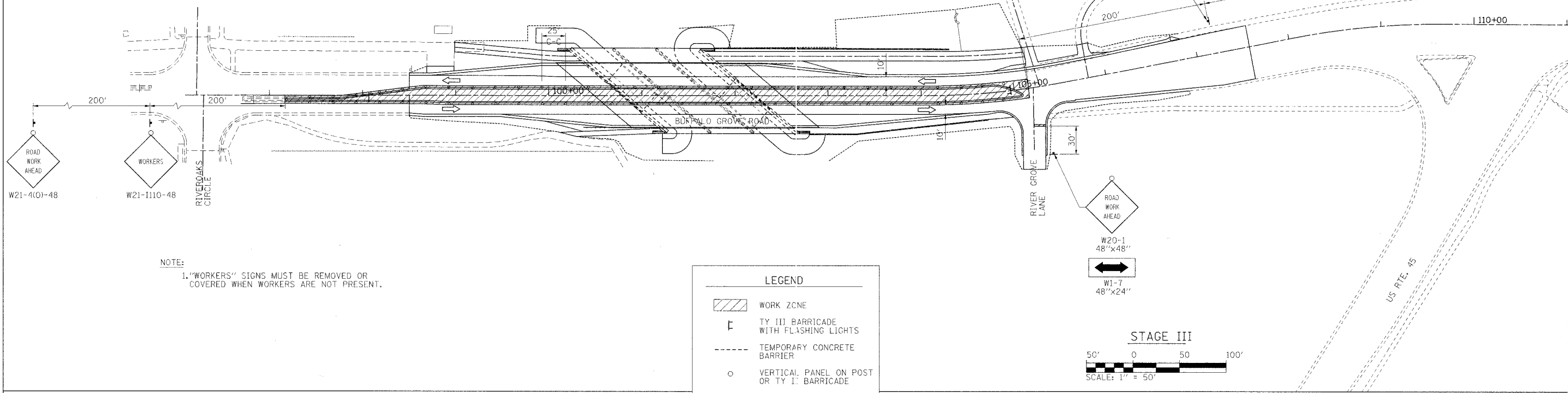
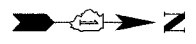
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**MOT - STAGE 1 & 2**  
**BUFFALO GROVE ROAD**  
 SHEET 1 OF 2

SCALE: VERT.: 1"=50'  
 HORIZ.: 1"=50'  
 DATE: 7/21/06

DRAWN BY: GLD  
 CHECKED BY: PWK

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	10
STA. 98+50.00	TO STA. 106+85.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
PROJECT NO. BHM-8003(213) CONTRACT NO. 83875				



NOTE:  
1. "WORKERS" SIGNS MUST BE REMOVED OR COVERED WHEN WORKERS ARE NOT PRESENT.

LEGEND	
	WORK ZONE
	TY III BARRICADE WITH FLASHING LIGHTS
	TEMPORARY CONCRETE BARRIER
	VERTICAL PANEL ON POST OR TY I BARRICADE
	TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER TYPE 2 (100' CTS)
	FLEXIBLE DELINEATOR (100' CTS)
	SIGN ON PORTABLE OR PERMANENT SUPPORT
	ARROW BOARD
	TEMPORARY PAVEMENT

PLAN	DATE
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PROFILE	DATE
BY	
CHECKED	
DATE	
NO.	

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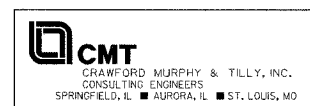
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**MOT - STAGE 3**  
BUFFALO GROVE ROAD  
SHEET 2 OF 2

SCALE: VERT.:  
HORIZ.: 1"=50'  
DATE: 7/21/06

DRAWN BY: SMH  
CHECKED BY: PWK



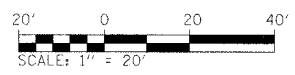


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STA. 98+50.00		TO STA. 104+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

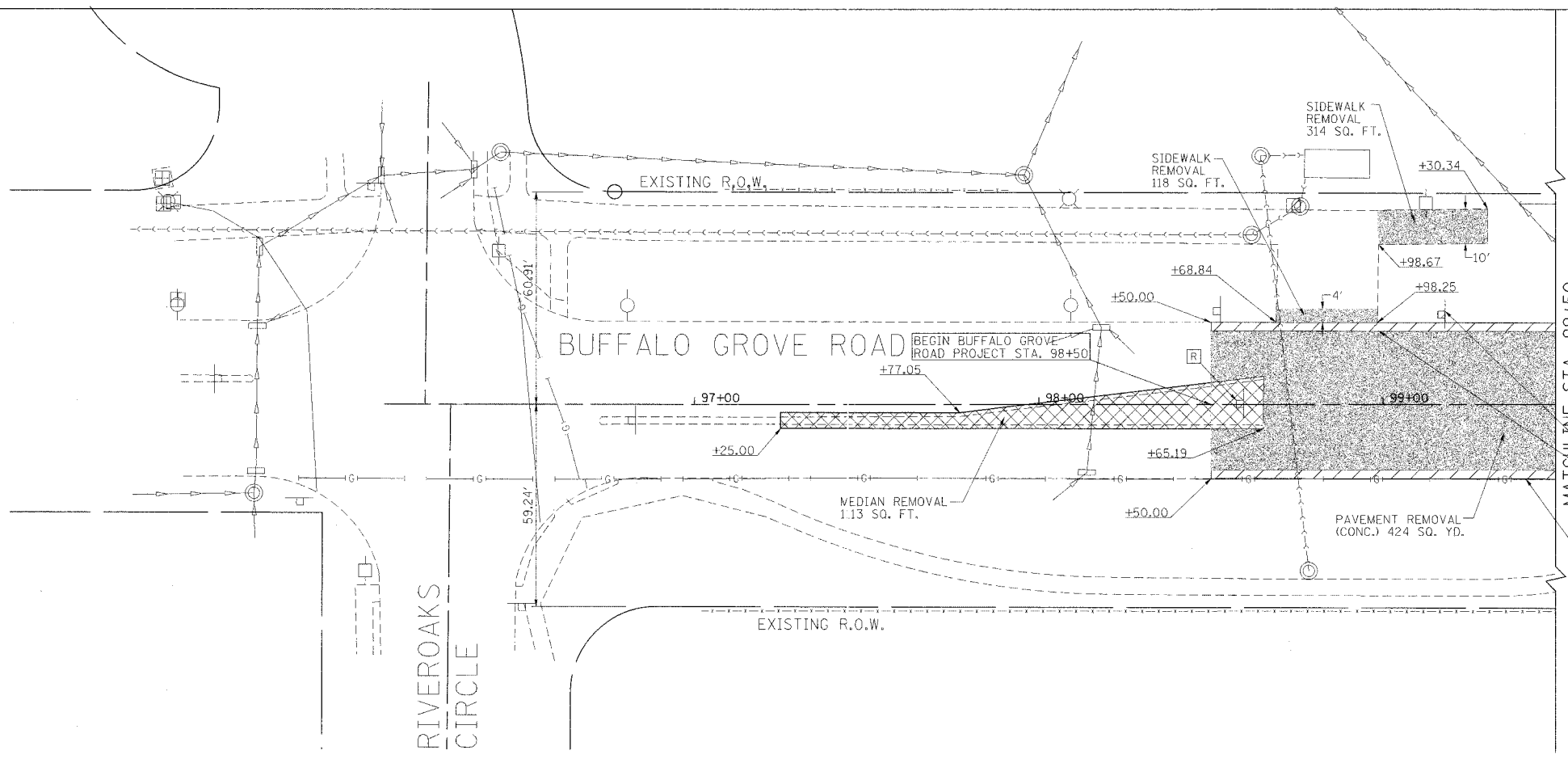
**REMOVAL LEGEND**

- PAVEMENT REMOVAL (CONCRETE)
- BITUMINOUS CONCRETE PAVEMENT REMOVAL
- RAISED MEDIAN REMOVAL (REPLACE WITH TEMPORARY BITUMINOUS PAVEMENT)
- CURB & GUTTER REMOVAL
- REMOVAL
- ADJUSTMENT
- EXISTING BORING
- TREE REMOVAL
- TREE PROTECTION
- RELOC SIN PAN ASSY TA. 1 EACH
- COMB. CURB GUTTER REM. 100. FT
- COMB. CURB GUTTER REM. 100. FT



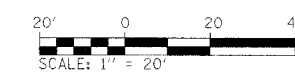
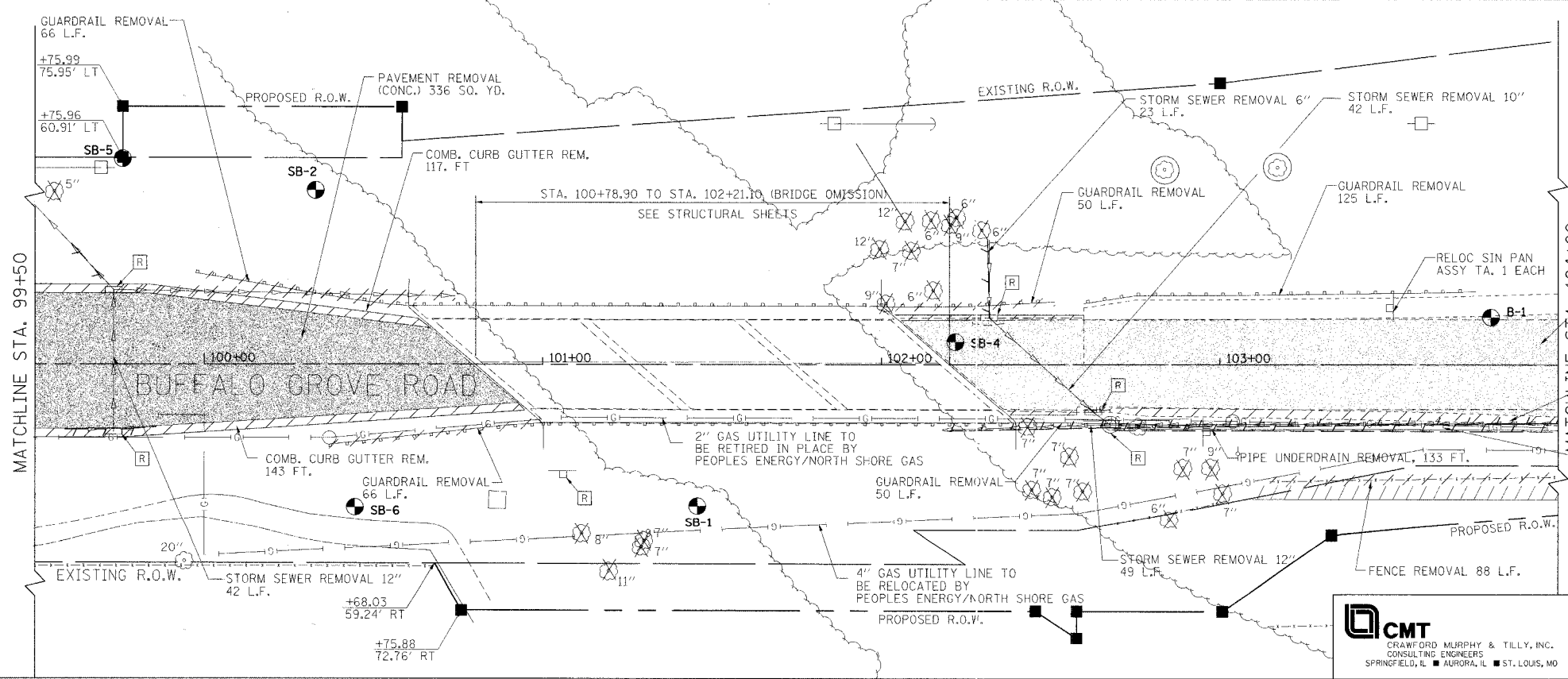
**TREE REMOVAL SCHEDULE LOCATION**

STA.	OFFSET
101+11.5	50.3' RT
101+19.5	61.4' RT
101+29.0	54.3' RT
101+30.0	52.5' RT
102+01.3	18.1' LT
102+15.3	22.0' LT
102+08.8	33.6' LT
102+07.0	42.2' LT
102+14.7	42.6' LT
102+20.4	41.3' LT
102+29.6	39.7' LT
102+43.2	18.3' RT
102+44.4	36.9' RT
102+50.4	39.0' RT
102+55.5	27.1' RT
102+59.0	37.3' RT
102+85.0	46.0' RT
102+89.0	30.4' RT
102+97.2	30.3' RT
103+00.8	37.9' RT
104+52.2	24.8' RT
104+75.2	24.0' RT



DATE	BY	REVISION

DATE	BY	REVISION



REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**REMOVALS AND SOIL BORING LOCATIONS**  
BUFFALO GROVE ROAD  
SHEET 1 OF 2

SCALE: VERT.:  
HORIZ.: 1"=20"  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PNK



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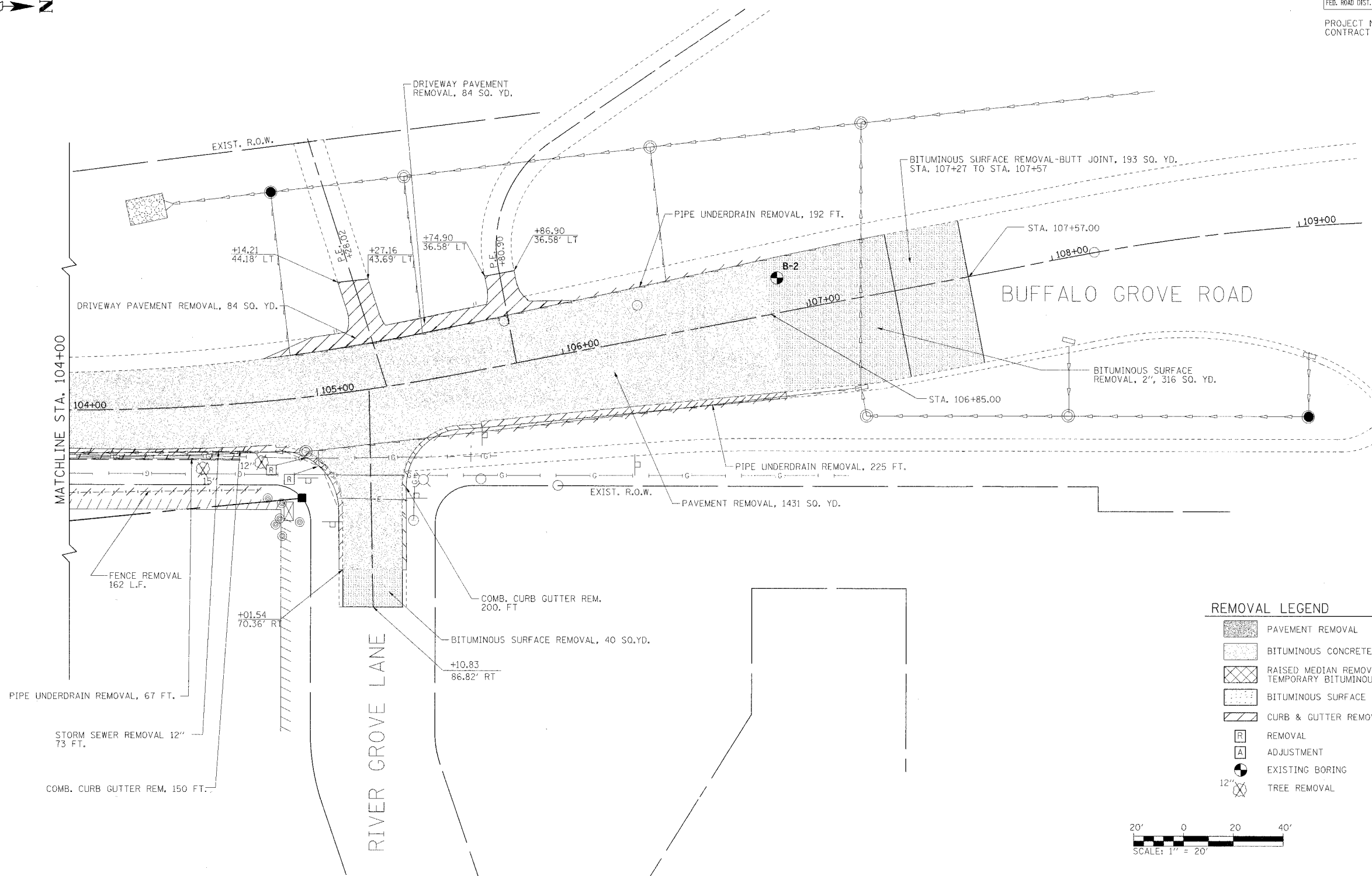
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666 00-00254-01-BR		LAKE	70	12
STA. 104+00.00 TO STA. 106+50.00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875



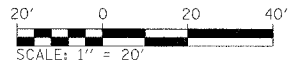
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BY	
REVISIONS	
1. AS SHOWN	
2. BY FIELD CHECK	
3. BY FILE MARK	

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DATE	
BY	
REVISIONS	
1. AS SHOWN	
2. BY FIELD CHECK	
3. BY NOTE	
4. BY STRUCTURE	



**REMOVAL LEGEND**

- PAVEMENT REMOVAL
- BITUMINOUS CONCRETE PAVEMENT REMOVAL
- RAISED MEDIAN REMOVAL (REPLACE WITH TEMPORARY BITUMINOUS PAVEMENT)
- BITUMINOUS SURFACE REMOVAL
- CURB & GUTTER REMOVAL
- REMOVAL
- ADJUSTMENT
- EXISTING BORING
- TREE REMOVAL



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**REMOVALS AND SOIL BORING LOCATION**  
BUFFALO GROVE ROAD  
SHEET 2 OF 2



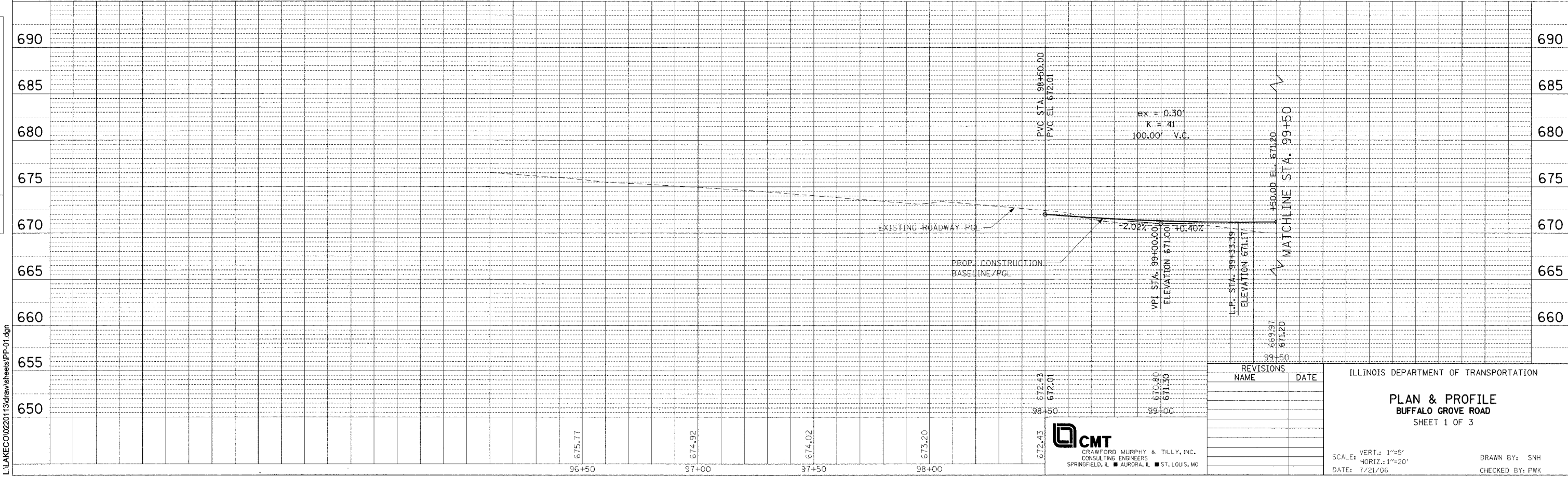
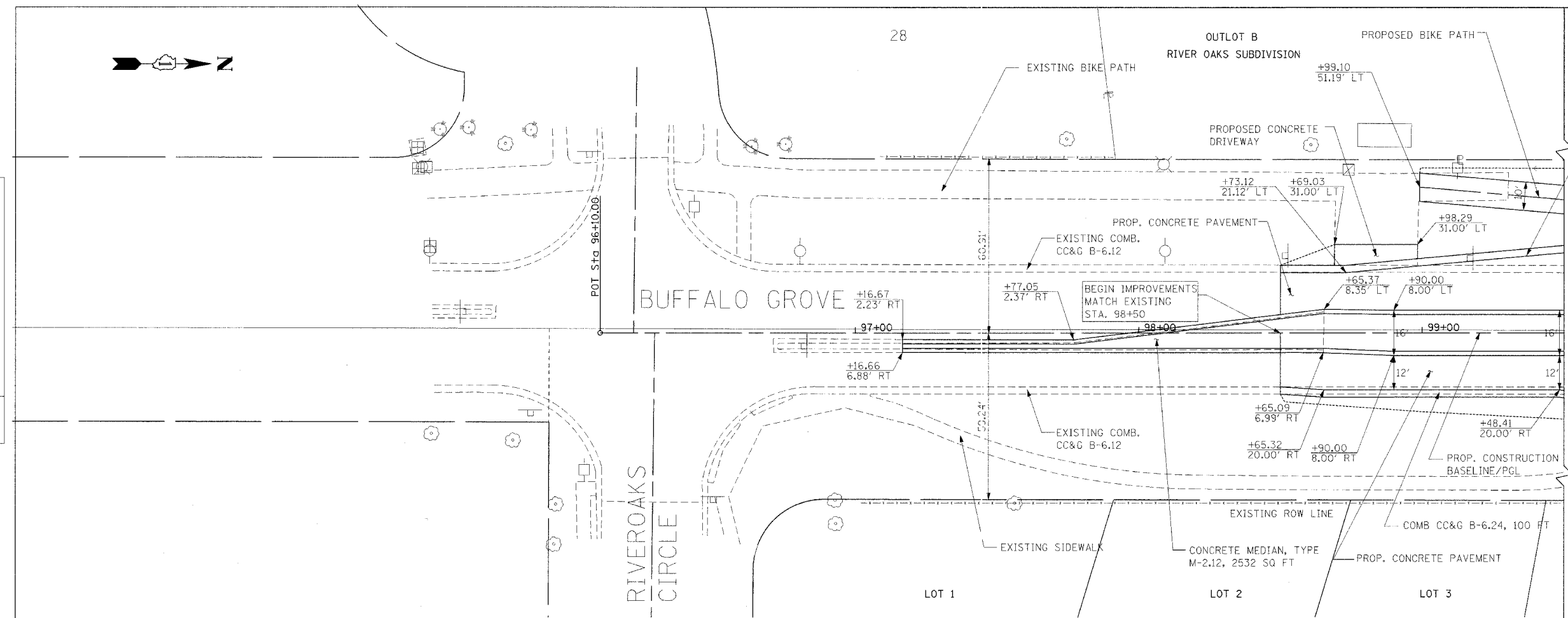
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HORIZ.: 1"=20'  
DATE: 7/21/06  
DRAWN BY: SNH  
CHECKED BY: PWK

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 98+50.00		TO STA. 99+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
PROJECT NO. BHM-8003(213)				
CONTRACT NO.				

PLAN	DATE
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REVISIONS	
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PROFILE	DATE
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REVISIONS	
NAME	DATE

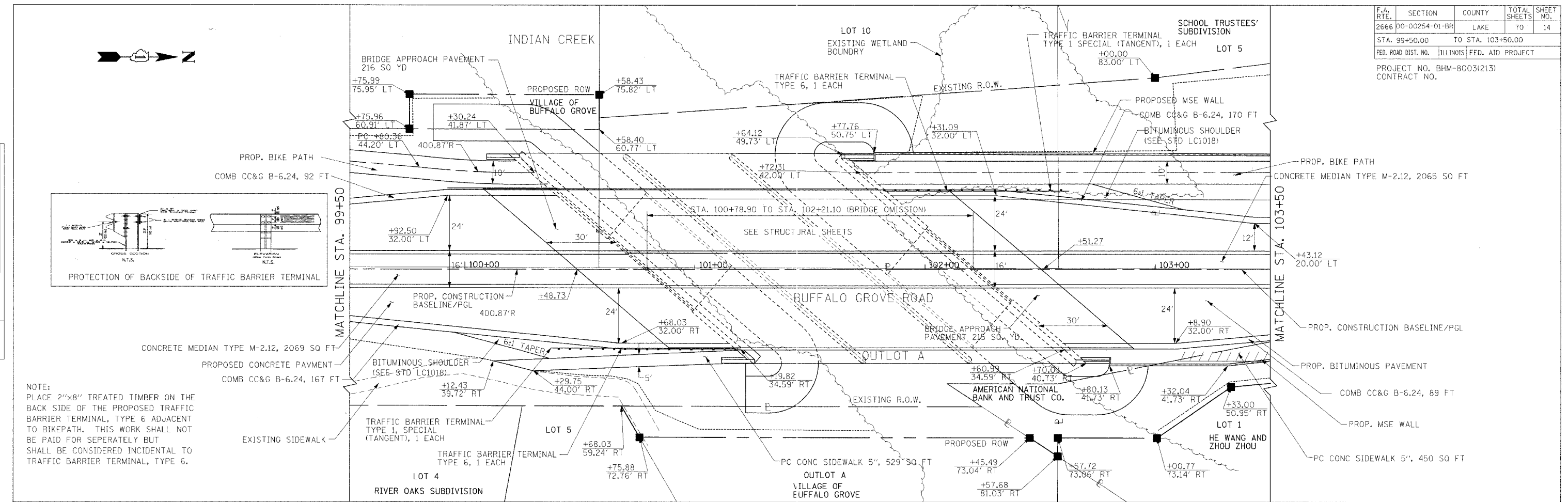
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CONSULTING ENGINEERS  
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ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAN & PROFILE**  
BUFFALO GROVE ROAD  
SHEET 1 OF 3  
SCALE: VERT.: 1"=5'  
HORIZ.: 1"=20'  
DATE: 7/21/06  
DRAWN BY: SNH  
CHECKED BY: PWK

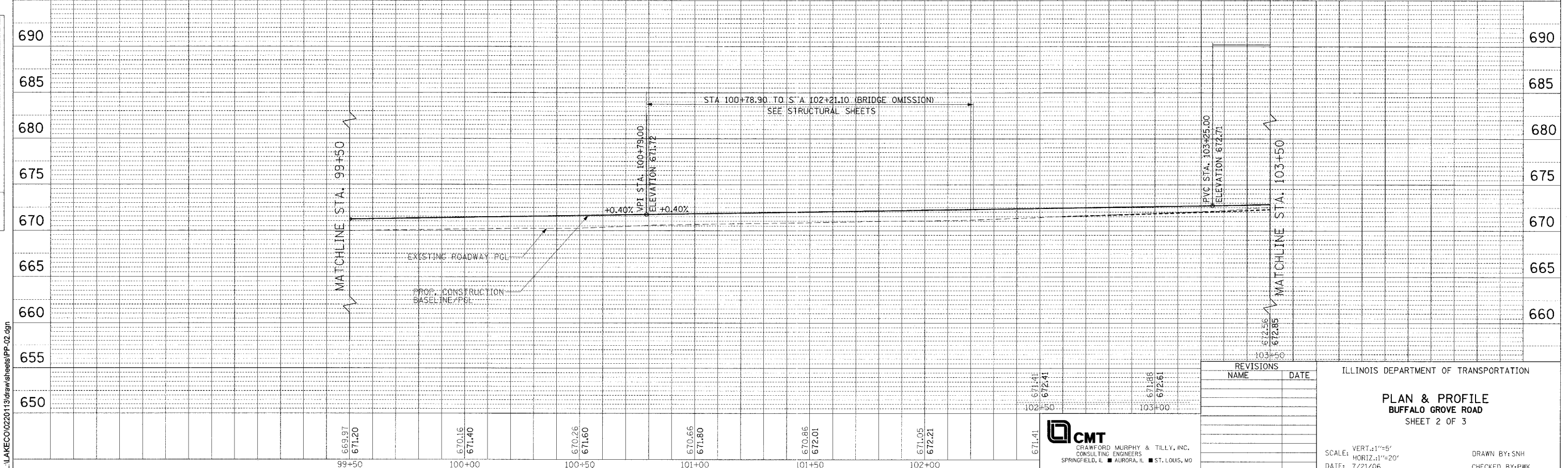
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	14
STA. 99+50.00		TO STA. 103+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
PROJECT NO. BHM-8003(213) CONTRACT NO.				

PLAN	DATE
NO.	
BY	
REVISIONS	
NO.	
DATE	

PROFILE	DATE
NO.	
BY	
REVISIONS	
NO.	
DATE	



NOTE:  
PLACE 2"x8" TREATED TIMBER ON THE BACK SIDE OF THE PROPOSED TRAFFIC BARRIER TERMINAL, TYPE 6 ADJACENT TO BIKEPATH. THIS WORK SHALL NOT BE PAID FOR SEPERATELY BUT SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC BARRIER TERMINAL, TYPE 6.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAN & PROFILE**  
BUFFALO GROVE ROAD  
SHEET 2 OF 3

SCALE: VERT.: 1"=5'  
HORIZ.: 1"=20'  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PWK

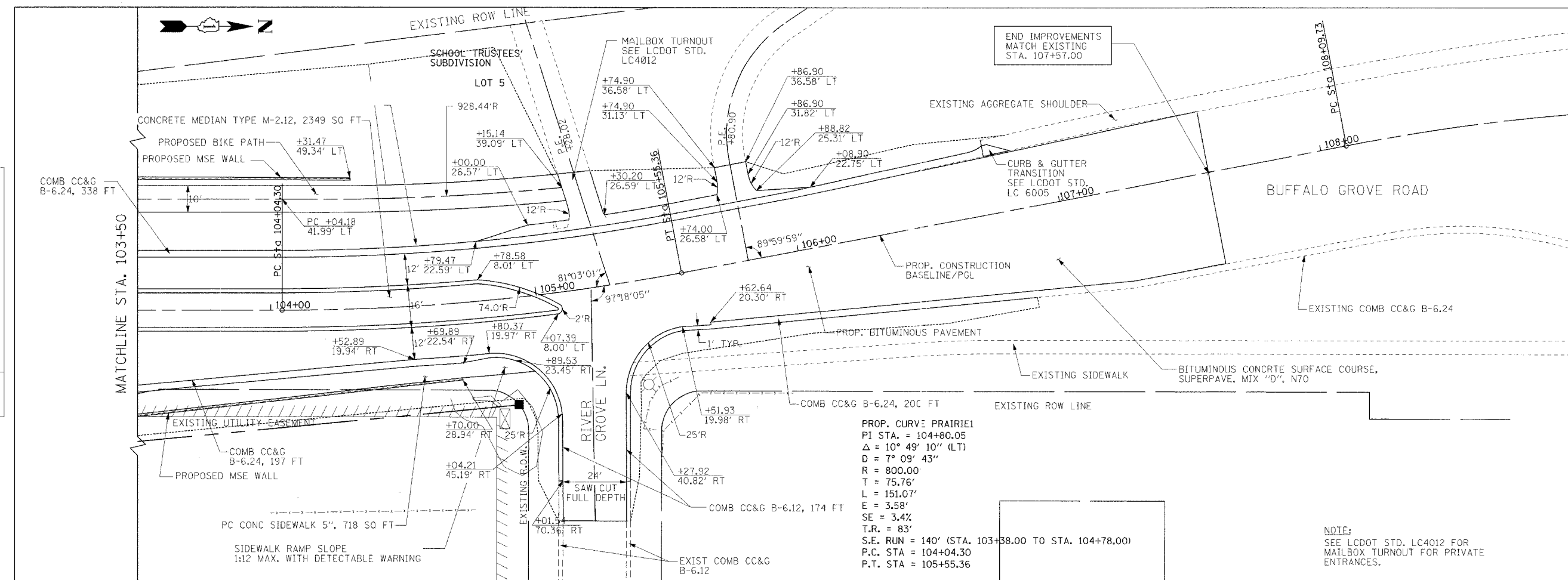
**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	15
STA. 103+50.00		TO STA. 106+85.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
PROJECT NO. BHM-8003(213)				
CONTRACT NO.				

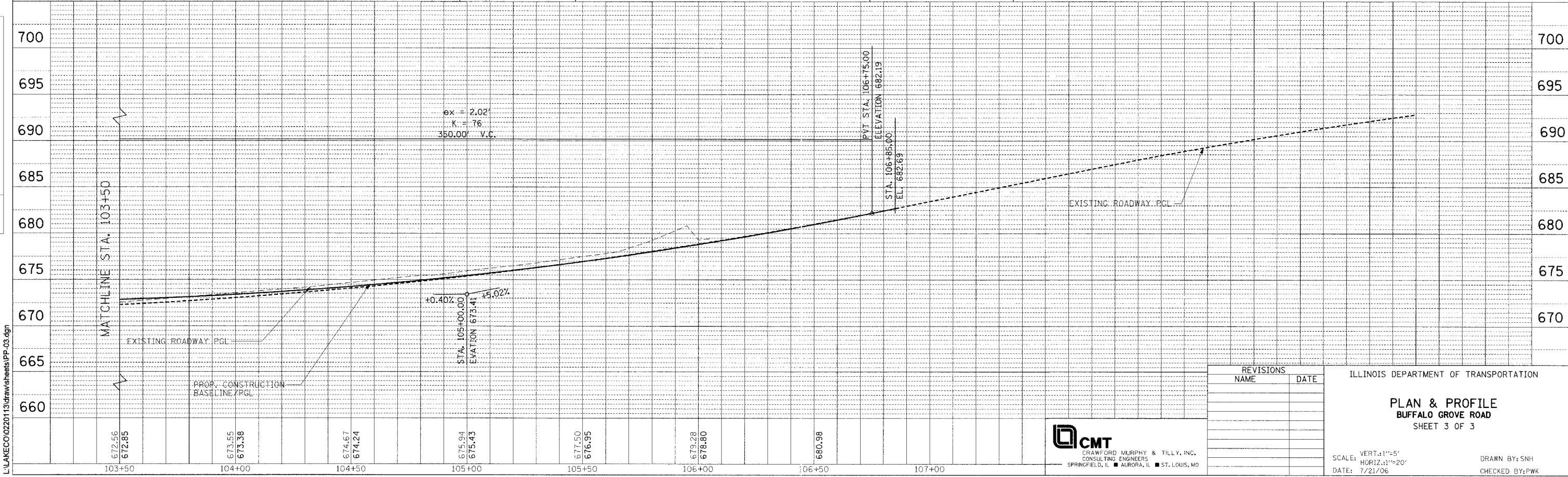
PLAN	DATE
BY	
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PROFILE	DATE
BY	
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NO.	



SUPER ELEVATION CURVE #1	
DESCRIPTION	STATION
NORMAL CROWN	102+63.64
ADVERSE CROWN	103+38.00
REVERSE CROWN	104+20.35
FULL SUPER	104+78.00
FULL SUPER	105+35.00

CONTINUOUSLY ROTATE PLANE ABOUT CENTERLINE TO MATCH EXISTING SUPERELEVATION AT STA. 106+85.00



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ILLINOIS DEPARTMENT OF TRANSPORTATION

**PLAN & PROFILE**  
**BUFFALO GROVE ROAD**  
 SHEET 3 OF 3

SCALE: VERT. 1"=5'  
 HORIZ. 1"=20'  
 DATE: 7/21/06

DRAWN BY: SNH  
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

**STORM WATER POLLUTION PREVENTION PLAN**

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM SEWER WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES. TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SECTION 280, TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS ADDITIONALLY SUPPLEMENTS THIS PLAN.

**SITE DESCRIPTION:**

THE SITE IS CURRENTLY A TWO LANE CONCRETE ROADWAY SOUTH OF THE BRIDGE OVER THE INDIAN CREEK AND A TWO LANE BITUMINOUS ROADWAY NORTH OF THE BRIDGE OVER INDIAN CREEK WITH BOTH SHOULDERS AND SOME CLOSED STORM SEWER SYSTEM. THE PROJECT AREA IS RESIDENTIAL.

**DESCRIPTION OF CONSTRUCTION ACTIVITY:**

THE PROJECT CONSISTS OF WIDENING THE BUFFALO GROVE BRIDGE OVER INDIAN CREEK. THIS WILL ALLOW FOR THE CONNECTION OF A BIKE PATH ON THE WEST SIDE OF THE BRIDGE AND A SIDEWALK ON THE EAST SIDE.

CONSTRUCTION INCLUDES EARTH EXCAVATION, EMBANKMENT, STORM SEWERS, MANHOLES, INLETS, VARIOUS PAVEMENT ITEMS, BIKEPATH, STRIPING, SIGNING, LANDSCAPING, AND OTHER MISCELLANEOUS ITEMS OF CONSTRUCTION.

**DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:**

PLACE EROSION BARRIER

TREE REMOVAL AS SHOWN ON THE PLANS. TREES TO REMAIN WILL BE PROTECTED AGAINST DAMAGE.

EXCAVATION AND EMBANKMENT WILL BE COMPLETED ALONG THE JOB SITE TO GRADE OUT FOR THE PROPOSED ROADWAY AND BIKEPATH AND CONSTRUCT EMBANKMENT AND DITCHES.

PLACEMENT, MAINTENANCE, REMOVAL AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS PERIMETER EROSION CONTROL BARRIER, TEMPORARY DITCH CHECKS, INLET AND PIPE PROTECTION, TEMPORARY SEEDING, ETC.

PAVEMENT AND BIKE PATH SUBBASE AND SURFACING CONSTRUCTION WORK.

FINAL GRADING, LANDSCAPING, AND OTHER MISCELLANEOUS ITEMS.

PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS SEEDING, MULCH OR EROSION CONTROL BLANKET, SOD, STABILIZING BLANKET, RIPRAP, ETC.

**AREA OF CONSTRUCTION SITE:**

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 2.08 ACRES OF WHICH 1.68 ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER ACTIVITIES.

**OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS:**

INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS FOR THE ROADWAY PROJECT AND THAT WERE UTILIZED FOR THE DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS.

PROJECT PLAN DOCUMENTS, SPECIFICATIONS AND SPECIAL PROVISIONS AND PLAN DRAWINGS WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

**DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:**

STORM SEWER OUTLETS TO INDIAN CREEK.

**CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROL**

**DESCRIPTION OF STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:**

THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, EROSION CONTROL BLANKET, SOD AND EROSION CONTROL BLOCKING, PROTECTION OF TREES, PRESERVATION OF NATURE VEGETATION, AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

AREAS OF EXISTING VEGETATION (WOOD AND GRASSLANDS) OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES.

DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG WITH REQUIRED TREE REMOVAL.

AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET AND PIPE PROTECTION, AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.

BARE AND SPARSELY VEGETATED GROUND IN HIGH ERODABLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDDED WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN FOURTEEN DAYS.

IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED, AREA WHICH ARE HIGHLY ERODABLE AS DETERMINED BY THE ENGINEER, SHALL BE TEMPORARILY SEEDDED WHEN NOT CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN DAYS.

**DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:**

DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING (EXCEPT AS DESCRIBED ON THE PLANS AND AS DIRECTED BY THE ENGINEER), PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.

WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.

EARTH STOCKPILES SHALL BE TEMPORARILY SEEDDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.

THE DOWN STREAM SIDE OF ALL STOCKPILES SHALL BE ENCOMPASSED WITH EROSION CONTROL BARRIER. AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER:

- a.) PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS.
- b.) TEMPORARILY SEED ERODABLE BARE EARTH PER IDOT STANDARD SPECIFICATIONS TO MINIMIZE THE AMOUNT OF ERODABLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
- c.) CONSTRUCT ROADSIDE DITCHES AND PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.

EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDDED OR SODDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDDED IF NO CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR 14 DAYS.

CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OF OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT DAILY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2 INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.

SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED ON THE SITE ON A REGULAR BASIS AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR MAINTANANCE OF TEMPORARY EROSION CONTROL SYSTEMS.

THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR VARIOUS TEMPORARY EROSION CONTROL PAY ITEMS.

**DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:**

TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDDED AND ESTABLISHED.

COST OF MAINTAINING THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE INCLUDED IN THE UNIT BID COST FOR MAINTANANCE OF TEMPORARY EROSION CONTROL SYSTEMS.

ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEEDDED OR SODDED.

**MAINTENANCE AFTER CONSTRUCTION:**

CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE BY I.D.O.T./LAKE COUNTY. MAINTENANCE OF TEMPORARY AND PERMANENT EROSION CONTROL SYSTEMS UP TO THIS DATE WILL BE BY THE CONTRACTOR.

**DOCUMENTATION:**

PRIOR TO BEGINNING WORK, THE ENGINEER SHALL COMPLETE AND SUBMIT A "NOTICE OF INTENT (NOI)" PROPERLY SIGNED TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

THROUGHOUT CONSTRUCTION, THE ENGINEER SHALL MAINTAIN AND UPDATE AN "AS BUILT" SET OF EROSION AND SEDIMENTATION CONTROL PLANS IN THE PROJECT FILES, WHICH SHALL BE RETAINED FOR THREE YEARS AFTER COMPLETION OF CONSTRUCTION.

A REPORT (FORM BC 2259) SUMMARIZING THE SCOPE OF AN INSPECTION; NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION; DATE OF THE INSPECTION; MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS STORMWATER POLLUTION PREVENTION PLAN; AND ACTIONS TAKEN IN ACCORDANCE WITH SECTION 4. B., SHALL BE MADE AND RETAINED AS A PART OF THE PLAN FOR AT LEAST THREE YEARS AFTER THE DATE OF INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI. G. OF THE GENERAL PERMIT.

IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE ENGINEER SHALL COMPLETE AND FILE AN "INCIDENT OF NONCOMPLIANCE (ION)" REPORT FOR THE IDENTIFIED VIOLATION. THE ENGINEER SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND SHALL INCLUDE SPECIFIC INFORMATION ON THE INCIDENT THAT CAUSED NONCOMPLIANCE. ACTIONS THAT WERE TAKEN TO CORRECT THE NONCOMPLIANCE AND TO PREVENT ITS REOCCURRENCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI. G. OF THE GENERAL PERMIT.

AFTER PROJECT FINAL ACCEPTANCE, THE ENGINEER SHALL COMPLETE AND SUBMIT A "NOTICE OF TERMINATION (NOT)" FORM PROPERLY SIGNED TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.

FORMS FOR THE IEPA SHALL BE MAILED TO THE FOLLOWING ADDRESS:  
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
ATTN: PERMIT SECTION  
POST OFFICE BOX 19276  
SPRINGFIELD, ILLINOIS 62794-9276

**GENERAL NOTES:**

STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCES WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE, SILT PANELS, ROLLED EXCELSIOR, URETHANE FOAM/GOETEXTILE (SILT WEDGES), AND/OR A OTHER MATERIAL APPROVED BY THE ENGINEER.

SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM FOR MAINTANANCE OF TEMPORARY CONTROL SYSTEMS.

PERIMETER BARRIER PROTECTING UNDISTURBED AREAS IS TO BE PLACED PRIOR TO ANY OTHER WORK, AND IS NOT TO BE REMOVED UNTIL ALL WORK IS COMPLETE AND PERMANENT STABILIZATION IS ESTABLISHED. PERIMETER BARRIER SURROUNDING STOCKPILES IS TO BE PLACED WHEN STOCKPILES ARE CONSTRUCTED.

IN STAGES 1 AND 2, DITCHES ARE TO BE CONSTRUCTED TO FINAL CROSS SECTION AND GRADE AND STABILIZED PERMANENTLY AS SOON AS IS FEASIBLE, IN THE AREA FROM THE FORESLOPE TO THE CONSTRUCTION LIMITS. TEMPORARY DITCH CHECKS, PLACED AS PER THE TABLE, AND TEMPORARY EROSION CONTROL SEEDING SHALL BE USED UNTIL PERMANENT STABILIZATION CAN BE INSTALLED AND ESTABLISHED.

STOCKPILES OF TOPSOIL, OR OTHER SOIL SALVAGED FROM THE JOB FOR LATER USE, SHALL BE COVERED AND SURROUNDED BY PERIMETER BARRIER IMMEDIATELY AFTER PLACEMENT. WHEN THE SOIL IS REMOVED, THE AREA SHALL BE GRADED, PERMANENTLY SODDED AND MULCHED, AND THE PERIMETER BARRIER REMOVED.

TEMPORARY DITCH CHECKS SHALL BE ROLLED EXCELSIOR DITCH CHECKS PLACED ACCORDING TO STANDARD 280001, BEGINNING AT THE DITCH OUTFALL AND PROGRESSING UPSTREAM. THE SPACING SHALL BE GOVERNED BY THE GRADIENT OF THE DITCH LINE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

% GRADE	DITCH CHECK SPACING
LESS THAN 1.0%	100 FEET ON CENTER
2.0%	50 FEET ON CENTER

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STORM WATER POLLUTION PREVENTION PLAN**  
BUFFALO GROVE ROAD  
SHEET 1 OF 2

SCALE: VERT.:  
HORIZ.:  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PWK

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

PLAN	DATE	BY

PROFILE	DATE	BY



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	17
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83675

CONTRACTOR CERTIFICATION STATEMENT

THIS CERTIFICATION STATEMENT IS PART OF THE STORM WATER POLLUTION PLAN FOR THE PROJECT DESCRIBED BELOW IN ACCORDANCE WITH NPDES PERMIT NO. 1LR10 \_\_\_\_\_, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ON \_\_\_\_\_.

ROUTE: \_\_\_\_\_ MARKED: BUFFALO GROVE ROAD

SECTION: \_\_\_\_\_ PROJECT NO.: \_\_\_\_\_

COUNTY: LAKE CONTRACT NO.: \_\_\_\_\_

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

TITLE \_\_\_\_\_

NAME OF FIRM \_\_\_\_\_

STREET ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

NOTE: THE ABOVE BOXED IN AREA SHALL BE FILLED OUT BY THE CONTRACTOR AFTER THE AWARD OF THE CONTRACT TO OBTAIN THE REQUIRED NPDES PERMIT FROM IEPA. THIS IS A REQUIREMENT FOR THIS CONTRACT.

SMC SEDIMENTATION AND EROSION CONTROL NOTES

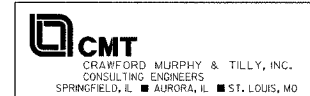
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 14 CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE, OR REDISTURBANCE.
- AREAS OF EMBANKMENTS HAVING SLOPES GREATER THAN OR EQUAL TO 3H:1V, AND APPROVED BY THE ENFORCEMENT OFFICER, SHALL BE STABILIZED WITH SOD, MAT OR BLANKET IN COMBINATION WITH SEEDING.
- EROSION CONTROL BLANKET SHALL BE REQUIRED ON ALL INTERIOR DETENTION BASIN SIDE SLOPES BETWEEN NORMAL WATER LEVEL AND HIGH WATER LEVEL.
- ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR.
- A STABILIZED MAT OF AGGREGATE UNDERLAIN WITH FILTER CLOTH (OR OTHER APPROPRIATE MEASURE) SHALL BE LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES OR ISOLATED WATERS OF LAKE COUNTY.
- IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (e.g. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE).
- THE EROSION CONTROL MEASURE INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.

PLAN	DATE
BY	
REVISIONS	
NO.	
DATE	
BY	
REVISIONS	
NO.	
DATE	
BY	

PROFILE	DATE
BY	
REVISIONS	
NO.	
DATE	
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REVISIONS	
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REVISIONS	
NAME	DATE



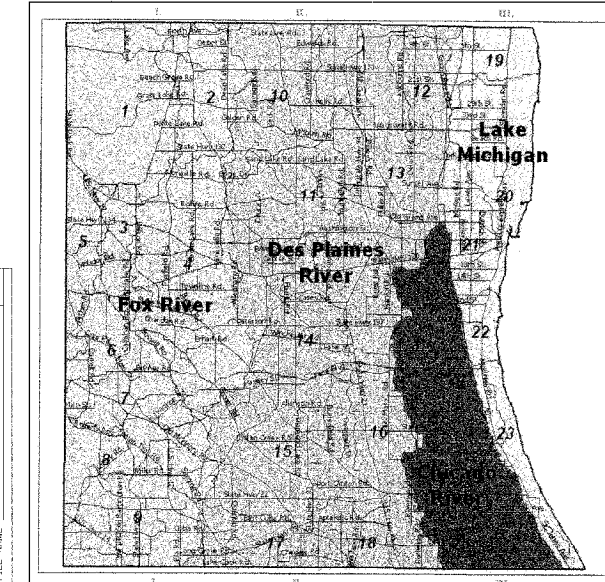
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STORM WATER POLLUTION PREVENTION PLAN**  
BUFFALO GROVE ROAD  
SHEET 2 OF 2

SCALE: VERT.: \_\_\_\_\_  
HORIZ.: \_\_\_\_\_  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PWK

DATE	
BY	
PLAN	REVISIONS
NOTE BOOK	NO.
NO.	

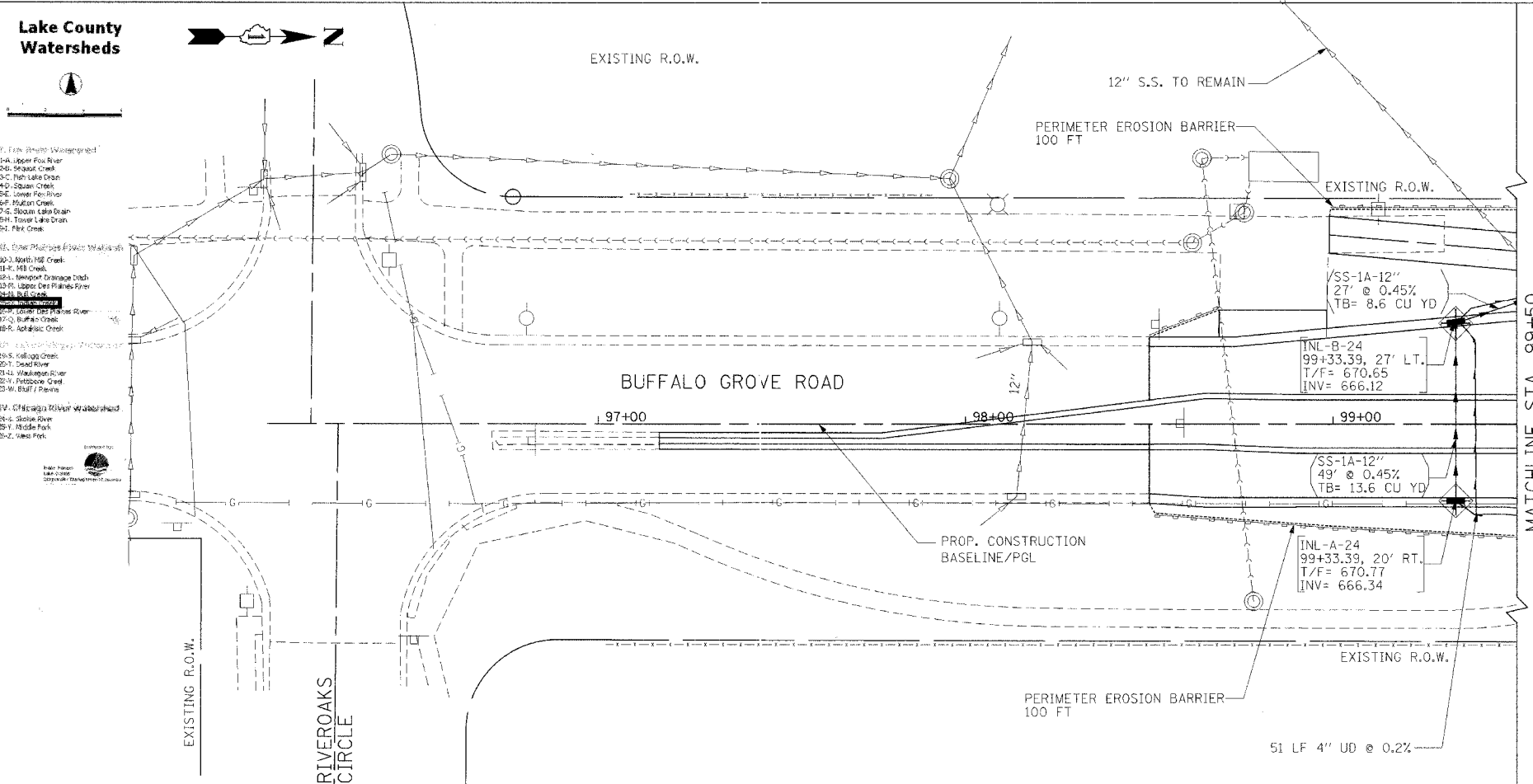
DATE	
BY	
PROFILE	REVISIONS
NOTE BOOK	NO.
NO.	



