| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| ---- | 09-00071-00-BR | COOK | 31 | 1 |
| | ILLINOIS | CONTRACT NO. 63437 | | |

7-30-10 LETTING ITEM 082

**INDEX OF SHEETS**



**THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.**

0 100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

**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**

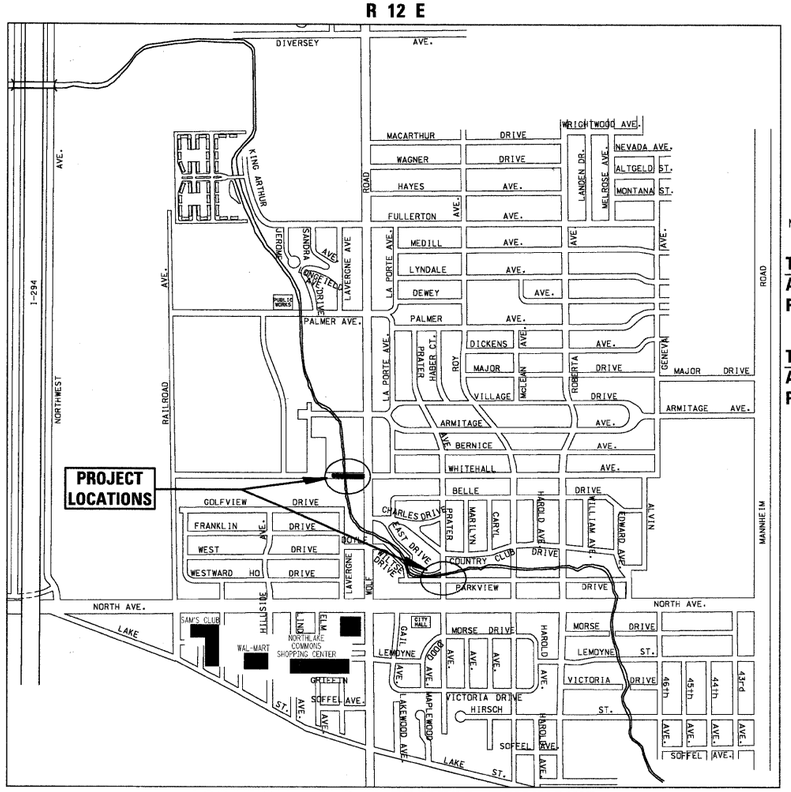
**CONTRACT NO. 63437**

**FIELD ENGINEER: MARILIN SOLOMON TEL. 847–705–4407**

# STATE OF ILLINOIS
# DEPARTMENT OF TRANSPORTATION
# DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

## WHITEHALL AVENUE
## PRATER AVENUE
## Section No.: 09–00071–00–BR
## BRIDGE REHABILITATION
## Project No.: ARA–9003 (399)
## CITY OF NORTHLAKE
## COOK COUNTY
## JOB NO.: C–91–808–09



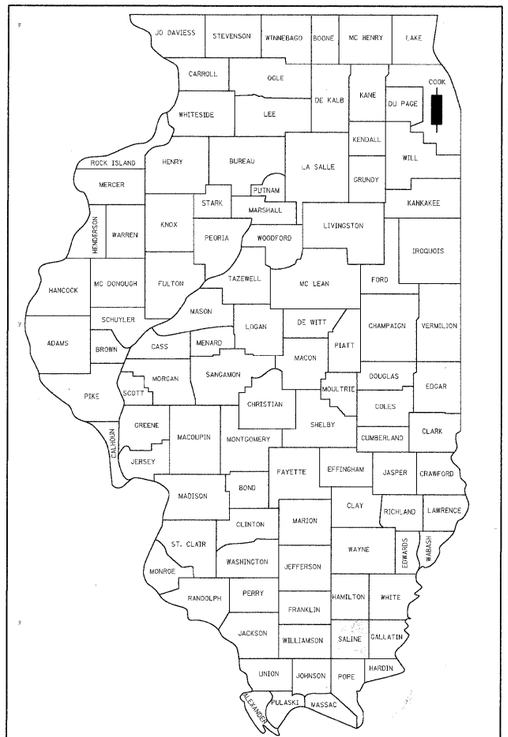

N
1
N.T.S.

**LOCATION MAP – PROVISO TOWNSHIP**

**GROSS LENGTH OF PROJECT = 120 LINEAL FEET (0.02 MI.)**
**NET LENGTH OF PROJECT = 120 LINEAL FEET (0.02 MI.)**

**TRAFFIC DATA – PRATER AVENUE**
**ADT (YEAR) = 400 (2008)**
**POSTED SPEED LIMIT = 25 MPH**

**TRAFFIC DATA – WHITEHALL AVENUE**
**ADT (YEAR) = 400 (2008)**
**POSTED SPEED LIMIT = 10 MPH**




**LOCATION OF SECTION INDICATED THUS: –**

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**
**DIVISION OF HIGHWAYS**

APPROVED Nov. 30 20 09
MAYOR
CITY OF NORTHLAKE

PASSED December 3 20 09
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW December 16, 20 09
DEPUTY DIRECTOR OF HIGHWAYS
REGION ONE ENGINEER

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

**ELECTRICAL**

NOVEMBER 30 , 2009

ANTHONY J. DeRICCO
ILLINOIS REGISTRATION No. 062-057484 ENGINEER
EXPIRATION DATE: 11/30/11

**CIVIL**

November 30 , 2009

ANDREW M. PUFUNDT
ILLINOIS REGISTRATION No. 062-061729 ENGINEER
EXPIRATION DATE: 11/30/11

PROFESSIONAL DESIGN FIRM No. 184-001175
EXPIRATION DATE: 04/30/11

# GENERAL NOTES

SPECIFICATIONS, STANDARDS AND SPECIAL PROVISIONS

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, 2010; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (IMUTCD), "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" JULY 2009 SIXTH EDITION, THE "DETAILS" IN THE PLANS, LATEST EDITION OF THE MANUAL OF TEST PROCEDURE OF MATERIALS, THE AMERICAN WITH DISABILITIES ACT OF 1990 ACCESSIBILITY GUIDELINES, THE "DRAFT" REHABILITATION ACT OF 1973 (SECTION 504), THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES, AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS.

UTILITIES

THE CONTRACTOR SHALL COOPERATE WITH THE CITY IN ANY UNDERGROUND UTILITY CONSTRUCTION WHICH THE CITY 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 CITY 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 CITY. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

COORDINATION OF ALL UTILITY WORK INVOLVED IN THE CONSTRUCTION AREA WILL BE DISCUSSED AT THE PRECONSTRUCTION CONFERENCE.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 811 OR 800-892- 0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS AND CABLE TELEVISION FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED.)

STAKING

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

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

ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT THEIR OWN EXPENSE.

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

MISCELLANEOUS

ACCESS: THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT, EXCEPT FOR PERIODS OF SHORT DURATION. THE COST TO PROVIDE ACCESS SHALL BE PAID FOR AND INCLUDED IN THE ITEMS FOR TRAFFIC CONTROL AND PROTECTION.

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.

ALL SAWCUTTING SHALL BE INCLUDED 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.

SEEDING, NUTRIENTS, MULCH, EROSION CONTROL BLANKET ARE NOT SHOWN ON THE PLAN BUT WILL BE DETERMINED BY THE ENGINEER IN THE FIELD AND WILL NOT EXCEED THE PLAN QUANTITY.

EXISTING PAVEMENT SECTION IS ASSUMED TO BE 13". REMOVAL OF ANY ADDITIONAL MATERIAL TO GET DOWN TO PROPER ELEVATION FOR INSTALLATION OF AGGREGATE BASE COURSE SHALL BE INCLUDED IN COST FOR PAVEMENT REMOVAL.

THE THICKNESSES OF HOT-MIX ASPHALT 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.

DETECTABLE WARNINGS FOR THE HANDICAPPED SHALL BE INSTALLED AT ALL INTERSECTING STREETS, SIGNALIZED COMMERCIAL DRIVEWAYS AND SIGNALIZED ALLEYS AS DIRECTED BY THE ENGINEER (SEE IDOT STD. 424001-05 INCLUDED IN THE SPECIFICATIONS). CONTRACTOR SHALL VERIFY THAT ALL SLOPES MEET ADA REQUIREMENTS PRIOR TO INSTALLING SIDEWALK DETECTABLE WARNINGS AND ADJACENT CURB AND GUTTER.

PAVEMENT GRADES: THE ELEVATIONS INDICATED ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSE, UNLESS OTHERWISE INDICATED.

RELOCATING EXISTING SIGNS: EXISTING SIGNS WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE REMOVED AND REINSTALLED UPON COMPLETION OF CONFLICTING IMPROVEMENTS IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" AND THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". STOP SIGNS, SPEED LIMIT SIGNS, AND STREET NAME SIGNS SHALL BE UP AND VISIBLE AT ALL TIMES. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM TRAFFIC CONTROL AND PROTECTION, STANDARD 701501.

PER ARTICLE 107.20, MAILBOXES WHICH ARE IN CONFLICT WITH PROPOSED IMPROVEMENTS SHALL BE REMOVED, TEMPORARILY RELOCATED, AND REPLACED UPON COMPLETION OF THE PROPOSED IMPROVEMENTS AS DIRECTED BY THE ENGINEER.

PROPOSED CONCRETE CURB AND GUTTER SHALL BE TRANSITIONED TO EXISTING CURB AND GUTTER OVER A LENGTH OF 5 FEET. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12.

ALL UNDERGROUND, DRIVEWAY, CONCRETE, AND LANDSCAPE RESTORATION WORK IS TO BE COMPLETED BEFORE THE SURFACE COURSE CAN BE INSTALLED.

PROTECTIVE COAT FOR ALL PCC SIDEWALK AND CONCRETE CURB AND GUTTER SURFACES SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE PAY ITEMS.

## IDOT HIGHWAY STANDARDS

| | |
|---|---|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS |
| 280001-05 | TEMPORARY EROSION CONTROL SYSTEMS |
| 420401-08 | BRIDGE APPROACH PAVEMENT CONNECTOR |
| 424001-05 | CURB RAMPS FOR SIDEWALKS |
| 606001-04 | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER |
| 606201-02 | TYPE B GUTTER (INLET, OUTLET AND ENTRANCE) |
| 631011-06 | TRAFFIC BARRIER TERMINAL, TYPE 2 |
| 631026-05 | TRAFFIC BARRIER TERMINAL, TYPE 5 |
| 631031-08 | TRAFFIC BARRIER TERMINAL, TYPE 6 |
| 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 |
| 780001-02 | TYPICAL PAVEMENT MARKINGS |
| 886001-01 | DETECTOR LOOP INSTALLATIONS |
| 886006-01 | TYPICAL LAYOUT FOR DETECTION LOOPS |
| BLR 17-4 | TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION |
| BLR 18-5 | TRAFFIC CONTROL DEVICES - DAY LABOR MAINTENANCE |

# CONDITIONS FOR ARMY CORPS OF ENGINEERS - REGIONAL PERMIT 7 & 9

COST TO PERFORM THIS WORK UNDER THESE CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

THE CONTRACOR SHALL COMPLY WITH THE FOLLOWING TERMS AND CONDITIONS OF THE REGIONAL PERMITS AND THE FOLLOWING GENERAL CONDITIONS FOR ALL ACTIVITIES AUTHORIZED UNDER THE REGIONAL PERMIT PROGRAM (RPP):

STATE 401 WATER QUALITY CERTIFICATION - WATER QUALITY CERTIFICATION UNDER SECTION 401 OF THE CLEAN WATER ACT IS REQUIRED FROM THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA). THE DISTRICT MAY CONSIDER WATER QUALITY, AMONG OTHER FACTORS, IN DETERMINING WHETHER TO EXERCISE DISCRETIONARY AUTHORITY AND REQUIRE AN INDIVIDUAL PERMIT. PLEASE NOTE THAT SECTION 401 WATER QUALITY CERTIFICATION IS A REQUIREMENT FOR PROJECTS ISSUED UNDER SECTION 404 OF THE CLEAN WATER ACT. PROJECTS ISSUED UNDER SECTION 10 OF THE RIVERS AND HARBORS ACT OF 1899 DO NOT REQUIRE SECTION 401 WATER QUALITY CERTIFICATION (SEE APPENDIX B).

ON JANUARY 31, 2007, THE IEPA GRANTED SECTION 401 CERTIFICATION, WITH CONDITIONS, FOR ALL REGIONAL PERMITS, EXCEPT FOR ACTIVITIES IN CERTAIN WATERWAYS NOTED UNDER RPS 4 AND 8. THE FOLLOWING CONDITIONS OF THE CERTIFICATION ARE HEREBY MADE CONDITIONS OF THE RPP:

1. THE CONTRACTOR SHALL NOT CAUSE:

   A) VIOLATION OF APPLICABLE WATER QUALITY STANDARDS OF THE ILLINOIS POLLUTION CONTROL BOARD TITLE 35, SUBTITLE C: WATER POLLUTION RULES AND REGULATIONS;

   B) WATER POLLUTION DEFINED AND PROHIBITED BY THE ILLINOIS ENVIRONMENTAL PROTECTION ACT; OR

   C) INTERFERENCE WITH WATER USE PRACTICES NEAR PUBLIC RECREATION AREAS OR WATER SUPPLY INTAKES.

2. THE CONTRACTOR SHALL PROVIDE ADEQUATE PLANNING AND SUPERVISION DURING THE PROJECT CONSTRUCTION PERIOD FOR IMPLEMENTING CONSTRUCTION METHODS, PROCESSES AND CLEANUP PROCEDURES NECESSARY TO PREVENT WATER POLLUTION AND CONTROL EROSION.

3. ANY SPOIL MATERIAL EXCAVATED, DREDGED OR OTHERWISE PRODUCED MUST NOT BE RETURNED TO THE WATERWAY BUT MUST BE DEPOSITED IN A SELF-CONTAINED AREA IN COMPLIANCE WITH ALL STATE STATUTES, REGULATIONS AND PERMIT REQUIREMENTS WITH NO DISCHARGE TO WATERS OF THE STATE UNLESS A PERMIT HAS BEEN ISSUED BY THE ILLINOIS EPA. ANY BACKFILLING MUST BE DONE WITH CLEAN MATERIAL PLACED IN A MANNER TO PREVENT VIOLATION OF APPLICABLE WATER QUALITY STANDARDS.

4. ALL AREAS AFFECTED BY CONSTRUCTION SHALL BE MULCHED AND SEEDED AS SOON AFTER CONSTRUCTION AS POSSIBLE. THE CONTRACTOR SHALL UNDERTAKE NECESSARY MEASURES AND PROCEDURES TO REDUCE EROSION DURING CONSTRUCTION. INTERIM MEASURES TO PREVENT SOIL EROSION DURING CONSTRUCTION SHALL BE TAKEN AND MAY INCLUDE THE INSTALLATION OF STAKED STRAW BALES, SEDIMENTATION BASINS AND TEMPORARY MULCHING. IF REQUIRED, THIS WORK WILL BE DIRECTED BY THE ENGINEER. ALL CONSTRUCTION WITHIN THE WATERWAY SHALL BE CONDUCTED DURING ZERO OR LOW FLOW CONDITIONS.

5. THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL MEASURES CONSISTENT WITH THE ILLINOIS URBAN MANUAL (IEPA/USDA, NRCS; 2002 LATEST VERSION).

6. THE OWNER IS ADVISED THAT THE FOLLOWING PERMITS(S) MUST BE OBTAINED FROM THE ILLINOIS EPA: THE OWNER MUST OBTAIN PERMITS TO CONSTRUCT SANITARY SEWERS, WATER MAINS, AND RELATED FACILITIES PRIOR TO CONSTRUCTION.

7. BACKFILL USED IN THE STREAM-CROSSING TRENCH SHALL BE PREDOMINANTLY SAND OR LARGER SIZE MATERIAL, WITH *20% PASSING A #230 U.S. SIEVE.

8. ANY CHANNEL RELOCATION SHALL BE CONSTRUCTED UNDER DRY CONDITIONS AND STABILIZED TO PREVENT EROSION PRIOR TO THE DIVERSION OF FLOW. [APPLICABLE ONLY TO PROJECTS WHICH PROPOSE TO RELOCATE STREAM CHANNELS.]

9. THE PROPOSED WORK SHALL BE CONSTRUCTED WITH ADEQUATE EROSION CONTROL MEASURES (I.E., SILT FENCES, STRAW BALES, ETC.) TO PREVENT TRANSPORT OF SEDIMENT AND MATERIALS TO THE ADJOINING WETLANDS AND/OR STREAMS.

10. BACKFILL USED WITHIN TRENCHES PASSING THROUGH SURFACE WATERS OF THE STATE, EXCEPT WETLAND AREAS, SHALL BE CLEAN COURSE AGGREGATE, GRAVEL OR OTHER MATERIAL WHICH WILL NOT CAUSE SILTATION, PIPE DAMAGE DURING PLACEMENT, OR CHEMICAL CORROSION IN PLACE. EXCAVATED MATERIAL MAY BE USED ONLY IF:

   A) PARTICLE SIZE ANALYSIS IS CONDUCTED AND DEMONSTRATES THE MATERIAL TO BE AT LEAST 80% SAND OR LARGER SIZE MATERIAL, USING #230 U.S. SIEVE; OR

   B) EXCAVATION AND BACKFILLING ARE DONE UNDER DRY CONDITIONS.

11. BACKFILL USED WITHIN TRENCHES PASSING THROUGH WETLAND AREAS SHALL CONSIST OF CLEAN MATERIAL WHICH WILL NOT CAUSE SILTATION, PIPE DAMAGE DURING PLACEMENT, ORCHEMICAL CORROSION IN PLACE. EXCAVATED MATERIAL SHALL BE USED TO THE EXTENT PRACTICABLE, WITH THE UPPER SIX (6) TO TWELVE (12) INCHES BACKFILLED WITH THE TOPSOIL OBTAINED DURING TRENCH EXCAVATION.

12. ANY OWNER PROPOSING ACTIVITIES IN A MINED AREA OR PREVIOUSLY MINED AREA SHALL PROVIDE TO THE IEPA A WRITTEN DETERMINATION REGARDING THE SEDIMENT AND MATERIALS USED WHICH ARE CONSIDERED *ACID-PRODUCING MATERIAL* AS DEFINED IN 35 IL. ADM. CODE, SUBTITLE D. IF CONSIDERED *ACID-PRODUCING MATERIAL,* THE OWNER SHALL OBTAIN A PERMIT TO CONSTRUCT PURSUANT TO 35 IL. ADM. CODE 404.101.

13. ASPHALT, BITUMINOUS MATERIAL AND CONCRETE WITH PROTRUDING MATERIAL SUCH AS REINFORCING BAR OR MESH SHALL NOT BE 1) USED FOR BACKFILL, 2) PLACED ON SHORELINES /STREAM BANKS, OR 3) PLACED IN WATERS OF THE STATE.

14. CONTRACTORS THAT USE SITE DEWATERING TECHNIQUES IN ORDER TO PERFORM WORK IN PERENNIAL STREAMS FOR CONSTRUCTION ACTIVITY APPROVED UNDER REGIONAL 7 (TEMPORARY CONSTRUCTION ACTIVITIES) AND PERMIT 9 (MAINTENANCE) SHALL MAINTAIN FLOW IN THE STREAM DURING SUCH CONSTRUCTION ACTIVITY BY UTILIZING DAM AND PUMPING, FLUMING, CULVERTS OR OTHER SUCH TECHNIQUES.

15. IN ADDITION TO ANY ACTION REQUIRED OF THE REGIONAL PERMIT 13 (CLEANUP OF TOXIC AND HAZARDOUS MATERIALS PROJECTS) OWNER WITH RESPECT TO THE *NOTIFICATION* GENERAL CONDITION 21, THE OWNER SHALL NOTIFY THE ILLINOIS EPA BUREAU OF WATER, OF THE SPECIFIC ACTIVITY. THIS NOTIFICATION SHALL INCLUDE INFORMATION CONCERNING THE ORDERS AND APPROVALS THAT HAVE BEEN OR WILL BE OBTAINED FROM THE ILLINOIS EPA BUREAU OF LAND (BOL) FOR ALL CLEANUP ACTIVITIES UNDER BOL JURISDICTION, OR FOR WHICH AUTHORIZATION OR APPROVAL IS SOUGHT FROM BOL FOR NO FURTHER REMEDIATION. THIS REGIONAL PERMIT IS NOT VALID FOR ACTIVITIES THAT DO NOT REQUIRE OR WILL NOT RECEIVE AUTHORIZATION OR APPROVAL FROM THE BOL.

16. THIS REGIONAL PERMIT IS NOT VALID FOR UTILITY LINE PROJECTS UNDER REGIONAL PERMITS 1 (RESIDENTIAL, COMMERCIAL AND INSTITUTIONAL DEVELOPMENTS) AND 2 (RECREATION PROJECTS) IN THE WATER BODIES LISTED UNDER REGIONAL PERMIT 8 (UTILITY LINE PROJECTS).

| | | | |
|---|---|---|---|
| FILE NAME = N:\NORTHLAKE\940032HR204\Civil\gnotl_940032hr204.sht | USER NAME = EDTODA | DESIGNED - AMP | REVISED |
| | | DRAWN - EDT | REVISED - |
| | PLOT SCALE = N.T.S. | CHECKED - MEW | REVISED - |
| | PLOT DATE = 12/16/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES AND IDOT STANDARDS**

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| ---- | 09-00071-00-BR | COOK | 31 | 2 |
| | | CONTRACT NO. 63437 | | |
| | ILLINOIS FED. AID PROJECT | | | |

# SUMMARY OF QUANTITIES

| LOCATION OF WORK | | | | ARRA | | | |
|---|---|---|---|---|---|---|---|
| | | | | WHITEHALL AVE. 100% FED. | PRATER AVE. 100% FED. | WHITEHALL AVE. 100% FED. | WHITEHALL AVE. 100% FED. |
| FUNDING SOURCE | | | | ARRA | ARRA | ARRA | ARRA |
| **SUMMARY OF QUANTITIES** | | | | CONSTRUCTION TYPE CODE | | | |
| ITEM # | ITEM | UNIT | TOTAL QUANTITIES | X071 -2A | | | Y030-1E |
| 20200100 | EARTH EXCAVATION | CU YD | 20 | 20 | 0 | 0 | 0 |
| 20201200 | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL | CU YD | 450 | 260 | 190 | 0 | 0 |
| 25000100 | SEEDING, CLASS 1 | ACRE | 0.25 | 0.15 | 0.1 | 0 | 0 |
| 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 25 | 15 | 10 | 0 | 0 |
| 25000500 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 25 | 15 | 10 | 0 | 0 |
| 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 25 | 15 | 10 | 0 | 0 |
| 25100105 | MULCH, METHOD 1 | ACRE | 0.25 | 0.15 | 0.1 | 0 | 0 |
| 25100630 | EROSION CONTROL BLANKET | SQ YD | 1000 | 700 | 300 | 0 | 0 |
| 25200200 | SUPPLEMENTAL WATERING | UNIT | 10 | 7 | 3 | 0 | 0 |
| 28000510 | INLET FILTERS | EACH | 2 | 2 | 0 | 0 | 0 |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 210 | 115 | 95 | 0 | 0 |
| 28100107 | STONE RIPRAP, CLASS A4 | SQ YD | 650 | 375 | 275 | 0 | 0 |
| 28200200 | FILTER FABRIC | SQ YD | 700 | 405 | 295 | 0 | 0 |
| 31101100 | SUB-BASE GRANULAR MATERIAL, TYPE B | CU YD | 10 | 10 | 0 | 0 | 0 |
| 35102000 | AGGREGATE BASE COURSE, TYPE B 8" | SQ YD | 65 | 65 | 0 | 0 | 0 |
| 40201000 | AGGREGATE FOR TEMPORARY ACCESS | TON | 20 | 20 | 0 | 0 | 0 |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 30 | 30 | 0 | 0 | 0 |
| 40603310 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | TON | 30 | 30 | 0 | 0 | 0 |
| 42001430 | BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) | SQ YD | 40 | 40 | 0 | 0 | 0 |
| 42400200 | PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH | SQ FT | 400 | 400 | 0 | 0 | 0 |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 200 | 200 | 0 | 0 | 0 |
| 44000157 | HOT-MIX ASPHALT SURFACE REMOVAL, 2" | SQ YD | 200 | 200 | 0 | 0 | 0 |
| 44000500 | COMBINATION CURB AND GUTTER REMOVAL | FOOT | 50 | 50 | 0 | 0 | 0 |
| 44000600 | SIDEWALK REMOVAL | SQ FT | 600 | 600 | 0 | 0 | 0 |
| 50102400 | CONCRETE REMOVAL | CU YD | 9.5 | 0 | 0 | 9.5 | 0 |
| 50101500 | REMOVAL OF EXISTING SUPERSTRUCTURES | EACH | 1 | 0 | 0 | 1 | 0 |
| 50202901 | COFFERDAM (LOCATION 1) | EACH | 1 | 1 | 0 | 0 | 0 |
| 50202902 | COFFERDAM (LOCATION 2) | EACH | 1 | 0 | 1 | 0 | 0 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 26.9 | 0 | 0 | 26.9 | 0 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 153.5 | 0 | 0 | 153.5 | 0 |
| 50300260 | BRIDGE DECK GROOVING | SQ YD | 253 | 0 | 0 | 253 | 0 |
| 50300285 | FORM LINER TEXTURED SURFACE | SQ FT | 258 | 0 | 0 | 258 | 0 |
| 50300300 | PROTECTIVE COAT | SQ YD | 360 | 0 | 0 | 360 | 0 |
| 50500105 | FURNISHING AND ERECTING STRUCTURAL STEEL | L SUM | 1 | 0 | 0 | 1 | 0 |
| 50500505 | STUD SHEAR CONNECTORS | EACH | 648 | 0 | 0 | 648 | 0 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 33960 | 0 | 0 | 33960 | 0 |
| 50800515 | BAR SPLICERS | EACH | 80 | 0 | 0 | 80 | 0 |
| *50900105 | ALUMINUM RAILING, TYPE L | FOOT | 34 | 0 | 0 | 34 | 0 |
| 51500100 | NAME PLATES | EACH | 1 | 0 | 0 | 1 | 0 |
| 60602800 | CONCRETE GUTTER, TYPE B | FOOT | 15 | 15 | 0 | 0 | 0 |
| 60603800 | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 | FOOT | 60 | 60 | 0 | 0 | 0 |
| *63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 4 | 4 | 0 | 0 | 0 |
| *63100070 | TRAFFIC BARRIER TERMINAL, TYPE 5 | EACH | 2 | 2 | 0 | 0 | 0 |
| *63100085 | TRAFFIC BARRIER TERMINAL, TYPE 6 | EACH | 2 | 2 | 0 | 0 | 0 |
| 66410400 | CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED | FOOT | 20 | 20 | 0 | 0 | 0 |
| 67100100 | MOBILIZATION | L SUM | 1 | 0.1 | 0.1 | 0.80 | 0 |
| 70102620 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701501 | L SUM | 1 | 0.1 | 0.1 | 0.80 | 0 |
| 70102635 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 | L SUM | 1 | 0.1 | 0.1 | 0.80 | 0 |
| 70102640 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701801 | L SUM | 1 | 0.1 | 0.1 | 0.80 | 0 |
| *78000200 | THERMOPLASTIC PAVEMENT MARKING - LINE 4" | FOOT | 100 | 100 | 0 | 0 | 0 |
| *78000600 | THERMOPLASTIC PAVEMENT MARKING - LINE 12" | FOOT | 105 | 105 | 0 | 0 | 0 |
| *78000650 | THERMOPLASTIC PAVEMENT MARKING - LINE 24" | FOOT | 30 | 30 | 0 | 0 | 0 |
| *78005100 | EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 84 | 84 | 0 | 0 | 0 |
| *78005110 | EPOXY PAVEMENT MARKING - LINE 4" | FOOT | 225 | 225 | 0 | 0 | 0 |
| *81017515 | CONDUIT IN TRENCH, 1 1/4" DIA., COILABLE NONMETALLIC CONDUIT | FOOT | 75 | 0 | 0 | 0 | 75 |
| *81030100 | CONDUIT SPLICE | EACH | 1 | 0 | 0 | 0 | 1 |
| *81100400 | CONDUIT ATTACHED TO STRUCTURE, 1 1/4' DIA., GALVANIZED STEEL | FOOT | 45 | 0 | 0 | 0 | 45 |
| *81400730 | HANDHOLE, COMPOSITE CONCRETE | EACH | 1 | 0 | 0 | 0 | 1 |
| *81702120 | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8 | FOOT | 600 | 0 | 0 | 0 | 600 |
| *81900200 | TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 75 | 0 | 0 | 0 | 75 |
| *85000200 | MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 | 0 | 0 | 0 | 1 |
| 88600600 | DETECTOR LOOP REPLACEMENT | FOOT | 225 | 225 | 0 | 0 | 0 |
| *89502300 | REMOVE ELECTRIC CABLE FROM CONDUIT | FOOT | 600 | 0 | 0 | 0 | 600 |
| 89502380 | REMOVE EXISTING HANDHOLE | EACH | 1 | 1 | 0 | 0 | 0 |
| *X0323710 | REMOVE CONDUIT ATTACHED TO STRUCTURE | FOOT | 45 | 0 | 0 | 0 | 45 |
| *X0323927 | MAINTENANCE OF LIGHTING SYSTEM | EACH | 1 | 0 | 0 | 0 | 1 |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1 | 0.1 | 0.1 | 0.80 | 0 |
| *Z0025100 | FURNISHING AND INSTALLING CABLE SPLICES | EACH | 2 | 0 | 0 | 0 | 2 |
| | | | | | | | |
| | | | | | | | |

