

STATE OF ILLINOIS 09-21-12 LETTING ITEM 050  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED  
 FEDERAL AID HIGHWAY**  
 FAP 336 (RANDALL ROAD) (CH 34)  
 AT FAP 527 (BIG TIMBER ROAD) (CH 21)  
 INTERSECTION AND SAFETY  
 IMPROVEMENTS  
 SECTION: 08-00369-00-SP  
 PROJECT NO: HSIP-9003 (055)  
 JOB NO: C-91-509-08  
 KANE COUNTY

|                           |                |        |                 |              |
|---------------------------|----------------|--------|-----------------|--------------|
| FAP<br>RTE                | SECTION        | COUNTY | TOTAL<br>SHEETS | SHEET<br>NO. |
| 527                       | 08-00369-00-SP | KANE   | 67              | 1            |
| CONTRACT #:               |                |        | 63669           |              |
| ILLINOIS FED. AID PROJECT |                |        |                 |              |



THIS PROJECT IS LOCATED IN  
THE CITY OF ELGIN

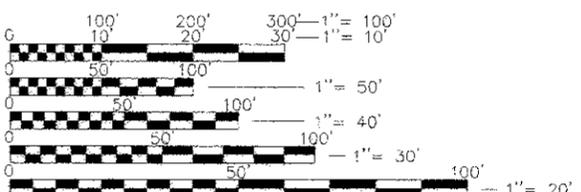
**DESIGN DESIGNATION:**

**FUNCTIONAL CLASSIFICATIONS**  
 BIG TIMBER ROAD = OTHER PRINCIPAL ARTERIAL  
 RANDALL ROAD = OTHER PRINCIPAL ARTERIAL

**POSTED SPEED LIMIT**  
 BIG TIMBER ROAD = 45 M.P.H.  
 RANDALL ROAD = 45 M.P.H.

**DESIGN SPEED LIMIT**  
 BIG TIMBER ROAD = 45 M.P.H.  
 RANDALL ROAD = 45 M.P.H.

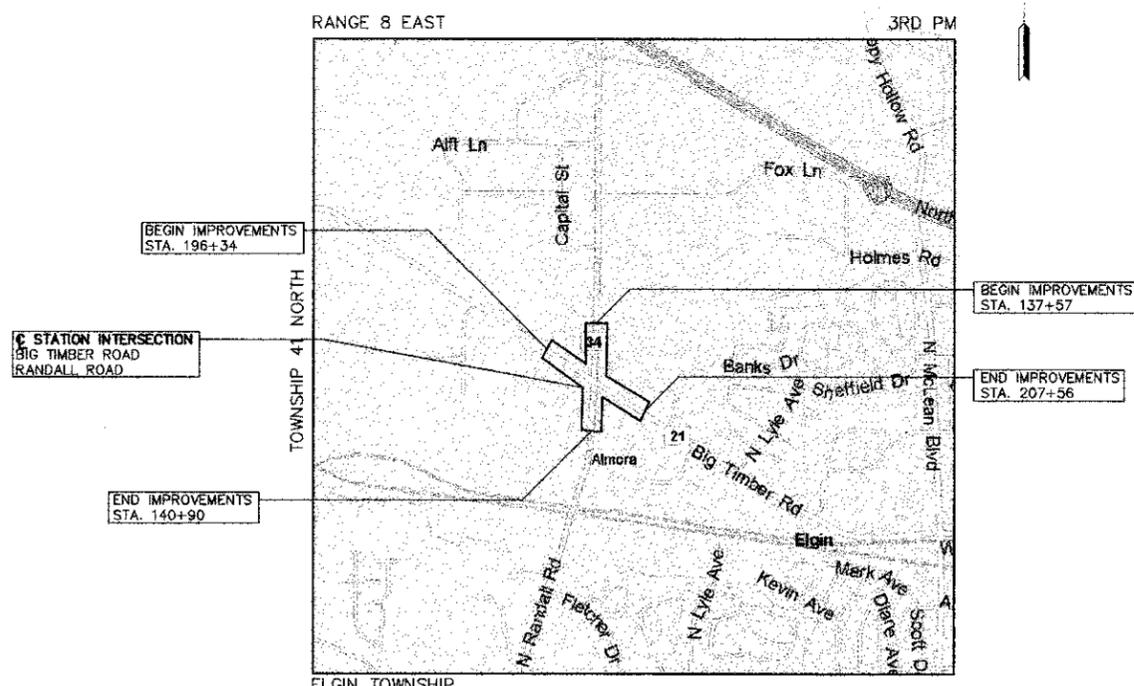
**DESIGN ADT**  
 BIG TIMBER ROAD = 16,100  
 RANDALL ROAD = 52,800



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.



**CONTRACT NO: 63669**



LOCATION MAP  
(NOT TO SCALE)

**GROSS AND NET LENGTH OF PROJECT**

|                 |                                   |
|-----------------|-----------------------------------|
| BIG TIMBER ROAD | = 1122 FEET (0.195 MILES)         |
| RANDALL ROAD    | = 333 FEET (0.048 MILES)          |
| <b>TOTAL</b>    | <b>= 1,455 FEET (0.243 MILES)</b> |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

APPROVED: MARCH 21 20 12  
 KANE COUNTY DIVISION OF TRANSPORTATION, COUNTY ENGINEER

PASSED: APRIL 2 20 12  
 DISTRICT ONE ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID  
 BASED ON LIMITED REVIEW: APRIL 2 20 12  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

PROFESSIONAL ENGINEER'S SIGNATURE & SEAL  
 Kevin L. Belgrave 3/21/12  
 KEVIN L. BELGRAVE, P.E. DATE  
 EXPIRES: 11/30/13 SEAL

PROFESSIONAL ELECTRICAL ENGINEER'S SIGNATURE & SEAL  
 Arthur J. Penn 3/21/12  
 ARTHUR J. PENN, P.E. DATE  
 EXPIRES: 11/30/13 SEAL

**GEWALT HAMILTON ASSOCIATES, INC.**  
 850 Forest Edge Drive • Vernon Hills, IL 60061  
 Phone: 847-478-9700 Fax: 847-478-9701

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PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847) 705-4408 SCHAUMBURG, IL

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**STATE STANDARDS**

- |             |   |
|-------------|---|
| 000001 - 06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS                                |
| 001006      | DECIMAL OF AN INCH AND OF A FOOT  |
| 280001 - 06 | TEMPORARY EROSION CONTROL SYSTEMS   |
| 482001 - 02 | HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT                                  |
| 542301 - 03 | PRECAST REINFORCED CONCRETE FLARED END SECTION                              |
| 542311 - 03 | GRATING FOR CONCRETE FLARED END SECTION (FOR 24" THRU 54" PIPE)             |
| 602001 - 02 | CATCH BASIN TYPE A  |
| 602301 - 03 | INLET - TYPE A  |
| 604091 - 02 | FRAME AND GRATE TYPE 24   |
| 606001 - 04 | CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER               |
| 606006 - 02 | OUTLETS FOR CONCRETE CURB AND GUTTER TYPE B-6.24                            |
| 701006 - 03 | OFF-RD OPERATIONS, 2L, 2W, 15' TO 24' FROM PAVEMENT EDGE                    |
| 701011 - 02 | OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY                                  |
| 701011 - 02 | OFF-RD OPERATIONS, MULTILANE, 15' TO 24' FROM PAVEMENT EDGE                 |
| 701106 - 02 | OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY                            |
| 701201 - 04 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH                         |
| 701301 - 04 | LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS                                  |
| 701421 - 04 | LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH |
| 701422 - 04 | LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH                      |
| 701426 - 04 | LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER, FOR SPEEDS ≥ 45 MPH   |
| 701701 - 08 | URBAN LANE CLOSURE, MULTILANE INTERSECTION                                  |
| 701901 - 02 | TRAFFIC CONTROL DEVICES   |
| 720001 - 01 | SIGN PANEL MOUNTING DETAILS   |
| 720006 - 03 | SIGN PANEL ERECTION DETAILS   |
| 729001 - 01 | APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)               |
| 780001 - 03 | TYPICAL PAVEMENT MARKING  |
| 781001 - 03 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS                     |
| 805001 - 01 | ELECTRICAL SERVICE INSTALLATION DETAILS                                     |
| 814001 - 02 | HANDHOLES   |
| 814006 - 02 | DOUBLE HANDHOLES  |
| 857001 - 01 | STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES                     |
| 862001 - 01 | UNINTERRUPTABLE POWER SUPPLY (UPS)  |
| 873001 - 02 | TRAFFIC SIGNAL GROUNDING & BONDING  |
| 877011 - 05 | STEEL COMB. MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'                      |
| 877012 - 02 | STEEL COMB. MAST ARM ASSEMBLY AND POLE 56' THROUGH 75'                      |
| 878001 - 09 | CONCRETE FOUNDATION DETAILS   |
| 880001 - 01 | SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION                  |
| 880006 - 01 | TRAFFIC SIGNAL MOUNTING DETAILS   |
| 886001 - 01 | DETECTOR LOOP INSTALLATIONS   |
| 886006 - 01 | TYPICAL LAYOUTS FOR DETECTION LOOPS   |

**GENERAL NOTES - MISCELLANEOUS**

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JANUARY 1, 2012 EDITION; THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION; THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", LATEST EDITION; THE DETAILS IN THE PLANS; AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS. THE ENGINEER, OR AN AUTHORIZED SURVEYOR OR AGENT WILL WITNESS OR OTHERWISE REFERENCE AND RESET MONUMENTS AS NECESSARY. ALL PROPERTY CORNERS EXCEPT THOSE WITHIN AREAS WHERE THE SCHEDULE SHOWS PLACEMENT OF R.O.W MARKERS SHALL REMAIN UNDISTURBED.

THE CONTRACTOR AS REQUIRED, SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO COMMENCING WITH CONSTRUCTION.

THE CONTRACTOR'S OPERATIONS AND TEMPORARY STORAGE ACTIVITIES SHALL BE LIMITED TO THE WORK AREA AND/OR CONSTRUCTION LIMITS AND THE AREA IMMEDIATELY ADJACENT TO THE PROPOSED CURB LINES. ANY ADDITIONAL STAGING AREAS ADJACENT TO THE PROJECT ARE SUBJECT TO PRIOR APPROVAL BY THE ENGINEER. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR COMPLIANCE WITH THE ABOVE REQUIREMENTS.

THE CONTRACTOR'S PERSONNEL SHALL NOT BE ALLOWED TO PARK PERSONAL VEHICLES IN THE WORK AREA AND/OR CONSTRUCTION LIMITS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS PRIOR TO BIDDING ON THIS CONTRACT.

THE CONTRACTOR WILL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED. ONE (1) WEIGHTED SANDBAG SHALL BE INSTALLED ACROSS EACH BOTTOM RAIL. ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR (4) SANDBAGS PER BARRICADE.

WHERE NEW WORK MEETS EXISTING FEATURES TO REMAIN, THE CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS AND ELEVATIONS BEFORE PROCEEDING WITH CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.

THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION. THE CONTRACTOR IS PROHIBITED FROM BURNING ANY MATERIAL WITHIN OR ADJACENT TO THE IMPROVEMENT.

ALL DISTURBED AREAS OUTSIDE THE PROJECT LIMITS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE RESTORED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

BIDDERS MAY CONTACT THE KANE COUNTY DIVISION OF TRANSPORTATION (MR. PAUL HOLCOMB AT 630-584-1170) TO EXAMINE THE ROADWAY SOILS INVESTIGATION, INCLUDING SOIL BORING LOGS, FOR THESE IMPROVEMENTS.

**GENERAL NOTES - ROADWAY**

SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

THE CONTRACTOR SHALL USE CARE IN REMOVING ITEMS OF WORK. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

ANY MAIL BOXES REQUIRING RELOCATION TO CONSTRUCT PORTIONS OF THE CONTRACT SHALL BE MOVED BY THE CONTRACTOR. THIS WORK SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF MOBILIZATION.

TEN FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.

THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR VARIOUS HOT-MIX ASPHALT LIFTS.

ALL ELEVATIONS ARE ON U.S.G.S. DATUM

FOR WORK OUTSIDE THE LIMITS OF THE BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, CUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED IN THE PLAN.

**GENERAL NOTES - SIGNING AND PAVEMENT MARKING**

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR, ENGINEER AND KANE COUNTY DOT MAINTENANCE PERSONNEL SHALL INVENTORY THE LOCATION, SIZE, TYPE AND CONDITION OF ALL EXISTING SIGNS. ANY SIGN DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

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

A. EXISTING SIGNS SHALL NOT BE REMOVED UNTIL PROGRESS OF WORK NECESSITATES IT.

B. KDOT WILL REMOVE ALL EXISTING SIGNING AND INSTALL ALL NEW SIGNING. CONTACT RAY JOHNSON AT (630) 406-7356 A MINIMUM OF 72 HOURS IN ADVANCE OF ANY NECESSARY SIGN REMOVAL AND A MINIMUM OF 3 WEEKS IN ADVANCE OF THE INSTALLATION OF NEW SIGNING.

C. THE CONTRACTOR WILL BE REQUIRED TO TEMPORARILY RESET ALL SUCH SIGNS THAT INTERFERE WITH HIS WORK DURING CONSTRUCTION OPERATIONS. ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND CLEAN FOR THE DURATION OF THE TEMPORARY SETTING AND MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO TRAFFIC FOR WHICH IT IS INTENDED. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE VARIOUS TRAFFIC CONTROL AND PROTECTION PAY ITEMS.

D. LONGER POSTS MAY BE REQUIRED AT SOME TEMPORARY SIGN LOCATIONS TO MAINTAIN THE PROPER SIGN ELEVATIONS.

THE CONTRACTOR SHALL FURNISH, MAINTAIN AND PROGRAM TWO (2) CHANGEABLE MESSAGE SIGNS FOR THE DURATION OF THIS CONTRACT. THE ENGINEER WILL DIRECT THE CONTRACTOR REGARDING THE LOCATION AND MESSAGES FOR THESE SIGNS.

ALL PERMANENT PAVEMENT MARKING SHALL BE MODIFIED URETHANE.

FINAL SIGN MATERIAL, LOCATIONS AND INSTALLATION WILL BE COMPLETED BY KANE COUNTY PERSONNEL.

**GENERAL NOTES - DRAINAGE**

THE COST OF MAKING ANY CONNECTIONS TO EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.

LENGTHS AND SIZES OF STORM SEWERS SHOWN ON THE PLANS AND DRAINAGE STRUCTURE ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO INSTALLATION OF DRAINAGE ITEMS. THE INVERTS OF THE PROPOSED DRAINAGE STRUCTURES MAY REQUIRE REVISIONS TO MEET EXISTING FIELD CONDITIONS. ANY ADJUSTMENTS SHALL BE AS DIRECTED BY THE ENGINEER.

UNLESS OTHERWISE NOTED, ALL OFFSETS SHALL BE TO THE CENTER OF THE FRAMES AND GRATES, OR FRAMES AND LIDS.

STORM SEWER SHALL BE BACKFILLED IN ACCORDANCE WITH ARTICLE 550.07 OF THE STANDARD SPECIFICATIONS, METHOD 1 ONLY.

ALL TRENCH BACKFILL QUANTITIES FOR STORM SEWER, WATER MAIN, AND SANITARY SEWER HAVE BEEN COMPUTED AND SHALL BE PAID FOR IN ACCORDANCE WITH THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, BUREAU OF CONSTRUCTION TRENCH BACKFILL TABLE.

THE CONTRACTOR SHALL MAINTAIN THE SURFACE DRAINAGE OF THE ROAD DURING CONSTRUCTION OF THIS PROJECT. WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS, INLETS OR CATCH BASINS. HE SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS, AND DISCHARGE THE SAME. HE SHALL PROVIDE AND MAINTAIN A TEMPORARY OUTLET, AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY CONNECTIONS UNTIL SUCH TIME AS THE PERMANENT CONNECTIONS WITH SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE UNIT PRICE FOR ALL STORM SEWER ITEMS.

TOP OF GRATE ELEVATIONS FOR DRAINAGE STRUCTURES LOCATED WITHIN THE CURB AND GUTTERS ARE AT THE FLOWLINE OF THE GUTTER, OTHERWISE, TOP OF GRATE ELEVATIONS ARE TO THE CENTER OF THE FRAME OR GRATE.

ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS, CROSS ROAD PIPES, OR DRAINAGE STRUCTURES DUE TO CONSTRUCTION OPERATIONS SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE UNIT PRICE FOR EACH ITEM OF WORK.

ALL FRAMES, GRATES, LIDS AND BOXES REMOVED FROM EXISTING DRAINAGE OR UTILITY STRUCTURES WHICH ARE TO BE ABANDONED OR ADJUSTED WITH A NEW OR DIFFERENT FROM AND LID SHALL BECOME THE PROPERTY OF THE COUNTY. ANY OF THE ITEMS WHICH ARE DAMAGED OR BROKEN DURING HANDLING SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR SALVAGING THE EXISTING FRAMES, GRATES, LIDS, AND BOXES OR FOR STOCKPILING THEM ON THE JOB SITE FOR PICK-UP BY THE COUNTY.

BEFORE ORDERING STORM SEWERS, PIPE CULVERTS, PIPE DRAINS, CATCH BASINS, INLETS, AND MANHOLES, THE CONTRACTOR SHALL CONTACT THE ENGINEER AS TO THE EXACT LENGTH AND QUANTITY REQUIRED.

**GENERAL NOTES - UTILITIES**

THE CONTRACTOR SHALL PROTECT EXISTING AND NEW UTILITIES. WHEN REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL BRACE AND SUPPORT UTILITIES PROPERLY IN ORDER TO PREVENT SETTLEMENT, DISPLACEMENT, OR DAMAGE TO THE UTILITIES. THE PROTECTION OF THE UTILITIES AS SPECIFIED HEREIN WILL NOT BE PAID FOR SEPARATELY, BUT THE COST THEREOF SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEM OF WORK.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH THE RESPECTIVE UTILITIES AND THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING FACILITIES SO 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.

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS                           |                  |                      |   |
|--|------------------|----------------------|---|
| MIXTURE TYPE   | AIR VOIDS @ Ndes | DEPTH                |   |
| <b>HOT-MIX ASPHALT RESURFACING</b>                             |                  |                      |   |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)       | 4% @ 70 GYR      | 1 1/2"               |   |
| LEVELING BINDER (MACHINE METHOD), N70                          | 4% @ 70 GYR      | 3/4"                 |   |
| <b>HOT-MIX ASPHALT FULL DEPTH</b>                              |                  |                      |   |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)       | 4% @ 70 GYR      | 2"                   |   |
| HOT-MIX ASPHALT BINDER COURSE, IL-19mm, N70                    | 4% @ 70 GYR      | 10 1/2" (IN 4 LIFTS) |   |
| <b>HOT-MIX ASPHALT DRIVEWAY PAVEMENT</b>                       |                  |                      |   |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5mm)        | 4% @ 50 GYR      | 2"                   |   |
| HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm) MIX "D", N50 | 4% @ 50 GYR      | 6" (IN 2 LIFTS)      | * |
| <b>HOT-MIX ASPHALT SHOULDER, 8"</b>                            |                  |                      |   |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5mm)        | 4% @ 70 GYR      | 2"                   |   |
| HOT-MIX ASPHALT SHOULDER (HMA BINDER IL-19 mm)                 | 4% @ 50 GYR      | 6" (IN 2 LIFTS)      |   |
| <b>HOT-MIX ASPHALT PATCHING</b>                                |                  |                      |   |
| CLASS D PATCH (HMA BINDER IL-19mm)                             | 4% @ 70 GYR      | 13" (IN 4 LIFTS)     |   |

THE UNIT WEIGHT TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA, THE "AC TYPE" SHALL BE "PG 64-22" UNLESS OTHERWISE MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

\* SEE DRIVEWAY DETAIL FOR BASE COURSE THICKNESS REQUIREMENTS

|                              |                               |                  |           |   |                      |                     |     |                |                          |               |                   |               |                           |
|------------------------------|-------------------------------|------------------|-----------|---|----------------------|---------------------|-----|----------------|--------------------------|---------------|-------------------|---------------|---------------------------|
| FILE NAME = 4459.000-DTI.dwg | USER NAME = BETHANY SUJWINSKI | DESIGNED - JRD   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>GENERAL NOTES</b> |                     |     | FAP RATE = 527 | SECTION = 08-00369-00-SP | COUNTY = KANE | TOTAL SHEETS = 67 | SHEET NO. = 2 | ILLINOIS FED. AID PROJECT |
|                              | PLOT SCALE = 1" = .0833'      | DRAWN - ZCW      | REVISED - |   | SCALE: N.A.          | SHEET NO. OF SHEETS | STA | TO STA         | CONTRACT # = 63669       |               |                   |               |                           |
|                              | PLOT DATE = 3/21/2012         | CHECKED - KLB    | REVISED - |   |                      |                     |     |                |                          |               |                   |               |                           |
|                              |                               | DATE = 3/21/2012 | REVISED - |   |                      |                     |     |                |                          |               |                   |               |                           |

GHA #4459.000

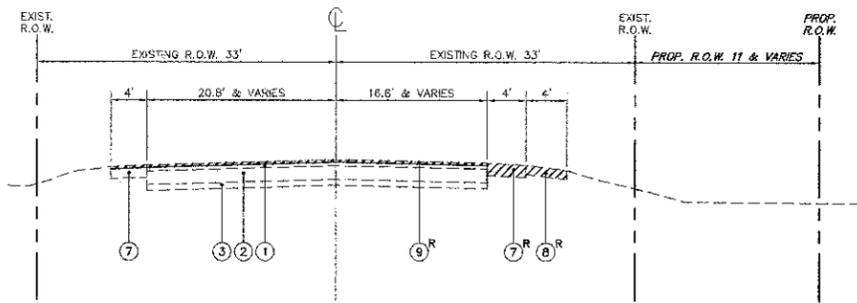
| SUMMARY OF QUANTITIES |          |   |        | 0021  |
|-----------------------|----------|---|--------|-------|
| SP.                   | CODE NO. | ITEM  | UNIT   | TOTAL |
|                       | 20101000 | TEMPORARY FENCE                                     | FOOT   | 305   |
|                       | 20200100 | EARTH EXCAVATION                                    | CU YD  | 541   |
|                       | 20201200 | REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL         | CU YD  | 700   |
|                       | 20400800 | FURNISHED EXCAVATION                                | CU YD  | 1,434 |
|                       | 20800150 | TRENCH BACKFILL                                     | CU YD  | 18    |
|                       | 21001800 | GEOTECHNICAL FABRIC FOR GROUND STABILIZATION        | SQ YD  | 1,080 |
|                       | 21101625 | TOPSOIL FURNISH AND PLACE, 6"                       | SQ YD  | 4,356 |
|                       | 25000210 | SEEDING, CLASS 2A                                   | ACRE   | 0.90  |
|                       | 25000310 | SEEDING, CLASS 4                                    | ACRE   | 0.10  |
|                       | 25000400 | NITROGEN FERTILIZER NUTRIENT                        | POUND  | 81    |
|                       | 25000500 | PHOSPHORUS FERTILIZER NUTRIENT                      | POUND  | 81    |
|                       | 25000600 | POTASSIUM FERTILIZER NUTRIENT                       | POUND  | 81    |
|                       | 25100630 | EROSION CONTROL BLANKET                             | SQ YD  | 4,356 |
| X                     | 28000305 | TEMPORARY DITCH CHECKS                              | FOOT   | 20    |
|                       | 28000400 | PERMETER EROSION BARRIER                            | FOOT   | 1,205 |
|                       | 28000510 | INLET FILTERS                                       | EACH   | 19    |
|                       | 28100107 | STONE RIPRAP, CLASS A4                              | SQ YD  | 25    |
|                       | 30300112 | AGGREGATE SUBGRADE IMPROVEMENT, 12"                 | SQ YD  | 1,830 |
|                       | 35400400 | PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 9"    | SQ YD  | 120   |
|                       | 40201000 | AGGREGATE FOR TEMPORARY ACCESS                      | TON    | 50    |
|                       | 40600100 | BITUMINOUS MATERIALS (PRIME COAT)                   | GALLON | 1,288 |
|                       | 40600300 | AGGREGATE (PRIME COAT)                              | TON    | 13    |
|                       | 40600635 | LEVELING BINDER (MACHINE METHOD), N70               | TON    | 280   |
|                       | 40600982 | HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT        | SQ YD  | 110   |
|                       | 40600990 | TEMPORARY RAMP                                      | SQ YD  | 134   |
|                       | 40603340 | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70        | TON    | 465   |
|                       | 40701931 | HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 12 1/2"      | SQ YD  | 1,080 |
|                       | 44000100 | PAVEMENT REMOVAL                                    | SQ YD  | 620   |
|                       | 44000158 | HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"             | SQ YD  | 5,480 |
|                       | 44000500 | COMBINATION CURB AND GUTTER REMOVAL                 | FOOT   | 1,125 |
|                       | 44004250 | PAVED SHOULDER REMOVAL                              | SQ YD  | 340   |
|                       | 44201803 | CLASS D PATCHES, TYPE II, 13 INCH                   | SQ YD  | 275   |
|                       | 44300200 | STRIP REFLECTIVE CRACK CONTROL TREATMENT            | FOOT   | 1,250 |
|                       | 48101800 | AGGREGATE SHOULDERS, TYPE B 8"                      | SQ YD  | 100   |
|                       | 48203029 | HOT-MIX ASPHALT SHOULDERS, 8"                       | SQ YD  | 110   |
|                       | 50105220 | PIPE CULVERT REMOVAL                                | FOOT   | 40    |
|                       | 542A0220 | PIPE CULVERTS, CLASS A, TYPE 1 15"                  | FOOT   | 32    |
|                       | 54213657 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" | EACH   | 4     |
|                       | 54213660 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15" | EACH   | 2     |
|                       | 54213689 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24" | EACH   | 1     |

X SPECIALTY ITEM  
 X X CONSTRUCTION CODE 0042

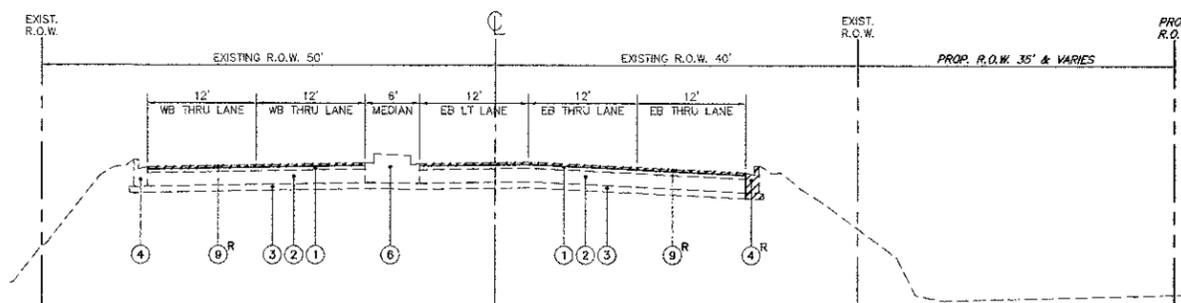
| SUMMARY OF QUANTITIES |          |  |  | 0021  |       |
|-----------------------|----------|--|--|-------|-------|
| SP.                   | CODE NO. | ITEM   | UNIT   | TOTAL |       |
|                       | 54213675 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 30"        | EACH   | 2     |       |
|                       | 54247100 | GRATING FOR CONCRETE FLARED END SECTION 15"                | EACH   | 2     |       |
|                       | 54247130 | GRATING FOR CONCRETE FLARED END SECTION 24"                | EACH   | 1     |       |
|                       | 54247150 | GRATING FOR CONCRETE FLARED END SECTION 30"                | EACH   | 2     |       |
|                       | 54248510 | CONCRETE COLLAR  | CU YD  | 1     |       |
|                       | 550A0050 | STORM SEWERS, CLASS A, TYPE 1 12"                          | FOOT   | 124   |       |
|                       | 550A0340 | STORM SEWERS, CLASS A, TYPE 2 12"                          | FOOT   | 48    |       |
|                       | 550A0430 | STORM SEWERS, CLASS A, TYPE 2 30"                          | FOOT   | 30    |       |
|                       | 55100500 | STORM SEWER REMOVAL 12"                                    | FOOT   | 80    |       |
|                       | 60201340 | CATCH BASINS, TYPE A, 4' DIAMETER, TYPE 24 FRAME AND GRATE | EACH   | 5     |       |
|                       | 60237470 | INLETS, TYPE A, TYPE 24 FRAME AND GRATE                    | EACH   | 2     |       |
|                       | 60500040 | REMOVING MANHOLES  | EACH   | 1     |       |
|                       | 60500050 | REMOVING CATCH BASINS                                      | EACH   | 5     |       |
|                       | 60500060 | REMOVING INLETS  | EACH   | 1     |       |
|                       | 60600095 | CLASS SI CONCRETE (OUTLET)                                 | CU YD  | 3.10  |       |
|                       | 60605000 | COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24          | FOOT   | 1,110 |       |
|                       | 63200310 | GUARDRAIL REMOVAL  | FOOT   | 115   |       |
|                       | 67100100 | MOBILIZATION   | L SUM  | 1     |       |
|                       | 70100310 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701421            | L SUM  | 1     |       |
|                       | 70100320 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701422            | L SUM  | 1     |       |
|                       | 70100450 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701201            | L SUM  | 1     |       |
|                       | 70102635 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701701            | L SUM  | 1     |       |
|                       | 70106800 | CHANGEABLE MESSAGE SIGN                                    | CAL MO   | 2.00  |       |
|                       | 70300100 | SHORT TERM PAVEMENT MARKING                                | FOOT   | 1,680 |       |
|                       | 70300210 | TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS           | SQ YD  | 182   |       |
|                       | 70300220 | TEMPORARY PAVEMENT MARKING - LINE 4"                       | FOOT   | 5,026 |       |
|                       | 70300240 | TEMPORARY PAVEMENT MARKING - LINE 6"                       | FOOT   | 638   |       |
|                       | 70300250 | TEMPORARY PAVEMENT MARKING - LINE 8"                       | FOOT   | 60    |       |
|                       | 70300260 | TEMPORARY PAVEMENT MARKING - LINE 12"                      | FOOT   | 135   |       |
|                       | 70300280 | TEMPORARY PAVEMENT MARKING - LINE 24"                      | FOOT   | 90    |       |
|                       | 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL                         | SQ FT  | 560   |       |
| X                     | X        | 78009000   | MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS | SQ FT | 182   |
| X                     | X        | 78009004   | MODIFIED URETHANE PAVEMENT MARKING - LINE 4"             | FOOT  | 5,026 |
| X                     | X        | 78009006   | MODIFIED URETHANE PAVEMENT MARKING - LINE 6"             | FOOT  | 638   |
| X                     | X        | 78009008   | MODIFIED URETHANE PAVEMENT MARKING - LINE 8"             | FOOT  | 60    |
| X                     | X        | 78009012   | MODIFIED URETHANE PAVEMENT MARKING - LINE 12"            | FOOT  | 135   |
| X                     | X        | 78009024   | MODIFIED URETHANE PAVEMENT MARKING - LINE 24"            | FOOT  | 90    |
| X                     | X        | 80400100   | ELECTRIC SERVICE INSTALLATION                            | EACH  | 1     |
| X                     | X        | 80400200   | ELECTRIC UTILITY SERVICE CONNECTION                      | L SUM | 1     |
| X                     |          | 80500020   | SERVICE INSTALLATION - POLE MOUNTED                      | EACH  | 1     |
| X                     |          | 81028190   | UNDERGROUND CONDUIT, GALVANIZED STEEL, 1 1/2" DIA.       | FOOT  | 1,100 |

X SPECIALTY ITEM  
 X X CONSTRUCTION CODE 0042





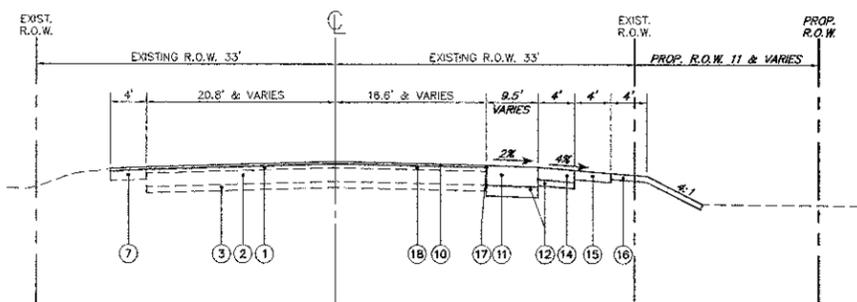
**TYPICAL EXISTING CROSS SECTION - BIG TIMBER ROAD**  
FROM STA. 197+66 TO STA. 199+86  
SHOWN AT STA. 199+00



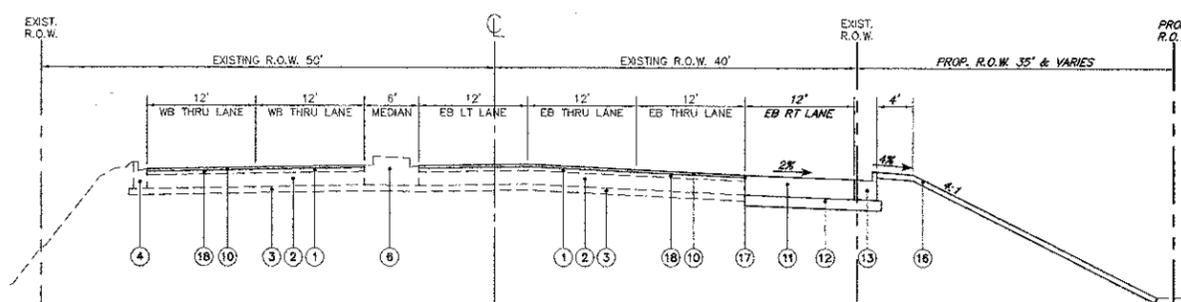
**TYPICAL EXISTING CROSS SECTION - BIG TIMBER ROAD**  
FROM STA. 203+05 TO STA. 205+43  
SHOWN AT STA. 204+00

**TYPICAL CROSS SECTION LEGEND**

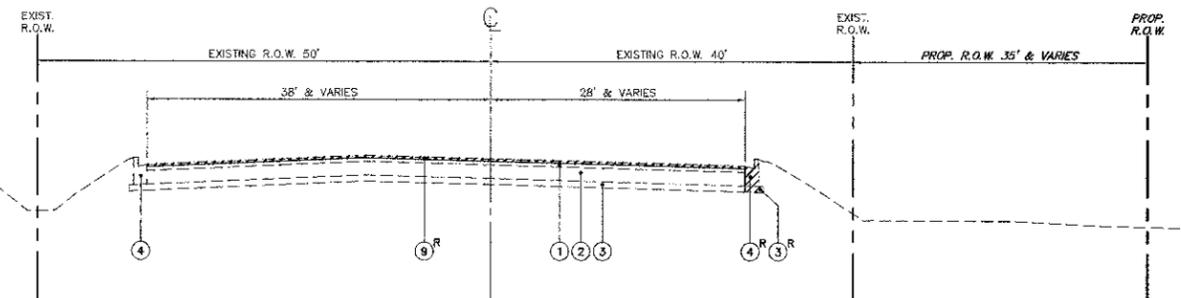
- | NO | DESCRIPTION   |
|----|---|
| ①  | EXISTING BITUMINOUS SURFACE 4"  |
| ②  | EXISTING BITUMINOUS BASE COURSE 9"  |
| ③  | EXISTING SUB-BASE GRANULAR MATERIAL 4"  |
| ④  | EXISTING CURB AND GUTTER, TYPE B-6.12   |
| ⑤  | EXISTING CURB AND GUTTER, TYPE B-6.24   |
| ⑥  | EXISTING CONCRETE MEDIAN  |
| ⑦  | EXISTING BITUMINOUS SHOULDER 8"   |
| ⑧  | EXISTING AGGREGATE SHOULDER 6"  |
| ⑨  | HOT-MIX ASPHALT SURFACE REMOVAL 2-1/4"  |
| ⑩  | PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70, 1-1/2"                       |
| ⑪  | PROPOSED HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 12 1/2"                           |
| ⑫  | PROPOSED AGGREGATE SUBGRADE, 12"  |
| ⑬  | PROPOSED COMBINATION CURB AND GUTTER, TYPE B-6.24                                 |
| ⑭  | PROPOSED HOT-MIX ASPHALT SHOULDER, 8"   |
| ⑮  | PROPOSED AGGREGATE SHOULDER, TYPE B, 8"   |
| ⑯  | PROPOSED TOPSOIL, FURNISH AND PLACE 6", SEEDING CLASS 2A, EROSION CONTROL BLANKET |
| ⑰  | STRIP REFLECTIVE CRACK CONTROL TREATMENT  |
| ⑱  | PROPOSED LEVELING BINDER (MACHINE METHOD), N70, 3/4"                              |
| X  | ITEM TO BE REMOVED  |



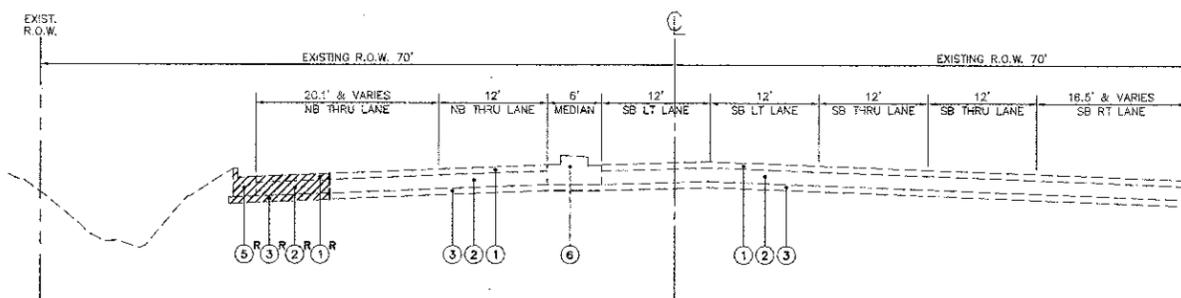
**TYPICAL PROPOSED CROSS SECTION - BIG TIMBER ROAD**  
FROM STA. 197+66 TO STA. 199+86  
SHOWN AT STA. 199+00



**TYPICAL PROPOSED CROSS SECTION - BIG TIMBER ROAD**  
FROM STA. 203+05 TO STA. 205+43  
SHOWN AT STA. 204+00

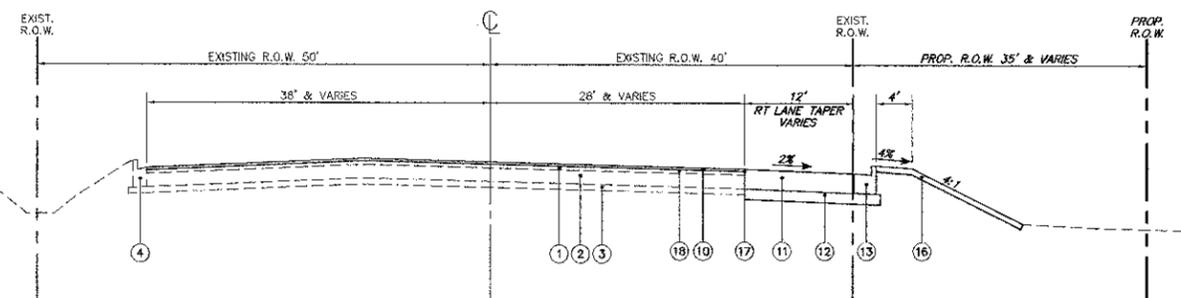


**TYPICAL EXISTING CROSS SECTION - BIG TIMBER ROAD**  
FROM STA. 199+86 TO STA. 203+05  
SHOWN AT STA. 202+50

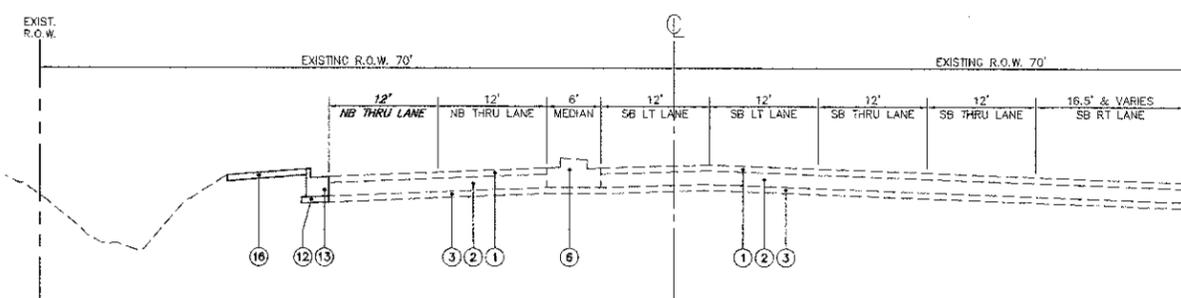


**TYPICAL EXISTING CROSS SECTION - RANDALL ROAD**  
FROM STA. 137+57 TO STA. 140+90  
SHOWN AT STA. 138+50

NOTE:  
RANDALL ROAD  
CROSS SECTION IS FROM THE  
NORTH LOOKING TO THE SOUTH



**TYPICAL PROPOSED CROSS SECTION - BIG TIMBER ROAD**  
FROM STA. 199+86 TO STA. 203+05  
SHOWN AT STA. 202+50



**TYPICAL PROPOSED CROSS SECTION - RANDALL ROAD**  
FROM STA. 137+57 TO STA. 140+90  
SHOWN AT STA. 138+50

NOTE:  
RANDALL ROAD  
CROSS SECTION IS FROM THE  
NORTH LOOKING TO THE SOUTH

FILE NAME = 4459.DWG-PR3.dwg

USER NAME = BETHANY SUMINSKI  
DESIGNED - K.L.B.  
DRAWN - P.J.S.  
CHECKED - K.L.B.  
DATE - 3/21/2012

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

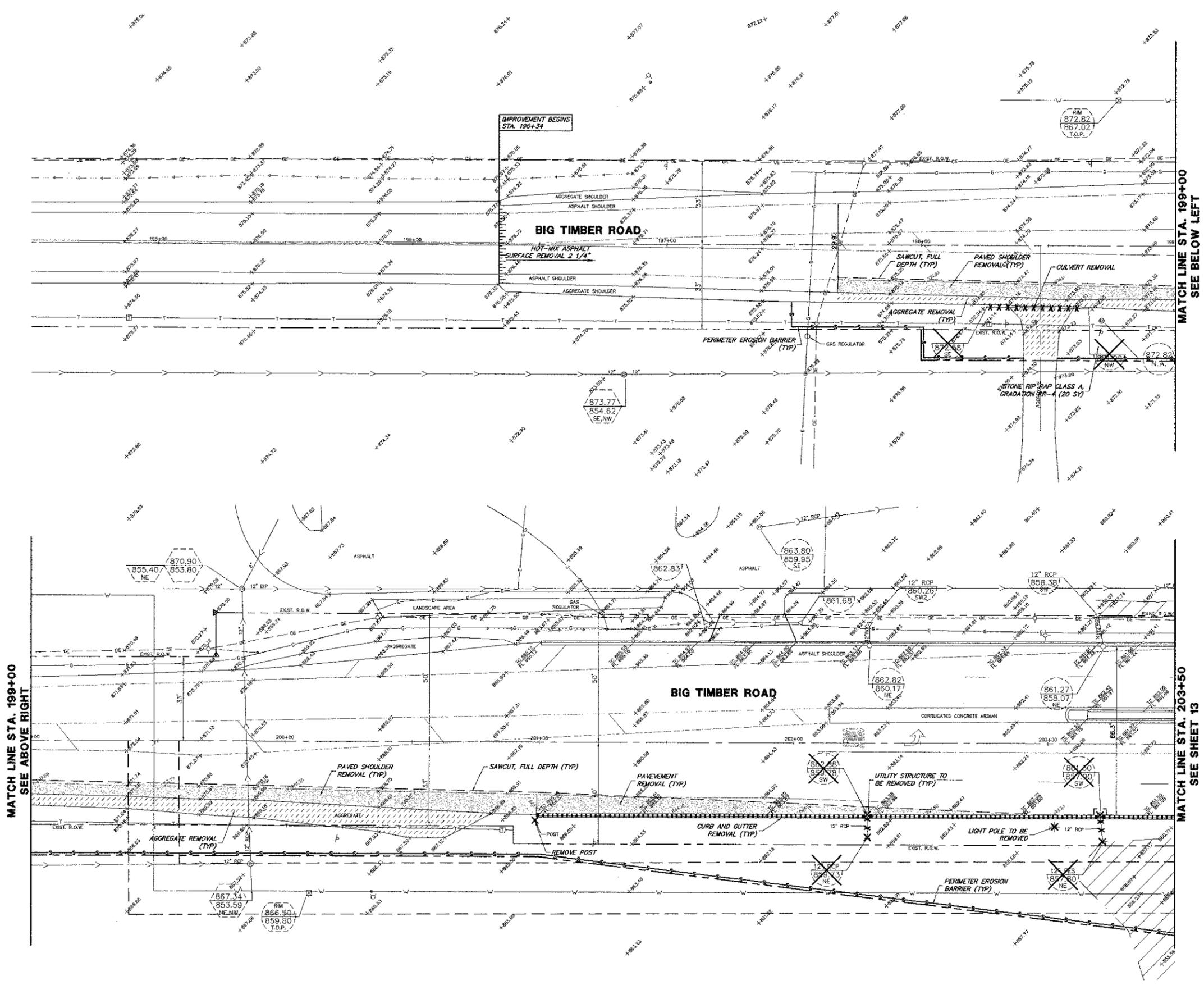
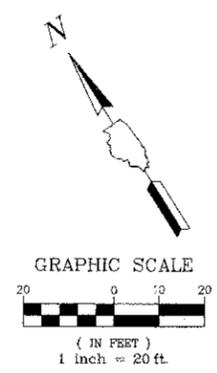
**TYPICAL SECTIONS  
BIG TIMBER ROAD**

SCALE: 1"=10' SHEET NO. OF SHEETS STA. TO STA.

| FAP RATE                  | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 527                       | 08-00369-00-SP | KANE   | 67           | 5         |
| CONTRACT #: 63669         |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

| STORM STRUCTURE SCHEDULE |                   |               |               |
|--------------------------|-------------------|---------------|---------------|
| STRUCTURE #              | TYPE              | FRAME & GRATE | STATION       |
| SS #1                    | INL TY-A, 2' DIA. | TYPE 24       | 202+32, 41' R |
| SS #2                    | CB TY-A, 4' DIA.  | TYPE 24       | 203+21, 41' R |
| SS #3                    | CB TY-A, 4' DIA.  | TYPE 24       | 204+37, 41' R |
| SS #4                    | INL TY-A, 2' DIA. | TYPE 24       | 204+42, 41' R |
| SS #5                    | CB TY-A, 4' DIA.  | TYPE 24       | 206+83, 51' L |
| SS #6                    | INL TY-A, 2' DIA. | TYPE 24       | 206+88, 51' L |
| SS #7                    | CB TY-A, 4' DIA.  | TYPE 24       | 138+70, 41' L |
| FES #1                   | 15" RCP           | Grating       | 198+31, 36' R |
| FES #2                   | 15" RCP           | Grating       | 198+63, 36' R |
| FES #3                   | 12" RCP           |               | 203+31, 58' R |
| FES #4                   | 30" RCP           | Grating       | 204+03, 67' R |
| FES #5                   | 12" RCP           |               | 204+46, 64' R |
| FES #6                   | 24" RCP           | Grating       | 138+40, 55' L |
| FES #7                   | 12" RCP           |               | 138+70, 55' L |

| EARTHWORK SCHEDULE     |    |        |                                       |  |
|------------------------|----|--------|---------------------------------------|--|
| STATION                |    |        | EARTH EXCAVATION (CUT VOLUME) (CU YD) | EARTH EMBANKMENT (FILL VOLUME) (CU YD) |
| <b>BIG TIMBER ROAD</b> |    |        |                                       |  |
| 197+67                 | TO | 198+00 | 2                                     | 0                                      |
| 198+00                 | TO | 198+50 | 8                                     | 0                                      |
| 198+50                 | TO | 199+00 | 22                                    | 1                                      |
| 199+00                 | TO | 199+50 | 38                                    | 12                                     |
| 199+50                 | TO | 200+00 | 43                                    | 15                                     |
| 200+00                 | TO | 200+50 | 39                                    | 6                                      |
| 200+50                 | TO | 201+00 | 24                                    | 2                                      |
| 201+00                 | TO | 201+50 | 7                                     | 3                                      |
| 201+50                 | TO | 202+00 | 16                                    | 21                                     |
| 202+00                 | TO | 202+50 | 31                                    | 57                                     |
| 202+50                 | TO | 203+00 | 25                                    | 91                                     |
| 203+00                 | TO | 203+50 | 25                                    | 154                                    |
| 203+50                 | TO | 204+00 | 29                                    | 223                                    |
| 204+00                 | TO | 204+50 | 30                                    | 257                                    |
| 204+50                 | TO | 205+00 | 38                                    | 259                                    |
| 205+00                 | TO | 205+50 | 51                                    | 190                                    |
| 205+50                 | TO | 206+00 | 41                                    | 79                                     |
| 206+00                 | TO | 206+50 | 13                                    | 11                                     |
| 206+50                 | TO | 207+00 | 0                                     | 0                                      |
| 207+00                 | TO | 207+50 | 1                                     | 0                                      |
| 207+50                 | TO | 208+00 | 1                                     | 0                                      |
| 208+00                 | TO | END    | 0                                     | 0                                      |
| <b>RANDALL ROAD</b>    |    |        |                                       |  |
| 137+00                 | TO | 137+50 | 0                                     | 0                                      |
| 137+50                 | TO | 138+00 | 0                                     | 0                                      |
| 138+00                 | TO | 138+40 | 12                                    | 0                                      |
| 138+40                 | TO | 138+50 | 7                                     | 0                                      |
| 138+50                 | TO | 139+00 | 29                                    | 0                                      |
| 139+00                 | TO | 139+50 | 10                                    | 27                                     |
| 139+50                 | TO | END    | 0                                     | 27                                     |
| <b>TOTALS</b>          |    |        | <b>541</b>                            | <b>1434</b>                            |



MATCH LINE STA. 199+00  
SEE BELOW LEFT

MATCH LINE STA. 199+00  
SEE ABOVE RIGHT

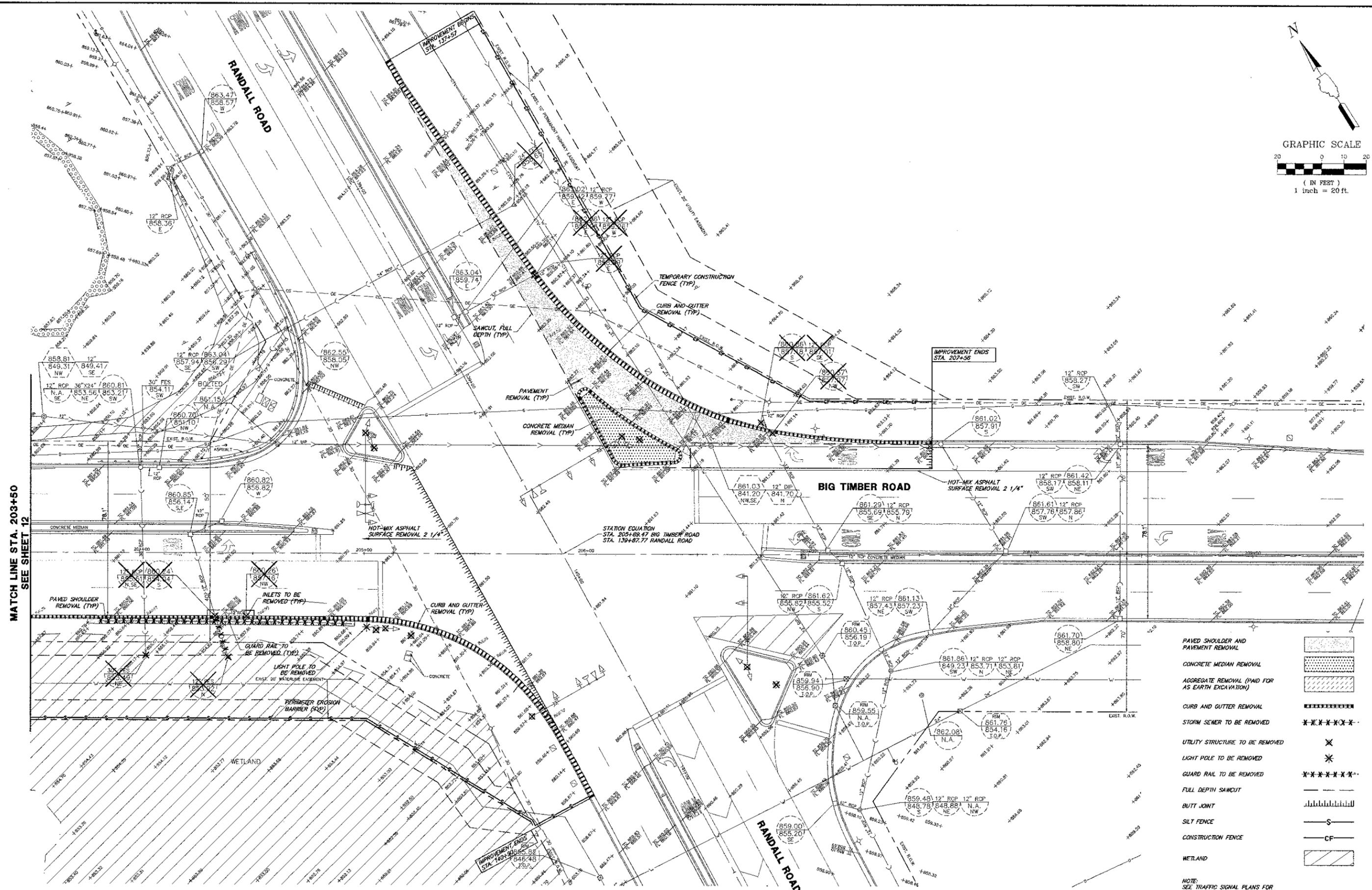
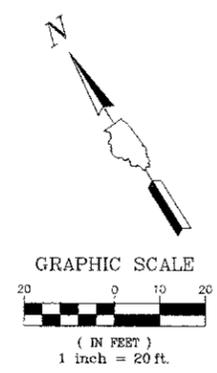
MATCH LINE STA. 203+50  
SEE SHEET 13

**DEMOLITION LEGEND**

|  |  |
|--|--|
| PAVED SHOULDER AND PAVEMENT REMOVAL              |  |
| CONCRETE MEDIAN REMOVAL                          |  |
| AGGREGATE REMOVAL (PAID FOR AS EARTH EXCAVATION) |  |
| CURB AND GUTTER REMOVAL                          |  |
| STORM SEWER TO BE REMOVED                        |  |
| UTILITY STRUCTURE TO BE REMOVED                  |  |
| LIGHT POLE TO BE REMOVED                         |  |
| GUARD RAIL TO BE REMOVED                         |  |
| FULL DEPTH SAWCUT                                |  |
| BUTT JOINT                                       |  |
| SILT FENCE                                       |  |
| CONSTRUCTION FENCE                               |  |
| WETLAND  |  |

NOTE:  
SEE TRAFFIC SIGNAL PLANS FOR TRAFFIC SIGNAL EQUIPMENT REMOVAL

|                                 |                              |                  |           |   |   |                     |              |                           |                        |             |                 |             |
|---------------------------------|------------------------------|------------------|-----------|---|---|---------------------|--------------|---------------------------|------------------------|-------------|-----------------|-------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = BETHANY SUWINSKI | DESIGNED - KLB   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>EXISTING CONDITIONS / DEMOLITION PLAN<br/>BIG TIMBER ROAD STA. 195+00 TO STA. 203+50</b> |                     |              | F.A.P. RTE. 527           | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67 | SHEET NO. 7 |
|                                 | PLOT SCALE = 1" = .0833'     | DRAWN - PJS      | REVISED - |   | SCALE 1" = 20'  | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT # 63669          |                        |             |                 |             |
|                                 | PLOT DATE = 3/21/2012        | CHECKED - KLB    | REVISED - |   |   |                     |              | ILLINOIS FED. AID PROJECT |                        |             |                 |             |
|                                 |                              | DATE - 3/21/2012 | REVISED - |   |   |                     |              |                           |                        |             |                 |             |



MATCH LINE STA. 203+50  
SEE SHEET 12

- PAVED SHOULDER AND PAVEMENT REMOVAL
- CONCRETE MEDIAN REMOVAL
- AGGREGATE REMOVAL (PAID FOR AS EARTH EXCAVATION)
- CURB AND GUTTER REMOVAL
- STORM SEWER TO BE REMOVED
- UTILITY STRUCTURE TO BE REMOVED
- LIGHT POLE TO BE REMOVED
- GUARD RAIL TO BE REMOVED
- FULL DEPTH SAWCUT
- BUTT JOINT
- SILT FENCE
- CONSTRUCTION FENCE
- WETLAND

NOTE:  
SEE TRAFFIC SIGNAL PLANS FOR TRAFFIC SIGNAL EQUIPMENT REMOVAL

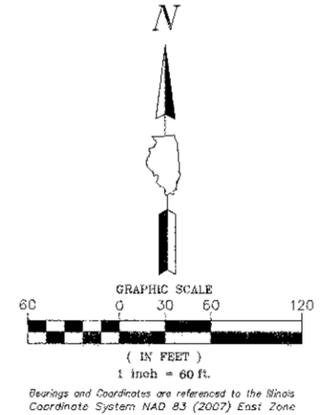
|                                 |                              |                  |           |
|---------------------------------|------------------------------|------------------|-----------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = BETHANY SUWINSKI | DESIGNED - KLB   | REVISED - |
|                                 |                              | DRAWN - PJS      | REVISED - |
|                                 |                              | CHECKED - KLB    | REVISED - |
|                                 |                              | DATE - 3/21/2012 | REVISED - |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

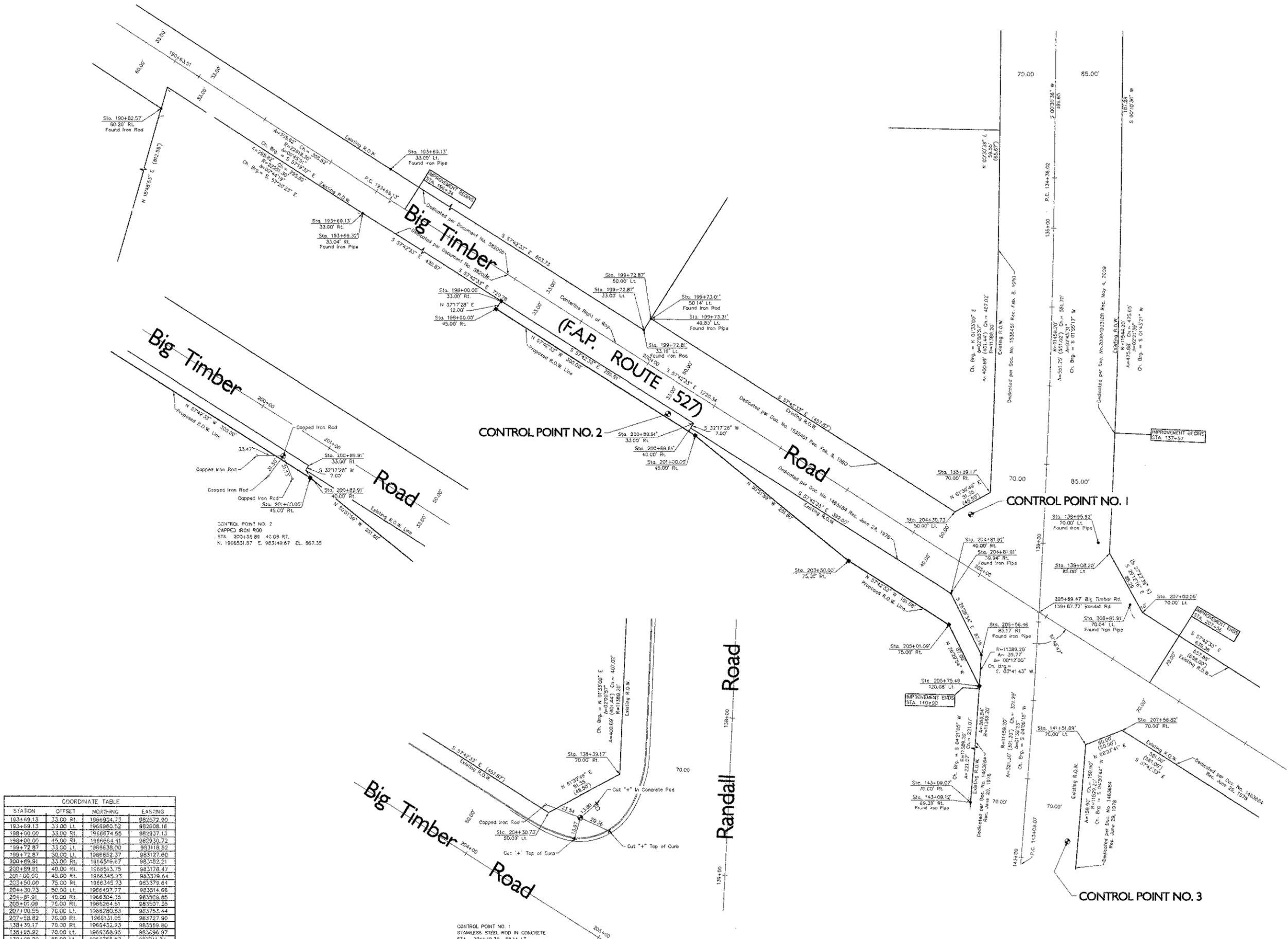
**EXISTING CONDITIONS / DEMOLITION PLAN  
BIG TIMBER ROAD STA. 203+50 TO STA. 209+50**

| F.P. R.T.E.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 527                       | 08-00369-00-SP | KANE   | 67           | 8         |
| CONTRACT #                |                |        | 63669        |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

SCALE 1"=20'    SHEET NO. OF SHEETS    STA. TO STA.



Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83 (2007) East Zone



CONTROL POINT NO. 2  
CAPPED IRON ROD  
STA. 200+55.89 40.08 RT.  
N. 1966531.87 E. 983149.67 EL. 567.35

CONTROL POINT NO. 3  
CAPPED IRON ROD  
STA. 142+74.64 57.01 LT.  
N. 1965988.84 E. 983658.85 EL. 857.04

CONTROL POINT NO. 1  
STAINLESS STEEL ROD IN CONCRETE  
STA. 204+49.39 58.14 LT.  
N. 1966404.68 E. 983534.79 EL. 880.25

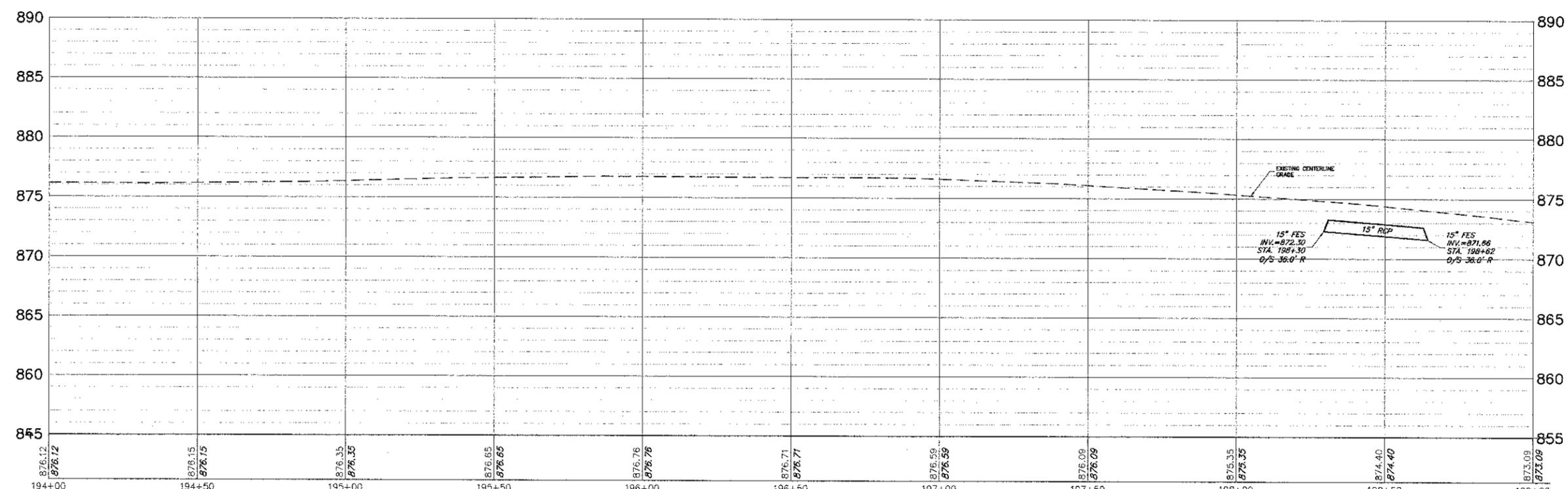
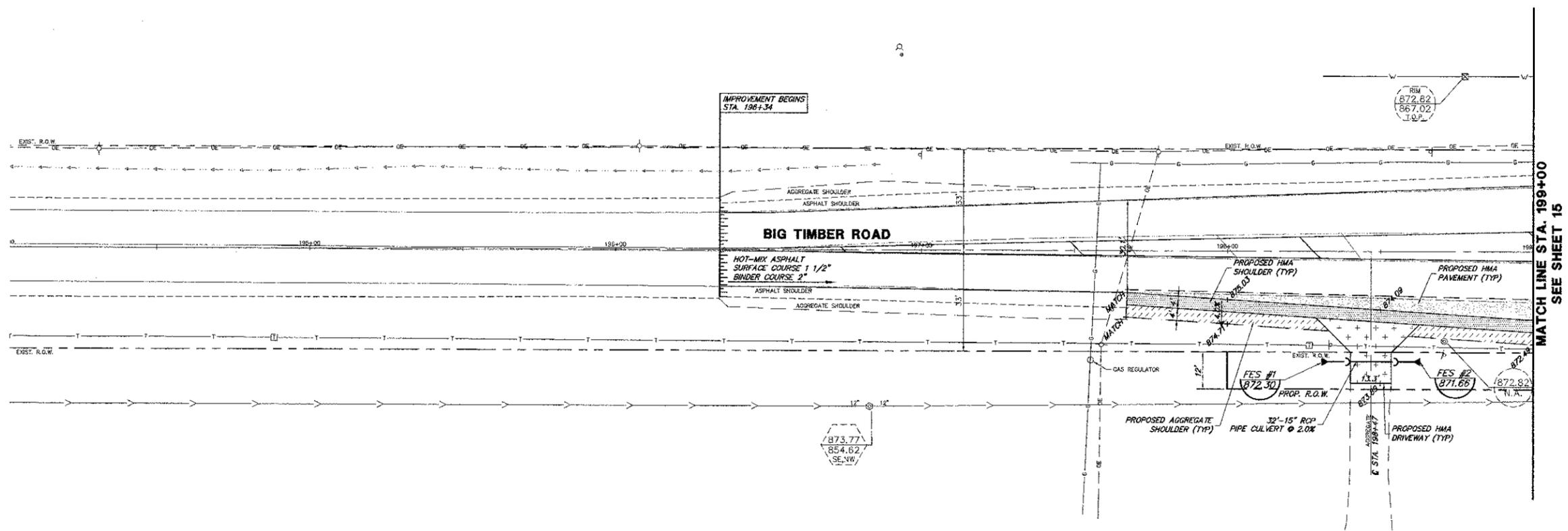
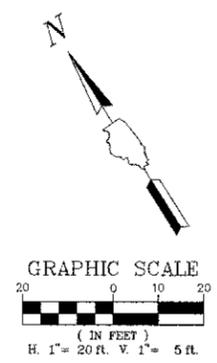
| STATION   | OFFSET     | NORTHING   | EASTING   |
|-----------|------------|------------|-----------|
| 193+89.13 | 33.00 RT.  | 1966924.73 | 987572.92 |
| 193+59.13 | 33.00 LT.  | 1966960.52 | 982608.16 |
| 198+00.00 | 33.00 RT.  | 1966674.56 | 982937.13 |
| 198+00.00 | 45.00 RT.  | 1966654.41 | 982930.72 |
| 199+72.87 | 33.00 LT.  | 1966638.00 | 983118.52 |
| 199+72.87 | 50.00 LT.  | 1966652.37 | 983127.80 |
| 200+89.91 | 33.00 RT.  | 1966519.67 | 983382.21 |
| 200+89.91 | 40.00 RT.  | 1966513.75 | 983178.47 |
| 201+00.00 | 45.00 RT.  | 1966345.23 | 983379.84 |
| 203+50.00 | 75.00 RT.  | 1966348.73 | 983379.84 |
| 204+30.73 | 80.00 LT.  | 1966407.77 | 983514.66 |
| 204+81.91 | 40.00 RT.  | 1966304.35 | 983509.85 |
| 205+01.09 | 75.00 RT.  | 1966264.51 | 983507.25 |
| 207+00.55 | 70.00 LT.  | 1966280.53 | 983753.44 |
| 207+58.82 | 70.00 RT.  | 1966131.05 | 984727.92 |
| 138+39.17 | 70.00 RT.  | 1966432.23 | 983589.80 |
| 138+95.82 | 70.00 LT.  | 1966168.95 | 983629.97 |
| 139+08.20 | 85.00 LT.  | 1966156.87 | 983711.34 |
| 205+56.46 | 85.17 RT.  | 1966276.34 | 983548.74 |
| 205+73.49 | 120.08 RT. | 1966186.66 | 983546.17 |
| 141+51.09 | 70.00 LT.  | 1966112.70 | 983581.38 |
| 143+09.07 | 70.00 RT.  | 1965968.22 | 983529.40 |

| PARCEL NUMBER | OWNER   | TOTAL HOLDINGS ACRES | PART TAKEN ACRES | REMAINDER AREA ACRES | EASEMENT AREA ACRES | PERMANENT INDEX NUMBER                          |
|---------------|---|----------------------|------------------|----------------------|---------------------|---|
| XXXXXX        | THE FINANCIAL CORPORATION OF ILLINOIS, A DELAWARE CORPORATION | 71.400 (Tax Map)     | 0.349            | 71.051               | N/A                 | 06-04-100-007<br>06-04-300-021<br>06-31-400-033 |

**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
850 Forest Edge Drive ■ Vernon Hills, IL 60061  
TEL 847.478.9700 ■ FAX 847.478.9701

ALIGNMENT, TIES & BENCHMARKS  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
F.A.P. 527 (BIG TIMBER ROAD)  
SECTION 09-00269-00-SP KANE COUNTY  
PROJECT HSP-9003(GS) JOB NO. C-91-509-08  
STATION 198+34 TO STATION 207+96  
SCALE: 1"=60' SHEET 9 OF 67

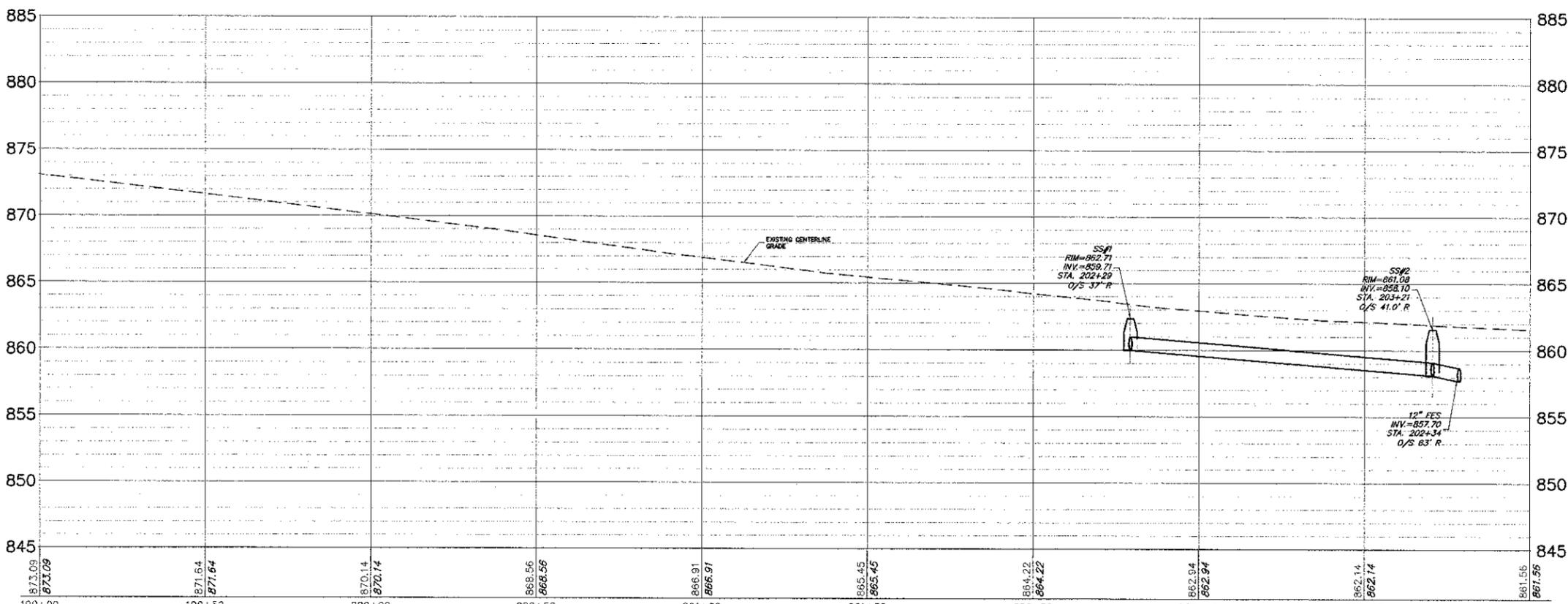
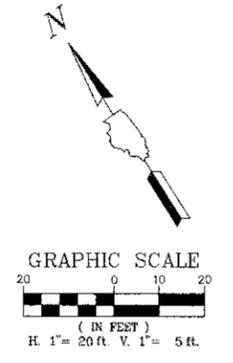
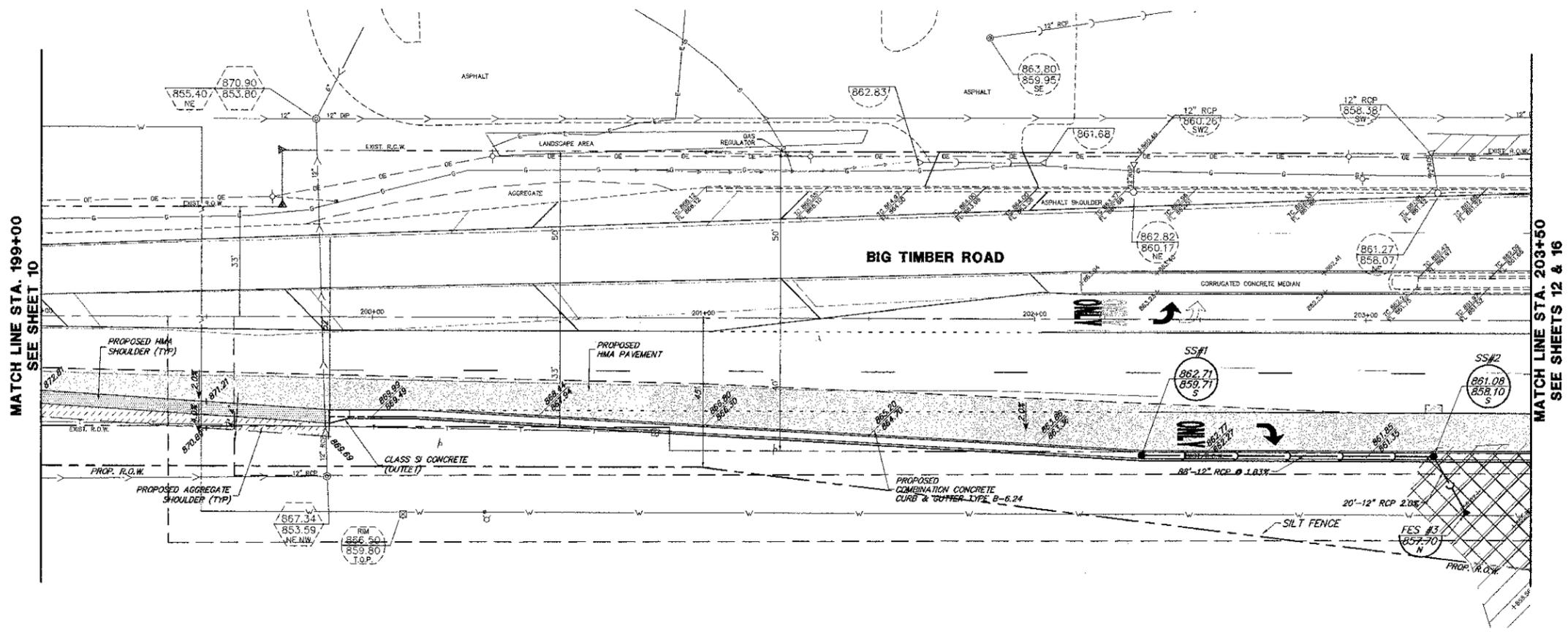
BUREAU OF LAND ACQUISITION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196



**PROPOSED CONDITIONS LEGEND**

|                                       |  |
|---------------------------------------|--|
| HMA PAVEMENT<br>(SEE TYPICAL SECTION) |  |
| HMA SHOULDER, 8"                      |  |
| AGGREGATE SHOULDER, 8"                |  |
| HMA DRIVEWAY PAVEMENT                 |  |
| WETLAND                               |  |
| B6.24 CURB AND GUTTER                 |  |
| B6.24 CURB AND GUTTER DEPRESSED       |  |

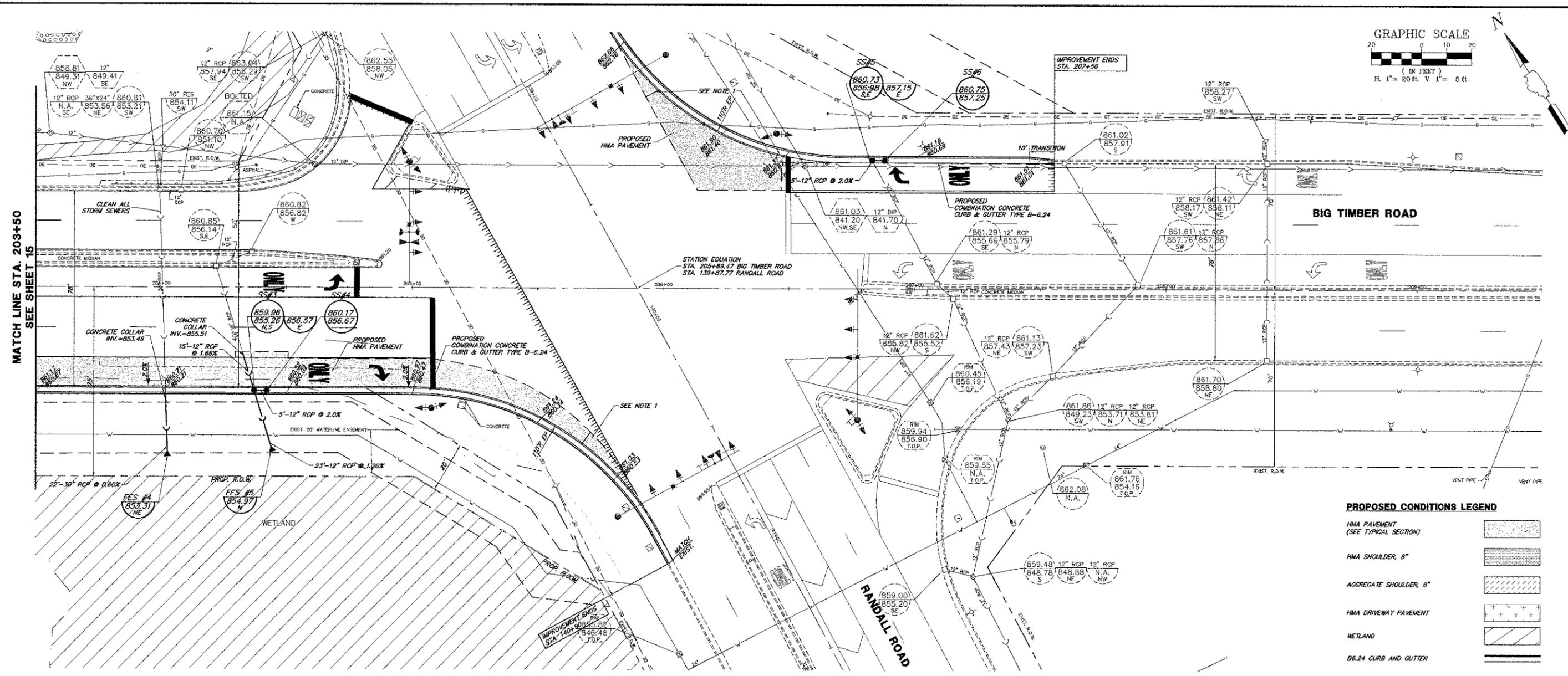
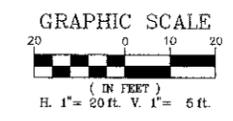
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|---------------------------------|------------------------------|------------------|-----------|---|--|---------------------|--------------|------------------|---------------------------|----------------|--------------------|-----------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = BETHANY SUWINSKI | DESIGNED - KLB   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PLAN AND PROFILE<br/>BIG TIMBER ROAD STA. 194+00 TO STA. 199+00</b> |                     |              | FAR<br>RTE. 527  | SECTION<br>08-00369-00-SP | COUNTY<br>KANE | TOTAL<br>SHEETS 67 | SHEET<br>NO. 10 |
| PLOT SCALE = 1" = .0633'        |                              | CHECKED - KLB    | REVISED - |   | SCALE 1"=20'   | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT # 63669 |                           |                |                    |                 |
| PLOT DATE = 3/21/2012           |                              | DATE - 3/21/2012 | REVISED - |   | ILLINOIS FED. AID PROJECT  |                     |              |                  |                           |                |                    |                 |



**PROPOSED CONDITIONS LEGEND**

|                                    |  |
|------------------------------------|--|
| HMA PAVEMENT (SEE TYPICAL SECTION) |  |
| HMA SHOULDER, 8"                   |  |
| AGGREGATE SHOULDER, 8"             |  |
| HMA DRIVEWAY PAVEMENT              |  |
| WETLAND                            |  |
| 86-24 CURB AND GUTTER              |  |
| 86-24 CURB AND GUTTER DEPRESSED    |  |

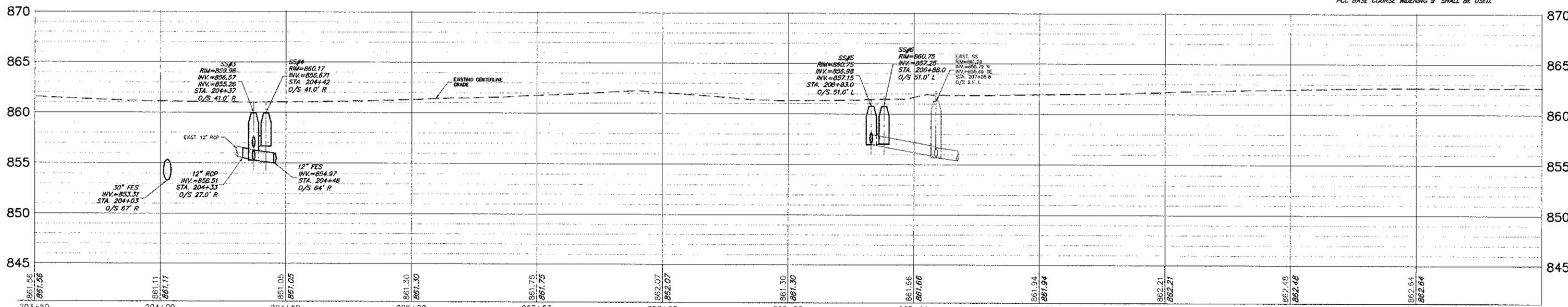
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| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = BETHANY SUWINSKI | DESIGNED - KLB | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PLAN AND PROFILE<br/>BIG TIMBER ROAD STA. 199+00 TO STA. 203+50</b> |                |                                  | F.A.P. RATE | SECTION          | COUNTY | TOTAL SHEETS              | SHEET NO. |
|                                 | PLOT SCALE = 1" = .0833'     | DRAWN - PJS    | REVISED - |   | 527  | 08-00369-00-SP | KANE                             | 67          | 11               |        |                           |           |
|                                 | PLOT DATE = 3/21/2012        | CHECKED - KLB  | REVISED - |   | SCALE 1"=20'   |                | SHEET NO. OF SHEETS STA. TO STA. |             | CONTRACT # 63669 |        | ILLINOIS FED. AID PROJECT |           |



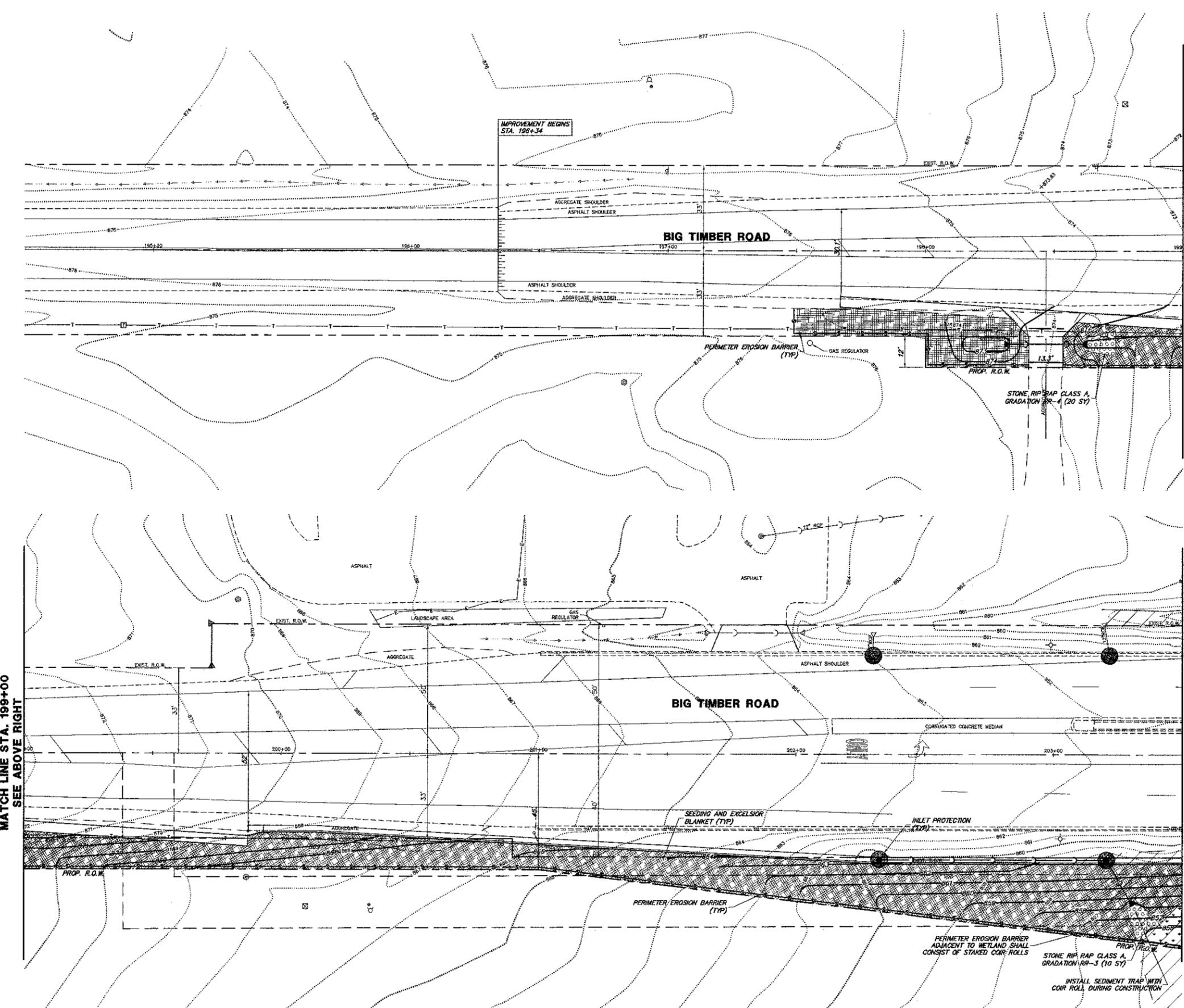
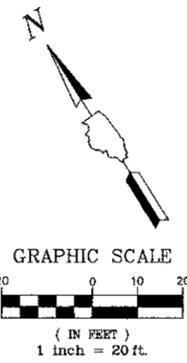
**PROPOSED CONDITIONS LEGEND**

|                                    |  |
|------------------------------------|--|
| HMA PAVEMENT (SEE TYPICAL SECTION) |  |
| HMA SHOULDER, 8"                   |  |
| AGGREGATE SHOULDER, 8"             |  |
| HMA DRIVEWAY PAVEMENT              |  |
| WETLAND                            |  |
| B6.24 CURB AND GUTTER              |  |

NOTE 1: WHEN PAVEMENT WIDENING IS 6' WIDE OR LESS, RCP BASE COURSE WIDENING 9" SHALL BE USED.



|                              |                             |                  |           |   |  |                     |              |                           |                 |                        |             |                 |              |
|------------------------------|-----------------------------|------------------|-----------|---|--|---------------------|--------------|---------------------------|-----------------|------------------------|-------------|-----------------|--------------|
| FILE NAME = 4459.000-PR3.dwg | USER NAME = BETHANY SUMMSKI | DESIGNED - KLB   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PLAN AND PROFILE<br/>BIG TIMBER ROAD STA. 203+50 TO STA. 209+50</b> |                     |              |                           | F.A.P. RITE 527 | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67 | SHEET NO. 12 |
| PLOT SCALE = 1" = .0833'     | DATE = 3/21/2012            | DRAWN - PJS      | REVISED - |   | SCALE 1" = 20'   | SHEET NO. OF SHEETS | STA. TO STA. | ILLINOIS FED. AID PROJECT |                 |                        |             |                 |              |
| PLOT DATE = 3/21/2012        | DATE = 3/21/2012            | CHECKED - KLB    | REVISED - |   | CONTRACT # 63669   |                     |              |                           |                 |                        |             |                 |              |
|                              |                             | DATE = 3/21/2012 | REVISED - |   |  |                     |              |                           |                 |                        |             |                 |              |



**EROSION CONTROL LEGEND**

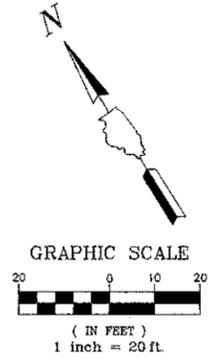
|  |  |
|--|--|
| SEEDING CLASS 2A<br>EXCELSIOR BLANKET (NAG 75)         |  |
| SEEDING CLASS 4<br>EXCELSIOR BLANKET (NAG 75)          |  |
| STORM SEWER INLET PROTECTION<br>-- INLET FILTER BASKET |  |
| STONE RIP RAP<br>CLASS A                               |  |
| PERIMETER EROSION BARRIER                              |  |
| TEMPORARY CONSTRUCTION FENCE                           |  |
| DITCH CHECK<br>-- GEO-RIDGE                            |  |
| SEDIMENT TRAP<br>WITH COIR ROLL                        |  |

**NOTES:**  
 TEMPORARY SEEDING SHALL BE INITIATED AFTER 7 DAYS IF AN AREA IS TO SIT IDLE FOR MORE THAN 14 DAYS. COST OF TEMPORARY EROSION CONTROL SEEDING SHALL BE CONSIDERED INCLUDED IN THE COST OF SEEDING CLASS 2A.  
 DURING CONSTRUCTION CONTRACTOR SHALL CONSTRUCT AND MAINTAIN SEDIMENT TRAPS WITH COIR ROLLS AT EACH LOCATION SPECIFIED. UPON FINAL RESTORATION THE SEDIMENT TRAPS SHALL BE CLEANED OUT AND STONE RIP RAP AND FABRIC SHALL BE INSTALLED. COST OF SEDIMENT TRAPS SHALL BE INCLUDED IN THE COST OF STONE RIP RAP.

MATCH LINE STA. 199+00  
SEE ABOVE RIGHT

MATCH LINE STA. 203+50  
SEE SHEET 14

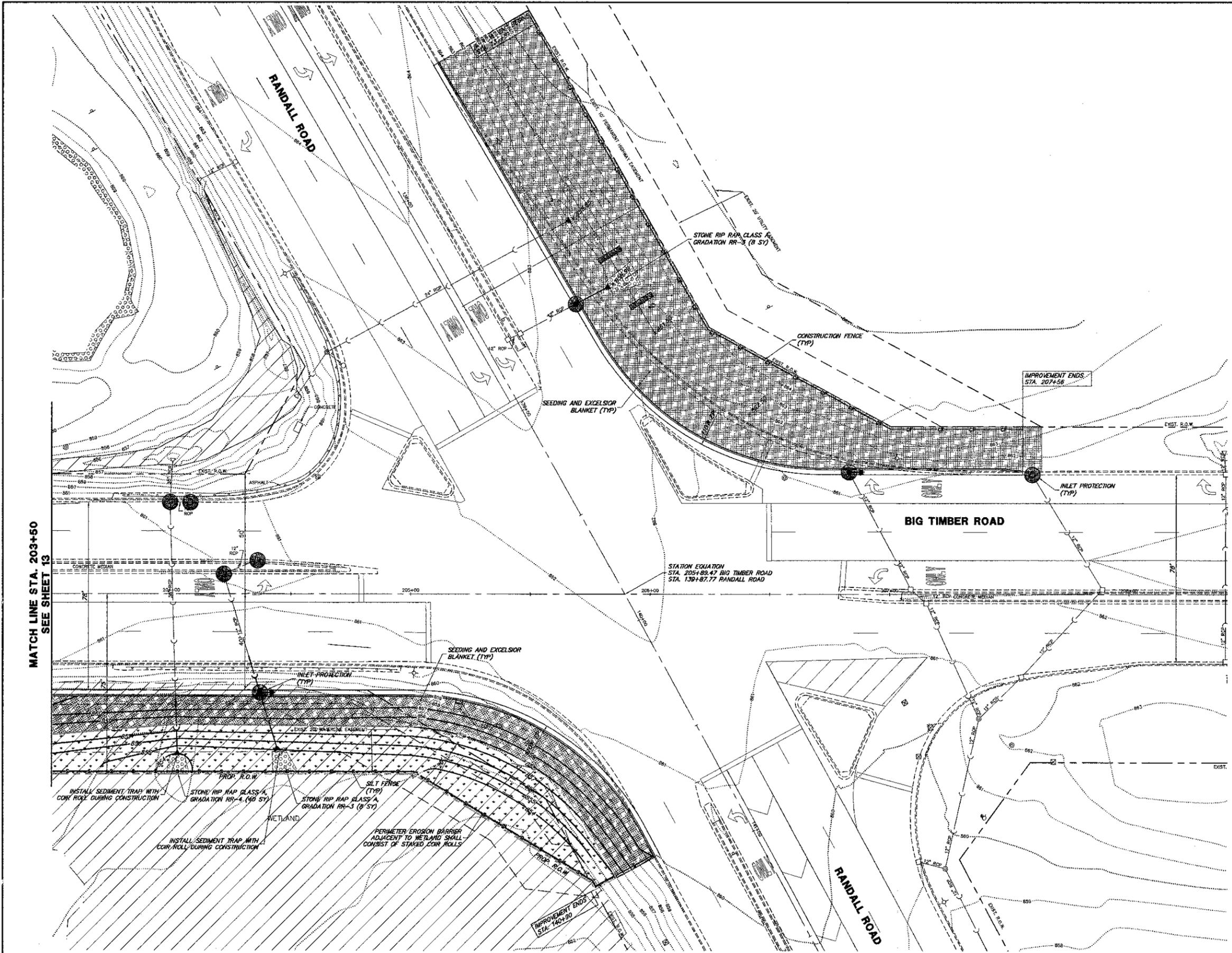
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|---------------------------------|----------------------------|----------------|-----------|---|---|----|--------|--------------|----------------|--------|------------------|---------------------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = GEORGE WHITTEN | DESIGNED - KLB | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SOIL EROSION AND SEDIMENT CONTROL PLANS<br/>BIG TIMBER ROAD STA. 195+00 TO STA. 203+50</b> |    |        | FAP.<br>RTE. | SECTION        | COUNTY | TOTAL<br>SHEETS  | SHEET<br>NO.              |
|                                 | PLOT SCALE = 1" = .0833'   | CHECKED - KLB  | REVISED - |   |   |    |        | 527          | 08-00369-00-SP | KANE   | 67               | 13                        |
| PLOT DATE = 3/21/2012           | DATE - 3/21/2012           | REVISED -      | REVISED - | SCALE 1"=20'  | SHEET NO.   | OF | SHEETS | STA.         | TO             | STA.   | CONTRACT # 83669 | ILLINOIS FED. AID PROJECT |



**EROSION CONTROL LEGEND**

- SEEDING CLASS 2A  
EXCELSIOR BLANKET (NAG 75)
- SEEDING CLASS 4  
EXCELSIOR BLANKET (NAG 75)
- STORM SEWER INLET PROTECTION  
- INLET FILTER BASKET
- STONE RIP RAP  
CLASS A
- PERIMETER EROSION BARRIER
- TEMPORARY CONSTRUCTION FENCE
- DITCH CHECK  
- GEO-RIDGE
- SEDIMENT TRAP  
WITH COIR ROLL

**NOTES:**  
 TEMPORARY SEEDING SHALL BE INITIATED AFTER 7 DAYS IF AN AREA IS TO SIT IDLE FOR MORE THEN 14 DAYS. COST OF TEMPORARY EROSION CONTROL SEEDING SHALL BE CONSIDERED INCLUDED IN THE COST OF SEEDING CLASS 2A.  
 DURING CONSTRUCTION CONTRACTOR SHALL CONSTRUCT AND MAINTAIN SEDIMENT TRAPS WITH COIR ROLLS AT EACH LOCATION SPECIFIED. UPON FINAL RESTORATION THE SEDIMENT TRAPS SHALL BE CLEANED OUT AND STONE RIP RAP AND FABRIC SHALL BE INSTALLED. COST OF SEDIMENT TRAPS SHALL BE INCLUDED IN THE COST OF STONE RIP RAP.



MATCH LINE STA. 203+50  
SEE SHEET 13

|                                 |                           |                |           |   |   |                |           |         |                 |              |         |                           |
|---------------------------------|---------------------------|----------------|-----------|---|---|----------------|-----------|---------|-----------------|--------------|---------|---------------------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = GEORGE WHITEN | DESIGNED - KLB | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SOIL EROSION AND SEDIMENT CONTROL PLANS<br/>BIG TIMBER ROAD STA. 203+50 TO STA. 208+50</b> | F.A.P.<br>RTE. | SECTION   | COUNTY  | TOTAL<br>SHEETS | SHEET<br>NO. |         |                           |
| PLOT SCALE = 1" = .0633'        |                           |                |           |   |   | SCALE 1"=20'   | SHEET NO. | OF      | SHEETS          | STA.         | TO STA. | ILLINOIS FED. AID PROJECT |
| PLOT DATE = 3/21/2012           |                           |                |           |   |   | DATE           | 3/21/2012 | REVISED | -               | CONTRACT #   | 63669   | KANE                      |
| DRAWN - PJS                     |                           |                |           |   |   | CHECKED        | KLB       | REVISED | -               | TOTAL SHEETS | 67      | SHEET NO.                 |

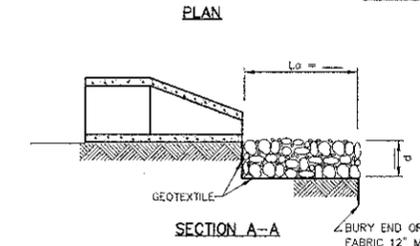
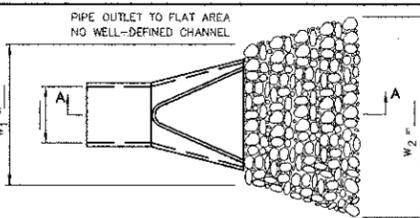
**SEDIMENTATION AND EROSION CONTROL NOTES**

- A. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- B. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- C. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- D. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
- E. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR.
- F. ANY SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- G. SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES.
- H. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (e.g. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE).
- I. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.

**PROJECT CONSTRUCTION SEQUENCE**

1. INSTALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL FEATURES AS SHOWN.
  - A. INSTALL PERIMETER SILT FENCE.
  - B. INSTALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL BASKETS ON ANY EXISTING OPEN GRATE STRUCTURE WITHIN PROJECT LIMITS.
2. CONSTRUCT STORM SEWER IMPROVEMENTS.
  - A. INSTALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL BASKETS AS STORM SEWERS ARE COMPLETED.
  - B. INSTALL RIP RAP AT FES OUTFALLS.
  - C. INSTALL DITCH CHECKS.
  - D. INSTALL CONCRETE WASHOUT.
3. CONSTRUCT ROAD IMPROVEMENTS AS SHOWN.
4. RESTORE PARKWAY AS DETAILED.
5. MAINTAIN EROSION CONTROL MEASURES UNTIL SITE HAS BEEN COMPLETELY RESTORED.
6. REMOVE TEMPORARY DITCH CHECKS, SOIL EROSION AND SEDIMENT CONTROL BASKETS, SILT FENCE AND COIR LOSS AFTER COVER CROP IS ESTABLISHED.

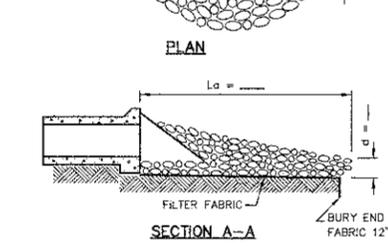
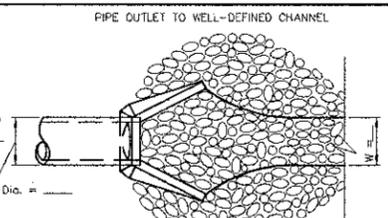
**PIPE OUTLET TO FLAT AREA**



- NOTES:
1. ALL GEOTEXTILE SHALL BE NON-WOVEN TABLE 1, CLASS 2 MATERIAL.
  2. THE RIPRAP SHALL BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 61 LOOSE ROCK RIPRAP. THE ROCK MAY BE EQUIPMENT PLACED.

|          |      |         |      |
|----------|------|---------|------|
| DESIGNED | DATE | PROJECT | DATE |
| CHECKED  | DATE | PROJECT | DATE |
| APPROVED | DATE | PROJECT | DATE |

**PIPE OUTLET TO CHANNEL**



- NOTES:
1. ALL GEOTEXTILE SHALL BE NON-WOVEN TABLE 1, CLASS 2 MATERIAL.
  2. THE RIPRAP SHALL BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 61 LOOSE ROCK RIPRAP. THE ROCK MAY BE EQUIPMENT PLACED.

|          |      |         |      |
|----------|------|---------|------|
| DESIGNED | DATE | PROJECT | DATE |
| CHECKED  | DATE | PROJECT | DATE |
| APPROVED | DATE | PROJECT | DATE |

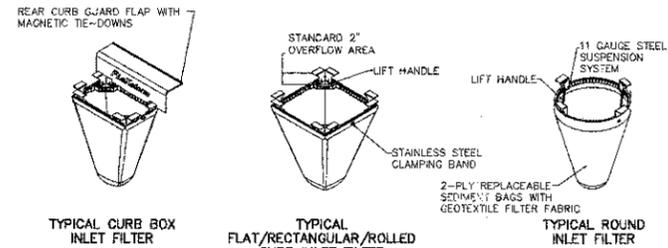
Gewalt Hamilton Associates, Inc.  
Rip Rap Sizing Calculations

Randall Road at Big Timber Road,  
City of Elgin

Project No. 4459  
By: BVS  
Date: 11/16/2011

| Structure No. | Type   | Pipe Dia. (inch) | Tailwater | Maximum Pipe Velocity (fps) | Rock Gradation | Blanket Thickness (in) | Apron Length La (feet) | Apron Width (feet) |                | Area (sq. yard) |
|---------------|--------|------------------|-----------|-----------------------------|----------------|------------------------|------------------------|--------------------|----------------|-----------------|
|               |        |                  |           |                             |                |                        |                        | upstream end       | downstream end |                 |
| FES 2         | Outlet | 15               | Minimum   | 5                           | No. 4          | 15                     | 16                     | 3.8                | 17.3           | 20.0            |
| FES 3         | Outlet | 12               | Minimum   | 5                           | No. 3          | 15                     | 12                     | 3.0                | 13.0           | 10.0            |
| FES 4         | Outlet | 30               | Minimum   | 5                           | No. 4          | 15                     | 22                     | 7.5                | 24.5           | 40.0            |
| FES 5         | Outlet | 12               | Minimum   | 5                           | No. 3          | 15                     | 10                     | 3.0                | 11.0           | 8.0             |
| FES 7         | Outlet | 12               | Minimum   | 5                           | No. 3          | 15                     | 10                     | 3.0                | 11.0           | 8.0             |
|               |        |                  |           |                             |                |                        |                        |                    | Total Area =   | 86.0            |

Notes:  
1. Rip rap sizing is based on Code 910 of Illinois Urban Manual.

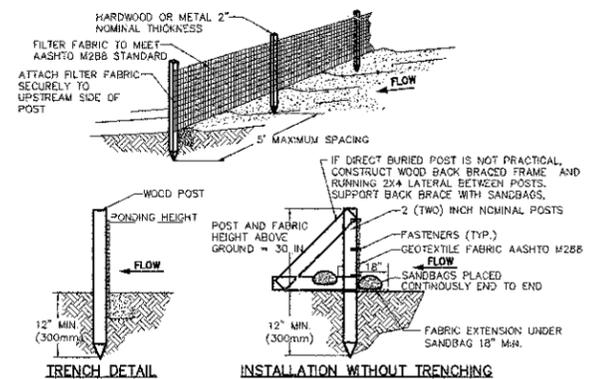


ACCEPTABLE MANUFACTURER'S AS LISTED BELOW 1. INLET & PIPE PROTECTION, INC., Naperville, IL 60564 847 722-0690  
2. MARATHON MATERIALS, INC. Plainfield, IL 60544 800-983-9493

MAINTENANCE  
1. CLEAN OUT AFTER EVERY RAIN EVENT

| Material Property                                   | Test Method | Value (min. req.)   |
|---|-------------|---|
| Inlet Filter Bag Specs (20' min. roll)              |             | Non-Woven Woven Mono                                      |
| Drop Tensile  | ASTM D 4832 | 100 lb./2" 200 lb.  |
| Tensile Strength                                    | ASTM D 4832 | 45 lbs 30 lbs   |
| Trapezoidal Tear                                    | ASTM D 4832 | 45 lbs 75 lbs   |
| UV Resistance                                       | ASTM D 4355 | 7000 hr 500 hrs 90%                                       |
| App. Open Size (AOS)                                | ASTM C 4751 | 30 mesh (425 mic) 40 mesh (425 mic)                       |
| Promittivity  | ASTM D 4491 | 2.0/sec 2.1/sec   |
| Water Flow Rate                                     | ASTM D 4491 | 145 gpm/sqft 145gpm/sqft                                  |
| 2. Polyester Outer Reinforcement Bag Specifications |             |   |
| Weight  | ASTM D 3778 | 4.55 oz/sqyd +/-15%                                       |
| Thickness   | ASTM D 1777 | .040 +/- .005   |
| 3. Frame Construction                               |             |   |
| A30 Structures Steel                                |             | Tensile Strength > 58,000 psi Yield Strength > 36,000 psi |
| 11 Gauge Zinc Plated                                | ASTM A 576  |   |

**INLET FILTER BASKET DETAIL**



1. SET POSTS AND EXCAVATE OR SLIT-TRENCH A 6-INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF THE POST.
2. ATTACH AASHTO GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3(THREE) FASTENERS PER POST AND EXTEND TO THE BOTTOM OF THE TRENCH. ACCEPTABLE FASTENERS INCLUDE STAPLES, ZIP-TIES, OR WIRE TIES.
3. BACKFILL AND COMPACT THE EXCAVATED SOIL MATERIALS.

| PROPERTY        | TEST PROCEDURE            |
|-----------------|---------------------------|
| Grab Specimen   |                           |
| Machinability   | ASTM D-4533 123 lbs       |
| 2-Machinability | ASTM D-4833 100 lbs       |
| Permeability    | ASTM D-4491 0.006 sec     |
| A.S.O.          | ASTM D-4751 30 u.s. Sieve |
| UV Stability    | ASTM D-4355 70%           |

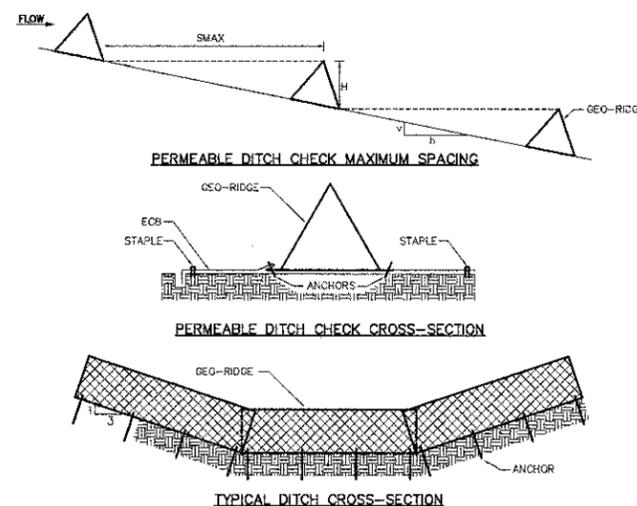
- NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
  2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
  3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
  4. FABRIC AND INSTALLATION SHALL MEET THE REQUIREMENTS OF AASHTO STANDARD SPECIFICATION M-288-00.
  5. SLICING METHOD IS PREFERRED.

**SILT FENCE INSTALLATION DETAIL**



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
  2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
  3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
  4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
  5. CONSECUTIVE RECP'S SPUN DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.
- NOTE:  
\*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

**EROSION CONTROL BLANKET SLOPE INSTALLATION**



- NOTES:
1. THE PERMEABLE DITCH CHECK SHALL BE GEO-RIDGE, OR EQUIVALENT.
  2. THE PERMEABLE DITCH CHECK SHALL BE ANCHORED WITH 10" GALVANIZED BROOK SPIKES WITH A 3/8" X 1.5" GALVANIZED WASHER.
  3. THE EROSION CONTROL BLANKET (ECB) SHALL BE A MACHINE-PRODUCED MAT OF 100% COCONUT FIBER MATRIX STITCH BONDED WITH UV STABILIZED THREAD BETWEEN TWO UV STABILIZED POLYPROPYLENE NETTINGS. THE ECB SHALL BE C125 AS MANUFACTURED BY NORTH AMERICAN GREEN (NAG), OR EQUIVALENT.
  4. THE PERMEABLE DITCH CHECK SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
  5. THE PERMEABLE DITCH CHECK SHALL BE CLEANED WHEN SEDIMENT HAS ACCUMULATED HALF THE HEIGHT OF THE DITCH CHECK.
  6. THE PERMEABLE DITCH CHECK SHALL BE REMOVED ONLY AFTER SITE HAS ACHIEVED FULL STABILIZATION.
  7. THE DEGRADABLE VERSION SHALL ONLY BE USED ON TOP OF AN EROSION CONTROL BLANKET, TURF REINFORCEMENT MAT OR STABILIZED AREA.

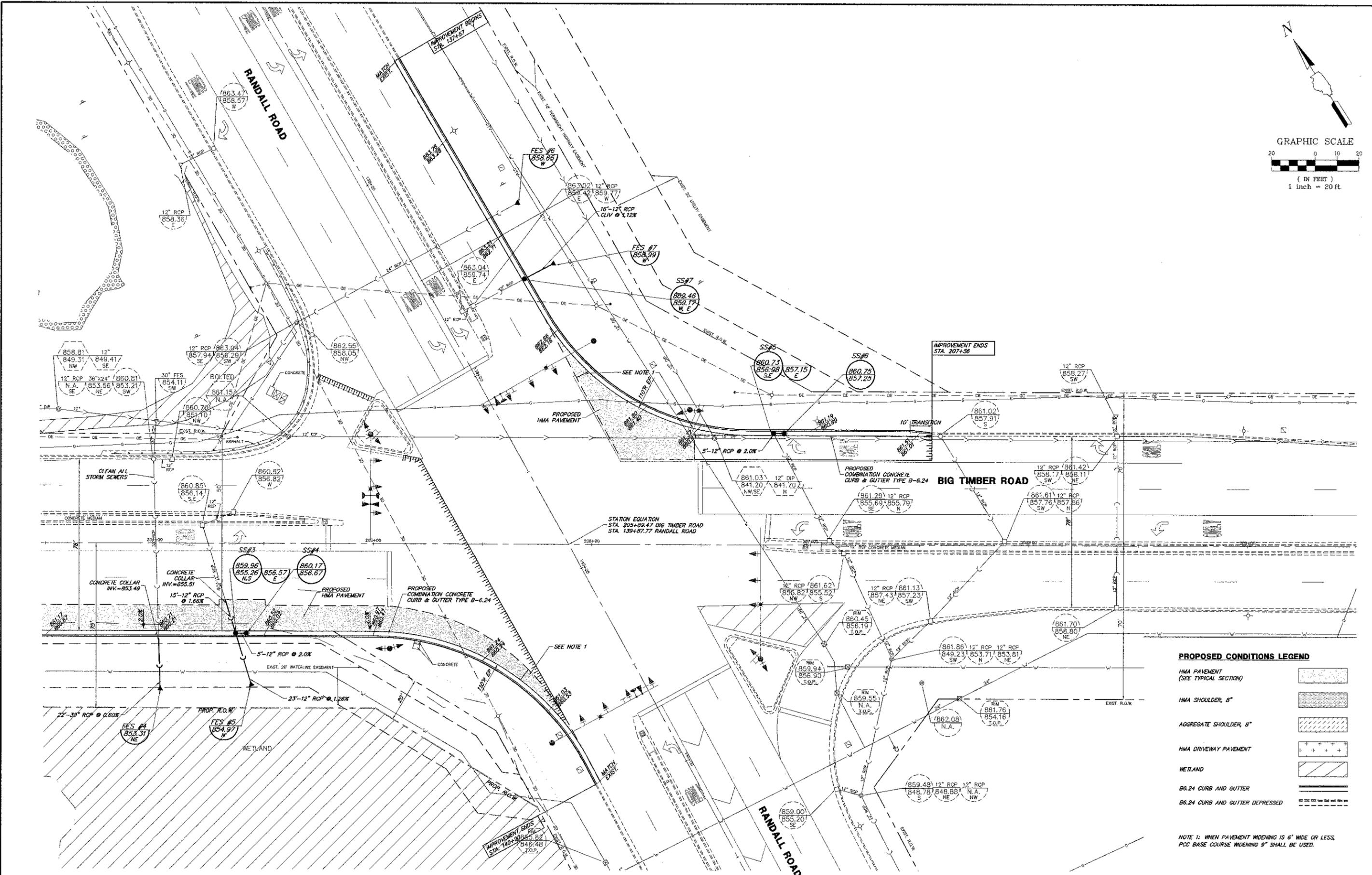
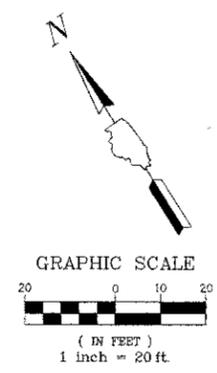
**GEO-RIDGE PERMEABLE DITCH CHECK**



- STAPLE PLACEMENTS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. SEE STAPLE PATTERN GUIDES FOR ACTUAL RECOMMENDED PLACEMENTS.
- \* USE 9LB DENSITY 12" DIAMETER, 20' LONG COIR LOG POLYNET FOR STANDARD CIRCULAR DRAINAGE STRUCTURES. PLACE THE COIR LOG AROUND THE STRUCTURE AND JOIN THE ENDS TOGETHER WITH COIR TWINE. USE 2"x2"x24" WOODEN STAKES SPACED 3' APART TO HOLD DOWN LOG POLYNET.

**COIR ROLL DETAIL**

|                              |                         |                |           |   |   |                |                        |              |                           |              |                  |  |  |
|------------------------------|-------------------------|----------------|-----------|---|---|----------------|------------------------|--------------|---------------------------|--------------|------------------|--|--|
| FILE NAME = 4459.000-PR3.dwg | USER NAME = PAUL SWATEK | DESIGNED - KLS | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SOIL EROSION AND SEDIMENT CONTROL PLANS<br/>BIG TIMBER ROAD STA. 203+50 TO STA. 208+50</b> | FAP RFE. 527   | SECTION 08-00369-00-SP | COUNTY KANE  | TOTAL SHEETS 67           | SHEET NO. 15 | CONTRACT # 63669 |  |  |
| PLOT SCALE = 1" = .0833'     | CHECKED - KLB           | DRAWN - PJS    | REVISED - |   |   | SCALE 1" = 20' | SHEET NO. OF SHEETS    | STA. TO STA. | ILLINOIS FED. AID PROJECT |              |                  |  |  |
| PLOT DATE = 3/21/2012        | DATE - 3/21/2012        | CHECKED - KLB  | REVISED - |   |   |                |                        |              |                           |              |                  |  |  |
|                              |                         |                |           |   |   |                |                        |              |                           |              |                  |  |  |



**PROPOSED CONDITIONS LEGEND**

- HMA PAVEMENT (SEE TYPICAL SECTION)
- HMA SHOULDER, 8"
- AGGREGATE SHOULDER, 8"
- HMA DRIVEWAY PAVEMENT
- WETLAND
- B6.24 CURB AND GUTTER
- B6.24 CURB AND GUTTER DEPRESSED

NOTE 1: WHEN PAVEMENT WIDENING IS 6' WIDE OR LESS, PCC BASE COURSE WIDENING 9" SHALL BE USED.

FILE NAME = 4459.000-PR3.dwg

USER NAME = BETHANY SUJMSKI  
 DESIGNED - KLB  
 DRAWN - PJS  
 CHECKED - KLB  
 DATE - 3/21/2012

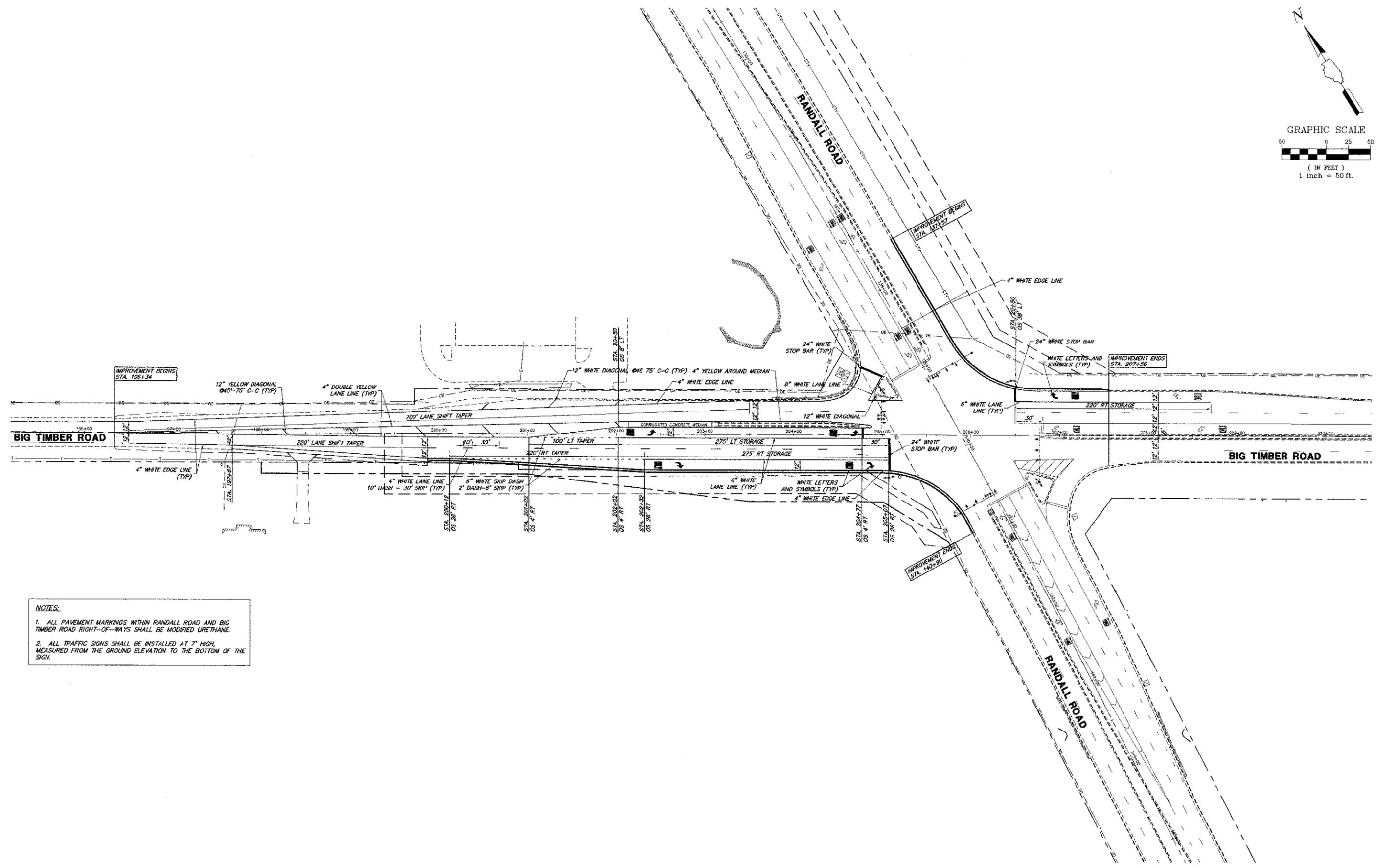
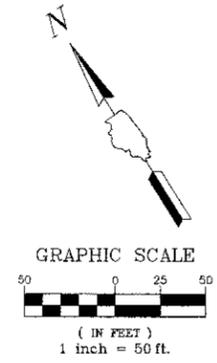
REVISED -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**INTERSECTION OF BIG TIMBER ROAD AND RANDALL ROAD  
 BIG TIMBER ROAD STA. 203+50 TO STA. 209+50**

SCALE 1"=20' SHEET NO. OF SHEETS STA. TO STA.

| FAP RATE                  | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 527                       | 08-00369-00-SP | KANE   | 67           | 16        |
| CONTRACT #: 63669         |                |        |              |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |



**NOTES:**

1. ALL PAVEMENT MARKINGS WITHIN RANDALL ROAD AND BIG TIMBER ROAD RIGHT-OF-WAYS SHALL BE MODIFIED URETHANE.
2. ALL TRAFFIC SIGNS SHALL BE INSTALLED AT 7" HIGH, MEASURED FROM THE GROUND ELEVATION TO THE BOTTOM OF THE SIGN.

|                                 |                             |                |           |   |   |               |                |  |                 |              |
|---------------------------------|-----------------------------|----------------|-----------|---|---|---------------|----------------|--|-----------------|--------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = BETHANY SUMMSKI | DESIGNED - KLB | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>SIGNING AND PAVEMENT MARKING PLAN<br/>BIG TIMBER ROAD AND RANDALL ROAD</b> | F.A.P.<br>RTE | SECTION        | COUNTY   | TOTAL<br>SHEETS | SHEET<br>NO. |
|                                 | PLOT SCALE = 1" = .0633'    | CHECKED - KLB  | REVISED - |   |   | 527           | OB-00369-00-SP | KANE   | 67              | 17           |
| PLOT DATE = 3/21/2012           | DATE - 3/21/2012            | REVISED -      |           | SCALE 1"=50'  | SHEET NO. OF SHEETS   | STA.          | TO STA.        | ILLINOIS FED. AID PROJECT<br>CONTRACT #: 63669 |                 |              |

**NOTES FOR TEMPORARY TRAFFIC SIGNALS:**

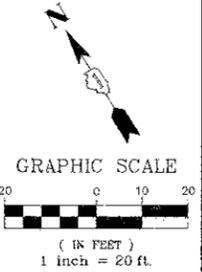
- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

**NOTE:**  
THE EXISTING CONTROLLER IS AN EAGLE MODEL M-52 WITH VERSION 3.33 E SOFTWARE IN A TYPE IV CABINET.

**VIDEO DETECTION CAMERA AIMING NOTES:**

- NW QUADRANT AIMED AT NB RANDALL ROAD
  - NE QUADRANT AIMED AT EB BIG TIMBER ROAD
  - SE QUADRANT AIMED AT SB RANDALL ROAD
  - SW QUADRANT AIMED AT WB BIG TIMBER ROAD
- ALL VIDEO CAMERAS SHALL HAVE A MINIMUM MOUNTING HEIGHT OF 45 FEET.

