

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	1
		ILLINOIS	CONTRACT NO. 61C67	

# STATE OF ILLINOIS

## DEPARTMENT OF TRANSPORTATION

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**LYONS WOODS TRAIL**  
**IL RTE 131 (GREEN BAY RD) TO ROBERT McCLORY PATH**  
**MULTI-USE PATH**  
**SECTION: 14-F3000-04-BT**  
**PROJECT: TE-01D1(039)**  
**LAKE COUNTY FOREST PRESERVE DISTRICT**  
**LAKE COUNTY**  
**C-91-165-16**

PROJECT IS LOCATED IN MUNICIPALITIES  
OF WAUKEGAN AND BEACH PARK



LOCATION OF SECTION INDICATED THUS: - -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

APPROVED 11/9/2016  
*[Signature]*  
LAKE COUNTY FOREST PRESERVE DISTRICT

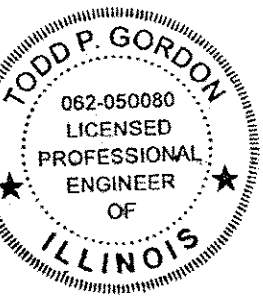
APPROVED November 9, 2016  
*[Signature]*  
WAUKEGAN PARK DISTRICT

PASSED NOVEMBER 14, 2016  
*[Signature]* CHRISTOPHER HOLT  
DISTRICT ONE ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID  
BASED ON LIMITED  
REVIEW November 15, 2016  
*[Signature]*  
REGION ONE ENGINEER

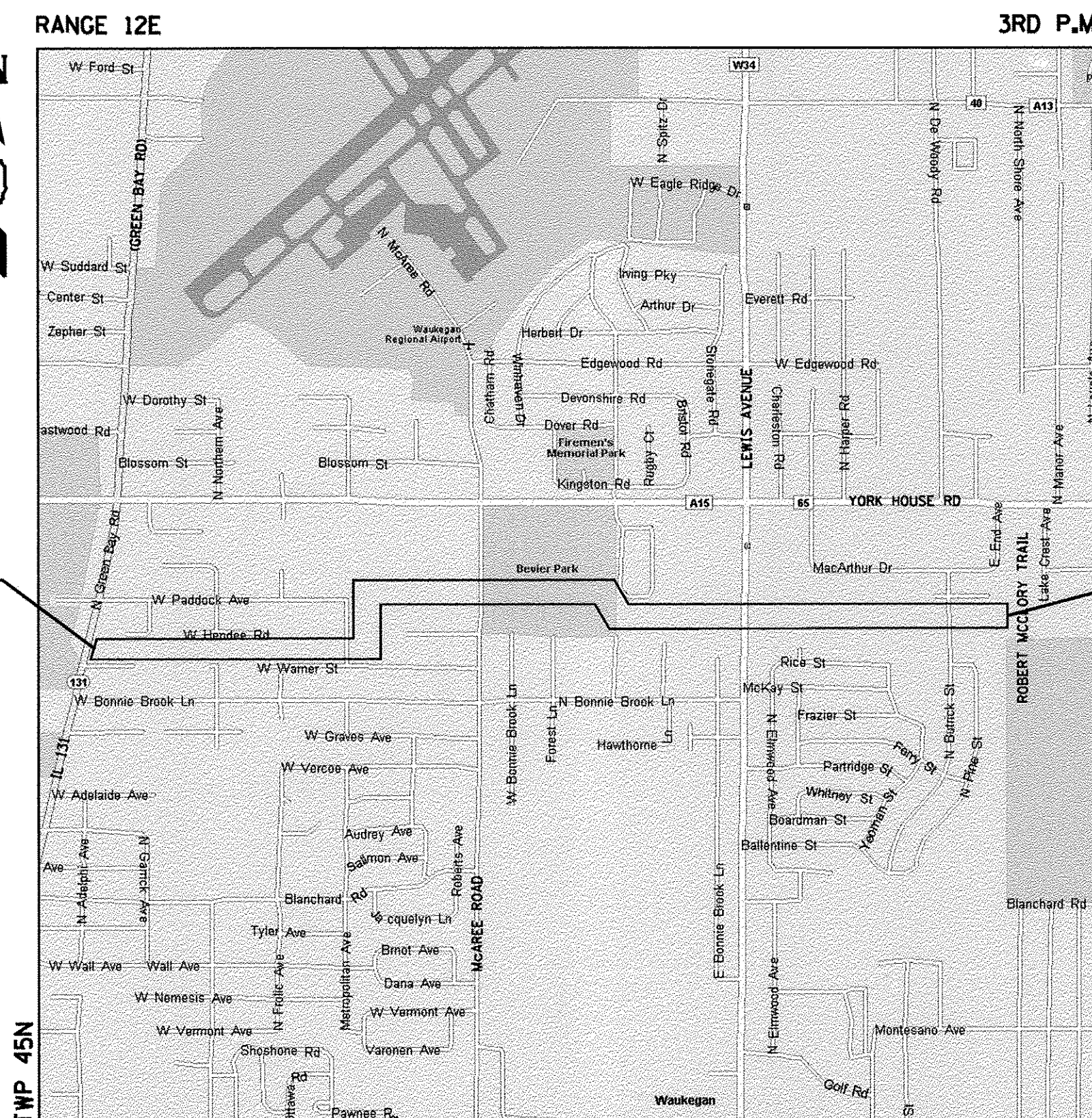
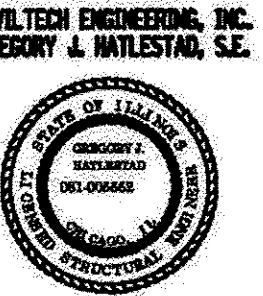
SIGNED: *[Signature]*  
TODD P. GORDON, P.E., PTOE

DATE: November 9, 2016  
EXP. 11/30/2017



SIGNED: *[Signature]*  
GREGORY J. HATTESTAD, S.E.

DATE: Nov. 9, 2016



IMPROVEMENT BEGINS  
STA. 1 + 19.04

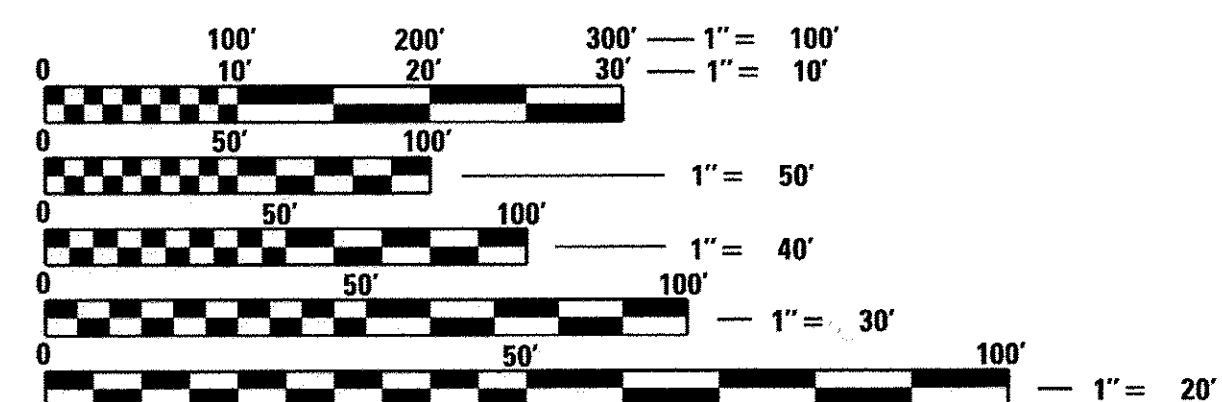
IMPROVEMENT ENDS  
STA. 103 + 12.13

**LOCATION MAP**

N.T.S.

GROSS LENGTH = 10,193.09 FT. = 1.93 MILE  
NET LENGTH = 10,193.09 FT. = 1.93 MILE

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



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123 OR 811

CONTRACT NO. 61C67

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E., (847) 705-4406 SCHAUMBURG, IL

**GENERAL NOTES:**

1. THE CONSTRUCTION, INCLUDING MATERIALS USED, OF THIS ACCESS FACILITY SHALL BE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF THE MOST RECENT EDITIONS OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS"; INCLUDING ALL AMENDMENTS AND SUCCESSOR DOCUMENTS TO THE AFOREMENTIONED DOCUMENTS AS PUBLISHED OR ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION AND/OR LCDOT UNLESS OTHERWISE STATED IN THESE ENGINEERING PLANS.
2. THE CONSTRUCTION OF THIS ACCESS FACILITY SHALL ALSO BE IN ACCORDANCE WITH THE "LAKE COUNTY HIGHWAY ACCESS REGULATION ORDINANCE," LATEST EDITION.
3. THE RESIDENT ENGINEER SHALL BE RESPONSIBLE FOR ESTABLISHING THE PROPER LINES AND GRADES FOR ALL CONSTRUCTION WORK INCLUDING EARTHWORK, PAVING, CURBING, AND DRAINAGE. THE RESIDENT ENGINEER SHALL ALSO BE RESPONSIBLE FOR ALL OTHER ENGINEERING WORK INCLUDING INSPECTIONS AND ANY TESTING REQUIRED BY THE LAKE COUNTY DIVISION OF TRANSPORTATION. AN INSPECTOR, AS PROVIDED OR APPROVED BY THE RESIDENT ENGINEER, SHALL BE PRESENT DURING CRITICAL PHASES OF THE CONSTRUCTION WORK.
4. THE RESIDENT ENGINEER SHALL NOTE ANY CHANGES FROM THESE ENGINEERING PLANS AND SHALL NOTIFY THE PERMIT DEPARTMENT OF THE LAKE COUNTY DIVISION OF TRANSPORTATION ABOUT ANY CHANGES THAT DEVIATE FROM THE INTENT OF THE ENGINEERING PLANS SUCH AS CHANGES IN DRAINAGE, GEOMETRIC PLAN, OR GRADING WORK.

**EXISTING UTILITIES:**

INFORMATION PRESENTED REGARDING THE LOCATION AND DEPTH OF UTILITY EQUIPMENT (POLES, LINES, WIRES, CABLES, PEDESTALS, TRANSFORMERS, SWITCHGEAR, VALVES, VAULTS, GAS MAIN ETC.) HAS BEEN PROVIDED TO THE ENGINEER BY THE UTILITY COMPANIES.

THE LAKE COUNTY DIVISION OF TRANSPORTATION, AS THE HIGHWAY AUTHORITY OF JURISDICTION, REQUIRES THAT SUCH UTILITY INFORMATION BE DEPICTED ON THIS SET OF ENGINEERING PLANS. THE ENGINEER HAS ENDEAVORED TO ACCURATELY TRANSFER THE INFORMATION PROVIDED BY THE UTILITY COMPANIES ONTO THESE PLANS. UTILITY DEPTH AND LOCATION INFORMATION PROVIDED BY UTILITY COMPANIES SHALL IN NO WAY DIMINISH THE IMPORTANCE OF, NEED FOR, OR MANDATE REGARDING J.U.L.I.E. UTILITY LOCATES.

**OWNER:**

LAKE COUNTY FOREST PRESERVE DISTRICT  
1899 WEST WINCHESTER ROAD  
LIBERTYVILLE, ILLINOIS 60048  
PH: 847-367-6640

**MAINTAINED THROUGH IGA**

WAUKEGAN PARK DISTRICT  
2211 ERNIE KRUEGER CIRCLE  
WAUKEGAN, ILLINOIS 60087  
PH: 847-360-4724

**ENGINEER:**

GEWALT HAMILTON ASSOCIATES, INC.  
625 FOREST EDGE DRIVE  
VERNON HILLS, ILLINOIS 60061  
PH: 847-478-9700  
FAX: 847-478-9701

**NOTE:**

CONSTRUCTION MEANS, METHODS AND JOB SITE SAFETY IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR

**REFERENCE BENCHMARK:**

NGS SURVEY MARKER LOCATED 13.1 FT. SOUTH OF THE SOUTH EDGE OF PAVEMENT OF WEST WALL STREET, 4.9 FT. NORTH OF A WOODEN SIGN FOR ADELPHI PARK, DIRECTLY OPPOSITE FROM THE CENTER OF THE DRIVEWAY FOR 12656 WEST WALL AVENUE, WAUKEGAN, IL.  
ELEVATION: 734.45 NAVD88

NGS LAK 131 1A, STAINLESS STEEL ROD IN SLEEVE. ACCESS TO DATUM POINT IS THROUGH A 6" DIAMETER CAP. STATION IS LOCATED 230 FT SOUTH OF SUDDARD ST., 101 FEET NORTH OF CENTER ST., 36.5 FEET EAST OF THE CENTERLINE OF GREEN BAY ROAD (IL RTE. 131).  
ELEVATION 721.38 (NAVD 88).

**COMED GENERAL NOTES:**

1. TENANT MUST NOT EXCAVATE AND /OR STORE MATERIAL OR CONSTRUCTION EQUIPMENT WITHIN 10 FEET OF THE EXISTING METALLIC AND/OR WOOD STRUCTURES INSTALLED ON LANDLORD PROPERTY. TENANT SHALL CONTACT THE OVERHEAD TRANSMISSION ENGINEERING DEPARTMENT WITH ANY QUESTIONS CONCERNING THIS REQUEST
2. TENANT MUST USE CARE WHEN WORKING ON LANDLORD PROPERTY TO AVOID DAMAGE TO EXISTING FACILITIES AND EQUIPMENT. THE OWNERS OF THE VARIOUS PIPELINES AND /OR OWNERS OF UNDERGROUND FACILITIES SHALL BE CONTACTED BY THE TENANT TO PROVIDE ANY RESTRICTIONS SUCH AS GRADE COVER AND/ OR SPECIFIC PROTECTION AND/OR RESTRICTIONS DURING ANY PENETRATION AND/OR DISTURBING OF THE LANDLORD PROPERTY AND SURFACE.
3. THERE ARE EXISTING BURIED HAND HOLES FOR THE LLR FIBER IN THE AREA. IF THESE HAND HOLES WERE PAVED OVER DURING THE INSTALLATION OF THE BIKE PATH IT POSES A MAINTENANCE CONCERN. SLACK COILS EXIST IN THE HAND HOLES FOR EMERGENCY RESTORATION PURPOSES. THE CABLE ROUTE SHOULD BE LOCATED TO VERIFY THE NEWLY INSTALLED BIKE PATH IS NOT OVER THE CABLE OR HAND HOLES. IF IT IS OVER THE HAND HOLES ACCESS TO THOSE HAND HOLES NEEDS TO BE ADDRESSED BY EITHER REROUTING THE PATH OR OTHER MEANS. THIS APPLIES TO PLAN SE 05-655 AND 06-689.
4. STAGING AND STOCKPILING OF MATERIAL DURING CONSTRUCTION MUST NOT EXCEED TEN (10) FEET IN ELEVATION ABOVE GRADE. CONSTRUCTION EQUIPMENT SHALL NOT BE PLACED ON THE UPPER-MOST SECTIONS OF THE STOCKPILES.
5. TENANT MUST REMOVE ALL SCRUB BRUSH, LIMBS AND/OR TREE TRUNKS FROM THE LEASED PREMISES. BURNING OF VEGETATION, SCRUB BRUSH, LIMBS AND/OR TREE TRUNKS IS NOT PERMITTED.
6. TENANT MUST NOT PLANT TREES WITHIN FIFTEEN (15) FEET OF EXISTING OVERHEAD TRANSMISSION FACILITIES, DISTRIBUTION STRUCTURES OR OTHER LANDLORD'S FACILITIES.
7. TENANT SHALL ONLY PLANT VEGETATION AND /OR TREES THAT WILL NOT EXCEED TEN (10) FEET IN ELEVATION AT MATURITY.
8. ANY DAMAGE TO LANDLORD'S PROPERTY CAUSED BY TENANT SHALL BE REPAIRED AT TENANT'S EXPENSE.
9. TENANT SHALL NOT PLACE OBSTRUCTIONS ON THE LEASED PREMISES THAT MAY RESTRICT LANDLORD'S ABILITY TO ACCESS, OPERATE AND MAINTAIN EXISTING AND FUTURE TRANSMISSION AND DISTRIBUTION FACILITIES. TENANT SHALL NOT LEAVE TRENCHES OPEN OVERNIGHT.
10. DUE TO THE PRESENCE OF LANDLORD'S ELECTRICAL WIRES LOCATED ON THE LEASED PREMISES, NO VEHICLES, EQUIPMENT OR ANYTHING ELSE HAVING A HEIGHT MORE THAN FOURTEEN (14) FEET FROM GRADE LEVEL INCLUDING, BUT NOT LIMITED TO ANY EQUIPMENT ATTACHED TO VEHICLES OR EQUIPMENT SUCH AS ANTENNAS, SHALL BE PLACED, DRIVEN, MOVED OR TRANSPORTED THEREON.
11. TENANT SHALL NOT LEAVE CONSTRUCTION EQUIPMENT AND MATERIALS ON LEASED PREMISES WHEN THERE IS NO WORK ACTIVITY ACTUALLY IN PROGRESS, INCLUDING OVERNIGHT.
12. WHEN WORKING IN THE VICINITY OF LANDLORD'S ELECTRIC DISTRIBUTION/TRANSMISSION LINES DURING INSTALLATION, OPERATION, MAINTENANCE OR OTHERWISE, TENANT SHALL COMPLY WITH OSHA REQUIREMENTS OF A MINIMUM TWENTY (20) FEET WORKING CLEARANCE DISTANCE TO BE MAINTAINED BETWEEN THE BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED ON THE EQUIPMENT OF TENANT OR TENANT'S CONTRACTOR AND LANDLORD'S EXISTING 138,000 AND 345,000 VOLT ELECTRIC TRANSMISSION CONDUCTORS. UNDER NO CIRCUMSTANCES SHALL TRUCK BEDS BE RAISED UNDERNEATH LANDLORD'S DISTRIBUTION AND /OR TRANSMISSIONS LINES. THIS PARAGRAPH SHALL BE ADDED TO ANY CONSTRUCTION DRAWINGS.
13. UPON COMPLETION OF TENANT'S PROJECT, TENANT MUST REMOVE ALL EQUIPMENT, CONSTRUCTION DEBRIS AND MATERIAL FROM LANDLORD'S PROPERTY AND RESTORE ANY OTHER DISTURBED AREAS OF THE LANDLORD'S PROPERTY TO THEIR PRE-CONSTRUCTION CONDITION.
14. NO HAZARDOUS MATERIALS MAY BE STORED ON LANDLORDS PROPERTY INCLUDING IN ANY VEHICLE.
15. PRIOR TO AND AT COMPLETION OF THE PROJECT, THE PETITIONER SHALL CONTACT COMED REPRESENTATIVE TINA KOWALCZYK (224) 244-1826.
16. PETITIONER MUST PROVIDE DOCUMENTATION OF INSPECTIONS TO ENVIRONMENTAL SERVICES DEPARTMENT.

**IDOT DISTRICT ONE DETAILS**

- |       |   |
|-------|---|
| TS-05 | STANDARD TRAFFIC SIGNAL DESIGN DETAILS                                      |
| TC-10 | TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS |
| TC-13 | DISTRICT ONE TYPICAL PAVEMENT MARKINGS                                      |
| TC-22 | ARTERIAL ROAD INFORMATION SIGN  |

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542001-06	CONCRETE END SECTIONS FOR PIPE CULVERTS 15" (375MM) THRU 84" (2100MM) DIAMETER
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701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
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FILE NAME = 4905-002gennote.dgn	USER NAME = MCoIeman	DESIGNED - MKH	REVISED - 11/9/2016	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES LYONS WOODS TRAIL</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GHA* 4905.000	PLOT SCALE = 1:1	CHECKED - DJS	REVISED -		SCALE: N/A	SHEET 1	OF 2	SHEETS	STA.	TO STA.	LAKE	116	2
gennote.02	PLOT DATE = 11/14/2016	DATE -	REVISED -						ILLINOIS FED. AID PROJECT		CONTRACT NO. 61C67		

**GENERAL NOTES AND CONSTRUCTION SPECIFICATIONS**

1. THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, ADOPTED APRIL 1, 2016, AND REVISIONS THERETO, AND THESE IMPROVEMENT PLANS AND DETAILS SHALL GOVERN APPLICABLE PORTIONS OF THIS PROJECT.
2. THE CONTRACTOR SHALL OBTAIN, ERECT, MAINTAIN AND REMOVE ALL SIGNS, BARRICADES, FLAGMEN AND OTHER TRAFFIC CONTROL DEVICES AS MAY BE NECESSARY FOR THE PURPOSE OF REGULATING, WARNING OR GUIDING TRAFFIC. PLACEMENT AND MAINTENANCE OF ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE APPLICABLE PARTS OF ARTICAL 1106 OF THE STANDARD SPECIFICATIONS AND THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS".
3. LOCATION OF UTILITIES SHOWN ON PLANS ARE APPROXIMATE ONLY, AND ARE NOT NECESSARILY COMPLETE. CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION AS TO LOCATION OF ALL EXISTING UNDERGROUND STRUCTURES, CABLES AND PIPE LINES.
4. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR OWNER SO THAT THE CONFLICT MAY BE RESOLVED.
5. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. (1-800-892-0123) AT LEAST TEN DAYS PRIOR TO CONSTRUCTION SO THAT EACH UTILITY COMPANY CAN STAKE OUT ANY UNDERGROUND IMPROVEMENTS THAT THEY MAY HAVE WHICH MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION.
6. THE CONTRACTOR SHALL BE REQUIRED TO MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS, STRUCTURES, POLES, CABLES AND PIPE LINES, BEFORE CONSTRUCTION BEGINS. HE SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE ENGINEER OR OWNER AT HIS OWN EXPENSE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PRIVATE AND PUBLIC UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OR OWNER BY THE CONTRACTOR AT HIS OWN EXPENSE.
8. THE CONTRACTOR SHALL EXAMINE ALL PLANS AND SPECIFICATIONS, VISIT THE SITE OF WORK AND INFORM HIMSELF FULLY WITH THE WORK INVOLVED, GENERAL AND LOCAL CONDITIONS, ALL FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS AND ALL OTHER PERTINENT ITEMS WHICH MAY AFFECT THE COST AND TIME OF COMPLETION OF THIS PROJECT BEFORE SUBMITTING A PROPOSAL.
9. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CODE REQUIREMENTS.
10. PERMITS AND LICENSES FOR TEMPORARY WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL PROCURE OTHER GOVERNMENTAL APPROVALS AND FURNISH ALL PERMITS, LICENSES AND APPROVALS AND AUTHORIZATIONS NECESSARY TO COMPLETE THE WORK.
11. THE CONTRACTOR SHALL RESTORE ANY DISTURBED AREAS OUTSIDE THE CONSTRUCTION SITE TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL USE. THIS SHALL INCLUDE FINISH GRADING, ESTABLISHMENT OF A VEGETATIVE COVER (SEEDING OR SOD), GENERAL CLEANUP AND PAVEMENT REPLACEMENT.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND HEALTHFUL WORKING CONDITIONS THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
13. THE CONTRACTOR SHALL PROVIDE A WRITTEN WORK SCHEDULE, AND SHALL UPDATE SAID SCHEDULE AS REQUIRED. A MINIMUM TWENTY-FOUR (24) HOUR NOTICE SHALL BE GIVEN FOR ANY ITEM THAT REQUIRES APPROVAL OR INSPECTION.
14. ALL LOT CORNER IRONS OR SURVEY CONTROL POINTS DAMAGED OR REMOVED DURING CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED BY THE SURVEYOR AND COST OF REPLACEMENT SHALL BE PAID BY THE CONTRACTOR.
15. THE CONTRACTOR WILL HAVE IN HIS POSSESSION ON THE JOB SITE A COPY OF THE PLANS AND SPECIFICATIONS DURING CONSTRUCTION.
16. ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM NGVD 29.
17. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY REQUIRED INSPECTIONS WITH THE OWNER, ENGINEER, AND OTHER AGENCIES.
18. ON-SITE STOCKPILE, BORROW AND STAGING AREAS SHALL BE GRADED NOT TO BLOCK OR CHANGE EXISTING DRAINAGE PATTERNS, AS DIRECTED BY ENGINEER, THESE AREAS SHALL BE RESTORED WITH A MINIMUM OF 4-INCHES OF TOPSOIL AND BE SEEDDED WITH THE NATIVE MIXTURE AS SPECIFIED ON CONSTRUCTION PLANS AND SPECIFICATIONS.

**GENERAL NOTES AND CONSTRUCTION SPECIFICATIONS (CONT'D)**

19. EXISTING ASPHALT ROADS, PARKING LOTS, PRIVATE DRIVEWAY AND GRAVEL TRAILS ARE TO REMAIN OPEN, SAFE, AND IN AN ACCESSIBLE CONDITION FOR PUBLIC USE AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT. ACCESS THROUGH AND OVER THESE ROADS, PARKING LOTS AND TRAILS SHALL BE KEPT TO A MINIMUM.
20. CONTRACTOR SHALL TAKE ALL NECESSARY AND REASONABLE PRECAUTIONS TO PREVENT ANY DAMAGE TO EXISTING TREES, FOLIAGE, PLANT MATERIALS, WETLANDS, STRUCTURES, ROADS, PARKING LOTS, TRAILS, TURF AREAS, FINISHED TOPSOIL AREAS, AND OTHER PROPERTY OF OWNER, THE PUBLIC, OR PRIVATE ENTITIES.

**TRAIL CONSTRUCTION NOTES**

1. THE CONTRACTOR SHALL BE REQUIRED TO ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER AND OWNER PRIOR TO THE START OF CONSTRUCTION TO REVIEW SHOP DRAWING PROCEDURES, CONSTRUCTION METHODS, PHASING, SEQUENCING AND TO ESTABLISH A WELL DEFINED CONSTRUCTION SCHEDULE.
2. THE PROPOSED LINES AND GRADES SHOWN ON THE CONSTRUCTION PLANS REPRESENT FINISHED GRADE ELEVATIONS.
3. CONTRACTOR SHALL GRADE SUBGRADE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION PLANS IN ACCORDANCE WITH SPECIFICATIONS AND DETAILS.
4. SUBGRADE SHALL BE PREPARED PER SPECIFICATIONS AND COMPACTED TO A MINIMUM OF 95%, BASED ON STANDARD PROCTOR, IN ACCORDANCE WITH ASTM D-698 AND THE STANDARD SPECIFICATIONS.
5. WHEN PROOF ROLLING OF SUBGRADE REVEALS IN THE OWNER'S AND/OR ENGINEER'S OPINION UNSTABLE AREAS OR UNSUITABLE SOIL IS ENCOUNTERED, IT SHALL BE UNDERCUT AND REMOVE ONLY AS DIRECTED BY THE ENGINEER.
6. IF IN THE OWNER'S AND/OR ENGINEER'S OPINION, UNSUITABLE SOIL CONDITIONS ARE PRESENT, GEOTECHNICAL FABRIC AND POROUS GRANULAR EMBANKMENT SHALL BE USED IN AREAS ONLY AS DIRECTED BY THE ENGINEER TO STABILIZE THE SUBGRADE IN ACCORDANCE WITH THE SPECIFICATIONS.
7. SUBGRADE SHALL BE APPROVED BY ENGINEER AND SHALL BE SMOOTH, CLEAN OF ALL DEBRIS AND FREE OF RUTS, POT HOLES, ECT. PRIOR TO PLACEMENT OF AGGREGATE BASE COURSE.
8. AGGREGATE BASE COURSE SHALL BE PLACED WITH A PAVER BOX OR OTHER METHOD THAT ASSURES UNIFORM WIDTH, DEPTH, CROWN AND FINAL SURFACE SMOOTHNESS.
9. AGGREGATE BASE COURSE SHALL BE COMPACTED, HALF THE TRAIL WIDTH AT A TIME (TO PRESERVE THE CROWN) TO A MINIMUM OF NINETY-FIVE PERCENT (95%) STANDARD PROCTOR IN ACCORDANCE WITH THE SPECIFICATIONS. ANY PORTION OF THE TRAIL WITHOUT THE SPECIFIED CROWN WILL NOT BE ACCEPTED BY THE ENGINEER.
10. AGGREGATE BASE COURSE SHALL BE APPROVED BY ENGINEER PRIOR TO THE PLACEMENT OF AGGREGATE SURFACE AND/OR BITUMINOUS SURFACING.

**STORM DRAIN CONSTRUCTION**

1. ALL PIPE CULVERTS SHALL BE INSTALLED IN ACCORDANCE TO SECTION 542 OF THE STANDARD SPECIFICATIONS.
2. ALL HIGH DENSITY POLYETHYLENE PIPE (HDPE) SHALL CONFORM TO THE REQUIREMENTS IN SECTION 1040 OF THE STANDARD SPECIFICATIONS. ALL JOINTS WILL BE SEALED WITH RUBBER GASKETS THAT CONFORM TO MANUFACTURE'S SPECIFICATIONS.
3. ALL PRECAST CONCRETE PRODUCTS SHALL CONFORM TO THE REQUIREMENTS IN SECTION 1042 OF THE STANDARD SPECIFICATIONS. ALL CONCRETE PIPE JOINTS WILL BE SEALED WITH RUBBER GASKETS THAT CONFORM TO SECTION 1056 OF THE STANDARD SPECIFICATIONS.
4. ALL CORRUGATED STEEL PIPE (CSP) FLARED END SECTIONS SHALL MEET THE REQUIREMENTS OF SECTION 1005 OF THE STANDARD SPECIFICATIONS.

**SEDIMENT AND EROSION CONTROL NOTES**

ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION, ADOPTED JANUARY 1, 2012 AND REVISIONS THERETO. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, ADOPTED 2010 AND REVISIONS THERETO.

1. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
2. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE.
3. STABILIZATION MEASURES SHALL BE INITIATED, EXCEPT AS PROVIDED IN PARAGRAPHS 9A) AND (B) BELOW, AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THEN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED AS FOLLOWS:
  - (A) WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES ON A PORTION OF THE SITE IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
  - (B) WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITIES CEASED, (E.G. THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY CEASED IS LESS THAN 14 DAYS) THEN THE STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF SITE BY THE 7TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY CEASED.
4. ALL STORM SEWER FACILITIES THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
6. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE PROPERTY OWNER WILL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR, AND IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
7. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.
8. THE CONTRACTOR IS RESPONSIBLE TO EMPLOY A LCSMC APPROVED DESIGNATED EROSION CONTROL INSPECTOR (DECI) FOR THIS PROJECT. THE CONTRACTOR'S DECI SHALL BE RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL INSPECTIONS, RECORD KEEPING, AND OTHER REQUIREMENTS INCLUDING MAINTENANCE OF THE PROJECT'S SWPPP. IT IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR'S DECI TO UNDERSTAND AND COMPLY WITH ALL REGULATIONS. ANY SOIL EROSION AND SEDIMENT CONTROL RELATED FINES OR OTHER PENALTIES IMPOSED UPON OWNER AS A RESULT OF ACTIONS OR INACTIONS OF CONTRACTOR'S DECI SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCKPILES TO REMAIN IN PLACE FOR 30 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.
10. ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY, AND CLEANED WHEN NECESSARY.
11. THE LAKE COUNTY STORMWATER MANAGEMENT COMMISSION (LCSMC) MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO FINAL INSPECTION.
12. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND SWPPP SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
13. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE LCSMC.
14. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE LCSMC.
15. ANY SIDESLOPE DISTURBANCE DUE TO DREDGING ACTIVITIES WILL REQUIRE THE INSTALLATION OF EROSION CONTROL BLANKET.

FILE NAME = 4905-003gennote.dgn GHA* 4905.000 gennote.02	USER NAME = MCoLeman	DESIGNED - MKH DRAWN - PJS	REVISED - 11/9/2016 REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES LYONS WOODS TRAIL</b>	F.A. RTE.	SECTION 14-F3000-04-BT	COUNTY LAKE	TOTAL SHEETS 116	SHEET NO. 3
	PLOT SCALE = 1/1	CHECKED - DJS DATE -	REVISED -		SCALE: N/A	SHEET 2	OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 61C67
ILLINOIS FED. AID PROJECT										

**SPECIAL CONDITIONS FOR CONSTRUCTION  
WITHIN A LAKE COUNTY HIGHWAY RIGHT-OF-WAY**

**WORK NOTIFICATION**

Prior to starting construction the Permit Section, (847) 377-7400, shall be called and given the construction start date.

**SPECIFICATIONS**

The construction and restoration methods and procedures, materials used and construction signing and traffic control shall, when applicable, conform or meet the standards and requirements set forth in the current "Manual on Uniform Traffic Control Devices for Streets and Highways", "Standard Specifications for Road and Bridge Construction", "Standard Specification for Traffic Control Items" and the "Highway Standards" manual as published or adopted by the Illinois Department of Transportation.

**FIELD CHANGES FOR WATERMAIN OR SEWER LOCATION**

No changes to the depth or location of the watermain or sewer as shown on these plans due to unforeseen field conditions or conflicts can be made unless prior approval has been obtained from the Permit Section of the Lake County Division of Transportation.

**ADDITIONS, EXTENSIONS OR DELETIONS FOR THE WATERMAIN OR SEWER**

No additions, extensions or deletions can be made to the watermain or sewer as shown on these plans unless prior approval has been obtained from the Permit Section of the Lake County Division of Transportation.

**APPROVAL OF MATERIALS**

The Lake County Division of Transportation Permit Section, (847) 377-7400, shall be called for approval of any materials (i.e. trench backfill, sand, gravel or other granulated materials) that will be placed within the County Highway right-of-way that are not on the approved engineering plans.

**HAZARDS TO THE PUBLIC**

Measures shall be taken to prevent or protect the public from hazards caused by the construction operations.

**PARKING OF VEHICLES, EQUIPMENT AND STORAGE OF MATERIALS**

Construction worker's vehicles and construction equipment shall be parked in areas outside of the County Highway right-of-way or in areas where there will be no interference with the normal use of the highway or vehicle sight distance. Construction materials shall be located at least 12 feet from a through traffic lane or outside of the County Highway right-of-way.

**MAINTAINING EXISTING TRAFFIC CONTROL DEVICES**

Existing traffic control devices that are removed shall be re-erected as soon as possible. Damaged or lost traffic control signs shall be reported to the Sign Shop, (847) 377-7501, of the Lake County Division of Transportation for replacement.

Regulatory and warning traffic signs shall be kept in view of the highway traffic.

**EXISTING DRAINAGE AND ACCESS**

Disturbed highway drainage facilities shall be re-established at the close of each work day. Occupants of adjacent properties having access to the County Highway shall be notified prior to being blocked and suitable arrangements made with the occupants. Adjacent property access shall be re-established as soon as possible.

**HIGHWAY PAVEMENTS**

Care shall be taken not to break, crack or damage the highway pavement with equipment operating on it. Also, any dirt or debris tracked onto the highway pavement shall be removed. Equipment with grizzer pads, cleats or studs are not permitted to operate on the highway pavement.

If, due to construction operations, the highway pavement becomes damaged or undermined, all construction work in that area shall be stopped and the highway pavement repaired as directed by the Lake County Division of Transportation. Alternate construction measures shall then be used to prevent further highway pavement damage.

**EXCAVATIONS, TRENCHES AND BORE PITS**

Excavated material shall, when practical, be piled on the near traffic side of the excavation, trench or bore pit. Open excavations, trenches or bore pits remaining after working hours shall not exceed 50 feet in length and shall be properly protected (fencing, covered, etc.) and marked (Type I or II barricades). If barricades are used in series, only steady burning lights shall be used. Bore pits shall be located no closer than 10 feet to the highway pavement, back of curb or gutter, or shoulder break line, whichever is further. If casing pipes are used, the voids in the casing pipe shall be filled and/or the ends sealed so there will be no siltation into the casing pipe.

**BACKFILLING**

Backfilling operations shall be simultaneous with the construction operations and shall be in accordance with the "Standard Specifications for Road and Bridge Construction". Any excavation, trench, bore pit or portion thereof within a 1:1 slope of the pavement edge or back of curb shall be backfilled with Trench Backfill (sand). In addition, Trench Backfill (sand) shall be used for all access crossings and pavement areas and shall extend two feet beyond the edge of the access or pavement area. Areas between the pavement edge and shoulder break line shall be backfilled with Aggregate Base Course (gravel). Backfill of shoulder areas shall not extend above the existing ground and any settlement shall be promptly filled.

**MANHOLES, VALVES, VALVE VAULTS AND APPURTENANCES**

The top of the frame and lid or cover of a manhole, valve, or valve vault shall be flush and contoured to the surrounding ground. If this is not possible due to an excessive slope, the surrounding ground shall be regraded or the frame and lid or cover partially buried to provide for a gradual transition slope so the area can be safely mowed and no hazard to the public will result. The top of the frame and lid or cover that is located within the gravel shoulder shall have a bituminous apron installed around the frame or cover as directed by the Lake County Division of Transportation. Any frame and lid or cover located in a paved area shall be contoured and 1/4 inch below the surface of the surrounding pavement. The top of the frame and lid or cover shall be located within the area of 27.5 feet to 30.5 feet from the highway pavement centerline.

Surface appurtenances that extend above the surrounding ground surface shall be located within 2' of the County Highway right-of-way.

**TILE LINES AND STORM SEWERS**

Existing tile lines and storm sewers that are encountered during construction operations shall be replaced if broken with like size and kind of material. Tile line and storm sewer crossings of the excavation shall be bridged with rigid material such as wood or steel. The location and depth of any encountered tile lines and storm sewers shall be recorded and a copy given to the Lake County Division of Transportation.

**WINTER CONSTRUCTION WORK**

Snow and ice removal operations of the Lake County Division of Transportation shall have precedence over the construction operations. A 12-foot wide (minimum) clear area from the highway pavement edge shall be maintained for the roadside storage of snow and ice. No construction equipment or materials shall be stored in this 12-foot wide (minimum) clear area nor shall any piles of dirt or excavated materials be left in this area.

**RESTORATION AND CLEAN-UP**

The area of the County Highway right-of-way disturbed by construction operations shall be kept to a minimum and shall be restored as promptly as weather and soil conditions permit. If restoration is not accomplished voluntarily, the Lake County Division of Transportation may set a final date for the completion of the restoration work.

Turf areas of the right-of-way disturbed by construction operations shall be compacted and regraded to an equal or better condition than existed before construction. Also an average 3-inch depth of topsoil, fertilizer, seed and mulch shall be used. Hydro seeding is also acceptable. Sod shall be used in high erosion areas. This restoration work will not be considered completed until the turf cover is established.

Gravel and paved shoulders that are damaged shall be replaced as directed by the Lake County Division of Transportation. Driveways, side roads and other accesses, which are damaged, shall be restored with similar materials and thickness. The edges of excavated paved surfaces shall be sawcut prior to repair. Culverts, storm sewer systems and other drainage facilities including ditch lines shall be cleaned of siltation and debris due to the construction operations.

Other areas of the right-of-way that have been disturbed such as curb and gutters shall be restored with similar materials.

Any damaged property of the County of Lake, its Division of Transportation, or of others (including utility companies) shall be repaired or replaced or the owner of the damaged property reimbursed for the costs of repairing the damaged property by the owner.

**RESTORATION GUARANTEE**

Any restoration work that falls within one year of completion shall be redone. Also, any settlement that occurs within one year of completion of the surface restoration work shall be filled and the surface area restored.

**KEEPING ROADS OPEN TO TRAFFIC**

All roads shall remain open to traffic. The Contractor may close one lane because of construction only between the hours of 9:00 a.m. and 3:00 p.m. The person in charge shall notify the Lake County Division of Transportation - Transportation Management Center, (847) 377-7000, of any lane closure and when the lane re-opens. This information will be broadcast on the Lake County Passage website and Highway Advisory Radio. The Contractor shall maintain traffic during these restricted hours as shown on the Traffic Control Standards. Two lanes of traffic will be maintained between 3:00 p.m. and 9:00 a.m. and when no construction activities are being carried out. Traffic routed around construction areas shall be over paved surfaces and not over gravel shoulders.

**INTERRUPTION OF COMMUNICATION**

The interruption of communication with County equipment shall be kept to an absolute minimum. This includes communication such as controller telemetry, video transmission, camera control signals, Highway Advisory Radio, wireless interconnect, telephone (POTS/ISDN/DSL), high speed Internet, or any other County communication equipment. This provision applies to cable types including copper, multimode fiber optic, singlemode fiber optic, telephone cables, Internet cables, or any other cable used by the County to monitor and maintain its various signal and ITS equipment.

The contractor shall plan ahead, and shall stage his construction work accordingly, so that he can interrupt communication, and then restore communication, with as little down time as possible. For example, when a section of existing interconnect is being relocated, the new handholes and conduits should be installed prior to disconnecting the interconnect cable. The interconnect cable can then be disconnected, pulled out of the existing conduit, pulled through the new conduit, and re-connected. In addition, when an existing fiber optic cable is to be re-used, the contractor shall be prepared to immediately replace any fiber splices and/or terminations that become damaged.

Prior to disconnecting any LCDOT communication link, the contractor shall contact the Traffic Engineer for approval of his planned construction method.

LAKE COUNTY DIVISION OF TRANSPORTATION  
COVER SHEET GENERAL NOTE

The review and approval of these final engineering plans and specifications by the Lake County Division of Transportation does not constitute a release from or grant of variation from the rules, regulations, and specifications required in the Lake County Highway Utility and Facility Placement Ordinance, latest edition, as amended, or any successor document or documents thereto. The permittee, the permittee's designated representatives, and/or all successors and assigns shall be solely responsible for all work and improvements within the limits of the County Highway right-of-way. Unless otherwise specified, approved in writing by the Lake County County Engineer, and on file with the Lake County Division of Transportation, all work and materials necessary to construct utilities and facilities and restore the right-of-way within the limits of the County Highway shall be in conformance with the rules, regulations, and specifications of the Lake County Utility and Facility Placement Ordinance, latest edition, as amended, or any successor document or documents thereto.

LAKE COUNTY DIVISION OF TRANSPORTATION GENERAL NOTES

The construction, including materials used, of this utility and facility shall be in accordance with the applicable portions of the most recent editions of the "Standard Specifications for Road and Bridge Construction," "Supplemental Specifications and Recurring Special Provisions," and "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways," including all amendments and successor documents to the aforementioned documents as published or adopted by the Illinois Department of Transportation unless otherwise stated in these engineering plans.

The construction of this utility or facility shall also be in accordance with the "Lake County Highway Utility and Facility Placement Ordinance, latest edition, as amended, or any successor document or documents thereto.

The Lake County Division of Transportation shall not be held liable for any errors or omissions in these engineering plans or for any additional work, which may be needed due to errors or omissions in these engineering plans.

The permittee shall be responsible for any additional work, and all costs thereof, required because of errors or omissions in these engineering plans and for the correction of any construction, maintenance, or safety problems, which become apparent during construction or by inspections made by the person in charge or the Lake County Division of Transportation.

The person in charge shall note any changes from these engineering plans and shall notify the Permit Department of the Lake County Division of Transportation about any changes that deviate from the intent of the engineering plans.

EXISTING UTILITIES:

INFORMATION PRESENTED REGARDING THE LOCATION AND DEPTH OF UTILITY EQUIPMENT (POLES, LINES, WIRES, CABLES, PEDESTALS, TRANSFORMERS, SWITCHGEAR, VALVES, VAULTS, GAS MAIN ETC.) HAS BEEN PROVIDED TO THE ENGINEER BY THE UTILITY COMPANIES.

THE LAKE COUNTY DIVISION OF TRANSPORTATION, AS THE HIGHWAY AUTHORITY OF JURISDICTION, REQUIRES THAT SUCH UTILITY INFORMATION BE DEPICTED ON THIS SET OF ENGINEERING PLANS. THE ENGINEER HAS ENDEAVORED TO ACCURATELY TRANSFER THE INFORMATION PROVIDED BY THE UTILITY COMPANIES ONTO THESE PLANS. UTILITY DEPTH AND LOCATION INFORMATION PROVIDED BY UTILITY COMPANIES SHALL IN NO WAY DIMINISH THE IMPORTANCE OF, NEED FOR, OR MANDATE REGARDING J.U.L.I.E. UTILITY LOCATES.

LAKE COUNTY  
FOREST PRESERVES



GEVAULT HAMILTON  
ASSOCIATES, INC.

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>GENERAL NOTES</b>			
<b>LAKE COUNTY DIVISION OF TRANSPORTATION</b>			
SCALE:	SHEET	OF	SHEETS
		OF	STA.
			TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	4
CONTRACT NO. 61C67			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY		80% FED / 20% LOCAL
					BRIDGE 0008	BIKE PATH 0028	TRAFFIC SIGNALS 0021
XX	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	1,264		1,264	
XX	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	206		206	
	20101000	TEMPORARY FENCE	FOOT	1,300		1,300	
XX	20101100	TREE TRUNK PROTECTION	EACH	25		25	
XX	20101200	TREE ROOT PRUNING	EACH	15		15	
XX	20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	8		8	
XX	20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	8		8	
XX	20101700	SUPPLEMENTAL WATERING	UNIT	0.4		0.4	
X	20200100	EARTH EXCAVATION	CU YD	11,315		11,300	15
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	280		280	
	20400800	FURNISHED EXCAVATION	CU YD	2,450		2,450	
	20800150	TRENCH BACKFILL	CU YD	35		35	
	20900110	POROUS GRANULAR BACKFILL	CU YD	120		120	
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	950		950	
	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	5,695		5,695	
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	1,575		1,575	
XX	25000210	SEEDING, CLASS 2A	ACRE	0.25		0.25	
XX	25100127	MULCH, METHOD 3A	ACRE	25.5		25.5	
XX	25100630	EROSION CONTROL BLANKET	SQ YD	6,700		6,700	
	28000305	TEMPORARY DITCH CHECKS	FOOT	1,820		1,820	
	28000400	PERIMETER EROSION BARRIER	FOOT	16,245		16,245	
	28000500	INLET AND PIPE PROTECTION	EACH	19		19	
	28000510	INLET FILTERS	EACH	14		14	
	28100107	STONE RIPRAP, CLASS A4	SQ YD	325	91	234	
	28200200	FILTER FABRIC	SQ YD	325	91	234	
	35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	50		10	40
	35101700	AGGREGATE BASE COURSE, TYPE B 5"	SQ YD	13,350		13,350	
X	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	5,300		5,300	
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	2,040		2,040	
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1,863		628	1,235
	42400800	DETECTABLE WARNINGS	SQ FT	188		108	80
	44000100	PAVEMENT REMOVAL	SQ YD	380		380	
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	18			18
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	153		53	100
	44000600	SIDEWALK REMOVAL	SQ FT	1,536		736	800
	50200100	STRUCTURE EXCAVATION	CU YD	61	61		
	50300225	CONCRETE STRUCTURES	CU YD	20.3	20.3		
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	10	10		
	50300300	PROTECTIVE COAT	SQ YD	250	32	81	137
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,020	3,020		
	51200956	FURNISHING METAL SHELL PILES 12" X 0.179"	FOOT	84	84		
	51202305	DRIVING PILES	FOOT	84	84		
	51203200	TEST PILE METAL SHELLS	EACH	2	2		
	51500100	NAME PLATES	EACH	1	1		
	54215550	METAL END SECTIONS 15"	EACH	16		16	
	54215553	METAL END SECTIONS 18"	EACH	8		8	

X - SPECIAL PROVISION  
XX - SPECIALTY ITEM



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
LYONS WOODS TRAIL

SCALE: N/A SHEET 1 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	5
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61C67	

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 80% FED / 20% LOCAL		80% FED / 20% LOCAL
					BRIDGE 0008	BIKE PATH 0028	TRAFFIC SIGNALS 0021
	54215556	METAL END SECTIONS 21"	EACH	10		10	
	542C0217	PIPE CULVERTS, CLASS C, TYPE 1 12"	FOOT	306		306	
	542C0220	PIPE CULVERTS, CLASS C, TYPE 1 15"	FOOT	128		128	
	542C0223	PIPE CULVERTS, CLASS C, TYPE 1 18"	FOOT	197		197	
	550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	228		228	
	58700300	CONCRETE SEALER	SQ FT	120	120		
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	20	20		
	60207605	CATCH BASINS, TYPE C, TYPE 8 GRATE	EACH	7		7	
	60235300	INLETS, TYPE A, TYPE I FRAME CLOSED LID	EACH	6		6	
X	60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	2			2
	60600605	CONCRETE CURB, TYPE B	FOOT	50			50
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	107		57	50
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12			
	67100100	MOBILIZATION	L SUM	1		1	
XX	70106800	CHANGEABLE MESSAGE SIGN	CAL MO	1			1
XX	72000100	SIGN PANEL - TYPE 1	SQ FT	49			49
XX	72900100	METAL POST - TYPE A	FOOT	44			44
XX	72900200	METAL POST - TYPE B	FOOT	28			28
XX	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	455		455	
XX	78000300	THERMOPLASTIC PAVEMENT MARKING - LINE 5"	FOOT	275		275	
XX	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	390		120	270
XX	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	41			41
XX	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	9			9
XX	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	26			26
XX	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	45			45
XX	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	81			81
XX	81400100	HANDHOLE	EACH	1			1
XX	81400300	DOUBLE HANDHOLE	EACH	1			1
X	XX	85000205	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION (SPECIAL)	EACH	2		2
XX	87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1,429			1,429
XX	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	149			149
XX	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	167			167
XX	87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	666			666
XX	87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	18			18
XX	87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	173			173
XX	87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16			16
XX	87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4			4
XX	87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30			30
XX	88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4			4
XX	88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2			2
XX	88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2			2
XX	88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4			4
XX	88800100	PEDESTRIAN PUSH-BUTTON	EACH	4			4
XX	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,692			2,692
XX	89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	984			984
XX	A2000118	TREE, ACER X FREEMANII AUTUMN BLAZE (AUTUMN BLAZE FREEMAN MAPLE), 3" CALIPER, BALLED AND BURLAPPED	EACH	8		8	
XX	A2002616	TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALIPER, BALLED AND BURLAPPED	EACH	10		10	

X - SPECIAL PROVISION  
XX - SPECIALTY ITEM



FILE NAME = 4905-bbb\_500.dgn  
GHA# 4905.000  
500 2

USER NAME = MColemen  
PLOT SCALE = 1:20  
PLOT DATE = 11/14/2016

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

REVISED - 11/9/2016  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
LYONS WOODS TRAIL

SCALE: N/A SHEET 2 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61C67	

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 80% FED / 20% LOCAL		80% FED / 20% LOCAL	
					BRIDGE 0008	BIKE PATH 0028	TRAFFIC SIGNALS 0021	
	XX	A2002920	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8		8	
	XX	A2005020	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8		8	
	XX	A2005620	TREE, OSTRYA VIRGINIANA (AMERICAN HOPHORNBEAM), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8		8	
	XX	A2006416	TREE, QUERCUS ALBA (WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10		10	
	XX	A2006516	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10		10	
	XX	A2006716	TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10		10	
	XX	A2007116	TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10		10	
	XX	A2C025G5	TREE, CERCIS CANADENSIS (REDBUD), CONTAINER GROWN, 5-GALLON	EACH	10		10	
	XX	C2C062G5	SHRUB, RHUS TYPHINA TIGER EYES, (TIGER EYES CUTLEAF STAGHORN SUMAC), CONTAINER GROWN, 5-GALLON	EACH	8		8	
	XX	D2002984	EVERGREEN, PINUS STROBUS (EASTERN WHITE PINE), 7' HEIGHT, BALLED AND BURLAPPED	EACH	10		10	
	XX	D2003972	EVERGREEN, TSUGA CANADENSIS (CANADIAN HEMLOCK), 6' HEIGHT, BALLED AND BURLAPPED	EACH	8		8	
	X	K1005418	TEMPORARY SEEDING	ACRE	25.5		25.5	
	X	X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	644	644		
	X	X0325110	BIAXIAL GEOGRID	SQ YD	600		600	
	X XX	X0326899	SOLAR POWERED FLASHING BEACON ASSEMBLY (COMPLETE)	EACH	1			
	X	X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	20		20	
	X	X0350805	FOLD DOWN BOLLARDS	EACH	3		3	1
	X	X0350810	BOLLARD REMOVAL	EACH	1		1	
	X	X2010510	CLEARING AND GRUBBING	L SUM	1		1	
	X	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	280		280	
	X XX	X2502100	SEED MIXTURE ZONE A	ACRE	2.25		2.25	
	X XX	X2502102	SEED MIXTURE ZONE B	ACRE	19.50		19.50	
	X XX	X2502104	SEED MIXTURE ZONE C	ACRE	3.50		3.50	
	X	X4020900	AGGREGATE SURFACE COURSE, TYPE B SPECIAL	SQ YD	1,695		1,695	
	X	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	28	28		
	X	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1			
	X XX	X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1			1
	X XX	X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1			1
	X XX	X8771170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT. (SPECIAL)	EACH	2			2
	X XX	XX005928	TRAFFIC SIGNAL POST, 10 FOOT, (SPECIAL)	EACH	2			2
	X XX	XX005932	TRAFFIC SIGNAL POST, 18 FOOT, (SPECIAL)	EACH	2			2
	X XX	XX006655	LAYER II (DATALINK) SWITCH	EACH	1			1
	X XX	XX007017	TERMINATE FIBER IN CABINET	EACH	4			4
	X XX	XX008246	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLE MODE	FOOT	1,429			1,429
	X XX	XX008251	SPLICE FIBER IN CABINET	EACH	4			4
	X	XX009153	BOARDWALK STRUCTURE #1	FOOT	300		300	
	X	XX009154	BOARDWALK STRUCTURE #2	FOOT	110		110	
	X	Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	1,560		1,560	
	X	Z0013798	CONSTRUCTION LAYOUT	L SUM	1		1	
	X XX	Z0022800	FENCE REMOVAL (SPECIAL)	FOOT	110		110	
	X XX	Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1			1
	X	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	96	96		
	X	△ Z0076600	TRAINEES	HOUR	500			
	X	△ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500			

X - SPECIAL PROVISION  
 XX - SPECIALTY ITEM  
 △ - 0042



FILE NAME = 4905-bbb\_S00.dgn  
 GHA 4905.000  
 S00 3

USER NAME = MCoeman  
 PLOT SCALE = 1:20  
 PLOT DATE = 11/14/2016

DESIGNED -  
 DRAWN -  
 CHECKED -  
 DATE -

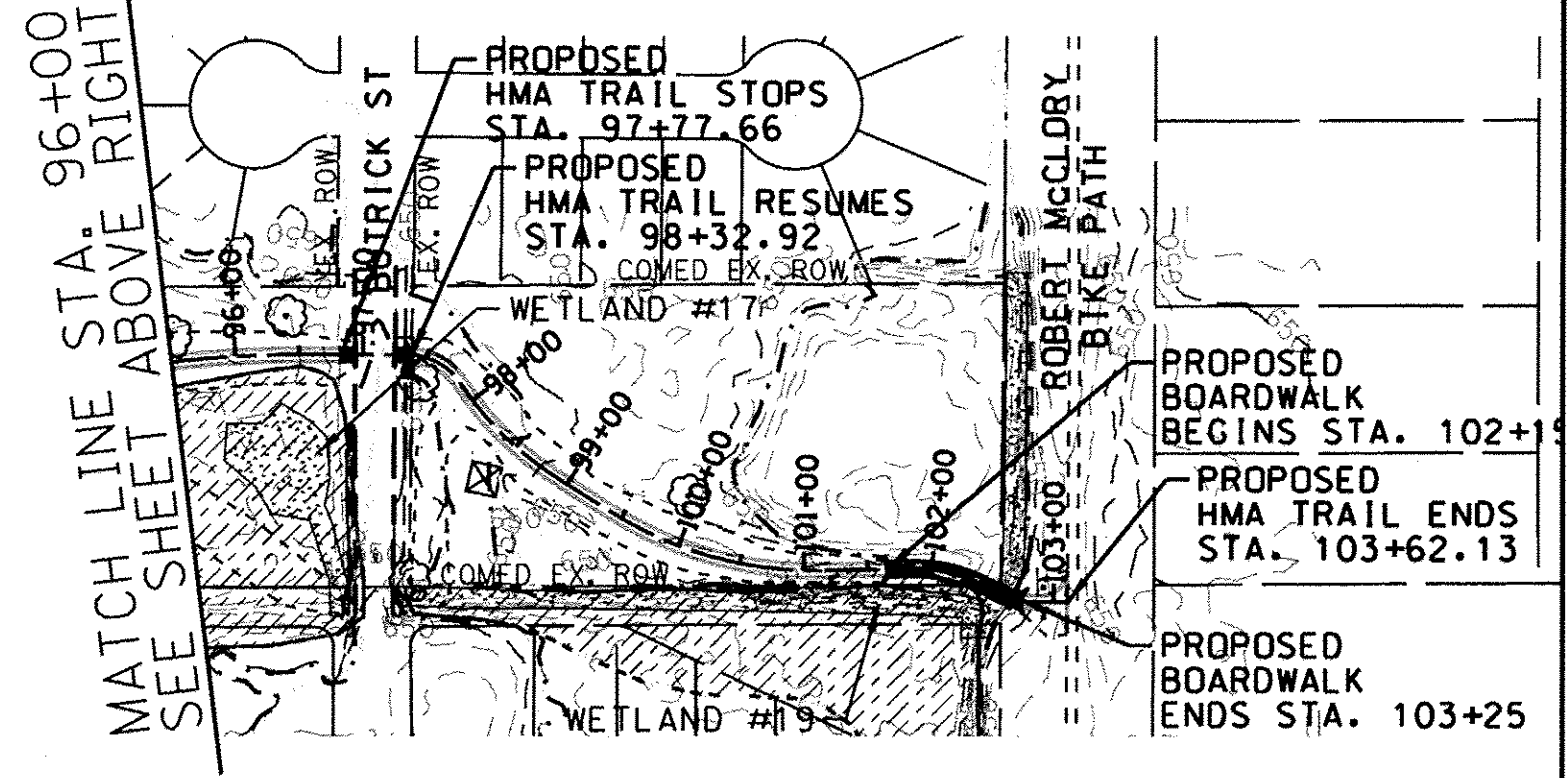
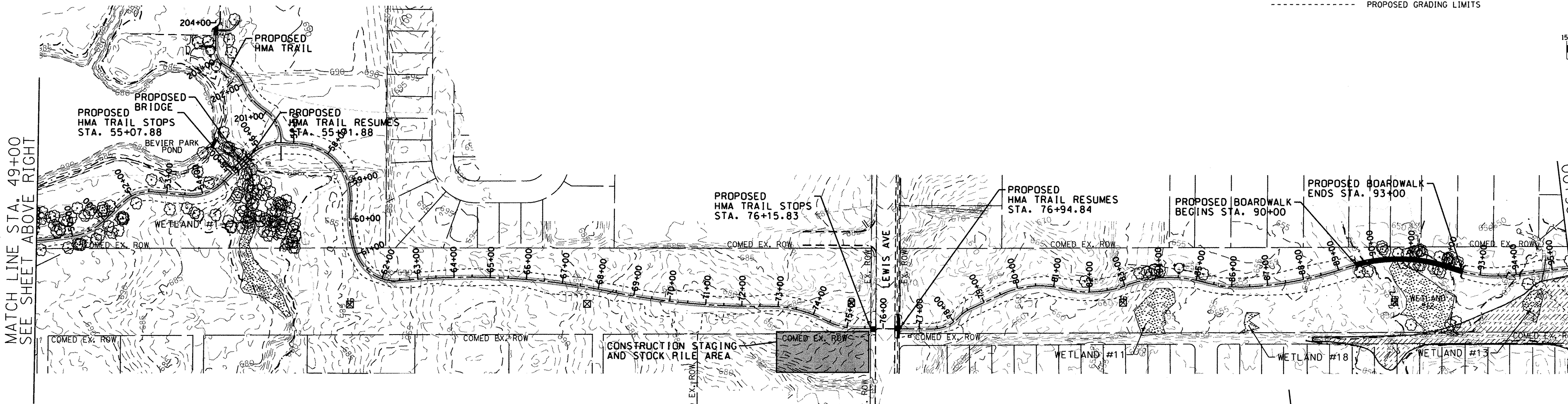
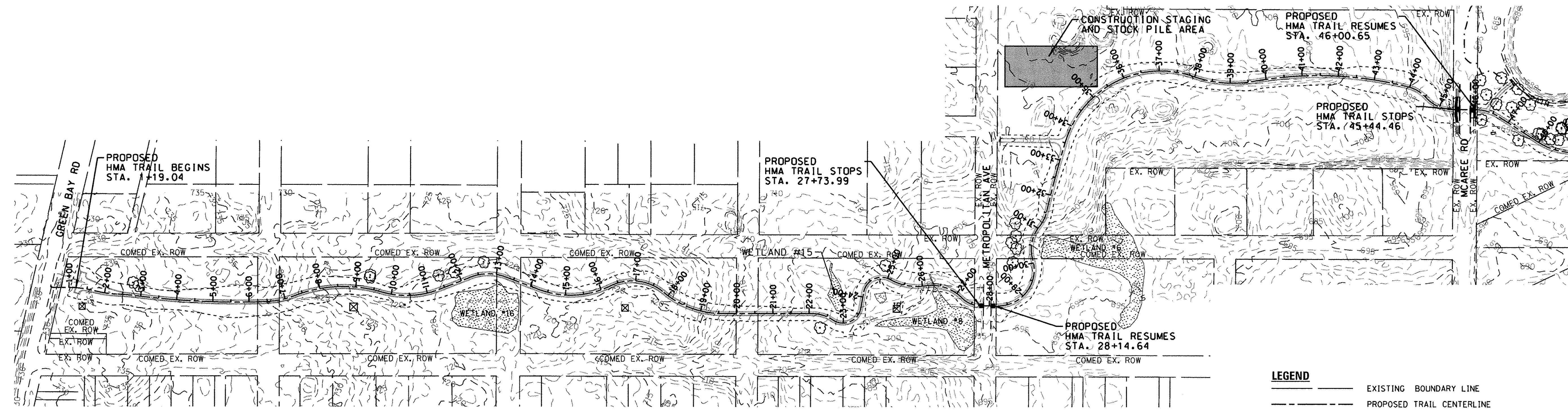
REVISED - 11/9/2016  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
 LYONS WOODS TRAIL

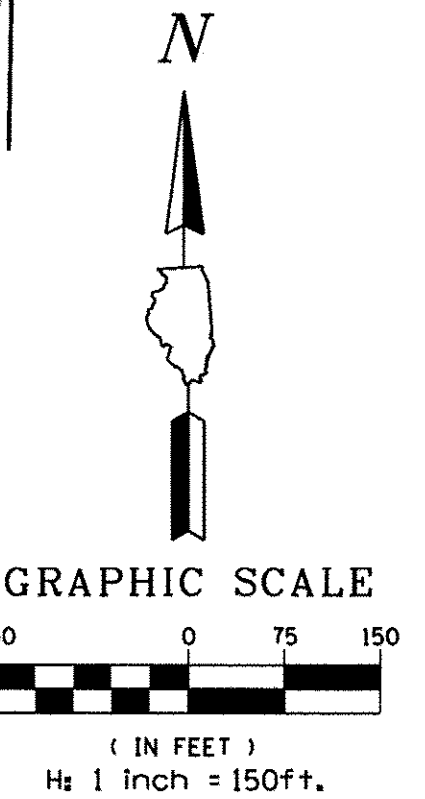
SCALE: N/A SHEET 3 OF 3 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	7
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61C67	



**LEGEND**

- EXISTING BOUNDARY LINE
- PROPOSED TRAIL CENTERLINE
- - - PROPOSED GRADING LIMITS



MATCH LINE STA. 49+00  
SEE SHEET ABOVE RIGHT

MATCH LINE STA. 96+00  
SEE SHEET BELOW LEFT

FILE NAME = 4905-ccc-overall.dgn  
GHA# 4905.000  
Model

USER NAME = MColeman  
PLOT SCALE = 1:150  
PLOT DATE = 11/14/2016

DESIGNED - MKH  
DRAWN - PJS  
CHECKED - DJS  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

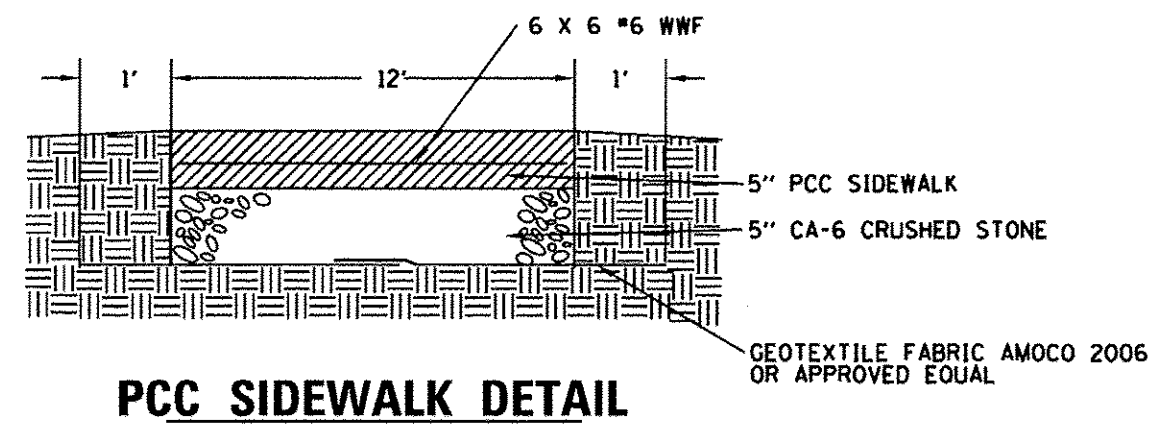
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

OVERALL PLAN  
LYONS WOODS TRAIL

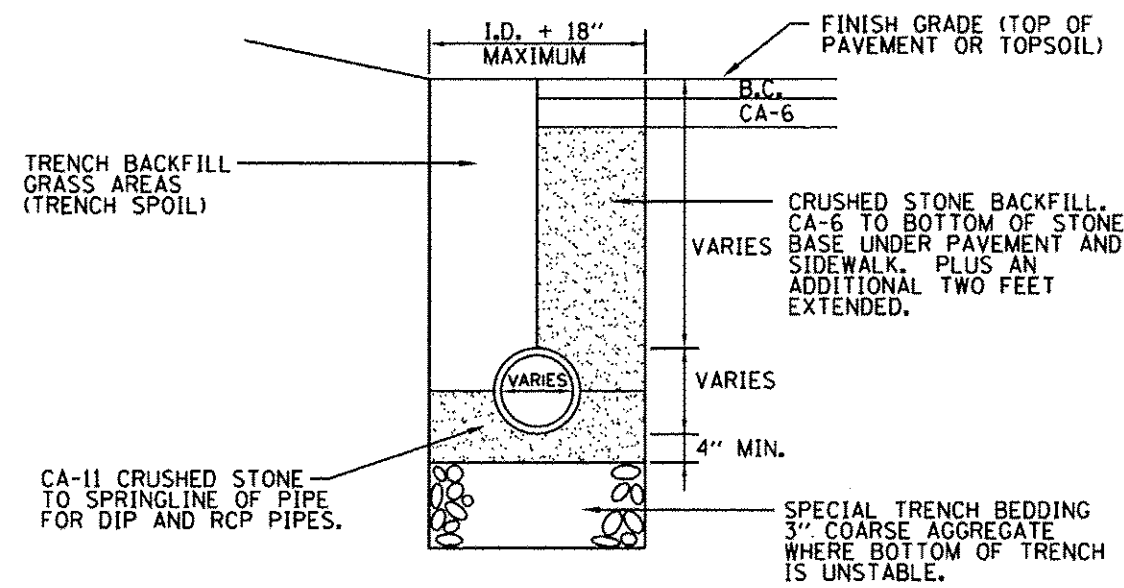
SCALE: 1"=150' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	8
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



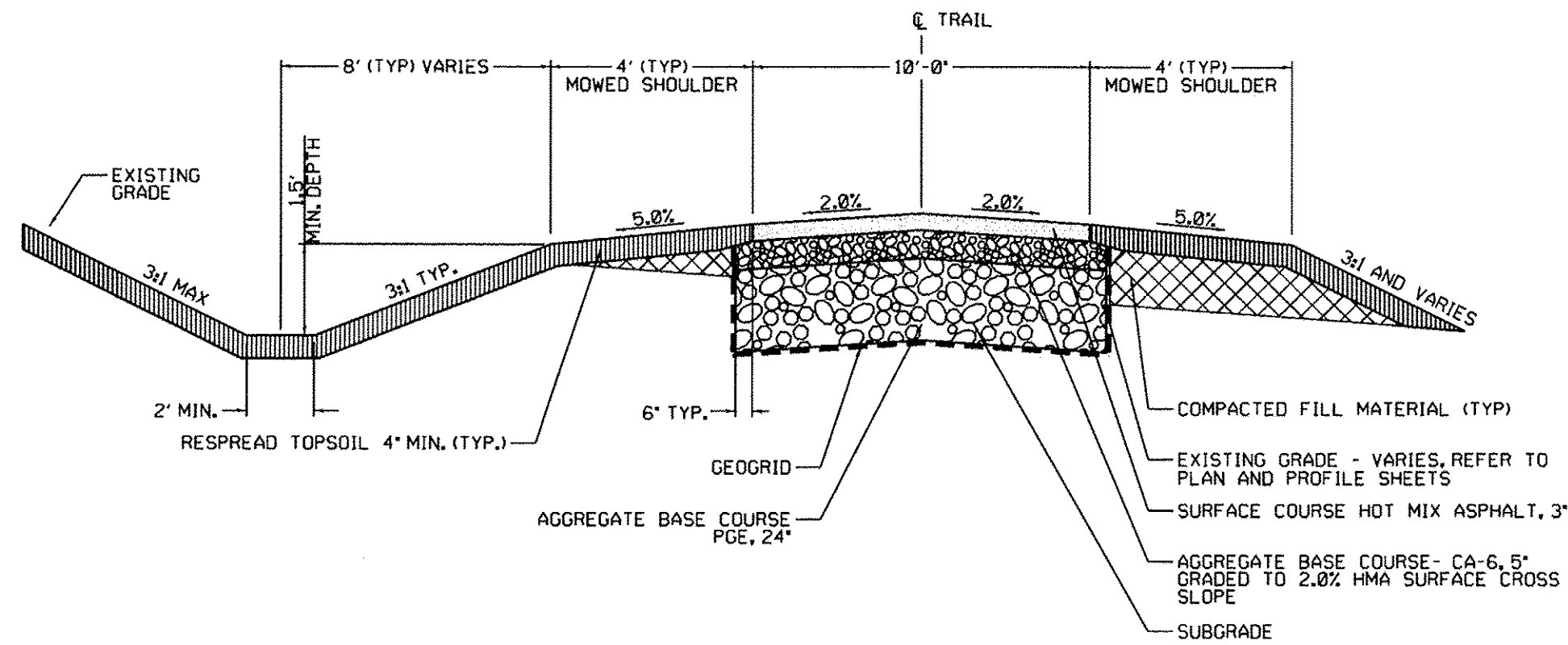


**PCC SIDEWALK DETAIL**



**STORM TRENCH DETAIL**

**LCFPD STANDARD DETAILS**



**PAVED TRAIL - OPEN AREA NOTES**

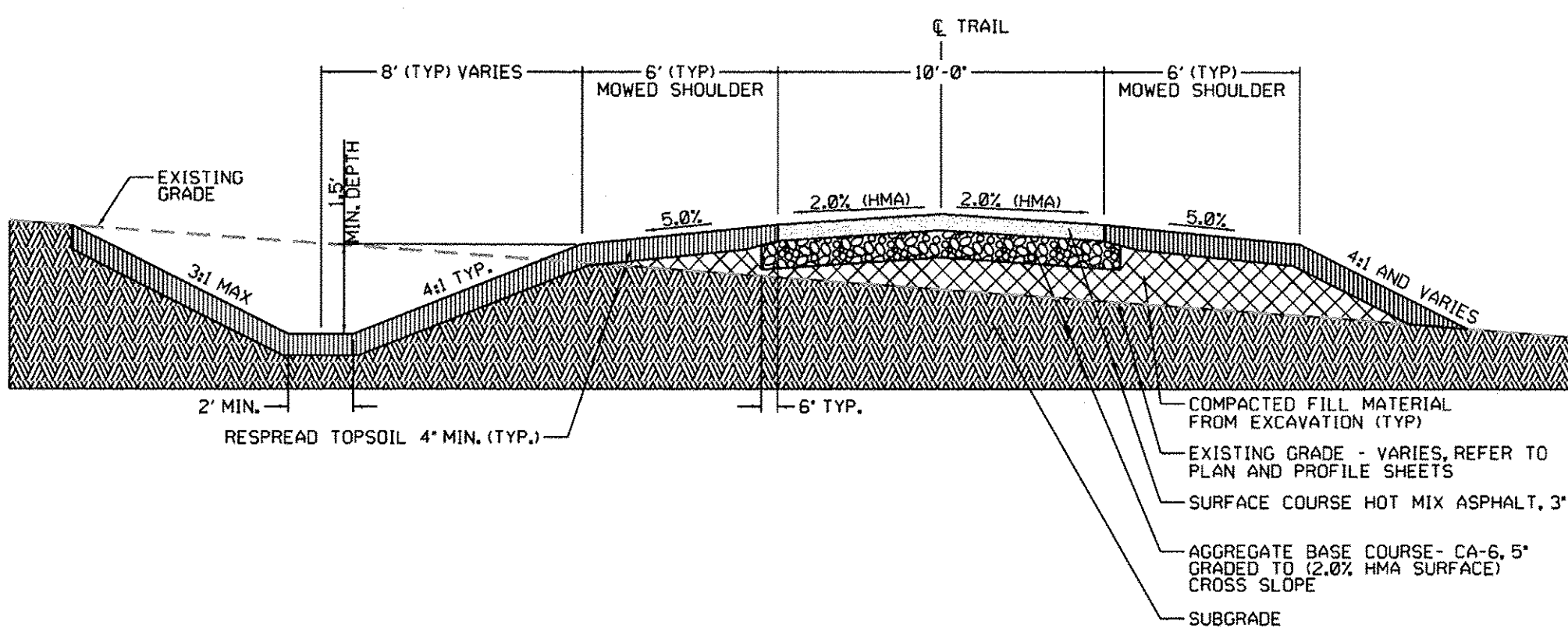
- SPECIFIC TRAIL LOCATIONS MAY NOT REQUIRE THE DITCHING SHOWN OR MAY REQUIRE DITCHING ON BOTH SIDES OF THE TRAIL. REFER TO OTHER PLAN SHEETS FOR DITCHING REQUIREMENTS AND LOCATIONS.
- ALL AGGREGATE BASE AND HOT-MIX ASPHALT SURFACES SHALL BE INSTALLED USING A PAVING MACHINE. AGGREGATE TRAIL SURFACES SHALL BE COMPACTED WITH A ROLLER NO WIDER THAN HALF THE TRAIL WIDTH TO MAINTAIN THE CROWNED PROFILE.
- THE EXISTING GRADE LINES SHOWN IN THE SECTIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO THE PLAN AND PROFILE SHEETS FOR EXISTING AND PROPOSED ELEVATIONS AND CUT AND FILL REQUIREMENTS ALONG THE TRAIL LENGTH.
- A WOVEN GEOTEXTILE FOR GROUND STABILIZATION MAY BE REQUIRED UPON DIRECTION BY THE OWNER WHEN UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED AND IS NOT SHOWN ON THE SECTION.
- THE FINISHED TOPSOIL GRADE DIRECTLY ADJACENT TO PAVED TRAIL EDGES MUST BE EQUAL TO OR SLIGHTLY (1/4") LOWER THAN THE EDGE OF TRAIL TO ASSURE POSITIVE DRAINAGE.
- PROVIDE A SOFT GRADUAL TRANSITION BETWEEN EXISTING AND PROPOSED GRADING.