* INDICATES SPECIALTY ITEM

| | | | |
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| | PLOT DATE = 12/16/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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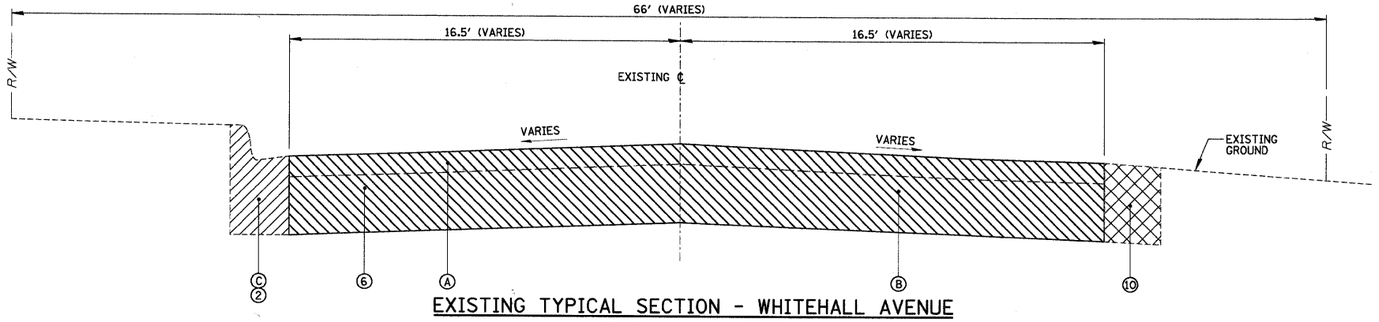
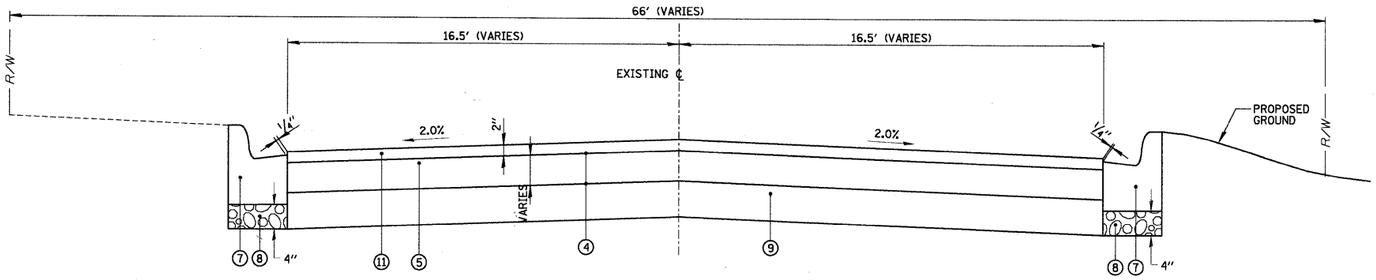
| | | CONTRACT NO. 63437 | | |
| | ILLINOIS FED. AID PROJECT | | | |




## EXISTING TYPICAL SECTION - WHITEHALL AVENUE

STA. 30+24.82 TO STA. 30+49.82
STA. 30+84.29 TO STA. 31+09.29




## PROPOSED TYPICAL SECTION - WHITEHALL AVENUE

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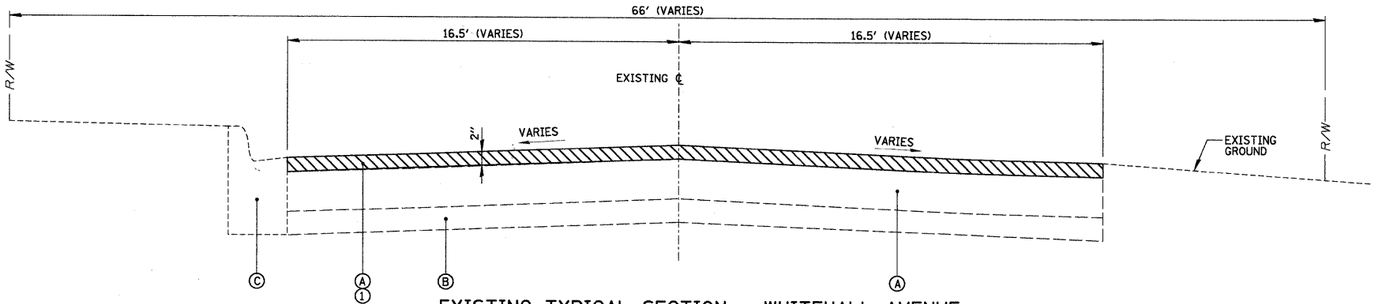
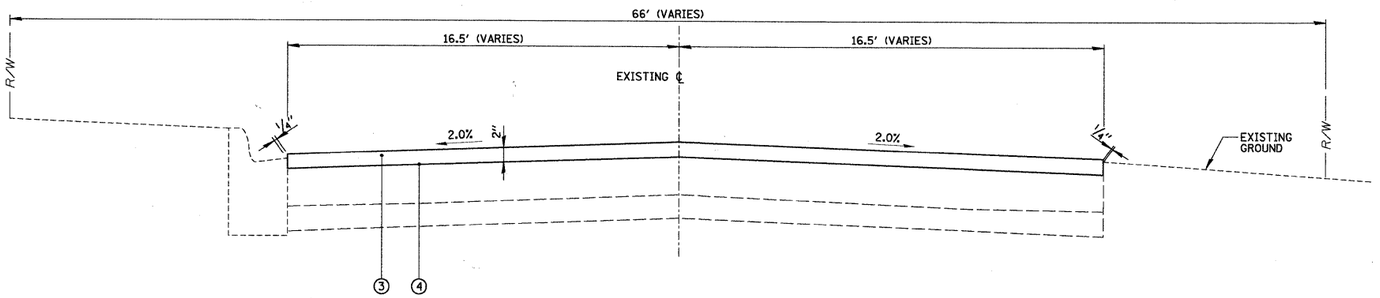
STA. 31+04.29 TO STA. 31+09.29




## EXISTING TYPICAL SECTION - WHITEHALL AVENUE

STA. 31+09.29 TO STA. 31+44.40




## PROPOSED TYPICAL SECTION - WHITEHALL AVENUE

STA. 31+09.29 TO STA. 31+44.40

LEGEND

- (A) EXISTING ASPHALT PAVEMENT (+/- 3")
- (B) EXISTING AGGREGATE BASE (+/- 10")
- (C) EXISTING COMBINATION CURB AND GUTTER; TYPE B-6.12
- (1) HOT-MIX ASPHALT SURFACE REMOVAL, 2"
- (2) COMBINATION CONCRETE CURB AND GUTTER REMOVAL (LIMITS AS SHOWN ON PLANS)
- (3) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 - 2"
- (4) BITUMINOUS MATERIALS (PRIME COAT)
- (5) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 - DEPTH VARIES (PAID FOR AS BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE))
- (6) PAVEMENT REMOVAL
- (7) COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- (8) SUBBASE GRANULAR MATERIAL, TYPE B
- (9) AGGREGATE BASE COURSE, TYPE B, 8"
- (10) EARTH EXCAVATION
- (11) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 - 2" (PAID FOR AS BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE))

## HOT-MIX ASPHALT MIXTURE REQUIREMENTS

| ITEM | AIR VOIDS |
|---|---|
| PAVEMENT RESURFACING | |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5 MM) | 4% @ 50 GYR |
| BRIDGE APPROACH PAVEMENT CONNECTOR | |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5 MM) | 4% @ 50 GYR |
| HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 | 4% @ 50 GYR |

NOTE:
1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

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| | PLOT DATE = 12/16/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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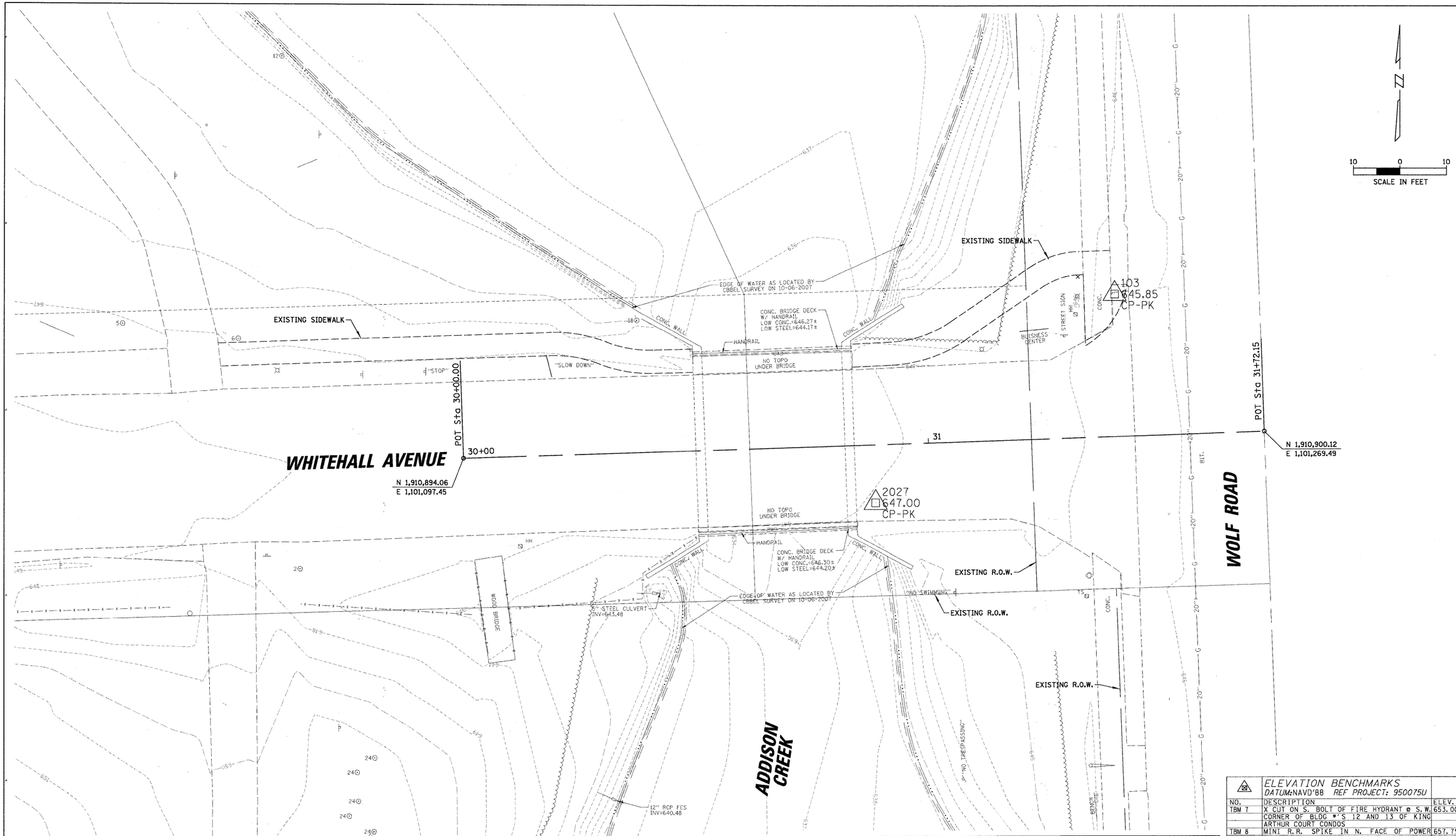
| | | CONTRACT NO. 63437 | | |
| | ILLINOIS | FED. AID PROJECT | | |




| ELEVATION BENCHMARKS DATUM:NAVD'88 REF PROJECT: 950075U | | |
|---|---|---|
| NO. | DESCRIPTION | ELEV. |
| TBM 7 | X CUT ON S. BOLT OF FIRE HYDRANT @ S.W. CORNER OF BLDG #'S 12 AND 13 OF KING ARTHUR COURT CONDOS | 653.00 |
| TBM 8 | MINI R.R. SPIKE IN N. FACE OF POWER POLE, 2ND POLE E. OF R.R. TRACKS OPPOSITE BLDG. # 24 OF KING ARTHUR'S COURT CONDOS | 657.79 |
| TBM 9 | X CUT ON N.E. BOLT OF FIRE HYDRANT SW'LY SIDE OF BLDG'S # 24 AND 25 OF KING ARTHUR'S COURT CONDOS | 659.62 |
| BM 29C | MONUMENT AT NW CORNER OF WOLF ROAD & FULLERTON AVENUE & 48' WEST OF WOLF ROAD | 656.28 |
| OSBM 1 | MINI RAILROAD SPIKE IN S. FACE OF POWER POLE W/ LIGHT @ N.E. CORNER OF NORTH AV. AND PRATTER AV. | 646.21 |

| HORIZONTAL CONTROL POINTS | | | | | | |
|---|---|---|---|---|---|---|
| | POINT NO. | NORTHING (Y) | EASTING (X) | ELEVATION | DESCRIPTION | STATION | OFFSET |
| WOLF ROAD | 105 | 1,910,232.33 | 1,101,329.58 | 646.01 | CP-XCUT | OFFSITE | OFFSITE |
| | 104 | 1,910,397.27 | 1,101,253.58 | 645.84 | CP-XCUT | 31+38.56 | 501.98' RT |
| | 1191 | 1,910,516.56 | 1,101,324.52 | 645.53 | CP-XCUT | OFFSITE | OFFSITE |
| | 103 | 1,910,929.76 | 1,101,237.36 | 645.85 | CP-PK | 31+41.09 | 30.75' LT |
| | 1596 | 1,911,114.92 | 1,101,307.13 | 646.48 | CP-PK | 31+72.15 | 213.34' LT |
| WHITEHALL AVENUE | 2027 | 1,910,884.70 | 1,101,186.04 | 647.00 | CP-PK | 30+88.21 | 12.48' RT |
| | 102 | 1,910,874.06 | 1,100,981.15 | 648.53 | CP-PK | OFFSITE | OFFSITE |
| | 101 | 1,911,218.43 | 1,100,824.35 | 645.17 | CP-PK | OFFSITE | OFFSITE |

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| | PLOT DATE = 11/30/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, TIES AND BENCHMARKS**
**WHITEHALL AVENUE**

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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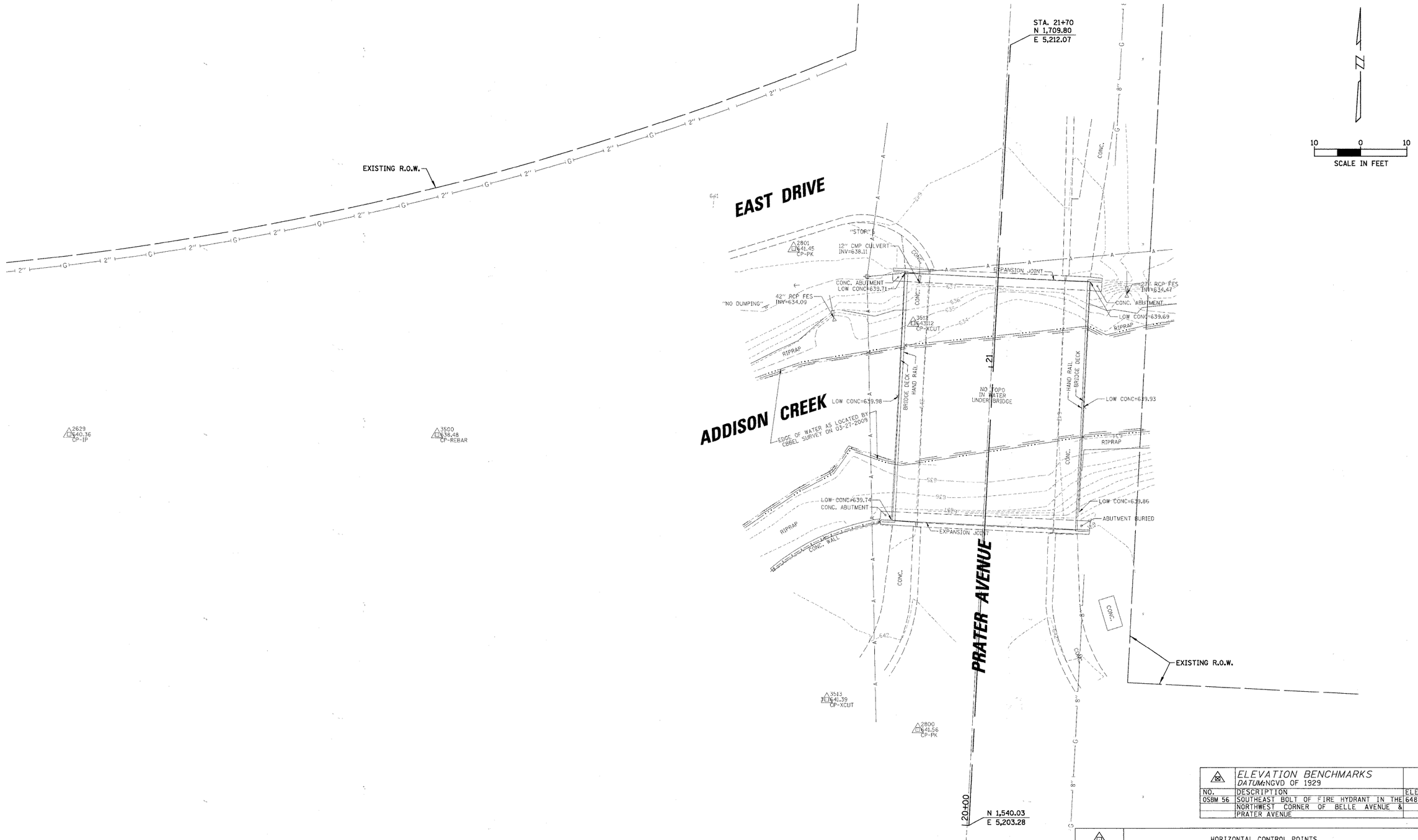
| | ILLINOIS FED. AID PROJECT | | | |




| ELEVATION BENCHMARKS | | |
|---|---|---|
| | DATUM: NGVD OF 1929 | |
| NO. | DESCRIPTION | ELEV. |
| OSBM 56 | SOUTHEAST BOLT OF FIRE HYDRANT IN THE NORTHWEST CORNER OF BELLE AVENUE & PRATER AVENUE | 648.93 |

| HORIZONTAL CONTROL POINTS | | | | | | |
|---|---|---|---|---|---|---|
| CP NO. | NORTHING (Y) | EASTING (X) | DESCRIPTION | ELEV. | STATION | OFFSET |
| CP 2629 | 1,624.67 | 5,008.37 | CP-IP | 640.36 | 20+74.44 | 199.03' LT |
| CP 2800 | 1,561.12 | 5,192.19 | CP-PK | 641.56 | 20+20.49 | 12.17' LT |
| CP 2801 | 1,665.65 | 5,165.18 | CP-PK | 641.45 | 21+23.48 | 44.54' LT |
| CP 3500 | 1,624.93 | 5,088.04 | CP-REBAR | 638.48 | 20+78.82 | 119.47' LT |
| CP 3512 | 1,649.43 | 5,191.06 | CP-XCUT | 643.12 | 21+08.62 | 17.85' LT |
| CP 3513 | 1,567.71 | 5,172.50 | CP-XCUT | 641.39 | 20+26.05 | 32.17' LT |

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| | PLOT DATE = 11/30/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**ALIGNMENT, TIES AND BENCHMARKS**
**PRATER AVENUE**

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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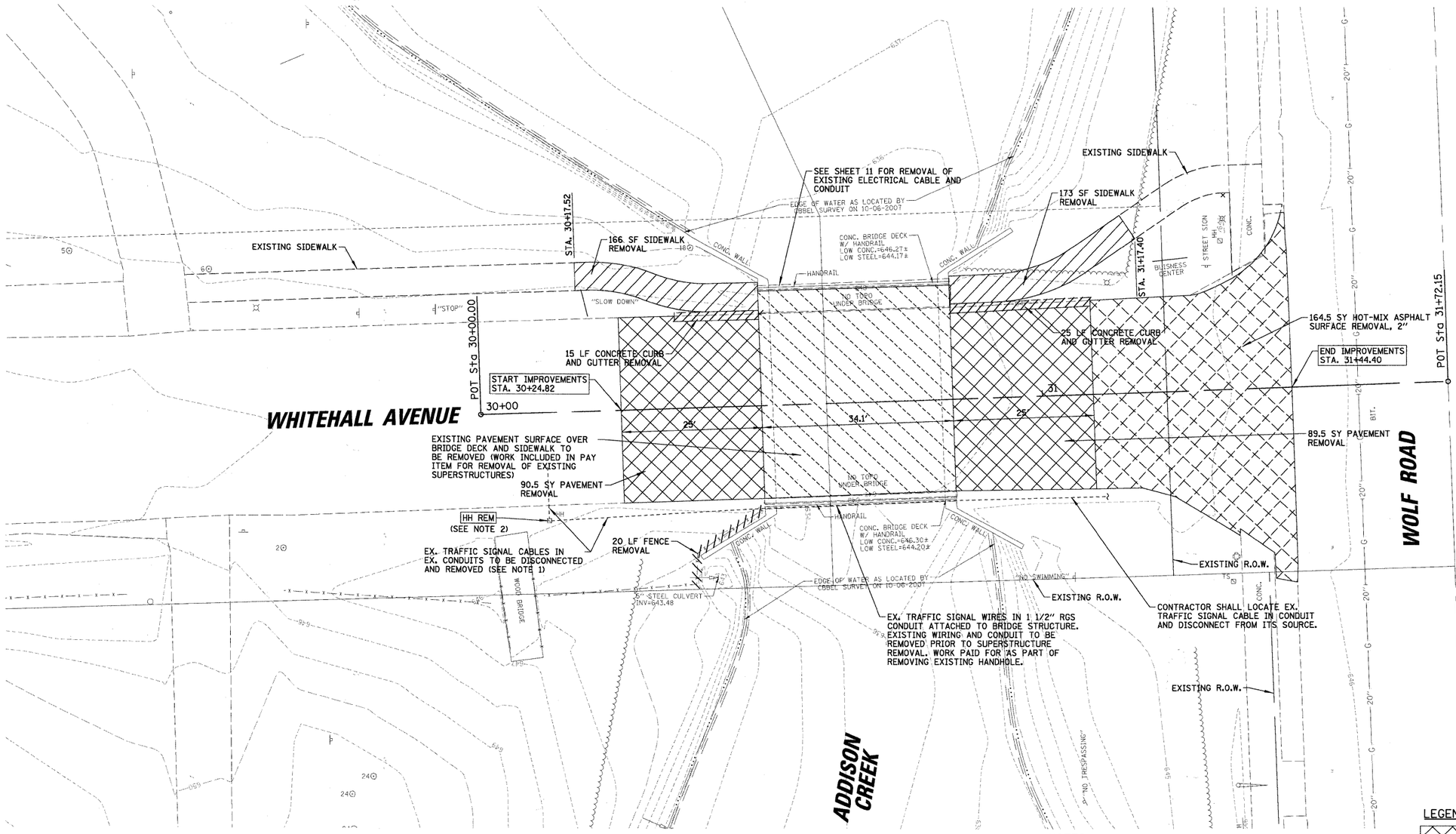
| | | ILLINOIS FED. AID PROJECT | | |




## NOTES:

1. CONTRACTOR SHALL DISCONNECT AND CUT EXISTING TRAFFIC SIGNAL CABLES AND CONDUIT TO A MINIMUM OF 1' BELOW GRADE AND ABANDON. CONTRACTOR MAY ELECT TO REMOVE CABLES AND SALVAGE AT NO ADDITIONAL COST TO THE OWNER. WORK INCLUDED IN COST FOR REMOVING HANDHOLE.
2. EXISTING CONCRETE HANDHOLE SHALL BE REMOVED AND DISPOSED OF ACCORDING TO SECTION 895 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE HANDHOLE SHALL BE COMPLETELY REMOVED, BACKFILLED WITH IDOT APPROVED MATERIAL AND THE SURFACE RESTORED TO SURROUNDING CONDITIONS.

