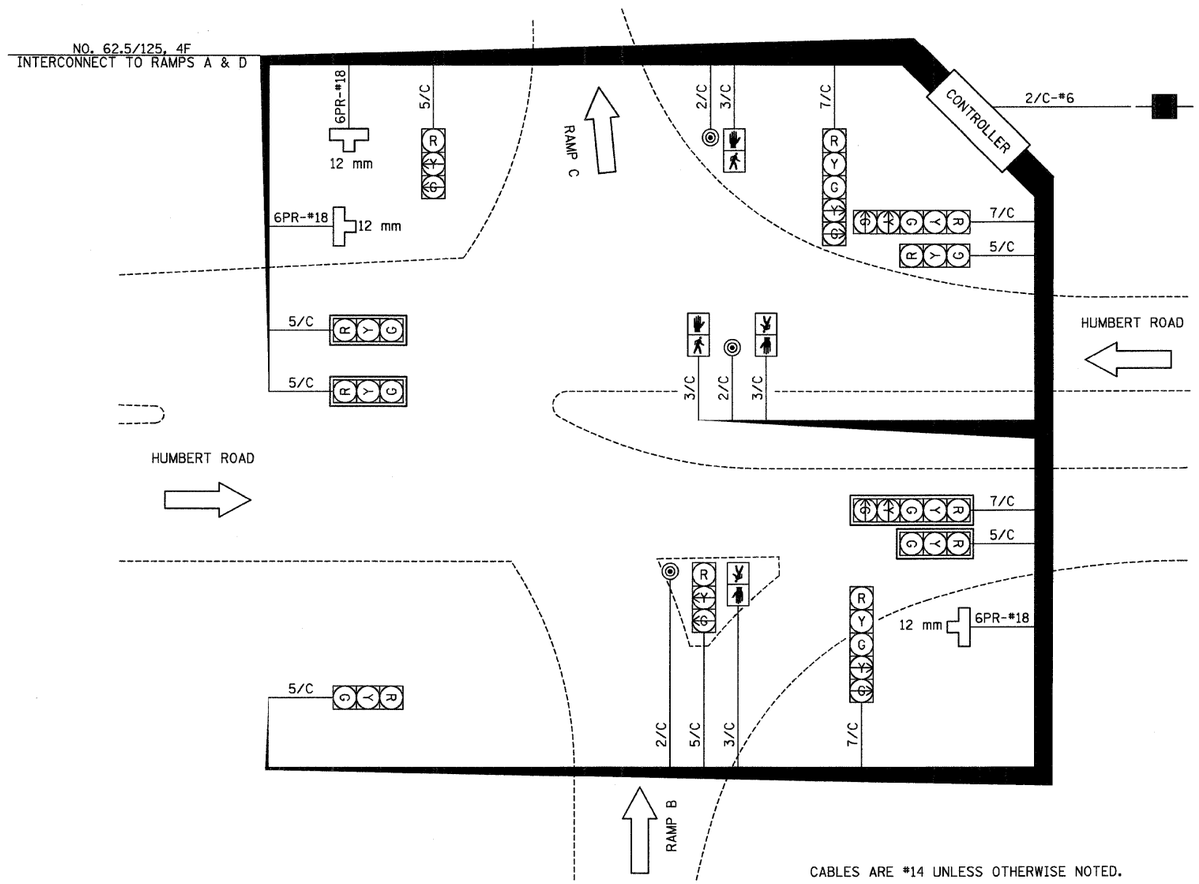
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	101
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

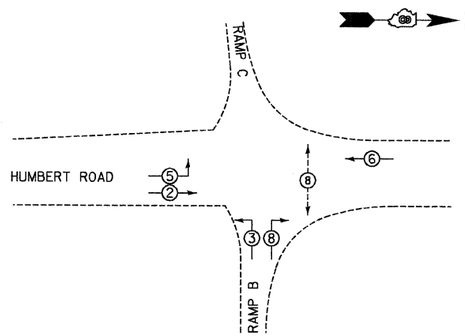
CONTRACT NO. 76635

CABLE DIAGRAM LEGEND

———	ELECTRIC CABLE IN CONDUIT
5/C	INDICATES NUMBER OF CONDUCTORS IN CABLE
—■—	SERVICE INSTALLATION
*6	INDICATES AMERICAN WIRE GAUGE (AWG) SIZE 6 CONDUTORS (SEE GENERAL NOTES)
◎	PROPOSED PEDESTRIAN PUSH BUTTON
	PROPOSED PEDESTRIAN SIGNAL HEAD
	VIDEO CAMERA



CABLES ARE #14 UNLESS OTHERWISE NOTED.



PHASE DESIGNATION DIAGRAM

FULL-ACTUATED CONTROLLER SEQUENCE
8 PHASES, IN TYPE IV CABINET

PROPOSED SEQUENCE OF OPERATION								
PHASE Ø	1	2	3	4	5	6	7	8
MOVEMENT	—	→	↰ ↕•	—	↳	←	—	↱
CONCURRENT MOVEMENT PERMITTED	NOT USED	5 OR 6	8	NOT USED	2	2	NOT USED	3

• - PEDESTRIAN INTERVAL SHALL BE PUSHBUTTON ACTIVATED

LUMINARE LEGEND

A. LUMINARE, SODIUM VAPOR, MULTI-MOUNT 250 WATT, 2 EACH MOUNTED ON 2-WAY BULLHORN, POST TOP MOUNT

B. LUMINARE, SODIUM VAPOR, MULTI-MOUNT 250 WATT, 2 EACH MOUNTED ON 2-WAY BULLHORN, POST TOP MOUNT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE DIAGRAM
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE CHECKED BY

HUMBERT ROAD AND RAMPS B & C INTERSECTION

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	239	102
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10, ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ON MAY 30, 2003 FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES. THIS PLAN HAS ALSO BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF NPDES PERMIT NUMBER ILR40 FOR DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS IF CHECKED BELOW.

NPDES PERMITS ASSOCIATED WITH THIS PROJECT:

☐ ILR10
☒ ILR40 PERMIT NO. 0493

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

MARY C. LAMIE — PRINT NAME

Mary C Lamie — SIGNATURE

DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER — TITLE

2-4-09 — DATE

IL DEPT. OF TRANSPORTATION — AGENCY

I. SITE DESCRIPTION:

A. THE FOLLOWING IS A DESCRIPTION OF THE PROJECT LOCATION:

THE PROPOSED PROJECT CONSISTS OF CONSTRUCTING DUAL STRUCTURES TO CARRY FAP RTE 310 OVER CH 4 AND REHABILITATING 1.17 KM OF CH 4, 0.31 KM OF SEILER ROAD, AND VARIOUS OTHER SIDE STREETS AND RAMPS.

B. THE FOLLOWING IS A DESCRIPTION OF THE CONSTRUCTION ACTIVITY WHICH IS THE SUBJECT OF THIS PLAN:

GENERAL WORK INCLUDES THE CONSTRUCTION OF GRADE SEPARATED STRUCTURES CONSISTING OF DUAL SPAN CONTINUOUSLY WELDED PLATE GIRDER REINFORCED CONCRETE DECK SLAB SUPERSTRUCTURES ON VAULTED ABUTMENTS 65.76 METERS BACK TO BACK OF APPROACH BENTS. OTHER WORK ITEMS INCLUDE PIPE CULVERTS, DITCH CONSTRUCTION, GRADING, SEEDING, EROSION CONTROL, AND OTHER MISCELLANEOUS ITEMS.

C. THE FOLLOWING IS A DESCRIPTION OF THE INTENDED SEQUENCE OF MAJOR ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE, SUCH AS GRUBBING, EXCAVATION AND GRADING:

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTIONS OF THE CONSTRUCTION SITE:

1. TREE REMOVAL WILL BE COMPLETED.
2. EXCAVATION WILL BE COMPLETED ALONG THE MAJORITY OF THE PROJECT TO GRADE OUT FOR PROPOSED ROADWAY DITCHES AND WATERWAYS.
3. EMBANKMENT WILL BE COMPLETED TO FILL AREAS TO RAISE THE EXISTING GROUND ELEVATION TO MEET THE PROPOSED ROADWAY FORESLOPE AND BACKSLOPE.
4. DRAINAGE STRUCTURES WILL BE INSTALLED BEFORE AND/OR DURING THE CONSTRUCTION OF THE EXCAVATION AND EMBANKMENT TO MAINTAIN ACCEPTABLE DRAINAGE.
5. PLACEMENT, MAINTENANCE, REMOVAL, AND PROPER CLEAN-UP OF TEMPORARY EROSION CONTROL, SUCH AS PERIMETER EROSION BARRIER, TEMPORARY DITCH CHECKS, TEMPORARY SEEDING, ETC.
6. PLACEMENT OF PERMANENT EROSION CONTROL, SUCH AS RIPRAP DITCH LINING, RIPRAP STILLING BASINS, EXCELSIOR BLANKET, SEEDING, ETC.
7. FINAL GRADING, CLEAN UP, AND OTHER MISCELLANEOUS ITEMS.

D. THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 20 HECTARES.

THE TOTAL AREA OF THE SITE THAT IS ESTIMATED WILL BE DISTURBED BY EXCAVATION, GRADING OR OTHER ACTIVITIES IS 4 HECTARES.

E. THE FOLLOWING IS A WEIGHTED AVERAGE OF THE RUNOFF COEFFICIENT FOR THIS PROJECT AFTER CONSTRUCTION ACTIVITIES ARE COMPLETED: 0.60

F. THE FOLLOWING IS A DESCRIPTION OF THE SOIL TYPES FOUND AT THE PROJECT SITE FOLLOWED BY INFORMATION REGARDING THEIR EROSIVITY:

ONE SOIL TYPE IS LOCATED WITHIN THE PROJECT AREA. IT IS:

CASEYVILLE SILT LOAM (267A) - A SOMEWHAT POORLY DRAINED SOIL WITH MODERATE PERMEABILITY. THIS SOIL HAS SLOPES BETWEEN ZERO AND TWO PERCENT.

G. THE FOLLOWING IS A DESCRIPTION OF POTENTIALLY EROSIVE AREAS ASSOCIATED WITH THIS PROJECT:

THERE ARE NO POTENTIALLY CRITICAL EROSIVE AREAS WITHIN THE PROJECT AREA.

H. THE FOLLOWING IS A DESCRIPTION OF SOIL DISTURBING ACTIVITIES, THEIR LOCATIONS, AND THEIR EROSIVE FACTORS (E.G. STEEPNESS OF SLOPES, LENGTH OF SLOPES, ETC):

THE NATURE AND PURPOSE OF LAND DISTURBING ACTIVITIES ON THIS PROJECT IS TO CONSTRUCT DUAL STRUCTURES TO CARRY FAP RTE 310 OVER CH 4 AND TO REHABILITATE PART OF CH 4, SEILER ROAD, AND OTHER SIDE STREETS AND RAMPS. PROPOSED RIGHT-OF-WAY WILL BE REQUIRED TO ACCOMMODATE CONSTRUCTION OF THE IMPROVEMENTS. THERE ARE NO SCHEDULED ACTIVITIES THAT WILL AFFECT THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND NO OFF-SITE LAND DISTURBING ACTIVITIES.

THE EXISTING SOIL - CASEYVILLE SILT LOAM (267A) - DOES NOT HAVE EROSIVE CHARACTERISTICS.

I. SEE THE EROSION CONTROL PLANS AND/OR DRAINAGE PLANS FOR THIS CONTRACT FOR INFORMATION REGARDING DRAINAGE PATTERNS, APPROXIMATE SLOPES ANTICIPATED BEFORE AND AFTER MAJOR GRADING ACTIVITIES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AND CONTROLS TO PREVENT OFF SITE SEDIMENT TRACKING (TO BE ADDED AFTER CONTRACTOR IDENTIFIES LOCATIONS), AREAS OF SOIL DISTURBANCE, THE LOCATION OF MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS IDENTIFIED IN THE PLAN, THE LOCATION OF AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS (INCLUDING WETLANDS) AND LOCATIONS WHERE STORM WATER IS DISCHARGED TO SURFACE WATER INCLUDING WETLANDS.

J. THE FOLLOWING IS A LIST OF RECEIVING WATER(S) AND THE ULTIMATE RECEIVING WATER(S), AND AERIAL EXTENT OF WETLAND ACREAGE AT THE SITE. THE LOCATION OF THE RECEIVING WATERS CAN BE FOUND ON THE EROSION AND SEDIMENT CONTROL PLANS:

1. ROCK CREEK
2. PLASA CREEK
3. WOOD RIVER
4. TRIBUTARIES OF THE ABOVE

K. THE FOLLOWING POLLUTANTS OF CONCERN WILL BE ASSOCIATED WITH THIS CONSTRUCTION PROJECT: (CHECK ALL THAT APPLY)

☒ SOIL SEDIMENT	☒ PETROLEUM (GAS, DIESEL, OIL, KEROSENE, HYDRAULIC OIL/FLUIDS)
☒ CONCRETE	☒ ANTIFREEZE / COOLANTS
☒ CONCRETE TRUCK WASTE	☒ WASTE WATER FROM CLEANING CONSTRUCTION EQUIPMENT
☒ CONCRETE CURING COMPOUNDS	☐ OTHER (SPECIFY)_____
☒ SOLID WASTE DEBRIS	☐ OTHER (SPECIFY)_____
☐ PAINTS	☐ OTHER (SPECIFY)_____
☐ SOLVENTS	☐ OTHER (SPECIFY)_____
☐ FERTILIZERS / PESTICIDES	☐ OTHER (SPECIFY)_____

II. CONTROLS

THIS SECTION OF THE PLAN ADDRESSES THE CONTROLS THAT WILL BE IMPLEMENTED FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES DESCRIBED IN I.C. ABOVE AND FOR ALL USE AREAS, BORROW SITES, AND WASTE SITES. FOR EACH MEASURE DISCUSSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ITS IMPLEMENTATION AS INDICATED. THE CONTRACTOR SHALL PROVIDE TO THE RESIDENT ENGINEER A PLAN FOR THE IMPLEMENTATION OF THE MEASURES INDICATED. THE CONTRACTOR, AND SUBCONTRACTORS, WILL NOTIFY THE RESIDENT ENGINEER OF ANY PROPOSED CHANGES, MAINTENANCE, OR MODIFICATIONS TO KEEP CONSTRUCTION ACTIVITIES COMPLIANT WITH THE PERMIT. EACH SUCH CONTRACTOR HAS SIGNED THE REQUIRED CERTIFICATION ON FORMS WHICH WILL BE PROVIDED AT THE PRE-CONSTRUCTION CONFERENCE, AND ARE A PART OF, THIS PLAN:

A. EROSION AND SEDIMENT CONTROL

1. STABILIZED PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF INTERIM AND PERMANENT STABILIZATION PRACTICES, INCLUDING SITE SPECIFIC SCHEDULING OF THE IMPLEMENTATION OF THE PRACTICES. SITE PLANS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SODDING, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, PRESERVATION OF MATURE VEGETATION, AND OTHER APPROPRIATE MEASURES. EXCEPT AS PROVIDED BELOW IN II(A)(1)(a) AND II(A)(3), STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASES ON ALL DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION WILL NOT OCCUR FOR A PERIOD OF 21 OR MORE CALENDAR DAYS.

a. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE THEREAFTER.

THE FOLLOWING STABILIZATION PRACTICES WILL BE USED FOR THIS PROJECT: (CHECK ALL THAT APPLY)

☐ PRESERVATION OF MATURE VEGETATION	☒ EROSION CONTROL BLANKET / MULCHING
☐ VEGETATED BUFFER STRIPS	☐ SODDING
☒ PROTECTION OF TREES	☐ GEOTEXTILES
☒ TEMPORARY EROSION CONTROL SEEDING	☐ OTHER (SPECIFY)_____
☐ TEMPORARY TURF (SEEDING, CLASS 7)	☐ OTHER (SPECIFY)_____
☐ TEMPORARY MULCHING	☐ OTHER (SPECIFY)_____
☒ PERMANENT SEEDING	☐ OTHER (SPECIFY)_____

DESCRIBE HOW THE STABILIZATION PRACTICES LISTED ABOVE WILL BE UTILIZED:

1. TEMPORARY EROSION CONTROL SEEDING - THIS ITEM WILL BE APPLIED TO ALL BARE AREAS EVERY SEVEN DAYS TO MINIMIZE THE AMOUNT OF EXPOSED SURFACE AREAS.

EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN 14 DAYS.

WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.

BARE AND SPARSELY VEGETATED GROUND IN HIGHLY ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN 7 DAYS.

2. PERMANENT SEEDING - SEEDING, CLASS 2 WILL BE INSTALLED PER IDOT SPECIFICATIONS.

3. EROSION CONTROL BLANKETS/MULCHING - EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES AND IN HIGH VELOCITY AREAS (I.E. DITCHES) THAT HAVE BEEN BROUGHT TO FINAL GRADE AND SEEDED TO PROTECT SLOPES FROM EROSION AND ALLOW SEEDS TO GERMINATE. MULCH, METHOD 2 WILL BE APPLIED IN RELATIVELY FLAT AREAS TO PROTECT THE DISTURBED AREAS AND PREVENT FURTHER EROSION.

MULCH AS APPLIED TO TEMPORARY EROSION CONTROL SEEDING SHALL BE BY THE METHOD SPECIFIED IN THE CONTRACT AND AT THE DIRECTION OF THE ENGINEER. MULCH WILL BE PAID SEPARATELY AND SHALL CONFORM TO SECTION 251 OF THE STANDARD SPECIFICATIONS.

4. PERMANENT STABILIZATION - ALL AREAS DISTURBED BY CONSTRUCTION WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING THE FINISHED GRADING. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW SEED TO GERMINATE PROPERLY. MULCH, METHOD 2 WILL BE USED ON RELATIVELY FLAT AREAS.

2. STRUCTURAL PRACTICES: PROVIDED BELOW IS A DESCRIPTION OF STRUCTURAL PRACTICES THAT WILL BE IMPLEMENTED, TO THE DEGREE ATTAINABLE, TO DIVERT FLOWS FROM EXPOSED SOILS, STORE FLOWS OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: PERIMETER EROSION BARRIER, EARTH DIKES, DRAINAGE SWALES, SEDIMENT TRAPS, DITCH CHECKS, SUBSURFACE DRAINS, PIPE SLOPE DRAINS, LEVEL SPREADERS, STORM DRAIN INLET PROTECTION, ROCK OUTLET PROTECTION, REINFORCED SOIL RETAINING SYSTEMS, GABIONS, AND TEMPORARY OR PERMANENT SEDIMENT BASINS. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

THE FOLLOWING STRUCTURAL PRACTICES WILL BE USED FOR THIS PROJECT:(CHECK ALL THAT APPLY)

☒ PERIMETER EROSION BARRIER	☐ ROCK OUTLET PROTECTION
☒ TEMPORARY DITCH CHECK	☒ RIPRAP
☒ STORM DRAIN INLET PROTECTION	☐ GABIONS
☐ SEDIMENT TRAP	☐ SLOPE MATTRESS
☐ TEMPORARY PIPE SLOPE DRAIN	☐ RETAINING WALLS
☐ TEMPORARY SEDIMENT BASIN	☐ SLOPE WALLS
☐ TEMPORARY STREAM CROSSING	☐ CONCRETE REVETMENT MATS
☐ STABILIZED CONSTRUCTION EXITS	☐ LEVEL SPREADERS
☐ TURF REINFORCEMENT MATS	☐ OTHER (SPECIFY)_____
☐ PERMANENT CHECK DAMS	☐ OTHER (SPECIFY)_____
☐ PERMANENT SEDIMENT BASIN	☐ OTHER (SPECIFY)_____
☐ AGGREGATE DITCH	☐ OTHER (SPECIFY)_____
☐ PAVED DITCH	☐ OTHER (SPECIFY)_____

DESCRIBE HOW THE STRUCTURAL PRACTICES LISTED ABOVE WILL BE UTILIZED:

1. PERIMETER EROSION BARRIER - SILT FENCES WILL BE PLACED IN AN EFFORT TO CONTAIN SILT AND RUNOFF FROM LEAVING THE SITE.

CONSTRUCT AT BEGINNING OF CONSTRUCTION. REMOVE AT END OF CONSTRUCTION.

2. STORM DRAIN INLET PROTECTION - INLET AND PIPE PROTECTION WILL BE PROVIDED FOR STORM SEWERS AND CULVERTS. SEDIMENT FILTERS WILL BE PLACED IN ALL INLETS, CATCH BASINS AND MANHOLES DURING CONSTRUCTION AND WILL BE CLEANED ON A REGULAR BASIS.

3. TEMPORARY DITCH CHECKS - DITCH CHECKS WILL BE PLACED IN SWALES WHERE RUNOFF VELOCITY IS HIGH. ALL STRUCTURAL PRACTICES ARE SHOWN IN DETAIL ON THE EROSION CONTROL PLANS.

TEMPORARY DITCH CHECKS SHALL BE LOCATED AT EVERY 2 FT. FALL/RISE IN DITCH GRADE.

TEMPORARY DITCH CHECKS, AGGREGATE USES GRADING NO. 3- REMOVE AT END OF CONSTRUCTION.

STRAW BALES, HAY BALES, PERIMETER EROSION BARRIER AND SILT FENCE WILL NOT BE PERMITTED FOR TEMPORARY OR PERMANENT DITCH CHECKS. DITCH CHECKS SHALL BE COMPOSED OF AGGREGATE (IF SPECIFIED), ENVIROBERM, TRIANGULAR SILT DIKES, GEORIDGE AND ROLLED EXCELSIOR.

4. RIPRAP - STONE RIPRAP WITH FILTER FABRIC WILL BE USED AS PROTECTION AT THE DISCHARGE END OF ALL CULVERT END SECTIONS AND AS INLET/OUTLET PROTECTION TO PREVENT SCOURING AT THE END OF PIPES AND PREVENT DOWNSTREAM EROSION.

AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY DITCH CHECKS, INLET AND PIPE PROTECTION, AND PERIMETER EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER.

ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STORM WATER POLLUTION PREVENTION PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY BGJ

DATE — CHECKED BY

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	239	103
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

3. STORM WATER MANAGEMENT: PROVIDED BELOW IS A DESCRIPTION OF MEASURES THAT WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS TO CONTROL POLLUTANTS IN STORM WATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

a. SUCH PRACTICES MAY INCLUDE BUT ARE NOT LIMITED TO: STORM WATER DETENTION STRUCTURES (INCLUDING WET PONDS), STORM WATER RETENTION STRUCTURES, FLOW ATTENUATION BY USE OF OPEN VEGETATED SWALES AND NATURAL DEPRESSIONS, INFILTRATION OF RUNOFF ON SITE, AND SEQUENTIAL SYSTEMS (WHICH COMBINE SEVERAL PRACTICES). THE PRACTICES SELECTED FOR IMPLEMENTATION WERE DETERMINED ON THE BASIS OF THE TECHNICAL GUIDANCE IN SECTION 59-8 (EROSION AND SEDIMENT CONTROL) IN CHAPTER 59 (LANDSCAPE DESIGN AND EROSION CONTROL) OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION BUREAU OF DESIGN AND ENVIRONMENT MANUAL. IF PRACTICES OTHER THAN THOSE DISCUSSED IN SECTION 59-8 ARE SELECTED FOR IMPLEMENTATION OR IF PRACTICES ARE APPLIED TO SITUATIONS DIFFERENT FROM THOSE COVERED IN SECTION 59-8, THE TECHNICAL BASIS FOR SUCH DECISIONS WILL BE EXPLAINED BELOW.

b. VELOCITY DISSIPATION DEVICES WILL BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL AS NECESSARY TO PROVIDE A NON-EROSIVE VELOCITY FLOW FROM THE STRUCTURE TO A WATER COURSE SO THAT THE NATURAL PHYSICAL AND BIOLOGICAL CHARACTERISTICS AND FUNCTIONS ARE MAINTAINED AND PROTECTED (E.G. MAINTENANCE OF HYDROLOGIC CONDITIONS SUCH AS THE HYDROPERIOD AND HYDRODYNAMICS PRESENT PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES).

DESCRIPTION OF STORM WATER MANAGEMENT CONTROLS:

SEE THE STORM WATER POLLUTION PREVENTION PLANS.

4. OTHER CONTROLS:

a. VEHICLE ENTRANCES AND EXITS - STABILIZED CONSTRUCTION ENTRANCES AND EXITS MUST BE CONSTRUCTED TO PREVENT TRACKING OF SEDIMENTS ONTO ROADWAYS.

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN IDENTIFYING THE LOCATION OF STABILIZED ENTRANCES AND EXITS AND THE PROCEDURES (S)HE WILL USE TO CONSTRUCT AND MAINTAIN THEM.

b. MATERIAL DELIVERY, STORAGE, AND USE - THE FOLLOWING BMPS SHALL BE IMPLEMENTED TO HELP PREVENT DISCHARGES OF CONSTRUCTION MATERIALS DURING DELIVERY, STORAGE, AND USE:

- ALL PRODUCTS DELIVERED TO THE PROJECT SITE MUST BE PROPERLY LABELED.
- WATER TIGHT SHIPPING CONTAINERS AND/OR SEMI TRAILERS SHALL BE USED TO STORE HAND TOOLS, SMALL PARTS, AND MOST CONSTRUCTION MATERIALS THAT CAN BE CARRIED BY HAND, SUCH AS PAINT CANS, SOLVENTS, AND GREASE.
- A STORAGE/CONTAINMENT FACILITY SHOULD BE CHOSEN FOR LARGER ITEMS SUCH AS DRUMS AND ITEMS SHIPPED OR STORED ON PALLETS. SUCH MATERIAL IS TO BE COVERED BY A TIN ROOF OR LARGE SHEETS OF PLASTIC TO PREVENT PRECIPITATION FROM COMING IN CONTACT WITH THE PRODUCTS BEING STORED.
- LARGE ITEMS SUCH AS LIGHT STANDS, FRAMING MATERIALS AND LUMBER SHALL BE STORED IN THE OPEN IN A GENERAL STORAGE AREA. SUCH MATERIAL SHALL BE ELEVATED WITH WOOD BLOCKS TO MINIMIZE CONTACT WITH STORM WATER RUNOFF.
- SPILL CLEAN-UP MATERIALS, MATERIAL SAFETY DATA SHEETS, AN INVENTORY OF MATERIALS, AND EMERGENCY CONTACT NUMBERS SHALL BE MAINTAINED AND STORED IN ONE DESIGNATED AREA AND EACH CONTRACTOR IS TO INFORM HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER OF THIS LOCATION.

c. STOCKPILE MANAGEMENT - BMPS SHALL BE IMPLEMENTED TO REDUCE OR ELIMINATE POLLUTION OF STORM WATER FROM STOCKPILES OF SOIL AND PAVING MATERIALS SUCH AS BUT NOT LIMITED TO PORTLAND CEMENT CONCRETE RUBBLE, ASPHALT CONCRETE, ASPHALT CONCRETE RUBBLE, AGGREGATE BASE, AGGREGATE SUB BASE, AND PRE-MIXED AGGREGATE. THE FOLLOWING BMPS MAY BE CONSIDERED:

- PERIMETER EROSION BARRIER
- TEMPORARY SEEDING
- TEMPORARY MULCH
- PLASTIC COVERS
- SOIL BINDERS
- STORM DRAIN INLET PROTECTION

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER WITH A WRITTEN PLAN OF THE PROCEDURES (S)HE WILL USE ON THE PROJECT AND HOW THEY WILL BE MAINTAINED.

d. WASTE DISPOSAL. NO MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED INTO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

e. THE PROVISIONS OF THIS PLAN SHALL ENSURE AND DEMONSTRATE COMPLIANCE WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

f. THE CONTRACTOR SHALL PROVIDE A WRITTEN AND GRAPHIC PLAN TO THE RESIDENT ENGINEER IDENTIFYING WHERE EACH OF THE ABOVE AREAS WILL BE LOCATED AND HOW THEY ARE TO BE MANAGED.

5. APPROVED STATE OR LOCAL LAWS

THE MANAGEMENT PRACTICES, CONTROLS AND PROVISIONS CONTAINED IN THIS PLAN WILL BE IN ACCORDANCE WITH IDOT SPECIFICATIONS, WHICH ARE AT LEAST AS PROTECTIVE AS THE REQUIREMENTS CONTAINED IN THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S ILLINOIS URBAN MANUAL, 1995. PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS SHALL BE DESCRIBED OR INCORPORATED BY REFERENCE IN THE SPACE PROVIDED BELOW. REQUIREMENTS SPECIFIED IN SEDIMENT AND EROSION SITE PLANS, SITE PERMITS, STORM WATER MANAGEMENT SITE PLANS OR SITE PERMITS APPROVED BY LOCAL OFFICIALS THAT ARE APPLICABLE TO PROTECTING SURFACE WATER RESOURCES ARE, UPON SUBMITTAL OF AN NOI, TO BE AUTHORIZED TO DISCHARGE UNDER PERMIT ILR10 INCORPORATED BY REFERENCE AND ARE ENFORCEABLE UNDER THIS PERMIT EVEN IF THEY ARE NOT SPECIFICALLY INCLUDED IN THE PLAN.

DESCRIPTION OF PROCEDURES AND REQUIREMENTS SPECIFIED IN APPLICABLE SEDIMENT AND EROSION SITE PLANS OR STORM WATER MANAGEMENT PLANS APPROVED BY LOCAL OFFICIALS:

ALL MANAGEMENT PRACTICES, CONTROLS, AND OTHER PROVISIONS PROVIDED IN THIS PLAN ARE IN ACCORDANCE WITH "IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND THE ILLINOIS URBAN MANUAL".

III. MAINTENANCE:

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT WILL BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATING CONDITIONS, THE VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THIS PLAN.

1. SEEDING - ALL ERODIBLE BARE EARTH WILL BE TEMPORARILY SEEDED ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE WITHIN THE CONTRACT LIMITS.

2. PERIMETER EROSION BARRIER - SEDIMENT WILL BE REMOVED IF THE INTEGRITY OF THE FENCING IS IN JEOPARDY AND ANY FENCING KNOCKED DOWN WILL BE REPAIRED IMMEDIATELY.

3. EROSION CONTROL BLANKET/MULCHING - ANY AREAS THAT FAIL WILL BE REPAIRED IMMEDIATELY.

4. PROTECTION OF TREES/TEMPORARY TREE PROTECTION - ANY PROTECTIVE MEASURES WHICH ARE KNOCKED DOWN WILL BE REPAIRED IMMEDIATELY.

5. DITCH CHECKS - SEDIMENT WILL BE REMOVED IF THE INTEGRITY OF THE DITCH CHECK IS IN JEOPARDY. ANY DITCH CHECKS WHICH FAIL WILL BE REPAIRED OR REPLACED IMMEDIATELY.

THE RESIDENT ENGINEER WILL PROVIDE MAINTENANCE GUIDES TO THE CONTRACTOR FOR THESE PRACTICES. ALL MAINTENANCE OF EROSION CONTROL SYSTEMS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL CONSTRUCTION IS COMPLETE AND ACCEPTED BY IDOT AFTER FINAL INSPECTION. ALL LOCATIONS WHERE VEHICLES ENTER AND EXIT THE CONSTRUCTION SITE AND ALL OTHER AREAS SUBJECT TO EROSION SHOULD ALSO BE INSPECTED PERIODICALLY.

INSPECTION OF THESE AREAS SHALL BE MADE AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF THE END OF EACH 0.5 INCHES OR GREATER RAINFALL, OR AN EQUIVALENT SNOWFALL. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE CONSTRUCTION FIELD ENGINEER ON A BI-WEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION CONTROL WORK IS NECESSARY.

THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE TEMPORARY EROSION CONTROL SYSTEM.

IV. INSPECTIONS

QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE WHICH HAVE NOT YET BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES AND EQUIPMENT ENTER AND EXIT THE SITE. SUCH INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL.

A. DISTURBED AREAS, USE AREAS (STORAGE OF MATERIALS, STOCKPILES, MACHINE MAINTENANCE FUELING, ETC.), BORROW SITES, AND WASTE SITES SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS OR POINTS THAT ARE ACCESSIBLE, SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF SITE SEDIMENT TRACKING.

B. BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN SECTION I ABOVE AND POLLUTION PREVENTION MEASURES IDENTIFIED IN SECTION II ABOVE SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. ANY CHANGES TO THIS PLAN RESULTING FROM THE REQUIRED INSPECTIONS SHALL BE IMPLEMENTED WITHIN 1/2 HOUR TO 1 WEEK BASED ON THE URGENCY OF THE SITUATION. THE RESIDENT ENGINEER WILL NOTIFY THE CONTRACTOR OF THE TIME REQUIRED TO IMPLEMENT SUCH ACTIONS THROUGH THE WEEKLY INSPECTION REPORT.

C. A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH SECTION IV(B) SHALL BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE (3) YEARS AFTER THE DATE OF THE INSPECTION. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI. G OF THE GENERAL PERMIT.

D. IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE CONDUCT OF THE CONSTRUCTION WORK COVERED BY THIS PLAN, THE RESIDENT ENGINEER SHALL COMPLETE AND FILE AN "INCIDENCE OF NONCOMPLIANCE" (ION) REPORT FOR THE IDENTIFIED VIOLATION. THE RESIDENT ENGINEER SHALL USE FORMS PROVIDED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NONCOMPLIANCE. ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY IN ACCORDANCE WITH PART VI. G OF THE GENERAL PERMIT. THE INCIDENCE OF NONCOMPLIANCE SHALL BE MAILED TO THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF WATER POLLUTION CONTROL
ATTN: COMPLIANCE ASSURANCE SECTION
1021 NORTH GRAND EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

V. NON-STORM WATER DISCHARGES:

EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER THAT IS COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH THE INDUSTRIAL ACTIVITY ADDRESSED IN THIS PLAN MUST BE DESCRIBED BELOW. APPROPRIATE POLLUTION PREVENTION MEASURES, AS DESCRIBED BELOW, WILL BE IMPLEMENTED FOR THE NON-STORM WATER COMPONENT(S) OF THE DISCHARGE.

A. SPILL PREVENTION AND CONTROL - BMPS SHALL BE IMPLEMENTED TO CONTAIN AND CLEAN-UP SPILLS AND PREVENT MATERIAL DISCHARGES TO THE STORM DRAIN SYSTEM. THE CONTRACTOR SHALL PRODUCE A WRITTEN PLAN STATING HOW HIS/HER COMPANY WILL PREVENT, REPORT, AND CLEAN UP SPILLS AND PROVIDE A COPY TO ALL OF HIS/HER EMPLOYEES AND THE RESIDENT ENGINEER. THE CONTRACTOR SHALL NOTIFY ALL OF HIS/HER EMPLOYEES ON THE PROPER PROTOCOL FOR REPORTING SPILLS. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY SPILLS IMMEDIATELY.

B. CONCRETE RESIDUALS AND WASHOUT WASTES - THE FOLLOWING BMPS SHALL BE IMPLEMENTED TO CONTROL RESIDUAL CONCRETE, CONCRETE SEDIMENTS, AND RINSE WATER:

1. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED FOR RINSING OUT CONCRETE TRUCKS. SIGNS SHALL BE INSTALLED DIRECTING CONCRETE TRUCK DRIVERS WHERE DESIGNATED WASHOUT FACILITIES ARE LOCATED.
2. THE CONTRACTOR SHALL HAVE THE LOCATION OF TEMPORARY CONCRETE WASHOUT FACILITIES APPROVED BY THE RESIDENT ENGINEER.
3. ALL TEMPORARY CONCRETE WASHOUT FACILITIES ARE TO BE INSPECTED BY THE CONTRACTOR AFTER EACH USE AND ALL SPILLS MUST BE REPORTED TO THE RESIDENT ENGINEER AND CLEANED UP IMMEDIATELY.
4. CONCRETE WASTE SOLIDS/LIQUIDS SHALL BE DISPOSED OF PROPERLY.

C. LITTER MANAGEMENT - A PROPER NUMBER OF DUMPSTERS SHALL BE PROVIDED ON SITE TO HANDLE DEBRIS AND LITTER ASSOCIATED WITH THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING HIS/HER EMPLOYEES PLACE ALL LITTER INCLUDING MARKING PAINT CANS, SODA CANS, FOOD WRAPPERS, WOOD LATHE, MARKING RIBBON, CONSTRUCTION STRING, AND ALL OTHER CONSTRUCTION RELATED LITTER IN THE PROPER DUMPSTERS.

D. VEHICLE AND EQUIPMENT CLEANING - VEHICLES AND EQUIPMENT ARE TO BE CLEANED IN DESIGNATED AREAS ONLY, PREFERABLY OFF SITE.

E. VEHICLE AND EQUIPMENT FUELING - A VARIETY OF BMPS CAN BE IMPLEMENTED DURING FUELING OF VEHICLES AND EQUIPMENT TO PREVENT POLLUTION. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER AS TO WHICH BMPS WILL BE USED ON THE PROJECT. THE CONTRACTOR SHALL INFORM THE RESIDENT ENGINEER HOW (S)HE WILL BE INFORMING HIS/HER EMPLOYEES OF THESE BMPS (I.E. SIGNS, TRAINING, ETC.). BELOW ARE A FEW EXAMPLES OF THESE BMPS:

1. CONTAINMENT
2. SPILL PREVENTION AND CONTROL
3. USE OF DRIP PANS AND ABSORBENTS
4. AUTOMATIC SHUT-OFF NOZZLES
5. TOPPING OFF RESTRICTIONS
6. LEAK INSPECTION AND REPAIR

F. VEHICLE AND EQUIPMENT MAINTENANCE - ON SITE MAINTENANCE MUST BE PERFORMED IN ACCORDANCE WITH ALL ENVIRONMENTAL LAWS SUCH AS PROPER STORAGE AND NO DUMPING OF OLD ENGINE OIL OR OTHER FLUIDS ON SITE.

VI. FAILURE TO COMPLY:

FAILURE TO COMPLY WITH ANY PROVISIONS OF THIS STORM WATER POLLUTION PREVENTION PLAN WILL RESULT IN THE IMPLEMENTATION OF AN EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION AGAINST THE CONTRACTOR AND/OR PENALTIES UNDER THE NPDES PERMIT WHICH COULD BE PASSED ONTO THE CONTRACTOR.

LEGEND

- TEMPORARY DITCH CHECK - ROLLED EXCELSIOR, SILT WEDGES/PANELS
- EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
- INLET AND PIPE PROTECTION - STRAW BALES, FILTER FABRIC, AGGREGATE
- AGGREGATE EROSION CONTROL (AGGREGATE DITCH CHECK)
- EARTH EXCAVATION FOR EROSION CONTROL - SEDIMENT BASIN (STD 280001)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STORM WATER POLLUTION PREVENTION PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY BGJ

DATE CHECKED BY

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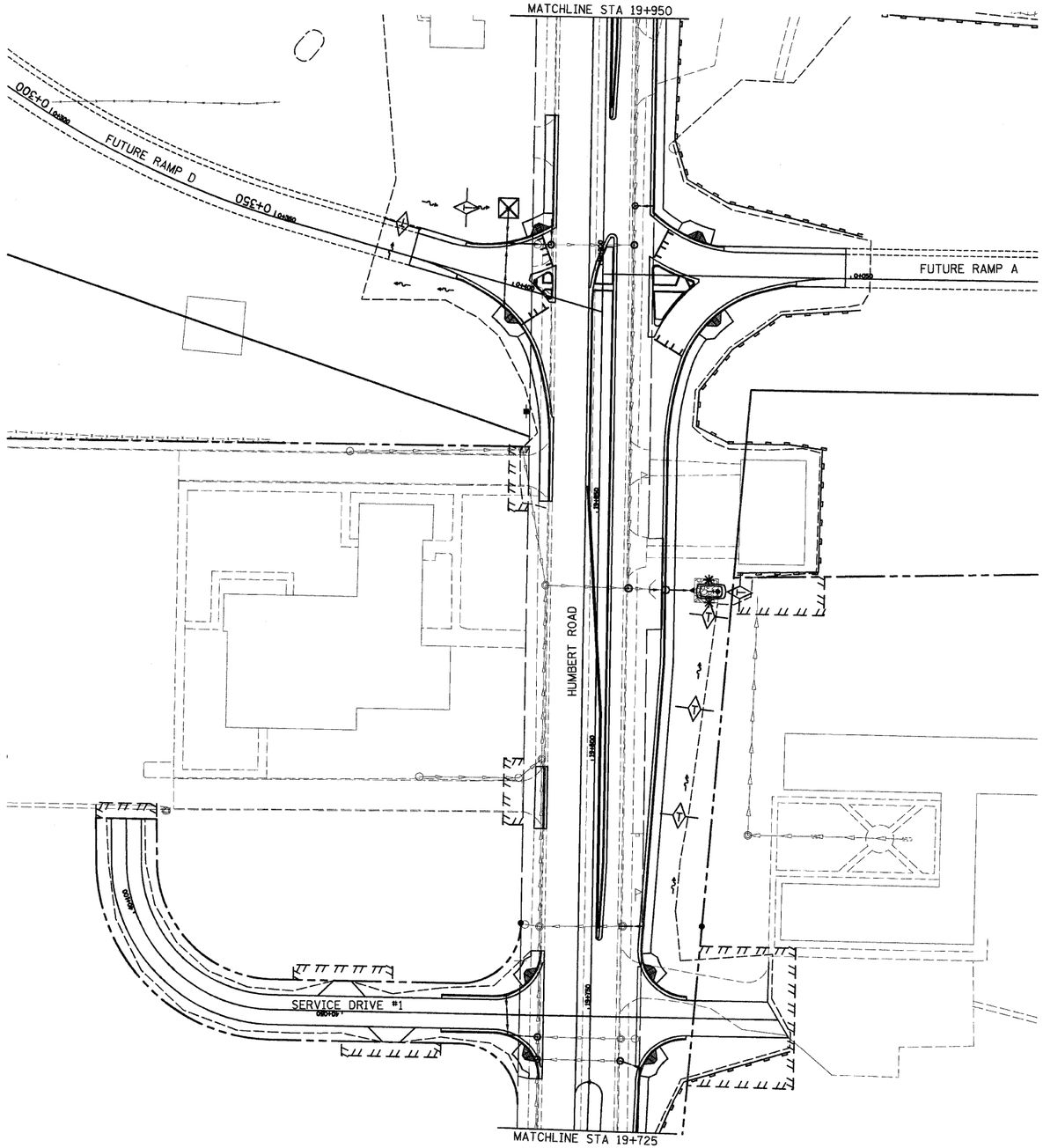
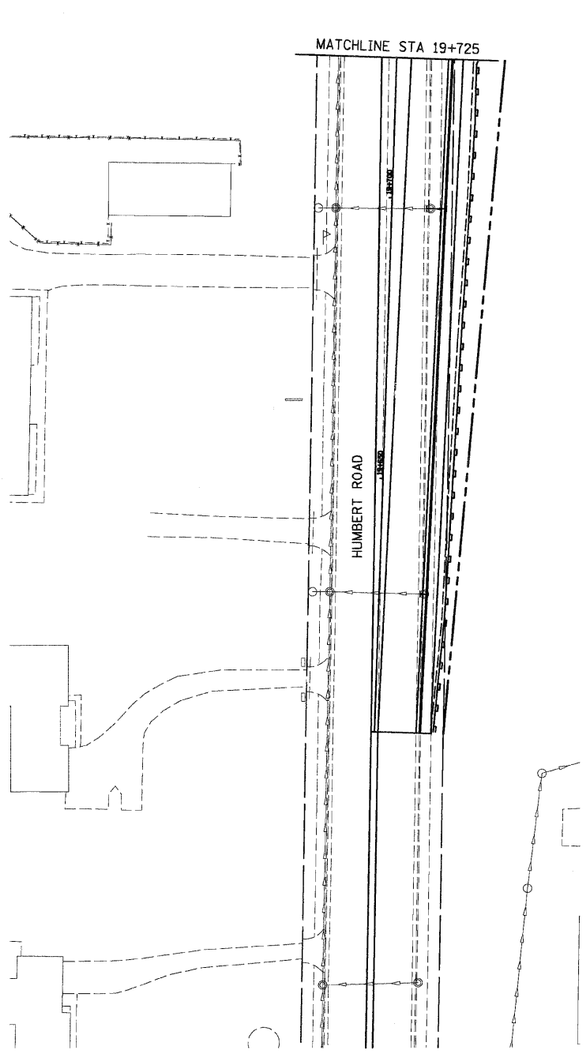
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	104
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635





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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

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DATE CHECKED BY

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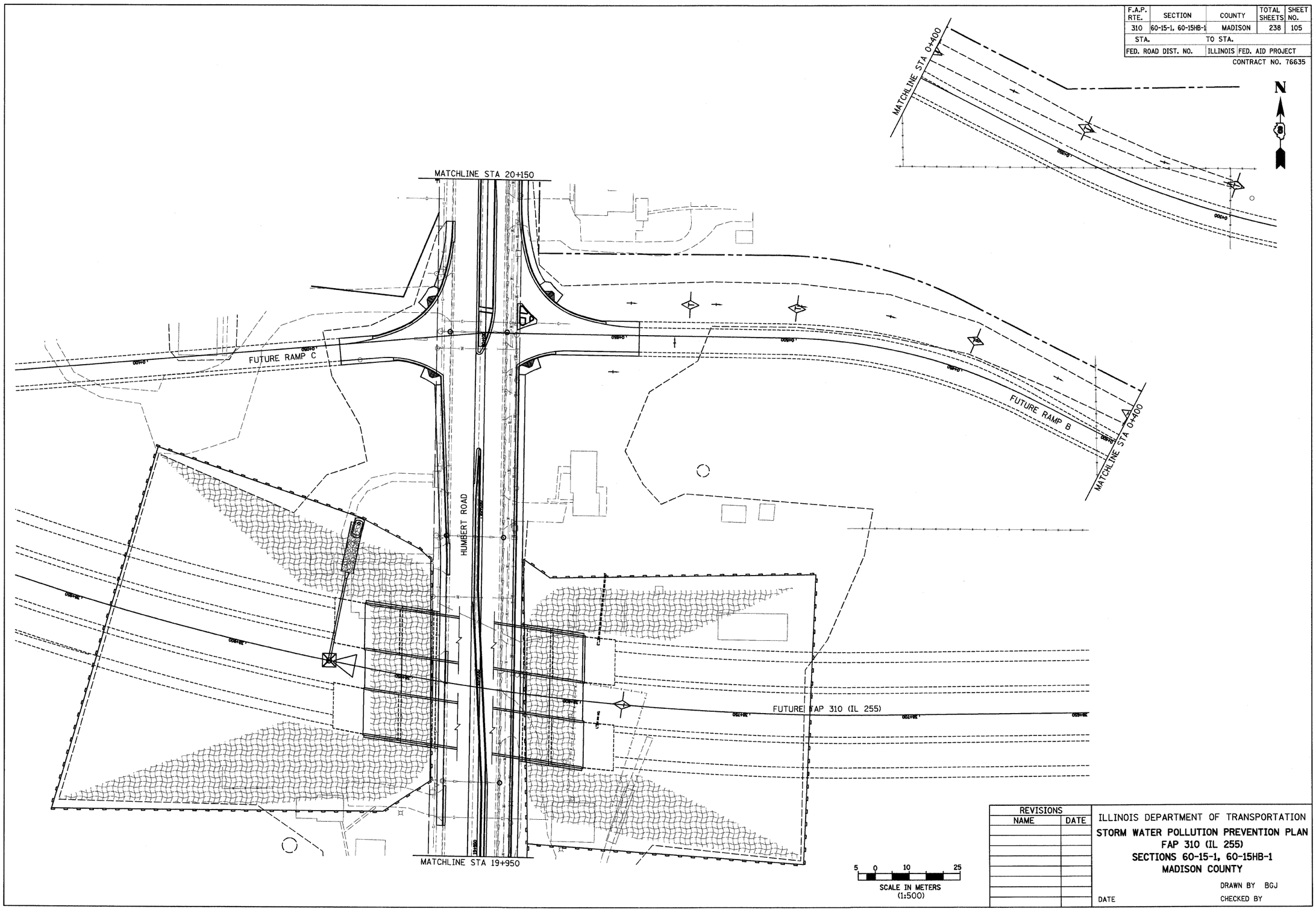
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	105
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY BGJ

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	106
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

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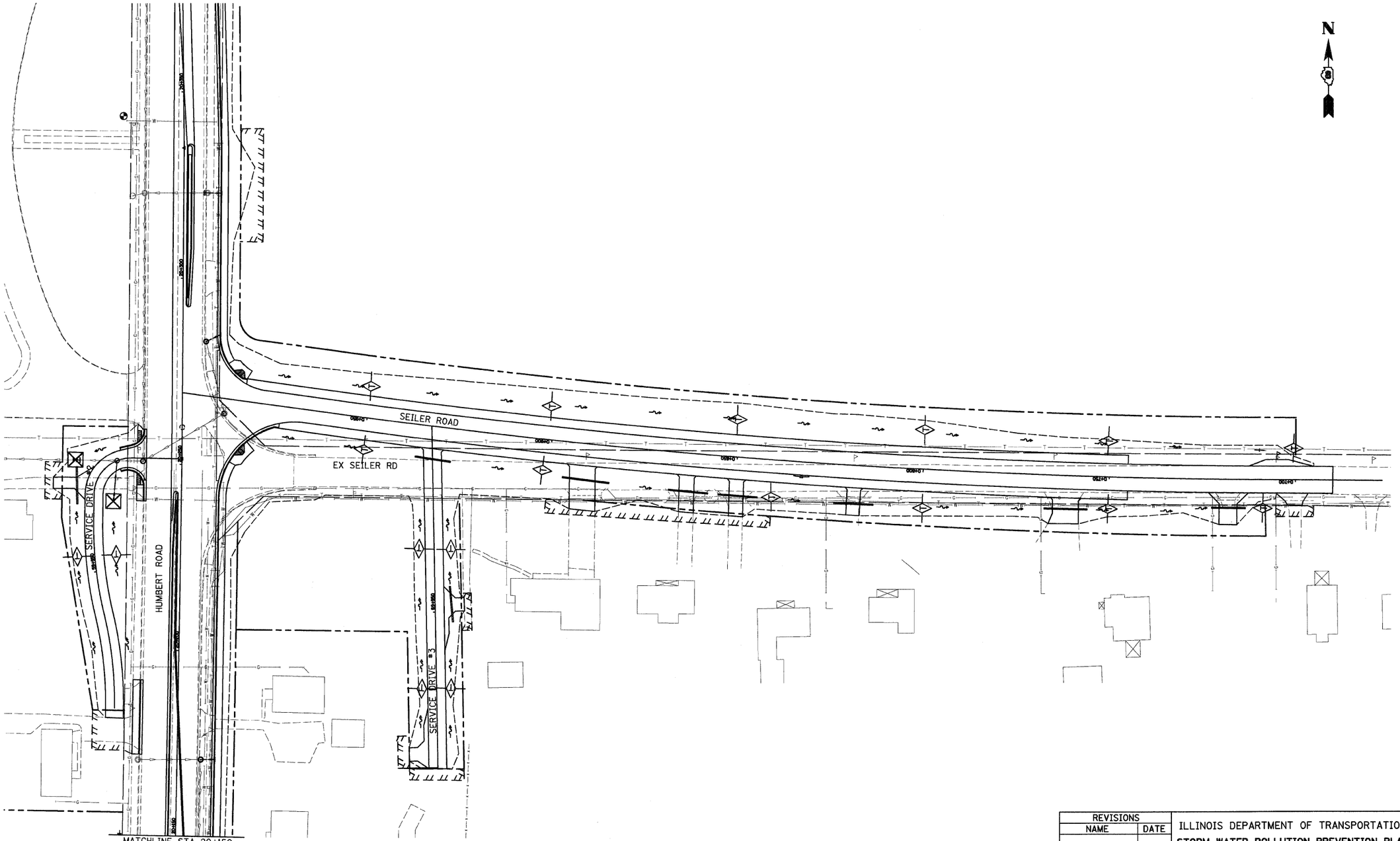

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SCALE IN METERS
(1:500)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STORM WATER POLLUTION PREVENTION PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

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DATE

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	107
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

NW 1/4, SEC 24, R 6 N, R 10 W, 3RD PM

NE 1/4, SEC 23, R 6 N, R 10 W, 3RD PM

CURVE RAMP A-2
PI STA = 0+298.731
Δ = 24° 03' 05" (RT)
R = 260.000 m
T = 55.387 m
L = 109.142 m
E = 5.834 m
PC STA = 0+243.344
PT STA = 0+352.486
SE = 6.0%
SE ATTAINED STA 0+203.000 TO STA 0+263.000
SE REMOVED STA 0+312.486 TO STA 0+464.273

FOR ENTRANCE RAMP A TERMINAL DETAILS AND PROFILE SEE SHEETS 80 & 151-152

JAMES E. ROHAN AND GOLF SPECIALTIES OF ALTON, INC.
PARCEL NO. 8239029

STA 0+375 (RAMP B)
PROPOSED PIPE CULVERT, RCCP, TYPE 1, 900 mm Ø X 15.6 m
USFL 185.650, 10.0 m LT
DSFL 185.570, 5.6 m RT
PRECAST REINFORCED CONCRETE FLARED END SECTION STD 542301, 2-EACH
GRATING LT FOR CONCRETE FLARED END SECTION STD 542311, 1-EACH
DRAINAGE AREA = 2.24 ha
50 YR FLOW = 0.82 cms
100 YR FLOW = 0.99 cms

STONE DUMPED RIPRAP, CLASS B3
103.8 SQ M

BEVERLY FARM ASSOCIATION
PARCEL NO. 8239027

STA 38+370.000
55.000 m LT

STA 38+405.412
62.484 m LT

SECTION LINE & PL
PR ROW
℄ SURVEY AND CONSTRUCTION
FAP 310

PR ROW & A/C

CONSTRUCTION LIMITS

STA 38+350.000
45.000 m LT

PT STA 0+352.486

A/C

PC STA 0+243.344

BORING NO. RA-HA 3
STA. 0+250, 0.00m BL
62.484 m LT

STA 38+555.000
55.000 m LT

BORING NO. RA-HA 5
STA. 0+450, 0.00m BL

BORING HA 27
STA. 38+475, 14.00m LT

BORING NO. RA-HA 4
STA. 0+350, 5.00m LT

BORING NO. HA 29
STA. 38+650, 12.00m LT

℄ RAMP A

MATCH LINE STA 38+300

MATCH LINE STA 38+650

38+300 38+350 38+400 38+450 38+500 38+550 38+600

S 89° 24' 57" W

BM#3017

BORING NO. RB-HA 1
STA. 0+50.0, 0.00m BL

BORING NO. RB-HA 2
STA. 0+150, 5.00m LT

BORING NO. HA 26
STA. 38+375, 12.00m RT

BORING NO. RB-HA 3
STA. 0+250, 0.00m BL

BORING NO. HA 28
STA. 38+575, 12.00m RT

BORING NO. RB-HA 4
STA. 0+350, 0.00m BL

JAMES E. ROHAN
PARCEL NO. 8239035

BORING NO. RB-HA 4A
STA. 0+350, 5.00m LT

℄ RAMP B

CONSTRUCTION LIMITS

PC STA 0+243.080

DOROTHY CONRAD
PARCEL NO. 8239055

BEVERLY FARM ASSOCIATION
PARCEL NO. 8239027

PR ROW & A/C

PROPOSED BACKSLOPE PROTECTION
SEE DETAIL ON SHEET 263

STA 38+555.000
55.000 m RT

PT STA 0+352.749

STA 38+598.375
76.200 m RT

PR ROW & A/C

OLIVER F. AND RUTH L. SCHROEDER
PARCEL NO. 8239038

SHED

RICKEY L. & DOLORES A. MEIER
PARCEL NO. 8239049

DONALD L.& COLENE H. PAGE
PARCEL NO. 8239054

TIMOTHY E. & JANET E. CHRISTOPHER
PARCEL NO. 8239053

SECTION LINE & PL

STA 38+373
PROPOSED PIPE CULVERT, RCCP, TYPE 2, 600 mm Ø X 14.3 m
USFL 180.605, 0.9 m RT
DSFL 180.460, 15.2 m RT
MEDIAN INLET STD 604101
GRATE = 182.270
PIPE TEE STD 542606, 600 mm PIPE, 600 mm RISER, ONE END PLUGGED
PROPOSED MANHOLE, TYPE A, 1.500 m Ø, STD 602401
TYPE 1 FRAME AND OPEN LID STD 604001
TOP LID = 183.270, 16.4 m RT
PROPOSED PIPE CULVERT, RCCP, TYPE 2, 600 mm Ø X 15.4 m
USFL 180.445, 16.7 m RT
DSFL 180.295, 32.1 m RT
PRECAST REINFORCED CONCRETE FLARED END SECTION STD 542301, 1-EACH

BM 3017-RAILROAD SPIKE IN 12" DIA WALNUT
MAINLINE STA 38+592.0, 8.7 m RT,
ELEV 186.966

CURVE RAMP B-1
PI STA = 0+298.776
Δ = 24° 38' 29" (RT)
R = 255.000 m
T = 55.696 m
L = 109.669 m
E = 6.012 m
PC STA = 0+243.080
PT STA = 0+352.749
SE = 6.0%
SE ATTAINED STA 0+200.080 TO STA 0+264.080
SE REMOVED STA 0+333.000 TO STA 0+393.000

FOR EXIT RAMP B TERMINAL DETAILS AND PROFILE SEE SHEETS 81 & 153-154

SOIL STRATA PLAN SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

NW 1/4, SEC 24, R 6 N, R 10 W, 3RD PM

NE 1/4, SEC 23, R 6 N, R 10 W, 3RD PM

N

SCALE IN METERS
5 0 10 25
(1:500)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY
DATE
CHECKED BY

IL 255 (FAP 310), STA 38+300 TO STA 38+650

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	108
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

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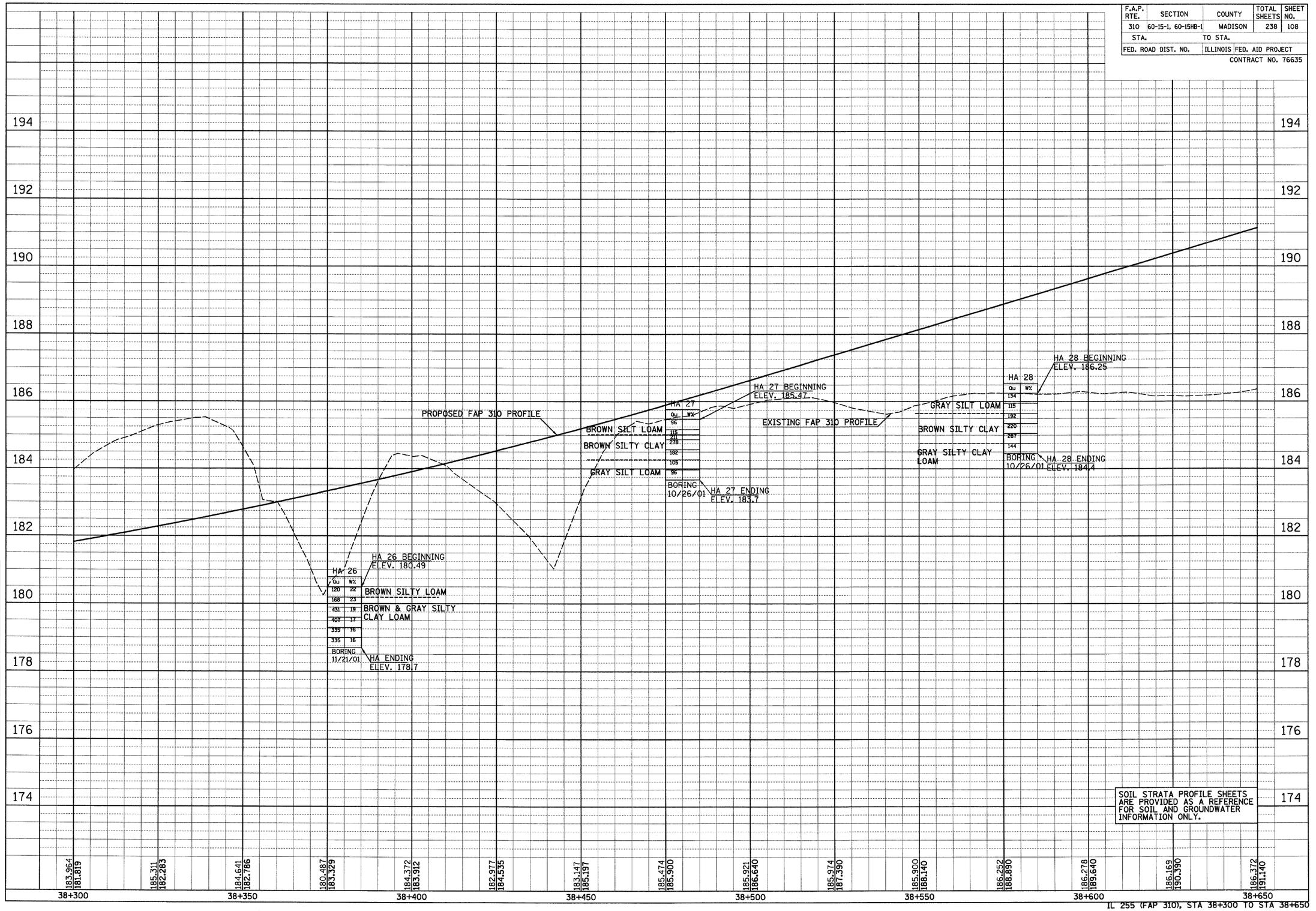
FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
	AREAS	
NO.	AREAS CHECKED	



SOIL STRATA PROFILE SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

IL 255 (FAP 310), STA 38+300 TO STA 38+650

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ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
	AREAS	
NO.	AREAS CHECKED	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	109
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

BUILDINGS, TREES, AND OTHER ITEMS ALONG HUMBERT ROAD SHALL BE REMOVED BY OTHERS IN SECTION 60-15HB-1. ITEMS TO BE REMOVED UNDER THIS CONTRACT ARE LABELLED AS SUCI

NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM

FOR EXIT RAMP D TERMINAL DETAILS AND PROFILE SEE SHEETS 83 & 157-158

FOR ENTRANCE RAMP A TERMINAL DETAILS AND PROFILE SEE SHEETS 80 & 151-152

CURVE RAMP A-1
PI STA = 0+130.568
Δ = 26° 43′ 51″ (LT)
R = 165.000 m
T = 39.203 m
L = 76.979 m
E = 4.593 m
PC STA = 0+091.365
PT STA = 0+168.344
SE = 6.0%
SE ATTAINED STA 0+065.000 TO STA 0+151.000
SE REMOVED STA 0+151.000 TO STA 0+203.000

STA 0+027.432
60.712 m RT
STA 0+026.880
68.100 m RT
TEMPORARY EASEMENT
STA 0+045.720
68.100 m RT
STA 0+045.720
60.220 m RT
PR ROW
LEROY W. BRAKEMEYER & MARIE A. BRAKEMEYER
PARCEL NO. 8239033
DUPLEX
A/C
PL
SECTION 60-15 BEGINS STA 0+048.889
STA 0+030.261
22.860 m RT
STA 0+135.440
29.768 m RT
STONE DUMPED RIPRAP, CLASS B3
103.8 SQ M
PC STA 0+091.365
WOVEN WIRE GATE
1.2 m X 4.9 m DOUBLE
BORING NO. RA-HA 2
STA. 0+150, 0.00m BL
CONSTRUCTION LIMITS
℄ RAMP A
BORING NO. RA-HA 1
STA. 0+050, 0.00m BL
PT STA 0+168.344
JAMES E. ROHAN AND GOLF SPECIALTIES OF ALTON INC.
PARCEL NO. 8239029
SIGN
BORING NO. HM-HA 3
STA. 19+950, 9.00m RT
STA 38+794.4
PROPOSED TYPE C INLET BOX STD 609006, 1-EACH
PIPE DRAIN, 300 mm Ø X 3.3 m
USFL 194.745
DSFL 194.685, 3.2 m LT
METAL END SECTION STD 542401, 1-EACH
BUILDING AND LIGHT REMOVAL BY OTHERS
AGG
COMMERCIAL
WM
CONC
℄ HUMBERT ROAD
STA 0+175 (RAMP A)
PROPOSED PIPE CULVERT, RCCP, TYPE 2, 900 mm Ø X 22.1 m
USFL 184.945, 12.8 m LT
DSFL 184.670, 9.3 m RT
PRECAST REINFORCED CONCRETE FLARED END SECTION STD 542301, 2-EACH
DRAINAGE AREA = 1.68 ha
50 YR FLOW = 0.59 cms
100 YR FLOW = 0.74 cms
BORING NO. 1 E. ABUTMENT
STA. 38+811, 14.40 m RT
BORING NO. HA 33
STA. 38+750, 12.00m LT
BORING NO. HA 31
STA. 38+700, 12.00m LT
BORING NO. HA 34
STA. 38+775, 12.00m RT
BORING NO. HA 30
STA. 38+675, 12.00m RT
BORING NO. HA 32
STA. 38+725, 12.00m RT
PC STA 38+709.010
BUILDING AND TREE REMOVAL BY OTHERS
FOUNDATION
PROPOSED BRIDGE APPROACH PAVEMENT (SPECIAL) SEE DETAIL ON SHEET 261
CURVE NO 3
PI STA = 39+183.523
Δ = 62° 37′ 42″ (RT)
R = 780.000 m
T = 474.512 m
L = 852.596 m
E = 132.996 m
PC STA = 38+709.010
PT STA = 39+561.606
SE = 5.5%
SE ATTAINED STA 38+649.000 TO STA 38+729.000
SE REMOVED STA 39+542.000 TO STA 39+622.000
STA 38+829.909, ℄ FAP 310 = STA 20+000.000, ℄ HUMBERT ROAD
BORING NO. 2 E. ABUTMENT
STA. 38+811, 14.40 m RT
HOUSE
WELL
BORING NO. HR-SB 4
PROPOSED BRIDGE APPROACH PAVEMENT (SPECIAL) SEE DETAIL ON SHEET 261
BORING NO. HR-SB 3
STA. 38+857.5, 12.5 m LT
℄ SURVEY AND CONSTRUCTION FAP 310
BORING NO. SB 28
STA. 38+900, 12.00m LT
BORING NO. SB 29
STA. 38+925, 12.00m RT
BORING NO. SB 30
STA. 38+950. 12.00m LT
BORING NO. SB 31
STA. 38+975, 12.00m RT
LEROY W. BRAKEMEYER & MARIE A. BRAKEMEYER
PARCEL NO. 8239034
MATCH LINE STA 38+650
MATCH LINE STA 39+000

CHURCH
CONC
PR ROW
STA 0+412.190
30.300 m RT
SECTION 60-15 ENDS STA 0+378.864
STA 0+411.673
28.321 m RT
WOVEN WIRE GATE
1.2 m X 4.9 m DOUBLE
BARN
TBR
STA 0+340 (RAMP D)
PROPOSED PIPE CULVERT, RCCP, TYPE 2, 900 mm Ø X 19.6 m
USFL 186.775, 10.5 m LT
DSFL 186.680, 9.1 m RT
PRECAST REINFORCED CONCRETE FLARED END SECTION STD 542301, 2-EACH
GRATING LT FOR CONCRETE FLARED END SECTION STD 542311, 1-EACH
DRAINAGE AREA = 1.70 ha
50 YR FLOW = 0.40 cms
100 YR FLOW = 0.48 cms
STA 0+300.000
30.480 m RT
STA 0+260.000
35.000 m RT
STONE DUMPED RIPRAP, CLASS B3
15.2 SQ M
STA 0+305.000
0.000 m RT
PT STA 0+354.413
BORING NO. RD-HA 4
STA. 0+400, 0.00m BL
EXISTING 300 mm SS WITH END SECTION TO BE REMOVED, PLUG OPENING INTO EXISTING INLET
BORING NO. RD-HA 3
STA. 0+300, 0.00m BL
STA 0+300.000
5.000 m LT
BUILDING AND TREE REMOVAL BY OTHERS
HOUSE
GARAGE
AGG
PC STA 0+275.572
BORING NO. RD-HA 2
STA. 0+275, 0.00m BL
35.000 m RT
BORING NO. RD-SB 6
CURVE RAMP D-1
PI STA = 0+315.538
Δ = 23° 09′ 55″ (LT)
R = 195.000 m
T = 39.966 m
L = 78.841 m
E = 4.054 m
PC STA = 0+275.572
PT STA = 0+354.413
SE = 5.8%
SE ATTAINED STA 0+250.000 TO STA 0+288.000
SE REMOVED STA 0+342.000 TO STA 0+380.000
BORING NO. RD-HA 1
STA. 0+250, 5.00m LT

FOR GUARDRAIL STATIONS AND TYPES SEE SHEETS 254-255

SOIL STRATA PLAN SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

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5 0 10 25
SCALE IN METERS
(1:500)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY
DATE
CHECKED BY

IL 255 (FAP 310), STA 38+650 TO STA 39+000

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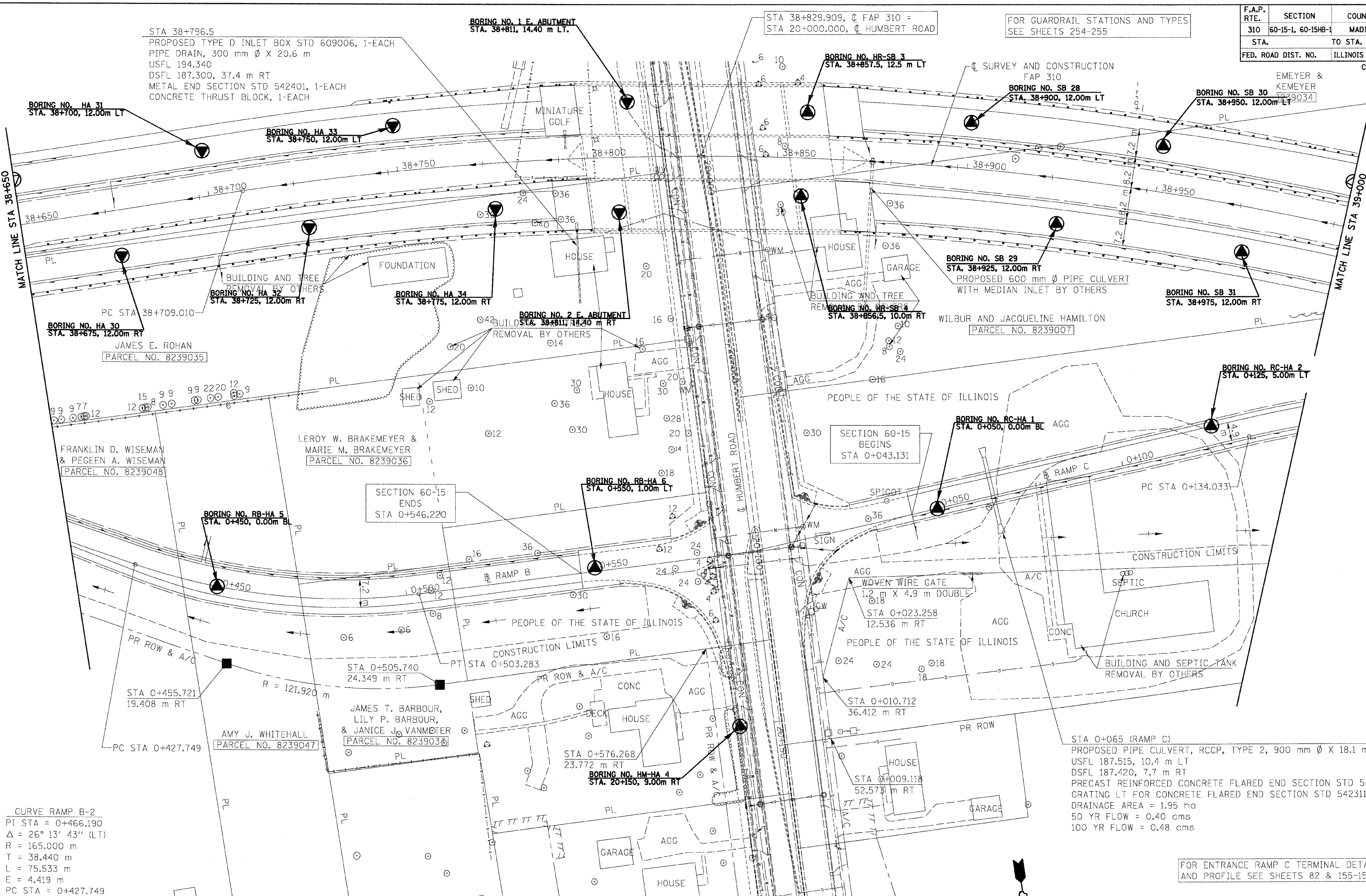
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	110
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635



STA 38+796.5
PROPOSED TYPE D INLET BOX STD 609006, 1-EACH
PIPE DRAIN, 300 mm Ø X 20.6 m
USFL 194.340
DSFL 187.300, 37.4 m RT
METAL END SECTION STD 542401, 1-EACH
CONCRETE THRUST BLOCK, 1-EACH
BORING NO. 1 E. ABUTMENT STA. 38+811, 14.40 m LT.
STA 38+829.909, ℄ FAP 310 = STA 20+000.000, ℄ HUMBERT ROAD
FOR GUARDRAIL STATIONS AND TYPES SEE SHEETS 254-255
BORING NO. HR-SB 3 STA. 38+857.5, 12.5 m LT
℄ SURVEY AND CONSTRUCTION FAP 310
BORING NO. SB 28 STA. 38+900, 12.00m LT
BORING NO. SB 30 STA. 38+950, 12.00m LT
EMEYER & KEMEYER
BORING NO. HA 31 STA. 38+700, 12.00m LT
BORING NO. HA 33 STA. 38+750, 12.00m LT
MINIATURE GOLF
MATCH LINE STA 38+650
MATCH LINE STA 39+000
BORING NO. HA 32 STA. 38+725, 12.00m RT
BORING NO. HA 34 STA. 38+775, 12.00m RT
BORING NO. HA 30 STA. 38+675, 12.00m RT
PC STA 38+709.010
BUILDING AND TREE REMOVAL BY OTHERS
FOUNDATION
HOUSE
GARAGE
BORING NO. 2 E. ABUTMENT STA. 38+811, 14.40 m RT
BORING NO. HR-SB 4 STA. 38+856.5, 10.0m RT
BORING NO. SB 29 STA. 38+925, 12.00m RT
PROPOSED 600 mm Ø PIPE CULVERT WITH MEDIAN INLET BY OTHERS
BORING NO. SB 31 STA. 38+975, 12.00m RT
WILBUR AND JACQUELINE HAMILTON PARCEL NO. 8239007
JAMES E. ROHAN PARCEL NO. 8239035
PEOPLE OF THE STATE OF ILLINOIS
BORING NO. RC-HA 2 STA. 0+125, 5.00m LT
BORING NO. RC-HA 1 STA. 0+050, 0.00m BL
SECTION 60-15 BEGINS STA 0+043.131
FRANKLIN D. WISEMAN & PEGEEN A. WISEMAN PARCEL NO. 8239048
LEROY W. BRAKEMEYER & MARIE M. BRAKEMEYER PARCEL NO. 8239036
SECTION 60-15 ENDS STA 0+546.220
BORING NO. RB-HA 6 STA. 0+550, 1.00m LT
BORING NO. RB-HA 5 STA. 0+450, 0.00m BL
℄ HUMBERT ROAD
℄ RAMP B
℄ RAMP C
PC STA 0+134.033
CONSTRUCTION LIMITS
SEPTIC
CHURCH
WOVEN WIRE GATE 1.2 m X 4.9 m DOUBLE
STA 0+023.258 12.536 m RT
PEOPLE OF THE STATE OF ILLINOIS
BUILDING AND SEPTIC TANK REMOVAL BY OTHERS
PR ROW & A/C
STA 0+505.740 24.349 m RT
PT STA 0+503.283
R = 121.920 m
STA 0+455.721 19.408 m RT
PC STA 0+427.749
AMY J. WHITEHALL PARCEL NO. 8239047
JAMES T. BARBOUR, LILY P. BARBOUR, & JANICE J. VANMETER PARCEL NO. 8239036
STA 0+576.268 23.772 m RT
BORING NO. HM-HA 4 STA. 20+150, 9.00m RT
STA 0+010.712 36.412 m RT
STA 0+009.118 52.573 m RT
PR ROW
STA 0+065 (RAMP C)
PROPOSED PIPE CULVERT, RCCP, TYPE 2, 900 mm Ø X 18.1 m
USFL 187.515, 10.4 m LT
DSFL 187.420, 7.7 m RT
PRECAST REINFORCED CONCRETE FLARED END SECTION STD 542301, 2-EACH
GRATING LT FOR CONCRETE FLARED END SECTION STD 542311, 1-EACH
DRAINAGE AREA = 1.95 ha
50 YR FLOW = 0.40 cms
100 YR FLOW = 0.48 cms

CURVE RAMP B-2
PI STA = 0+466.190
Δ = 26° 13' 43" (LT)
R = 165.000 m
T = 38.440 m
L = 75.533 m
E = 4.419 m
PC STA = 0+427.749
PT STA = 0+503.283
SE = 6.0%
SE ATTAINED STA 0+393.000 TO STA 0+445.000
SE REMOVED STA 0+491.000 TO STA 0+530.000

FOR EXIT RAMP B TERMINAL DETAILS AND PROFILE SEE SHEETS 81 & 153-154

BUILDINGS, T... HUMBERT ROA... IN SECTION 6... UNDER THIS CONTRACT ARE LABELLED AS SUCH.

