CONTRACT NO. 63084 A1-- SECTION COUNTY TOTAL SHEET SHEETS NO. 06-00021-00-BH COOK 60 1

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

DESCRIPTION SHEET NO. TITLE SHEET **GENERAL NOTES AND IDOT STANDARDS** SUMMARY OF QUANTITIES PROPOSED AND EXISTING TYPICAL SECTIONS ALIGNMENT, TIES AND BENCHMARKS **EARTHWORK SCHEDULE** OVERALL SITE PLAN **BIKE PATH PLAN AND PROFILE** SESC DETAILS AND STANDARD NOTES BRIDGE-GENERAL PLAN AND ELEVATION BRIDGE-GENERAL NOTES **BRIDGE-ABUTMENT DETAILS** 23 BRIDGE-METAL SHELL PILE DETAILS **BORING LOGS** 25 PROPOSED RETAINING WALL 26 DISTRICT ONE TYPICAL PAVEMENT MARKINGS 27 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS. 28 INTERSECTIONS, AND DRIVEWAYS CROSS SECTIONS 29--60 PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

ASHBOURNE LAKE AND LAKE LORIN
BIKE TRAIL RECONSTRUCTION

SECTION 06-00021-00-BT PROJECT M-CMM-HPP-0021(047) JOB NO. 91-226-08

VILLAGE OF ORLAND HILLS COOK COUNTY R 12E

PROJECT LOCATION

PROJECT ENDS | STA 204 + 37.10

PROJECT BEGINS
STA 200+00.00

PROJECT BEGINS
STA 10+00.00

PROJECT BEGINS STA 300+00.00

PROJECT ENDS STA 314+07.30

ADDITIONAL IMPROVEMENTS FROM: STA. 150 + 00 TO 151 + 18.74 STA. 160 + 00 TO 161 + 89.33 STA. 170 + 00 TO 170 + 46.3

> PROJECT BEGINS STA 100+00.00

STA 40 + 14.93

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

J.U.L.I.E

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 8-1-1

CHRISTOPHER B. BURKE ENGINEERING LTD.

PROJECT ENDS STA 143+41.38

PROJECT ENDS

167th St

LOCATION MAP

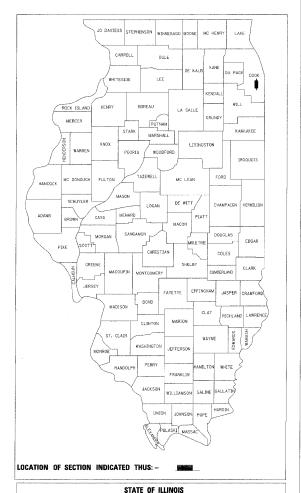
PROJECT LOCATION

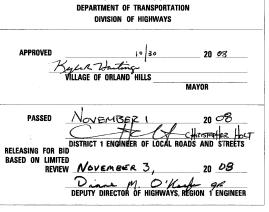
N.T.S.

GROSS LENGTH OF PROJECT = 9555 FEET (1.81 MI)

NET LENGTH OF PROJECT = 9555 FEET (1.81 MI)

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS





LEE M. FELL
ILLINOIS REGISTRATION No. 062-053708
EXPIRATION DATE: 11/30/2009

FIELD ENGINEER: MELCHOR MANGOBA OI W. CENTER COURT CHAUMBURG, ILLINOIS 60196-1096 847) 705-4408

9575 West Higgins Road, Suite 600 Rosemont, Illinois 60018 (84)

N:BOrlandHillsB080156BCIvilB080156.cvr

FOR JOB SITE SAFETY AS THOOS OF CONSTRUCTION OF THE STATE OF ILLINOIS

GENERAL NOTES

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007: THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2009: THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (IMUTCD), "FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" MAY 1996 FIFTH EDITION, THE "DETAILS" IN THE 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 REMOYED. 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 WHICH 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. IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.

ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY THE FOLLOWING REQUIREMENTS:

SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK NECESSITATES IT.

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.

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 FINGINFER.

ALL UNUSED SIGNS WILL BE RETURNED TO THE VILLAGE OR DISPOSED OF AS DIRECTED BY THE ENGINEER

LONGER POSTS MAY BE REQUIRED AT SOME TEMPORARY OR PERMANENT SIGN LOCATIONS TO MAINTAIN PROPER SIGN ELEVATIONS.

EARTH EXCAVATION

EXCAVATION REQUIRED TO CLEAN SIDE ROAD DITCHES, CONSTRUCT DRIVEWAYS OR CONSTRUCT SIDE ROAD APPROACHES SHALL BE CONSIDERED INCIDENTAL TO FARTH EXCAVATION.

ALL SUITABLE EXCESS MATERIAL FROM SEWER TRENCHES, WIDENING, 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.

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THE PRESERVATION OF EXISTING TREES IS OF UTMOST IMPORTANCE TO THE VILLAGE OF ORLAND HILLS. ALL TREE PROTECTION, TREE REMOVAL, PRUNING AND ROOT PRUNING SHALL BE COMPLETED BEFORE CONSTRUCTION OPERATIONS COMMENCE IN ANY AREA. AT NO TIME SHALL THE CONTRACTOR PRUNE OR REMOVE ANY TREES UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.

TEMPORARY FENCE SHOULD BE ERECTED ALONG THE DRIP LINE OF EXISTING TREES
TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION. AFTER TREES ARE SAFELY FENCED
NOTHING IS TO BE STORED. DRIVEN. OR DISTURBED INSIDE THE FENCE. REMOVE
PROTECTIVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.

THE CONTRACTOR SHALL TAKE EXTRA CARE IN GRADING AND EXCAVATING NEAR TREES WHICH ARE NOT MARKED FOR REMOVAL SO AS NOT TO CAUSE INJURY TO THE ROOT SYSTEM OR TRUNKS. HAND EXCAVATION SHALL BE PERFORMED IF MAJOR ROOTS ARE PRESENT. MAJOR ROOTS OF A TREE THAT ARE TO REMAIN IN PLACE EXTENDING INTO THE EXCAVATION AREAS AT AN ELEVATION THAT WOULD INTERFERE WITH ANY PORTION OF THE PLANNED CONSTRUCTION SHALL BE SEVERED AT A POINT IMMEDIATELY OUTSIDE OF THE EXCAVATION AREA IN A MANNER THAT WILL CAUSE THE LEAST AMOUNT OF SYSTEMIC DAMAGE TO THE REMAINING TREE STRUCTURE. THE EXPENSE OF ANY REQUIRED HAND EXCAVATION AS DESCRIBED ABOVE. SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT LINE ITEM BEING REMOVED OR INSTALLED AT THAT LOCATION.

ANY AREA WHERE THERE IS NO PROPOSED GRADING THE EXISTING GROUND COVER SHALL REMAIN.

THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS WHICH WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.

THE CONTRACTOR MUST COORDINATE WITH THE VILLAGE AND PROVIDE 72 HOURS ADVANCE NOTICE PRIOR TO CONSTRUCTION.

ANY SIDEWALK THAT IS BEING REMOVED FOR THE TRAIL INSTALLATION SHOULD NOT BE TAKEN OUT OF SERVICE UNTIL CLOSE TO WHEN THE TRAIL WILL BE CONSTRUCTED IN ITS PLACE.

CONTRACTOR WILL RESTORE AREAS ADJACENT TO THE PATH WITHIN TWO WEEKS OF PAVING THE PATH.

UTILITIES

THE CONTRACTOR SHALL COOPERATE WITH THE VILLAGE OF ORLAND HILLS
IN ANY UNDERGROUND UTILITY CONSTRUCTION WHICH THE VILLAGE OF ORLAND HILLS
MAY WANT TO PLACE DURING THE CONTRACTOR'S OPERATIONS.

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

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

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

BEFORE STARTING ANY EXCAVATION. THE CONTRACTOR SHALL CALL "JULIE" AT 8-1-1 0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, CABLE, TELEVISION FACILITIES, WATER, SANITARY AND STORM.

STAKING

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

ALL RADII FOR PROPOSED CURB AND GUTTER ARE TO THE BACK OF CURB UNLESS
OTHERWISE NOTED, AND SHALL BE AS INDICATED ON THE PLANS. ELEVATIONS SHOWN
AT POINT OF CURVE, ETC. ARE BACK OF CURB UNLESS OTHERWISE NOTED.

WATER. STORM SEWER AND SANITARY SEWER

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

WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS OR CATCH BASINS. HE SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE THE SAME. HE SHALL PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT, IF NECESSARY, AND A TEMPORARY OUTLET AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY CONNECTIONS UNTIL SUCH TIME AS THE PERMANENT CONNECTIONS WITH SEWERS ARE BUILT AND IN SERVICE. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE THE COST OF THE PROPOSED PATH.

ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE VILLAGE OF ORLAND HILLS.

THE CONTRACTOR SHALL NOT OPEN OR SHUT ANY WATER VALVES OR FIRE HYDRANTS WITHOUT PRIOR AUTHORIZATION FROM THE VILLAGE WATER DEPARTMENT. UNAUTHORIZED USE SHALL SUBJECT THE OFFENDER TO ARREST AND PROSECUTION.

MISCELLANEOUS

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

THE THICKNESSES OF BITUMINOUS MIXTURES SHOWN IN THE PLANS ARE NOMINAL.

DEVIATIONS MAY OCCUR DUE TO IRREGULARITIES IN THE SURFACES OR BASIS ON WHICH
THEY ARE TO BE PLACED. PLAN THICKNESSES SHOULD BE CONSIDERED THE MINIMUM
THICKNESS PERMITTED.

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

EROSION CONTROL

ALL EROSION CONTROL MEASURES AND COMPENSATORY STORAGE ARE TO BE IN PLACE BEFORE ANY WORK BEGINS ON THE SITE.

LIST OF HIGHWAY STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
424001-05	CURB RAMPS FOR SIDEWALKS (USE RECTANGULAR PATTERN)
542301-02	PRECAST REINFORCED CONCRETE FLARED END SECTION
701301-03	LANE CLOSURE, 2L 2W, SHORT TIME OPERATIONS
701501-05	URBAN LANE CLOSURE, 2L, 2W UNDIVIDED
701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
B.L.R. 17-4	TRAFFIC CONTROL DEVICES — DAY LABOR CONSTRUCTION
B.L.R. 22-6	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

UTILITY COORDINATION

UTILITY COMPANY	SBC / AT&T (Distribution)	COMCAST	COMED	ILLINOIS AMERICAN WATER CO.	NICOR GAS
CONSTRUCTION CONTACT PERSON	DAVID A. WILLIAMS, OSPE	CHRIS BAKER	GARRY ZACK	JOHN TRILIK	CONSTANCE LANE
PHONE	708-396-7615	630-288-7637	708-235-2694	630-739-8839	630-629-2500, ext. 334
FAX					
ADDRESS	2427 UNION STREET	688 INDUSTRIAL DRIVE	PUBLIC RELOCATION GROUP	1000 INTERNATION PKWY.	1844 FERRY ROAD
	FLOOR 2	ELMHURST, IL 60126	25000 S. GOVERNORS HIGHWAY	WOODRIDGE, IL 60517	NAPERVILLE, IL 60563-9600
	BLUE ISLAND, IL 60406		UNIVERSITY PARK, IL 60466	,	
FACILITIES IN / NEAR PROJECT	UNDERGROUND FACILITIES				
UTILITY REF NO.			H7550CRE	FR-2008-60-6	M5283
STATUS ON DATE OF PLAN PRINTING	No Conflicts are Anticipated.				

FILE NAME =	USER NAME = MAGOLDEN	DESIGNED - LMF	REVISED -	
N:\OrlandHills\Ø8Ø156\Civil\Ø8Ø156_no	t.pln	DRAWN - MG	REVISED -	
	PLOT SCALE = 1'	CHECKED - LMF	REVISED ~	
,	PLOT DATE = 11/3/2008	DATE - 11/3/2008	REVISED -	

	OFMERAL MOTES AND IRST STANDARDS	F.A. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	GENERAL NOTES AND IDOT STANDARDS		06-00021-00-BT	COOK	60	2
				CONTRACT	NO.	63084
į	SCALE: 1' SHEET NO. OF SHEETS STA. TO ST	A. FED. R	OAD DIST. NO. 1 ILLINGIS FED. A	ID PROJECT		

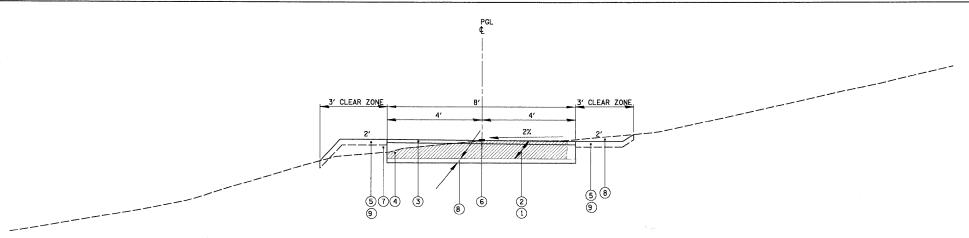
SUMMARY OF QUANTITIES

SPECIALTY	ITEAA	DECORPORTION				CN	MAQ DAN	Y047 TOTAL
ITEM	ITEM	DESCRIPTION	UNIT	HPP QUANTITY	STP QUANTITY	(1) ELM QUANTITY	88TH QUANTITY	QUANTITY
	20100110	TREE REMOVAL (6-15 UNITS DIAMETER)	UNIT	36	0	0	0	36
	20101000	TEMPORARY FENCE	FOOT	200	0	0	0	200
*	20101200	TREE ROOT PRUNING	EACH	55	0	0	0	55
	20200100	EARTH EXCAVATION	CU YD	187	0	51	854	1092
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	435	0	76	332	843
2	20700420	POROUS GRANULAR EMBANKMENT, SUBGRADE	CU YD	827	0	64	27	918
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	7700	0	495	1375	9570
	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	0	385	36	215	636
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	0	185	10	30	225
*	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	0	185	10	30	225
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	0 .	185	10	30	225
*	25100630	EROSION CONTROL BLANKET	SQ YD	0	216	0	0	216
	28000400	PERIMETER EROSION BARRIER	FOOT	8060	0	425	1400	9885
	28100107	STONE RIPRAP, CLASS A4	SQ YD	0	70	0	0	70
www	28200200	FILTER FABRIC	SQ YD	0	20	0	.0	20
	35102100 40603310	AGGREGATE BASE COURSE, TYPE B, 9" HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50	SQ YD	7700	0	495	1375	9570
	42400200		TON	1461	0	94	273	1828
	44000100	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH PAVEMENT REMOVAL	SQ FT	7700	220	170	120	510
	44000100	SIDEWALK REMOVAL	SQ YD	7700 0	0 220	0	0	7700
	50100100	REMOVAL OF EXISTING STRUCTURES	SQ FT EACH	1	0	170 0	120 0	510 1
	50200100	STRUCTURE EXCAVATION	CU YD	38	0	0	0	38
	50300225	CONCRETE STRUCTURES	CUYD	13.3	0	0	0	13.3
	50800105	REINFORCEMENT BARS	POUND	1560	0	0	0	1560
	51200956	FURNISHING METAL SHELL PILES 12"x0.179"	FOOT	120	0	0	o I	120
	51200330	DRIVING PILES	FOOT	120		0	<u> </u>	
	54200427	PIPE CULVERTS, TYPE 1, RCCP 12"	FOOT	95	0	0	0	120
	54200427			5	0		0	95
	 	PIPE CULVERTS, TYPE 1, RCCP 15"	FOOT			0	<u> </u>	5
	54213657	PRC FLARED END SECTIONS 12"	EACH	4	. 0	0	0	4
	54213660	PRC FLARED END SECTIONS 15"	EACH	1	0	0	0	1
	60403800	LIDS, TYPE 1, CLOSED LID	EACH	1	0	0	0	1
	67100100	MOBILIZATION	L. SUM	0	0.5	0.25	0.25	1
	70101835	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 22	LSUM	0	0.5	0.25	0.25	1
	70102620	TRAFFIC CONTROL AND PROTECTION - 701501	L. SUM	0	0.5	0.25	0.25	1
	70102635	TRAFFIC CONTROL AND PROTECTION - 701701						
· · · · · · · · · · · · · · · · · · ·			L. SUM	0	0.5	0.25	0.25	1
	70102640	TRAFFIC CONTROL AND PROTECTION - 701801	L. SUM	0	0.5	0.25	0.25	1
	72000100	SIGN PANEL TYPE 1	SQ FT	0	0	2.25	2.25	4.5
	72900100	METAL POST TYPE A	FOOT	0	0	12	12	24
*	78000200	THERMOPLASTIC PAVEMENT MARKING LINE, 4"	FOOT	0	7715	435	1400	9550
	X0322671	STABILIZED CONSTRUCTION ENTRANCE						
			SQ YD	0	167	112	76	355
	Z0013798	CONSTRUCTION LAYOUT	L. SUM	0	0.5	0.25	0.25	1
*	X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	304	0	0	0	304
	XX007750	GROUTED STONE RIPRAP, CLASS A4	SQ YD	20	0	0	0	20
*	25001100.	SEEDING, CLASS 3 (SIECTAL)	ACRE	0	1.95	0.1	0.35	2.4
	XX007751	LYTHRUM ALATUM (WINGED LOOSESTRIFE) NATIVE FORB PLUGS	EACH	. 0	494	0	0	494
	XX007752	CONCRETE RETAINING WALL	FOOT	520	0	0	0	520