**LANDSCAPE NOTES**

- MOWED TRAIL SHOULDERS SHALL BE SEEDED WITH LCFP LOW-MAINTENANCE MIX. REFER TO OTHER PLAN SHEETS FOR SEED MIXES OUTSIDE OF THE MOWED SHOULDERS.
- MOWED SHOULDERS AND SEEDED SLOPES 3:1 OR LESS SHALL BE HYDRO-MULCHED WITH FLEXTERRA HP-FGM OR APPROVED EQUAL. SLOPES GREATER THAN 3:1 DITCHES AND OTHER CONCENTRATED FLOW ZONES SHALL BE COVERED WITH NORTH AMERICAN GREEN (NAG) S75BN EROSION CONTROL BLANKET OR APPROVED EQUAL AND WITH THE MANUFACTURERS RECOMMENDED STAPLE PATTERN. DITCHES TYPICALLY REQUIRE A MINIMUM OF TWO (2) ROLLS OF BLANKET AT 6.67' WIDTH EACH.

**PAVED TRAIL - OPEN AREA A**

PROPOSED TYPICAL SECTION  
STA. 93+50.00 TO STA. 96+50.00



**PAVED TRAIL - OPEN AREA NOTES**

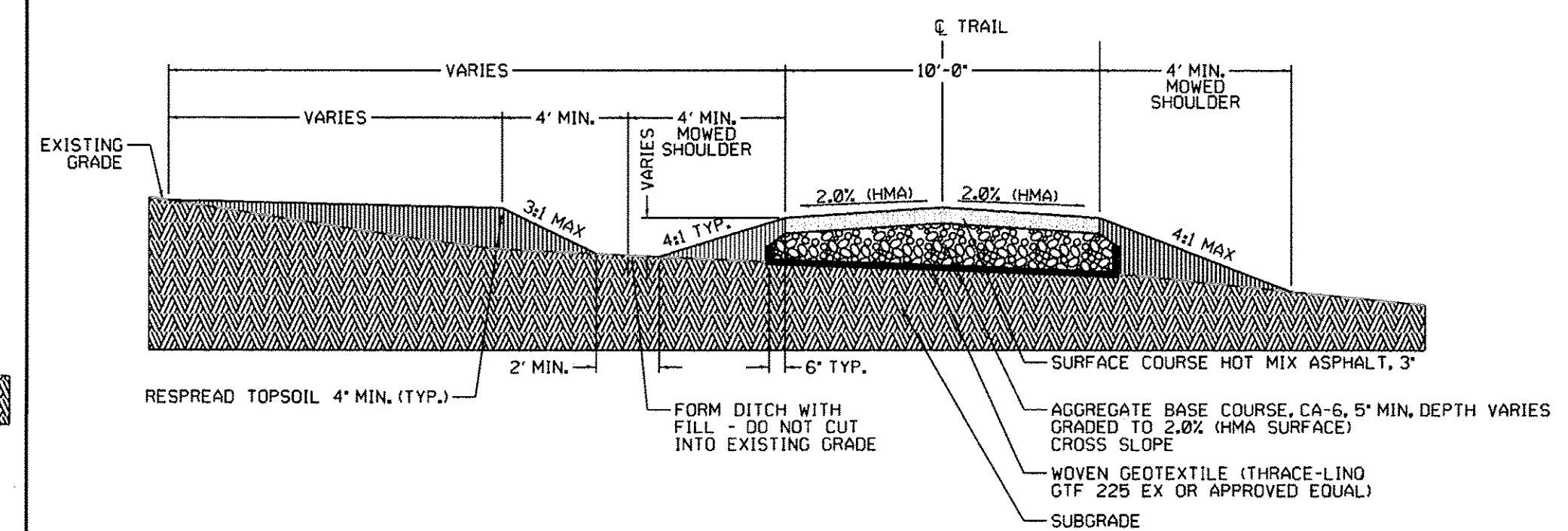
- SPECIFIC TRAIL LOCATIONS MAY NOT REQUIRE THE DITCHING SHOWN OR MAY REQUIRE DITCHING ON BOTH SIDES OF THE TRAIL. REFER TO OTHER PLAN SHEETS FOR DITCHING REQUIREMENTS AND LOCATIONS.
- ALL AGGREGATE BASE AND HOT-MIX ASPHALT SURFACES SHALL BE INSTALLED USING A PAVING MACHINE. AGGREGATE TRAIL SURFACES SHALL BE COMPACTED WITH A ROLLER NO WIDER THAN HALF THE TRAIL WIDTH TO MAINTAIN THE CROWNED PROFILE.
- THE EXISTING GRADE LINES SHOWN IN THE SECTIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO THE PLAN AND PROFILE SHEETS FOR EXISTING AND PROPOSED ELEVATIONS AND CUT AND FILL REQUIREMENTS ALONG THE TRAIL LENGTH.
- A WOVEN GEOTEXTILE FOR GROUND STABILIZATION MAY BE REQUIRED UPON DIRECTION BY THE OWNER WHEN UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED AND IS NOT SHOWN ON THE SECTION.
- THE FINISHED TOPSOIL GRADE DIRECTLY ADJACENT TO PAVED TRAIL EDGES MUST BE EQUAL TO OR SLIGHTLY (1/4") LOWER THAN THE EDGE OF TRAIL TO ASSURE POSITIVE DRAINAGE.
- PROVIDE A SOFT GRADUAL TRANSITION BETWEEN EXISTING AND PROPOSED GRADING.

**LANDSCAPE NOTES**

- MOWED TRAIL SHOULDERS SHALL BE SEEDED WITH LCFP LOW-MAINTENANCE MIX. REFER TO OTHER PLAN SHEETS FOR SEED MIXES OUTSIDE OF THE MOWED SHOULDERS.
- MOWED SHOULDERS AND SEEDED SLOPES 3:1 OR LESS SHALL BE HYDRO-MULCHED WITH FLEXTERRA HP-FGM OR APPROVED EQUAL. SLOPES GREATER THAN 3:1 DITCHES AND OTHER CONCENTRATED FLOW ZONES SHALL BE COVERED WITH NORTH AMERICAN GREEN (NAG) S75BN EROSION CONTROL BLANKET OR APPROVED EQUAL AND WITH THE MANUFACTURERS RECOMMENDED STAPLE PATTERN. DITCHES TYPICALLY REQUIRE A MINIMUM OF TWO (2) ROLLS OF BLANKET AT 6.67' WIDTH EACH.

**PAVED TRAIL - OPEN AREA**

PROPOSED TYPICAL SECTION  
STA. 119.04 TO 147+50.00  
STA. 51+50.00 TO 104+05.74



**PAVED TRAIL - SENSITIVE WOODED AREA NOTES**

- THE TYPICAL SECTION DEPICTED ABOVE IS UTILIZED IN WOODED AREAS TO REDUCE TREE ROOT DISTURBANCE BY MINIMIZING CUT AND FILL GRADING. PREPARATION OF THE SUBGRADE SHALL BE LIMITED TO REMOVAL OF LOOSE SURFACE MATERIAL ONLY TO A DEPTH GENERALLY LESS THAN THREE INCHES.
- THE CONSTRUCTION METHOD DEPICTED IN THE SECTION MAY REQUIRE MODIFICATION IN AN EFFORT TO PRESERVE DESIRABLE TREES, INCLUDING RELOCATING DITCHES, DELETING DITCHES ADJACENT TO TREES, OUT-FALLING DITCHES PERPENDICULAR TO THE TRAIL AND ADJUSTING THE BUILT DIMENSIONS. THE CONTRACTOR SHALL REVIEW TREE LOCATIONS AND DRAINAGE ISSUES WITH THE OWNER ON THE SITE BEFORE COMMENCING WORK IN SENSITIVE WOODED AREAS.
- DITCHING FOR SENSITIVE WOODED AREAS NEAR DESIRABLE TREES SHALL BE FORMED BY TRAIL ELEVATION AND SOIL FILLS AND NOT BY CUTTING INTO THE EXISTING GRADE.
- DUE TO VARIATIONS IN EXISTING GRADES AND THE REQUIRED MINIMAL GROUND DISTURBANCE, THE DEPTH OF AGGREGATE BASE FOR SENSITIVE WOODED AREAS MAY EXCEED THE 5" MINIMUM DEPTH AT THE LOWER SIDE OF THE TRAIL TO ACHIEVE THE FINAL CROSS SLOPES. THESE AREAS SHALL NOT BE MEASURED FOR DEPTH IN THE FIELD BUT SHALL BE PAID FOR SEPARATELY AS AGGREGATE BASE COURSE CA-6, 5" MIN., VARIABLE DEPTH.
- THE EXISTING GRADE LINES SHOWN IN THE SECTIONS ARE FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO THE PLAN AND PROFILE SHEETS FOR EXISTING AND PROPOSED ELEVATIONS AND CUT AND FILL REQUIREMENTS ALONG THE TRAIL LENGTH.
- THE FINISHED TOPSOIL GRADE DIRECTLY ADJACENT TO PAVED TRAIL EDGES MUST BE EQUAL TO OR SLIGHTLY (1/4") LOWER THAN THE EDGE OF TRAIL TO ASSURE POSITIVE DRAINAGE.
- DUE TO POTENTIAL DIFFICULTIES USING A PAVING MACHINE ON THE WOVEN GEOTEXTILE, AGGREGATE BASE MAY BE INSTALLED BY OTHER METHODS, HOWEVER, AGGREGATE AND HOT-MIX ASPHALT SURFACES MUST BE INSTALLED WITH A PAVEMENT BOX.
- PROVIDE A SOFT GRADUAL TRANSITION BETWEEN EXISTING AND PROPOSED GRADING.

**LANDSCAPE NOTES**

- MOWED TRAIL SHOULDERS SHALL BE SEEDED WITH LCFP LOW-MAINTENANCE MIX. REFER TO OTHER PLAN SHEETS FOR SEED MIXES OUTSIDE OF THE MOWED SHOULDERS.
- MOWED SHOULDERS AND SEEDED SLOPES 3:1 OR LESS SHALL BE HYDRO-MULCHED WITH FLEXTERRA HP-FGM OR APPROVED EQUAL. SLOPES GREATER THAN 3:1 DITCHES AND OTHER CONCENTRATED FLOW ZONES SHALL BE COVERED WITH NORTH AMERICAN GREEN (NAG) S75BN EROSION CONTROL BLANKET OR APPROVED EQUAL AND WITH THE MANUFACTURERS RECOMMENDED STAPLE PATTERN. DITCHES TYPICALLY REQUIRE A MINIMUM OF TWO (2) ROLLS OF BLANKET AT 6.67' WIDTH EACH.

**PAVED TRAIL - SENSITIVE WOODED AREA**

PROPOSED TYPICAL SECTION  
STA. 47+50.00 TO 51+50.00

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

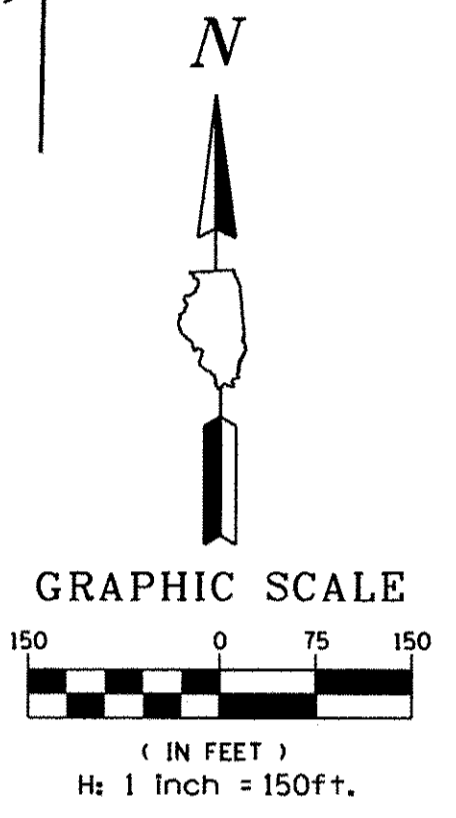
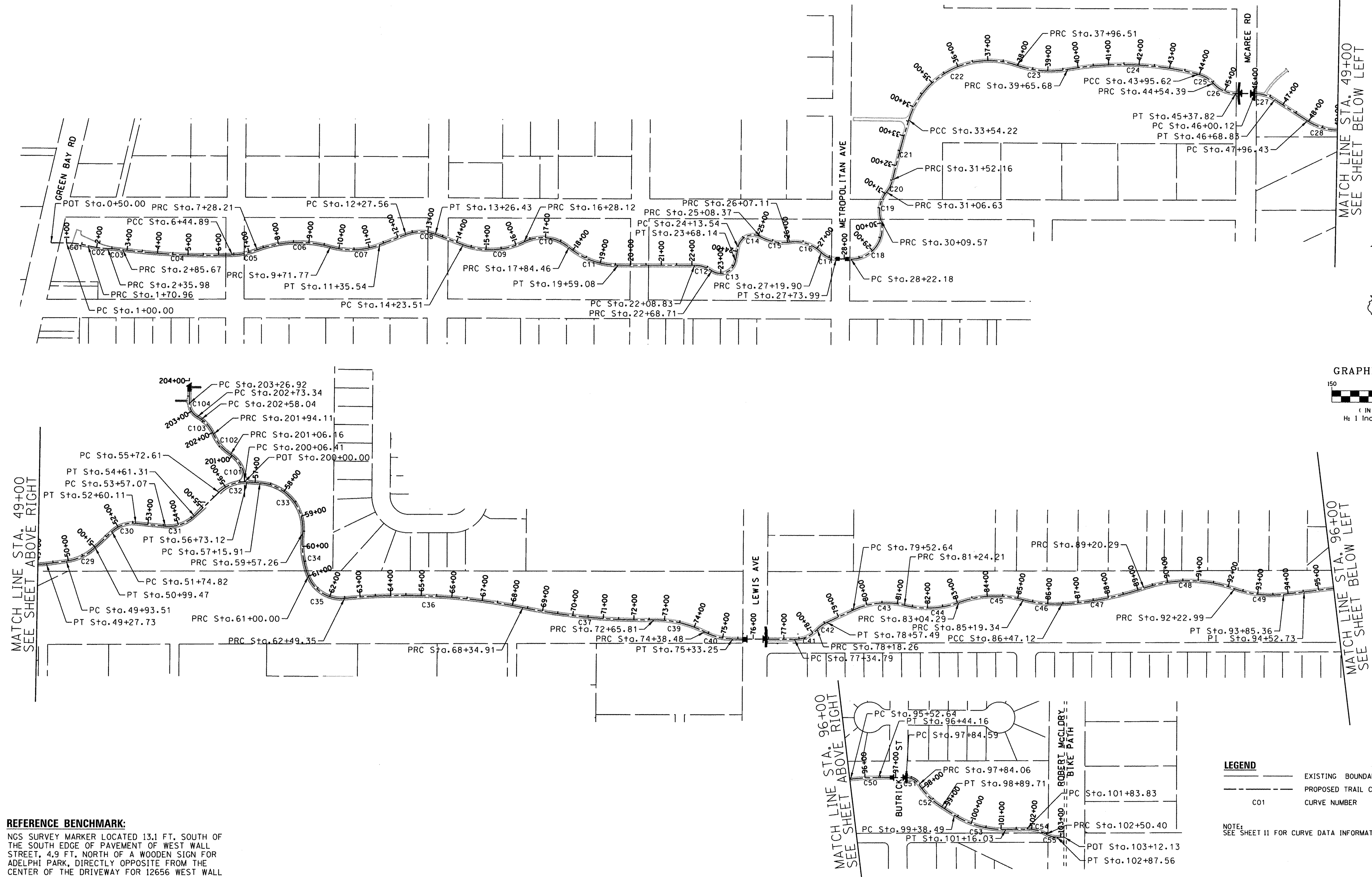
MIXTURE TYPE	AIR VOIDS
DRIVEWAY	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, (1L-9.5mm), 3"	4% @ 50 CYRATIONS

**NOTES**

- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/50 YD/IN.
- THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE SPECIAL PROVISIONS.
- MINIMUM LIFT THICKNESS FOR HOT-MIX ASPHALT SURFACE COURSE IS 1-1/2".



**REFERENCE BENCHMARK:**  
NGS SURVEY MARKER LOCATED 13.1 FT. SOUTH OF THE SOUTH EDGE OF PAVEMENT OF WEST WALL STREET, 4.9 FT. NORTH OF A WOODEN SIGN FOR ADELPHI PARK, DIRECTLY OPPOSITE FROM THE CENTER OF THE DRIVEWAY FOR 12656 WEST WALL AVENUE, WAUKEGAN, IL.  
ELEVATION: 734.45 NAVD88



**LEGEND**  
 ——— EXISTING BOUNDARY LINE  
 - - - - - PROPOSED TRAIL CENTERLINE  
 C01 CURVE NUMBER

**NOTE:**  
SEE SHEET 11 FOR CURVE DATA INFORMATION

FILE NAME = 4905-ddd01-ABT.dgn	USER NAME = MColeman	DESIGNED - MKH	REVISED -
GHA 4905.000	PLOT SCALE = 1:150	DRAWN - PJS	REVISED -
ABT_XX	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCALE: 1"=150'		SHEET 1 OF 2 SHEETS		STA. TO STA.
HORIZONTAL CURVE PLAN		LYONS WOODS TRAIL		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	10
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

**LYONS WOODS TRAIL  
HORIZONTAL CURVE DATA**

CURVE = C01  
PI STA. = 1+35.66  
DELTA = 14° 15' 54" (RT)  
D = 20° 06' 14"  
R = 285.00  
T = 35.66  
L = 70.96  
E = 2.22  
PC STA. = 1+00.00  
PT STA. = 1+70.96

CURVE = C09  
PI STA. = 15+31.94  
DELTA = 46° 53' 35" (LT)  
D = 22° 55' 06"  
R = 250.00  
T = 108.43  
L = 204.61  
E = 5.57  
PC STA. = 14+23.51  
PT STA. = 16+28.12

CURVE = C17  
PI STA. = 27+48.38  
DELTA = 44° 16' 47" (LT)  
D = 81° 51' 04"  
R = 70.00  
T = 28.48  
L = 54.10  
E = 5.57  
PC STA. = 27+19.90  
PT STA. = 27+73.99

CURVE = C25  
PI STA. = 44+25.88  
DELTA = 33° 40' 16" (RT)  
D = 57° 17' 45"  
R = 100.00  
T = 30.26  
L = 58.77  
E = 4.48  
PC STA. = 43+95.62  
PT STA. = 44+54.39

CURVE = C33  
PI STA. = 58+71.76  
DELTA = 92° 11' 30" (RT)  
D = 38° 11' 50"  
R = 150.00  
T = 155.85  
L = 241.36  
E = 66.31  
PC STA. = 57+15.91  
PT STA. = 59+57.26

CURVE = C42  
PI STA. = 78+38.13  
DELTA = 22° 28' 40" (RT)  
D = 57° 17' 45"  
R = 100.00  
T = 19.87  
L = 39.23  
E = 1.96  
PC STA. = 78+18.26  
PT STA. = 78+57.49

CURVE = C50  
PI STA. = 95+98.45  
DELTA = 6° 59' 29" (RT)  
D = 7° 38' 22"  
R = 750.00  
T = 45.82  
L = 91.52  
E = 1.40  
PC STA. = 95+52.64  
PT STA. = 96+44.16

CURVE = C02  
PI STA. = 2+03.60  
DELTA = 12° 25' 10" (LT)  
D = 19° 05' 55"  
R = 300.00  
T = 32.64  
L = 65.03  
E = 1.77  
PC STA. = 1+70.96  
PT STA. = 2+35.98

CURVE = C10  
PI STA. = 17+16.39  
DELTA = 66° 21' 13" (RT)  
D = 42° 26' 29"  
R = 135.00  
T = 88.26  
L = 156.34  
E = 26.29  
PC STA. = 16+28.12  
PT STA. = 17+84.46

CURVE = C18  
PI STA. = 29+58.24  
DELTA = 107° 22' 17" (LT)  
D = 57° 17' 45"  
R = 100.00  
T = 136.06  
L = 187.40  
E = 68.86  
PC STA. = 28+22.18  
PT STA. = 30+09.57

CURVE = C26  
PI STA. = 44+98.71  
DELTA = 47° 48' 10" (LT)  
D = 57° 17' 45"  
R = 100.00  
T = 44.32  
L = 83.43  
E = 9.38  
PC STA. = 44+54.39  
PT STA. = 45+37.82

CURVE = C34  
PI STA. = 60+30.01  
DELTA = 27° 15' 37" (LT)  
D = 19° 05' 55"  
R = 300.00  
T = 72.75  
L = 142.74  
E = 8.69  
PC STA. = 59+57.26  
PT STA. = 61+00.00

CURVE = C43  
PI STA. = 80+41.96  
DELTA = 39° 19' 19" (RT)  
D = 22° 55' 06"  
R = 250.00  
T = 89.32  
L = 171.57  
E = 15.48  
PC STA. = 79+52.64  
PT STA. = 81+24.21

CURVE = C51  
PI STA. = 97+61.57  
DELTA = 56° 41' 09" (RT)  
D = 114° 35' 30"  
R = 50.00  
T = 26.97  
L = 49.47  
E = 6.81  
PC STA. = 97+34.59  
PT STA. = 97+84.06

CURVE = C03  
PI STA. = 2+60.84  
DELTA = 5° 13' 25" (RT)  
D = 10° 30' 47"  
R = 545.00  
T = 24.86  
L = 49.69  
E = 0.57  
PC STA. = 2+35.98  
PT STA. = 2+85.67

CURVE = C11  
PI STA. = 18+75.50  
DELTA = 40° 01' 05" (LT)  
D = 22° 55' 06"  
R = 250.00  
T = 91.04  
L = 174.61  
E = 16.06  
PC STA. = 17+84.46  
PT STA. = 19+59.08

CURVE = C19  
PI STA. = 30+62.31  
DELTA = 55° 36' 42" (RT)  
D = 57° 17' 45"  
R = 100.00  
T = 52.74  
L = 97.06  
E = 13.05  
PC STA. = 30+09.57  
PT STA. = 31+06.63

CURVE = C27  
PI STA. = 46+35.45  
DELTA = 32° 48' 13" (RT)  
D = 47° 44' 47"  
R = 120.00  
T = 35.32  
L = 68.70  
E = 5.09  
PC STA. = 46+00.12  
PT STA. = 46+68.83

CURVE = C35  
PI STA. = 61+87.30  
DELTA = 74° 24' 26" (LT)  
D = 49° 49' 21"  
R = 115.00  
T = 87.30  
L = 149.35  
E = 29.38  
PC STA. = 61+00.00  
PT STA. = 62+49.35

CURVE = C44  
PI STA. = 82+17.06  
DELTA = 34° 23' 34" (LT)  
D = 19° 05' 55"  
R = 300.00  
T = 92.84  
L = 180.08  
E = 14.04  
PC STA. = 81+24.21  
PT STA. = 83+04.29

CURVE = C52  
PI STA. = 98+37.69  
DELTA = 24° 12' 43" (LT)  
D = 22° 55' 06"  
R = 250.00  
T = 53.62  
L = 105.64  
E = 5.69  
PC STA. = 97+84.06  
PT STA. = 98+89.71

CURVE = C04  
PI STA. = 4+65.67  
DELTA = 9° 15' 01" (LT)  
D = 2° 34' 30"  
R = 2,225.00  
T = 180.00  
L = 359.22  
E = 7.27  
PC STA. = 2+85.67  
PT STA. = 6+44.89

CURVE = C12  
PI STA. = 22+39.70  
DELTA = 34° 18' 21" (RT)  
D = 57° 17' 45"  
R = 100.00  
T = 30.87  
L = 59.88  
E = 4.65  
PC STA. = 22+08.83  
PT STA. = 22+68.71

CURVE = C20  
PI STA. = 31+29.80  
DELTA = 26° 04' 52" (LT)  
D = 57° 17' 45"  
R = 100.00  
T = 23.16  
L = 45.52  
E = 2.65  
PC STA. = 31+06.63  
PT STA. = 31+52.16

CURVE = C28  
PI STA. = 48+64.98  
DELTA = 40° 39' 53" (LT)  
D = 30° 58' 14"  
R = 185.00  
T = 68.55  
L = 131.30  
E = 12.29  
PC STA. = 47+96.43  
PT STA. = 49+27.73

CURVE = C36  
PI STA. = 65+44.36  
DELTA = 17° 16' 18" (RT)  
D = 2° 56' 59"  
R = 1,942.50  
T = 295.02  
L = 585.56  
E = 22.28  
PC STA. = 62+49.35  
PT STA. = 68+34.91

CURVE = C45  
PI STA. = 84+15.33  
DELTA = 35° 12' 12" (RT)  
D = 16° 22' 13"  
R = 350.00  
T = 111.04  
L = 215.05  
E = 17.19  
PC STA. = 83+04.29  
PT STA. = 85+19.34

CURVE = C53  
PI STA. = 100+29.94  
DELTA = 33° 54' 23" (LT)  
D = 19° 05' 55"  
R = 300.00  
T = 91.45  
L = 177.53  
E = 13.63  
PC STA. = 99+38.49  
PT STA. = 101+16.03

CURVE = C05  
PI STA. = 6+86.94  
DELTA = 19° 05' 43" (LT)  
D = 22° 55' 06"  
R = 250.00  
T = 42.05  
L = 83.32  
E = 3.51  
PC STA. = 6+44.89  
PT STA. = 7+28.21

CURVE = C13  
PI STA. = 23+45.61  
DELTA = 113° 56' 19" (LT)  
D = 114° 35' 30"  
R = 50.00  
T = 76.90  
L = 99.43  
E = 41.73  
PC STA. = 22+68.71  
PT STA. = 23+68.14

CURVE = C21  
PI STA. = 32+53.22  
DELTA = 3° 51' 33" (RT)  
D = 1° 54' 35"  
R = 3,000.00  
T = 101.07  
L = 202.06  
E = 1.70  
PC STA. = 49+93.51  
PT STA. = 33+54.22

CURVE = C29  
PI STA. = 50+48.27  
DELTA = 35° 42' 44" (LT)  
D = 33° 42' 12"  
R = 170.00  
T = 54.76  
L = 105.96  
E = 8.60  
PC STA. = 49+93.51  
PT STA. = 50+99.47

CURVE = C37  
PI STA. = 70+51.20  
DELTA = 12° 20' 41" (LT)  
D = 2° 51' 53"  
R = 2,000.00  
T = 216.29  
L = 430.91  
E = 11.66  
PC STA. = 68+34.91  
PT STA. = 72+65.81

CURVE = C46  
PI STA. = 85+83.78  
DELTA = 18° 18' 13" (LT)  
D = 14° 19' 26"  
R = 400.00  
T = 64.44  
L = 127.78  
E = 5.16  
PC STA. = 85+19.34  
PT STA. = 86+47.12

CURVE = C54  
PI STA. = 102+18.00  
DELTA = 31° 47' 19" (RT)  
D = 47° 44' 47"  
R = 120.00  
T = 34.17  
L = 66.58  
E = 4.77  
PC STA. = 101+83.83  
PT STA. = 102+50.40

CURVE = C06  
PI STA. = 8+54.46  
DELTA = 37° 12' 50" (RT)  
D = 15° 16' 44"  
R = 375.00  
T = 126.25  
L = 243.56  
E = 20.68  
PC STA. = 7+28.21  
PT STA. = 9+71.77

CURVE = C14  
PI STA. = 24+83.21  
DELTA = 108° 40' 11" (RT)  
D = 114° 35' 30"  
R = 50.00  
T = 69.67  
L = 94.83  
E = 35.76  
PC STA. = 24+13.54  
PT STA. = 25+08.37

CURVE = C22  
PI STA. = 36+39.74  
DELTA = 92° 09' 03" (RT)  
D = 20° 50' 05"  
R = 275.00  
T = 285.52  
L = 442.29  
E = 121.42  
PC STA. = 33+54.22  
PT STA. = 37+96.51

CURVE = C30  
PI STA. = 52+20.26  
DELTA = 48° 52' 06" (RT)  
D = 57° 17' 45"  
R = 100.00  
T = 45.43  
L = 85.29  
E = 9.84  
PC STA. = 51+74.82  
PT STA. = 52+60.11

CURVE = C39  
PI STA. = 73+53.94  
DELTA = 28° 15' 55" (RT)  
D = 16° 22' 13"  
R = 350.00  
T = 88.13  
L = 172.66  
E = 10.92  
PC STA. = 72+65.81  
PT STA. = 74+38.48

CURVE = C47  
PI STA. = 87+84.56  
DELTA = 15° 39' 06" (LT)  
D = 5° 43' 46"  
R = 1,000.00  
T = 137.44  
L = 273.17  
E = 9.40  
PC STA. = 86+47.12  
PT STA. = 89+20.29

CURVE = C55  
PI STA. = 102+69.43  
DELTA = 30° 24' 44" (LT)  
D = 81° 51' 04"  
R = 70.00  
T = 19.03  
L = 37.16  
E = 2.54  
PC STA. = 102+50.40  
PT STA. = 102+87.56

CURVE = C07  
PI STA. = 10+56.71  
DELTA = 37° 31' 54" (LT)  
D = 22° 55' 06"  
R = 250.00  
T = 84.94  
L = 163.76  
E = 14.04  
PC STA. = 9+71.77  
PT STA. = 11+35.54

CURVE = C15  
PI STA. = 25+59.60  
DELTA = 37° 42' 51" (LT)  
D = 38° 11' 50"  
R = 150.00  
T = 51.23  
L = 98.74  
E = 8.51  
PC STA. = 25+08.37  
PT STA. = 26+07.11

CURVE = C23  
PI STA. = 38+83.00  
DELTA = 29° 22' 20" (LT)  
D = 17° 21' 44"  
R = 330.00  
T = 86.49  
L = 169.17  
E = 11.15  
PC STA. = 37+96.51  
PT STA. = 39+65.68

CURVE = C31  
PI STA. = 54+12.73  
DELTA = 49° 46' 06" (LT)  
D = 47° 44' 47"  
R = 120.00  
T = 55.66  
L = 104.23  
E = 12.28  
PC STA. = 53+57.07  
PT STA. = 54+61.31

CURVE = C40  
PI STA. = 74+86.77  
DELTA = 27° 09' 05" (LT)  
D = 28° 38' 52"  
R = 200.00  
T = 48.30  
L = 94.78  
E = 5.75  
PC STA. = 74+38.48  
PT STA. = 75+33.25

CURVE = C48  
PI STA. = 90+77.62  
DELTA = 38° 32' 25" (RT)  
D = 12° 43' 57"  
R = 450.00  
T = 157.32  
L = 302.70  
E = 26.71  
PC STA. = 89+20.29  
PT STA. = 92+22.99

CURVE = C08  
PI STA. = 12+79.33  
DELTA = 41° 57' 36" (RT)  
D = 42° 26' 29"  
R = 135.00  
T = 51.77  
L = 98.87  
E = 9.59  
PC STA. = 12+27.56  
PT STA. = 13+26.43

CURVE = C16  
PI STA. = 26+68.06  
DELTA = 53° 51' 11" (RT)  
D = 47° 44' 47"  
R = 120.00  
T = 60.95  
L = 112.79  
E = 14.59  
PC STA. = 26+07.11  
PT STA. = 27+19.90

CURVE = C24  
PI STA. = 41+84.03  
DELTA = 24° 38' 02" (RT)  
D = 5° 43' 46"  
R = 1,000.00  
T = 218.34  
L = 429.94  
E = 23.56  
PC STA. = 39+65.68  
PT STA. = 43+95.62

CURVE = C32  
PI STA. = 56+26.03  
DELTA = 47° 59' 27" (RT)  
D = 47° 44' 47"  
R = 120.00  
T = 53.42  
L = 100.51  
E = 11.35  
PC STA. = 55+72.61  
PT STA. = 56+73.12

CURVE = C41  
PI STA. = 77+79.13  
DELTA = 47° 49' 33" (LT)  
D = 57° 17' 45"  
R = 100.00  
T = 44.34  
L = 83.47  
E = 9.39  
PC STA. = 77+34.79  
PT STA. = 78+18.26

CURVE = C49  
PI STA. = 93+05.66  
DELTA = 26° 34' 52" (LT)  
D = 16° 22' 13"  
R = 350.00  
T = 82.68  
L = 162.37  
E = 9.63  
PC STA. = 92+22.99  
PT STA. = 93+85.36

**PARKING LOT ACCESS TRAIL  
HORIZONTAL CURVE DATA**

CURVE = C101  
PI STA. = 200+60.88  
DELTA = 57° 09' 01" (LT)  
D = 57° 17' 45"  
R = 100.00  
T = 54.47  
L = 99.75  
E = 13.87  
PC STA. = 200+06.41  
PT STA. = 201+06.16

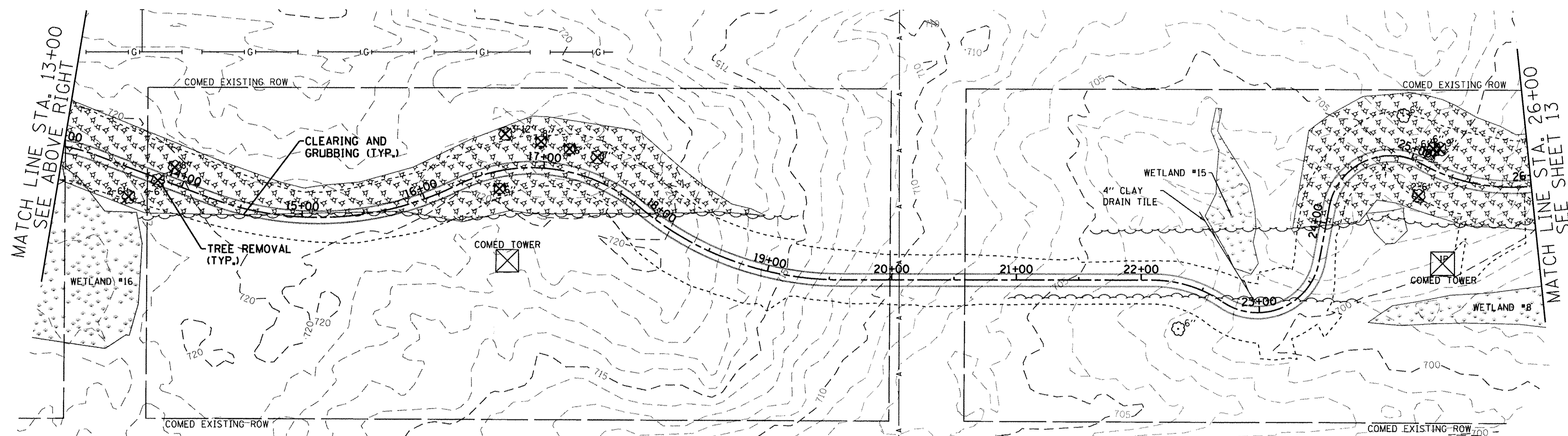
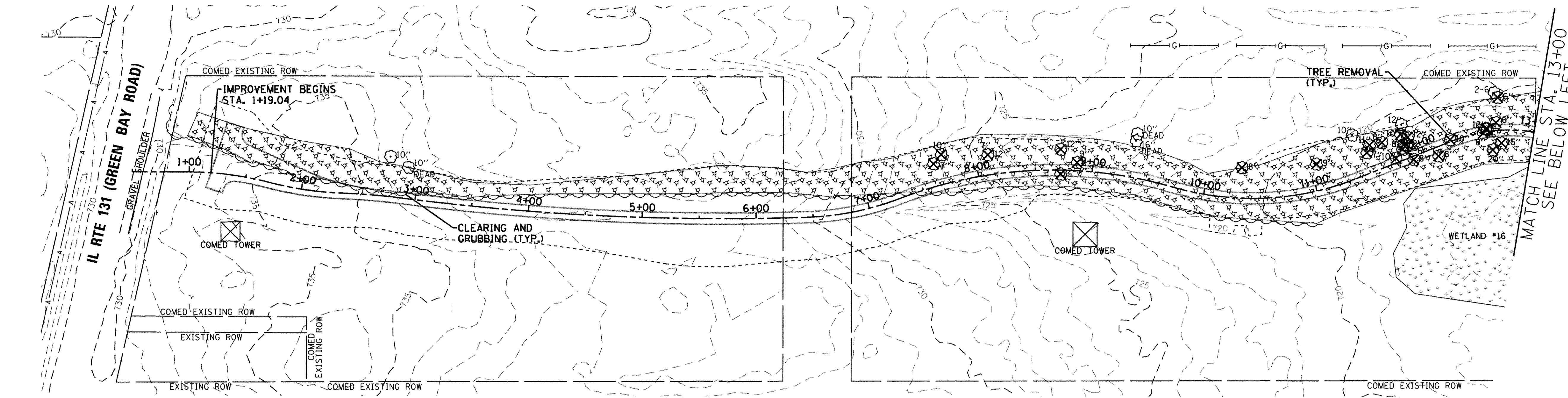
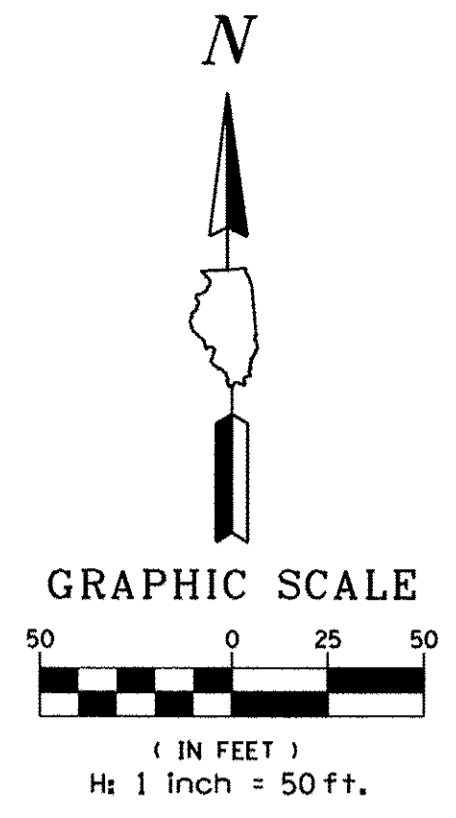
CURVE = C102  
PI STA. = 201+51.44  
DELTA = 33° 35' 40" (RT)  
D = 38° 11' 50"  
R = 150.00  
T = 45.28  
L = 87.95  
E = 6.69  
PC STA. = 201+06.16  
PT STA. = 201+94.11

CURVE = C103  
PI STA. = 202+26.85  
DELTA = 30° 31' 27" (LT)  
D = 47° 44' 47"  
R = 120.00  
T = 32.74  
L = 63.93  
E = 4.39  
PC STA. = 201+94.11  
PT STA. = 202+58.04

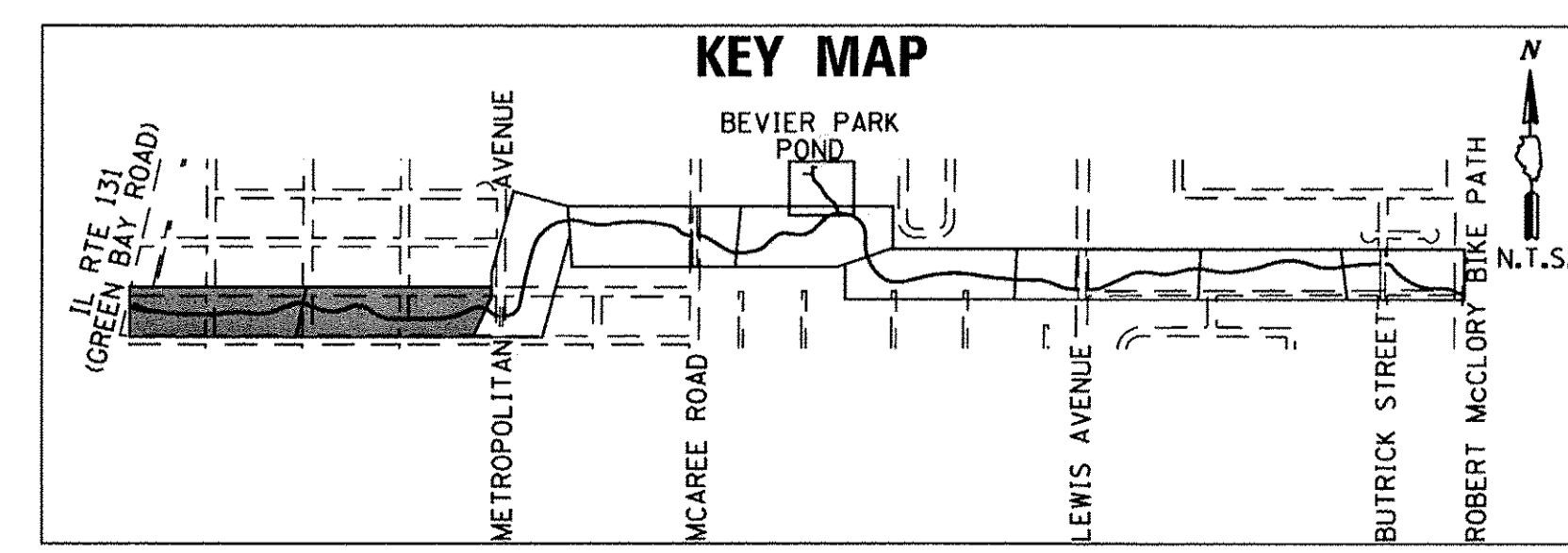
CURVE = C104  
PI STA. = 203+03.02  
DELTA = 61° 23' 33" (RT)  
D = 114° 35' 30"  
R = 50.00  
T = 29.68  
L = 53.58  
E = 8.15  
PC STA. = 202+73.34  
PT STA. = 203+26.92

Control Point Table				
Point #	Elevation	Northing	Easting	Description
1	650.20	2091145.16	1115495.05	CP1-XSW
2	650.40	2091686.47	1115456.37	CP2-XTC
3	673.24	2091118.51	1113458.08	CP3-XSW
4	687.21	2091460.21	1110808.14	CP4-XSW
5	688.88	2092033.25	1110813.88	CP5-XSW
6	696.90	2090874.65	1109434.69	CP6-IR
7	712.62	2091398.84	1109480.84	CP7-IR
8	728.37	2090919.08	1106826.57	CP8-IR
11	682.84	2091753.22	1113387.96	CP11-IR
20	685.83	2091482.97	1111427.41	CP20-SXCN
21	674.86	2090469.23	1113455.29	CP21-FXSW
204	710.64	2091367.88	1109466.73	CP204-MN
205	706.88	2091210.88	1109472.89	CP205-MN
211	682.21	2091556.68	1113456.57	CP211-XSW
214	692.80	2091180.98	1112525.66	CP214
218	649.60	2091300.36	1115499.91	CP218-XSW

LAKE COUNTY FOREST PRESERVES  
GHA GEWALT HAMILTON ASSOCIATES, INC.



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - PAVEMENT REMOVAL
  - SIDEWALK REMOVAL
  - GRAVEL REMOVAL
  - CLEARING AND GRUBBING
  - COMBINATION CURB AND GUTTER REMOVAL
  - TREE REMOVAL
  - UTILITY POLE REMOVAL
  - FENCE REMOVAL SPECIAL
  - EXISTING TREE/BRUSH LINE
  - EXISTING FIELD TILE/STORM SEWER
  - EXISTING OVERHEAD WIRES
  - EXISTING DRAIN TILE
  - FLOODPLAIN BOUNDARY
  - PROPOSED GRADING LIMITS
  - TEMPORARY FENCE



LAKE COUNTY FOREST PRESERVES  
 GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-e01-removal.dgn  
 GHA\* 4905.000  
 PrP\_01

USER NAME = MCoeman  
 PLOT SCALE = 1/50  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

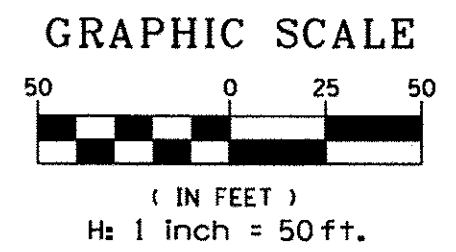
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 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

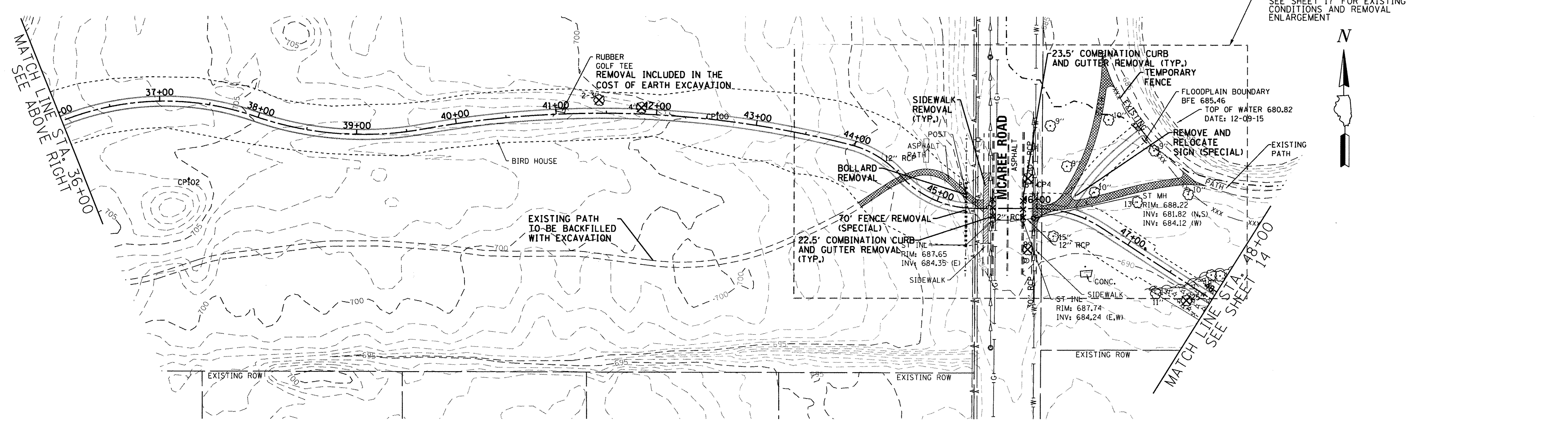
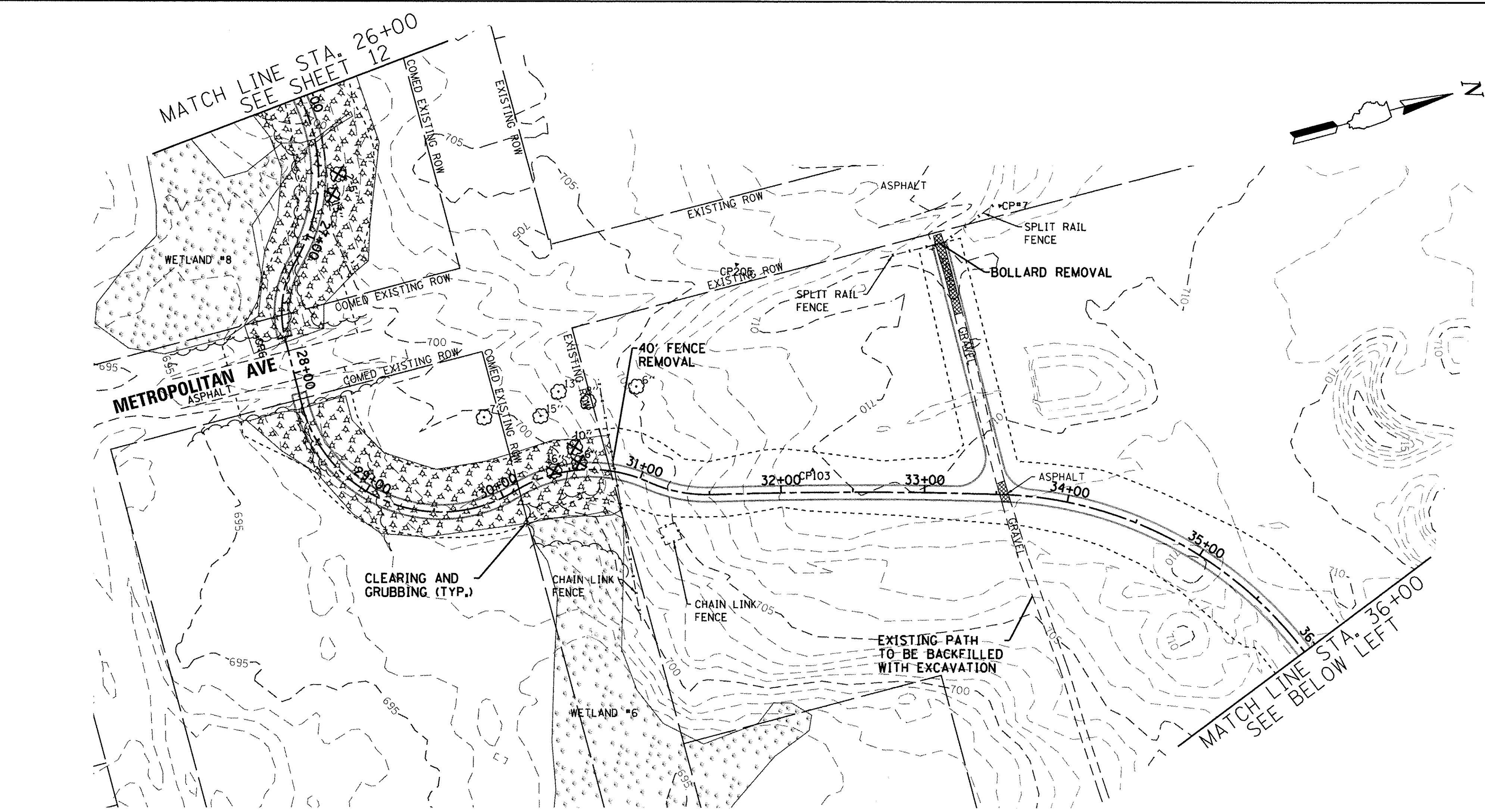
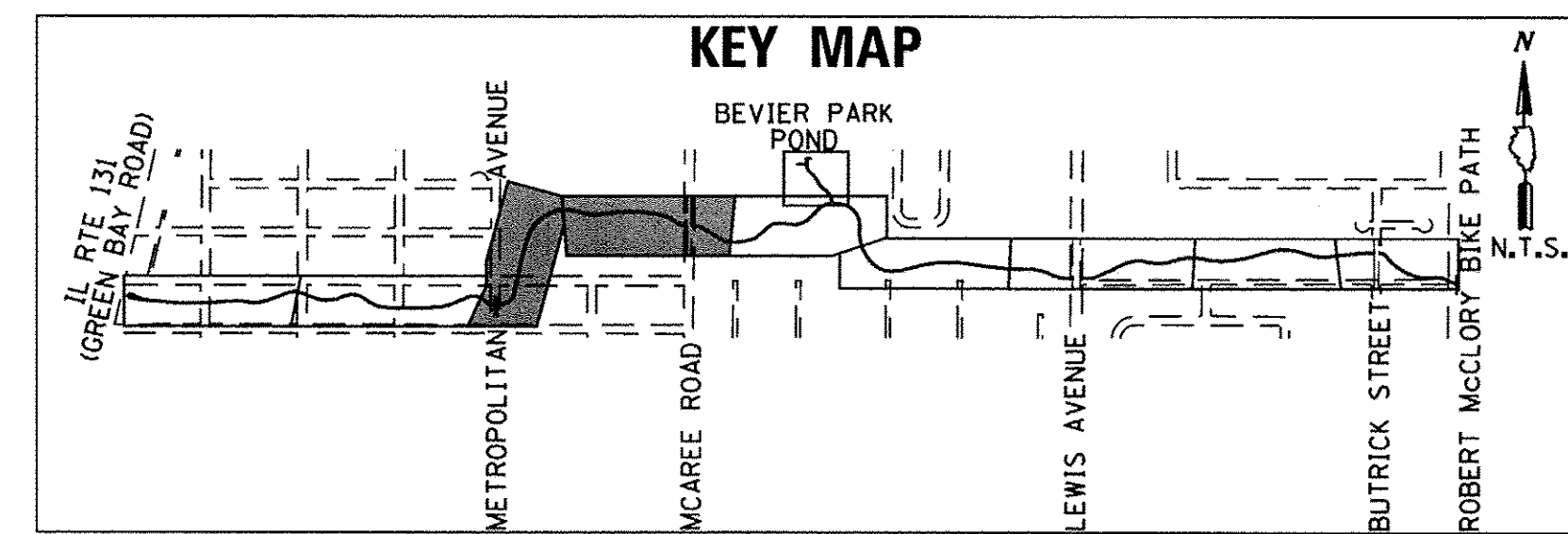
**EXISTING CONDITIONS & REMOVAL PLAN  
 LYONS WOODS TRAIL**

SCALE: 1"=50'    SHEET 1 OF 8 SHEETS    STA. 0+50.00 TO STA. 26+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	12
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



- LEGEND**
- EXISTING BOUNDARY LINE
  - ▨ EXISTING WETLAND
  - ▨ REGULATORY FLOODWAY
  - ▨ PAVEMENT REMOVAL
  - ▨ SIDEWALK REMOVAL
  - ▨ GRAVEL REMOVAL
  - ▨ CLEARING AND GRUBBING
  - ⊗ COMBINATION CURB AND GUTTER REMOVAL
  - ⊗ TREE REMOVAL
  - ⊗ UTILITY POLE REMOVAL
  - ⊗ FENCE REMOVAL SPECIAL
  - ⊗ EXISTING TREE/BRUSH LINE
  - EXISTING FIELD TILE/STORM SEWER
  - A — EXISTING OVERHEAD WIRES
  - EXISTING DRAIN TILE
  - - - FLOODPLAIN BOUNDARY
  - - - PROPOSED GRADING LIMITS
  - xxx - TEMPORARY FENCE



NOTE:  
SEE SHEET 17 FOR EXISTING  
CONDITIONS AND REMOVAL  
ENLARGEMENT

LAKE COUNTY FOREST PRESERVES  
 GEWALT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-e02-removal.dgn  
 GH# 4905.000  
 P#P\_01

USER NAME = MCoeman  
 PLOT SCALE = 1:50  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

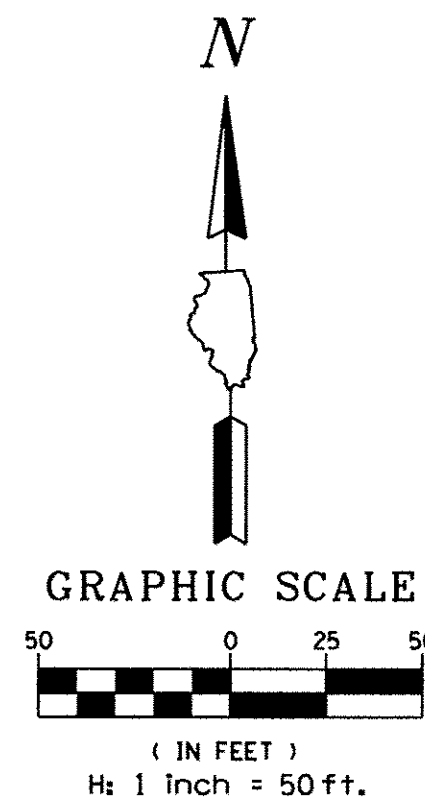
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

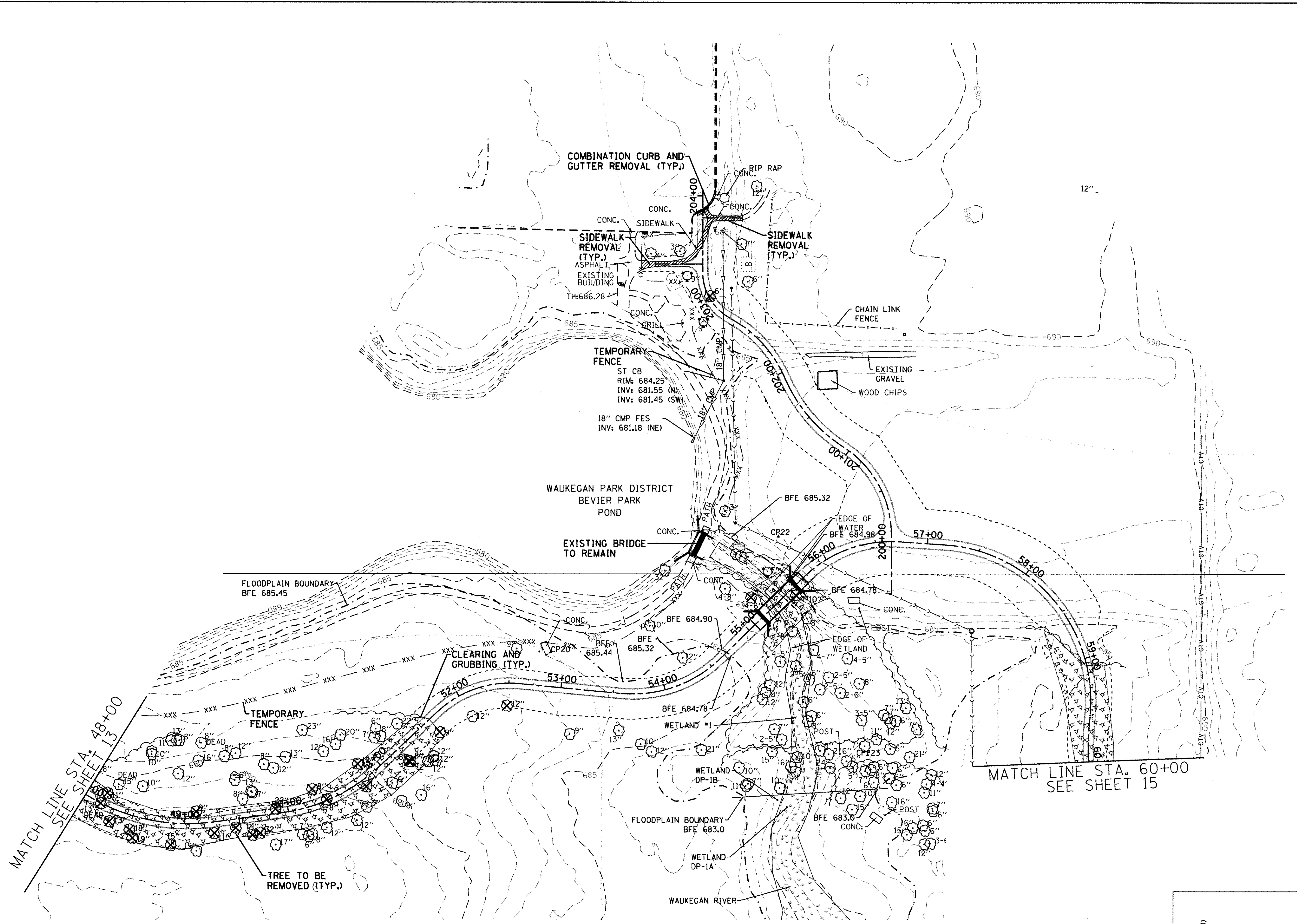
**EXISTING CONDITIONS & REMOVAL PLAN**  
**LYONS WOODS TRAIL**

SCALE: 1"=50'    SHEET 2 OF 8 SHEETS    STA. 26+00.00 TO STA. 48+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	13
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

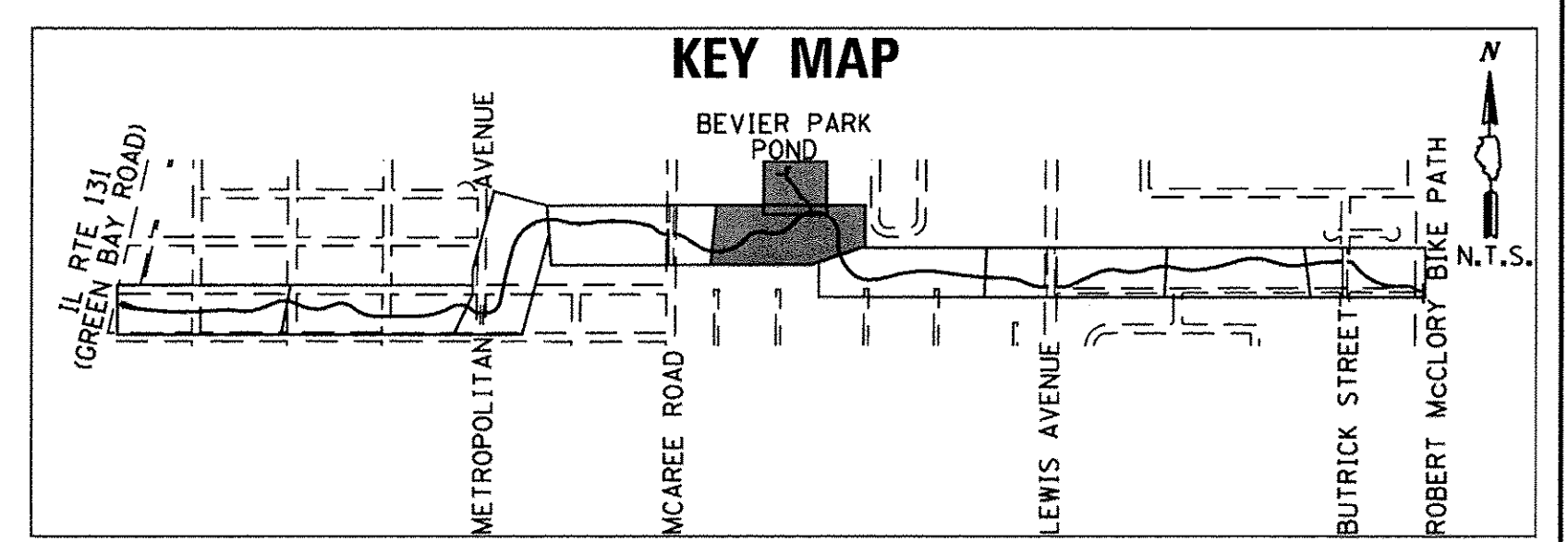


- LEGEND**
- EXISTING BOUNDARY LINE
  - ▭ EXISTING WETLAND
  - ▨ REGULATORY FLOODWAY
  - ▩ PAVEMENT REMOVAL
  - ▧ SIDEWALK REMOVAL
  - ▦ GRAVEL REMOVAL
  - ▥ CLEARING AND GRUBBING
  - x---x---x--- COMBINATION CURB AND GUTTER REMOVAL
  - ⊗ TREE REMOVAL
  - ⊗ UTILITY POLE REMOVAL
  - x---x---x--- FENCE REMOVAL SPECIAL
  - ~ EXISTING TREE/BRUSH LINE
  - EXISTING FIELD TILE/STORM SEWER
  - A --- EXISTING OVERHEAD WIRES
  - EXISTING DRAIN TILE
  - FLOODPLAIN BOUNDARY
  - PROPOSED GRADING LIMITS
  - xxx --- TEMPORARY FENCE



MATCH LINE STA. 48+00  
SEE SHEET 13

MATCH LINE STA. 60+00  
SEE SHEET 15



LAKE COUNTY FOREST PRESERVES  
 GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-e03-removal.dgn  
 GHA\* 4905.000  
 PnP-01

USER NAME = McColeman  
 PLOT SCALE = 1:50  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

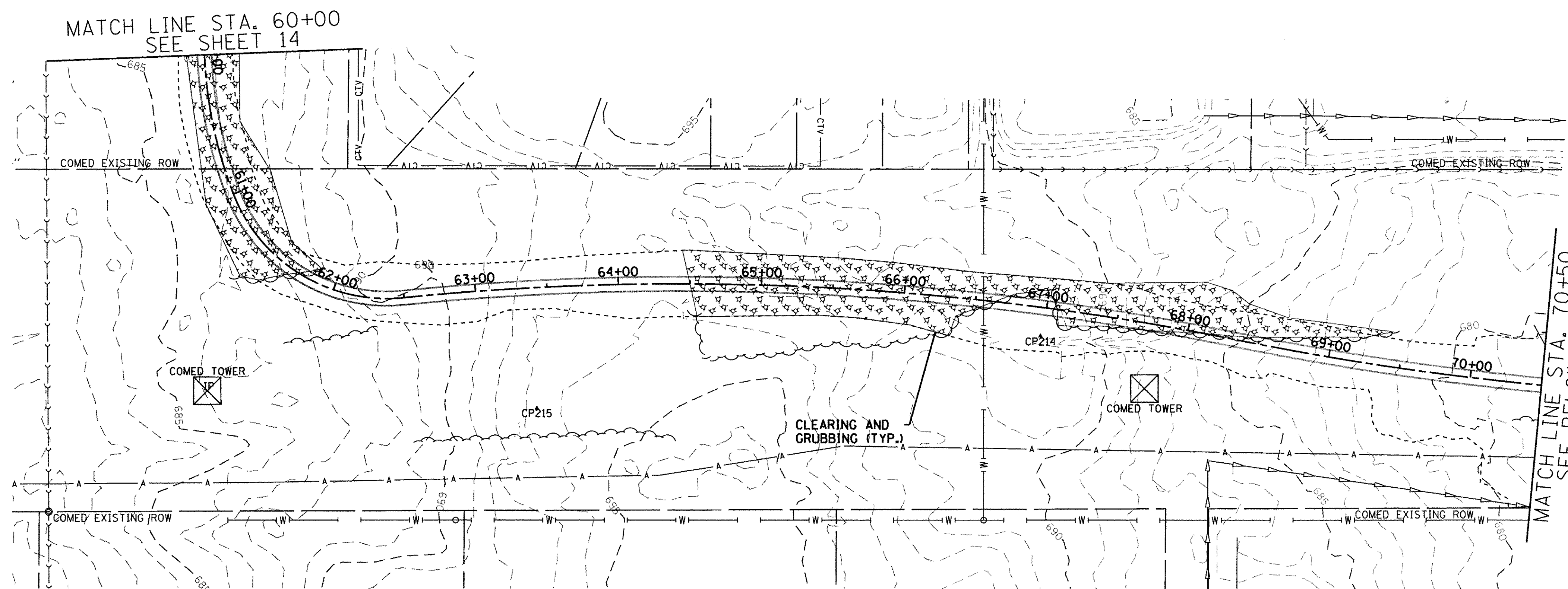
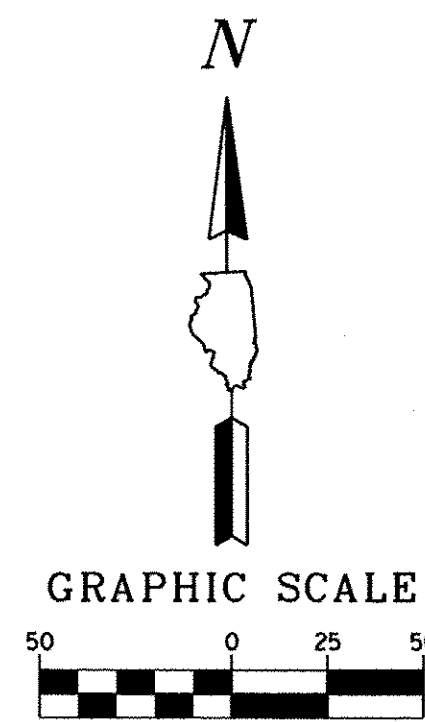
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

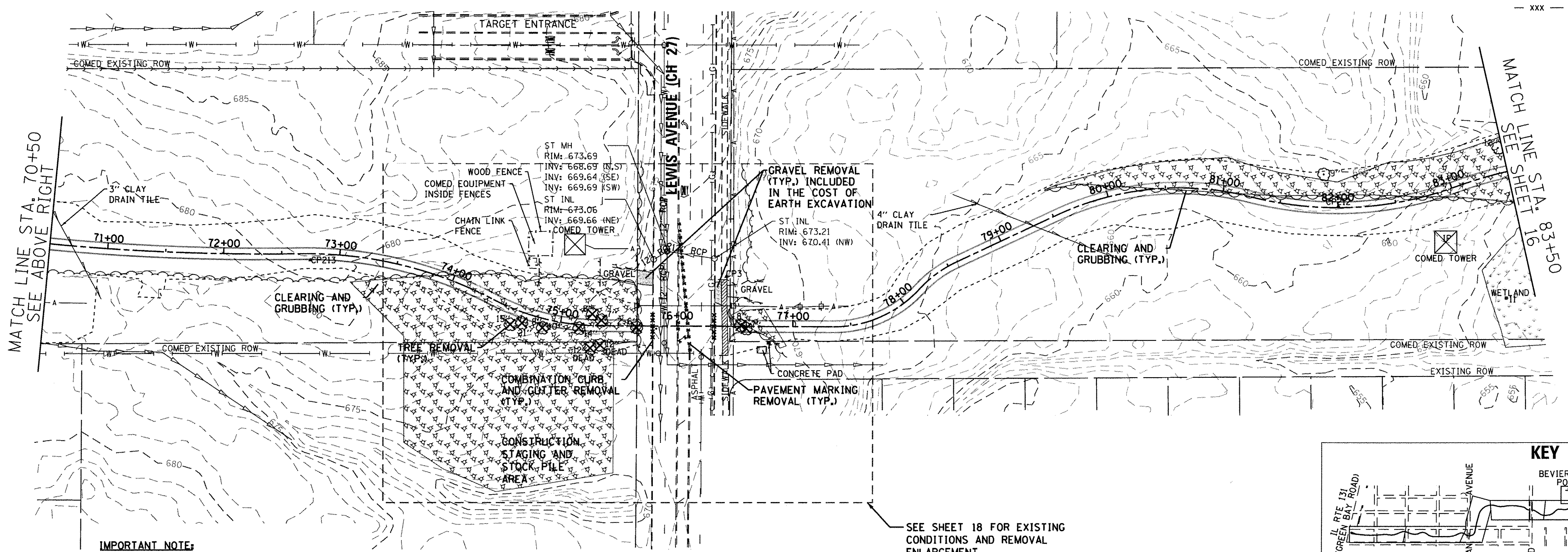
**EXISTING CONDITIONS & REMOVAL PLAN**  
**LYONS WOODS TRAIL**

SCALE: 1"=50'    SHEET 3 OF 8 SHEETS    STA. 48+00.00 TO STA. 60+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	14
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

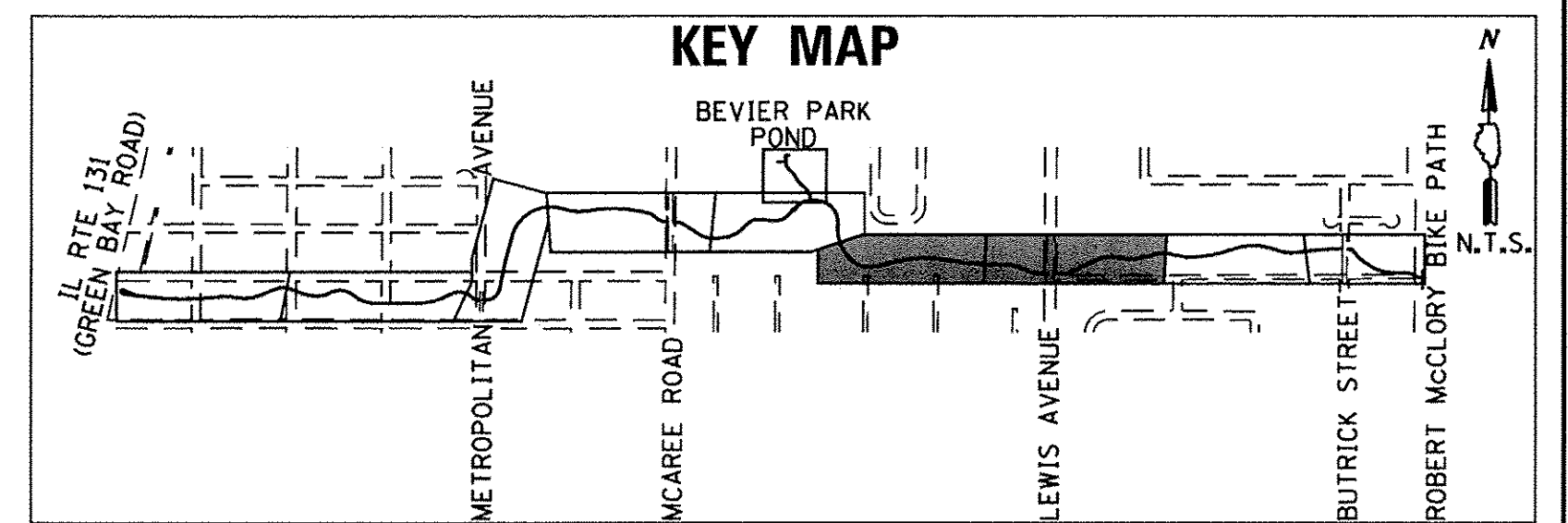


- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - PAVEMENT REMOVAL
  - SIDEWALK REMOVAL
  - GRAVEL REMOVAL
  - CLEARING AND GRUBBING
  - COMBINATION CURB AND GUTTER REMOVAL
  - TREE REMOVAL
  - UTILITY POLE REMOVAL
  - FENCE REMOVAL SPECIAL
  - EXISTING TREE/BRUSH LINE
  - EXISTING FIELD TILE/STORM SEWER
  - EXISTING OVERHEAD WIRES
  - EXISTING DRAIN TILE
  - FLOODPLAIN BOUNDARY
  - PROPOSED GRADING LIMITS
  - xxx --- TEMPORARY FENCE



**IMPORTANT NOTE:**  
PRIOR TO CLEARING AND GRUBBING THIS AREA, THE CONTRACTOR SHALL COORDINATE WITH THE WAUKEGAN PARK DISTRICT FOR LIMITS OF CLEARING AND IF ANY TREES ARE TO REMAIN.