SOIL STRATA PLAN SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

FOR ENTRANCE RAMP C TERMINAL DETAILS AND PROFILE SEE SHEETS 82 & 155-156

N

SCALE IN METERS (1:500)

NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY

DATE CHECKED BY

IL 255 (FAP 310), STA 38+650 TO STA 39+000

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	111
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

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FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	
	AREAS CHECKED	

STA 38+798.239 TO STA 38+863.008 (SBL)
STA 38+799.695 TO STA 38+865.865 (NBL)
BRIDGE OMISSIONS

SN 060-0308 NB &
SN 060-0309 SB
(BY OTHERS -
SECTION 60-15HB-1)

PROPOSED FAP 310 PROFILE

+884.390

+780

+734

+939.665

EMBANKMENT CONE
(BY OTHERS-SECTION 60-15HB-1)

EMBANKMENT CONE
(BY OTHERS-SECTION 60-15HB-1)

1:6

1:6

SQ. ft MIN. STRUCTURAL CLEARANCE

EXISTING FAP 310 PROFILE

EARTHWORK INCLUDED IN SECTION 60-15HB-1

HA 29 BEGINNING
ELEV. 186.37

HA 29
Qu WX

GRAY& BROWN SILTY CLAY

GRAY SILTY CLAY LOAM

BORING 5/30/01

HA 29 ENDING
ELEV. 183.1

HA 31 BEGINNING
ELEV. 186.7

HA 31
Qu WX

GRAY & BROWN SILTY CLAY

GRAY SILTY CLAY LOAM

BROWN & GRAY CLAY LOAM

BORING 5/30/01

HA 31 ENDING
ELEV. 182.7

HA 33 BEGINNING
ELEV. 187.16

HA 33
Qu WX

GRAY & BROWN SILTY CLAY

GRAY SILTY CLAY LOAM

BROWN & GRAY CLAY LOAM

BORING 5/25/01

HA 33 ENDING
ELEV. 182.4

SB 28 BEGINNING
ELEV. 187.77

SB 29
Qu WX

GRAY & BROWN SILTY CLAY

GRAY SILTY CLAY LOAM

GRAY CLAY LOAM

VERY GRAVELLY

BORING 5/15/01

SB 29 ENDING
ELEV. 180.77

SB 31 BEGINNING
ELEV. 187.96

SB 31
Qu WX

GRAY & BROWN SILTY CLAY

BROWN & GRAY SILTY CLAY LOAM

GRAY & BROWN SILTY CLAY

BROWN & GRAY SILTY CLAY

GRAY SILTY SAND

GRAY CLAY LOAM

BORING 5/16/01

SB 31 ENDING
ELEV. 180.2

SOIL STRATA PROFILE SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

	ORIGINAL SURVEY	BY	DATE
	SURVEYED		
	PLOTTED		
	NOTE BOOK	TEMPLATE	
	NO.	AREAS	
		AREAS CHECKED	

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IL 255 (FAP 310), STA 38+650 TO STA 39+000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	112
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE AREAS — AREAS CHECKED

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STA 38+798.239 TO STA 38+863.008 (SBL)
STA 38+799.695 TO STA 38+865.865 (NBL)
BRIDGE OMISSIONS

SN 060-0308 NB &
SN 060-0309 SB
(BY OTHERS -
SECTION 60-15HB-1)

PROPOSED FAP 310 PROFILE

+884
390
+780
+734
+939.65

EMBANKMENT CONE
(BY OTHERS-SECTION 60-15HB-1)

1:6

60 m MIN. STRUCTURAL CLEARANCE

EXISTING FAP 310 PROFILE

EARTHWORK INCLUDED IN SECTION 60-15HB-1

HA 30 BEGINNING
ELEV. 186.66

HA 30
Qu WX

GRAY& BROWN SILTY CLAY
GRAY SILTY CLAY LOAM
BORING 5/31/01
HA 30 ENDING
ELEV. 183.1

HA 32 BEGINNING
ELEV. 186.87

HA 32
Qu WX

GRAY & BROWN SILTY CLAY
GRAY SILTY CLAY LOAM
GRAY & BROWN CLAY LOAM
BORING 5/31/01
HA 32 ENDING
ELEV. 182.1

HA 34 BEGINNING
ELEV. 187.78

HA 34
Qu WX

GRAY & BROWN SILTY CLAY
GRAY SILTY CLAY LOAM
BROWN & GRAY SILTY CLAY LOAM
BORING 5/31/01
HA 34 ENDING
ELEV. 183.0

SB 28 BEGINNING
ELEV. 187.47

SB 28
Qu WX

GRAY SILTY CLAY
GRAY SILTY CLAY LOAM
BROWN & GRAY CLAY LOAM
GRAY CLAYEY SAND
GRAY CLAY LOAM
SB 28 ENDING
ELEV. 180.7
BORING 5/15/01

SB 30 BEGINNING
ELEV. 187.96

SB 30
Qu WX

GRAY & BROWN SILTY CLAY
GRAY SILTY CLAY LOAM
GRAY CLAY LOAM
GRAY SANDY LOAM,A-4(2) SATURATED
GRAY CLAY LOAM
BORING 5/16/01
SB 30 ENDING
ELEV. 180.2

SOIL STRATA PROFILE SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

	38+650	38+700	38+750	38+800	38+850	38+900	38+950	39+000
	186.372	186.513	186.701	186.872	187.157	187.523	187.901	187.869
	191.140	191.890	192.640	193.390	194.140	194.890	195.627	196.296
	188.153	187.840	187.702	187.772	187.958	187.890	187.775	
	196.891	197.414	197.862	198.237	198.539	198.766	198.921	

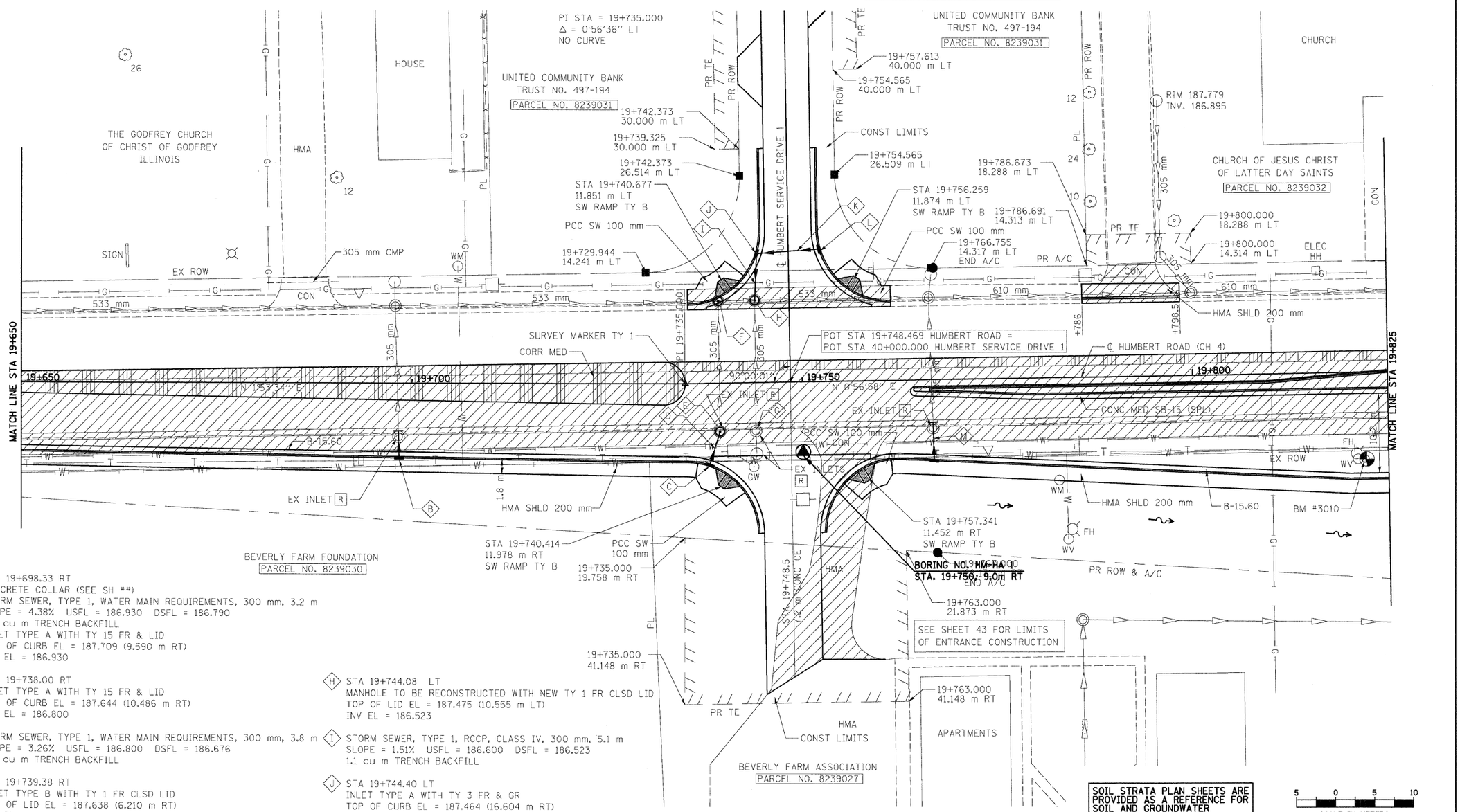
IL 255 (FAP 310), STA 38+650 TO STA 39+000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	113
STA. 19+650	TO STA. 19+825			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM

SEE SHEET 43 FOR HUMBERT SERVICE DRIVE 1 PLAN AND PROFILE



Ⓑ STA 19+698.33 RT
CONCRETE COLLAR (SEE SH **)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 3.2 m
SLOPE = 4.38% USFL = 186.930 DSFL = 186.790
0.7 cu m TRENCH BACKFILL
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 187.709 (9.590 m RT)
INV EL = 186.930

Ⓒ STA 19+738.00 RT
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 187.644 (10.486 m RT)
INV EL = 186.800

Ⓓ STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 3.8 m
SLOPE = 3.26% USFL = 186.800 DSFL = 186.676
0.9 cu m TRENCH BACKFILL

Ⓔ STA 19+739.38 RT
INLET TYPE B WITH TY 1 FR CLSD LID
TOP OF LID EL = 187.638 (6.210 m RT)
INV EL = 186.676

Ⓕ STA 19+739.39 10.52 m LT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 23 FR & GR
TOP OF CURB EL = 187.599
INV EL = 186.535

Ⓖ STA 19+743.99 RT
PLUG EX 305 mm SS
FILL WITH CONTROLLED LOW STRENGTH MATERIAL, 1.2 cu m

Ⓗ STA 19+744.08 LT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 187.475 (10.555 m LT)
INV EL = 186.523

Ⓘ STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 5.1 m
SLOPE = 1.51% USFL = 186.600 DSFL = 186.523
1.1 cu m TRENCH BACKFILL

Ⓙ STA 19+744.40 LT
INLET TYPE A WITH TY 3 FR & GR
TOP OF CURB EL = 187.464 (16.604 m RT)
INV EL = 186.600

Ⓚ STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 7.4 m
SLOPE = 1.42% USFL = 186.705 DSFL = 186.600
1.6 cu m TRENCH BACKFILL

Ⓛ STA 19+752.10 LT
INLET TYPE A WITH TY 3 FR & GR
TOP OF CURB EL = 187.474 (17.074 m RT)
INV EL = 186.705

Ⓜ STA 19+766.78 RT
CONRETE COLLAR (SEE SH **)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 4.7 m
SLOPE = 0.32% USFL = 186.634 DSFL = 186.619
1.4 cu m TRENCH BACKFILL
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 187.690 (10.423 m RT)
INV EL = 186.634

SOIL STRATA PLAN SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

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SCALE IN METERS
(1:250)

NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE CHECKED BY

HUMBERT ROAD STA 19+650 TO STA 19+825

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	114
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

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FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
TEMPLATE		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
TEMPLATE		
AREAS		
AREAS CHECKED		
NO.		

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EXISTING GROUND PROFILE ALONG ℄

PROPOSED PROFILE GRADE

HM-HA 1 BEGINNING
ELEV. 187.65

HM-HA 1

	Qu	W%
BROWN & GRAY SILTY CLAY LOAM	96	
	96	
	220	
BROWN SILTY CLAY	220	
	211	

HM-HA 1 ENDING
ELEV. 186.2 m

BORING
12/26/01

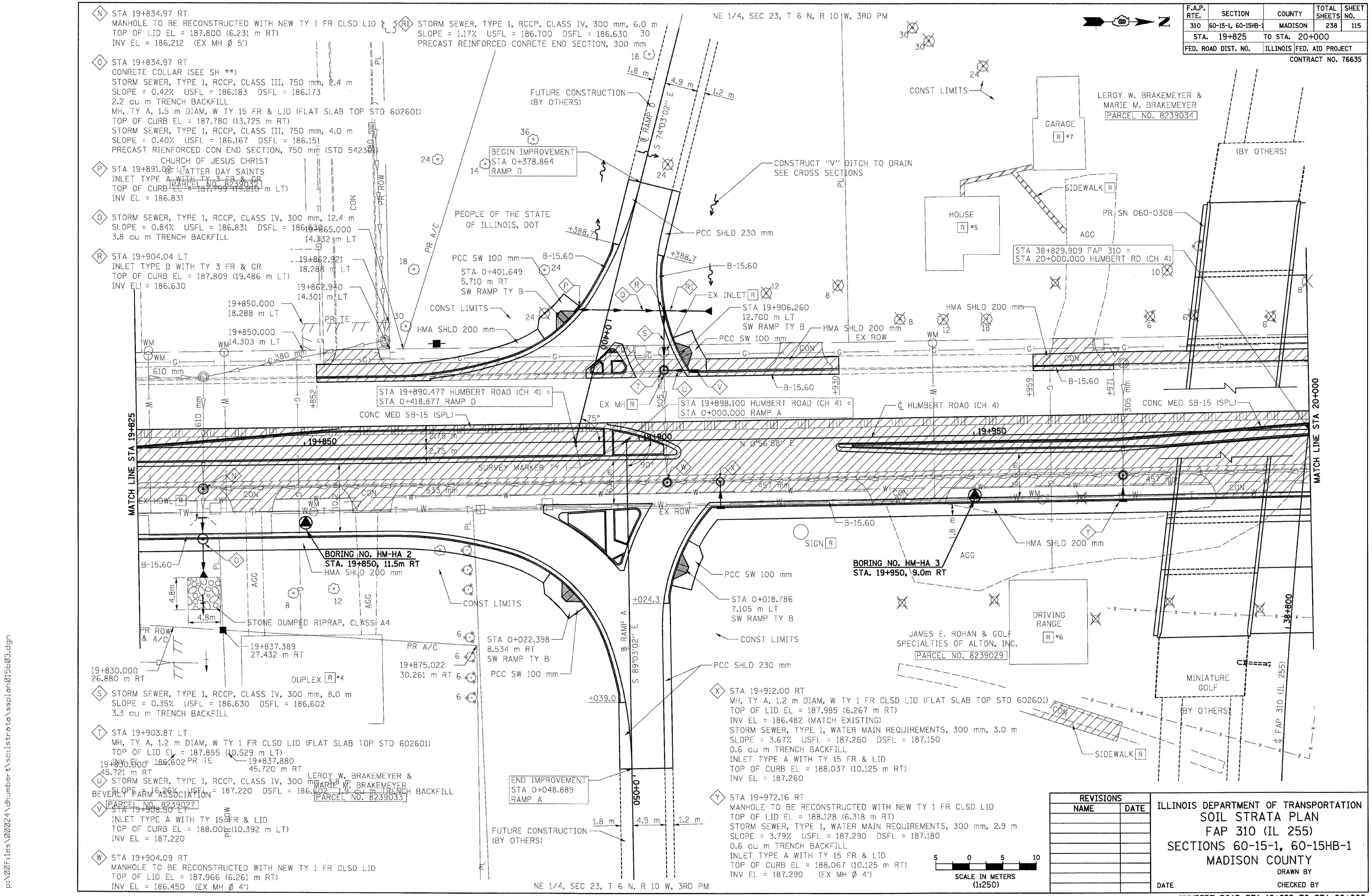
192 191 190 189 188 187 186 185 184 183 182

187.845 187.831 | 187.814 187.796 | 187.782 187.767 | 187.753 187.744 | 187.728 187.726 | 187.707 187.714 | 187.672 187.707 | 187.657 187.706 | 187.653 187.711 | 187.666 187.721 | 187.704 187.737 | 187.738 187.759 | 187.768 187.786 | 187.787 187.816 | 187.817 187.846

19+650 19+675 19+700 19+725 19+750 19+775 19+800 19+825

SOIL STRATA PROFILE SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

HUMBERT ROAD STA 19+650 TO STA 19+825


F.A.P. RTE. 310 | SECTION 60-15-1, 60-15HB-1 | COUNTY MADISON | TOTAL SHEETS 238 | SHEET NO. 115
STA. 19+825 TO STA. 20+000
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
CONTRACT NO. 76635
(N) STA 19+834.97 RT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 187.800 (6.231 m RT)
INV EL = 186.212 (EX MH Ø 5')
(O) STA 19+834.97 RT
CONRETE COLLAR (SEE SH **)
STORM SEWER, TYPE 1, RCCP, CLASS III, 750 mm, 2.4 m
SLOPE = 0.42% USFL = 186.183 DSFL = 186.173
2.2 cu m TRENCH BACKFILL
MH, TY A, 1.5 m DIAM, W TY 15 FR & LID (FLAT SLAB TOP STD 602601)
TOP OF CURB EL = 187.780 (13.725 m RT)
STORM SEWER, TYPE 1, RCCP, CLASS III, 750 mm, 4.0 m
SLOPE = 0.40% USFL = 186.167 DSFL = 186.151
PRECAST RIENFORCED CON END SECTION, 750 mm (STD 542301)
(P) STA 19+891.02 LT
INLET TYPE A WITH TY 3 FR & GR
TOP OF CURB EL = 187.799 (15.810 m LT)
INV EL = 186.831
(Q) STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 12.4 m
SLOPE = 0.84% USFL = 186.831 DSFL = 186.730
3.8 cu m TRENCH BACKFILL
(R) STA 19+904.04 LT
INLET TYPE B WITH TY 3 FR & GR
TOP OF CURB EL = 187.809 (19.486 m LT)
INV EL = 186.630
(R1) STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 6.0 m
SLOPE = 1.17% USFL = 186.700 DSFL = 186.630
PRECAST REINFORCED CONRETE END SECTION, 300 mm
(S) STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 8.0 m
SLOPE = 0.35% USFL = 186.630 DSFL = 186.602
3.3 cu m TRENCH BACKFILL
(T) STA 19+903.87 LT
MH, TY A, 1.2 m DIAM, W TY 1 FR CLSD LID (FLAT SLAB TOP STD 602601)
TOP OF LID EL = 187.855 (10.529 m LT)
INV EL = 186.602
(U) STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 3.8 m
SLOPE = 16.26% USFL = 187.220 DSFL = 186.602 1.9 cu m TRENCH BACKFILL
(V) STA 19+908.50 LT
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 188.001 (10.392 m LT)
INV EL = 187.220
(W) STA 19+904.09 RT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 187.966 (6.261 m RT)
INV EL = 186.450 (EX MH Ø 4')
(X) STA 19+912.00 RT
MH, TY A, 1.2 m DIAM, W TY 1 FR CLSD LID (FLAT SLAB TOP STD 602601)
TOP OF LID EL = 187.985 (6.267 m RT)
INV EL = 186.482 (MATCH EXISTING)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 3.0 m
SLOPE = 3.67% USFL = 187.260 DSFL = 187.150
0.6 cu m TRENCH BACKFILL
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 188.037 (10.125 m RT)
INV EL = 187.260
(Y) STA 19+972.16 RT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 188.128 (6.318 m RT)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 2.9 m
SLOPE = 3.79% USFL = 187.290 DSFL = 187.180
0.6 cu m TRENCH BACKFILL
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 188.067 (10.125 m RT)
INV EL = 187.290 (EX MH Ø 4')
NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM
CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS
PARCEL NO. 8239032
PEOPLE OF THE STATE OF ILLINOIS, DOT
BEGIN IMPROVEMENT STA 0+378.864 RAMP D
FUTURE CONSTRUCTION (BY OTHERS)
CONSTRUCT "V" DITCH TO DRAIN SEE CROSS SECTIONS
CONST LIMITS
LEROY W. BRAKEMEYER & MARIE M. BRAKEMEYER
PARCEL NO. 8239034
(BY OTHERS)
GARAGE
HOUSE
SIDEWALK
PR SN 060-0308
STA 38+829.909 FAP 310 = STA 20+000.000 HUMBERT RD (CH 4)
PCC SHLD 230 mm
B-15.60
PCC SW 100 mm
STA 0+401.649 5.710 m RT SW RAMP TY B
HMA SHLD 200 mm
EX INLET
STA 19+906.260 12.700 m LT SW RAMP TY B
STA 19+890.477 HUMBERT ROAD (CH 4) = STA 0+418.877 RAMP D
STA 19+898.100 HUMBERT ROAD (CH 4) = STA 0+000.000 RAMP A
℄ HUMBERT ROAD (CH 4)
CONC MED SB-15 (SPL)
SURVEY MARKER TY 1
EX ROW
MATCH LINE STA 19+825
MATCH LINE STA 20+000
BORING NO. HM-HA 2
STA. 19+850, 11.5m RT
BORING NO. HM-HA 3
STA. 19+950, 9.0m RT
STONE DUMPED RIPRAP, CLASS A4
DUPLEX
STA 0+022.398 8.534 m RT SW RAMP TY B
STA 0+018.786 7.105 m LT SW RAMP TY B
SIGN
DRIVING RANGE
JAMES E. ROHAN & GOLF SPECIALTIES OF ALTON, INC.
PARCEL NO. 8239029
MINIATURE GOLF
℄ FAP 310 (IL 255)
BEVERLY FARM ASSOCIATION
PARCEL NO. 8239027
LEROY W. BRAKEMEYER & MARIE M. BRAKEMEYER
PARCEL NO. 8239033
END IMPROVEMENT STA 0+048.889 RAMP A
S 74°03'02" E
S 89°03'02" E
N 0°56'58" E
REVISIONS
NAME | DATE
ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE
CHECKED BY
SCALE IN METERS (1:250)
HUMBERT ROAD STA 19+825 TO STA 20+000
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	116
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

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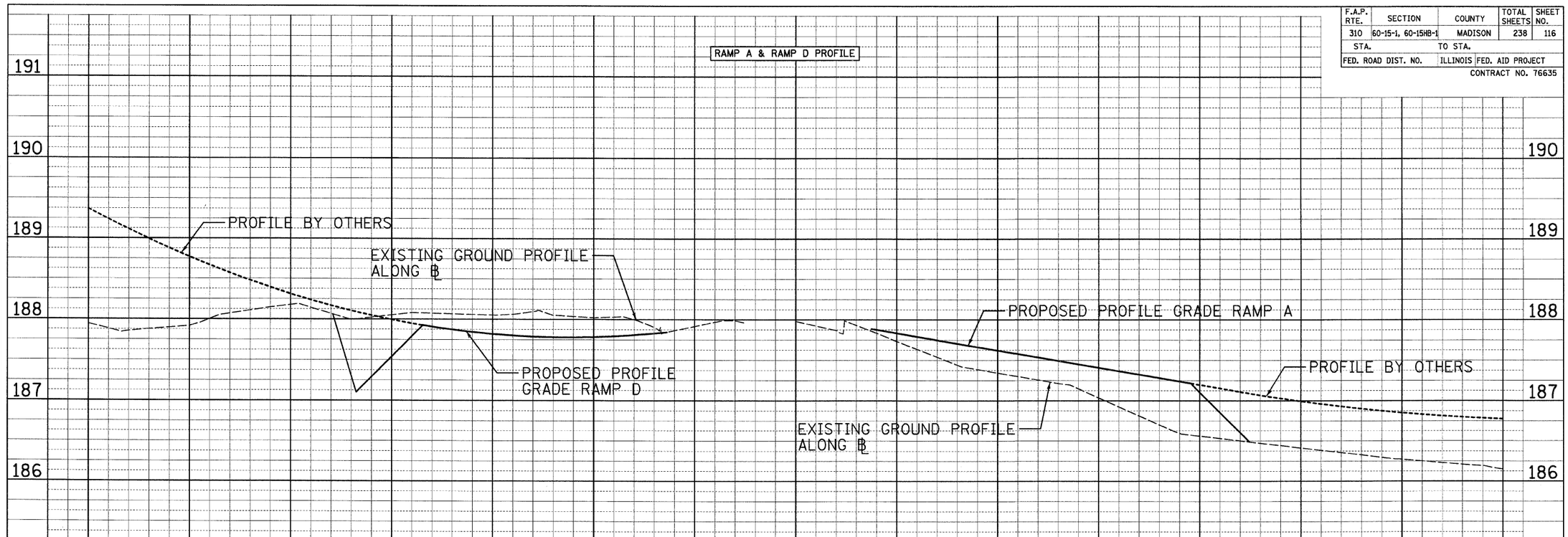
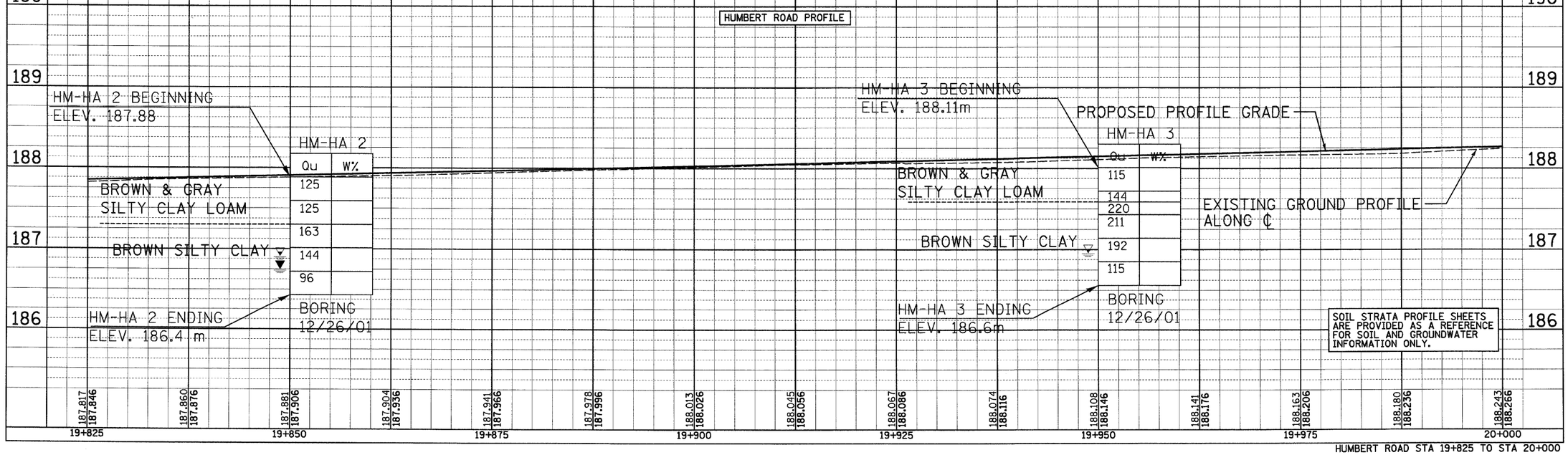
FINAL SURVEY	BY	DATE
	SURVEYED	
	PLOTTED	
NOTE BOOK	TEMPLATE	
	AREAS	
NO.	AREAS CHECKED	

RAMP A & RAMP D PROFILE



HUMBERT ROAD PROFILE



HUMBERT ROAD STA 19+825 TO STA 20+000

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	117
STA. 20+000	TO STA. 20+175			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM

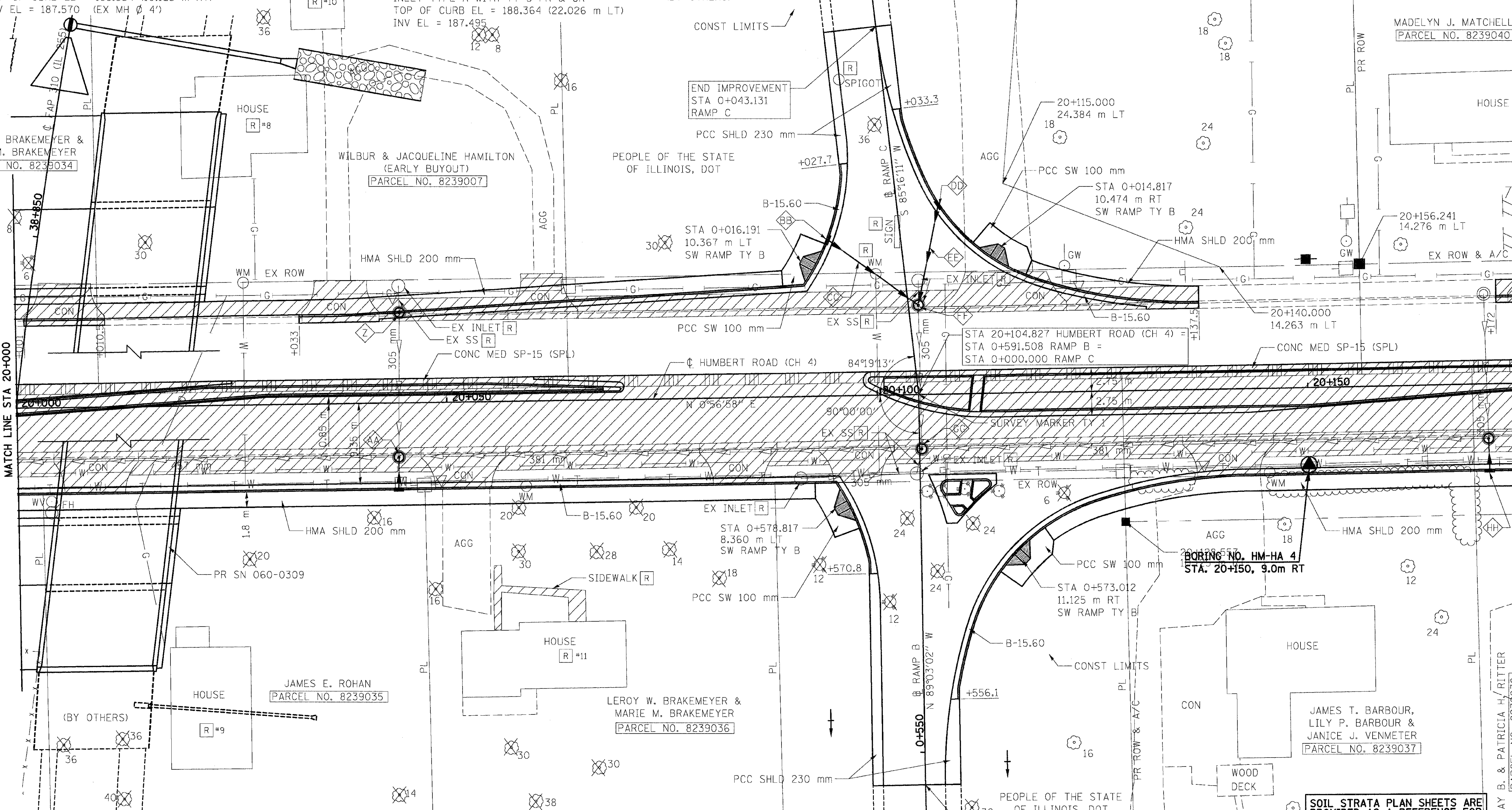
(Z) STA 20+044.66 LT
INLET TO BE RECONSTRUCTED WITH TY 15 FR & LID
TOP OF CURB EL = 188.303 (10.670 m LT)

(AA) STA 20+044.35 RT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 188.300 (6.307 m RT)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 2.9 m
SLOPE = 5.86% USFL = 187.570 DSFL = 187.400
0.6 cu m TRENCH BACKFILL
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 188.354 (10.125 m RT)
INV EL = 187.570 (EX MH Ø 4')

(BB) STA 20+094.50 LT
INLET TYPE A WITH TY 3 FR & GR
TOP OF CURB EL = 188.240 (18.189 m LT)
INV EL = 187.545

(CC) STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 12.1 m
SLOPE = 1.16% USFL = 187.545 DSFL = 187.405
2.4 cu m TRENCH BACKFILL

(DD) STA 20+107.44 LT
INLET TYPE A WITH TY 3 FR & GR
TOP OF CURB EL = 188.364 (22.026 m LT)
INV EL = 187.495



(EE) STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 11.0 m
SLOPE = 0.82% USFL = 187.495 DSFL = 187.405
2.5 cu m TRENCH BACKFILL

(FF) STA 20+104.95 LT
MH, TY A, 1.2 m DIAM, W TY 1 FR CLSD LID (FLAT SLAB TOP STD 602601)
TOP OF LID EL = 188.326 (10.415 m LT)
INV EL = 187.405

(GG) STA 20+105.08 RT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 188.446 (6.342 m RT) (EX MH Ø 4')

(HH) STA 20+170.90 RT
MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 188.604 (6.363 m RT)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 2.9 m
SLOPE = 12.24% USFL = 187.875 DSFL = 187.520
0.7 cu m TRENCH BACKFILL
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 188.658 (10.125 m RT)
INV EL = 187.875 (EX MH Ø 4')

FUTURE CONSTRUCTION (BY OTHERS)

MATCH LINE STA 0+525

NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM

SCALE IN METERS (1:250)

SOIL STRATA PLAN SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY
DATE CHECKED BY

HUMBERT ROAD STA 20+000 TO STA 20+175

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	118
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

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FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	AREAS CHECKED

RAMP B & RAMP C PROFILE

192 191 190 189 188 187 186

EXISTING GROUND PROFILE ALONG B

PROFILE BY OTHERS

PROPOSED PROFILE GRADE RAMP B

PROPOSED PROFILE GRADE RAMP C

EXISTING GROUND PROFILE ALONG ℄

PROFILE BY OTHERS

188.591 187.587 | 188.627 187.893 | 188.623 188.273 | 188.460 | 188.405 188.352 | 188.449 188.908 | 188.707 190.119

0+525 0+550 0+575 0+000 0+025 0+050 0+075

HUMBERT ROAD PROFILE

190 189 188 187 186

PROPOSED PROFILE GRADE

EXISTING GROUND PROFILE ALONG ℄

HM-HA 4 BEGINNING
ELEV. 188.62m

HM-HA 4 ENDING
ELEV. 187.1m

HM-HA 4

Qu	W%
96	
115	
163	
192	
134	
163	

GRAY LOAM

BROWN SILTY CLAY

BORING 12/26/01

SOIL STRATA PROFILE SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

188.243 188.266 | 188.257 188.296 | 188.295 188.326 | 188.329 188.356 | 188.361 188.386 | 188.387 188.416 | 188.435 188.446 | 188.456 188.476 | 188.482 188.506 | 188.521 188.536 | 188.565 188.566 | 188.597 188.596 | 188.623 188.626 | 188.653 188.656 | 188.686 188.686

20+000 20+025 20+050 20+075 20+100 20+125 20+150 20+175

HUMBERT ROAD STA 20+000 TO STA 20+175

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	AREAS CHECKED

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	119
STA.	20+175	TO STA.	20+350	
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

NE 1/4, SEC 23, T 6 N, R 10 W, 3RD PM

SE 1/4, SEC 14, T 6 N, R 10 W, 3RD PM

HUMBERT SERVICE DRIVE 2 CURVE DATA
PI STA = 59+925.821
Δ = 14° 32' 02" LT
R = 100 m
T = 12.752 m
L = 25.366 m
E = 0.810 m
e = NONE
PC STA = 59+913.070
PRC STA = 59+938.436

HUMBERT SERVICE DRIVE 2 CURVE DATA
PI STA = 59+951.187
Δ = 14° 32' 02" RT
R = 100 m
T = 12.752 m
L = 25.366 m
E = 0.810 m
e = NONE
PRC STA = 59+938.436
PT STA = 59+963.802

HUMBERT SERVICE DRIVE 2 CURVE DATA
PI STA = 59+980.892
Δ = 90° 00' 00" RT
R = 10 m
T = 10.000 m
L = 15.708 m
E = 4.142 m
e = NONE
PC STA = 59+970.892
PT STA = 59+986.600

HUMBERT ROAD (CH 4)
PI STA = 20+251.500
Δ = 0°31'08" LT
NO CURVE

PI STA = 20+335.000
Δ = 0°56'36" LT
NO CURVE

MADELYN J. MATCHELL
PARCEL NO. 8239040

CHARLES A. BURK JR. & JOYCE E. BURK
PARCEL NO. 8239041

COUNTY OF MADISON
PARCEL NO. 8239042

ALTON COMMUNTIY UNIT SCHOOL DISTRICT NO. 11
PARCEL NO. 8239043

JAY B. & PATRICIA H. RITTER
PARCEL NO. 8239038

ROBERT D. & KAREN J. NASH
PARCEL NO. 8239039

GEORGE L. & MARGARET W. COPE
PARCEL NO. 8239045

BEGIN IMPROVEMENT
PC STA 59+913.070
HUMBERT SERVICE DRIVE 2

SOIL STRATA PLAN SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

BORING NO. HM HA 5
STA. 20+275, 12.0m RT

STA 20+269.319 HUMBERT ROAD (CH 4) = PI STA 1+000.000 FAS 737 (SEILER RD)

PI STA 20+251.500 HUMBERT ROAD (CH 4) = POT STA 60+000.000 HUMBERT SERVICE DR 2

MATCH LINE STA 20+175

MATCH LINE STA 20+350

MATCH LINE STA 0+950

II STA 59+974.0 4.8 m LT (HUMBERT SERV DR 2)
PIPE CULV, TY 1, CS/A, 300 mm Ø, 10.0 m
USFL = 188.325 (+968.2)
DSFL = 188.302 (+975.5)

JJ STA 20+240.00 18.13 m LT
INLET TY A (450 mm DEPTH) WITH TY 8 GR
TOP LID EL = 188.251 INV EL = 187.776
STORM SEWER, TYPE 1, RCCP, CLASS IV, 300 mm, 9.8 m
SLOPE = 0.30% USFL = 187.776 DSFL = 187.747
1.7 cu m TRENCH BACKFILL

KK STA 20+250.67 17.4 m LT
MANHOLE TY A, 1.2 m Ø, WITH TY 1 FR CLSD LID (FLAT SLAB TOP)
TOP LID EL = 188.773 INV EL = 187.747
CONNECT TO EXIST SS

LL STA 20+250.65 28.2 m LT
REMOVE EX 610 mm SS
REINF CONC PIPE TEE, 600 mm PIPE W/600 mm RISER (STD 542606)
CONCRETE COLLAR, 2 (SEE SH **)
TYPE 8 GRATE TOP OF GRATE EL = 188.300

MM STA 20+250.68 10.4 m LT
MH TO BE RECONSTRUCTED WITH NEW TY 1 FR OPEN LID
TOP OF LID EL = 188.726

NN STA 20+263.75 RT (EX TYPE B)
INLET TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
TOP OF LID EL = 188.730 (11.159 m RT)

OO STA 20+283.13 6.2 m RT
INLET TYPE B WITH TY 1 FR CLSD LID
TOP OF LID EL = 188.876 (6.253 m RT)
INV EL = 187.220

PP STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 3.6 m
SLOPE = 23.6% USFL = 188.150 DSFL = 187.300
1.2 cu m TRENCH BACKFILL
STA 20+285.00 RT
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 188.932 (10.125 m RT)
INV EL = 188.150
STA 20+322.94 RT
CONCRETE COLLAR (SEE SH **)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 4.1 m
SLOPE = 2.93% USFL = 187.760 DSFL = 187.640
2.1 cu m TRENCH BACKFILL
INLET MARKER TYPE 15 FR & LID
TOP OF CURB EL = 189.023 (10.125 m RT)
INV EL = 187.760

FAS 737 CURVE DATA
PI STA = 0+832.700
Δ = 7°05'01" RT
R = 2000 m
T = 127.000 m
L = 253.659 m
E = 4.028 m
e = NONE
PC STA = 0+705.700
PT STA = 0+959.359

SCALE IN METERS (1:250)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE CHECKED BY

HUMBERT ROAD STA 20+175 TO STA 20+350

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	120
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY
NOTE BOOK
NO.
BY
DATE
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

SEILER ROAD PROFILE

EXISTING GROUND PROFILE

PROPOSED PROFILE GRADE

189 188 187 186

189.015 188.593 — 188.990 188.643

0+950 0+975 1+000

HUMBERT SERVICE DRIVE 2 PROFILE

PROPOSED PROFILE GRADE

EXISTING GROUND PROFILE

190 189 188 187

188.726 189.082 — 188.809 189.150 — 188.970 189.015 — 188.725

59+900 59+925 59+950 59+975 60+000

ORIGINAL SURVEY
NOTE BOOK
NO.
BY
DATE
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

HUMBERT ROAD PROFILE

HM-HA 5 BEGINNING
ELEV. 188.92m

HM-HA 5

Qu	W%
144	
192	
192	
144	
115	
115	

GRAY LOAM

BROWN SILTY CLAY

PROPOSED PROFILE GRADE

EXISTING GROUND PROFILE ALONG ℄

HM-HA 5 ENDING
ELEV. 187.4m

BORING
12/26/01

SOIL STRATA PROFILE SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

190 189 188 187

188.686 188.686 — 188.713 188.716 — 188.731 188.746 — 188.774 188.776 — 188.811 188.806 — 188.839 188.836 — 188.863 188.866 — 188.889 188.896 — 188.920 188.926 — 188.962 188.956 — 188.985 188.986 — 189.024 189.016 — 189.055 189.046 — 189.063 189.076 — 189.090 189.106

20+175 20+200 20+225 20+250 20+275 20+300 20+325 20+350

HUMBERT ROAD STA 20+175 TO STA 20+350

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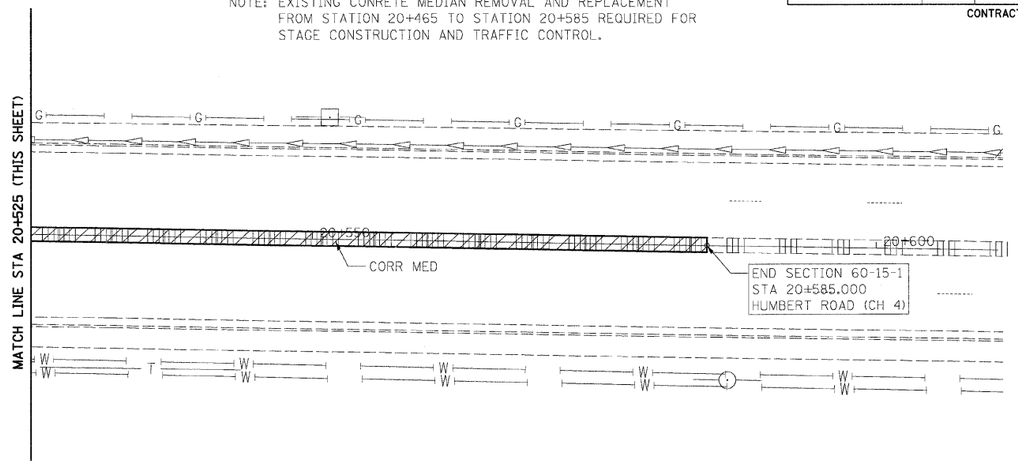
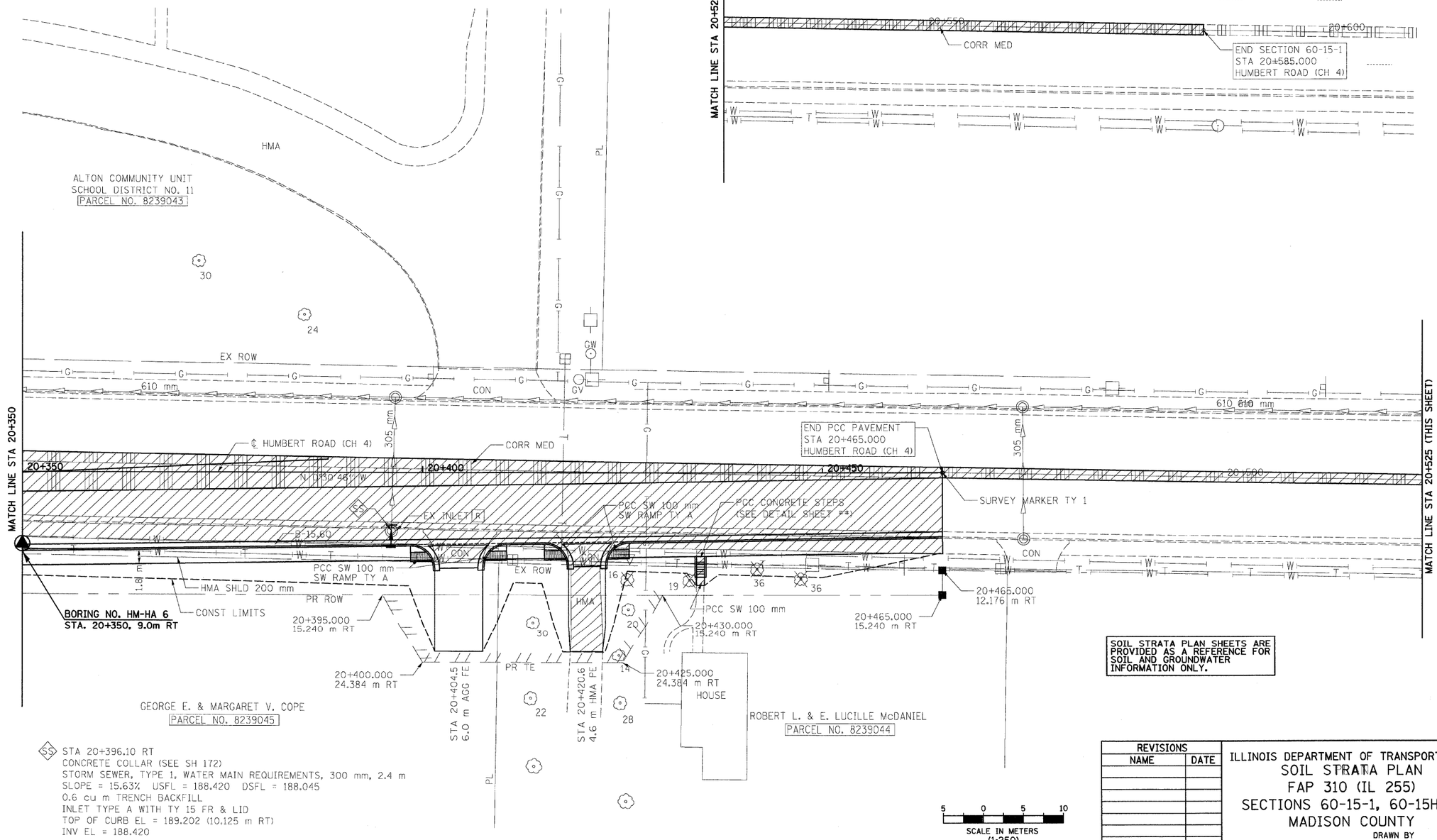
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	121
STA. 20+350	TO STA. 20+525			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

NOTE: EXISTING CONRETE MEDIAN REMOVAL AND REPLACEMENT FROM STATION 20+465 TO STATION 20+585 REQUIRED FOR STAGE CONSTRUCTION AND TRAFFIC CONTROL.





SS STA 20+396.10 RT
CONCRETE COLLAR (SEE SH 172)
STORM SEWER, TYPE 1, WATER MAIN REQUIREMENTS, 300 mm, 2.4 m
SLOPE = 15.63% USFL = 188.420 DSFL = 188.045
0.6 cu m TRENCH BACKFILL
INLET TYPE A WITH TY 15 FR & LID
TOP OF CURB EL = 189.202 (10.125 m RT)
INV EL = 188.420

SOIL STRATA PLAN SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

5 0 5 10
SCALE IN METERS
(1:250)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL STRATA PLAN
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE CHECKED BY

HUMBERT ROAD STA 20+350 TO STA 20+465

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	122
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

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FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	
	AREAS CHECKED	

192
191
190
189
188
187
186
185
184
183
182

HM-HA 6 BEGINNING
ELEV. 189.09m

HM-HA 6

Qu	W%
144	
96	
220	
163	
153	

PROPOSED PROFILE GRADE

GRAY SILTY CLAY LOAM

EXISTING GROUND PROFILE ALONG ℄

BROWN SILTY CLAY

BORING
12/26/01

HM-HA 6 ENDING
ELEV. 187.6m

20+350	20+375	20+400	20+425	20+450	20+475	20+500	20+525
189.090	189.137	189.174	189.205	189.233	189.263	189.297	189.333
189.106	189.136	189.167	189.199	189.232	189.265	189.299	189.335
189.367	189.407	189.454					
189.371	189.408						

SOIL STRATA PROFILE SHEETS ARE PROVIDED AS A REFERENCE FOR SOIL AND GROUNDWATER INFORMATION ONLY.

HUMBERT ROAD STA 20+350 TO STA 20+465

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS	
	AREAS CHECKED	

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BM 3010 - Cut "+" in west flange bolt of fire hydrant located on east side of Humbert Road and north of mailbox 6415 across from church. Humbert Road Sta 19+821, 10 m Rt, Elev. 187.953

Existing Structure - None

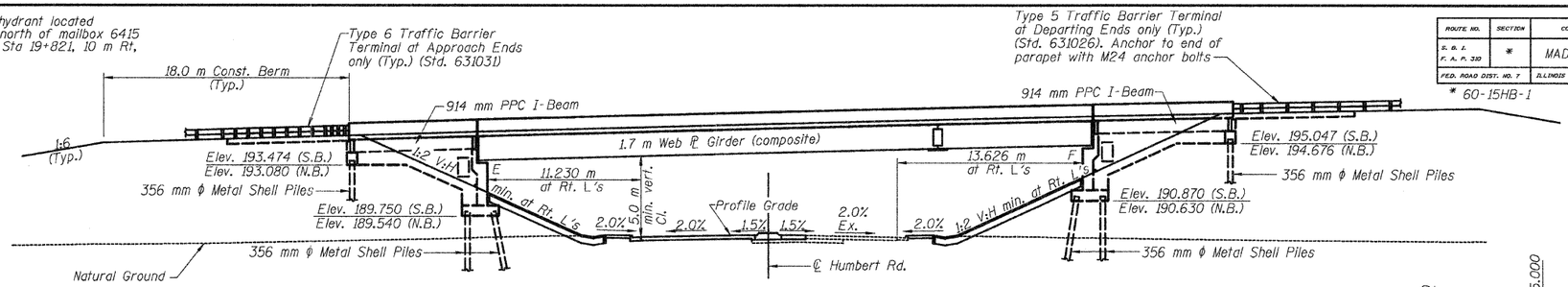
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. L. F. A. P. 310	*	MADISON	239	123
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

* 60-15HB-1

SHEET NO. 1

48 SHEETS

CONTRACT NO. 76635



ELEVATION

INDEX OF SHEETS

1	General Plan and Elevation
2	Total Bill of Material & General Notes
3	Footing Layout & PPC I-Beam Framing Plan
4-10	Top of Slab Elevations
11	N.B. Superstructure
12	S.B. Superstructure
13	Superstructure Details
14	N.B. East Approach Slab (1 of 2)
15	N.B. East Approach Slab (2 of 2)
16	N.B. West Approach Slab (1 of 2)
17	N.B. West Approach Slab (2 of 2)
18	S.B. East Approach Slab (1 of 2)
19	S.B. East Approach Slab (2 of 2)
20	S.B. West Approach Slab (1 of 2)
21	S.B. West Approach Slab (2 of 2)
22	Girder Details & Framing Plan
23	Girder Details
24	36" P.P.C I-Beam (East Approaches)
25	36" P.P.C I-Beam Details (East Approaches)
26	36" P.P.C I-Beam (West Approaches)
27	36" P.P.C I-Beam Details (West Approaches)
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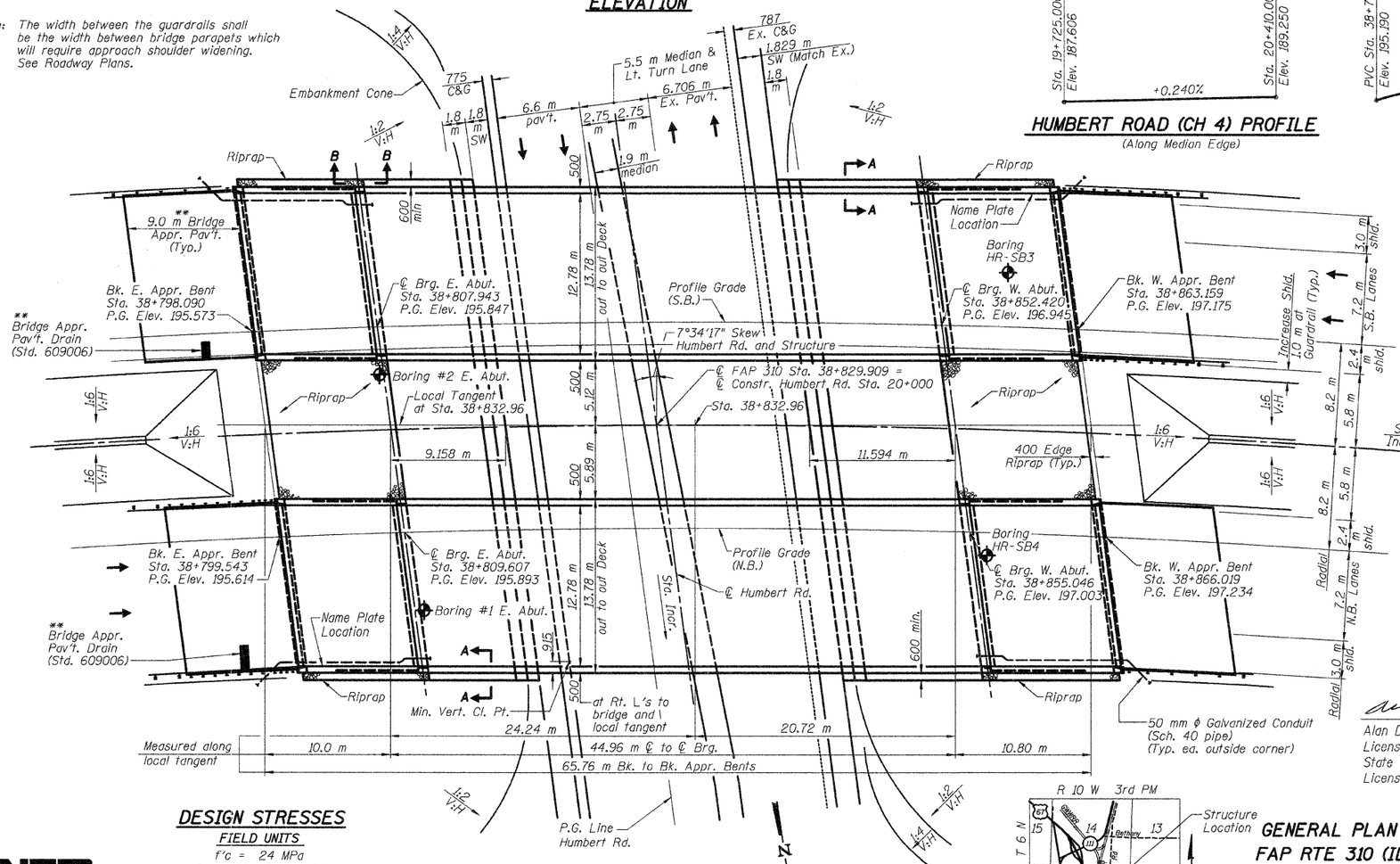
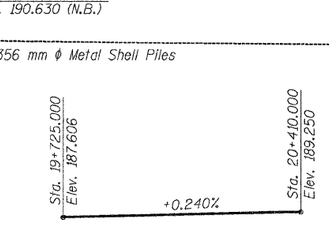
29	N.B. East Abutment (1 of 3)
30	N.B. East Abutment (2 of 3)
31	N.B. East Abutment (3 of 3)
32	N.B. West Abutment (1 of 3)
33	N.B. West Abutment (2 of 3)
34	N.B. West Abutment (3 of 3)
35	S.B. East Abutment (1 of 3)
36	S.B. East Abutment (2 of 3)
37	S.B. East Abutment (3 of 3)
38	S.B. West Abutment (1 of 3)
39	S.B. West Abutment (2 of 3)
40	S.B. West Abutment (3 of 3)
41	Pile Details
42	Slopewall and Concrete Texture Details
43	Preformed Joint Strip Seal
44	Anchor Bolt Details for Bearings
45-48	Soil Boring Logs

Note: The width between the guardrails shall be the width between bridge parapets which will require approach shoulder widening. See Roadway Plans.

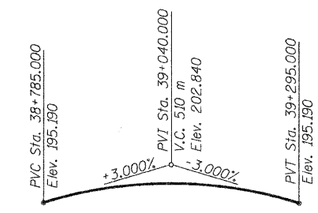


PLAN



HUMBERT ROAD (CH 4) PROFILE

(Along Median Edge)



FAP 310 PROFILE

(Along Median Edge)

Note: See Sheet 2 of 48 for Sections A-A, B-B, and Riprap Detail.

** Bridge Approach Pavement and Bridge Approach Pavement Drains are not constructed under this contract.

FAP 310 CURVE DATA

PI Sta. 39+183.523
Δ = 62° 37' 42" (RT)
R = 780.000 m
T = 474.512 m
L = 852.596 m
E = 132.996 m
PC Sta. 38+709.010
PT Sta. 39+561.606
SE = 5.5%

DESIGN STRESSES

FIELD UNITS

f'c = 24 MPa
fy = 400 MPa (reinf.)
fy = 345 MPa (M270M Grade 345, Structural Steel)
fy = 250 MPa (M270M Grade 250, Structural Steel & Diaphragms)

PRECAST PRESTRESSED UNITS

f'c = 42 MPa f's = 1860 MPa (12.7 mm ϕ Strands)
f'ci = 35 MPa f'si = 1395 MPa (12.7 mm ϕ Strands)

DESIGN SPECIFICATIONS

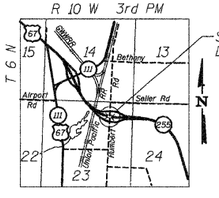
AASHTO 1996 with 1997, 1998, 1999 & 2000 Interims

LOADING MS18

Allow 2.4 kN/m² for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.080g
Site Coefficient (S) = 1.0



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
FAP RTE 310 (IL RTE 255) OVER CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
S.N. 060-0308 (NB) & 060-0309 (SB)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
ALAN D. LUKENS
081-005167
QUINCY, ILLINOIS
LICENSED STRUCTURAL ENGINEER

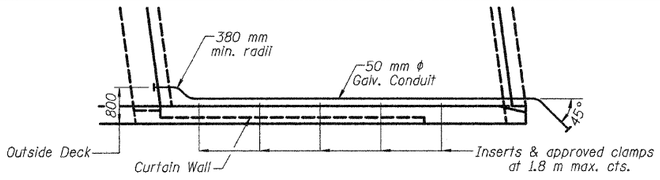
02-23-09

Alan D. Lukens — Date
Licensed Structural Engineer
State of Illinois No. 081-005167
License Expires 11/30/10

DESIGNED	ADL
CHECKED	WLW
DRAWN	DGM/ADL
CHECKED	WLW

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
STATE OF ILLINOIS DESIGN FIRM * 1842738

625 North 24th Street, Quincy, IL — Ph (217) 223-3678 - Fax (217) 223-3683
4538 Piasa Gravel Road, Hannibal, MO — Ph (573) 221-8820 - Fax (573) 221-8882
618 N. 4th Street, Suite 108, Burlington, IA — Ph (319) 753-8535 - Fax (319) 752-3085
145 North Prairie Street, Galesburg, IL — Ph (309) 342-4842 - Fax (309) 341-3781
Internet Address: www.klingner.com



Notes:

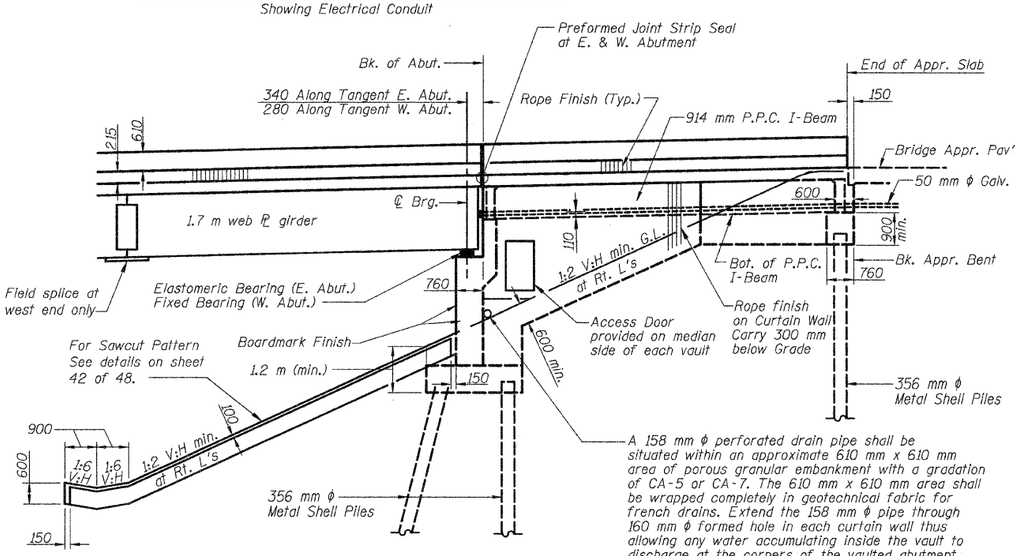
50 mm ϕ Galv. Conduit shall be Sch. 40 pipe.
Extend to clear Appr. Bent at a point outside of the shoulder.
Cost included with "Concrete Superstructure"

See Sections A-A and B-B on Sheets 14, 16, 18 & 20 of 48 for additional detail.