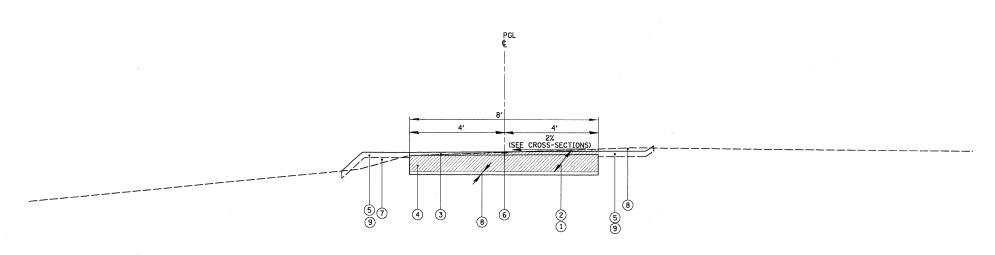
* INDICATES SPECIALITY ITEM

FILE NAME =	USER NAME = MAGOLDEN	DESIGNED -	-	LMF	REVISED	-
N:\OrlandHills\080156\Civil\080156_QUA.dgr	-	DRAWN -	-	MG	REVISED	
	PLOT SCALE = NTS	CHECKED -	-	LMF	REVISED	-
	PLOT DATE = 10/28/2008	DATE -	-	10/28/2008	REVISED	-

	011545	# # DV	OF 01			1		 F.A. RTE.	SEC	TION	COUNTY	TOTAL	SHEET NO.
	SOM	WAKY	OF QU	IANTITIES					06-0002	21-00-BT	COOK	60	3
											CONTRACT	NO.	63084
SCALE: 1'	SHEET NO.	OF	SHEETS	STA.	1	ΤO	STA.	FED. RO	DAD DIST. NO. 1	ILLINOIS FED.	AID PROJECT		



EXISTING/PROPOSED TYPICAL SECTION ASHBOURNE LAKE STA. 10 + 00 TO 40 + 14.93



EXISTING/PROPOSED TYPICAL SECTION LAKE LORIN STA. 100+00 TO 142+42.45 BRIDGE OMISSION STA. 142+61.00 TO 142+81.00

LEGEND

- 1 EXISTING PAVEMENT
- 2 EXISTING PAVEMENT REMOVAL (ASSUME 12")
- 3 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX"C", N50 3"
- 4 PROPOSED AGGREGATE BASE COURSE TYPE B, 9"
- 5 PROPOSED HYDROSEEDING, CLASS 3 W/ MULCH, METHOD 2
- 6 PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 4", YELLOW
- 7 PROPOSED EMBANKMENT
- 8 EARTH EXCAVATION
- 9 TOPSOIL PLACEMENT, 4"

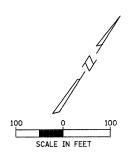
HOT-MIX ASPHALT REQUIREMENTS		
ITEM	AC-TYPE	VOIDS
HOT-MIX ASPHALT SURFACE COURSE,		
MIXTURE C, N50-3" (IL-9.5mm)	PG 64-22	4%@50 GYR

NOTES:

- 1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.
- 2. POROUS GRANULAR EMBANKMENT SUBGRADE (PGES) HAS BEEN PROVIDED FOR SOILS WHICH TEND TO BE UNSTABLE WHEN WET. ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGE WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE MANUAL). IF UNSUITABLE SOILS ARE ENCOUNTERED THE SOILS SHALL BE REMOVED AND REPLACED WITH PGE AND GROUND FABRIC FOR GROUND STABILIZATION. IF UNSTABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY WILL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.

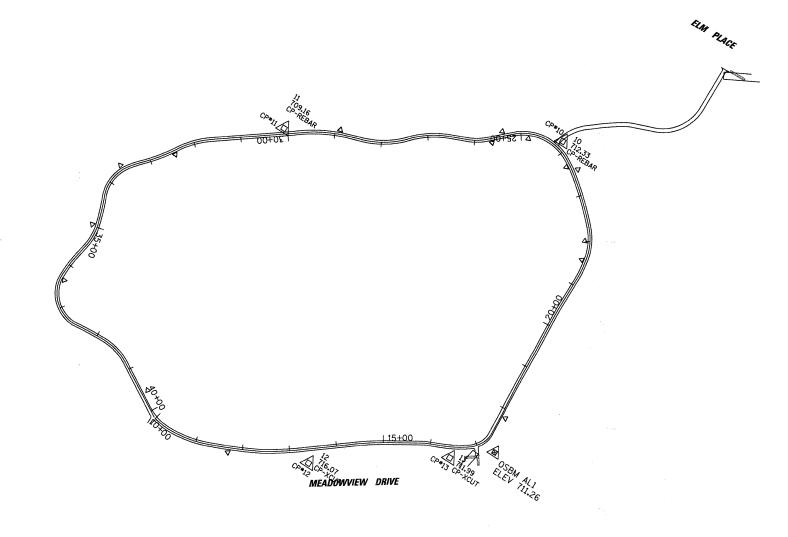
FILE	NAME =	USER NAME = MAGOLDEN	DESIGNED - LMF	REVISED		EXISTING AND PROPOSED TYPICAL SECTIONS	F.A. SECTION	COUNTY TOTAL SHEET
N:\Or	rländHılls\080156\Cıvıl\080156101,typ		DRAWN - MG	REVISED -	STATE OF ILLINOIS	LAKE LORIN AND ASHBORN LAKE	06-00021-00-BT	COOK 60 4
		PLOT SCALE = NTS	CHECKED - LMF	REVISED -	DEPARTMENT OF TRANSPORTATION	LAKE LUNIN AND ASHBUNN LAKE		CONTRACT NO. 63084
		PLOT DATE = 10/28/2008	DATE - 10/28/2008	REVISED		SCALE: 20' SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AT	D PROJECT

HORIZONTAL CONTROL POINTS									
A	CP NO	NORTHING (Y)	EASTING (X)	ELEVATION	DESCRIPTION	STATION	OFFSET		
CP-XCUT	12	1795292.26	1119734. 22	716.07	XCUT	13+37.52	29. 71 RT		
CP-XCUT	13	1795462. 31	1119981.19	711.99	XCUT	16+43.53	23. 37 RT		
CP-REBAR	10	1796157.55	1119823.34	712.33	REBAR	24+15.41	16. 92 RT		
CP-REBAR	11	1795863.87	1119309.69	709. 16	REBAR	30+07, 22	11.94 RT		



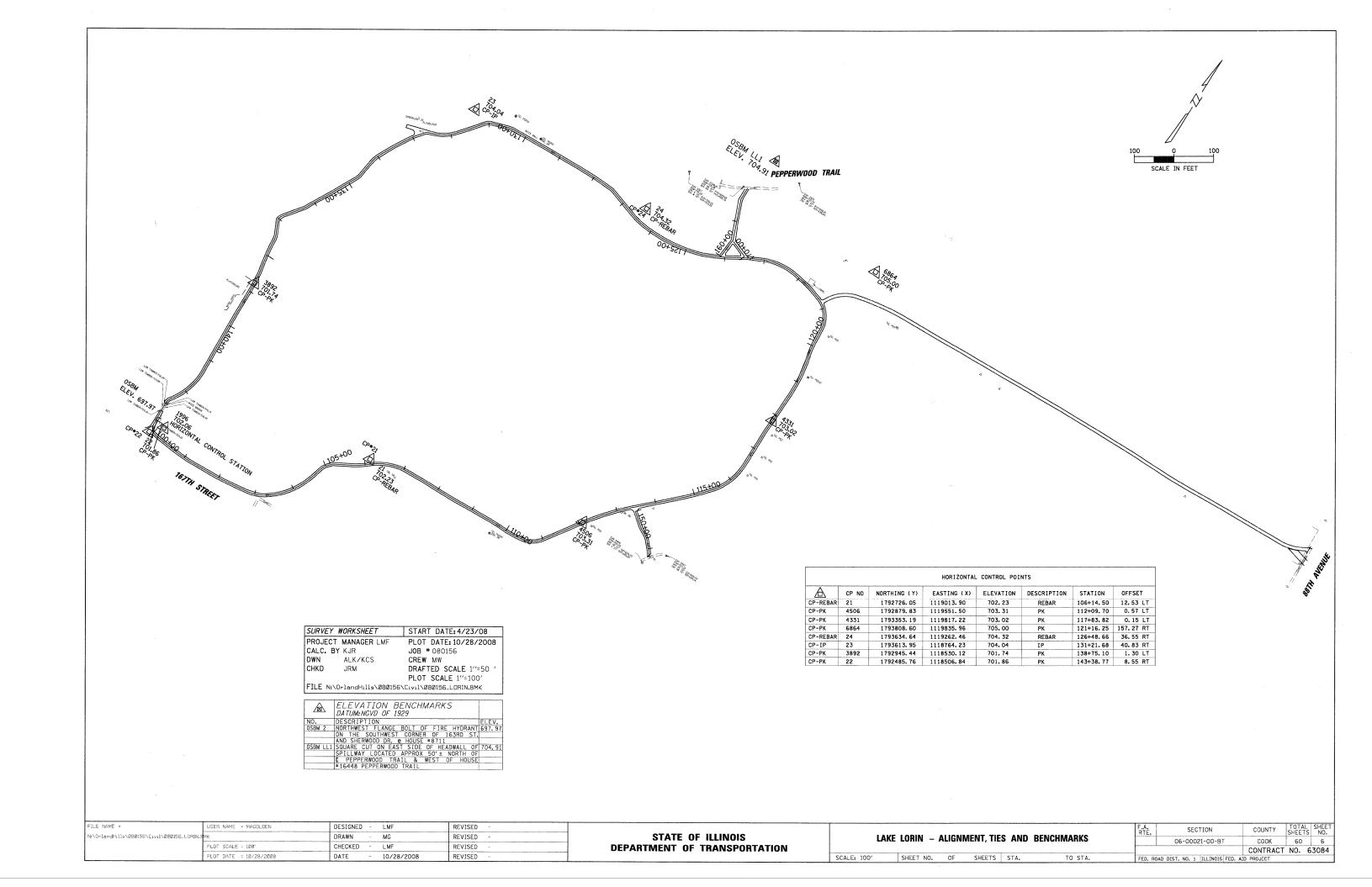
SURVEY	WORKSHEET	START DATE: 4/23/08
PROJEC	T MANAGER LMF	PLOT DATE: 10/28/2008
CALC. E	SY KJR	JOB # 080156
DWN	ALK/KCS	CREW MW
CHKD	JRM	DRAFTED SCALE 1"=50 '
		PLOT SCALE 1"=100"

A	ELEVATION BENCHMARKS DATUM:NGVD OF 1929	
NO.	DESCRIPTION	ELEV.
OSBM 2	NORTHWEST FLANGE BOLT OF FIRE HYDRANT	697.97
	ON THE SOUTHWEST CORNER OF 163RD ST.	
	AND SHERWOOD DR. @ HOUSE #8711	
OSBM AL1	X-CUT ON STROM MANHOLE RIM LOCATED IN	
	THE SOUTHEAST CORNER OF ASHBOURNE LAKE	
	GROUNDS THE MONUMENT IS LOCATED APPROX	
	50' ± NORTH OF ¢ MEADOWVIEW DR. & AT	
	THE SOUTHWEST CORNER OF THE LOT OF	
	HOUSE #16200 MARIGOLD PL.	



	FILE NAME =	USER NAME = MAGOLDEN	DESIGNED -	LMF	REVISED -		
	N:\OrlandH:lls\080156\C:v:l\080156_ASHBOU	RNE.BMK	DRAWN -	MG	REVISED -	STATE OF ILLINOIS	
		PLOT SCALE = 100'	CHECKED -	LMF	REVISED -	DEPARTMENT OF TRANSPORTATION	i
l		PLOT DATE = 10/28/2008	DATE -	10/28/2008	REVISED -		SCAL

						ND BENCHMARKS	RTE.	SECTION	COUNTY
	ASHBOU	RNE LAKE -	- ALIC		06-00021-00-BT	COOK			
									CONTRACT
ALE:	100'	SHEET NO.	0F	SHEETS	STA.	TO STA.	FED. RO	AD DIST, NO. 1 ILLINOIS FED. AI	D PROJECT



