

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2647	99-00142-07-WR	LAKE	256	121
CONTRACT NO: 83815				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

I GENERAL NOTES

- Standard Specifications, Construction Plans And Subsequent Details Referenced And Presented On The Plans Are All To Be Considered As Part Of The Contract. Incidental Items Or Accessories Necessary To Complete This Work May Not Be Specifically Noted But Are Considered A Part Of This Contract.
- All Work Shall Be In Accordance With The Illinois Department Of Transportation (IDOT) "Standard Specifications For Road And Bridge Construction" Adopted January 1, 2002 And Supplemental Specifications And Recurring Special Provisions, Unless Noted Otherwise.
- The Design Specifications Are The 2002 AASHTO Standard Specifications For Highway Bridges, 17th Edition.
- 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, He Must Immediately Report To Engineer Before Doing Any Work, Otherwise The Contractor Shall Assume Full Responsibility. In The Event Of Disagreement And/or Special 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 Final And Conclusive.
- The Contractor Is Responsible For Design, Installation And Removal Of All Excavation Support System.
- 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.
- Contractor Shall Verify All Topographic Information And Grade Elevations Adjacent To The Proposed Wall Prior To Proceeding And 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 Modified Proctor Dry Density (ASTM D-1557).
- Wall Design Was Based On The Soil Report Prepared By GESTRA Engineering, Inc. Project No. 04050-10 Dated July 30, 2004 And Supplemental Correspondence Dated August 24, 2004.

II CAST-IN-PLACE CONCRETE

- All Cast-In-Place Concrete Work Shall Be In Accordance With Section 503 Of The IDOT Standard Specifications For Road And Bridge Construction, Adopted January 1, 2002, And Supplemental Specifications And Recurring Special Provisions And As Noted Below.
- An Approved Testing Laboratory Shall Prepare Concrete Mix Designs. The Concrete Mix Design Shall Be Submitted To The Engineer For Approval A Minimum Of Seven Days Prior To Ordering Of The Concrete.
- Concrete Testing Shall Be The Responsibility Of The Contractor According To Article 1020.09 Of The IDOT Standard Specifications. Four Concrete Test Cylinders Shall Be Taken For Every Concrete Pour. Test Results Shall Be Determined By A Testing Laboratory And Provided To The Owner, Engineer And Contractor At The 7-day, 14-day And 28-day Breaks.
- All C.I.P. Concrete Shall Be Class SI Concrete And Shall Have A Minimum Compressive Strength Of 4,000 Psi @ 28 Days.
- Cover From The Face Of Concrete To Face Of Reinforcement Bars Shall Be 3" For Surfaces Formed Against Earth And 2" For All Other Surfaces Unless Otherwise Shown.
- All Reinforcing Steel Work Shall Be In Accordance With Section 508 Of The Illinois Department Of Transportation (IDOT) Standard Specifications For Road And Bridge Construction, Adopted January 1, 2002, And Latest Supplemental Specifications And Recurring Special Provisions.
- Reinforcement Bars Shall Conform To The Requirements Of AASTHO M-31, M-42 Or M-53 Grade 60. Field Bending Or Cutting Shall Not Be Permitted. All Reinforcement Bars Shall Be Epoxy Coated And Shall Conform To The Requirements Of AASHTO M284.
- Reinforcing Bar Bending Dimensions Are Out To Out.
- Reinforcing Bar Bending Details Shall Be In Accordance With The ACI "Manual Of Concrete Practice For Details And Detailing Of Concrete Reinforcement", ACI 315, latest Edition. Shop Bending And Placement Drawings Shall Be Submitted To The Engineer For Review And Approval Prior To Fabrication.
- All Field Lapped Bars Must Have Splice Lengths As Shown In The Lap Splice Schedule.
- All Exposed Concrete Edges Shall Be Beveled 3/4".

III CONSTRUCTION

- All Work And Materials Shall Be In Accordance With Illinois Department Of Transportation (IDOT) Standard Specifications For Road And Bridge Construction, Adopted January 1, 2002, And Latest Supplemental Specifications And Recurring Special Provisions.
- Do Not Scale Dimensions For Construction. Scale, If Shown, Applies Only To Full Size Drawings.
- No Construction Joints, 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 Thereof. Contractor Shall Call J.U.L.I.E. And The Village Of Libertyville Public Works Prior To Excavation.
- Shop, Working Or Layout Drawings (Including Reinforcement Bending And Placing 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.
- 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.

IV STRUCTURAL STEEL

- Structural Steel Shall Be In Accordance With Section 505 Of The IDOT Standard Specifications For Road And Bridge Construction, Adopted January 1, 2002, And Latest Supplemental Specifications And Recurring Special Provisions With The Exception That The Shapes Shall Be Hot-Rolled, AASHTO M270 (Grade 50) Steel Or Approved Equal.
- Any Substitutions Shall Be Submitted To The Engineer For Approval Prior To The Commencement Of Construction.
- Two Sets Of Shop Drawings Shall Be Submitted To The Engineer For Approval Prior To Fabrication.

LAP SPLICE SCHEDULE		
BAR SIZE	CLASS "B" SPLICE	
	TOP BAR*	OTHER BAR
#3	2'-2"	1'-7"
#4	2'-9"	1'-11"
#5	3'-6"	3'-1"
#6	4'-5"	3'-11"
#7	5'-9"	5'-1"
#8	7'-4"	6'-5"

* HORIZONTAL BAR WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE BAR (INCLUDE HORIZ. BARS IN WALLS)

BILL OF MATERIAL

STRUCTURE EXCAVATION	CY	200
CONCRETE STRUCTURES	CY	85
STUD SHEAR CONNECTORS	EA	143
REINFORCEMENT BARS, EPOXY COATED	LB	9400
FRENCH DRAINS	CY	25
GEOTECHNICAL FABRIC FOR FRENCH DRAINS	SY	200
FURNISHING SOLDIER PILES, W16X45	FT	445
DRILLING AND SETTING SOLDIER PILES	CF	1575
RUSTIFICATION FINISH	SF	2100
POROUS GRANULAR EMBANKMENT, SPECIAL	TON	300
PROTECTIVE COAT	SF	2100

I Certify That To The Best Of My Knowledge, Information And Belief, This Retaining Wall 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".

DEC. 21, 2005

John P. Riley
JOHN P. RILEY

ILLINOIS REGISTRATION No. 081-004427 STRUCTURAL ENGINEER
EXPIRATION DATE: 11/30/06



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FAU 2647 - BUTTERFIELD ROAD STRUCTURAL GENERAL NOTES AND BILL OF MATERIAL
NAME	DATE	
		SCALE: NONE DATE: 12/21/2005 DRAWN BY: PDR CHECKED BY: MMS