**Lake County Watersheds**

- 1. Fox River Watershed
- 1A. Upper Fox River
- 2A. Middle Fox River
- 3C. High Lake Drain
- 4D. Squan Creek
- 5C. Lower Fox River
- 6F. Mill Creek
- 7G. Slough Lake Drain
- 8H. Tower Lake Drain
- 9I. Fox Creek
- 10. Other Major Fox River Tributaries
- 11. Mill Creek
- 12. Mill Creek
- 13. Mill Creek
- 14. Mill Creek
- 15. Mill Creek
- 16. Mill Creek
- 17. Mill Creek
- 18. Mill Creek
- 19. Mill Creek
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- 98. Mill Creek
- 99. Mill Creek
- 100. Mill Creek

**NOTE:**  
MATERIAL STOCKPILES SHALL NOT BE LOCATED IN FLOODPLAIN/FLOODWAY, WETLANDS AND WETLAND BUFFERS.

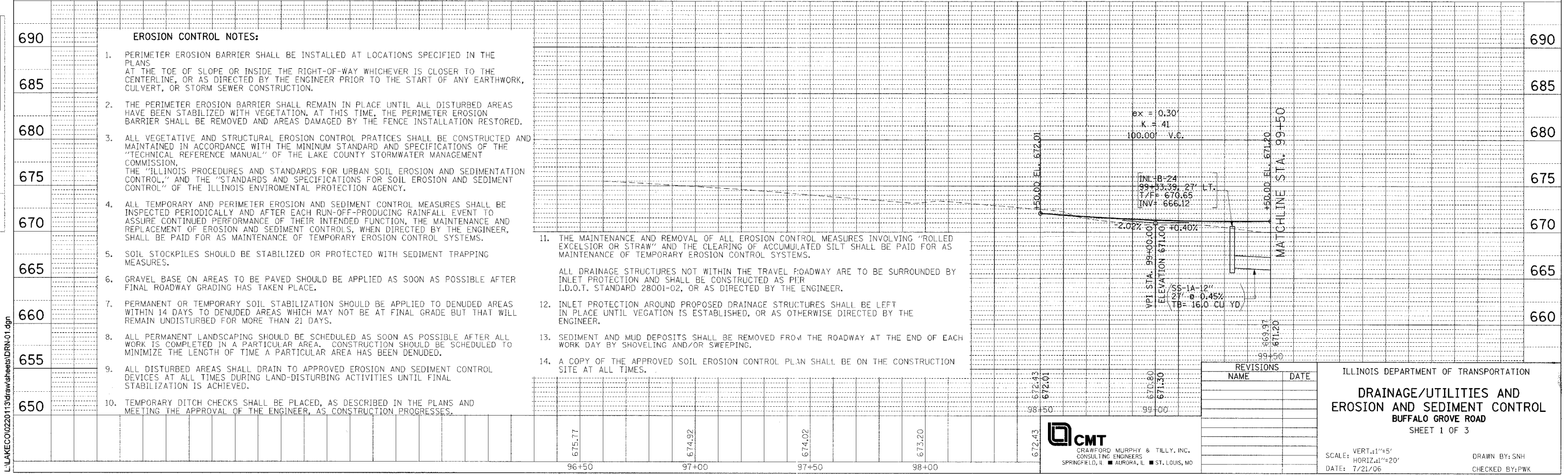


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	18
STA. 98+50.00	TO STA. 99+50.00			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

PROJECT NO. BHM-8003(213)  
CONTRACT NO.

**LEGEND**

- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED UNDERDRAIN
- EXISTING UNDERDRAIN
- PROPOSED INLET
- EXISTING INLET
- PROPOSED MANHOLE
- EXISTING MANHOLE
- EXISTING CATCH BASIN
- STRUCTURE REMOVAL
- STRUCTURE ADJUSTMENT
- STORM SEWER REMOVAL
- EXISTING GAS LINE
- EXISTING TELEPHONE LINE
- EXISTING ELECTRICAL LINE
- INLET PIPE PROTECTION
- DITCH CHECK TEMPORARY
- SITE FLOW DIRECTION
- DITCH FLOW DIRECTION
- PERIMETER EROSION BARRIER SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
- LIMITS OF CONSTRUCTION



**EROSION CONTROL NOTES:**

- PERIMETER EROSION BARRIER SHALL BE INSTALLED AT LOCATIONS SPECIFIED IN THE PLANS AT THE TOE OF SLOPE OR INSIDE THE RIGHT-OF-WAY WHICHEVER IS CLOSER TO THE CENTERLINE, OR AS DIRECTED BY THE ENGINEER PRIOR TO THE START OF ANY EARTHWORK, CULVERT, OR STORM SEWER CONSTRUCTION.
- THE PERIMETER EROSION BARRIER SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED WITH VEGETATION. AT THIS TIME, THE PERIMETER EROSION BARRIER SHALL BE REMOVED AND AREAS DAMAGED BY THE FENCE INSTALLATION RESTORED.
- ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARD AND SPECIFICATIONS OF THE "TECHNICAL REFERENCE MANUAL" OF THE LAKE COUNTY STORMWATER MANAGEMENT COMMISSION, THE "ILLINOIS PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL" AND THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY.
- ALL TEMPORARY AND PERIMETER EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RUN-OFF-PRODUCING RAINFALL EVENT TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION, THE MAINTENANCE AND REPLACEMENT OF EROSION AND SEDIMENT CONTROLS, WHEN DIRECTED BY THE ENGINEER, SHALL BE PAID FOR AS MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS.
- SOIL STOCKPILES SHOULD BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES.
- GRAVEL BASE ON AREAS TO BE PAVED SHOULD BE APPLIED AS SOON AS POSSIBLE AFTER FINAL ROADWAY GRADING HAS TAKEN PLACE.
- PERMANENT OR TEMPORARY SOIL STABILIZATION SHOULD BE APPLIED TO DENUDED AREAS WITHIN 14 DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE BUT THAT WILL REMAIN UNDISTURBED FOR MORE THAN 21 DAYS.
- ALL PERMANENT LANDSCAPING SHOULD BE SCHEDULED AS SOON AS POSSIBLE AFTER ALL WORK IS COMPLETED IN A PARTICULAR AREA. CONSTRUCTION SHOULD BE SCHEDULED TO MINIMIZE THE LENGTH OF TIME A PARTICULAR AREA HAS BEEN DENUDED.
- ALL DISTURBED AREAS SHALL DRAIN TO APPROVED EROSION AND SEDIMENT CONTROL DEVICES AT ALL TIMES DURING LAND-DISTURBING ACTIVITIES UNTIL FINAL STABILIZATION IS ACHIEVED.
- TEMPORARY DITCH CHECKS SHALL BE PLACED, AS DESCRIBED IN THE PLANS AND MEETING THE APPROVAL OF THE ENGINEER, AS CONSTRUCTION PROGRESSES.

- THE MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL MEASURES INVOLVING "ROLLED EXCELSTOR OR STRAW" AND THE CLEARING OF ACCUMULATED SILT SHALL BE PAID FOR AS MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS.
- ALL DRAINAGE STRUCTURES NOT WITHIN THE TRAVEL ROADWAY ARE TO BE SURROUNDED BY INLET PROTECTION AND SHALL BE CONSTRUCTED AS PER I.D.O.T. STANDARD 28001-02, OR AS DIRECTED BY THE ENGINEER.
- SEDIMENT AND MUD DEPOSITS SHALL BE REMOVED FROM THE ROADWAY AT THE END OF EACH WORK DAY BY SHOVELING AND/OR SWEEPING.
- A COPY OF THE APPROVED SOIL EROSION CONTROL PLAN SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DRAINAGE/UTILITIES AND  
EROSION AND SEDIMENT CONTROL**  
BUFFALO GROVE ROAD  
SHEET 1 OF 3

SCALE: VERT. 1"=5'  
HORIZ. 1"=20'  
DATE: 7/21/06  
DRAWN BY: SNH  
CHECKED BY: PWK

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	19

STA. 99+50.00 TO STA. 103+50.00  
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PROJECT NO. BHM-8003(213)  
 CONTRACT NO.

MH-A-4'-1C  
 103+31.90 31.5' LT.  
 T/F= 673.14  
 INV= 668.91

SS-2A-12"  
 139' @ 0.4%  
 TB= 0 CU YD

INL-B-12, SPECIAL FRAME AND GRATE  
 103+31.90 8' RT.  
 T/F= 672.73  
 INV= 669.07

INL-A-24  
 103+31.90 30' RT.  
 T/F= 672.70  
 INV= 669.16

**NOTE:**  
 10 YR. FLOODPLAIN ELEV.:  
 UPSTREAM OF BRIDGE = 664.7  
 DOWNSTREAM OF BRIDGE = 664.56

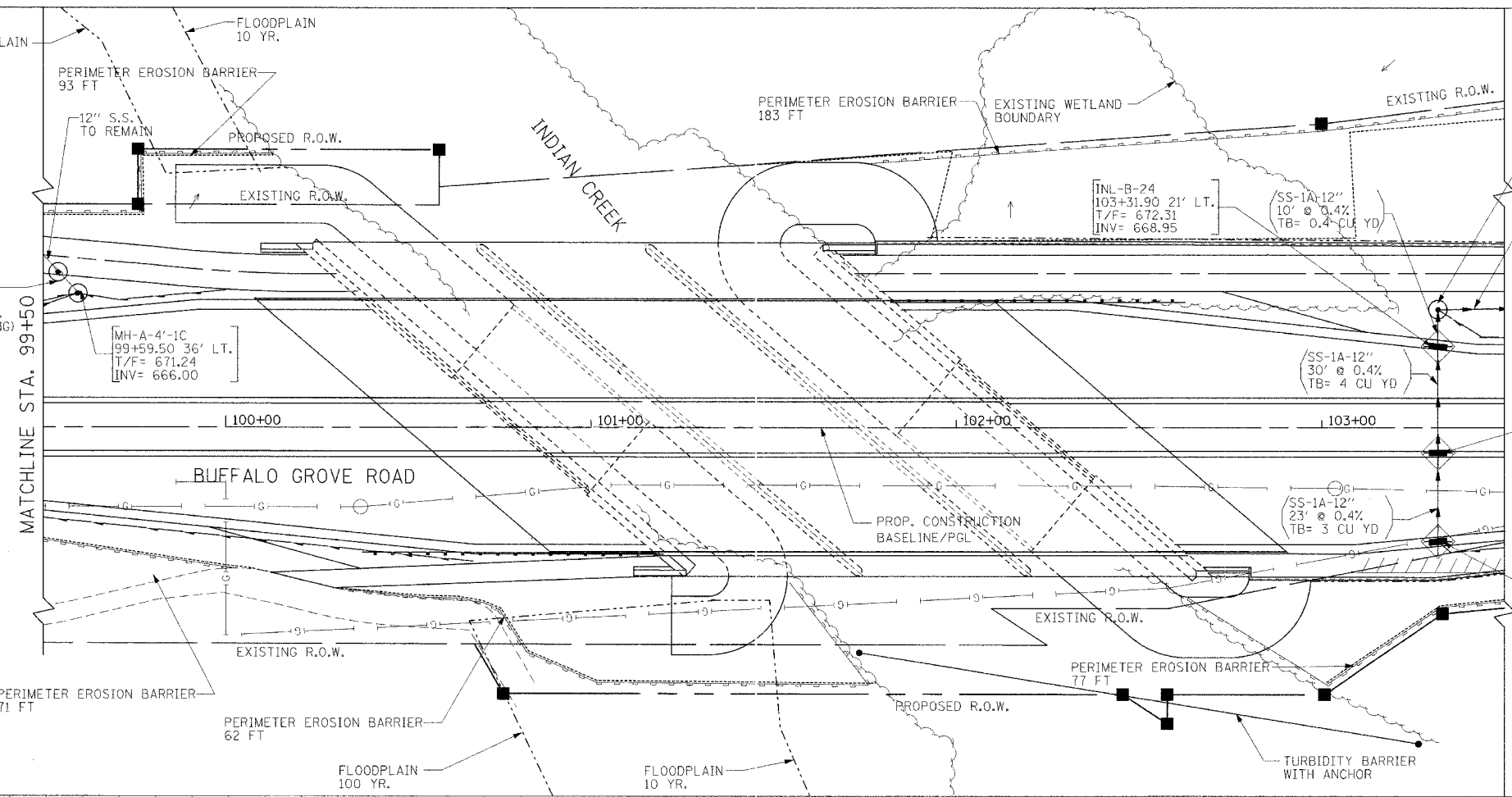
100 YR. FLOODPLAIN ELEV.:  
 UPSTREAM OF BRIDGE = 666.6  
 DOWNSTREAM OF BRIDGE = 666.35

PLAN	DATE

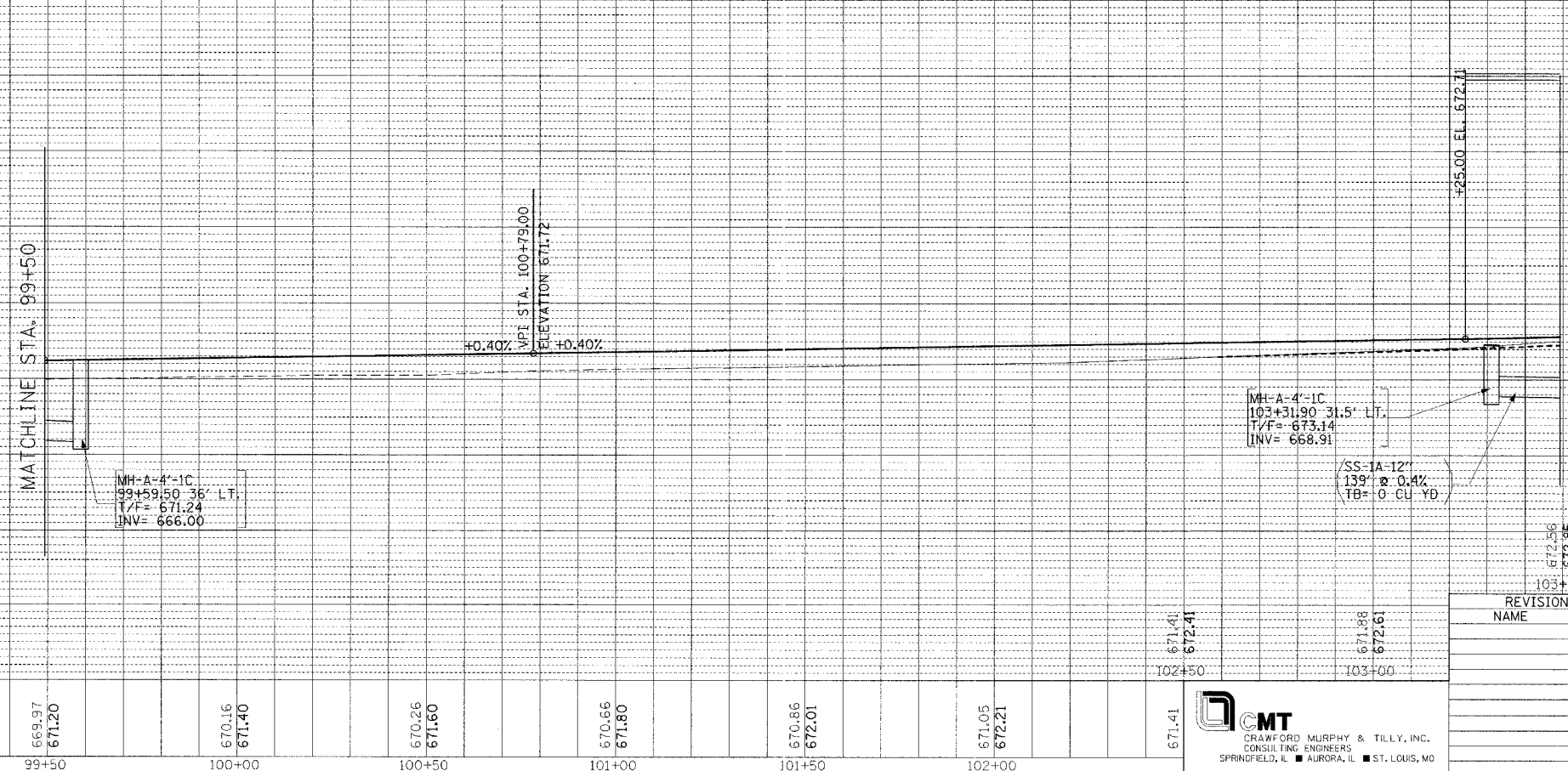
PROFILE	DATE

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- LEGEND**
- PROPOSED STORM SEWER
  - EXISTING STORM SEWER
  - PROPOSED UNDERDRAIN
  - EXISTING UNDERDRAIN
  - PROPOSED INLET
  - EXISTING INLET
  - PROPOSED MANHOLE
  - EXISTING MANHOLE
  - EXISTING CATCH BASIN
  - R STRUCTURE REMOVAL
  - A STRUCTURE ADJUSTMENT
  - STORM SEWER REMOVAL
  - G EXISTING GAS LINE
  - T EXISTING TELEPHONE LINE
  - E EXISTING ELECTRICAL LINE
  - ◇ INLET PIPE PROTECTION
  - ◇ DITCH CHECK TEMPORARY
  - ↑ SITE FLOW DIRECTION
  - ↔ DITCH FLOW DIRECTION
  - PERIMETER EROSION BARRIER SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
  - LIMITS OF CONSTRUCTION
  - TURBIDITY BARRIER WITH ANCHOR



**NOTE:**  
 TURBIDITY BARRIER - TYPE 2.DOT 6' DEPTH;  
 INSTALL 4 EA. 6'x50' BARRIER SECTIONS  
 BETWEEN ANCHOR POINTS SET AT 48' O.C.  
 DO NOT ENCLOSE WIDTH OF CREEK  
 COMPLETELY - LEAVE 5' GAP AT LOWER END  
 - SET 200 LB. ANCHOR POINTS @ THE ENDS  
 AND AT BARRIER JOINTS. ATTACH BUOYS  
 TO ANCHOR LINES. BARRIER SYSTEM MAY  
 BE LOCATED FURTHER DOWNSTREAM THAN  
 SHOWN.



REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DRAINAGE/UTILITIES AND  
 EROSION AND SEDIMENT CONTROL**  
 BUFFALO GROVE ROAD  
 SHEET 2 OF 3

SCALE: VERT.: 1"=5'  
 HORIZ.: 1"=10'  
 DATE: 7/21/06  
 DRAWN BY: SNH  
 CHECKED BY: PWK

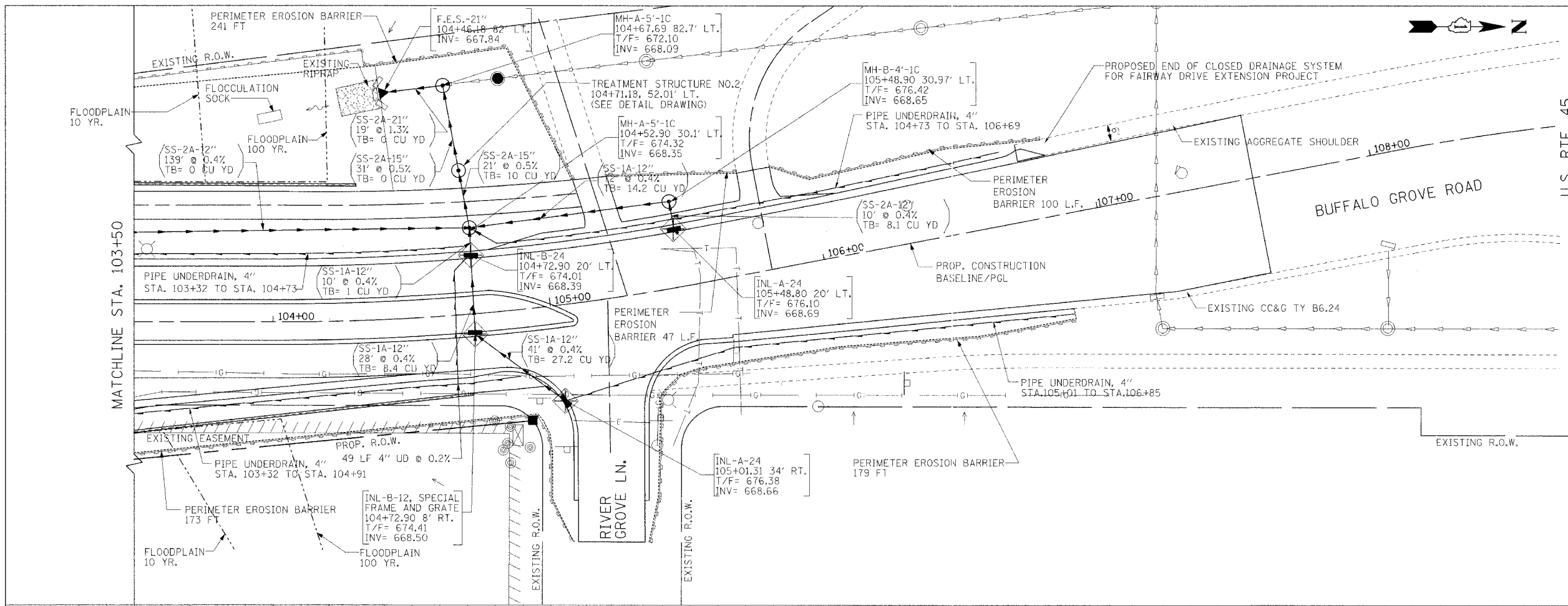
**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	20
STA. 103+50.00		TO STA. 106+85.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

PROJECT NO. BHM-8003(213)  
CONTRACT NO.

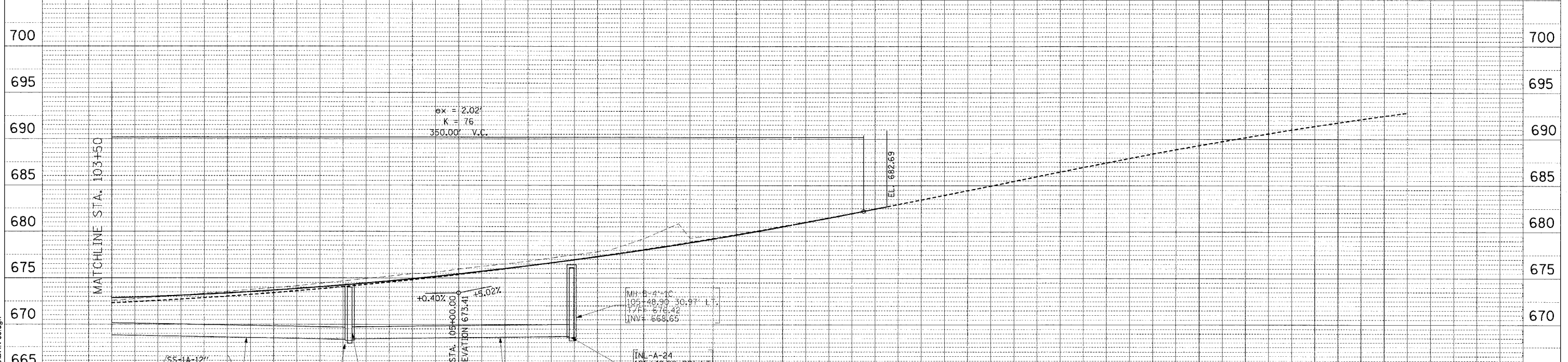
**LEGEND**

- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED UNDERDRAIN
- EXISTING UNDERDRAIN
- PROPOSED INLET
- EXISTING INLET
- ⊙ PROPOSED MANHOLE
- ⊙ EXISTING MANHOLE
- EXISTING CATCH BASIN
- [R] STRUCTURE REMOVAL
- [A] STRUCTURE ADJUSTMENT
- STORM SEWER REMOVAL
- EXISTING GAS LINE
- T— EXISTING TELEPHONE LINE
- E— EXISTING ELECTRICAL LINE
- ◆ INLET PIPE PROTECTION
- ◆ PROPOSED ROLLED EXCESIOR OR STRAW BALE P.R.C. FLARED END SECTION
- ◆ DITCH CHECK TEMPORARY
- SITE FLOW DIRECTION
- DITCH FLOW DIRECTION
- PERIMETER EROSION BARRIER SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
- LIMITS OF CONSTRUCTION



PLAN	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	REVISED	
	BY	
	NO.	
	STRUCTURE NOTATIONS	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	REVISED	
	BY	
	NO.	
	STRUCTURE NOTATIONS	
	NO.	



REVISIONS	DATE
NAME	

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DRAINAGE/UTILITIES AND EROSION AND SEDIMENT CONTROL**  
BUFFALO GROVE ROAD  
SHEET 3 OF 3

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

SCALE: VERT.: 1"=5'  
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DATE: 7/21/06  
DRAWN BY: SNH  
CHECKED BY: PWK

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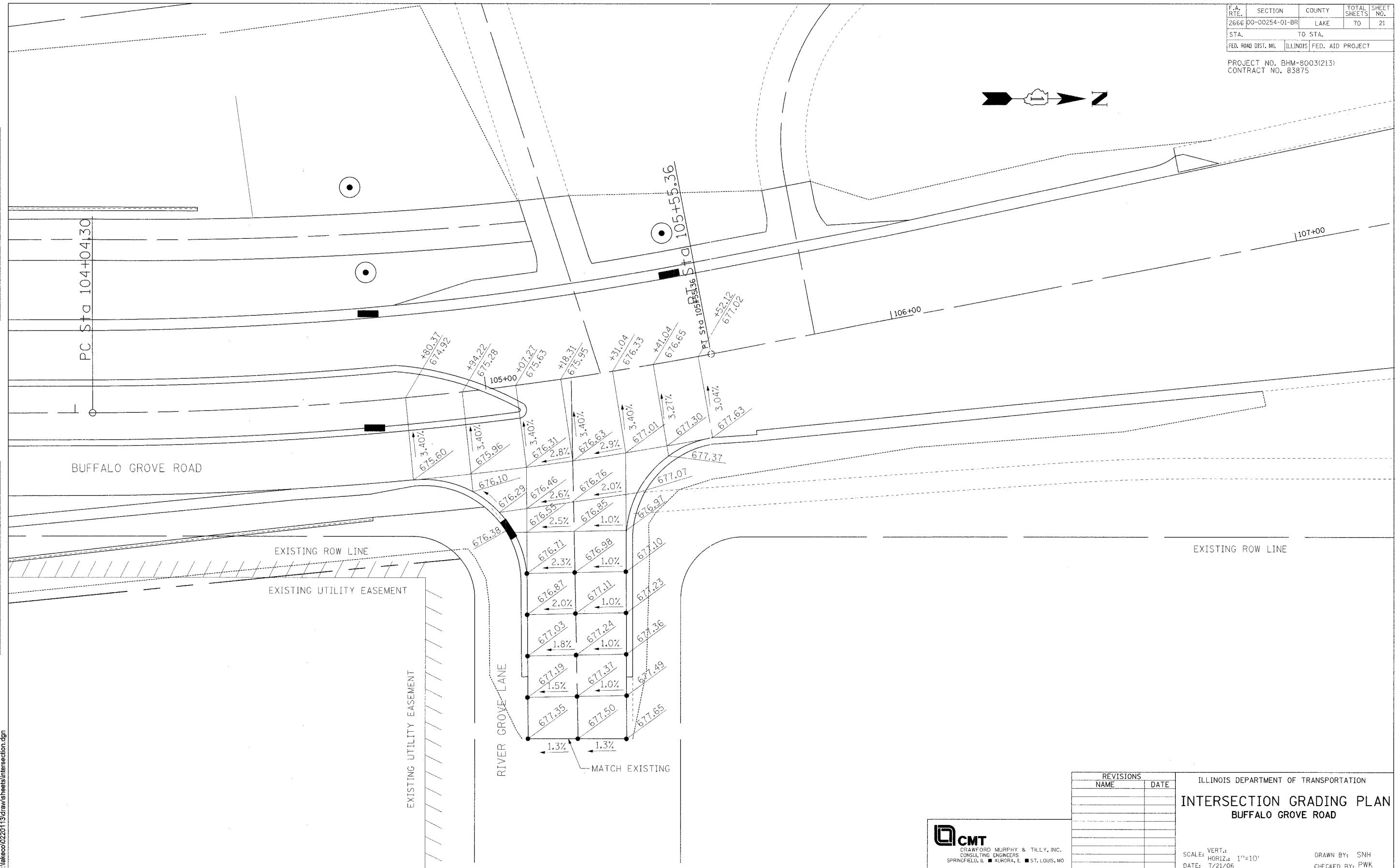
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875



PLAN	REVISION	DATE
NO. 1	AS NOTED	
NO. 2	AS NOTED	
NO. 3	AS NOTED	
NO. 4	AS NOTED	

PROFILE	REVISION	DATE
NO. 1	AS NOTED	
NO. 2	AS NOTED	
NO. 3	AS NOTED	



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INTERSECTION GRADING PLAN**  
BUFFALO GROVE ROAD

SCALE: VERT.:  $1''=10'$   
DATE: 7/21/06  
DRAWN BY: SNH  
CHECKED BY: PWK

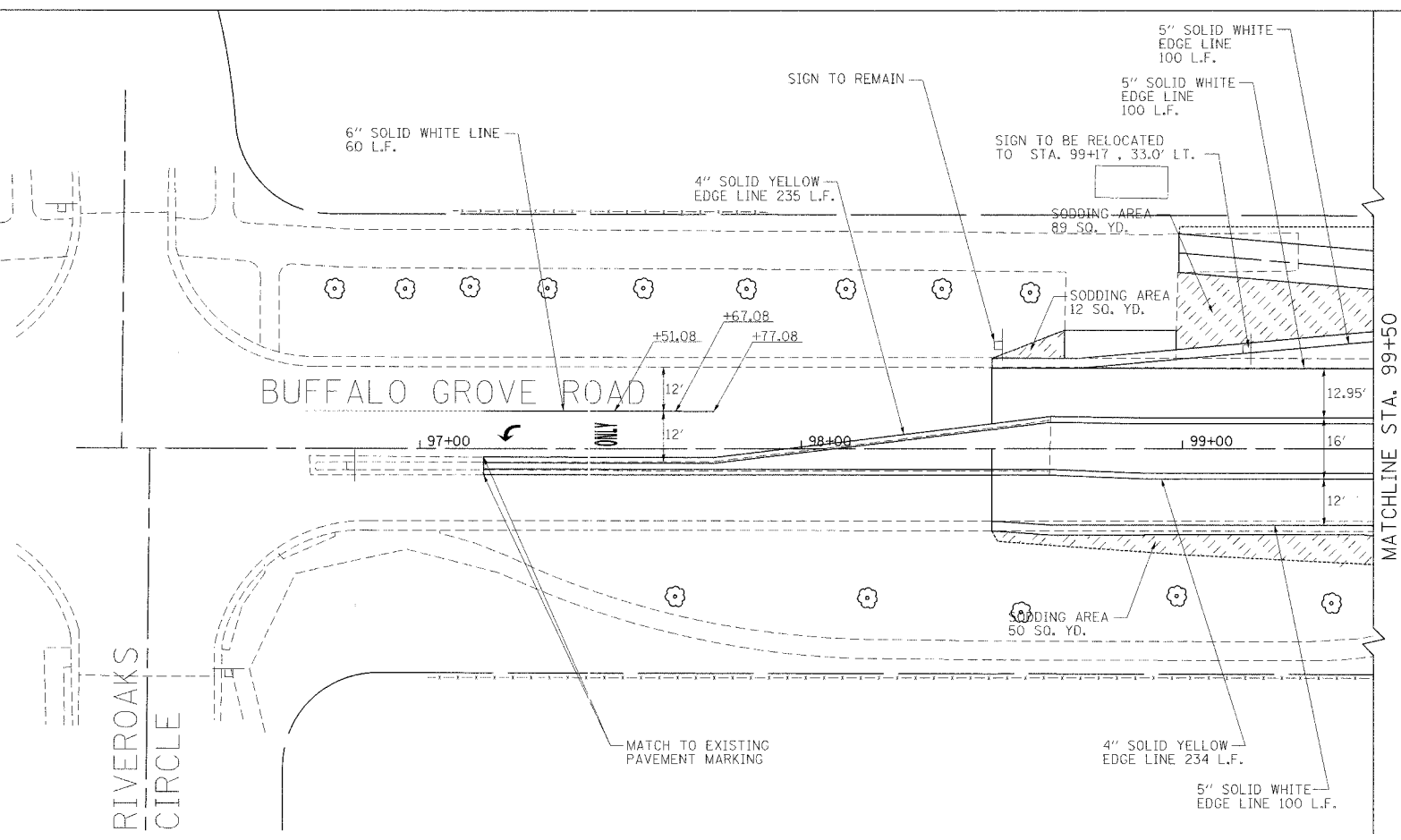


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	22
STA. 98+50.00		TO STA. 104+00.00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

DATE	BY	REVISION

LOCATION	LOCATION
TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 3" CALIPER, BALLED & BURLAPPED	TREE, ACER RUBRUM (RED MAPLE), 3" CALIPER, BALLED AND BURLAPPED
STA. OFFSET	STA. OFFSET
101+93.28 70.21' LT	106+54.39 67.24' LT
106+65.12 55.99' LT	106+58.15 46.54' LT
106+85.12 45.99' LT	106+85.12 65.99' LT
TREE, PYRUS CALLERYANA ARISTOCRAT (ARISTOCRAT CALLERY PEAR), 2 1/2" CALIPER, TREE FORM, BALLED AND BURLAPPED	TREE, MALUS PROFUSION (PROFUSION CRAB APPLE), 2" CALIPER, TREE FORM, BALLED AND BURLAPPED
STA. OFFSET	STA. OFFSET
97+67.01 38.66' RT	96+77.75 41.90' LT
98+17.44 39.01' RT	96+96.23 41.90' LT
98+57.69 42.79' RT	97+13.18 42.41' LT
98+98.57 38.51' RT	97+33.59 42.04' LT
99+39.11 40.36' RT	97+58.72 42.04' LT
99+66.24 38.85' RT	97+85.77 41.90' LT
	98+11.78 41.90' LT
	98+36.94 41.90' LT
	98+60.05 40.87' LT
TREE, FRAXINUS PENNSYLVANICA (GREEN ASH), 3" CALIPER, BALLED AND BURLAPPED	
STA. OFFSET	
103+02.13 61.02' RT	
103+09.94 51.10' RT	
103+26.16 46.60' RT	

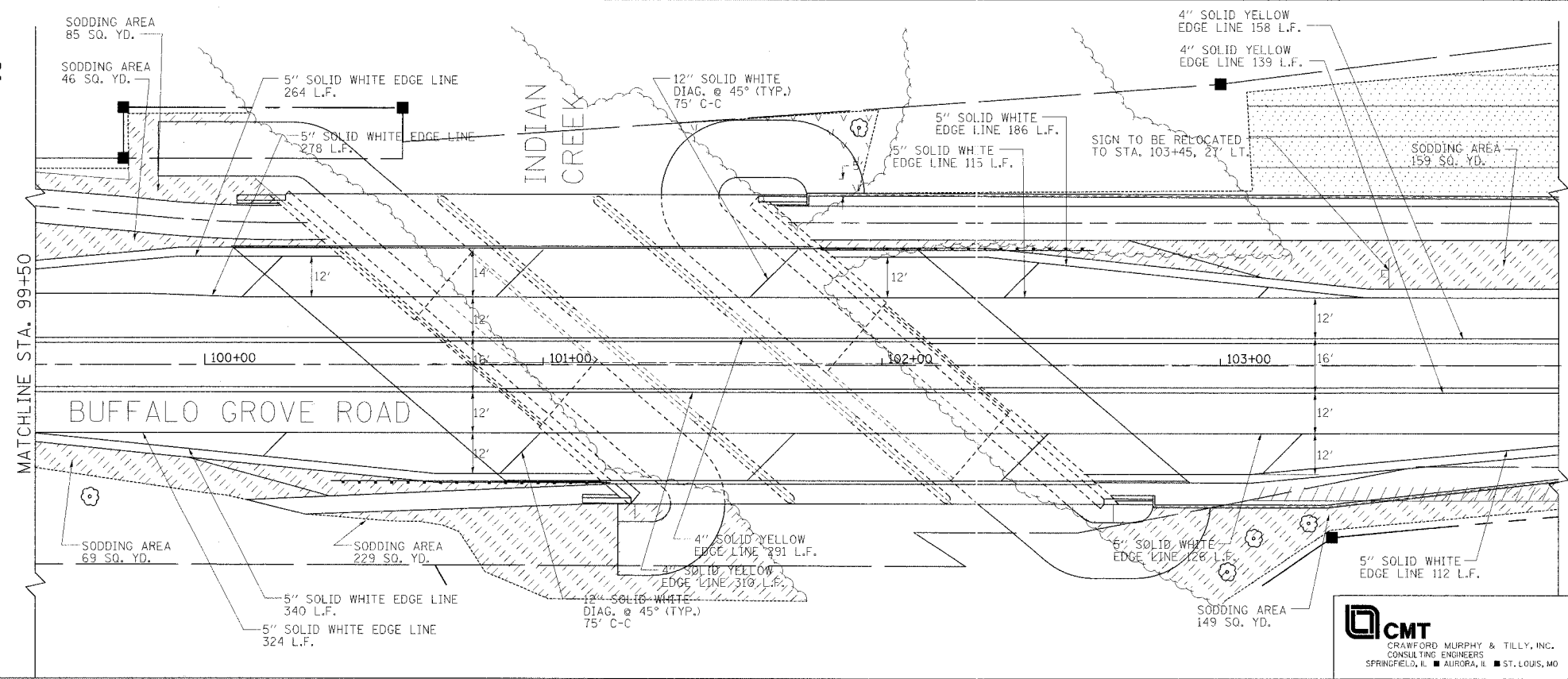


MATCHLINE STA. 99+50

**LEGEND**

- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◄ TWO-WAY AMBER MARKER
- ▨ SODDING, SALT TOLERANT
- ▩ SEEDING, CLASS 4B
- ▧ SEEDING, CLASS 4
- PROPOSED TREE

DATE	BY	REVISION



MATCHLINE STA. 104+00

- GENERAL NOTES**
- SEE TYPICAL PAVEMENT MARKING FOR COUNTY HIGHWAYS.
  - PAVEMENT MARKING SHALL BE THERMOPLASTIC FOR BITUMINOUS AND POLYUREA TYPE II FOR PORTLAND CEMENT CONCRETE PAVEMENT.
  - ALL TEMPORARY PAVEMENT MARKING SHALL BE PAINT.
  - CONSTRUCTION SIGNING AND TEMPORARY RELOCATION OF EXISTING TRAFFIC SIGNS WILL BE DONE BY THE CONTRACTOR.
  - LOCATIONS AND DIMENSIONS SHOWN FOR PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS SHALL BE DETERMINED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKING, SIGNAGE AND LANDSCAPING**

**BUFFALO GROVE ROAD**

SHEET 1 OF 2

SCALE: VERT.: 1"=20'  
HORIZ.: 1"=20'  
DATE: 7/21/06

DRAWN BY: SNH  
CHECKED BY: PKW

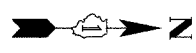
**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	23
STA. 104+00.00		TO STA. 107+57.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

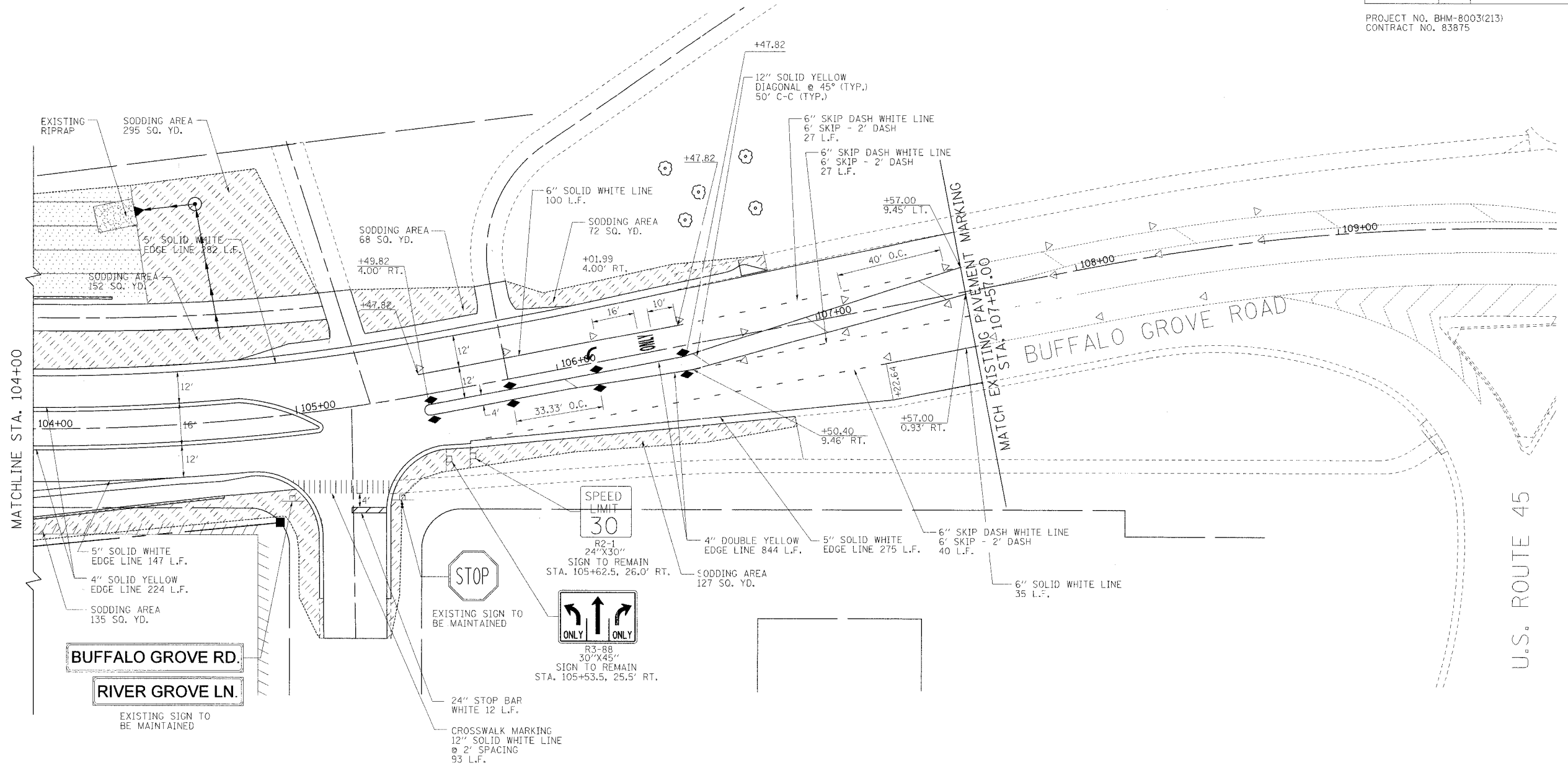


DATE	BY

PLAN  
 SURVEYED  
 PLOTTED  
 CHECKED  
 RT. OF WAY CHECKED  
 NO. FILE NAME

DATE	BY

PROFILE  
 SURVEYED  
 PLOTTED  
 CHECKED  
 RT. OF WAY CHECKED  
 NO. FILE NAME



U.S. ROUTE 45

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**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING, SIGNAGE AND LANDSCAPING**  
 BUFFALO GROVE ROAD  
 SHEET 2 OF 2

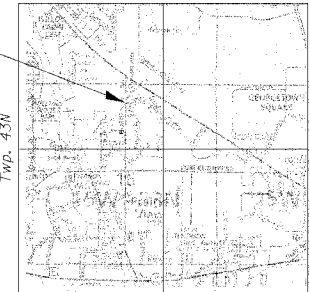
SCALE: VERT.: 1"=20'  
 HORIZ.: 1"=20'  
 DATE: 7/21/06

DRAWN BY: SNH  
 CHECKED BY: PKW

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	24
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

Sheet 1 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

R 11E - 3<sup>rd</sup> P.M.



LOCATION SKETCH

CURVE DATA

PI STA. = 104+80.05  
 $\Delta = 10^\circ 49' 10''$  (LT)  
 $D = 7^\circ 09' 43''$   
 $R = 800.00'$   
 $T = 75.76'$   
 $L = 151.07'$   
 $E = 3.58'$   
 $e = 3.4\%$   
 $T.R. = 83'$   
 $S.E. RUN = 140'$   
 $P.C. STA = 104+04.30$   
 $P.T. STA = 105+55.36$

INDIAN CREEK  
 BUILT 2007 BY  
 LAKE COUNTY  
 SEC. 00-00254-01-BR  
 F.A.U. RT. 2666 STA. 101+50  
 STR. NO. 049-3043 LOADING HS 20

NAME PLATE

See Std. 515001-02

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges."



Ahmad T. Idriss  
 Ahmad T. Idriss, P.E., S.E.  
 Illinois Licensed Structural Engineer  
 License Number: 081-005753  
 Expiration Date: November 30, 2006

BENCH MARKS:

B.M. #1 - Chiseled square on South end of walk at Leikams Tap, at intersection of Il. 21 and US 45, go NW 1 mile to mark.

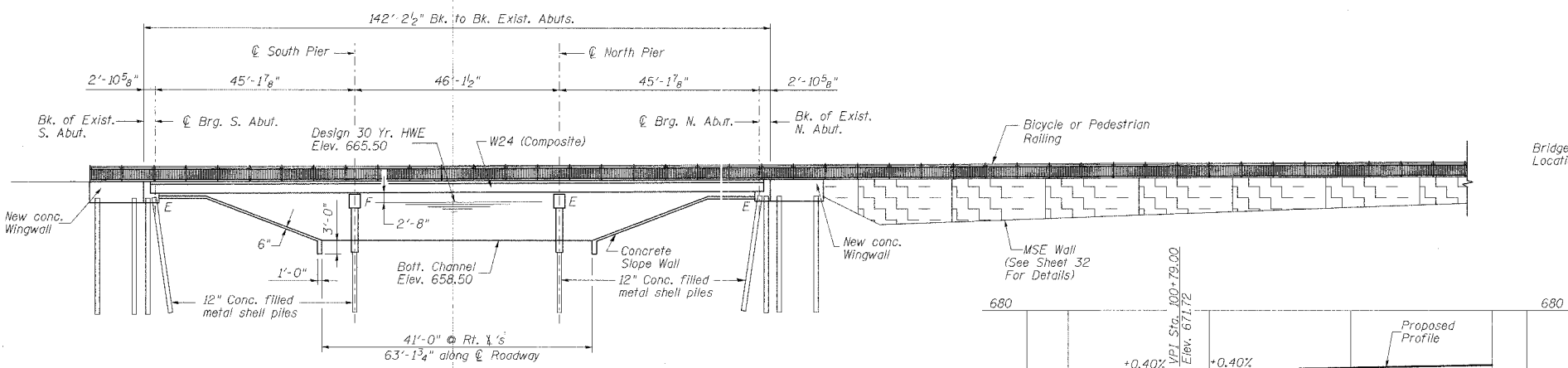
EXISTING STRUCTURE:

S.N. 049-3043 Built in 1965. The structure is a three span simply supported precast prestressed deck beam bridge with Bk. to Bk. of abutment length of 142'-2 1/2" and out-to-out width of 34'-0". The substructure consists of reinforced concrete pile bent abutments and piers, all supported on end bearing 12" concrete filled metal shell piles. The structure is skewed 49.5° Rt. forward.

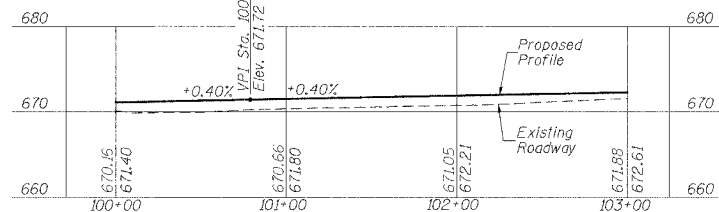
PROPOSED IMPROVEMENTS:

Existing superstructure to be removed and replaced with a three span continuous steel stringer bridge supported by existing substructure. The bridge will be widened to accommodate two extra roadway lanes and a bike path. Existing substructure to be repaired and new bearings installed. The road to be kept open to two lanes of traffic (one each way) at all times by utilizing staged construction.

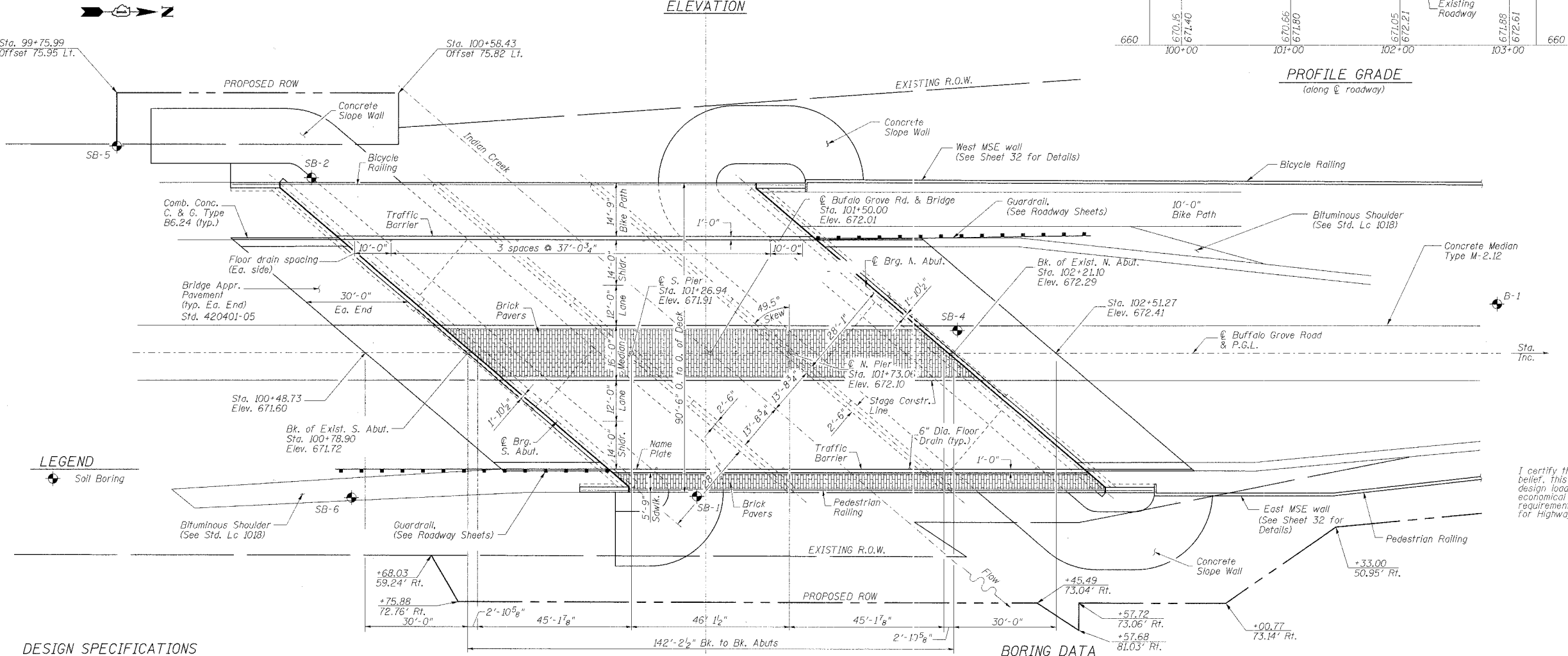
No salvage of items to be removed. Existing substructure to be reused in the Proposed Improvements.



ELEVATION



PROFILE GRADE  
 (along centerline roadway)



PLAN

BORING DATA

BORING	STATION	OFFSET
SB-1	101+45.62	41.82' RT
SB-2	100+32.88	51.29' LT
SB-4	102+21.83	6.75' LT
SB-5	99+75.97	60.64' LT
SB-6	100+44.45	42.17' RT
B-1	103+80.00	14.00' LT
B-2	106+90.00	14.00' LT

B-2 Located beyond limits of this sheet.

REVISIONS	
NAME	DATE

DESIGN SPECIFICATIONS

2002 AASHTO "Standard Specifications for Highway Bridges".

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 50,000$  psi (AASHTO M270 Grade 50)

LOADING HS20-44

Allow 50# / Sq. Ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.04  
 Site Coefficient (S) = 1.0



LAKE COUNTY DIVISION OF TRANSPORTATION  
 GENERAL PLAN AND ELEVATION

BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043

SCALE: NONE  
 DATE: 7/21/06  
 DRAWN BY: TBW  
 CHECKED BY: ATL, WK

GENERAL PLAN AND ELEVATION

DATE	BY	REVISION

DATE	BY	REVISION

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	25
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Sheet 2 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

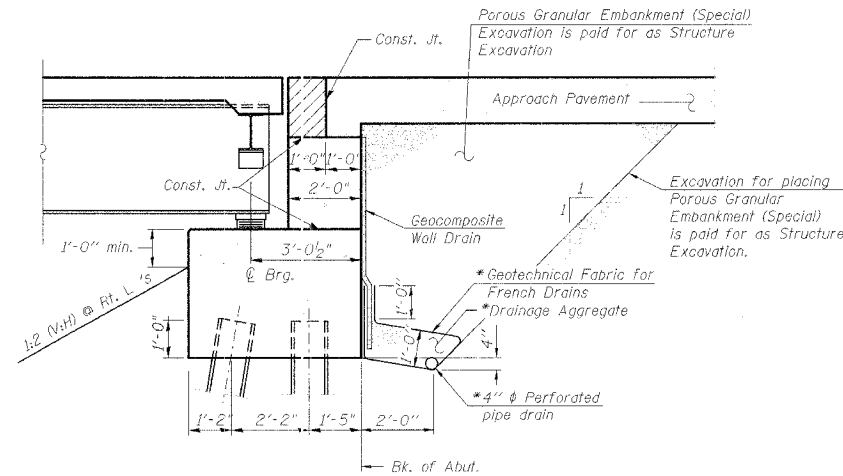
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Porus Granular Embankment	Cu. Yd.		397	397
Protective Coat	Sq. Yd.	1576		1576
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		22.3	22.3
Slope Wall Removal	Sq. Yd.		401	401
Structure Excavation	Cu. Yd.		417	417
Floor Drains	Each	8		8
Neoprene Expansion Joint, 2"	Foot	283		283
Concrete Structures	Cu. Yd.		270.4	270.4
Concrete Superstructure	Cu. Yd.	494.7		494.7
Bridge Deck Grooving	Sq. Yd.	741		741
Elastomeric Bearing Assembly, Type I	Each	32		32
Elastomeric Bearing Assembly, Type II	Each	16		16
Formed Concrete Repair (depth equal to or less than 5")	Sq. Ft.		44	44
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Sheer Connectors	Each	6496		6496
Reinforcement Bars, Epoxy Coated	Pound	91,920	30,810	122,730
Pedestrian Railing	Foot	167	195	362
Slope Wall, 6"	Sq. Yd.		957	957
Furnishing Metal Pile Shells, 12"	Foot		3060	3060
Driving and Filling Shells	Foot		3060	3060
Test Pile Metal Shells	Each		4	4
Name Plates	Each	1		1
Bridge Seat Sealer	Sq. Ft.		1454	1454
Epoxy Crack Sealing	Foot		104	104
Slope Wall Crack Sealing	Foot		120	120
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1
Furnishing and Setting Brick Pavers	Sq. Ft.	2550		2550
Mechanically Stabilized Earth Retaining Walls	Sq. Ft.	6315		6315
Bar Splicers	Each	390	252	642
Bicycle Railing	Foot	167	254	421
Parapet Railing	Foot	274		274

\* Denotes Special Provision Item.