ASHBOURNE LAKE RECONSTRUCT

	Cut	Volume	Fill	Volume	TOPSOIL STRIP	Volume	PROPOSED TOPSOIL	Volume
Station	End Area ft ²	ft ³	End Area ft2	ft ³	End Area ft2	ft ³	End Area ft2	ft ³
10+00.00	0.00		0		0.00		0	
10+50.00	3.10	77.50	0	0.00	1.6	92.50	1.1	27.50
11+00.00	5.30	210.00	0	0.00	2.1	75.00	1.9	75.00
11+50.00	2.10	185.00	0.1	2.50	0.9	45.00	0.6	62.50
12+00.00	1.90	100.00	0	2.50	0.9	42.50	0.5	27.50
12+50.00	1.40	82.50	0.1	2.50	0.8	92.50	0.6	27.50
13+00.00	1.10	62.50	1,4	37.50	2.9	150.00		
13+50.00	1.40	62.50	1,1	62.50			2.4	75.00
14+00.00	1.40	70.00		35.00	3.1	110.00	2.9	132.50
	0.80	55.00	0.3		1.3	72.50	0.9	95.00
14+50.00	2.20	75.00	1	32.50	1.6	55.00	1.3	55.00
15+00.00			0	25.00	0.6	27.50	0.3	40.00
15+50.00	1.80	100.00	0	0.00	0.5	30.00	0.3	15.00
16+00.00	2.10	97.50	0	0.00	0.7	35.00	0.6	22.50
16+50.00	0.80	72.50	0.2	5.00	0.7	42.50	0.5	27.50
17+00.00	2.50	82.50	0	5.00	11	37.50	1	37.50
17+50.00	1.80	107.50	0.6	15.00	0.5	22.50	0.8	45.00
18+00.00	0.10	47.50	0.1	17.50	0.4	17.50	0.3	27.50
18+50.00	0.70	20.00	0	2.50	0.3	30.00	0.1	10.00
19+00.00	0.40	27.50	0.5	12.50	0,9	42.50	0.6	17.50
19+50.00	0.50	22.50	0.5	25.00	0.8	52.50	0.5	27.50
20+00.00	0.50	25.00	1.5	50.00	1.3	82.50	0.9	35.00
20+50.00	0.50	25.00	1.7	80.00	2	92.50	1.5	60,00
21+00.00	0.30	20.00	1.6	82.50	1.7	65.00	1.4	72.50
21+50.00	0.80	27.50	0.3	47.50	0.9	30.00	0,6	50.00
22+00.00	1.00	45.00	0.1	10.00	0.3	70.00	0.0	15.00
22+50.00	0.80	45.00	1.3	35.00	2.5	92.50	1,9	47.50
23+00.00	0.80	40.00	0.3	40.00				
23+50.00	0.50	32.50	0.6	22.50	1.2	55.00 37.50	0.8	67.50
24+00.00	0.70	30.00			1		0.7	37.50
	0.90		0.2	20.00	0.5	25.00	0.2	22.50
24+50.00		40.00	1.4	40.00	0.5	20.00	0.2	10.00
25+00.00	0.50	35.00	0.2	40.00	0.3	30.00	0.2	10.00
25+50.00	0.80	32.50	0.6	20.00	0.9	65.00	0.9	27.50
26+00.00	0.90	42.50	0.4	25.00	1.7	75.00	1.3	55.00
26+50.00	0.40	32.50	0.3	17.50	1.3	72.50	1.1	60.00
27+00.00	0.20	15.00	0.9	30.00	1.6	72.50	1.5	65.00
27+50.00	1.70	47.50	0	22.50	1.3	52.50	0.9	60.00
28+00.00	0.60	57.50	0.7	17.50	0.8	32.50	0.4	32.50
28+50.00	0.50	27.50	0.7	35.00	0.5	25.00	0.2	15.00
29+00.00	1.50	50.00	0.1	20.00	0.5	60.00	0.2	10.00
29+50.00	2.80	107.50	0.1	5.00	1.9	60.00	1.8	50.00
30+00.00	1.10	97.50	0	2.50	0.5	87.50	0.1	47.50
30+50.00	0.70	45.00	0.9	22.50	3	142.50	2.5	65,00
31+00.00	0.40	27.50	1.6	62.50	2.7	125.00	2.3	120.00
31+50.00	0.40	20.00	1.7	82.50	2.3	117.50	2	107.50
32+00.00	0.90	32.50	0.9	65.00	2.4	87.50	1.9	97.50
32+50.00	0.60	37.50	1.3	55.00	1.1	47.50	0.6	62.50
33+00.00	0.90	37.50	0	32.50	0.8	45.00	0.6	30.00
33+50.00	0.50	35.00	0.4	10.00	1	62.50		30.00
34+00.00	0.40	22.50		42.50			0.6	
	0.40	30.00	1.3		1.5	82.50	1.3	47.50
34+50.00			0.3	40.00	1.8	50.00	1.3	65.00
35+00.00	0.00	20.00	0.4	17.50	0.2	17.50	0.2	37.50
35+50.00	0.70	17.50	0.1	12.50	0.5	25.00	0.3	12.50
36+00.00	0.70	35.00	0.1	5.00	0.5	32.50	0.2	12.50
36+50.00	1.10	45.00	0.8	22.50	0.8	32.50	0.2	10.00
37+00.00	0.70	45.00	0.4	30.00	0.5	35.00	0.1	7.50
37+50.00	1.00	42.50	0.1	12.50	0.9	85.00	0.5	15.00
38+00.00	0.50	37.50	0.7	20.00	2.5	152.50	2.3	70.00
38+50.00	0.40	22.50	1.3	50.00	3.6	265.00	3.3	140.00
39+00.00	0.50	22.50	3.2	112.50	7	265.00	6.7	250.00
39+50.00	2.50	75.00	0	80.00	3.6	152.50	3.3	250.00
40+00.00	0.70	80.00	0.2	5.00	2.5	62.50	2.4	142.50

LAKE LORIN RECONSTRUCT

	Cut	Volume	Fill	Volume	TOPSOIL STRIP	Volume	PROPOSED TOPSOIL	Volume
Station	End Area ft ²	ft ³	End Area ft2	ft ³	End Area ft2	ft ³	End Area ft2	ft ³
100+00.00 100+50.00	0.00 1.90	47.50	1.8	75.00	0 2.8	70.00	2.7	67.50
101+00.00	0.10	50.00	0.3	37.50	2.2	125.00	1.9	115.00
101+50.00	0.00	2.50	0.4	17.50	0.3	62.50	0.3	55.00
102+00.00	0.30	7.50	0.1	12.50	0.4	17.50	0.4	17.50
102+50.00	0.00	7.50	0.6	17.50	0	10.00	0	10.00
103+00.00	0.50 0.90	12.50	1.1	42.50	2.1	52.50	1.5	37.50
103+50.00 104+00.00	0.30	35.00 30.00	0.6	27.50 15.00	3.4 0.2	137.50 90.00	3.5 0.1	125.00 90.00
104+50.00	0.20	12.50	0.8	35.00	0.2	10.00	0.1	7.50
105+00.00	0.00	5.00	2.5	82.50	0.5	17.50	0.5	17.50
105+50.00	0.10	2.50	0.2	67.50	0.1	15.00	0	12.50
106+00.00	0.00	2.50	0.5	17.50	0.1	5.00	0	0.00
106+50.00	0.00	0.00	0.7	30.00	0	2.50	0	0.00
107+00.00 107+50.00	0.20 0.80	5.00 25.00	0.4	27.50	0.4	10.00	0.2	5.00
108+00.00	0.00	20.00	0.5 1.7	22.50 55.00	0.6 2.2	25.00 70.00	0.3 2.1	12.50 60.00
108+50.00	0.00	0.00	0.9	65.00	0.1	57.50	0.3	60.00
109+00.00	0.00	0.00	1.6	62.50	0.5	15.00	0.3	15.00
109+50.00	0.00	0.00	0.5	52.50	0.1	15.00	0	7.50
110+00.00	0.30	7.50	0.2	17.50	1.1	30.00	1.5	37.50
110+50.00	0.80	27.50	0.5	17.50	2.6	92.50	3.3	120.00
111+00.00 111+50.00	1.50 0.40	57.50 47.50	0.9 1.2	35.00 52.50	3.8	160.00 135.00	3.4	167.50 122.50
112+00.00	0.30	17.50	1.6	70.00	1.6	80.00	1.5	72.50
112+50.00	3.80	102.50	0.5	52.50	2.7	107.50	2.4	95.00
113+00.00	0.50	107.50	3.1	90.00	0.5	80.00	0.3	67.50
113+50.00	0.00	12.50	2.1	130.00	0.8	32.50	0,6	22.50
114+00.00	0.00	0.00	1.5	90.00	0.3	27.50	0	15.00
114+50.00	0.50	12.50	0.5	50.00	0.3	15.00	0.2	5.00
115+00.00 115+50.00	0.00	12.50 0.00	1.4 1.8	47.50 80.00	0.2	12.50 12.50	0	5.00 2.50
116+00.00	0.40	10.00	0	45.00	0.2	12.50	0.1	7.50
116+50.00	0.00	10.00	2.3	57.50	0.7	22.50	0.4	15.00
117+00.00	0.70	17.50	0	57.50	0.5	30.00	0.5	22.50
117+50.00	0.10	20.00	1.1	27.50	0.2	17.50	0.1	15.00
118+00.00	0.00	2.50	5.1	155.00	5.4	140.00	3.3	85.00
118+50.00	0.00	0.00	12.2	432.50	2	185.00	1.8	127.50
119+00.00 119+50.00	0.00	0.00	19.8 21.3	800.00 1027.50	3.1	127.50 162.50	2.9	117.50 155.00
120+00.00	0.00	0.00	30.1	1285.00	3.4 7.5	272.50	3.3 8.4	292.50
120+50.00	0.00	0.00	22.6	1317.50	8.6	402.50	7.2	390.00
121+00.00	0.00	0.00	2.3	622.50	0.5	227.50	0.3	187.50
121+50.00	0.10	2.50	4.9	180.00	1.4	47.50	1.1	35.00
122+00.00	0.30	10.00	1.5	160.00	0	35.00	0.1	30.00
122+50.00	0.00	7.50 0.00	0.9	60.00	0	0.00	0	2.50
123+00.00 123+50.00	1.60	40.00	1.3 3.1	55.00 110.00	0.1	2.50 17.50	0	0.00
124+00.00	0.10	42.50	3.5	165.00	0.6 0.5	27.50	2.6 0.3	65.00 72.50
124+50.00	0.30	10.00	0.5	100.00	0.5	25.00	0.3	15.00
125+00.00	0.00	7.50	5.8	157.50	3.4	97.50	2.8	77.50
125+50.00	0.00	0.00	0.1	147.50	0.1	87.50	0.1	72.50
126+00.00	0.80	20.00	0	2.50	1.4	37.50	1.5	40.00
126+50.00	2.80	90.00	0.3	7.50	1.3	67.50	1.2	67.50
127+00.00 127+50.00	0.30	77.50 7.50	0.9	30.00 72.50	0.1	35.00 15.00	0.1	32.50
128+00.00	0.00	0.00	4.4	160.00	0.5 1.9	60.00	0.3 1.7	10.00 50.00
128+50.00	0.00	0.00	6.4	270.00	2.6	112.50	2.5	105.00
129+00.00	0.00	0.00	0.6	175.00	0.5	77.50	0.4	72.50
129+50.00	0.00	0.00	1.1	42.50	0.3	20.00	0.2	15.00
130+00.00	1.00	25.00	0.4	37.50	0.2	12.50	0.1	7.50
130+50.00	0.00	25.00	2.3	67.50	0.4	15.00	0.2	7,50
131+00.00 131+50.00	0.00	0.00 2.50	1.2 2.1	87.50 82.50	0.2	15.00 17.50	0	5.00 12.50
132+00.00	0.10	5.00	2.9	125.00	0.5 3	87.50	0.5 3.2	92.50
132+50.00	0.60	17.50	0.1	75.00	0.4	85.00	0.7	97.50
133+00.00	0.00	15.00	10.5	265.00	7.6	200.00	7.7	210.00
133+50.00	0.00	0.00	4.2	367.50	1.5	227.50	1.4	227.50
134+00.00	0.30	7.50 7.50	0.2	110.00	0.3	45.00	0.3	42.50
134+50.00 135+00.00	0.00	0.00	24.4 26.2	615.00 1265.00	4.2 3.6	112.50 195.00	4.1 3.5	110.00
135+50.00	0.00	0.00	25.4	1290.00	3.5	177.50	3.5	175.00
136+00.00	0.00	0.00	34.3	1492.50	7.1	265.00	6.6	252.50
136+50.00	0.00	0.00	21.6	1397.50	5.8	322.50	5.4	300.00
137+00.00	3.00	75.00	0	540.00	7.3	327.50	7.3	317.50
137+50.00	0.10	77.50	0.8	20.00	0.7	200.00	0.4	192.50
138+00.00 138+50.00	6.30 0.10	160.00 160.00	0.3 1.5	27.50 45.00	5.7	160.00 222.50	5.5	147.50
139+00.00	0.40	12.50	0.8	57.50	3.2 0.2	85.00	3.1 0.1	215.00 80.00
139+50.00	1.10	37.50	1.3	52.50	0.5	17.50	0.1	5.00
140+00.00	1.30	60.00	0.8	52.50	2.7	80.00	2.3	60.00
140+50.00	0.60	47.50	1	45.00	0.2	72.50	0.2	62.50
141+00.00	0.00	15.00	2	75.00	1.8	50.00	1.7	47.50
141+50.00	0.30	7.50	2.6	115.00	0.8	65.00	0.8	62.50
142+00.00 142+50.00	0.00	7.50	7.1 37.2	242.50 1107.50	1.3 4.8	52.50 152.50	1	45.00 145.00
143+00.00	0.00	0.00	26.7	1597.50	4.8	220.00	4.8 3.9	217.50
			1	.007.00		25.00	3,8	UG.11a

	Cut	Volume	Fill	Volume	TOPSOIL STRIP	Volume	PROPOSED TOPSOIL	Volume
Station	End Area ft ²	ft ³	End Area ft2	ft ³	End Area ft2	ft ³	End Area ft2	ft ³
150+00.00	1.10		0.7		1.3		1	
150+50.00	0.00	27.50	0.5	30.00	0.1	35.00	0.4	35.00
151+00.00	0.10	2.50	0.7	30.00	0.1	5.00	0.4	20.00
	Cut	Volume	Fill	Volume	TOPSOIL STRIP	Volume	PROPOSED TOPSOIL	Volume
Station	End Area ft ²	ft ³	End Area ft2	ft ³	End Area ft2	ft ³	End Area ft2	ft ³
160+20.00	0.10		0.9		0.2		0	
160+50.00	0.40	7.50	0.4	19.50	1.9	31.50	2.1	31.50
161+00.00	0.00	10.00	0.2	15.00	0	47.50	0	52.50
161+50.00	0.10	2.50	0	5.00	0	0.00	0	0.00
	Cut	Volume	Fill	Volume	TOPSOIL STRIP	Volume	PROPOSED TOPSOIL	Volume
Station	End Area ft ²	ft ³	End Area ft2	ft ³	End Area ft2	ft ³	End Area ft2	ft ³
170+20.00	0.10		0.8		0	7	0	
170+40.00	0.00	1.00	0.3	11.00	0.1	1.00	0	0.00

ELM CONNECTOR

	Cut	Volume	Fill	Volume	TOPSOIL STRIP	Volume	PROPOSED TOPSOIL	Volume
Station	End Area ft ²	ft ³	End Area ft2	ft ³	End Area ft2	ft ³	End Area ft2	ft ³
200+09.10	2:30		0.8		3.70		1.1	
200+50.00	1.50	77.71	1.5	47.04	4.5	167,69	1,8	61.35
201+00.00	5.00	162.50	0.1	40.00	3.7	282.50	1	75.00
201+50.00	0.00	125.00	13.8	347.50	7.6	280.00	5	150.00
202+00.00	4.20	105.00	0.1	347.50	3.6	180.00	0.9	150.00
202+50.00	5.40	240.00	0	2.50	3.6	190.00	0.9	50.00
203+00.00	8.40	345.00	0	0.00	4	302.50	1.4	50.00
203+50.00	0.80	230.00	15.9	397.50	8.1	332.50	5,5	150.00
204+00.00	1.40	55.00	2.4	457.50	5.2	237.50	2.5	200.00
204+32.13	0.30	27.31	1.5	62.65	4.3	69.08	1.6	80.33