See Sheet 1 of 48 for locations.

PARTIAL PLAN OF VAULTED ABUTMENT

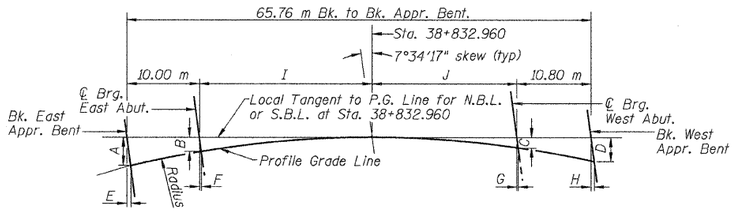
Showing Electrical Conduit



A 158 mm ϕ perforated drain pipe shall be situated within an approximate 610 mm x 610 mm area of porous granular embankment with a gradation of CA-5 or CA-7. The 610 mm x 610 mm area shall be wrapped completely in geotechnical fabric for french drains. Extend the 158 mm ϕ pipe through 160 mm ϕ formed hole in each curtain wall thus allowing any water accumulating inside the vault to discharge at the corners of the vaulted abutment. Cost of drain pipe, porous granular embankment, and fabric shall be included with "Concrete Structures".

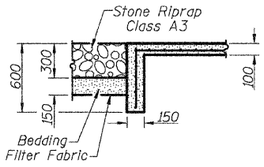
VAULTED ABUTMENT AND SLOPEWALL DETAILS

(Dimension are at Right L's, unless noted)

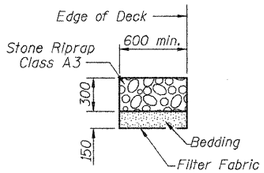


	A	B	C	D	E	F	G	H	I	J	Radius
S.B. Structure	788	405	245	591	105	54	33	79	25.33 m	19.63 m	788.2 m
N.B. Structure	708	346	309	693	94	46	41	92	23.15 m	21.81 m	771.8 m

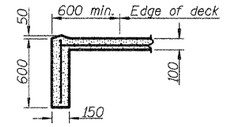
OFFSET SKETCH



SECTION B-B
SECTION BETWEEN RIPRAP AND CONCRETE SLOPEWALL



RIPRAP DETAIL



SECTION A-A

STATION 38+829.909
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT. 310 SEC. 60-15HB-1
LOADING MS18
STR. NO. 060-0308

NAME PLATE

See Std. 515001
(2 Required)

(N.B. Bridge shown, S.B. Bridge same except Str. No. 060-0309)

DESIGNED	ADL
CHECKED	WLW
DRAWN	DGM/ADL
CHECKED	WLW

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	124
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts M22, open holes 24 mm ϕ, unless otherwise noted.

Calculated mass of Structural Steel = 222,680 kg (M270M Grade 345)
13,650 kg (M270M Grade 250)

The inorganic zinc rich primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia girders shall be Reddish Brown, Munsell No. 2.5 YR 3/4. See special provision for "Cleaning and Painting New Metal Structures".

Concrete Sealer shall be applied to seat areas of the abutments.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270M Grade 345.

All construction joints shall be bonded.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars shall conform to the requirements of ASTM A 706M Gr 420 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 3 mm. Adjustment shall be made either by grinding the surface or by shimming the bearings.

Slope wall shall be reinforced with welded wire fabric, 152 x 152-MW25.8 x MW25.8 with a mass of 2.91 kg/m².

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

The contractor shall drive two (2) metal shell test piles in a permanent location shown on the following chart as directed by the Engineer before ordering the remainder of piles.

	E. Appr. Bent	E. Abut.	W. Abut.	W. Appr. Bent
N.B. Structure			1	
S.B. Structure		1		

Piles shall be driven through 380 mm diameter precored holes extending to elevation 187.5 at East Approach Bent & Elevation 187.5 at West Approach Bent according to Article 512.09(c) of the Standard Specifications. Cost included in driving piles.

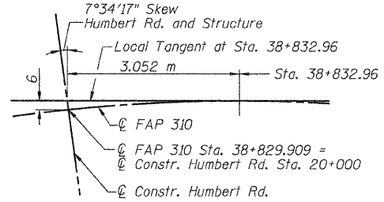
All dimensions are in millimeters (mm) except as noted.

Slip Forming Parapets are not allowed.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Elastomeric Bearing Assembly, Type I	each	12		12
	Furnishing and Erecting Structural Steel	Lump Sum	1		1
	Stud Shear Connectors	each	2976		2976
	Test Pile Metal Shells	each		2	2
	Name Plates	each	2		2
	Furnishing and Erecting Precast Prestressed Concrete I-Beams, 914 mm	m	233.7		233.7
	Stone Riprap, Class A3	m2			297
	Filter Fabric	m2			297
	Protective Coat	m2	1978		1978
	Structure Excavation	m3		889	889
	Preformed Joint Strip Seal	m	54.0		54.0
	Concrete Structures	m3		430.7	430.7
	Concrete Superstructure	m3	490.0		490.0
**	Bridge Deck Grooving	m2	1674		1674
	Reinforcement Bars, Epoxy Coated	kg	67,000	28,230	95,230
	Furnishing Metal Shell Piles 356mm x 6.35mm	m		2000.5	2000.5
	Driving Piles	m		2000.5	2000.5
	Concrete Sealer	m2		40	40
	Slope Wall, Special	m2			865
	Form Liner Textured Surface	m2	66	322	388

** Quantity includes Approach Slab.



LOCAL TANGENT DETAIL

TOTAL BILL OF MATERIAL & GENERAL NOTES
FAP RTE 310 (IL RTE 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
S.N. 060-0308 (NB) & 060-0309 (SB)

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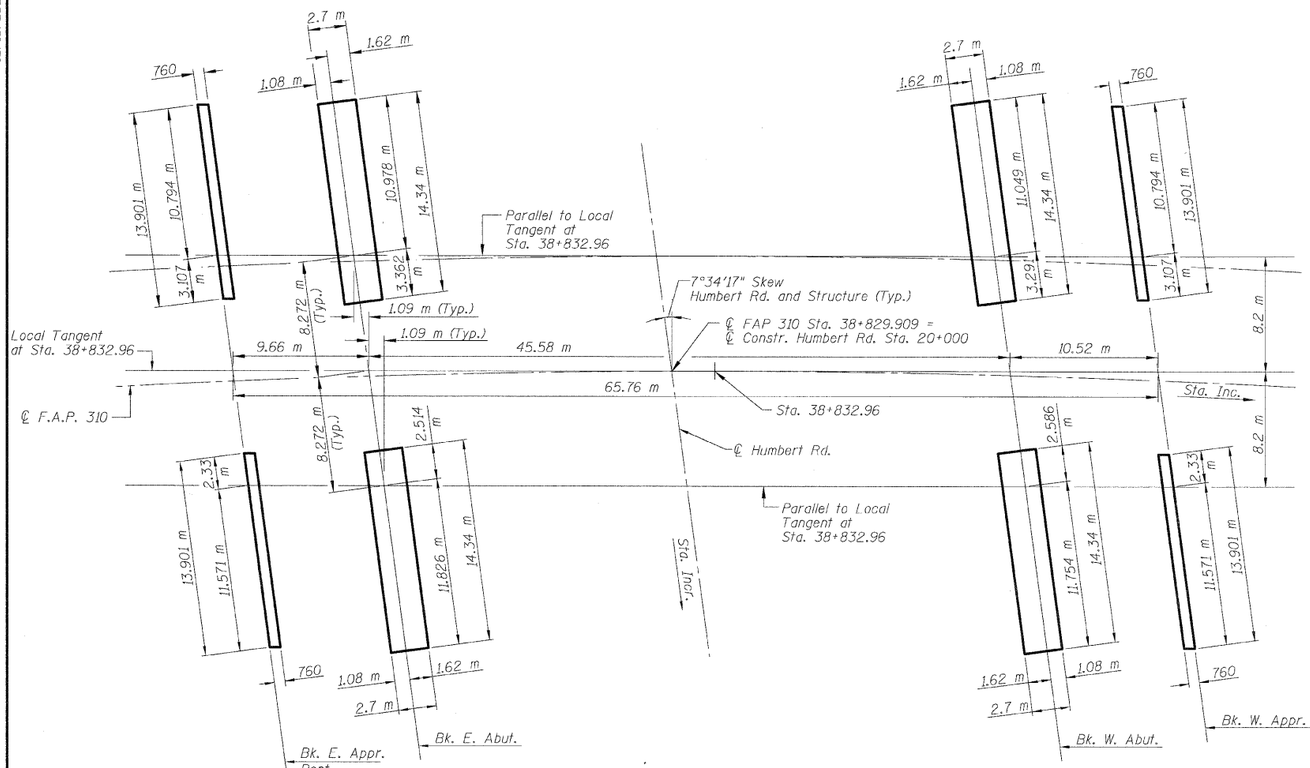
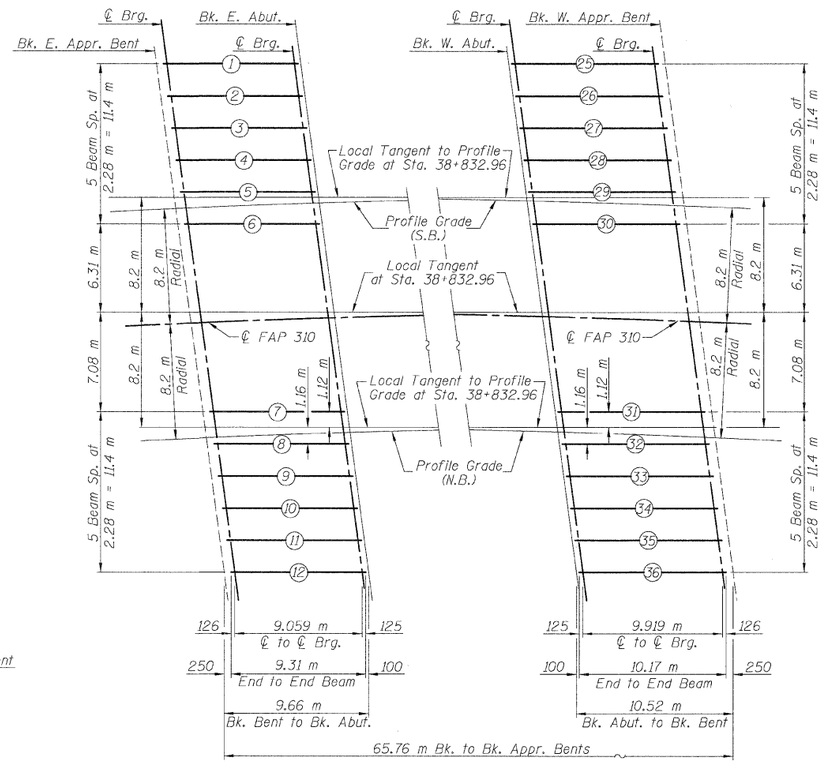
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	125
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



FOOTING LAYOUT



PCC I-BEAM FRAMING PLAN

Note: See Sheets 24 to 27 of 48 for 36" P.P.C. I-Beam Details

DESIGNED	ADL
CHECKED	WLW
DRAWN	DGM/ADL
CHECKED	WLW

FOOTING LAYOUT & PCC I-BEAM FRAMING PLAN FAP RTE 310 (IL RTE 255) OVER CH ROUTE 4 (HUMBERT ROAD) SECTION 60-15HB-1 MADISON COUNTY STATION 38+829.909 S.N. 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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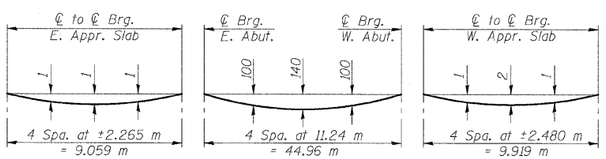
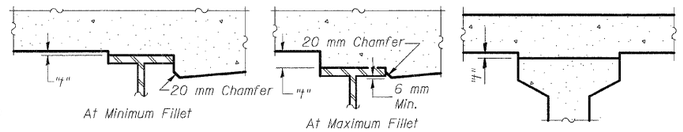


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab and parapet btw'n ℄ Brg. E. Abut and ℄ Brg. W. Abut.)
(Includes weight of concrete slab for E. and W. Appr. Slabs.)

Notes: The dead load deflections diagram is not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and in tables on sheets 5 thru 10 of 48.
All offsets are in meters.
Offsets are measured perpendicular from ℄ FAP 310.
Offsets to the left are negative. Offsets to the right are positive.

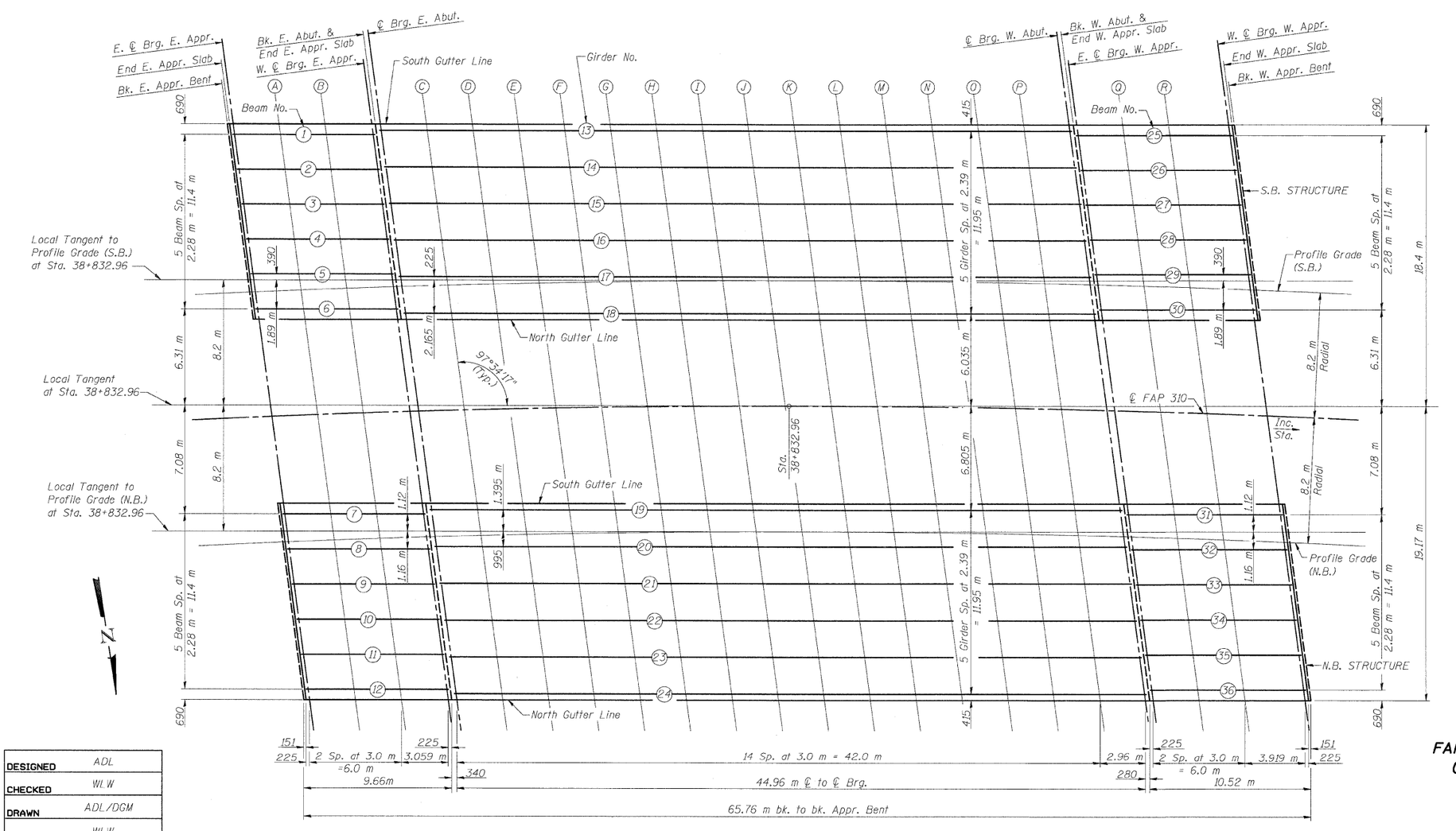


To determine "t": After all structural steel and precast beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below and Sheets 5 thru 10 of 48, minus slab thickness, equals the fillet height "t" above the top flange of beams or girders.

FILLET HEIGHTS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	126
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4
48 SHEETS
* 60-15HB-1 CONTRACT NO. 76635



PLAN

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

TOP OF SLAB ELEVATIONS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	127
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

SOUTH GUTTER LINE EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+799.315	5.670	195.744	195.744
End E. Appr. Slab	38+799.467	5.676	195.748	195.748
E. ℄ Brg. E. Appr.	38+799.693	5.686	195.753	195.753
A	38+802.713	5.808	195.832	195.832
B	38+805.734	5.918	195.910	195.910
W. ℄ Brg. E. Appr.	38+808.814	6.020	195.989	195.989
End E. Appr. Slab	38+809.041	6.026	195.995	195.995

BEAM NO. 7 EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+799.376	6.364	195.708	195.708
End E. Appr. Slab	38+799.529	6.370	195.712	195.712
E. ℄ Brg. E. Appr.	38+799.756	6.379	195.718	195.718
A	38+802.778	6.501	195.796	195.797
B	38+805.801	6.611	195.874	195.875
W. ℄ Brg. E. Appr.	38+808.885	6.712	195.954	195.954
End E. Appr. Slab	38+809.112	6.719	195.959	195.959

BEAM NO. 8 EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+799.583	8.654	195.591	195.591
End E. Appr. Slab	38+799.737	8.661	195.595	195.595
E. ℄ Brg. E. Appr.	38+799.963	8.670	195.600	195.600
A	38+802.995	8.791	195.679	195.680
B	38+806.028	8.900	195.757	195.758
W. ℄ Brg. E. Appr.	38+809.120	9.000	195.836	195.836
End E. Appr. Slab	38+809.348	9.007	195.842	195.842

BEAM NO. 9 EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+799.792	10.945	195.473	195.473
End E. Appr. Slab	38+799.945	10.952	195.477	195.477
E. ℄ Brg. E. Appr.	38+800.173	10.961	195.483	195.483
A	38+803.214	11.081	195.561	195.562
B	38+806.255	11.190	195.639	195.640
W. ℄ Brg. E. Appr.	38+809.357	11.288	195.718	195.718
End E. Appr. Slab	38+809.586	11.294	195.724	195.724

BEAM NO. 10 EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+800.001	13.236	195.356	195.356
End E. Appr. Slab	38+800.155	13.242	195.360	195.360
E. ℄ Brg. E. Appr.	38+800.384	13.252	195.366	195.366
A	38+803.433	13.371	195.444	195.445
B	38+806.484	13.479	195.522	195.523
W. ℄ Brg. E. Appr.	38+809.595	13.576	195.601	195.601
End E. Appr. Slab	38+809.824	13.583	195.607	195.607

BEAM NO. 11 EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+800.212	15.527	195.238	195.238
End E. Appr. Slab	38+800.367	15.533	195.242	195.242
E. ℄ Brg. E. Appr.	38+800.595	15.542	195.248	195.248
A	38+803.654	15.661	195.326	195.327
B	38+806.714	15.767	195.404	195.405
W. ℄ Brg. E. Appr.	38+809.835	15.865	195.483	195.483
End E. Appr. Slab	38+810.064	15.871	195.489	195.489

BEAM NO. 12 EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+800.424	17.817	195.121	195.121
End E. Appr. Slab	38+800.578	17.824	195.125	195.125
E. ℄ Brg. E. Appr.	38+800.809	17.833	195.131	195.131
A	38+803.877	17.951	195.209	195.210
B	38+806.946	18.056	195.287	195.288
W. ℄ Brg. E. Appr.	38+810.076	18.152	195.366	195.366
End E. Appr. Slab	38+810.306	18.159	195.371	195.371

NORTH GUTTER LINE EAST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+800.488	18.510	195.085	195.085
End E. Appr. Slab	38+800.643	18.517	195.089	195.089
E. ℄ Brg. E. Appr.	38+800.873	18.526	195.095	195.095
A	38+803.944	18.644	195.173	195.173
B	38+807.016	18.749	195.251	195.251
W. ℄ Brg. E. Appr.	38+810.149	18.844	195.330	195.330
End E. Appr. Slab	38+810.380	18.852	195.336	195.336

PROFILE GRADE N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+799.543	8.200	195.614	195.614
End E. Appr. Slab	38+799.695	8.200	195.618	195.618
E. ℄ Brg. E. Appr.	38+799.921	8.200	195.625	195.625
A	38+802.939	8.200	195.709	195.710
B	38+805.959	8.200	195.793	195.794
W. ℄ Brg. E. Appr.	38+809.038	8.200	195.877	195.877
End E. Appr. Slab	38+809.265	8.200	195.883	195.883
℄ Brg. E. Abut.	38+809.607	8.200	195.893	195.893
C	38+812.629	8.200	195.974	196.004
D	38+815.652	8.200	196.054	196.113
E	38+818.676	8.200	196.134	196.218
F	38+821.702	8.200	196.212	196.317
G	38+824.729	8.200	196.289	196.411
H	38+827.757	8.200	196.365	196.498
I	38+830.787	8.200	196.440	196.579
J	38+833.819	8.200	196.514	196.653
K	38+836.852	8.200	196.587	196.720
L	38+839.887	8.200	196.659	196.781
M	38+842.923	8.200	196.730	196.835
N	38+845.961	8.200	196.800	196.884
O	38+849.001	8.200	196.869	196.928
P	38+852.043	8.200	196.937	196.967
℄ Brg. W. Abut.	38+855.046	8.200	197.003	197.003
End W. Appr. Slab	38+855.330	8.200	197.009	197.009
E. ℄ Brg. W. Appr.	38+855.559	8.200	197.014	197.014
Q	38+858.605	8.200	197.079	197.081
R	38+861.652	8.200	197.144	197.146
W. ℄ Brg. W. Appr.	38+865.637	8.200	197.227	197.227
End W. Appr. Slab	38+865.865	8.200	197.231	197.231
Bk. W. Appr. Bent	38+866.019	8.200	197.234	197.234

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

TOP OF SLAB ELEVATIONS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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GIRDER NO. 19 N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+809.427	6.453	195.982	195.982
C	38+812.451	6.537	196.059	196.089
D	38+815.474	6.611	196.136	196.195
E	38+818.500	6.672	196.212	196.296
F	38+821.525	6.722	196.288	196.393
G	38+824.551	6.760	196.363	196.485
H	38+827.578	6.787	196.438	196.571
I	38+830.604	6.801	196.513	196.652
J	38+833.631	6.805	196.587	196.726
K	38+836.657	6.796	196.660	196.793
L	38+839.683	6.777	196.733	196.855
M	38+842.709	6.744	196.806	196.911
N	38+845.735	6.701	196.878	196.962
O	38+848.760	6.646	196.950	197.009
P	38+851.785	6.580	197.021	197.051
℄ Brg. W. Abut.	38+854.769	6.502	197.091	197.091

GIRDER NO. 20 N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+809.675	8.852	195.859	195.859
C	38+812.708	8.935	195.936	195.966
D	38+815.742	9.008	196.013	196.072
E	38+818.776	9.068	196.089	196.173
F	38+821.811	9.117	196.165	196.270
G	38+824.847	9.153	196.240	196.362
H	38+827.882	9.179	196.315	196.448
I	38+830.918	9.192	196.389	196.528
J	38+833.954	9.195	196.463	196.602
K	38+836.990	9.185	196.536	196.669
L	38+840.026	9.164	196.609	196.731
M	38+843.060	9.130	196.682	196.787
N	38+846.096	9.086	196.754	196.838
O	38+849.130	9.029	196.826	196.885
P	38+852.165	8.962	196.897	196.927
℄ Brg. W. Abut.	38+855.157	8.883	196.967	196.967

GIRDER NO. 21 N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+809.925	11.250	195.736	195.736
C	38+812.968	11.333	195.813	195.843
D	38+816.010	11.403	195.889	195.948
E	38+819.054	11.463	195.965	196.049
F	38+822.099	11.510	196.041	196.146
G	38+825.144	11.547	196.116	196.238
H	38+828.189	11.570	196.191	196.324
I	38+831.234	11.583	196.265	196.404
J	38+834.280	11.584	196.339	196.478
K	38+837.325	11.573	196.413	196.546
L	38+840.370	11.550	196.486	196.608
M	38+843.414	11.516	196.558	196.663
N	38+846.459	11.470	196.630	196.714
O	38+849.503	11.412	196.702	196.761
P	38+852.547	11.342	196.773	196.803
℄ Brg. W. Abut.	38+855.549	11.263	196.843	196.843

GIRDER NO. 22 N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+810.176	13.648	195.613	195.613
C	38+813.228	13.729	195.690	195.720
D	38+816.282	13.800	195.766	195.825
E	38+819.334	13.858	195.842	195.926
F	38+822.388	13.905	195.918	196.023
G	38+825.443	13.939	195.993	196.115
H	38+828.498	13.963	196.068	196.201
I	38+831.552	13.973	196.142	196.281
J	38+834.607	13.973	196.216	196.355
K	38+837.662	13.961	196.289	196.422
L	38+840.717	13.937	196.362	196.484
M	38+843.771	13.901	196.435	196.540
N	38+846.824	13.854	196.507	196.591
O	38+849.878	13.794	196.578	196.637
P	38+852.931	13.724	196.649	196.679
℄ Brg. W. Abut.	38+855.943	13.643	196.719	196.719

GIRDER NO. 23 N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+810.429	16.047	195.489	195.489
C	38+813.491	16.127	195.566	195.596
D	38+816.554	16.196	195.643	195.702
E	38+819.616	16.253	195.719	195.803
F	38+822.680	16.299	195.794	195.899
G	38+825.744	16.332	195.869	195.991
H	38+828.808	16.355	195.944	196.077
I	38+831.872	16.364	196.018	196.157
J	38+834.937	16.363	196.092	196.231
K	38+838.001	16.349	196.165	196.298
L	38+841.065	16.324	196.238	196.360
M	38+844.129	16.287	196.311	196.416
N	38+847.192	16.238	196.383	196.467
O	38+850.255	16.177	196.454	196.513
P	38+853.318	16.105	196.525	196.555
℄ Brg. W. Abut.	38+856.339	16.022	196.595	196.595

GIRDER NO. 24 N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+810.683	18.444	195.366	195.366
C	38+813.755	18.524	195.443	195.473
D	38+816.828	18.592	195.519	195.578
E	38+819.901	18.648	195.595	195.679
F	38+822.973	18.692	195.671	195.776
G	38+826.047	18.725	195.746	195.868
H	38+829.120	18.746	195.820	195.953
I	38+832.194	18.755	195.895	196.034
J	38+835.268	18.751	195.968	196.107
K	38+838.342	18.737	196.042	196.175
L	38+841.416	18.710	196.114	196.236
M	38+844.490	18.672	196.187	196.292
N	38+847.563	18.621	196.259	196.343
O	38+850.635	18.560	196.330	196.389
P	38+853.707	18.485	196.402	196.432
℄ Brg. W. Abut.	38+856.738	18.401	196.471	196.471

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

TOP OF SLAB ELEVATIONS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	129
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

SOUTH GUTTER LINE WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+854.984	6.081	197.119	197.119
E. ℄ Brg. W. Appr.	38+855.211	6.075	197.125	197.125
Q	38+858.233	5.984	197.195	197.195
R	38+861.254	5.881	197.265	197.265
W. ℄ Brg. W. Appr.	38+865.199	5.728	197.356	197.356
End W. Appr. Slab	38+865.425	5.720	197.361	197.361
Bk. W. Appr. Bent	38+865.578	5.713	197.364	197.364

BEAM NO. 31 WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+855.096	6.768	197.084	197.084
E. ℄ Brg. W. Appr.	38+855.323	6.763	197.089	197.089
Q	38+858.347	6.670	197.159	197.161
R	38+861.372	6.567	197.229	197.231
W. ℄ Brg. W. Appr.	38+865.320	6.414	197.320	197.320
End W. Appr. Slab	38+865.547	6.405	197.325	197.325
Bk. W. Appr. Bent	38+865.700	6.399	197.329	197.329

BEAM NO. 32 WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+855.468	9.039	196.965	196.965
E. ℄ Brg. W. Appr.	38+855.695	9.032	196.971	196.971
Q	38+858.729	8.939	197.041	197.043
R	38+861.762	8.834	197.111	197.113
W. ℄ Brg. W. Appr.	38+865.722	8.680	197.202	197.202
End W. Appr. Slab	38+865.949	8.670	197.207	197.207
Bk. W. Appr. Bent	38+866.102	8.664	197.210	197.210

BEAM NO. 33 WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+855.842	11.310	196.847	196.847
E. ℄ Brg. W. Appr.	38+856.070	11.303	196.852	196.852
Q	38+859.113	11.208	196.923	196.925
R	38+862.155	11.101	196.992	196.994
W. ℄ Brg. W. Appr.	38+866.126	10.945	197.083	197.083
End W. Appr. Slab	38+866.354	10.935	197.088	197.088
Bk. W. Appr. Bent	38+866.507	10.929	197.092	197.092

BEAM NO. 34 WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+856.218	13.580	196.729	196.729
E. ℄ Brg. W. Appr.	38+856.448	13.573	196.734	196.734
Q	38+859.499	13.476	196.804	196.806
R	38+862.550	13.369	196.874	196.876
W. ℄ Brg. W. Appr.	38+866.533	13.210	196.965	196.965
End W. Appr. Slab	38+866.762	13.200	196.970	196.970
Bk. W. Appr. Bent	38+866.915	13.193	196.973	196.973

BEAM NO. 35 WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+856.597	15.849	196.610	196.610
E. ℄ Brg. W. Appr.	38+856.827	15.843	196.616	196.616
Q	38+859.887	15.745	196.686	196.688
R	38+862.947	15.636	196.756	196.758
W. ℄ Brg. W. Appr.	38+866.942	15.474	196.846	196.846
End W. Appr. Slab	38+867.171	15.465	196.851	196.851
Bk. W. Appr. Bent	38+867.325	15.458	196.855	196.855

BEAM NO. 36 WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+856.978	18.119	196.492	196.492
E. ℄ Brg. W. Appr.	38+857.208	18.112	196.497	196.497
Q	38+860.278	18.013	196.568	196.570
R	38+863.346	17.902	196.637	196.639
W. ℄ Brg. W. Appr.	38+867.353	17.739	196.728	196.728
End W. Appr. Slab	38+867.583	17.729	196.733	196.733
Bk. W. Appr. Bent	38+867.738	17.723	196.736	196.736

NORTH GUTTER LINE WEST ABUTMENT N.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+857.094	18.806	196.456	196.456
E. ℄ Brg. W. Appr.	38+857.324	18.798	196.462	196.462
Q	38+860.396	18.699	196.532	196.532
R	38+863.468	18.587	196.602	196.602
W. ℄ Brg. W. Appr.	38+867.478	18.425	196.692	196.692
End W. Appr. Slab	38+867.708	18.414	196.697	196.697
Bk. W. Appr. Bent	38+867.863	18.408	196.701	196.701

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

TOP OF SLAB ELEVATIONS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. F. 310	*	MADISON	239	130
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

SOUTH GUTTER LINE EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+797.145	-19.242	196.139	196.139
End E. Appr. Slab	38+797.292	-19.236	196.143	196.143
E. ℄ Brg. E. Appr.	38+797.511	-19.225	196.149	196.149
A	38+800.437	-19.095	196.226	196.226
B	38+803.363	-18.975	196.303	196.303
W. ℄ Brg. E. Appr.	38+806.347	-18.865	196.381	196.381
End E. Appr. Slab	38+806.567	-18.858	196.386	196.386

BEAM NO. 1 EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+797.204	-18.549	196.104	196.104
End E. Appr. Slab	38+797.351	-18.542	196.108	196.108
E. ℄ Brg. E. Appr.	38+797.571	-18.532	196.113	196.113
A	38+800.499	-18.402	196.191	196.192
B	38+803.428	-18.282	196.267	196.268
W. ℄ Brg. E. Appr.	38+806.415	-18.172	196.345	196.345
End E. Appr. Slab	38+806.634	-18.165	196.351	196.351

BEAM NO. 2 EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+797.398	-16.257	195.986	195.986
End E. Appr. Slab	38+797.545	-16.251	195.990	195.990
E. ℄ Brg. E. Appr.	38+797.766	-16.240	195.996	195.996
A	38+800.703	-16.111	196.073	196.074
B	38+803.640	-15.992	196.150	196.151
W. ℄ Brg. E. Appr.	38+806.636	-15.883	196.227	196.227
End E. Appr. Slab	38+806.855	-15.876	196.233	196.233

BEAM NO. 3 EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+797.593	-13.967	195.869	195.869
End E. Appr. Slab	38+797.741	-13.959	195.872	195.872
E. ℄ Brg. E. Appr.	38+797.963	-13.949	195.878	195.878
A	38+800.908	-13.820	195.955	195.956
B	38+803.853	-13.703	196.032	196.033
W. ℄ Brg. E. Appr.	38+806.857	-13.595	196.110	196.110
End E. Appr. Slab	38+807.078	-13.587	196.115	196.115

BEAM NO. 4 EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+797.789	-11.675	195.751	195.751
End E. Appr. Slab	38+797.938	-11.668	195.755	195.755
E. ℄ Brg. E. Appr.	38+798.160	-11.658	195.761	195.761
A	38+801.114	-11.530	195.838	195.839
B	38+804.067	-11.413	195.914	195.915
W. ℄ Brg. E. Appr.	38+807.080	-11.306	195.992	195.992
End E. Appr. Slab	38+807.302	-11.298	195.997	195.997

BEAM NO. 5 EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+797.987	-9.383	195.633	195.633
End E. Appr. Slab	38+798.136	-9.377	195.637	195.637
E. ℄ Brg. E. Appr.	38+798.359	-9.366	195.643	195.643
A	38+801.320	-9.239	195.720	195.721
B	38+804.283	-9.123	195.797	195.798
W. ℄ Brg. E. Appr.	38+807.305	-9.017	195.874	195.874
End E. Appr. Slab	38+807.528	-9.010	195.880	195.880

BEAM NO. 6 EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+798.186	-7.092	195.516	195.516
End E. Appr. Slab	38+798.336	-7.086	195.520	195.520
E. ℄ Brg. E. Appr.	38+798.558	-7.076	195.525	195.525
A	38+801.529	-6.949	195.602	195.603
B	38+804.500	-6.834	195.679	195.680
W. ℄ Brg. E. Appr.	38+807.531	-6.728	195.756	195.756
End E. Appr. Slab	38+807.754	-6.721	195.762	195.762

NORTH GUTTER LINE EAST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+798.247	-6.398	195.480	195.480
End E. Appr. Slab	38+798.396	-6.392	195.484	195.484
E. ℄ Brg. E. Appr.	38+798.619	-6.383	195.490	195.490
A	38+801.593	-6.256	195.567	195.567
B	38+804.567	-6.141	195.643	195.643
W. ℄ Brg. E. Appr.	38+807.600	-6.035	195.721	195.721
End E. Appr. Slab	38+807.823	-6.028	195.726	195.726

PROFILE GRADE S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Appr. Bent	38+798.090	-8.200	195.573	195.573
End E. Appr. Slab	38+798.239	-8.200	195.577	195.577
E. ℄ Brg. E. Appr.	38+798.460	-8.200	195.583	195.583
A	38+801.415	-8.200	195.667	195.668
B	38+804.371	-8.200	195.749	195.750
W. ℄ Brg. E. Appr.	38+807.386	-8.200	195.832	195.832
End E. Appr. Slab	38+807.607	-8.200	195.838	195.838
℄ Brg. E. Abut.	38+807.943	-8.200	195.847	195.847
C	38+810.901	-8.200	195.928	195.958
D	38+813.860	-8.200	196.007	196.066
E	38+816.821	-8.200	196.085	196.169
F	38+819.783	-8.200	196.162	196.267
G	38+822.746	-8.200	196.239	196.361
H	38+825.711	-8.200	196.314	196.447
I	38+828.677	-8.200	196.388	196.527
J	38+831.644	-8.200	196.461	196.600
K	38+834.613	-8.200	196.534	196.667
L	38+837.583	-8.200	196.605	196.727
M	38+840.555	-8.200	196.675	196.780
N	38+843.529	-8.200	196.744	196.828
O	38+846.504	-8.200	196.813	196.872
P	38+849.481	-8.200	196.880	196.910
℄ Brg. W. Abut.	38+852.420	-8.200	196.945	196.945
End W. Appr. Slab	38+852.698	-8.200	196.951	196.951
E. ℄ Brg. W. Appr.	38+852.922	-8.200	196.956	196.956
Q	38+855.903	-8.200	197.021	197.023
R	38+858.885	-8.200	197.085	197.087
W. ℄ Brg. W. Appr.	38+862.784	-8.200	197.168	197.168
End W. Appr. Slab	38+863.008	-8.200	197.172	197.172
Bk. W. Appr. Bent	38+863.159	-8.200	197.175	197.175

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

TOP OF SLAB ELEVATIONS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	131
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 9
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

GIRDER NO. 13 S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+806.939	-18.430	196.374	196.374
C	38+809.869	-18.335	196.449	196.479
D	38+812.799	-18.252	196.525	196.584
E	38+815.730	-18.180	196.600	196.684
F	38+818.661	-18.120	196.674	196.779
G	38+821.592	-18.070	196.748	196.870
H	38+824.524	-18.032	196.822	196.955
I	38+827.456	-18.005	196.895	197.034
J	38+830.389	-17.990	196.968	197.107
K	38+833.321	-17.985	197.041	197.174
L	38+836.254	-17.992	197.113	197.235
M	38+839.186	-18.010	197.184	197.289
N	38+842.118	-18.040	197.256	197.340
O	38+845.050	-18.081	197.326	197.385
P	38+847.981	-18.133	197.397	197.427
℄ Brg. W. Abut.	38+850.873	-18.195	197.466	197.466

GIRDER NO. 14 S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+807.172	-16.030	196.250	196.250
C	38+810.111	-15.937	196.326	196.356
D	38+813.050	-15.854	196.401	196.460
E	38+815.989	-15.784	196.476	196.560
F	38+818.930	-15.724	196.551	196.656
G	38+821.869	-15.676	196.625	196.747
H	38+824.810	-15.638	196.698	196.831
I	38+827.751	-15.613	196.772	196.911
J	38+830.692	-15.598	196.844	196.983
K	38+833.634	-15.596	196.917	197.050
L	38+836.575	-15.604	196.989	197.111
M	38+839.516	-15.624	197.060	197.165
N	38+842.457	-15.654	197.132	197.216
O	38+845.398	-15.697	197.202	197.261
P	38+848.337	-15.750	197.273	197.303
℄ Brg. W. Abut.	38+851.239	-15.813	197.342	197.342

GIRDER NO. 15 S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+807.407	-13.631	196.127	196.127
C	38+810.354	-13.538	196.202	196.232
D	38+813.302	-13.457	196.278	196.337
E	38+816.251	-13.387	196.353	196.437
F	38+819.200	-13.328	196.427	196.532
G	38+822.149	-13.281	196.501	196.623
H	38+825.098	-13.245	196.575	196.708
I	38+828.048	-13.221	196.648	196.787
J	38+830.998	-13.207	196.721	196.860
K	38+833.948	-13.206	196.793	196.926
L	38+836.898	-13.215	196.865	196.987
M	38+839.848	-13.236	196.937	197.042
N	38+842.798	-13.268	197.008	197.092
O	38+845.747	-13.312	197.078	197.137
P	38+848.697	-13.366	197.149	197.179
℄ Brg. W. Abut.	38+851.606	-13.432	197.218	197.218

GIRDER NO. 16 S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+807.642	-11.232	196.003	196.003
C	38+810.599	-11.140	196.079	196.109
D	38+813.556	-11.060	196.154	196.213
E	38+816.513	-10.991	196.229	196.313
F	38+819.471	-10.934	196.303	196.408
G	38+822.430	-10.887	196.377	196.499
H	38+825.387	-10.853	196.451	196.584
I	38+828.346	-10.829	196.524	196.663
J	38+831.305	-10.817	196.597	196.736
K	38+834.264	-10.816	196.669	196.802
L	38+837.223	-10.827	196.741	196.863
M	38+840.182	-10.849	196.813	196.918
N	38+843.141	-10.883	196.884	196.968
O	38+846.099	-10.927	196.954	197.013
P	38+849.057	-10.984	197.025	197.055
℄ Brg. W. Abut.	38+851.975	-11.050	197.094	197.094

GIRDER NO. 17 S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+807.880	-8.833	195.880	195.880
C	38+810.845	-8.742	195.955	195.985
D	38+813.811	-8.663	196.031	196.090
E	38+816.777	-8.594	196.105	196.189
F	38+819.744	-8.538	196.180	196.285
G	38+822.712	-8.493	196.254	196.376
H	38+825.679	-8.460	196.327	196.460
I	38+828.646	-8.437	196.400	196.539
J	38+831.614	-8.426	196.473	196.612
K	38+834.583	-8.426	196.545	196.678
L	38+837.550	-8.439	196.617	196.739
M	38+840.518	-8.462	196.689	196.794
N	38+843.486	-8.497	196.760	196.844
O	38+846.453	-8.543	196.830	196.889
P	38+849.420	-8.601	196.901	196.931
℄ Brg. W. Abut.	38+852.347	-8.668	196.970	196.970

GIRDER NO. 18 S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. E. Abut.	38+808.118	-6.434	195.756	195.756
C	38+811.093	-6.344	195.832	195.862
D	38+814.068	-6.265	195.907	195.966
E	38+817.043	-6.199	195.982	196.066
F	38+820.019	-6.143	196.056	196.161
G	38+822.996	-6.099	196.130	196.252
H	38+825.973	-6.066	196.204	196.337
I	38+828.948	-6.046	196.277	196.416
J	38+831.926	-6.035	196.349	196.488
K	38+834.903	-6.038	196.422	196.555
L	38+837.880	-6.050	196.493	196.615
M	38+840.856	-6.076	196.565	196.670
N	38+843.833	-6.111	196.636	196.720
O	38+846.809	-6.159	196.706	196.765
P	38+849.785	-6.218	196.777	196.807
℄ Brg. W. Abut.	38+852.721	-6.288	196.846	196.846

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

TOP OF SLAB ELEVATIONS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	132
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

SOUTH GUTTER LINE WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+851.084	-18.615	197.494	197.494
E. ℄ Brg. W. Appr.	38+851.303	-18.621	197.499	197.499
Q	38+854.232	-18.697	197.569	197.569
R	38+857.161	-18.785	197.638	197.638
W. ℄ Brg. W. Appr.	38+860.984	-18.915	197.728	197.728
End W. Appr. Slab	38+861.204	-18.924	197.733	197.733
Bk. W. Appr. Bent	38+861.351	-18.930	197.736	197.736

BEAM NO. 25 WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+851.189	-17.928	197.458	197.458
E. ℄ Brg. W. Appr.	38+851.409	-17.933	197.463	197.463
Q	38+854.340	-18.009	197.533	197.535
R	38+857.271	-18.098	197.602	197.604
W. ℄ Brg. W. Appr.	38+861.099	-18.229	197.692	197.692
End W. Appr. Slab	38+861.318	-18.238	197.719	197.719
Bk. W. Appr. Bent	38+861.466	-18.244	197.700	197.700

BEAM NO. 26 WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+851.538	-15.656	197.340	197.340
E. ℄ Brg. W. Appr.	38+851.758	-15.661	197.345	197.345
Q	38+854.698	-15.739	197.415	197.417
R	38+857.637	-15.828	197.484	197.486
W. ℄ Brg. W. Appr.	38+861.476	-15.962	197.573	197.573
End W. Appr. Slab	38+861.696	-15.970	197.578	197.578
Bk. W. Appr. Bent	38+861.844	-15.976	197.582	197.582

BEAM NO. 27 WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+851.889	-13.384	197.221	197.221
E. ℄ Brg. W. Appr.	38+852.110	-13.389	197.227	197.227
Q	38+855.058	-13.468	197.296	197.298
R	38+858.006	-13.559	197.365	197.367
W. ℄ Brg. W. Appr.	38+861.856	-13.695	197.455	197.455
End W. Appr. Slab	38+862.076	-13.702	197.460	197.460
Bk. W. Appr. Bent	38+862.225	-13.709	197.463	197.463

BEAM NO. 28 WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+852.243	-11.112	197.103	197.103
E. ℄ Brg. W. Appr.	38+852.464	-11.118	197.108	197.108
Q	38+855.421	-11.198	197.178	197.180
R	38+858.377	-11.290	197.247	197.249
W. ℄ Brg. W. Appr.	38+862.236	-11.427	197.336	197.336
End W. Appr. Slab	38+862.458	-11.436	197.341	197.341
Bk. W. Appr. Bent	38+862.608	-11.441	197.345	197.345

BEAM NO. 29 WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+852.598	-8.840	196.985	196.985
E. ℄ Brg. W. Appr.	38+852.820	-8.846	196.990	196.990
Q	38+855.785	-8.927	197.059	197.061
R	38+858.750	-9.021	197.128	197.130
W. ℄ Brg. W. Appr.	38+862.621	-9.160	197.218	197.218
End W. Appr. Slab	38+862.843	-9.169	197.223	197.223
Bk. W. Appr. Bent	38+862.993	-9.175	197.226	197.226

BEAM NO. 30 WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+852.956	-6.569	196.866	196.866
E. ℄ Brg. W. Appr.	38+853.178	-6.574	196.872	196.872
Q	38+856.152	-6.658	196.941	196.943
R	38+859.125	-6.752	197.010	197.012
W. ℄ Brg. W. Appr.	38+863.007	-6.894	197.099	197.099
End W. Appr. Slab	38+863.230	-6.902	197.104	197.104
Bk. W. Appr. Bent	38+863.379	-6.908	197.108	197.108

NORTH GUTTER LINE WEST ABUTMENT S.B. STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
End W. Appr. Slab	38+853.064	-5.881	196.831	196.831
E. ℄ Brg. W. Appr.	38+853.286	-5.887	196.836	196.836
Q	38+856.263	-5.971	196.905	196.905
R	38+859.238	-6.066	196.974	196.974
W. ℄ Brg. W. Appr.	38+863.124	-6.208	197.063	197.063
End W. Appr. Slab	38+863.347	-6.216	197.069	197.069
Bk. W. Appr. Bent	38+863.497	-6.223	197.072	197.072

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

TOP OF SLAB ELEVATIONS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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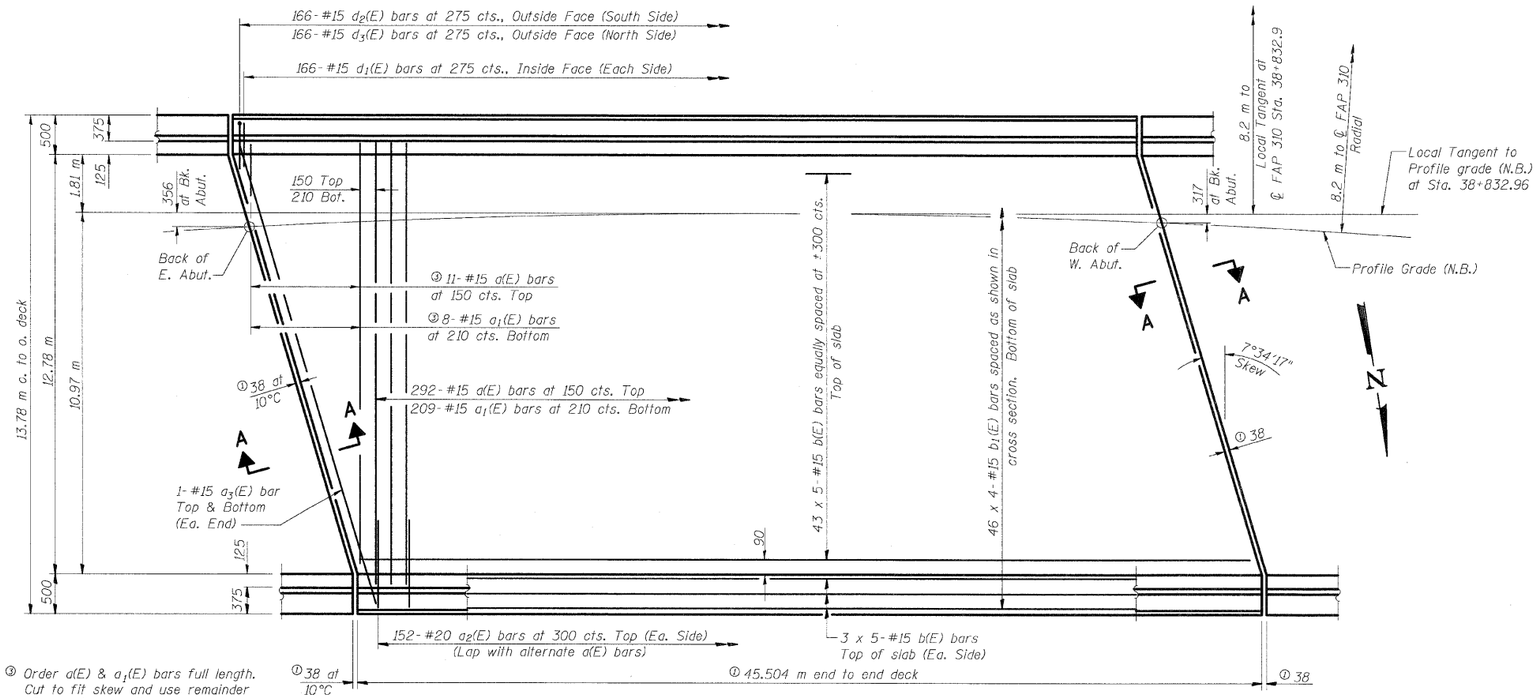
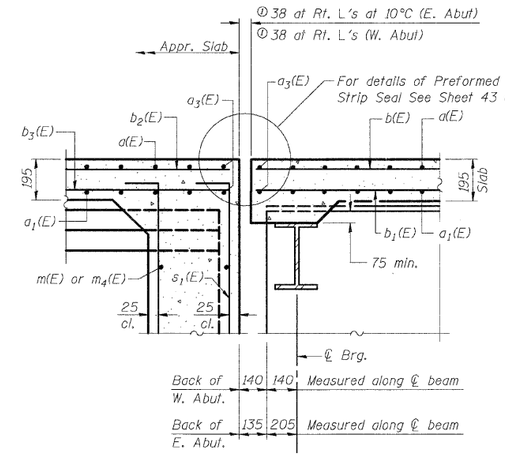
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. R. A. P. 310	*	MADISON	239	133
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 11
48 SHEETS

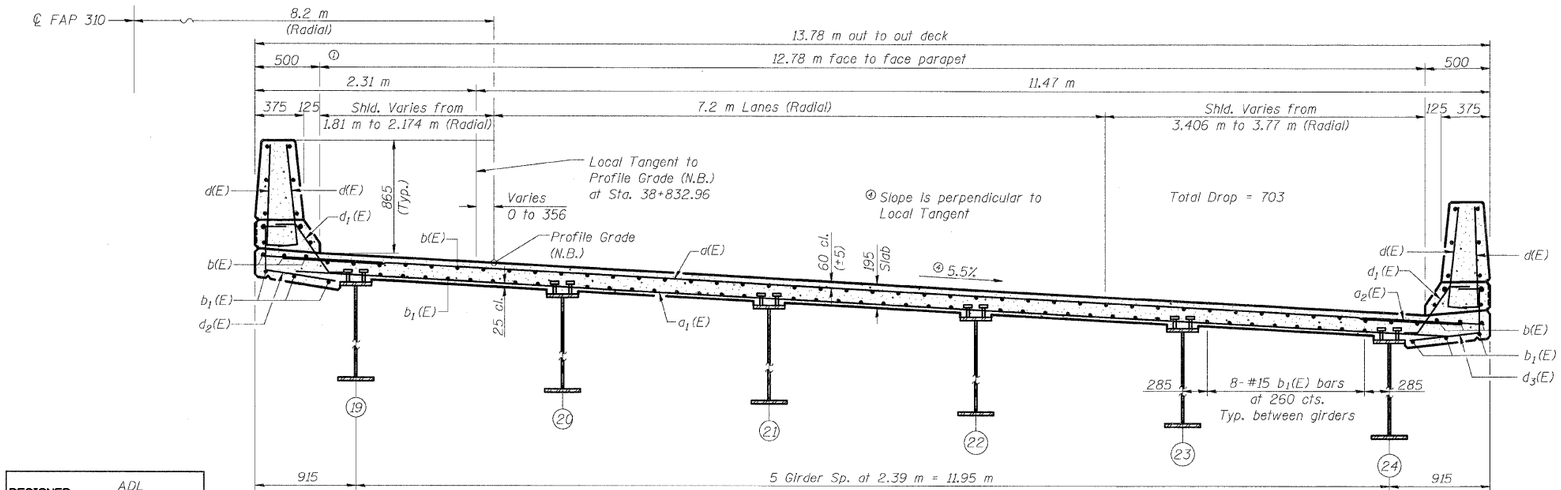
* 60-15HB-1 CONTRACT NO. 76635



PLAN



SECTION A-A



CROSS SECTION
(Looking West)

Notes: See Sheet 13 of 48 for superstructure details and Bill of Materials.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 13 of 48 for parapet reinforcement.
① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 43 of 48.

Min. Lap
#15 bars = 640

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

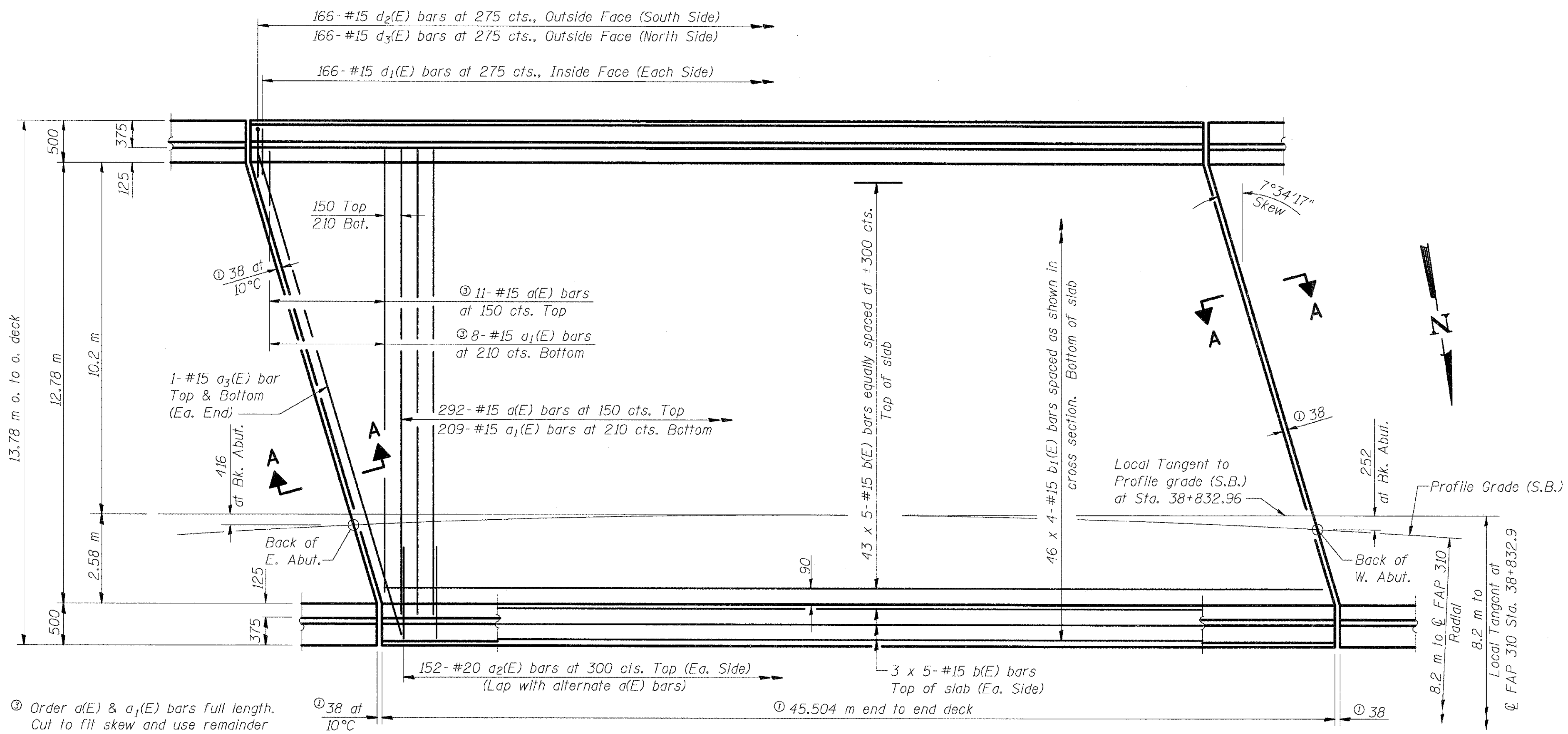
N.B. SUPERSTRUCTURE
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B. L. F.A.P. 310	*	MADISON	239	134
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

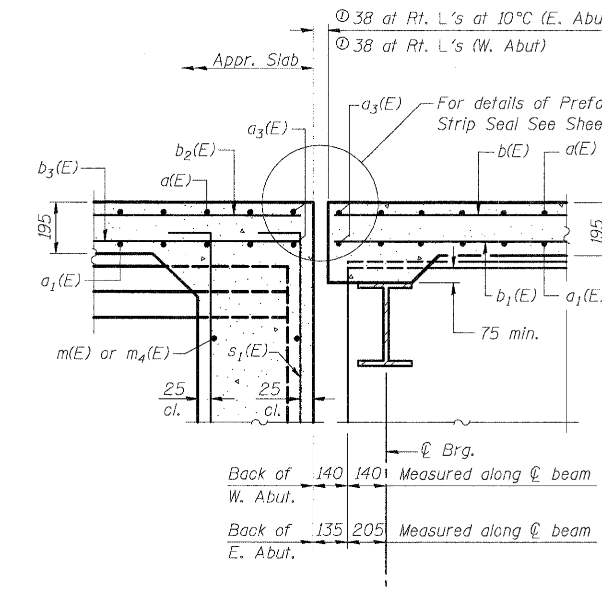
SHEET NO. 12
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

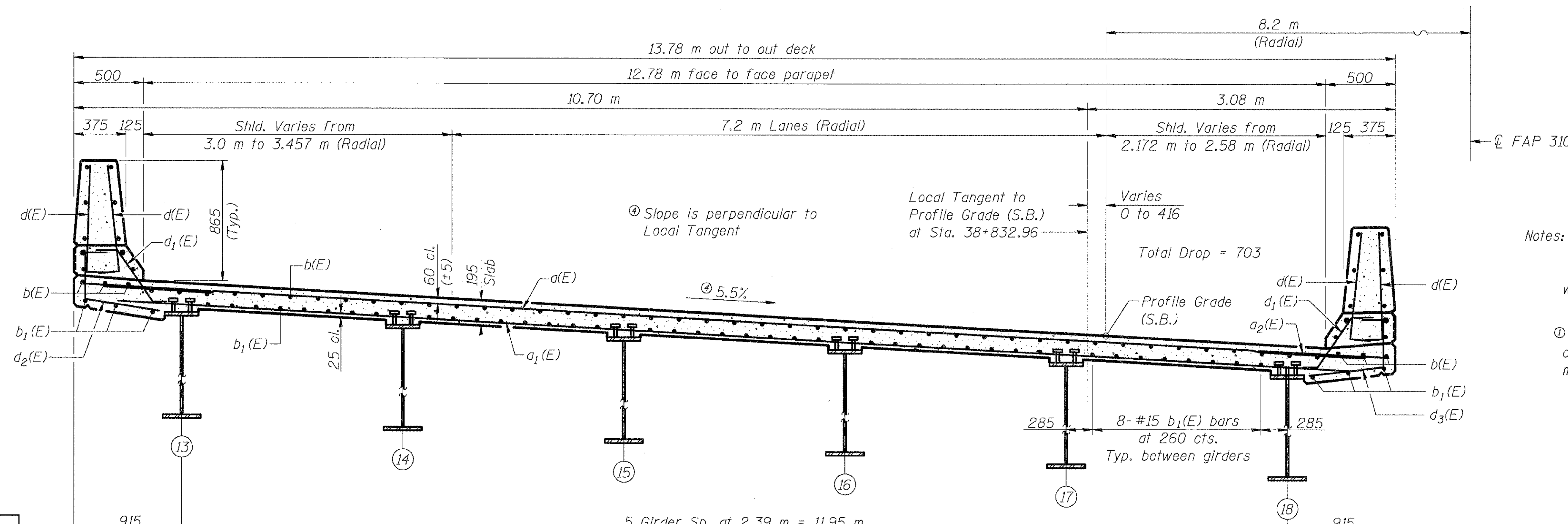


③ Order a(E) & a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PLAN



SECTION A-A



CROSS SECTION
(Looking West)

Notes: See Sheet 13 of 48 for superstructure details and Bill of Materials.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 13 of 48 for parapet reinforcement.
① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 43 of 48.
Bars in Appr. Slab are billed with Appr. Slab.

Min. Lap
#15 bars = 640

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

S.B. SUPERSTRUCTURE
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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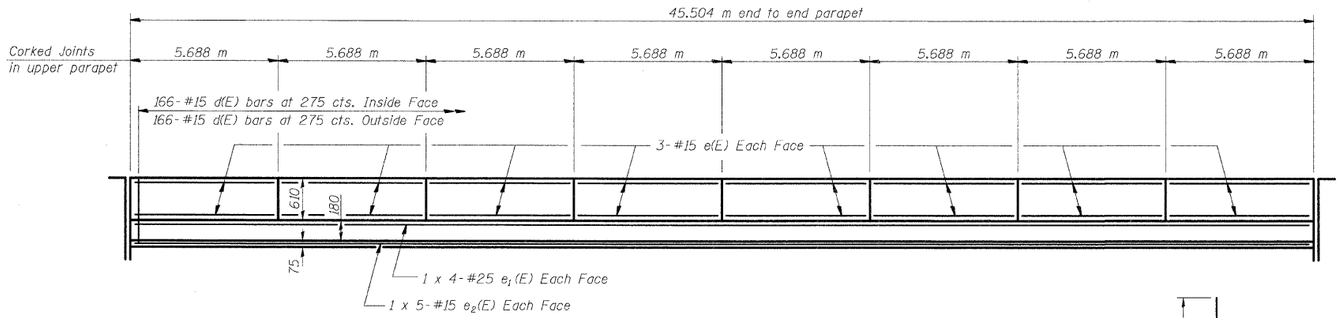
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	135
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 13
48 SHEETS

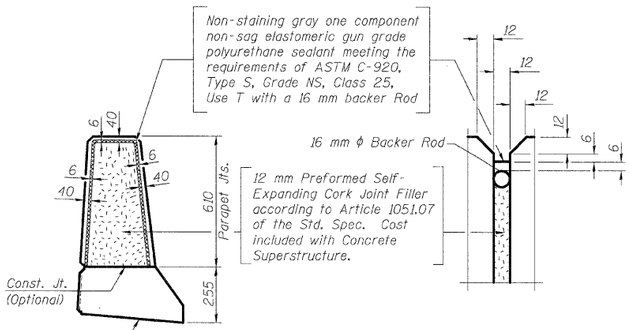
* 60-15HB-1 CONTRACT NO. 76635



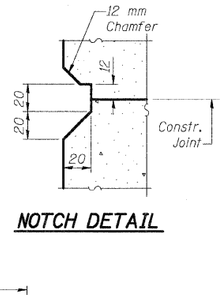
INSIDE ELEVATION OF PARAPETS

Min. Bar Lap
#15 bars-640
#25 bars-1.32 m

Notes:
See Sheet 11 of 48 for N.B. Superstructure
See Sheet 12 of 48 for S.B. Superstructure



PARAPET JOINT DETAILS



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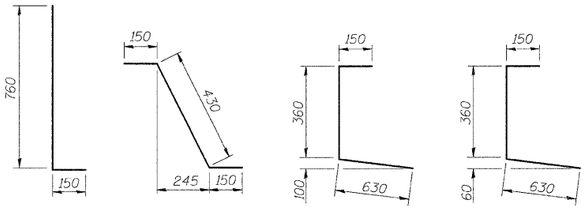


BAR d(E) BAR d_1(E) BAR d_2(E) BAR d_3(E)

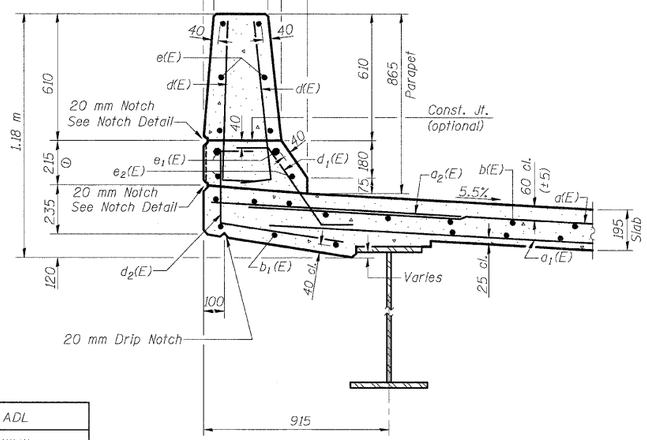
N.B. SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
d(E)	303	#15	13.34	
a_1(E)	217	#15	13.14	
a_2(E)	304	#20	1.20	
a_3(E)	4	#15	13.40	
b(E)	245	#15	9.62	
b_1(E)	184	#15	11.86	
d(E)	664	#15	0.91	
d_1(E)	332	#15	0.73	
d_2(E)	166	#15	1.14	
d_3(E)	166	#15	1.14	
e(E)	96	#15	5.61	
e_1(E)	16	#25	12.38	
e_2(E)	20	#15	9.62	
Reinforcement Bars, Epoxy Coated		kg	22,740	
Concrete Superstructure		m^3	159.4	
Bridge Deck Grooving		m^2	582	
Protective Coat		m^2	688	
Form Liner Textured Surface		m^2	23	

S.B. SUPERSTRUCTURE BILL OF MATERIAL

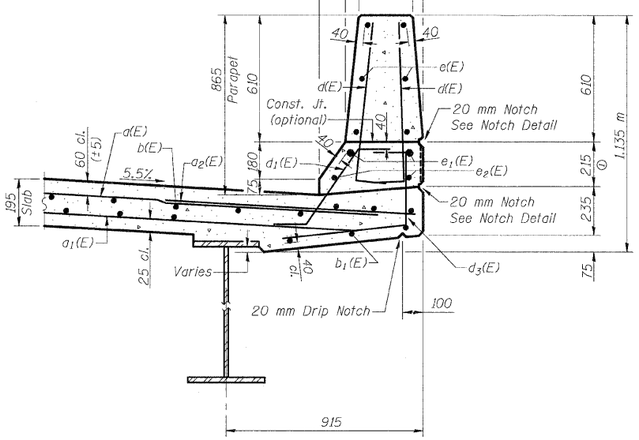
Bar	No.	Size	Length (m)	Shape
d(E)	303	#15	13.34	
a_1(E)	217	#15	13.14	
a_2(E)	304	#20	1.20	
a_3(E)	4	#15	13.40	
b(E)	245	#15	9.62	
b_1(E)	184	#15	11.86	
d(E)	664	#15	0.91	
d_1(E)	332	#15	0.73	
d_2(E)	166	#15	1.14	
d_3(E)	156	#15	1.14	
e(E)	96	#15	5.61	
e_1(E)	16	#25	12.38	
e_2(E)	20	#15	9.62	
Reinforcement Bars, Epoxy Coated		kg	22,740	
Concrete Superstructure		m^3	159.4	
Bridge Deck Grooving		m^2	582	
Protective Coat		m^2	688	
Form Liner Textured Surface		m^2	23	

Bars indicated thus 1 x 5-#15 etc. indicates 1 line of bars with 5 lengths per line.