**GENERAL NOTES**

- Fasteners shall be high strength bolts. Bolts 7/8" dia., open holes 15/16" dia., unless otherwise noted.
- Calculated weight of Structural Steel = 246,260 lbs. (AASHTO M270 Grade 50)
- Field welding of construction accessories will not be permitted to beams or girders.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.
- Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
- Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 3/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. (For Type I and Type II Elastomeric Bearings, two 1/8" adjusting shims shall be provided for each bearing and placed as detailed).
- The contractor shall drive one 12" concrete filled metal shell test pile in a permanent location at each abutment and at each pier (total of 4 test piles) as directed by the Engineer before ordering the remainder of piles.
- The concrete for bridge floors finished according to Article 503.17 of the Standard Specifications, shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The finishing machine, when required, shall be set parallel to the skew for striking off and screeding the concrete.
- Bridge Seat Sealer shall be applied to the seat area of the abutments and piers.
- All construction joints shall be bonded.
- The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final coat for exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See special provisions for "Cleaning and Painting New Metal Structures."



**SECTION THRU PILE BENT ABUTMENT**  
 (Horiz. dim. @ Ft. L's)

\* Included in the cost of Pipe Underdrains for Structures.

Note:  
 All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

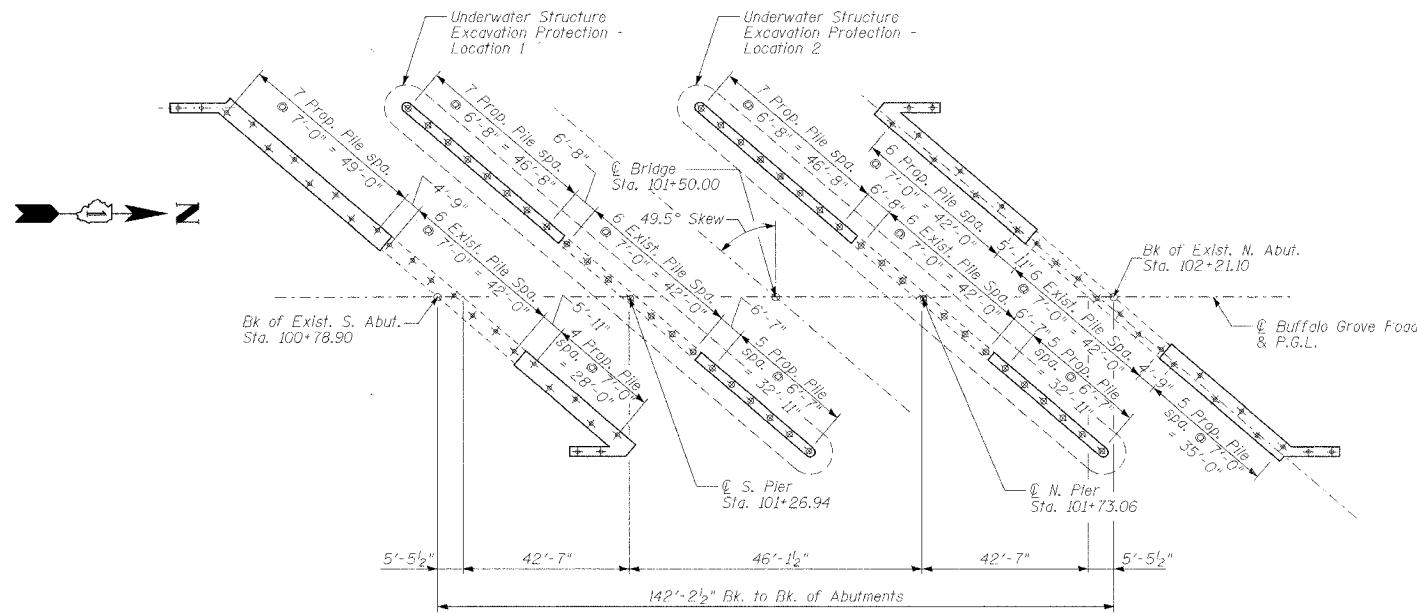
**WATERWAY INFORMATION TABLE**

Flood	Freq. (Year)	Q (Cfs)	Opening (Sq. Ft.)		Headwater Elev.		Tailwater Elev.		Head Ft.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	30	2191	595	595	665.5	665.5	665.4	665.3	0.1	0.2
Base	100	2995	663	663	666.5	666.6	666.4	666.4	0.2	0.2
Overtopping	-	-	-	-	-	-	-	-	-	-
Max. Calc.	100	2995	663	663	666.5	666.6	666.4	666.4	0.2	0.2

DATE	BY

DATE	BY

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**FOOTING LAYOUT PLAN**

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**NOTES AND BILL OF MATERIAL**

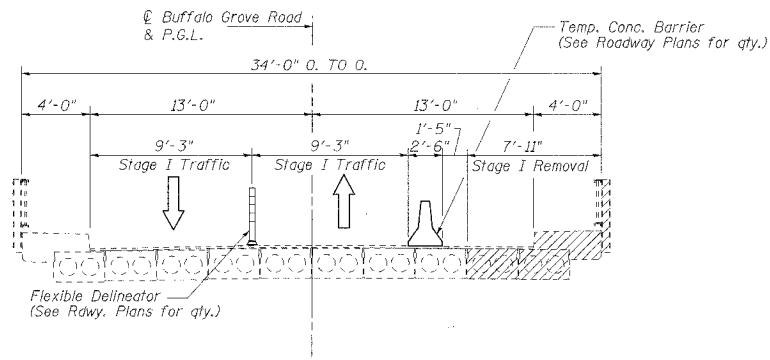
BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

NOTES AND BILL OF MATERIAL

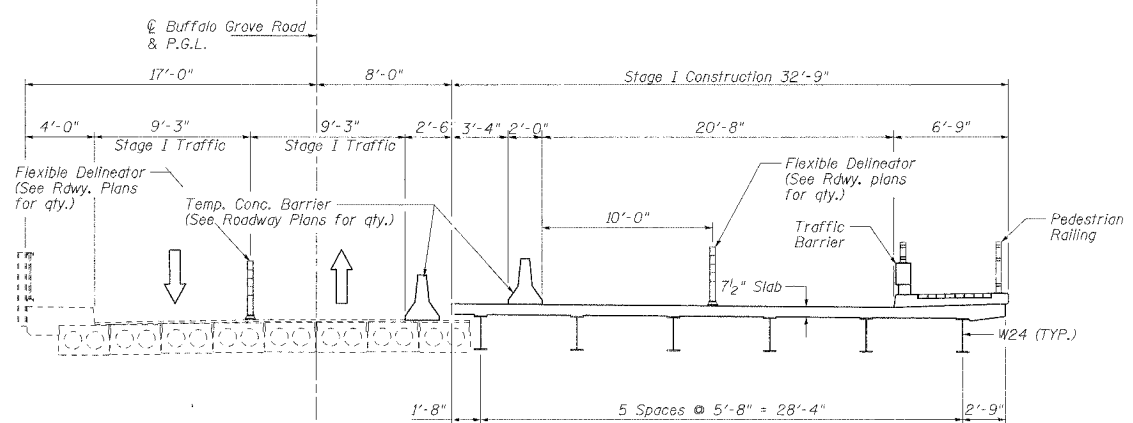
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	26
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

Sheet 3 of 35 Sheets  
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

DATE	BY
DATE	BY
DATE	BY
DATE	BY



**CROSS SECTION - STAGE I REMOVAL**  
(Looking North)

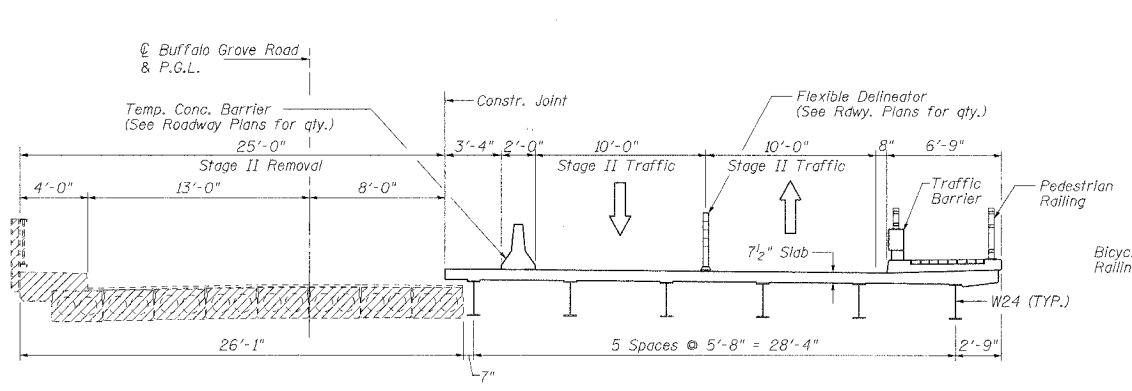


**CROSS SECTION - STAGE I CONSTRUCTION**  
(Looking North)

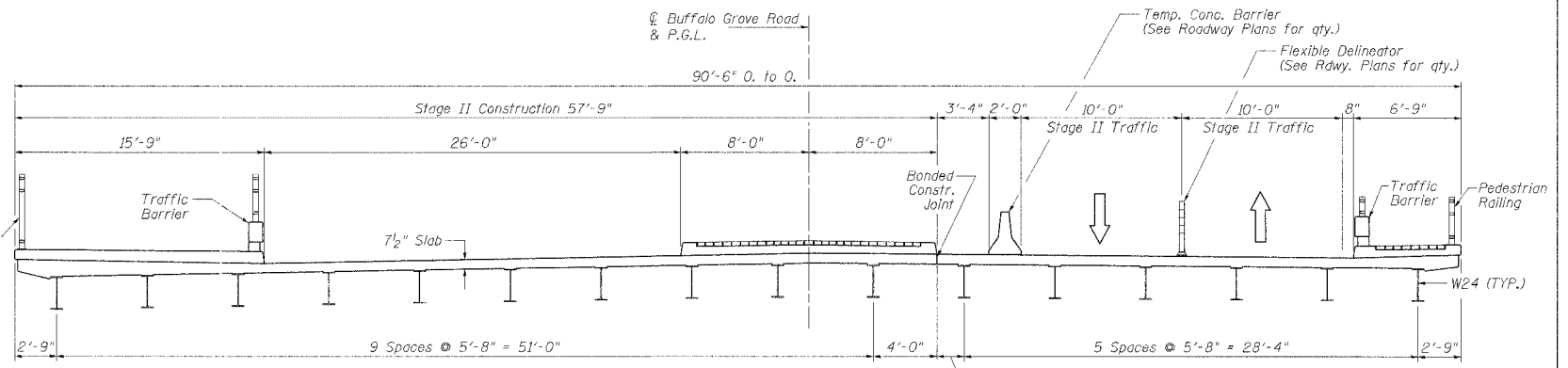
**LEGEND**

	Deck Removal
	Existing Structure
	Proposed Structure

DATE	BY
DATE	BY
DATE	BY
DATE	BY



**CROSS SECTION - STAGE II REMOVAL**  
(Looking North)

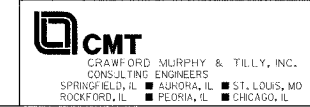


**CROSS SECTION - STAGE II CONSTRUCTION**  
(Looking North)

**NOTES:**  
1. For details of Temporary Concrete Barrier see sheet 4 of 34.  
2. For details of Flexible Delineator see roadway plans.

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**STAGE CONSTRUCTION DETAILS**  
  
BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE DRAWN BY: TBW  
DATE: 7/21/06 CHECKED BY: ATI, WK



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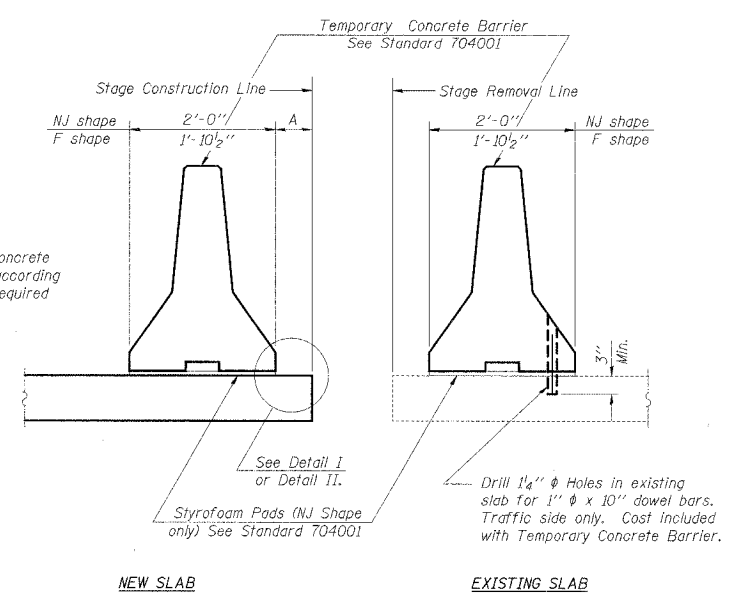
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	27
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Sheet 4 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

BY	DATE
REVISION	
PLANNED	
ALIGNED	
CHECKED	
FILE NAME	

BY	DATE
REVISION	
PLANNED	
ALIGNED	
CHECKED	
FILE NAME	

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



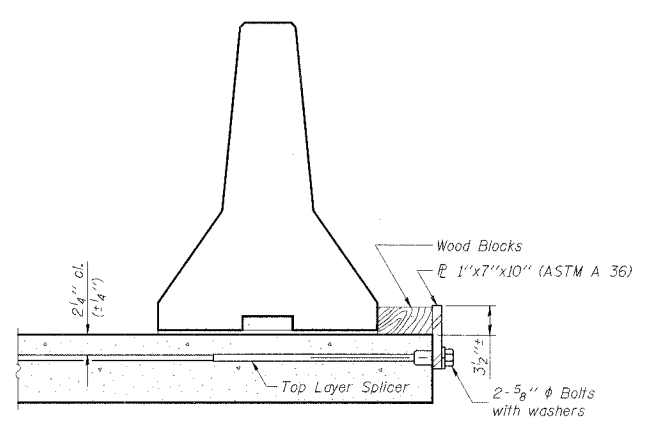
SECTIONS THRU SLAB

NOTES

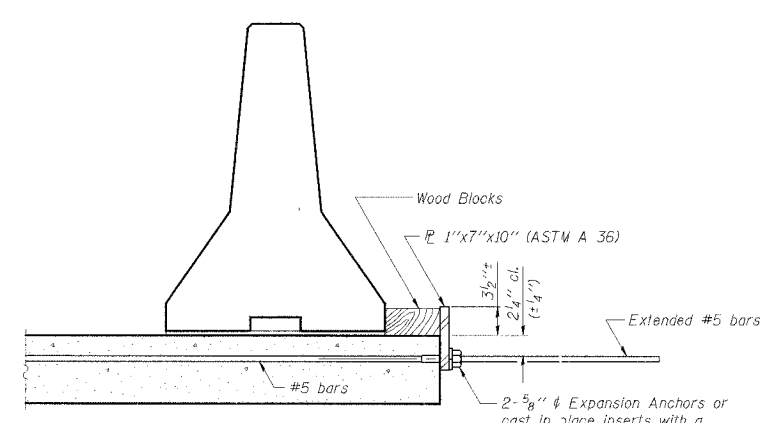
Detail I - With Bar Splicer or Couplers:  
 Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
 Connect one (1) 1"x7"x10" steel  $\bar{P}$  to the concrete slab with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

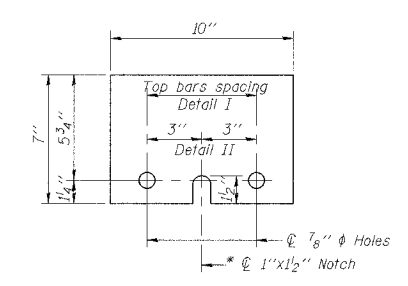
Cost of anchorage is included with Temporary Concrete Barrier.



**DETAIL I**  
 The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**  
 The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



**1"x7"x10"**  
 \* Required only with Detail II

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R-27 9-01-03

REVISIONS	
NAME	DATE

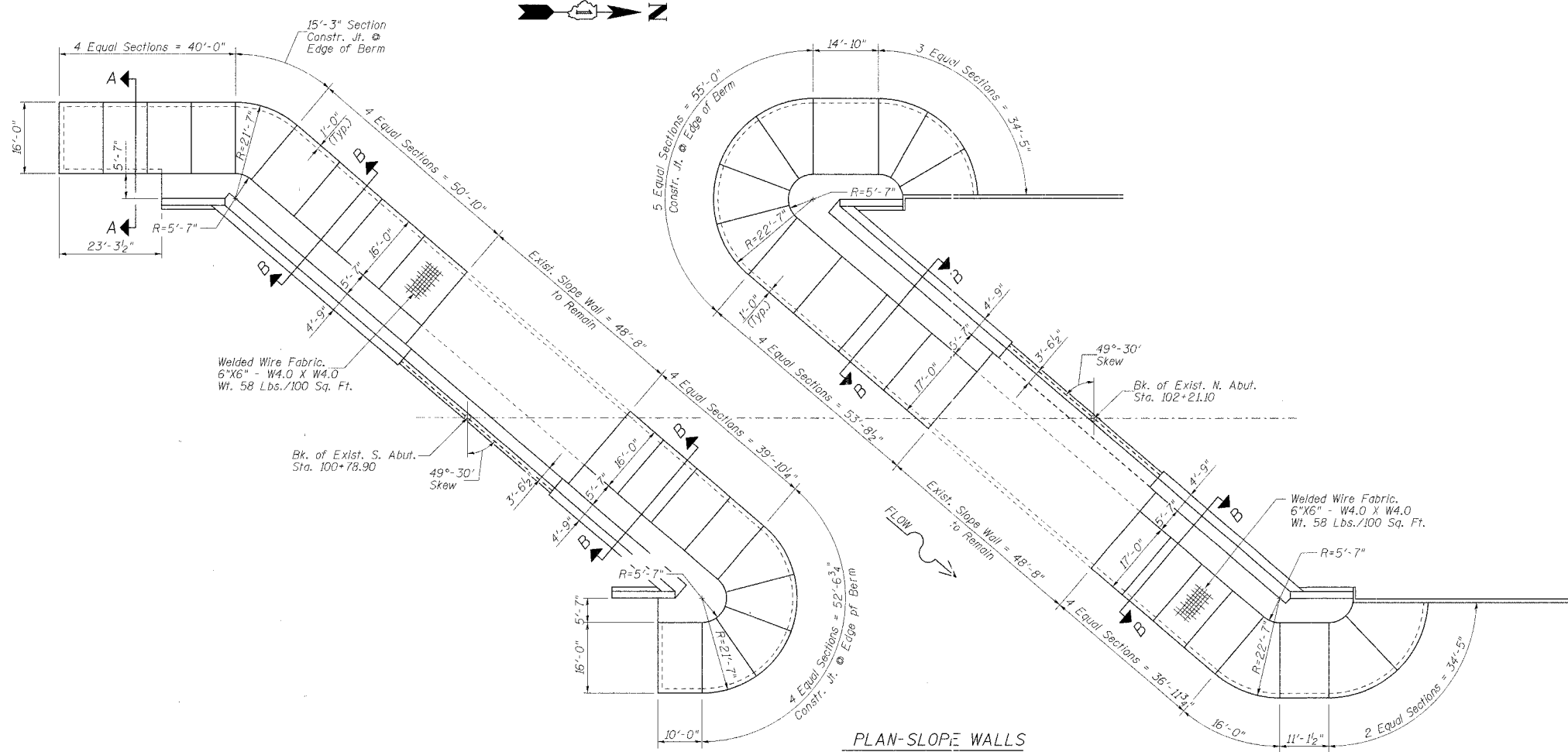
LAKE COUNTY DIVISION OF TRANSPORTATION  
**TEMPORARY CONCRETE BARRIER**

BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

TEMPORARY CONCRETE BARRIER

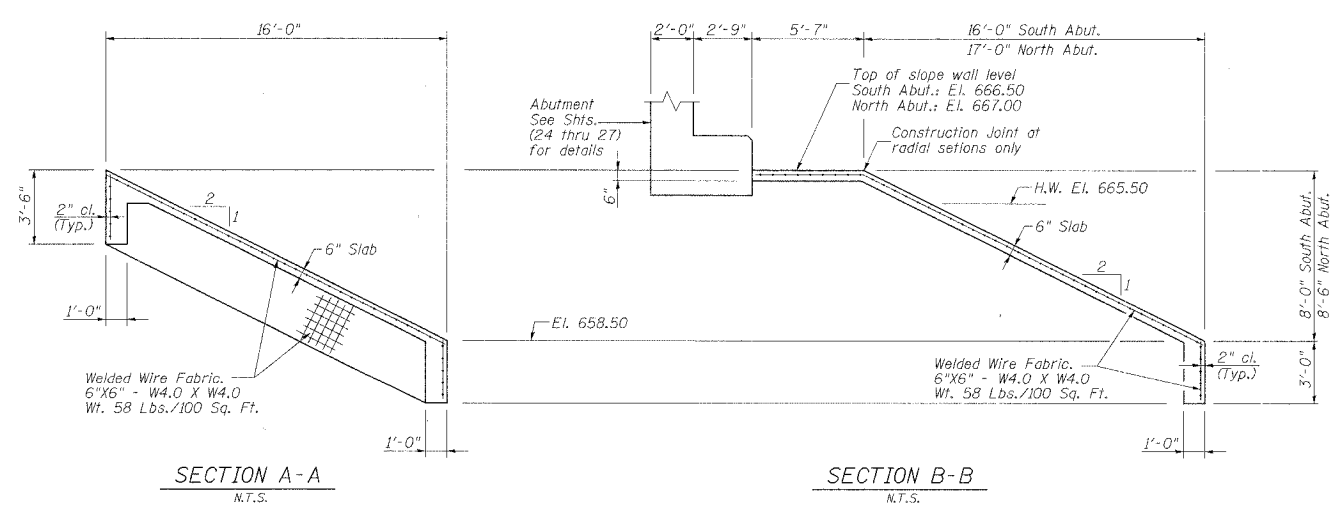
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	28
STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
Sheet 5 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				



PLAN-SLOPE WALLS  
N.T.S.

**SLOPE WALL QUANTITIES**

ITEM	UNIT	QUANTITY
Slope Wall Removal	Sq. Yd.	401
Slope Wall 6 Inch	Sq. Yd.	957
Slope Wall Crack Sealant	Foot	120



SECTION A-A  
N.T.S.

SECTION B-B  
N.T.S.

- NOTES:**
1. Bill of Material is total for North and South slope walls.
  2. The required welded wire fabric reinforcement shall be considered incidental to slope wall.
  3. All adjacent sections of fabric reinforcement shall be lapped 6" minimum.
  4. The slope wall shall be constructed in alternate sections. Construction joints shown on plan.
  5. All fabric reinf. shall be continuous across construction joints and shall extend 8" minimum into adjacent slope wall section.
  6. Layout of slope walls may be varied to suit ground conditions in the field as directed by the engineer.

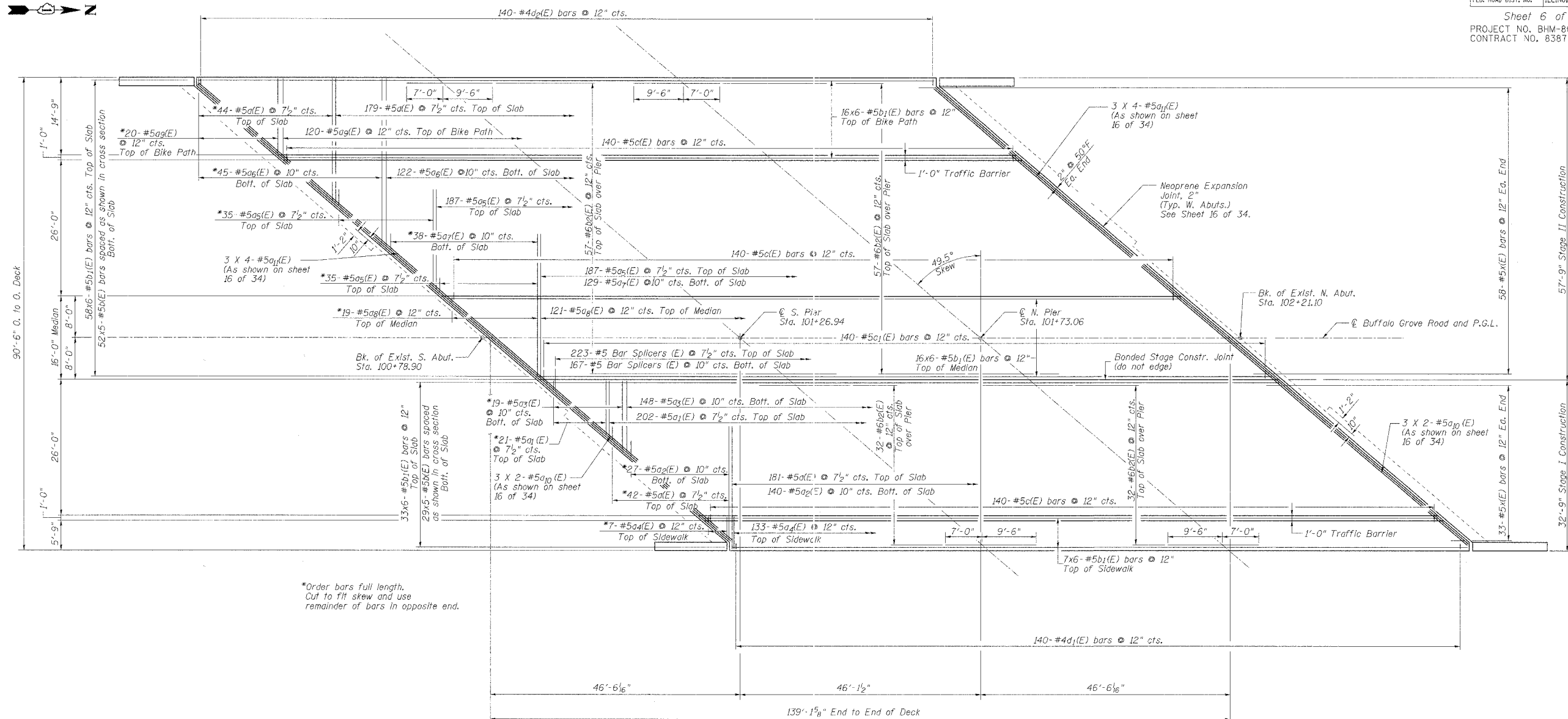
REVISIONS	NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**SLOPE WALL DETAILS**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK





F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	29
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
Sheet 6 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				



DECK PLAN

NOTES:

- See sheet 7 of 34 for Superstructure details and Superstructure Bill of Materials.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bars indicated thus 20X3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
- For Section A-A see sheet 7 of 34.

MIN. BAR LAP  
\*5 bar = 2'-2"

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**SUPERSTRUCTURE**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATL, WK



DATE	
BY	
DESIGNED	
PLOTTED	
NOTE BOOK	
STRUCTURE NOTATIONS CHECKED	
FILE NAME	

DATE	
BY	
DESIGNED	
PLOTTED	
NOTE BOOK	
STRUCTURE NOTATIONS CHECKED	
FILE NAME	

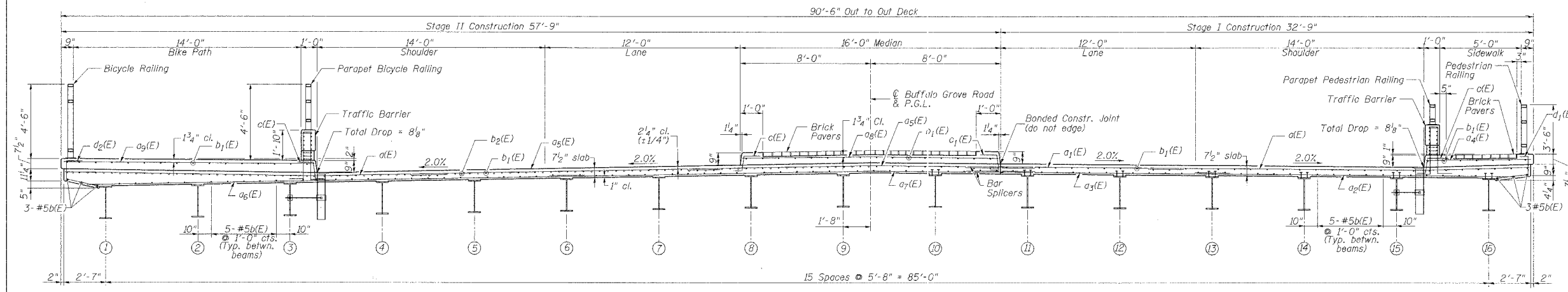
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	30
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Sheet 7 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

**SUPERSTRUCTURE  
 BILL OF MATERIAL**

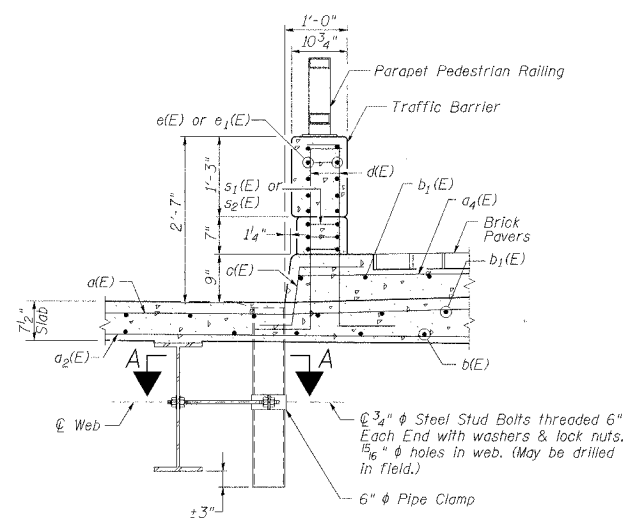
Bar	No.	Size	Length	Shape
a(E)	446	#5	23'-6"	
a <sub>1</sub> (E)	223	#5	11'-3"	
a <sub>2</sub> (E)	167	#5	20'-0"	
a <sub>3</sub> (E)	167	#5	14'-1"	
a <sub>4</sub> (E)	140	#5	6'-4"	
a <sub>5</sub> (E)	444	#5	19'-3"	
a <sub>6</sub> (E)	167	#5	31'-4"	
a <sub>7</sub> (E)	167	#5	27'-9"	
a <sub>8</sub> (E)	140	#5	15'-6"	
a <sub>9</sub> (E)	140	#5	15'-4"	
a <sub>10</sub> (E)	12	#5	26'-2"	
a <sub>11</sub> (E)	24	#5	23'-9"	
a <sub>12</sub> (E)	405	#5	29'-6"	
b <sub>1</sub> (E)	780	#5	25'-0"	
b <sub>2</sub> (E)	178	#6	16'-6"	
c(E)	420	#5	1'-11"	
c <sub>1</sub> (E)	140	#5	1'-11"	
d(E)	448	#5	4'-4"	
d <sub>1</sub> (E)	140	#4	3'-7"	
d <sub>2</sub> (E)	140	#4	4'-3"	
e(E)	264	#5	9'-8"	
e <sub>1</sub> (E)	22	#5	19'-7"	
s(E)	380	#5	4'-2"	
s <sub>1</sub> (E)	78	#5	8'-0"	
s <sub>2</sub> (E)	12	#5	4'-10"	
s <sub>3</sub> (E)	8	#5	4'-11"	
x(E)	20	#5	6'-0"	
x <sub>1</sub> (E)	182	#5	4'-1"	
Concrete Superstructure				Cu. Yd. 494.7
Reinforcement Bars, Epoxy Coated				Pound 92,540
Bar Splicers				Each 390
Floor Drains				Each 8
Bridge Deck Grooving				Sq. Yd. 741
Protective Coat				Sq. Yd. 1576



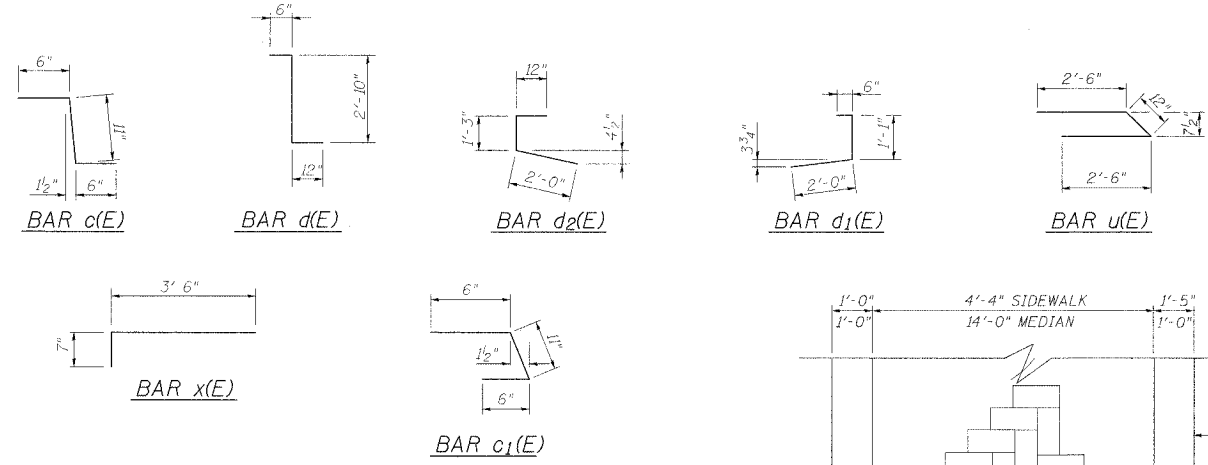
NEAR PIER

TYPICAL CROSS SECTION  
 (Looking North)

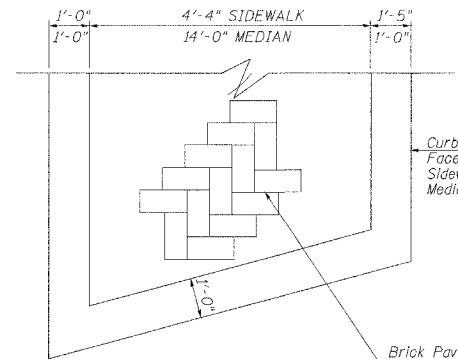
NEAR MIDSPAN



SECTION THRU EAST TRAFFIC BARRIER  
 (Looking North) (West Parapet Similar)

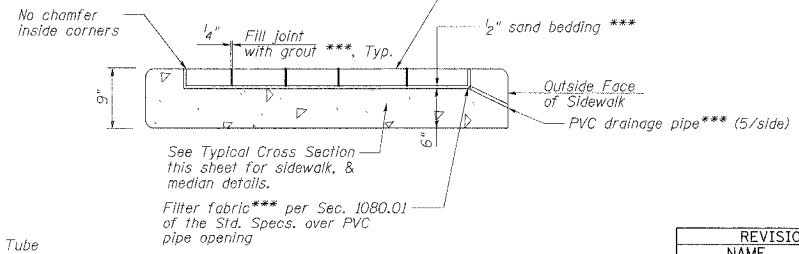


BARS s(E) thru s3(E)



TOP VIEW

Brick Paver shall be Holland Pavers (4" X 8" X 2 3/8", CC Red) as Manufactured by Bend Industries or equal approved by Lake County Division of Transportation.



BRICK PAVER TREATMENT DETAILS

\*\*\* Cost shall be included with "Brick Paver".

**NOTES:**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Bars indicated thus 3x2-#4 etc. indicates 3 lines of bars with 2 lengths per line.
3. The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.
4. Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**SUPERSTRUCTURE DETAILS**

BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

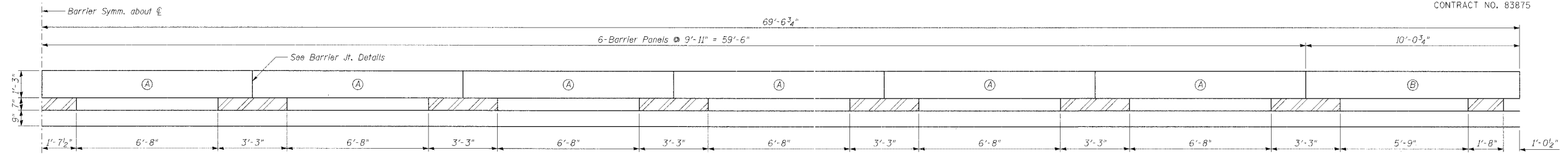
**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

DATE	
BY	
REVISIONS	
PLANNED	
NOTED	
FILED	
NO.	

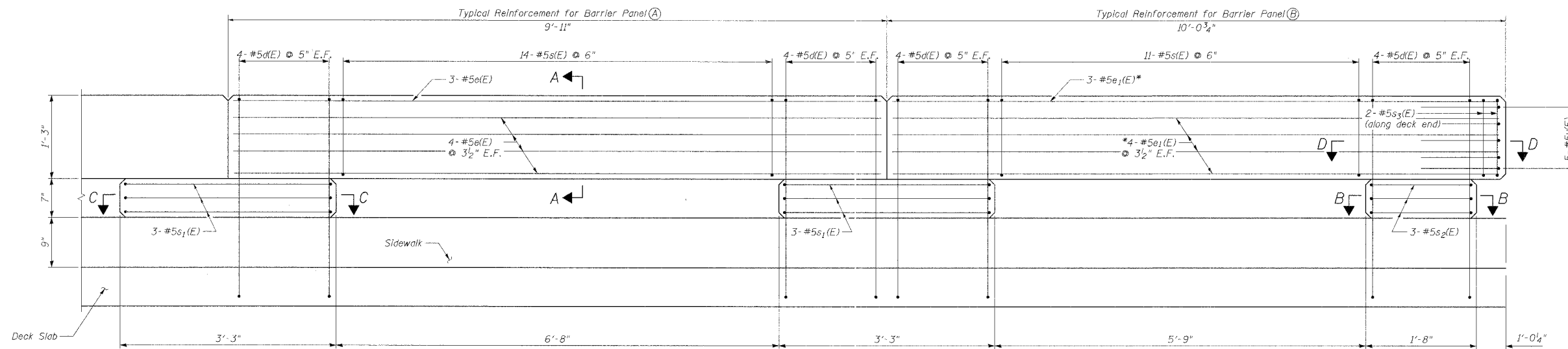
DATE	
BY	
REVISIONS	
PLANNED	
NOTED	
FILED	
NO.	

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	31
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.	ILLINOIS			FED. AID PROJECT
Sheet 8 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				

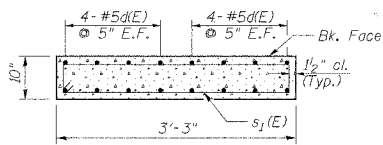


**TRAFFIC BARRIER HALF ELEVATION**  
(Dimensions given along  $\bar{C}$  Traffic Barrier)

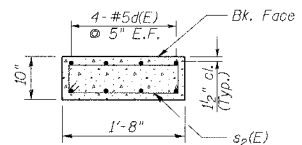


**DETAIL PANELS A & B**  
(Dimensions given along  $\bar{C}$  Traffic Barrier)

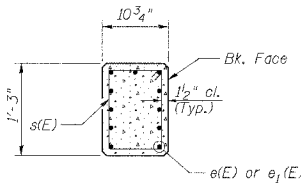
\*Order bars full length. Cut to fit skew & use remainder of bar in opposite end.



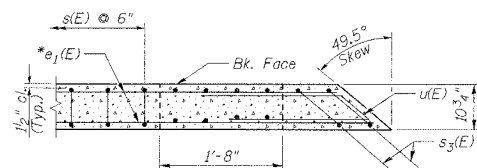
SECTION C-C



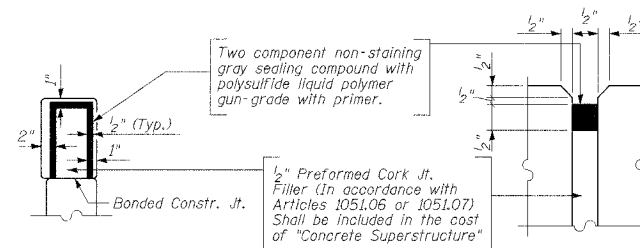
SECTION B-B



SECTION A-A



SECTION D-D



**BARRIER JOINT DETAILS**

**NOTES:**

- Reinforcement bars designated (E) shall be epoxy coated.
- Work this sheet with sheet 7 of 34.

REVISIONS		LAKE COUNTY DIVISION OF TRANSPORTATION	
NAME	DATE	TRAFFIC BARRIER DETAILS	

BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATL, WK

PLAN

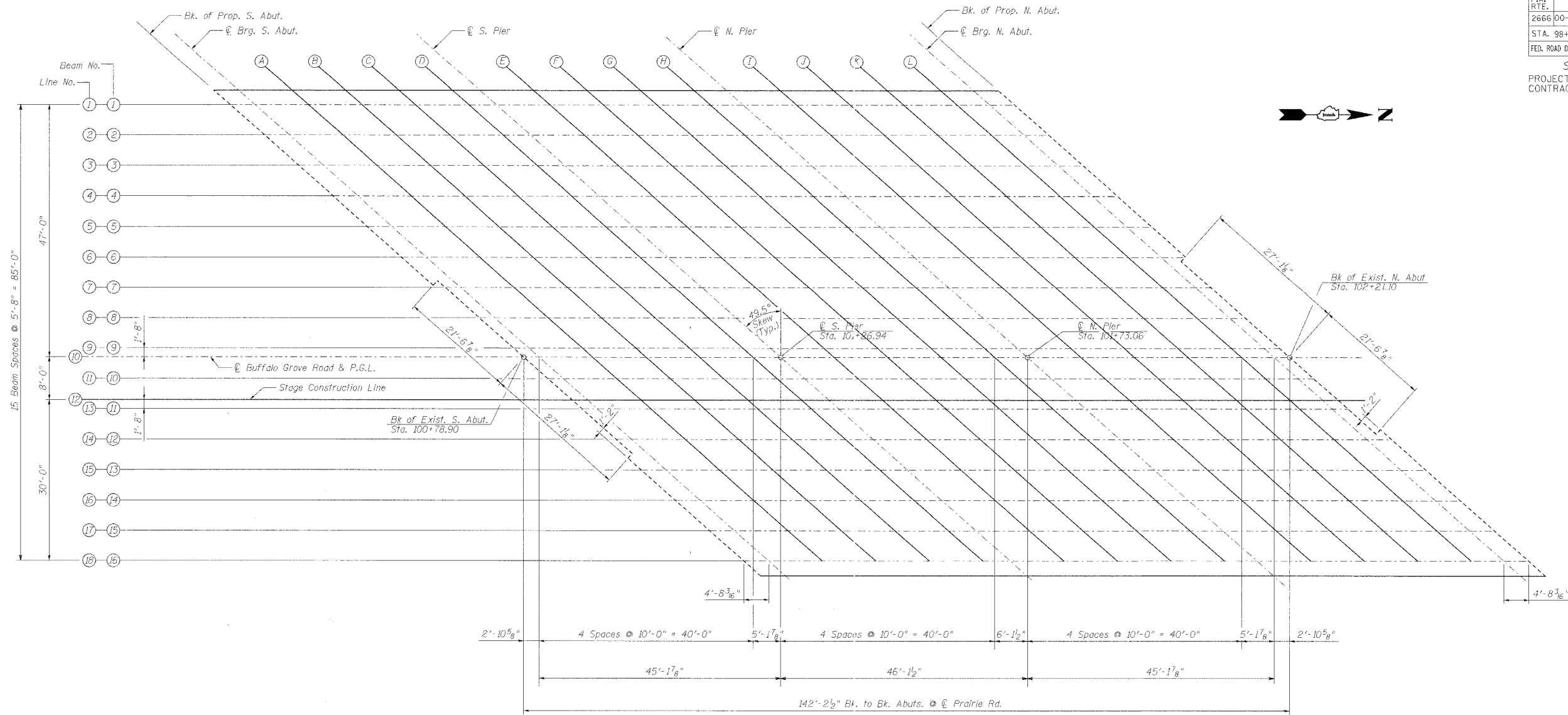
DESIGNED	
PLOTTED	
NOTE BOOK	
NO.	

PROFILE

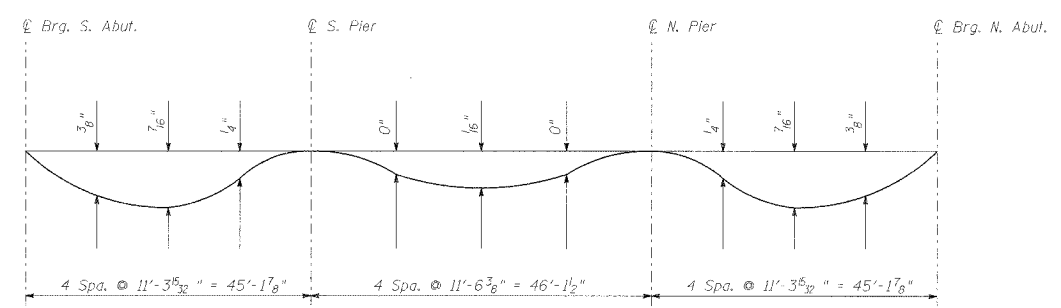
DESIGNED	
PLOTTED	
NOTE BOOK	
NO.	

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	32
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
Sheet 9 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				



LAYOUT PLAN FOR DECK ELEVATIONS



DEAD LOAD DEFLECTION DIAGRAM  
(INCLUDES WEIGHT OF CONCRETE ONLY)

NOTE: The above deflections are not for use in the field if the engineer is working from the theoretical grade elevations adjusted for dead load deflection shown on sheets 10 thru 12 of 34.



AT MINIMUM FILLET      AT MAXIMUM FILLET

**METHOD OF DETERMINING FILLET HEIGHTS "f"**  
 After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the stations shown on sheets 10 thru 12 of 34. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 10 thru 12 of 33, minus slab thickness equals the fillet heights "f" above top flange of beams.

NOTES:  
 1. Work this sheet with sheets 10 thru 12 of 34.

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**DECK ELEVATIONS I**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE      DRAWN BY: TBW  
 DATE: 7/21/06      CHECKED BY: ATI, WK

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL    AURORA, IL    ST. LOUIS, MO  
 ROCKFORD, IL    PEORIA, IL    CHICAGO, IL



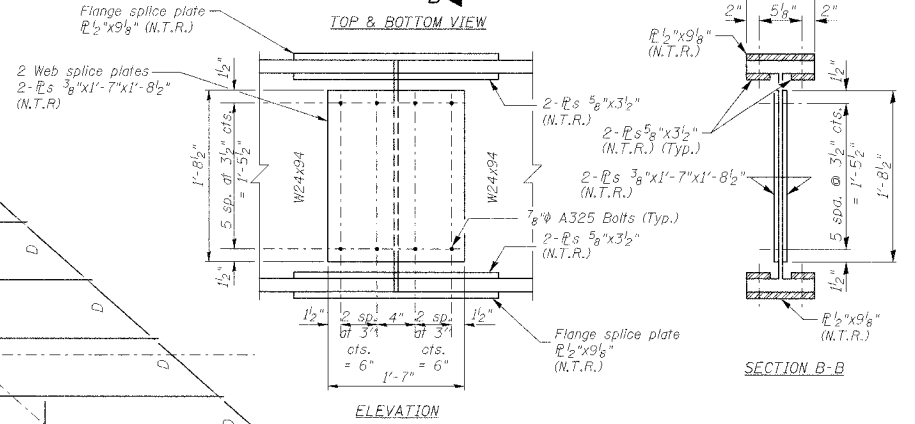
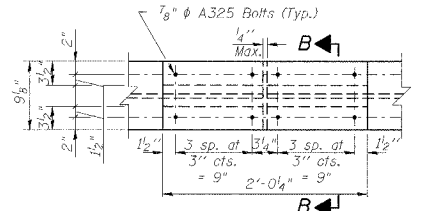
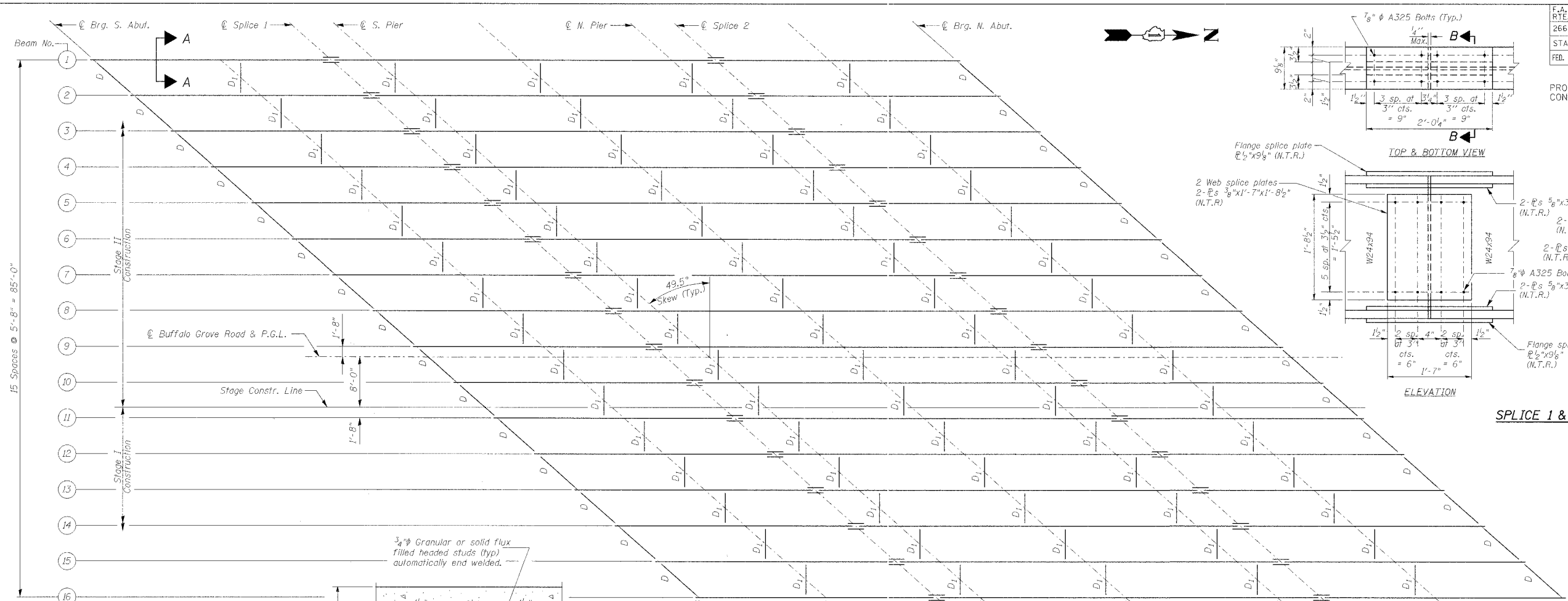




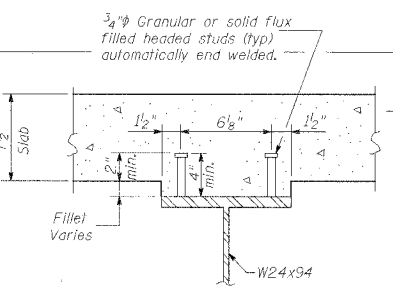
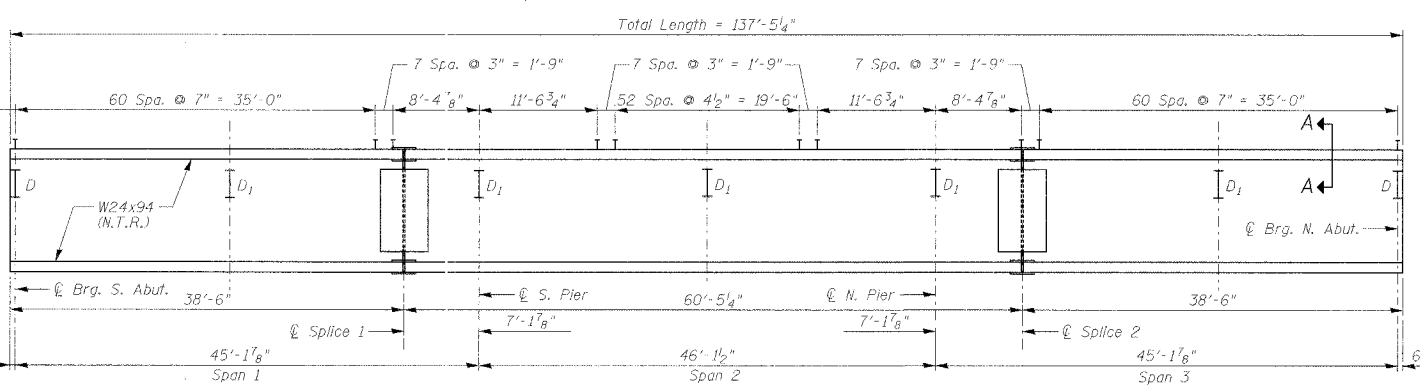
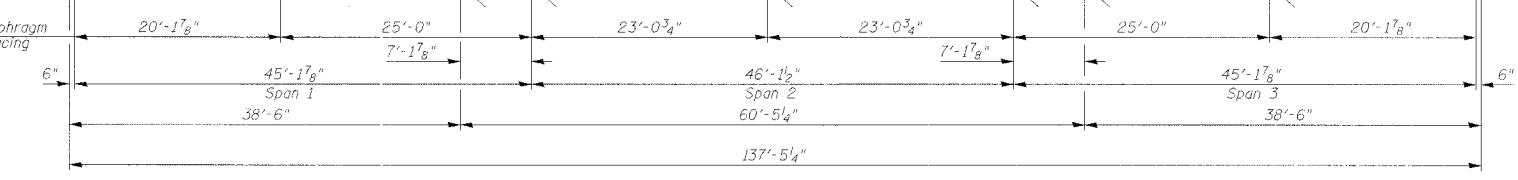


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	36
STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

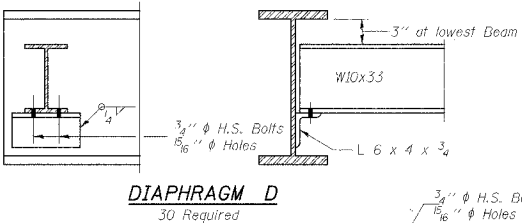
Sheet 13 of 35 Sheets  
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875



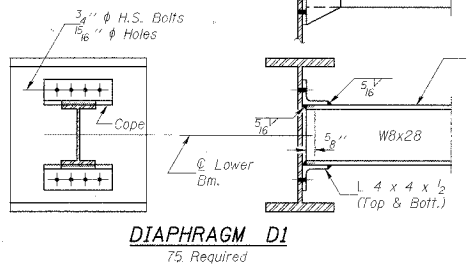
SPLICE 1 & 2 DETAILS



SECTION A-A  
(No. Required = 6496)



DIAPHRAGM D  
30 Required



DIAPHRAGM DI  
75 Required

Note:  
Two hardened washers shall be required over all oversize holes for diaphragms.