88TH AVENUE CONNECTOR

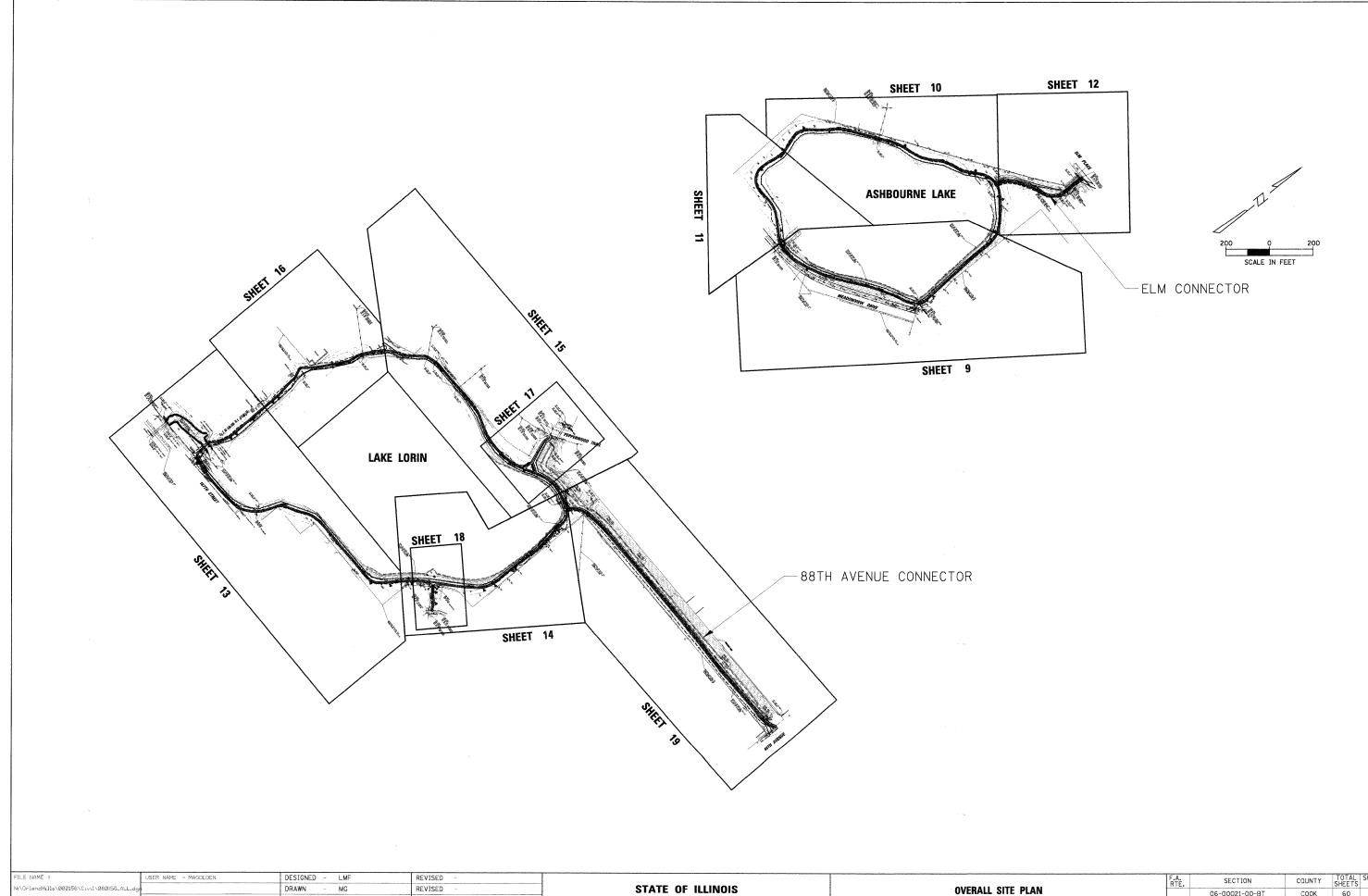
	Cut	Volume	Fill	Volume	TOPSOIL STRIP	Volume	PROPOSED TOPSOIL	Volume
Station	End Area ft ²	ft ³	End Area ft2	ft ³	End Area ft2	ft ³	End Area ft2	ft ³
300+08.49	6.50		0		4.00		1.4	
300+50.00	2.80	193.02	0.1	2.08	3.8	193.02	1.1	41.51
301+00.00	8.30	277.50	0.5	15.00	5.5	270.00	2.8	100.00
301+50.00	10.30	465.00	0.1	15.00	5.3	277.50	2.6	150.00
302+00.00	12.60	572.50	0.1	5.00	5.8	290.00	3.1	150.00
302+50.00	16.00	715.00	0	2.50	5.8	292.50	3.2	150.00
303+00,00	11.50	687.50	0.2	5.00	5.9	305.00	3.2	150.00
303+50.00	12.60	602.50	0.3	12.50	6.3	332.50	3.6	175.00
304+00.00	12.60	630.00	0.6	22.50	7	352.50	4.4	200.00
304+50.00	17.00	740.00	0.4	25.00	7.1	177.50	4.4	200.00
305+00.00	18.60	890.00	0.20	15.00	7.00	345.00	4.40	200.00
305+50.00	17.30	897.50	0.30	12.50	6.80	357.50	4.10	200.00
306+00.00	20.50	945.00	0.30	15.00	7.50	382.50	4.80	225.00
306+50.00	19.30	995.00	0.60	22.50	7.80	377.50	5.20	250.00
307+00.00	19.70	975.00	0.20	20.00	7.30	372.50	4.70	250.00
307+50.00	22.70	1060.00	0.10	7.50	7.60	372.50	5.00	250.00
308+00.00	21.50	1105.00	0.10	5.00	7.30	350.00	4.70	250.00
308+50.00	18.40	997.50	0.10	5.00	6.70	342.50	4.10	225.00
309+00.00	18.30	917.50	0.30	10.00	7.00	175.00	4.40	200.00
309+50.00	18.60	922.50	0.50	20.00	6.90	337.50	4.20	200.00
310+00.00	19.60	955.00	0.30	20.00	6.60	350.00	4.00	200.00
310+50.00	21.20	1020.00	0.70	25.00	7.40	372.50	4.70	225.00
311+00.00	21.30	1062.50	0.60	32.50	7.50	385.00	4.80	250.00
311+50.00	21.00	1057.50	0.80	35.00	7.90	417.50	5.20	250.00
312+00.00	25.80	1170.00	1.00	45.00	8.80	400.00	6.10	275.00
312+50.00	17.80	1090.00	0.60	40.00	7.20	387.50	4.50	275.00
313+00.00	19.80	940.00	0.90	37.50	8.30	427.50	5.60	275.00
313+50.00	11.60	785.00	4.70	140.00	8.80	220.00	6.10	300.00
313+96.33	5.00	384.54	0.00	108.88	3.60	83.39	0.90	162.16

TOTAL EARTHWORK

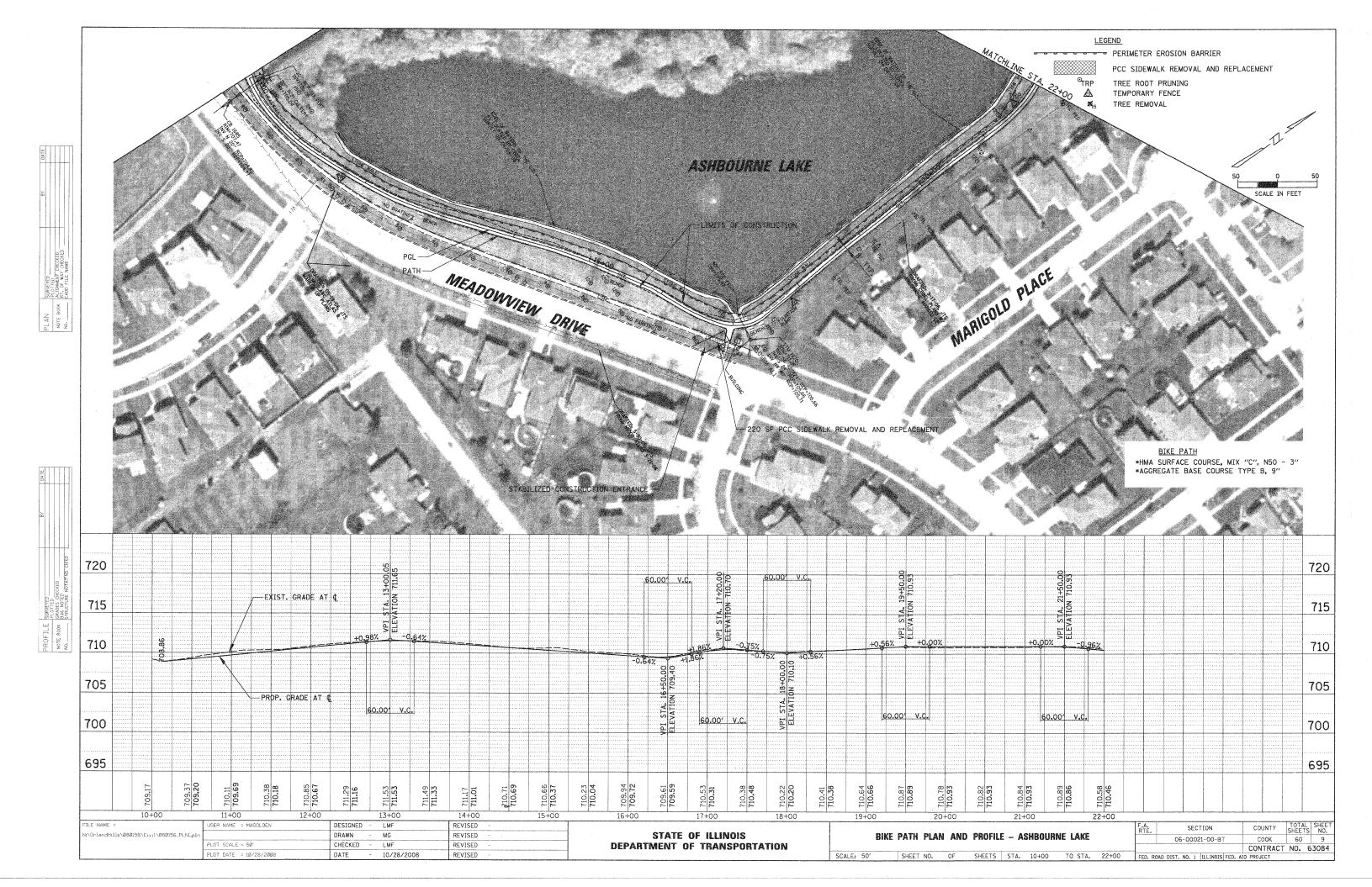
	CUT (CY)	FILL (CY)	PROP TOPSOIL (CY)	TOPSOIL STRIP (CY)
LORIN	68.93	762.33	262.65	280.00
ASHBOURNE	117.13	63.89	121.11	154.07
ELM	50.65	63.04	35.84	75.62
88TH	853.80	26.70	214.22	331.35
TOTAL	1090.50	915.97	633.82	841.04

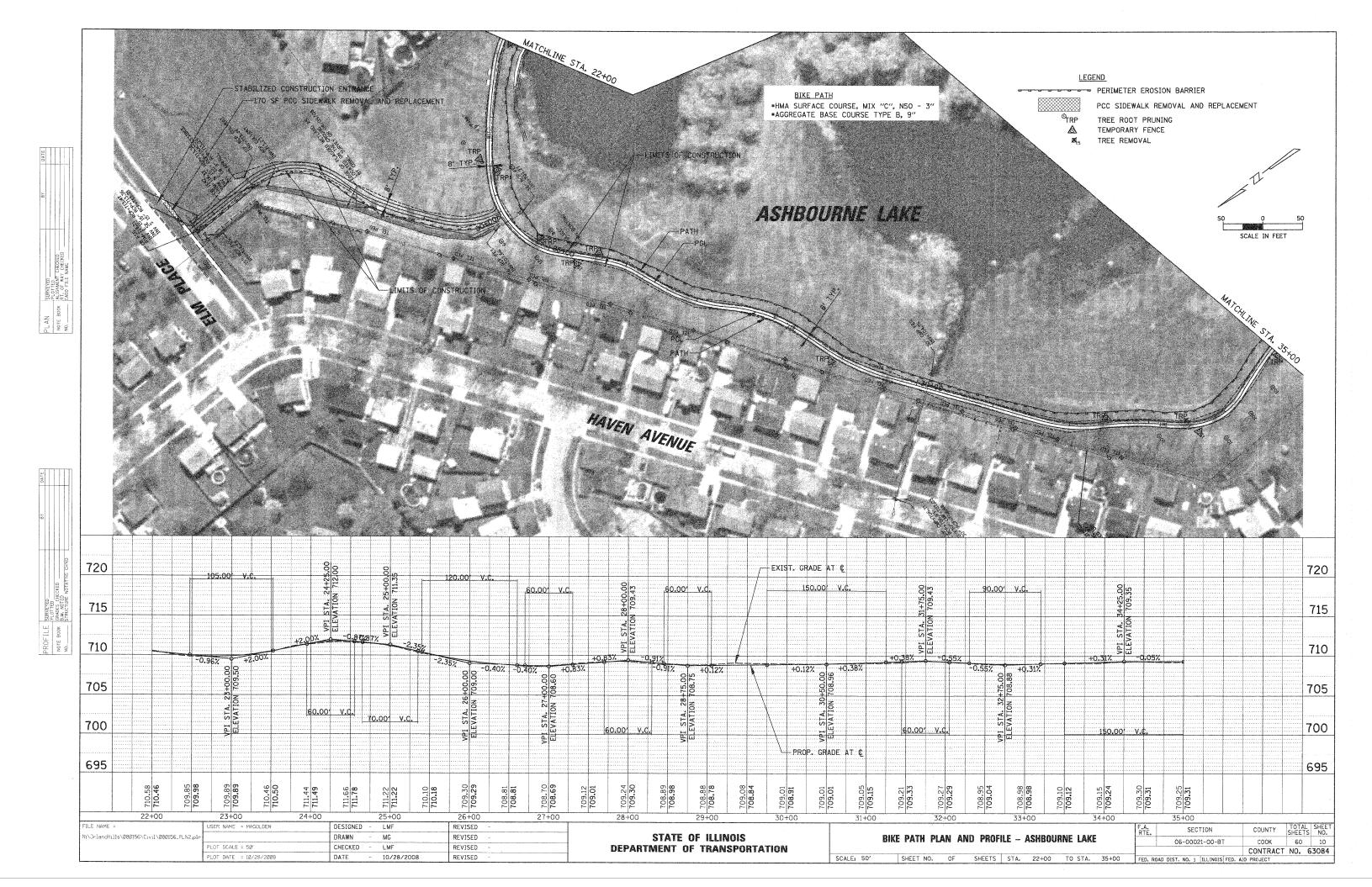
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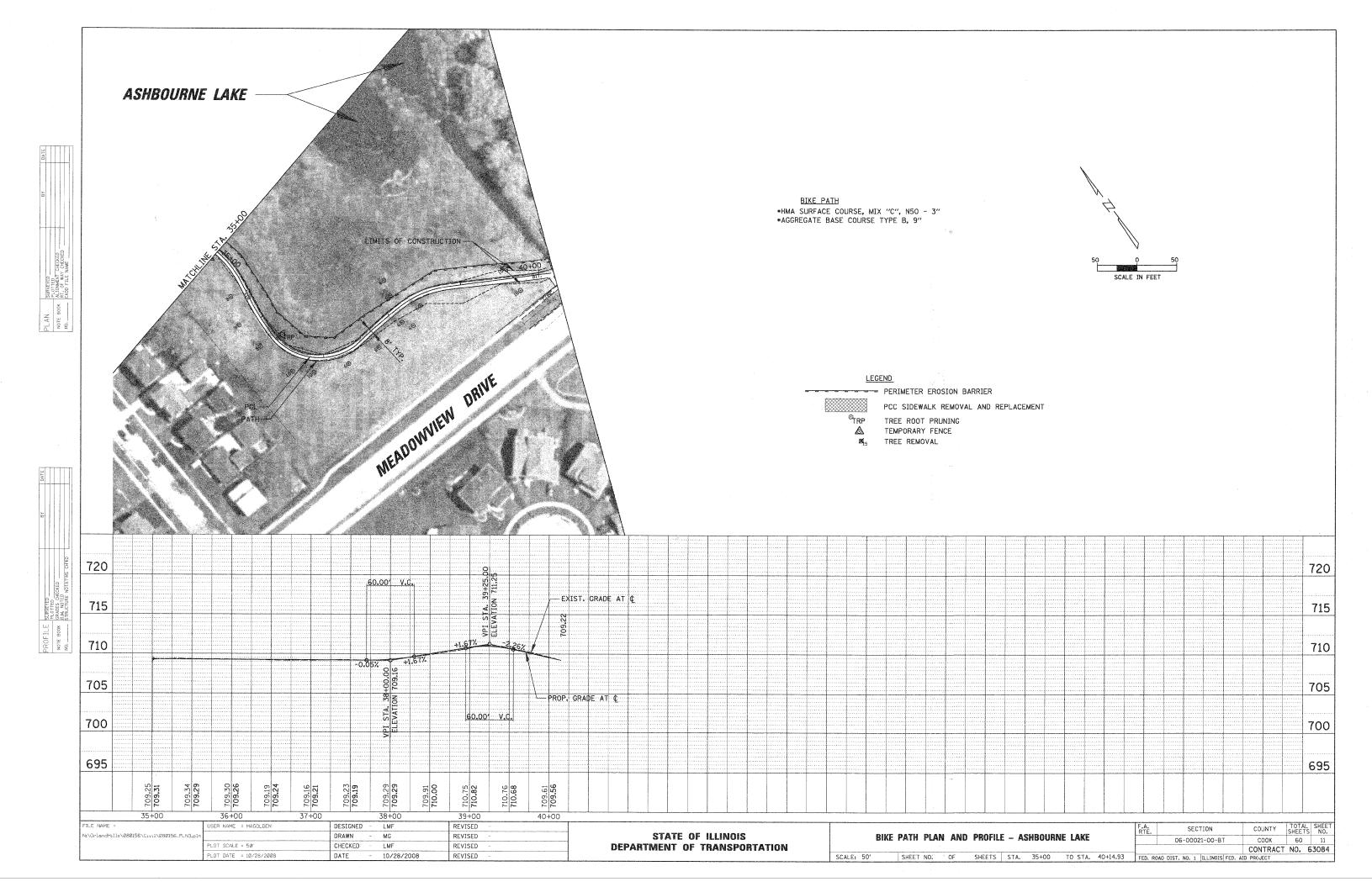
				(ADI/ AA		_	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		EA	KIHW	ORK SC		06-00021-00-BT	COOK	60	7		
									CONTRACT	NO. 6	3084
SCALE: 1'	SHEET	NO.	OF	SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		