## LEGEND:

- PAVEMENT REMOVAL
- EXISTING PAVEMENT SURFACE OVER BRIDGE DECK AND SIDEWALK TO BE REMOVED
- HOT-MIX ASPHALT SURFACE REMOVAL, 2"
- SIDEWALK REMOVAL
- CONCRETE CURB AND GUTTER REMOVAL
- FENCE REMOVAL (PAID FOR AS CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED)

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**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**EXISTING CONDITIONS AND REMOVAL PLAN**
**WHITEHALL AVENUE**

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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| | ILLINOIS FED. AID PROJECT | | | |

PLAN
MARKED
PLOTTED
ALIGNMENT CHECKED
NOTE BOOK
NO.
BY
DATE

PROFILE
MARKED
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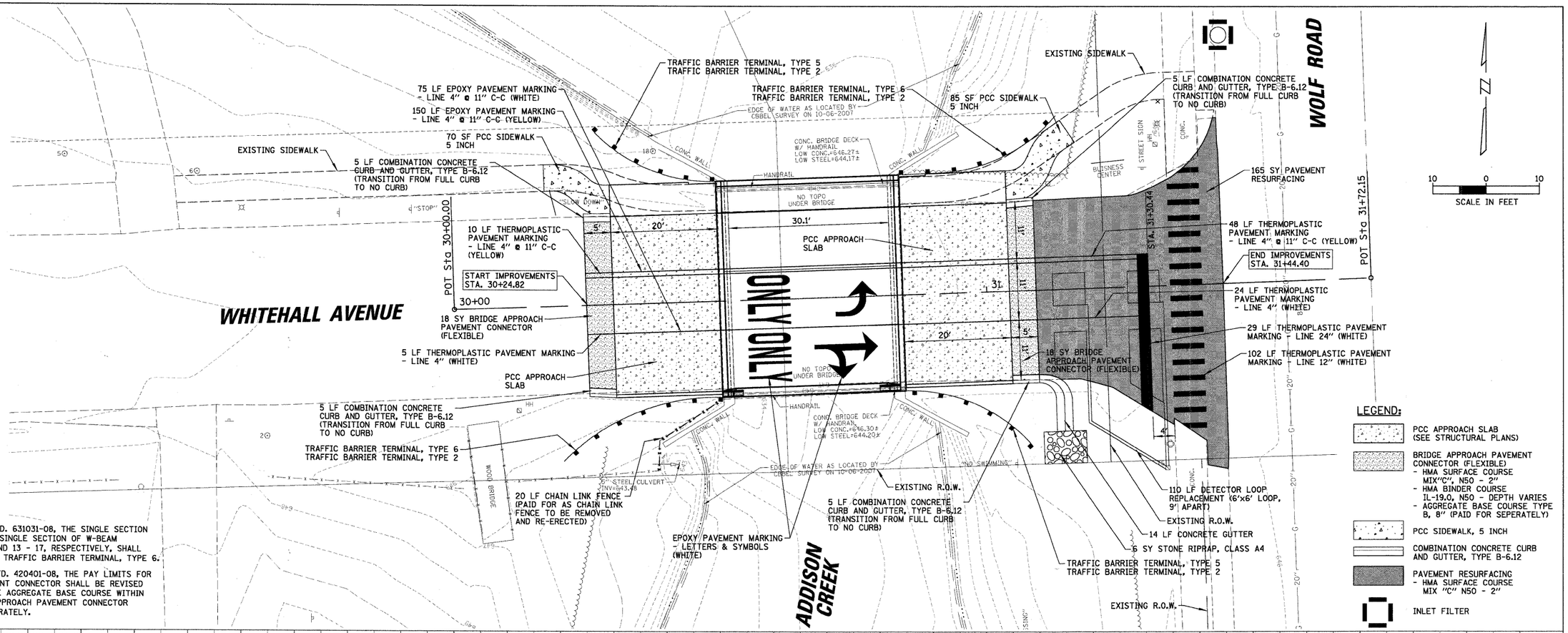
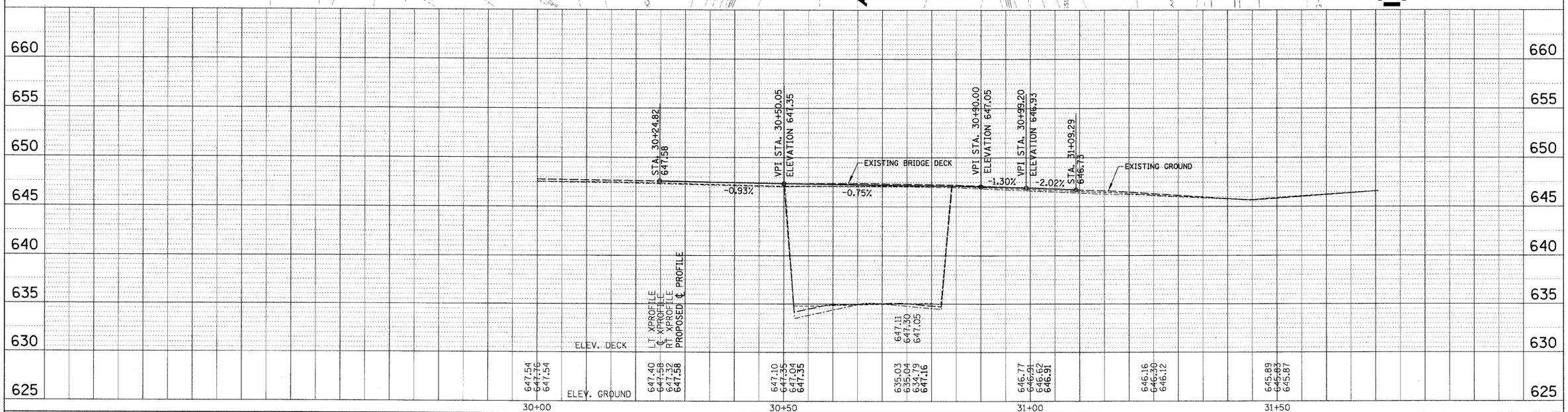
GRADES CHECKED
NOTE BOOK
STRUCTURE NO
NO.
BY
DATE




NOTES:

1. PER IDOT HIGHWAY STD. 631031-08, THE SINGLE SECTION OF THRIE BEAM AND THE SINGLE SECTION OF W-BEAM BETWEEN POSTS 7 - 11 AND 13 - 17, RESPECTIVELY, SHALL BE ELIMINATED FROM THE TRAFFIC BARRIER TERMINAL, TYPE 6.

2. PER IDOT HIGHWAY STD. 420401-08, THE PAY LIMITS FOR BRIDGE APPROACH PAVEMENT CONNECTOR SHALL BE REVISED TO 5'. THE COST FOR THE AGGREGATE BASE COURSE WITHIN THE LIMITS OF BRIDGE APPROACH PAVEMENT CONNECTOR SHALL BE PAID FOR SEPERATELY.

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**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**PROPOSED ROADWAY PLAN AND PROFILE**
**WHITEHALL AVENUE**

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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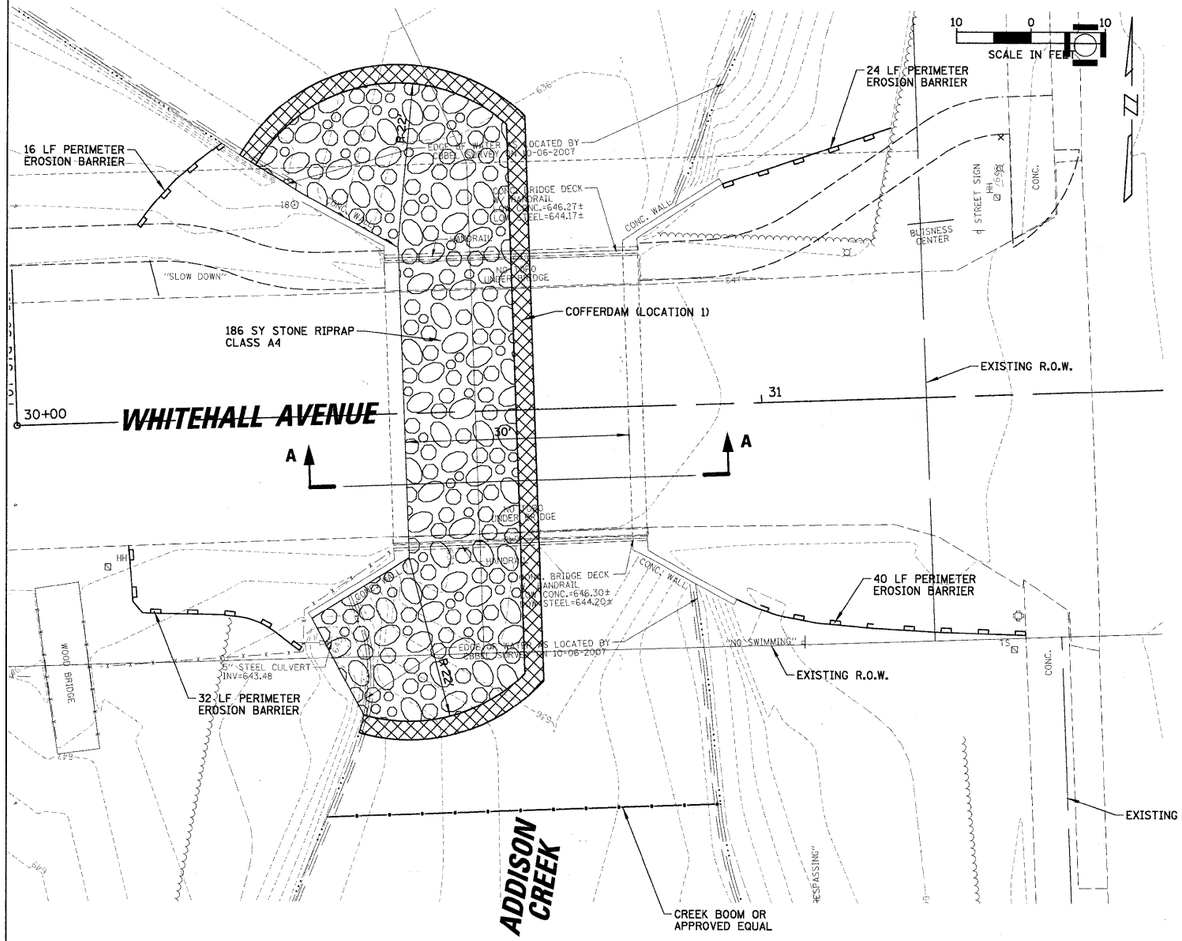
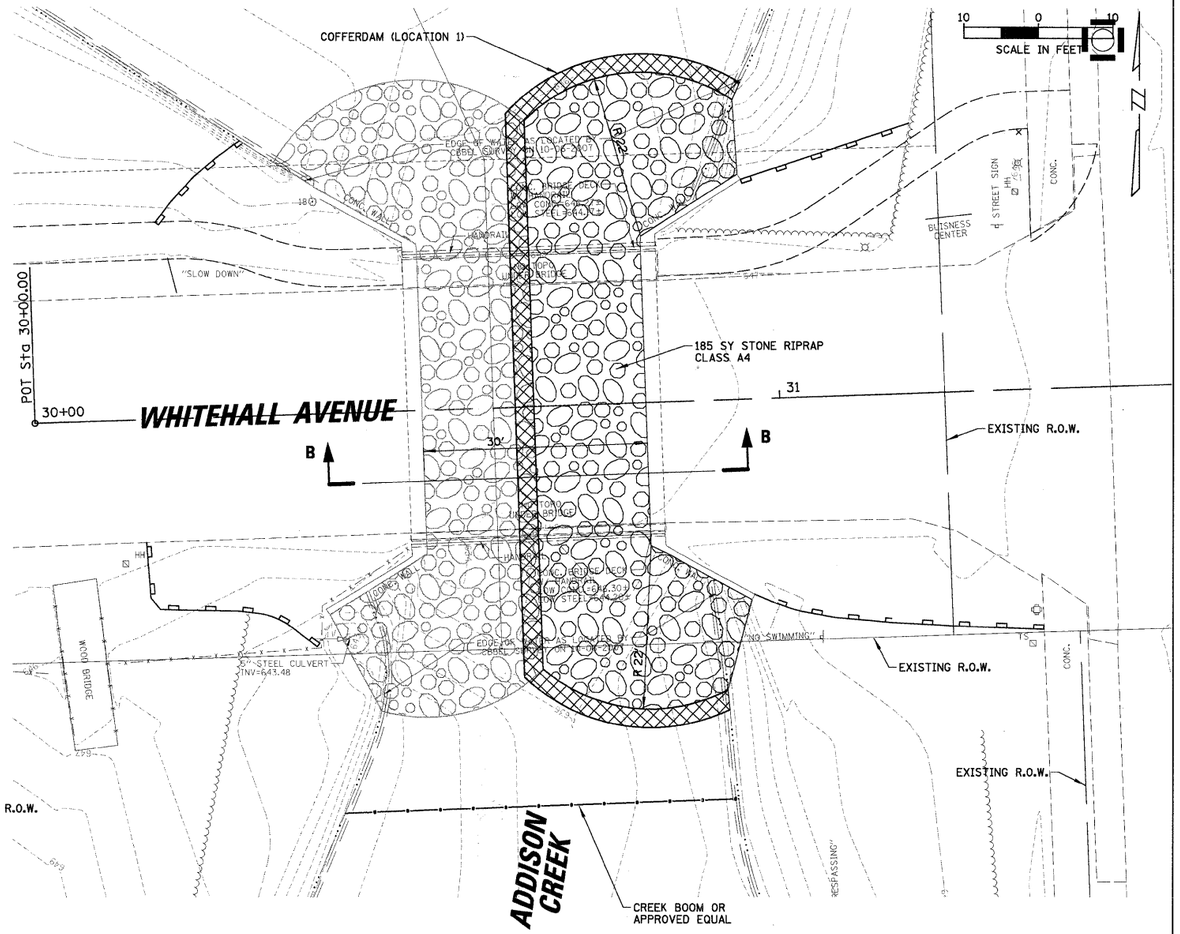
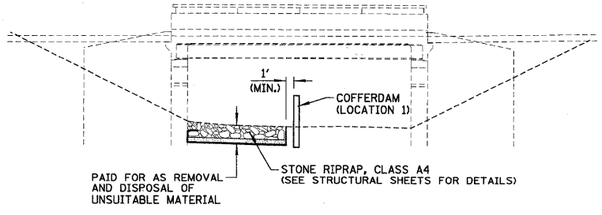
| | ILLINOIS FED. AID PROJECT | | | |




## STAGE I

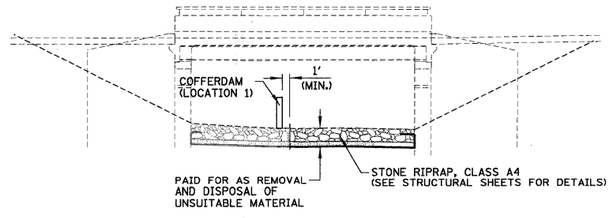



## STAGE II




## STAGE I – INSTALLATION OF RIPRAP (SECTION A–A)

NOT TO SCALE




## STAGE II – INSTALLATION OF RIPRAP (SECTION B–B)

NOT TO SCALE

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| | PLOT DATE = 12/2/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL AND STAGING PLAN**
**WHITEHALL AVENUE**

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
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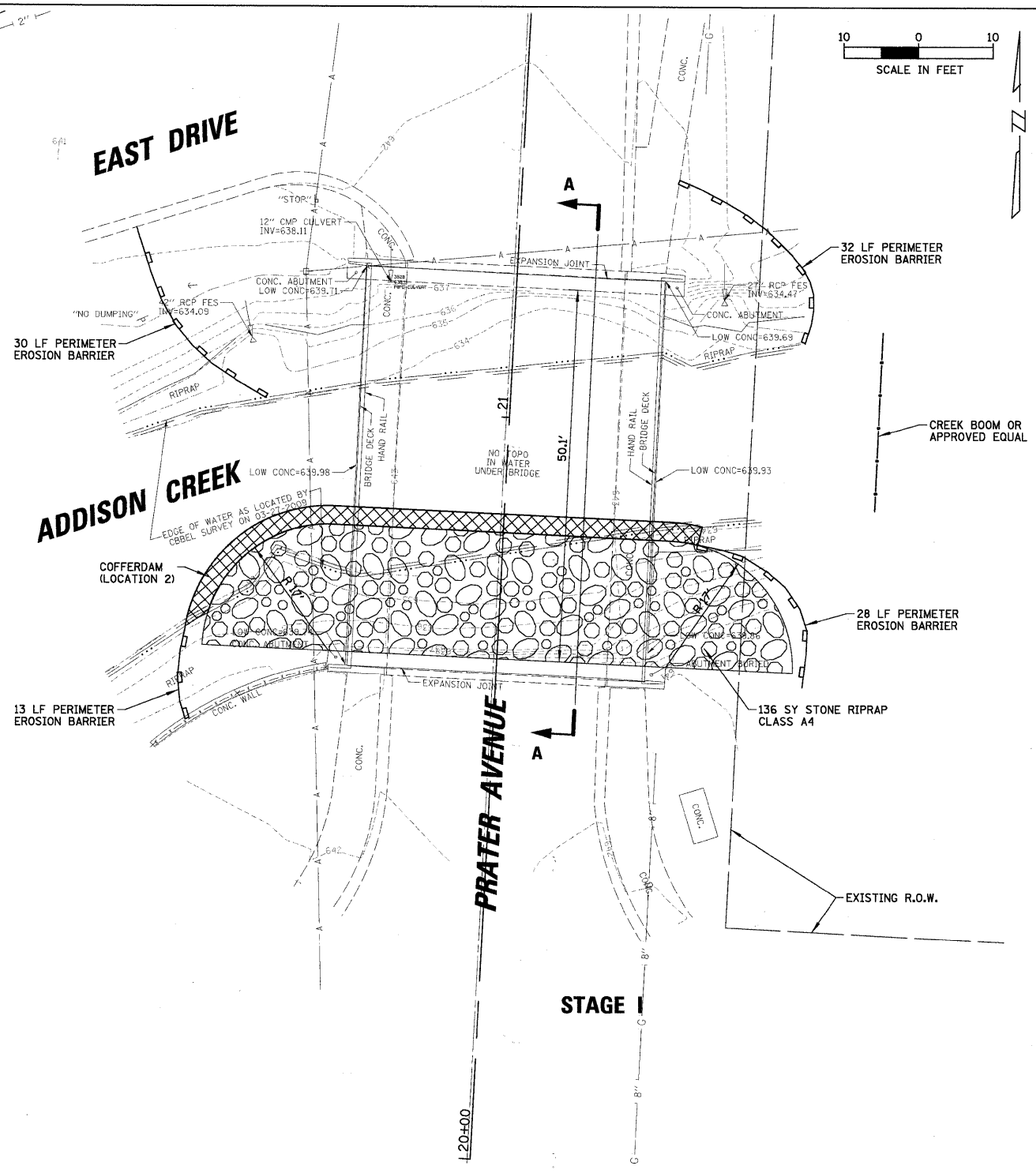
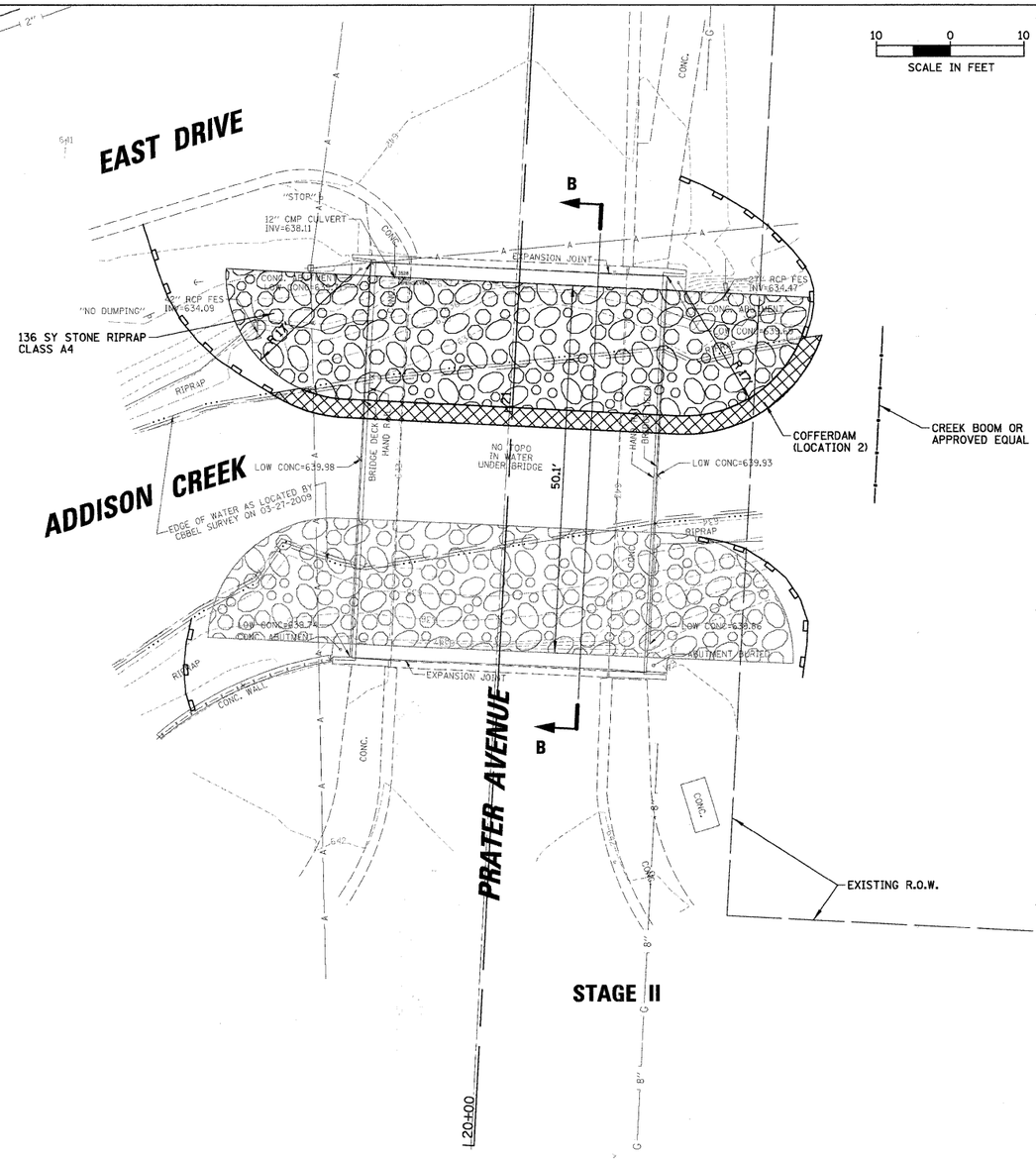
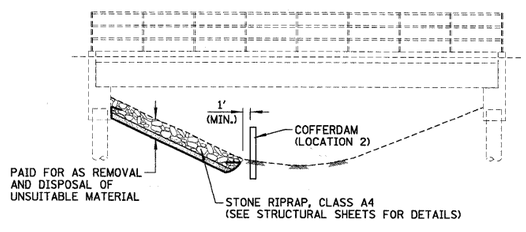
| | ILLINOIS FED. AID PROJECT | | | |

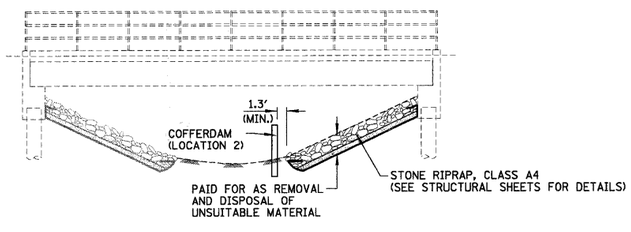



## STAGE I – INSTALLATION OF RIPRAP (SECTION A–A)

NOT TO SCALE




## STAGE II – INSTALLATION OF RIPRAP (SECTION B–B)

NOT TO SCALE

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| | PLOT DATE = 11/30/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL AND STAGING PLAN**
**PRATER AVENUE**

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
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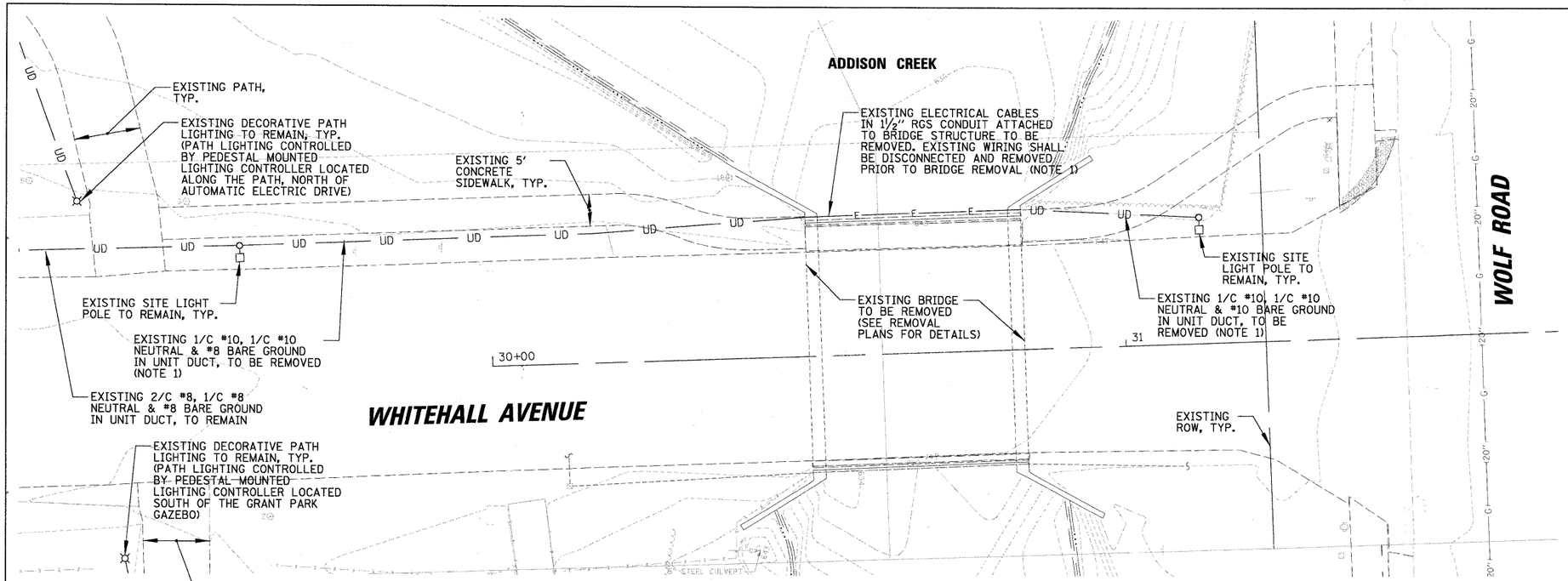
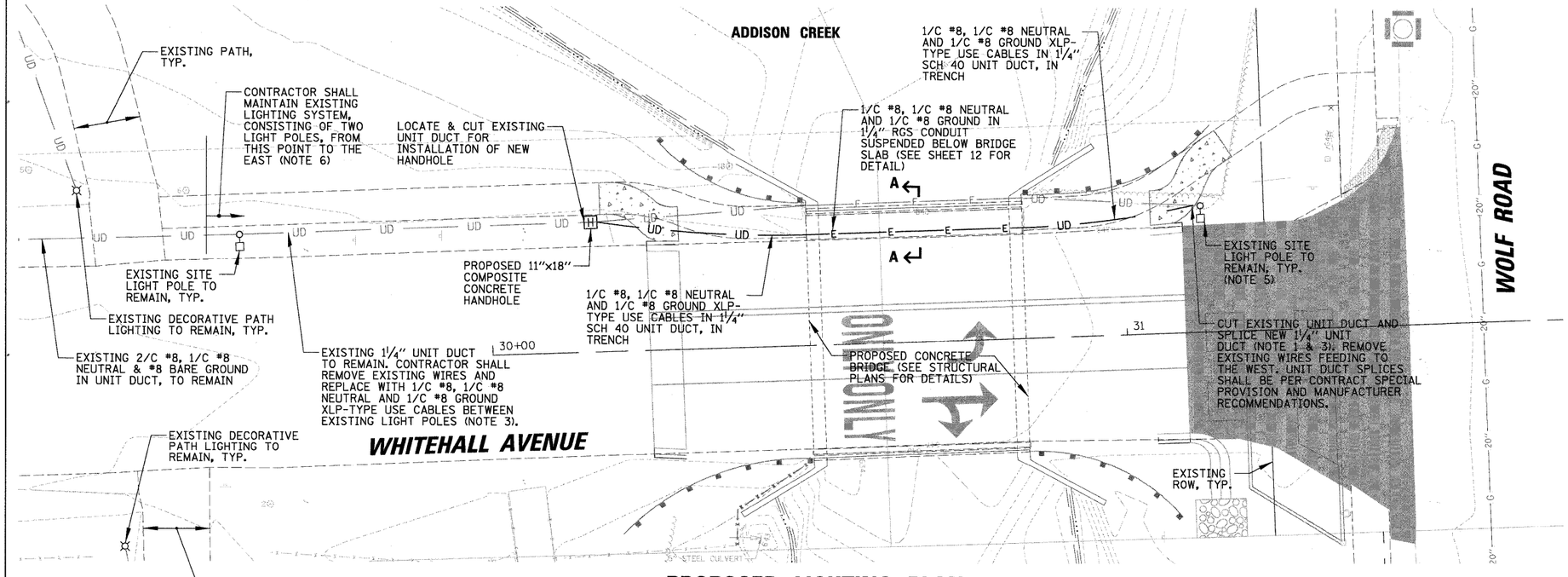
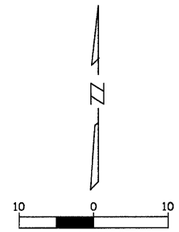



## EXISTING LIGHTING PLAN




## PROPOSED LIGHTING PLAN




NOTES:

1. CONTRACTOR SHALL DISCONNECT AND CUT EXISTING UNDERGROUND ELECTRICAL CONDUITS TO A MIN. OF 1' BELOW GRADE AND ABANDON. CONTRACTOR SHALL REMOVE EXISITING CONDUIT AND CABLES ATTACHED TO BRIDGE STRUCTURE PRIOR TO THE DEMOLITION OF THE EXISTING STRUCTURE. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR "REMOVE CONDUIT ATTACHED TO STRUCTURE" AND "REMOVE ELECTRIC CABLE FROM CONDUIT," RESPECTIVELY.