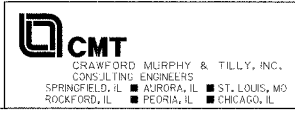
TOP OF BEAM ELEVATIONS BEFORE DEFLECTIONS  
(For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12	Beam 13	Beam 14	Beam 15	Beam 16
@ Brg. S. Abut.	669.904	670.045	670.185	670.323	670.463	670.603	670.743	670.883	671.023	671.003	670.917	670.830	670.743	670.657	670.570	670.484
@ Splice 1	670.015	670.156	670.296	670.434	670.574	670.714	670.854	670.994	671.134	671.114	671.028	670.941	670.854	670.768	670.681	670.594
@ S. Pier	670.044	670.184	670.325	670.463	670.603	670.743	670.883	671.023	671.163	671.143	671.056	670.970	670.883	670.796	670.710	670.623
@ N. Pier	670.229	670.370	670.510	670.648	670.788	670.928	671.068	671.208	671.348	671.328	671.242	671.155	671.068	670.982	670.895	670.808
@ Splice 2	670.258	670.398	670.539	670.677	670.817	670.957	671.097	671.237	671.377	671.357	671.270	671.184	671.097	671.010	670.924	670.837
@ Brg. N. Abut.	670.452	670.593	670.733	670.871	671.011	671.151	671.291	671.431	671.571	671.551	671.465	671.378	671.291	671.205	671.118	671.031

NOTES:

- All stringers, splice plates and diaphragm elements shall be AASHTO M270, Grade 50 steel (N.T.R. where noted).
- "N.T.R." Denotes notch toughness requirements. Structural steel designated with (N.T.R.) shall conform to the supplemental requirements for notch toughness (Zone 2). These components are the W24x94 stringers and all splice plate material of the steel stringers.

REVISIONS	NAME	DATE



LAKE COUNTY DIVISION OF TRANSPORTATION  
FRAMING PLAN & ELEVATION

BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE DRAWN BY: TBW  
DATE: 7/21/06 CHECKED BY: AT1, WK

FRAMING PLAN & ELEVATION

DATE	BY	REVISIONS

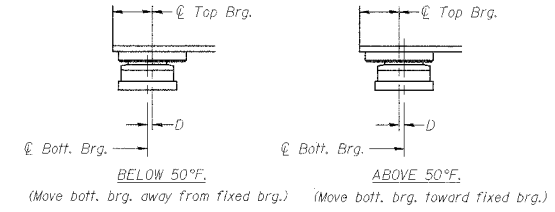
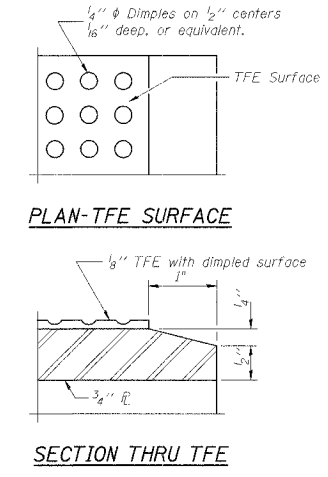
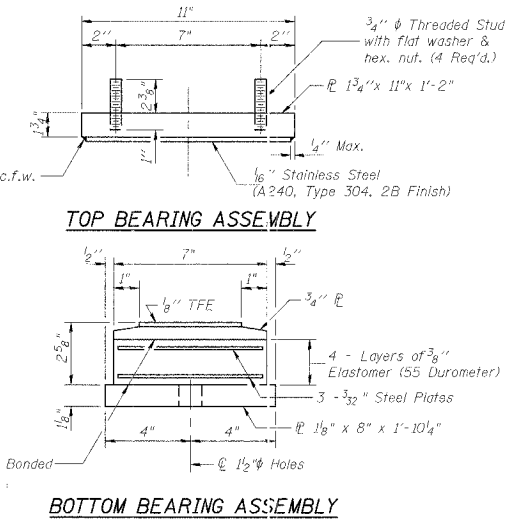
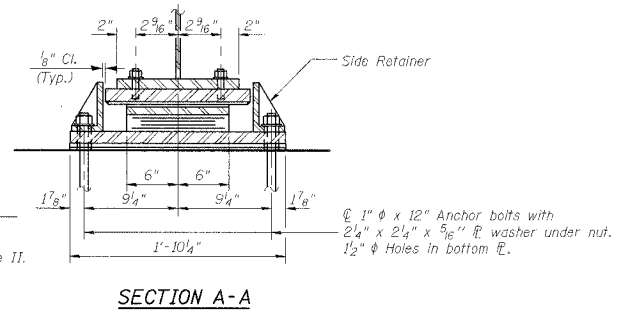
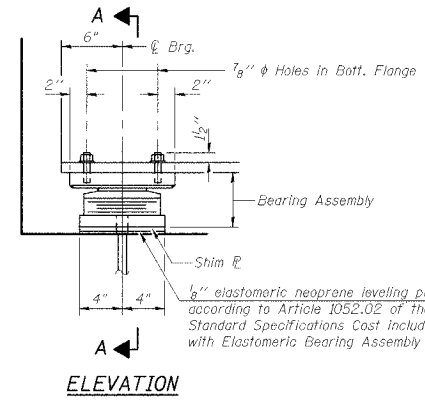
DATE	BY	REVISIONS

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F.A. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	37
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Sheet 14 of 35 Sheets  
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

DATE	BY	REVISIONS
		1. PLOTTED
		2. CHECKED
		3. FILED



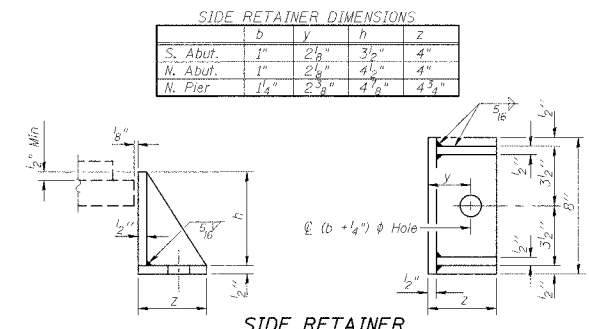
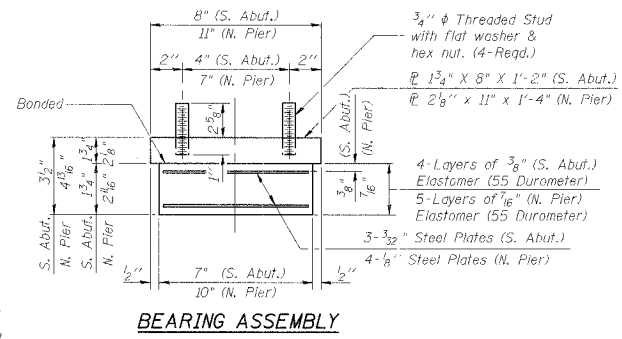
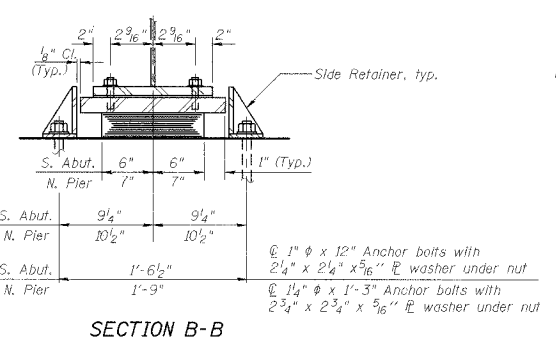
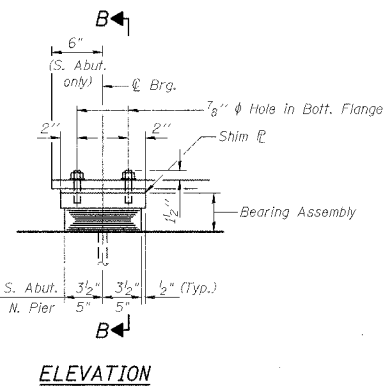
$D = \frac{1}{8}''$  per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

**TYPE II ELASTOMERIC EXP. BRG. AT N. ABUT.**  
(16 Required)

**BEAM MOMENT TABLE**

	0.4 Sp. 1	S. Pier	0.5 Sp. 2
$I_s$	(in <sup>4</sup> ) 2700	2700	2700
$I_c$ (n)	(in <sup>4</sup> ) 7970		7970
$I_c$ (3n)	(in <sup>4</sup> ) 5809		5809
$S_s$ (n)	(in <sup>-3</sup> ) 222	222	222
$S_c$ (n)	(in <sup>-3</sup> ) 344		344
$S_c$ (3n)	(in <sup>-3</sup> ) 309		309
$Z$	(in <sup>-3</sup> )		
$\phi$	(k/ft.) 0.675	1.278	0.675
$M\phi$	(k) 109.0	243.5	39.2
$s\phi$	(k/ft.) 0.603		0.603
$Ms\phi$	(k) 106.3		57.3
$M_L$	(k) 240.5	112.9	197.3
$M$ (Imp)	(k) 70.7	33.1	57.6
$M_s$ (M+M(Imp))	(k) 518.7	243.3	424.9
$M_a$	(k) 954.2	632.8	677.8
$M_u$	(k)		
$F_s\phi$ non-comp (k.s.i.)	5.89	13.16	2.12
$F_s\phi$ (comp) (k.s.i.)	4.15		2.23
$F_s\phi_3$ (k+Imp) (k.s.i.)	18.09	13.15	14.82
$F_s$ (Overload) (k.s.i.)	28.11	26.31	19.16
$F_s$ (Total) (k.s.i.)		34.21	
$VR$	(k) 39.6		30.2

DATE	BY	REVISIONS
		1. PLOTTED
		2. CHECKED
		3. FILED



**TYPE I ELASTOMERIC EXP. BRG. AT S. ABUT. & N. PIER**  
(32 Required)

**BEAM REACTION TABLE**

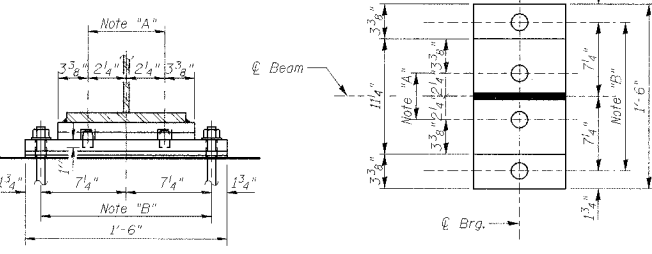
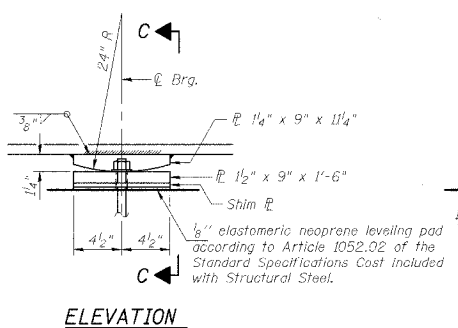
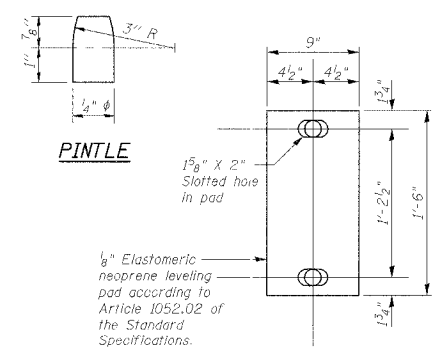
	South Abut.	S. Pier
$R\phi$	(k) 23.5	63.7
$R_L$	(k) 35.8	42.7
$Imp.$	(k) 10.5	12.5
$R$ (Total)	(k) 69.8	118.9

**NOTES:**

- $I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $I_s$
- $I_c$  (n) and  $S_c$  (n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
- $I_c$  (3n) and  $S_c$  (3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed Dead Loads. (see AASHTO 10.38)
- $VR$  is the maximum Live Load + Impact shear range in span.
- The plastic moment capacity ( $M_u$ ) is computed according to AASHTO 10.48.1 & 10.50.1.1.
- $F_s$  (Overload) is the sum of the stresses due to  $[M\phi + M\phi + 5/3 (M_L + M(Imp))]$ .
- $M\phi$  - Moment due to dead loads on non-composite section.
- $Ms\phi$  - Moment due to dead loads on composite section.
- $M_L$  - Moment due to live loads on non-composite or composite section.
- $M$  (Imp) - Moment due to live load impact on non-composite or composite section.
- $M_a$  (Applied Moment) =  $1.3 [M\phi + Ms\phi + 5/3 (M_L + M(Imp))]$ .

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	32
Elastomeric Bearing Assembly Type II	Each	16



**PLAN**

**FIXED BEARING AT SOUTH PIER**  
(16 Required)

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

REVISIONS	DATE
NAME	

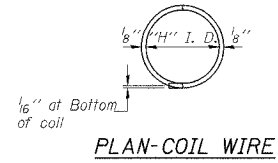
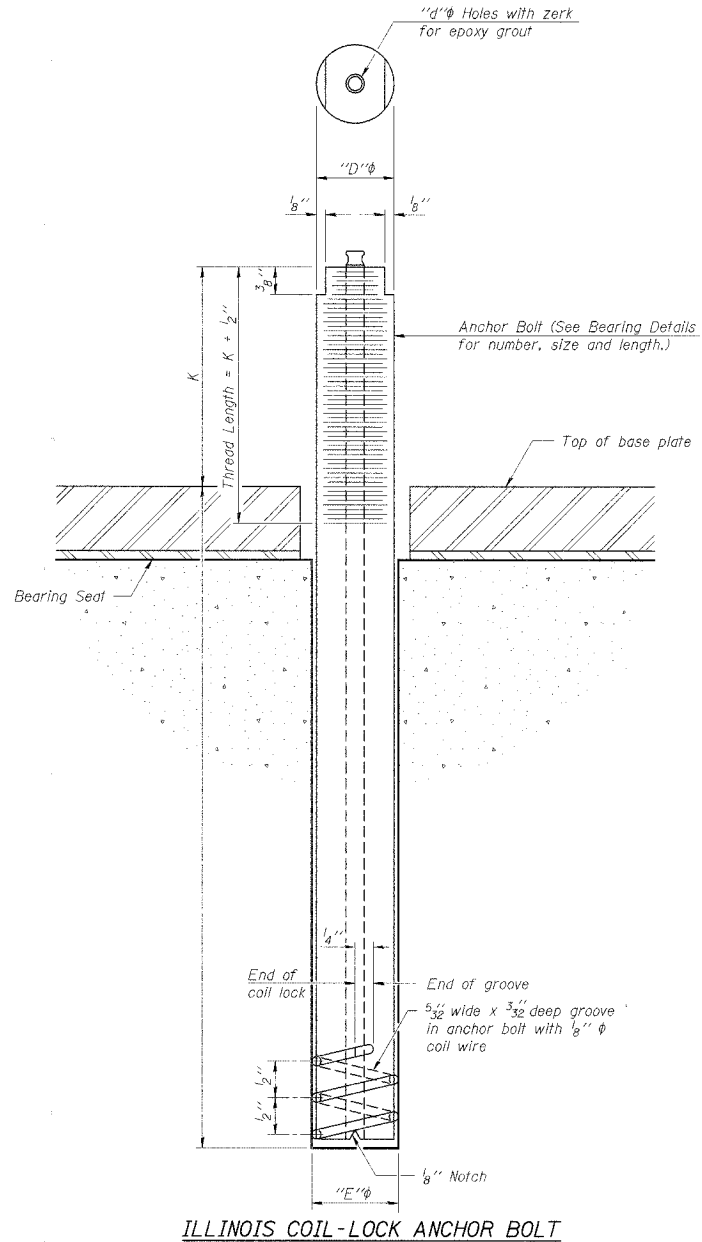
LAKE COUNTY DIVISION OF TRANSPORTATION  
**FRAMING DETAILS & TABLES**  
BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE DRAWN BY: TBW  
DATE: 7/21/06 CHECKED BY: ATI, WK

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	38
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

Sheet 15 of 35 Sheets  
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/8"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/2"	2"	3/8"
1 1/2"	1 5/8"	1 5/8"	2 1/8"	1/2"
2"	2 1/8"	1 3/8"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/8"	3 3/8"	1"



### MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.  
The coil wire shall be made of any suitable soft steel wire.  
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.  
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

### INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

### ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.  
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
S. Abut.	A307
S. Pier	A307
N. Pier	A307
N. Abut.	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

### GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.  
Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.  
The anchor bolts, furnished and installed including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

DATE	BY

DATE	BY

I:\lakeco\220113\draw sheets\struct\6-16-06\anchor bolt.dwg

ABB-1 4-30-99

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**ANCHOR BOLT DETAILS FOR BEARINGS**  
BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE DRAWN BY: TBW  
DATE: 7/21/06 CHECKED BY: ATL, WK

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	39
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
Sheet 16 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

### INSTALLATION NOTES

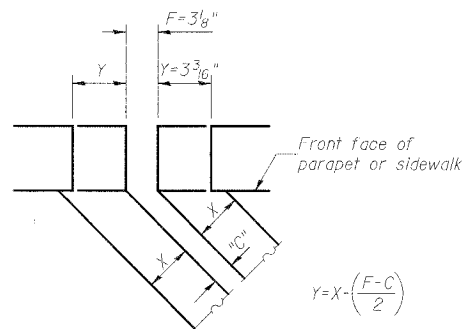
- ① Install continuous seal in roadway, parapet, curb, and sidewalk.
- ② Install anchor blocks as indicated.

**NOTE A:** Maximum spacing of anchor bolts shall be 12" centers.

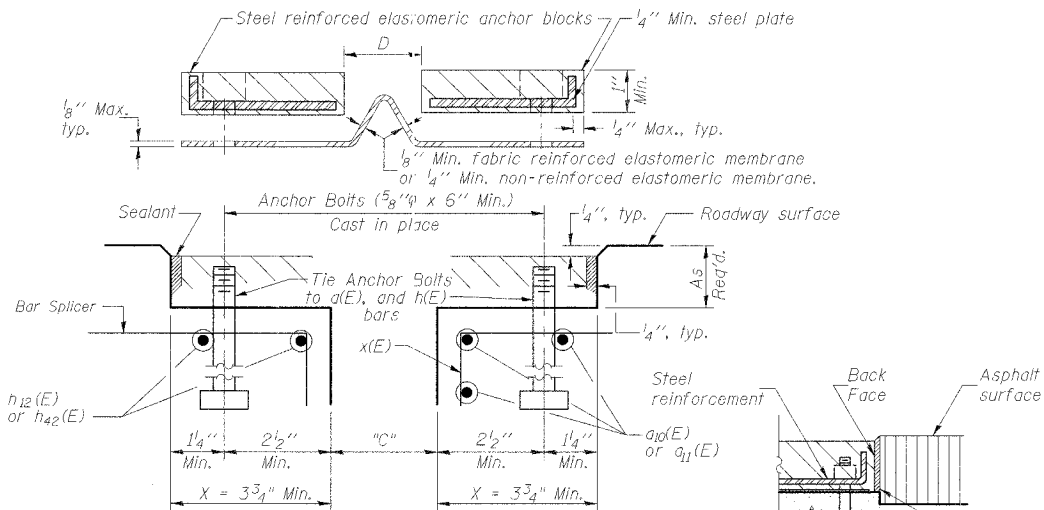
### SKREW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed at the top of the parapet with the anchor studs spaced at ±12" cts.



**FORMING BLOCKOUT SKETCH**



**CROSS SECTION**

**ANCHOR BLOCK WITH ASPHALT SURFACE**

### GENERAL NOTES

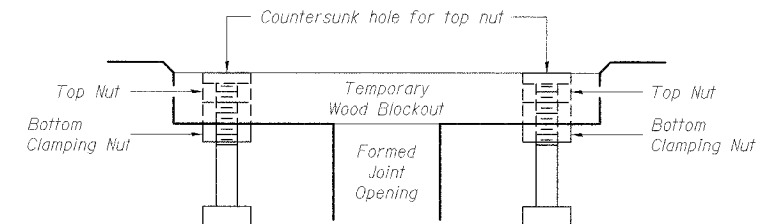
Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.



Note: Stud needs to be threaded lower to allow for use of clamping nut.

**RECOMMENDED BLOCKOUT DETAIL**

### BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Neoprene Expansion Joint, 2"	Foot	283

DATE	BY

APPROVED  
DRAWN  
CHECKED  
ALIGNED  
DIMENSIONED  
PLOTTED  
NOTE BOOK  
NO.

DATE	BY

REVISIONS  
STRUCTURE NOTATION OK'D

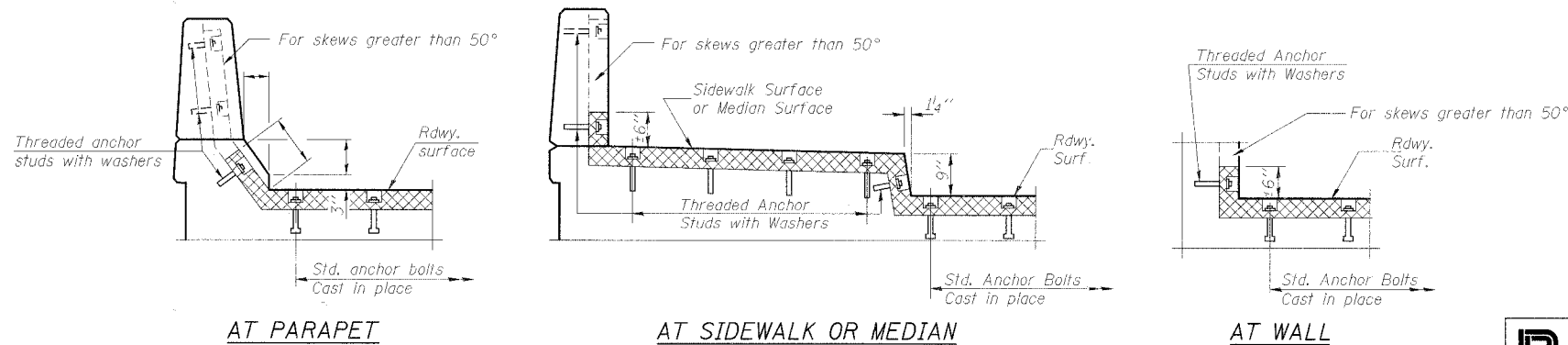
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**AT CURB**

**AT PARAPET**

**AT SIDEWALK OR MEDIAN**

**AT WALL**



**AT PARAPET**

**AT SIDEWALK OR MEDIAN  
TYPICAL END TREATMENTS**

**AT WALL**

REVISIONS	DATE
NAME	

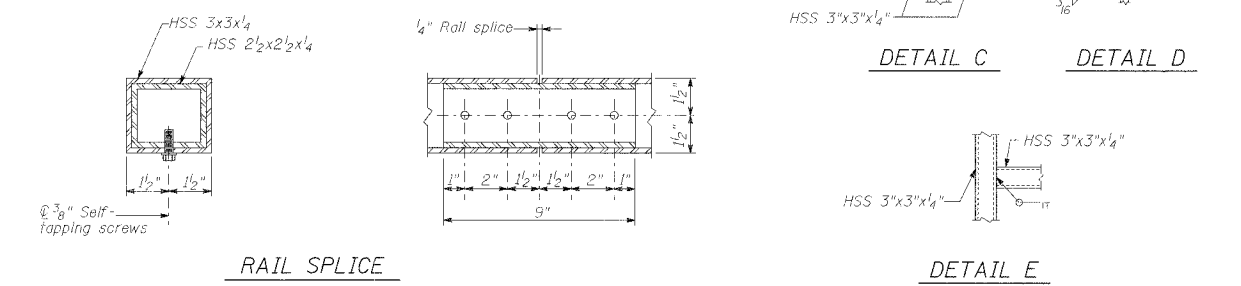
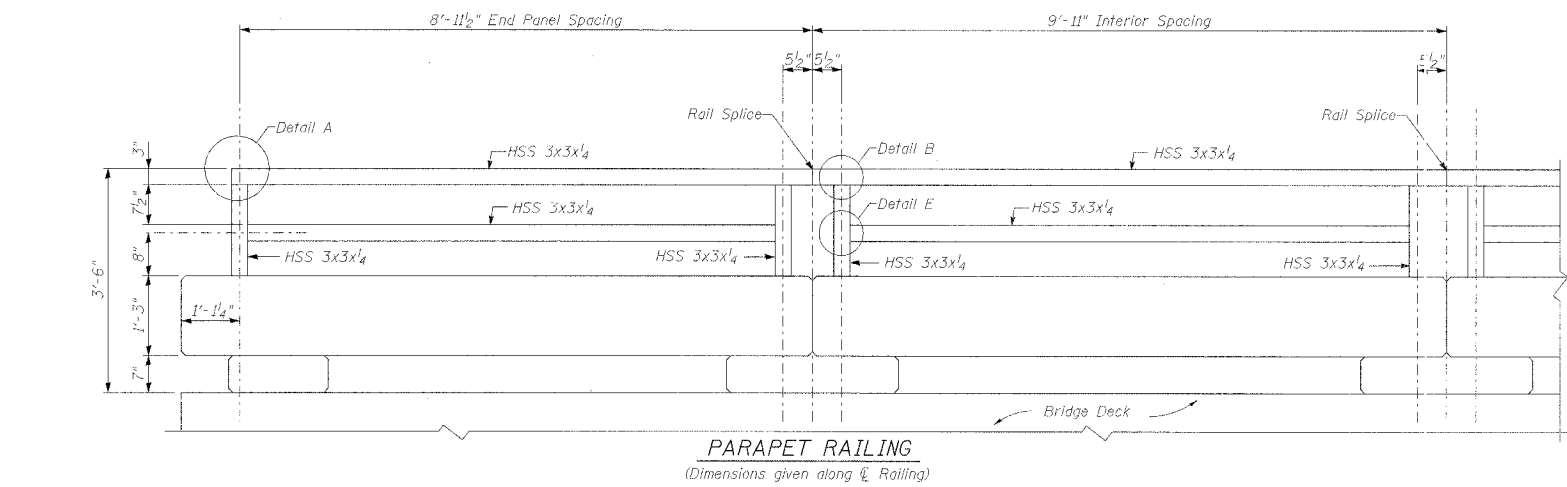
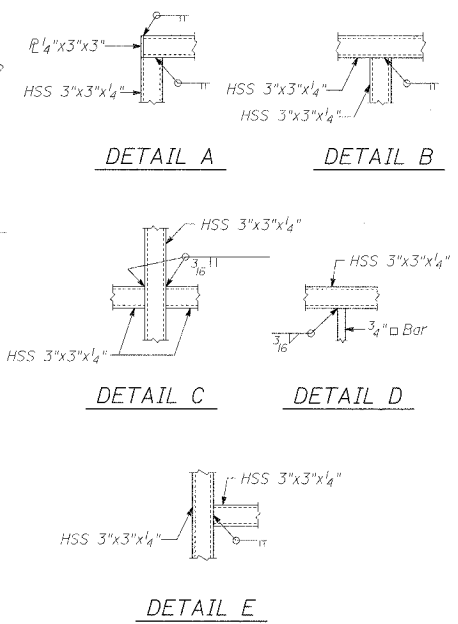
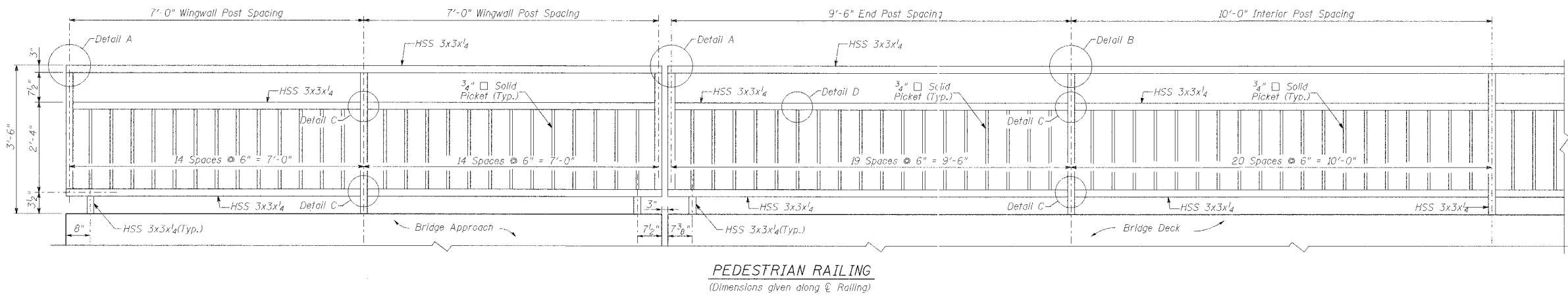
LAKE COUNTY DIVISION OF TRANSPORTATION  
**NEOPRENE EXPANSION JOINTS**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE  
 DATE: 7/21/06  
 DRAWN BY: TBW  
 CHECKED BY: ATL, WK



EJ-CS 9-01-03

NEOPRENE EXPANSION JOINTS

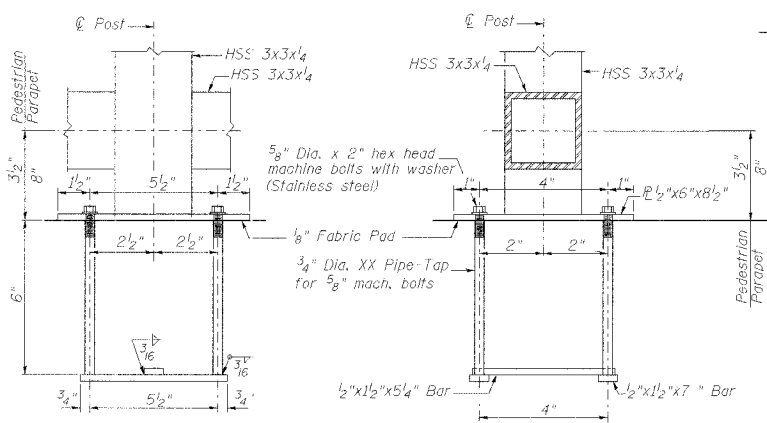
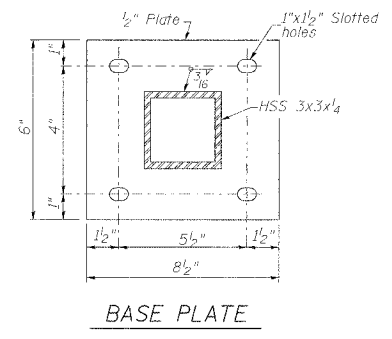
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	40
STA. 98+50 TO STA. 107+57		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
Sheet 17 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				



**BILL OF MATERIAL**

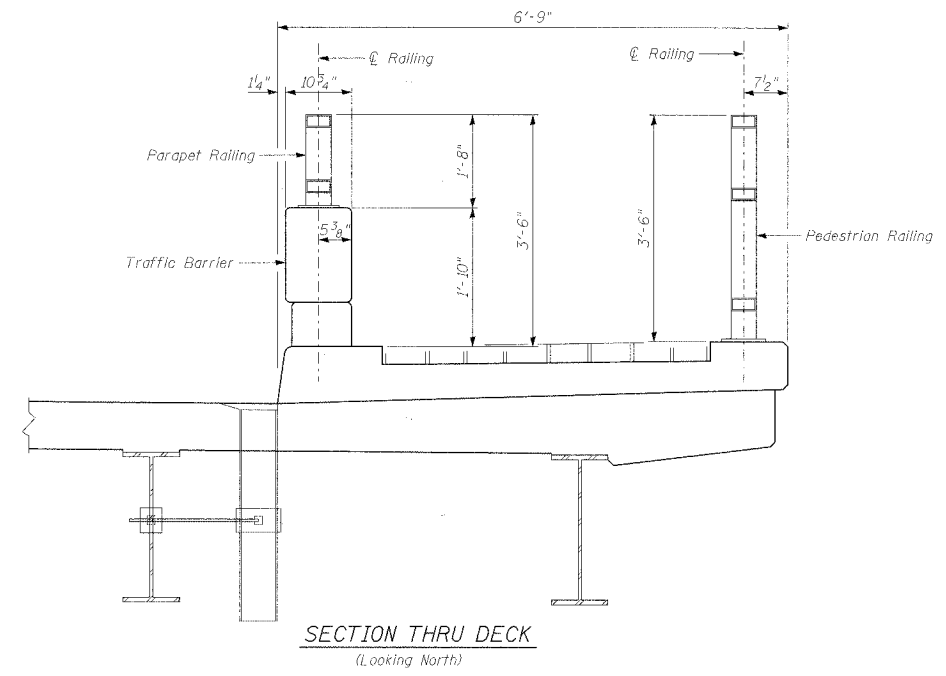
Item	Unit	Quantity
Pedestrian Railing	Foot	167
Parapet Railing	Foot	137

- NOTES**
- Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Pedestrian Railing or Parapet Railing.
  - Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
  - Hollow steel pipes shall conform to the requirements of ASTM A 53 and shall be "standard weight."
  - All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.
  - All posts, railing, splices, anchor devices, and bent plates shall be painted using the Organic Zinc-rich/epoxy/urethane paint system. The color of the final coat for all bicycle and parapet railings shall be Black Color C900 as produced by Carboline or equal. Final color shall be coordinated with the Engineer prior to fabrication. See special provision for "Cleaning and Painting Bicycle and Parapet Railing."
  - If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.
  - Space reinforcement to miss anchor rods.



**ANCHOR BOLT DETAILS**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting 5/8" dia. anchor rods. Embedment shall be according to the manufacturer's specifications.



**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

REVISIONS	NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**PEDESTRIAN RAILING**

BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE DRAWN BY: TBW  
DATE: 7/21/06 CHECKED BY: ATI, WK

BICYCLE RAILING

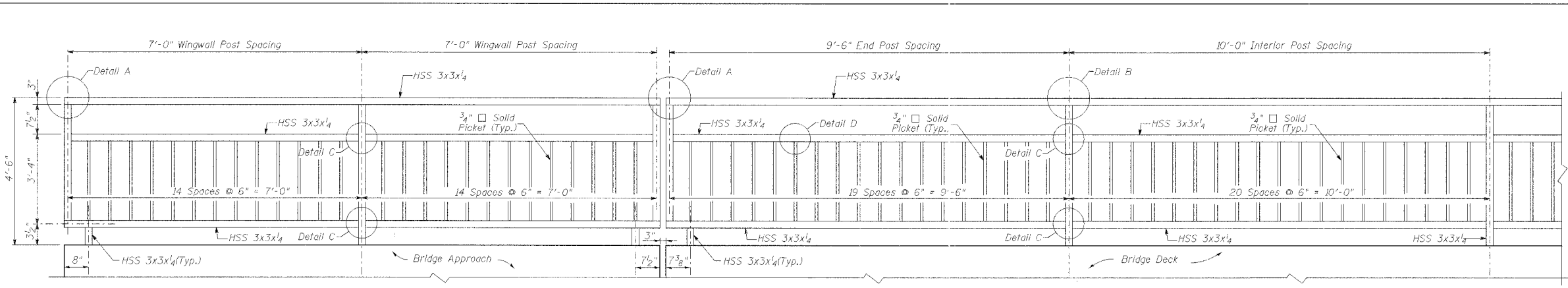
DATE	BY

DATE	BY

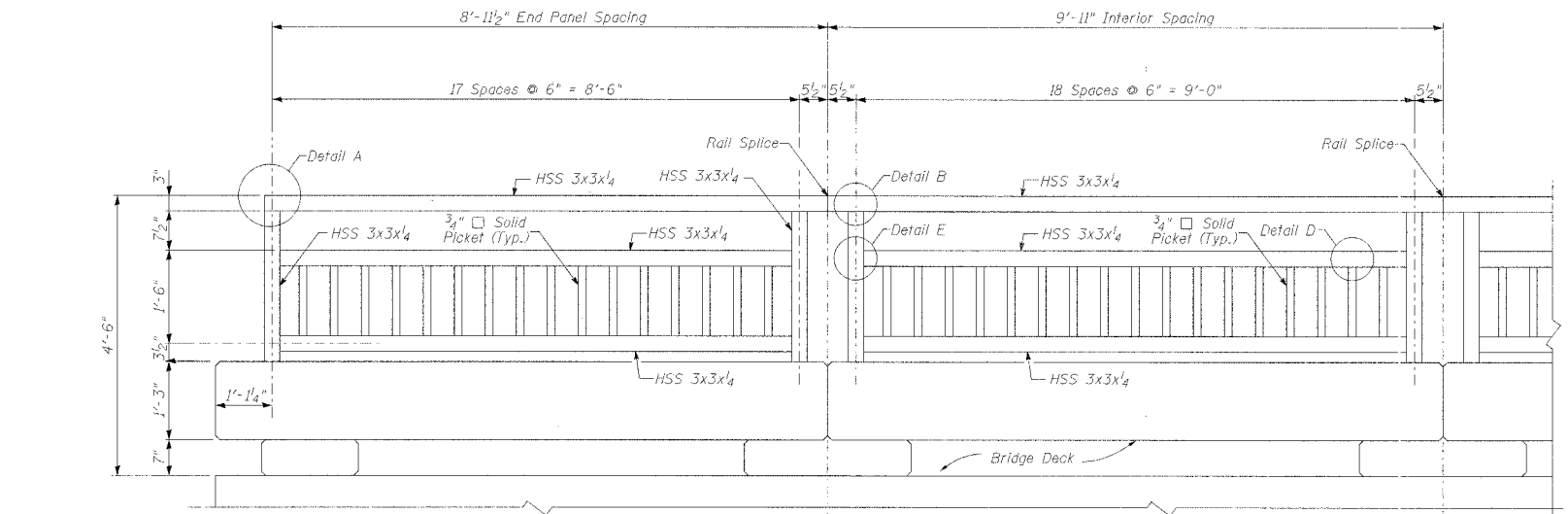
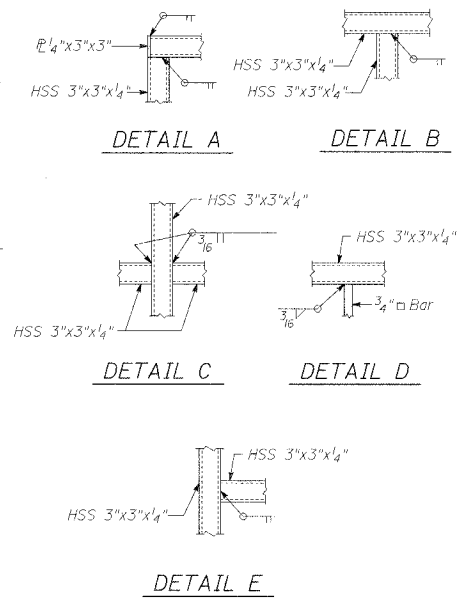
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

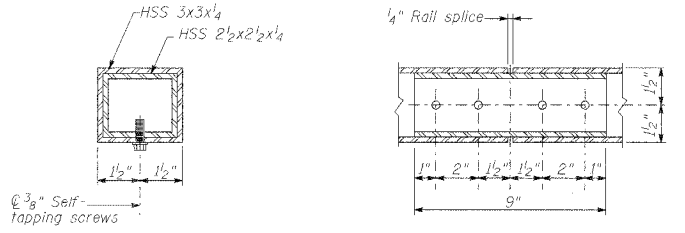
Sheet 18 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875



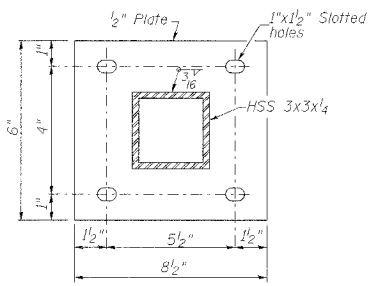
**BICYCLE RAILING**  
 (Dimensions given along  $\phi$  Railing)



**PARAPET RAILING**  
 (Dimensions given along  $\phi$  Railing)



**RAIL SPLICE**



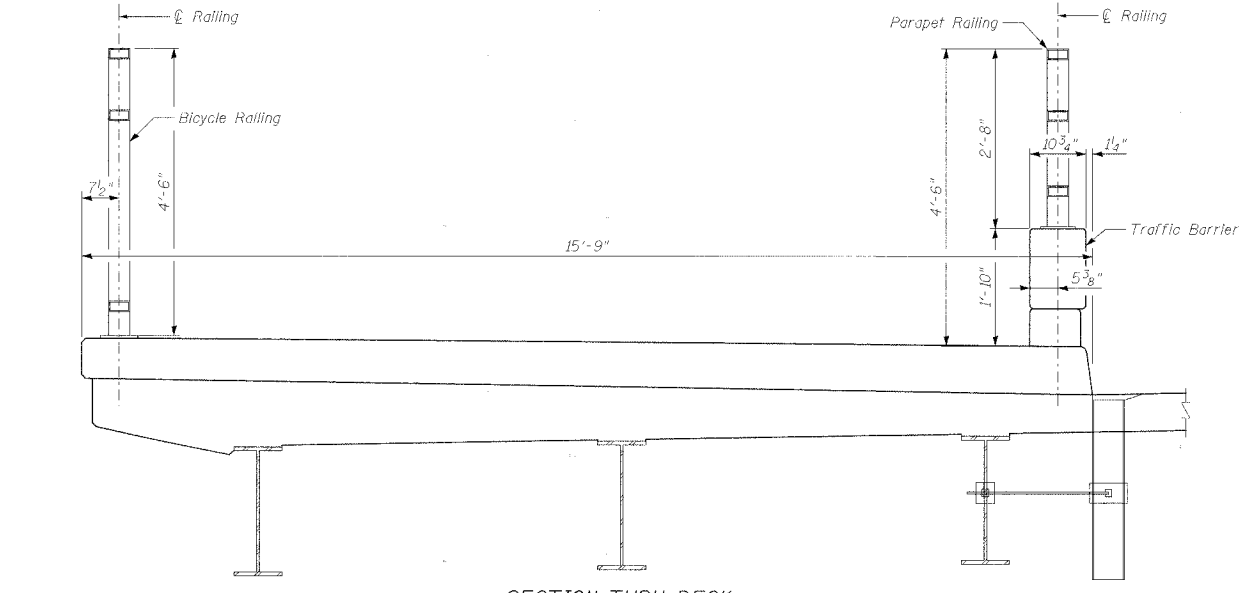
**BASE PLATE**

**BILL OF MATERIAL**

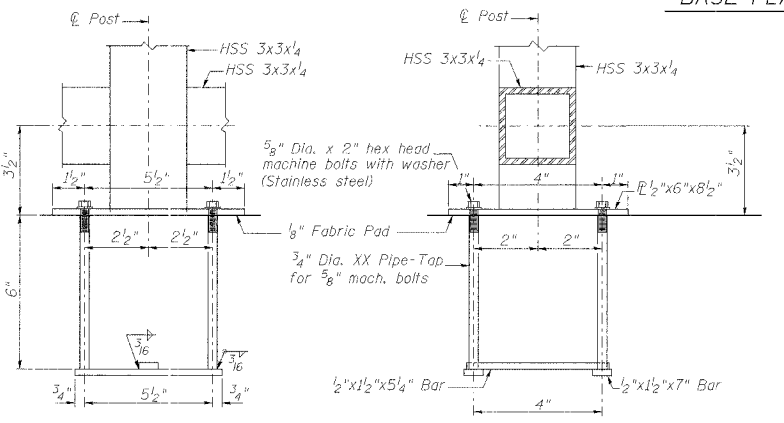
Item	Unit	Quantity
Bicycle Railing	Foot	167
Parapet Railing	Foot	137

**NOTES**

- Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Bicycle Railing or Parapet Railing.
- Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
- Hollow steel pipes shall conform to the requirements of ASTM A 53 and shall be "standard weight."
- All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.
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- If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.
- Space reinforcement to miss anchor rods.



**SECTION THRU DECK**  
 (Looking North)



**ANCHOR BOLT DETAILS**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting 5/8" dia. anchor rods. Embedment shall be according to the manufacturer's specifications.