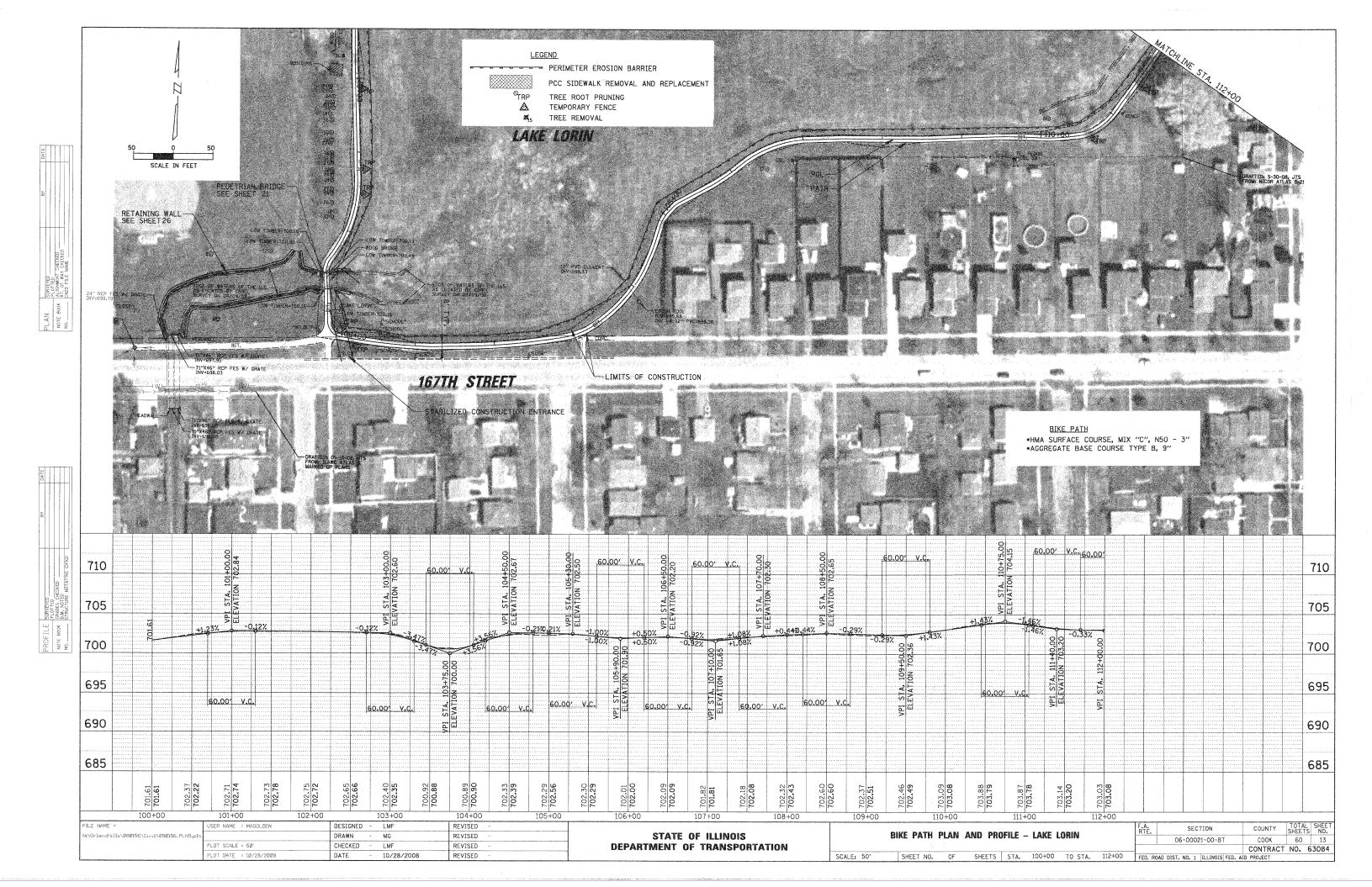
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N:\OrlandHills\080156\Civil\080156_ALL.dgr		DRAWN - MG	REVISED -	STATE OF ILLINOIS			OVER/	ALL SITE PLAN		KIE.	06-00021-00-BT	COOK	SHEETS	NU.
	PLOT SCALE = 200'	CHECKED - LMF	REVISED -	DEPARTMENT OF TRANSPORTATION							00 00021 00 01	CONTRACT	T NO F	63084
	PLOT DATE = 10/28/2008	DATE - 10/28/2008	REVISED -		SCALE: 200'	SHEET NO.	OF	SHEETS STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT	1 1101	35001