SEE SHEET 18 FOR EXISTING CONDITIONS AND REMOVAL ENLARGEMENT



LAKE COUNTY FOREST PRESERVES



GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME =	USER NAME = MCoeman
4905-e04-removal.dgn	
GHA 4905.000	
PnP-01	

DESIGNED - MKH	REVISD -
DRAWN - PJS	REVISD -
CHECKED - DJS	REVISD -
DATE -	REVISD -

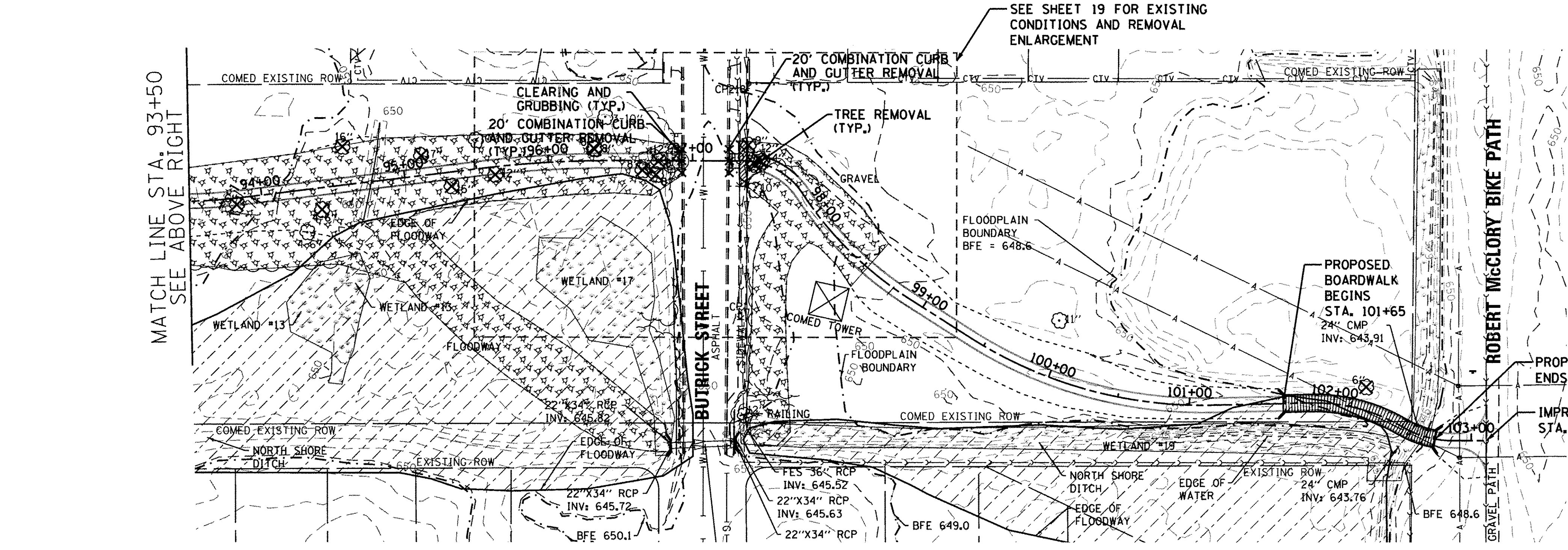
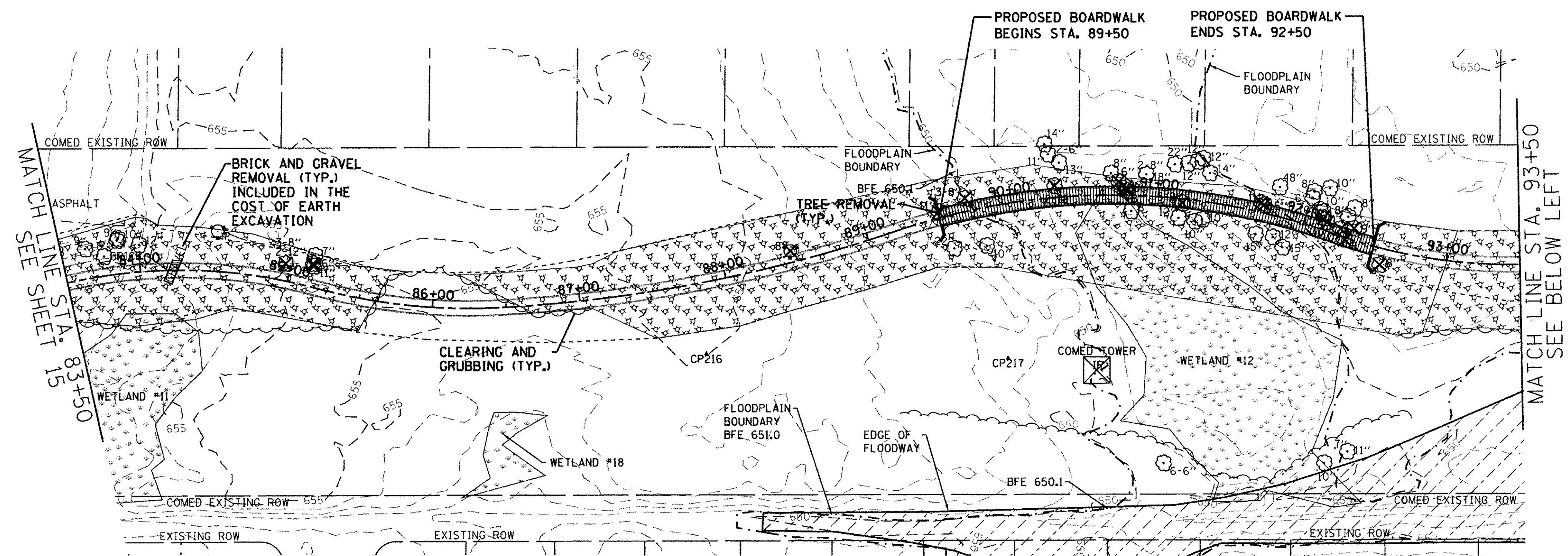
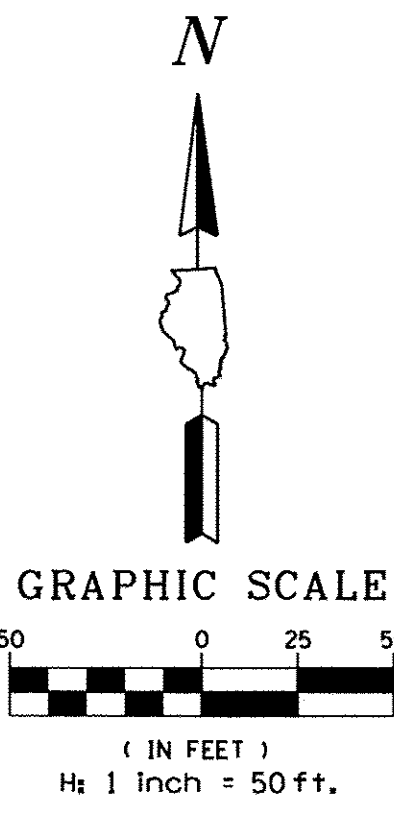
DESIGNED - MKH	REVISD -
DRAWN - PJS	REVISD -
CHECKED - DJS	REVISD -
DATE -	REVISD -

DESIGNED - MKH	REVISD -
DRAWN - PJS	REVISD -
CHECKED - DJS	REVISD -
DATE -	REVISD -

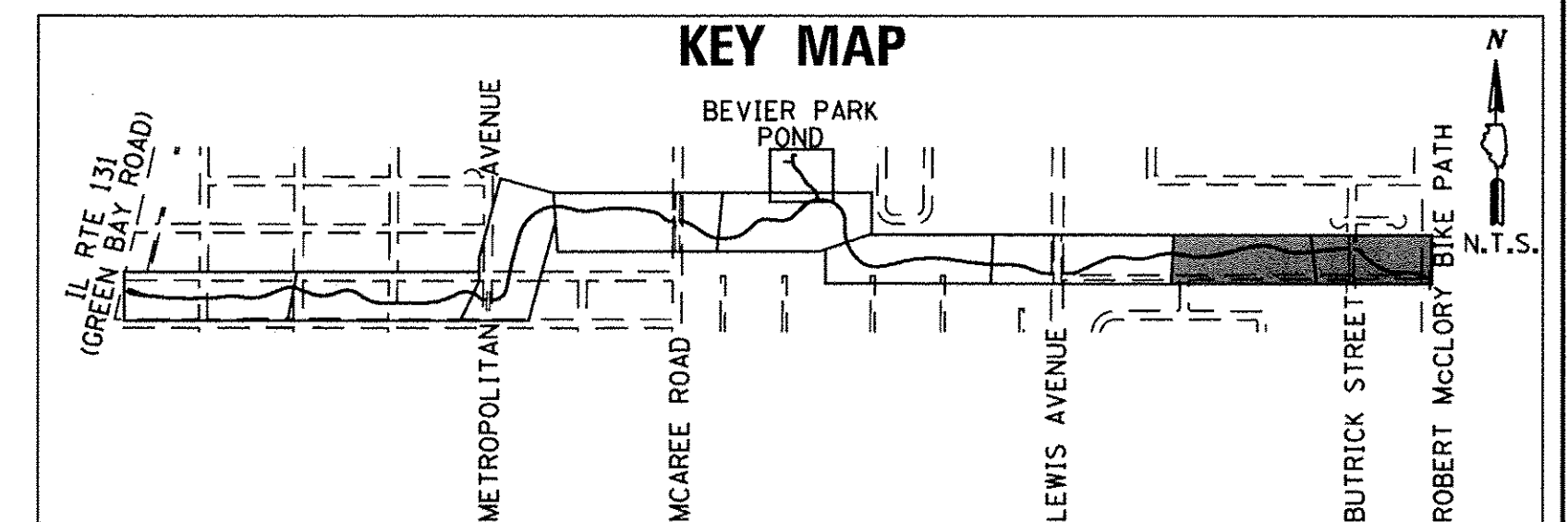
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>EXISTING CONDITIONS &amp; REMOVAL PLAN</b>			
<b>LYONS WOODS TRAIL</b>			
SCALE: 1"=50'	SHEET 4	OF 8 SHEETS	STA. 60+00.00 TO STA. 84+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	15
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



- LEGEND**
- EXISTING BOUNDARY LINE
  - ▨ EXISTING WETLAND
  - ▨ REGULATORY FLOODWAY
  - ▨ PAVEMENT REMOVAL
  - ▨ SIDEWALK REMOVAL
  - ▨ GRAVEL REMOVAL
  - ▨ CLEARING AND GRUBBING
  - XXXXX COMBINATION CURB AND GUTTER REMOVAL
  - ⊗ TREE REMOVAL
  - ⊗ UTILITY POLE REMOVAL
  - - - FENCE REMOVAL SPECIAL
  - ~ EXISTING TREE/BRUSH LINE
  - EXISTING FIELD TILE/STORM SEWER
  - A - EXISTING OVERHEAD WIRES
  - EXISTING DRAIN TILE
  - - - FLOODPLAIN BOUNDARY
  - - - PROPOSED GRADING LIMITS
  - xxx - TEMPORARY FENCE



LAKE COUNTY FOREST PRESERVES  
 GEWALT HAMILTON ASSOCIATES, INC.  
 PrP.01

FILE NAME = 4905-e05-removal.dgn	USER NAME = McColeman	DESIGNED - MKH	REVISED - 11/9/2016
GHA* 4905.000	PLOT SCALE = 1:50	DRAWN - PJS	REVISED -
PrP.01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

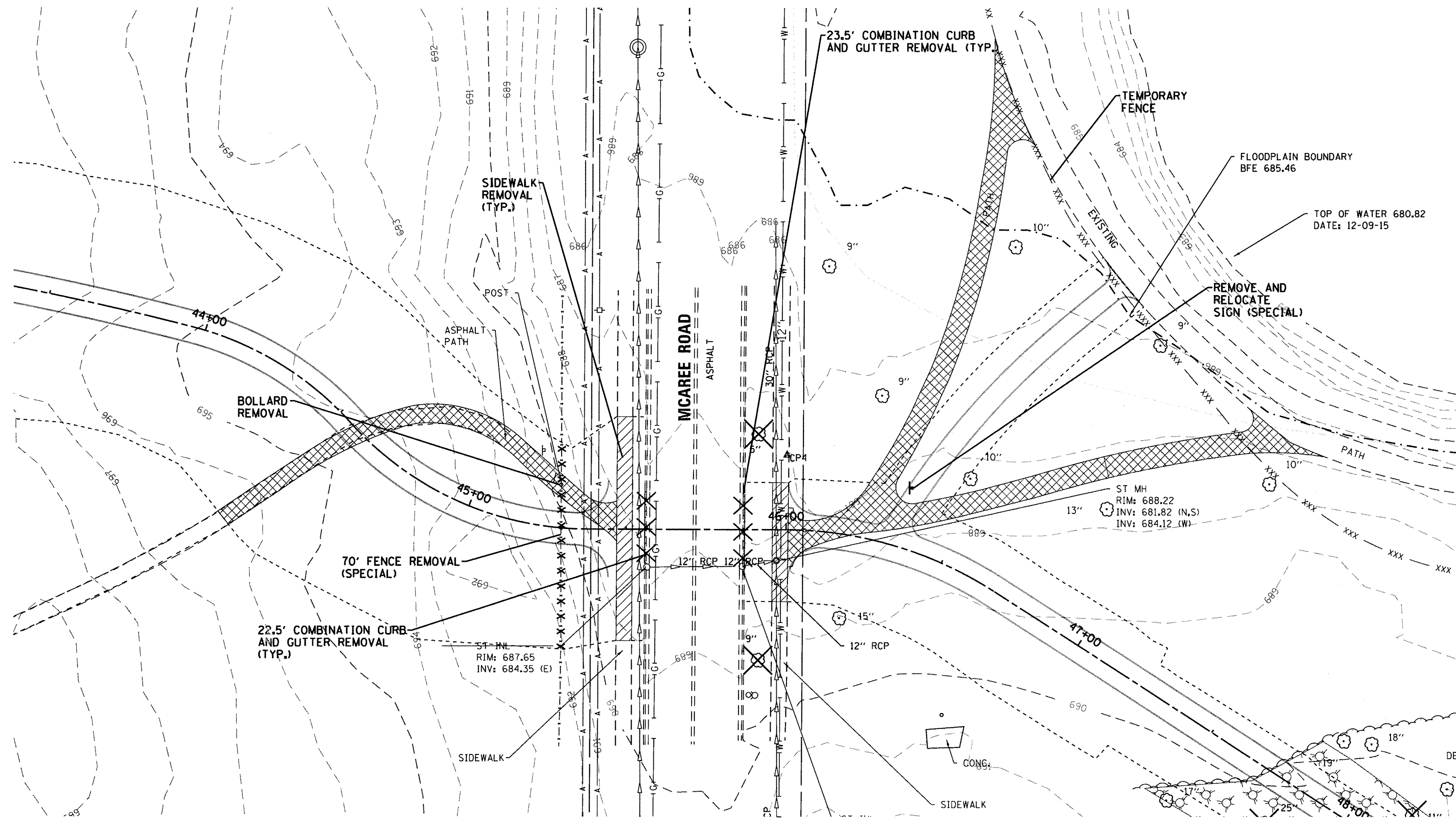
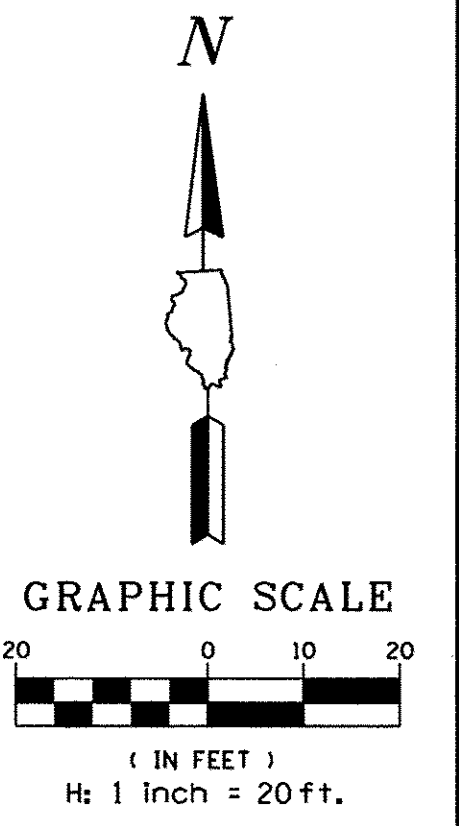
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING CONDITIONS & REMOVAL PLAN  
LYONS WOODS TRAIL**

SCALE: 1"=50' SHEET 5 OF 8 SHEETS STA. 84+00.00 TO STA. 103+62.13

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	16
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				





**LEGEND**

- |  |                                     |  |                                 |
|--|-------------------------------------|--|---------------------------------|
|  | EXISTING BOUNDARY LINE              |  | FIELD TILE/STORM SEWER REMOVAL  |
|  | EXISTING WETLAND                    |  | FENCE REMOVAL                   |
|  | REGULATORY FLOODWAY                 |  | EXISTING TREE/BRUSH LINE        |
|  | PAVEMENT REMOVAL                    |  | EXISTING FIELD TILE/STORM SEWER |
|  | SIDEWALK REMOVAL                    |  | EXISTING OVERHEAD WIRES         |
|  | GRAVEL REMOVAL                      |  | FLOODPLAIN BOUNDARY             |
|  | COMBINATION CURB AND GUTTER REMOVAL |  | PROPOSED GRADING LIMITS         |
|  | TREE REMOVAL                        |  | TEMPORARY FENCE                 |
|  | UTILITY POLE REMOVAL                |  |                                 |

LAKE COUNTY FOREST PRESERVES  
  
 GEVAULT HAMILTON ASSOCIATES, INC.

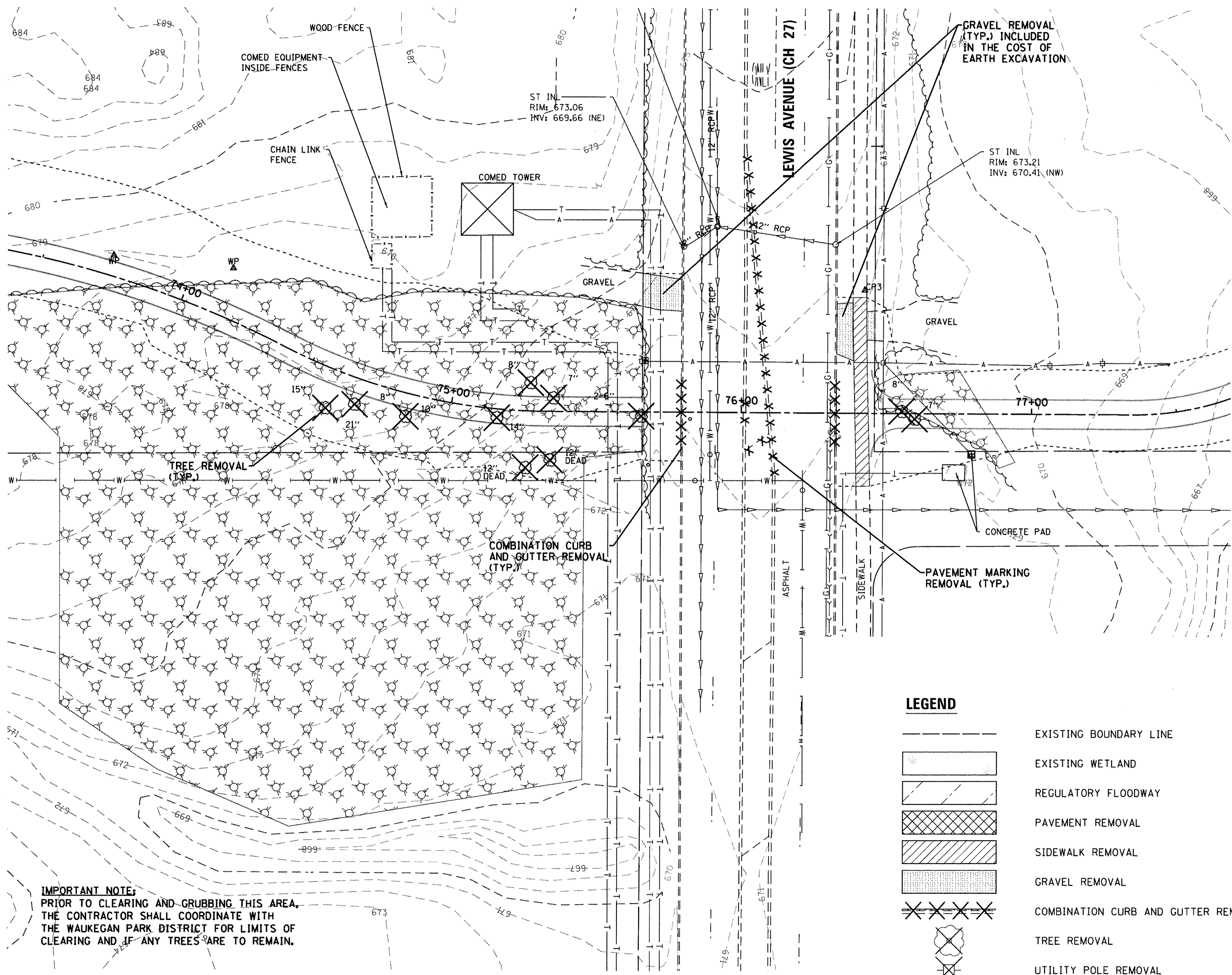
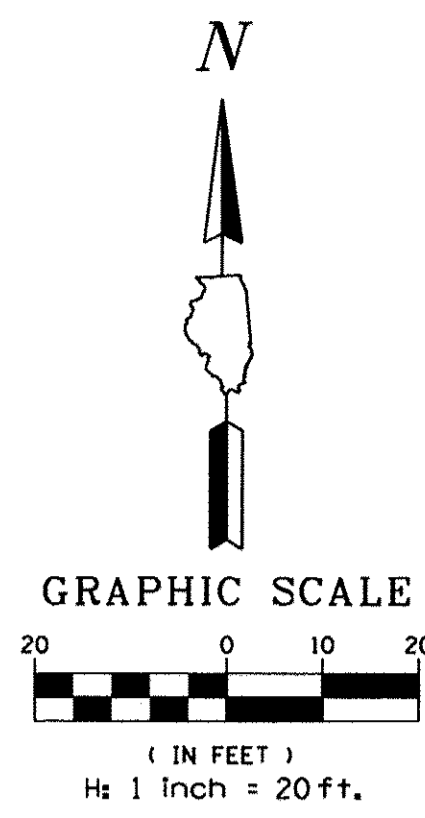
FILE NAME = 4905-e06-removal McArea Enlargement.dgn	USER NAME = M Coleman	DESIGNED - MKH	REVISED -
GHA# 4905.000	PLOT SCALE = 1:20	DRAWN - PJS	REVISED -
PrP_01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

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

**EXISTING CONDITIONS & REMOVAL PLAN**  
**LYONS WOODS TRAIL AT MICAREE ROAD**

SCALE: 1"=20'    SHEET 6 OF 8 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	17
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



**IMPORTANT NOTE:**  
 PRIOR TO CLEARING AND GRUBBING THIS AREA,  
 THE CONTRACTOR SHALL COORDINATE WITH  
 THE WAUKEGAN PARK DISTRICT FOR LIMITS OF  
 CLEARING AND IF ANY TREES ARE TO REMAIN.

**LEGEND**

- EXISTING BOUNDARY LINE
- EXISTING WETLAND
- REGULATORY FLOODWAY
- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- GRAVEL REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- TREE REMOVAL
- UTILITY POLE REMOVAL
- FIELD TILE/STORM SEWER REMOVAL
- FENCE REMOVAL
- EXISTING TREE/BRUSH LINE
- EXISTING FIELD TILE/STORM SEWER
- EXISTING OVERHEAD WIRES
- FLOODPLAIN BOUNDARY
- PROPOSED GRADING LIMITS
- TEMPORARY FENCE

LAKE COUNTY  
FOREST PRESERVES



GEVALT HAMILTON  
ASSOCIATES, INC.

FILE NAME = 4905-e07-removal Lewis Enlargement.dgn  
 GHA\* 4905.000  
 PnP-01

USER NAME = McColeman  
 PLOT SCALE = 1/4"=20'  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

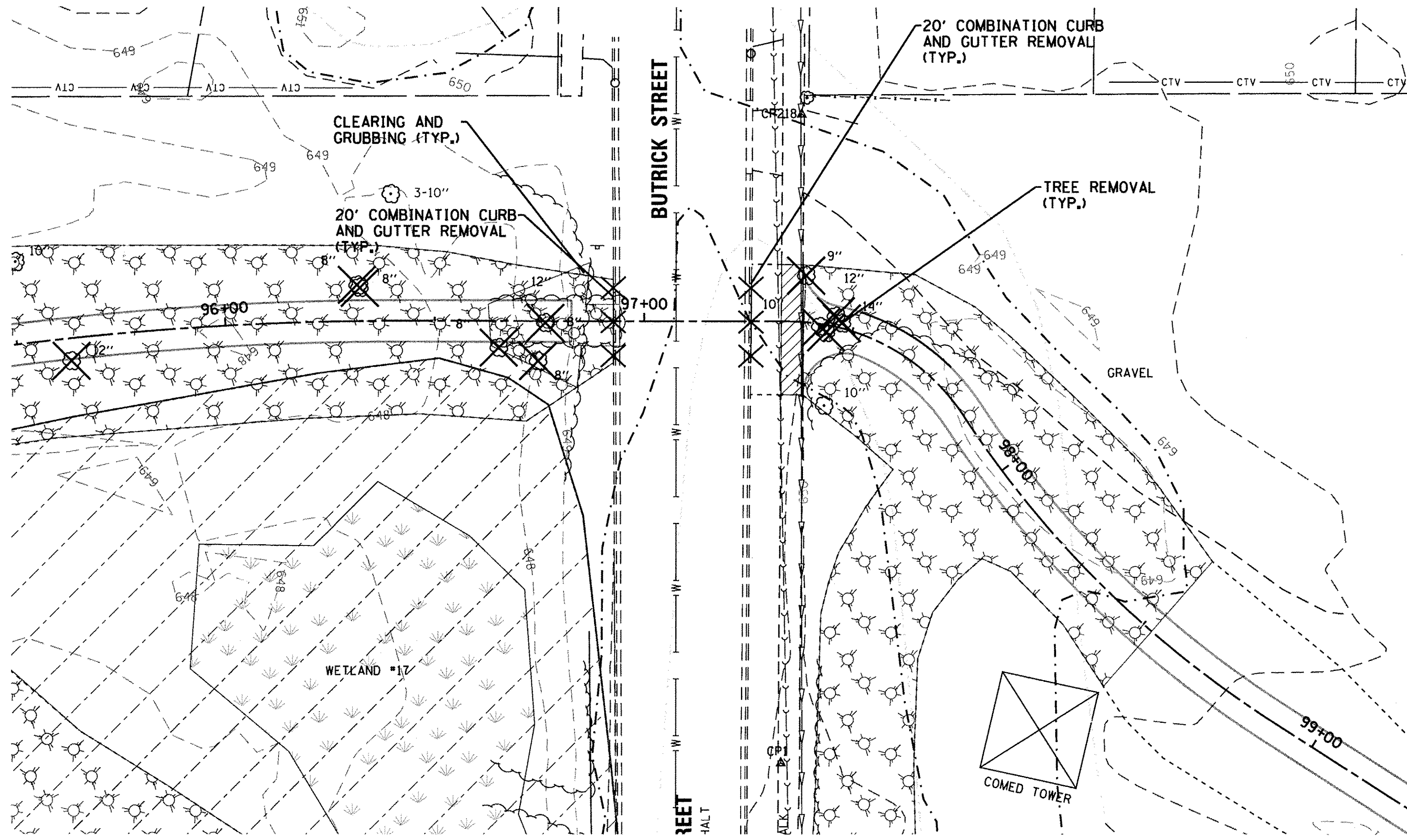
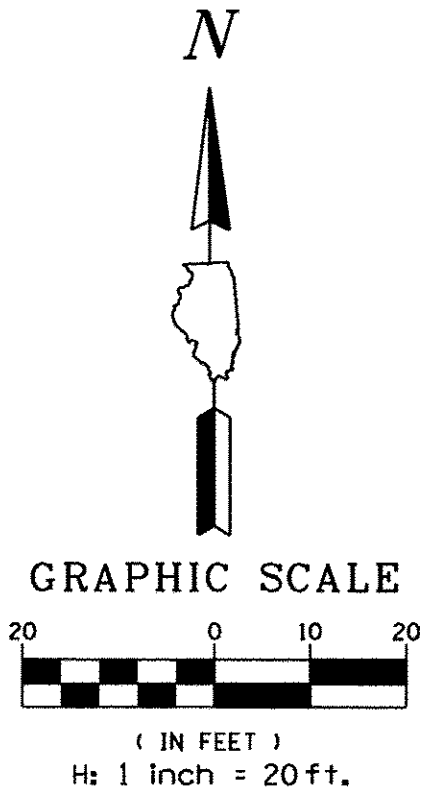
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EXISTING CONDITIONS & REMOVAL PLAN  
 LYONS WOODS TRAIL AT LEWIS AVENUE**

SCALE: 1"=20' SHEET 7 OF 8 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	18
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



**LEGEND**

- EXISTING BOUNDARY LINE
- EXISTING WETLAND
- REGULATORY FLOODWAY
- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- GRAVEL REMOVAL
- COMBINATION CURB AND GUTTER REMOVAL
- TREE REMOVAL
- UTILITY POLE REMOVAL
- FIELD TILE/STORM SEWER REMOVAL
- FENCE REMOVAL
- EXISTING TREE/BRUSH LINE
- EXISTING FIELD TILE/STORM SEWER
- EXISTING OVERHEAD WIRES
- FLOODPLAIN BOUNDARY
- PROPOSED GRADING LIMITS
- TEMPORARY FENCE

LAKE COUNTY FOREST PRESERVES



GEVALT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-e08-removal Butrick Enlargement.dwg	USER NAME = MCoeman	DESIGNED - MKH	REVISED -
PLOT SCALE = 1:20	CHECKED - DJS	DRAWN - PJS	REVISED -
PLOT DATE = 11/14/2016	DATE -		REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

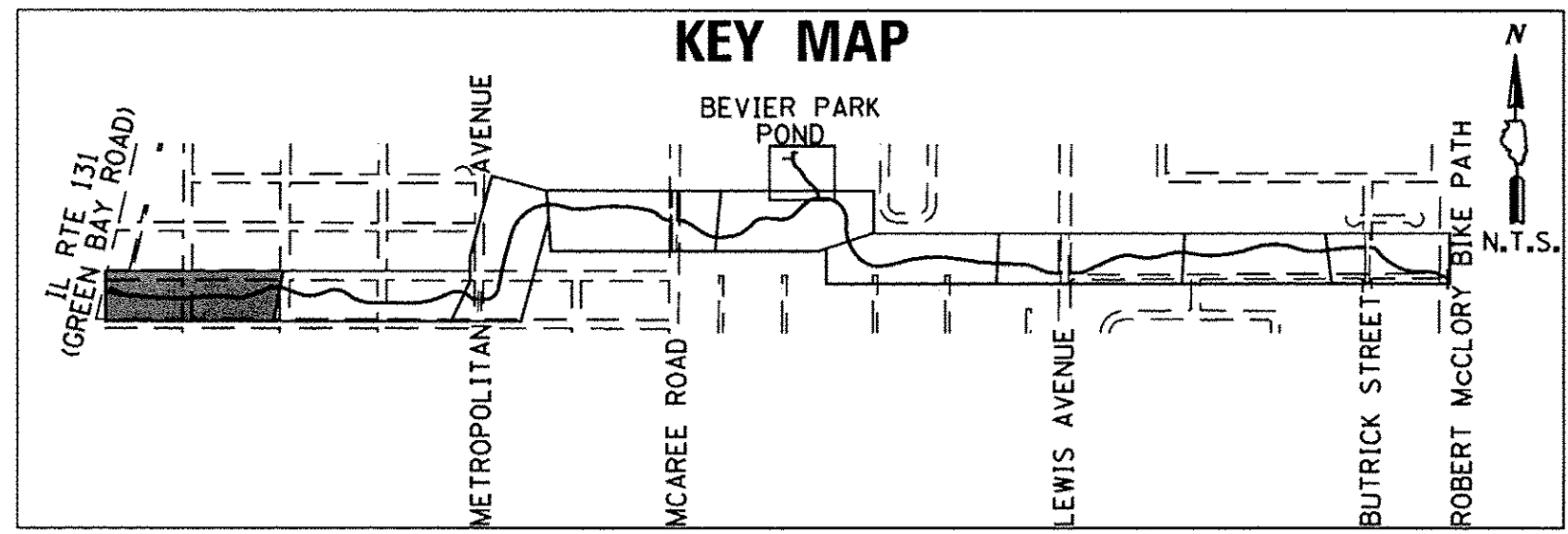
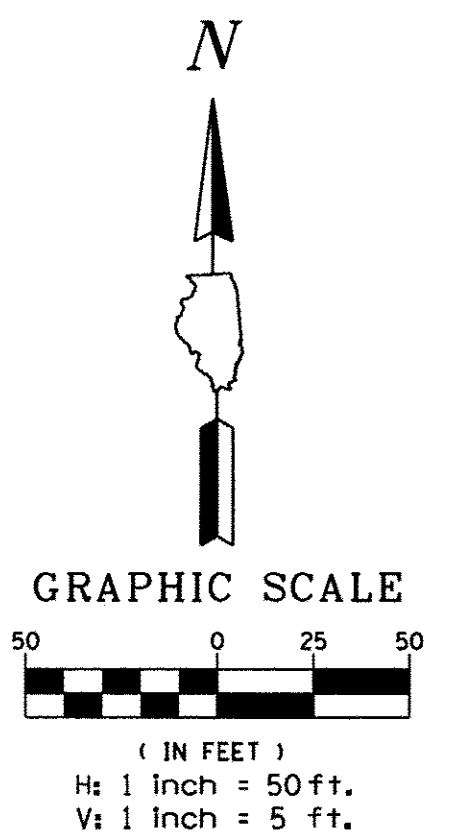
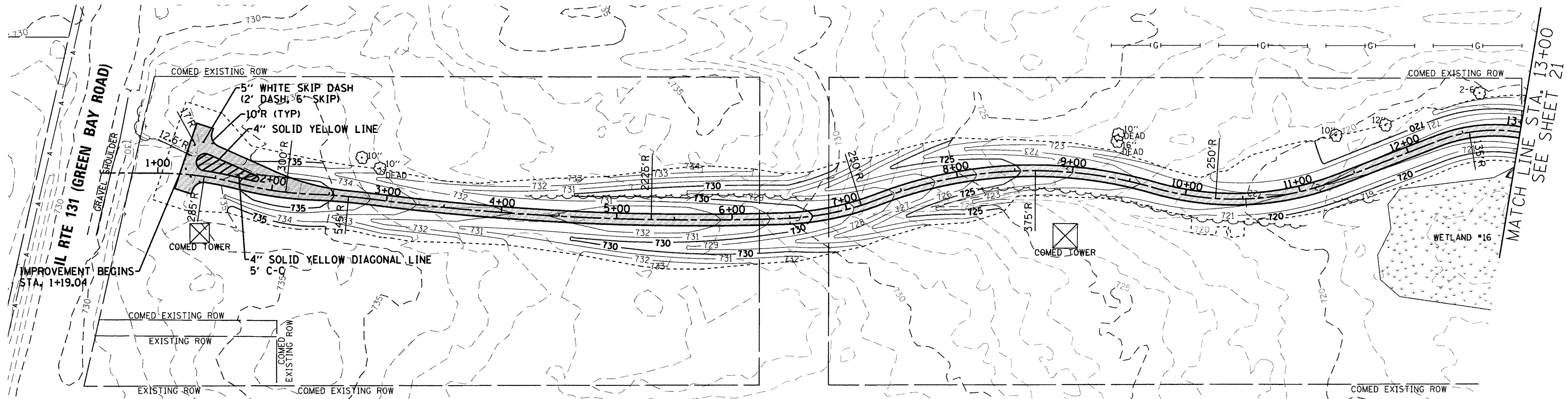
**EXISTING CONDITIONS & REMOVAL PLAN  
LYONS WOODS TRAIL AT BUTRICK STREET**

SCALE: 1"=20'    SHEET 8 OF 8 SHEETS    STA. TO STA.

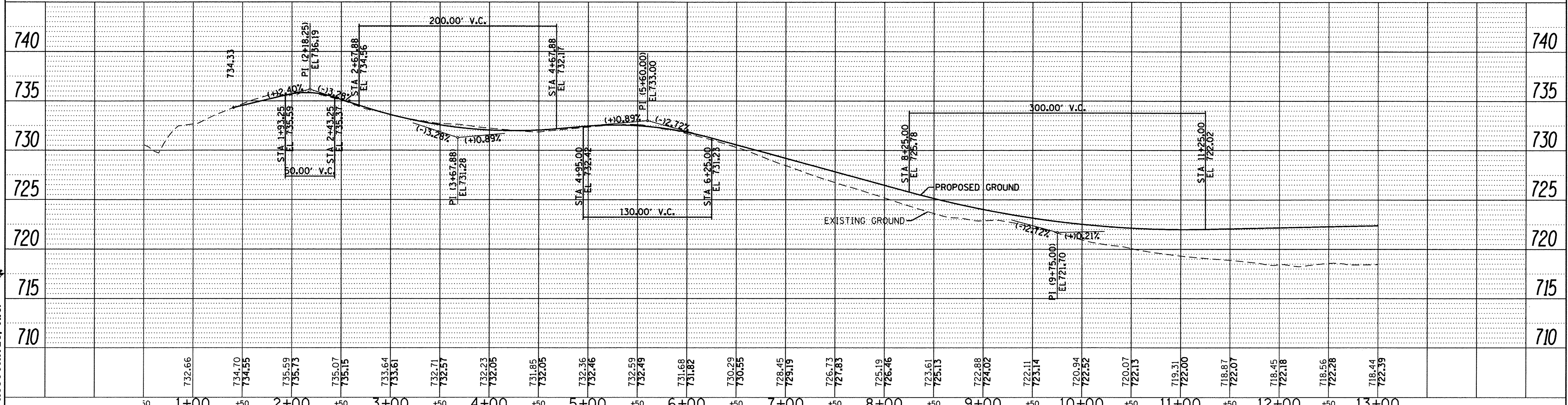
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	19
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
	ALLOTTED	McColeman	11/17/2016
	CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME	4905-F01-plnpr.f.dgn	
	NO.		

PROFILE	SURVEYED	BY	DATE
	ALLOTTED	McColeman	11/17/2016
	CHECKED		
	RT. OF WAY CHECKED		
	STRUCTURE NOTATIONS CPWD		
	NO.		



LEGEND	
	EXISTING BOUNDARY LINE
	EXISTING WETLAND
	PROPOSED WETLAND IMPACT
	PROPOSED HMA SURFACE COURSE, MIX D, N50
	PROPOSED SIDEWALK 5"
	DETECTABLE WARNINGS
	TEMPORARY FENCE

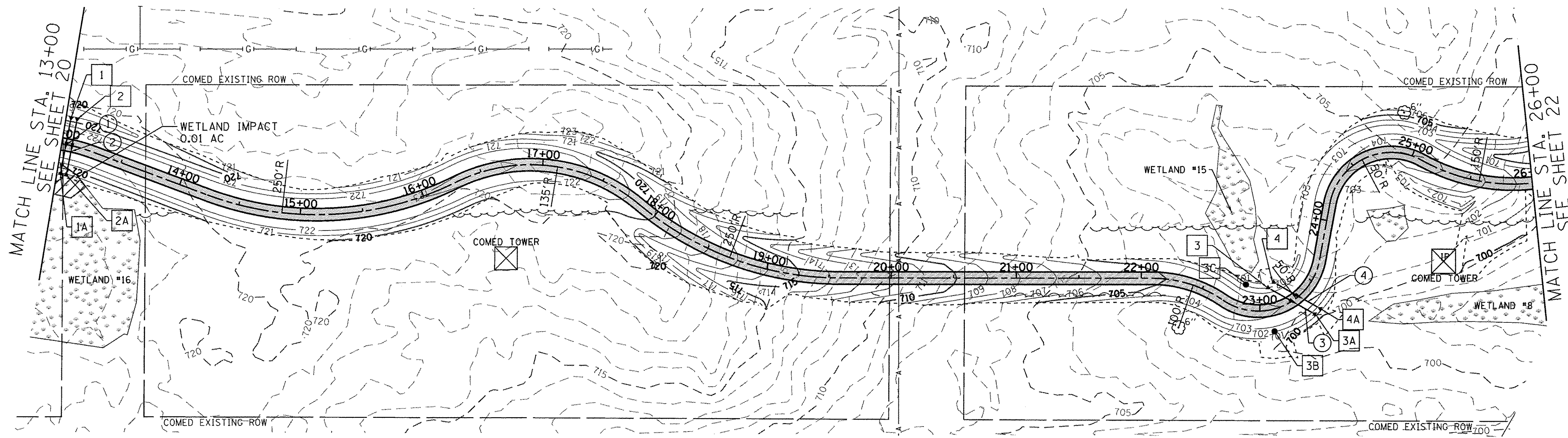


FILE NAME = 4905-F01-plnpr.f.dgn	USER NAME = McColeman	DESIGNED - MKH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE LYONS WOODS TRAIL	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
GHA* 4905.000	PLOT SCALE = 1/50	DRAWN - PJS	REVISED -			14-F3000-04-BT	LAKE	116	20		
PrP_01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -			CONTRACT NO. 61C67	ILLINOIS FED. AID PROJECT				
						SCALE: 1"=50'	SHEET 1 OF 10 SHEETS	STA. 0+50.00	TO STA. 13+00.00		

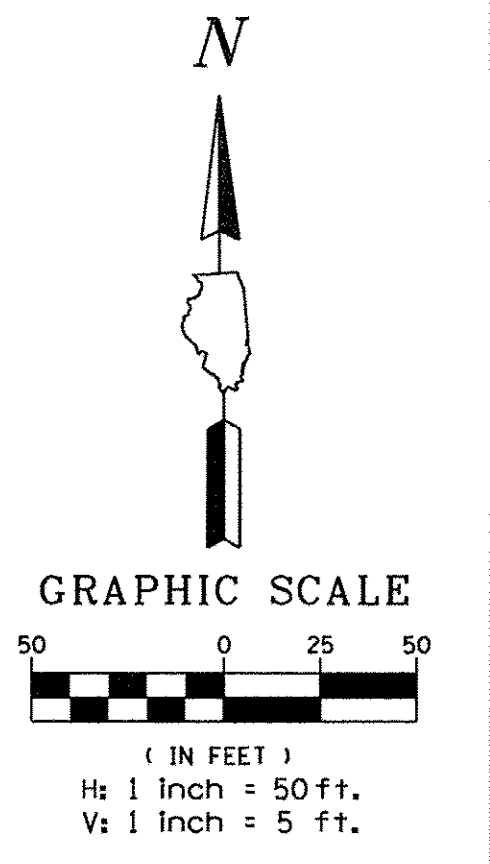
PLAN	DATE	BY
NO.	7/18/2016	MColeman
NO.	4905-F02-DRP-F.dgn	

PROFILE	DATE	BY
NO.	7/18/2016	MColeman
NO.	4905-F02-DRP-F.dgn	

LAKE COUNTY FOREST PRESERVES  
GEWALT HAMILTON ASSOCIATES, INC.



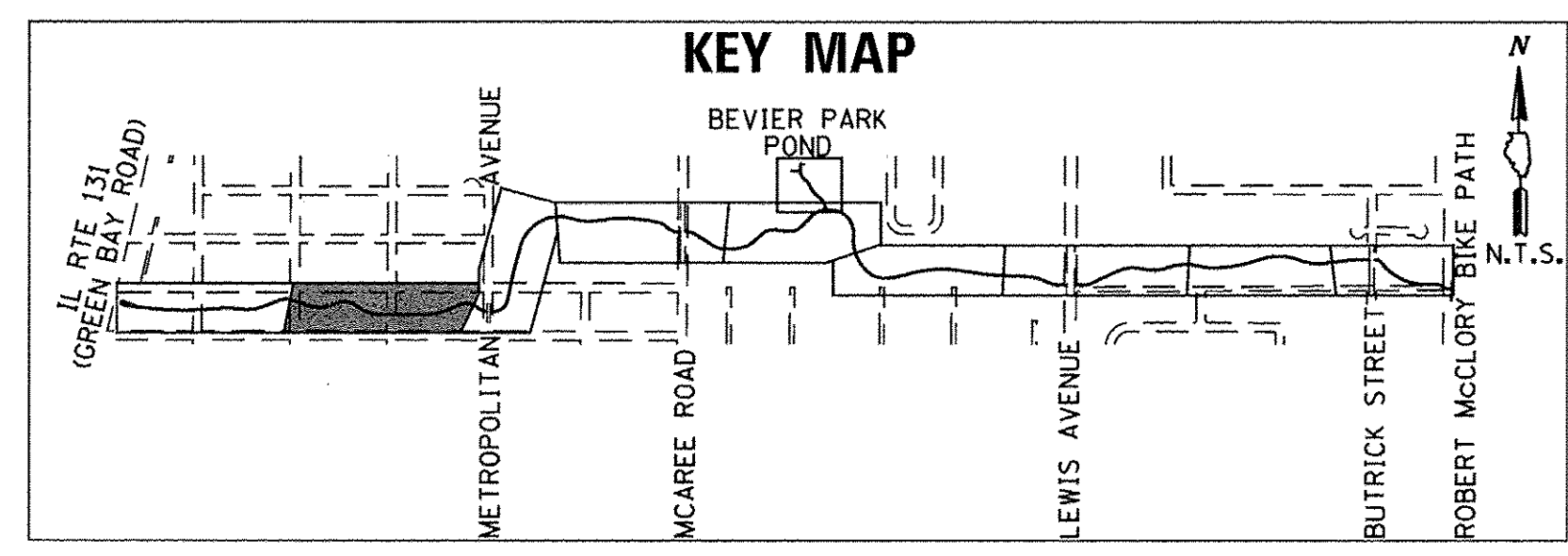
- 1 21" CMP FES  
18" HDPE, INV: 718.33  
STA: 13+03.44  
O/S: 25.77' LT
- 1A 21" CMP FES  
18" HDPE, INV: 718.15  
STA: 13+03.44  
O/S: 25.48' RT
- 2 21" CMP FES  
18" HDPE, INV: 718.33  
STA: 13+07.62  
O/S: 25.73' LT
- 2A 21" CMP FES  
18" HDPE, INV: 718.15  
STA: 13+09.59  
O/S: 25.73' RT
- 3 21" CMP FES  
18" HDPE, INV: 700.85  
STA: 23+10.90  
O/S: 17.60' LT
- 3A 21" CMP FES  
18" HDPE, INV: 700.50  
STA: 23+34.24  
O/S: 19.08' RT
- 3B INLET  
TYP "A" TY 1 FRAME,  
CLOSED LID  
STA: 23+08.41  
O/S: 17.50' RT  
RIM: 700.24
- 3C INLET  
TYP "A" TY 1 FRAME,  
CLOSED LID  
STA: 22+82.21  
O/S: 19.50' LT  
RIM: 700.81
- 4 21" CMP FES  
18" HDPE, INV: 700.85  
STA: 23+20.11  
O/S: 20.20' LT
- 4A 21" CMP FES  
18" HDPE, INV: 700.50  
STA: 23+38.79  
O/S: 19.05' RT



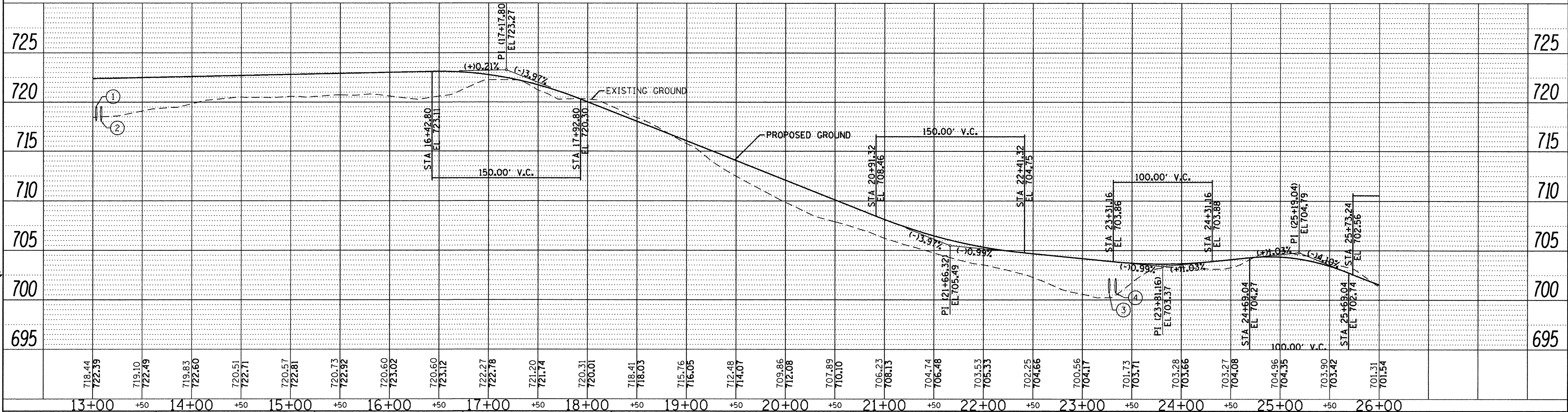
- 1 40 LF OF 18" HDPE @ 0.45%
- 2 40 LF OF 18" HDPE @ 0.45%
- 3 36 LF OF 18" HDPE @ 0.95%
- 4 36 LF OF 18" HDPE @ 0.95%

**LEGEND**

- EXISTING BOUNDARY LINE
- EXISTING WETLAND
- /// PROPOSED WETLAND IMPACT
- PROPOSED HMA SURFACE COURSE, MIX D, N50
- PROPOSED SIDEWALK 5"
- DETECTABLE WARNINGS
- xxx - TEMPORARY FENCE



NOTE:  
SEE SHEET 37 FOR DRAINAGE  
ENLARGEMENT



FILE NAME = 4905-f02-plnpr-f.dgn	USER NAME = MColeman	DESIGNED - MKH	REVISED - 11/9/2016	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE</b> <b>LYONS WOODS TRAIL</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GHA* 4905.000	PLOT SCALE = 1:50	CHECKED - DJS	REVISED -		SCALE: 1"=50'	SHEET 2	OF 10 SHEETS	14-F3000-04-BT	LAKE	116	21
PLNPR-01	PLOT DATE = 11/18/2016	DATE -	REVISED -		STA. 13+00.00	TO STA. 26+00.00	CONTRACT NO. 61C67		ILLINOIS FED. AID PROJECT		

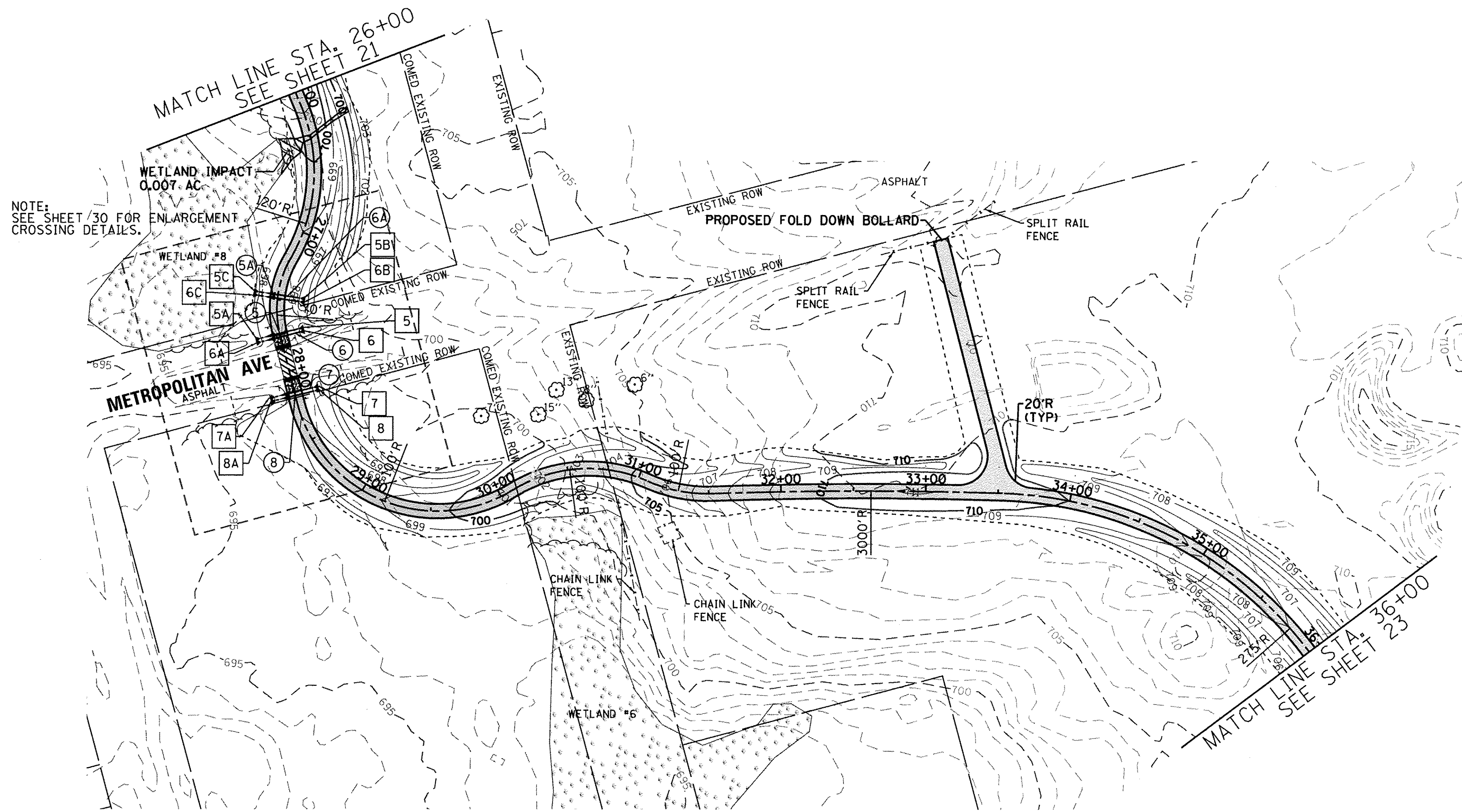
PLAN	SURVEYED	DATE	BY
	ALUMINUM CHECKED	12/17/2015	McGibbon
	PT. OF WAY CHECKED		
	CADD FILE NAME	4905-F03-FDRPT.dgn	
	NO.		

PROFILE	SURVEYED	DATE	BY
	GRADES CHECKED	12/17/2015	McGibbon
	S.M. NOTED		
	STRUCTURE NOTATIONS CHKD		
	NO.		

LAKE COUNTY  
FOREST PRESERVES

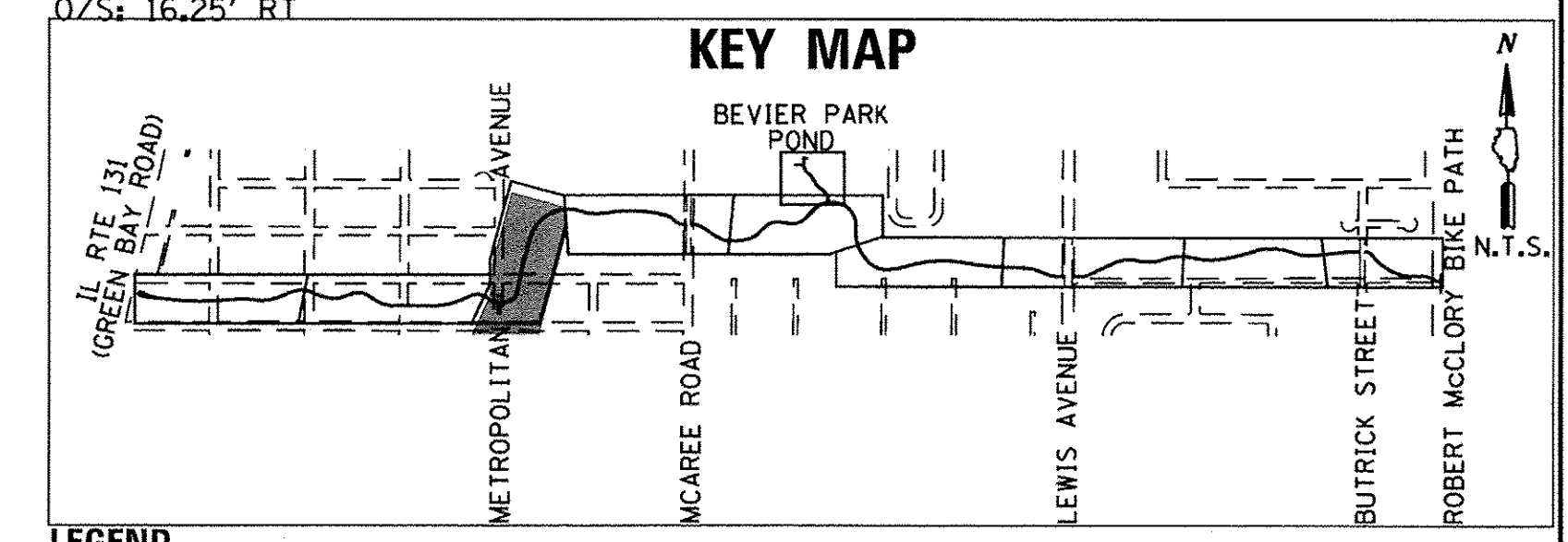
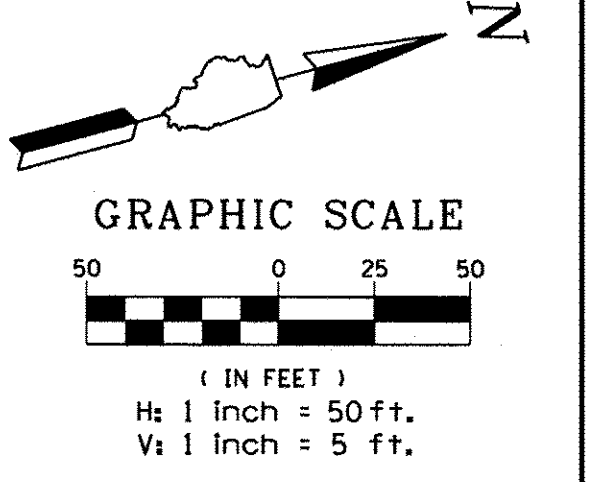


GEWALT HAMILTON  
ASSOCIATES, INC.



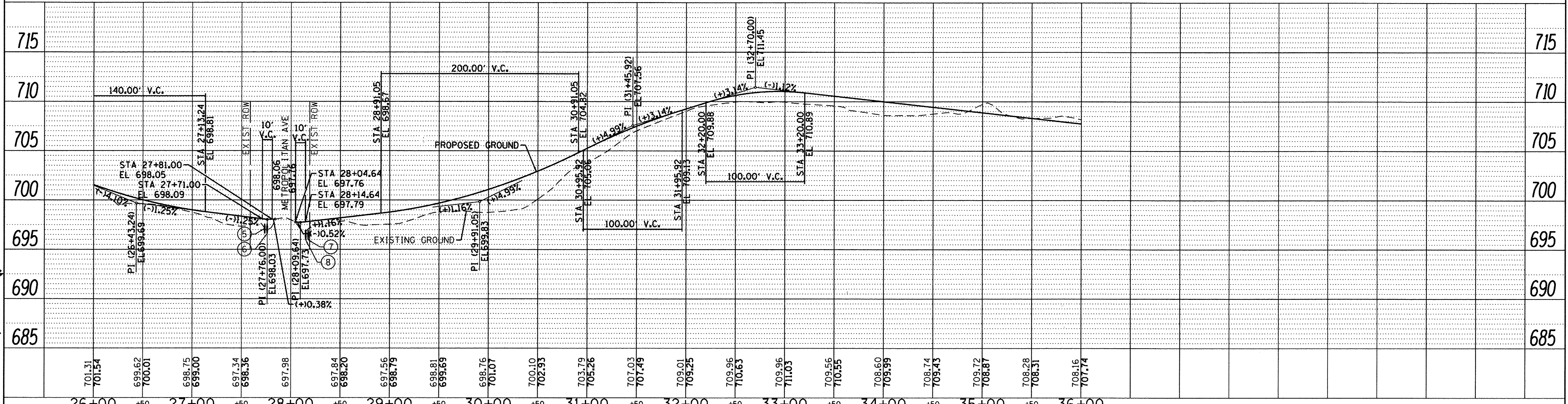
5	15" CMP FES 12" HDPE, INV: 696.20 STA: 27+73.32 O/S: 15.75' LT	5B	15" CMP FES 12" HDPE, INV: 696.42 STA: 27+46.67 O/S: 13.69' LT
5A	15" CMP FES 12" HDPE, INV: 696.03 STA: 27+73.51 O/S: 16.05' RT	5C	15" CMP FES 12" HDPE, INV: 696.22 STA: 27+46.46 O/S: 13.11 RT
6	15" CMP FES 12" HDPE, INV: 696.20 STA: 27+75.97 O/S: 15.75' LT	6B	15" CMP FES 12" HDPE, INV: 696.42 STA: 27+49.78 O/S: 13.61' LT
6A	15" CMP FES 12" HDPE, INV: 696.03 STA: 27+75.89 O/S: 16.05' RT	6C	15" CMP FES 12" HDPE, INV: 696.22 STA: 27+48.56 O/S: 13.16' RT
7	15" CMP FES 12" HDPE, INV: 695.89 STA: 28+15.07 O/S: 15.75' LT	7	28 LF OF 12" HDPE @ 0.62%
7A	15" CMP FES 12" HDPE, INV: 695.72 STA: 28+14.86 O/S: 16.25' RT	7A	28 LF OF 12" HDPE @ 0.62%
8	15" CMP FES 12" HDPE, INV: 695.89 STA: 28+17.57 O/S: 15.75' LT	8	28 LF OF 12" HDPE @ 0.61%
8A	15" CMP FES 12" HDPE, INV: 695.72 STA: 28+17.36 O/S: 16.25' RT	8A	28 LF OF 12" HDPE @ 0.61%

NOTE:  
SEE SHEET 37 FOR DRAINAGE  
ENLARGEMENT



**LEGEND**

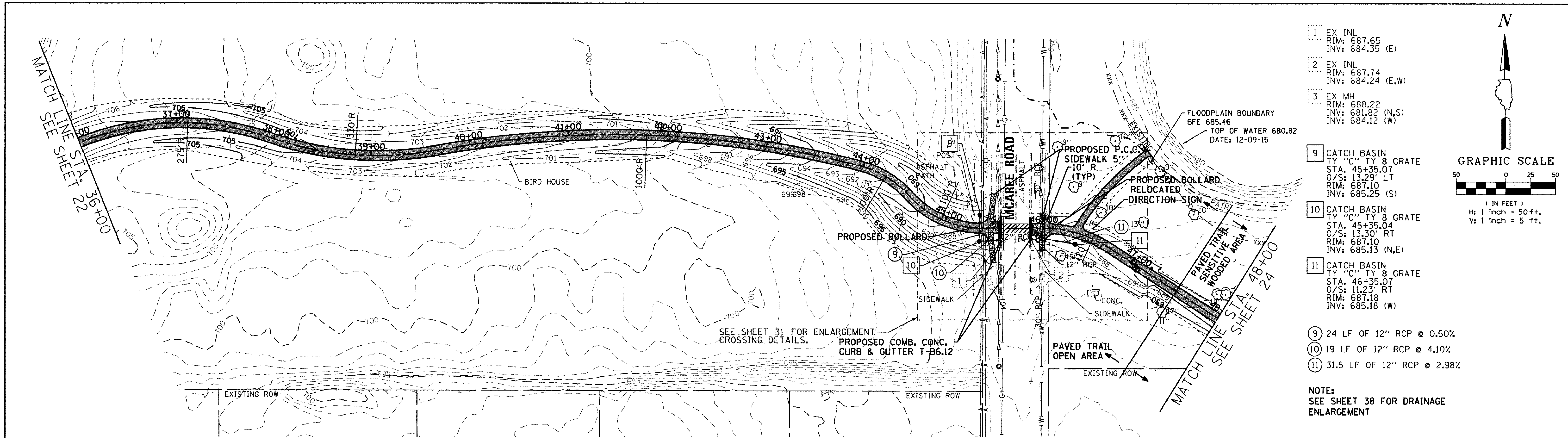
	EXISTING BOUNDARY LINE		TEMPORARY FENCE
	EXISTING WETLAND		
	PROPOSED WETLAND IMPACT		
	PROPOSED HMA SURFACE COURSE, MIX D, N50		
	PROPOSED SIDEWALK 5"		
	DETECTABLE WARNINGS		



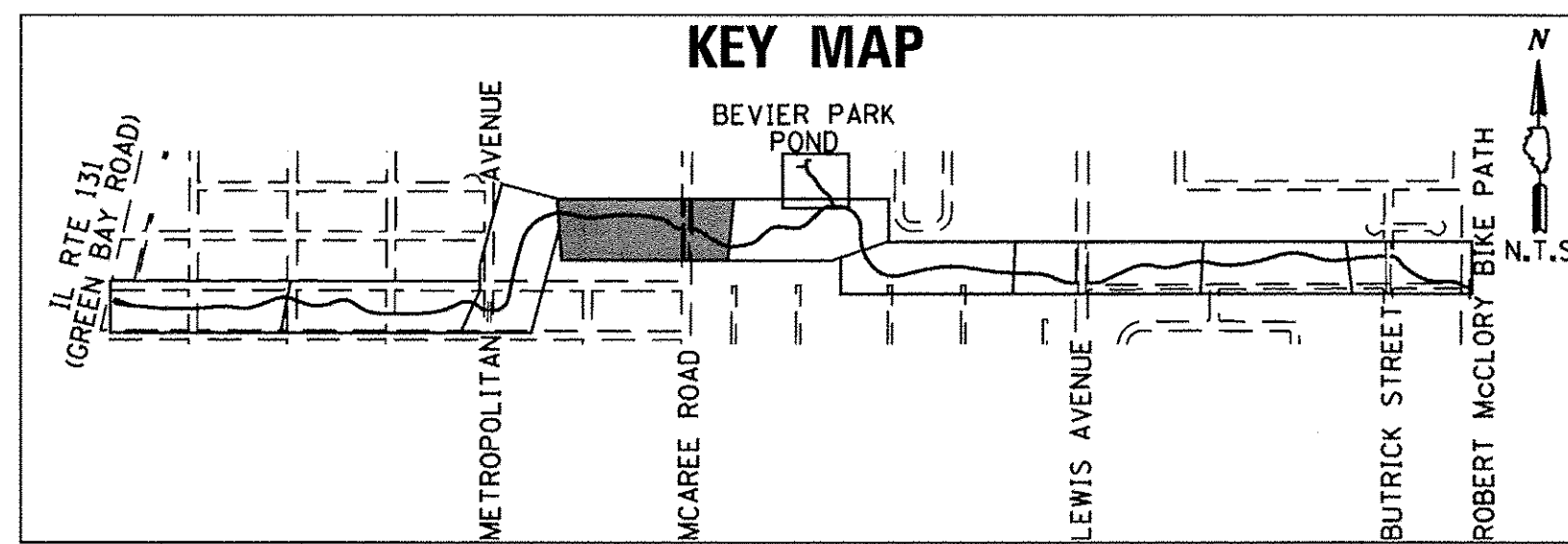
FILE NAME = 4905-F03-plnpr.f.dgn	USER NAME = MCoeman	DESIGNED - MKH	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LYONS WOODS TRAIL</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 1:50	CHECKED - DJS	REVISOR -	REVISOR -			14-F3000-04-BT	LAKE	116	22	
PLOT DATE = 11/14/2016	DATE -	REVISOR -	REVISOR -			CONTRACT NO. 61C67				
						ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE	BY
NOTE BOOK	ALIGNED	1/17/2016	MColeman
NO.	NO. OF WAY CHECKED		
	CADD FILE NAME		4905-F04-PROP.FGD

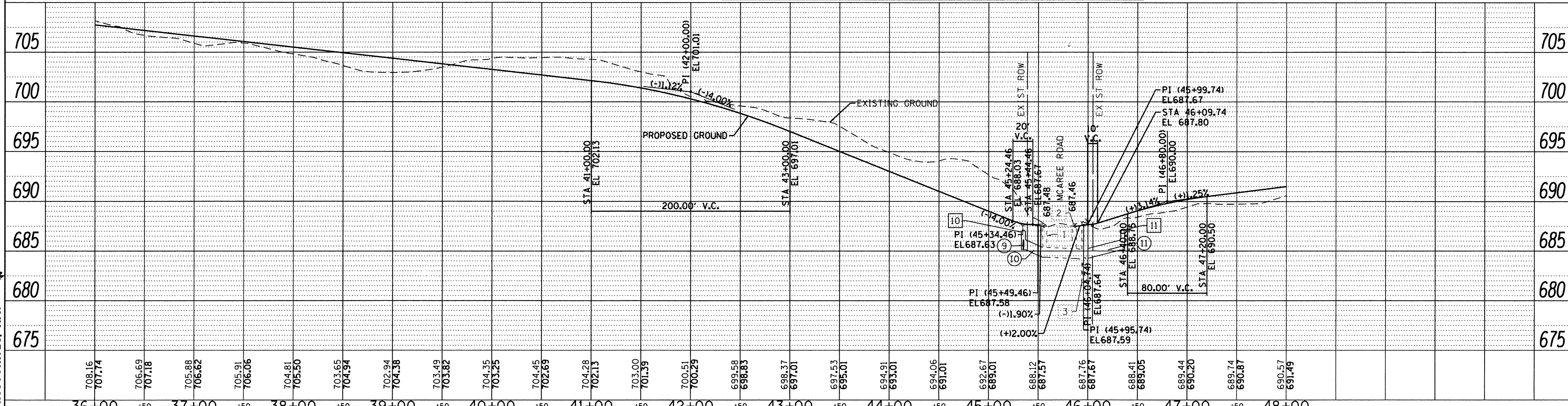
PROFILE	SURVEYED	DATE	BY
NOTE BOOK	PROPOSED	1/17/2016	MColeman
NO.	NO. NOTED		
	STRUCTURE		NOTATION: CHFD



- 1 EX INL  
RIM: 687.65  
INV: 684.35 (E)
  - 2 EX INL  
RIM: 687.74  
INV: 684.24 (E,W)
  - 3 EX MH  
RIM: 688.22  
INV: 681.82 (N,S)  
INV: 684.12 (W)
  - 9 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 45+35.07  
O/S: 13.29' LT  
RIM: 687.10  
INV: 685.25 (S)
  - 10 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 45+35.04  
O/S: 13.30' RT  
RIM: 687.10  
INV: 685.13 (N,E)
  - 11 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 46+35.07  
O/S: 11.23' RT  
RIM: 687.18  
INV: 685.18 (W)
  - ⑨ 24 LF OF 12" RCP @ 0.50%
  - ⑩ 19 LF OF 12" RCP @ 4.10%
  - ⑪ 31.5 LF OF 12" RCP @ 2.98%
- NOTE:  
SEE SHEET 38 FOR DRAINAGE ENLARGEMENT



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - PROPOSED WETLAND IMPACT
  - PROPOSED HMA SURFACE COURSE, MIX D, N50
  - PROPOSED SIDEWALK 5"
  - DETECTABLE WARNINGS
  - xxx — TEMPORARY FENCE



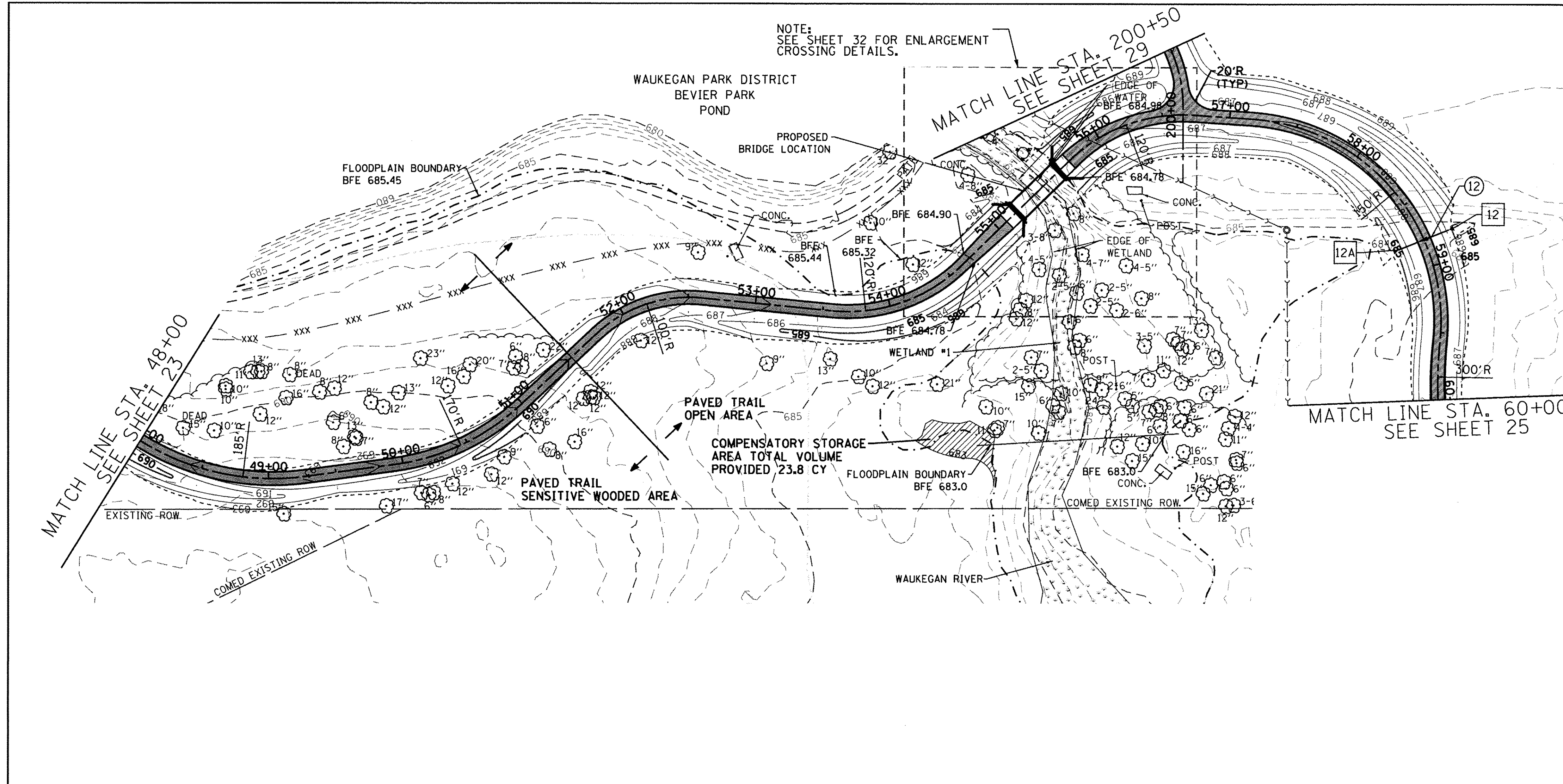
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PLOT SCALE = 1:50	CHECKED - DJS	REVISIED -	14-F3000-04-BT			LAKE	116	23		
PLOT DATE = 11/14/2016	DATE -	REVISIED -	CONTRACT NO. 61C67			ILLINOIS FED. AID PROJECT				
SCALE: 1"=50'		SHEET 4 OF 10 SHEETS				STA. 36+00.00 TO STA. 48+00.00				

DATE	BY
7/17/2016	McColeman
PLANNED	DESIGNED
NOT CHECKED	NOT CHECKED
RT. OF WAY	CADD FILE NAME
NO.	4905-F05-PRF-FUGEN

DATE	BY
7/17/2016	McColeman
PLANNED	DESIGNED
NOT CHECKED	NOT CHECKED
STRUCTURE	NOTATIONS
CPWD	CPWD
NO.	

**LAKE COUNTY FOREST PRESERVES**

**GEHALT HAMILTON ASSOCIATES, INC.**



NOTE: SEE SHEET 32 FOR ENLARGEMENT CROSSING DETAILS.