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

REVISIONS	NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**BICYCLE RAILING**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATT, WK

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

REVISIONS: \_\_\_\_\_

PLANNED: \_\_\_\_\_

NOTED: \_\_\_\_\_

NO. \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

REVISIONS: \_\_\_\_\_

PLANNED: \_\_\_\_\_

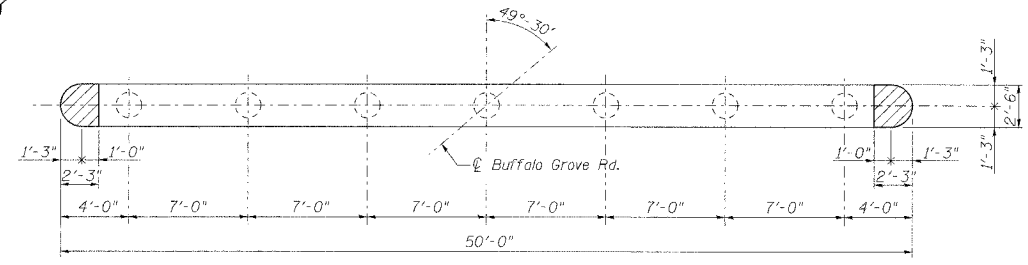
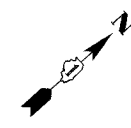
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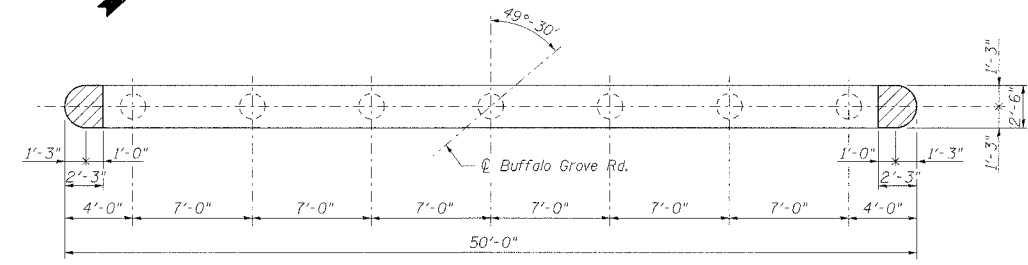
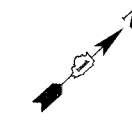
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	42
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

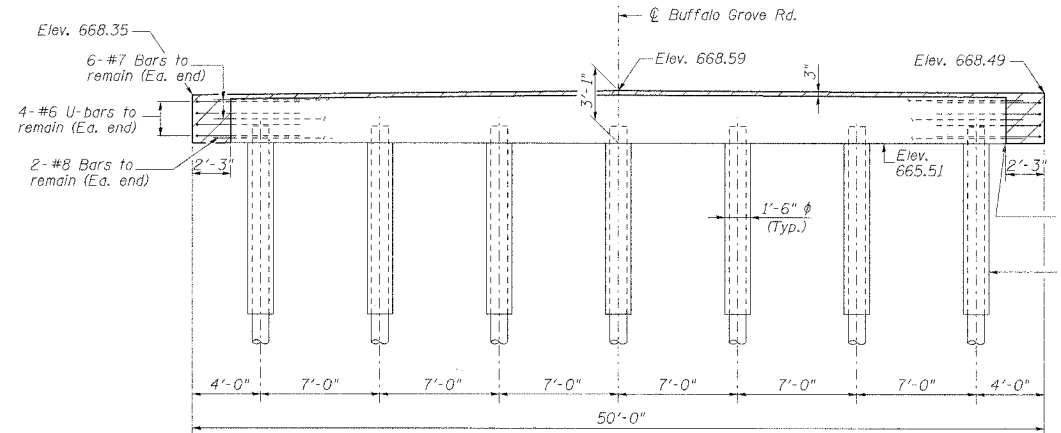
Sheet 19 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875



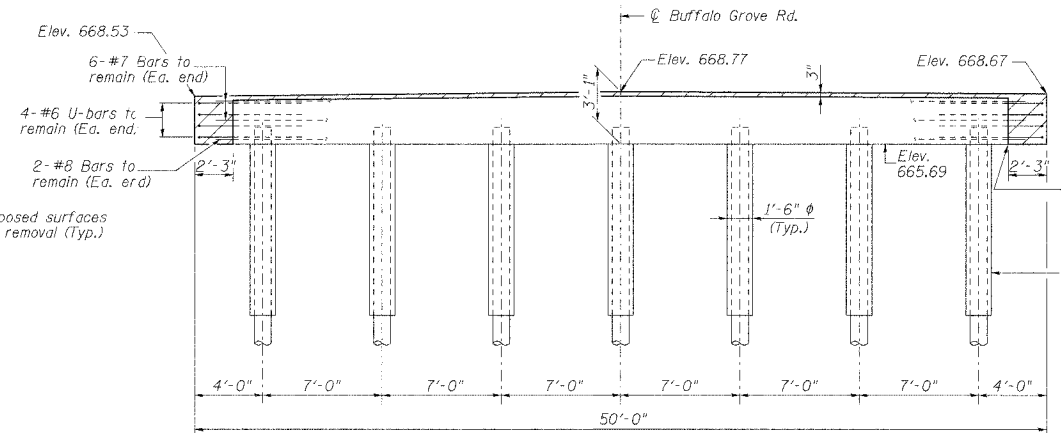
PLAN-SOUTH PIER



PLAN-NORTH PIER



ELEVATION-SOUTH PIER



ELEVATION-NORTH PIER

**LEGEND**

Concrete Removal

**SOUTH PIER  
BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.1

**NORTH PIER  
BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	2.1

**NOTE:**  
 Concrete sawcutting shall be included in "Concrete Removal".

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

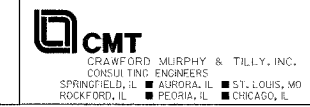
REVISIONS:

NO.	DESCRIPTION	DATE

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

REVISIONS:

NO.	DESCRIPTION	DATE



REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION

**PIER CONCRETE REMOVAL**

BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

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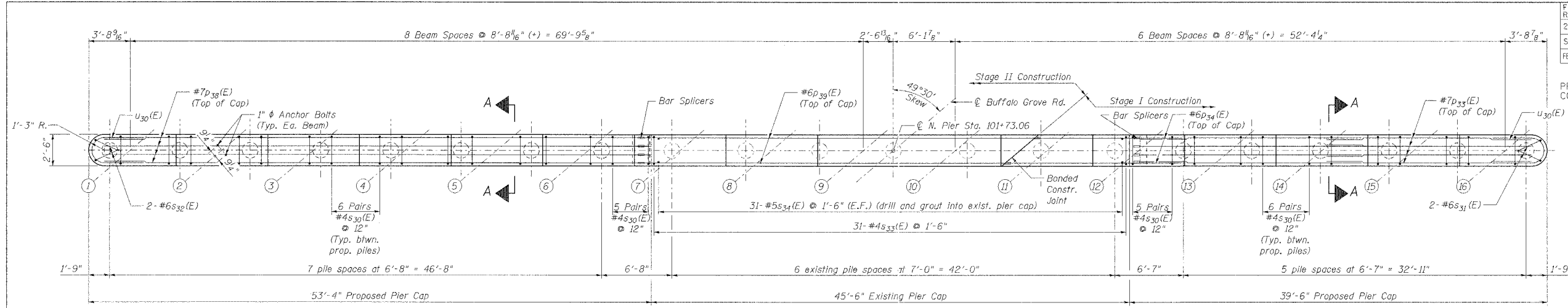


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

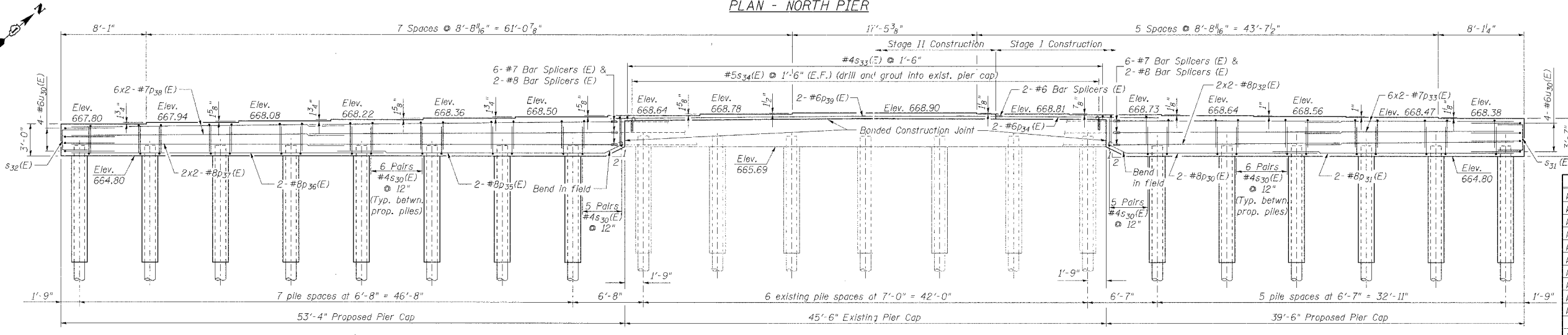
Sheet 20 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

DATE	BY

DATE	BY



PLAN - NORTH PIER



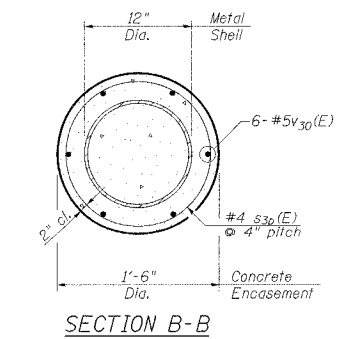
ELEVATION - NORTH PIER  
(LOOKING NORTH)

BILL OF MATERIAL

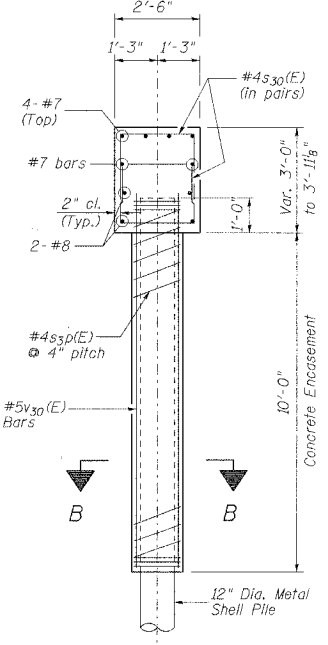
BAR NO.	NO.	SIZE	LENGTH	SHAPE
p30(E)	2	#8	21'-1"	C
p31(E)	2	#8	23'-7"	C
p32(E)	4	#8	21'-4"	C
p33(E)	12	#7	20'-9"	C
p34(E)	2	#6	13'-9"	C
p35(E)	2	#8	31'-2"	C
p36(E)	2	#8	30'-6"	C
p37(E)	4	#8	28'-3"	C
p38(E)	12	#7	27'-8"	C
p39(E)	2	#6	34'-10"	C
s30(E)	164	#4	7'-6"	□
s31(E)	2	#6	9'-2"	□
s32(E)	2	#6	8'-7"	□
s33(E)	31	#4	2'-10"	□
s34(E)	62	#5	1'-8"	□
s35(E)	14	#4	130'-0"	□
u30(E)	8	#6	9'-5"	U
v30(E)	84	#5	11'-0"	—
Structure Excavation			Cu. Yd.	2
Furnishing Metal Pile Shells, 12"			Foot	670
Driving and Filling Shells			Foot	670
Concrete Structures			Cu. Yd.	39.4
Reinforcement Bars Epoxy Coated			Pound	5770
Test Pile Metal Shell			Each	1
Bar Splicers			Each	18

PILE DATA

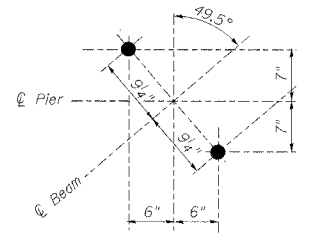
TYPE: 12" Dia. Metal Shell  
 CAPACITY: 45 Ton  
 EST. LENGTH: 51.5'  
 NO. REQUIRED: 14 (Including 1 Test Pile)



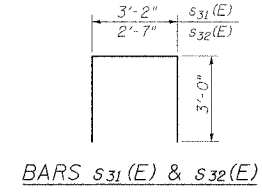
SECTION B-B



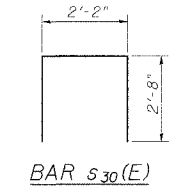
SECTION A-A



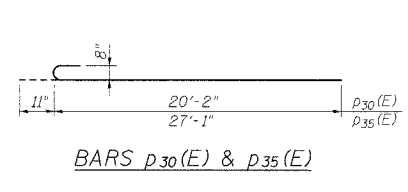
ANCHOR BOLT LAYOUT



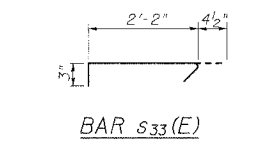
BARS s31(E) & s32(E)



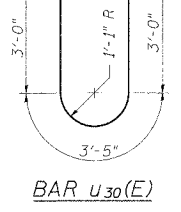
BAR s30(E)



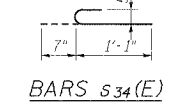
BARS p30(E) & p35(E)



BAR s33(E)



BAR u30(E)



BARS s34(E)

MIN. BAR LAP

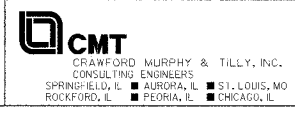
#7 BAR = 3'-5"  
 #8 BAR = 4'-6"

REVISIONS	NAME	DATE

NOTES:

- All edges shall have 3/4" chamfer except as noted.
- Reinforcement Bars designated (E) shall be epoxy coated.
- Cast steps monolithically with cap.
- Space cap reinforcement to miss anchor bolts.
- Minimum lap for spirals = 1 1/2 turns.
- For details of Bar Splicers, see sheet 29 of 34.

LAKE COUNTY DIVISION OF TRANSPORTATION  
 NORTH PIER DETAILS  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK



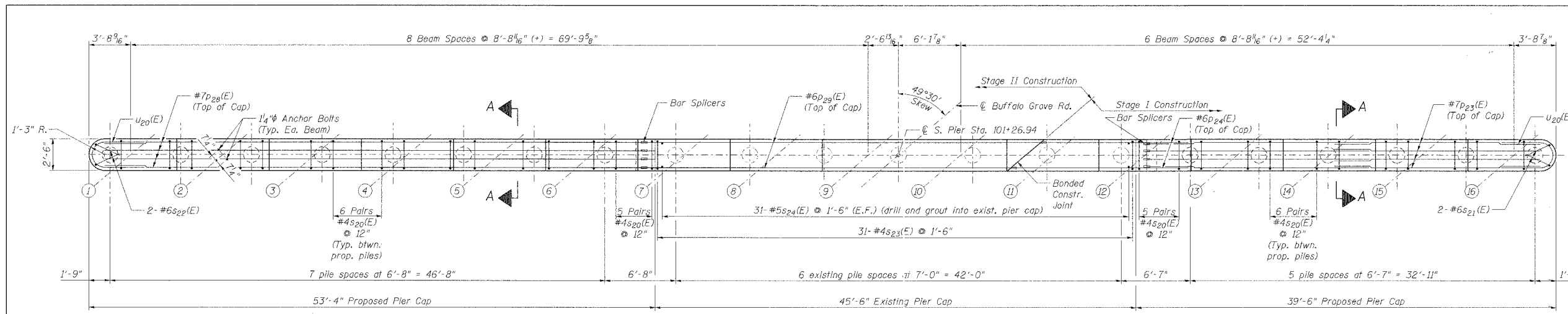
L:\lakeco\0220113\drawings\structure\16-06-prop north pier.dgn

F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
2666	00-00254-01-BR	LAKE	70
STA. 98+50	TO STA. 107+57		44
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

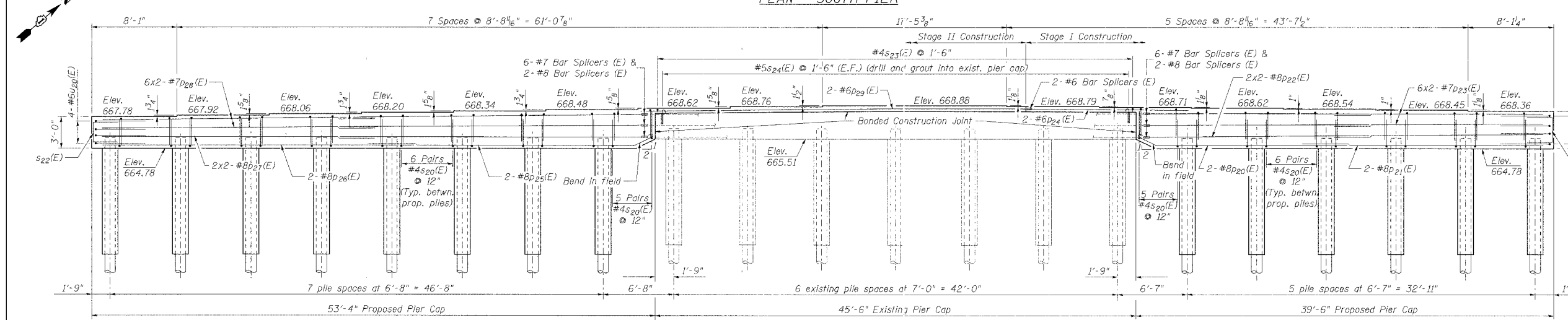
Sheet 21 of 35 Sheets  
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY



PLAN - SOUTH PIER



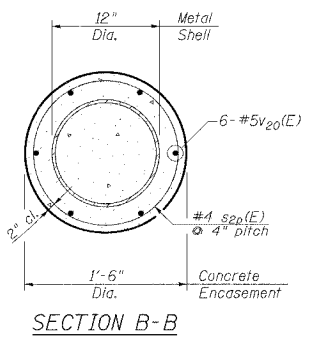
ELEVATION - SOUTH PIER (LOOKING NORTH)

BILL OF MATERIAL

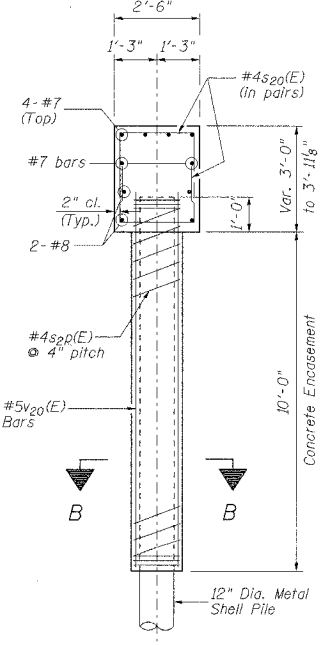
BAR	NO.	SIZE	LENGTH	SHAPE
p20(E)	2	#8	21'-1"	□
p21(E)	2	#8	23'-7"	□
p22(E)	4	#8	21'-4"	□
p23(E)	12	#7	20'-9"	□
p24(E)	2	#6	13'-9"	□
p25(E)	2	#8	31'-2"	□
p26(E)	2	#8	30'-6"	□
p27(E)	4	#8	28'-3"	□
p28(E)	12	#7	27'-8"	□
p29(E)	2	#6	34'-10"	□
s20(E)	164	#4	7'-6"	□
s21(E)	2	#6	9'-2"	□
s22(E)	2	#6	8'-7"	□
s23(E)	31	#4	2'-10"	□
s24(E)	62	#5	1'-8"	□
s25(E)	14	#4	130'-0"	□
u20(E)	8	#6	9'-5"	□
v20(E)	84	#5	11'-0"	□
Structure Excavation			Cu. Yd.	?
Furnishing Metal Pile Shells, 12"			Foot	670
Driving and Filling Shells			Foot	670
Concrete Structures			Cu. Yd.	39.4
Reinforcement Bars Epoxy Coated			Pound	5770
Test Pile Metal Shell			Each	1
Bar Splicers			Each	18

PILE DATA

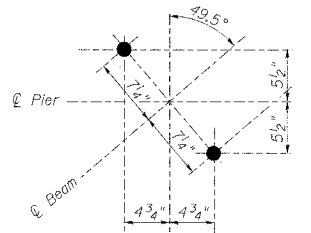
TYPE: 12" Dia. Metal Shell  
CAPACITY: 45 Ton  
EST. LENGTH: 51.5'  
NO. REQUIRED: 14 (Including 1 Test Pile)



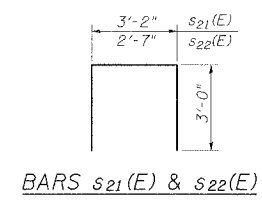
SECTION B-B



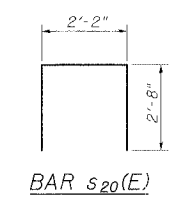
SECTION A-A



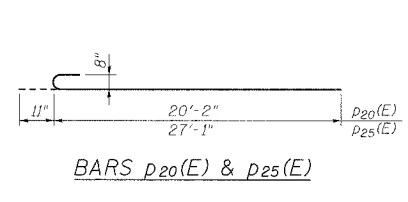
ANCHOR BOLT LAYOUT



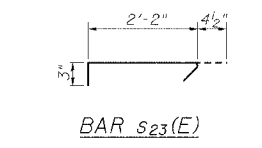
BARS s21(E) & s22(E)



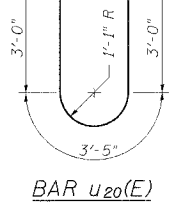
BAR s20(E)



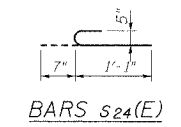
BARS p20(E) & p25(E)



BAR s23(E)



BAR u20(E)



BARS s24(E)

MIN. BAR LAP

#7 BAR = 3'-5"  
#8 BAR = 4'-6"

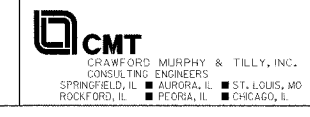
NOTES:

- All edges shall have 3/4" chamfer except as noted.
- Reinforcement Bars designated (E) shall be epoxy coated.
- Cast steps monolithically with cap.
- Space cap reinforcement to miss anchor bolts.
- Minimum lap for spirals = 1/2 turns.
- For details of Bar Splicers, see sheet 29 of 34.

REVISIONS	NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
SOUTH PIER DETAILS

BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE DRAWN BY: TBW  
DATE: 7/21/06 CHECKED BY: ATI, WK

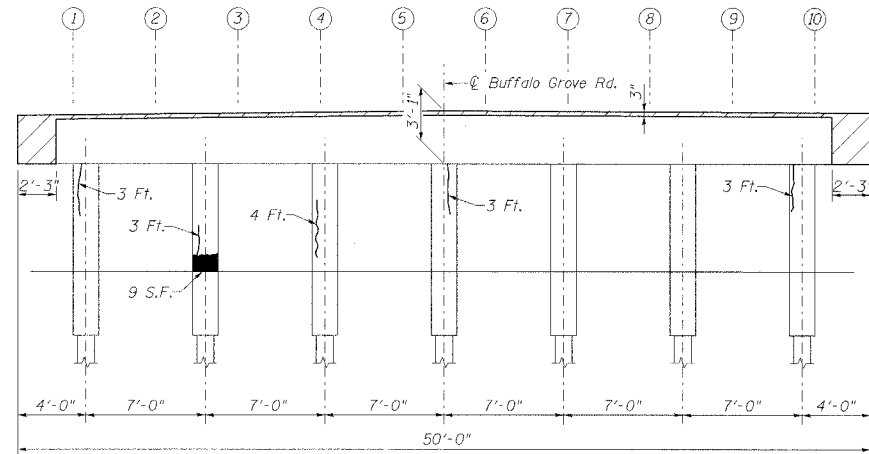


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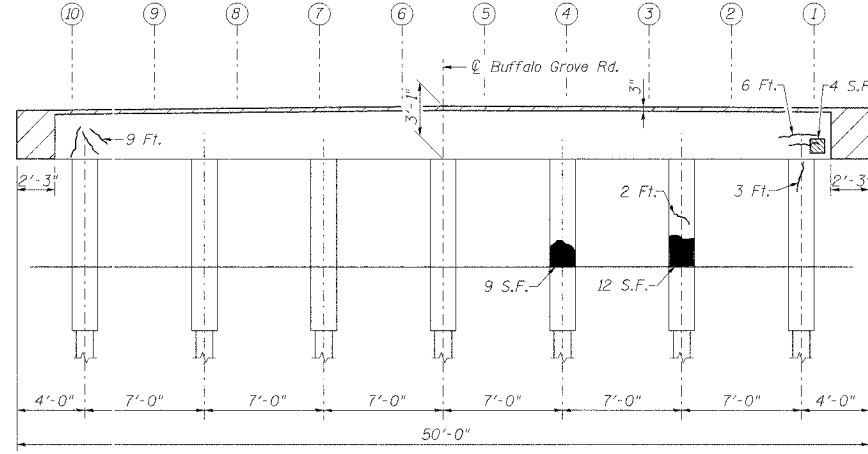
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	45
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Sheet 22 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

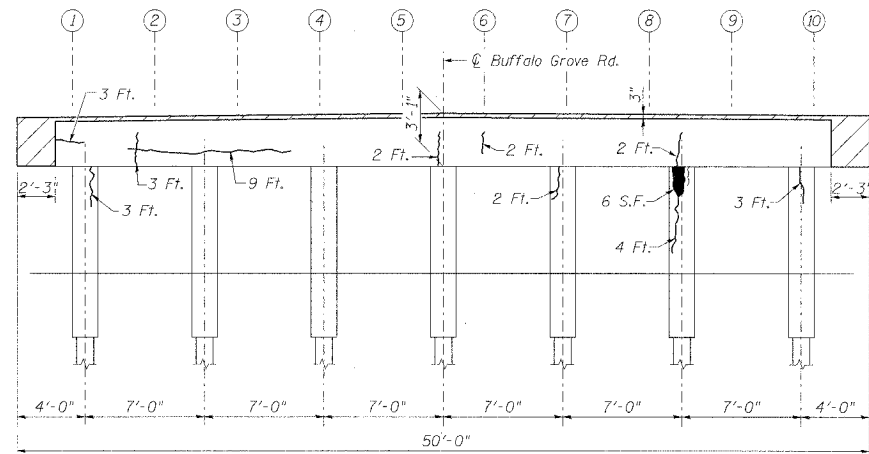
DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY



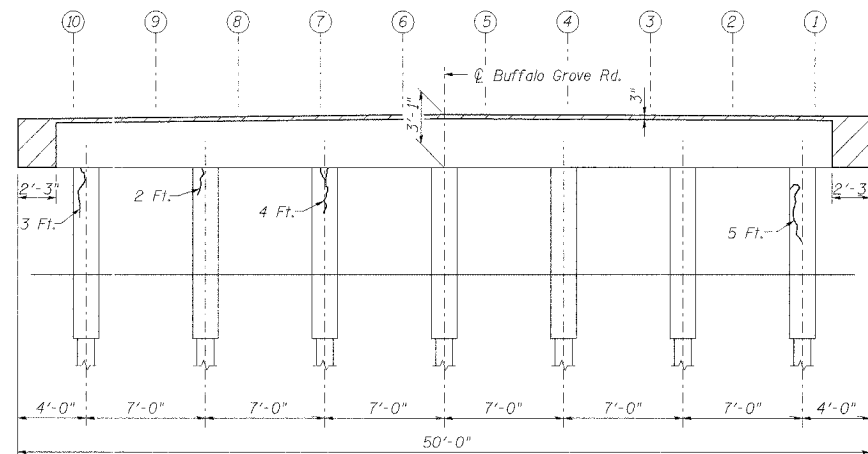
ELEVATION-SOUTH PIER-SOUTH FACE



ELEVATION-SOUTH PIER-NORTH FACE



ELEVATION-NORTH PIER-SOUTH FACE



ELEVATION-NORTH PIER-NORTH FACE

BILL OF MATERIAL

Item	Unit	Quantity
Formed Concrete	Sq. Ft.	40
Repair ≤ 5 in.		
Epoxy Crack Sealant	Foot	83

LEGEND

- Concrete to be Removed (See Sheet 19 of 34)
- Unsound Concrete
- Spalled Concrete and Exposed Corroded Rebar
- Crack
- Existing Beam Number

DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY

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REVISIONS	
NAME	DATE

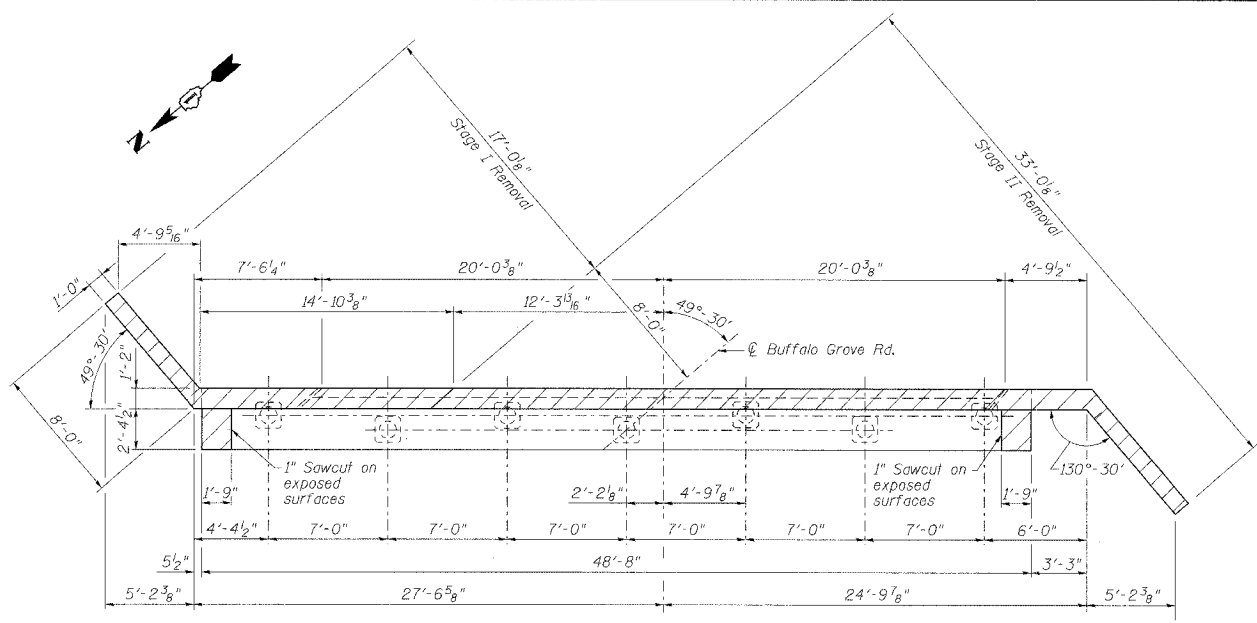
LAKE COUNTY DIVISION OF TRANSPORTATION  
**PIER REPAIR**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

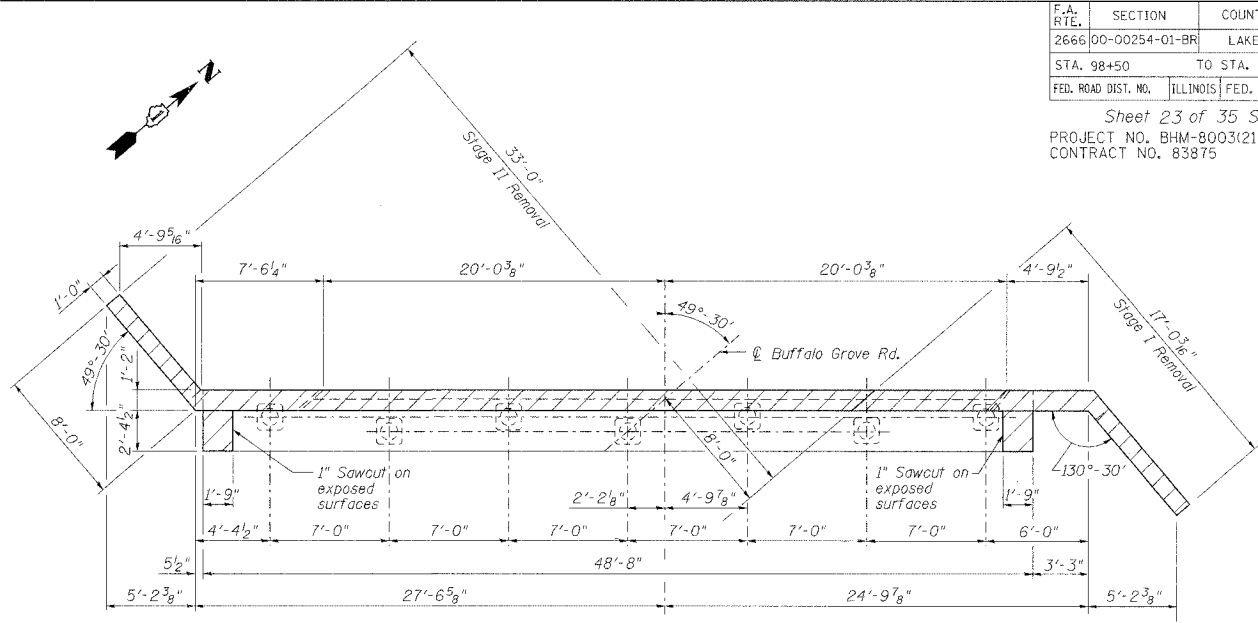
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	46
STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
Sheet 23 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				

PLAN	DATE	BY
FORWARDED		
PLOTTED		
NOTED		
NO.		

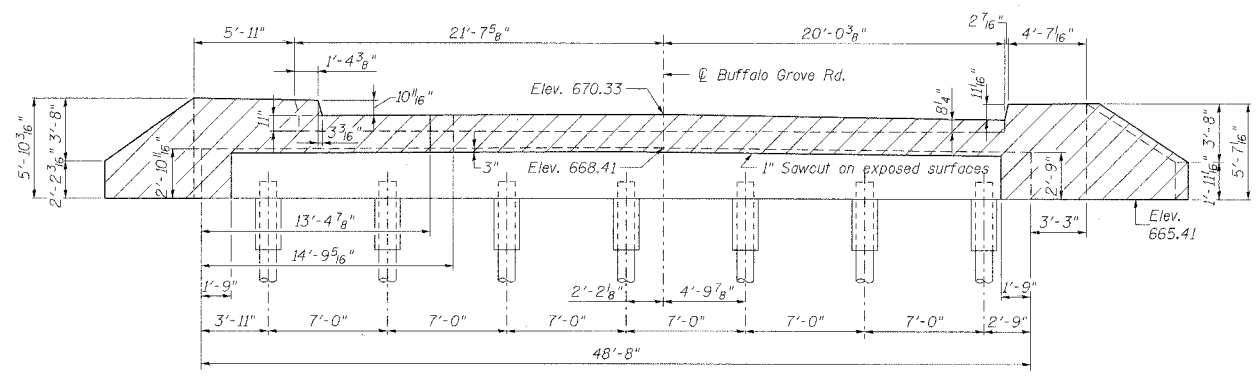
PROFILE	DATE	BY
FORWARDED		
PLOTTED		
NOTED		
NO.		



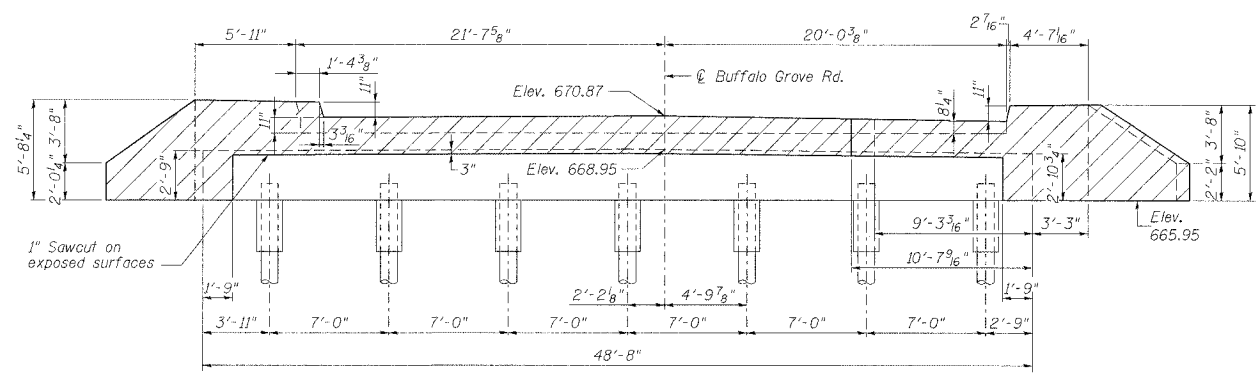
PLAN-SOUTH ABUTMENT



PLAN-NORTH ABUTMENT



ELEVATION-SOUTH ABUTMENT



ELEVATION-NORTH ABUTMENT

SOUTH ABUTMENT  
BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	9.0

NORTH ABUTMENT  
BILL OF MATERIAL

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	9.1

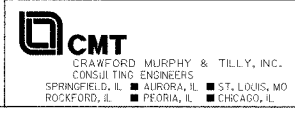
LEGEND

Concrete Removal

NOTE:  
Cost of sawcutting concrete shall be included in "Concrete Removal".

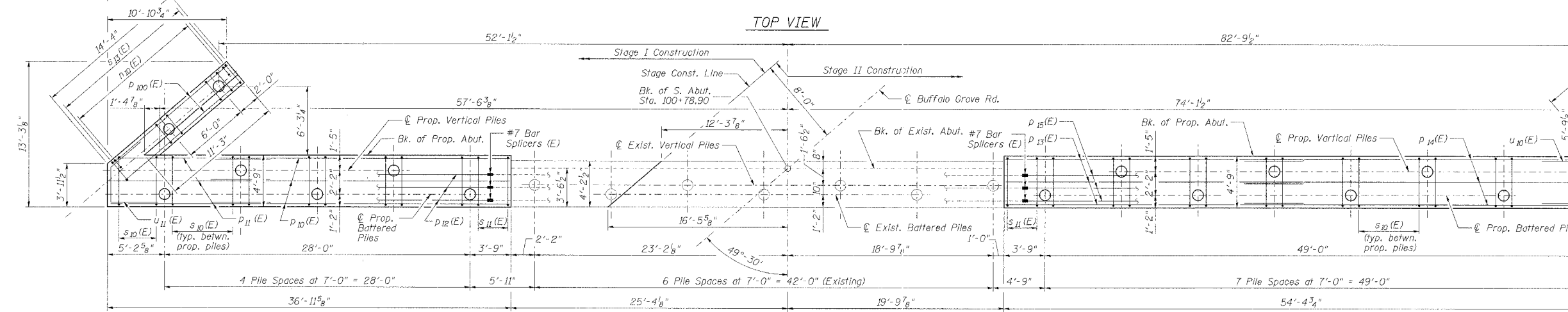
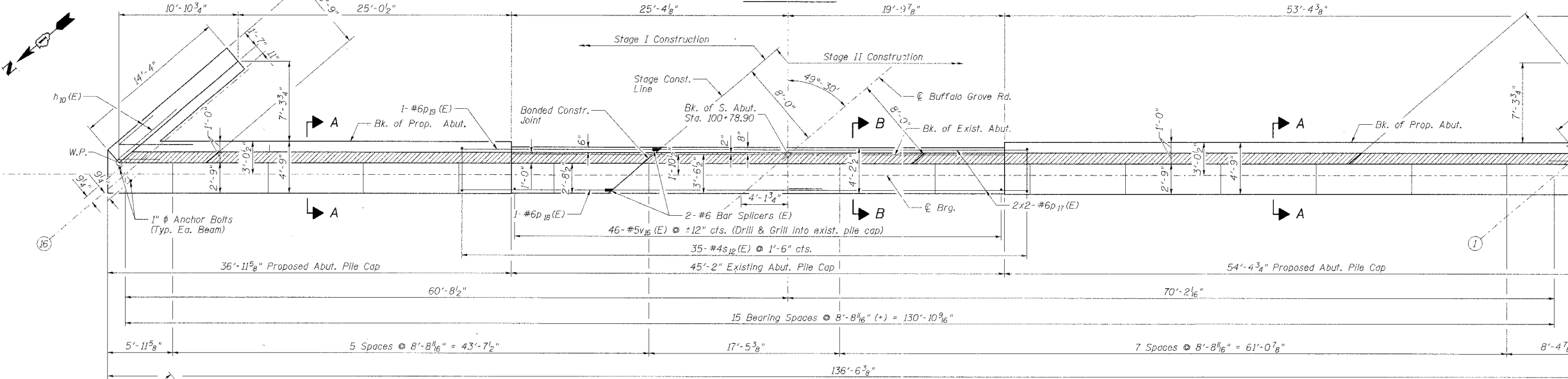
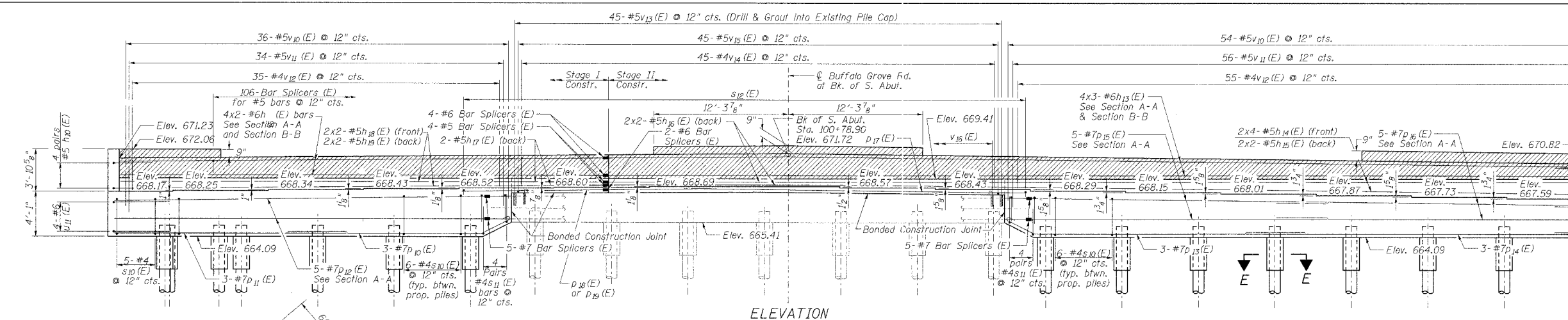
REVISIONS	NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**ABUTMENT CONCRETE REMOVAL**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE  
 DATE: 7/21/06  
 DRAWN BY: TBW  
 CHECKED BY: ATI, WK



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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	47
STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO.	ILLINOIS		FED. AID PROJECT	
Sheet 24 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 63875				



PILE DATA	
TYPE:	12" Dia. Metal Shell
CAPACITY:	45 Ton
EST. LENGTH:	55.0'
NO. REQUIRED: 17 (Including 1 Test Pile)	

MIN. BAR LAP	
#5 BAR	= 2'-2"
#6 BAR	= 2'-7"
#7 BAR	= 3'-5"

- NOTES:**
- Work this sheet with sheet 25 of 34.
  - Reinforcement bars designated (E) shall be epoxy coated.
  - For bar splicer details see sheet 29 of 34.
  - Cast steps monolithically with cap.
  - Space cap reinforcement to miss anchor bolts.

6. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with concrete superstructure.

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**SOUTH ABUTMENT**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE  
 DATE: 7/21/06  
 DRAWN BY: TBW  
 CHECKED BY: ATI, WK



DATE	BY

DATE	BY

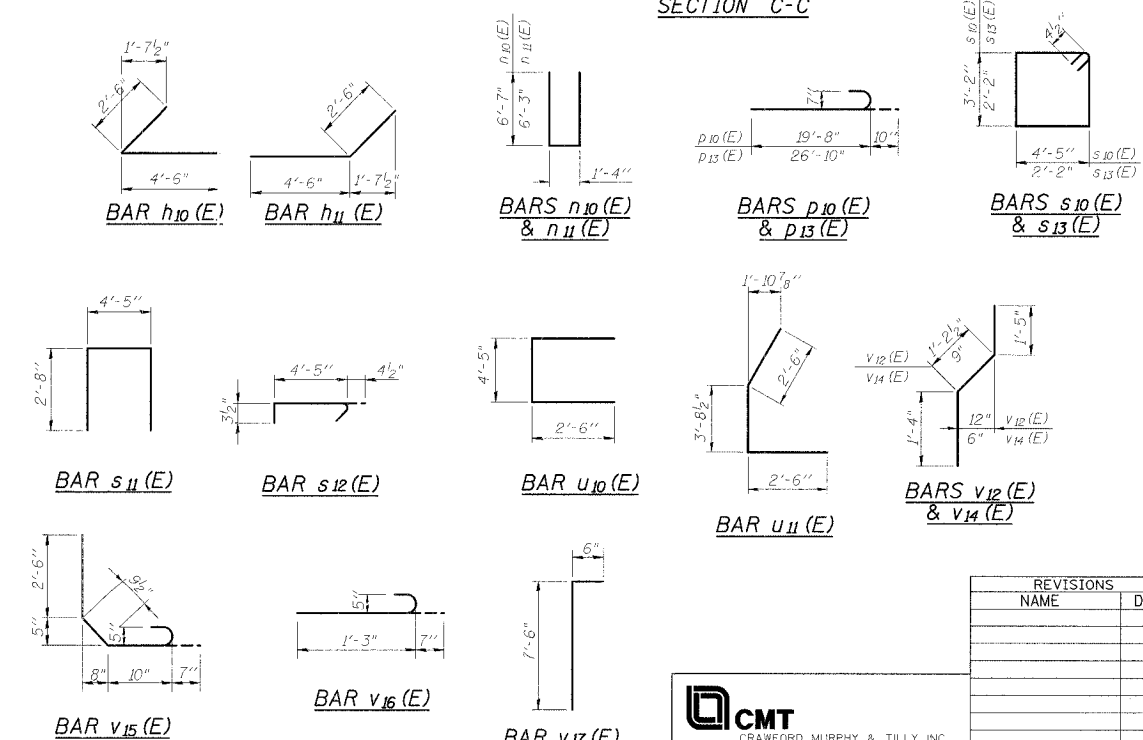
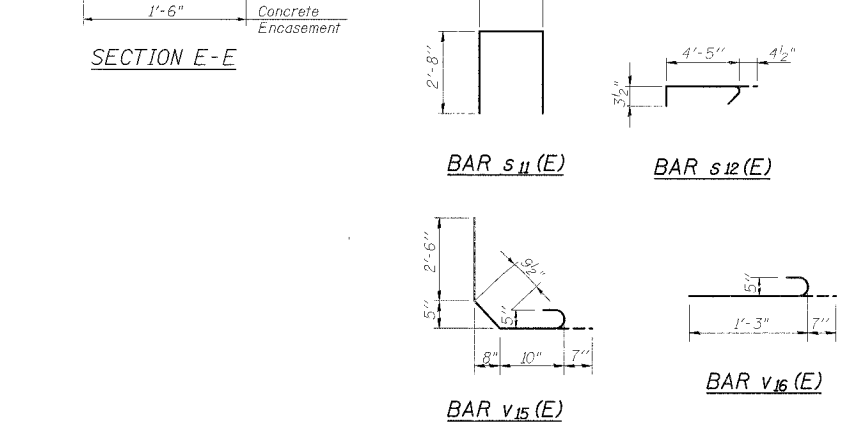
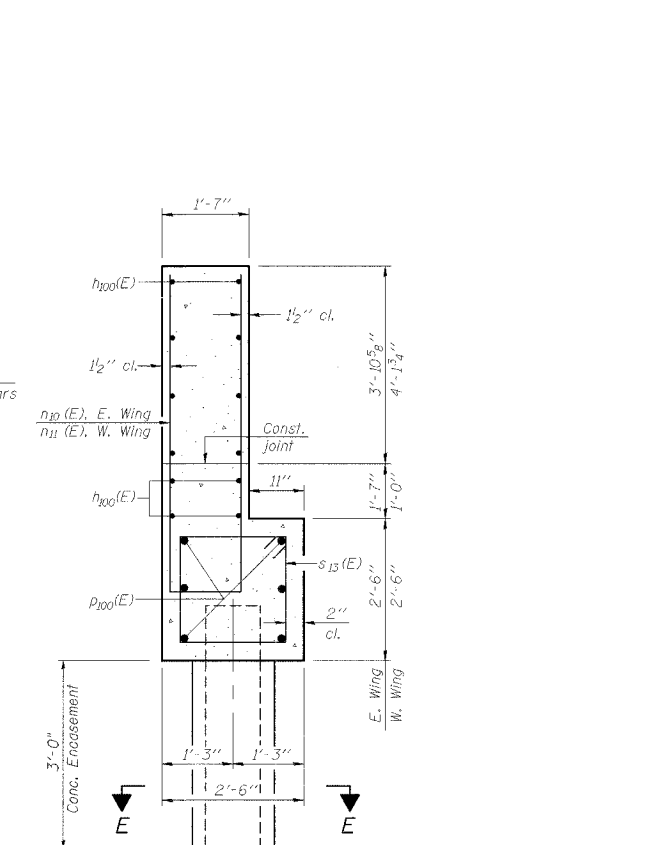
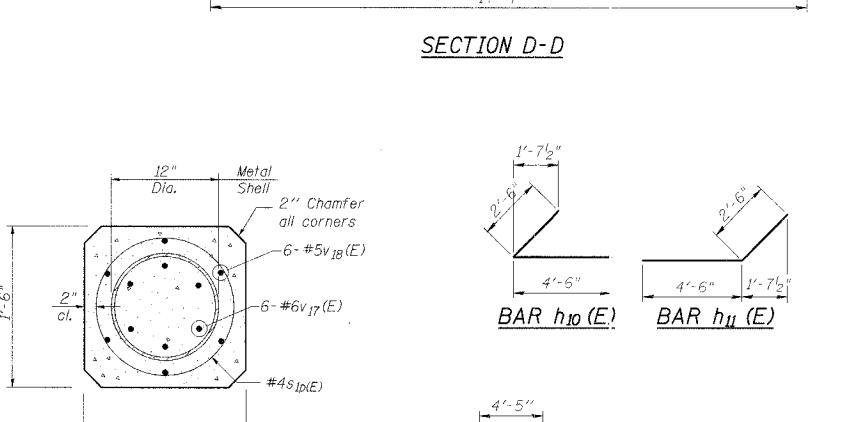
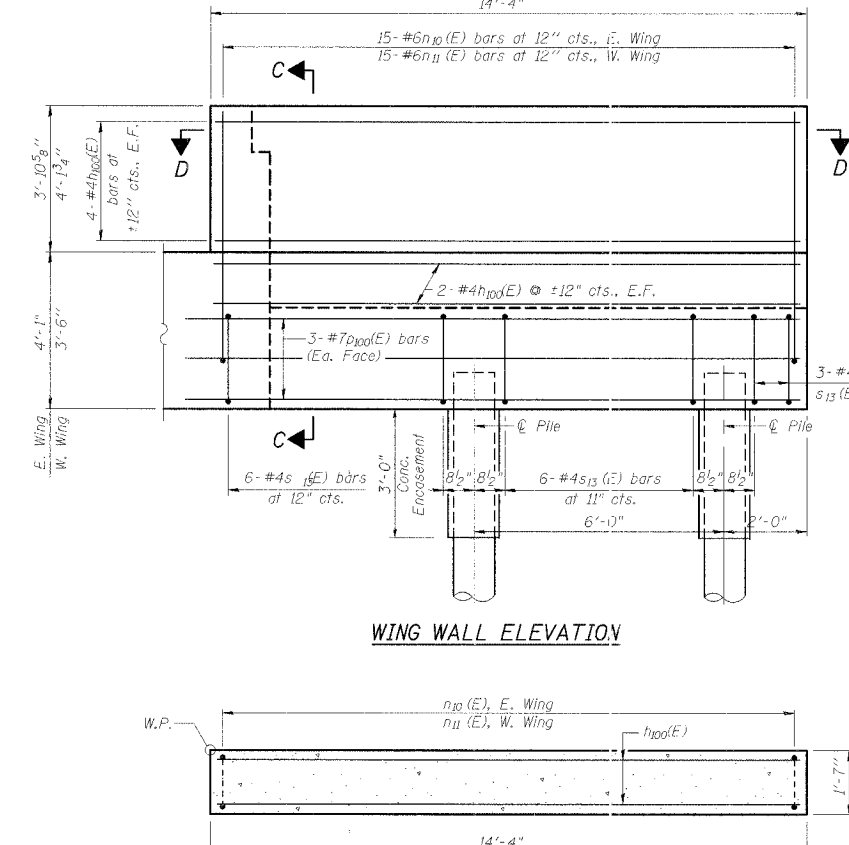
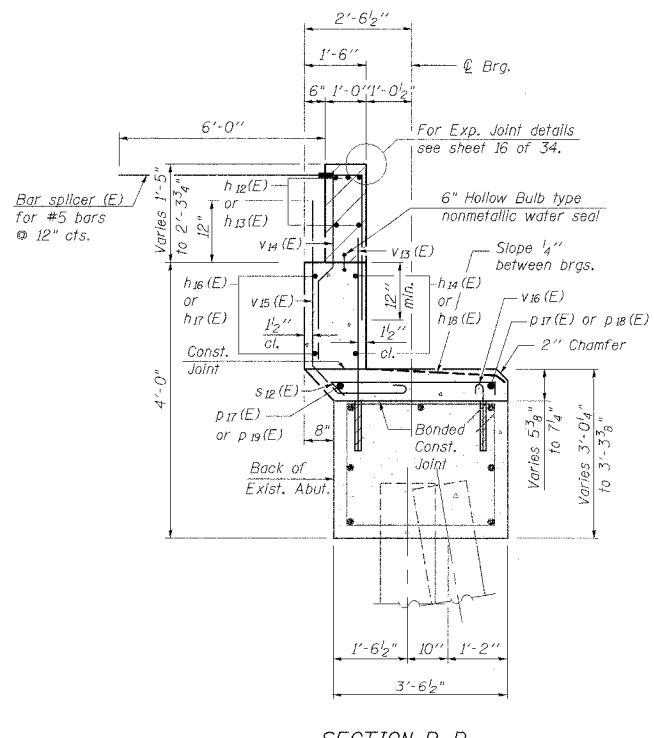
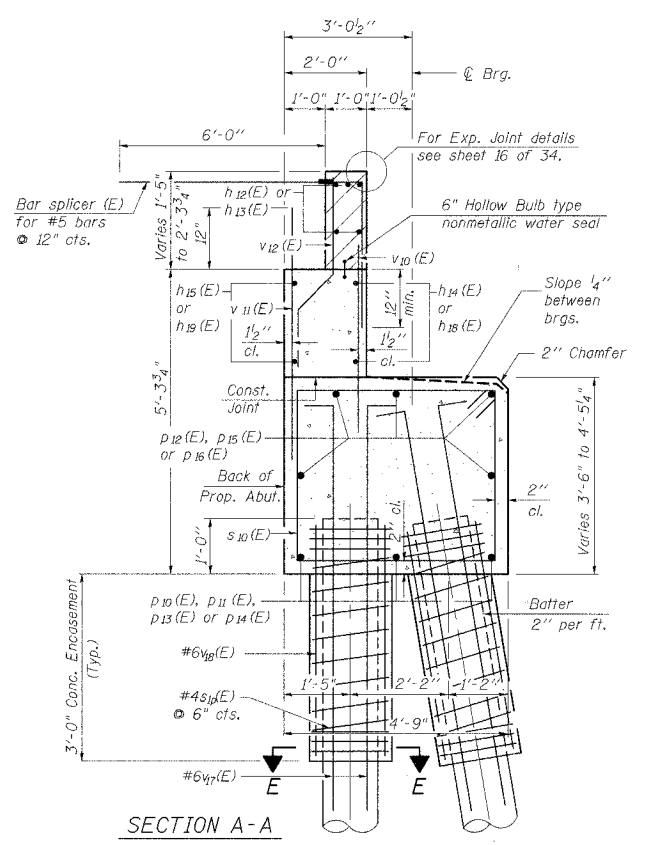
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	48
STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Sheet 25 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

**BILL OF MATERIAL**

BAR NO.	NO.	SIZE	LENGTH	SHAPE
h <sub>10</sub> (E)	8	#5	7'-0"	┌
h <sub>11</sub> (E)	8	#5	7'-0"	└
h <sub>12</sub> (E)	8	#6	25'-3"	—
h <sub>13</sub> (E)	12	#6	30'-6"	—
h <sub>14</sub> (E)	8	#5	23'-3"	—
h <sub>15</sub> (E)	4	#5	28'-10"	—
h <sub>16</sub> (E)	4	#5	18'-0"	—
h <sub>17</sub> (E)	2	#5	16'-4"	—
h <sub>18</sub> (E)	4	#5	25'-0"	—
h <sub>19</sub> (E)	4	#5	17'-10"	—
h <sub>20</sub> (E)	24	#4	14'-0"	—
n <sub>10</sub> (E)	15	#6	14'-6"	—
n <sub>11</sub> (E)	15	#6	13'-10"	—
p <sub>10</sub> (E)	3	#7	20'-6"	—
p <sub>11</sub> (E)	3	#7	20'-10"	—
p <sub>12</sub> (E)	5	#7	35'-2"	—
p <sub>13</sub> (E)	3	#7	27'-8"	—
p <sub>14</sub> (E)	3	#7	31'-3"	—
p <sub>15</sub> (E)	5	#7	28'-5"	—
p <sub>16</sub> (E)	5	#7	30'-0"	—
p <sub>17</sub> (E)	4	#6	20'-7"	—
p <sub>18</sub> (E)	1	#6	13'-6"	—
p <sub>19</sub> (E)	1	#6	18'-5"	—
p <sub>20</sub> (E)	12	#7	14'-0"	—
s <sub>10</sub> (E)	73	#4	15'-11"	—
s <sub>11</sub> (E)	16	#4	9'-9"	—
s <sub>12</sub> (E)	35	#4	5'-1"	—
s <sub>13</sub> (E)	30	#4	9'-5"	—
s <sub>14</sub> (E)	17	#4	50'-0"	—
u <sub>10</sub> (E)	4	#6	9'-5"	—
u <sub>11</sub> (E)	4	#6	8'-9"	—
v <sub>10</sub> (E)	90	#5	3'-7"	—
v <sub>11</sub> (E)	90	#5	3'-10"	—
v <sub>12</sub> (E)	90	#4	4'-0"	—
v <sub>13</sub> (E)	45	#5	2'-3"	—
v <sub>14</sub> (E)	45	#4	3'-6"	—
v <sub>15</sub> (E)	45	#5	4'-9"	—
v <sub>16</sub> (E)	46	#5	1'-10"	—
v <sub>17</sub> (E)	102	#6	8'-0"	—
v <sub>18</sub> (E)	102	#5	4'-0"	—
Concrete Structures	Cu. Yd.	95.6		
Reinforcement Bars, Epoxy Coated	Pound	9500		
Furnishing Metal Pile Shells, 12"	Foot	880		
Driving and Filling Shells	Foot	880		
Test Pile Metal Shells	Each	1		
Bar Splicers	Each	128		



- NOTES:**
1. Work this sheet with sheet 24 of 34.
  2. Reinforcement bars designated (E) shall be epoxy coated.
  3. For Bar Splicer details see sheet 29 of 34.
  4. Cast steps monolithically with cap.
  5. Space cap reinforcement to miss anchor bolts.
  6. Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with concrete superstructure.