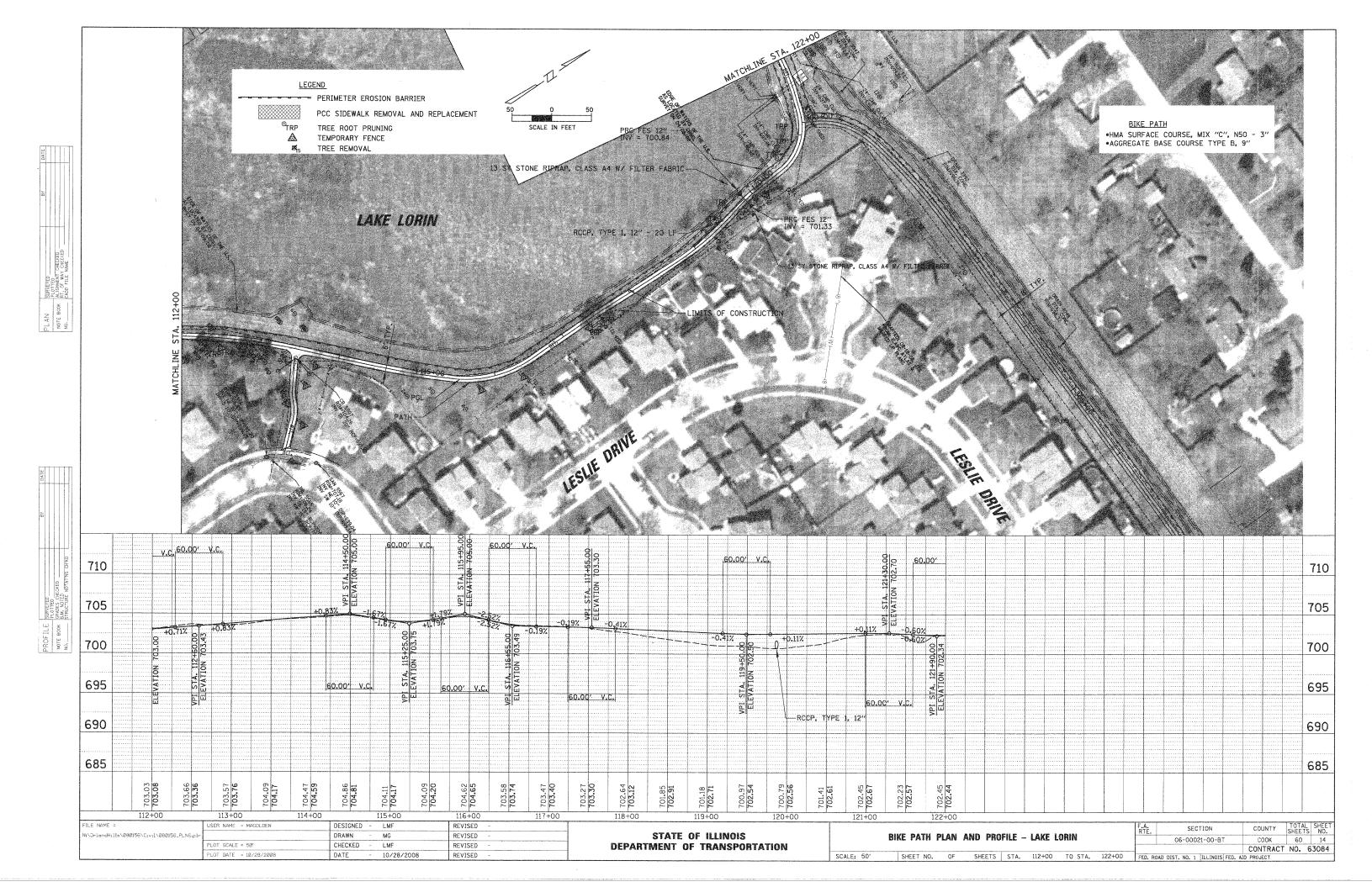


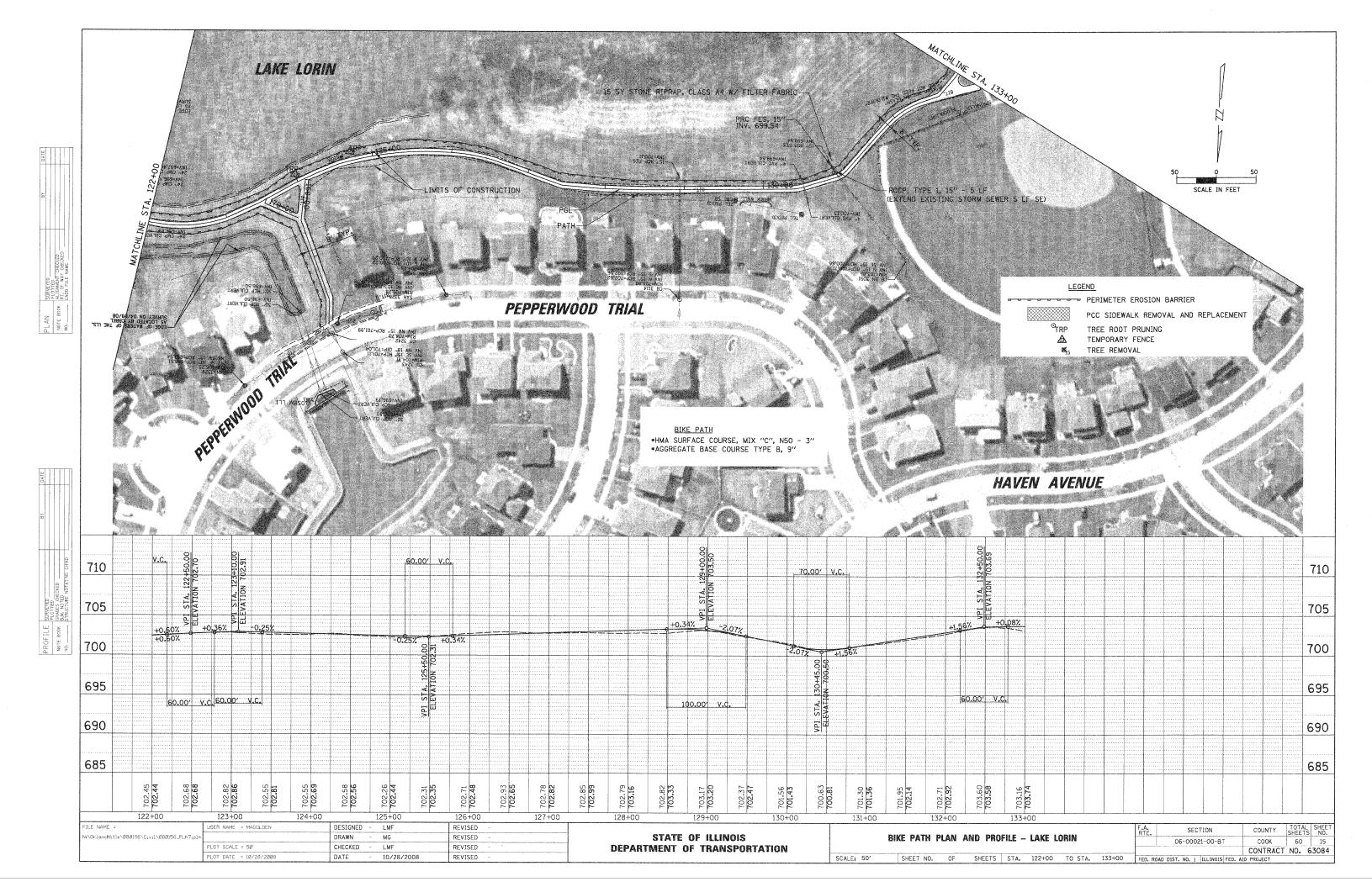


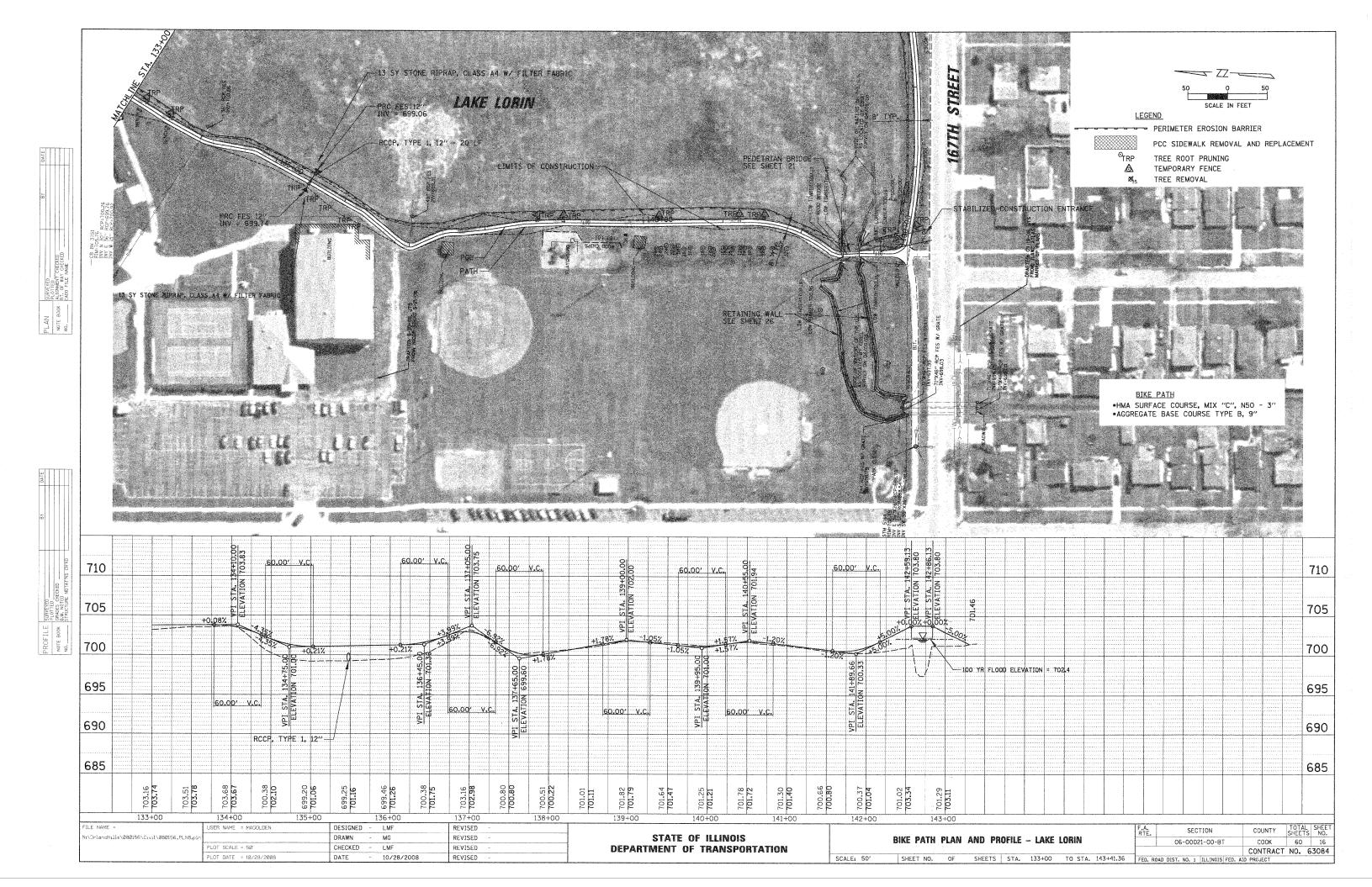






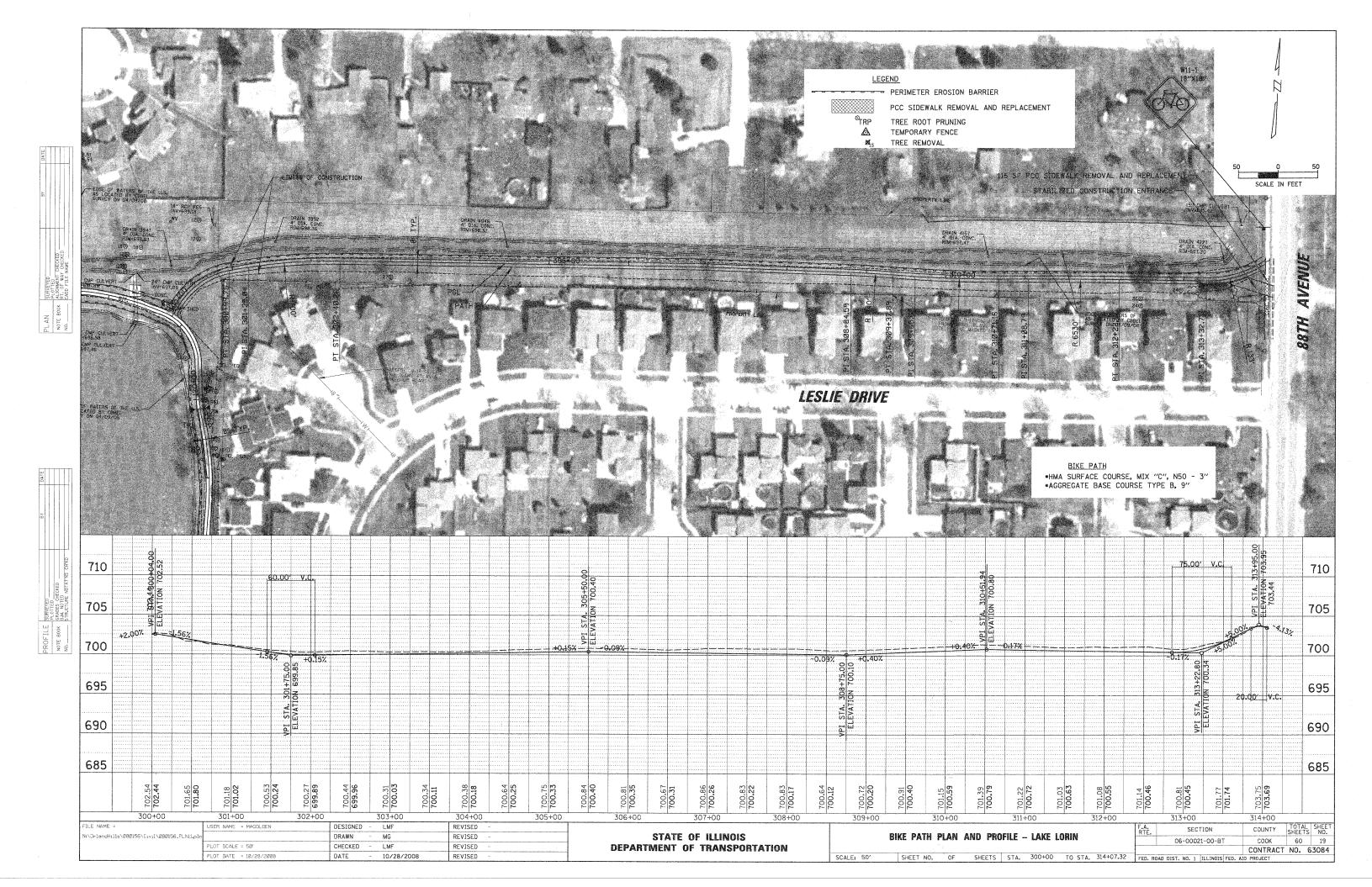


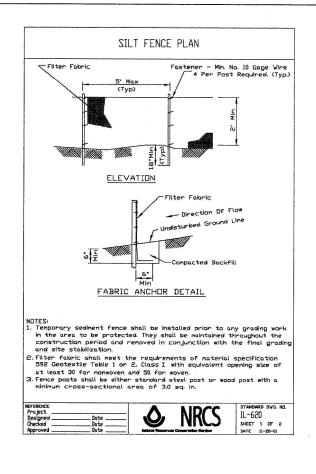


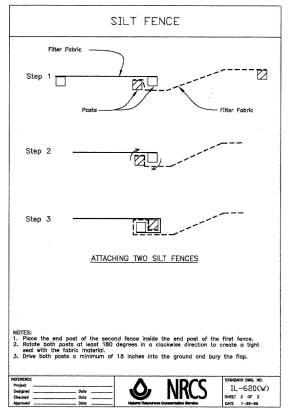


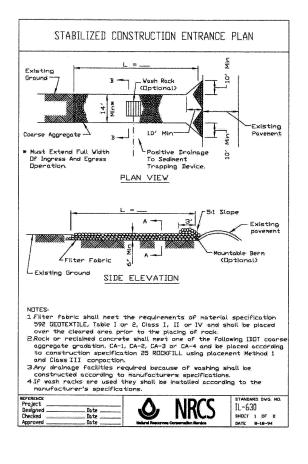


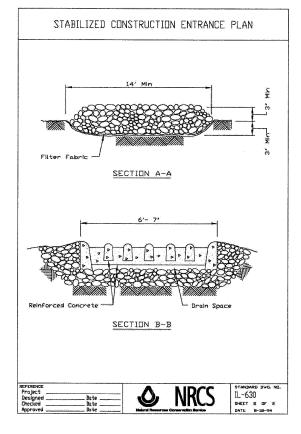












STANDARD NOTES (ON SESC PLAN):

UNLESS OTHERWISE INDICATED. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL REVISED FEBRUARY 2002.

WILL-SOUTH COOK COUNTY SOIL AND WATER CONSERVATION DISTRICT MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

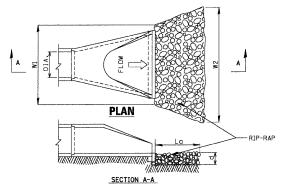
A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE WILL-SOUTH COOK COUNTY SOIL AND WATER CONSERVATION DISTRICT.

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE W-SCCSWCD.

DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORM WATER STRUCTURES IS PROHIBITED.

ALL WORKS IN CRITICAL AREAS WILL BE PROTECTED AND NO WORK WILL BE COMPLETED IN FLOWING WATER-



DIA. (in.)	La (ft)	W1 (in.)	W2 (ft)	RIP-RAP SIZE	d (in.)	VOLUME (cy)
12 10		36	11	4"-8"	12	2.6
15	12	45	13.2	4"-8"	12	3.8
18	14	54	15.5	4"-8"	12	5.2

NOTES:

NOTES:

1. ABOVE TABLE FOR PIPE OUTLET TO FLAT ARA WITH NO WELL DEFINED EXISTING OR PROPOSED EXISTING OR PROPOSED CHANNEL OR DITCH.

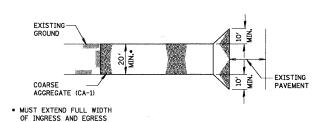
2. FOR PIPE OUTLET TO AREAS WITH EXISTING OR PROPOSED WELL DEFINED CHANNEL OR

2. FOR PIPE OUTLET TO AREAS WITH EXISTING OR PROPOSED WELL DEFINED CHANNEL OR DITCH THE RIP-RAP SHALL EXTEND ACROSS THE DITCH BOTTOM AND UP THE DITCH SIDE SLOPES TO TOP OF CULVERT ELEVATION FOR LENGTH, La SHOWN IN TABLE ABOVE.
3. THE FILTER FABRIC SHALL MEET THE REQUIREMENTS IN MATERIAL SPECIFICATIONS 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, II, III.

4. RIP-RAP SHALL BE IN ACCORDANCE WITH ARTICLE 281.04A OF THE STANDARD SPECIFICATIONS FOR STONE RIPRAP WITH THE FOLLOWING EXCEPTIONS. THE RIPRAP SHALL BE FOUR (4) TO EIGHT (8) INCHES IN DIAMETER MINIMUM FIELD STONE COBBLES.

LIMESTONE RIPRAP IS NOT ACCEPTABLE. SAMPLES OF SPECIFIED MATERIAL SHALL BE SUBMITTED FOR APPROVAL TO THE OWNER PRIOR TO DELIVERY AND PLACEMENT. THE FURNISHED MATERIAL SHALL BE FROM THELEN SAND AND GRAVEL - ANTIOCH QUARRY (847-395-3313) OR APPROVED EQUAL.

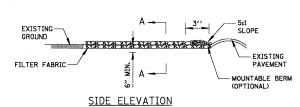
SILT/EROSION CONTROL AT FLARED END SECTION



OPERATION.

CONSTRUCTION ENTRANCE PLAN VIEW

SCALE: 1'



FILTER FABRIC SECTION A-A

NOTES:

- FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATIO 592 GEOTEXTILE, TABLE 1 OR 2, CLASS I, II OR IV AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE PLACING OF ROCK.
- ROCK OR RECLAIMED CONCRETE SHALL MEET ONE OF THE FOLLOWING IDOT COARSE AGGREGATE GRADATION, CA-1, CA-2, CA-3 OR CA-4 AND BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 25 ROCKFILL USING PLACEMENT METHOD 1 AND CLASS III COMPACTION.
- 3. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

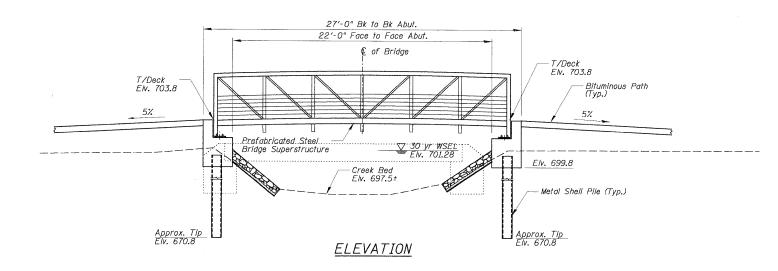
STABILIZED CONSTRUCTION ENTRANCE

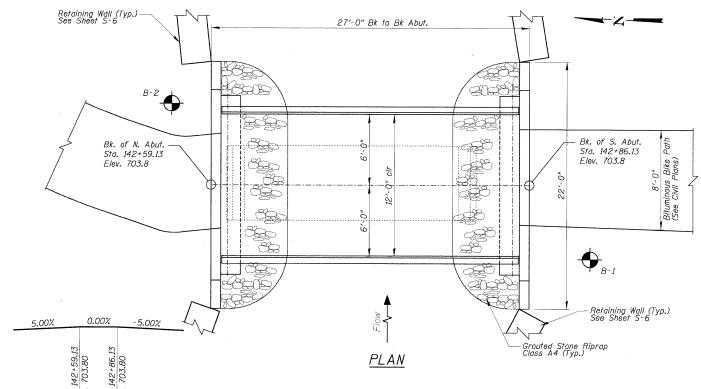
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	PLOT DATE = NTS 008	DATE	-	10/28/2008	REVISED		į.

						NATES		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SESC DETAILS AND STANDARD NOTES						MOIES			06-00021-00-BT	COOK	60	20
	·				·					CONTRACT	NO.	3084
	SHEET	NO.	0F	SHEETS	STA.	TO	STA.	FFD. RO	AD DIST. NO. 1 ILLINOIS FED. AL	D PROJECT		

Existing Structure: No structure number. Single span 21'-10" bk to bk abutments. Timber girders with timber decking. Out to out dimension approximately 6'-4". Unknown type of concrete abutment, Original construction date and plans not available. The contractor shall remove the existing structure as required and replace it with a prefabricated steel truss pedestrian bridge supported on open pile bent abutments. No stage construction required.

No Salvage





WATERWAY INFORMATION

Flood	Freq.	Q	Opening	Sq. Ft.	Nat.	Head	- Ft.	Headwo	iter El.
7 1000	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
	10	127	46.7	74.0	701.09	0.06	0.02	701.15	701.11
Design	30	185	51.4	80.2	701.29	0.13	0.04	701.42	701.33
Base	50	204	95.1	102.5	701.99	0.05	0.04	702.04	702.0
Overtopping	100	253	128.9	118.9	702.39	0.02	0.05	702.41	702.4
Max. Calc.	500	360	162.6	133.6	702.78	0.02	0.11	702.80	702.8

INDEX OF SHEET

- 21 General Plan and Elevation
- 22 General Notes
- 23 Abutment Details
- Metal Shell Pile Details
- 25 Boring Logs
- 26 Retaining Wall

NOTES: 1. Camber Overall Bridge Profile IX Of The Bridge Length But At No Point Along The Bridge Shall The Deck Slope Be Greater Than 5%. In Addition, All Truss Verticals Shall Be Plumb.

BILL OF MATERIAL (BRIDGE)

ITEM	DESCRIPTION	UNIT	QUANTITY
*	Grouted Stone Riprap, Class A4	Sq. Yd.	20
28200200	Filter Fabric	Sq. Yd.	20
50100100	Removal of Existing Structures	Each	1
50200100	Structure Excavation	Cu. Yd.	38
50300225	Concrete Structures	Cu. Yd.	13.3
50800105	Reinforcement Bars	Lbs.	1560
51200956	Furnishing Metal Shell Piles 12" x 0.179"	Foot	120
51202305	Driving Piles	Foot	120
* X0322508	Pedestrian Truss Superstructure	Sq. Ft.	304

* Special Provision

SUPERSTRUCTURE DESIGN SPECIFICATIONS

AASHTO "Guide Specifications For Design Of Pedestrian Bridges"

SUBSTRUCTURE DESIGN SPECIFICATIONS

2002 AASHTO "Standard Specifications For Highway Bridges," 17th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3.500 psi (IDOT Class SI) fy = 60,000 psi (Reinforcement Bars)

LOADING H6 (12000#)

Distributed Live Load = 85 psf

PILE DATA

Metal Shell Pile - 12" Dia. x 0.179" Walls The Metal Shell Piles Shall Be According To ASTM A252 Grade 3 Nominal Required Bearing: 60 kips

Allowable Resistance Available: 20 kips

Estimated Length: 30 Feet

No. Required: 2 Each Abutment

No Test Piles

BRIDGE REACTION TABLE

ITEM	P (LBS)	H (LBS)	
	BRG.	ABUTMENT	L (LBS)
DEAD LOAD	2,500		
UNI. LIVE LOAD	6,420		
VEHICLE LOAD	6,000		
UPLIFT WIND	-2,395		
20 PSF			
WIND	±590	2,440	
THERMAL			875

All Footings Have Been Designed Based On The Bridge Reactions Shown "P"- Vertical Load Per Base Plate "H"- Horizontal Load Per Footing "L"- Longitudinal Load Per Base Plate

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 Syle Of Structure And Compiles With Reguirements Of The Current "AASHTO Standard Specification For Highway And Bridges".



10/29 . 2008 MAJID MOBASSERI

ILLINOIS REGISTRATION No. 081-005058 STRUCTURAL ENGINEER EXPIRATION DATE: 11/30/08

LAKE LORIN BIKE TRAIL
OVER TINLEY CREEK
SECTION 06-00021-01-B
COOK COUNTY, ILLINOIS
STA. 142+72.63
STRUCTURE NO. N/A

E NAME =	USER NAME = MAGOLDEN	DESIGNED -	WJS	REVISED	-	
OrlandHılls/080156/Struct/080156-S1.PL	4	DRAWN -	PDR	REVISED	-	
	PLOT SCALE = 4'	CHECKED -	MM	REVISED		
	PLOT DATE = 10/28/2008	DATE -		REVISED	-	

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** **GENERAL PLAN AND ELEVATION**

SHEET NO. S-1 OF S-6

					STR	TRUCTURE NO. N/A						
F.A.S RTE.		5	EC	TIC		COUNTY	TOTAL SHEETS	SHEE S NO.				
N/A 06-00021-00-BT								COOK 60				
								CONTRACT	NO.	3084		
CED D	DAD DIE	T NO	1	71.1	INIOTE	cen	ATD	DDO ICCT DDM-	0003/0431			

LOCATION SKETCH

PROFILE GRADE

(along € bike path)

m. S B C

part of this Contract.
No Construction Plans shall be used for Construction unless specifically Marked For Construction. Prior to commencement of construction, the Contractor shall verify all dimensions and conditions affecting the work with the actual conditions. If there are discrepancies between the job site and what is shown on the construction plans, The between the job site and what is shown on the construction plans, The contractor must immediately report to Engineer before doing any work, otherwise the Contractor shall assume full responsibility. In the event of disagreement between the plans and existing conditions and or details, the Contractor shall secure written instruction from the Engineer prior to proceeding with any part of the work affected by omissions or discrepancies. In failing to secure such instruction, the Contractor will be considered to have proceeded at his own risk and expense. In the event of any doubt or questions arising with respect to the true meaning of the Construction Plans or Specifications, the decision of the Engineer shall be figul and conclusive

decision of the Engineer shall be final and conclusive. Contractor shall verify all topographic information and grade elevations adjacent to bridge prior to proceeding, inform Engineer of any variation.
 All compacted fill and backfill material shall be a clean granular material

placed in lifts of twelve (12) inches or less in loose thickness and compacted to a minimum of 95 percent of the material's maximum standard proctor dry density (ASTM D-698).