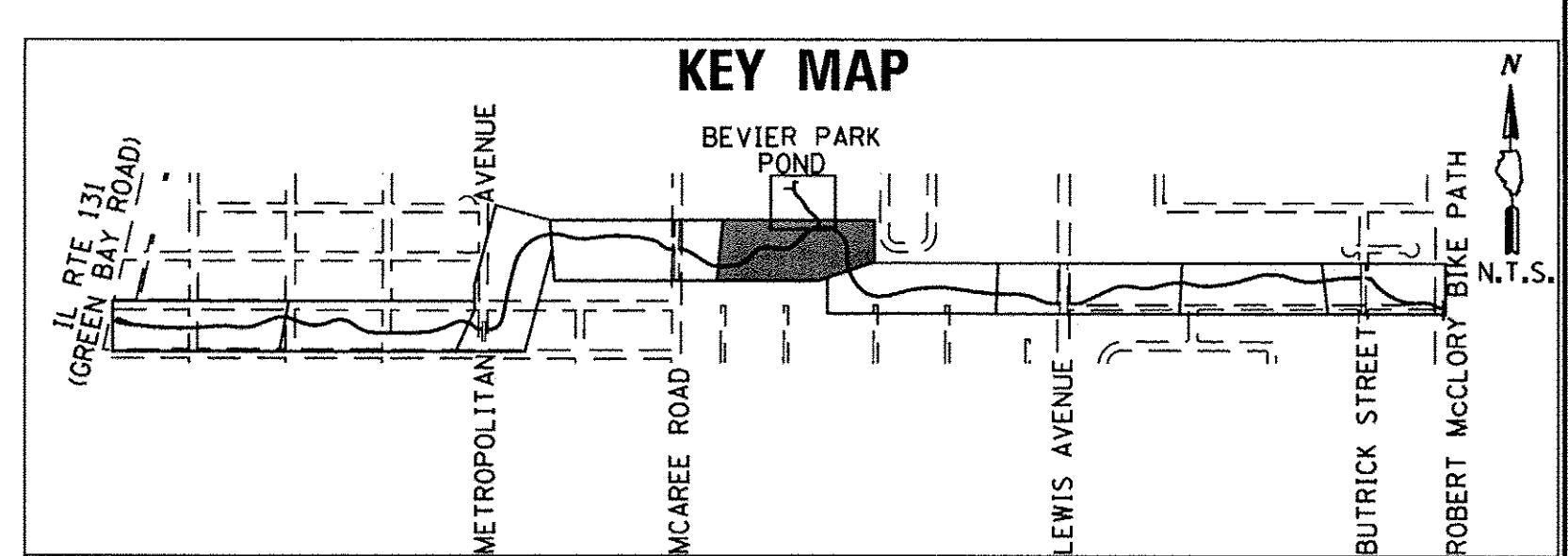
12 18" CMP FES  
15" HDPE, INV: 684.91  
STA: 58+80.36  
O/S: 21.32' LT

12A 18" CMP FES  
15" HDPE, INV: 684.21  
STA: 58+78.78  
O/S: 21.95' RT

⑫ 28.5 LF OF 15" HDPE @ 2.46%

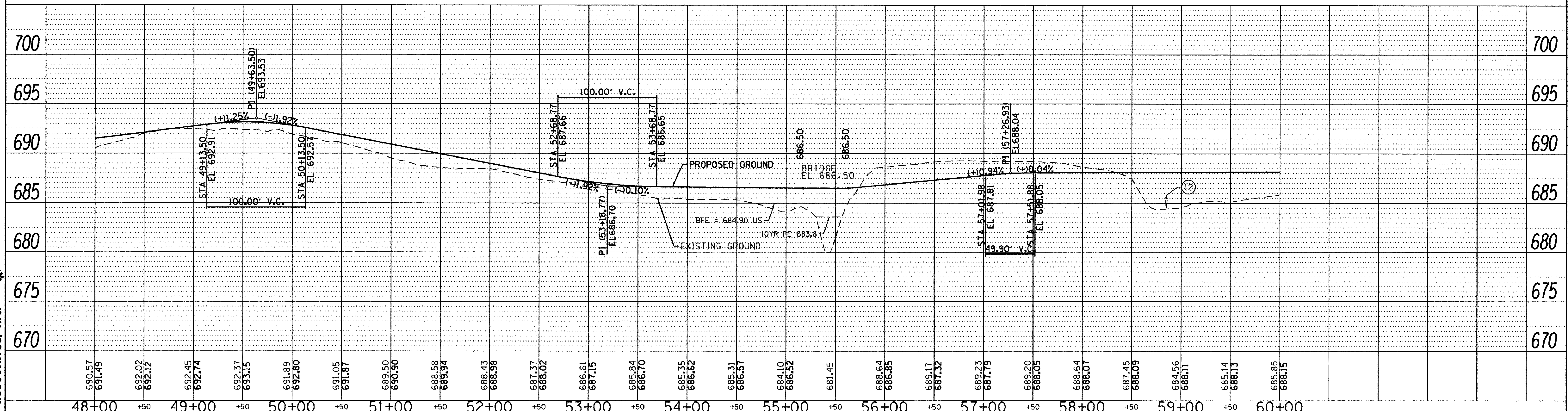
NOTE: SEE SHEET 38 FOR DRAINAGE ENLARGEMENT

**GRAPHIC SCALE**  
50 0 25 50  
( IN FEET )  
H: 1 Inch = 50 ft.  
V: 1 Inch = 5 ft.



**LEGEND**

- EXISTING BOUNDARY LINE
- EXISTING WETLAND
- PROPOSED WETLAND IMPACT
- PROPOSED HMA SURFACE COURSE, MIX D, N50
- PROPOSED SIDEWALK 5"
- DETECTABLE WARNINGS
- xxx --- TEMPORARY FENCE



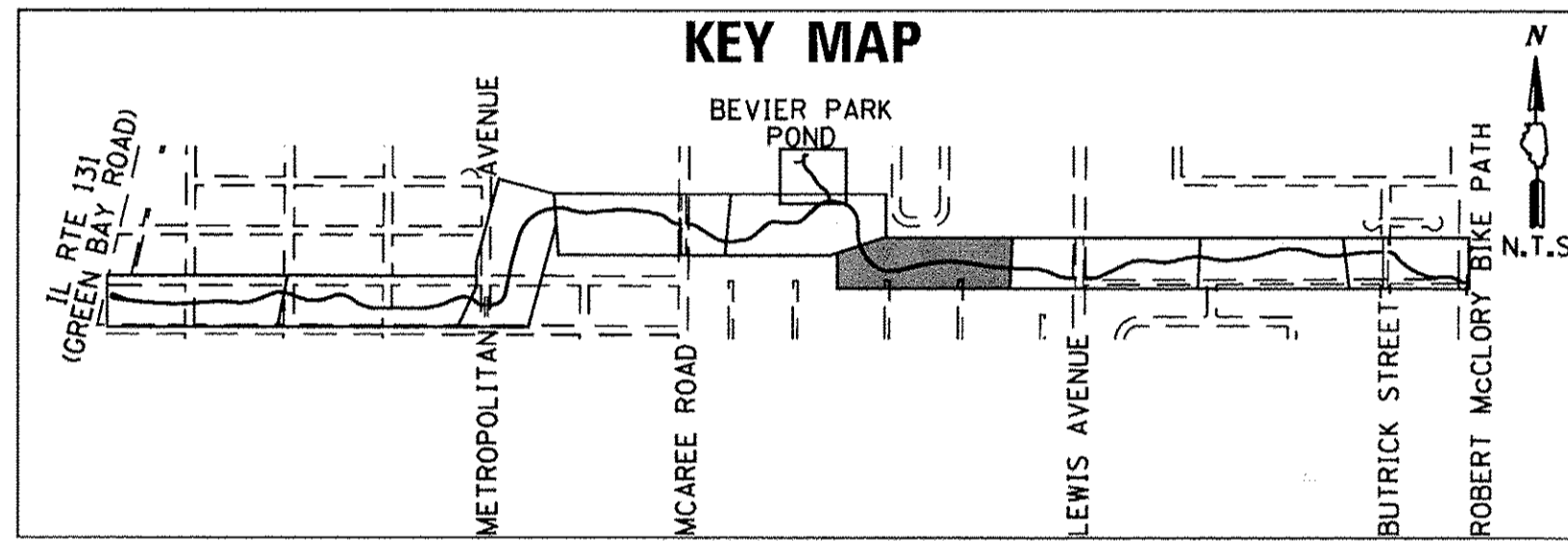
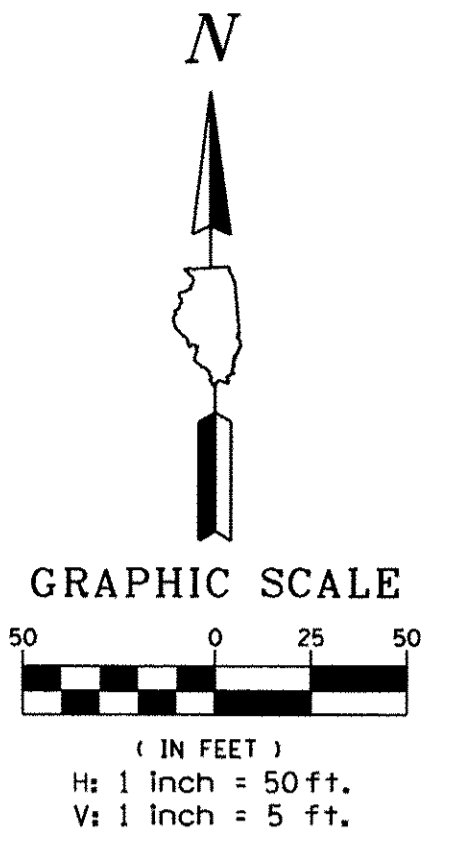
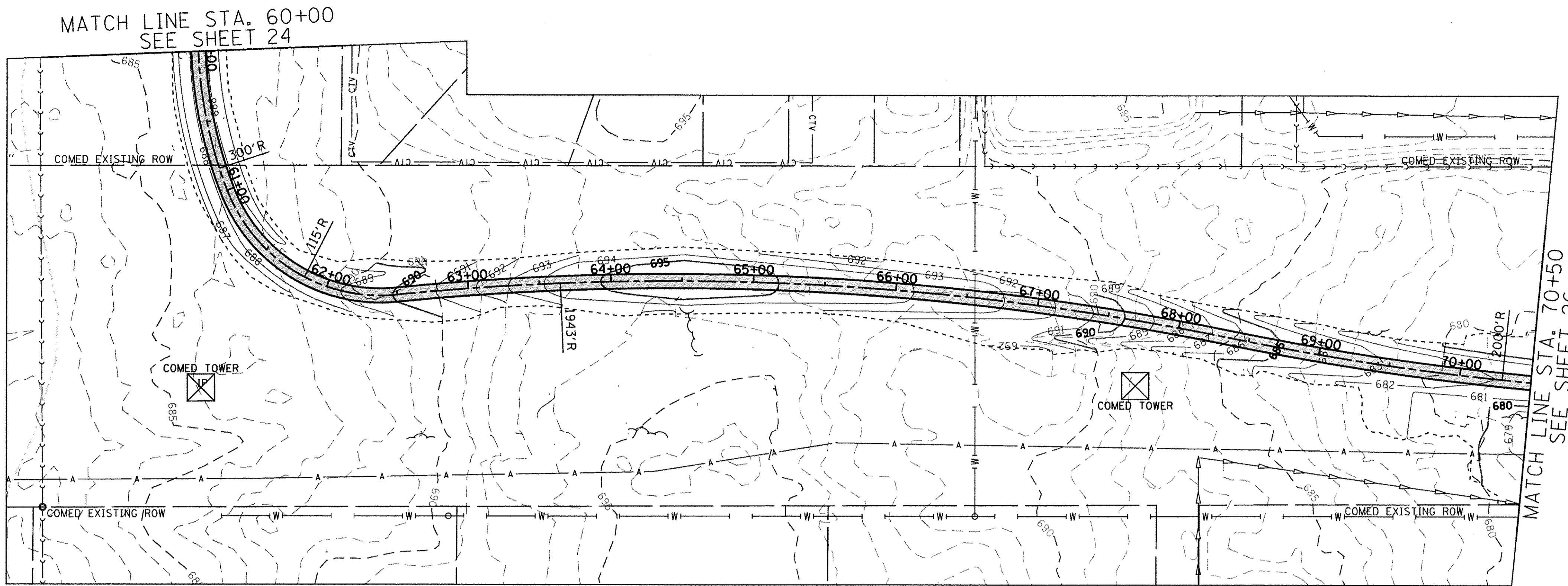
FILE NAME = 4905-f05-prf-fugen.dgn	USER NAME = McColeman	DESIGNED - MKH	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LYONS WOODS TRAIL</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GHA# 4905.000	PLOT SCALE = 1:50	DRAWN - PJS	REVISED -			14-F3000-04-BT	LAKE	116	24	
PrP.01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -			CONTRACT NO. 61C67				
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT				

SCALE: 1"=50'    SHEET 5 OF 10 SHEETS    STA. 48+00.00 TO STA. 60+00.00

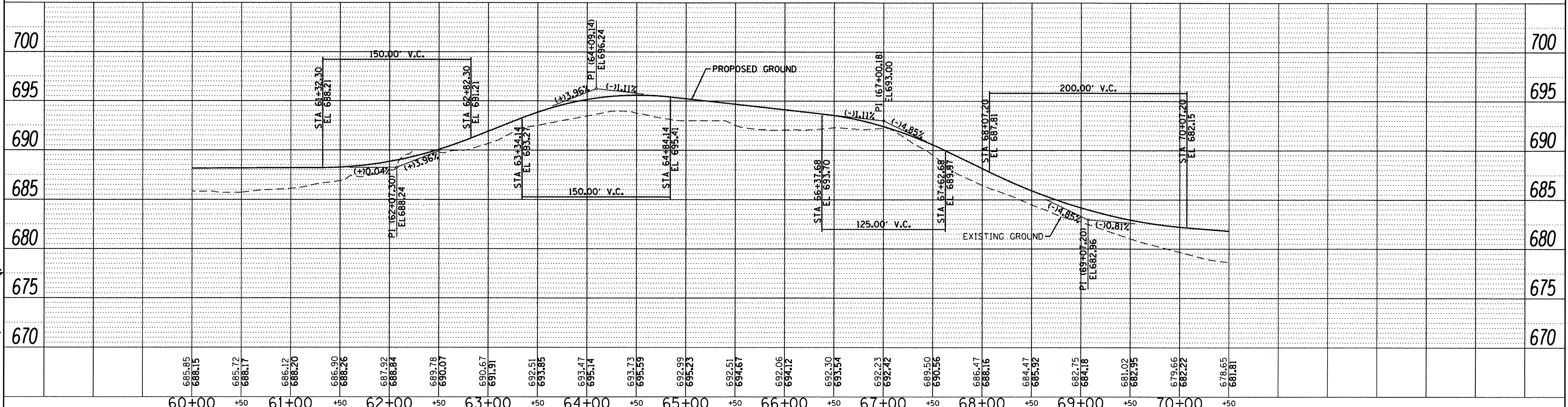


PLAN	SURVEYED	BY	DATE
NOTE BOOK NO.	ALIGNMENT CHECKED	McGinnis	1/14/2016
	BT. OF WAY CHECKED	AS	
	CADD FILE NAME	2905-F06-PLAN-1.DGN	

PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO.	B.M. NOTED	McGinnis	1/14/2016
	GRADES CHECKED	AS	
	STRUCTURE NOTATIONS CRD		



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - PROPOSED WETLAND IMPACT
  - PROPOSED HMA SURFACE COURSE, MIX D, N50
  - PROPOSED SIDEWALK 5'
  - DETECTABLE WARNINGS
  - xxx --- TEMPORARY FENCE



FILE NAME = 4905-f06-p1nprf.dgn	USER NAME = McColeman	DESIGNED - MKH	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LYONS WOODS TRAIL</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GHA* 4905.000	PLOT SCALE = 1:50	DRAWN - PJS	REVISED -			14-F3000-04-BT	LAKE	116	25	
PrP_01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -			CONTRACT NO. 61C67				
DATE -			REVISED -			ILLINOIS FED. AID PROJECT				

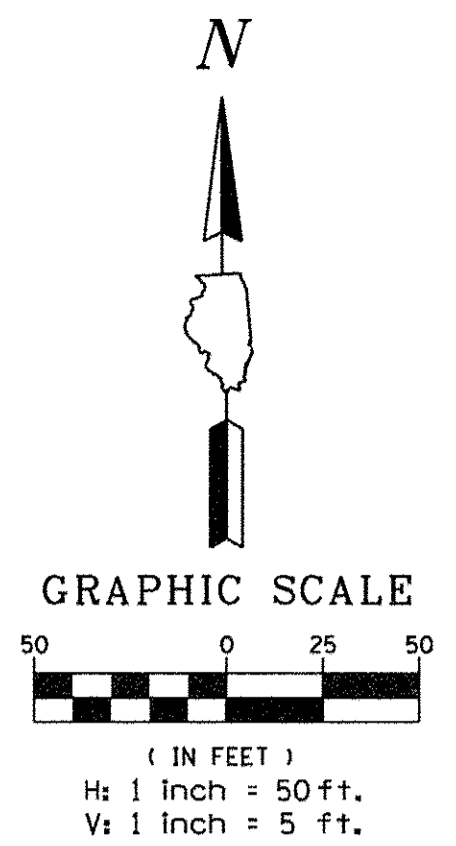
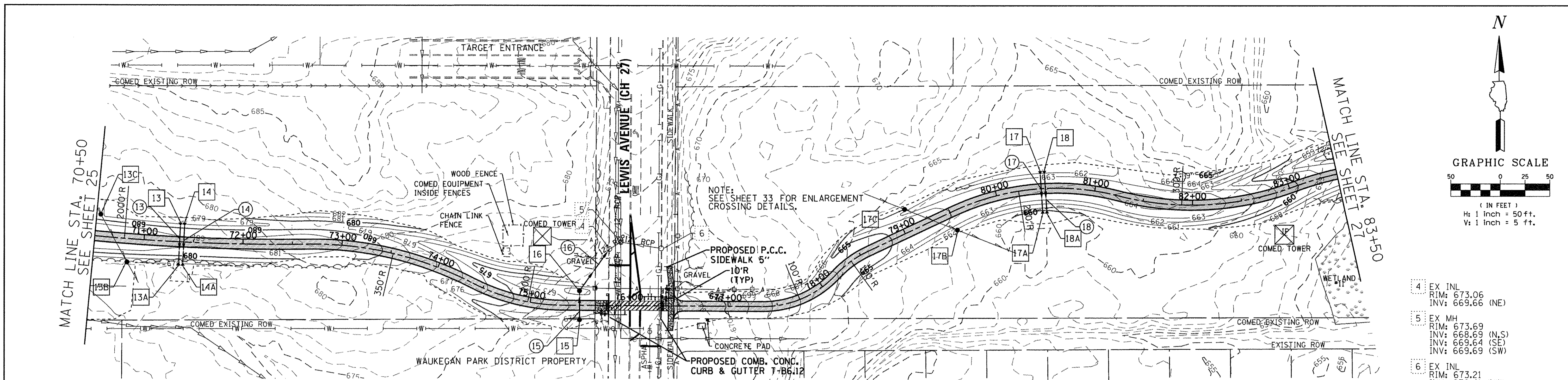
SCALE: 1"=50' SHEET 6 OF 10 SHEETS STA. 60+00.00 TO STA. 71+00.00

DATE	7/18/2016
BY	McGowan
PLAN	NOTE BOOK
NO.	4905-10-2016P1.dgn

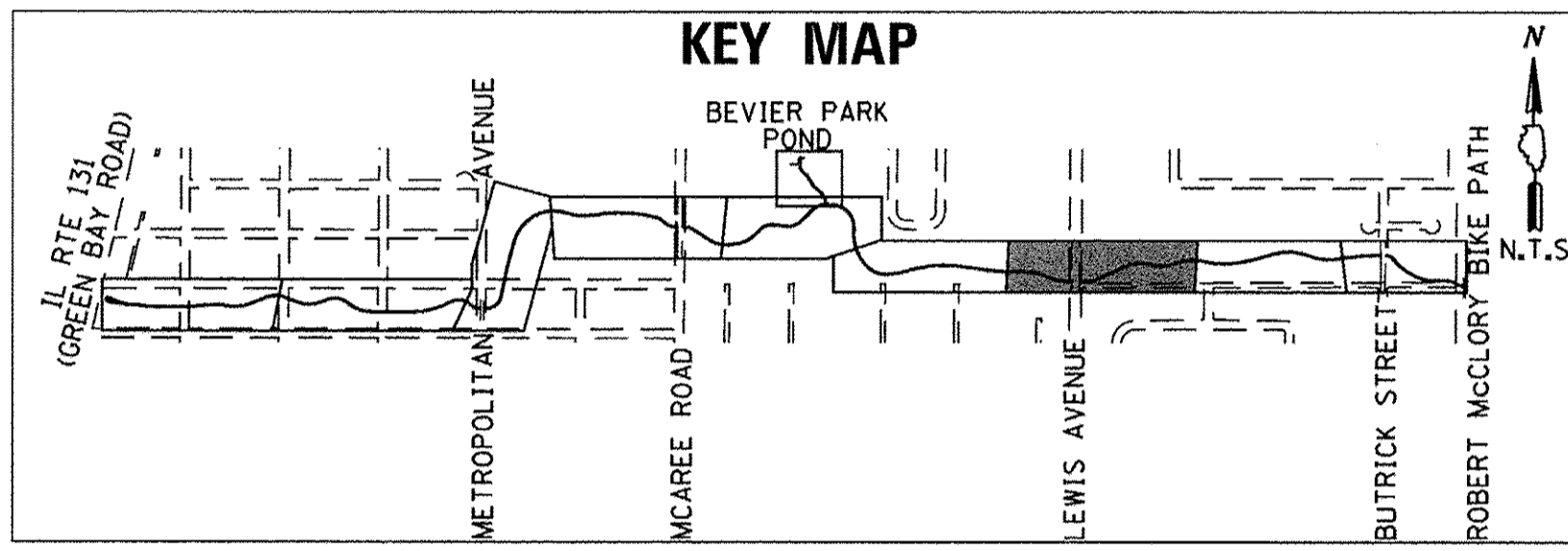
DATE	7/18/2016
BY	McGowan
PROFILE	NOTE BOOK
NO.	4905-10-2016P1.dgn

**LAKE COUNTY FOREST PRESERVES**

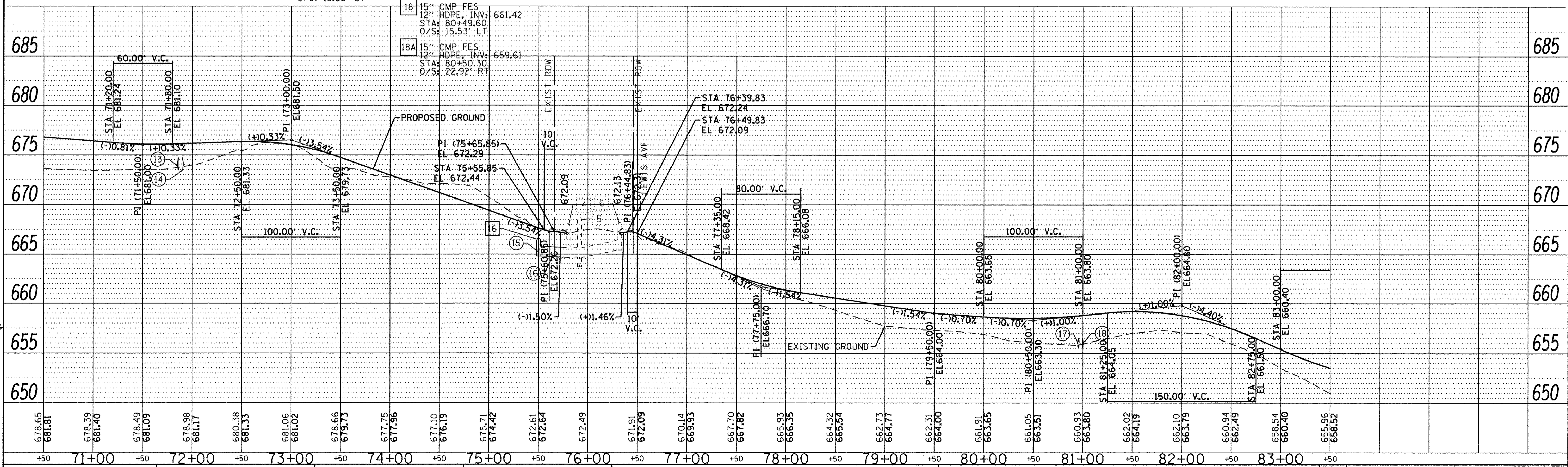
**GEWALT HAMILTON ASSOCIATES, INC.**



- 13 18" CMP FES, 15" HDPE, INV: 678.98, STA: 71+35.84, O/S: 17.15' LT
- 13A 18" CMP FES, 15" HDPE, INV: 677.91, STA: 71+35.92, O/S: 21.52' RT
- 13B INLET, TYP "A" TY 1 FRAME, CLOSED LID, STA: 71+34.44, O/S: 23.50' RT, RIM: 678.03
- 13C INLET, TYP "A" TY 1 FRAME, CLOSED LID, STA: 71+04.09, O/S: 22.00' LT, RIM: 678.61
- 14 18" CMP FES, 15" HDPE, INV: 678.98, STA: 71+40.09, O/S: 17.15' LT
- 14A 18" CMP FES, 15" HDPE, INV: 677.91, STA: 71+40.09, O/S: 21.52' RT
- 15 CATCH BASIN, TY "C" TY 8 GRATE, STA: 75+50.07, O/S: 14.80' RT, RIM: 671.60, INV: 669.85
- 16 CATCH BASIN, TY "C" TY 8 GRATE, STA: 75+49.93, O/S: 14.82' LT, RIM: 671.60, INV: 669.80
- 17 15" CMP FES, 12" HDPE, INV: 661.42, STA: 80+45.65, O/S: 15.50' LT
- 17A 15" CMP FES, 12" HDPE, INV: 659.61, STA: 80+45.65, O/S: 22.81' RT
- 17C INLET, TYP "A" TY 1 FRAME, CLOSED LID, STA: 79+49.28, O/S: 19.00' RT, RIM: 661.67
- 17A INLET, TYP "A" TY 1 FRAME, CLOSED LID, STA: 79+06.66, O/S: 22.50' LT, RIM: 663.38
- 18 15" CMP FES, 12" HDPE, INV: 661.42, STA: 80+49.60, O/S: 15.53' LT
- 18A 15" CMP FES, 12" HDPE, INV: 659.61, STA: 80+50.30, O/S: 22.92' RT
- 13 35.5 LF OF 15" HDPE @ 3.01%
- 14 35.5 LF OF 15" HDPE @ 3.01%
- 15 29 LF OF 12" RCP @ 0.17%
- 16 52 LF OF 12" RCP @ 0.27%
- 17 36 LF OF 12" HDPE @ 5.02%
- 18 36 LF OF 12" HDPE @ 5.02%



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - PROPOSED WETLAND IMPACT
  - PROPOSED HMA SURFACE COURSE, MIX D, N50
  - PROPOSED SIDEWALK 5"
  - DETECTABLE WARNINGS
  - xxx --- TEMPORARY FENCE
- NOTE:** SEE SHEET 39 FOR DRAINAGE ENLARGEMENT



FILE NAME = 4905-f07-plnpr.f.dgn	USER NAME = McGowan	DESIGNED - MKH	REVISED - 11/9/2016	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE LYONS WOODS TRAIL	F.A. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GHA 4905.000	PLOT SCALE = 1"=50'	CHECKED - DJS	REVISED -			14-F3000-04-BT	LAKE	116	26	
PnP_01	PLOT DATE = 11/18/2016	DATE -	REVISED -			CONTRACT NO. 61C67				
						ILLINOIS FED. AID PROJECT				

SCALE: 1"=50' SHEET 7 OF 10 SHEETS STA. 71+00.00 TO STA. 84+00.00

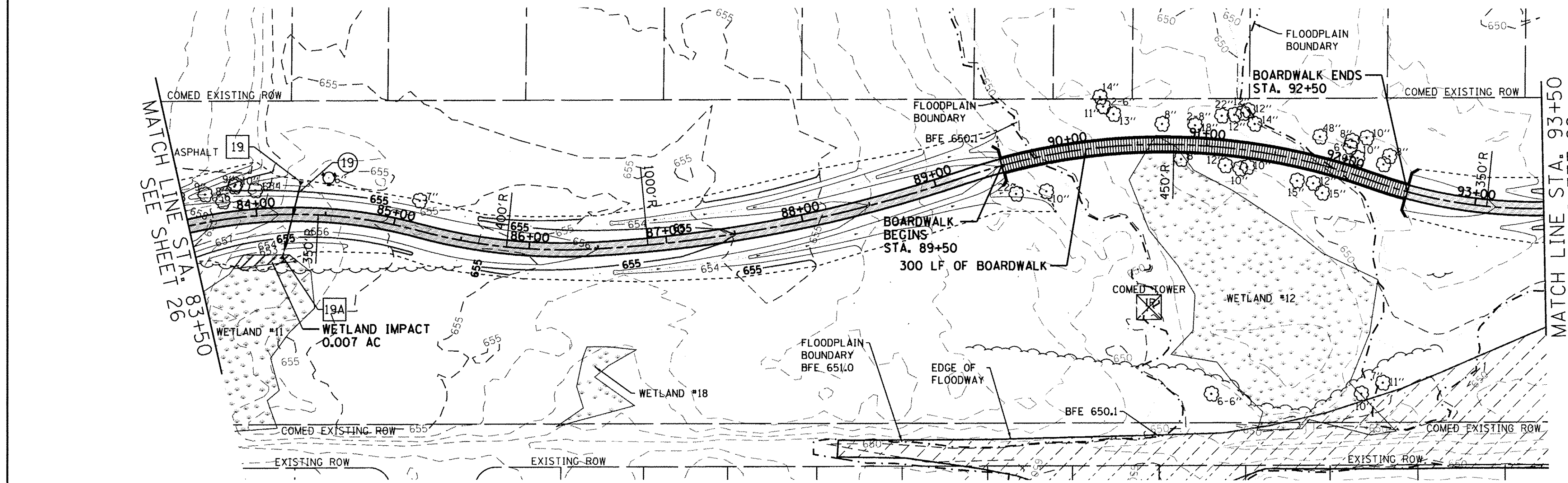
DATE	BY
7/17/2016	McGinnis
SURVEYED	CHECKED
PCOUNT	RT. OF WAY
NOTE BOOK NO.	CAAD FILE NAME
	4905-F08-PLAN-F.dgn

DATE	BY
7/17/2016	McGinnis
SURVEYED	CHECKED
PCOUNT	RT. OF WAY
NOTE BOOK NO.	STRUCTURE NOTATION CHRD

**LAKE COUNTY FOREST PRESERVES**

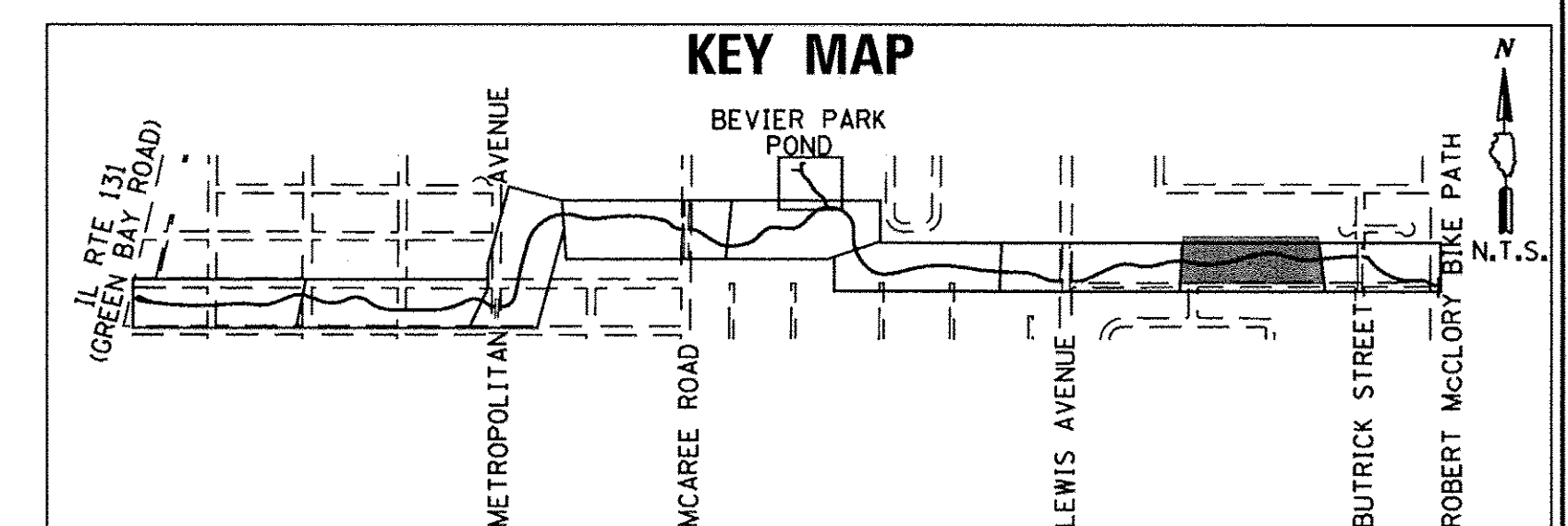
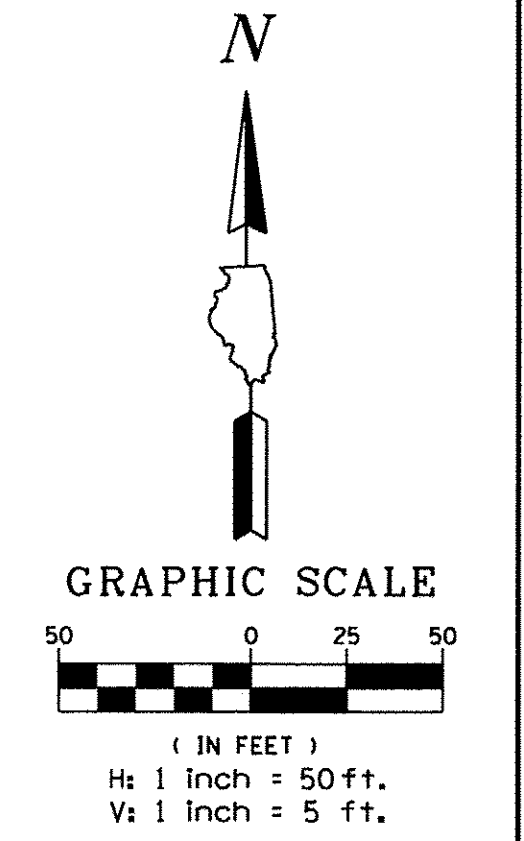


**GEWALT HAMILTON ASSOCIATES, INC.**

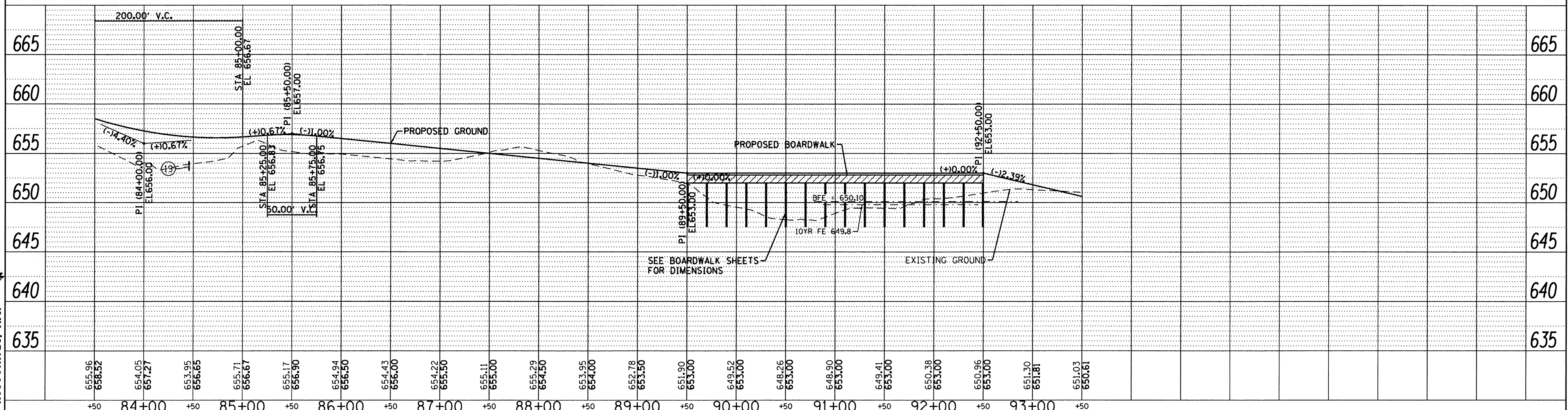


- 19 21" CMP FES 18" HDPE, INV: 653.24 STA: 84+31.55 O/S: 22.10' LT
- 19A 21" CMP FES 18" HDPE, INV: 652.71 STA: 84+18.22 O/S: 30.28' RT
- 19 45 LF OF 18" HDPE @ 1.90%

NOTE:  
SEE SHEET 39 FOR DRAINAGE ENLARGEMENT



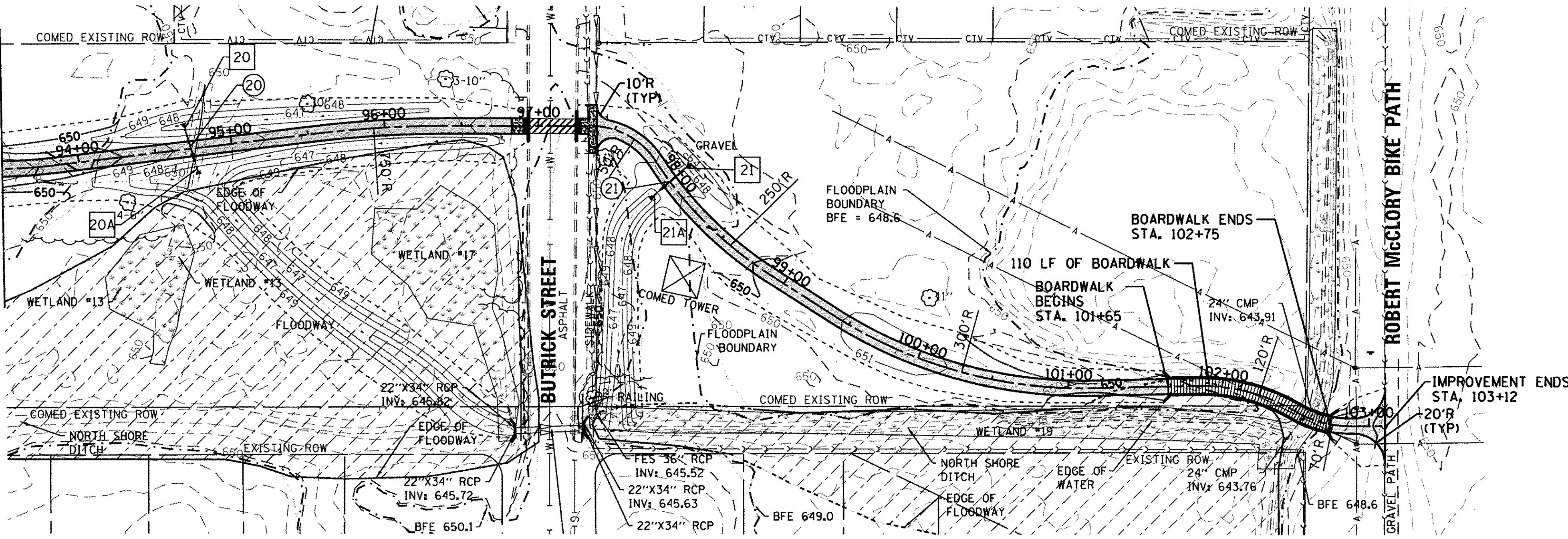
- LEGEND**
- EXISTING BOUNDARY LINE
  - xxx --- TEMPORARY FENCE
  - EXISTING WETLAND
  - PROPOSED WETLAND IMPACT
  - PROPOSED HMA SURFACE COURSE, MIX D, N50
  - PROPOSED SIDEWALK 5"
  - DETECTABLE WARNINGS



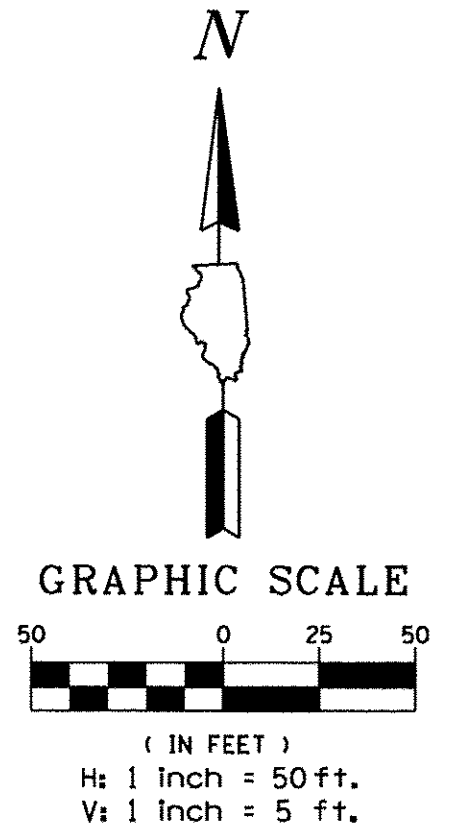
FILE NAME = 4905-F08-plan-f.dgn	USER NAME = MCoeman	DESIGNED - MKH	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE LYONS WOODS TRAIL</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
GHA* 4905.000	PLOT SCALE = 1:50	DRAWN - PJS	REVISED -		SCALE: 1"=50'	SHEET 8	OF 10 SHEETS	STA. 84+00.00	TO STA. 94+00.00	14-F3000-04-BT	LAKE	116	27
PrP_01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -		CONTRACT NO. 61C67								
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

NOTE:  
SEE SHEET 33 FOR ENLARGEMENT  
CROSSING DETAILS.

MATCH LINE STA. 93+50  
SEE SHEET 27



20	15" CMP FES 12" HDPE, INV: 646.39 STA: 94+70.73 O/S: 14.74' LT
20A	15" CMP FES 12" HDPE, INV: 646.30 STA: 94+76.27 O/S: 14.74' RT
21	15" CMP FES 12" HDPE, INV: 646.89 STA: 97+98.86 O/S: 15.00' LT
21A	15" CMP FES 12" HDPE, INV: 646.80 STA: 98+00.99 O/S: 14.68' RT

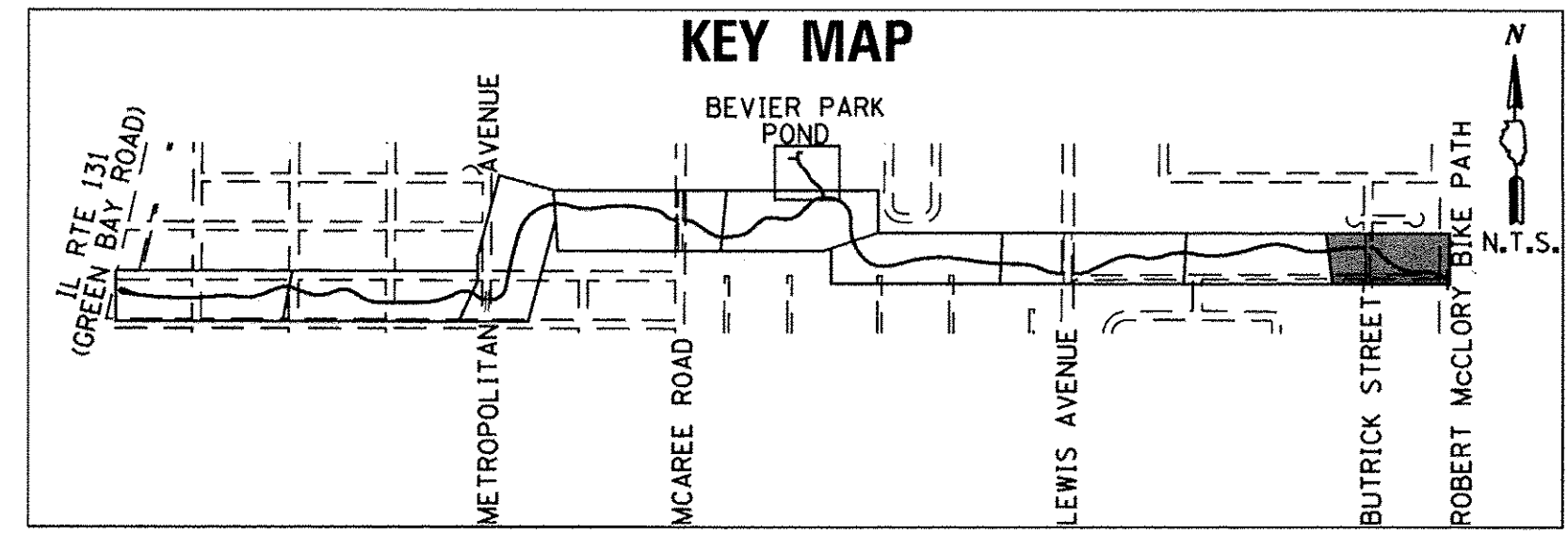


20 27 LF OF 12" HDPE @ 0.30%  
21 27 LF OF 12" HDPE @ 0.30%

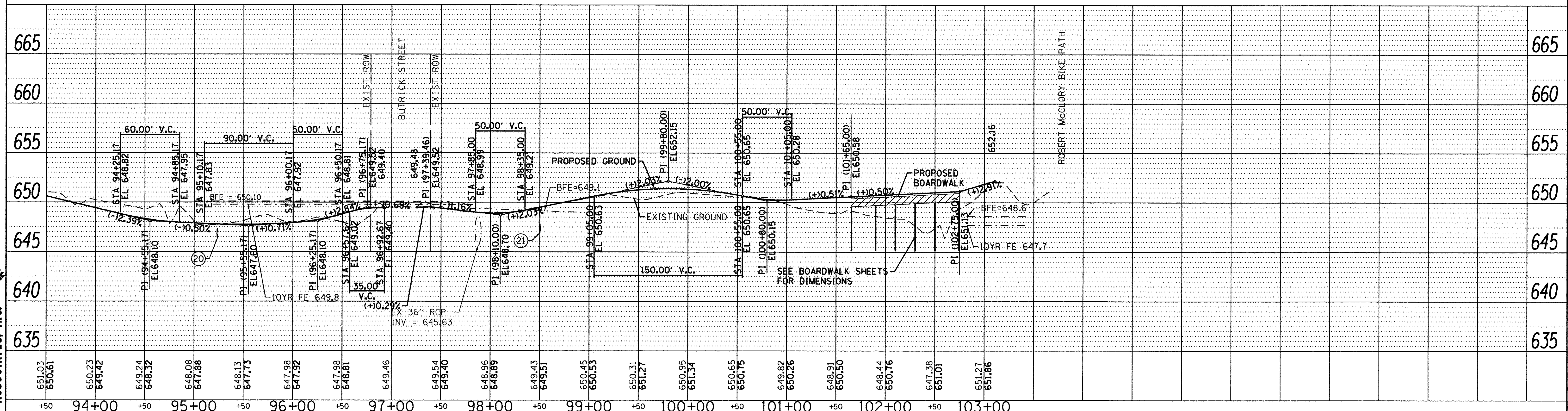
NOTE:  
SEE SHEET 39 AND 40 FOR  
DRAINAGE ENLARGEMENT

PLAN	SURVEYED	BY	DATE
	PLOTTED	BY	DATE
	CHECKED	BY	DATE
	IN CHARGE	BY	DATE
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	PLOTTED	BY	DATE
	CHECKED	BY	DATE
	IN CHARGE	BY	DATE
	STRUCTURE NOTATIONS CPWD		



LEGEND	
	EXISTING BOUNDARY LINE
	EXISTING WETLAND
	PROPOSED WETLAND IMPACT
	PROPOSED HMA SURFACE COURSE, MIX D, N50
	PROPOSED SIDEWALK 5"
	DETECTABLE WARNINGS
	TEMPORARY FENCE



LAKE COUNTY  
FOREST PRESERVES

**GEWALT HAMILTON**  
ASSOCIATES, INC.

FILE NAME = 4905-109-p1.nprf.dgn  
GHA# 4905.000  
PnP.01

USER NAME = McColeman  
PLOT SCALE = 1:50  
PLOT DATE = 11/14/2016

DESIGNED - MKH  
DRAWN - PJS  
CHECKED - DJS  
DATE -

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

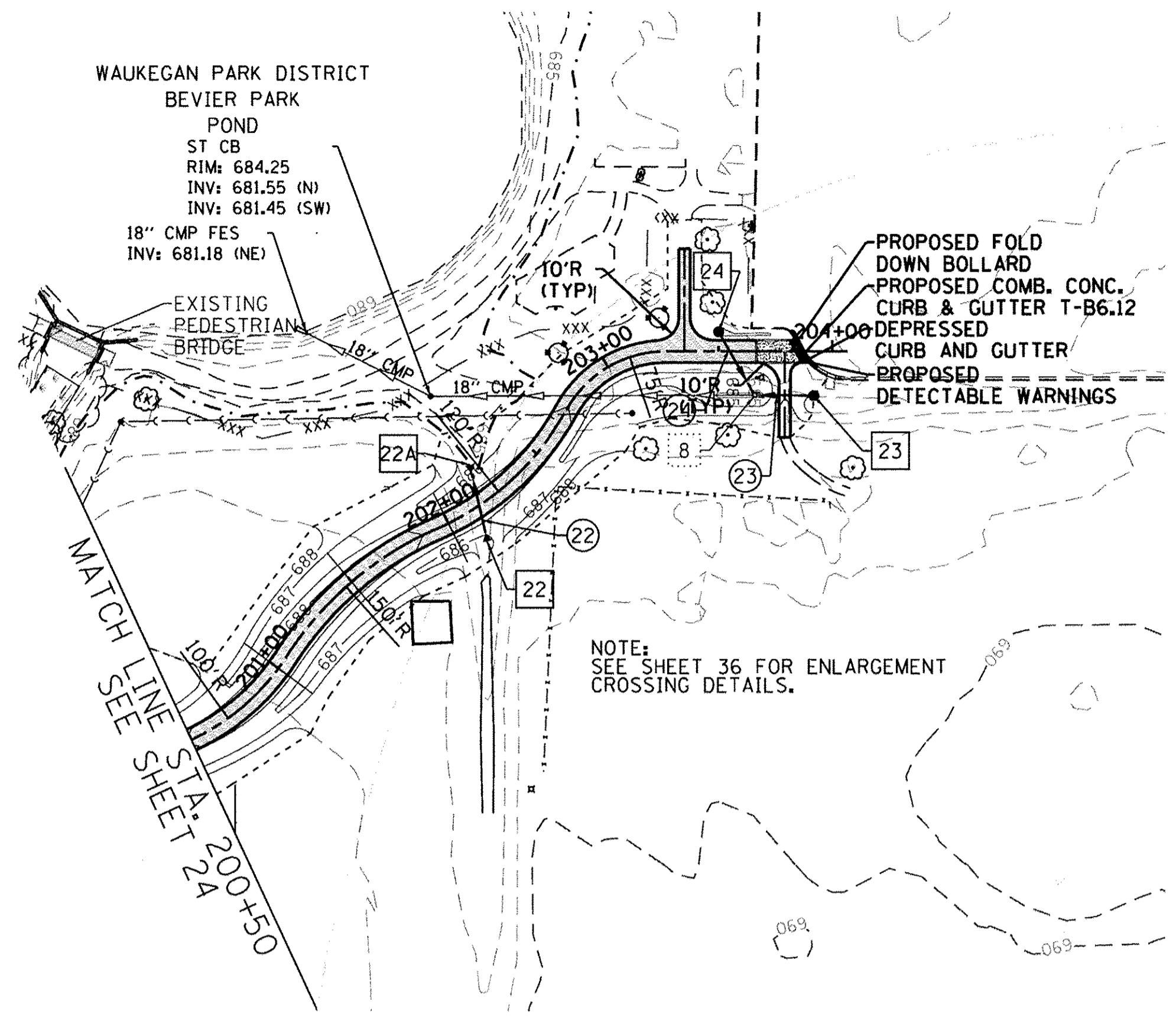
SCALE: 1"=50'  
SHEET 9 OF 10 SHEETS  
STA. 94+00.00 TO STA. 103+62.13

PLAN AND PROFILE  
LYONS WOODS TRAIL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	28
CONTRACT NO. 61C67			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	BY	DATE
	PLOTTED	McColeman	11/14/2016
	CHECKED		
	RT. OF WAY CHECKED		
	CADD FILE NAME	4905-F10-PLAN-F.dgn	
	NO.		

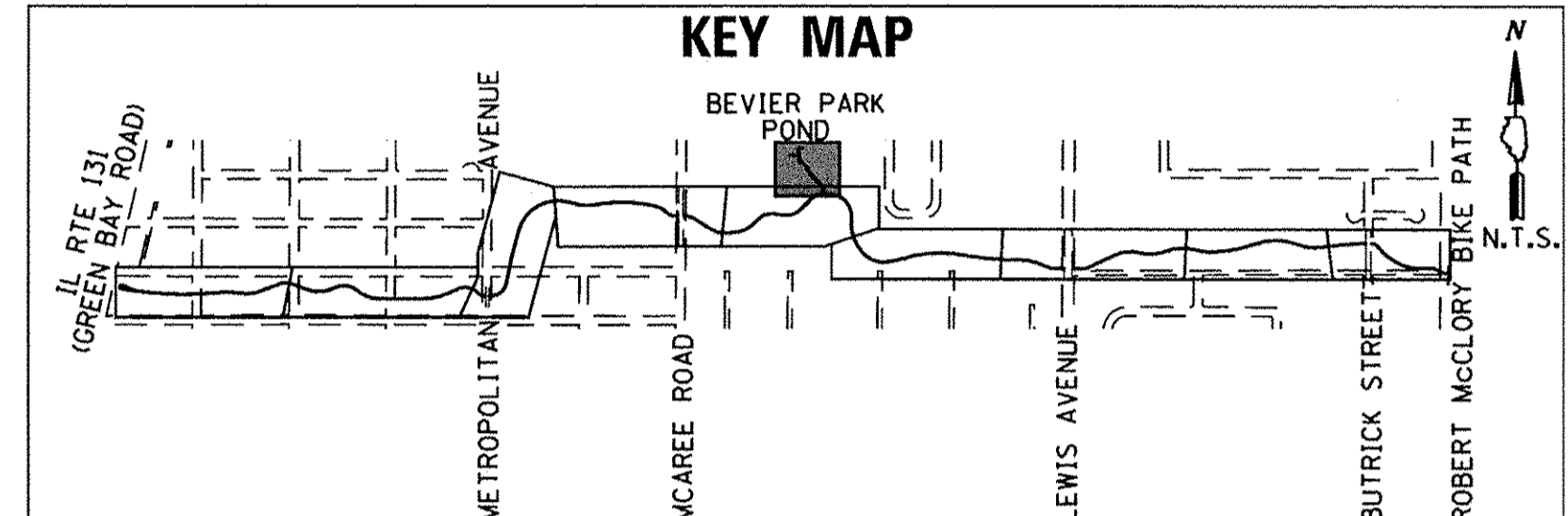
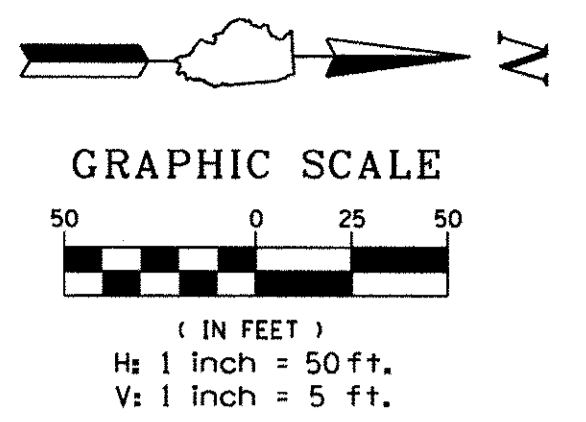
PROFILE	SURVEYED	BY	DATE
	PLOTTED	McColeman	11/14/2016
	CHECKED	AS	
	RT. OF WAY CHECKED		
	STRUCTURE NOTATIONS CHFD		
	NO.		



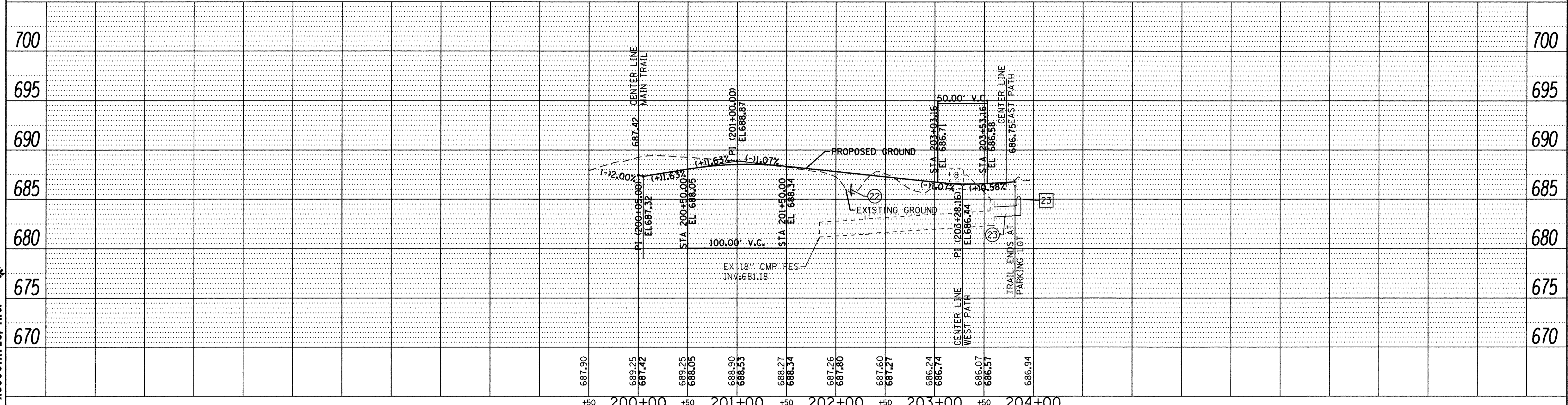
- 22 18" CMP FES  
15" HDPE, INV: 685.50  
STA: 202+10.95  
O/S: 14.01' RT
- 22A 18" CMP FES  
15" HDPE, INV: 685.10  
STA: 202+22.66  
O/S: 15.84' LT
- 23 CATCH BASIN  
TY "C" TY 8 GRATE  
STA: 203+85.13  
O/S: 11.63' RT  
RIM: 685.25  
INV: 683.33
- 24 CATCH BASIN  
TY "C" TY 8 GRATE  
STA: 203+50.00  
O/S: 8.68' LT  
RIM: 685.80  
INV: 683.12
- 8 EX CB  
RIM: 684.97  
INV: 683.15 (N)  
INV: 682.97 (SW)  
INV: 682.32 (S)

- 22 27 LF OF 15" HDPE @ 1.49%
- 23 25 LF OF 12" HDPE @ 0.72%
- 24 30 LF OF 12" HDPE @ 0.50%

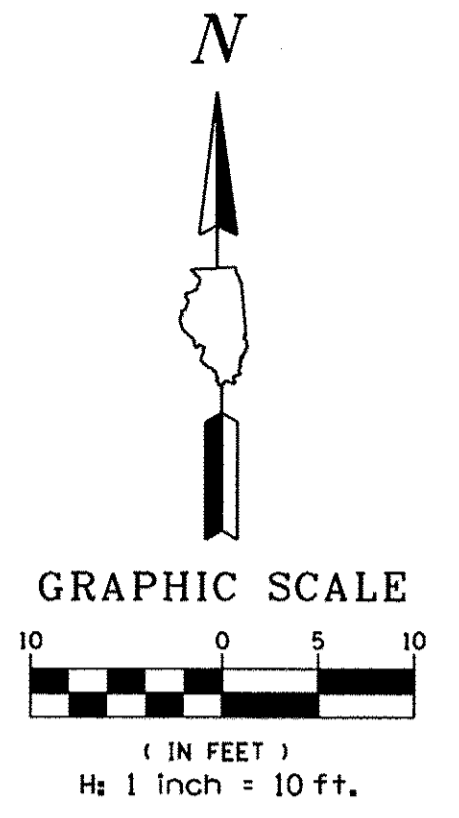
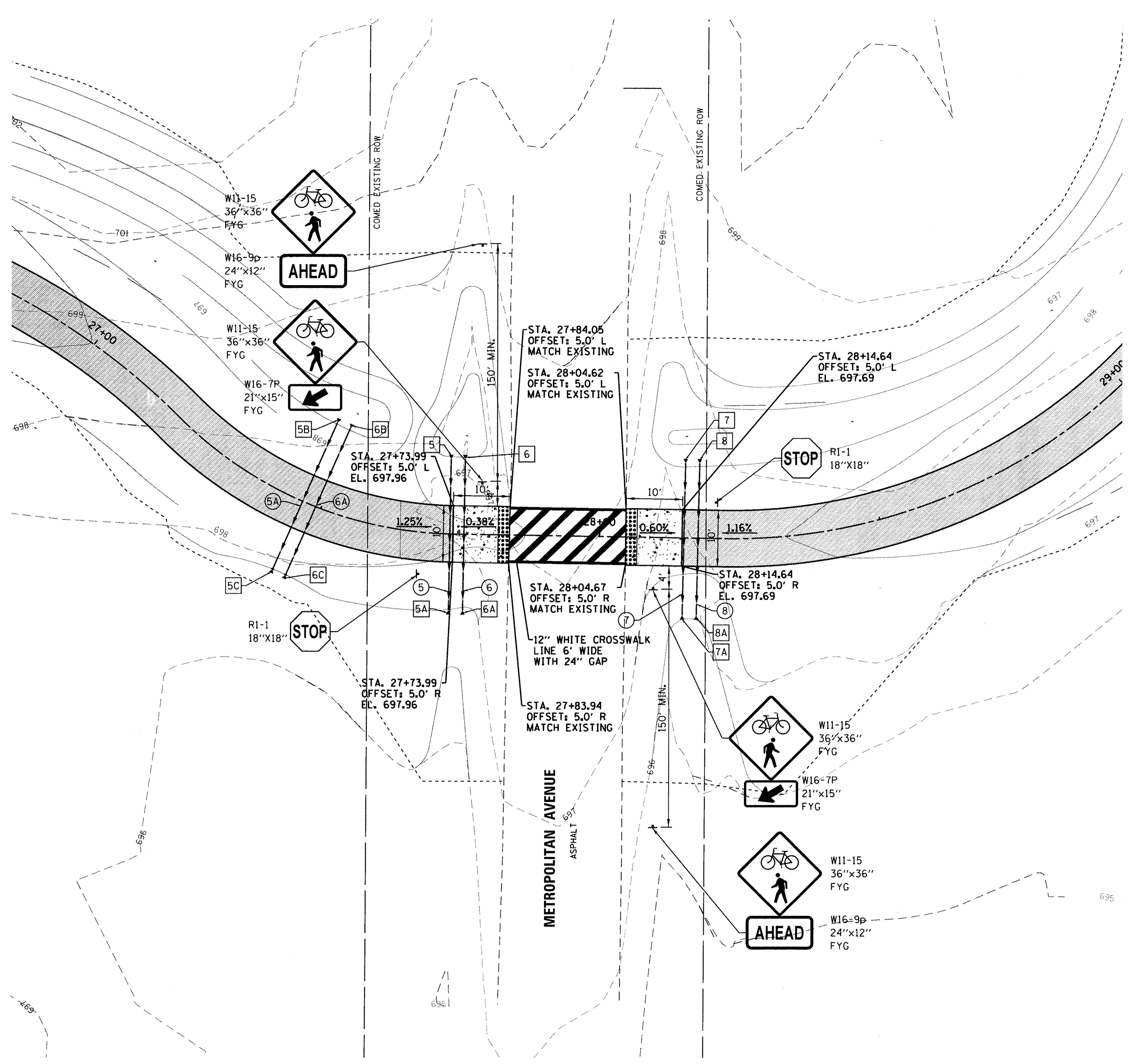
NOTE:  
SEE SHEET 38 FOR DRAINAGE ENLARGEMENT



- LEGEND**
- EXISTING BOUNDARY LINE
  - xxx --- TEMPORARY FENCE
  - EXISTING WETLAND
  - PROPOSED WETLAND IMPACT
  - PROPOSED HMA SURFACE COURSE, MIX D, N50
  - PROPOSED SIDEWALK 5"
  - DETECTABLE WARNINGS



FILE NAME = 4905-F10-PLAN-F.dgn GHA 4905.000 PnP.01	USER NAME = McColeman	DESIGNED - MKH DRAWN - PJS CHECKED - DJS DATE -	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>				<b>PLAN AND PROFILE LYONS WOODS TRAIL</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				SCALE: 1"=50'				SHEET 10 OF 10 SHEETS				STA. 200+50.00 TO STA. 204+06.76				
												ILLINOIS FED. AID PROJECT				



- 5 15" CMP FES  
12" HDPE, INV: 696.20  
STA: 27+73.32  
O/S: 15.75' LT
- 5A 15" CMP FES  
12" HDPE, INV: 696.03  
STA: 27+73.51  
O/S: 16.05' RT
- 6 15" CMP FES  
12" HDPE, INV: 696.20  
STA: 27+75.97  
O/S: 15.75' LT
- 6A 15" CMP FES  
12" HDPE, INV: 696.03  
STA: 27+75.89  
O/S: 16.05' RT
- 7 15" CMP FES  
12" HDPE, INV: 695.89  
STA: 28+15.07  
O/S: 15.75' LT
- 7A 15" CMP FES  
12" HDPE, INV: 695.72  
STA: 28+14.86  
O/S: 16.25' RT
- 8 15" CMP FES  
12" HDPE, INV: 695.89  
STA: 28+17.57  
O/S: 15.75' LT
- 8A 15" CMP FES  
12" HDPE, INV: 695.72  
STA: 28+17.36  
O/S: 16.25' RT
- 5B 15" CMP FES  
12" HDPE, INV: 696.42  
STA: 27+46.67  
O/S: 13.69' LT
- 5C 15" CMP FES  
12" HDPE, INV: 696.22  
STA: 27+46.46  
O/S: 13.11' RT
- 6B 15" CMP FES  
12" HDPE, INV: 696.42  
STA: 27+49.78  
O/S: 13.61' LT
- 6C 15" CMP FES  
12" HDPE, INV: 696.22  
STA: 27+48.56  
O/S: 13.16' RT
- ⑤ 28 LF OF 12" HDPE @ 0.62%
- ⑥ 28 LF OF 12" HDPE @ 0.62%
- ⑤A 28 LF OF 12" HDPE @ 0.62%
- ⑥A 28 LF OF 12" HDPE @ 0.62%
- ⑦ 28 LF OF 12" HDPE @ 0.61%
- ⑧ 28 LF OF 12" HDPE @ 0.61%

**LEGEND**

	PROPOSED SURFACE COURSE, MIX D, N50
	PROPOSED SIDEWALK 5"
	PROPOSED DEPRESSED CURB
	DETECTABLE WARNINGS
	PROPOSED SIGN PANEL

FILE NAME =	USER NAME = MCoileman	DESIGNED - MKH	REVISED -
4905-F11-Metropolitan Enlargement.dgn		DRAWN - PJS	REVISED -
GHA* 4905.000		CHECKED - DJS	REVISED -
PnP_01		DATE -	REVISED -
PLOT SCALE = 1:100		PLOT DATE = 11/14/2016	

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

**METROPOLITAN ENLARGEMENT**  
**LYONS WOODS TRAIL**

SCALE: 1"=10'    SHEET 1 OF 1 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	30
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



FILE NAME = 4905-f12-McCree Enlargement.dgn  
GHA# 4905.000  
PnP\_01

USER NAME = MCoeman  
PLOT SCALE = 1:10  
PLOT DATE = 11/14/2016

DESIGNED - MKH  
DRAWN - PJS  
CHECKED - DJS  
DATE -

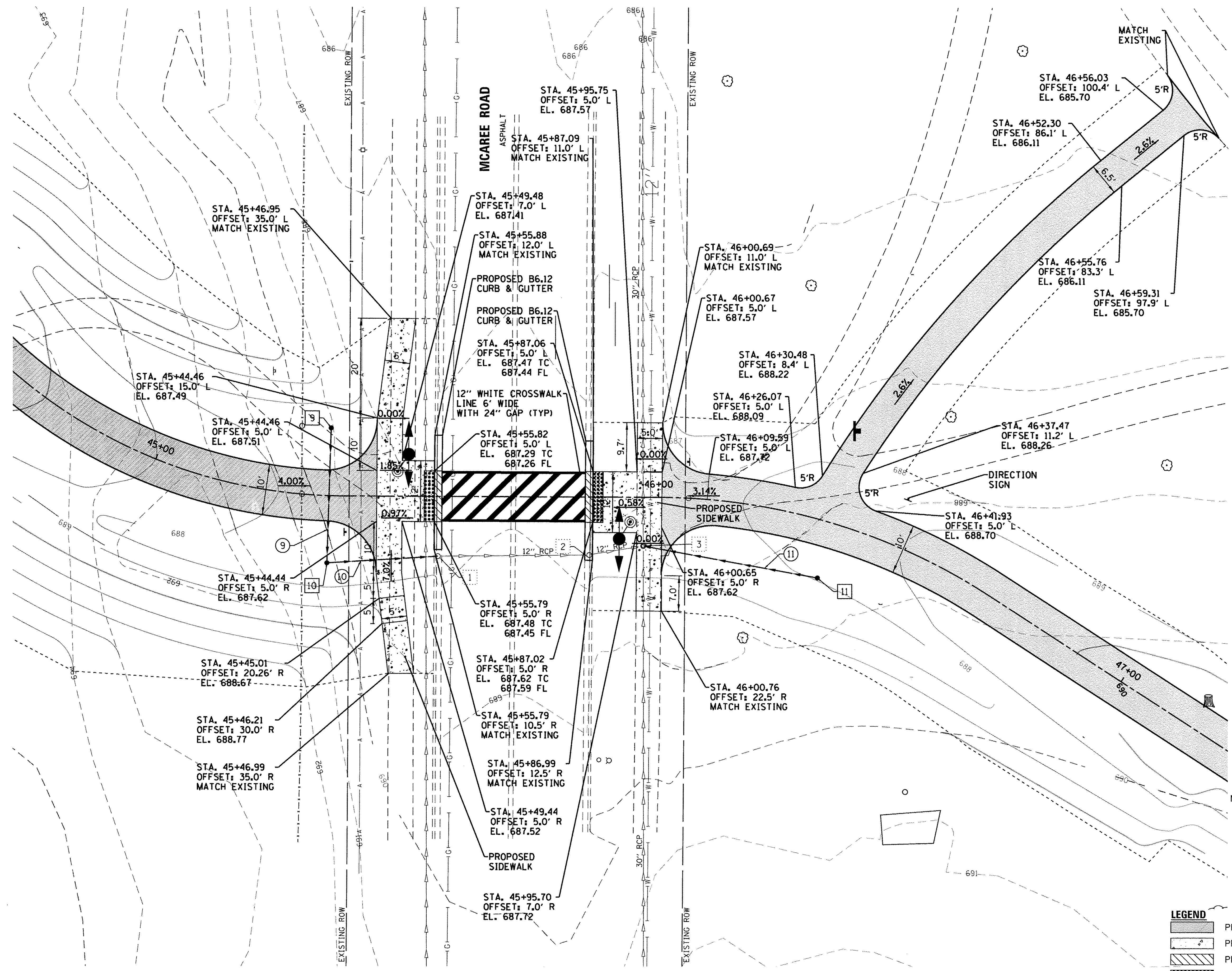
REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MCAREE ENLARGEMENT  
LYONS WOODS TRAIL

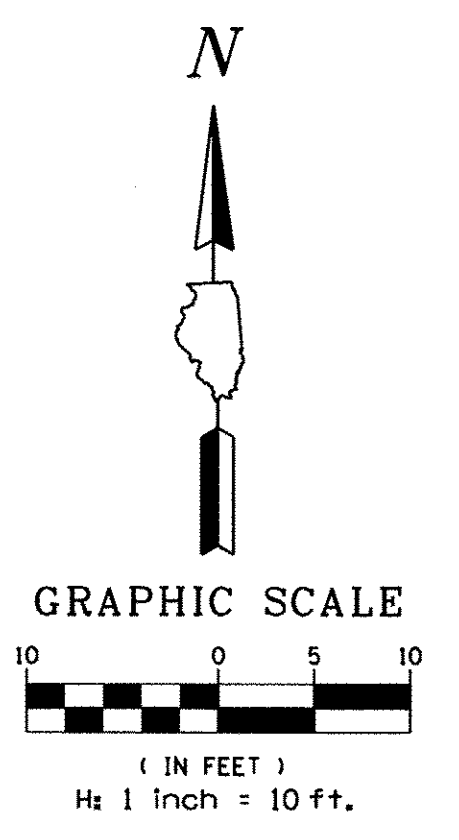
SCALE: 1"=10' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	31
				CONTRACT NO. 61C67
ILLINOIS FED. AID PROJECT				



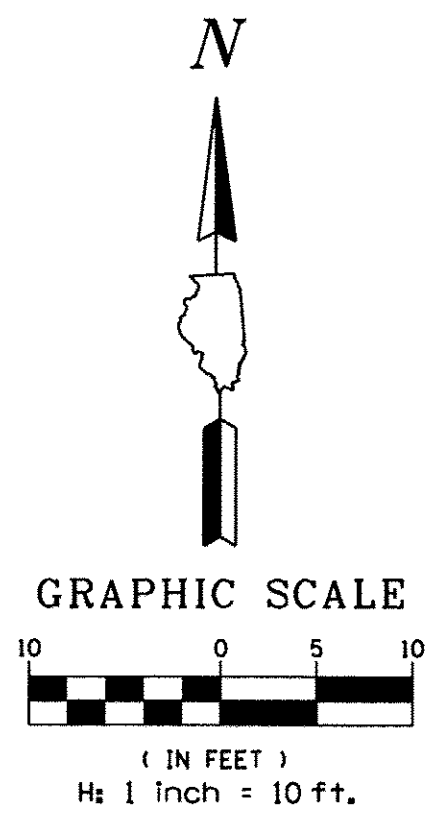
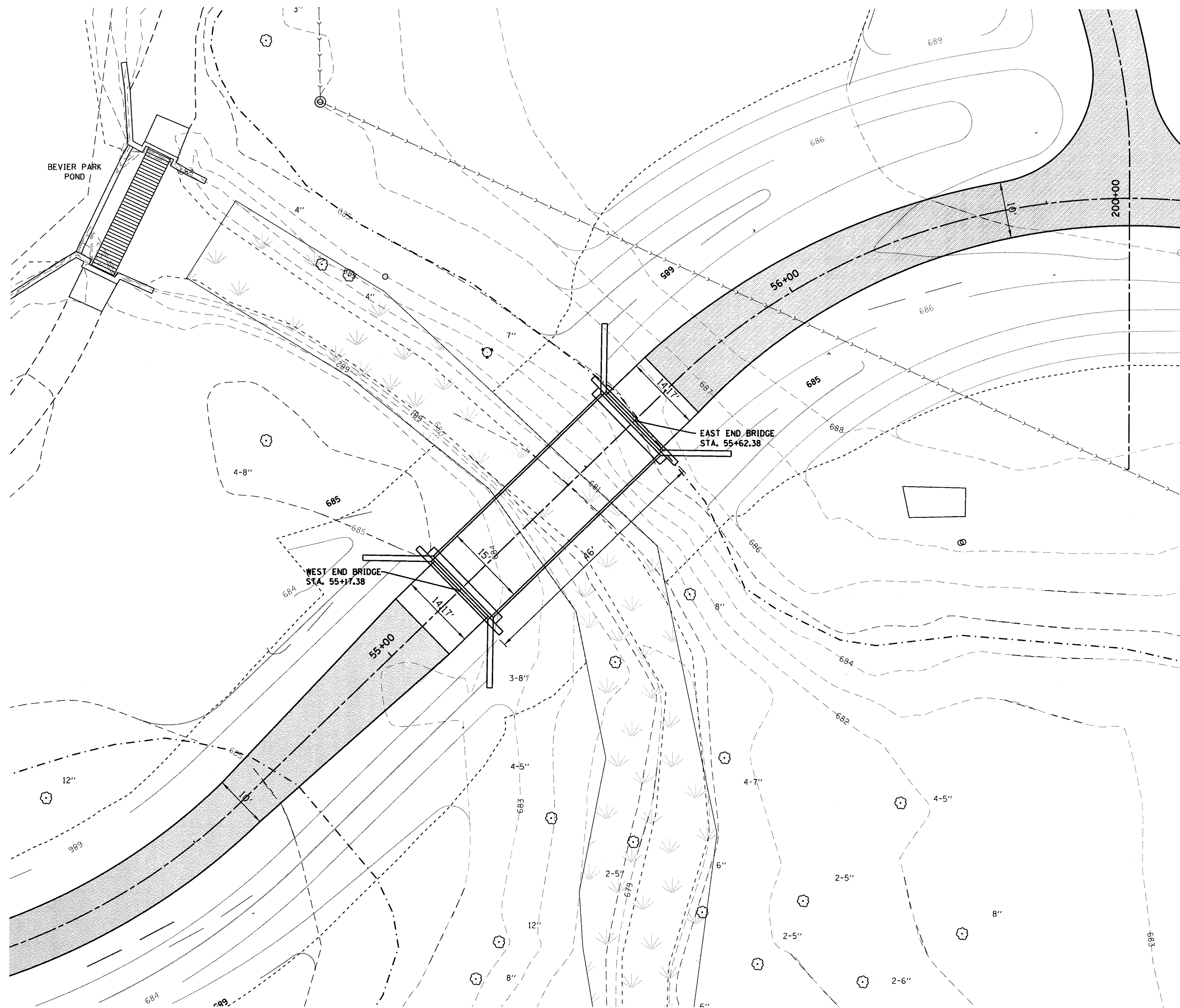
- 1 EX INL  
RIM: 687.65  
INV: 684.35 (E)
- 2 EX INL  
RIM: 687.74  
INV: 684.24 (E,W)
- 3 EX MH  
RIM: 688.22  
INV: 681.82 (N,S)  
INV: 684.12 (W)
- 9 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 45+35.07  
O/S: 13.29' LT  
RIM: 687.10  
INV: 685.25 (S)
- 10 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 45+35.04  
O/S: 13.30' RT  
RIM: 687.10  
INV: 685.13 (N,E)
- 11 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 46+35.07  
O/S: 11.23' RT  
RIM: 687.18  
INV: 685.18 (W)
- 9 24 LF OF 12" RCP @ 0.50%
- 10 19 LF OF 12" RCP @ 4.10%
- 11 31.5 LF OF 12" RCP @ 2.98%

NOTE: SEE SHEET 34 MID-BLOCK PATH CROSSING PLAN FOR SIGNAGE.