2. THE EXISTING SITE LIGHT POLES ARE CONTROLLED FROM A PAD MOUNTED LIGHTING CONTROLLER LOCATED ALONG THE EXISTING PATH, NORTH OF AUTOMATIC ELECTRIC DRIVE. THE CONTRACTOR SHOULD NOTE THAT THERE IS AN "ALWAYS ON" BRANCH CIRCUIT RUNNING WITHIN THE EXISTING SITE LIGHTING CONDUIT. THE "ALWAYS ON" CIRCUIT IS CONNECTED TO POLE MOUNTED POLICE CAMERAS/EQUIPMENT THAT ARE INSTALLED ON SELECT LIGHT POLES THROUGHOUT THE SITE. THE CONTRACTOR SHALL IDENTIFY AND TAG "ALWAYS ON" CIRCUIT, AND NOTIFY THE NORTHLAKE POLICE DEPT. PRIOR TO BEGINNING ANY ELECTRICAL WORK IN THE AREA.

3. CONNECTION OF PROPOSED ELECTRIC CABLES TO EXISTING LIGHTING CIRCUITS SHALL BE MADE AT THE BASE OF THE LIGHT POLE. THE CONNECTION SHALL INCLUDE ALL NEW FUSES, FUSE HOLDERS, COMPRESSION FITTINGS, SEALANT, CIRCUIT LABELS, ETC. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR "FURNISHING AND INSTALLING CABLE SPLICES."

4. EXPANSION COUPLINGS SHALL BE INSTALLED IN THE CONDUIT RUN AT EACH END OF BRIDGE STRUCTURE.

5. LIGHT POLE TO BE DISCONNECTED FOR DURATION OF BRIDGE CONSTRUCTION. THE LIGHT POLE SHALL BE RECONNECTED AND OPERATIONAL BEFORE OPENING ROAD TO TRAFFIC.

6. THE CONTRACTOR SHALL ASSUME PARTIAL MAINTENANCE OF THE EXISTING LIGHTING SYSTEM AS INDICATED. THIS WORK SHALL INCLUDE MAINTENANCE OF LIGHT POLES, LUMINIARES AND CABLE RUNS. IN CASE OF POLE KNOCKDOWN OR EQUIPMENT DAMAGED BY EITHER THE MOTORING PUBLIC OR CONTRACTOR OPERATIONS, THE CONTRACTOR SHALL CLEAR AND RESTORE THE EXISTING SYSTEM TO ORIGINAL CONDITIONS (SEE SPECIAL PROVISIONS).

## LIGHTING LEGEND

| | |
|---|---|
| [H] | PROPOSED COMPOSITE CONCRETE HANDHOLE |
| —— UD —— | WIRES IN UNIT DUCT AS SHOWN ON PLANS |
| ——E—— | WIRES IN RGS CONDUIT SUSPENDED BELOW PROPOSED BRIDGE STRUCTURE |
| ○—□ | EXISTING 400W HIGH PRESSURE SODIUM SHOEBOX TYPE LUMINAIRE MOUNTED 40'-0" ABOVE GRADE ON AN TAPERED STEEL LIGHT POLE (REFERRED TO AS SITE LIGHT POLE), TO REMAIN |
| ⌑ | EXISTING 150W DECORATIVE TYPE LUMINAIRE MOUNTED ON A 14 FT. FLUTED ALUMINUM POLE, TO REMAIN |
| ▨ | EXISTING CONCRETE HANDHOLE |
| —— UD —— | EXISTING WIRES IN UNIT DUCT AS SHOWN ON PLANS |
| ——E—— | EXISTING RGS CONDUIT ATTACHED TO BRIDGE STRUCTURE |
| RGS | RIGID GALVANIZED STEEL CONDUIT |

CAUTION
NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THESE PLANS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

| | | | |
|---|---|---|---|
| FILE NAME = N:\NORTHLAKE\940032HR204\Mech\LGT_940032hr204_01.SHT | USER NAME = PRAZALAN | DESIGNED - KB | REVISED - |
| | | DRAWN - KB | REVISED - |
| | PLOT SCALE = 10' | CHECKED - AJD | REVISED - |
| | PLOT DATE = 11/30/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**EXISTING & PROPOSED LIGHTING IMPROVEMENT PLAN**

SCALE: AS SHOWN | SHEET NO. OF SHEETS | STA. TO STA.

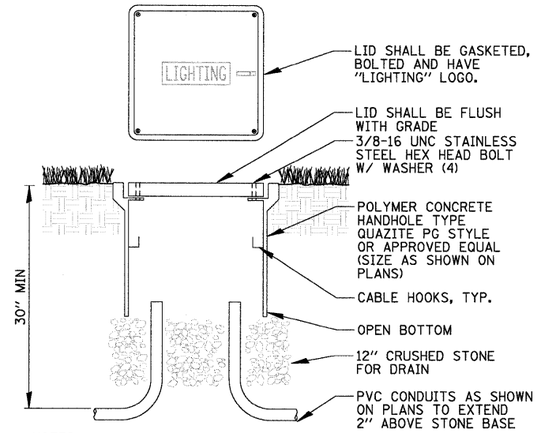
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| ---- | 09-00071-00-BR | COOK | 31 | 11 |
| | | CONTRACT NO. 63437 | | |
| | | ILLINOIS FED. AID PROJECT | | |

# LIGHTING GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE CITY BEFORE THE START OF WORK.
2. THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123.
3. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS INCLUDING ALL ABOVE AND BELOW GRADE APPURTENANCES. THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE OWNER.
5. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
   - A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.
   - B. "THE NATIONAL ELECTRICAL CODE."
   - C. MUNICIPAL CODES & ORDINANCES.
7. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DRAWINGS AND SPECIFICATIONS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS, BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
8. CONTRACTOR SHALL SUBMIT SPECIFICATIONS, DRAWINGS AND CATALOG CUTS FOR ALL MATERIALS TO THE OWNERS REPRESENTATIVE FOR REVIEW BEFORE ORDERING ANY MATERIALS FOR PROJECT.
9. THE INSTALLATION OF THE WARNING TAPE SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING, AS APPLICABLE.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION AND COORDINATION WITH THE CITY OF NORTHLAKE AND OWNER'S REPRESENTATIVE.
11. THE CONTRACTOR SHALL TAG ALL WIRES WITH WIRE MARKERS INDICATING THE CIRCUIT ID IN EVERY POLE BASE, HAND HOLE AND SPLICE/CONNECTION POINT.
12. ALL UNDERGROUND WIRING SHALL BE MINIMUM #8 COPPER (OR SIZE AS SHOWN ON THE PLANS) XLP TYPE-USE, EXTRA ABRASION RESISTANCE, 600 VOLTS, INSTALLED IN SCH 40 HDPE CONDUITS. ALL CONDUITS SHALL BE INSTALLED IN TRENCH A MINIMUM 30 INCHES BELOW FINISHED GRADE, OR AS SHOWN ON THE PLANS.
13. UPON COMPLETION OF THE IMPROVMENTS TO EXISTING LIGHTING SYSTEMS THE CONTRACTOR SHALL REQUEST IN WRITING A REQUEST FOR PREFINAL INSPECTION A MINIMUM OF THREE DAYS NOTICE TO THE CITY AND THE OWNER'S REPRESENTATIVE. THE CITY OF NORTHLAKE SHALL BE THE ULTIMATE MAINTAINING AGENCY FOR THE LIGHTING SYSTEM.
14. THE ELECTRICAL CONTRACTOR SHALL FURNISH TWO FULL SIZE SETS OF RECORD DRAWINGS TO THE OWNER'S REPRESENTATIVE UPON COMPLETION OF THE LIGHTING AND ELECTRICAL IMPROVEMENTS. THE DRAWINGS SHALL SHOW THE INSTALLED LOCATION OF ALL LIGHTS, UNDERGROUND WIRING, HANDHOLES & CONTROLLER CABINETS.
15. THE CONTRACTOR SHALL PROVIDE A GUARANTEE FOR ALL MATERIAL AND WORKMANSHIP FOR ONE YEAR AFTER THE DATE OF ACCEPTANCE.
16. THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. THE ELECTRICAL TESTING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

# SUSPENDED CONDUIT NOTES

1. HANGER SPACING SHALL NOT EXCEED 5'. INSTALLATION AND MATERIALS FOR HANGER INSTALLATION SHALL BE INCIDENTAL TO COST OF "CONDUIT ATTACHED TO STRUCTURE" PAY ITEM.
2. THE CONTRACTOR MUST USE APPROVED SINGLE FLARED COIL LOOP INSERTS, WITH A 4" MAX. INSERT LENGTH. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONRETE SLAB. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS WITH THE BRIDGE CONTRACTOR.
3. PROVIDE EXPANSION/DEFLECTION FITTINGS FOR CONDUIT AS REQUIRED BY THE MANUFACTURER. THESE FITTINGS ARE TO ACCOMMODATE A TOTAL MOVEMENT UP TO 4" (2" IN EACH DIRECTION). THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S RECOMMENDATION FOR INSTALLATION TEMPERATURE. COST AND INSTALLATION OF EXPANSION/DEFLECTION FITTINGS SHALL BE INCIDENTAL TO COST OF THE "CONDUIT ATTACHED ATTACHED TO STRUCTURE" PAY ITEM.
4. ALL HANGER HARDWARE, INCLUDING NUTS, LOCK WASHERS, BOLTS, ETC., SHALL BE STAINLESS STEEL.

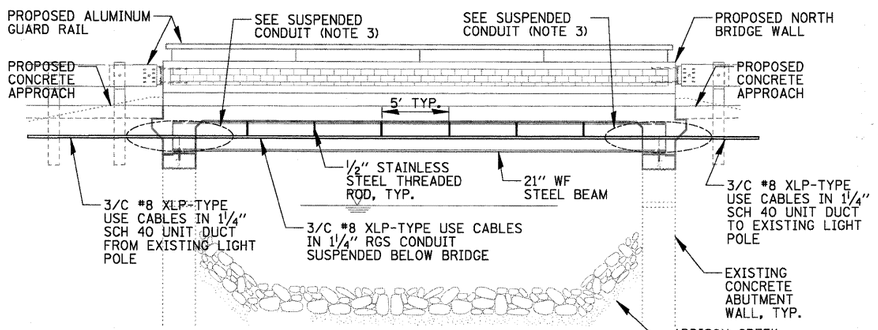



NOTES:

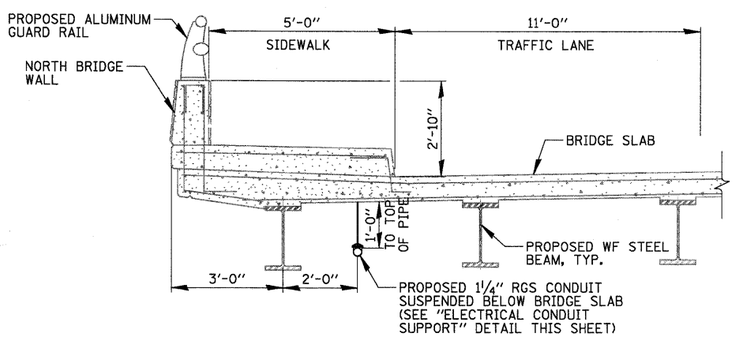
1. NO SPLICES ALLOWED IN CONCRETE HANDHOLES.
2. POLYMER CONCRETE HANDHOLE AND LID SHALL BE GREEN IN LANDSCAPED AREAS AND MATCH COLOR IN CONCRETE/BRICK AREAS.
3. BOX & LID SHALL MEET/EXCEED ANSI TIER 15 LOADING REQUIREMENTS AND BE UL LISTED.

## COMPOSITE CONCRETE HANDHOLE

N.T.S.




## NORTH WALL ELEVATION




## SECTION A-A

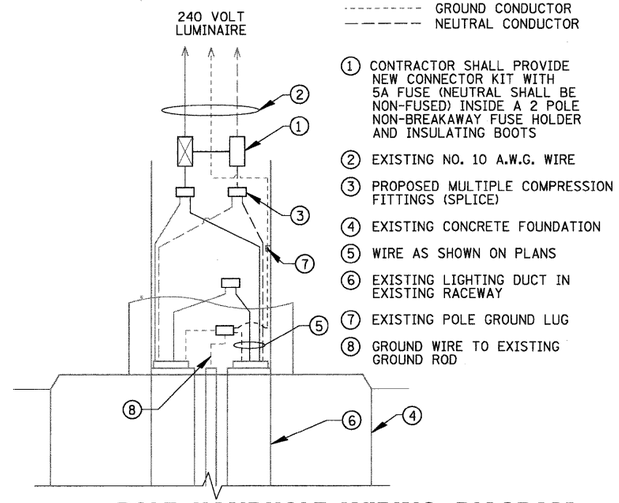
## PROPOSED CONDUIT SUSPENDED BELOW BRIDGE

N.T.S.

# LIGHTING BILL OF MATERIALS

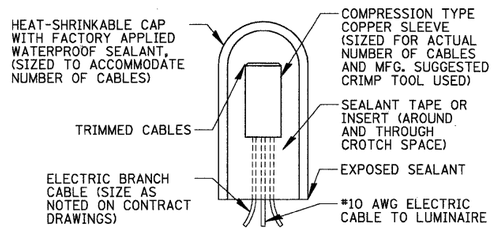
| CODE NO. | DESCRIPTION | UNIT | QUANTITY |
|---|---|---|---|
| 81017515 | CONDUIT IN TRENCH, 1 1/4" DIA., COILABLE NONMETALLIC CONDUIT | FOOT | 75 |
| 81030100• | CONDUIT SPLICE | EACH | 1 |
| 81100400 | CONDUIT ATTACHED TO STRUCTURE, 1 1/4" DIA., GALVANIZED STEEL | FOOT | 45 |
| 81400730 | HANDHOLE, COMPOSITE CONCRETE | EACH | 1 |
| 81702120 | ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8 | FOOT | 600 |
| 81900200 | TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 75 |
| 89502300 | REMOVE ELECTRIC CABLE FROM CONDUIT | FOOT | 600 |
| X0323710• | REMOVE CONDUIT ATTACHED TO STRUCTURE | FOOT | 45 |
| X0323927• | MAINTENANCE OF LIGHTING SYSTEM | EACH | 1 |
| Z0025100• | FURNISHING AND INSTALLING CABLE SPLICES | EACH | 2 |

• SEE CONTRACT SPECIAL PROVISIONS



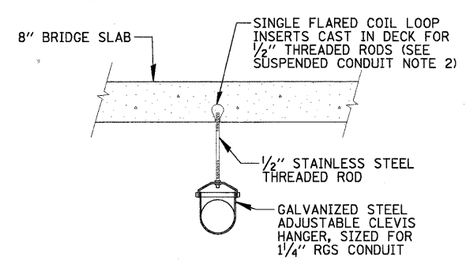

## POLE HANDHOLE WIRING DIAGRAM

N.T.S.




## SPLICING ELECTRIC CABLE

N.T.S.




## ELECTRICAL CONDUIT SUPPORT

N.T.S.

| | | | |
|---|---|---|---|
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| | | DRAWN - KB | REVISED - |
| | PLOT SCALE = N.T.S. | CHECKED - AJD | REVISED - |
| | PLOT DATE = 11/30/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**LIGHTING DETAILS**

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

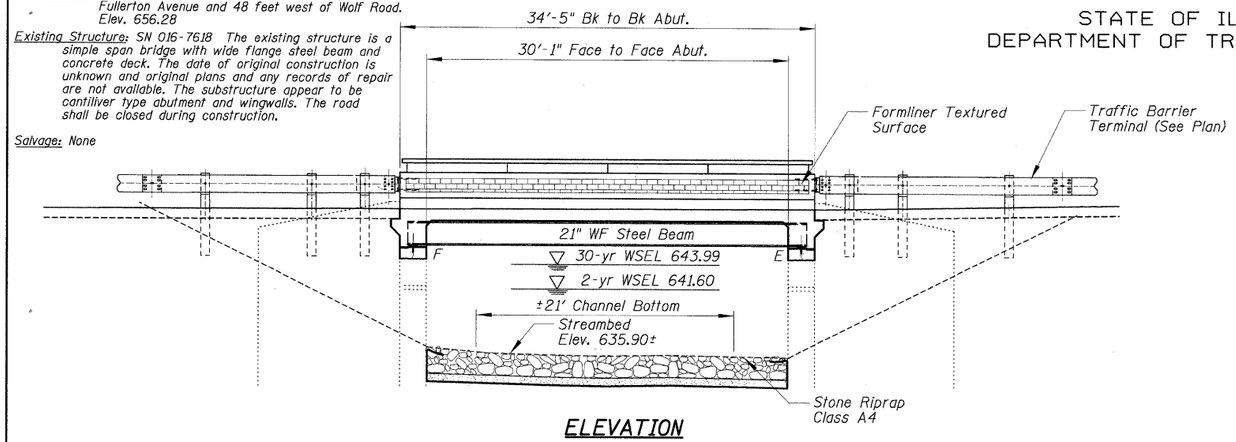
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| ---- | 09-00071-00-BR | COOK | 31 | 12 |
| | | CONTRACT NO. 63437 | | |
| | ILLINOIS FED. AID PROJECT | | | |

Bench Mark: BM 29C Monument at NW corner of Wolf Road and Fullerton Avenue and 48 feet west of Wolf Road. Elev. 656.28

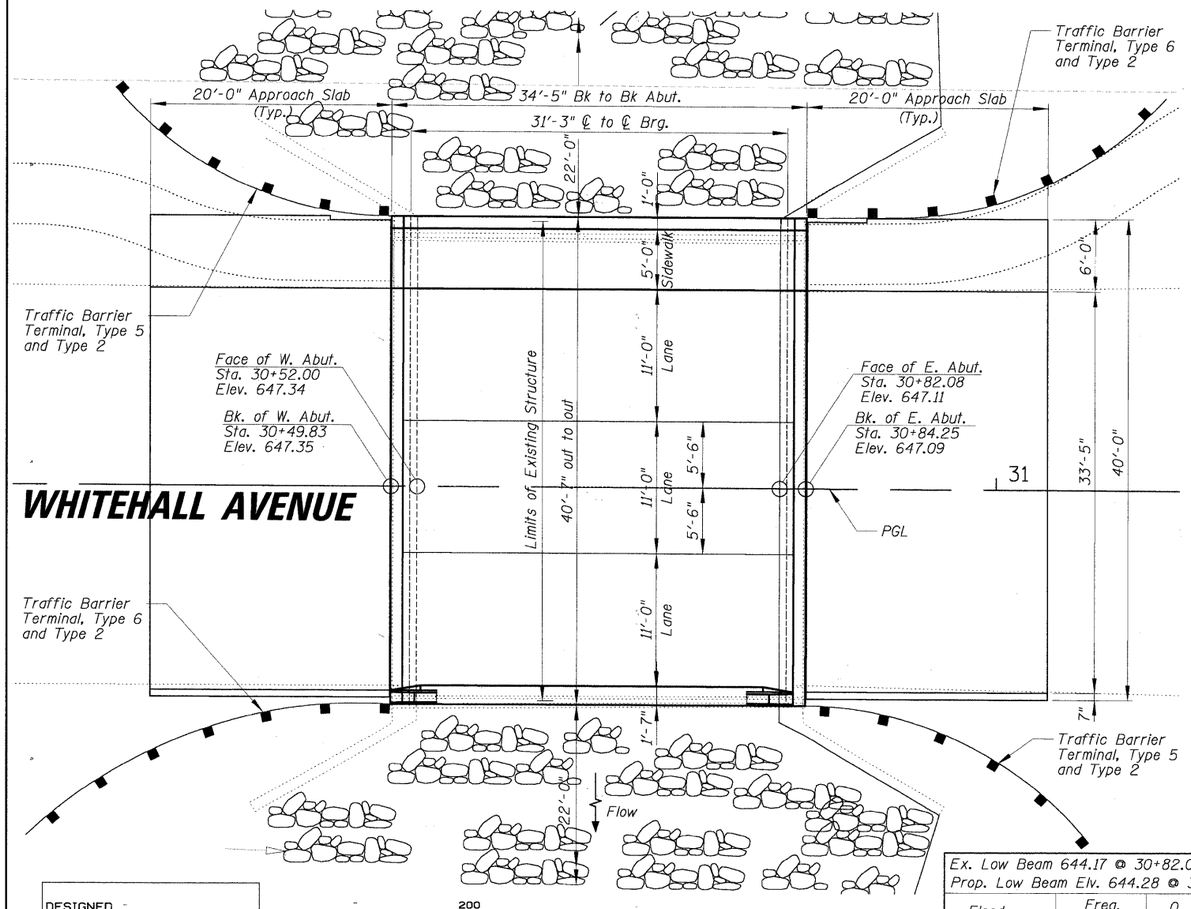
Existing Structure: SN 016-7618 The existing structure is a simple span bridge with wide flange steel beam and concrete deck. The date of original construction is unknown and original plans and any records of repair are not available. The substructure appear to be cantiliver type abutment and wingwalls. The road shall be closed during construction.

Salvage: None

# STATE OF ILLINOIS
# DEPARTMENT OF TRANSPORTATION




## ELEVATION




## PLAN

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

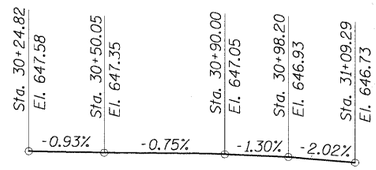
200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES




## PROFILE GRADE

ADDISON CREEK
BUILT BY
COOK COUNTY
SEC. 09-00071-00-BR
F.A. RT. 4025 STA. 30+67.04
STR. NO. 016-7618 LOADING HS-20

## NAME 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 Complies With Requirements Of The Current "AASHTO Standard Specification For Highway And Bridges".*

STATE OF ILLINOIS
MAJID MOBASSERI
081-005058
CHAMPAIGN, ILLINOIS
LICENSED STRUCTURAL ENGINEER

12/16/2009

**MAJID MOBASSERI**
ILLINOIS REGISTRATION No. 081-005058
STRUCTURAL ENGINEER
EXPIRATION DATE: 11/30/10

## DESIGN SCOUR ELEVATION TABLE

| Flood Frequency/ Depth Elevation | West Abut. | East Abut. |
|---|---|---|
| 100 year/ Scour Depth Elevation (ft.) | 625.5 | 622.9 |
| 500 year/ Scour Depth Elevation (ft.) | 623.7 | 621.0 |

## WATERWAY INFORMATION

Ex. Low Beam 644.17 @ 30+82.08 Ex. Low Grade 647.23 @ 30+82.08 Drainage Area = 8.1 mi²
Prop. Low Beam Elv. 644.28 @ 30+82.08 Prop. Low Grade Elv. 647.11 @ 30+82.08

| Flood | Freq. Yr. | Q cfs | Opening ft² Exist. | Opening ft² Prop. | Nat. H.W.E. | Head - ft Exist. | Head - ft Prop. | Headwater El. Exist. | Headwater El. Prop. |
|---|---|---|---|---|---|---|---|---|---|
| | 10 | 215 | 252 | 252 | 643.33 | 0.01 | 0.01 | 643.34 | 643.34 |
| Design | 30 | 335 | 273 | 273 | 643.99 | 0.02 | 0.02 | 644.00 | 644.00 |
| | 50 | 353 | 280 | 280 | 644.19 | 0.02 | 0.02 | 644.21 | 644.21 |
| Base | 100 | 481 | 298 | 298 | 644.77 | 0.03 | 0.03 | 644.80 | 644.80 |
| Max. Calc. | 500 | 840 | 342 | 342 | 646.05 | 0.18 | 0.18 | 646.23 | 646.23 |

## INDEX OF SHEETS



## LOADING HS20-44

Allow 25#/sq. ft. for future wearing surface.