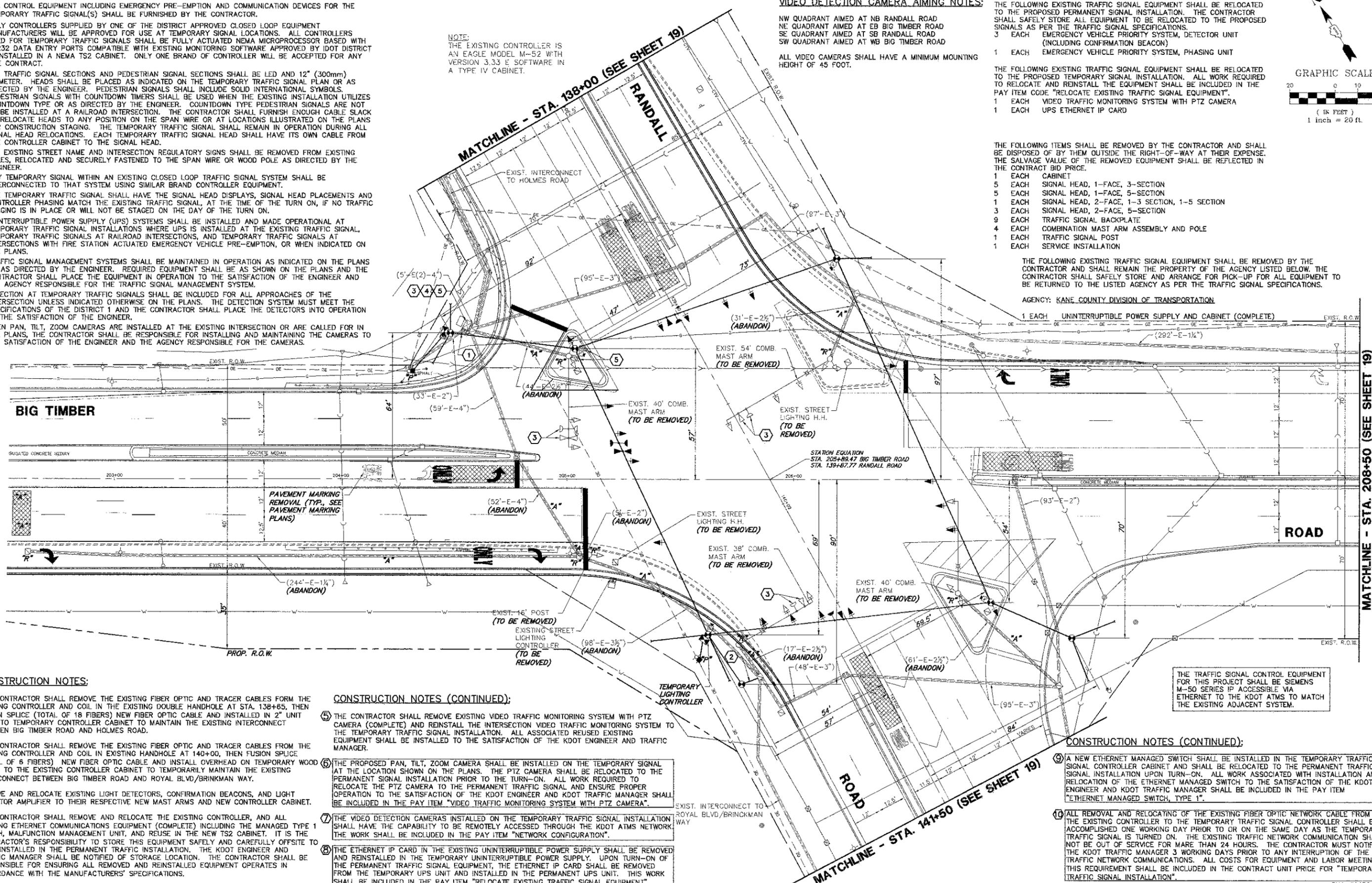
- THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE RELOCATED TO THE PROPOSED PERMANENT SIGNAL INSTALLATION. THE CONTRACTOR SHALL SAFELY STORE ALL EQUIPMENT TO BE RELOCATED TO THE PROPOSED SIGNALS AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.
- 3 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT (INCLUDING CONFIRMATION BEACON)
  - 1 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
- THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE RELOCATED TO THE PROPOSED TEMPORARY SIGNAL INSTALLATION. ALL WORK REQUIRED TO RELOCATE AND REINSTALL THE EQUIPMENT SHALL BE INCLUDED IN THE PAY ITEM CODE "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".
- 1 EACH VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA
  - 1 EACH UPS ETHERNET IP CARD



- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 1 EACH CABINET
  - 5 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
  - 5 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
  - 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
  - 3 EACH SIGNAL HEAD, 2-FACE, 5-SECTION
  - 9 EACH TRAFFIC SIGNAL BACKPLATE
  - 4 EACH COMBINATION MAST ARM ASSEMBLY AND POLE
  - 1 EACH TRAFFIC SIGNAL POST
  - 1 EACH SERVICE INSTALLATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK-UP FOR ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- AGENCY: KANE COUNTY DIVISION OF TRANSPORTATION
- 1 EACH UNINTERRUPTIBLE POWER SUPPLY AND CABINET (COMPLETE)



**CONSTRUCTION NOTES:**

- THE CONTRACTOR SHALL REMOVE THE EXISTING FIBER OPTIC AND TRACER CABLES FROM THE EXISTING CONTROLLER AND COIL IN THE EXISTING DOUBLE HANDHOLE AT STA. 138+85, THEN FUSION SPlice (TOTAL OF 18 FIBERS) NEW FIBER OPTIC CABLE AND INSTALLED IN 2" UNIT DUCT TO TEMPORARY CONTROLLER CABINET TO MAINTAIN THE EXISTING INTERCONNECT BETWEEN BIG TIMBER ROAD AND HOLMES ROAD.
- THE CONTRACTOR SHALL REMOVE THE EXISTING FIBER OPTIC AND TRACER CABLES FROM THE EXISTING CONTROLLER AND COIL IN EXISTING HANDHOLE AT 140+00, THEN FUSION SPlice (TOTAL OF 6 FIBERS) NEW FIBER OPTIC CABLE AND INSTALL OVERHEAD ON TEMPORARY WOOD POLES TO THE EXISTING CONTROLLER CABINET TO TEMPORARILY MAINTAIN THE EXISTING INTERCONNECT BETWEEN BIG TIMBER ROAD AND ROYAL BLVD/BRINKMAN WAY.
- REMOVE AND RELOCATE EXISTING LIGHT DETECTORS, CONFIRMATION BEACONS, AND LIGHT DETECTOR AMPLIFIER TO THEIR RESPECTIVE NEW MAST ARMS AND NEW CONTROLLER CABINET.
- THE CONTRACTOR SHALL REMOVE AND RELOCATE THE EXISTING CONTROLLER, AND ALL EXISTING ETHERNET COMMUNICATIONS EQUIPMENT (COMPLETE) INCLUDING THE MANAGED TYPE 1 SWITCH, MALFUNCTION MANAGEMENT UNIT, AND REUSE IN THE NEW TS2 CABINET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STORE THIS EQUIPMENT SAFELY AND CAREFULLY OFFSITE TO BE REINSTALLED IN THE PERMANENT TRAFFIC INSTALLATION. THE KDOT ENGINEER AND TRAFFIC MANAGER SHALL BE NOTIFIED OF STORAGE LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL REMOVED AND REINSTALLED EQUIPMENT OPERATES IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS.

**CONSTRUCTION NOTES (CONTINUED):**

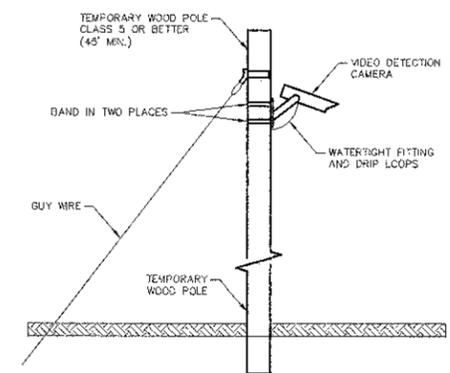
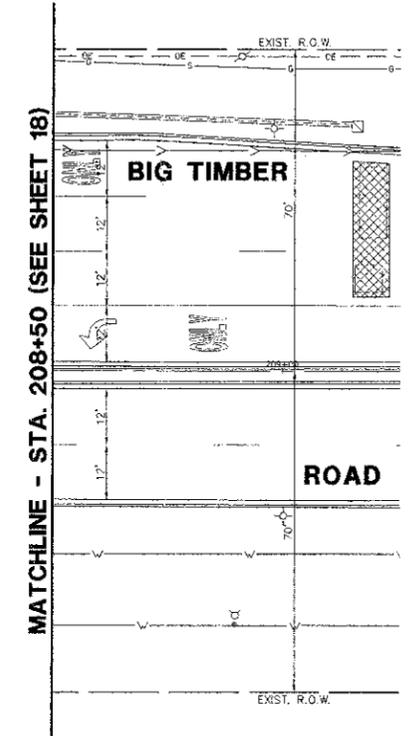
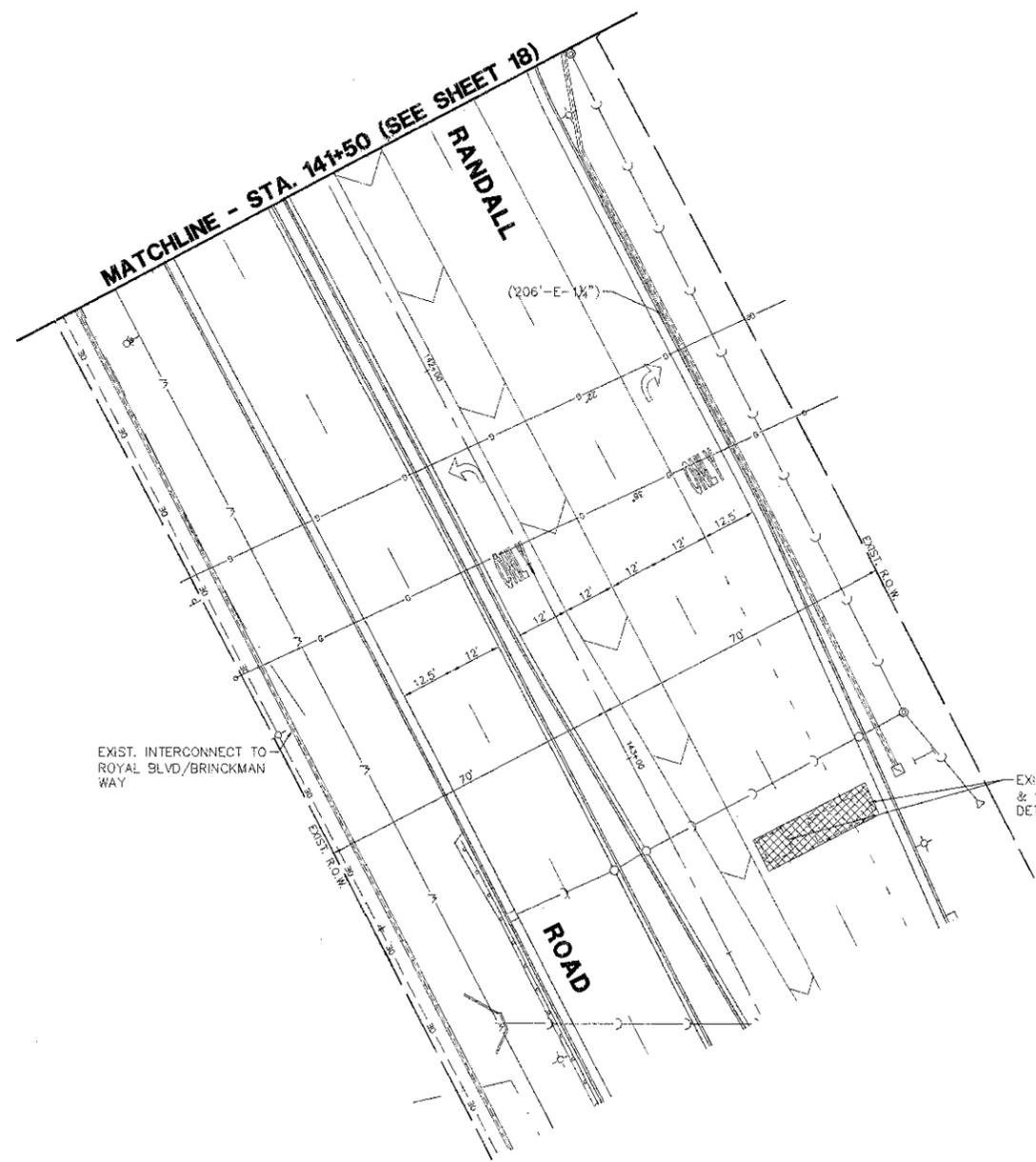
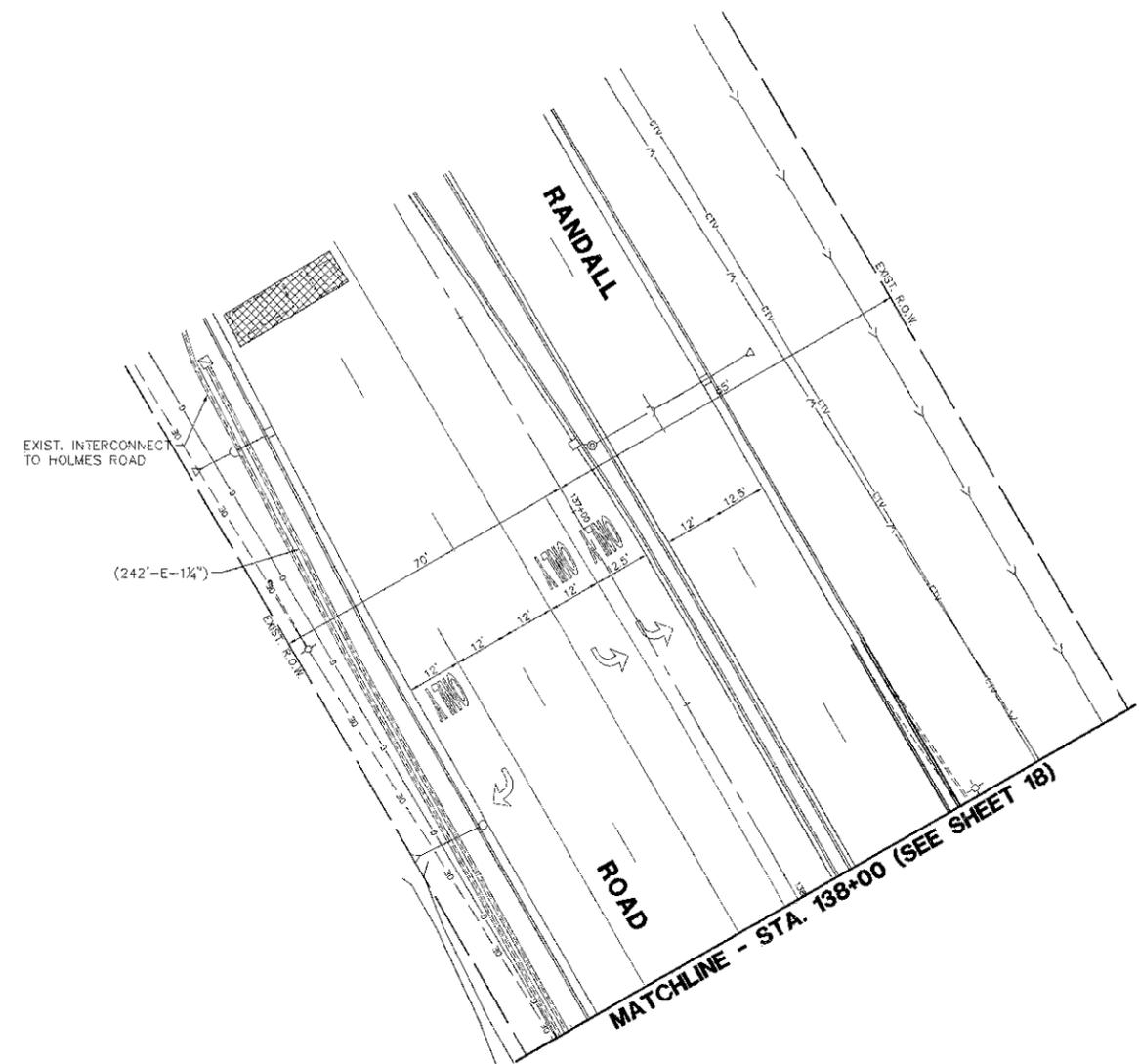
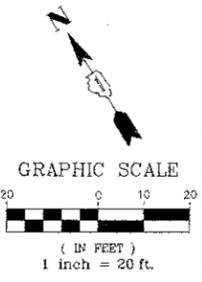
- THE CONTRACTOR SHALL REMOVE EXISTING VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA (COMPLETE) AND REINSTALL THE INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM TO THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. ALL ASSOCIATED REUSED EXISTING EQUIPMENT SHALL BE INSTALLED TO THE SATISFACTION OF THE KDOT ENGINEER AND TRAFFIC MANAGER.
- THE PROPOSED PAN, TILT, ZOOM CAMERA SHALL BE INSTALLED ON THE TEMPORARY SIGNAL AT THE LOCATION SHOWN ON THE PLANS. THE PTZ CAMERA SHALL BE RELOCATED TO THE PERMANENT SIGNAL INSTALLATION PRIOR TO THE TURN-ON. ALL WORK REQUIRED TO RELOCATE THE PTZ CAMERA TO THE PERMANENT TRAFFIC SIGNAL AND ENSURE PROPER OPERATION TO THE SATISFACTION OF THE KDOT ENGINEER AND KDOT TRAFFIC MANAGER SHALL BE INCLUDED IN THE PAY ITEM "VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA".
- THE VIDEO DETECTION CAMERAS INSTALLED ON THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL HAVE THE CAPABILITY TO BE REMOTELY ACCESSED THROUGH THE KDOT ATMS NETWORK. THE WORK SHALL BE INCLUDED IN THE PAY ITEM "NETWORK CONFIGURATION".
- THE ETHERNET IP CARD IN THE EXISTING UNINTERRUPTIBLE POWER SUPPLY SHALL BE REMOVED AND REINSTALLED IN THE TEMPORARY UNINTERRUPTIBLE POWER SUPPLY, UPON TURN-ON OF THE PERMANENT TRAFFIC SIGNAL EQUIPMENT. THE ETHERNET IP CARD SHALL BE REMOVED FROM THE TEMPORARY UPS UNIT AND INSTALLED IN THE PERMANENT UPS UNIT. THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".

**CONSTRUCTION NOTES (CONTINUED):**

- A NEW ETHERNET MANAGED SWITCH SHALL BE INSTALLED IN THE TEMPORARY TRAFFIC SIGNAL CONTROLLER CABINET AND SHALL BE RELOCATED TO THE PERMANENT TRAFFIC SIGNAL INSTALLATION UPON TURN-ON. ALL WORK ASSOCIATED WITH INSTALLATION AND RELOCATION OF THE ETHERNET MANAGED SWITCH TO THE SATISFACTION OF THE KDOT ENGINEER AND KDOT TRAFFIC MANAGER SHALL BE INCLUDED IN THE PAY ITEM "ETHERNET MANAGED SWITCH, TYPE 1".
- ALL REMOVAL AND RELOCATING OF THE EXISTING FIBER OPTIC NETWORK CABLE FROM THE EXISTING CONTROLLER TO THE TEMPORARY TRAFFIC SIGNAL CONTROLLER SHALL BE ACCOMPLISHED ONE WORKING DAY PRIOR TO OR ON THE SAME DAY AS THE TEMPORARY TRAFFIC SIGNAL IS TURNED ON. THE EXISTING TRAFFIC NETWORK COMMUNICATION SHALL NOT BE OUT OF SERVICE FOR MORE THAN 24 HOURS. THE CONTRACTOR MUST NOTIFY THE KDOT TRAFFIC MANAGER 3 WORKING DAYS PRIOR TO ANY INTERRUPTION OF THE TRAFFIC NETWORK COMMUNICATIONS. ALL COSTS FOR EQUIPMENT AND LABOR MEETING THIS REQUIREMENT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

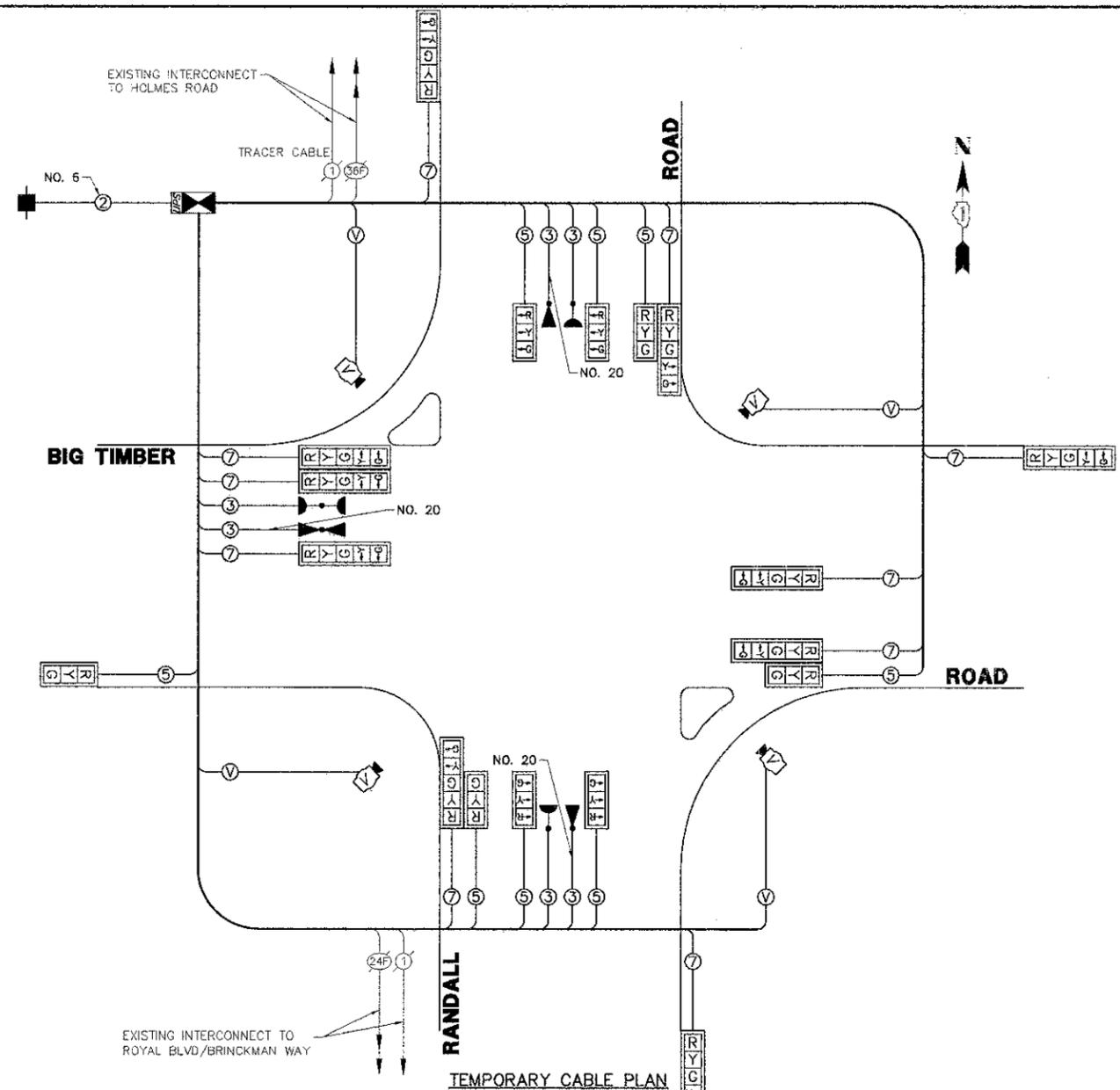
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| FILE NAME = 4459.000-1R1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JRD | REVISED -          | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY TRAFFIC SIGNAL INSTALLATION &amp;<br/>REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | FAP RITE = 527 | SECTION = 08-00369-00-SP | COUNTY = KANE | TOTAL SHEETS = 67         | SHEET NO. = 18 | GHA #4459.000 |
| PLOT SCALE = 1" = .0833'     | CHECKED - KLB             | REVISIONS      | CONTRACT # = 63669 |   |   | SCALE = 1"=20' | SHEET NO. OF SHEETS      | STA. TO STA.  | ILLINOIS FED. AID PROJECT |                |               |
| PLOT DATE = 3/21/2012        | DATE = 3/21/2012          | REVISIONS      |                    |   |   |                |                          |               |                           |                |               |



**TEMPORARY VIDEO DETECTION MOUNTING DETAIL**  
(NOT TO SCALE)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

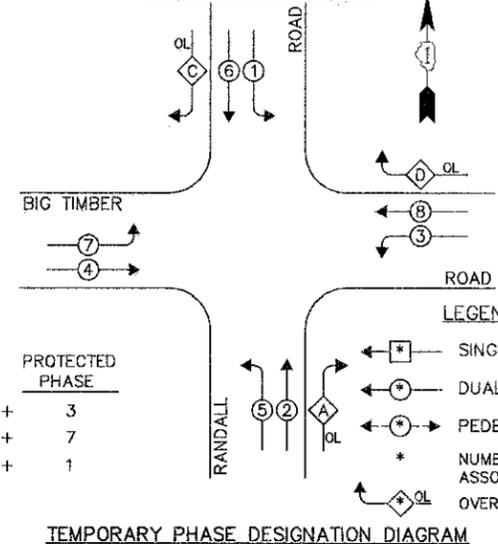
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| FILE NAME =<br>4459.000-TR1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JRD | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY TRAFFIC SIGNAL INSTALLATION &amp;<br/>REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | F.A.P. RTE.         | SECTION        | COUNTY       | TOTAL SHEETS | SHEET NO.         |
|                                 | PLOT SCALE = 1" = .0833'  | DRAWN - ZCW    | REVISED - |   |   | 527                 | 08-00369-00-SP | KANE         | 67           | 19                |
| PLOT DATE = 3/21/2012           | DATE - 3/21/2012          | CHECKED - KLB  | REVISED - | SCALE: 1"=20'   |   | SHEET NO. OF SHEETS |                | STA. TO STA. |              | CONTRACT #: 63669 |
| ILLINOIS FED. AID PROJECT       |                           |                |           |   |   |                     |                |              |              |                   |



TEMPORARY CABLE PLAN

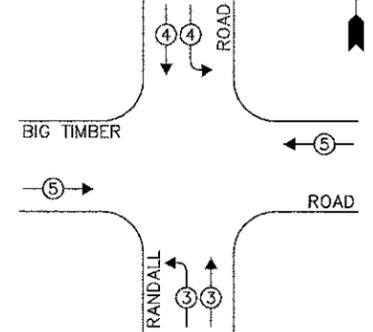
**IMPORTANT NOTE:**  
 PHASES 2 AND 6 WILL BE PLACED ON  
 MINIMUM RECALL AND PHASES 1 AND 5  
 SHALL HAVE THE ANTI-BACKUP FEATURE  
 DISABLED.

TEMPORARY  
 CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

TEMPORARY  
 EMERGENCY VEHICLE  
 PREEMPTION SEQUENCE



| TEMPORARY EMERGENCY VEHICLE PREEMPTORS |    |    |    |  |
|--|----|----|----|--|
| EMERGENCY VEHICLE PREEMPTOR            | 3  | 4  | 5  |  |
| MOVEMENT                               | 71 | 14 | 11 |  |

| KANE COUNTY DIVISION OF TRANSPORTATION<br>TRAFFIC SIGNAL INSTALLATION<br>ELECTRICAL SERVICE REQUIREMENTS |           |         |        |             | TOTAL<br>WATTAGE |
|--|-----------|---------|--------|-------------|------------------|
| TYPE   | NO. LAMPS | INCAND. | L.E.D. | % OPERATION |                  |
| SIGNAL (RED)   | 18        | 135     | 17     | 0.50        | 153.0            |
| SIGNAL (YELLOW)  | 18        | 135     | 25     | 0.25        | 112.5            |
| SIGNAL (GREEN)   | 18        | 135     | 15     | 0.25        | 67.5             |
| ARROW  | 20        | 135     | 12     | 0.10        | 24.0             |
| PED. SIGNAL  | -         | 90      | 25     | 1.00        | -                |
| CONTROLLER   | 1         | -       | 100    | 1.00        | 100.0            |
| LUMINAIRE  | -         | -       | 250    | 0.50        | -                |
| L.E.D. ST. NAME SIGN   | -         | -       | 64     | 0.50        | -                |
| VIDEO SYSTEM   | 1         | -       | 150    | 1.00        | 150.0            |
| BATTERY BACKUP   | 1         | -       | 25     | 1.00        | 25.0             |
| ILLUMINATED SIGN   | -         | -       | 25     | 0.05        | -                |
| <b>TOTAL =</b>   |           |         |        |             | <b>632.0</b>     |

ENERGY COSTS - BILLED TO: CITY OF ELGIN  
 (ADDRESS) 150 DEXTER COURT  
 (ADDRESS) ELGIN, ILLINOIS 60120  
 ENERGY SUPPLY - CONTACT: NEW BUSINESS  
 PHONE: (866) 639-3532  
 COMPANY: COM-ED - ELGIN

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

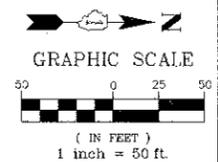
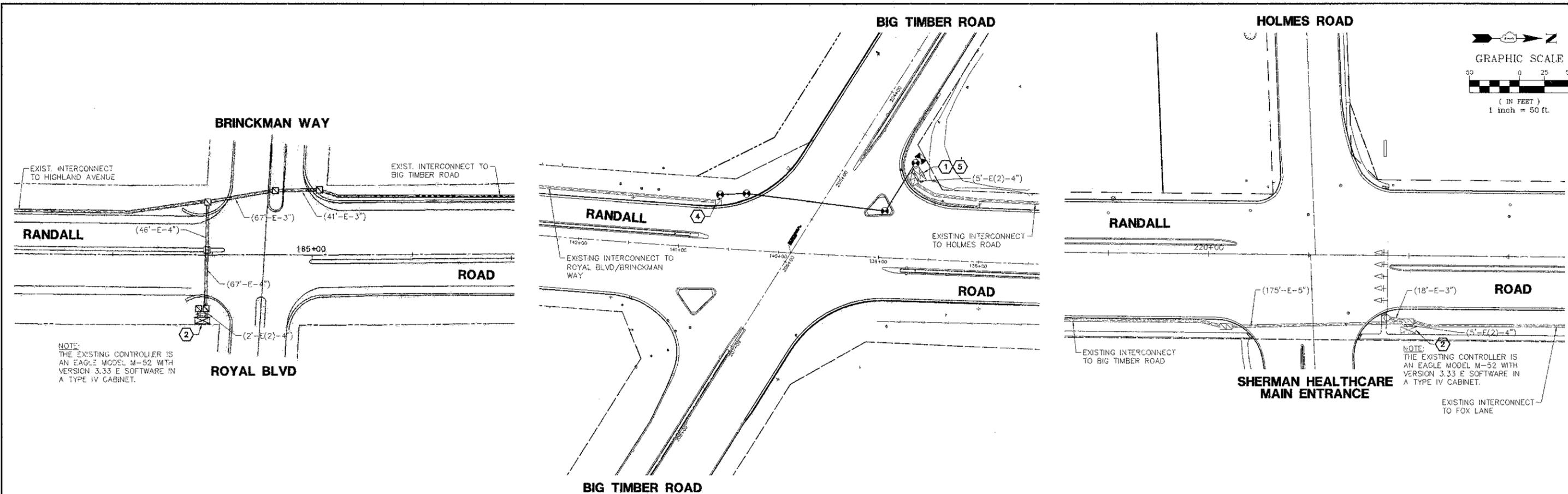
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|------------------------------|---------------------------|------------------|-----------|
| FILE NAME = 4459.000-TRI.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JRD   | REVISED - |
| PLOT SCALE = 1" = .0833'     |                           | DRAWN - ZCW      | REVISED - |
| PLOT DATE = 3/21/2012        |                           | CHECKED - KLB    | REVISED - |
|                              |                           | DATE - 3/21/2012 | REVISED - |

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION  
 DIAGRAM, & TEMPORARY VEHICLE PREEMPTION SEQUENCE  
 BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)**

SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

|                           |                        |             |                 |              |
|---------------------------|------------------------|-------------|-----------------|--------------|
| F.A.P. RITE. 527          | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67 | SHEET NO. 20 |
| CONTRACT # 63669          |                        |             | GHA #4459.000   |              |
| ILLINOIS FED. AID PROJECT |                        |             |                 |              |

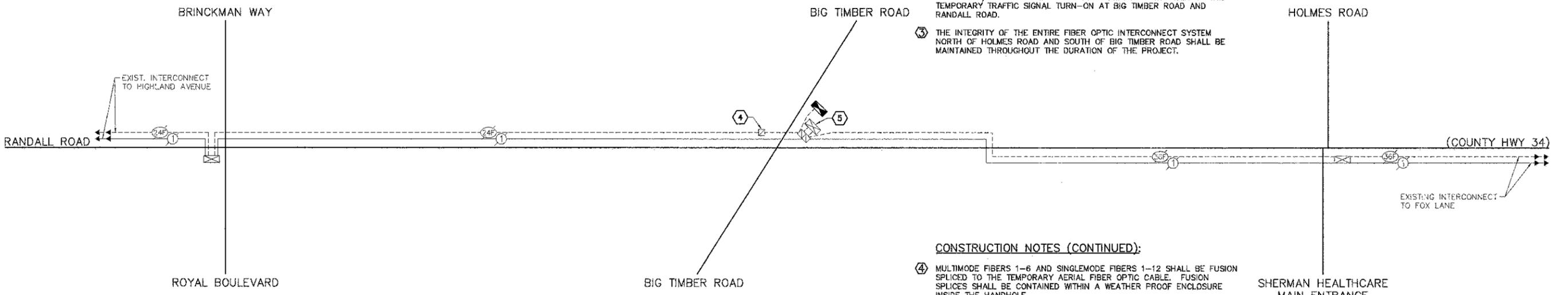


NOTE:  
THE EXISTING CONTROLLER IS  
AN EAGLE MODEL M-52 WITH  
VERSION 3.33 E SOFTWARE IN  
A TYPE IV CABINET.

NOTE:  
THE EXISTING CONTROLLER IS  
AN EAGLE MODEL M-52 WITH  
VERSION 3.33 E SOFTWARE IN  
A TYPE IV CABINET.

**CONSTRUCTION NOTES:**

- ① THE TEMPORARY DISCONNECT OF THE EXISTING INTERCONNECT SYSTEM WILL BE COORDINATED WITH THE TEMPORARY TRAFFIC SIGNAL TURN-ON AT BIG TIMBER ROAD AND RANDALL ROAD BY THE CONTRACTOR WITH THE KDOT TRAFFIC ENGINEER AND THE KDOT MAINTENANCE CONTRACTOR.
- ② "MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION" AT HOLMES ROAD/SHERMAN HEALTHCARE MAIN ENTRANCE AND AT ROYAL BOULEVARD/BRINCKMAN WAY WILL BE REQUIRED AT THE TIME OF THE TEMPORARY TRAFFIC SIGNAL TURN-ON AT BIG TIMBER ROAD AND RANDALL ROAD.
- ③ THE INTEGRITY OF THE ENTIRE FIBER OPTIC INTERCONNECT SYSTEM NORTH OF HOLMES ROAD AND SOUTH OF BIG TIMBER ROAD SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.



**CONSTRUCTION NOTES (CONTINUED):**

- ④ MULTIMODE FIBERS 1-6 AND SINGLEMODE FIBERS 1-12 SHALL BE FUSION SPLICED TO THE TEMPORARY AERIAL FIBER OPTIC CABLE. FUSION SPLICES SHALL BE CONTAINED WITHIN A WEATHER PROOF ENCLOSURE INSIDE THE HANDHOLE.
- ⑤ MULTIMODE FIBERS 1-6 AND SINGLEMODE FIBERS 1-6 SHALL BE CONNECTORIZED AND PLUGGED INTO THE EXISTING NETWORK EQUIPMENT IN THE EXISTING CABINET. SINGLEMODE FIBERS 7-12 SHALL BE FUSION SPLICED TO THE SINGLEMODE FIBERS 7-12 GOING NORTH ALONG RANDALL ROAD TO HOLMES ROAD. THE EXISTING NETWORK EQUIPMENT SHALL BE MAINTAINED WITHIN THE EXISTING CABINET AND FOUR (4) OUTDOOR-RATED CAT5 CABLES WILL BE CONNECTED AND RUN THROUGH THE TEMPORARY 2" UNIT DUCT TO THE EQUIPMENT IN THE TEMPORARY CABINET SO THAT ALL THE ETHERNET CAPABLE EQUIPMENT REMAINS ON THE KANE COUNTY NETWORK.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

|                                 |                           |                  |           |   |  |                    |                           |                |                    |                 |                           |
|---------------------------------|---------------------------|------------------|-----------|---|--|--------------------|---------------------------|----------------|--------------------|-----------------|---------------------------|
| FILE NAME =<br>4459.000-TR1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JRD   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY INTERCONNECT PLAN &amp; SCHEMATIC - RANDALL ROAD<br/>BETWEEN ROYAL BLVD/BRINCKMAN WAY AND HOLMES ROAD</b> | F.A.P. RTE.<br>527 | SECTION<br>08-00369-00-SP | COUNTY<br>KANE | TOTAL SHEETS<br>67 | SHEET NO.<br>21 | GHA #4459.000             |
| PLT SCALE = 1" = .0833'         | CHECKED - KLB             | DATE - 3/21/2012 | REVISED - |   |  | SCALE AS NOTED     | SHEET NO. OF SHEETS       | STA. TO STA.   | CONTRACT # 63669   |                 | ILLINOIS FED. AID PROJECT |
| PLT DATE = 3/21/2012            | DATE - 3/21/2012          | REVISED -        | REVISED - |   |  |                    |                           |                |                    |                 |                           |

**CONSTRUCTION NOTES:**

- 1 THE CONTRACTOR SHALL REINSTALL THE EXISTING LIGHT DETECTORS, CONFIRMATION BEACONS, AND LIGHT DETECTOR AMPLIFIER TO THEIR RESPECTIVE NEW MAST ARMS AND NEW CONTROLLER CABINET.
- 2 THE CONTRACTOR SHALL REINSTALL THE EXISTING CONTROLLER, THE EXISTING ETHERNET COMMUNICATIONS EQUIPMENT (COMPLETE) INCLUDING THE MANAGED TYPE 1 SWITCH, AND MALFUNCTION MANAGEMENT UNIT IN THE NEW TS2 CABINET ON THE EXISTING TYPE D CONTROLLER FOUNDATION.
- 3 THE CONTRACTOR SHALL INSTALL THE EXISTING COILED FIBER OPTIC AND TRACER CABLES IN THE NEW OR EXISTING CONDUIT TO THE NEW CONTROLLER CABINET.
- 4 THE EXISTING MALFUNCTION MANAGEMENT UNIT RELOCATED TO THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL BE RELOCATED TO THE PERMANENT TRAFFIC SIGNAL INSTALLATION AND INSTALLED IN THE NEW CONTROLLER CABINET. ALL RELOCATED EQUIPMENT SHALL BE FULLY INTEGRATED INTO THE RANDALL ROAD ETHERNET SYSTEM. ALL WORK REQUIRED TO RELOCATE AND REINSTALL THIS TRAFFIC SIGNAL EQUIPMENT TO THE SATISFACTION OF THE KDOT ENGINEER AND THE KDOT TRAFFIC MANAGER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".
- 5 THE NEW UNINTERRUPTIBLE POWER SUPPLY (SPECIAL KDOT) SHALL BE RELOCATED TO THE PERMANENT TRAFFIC SIGNAL INSTALLATION AND INSTALLED ON THE EXISTING TYPE "D" FOUNDATION. THE NEW UPS SHALL BE FULLY INTEGRATED INTO THE RANDALL ROAD ETHERNET SYSTEM. ALL WORK REQUIRED TO INSTALL THIS TRAFFIC SIGNAL EQUIPMENT TO THE SATISFACTION OF THE KDOT ENGINEER AND KDOT TRAFFIC MANAGER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR "UNINTERRUPTIBLE POWER SUPPLY (SPECIAL KDOT)".
- 6 THE EXISTING ETHERNET IP CARD RELOCATED TO THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL BE RELOCATED TO THE PERMANENT TRAFFIC SIGNAL INSTALLATION AND INSTALLED INTO THE RELOCATED UPS. THE RELOCATED ETHERNET IP CARD SHALL BE FULLY INTEGRATED INTO THE RANDALL ROAD ETHERNET SYSTEM. ALL WORK REQUIRED TO RELOCATE AND REINSTALL THIS TRAFFIC SIGNAL EQUIPMENT TO THE SATISFACTION OF THE KDOT ENGINEER AND KDOT TRAFFIC MANAGER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".
- 7 THE EXISTING PAN, TILT, ZOOM CAMERA AND THE ETHERNET MANAGED SWITCH, TYPE 1 SHALL BE RELOCATED FROM THE TEMPORARY TRAFFIC SIGNAL INSTALLATION TO THE PERMANENT TRAFFIC SIGNAL INSTALLATION. ALL WORK REQUIRED TO RELOCATE AND REINSTALL THIS TRAFFIC SIGNAL EQUIPMENT TO THE SATISFACTION OF THE KDOT ENGINEER AND KDOT TRAFFIC MANAGER SHALL BE INCLUDED IN THE PAY ITEMS "VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA" AND "ETHERNET SWITCH, TYPE 1".

NOTE:  
THE EXISTING CONTROLLER IS AN EAGLE MODEL M-52 WITH VERSION 3.33 E SOFTWARE IN A TYPE IV CABINET.

**IMPORTANT NOTE:**  
REFER TO THE PERMANENT LIGHTING MODERNIZATION PLAN FOR ADDITIONAL NUMBER AND SIZE OF CONDUITS TO BE INSTALLED IN ALL COMBINATION MAST ARM ASSEMBLY AND POLE FOUNDATIONS.

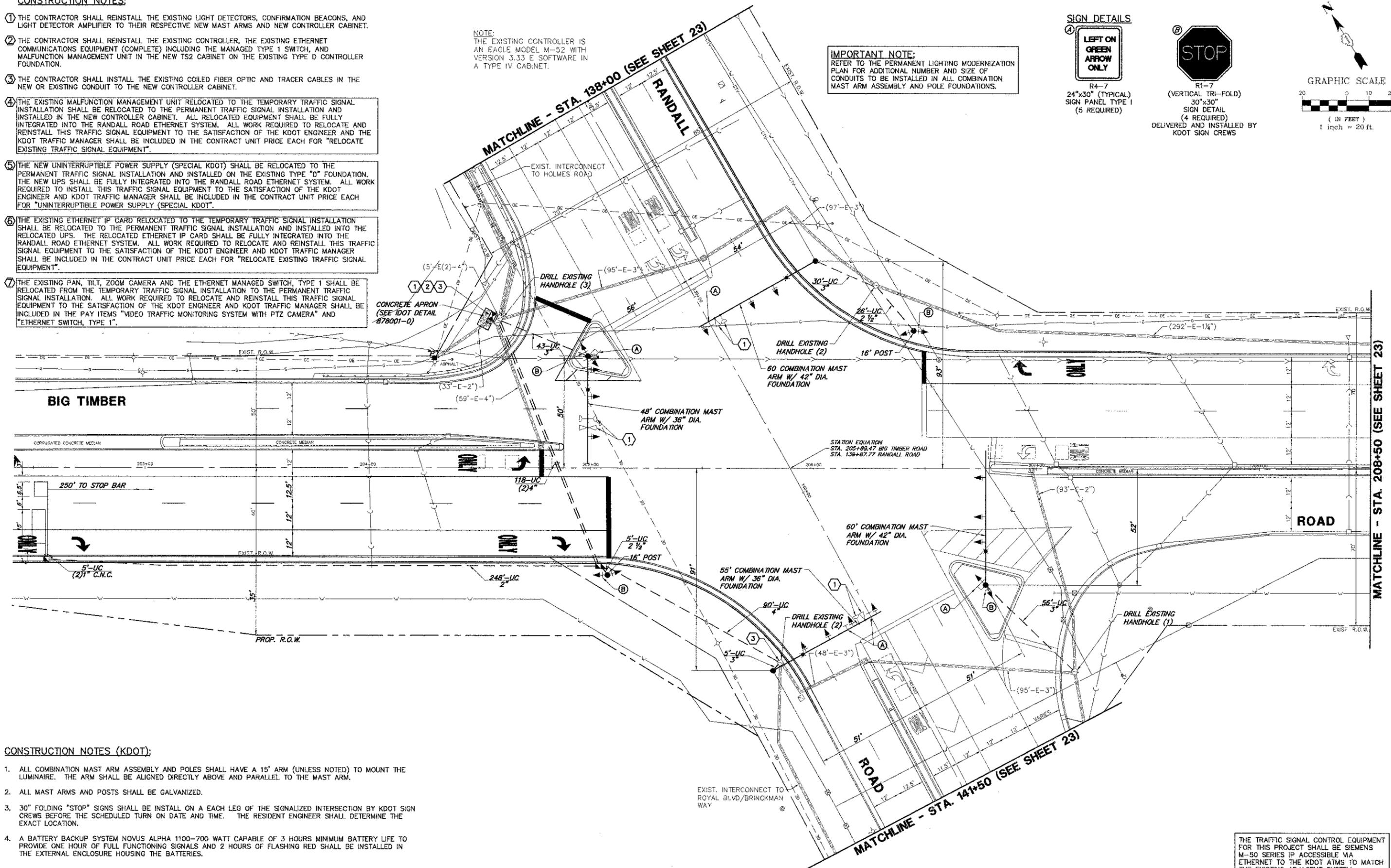
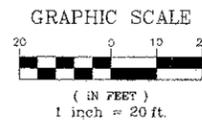
**SIGN DETAILS**



R4-7  
24"x30" (TYPICAL)  
SIGN PANEL TYPE 1  
(5 REQUIRED)



R1-7  
(VERTICAL TRI-FOLD)  
30"x30"  
SIGN DETAIL  
(4 REQUIRED)  
DELIVERED AND INSTALLED BY  
KDOT SIGN CREWS

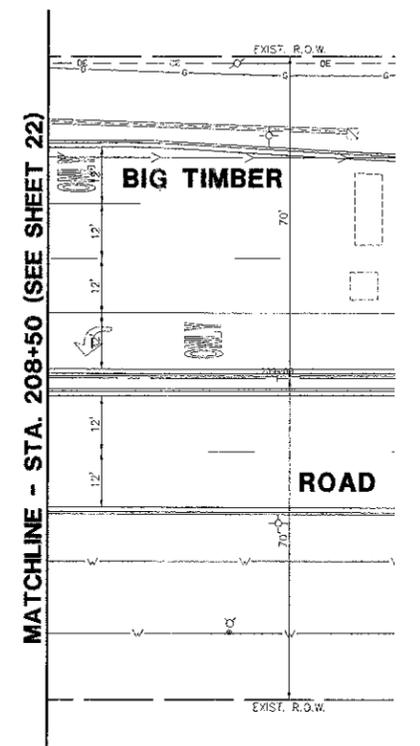
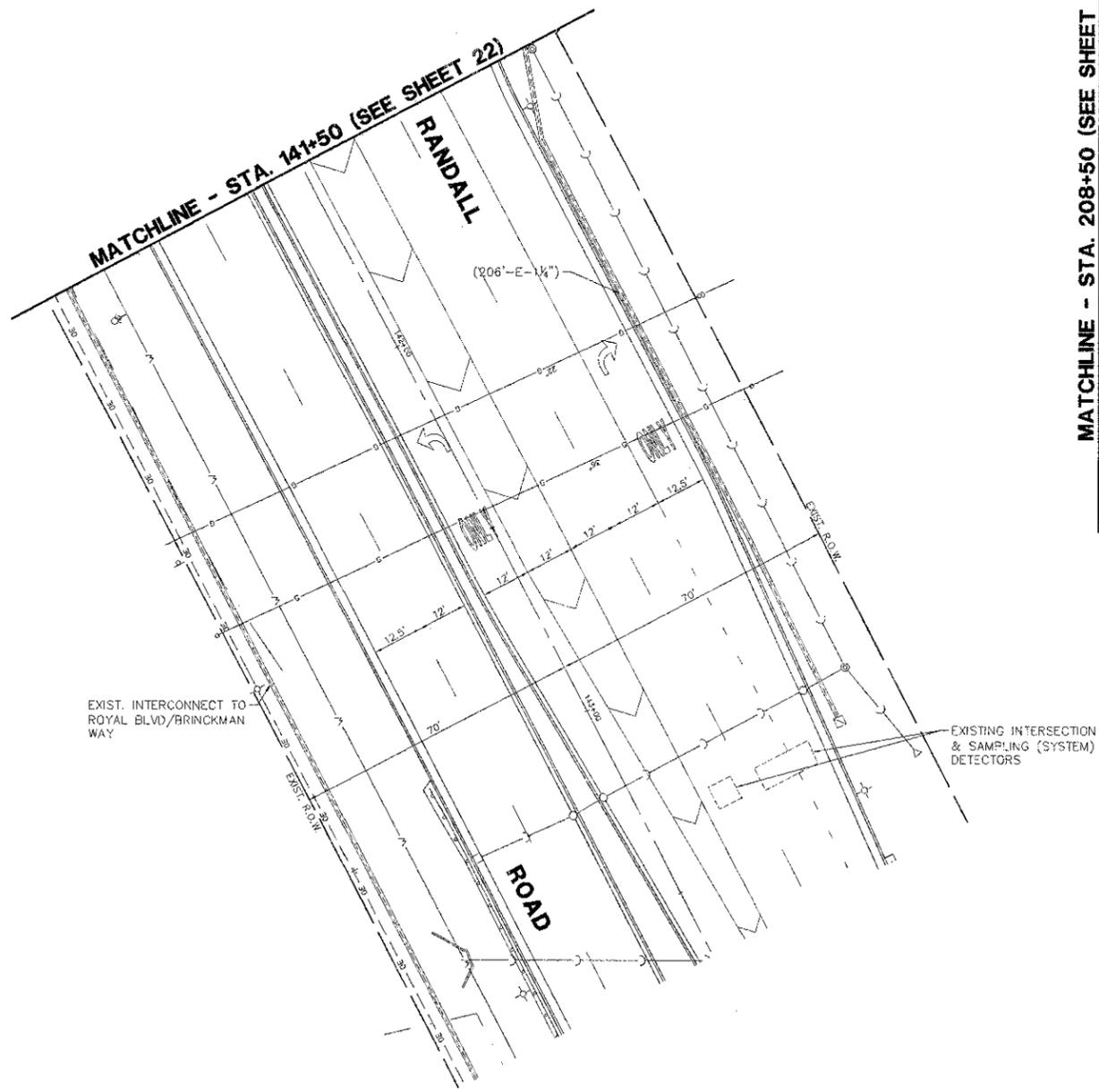
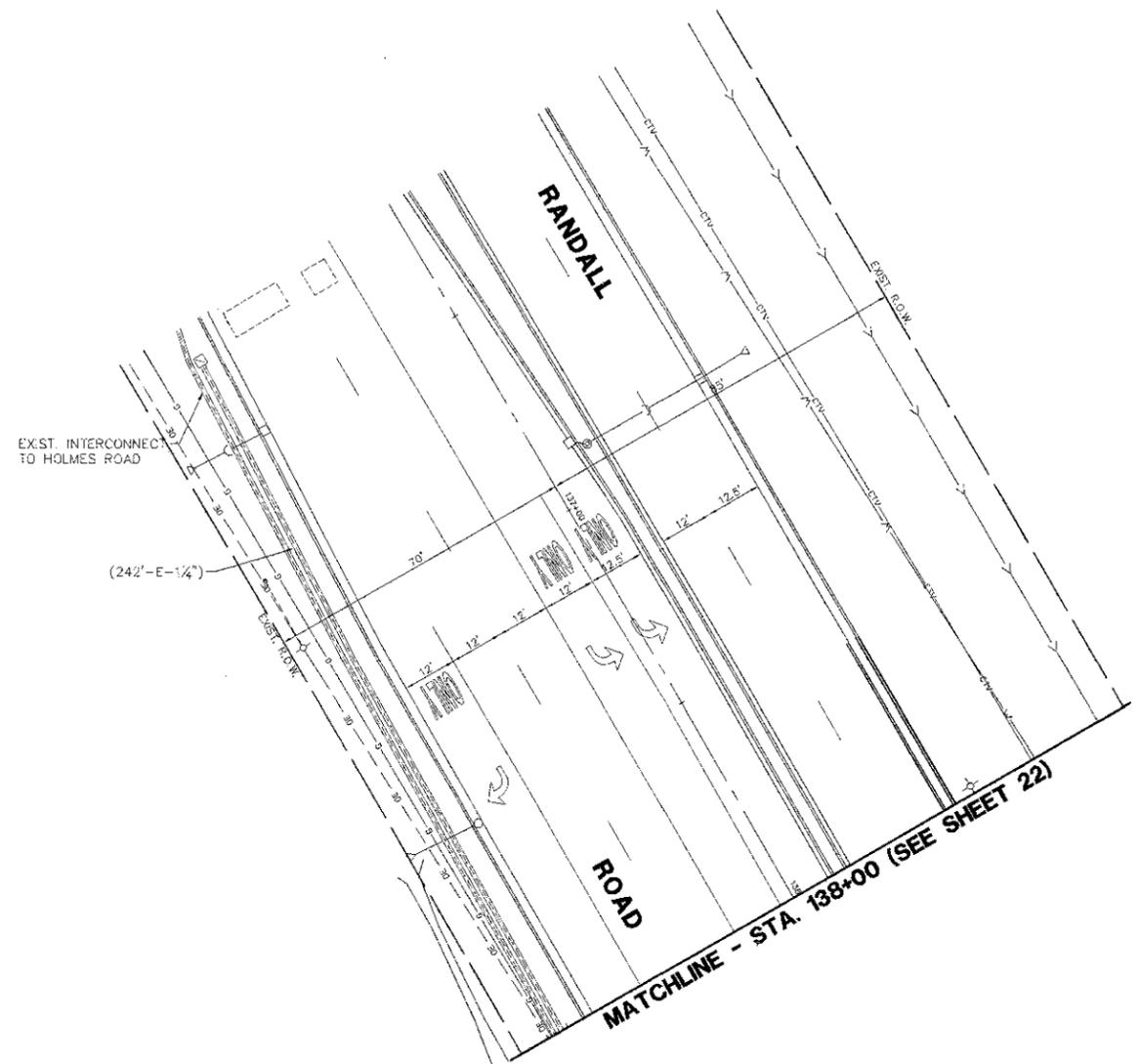
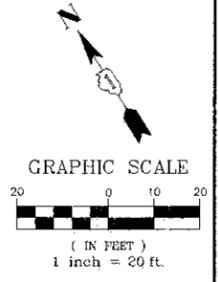


**CONSTRUCTION NOTES (KDOT):**

1. ALL COMBINATION MAST ARM ASSEMBLY AND POLES SHALL HAVE A 15' ARM (UNLESS NOTED) TO MOUNT THE LUMINAIRE. THE ARM SHALL BE ALIGNED DIRECTLY ABOVE AND PARALLEL TO THE MAST ARM.
2. ALL MAST ARMS AND POSTS SHALL BE GALVANIZED.
3. 30" FOLDING "STOP" SIGNS SHALL BE INSTALL ON A EACH LEG OF THE SIGNALIZED INTERSECTION BY KDOT SIGN CREWS BEFORE THE SCHEDULED TURN ON DATE AND TIME. THE RESIDENT ENGINEER SHALL DETERMINE THE EXACT LOCATION.
4. A BATTERY BACKUP SYSTEM NOVUS ALPHA 1100-700 WATT CAPABLE OF 3 HOURS MINIMUM BATTERY LIFE TO PROVIDE ONE HOUR OF FULL FUNCTIONING SIGNALS AND 2 HOURS OF FLASHING RED SHALL BE INSTALLED IN THE EXTERNAL ENCLOSURE HOUSING THE BATTERIES.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

|                               |                           |                                  |                           |   |  |                   |                          |               |                   |                |
|-------------------------------|---------------------------|----------------------------------|---------------------------|---|--|-------------------|--------------------------|---------------|-------------------|----------------|
| FILE NAME = 4459.000- TR1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED = JRD                   | REVISED =                 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TRAFFIC SIGNAL MODERNIZATION PLAN<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | F.A.P. RTE. = 527 | SECTION = 08-00369-00-SP | COUNTY = KANE | TOTAL SHEETS = 67 | SHEET NO. = 22 |
| PLOT SCALE = 1" = .0833'      | CHECKED = KLB             | REVISED =                        | CONTRACT # = 63669        |   |  |                   |                          |               |                   |                |
| PLOT DATE = 3/21/2012         | DATE = 3/21/2012          | REVISED =                        | ILLINOIS FED. AID PROJECT |   |  |                   |                          |               |                   |                |
| SCALE: 1"=20'                 |                           | SHEET NO. OF SHEETS STA. TO STA. |                           |   |  |                   |                          |               |                   |                |



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME = 4459.000-TR1.dwg

USER NAME = ZACH WALLSTEN  
 PLOT SCALE = 1" = .0833'  
 PLOT DATE = 3/21/2012

DESIGNED - JRD  
 DRAWN - ZCW  
 CHECKED - KLB  
 DATE - 3/21/2012

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

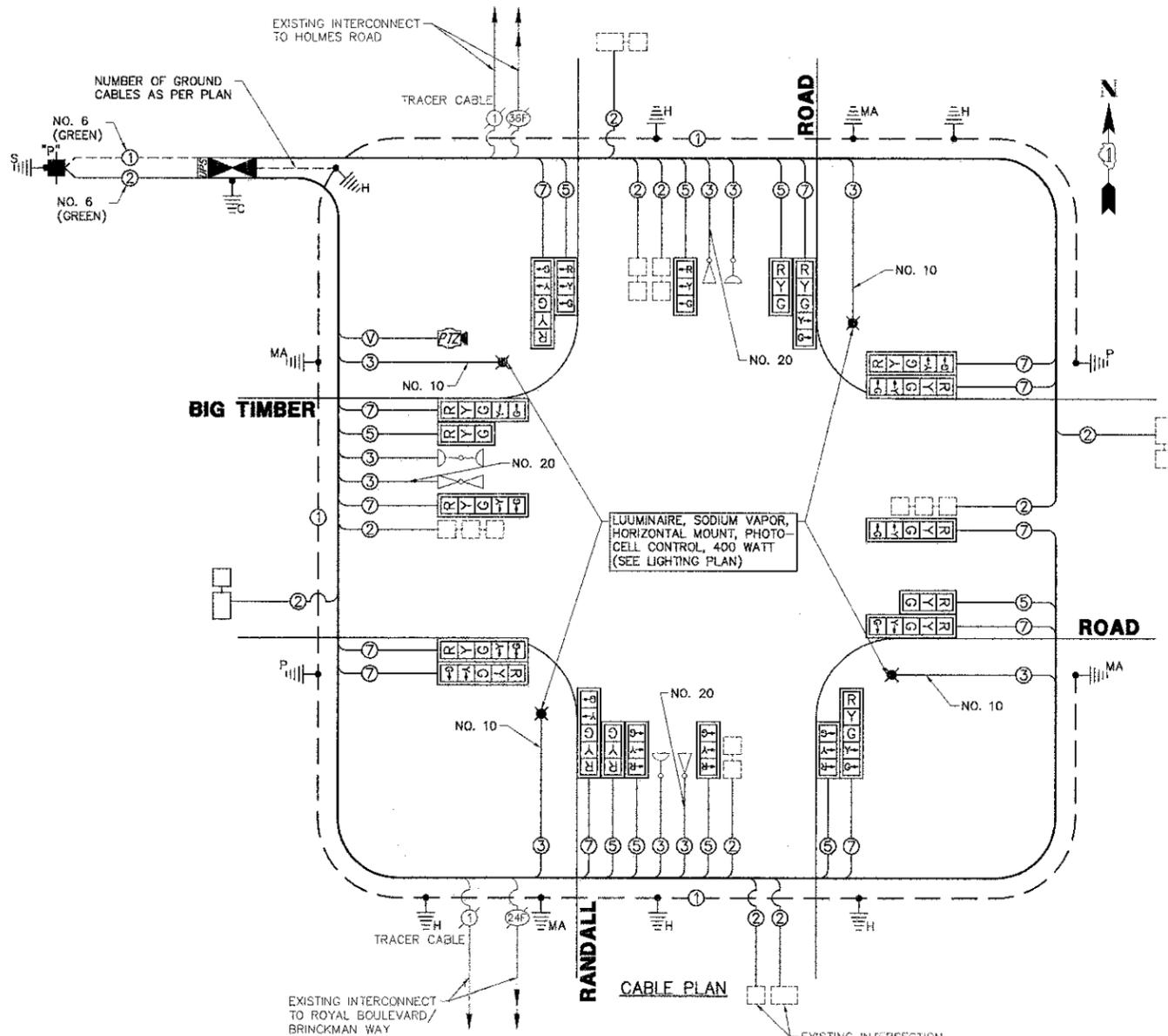
**TRAFFIC SIGNAL MODERNIZATION PLAN  
 BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)**

|                           |                |        |              |           |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE.<br>527        | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|                           | 08-00369-00-SP | KANE   | 67           | 23        |
| CONTRACT #                |                |        | 63669        |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

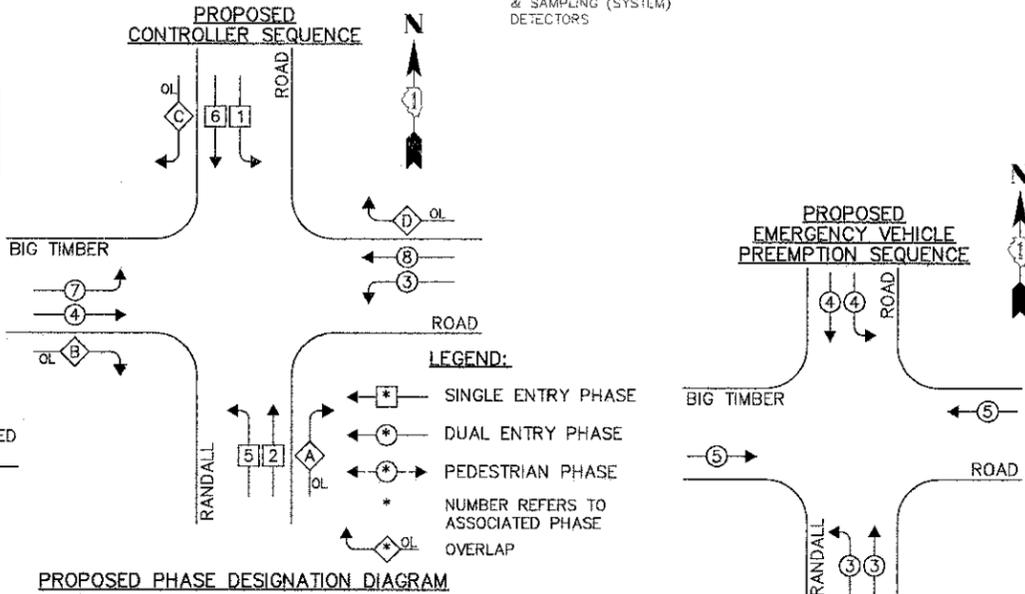
SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

**SCHEDULE OF QUANTITIES**  
RANDALL ROAD AT BIG TIMBER ROAD

| NO. | QUANT. | UNIT  | DESCRIPTION   |
|-----|--------|-------|---|
| 1.  | 1      | EACH  | SERVICE INSTALLATION - POLE MOUNTED                                 |
| 2.  | 248    | FOOT  | UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.                      |
| 3.  | 31     | FOOT  | UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.                  |
| 4.  | 134    | FOOT  | UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.                      |
| 5.  | 326    | FOOT  | UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.                      |
| 6.  | 1      | EACH  | HANDHOLE  |
| 7.  | 1      | EACH  | DOUBLE HANDHOLE   |
| 8.  | 1      | EACH  | CONTROLLER CABINET TYPE IV  |
| 9.  | 6      | EACH  | GROUNDING EXISTING HANDHOLE FRAME AND COVER                         |
| 10. | 3,155  | FOOT  | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C                         |
| 11. | 3,351  | FOOT  | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C                         |
| 12. | 3,580  | FOOT  | ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR                   |
| 13. | 55     | FOOT  | ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C                       |
| 14. | 794    | FOOT  | ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1 C |
| 15. | 2      | EACH  | TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.                        |
| 16. | 1      | EACH  | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.                 |
| 17. | 1      | EACH  | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.                 |
| 18. | 2      | EACH  | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT.                 |
| 19. | 8      | FOOT  | CONCRETE FOUNDATION, TYPE A   |
| 20. | 41     | FOOT  | CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER                        |
| 21. | 21     | FOOT  | CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER                        |
| 22. | 8      | EACH  | DRILL EXISTING HANDHOLE   |
| 23. | 8      | EACH  | SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED               |
| 24. | 6      | EACH  | SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED               |
| 25. | 2      | EACH  | SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED                |
| 26. | 2      | EACH  | SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED |
| 27. | 21     | EACH  | TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM                        |
| 28. | 10     | EACH  | INDUCTIVE LOOP DETECTOR   |
| 29. | 94     | FOOT  | DETECTOR LOOP, TYPE I   |
| 30. | 1      | EACH  | TEMPORARY TRAFFIC SIGNAL INSTALLATION                               |
| 31. | 1      | EACH  | RELOCATE EXISTING SIGNAL CONTROLLER                                 |
| 32. | 2      | EACH  | RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT                          |
| 33. | 3      | EACH  | RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT  |
| 34. | 1      | EACH  | RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT   |
| 35. | 1      | EACH  | MODIFY EXISTING CONTROLLER  |
| 36. | 5,434  | FOOT  | REMOVE ELECTRIC CABLE FROM CONDUIT                                  |
| 37. | 976    | FOOT  | REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT                    |
| 38. | 1      | EACH  | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT                            |
| 39. | 2      | EACH  | REMOVE EXISTING HANDHOLE  |
| 40. | 5      | EACH  | REMOVE EXISTING CONCRETE FOUNDATION                                 |
| 41. | 24     | EACH  | FIBER OPTIC FUSION SPLICE   |
| 42. | 1      | EACH  | RELOCATE EXISTING PTZ CAMERA  |
| 43. | 1      | EACH  | INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA        |
| 44. | 1      | L SUM | NETWORK CONFIGURATION   |
| 45. | 1      | EACH  | UNINTERRUPTIBLE POWER SUPPLY (SPECIAL KDOT)                         |
| 46. | 1      | EACH  | MAJUNCTION MANAGEMENT UNIT  |
| 47. | 1      | EACH  | ETHERNET SWITCH, TYPE 1   |
| 48. | 1      | EACH  | RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2                           |
| 49. | 1      | EACH  | TEMPORARY TRAFFIC SIGNAL TIMING                                     |



**IMPORTANT NOTE:**  
PHASES 2 AND 6 WILL BE PLACED ON MINIMUM RECALL AND PHASES 1 AND 5 SHALL HAVE THE ANTI-BACKUP FEATURE DISABLED.

