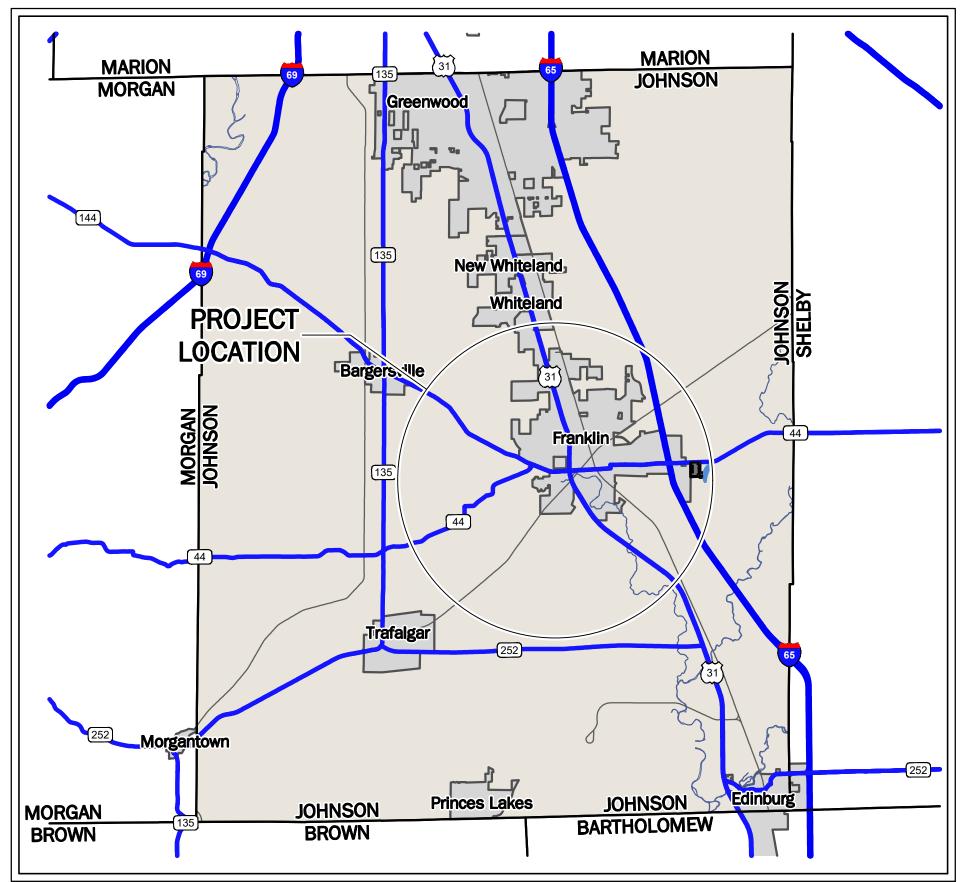
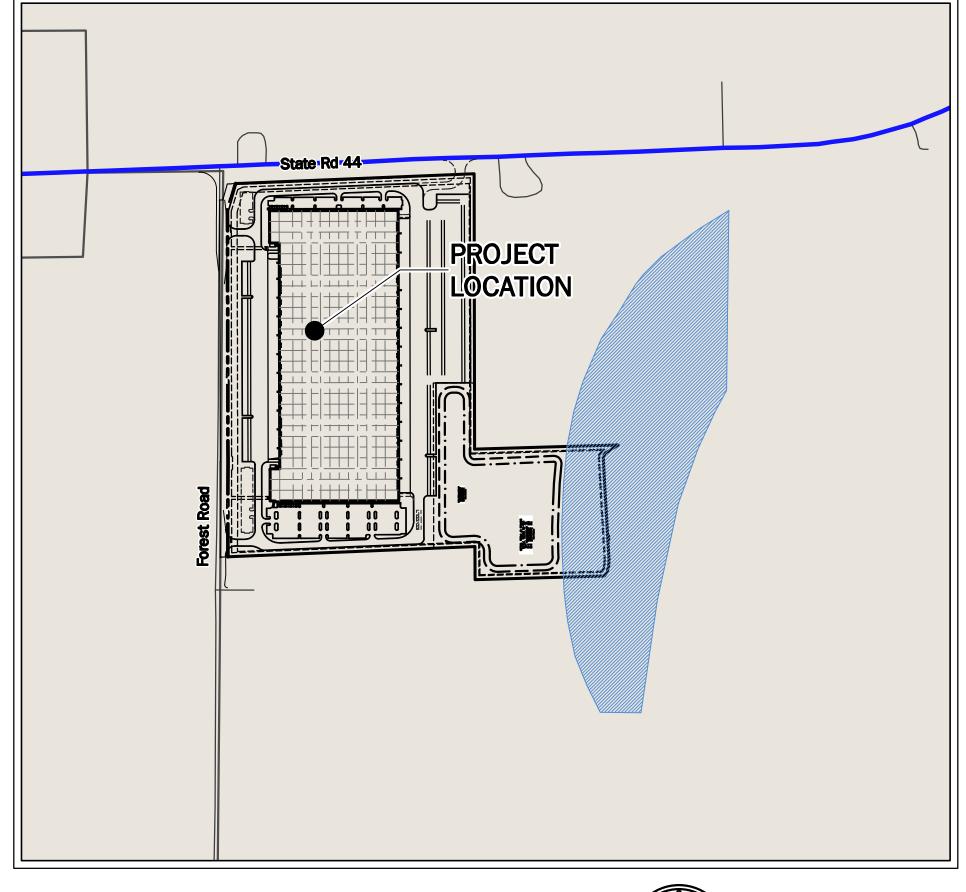
CONSTRUCTION PLANS **FOR**