## DESIGN SPECIFICATIONS

2002 AASHTO Bridge Design Specifications

## DESIGN STRESSES

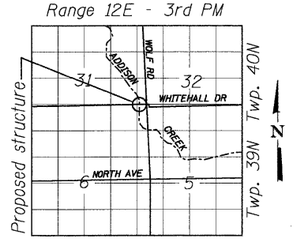
### FIELD UNITS

Reinforced Concrete:
f'c = 3,000 psi (Existing)
f'c = 3,500 psi (New)

Reinforcement:
fy = 40 ksi (Existing)
fy = 60 ksi (New)
fy = 50 ksi (Structural Steel, M270 Gr50) (New)

## SEISMIC DATA

Seismic Performance Zone (SPZ) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.036g
Site Coefficient (S) = 1.2




## LOCATION SKETCH

GENERAL PLAN AND ELEVATION
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| SHEET NO. | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| S-1 SHEETS | 4025 | 09-00071-00-BR | COOK | 31 | 13 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

N:\NORTHLAKE\940032HR284\Struct\940032HR284-S1.SHT

## GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts $\frac{3}{4}$ in. $\phi$, holes $\frac{13}{16}$ in. $\phi$, unless otherwise noted.
2. Calculated weight of Structural Steel:

   Gr 50 = 12,000 LB.
   Gr 36 = 1,590 LB.
3. All structural steel shall be AASHTO M 270 Grade 50.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
6. Reinforcement bars designated (E) shall be epoxy coated.
7. Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete.
8. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
9. Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
10. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise 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 finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 314. See Special Provision for "Cleaning and Painting New Metal Structures".
11. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
12. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.
13. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
14. Two $\frac{1}{8}$ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
15. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with "Concrete Removal".
16. Any reinforcement bars that are damaged during concrete removal operation shall be repaired or replaced using approved bar splicer or anchorage system. Cost included with "Concrete Removal".
17. All faces of the proposed sidewalk barrier and parapet shall have a form liner textured surface. The pattern shall be Customrock Pattern #12010-Minnehaha Blend or approved equal.
18. The color of the form liner shall be Uni-Max Liquid Integral Concrete Color #L1085 - Sandstone, or approved equal. The admixture shall be added to the concrete during batching per manufacturer's specifications. The admixture shall only be added to the concrete for the proposed parapet top and the proposed sidewalk barrier. Cost included with "Form Liner Textured Surface"

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

- 200

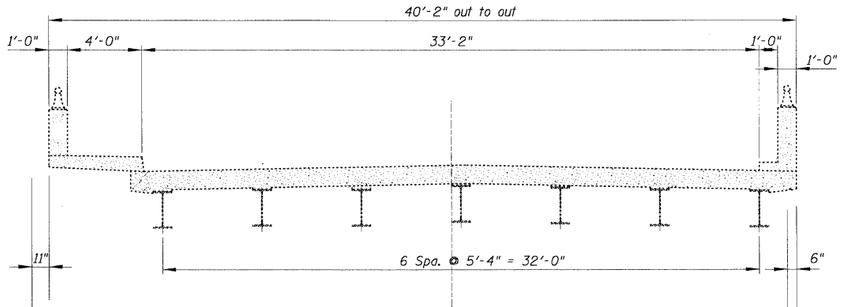
EXAMINED

ENGINEER OF BRIDGE DESIGN

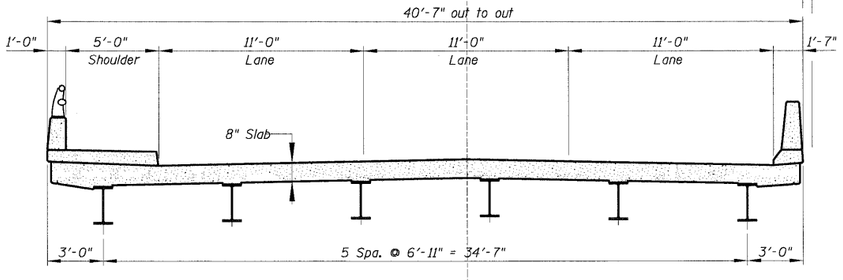
PASSED

ENGINEER OF BRIDGES AND STRUCTURES

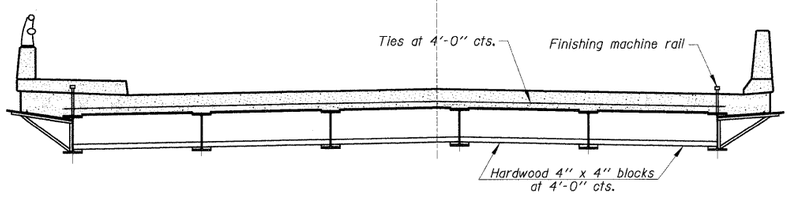
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




### EXISTING CROSS SECTION
(Looking East)




### PROPOSED CROSS SECTION
(Looking East)




### CATILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER-STANDARD CONSTRUCTION
(From IDOT Base Sheet SB-1)

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

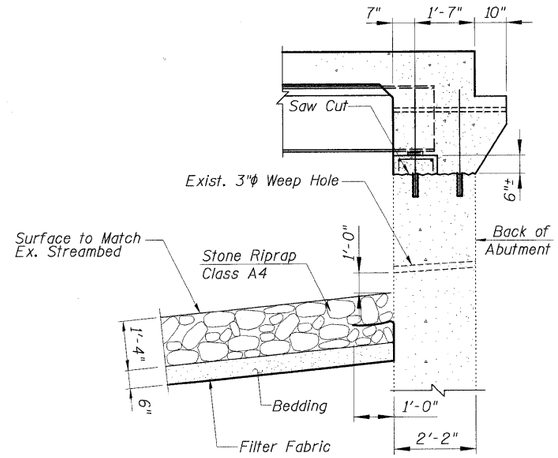
The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

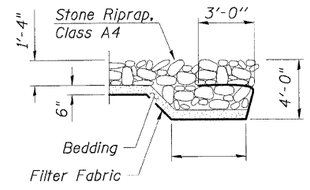
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

## TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|---|---|---|---|
| Stone Riprap, Class A4 | Sq Yd | | 375 | 375 |
| Filter Fabric | Sq Yd | | 405 | 405 |
| Concrete Removal | Cu Yd | | 9.5 | 9.5 |
| Removal of Existing Superstructures | Each | 1 | | 1 |
| Concrete Structures | Cu Yd | | 26.9 | 26.9 |
| Concrete Superstructures | Cu Yd | 153.5 | | 153.5 |
| Bridge Deck Grooving | Sq Yd | 253 | | 253 |
| Form Liner Textured Surface | Sq Ft | 258 | | 258 |
| Protective Coat | Sq Yd | 360 | | 360 |
| Furnishing and Erecting Structural Steel | L Sum | 1 | | 1 |
| Stud Shear Connectors | Each | 648 | | 648 |
| Reinforcement Bars Epoxy Coated | Pound | 28,830 | 5,130 | 33,960 |
| Bar Splicers | Each | 80 | | 80 |
| Aluminum Railing, Type L | Foot | | 34 | 34 |
| Name Plates | Each | | 1 | 1 |




### SECTION THRU ABUTMENT




### TOE STONE RIPRAP DETAIL

GENERAL NOTES
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| SHEET NO. S-2 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 14 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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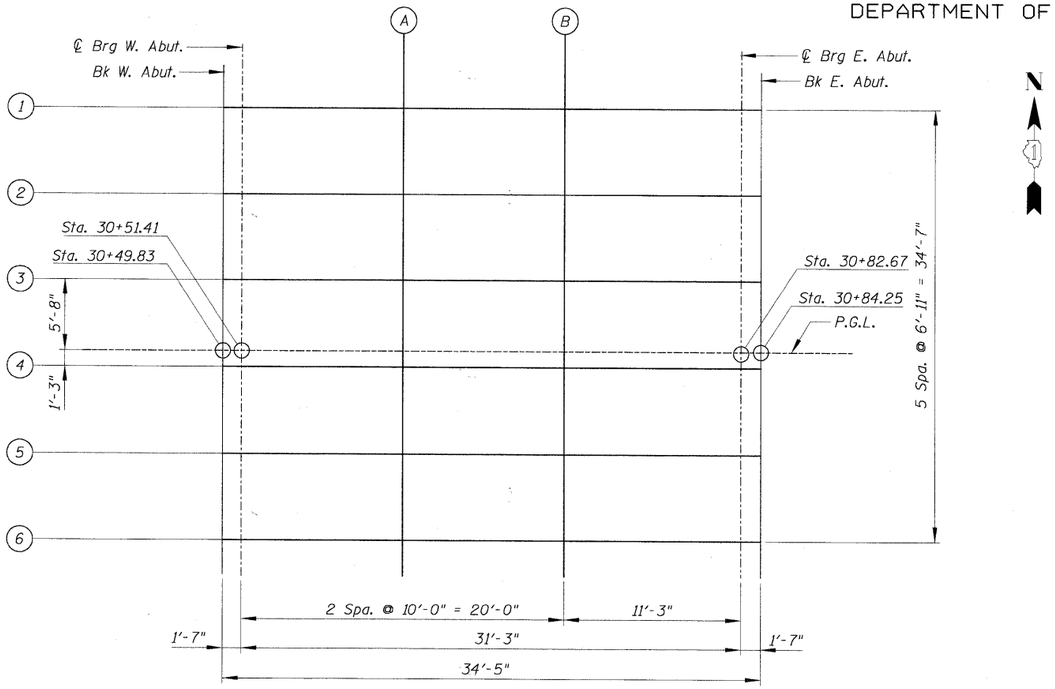
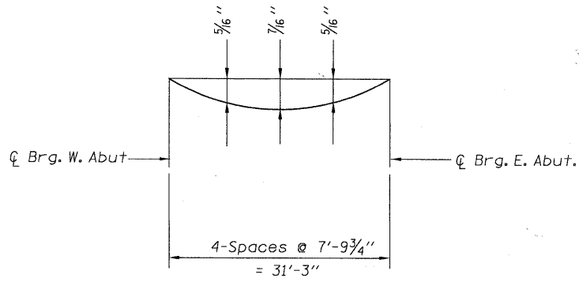
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




DECK PLAN




## DEAD LOAD DEFLECTION DIAGRAM

(Includes Weight of Concrete Deck And All Superimposed Dead Load Except Future Wearing Surfaces)

## NOTE:

1. The deflections given above are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflection as shown on Sheet S-4.
2. Offsets Are Positive South Of The Profile Gradeline.

| | |
|---|---|
| DESIGNED - | |
| CHECKED - | |
| DRAWN - | |
| CHECKED - | |

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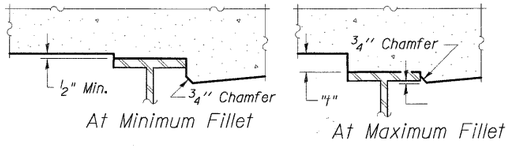
EXAMINED

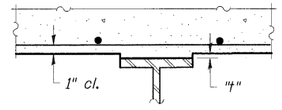
ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES




EXTERIOR BEAMS




INTERIOR BEAM

## NOTE:

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Drawing No. S-4 minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

(Sheet 1 of 2)

# TOP OF DECK ELEVATIONS
# WHITEHALL AVENUE OVER ADDISON CREEK
# F.A. RTE. 4025
# SECTION 09-00071-00-BR
# COOK COUNTY
# STATION 30+67.04
# STRUCTURE No. 016-7618

| SHEET NO. S-3 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 15 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**BEAM 1**

| Locations | Stations | Offset | Theoretical Grade Elevations | Elevations Adjusted For DL Deflections |
|---|---|---|---|---|
| Bk. W. Abutment | 30+49.83 | -19.50 | 647.129 | 647.129 |
| CL Brg W. Abut. | 30+51.42 | -19.50 | 647.117 | 647.117 |
| A | 30+61.42 | -19.50 | 647.042 | 647.072 |
| B | 30+71.42 | -19.50 | 646.967 | 647.001 |
| CL Brg E. Abut. | 30+82.67 | -19.50 | 646.882 | 646.882 |
| Bk. E. Abutment | 30+84.25 | -19.50 | 646.870 | 646.870 |

**BEAM 2**

| Locations | Stations | Offset | Theoretical Grade Elevations | Elevations Adjusted For DL Deflections |
|---|---|---|---|---|
| Bk. W. Abutment | 30+49.83 | -12.58 | 647.100 | 646.100 |
| CL Brg W. Abut. | 30+51.42 | -12.58 | 647.088 | 647.088 |
| A | 30+61.42 | -12.58 | 647.013 | 647.043 |
| B | 30+71.42 | -12.58 | 646.938 | 646.972 |
| CL Brg E. Abut. | 30+82.67 | -12.58 | 646.854 | 646.854 |
| Bk. E. Abutment | 30+84.25 | -12.58 | 646.842 | 646.842 |

**BEAM 3**

| Locations | Stations | Offset | Theoretical Grade Elevations | Elevations Adjusted For DL Deflections |
|---|---|---|---|---|
| Bk. W. Abutment | 30+49.83 | -5.67 | 647.238 | 647.238 |
| CL Brg W. Abut. | 30+51.42 | -5.67 | 647.226 | 647.226 |
| A | 30+61.42 | -5.67 | 647.151 | 647.182 |
| B | 30+71.42 | -5.67 | 647.076 | 647.110 |
| CL Brg E. Abut. | 30+82.67 | -5.67 | 646.992 | 646.992 |
| Bk. E. Abutment | 30+84.25 | -5.67 | 646.980 | 646.980 |

**PGL**

| Locations | Stations | Offset | Theoretical Grade Elevations | Elevations Adjusted For DL Deflections |
|---|---|---|---|---|
| Bk. W. Abutment | 30+49.83 | 0.00 | 647.351 | 647.351 |
| CL Brg W. Abut. | 30+51.42 | 0.00 | 647.340 | 647.340 |
| A | 30+61.42 | 0.00 | 647.265 | 647.295 |
| B | 30+71.42 | 0.00 | 647.190 | 647.224 |
| CL Brg E. Abut. | 30+82.67 | 0.00 | 647.105 | 647.105 |
| Bk. E. Abutment | 30+84.25 | 0.00 | 647.093 | 647.093 |

**BEAM 4**

| Locations | Stations | Offset | Theoretical Grade Elevations | Elevations Adjusted For DL Deflections |
|---|---|---|---|---|
| Bk. W. Abutment | 30+49.83 | 1.25 | 647.326 | 647.326 |
| CL Brg W. Abut. | 30+51.42 | 1.25 | 647.315 | 647.315 |
| A | 30+61.42 | 1.25 | 647.240 | 647.270 |
| B | 30+71.42 | 1.25 | 647.165 | 647.199 |
| CL Brg E. Abut. | 30+82.67 | 1.25 | 647.080 | 647.080 |
| Bk. E. Abutment | 30+84.25 | 1.25 | 647.068 | 647.068 |

**BEAM 5**

| Locations | Stations | Offset | Theoretical Grade Elevations | Elevations Adjusted For DL Deflections |
|---|---|---|---|---|
| Bk. W. Abutment | 30+49.83 | 8.17 | 647.188 | 647.188 |
| CL Brg W. Abut. | 30+51.42 | 8.17 | 647.176 | 647.176 |
| A | 30+61.42 | 8.17 | 647.101 | 647.132 |
| B | 30+71.42 | 8.17 | 647.026 | 647.060 |
| CL Brg E. Abut. | 30+82.67 | 8.17 | 646.942 | 646.942 |
| Bk. E. Abutment | 30+84.25 | 8.17 | 646.930 | 646.930 |

**BEAM 6**

| Locations | Stations | Offset | Theoretical Grade Elevations | Elevations Adjusted For DL Deflections |
|---|---|---|---|---|
| Bk. W. Abutment | 30+49.83 | 15.08 | 647.050 | 647.050 |
| CL Brg W. Abut. | 30+51.42 | 15.08 | 647.038 | 647.038 |
| A | 30+61.42 | 15.08 | 646.963 | 646.993 |
| B | 30+71.42 | 15.08 | 646.888 | 646.922 |
| CL Brg E. Abut. | 30+82.67 | 15.08 | 646.804 | 646.804 |
| Bk. E. Abutment | 30+84.25 | 15.08 | 646.792 | 646.792 |

| | |
|---|---|
| DESIGNED - | |
| CHECKED - | |
| DRAWN - | |
| CHECKED - | |

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EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

(Sheet 2 of 2)

TOP OF DECK ELEVATIONS
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| SHEET NO. S-4 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 16 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

### NORTH EDGE OF SLAB

| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| End W. Appr. Pav't | 30+29.83 | 22.50' LT | 647.08 |
| A | 30+39.83 | 22.50' LT | 646.99 |
| Bk. W. Abutment | 30+49.83 | 22.17' LT | 646.91 |

### NORTH EDGE OF PAVEMENT / FACE OF SIDEWALK

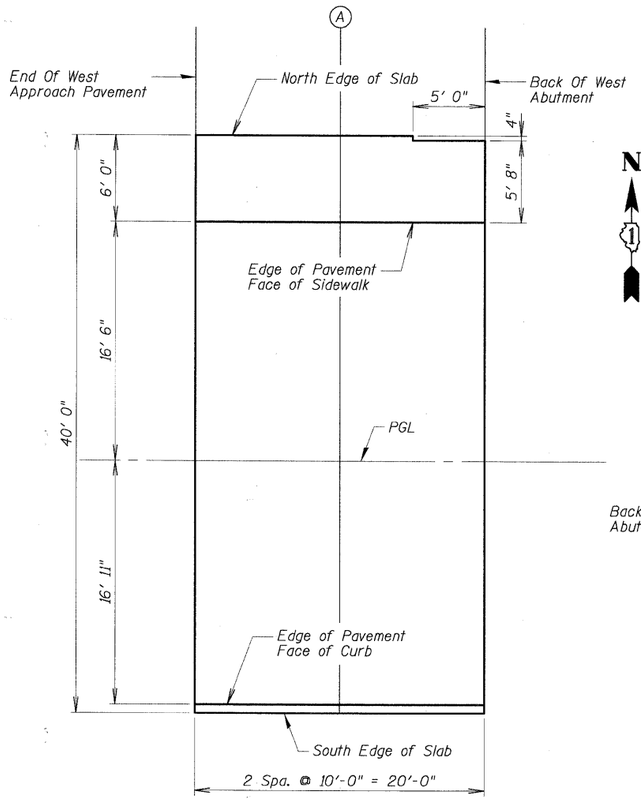
| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| End W. Appr. Pav't | 30+29.83 | 16.50' LT | 647.20 |
| A | 30+39.83 | 16.50' LT | 647.11 |
| Bk. W. Abutment | 30+49.83 | 16.50' LT | 647.02 |

### PGL

| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| End W. Appr. Pav't | 30+29.83 | 0.00' | 647.53 |
| A | 30+39.83 | 0.00' | 647.44 |
| Bk. W. Abutment | 30+49.83 | 0.00' | 647.35 |

### SOUTH EDGE OF PAVEMENT / FACE OF CURB

| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| End W. Appr. Pav't | 30+29.83 | 16.92' RT | 647.20 |
| A | 30+39.83 | 16.92' RT | 647.10 |
| Bk. W. Abutment | 30+49.83 | 16.92' RT | 647.01 |




WEST APPROACH PAVEMENT

### NORTH EDGE OF SLAB

| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| Bk. E. Abutment | 30+84.25 | 22.17' LT | 646.65 |
| B | 30+94.25 | 22.50' LT | 646.54 |
| End E. Appr. Pav't | 31+04.25 | 22.50' LT | 646.38 |

### NORTH EDGE OF PAVEMENT / FACE OF SIDEWALK

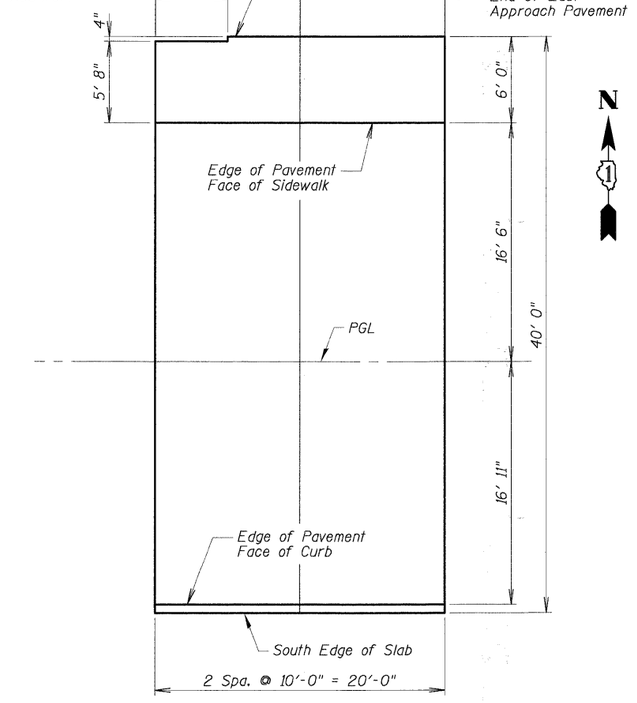
| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| Bk. E. Abutment | 30+84.25 | 16.50' LT | 646.76 |
| B | 30+94.25 | 16.50' LT | 646.66 |
| End E. Appr. Pav't | 31+04.25 | 16.50' LT | 646.50 |

### PGL

| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| Bk. E. Abutment | 30+84.25 | 0.00' | 647.09 |
| B | 30+94.25 | 0.00' | 646.99 |
| End E. Appr. Pav't | 31+04.25 | 0.00' | 646.83 |

### SOUTH EDGE OF PAVEMENT / FACE OF CURB

| Locations | Stations | Offset | Theoretical Grade Elevations |
|---|---|---|---|
| Bk. E. Abutment | 30+84.25 | 16.92' RT | 646.75 |
| B | 30+94.25 | 16.92' RT | 646.66 |
| End E. Appr. Pav't | 31+04.25 | 16.92' RT | 646.49 |




EAST APPROACH PAVEMENT

TOP OF APPROACH SLAB ELEVATIONS
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| S-5 SHEETS | 4025 | 09-00071-00-BR | COOK | 31 | 17 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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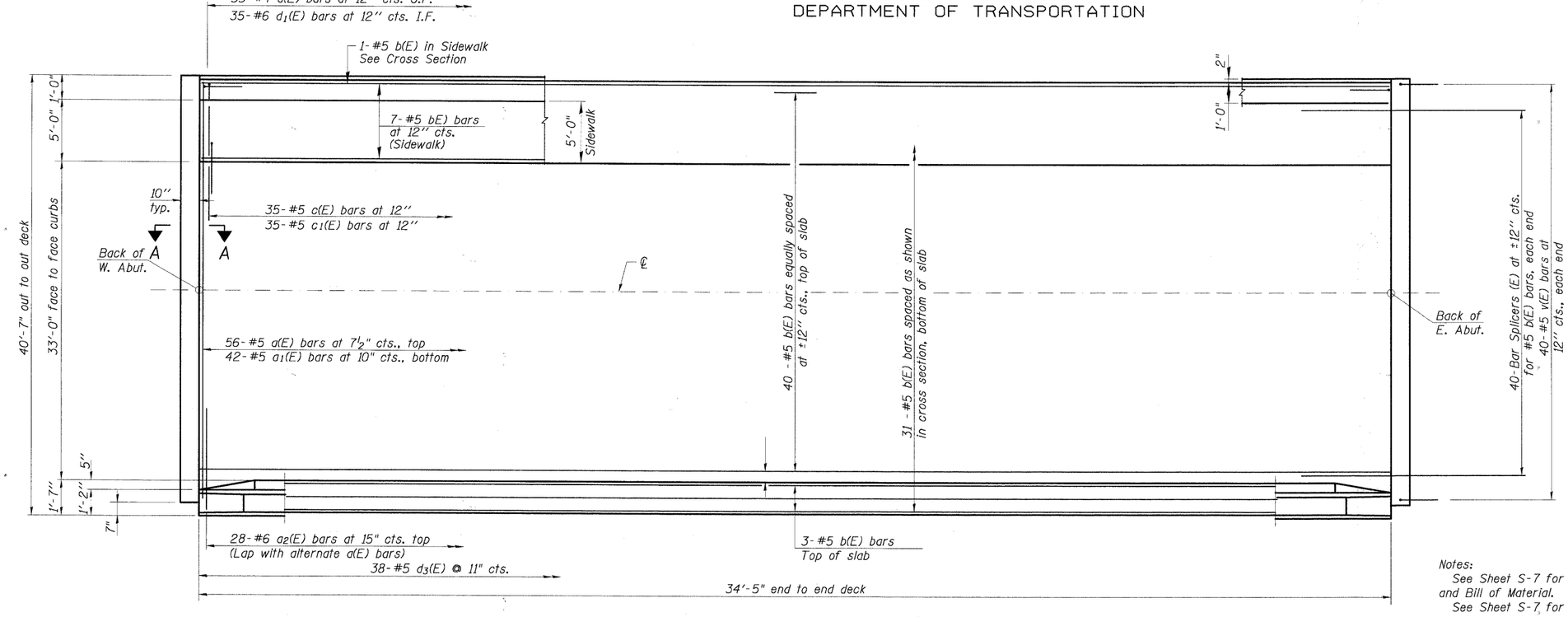
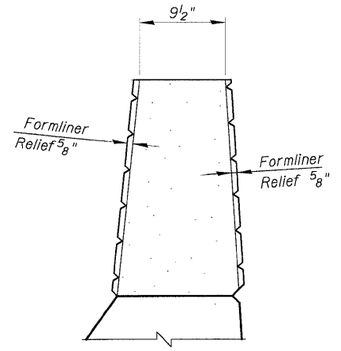
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




PLAN

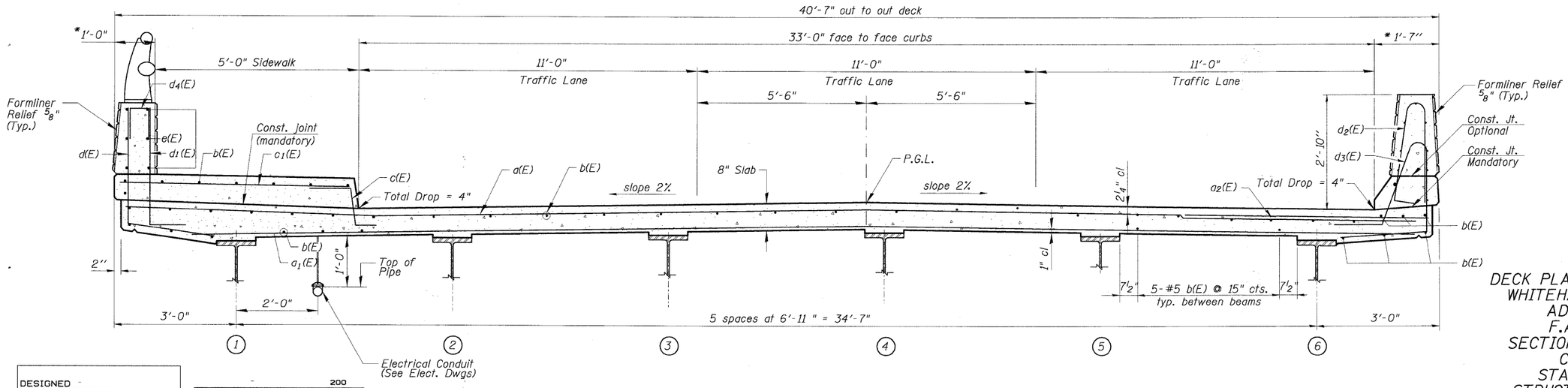



FORMLINER DETAIL

Notes:
See Sheet S-7 for superstructure details and Bill of Material.
See Sheet S-7 for parapet reinforcement.