SECTION THRU SOUTH PARAPETS

① Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.



SECTION THRU NORTH PARAPETS

① Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SUPERSTRUCTURE DETAILS
FAP RTE. 310 (IL RTE. 255) OVER CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	136
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 14
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

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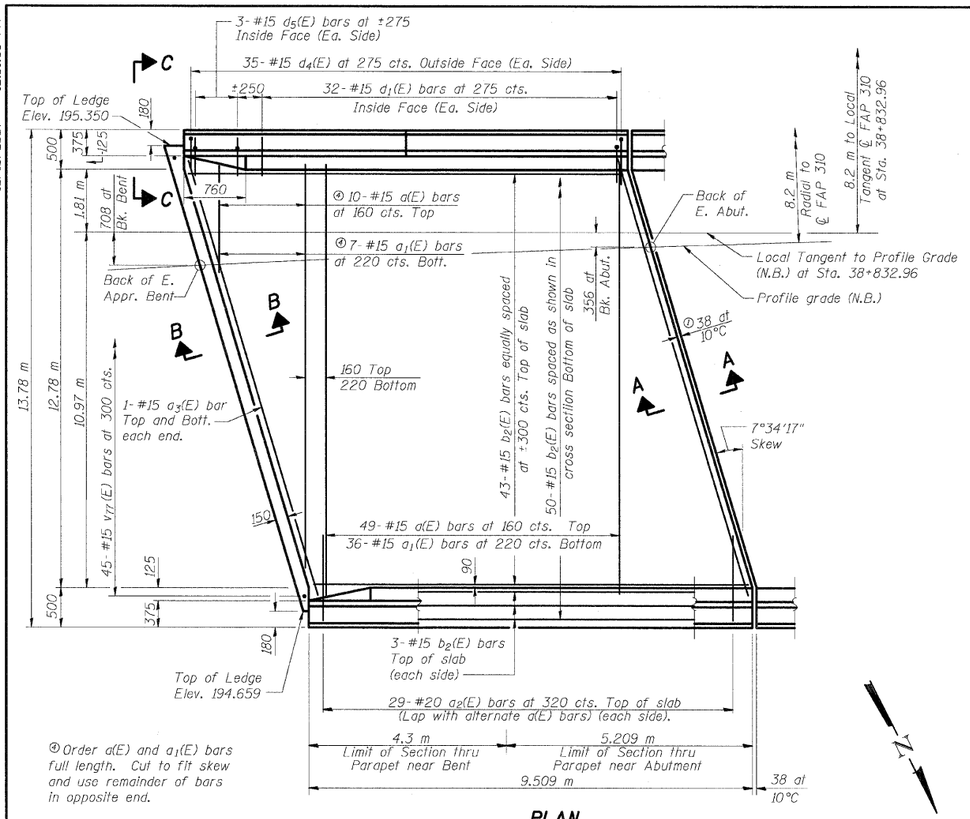
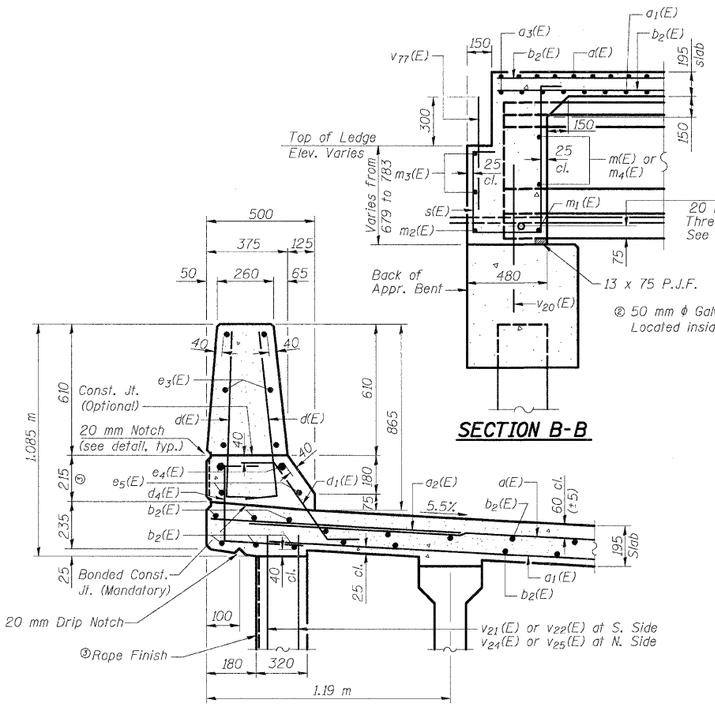


④ Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

PLAN



SECTION B-B

SECTION A-A

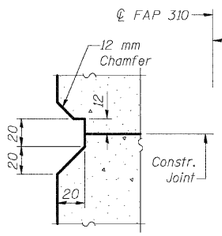
SECTION THRU PARAPET
(Near Abut.)

Notes: See Sheets 29, 30, and 31 of 48 for v_{20}(E), v_{21}(E), v_{22}(E), v_{24}(E) and v_{25}(E) bars. Work this sheet with sheet 15 of 48.

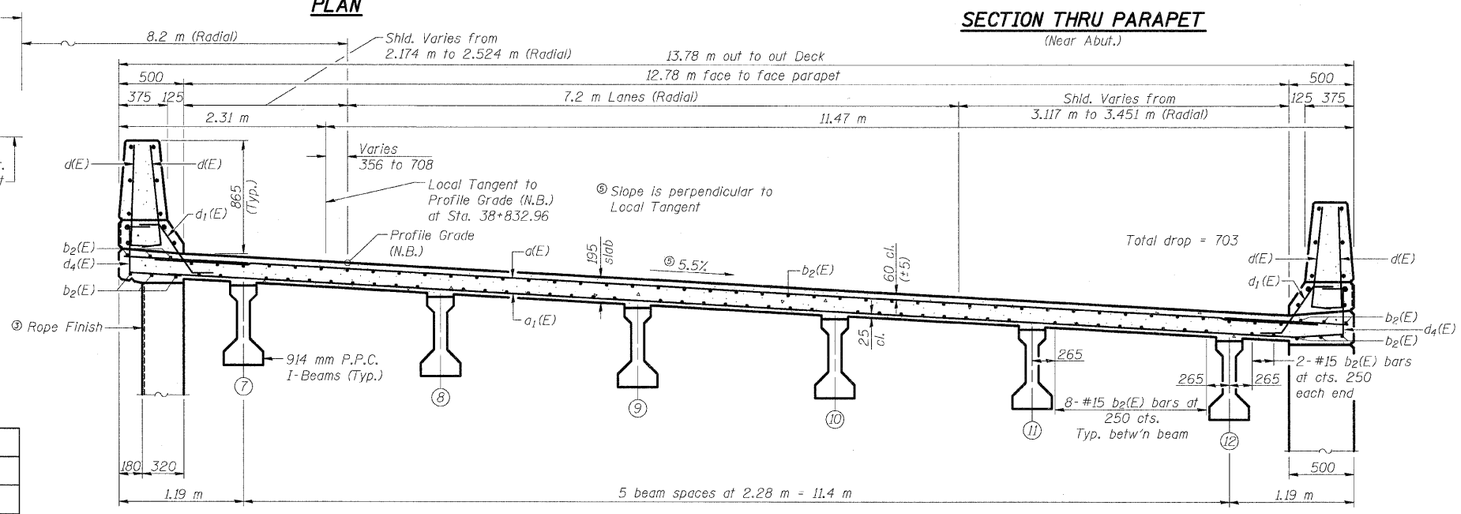
① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 43 of 48.

② 50 mm ϕ Galvanized Conduit (Sch. 40 pipe) shall conform to the requirements ANSI C 80.1 or UL 1242. Thread and cap each end. Cost included with "Concrete Superstructure". (See Details Sheet 2 of 48).

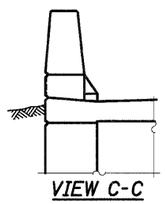
③ Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.



NOTCH DETAIL



NEAR ABUT. — CROSS SECTION (Looking West) — NEAR BENT



VIEW C-C

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1-R (M) 4-30-97

N.B. EAST APPROACH SLAB (1 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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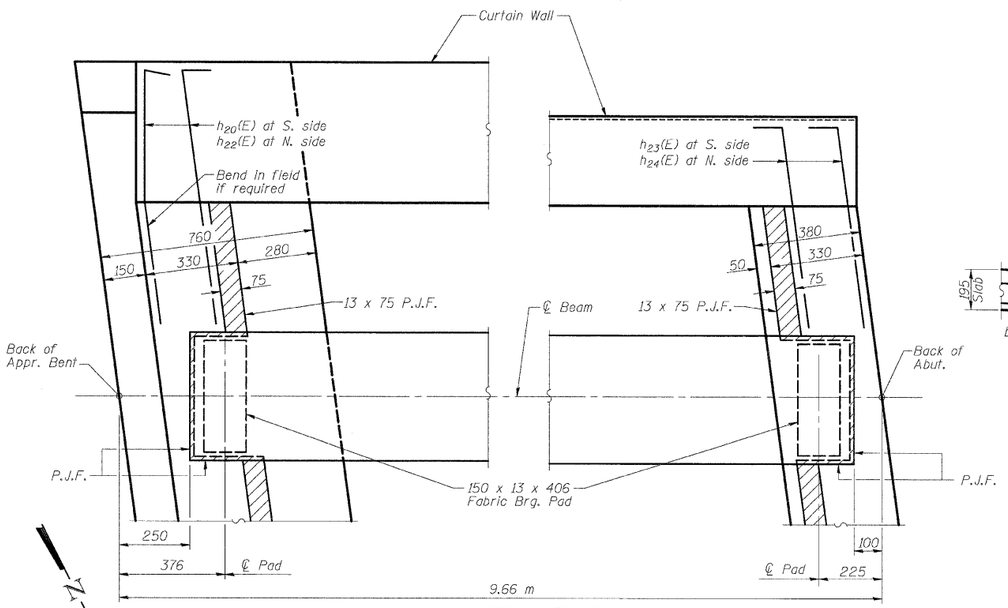
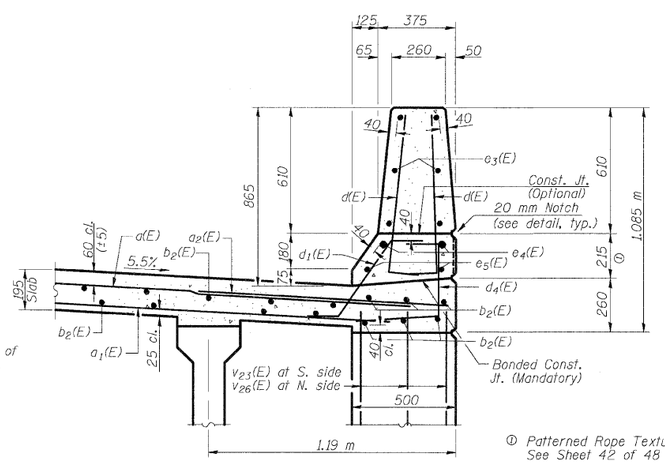
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B. R. I. F. A. P. 310	*	MADISON	239	137
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 15
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



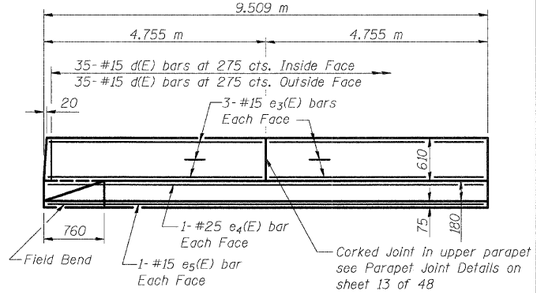
PARTIAL PLAN



SECTION THRU PARAPET

(Near Bent)

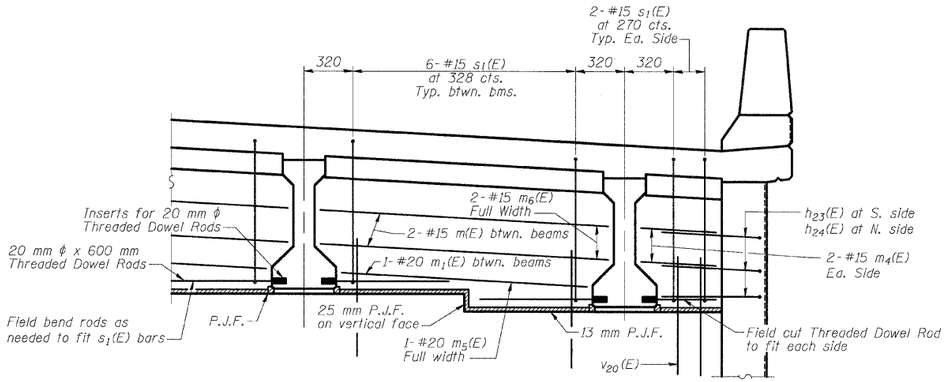
① Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.



INSIDE ELEVATION OF PARAPET

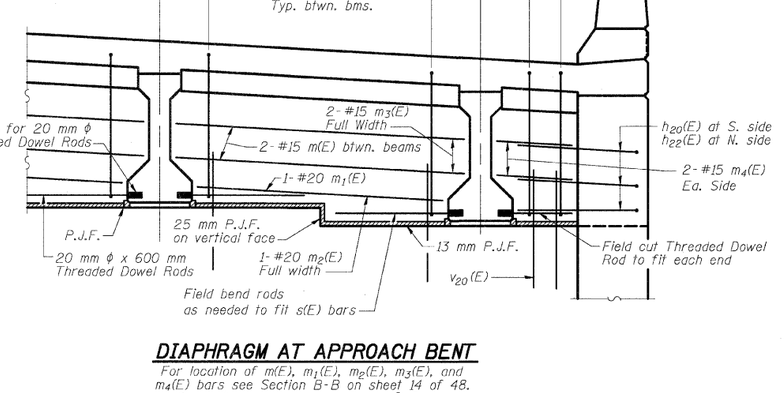
N.B. EAST APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size (#)	Length (m)	Shape
a(E)	59	#15	13.34	
a_1(E)	43	#15	13.14	
a_2(E)	58	#20	1.20	
a_3(E)	4	#15	13.40	
b_2(E)	99	#15	9.42	
d(E)	140	#15	0.91	
d_1(E)	64	#15	0.73	
d_4(E)	70	#15	0.91	
d_5(E)	6	#15	0.79	
e_3(E)	24	#15	4.67	
e_4(E)	4	#25	9.42	
e_5(E)	4	#15	9.42	
m(E)	20	#15	2.05	
m_1(E)	10	#20	1.75	
m_2(E)	1	#20	13.42	
m_3(E)	2	#15	13.42	
m_4(E)	8	#15	0.53	
m_5(E)	1	#20	12.81	
m_6(E)	2	#15	12.81	
s(E)	34	#15	2.32	
s_1(E)	34	#15	2.54	
v_{77}(E)	45	#15	0.75	
Reinforcement Bars, Epoxy Coated			kg	5170
Concrete Superstructure			m^3	41.3
Bridge Deck Grooving			m^2	122
Protective Coat			m^2	144
Form Liner Textured Surface			m^2	5



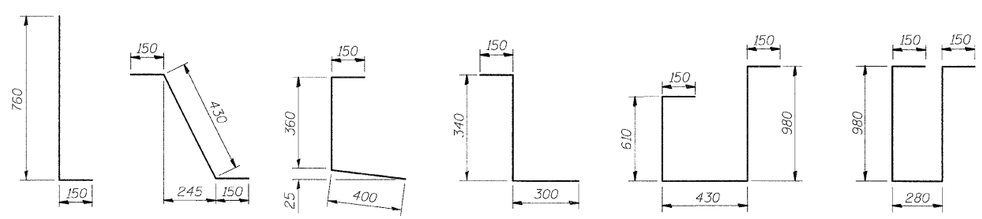
DIAPHRAGM AT ABUTMENT

For location of m(E), m_1(E), m_4(E), m_5(E), and m_6(E) bars see Section A-A on Sheet 14 of 48. Dimensions are perpendicular to ℄ Beam.



DIAPHRAGM AT APPROACH BENT

For location of m(E), m_1(E), m_2(E), m_3(E), and m_4(E) bars see Section B-B on sheet 14 of 48. Dimensions are perpendicular to ℄ Beam.



DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1D-R (M) 4-30-97

Notes:
See sheets 29, 30, and 31 of 48 for h_{20}(E), h_{22}(E), h_{23}(E), h_{24}(E), v_{20}(E), v_{23}(E) and v_{26}(E) bars.
Work this sheet with sheet 14 of 48.

N.B. EAST APPROACH SLAB (2 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	138
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 16
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

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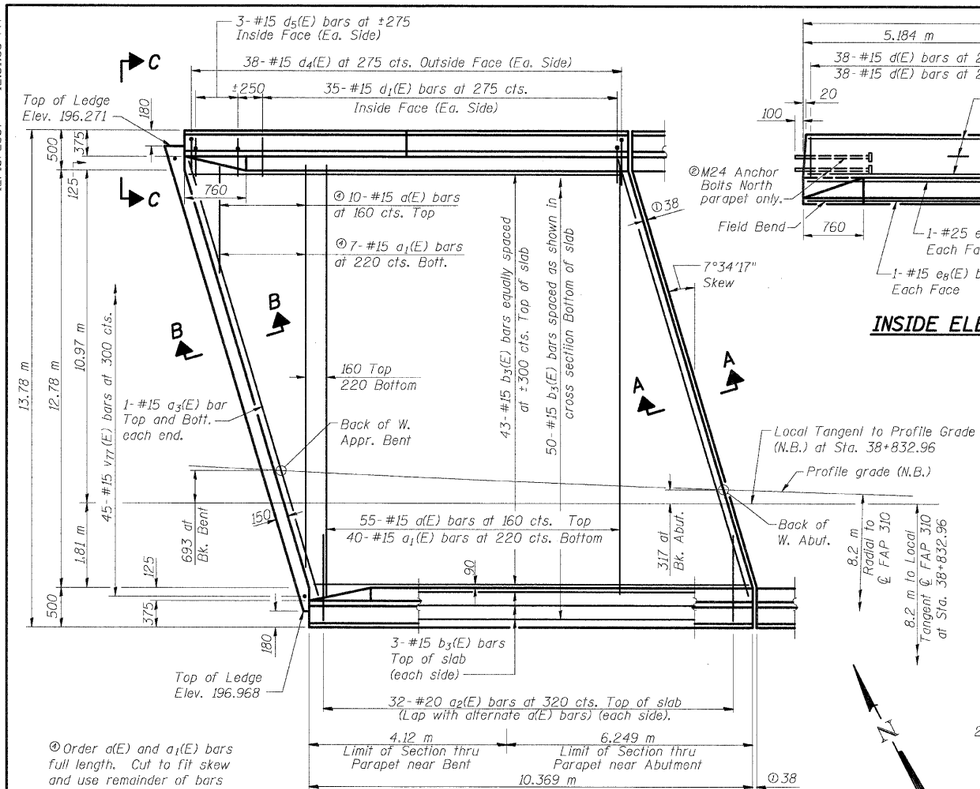
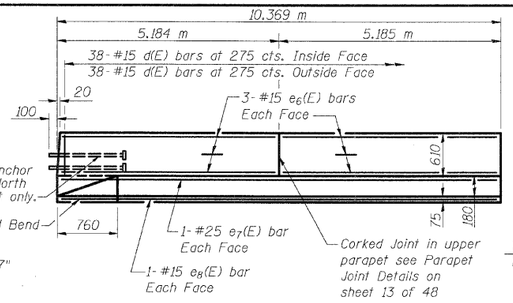
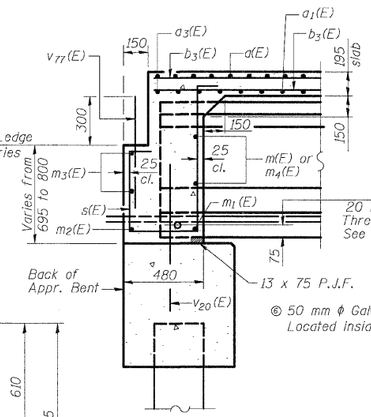


④ Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

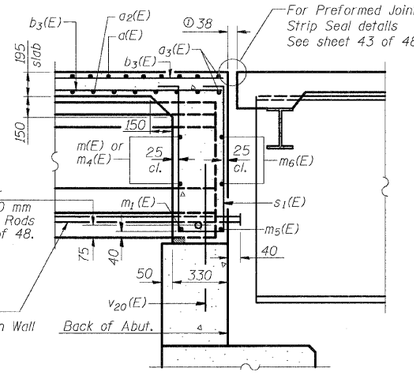
PLAN



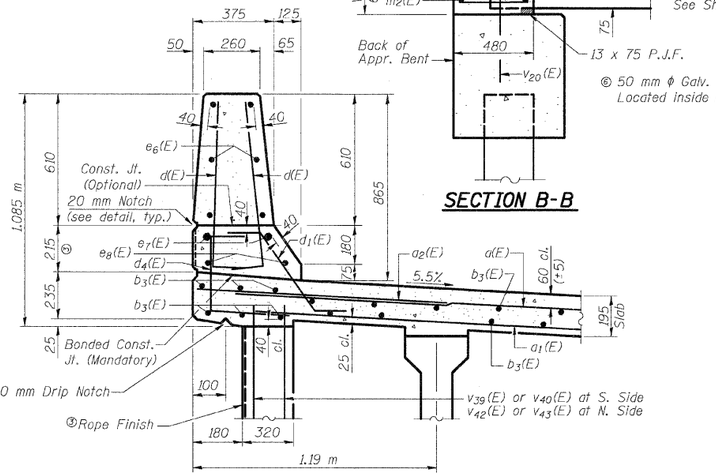
INSIDE ELEVATION OF PARAPET



SECTION B-B



SECTION A-A



SECTION THRU PARAPET

(Near Abut.)

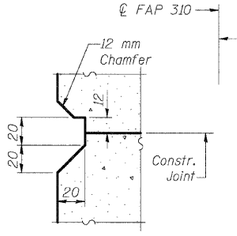
Notes: See Sheets 32, 33, and 34 of 48 for v_{20}(E), v_{39}(E), v_{40}(E), v_{42}(E) and v_{43}(E) bars. Work this sheet with sheet 17 of 48.

① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 43 of 48.

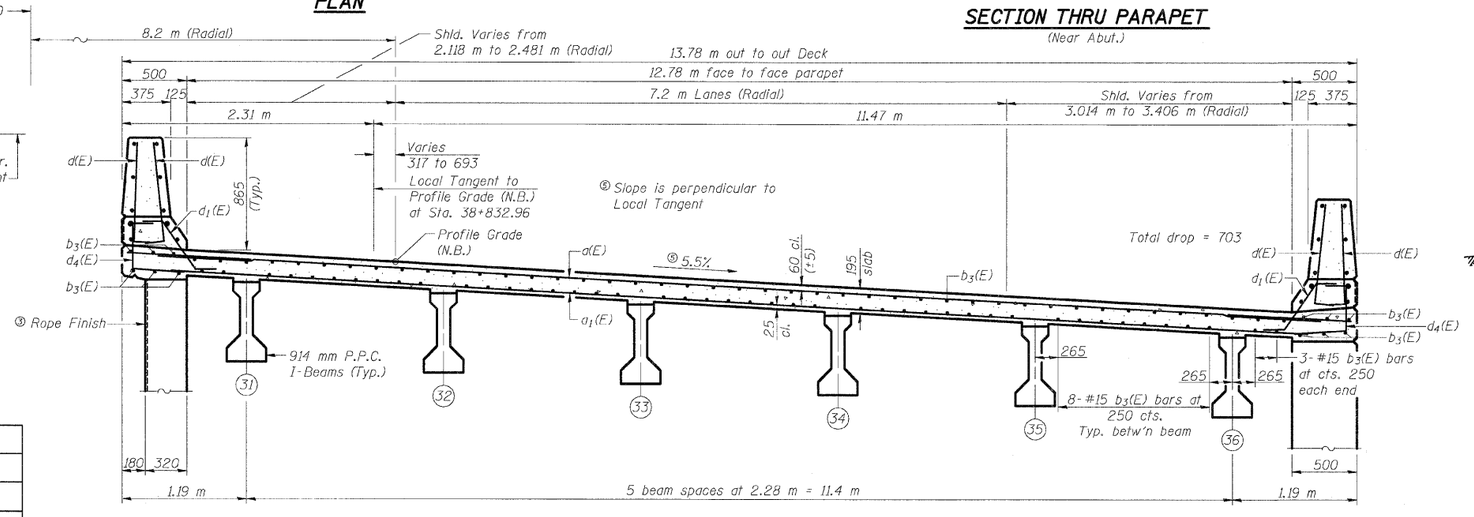
② M24 Anchor bolts at North Parapet only.

③ Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.

⑥ 50 mm ϕ Galvanized Conduit (Sch. 40 pipe) shall conform to the requirements ANSI C 80.1 or UL 1242. Thread and cap each end. Cost included with "Concrete Superstructure". (See Details Sheet 2 of 48).



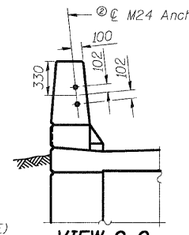
NOTCH DETAIL



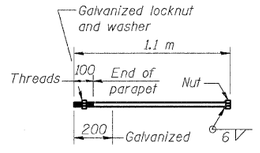
NEAR ABUT. — NEAR BENT

CROSS SECTION

(Looking West)



VIEW C-C



② M24 ANCHOR BOLT

(2-Req'd at this Approach)
Cost included with Concrete Superstructure.

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1-R (M) 4-30-97

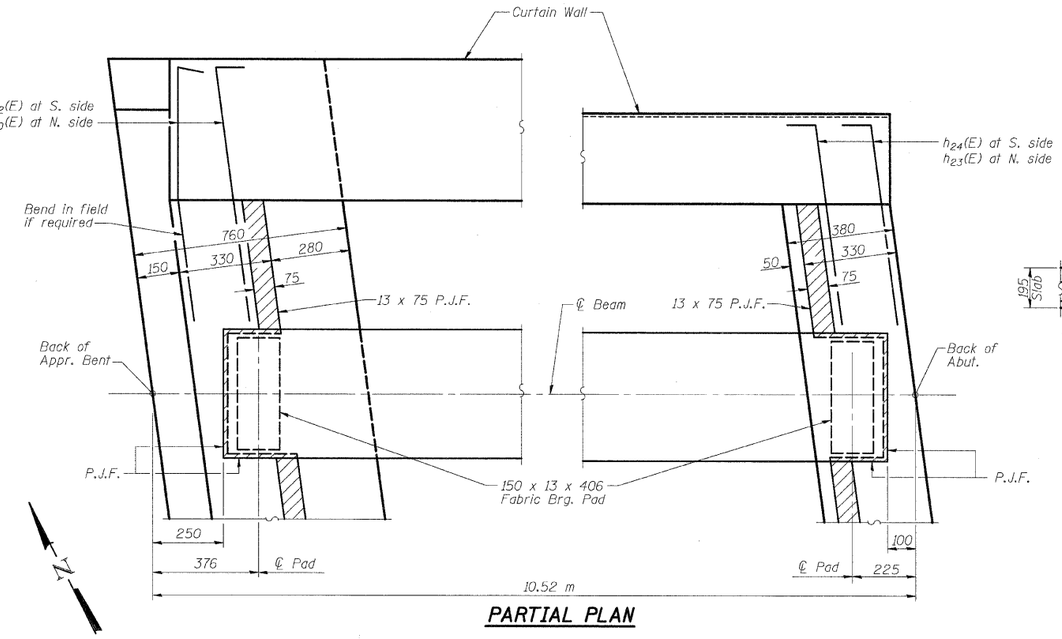
N.B. WEST APPROACH SLAB (1 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

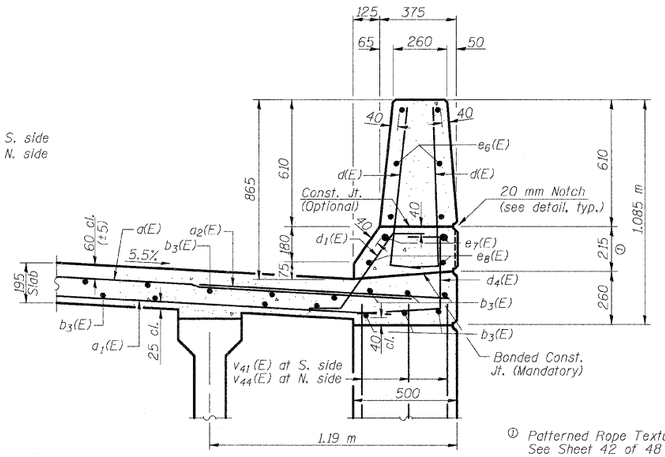
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. R. I. F. A. P. 310	*	MADISON	239	139
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 17
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



PARTIAL PLAN



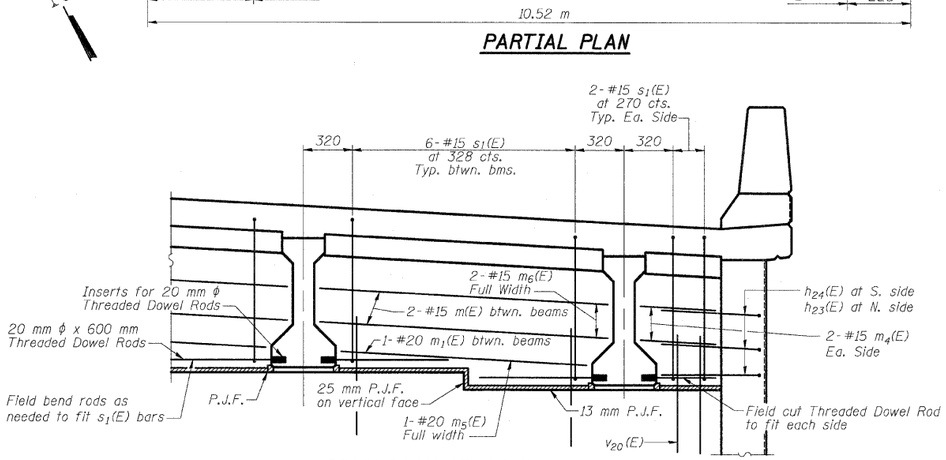
SECTION THRU PARAPET

(Near Bent)

① Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.

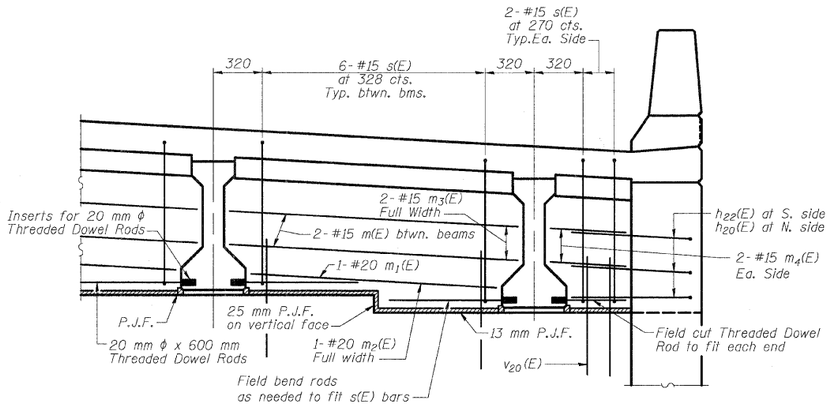
N.B. WEST APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size (#)	Length (m)	Shape
d(E)	65	#15	13.34	—
a_1(E)	47	#15	13.14	—
a_2(E)	64	#20	1.20	—
a_3(E)	4	#15	13.40	—
b_3(E)	99	#15	10.27	—
d(E)	152	#15	0.91	L
d_1(E)	70	#15	0.73	⌐
d_4(E)	76	#15	0.91	L
d_5(E)	6	#15	0.79	L
e_6(E)	24	#15	5.10	—
e_7(E)	4	#25	10.27	—
e_8(E)	4	#15	10.27	—
m(E)	20	#15	2.05	—
m_1(E)	10	#20	1.75	—
m_2(E)	1	#20	13.42	—
m_3(E)	2	#15	13.42	—
m_4(E)	8	#15	0.53	—
m_5(E)	1	#20	12.81	—
m_6(E)	2	#15	12.81	—
s(E)	34	#15	2.32	⊏
s_1(E)	34	#15	2.54	U
v_{77}(E)	45	#15	0.75	—
Reinforcement Bars, Epoxy Coated		kg	5590	
Concrete Superstructure		m^3	44.3	
Bridge Deck Grooving		m^2	133	
Protective Coat		m^2	157	
Form Liner Textured Surface		m^2	5	



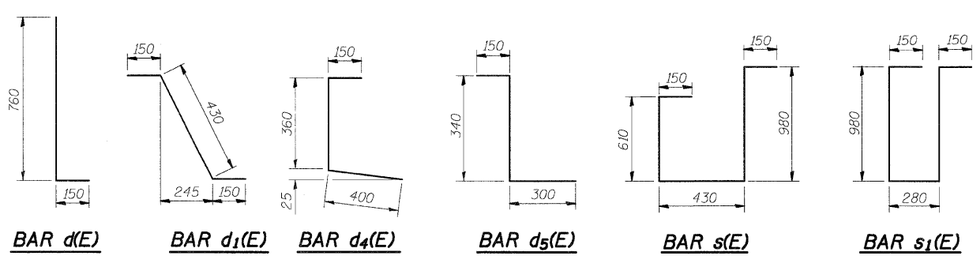
DIAPHRAGM AT ABUTMENT

For location of m(E), m_1(E), m_4(E), m_5(E), and m_6(E) bars see Section A-A on Sheet 16 of 48. Dimensions are perpendicular to ℄ Beam.



DIAPHRAGM AT APPROACH BENT

For location of m(E), m_1(E), m_2(E), m_3(E), and m_4(E) bars see Section B-B on sheet 16 of 48. Dimensions are perpendicular to ℄ Beam.



DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1D-R (M) 4-30-97

Notes:
See sheets 32, 33, and 34 of 48 for h_{20}(E), h_{22}(E), h_{23}(E), h_{24}(E), v_{20}(E), v_{41}(E) and v_{44}(E) bars.
Work this sheet with sheet 16 of 48.

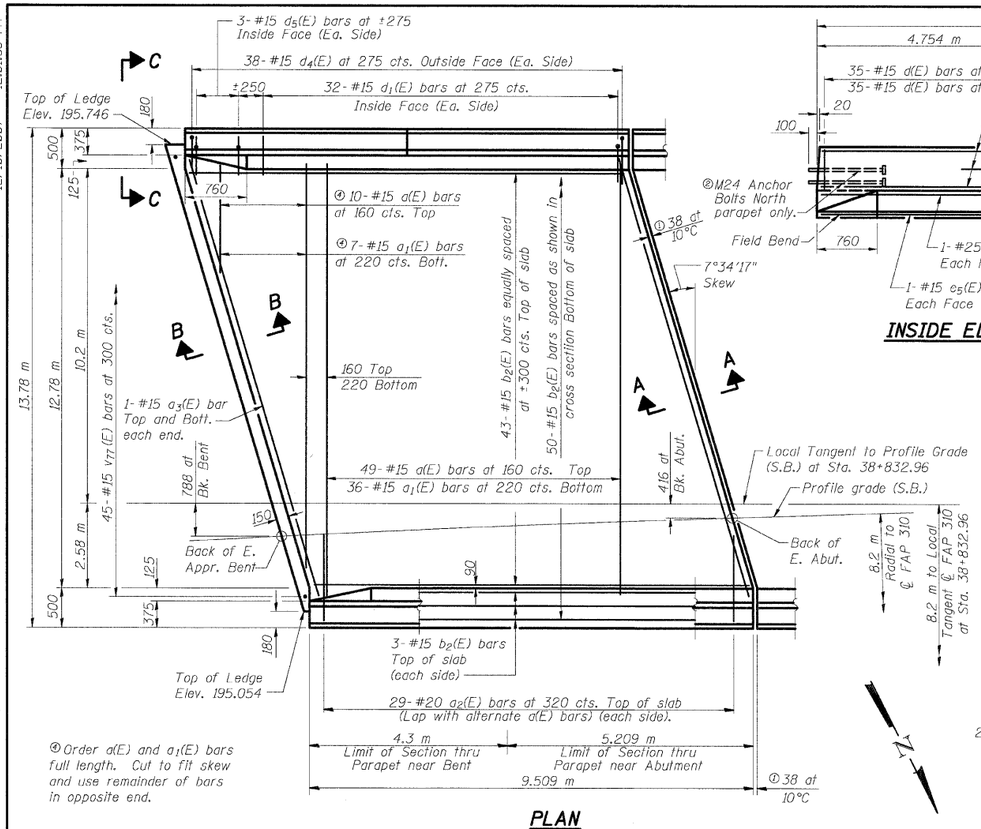
N.B. WEST APPROACH SLAB (2 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	140
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

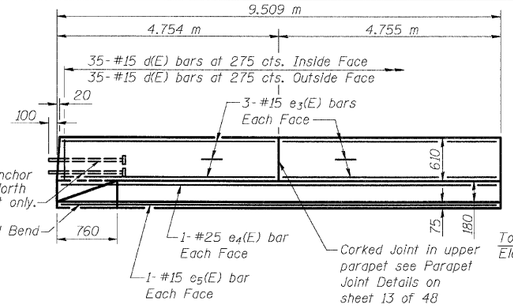
SHEET NO. 18
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

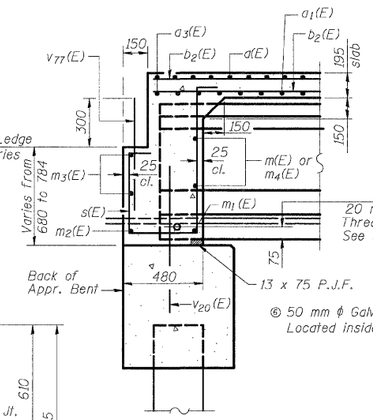


PLAN

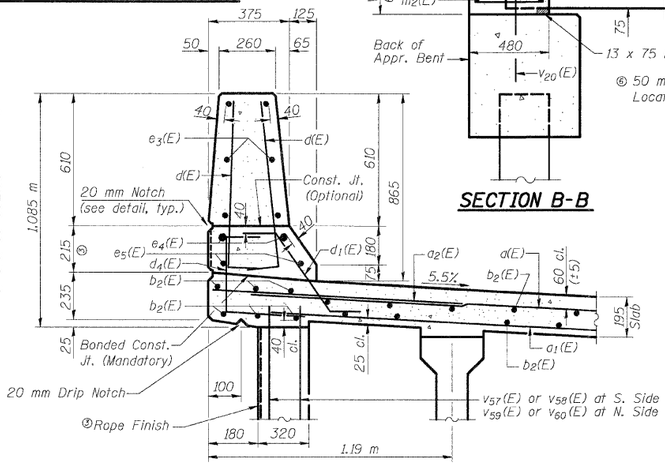
④ Order a(E) and a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



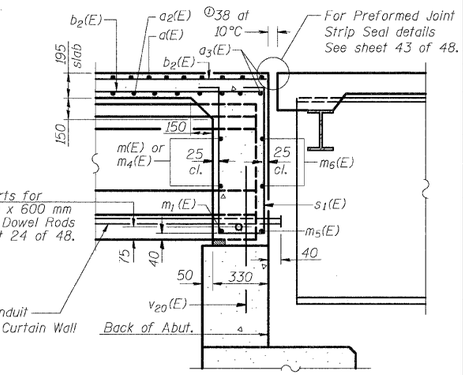
INSIDE ELEVATION OF PARAPET



SECTION B-B



SECTION THRU PARAPET
(Near Abut.)



SECTION A-A

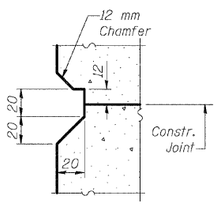
Notes: See Sheets 35, 36, and 37 of 48 for $v_{20}(E)$, $v_{57}(E)$, $v_{58}(E)$, $v_{59}(E)$ and $v_{60}(E)$ bars. Work this sheet with sheet 19 of 48.

① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 43 of 48.

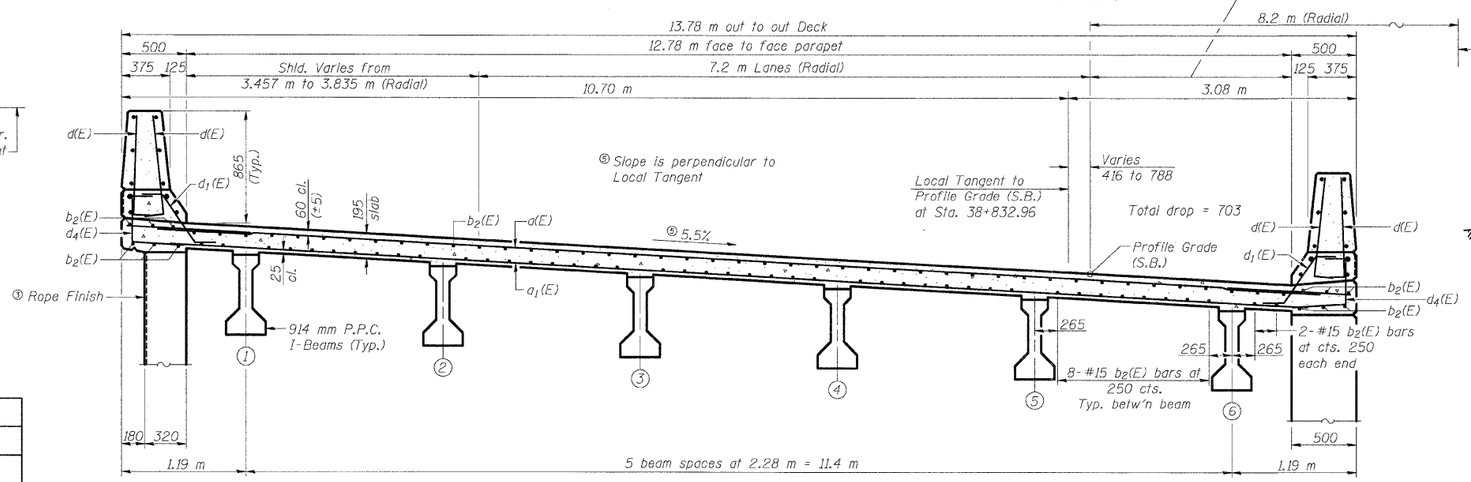
② M24 Anchor bolts at South Parapet only.

③ Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.

⑥ 50 mm ϕ Galvanized Conduit (Sch. 40 pipe) shall conform to the requirements ANSI C 80.1 or UL 1242. Thread and cap each end. Cost included with "Concrete Superstructure". (See Details Sheet 2 of 48).



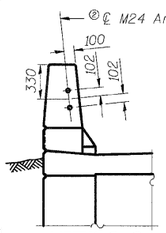
NOTCH DETAIL



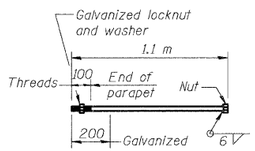
NEAR ABUT.

CROSS SECTION
(Looking West)

NEAR BENT



VIEW C-C



② M24 ANCHOR BOLT
(2-Req'd at this Approach)
Cost included with Concrete Superstructure.

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1-R (M) 4-30-97

S.B. EAST APPROACH SLAB (1 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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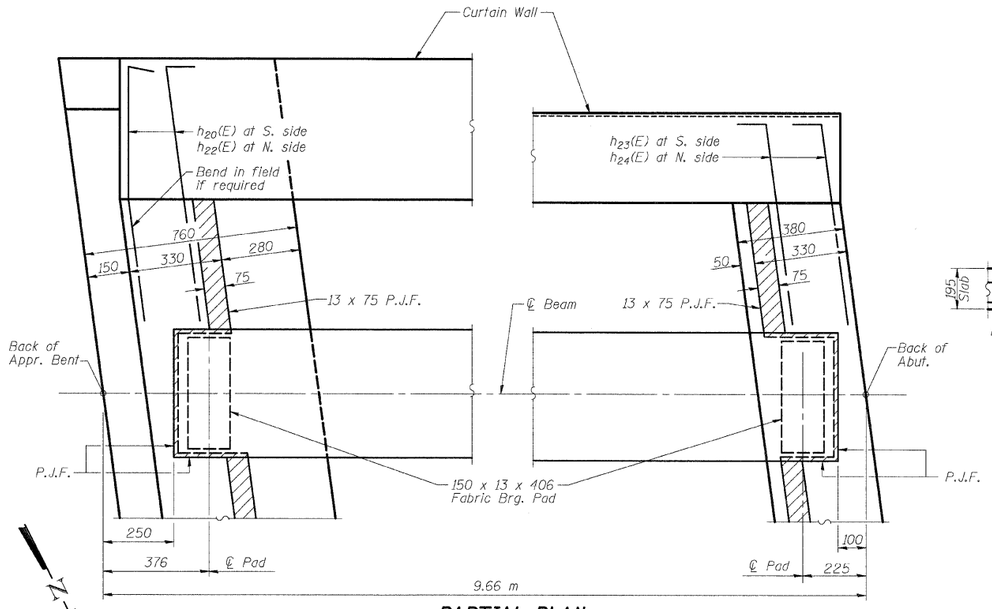
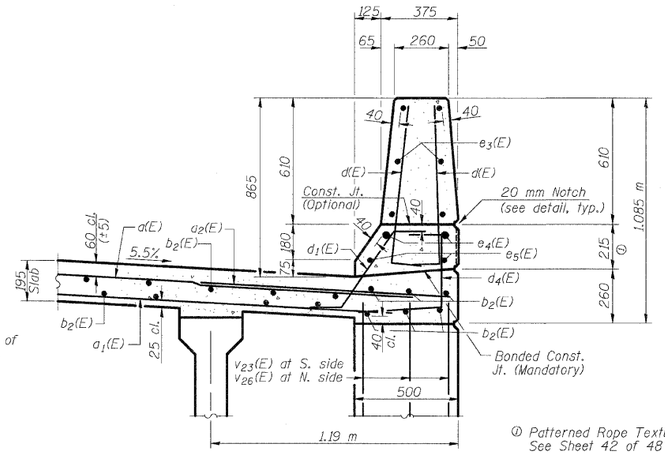
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B. I. F.A.P. 310	*	MADISON	239	141
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 19
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



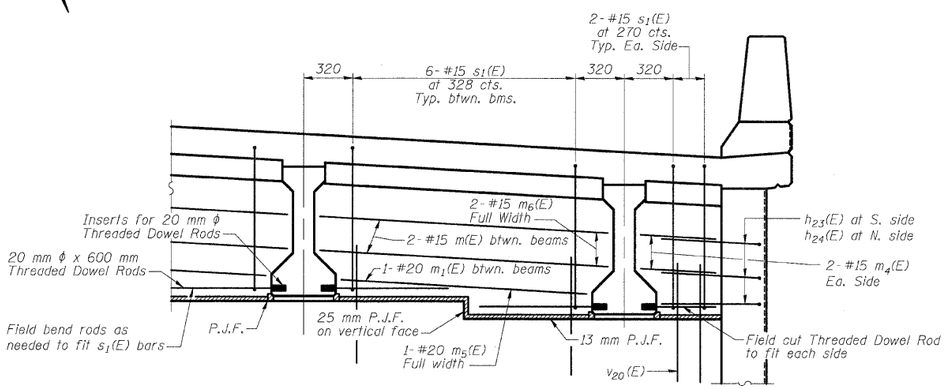
PARTIAL PLAN



① Patterned Rope Texture Concrete See Sheet 42 of 48 for details.

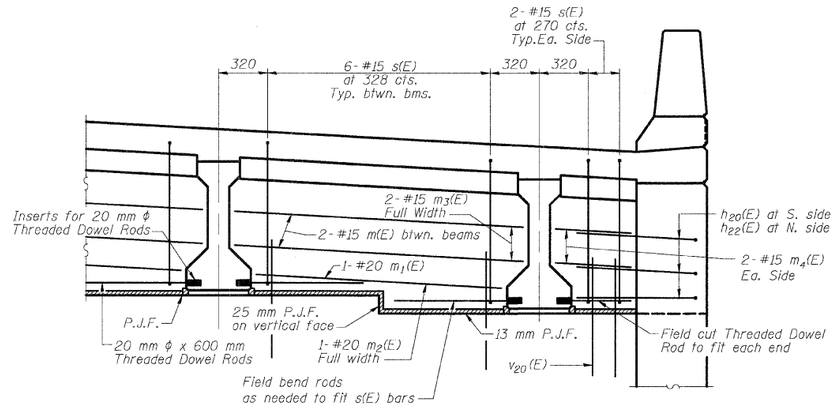
SECTION THRU PARAPET

(Near Bent)



DIAPHRAGM AT ABUTMENT

For location of m(E), m1(E), m4(E), m5(E), and m6(E) bars see Section A-A on Sheet 18 of 48. Dimensions are perpendicular to ℄ Beam.

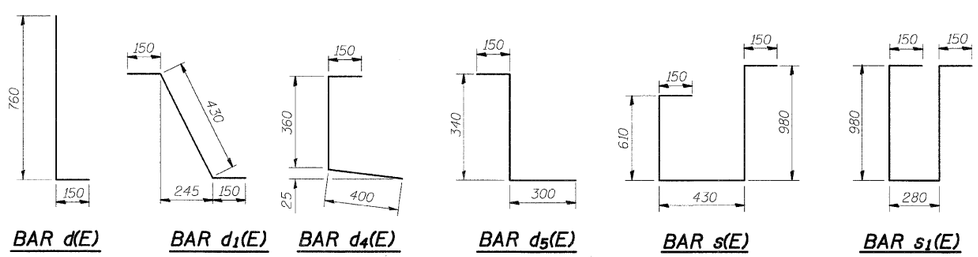


DIAPHRAGM AT APPROACH BENT

For location of m(E), m1(E), m2(E), m3(E), and m4(E) bars see Section B-B on sheet 18 of 48. Dimensions are perpendicular to ℄ Beam.

S.B. EAST APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size (#)	Length (m)	Shape
a(E)	59	#15	13.34	
a1(E)	43	#15	13.14	
a2(E)	58	#20	1.20	
a3(E)	4	#15	13.40	
b2(E)	99	#15	9.42	
d(E)	140	#15	0.91	
d1(E)	64	#15	0.73	
d4(E)	70	#15	0.91	
d5(E)	6	#15	0.79	
e3(E)	24	#15	4.67	
e4(E)	4	#25	9.42	
e5(E)	4	#15	9.42	
m(E)	20	#15	2.05	
m1(E)	10	#20	1.75	
m2(E)	1	#20	13.42	
m3(E)	2	#15	13.42	
m4(E)	8	#15	0.53	
m5(E)	1	#20	12.81	
m6(E)	2	#15	12.81	
s(E)	34	#15	2.32	
s1(E)	34	#15	2.54	
v77(E)	45	#15	0.75	
Reinforcement Bars, Epoxy Coated		kg	5170	
Concrete Superstructure		m³	41.3	
Bridge Deck Grooving		m²	122	
Protective Coat		m²	144	
Form Liner Textured Surface		m²	5	



DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1D-R (M) 4-30-97

Notes:
See sheets 35, 36, and 37 of 48 for h20(E), h22(E), h23(E), h24(E), v20(E), v23(E) and v26(E) bars. Work this sheet with sheet 18 of 48.

S.B. EAST APPROACH SLAB (2 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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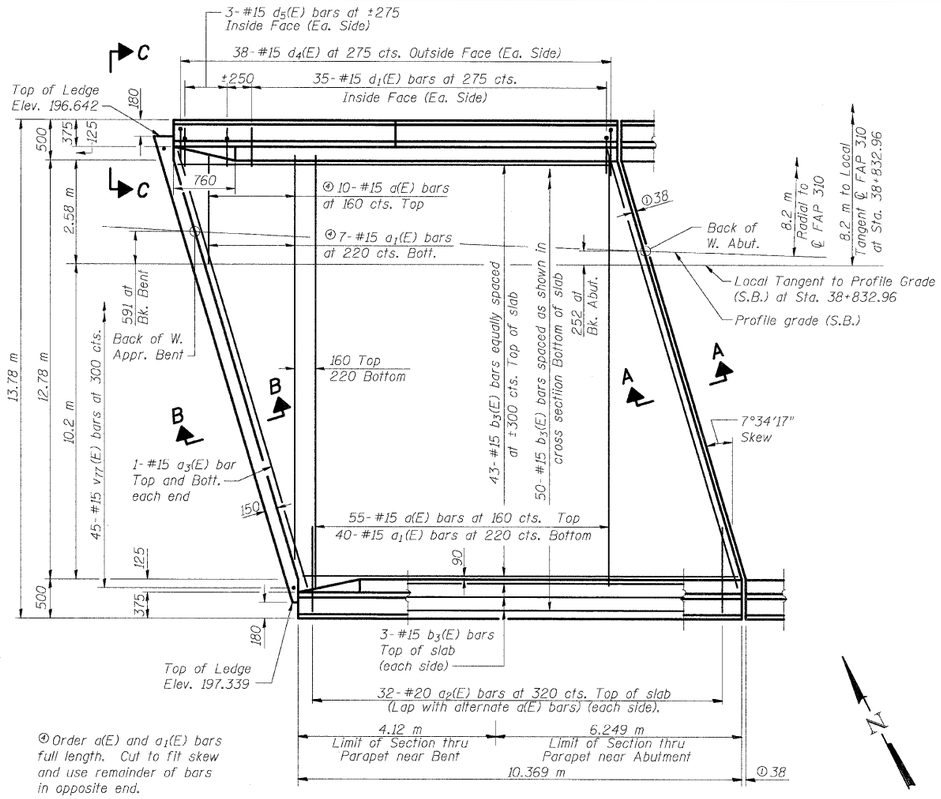
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	142
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

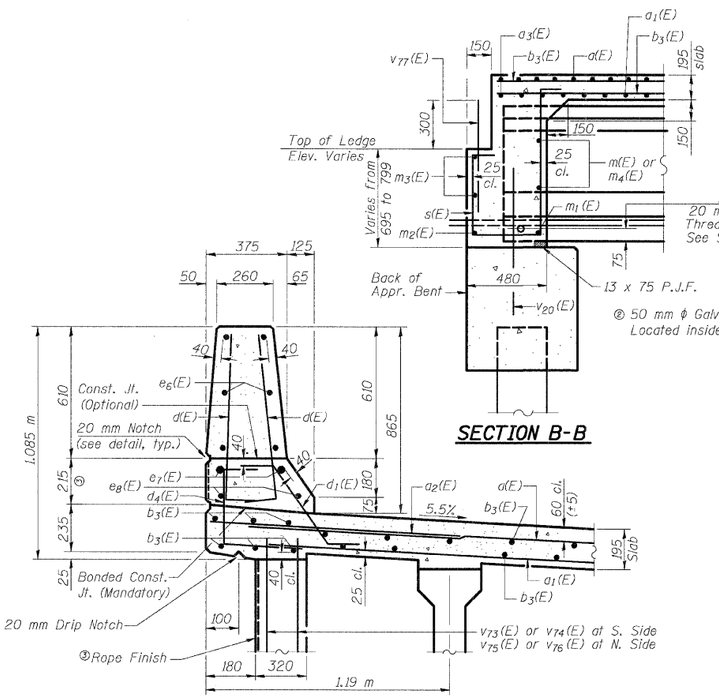
SHEET NO. 20
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



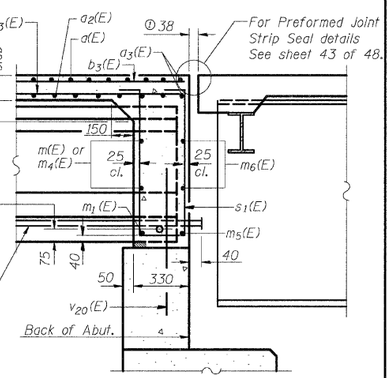
PLAN

④ Order a(E) and $a_1(E)$ bars full length. Cut to fit skew and use remainder of bars in opposite end.



SECTION B-B

SECTION THRU PARAPET
(Near Abut.)



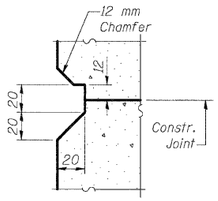
SECTION A-A

Notes: See Sheets 38, 39, and 40 of 48 for $v_{20}(E)$, $v_{73}(E)$, $v_{74}(E)$, $v_{75}(E)$ and $v_{76}(E)$ bars. Work this sheet with sheet 21 of 48.

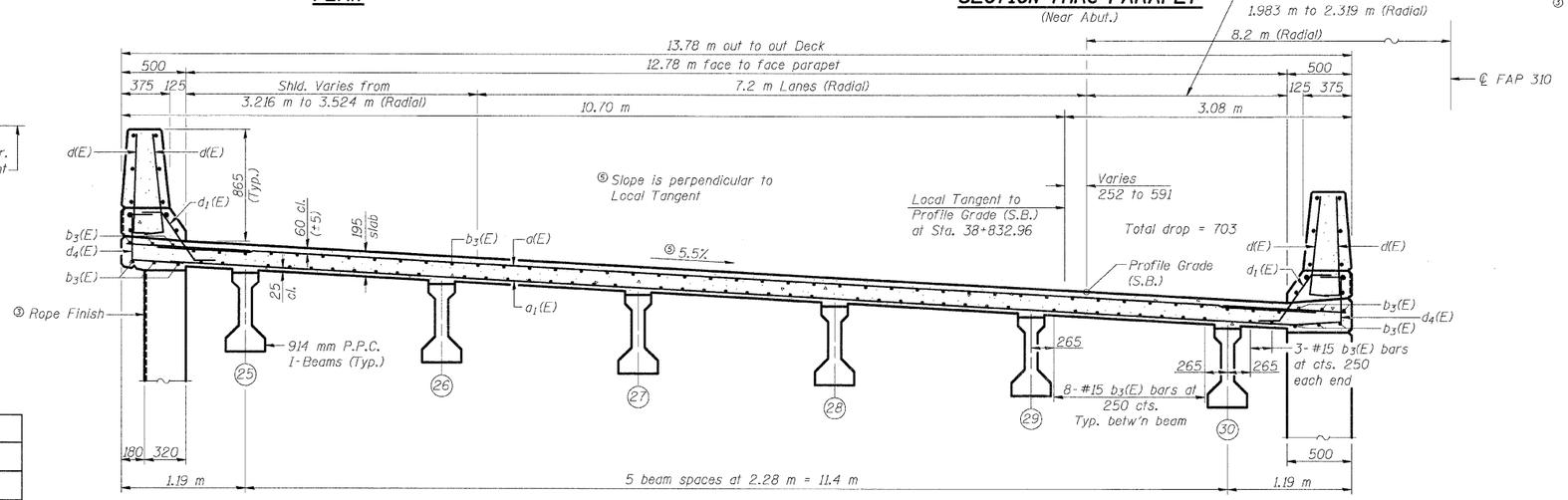
① Dimensions are based on a Rolled Rail Strip Seal Joint. If the contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Sheet 43 of 48.

② 50 mm ϕ Galvanized Conduit (Sch. 40 pipe) shall conform to the requirements ANSI C 80.1 or UL 1242. Thread and cap each end. Cost included with "Concrete Superstructure". (See Details Sheet 2 of 48).

③ Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.



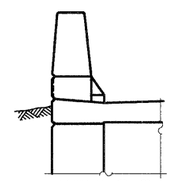
NOTCH DETAIL



NEAR ABUT.

CROSS SECTION
(Looking West)

NEAR BENT



VIEW C-C

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1-R (M) 4-30-97

S.B. WEST APPROACH SLAB (1 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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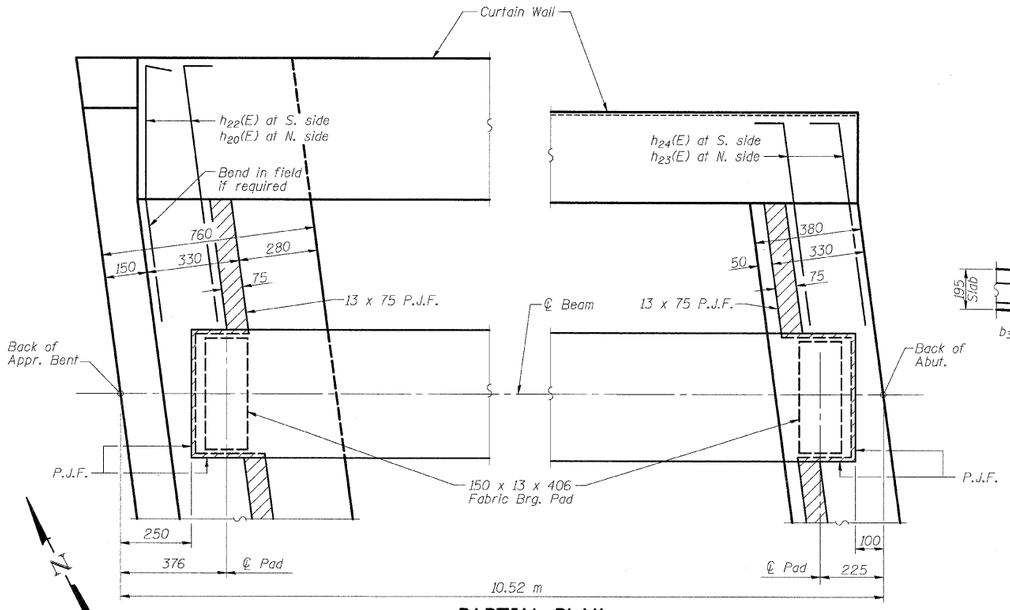
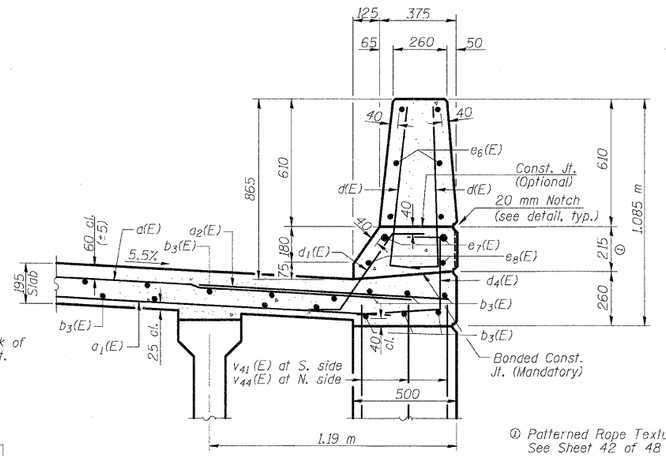
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	143
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 21
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



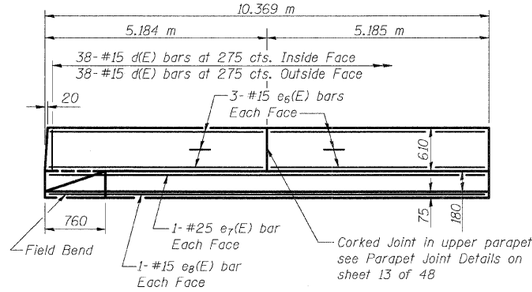
PARTIAL PLAN



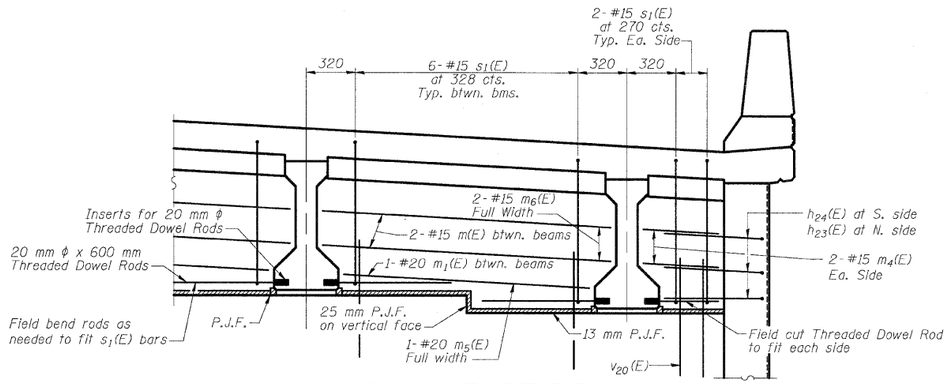
SECTION THRU PARAPET

(Near Bent)

① Patterned Rope Texture Concrete. See Sheet 42 of 48 for details.

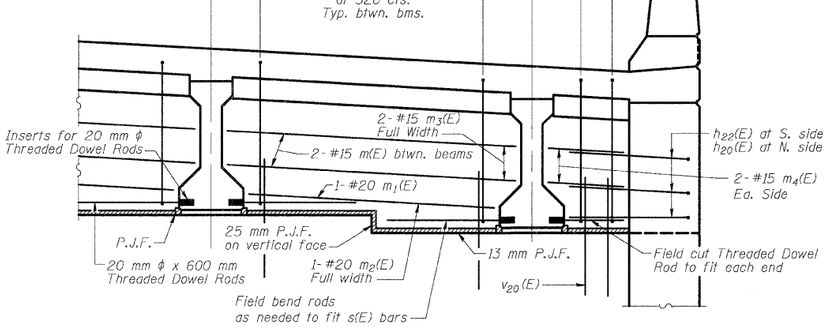


INSIDE ELEVATION OF PARAPET



DIAPHRAGM AT ABUTMENT

For location of m(E), m_1(E), m_4(E), m_5(E), and m_6(E) bars see Section A-A on Sheet 20 of 48. Dimensions are perpendicular to ℄ Beam.

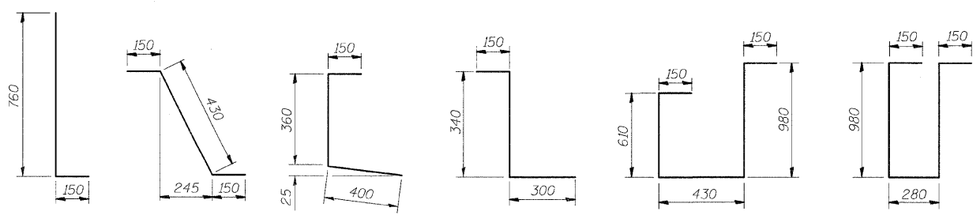


DIAPHRAGM AT APPROACH BENT

For location of m(E), m_1(E), m_2(E), m_3(E), and m_4(E) bars see Section B-B on sheet 20 of 48. Dimensions are perpendicular to ℄ Beam.

S.B. WEST APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size (#)	Length (m)	Shape
d(E)	65	#15	13.34	
a_1(E)	47	#15	13.14	
a_2(E)	64	#20	1.20	
a_3(E)	4	#15	13.40	
b_3(E)	99	#15	10.27	
d(E)	152	#15	0.91	
d_1(E)	70	#15	0.73	
d_4(E)	76	#15	0.91	
d_5(E)	6	#15	0.79	
e_6(E)	24	#15	5.10	
e_7(E)	4	#25	10.27	
e_8(E)	4	#15	10.27	
m(E)	20	#15	2.05	
m_1(E)	10	#20	1.75	
m_2(E)	1	#20	13.42	
m_3(E)	2	#15	13.42	
m_4(E)	8	#15	0.53	
m_5(E)	1	#20	12.81	
m_6(E)	2	#15	12.81	
s(E)	34	#15	2.32	
s_1(E)	34	#15	2.54	
v_{77}(E)	45	#15	0.75	
Reinforcement Bars, Epoxy Coated		kg	5590	
Concrete Superstructure		m^3	44.3	
Bridge Deck Grooving		m^2	133	
Protective Coat		m^2	157	
Form Liner Textured Surface		m^2	5	



BAR d(E) BAR d_1(E) BAR d_4(E) BAR d_5(E) BAR s(E) BAR s_1(E)

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SA-1D-R (M) 4-30-97

Notes:
See sheets 38, 39, and 40 of 48 for h_{20}(E), h_{22}(E), h_{23}(E), h_{24}(E), v_{20}(E), v_{41}(E) and v_{44}(E) bars. Work this sheet with sheet 20 of 48.