II CAST-IN-PLACE CONCRETE

- All cast-in-place concrete work and reinforcing steel work shall be n accordance with Sections 503 and 508 respectively of the IDO Standard SpecificationsFor Road And Bridge Construction, adopted January 1, 2007, and Supplemental Specifications and Recurring
- Special Provisions and as noted below.

 Concrete testing shall be the responsibility of the contractor according to Article 1020.09 of IDOT Standard Specifications for Road and Bridge Construction, Adopted January 1, 2007.

 Cover from the face of concrete to face of reinforcement bars shall be
- 3" for surfaces cast against earth and 2" for all other surfaces unless otherwise shown.

 Reinforcement Bars shall conform to the requirements of ASTM A 706,
- Grade 60. See Special Provisions.
 Reinforcing bar bending dimensions are out to out.
- Reinforcing bar bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures". ACI 315, latest edition. Shop bending and placement drawings shall be submitted to the Engineer for review and approval prior to fabrication.
- All C.I.P. concrete shall be class SI concrete and shall have a minimum compressive strength of 3,500 psi © 28 days.

 All exposed concrete edges shall be beveled ³₄".

 All Walking Surfaces Shall Receive a "Broom" Finish.

III PREFABRICATED PEDESTRIAN BRIDGE

The Prefabricated Pedestrian Bridge shall be designed, fabricated, delivered and erected according to the Special Provisions of "Pedestrian Truss" Superstructure" and design plans.

- Style: Pratt Truss or Approved Equal.
 Span: 25' 4" end to end of the bridge structure.
 Decking: Wood decking shall be untreated IPE natural hardwood. The wood deck shall be designed for a minimum 85 PSF Local loading condition in addition to wheel loads associated with a 12,000 lb vehicle. Floor planks shall be attached to supporting members with at least two plated fasteners at a minimum of 3 locations per plank. Manufacturer must provide a 15 year warranty on decking material and fasteners.
- Finishes: All structural steel shall be cleaned and painted according to the Special Provision for "Cleaning and Painting New Metal Structures." The contractor shall submit color samples to the Village for approval.
 Quality: The bridge manufacturer shall maintain proper records assuring
- that all steel, bolts, and materials used are in accordance with material specified. The bridge shall be identified and marked with a permanent nameplate showing the manufacturers name, location, date of nameprare snowing the manufacturers name, location, date of manufacture, and load carrying capacity. Structural material shall be traceable to each bridge. All welders shall be qualified in accordance with AWS D1.1-2002 structural welding code. All workmanship shall be in compliance with AASHTO and AISC standard practice. Full penetration weld details used in shop splices shall be submitted to the Engineer to detarging bother reviewed (Freen).
- determine testing required (If any).

 5. Delivery: Bridges shall be delivered by truck to a location nearest the site accessible by roads.
- 6. Field welding of construction accessories will not be permitted to beams or

IV CONSTRUCTION

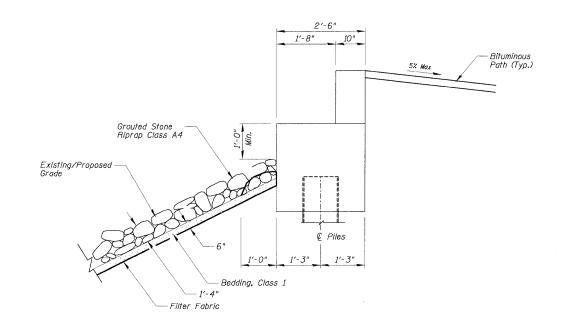
- 1. Do not scale dimensions for construction. Scale, if shown, applies only
- to full size drawings. No construction loints, except those shown on the plans, will be allowed unless directed by the Engineer.
- Any information concerning type or location of underground and other utilities is not guaranteed to be accurate or all inclusive. The Contractor is responsible for making his own determinations as to the type and location of the utilities as may be necessary to avoid damage thereto. Contractor shall call J.U.L.I.E. and the Village of Orland Hills prior to excavation.
- 4. Shop working or layout drawings pertaining to the construction of the work, as may be required, shall be submitted to the Engineer for approval prior to the start of construction.

- 5. Upon completion, the contractor shall collect and remove all construction debris and excess material from the site. Damaged trees, shrubs, and other landscape features resulting from construction activities shall be replaced or repaired.
- All bearing surfaces must be true and level.
- Contractor must coordinate with Bridge Manufacturer to ensure proper placement of cast-in-place anchors. If the contractor elects to use post-installed anchors in lieu of cast-in-place anchors, he must coordinate the plate dimensions, bolt spacing and bolt quantity with the Bridge Manufacturer prior to construction.
- Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
 The embankment configuration shown shall be the minimum embankment
- that must be constructed prior to construction of the abutments.

V FOUNDATION NOTES

- The contractor is responsible for design, installation and removal of all excavation support systems.
- 2. The excavation and work area shall be properly drained at all times during construction. all wet, loose, frozen or other unsuitable material shall be removed prior to placement of concrete or compacted backfill.

 3. If shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and cost shall be included with "Structure Excavation".
- 4. The pile design is based on the geotechnical report prepared by H.H. Holmes Testing Laboratories, Inc. (Report No. 1706-4) dated July 30, 2008.



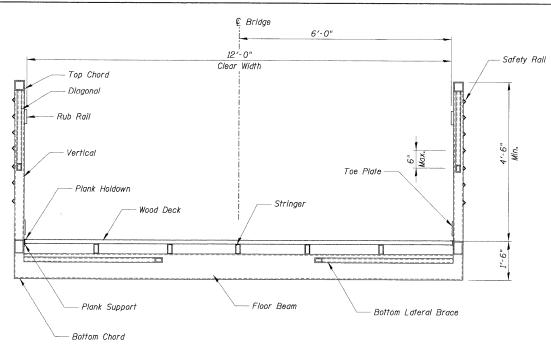
TYPICAL RIPRAP TREATMENT AT ABUTMENT

LAP SP	LICE SCHEDULE
BAR	CLASS "B"
SIZE	SPLICE
#4	1'-10"
#5	2'-3"
#6	2'-9"

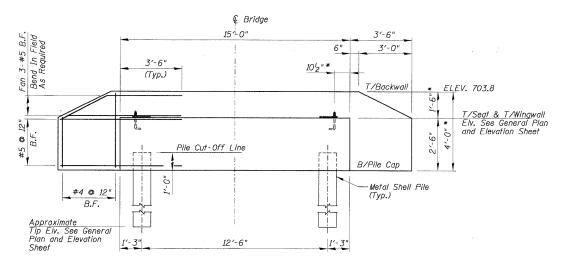
LAKE LORIN BIKE TRAIL OVER TINLEY CREEK SECTION 06-00021-01-BT COOK COUNTY, ILLINOIS STA. 142+72.63

									STRUCTURE NO	D. N/A
FILE NAME =	USER NAME = MAGOLDEN	DESIGNED -	WJS	REVISED -			F.A.S	SECTION	COUNTY	TOTAL SHEET
N:\OrlandHills\080156\Struct\080156-note	s.PLN	DRAWN -	PDR	REVISED -	STATE OF ILLINOIS	GENERAL NOTES	RIE.	06-00021-00-BT	COOK	60 22
	PLOT SCALE = 1'	CHECKED -	ММ	REVISED -	DEPARTMENT OF TRANSPORTATION	,	N/A	06-00021-00-61	00010	T NO. 63084
	PLOT DATE = 10/28/2008	DATE - REVISED -		REVISED -		SHEET NO. S-2 OF S-6	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT BRM-8003(043)			

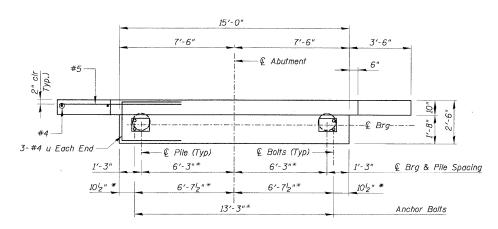
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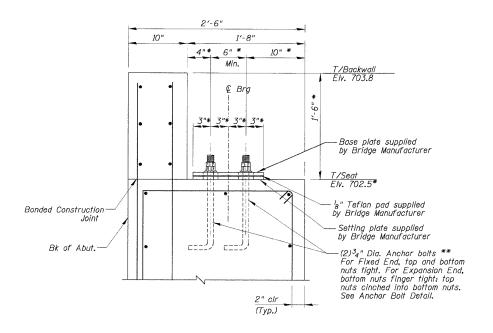
SECTION THRU FABRICATED BRIDGE SUPERSTRUCTURE



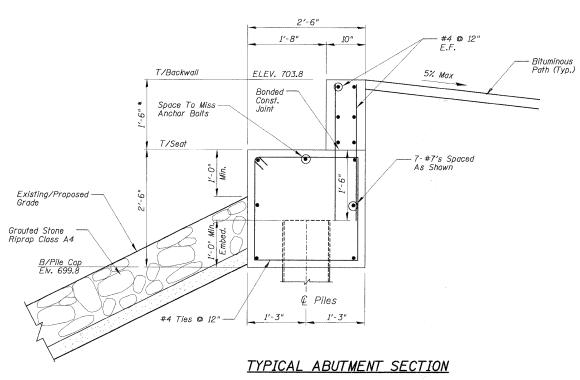
TYPICAL ABUTMENT ELEVATION



TYPICAL ABUTMENT PLAN

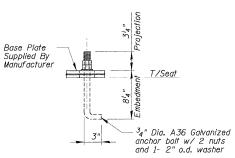


TYPICAL BEARING DETAIL



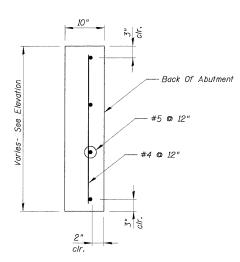
NOTES:

- * Contractor shall coordinate all dimensions with Bridge Manufacturer prior to construction.
- ** Contractor has the option of substituting anchor bolts with 4-3/4" \(\phi\) HILTI HAS-EE AISI 304 SS Bolts embedded 6\(\frac{5}{9}\) into HIT HY 150 Injection adhesive. Bolts shall not be placed less than 5" from the edge of the structure or less than 6" apart. Contractor shall coordinate plate dimensions, bolt spacing and bolt quantity with Bridge Manufacturer prior to construction.

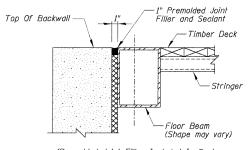


(Anchor Bolts Included In Cost Of "Pedestrian Truss Superstructure")

ANCHOR BOLT DETAIL

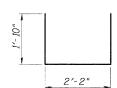


TYPICAL WINGWALL SECTION



(Premolded Joint Filler Included In Cost Of "Pedestrian Truss Superstructure")

JOINT SEAL AT ABUTMENT



BAR u

LAKE LORIN BIKE TRAIL OVER TINLEY CREEK SECTION 06-00021-01-BT COOK COUNTY, ILLINOIS STA. 142+72.63 STRUCTURE NO. N/A

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	PLOT SCALE = 1'	CHECKED - MM	REVISED ~
	PLOT DATE = 10/28/2008	DATE " -	REVISED - '

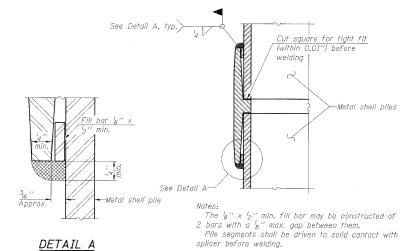
	ABU	DETAILS			
SHEET	NO.	S-3	OF	S-6	

F.A.S RTE.			SE	C	ΓΙΟΝ		COUNT	TOTAL	s S	NO.		
N/A	N/A 06-00021-00-BT								COOK			23
							Т	CONTR	RACT	NO.	63	084
FED. I	ROAD	DIST.	NO.	1	ILLINOIS	FED.	AID	PROJECT	BRM-	8003(043	5)	

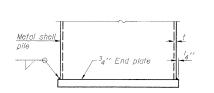


METAL SHELL PILE TABLE

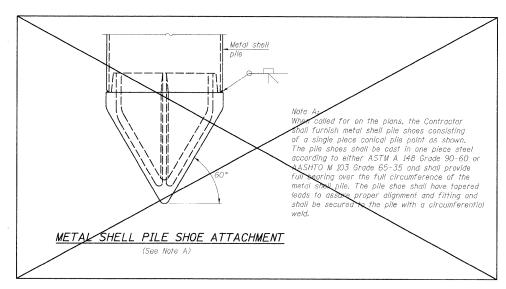
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.179''	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312''	45.61	0.0361

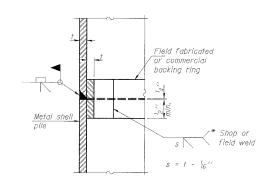


WELDED COMMERCIAL SPLICE



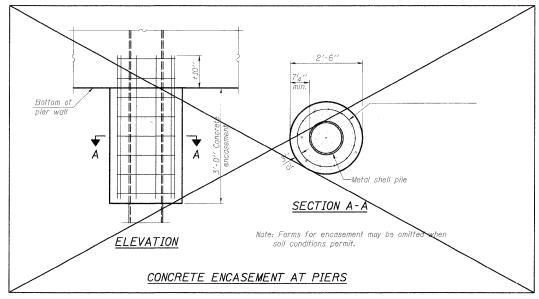
END PLATE ATTACHMENT

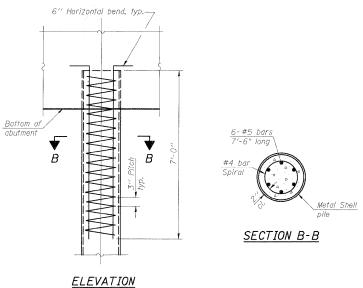




COMPLETE PENETRATION WELD SPLICE

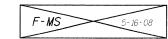
* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.





METAL SHELL REINFORCEMENT AT ABUTMENTS

METAL SHELL PILE DETAILS
STRUCTURE NO.



Note: The metal shell piles shall be according to ASTM A 252 Grade 3.

