

STRUCTURAL NOTES

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94-F3000-06-BT	COOK	105	41
STA. 0+00	TO STA. 46+00		
FED. ROAD DIST. NO.	PLAN NO.	83709	STPE-000(1479)

GENERAL:

- SEE CIVIL DRAWINGS FOR EXISTING CONDITIONS. THE EXISTING CONDITIONS, INCLUDING ELEVATIONS, SHOWN ON THE CIVIL DRAWINGS ARE APPROXIMATE. ACTUAL FIELD CONDITIONS MAY VARY. ALSO SEE PLAN AND PROFILE SHEETS FOR LOCATIONS OF SHEET PILING.
- PLAN DIMENSION 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 WORK, HOWEVER THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.
- DO NOT SCALE DRAWINGS. DETERMINE DIMENSIONS BY FIELD MEASUREMENTS.
- CONTRACTOR SHALL BRACE, SHORE, PROTECT, ETC., STRUCTURES, PILING, ETC., FROM DAMAGE DUE TO WINDS, STORMS, ETC., AS REQUIRED DURING CONSTRUCTION AND SHALL BE LIABLE FOR ANY DAMAGES RESULTING FROM SUCH.

REINFORCED CONCRETE:

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| CONCRETE | |
| COMPRESSIVE STRENGTH | 4000 PSI AT 28 DAYS |
| AIR CONTENT | 5 TO 8 PERCENT |
| WATER-CEMENT RATIO | 0.45 MAX |
| SLUMP | 2 TO 4 INCHES |
- ALL EXPOSED CONCRETE EDGES SHALL HAVE A 3/4" CHAMFER UNLESS NOTED OTHERWISE ON THE PLANS.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31, M42, OR M53 GRADE 60.
- REINFORCEMENT SHALL HAVE A MINIMUM CONCRETE COVER OF 2", EXCEPT CONCRETE CAST DIRECTLY AGAINST EARTH SHALL HAVE A MINIMUM COVER OF 3", OR AS OTHERWISE NOTED OR SHOWN ON THE DRAWINGS, OR WHEN MATCHING EXISTING BARS.
- ALL CONSTRUCTION JOINTS SHALL BE BONDED.
- ALL BAR SPLICERS ARE TO MEET ACI 318-02 MINIMUM REQUIREMENTS FOR STRENGTH.
- ALL REINFORCEMENT BARS DESIGNATED BY "(E)" SHALL BE EPOXY COATED.

BLOCK RETAINING WALLS:

- BLOCK RETAINING WALLS ARE TO BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
- ALL MATERIALS FOR BLOCK RETAINING WALLS ARE TO BE PER THE MANUFACTURER'S SPECIFICATIONS.
- IF A CONFLICT ARISES BETWEEN EITHER THE SPECIFICATIONS OR THESE NOTES (AS THEY PERTAIN TO BLOCK RETAINING WALLS), AND THE MANUFACTURER'S SPECIFICATIONS, THE MANUFACTURER'S SPECIFICATIONS SHALL GOVERN.
- WHEN BLOCK RETAINING WALLS ADJUT OTHER STRUCTURES, THE TOPS OF THE WALLS ARE TO MATCH AS CLOSELY AS PRACTICAL.
- THE COST OF CONCRETE PLUGS AT THE INTERFACE BETWEEN THE BLOCK RETAINING WALLS AND THE EXISTING WINGWALLS IS TO BE INCLUDED IN THE COST OF THE BLOCK RETAINING WALLS.

STRUCTURAL STEEL:

- ALL WELDED CONNECTIONS SHALL BE MADE USING CONTINUOUS WELDS AS SHOWN OR NOTED. ALL WELDING SHALL CONFORM TO AWS D1.1 AND SHALL BE MADE BY A CERTIFIED WELDER USING AWS E70XX ELECTRODES.
- ALL SHEARED AND EXPOSED EDGES, CORNERS, AND WELDS SHALL BE GROUND SMOOTH. THE MINIMUM WELD SHALL BE 1/4", UNLESS OTHERWISE NOTED.
- ALL PERMANENT STEEL SHEET PILING SHALL BE ASTM A572 GR50. ALL PLATE STEEL SHALL BE ASTM A36.

FOUNDATIONS & EARTHWORK:

- SHEET PILING LENGTHS GIVEN ON THE PLAN ARE THE MINIMUM REQUIRED LENGTHS AS MEASURED ALONG THE LONGITUDINAL AXIS OF THE PILING.
- FILL BEHIND THE BLOCK RETAINING AND PERMANENT STEEL SHEET PILING WALLS SHALL BE POROUS GRANULAR BACKFILL (CA 7 OR CA18 GRAVEL) WITH NO ORGANICS, COMPLYING WITH SECTION 209 OF THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- PRIOR TO PERFORMING ANY EXCAVATION OR DEMOLITION WORK, THE CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT FOR THE EXISTING STRUCTURES AS THE ENGINEER DEEMS NECESSARY TO PERFORM THE WORK AND PROTECT EXISTING STRUCTURES THAT ARE TO REMAIN IN PLACE. ANY DAMAGE DONE TO THE EXISTING STRUCTURES MUST BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL LIMIT EXCAVATION TO THE MINIMUM LIMITS NECESSARY FOR PERFORMANCE OF THE WORK, CONSISTENT WITH SAFETY AND SLOPE STABILITY. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EXCAVATIONS AT STABLE SLOPES, INCLUDING PROVIDING TEMPORARY SHORING OR BRACING AS REQUIRED.
- ALL PILING WORK INCLUDING MATERIALS, FURNISHING AND DRIVING SHALL CONFORM WITH SECTIONS 512 THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGES CONSTRUCTION ADOPTED JANUARY 1, 2002.

TOTAL BILL OF MATERIAL

DESCRIPTION	UNIT	QTY.
STRUCTURE EXCAVATION	CU. YD.	67
REINFORCEMENT BARS, EPOXY COATED	POUND	260
CONCRETE STRUCTURES	CU. YD.	4.0
BLOCK RETAINING WALL	SQ. FT.	460
PERMANENT STEEL SHEET PILING	SQ. FT.	2660
CONCRETE REMOVAL	CU. YD.	0.8
BAR SPLICERS	EACH	25
PIPE UNDERDRAINS FOR STRUCTURES, 6"	FOOT	228

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BOX CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN IN 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'."



William P. Murphy
 EXP. 11/30/08 SHEET 41 TO 46

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT NO. 1 SCHAUMBURG

STRUCTURAL NOTES

SCALE NONE DRAWN BY ERG
 DATE 3/31/06 CHECKED BY JD