LEGEND

	PROPOSED SURFACE COURSE, MIX D, N50
	PROPOSED SIDEWALK 5"
	PROPOSED DEPRESSED CURB
	DETECTABLE WARNINGS
	PROPOSED SIGN PANEL



NOTE:  
 SEE STRUCTURAL PLANS  
 SHEETS 71-76 FOR BRIDGE DETAILS.  
 SEE SHEET 81 FOR SOIL BORING PLAN.

LAKE COUNTY  
 FOREST PRESERVES



**GHA** GEVALT HAMILTON  
 ASSOCIATES, INC.

FILE NAME =  
 4905-f13-Bridge Enlargement.dgn  
 GHA\* 4905.000  
 PrtP\_01

USER NAME = MColemen  
 PLOT SCALE = 1:10  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

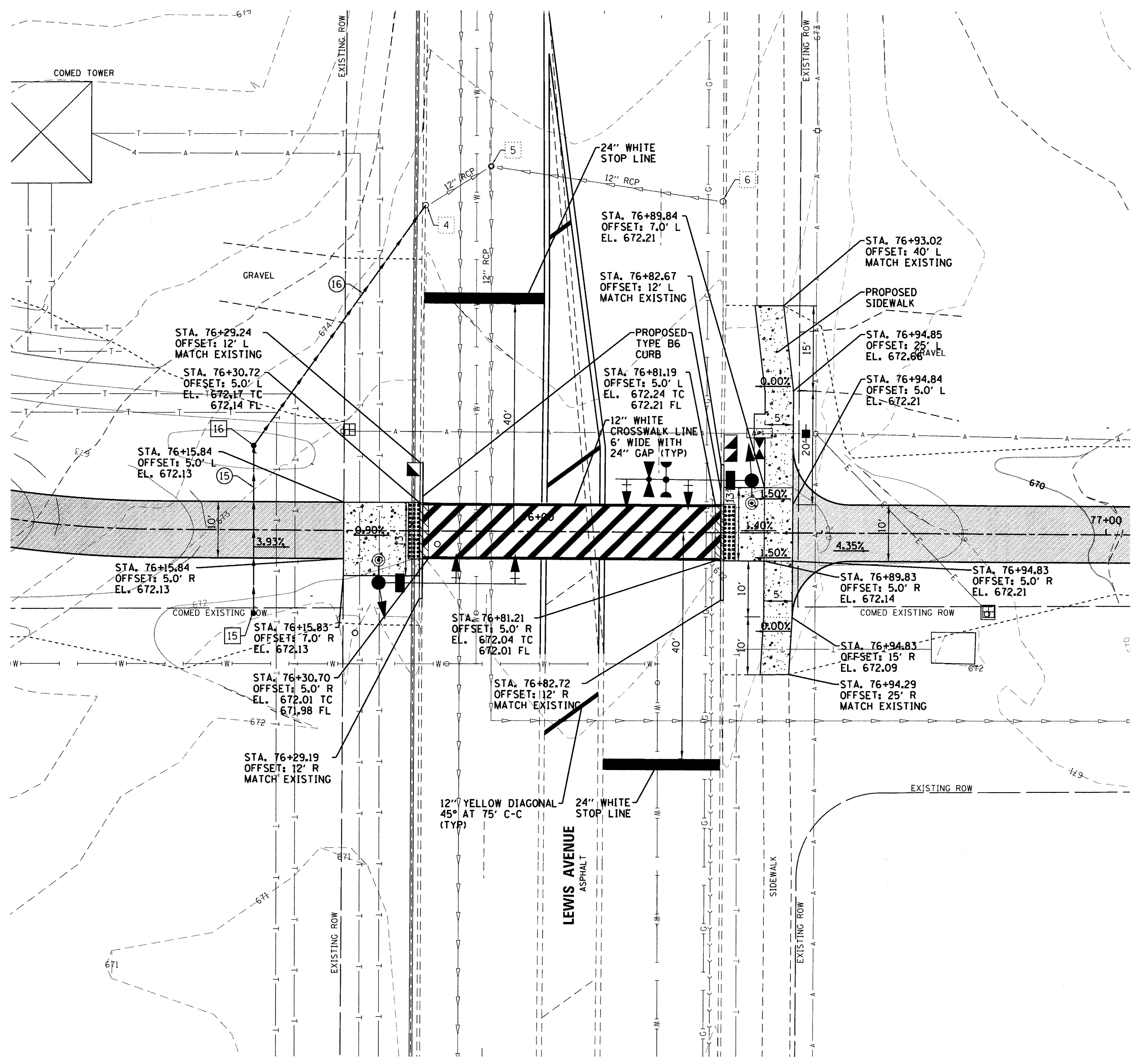
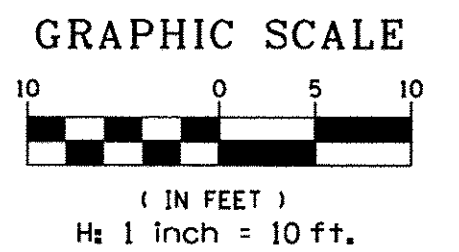
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BRIDGE ENLARGEMENT  
 LYONS WOODS TRAIL

SCALE: 1"=10' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F 3000-04-BT	LAKE	116	32
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				





- 4 EX INL  
RIM: 673.06  
INV: 669.66 (NE)
- 5 EX MH  
RIM: 673.69  
INV: 668.69 (N,S)  
INV: 669.64 (SE)  
INV: 669.69 (SW)
- 6 EX INL  
RIM: 673.21  
INV: 670.41 (NW)
- 15 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 75+50.07  
O/S: 14.80' RT  
RIM: 671.60  
INV: 669.85
- 16 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 75+49.93  
O/S: 14.82' LT  
RIM: 671.60  
INV: 669.80
- 15 29 LF OF 12" RCP @ 0.17%
- 16 52 LF OF 12" RCP @ 0.27%

NOTE: SEE SHEET 34 MID-BLOCK PATH CROSSING PLAN FOR SIGNAGE LOCATIONS.

**LEGEND**

	PROPOSED SURFACE COURSE, MIX D, N50
	PROPOSED SIDEWALK 5"
	PROPOSED DEPRESSED CURB
	DETECTABLE WARNINGS
	PROPOSED SIGN PANEL

LAKE COUNTY FOREST PRESERVES



GHA GEVALT HAMILTON ASSOCIATES, INC.

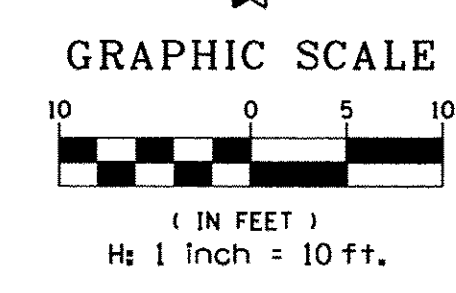
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GHA# 4905.000	PLOT SCALE = 1:100	DRAWN - PJS	REVISED -
PrP_01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LEWIS ENLARGEMENT  
LYONS WOODS TRAIL**

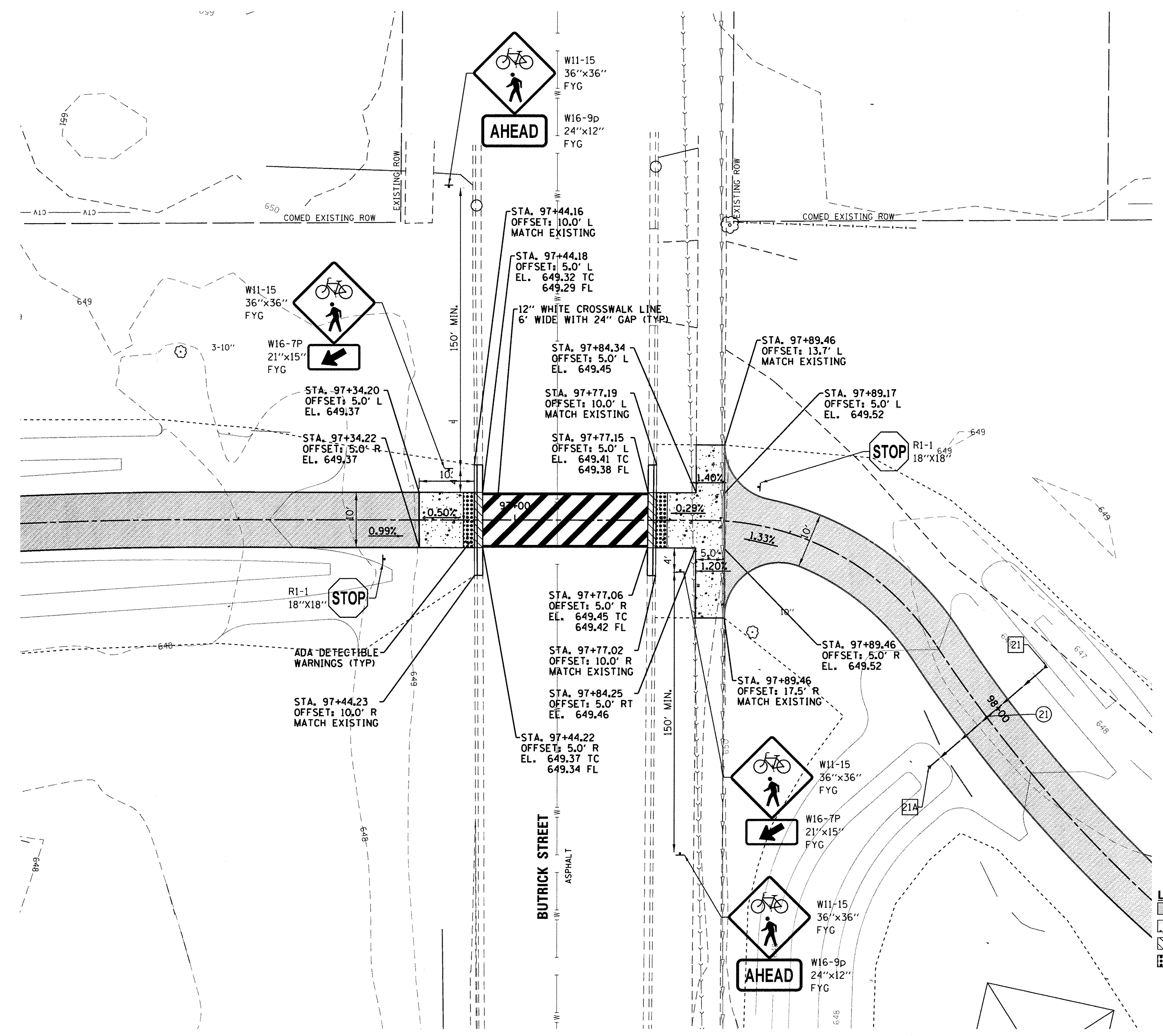
SCALE: 1"=10' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	33
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



- 21 15" CMP FES  
12" HDPE, INV: 646.89  
STA: 97+98.86  
O/S: 15.00' LT
- 21A 15" CMP FES  
12" HDPE, INV: 646.80  
STA: 98+00.99  
O/S: 14.68' RT

21 27 LF OF 12" HDPE @ 0.30%



**LEGEND**

	PROPOSED SURFACE COURSE, MIX D, N50
	PROPOSED SIDEWALK 5"
	PROPOSED DEPRESSED CURB
	DETECTABLE WARNINGS
	PROPOSED SIGN PANEL

LAKE COUNTY FOREST PRESERVES  
 GEVAIT HAMILTON ASSOCIATES, INC.

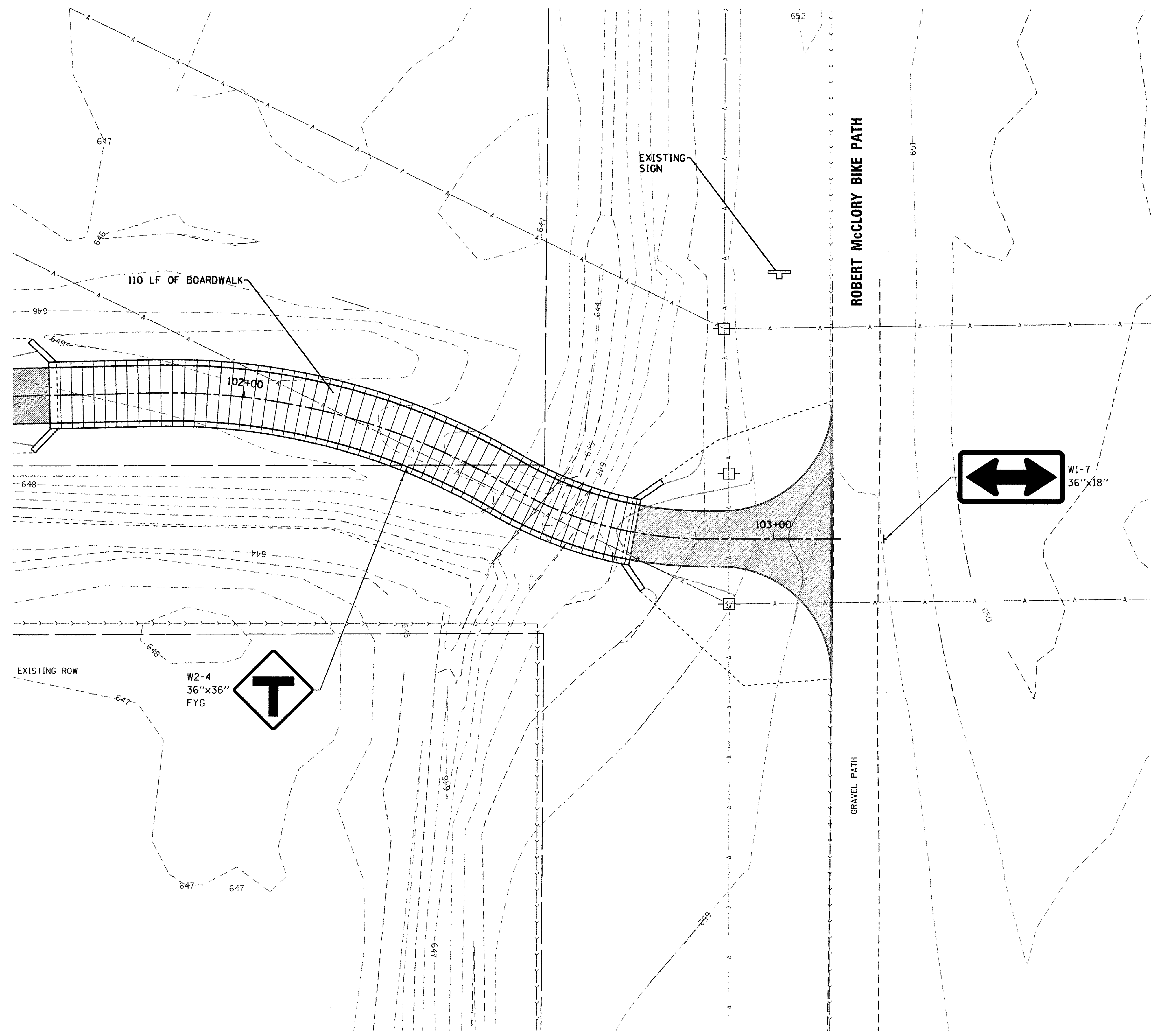
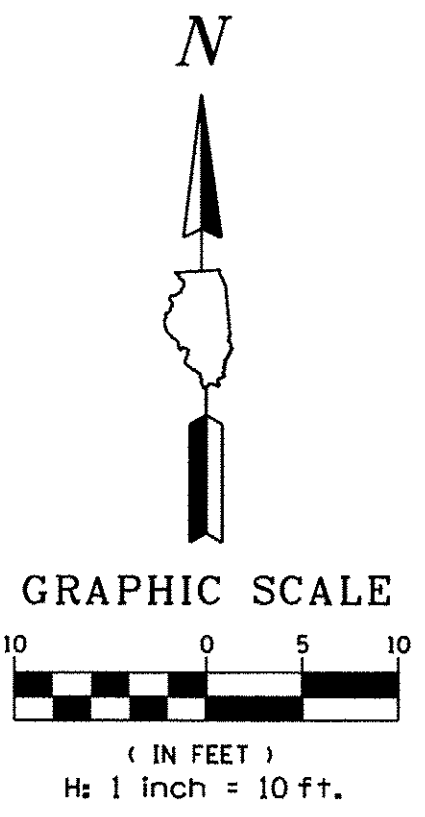
FILE NAME = 4905-f15-Butrick Enlargement.dgn	USER NAME = MColemen	DESIGNED - MKH	REVISED -
GHA# 4905.000	PLOT SCALE = 1/4"=1'-0"	DRAWN - PJS	REVISED -
PrP-01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -


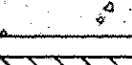



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BUTRICK ENLARGEMENT**  
**LYONS WOODS TRAIL**

SCALE: 1"=10'    SHEET 1 OF 1 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	34
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



- LEGEND**
-  PROPOSED SURFACE COURSE, MIX D, N50
  -  PROPOSED SIDEWALK 5"
  -  PROPOSED DEPRESSED CURB
  -  DETECTABLE WARNINGS
  -  PROPOSED SIGN PANEL

LAKE COUNTY  
FOREST PRESERVES



GEVALT HAMILTON  
ASSOCIATES, INC.

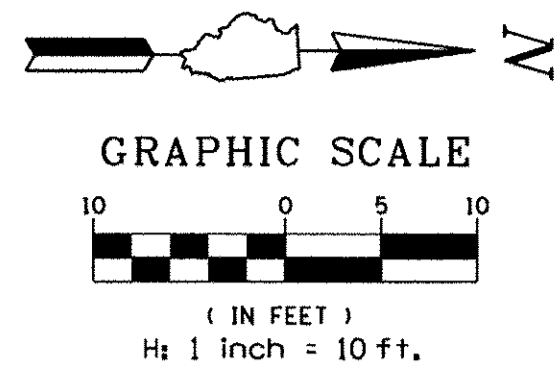
FILE NAME = 4905-F16- Robert McClory Path Enlargement.dgn	USER NAME = M Coleman	DESIGNED - MKH	REVISED -
GHA* 4905.000	PLOT SCALE = 1:10	DRAWN - PJS	REVISED -
PrP-.01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

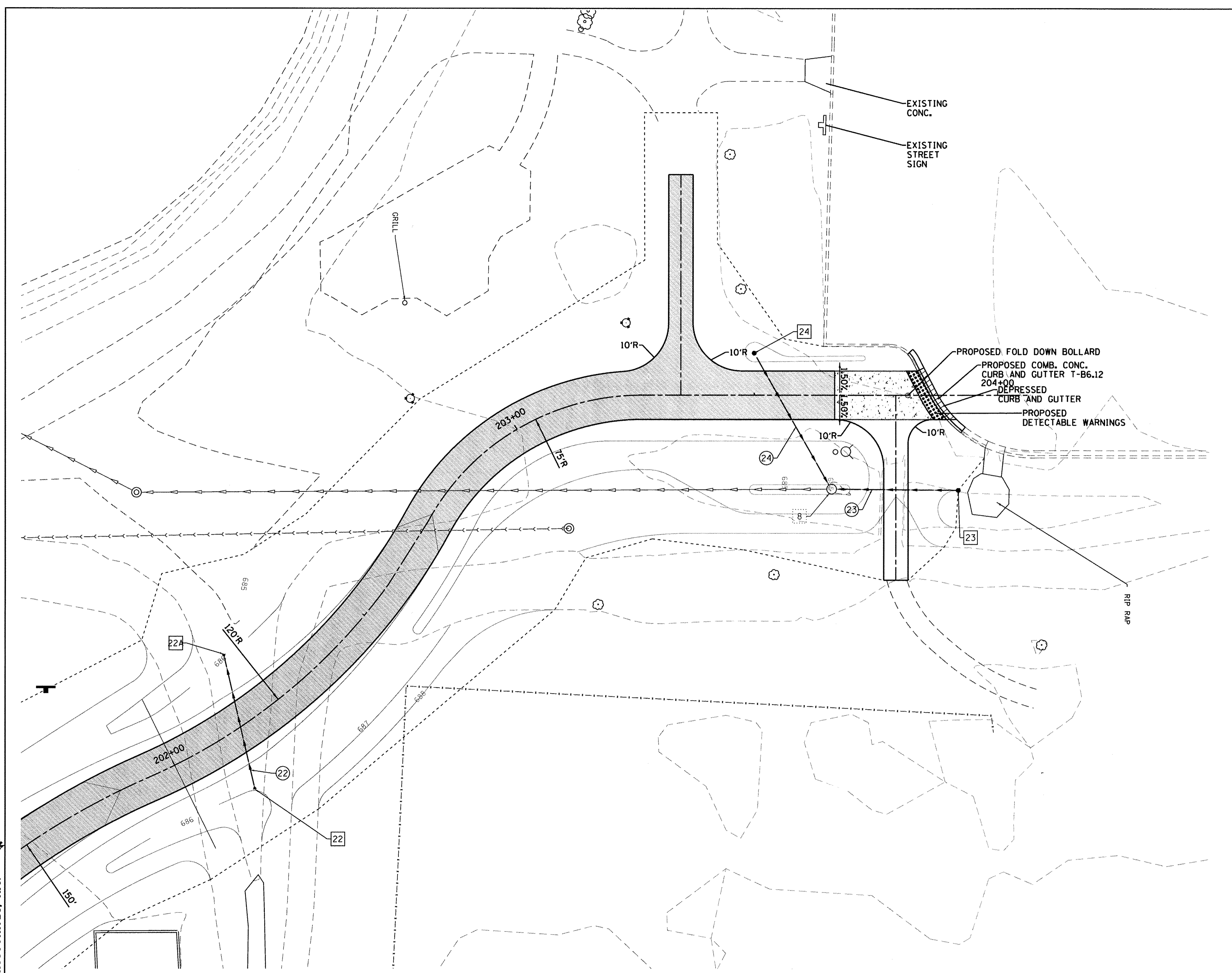
**ROBERT McCLORY PATH ENLARGEMENT  
LYONS WOODS TRAIL**

SCALE: 1"=10' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	35
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



- 22 18" CMP FES  
15" HDPE, INV: 685.50  
STA: 202+10.95  
O/S: 14.01' RT
- 22A 18" CMP FES  
15" HDPE, INV: 685.10  
STA: 202+22.66  
O/S: 15.84' LT
- 23 CATCH BASIN  
TY "C" TY 8 GRATE  
STA: 203+85.13  
O/S: 11.63' RT  
RIM: 685.25  
INV: 683.33
- 24 CATCH BASIN  
TY "C" TY 8 GRATE  
STA: 203+50.00  
O/S: 8.68' LT  
RIM: 685.80  
INV: 683.12
- 8 EX CB  
RIM: 684.97  
INV: 683.15 (N)  
INV: 682.97 (SW)  
INV: 682.32 (S)
- 22 27 LF OF 15" HDPE @ 1.49%
- 23 25 LF OF 12" HDPE @ 0.72%
- 24 30 LF OF 12" HDPE @ 0.50%



**LEGEND**

	PROPOSED SURFACE COURSE, MIX D, N50
	PROPOSED SIDEWALK 5"
	PROPOSED DEPRESSED CURB
	DETECTABLE WARNINGS
	PROPOSED SIGN PANEL

LAKE COUNTY FOREST PRESERVES  
 GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-f17- Bevier Park Enlargement.dgn	USER NAME = MCoeman	DESIGNED - MKH	REVISED -
GHA# 4905.000	PLOT SCALE = 1:10	DRAWN - PJS	REVISED -
P:R:01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

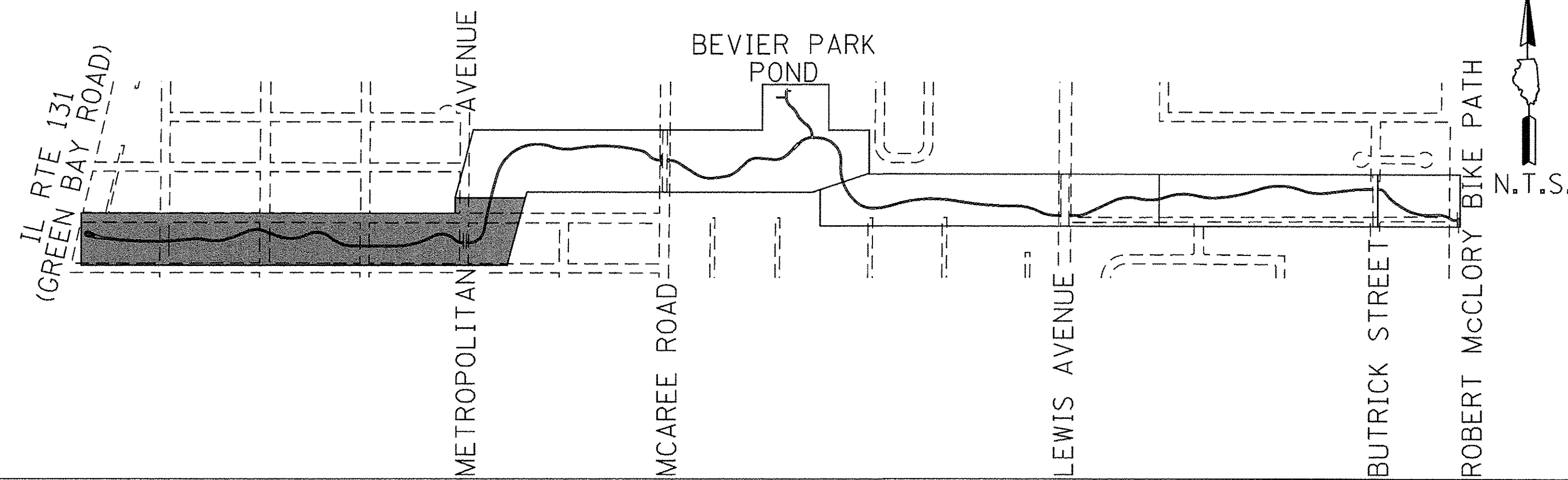
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BEVIER PARK ENTRANCE ENLARGEMENT**  
**LYONS WOODS TRAIL**

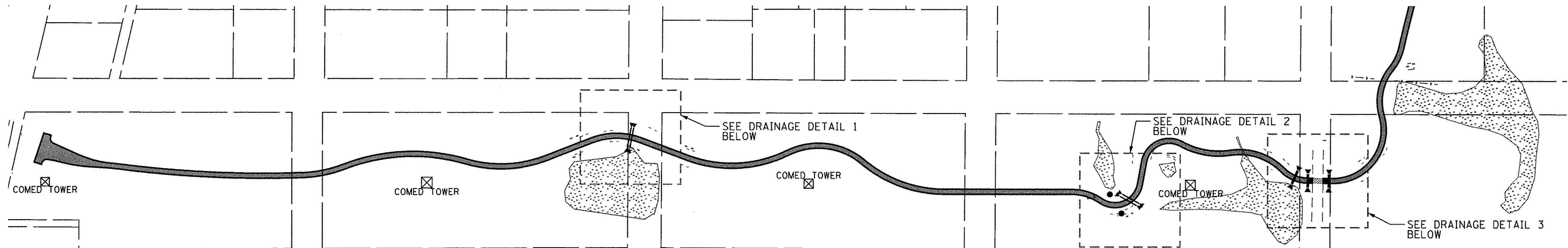
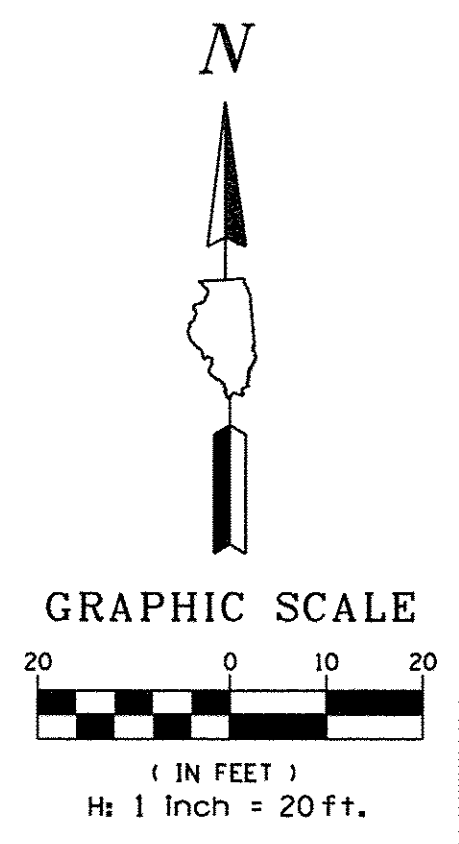
SCALE: 1"=10'    SHEET 1 OF 1 SHEETS    STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	36
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

# KEY MAP

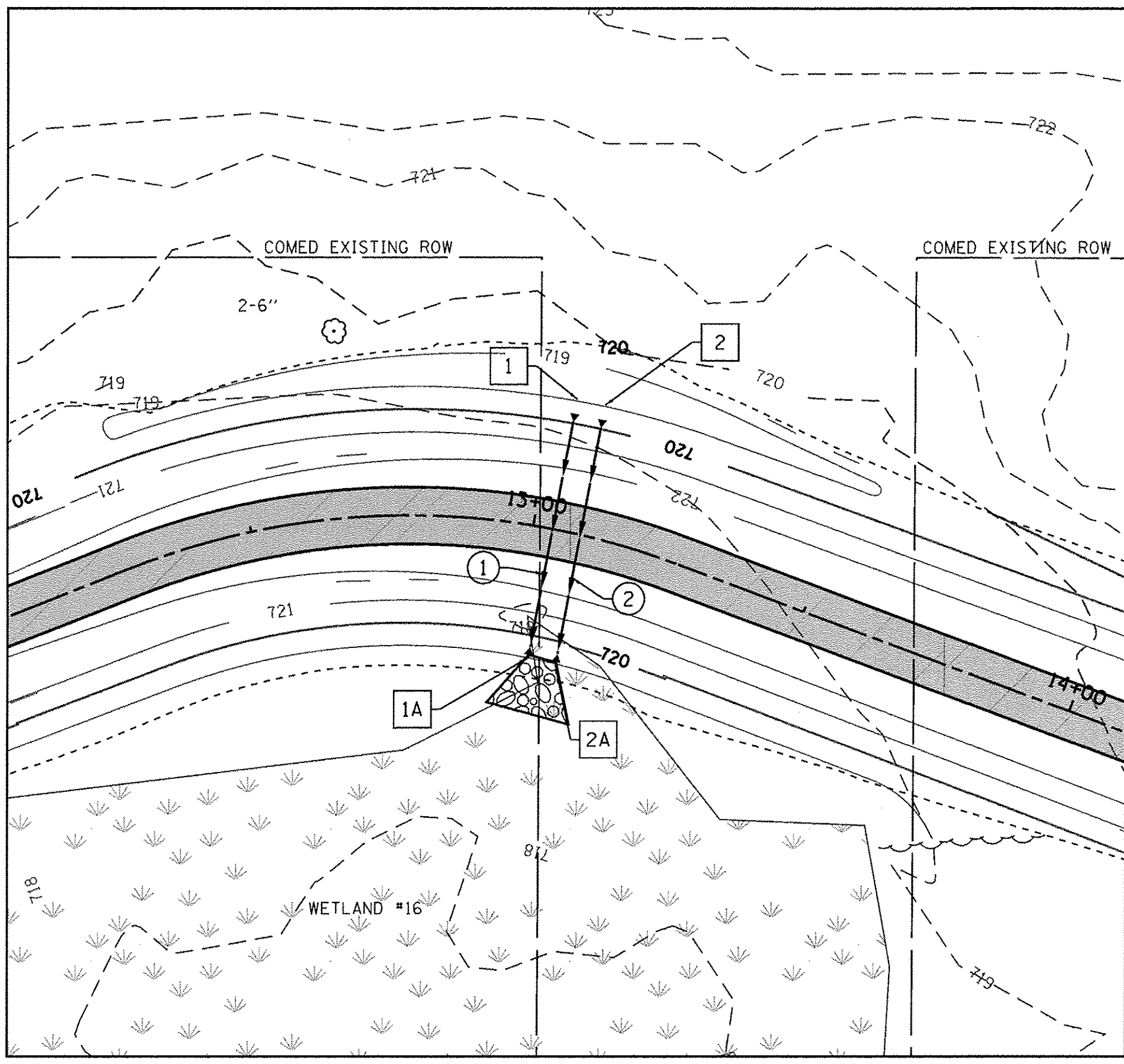


1	21" CMP FES 18" HDPE, INV: 718.16 STA: 13+03.44 O/S: 25.77' LT	3B	INLET TYP "A" TY 1 FRAME, CLOSED LID STA: 23+08.41 O/S: 17.50' RT RIM: 700.24	6	15" CMP FES 12" HDPE, INV: 696.20 STA: 27+75.97 O/S: 15.75' LT	1	45 LF OF 18" HDPE @ 0.35%
1A	21" CMP FES 18" HDPE, INV: 718.00 STA: 13+03.44 O/S: 25.48' RT	3C	INLET TYP "A" TY 1 FRAME, CLOSED LID STA: 22+82.21 O/S: 19.50' LT RIM: 700.81	6A	15" CMP FES 12" HDPE, INV: 696.03 STA: 27+75.89 O/S: 16.05' RT	2	45 LF OF 18" HDPE @ 0.35%
2	21" CMP FES 18" HDPE, INV: 718.16 STA: 13+07.62 O/S: 25.73' LT	4	21" CMP FES 18" HDPE, INV: 700.85 STA: 23+20.11 O/S: 20.20' LT	7	15" CMP FES 12" HDPE, INV: 695.89 STA: 28+15.07 O/S: 15.75' LT	3	36 LF OF 18" HDPE @ 0.95%
2A	21" CMP FES 18" HDPE, INV: 718.00 STA: 13+09.59 O/S: 25.73' RT	4A	21" CMP FES 18" HDPE, INV: 700.50 STA: 23+38.79 O/S: 19.05' RT	7A	15" CMP FES 12" HDPE, INV: 695.72 STA: 28+14.86 O/S: 16.25' RT	4	36 LF OF 18" HDPE @ 0.95%
3	21" CMP FES 18" HDPE, INV: 700.85 STA: 23+10.90 O/S: 17.60' LT	5	15" CMP FES 12" HDPE, INV: 696.20 STA: 27+73.32 O/S: 15.75' LT	8	15" CMP FES 12" HDPE, INV: 695.89 STA: 28+17.57 O/S: 15.75' LT	5	28 LF OF 12" HDPE @ 0.62%
3A	21" CMP FES 18" HDPE, INV: 700.50 STA: 23+34.24 O/S: 19.08' RT	5A	15" CMP FES 12" HDPE, INV: 696.03 STA: 27+73.51	8A	15" CMP FES 12" HDPE, INV: 695.72 STA: 28+17.36 O/S: 16.25' RT	6	28 LF OF 12" HDPE @ 0.62%
						7	28 LF OF 12" HDPE @ 0.61%
						8	28 LF OF 12" HDPE @ 0.61%

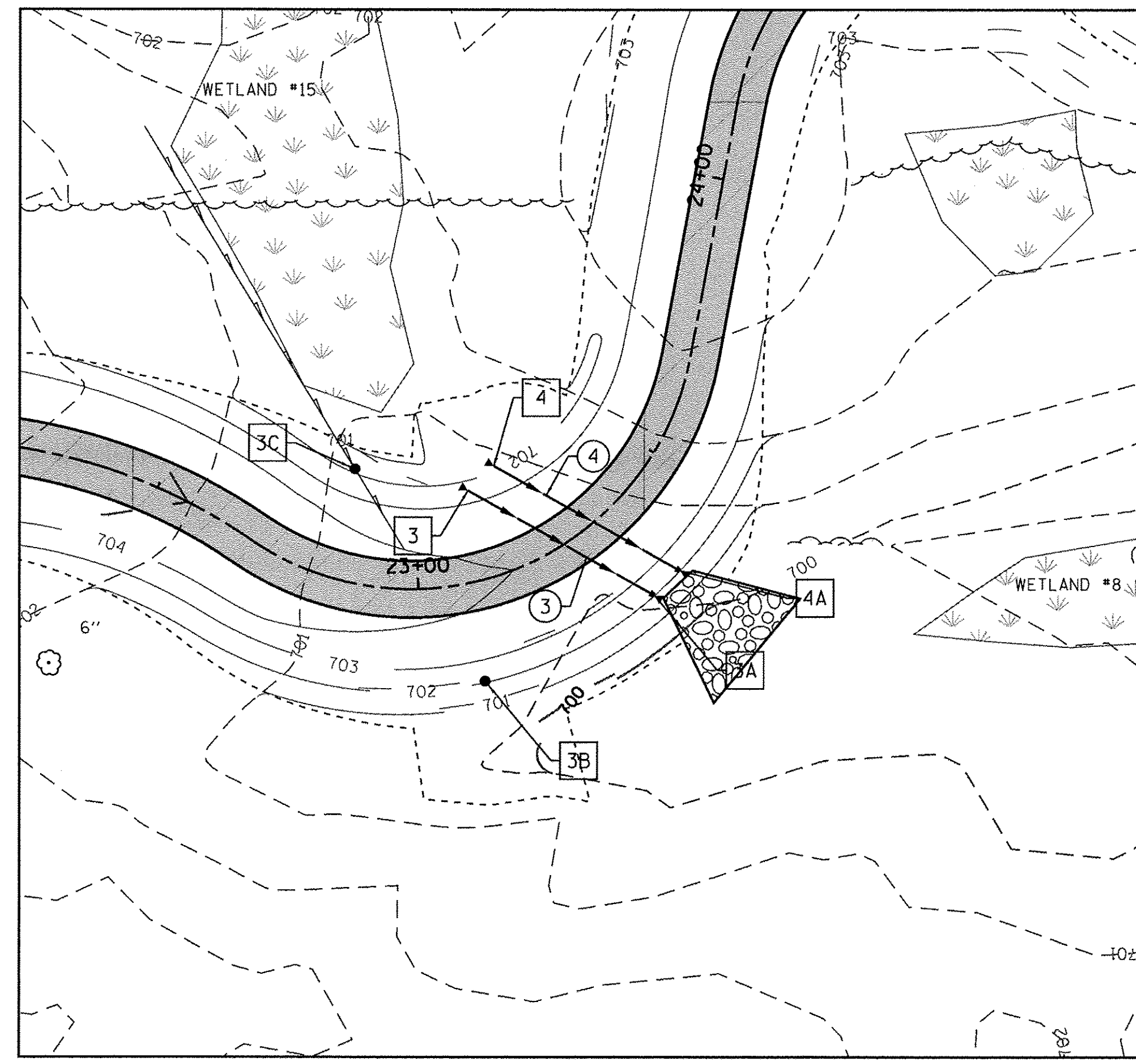


**LEGEND**

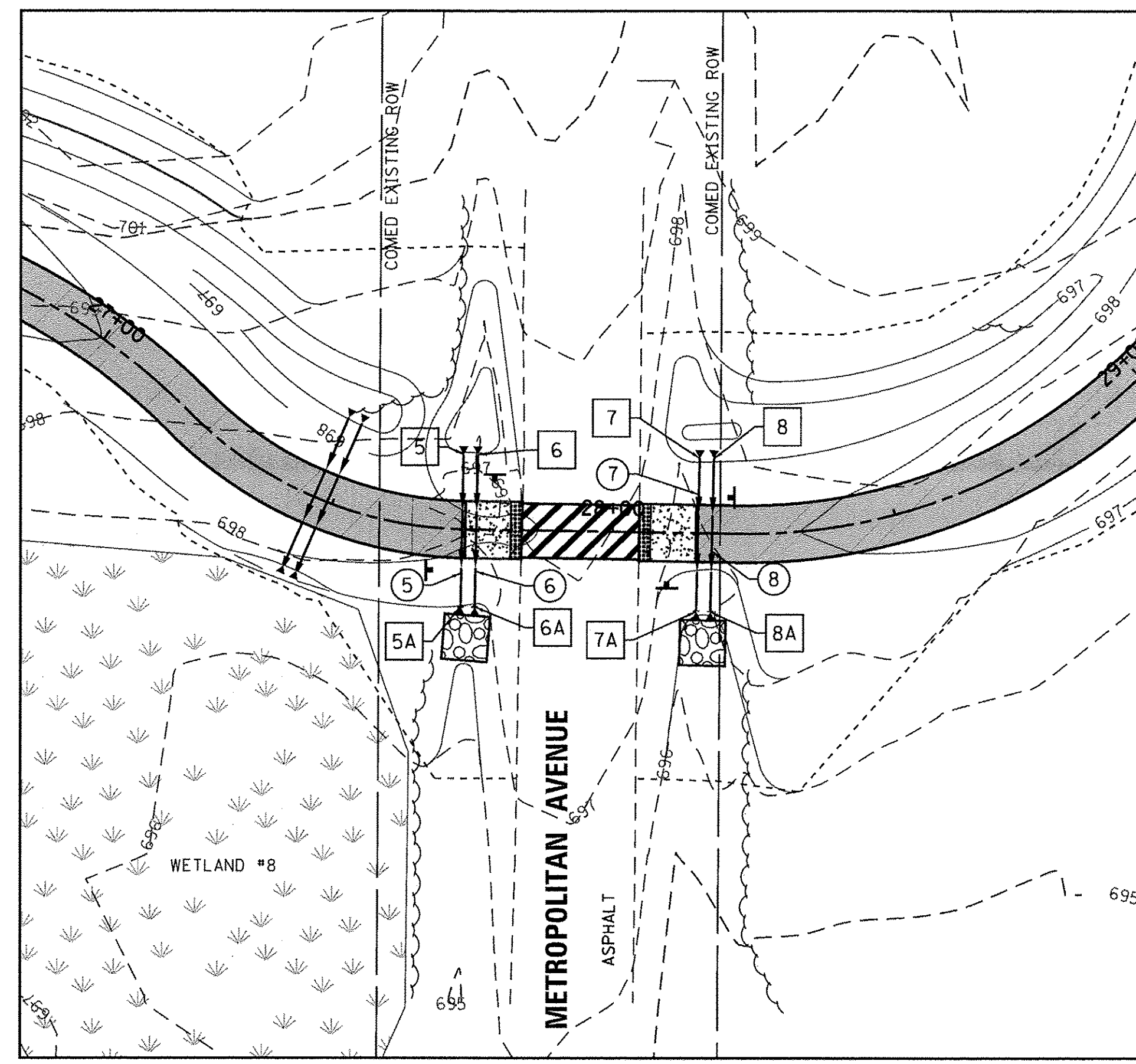
- EXISTING BOUNDARY LINE
- EXISTING WETLAND
- REGULATORY FLOODWAY
- PROPOSED RIP RAP
- FLOODPLAIN BOUNDARY
- PROPOSED GRADING LIMITS
- PROPOSED STORM SEWER
- PROPOSED CATCH BASIN
- PROPOSED FLARED END SECTION



**DRAINAGE DETAIL 1**



**DRAINAGE DETAIL 2**



**DRAINAGE DETAIL 3**

**LAKE COUNTY FOREST PRESERVES**  
**GEWALT HAMILTON ASSOCIATES, INC.**

FILE NAME = 4905-f01-drainage.dgn	USER NAME = MCoeman	DESIGNED - MKH	REVISED - 11/9/2016
GHA# 4905.000	PLOT SCALE = 1:20	DRAWN - PJS	REVISED -
Drainage	PLOT DATE = 11/18/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

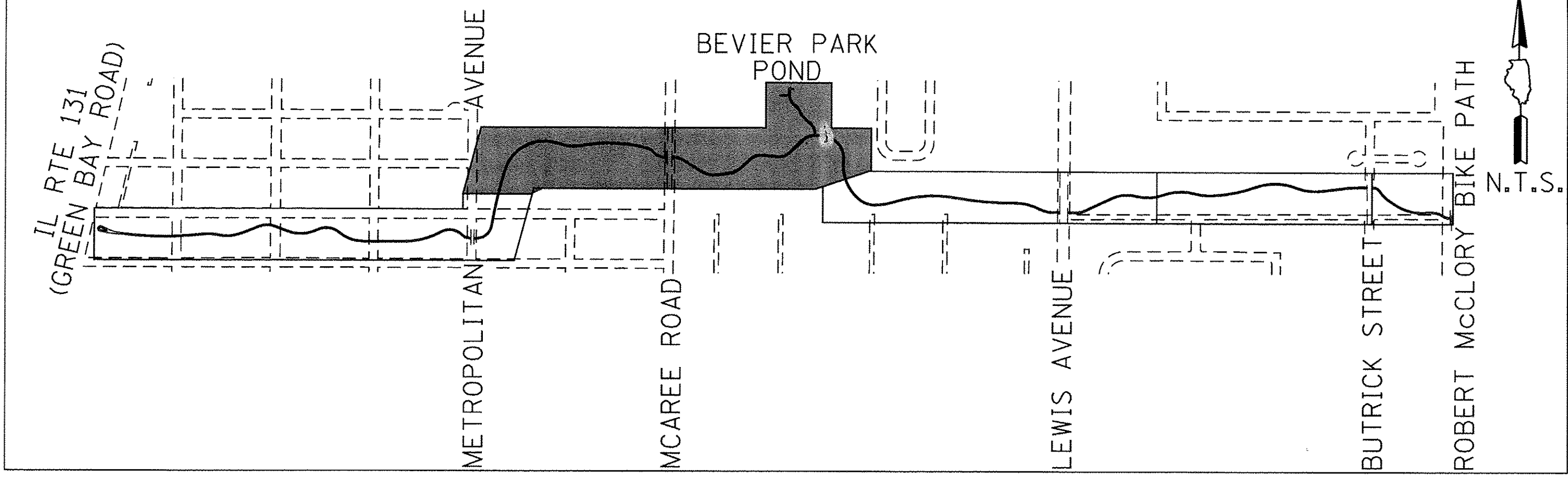
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: 1"=20'	SHEET 1 OF 5 SHEETS	STA. TO STA.
---------------	---------------------	--------------

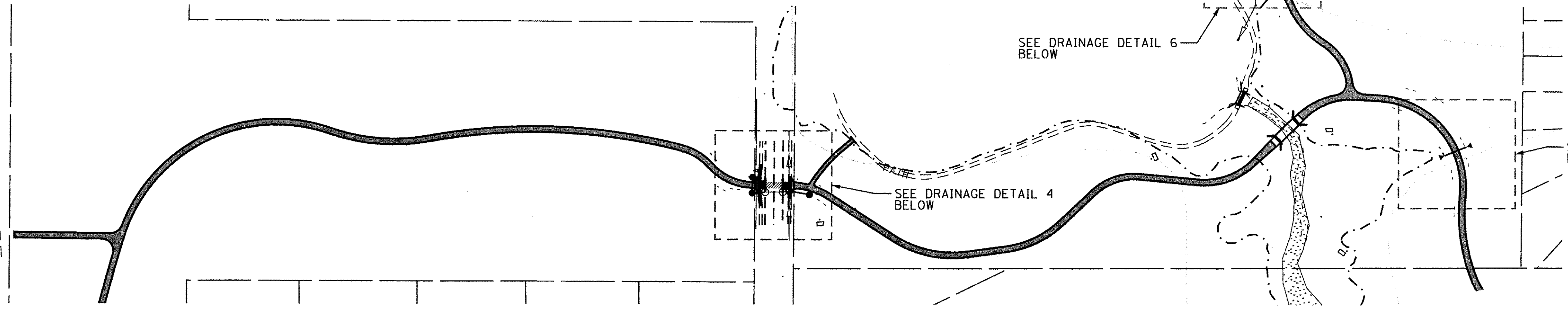
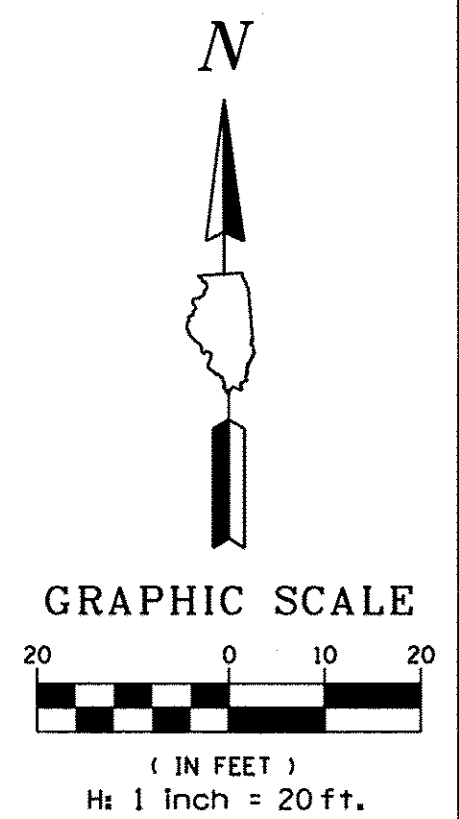
**DRAINAGE ENLARGEMENT  
LYONS WOODS TRAIL**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	37
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

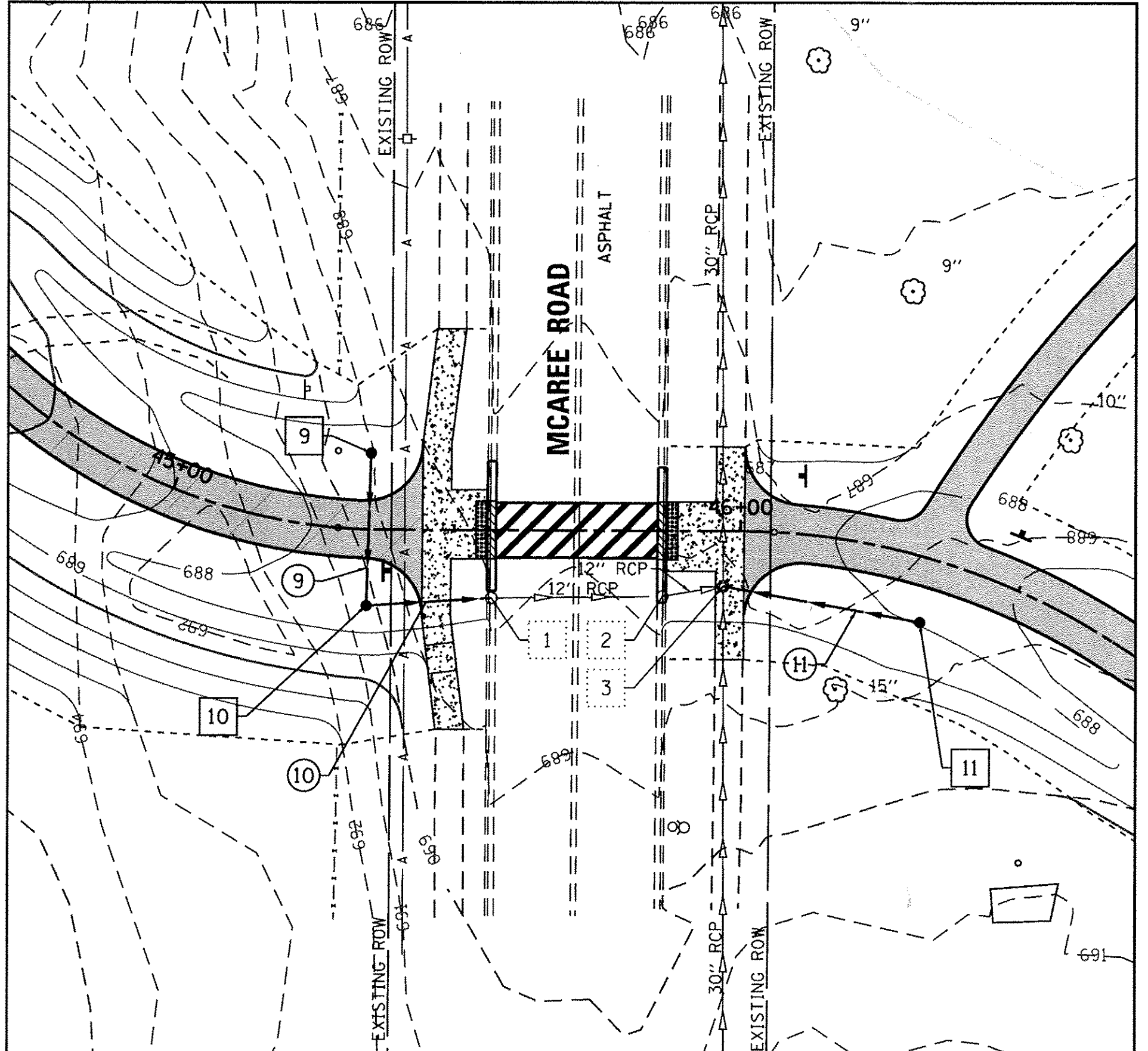
# KEY MAP



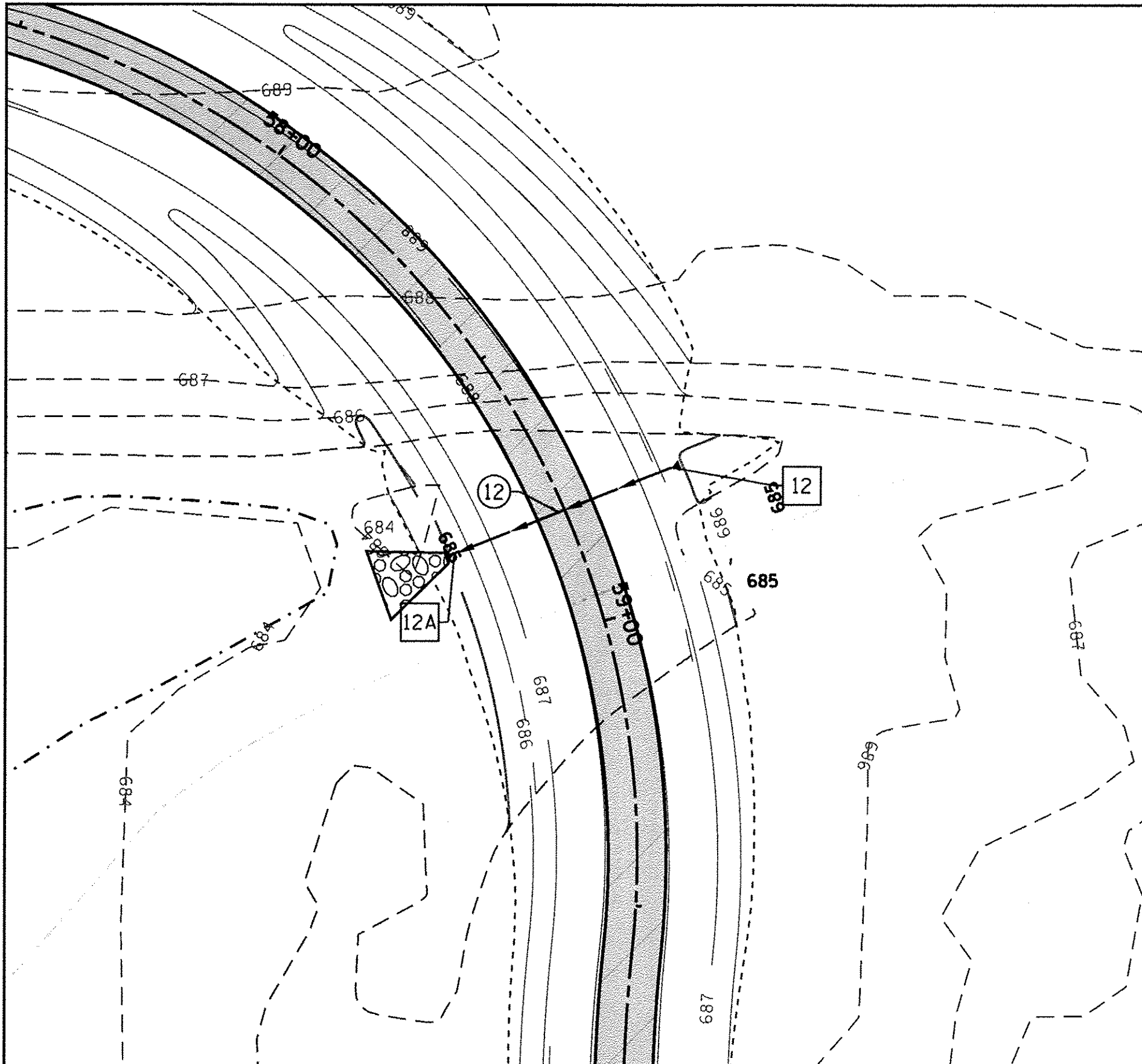
- 9 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 45+35.07  
O/S: 13.29' LT  
RIM: 687.10  
INV: 685.25 (S)
- 10 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 45+35.04  
O/S: 13.30' RT  
RIM: 687.10  
INV: 685.13 (N,E)
- 11 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 46+35.07  
O/S: 11.23' RT  
RIM: 687.10  
INV: 685.10 (W)
- 12 18" CMP FES  
15" HDPE, INV: 684.91  
STA: 58+80.36  
O/S: 21.32' LT
- 12A 18" CMP FES  
15" HDPE, INV: 684.21  
STA: 58+78.78  
O/S: 21.95' RT
- 22 18" CMP FES  
15" HDPE, INV: 685.50  
STA: 202+10.95  
O/S: 14.01' RT
- 22A 18" CMP FES  
15" HDPE, INV: 685.10  
STA: 202+22.66  
O/S: 15.84' LT
- 23 CATCH BASIN  
TY "C" TY 8 GRATE  
STA. 203+85.13  
O/S: 11.63' RT  
RIM: 685.25  
INV: 683.33
- 1 1 EX INL  
RIM: 687.65  
INV: 684.35 (E)
- 2 2 EX INL  
RIM: 687.74  
INV: 684.24 (E,W)
- 3 3 EX MH  
RIM: 688.22  
INV: 681.82 (N,S)  
INV: 684.12 (W)
- 7 7 EX CB  
RIM: 684.25  
INV: 681.55 (N)  
INV: 681.45 (SW)
- 8 8 EX CB  
RIM: 684.97  
INV: 683.15 (N)  
INV: 682.97 (SW)  
INV: 682.32 (S)
- 9 9 24 LF OF 12" RCP @ 0.50%
- 10 10 19 LF OF 12" RCP @ 4.10%
- 11 11 31.5 LF OF 12" RCP @ 2.73%
- 12 12 28.5 LF OF 15" HDPE @ 2.46%
- 22 22 27 LF OF 15" HDPE @ 1.49%
- 23 23 25 LF OF 12" HDPE @ 0.72%



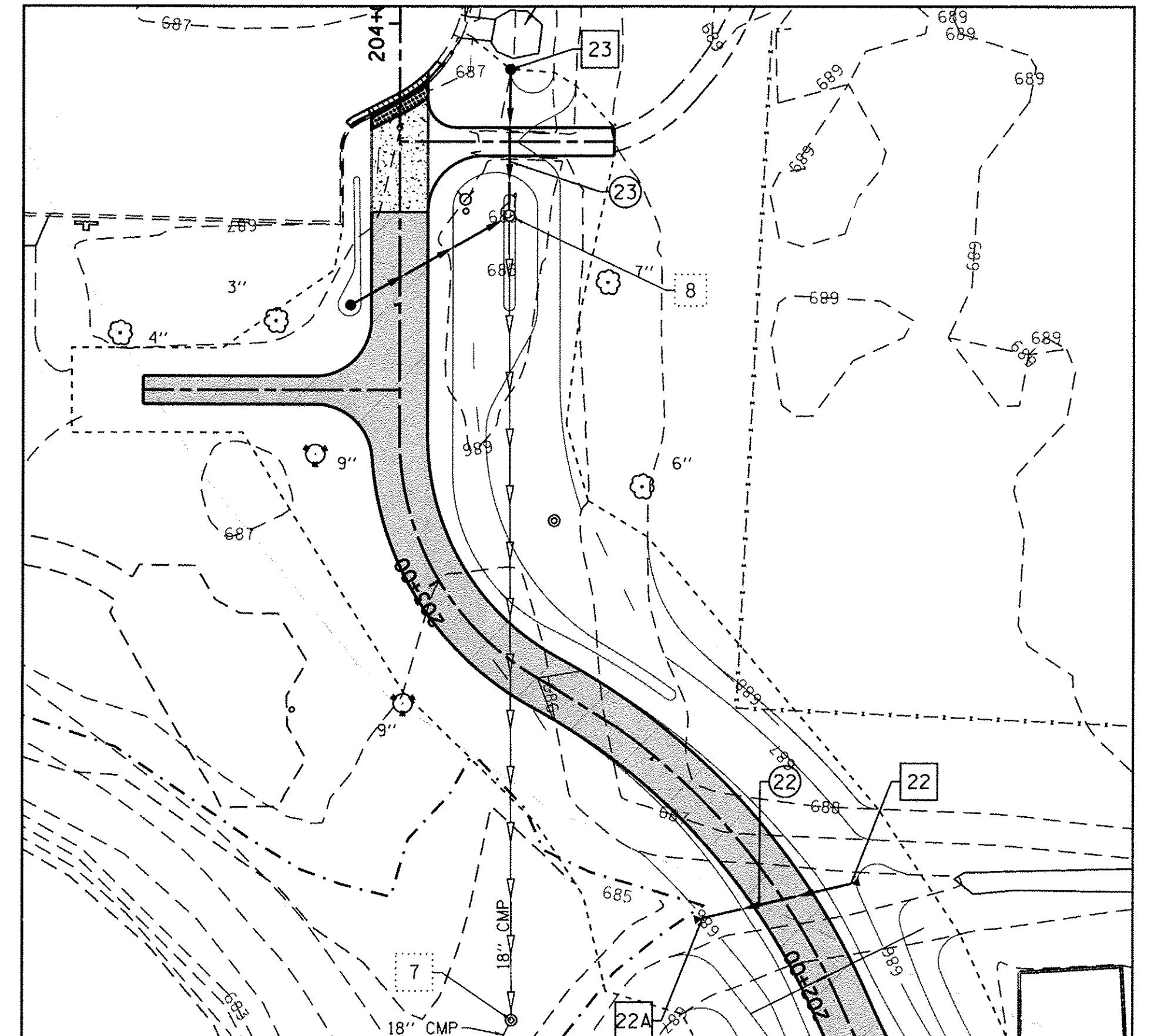
- ### LEGEND
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - PROPOSED RIP RAP
  - FLOODPLAIN BOUNDARY
  - PROPOSED GRADING LIMITS
  - PROPOSED STORM SEWER
  - PROPOSED CATCH BASIN
  - PROPOSED FLARED END SECTION



**DRAINAGE DETAIL 4**



**DRAINAGE DETAIL 5**



**DRAINAGE DETAIL 6**

**LAKE COUNTY FOREST PRESERVES**  
**GEVAULT HAMILTON ASSOCIATES, INC.**

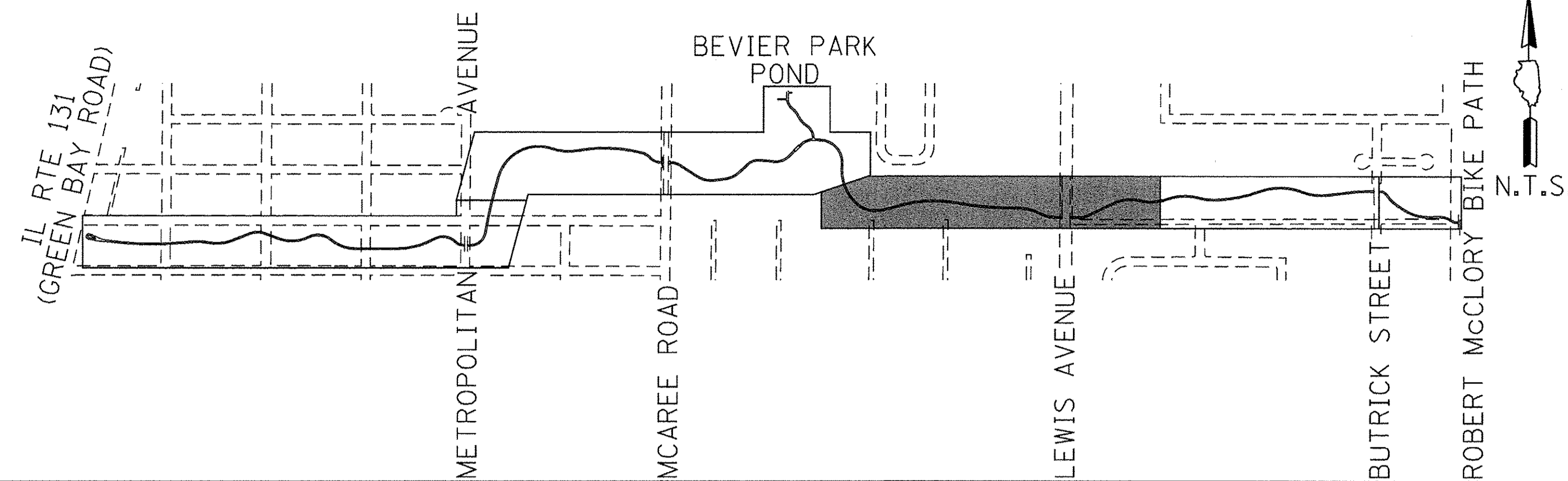
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GHA# 4905.000	PLOT SCALE = 1:20	DRAWN - PJS	REVISED -
Drainage	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

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

**DRAINAGE ENLARGEMENT**  
**LYONS WOODS TRAIL**  
 SCALE: 1"=20'    SHEET 2 OF 5 SHEETS    STA. TO STA.

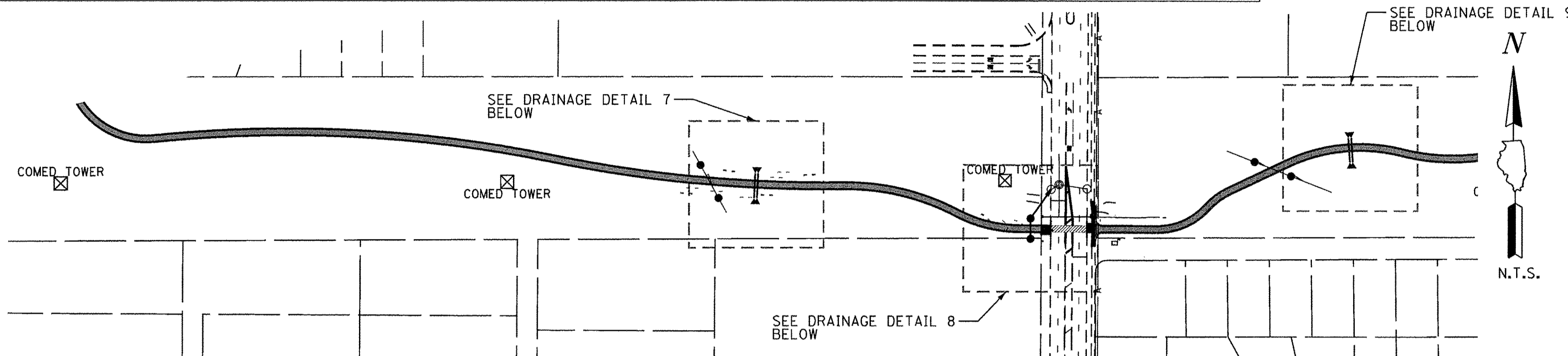
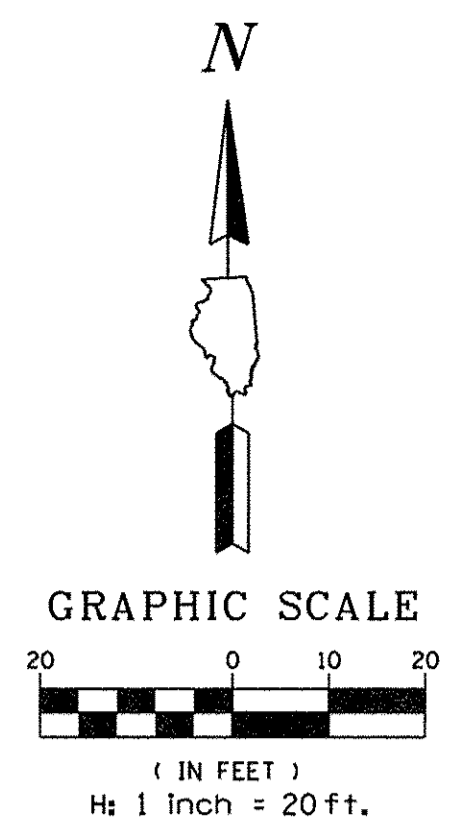
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	38
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

# KEY MAP

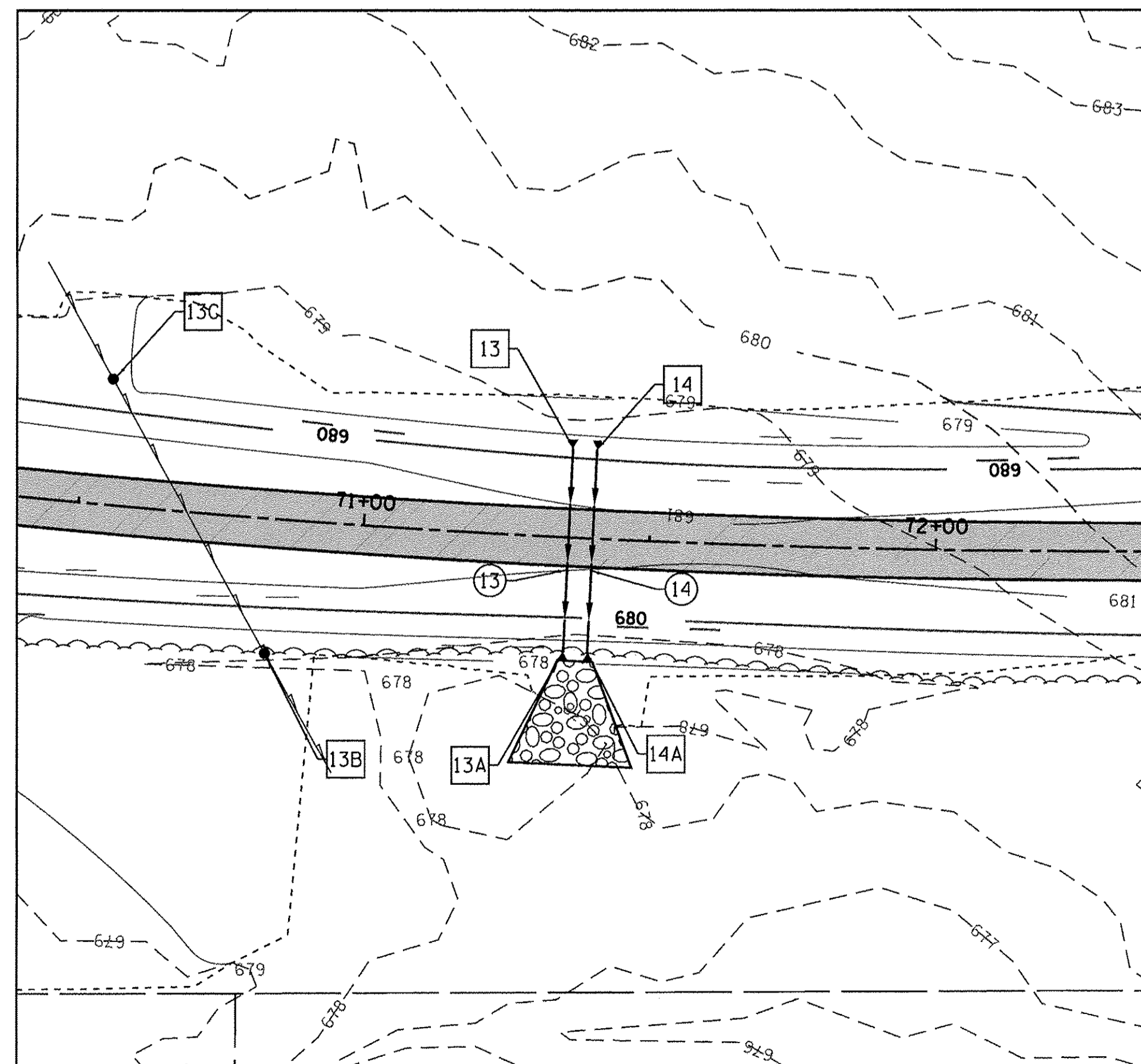


- 13 18" CMP FES  
15" HDPE, INV: 678.98  
STA: 71+35.84  
O/S: 17.15' LT
- 14 18" CMP FES  
15" HDPE, INV: 677.91  
STA: 71+35.92  
O/S: 21.52' RT
- 13B INLET TYP "A"  
TY 1 FRAME, CLOSED LID  
STA: 71+34.44  
O/S: 23.50' RT  
RIM: 678.03
- 13C INLET TYP "A"  
TY 1 FRAME, CLOSED LID  
STA: 71+04.09  
O/S: 22.00' LT  
RIM: 678.61
- 14 18" CMP FES  
15" HDPE, INV: 678.98  
STA: 71+40.09  
O/S: 17.15' LT
- 14A 18" CMP FES  
15" HDPE, INV: 677.91  
STA: 71+40.09  
O/S: 21.52' RT
- 15 CATCH BASIN  
TY "C" TY 8 GRATE  
STA: 75+50.07  
O/S: 14.80' RT  
RIM: 671.60  
INV: 669.85
- 16 CATCH BASIN  
TY "C" TY 8 GRATE  
STA: 75+49.93  
O/S: 14.82' LT  
RIM: 671.60  
INV: 669.80
- 17 15" CMP FES  
12" HDPE, INV: 661.42  
STA: 80+45.65  
O/S: 15.5' LT
- 17A 15" CMP FES  
12" HDPE, INV: 659.61  
STA: 80+45.65  
O/S: 22.81' RT

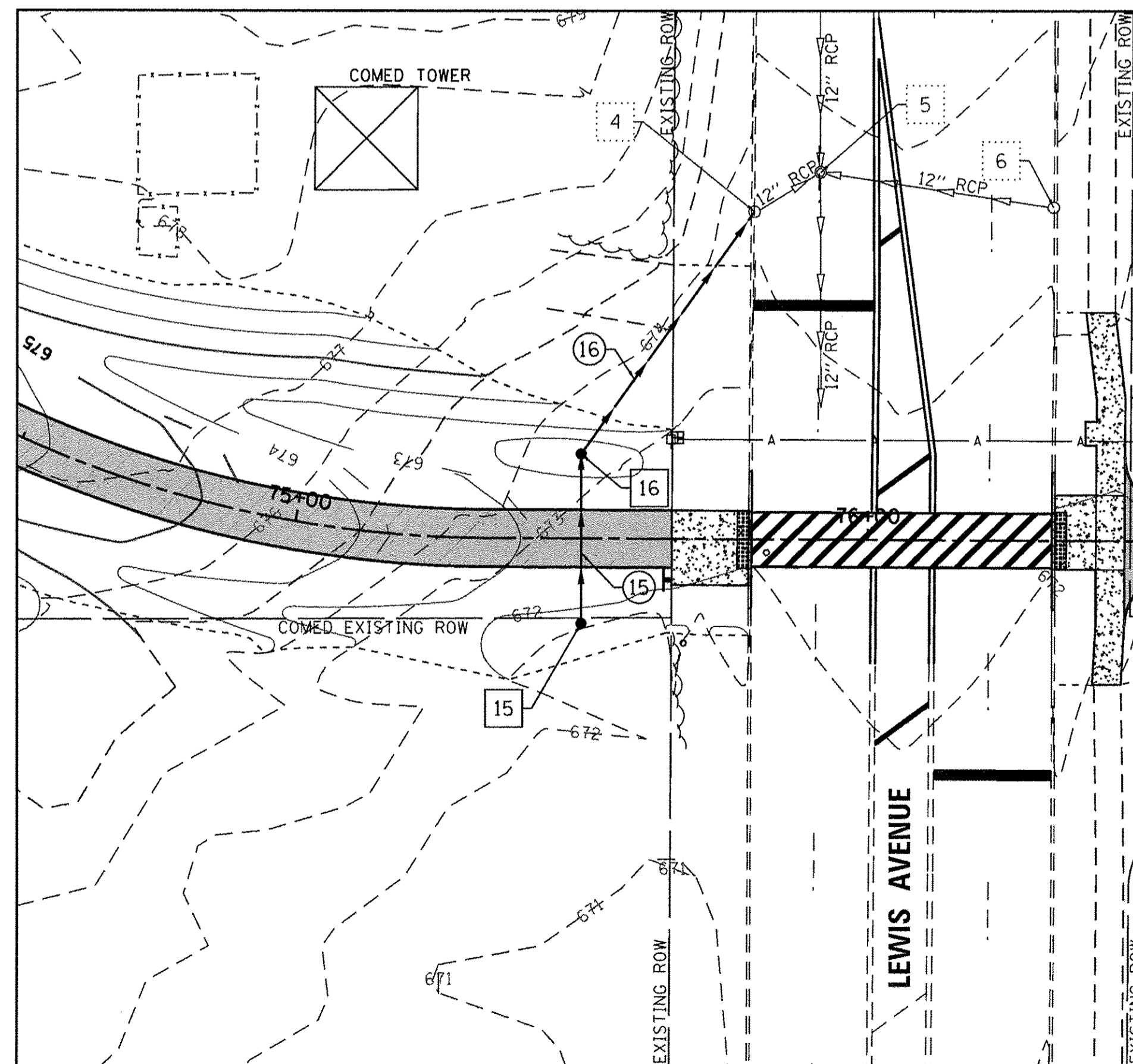
- 17B INLET TYP "A"  
TY 1 FRAME, CLOSED LID  
STA: 79+49.28  
O/S: 19.00' RT  
RIM: 661.67
- 17C INLET TYP "A"  
TY 1 FRAME, CLOSED LID  
STA: 79+09.66  
O/S: 22.50' RT  
RIM: 663.38
- 18 15" CMP FES  
12" HDPE, INV: 661.42  
STA: 80+49.60  
O/S: 15.53' LT
- 18A 15" CMP FES  
12" HDPE, INV: 659.61  
STA: 80+50.30  
O/S: 22.92' RT
- 13 35.5 LF OF 15" HDPE @ 3.01%
- 14 35.5 LF OF 15" HDPE @ 3.01%
- 15 29 LF OF 12" RCP @ 0.17%
- 16 52 LF OF 12" RCP @ 0.27%
- 17 36 LF OF 12" HDPE @ 5.02%
- 18 36 LF OF 12" HDPE @ 5.02%
- 4 EX INL  
RIM: 673.06  
INV: 669.66 (NE)
- 5 EX MH  
RIM: 673.69  
INV: 668.69 (N,S)  
INV: 669.64 (SE)  
INV: 669.69 (SW)
- 6 EX INL  
RIM: 673.21  
INV: 670.41 (NW)