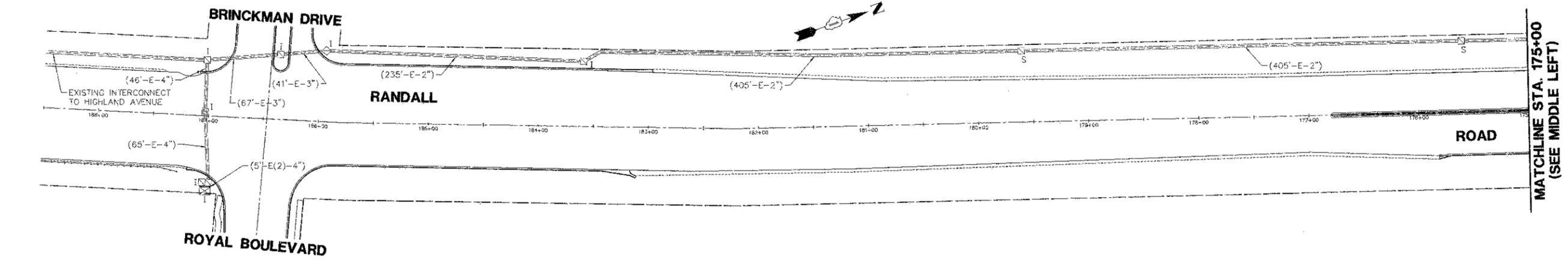
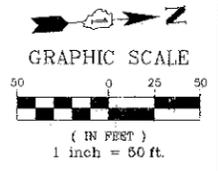


| OVERLAP LETTER | PERMISSIVE PHASE | PROTECTED PHASE |
|----------------|------------------|-----------------|
| A              | = 2              | + 3             |
| B              | = 4              | + 5             |
| C              | = 6              | + 7             |
| D              | = 8              | + 1             |

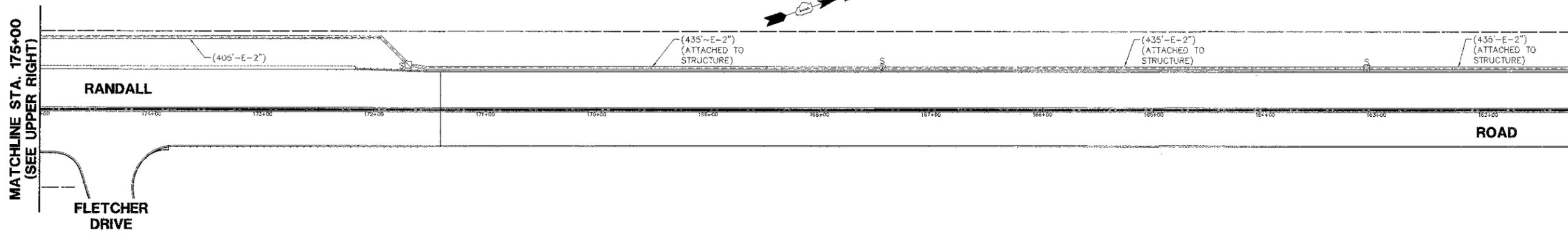
| PROPOSED EMERGENCY VEHICLE PREEMPTORS |   |    |
|---------------------------------------|---|----|
| EMERGENCY VEHICLE PREEMPTOR           | 3 | 4  |
| MOVEMENT                              | 7 | 11 |

| KANE COUNTY DIVISION OF TRANSPORTATION<br>TRAFFIC SIGNAL INSTALLATION<br>ELECTRICAL SERVICE REQUIREMENTS |           |                |             | TOTAL WATTAGE |        |
|--|-----------|----------------|-------------|---------------|--------|
| TYPE   | NO. LAMPS | INCAND. L.E.D. | % OPERATION |               |        |
| SIGNAL (RED)   | 21        | 135            | 17          | 0.50          | 178.5  |
| SIGNAL (YELLOW)  | 21        | 135            | 25          | 0.25          | 131.25 |
| SIGNAL (GREEN)   | 21        | 135            | 15          | 0.25          | 78.75  |
| ARROW  | 24        | 135            | 12          | 0.10          | 28.8   |
| PED. SIGNAL  | -         | 90             | 25          | 1.00          | -      |
| CONTROLLER   | 1         | -              | 100         | 1.00          | 100.0  |
| LUMINAIRE  | -         | -              | 250         | 0.50          | -      |
| L.E.D. ST. NAME SIGN   | -         | -              | 64          | 0.30          | -      |
| VIDEO SYSTEM   | 1         | -              | 150         | 1.00          | 150.0  |
| BATTERY BACKUP   | 1         | -              | 25          | 1.00          | 25.0   |
| ILLUMINATED SIGN   | -         | -              | 25          | 0.05          | -      |
| <b>TOTAL =</b>   |           |                |             | <b>692.3</b>  |        |

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

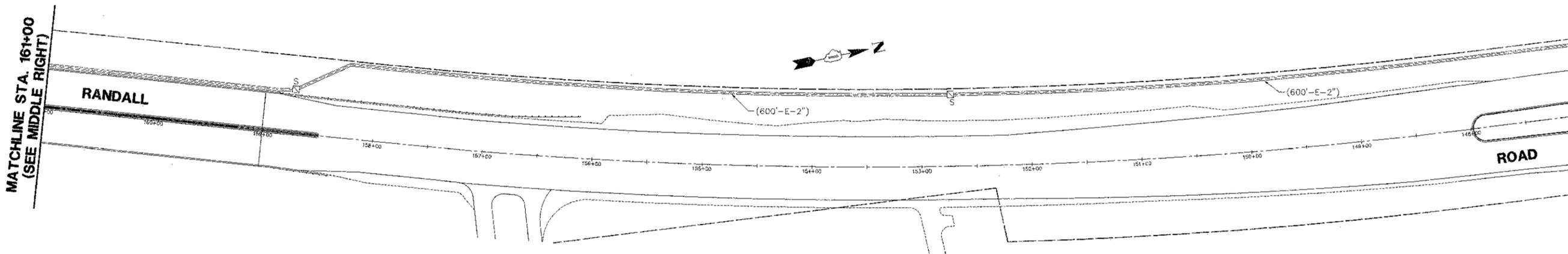


MATCHLINE STA. 175+00  
(SEE MIDDLE LEFT)



MATCHLINE STA. 175+00  
(SEE UPPER RIGHT)

MATCHLINE STA. 161+00  
(SEE LOWER LEFT)



MATCHLINE STA. 161+00  
(SEE MIDDLE RIGHT)

MATCHLINE STA. 146+50  
(SEE SHEET 26)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

|                         |                           |
|-------------------------|---------------------------|
| FILE NAME =             | USER NAME = ZACH WALLSTEN |
| 4459.000-TR1.dwg        |                           |
| PLOT SCALE = 1" = 83.3' |                           |
| PLOT DATE = 3/21/2012   |                           |

|                  |           |
|------------------|-----------|
| DESIGNED - JRD   | REVISED - |
| DRAWN - ZCW      | REVISED - |
| CHECKED - KLB    | REVISED - |
| DATE - 3/21/2012 | REVISED - |

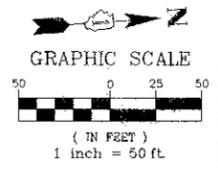
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN (SHEET 1 OF 2)  
BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)**

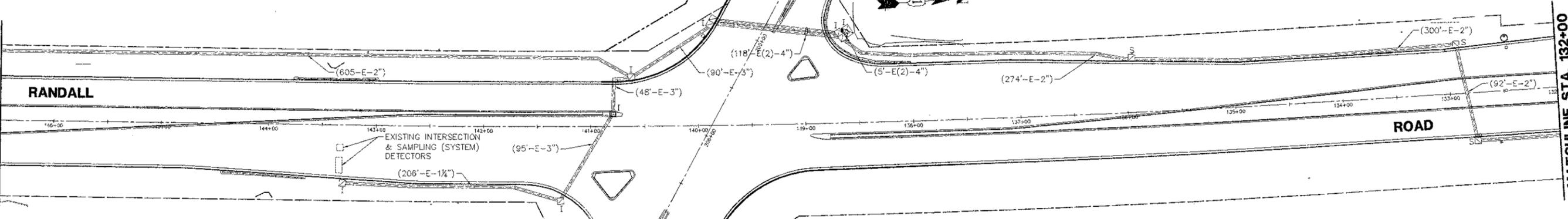
|               |                     |              |
|---------------|---------------------|--------------|
| SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. TO STA. |
|---------------|---------------------|--------------|

|                           |                |        |              |           |
|---------------------------|----------------|--------|--------------|-----------|
| F.A.P. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
| 527                       | 08-00369-00-SP | KANE   | 67           | 25        |
| CONTRACT #:               |                |        | 63689        |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

GHA #4459.000



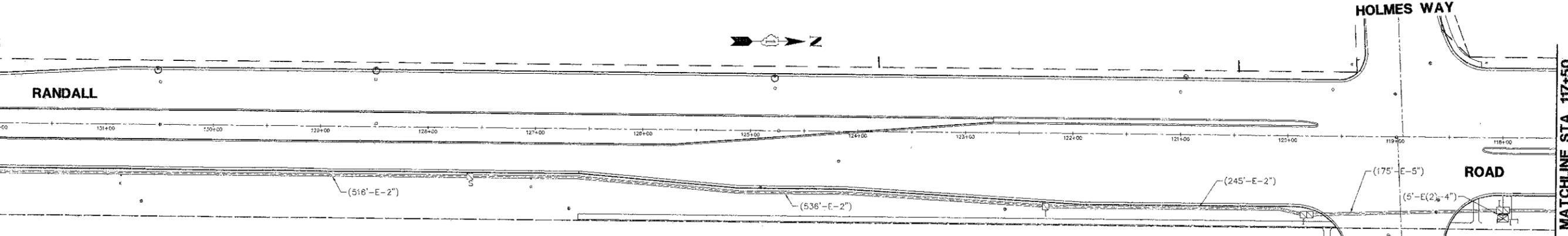
MATCHLINE STA. 146+50  
(SEE SHEET 25)



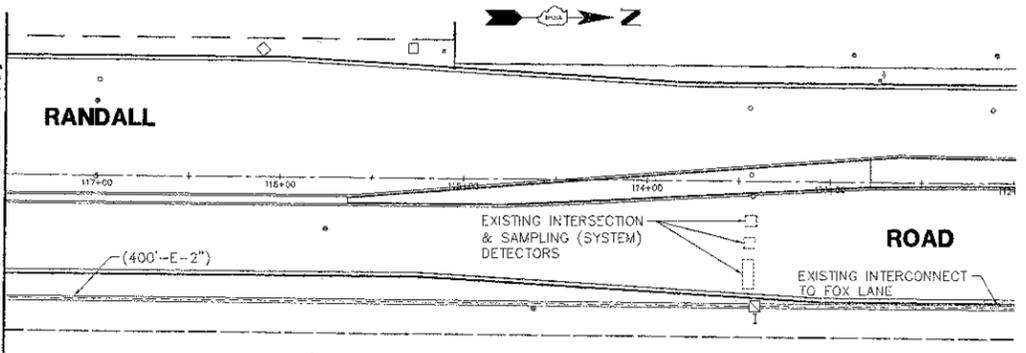
**CONSTRUCTION NOTES:**

- ① THE CONTRACTOR SHALL REINSTALL THE EXISTING COILED FIBER OPTIC AN TRACER CABLES IN THE NEW OR EXISTING CONDUIT TO THE NEW CONTROLLER CABINET.

MATCHLINE STA. 132+00  
(SEE UPPER RIGHT)

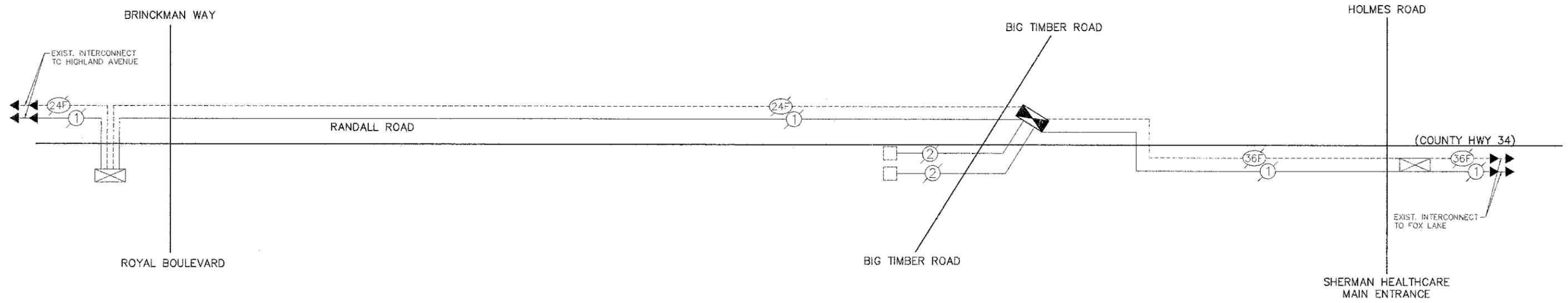


MATCHLINE STA. 117+50  
(SEE MIDDLE RIGHT)



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDOT ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

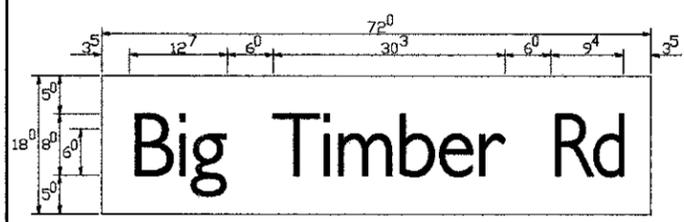
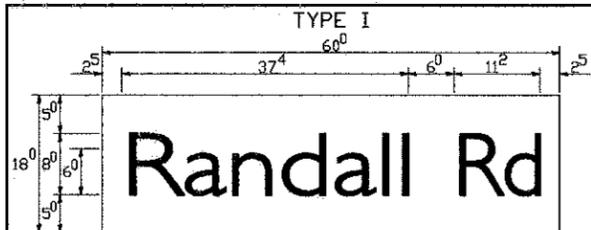
|                              |                           |                  |           |   |   |                     |              |                   |                        |             |                 |              |
|------------------------------|---------------------------|------------------|-----------|---|---|---------------------|--------------|-------------------|------------------------|-------------|-----------------|--------------|
| FILE NAME = 4459.000-TR1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JRD   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>INTERCONNECT PLAN (SHEET 2 OF 2)<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> |                     |              | F.A.P. RTE. 527   | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67 | SHEET NO. 26 |
| PLOT SCALE = 1" = .0633'     | CHECKED - KLB             | DATE - 3/21/2012 | REVISED - |   | SCALE 1" = 50'  | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT #: 63669 |                        |             |                 |              |
| PLOT DATE = 3/21/2012        | DATE - 3/21/2012          | REVISED -        | REVISED - |   | ILLINOIS FED. AID PROJECT   |                     |              |                   |                        |             |                 |              |
| GHA #4459.000                |                           |                  |           |   |   |                     |              |                   |                        |             |                 |              |



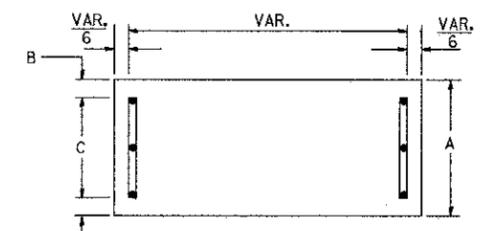
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE SIEMENS M-50 SERIES IP ACCESSIBLE VIA ETHERNET TO THE KDDG ATMS TO MATCH THE EXISTING ADJACENT SYSTEM.

|                                 |                           |                  |           |   |  |               |                        |              |                           |              |  |
|---------------------------------|---------------------------|------------------|-----------|---|--|---------------|------------------------|--------------|---------------------------|--------------|--|
| FILE NAME =<br>4459.000-TR1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JRD   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>INTERCONNECT SCHEMATIC - RANDALL ROAD BETWEEN<br/>ROYAL BOULEVARD/BRINCKMAN WAY AND HOLMES ROAD</b> | FAP. RTE. 527 | SECTION 08-00369-00-SP | COUNTY KANE  | TOTAL SHEETS 67           | SHEET NO. 27 |  |
|                                 | PLOT SCALE = 1" = .0833'  | CHECKED - KLB    | REVISED - |   |  | SCALE: N.A.   | SHEET NO. OF SHEETS    | STA. TO STA. | ILLINOIS FED. AID PROJECT |              |  |
|                                 | PLOT DATE = 3/21/2012     | DATE - 3/21/2012 | REVISED - |   |  |               |                        |              | CONTRACT #: 63689         |              |  |

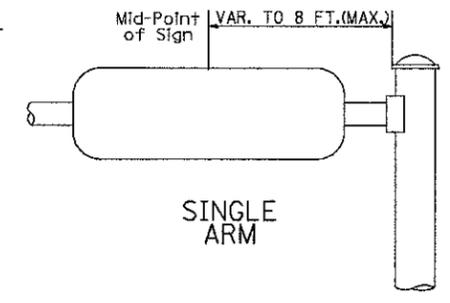
CHA #4459.000



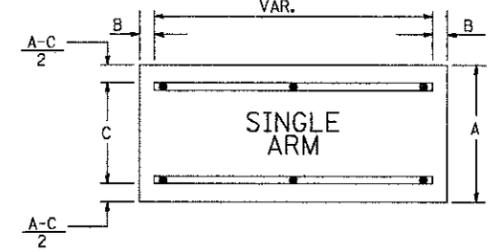
SUPPORTING CHANNELS



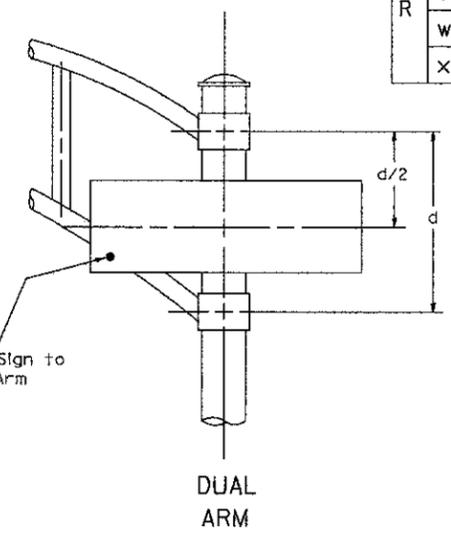
| A   | B  | C   |
|-----|----|-----|
| 18" | 2" | 14" |



SUPPORTING CHANNELS



| A   | B  | C   |
|-----|----|-----|
| 18" | 2" | 12" |
| 30" | 2" | 22" |



Upper Case To Lower Case  
Spacing Chart 8-6 Inch Series "C & D"

| SERIES  | SECOND LETTER  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|---------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|         | a c d e        |                | b h i k l      |                | f w            |                | J              |                | s t            |                | v y            |                | x              |                | z              |                |
|         | g o q          | m n p r u      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| A W X   | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>1</sup> | 1 <sup>4</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| B       | 1 <sup>4</sup> | 1 <sup>5</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> |
| C E G   | 1 <sup>4</sup> | 1 <sup>5</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> |
| D O Q R | 1 <sup>4</sup> | 1 <sup>5</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> |
| F       | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> |
| H I M N | 2 <sup>0</sup> | 2 <sup>1</sup> | 2 <sup>2</sup> | 2 <sup>4</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> |
| J U     | 2 <sup>0</sup> | 2 <sup>1</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> |
| K L     | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| P       | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| S       | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| T       | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| V       | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| Y       | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 0 <sup>5</sup> | 0 <sup>7</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> |
| Z       | 1 <sup>6</sup> | 1 <sup>7</sup> | 2 <sup>2</sup> | 2 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> |

Lower Case To Lower Case  
Spacing Chart 6 Inch Series "C & D"

| SERIES      | SECOND LETTER  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|             | a d h g l j    |                | b f k o p s    |                | c e            |                | r              |                | t z            |                | v y            |                | w              |                | x              |                |
|             | i m n q u      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| ad h g l j  | 1 <sup>6</sup> | 1 <sup>7</sup> | 2 <sup>2</sup> | 2 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> |
| im n q u    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| b f k o p s | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| c e         | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| r           | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>3</sup> | 0 <sup>3</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> |
| t z         | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| v y         | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 0 <sup>6</sup> | 1 <sup>0</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> |
| w           | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| x           | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |

Number To Number  
Spacing Chart 8 Inch Series "C & D"

| SERIES | SECOND NUMBER  |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|--------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|        | 0              |                | 1              |                | 2              |                | 3              |                | 4              |                | 5              |                | 6              |                | 7              |                | 8              |                | 9              |                |
|        | C              | D              | C              | D              | C              | D              | C              | D              | C              | D              | C              | D              | C              | D              | C              | D              | C              | D              | C              | D              |
| 0 9    | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> |
| 1      | 2 <sup>0</sup> | 2 <sup>1</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> | 2 <sup>0</sup> | 2 <sup>1</sup> |
| 2 3 4  | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> |
| 5      | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> |
| 6      | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> |
| 7      | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>5</sup> | 0 <sup>5</sup> | 0 <sup>6</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> |
| 8      | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>5</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>6</sup> | 1 <sup>7</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> |

EXAMPLE, 2<sup>3</sup> DENOTES 3" / 8"

UPPER AND LOWER CASE  
LETTER WIDTHS

| LETTERS | 6 INCH UPPER CASE LETTERS |                |                |                | 8 INCH UPPER CASE LETTERS |                |                |   | LETTERS | 6 INCH LOWER CASE LETTERS |   |
|---------|---------------------------|----------------|----------------|----------------|---------------------------|----------------|----------------|---|---------|---------------------------|---|
|         | SERIES                    |                | SERIES         |                | SERIES                    |                | SERIES         |   |         | SERIES                    |   |
|         | C                         | D              | C              | D              | C                         | D              | C              | D |         | C                         | D |
| A       | 3 <sup>6</sup>            | 5 <sup>0</sup> | 5 <sup>0</sup> | 6 <sup>5</sup> | a                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| B       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | b                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| C       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | c                         | 3 <sup>5</sup> | 4 <sup>1</sup> |   |         |                           |   |
| D       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | d                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| E       | 3 <sup>0</sup>            | 3 <sup>5</sup> | 4 <sup>0</sup> | 4 <sup>7</sup> | e                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| F       | 3 <sup>0</sup>            | 3 <sup>5</sup> | 4 <sup>0</sup> | 4 <sup>7</sup> | f                         | 2 <sup>3</sup> | 2 <sup>6</sup> |   |         |                           |   |
| G       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | g                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| H       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | h                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| I       | 0 <sup>7</sup>            | 0 <sup>7</sup> | 1 <sup>1</sup> | 1 <sup>2</sup> | i                         | 1 <sup>1</sup> | 1 <sup>1</sup> |   |         |                           |   |
| J       | 3 <sup>0</sup>            | 3 <sup>6</sup> | 4 <sup>0</sup> | 5 <sup>0</sup> | j                         | 2 <sup>0</sup> | 2 <sup>2</sup> |   |         |                           |   |
| K       | 3 <sup>2</sup>            | 4 <sup>1</sup> | 4 <sup>3</sup> | 5 <sup>4</sup> | k                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| L       | 3 <sup>0</sup>            | 3 <sup>5</sup> | 4 <sup>0</sup> | 4 <sup>7</sup> | l                         | 1 <sup>1</sup> | 1 <sup>1</sup> |   |         |                           |   |
| M       | 3 <sup>7</sup>            | 4 <sup>5</sup> | 5 <sup>1</sup> | 6 <sup>1</sup> | m                         | 6 <sup>0</sup> | 7 <sup>0</sup> |   |         |                           |   |
| N       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | n                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| O       | 3 <sup>4</sup>            | 4 <sup>2</sup> | 4 <sup>5</sup> | 5 <sup>5</sup> | o                         | 3 <sup>6</sup> | 4 <sup>3</sup> |   |         |                           |   |
| P       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | p                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| Q       | 3 <sup>4</sup>            | 4 <sup>2</sup> | 4 <sup>5</sup> | 5 <sup>5</sup> | q                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| R       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | r                         | 2 <sup>6</sup> | 3 <sup>2</sup> |   |         |                           |   |
| S       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | s                         | 3 <sup>6</sup> | 4 <sup>2</sup> |   |         |                           |   |
| T       | 3 <sup>0</sup>            | 3 <sup>5</sup> | 4 <sup>0</sup> | 4 <sup>7</sup> | t                         | 2 <sup>7</sup> | 3 <sup>2</sup> |   |         |                           |   |
| U       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | u                         | 3 <sup>5</sup> | 4 <sup>2</sup> |   |         |                           |   |
| V       | 3 <sup>5</sup>            | 4 <sup>4</sup> | 4 <sup>7</sup> | 6 <sup>0</sup> | v                         | 4 <sup>2</sup> | 4 <sup>7</sup> |   |         |                           |   |
| W       | 4 <sup>4</sup>            | 5 <sup>2</sup> | 6 <sup>0</sup> | 7 <sup>0</sup> | w                         | 5 <sup>5</sup> | 6 <sup>4</sup> |   |         |                           |   |
| X       | 3 <sup>4</sup>            | 4 <sup>0</sup> | 4 <sup>5</sup> | 5 <sup>3</sup> | x                         | 4 <sup>4</sup> | 5 <sup>1</sup> |   |         |                           |   |
| Y       | 3 <sup>6</sup>            | 5 <sup>0</sup> | 5 <sup>0</sup> | 6 <sup>6</sup> | y                         | 4 <sup>6</sup> | 5 <sup>3</sup> |   |         |                           |   |
| Z       | 3 <sup>2</sup>            | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> | z                         | 3 <sup>6</sup> | 4 <sup>3</sup> |   |         |                           |   |

| NUMBER | 6 INCH SERIES  |                | 8 INCH SERIES  |                |
|--------|----------------|----------------|----------------|----------------|
|        | C              | D              | C              | D              |
| 1      | 1 <sup>2</sup> | 1 <sup>4</sup> | 1 <sup>5</sup> | 2 <sup>0</sup> |
| 2      | 3 <sup>2</sup> | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> |
| 3      | 3 <sup>2</sup> | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> |
| 4      | 3 <sup>5</sup> | 4 <sup>3</sup> | 4 <sup>7</sup> | 5 <sup>7</sup> |
| 5      | 3 <sup>2</sup> | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> |
| 6      | 3 <sup>2</sup> | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> |
| 7      | 3 <sup>2</sup> | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> |
| 8      | 3 <sup>2</sup> | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> |
| 9      | 3 <sup>2</sup> | 4 <sup>0</sup> | 4 <sup>3</sup> | 5 <sup>3</sup> |
| 0      | 3 <sup>4</sup> | 4 <sup>2</sup> | 4 <sup>5</sup> | 5 <sup>5</sup> |

GENERAL NOTES

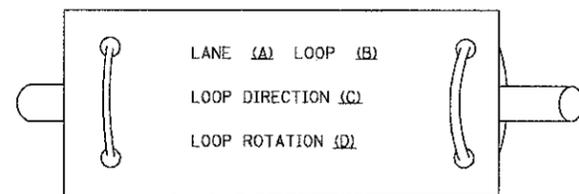
- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
  - ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
  - THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
  - ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
  - SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
    - \* J.O. HERBERT CO. MIDLOTHIAN, VA.
    - \* WESTERN REMAC INC. WOODRIDGE, IL.
- PARTS LISTING:  
SIGN CHANNEL PART #HPN053 (MED. CHANNEL)  
SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3  
BRACKETS SELF TAPPING WITH NEOPRENE WASHER PART #HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BACKET OF THE ABOVE PRODUCT.

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5.

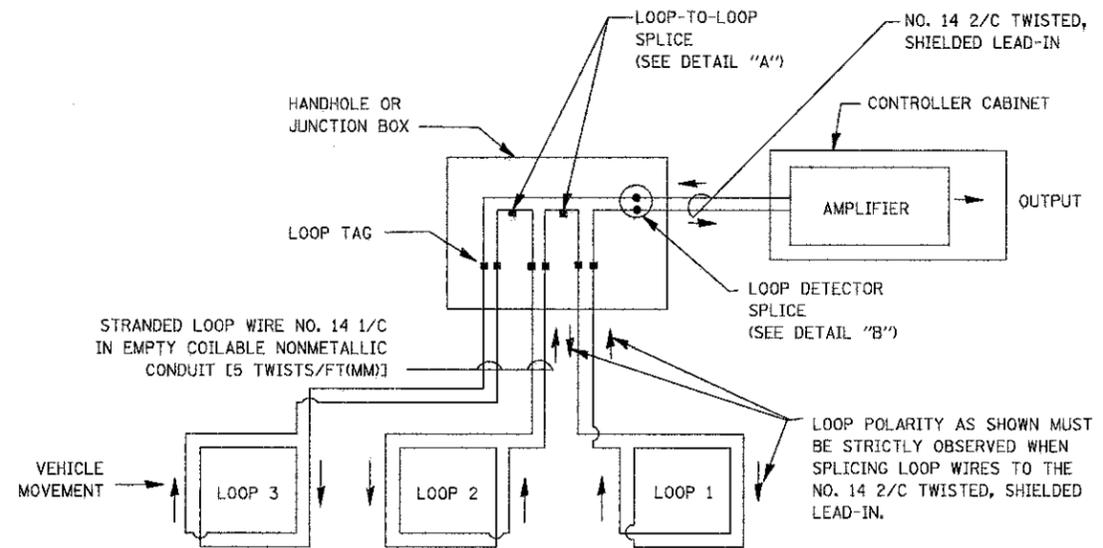
**LOOP DETECTOR NOTES**

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

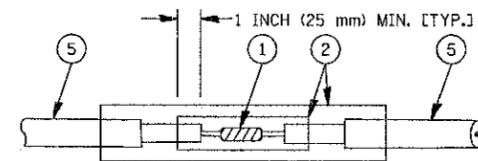


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

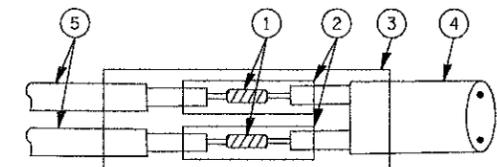


**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

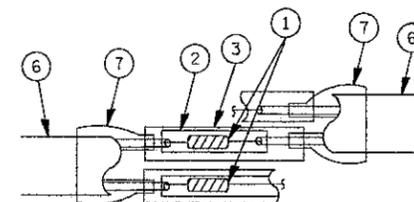


**DETAIL "A"  
LOOP-TO-LOOP SPLICE**

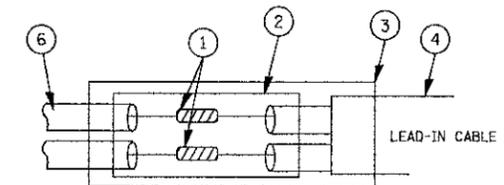


**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

**TYPE I LOOP**



**DETAIL "A"  
LOOP-TO-LOOP SPLICE**



**PRE-FORMED LOOP**

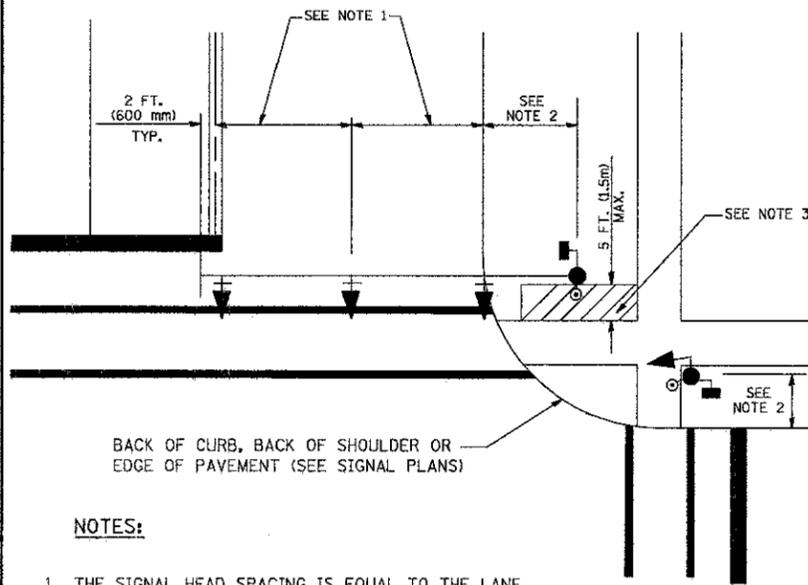
**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

**LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

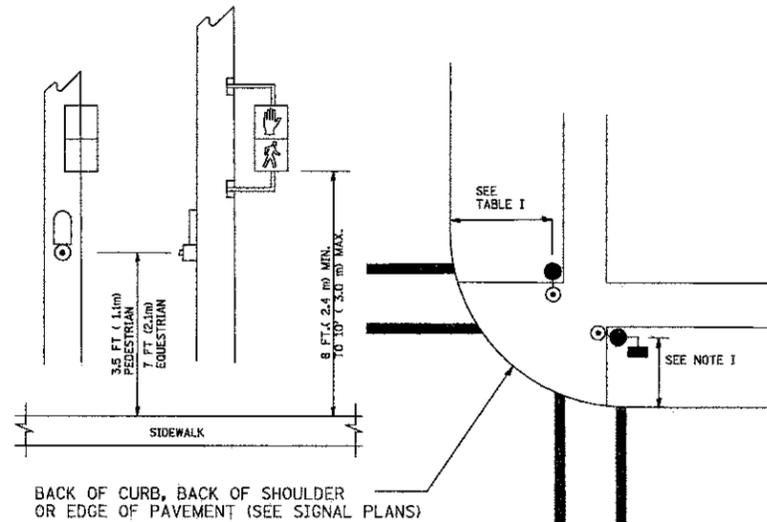
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

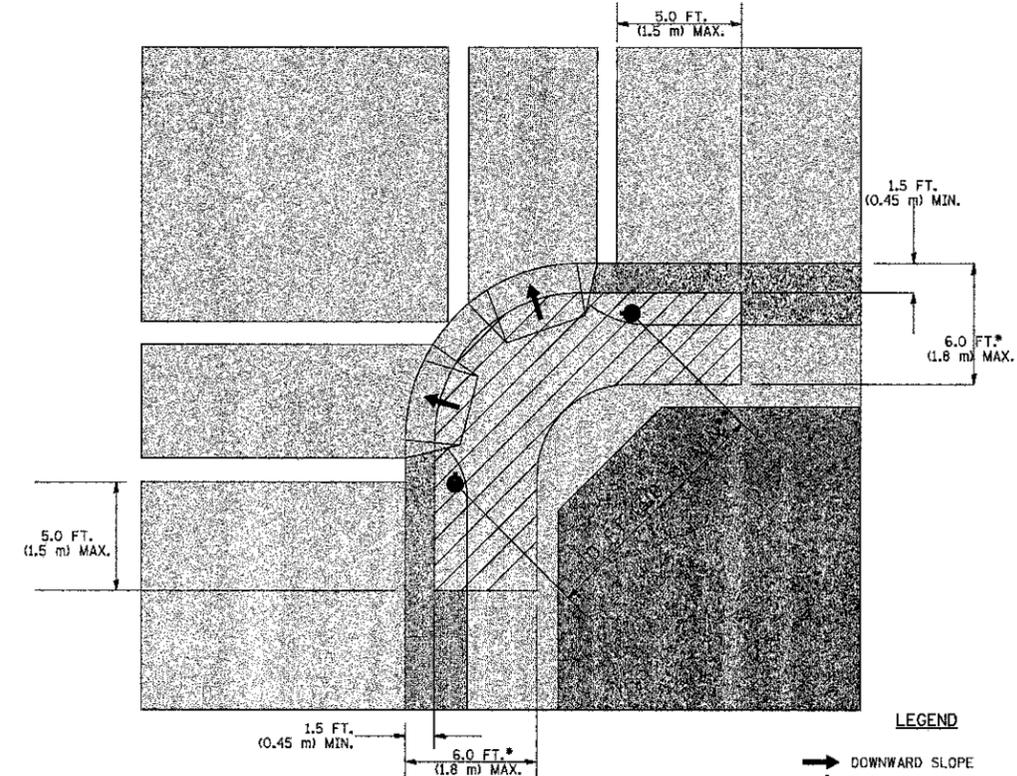
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ RECOMMENDED PUSHBUTTON LOCATIONS

- \* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- \*\* WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.

THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.

THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.

THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.

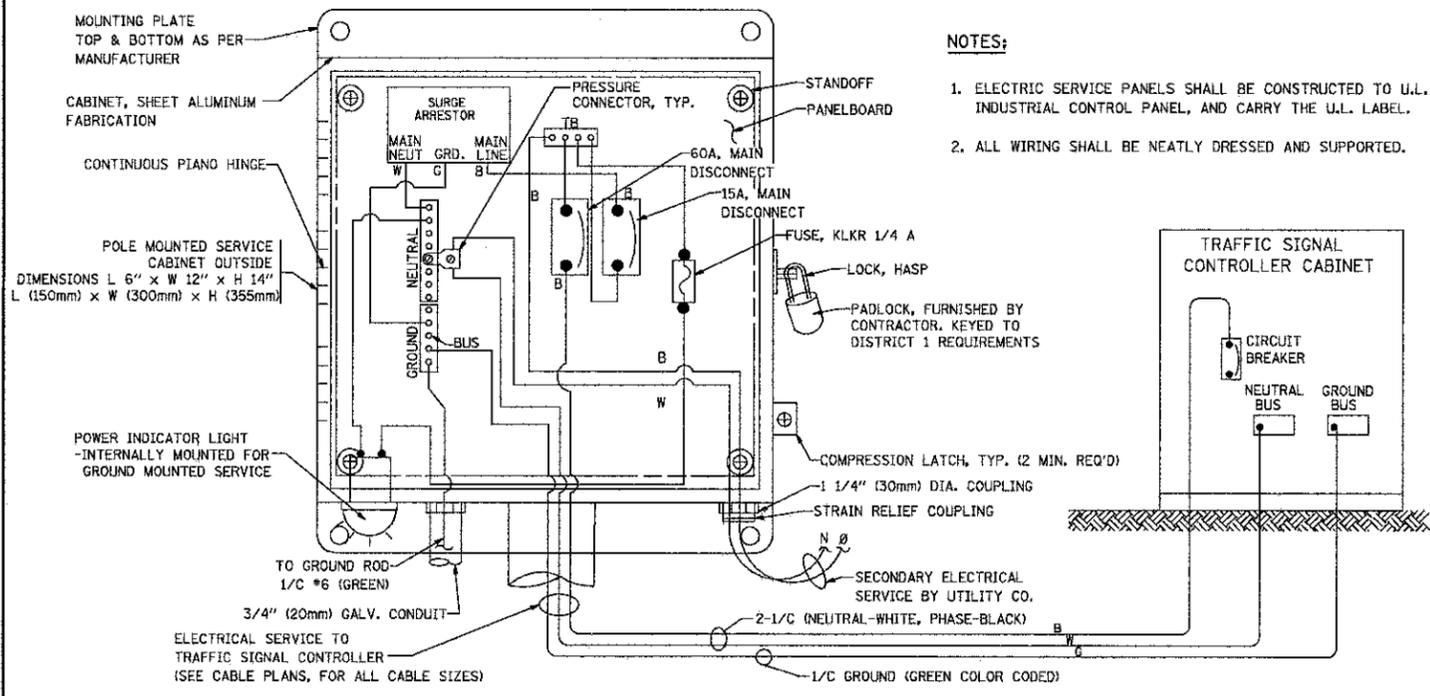
THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

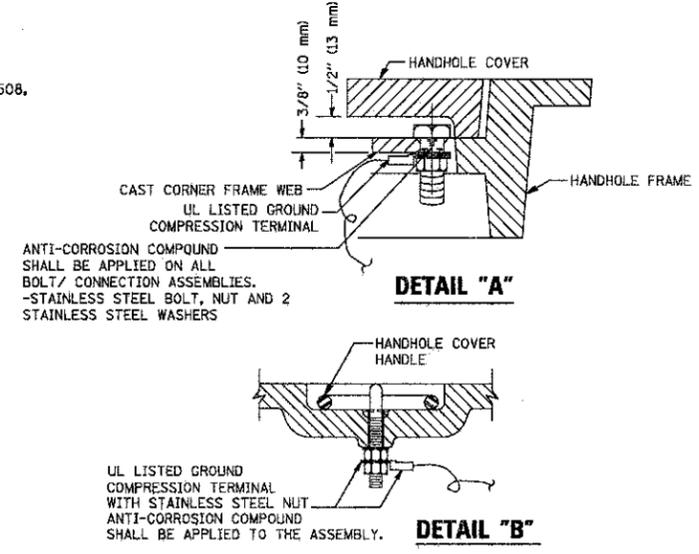
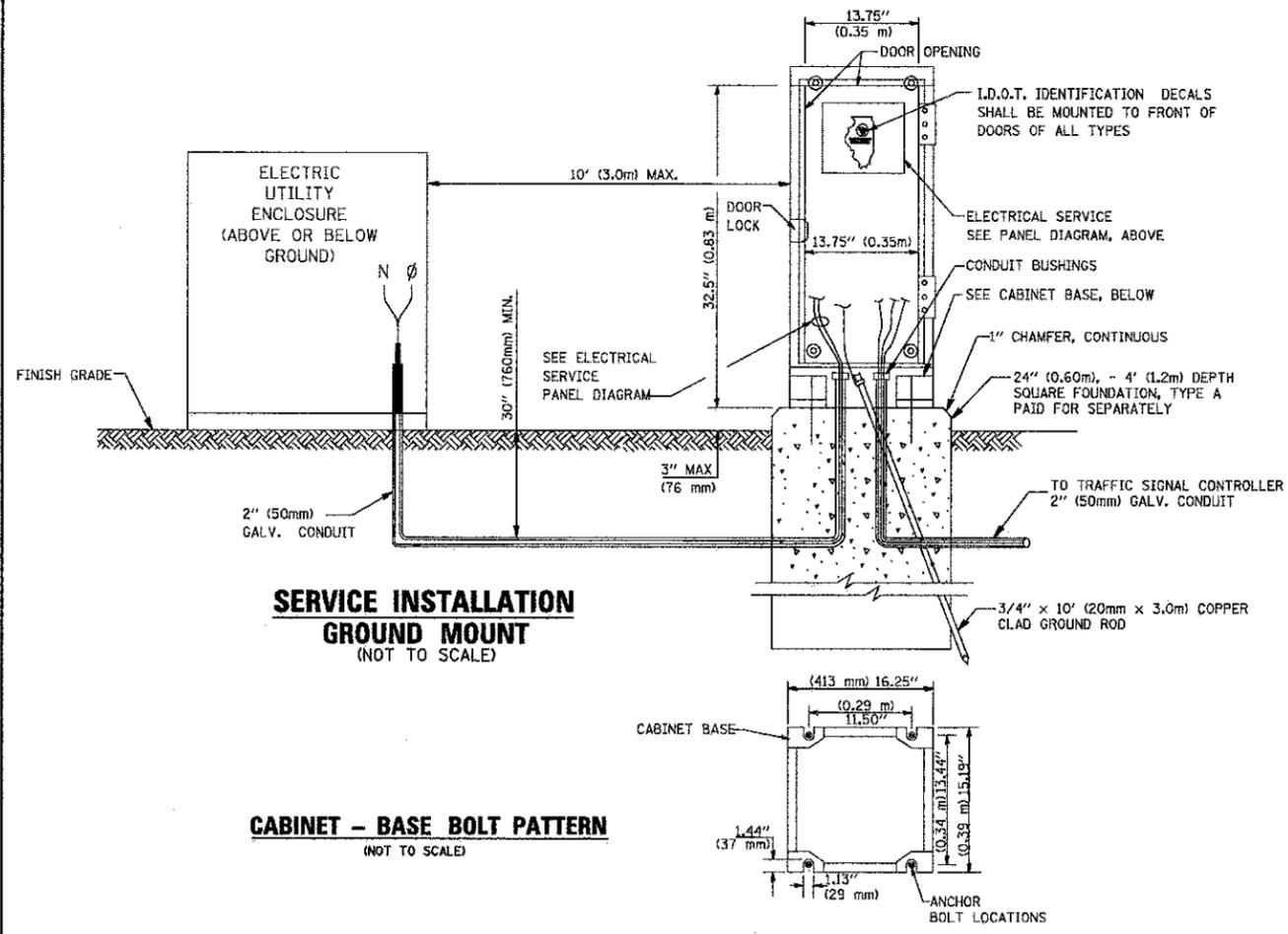
| TRAFFIC SIGNAL EQUIPMENT           | COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION) | SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION) |
|------------------------------------|---|---|
| TRAFFIC SIGNAL MAST ARM POLE       | 6 FT (1.8m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| TRAFFIC SIGNAL POST                | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| PEDESTRIAN SIGNAL POST             | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| PEDESTRIAN PUSHBUTTON POST         | 4 FT (1.2m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| TEMPORARY WOOD POLE                | 6 FT (1.8m)   | SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)  |
| CONTROLLER CABINET                 | 6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2   | SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.                                |
| SERVICE INSTALLATION, GROUND MOUNT | 6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2   | SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.                                |

**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



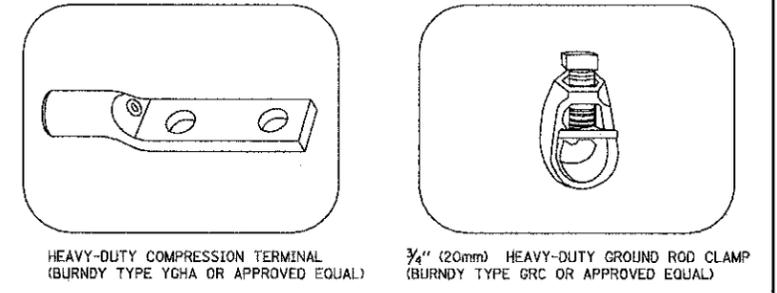
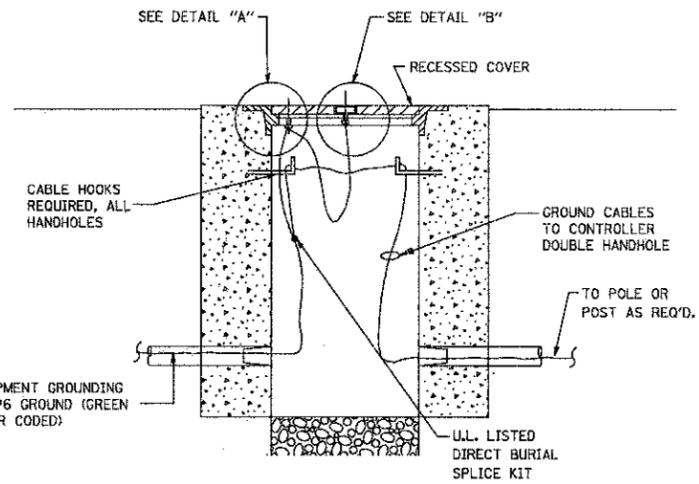
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



**NOTES:**

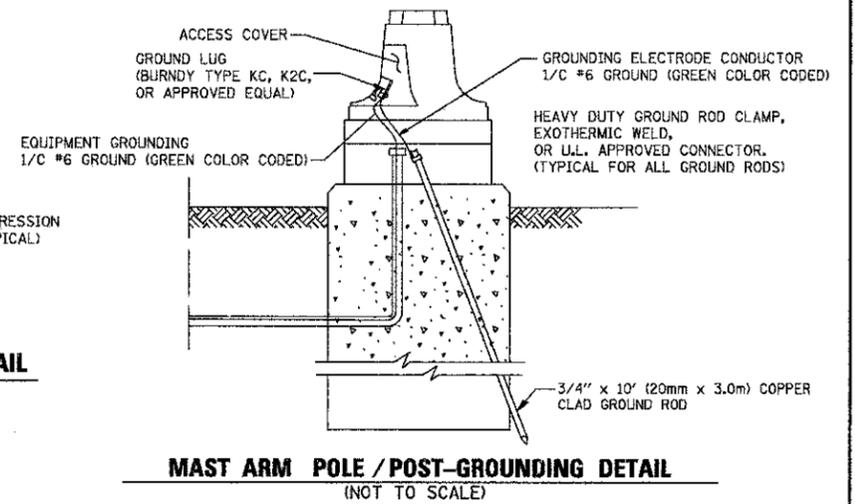
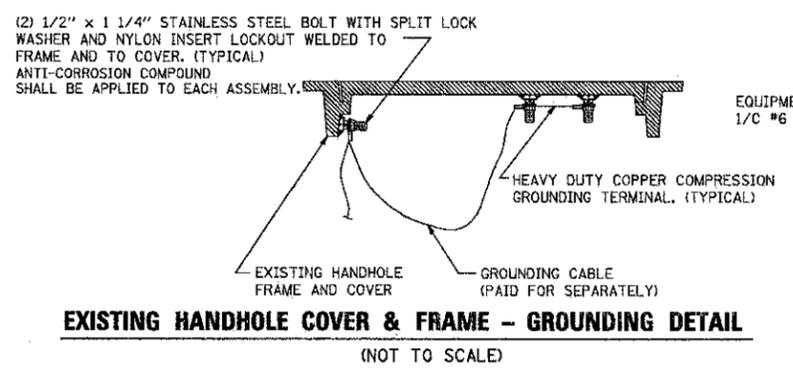
**GROUNDING SYSTEM**

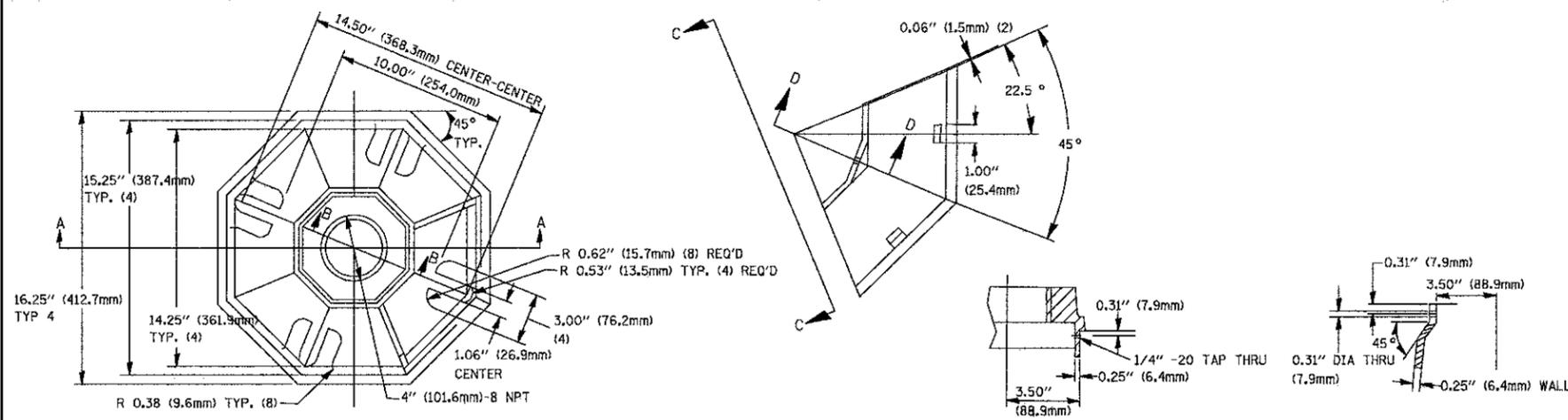
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

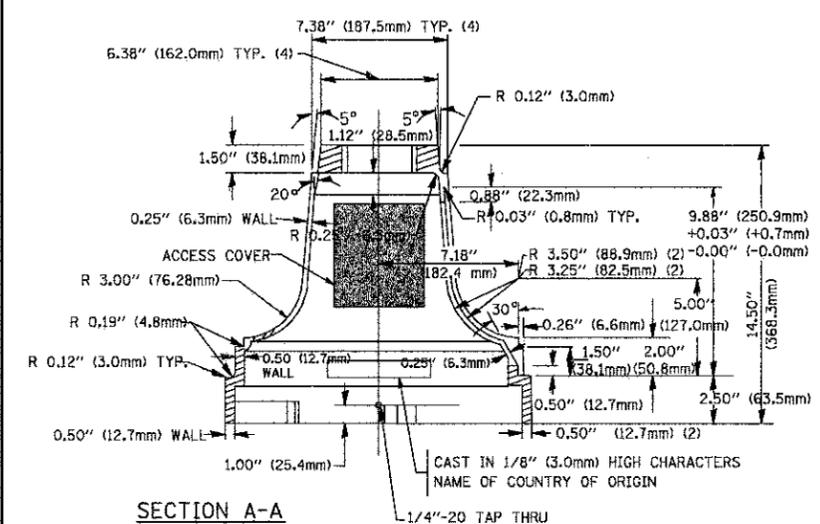




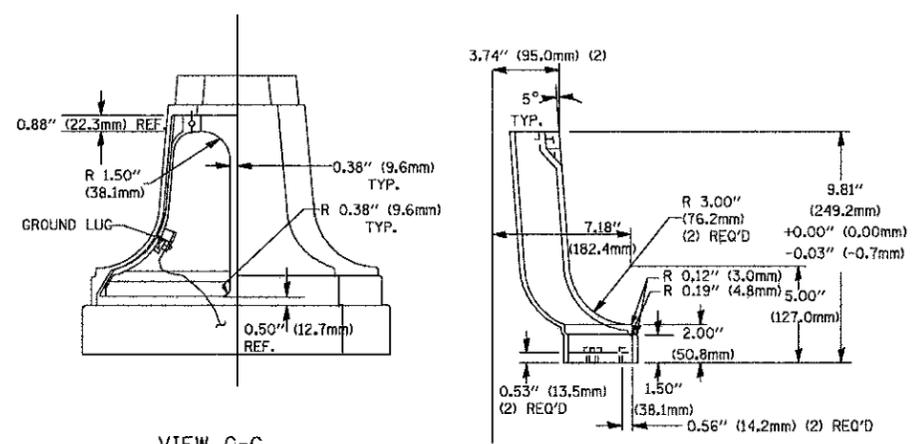
TOP VIEW

SECTION B-B

SECTION D-D

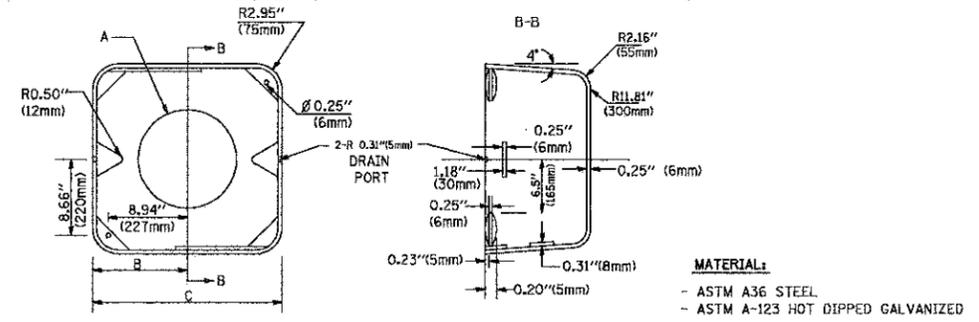


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

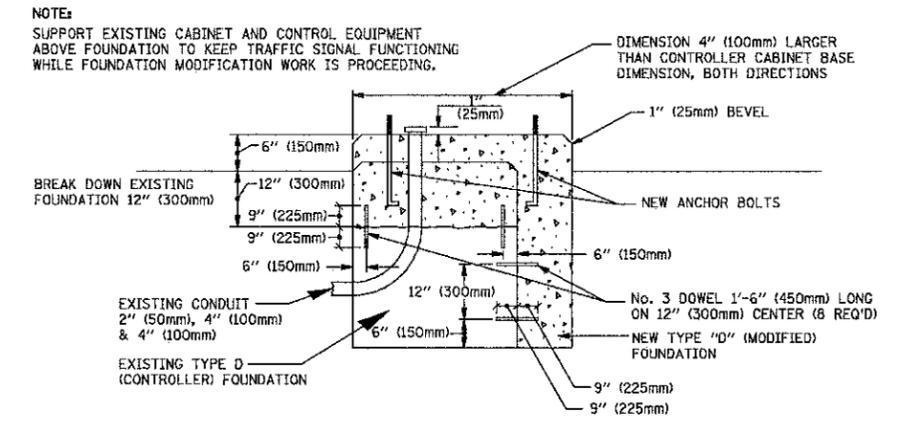


SHROUD

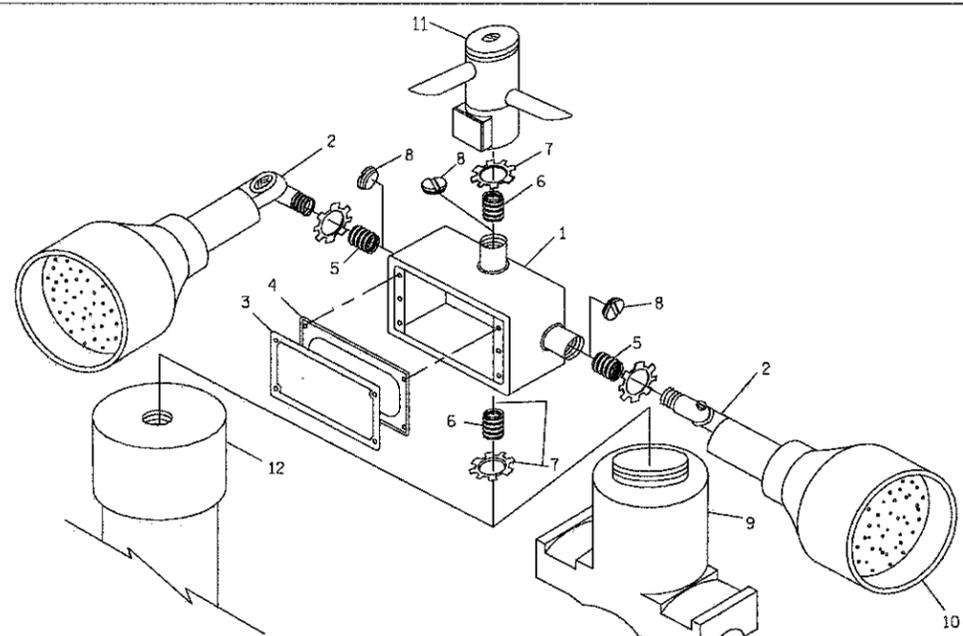
| A         | B               | C              | HEIGHT                     | WEIGHT          |
|-----------|-----------------|----------------|----------------------------|-----------------|
| VARIABLES | 9.5\" (241mm)   | 19\" (483mm)   | 7\" (178mm) - 12\" (300mm) | 53 lbs (24kg)   |
| VARIABLES | 10.75\" (273mm) | 21.5\" (546mm) | 7\" (178mm) - 12\" (300mm) | 68 lbs (31 kg)  |
| VARIABLES | 13.0\" (330mm)  | 26\" (660mm)   | 7\" (178mm) - 12\" (300mm) | 81 lbs (37 kg)  |
| VARIABLES | 18.5\" (470mm)  | 37\" (940mm)   | 7\" (178mm) - 12\" (300mm) | 126 lbs (57 kg) |

NOTES:

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



MODIFY EXISTING TYPE "D" FOUNDATION

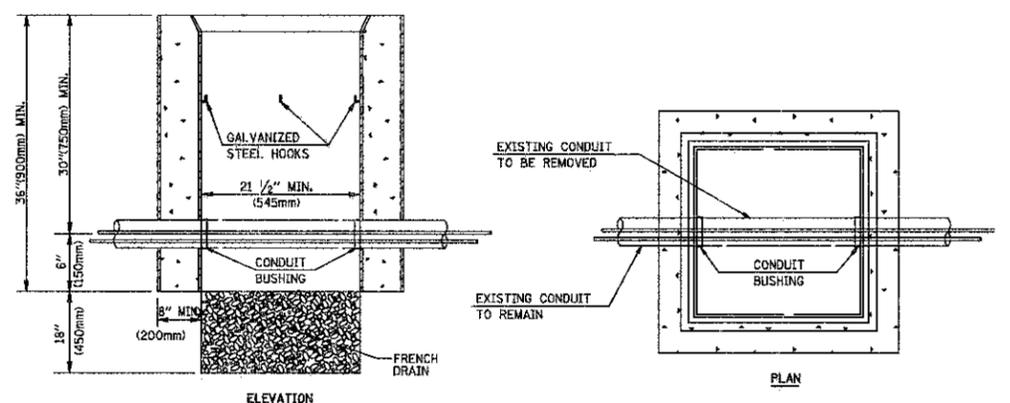


POST CAP MOUNT  
MAST ARM MOUNT  
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

| ITEM NO. | IDENTIFICATION                               |
|----------|--|
| 1        | OUTLET BOX- GALV. 21 CU. IN. (0.000344 CU-M) |
| 2        | LAMP HOLDER AND COVER                        |
| 3        | OUTLET BOX COVER                             |
| 4        | RUBBER COVER GASKET                          |
| 5        | REDUCING BUSHING                             |
| 6        | 3/4\" (19 mm) CLOSE NIPPLE                   |
| 7        | 3/4\" (19 mm) LOCKNUT                        |
| 8        | 3/4\" (19 mm) HOLE PLUG                      |
| 9        | SADDLE BRACKET - GALV.                       |
| 10       | 6 WATT PAR 38 LED FLOOD LAMP                 |
| 11       | DETECTOR UNIT                                |
| 12       | POST CAP [18 FT. (5.4 m) POST MIN.]          |

NOTES:

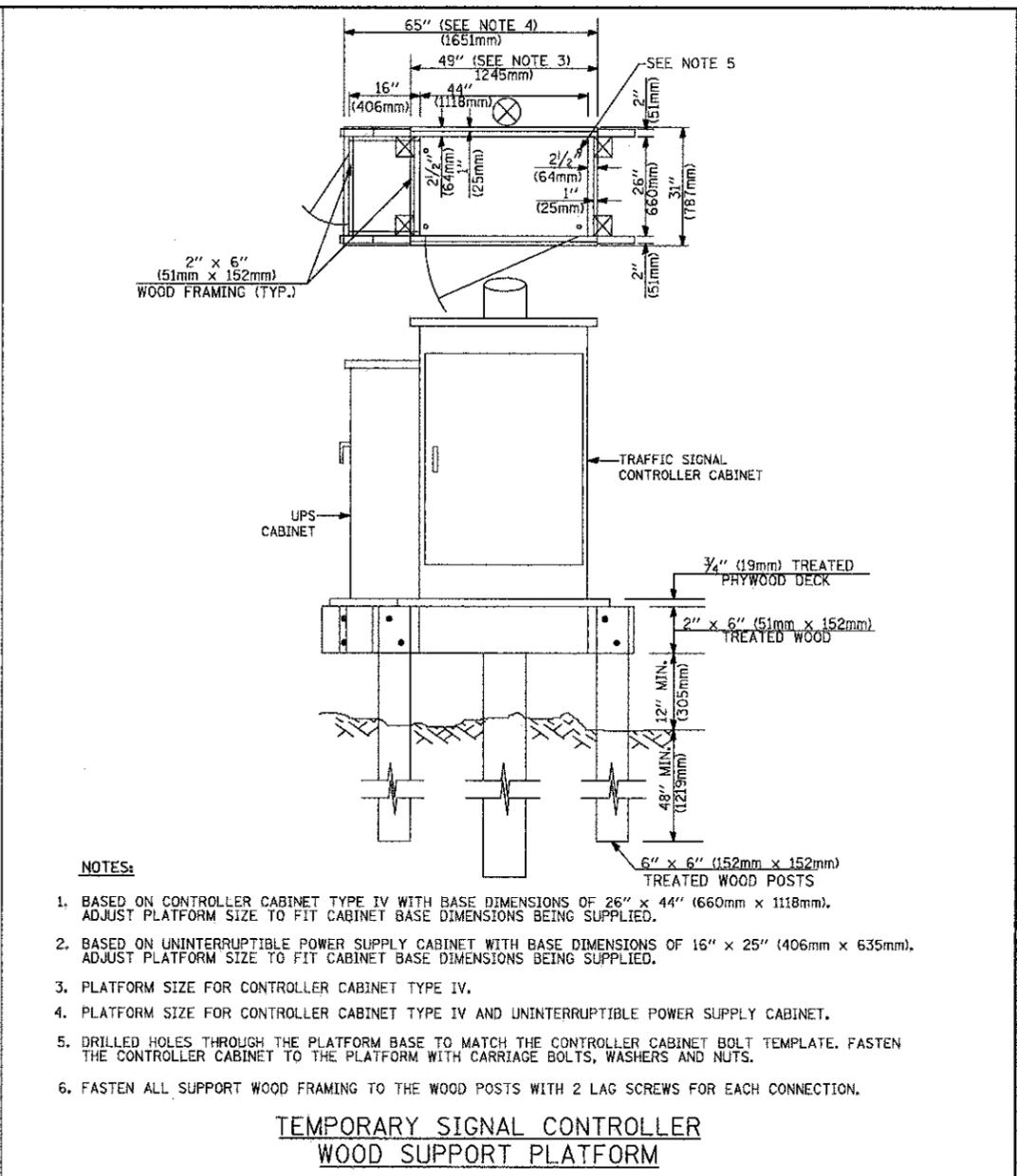
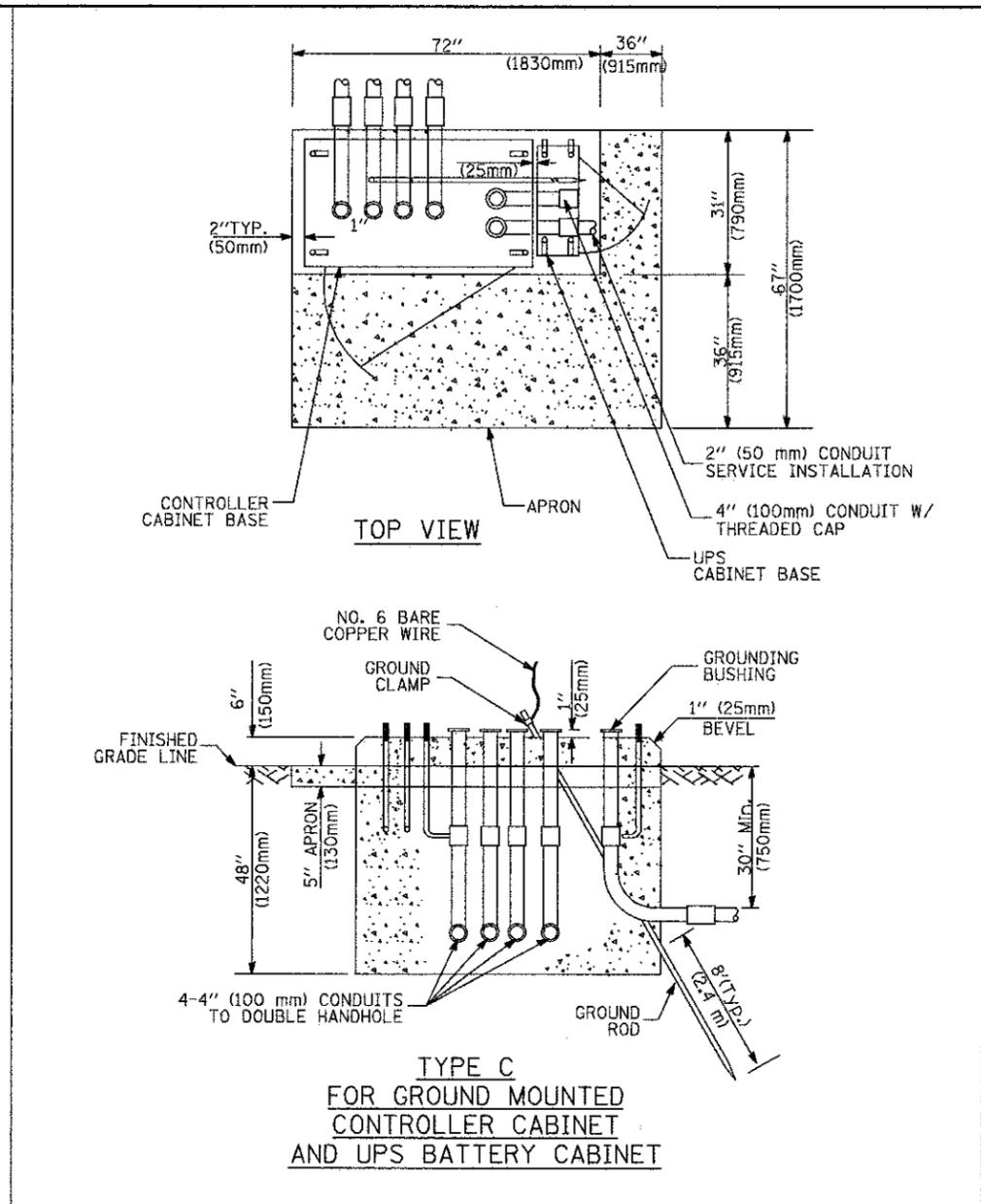
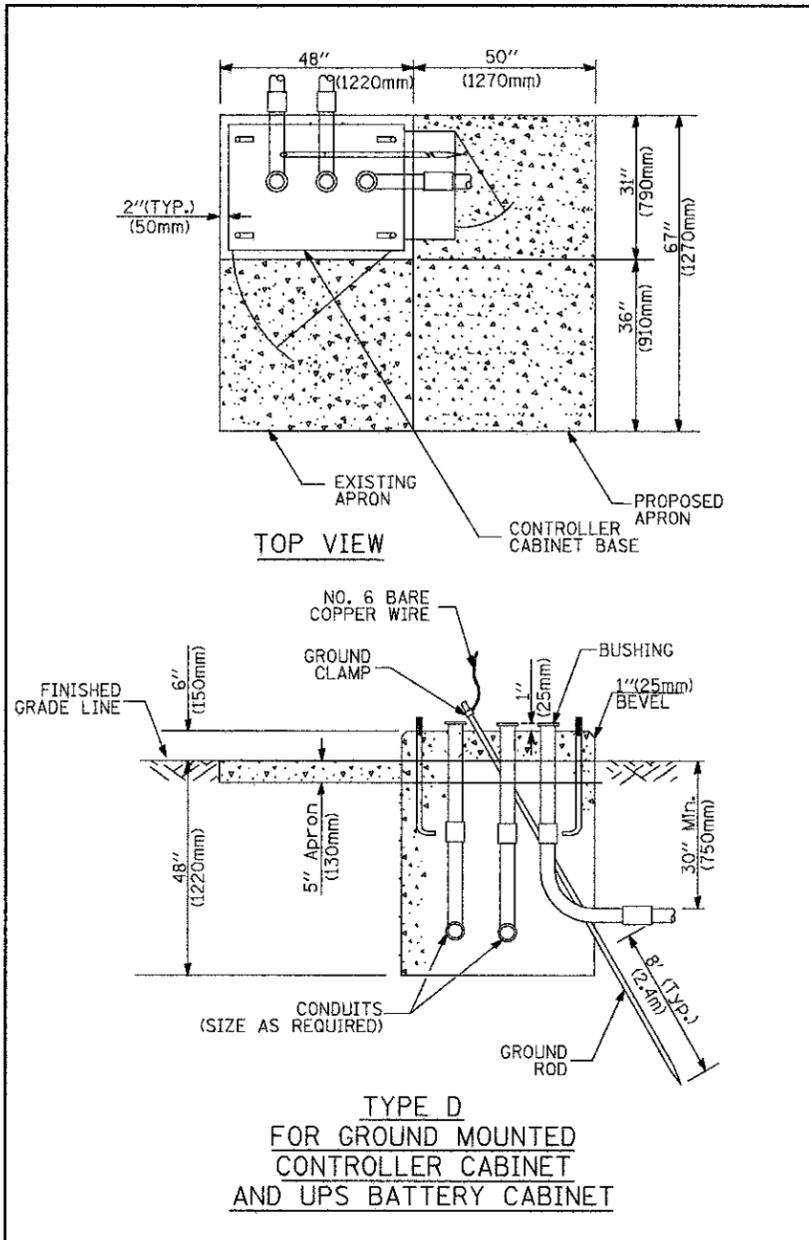
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT



- NOTES:**
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
  4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
  5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
  6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

| CABLE SLACK LENGTH                                | FEET | METER |
|---|------|-------|
| HANDHOLE  | 6.5  | 2.0   |
| DOUBLE HANDHOLE                                   | 13.0 | 4.0   |
| SIGNAL POST                                       | 2.0  | 0.6   |
| MAST ARM  | 2.0  | 0.6   |
| CONTROLLER CABINET                                | 1.5  | 0.5   |
| FIBER OPTIC AT CABINET                            | 13.0 | 4.0   |
| ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION) | 1.5  | 0.5   |
| GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)     | 1.5  | 0.5   |
| GROUND CABLE (BETWEEN FRAME AND COVER)            | 5.0  | 1.6   |

**CABLE SLACK**

| VERTICAL CABLE LENGTH   | FEET   | METER |
|---|--------|-------|
| MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD)<br>(L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM) | 20.0+L | 6.0+L |
| BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)  | 13.0   | 4.0   |
| PEDESTRIAN PUSH BUTTON  | 6.0    | 2.0   |
| SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP   | 13.5   | 4.1   |
| SERVICE INSTALLATION POLE MOUNT TO GROUND   | 13.5   | 4.1   |
| SERVICE INSTALLATION GROUND MOUNT   | 6.0    | 2.0   |
| FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)                               | 3.0    | 1.0   |

**VERTICAL CABLE LENGTH**

| FOUNDATION  | DEPTH        |
|---|--------------|
| TYPE A - Signal Post                                | 4'-0" (1.2m) |
| TYPE C - CONTROLLER W/ UPS                          | 4'-0" (1.2m) |
| TYPE D - CONTROLLER                                 | 4'-0" (1.2m) |
| SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE | 4'-0" (1.2m) |

**DEPTH OF FOUNDATION**

| MAST ARM LENGTH  | ① FOUNDATION DEPTH | FOUNDATION DIAMETER | SPIRAL DIAMETER | QUANTITY OF REBARS | SIZE OF REBARS |
|--|--------------------|---------------------|-----------------|--------------------|----------------|
| Less than 30' (9.1 m)  | 10'-0" (3.0 m)     | 30" (750mm)         | 24" (600mm)     | 8                  | 6(19)          |
| Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)  | 13'-6" (4.1 m)     | 30" (750mm)         | 24" (600mm)     | 8                  | 6(19)          |
| Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m) | 11'-0" (3.4 m)     | 36" (900mm)         | 30" (750mm)     | 12                 | 7(22)          |
| Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)     | 13'-0" (4.0 m)     | 36" (900mm)         | 30" (750mm)     | 12                 | 7(22)          |
| Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m) | 15'-0" (4.6 m)     | 36" (900mm)         | 30" (750mm)     | 12                 | 7(22)          |
| Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)     | 21'-0" (6.4 m)     | 42" (1060mm)        | 36" (900mm)     | 16                 | 8(25)          |
| Greater than or equal to 75' (22.9 m)                            | 25'-0" (7.6 m)     | 42" (1060mm)        | 36" (900mm)     | 16                 | 8(25)          |

- NOTES:**
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
  2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  4. For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

# TRAFFIC SIGNAL LEGEND

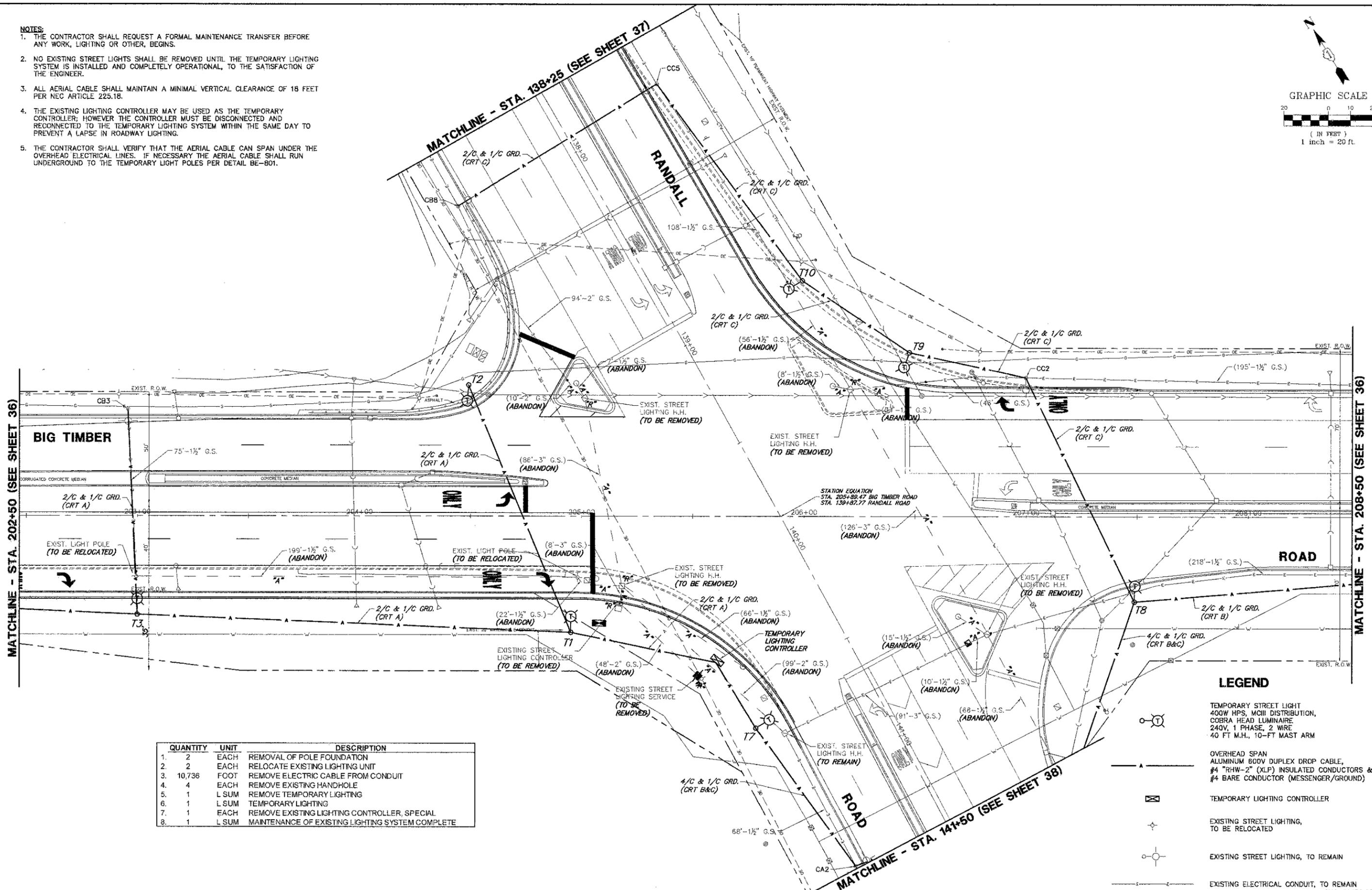
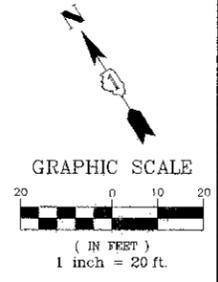
| ITEM  | REMOVAL | EXISTING | PROPOSED | ITEM  | REMOVAL | EXISTING | PROPOSED | ITEM   | REMOVAL | EXISTING | PROPOSED |
|---|---------|----------|----------|---|---------|----------|----------|--|---------|----------|----------|
| CONTROLLER CABINET  |         |          |          | EMERGENCY VEHICLE LIGHT DETECTOR  |         |          |          | ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE                    |         |          |          |
| RAILROAD CONTROL CABINET  |         |          |          | CONFIRMATION BEACON   |         |          |          | COAXIAL CABLE  |         |          |          |
| COMMUNICATIONS CABINET  |         |          |          | HANDHOLE  |         |          |          | VENDOR CABLE FOR CAMERA  |         |          |          |
| MASTER CONTROLLER   |         |          |          | HEAVY DUTY HANDHOLE   |         |          |          | COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED                               |         |          |          |
| MASTER MASTER CONTROLLER  |         |          |          | DOUBLE HANDHOLE   |         |          |          | FIBER OPTIC CABLE NO. 62.5/125, MM12F  |         |          |          |
| UNINTERRUPTIBLE POWER SUPPLY  |         |          |          | JUNCTION BOX  |         |          |          | FIBER OPTIC CABLE NO. 62.5/125, MM12F  |         |          |          |
| SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT                        |         |          |          | GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)  |         |          |          | FIBER OPTIC CABLE NO. 62.5/125, MM12F  |         |          |          |
| TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT                         |         |          |          | TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE   |         |          |          | FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)           |         |          |          |
| STEEL MAST ARM ASSEMBLY AND POLE  |         |          |          | COMMON TRENCH   |         |          |          | GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE       |         |          |          |
| ALUMINUM MAST ARM ASSEMBLY AND POLE                                       |         |          |          | COILABLE NONMETALLIC CONDUIT (EMPTY)  |         |          |          | CONTROLLER CABINET AND FOUNDATION TO BE REMOVED  |         |          |          |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE               |         |          |          | SYSTEM ITEM   |         | S        | S        | STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED   |         |          |          |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA              |         |          |          | INTERSECTION ITEM   |         | I        | IP       | ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED                                      |         |          |          |
| SIGNAL POST   |         |          |          | REMOVE ITEM   | R       |          |          | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED |         |          |          |
| TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM           |         |          |          | RELOCATE ITEM   | RL      |          |          | SIGNAL POST AND FOUNDATION TO BE REMOVED   |         |          |          |
| GUY WIRE  |         |          |          | ABANDON ITEM  | A       |          |          | INTERSECTION & SAMPLING (SYSTEM) DETECTOR  |         |          |          |
| SIGNAL HEAD   |         |          |          | 12" (300mm) TRAFFIC SIGNAL SECTION  |         |          |          | SAMPLING (SYSTEM) DETECTOR   |         |          |          |
| SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE) |         |          |          | 12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE  |         |          |          | EXISTING INTERSECTION LOOP DETECTOR  |         |          |          |
| SIGNAL HEAD WITH BACKPLATE  |         |          |          | SIGNAL FACE   |         |          |          | PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR                                     |         |          |          |
| SIGNAL HEAD OPTICALLY PROGRAMMED  |         |          |          | SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD   |         |          |          | EXISTING PREFORMED INTERSECTION LOOP DETECTOR  |         |          |          |
| FLASHER INSTALLATION (S DENOTES SOLAR POWER)                              |         |          |          | 12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL   |         |          |          | PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR                                     |         |          |          |
| PEDESTRIAN SIGNAL HEAD  |         |          |          | 12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED   |         |          |          | PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR                                    |         |          |          |
| PEDESTRIAN PUSHBUTTON DETECTOR  |         |          |          | 12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID  |         |          |          | PREFORMED SAMPLING (SYSTEM) DETECTOR   |         |          |          |
| ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR                                 |         |          |          | PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER  |         |          |          |  |         |          |          |
| ILLUMINATED SIGN "NO LEFT TURN"   |         |          |          | RADIO INTERCONNECT  |         |          |          |  |         |          |          |
| ILLUMINATED SIGN "NO RIGHT TURN"  |         |          |          | RADIO REPEATER  |         |          |          |  |         |          |          |
| DETECTOR LOOP, TYPE I   |         |          |          | DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED |         |          |          |  |         |          |          |
| PREFORMED DETECTOR LOOP   |         |          |          | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)  |         |          |          |  |         |          |          |
| MICROWAVE VEHICLE SENSOR  |         |          |          |   |         |          |          |  |         |          |          |
| VIDEO DETECTION CAMERA  |         |          |          |   |         |          |          |  |         |          |          |
| VIDEO DETECTION ZONE  |         |          |          |   |         |          |          |  |         |          |          |
| PAN, TILT, ZOOM CAMERA  |         |          |          |   |         |          |          |  |         |          |          |
| WIRELESS DETECTOR SENSOR  |         |          |          |   |         |          |          |  |         |          |          |
| WIRELESS ACCESS POINT   |         |          |          |   |         |          |          |  |         |          |          |

## RAILROAD SYMBOLS

|                              | EXISTING | PROPOSED |
|------------------------------|----------|----------|
| RAILROAD CONTROL CABINET     |          |          |
| RAILROAD CANTILEVER MAST ARM |          |          |
| FLASHING SIGNAL              |          |          |
| CROSSING GATE                |          |          |
| CROSSBUCK                    |          |          |

**NOTES:**

1. THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER BEFORE ANY WORK, LIGHTING OR OTHER, BEGINS.
2. NO EXISTING STREET LIGHTS SHALL BE REMOVED UNTIL THE TEMPORARY LIGHTING SYSTEM IS INSTALLED AND COMPLETELY OPERATIONAL, TO THE SATISFACTION OF THE ENGINEER.
3. ALL AERIAL CABLE SHALL MAINTAIN A MINIMAL VERTICAL CLEARANCE OF 18 FEET PER NEC ARTICLE 225.18.
4. THE EXISTING LIGHTING CONTROLLER MAY BE USED AS THE TEMPORARY CONTROLLER; HOWEVER THE CONTROLLER MUST BE DISCONNECTED AND RECONNECTED TO THE TEMPORARY LIGHTING SYSTEM WITHIN THE SAME DAY TO PREVENT A LAPSE IN ROADWAY LIGHTING.
5. THE CONTRACTOR SHALL VERIFY THAT THE AERIAL CABLE CAN SPAN UNDER THE OVERHEAD ELECTRICAL LINES. IF NECESSARY THE AERIAL CABLE SHALL RUN UNDERGROUND TO THE TEMPORARY LIGHT POLES PER DETAIL BE-801.



| QUANTITY | UNIT   | DESCRIPTION  |
|----------|--------|--|
| 1.       | 2      | EACH REMOVAL OF POLE FOUNDATION                        |
| 2.       | 2      | EACH RELOCATE EXISTING LIGHTING UNIT                   |
| 3.       | 10,736 | FOOT REMOVE ELECTRIC CABLE FROM CONDUIT                |
| 4.       | 4      | EACH REMOVE EXISTING HANDHOLE                          |
| 5.       | 1      | L SUM REMOVE TEMPORARY LIGHTING                        |
| 6.       | 1      | L SUM TEMPORARY LIGHTING                               |
| 7.       | 1      | EACH REMOVE EXISTING LIGHTING CONTROLLER, SPECIAL      |
| 8.       | 1      | L SUM MAINTENANCE OF EXISTING LIGHTING SYSTEM COMPLETE |

**LEGEND**

- TEMPORARY STREET LIGHT  
400W HPS, MOII DISTRIBUTION,  
COBRA HEAD LUMINAIRE  
240V, 1 PHASE, 2 WIRE  
40 FT M.H., 10-FT MAST ARM
- OVERHEAD SPAN  
ALUMINUM 800V DUPLEX DROP CABLE,  
#4 "RHW-2" (XLP) INSULATED CONDUCTORS &  
#4 BARE CONDUCTOR (MESSENGER/GROUND)
- TEMPORARY LIGHTING CONTROLLER
- EXISTING STREET LIGHTING,  
TO BE RELOCATED
- EXISTING STREET LIGHTING, TO REMAIN
- EXISTING ELECTRICAL CONDUIT, TO REMAIN

FILE NAME = 4459.000-EL2.dwg

USER NAME = ZACH WALLSTEN  
PLOT SCALE = 1" = .0833'  
PLOT DATE = 3/21/2012

DESIGNED - JZ  
DRAWN - ZCW  
CHECKED - AJP  
DATE - 3/21/2012

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

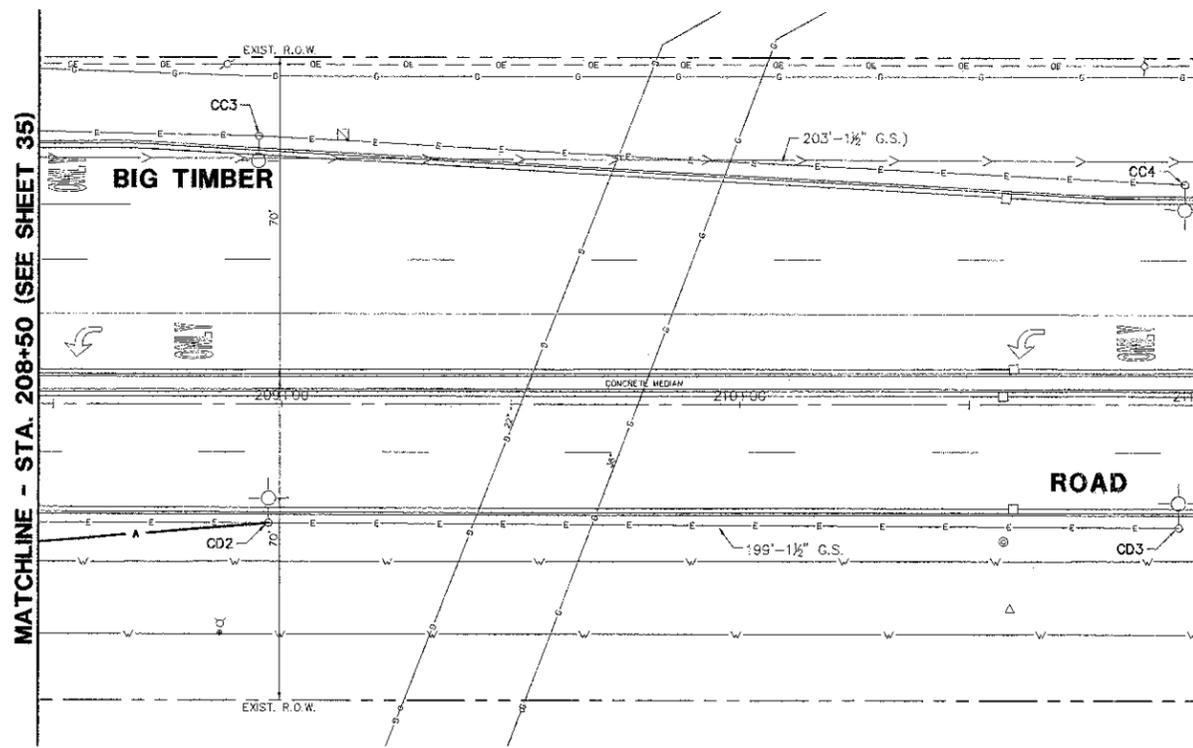
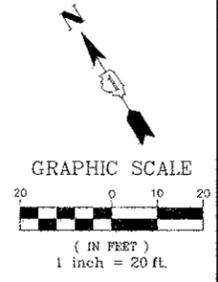
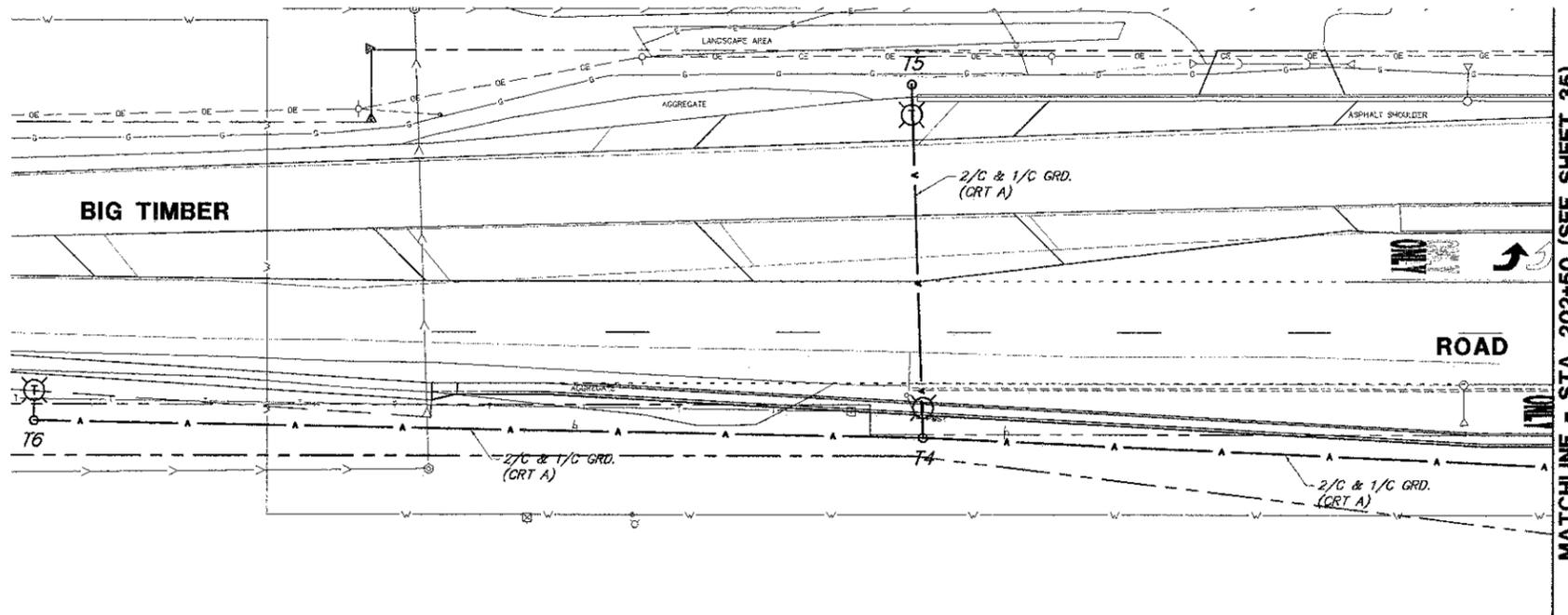
**TEMPORARY LIGHTING INSTALLATION &  
REMOVE EXISTING LIGHTING EQUIPMENT  
BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)**

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

| F.A.P. RATE               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 527                       | 08-00369-00-SP | KANE   | 67           | 35        |
| CONTRACT #:               |                |        | 63669        |           |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

**NOTES:**

1. THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER BEFORE ANY WORK, LIGHTING OR OTHER, BEGINS.
2. NO EXISTING STREET LIGHTS SHALL BE REMOVED UNTIL THE TEMPORARY LIGHTING SYSTEM IS INSTALLED AND COMPLETELY OPERATIONAL, TO THE SATISFACTION OF THE ENGINEER.
3. ALL AERIAL CABLE SHALL MAINTAIN A MINIMAL VERTICAL CLEARANCE OF 18 FEET PER NEC ARTICLE 225.18.
4. THE EXISTING LIGHTING CONTROLLER MAY BE USED AS THE TEMPORARY CONTROLLER; HOWEVER THE CONTROLLER MUST BE DISCONNECTED AND RECONNECTED TO THE TEMPORARY LIGHTING SYSTEM WITHIN THE SAME DAY TO PREVENT A LAPSE IN ROADWAY LIGHTING.
5. THE CONTRACTOR SHALL VERIFY THAT THE AERIAL CABLE CAN SPAN UNDER THE OVERHEAD ELECTRICAL LINES. IF NECESSARY THE AERIAL CABLE SHALL RUN UNDERGROUND TO THE TEMPORARY LIGHT POLES PER DETAIL BE-801.



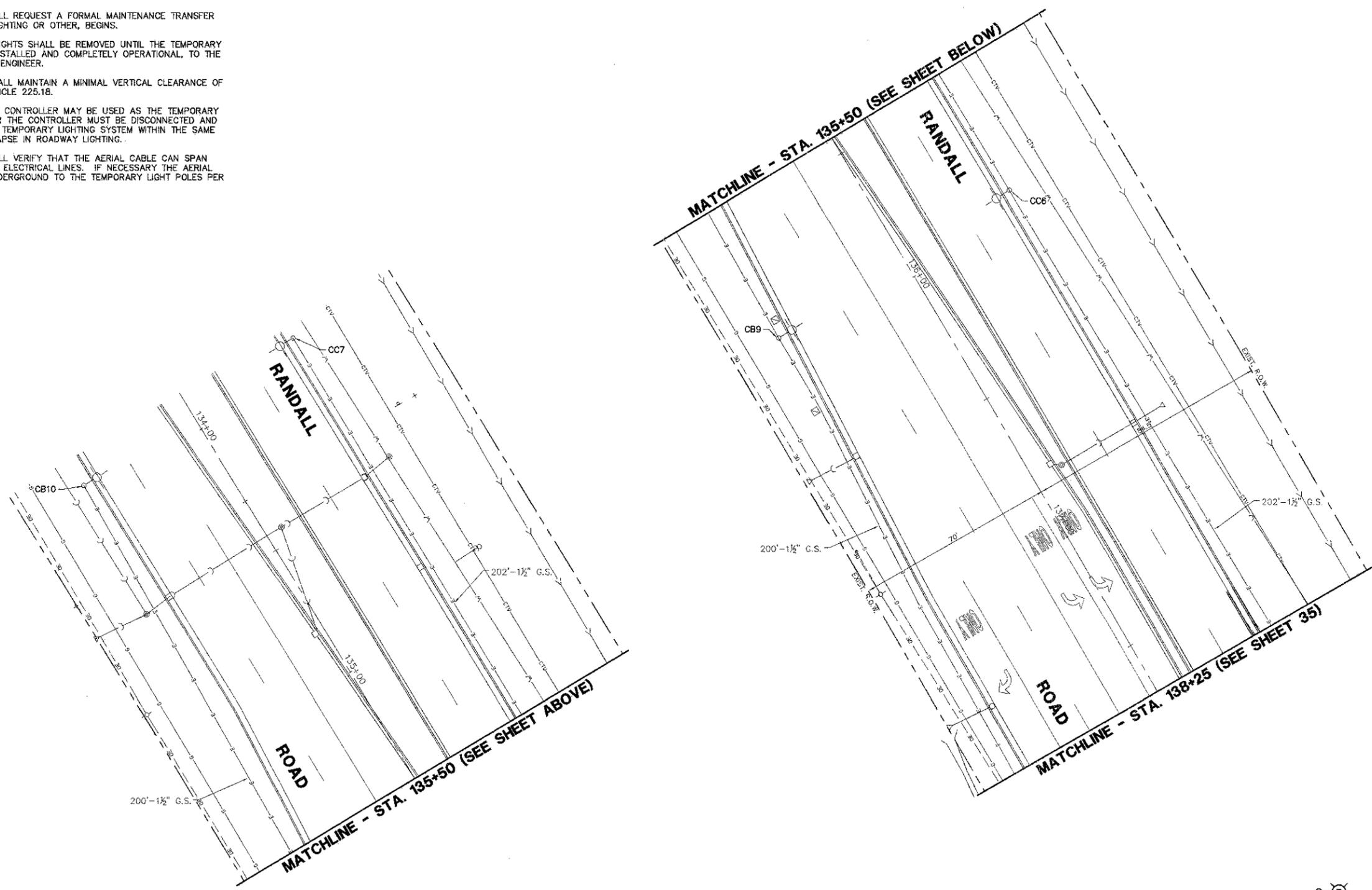
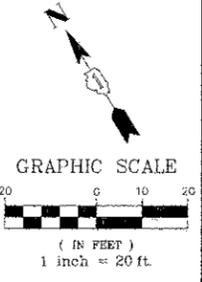
**LEGEND**

- TEMPORARY STREET LIGHT  
400W HPS, MCH DISTRIBUTION,  
COBRA HEAD LUMINAIRE  
240V, 1 PHASE, 2 WIRE  
40 FT M.H., 10-FT MAST ARM
- OVERHEAD SPAN  
ALUMINUM 600V DUPLEX DROP CABLE,  
#4 "RHW-2" (XLP) INSULATED CONDUCTORS &  
#4 BARE CONDUCTOR (MESSENGER/GROUND)
- TEMPORARY LIGHTING CONTROLLER
- EXISTING STREET LIGHTING,  
TO BE RELOCATED
- EXISTING STREET LIGHTING, TO REMAIN
- EXISTING ELECTRICAL CONDUIT, TO REMAIN

|                                 |                           |               |           |   |   |                    |                           |                |                    |                 |
|---------------------------------|---------------------------|---------------|-----------|---|---|--------------------|---------------------------|----------------|--------------------|-----------------|
| FILE NAME =<br>4459.000-EL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JZ | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY LIGHTING INSTALLATION &amp;<br/>REMOVE EXISTING LIGHTING EQUIPMENT<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | F.A.P. RTE.<br>527 | SECTION<br>08-00369-00-SP | COUNTY<br>KANE | TOTAL SHEETS<br>67 | SHEET NO.<br>36 |
|                                 | PLOT SCALE = 1" = .0833'  | CHECKED - AJP | REVISED - |   |   | SCALE 1"=20'       | SHEET NO. OF SHEETS       | STA. TO STA.   | CONTRACT #: 63669  |                 |
| PLOT DATE = 3/21/2012           | DATE = 3/21/2012          | REVISED -     |           | ILLINOIS FED. AID PROJECT                                 |   |                    |                           |                |                    |                 |

**NOTES:**

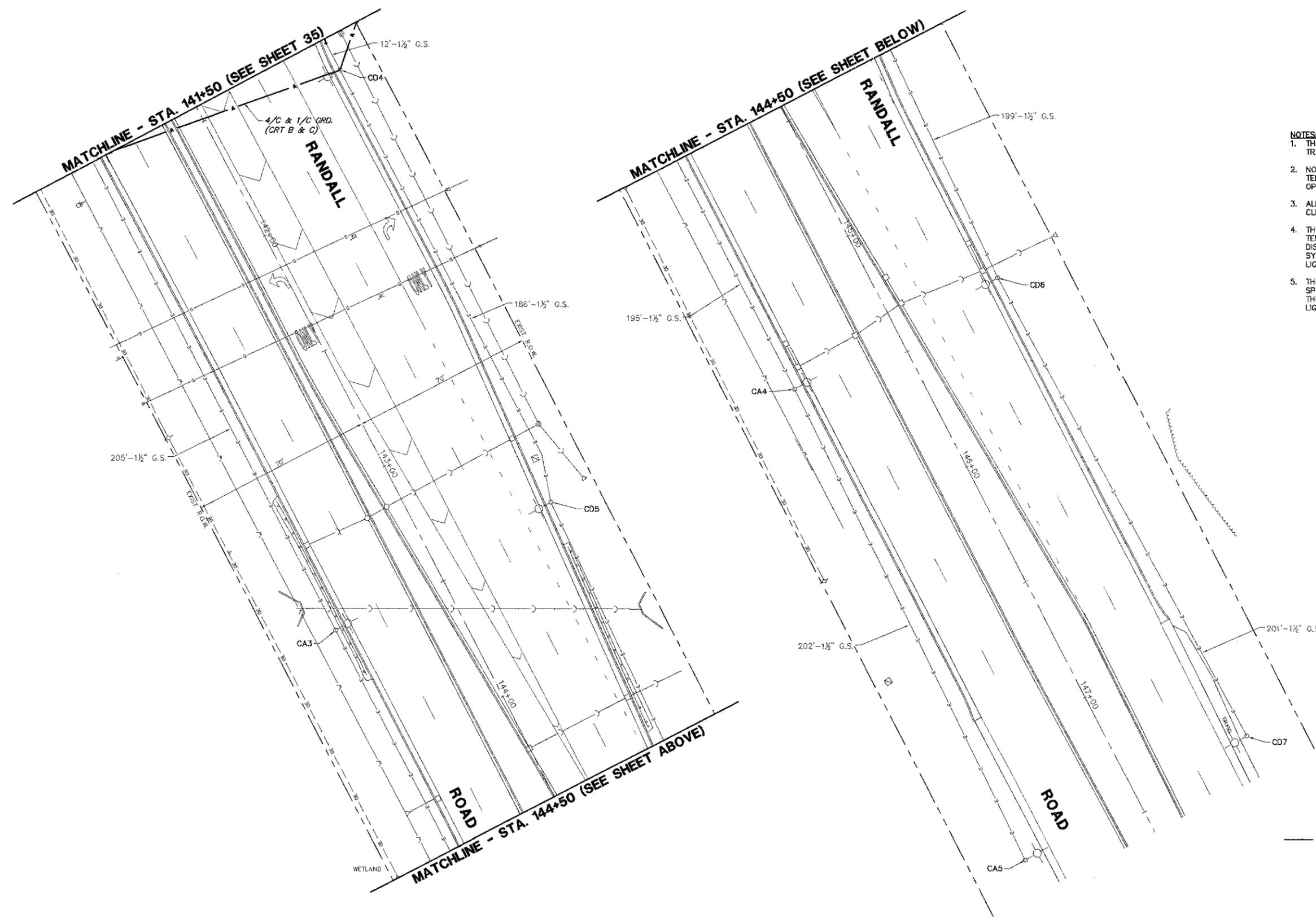
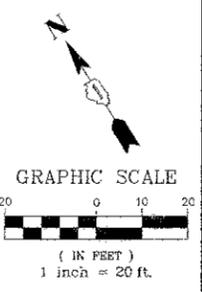
1. THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER BEFORE ANY WORK, LIGHTING OR OTHER, BEGINS.
2. NO EXISTING STREET LIGHTS SHALL BE REMOVED UNTIL THE TEMPORARY LIGHTING SYSTEM IS INSTALLED AND COMPLETELY OPERATIONAL, TO THE SATISFACTION OF THE ENGINEER.
3. ALL AERIAL CABLE SHALL MAINTAIN A MINIMAL VERTICAL CLEARANCE OF 18 FEET PER NEC ARTICLE 225.18.
4. THE EXISTING LIGHTING CONTROLLER MAY BE USED AS THE TEMPORARY CONTROLLER; HOWEVER THE CONTROLLER MUST BE DISCONNECTED AND RECONNECTED TO THE TEMPORARY LIGHTING SYSTEM WITHIN THE SAME DAY TO PREVENT A LAPSE IN ROADWAY LIGHTING.
5. THE CONTRACTOR SHALL VERIFY THAT THE AERIAL CABLE CAN SPAN UNDER THE OVERHEAD ELECTRICAL LINES. IF NECESSARY THE AERIAL CABLE SHALL RUN UNDERGROUND TO THE TEMPORARY LIGHT POLES PER DETAIL BE-801.



**LEGEND**

-  TEMPORARY STREET LIGHT  
400W HPS, MCII DISTRIBUTION,  
COBRA HEAD LUMINAIRE  
240V, 1 PHASE, 2 WIRE  
40 FT M.H., 10-FT MAST ARM
-  OVERHEAD SPAN  
ALUMINUM 600V DUPLEX DROP CABLE,  
#4 "RHW-2" (XLP) INSULATED CONDUCTORS &  
#4 BARE CONDUCTOR (MESSENGER/GROUND)
-  TEMPORARY LIGHTING CONTROLLER
-  EXISTING STREET LIGHTING,  
TO BE RELOCATED
-  EXISTING STREET LIGHTING, TO REMAIN
-  EXISTING ELECTRICAL CONDUIT, TO REMAIN

|                                 |                           |                  |           |   |   |                      |                           |                |                    |                 |
|---------------------------------|---------------------------|------------------|-----------|---|---|----------------------|---------------------------|----------------|--------------------|-----------------|
| FILE NAME =<br>4459.000-EL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JZ    | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY LIGHTING INSTALLATION &amp;<br/>REMOVE EXISTING LIGHTING EQUIPMENT<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | F.A.P. R.T.E.<br>527 | SECTION<br>08-00369-00-SP | COUNTY<br>KANE | TOTAL SHEETS<br>67 | SHEET NO.<br>37 |
|                                 | PLOT SCALE = 1" = .0833'  | DRAWN - ZCW      | REVISED - |   |   | SCALE: 1"=20'        | SHEET NO. OF SHEETS       | STA. TO STA.   | CONTRACT #: 63669  |                 |
| PLOT DATE = 3/21/2012           | CHECKED - AJP             | DATE - 3/21/2012 | REVISED - | GHA #4459.000   |   |                      |                           |                |                    |                 |



- NOTES:**
1. THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER BEFORE ANY WORK, LIGHTING OR OTHER, BEGINS.
  2. NO EXISTING STREET LIGHTS SHALL BE REMOVED UNTIL THE TEMPORARY LIGHTING SYSTEM IS INSTALLED AND COMPLETELY OPERATIONAL, TO THE SATISFACTION OF THE ENGINEER.
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**LEGEND**

|  |  |
|--|--|
|  | TEMPORARY STREET LIGHT<br>400W HPS, MCH DISTRIBUTION,<br>COBRA HEAD LUMINAIRE<br>240V, 1 PHASE, 2 WIRE<br>40 FT M.H., 10-FT MAST ARM |
|  | OVERHEAD SPAN<br>ALUMINUM 600V DUPLEX DROP CABLE,<br>#4 "RHW-2" (XLP) INSULATED CONDUCTORS &<br>#4 BARE CONDUCTOR (MESSENGER/GROUND) |
|  | TEMPORARY LIGHTING CONTROLLER  |
|  | EXISTING STREET LIGHTING,<br>TO BE RELOCATED   |
|  | EXISTING STREET LIGHTING, TO REMAIN  |
|  | EXISTING ELECTRICAL CONDUIT, TO REMAIN   |

FILE NAME = 4459.000-EL2.dwg

USER NAME = ZACH WALLSTEN  
 FLOT SCALE = 1" = 60.33'  
 PLOT DATE = 3/21/2012

DESIGNED - JZ  
 DRAWN - ZCW  
 CHECKED - AJP  
 DATE - 3/21/2012

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY LIGHTING INSTALLATION &  
 REMOVE EXISTING LIGHTING EQUIPMENT  
 BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)**

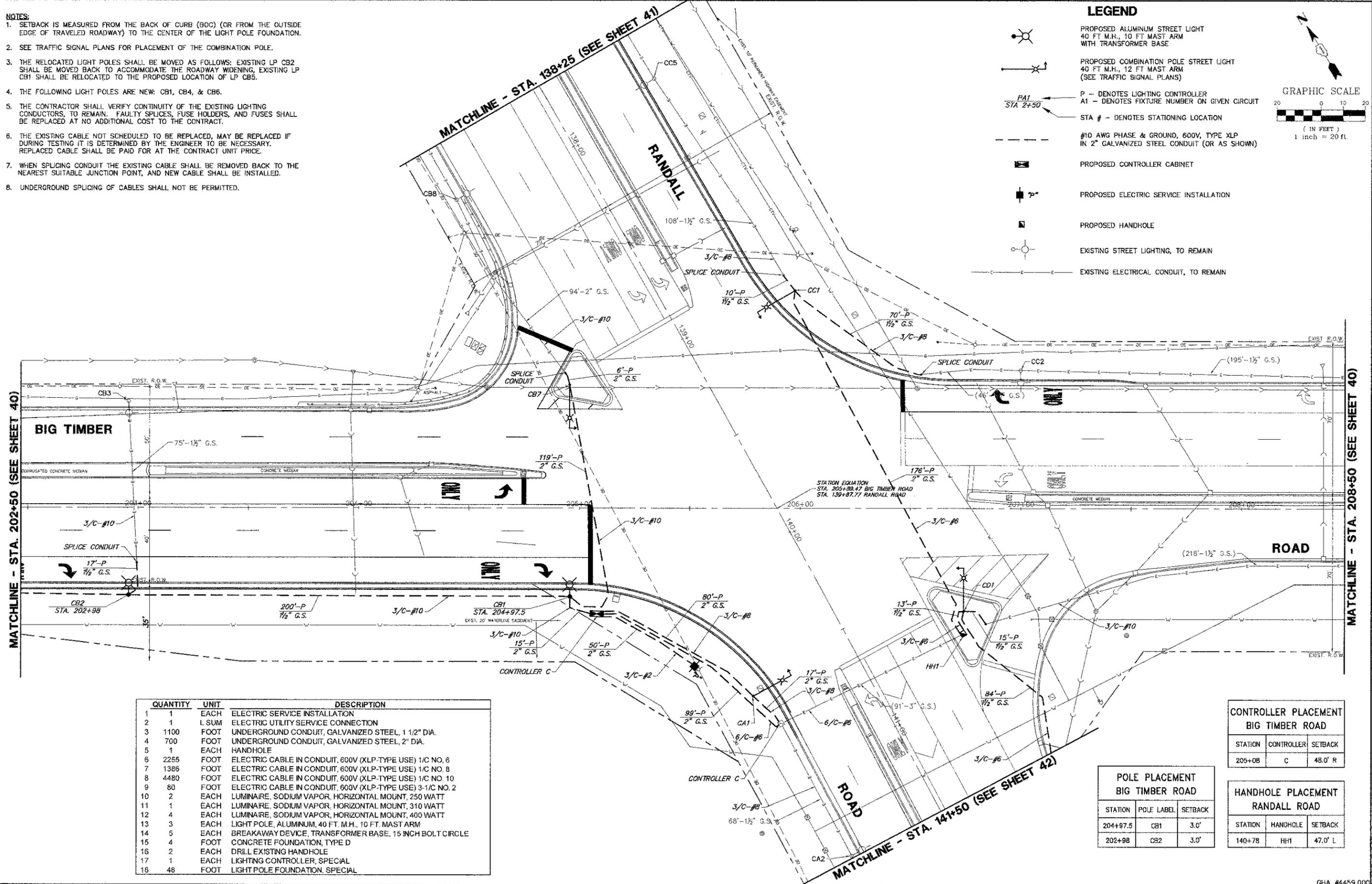
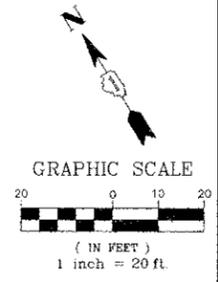
| F.A.P. RTE.               | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------------|----------------|--------|--------------|-----------|
| 527                       | 08-00369-00-SP | KANE   | 67           | 38        |
| CONTRACT #:               |                |        |              | 63669     |
| ILLINOIS FED. AID PROJECT |                |        |              |           |

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

- NOTES:**
1. SETBACK IS MEASURED FROM THE BACK OF CURB (BOC) (OR FROM THE OUTSIDE EDGE OF TRAVELED ROADWAY) TO THE CENTER OF THE LIGHT POLE FOUNDATION.
  2. SEE TRAFFIC SIGNAL PLANS FOR PLACEMENT OF THE COMBINATION POLE.
  3. THE RELOCATED LIGHT POLES SHALL BE MOVED AS FOLLOWS: EXISTING LP CB2 SHALL BE MOVED BACK TO ACCOMMODATE THE ROADWAY WIDENING, EXISTING LP CB1 SHALL BE RELOCATED TO THE PROPOSED LOCATION OF LP CB5.
  4. THE FOLLOWING LIGHT POLES ARE NEW: CB1, CB4, & CB6.
  5. THE CONTRACTOR SHALL VERIFY CONTINUITY OF THE EXISTING LIGHTING CONDUCTORS, TO REMAIN. FAULTY SPLICES, FUSE HOLDERS, AND FUSES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE CONTRACT.
  6. THE EXISTING CABLE NOT SCHEDULED TO BE REPLACED, MAY BE REPLACED IF DURING TESTING IT IS DETERMINED BY THE ENGINEER TO BE NECESSARY. REPLACED CABLE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE.
  7. WHEN SPLICING CONDUIT THE EXISTING CABLE SHALL BE REMOVED BACK TO THE NEAREST SUITABLE JUNCTION POINT, AND NEW CABLE SHALL BE INSTALLED.
  8. UNDERGROUND SPLICING OF CABLES SHALL NOT BE PERMITTED.

**LEGEND**

- PROPOSED ALUMINUM STREET LIGHT  
40 FT M.H., 10 FT MAST ARM  
WITH TRANSFORMER BASE
- PROPOSED COMBINATION POLE STREET LIGHT  
40 FT M.H., 12 FT MAST ARM  
(SEE TRAFFIC SIGNAL PLANS)
- P - DENOTES LIGHTING CONTROLLER  
A1 - DENOTES FIXTURE NUMBER ON GIVEN CIRCUIT
- STA # - DENOTES STATIONING LOCATION
- #10 AWG PHASE & GROUND, 600V, TYPE XLP  
IN 2" GALVANIZED STEEL CONDUIT (OR AS SHOWN)
- PROPOSED CONTROLLER CABINET
- PROPOSED ELECTRIC SERVICE INSTALLATION
- PROPOSED HANDHOLE
- EXISTING STREET LIGHTING, TO REMAIN
- EXISTING ELECTRICAL CONDUIT, TO REMAIN



| QUANTITY | UNIT | DESCRIPTION  |
|----------|------|--|
| 1        | 1    | ELECTRIC SERVICE INSTALLATION                                    |
| 2        | 1    | L.SUM. ELECTRIC UTILITY SERVICE CONNECTION                       |
| 3        | 1100 | FOOT UNDERGROUND CONDUIT, GALVANIZED STEEL, 1 1/2" DIA.          |
| 4        | 700  | FOOT UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.              |
| 5        | 1    | EACH HANDHOLE  |
| 6        | 2255 | FOOT ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6    |
| 7        | 1386 | FOOT ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 8    |
| 8        | 4480 | FOOT ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10 |
| 9        | 80   | FOOT ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 2  |
| 10       | 2    | EACH LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT         |
| 11       | 1    | EACH LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT         |
| 12       | 4    | EACH LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT         |
| 13       | 3    | EACH LIGHT POLE, ALUMINUM, 40 FT. M.H., 10 FT. MAST ARM          |
| 14       | 5    | EACH BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE     |
| 15       | 4    | FOOT CONCRETE FOUNDATION, TYPE D                                 |
| 16       | 2    | EACH DRILL EXISTING HANDHOLE                                     |
| 17       | 1    | EACH LIGHTING CONTROLLER, SPECIAL                                |
| 18       | 48   | FOOT LIGHT POLE FOUNDATION, SPECIAL                              |

**CONTROLLER PLACEMENT  
BIG TIMBER ROAD**

| STATION | CONTROLLER | SETBACK |
|---------|------------|---------|
| 205+08  | C          | 48.0' R |

**POLE PLACEMENT  
BIG TIMBER ROAD**

| STATION  | POLE LABEL | SETBACK |
|----------|------------|---------|
| 204+97.5 | CB1        | 3.0'    |
| 202+98   | CB2        | 3.0'    |

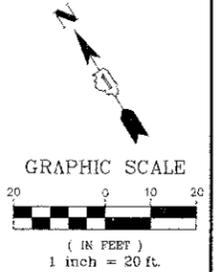
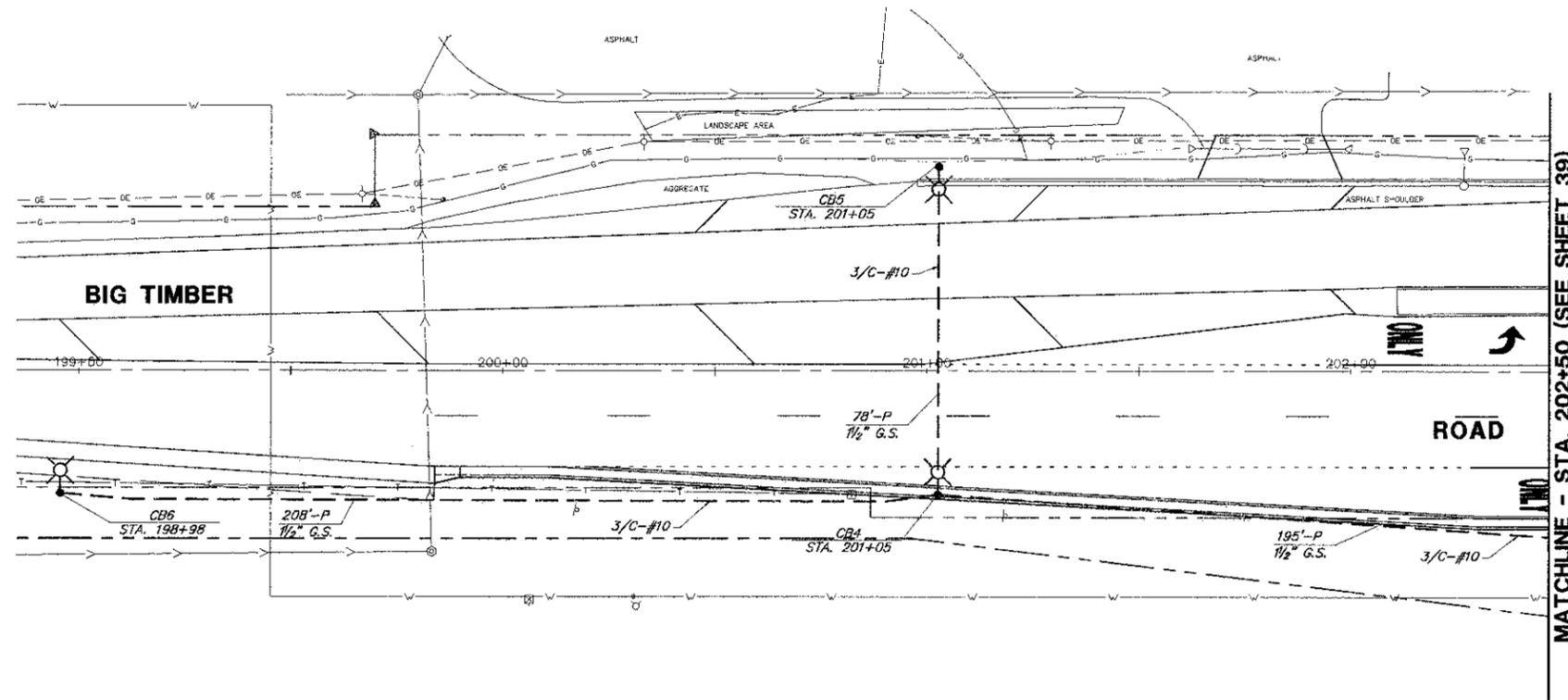
**HANDHOLE PLACEMENT  
RANDALL ROAD**

| STATION | HANDHOLE | SETBACK |
|---------|----------|---------|
| 140+78  | HH1      | 47.0' L |

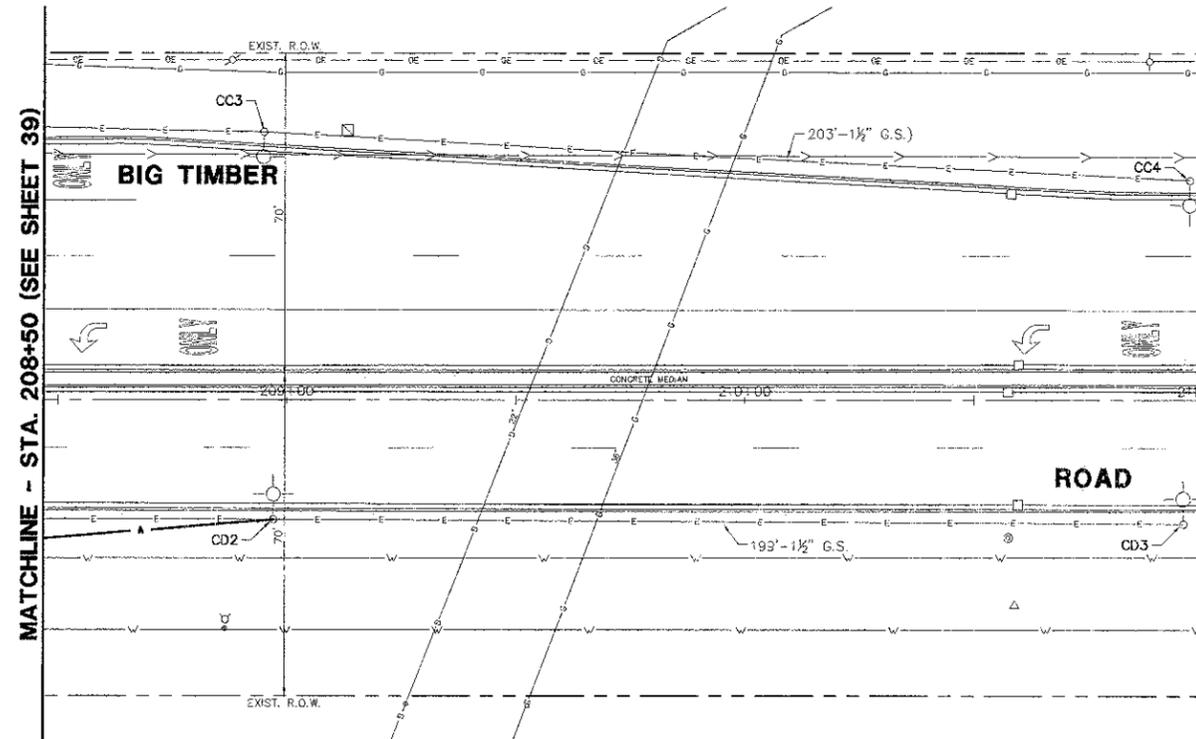
|                              |                           |               |           |   |  |  |                        |              |                   |              |  |  |
|------------------------------|---------------------------|---------------|-----------|---|--|--|------------------------|--------------|-------------------|--------------|--|--|
| FILE NAME = 4459.000-E.2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JZ | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PERMANENT LIGHTING MODERNIZATION PLAN<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | F.A.P. RTE. 527                            | SECTION 08-00369-00-SP | COUNTY KANE  | TOTAL SHEETS 67   | SHEET NO. 39 |  |  |
| PLOT SCALE = 1" = .0833'     | CHECKED - AJP             | DRAWN - ZCW   | REVISED - |   |  | SCALE: 1"=20'                              | SHEET NO. OF SHEETS    | STA. TO STA. | CONTRACT #: 63669 |              |  |  |
| PLOT DATE = 3/21/2012        | DATE = 3/21/2012          | REVISIONS     | REVISIONS |   |  | GHA #4459.000<br>ILLINOIS FED. AID PROJECT |                        |              |                   |              |  |  |

**NOTES:**

1. SETBACK IS MEASURED FROM THE BACK OF CURB (BOC) (OR FROM THE OUTSIDE EDGE OF TRAVELED ROADWAY) TO THE CENTER OF THE LIGHT POLE FOUNDATION.
2. SEE TRAFFIC SIGNAL PLANS FOR PLACEMENT OF THE COMBINATION POLE.
3. THE RELOCATED LIGHT POLES SHALL BE MOVED AS FOLLOWS: EXISTING LP CB2 SHALL BE MOVED BACK TO ACCOMMODATE THE ROADWAY WIDENING, EXISTING LP CB1 SHALL BE RELOCATED TO THE PROPOSED LOCATION OF LP CB5.
4. THE FOLLOWING LIGHT POLES ARE NEW: CB1, CB4, & CB6.
5. THE CONTRACTOR SHALL VERIFY CONTINUITY OF THE EXISTING LIGHTING CONDUCTORS, TO REMAIN. FAULTY SPLICES, FUSE HOLDERS, AND FUSES SHALL BE REPLACED AT NO ADDITIONAL COST TO THE CONTRACT.
6. THE EXISTING CABLE NOT SCHEDULED TO BE REPLACED, MAY BE REPLACED IF DURING TESTING IT IS DETERMINED BY THE ENGINEER TO BE NECESSARY. REPLACED CABLE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE.