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**SOUTH ABUTMENT DETAILS**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TSW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

DATE	
BY	
DESIGNED	
PLOTTED	
NOTED	
FILED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
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NO. 29	
NO. 30	
NO. 31	
NO. 32	
NO. 33	
NO. 34	
NO. 35	

DATE	
BY	
DESIGNED	
PLOTTED	
NOTED	
FILED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
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NO. 9	
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NO. 35	

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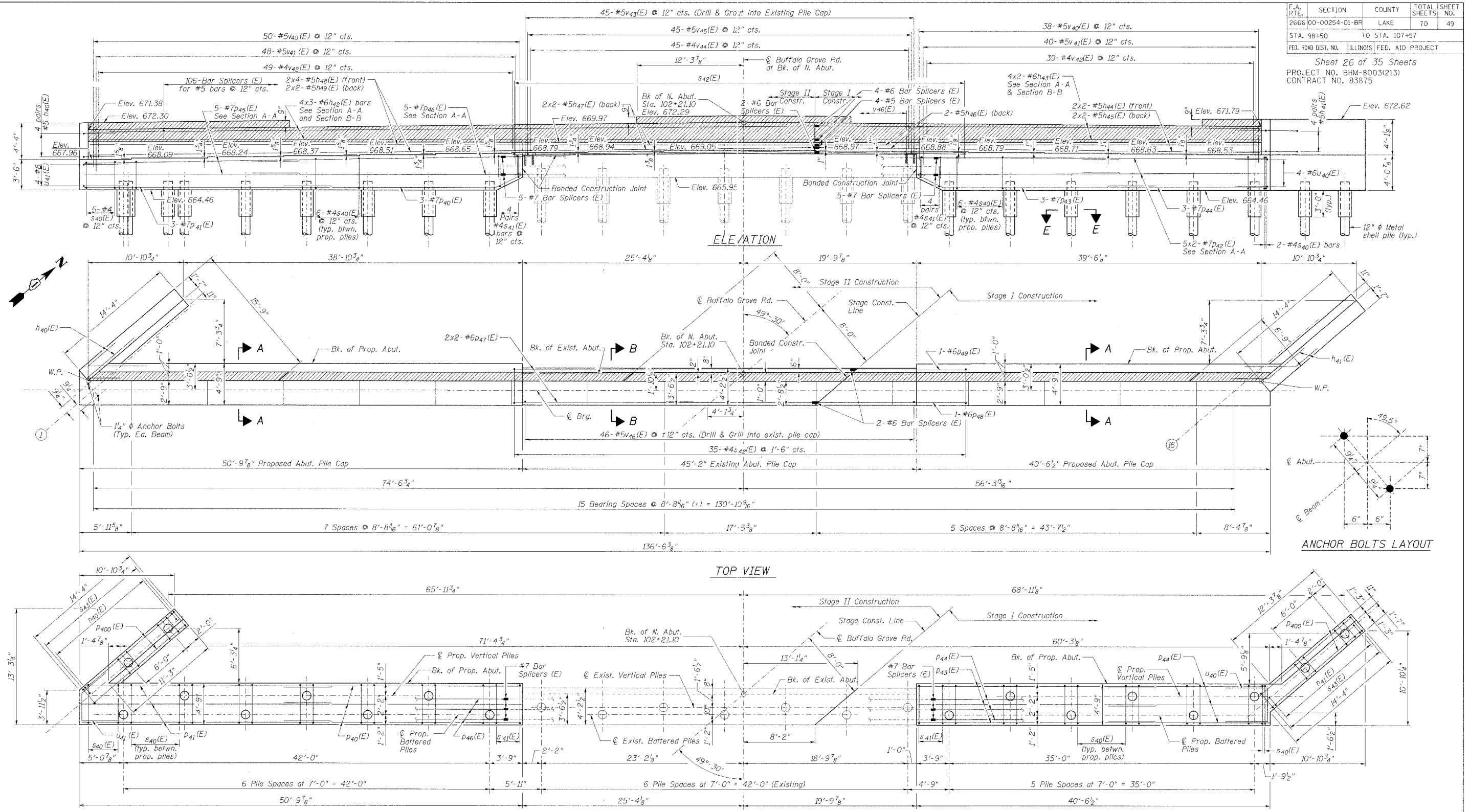
F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
2666	00-00254-01-BR	LAKE	70
STA. 98+50	TO STA. 107+57		49
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

Sheet 26 of 35 Sheets  
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
NOTED: \_\_\_\_\_  
CHECKED: \_\_\_\_\_  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_

DATE: \_\_\_\_\_  
BY: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
NOTED: \_\_\_\_\_  
CHECKED: \_\_\_\_\_  
DATE: \_\_\_\_\_  
BY: \_\_\_\_\_

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TYPE:	12" Dia. Metal Shell
CAPACITY:	45 Ton
EST. LENGTH:	52.5'
NO. REQUIRED:	17 (Including 1 Test Pile)

#5 BAR	= 2'-2"
#6 BAR	= 2'-7"
#7 BAR	= 3'-5"

- NOTES:**
- Work this sheet with sheet 27 of 34.
  - Reinforcement bars designated (E) shall be epoxy coated.
  - For bar splicer details see sheet 29 of 34.
  - Cast steps monolithically with cap.
  - Space cap reinforcement to miss anchor bolts.

- Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with concrete superstructure.

**CMT**  
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CONSULTING ENGINEERS  
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ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**NORTH ABUTMENT**  
BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE  
DATE: 7/21/06  
DRAWN BY: TBW  
CHECKED BY: ATI, WK

NORTH ABUTMENT



SECTION, COUNTY, TOTAL SHEETS, SHEET NO., STA. 98+50 TO STA. 107+57, FED. ROAD DIST. NO., ILLINOIS, FED. AID PROJECT

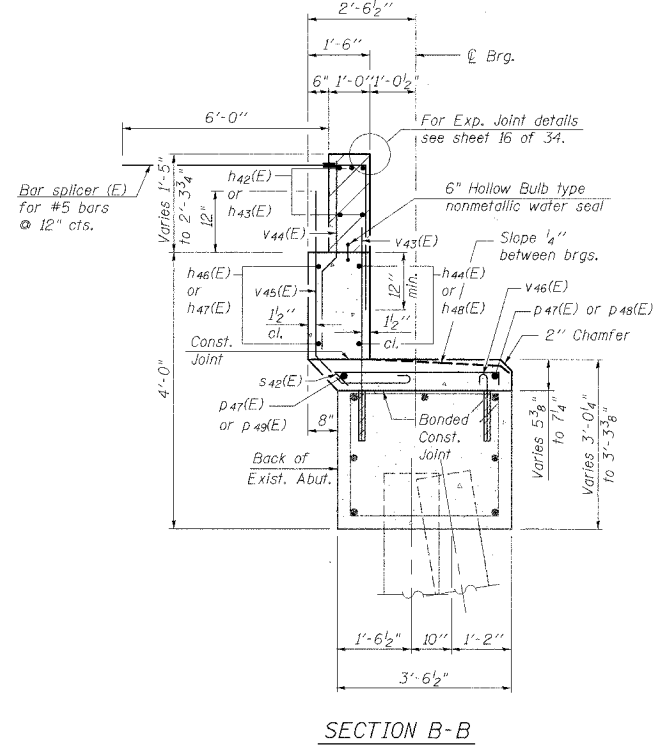
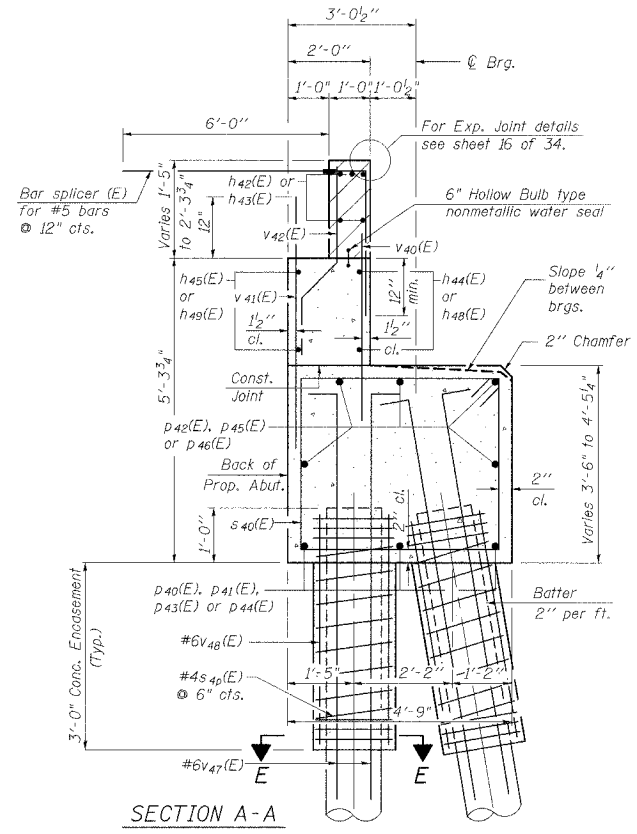
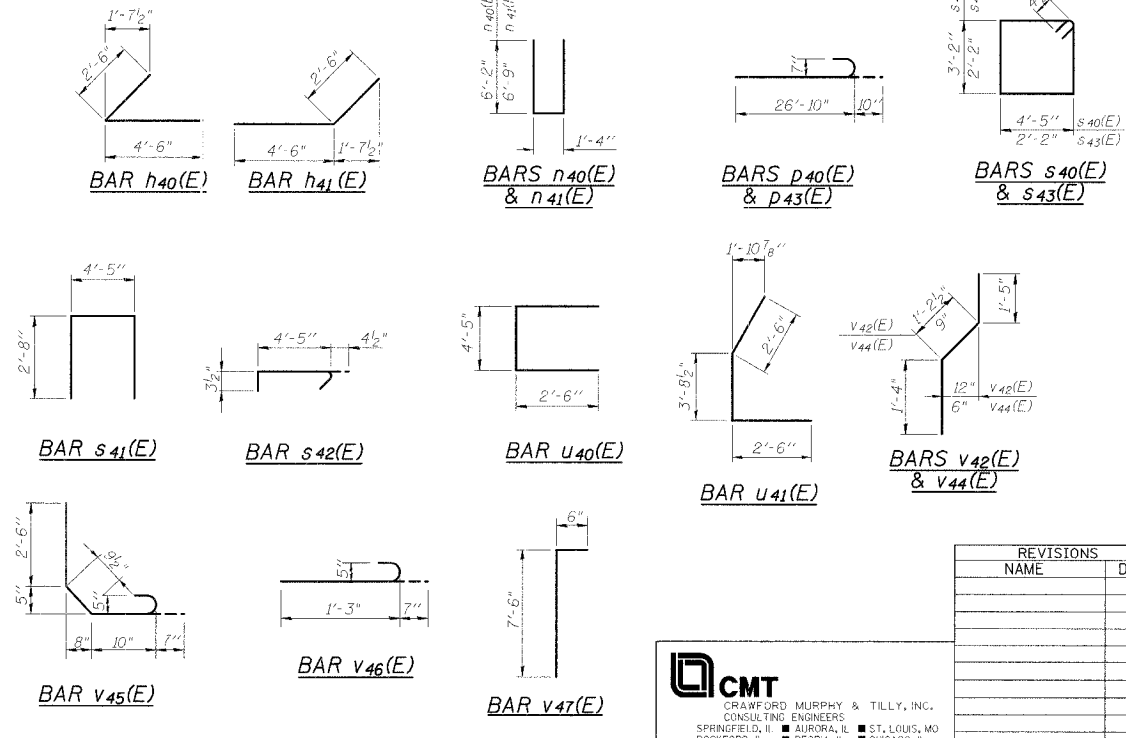
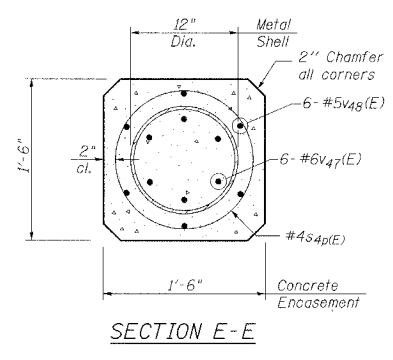
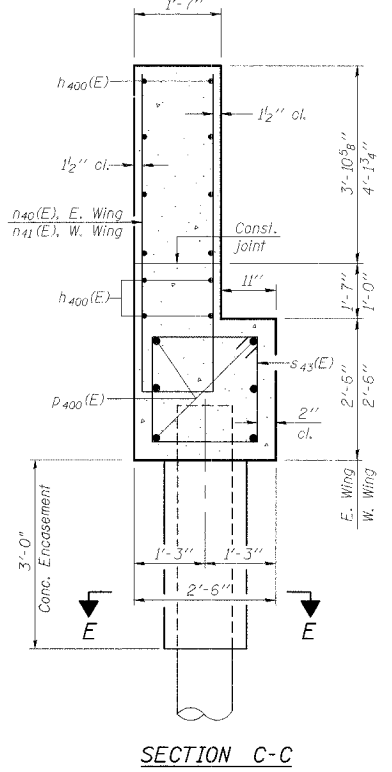
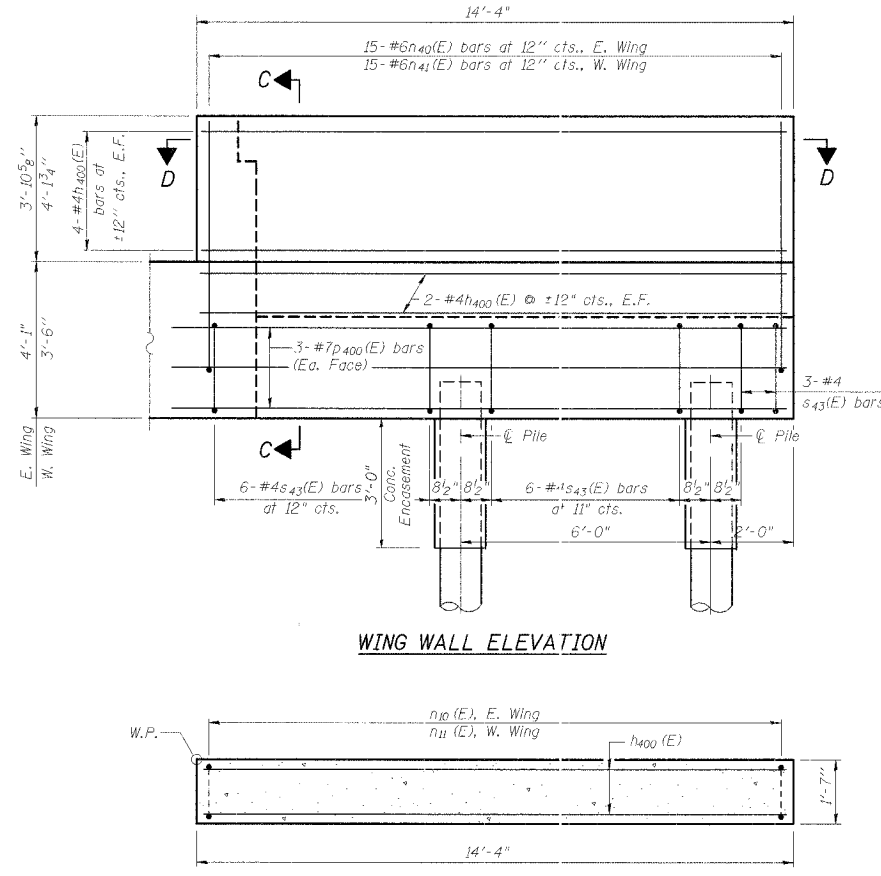
SHEET 27 OF 35 SHEETS, PROJECT NO. BHM-8003(213), CONTRACT NO. 83875

BILL OF MATERIAL

Table listing material quantities: BAR NO., SIZE, LENGTH, SHAPE, Concrete Structures (Cu. Yd.), Reinforcement Bars (Epoxy Coated), Furnishing Metal Pile Shells, Driving and Filling Shells, Test Pile Metal Shells, Bar Splicers.

- NOTES: 1. Work this sheet with sheet 26 of 34. 2. Reinforcement bars designated (E) shall be epoxy coated. 3. For Bar Splicer details see sheet 29 of 34. 4. Cast steps monolithically with cap. 5. Space cap reinforcement to miss anchor bolts. 6. Hatched area to be poured after superstructure forms have been removed.

LAKE COUNTY DIVISION OF TRANSPORTATION, NORTH ABUTMENT DETAILS, BUFFALO GROVE ROAD AT INDIAN CREEK BRIDGE, SECTION 00-00254-01-BR STATION 101+50.00, SCALE: NONE, DATE: 7/21/06, CHECKED BY: ATI, WK



PLAN: DATE, BY, CHECKED, PLOTTED, ALIGNED, PLotted, FILE NAME

PROFILE: DATE, BY, CHECKED, PLOTTED, ALIGNED, PLotted, FILE NAME

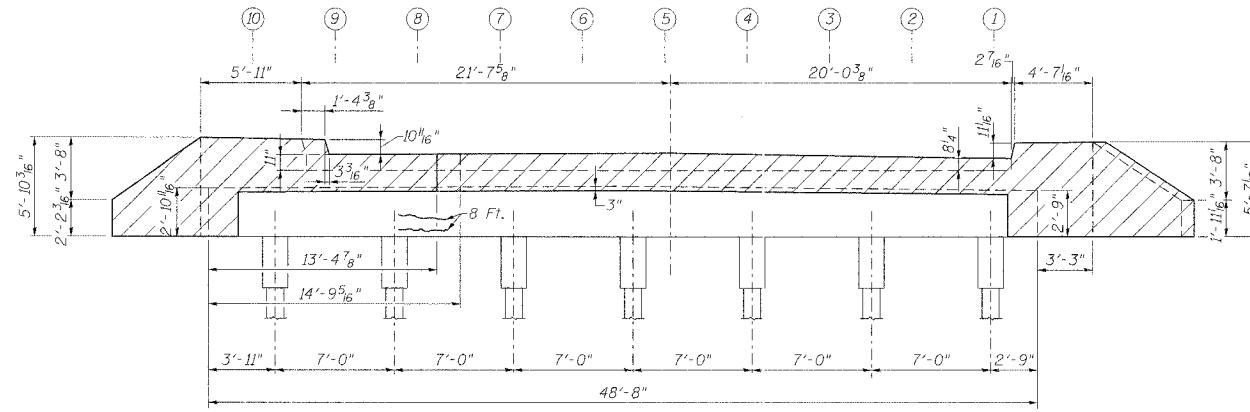
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REVISIONS table with columns for NAME and DATE.

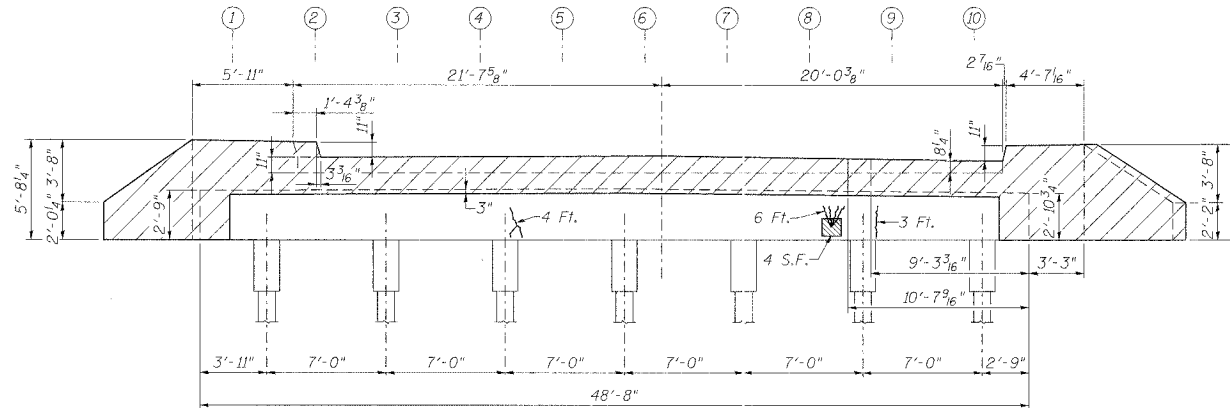
CMT logo and address: CRAWFORD MURPHY & TILLY, INC., CONSULTING ENGINEERS, SPRINGFIELD, IL, AURORA, IL, ST. LOUIS, MO, ROCKFORD, IL, PEORIA, IL, CHICAGO, IL.

SOUTH ABUTMENT DETAILS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	51
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
Sheet 28 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				



**ELEVATION-SOUTH ABUTMENT**



**ELEVATION-NORTH ABUTMENT**

**BILL OF MATERIAL**

Item	Unit	Quantity
Formed Concrete	Sq. Ft.	4
Repair $\leq$ 5 in.		
Epoxy Crack Sealant	Foot	21

**LEGEND**

- Concrete to be Removed
- Unsound Concrete
- Crack
- Existing Beam Number

REVISIONS	DATE
NAME	

LAKE COUNTY DIVISION OF TRANSPORTATION  
**ABUTMENT REPAIR**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE  
 DATE: 7/21/06

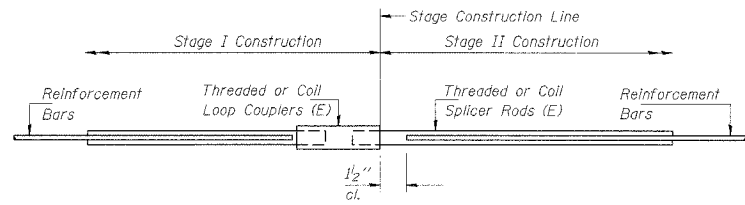
**CMT**  
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 CONSULTING ENGINEERS  
 SPRINGFIELD, IL    AURORA, IL    ST. LOUIS, MO  
 ROCKFORD, IL    PEORIA, IL    CHICAGO, IL

PLAN  
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 BY \_\_\_\_\_  
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 BY \_\_\_\_\_  
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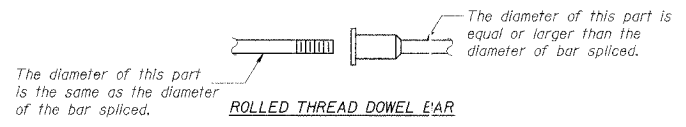
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BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
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 PLANNING: \_\_\_\_\_  
 MOD. BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_

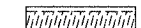


**SPLICER DETAIL**

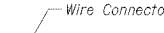
Bar Size	No. Assemblies Required	Location
#5	390	Deck
#6	4	Pier
#7	24	Pier
#8	8	Pier
#5	8	Abutment
#6	16	Abutment
#7	20	Abutment



**ROLLED THREAD DOWEL EAR**



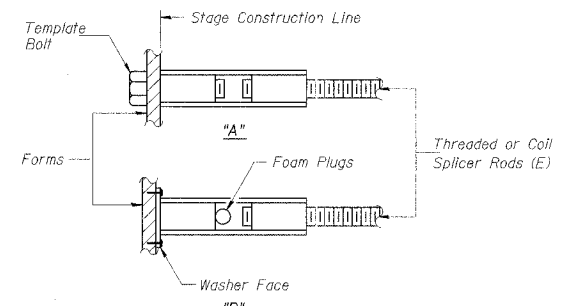
**ONE PIECE**



**WELDED SECTIONS**

**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.  
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
 (E) : Indicates epoxy coating.

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.  
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.  
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

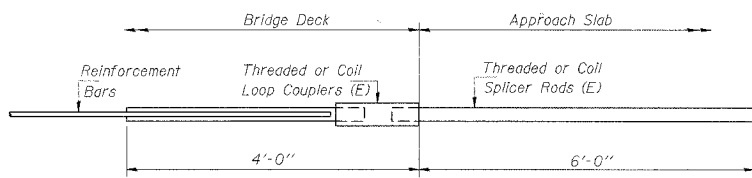
- ① Minimum Capacity =  $1.25 \times f_y \times A_t$   
(Tension in kips)
- ② Minimum \*Pull-out Strength =  $1.25 \times f_{s,allow} \times A_t$   
(Tension in kips)

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.  
 $f_{s,allow}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)  
 $A_t$  = Tensile stress area of lapped reinforcement bars.  
 \* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_  
 MOD. BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_



**ABUTMENT  
BAR SPLICER ASSEMBLY DETAIL  
FOR #5 BAR**

Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 176

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BSD-1 4-30-99



REVISIONS	
NAME	DATE

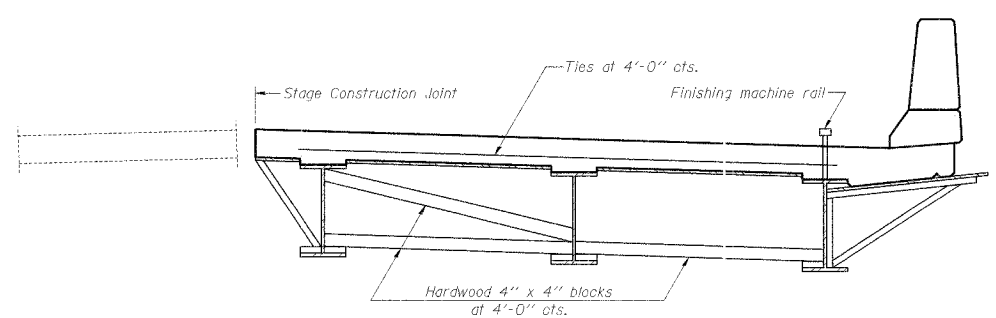
LAKE COUNTY DIVISION OF TRANSPORTATION  
**BAR SPLICER ASSEMBLY DETAILS**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATL, WK

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	53
STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

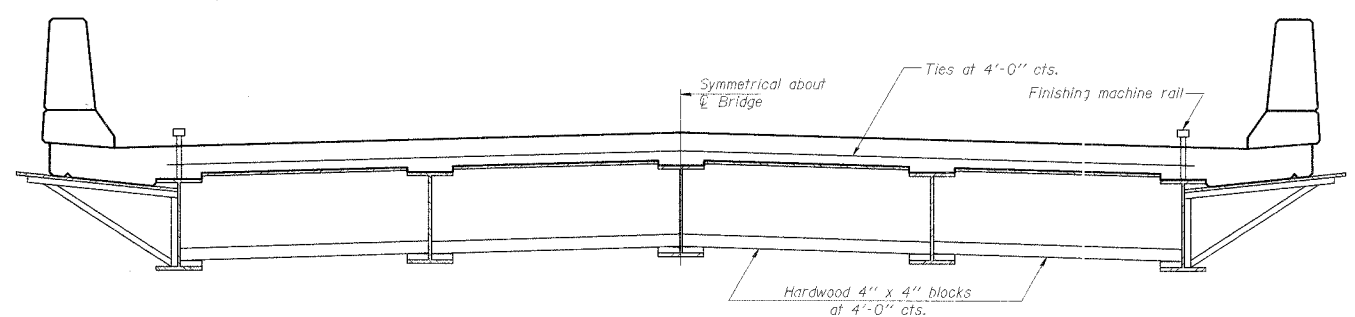
Sheet 30 of 35 Sheets  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

PLAN	DATE
BY	
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PROFILE	DATE
BY	
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BY	
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**FORM BRACES FOR  
STAGE CONSTRUCTION**



**FORM BRACES FOR  
STANDARD CONSTRUCTION**

**NOTES:**

- When cantilever forming brackets are used, the work shall be done according to Article 503.06, except as modified below and in the details shown on this sheet.
- The finishing machine rails shall be placed on the top flange of the exterior beams.
- The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
- For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

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SB-1 9-01-03

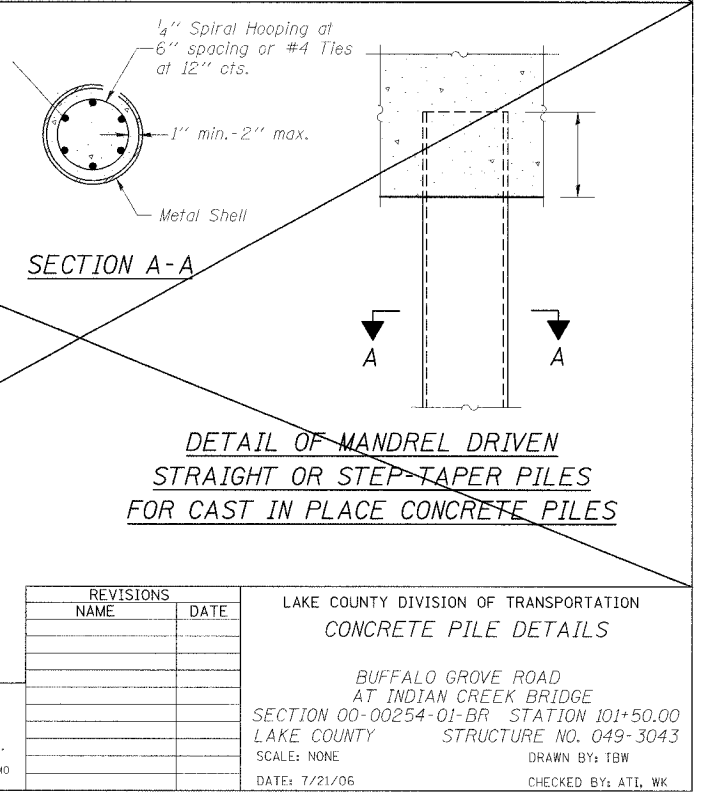
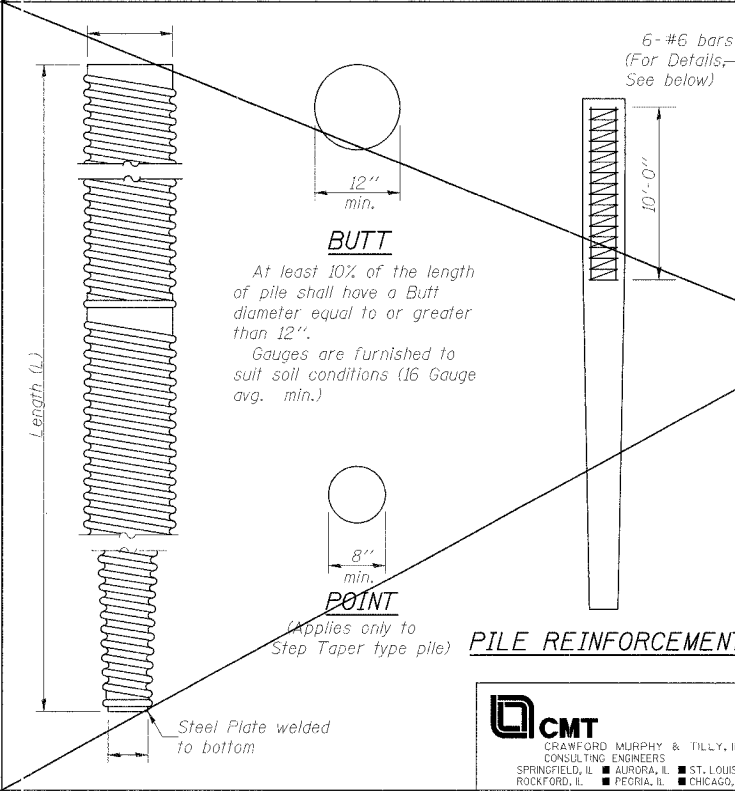
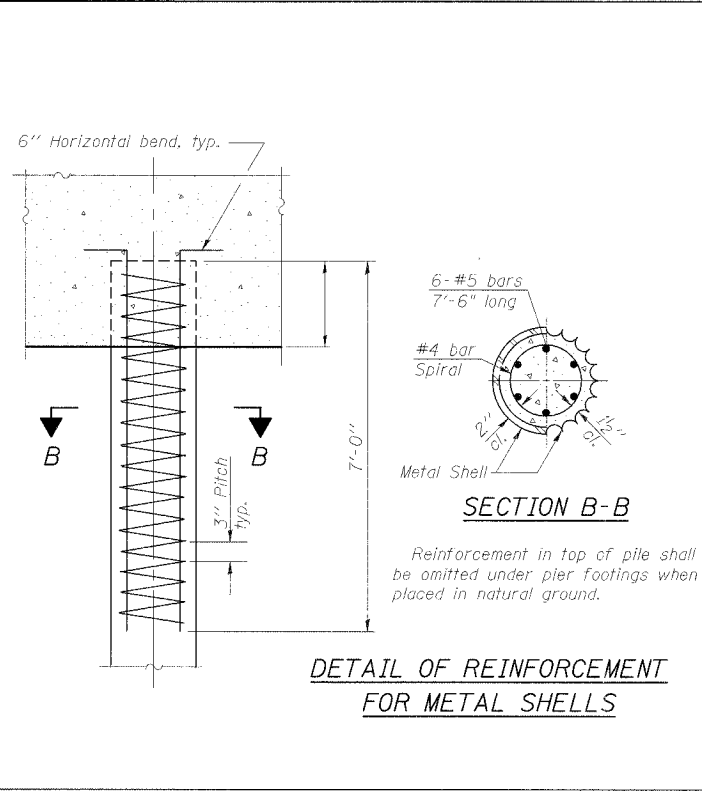
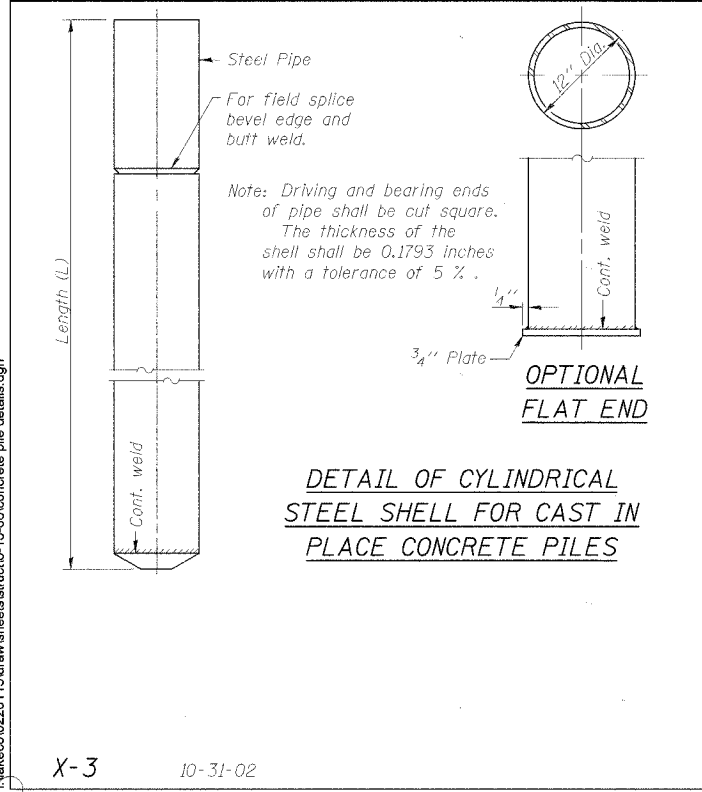
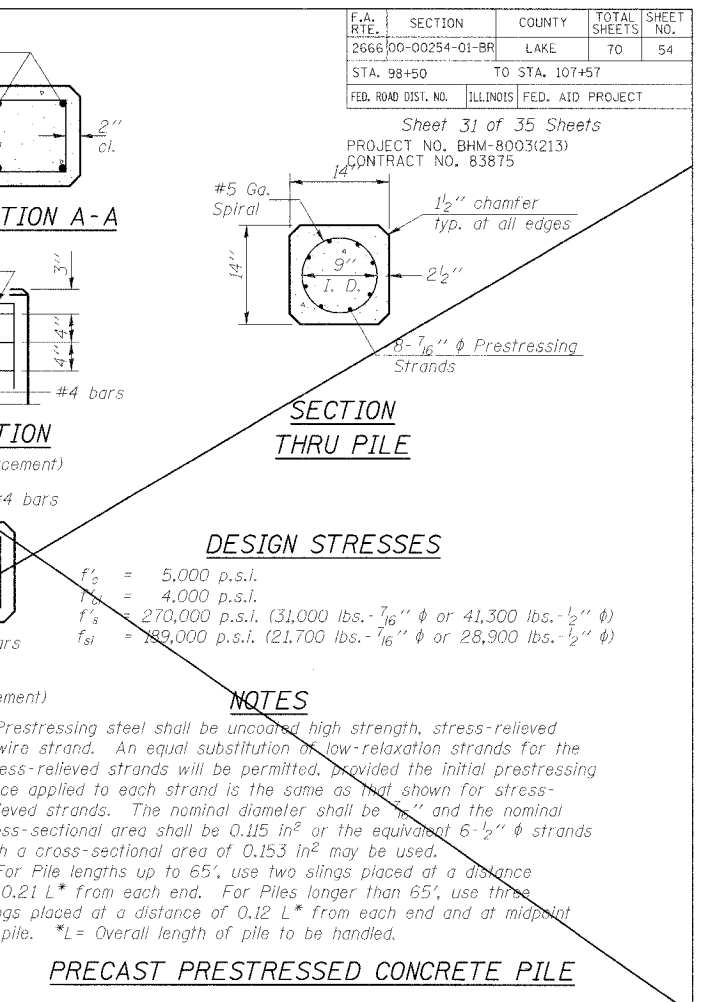
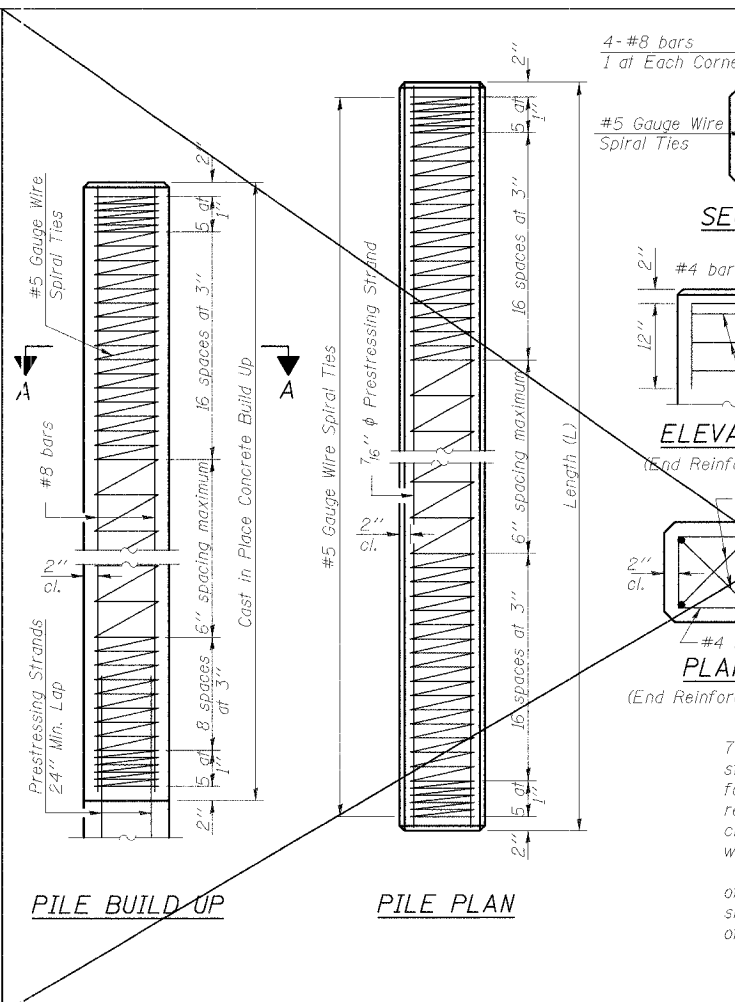
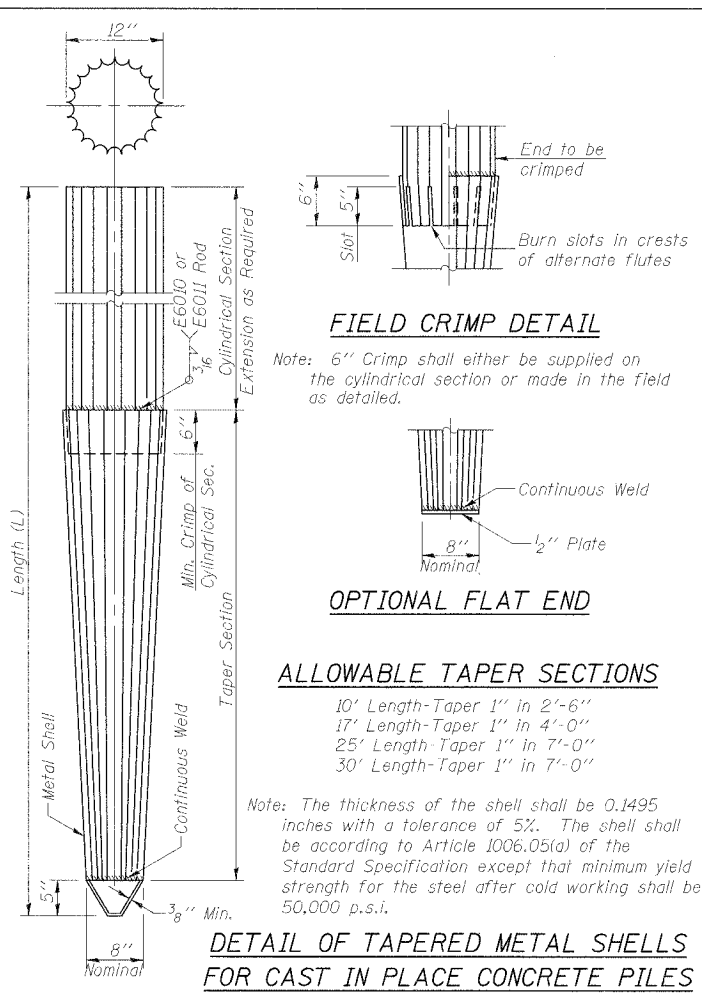
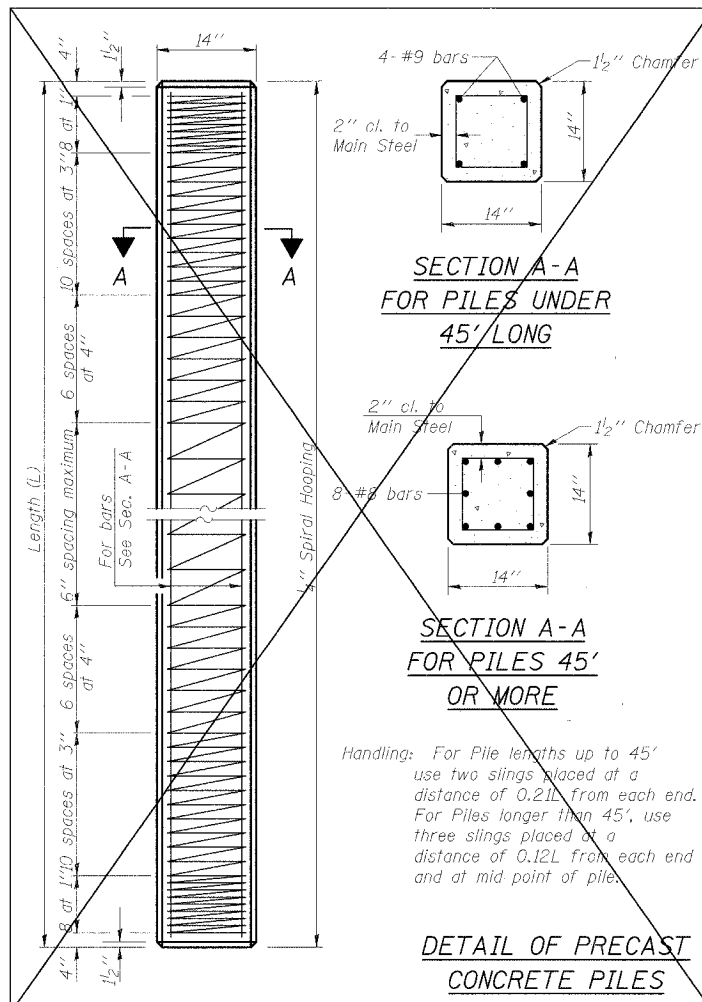
**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
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 ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**CANTILEVER FORMING BRACKETS**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

CANTILEVER FORMING BRACKETS

F.A. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666-00-00254-01-BR	LAKE	70	54	
STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
Sheet 31 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				



REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**CONCRETE PILE DETAILS**

BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

PLAN	DATE
BY	
REVISIONS	
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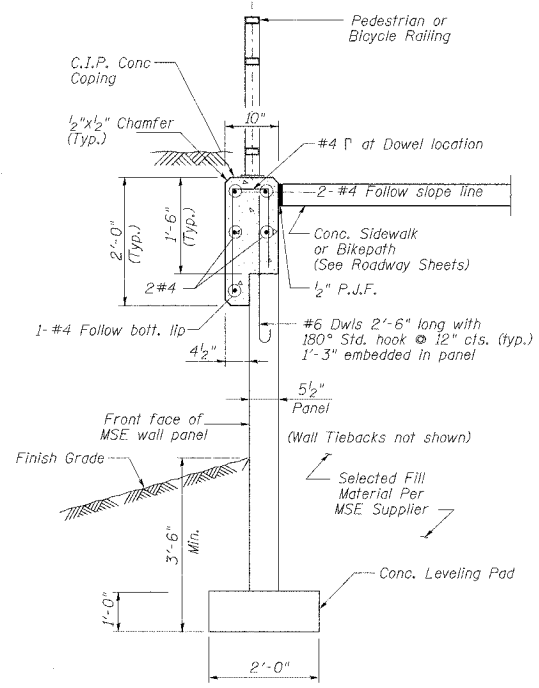
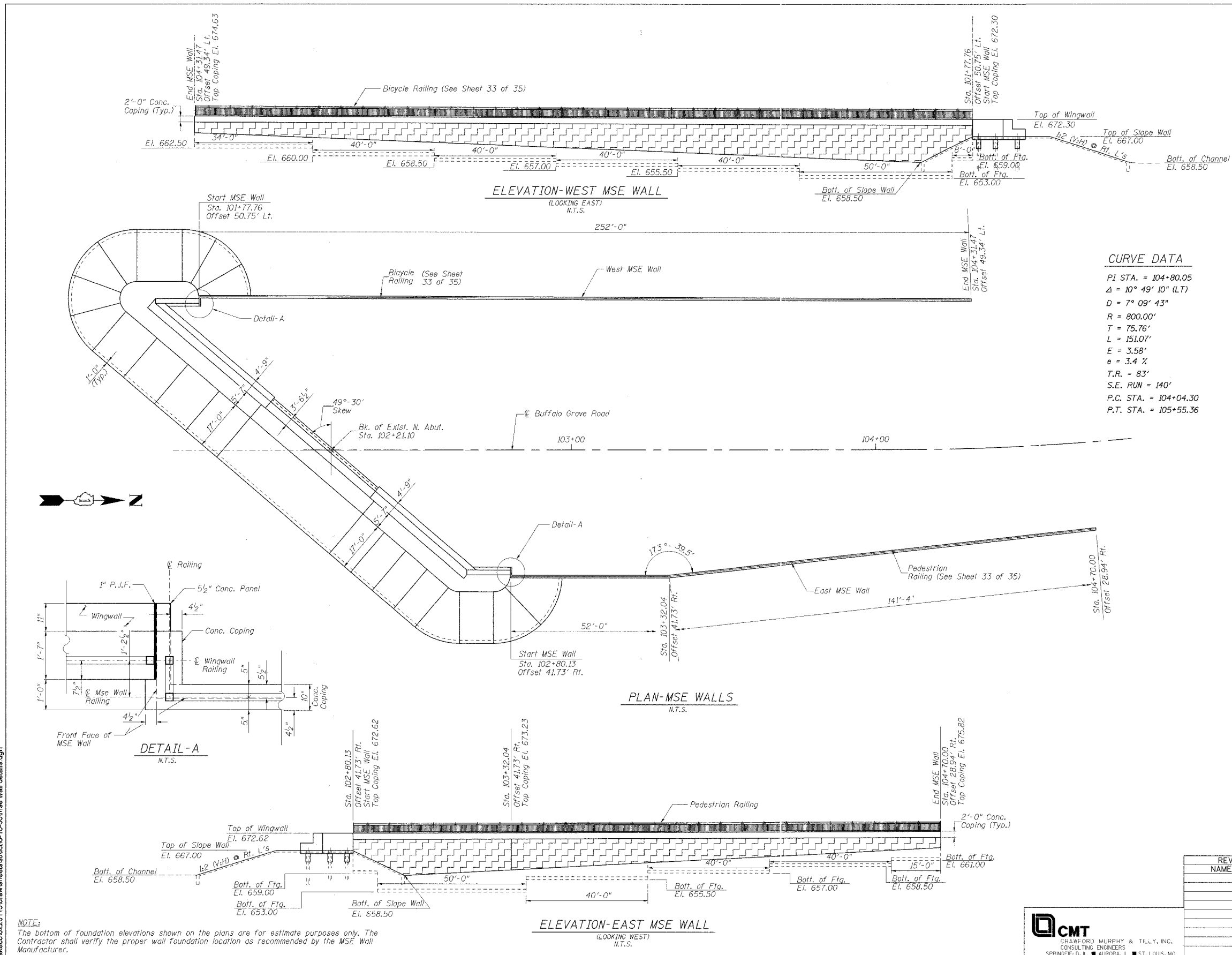
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REVISIONS	
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DATE	

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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666 00-00254-01-BR	LAKE	70	55	
STA. 98+50	TO STA. 107+57			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
Sheet 32 of 35 Sheets				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				

DATE	BY
DATE	BY

DATE	BY
DATE	BY



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	6315
Bicycle Railing	Foot	254
Pedestrian Railing	Foot	195

**MSE WALL FINISH**

The MSE wall finish shall be Ashlar Stone as Manufactured by "The Reinforced Earth Company" or equal. Approved by Lake County Division of Transportation.

**ALLOWABLE GROSS BEARING PRESSURE**

3.130 PSF AT ELEV. 653.00

REVISIONS		LAKE COUNTY DIVISION OF TRANSPORTATION
NAME	DATE	
		<b>MSE WALL DETAILS</b>  BUFFALO GROVE ROAD AT INDIAN CREEK BRIDGE SECTION 00-00254-01-BR STATION 101+50.00 LAKE COUNTY STRUCTURE NO. 049-3043 SCALE: NONE DRAWN BY: TBW DATE: 7/21/06 CHECKED BY: ATI, WK

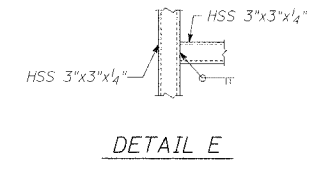
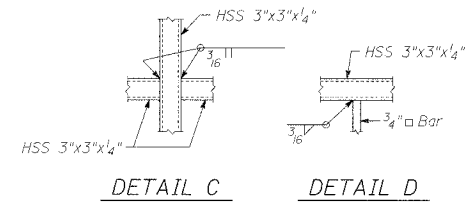
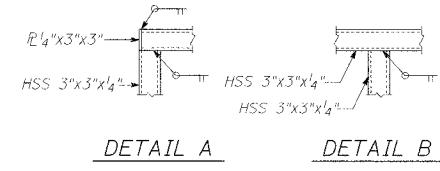
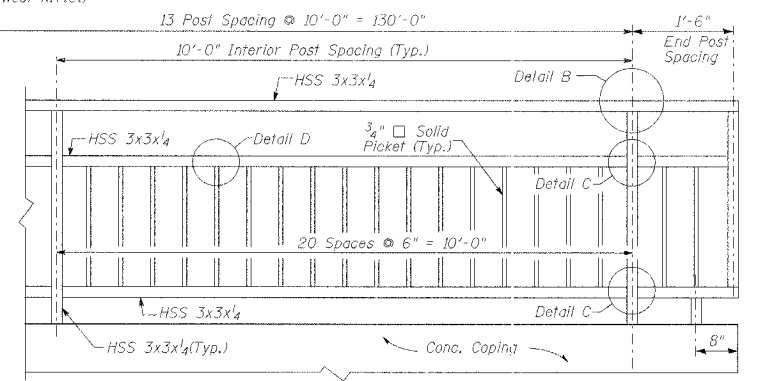
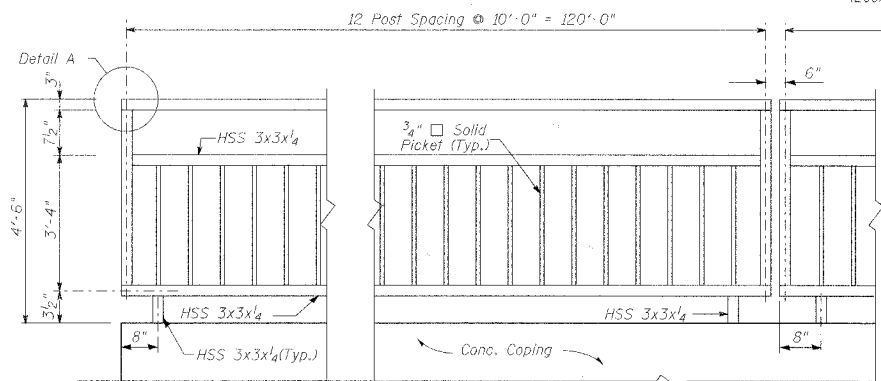
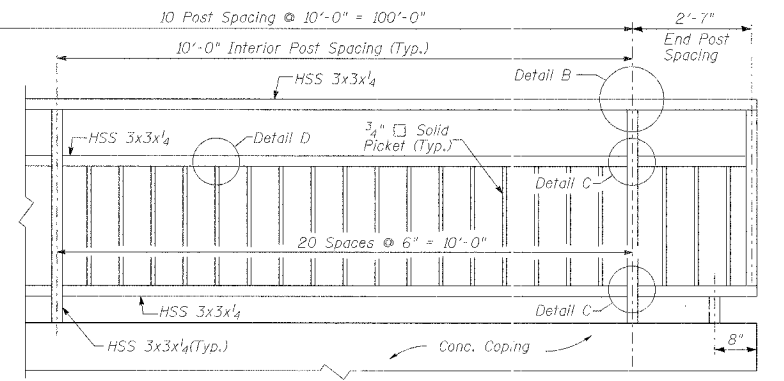
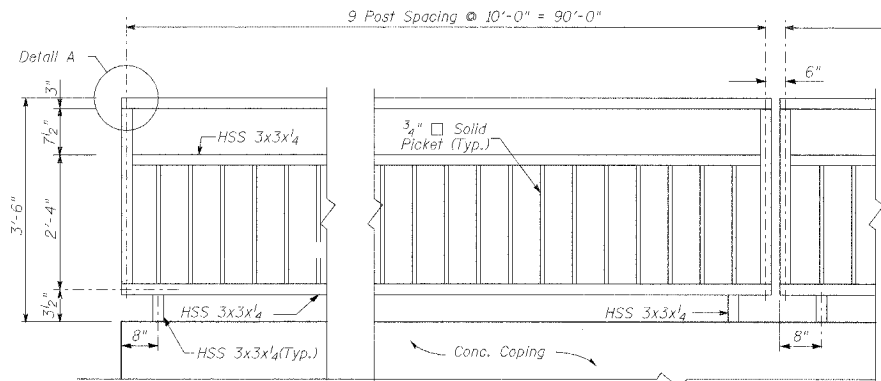
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SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO  
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

I:\lakeco\020113\draws\sheet\struct-16-06\mse wall details.dgn

**NOTE:**  
The bottom of foundation elevations shown on the plans are for estimate purposes only. The Contractor shall verify the proper wall foundation location as recommended by the MSE Wall Manufacturer.