I-65 SOUTH LOGISTICS CENTER STATE ROAD 44 & FOREST ROAD FRANKLIN, INDIANA





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9775 Crosspoint Blvd Suite 105 Indianapolis, IN 46256

317.567.6100



TEL 317.547.5580 | FAX 317.543.0270 www.structurepoint.com

I-65 SOUTH LOGISTICS CENTER LOT 1

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX
DATE:
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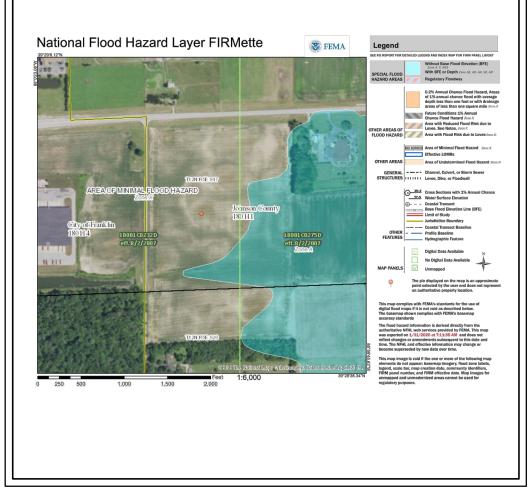
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TITLE SHEET

LOCATION MAP VICINITY MAP NOT TO SCALE NOT TO SCALE

	Soil Map—Johnson County, Indiana
	The property of the property o
Br CrA CsB2 MnB2 MnC2 W	Brookston silty clay loam, 0 to 2 percent slopes Crosby silt loam, fine—loamy subsoil, 0 to 2 percent slopes Crosby—Miami silt loams, 2 to 4 percent slopes, eroded Miami silt loam, 2 to 6 percent slopes, eroded Miami silt loam, 6 to 12 percent slopes, eroded Water

SOILS MAP NOT TO SCALE



FEMA MAP NOT TO SCALE

UTILITY CONTACTS						
UTILITY	COMPANY	CONTACT	PHONE NO.	not limited ground by		
COMMUNICATIONS	CENTURYLINK (CTLCL)	BRUCE EMERICK	(574) 926-1247	ALSO BE		
ELECTRIC	JOHNSON COUNTY REMC	KEVIN SHELLEY	(317) 736-6174	IS NO ABO EVIDENCE		
GAS	VECTREN	JON EASTHAM	(765) 287-2119	UNDERGRO		
SANITARY SEWER	CITY OF FRANKLIN, DPW	SALLY BROWN	(317) 736-3640	PRIOR TO		
STORM SEWER	CITY OF FRANKLIN DPW	SALLY BROWN	(317) 736-3640			

INDIANA AMERICAN WATER RYAN MOORE (317) 885-2404

!! CAUTION !! ATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON N ARE BASED UPON ABOVE GROUND EVIDENCE (including, but ed to, manholes, inlets, valves, and marks made upon the others) AND ARE SPECULATIVE IN NATURE. THERE MAY OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE OVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING OUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR ANY AND ALL CONSTRUCTION.

CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY

CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

SEE SHEET COO2 GENERAL NOTES FOR MORE

GENERAL NOTES:

INFORMATION.

CALL TOLL FREE "811" OR 1-800-382-5544 – INDIANA UNDERGROUND –

GENERAL NOTES

- 1. ALL WORK TO CONFORM TO STATE AND LOCAL REGULATIONS.
- 2. CONTRACTOR SHALL KEEP ADJOINING PROPERTIES CLEAN OF CONSTRUCTION DEBRIS AND CONSTRUCTION TRAFFIC AT ALL TIMES.
- 3. THE CONTRACTOR SHALL PROTECT AND NOT DESTROY THE BASE SURVEY CONTROL POINTS DURING DEMOLITION AND CONSTRUCTION.
- 4. ALL UTILITY INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR. CONTACT ENGINEER IMMEDIATELY IF ANY VARIATION EXISTS.
- 5. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION AND CONSTRUCTION OPERATIONS.
- 6. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.

EXISTING TOPOGRAPHY NOTES

. EXISTING TOPOGRAPHY IS PROVIDED BY: AMERICAN STRUCTUREPOINT,INC. PROJECT: 2019.02798 DATED: JANUARY 3, 2020. 2. ADDITIONAL TOPOGRAPHY IS PROVIDED BY: WEIHE ENGINEERS, PROJECT: W200190, DATED: JUNE 12, 2020.

DEMOLITION NOTES

- 1. CLEAR AND GRUB ALL TREES AND VEGETATION NECESSARY FOR CONSTRUCTION.
- 2. PROTECT TREES TO REMAIN DURING CONSTRUCTION.
- 3. PLANT MATERIALS TO REMAIN, TO BE PROTECTED BY TREE FENCE WHICH ENCOMPASSES IT'S DRIP LINE. NO CONSTRUCTION EQUIPMENT, MATERIALS OR DEBRIS SHALL BE LOCATED WITHIN TREE PROTECTION BOUNDARIES. NO DEMOLITION CAN OCCUR UNTIL TREE PROTECTION IS APPROVED BY THE OWNER.
- . THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, FENCES, CONCRETE, ASPHALT PAVEMENT AND OTHER MISCELLANEOUS APPURTENANCES OFF SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.
- 5. DEMOLISH FOUNDATIONS AND OTHER BELOW—GRADE CONSTRUCTION, INCLUDING CONCRETE SLABS, TO A DEPTH OF NOT LESS THAN 48 INCHES BELOW LOWEST FOUNDATION LEVEL.
- 6. COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION OF STRUCTURES, WITH COMPACTED GRANULAR BACKFILL.
- 7. THE USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED.
- 8. CONDUCT DEMOLITION AND CONSTRUCTION OPERATIONS TO ENSURE MINIMAL INTERFERENCE WITH STREETS, WALKS AND OTHER ADJACENT OCCUPIED FACILITIES.
- 9. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES.
- 10. ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION AND CONSTRUCTION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT STRUCTURES AND OTHER FACILITIES AND INJURY TO PERSONS.
- 11. PROMPTLY REPAIR DAMAGE TO ADJACENT FACILITIES CAUSED BY DEMOLITION AND CONSTRUCTION OPERATIONS.
- 12. ALL UTILITIES TO BE REMOVED SHALL BE DISCONNECTED AND CAPPED AT THE NEAREST CONNECTION POINT.
- 13. NO ON-SITE BURNING IS PERMITTED.
- 14. CONTRACTOR SHALL USE MEASURES TO CONTROL DUST AT ALL TIMES.
- 15. DEMOLITION ITEMS INCLUDE BUT ARE NOT LIMITED TO DEMOLITION ITEMS INDICATED ON THIS PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE OR RELOCATE ITEMS WHICH INTERFERE WITH NEW CONSTRUCTION.
- 16. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING DEMOLITION.