MATCHLINE - STA. 202+50 (SEE SHEET 39)



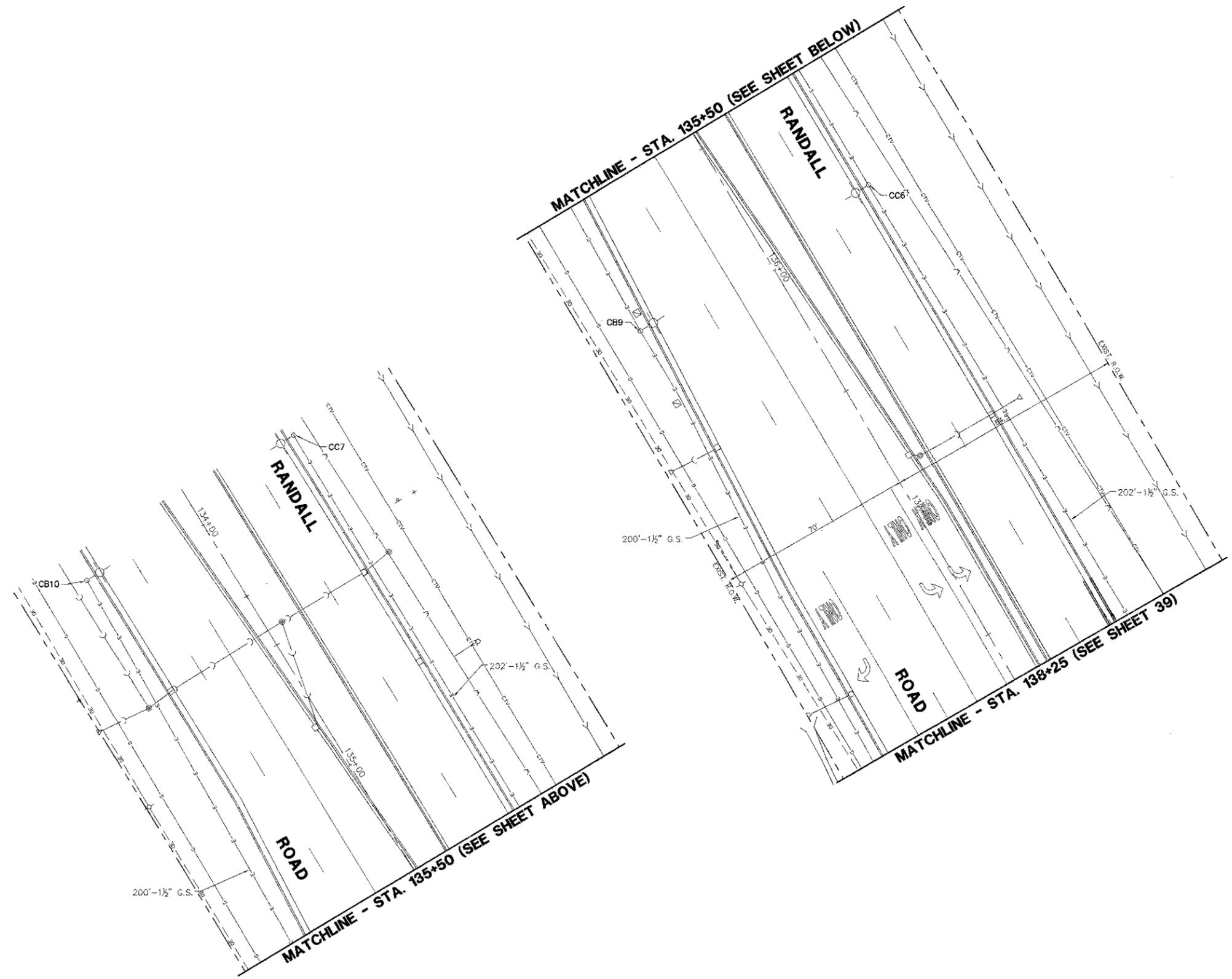
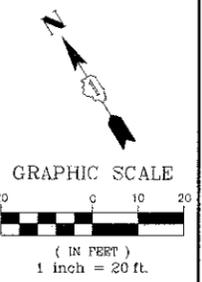
MATCHLINE - STA. 208+50 (SEE SHEET 39)

| POLE PLACEMENT<br>BIG TIMBER ROAD |            |         |
|-----------------------------------|------------|---------|
| STATION                           | POLE LABEL | SETBACK |
| 201+05                            | CB4        | 3.0'    |
| 201+05                            | CB5        | 3.0'    |
| 198+98                            | CB6        | 13.0'   |

**LEGEND**

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40 FT M.H., 10 FT MAST ARM  
WITH TRANSFORMER BASE
- PROPOSED COMBINATION POLE STREET LIGHT  
40 FT M.H., 12 FT MAST ARM  
(SEE TRAFFIC SIGNAL PLANS)
- P - DENOTES LIGHTING CONTROLLER  
A1 - DENOTES FIXTURE NUMBER ON GIVEN CIRCUIT
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- PROPOSED CONTROLLER CABINET
- PROPOSED ELECTRIC SERVICE INSTALLATION
- PROPOSED HANDHOLE
- EXISTING STREET LIGHTING, TO REMAIN
- EXISTING ELECTRICAL CONDUIT, TO REMAIN

|                               |                           |               |             |               |                  |           |           |           |           |   |  |                 |                     |              |                 |                        |             |                 |              |                  |               |
|-------------------------------|---------------------------|---------------|-------------|---------------|------------------|-----------|-----------|-----------|-----------|---|--|-----------------|---------------------|--------------|-----------------|------------------------|-------------|-----------------|--------------|------------------|---------------|
| FILE NAME = 1459,000-El.2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED = JZ | DRAWN = ZCW | CHECKED = AJP | DATE = 3/21/2012 | REVISED - | REVISED - | REVISED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PERMANENT LIGHTING MODERNIZATION PLAN<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | SCALE: 1" = 20' | SHEET NO. OF SHEETS | STA. TO STA. | F.A.P. RTE. 527 | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67 | SHEET NO. 40 | CONTRACT # 63669 | GHA #4459,000 |
|                               |                           |               |             |               |                  |           |           |           |           | ILLINOIS FED. AID PROJECT                                 |  |                 |                     |              |                 |                        |             |                 |              |                  |               |

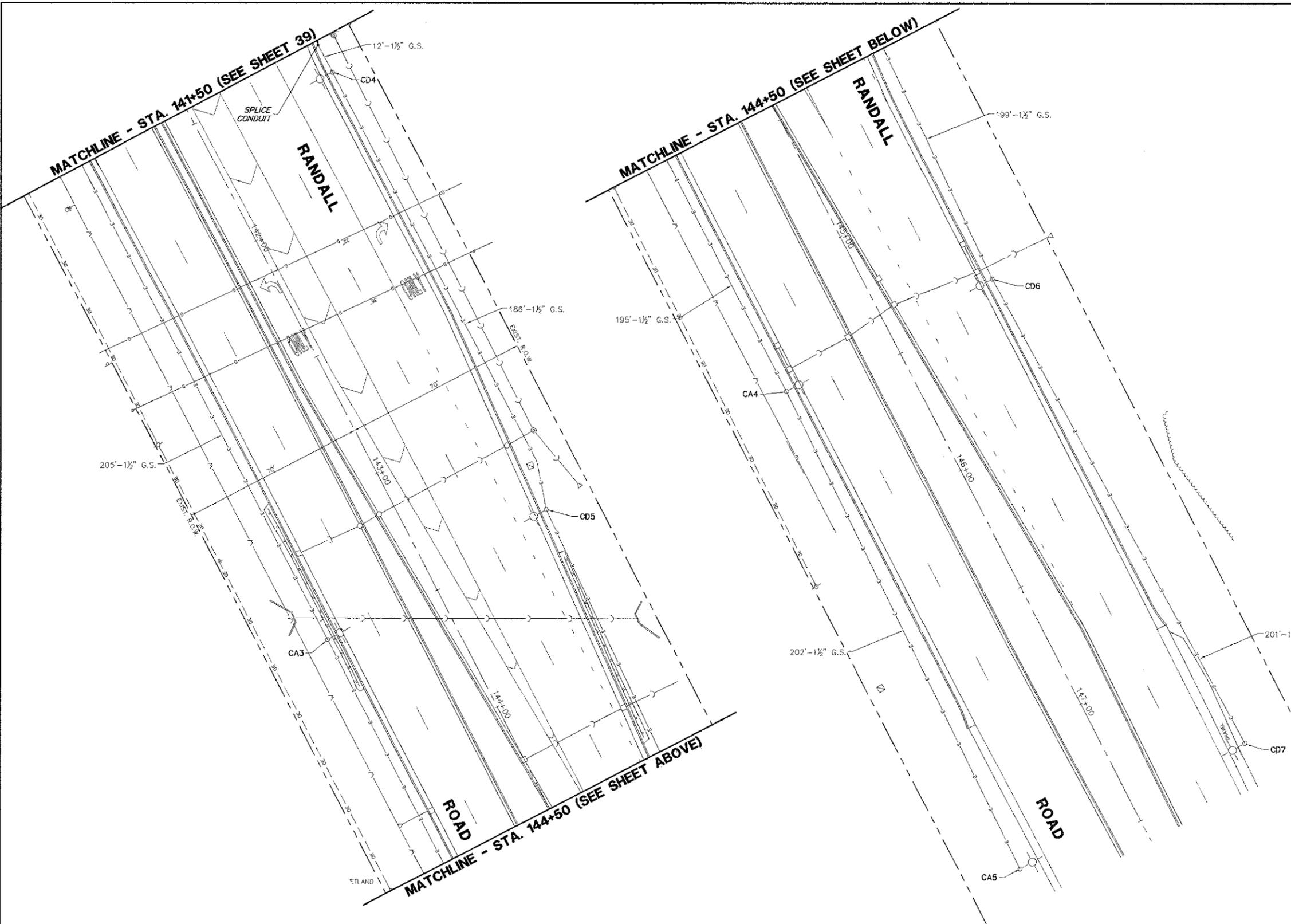
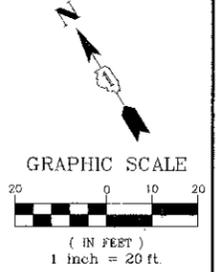


- NOTES:**
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  2. SEE TRAFFIC SIGNAL PLANS FOR PLACEMENT OF THE COMBINATION POLE.
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- PROPOSED ELECTRIC SERVICE INSTALLATION
- PROPOSED HANDHOLE
- EXISTING STREET LIGHTING, TO REMAIN
- EXISTING ELECTRICAL CONDUIT, TO REMAIN

|                              |                           |                  |           |   |  |                  |                          |                |                   |                |                          |
|------------------------------|---------------------------|------------------|-----------|---|--|------------------|--------------------------|----------------|-------------------|----------------|--------------------------|
| FILE NAME = 4459.000-EL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED = JZ    | REVISED = | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PERMANENT LIGHTING MODERNIZATION PLAN<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | F&P RTE = 527    | SECTION = 08-00369-00-SP | COUNTY = KANE  | TOTAL SHEETS = 67 | SHEET NO. = 41 | GHA #4459.000            |
|                              | PLOT SCALE = 1" = .0833'  | CHECKED = AJP    | REVISED = |   |  | SCALE = 1" = 20' | SHEET NO. OF SHEETS =    | STA. TO STA. = | CONTRACT #: 63669 |                | ALIND'S FED. AID PROJECT |
|                              | PLOT DATE = 3/21/2012     | DATE = 3/21/2012 | REVISED = |   |  |                  |                          |                |                   |                |                          |

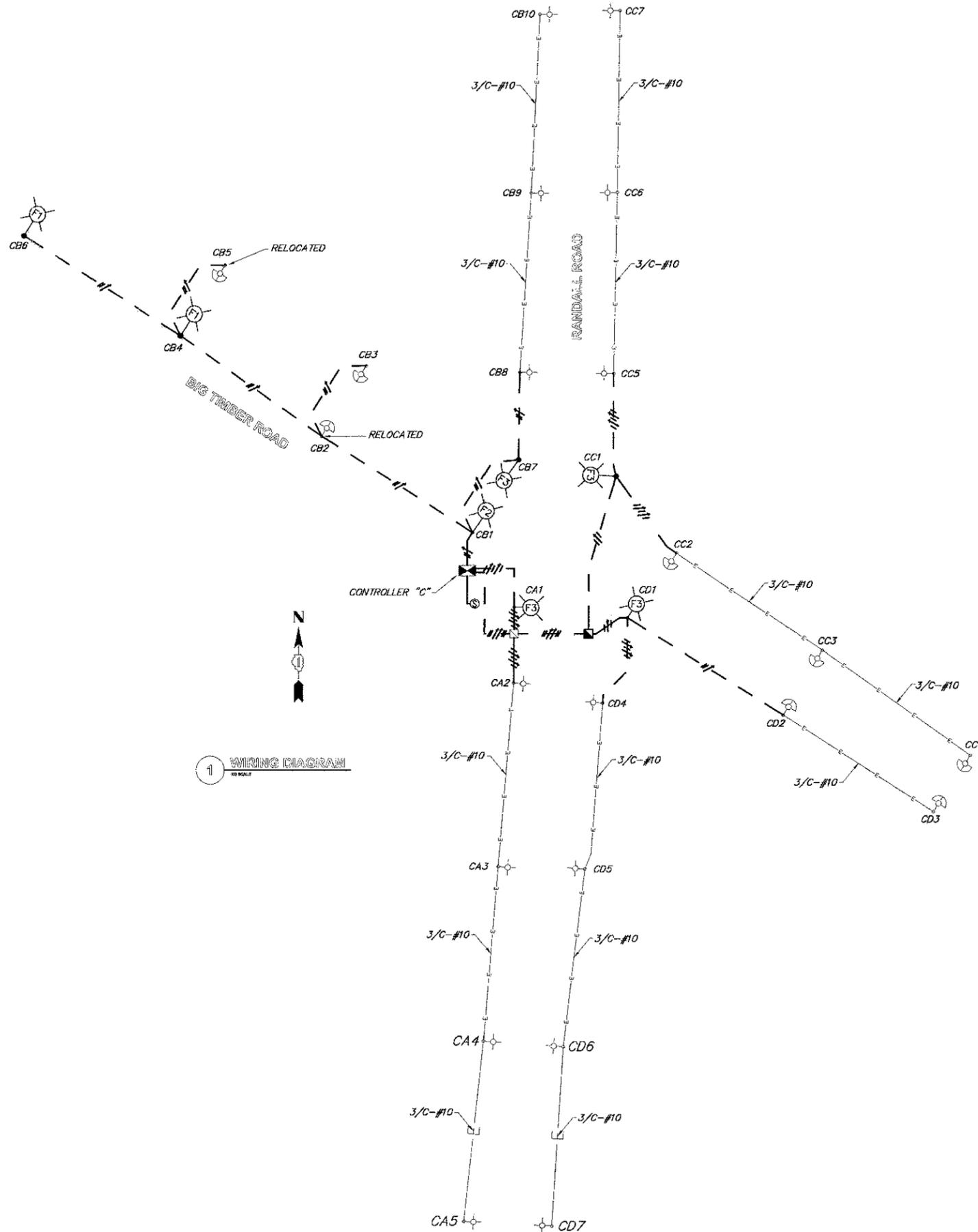


- NOTES:**
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**LEGEND**

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40 FT M.H., 10 FT MAST ARM  
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- PROPOSED COMBINATION POLE STREET LIGHT  
40 FT M.H., 12 FT MAST ARM  
(SEE TRAFFIC SIGNAL PLANS)
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A1 - DENOTES FIXTURE NUMBER ON GIVEN CIRCUIT
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- PROPOSED ELECTRIC SERVICE INSTALLATION
- PROPOSED HANDHOLE
- EXISTING STREET LIGHTING, TO REMAIN
- EXISTING ELECTRICAL CONDUIT, TO REMAIN

|                              |                           |                  |           |   |  |                 |                        |              |                  |              |                           |
|------------------------------|---------------------------|------------------|-----------|---|--|-----------------|------------------------|--------------|------------------|--------------|---------------------------|
| FILE NAME = 4459.000-EL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JZ    | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>PERMANENT LIGHTING MODERNIZATION PLAN<br/>BIG TIMBER ROAD (CH 21) AT RANDALL ROAD (CH 34)</b> | F.A.P. RTE. 527 | SECTION 08-00369-00-SP | COUNTY KANE  | TOTAL SHEETS 67  | SHEET NO. 42 |                           |
|                              | PLOT SCALE = 1" = .0833'  | CHECKED - AJP    | REVISED - |   |  | SCALE 1" = 20'  | SHEET NO. OF SHEETS    | STA. TO STA. | CONTRACT # 63669 |              | ILLINOIS FED. AID PROJECT |
|                              | PLOT DATE = 3/21/2012     | DATE = 3/21/2012 | REVISED - |   |  | GHA #4459.000   |                        |              |                  |              |                           |



1 WIRING DIAGRAM  
NO SCALE

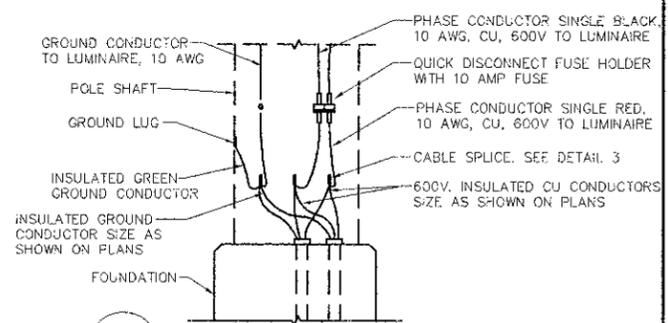
LOAD TABULATION AND VOLTAGE DROP FOR LIGHTING CONTROLLER "C"

| CIRCUIT | WATTS | AMPS @ 240V | VOLTAGE DROP AT LAST POLE |
|---------|-------|-------------|---------------------------|
| A       | 1910  | 8.0         | 2.6% (A5)                 |
| B       | 3070  | 12.8        | 2.5% (B5)                 |
| C       | 2460  | 10.3        | 2.8% (C7)                 |
| D       | 2520  | 10.5        | 2.9% (D7)                 |
| TOTAL:  | 9960  | 41.5        |                           |

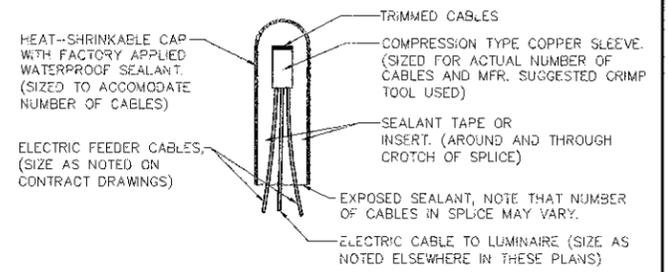
MAX ALLOWABLE @ BALLAST IS 5% VOLTS DROP

LEGEND

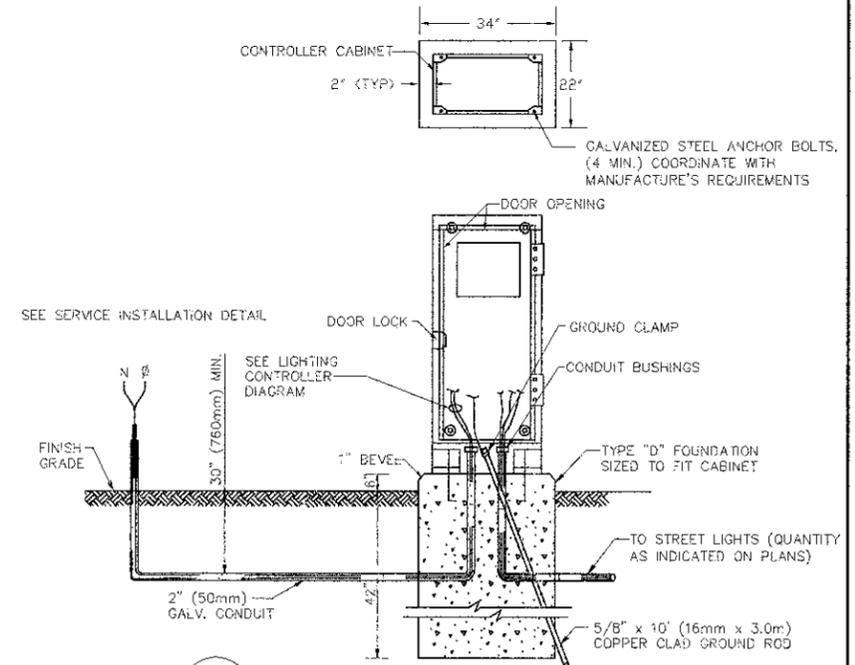
- EXISTING STREET LIGHT POLE  
250W HPS LUMINAIRE  
40' POLE, 10' ARM  
240V, 1 PHASE, 2 WIRE
- EXISTING STREET LIGHT POLE  
310W HPS LUMINAIRE  
40' POLE, 10' ARM  
240V, 1 PHASE, 2 WIRE
- EXISTING HANDHOLE
- PROPOSED LIGHTING FIXTURE  
# - DENOTES LUMINAIRE TYPE  
(REFER TO LIGHTING SCHEDULE SHEET 59)
- POLE MOUNTED LUMINAIRE
- 2#6 AWG & 1#6 AWG GROUND, 600V. (TYPE XLP-RHW)
- 4#6 AWG & 2#6 AWG GROUND, 600V. (TYPE XLP-RHW)
- 2#8 AWG & 1#8 AWG GROUND, 600V. (TYPE XLP-RHW)
- 2#10 AWG & 1#10 AWG GROUND, 600V. (TYPE XLP-RHW)
- 4#10 AWG & 2#10 AWG GROUND, 600V. (TYPE XLP-RHW)
- POLE LABEL  
# - DENOTES POLE NO. ON GIVEN CIRCUIT
- LETTER - DENOTES CIRCUIT DESIGNATION
- DENOTES LIGHTING CONTROLLER
- PROPOSED LIGHTING CONTROLLER
- PROPOSED HANDHOLE
- PROPOSED 100A/2P, 240/120 VOLT, SINGLE PHASE COMED SERVICE. 3/C #2 IN 2" RIGID GALVANIZED STEEL CONDUIT.



2 POLE BASE WIRING DIAGRAM  
NO SCALE



3 SPLICING ELECTRIC CABLES  
BASIC MATERIALS AND METHODS  
NO SCALE



4 LIGHTING CONTROLLER FOUNDATION DIAGRAM  
NO SCALE

NOTES:  
A 48"X48"X4" RCC WORK PAD SHALL BE PROVIDED IN FRONT OF CONTROLLER CABINET, UNLESS CABINET IS POSITIONED ADJACENT TO SIDEWALK.  
REFER TO CONTROLLER DETAIL FOR LIGHTING CONTROLLER SPECIFICATIONS.

**GENERAL LIGHTING NOTES:**

ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND ANY APPLICABLE LOCAL CODES. IF DISCREPANCIES EXIST THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER TO DETERMINE THE PROPER COURSE OF ACTION.

ALL PAY ITEMS REFER TO IDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123.

CONDUIT SHALL BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREES, BUSHES, DRAINS AND OTHER UTILITIES.

CARE SHALL BE TAKEN NOT TO DAMAGE ANY OF THE EXISTING TRAFFIC SIGNAL CONDUITS, DETECTORS, AND EQUIPMENT. IF ANY OF THE TRAFFIC SIGNAL CONDUIT AND/OR EQUIPMENT IS DAMAGED, THE CONTRACTOR SHALL REPAIR AND/OR REPLACE THE CONDUIT AND/OR EQUIPMENT AT NO COST TO THE COUNTY, STATE, OR VILLAGE.

ALL DISTURBED AREAS WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE ENGINEER. THE WORK WILL NOT BE PAID FOR SEPARATELY, AND SHALL BE CONSIDERED INCLUDED IN THE APPLICABLE PAY ITEM.

ALL PROPOSED LIGHT POLES SHALL SATISFY IDOT'S MINIMUM SETBACK REQUIREMENTS.

THE CONTRACTOR SHALL MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND CONTROLLERS FOR VERIFICATION AND APPROVAL BY THE ENGINEER, PRIOR TO STARTING WORK.

ALL MEASUREMENTS ARE APPROXIMATE, VERIFY IN FIELD. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.

IF LIGHTS ARE POSITIONED NEAR OVERHEAD UTILITIES, THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY FOR LOCATION APPROVAL.

UNLESS OTHERWISE NOTED, ALL CONDUIT PROVIDED BY THIS CONTRACT SHALL BE EITHER 1 1/2" OR 2", GALVANIZED STEEL CONDUIT, CONFORMING TO SECTION 108B.01(a) OF IDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

UNLESS OTHERWISE NOTED, ALL CONVENTIONAL POLES SHALL BE FRANGIBLE WITH BREAKAWAY TRANSFORMER BASES, AS SPECIFIED.

NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL A STORAGE LOCATION AND ALL PERTINENT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE RESIDENT ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS SHALL REMAIN WITH THE CONTRACTOR.

CONTRACTOR SHALL COORDINATE ALL SERVICE CONNECTIONS WITH THE LOCAL UTILITY COMPANY.

THE ELECTRICAL SUPPLY SHALL BE A PROPERLY GROUNDED AC SYSTEM.

ALL FOUNDATIONS SHALL BE EQUIPPED WITH A GROUNDING ROD, AS SPECIFIED, AND SHALL BE CONSIDERED INCLUDED IN THE APPLICABLE PAY ITEM.

GROUNDING CONNECTIONS AT THE FOUNDATIONS SHALL BE EXOTHERMICALLY WELDED, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO FRAMING LIGHT POLE.

THE GROUNDING CONDUCTOR SHALL BE INSULATED.

THE GROUNDING CONDUCTOR SHALL EXTEND CONTINUOUSLY WITH ALL CIRCUIT CONDUCTORS, IN THE SAME RACEWAY, AND SHALL BE BONDED TO THE SYSTEM GROUND AT THE SERVICE DISCONNECT.

THE GROUNDING CONDUCTOR SHALL BE SPLICED AND BONDED AT EACH POLE.

ALL CONDUCTORS AND EQUIPMENT SHALL HAVE PROPER OVERCURRENT PROTECTION. OVERCURRENT PROTECTION SHALL BE PROVIDED FOR EACH LUMINAIRE AND ITS ASSOCIATED BRANCH CIRCUIT THROUGH THE USE OF POLE BASE FUSING, OR OTHER MEANS AS APPROVED BY THE ENGINEER.

NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.

POLES WITH MAST ARMS SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES, AND THE PROPOSED LIGHT POLES WILL NOT BE CONSIDERED COMPLETE WITHOUT THE LUMINAIRES INSTALLED.

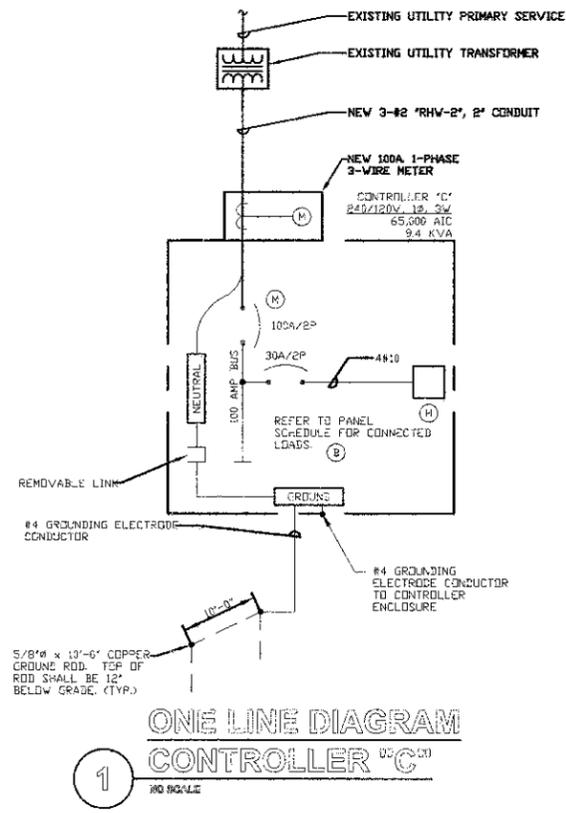
THE PROPOSED LIGHTING SYSTEM SHALL BE INSTALLED AND COMPLETELY OPERATIONAL, TO THE SATISFACTION OF THE ENGINEER, BEFORE THE TEMPORARY LIGHTING IS REMOVED.

UPON COMPLETION OF THE PERMANENT LIGHTING SYSTEM, THE CONTRACTOR SHALL REQUEST IN WRITING A PREFINAL INSPECTION. A MINIMUM OF THREE DAYS NOTICE SHALL BE GIVEN TO THE COUNTY. UPON COMPLETION OF INSPECTION AND APPROVAL OF WORK, THE COUNTY SHALL TAKE MAINTENANCE OF THE LIGHTING SYSTEM.

| LUMINAIRE SCHEDULE |  |
|--------------------|--|
| Item:              | Description:   |
| F1                 | 250W HPS luminaire<br>Cobra Head Fixture<br>240V, 1 Phase, 2 Wire<br>Type III Distribution |
| F2                 | 310W HPS luminaire<br>Cobra Head Fixture<br>240V, 1 Phase, 2 Wire<br>Type III Distribution |
| F3                 | 400W HPS luminaire<br>Cobra Head Fixture<br>240V, 1 Phase, 2 Wire<br>Type III Distribution |

The contractor shall coordinate with the engineer prior to ordering material from the manufacturer. The complete product description and specifications shall be coordinated with the catalog number to determine the exact materials and accessories to be ordered.

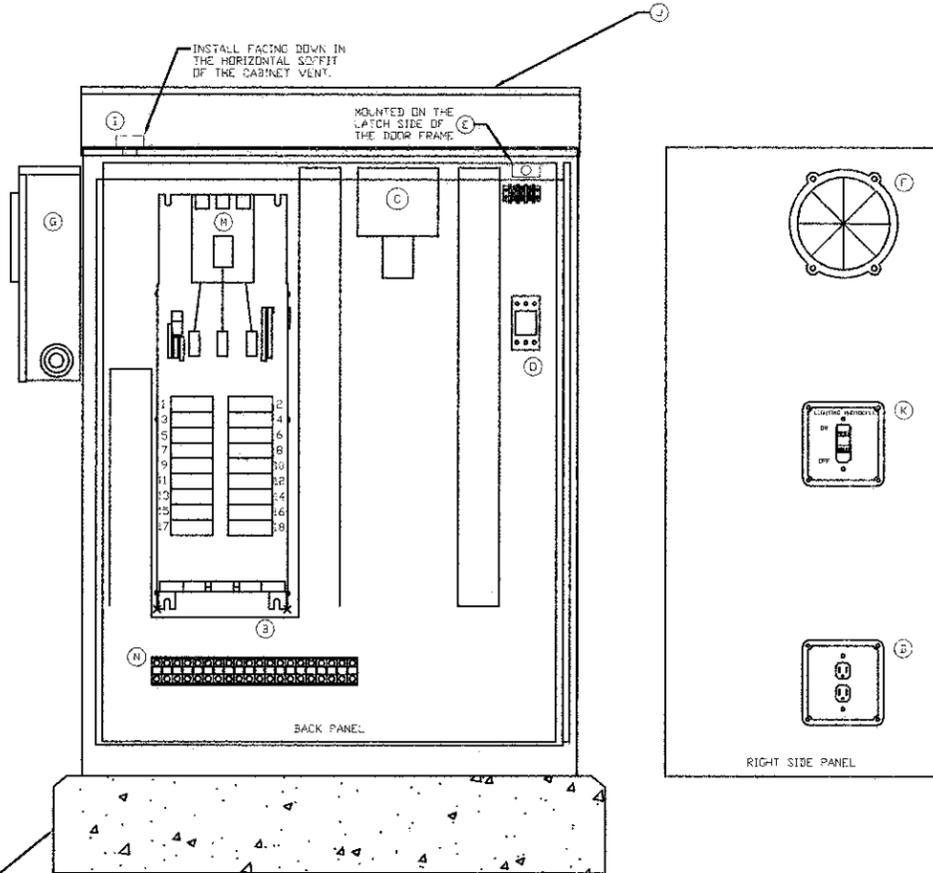
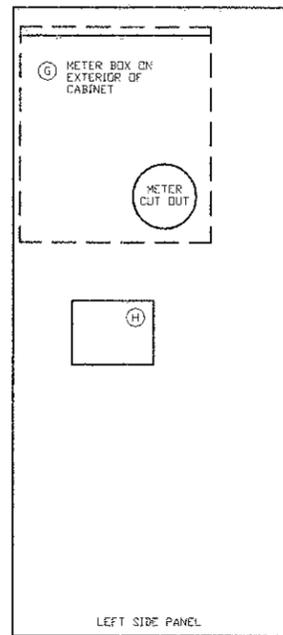
| Light Pole ID | Circuit  |           |           |
|---------------|----------|-----------|-----------|
|               | Existing | Temporary | Permanent |
| CA1           | -        | -         | A         |
| CA2           | C        | B         | A         |
| CA3           | C        | B         | A         |
| CA4           | C        | B         | A         |
| CA5           | C        | B         | A         |
| CB1           | -        | -         | B         |
| CB2           | -        | -         | B         |
| CB3           | A        | A         | B         |
| CB4           | -        | -         | B         |
| CB5           | -        | -         | B         |
| CB6           | -        | -         | B         |
| CB7           | -        | -         | B         |
| CB8           | A        | C         | B         |
| CB9           | A        | C         | B         |
| CB10          | A        | C         | B         |
| CC1           | -        | -         | C         |
| CC2           | C        | C         | C         |
| CC3           | C        | C         | C         |
| CC4           | C        | C         | C         |
| CC5           | A        | C         | C         |
| CC6           | A        | C         | C         |
| CC7           | A        | C         | C         |
| CD1           | -        | -         | D         |
| CD2           | A        | B         | D         |
| CD3           | A        | B         | D         |
| CD4           | C        | B         | D         |
| CD5           | C        | B         | D         |
| CD6           | C        | B         | D         |
| CD7           | C        | B         | D         |
| T1            | -        | A         | -         |
| T2            | -        | A         | -         |
| T3            | -        | A         | -         |
| T4            | -        | A         | -         |
| T5            | -        | A         | -         |
| T6            | -        | A         | -         |
| T7            | -        | B         | -         |
| T8            | -        | B         | -         |
| T9            | -        | C         | -         |
| T10           | -        | C         | -         |



1 ONE LINE DIAGRAM CONTROLLER "C" NO SCALE

ONE-LINE DIAGRAM NOTES

- AIC RATINGS LISTED FOR EQUIPMENT ARE MINIMUM REQUIREMENTS FOR BUS BRACING AND DEVICE RATING. ALL EQUIPMENT SHALL BE FULLY RATED UNLESS SPECIFICALLY NOTED AS SERIES RATED.
- ALL FUSES FROM 0 AMPERE TO 200 AMPERE SHALL BE DUAL ELEMENT, CLASS RK-5 UNLESS NOTED OTHERWISE.



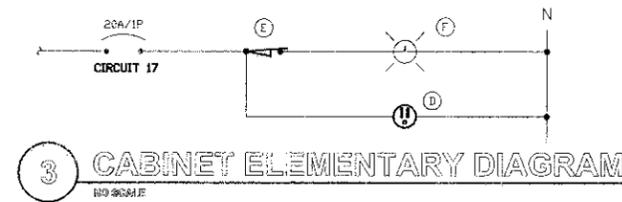
2 LIGHTING CONTROL CABINET NO SCALE U.L. LISTED IF NOT APPROVED

BILL OF MATERIALS FOR LIGHTING CONTROLLER "C"

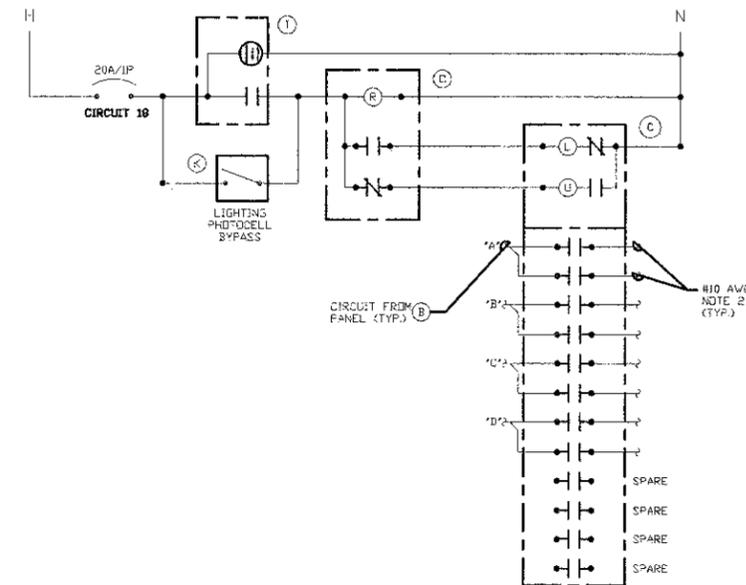
| ITEM # | QTY | DESCRIPTION  |
|--------|-----|--|
| B      | 1   | BRANCH CIRCUIT PANEL INTERIOR, 200A COPPER BUS, 240/120 VOLT, MOLDED CASE THERMAL MAGNETIC CIRCUIT BREAKERS, BOLT ON TYPE, AIC RATING OF 65,000 AMPS AT 240 VOLTS.           |
| C      | 1   | MECHANICAL CONTACTOR, 12 POLE, 30 AMP, 120V COIL, PROVIDE WITH TWO-WIRE CONTROL FOR PHOTOCELL INTERFACE.   |
| D      | 1   | GFI RECEPTACLE 120V, 20A, SPECIFICATION GRADE, NEMA 5-20R IN WEATHER-PROOF BOX WITH FLAP-TYPE COVER.   |
| E      | 1   | 20A SPDT MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED), 120 VOLT, 15 AMP CONTACTS.   |
| F      | 1   | 60 WATT LIGHT FIXTURE, VAPOR TIGHT WITH GLOBE AND GUARD AND MOUNTING BOX. LAMP PROVIDED WITH FIXTURE.  |
| G      | 1   | METER FITTING, 1 PHASE, 3 WIRE, 100 AMP  |
| H      | 1   | SURGE ARRESTOR, BRACKET MOUNTED, 120/240 VOLT SERVICE.   |
| I      | 1   | PHOTOCELL, 120V 1500 VA RATED, SINGLE POLE, SINGLE THROW CONTACT, WEATHERPROOF AND CORROSION PROOF ENCLOSURE, U.L. LISTED.   |
| J      | 1   | CABINET ENCLOSURE PAD MOUNTED, STAINLESS STEEL, N.E.M.A. 4 CONSTRUCTION WITH KEY LOCKING DOOR, 30"W. 45"H. 18"D.   |
| K      | 1   | TOGGLE SWITCH, SPDT, 20 AMP, 240 VOLT, SPECIFICATION GRADE MOUNTED IN SURFACE BOX.   |
| M      | 1   | MAIN CIRCUIT BREAKER, MOLDED CASE THERMAL MAGNETIC, SERVICE ENTRANCE DUTY RATED 240 VOLT, 100 AMP, 2 POLE, AIC RATING OF 65,000 AMPS AT 240 VOLTS, INTEGRAL TO BRANCH PANEL. |
| N      | 1   | COPPER LOAD TERMINAL BLOCK FOR AWG#6 AND AWG#12  |
| O      | 1   | FORM TYPE C RELAY, ELECTRICALLY HELD, ONE NORMALLY OPEN (N.O.) AND ONE NORMALLY CLOSED (N.C.) CONTACTS, 600V CONTINUOUS DUTY COIL, 30 AMP CONTACT RATING.                    |

CONTROLLER NOTES:

- THE CONTROLLER FOUNDATION SHALL HAVE ONE ADDITIONAL RACEWAY INSTALLED FOR FUTURE USE.
- THE CONTROL CABINET SHALL BE U.L. LISTED UNDER U.L. 508A.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- THE ENCLOSURE SHALL BE VENTED. ONE INCH SCREENED VENT HOLES WILL BE PROVIDED IN THE OVER HANG.
- THE CABINET SHALL BE PROVIDED WITH A 3" X 12" STAINLESS NAMEPLATE, ENGRAVED TO READ "LIGHTING CONTROLLER."
- THE DOORS SHALL BE GASKETED PER SPECIFICATIONS. THE DOOR HANDLE SHALL BE 3/4" STAINLESS STEEL WITH KEY LOCK, AND HAVE A PROVISION FOR PADLOCKING.
- THE MOUNTING PANEL SHALL BE 1/2 INCH ARBORON MATERIAL. EXPOSED BUS BARS SHALL BE INSULATED.
- CONNECTOR SCREWS SHALL BE PAINTED WHITE FOR THE NEUTRAL BUS AND GREEN FOR THE GROUNDING BUS.
- ALL MULTIPLE CONNECTIONS TO A SINGLE SOURCE WILL BE ACCOMPLISHED BY USE OF SPLICE BLOCKS OR MULTI CONNECTION LUGS.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED USING THE FOLLOWING ABBREVIATIONS:  
R - RED                      Y - YELLOW  
B - BLACK                  W - WHITE  
BL - BLUE                  G - GREEN
- ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKERS, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS ON THE DRAWINGS. ALL CONTROL WIRING SHALL BE STRANDED AND IDENTIFIED, AS INDICATED OR AS DIRECTED BY THE ENGINEER, BY MEANS OF BRADY MARKERS.
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER.
- SEALING GROMMETS SHALL BE PROVIDED FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



3 CABINET ELEMENTARY DIAGRAM NO SCALE



4 LIGHTING CONTROL ELEMENTARY DIAGRAM NO SCALE

- NOTES:
- ALL CABINET INTERIOR WIRING SHALL BE STRANDED COPPER #12 AWG THWN UNLESS NOTED OTHERWISE.
  - ROUTE TO STREET LIGHTING LUMINAIRES VIA TERMINAL BLOCK (N).

PANEL NAME: CONTROLLER "C" CONNECTED 9.4 KVA

TYPE: BOLT-ON  
MOUNTING: SURFACE - INTERIOR ONLY  
FED FROM: UTILITY  
AIC RATING: 65,000

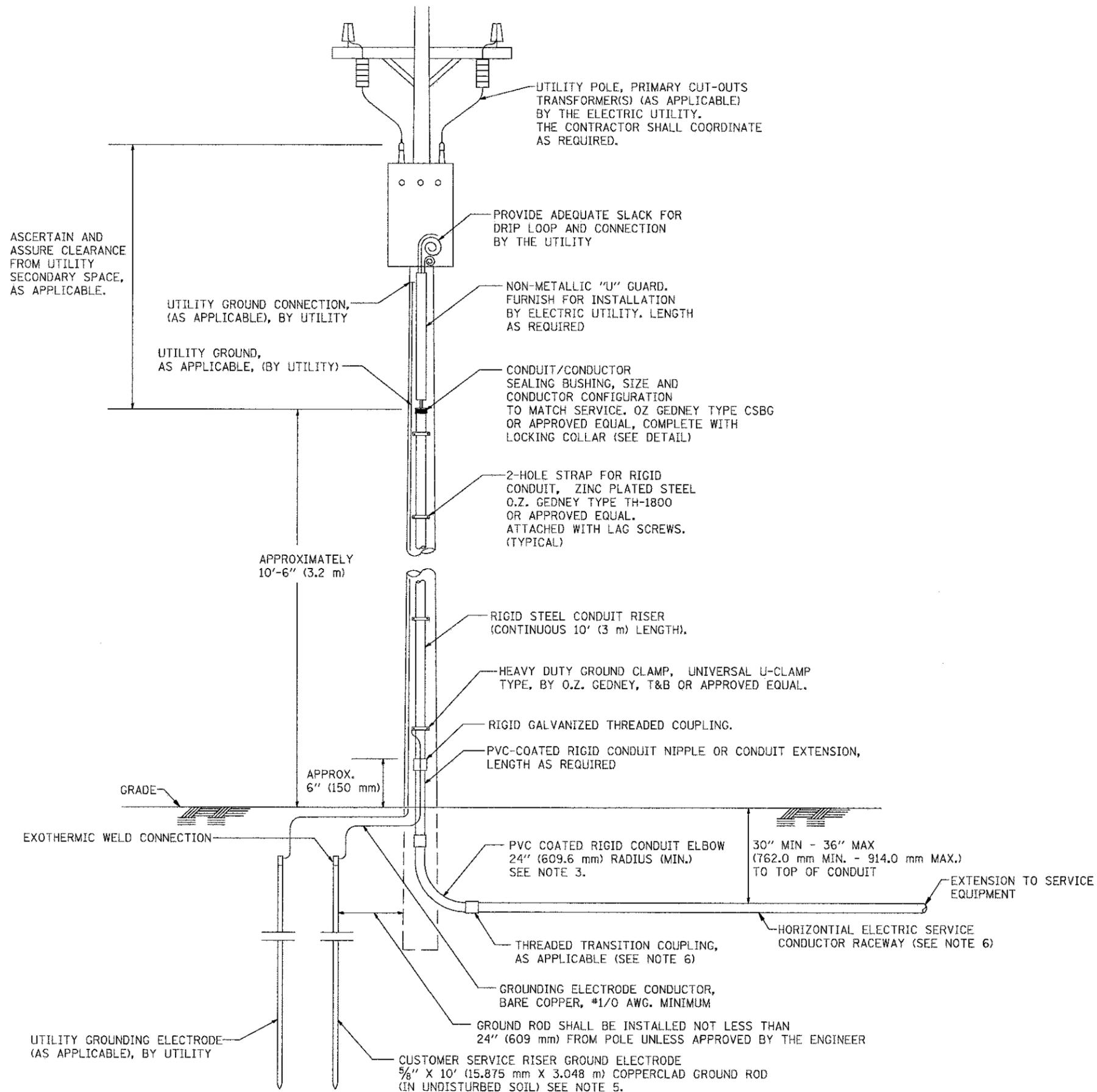
SOLID NEUTRAL  
GROUND BUS

MAIN: 100A MCB  
VOLTS: 240/120  
PHASE: 1  
WIRE: 3

| CKT NO. | LOAD DESCRIPTION        | WIRE SIZE | LOAD KVA | BREAKER AMP | BREAKER P | LOAD KVA | WIRE SIZE | LOAD DESCRIPTION  | CKT NO. |
|---------|-------------------------|-----------|----------|-------------|-----------|----------|-----------|-------------------|---------|
| 1       | "A" POLE LIGHTING       | *S        | 3.6      | 30          | 2         | 3.6      | *S        | "C" POLE LIGHTING | 2       |
| 3       | "A" POLE LIGHTING       | ---       | ---      | ---         | ---       | ---      | ---       | "C" POLE LIGHTING | 4       |
| 5       | "B" POLE LIGHTING       | *S        | 3.6      | 30          | 2         | 3.6      | *S        | "D" POLE LIGHTING | 6       |
| 7       | "B" POLE LIGHTING       | ---       | ---      | ---         | ---       | ---      | ---       | "D" POLE LIGHTING | 8       |
| 9       | SURGE ARRESTOR          | *O        | 0.1      | 30          | 2         | 30       | ---       | SPARE             | 10      |
| 11      | SURGE ARRESTOR          | ---       | ---      | ---         | ---       | ---      | ---       | SPARE             | 12      |
| 13      | SPACE                   | ---       | ---      | ---         | ---       | ---      | ---       | SPACE             | 14      |
| 15      | SPACE                   | ---       | ---      | ---         | ---       | ---      | ---       | SPACE             | 16      |
| 17      | LGT. RECEPT. IN CABINET | ---       | ---      | ---         | ---       | ---      | ---       | LGT CONTROL       | 18      |

NOTES: \*S = REFER TO WIRING DIAGRAM FOR WIRE SIZE. \*O = REFER TO ONE LINE DIAGRAM ON THIS SHEET FOR WIRE SIZE.

ASCERTAIN AND ASSURE CLEARANCE FROM UTILITY SECONDARY SPACE, AS APPLICABLE.



UTILITY POLE, PRIMARY CUT-OUTS TRANSFORMER(S) (AS APPLICABLE) BY THE ELECTRIC UTILITY. THE CONTRACTOR SHALL COORDINATE AS REQUIRED.

PROVIDE ADEQUATE SLACK FOR DRIP LOOP AND CONNECTION BY THE UTILITY

UTILITY GROUND CONNECTION, (AS APPLICABLE), BY UTILITY

NON-METALLIC "U" GUARD. FURNISH FOR INSTALLATION BY ELECTRIC UTILITY. LENGTH AS REQUIRED

UTILITY GROUND, AS APPLICABLE, (BY UTILITY)

CONDUIT/CONDUCTOR SEALING BUSHING, SIZE AND CONDUCTOR CONFIGURATION TO MATCH SERVICE. OZ GEDNEY TYPE CSBG OR APPROVED EQUAL, COMPLETE WITH LOCKING COLLAR (SEE DETAIL)

2-HOLE STRAP FOR RIGID CONDUIT, ZINC PLATED STEEL O.Z. GEDNEY TYPE TH-1800 OR APPROVED EQUAL. ATTACHED WITH LAG SCREWS. (TYPICAL)

APPROXIMATELY 10'-6" (3.2 m)

RIGID STEEL CONDUIT RISER (CONTINUOUS 10' (3 m) LENGTH).

HEAVY DUTY GROUND CLAMP, UNIVERSAL U-CLAMP TYPE, BY O.Z. GEDNEY, T&B OR APPROVED EQUAL.

RIGID GALVANIZED THREADED COUPLING.

PVC-COATED RIGID CONDUIT NIPPLE OR CONDUIT EXTENSION, LENGTH AS REQUIRED

APPROX. 6" (150 mm)

GRADE

EXOTHERMIC WELD CONNECTION

PVC COATED RIGID CONDUIT ELBOW 24" (609.6 mm) RADIUS (MIN.) SEE NOTE 3.

30" MIN - 36" MAX (762.0 mm MIN. - 914.0 mm MAX.) TO TOP OF CONDUIT

EXTENSION TO SERVICE EQUIPMENT

THREADED TRANSITION COUPLING, AS APPLICABLE (SEE NOTE 6)

HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY (SEE NOTE 6)

GROUNDING ELECTRODE CONDUCTOR, BARE COPPER, #1/0 AWG. MINIMUM

GROUND ROD SHALL BE INSTALLED NOT LESS THAN 24" (609 mm) FROM POLE UNLESS APPROVED BY THE ENGINEER

UTILITY GROUNDING ELECTRODE (AS APPLICABLE), BY UTILITY

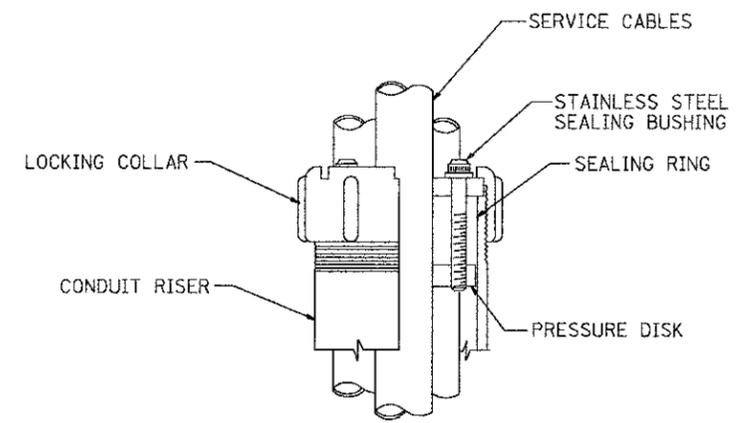
CUSTOMER SERVICE RISER GROUND ELECTRODE 5/8" X 10' (15.875 mm X 3.048 m) COPPERCLAD GROUND ROD (IN UNDISTURBED SOIL) SEE NOTE 5.

APPLICATION

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

NOTES

- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.
- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED ON THE PLANS.
- PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
- THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
- THE HORIZONTAL ELECTRIC SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN CONCRETE), THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
- PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS. THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY, FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION IS REQUIRED AND SHALL BE INCLUDED IN THE ELECTRIC UTILITY SERVICE INSTALLATION PAY ITEM.

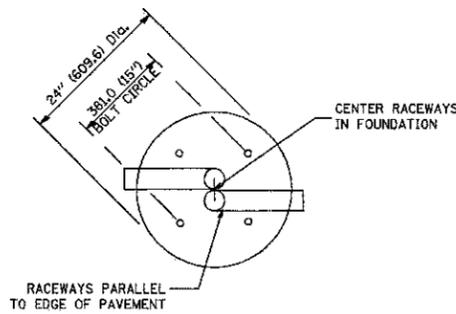


SEALING BUSHING DETAIL

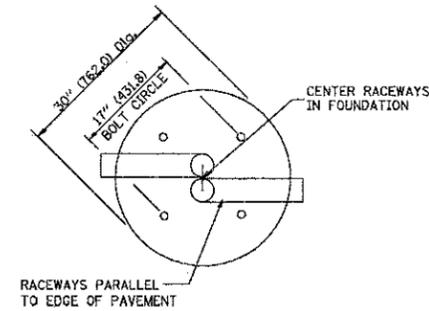
|                              |                           |               |                    |   |  |               |                         |              |                 |              |                   |                           |  |
|------------------------------|---------------------------|---------------|--------------------|---|--|---------------|-------------------------|--------------|-----------------|--------------|-------------------|---------------------------|--|
| FILE NAME = 4459.000-EL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED -    | REVISED - 03-03-06 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>ELECTRIC SERVICE INSTALLATION<br/>AERIAL, REMOTE DISCONNECT</b> | F.P. RTE. 527 | SECTION 08-00389-00-SP  | COUNTY KANE  | TOTAL SHEETS 67 | SHEET NO. 46 | GHA #4459.000     |                           |  |
|                              | PLOT SCALE = 1" = .0833'  | CHECKED - MEA | REVISED -          |   |  | SCALE: NONE   | SHEET NO. 1 OF 1 SHEETS | STA. TO STA. | <b>BE-220</b>   |              | CONTRACT #: 63669 | ILLINOIS FED. AID PROJECT |  |
|                              | PLOT DATE = 3/21/2012     | DATE -        | REVISED -          |   |  |               |                         |              |                 |              |                   |                           |  |
|                              |                           |               |                    |   |  |               |                         |              |                 |              |                   |                           |  |

LIGHT POLE FOUNDATION DEPTH TABLE  
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

| SOIL CONDITIONS                     | DESIGN DEPTH "D" OF FOUNDATION |                    |
|-------------------------------------|--------------------------------|--------------------|
|                                     | SINGLE ARM POLE                | TWIN ARM POLE      |
| SOFT CLAY<br>Qu = 0.375 TON/SQ. FT. | 13'-0"<br>(3.96 m)             | 15'-0"<br>(4.57 m) |
| MEDIUM CLAY<br>Qu = 0.75 TON/SQ.FT  | 9'-6"<br>(2.93 m)              | 10'-9"<br>(3.23 m) |
| STIFF CLAY<br>Qu = 1.50 TON/SQ. FT. | 7'-0"<br>(2.13 m)              | 8'-0"<br>(2.44 m)  |
| LOOSE SAND<br>φ = 34°               | 9'-0"<br>(2.74 m)              | 10'-0"<br>(3.05 m) |
| MEDIUM SAND<br>φ = 31.5°            | 8'-3"<br>(2.52 m)              | 9'-0"<br>(2.74 m)  |
| DENSE SAND<br>φ = 40°               | 7'-9"<br>(2.36 m)              | 9'-0"<br>(2.74 m)  |



TOP VIEW



TOP VIEW

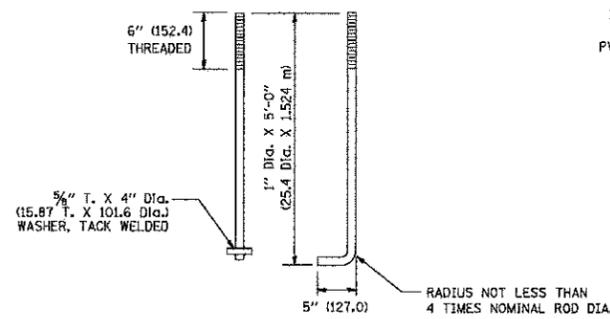
NOTES:

LIGHT POLE FOUNDATION DIAMETER SHALL BE 24 INCHES FOR ALL ROADWAY LIGHT POLES.

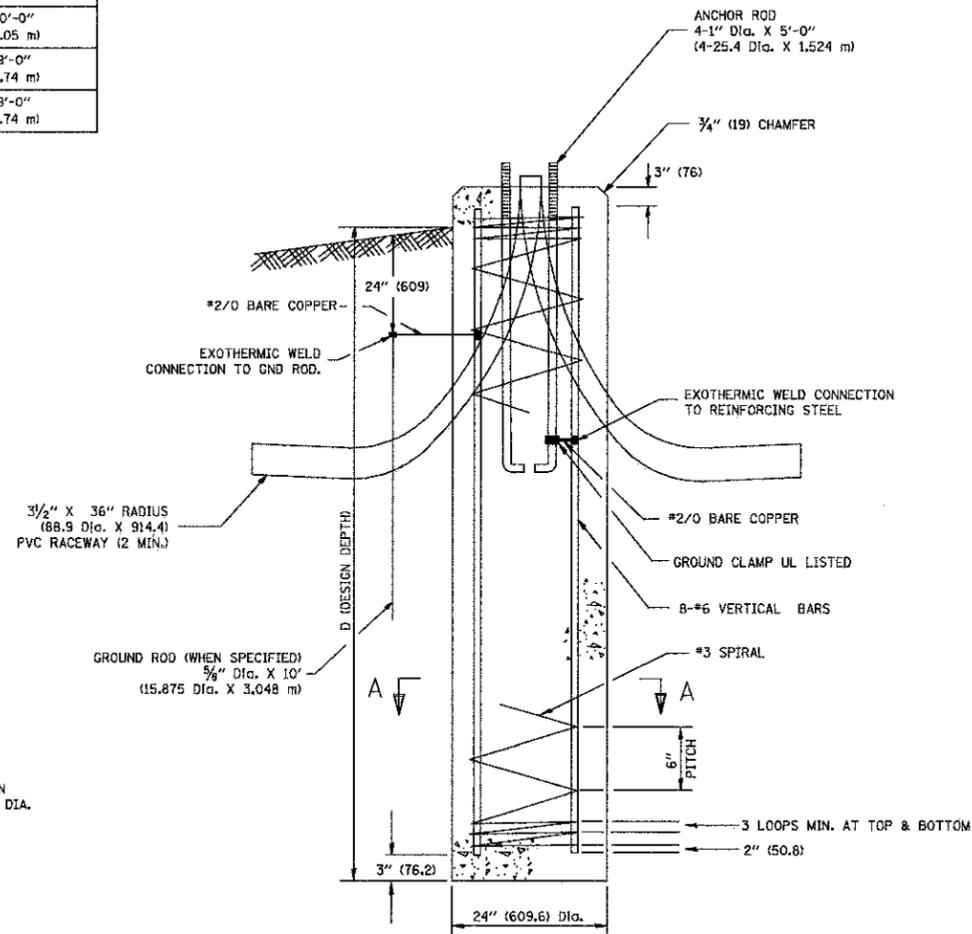
REFER TO TRAFFIC SIGNAL DETAIL 878001 FOR COMBINATION POLE FOUNDATION DETAILS.

NOTES

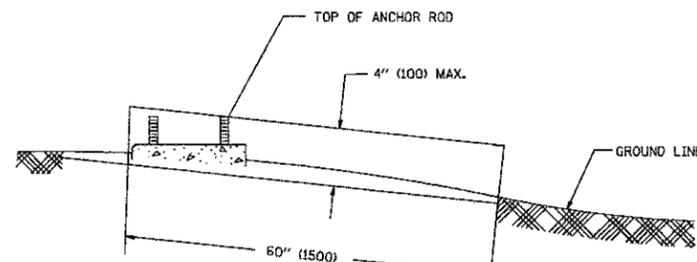
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SL. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



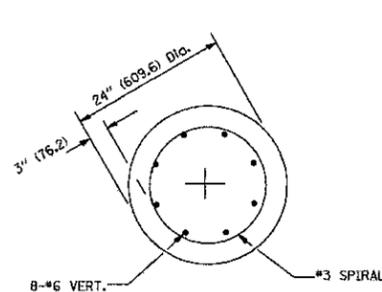
ANCHOR ROD DETAIL



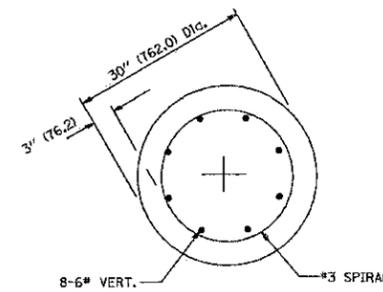
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



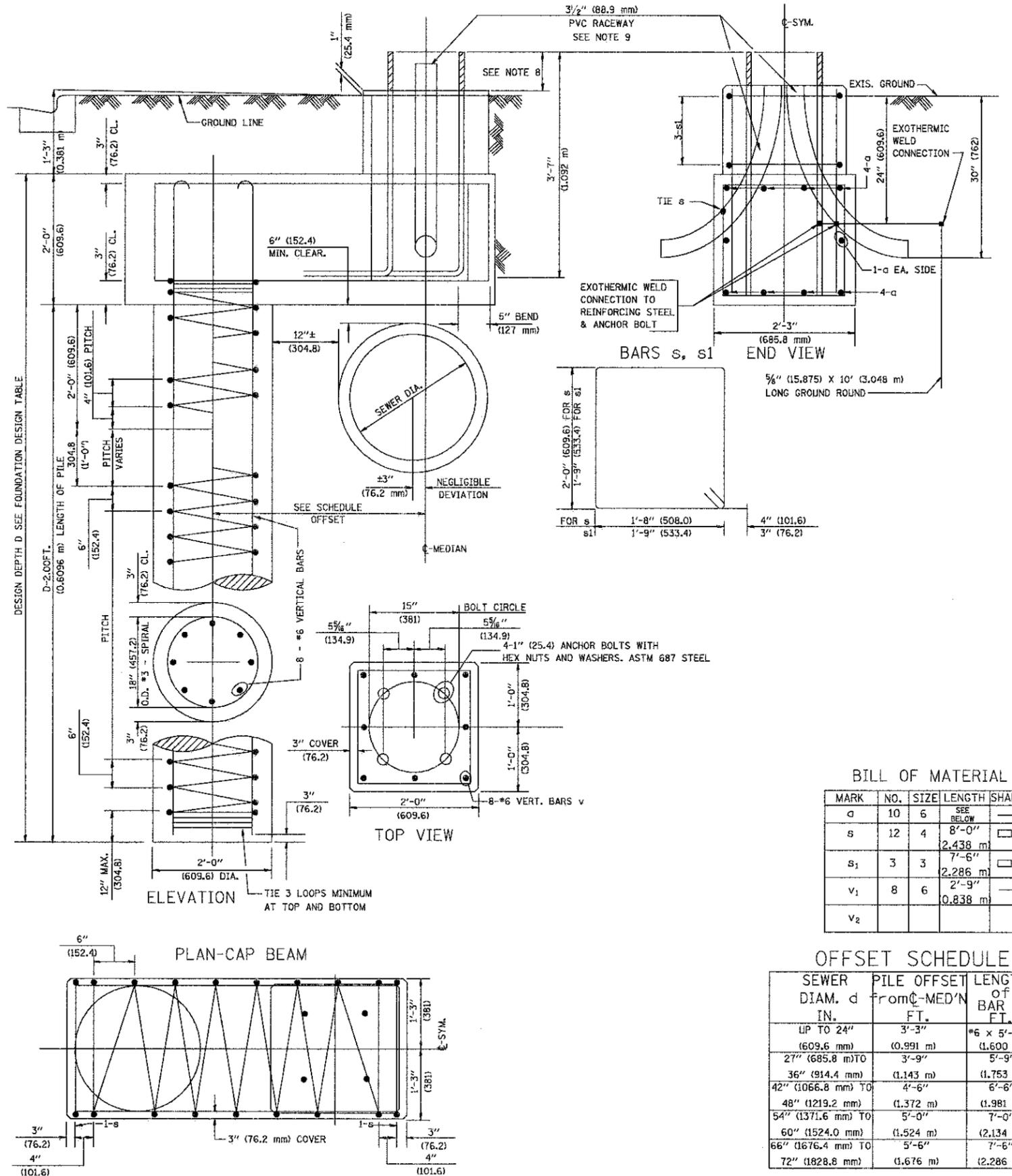
SECTION A-A

FOUNDATION DESIGN TABLE

| TYPE OF SOIL            | DESIGN DEPTH OF FOUNDATION |                     | REINFORCEMENT IN FOUNDATION |                       |                          |                       |
|-------------------------|----------------------------|---------------------|-----------------------------|-----------------------|--------------------------|-----------------------|
|                         | SINGLE ARM<br>D            | TWIN ARM<br>D       | SINGLE ARM                  |                       | TWIN ARM                 |                       |
|                         |                            |                     | VERT BARS                   | SPIRAL                | VERT BARS                | SPIRAL                |
| SOFT CLAY               | 13'-0"<br>(3.962 m)        | 15'-0"<br>(4.572 m) | 8-#6X12'-6"<br>(3.810 m)    | #3X122'<br>(37.186 m) | 8-#6X14'-3"<br>(4.343 m) | #3X141'<br>(42.977 m) |
| MEDIUM CLAY             | 9'-6"<br>(2.896 m)         | 10'-9"<br>(3.277 m) | 8-#6X9'-0"<br>(2.743 m)     | #3X90'<br>(27.432 m)  | 8-#6X10'-0"<br>(3.048 m) | #3X100'<br>(30.480 m) |
| STIFF CLAY              | 7'-0"<br>(2.134 m)         | 8'-0"<br>(2.438 m)  | 8-#6X6'-6"<br>(1.981 m)     | #3X66'<br>(20.112 m)  | 8-#6X7'-6"<br>(2.286 m)  | #3X76'<br>(23.165 m)  |
| LOOSE SAND              | 9'-0"<br>(2.743 m)         | 10'-0"<br>(3.048 m) | 8-#6X8'-6"<br>(2.591 m)     | #3X85'<br>(25.908 m)  | 8-#6X9'-6"<br>(2.896 m)  | #3X94'<br>(28.651 m)  |
| MEDIUM SAND             | 8'-3"<br>(2.515 m)         | 9'-0"<br>(2.743 m)  | 8-#6X8'-0"<br>(2.438 m)     | #3X78'<br>(23.774 m)  | 8-#6X8'-6"<br>(2.591 m)  | #3X85'<br>(25.908 m)  |
| DENSE SAND              | 7'-9"<br>(2.362 m)         | 9'-0"<br>(2.743 m)  | 8-#6X7'-6"<br>(2.286 m)     | #3X73'<br>(22.250 m)  | 8-#6X8'-6"<br>(2.591 m)  | #3X85'<br>(25.908 m)  |
| ROCK OR SOLIDIFIED SLAG | 5'-0"<br>(1.524 m)         | 5'-0"<br>(1.524 m)  | NONE                        | NONE                  | NONE                     | NONE                  |

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERCTED.