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 REVISIONS:  
 1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 4. \_\_\_\_\_  
 5. \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 REVISIONS:  
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 4. \_\_\_\_\_  
 5. \_\_\_\_\_

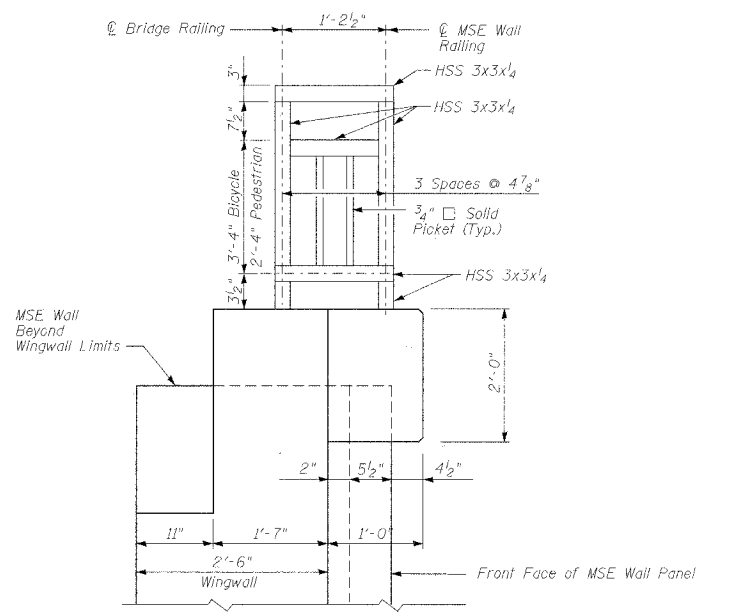


**PEDESTRIAN RAILING**  
(Looking West N.T.S.)

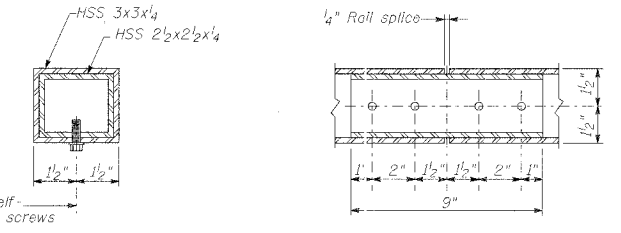
**BICYCLE RAILING**  
(Dimensions given along @ Railing)  
N.T.S.

**BILL OF MATERIAL**

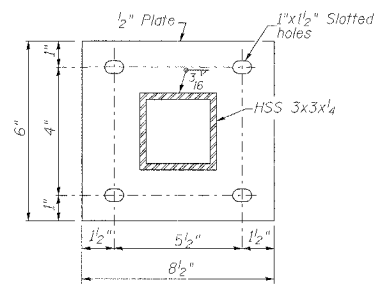
Item	Unit	Quantity
Pedestrian Railing	Foot	194
Bicycle Railing	Foot	253



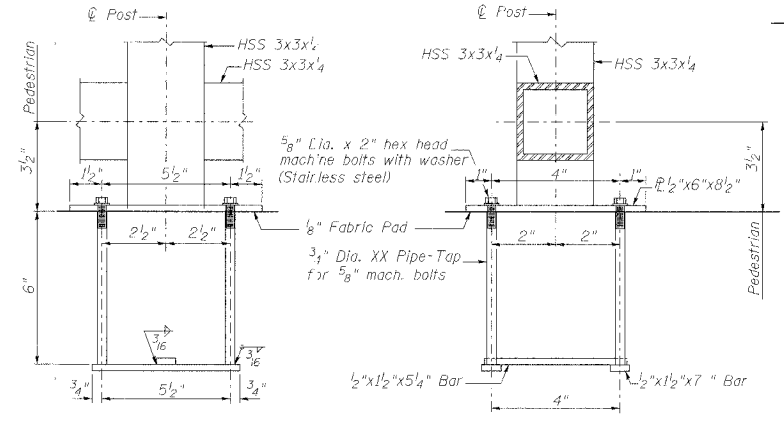
**PEDESTRIAN OR BICYCLE RAILING AT WINGWALLS**  
(See Detail A Sheet 32 of 35)



**RAIL SPLICE**



**BASE PLATE**



**ANCHOR BOLT DETAILS**

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting 3/8" dia. anchor rods. Embedment shall be according to the manufacturer's specifications.

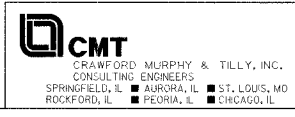
**NOTES**

- Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Pedestrian Railing or Bicycle Railing.
- Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
- Hollow steel pipes shall conform to the requirements of ASTM A 53 and shall be "standard weight."
- All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36.
- All posts, railings, splices, anchor devices, and bent plates shall be painted using the Organic Zinc-rich/epoxy/urethane paint system. The color of the final coat for all bicycle and parapet railings shall be Black Color C900 as produced by Carbolite or equal. Final color shall be coordinated with the Engineer prior to fabrication. See special provision for "Cleaning and Painting Bicycle and Parapet Railing."
- If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.
- Space reinforcement to miss anchor rods.

**REVISIONS**

NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**PEDESTRIAN AND BICYCLE RAILING**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK



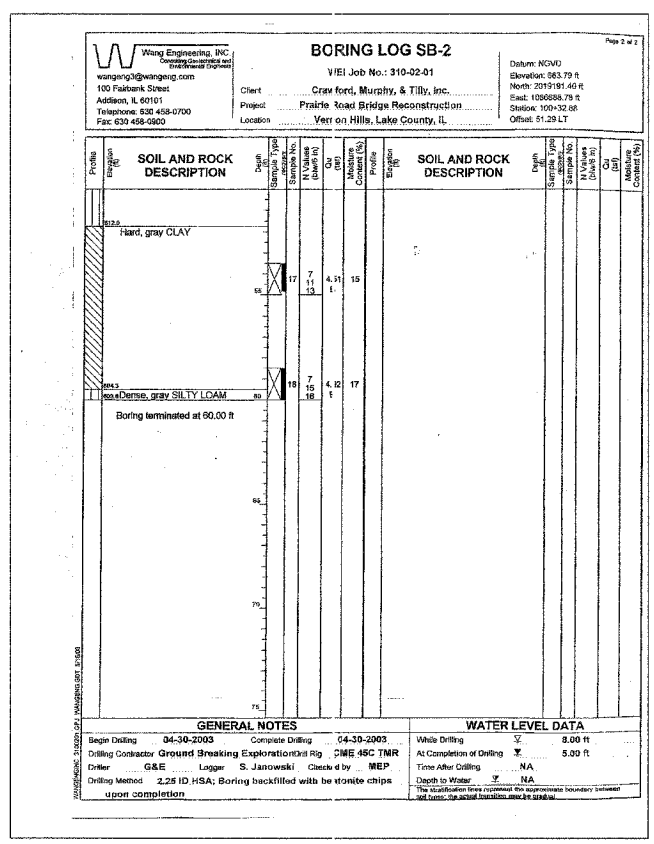
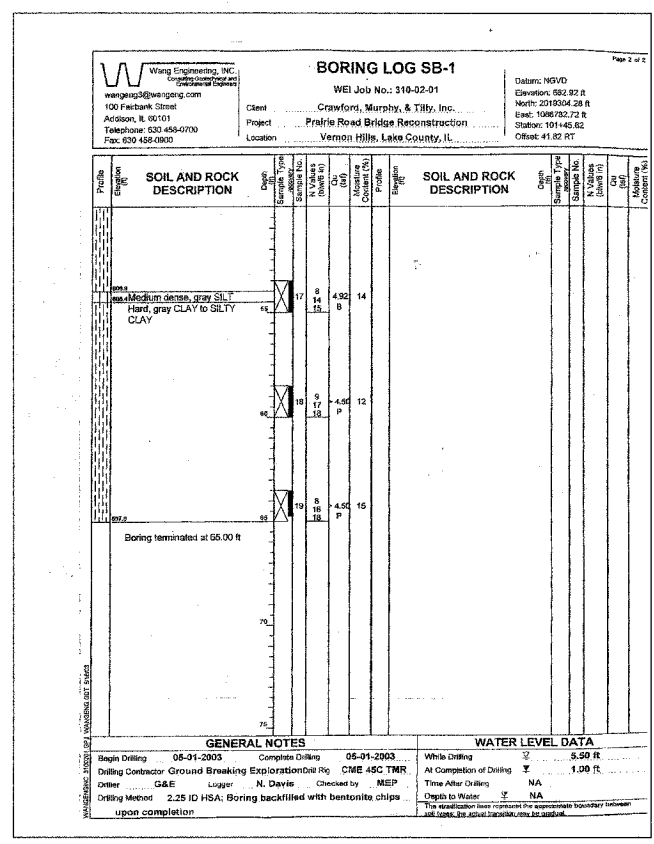
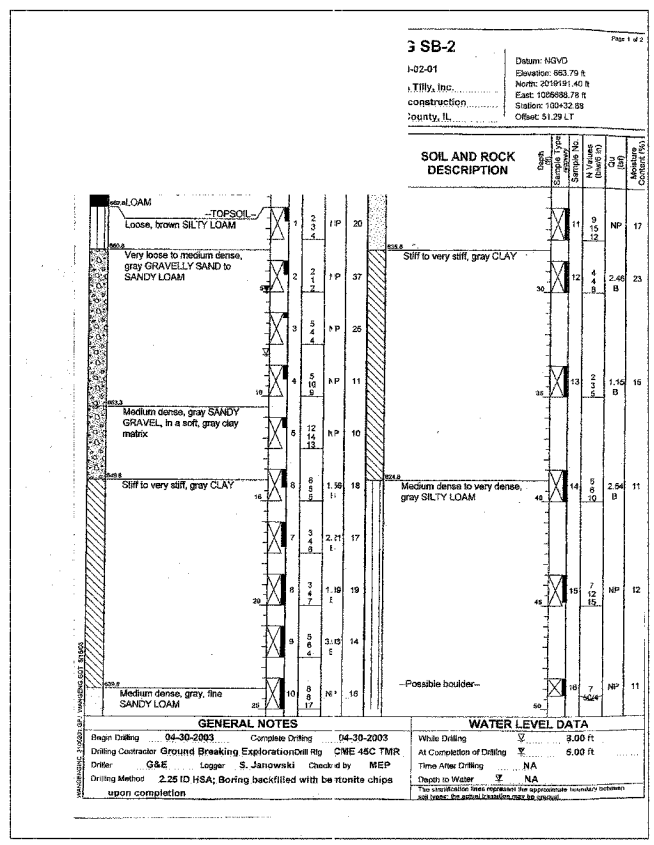
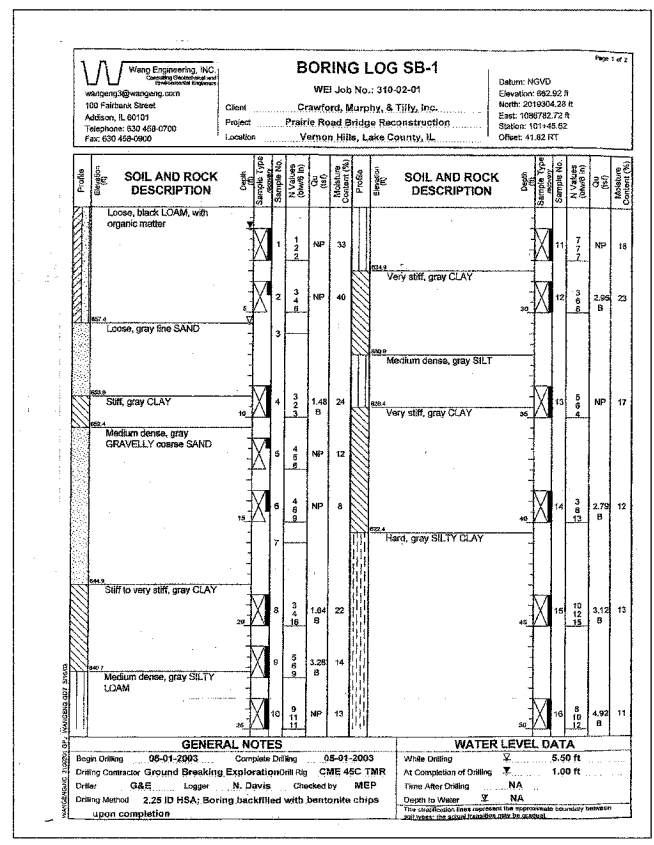


F.A. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 98+50		TO STA. 107+57		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

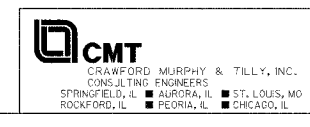
Sheet 34 of 35 Sheets  
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

PLAN	DATE	BY
REVISED		
FOR		
BY		
DATE		

PROFILE	DATE	BY
REVISED		
FOR		
BY		
DATE		

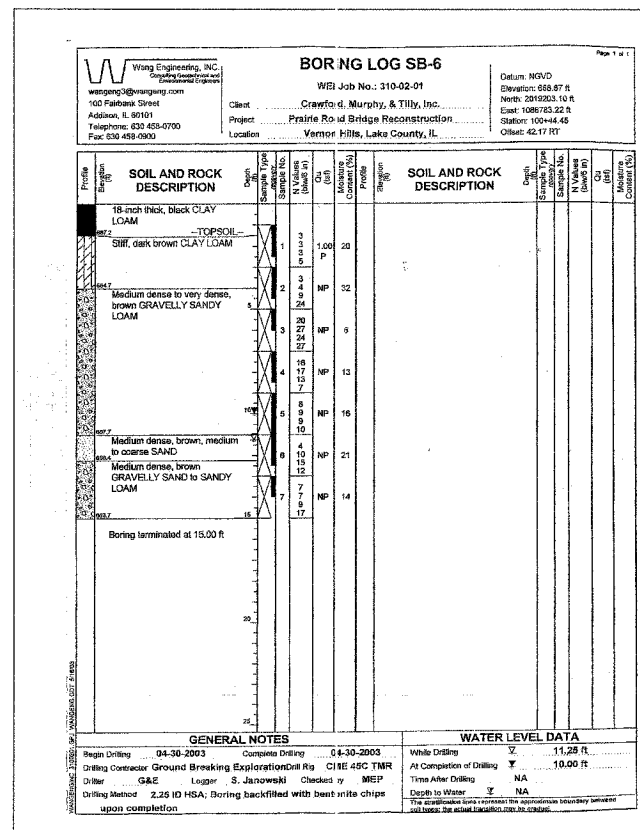
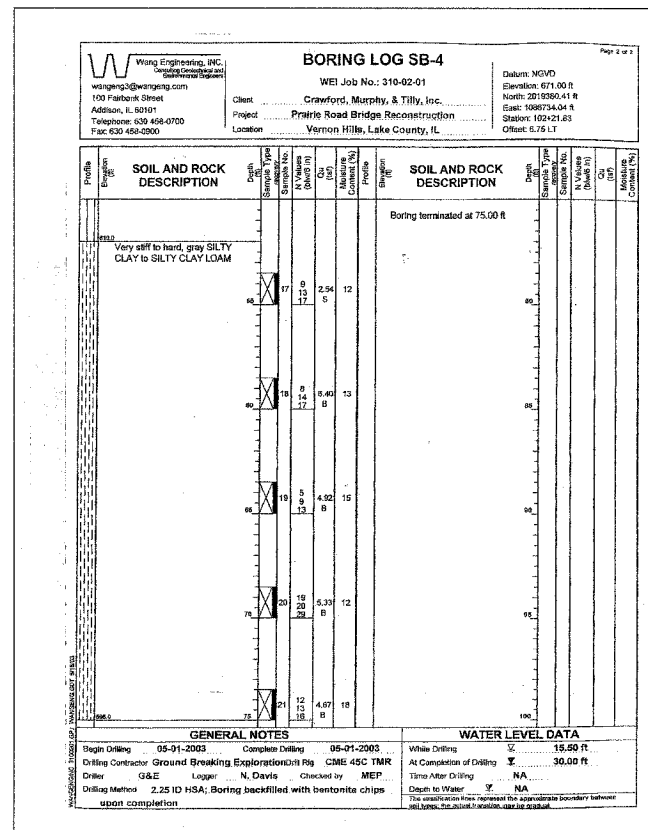
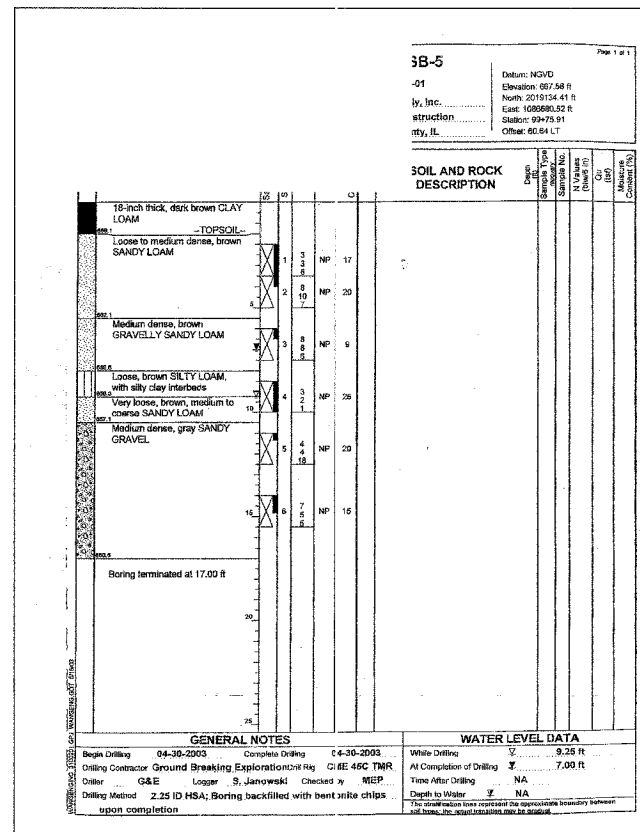
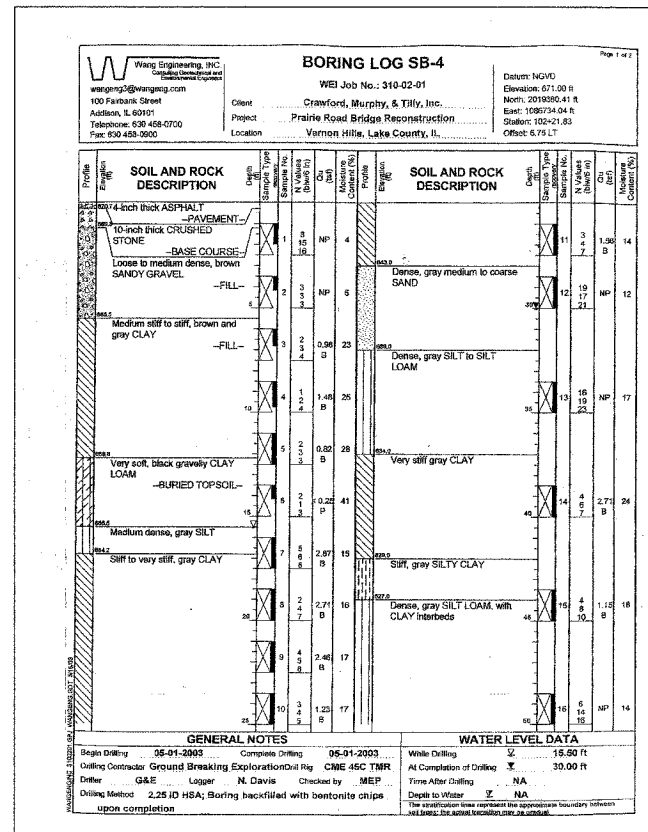


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REVISIONS	
NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION  
**BORINGS I**  
BUFFALO GROVE ROAD  
AT INDIAN CREEK BRIDGE  
SECTION 00-00254-01-BR STATION 101+50.00  
LAKE COUNTY STRUCTURE NO. 049-3043  
SCALE: NONE DRAWN BY: TBW  
DATE: 7/21/06 CHECKED BY: ATI, WK

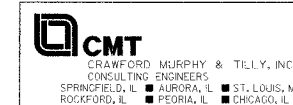


DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
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 BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
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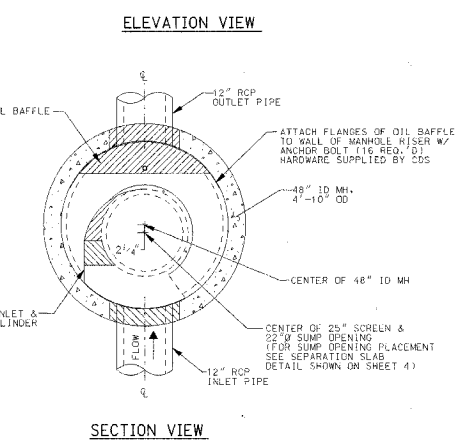
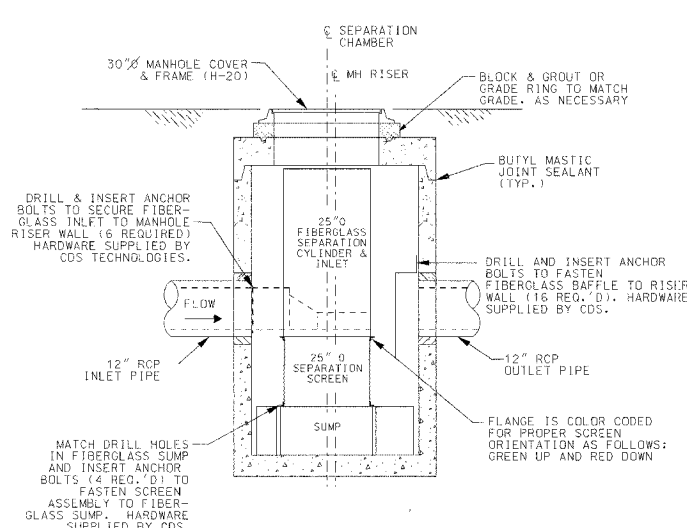
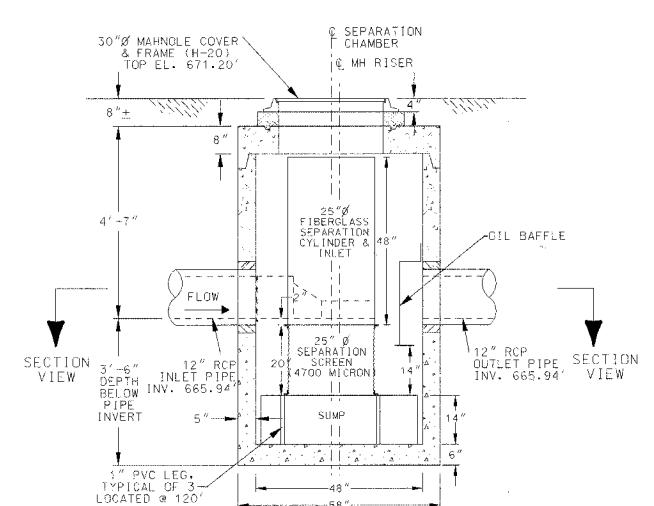
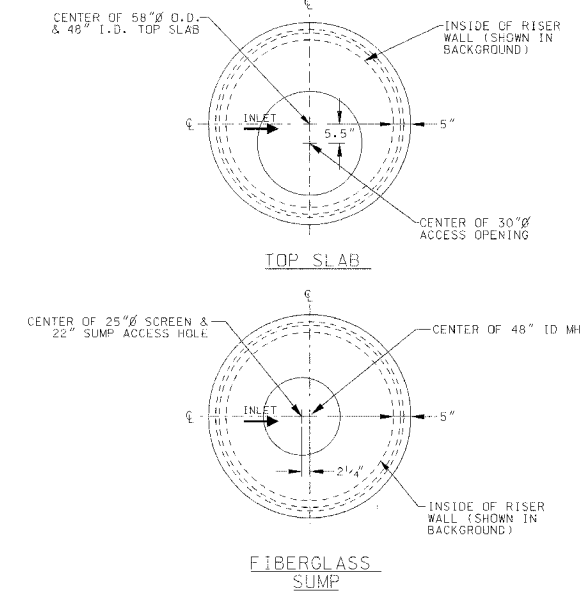
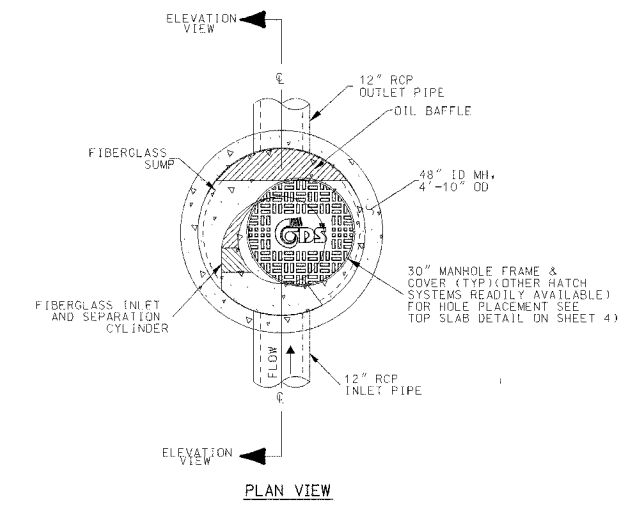
REVISIONS	
NAME	DATE



LAKE COUNTY DIVISION OF TRANSPORTATION  
**BORINGS II**  
 BUFFALO GROVE ROAD  
 AT INDIAN CREEK BRIDGE  
 SECTION 00-00254-01-BR STATION 101+50.00  
 LAKE COUNTY STRUCTURE NO. 049-3043  
 SCALE: NONE DRAWN BY: TBW  
 DATE: 7/21/06 CHECKED BY: ATI, WK

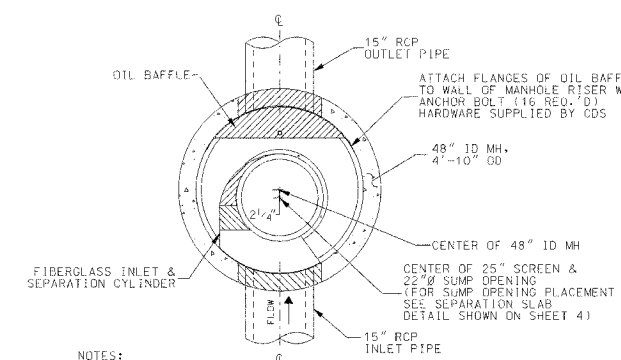
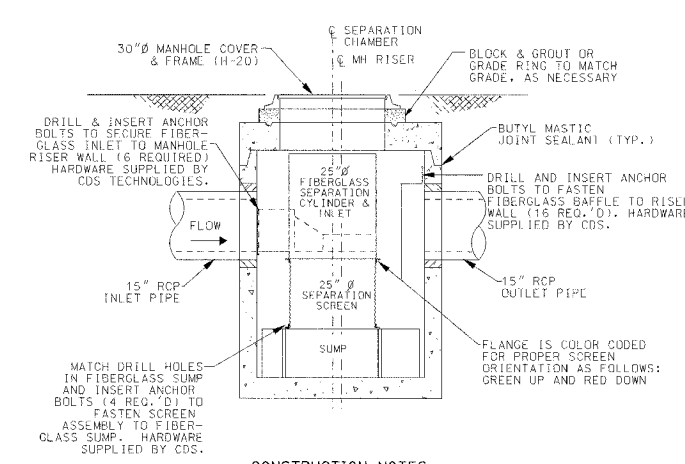
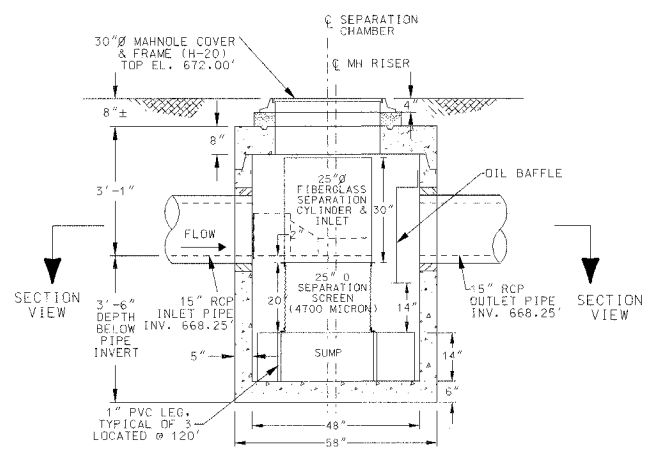
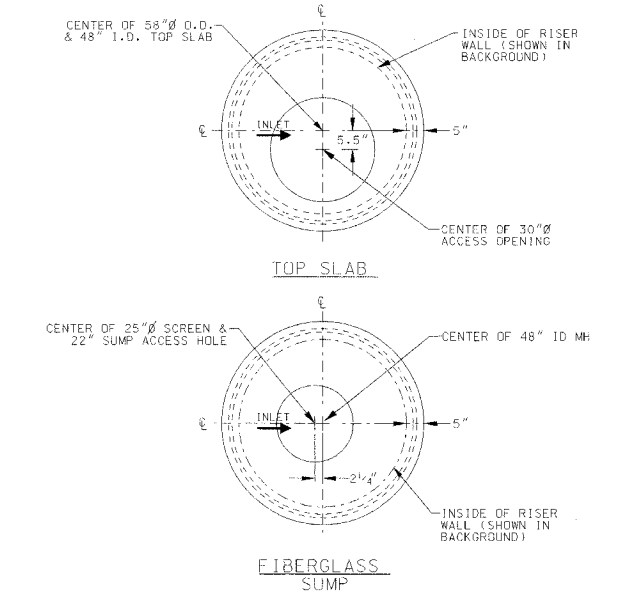
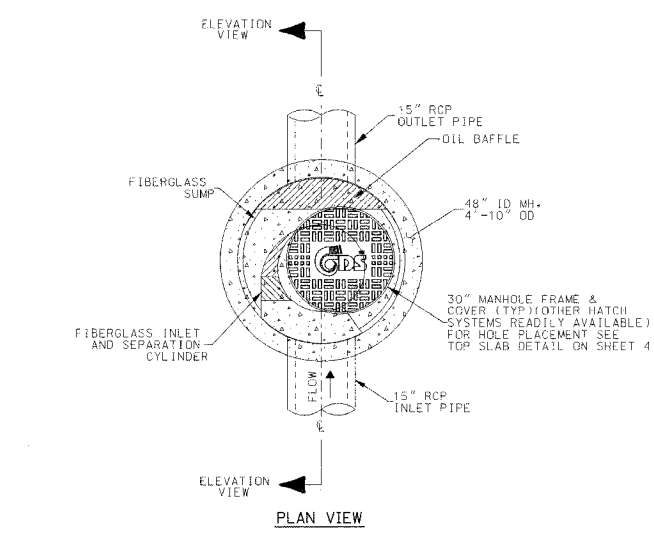
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STA. N/A	TO STA. N/A			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875



- NOTES:
1. ALL CONCRETE COMPONENTS SHALL BE CONSTRUCTED PER ASTM C-478.
  2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.

TREATMENT STRUCTURE NO. 1:  
CDS MODEL PMSU20\_15\_4, 0.76 CFS TREATMENT CAPACITY  
STORM WATER TREATMENT UNIT  
(RIGHT-HANDED CONFIGURATION)



- NOTES:
1. ALL CONCRETE COMPONENTS SHALL BE CONSTRUCTED PER ASTM C-478.
  2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.

TREATMENT STRUCTURE NO. 2:  
CDS MODEL PMSU20\_15\_4, 0.79 CFS TREATMENT CAPACITY  
STORM WATER TREATMENT UNIT  
(RIGHT-HANDED CONFIGURATION)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CONSTRUCTION DETAILS**  
BUFFALO GROVE ROAD

SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06  
DRAWN BY: SNH  
CHECKED BY: PWK

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

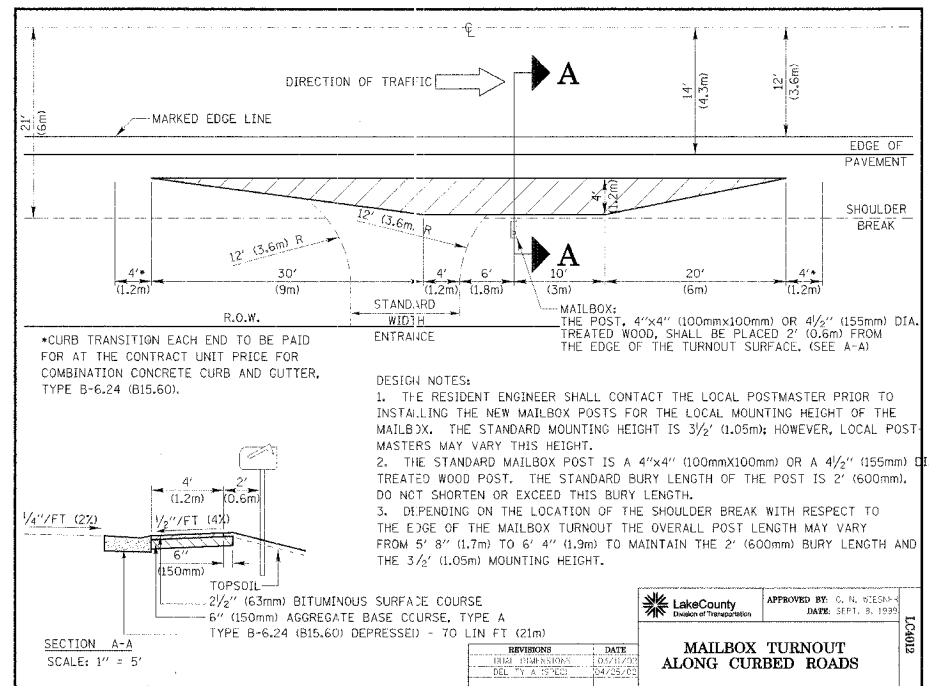
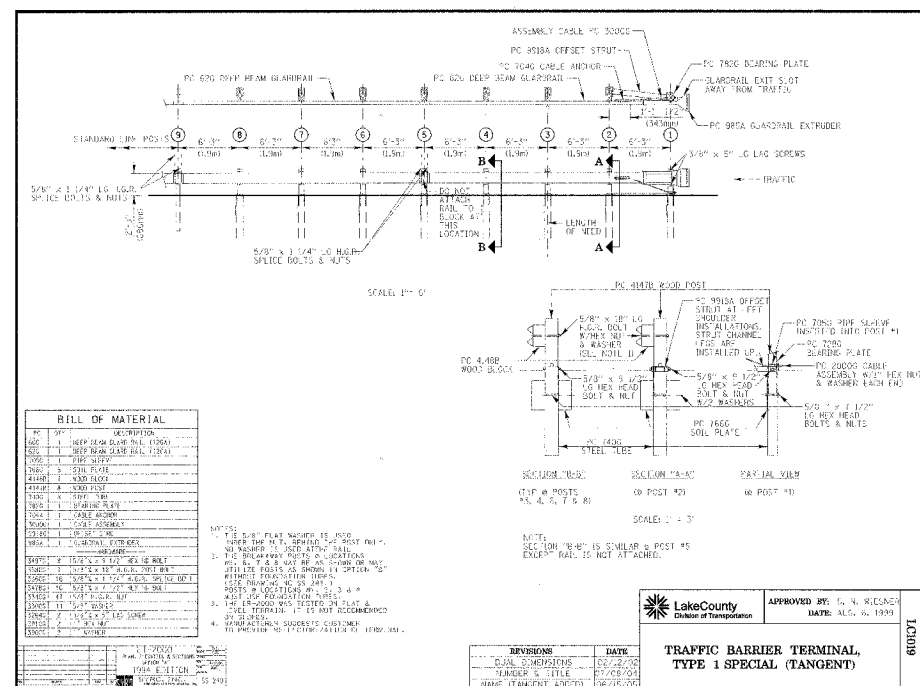
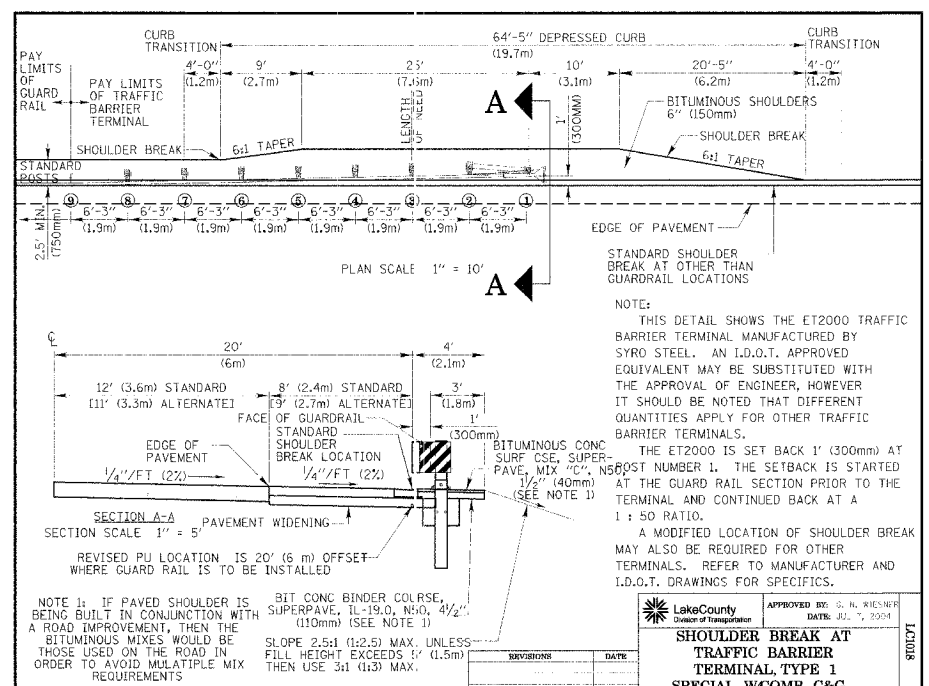
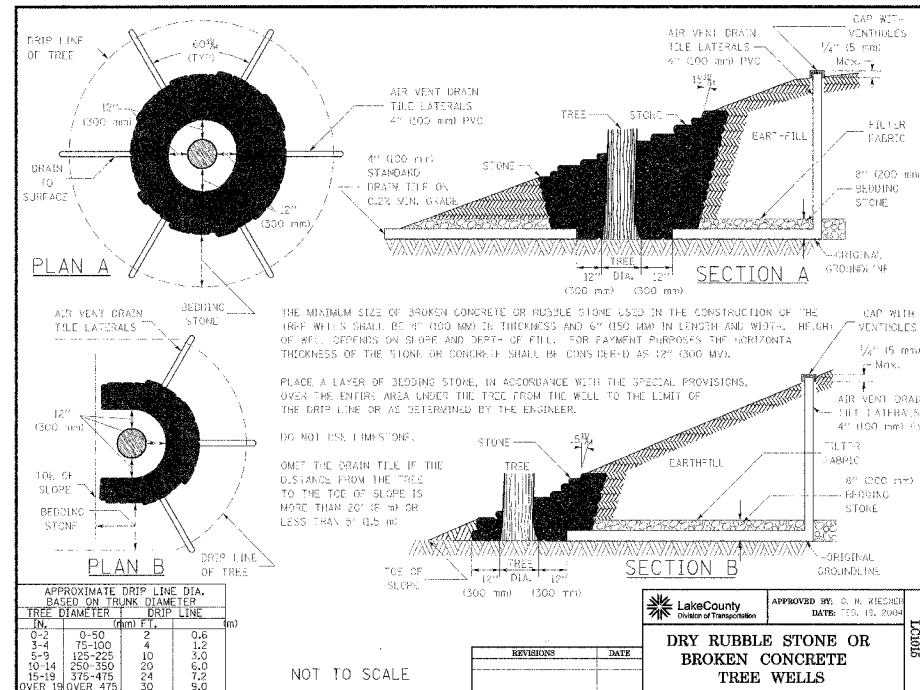
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666 00-00254-01-BR	LAKE	LAKE	70	60
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875



REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CONSTRUCTION DETAILS**  
 BUFFALO GROVE ROAD

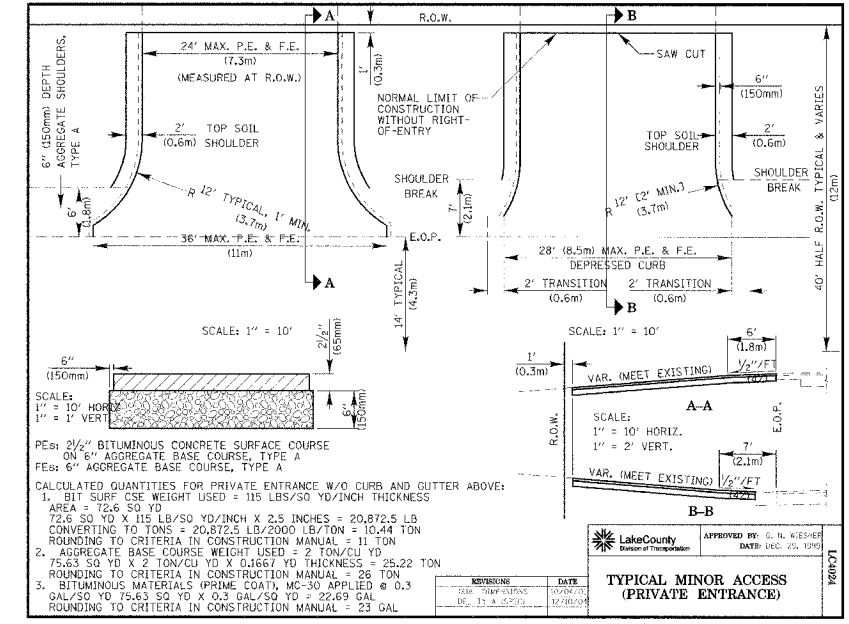
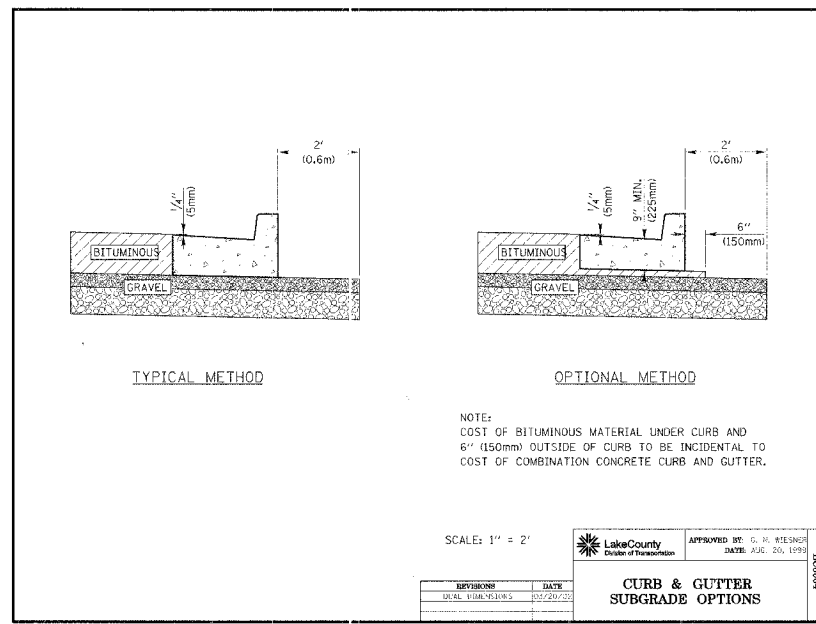
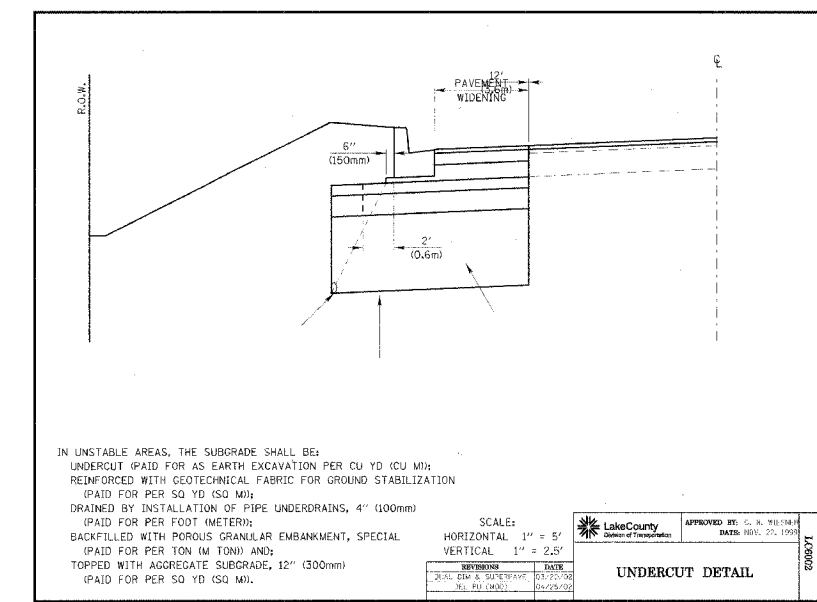
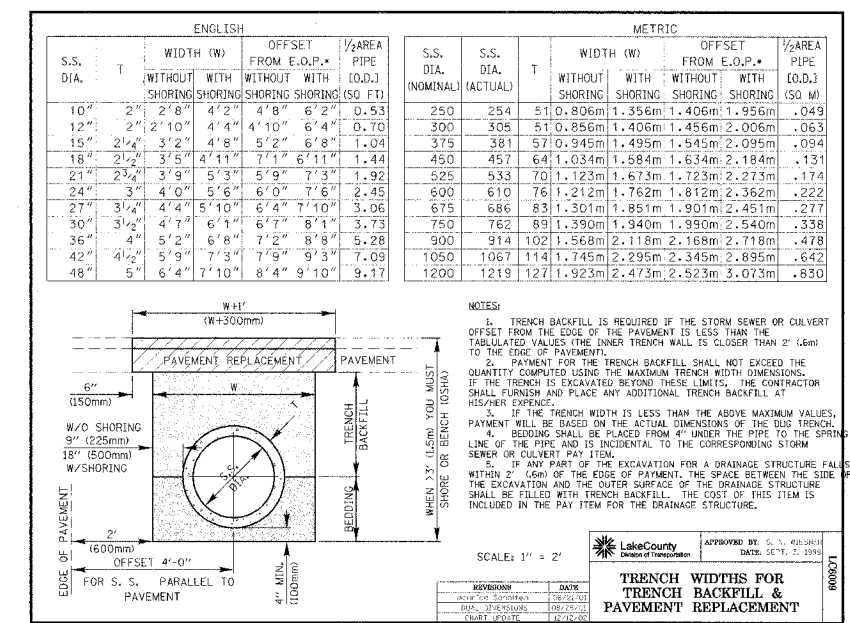
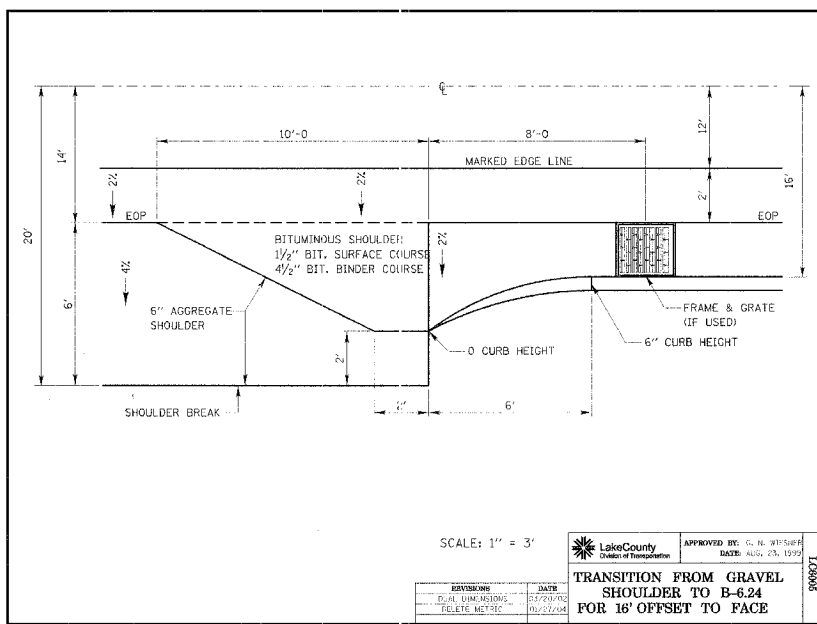
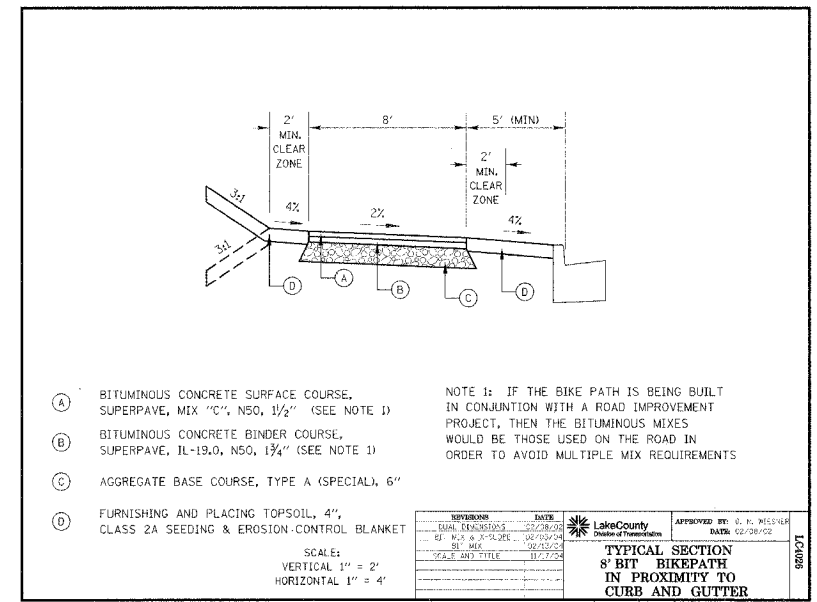
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 HORIZ.: N.T.S.  
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 DRAWN BY: ERD  
 CHECKED BY: PWK

**CMT**  
 CRAWFORD MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
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 DATE: \_\_\_\_\_

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REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION DETAILS  
BUFFALO GROVE ROAD**

SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06

DRAWN BY: ERD  
CHECKED BY: PWK

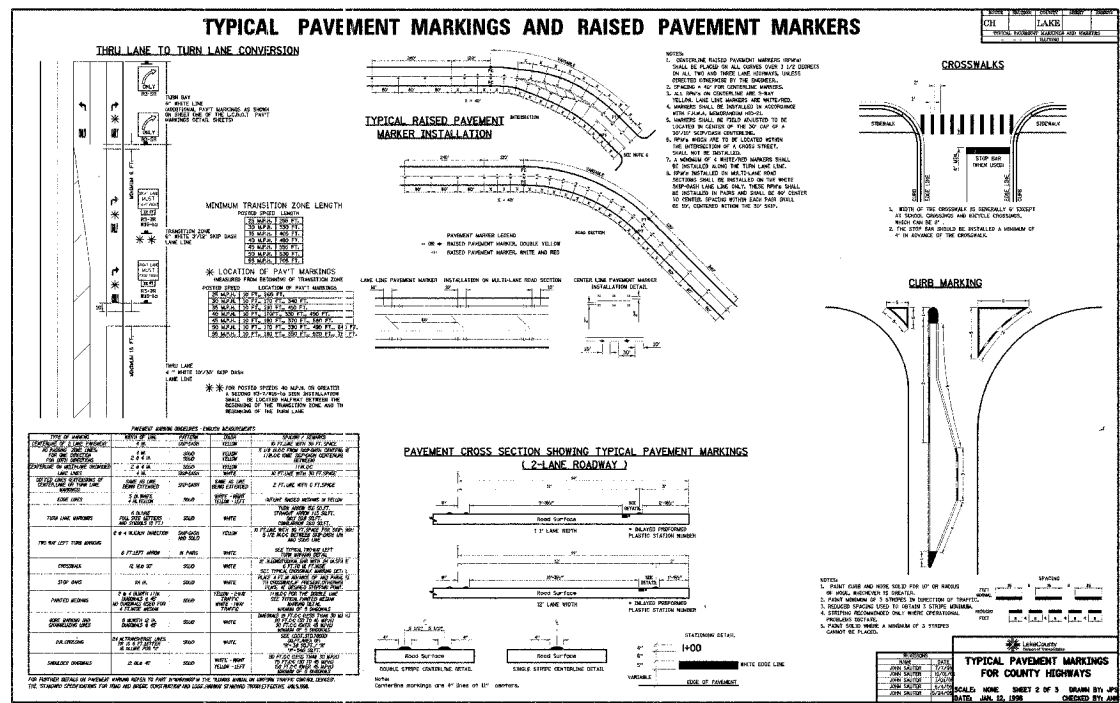
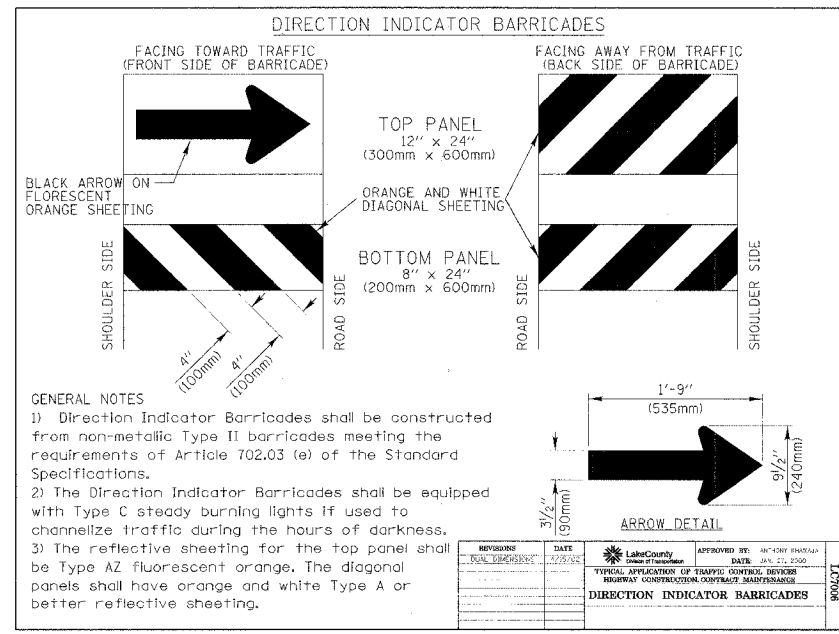
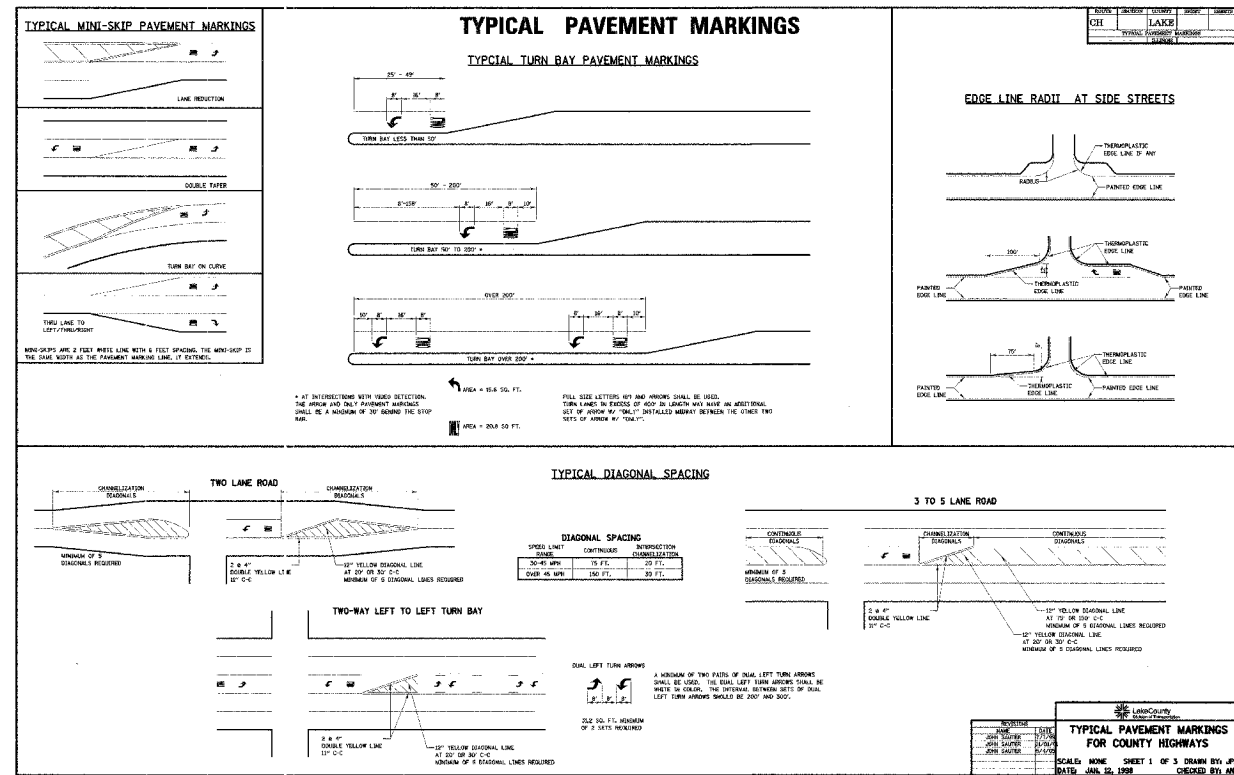
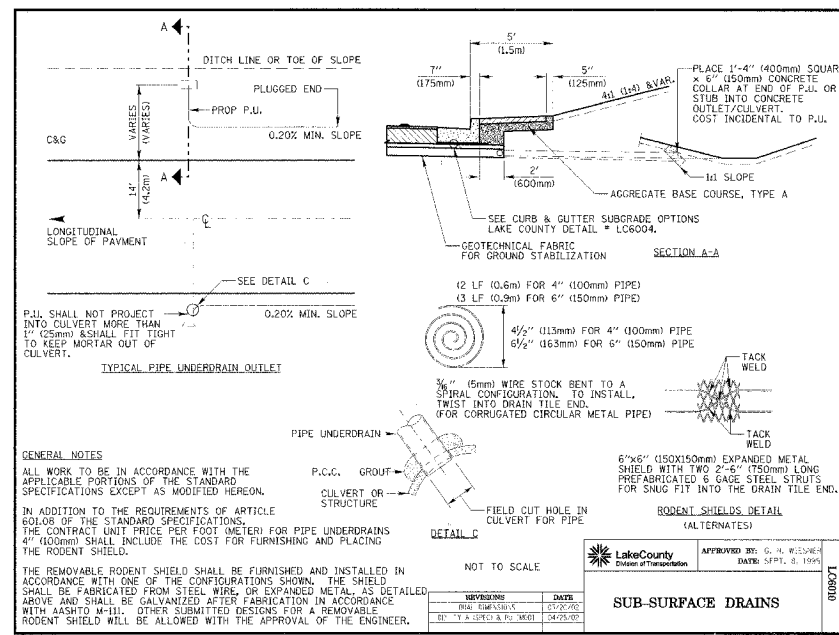
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CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

DATE: 07/21/06  
DRAWN BY: ERD  
CHECKED BY: PWK  
PROJECT: BHM-8003(213)  
SHEET: 61 OF 70

DATE: 07/21/06  
DRAWN BY: ERD  
CHECKED BY: PWK  
PROJECT: BHM-8003(213)  
SHEET: 61 OF 70

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PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875



REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**CONSTRUCTION DETAILS**  
**BUFFALO GROVE ROAD**

SCALE: VERT.: N.T.S.  
HORIZ.: N.T.S.  
DATE: 7/21/06

DRAWN BY: ERO  
CHECKED BY: PKW

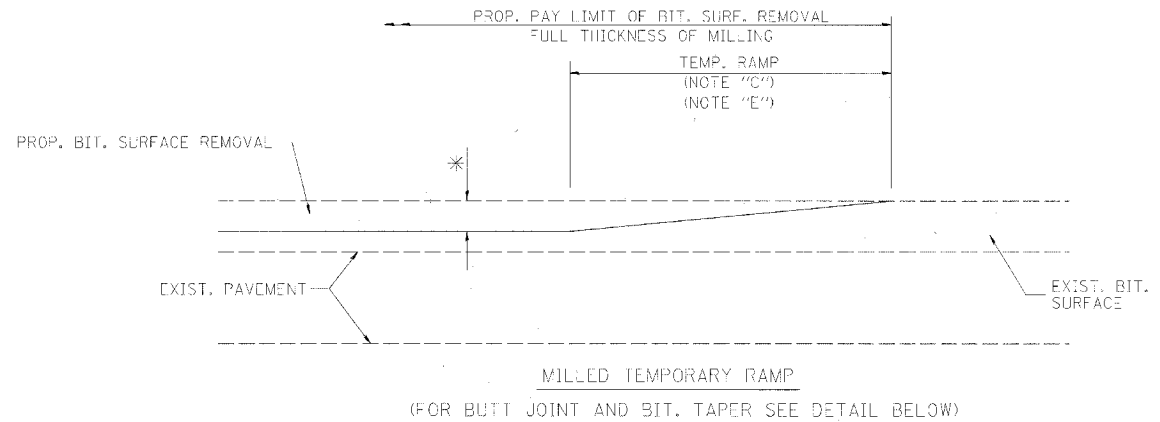
**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ ALTOONA, IL ■ ST. LOUIS, MO

DATE: 01/11/06  
DRAWN BY: J. L. BROWN  
CHECKED BY: J. L. BROWN  
SCALE: AS SHOWN  
SHEET NO. 62 OF 70

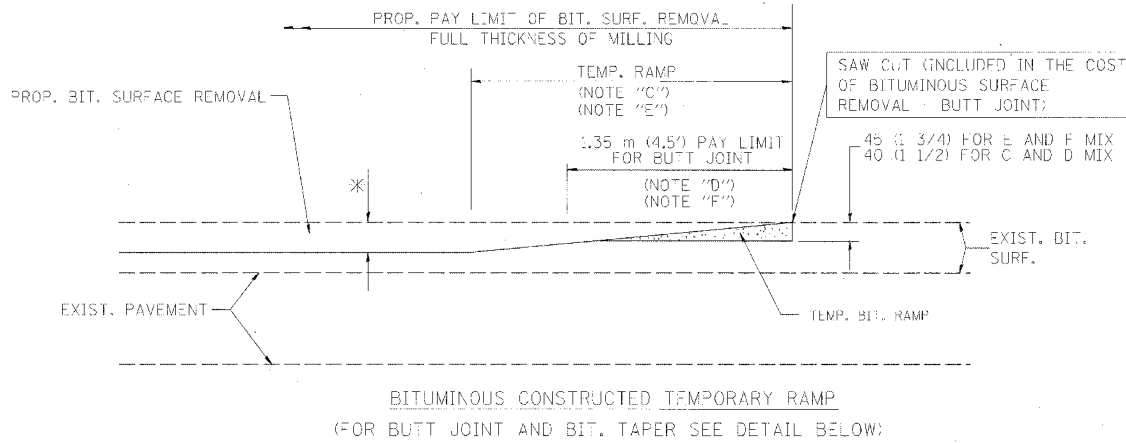
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SHEET NO. 62 OF 70

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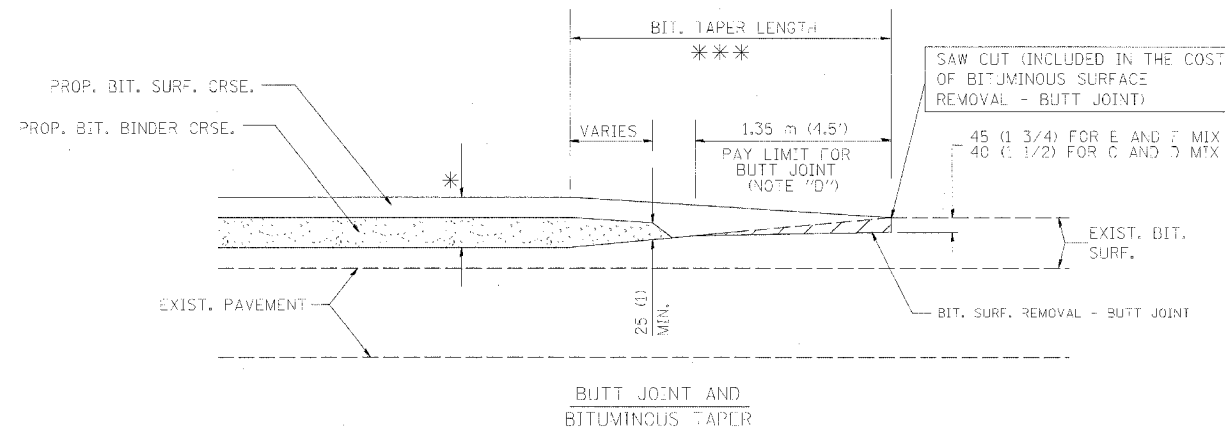
Contract 83875



OPTION 1

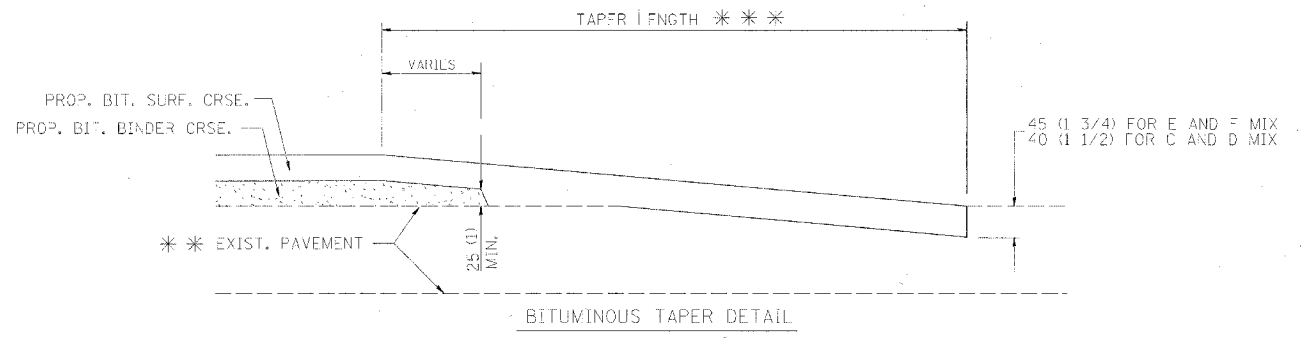
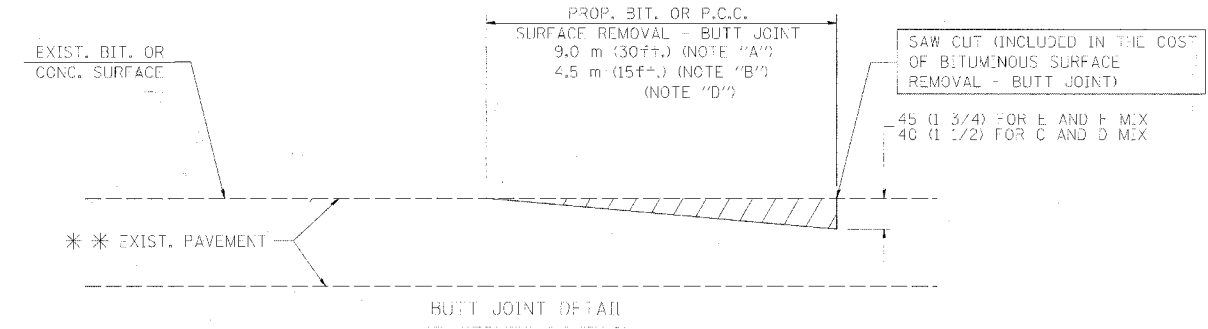


OPTION 2  
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND BITUMINOUS TAPER FOR MILLING AND RESURFACING

\*DATE-TIME\*  
\*DGN-SPEC\*



TYPICAL BUTT JOINT AND BITUMINOUS TAPER FOR RESURFACING ONLY

\*\*\* PC CONCRETE, BITUMINOUS OR BITUMINOUS 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 BITUMINOUS SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED BITUMINOUS COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 900 (3 ft.) PER INCH OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 1.35 m (4.5') TEMP. BIT. RAMP WILL BE PAID AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT".
  - G: SEE ARTICLE 706.18 AND 706.24 OF THE STANDARD SPECIFICATIONS FOR "BITUMINOUS AND PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

\*\*\* 6.1 m (20') PER 25 (1) RESURFACING (NOTE "A")  
3.0 m (10') PER 25 (1) RESURFACING (NOTE "B")

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND BITUMINOUS TAPER DETAILS

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR PER SQUARE METER (SQUARE YARD.) AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT" OR AS "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01

SCALE: NONE  
DATE PLOTTED: 10/18/2002

DRAWN BY  
SHR0605BY(V1:BD32)



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

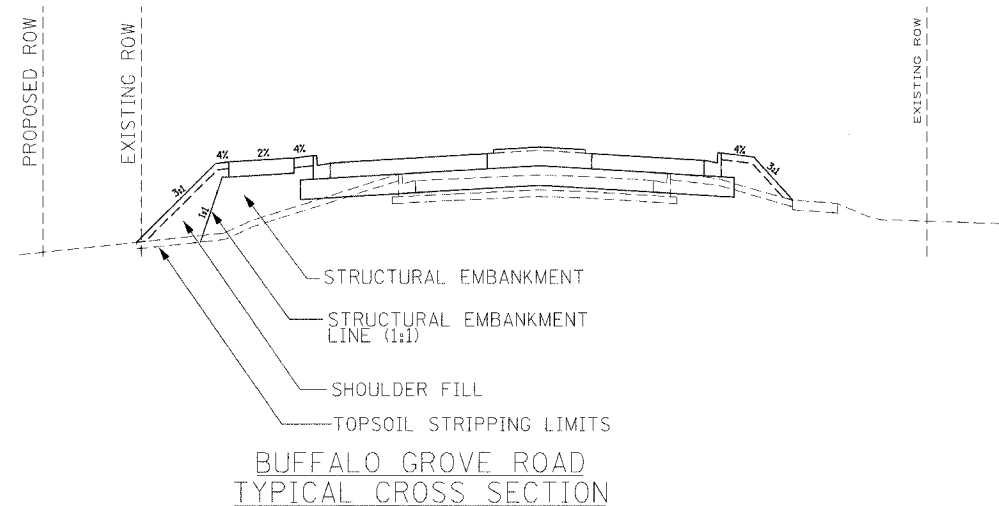
PROJECT NO. BHM-8003(213)  
CONTRACT NO. 83875

### EARTHWORK GENERAL NOTES

- ALL EARTHWORK QUANTITIES ARE CALCULATED BY THE METHOD OF AVERAGE END AREAS USING THE PLAN CROSS SECTIONS. SHRINKAGE FACTOR, ASSUMED TO BE 15% FOR THIS PROJECT, ARE ESTIMATED FOR THE SOLE PURPOSE OF DETERMINING A BALANCE OF EARTHWORK. THE CONTRACTOR SHALL ESTIMATE HIS OWN SHRINKAGE FACTORS IN DETERMINING HIS EARTHWORK. NO PAYMENT WILL BE MADE ON EARTHWORK QUANTITIES DUE TO VARIATION IN THE SHRINKAGE FACTOR SINCE EARTHWORK IS MEASURED IN ITS FINAL POSITION.
- TOPSOIL STRIPPING WILL BE MEASURED FOR PAYMENT AS UNSUITABLE OR UNSTABLE MATERIAL.
- ALL SURPLUS MATERIAL SHALL BE HAULED OFF SITE, REGARDLESS OF THE TYPE OF MATERIAL. COST OF DISPOSING THE EXCESS MATERIALS OFF SITE SHALL BE INCLUDED IN THE UNIT PRICE FOR THE ASSOCIATED EARTHWORK ITEM.
- IN ADDITION TO NUCLEAR DENSITY TESTING OF EMBANKMENTS AND SUBGRADES, THE FINAL SHALL BE PROOF ROLLED USING A FULLY LOADED SEMI TRUCK. THE PROOF-ROLL SHOULD DEMONSTRATE A MAXIMUM ONE-QUARTER (1/4) INCH DEFLECTION AT TOP OF SUBGRADE LEVEL. THE NUMBER OF PROOF ROLLS SHALL AS REQUIRED BY THE ENGINEER AND THEY SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- ONCE THE SUBGRADE HAS BEEN PREPARED, FINAL DETERMINATION OF THE NEED FOR UNDERCUT/PGE SHALL BE BASED ON FIELD OBSERVATION AND PROOF ROLLS. THE FINAL DETERMINATION SHALL BE BY THE ENGINEER. PAYMENT WILL BE MADE FOR THE ACTUAL AREAS WHERE UNDERCUT AND PGES IS PLACED. THERE WILL BE NO ADJUSTMENT TO THE UNIT PRICE OF THE ASSOCIATED ITEMS IF THE QUANTITIES ARE LESS THAN ANTICIPATED.
- IN DEVELOPING THE EARTHWORK QUANTITIES FOR BUFFALO GROVE ROAD, A NOMINAL QUANTITY FOR UNDERCUT/PGES REPLACEMENT HAS BEEN INCLUDED IN THE CONTRACT. UNDERCUT SHALL BE PAID FOR AS PAY ITEM #20201200 "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL". PGES REPLACEMENT SHALL BE PAID FOR AS PAY ITEM #20700300 "POROUS GRANULAR EMBANKMENT, SPECIAL".
- GEOTEXTILE FABRIC WILL BE PLACED UNDER THE 12" AGGREGATE SUBGRADE. IN THOSE AREAS WHERE ADDITIONAL UNDERCUT AND PGE IS REQUIRED IMMEDIATELY BELOW THE AGGREGATE SUBGRADE, THE GEOTEXTILE FABRIC WILL BE PLACED AT THE BOTTOM OF THE UNDERCUT. IF THE UNDERCUT AND PGE AREA ARE CONSTRUCTED AT AN ELEVATION BELOW THE AGGREGATE SUBGRADE AND SOIL EMBANKMENT WILL BE CONSTRUCTED ON TOP OF THE PGE, A LAYER OF GEOTEXTILE FABRIC WILL BE PLACED BELOW THE UNDERCUT AREA AND ALSO AT THE BOTTOM OF THE AGGREGATE SUBGRADE. ALL FABRIC PLACED WILL BE MEASURED FOR PAYMENT.
- EARTH SHALL BE PAID FOR ONLY ONCE, REGARDLESS OF STAGING OR SEQUENCING OF CONTRACTOR'S OPERATIONS THAT REQUIRE STOCKPILING OF MATERIALS FOR LATER USE, REDISTRIBUTION AND RESPREADING IN SHOULDERS AND CONSTRUCTING OF EMBANKMENTS.
- THE DEPTH OF TOP SOIL REMOVAL HAS BEEN QUANTIFIED AS PAY ITEM #20201200 "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL" WITH AN ASSUMED DEPTH OF 4 INCHES.
- ALL EMBANKMENT WIDENING SHALL BE BENCHED INTO THE EXISTING SLOPES. EMBANKMENT SHALL BE PLACED ACCORDING TO SECTION 205 OF THE STANDARD SPECIFICATIONS.

LOCATION STATION TO STATION	UNSUITABLE EXCAVATION (TOPSOIL) (CU YD)			EARTH EXCAVATION (CU YD)			EXCAVATION TO BE USED IN EMBANKMENT (ADJ. FOR SHRINKAGE) 15% (CU YD)			EMBANKMENT (CU YD)						
	STAGE 1	STAGE 2	STAGE 3	STAGE 1	STAGE 2	STAGE 3	STAGE 1	STAGE 2	STAGE 3	STRUCTURAL			SHOULDER			
SOUTH OF BRIDGE																
98+50.00	99+00.00	3	11	0	25	30	0	21	26	0	3	3	0	0	0	0
99+00.00	99+50.00	5	21	0	12	24	0	11	20	0	10	26	7	0	0	0
99+50.00	100+00.00	8	23	0	8	10	0	7	8	0	25	68	15	0	18	0
100+00.00	100+45.00	21	28	0	11	7	0	9	6	0	83	95	19	18	26	0
	SUB-TOTAL	37	83	0	56	71	1	48	60	1	120	192	41	18	44	0
NORTH OF BRIDGE																
102+55.00	103+00.00	0	27	0	9	13	0	8	11	0	12	12	20	0	0	0
103+00.00	103+50.00	21	26	0	14	22	0	12	18	0	24	21	42	0	0	0
103+50.00	104+00.00	19	24	0	14	21	0	12	18	0	25	21	38	0	0	0
104+00.00	104+50.00	15	20	0	15	21	0	13	18	0	24	46	33	0	0	0
104+50.00	105+00.00	11	17	0	16	20	0	14	17	0	31	53	24	0	0	0
105+00.00	105+50.00	6	11	0	12	19	0	11	16	0	40	33	8	0	0	0
105+50.00	106+00.00	4	9	0	7	16	0	6	14	0	46	32	0	0	0	0
106+00.00	106+50.00	7	8	0	6	14	0	5	12	0	55	33	0	0	0	0
106+50.00	106+75.00	8	4	0	3	5	0	3	5	0	31	18	0	0	0	0
	SUB-TOTAL	90	146	0	97	152	0	82	129	0	288	268	165	0	0	0
TOTALS		127	228	0	153	223	1	130	189	1	408	460	206	18	44	0

	STAGE 1	STAGE 2	STAGE 3	TOTAL
UNSUITABLE EXCAVATION	127	228	0	355
EARTH EXCAVATION	153	223	1	376
EXCAVATION TO BE USED IN EMBANKMENT	130	189	1	320
EMBANKMENT STRUCTURAL	408	460	206	1,074
EMBANKMENT SHOULDER	18	44	0	62
FURNISHED EXCAVATION	278	271	205	754



EXISTING PAVEMENT DEPTH IS AN ASSUMED DEPTH BASED ON RECORD DRAWINGS AND IS SHOWN IN THE CROSS SECTIONS. PAVEMENT REMOVAL SHALL BE PAID FOR AS ITEM NO. 44000100 "PAVEMENT REMOVAL" AND NO PAYMENT IS ACCOUNTED FOR THIS AREA IN THE EARTH EXCAVATION. EARTH EXCAVATION IS ONLY ACCOUNTED FOR DEPTHS BELOW THE EXISTING PAVEMENT STRUCTURE FROM THE CROSS SECTIONS AND THAT WHICH IS OUTSIDE OF THE PAVEMENT. TOPSOIL REMOVAL HAS BEEN QUANTIFIED AS ITEM #20201200 "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL" TO THE TIE IN POINT OF THE IMPROVEMENTS AS SHOWN IN THE CROSS SECTIONS. ADDITIONAL REMOVAL SHALL BE AT THE CONTRACTOR'S EXPENSE.

DATE	BY	CHECKED	DATE

DATE	BY	CHECKED	DATE

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**EARTHWORK SCHEDULE AND GENERAL NOTES**

**CMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

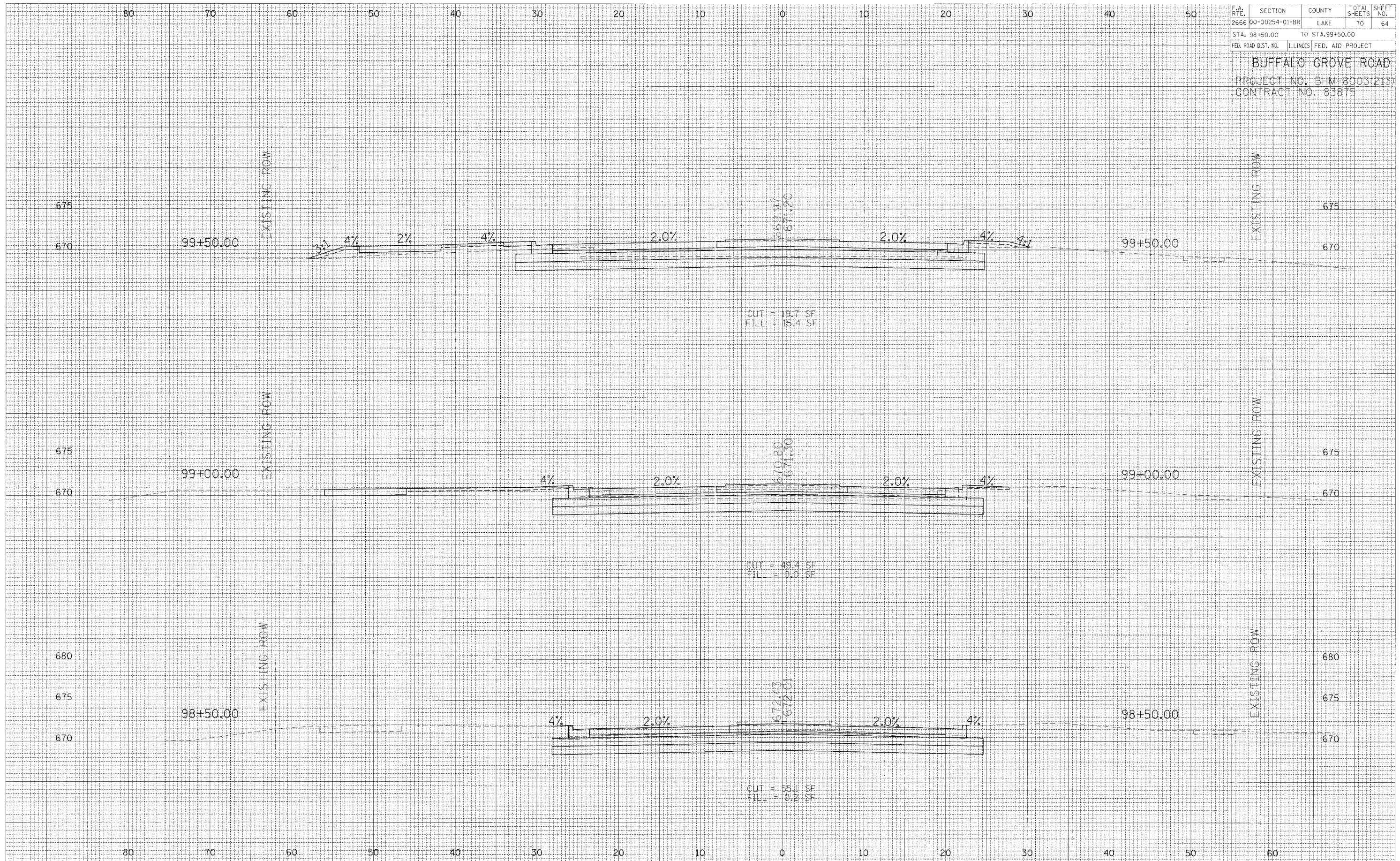
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HORIZ.:  
DATE: 7/21/06  
DRAWN BY: SNH  
CHECKED BY: PWK

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	64
STA. 98+50.00		TO STA. 99+50.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

BUFFALO GROVE ROAD  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

DATE	BY

DATE	BY



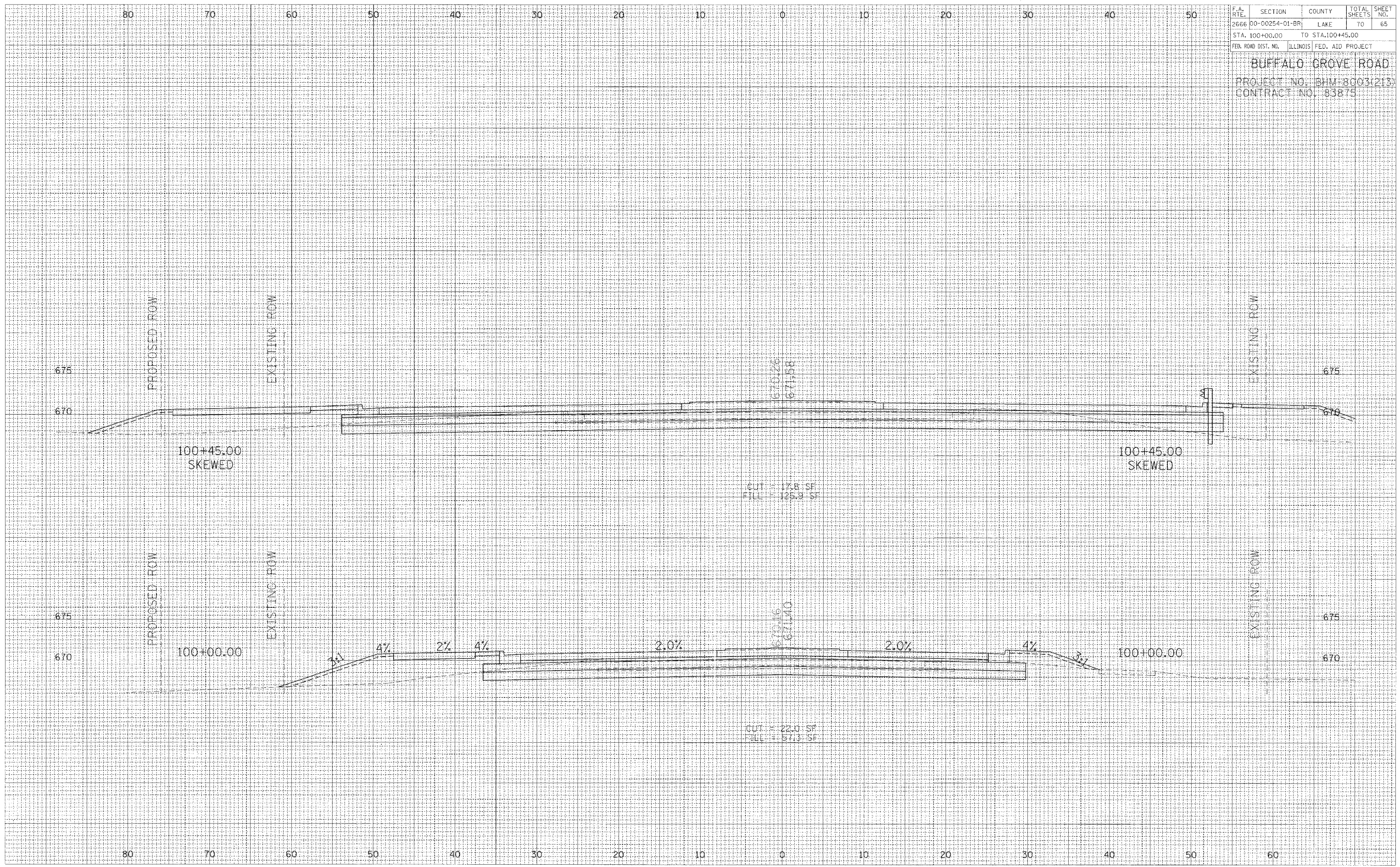


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	65
STA. 100+00.00		TO STA. 100+45.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**BUFFALO GROVE ROAD**  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

DATE	BY

DATE	BY





F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	66
STA. 102+55.00 TO STA. 103+00.00				
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

**BUFFALO GROVE ROAD**  
 PROJECT NO. BHM-8003(2)E3  
 CONTRACT NO. 83878

DATE	BY

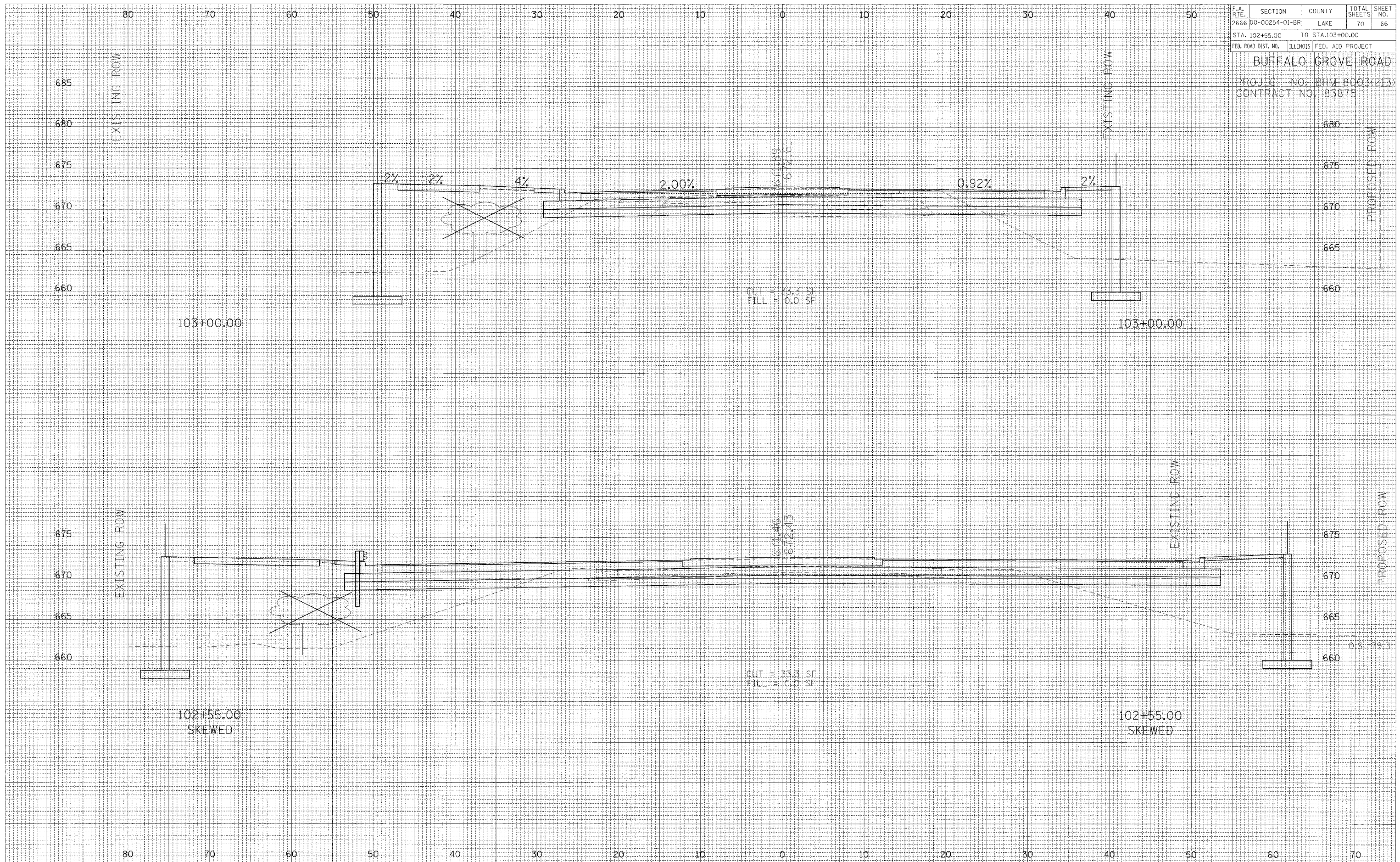
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NO.	NOTE BOOK

DATE	BY

NO.	AREAS CHECKED

NO.	NOTE BOOK



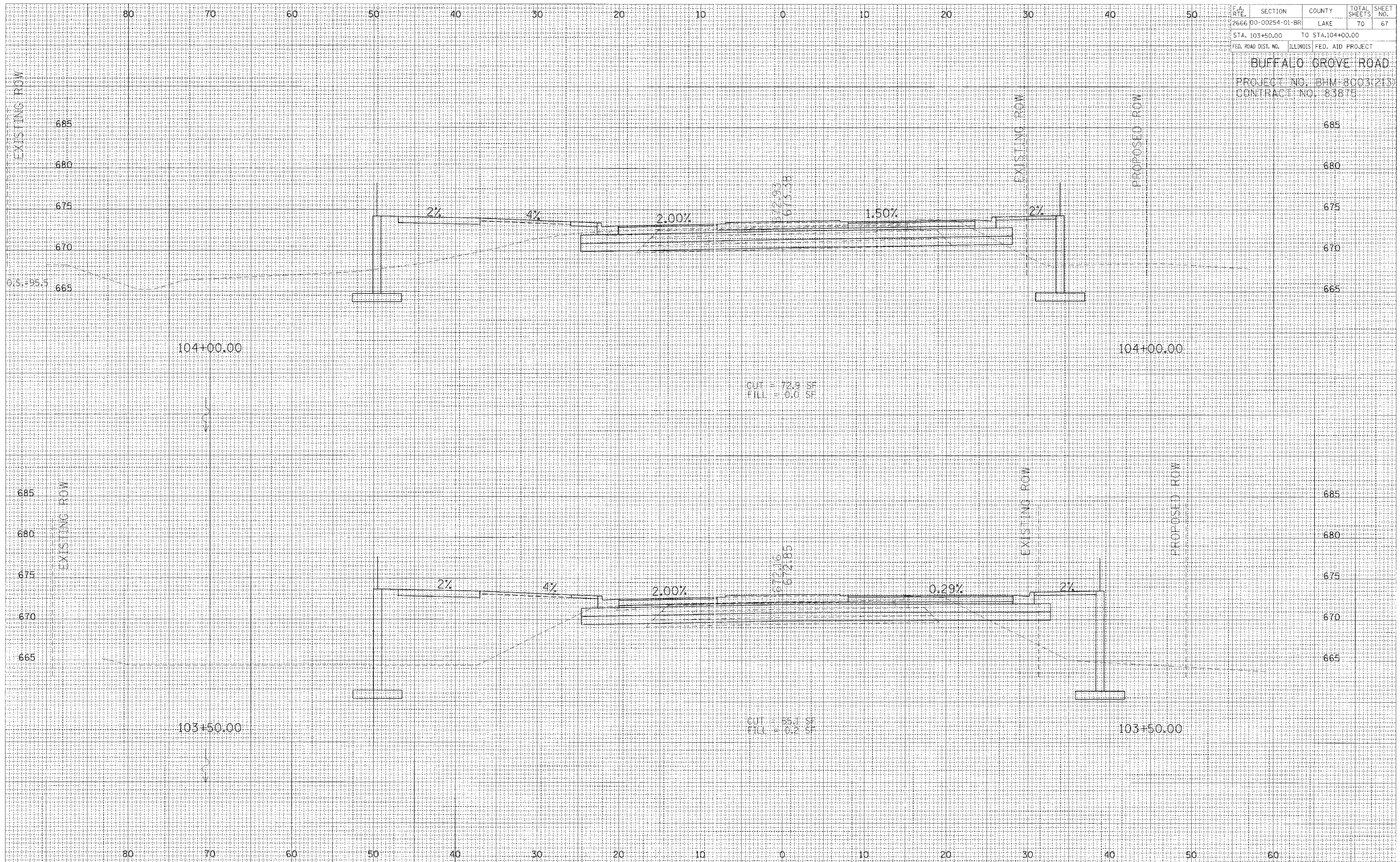


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	67
STA. 103+50.00 TO STA. 104+00.00				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

BUFFALO GROVE ROAD  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

DATE	
BY	
DESIGNED	
PLOTTED	
TEMP. FILE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
DESIGNED	
PLOTTED	
TEMP. FILE	
NOTE BOOK	
AREAS CHECKED	
NO.	



CUT = 72.9 SF  
 FILL = 0.0 SF

CUT = 55.1 SF  
 FILL = 0.2 SF

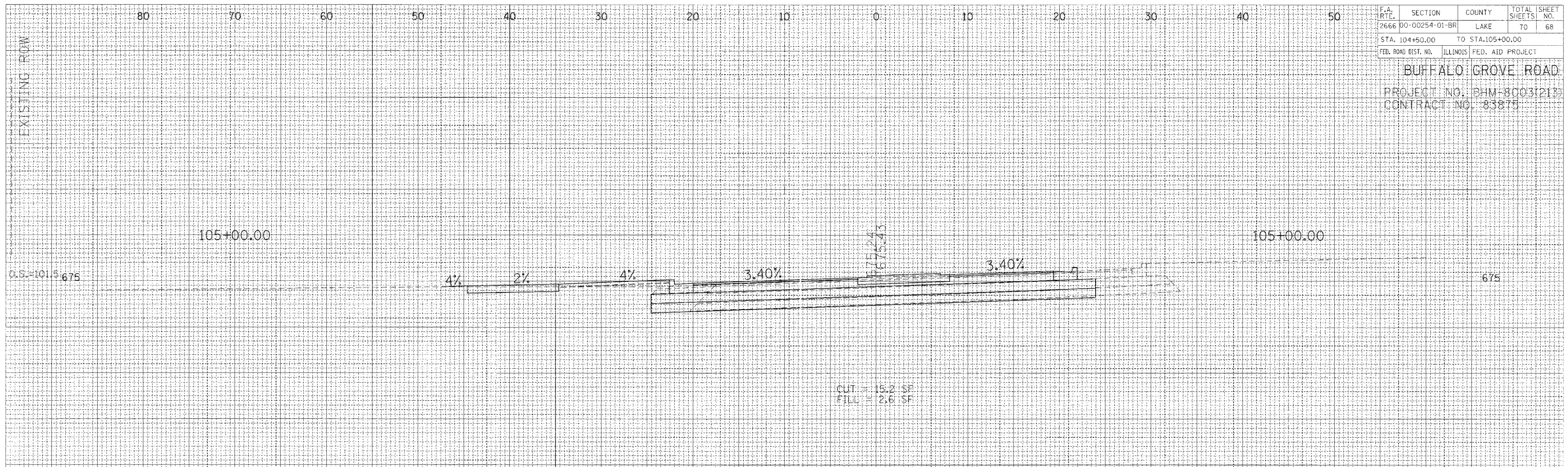


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	68
STA. 104+50.00		TO STA. 105+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

BUFFALO GROVE ROAD  
 PROJECT NO. BHM-8003(213)  
 CONTRACT NO. 83875

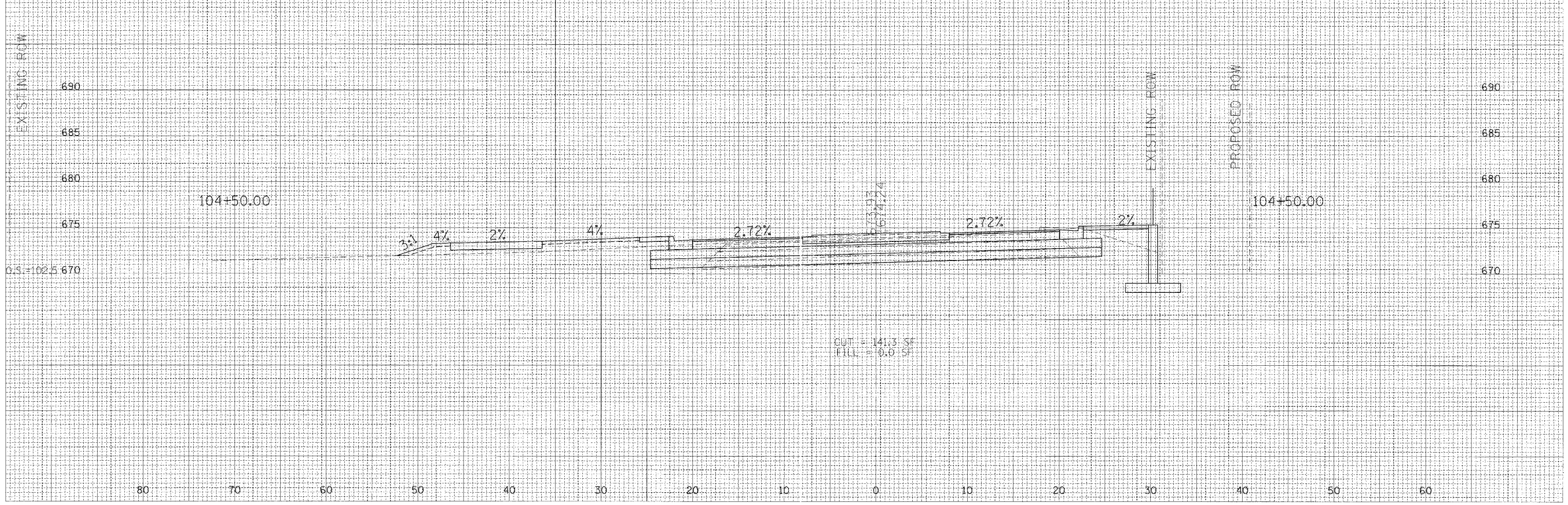
DATE	BY

FINAL SURVEY	CHECKED
NOTE BOOK	PLOTTED
AREAS	REPLATE
CHECKED	AREAS
NO.	CHECKED



DATE	BY

ORIGINAL SURVEY	CHECKED
NOTE BOOK	PLOTTED
AREAS	REPLATE
CHECKED	AREAS
NO.	CHECKED

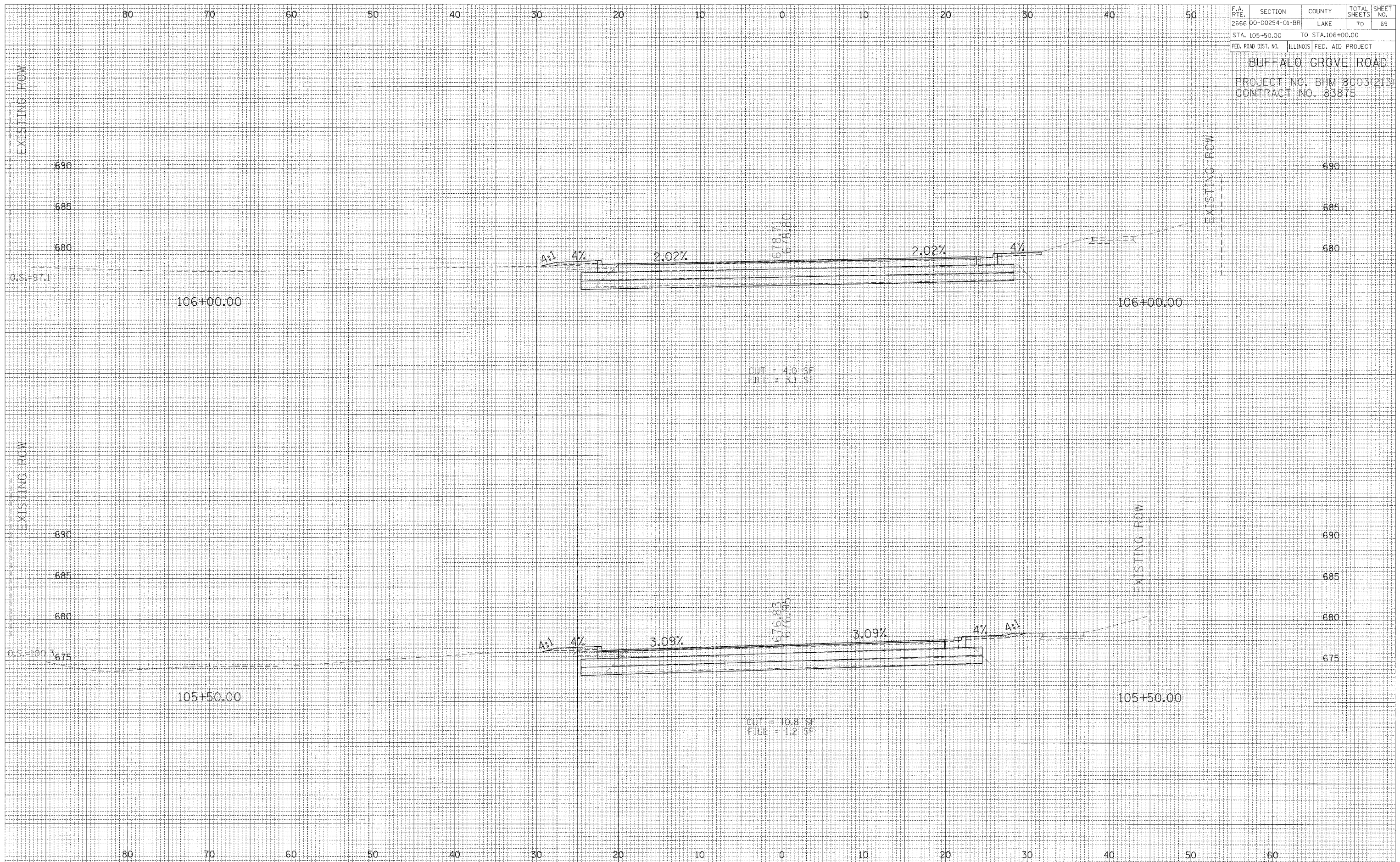




F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2666	00-00254-01-BR	LAKE	70	69
STA. 105+50.00		TO STA. 106+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
<b>BUFFALO GROVE ROAD</b>				
PROJECT NO. BHM-8003(213)				
CONTRACT NO. 83875				

DATE	BY
DATE	BY
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DATE	BY





F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
2666	00-00254-01-BR	LAKE	70
STA. 106+50.00		TO STA. 106+75.00	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

**BUFFALO GROVE ROAD**  
 PROJECT NO. BHM 8003(213)  
 CONTRACT NO. 83875

DATE	
BY	
FINAL SURVEY	
ROUTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
MS.	

DATE	
BY	
ORIGINAL SURVEY	
ROUTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
MS.	