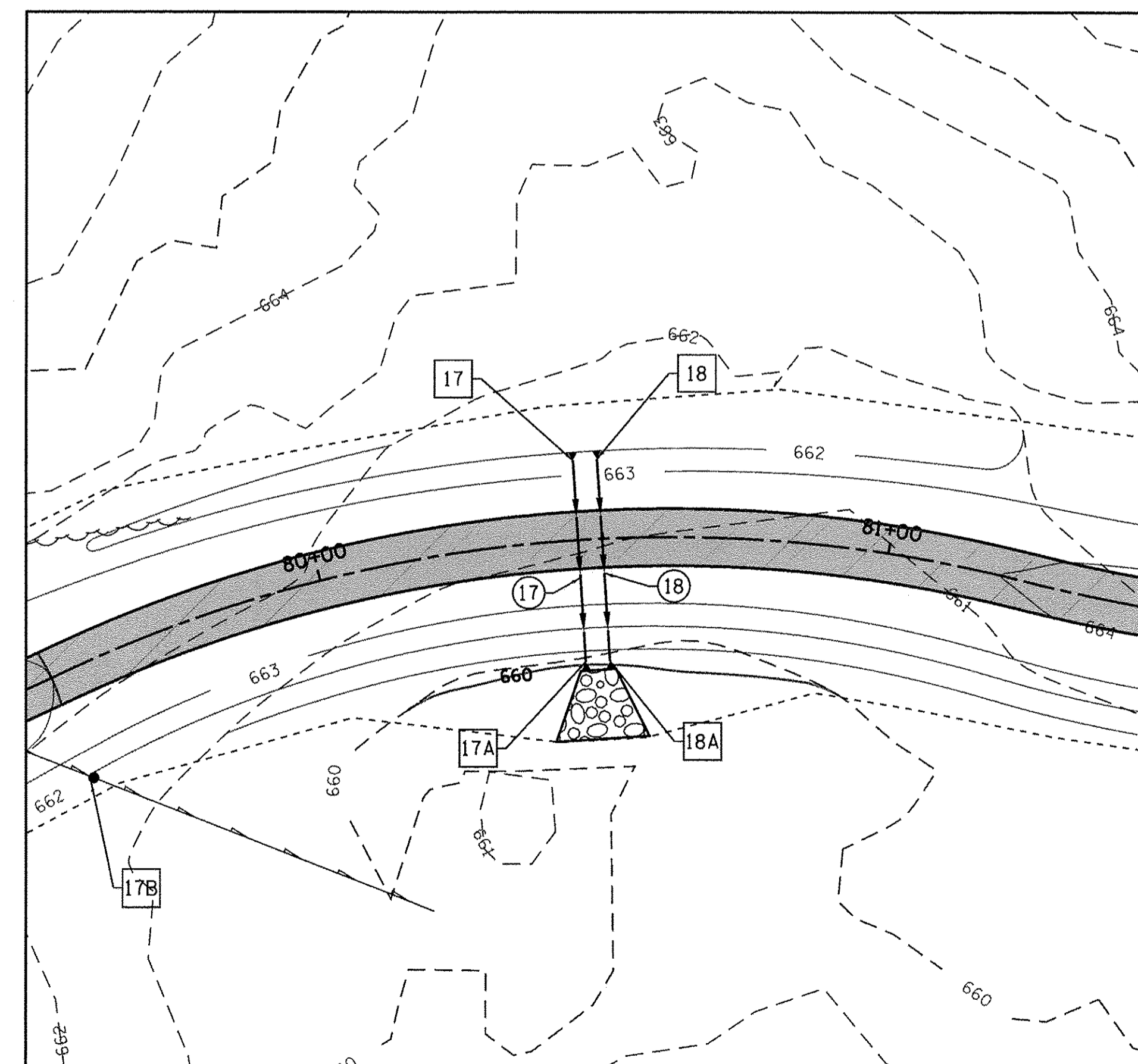
- ### LEGEND
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - PROPOSED RIP RAP
  - FLOODPLAIN BOUNDARY
  - PROPOSED GRADING LIMITS
  - PROPOSED STORM SEWER
  - PROPOSED CATCH BASIN
  - PROPOSED FLARED END SECTION



**DRAINAGE DETAIL 7**



**DRAINAGE DETAIL 8**



**DRAINAGE DETAIL 9**

**LAKE COUNTY FOREST PRESERVES**  
**GEWALT HAMILTON ASSOCIATES, INC.**

FILE NAME = 4905-ff03-drainage.dgn	USER NAME = McColeman	DESIGNED - MKH	REVISED - 11/9/2016
GHA# 4905.000	PLOT SCALE = 1:20	DRAWN - PJS	REVISED -
Drainage	PLOT DATE = 11/18/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

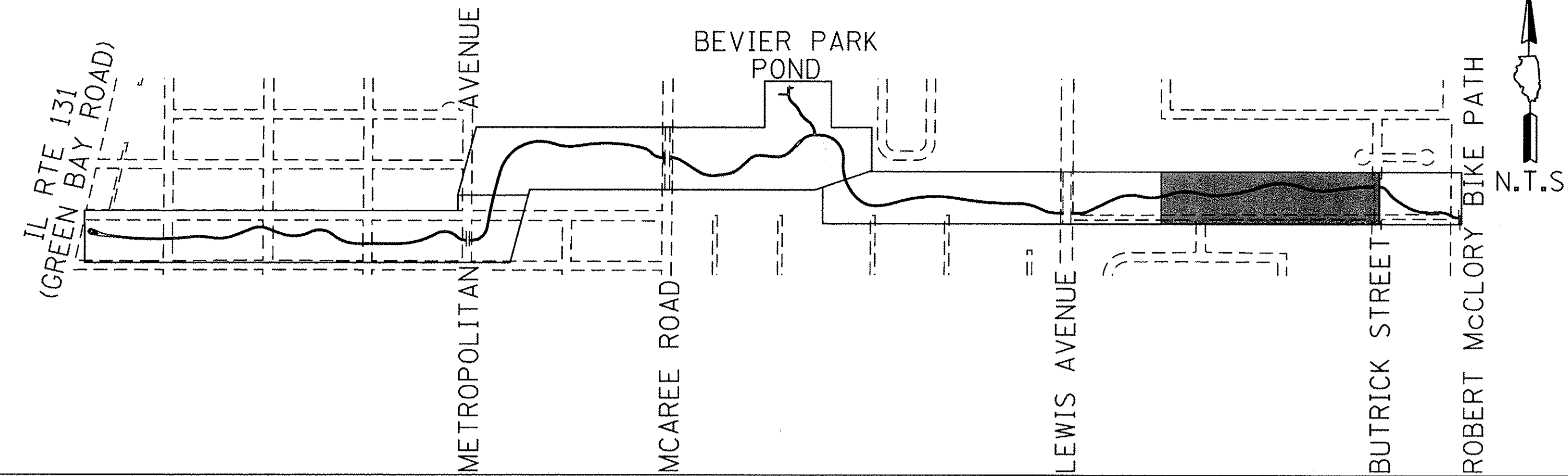
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SCALE: 1"=20'	SHEET 3 OF 5 SHEETS	STA. TO STA.
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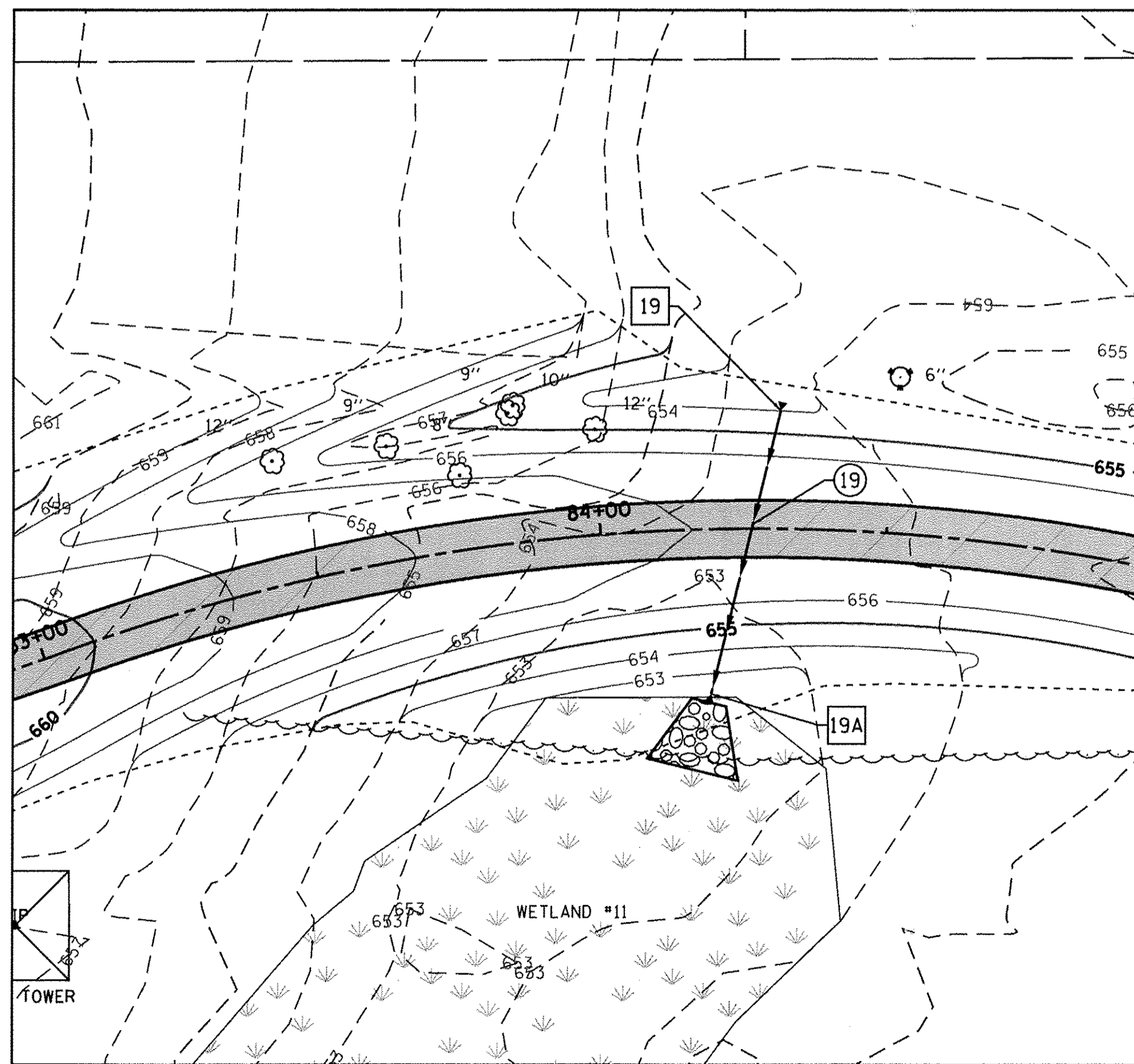
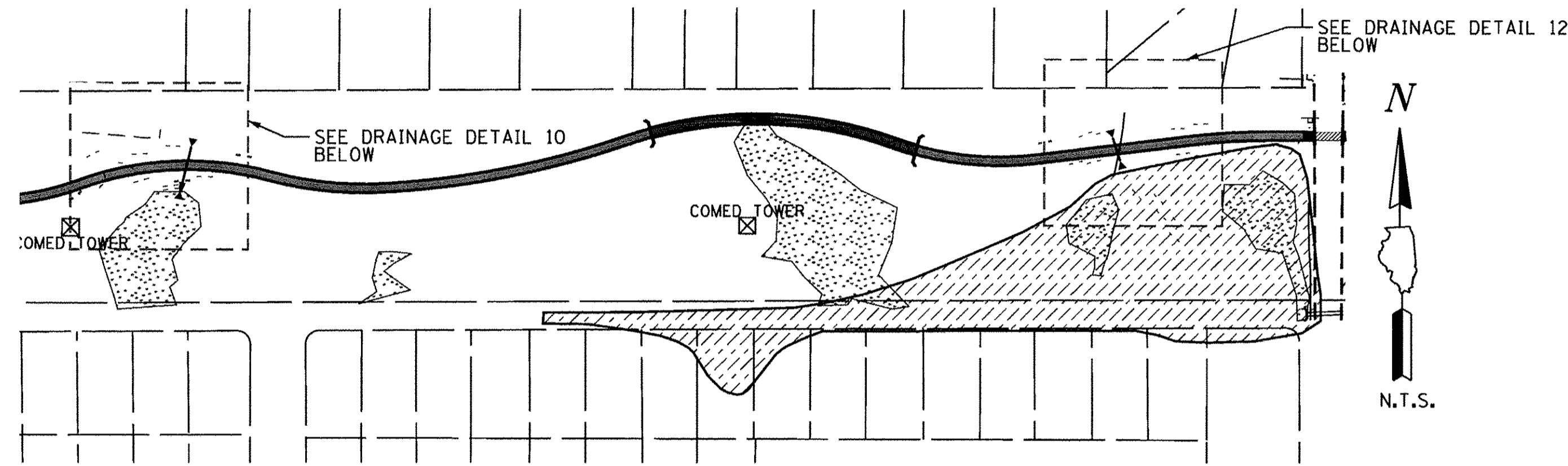
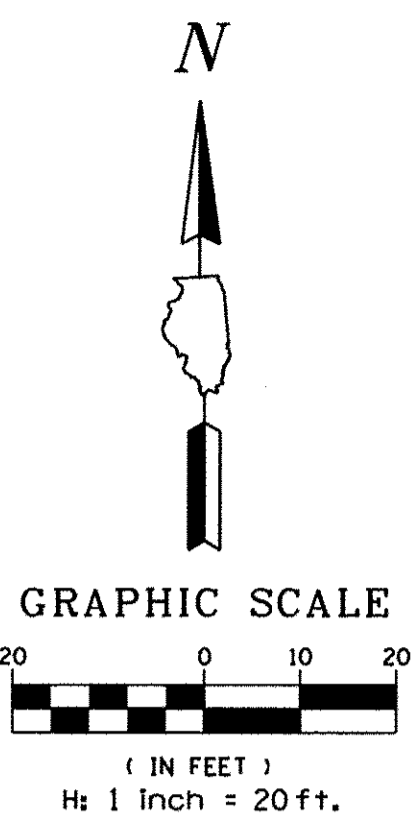
**DRAINAGE ENLARGEMENT**  
**LYONS WOODS TRAIL**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	39
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

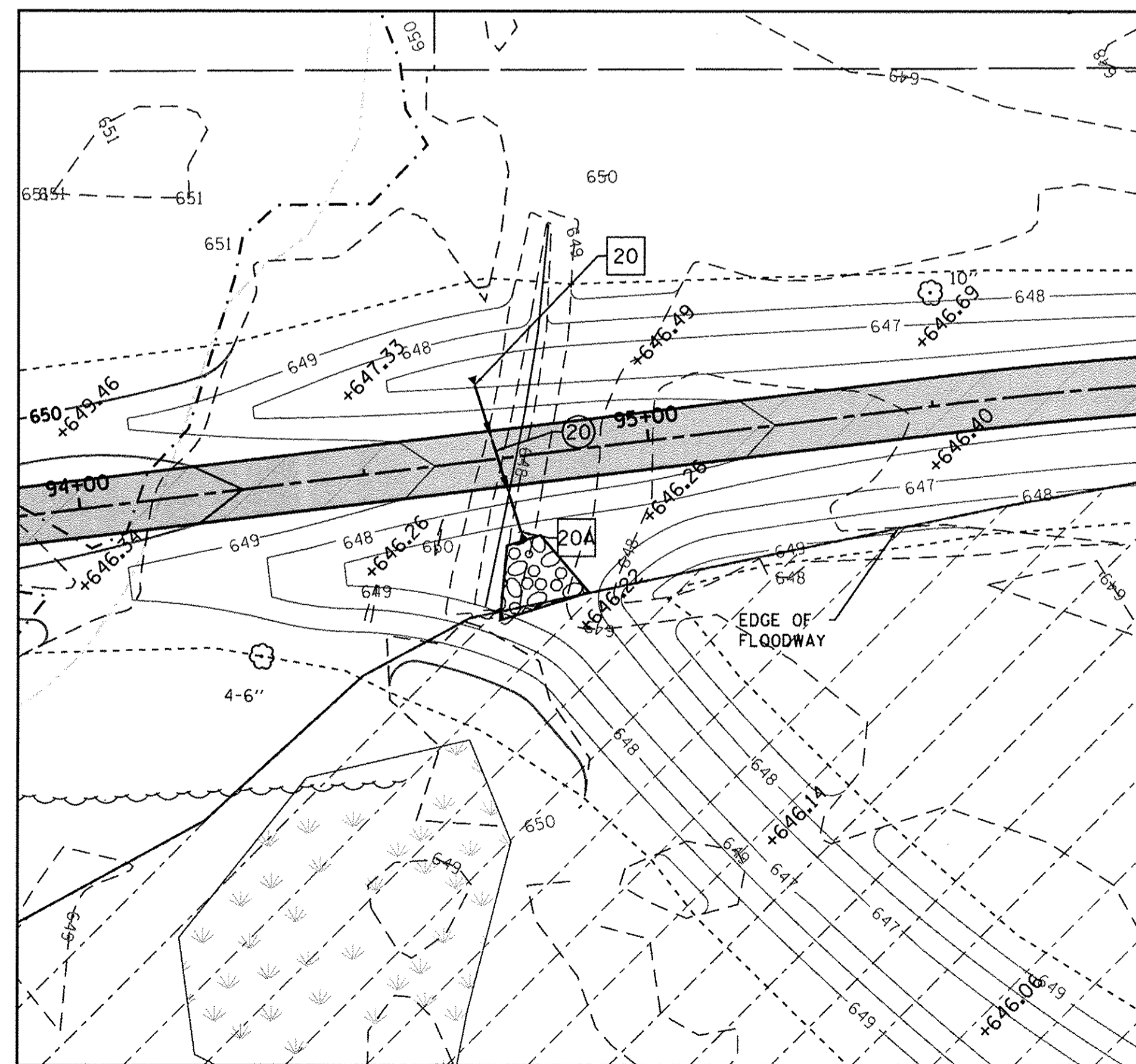
# KEY MAP



19	21" CMP FES 18" HDPE, INV: 653.24 STA: 84+31.55 O/S: 22.10' LT	19	45 LF OF 18" HDPE @ 1.90%
19A	21" CMP FES 18" HDPE, INV: 652.72 STA: 84+18.22 O/S: 30.28' RT	20	27 LF OF 12" HDPE @ 0.30%
20	15" CMP FES 12" HDPE, INV: 646.39 STA: 94+70.73 O/S: 14.99' LT		
20A	15" CMP FES 12" HDPE, INV: 646.30 STA: 94+76.27 O/S: 14.74' RT		



**DRAINAGE DETAIL 10**



**DRAINAGE DETAIL 11**

### LEGEND

- EXISTING BOUNDARY LINE
- EXISTING WETLAND
- REGULATORY FLOODWAY
- PROPOSED RIP RAP
- FLOODPLAIN BOUNDARY
- PROPOSED GRADING LIMITS
- PROPOSED STORM SEWER
- PROPOSED CATCH BASIN
- PROPOSED FLARED END SECTION

**LAKE COUNTY FOREST PRESERVES**  
**GEWALT HAMILTON ASSOCIATES, INC.**

FILE NAME = 4905-f04-drainage.dgn  
 GHA# 4905.000  
 Drainage

USER NAME = MCoeman  
 PLOT SCALE = 1:20  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

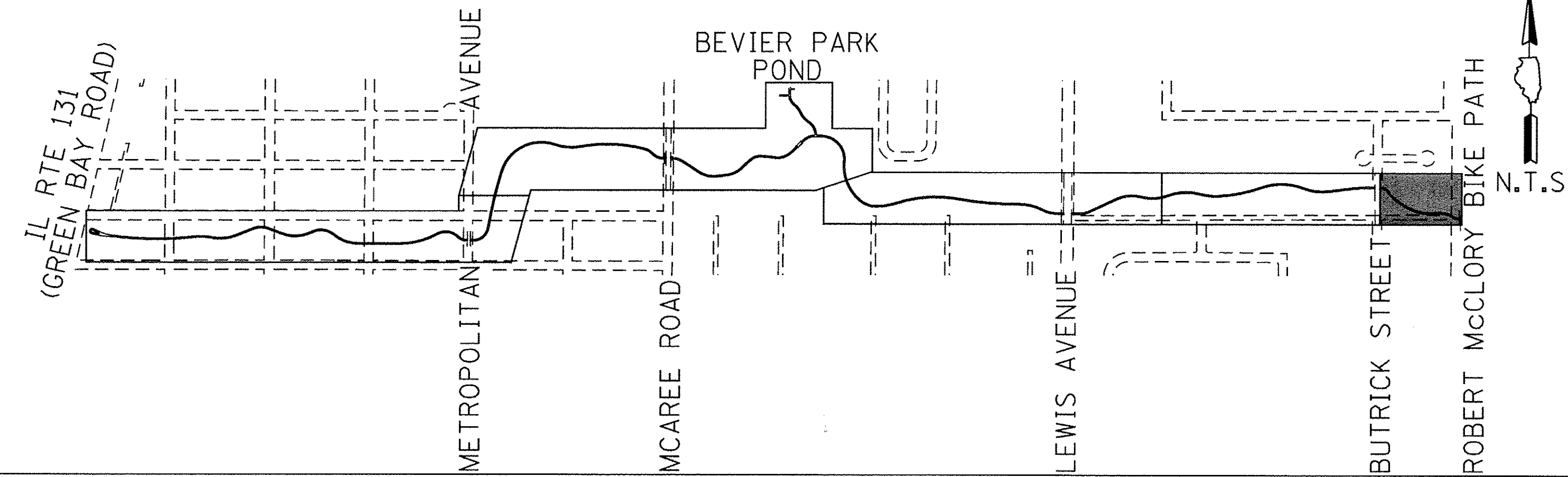
**DRAINAGE ENLARGEMENT  
 LYONS WOODS TRAIL**

SCALE: 1"=20' SHEET 4 OF 5 SHEETS STA. TO STA.

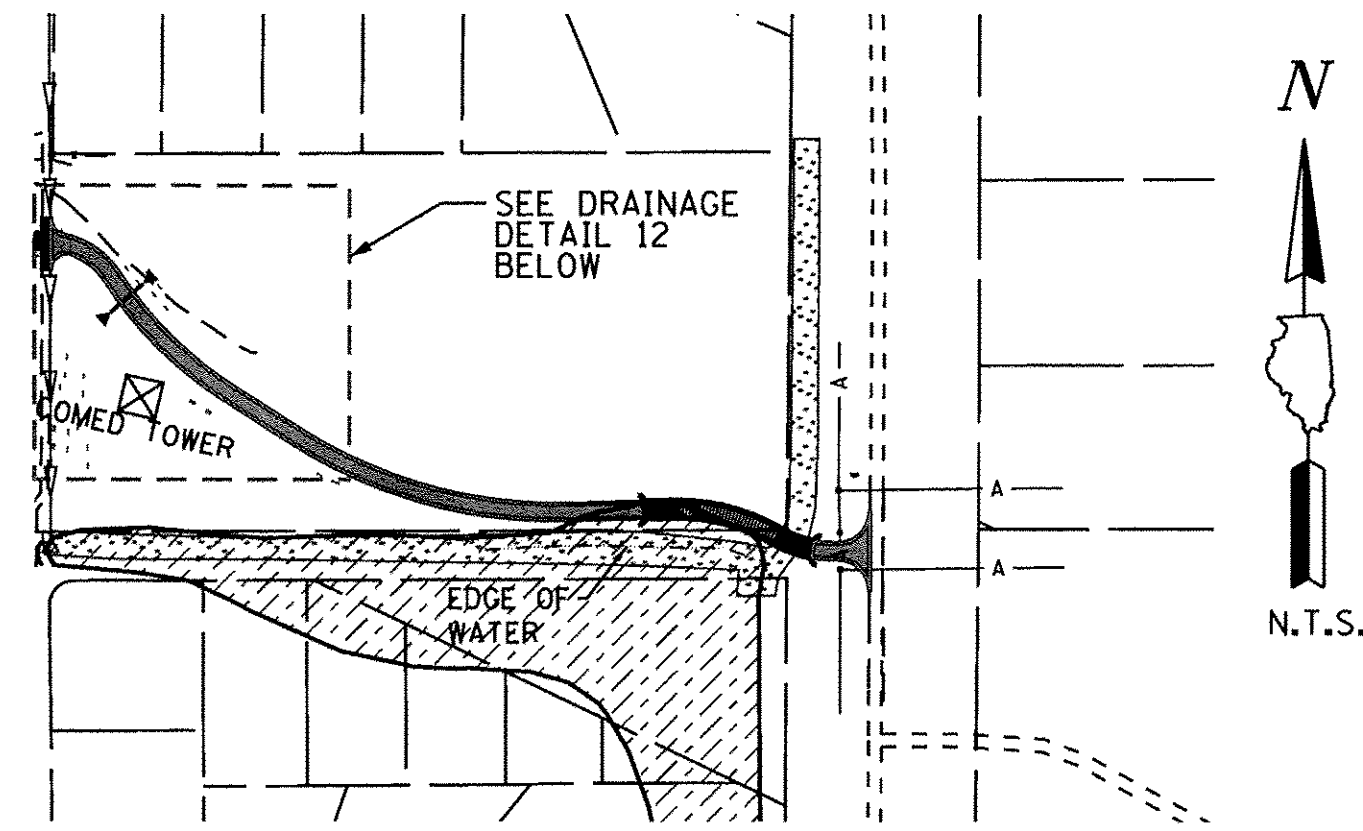
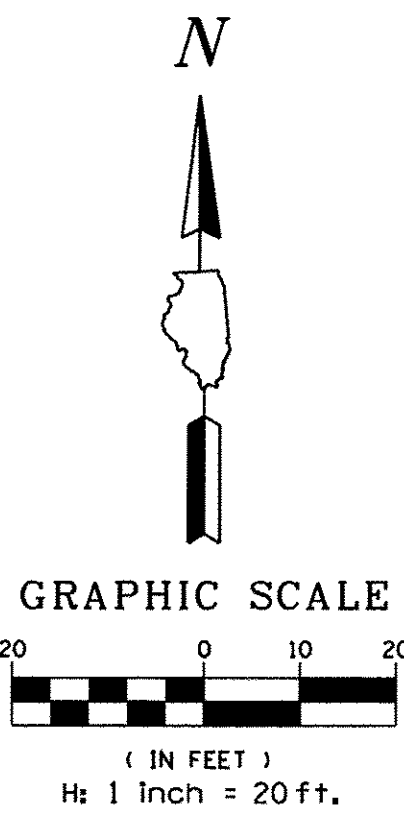
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	40
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



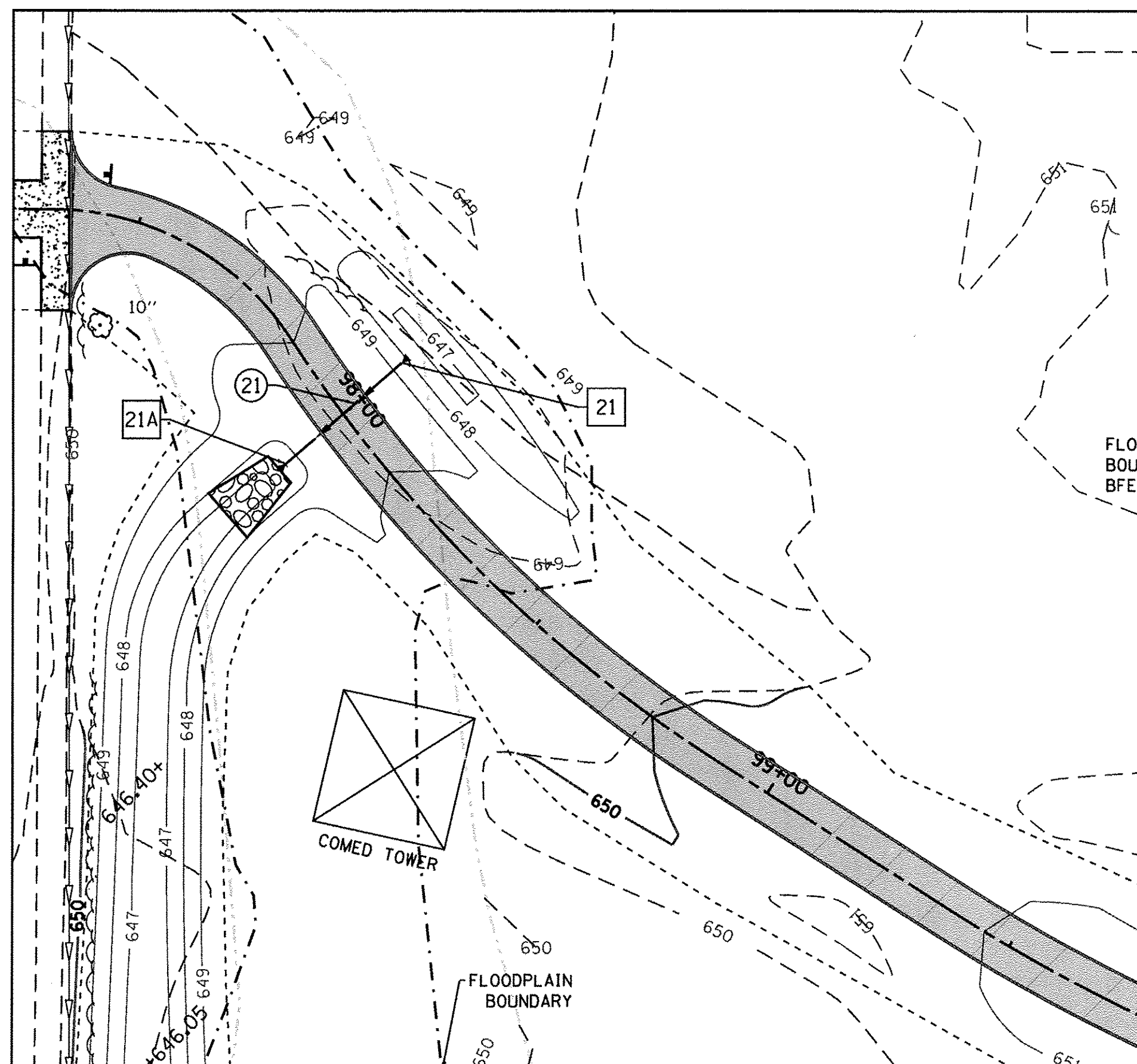
# KEY MAP



21 15" CMP FES  
 12" HDPE, INV: 646.89  
 STA: 97+98.86  
 O/S: 14.99' LT  
 21A 15" CMP FES  
 12" HDPE, INV: 646.80  
 STA: 98+00.99  
 O/S: 14.68' RT  
 21 27 LF OF 12" HDPE @ 0.30%



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - PROPOSED RIP RAP
  - FLOODPLAIN BOUNDARY
  - PROPOSED GRADING LIMITS
  - PROPOSED STORM SEWER
  - PROPOSED CATCH BASIN
  - ◀ PROPOSED FLARED END SECTION



**DRAINAGE DETAIL 12**

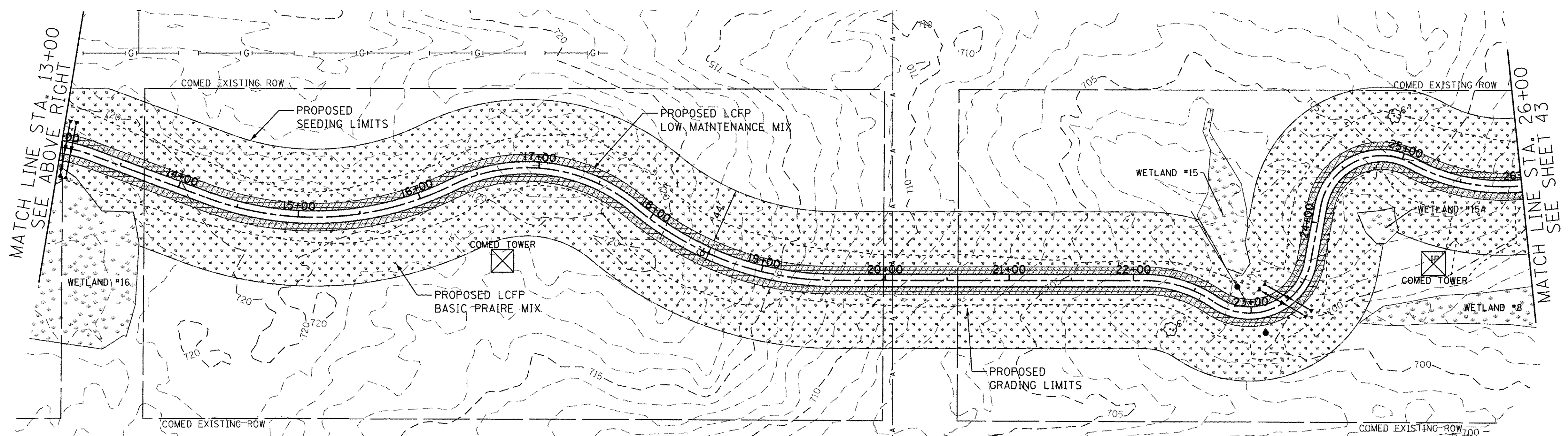
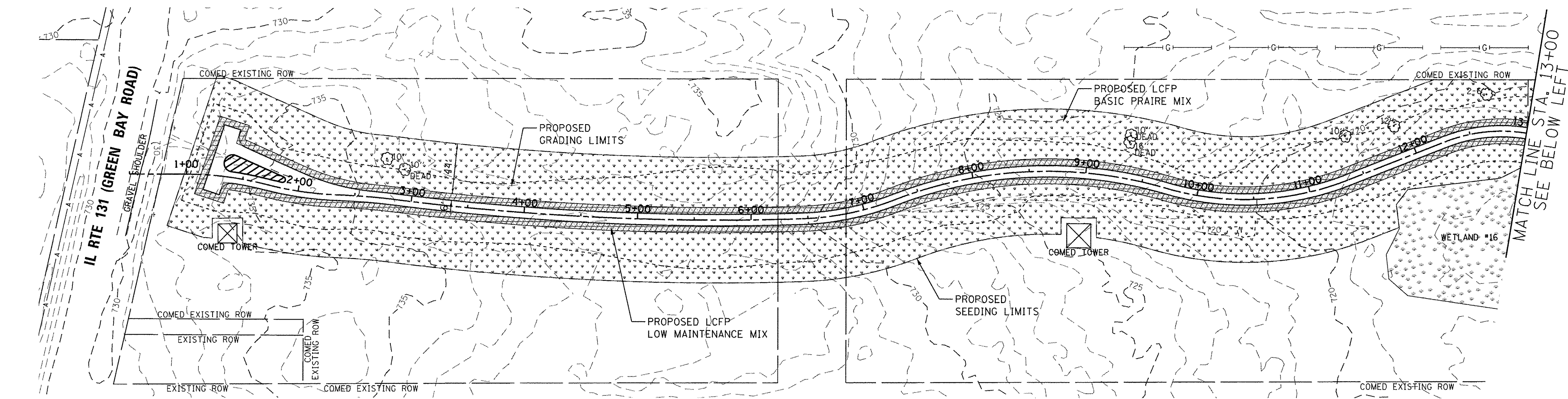
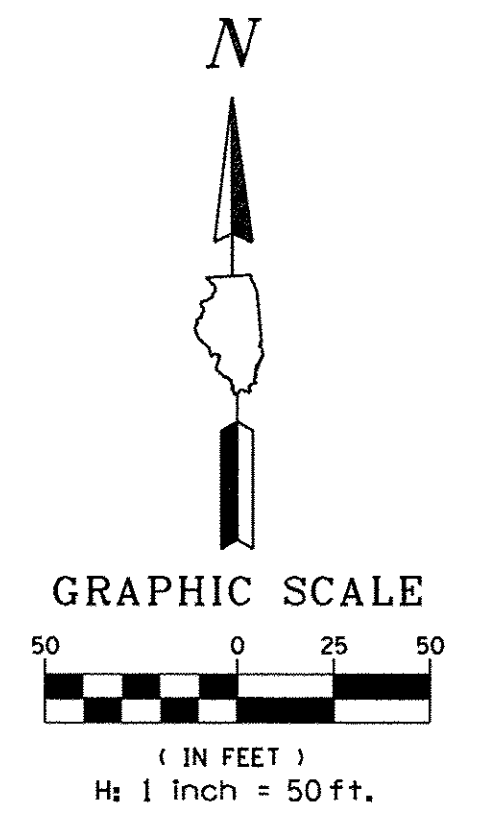
LAKE COUNTY FOREST PRESERVES  
 GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-f3005-drainage.dgn GHA* 4905.000 Drainage	USER NAME = Mcoleman	DESIGNED - MKH DRAWN - PJS CHECKED - DJS DATE -	REVISED - REVISED - REVISED - REVISED -
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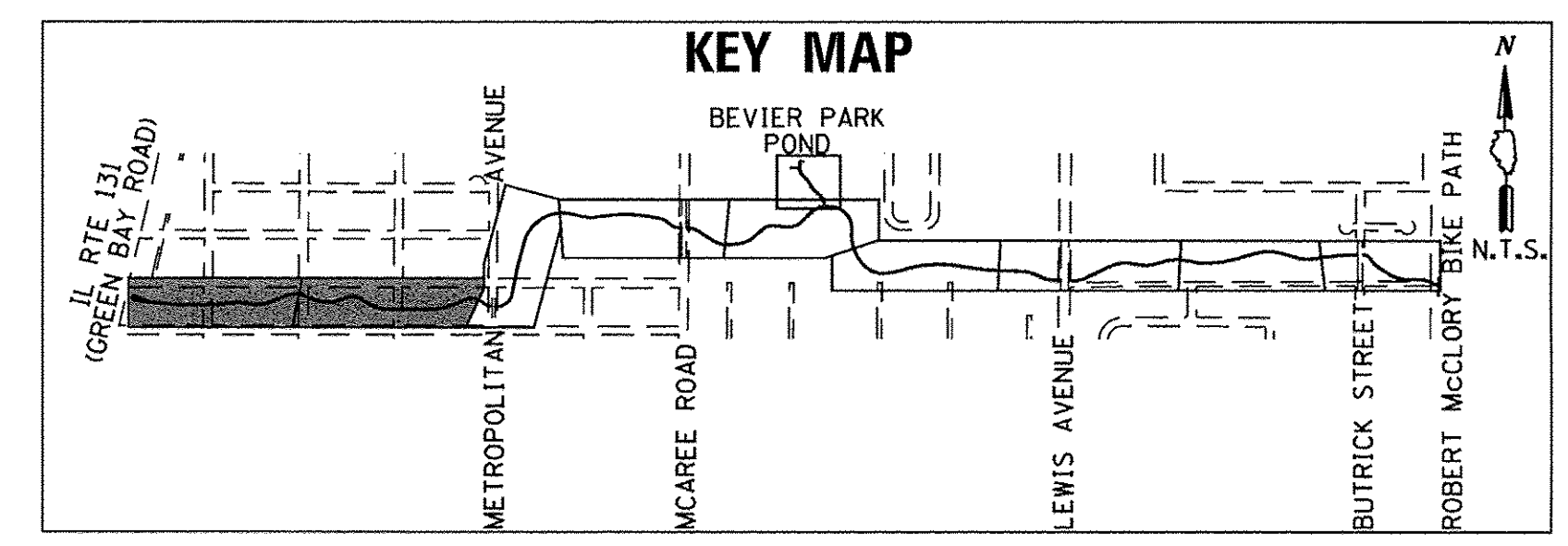
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>DRAINAGE ENLARGEMENT</b>		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>LYONS WOODS TRAIL</b>			14-F3000-04-BT	LAKE	116	41
SCALE: 1"=20'		SHEET 5 OF 5 SHEETS		STA. TO STA.		CONTRACT NO. 61C67

ILLINOIS FED. AID PROJECT



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - SEEDING, CLASS 2A
  - SEED MIXTURE ZONE A (LCFP LOW MAINTENANCE MIX)
  - SEED MIXTURE ZONE B (LCFP BASIC PRAIRE MIX)
  - SEED MIXTURE ZONE C (WAUKEGAN PARK DISTRICT MIX)
  - PROPOSED SEEDING LIMITS
  - PROPOSED GRADING LIMITS



**LAKE COUNTY FOREST PRESERVES**  
**GEWALT HAMILTON ASSOCIATES, INC.**

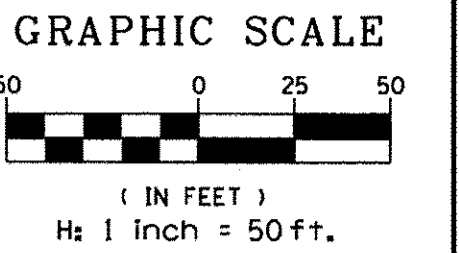
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GHA# 4905.000	PLOT SCALE = 1:500	DRAWN - PJS	REVISED -
PrP_01	CHECKED - DJS	DATE -	REVISED -
	PLOT DATE = 11/18/2016		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

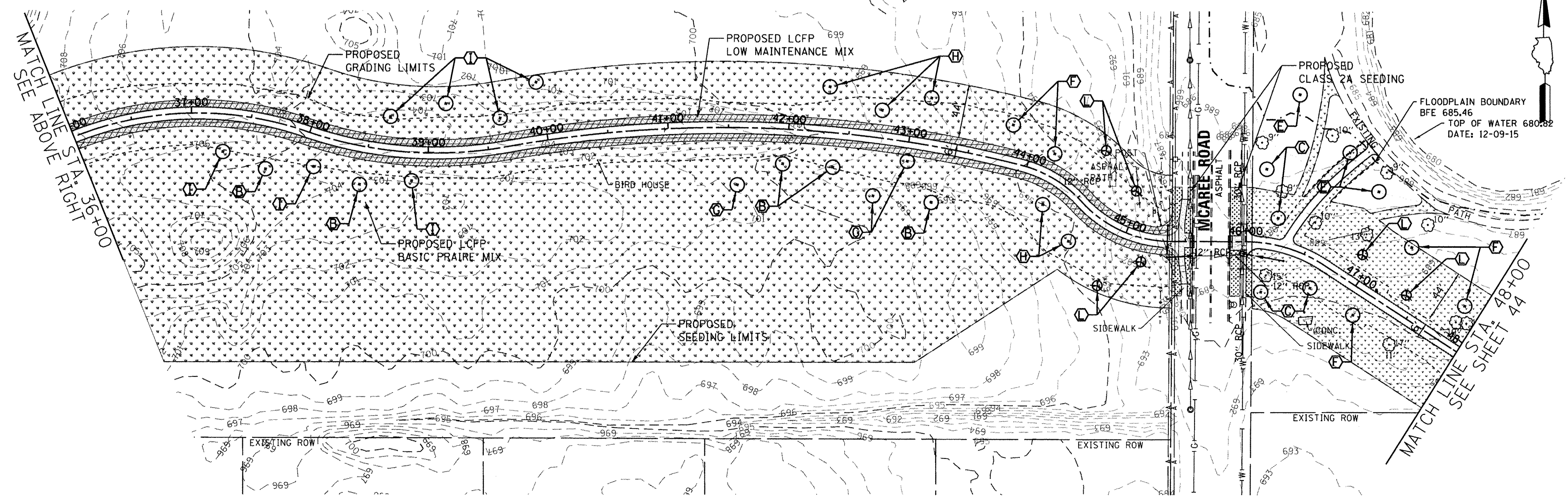
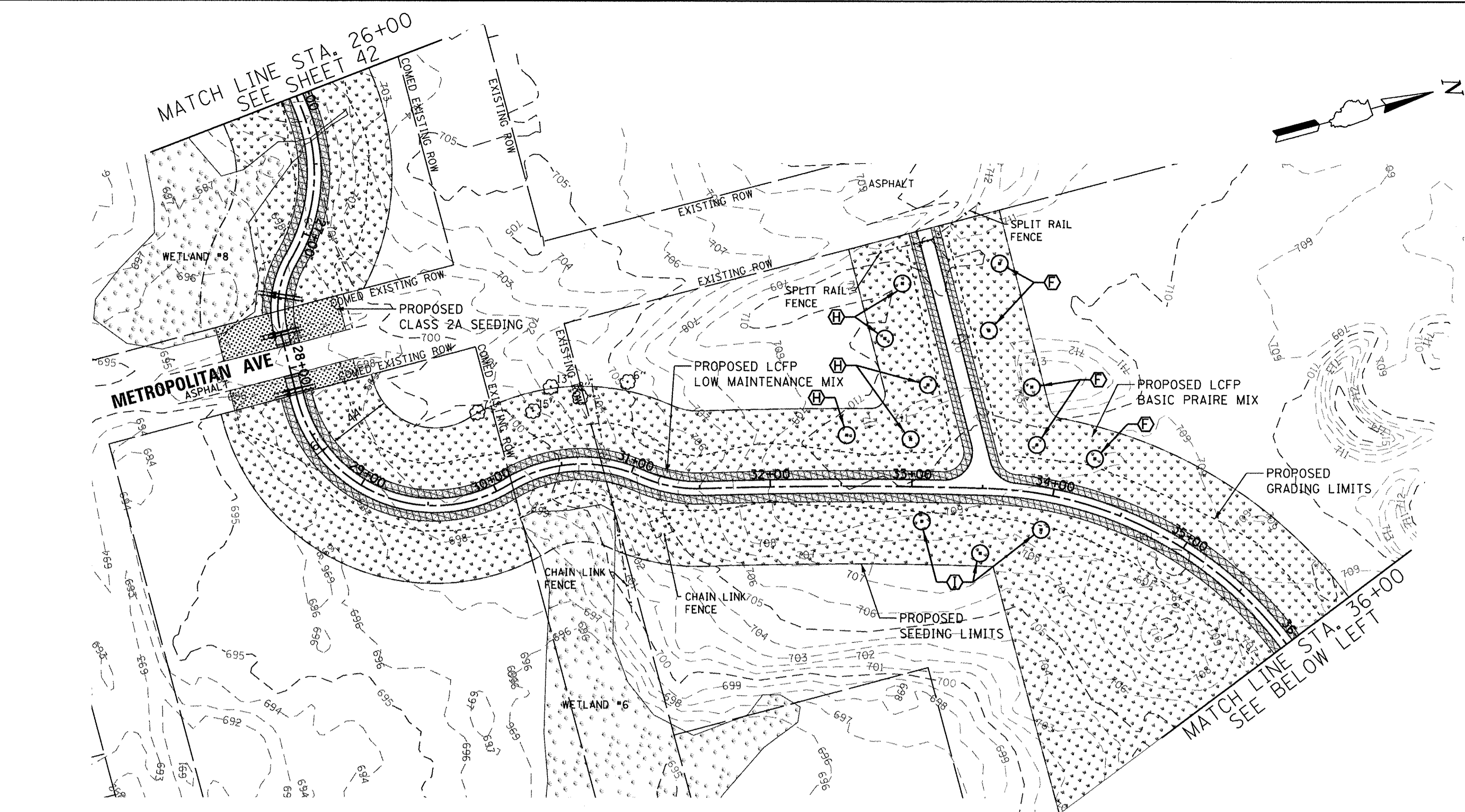
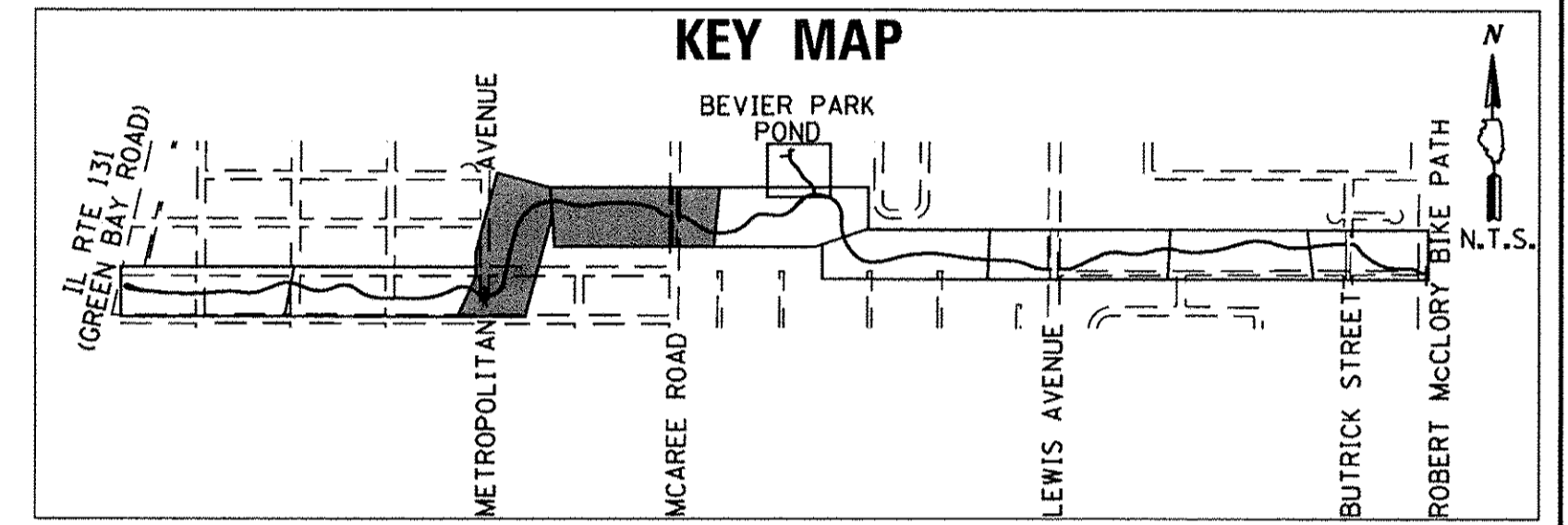
**LANDSCAPING PLAN  
LYONS WOODS TRAIL**

SCALE: 1"=50'      SHEET 1 OF 5 SHEETS      STA. 0+50.00 TO STA. 26+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	42
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



LYONS WOODS TRAIL - PROPOSED TREES				
Code No.	Plan Label	Description	Unit	Quantity
A2000118	A	TREE, ACER X FREEMANII AUTUMN BLAZE (AUTUMN BLAZE FREEMAN MAPLE), 3" CALIPER, BALLED AND BURLAPPED	EACH	8
A2002616	B	TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2002920	C	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8
A2005020	D	TREE, GYMNOCLADUS DIOICIS (KENTUCKY COFFEETREE), 2-3/2" CALIPER, BALLED AND BURLAPPED	EACH	8
A2005620	E	TREE, OSTRYA VIRGINIANA (AMERICAN HOPHORNBEAM), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8
A2006416	F	TREE, QUERCUS ALBA (WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2006516	G	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2006716	H	TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2007116	I	TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A202565	J	TREE, CERCIS CANADENSIS (REDBUD), CONTAINER GROWN, 5-GALLON	EACH	10
C206265	K	SHRUB, RHUS TYPHINA TIGER EYES, (TIGER EYES CUTLEAF STAGHORN SUMAC), CONTAINER GROWN, 5-GALLON	EACH	8
D2002984	L	EVERGREEN, PINUS STROBUS (EASTERN WHITE PINE), 7' HEIGHT, BALLED AND BURLAPPED	EACH	10
D2003972	M	EVERGREEN, TSUGA CANADENSIS (CANADIAN HEMLOCK), 6' HEIGHT, BALLED AND BURLAPPED	EACH	8



**LEGEND**

	EXISTING BOUNDARY LINE
	EXISTING WETLAND
	REGULATORY FLOODWAY
	SEEDING, CLASS 2A
	SEED MIXTURE ZONE A (LCFP LOW MAINTENANCE MIX)
	SEED MIXTURE ZONE B (LCFP BASIC PRAIRE MIX)
	SEED MIXTURE ZONE C (WAUKEGAN PARK DISTRICT MIX)
	PROPOSED SEEDING LIMITS
	PROPOSED GRADING LIMITS

LAKE COUNTY FOREST PRESERVES  
 GEWALT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-g02-seeding plan.dgn  
 GHA\* 4905.000  
 PrP-01

USER NAME = MCoileman  
 PLOT SCALE = 1:500  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

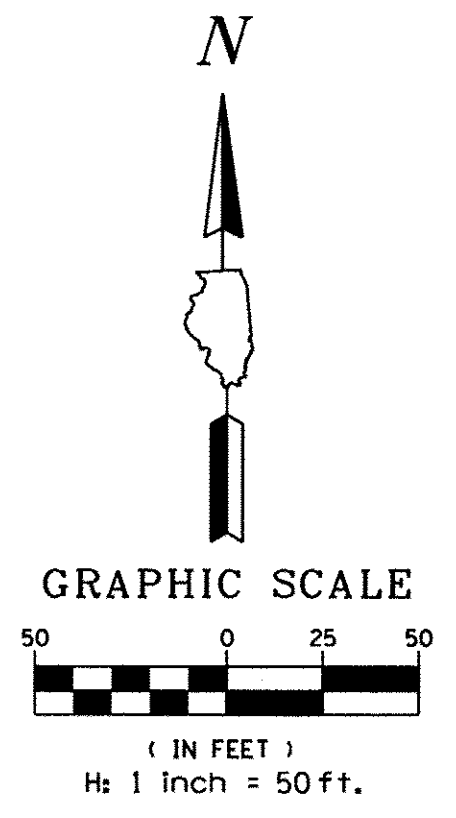
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING PLAN  
 LYONS WOODS TRAIL**

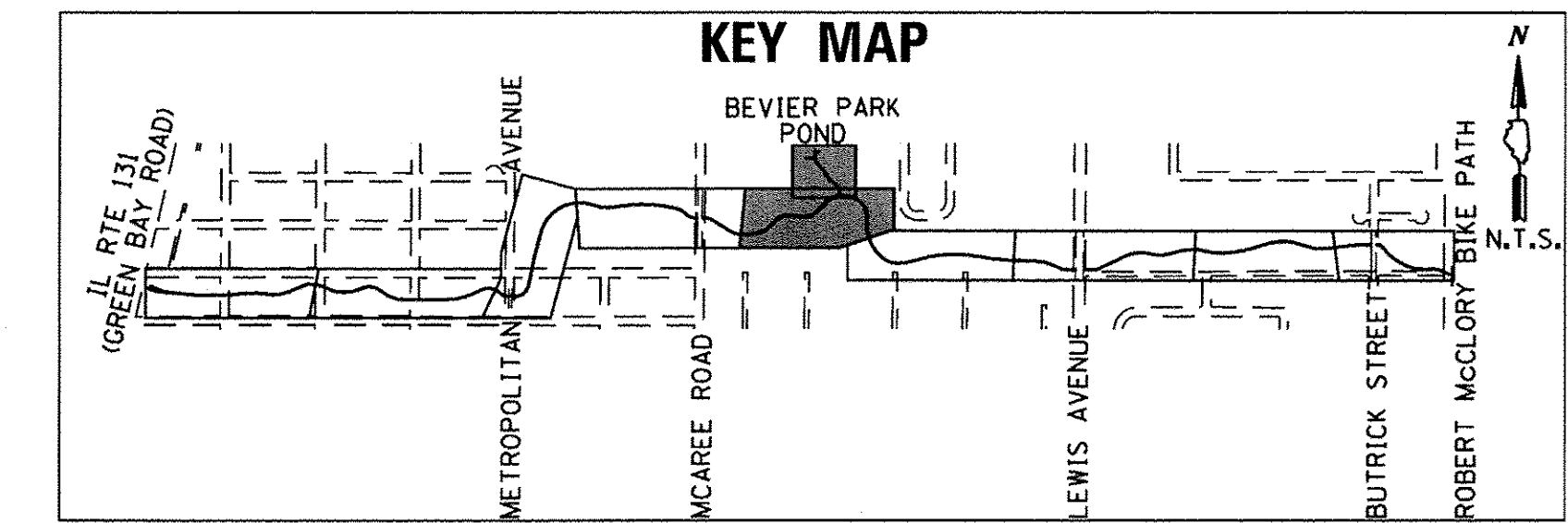
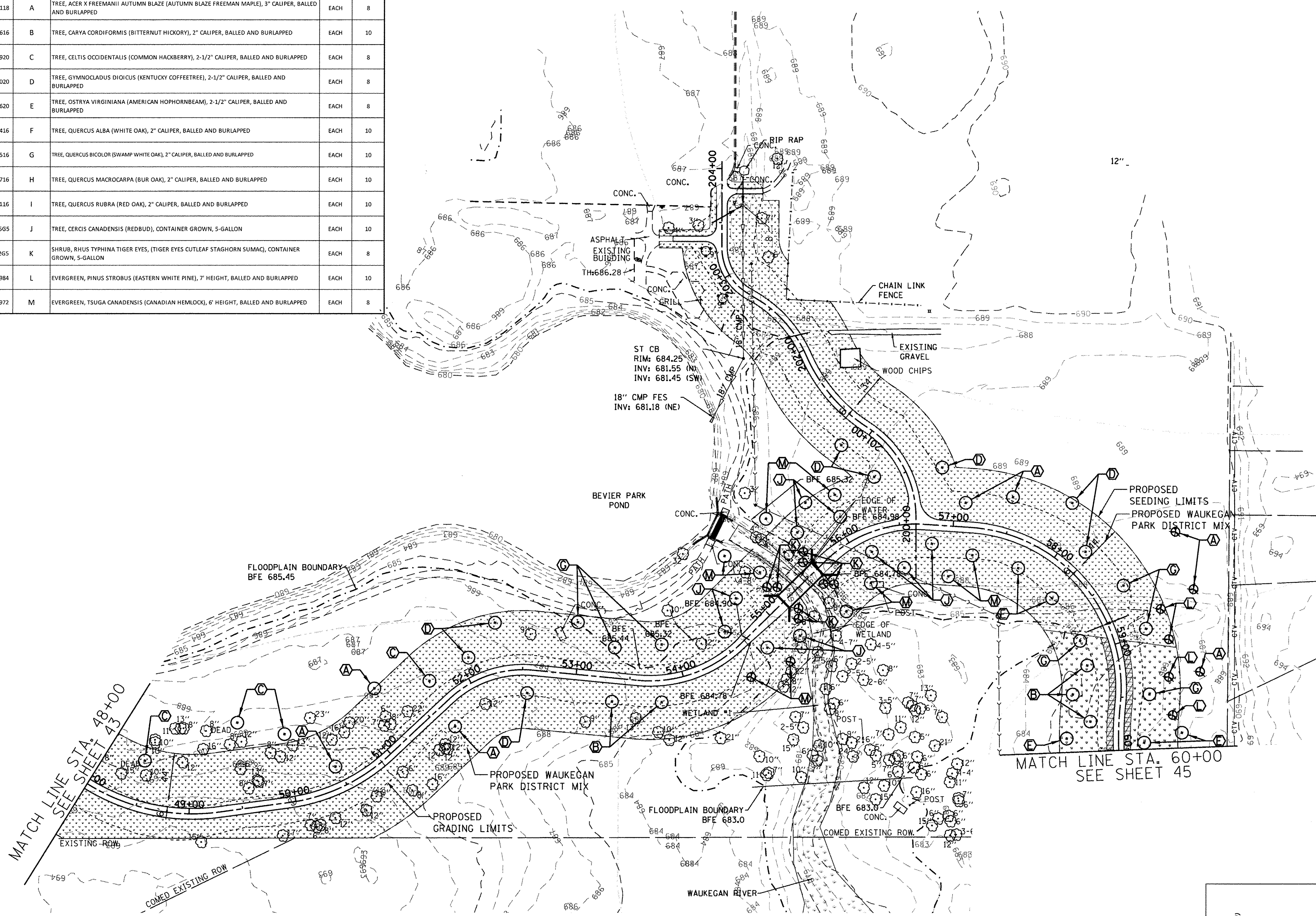
SCALE: 1"=50'    SHEET 2 OF 5 SHEETS    STA. 26+00.00 TO STA. 48+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	43
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

LYONS WOODS TRAIL - PROPOSED TREES				
Code No.	Plan Label	Description	Unit	Quantity
A200018	A	TREE, ACER X FREEMANII AUTUMN BLAZE (AUTUMN BLAZE FREEMAN MAPLE), 3" CALIPER, BALLED AND BURLAPPED	EACH	8
A2002616	B	TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2002920	C	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8
A2005020	D	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8
A2005620	E	TREE, OSTRYA VIRGINIANA (AMERICAN HOPHORNBEAM), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	8
A2006416	F	TREE, QUERCUS ALBA (WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2006516	G	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2006716	H	TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2007116	I	TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	10
A2002565	J	TREE, CERCIIS CANADENSIS (REDBUD), CONTAINER GROWN, 5-GALLON	EACH	10
C2006265	K	SHRUB, RHUS TYPHINA TIGER EYES, (TIGER EYES CUTLEAF STAGHORN SUMAC), CONTAINER GROWN, 5-GALLON	EACH	8
D2002984	L	EVERGREEN, PINUS STROBUS (EASTERN WHITE PINE), 7' HEIGHT, BALLED AND BURLAPPED	EACH	10
D2003972	M	EVERGREEN, TSUGA CANADENSIS (CANADIAN HEMLOCK), 6' HEIGHT, BALLED AND BURLAPPED	EACH	8



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - SEEDING, CLASS 2A
  - SEED MIXTURE ZONE A (LCFP LOW MAINTENANCE MIX)
  - SEED MIXTURE ZONE B (LCFP BASIC PRAIRIE MIX)
  - SEED MIXTURE ZONE C (WAUKEGAN PARK DISTRICT MIX)
  - PROPOSED SEEDING LIMITS
  - PROPOSED GRADING LIMITS



LAKE COUNTY FOREST PRESERVES  
 GHA GEWALT HAMILTON ASSOCIATES, INC.

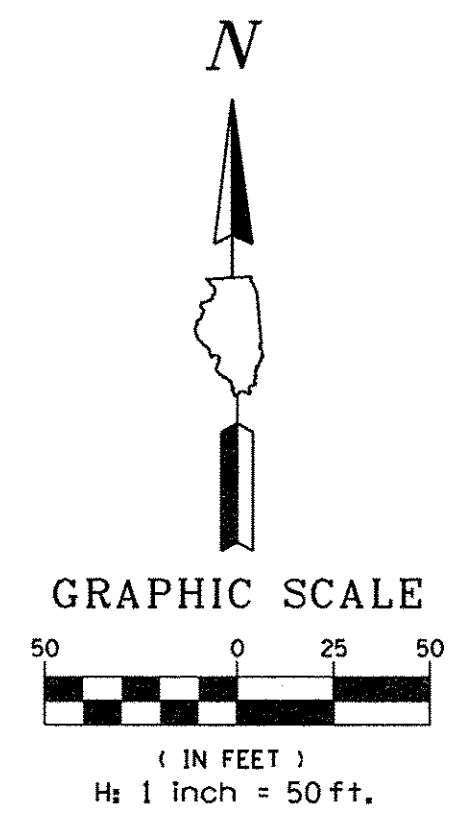
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PnP.01	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

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

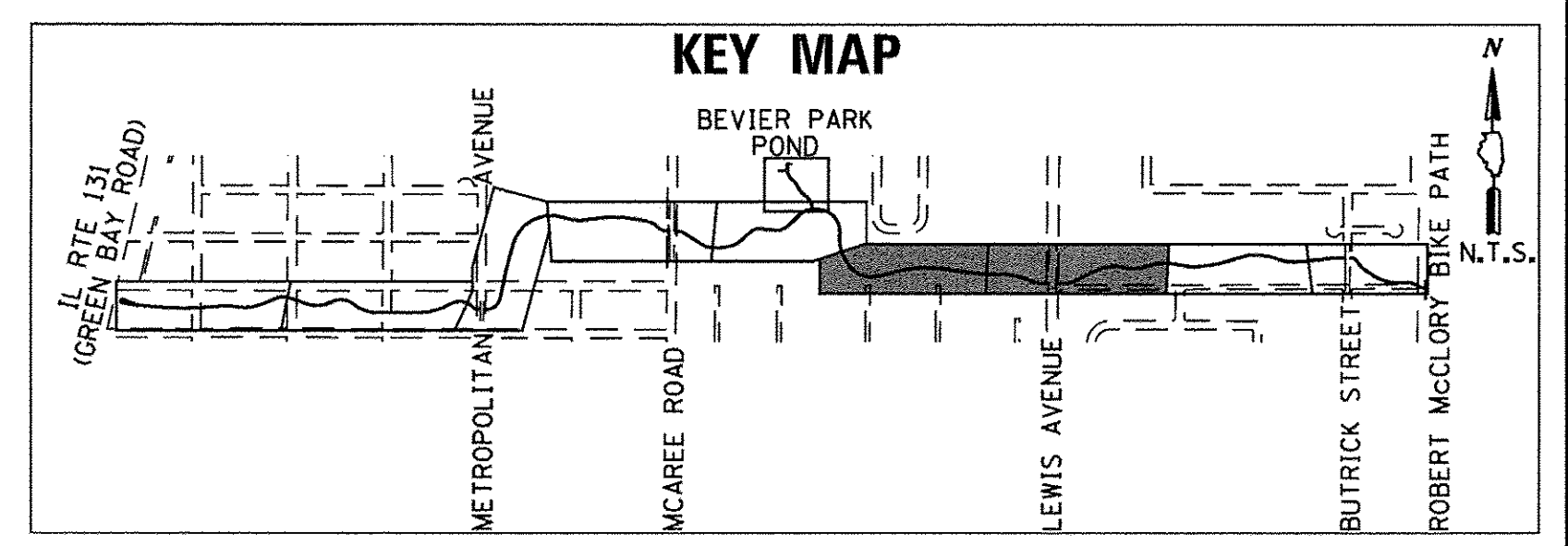
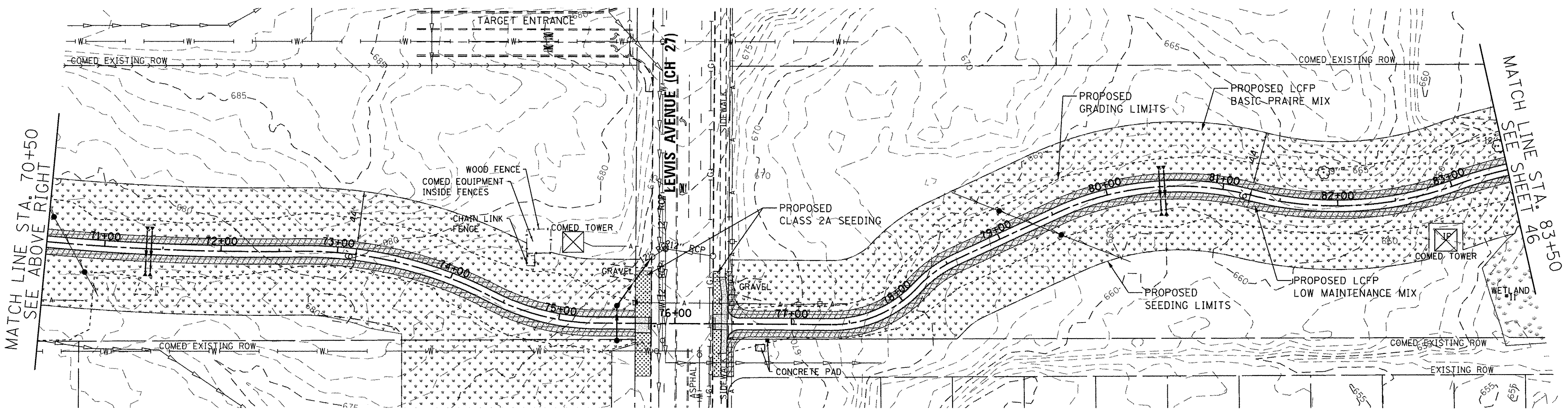
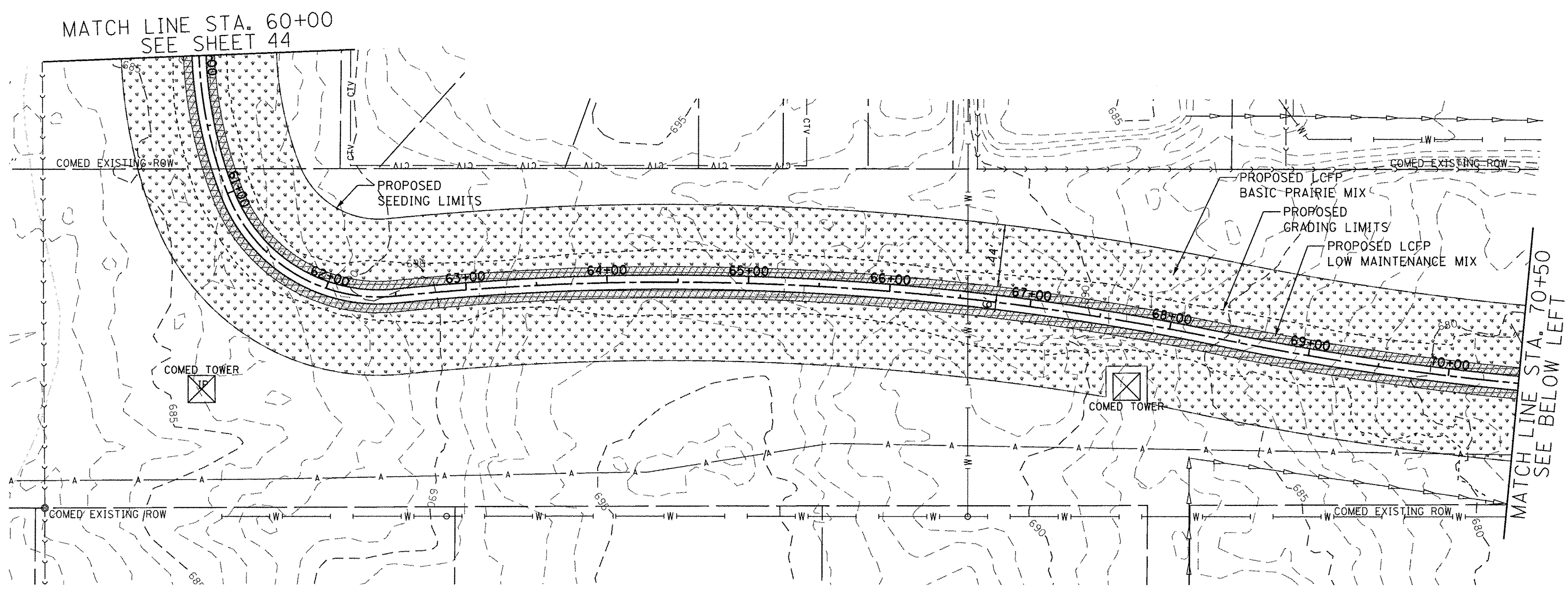
**LANDSCAPING PLAN**  
**LYONS WOODS TRAIL**

SCALE: 1"=50'    SHEET 3 OF 5 SHEETS    STA. 48+00.00 TO STA. 60+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	44
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



- LEGEND**
- EXISTING BOUNDARY LINE
  - EXISTING WETLAND
  - REGULATORY FLOODWAY
  - SEEDING, CLASS 2A
  - SEED MIXTURE ZONE A (LCFP LOW MAINTENANCE MIX)
  - SEED MIXTURE ZONE B (LCFP BASIC PRAIRIE MIX)
  - SEED MIXTURE ZONE C (WAUKEGAN PARK DISTRICT MIX)
  - PROPOSED SEEDING LIMITS
  - PROPOSED GRADING LIMITS



LAKE COUNTY FOREST PRESERVES  
 GEWALT HAMILTON ASSOCIATES, INC.