S.B. WEST APPROACH SLAB (2 OF 2)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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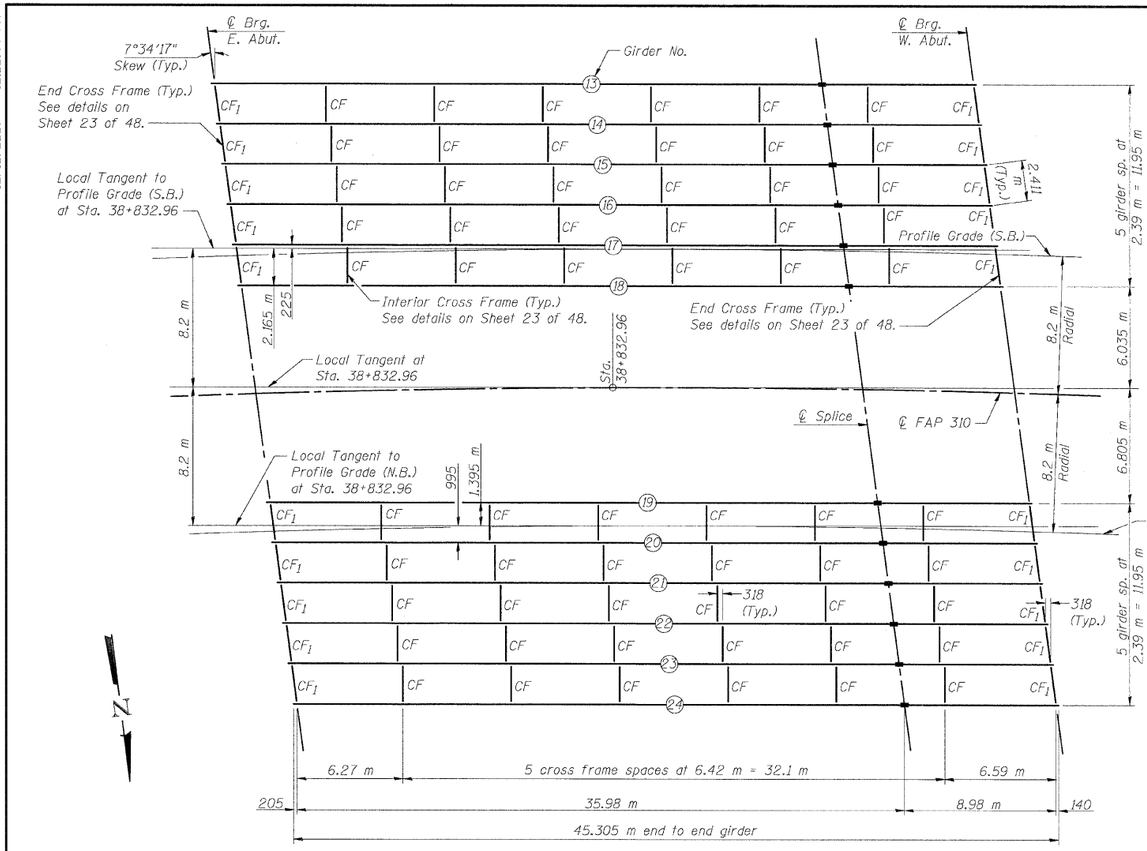
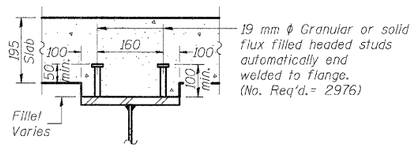
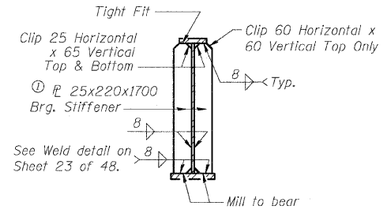


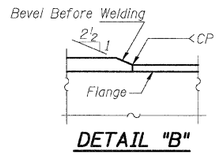
FRAMING PLAN



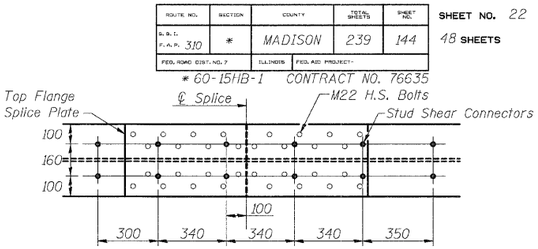
SECTION A-A



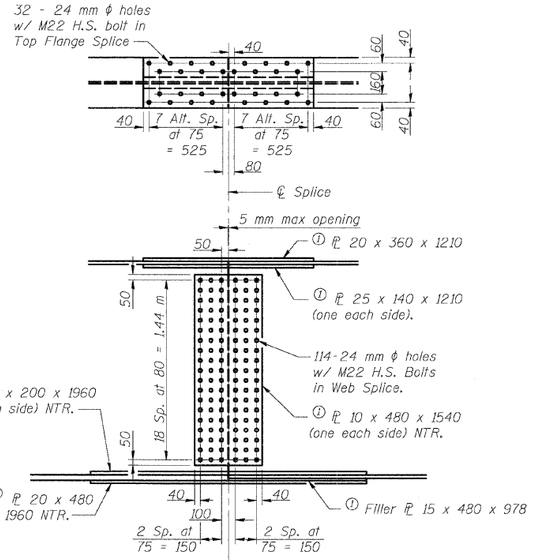
SECTION THRU BEARING STIFFENER

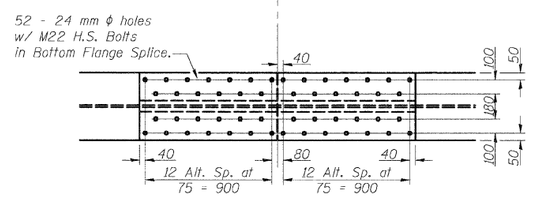


DETAIL "B"

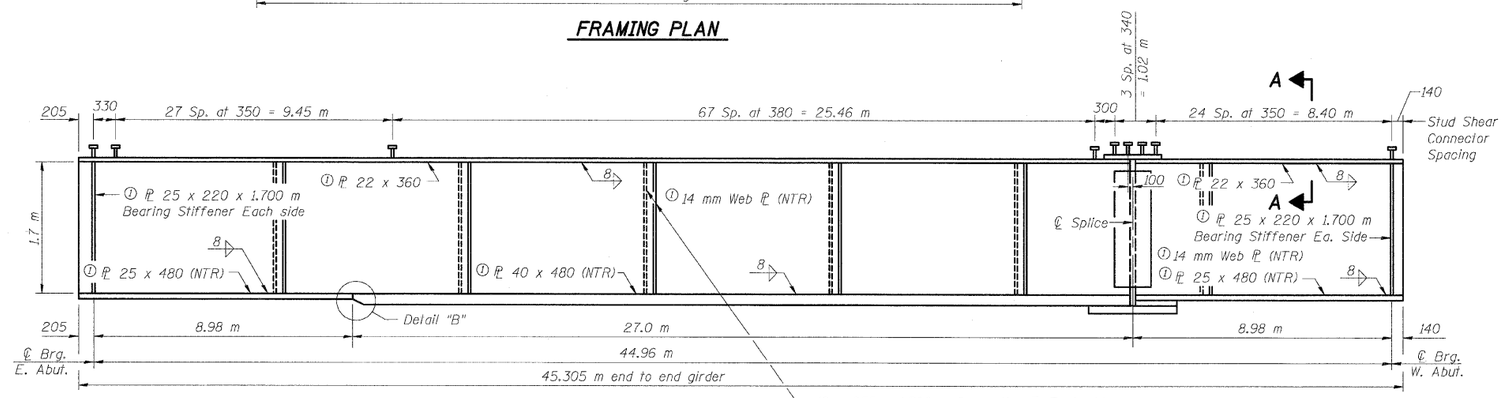


STUD SHEAR CONNECTOR PLAN OVER SPLICE





FIELD SPLICE DETAIL



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.

① Indicates structural steel conforming to AASHTO M270M Grade 345.

Note: Work this sheet with sheet 23 of 48.

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	144
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 22
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

GIRDER DETAILS & FRAMING PLAN FAP RTE. 310 (IL RTE. 255) OVER CH ROUTE 4 (HUMBERT ROAD) SECTION 60-15HB-1 MADISON COUNTY STATION 38+829.909 SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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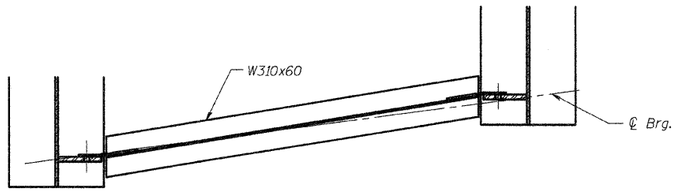
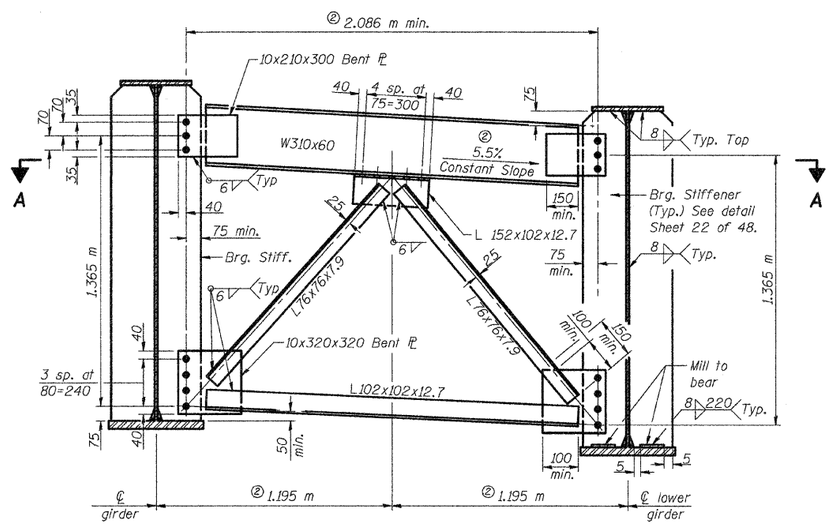
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	145
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 23
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



SECTION A-A

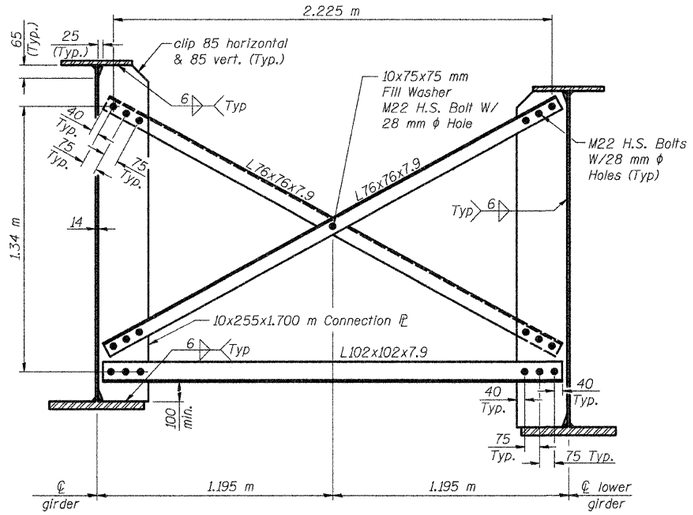


Note: All Bolts are M22 H.S. Bolts with 28 mm ϕ holes Two hardened washers shall be required over all 28 ϕ holes in cross frame connections.

TYPICAL END CROSS FRAME, CF1

20 Required

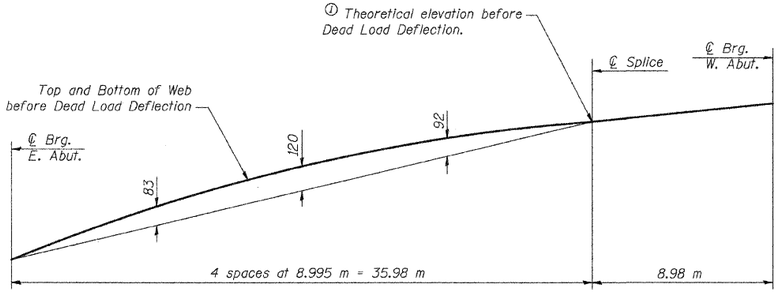
Note: Work this sheet with sheet 22 of 48.



Note: Detail 28 mm ϕ holes for all M22 H.S. bolts Two hardened washers shall be required over all 28 mm ϕ holes in cross frame connections.

TYPICAL INTERIOR CROSS FRAME, CF

60 Required



CAMBER DIAGRAM

S.B. AND N.B. STRUCTURES

INTERIOR GIRDER MOMENT TABLE		0.5 Span
Is	(10^6 mm⁴)	24,220
Ic (n)	(10^6 mm⁴)	59,972
Ic (3n)	(10^6 mm⁴)	42,050
Ss	(10^3 mm³)	34,804
Sc (n)	(10^3 mm³)	46,620
Sc (3n)	(10^3 mm³)	42,439
ℙ	(kN/m)	15.57
Mℙ	(kN·m)	3,912
sℙ	(kN/m)	7.24
Msℙ	(kN·m)	1,829
M℄	(kN·m)	2,324
M (Imp)	(kN·m)	426
$5/3[M℄+M(Imp)]$	(kN·m)	4,583
Ma	(kN·m)	13,422
③ Mu	(kN·m)	18,010
fsℙ non-comp	(MPa)	112
fsℙ (comp)	(MPa)	43
$fs\,5/3$(℄+Imp)	(MPa)	98
fs (Overload)	(MPa)	254
VR	(kN)	275

③ Compact, Braced Section

INTERIOR GIRDER REACTION TABLE		Abutments
Rℙ	(kN)	508
R℄	(kN)	232
Imp.	(kN)	43
R (Total)	(kN)	783

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.

Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)

VR is the maximum Live Load + Impact shear range in span.

Ma (Applied Moment)=1.3[Mℙ + Msℙ + $5/3$(M℄ + M_{Imp})].

The Plastic Moment capacity (Mu) is computed according to AASHTO 10.50.1.1.

fs (Overload) is the sum of the stresses due to Mℙ + Msℙ + $5/3$(M℄ + M_{Imp}).

TOP OF WEB ELEVATIONS

(For Fabrication Only)

	Girder #13	Girder #14	Girder #15	Girder #16	Girder #17	Girder #18	Girder #19	Girder #20	Girder #21	Girder #22	Girder #23	Girder #24
℄ Brg. E. Abut.	196.127	196.003	195.880	195.756	195.633	195.509	195.735	195.612	195.489	195.366	195.242	195.119
℄ Splice	197.087	196.963	196.839	196.715	196.591	196.467	196.709	196.585	196.462	196.338	196.214	196.090
℄ Brg. W. Abut.	197.219	197.095	196.971	196.847	196.723	196.599	196.844	196.720	196.596	196.472	196.348	196.224

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

GIRDER DETAILS
FAP RTE. 310 (IL RTE. 255) OVER CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

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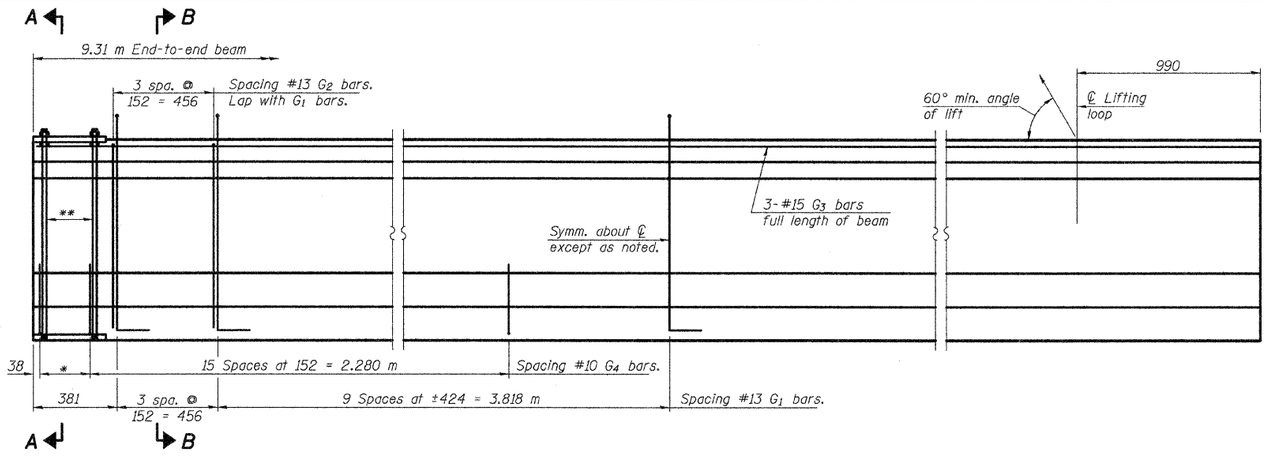
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. F. A. P. 310	*	MADISON	239	146
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

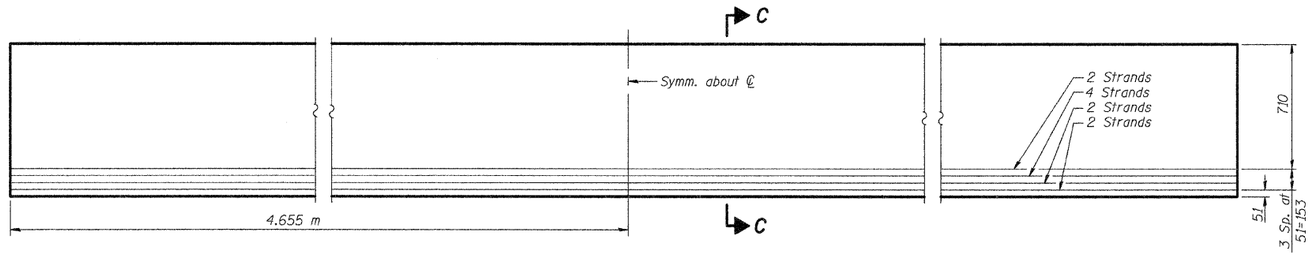
SHEET NO. 24
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



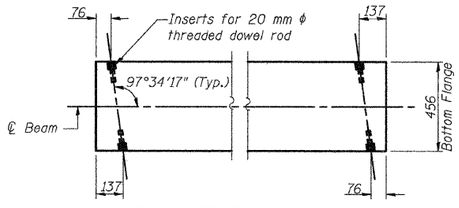
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

*3 spaces at 76 = 228
**4- 20 mm ϕ threaded dowel rods at 76 cts., Each Face.



ELEVATION OF BEAM
(Showing Prestressing Steel)

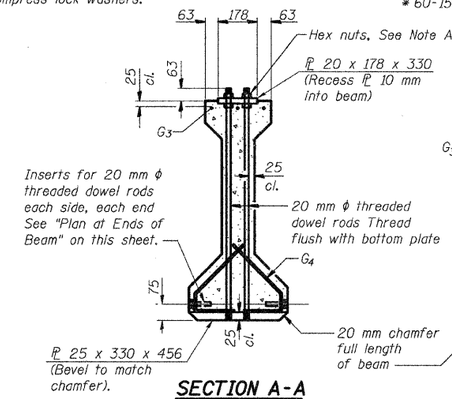
INTERIOR BEAM REACTION TABLE		
		Abut. & Appr. Bent
R℄	(kN)	73
R$_{s}$℄	(kN)	25
R$_{L}$	(kN)	149
Imp.	(kN)	45
R (Total)	(kN)	292



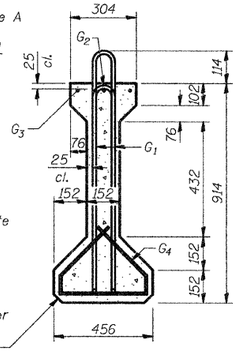
PLAN AT ENDS OF BEAM
(Showing Inserts)

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



SECTION A-A



SECTION B-B

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
I	(10^6 mm^4)	20,249
I′	(10^6 mm^4)	81,557
S$_b$	(10^3 mm^3)	51,867
S$_b$′	(10^3 mm^3)	107,490
S$_t$	(10^3 mm^3)	38,643
S$_t$′	(10^3 mm^3)	525,268
ψ	(kN/m)	16.16
M℄	(kN·m)	166
s℄	(kN/m)	5.47
Ms℄	(kN·m)	56
M$_L$	(kN·m)	256
M (Imp)	(kN·m)	77

I and I′ are the moment of inertia and composite moment of interia of the beam section.

S$_b$ and S$_b$′ are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.

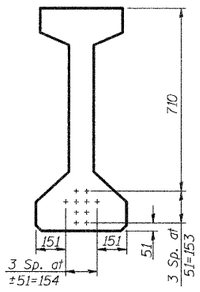
S$_t$ and S$_t$′ are the non-composite and composite section modulus for the top fiber of the prestressed beam.

M℄ is the moment due to dead loads on the non-composite prestressed beam.

Ms℄ is the moment due to dead loads on the composite section.

M$_L$ is the moment due to live load on the composite section.

M (Imp) is the moment due to live load impact on the composite section.

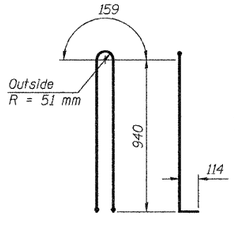


SECTION C-C

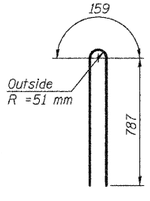
* BAR LIST

Bar	No.	Size	Length (m)	Shape
G$_1$	25	#13	2.267	
G$_2$	8	#13	1.733	
G$_3$	3	#15	9.230	
G$_4$	38	#10	1.244	

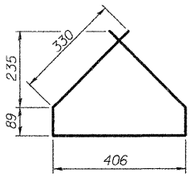
* For one beam only. (12 required)



BAR G1



BAR G2



BAR G4

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 914 mm	m	111.7

36" P.P.C. I-BEAM & DETAILS
(EAST APPROACHES)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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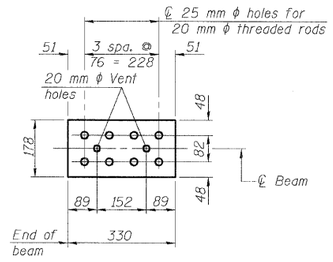
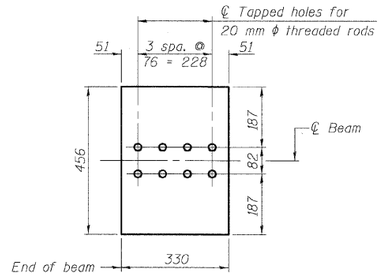
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	147
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 25
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

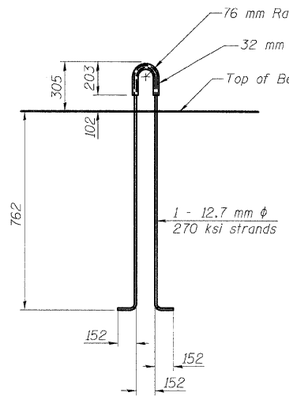


TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.



LIFTING LOOP DETAIL

NOTES

All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per meter of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 914 mm."

Inserts for 20 mm threaded dowel rods are to be two strut, coil type for interior Beams and single coil, flared loop type for exterior Beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand (Fu=1860 MPa).

The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 mm^2.

Non-prestressing steel shall conform to ASTM A706M (IL MOD) Grade 420.

Lifting loops shall be 1-12.7 mm ϕ strands (Fu=1860 MPa), as shown.

Required release strength, f'ci, shall be 35 MPa.

All dimensions are in millimeters (mm) except as noted.

See Sheet 3 of 48 for P.P.C. I-Beam Framing Plan

A minimum 63 mm ϕ lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270M Grade 345.

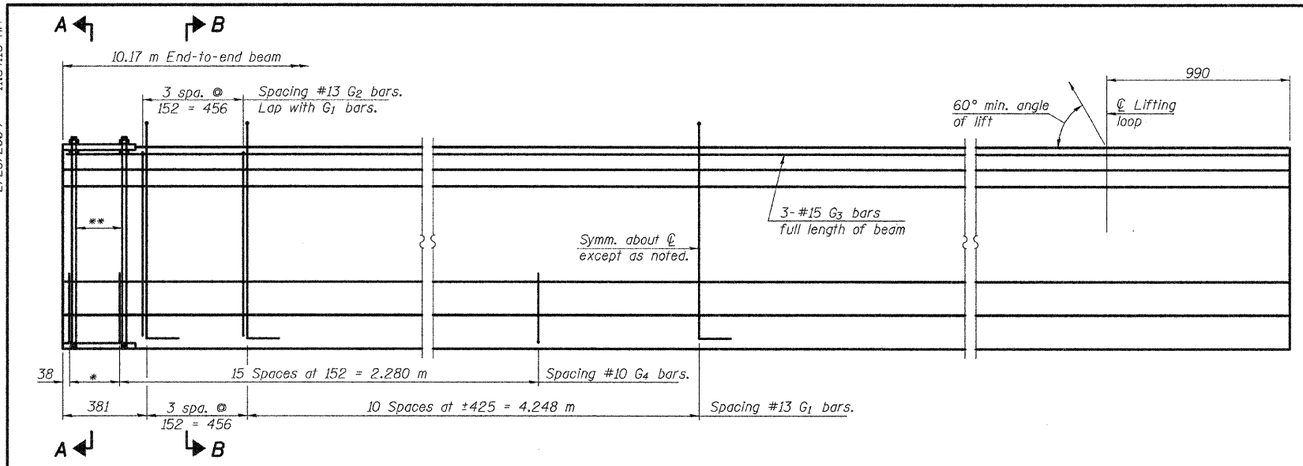
The bottom plates and studs shall be galvanized according to AASHTO M111.

Threaded rods shall be ASTM F 1554 Grade 380 MPa

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

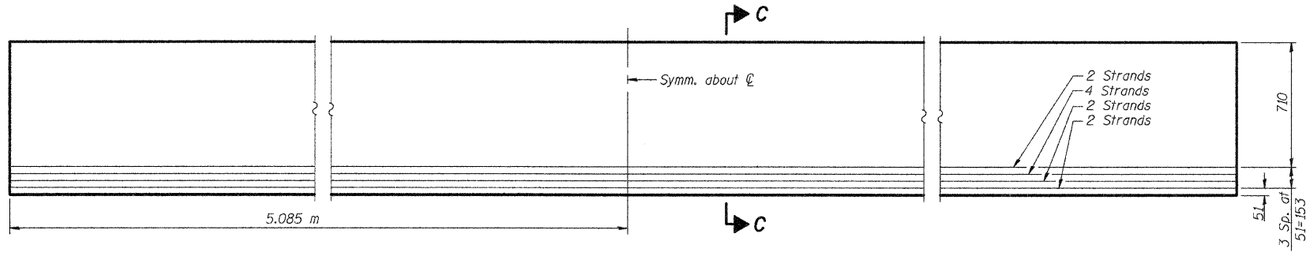
36" P.P.C. I-BEAM DETAILS
(EAST APPROACHES)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.



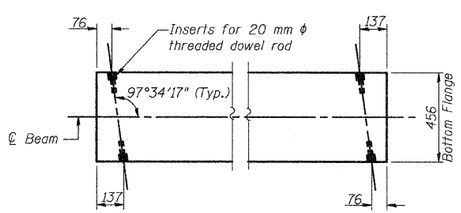
*3 spaces at 76 = 228
**4- 20 mm ϕ threaded dowel rods at 76 cts., Each Face.

ELEVATION OF BEAM
(Showing reinforcement & dimensions)



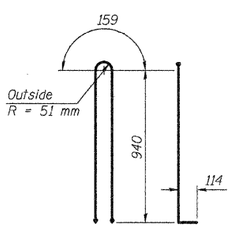
ELEVATION OF BEAM
(Showing Prestressing Steel)

INTERIOR BEAM REACTION TABLE		
		Abut. & Appr. Bent
R℄	(kN)	80
RsI℄	(kN)	27
RL	(kN)	155
Imp.	(kN)	47
R (Total)	(kN)	309

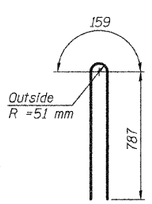


PLAN AT ENDS OF BEAM
(Showing Inserts)

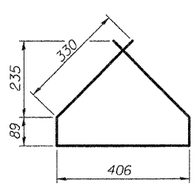
DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW



BAR G1



BAR G2



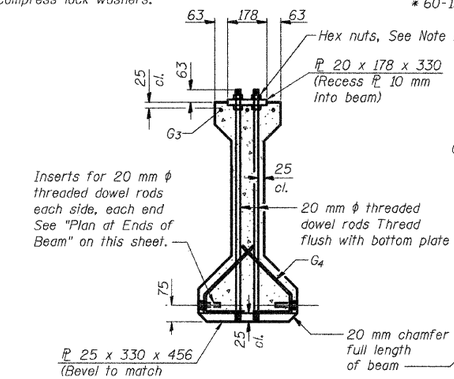
BAR G4

Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

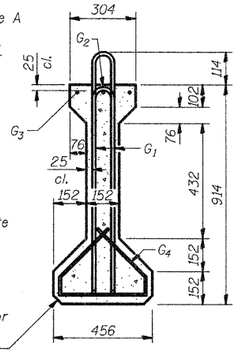
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. R. I. F. A. P. 310	*	MADISON	239	148
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 26
48 SHEETS

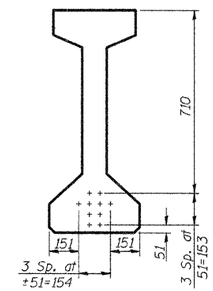
* 60-15HB-1 CONTRACT NO. 76635



SECTION A-A



SECTION B-B



SECTION C-C

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
I	(10^6 mm⁴)	20,249
I′	(10^6 mm⁴)	82,020
S_b	(10^3 mm³)	51,867
S_b'	(10^3 mm³)	107,953
S_t	(10^3 mm³)	38,643
S_t'	(10^3 mm³)	531,818
℘	(kN/m)	16.16
M℄	(kN·m)	199
sI℄	(kN/m)	5.47
MsI℄	(kN·m)	67
ML	(kN·m)	295
M (Imp)	(kN·m)	89

I and I′ are the moment of inertia and composite moment of interia of the beam section.

S_b and S_b' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.

S_t and S_t' are the non-composite and composite section modulus for the top fiber of the prestressed beam.

M℄ is the moment due to dead loads on the non-composite prestressed beam.

MsI℄ is the moment due to dead loads on the composite section.

ML is the moment due to live load on the composite section.

M (Imp) is the moment due to live load impact on the composite section.

* BAR LIST

Bar	No.	Size	Length (m)	Shape
G1	27	#13	2.267	
G2	8	#13	1.733	
G3	3	#15	10.09	
G4	38	#10	1.244	

* For one beam only. (12 required)

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 914 mm	m	122.0

36" P.P.C. I-BEAM & DETAILS (WEST APPROACHES)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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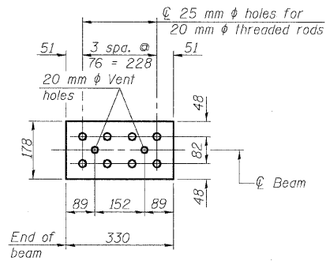
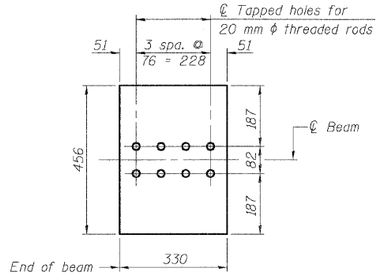
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	149
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 27
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.

NOTES

All inserts and threaded dowel rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per meter of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 914 mm."

Inserts for 20 mm threaded dowel rods are to be two strut, coil type for interior Beams and single coil, flared loop type for exterior Beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand (Fu=1860 MPa).

The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 mm^2.

Non-prestressing steel shall conform to ASTM A706M (IL MOD) Grade 420.

Lifting loops shall be 1-12.7 mm ϕ strands (Fu=1860 MPa), as shown.

Required release strength, f'ci, shall be 35 MPa.

All dimensions are in millimeters (mm) except as noted.

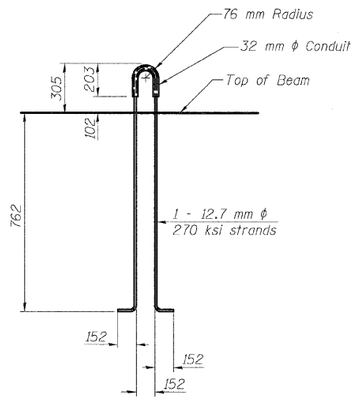
See Sheet 3 of 48 for P.P.C. I-Beam Framing Plan

A minimum 6.3 mm ϕ lifting pin shall be used to engage the lifting loops during handling.

The top and bottom plates shall be AASHTO M270M Grade 345.

The bottom plates and studs shall be galvanized according to AASHTO M111.

Threaded rods shall be ASTM F 1554 Grade 380 MPa

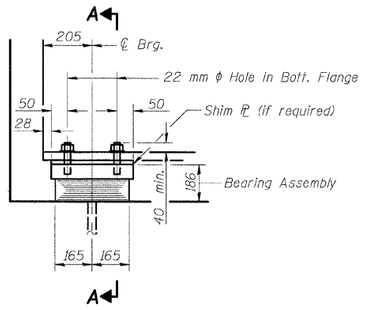


LIFTING LOOP DETAIL

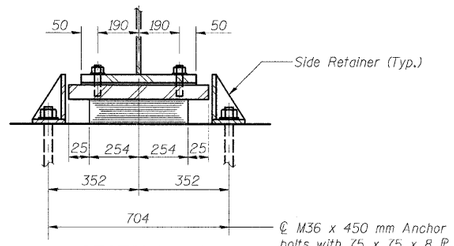
DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

36" P.P.C. I-BEAM DETAILS
(WEST APPROACHES)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

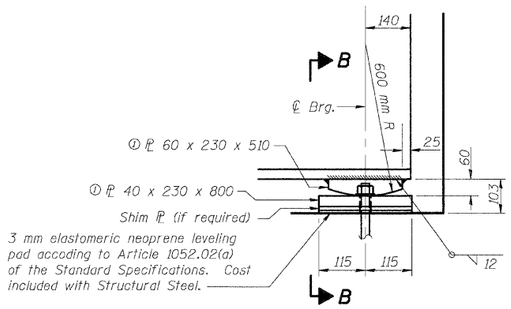


ELEVATION AT E. ABUT.

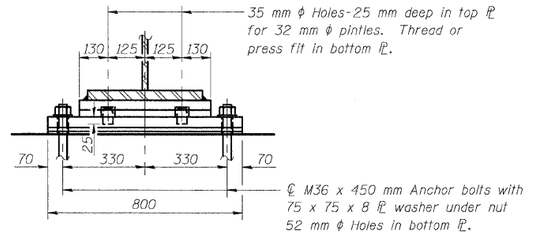


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



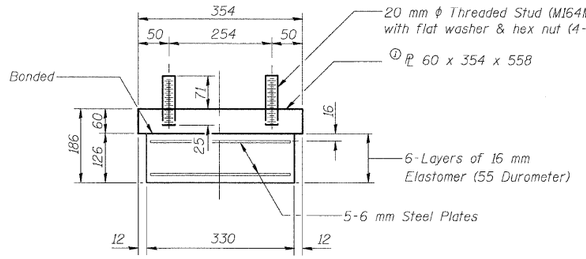
ELEVATION AT W. ABUT.



SECTION B-B

FIXED BEARING

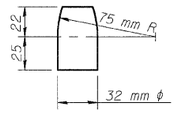
(12-Req'd)



BEARING ASSEMBLY

(12-Req'd)

Note: Shim plates shall not be placed under Bearing Assembly.

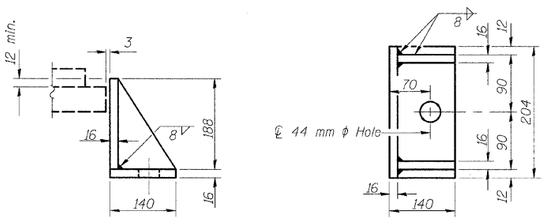


① PINTLE

(24-Req'd)

① Steel Plates shall conform to the requirements of AASHTO M270M Grade 345.

Notes: Anchor bolts at fixed bearings may be built into the masonry.
See sheet 44 of 48 for Anchor Bolt installation.



① SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel. (24 Req'd)

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

I-2-E1 (M) 4-30-99

BEARING DETAILS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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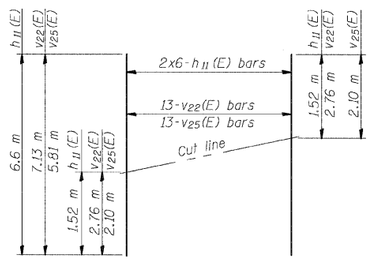
Notes:
Space reinforcement in cap to miss anchor bolts.
Work this sheet with sheets 30 & 31 of 48.
Pour steps monolithically with cap.

APPR. BENT-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 900 KN
Allowable Resistance Available: 300 KN
Est. Length: 13.0 m
No. Req'd.: 12

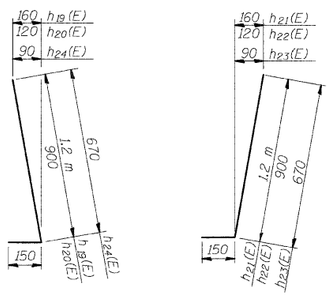
ABUT.-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 1500 KN
Allowable Resistance Available: 500 KN
Est. Length: 14.5 m
No. Req'd.: 20



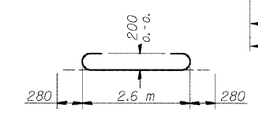
FIELD CUTTING DIAGRAM

Order h_{11} (E), v_{22}(E) and v_{25}(E) bars full length. Cut to fit and use remainder of bars in opposite face of curtain wall.

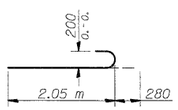


BARS h_{19}(E), h_{20}(E) & h_{24}(E)

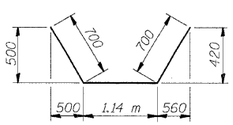
BARS h_{21}(E), h_{22}(E) & h_{23}(E)



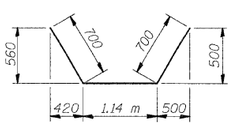
BAR t(E)



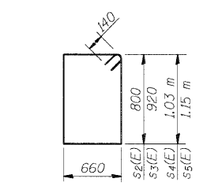
BAR n(E)



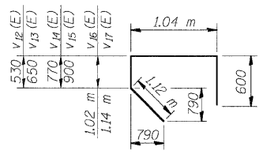
BAR h_8(E)



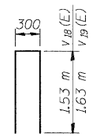
BAR h_9(E)



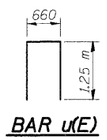
BARS s_2(E) thru s_5(E)



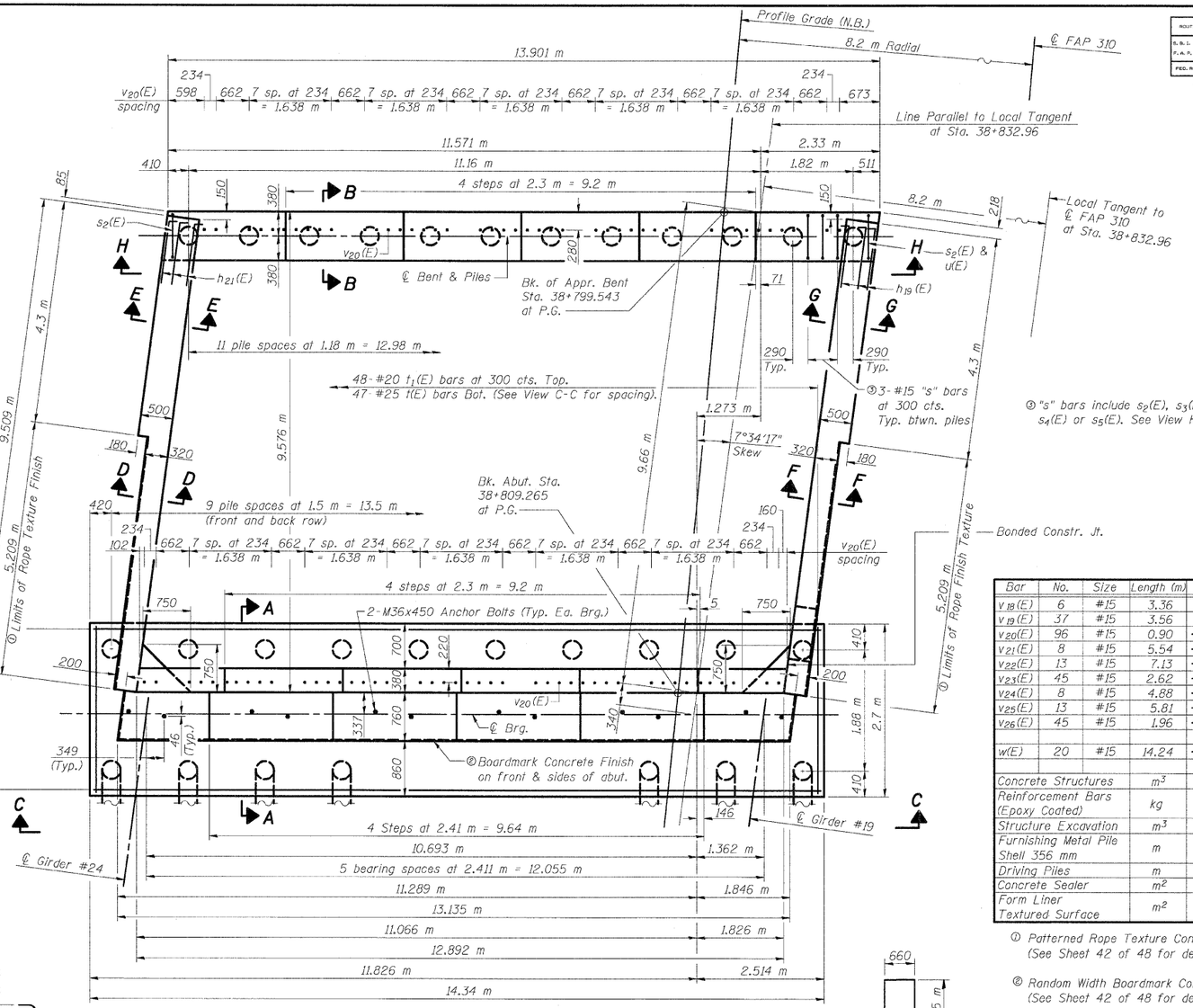
BARS v_{12} (E) thru v_{17} (E)



BARS v_{18} (E) & v_{19} (E)



BAR u(E)



Bar	No.	Size	Length (m)	Shape
v_{18}(E)	6	#15	3.36	
v_{19}(E)	37	#15	3.56	
v_{20}(E)	96	#15	0.90	
v_{21}(E)	8	#15	5.54	
v_{22}(E)	13	#15	7.13	
v_{23}(E)	45	#15	2.62	
v_{24}(E)	8	#15	4.88	
v_{25}(E)	13	#15	5.81	
v_{26}(E)	45	#15	1.96	
w(E)	20	#15	14.24	
Concrete Structures		m^3	105.8	
Reinforcement Bars (Epoxy Coated)		kg	6910	
Structure Excavation		m^3	219	
Furnishing Metal Pile Shell 356 mm		m	446	
Driving Piles		m	446	
Concrete Sealer		m^2	10	
Form Liner Textured Surface		m^2	76	

① Patterned Rope Texture Concrete (See Sheet 42 of 48 for details)

© Random Width Boardmark Concrete (See Sheet 42 of 48 for details)

Bar	No.	Size	Length (m)	Shape
h(E)	20	#15	13.00	
h_1(E)	12	#15	3.10	
h_2(E)	2	#15	8.82	
h_3(E)	4	#15	4.00	
h_4(E)	4	#15	1.60	
h_5(E)	6	#15	12.81	
h_6(E)	10	#15	4.01	
h_7(E)	2	#15	1.74	
h_8(E)	16	#15	2.54	
h_9(E)	16	#15	2.54	
h_{10}(E)	16	#15	1.01	
h_{11}(E)	12	#15	6.60	
h_{12}(E)	12	#15	8.78	
h_{13}(E)	16	#15	9.41	
h_{14}(E)	4	#15	3.65	
h_{15}(E)	2	#15	3.54	
h_{16}(E)	8	#15	4.21	
h_{17}(E)	6	#25	4.87	
h_{18}(E)	4	#25	7.25	
h_{19}(E)	25	#15	1.35	
h_{20}(E)	6	#15	1.05	
h_{21}(E)	23	#15	1.35	
h_{22}(E)	6	#15	1.05	
h_{23}(E)	6	#15	0.78	
h_{24}(E)	6	#15	0.78	
n(E)	104	#25	2.33	
p(E)	6	#20	13.80	
p_1(E)	11	#20	3.20	
p_2(E)	2	#20	9.11	
p_3(E)	3	#20	2.21	
s_2(E)	18	#15	3.20	
s_3(E)	6	#15	3.44	
s_4(E)	6	#15	3.66	
s_5(E)	5	#15	3.90	
t(E)	47	#25	3.16	
t_1(E)	48	#20	2.60	
u(E)	12	#15	3.16	
v(E)	6	#20	2.82	
v_1(E)	8	#20	2.94	
v_2(E)	8	#20	3.07	
v_3(E)	8	#20	3.19	
v_4(E)	8	#20	3.31	
v_5(E)	6	#20	3.44	
v_6(E)	6	#25	2.82	
v_7(E)	8	#25	2.94	
v_8(E)	8	#25	3.07	
v_9(E)	8	#25	3.19	
v_{10}(E)	8	#25	3.31	
v_{11}(E)	6	#25	3.44	
v_{12}(E)	6	#15	3.29	
v_{13}(E)	8	#15	3.41	
v_{14}(E)	8	#15	3.53	
v_{15}(E)	8	#15	3.66	
v_{16}(E)	8	#15	3.78	
v_{17}(E)	6	#15	3.90	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	151
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 29
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

N.B. EAST ABUTMENT BILL OF MATERIAL

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

N.B. EAST ABUTMENT (1 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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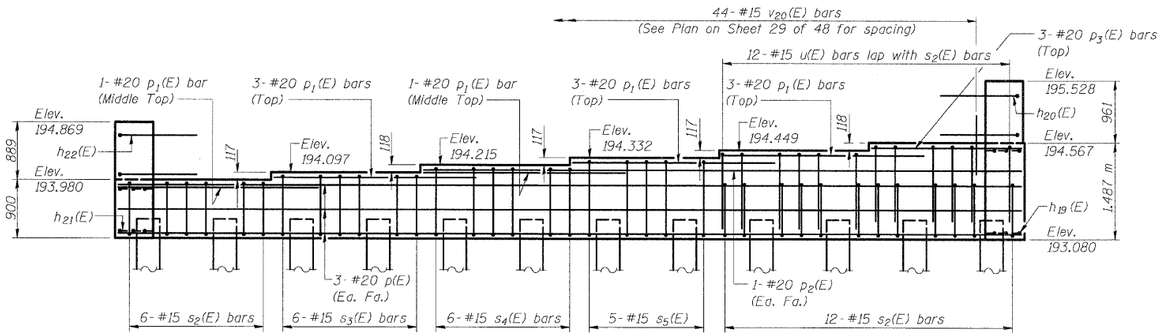
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	152
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

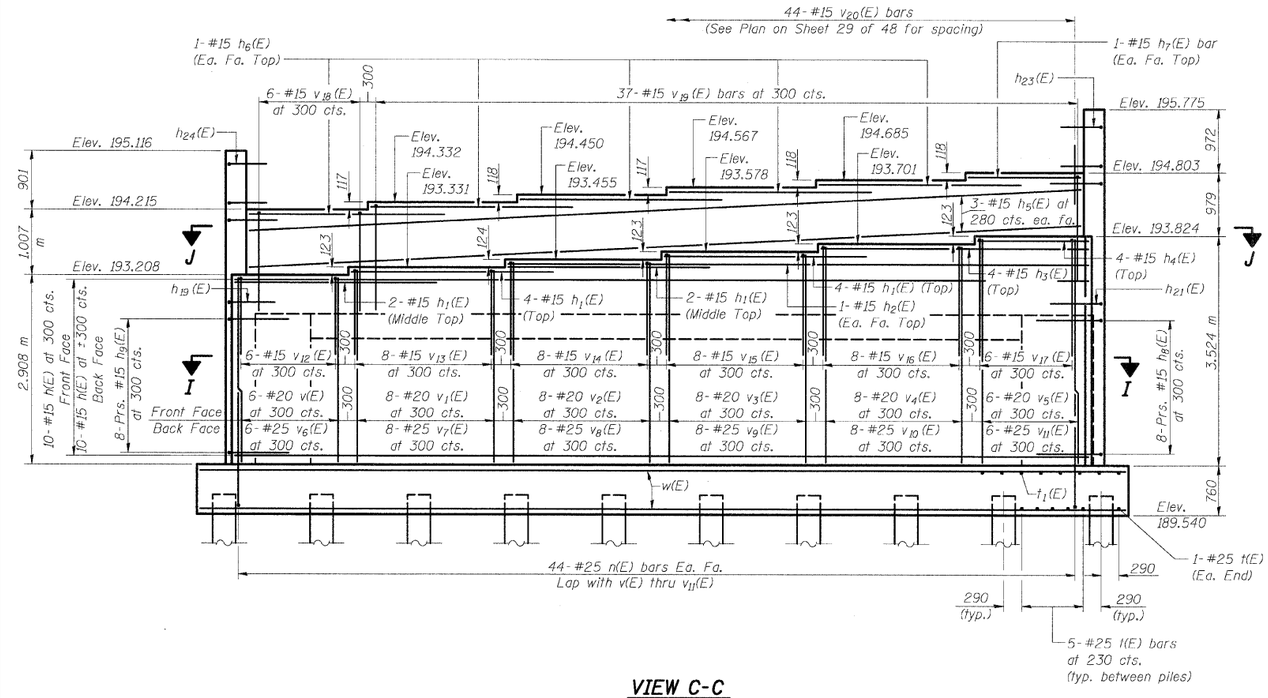
SHEET NO. 30
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



VIEW H-H

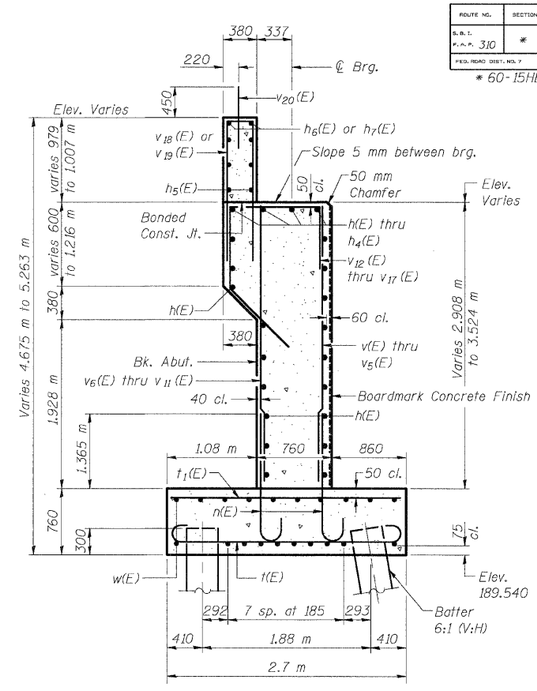
See Plan on Sheet 29 of 48 for spacing of $s_2(E)$ thru $s_5(E)$



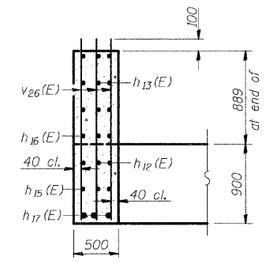
VIEW C-C

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

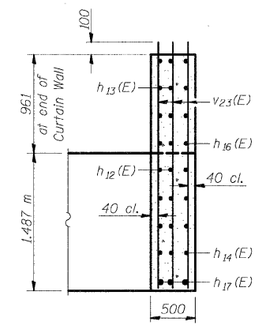
Note:
Work this sheet with sheets 29 & 31 of 48.



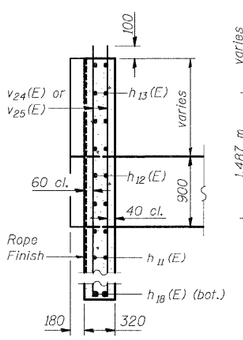
SECTION A-A



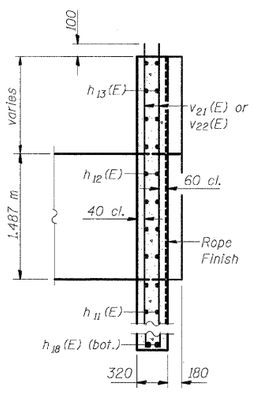
SECTION E-E



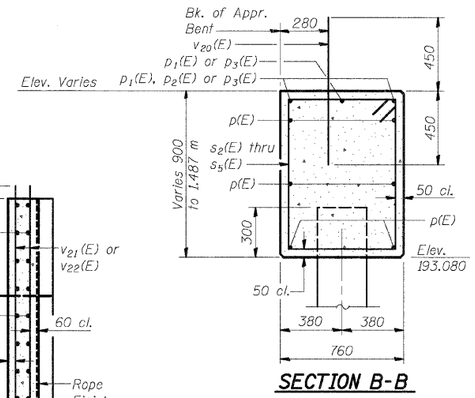
SECTION G-G



SECTION D-D



SECTION F-F



SECTION B-B

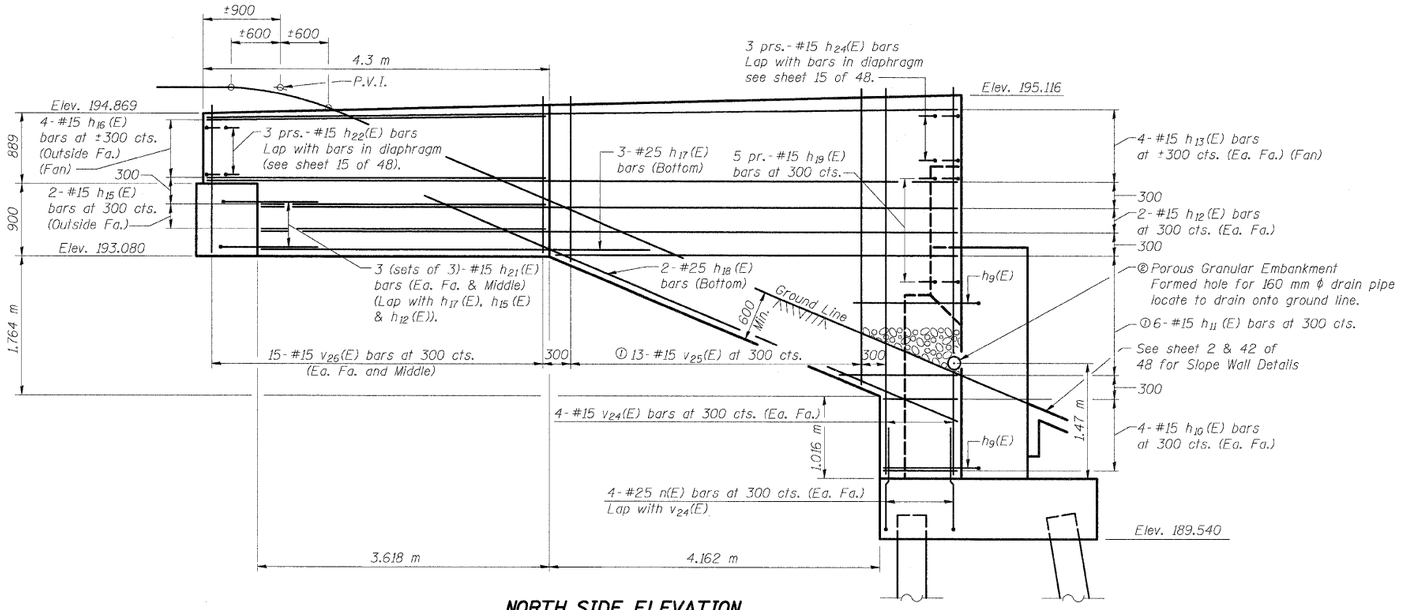
N.B. EAST ABUTMENT (2 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	153
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 31
48 SHEETS

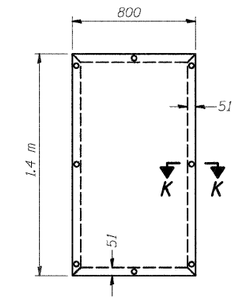
* 60-15HB-1 CONTRACT NO. 76635



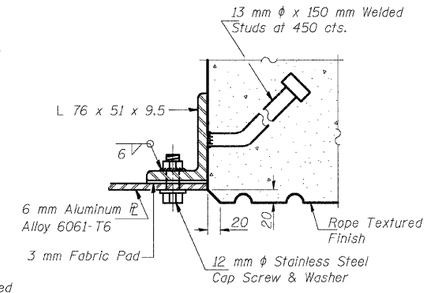
NORTH SIDE ELEVATION
(Looking South)

① Order h_{11}(E), v_{22}(E) & v_{25}(E) bars full length cut to fit as shown and use remainder of bars in opposite face of curtain wall. See Field Cutting Diagram on Sheet 29 of 48.

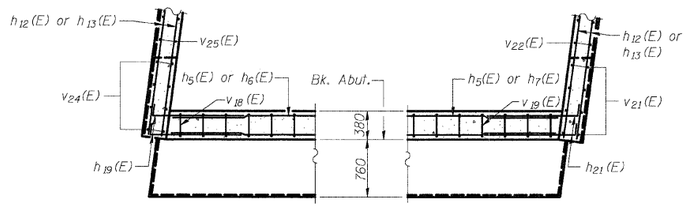
② See Vaulted Abutment & Slopewall Detail on sheet 2 of 48.



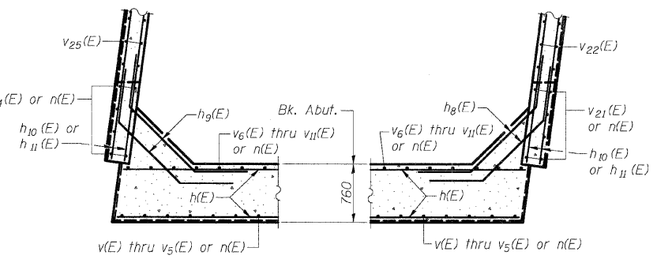
DOOR ELEVATION
Cost of door and frame are included with "Concrete Structures".



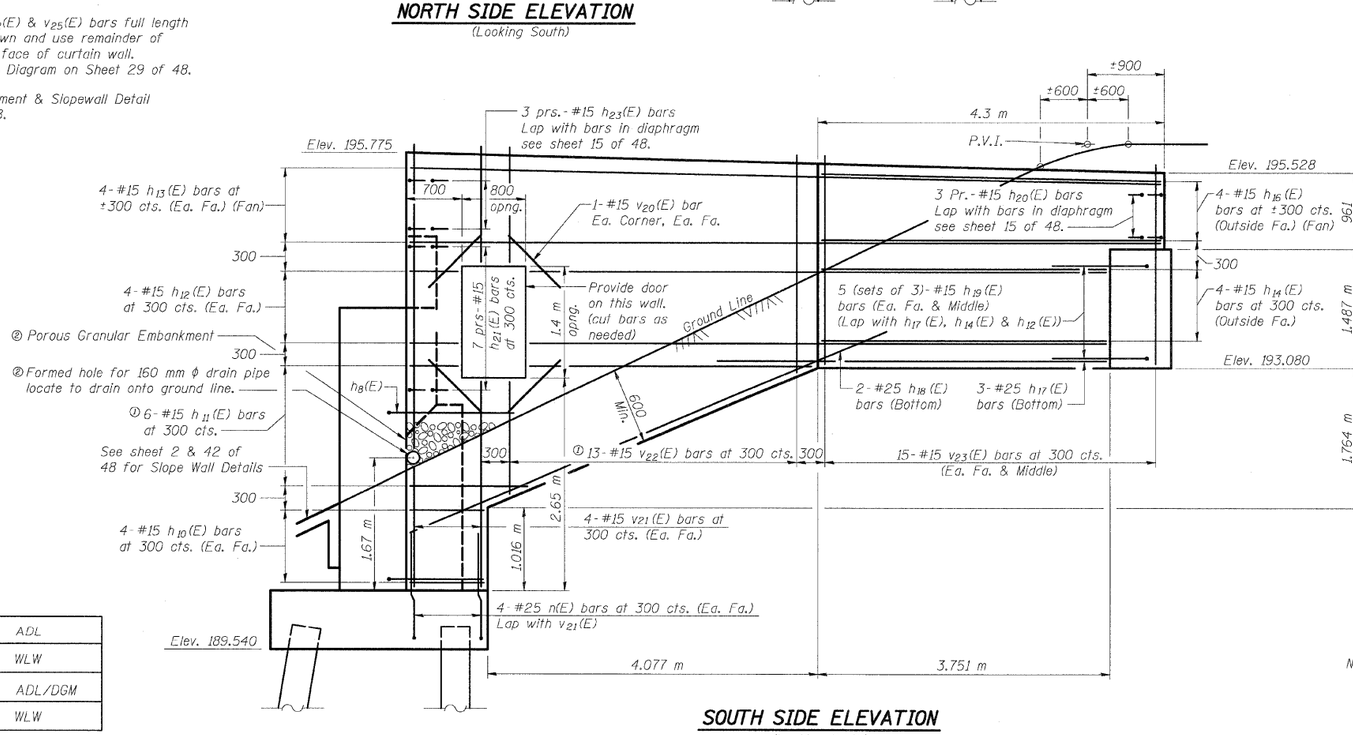
SECTION K-K



SECTION J-J



SECTION I-I



SOUTH SIDE ELEVATION
(Looking North)

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

Note:
Work this sheet with sheets 29 & 30 of 48.

N.B. EAST ABUTMENT (3 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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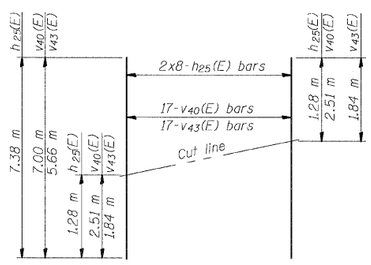
Notes:
Space reinforcement in cap to miss anchor bolts.
Work this sheet with sheets 33 & 34 of 48.
Pour steps monolithically with cap.

APPR. BENT-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 900 KN
Allowable Resistance Available: 300 KN
Est. Length: 18.0 m
No. Req'd.: 12

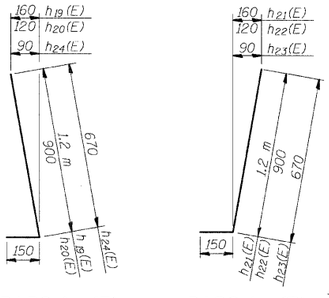
ABUT.-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 1500 KN
Allowable Resistance Available: 500 KN
Est. Length: 15.0 m
No. Req'd.: 19 & 1 Test Pile



FIELD CUTTING DIAGRAM

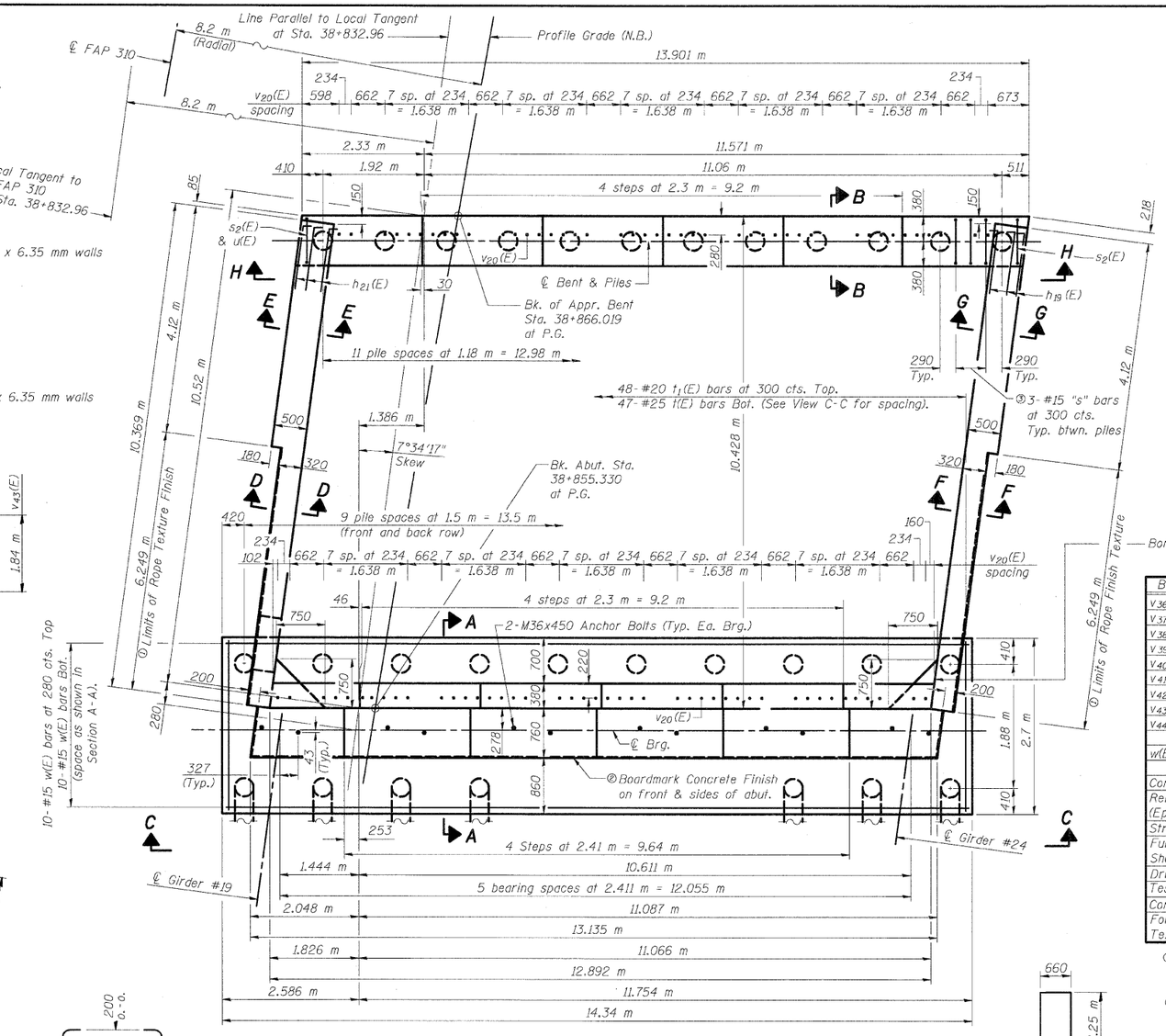
Order $h_{25}(E)$, $v_{40}(E)$ and $v_{43}(E)$ bars full length. Cut to fit and use remainder of bars in opposite face of curtain wall.



BARS $h_{19}(E)$, $h_{20}(E)$ & $h_{24}(E)$

BARS $h_{21}(E)$, $h_{22}(E)$ & $h_{23}(E)$

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW



PLAN

③ "s" bars include $s_2(E)$, $s_3(E)$, $s_4(E)$ or $s_5(E)$. See View H-H.