LEGEND:
O.F. Outside Face
I.F. Inside Face

| MIN. BAR LAP | |
|---|---|
| #5 | 1'-8" |




CROSS SECTION
(Looking East)

* Dimensions Are of Barrier Only. Add 5/8" For Formliner Relief To Each Side of Barrier.

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

DECK PLAN AND CROSS SECTION
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| SHEET NO. S-6 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 18 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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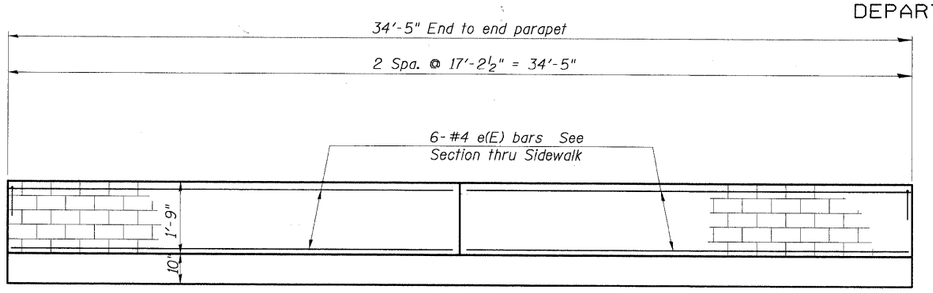
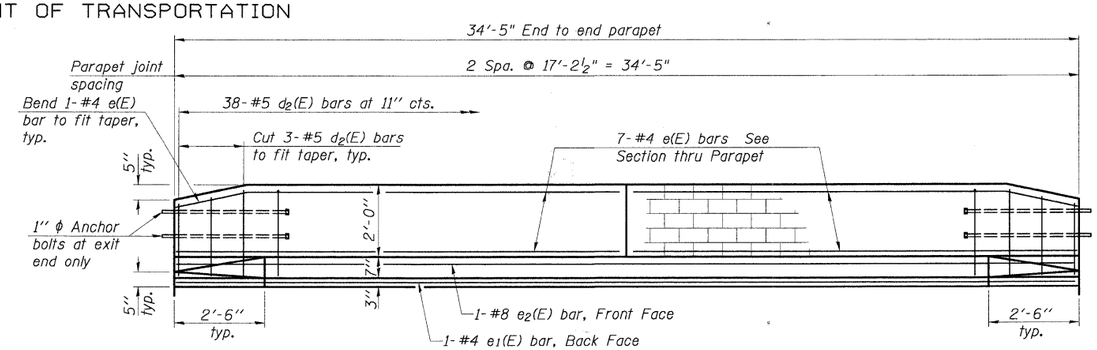
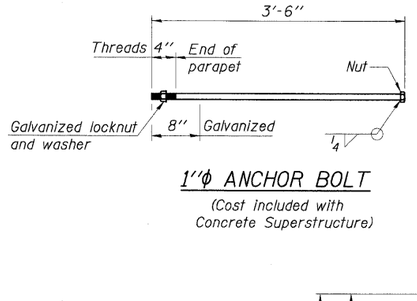
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




## INSIDE ELEVATION OF SIDEWALK

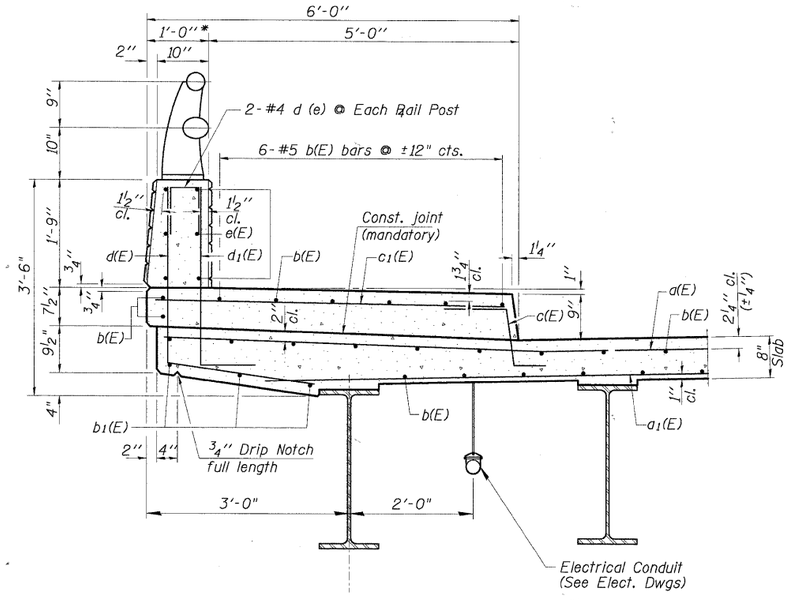
(See Sheet S-9 For Aluminum Railing Post Spacing)




## 1"ϕ ANCHOR BOLT

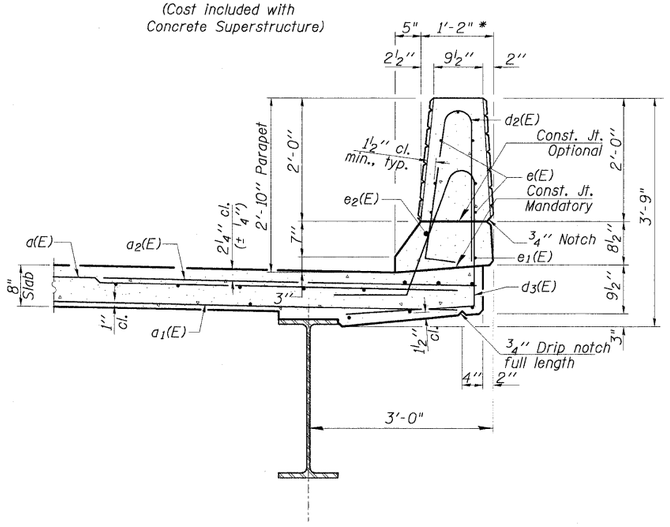
(Cost included with Concrete Superstructure)

## INSIDE ELEVATION OF PARAPET

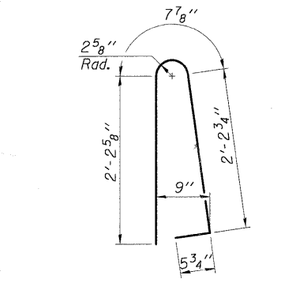



## SECTION THRU SIDEWALK

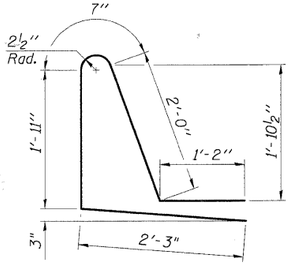
* Dimensions Are of Barrier Only. Add ⅝" For Formliner Relief To Each Side of Barrier.




## SECTION THRU PARAPET




## BAR d2(E)

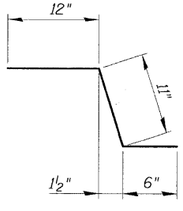



## BAR d3(E)

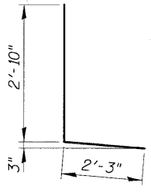
## SUPERSTRUCTURE BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| a(E) | 56 | #5 | 39'-11" | |
| a1(E) | 42 | #5 | 39'-3" | |
| a2(E) | 28 | #6 | 6'-0" | |
| | | | | |
| b(E) | 82 | #5 | 34'-1" | |
| | | | | |
| c(E) | 35 | #5 | 2'-5" | |
| c1(E) | 35 | #5 | 5'-6" | |
| | | | | |
| d(E) | 35 | #4 | 5'-1" | |
| d1(E) | 35 | #6 | 3'-9" | |
| d2(E) | 38 | #5 | 5'-7" | |
| d3(E) | 38 | #5 | 7'-11" | |
| d4(E) | 8 | #4 | 2'-0" | |
| | | | | |
| e(E) | 26 | #4 | 16'-11" | |
| e1(E) | 1 | #4 | 34'-1" | |
| e2(E) | 1 | #8 | 34'-1" | |
| | | | | |
| m(E) | 4 | #6 | 39'-8" | |
| m1(E) | 6 | #6 | 40'-1" | |
| m2(E) | 24 | #6 | 9'-8" | |
| m3(E) | 10 | #6 | 6'-7" | |
| m4(E) | 4 | #6 | 2'-8" | |
| | | | | |
| s(E) | 82 | #5 | 5'-1" | |
| s1(E) | 82 | #4 | 7'-4" | |
| | | | | |
| v(E) | 80 | #5 | 3'-4" | |
| | | | | |
| Reinforcement Bars, Epoxy Coated | | Pound | 10,930 | |
| Concrete Superstructure | | Cu. Yds. | 63.2 | |
| Bar Splicer (E) | | Each | 80 | |

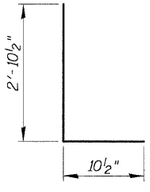
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.



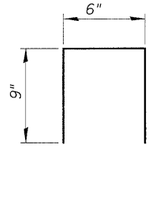

## BAR c(E)




## BAR d(E)




## BAR d1(E)




## BAR d4(E)

SUPERSTRUCTURE DETAILS
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. S-7 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 19 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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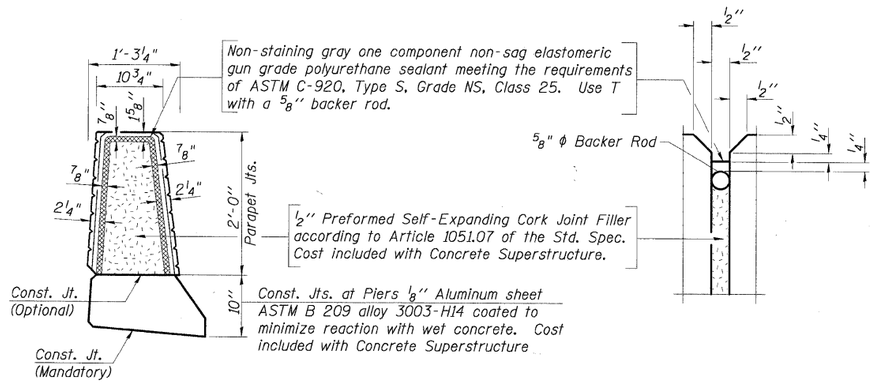
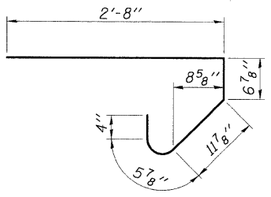
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



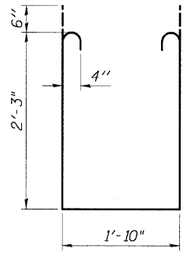

## PARAPET JOINT DETAILS

Notes:
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 Society of Protective Coatings Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

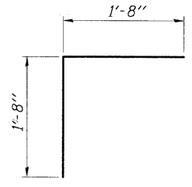



BAR s(E)

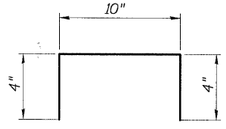
Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet S-7.
Concrete in diaphragm is included with Concrete Superstructure on sheet S-7.
The s(E) and $s_1$(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Epoxy grout $d_5$(E) bars in 6" (min.) drilled holes according to Section 584 of Standard Specification



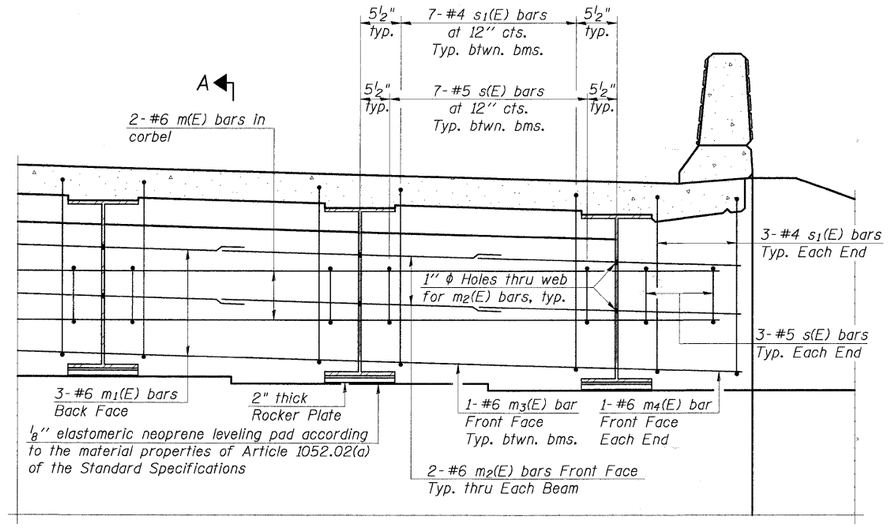

BAR $s_1$(E)



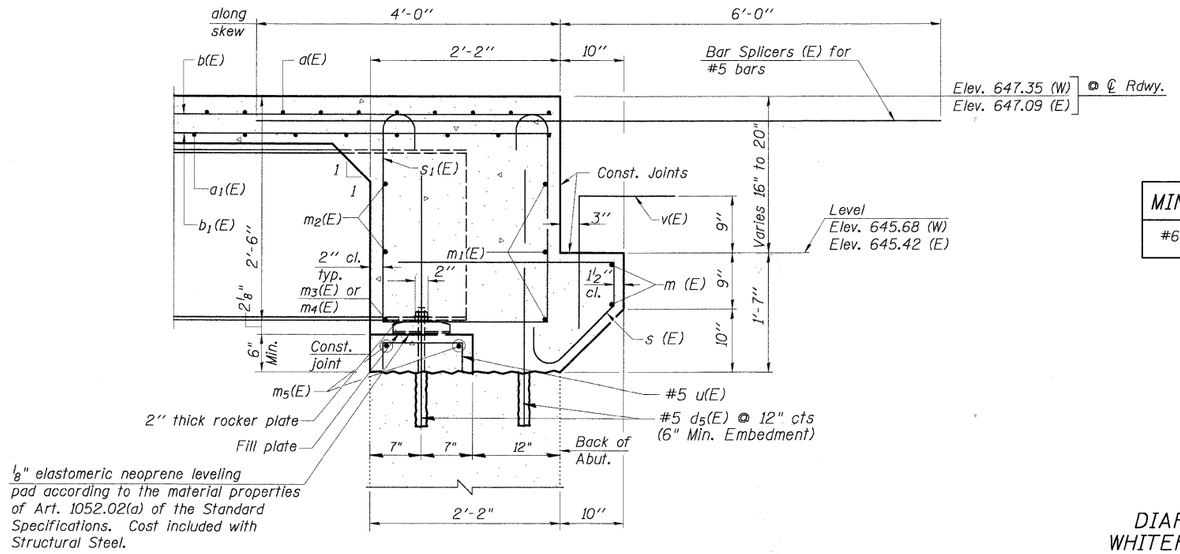

BAR v(E)




BAR u(E)




## DIAPHRAGM ELEVATION AT ABUTMENT




## SECTION A-A

*Dimensions at right angles to abutment, except as shown.*

| MIN. BAR LAP | |
|---|---|
| #6 | 2'-9" |

DIAPHRAGM DETAILS
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. S-8 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 20 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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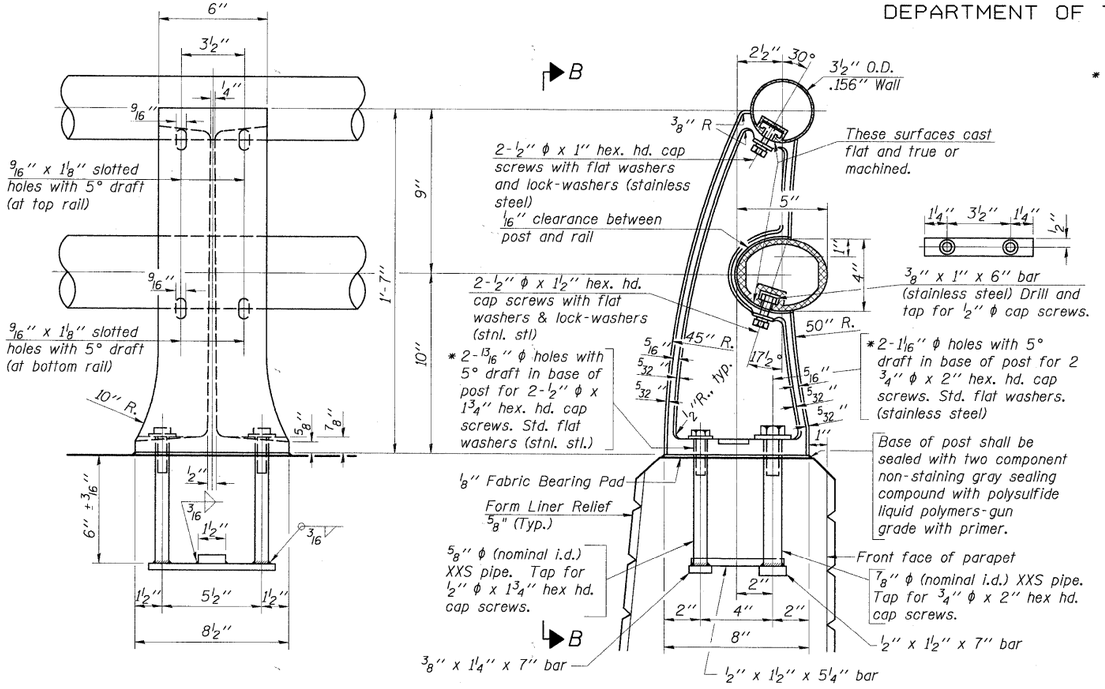
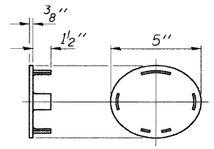
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



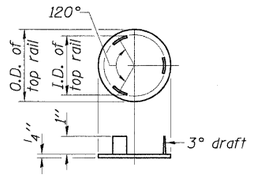

VIEW B-B

SECTION A-A

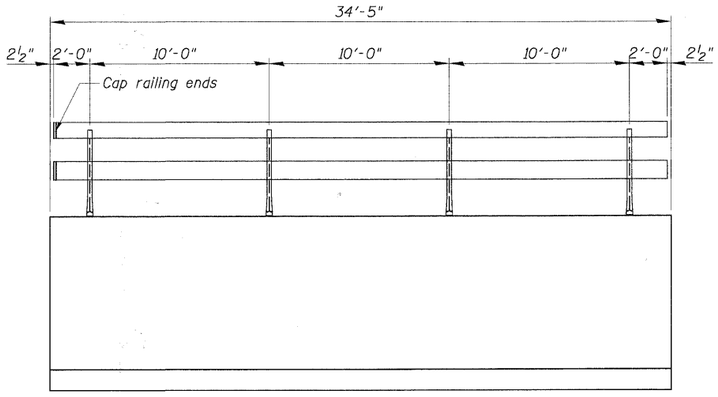
* *In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.*




CAST END CAP
For bottom rail
DRIVE FIT TYPE

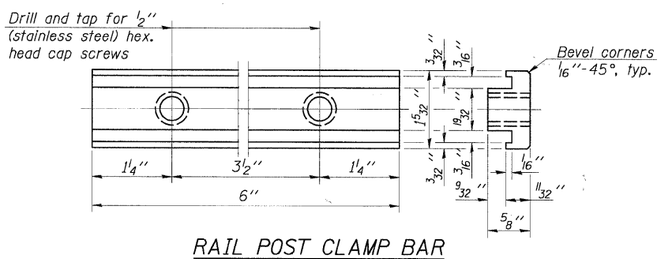



CAST END CAP
For top rail

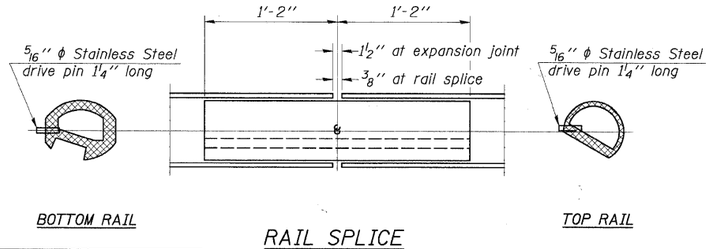



RAIL POST SPACING

RAIL POST DETAILS



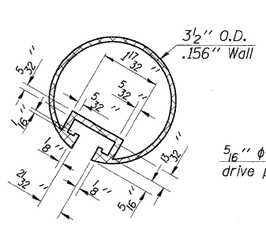

RAIL POST CLAMP BAR
For Top Rail



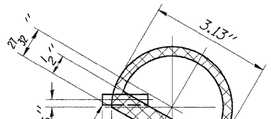

BOTTOM RAIL

RAIL SPLICE

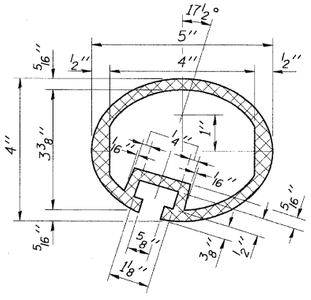
TOP RAIL



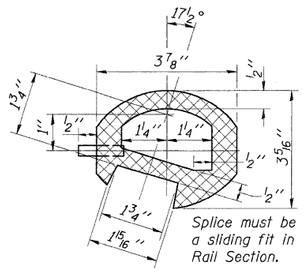

SECTION THRU TOP RAIL




SECTION THRU SPLICE
For Top Rail




SEC. THRU ELLIPTICAL RAIL SECTION




SEC. THRU SPLICE

*Notes:*
*All Posts shall be normal to parapet.*
*All joints in rail shall be spliced per detail.*
*All exposed rail ends shall be capped per detail.*
*Provide 1-⅛" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.*

BILL OF MATERIAL

| Item | Unit | Quantity |
|---|---|---|
| Aluminum Railing, Type L | Foot | 34 |

ALUMINUM RAILING, TYPE L
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. S-9 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 21 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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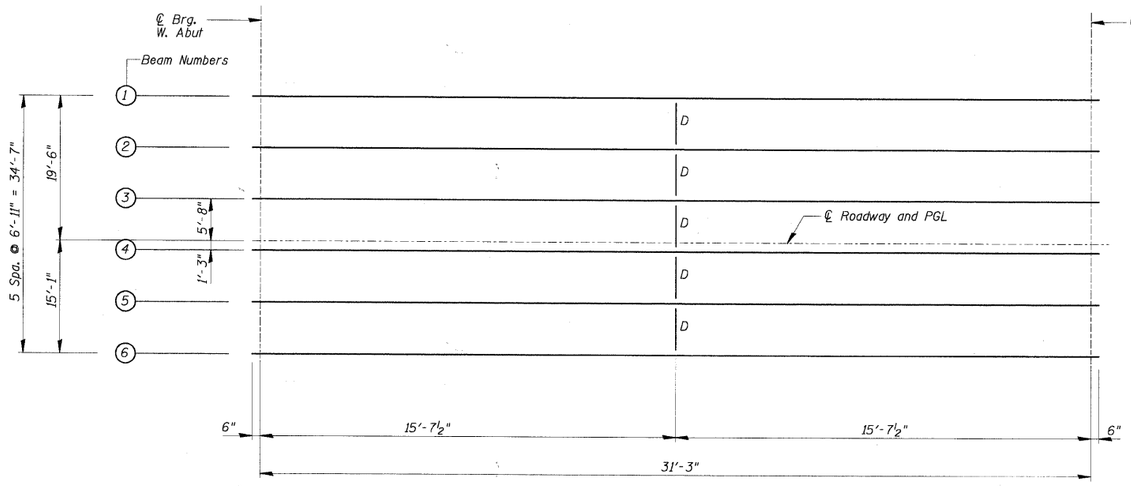
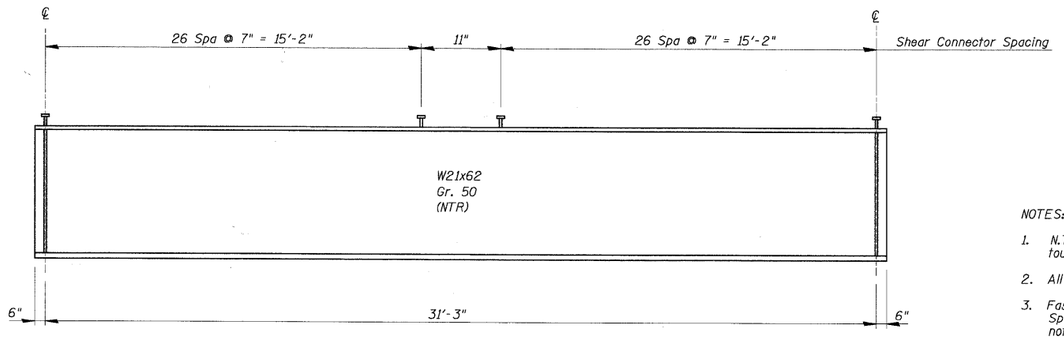
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




## FRAMING PLAN




## GIRDER ELEVATION

| INTERIOR GIRDER MOMENT TABLE | | |
|---|---|---|
| | | 0.5 Sp. |
| Is | ($in^4$) | 1330 |
| Ic (n) | ($in^4$) | 4964.8 |
| Ic (3n) | ($in^4$) | 3781.6 |
| Ss | ($in^3$) | 126.8 |
| Sc (n) | ($in^3$) | 221.4 |
| Sc (3n) | ($in^3$) | 198.9 |
| $\frac{D}{\ell}$ | (k/ft.) | 0.765 |
| $M\frac{D}{\ell}$ | ('k) | 93.5 |
| $s\frac{D}{\ell}$ | (k/ft.) | 0.37 |
| $Ms\frac{D}{\ell}$ | ('k) | 44.5 |
| $M\frac{L}{\ell}$ | ('k) | 189.1 |
| M (Imp) | ('k) | 56.7 |
| $\frac{5}{3}[M\frac{L}{\ell}+M(Imp)]$ | ('k) | 409.8 |
| Ma | ('k) | 712.1 |
| * Mu | ('k) | 1,239.8 |
| $fs\frac{D}{\ell}$ non-comp | (k.s.i.) | 8.84 |
| $fs\frac{D}{\ell}$ (comp) | (k.s.i.) | 2.69 |
| $fs\frac{5}{3}(\frac{L}{\ell}+Imp)$ | (k.s.i.) | 22.20 |
| fs (Overload) | (k.s.i.) | 33.73 |
| * fs (Total) | (k.s.i.) | 43.85 |
| VR | (k) | 47.0 |

* Non-Compact Section

| INTERIOR GIRDER REACTION TABLE | | |
|---|---|---|
| | | Abut. |
| $R\frac{D}{\ell}$ | (k) | 17.7 |
| $R\frac{L}{\ell}$ | (k) | 36.5 |
| Imp. | (k) | 10.9 |
| R (Total) | (k) | 65.1 |

$I_s$, $S_s$: Non-composite moment of inertia and section modulus of the steel section used for computing $f_s$ (Total and Overload) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing $f_s$ (Total and Overload) due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing $f_s$ (Total and Overload) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$\frac{D}{\ell}$: Un-factored non-composite dead load (kips/ft.).