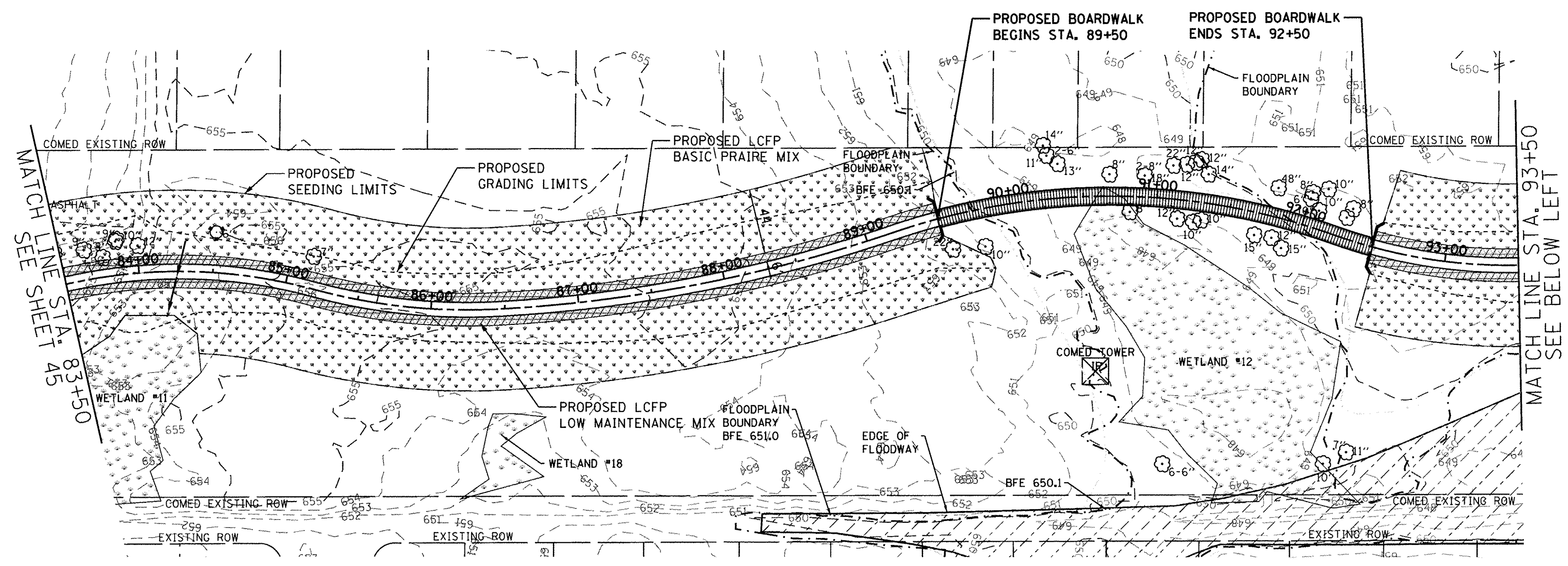
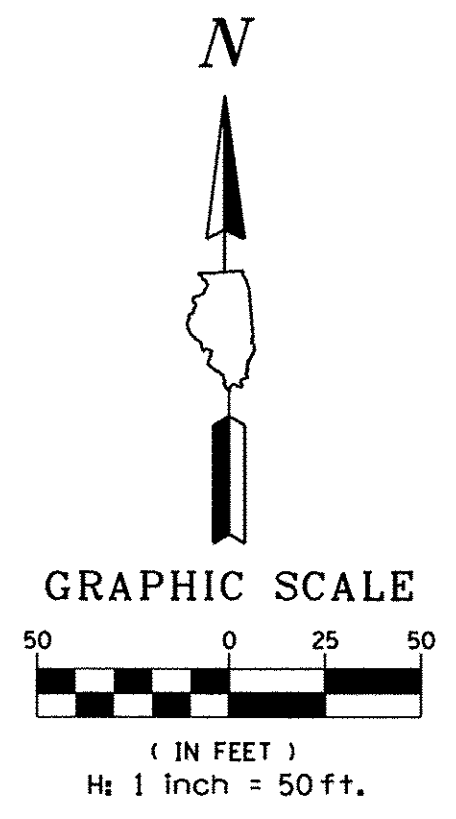
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PnP_01	PLOT DATE = 11/18/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LANDSCAPING PLAN  
LYONS WOODS TRAIL**

SCALE: 1"=50'      SHEET 4 OF 5 SHEETS      STA. 60+00.00 TO STA. 84+00.00

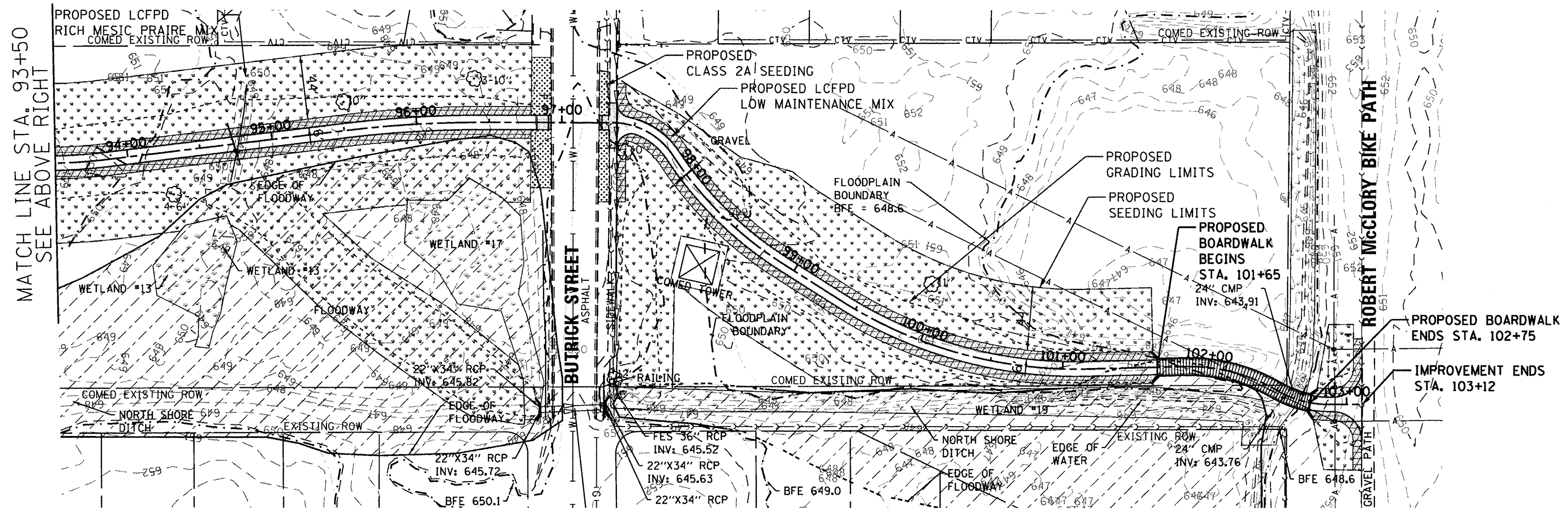
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	45
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



MATCH LINE STA. 83+50  
SEE SHEET 45

MATCH LINE STA. 93+50  
SEE BELOW LEFT

- LEGEND**
- EXISTING BOUNDARY LINE
  - ▨ EXISTING WETLAND
  - ▨ REGULATORY FLOODWAY
  - ▨ SEEDING, CLASS 2A
  - ▨ SEED MIXTURE ZONE A (LCFP LOW MAINTENANCE MIX)
  - ▨ SEED MIXTURE ZONE B (LCFP BASIC PRAIRIE MIX)
  - ▨ SEED MIXTURE ZONE C (WAUKEGAN PARK DISTRICT MIX)
  - - - PROPOSED SEEDING LIMITS
  - - - PROPOSED GRADING LIMITS



MATCH LINE STA. 93+50  
SEE ABOVE RIGHT

MATCH LINE STA. 103+12  
SEE BELOW RIGHT

LAKE COUNTY  
FOREST PRESERVES



GEWALT HAMILTON  
ASSOCIATES, INC.

FILE NAME = 4905-g05-seeding plan.dgn  
GHA\* 4905.000  
PnP-01

USER NAME = Mcoleman  
PLOT SCALE = 1/50  
PLOT DATE = 11/14/2016

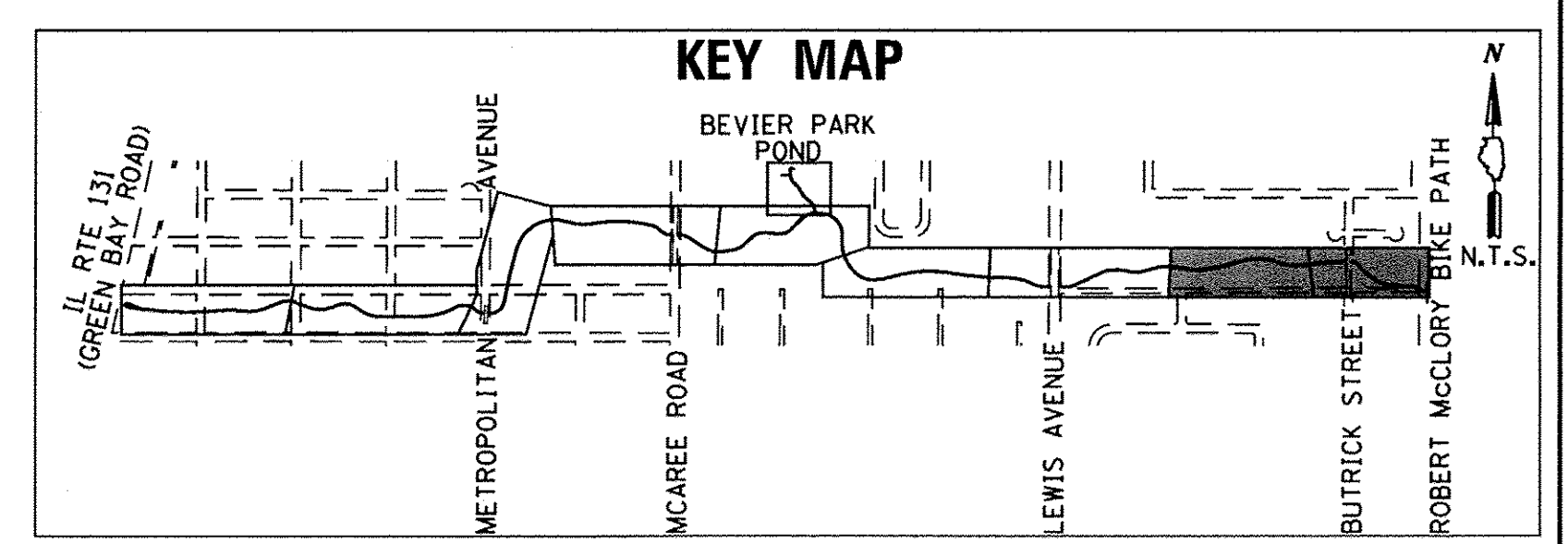
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DRAWN - PJS  
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REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

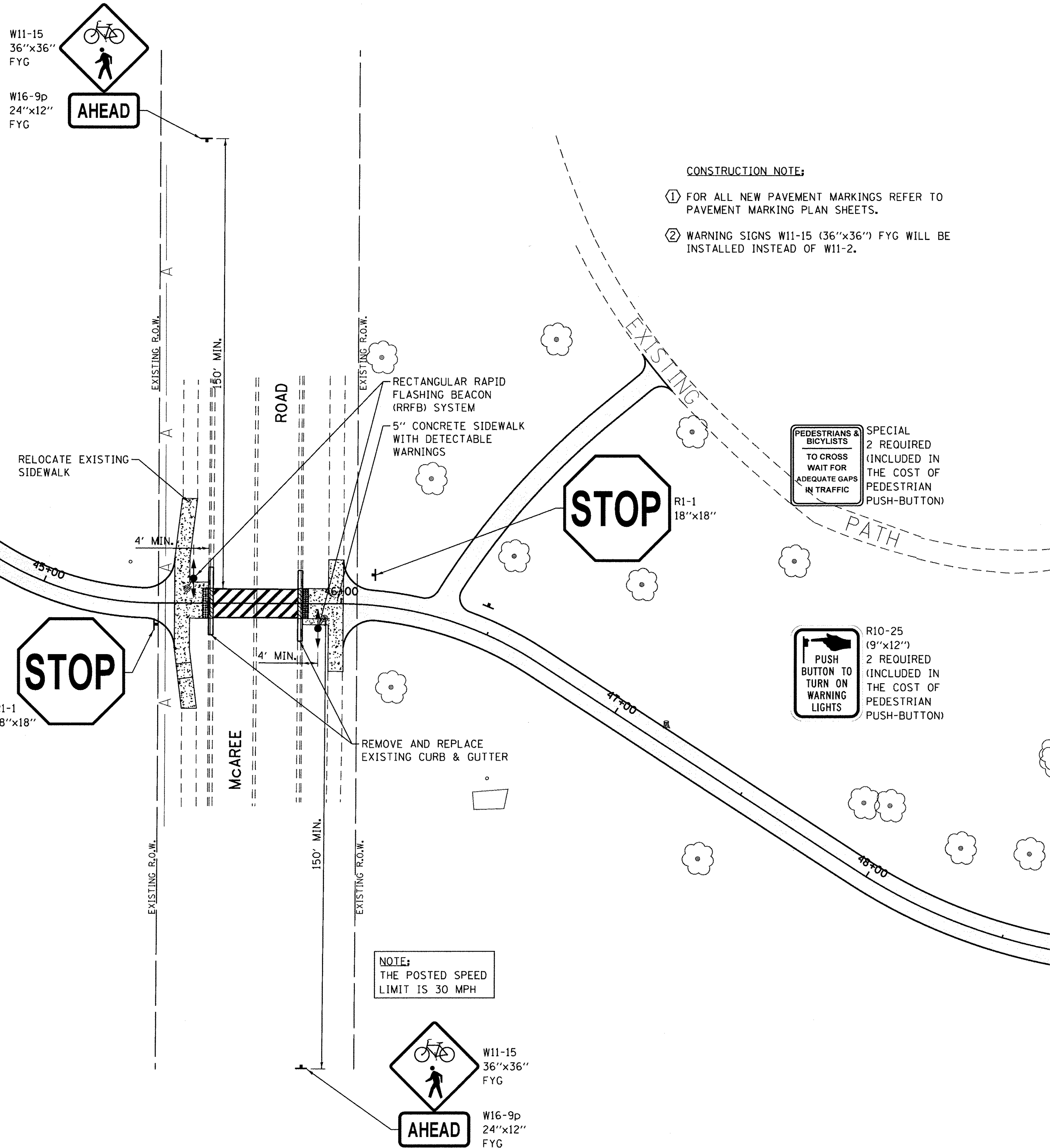
LANDSCAPING PLAN  
LYONS WOODS TRAIL  
SCALE: 1"=50'  
SHEET 5 OF 5 SHEETS  
STA. 84+00.00 TO STA. 103+62.13

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	46
CONTRACT NO. 61C67			ILLINOIS FED. AID PROJECT	

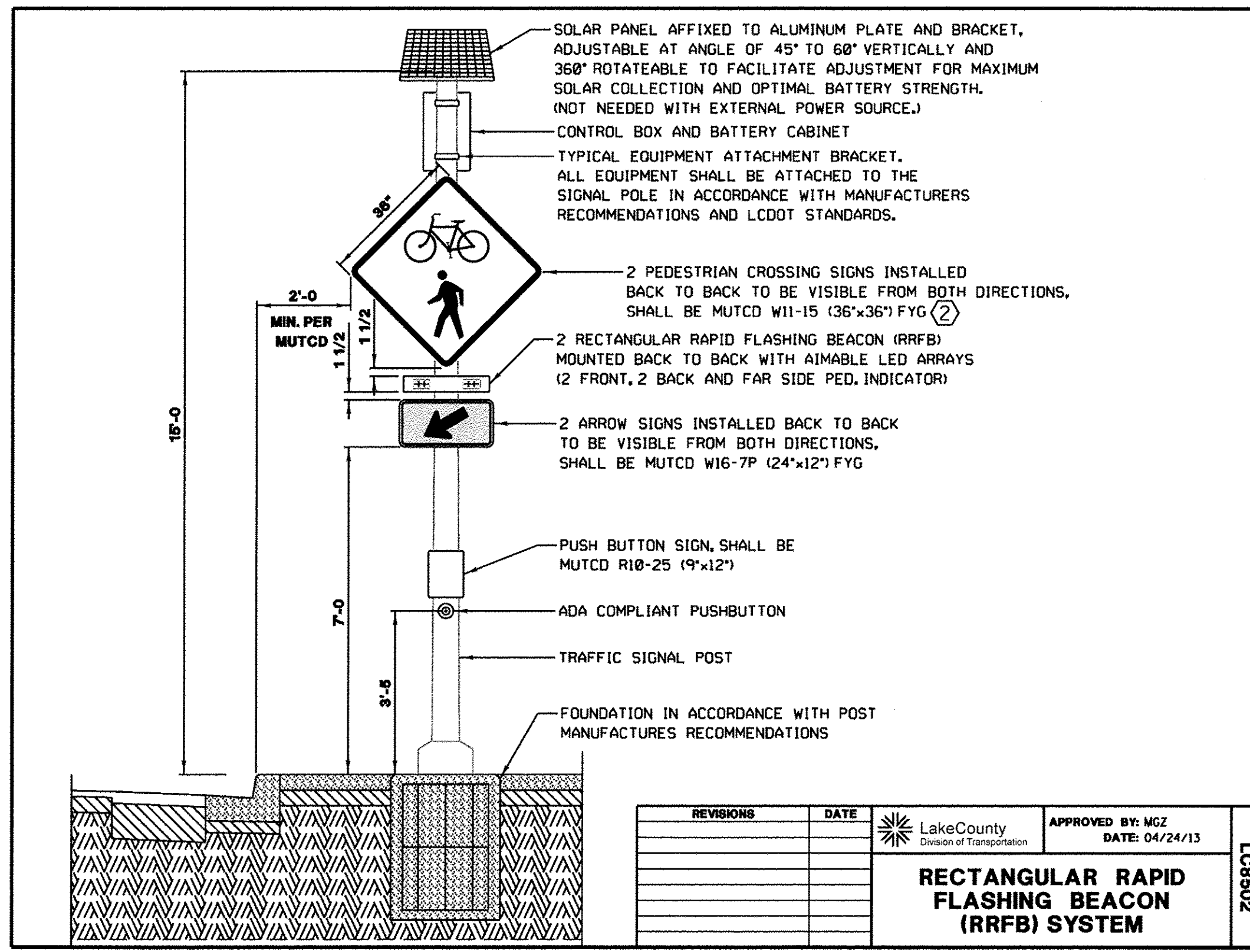


SCHEDULE OF QUANTITIES  
McAREE ROAD MID-BLOCK CROSSING

NO.	QUANT.	UNIT	DESCRIPTION
1.	655	SO FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	40	SO FT	DETECTABLE WARNINGS
3.	50	FOOT	COMBINATION CURB AND GUTTER REMOVAL
4.	475	SO FT	SIDEWALK REMOVAL
5.	2	EACH	FRAMES AND LIDS TO BE ADJUSTED
6.	50	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
7.	44.50	SO FT	SIGN PANEL - TYPE 1
8.	22	FOOT	METAL POST - TYPE A
9.	28	FOOT	METAL POST - TYPE B
10.	100	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
11.	8	FOOT	CONCRETE FOUNDATION, TYPE A
12.	2	EACH	PEDESTRIAN PUSH-BUTTON
13.	1	EACH	RADIO ACTIVATED SOLAR ADVANCE FLASHING BEACON SYSTEM (COMPLETE)
14.	2	EACH	TRAFFIC SIGNAL POST, 18 FOOT, (SPECIAL)



CONSTRUCTION NOTE:  
 ① FOR ALL NEW PAVEMENT MARKINGS REFER TO PAVEMENT MARKING PLAN SHEETS.  
 ② WARNING SIGNS W11-15 (36"x36") FYG WILL BE INSTALLED INSTEAD OF W11-2.



REVISIONS	DATE	APPROVED BY: MGZ
		DATE: 04/24/13

**RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM**

LCS802

LAKE COUNTY FOREST PRESERVES  
 GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-McAREE-Mid-Block.dgn	USER NAME = McColeman	DESIGNED - MKH	REVISED - 11/9/2016
GHA 4905.000	PLOT SCALE = 1:20	DRAWN - PJS	REVISED -
Default	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

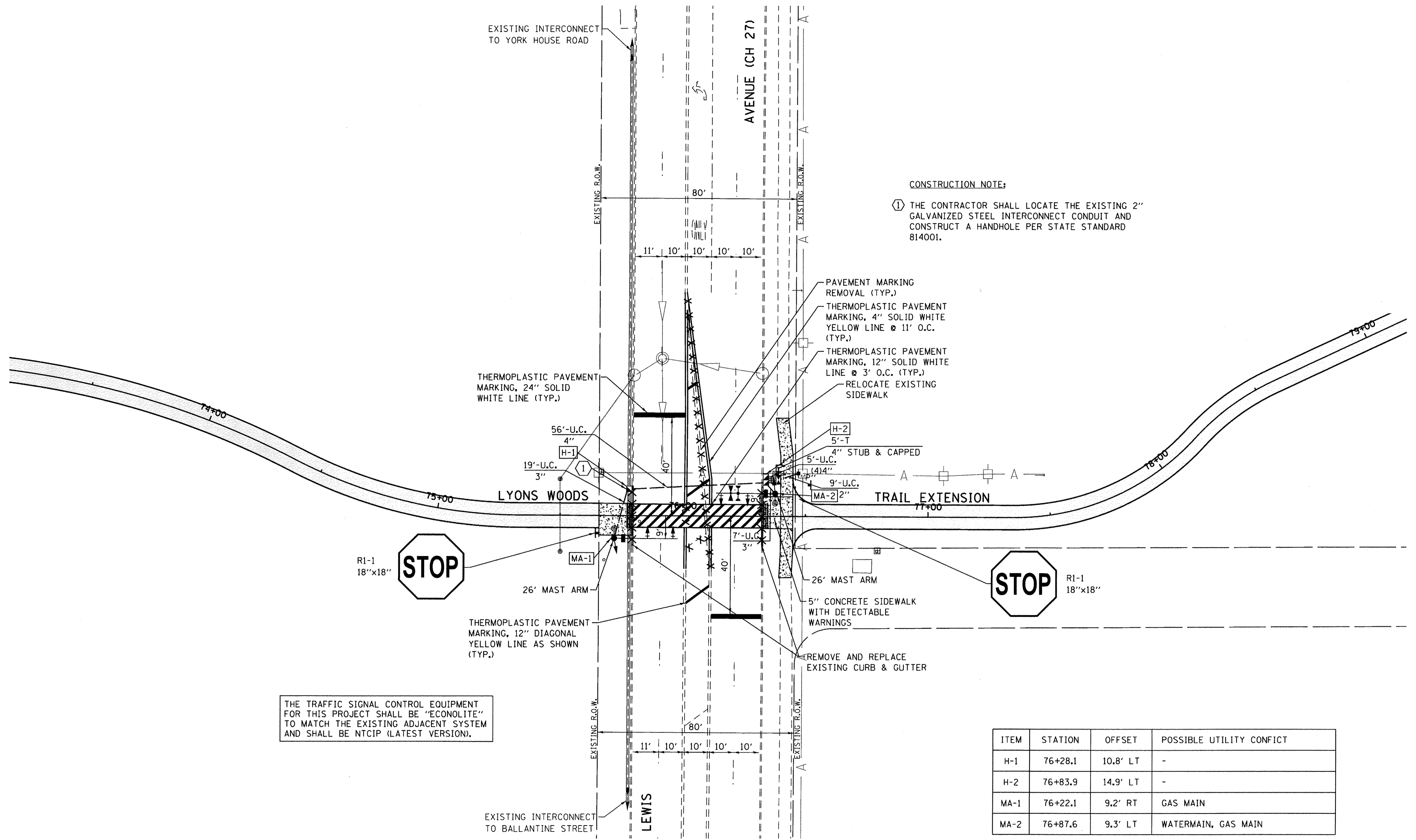
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**MID-BLOCK PATH CROSSING PLAN  
LYONS WOODS TRAIL**

SCALE: 1"=20'    SHEET 1 OF 1 SHEETS    STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	47
CONTRACT NO. 61C67				

ILLINOIS FED. AID PROJECT



**CONSTRUCTION NOTE:**  
 ① THE CONTRACTOR SHALL LOCATE THE EXISTING 2\"/>

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE 'ECONOLITE' TO MATCH THE EXISTING ADJACENT SYSTEM AND SHALL BE NTCIP (LATEST VERSION).

ITEM	STATION	OFFSET	POSSIBLE UTILITY CONFLICT
H-1	76+28.1	10.8' LT	-
H-2	76+83.9	14.9' LT	-
MA-1	76+22.1	9.2' RT	GAS MAIN
MA-2	76+87.6	9.3' LT	WATERMAIN, GAS MAIN

LAKE COUNTY FOREST PRESERVES  
 GEWALT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-Lewis-Mid-Block.dgn  
 USER NAME = MCoeman  
 PLOT SCALE = 1:20  
 PLOT DATE = 11/14/2016

DESIGNED - MKH  
 DRAWN - PJS  
 CHECKED - DJS  
 DATE -

REVISED -  
 REVISED -  
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 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN  
 LEWIS AVENUE (CH 27) AT LYONS WOODS TRAIL EXTENSION

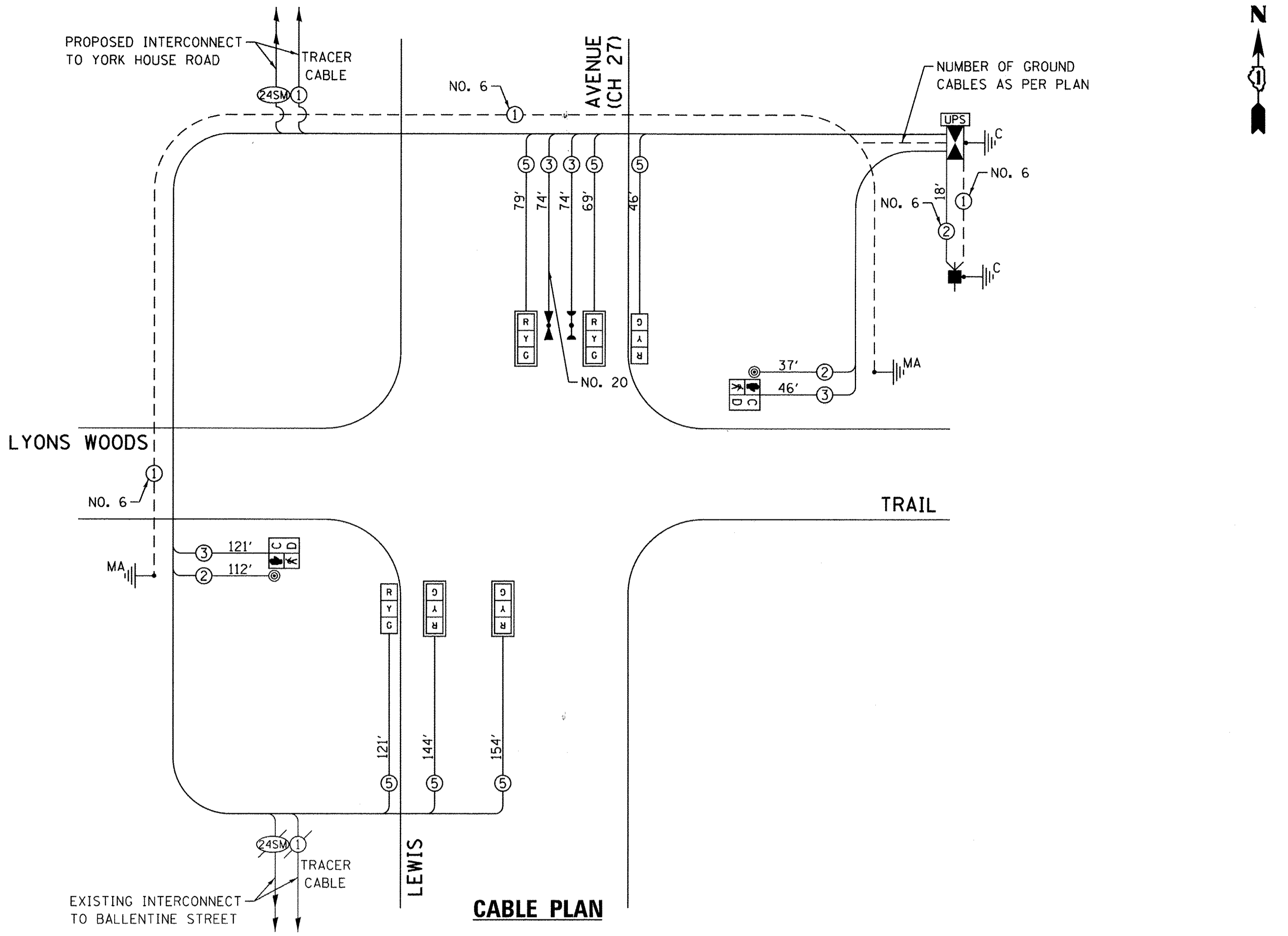
SCALE: 1"=20'  
 SHEET 1 OF 1 SHEETS  
 STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	48
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

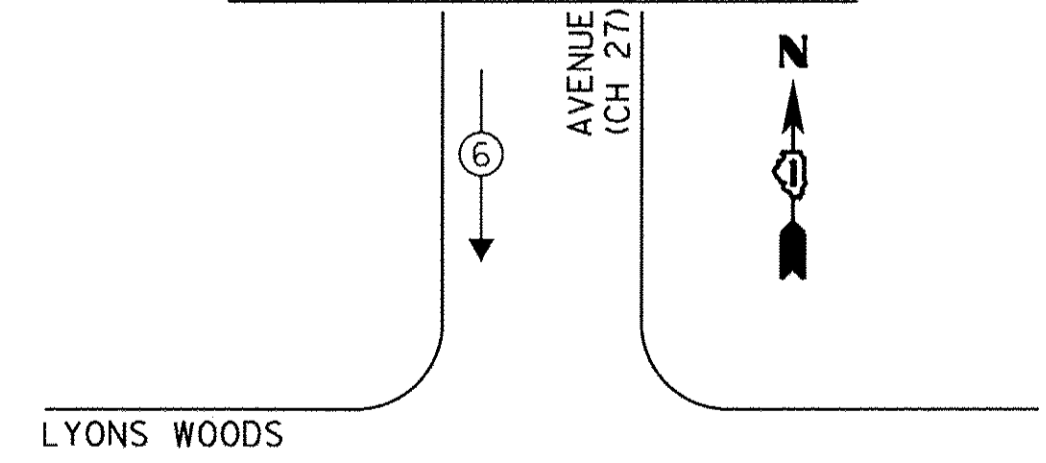


**SCHEDULE OF QUANTITIES**  
LEWIS AVENUE AT LYONS WOODS TRAIL

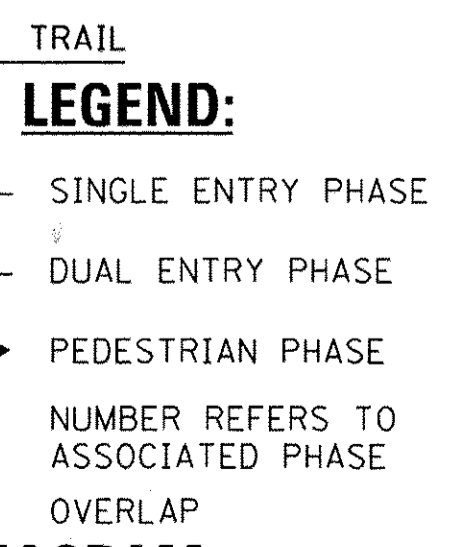
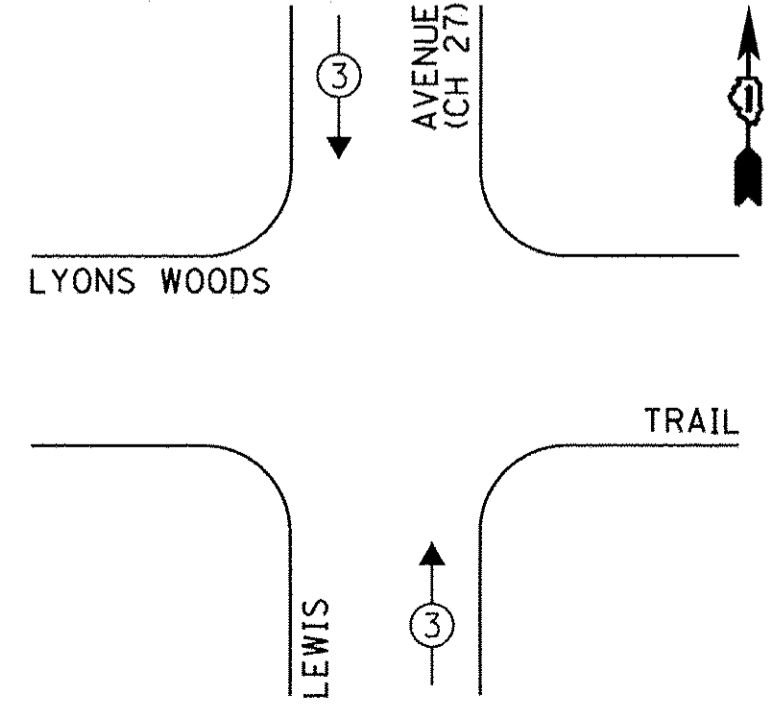
NO.	QUANT.	UNIT	DESCRIPTION
1.	15	CU YD	EARTH EXCAVATION
2.	40	SO YD	AGGREGATE BASE COURSE, TYPE B 4"
3.	580	SO FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	40	SO FT	DETECTABLE WARNINGS
5.	10	SO YD	DRIVEWAY PAVEMENT REMOVAL
6.	50	FOOT	COMBINATION CURB AND GUTTER REMOVAL
7.	325	SO FT	SIDEWALK REMOVAL
8.	50	FOOT	CONCRETE CURB, TYPE B
9.	1	CAL MO	CHANGEABLE MESSAGE SIGN
10.	4.50	SO FT	SIGN PANEL - TYPE 1
11.	22	FOOT	METAL POST - TYPE A
12.	220	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 4"
13.	195	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
14.	41	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
15.	100	SO FT	PAVEMENT MARKING REMOVAL
16.	9	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
17.	26	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
18.	81	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
19.	1	EACH	HANDHOLE
20.	1	EACH	DOUBLE HANDHOLE
21.	149	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
22.	241	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
23.	613	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
24.	18	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
25.	173	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
26.	4	FOOT	CONCRETE FOUNDATION, TYPE C
27.	30	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
28.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
29.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
30.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
31.	4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
32.	1	EACH	LIGHT DETECTOR
33.	1	EACH	LIGHT DETECTOR AMPLIFIER
34.	2	EACH	PEDESTRIAN PUSH-BUTTON
35.	74	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
36.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
37.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
38.	2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT. (SPECIAL)
39.	1	EACH	LAYER II (DATALINK) SWITCH



**PROPOSED CONTROLLER SEQUENCE**



**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**PROPOSED PHASE DESIGNATION DIAGRAM**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE INCAND. L.E.D.	OPERATION		
SIGNAL (RED)	6	135	17	0.50	51.0
SIGNAL (YELLOW)	6	135	25	0.25	37.5
SIGNAL (GREEN)	6	135	15	0.25	22.5
ARROW	-	135	12	0.10	-
PED. SIGNAL	2	90	25	1.00	50.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					286.0

ENERGY COSTS - BILLED TO: LAKE COUNTY FOREST PRESERVE  
(ADDRESS) 1899 WEST WINCHESTER ROAD  
(ADDRESS) LIBERTYVILLE, IL 60048  
ENERGY SUPPLY - CONTACT: MS. TERRI BLECK  
PHONE: (847) 816-5239  
COMPANY: COM-ED LIBERTYVILLE

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM AND SHALL BE NTCIP (LATEST VERSION).

PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	↑ ↓

LAKE COUNTY FOREST PRESERVES  
GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-Lewis-Cable.dgn  
GHA\* 4905.000  
Default

USER NAME = MCoLeman  
DESIGNED - MKH  
DRAWN - PJS  
CHECKED - DJS  
PLOT SCALE = 1:20  
PLOT DATE = 11/14/2016

REVISED -  
REVISED -  
REVISED -  
REVISED -  
DATE -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN & PHASE DESIGNATION DIAGRAM**  
LEWIS AVENUE (CH 27) AT LYONS WOODS TRAIL EXTENSION  
SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	49
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				

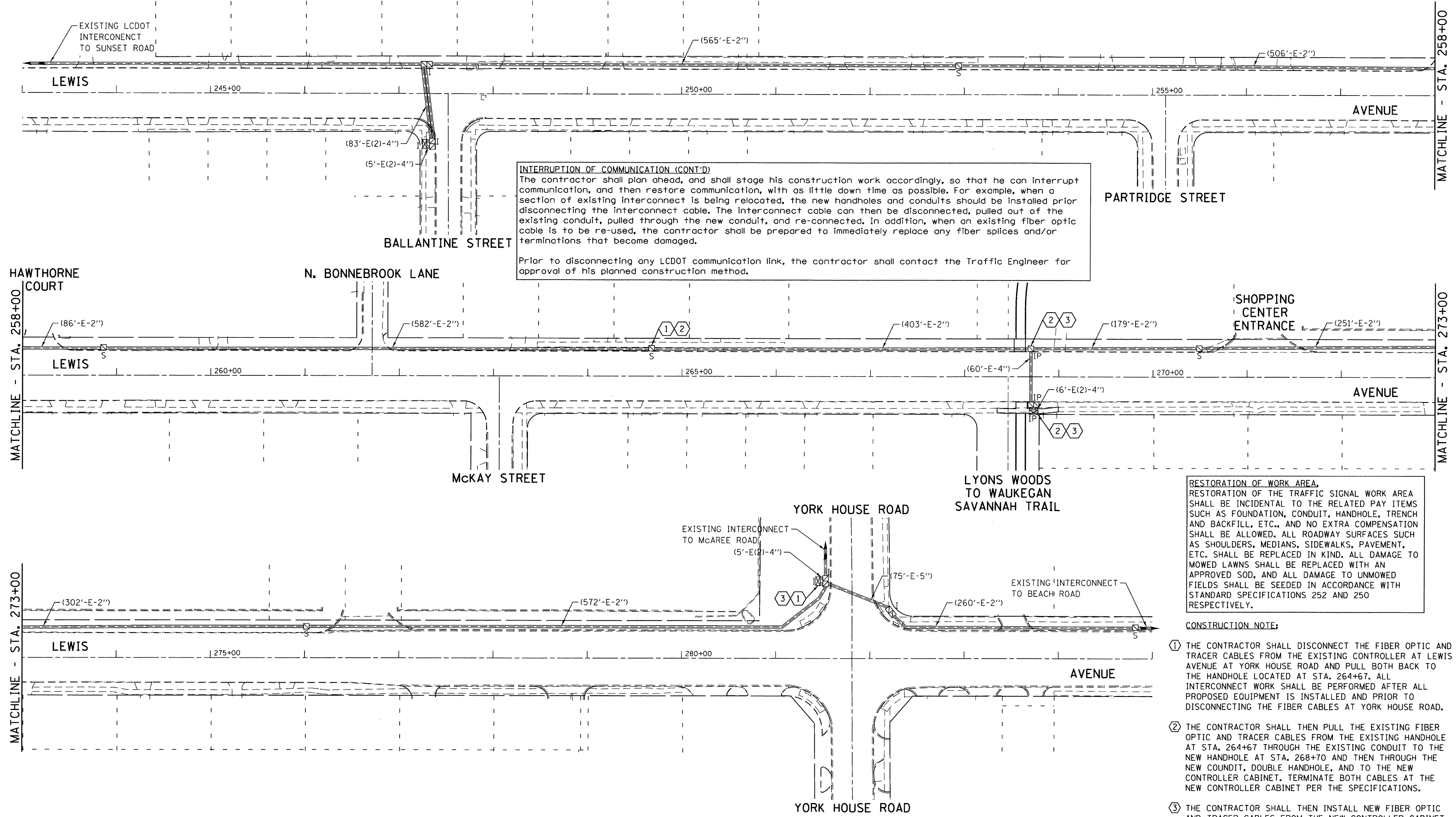


**INTERRUPTION OF COMMUNICATION**  
 The interruption of communication with County equipment shall be kept to an absolute minimum. This includes communication such as controller telemetry, video transmission, camera control signals, Highway Advisory Radio, wireless interconnect, telephone (POTS/ISDN/DSL), high speed Internet, or any other County communication equipment. This provision applies to cable types including copper, multimode fiber optic, singlemode fiber optic, telephone cables, Internet cables, or any other cable used by the County to monitor and maintain its various signal and ITS equipment.

**INTERRUPTION OF COMMUNICATION (CONT'D)**  
 The contractor shall plan ahead, and shall stage his construction work accordingly, so that he can interrupt communication, and then restore communication, with as little down time as possible. For example, when a section of existing interconnect is being relocated, the new handholes and conduits should be installed prior to disconnecting the interconnect cable. The interconnect cable can then be disconnected, pulled out of the existing conduit, pulled through the new conduit, and re-connected. In addition, when an existing fiber optic cable is to be re-used, the contractor shall be prepared to immediately replace any fiber splices and/or terminations that become damaged.  
 Prior to disconnecting any LCDOT communication link, the contractor shall contact the Traffic Engineer for approval of his planned construction method.

**RESTORATION OF WORK AREA,**  
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

- CONSTRUCTION NOTE:**
- ① THE CONTRACTOR SHALL DISCONNECT THE FIBER OPTIC AND TRACER CABLES FROM THE EXISTING CONTROLLER AT LEWIS AVENUE AT YORK HOUSE ROAD AND PULL BOTH BACK TO THE HANDHOLE LOCATED AT STA. 264+67. ALL INTERCONNECT WORK SHALL BE PERFORMED AFTER ALL PROPOSED EQUIPMENT IS INSTALLED AND PRIOR TO DISCONNECTING THE FIBER CABLES AT YORK HOUSE ROAD.
  - ② THE CONTRACTOR SHALL THEN PULL THE EXISTING FIBER OPTIC AND TRACER CABLES FROM THE EXISTING HANDHOLE AT STA. 264+67 THROUGH THE EXISTING CONDUIT TO THE NEW HANDHOLE AT STA. 268+70 AND THEN THROUGH THE NEW CONDUIT, DOUBLE HANDHOLE, AND TO THE NEW CONTROLLER CABINET. TERMINATE BOTH CABLES AT THE NEW CONTROLLER CABINET PER THE SPECIFICATIONS.
  - ③ THE CONTRACTOR SHALL THEN INSTALL NEW FIBER OPTIC AND TRACER CABLES FROM THE NEW CONTROLLER CABINET TO THE EXISTING CONTROLLER CABINET AT YORK HOUSE ROAD.



LAKE COUNTY FOREST PRESERVES  
 GEVAULT HAMILTON ASSOCIATES, INC.

FILE NAME = 4905-TS-Int.dgn GHA* 4905,000 Default	USER NAME = MCoImen	DESIGNED - MKH DRAWN - PJS CHECKED - DJS DATE -	REVISED - REVISED - REVISED - REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN**  
**LEWIS AVENUE FROM BALLANTINE STREET TO YORK HOUSE ROAD**  
 SCALE: 1"=50'    SHEET 1 OF 1 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	50
CONTRACT NO. 61C67				
ILLINOIS FED. AID PROJECT				



SCHEDULE OF QUANTITIES

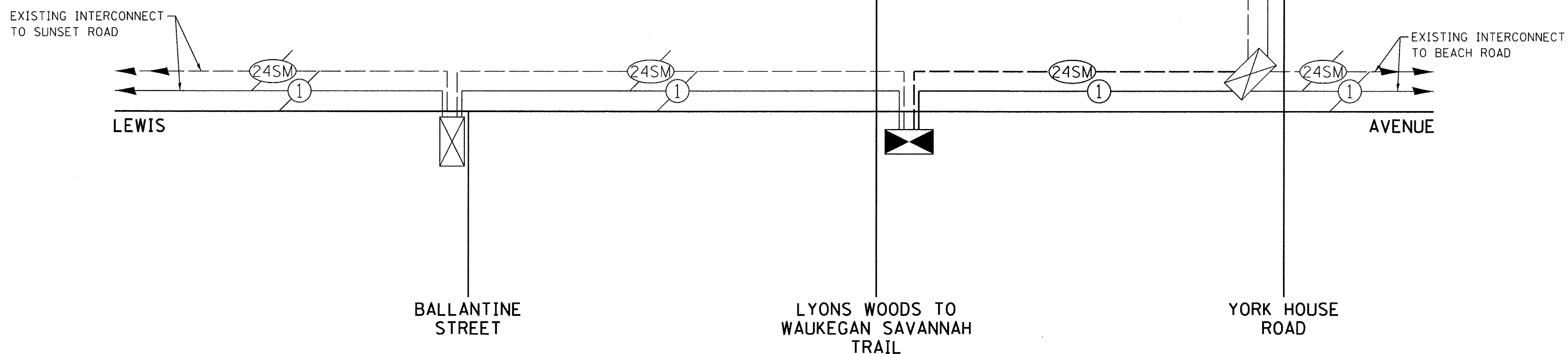
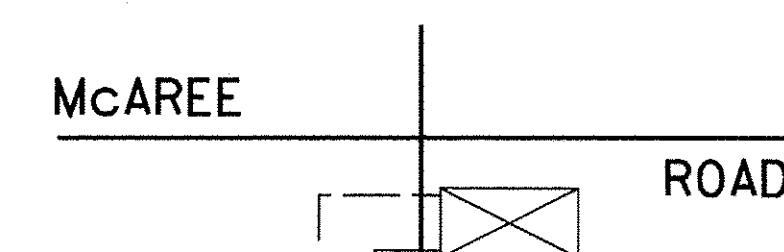
INTERCONNECT - LEWIS AVENUE FROM BALLANTINE STREET TO YORK HOUSE ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1,429	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
3.	2,692	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
4.	984	FOOT	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT
5.	18	EACH	TERMINATE FIBER IN CABINET
6.	1,429	FOOT	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLE MODE
7.	1	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1

FIBER OPTIC CABLE TERMINATION/SPLICING QUANTITIES  
(BY INTERSECTION/LOCATION)

INTERSECTION/LOCATION	INCIDENTAL		BID ITEM	
	T	S	T	S
LEWIS AVENUE AT BALLANTINE STREET				
LEWIS AVENUE AT LYONS WOODS TRAIL	18	6	18	
LEWIS AVENUE AT YORK HOUSE ROAD	18	6		
SUBTOTAL				

T = TERMINATE FIBER IN CABINET  
S = SPLICE FIBER IN CABINET



LAKE COUNTY FOREST PRESERVES  
 GEVAIT HAMILTON ASSOCIATES, INC.

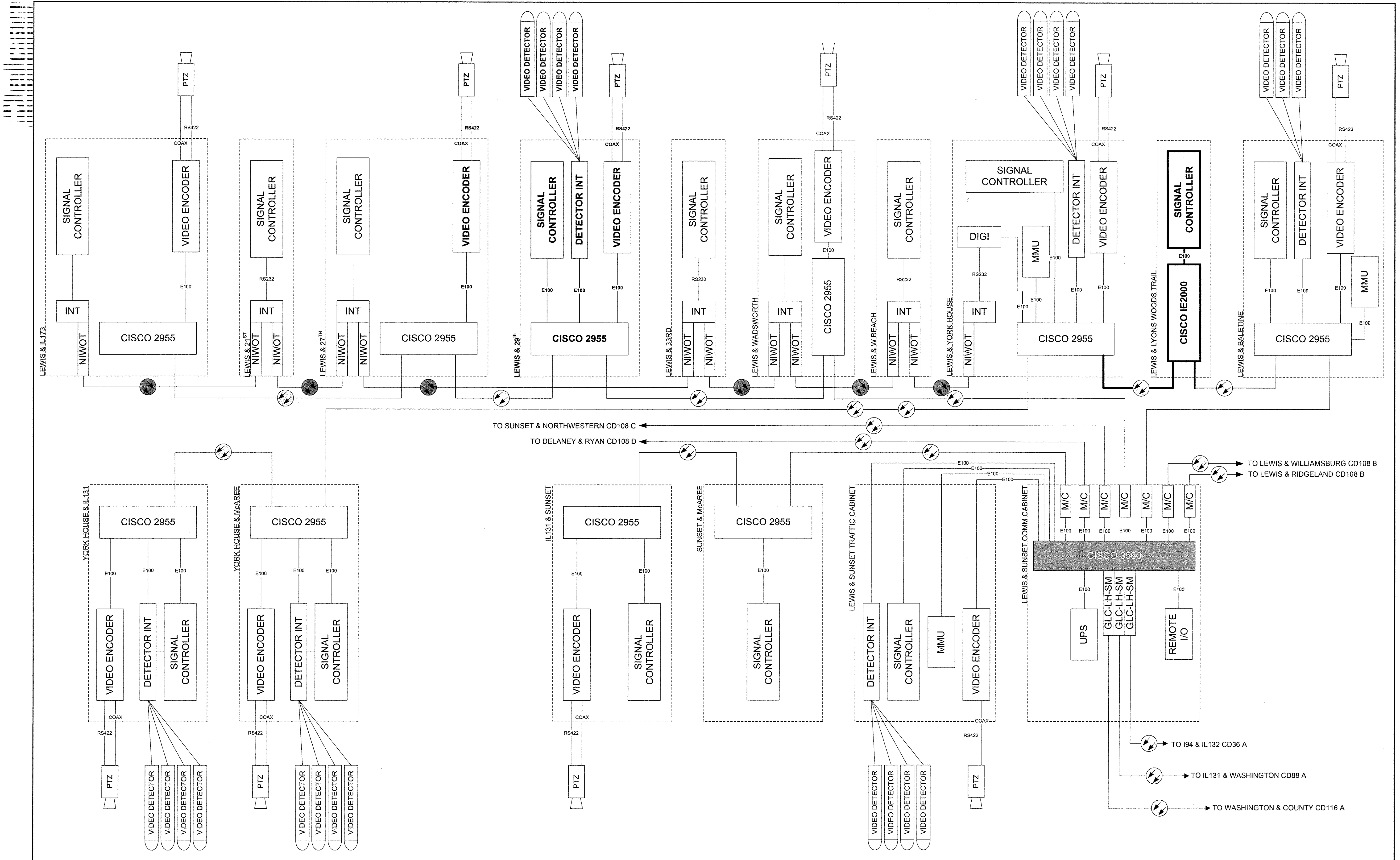
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GHA* 4905.000	PLOT SCALE = 1/50	DRAWN - PJS	REVISED -
Default	PLOT DATE = 11/14/2016	CHECKED - DJS	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC  
LEWIS AVENUE FROM BALLANTINE STREET TO YORK HOUSE ROAD  
SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	51
CONTRACT NO. 61C67			ILLINOIS FED. AID PROJECT	





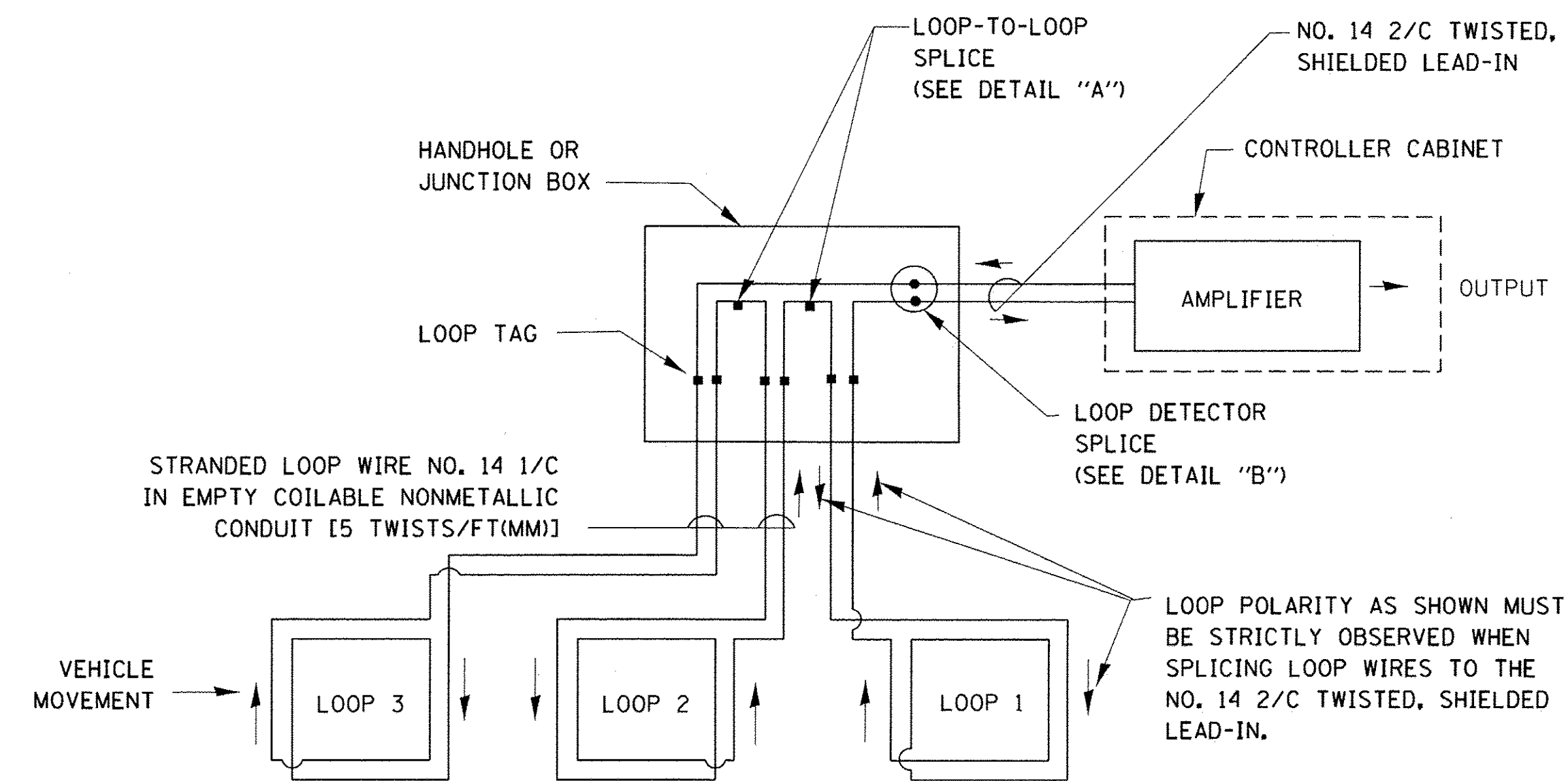
	DESIGNED - DG	REVISED - 2016.01.07	LAKE COUNTY DIVISION OF TRANSPORTATION	108A LEWIS / SUNSET		ROUTE	SECTION	ROUTE SECTION	SHEET	SHEETS
	DRAWN - YM	REVISED -		SCALE N/A				14-F3000-04-BT	53	116
	CHECKED - DG	REVISED -								
	DATE 2016.01.07	REVISED -								

6167



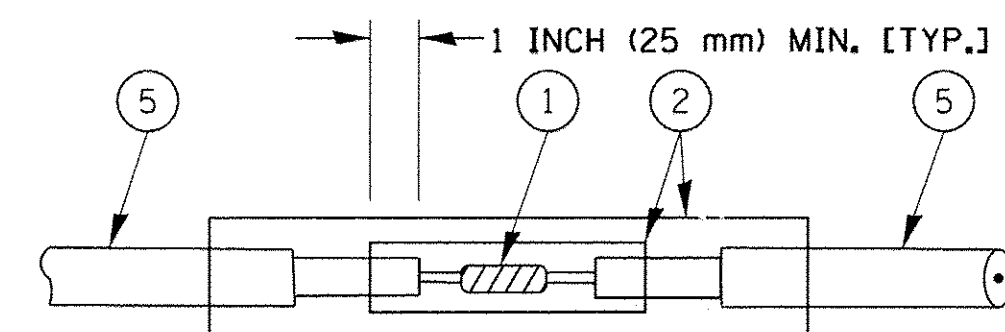
**LOOP DETECTOR NOTES**

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

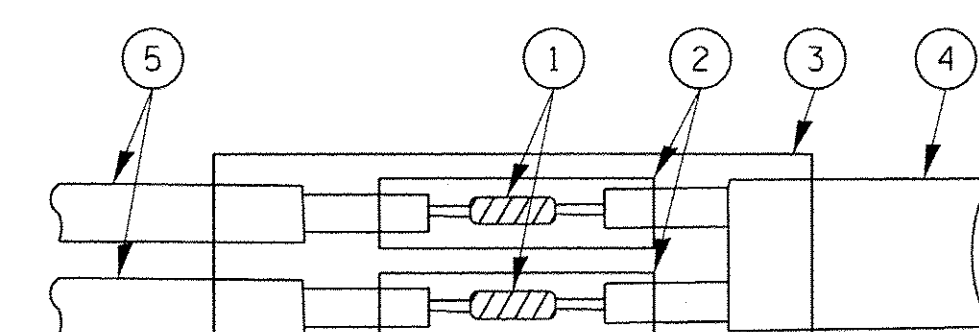


**DETECTOR LOOP WIRING SCHEMATIC**

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



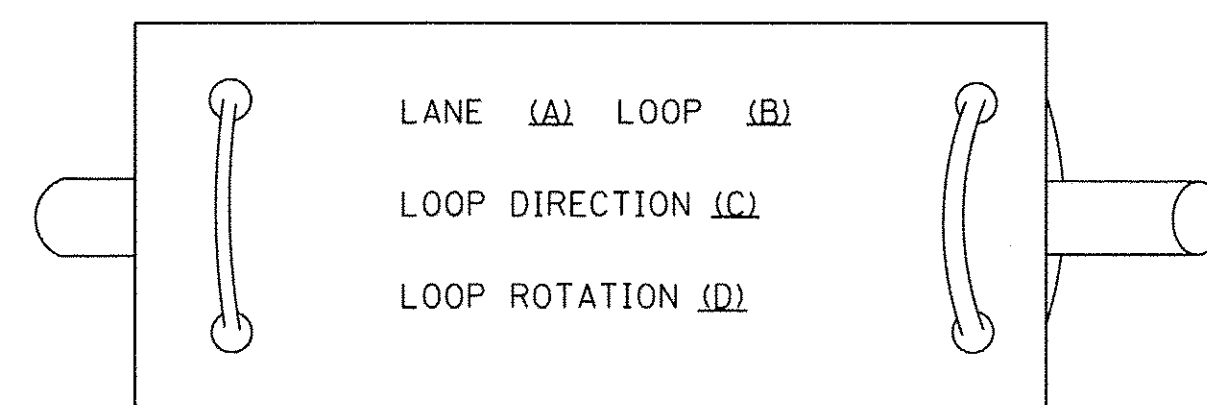
DETAIL "A"  
LOOP-TO-LOOP SPLICE



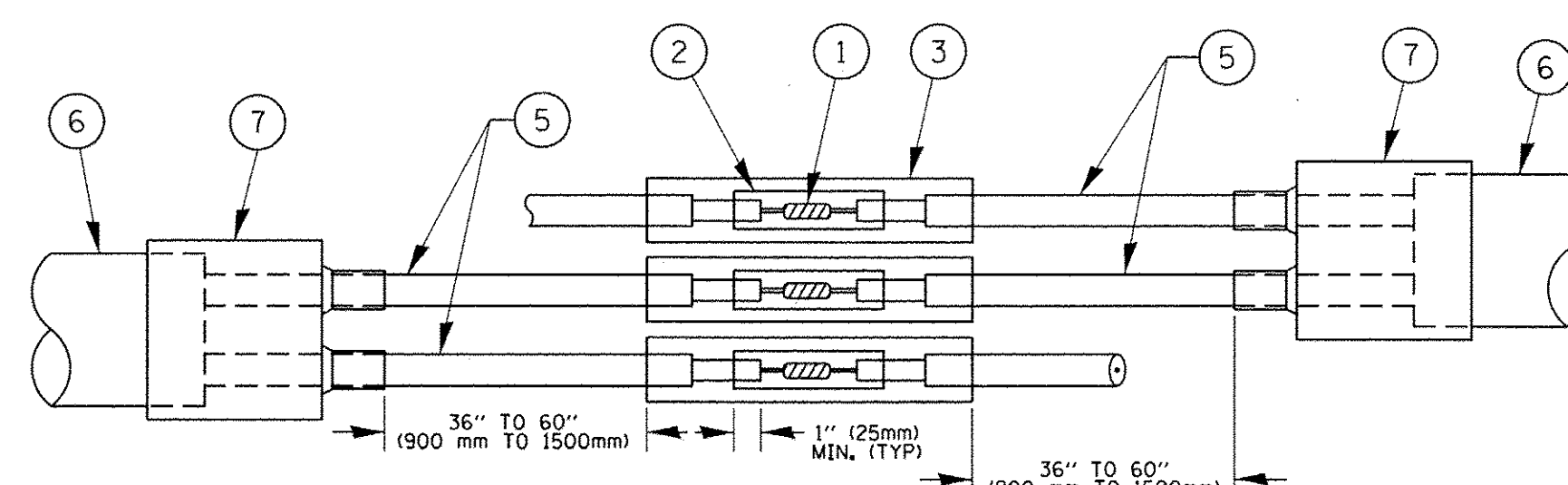
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**

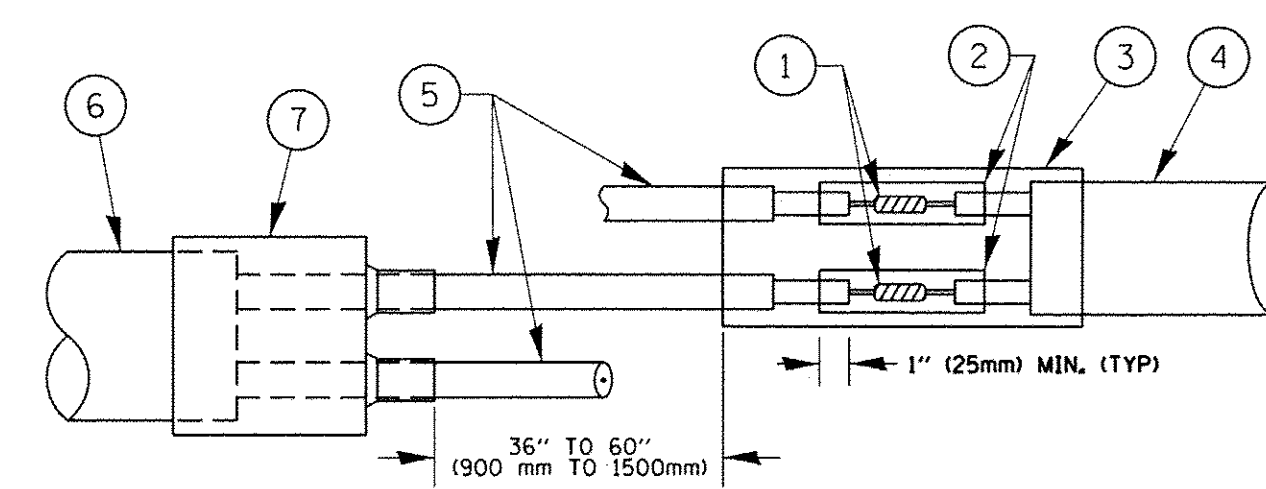
**LOOP LEAD-IN CABLE TAG**



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



DETAIL "A"  
LOOP-TO-LOOP SPLICE



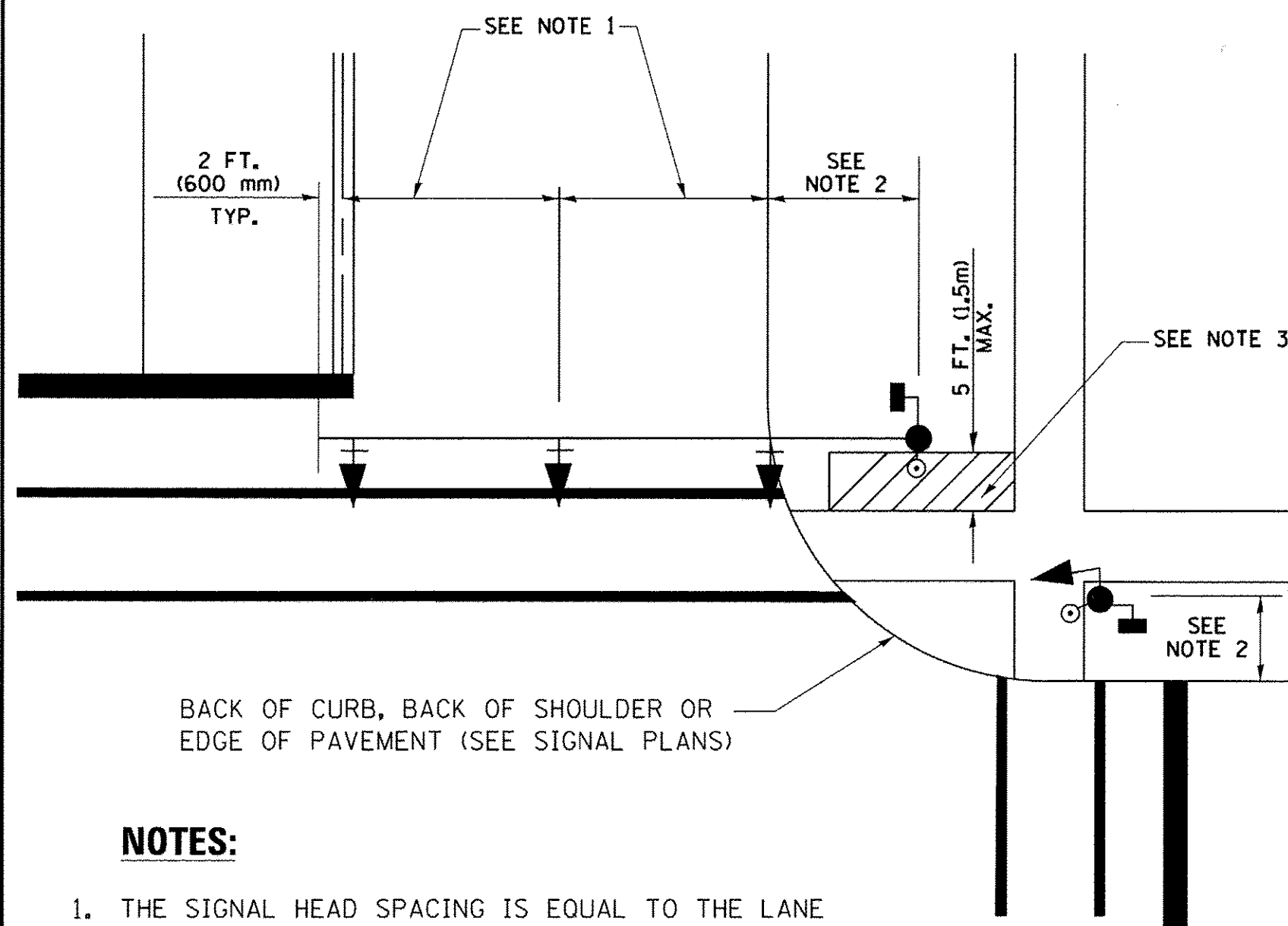
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PRE-FORMED LOOP**

**LOOP DETECTOR SPLICE**

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

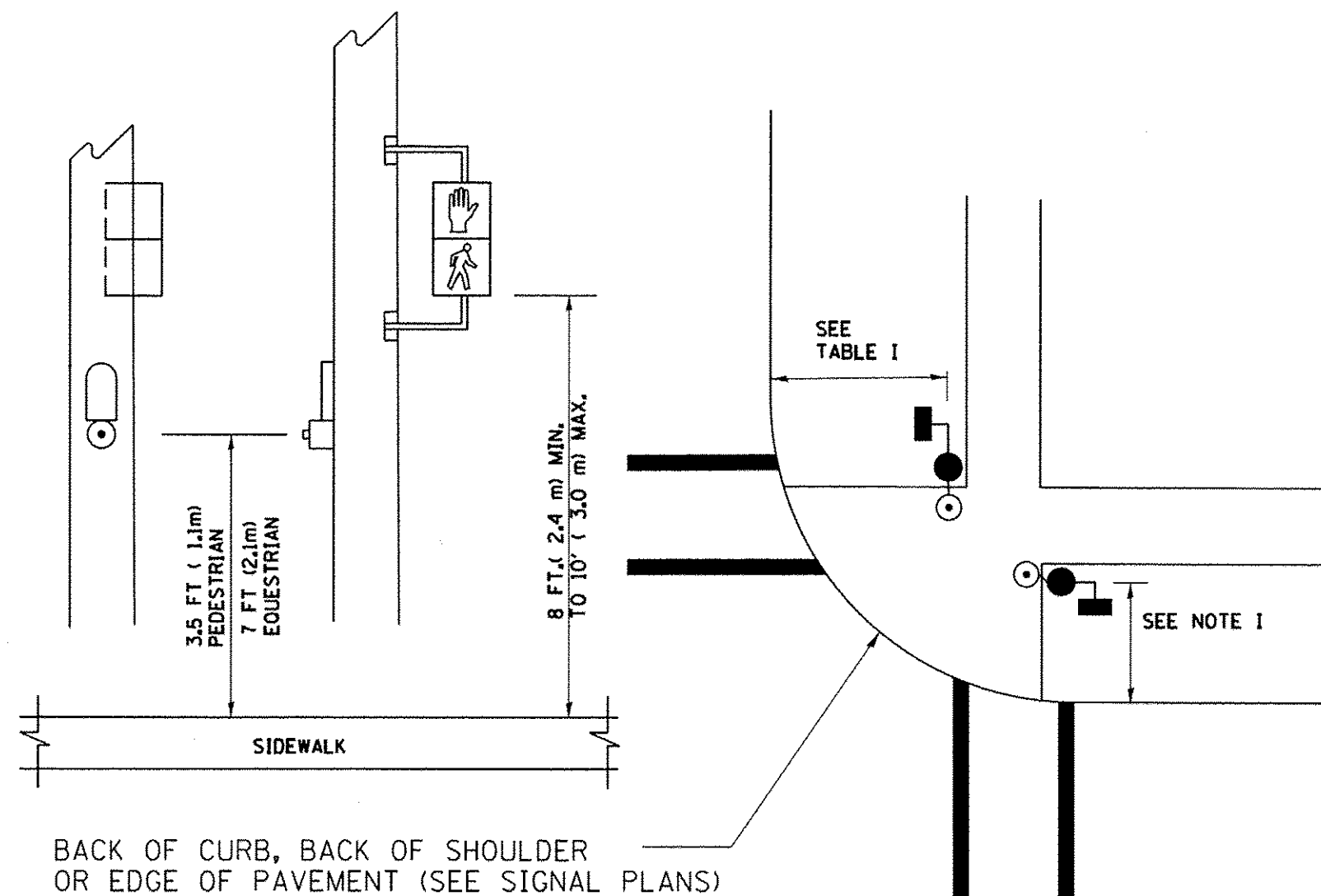
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**NOTES:**

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

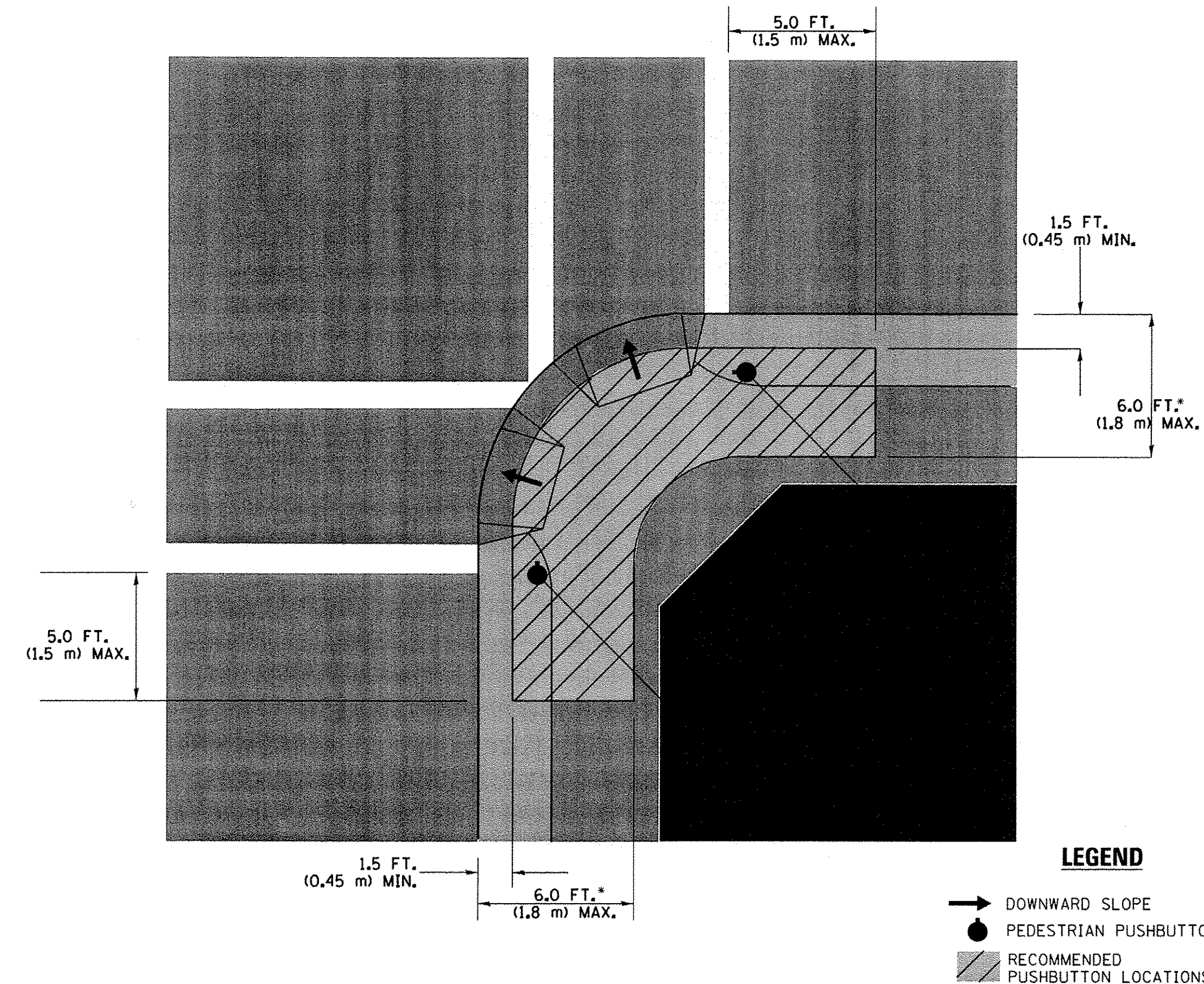
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