SITE NOTES

- ALL PARKING STRIPES ARE TO BE 4" PAINTED (WHITE). ADA ACCESSIBLE PARKING STRIPES SHALL BE 4" PAINTED (BLUE).
- 2. ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT OR FACE OF CURB, UNLESS NOTED OTHERWISE.
- 3. ALL DIMENSIONS ARE TO FACE OF BRICK OR FACING MATERIAL, WHERE APPLICABLE.
- 4. ALL DIMENSIONS ARE PARALLEL WITH, OR PERPENDICULAR TO BASE LINES, PROPERTY LINES OR BUILDING LINES, UNLESS OTHERWISE NOTED.
- 5. PROVIDE SMOOTH TRANSITIONS FROM NEW AREAS TO EXISTING FEATURES AS NECESSARY.
- 6. RESURFACE OR RECONSTRUCT AT LEAST TO ORIGINAL CONDITIONS ALL AREAS WHERE THE EXISTING PAVEMENT OR LAWNS ARE DAMAGED DURING CONSTRUCTION FROM TRAFFIC BY CONTRACTORS, SUBCONTRACTORS OR SUPPLIERS AFTER CONSTRUCTION WORK IS COMPLETE.
- 7. EXISTING PAVEMENT TO BE SAW CUT IN ALL AREAS WHERE INDICATED NEW PAVEMENT TO JOIN EXISTING.
- 8. THE EDGE OF THE EXISTING ASPHALT PAVEMENT SHALL BE PROPERLY SEALED WITH A TACK COAT MATERIAL IN ALL AREAS WHERE NEW ASPHALT PAVEMENT IS INDICATED TO JOIN EXISTING ASPHALT.
- 9. CONCRETE SAW CUTTING SHALL BE DONE AS SOON AS POURED CONCRETE HAS CURED AND CAN SUPPORT WEIGHT. PROVIDE A NEAT CUT WHICH IS TRUE IN ALIGNMENT.
- 10. ALL JOINTS ARE TO CONTINUE THROUGH THE CURB.
- 11. RADIAL JOINTS SHALL BE NO SHORTER THAN 1.5'.
- 12. CONTRACTOR SHALL USE A THICKENED EXPANSION JOINT AROUND THE PERIMETER OF ANY BLOCK OUT IN THE CONCRETE PAVING.
- 13. ALL CONSTRUCTION JOINTS SHALL BE SAWN, CLEANED OF DEBRIS, BLOWN DRY AND IMMEDIATELY SEALED WITH THE APPROPRIATE SEALANT ACCORDING TO MANUFACTURER'S DIRECTIONS.
- 14. ALL MATERIALS TO BE IN ACCORDANCE WITH LOCAL DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS RELATIVE TO MATERIAL, MIX, PLACEMENT AND WORKMANSHIP.
- 15. ALL SIDEWALKS SHALL COMPLY WITH ADA STANDARDS. MAXIMUM CROSS SLOPE OF 1:50 AND MAXIMUM LONGITUDINAL SLOPE OF 1:20.
- 16. CHAMFER ALL ENDS OF CURBS.