$M\frac{D}{\ell}$: Un-factored moment due to non-composite dead load (kip-ft.).

$s\frac{D}{\ell}$: Un-factored long-term composite (superimposed) dead load (kips/ft.)

$Ms\frac{D}{\ell}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

$M\frac{L}{\ell}$: Un-factored live load moment (kip-ft.).

$M_{Imp}$: Un-factored moment due to impact (kip-ft.).

$M_a$: Factored design moment (kip-ft.).
$1.3\ [M\frac{D}{\ell} + Ms\frac{D}{\ell} + \frac{5}{3}(M\frac{L}{\ell} + M_{Imp})]$

$M_u$: Compact composite moment capacity according to AASHTO LFD 10.50.1.1. or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

$f_s$ (Overload): Sum of stresses as computed from the moments below (ksi).
$M\frac{D}{\ell} + Ms\frac{D}{\ell} + \frac{5}{3}(M\frac{L}{\ell} + M_{Imp})$

$f_s$ (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.3\ [M\frac{D}{\ell} + Ms\frac{D}{\ell} + \frac{5}{3}(M\frac{L}{\ell} + M_{Imp})]$

VR: Maximum $\frac{L}{\ell}$ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

NOTES:

1. N.T.R. designates members subject to the supplemental requirements for notch toughness (Zone 2).
2. All structural steel for beams shall be AASHTO M270 Grade 50.
3. Fasteners shall be high strength bolts, conforming to AASHTO M-164 Specification (ASTM A 325). Bolts $\frac{7}{8}$"ϕ, open holes $\frac{15}{16}$"ϕ, unless noted otherwise.
4. Two hardened washers are required over all oversized holes.
5. Number of shear connectors required, 108 beams x 6 = 648.

## TOP OF BEAM ELEVATIONS-BEFORE DEFLECTION

(For Fabrication use only)

| LOCATION | BEAM 1 | BEAM 2 | BEAM 3 | BEAM 4 | BEAM 5 | BEAM 6 |
|---|---|---|---|---|---|---|
| ℄ Brg. E. Abut. | 646.03 | 646.10 | 646.24 | 646.33 | 646.19 | 646.05 |
| ℄ Brg. W. Abut. | 646.26 | 646.34 | 646.48 | 646.56 | 646.43 | 646.29 |

# FRAMING PLAN DETAILS
# WHITEHALL AVENUE OVER ADDISON CREEK
# F.A. RTE. 4025
# SECTION 09-00071-00-BR
# COOK COUNTY
# STATION 30+67.04
# STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. S-10 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 22 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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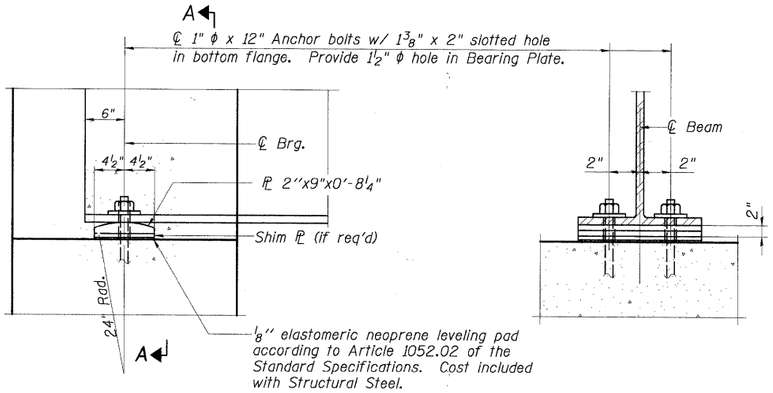
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



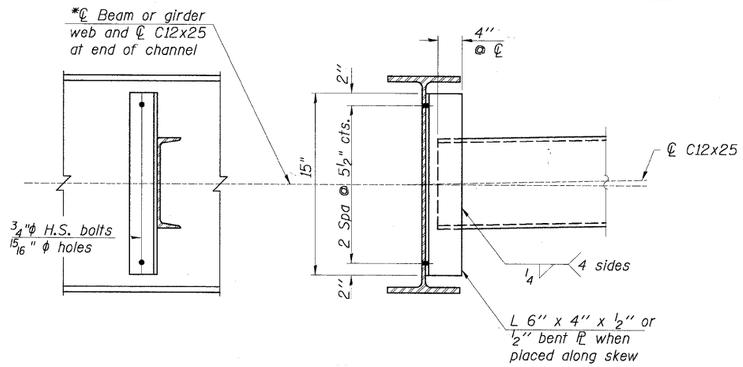



ELEVATION



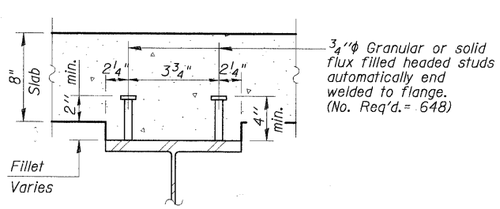

SECTION A-A

## FIXED BEARING AT EAST & WEST ABUTMENT

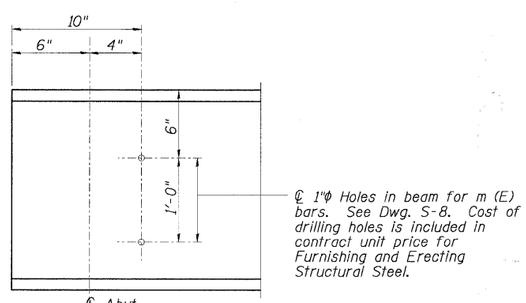



INTERIOR DIAPHRAGM

Note:
Two hardened washers required for each set of oversized holes.
*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.
The alternate, if utilized, shall be provided at no additional cost to the Department.




TYPICAL SHEAR CONNECTOR DETAIL




TYPICAL END OF BEAM ELEVATION

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

STEEL DETAILS
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| SHEET NO. | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| S-11 SHEETS | 4025 | 09-00071-00-BR | COOK | 31 | 23 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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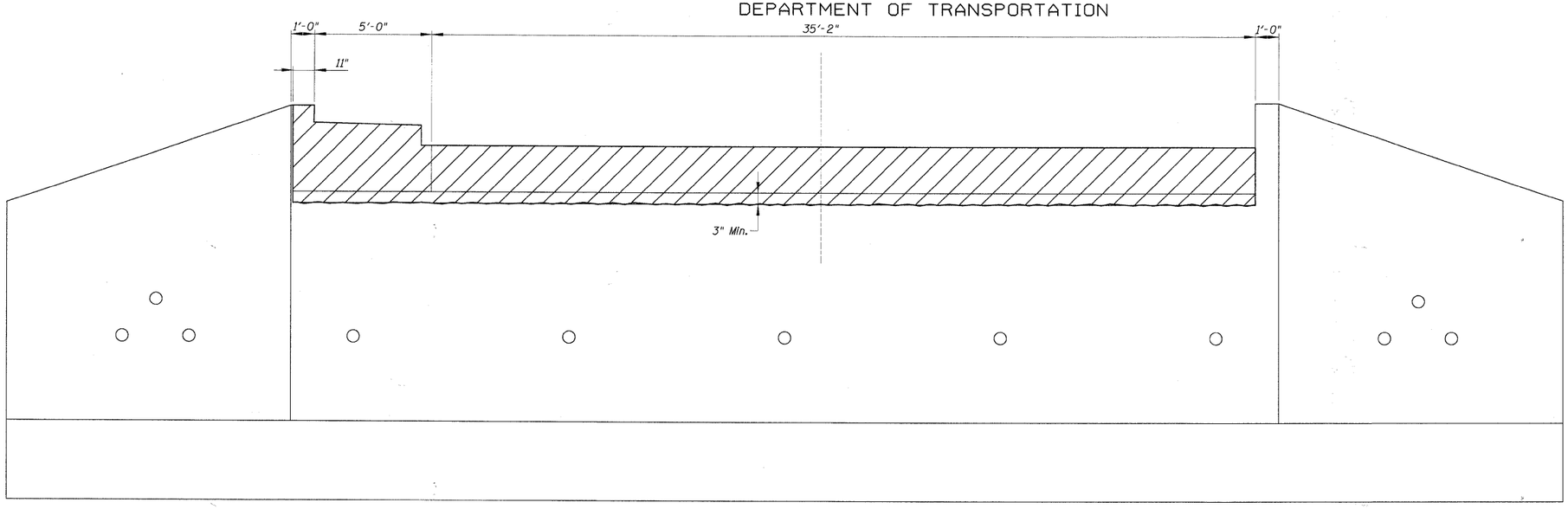
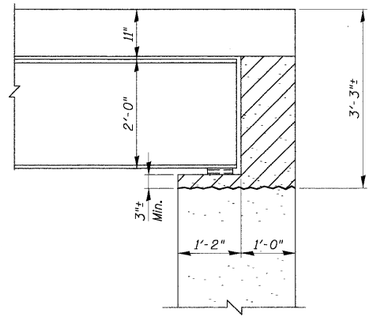
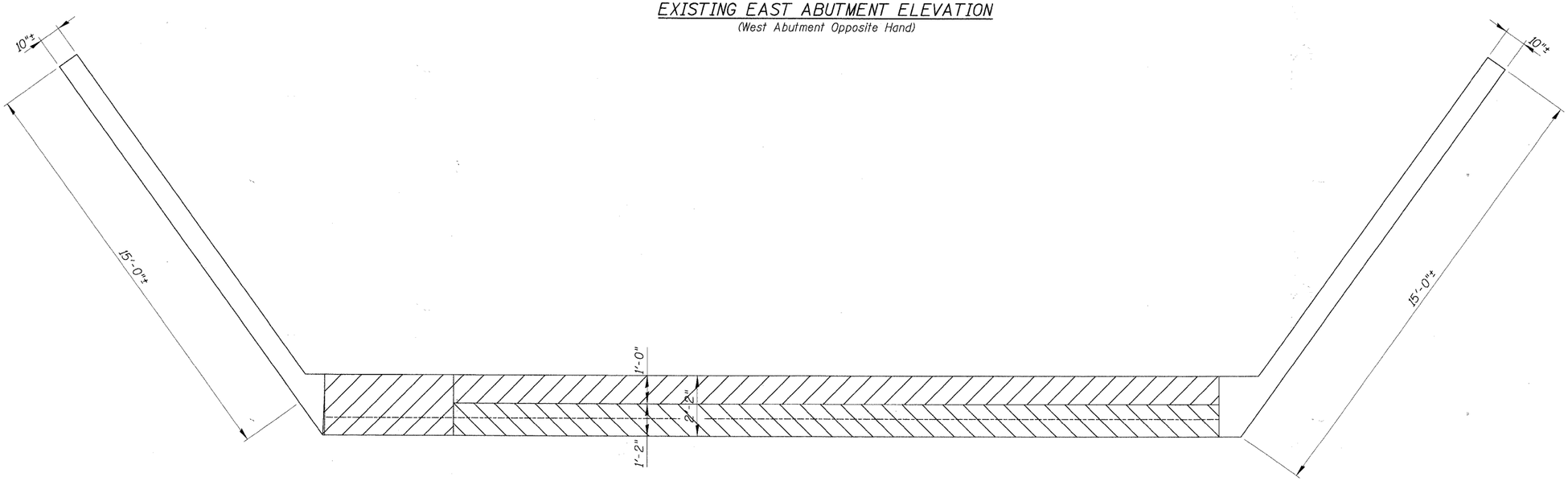
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




SECTION THRU ABUTMENTS

## EXISTING EAST ABUTMENT ELEVATION
(West Abutment Opposite Hand)




## EXISTING EAST ABUTMENT PLAN
(West Abutment Opposite Hand)

LEGEND:

Concrete Removal (Backwall/Abutment)

Concrete Removal (Beam Seat)

EXISTING ABUTMENT
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| S-12 SHEETS | 4025 | 09-00071-00-BR | COOK | 31 | 24 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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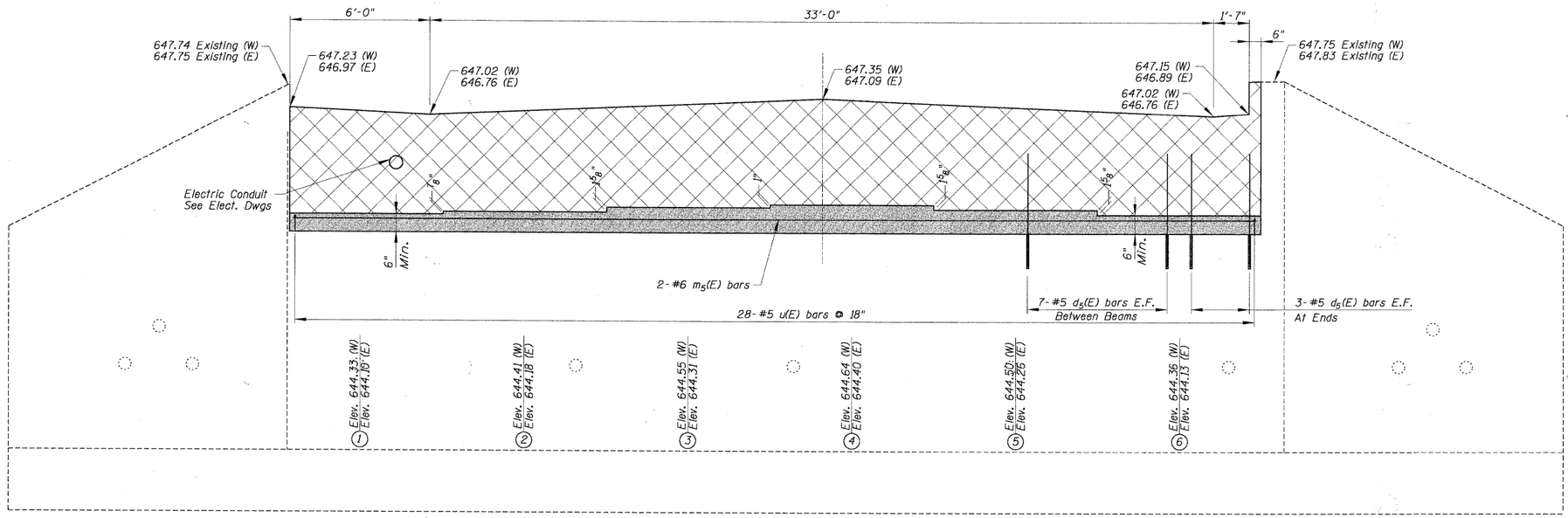
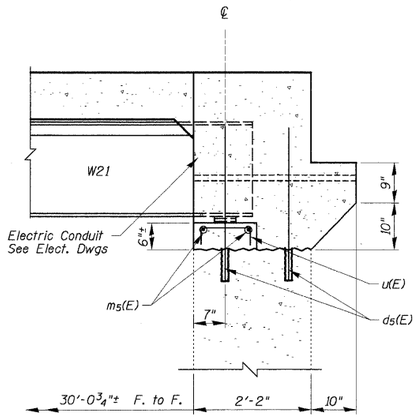
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION




## PROPOSED EAST ABUTMENT ELEVATION
(West Abutment Opposite Hand)



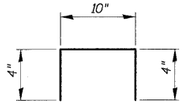

## SECTION THRU ABUTMENTS

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet S-7.
Concrete in diaphragm is included with Concrete Superstructure on sheet S-7.

## BILL OF MATERIAL
(FOR EACH ABUTMENT)

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| d5(E) | 82 | #5 | 2'-8" | —— |
| m5(E) | 2 | #6 | 40'-6" | —— |
| u(E) | 28 | #5 | 1'-6" | ⊓ |
| Reinforcement Bars, Epoxy Coated | | | Pound | 400 |
| Concrete Structures | | | Cu. Yds. | 1.1 |

Bars indicated thus 1 x 3 - #8 etc. indicates 1 line of bars with 3 lengths per line.

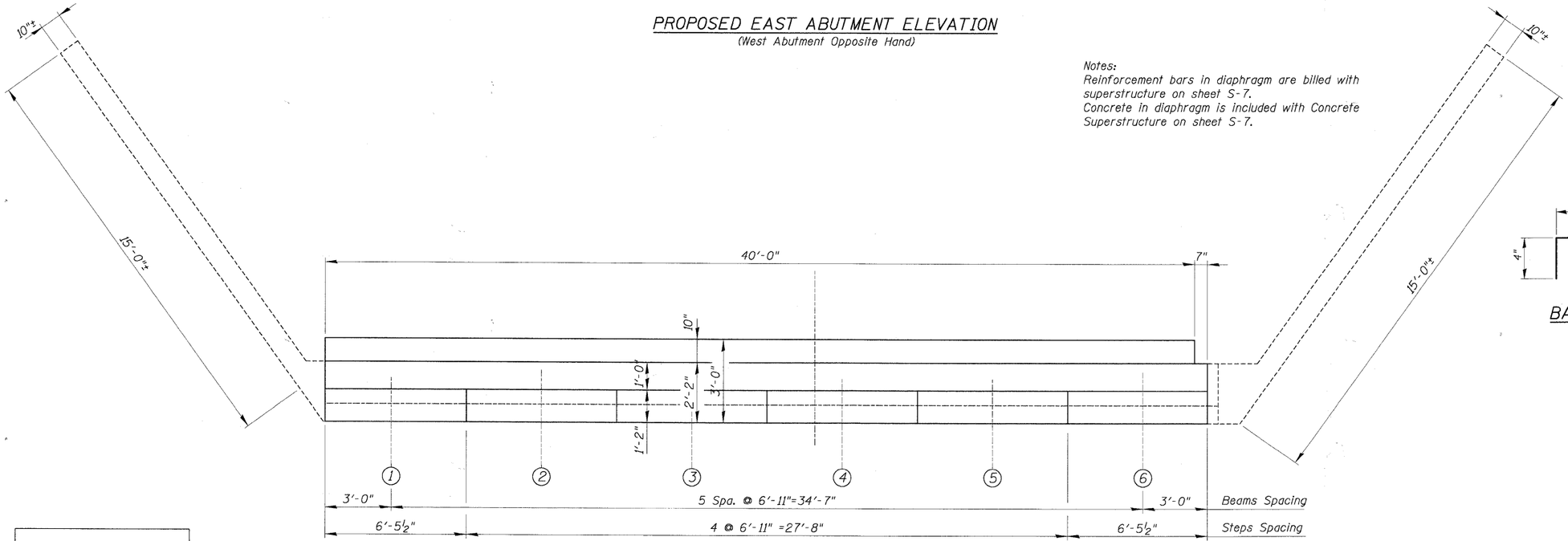



BAR u(E)

LEGEND:

Concrete Structures

To Be Poured After Beams Have Been Erected




## PROPOSED EAST ABUTMENT PLAN
(West Abutment Opposite Hand)

PROPOSED ABUTMENT
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. S-13 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 25 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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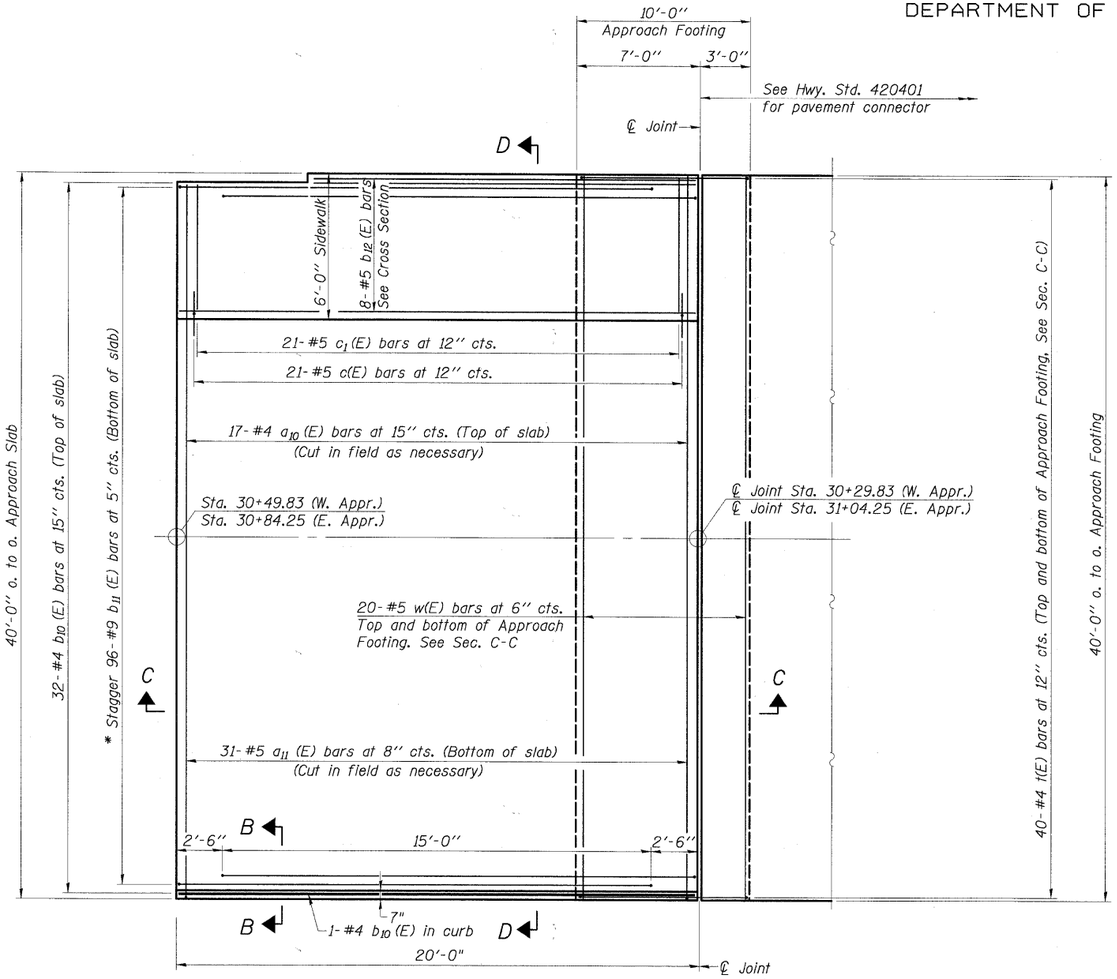
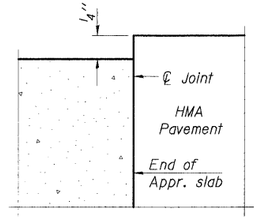
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



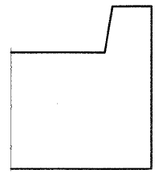

PLAN

* Tilt #9 $b_1$(E) bars as required to maintain clearance.




FLEXIBLE PAVEMENT

DETAIL A



VIEW B-B

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.

Notes:
See sheet S-15 for Sections C-C & D-D.
$a_{11}$(E), $a_{10}$(E), and w(E) bar spacings measured perpendicular to ℄ Rdwy.

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

200

EXAMINED

PASSED

ENGINEER OF BRIDGE DESIGN

ENGINEER OF BRIDGES AND STRUCTURES

(Sheet 1 of 2)

# BRIDGE APPROACH SLAB DETAILS
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| SHEET NO. S-14 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 26 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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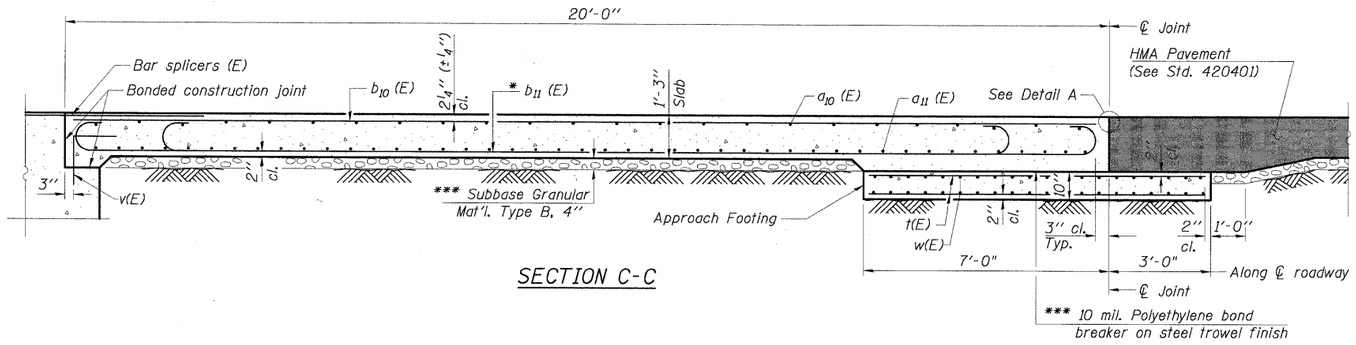
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

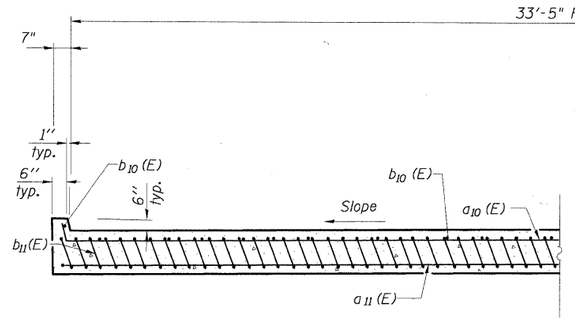


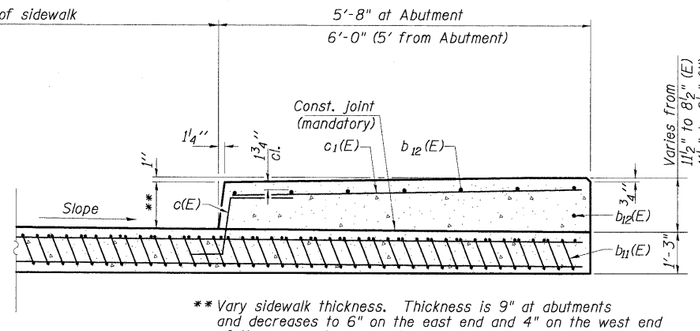

SECTION C-C

* Tilt #9 $b_{11}$ (E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.

Notes:
See sheet S-14 for Detail A
Approach slab, sidewalk and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet S-8.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.