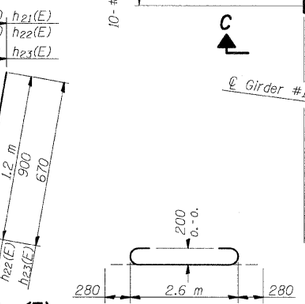
Bar	No.	Size	Length (m)	Shape
v36(E)	8	#25	3.29	
v37(E)	8	#25	3.41	
v38(E)	6	#25	3.54	
v39(E)	8	#15	5.60	
v40(E)	17	#15	7.00	
v41(E)	42	#15	2.52	
v42(E)	8	#15	4.92	
v43(E)	17	#15	5.66	
v44(E)	42	#15	1.85	
w(E)	20	#15	14.24	
Concrete Structures		m^3	107.7	
Reinforcement Bars (Epoxy Coated)		kg	7090	
Structure Excavation		m^3	223	
Furnishing Metal Pile Shell 356 mm		m	501	
Driving Piles		m	501	
Test Pile Metal Shells		Each	1	
Concrete Sealer		m^2	10	
Form Liner Textured Surface		m^2	82	

Ⓛ Patterned Rope Texture Concrete (See Sheet 42 of 48 for details)

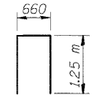
Ⓑ Random Width Boardmark Concrete (See Sheet 42 of 48 for details)

N.B. WEST ABUTMENT BILL OF MATERIAL

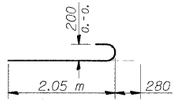
Bar	No.	Size	Length (m)	Shape
h(E)	20	#15	13.00	
h_1(E)	12	#15	3.10	
h_2(E)	2	#15	8.82	
h_3(E)	4	#15	4.00	
h_4(E)	4	#15	1.60	
h_5(E)	6	#15	12.81	
h_6(E)	10	#15	4.01	
h_7(E)	2	#15	1.74	
h_8(E)	16	#15	2.54	
h_9(E)	16	#15	2.54	
h_{10}(E)	16	#15	1.01	
h_{19}(E)	23	#15	1.35	
h_{20}(E)	6	#15	1.05	
h_{21}(E)	25	#15	1.35	
h_{22}(E)	6	#15	1.05	
h_{23}(E)	6	#15	0.78	
h_{24}(E)	6	#15	0.78	
h_{25}(E)	16	#15	7.38	
h_{26}(E)	12	#15	9.67	
h_{27}(E)	16	#15	10.28	
h_{28}(E)	4	#15	3.35	
h_{29}(E)	2	#15	3.47	
h_{30}(E)	8	#15	4.03	
h_{31}(E)	6	#25	4.70	
h_{32}(E)	4	#25	8.30	
n(E)	104	#25	2.33	
p(E)	6	#20	13.80	
p_1(E)	11	#20	3.20	
p_2(E)	2	#20	9.11	
p_3(E)	3	#20	2.21	
s_2(E)	18	#15	3.20	
s_3(E)	6	#15	3.44	
s_4(E)	6	#15	3.66	
s_5(E)	5	#15	3.90	
t(E)	47	#25	3.16	
t_1(E)	48	#20	2.60	
u(E)	12	#15	3.16	
v_{12}(E)	6	#15	3.29	
v_{13}(E)	8	#15	3.41	
v_{14}(E)	8	#15	3.53	
v_{15}(E)	8	#15	3.66	
v_{16}(E)	8	#15	3.78	
v_{17}(E)	6	#15	3.90	
v_{18}(E)	6	#15	3.36	
v_{19}(E)	37	#15	3.56	
v20(E)	96	#15	0.90	
v27(E)	6	#20	2.92	
v28(E)	8	#20	3.04	
v29(E)	8	#20	3.17	
v30(E)	8	#20	3.29	
v31(E)	8	#20	3.41	
v32(E)	6	#20	3.54	
v33(E)	6	#25	2.92	
v34(E)	8	#25	3.04	
v35(E)	8	#25	3.17	



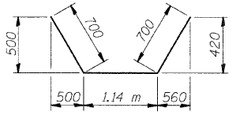
BAR t(E)



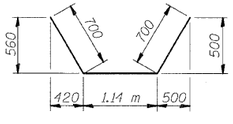
BAR u(E)



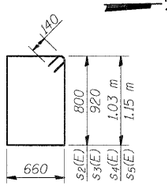
BAR n(E)



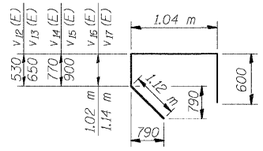
BAR h_8(E)



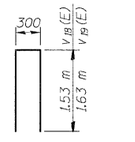
BAR h_9(E)



BARS s_2(E) thru s_5(E)



BARS v_{12} (E) thru v_{17} (E)



BARS v_{18} (E) & v_{19} (E)

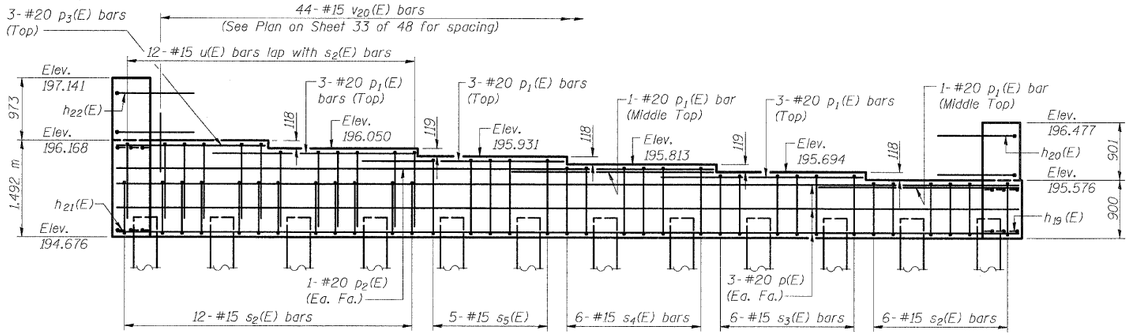
N.B. WEST ABUTMENT (1 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. R. 310	*	MADISON	239	155
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

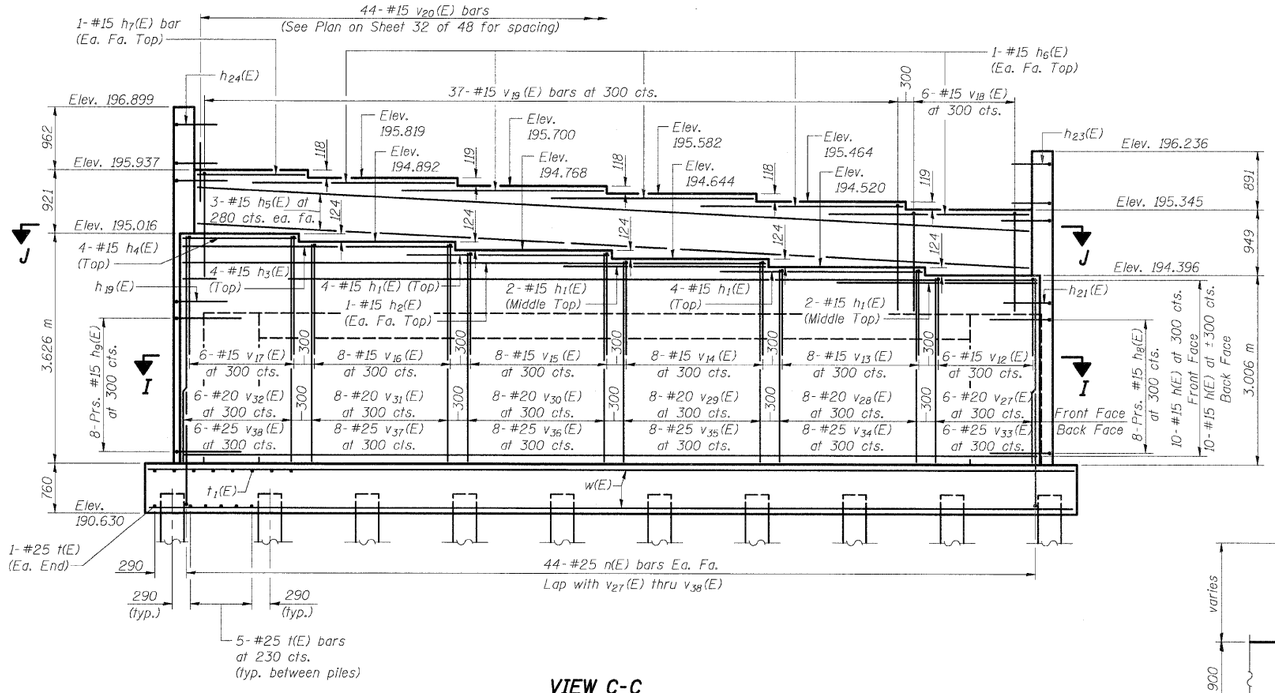
SHEET NO. 33
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

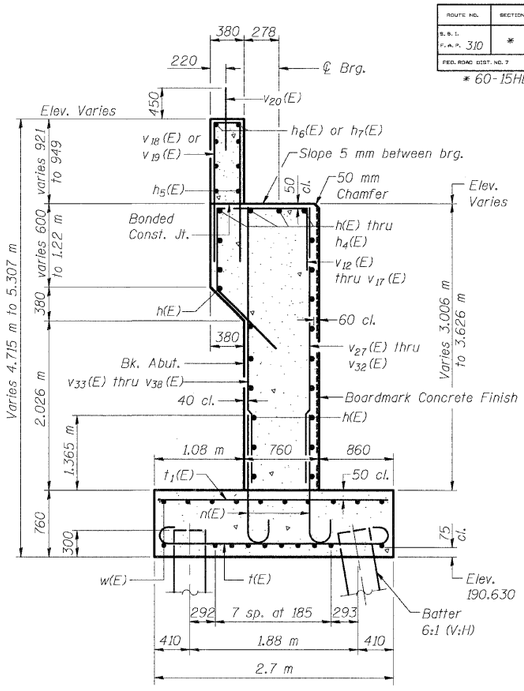


VIEW H-H

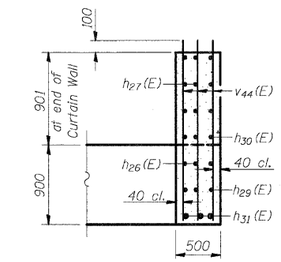
See Plan on Sheet 32 of 48 for spacing of s_2(E) thru s_5(E)



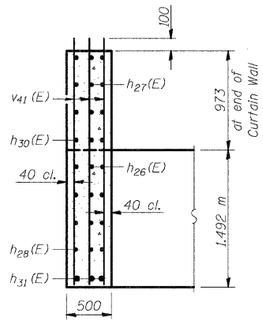
VIEW C-C



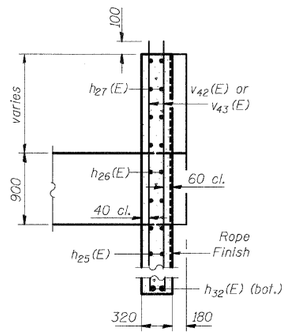
SECTION A-A



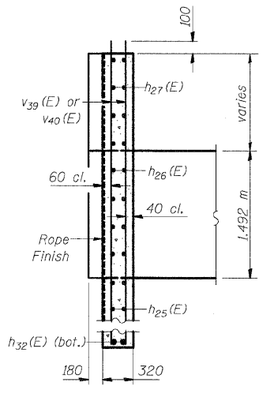
SECTION G-G



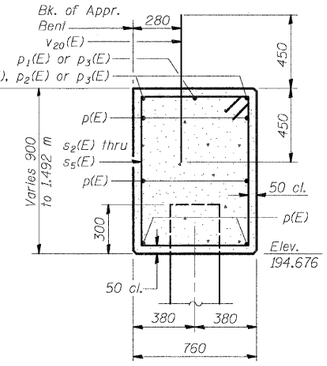
SECTION E-E



SECTION F-F



SECTION D-D



SECTION B-B

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

Note:
Work this sheet with sheets 32 & 34 of 48.

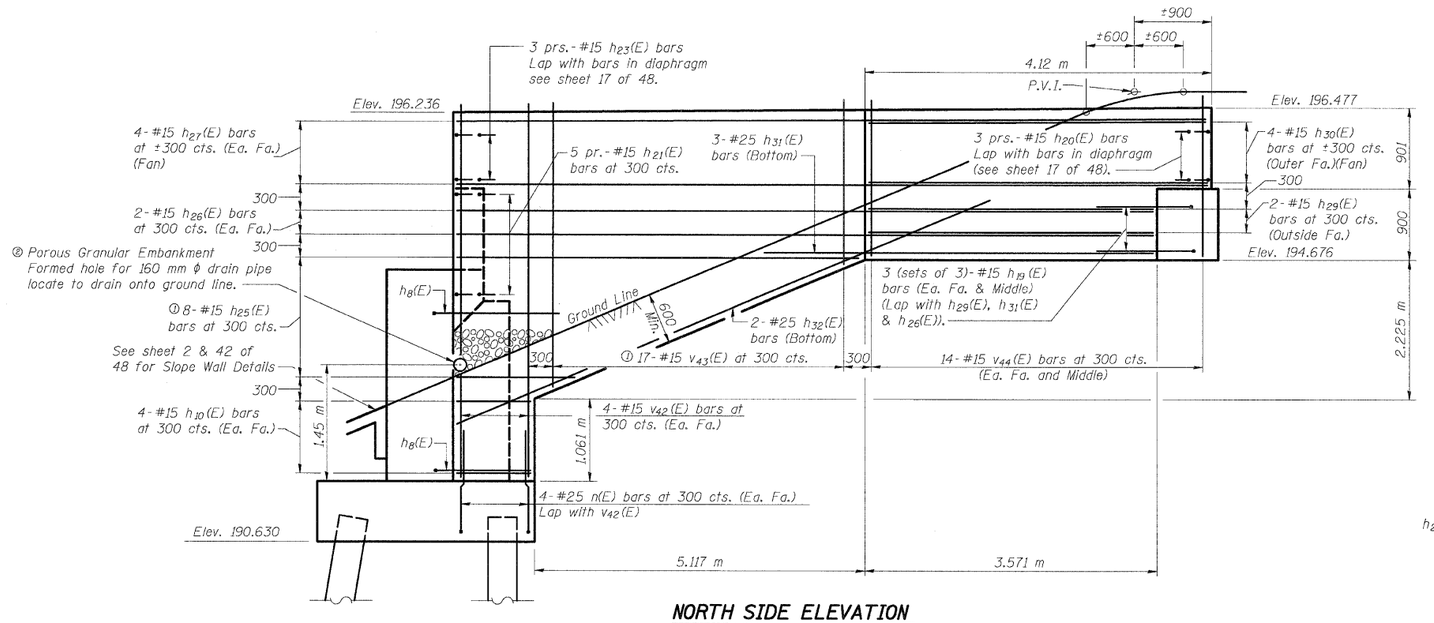
N.B. WEST ABUTMENT (2 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

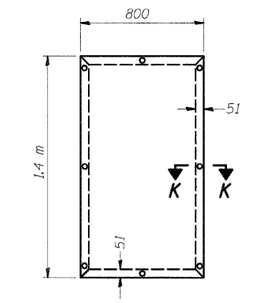
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. P. 310	*	MADISON	239	156
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 34
48 SHEETS

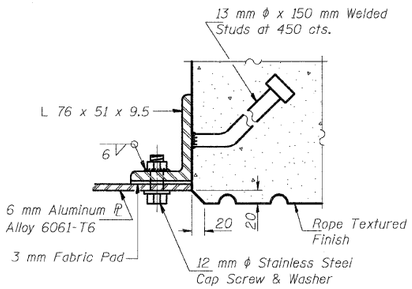
* 60-15HB-1 CONTRACT NO. 76635



NORTH SIDE ELEVATION
(Looking South)



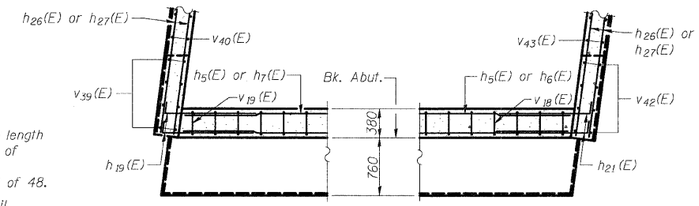
DOOR ELEVATION
Cost of door and frame are included with "Concrete Structures".



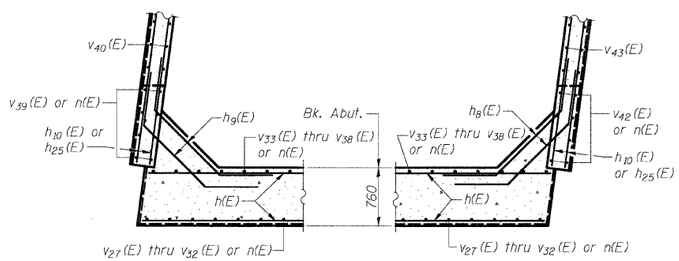
SECTION K-K

① Order h25(E), v43(E) & v40(E) bars full length cut to fit as shown and use remainder of bars in opposite face of curtain wall. See Field Cutting Diagram on Sheet 32 of 48.

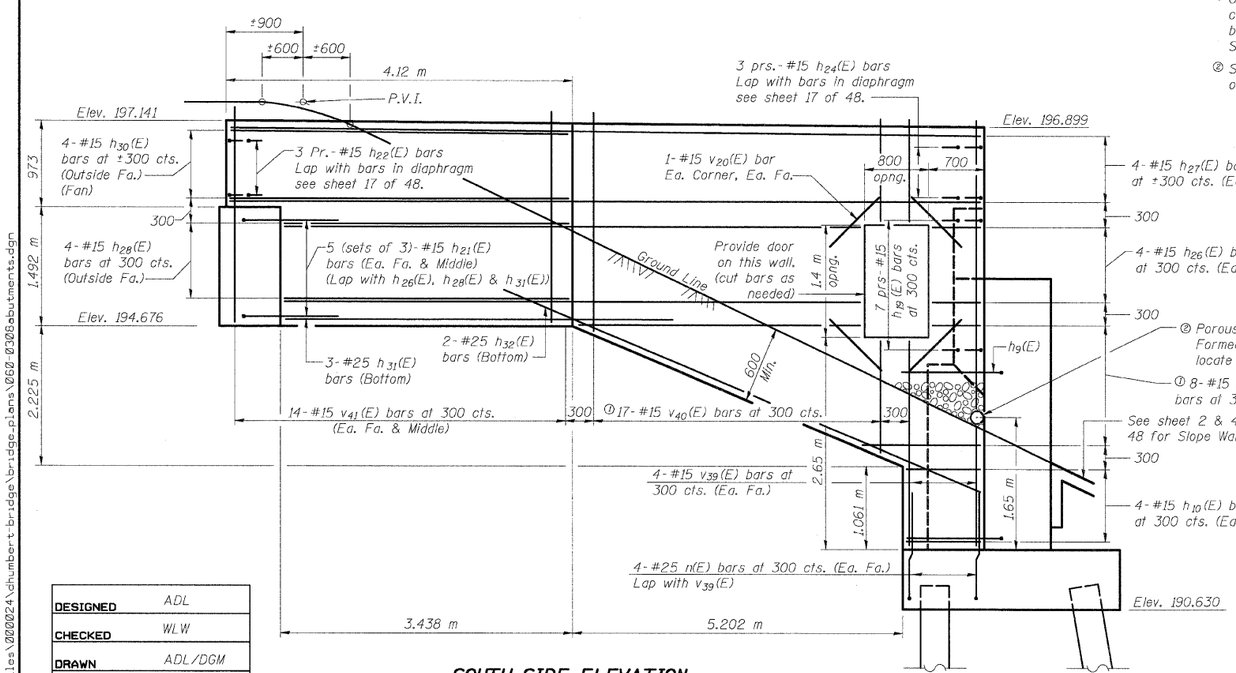
② See Vaulted Abutment & Slopewall Detail on sheet 2 of 48.



SECTION J-J



SECTION I-I



SOUTH SIDE ELEVATION
(Looking North)

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

Note:
Work this sheet with sheets 32 & 33 of 48.

N.B. WEST ABUTMENT (3 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	157
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 35
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

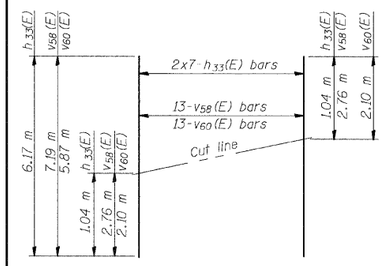
Notes:
Space reinforcement in cap to miss anchor bolts.
Work this sheet with sheets 36 & 37 of 48.
Pour steps monolithically with cap.

APPR. BENT-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 900 KN
Allowable Resistance Available: 300 KN
Est. Length: 16.5 m
No. Req'd.: 12

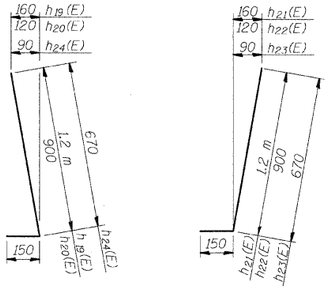
ABUT.-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 1500 KN
Allowable Resistance Available: 500 KN
Est. Length: 16.5 m
No. Req'd.: 19+1 Test Pile



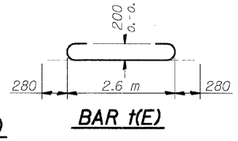
FIELD CUTTING DIAGRAM

Order $h_{33}(E)$, $v_{58}(E)$ and $v_{60}(E)$ bars full length. Cut to fit and use remainder of bars in opposite face of curtain wall.

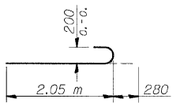


BARS $h_{19}(E)$, $h_{20}(E)$ & $h_{24}(E)$

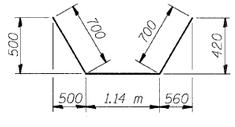
BARS $h_{21}(E)$, $h_{22}(E)$ & $h_{23}(E)$



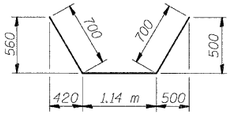
BAR t(E)



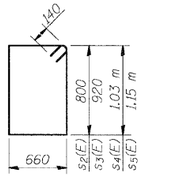
BAR n(E)



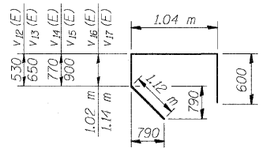
BAR h_8(E)



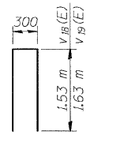
BAR h_9(E)



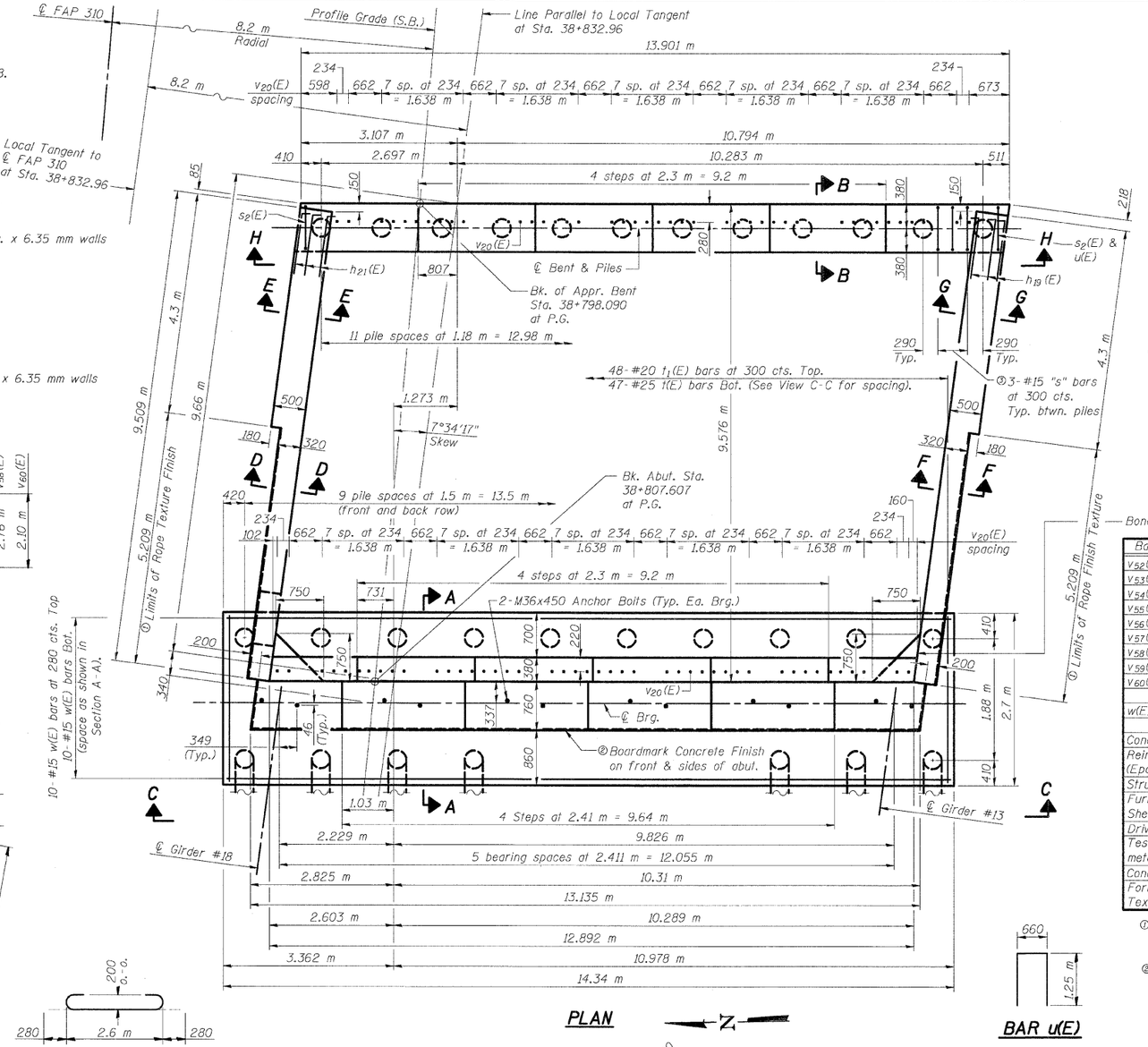
BARS s_2(E) thru s_5(E)



BARS v_{12} (E) thru v_{17} (E)



BARS v_{18} (E) & v_{19} (E)



③ "s" bars include s_2(E), s_3(E), s_4(E) or s_5(E). See View H-H.

Bar	No.	Size	Length (m)	Shape
v_{52}(E)	8	#25	3.12	
v_{53}(E)	8	#25	3.24	
v_{54}(E)	8	#25	3.37	
v_{55}(E)	8	#25	3.49	
v_{56}(E)	6	#25	3.62	
v_{57}(E)	8	#15	5.71	
v_{58}(E)	13	#15	7.19	
v_{59}(E)	8	#15	5.05	
v_{60}(E)	13	#15	5.87	
w(E)	20	#15	14.24	
Concrete Structures		m^3	107.8	
Reinforcement Bars (Epoxy Coated)		kg	7040	
Structure Excavation		m^3	222	
Furnishing Metal Pile Shell 356 mm		m	511.5	
Driving Piles		m	511.5	
Test Piles metal shells		each	1	
Concrete Sealer		m^2	10	
Form Liner Textured Surface		m^2	79	

① Patterned Rope Texture Concrete (See Sheet 42 of 48 for details)

② Random Width Boardmark Concrete (See Sheet 42 of 48 for details)

S.B. EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h(E)	22	#15	13.00	
h_1(E)	12	#15	3.10	
h_2(E)	2	#15	8.82	
h_3(E)	4	#15	4.00	
h_4(E)	4	#15	1.60	
h_5(E)	6	#15	12.81	
h_6(E)	10	#15	4.01	
h_7(E)	2	#15	1.74	
h_8(E)	18	#15	2.54	
h_9(E)	18	#15	2.54	
h_{10}(E)	16	#15	1.01	
h_{12}(E)	12	#15	8.78	
h_{13}(E)	16	#15	9.41	
h_{14}(E)	4	#15	3.65	
h_{15}(E)	2	#15	3.54	
h_{16}(E)	8	#15	4.21	
h_{17}(E)	6	#25	4.87	
h_{18}(E)	4	#25	7.25	
h_{19}(E)	25	#15	1.35	
h_{20}(E)	6	#15	1.05	
h_{21}(E)	23	#15	1.35	
h_{22}(E)	6	#15	1.05	
h_{23}(E)	6	#15	0.78	
h_{24}(E)	6	#15	0.78	
h_{33}(E)	14	#15	6.17	
n(E)	104	#25	2.33	
p(E)	6	#20	13.80	
p_1(E)	11	#20	3.20	
p_2(E)	2	#20	9.11	
p_3(E)	3	#20	2.21	
s_2(E)	18	#15	3.20	
s_3(E)	6	#15	3.44	
s_4(E)	6	#15	3.66	
s_5(E)	5	#15	3.90	
t(E)	47	#25	3.16	
t_1(E)	48	#20	2.60	
u(E)	12	#15	3.16	
v_{12}(E)	6	#15	3.29	
v_{13}(E)	8	#15	3.41	
v_{14}(E)	8	#15	3.53	
v_{15}(E)	8	#15	3.66	
v_{16}(E)	8	#15	3.78	
v_{17}(E)	6	#15	3.90	
v_{18}(E)	6	#15	3.36	
v_{19}(E)	37	#15	3.56	
v_{20}(E)	96	#15	0.90	
v_{23}(E)	45	#15	2.62	
v_{26}(E)	45	#15	1.96	
v_{45}(E)	6	#20	3.00	
v_{46}(E)	8	#20	3.12	
v_{47}(E)	8	#20	3.24	
v_{48}(E)	8	#20	3.37	
v_{49}(E)	8	#20	3.49	
v_{50}(E)	6	#20	3.62	
v_{51}(E)	6	#25	3.00	

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

S.B. EAST ABUTMENT (1 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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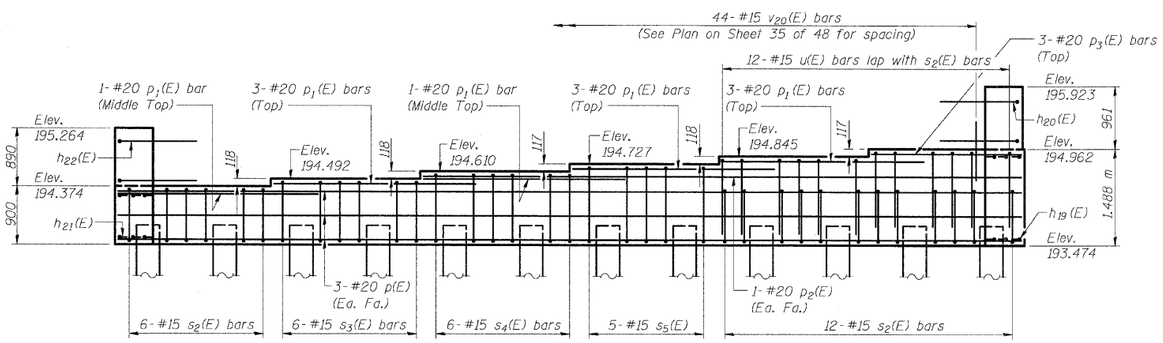
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	158
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		

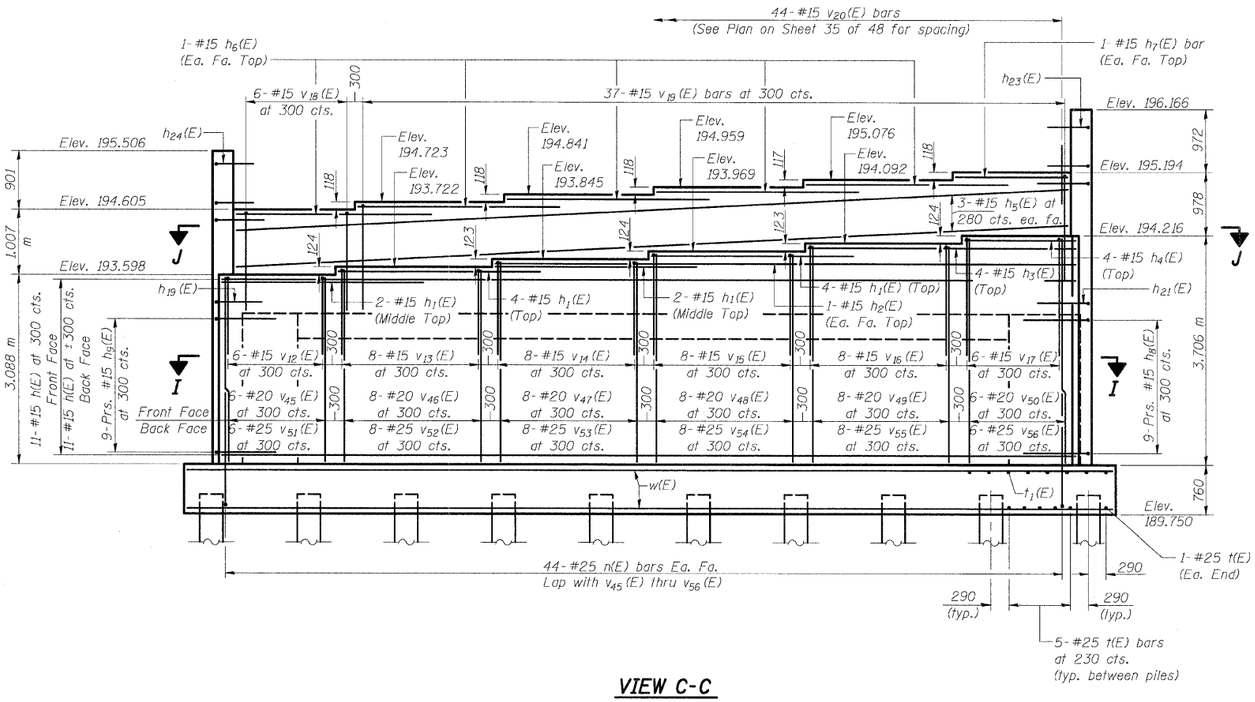
SHEET NO. 36
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

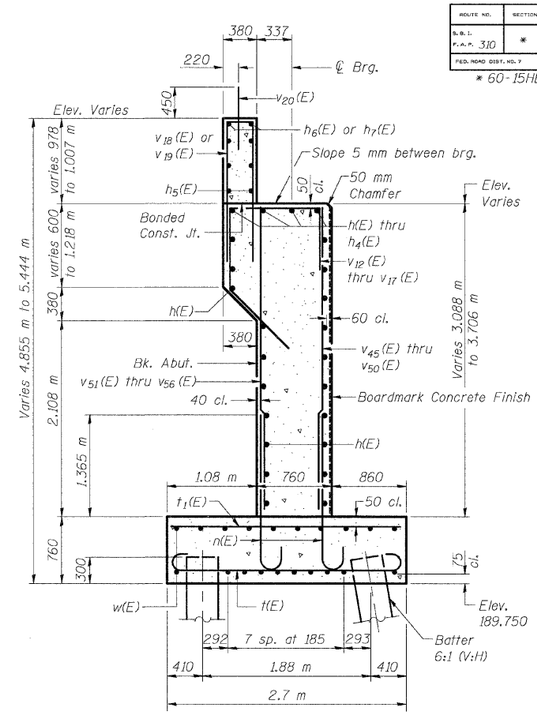


VIEW H-H

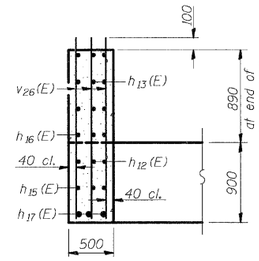
See Plan on Sheet 35 of 48 for spacing of s_2(E) thru s_5(E)



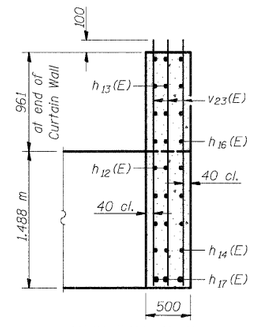
VIEW C-C



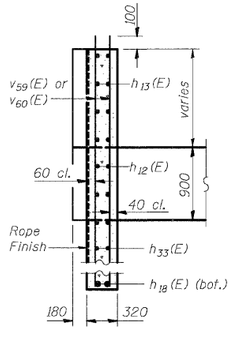
SECTION A-A



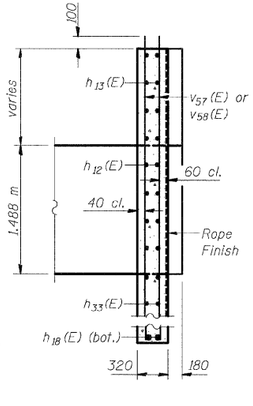
SECTION E-E



SECTION G-G



SECTION D-D



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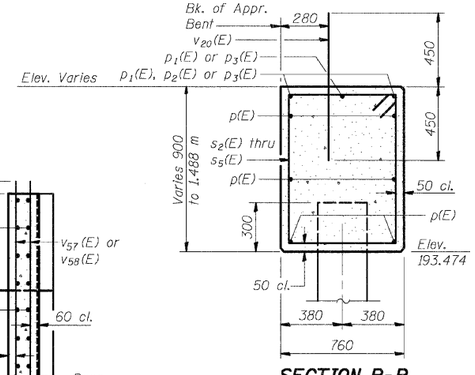


SECTION B-B

S.B. EAST ABUTMENT (2 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

DESIGNED	A.D.L.
CHECKED	W.L.W.
DRAWN	A.D.L./D.G.M.
CHECKED	W.L.W.

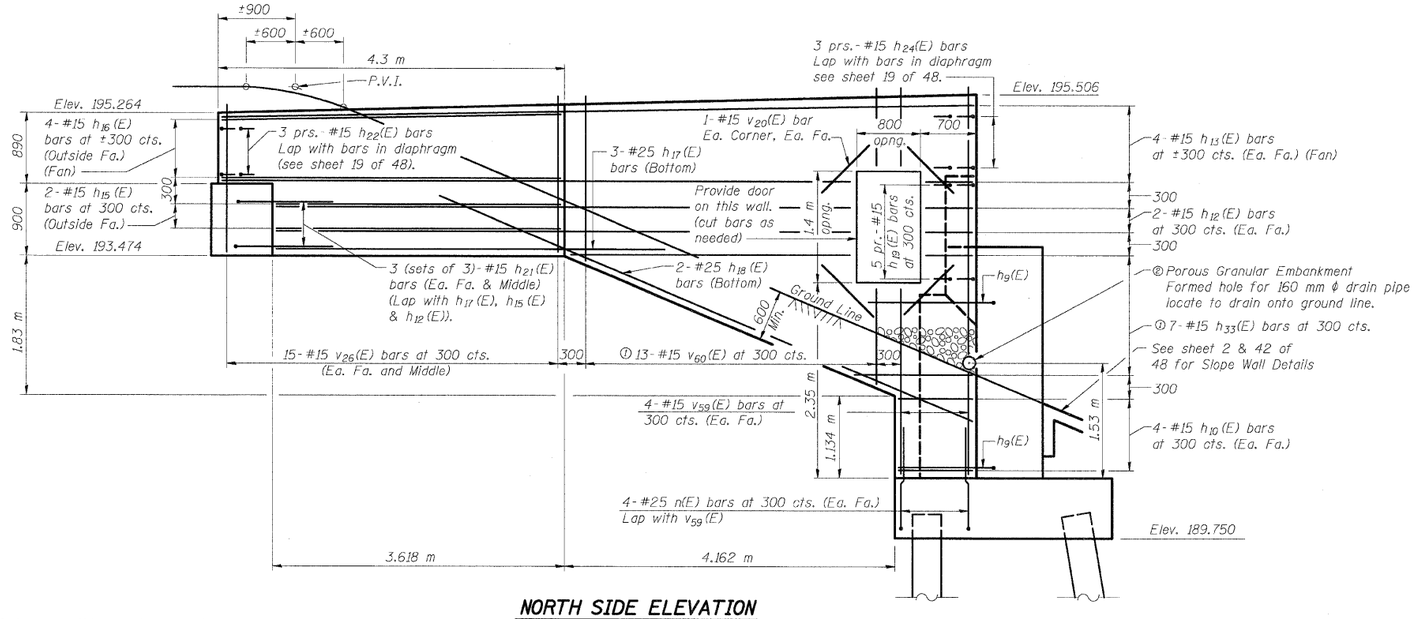
Note:
Work this sheet with sheets 35 & 37 of 48.

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. F. A. - 310	*	MADISON	239	159
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 37
48 SHEETS

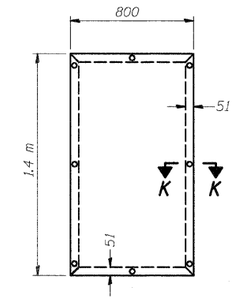
* 60-15HB-1 CONTRACT NO. 76635



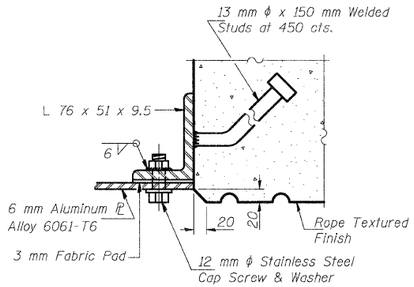
NORTH SIDE ELEVATION
(Looking South)

① Order $h_{33}(E)$, $v_{58}(E)$ & $v_{60}(E)$ bars full length cut to fit as shown and use remainder of bars in opposite face of curtain wall. See Field Cutting Diagram on Sheet 35 of 48.

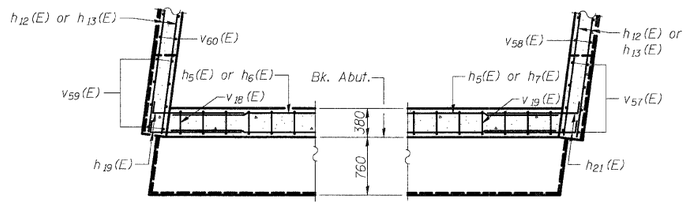
② See Vaulted Abutment & Slopewall Detail on sheet 2 of 48.



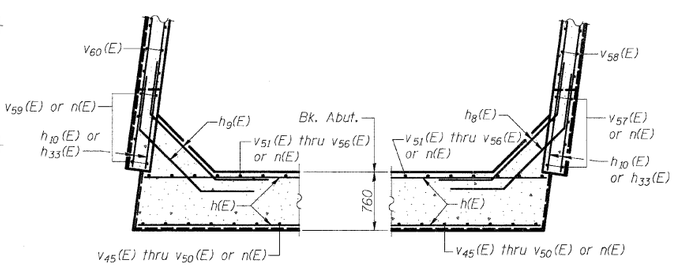
DOOR ELEVATION
Cost of door and frame are included with "Concrete Structures".



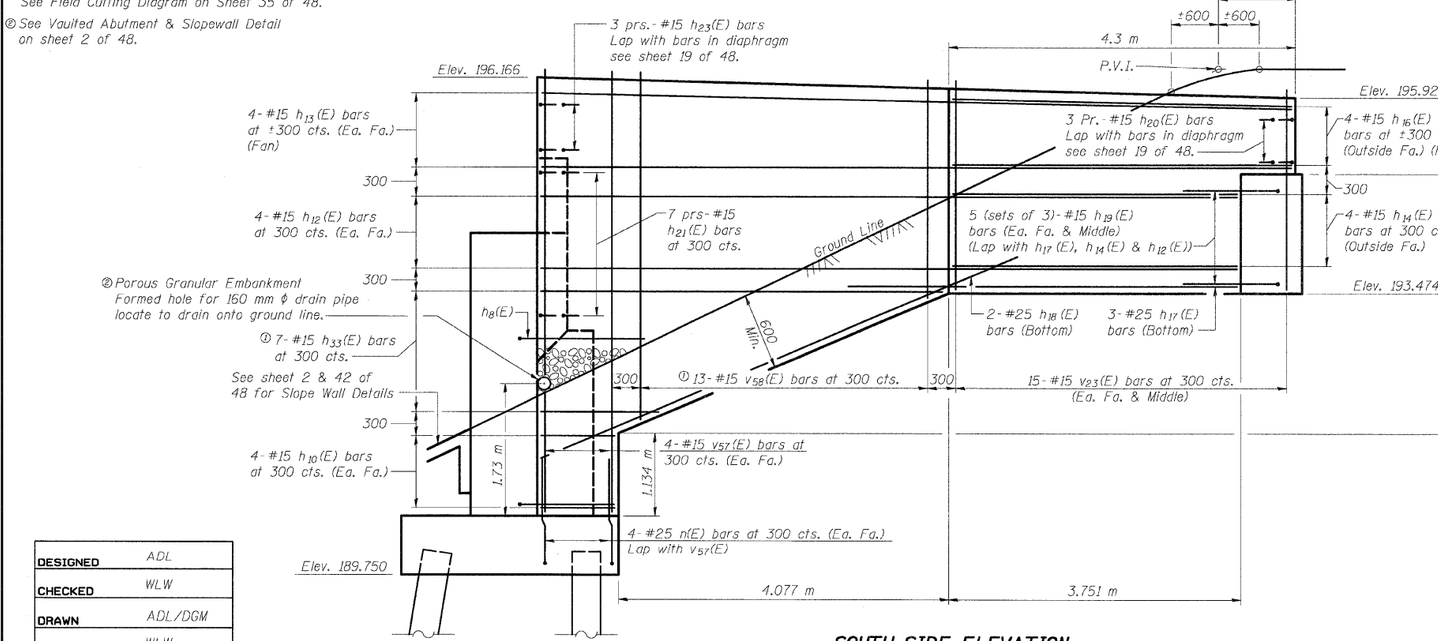
SECTION K-K



SECTION J-J



SECTION I-I



SOUTH SIDE ELEVATION
(Looking North)

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

Note:
Work this sheet with sheets 35 & 36 of 48.

S.B. EAST ABUTMENT (3 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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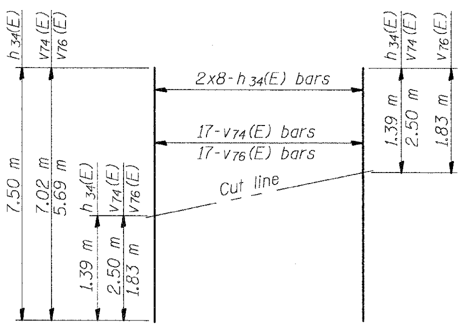
Notes:
Space reinforcement in cap to miss anchor bolts.
Work this sheet with sheets 39 & 40 of 48.
Pour steps monolithically with cap.

APPR. BENT-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 900 KN
Allowable Resistance Available: 300 KN
Est. Length: 18.5 m
No. Req'd.: 12

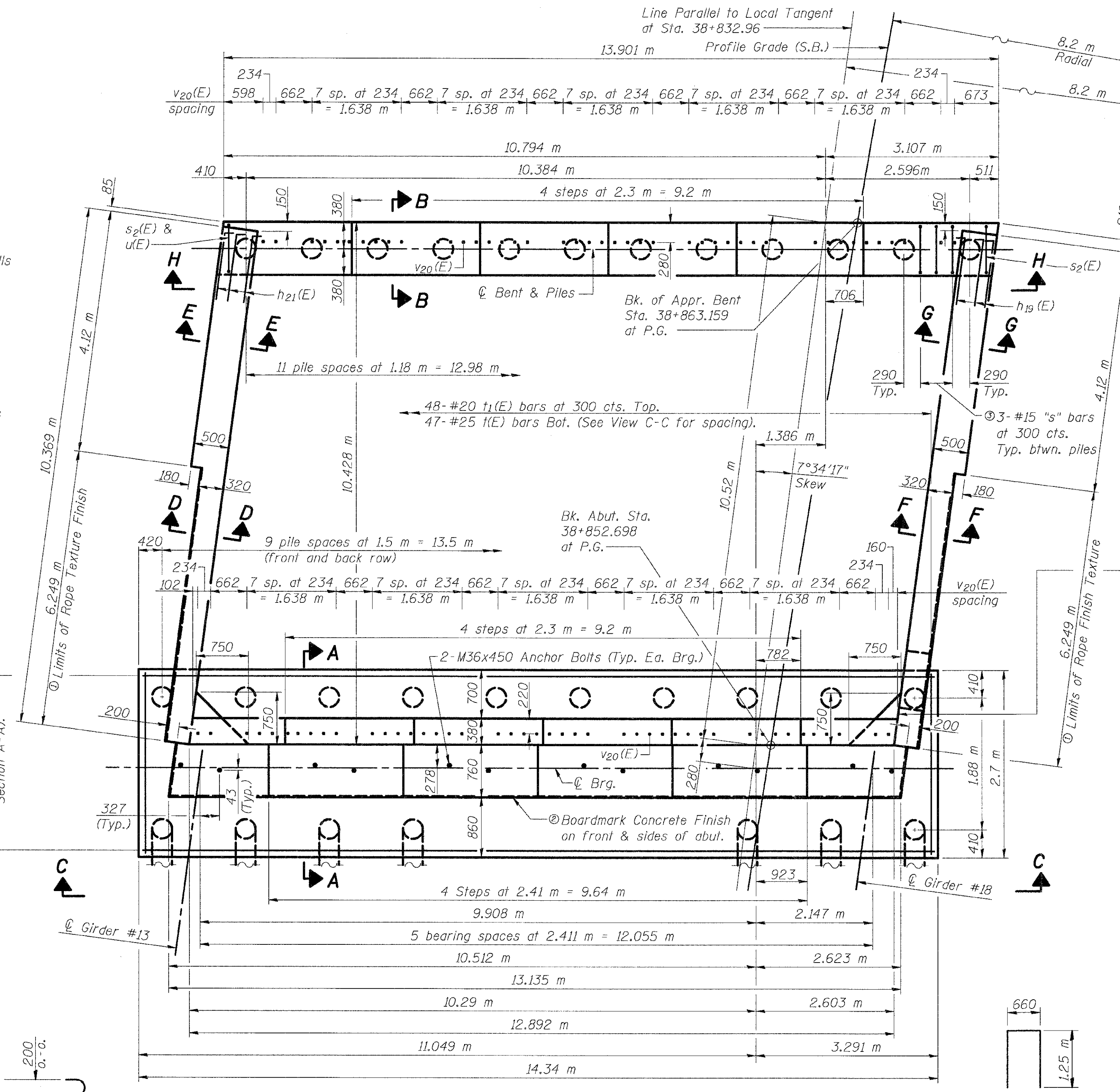
ABUT.-PILE DATA

Type & Size: Metal Shell - 356 mm dia. x 6.35 mm walls
Nominal Required Bearing: 1500 KN
Allowable Resistance Available: 500 KN
Est. Length: 16.0 m
No. Req'd.: 20



FIELD CUTTING DIAGRAM

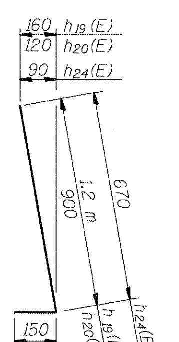
Order h34(E), v74(E) and v76(E) bars full length. Cut to fit and use remainder of bars in opposite face of curtain wall.



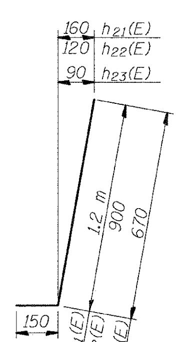
③ "s" bars include $s_2(E)$, $s_3(E)$, $s_4(E)$ or $s_5(E)$. See View H-H.

PLAN

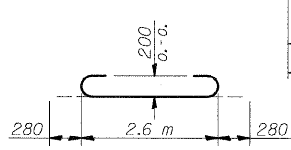
Z



BARS $h_{19}(E)$, $h_{20}(E)$ & $h_{24}(E)$



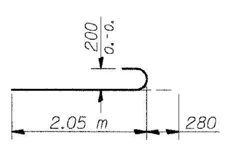
BARS $h_{21}(E)$, $h_{22}(E)$ & $h_{23}(E)$



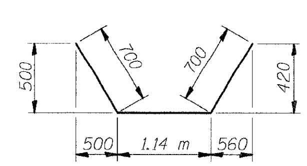
BAR t(E)

BAR u(E)

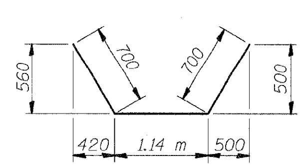
DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW



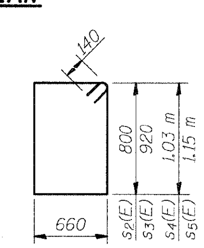
BAR n(E)



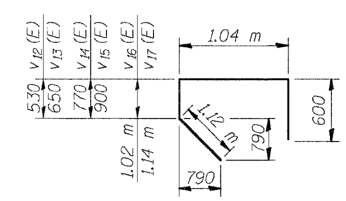
BAR $h_8(E)$



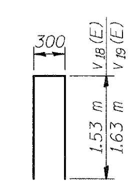
BAR $h_9(E)$



BARS $s_2(E)$ thru $s_5(E)$



BARS $v_{12}(E)$ thru $v_{17}(E)$



BARS $v_{18}(E)$ & $v_{19}(E)$

Bar	No.	Size	Length (m)	Shape
$v_{68}(E)$	8	#25	3.17	
$v_{69}(E)$	8	#25	3.30	
$v_{70}(E)$	8	#25	3.42	
$v_{71}(E)$	8	#25	3.54	
$v_{72}(E)$	6	#25	3.67	
$v_{73}(E)$	8	#15	5.72	
$v_{74}(E)$	17	#15	7.02	
$v_{75}(E)$	8	#15	5.05	
$v_{76}(E)$	17	#15	5.69	
w(E)	20	#15	14.24	
Concrete Structures			m^3	109.4
Reinforcement Bars (Epoxy Coated)			kg	7190
Structure Excavation			m^3	225
Furnishing Metal Pile Shell 356 mm			m	542
Driving Piles			m	542
Concrete Sealer			m^2	10
Form Liner Textured Surface			m^2	85

① Patterned Rope Texture Concrete (See Sheet 42 of 48 for details)

② Random Width Boardmark Concrete (See Sheet 42 of 48 for details)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	160
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 38
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

S.B. WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
h(E)	22	#15	13.00	
$h_1(E)$	12	#15	3.10	
$h_2(E)$	2	#15	8.82	
$h_3(E)$	4	#15	4.00	
$h_4(E)$	4	#15	1.60	
$h_5(E)$	6	#15	12.81	
$h_6(E)$	10	#15	4.01	
$h_7(E)$	2	#15	1.74	
$h_8(E)$	18	#15	2.54	
$h_9(E)$	18	#15	2.54	
$h_{10}(E)$	16	#15	1.01	
$h_{19}(E)$	23	#15	1.35	
$h_{20}(E)$	6	#15	1.05	
$h_{21}(E)$	25	#15	1.35	
$h_{22}(E)$	6	#15	1.05	
$h_{23}(E)$	6	#15	0.78	
$h_{24}(E)$	6	#15	0.78	
$h_{26}(E)$	12	#15	9.67	
$h_{27}(E)$	16	#15	10.28	
$h_{28}(E)$	4	#15	3.35	
$h_{29}(E)$	2	#15	3.47	
$h_{30}(E)$	8	#15	4.03	
$h_{31}(E)$	6	#25	4.70	
$h_{32}(E)$	4	#25	8.30	
$h_{34}(E)$	16	#15	7.50	
n(E)	104	#25	2.33	
p(E)	6	#20	13.80	
$p_1(E)$	11	#20	3.20	
$p_2(E)$	2	#20	9.11	
$p_3(E)$	3	#20	2.21	
$s_2(E)$	18	#15	3.20	
$s_3(E)$	6	#15	3.44	
$s_4(E)$	6	#15	3.66	
$s_5(E)$	5	#15	3.90	
t(E)	47	#25	3.16	
$t_1(E)$	48	#20	2.60	
u(E)	12	#15	3.16	
$v_{12}(E)$	6	#15	3.29	
$v_{13}(E)$	8	#15	3.41	
$v_{14}(E)$	8	#15	3.53	
$v_{15}(E)$	8	#15	3.66	
$v_{16}(E)$	8	#15	3.78	
$v_{17}(E)$	6	#15	3.90	
$v_{18}(E)$	6	#15	3.36	
$v_{19}(E)$	37	#15	3.56	
$v_{20}(E)$	96	#15	0.90	
$v_{41}(E)$	42	#15	2.52	
$v_{44}(E)$	42	#15	1.85	
$v_{61}(E)$	6	#20	3.05	
$v_{62}(E)$	8	#20	3.17	
$v_{63}(E)$	8	#20	3.30	
$v_{64}(E)$	8	#20	3.42	
$v_{65}(E)$	8	#20	3.54	
$v_{66}(E)$	6	#20	3.67	
$v_{67}(E)$	6	#25	3.05	

S.B. WEST ABUTMENT (1 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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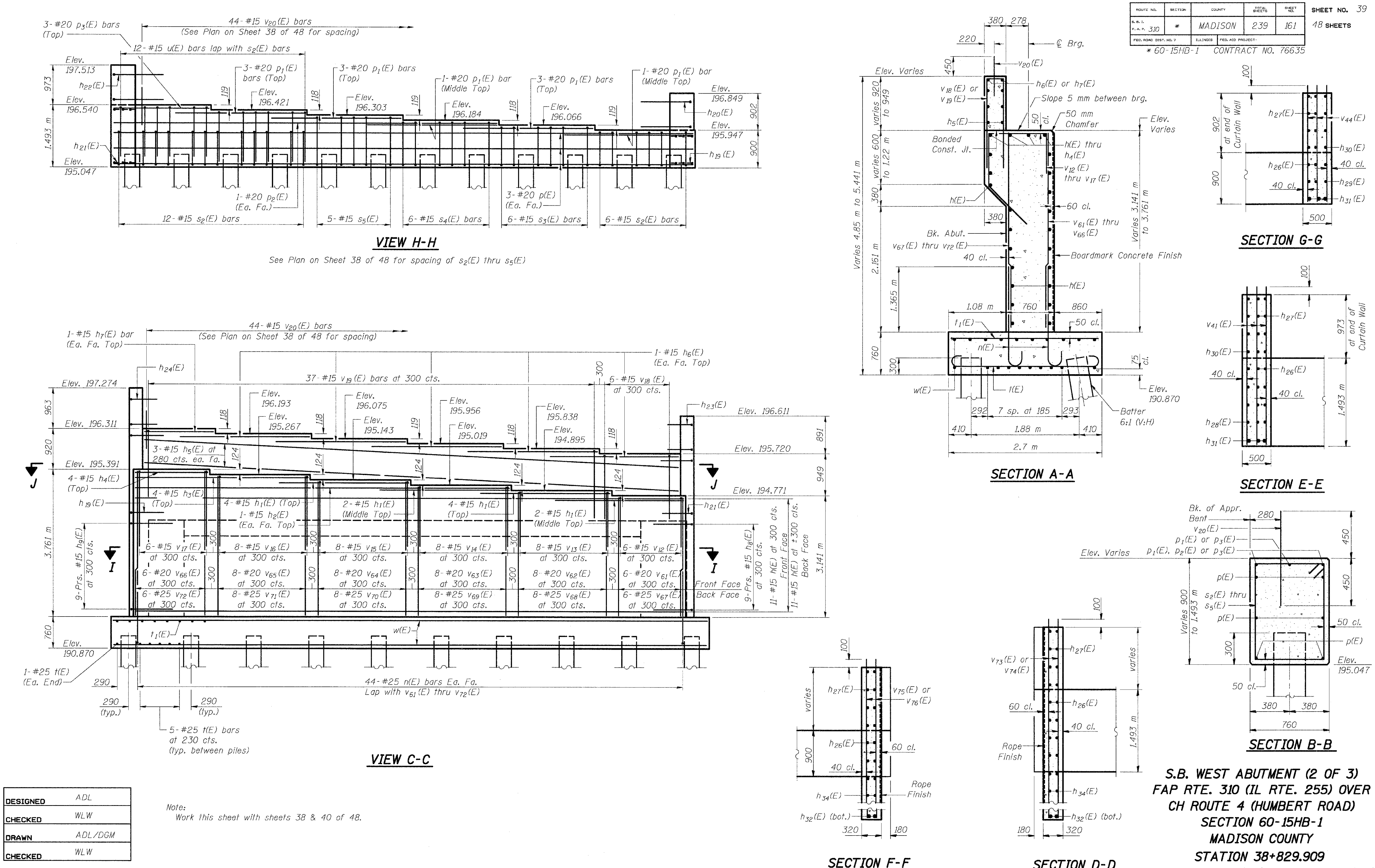
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B. I. F.A.P. 310	*	MADISON	239	161
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

* 60-15HB-1 CONTRACT NO. 76635



DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

Note:
Work this sheet with sheets 38 & 40 of 48.

S.B. WEST ABUTMENT (2 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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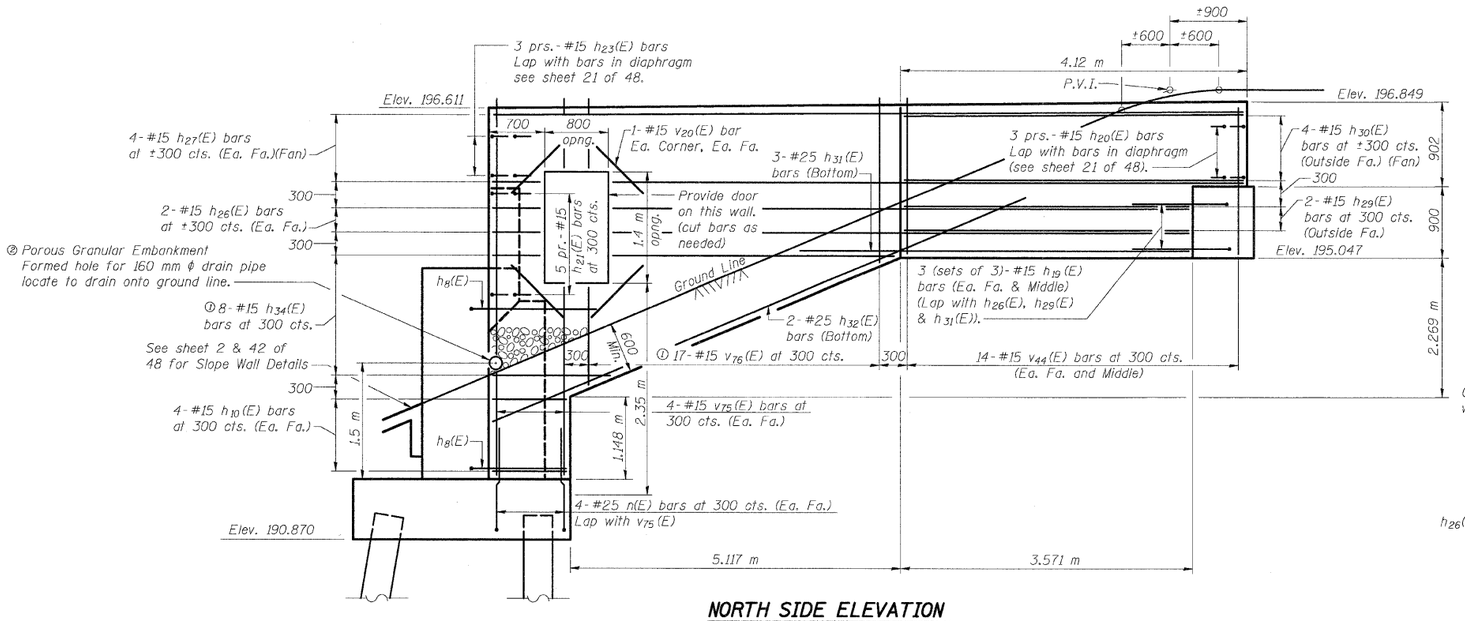
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	162
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

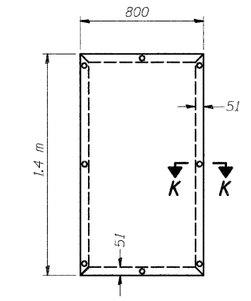
SHEET NO. 40
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



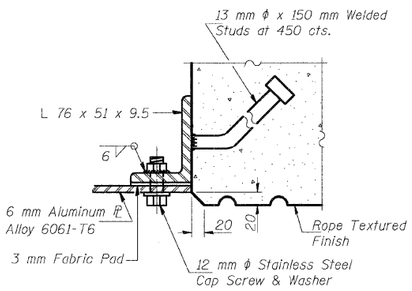
NORTH SIDE ELEVATION

(Looking South)

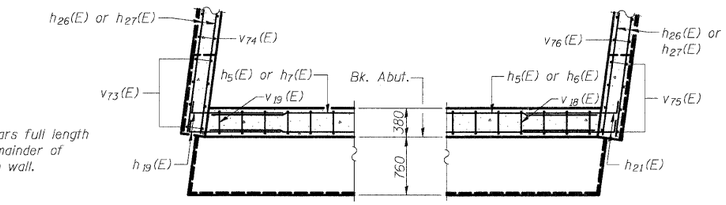


DOOR ELEVATION

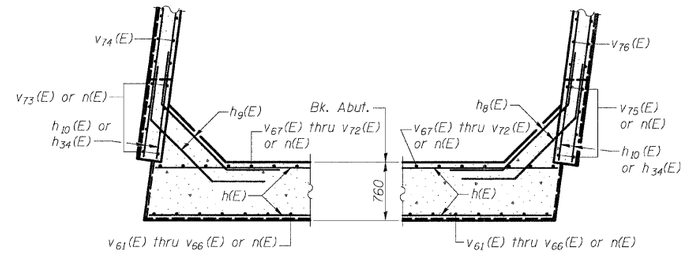
Cost of door and frame are included with "Concrete Structures".



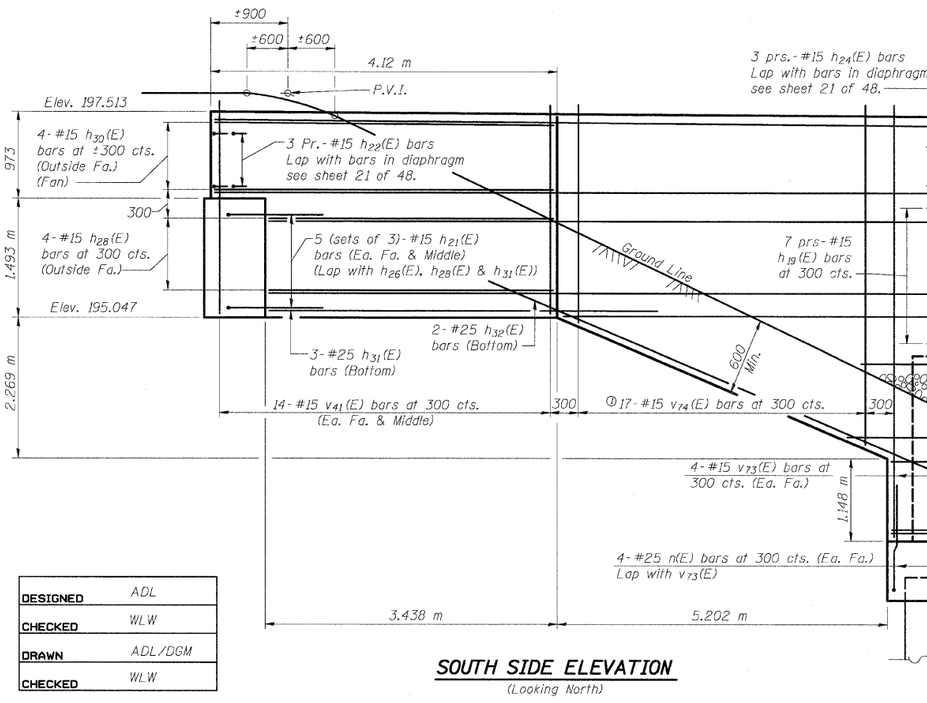
SECTION K-K



SECTION J-J



SECTION I-I



SOUTH SIDE ELEVATION

(Looking North)

① Order h34(E), v74(E) & v76(E) bars full length cut to fit as shown and use remainder of bars in opposite face of curtain wall. See Field Cutting Diagram on Sheet 38 of 48.

② See Vaulted Abutment & Slopewall Detail on sheet 2 of 48.

Note:
Work this sheet with sheets 38 & 39 of 48.