GRADING NOTES

- 1. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- 2. THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- 3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
- 4. CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE AT HIS/HER OWN
- 5. AFTER STRIPPING TOPSOIL MATERIAL, PROOFROLL SHALL BE PERFORMED BY A LOADED TANDEM PNEUMATIC TIRE DUMP TRUCK MINIMUM GROSS VEHICLE WEIGHT OF 15 TONS. THE TIRES SHALL BE OPERATED AT INFLATION PRESSURES BETWEEN 70-80 PSI UNLESS OTHERWISE NOTED BY THE GEOTECHINICAL ENGINEER. THE TIRES SHALL BE INFLATED WITH AIR ONLY, NO LIQUID SHALL BE USED. THE PROOFROLL SHALL BE COMPLETED UNDER INSPECTION OF SOILS FIRM TO DETERMINE LOCATIONS OF ANY POCKETS OF UNSUITABLE MATERIAL. THE NECESSITY FOR SUBDRAINS AND/OR REMOVAL OF ANY UNSUITABLE MATERIAL WILL BE DETERMINED AT THE
- 6. PROVIDE POSITIVE DRAINAGE WITHOUT PONDING IN ALL AREAS. AFTER INSTALLATION, CONTRACTOR TO TEST FOR, AND CORRECT, IF ANY, STANDING WATER CONDITIONS.
- 7. ALL PROPOSED SPOT ELEVATIONS OR CONTOURS ARE THE FINAL PAVEMENT AND FINAL GRADE ELEVATIONS.
- 8. SEE APPROPRIATE DETAILS TO DETERMINE SUBGRADE ELEVATIONS BELOW FINISH GRADE ELEVATIONS INDICATED.
- 9. TRENCHES FOR ALL STORM DRAIN LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF WITHIN 5 FEET OF PAVEMENT.
- 10. CONTRACTOR TO PERPETUATE ANY SUBSURFACE DRAIN TILES OR PIPES ENCOUNTERED DURING CONSTRUCTION AND PROVIDE POSITIVE OUTLET TO DOWNSTREAM RECEIVING SYSTEM. CONTRACTOR TO NOTIFY THE ENGINEER WITH ANY CIRCUMSTANCES WHERE THIS CANNOT BE ACCOMPLISHED.
- 11. DUE TO SITE CONSTRAINTS, THE EARTHWORK FOR THE SITE AS DESIGNED MAY OR MAY NOT BALANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE EXISTING CONDITIONS AND INCLUDE IN THEIR BID ALL EARTHWORK COSTS INCLUDING IMPORTS AND/OR EXPORTS NECESSARY TO MAKE THE SITE BALANCE.
- 12. CONTRACTOR TO STABILIZE EXPOSED EARTH AS INDICATED BY THE STORMWATER POLLUTION PREVENTION PLAN OR GOVERNING AUTHORITY.

UTILITY NOTES

- 1. SITE UTILITIES SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- 2. THE EXCAVATING CONTRACTOR MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. VERIFY COVER REQUIREMENTS BY UTILITY CONTRACTORS AND/OR UTILITY COMPANIES SO AS NOT TO CAUSE DAMAGE.
- 3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY IF ANY UTILITIES ARE PRESENT ON SITE. ALL VERIFICATIONS (LOCATION, SIZE AND DEPTH), SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THAT UTILITY COMPANY CAN BE PRESENT TO INSTRUCT AND OBSERVE DURING CONSTRUCTION. SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATIONS OF UTILITIES FOR THEIR OWN WORK.
- 4. CONTRACTOR TO ADJUST ALL EXISTING SURFACE INFRASTRUCTURE (HYDRANTS, VALVES, HANDHOLES, CASTINGS, IRRIGATION SYSTEM, UTILITY PEDESTALS, ETC.) AS REQUIRED TO MEET PROPOSED GRADE.
- 5. ALL UTILITY MATERIALS AND INSTALLATION SHALL CONFORM TO LOCAL STANDARDS FOR EACH UTILITY AGENCY
- HAVING JURISDICTION.

 6. TRENCHES FOR ALL UTILITY LINES SHALL BE BACKFILLED COMPLETELY WITH SELECT GRANULAR MATERIAL IF
- THE TOP OF THE TRENCH IS WITHIN 5 FEET OF PAVEMENT.

 7. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES AND CONDUITS TO AVOID CONFLICTS AND PROVIDE REQUIRED MINIMUM DEPTHS OF COVER. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL BENDS WITH THRUST
- BLOCKS REQUIRED TO ASSURE PROPER INSTALLATION OF WATER MAINS AND LATERALS.

 8. IN THE EVENT OF A CONFLICT BETWEEN WATER LINES AND STORM DRAINS, THE CONTRACTOR SHALL EITHER ADJUST THE WATER LINE DOWNWARD IN SUCH A MANNER SO THAT THE PIPE MANUFACTURER'S
- RECOMMENDATIONS ON PIPE DEFLECTION AND JOINT STRESS ARE NOT EXCEEDED OR THE CONTRACTOR SHALL PROVIDE APPROPRIATE BENDS AND CROSSINGS.