** Vary sidewalk thickness. Thickness is 9" at abutments and decreases to 6" on the east end and 4" on the west end of the approach pavement.

SECTION D-D - NEAR ABUTMENT
(See Plan for dimensions not shown)

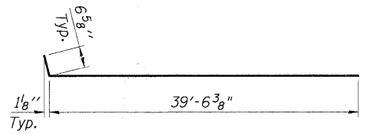




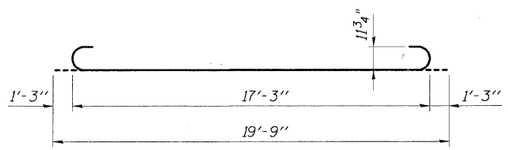


SECTION D-D - AT APPROACH FOOTING
(See Plan for dimensions not shown)


BAR c(E)




BAR $a_{10}$ (E)




BAR $b_{11}$ (E)

TWO APPROACHES
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| $a_{10}$ (E) | 34 | #4 | 40'-1" | |
| $a_{11}$ (E) | 62 | #5 | 39'-6" | |
| | | | | |
| $b_{10}$ (E) | 66 | #4 | 19'-8" | |
| $b_{11}$ (E) | 192 | #9 | 19'-9" | |
| $b_{12}$ (E) | 16 | #5 | 19'-8" | |
| | | | | |
| c(E) | 42 | #5 | 2'-5" | |
| $c_1$ (E) | 42 | #5 | 5'-6" | |
| | | | | |
| t(E) | 160 | #4 | 9'-8" | |
| | | | | |
| w(E) | 80 | #5 | 39'-6" | |
| | | | | |
| Concrete Superstructure | | | Cu. Yd. | 90.3 |
| Concrete Structures | | | Cu. Yd. | 24.7 |
| * Reinforcement Bars, Epoxy Coated | | | Pound | 22,230 |

* Superstructure = 17,900 lbs.
Substructure = 4,330 lbs.

(Sheet 2 of 2)
BRIDGE APPROACH SLAB DETAILS
WHITEHALL AVENUE OVER
ADDISON CREEK
F.A. RTE. 4025
SECTION 09-00071-00-BR
COOK COUNTY
STATION 30+67.04
STRUCTURE No. 016-7618

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

\- 200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. S-15 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | 4025 | 09-00071-00-BR | COOK | 31 | 27 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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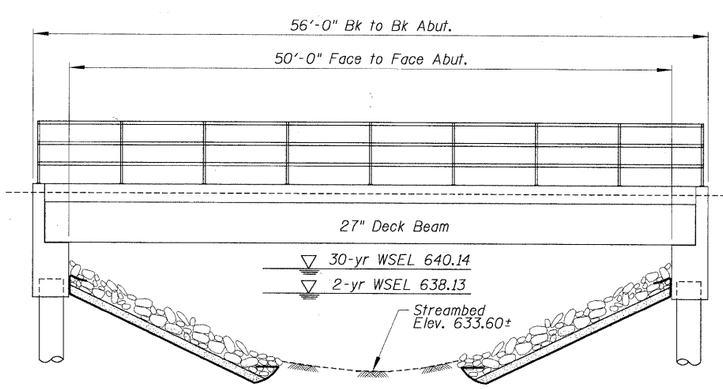
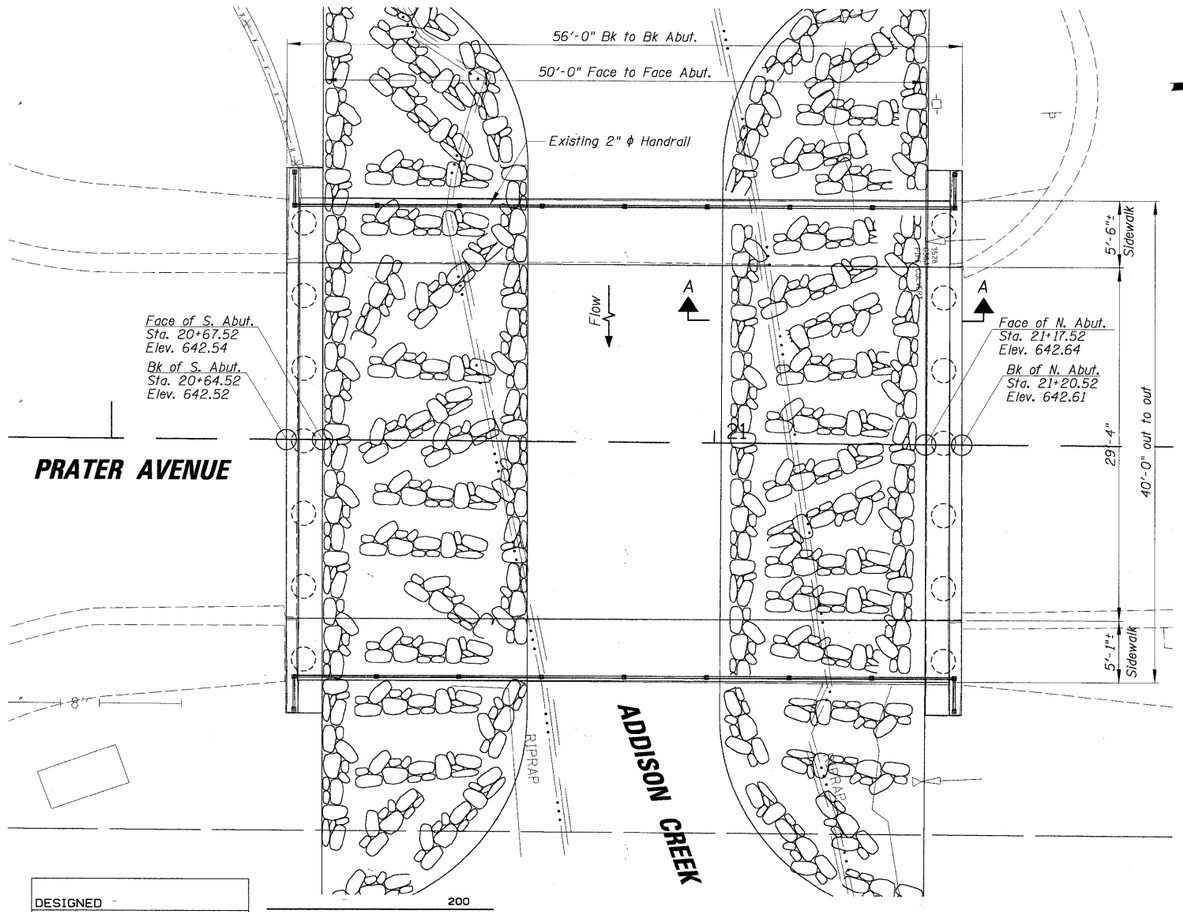
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

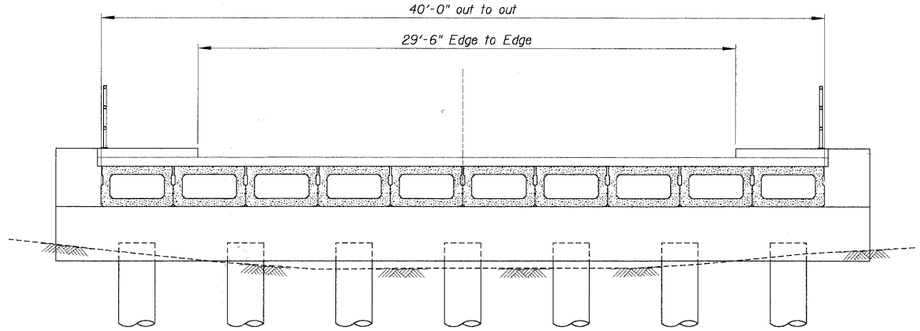



## ELEVATION

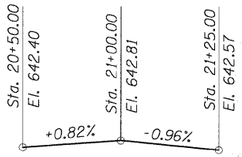



## PLAN

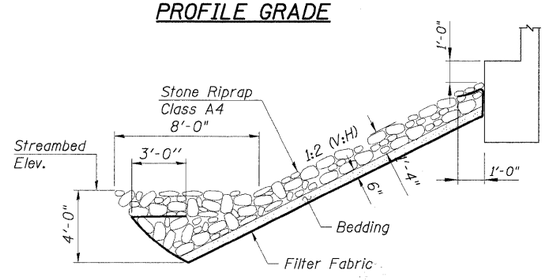
NOTE: See Sheet 10 For Erosion Control And Staging Details.




## CROSS SECTION




## PROFILE GRADE




## SECTION A-A

## TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|---|---|---|---|
| Stone Riprap, Class A4 | Sq Yd | | 275 | 275 |
| Filter Fabric | Sq Yd | | 295 | 295 |
| | | | | |

## WATERWAY INFORMATION

Ex. Low Beam 639.69 @ 21+17.52 Ex. Low Grade 642.54 @ 20+67.52 Drainage Area = 8.22 mi²
Prop. Low Beam Elv. 639.69 @ 21+17.52 Prop. Low Grade Elv. 642.54 @ 20+67.52

| Flood | Freq. Yr. | Q cfs | Opening ft² | | Nat. H.W.E. | Head - ft | | Headwater El. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Exist. | Prop. | | Exist. | Prop. | Exist. | Prop. |
| | 10 | 236 | 192 | 192 | 639.36 | 0.01 | 0.01 | 639.37 | 639.37 |
| Design | 30 | 352 | 230 | 230 | 640.14 | 0.01 | 0.01 | 640.15 | 640.15 |
| | 50 | 380 | 252 | 252 | 640.57 | 0.01 | 0.01 | 640.58 | 640.58 |
| Base | 100 | 505 | 276 | 276 | 641.01 | 0.02 | 0.02 | 641.03 | 641.03 |
| Max. Calc. | 500 | 860 | 324 | 324 | 641.85 | 0.06 | 0.06 | 641.91 | 641.91 |

## DESIGN SCOUR ELEVATION TABLE

| Flood Frequency/ Depth Elevation | North Abut. | South Abut. |
|---|---|---|
| 100 year/ Scour Depth Elevation (ft.) | 631.2 | 632.6 |
| 500 year/ Scour Depth Elevation (ft.) | 628.6 | 631.2 |

## LOADING H15

## DESIGN SPECIFICATIONS

2002 AASHTO Bridge Design Specifications

## DESIGN STRESSES

### FIELD UNITS

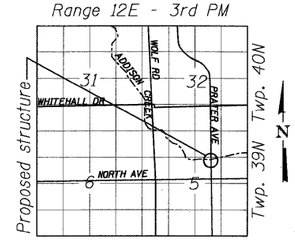
Reinforced Concrete:
f'c = 3,000 psi (Existing)

Reinforcement:
fy = 40 ksi (Existing)

## SEISMIC DATA

Seismic Performance Zone (SPZ) = A
Horizontal Bedrock Acceleration Coefficient (A) = 0.036g
Site Coefficient (S) = 1.2

Range 12E - 3rd PM




## LOCATION SKETCH

GENERAL PLAN
PRATER AVENUE OVER
ADDISON CREEK
SECTION 09-00071-00-BR
COOK COUNTY
STATION
STRUCTURE No. 016-7610

| | |
|---|---|
| DESIGNED | - |
| CHECKED | - |
| DRAWN | - |
| CHECKED | - |

200

EXAMINED

ENGINEER OF BRIDGE DESIGN

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

| SHEET NO. S-1 SHEETS | F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|---|
| | | 09-00071-00-BR | COOK | 31 | 28 |
| | | | CONTRACT NO. 63437 | | |
| | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

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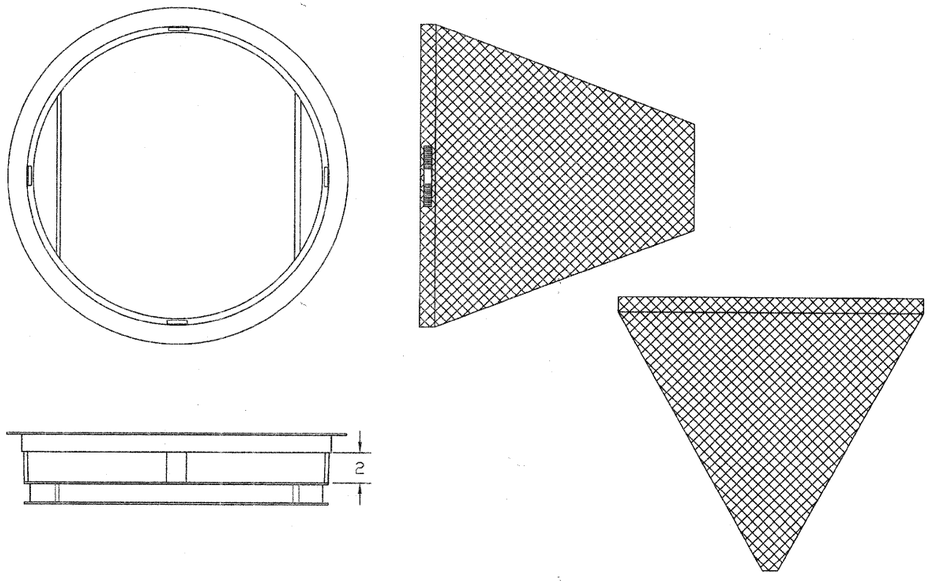


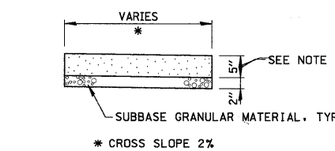

GENERAL NOTES:
FRAME: Top flange fabricated from 1¼"x1¼"x⅛" angle. Base rim fabricated from 1½"x½"x⅛" channel. Handles and suspension brackets fabricated from 1¼"x¼" flat stock. All steel conforming to ASTM-A36.
SEDIMENT BAG: Bag fabricated from 4 oz./sq.yd. non-woven polypropylene geotextile reinforced with polyester mesh. Bag secured to base rim with a stainless steel band and lock.

| DATE | REVISIONS |
|---|---|
| 01-11-02 | Original |
| | |
| | |
| | |
| | |

Typical Round Catch-All

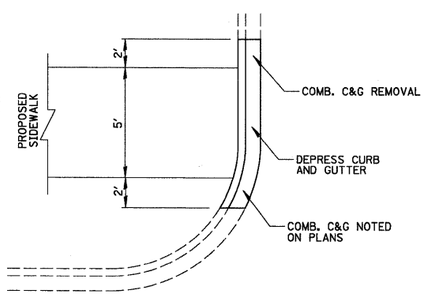
Marathon Materials, Inc.

## INLET FILTER



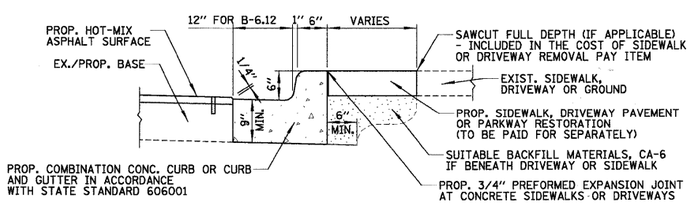

NOTES:
1. ALL REQUIRED EARTH EXCAVATION TO CONSTRUCT P.C.C. SIDEWALK SHALL BE INCLUDED IN THE COST FOR P.C.C. SIDEWALK.
2. THICKNESS SHALL BE INCREASED TO 7" WHERE SIDEWALK IS ADJACENT TO A DRIVEWAY
3. WHEN FORMS ARE REMOVED FROM THE SIDEWALK EITHER THE SIDEWALK SHALL BE BARRICADED OR BACKFILLED WITHIN 24 HOURS.

## P.C.C. SIDEWALK DETAIL




## PROPOSED DEPRESSED CURB & GUTTER EXISTING CURB & GUTTER NOT DEPRESSED

NOT TO SCALE




## COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

NOT TO SCALE

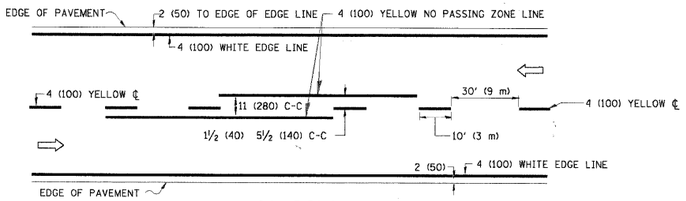
| | | | |
|---|---|---|---|
| FILE NAME = N:\NORTHLAKE\940032HR204\Civil\dest_940032hr204.sht | USER NAME = PRAZALAN | DESIGNED - AMP | REVISED - |
| | | DRAWN - EDT | REVISED - |
| | PLOT SCALE = N.T.S. | CHECKED - MEW | REVISED - |
| | PLOT DATE = 11/30/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

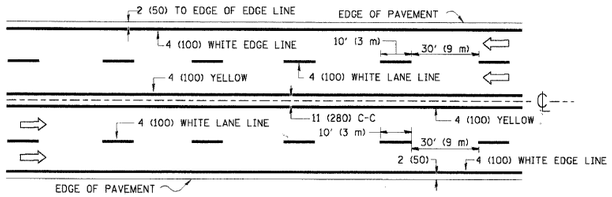
**CONSTRUCTION DETAILS**

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

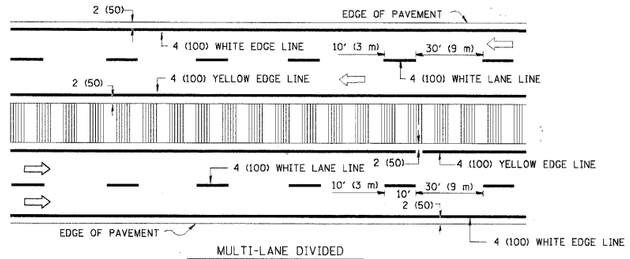
| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| ---- | 09-00071-00-BR | COOK | 31 | 29 |
| | | CONTRACT NO. 63437 | | |
| | ILLINOIS FED. AID PROJECT | | | |




2-LANE ROADWAY



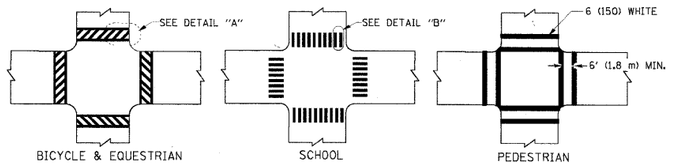

MULTI-LANE UNDIVIDED

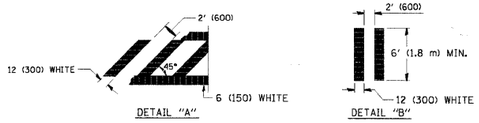



MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

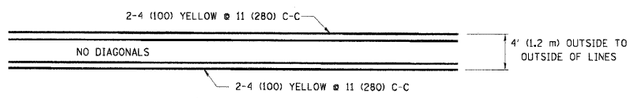
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

## TYPICAL LANE AND EDGE LINE MARKING

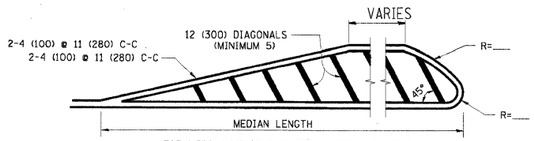



## TYPICAL CROSSWALK MARKING



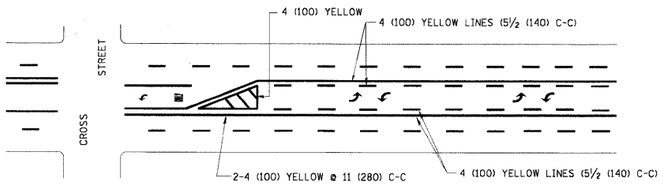

4' (1.2 m) WIDE MEDIANS ONLY



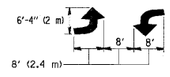

FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

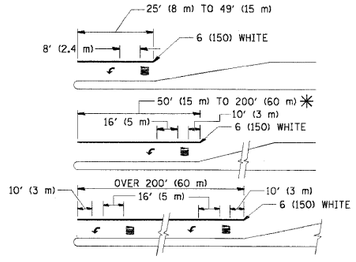



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.




MEDIAN WITH TWO-WAY LEFT TURN LANE

## TYPICAL PAINTED MEDIAN MARKING

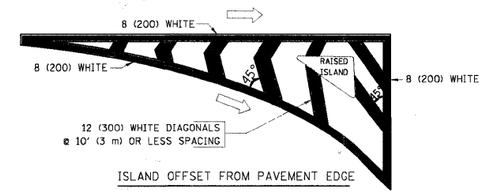



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

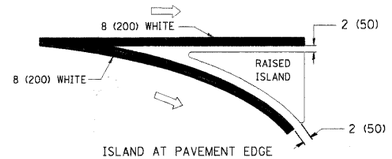
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

## TYPICAL TURN LANE MARKING




ISLAND OFFSET FROM PAVEMENT EDGE




ISLAND AT PAVEMENT EDGE

## TYPICAL ISLAND MARKING

| 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 UNDIVIDED PAVEMENT | 2 ⊠ 4 (100) | SOLID | YELLOW | 11 (280) C-C |
| NO PASSING ZONE LINES:<br>FOR ONE DIRECTION<br>FOR BOTH DIRECTIONS | 4 (100)<br>2 ⊠ 4 (100) | SOLID<br>SOLID | YELLOW<br>YELLOW | 5½ (140) C-C FROM SKIP-DASH CENTERLINE<br>11 (280) C-C<br>OMIT SKIP-DASH CENTERLINE BETWEEN |
| LANE LINES | 4 (100)<br>5 (125) ON FREEWAYS | SKIP-DASH<br>SKIP-DASH | WHITE<br>WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE |
| DOTTED LINES<br>(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<br>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 ⊠ 4 (100)<br>EACH DIRECTION<br><br>8' (2.4m) LEFT ARROW | SKIP-DASH AND SOLID<br><br>IN PAIRS | YELLOW<br><br>WHITE | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE<br><br>SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| CROSSWALK LINES (PEDESTRIAN)<br>A. DIAGONALS (BIKE & EQUESTRIAN)<br>B. LONGITUDINAL BARS (SCHOOL) | 2 ⊠ 6 (150)<br>12 (300) ⊠ 45°<br>12 (300) ⊠ 90° | SOLID<br>SOLID<br>SOLID | WHITE<br>WHITE<br>WHITE | NOT LESS THAN 6' (1.8 m) APART<br>2' (600) APART<br>2' (600) APART<br>SEE TYPICAL CROSSWALK MARKING DETAILS. |
| STOP LINES | 24 (600) | SOLID | WHITE | PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE |
| PAINTED MEDIANS | 2 ⊠ 4 (100) WITH 12 (300) DIAGONALS ⊠ 45°<br><br>NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID | YELLOW:<br>TWO WAY TRAFFIC<br><br>WHITE:<br>ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE<br><br>SEE TYPICAL PAINTED MEDIAN MARKING. |
| GORE MARKING AND CHANNELIZING LINES | 8 (200) WITH 12 (300) DIAGONALS ⊠ 45° | SOLID | WHITE | DIAGONALS:<br>15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h))<br>20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))<br>30' (9 m) C-C (OVER 45MPH (70 km/h)) |
| RAILROAD CROSSING | 24 (600) TRANSVERSE LINES; "RR" IS 5' (1.8 m) LETTERS; 16 (400) LINE FOR "X" | SOLID | WHITE | SEE STATE STANDARD 780001<br>AREA OF:<br>"R"=3.6 SQ. FT. (0.33 m²) EACH<br>"X"=54.0 SQ. FT. (5.0 m²) |
| SHOULDER DIAGONALS | 12 (300) ⊠ 45° | SOLID | WHITE - RIGHT<br><br>YELLOW - LEFT | 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))<br>75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h))<br>150' (45 m) C-C (OVER 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.

| | | | |
|---|---|---|---|
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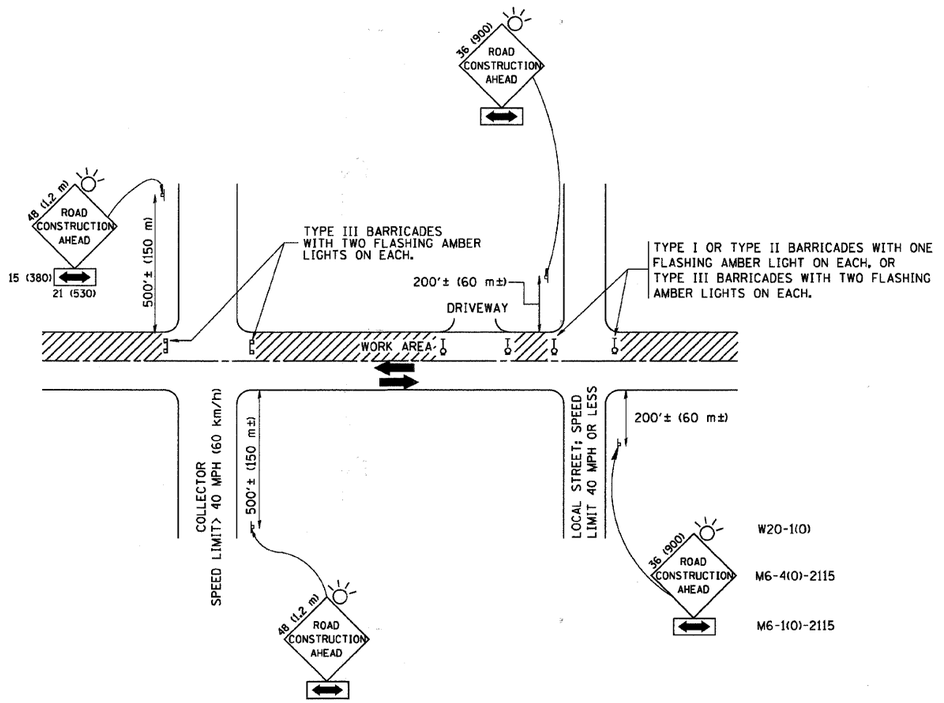
| | | DRAWN - | REVISED -C. JUCIUS 09-09-09 |
| | PLOT SCALE = 50.000 ' / IN. | CHECKED - | REVISED - |
| | PLOT DATE = 9/9/2009 | DATE - 03-19-90 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**
**TYPICAL PAVEMENT MARKINGS**

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| ---- | 09-00071-00-BR | COOK | 31 | 30 |
| | TC-13 | CONTRACT NO. 63437 | | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |




# TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

## NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE

DRAWN BY

CHECKED BY

| | | | |
|---|---|---|---|
| FILE NAME = N:\NORTHLAKE\940032HR204\Civil\std4_940032hr204.sht | USER NAME = PRAZALAN | DESIGNED - AMP | REVISED - |
| | | DRAWN - EDT | REVISED - |
| | PLOT SCALE = N.T.S. | CHECKED - MEW | REVISED - |
| | PLOT DATE = 11/30/2009 | DATE - 09/30/09 | REVISED - |

**STATE OF ILLINOIS**
**DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS**

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| ---- | 09-00071-00-BR | COOK | 31 | 31 |

CONTRACT NO. 63437

ILLINOIS FED. AID PROJECT