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

**RECOMMENDED PUSHBUTTON LOCATIONS**



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

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

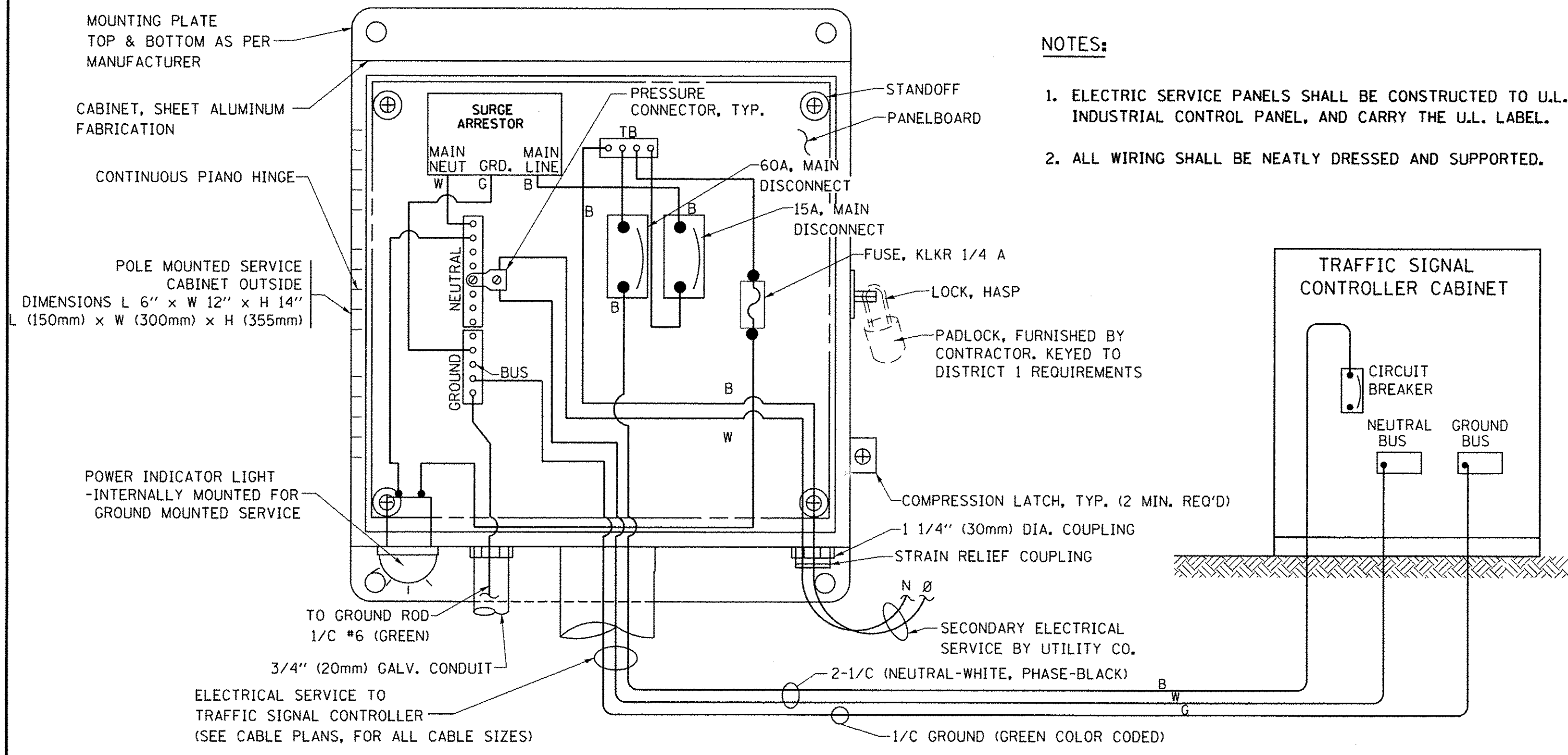
**TRAFFIC SIGNAL EQUIPMENT OFFSET**

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

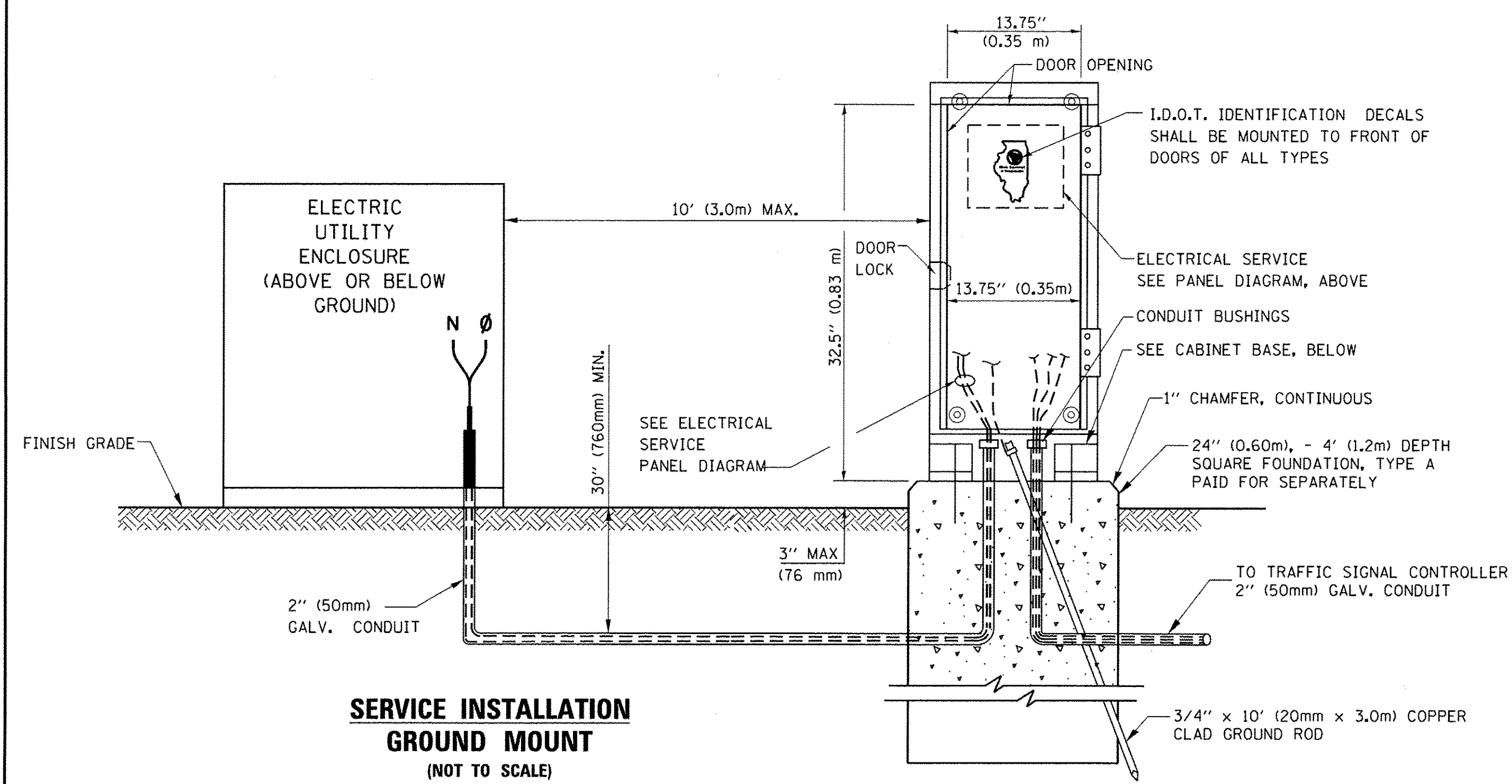
**NOTES:**

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



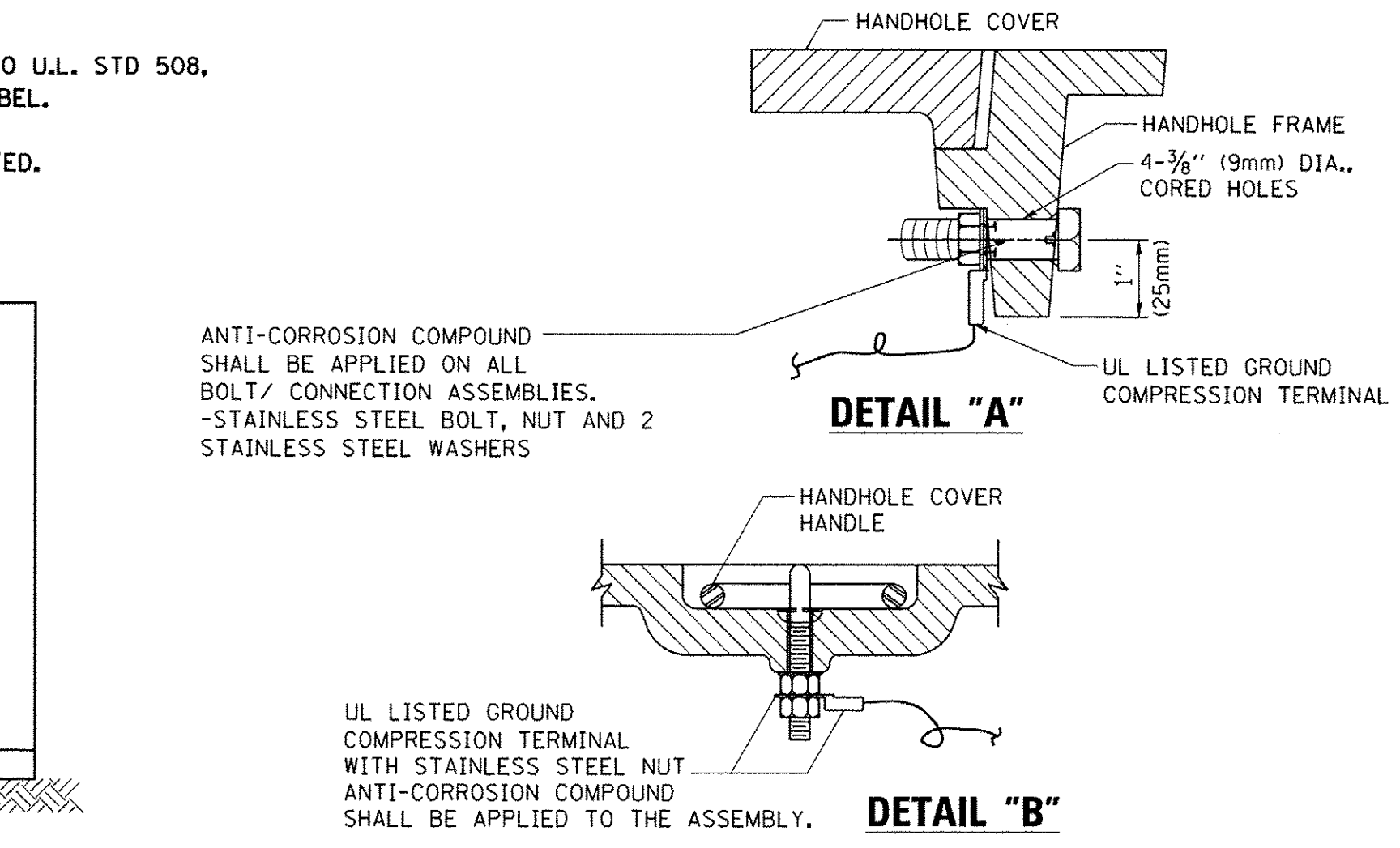
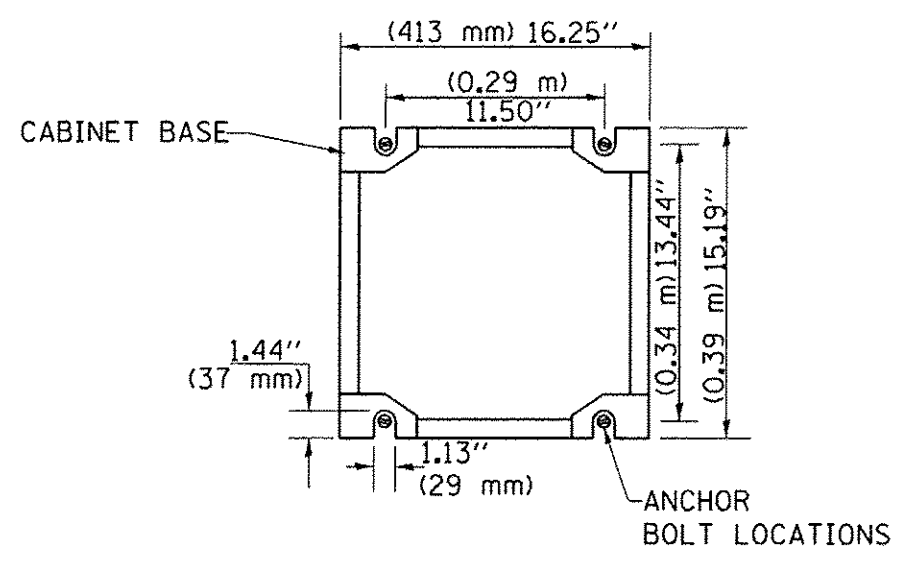


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)**



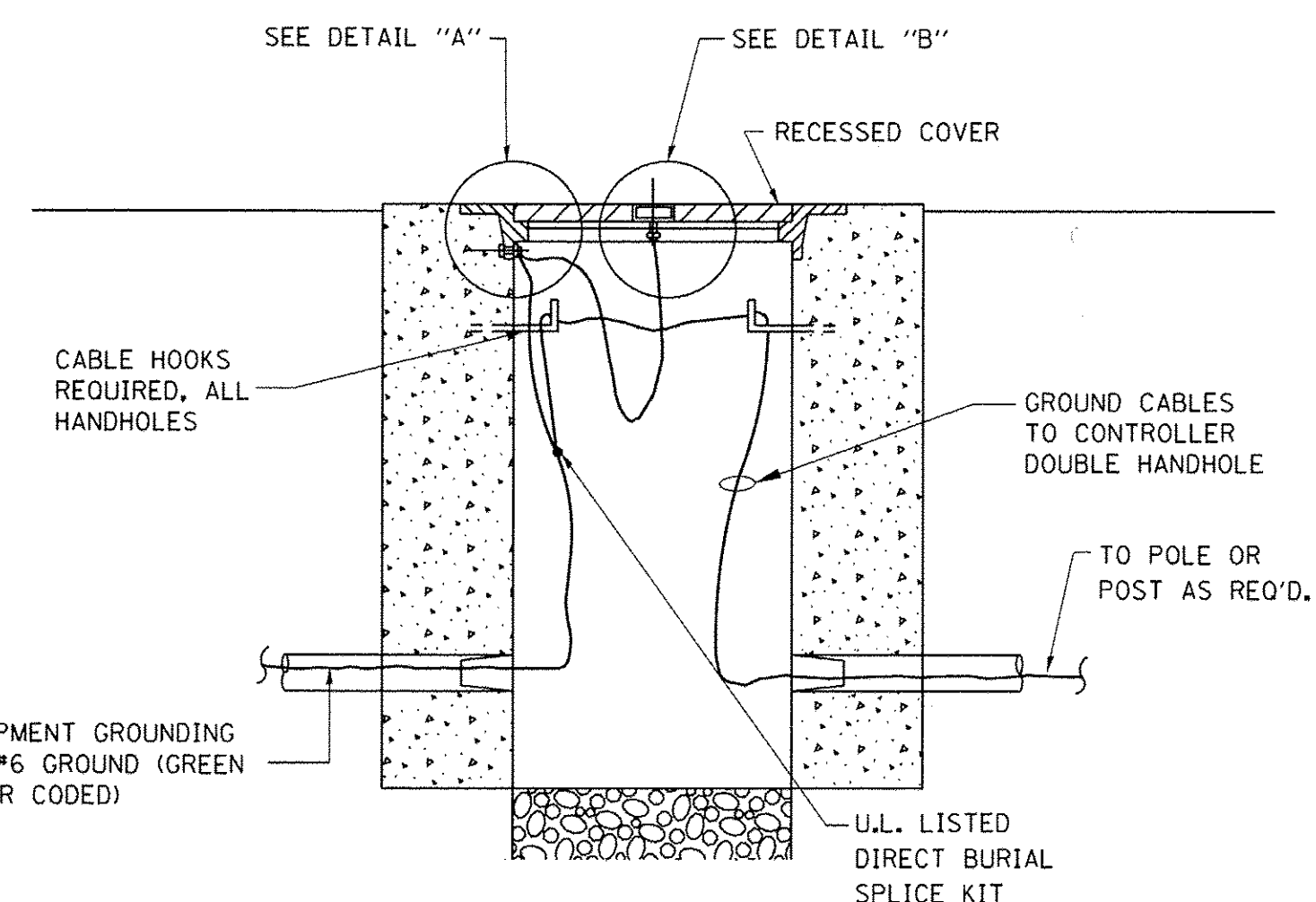
**SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)**

**CABINET - BASE BOLT PATTERN (NOT TO SCALE)**

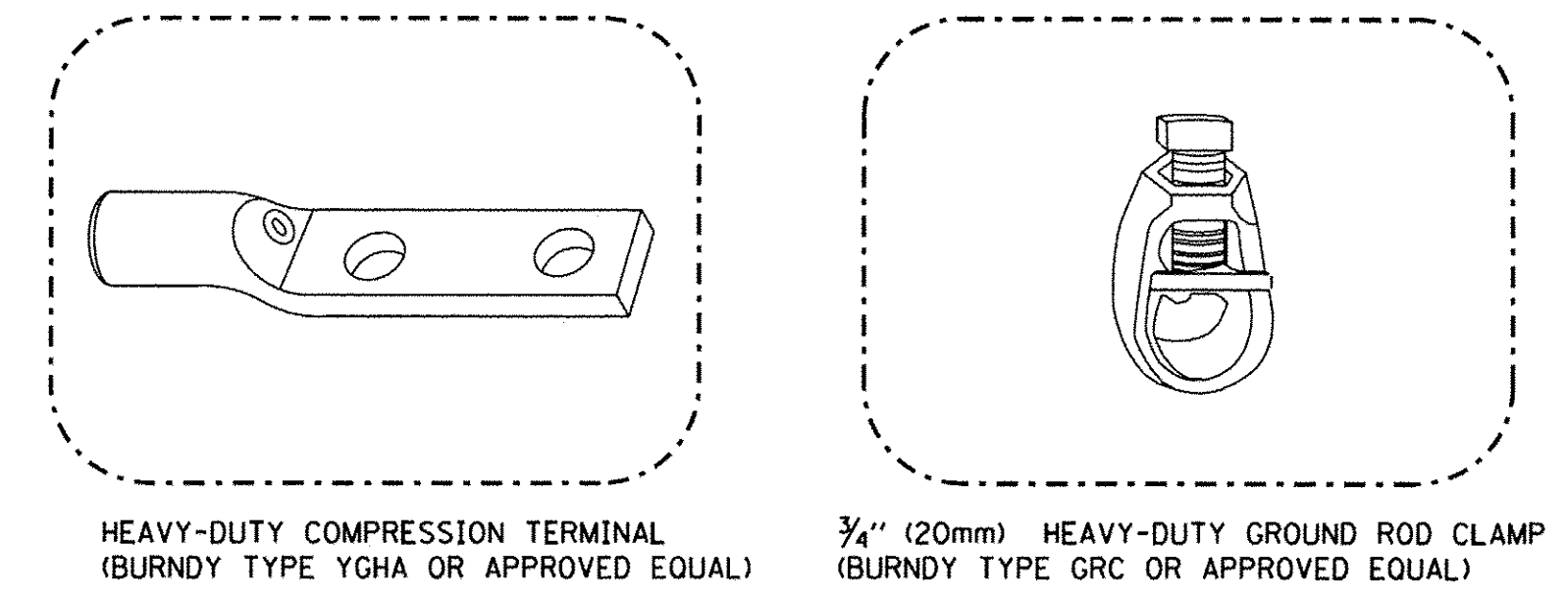


**NOTES:**  
**GROUNDING SYSTEM**

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

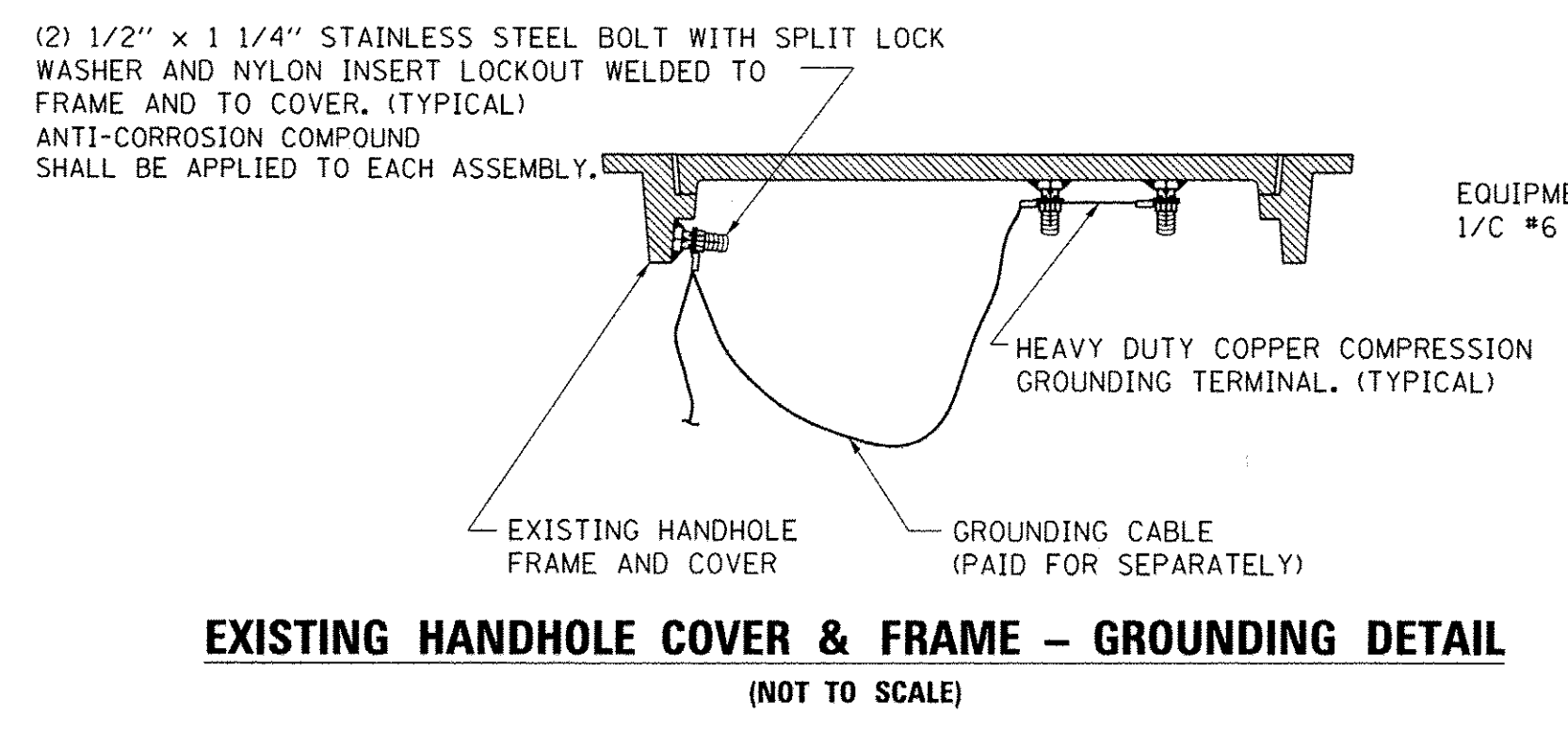


**HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**

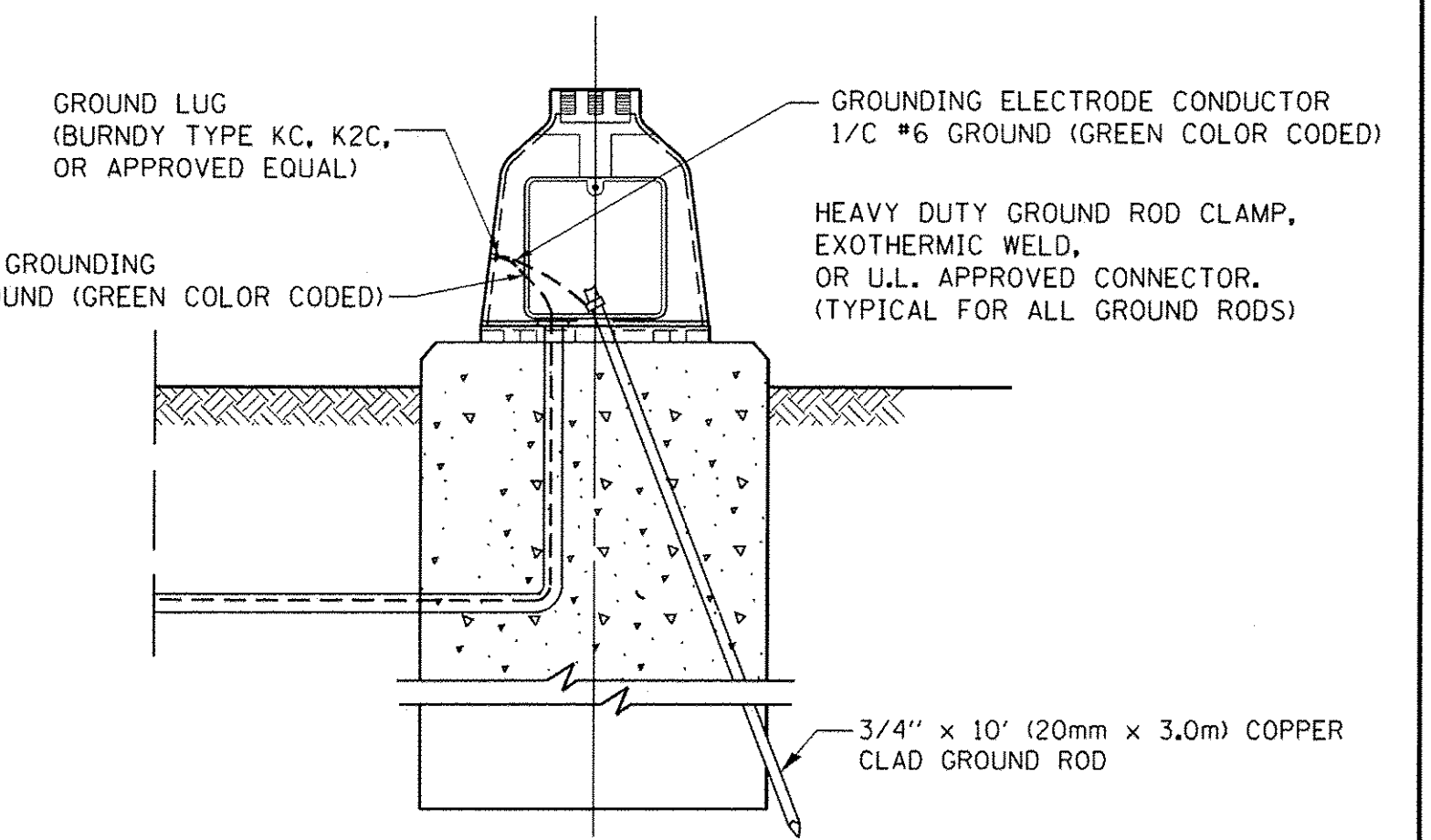


**NOTES:**

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



**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)**



**MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)**

**GEWALT HAMILTON ASSOCIATES, INC.**

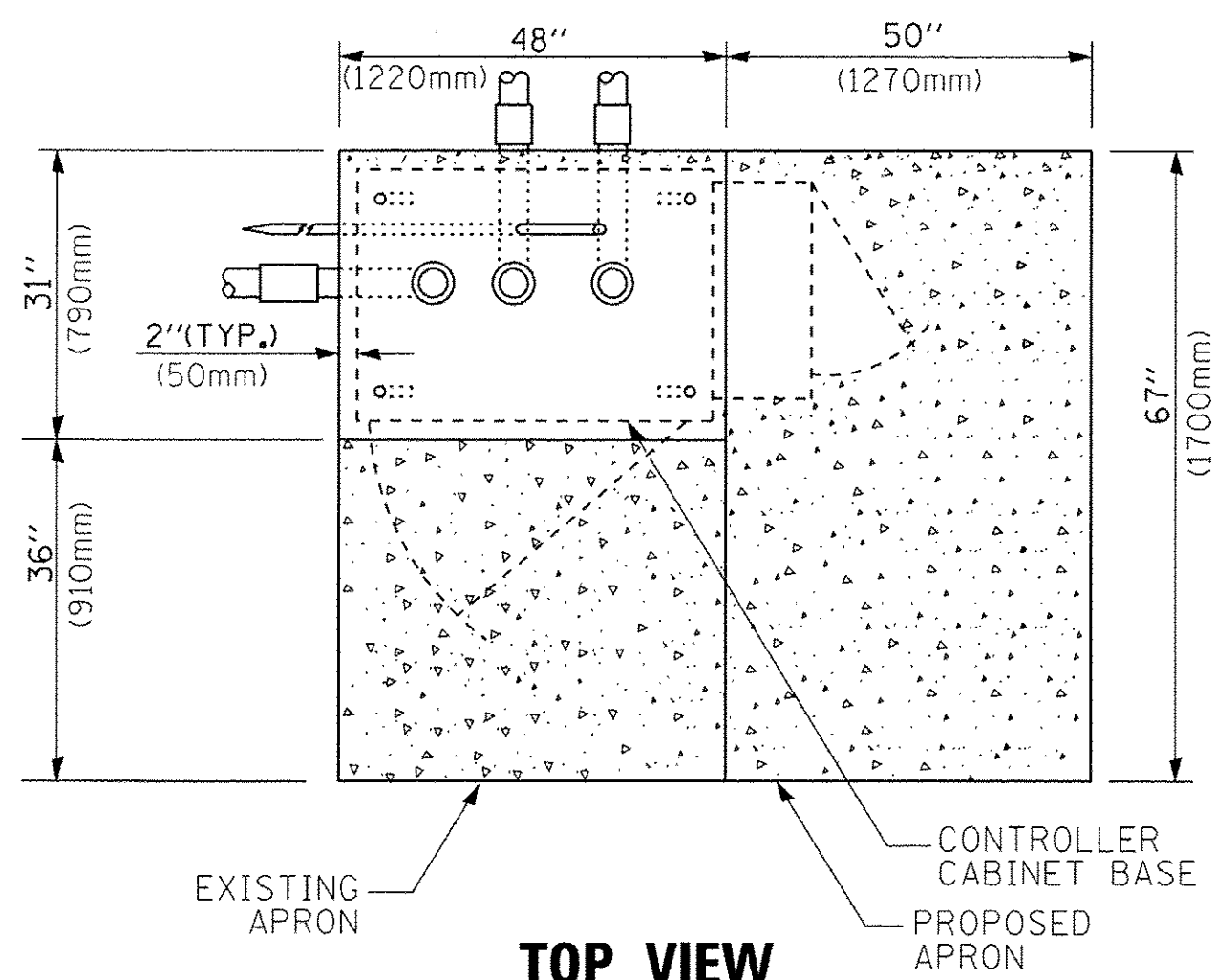
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IDOT DI STANDARD TS05d

USER NAME = MCoeman	DESIGNED - DAD	REVISED - DAG 1-1-14
PLOT SCALE = 1:1	DRAWN - BCK	REVISED -
PLOT DATE = 11/14/2016	CHECKED - DAD	REVISED -
	DATE - 10-28-09	REVISED -

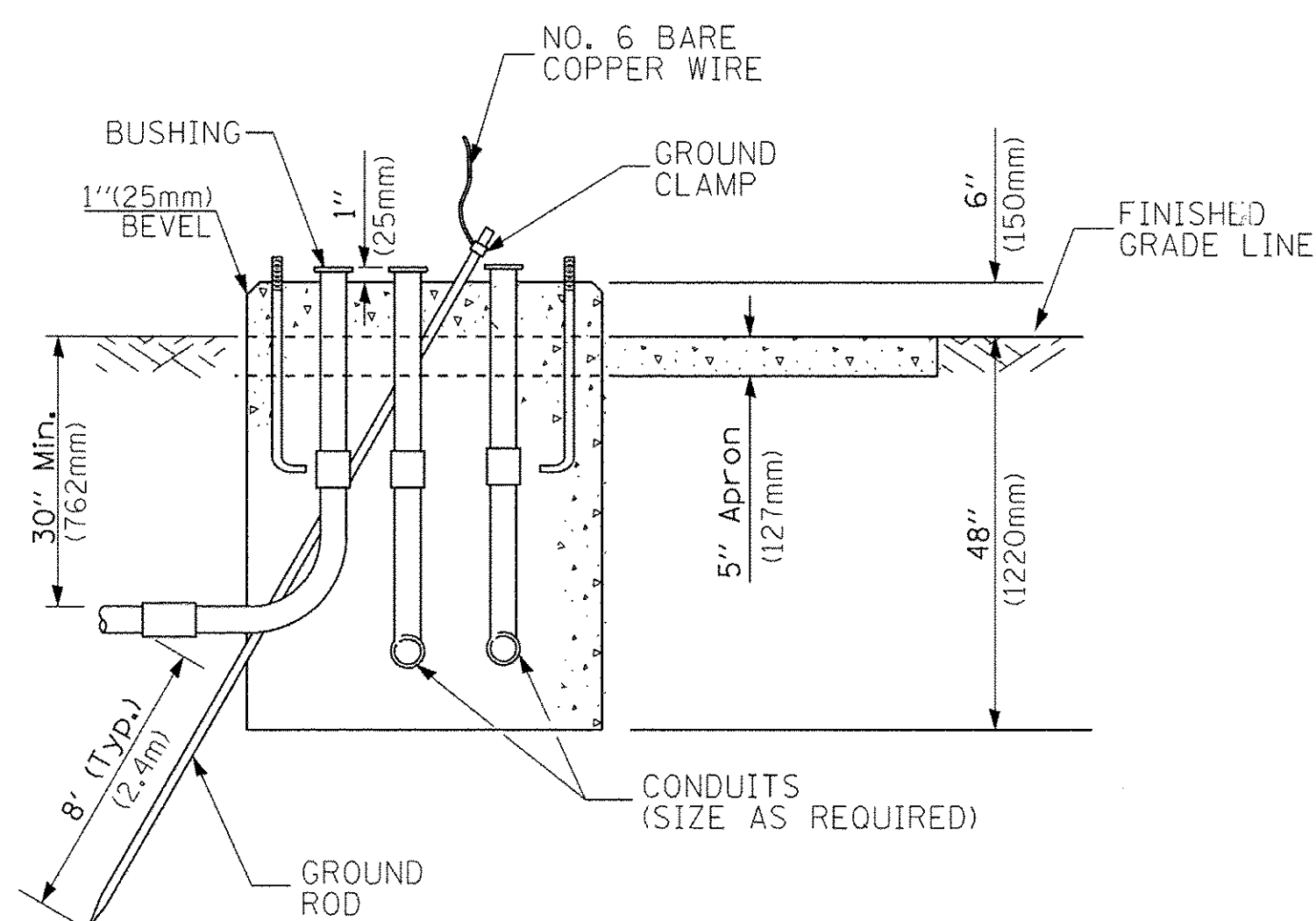
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE	
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	SHEET NO. 4 OF 7 SHEETS
STA. TO STA.	

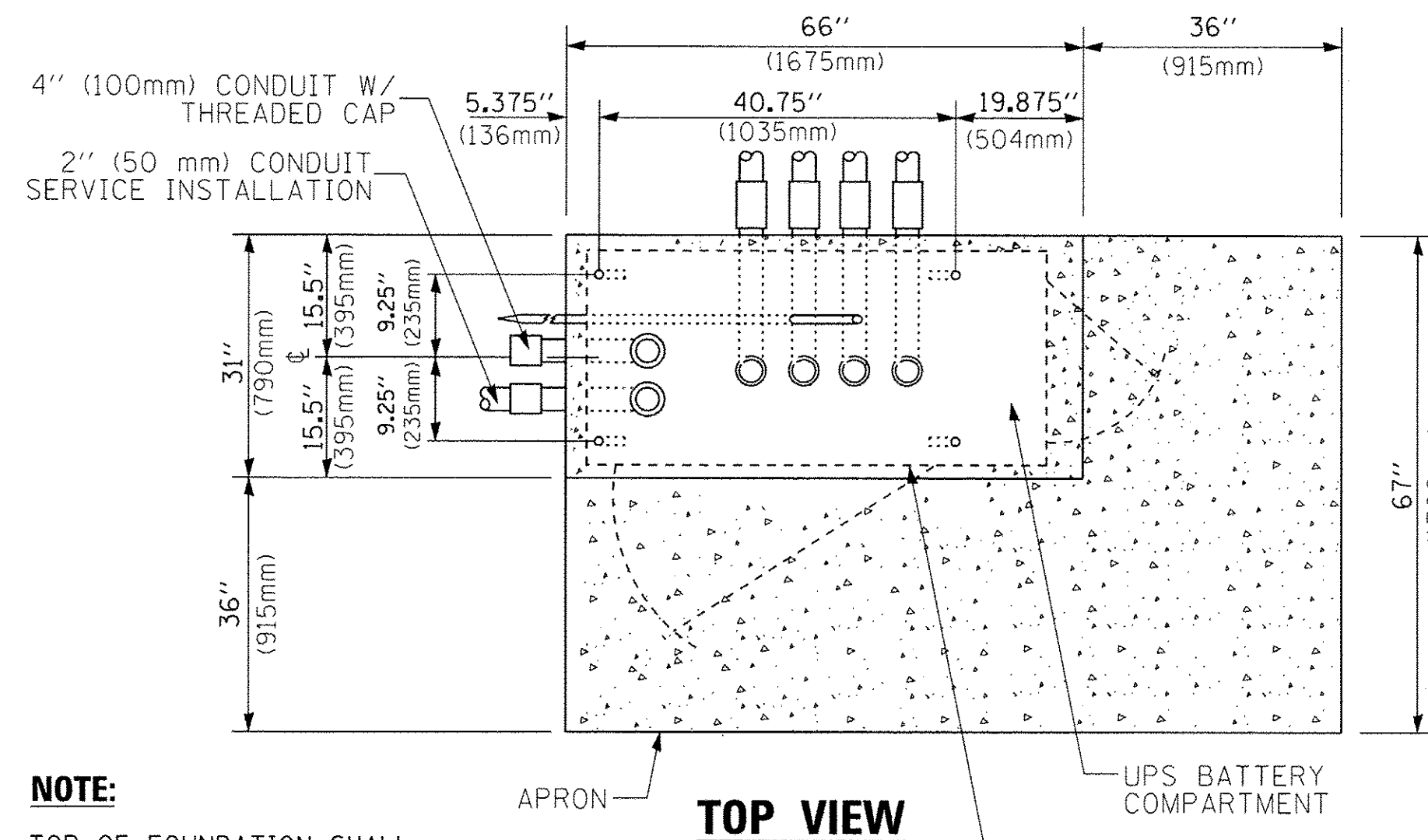
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	57
	TS-05	CONTRACT NO. 61C67		
ILLINOIS FED. AID PROJECT				



**TOP VIEW**

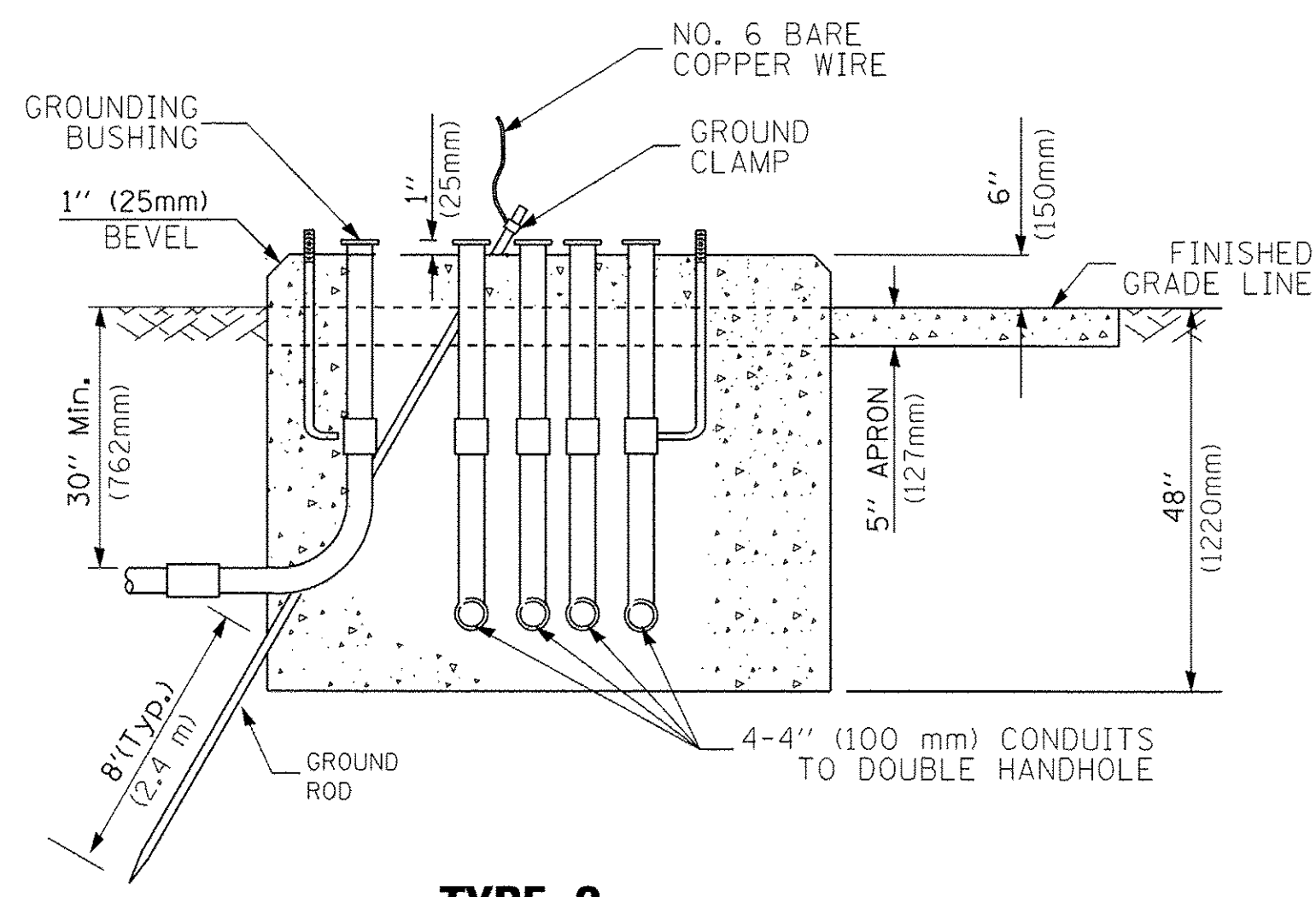


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

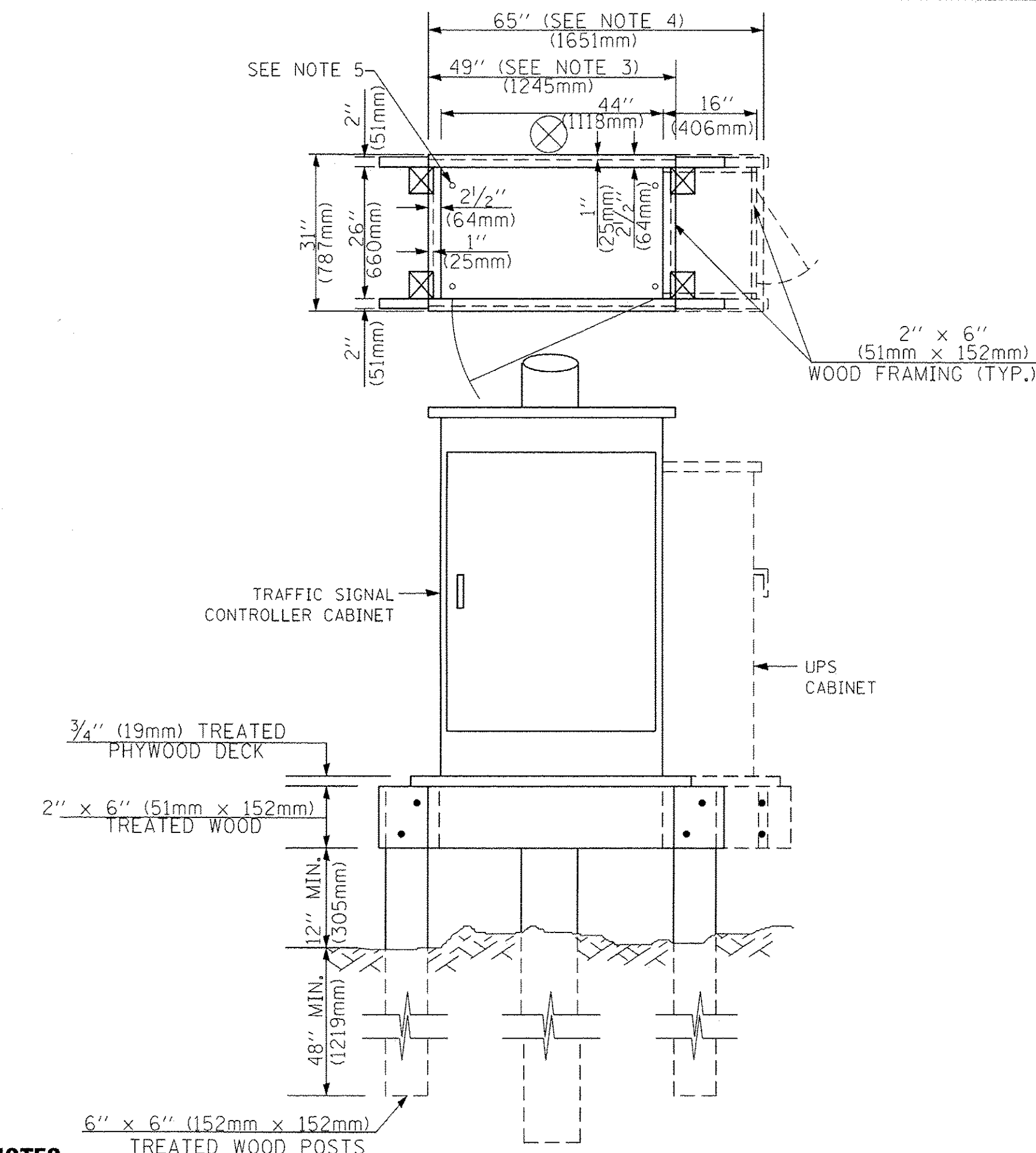


**TOP VIEW**

**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

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

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

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

**CABLE SLACK**

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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

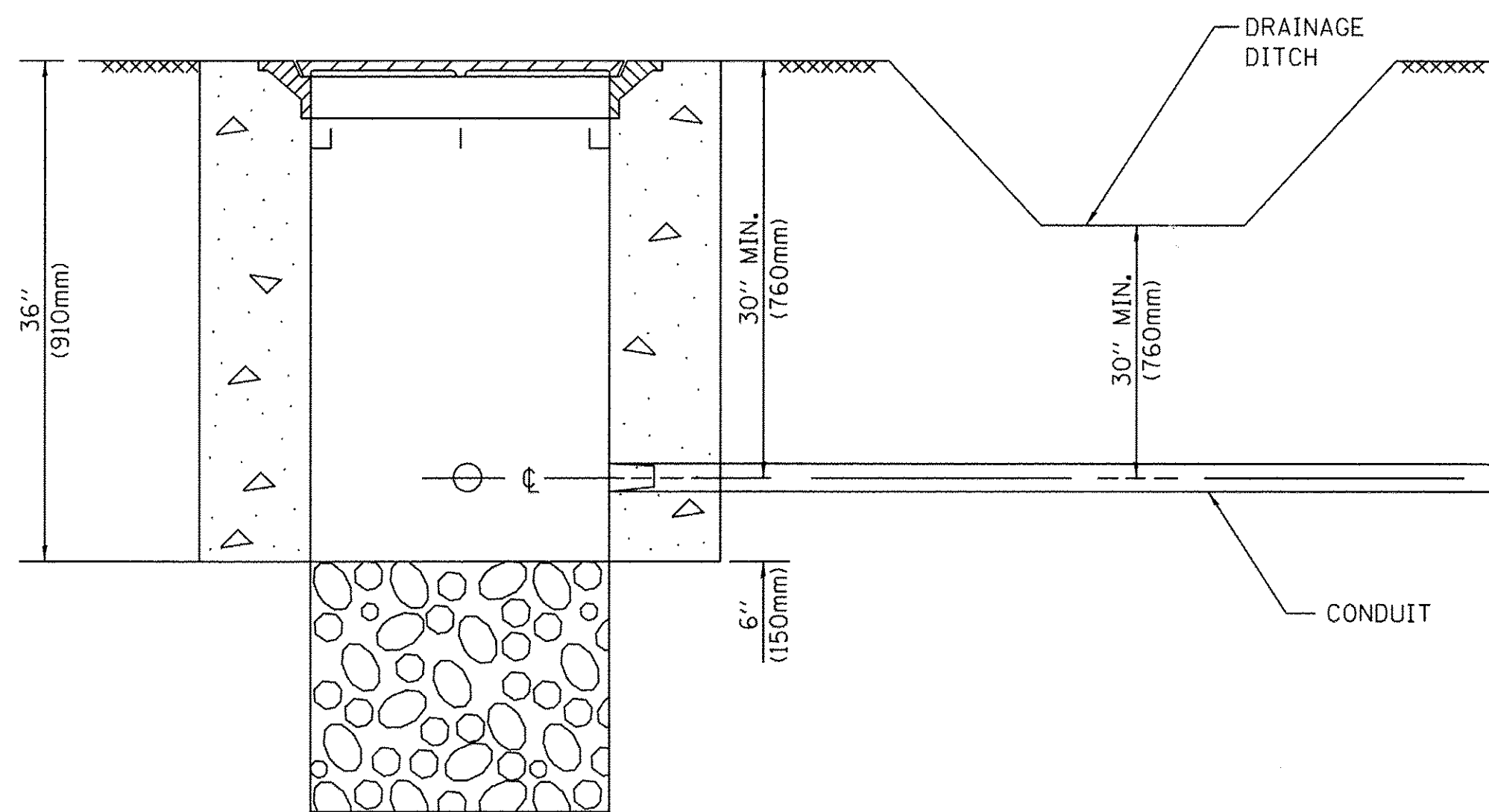
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

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

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

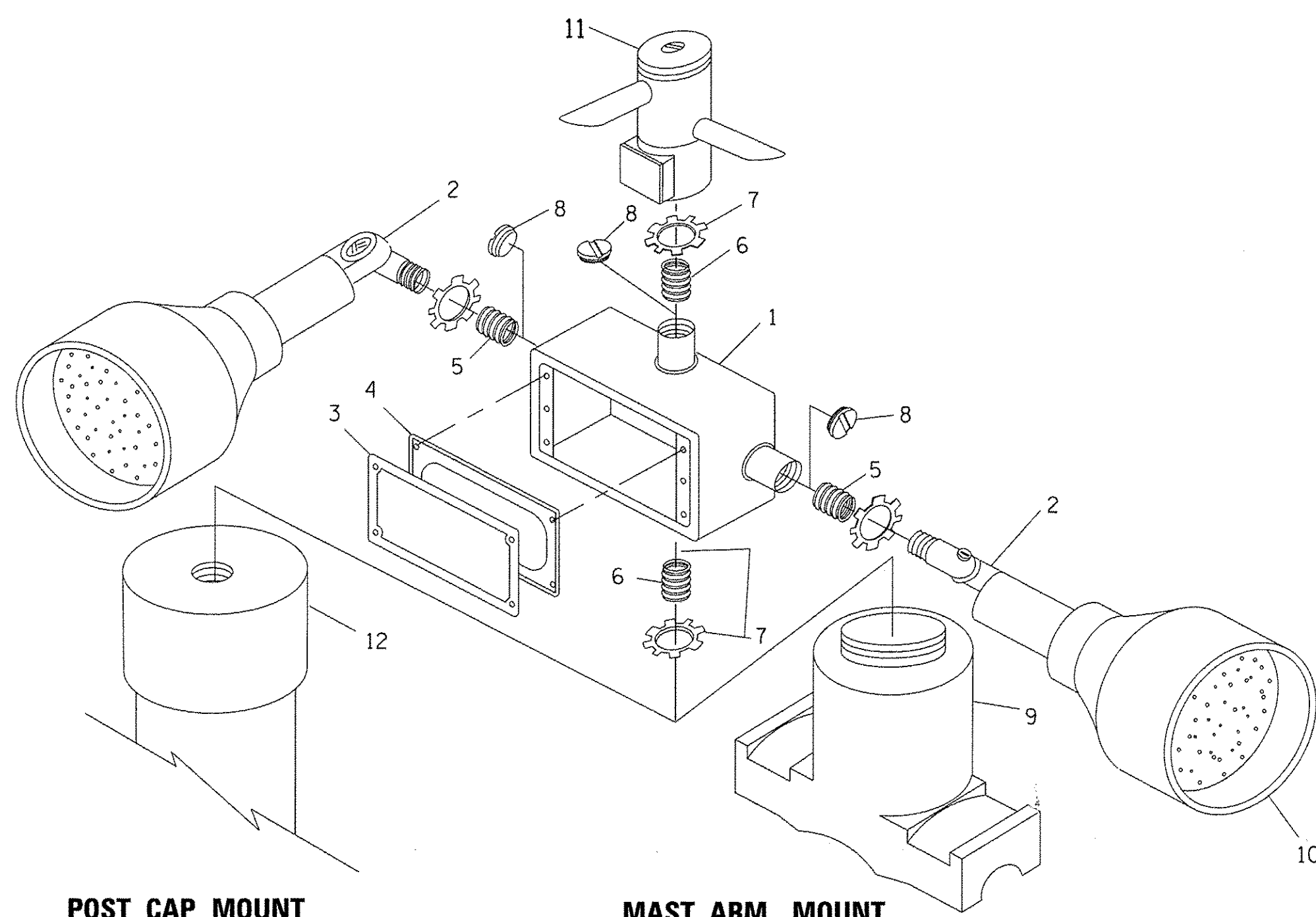
**GEWALT HAMILTON ASSOCIATES, INC.**



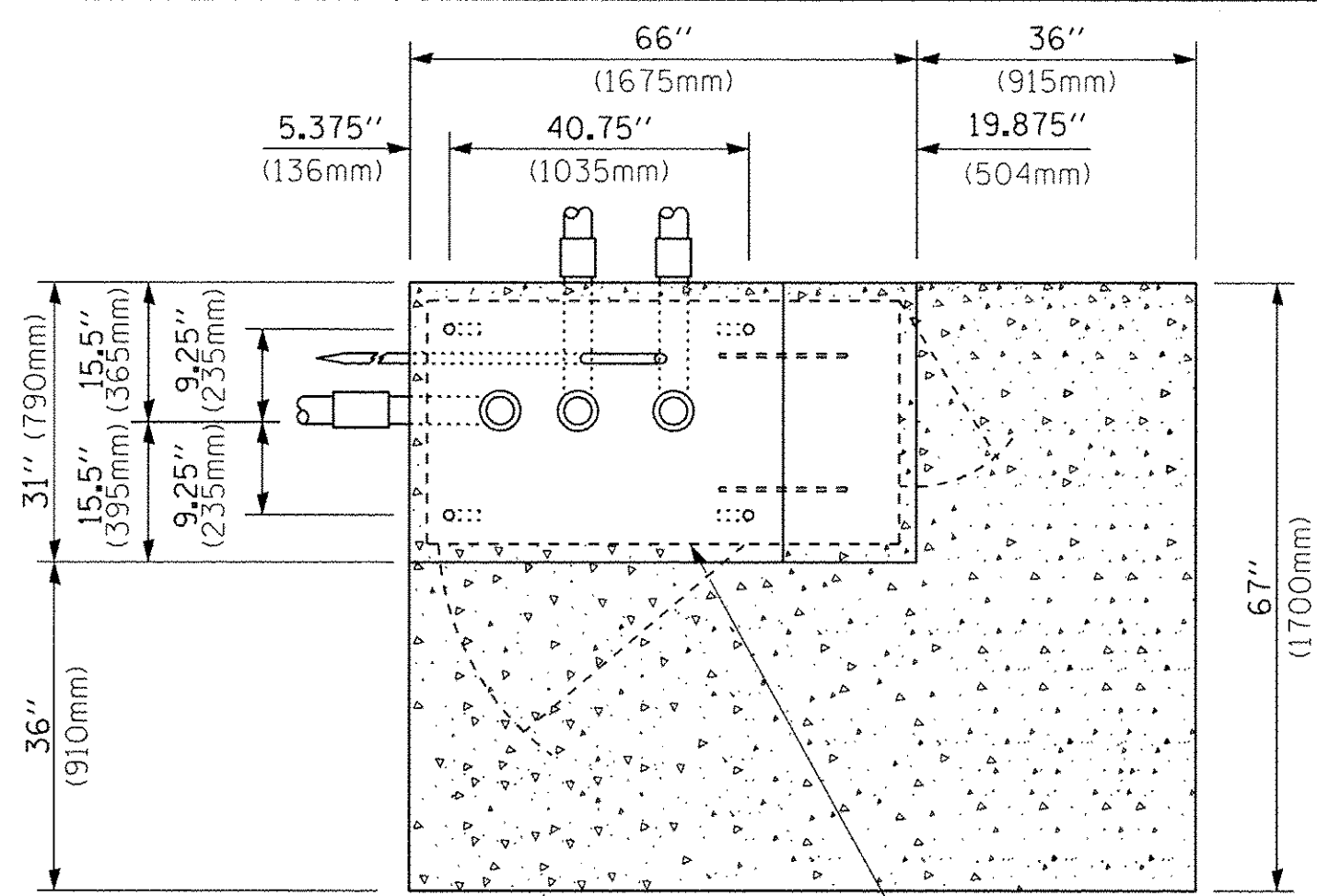
**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

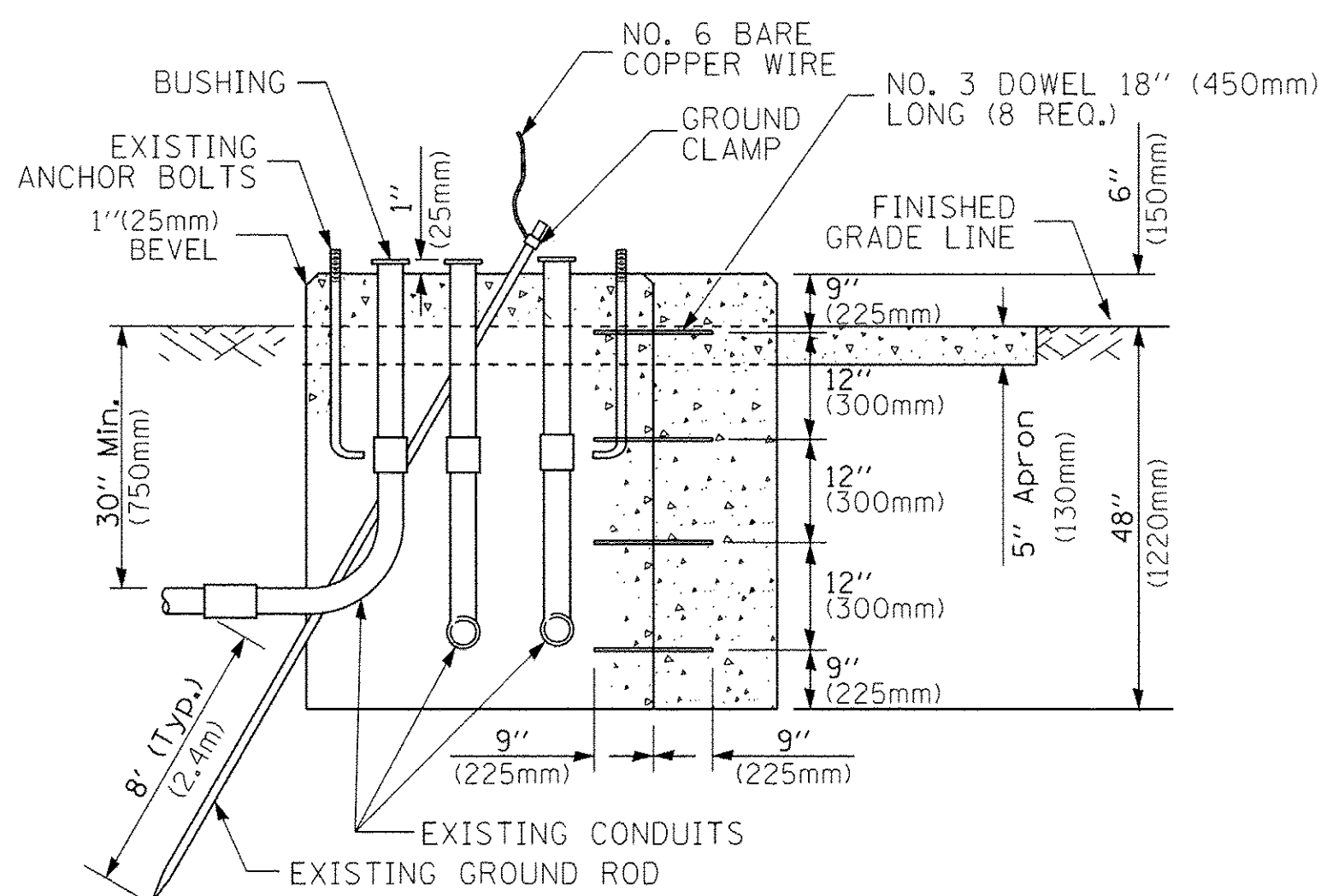
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



**TOP VIEW**  
(NOT TO SCALE)

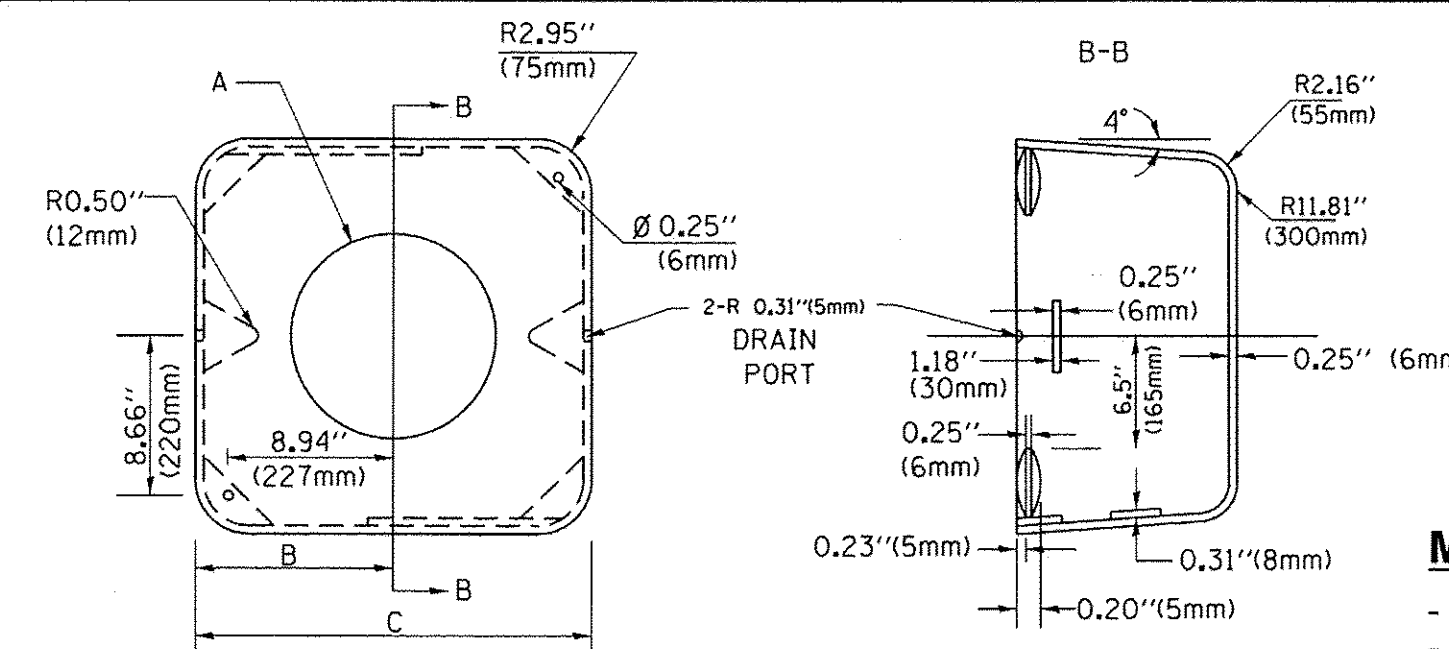


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4"(19 mm) CLOSE NIPPLE
7	3/4"(19 mm) LOCKNUT
8	3/4"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

**NOTES:**

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



**MATERIAL:**  
- ASTM A36 STEEL  
- ASTM A-123 HOT DIPPED GALVANIZED

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

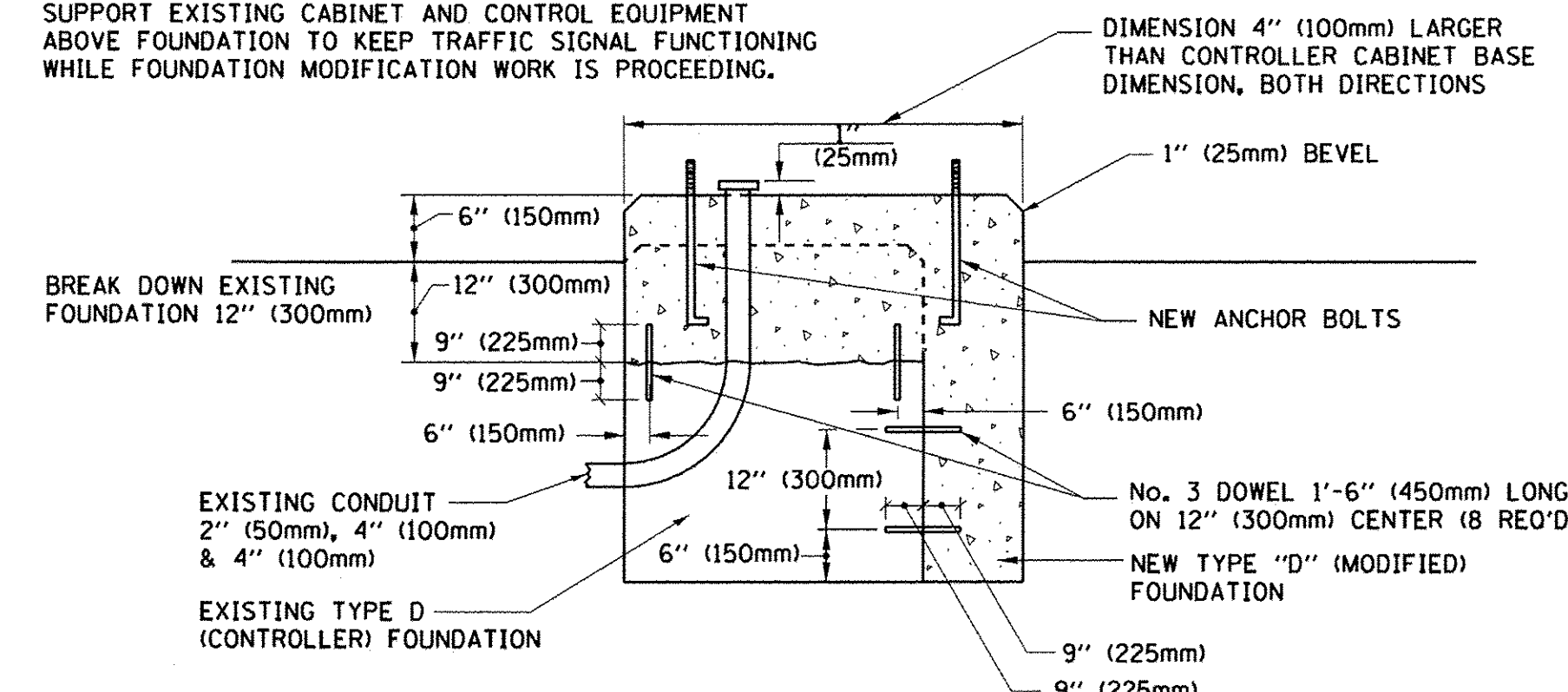
**SHROUD**

**NOTES:**

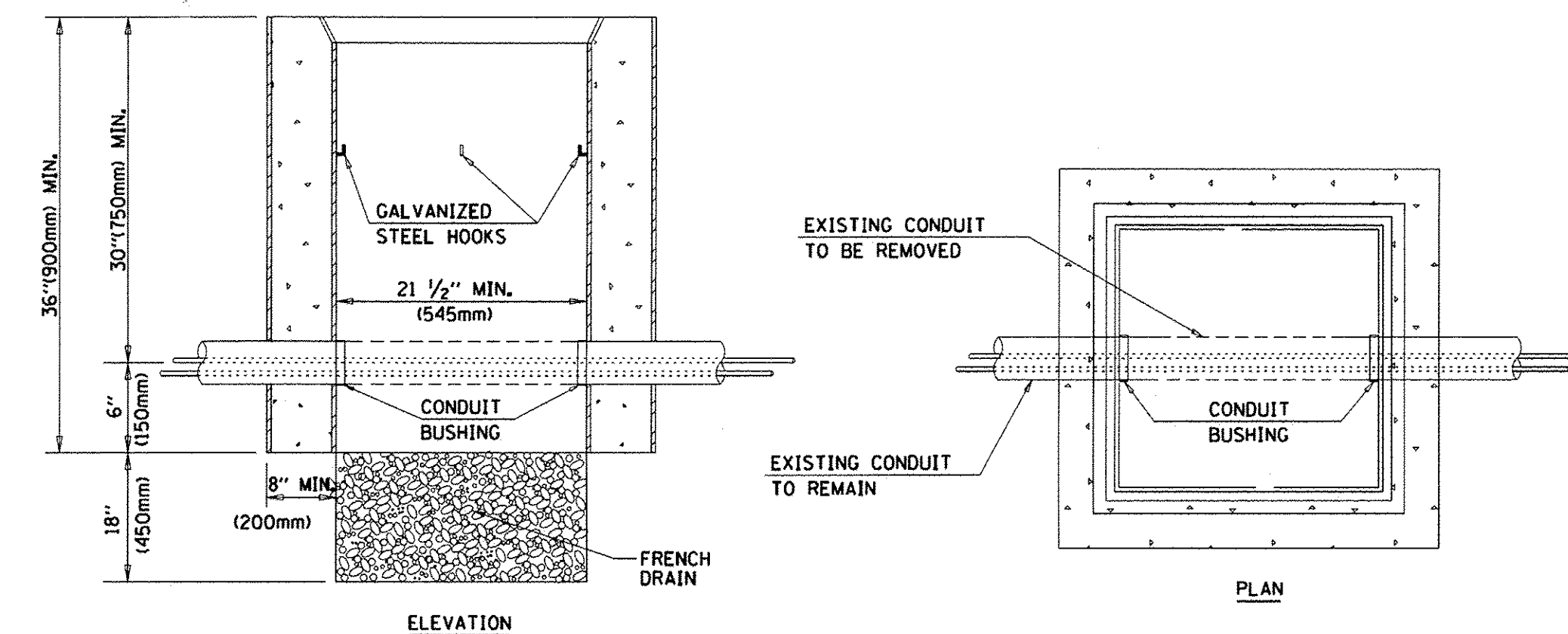
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



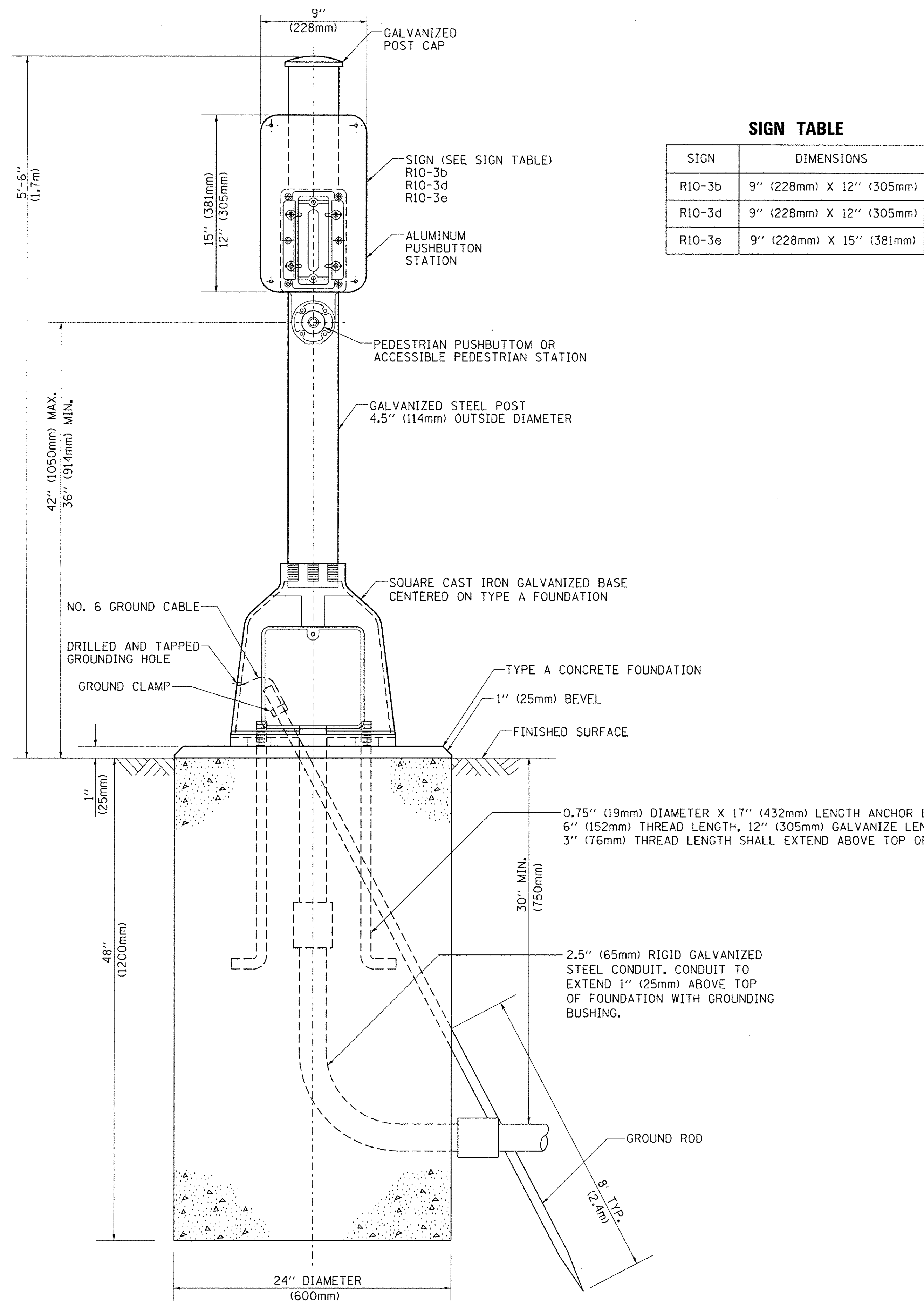
**MODIFY EXISTING TYPE "D" FOUNDATION**



**NOTES:**

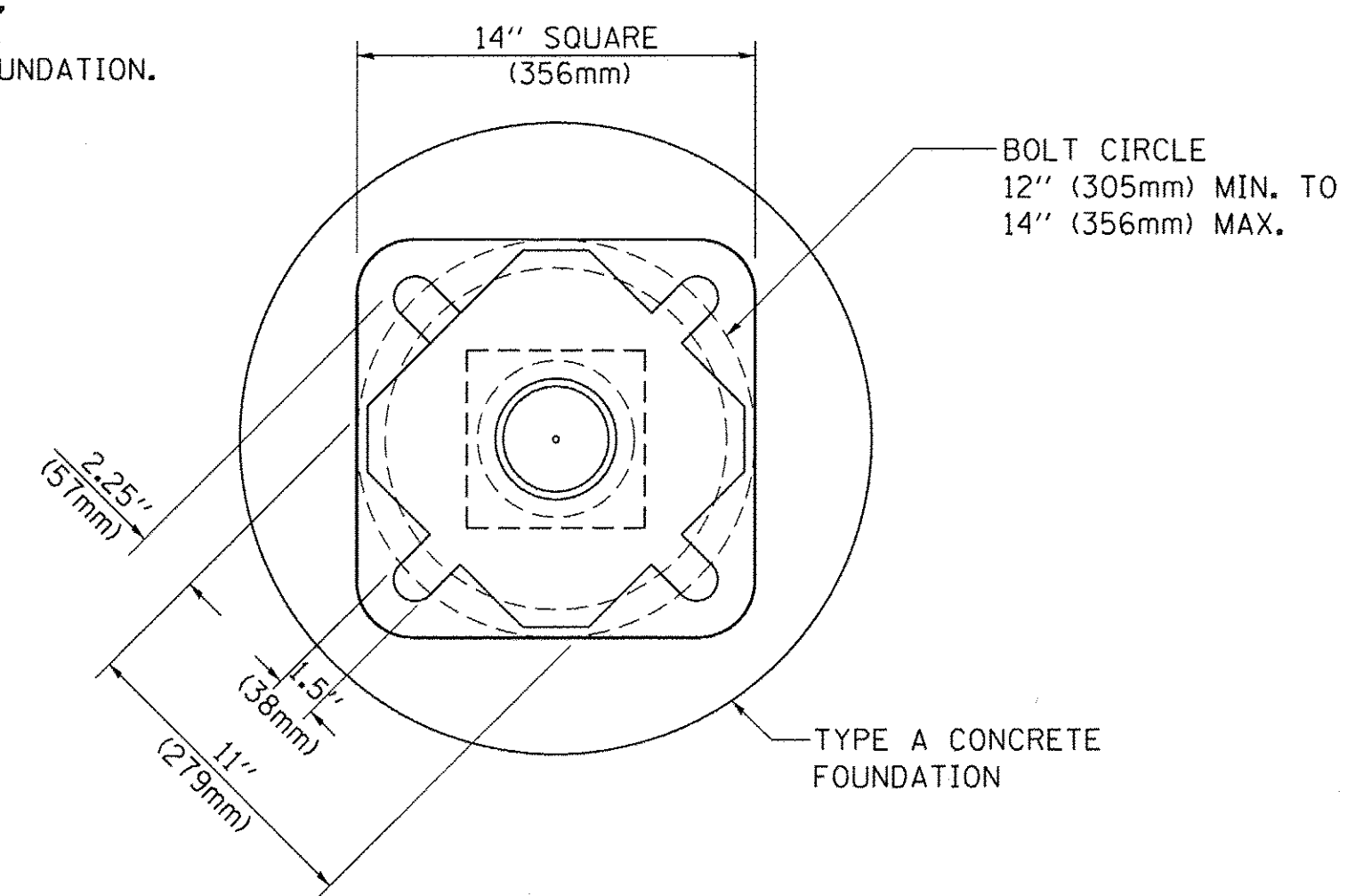
1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**

**PEDESTRIAN PUSH BUTTON POST, TYPE A**

**CHA GEVAIT HAMILTON ASSOCIATES, INC.**

FILE NAME = StdDetails.dgn  
 CHA\* 4905.000  
 IDOT DI STANDARD T505g

USER NAME = Mcoleman  
 PLOT SCALE = 1:1  
 PLOT DATE = 11/14/2016

DESIGNED - DAG  
 DRAWN - GND  
 CHECKED - DAD  
 DATE - 10/1/2012

REVISED - DAG 1-1-14  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE    SHEET NO. 7 OF 7 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-F3000-04-BT	LAKE	116	60
<b>TS-05</b>			<b>CONTRACT NO. 61C67</b>	
ILLINOIS FED. AID PROJECT				