BILL OF MATERIAL

| MARK           | NO. | SIZE | LENGTH             | SHAPE |
|----------------|-----|------|--------------------|-------|
| a              | 10  | 6    | SEE BELOW          | —     |
| s              | 12  | 4    | 8'-0"<br>(2.438 m) | □     |
| s <sub>1</sub> | 3   | 3    | 7'-6"<br>(2.286 m) | □     |
| v <sub>1</sub> | 8   | 6    | 0.838 m            | —     |
| v <sub>2</sub> |     |      |                    |       |

OFFSET SCHEDULE

| SEWER DIAM. d IN.                  | PILE OFFSET from C-MED'N FT. | LENGTH of BAR a FT.  |
|------------------------------------|------------------------------|----------------------|
| UP TO 24" (609.6 mm)               | 3'-3" (0.991 m)              | #6 x 5'-3" (1.600 m) |
| 27" (685.8 mm) TO 36" (914.4 mm)   | 3'-9" (1.143 m)              | 5'-9" (1.753 m)      |
| 42" (1066.8 mm) TO 48" (1219.2 mm) | 4'-6" (1.372 m)              | 6'-6" (1.981 m)      |
| 54" (1371.6 mm) TO 60" (1524.0 mm) | 5'-0" (1.524 m)              | 7'-0" (2.134 m)      |
| 66" (1676.4 mm) TO 72" (1828.8 mm) | 5'-6" (1.676 m)              | 7'-6" (2.286 m)      |

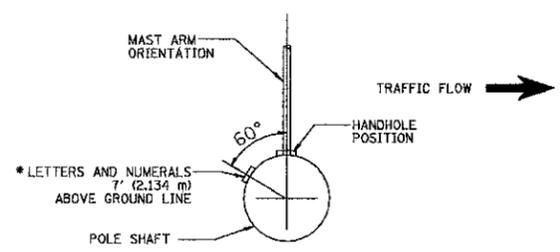
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|-------------------------------|---------------------------|------------|-------------------------------|
| FILE NAME = 4459.000-01.2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - | REVISED - R. TOMSONS 06-16-08 |
|                               |                           | DRAWN -    | REVISED -                     |
|                               | PLOT SCALE = 1" = .0833'  | CHECKED -  | REVISED -                     |
|                               | PLOT DATE = 3/21/2012     | DATE -     | REVISED -                     |

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

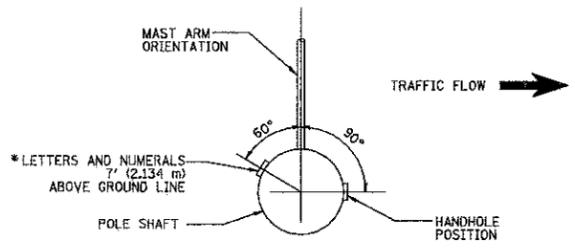
LIGHT POLE FOUNDATION OFFSET  
40' (12.192 m) TO 47 1/2' (14.748 m) M.H.  
15" (381 mm) BOLT CIRCLE

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

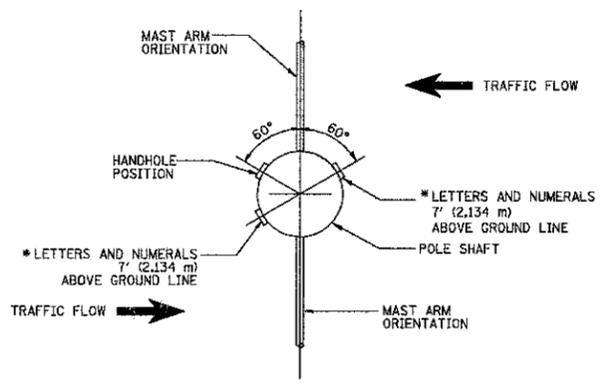
|                           |                        |                   |                 |              |
|---------------------------|------------------------|-------------------|-----------------|--------------|
| F.A.P. RTE. 527           | SECTION 08-00369-00-SP | COUNTY KANE       | TOTAL SHEETS 67 | SHEET NO. 48 |
| BE-310                    |                        | CONTRACT #: 63669 |                 |              |
| ILLINOIS FED. AID PROJECT |                        |                   |                 |              |



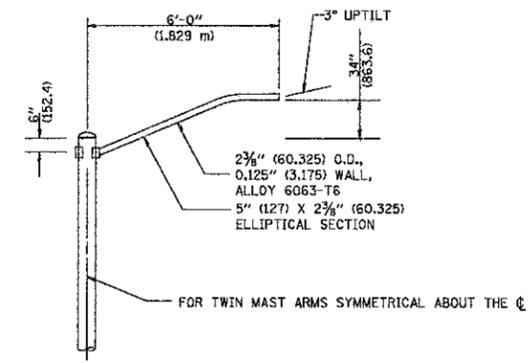
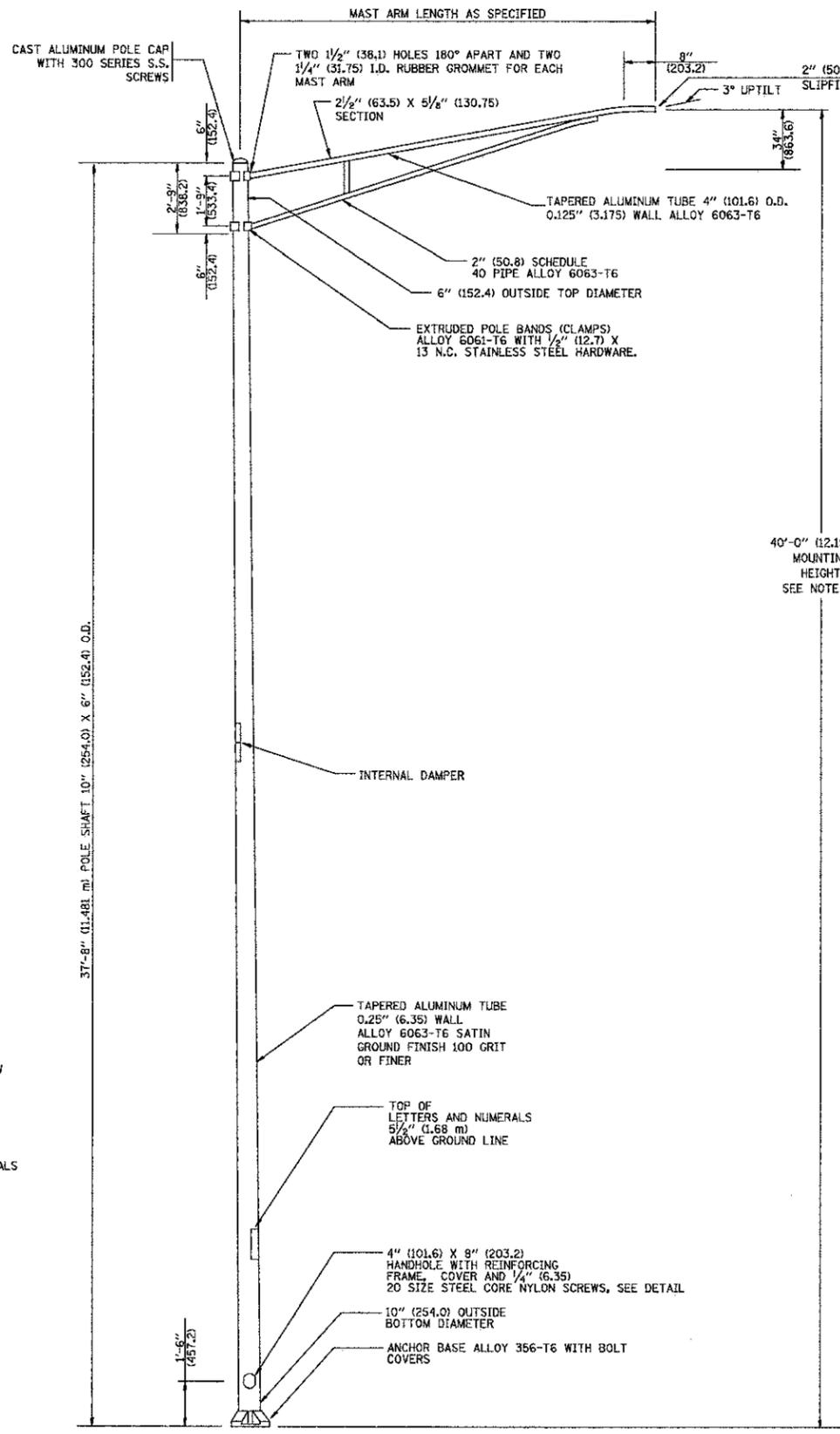
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES

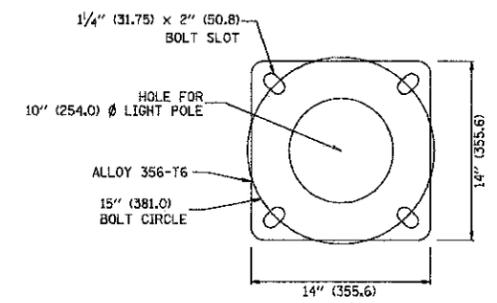


POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

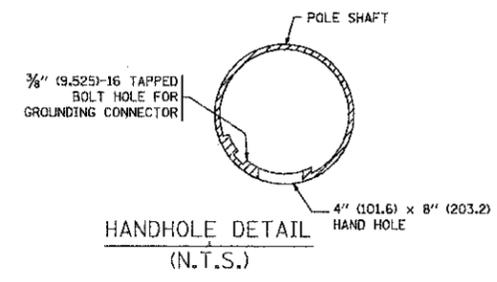


6' (1.8 m) SINGLE MEMBER MAST ARM (N.T.S.)

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENDON TO THE BOTTOM OF THE ANCHOR BASE.
  3. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
  5. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  6. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  7. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.

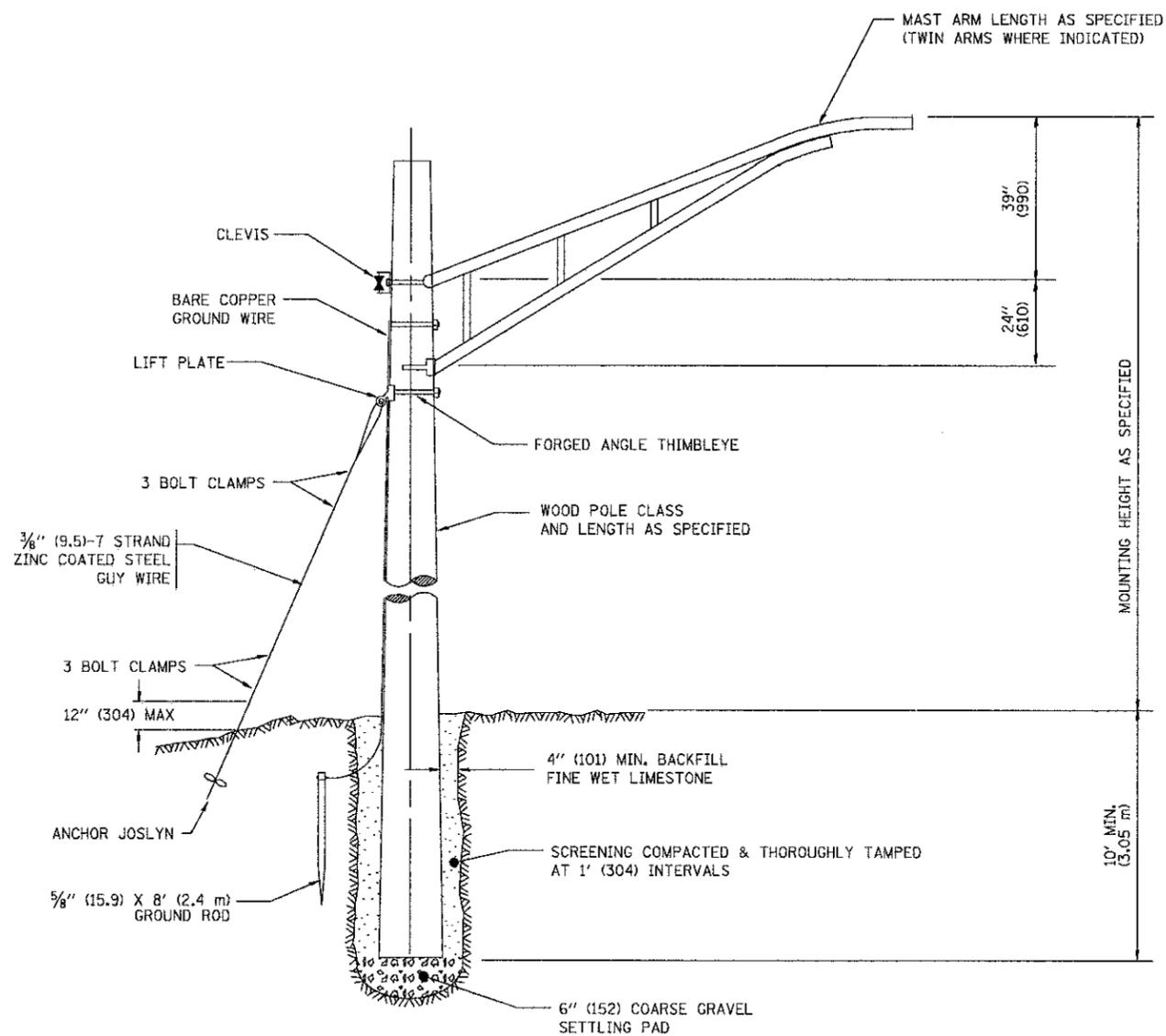


LIGHT POLE BASE PLATE DETAIL 15 INCH (381.0) BOLT CIRCLE



HANDHOLE DETAIL (N.T.S.)

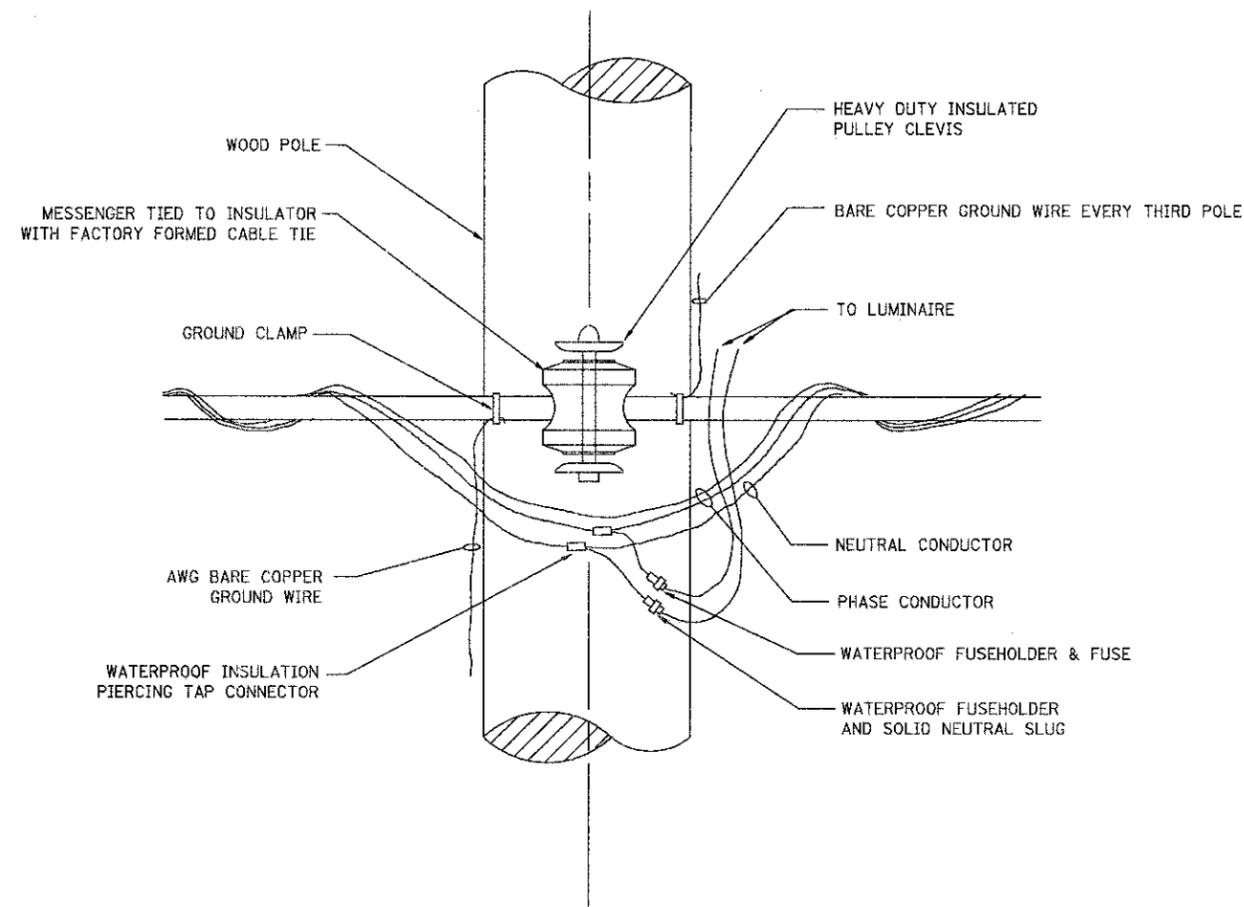
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|------------------------------|---------------------------|-------------------------------|-------------------------------|---|--|--------------|-----------------|------------------------|-------------------|---------------------------|--------------|
| FILE NAME = 4459.000-FL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED -                    | REVISED - R. TOMSONS 09-06-00 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>ALUMINUM LIGHT POLE<br/>40'-0" (12.192 m) MOUNTING HEIGHT</b> |              | F.A.P. RTE. 527 | SECTION 08-00369-00-SP | COUNTY KANE       | TOTAL SHEETS 67           | SHEET NO. 49 |
| PLOT SCALE = 1" = .0833'     | CHECKED -                 | REVISED - R. TOMSONS 09-02-03 | SCALE: NONE                   |   | SHEET NO. 1 OF 1 SHEETS  | STA. TO STA. | <b>BE-401</b>   |                        | CONTRACT #: 63669 | ILLINOIS FED. AID PROJECT |              |
| PLOT DATE = 3/21/2012        | DATE -                    | REVISED -                     | GHA #4459.000                 |   |  |              |                 |                        |                   |                           |              |
|                              |                           |                               |                               |   |  |              |                 |                        |                   |                           |              |



TEMPORARY LIGHT POLE DETAIL

**NOTES:**

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED



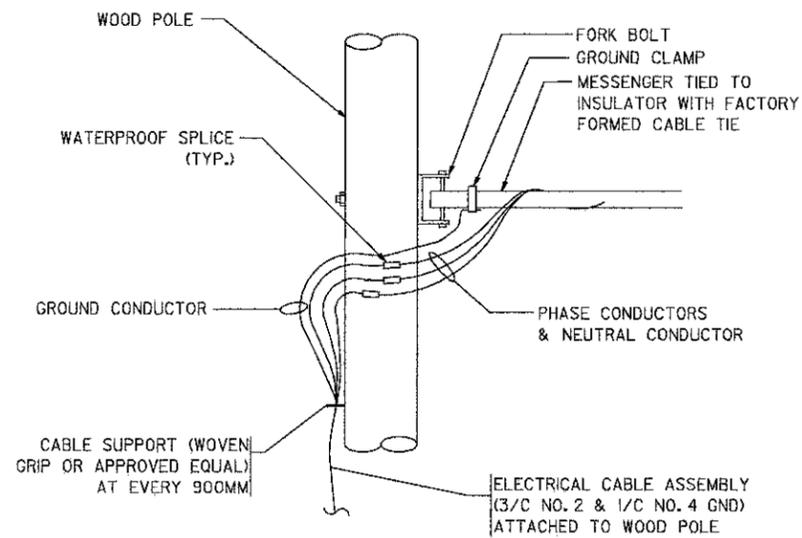
TEMPORARY LIGHT POLE ATTACHMENT DETAIL

**NOTES:**

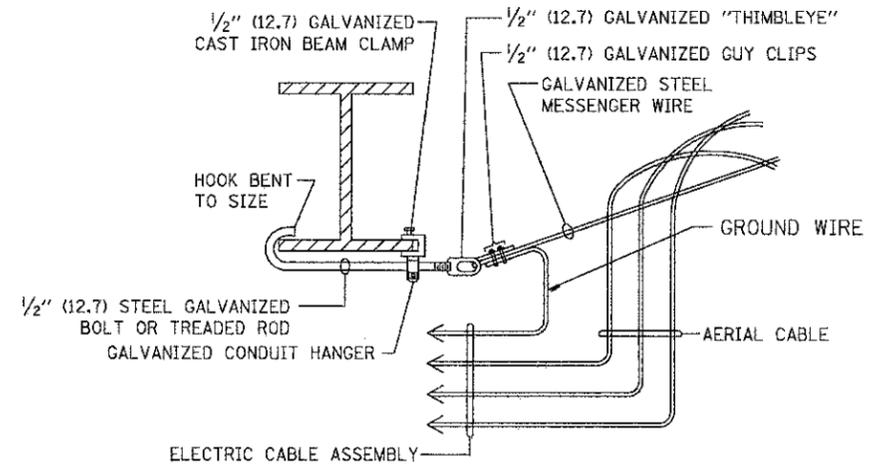
- A GROUND ROD SHALL BE INSTALLED AT EVERY TEMPORARY LIGHT POLE.
- THE TEMPORARY LIGHTING SYSTEM IS A SINGLE PHASE 3 WIRE SYSTEM.
- THERE ARE 2 PHASE CONDUCTORS AND A MESSENGER/GROUND CONDUCTOR - NO NEUTRAL CONDUCTOR.
- THE PHASE CONDUCTORS SHALL BE EQUIPPED WITH TWO POLE WATERPROOF FUSEHOLDER WITH 15 AMP FUSES.

|                                 |                           |            |                    |   |                                     |           |      |               |   |                   |              |           |
|---------------------------------|---------------------------|------------|--------------------|---|-------------------------------------|-----------|------|---------------|---|-------------------|--------------|-----------|
| FILE NAME =<br>4459.000-EL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - | REVISED - 08-08-03 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY LIGHT POLE DETAILS</b> |           |      | FAP. RTE.     | SECTION   | COUNTY            | TOTAL SHEETS | SHEET NO. |
|                                 | PLOT SCALE = 1" = .0833'  | -          | REVISED -          |   |                                     |           |      | 527           | 08-00369-00-SP                                  | KANE              | 67           | 50        |
| PLOT DATE = 3/21/2012           | -                         | REVISED -  | -                  | SCALE: N.A.   | SHEET NO.                           | OF SHEETS | STA. | TO STA.       | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |                   |              |           |
|                                 |                           |            |                    |   |                                     |           |      | <b>BE-800</b> |   | CONTRACT #: 63689 |              |           |

GHA #4459.000



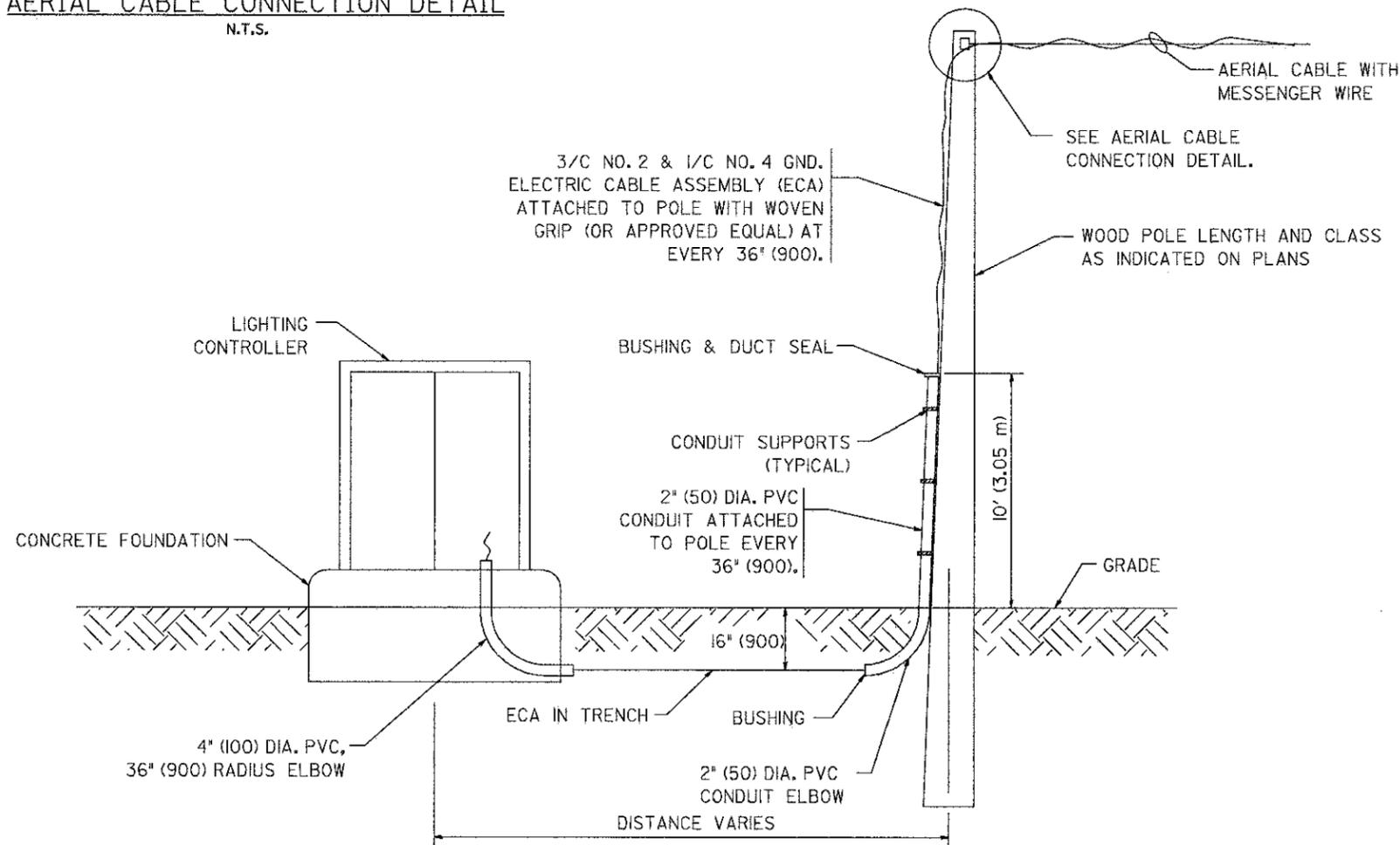
**AERIAL CABLE CONNECTION DETAIL**  
N.T.S.



**AERIAL CABLE ATTACHED TO STRUCTURE**  
NOT TO SCALE

**NOTES:**

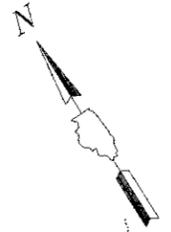
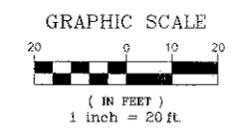
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



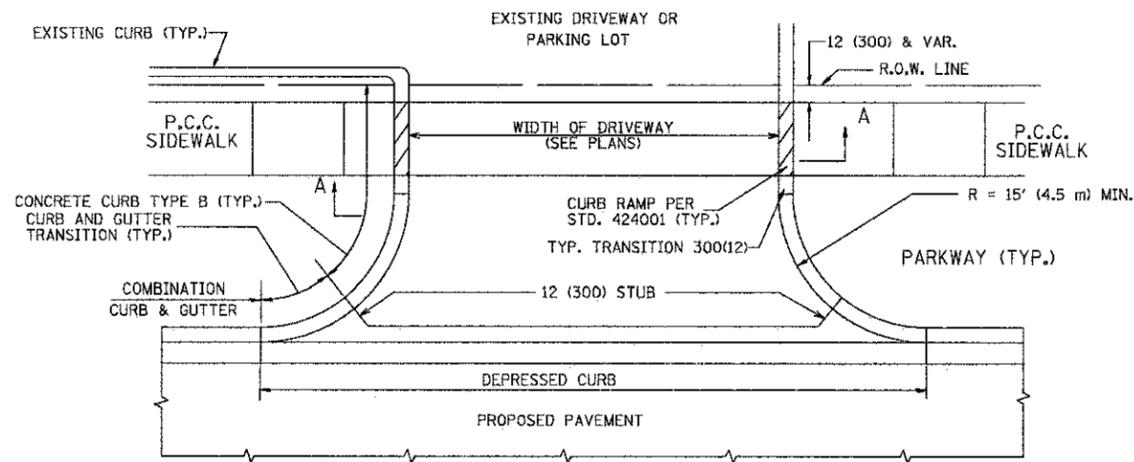
**WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL**  
N.T.S.

|                              |                           |            |                    |   |  |  |  |   |                        |              |                 |              |                   |
|------------------------------|---------------------------|------------|--------------------|---|--|--|--|---|------------------------|--------------|-----------------|--------------|-------------------|
| FILE NAME = 4459.000-EL2.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - | REVISED - 08-08-03 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>TEMPORARY AERIAL CABLE INSTALLATION</b> |  |  | F.A.P. RITE 527                                   | SECTION 08-00369-00-SP | COUNTY KANE  | TOTAL SHEETS 67 | SHEET NO. 51 |                   |
| PLOT SCALE = 1" = .0633'     | PLOT DATE = 3/21/2012     | REVISED -  | REVISED -          |   |  |  |  | SCALE: N.A.                                       | SHEET NO. OF SHEETS    | STA. TO STA. | <b>BE-801</b>   |              | CONTRACT #: 63669 |
|                              |                           |            |                    |   |  |  |  | FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT |                        |              |                 |              |                   |

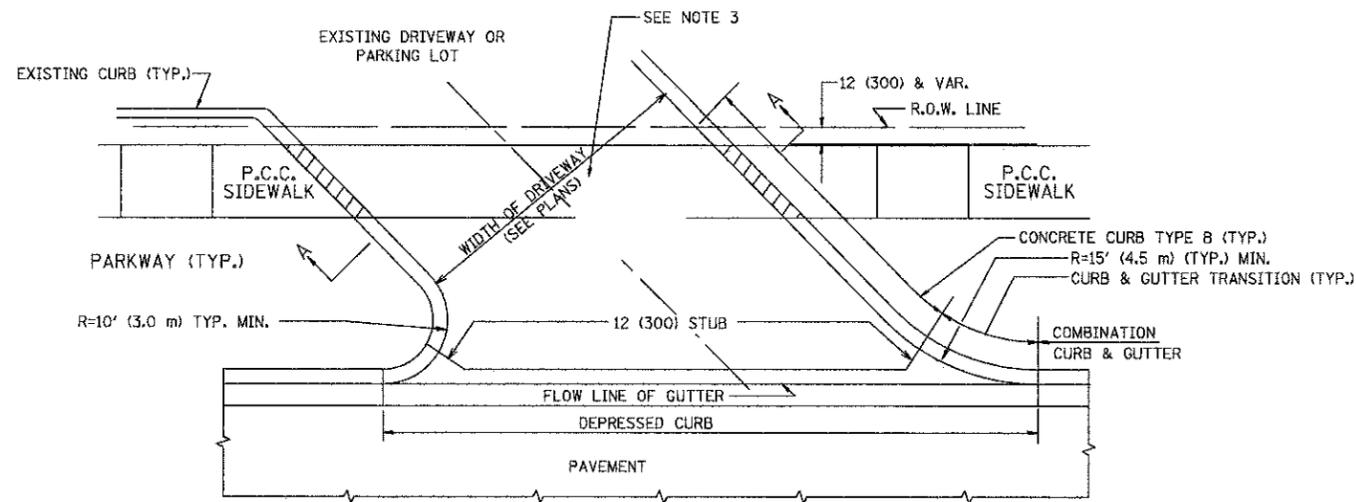
GHA #4459.000



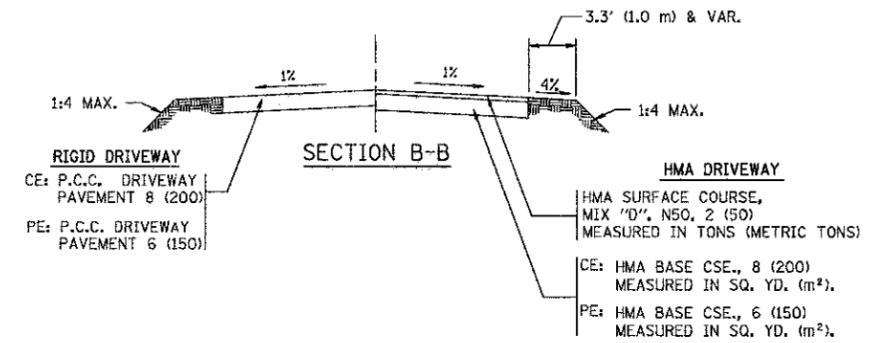
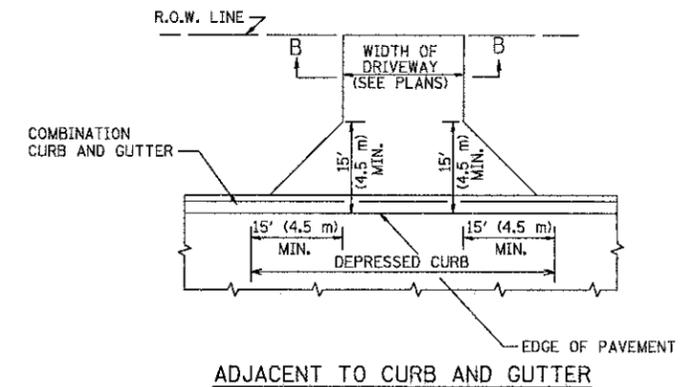
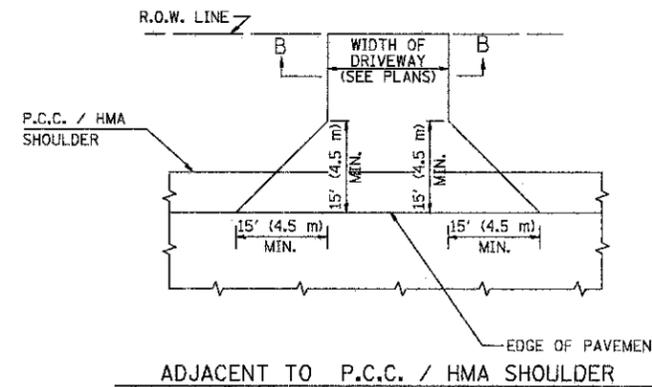
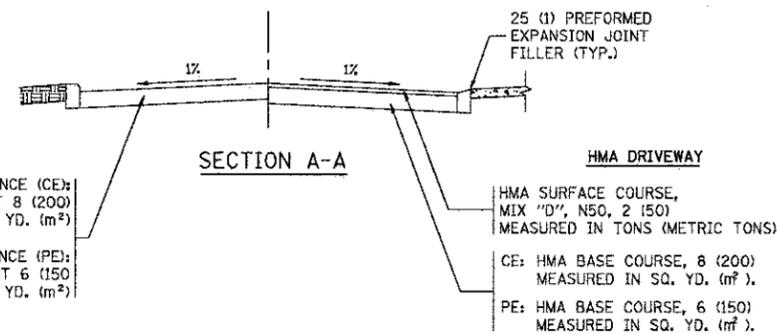
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| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = ZACH WALLSTEN | DESIGNED = KLB   | REVISED = | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>WETLAND IMPACT AREA DETAIL<br/>BIG TIMBER ROAD AND RANDALL ROAD</b> |                     |              | FAP<br>RTE<br>527 | SECTION<br>08-00369-00-SP | COUNTY<br>KANE | TOTAL<br>SHEETS<br>67 | SHEET<br>NO.<br>52 |
|                                 | PLOT SCALE = 1" = .0833'  | DRAWN = PJS      | REVISED = |   | SCALE 1"=20'   | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT # 63669  |                           |                |                       |                    |
|                                 | PLOT DATE = 3/21/2012     | CHECKED = KLB    | REVISED = |   | ILLINOIS FED. AID PROJECT  |                     |              |                   |                           |                |                       |                    |
|                                 |                           | DATE = 3/21/2012 | REVISED = |   |  |                     |              |                   |                           |                |                       |                    |



WITH CONCRETE CURB, TYPE B



WITH CONCRETE CURB, TYPE B



**GENERAL NOTES:**

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

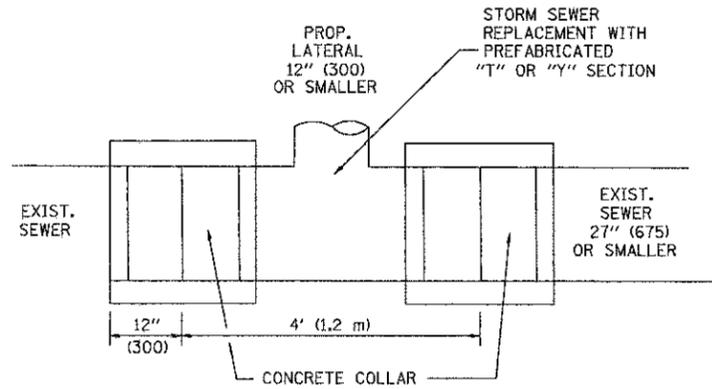
THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

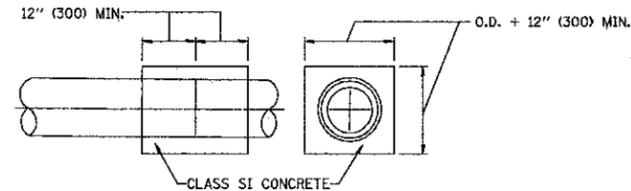
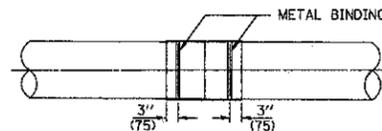
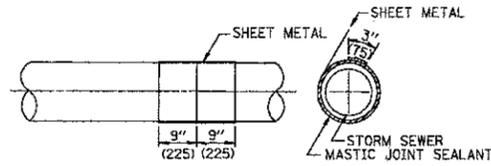
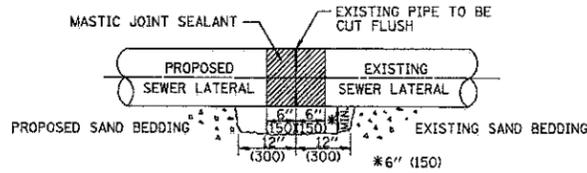
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

|                              |                           |                            |                               |   |  |                         |                        |                       |                 |                  |               |
|------------------------------|---------------------------|----------------------------|-------------------------------|---|--|-------------------------|------------------------|-----------------------|-----------------|------------------|---------------|
| FILE NAME = 4459.000-DT1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - R. SHAH         | REVISED - P. LOFLUER 04-15-03 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.<br/>AND FACE OF CURB &amp; EDGE OF SHOULDER ≥ 15'(4.5 m)</b> | F.P. RTE. 527           | SECTION 08-00369-00-SP | COUNTY KANE           | TOTAL SHEETS 67 | SHEET NO. 53     | GHA #4459.000 |
| PLOT SCALE = 1" = .0833'     | CHECKED -                 | REVISED - R. BORO 01-01-07 | REVISED - R. BORO 06-11-08    |   |  | BD0156-07 (BD-01)       | CONTRACT # 63669       |                       |                 |                  |               |
| PLOT DATE = 3/21/2012        | DATE - 11-04-95           | REVISED - R. BORO 09-06-11 | SCALE NONE                    |   |  | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.           | FED. ROAD DIST. NO. 1 | ILLINOIS        | FED. AID PROJECT |               |



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

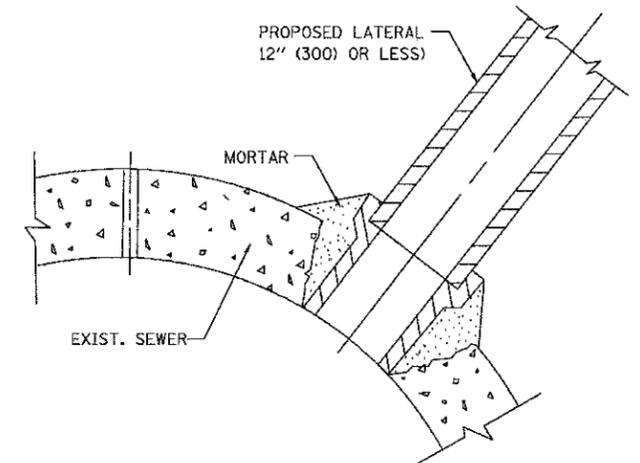


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OZZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
  - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
  - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

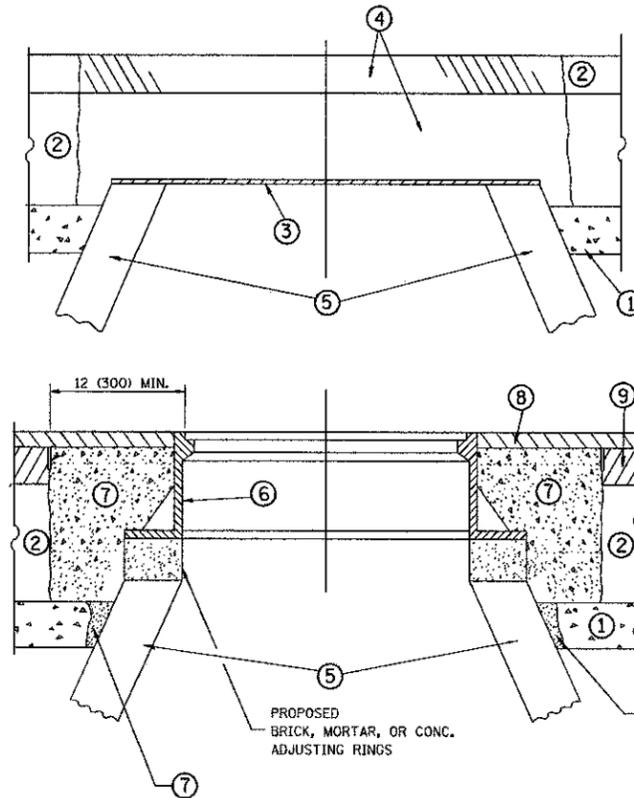
TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

|                             |                           |                       |                               |   |   |  |                         |              |                   |              |
|-----------------------------|---------------------------|-----------------------|-------------------------------|---|---|--|-------------------------|--------------|-------------------|--------------|
| FILE NAME = 4459.000-D7.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - M. DE YONG | REVISED - M. DE YONG 05-08-92 | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DETAIL OF STORM SEWER<br/>CONNECTION TO EXISTING SEWER</b> | F.P. RTE. 527  | SECTION 08-00369-00-SP  | COUNTY KANE  | TOTAL SHEETS 67   | SHEET NO. 54 |
|                             | PLOT SCALE = 1" = .0833'  | CHECKED -             | REVISED - R. SHAH 09-09-94    |   |   | SCALE: NONE  | SHEET NO. 1 OF 1 SHEETS | STA. TO STA. | CONTRACT #: 63669 |              |
|                             | PLOT DATE = 3/21/2012     | DATE - 07-25-90       | REVISED - R. SHAH 06-12-96    |   |   | GHA #4459.000<br>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |                         |              |                   |              |



**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1\* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:**

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

CHA #4421.000

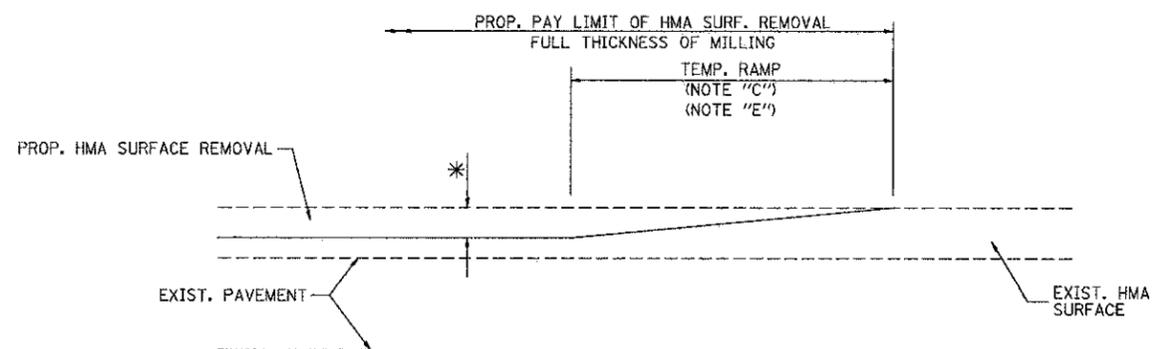
|                              |                              |                    |                               |
|------------------------------|------------------------------|--------------------|-------------------------------|
| FILE NAME = 4459.000-071.dwg | USER NAME = BETHANY SUWINSKI | DESIGNED - R. SHAH | REVISED - R. WIEDMAN 05-14-04 |
|                              |                              | DRAWN -            | REVISED - R. BORO 01-01-07    |
|                              | PLOT SCALE = 1" = .0833'     | CHECKED -          | REVISED - R. BORO 03-09-11    |
|                              | PLOT DATE = 4/5/2012         | DATE - 10-25-94    | REVISED - R. BORO 12-06-11    |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR  
FRAMES AND LIDS ADJUSTMENT WITH MILLING**

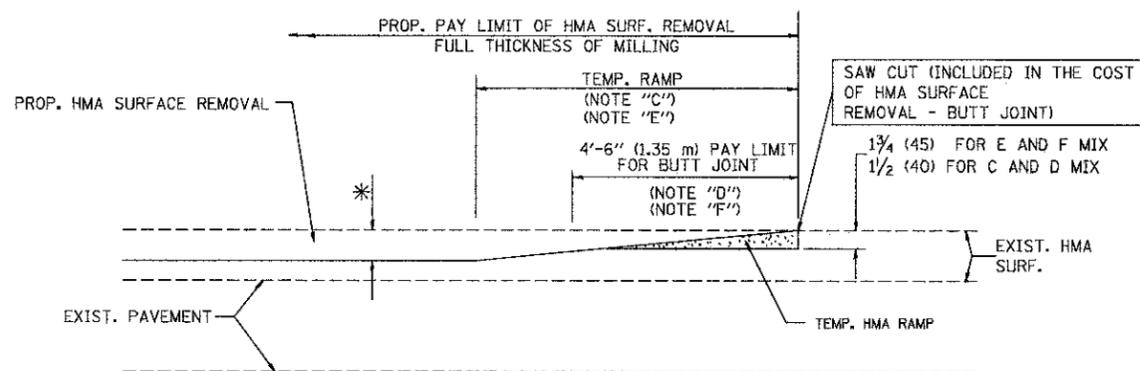
SCALE: NONE SHEET NO. 55 OF 1 SHEETS STA. TO STA.

|   |                        |             |                   |              |
|---|------------------------|-------------|-------------------|--------------|
| FAP RTE. 527                                    | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67   | SHEET NO. 55 |
| BD600-03 (BD-8)                                 |                        |             | CONTRACT #: 63669 |              |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |                        |             |                   |              |



MILLED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

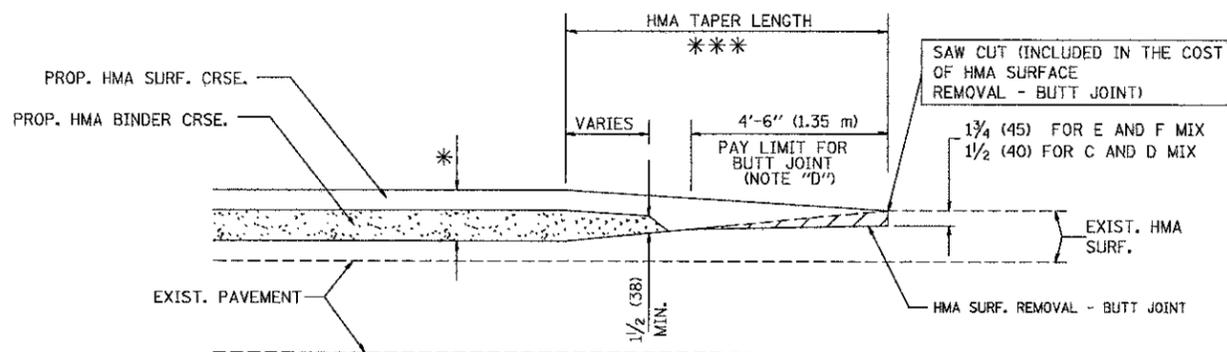
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP  
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

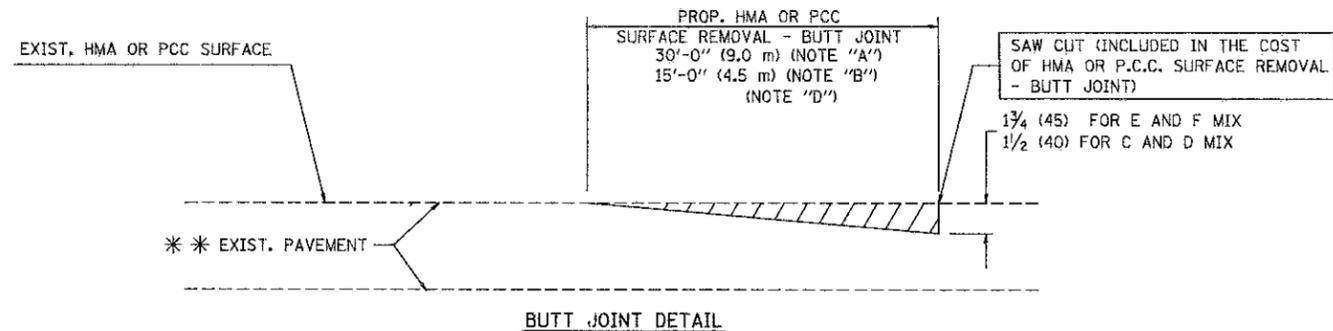
OPTION 2

TYPICAL TEMPORARY RAMP

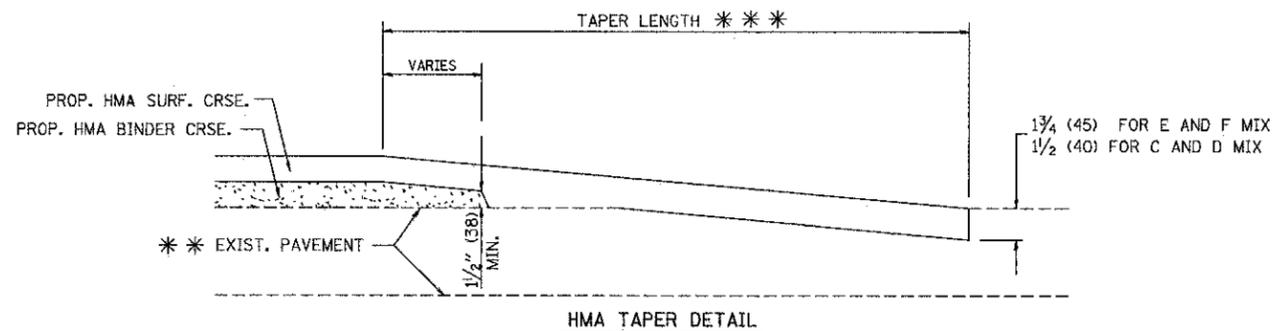


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER  
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER  
FOR RESURFACING ONLY

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

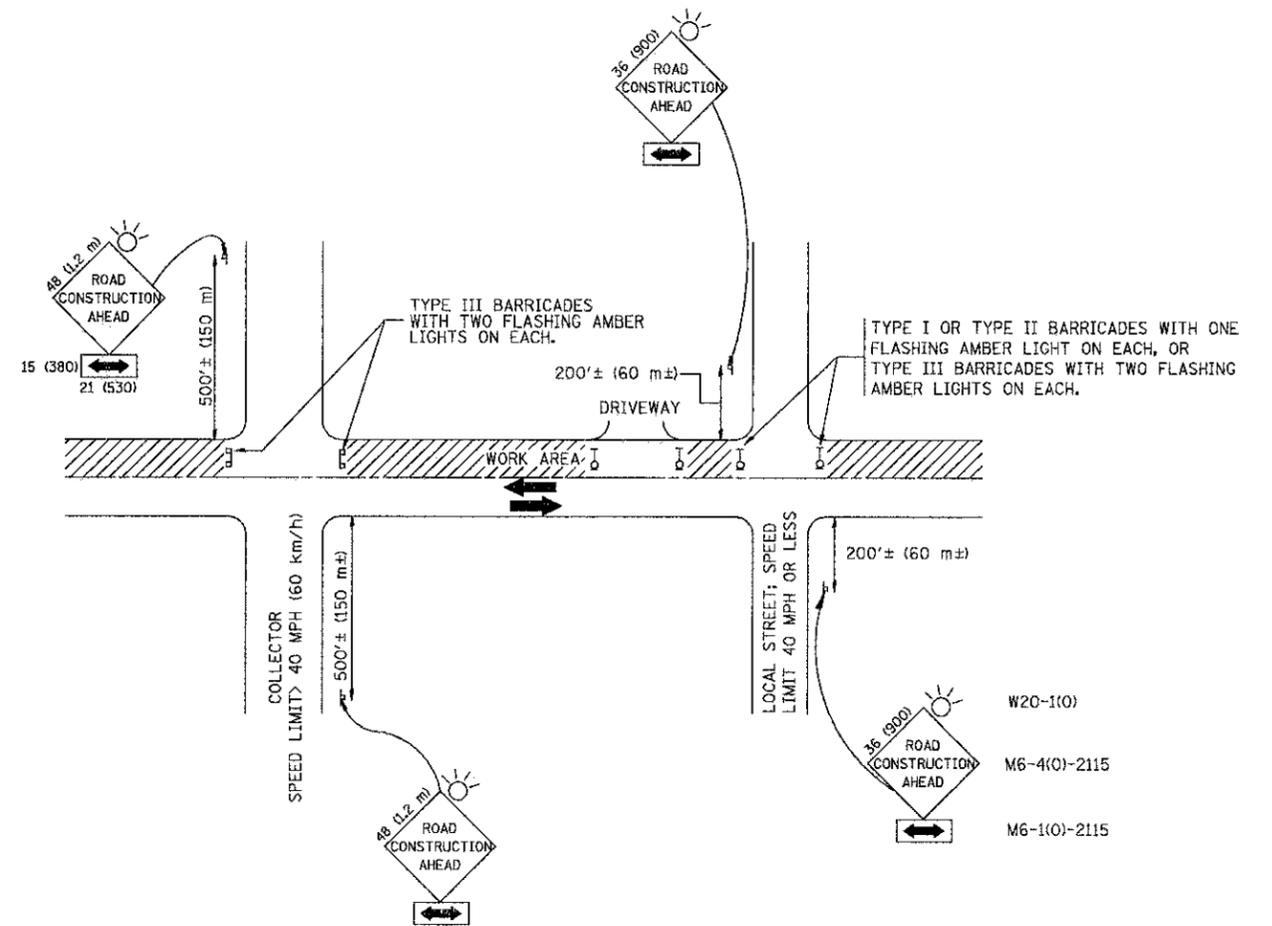
BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

GHA #4459.000

|                              |                           |                             |                             |   |   |                 |                        |                         |                 |              |  |   |
|------------------------------|---------------------------|-----------------------------|-----------------------------|---|---|-----------------|------------------------|-------------------------|-----------------|--------------|--|---|
| FILE NAME = 4459.000-DT1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - M. DE YONG       | REVISED - R. SHAR 10-25-94  | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>BUTT JOINT AND<br/>HMA TAPER DETAILS</b> | F.A.P. RTE. 527 | SECTION 08-00369-00-SP | COUNTY KANE             | TOTAL SHEETS 67 | SHEET NO. 56 |  |   |
| PLOT SCALE = 1" = .0833'     | CHECKED -                 | REVISED - A. ABBAS 03-21-97 | REVISED - M. GOMEZ 04-06-01 |   |   | BD400-05 BD32   |                        | CONTRACT #: 63669       |                 |              |  |   |
| PLOT DATE = 3/21/2012        | DATE - 06-13-90           | REVISED - R. BORO 01-01-07  |                             |   |   |                 |                        |                         |                 |              |  |   |
|                              |                           |                             |                             |   |   | SCALE: NONE     |                        | SHEET NO. 1 OF 3 SHEETS |                 | STA. TO STA. |  | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |



**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.

GHA #4459.000

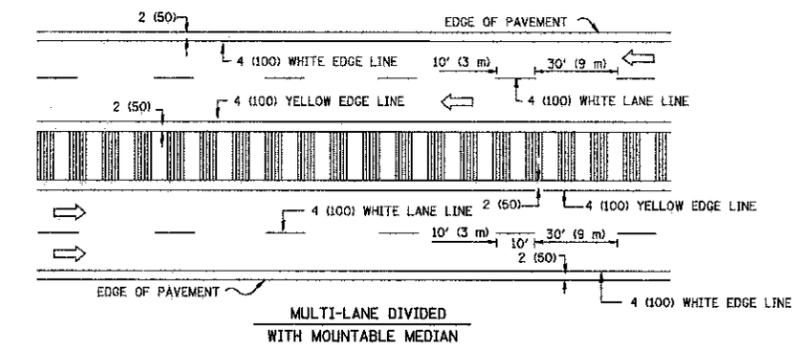
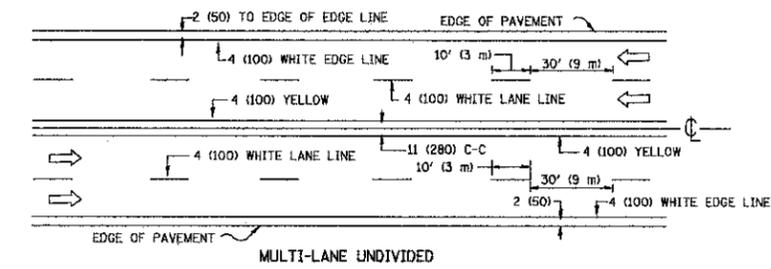
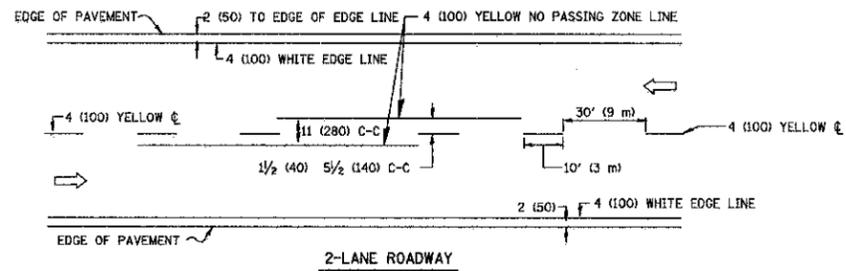
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|------------------------------|---------------------------|----------------|---------------------------------|
| FILE NAME = 4459.000-D71.dwg | USER NAME = ZACH WALLSTEN | DESIGNED = LHA | REVISED = J. CBERLE 10-18-95    |
|                              |                           | DRAWN =        | REVISED = A. HOUSEH 03-06-96    |
|                              | PLOT SCALE = 1" = 0833'   | CHECKED =      | REVISED = A. HOUSEH 10-15-96    |
|                              | PLOT DATE = 3/21/2012     | DATE = 06-89   | REVISED = T. RAMMACHER 01-06-00 |

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

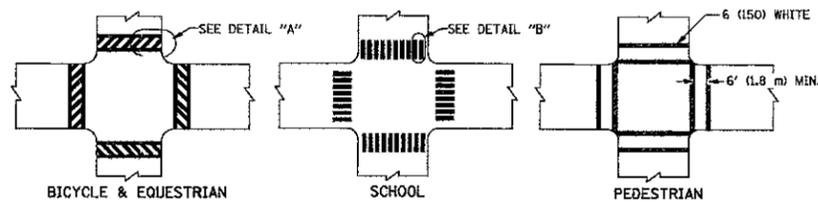
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

|   |                        |             |                   |              |
|---|------------------------|-------------|-------------------|--------------|
| FAP. RTE. 527                                   | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67   | SHEET NO. 57 |
| <b>TC-10</b>                                    |                        |             | CONTRACT #: 63669 |              |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |                        |             |                   |              |

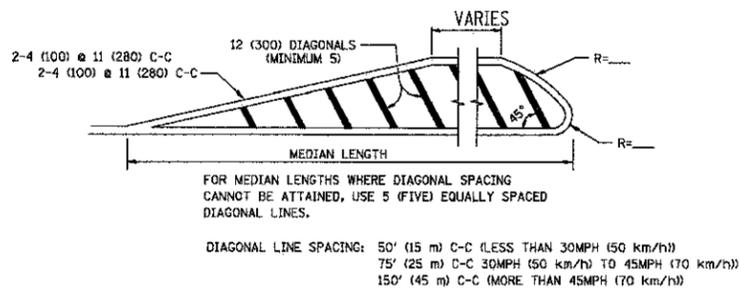
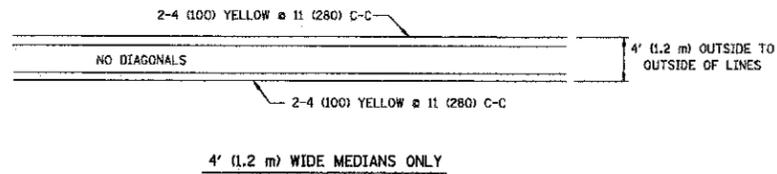


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

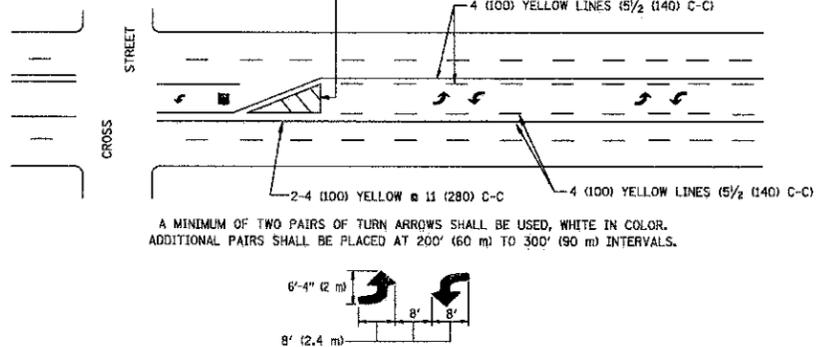
TYPICAL LANE AND EDGE LINE MARKING



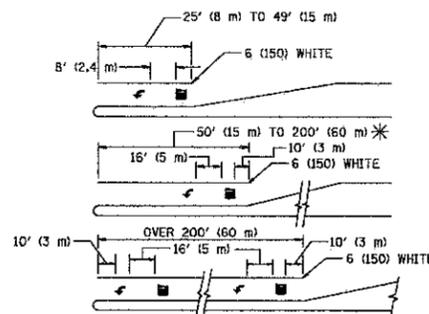
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING

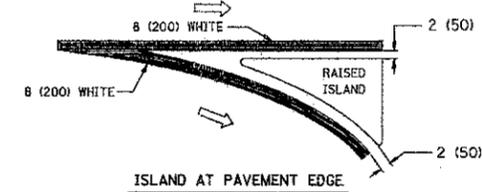
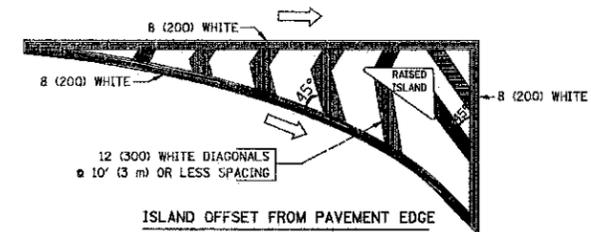


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
 \* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

TYPICAL PAVEMENT MARKINGS

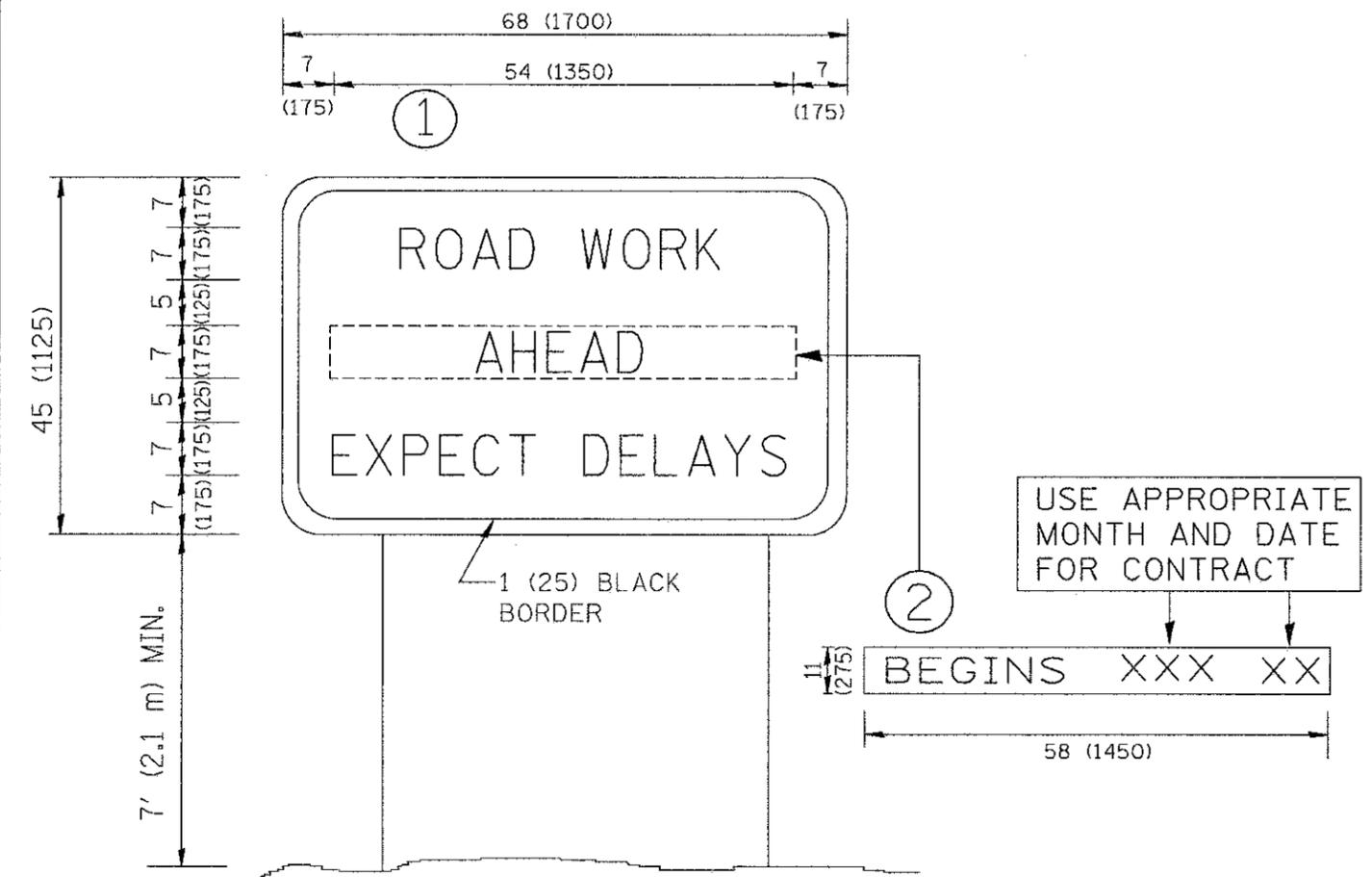


TYPICAL ISLAND MARKING

| 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 FOR ONE DIRECTION FOR BOTH DIRECTIONS                                       | 4 (100)<br>2 @ 4 (100)   | SOLID<br>SOLID                  | YELLOW<br>YELLOW  | 5/2 (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 (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) EACH DIRECTION<br>8' (2.4m) LEFT ARROW   | SKIP-DASH AND SOLID<br>IN PAIRS | YELLOW<br>WHITE   | 10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE<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>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>NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS | SOLID                           | YELLOW;<br>TWO WAY TRAFFIC<br>WHITE;<br>ONE WAY TRAFFIC | 11 (280) C-C FOR THE DOUBLE LINE<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 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"               | SOLID                           | WHITE   | SEE STATE STANDARD 780001<br>AREA OF:<br>"X"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH<br>"X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )                                     |
| SHOULDER DIAGONALS  | 12 (300) @ 45°   | SOLID                           | WHITE - RIGHT<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.