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

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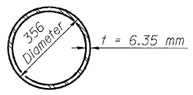
S.B. WEST ABUTMENT (3 OF 3)
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

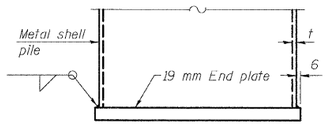
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	163
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT=	

SHEET NO. 41
48 SHEETS

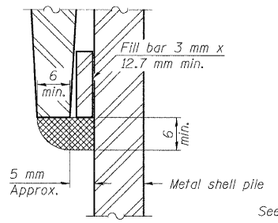
* 60-15HB-1 CONTRACT NO. 76635



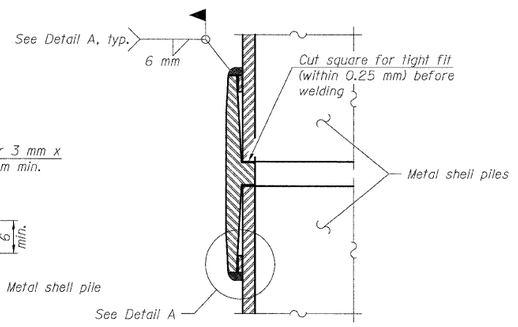
METAL SHELL PILE



END PLATE ATTACHMENT

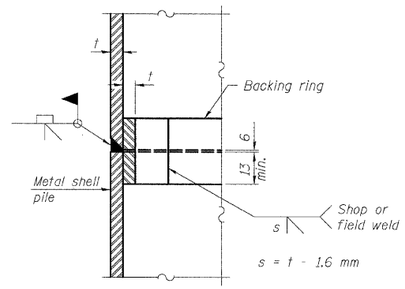


DETAIL A



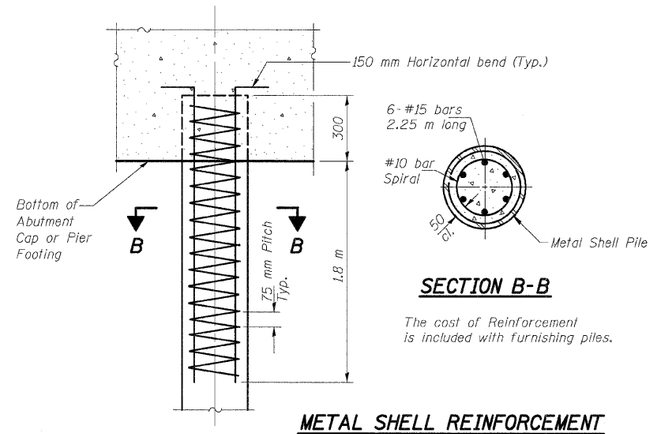
Notes:
The 3 x 12.7 mm min. fill bar may be constructed of 2 bars with a 3 mm max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



COMPLETE PENETRATION WELD SPLICE

Backing ring made from pile shell. Remove segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



SECTION B-B

The cost of Reinforcement is included with furnishing piles.

METAL SHELL REINFORCEMENT AT ABUTMENTS

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

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

PILE DETAILS
FAP RTE. 310 (IL RTE. 255) OVER CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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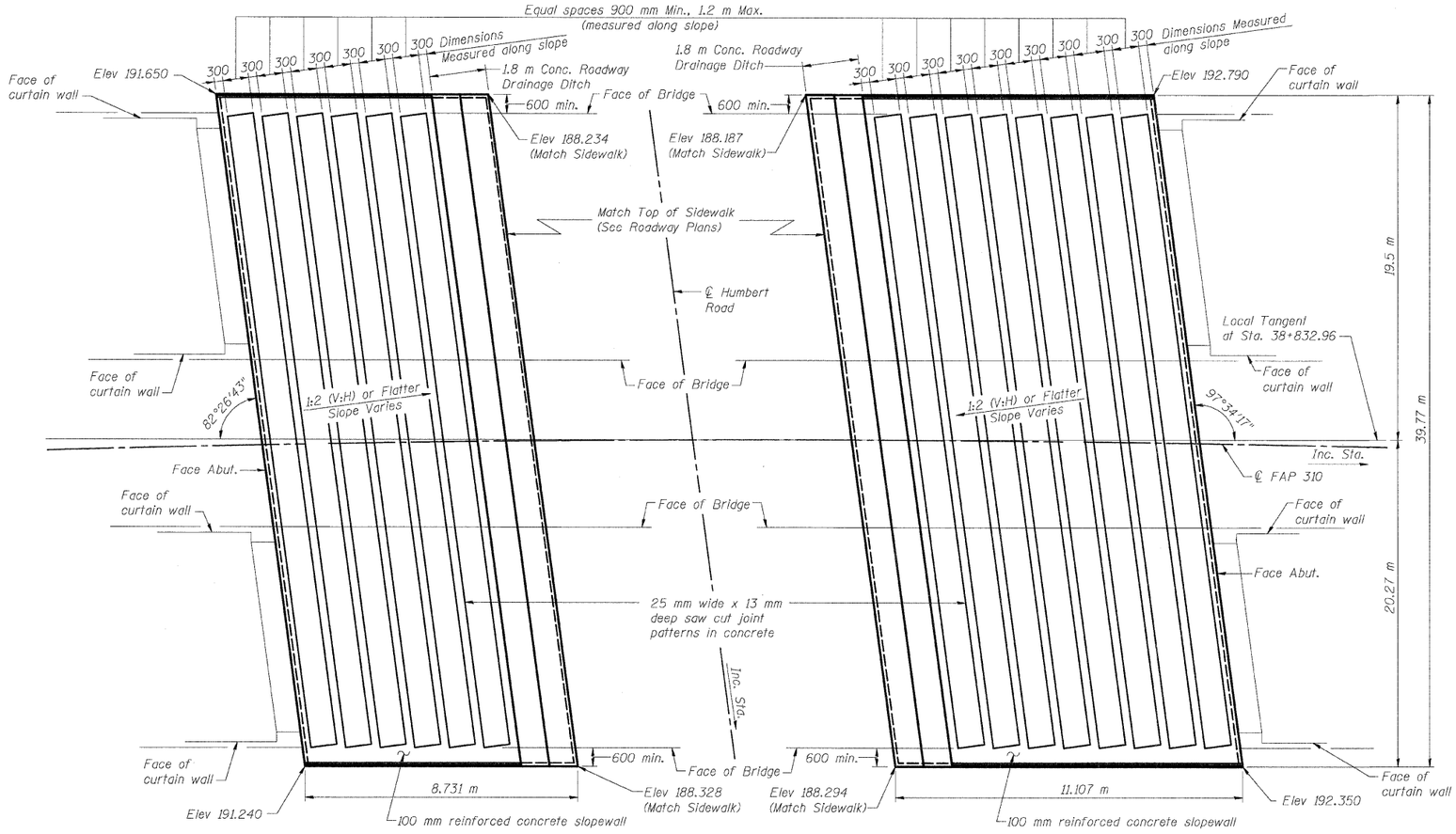
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.P. 310	*	MADISON	239	164
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

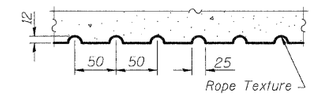
SHEET NO. 42
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



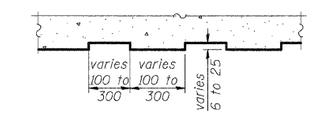
CONCRETE SLOPEWALL PLAN

Note: See Sheet 2 of 48 for Slopewall Details.
Dimensions are measured horizontally unless noted.
Cost of 25 mm wide by 13 mm deep saw cut joints shall be included in the cost of "Concrete Slopewall, Special"



ROPE TEXTURE CONCRETE DETAIL

The use of reverse image polyvinyl plastic sheets (form liners) attached to concrete forms, will produce the textured surfaces as depicted.



RANDOM WIDTH BOARDMARK CONCRETE DETAIL

Wood Grain, Hi-Lo, Rough Sawn Cedar
Random Widths Min. 100, Max. 300
Random Lengths: Min. 3 m, Max. 6 m
Board thicknesses varying from 6 mm to 25 mm should be used in a random pattern.

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Slopewall, Special	m^2	865

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

SLOPEWALL AND CONCRETE TEXTURE DETAILS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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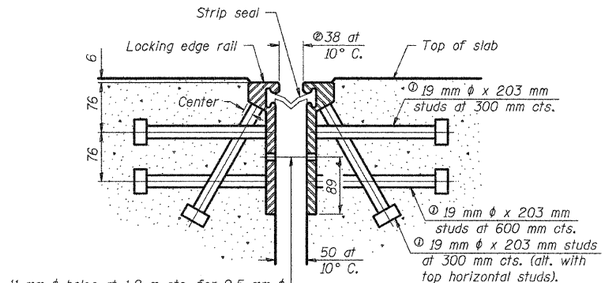
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	165
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 43
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

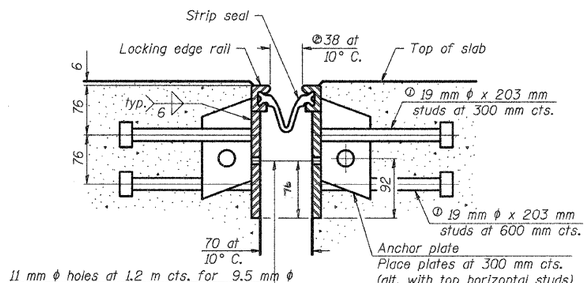
① Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

② When joint is fixed, dimension is set at 38 mm.



11 mm ϕ holes at 1.2 m cts. for 9.5 mm ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU ROLLED RAIL JOINT



11 mm ϕ holes at 1.2 m cts. for 9.5 mm ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU WELDED RAIL JOINT

Notes:

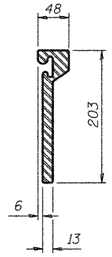
The strip seal shall be made continuous and shall have a minimum thickness of 6 mm. The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 102 mm.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

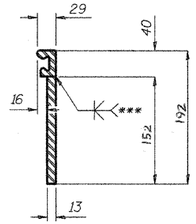
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

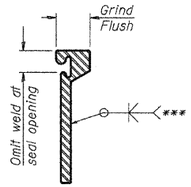
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.



ROLLED (EXTRUDED) RAIL



WELDED RAIL

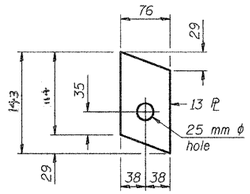


*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

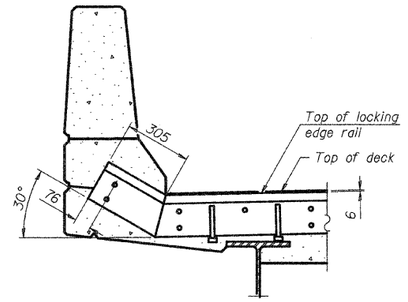
The inside of the locking edge rail groove shall be free of weld residue.

LOCKING EDGE RAILS



ANCHOR ℄

(for welded rail)



AT PARAPET

END TREATMENT

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	m	54.0

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

EJ-CS (M) 4-30-97

PREFORMED JOINT STRIP SEAL
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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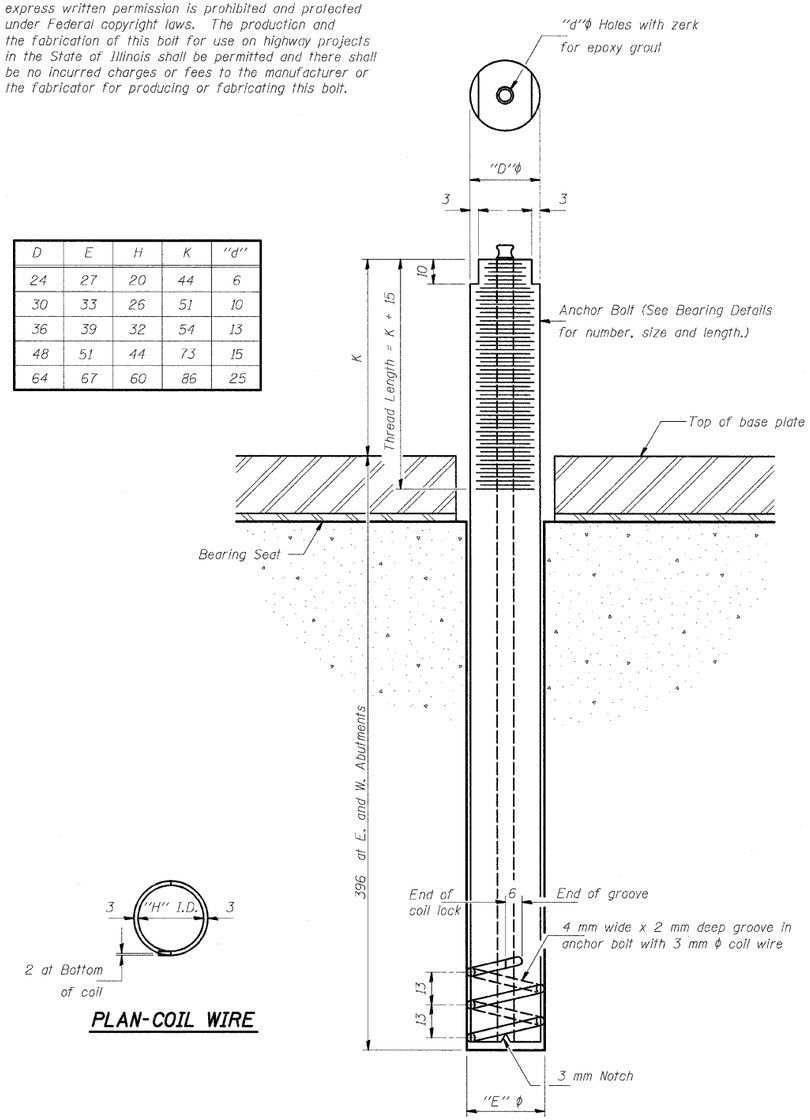
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. R. I. F. A. P. 310	*	MADISON	239	166
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 44
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635



D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25

ILLINOIS COIL-LOCK ANCHOR BOLT

PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system comforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
E. Abut.	A307
W. Abut.	A307

ASTM F 1554 (Fy = 724 MPa), ASTM A 449 and AASHTO M 314 (Fy = 724 MPa) anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

All dimensions are in millimeters (mm) except as noted.

DESIGNED	ADL
CHECKED	WLW
DRAWN	ADL/DGM
CHECKED	WLW

ABB-1 (M) 4-30-99

ANCHOR BOLT DETAILS
FOR BEARINGS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. P.A.P. 310	*	MADISON	239	167
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 45
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/2800

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0308
Station

BORING NO. #1 E. ABUT
Station 38+811
Offset 14.40m RT CL
Ground Surface Elev. 188.15 m

Surface Water Elev. m
Stream Bed Elev. m
Groundwater Elev.:
First Encounter 185.4 m
Upon Completion m
After Hrs. m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Brown and Gray Silty CLAY			
	2		
	3	96	
-3.0	3	B	26
	2		
	3	96	
	4	B	25
-4.5	3		
	3	163	
183.2	4	S/15	21
Brown and Gray Clay LOAM	3		
	4	144	
182.3	4	S/10	20
SAND Lens 182.1	-6.0 1		
Brown Clay LOAM		7	NC
		14	450 S/15	12
181.7			
Brown SAND		15	
181.2		26		17
		30	NC	10
Gray Clay LOAM			508 S/10	
-7.5		12	
		28	584
180.2		34	S/10	10
Brown SAND		8	
See Gradation @ 7.8 m (27 ft)		9	
179.4		12	NC	22
-9.0		5	
Gray Silty SAND		13	
See Gradation @ 10.1 m (33 ft)		15	NC	20
178.1		9		18
		17	NC	
Gray Clay LOAM		17	172 S/10	10
-10.5			
177.0			
Gray Fine SAND			
See Gradation @ 18.4 m (60.5 ft)			
-12.0	5		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/2800

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0308
Station

BORING NO. #1 E. ABUT
Station 38+811
Offset 14.40m RT CL
Ground Surface Elev. 188.15 m

Surface Water Elev. m
Stream Bed Elev. m
Groundwater Elev.:
First Encounter 185.4 m
Upon Completion m
After Hrs. m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Gray Fine SAND			
See Gradation @ 18.4 m (60.5 ft)			
(continued)			
-13.5	6		
	13		
	45	NC	22
-15.0	8		
	21		
	34	NC	18
-16.5	7		
	10		
	15	NC	18
-18.0	5		
Gray Fine SAND		15	
See Gradation @ 18.4 m (60.5 ft)		21	NC	16
(continued)			
169.5			
Gray and Brown Silty SAND			
See Gradation @ 21.5 m (70.5 ft)			
-19.5	4		
	4		
	8	NC	18
-21.0	29		
	16		
	50/6"	NC	18
166.5			
Gray Clay LOAM			
-22.5	6		
	8	211	
	13	S/10	20
165.0			
Brown Very Weathered SHALE			
-24.0	8		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 1/2800

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0308
Station

BORING NO. #1 E. ABUT
Station 38+811
Offset 14.40m RT CL
Ground Surface Elev. 188.15 m

Surface Water Elev. m
Stream Bed Elev. m
Groundwater Elev.:
First Encounter 185.4 m
Upon Completion m
After Hrs. m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Brown Very Weathered SHALE			
(continued)			
	13	240	
	17	S/5	29
163.5			
Gray Silty CLAY			
-25.5	5		
	7	144	
	9	B	23
156.2			
Hard Shelves			
155.4			
-27.0	5		
	9	249	
	11	S/15	23
-28.5	24		
	24	192	
	26	P	23
159.2			
Gray Slightly Weathered SHALE			
-30.0	26		
Gray Slightly Weathered SHALE		50	527
(continued)		50/5"	S/10	10
157.5			
Brown and Gray SILTSTONE			
-31.5	50/5"		
		NC	11
-33.0	1		
Gray SHALE with Limestone Gravel	1		
154.8	50/2"	NC	51
End of Boring			
-34.5			
-36.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

DESIGNED	ADL
CHECKED	
DRAWN	ADL/DGM
CHECKED	

SOIL BORING LOGS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	168
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 46
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 3

Date 31301

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0309
Station

BORING NO. #2 E. ABUT
Station 38+808
Offset 14.40m LT CL
Ground Surface Elev. 187.87 m

Surface Water Elev. m
Stream Bed Elev. m
Groundwater Elev.:
First Encounter 185.2 m
Upon Completion m
After Hrs. m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Brown Silty CLAY			
	2		
	3	144	
	4	S10	29
-1.5	3		
	5	115	
	4	S10	30
	2		
	3	105	
	4	B	24
▼ -3.0	2		
	3	105	
	3	B	27
183.7	2		
	4	96	
	4	B	25
Brown and Gray Clay LOAM -4.5	2		
	4	96	
	5	S15	23
	2		
	3	192	
-6.0	5	S10	19
	3		
Brown and Gray Clay LOAM (continued)			
181.4	4	144	
	6	B	21
Gray Clay LOAM with Sand Lenses	7		
	12	364	
180.7	35	S15	12
Gray SAND (Fine to Medium) -7.5	0		
See Gradation @ 8.5 m (28 ft)	0		
	2	NC	16
	5		
	10		
179.2	15	NC	17
Gray Fine SAND -9.0	7		
See Gradation @ 9.3 m (30.5 ft)	13		
	16	NC	20
178.3			
Gray Clay LOAM			
	4	96	
	4	B	25
-10.5	5		
	8	345	
	14	S20	12
-12.0	6		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 3

Date 31301

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0309
Station

BORING NO. #2 E. ABUT
Station 38+808
Offset 14.40m LT CL
Ground Surface Elev. 187.87 m

Surface Water Elev. m
Stream Bed Elev. m
Groundwater Elev.:
First Encounter 185.2 m
Upon Completion m
After Hrs. m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Gray Clay LOAM (continued)			
	12	335	
	15	S15	22
-13.5	5		
	10	335	
	15	S15	21
-15.0	7		
	10	297	
	12	S15	20
-16.5	13		
	16	489	
	25	B	16
-18.0	6		
Gray Clay LOAM (continued)			
-19.5	7		
	10	278	
	14	S15	19
-21.0	9		
	9	268	
	17	B	24
-22.5	4		
	9	220	
	15	B	22
-24.0	6		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 3 of 3

Date 31301

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0309
Station

BORING NO. #2 E. ABUT
Station 38+808
Offset 14.40m LT CL
Ground Surface Elev. 187.87 m

Surface Water Elev. m
Stream Bed Elev. m
Groundwater Elev.:
First Encounter 185.2 m
Upon Completion m
After Hrs. m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Gray Clay LOAM (continued)			
	7	230	
	11	S10	20
-25.5	6		
	8	249	
	13	S15	20
160.6	9	192	
	13	S10	22
End of Boring			
-28.5			
-30.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	ADL
CHECKED	
DRAWN	ADL/DGM
CHECKED	

SOIL BORING LOGS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 5/4/01

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0309
Station
BORING NO. HR-SB 3
Station 38+857.5
Offset 12.50m LT CL
Ground Surface Elev. 188.12 m

Surface Water Elev. ____ m
Stream Bed Elev. ____ m
Groundwater Elev.:
First Encounter ____ m
Upon Completion ____ m
After ____ Hrs. ____ m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Gray and Brown Silty CLAY A-7-6(17) See Soil Test Data Sheet			
	3		
	4	153	
	4	S/5	29
-1.5	2		
	5	153	
186.3	7	S/10	27
Brown and Gray Silty Clay LOAM A-6(10) See Soil Test Data Sheet	4		
	5	249	
	6	S/20	22
-3.0	3		
	3	125	
184.7	5	S/15	24
Gray Clay LOAM A-4(8) See Soil Test Data Sheet	3		
	4	163	
	5	S/15	20
-4.5	3		
	5	211	
	5	S/10	20
	4		
	4	153	
	4	S/10	21
-6.0	2		
Gray Clay LOAM A-4(8) See Soil Test Data Sheet (continued)	2	57	
	3	S/10	18
	4		
	4	144	
	7	S/15	15
-7.5	5		
	7	268	
180.3	9	S/15	12
Gray Fine SAND with some Gravel See Gradation @ 8.1 m (26.5 ft) 179.9	5		18
	10	NC	
Gray Clay LOAM	13	163	12
179.4		S/10	
Gray Sandy Clay LOAM	-9.0 4		
	5	192	
	7	S/10	12
178.5			
Gray Gravelly SAND See Gradation @ 10.2 m (33.5 ft)			
177.6	-10.5 30		6
	18	NC	
Gray Clay LOAM	20	316	12
177.0		B	
Gray Silty CLAY			
12.0	10		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 2

Date 5/4/01

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0309
Station
BORING NO. HR-SB 3
Station 38+857.5
Offset 12.50m LT CL
Ground Surface Elev. 188.12 m

Surface Water Elev. ____ m
Stream Bed Elev. ____ m
Groundwater Elev.:
First Encounter ____ m
Upon Completion ____ m
After ____ Hrs. ____ m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Gray Silty CLAY (continued)	12	651	
	18	S/15	20
-13.5	7		
	10	422	
174.0	14	S/10	21
Gray and Brown Clay LOAM			
-15.0	8		
	11	441	
	15	S/10	20
-16.5	8		
	8	498	
	26	S/15	17
-18.0	10		
Gray and Brown Clay LOAM (continued)			
169.8		18	489
		22	B 17
End of Boring			
-19.5			
-21.0			
-22.5			
-24.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 2

Date 5/3/01

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0308
Station
BORING NO. HR-SB 4
Station 38+856.5
Offset 10.00m RT CL
Ground Surface Elev. 188.09 m

Surface Water Elev. ____ m
Stream Bed Elev. ____ m
Groundwater Elev.:
First Encounter 183.0 m ▼
Upon Completion ____ m
After ____ Hrs. ____ m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Gray and Brown Silty CLAY			
	2		
	3	153	
	4	S/10	30
-1.5	3		
	4	153	
	4	B	27
	4		
	4	144	
	5	S/15	23
-3.0	3		
	4	125	
	4	S/15	23
184.6			
Gray Sandy CLAY	2		
	3	125	
	3	S/15	21
183.9			
Brown Clay LOAM	-4.5 3		
	5	230	
	5	S/10	22
▼			
	2		
	2	77	
	3	S/15	22
-6.0	2		
Brown Clay LOAM (continued)		4	96
		6	S/10 15
181.5			
Brown SAND	181.3	3	
		9	NC
Brown and Gray Clay LOAM		10	383 12
			S/10
-7.5	6		
		9	316
		12	S/15 11
		7	
		12	402
		16	B 11
179.4			
Gray SILT			
179.1	-9.0	11	220 14
Gray SAND	178.9	23	S/5
		12	17
Gray Sandy SILT			NC
178.5			144
			S/5
Gray Clay LOAM			
-10.5	4		
	7	316	
	10	S/15	13
177.0			
Gray Silty CLAY			
-12.0	6		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	ADL
CHECKED	
DRAWN	ADL/DGM
CHECKED	

SOIL BORING LOGS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 310	*	MADISON	239	169A
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 48
48 SHEETS

* 60-15HB-1 CONTRACT NO. 76635

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 5-3-01

ROUTE FAP 310 DESCRIPTION IL 255 over Humbert Road LOGGED BY Larry Ford

SECTION 60-15HB-1 LOCATION NE 1/4, SEC. 23, TWP. 6N, RNG. 10W, 3 PM

COUNTY Madison DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. 060-0308
Station

BORING NO. HR-SB 4
Station 38+856.5
Offset 10.00m RT CL
Ground Surface Elev. 188.09 m

Surface Water Elev. ____ m
Stream Bed Elev. ____ m

Groundwater Elev.:
First Encounter 183.0 m ▼
Upon Completion ____ m
After ____ Hrs. ____ m

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Gray Silty CLAY (continued)	17	1006	
	28	S-5	16
-13.5	6		
	11	412	
	14	S-15	21
174.0			
Gray Clay LOAM			
-15.0	5		
	5	278	
	11	S-10	21
172.5			
Brown Clay LOAM			
-16.5	10		
	19	441	
	24	B	16
-18.0	7		

DEPTH (m)	BLOWS (150 mm)	UCS Qu (kPa)	MOIST (%)
Brown Clay LOAM (continued)	10	297	
169.8	14	S-15	17
End of Boring			
-19.5			
-21.0			
-22.5			
-24.0			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

DESIGNED	ADL
CHECKED	
DRAWN	ADL/DGM
CHECKED	

SOIL BORING LOGS
FAP RTE. 310 (IL RTE. 255) OVER
CH ROUTE 4 (HUMBERT ROAD)
SECTION 60-15HB-1
MADISON COUNTY
STATION 38+829.909
SN 060-0308 (NB) & 060-0309 (SB)

Klingner & Assoc., P.C.

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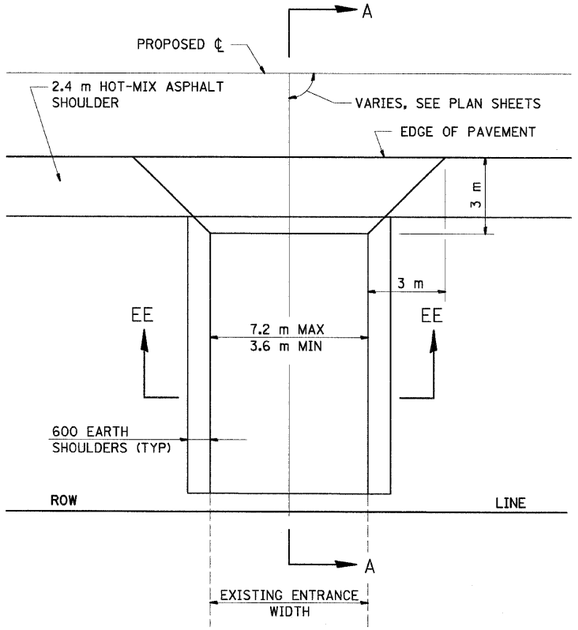
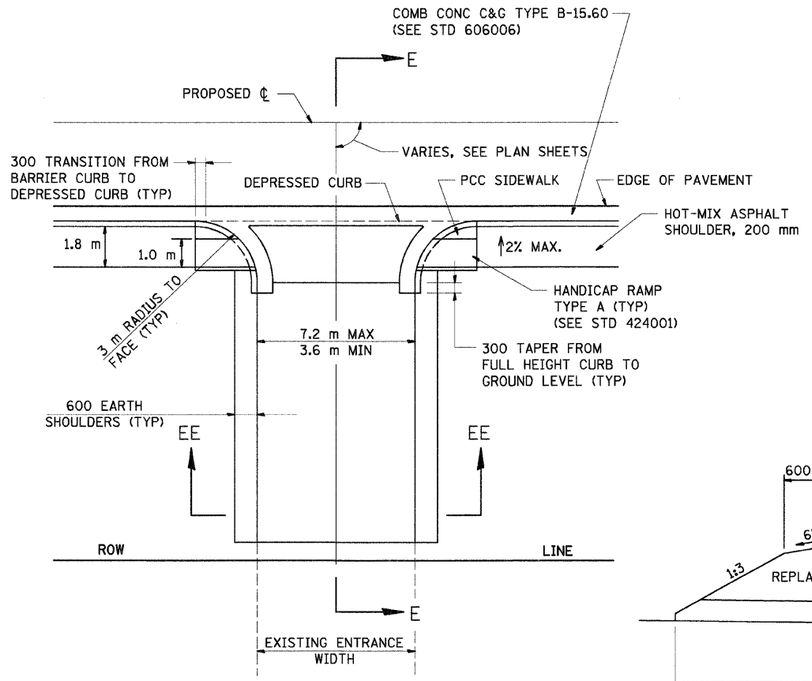
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	170
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635



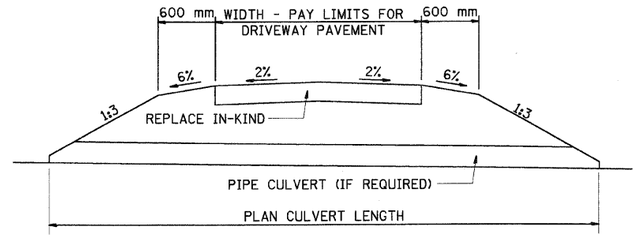
PE DETAIL A

PRIVATE ENTRANCE ADJACENT TO HOT-MIX ASPHALT SHOULDER

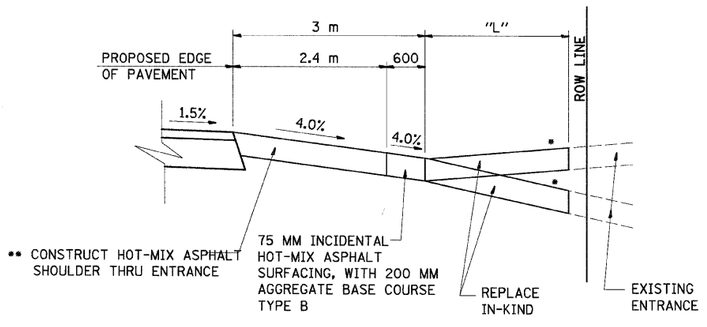


PE DETAIL E

PRIVATE ENTRANCE WITH BIT SHOULDER SW ADJACENT TO ROADWAY PAVEMENT WITH CONCRETE CURB & GUTTER TYPE B-15.60

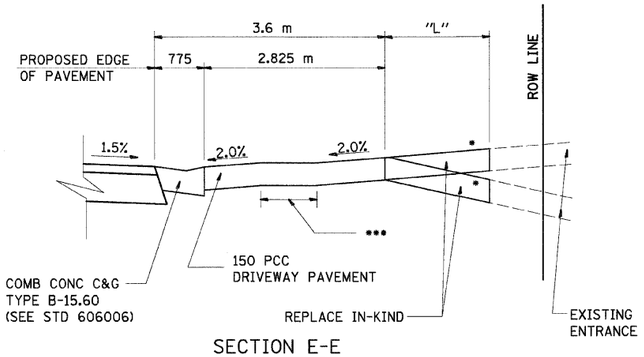


FILL SECTION EE-EE



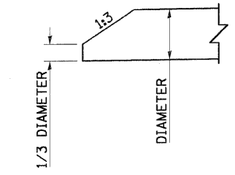
SECTION A-A

- SEE CROSS SECTIONS FOR SLOPE
- •• OMIT AT CONCRETE ENTRANCES
  SEE PLANS FOR EXISTING SURFACE TYPE



SECTION E-E

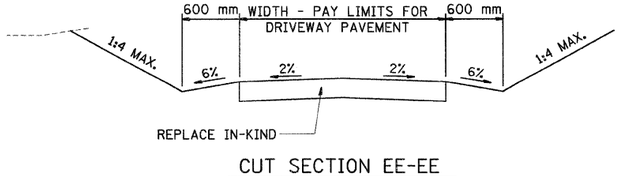
- SEE CROSS SECTIONS FOR SLOPE
- •• OMIT AT CONCRETE ENTRANCES
  SEE PLANS FOR EXISTING SURFACE TYPE
- ••• MATCH SIDEWALK SLOPE ACROSS ENTRANCE PER STANDARD 424001



SECTION VIEW OF MITERED END

MITERED ENDS TO BE INCLUDED IN THE TOTAL LENGTH OF THE PIPE

TYPE OF ENTRANCE	EXISTING MATERIAL	NEW ENTRANCE MATERIAL (BEYOND RADIUS RETURNS OR TAPERS)			
		PCC DRIVEWAY PAVEMENT (150 mm)	INCIDENTAL HOT-MIX ASPHALT SURFACING, (75 mm)	AGGREGATE BASE COURSE TYPE B (200 mm)	AGGREGATE SURFACE COURSE TYPE B (150 mm)
PRIVATE	CONCRETE	X			
	HMA		X	X	
	AGGREGATE				X
COMMERCIAL	CONCRETE	X			
	HMA	X			
	AGGREGATE	X			



CUT SECTION EE-EE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY

DATE

CHECKED BY

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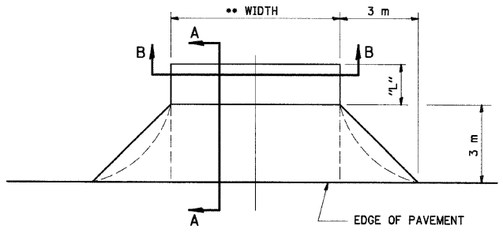
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	171
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

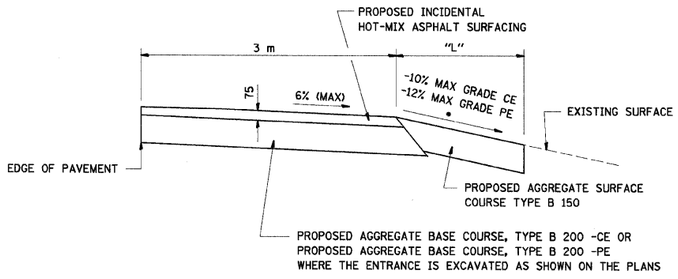
DETAIL OF AGGREGATE ENTRANCES

COMMERCIAL & PRIVATE ENTRANCES

•• ALLOWABLE ENTRANCE WIDTHS:
PRIVATE 3.6 TO 7.3
COMMERCIAL 10.6 MAXIMUM
ALLOWABLE ENTRANCE WIDTH SHALL BE INTERPRETED TO BE THE WIDTHS AT THE SPECIFIED COMPLETED RADIUS.

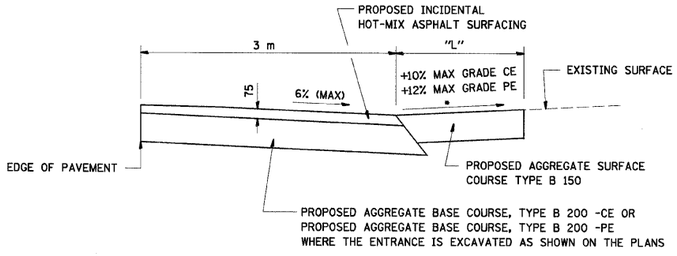


PLAN



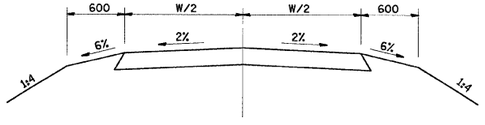
SECTION A-A WITH NEGATIVE GRADE

• SEE CROSS SECTIONS FOR SLOPES



SECTION A-A WITH POSITIVE GRADE

• SEE CROSS SECTIONS FOR SLOPES



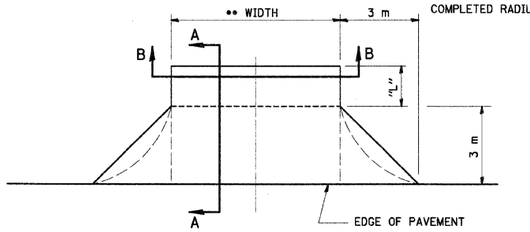
SECTION B-B

COMMERCIAL & PRIVATE ENTRANCES

DETAIL OF HOT-MIX ASPHALT ENTRANCES

COMMERCIAL & PRIVATE ENTRANCES

•• ALLOWABLE ENTRANCE WIDTHS:
PRIVATE 3.6 TO 7.3
COMMERCIAL 10.6 MAXIMUM
ALLOWABLE ENTRANCE WIDTH SHALL BE INTERPRETED TO BE THE WIDTHS AT THE SPECIFIED COMPLETED RADIUS.



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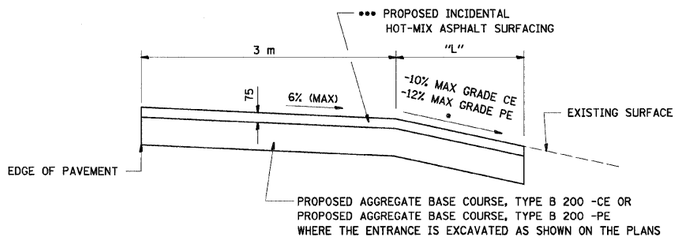
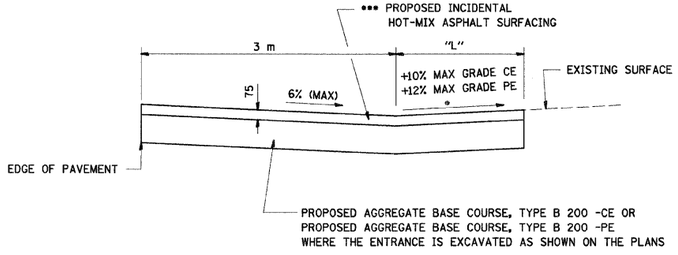


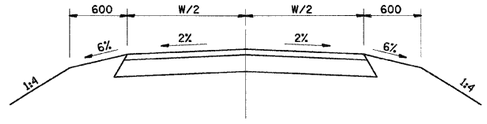
SECTION A-A WITH NEGATIVE GRADE



SECTION A-A WITH POSITIVE GRADE

• SEE CROSS SECTIONS FOR SLOPES

••• FOR ENTRANCES WITH EXISTING CONCRETE PAVEMENT. THE PROPOSED ENTRANCE SHALL BE CONSTRUCTED WITH PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 150

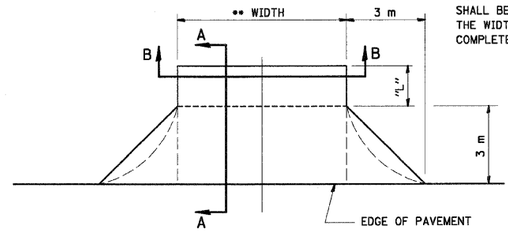


SECTION B-B

COMMERCIAL & PRIVATE ENTRANCES

DETAIL OF FIELD ENTRANCES

•• ALLOWABLE ENTRANCE WIDTHS:
FIELD 3.6 M TO 7.3 M
ALLOWABLE ENTRANCE WIDTH SHALL BE INTERPRETED TO BE THE WIDTHS AT THE SPECIFIED COMPLETED RADIUS.



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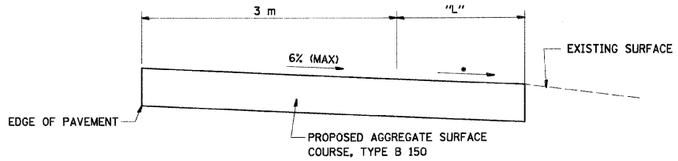
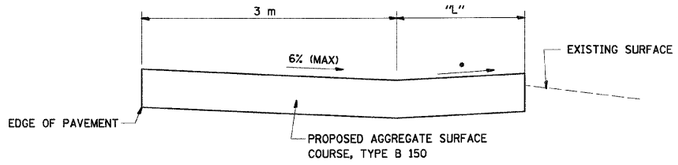


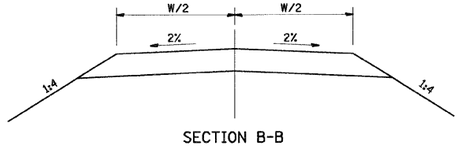
SECTION A-A WITH NEGATIVE GRADE

• SEE CROSS SECTIONS FOR SLOPES



SECTION A-A WITH POSITIVE GRADE

• SEE CROSS SECTIONS FOR SLOPES



SECTION B-B

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE CHECKED BY

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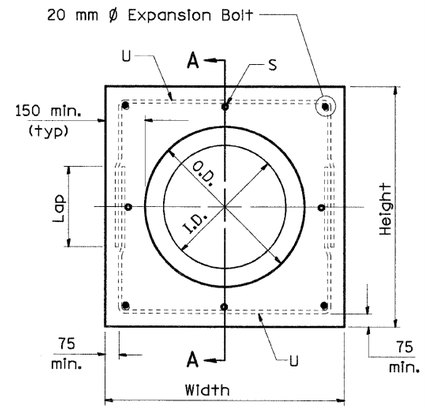

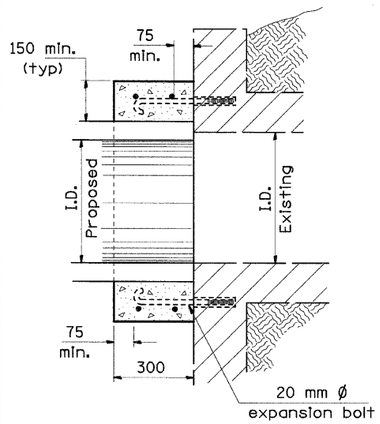

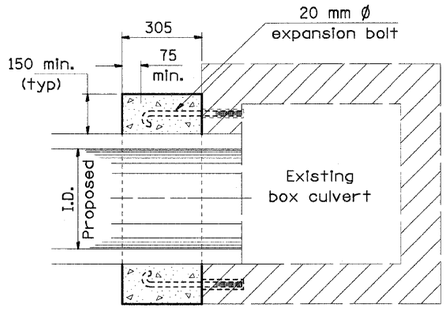

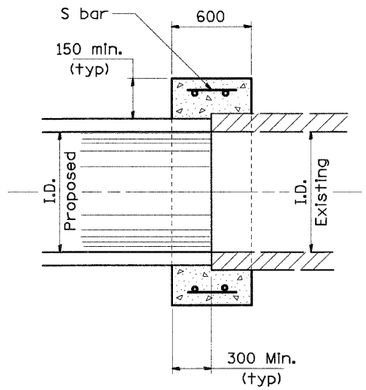

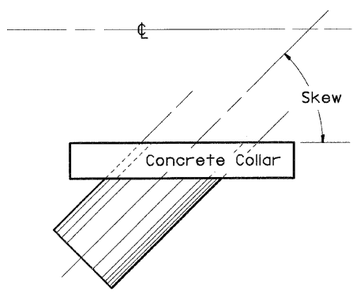

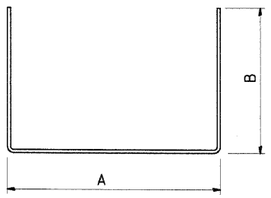

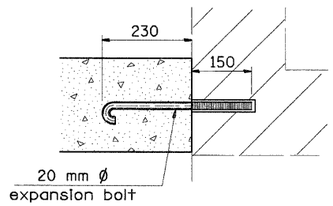

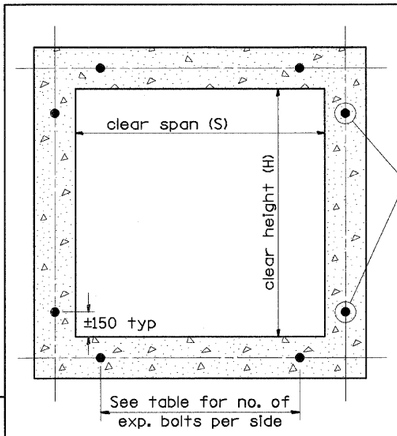

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	172
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

Section Type A
(Box end extension)

Section Type B
(Pipe in side extension)

Section Type C
(Pipe end to pipe end extension
No expansion bolts required)

Section A - A

#15 U - bar

Expansion Bolt Detail

Notes:

1. Expansion bolts shall consist of self drilling expansion shields and 20 mm Ø hooked bolts. Hooked bolts shall extend a minimum of 230 mm into new concrete. Minimum Certified Proof Load - 18 kN
2. Use minimum of 1 (one) expansion bolt at each corner.

Section Thru Barrel

EXPANSION BOLTS REQUIRED
FOR CULVERT EXTENSIONS

H or S	No. Expansion Bolts Req'd. Per Side			
	Extension ≦ 5 m		Extension > 5 m	
	No.	Spacing	No.	Spacing
600	✱	✱	✱	✱
750	2	460	2	460
900	2	610	2	610
1,200	3	460	3	460
1,500	4	405	3	610
1,800	5	380	4	510
2,100	5	460	4	610
2,400	6	430	5	535
2,700	6	480	5	610
3,000	7	460	6	535
3,300	8	430	6	610
3,600	8	480	7	560

Note: Number of expansion bolts in table based on non-skewed culverts.

✱ Use minimum 1 (one) expansion bolt in each corner.

Station	Section Type	Skew	Existing Culvert	Proposed Culvert		Collar		Reinforcement Bars										Expansion Bolts 20 mm	Class SI Concrete Collar
								S bar			U bar						kg		
			Size	I.D.	O.D.	Height	Width	No.	Size	Length	No.	Size	A	B	Lap	Length		Each	m^3
19+629.72	C	0	0.305	0.30	0.42	0.75	0.75	8	15	0.45	4	15	0.60	0.45	0.30	1.50	15.1	0	0.3
19+698.33	C	0	0.305	0.30	0.42	0.75	0.75	8	15	0.45	4	15	0.60	0.45	0.30	1.50	15.1	0	0.3
19+766.78	C	0	0.305	0.30	0.42	0.75	0.75	8	15	0.45	4	15	0.60	0.45	0.30	1.50	15.1	0	0.3
19+834.97	A	0	0.762	0.75	0.93	1.30	1.30				4	15	1.15	0.93	0.70	3.00	18.8	8	0.3
20+322.94	C	0	0.305	0.30	0.42	0.75	0.75	8	15	0.45	4	15	0.60	0.45	0.30	1.50	15.1	0	0.3
20+396.10	C	0	0.305	0.30	0.42	0.75	0.75	8	15	0.45	4	15	0.60	0.45	0.30	1.50	15.1	0	0.3
20+250.70	C	0	0.610	0.60	0.75	1.10	1.10	8	15	0.45	4	15	0.95	0.63	0.30	2.20	19.5	0	0.5
20+250.70	C	0	0.610	0.60	0.75	1.10	1.10	8	15	0.45	4	15	0.95	0.63	0.30	2.20	19.5	0	0.5
																Total	133.3	8	2.8

Note:

All Dimensions are in millimeters unless otherwise shown.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE
CHECKED BY

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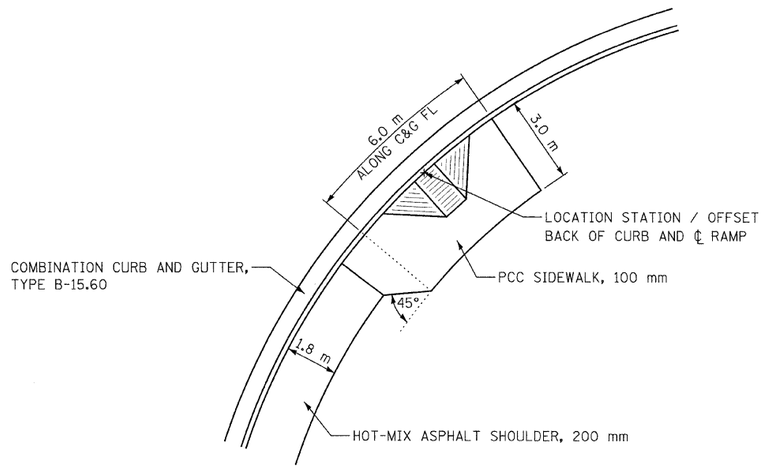
XXX

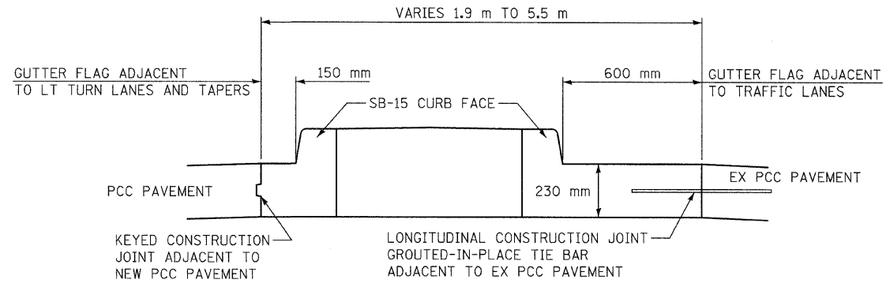
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	173
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SEE STANDARDS 424001 & 606001
FOR DETAILS NOT SHOWN

SIDEWALK RAMP, TYPE B DETAIL

NOT TO SCALE



LONGITUDINAL JOINT TIE BARS SHALL BE NO. 20 AT 600 mm CENTERS IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN IN STANDARD 420001

SEE STANDARDS 420001 & 606301
FOR DETAILS NOT SHOWN

CONCRETE MEDIAN TYPE SB DETAIL

NOT TO SCALE

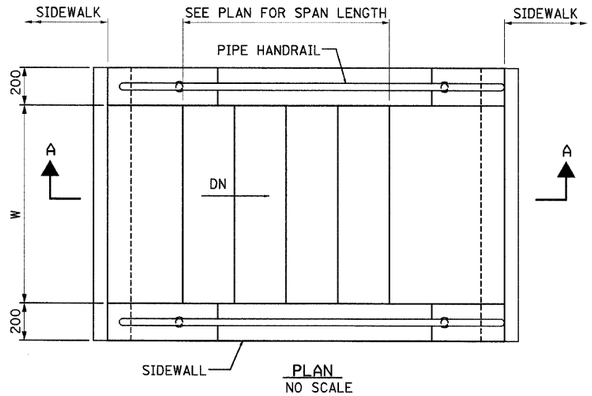
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY
DRAWN BY
DATE CHECKED BY

$FILE$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	174
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

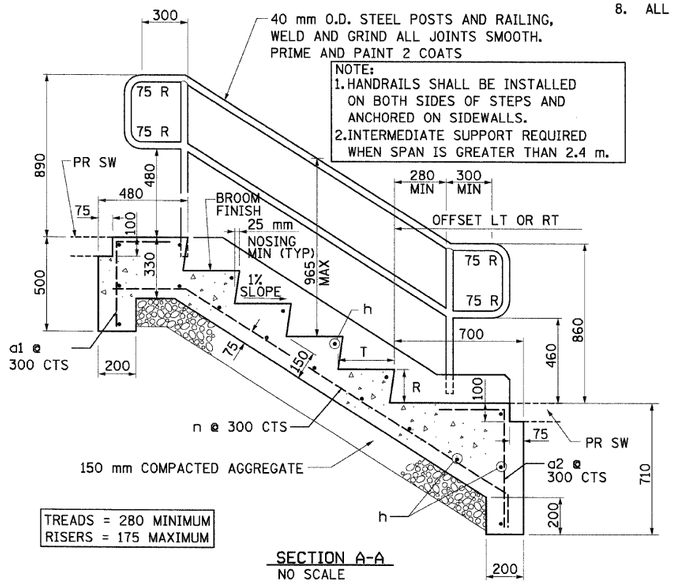
CONTRACT NO. 76635



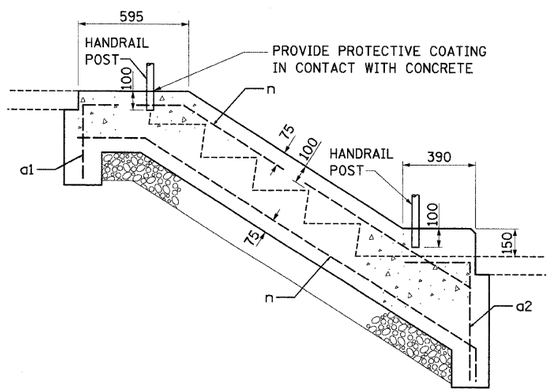
PLAN
NO SCALE

NOTES:

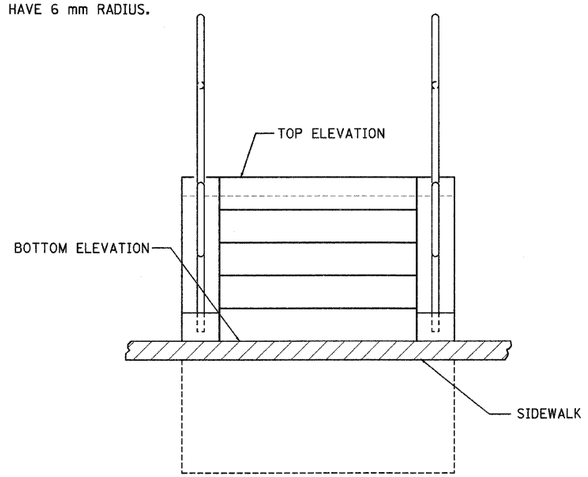
1. REMOVAL OF EXISTING SIDEWALK ABUTTING STEPS IS PAID AT THE CONTRACT UNIT PRICE PER SQUARE METER FOR SIDEWALK REMOVAL.
2. ALL EXCAVATION NECESSARY TO CONSTRUCT STEPS SHALL BE CONSIDERED INCLUDED IN THE UNIT PRICE BID PER CUBIC METER FOR CONCRETE STEPS.
3. WORK SHOWN HEREON WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER FOR CONCRETE STEPS.
4. REINFORCMENT BARS SHALL BE CONSIDERED INCLUDED IN THE UNIT PRICE BID PER CUBIC METER FOR CONCRETE STEPS AND SIDEWALLS.
5. A MINIMUM OF 40 mm CLEARANCE SHALL BE PROVIDED FOR REINFORCEMENT.
6. MINIMUM "W" = 800 mm (ABUTTING BUILDING - MINIMUM "W" = 1220 mm)
   MINIMUM "T" = 280 mm
   MINIMUM "R" = 150 mm, MAXIMUM "R" = 175 mm
7. HANDRAIL REQUIRED WHENEVER THERE ARE THREE OR MORE RISERS. HANDRAIL REQUIRED BOTH SIDES IF STEPS ADJACENT TO STRUCTURE AND MORE THAN 2 RISERS OR STEP WIDTH GREATER THAN 1120 mm.
8. ALL STEP NOSINGS TO HAVE 6 mm RADIUS.
9. THE UNIT COST PER LINEAL METER FOR PIPE HANDRAIL SHALL INCLUDE FURNISHING AND INSTALLING THE POSTS, SLEEVES, FITTINGS, GROUT, AND PIPE. THE CONTRACTOR SHALL DETERMINE THE EXACT PIPE LENGTHS IN THE FIELD.
10. HANDRAIL SHALL BE 40 mm IRON OR APPROVED EQUAL. FITTINGS MAY BE THREADED AND ADJUSTABLE OR A WELDED ASSEMBLY.
11. HANDRAIL TO RECEIVE SANDING AND TWO COATS OF RUST-INHIBITIVE PAINT.
12. SIDEWALL REQUIRED EACH SIDE WHEN THE NUMBER OF RISERS > 2.



SECTION A-A
NO SCALE



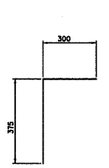
SECTION THRU SIDEWALL
NO SCALE



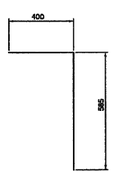
FRONT VIEW
NO SCALE

CONSTRUCTION SCHEDULE

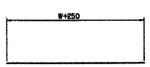
LOCATION	OFFSET	W mm	T mm	R mm	SIDEWALL REQUIRED	NO. OF RISERS	ELEVATION BOTTOM	ELEVATION TOP	h BAR QTY	h BAR SIZE	h BAR LENGTH	a1 BARS QTY	a1 BARS SIZE	a1 BARS LENGTH	a2 BARS QTY	a2 BARS SIZE	a2 BARS LENGTH	n BARS QTY	n BARS SIZE	n BARS LENGTH	REINF kg	CONC cu m	HANDRAIL m
20+434.8	10.4 m RT	1000	300	160	YES	6	189.34	190.30	20	#15	1250	5	#15	675	5	#15	985	7	#20	2850	99.3	1.4	2.6
																				TOTAL	99.3	1.4	2.6



a1 BAR



a2 BAR



h BAR

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
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MADISON COUNTY
DRAWN BY
DATE
CHECKED BY

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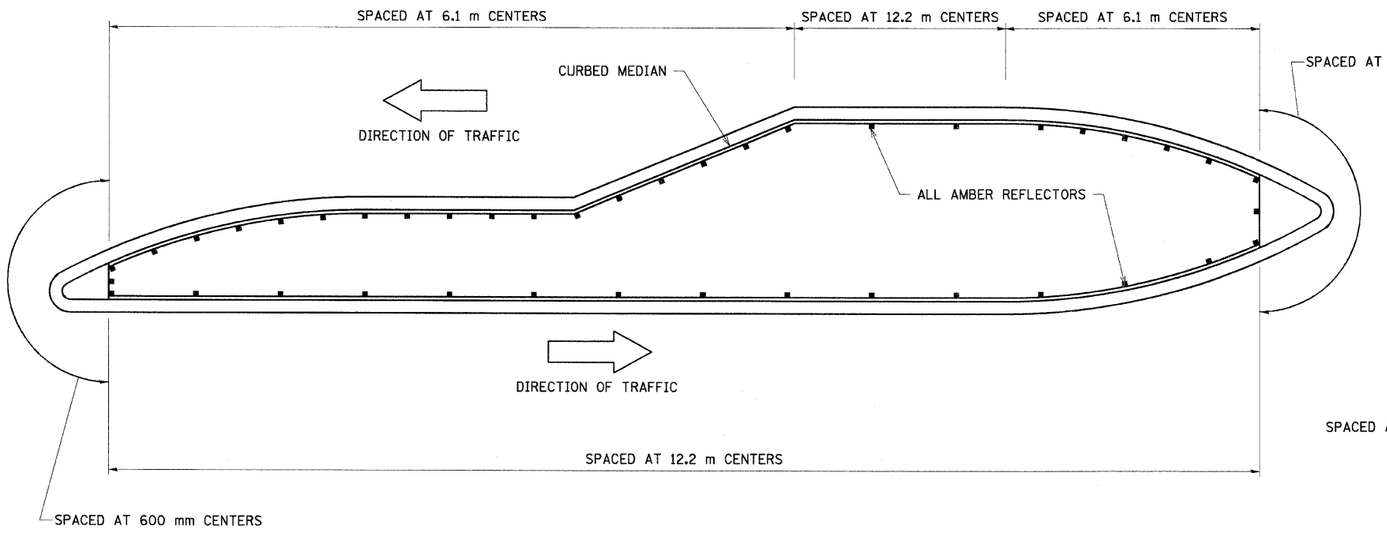
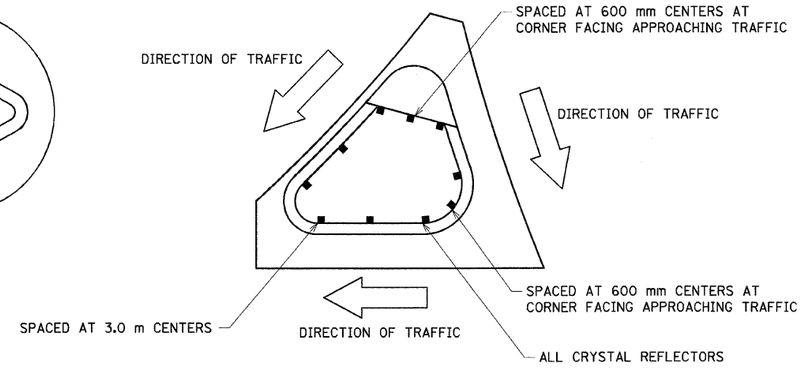
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	60-15-1, 60-15HB-1	MADISON	238	175
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

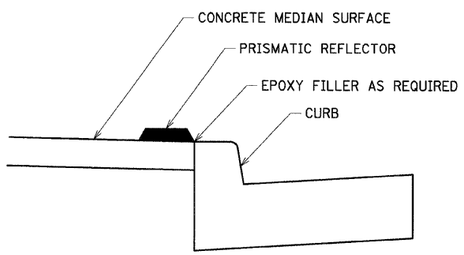
TYPICAL PLACEMENT OF PRISMATIC REFLECTORS ON CURBS



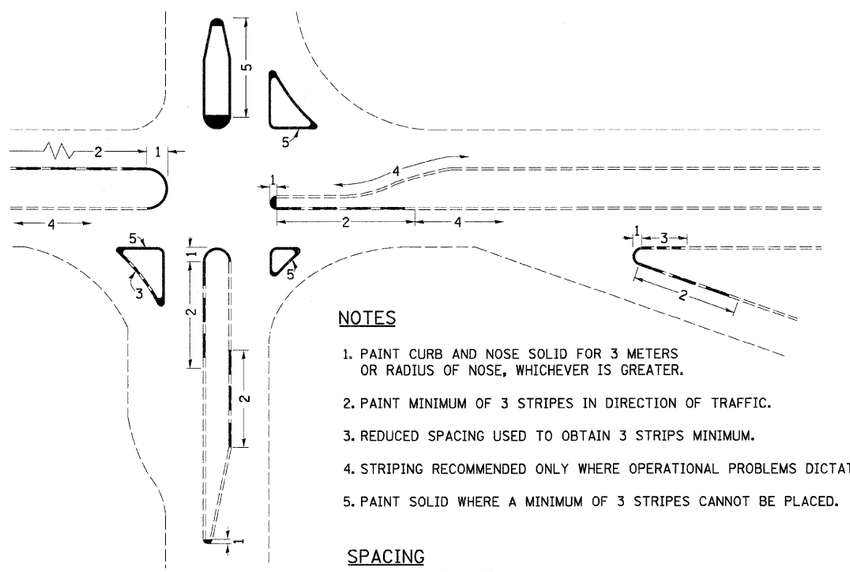


NOTES:

1) PRISMATIC REFLECTORS SHALL BE MONODIRECTIONAL AND POSITIONED SO THAT THE REFLECTION FACE IS FACING THE APPROACHING TRAFFIC.
2) PRISMATIC REFLECTORS SHALL BE SECURED IN PLACE WITH AN EPOXY ADHESIVE.
3) PRISMATIC REFLECTORS SHALL BE EITHER AMBER OR CRYSTAL IN COLOR.



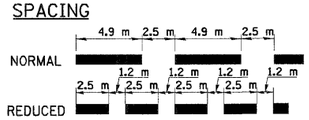
SECTION VIEW



NOTES

1. PAINT CURB AND NOSE SOLID FOR 3 METERS OR RADIUS OF NOSE, WHICHEVER IS GREATER.
2. PAINT MINIMUM OF 3 STRIPES IN DIRECTION OF TRAFFIC.
3. REDUCED SPACING USED TO OBTAIN 3 STRIPS MINIMUM.
4. STRIPING RECOMMENDED ONLY WHERE OPERATIONAL PROBLEMS DICTATE.
5. PAINT SOLID WHERE A MINIMUM OF 3 STRIPES CANNOT BE PLACED.

SPACING



CURB MARKING

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MISCELLANEOUS DETAILS
FAP 310 (IL 255)
SECTIONS 60-15-1, 60-15HB-1
MADISON COUNTY

DRAWN BY EBB
DATE
CHECKED BY

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	176
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TOPO ADDED		
NO.	AREAS		
	AREAS CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TOPO ADDED		
NO.	AREAS		
	AREAS CHECKED		

GR ELEV = 196.545

197.810 197.612 197.414 VAR VAR 197.414 197.216 197.018

2.4 m

1:2.31

1:2.06

SLOPE = 4.00 %

USFL = 194.229

DSFL = 193.259

STONE DUMPED RIPRAP, CLASS A4

24.3 m 11.8 m 5.0 m

1.5 m

MANHOLE, TYPE A, 1.5 m DIAMETER, WITH MEDIAN INLET (604101)
PIPE CULVERT, RCCP, TYPE 2, 600 mm Ø, 24.3 m
PRECAST REINFORCED CONCRETE END SECTION, 600 mm, STD 542301

38+875.0

SCALE
HORIZONTAL: 1:200
VERTICAL: 1:100

PIPE SECTION - FAP 310 (IL 255) STA 38+875.0

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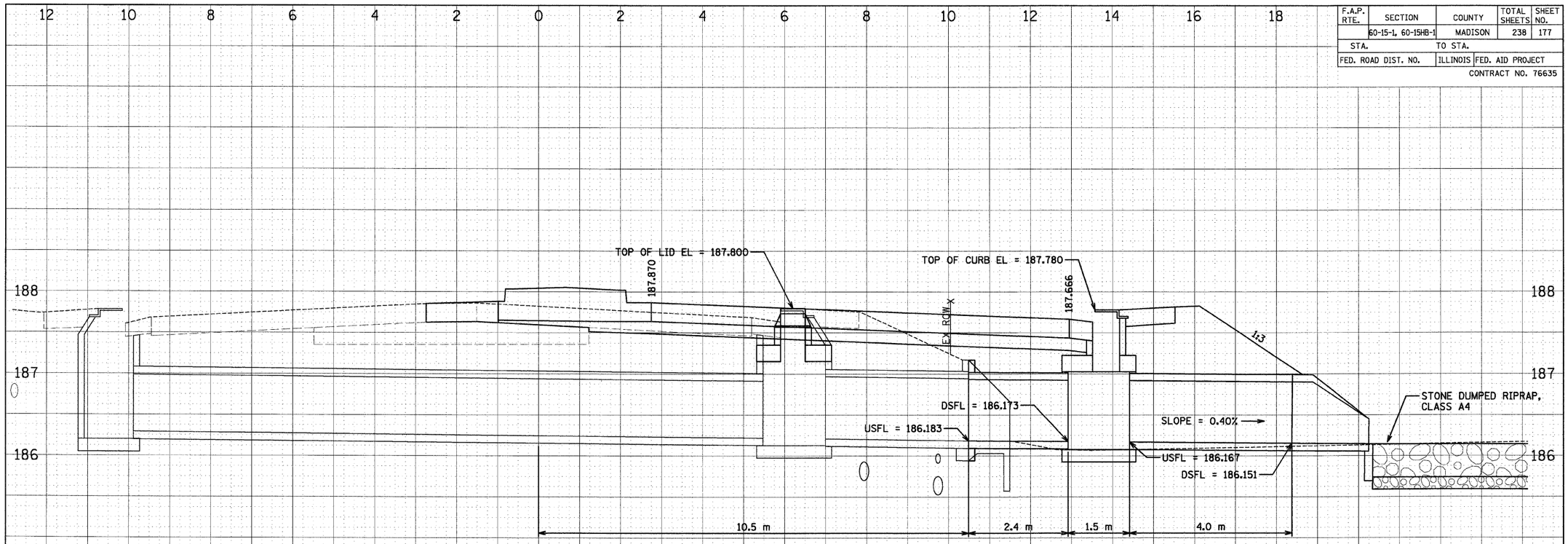
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	177
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY
NOTE BOOK
NO.

BY | DATE
SURVEYED
PLOTTED
TEMPERATURE
AREAS
AREAS CHECKED



MANHOLE TO BE RECONSTRUCTED WITH NEW TY 1 FR CLSD LID
CONCRETE COLLAR (SEE SHEET 172)
STORM SEWER, TYPE 1, RCCP, CLASS III, 750 mm, 2.4 m
MANHOLE, TYPE A, 1.5 m DIAMETER, WITH TYPE 15 FRAME & LID
FLAT SLAB TOP, STD 602601
STORM SEWER, TYPE 1, RCCP, CLASS III, 750 mm, 4.0 m
PRECAST REINFORCED CONCRETE END SECTION, 750 mm, STD 542301

19+835

ORIGINAL SURVEY
NOTE BOOK
NO.