LAKE LORIN BIKE TRAIL OVER TINLEY CREEK SECTION 06-00021-01-BT COOK COUNTY, ILLINOIS STA. 142+72.63

									STRUCTURE NO.	
FILE NAME =	USER NAME = MAGOLDEN	DESIGNED -	WJS	REVISED -			F.A.S	SECTION	COUNTY	TOTAL SHEET
N:\OrlandHills\080156\Struct\080156-S5.PL	N	DRAWN -	PDR	REVISED -	STATE OF ILLINOIS	METAL SHELL PILE DETAILS	RIE.		COOK	SHEETS NO.
	PLOT SCALE = 1'	CHECKED -	ММ	REVISED -	DEPARTMENT OF TRANSPORTATION		N/A	06-00021-00-BT	CONTRACT	NO. 63084
	PLDT DATE = 10/28/2008	DATE -		REVISED -		SHEET NO. S-4 OF S-6	FED. RC	AD DIST. NO. 1 ILLINOIS FE	D. AID PROJECT BRM-	

H. H. HOLMES TESTING LABORATORIES, INC.

. 170 Shepard Avenue . Wheeling, Illinois 60090 . 847-541-4040 . Fax 847-537-9098



July 18th, 2008

Client:	CBBEL			Project: Lake Lorin P	ede	tria	n Br	idge	, Or	land	Hil	ls, I	L,
FILE NO.	1706-4	Depth	Chart	Soil Type Ground Surface Elevation	S	N	Qu	Qp	Wc	₹d	MŞ	%R	%0
LOG				4º topsoil			T			_			
OF TEST BORING	B-1	2		black organic clayey topsoil, trace sand, very tough CLAY (OL)	1	7	2.20	2.00	32.2		AS	58	-
Legend S = Sample No.		4		gray silty clay, trace sand, tough CLAY	2		Γ				SS		
N = Penetration (b) Qu = Unconfined Stre	ngth	5		(CL)	_	4_	1.20	1.30	40.2		J.	75	-
(tons/square ft Qp = Estimated Unco Compressive S	nfined	7			3	3	0.20	0.30	24.5	_	ss	75	_
Upon Calibrate Reading (tons/s Wc = Water Content	quare ft.)	8	gravel, very soft		H						H		
yd ≈ Dry Density (pc MS = Method of Sam	f) ple	9		gray silty clay, trace sand, trace gravel, very soft CLAY	4						SS		
SS = Split - Spoon Sa AS = Auger Sample ST = Shelby Tube Sa	mple	10		(CL)	_	2	0.20	0.30	21.8		-	50	-
%O = Percent Organi %R = Percent Recove	ry	12											
~	After Sampling White Sampling	13											
		14			5	6		1.80	-		SS	54	7
Drill Rig : CME 7:	i	16		gray siity clay, trace sand, trace gravel, tough	T	ľ	_	1.60	-		\vdash	34	-
Drill Date : 07-16-0	18	17		CLAY (CL)									
Engineer : Douglas		18											
Drafting: Peter Sid	orczuk	19		gray silty clay, trace sand, trace gravel, very tough	6						ss		
		20	28/26	CLAY (CL)	<u> </u>	8	2.20	2.30	20.1		<u> </u>	79	

Note: The stratification lines indicated are estimated - the transition between soil types may be more gradual.

H. H. HOLMES TESTING LABORATORIES, INC.

■ 170 Shepard Avenue ■ Wheeling, Illinois 60090 ■ 847-541-4040 ■ Fax 847-537-9098



July 18th, 2008

Client:	CBBEL			Project: Lake Lorin P	ede	stria	n Bri	dge, (Orla	nd E	lills,	IL		1
FILE NO.	1706-4	Depth	Chart	Soil Type Ground Surface Elevation	S	N	Qu	Qp	Wc	₹d	MS	%R	%C	1
LOG		1		14" topsoil										1
OF TEST BORING	B-2	3		brown/gray peat, very soft PEAT (PT)	1	2	<0.25	<0.25	64.1	-	AS	63	-	2
Legend S = Sample No. N = Penetration (E		5		brownish gray silty clay, trace sand, stiff CLAY (CL)	2	2	0.60	0.50	38.2		SS	38	_	3
Qu = Unconfined Sh (tons/square f Qp = Estimated Unc Compressive S Upon Calibrat Reading (tons) Wc = Water Content	t.) onfined Strength Based ed Penetrometer (square ft.)	6 7 8		brownish gray silty clay, trace sand, soft CLAY (CL)	3		0.30	0.80	25.6	97.5	ST	58	-	7
yd = Dry Density (p MS = Method of Sar SS = Split - Spoon S AS = Auger Sample	cf) nple	9		gray silty clay, trace sand, trace	4	4	0.80	0.80	22.3	_	ss	75	-	1
ST = Shelby Tube Se %O = Percent Organ %R = Percent Recov	ic `	11		gravel, stiff CLAY (CL) layers of silt										
Water Leve	While Sampling	13												1
		14		gray silty clay, trace sand, trace	5	6	1.20	1.50	23.5	-	ss	71	_	1
Drill Rig: CME 7		16		gravel, tough CLAY										١
Drill Date : 07-16-		17		(CL) layers of silt										
Engineer : Douglas		18												I,
Drafting : Peter Sic	iorczuk	19		gray silty clay, trace sand, tough w/ clayey silt, loose CLAY/SILT (CL-ML)	6	9	1.60	2.00			ss	58		2

Note: The stratification lines indicated are estimated - the transition between soil types may be more gradual.

H. H. HOLMES TESTING LABORATORIES, INC.

170 Shepard Avenue # Wheeling, Illinois 60090 # 847-541-4040 # Fax 847-537-9098



July 18th, 2008

Client: C	BBEL		Project: Lake Lorin I	ede	tria	n Bı	idge	, Or	land	Hi	ls, I	L
FILE NO.	1706-4	Depth Cha	G-11 Tr	S	N	Qu		Wc				
LOG OF TEST BORING S= Sample No. N= Penetration (blow Q= Unconfined Streng N= Sample Streng N= Sample Streng N= S= Split-Spons S= Split-Spon	B-1	21 22 23 24 25 26 27 28 29 30	gray silty clay, trace sand, trace gravel, very tough CLAY (CL) gray clayer sand, little gravel, medium dense SAND (SC)	7	14	2.80		20.3		ss	HOLE	
= Water Level Wi Drill Rig : CME 75 Drill Date : 07-16-08 Engineer : Douglas C. Drafting : Peter Sidore	Diefenthal											

Note: The stratification lines indicated are estimated - the transition between soil types may be more gradual.

H. H. HOLMES TESTING LABORATORIES, INC.

170 Shepard Avenue # Wheeling, Illinois 60090 # 847-541-4040 # Fax 847-537-9098

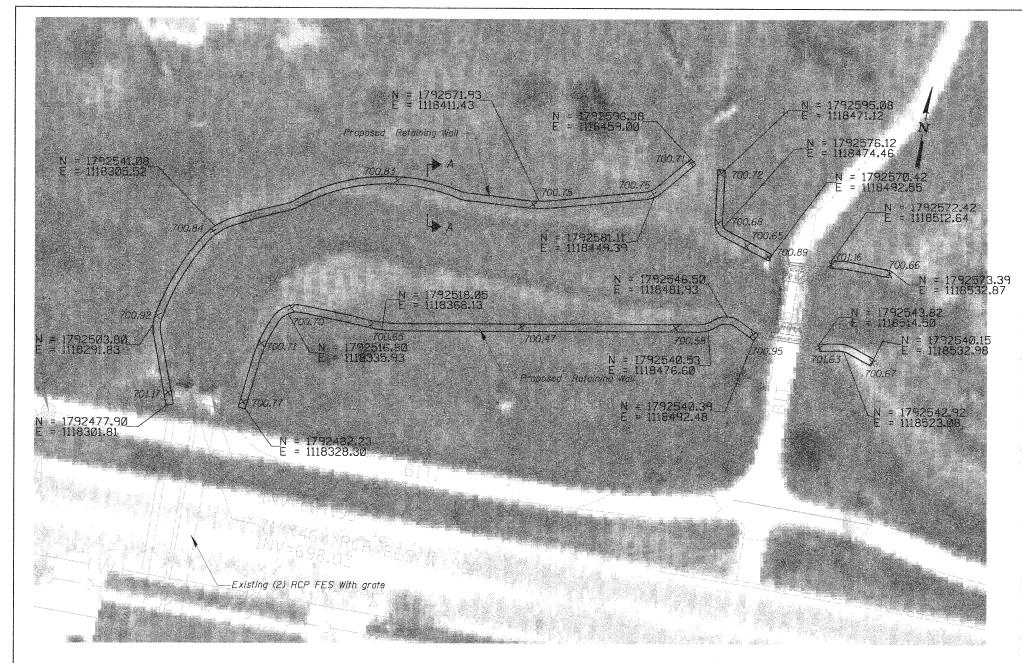


Client:	CBBEL			Project: Lake Lorin I	ede:	stria	n Br	ridge	, Or	iand	i Hil	ls, I	L
FILE NO.	1706-4	Depth	Chart	Soil Type Ground Surface Elevation	S	N	Qu	Qp	Wc	Y d	MS	%R	% O
LOG OF TEST BORING	B-2	21 22 23											
Legend S = Sample No.		24		gray silty clay, trace sand, trace grayel, tough	7						ss		
Reading (tons/ Wc = Water Content	ength .) infined trength Based id Penetrometer square ft.) in %	26 27 28		CLAY (CL)		6	1.20	1.80	22.8	-		71	-
yd = Dry Density (po MS = Method of San SS = Split - Spoon So AS = Auger Sample	ple	30			8	27	-	1.00			ss	21	<u> </u>
ST = Shelby Tube Sa %O = Percent Organ %R = Percent Recov	e												
₩ Water Level	After Sampling	1											
Water Lovel	While Sampling	4											1
Drill Rig : CME 7.	3												
Drill Date : 07-16-)8												
Engineer : Douglas	C. Diefenthal												
Drafting : Peter Sid		1											

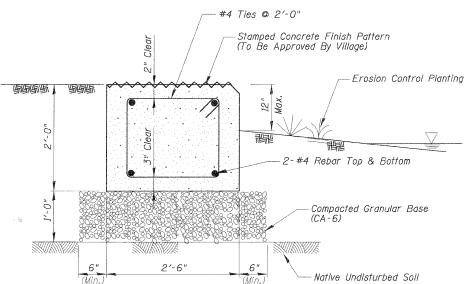
Note: The stratification lines indicated are estimated - the transition between soil types may be more gradual.

LAKE LORIN BIKE TRAIL OVER TINLEY CREEK SECTION 06-00021-01-BT COOK COUNTY, ILLINOIS STA. 142+72.63 STRUCTURE NO N/A

							,	STRUCTURE NO). N/A	1
FILE NAME =	USER NAME = MAGOLDEN	DESIGNED - WJS	REVISED -			F.A.S	SECTION	COUNTY	TOTAL SHEET	T
N:\OrlandHills\080156\Struct\080156-S3.SH	r	DRAWN - PDR	REVISED -	STATE OF ILLINOIS	BORING LOGS	RIE.			SHEETS NO.	-1
	PLOT SCALE = 1'	CHECKED - MM	REVISED -	DEPARTMENT OF TRANSPORTATION		N/A	06-00021-00-BT	CONTRAC	60 25 T NO. 63084	\exists
	PLOT DATE = 10/28/2008	DATE -	REVISED -		SHEET NO S-5 OF S-6	EED 004	D DICT NO 1 THE INDIC FED			\dashv



PLAN - PROPOSED RETAINING WALL



SECTION A-A

NOTES:

- 1. 3/4" Deep Tooled Control Joints At 4'-0" Spacing.
- 2. 3/4" Thick Expansion Joint At ±32'-0" Spacing.
- 3. Rebar Shall Be Discontinuous At Expansion Joints.
- 4. The contractor is responsible for design, installation and removal of all excavation support systems.
- 5. The excavation and work area shall be properly drained at all times during construction, all wet, loose, frozen or other unsuitable material shall be removed prior to placement of concrete or compacted backfill.
- 6. It shall be the responsibility of the Contractor to divert the stream flow during construction in order to keep the construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and cost shall be included with "Concrete Retaining Wall".

BILL OF MATERIAL (BRIDGE)

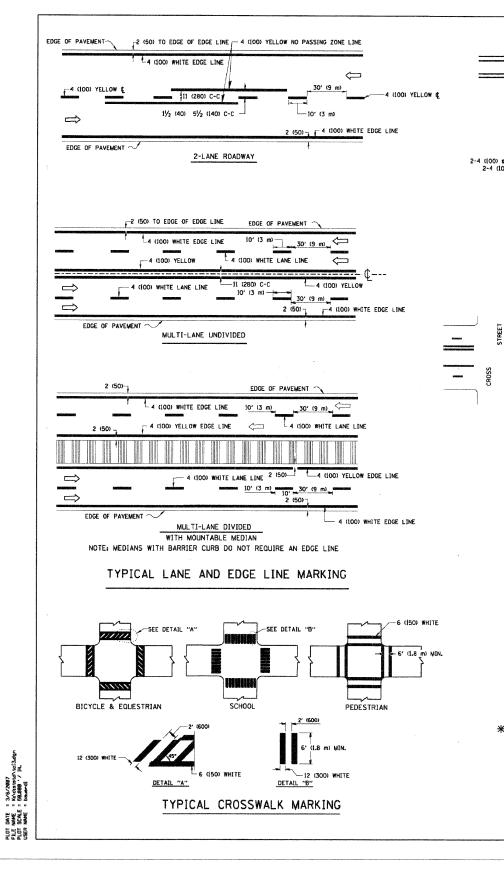
ITEM	DESCRIPTION	UNIT	QUANTITY
*	Concrete Retaining Wall	Foot	520

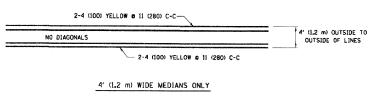
*Item Includes Furnishing And Installation Of All Concrete, Reinforcement Bars, Excavation, Compacted Subgrade, Removal And Disposal Of Unsuitable Material, A Stamped Concrete Finish, And Any Incidental Items Required For The Construction Of The Concrete Retaining Wall. See Special Provision.

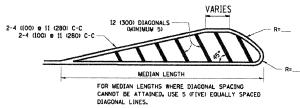
LAP SPI	LICE SCHEDULE
BAR	CLASS "B"
SIZE	SPLICE
#4	1'-10"

LAKE LORIN BIKE TRAIL OVER TINLEY CREEK SECTION 06-00021-01-BT COOK COUNTY, ILLINOIS STA. 142*72.63 STRUCTURE NO. N/A

- 1									JINOUI ONL M	10. III A
	FILE NAME =	USER NAME = MAGOLDEN	DESIGNED - WJS	REVISED -			F.A.S	SECTION	COUNTY	TOTAL SHEET
	N:\OrlandHills\080156\Struct\080156-S4.SH	Т	DRAWN - PDR	REVISED -	STATE OF ILLINOIS	PROPOSED RETAINING WALL	RIE.	0C 00001 00 DT	00011	SHEETS NO.
		PLOT SCALE = 16'	CHECKED - MM	REVISED -	DEPARTMENT OF TRANSPORTATION	· · · · · · · · · · · · · · · · · · ·	N/A	06-00021-00-81	CONTRAC	OT NO C7084
L		PLOT DATE = 10/28/2008	DATE -	REVISED -		SHEET NO. S-6 OF S-6	FED. ROAD	D DIST. NO. 1 ILLINOIS FEE	CONTRAC D. AID PROJECT BRM	

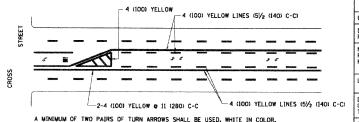






DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

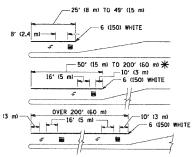


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLORADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

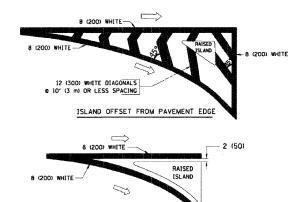


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \uparrow AREA = 15.6 SO. FT. (1.5 m²) \uparrow AREA = 20.8 SO. FT. (1.9 m²)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 0 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 0 4 (100)	SOLID SOLID	AELTOM AELTOM	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW: EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 0 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH: 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 e 6 (150) 12 (300) e 45° 12 (300) e 90°	SOLID SOLID SOLID	WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (500) APART 2' (500) APART 5EE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSALIK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 0 4 (100) WITH 12 (300) DIAGONALS 0 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OYER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1,8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) e 45°	SOLID	WHITE - RIGHT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/l) 150' (45 m) C-C (0VER 45MPH (70 km/h))

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

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

REVISIO	NS	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	TELINOIS DEPARTMENT OF TRANSPORTATION
EVERS	03-19-90	
T. RAMMACHER	10-27-94	DISTRICT ONE
ALEX HOUSEH	10-09-96	
ALEX HOUSEH	10-17-96	TYPICAL PAVEMENT
T, RAMMACHER	01-06-00	MARKINGS
		MARKINGS
		SCALE: NONE DRAWN BY CADO

CHECK TC-1

FILÉ NAME =	USER NAME = MAGOLDEN	DESIGNED -	-	LMF	REVISED	-
N:\OrlandHills\080156\C ₁ vil\080156_std.pln		DRAWN -	-	MG	REVISED	-
	PLOT SCALE = NTS	CHECKED	-	LMF	REVISED	
	PLOT DATE = 10/28/2009	DATE		10/28/2008	DEVISED	

-		F.A. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
	DISTRICT ONE TYPICAL PAVEMENT MARKINGS		06-00021-00-BT	соок	60	27
				CONTRACT	NO.	63084
	SCALE: 1' SHEET NO. OF SHEETS STA. TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT		