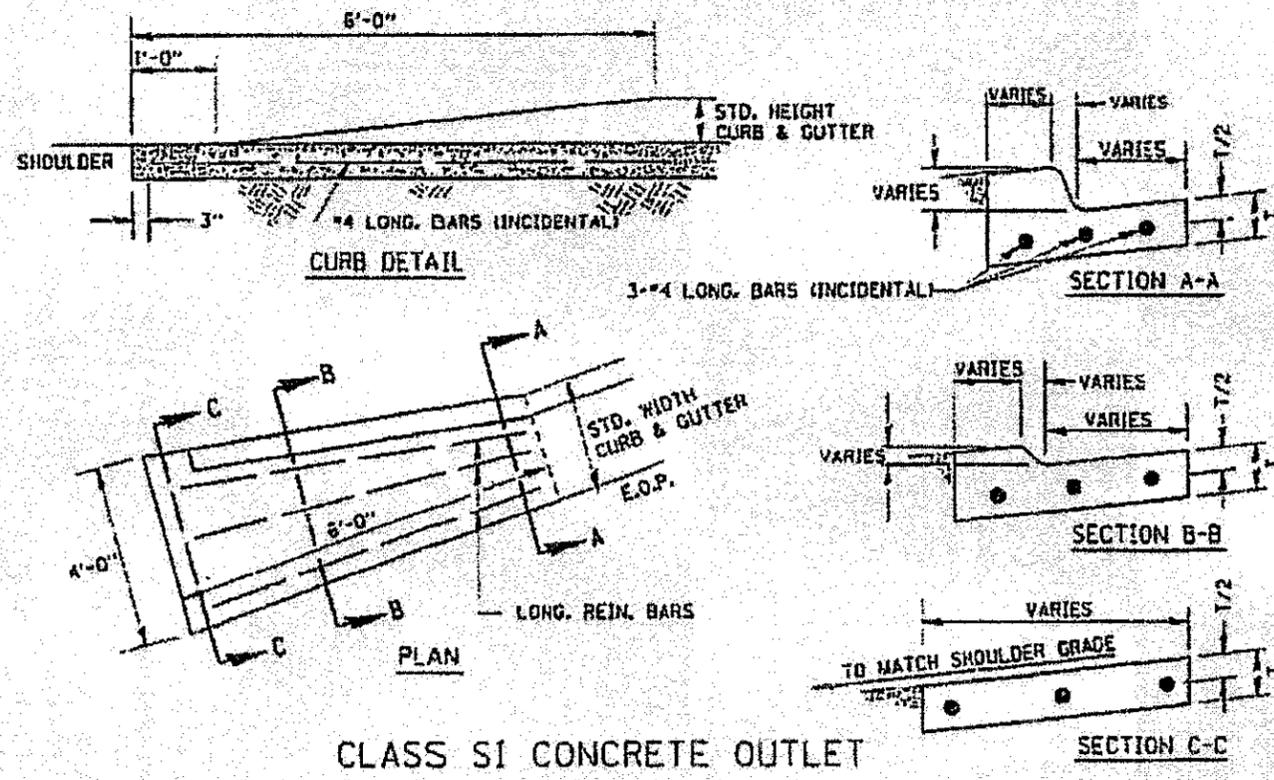


**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

|                                 |                           |            |                                 |   |   |              |                |   |                 |              |               |
|---------------------------------|---------------------------|------------|---------------------------------|---|---|--------------|----------------|---|-----------------|--------------|---------------|
| FILE NAME =<br>4459.000-DT1.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - | REVISED - R. MIRS 09-15-97      | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>ARTERIAL ROAD<br/>INFORMATION SIGN</b> | FAP.<br>RTE. | SECTION        | COUNTY  | TOTAL<br>SHEETS | SHEET<br>NO. | GHA #4459.000 |
|                                 | PLOT SCALE = 1" = .0633'  | DRAWN -    | REVISED - R. MIRS 12-11-97      |   |   | 527          | 08-00369-00-SP | KANE  | 67              | 59           |               |
|                                 | PLOT DATE = 3/21/2012     | CHECKED -  | REVISED - T. RAMMACHER 02-02-99 |   |   | TC-22        |                | CONTRACT #:                                     |                 | 63669        |               |
|                                 |                           | DATE -     | REVISED - C. JUCIUS 03-31-07    | SCALE: NONE   | SHEET NO. 1 OF 1 SHEETS                   | STA.         | TO STA.        | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |                 |              |               |



|                                 |                           |                  |           |
|---------------------------------|---------------------------|------------------|-----------|
| FILE NAME =<br>4458.000-071.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - JRD   | REVISED - |
|                                 |                           | DRAWN - ZCW      | REVISED - |
|                                 |                           | CHECKED - KLB    | REVISED - |
|                                 |                           | DATE - 3/21/2012 | REVISED - |

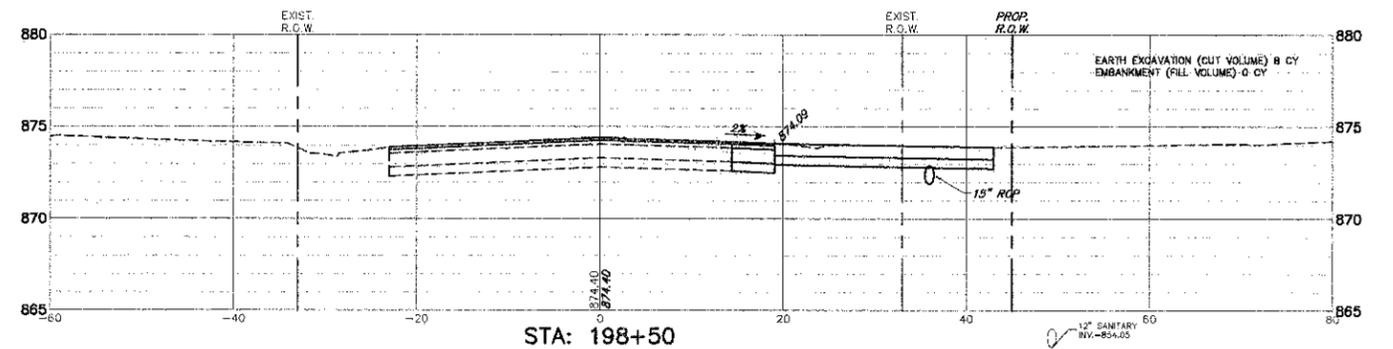
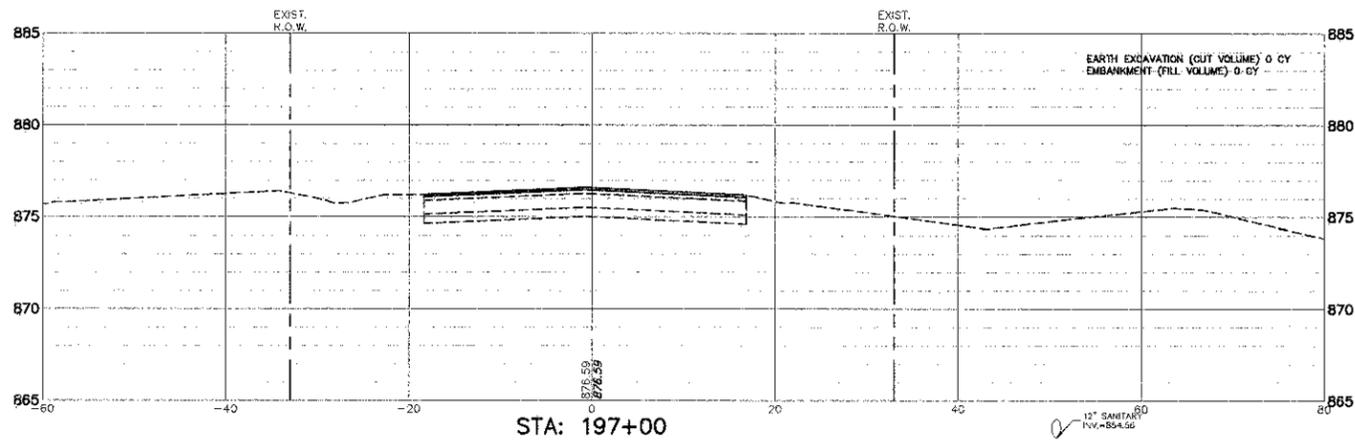
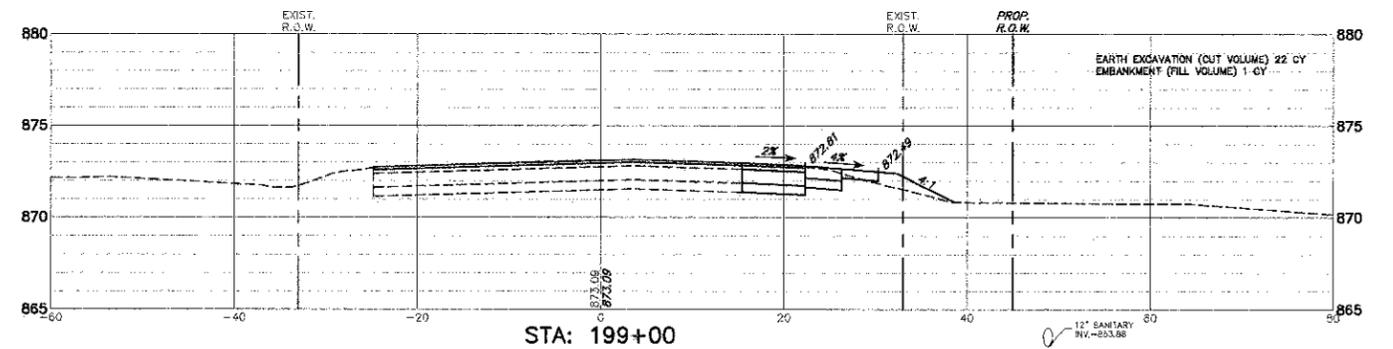
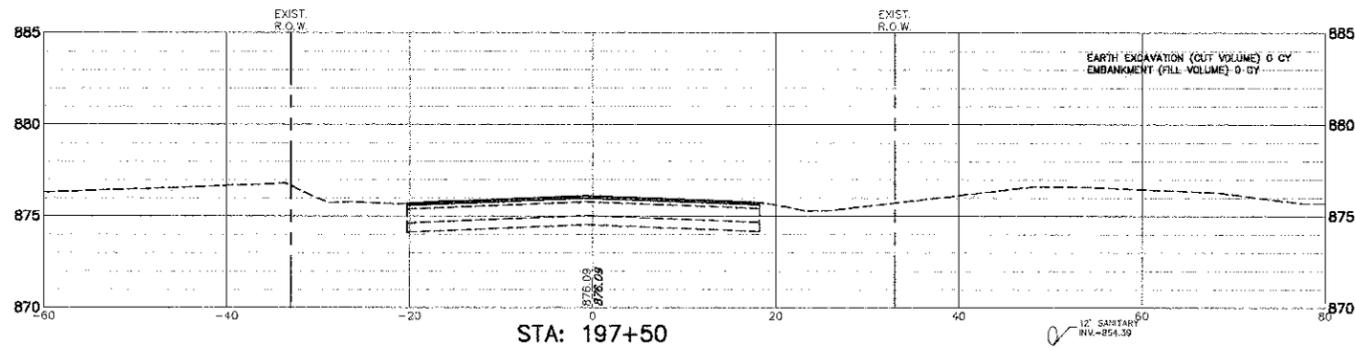
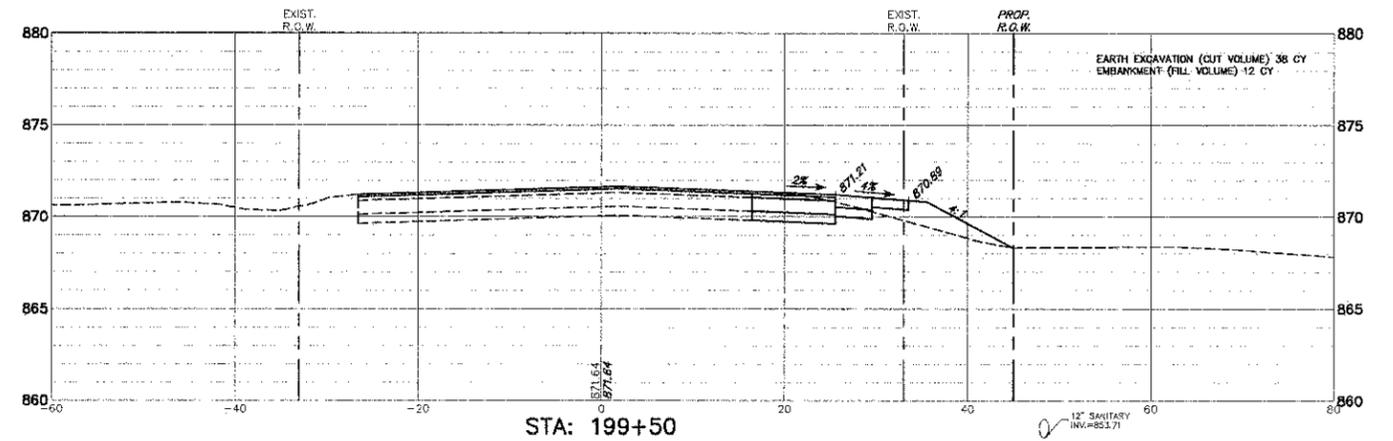
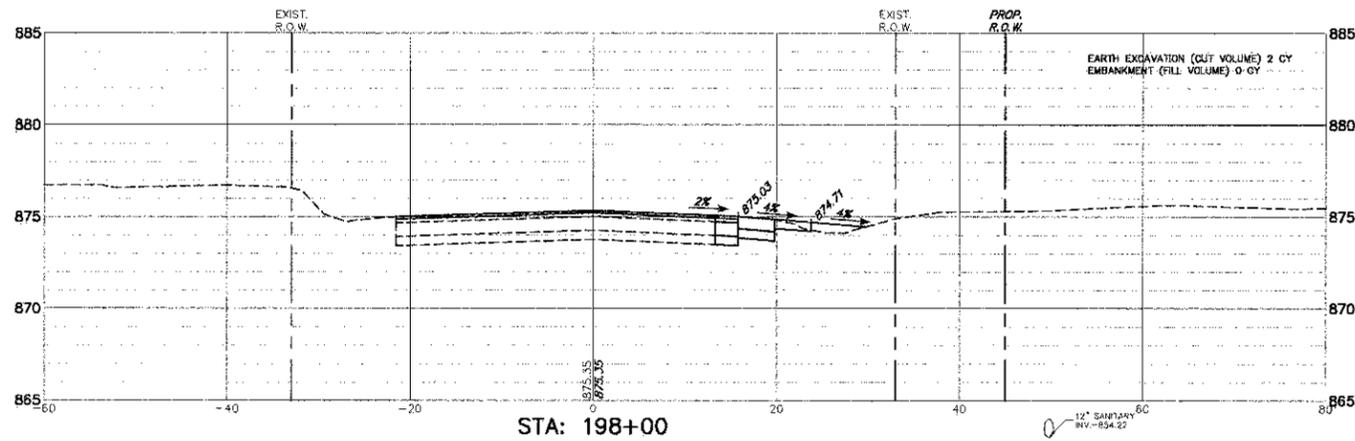
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**KDOT STANDARD DETAILS**

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

|                           |                           |                |                    |                 |
|---------------------------|---------------------------|----------------|--------------------|-----------------|
| FAP. RTE.<br>527          | SECTION<br>08-00369-00-SP | COUNTY<br>KANE | TOTAL SHEETS<br>67 | SHEET NO.<br>60 |
| CONTRACT #                |                           |                | 63669              |                 |
| ILLINOIS FED. AID PROJECT |                           |                |                    |                 |

GHA #4458.000



FILE NAME = 4459.000-PR3.dwg

USER NAME = ZACH WALLSTEN  
 PLOT SCALE = 1" = .0633'  
 PLOT DATE = 3/21/2012

DESIGNED - KLB  
 DRAWN - PJS  
 CHECKED - KLB  
 DATE - 3/21/2012

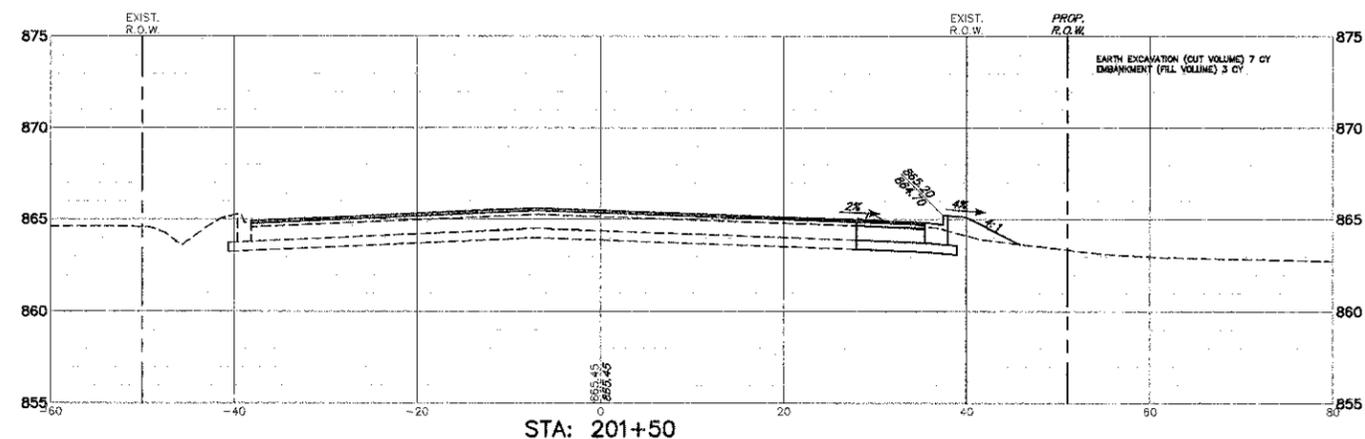
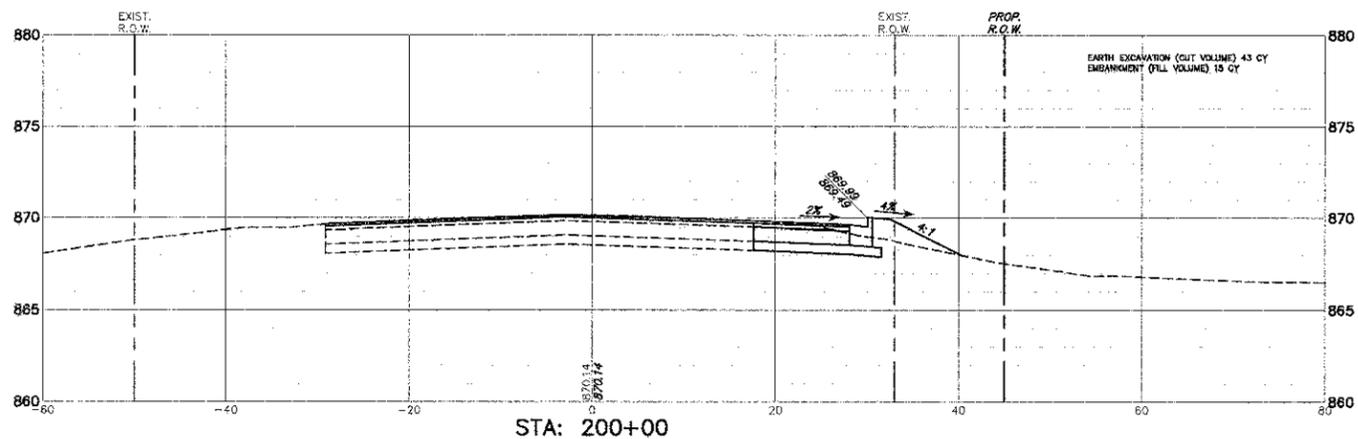
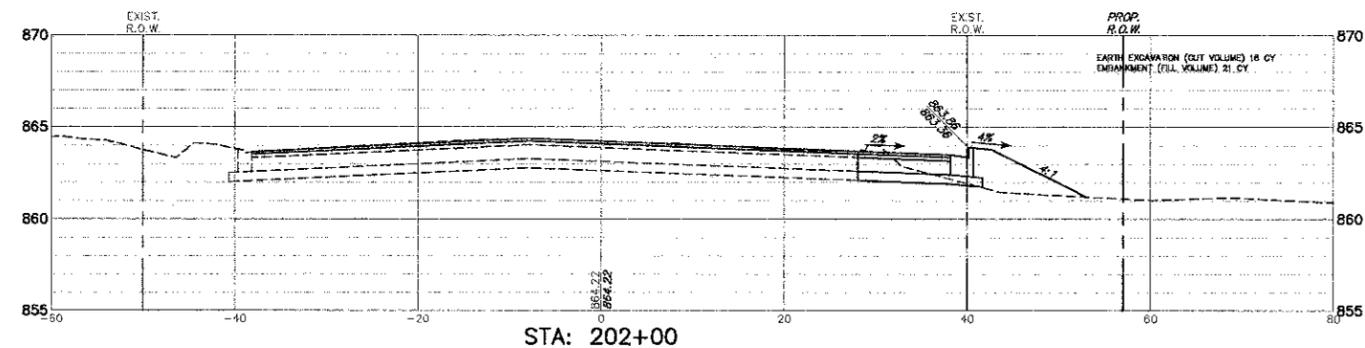
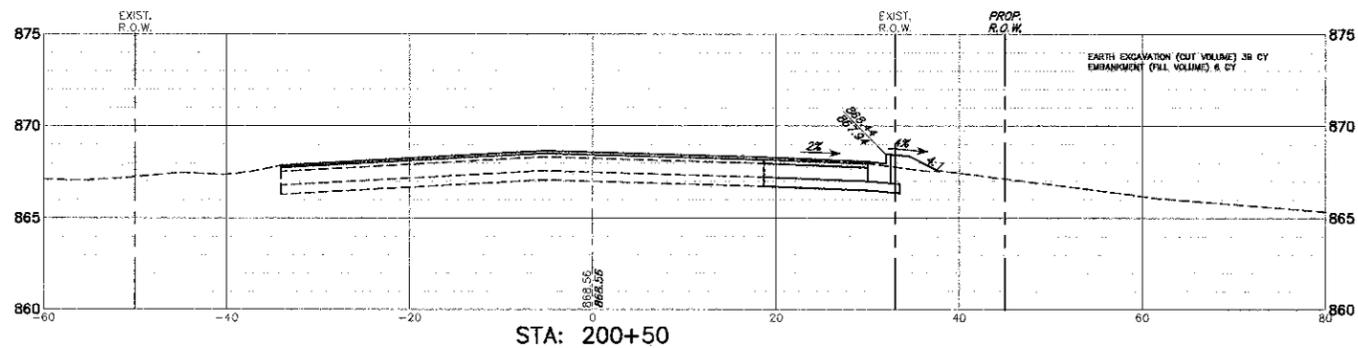
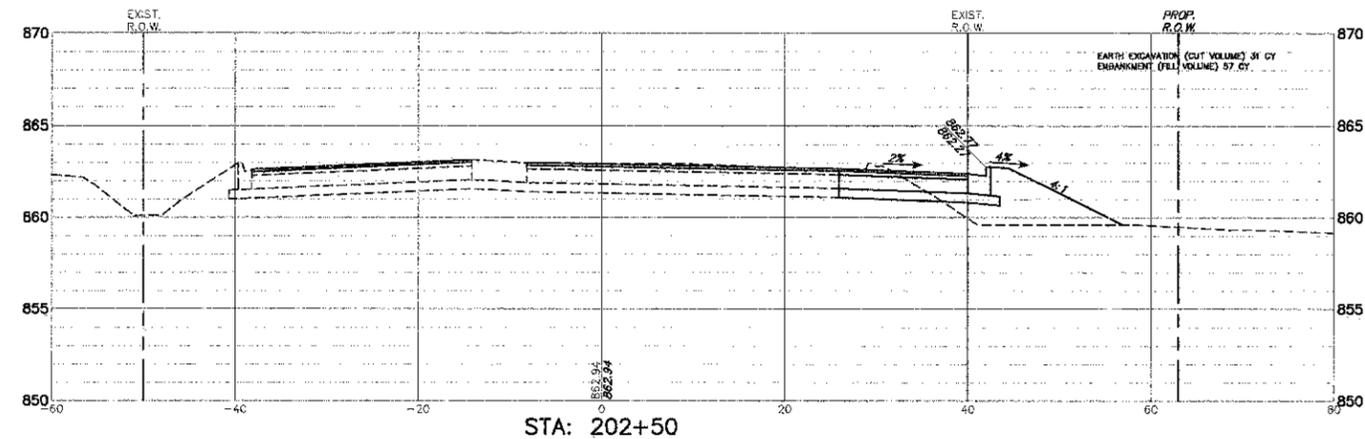
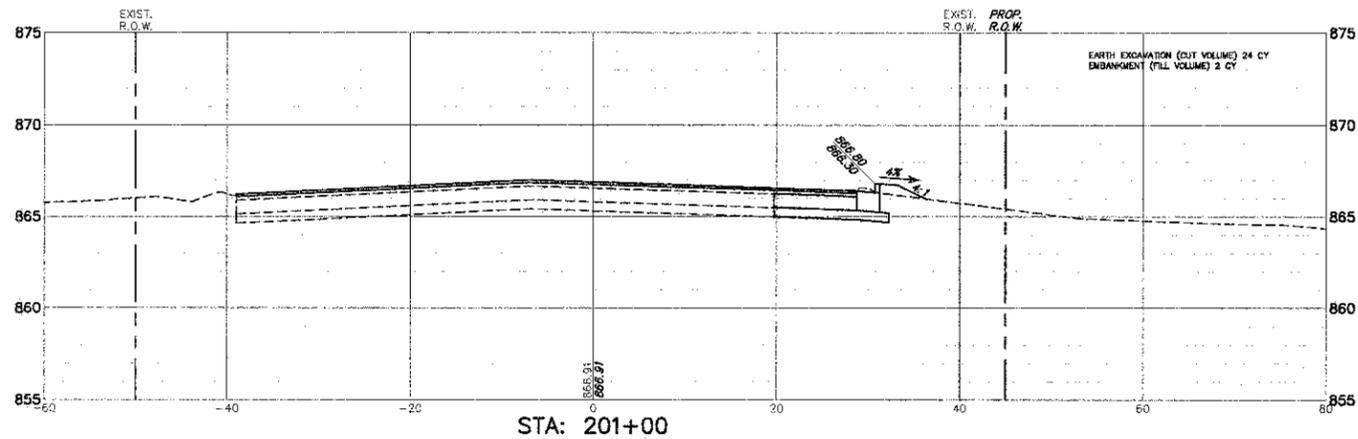
REVISED -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 BIG TIMBER ROAD STA. 197+00 TO STA. 199+50**

SCALE 1"=20' SHEET NO. OF SHEETS STA. TO STA.

| F&E RTE.    | SECTION        | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|----------------|--------|--------------|-----------|
| 527         | 08-00389-00-SP | KANE   | 67           | 61        |
| CONTRACT #: |                |        | 63669        |           |



FILE NAME = 4459.000-PR3.dwg

USER NAME = ZACH WALLSTEN  
 PLOT SCALE = 1" = .0833'  
 PLOT DATE = 3/21/2012

DESIGNED - KLB  
 DRAWN - PJS  
 CHECKED - KLB  
 DATE - 3/21/2012

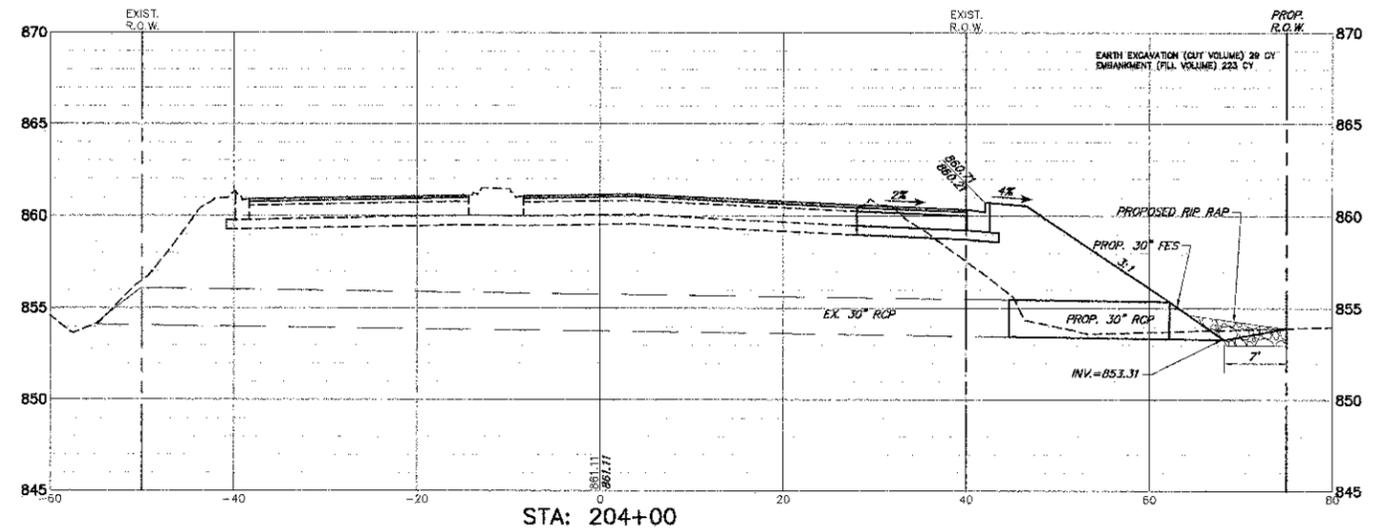
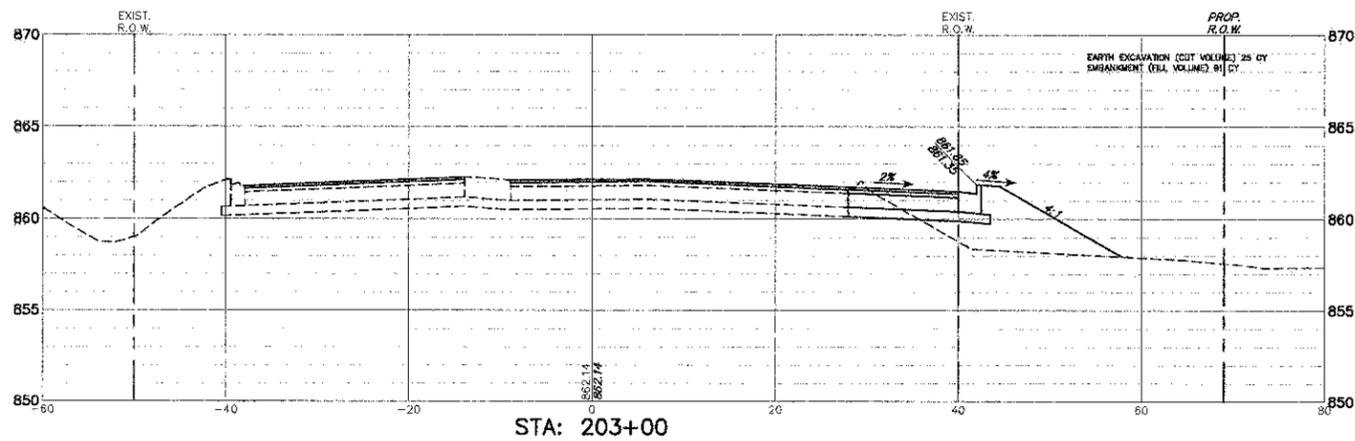
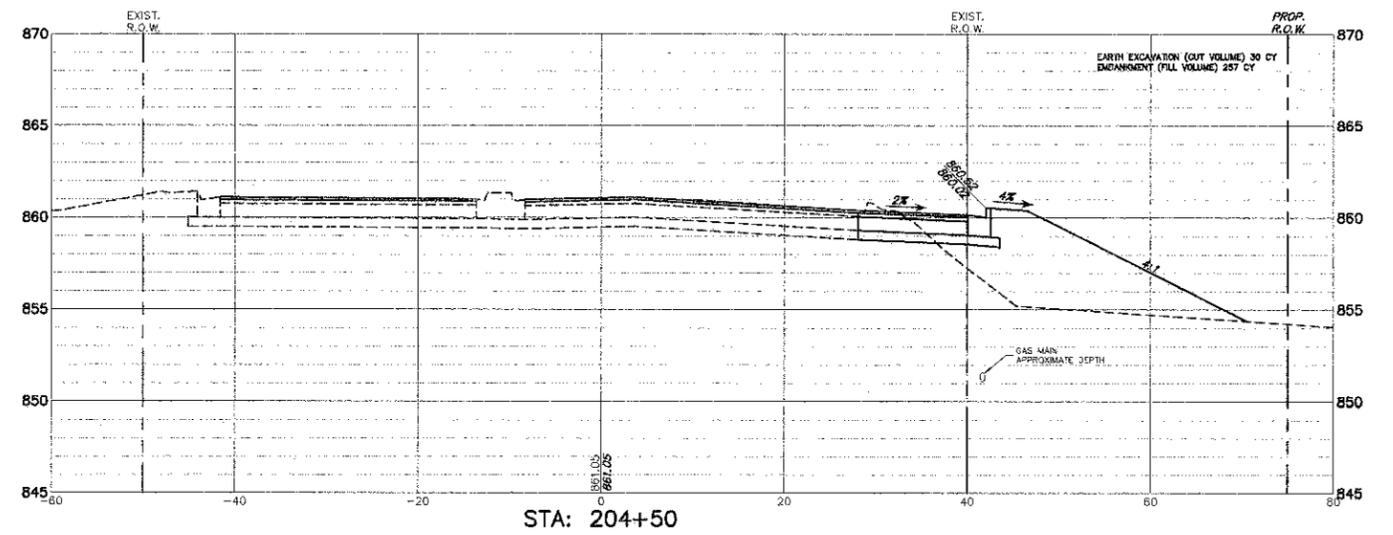
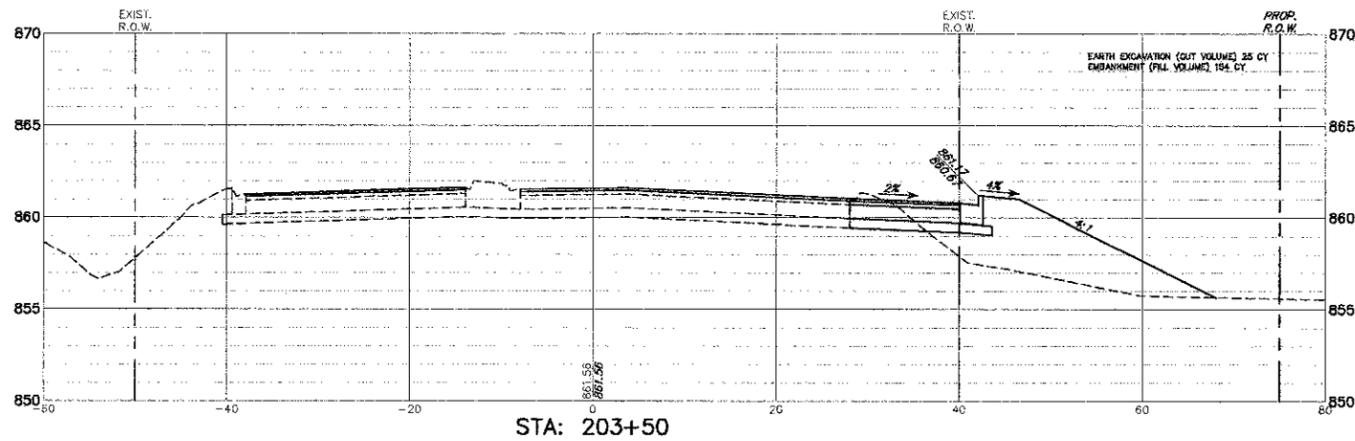
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

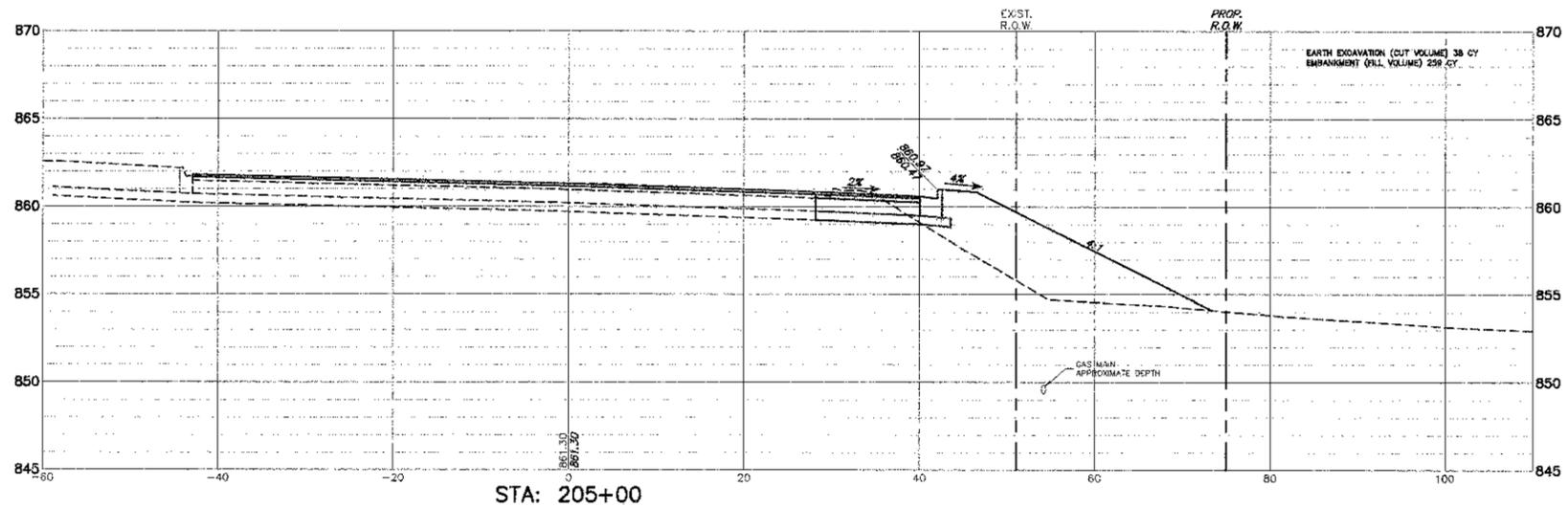
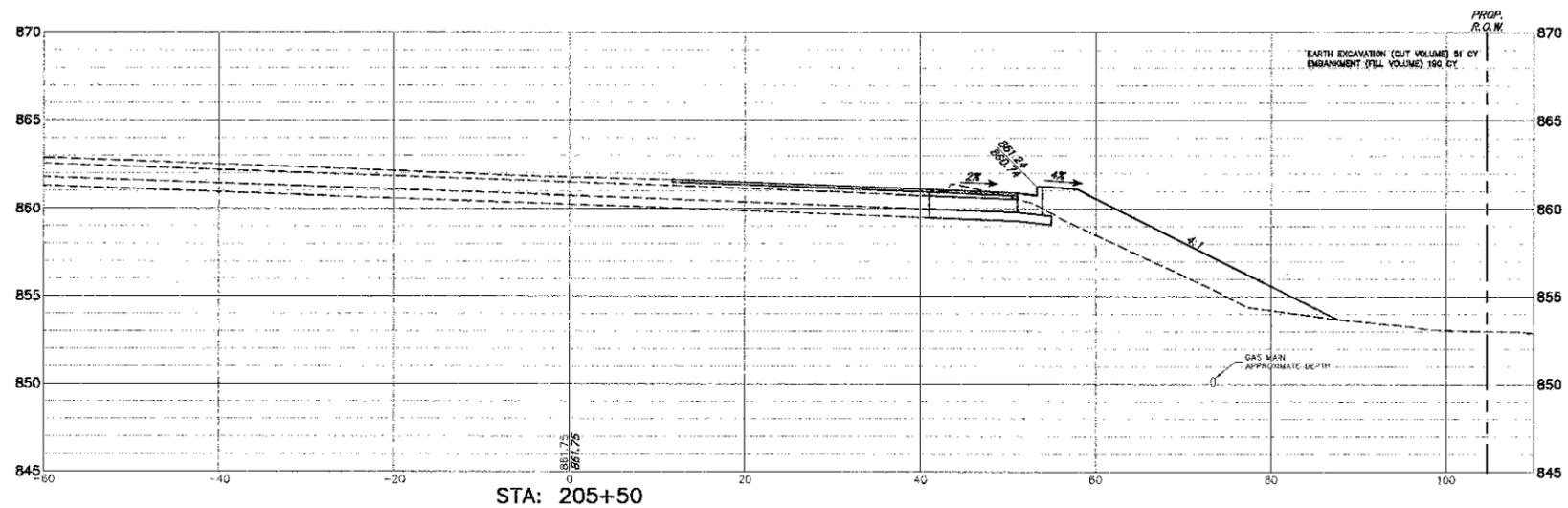
**CROSS SECTIONS  
 BIG TIMBER ROAD STA. 200+00 TO STA. 202+50**

|                  |                        |             |                           |              |
|------------------|------------------------|-------------|---------------------------|--------------|
| F&P RTE. 527     | SECTION 08-00369-00-SP | COUNTY KANE | TOTAL SHEETS 67           | SHEET NO. 62 |
| CONTRACT # 63669 |                        |             | ILLINOIS FED. AID PROJECT |              |

SCALE 1"=20' SHEET NO. OF SHEETS STA. TO STA.



|                                 |                           |                |           |   |  |                     |              |                    |                           |                           |                       |                    |
|---------------------------------|---------------------------|----------------|-----------|---|--|---------------------|--------------|--------------------|---------------------------|---------------------------|-----------------------|--------------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - KLB | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>CROSS SECTIONS<br/>BIG TIMBER ROAD STA. 203+00 TO STA. 204+50</b> |                     |              | F.A.P.<br>RTE. 527 | SECTION<br>08-00369-00-SP | COUNTY<br>KANE            | TOTAL<br>SHEETS<br>67 | SHEET<br>NO.<br>63 |
|                                 | PLOT SCALE = 1" = .0833'  | CHECKED - KLB  | REVISED - |   | SCALE: 1"=20'  | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT #: 63689  |                           | ILLINOIS FED. AID PROJECT |                       |                    |
| PLOT DATE = 3/21/2012           | DATE = 3/21/2012          | REVISED -      | REVISED - |   |  |                     |              |                    |                           |                           |                       |                    |



|                                 |                           |                  |           |   |  |  |  |                    |                           |                |                           |                 |              |  |
|---------------------------------|---------------------------|------------------|-----------|---|--|--|--|--------------------|---------------------------|----------------|---------------------------|-----------------|--------------|--|
| FILE NAME =<br>4458.000-PR3.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - KLB   | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>CROSS SECTIONS<br/>BIG TIMBER ROAD STA. 205+00 TO STA. 205+00</b> |  |  | F.A.P. RTE.<br>527 | SECTION<br>08-00369-00-SP | COUNTY<br>KANE | TOTAL SHEETS<br>67        | SHEET NO.<br>64 |              |  |
|                                 | PLOT SCALE = 1" = 98.33'  | CHECKED - KLB    | REVISED - |   |  |  |  | SCALE 1"=20'       |                           |                | SHEET NO. OF SHEETS       |                 | STA. TO STA. |  |
|                                 | PLOT DATE = 3/21/2012     | DATE - 3/21/2012 | REVISED - |   |  |  |  | CONTRACT # 63669   |                           |                | ILLINOIS FED. AID PROJECT |                 |              |  |

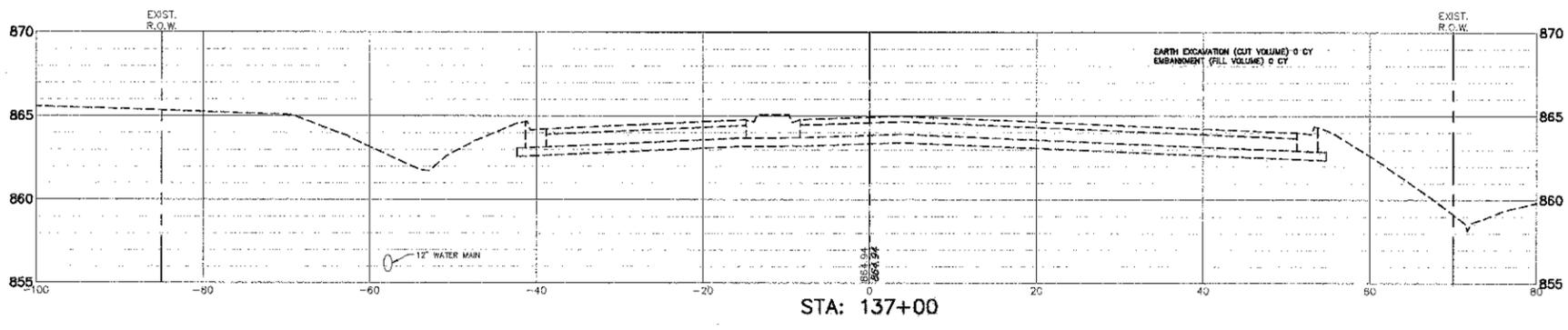
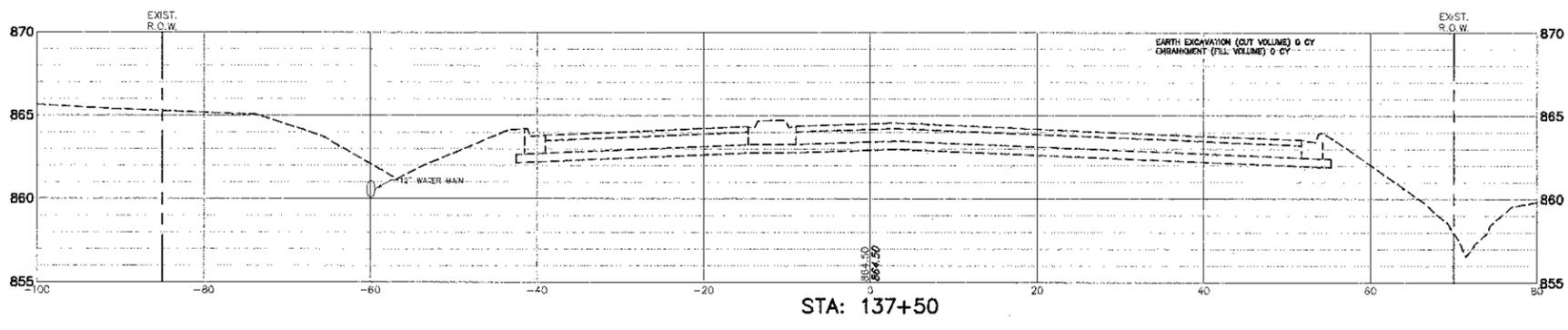
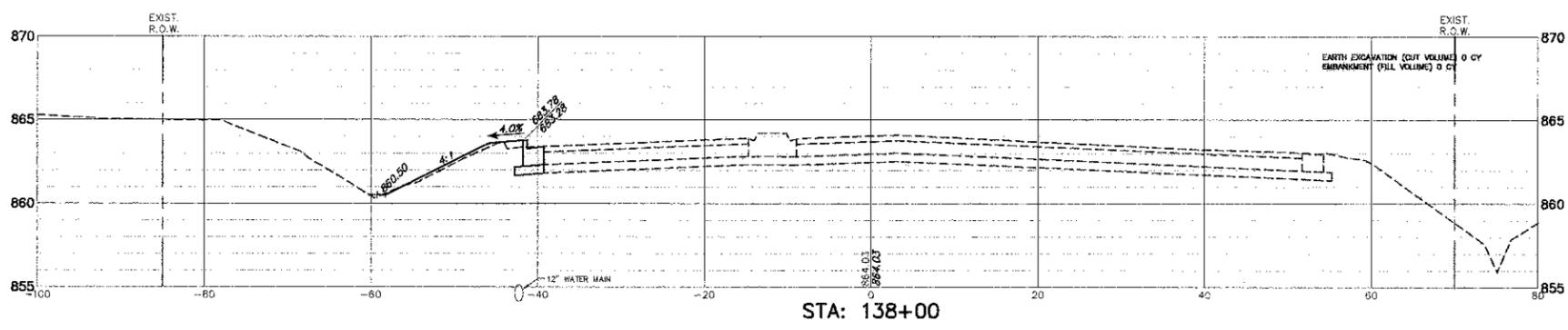
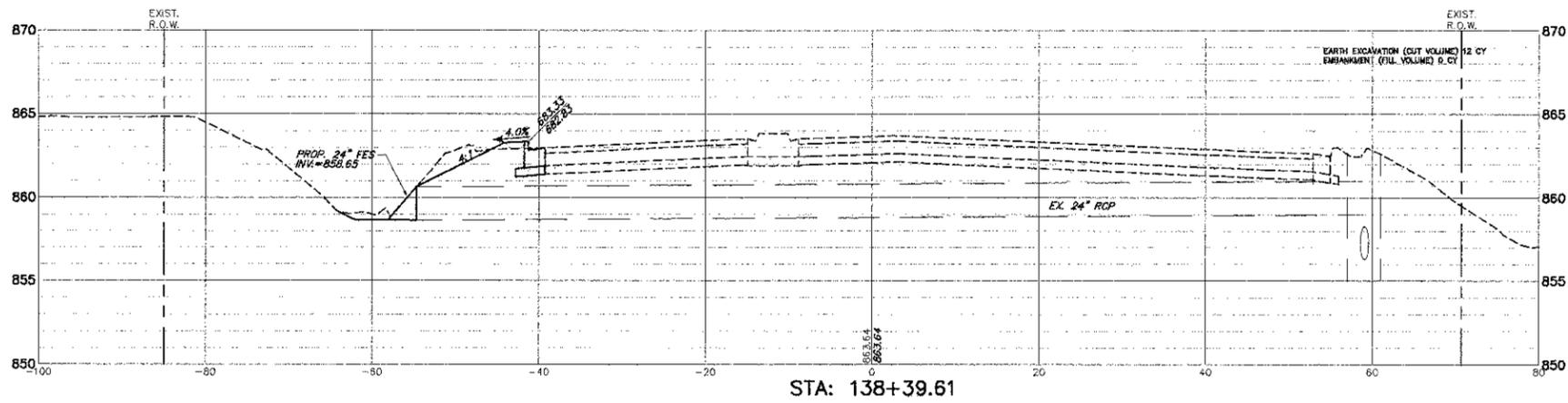


GRAPHIC SCALE

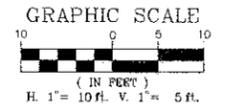


( IN FEET )  
H. 1" = 10 ft. V. 1" = 5 ft.

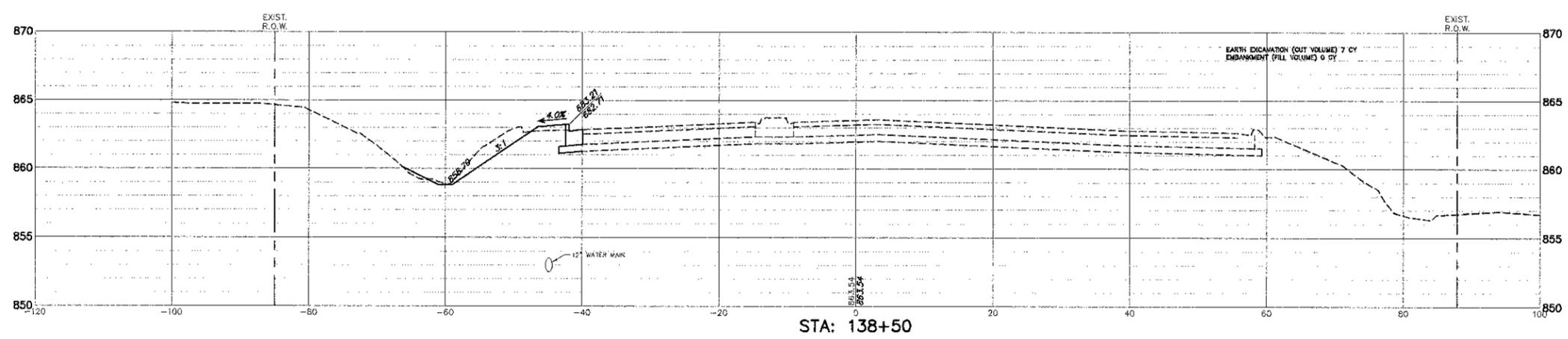
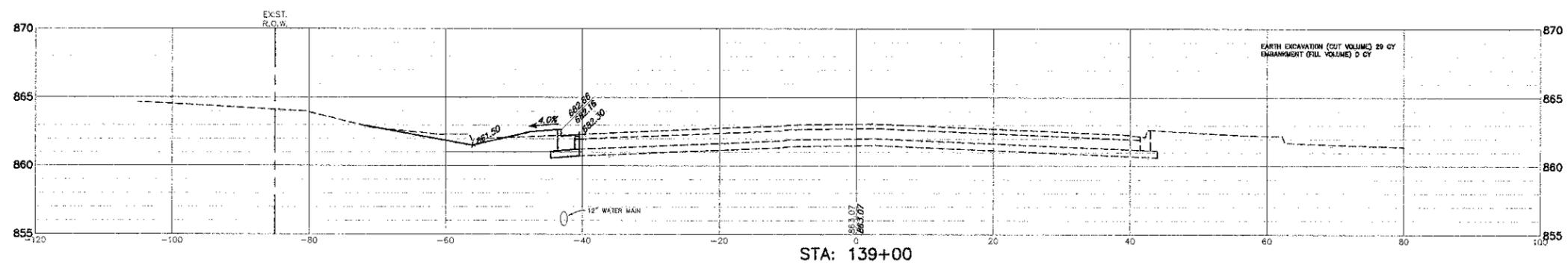
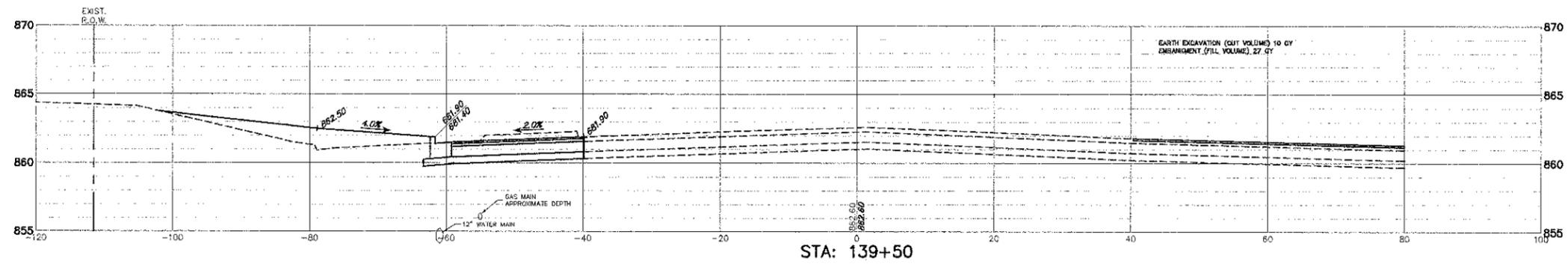
NOTE:  
RANDALL ROAD  
CROSS SECTIONS ARE FROM THE  
NORTH LOOKING TO THE SOUTH



|                                 |                              |                |           |   |   |                     |              |                     |                           |                           |                    |                 |
|---------------------------------|------------------------------|----------------|-----------|---|---|---------------------|--------------|---------------------|---------------------------|---------------------------|--------------------|-----------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = BETHANY SUWINSKI | DESIGNED - KLB | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>CROSS SECTIONS<br/>RANDALL ROAD STA. 137+00 TO STA. 139+00</b> |                     |              | F.A.P. RTE.<br>527  | SECTION<br>08-00369-00-SP | COUNTY<br>KANE            | TOTAL SHEETS<br>67 | SHEET NO.<br>66 |
|                                 | PLOT SCALE = 1" = .0833'     | CHECKED - KLB  | REVISED - |   | SCALE: 1"=20'   | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT #<br>63669 |                           | ILLINOIS FED. AID PROJECT |                    |                 |
| PLOT DATE = 3/21/2012           | DATE = 3/21/2012             | REVISED -      | REVISED - |   |   |                     |              |                     |                           |                           |                    |                 |



NOTE:  
 RANDALL ROAD  
 CROSS SECTIONS ARE FROM THE  
 NORTH LOOKING TO THE SOUTH



|                                 |                           |                |           |   |   |           |           |                       |                           |  |                       |                    |
|---------------------------------|---------------------------|----------------|-----------|---|---|-----------|-----------|-----------------------|---------------------------|--|-----------------------|--------------------|
| FILE NAME =<br>4459.000-PR3.dwg | USER NAME = ZACH WALLSTEN | DESIGNED - KLB | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>CROSS SECTIONS<br/>RANDALL ROAD STA. 139+50 TO STA. 140+00</b> |           |           | F.A.P.<br>RTE.<br>527 | SECTION<br>08-00369-00-SP | COUNTY<br>KANE                                 | TOTAL<br>SHEETS<br>67 | SHEET<br>NO.<br>67 |
|                                 | PLOT SCALE = 1" = .0833'  | CHECKED - KLB  | REVISED - |   | SCALE: 1"=20'   | SHEET NO. | OF SHEETS | STA.                  | TO STA.                   | CONTRACT #: 63669<br>ILLINOIS FED. AID PROJECT |                       |                    |
| PLOT DATE = 3/21/2012           | DATE - 3/21/2012          | REVISED -      | REVISED - |   |   |           |           |                       |                           |  |                       |                    |