BY | DATE
SURVEYED
PLOTTED
TEMPERATURE
AREAS
AREAS CHECKED

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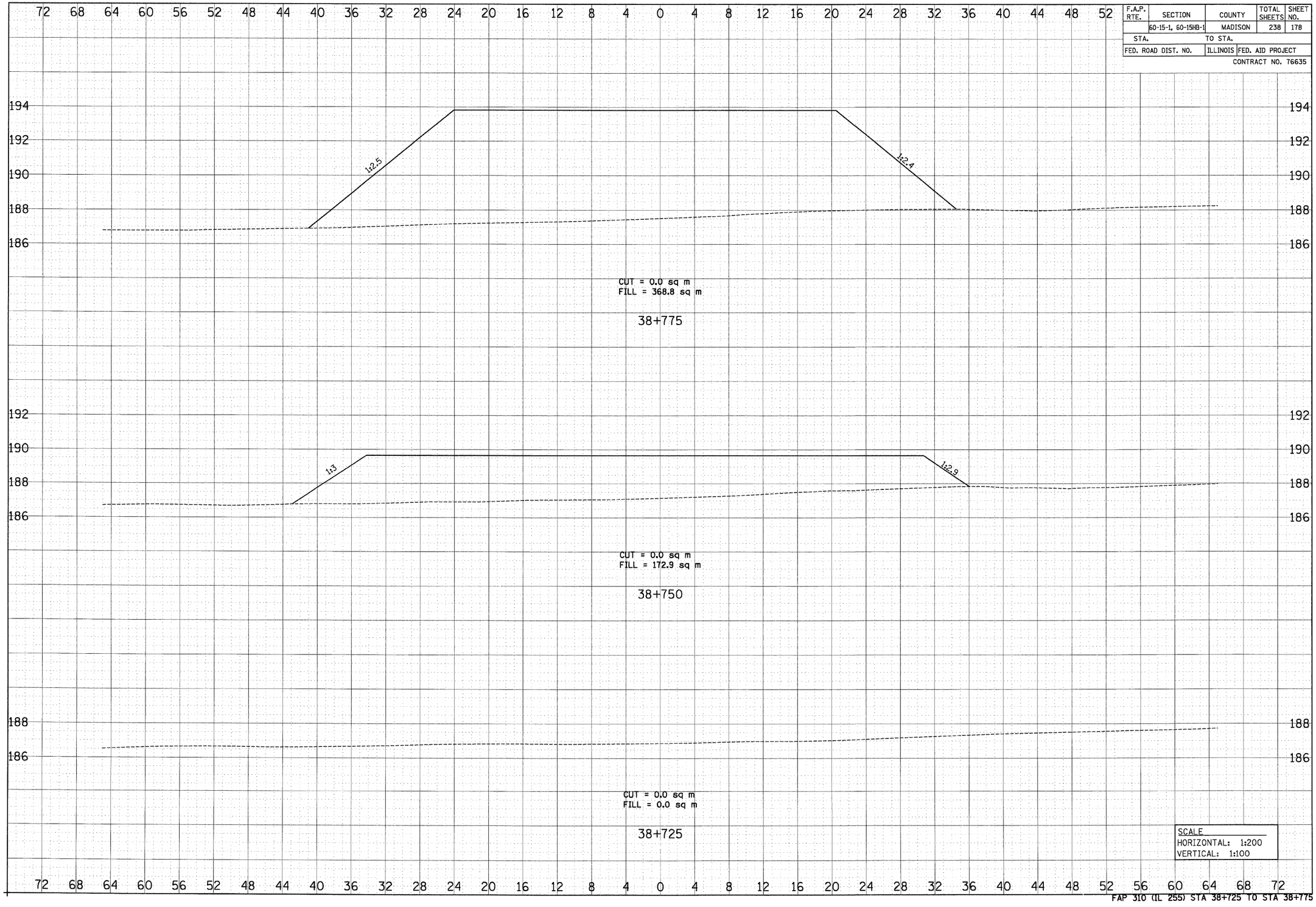
PIPE SECTION - HUMBERT ROAD STA 19+835

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	178
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635



FAP 310 (IL 255) STA 38+725 TO STA 38+775

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED	PLOTTED	AREAS
PLOTTED	ISSUE DATE	AREAS CHECKED
ISSUE DATE		
AREAS		
AREAS CHECKED		
BY		
DATE		

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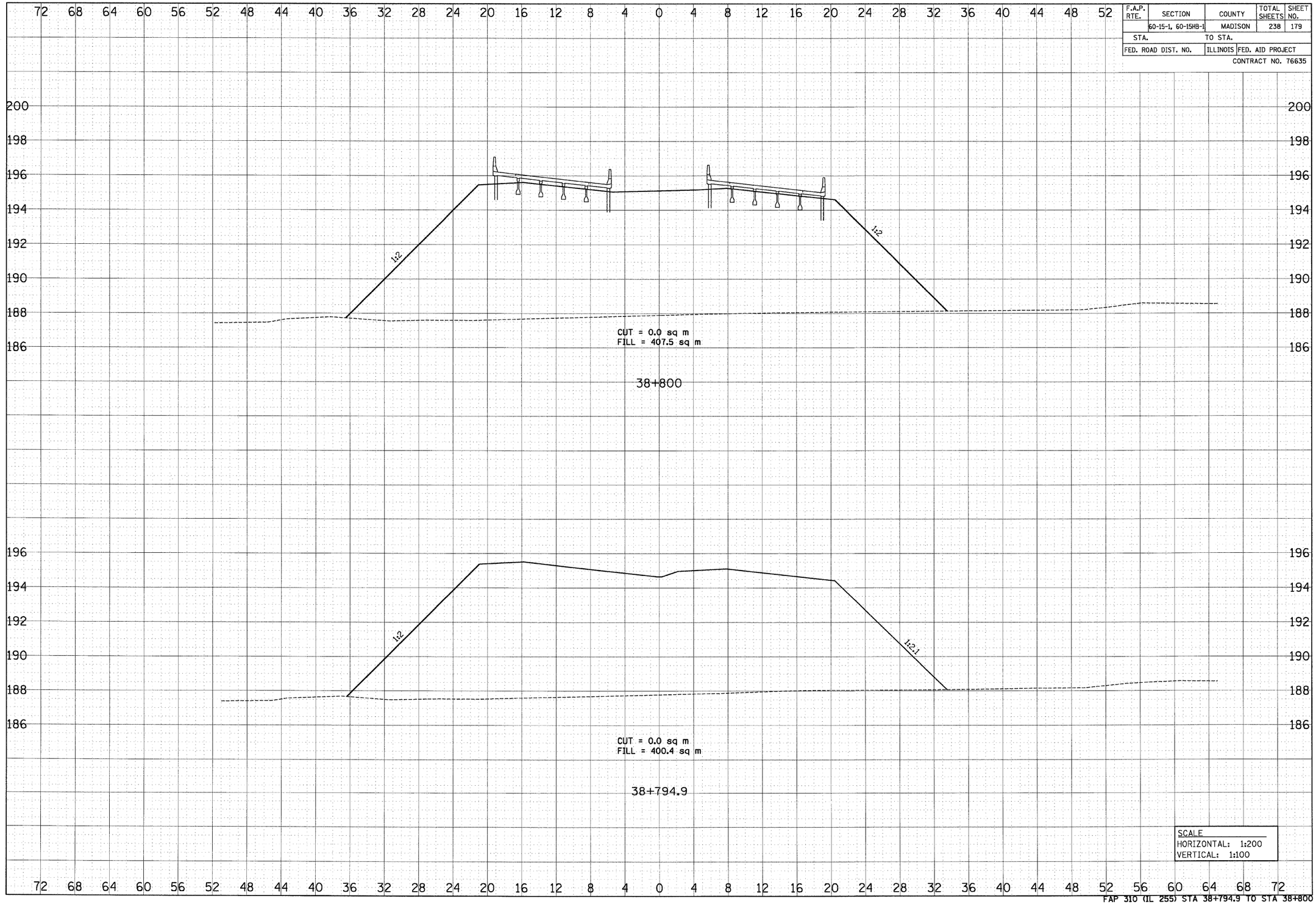
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	179
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

ORIGINAL SURVEY	BY	DATE
FINAL SURVEY	SURVEYED	
NOTE BOOK	PLOTTED	
NO.	ISSUE	
	AREAS	
	AREAS CHECKED	



FAP 310 (IL 255) STA 38+794.9 TO STA 38+800

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	180
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY NOTE BOOK NO.	ORIGINAL SURVEY NOTE BOOK NO.	BY	DATE
	SURVEYED		
	PLOTTED		
	TYPED		
	AREAS		
	AREAS CHECKED		

72 68 64 60 56 52 48 44 40 36 32 28 24 20 16 12 8 4 0 4 8 12 16 20 24 28 32 36 40 44 48 52

200 198 196 194 192 190 188 186

CUT = 0.0 sq m
FILL = 169.5 sq m

38+850

CUT = 0.0 sq m
FILL = 0.0 sq m

38+825

SCALE
HORIZONTAL: 1:200
VERTICAL: 1:100

FAP 310 (IL 255) STA 38+825 TO STA 38+850

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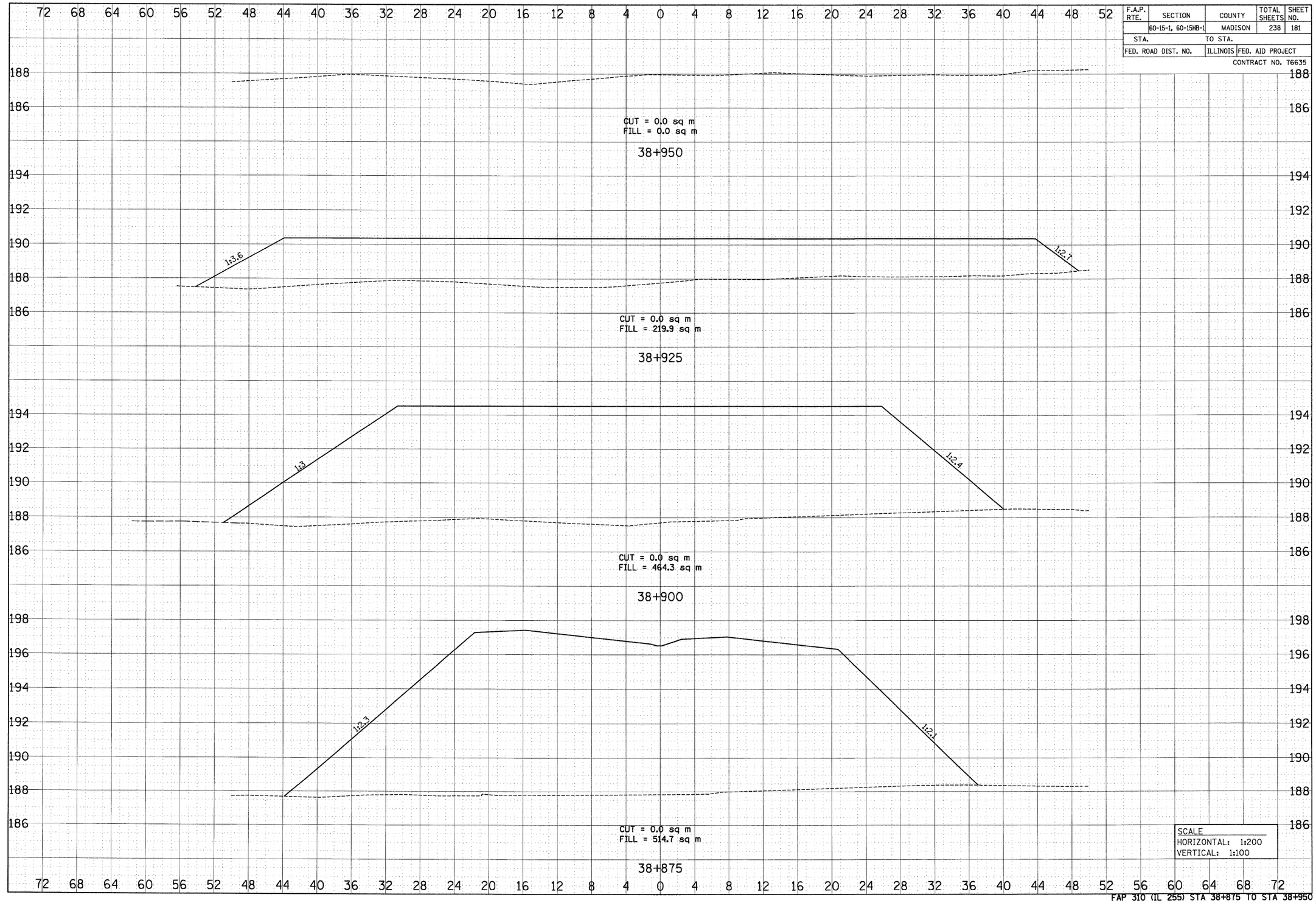
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	181
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635



FAP 310 (IL 255) STA 38+875 TO STA 38+950

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		DATE
PLOTTED		BY
TYPE SIZE		
AREAS		
AREAS CHECKED		

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		DATE
PLOTTED		BY
TYPE SIZE		
AREAS		
AREAS CHECKED		

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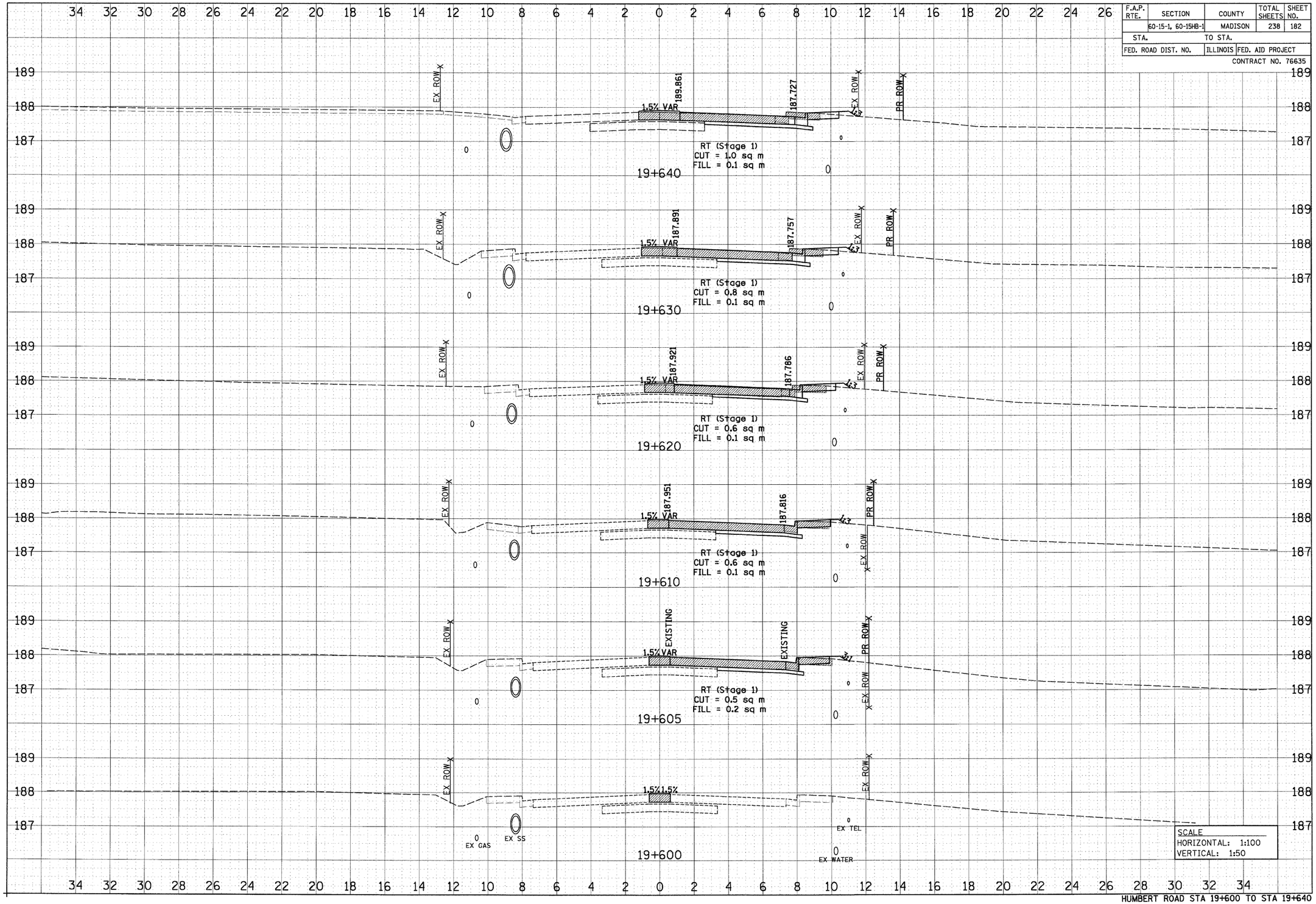
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	182
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
SCALE		
NOTE BOOK		
NO.	AREAS CHECKED	

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
SCALE		
NOTE BOOK		
NO.	AREAS CHECKED	



HUMBERT ROAD STA 19+600 TO STA 19+640

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	183
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
ISSUED AT		
NOTE BOOK	AREAS CHECKED	
NO.		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
ISSUED AT		
NOTE BOOK	AREAS CHECKED	
NO.		

34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26

189 188 187 186

EX ROW | 1.5% VAR | 187.726 | 187.593 | EX ROW | 1:3 | PR ROW

RT (Stage 1)
CUT = 1.1 sq m
FILL = 0.5 sq m

19+700

EX ROW | 1.5% VAR | 187.740 | 187.607 | EX ROW | 1:3 | PR ROW

RT (Stage 1)
CUT = 1.2 sq m
FILL = 0.3 sq m

19+690

EX ROW | 1.5% VAR | 187.757 | 187.603 | EX ROW | 1:3 | PR ROW

RT (Stage 1)
CUT = 1.5 sq m
FILL = 0.2 sq m

19+680

EX ROW | 1.5% VAR | 187.778 | 187.645 | EX ROW | 1:3 | PR ROW

RT (Stage 1)
CUT = 1.0 sq m
FILL = 0.1 sq m

19+670

EX ROW | 1.5% VAR | 187.803 | 187.669 | EX ROW | 1:3 | PR ROW

RT (Stage 1)
CUT = 1.1 sq m
FILL = 0.2 sq m

19+660

EX ROW | 1.5% VAR | 187.831 | 187.697 | EX ROW | 1:3 | PR ROW

EX GAS | EX SS | EX TEL | EX WATER

RT (Stage 1)
CUT = 0.9 sq m
FILL = 0.1 sq m

19+650

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 19+650 TO STA 19+700

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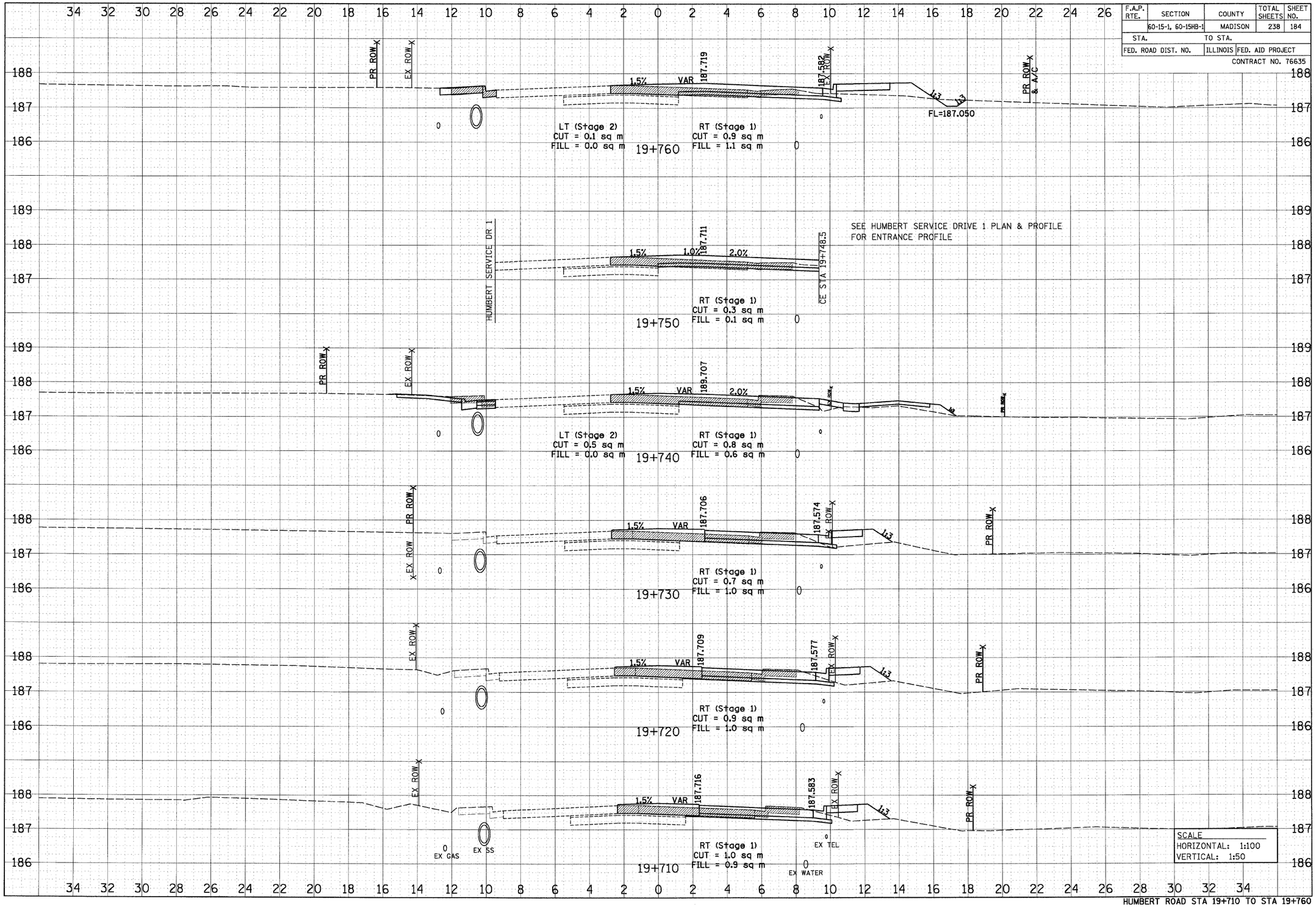
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	184
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
ISSUE DATE		
NOTE BOOK	AREAS	
NO.	AREAS CHECKED	



HUMBERT ROAD STA 19+710 TO STA 19+760

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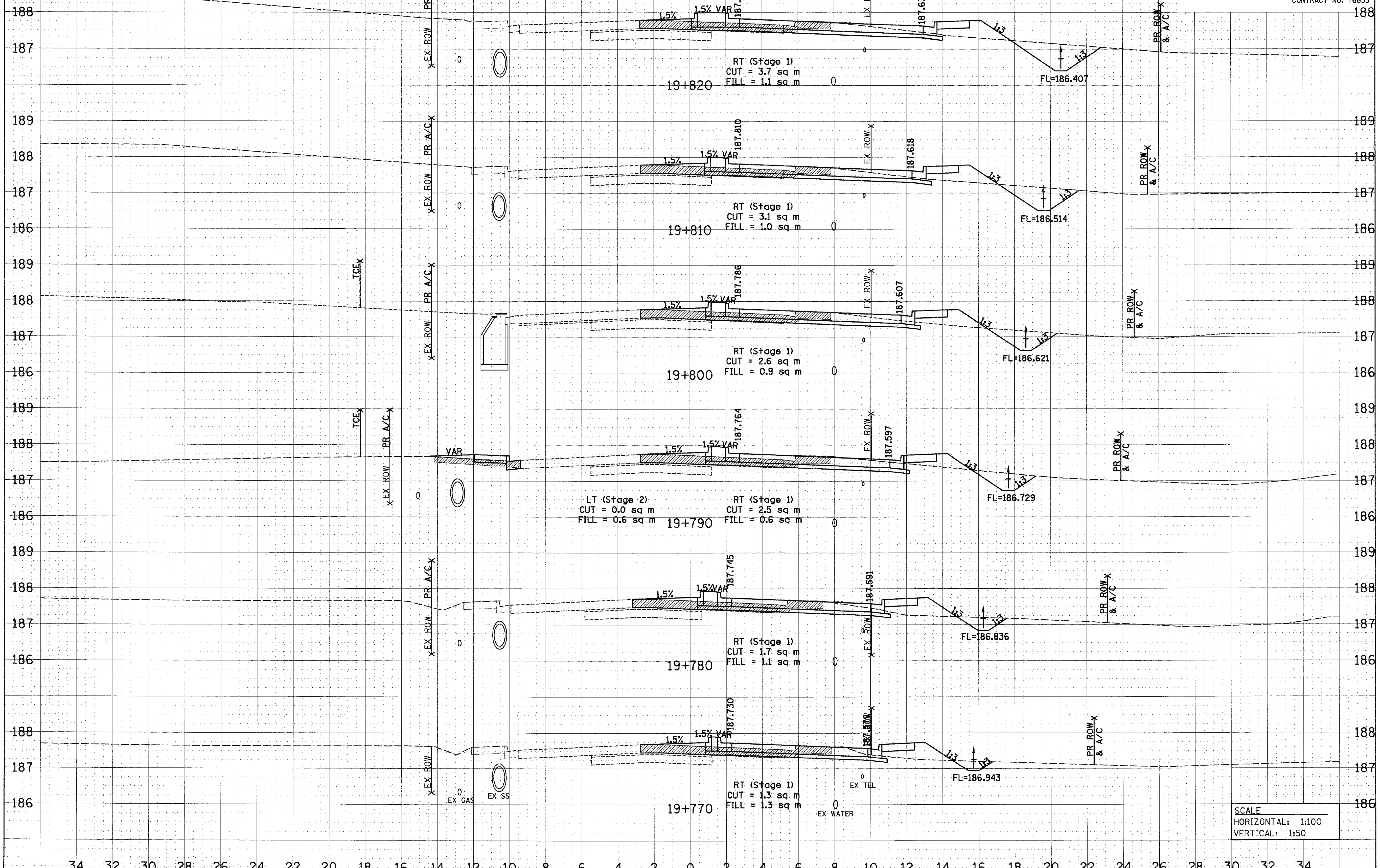
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	185
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635



19+820
RT (Stage 1)
CUT = 3.7 sq m
FILL = 1.1 sq m
FL=186.407
187.834
187.630
19+810
RT (Stage 1)
CUT = 3.1 sq m
FILL = 1.0 sq m
FL=186.514
187.810
187.618
19+800
RT (Stage 1)
CUT = 2.6 sq m
FILL = 0.9 sq m
FL=186.621
187.786
187.607
19+790
LT (Stage 2)
CUT = 0.0 sq m
FILL = 0.6 sq m
RT (Stage 1)
CUT = 2.5 sq m
FILL = 0.6 sq m
FL=186.729
187.764
187.597
19+780
RT (Stage 1)
CUT = 1.7 sq m
FILL = 1.1 sq m
FL=186.836
187.745
187.591
19+770
RT (Stage 1)
CUT = 1.3 sq m
FILL = 1.3 sq m
FL=186.943
187.730
EX GAS
EX SS
EX TEL
EX WATER
PR A/C
EX ROW
PR ROW & A/C
TCE
1.5%
1.5% VAR
1:3
VAR

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 19+770 TO STA 19+820

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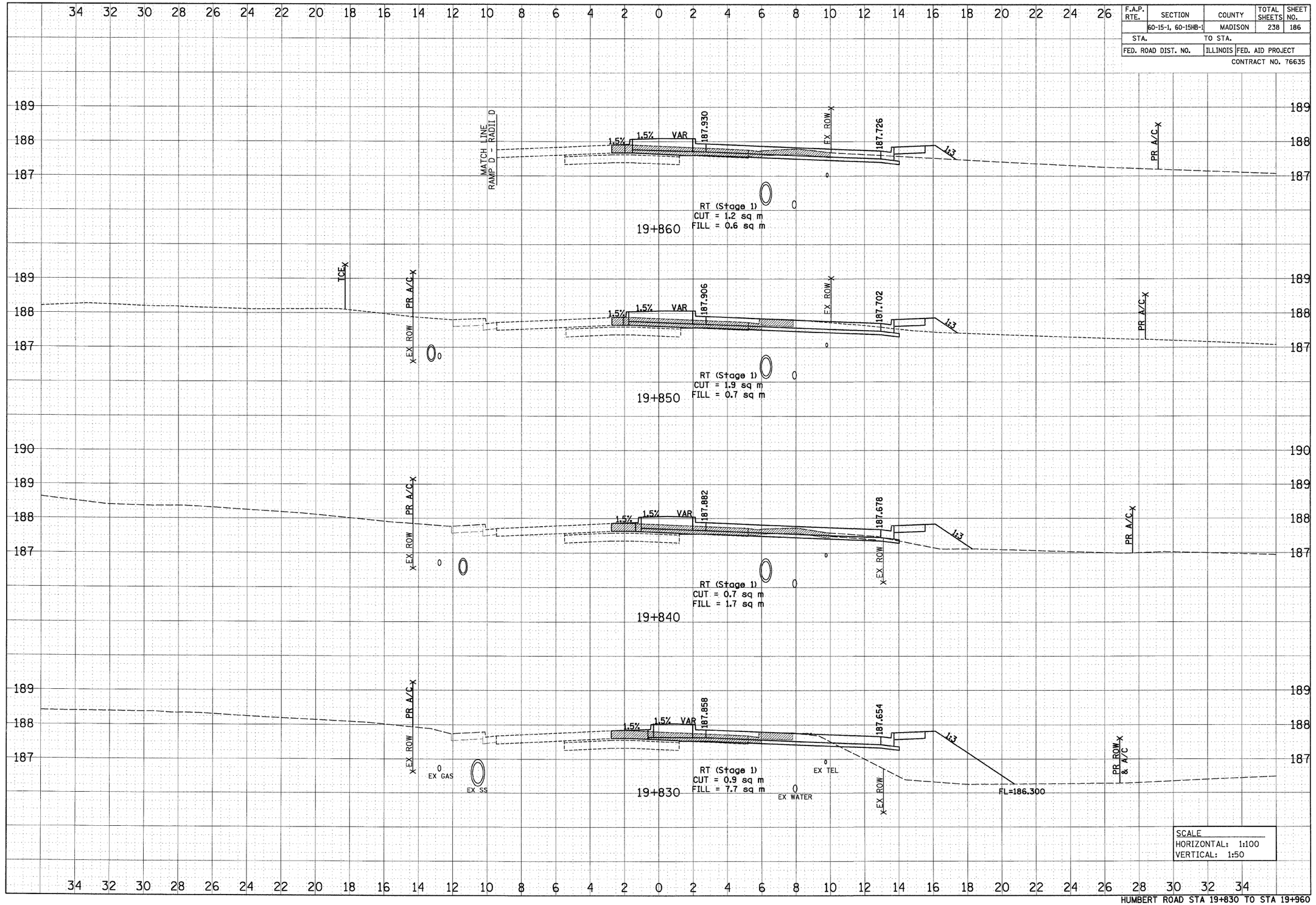
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	186
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635



FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TYPICAL SECTIONS AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TYPICAL SECTIONS AREAS		
NO.	AREAS CHECKED		

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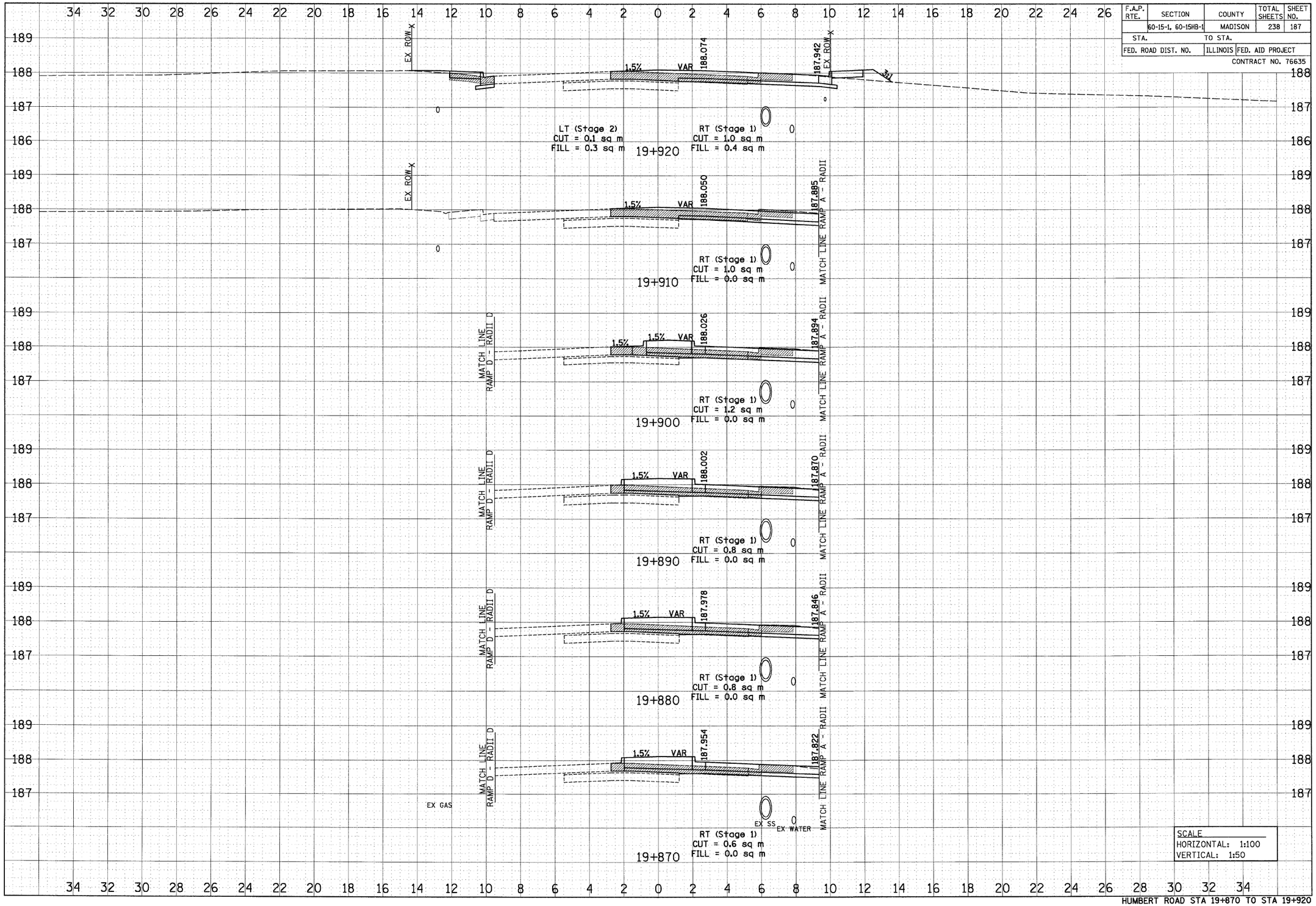
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	187
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT NO. 76635		

ORIGINAL SURVEY	BY	DATE
	SURVEYED	
	PLOTTED	
NOTE BOOK	TYPICAL SHEET	
NO.	AREAS	
	AREAS CHECKED	



HUMBERT ROAD STA 19+870 TO STA 19+920

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	188
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY	BY	DATE
ORIGINAL SURVEY	SURVEYED	
	PLOTTED	
NOTE BOOK	TOPO SITE	
NO.	AREAS	
	AREAS CHECKED	

34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26

189 188 187

EX ROW

1.5% 1.5% VAR 188.170 187.966 1:3

0

LT (Stage 2)
CUT = 0.1 sq m
FILL = 0.4 sq m

19+960

RT (Stage 1)
CUT = 1.7 sq m
FILL = 0.6 sq m

189 188 187 186

EX ROW

1.5% 1.5% VAR 188.146 188.014 1:3

0

RT (Stage 1)
CUT = 0.9 sq m
FILL = 0.6 sq m

19+950

189 188 187 186

EX ROW

1.5% 1.5% VAR 188.122 188.020 1:3

0

RT (Stage 1)
CUT = 0.3 sq m
FILL = 1.1 sq m

19+940

189 188 187 186

EX ROW

1.5% 1.5% VAR 188.098 187.966 1:3

0 EX GAS

EX SS EX WATER

EX TEL

RT (Stage 1)
CUT = 0.9 sq m
FILL = 0.4 sq m

19+930

SCALE	
HORIZONTAL:	1:100
VERTICAL:	1:50

34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

HUMBERT ROAD STA 19+930 TO STA 19+960

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	189
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED
	PLOTTED
	FORMULATE
	AREAS
	AREAS CHECKED

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED
	PLOTTED
	FORMULATE
	AREAS
	AREAS CHECKED

34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26

196 195 194 193 192 191 190 189 188 187

EX ROW

FAP 310 EARTHWORK

1.5%

1.5% VAR

188.218

188.086

SB EAST
ABUTMENT
S.N. 060-0309

LT (Stage 2)
CUT = 0.0 sq m
FILL = 0.0 sq m

RT (Stage 1)
CUT = 1.0 sq m
FILL = 0.2 sq m

19+980

188.194

188.062

1:3

EX GAS

EX SS

EX WATER

EX TEL

LT (Stage 2)
CUT = 0.1 sq m
FILL = 0.1 sq m

RT (Stage 1)
CUT = 0.8 sq m
FILL = 0.7 sq m

19+970

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 19+970 TO STA 19+980

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	190
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	ESTIMATE		
NOTE BOOK	AREAS CHECKED		
NO.			

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	ESTIMATE		
NOTE BOOK	AREAS CHECKED		
NO.			

EX ROW

FAP 310 EARTHWORK

1.5% VAR

188.266

188.134

EX ROW

FAP 310 EARTHWORK

LT (Stage 2)
CUT = 0.0 sq m
FILL = 0.0 sq m

RT (Stage 1)
CUT = 0.8 sq m
FILL = 0.1 sq m

20+000

SB WEST
ABUTMENT
S.N. 060-0309

SB EAST
ABUTMENT
S.N. 060-0309

1.5% VAR

188.242

188.110

EX GAS

FAP 310 EARTHWORK

EX SS

EX TEL

EX WATER

FAP 310 EARTHWORK

LT (Stage 2)
CUT = 0.0 sq m
FILL = 0.0 sq m

RT (Stage 1)
CUT = 1.0 sq m
FILL = 0.1 sq m

19+990

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 19+990 TO STA 20+000

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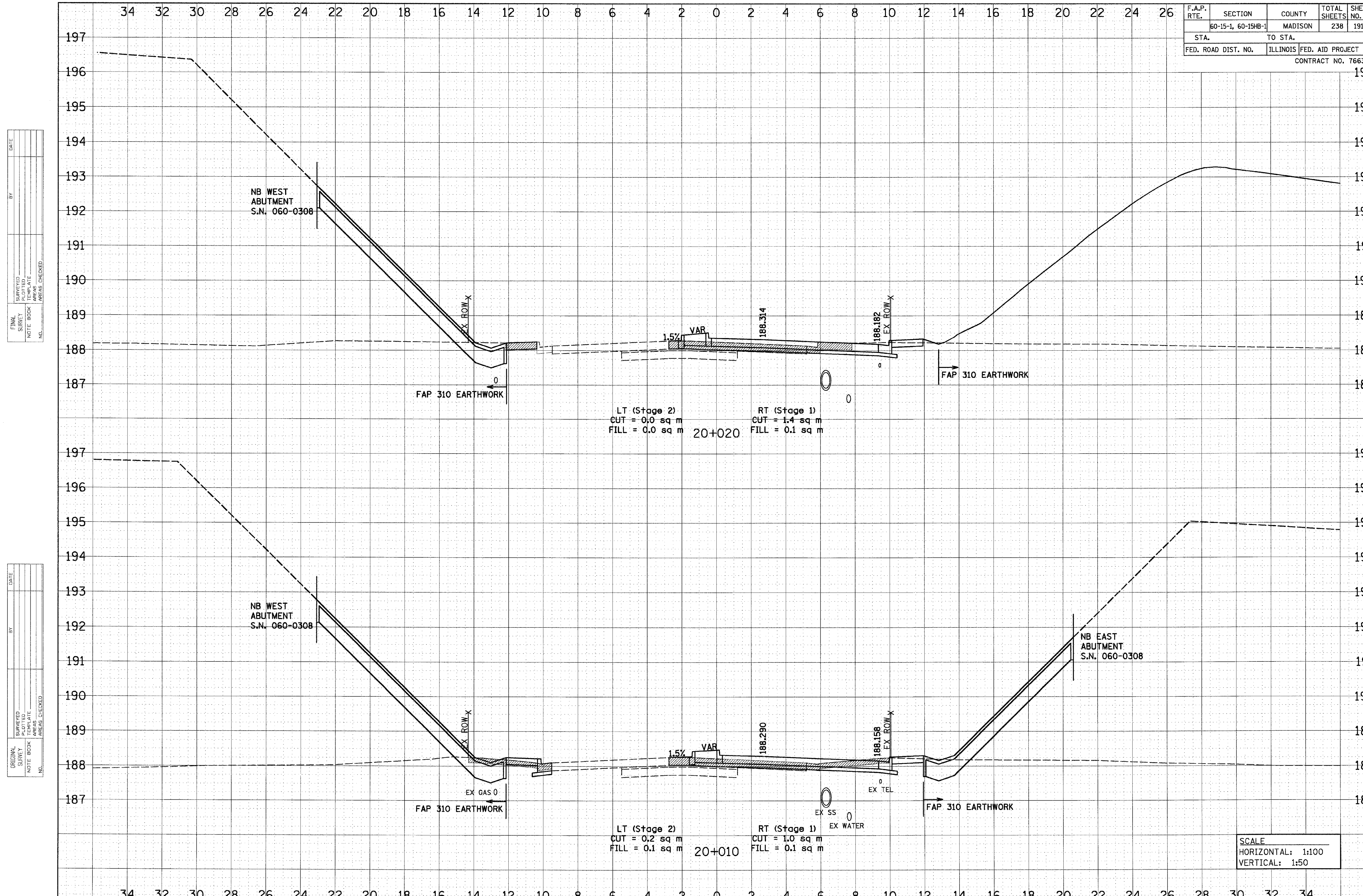
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	191
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635



HUMBERT ROAD STA 20+010 TO STA 20+020

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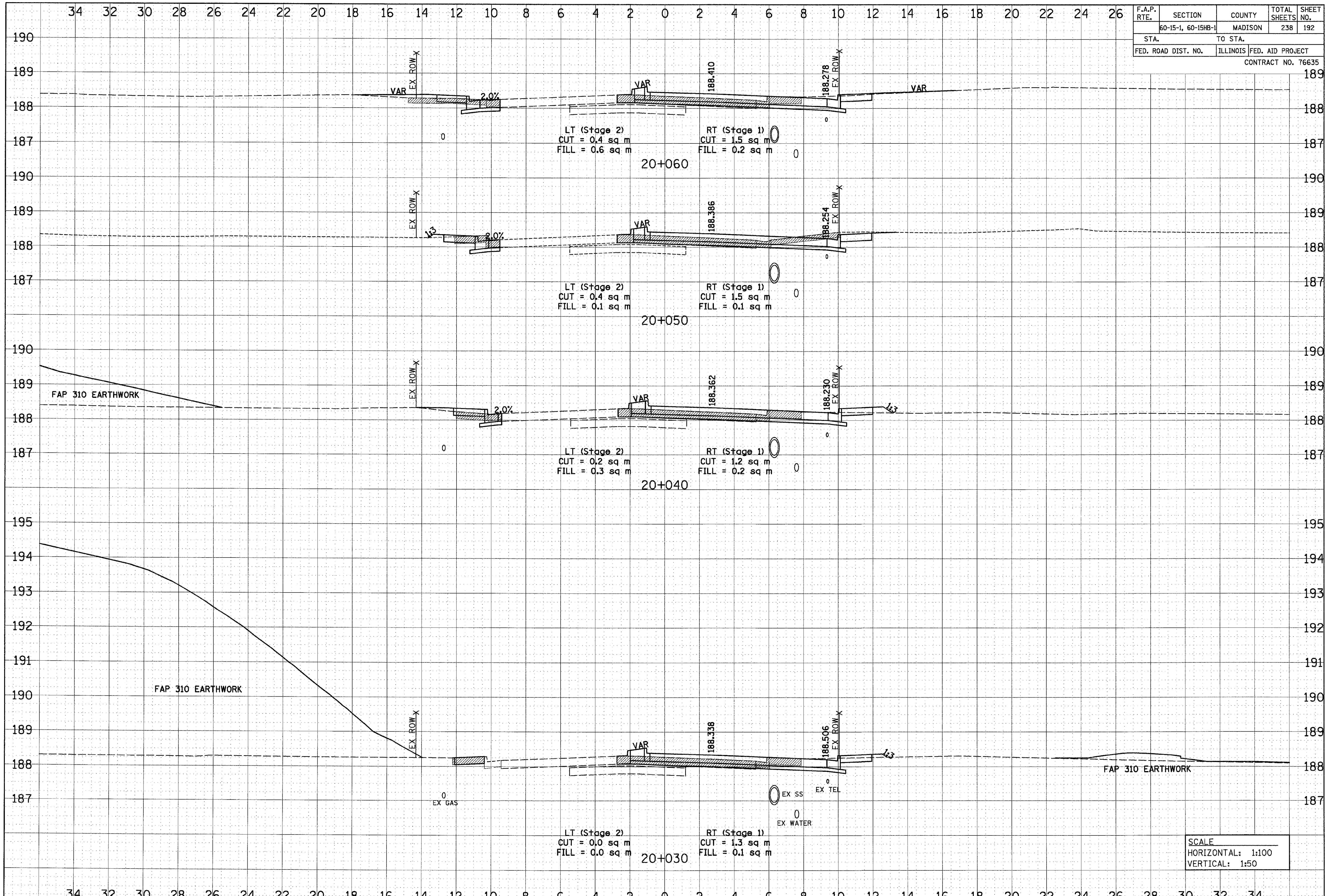
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	192
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635



HUMBERT ROAD STA 20+030 TO STA 20+060

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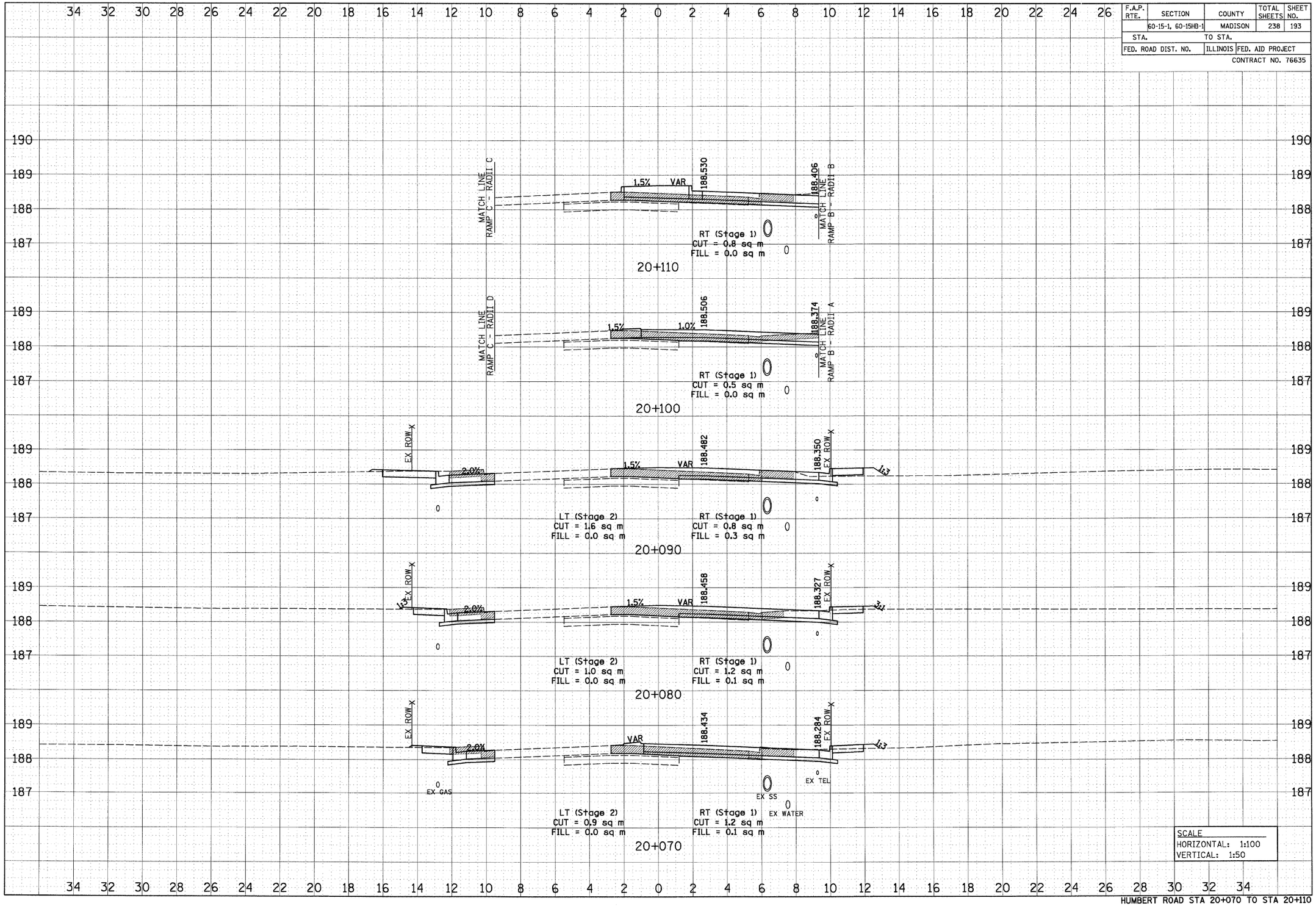
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	193
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635



SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 20+070 TO STA 20+110

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	DRAWN		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

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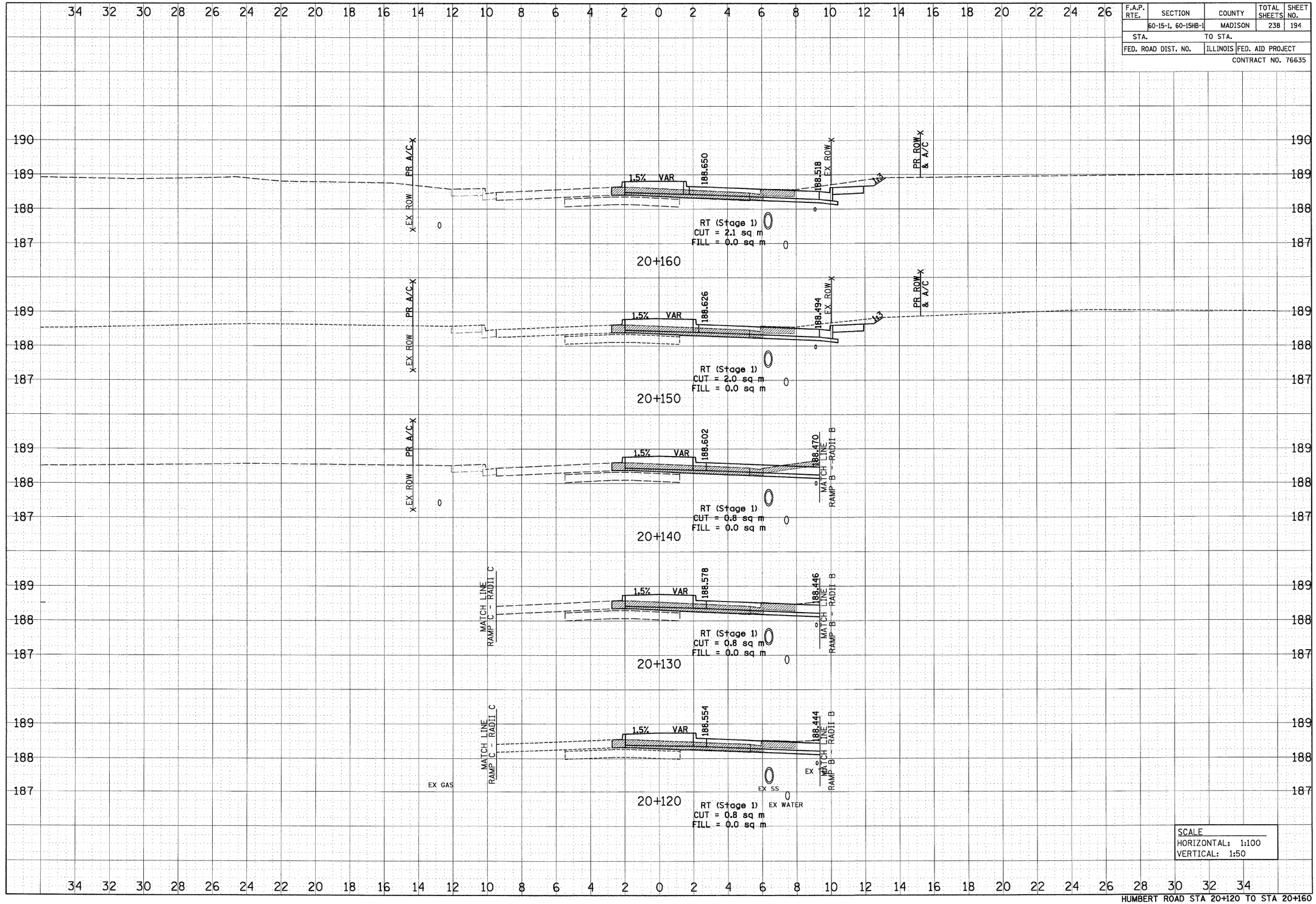
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	194
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY NOTE BOOK

NO.	BY	DATE
	SURVEYED	
	PLOTTED	
	TYPICALS	
	AREAS	
	AREAS CHECKED	



SCALE	
HORIZONTAL:	1:100
VERTICAL:	1:50

HUMBERT ROAD STA 20+120 TO STA 20+160

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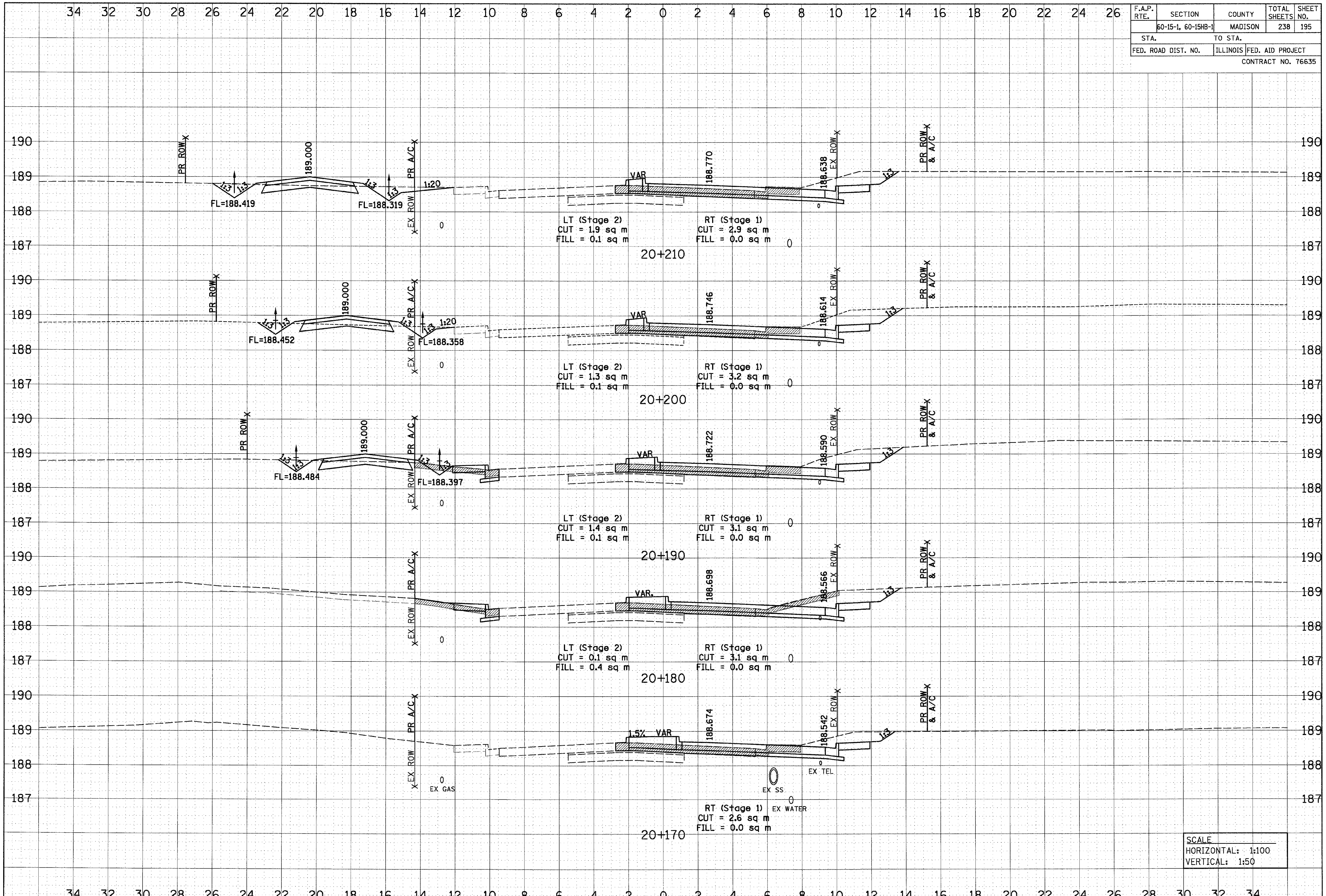
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	195
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635



HUMBERT ROAD STA 20+170 TO STA 20+210

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	196
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	DRAWN		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	DRAWN		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

BIT PE STA 59+974.0 SKEW=19° RT AH

4.3 m | 5.0 m V.C. | +3.0% | -1.0% | PR ROW | 188.968 | 1:3 | 1:3 | 1:20 | PR A/C | EX ROW | 188.854

300 mm Ø CS/A
FL=188.309

SS, TY 1, RCCP, 300 mm Ø
FL = 187.746

20+245

PR ROW | 189.000 | 1:3 | 1:3 | 1:3 | 1:3 | 1:20 | PR A/C | EX ROW | VAR | 188.842 | 188.710 | VAR

FL=188.321

INLET, TY A
WITH TY 8 GRATE
INV EL = 187.776

FL=188.200

LT (Stage 2)
CUT = 6.0 sq m
FILL = 0.0 sq m

RT (Stage 1)
CUT = 0.7 sq m
FILL = 2.1 sq m

20+240

PR ROW | 189.000 | 1:3 | 1:3 | 1:3 | 1:3 | 1:20 | PR A/C | EX ROW | VAR | 188.818 | 188.686 | EX ROW | PR ROW & A/C | TCE

FL=188.354

FL=188.240

LT (Stage 2)
CUT = 5.3 sq m
FILL = 0.0 sq m

RT (Stage 1)
CUT = 2.2 sq m
FILL = 0.0 sq m

20+230

PR ROW | 189.000 | 1:3 | 1:3 | 1:3 | 1:3 | 1:20 | PR A/C | EX ROW | VAR | 188.794 | 188.662 | EX ROW | PR ROW & A/C

FL=188.386

FL=188.280

EX GAS

LT (Stage 2)
CUT = 3.0 sq m
FILL = 0.0 sq m

RT (Stage 1)
CUT = 2.7 sq m
FILL = 0.0 sq m

EX TEL

EX WATER

20+220

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 20+220 TO STA 20+245

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	197
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 76635

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TYPING DATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TYPING DATE		
	AREAS		
	AREAS CHECKED		

34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26

190 189 188 187

EX ROW

PR ROW

VAR

188.986

188.854

188.962

188.830

188.938

188.914

188.890

1.5%

0

RT (Stage 1)
CUT = 1.8 sq m
FILL = 0.0 sq m

20+300

RT (Stage 1)
CUT = 1.8 sq m
FILL = 0.0 sq m

20+290

RT (Stage 1)
CUT = 1.0 sq m
FILL = 0.0 sq m

20+280

RT (Stage 1)
CUT = 0.1 sq m
FILL = 0.0 sq m

20+270

RT (Stage 1)
CUT = 0.2 sq m
FILL = 0.0 sq m

20+260

SEILER ROAD INTERSECTION

EX GAS

EX SS

EX WATER

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 20+260 TO STA 20+300

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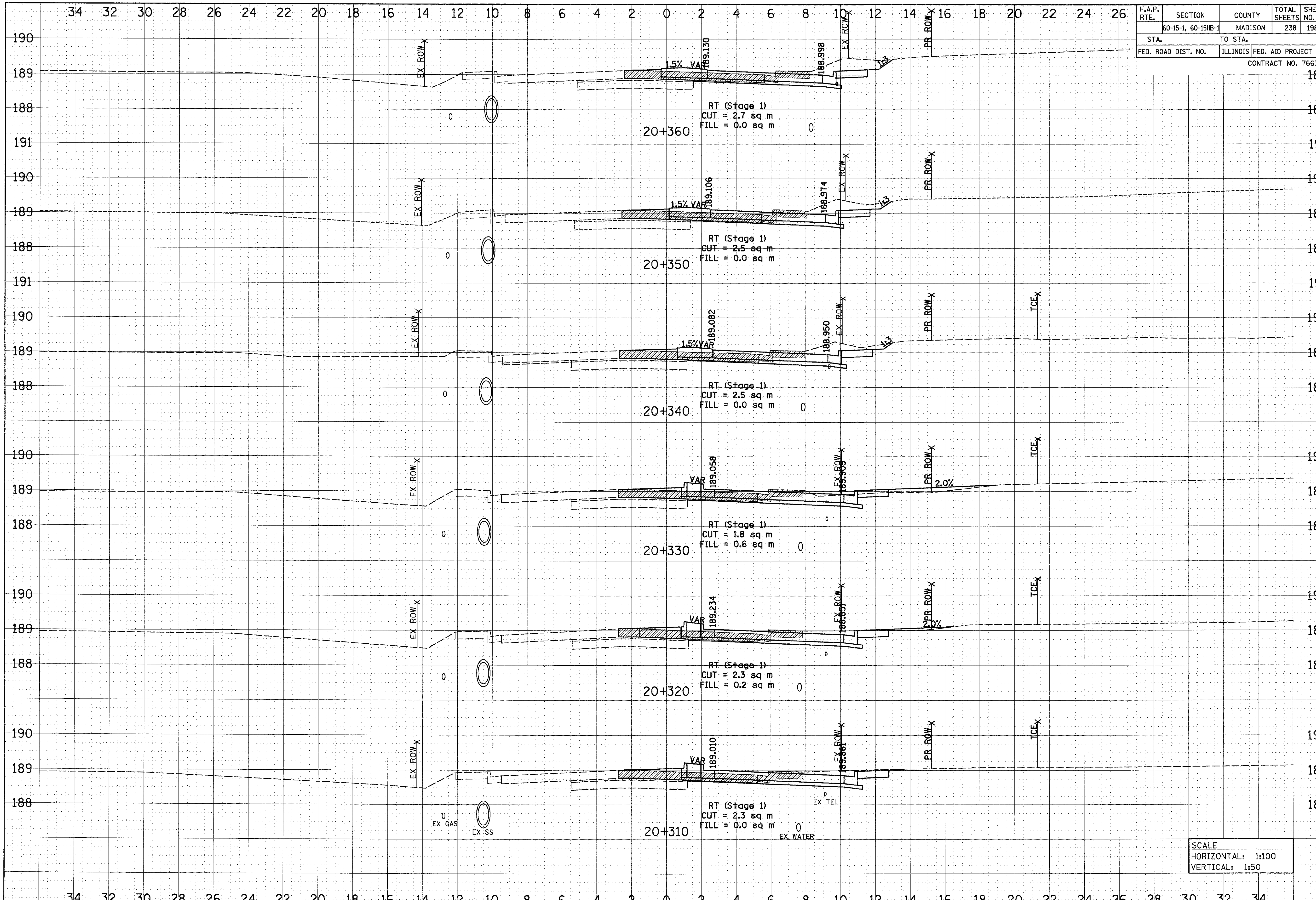
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	198
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
		CONTRACT NO. 76635		



34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26
190
189
188
191
EX ROW
PR ROW
TCE
1.5% VAR
189.130
188.998
RT (Stage 1)
CUT = 2.7 sq m
FILL = 0.0 sq m
20+360
189.106
188.974
RT (Stage 1)
CUT = 2.5 sq m
FILL = 0.0 sq m
20+350
189.082
188.950
RT (Stage 1)
CUT = 2.5 sq m
FILL = 0.0 sq m
20+340
VAR
189.058
188.909
2.0%
RT (Stage 1)
CUT = 1.8 sq m
FILL = 0.6 sq m
20+330
189.234
188.851
2.0%
RT (Stage 1)
CUT = 2.3 sq m
FILL = 0.2 sq m
20+320
189.010
188.861
RT (Stage 1)
CUT = 2.3 sq m
FILL = 0.0 sq m
20+310
EX GAS
EX SS
EX TEL
EX WATER
34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 20+310 TO STA 20+360

ORIGINAL SURVEY	NO.	NOTE BOOK	BY	DATE
		SURVEYED		
		PLOTTED		
		TEMPLATE		
		AREAS		
		AREAS CHECKED		

FINAL SURVEY	NO.	NOTE BOOK	BY	DATE
		SURVEYED		
		PLOTTED		
		TEMPLATE		
		AREAS		
		AREAS CHECKED		

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	199
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635

FINAL SURVEY	BY	DATE
ORIGINAL SURVEY		
NOTE BOOK	SURVEYED	
	PLOTTED	
	FIELD CHK'D	
NO.	AREAS CHECKED	

AGG FE STA 20+404.5

20+405

RT (Stage 1)
CUT = 4.0 sq m
FILL = 0.0 sq m

20+400

RT (Stage 1)
CUT = 3.1 sq m
FILL = 0.0 sq m

20+390

RT (Stage 1)
CUT = 2.9 sq m
FILL = 0.0 sq m

20+380

RT (Stage 1)
CUT = 2.7 sq m
FILL = 0.0 sq m

20+370

SCALE
HORIZONTAL: 1:100
VERTICAL: 1:50

HUMBERT ROAD STA 20+370 TO STA 20+405

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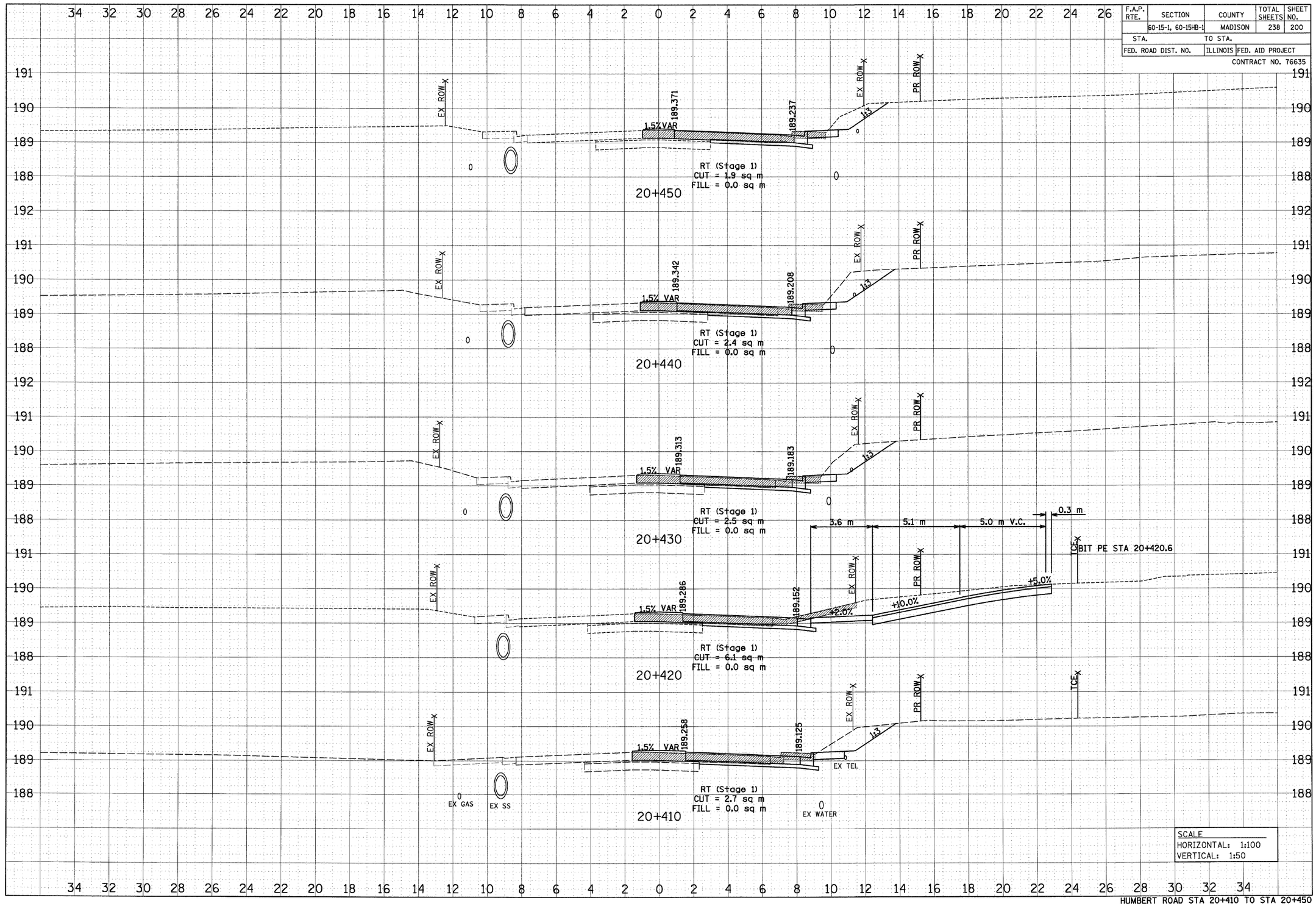
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	60-15-1, 60-15HB-1	MADISON	238	200
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 76635



SCALE	
HORIZONTAL:	1:100
VERTICAL:	1:50

HUMBERT ROAD STA 20+410 TO STA 20+450

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	DESIGNATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	DESIGNATE	
	AREAS	
	AREAS CHECKED	

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