9. ALL COORDINATES AND DIMENSIONS ARE TO THE CENTERLINE OF UTILITIES AND STRUCTURES.

10. ALL PROPOSED STORM SEWER AND DRAINAGE APPURTENANCES SHALL BE IN CONFORMANCE WITH THE CITY OF FRANKLIN STORMWATER SPECIFICATIONS, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE STORMWATER SPECIFICATIONS SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE STORMWATER SPECIFICATIONS.

EROSION CONTROL NOTES

CLEARING AND GRADING.

SITE INSPECTION.

- 1. CONTRACTOR SHALL INSTALL ALL PERIMETER SILT FENCE AND SEDIMENT CONTROL BARRIERS PRIOR TO
- 2. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY
- PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.

 3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON
- 4. LAND ALTERATION WHICH STRIPS THE LAND OF VEGETATION, INCLUDING RE-GRADING, SHALL BE DONE IN A
- WAY THAT WILL MINIMIZE EROSION.

 5. SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE
- SEDIMENT LADEN WATER SHALL BE DETAINED BY EROSION CONTROL PRACTICES AS NEEDED TO MINIMIZE SEDIMENTATION IN RECEIVING WATER. NO STORM WATER SHALL BE DISCHARGED FROM THE SITE IN A MANNER THAT CAUSES EROSION AT THE POINT OF DISCHARGE.
- 6. WASTE AND UNUSED BUILDING MATERIALS SHALL NOT BE ALLOWED TO BE CARRIED FROM THE SITE BY STORM WATER RUNOFF. PROPER DISPOSAL OF ALL WASTE AND UNUSED BUILDING MATERIALS IS REQUIRED.
- 7. SEDIMENT BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS SHALL BE MINIMIZED. CLEARING OF ACCUMULATED SEDIMENT SHALL NOT INCLUDE FLUSHING WITH WATER. CLEARED SEDIMENT SHALL BE RETURNED TO THE SITE FOR DISPOSAL.
- 8. SOIL WHICH HAS ACCUMULATED NEXT TO EROSION CONTROL DEVICES SHALL BE COLLECTED AND RE-DISTRIBUTED ON SITE AFTER EACH RAINFALL EVENT, AND AT LEAST ONCE A WEEK.
- 9. IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
- 10. THE SITE IS/IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR JOHNSON COUNTY, IN, MAP NUMBER 18081C0144D, DATED
- 11. SCHEDULE OF EARTHWORK ACTIVITIES:
- a. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM. THE AREA SHALL BE STABILIZED AS SOON AS POSSIBLE. UN-VEGETATED AREAS THAT ARE SCHEDULED OR LIKELY TO BE LEFT INACTIVE FOR FIFTEEN (15) DAYS OR MORE MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITH MEASURES APPROPRIATE FOR THE SEASON TO MINIMIZE EROSION POTENTIAL. ALTERNATIVE MEASURES TO SITE STABILIZATION ARE ACCEPTABLE IF THE PROJECT SITE OWNER OR THEIR REPRESENTATIVE CAN DEMONSTRATE THEY HAVE IMPLEMENTED EROSION AND SEDIMENT CONTROL MEASURES ADEQUATE TO PREVENT SEDIMENT DISCHARGE.
- b. TOPSOIL REPLACEMENT SHALL TAKE PLACE FROM MARCH 1 TO OCTOBER 31. STOCKPILE TOPSOIL AT ALL OTHER TIMES OF THE YEAR. PERMANENT AND FINAL VEGETATION AND STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING OR AS SOON AS POSSIBLE.
- c. INSTALL INLET PROTECTION AROUND INLETS IMMEDIATELY UPON COMPLETION OF THE STRUCTURE. REMOVE INLET PROTECTION FOR PAVING OPERATION. REPLACE INLET PROTECTION AFTER PAVING IS COMPLETE. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON SEEDED AREAS
- 12. PRIOR TO COMPLETION OF THE PROJECT, CONTRACTOR SHALL CLEAN OUT ALL STORM DRAINAGE STRUCTURES AND RESTORE ALL DITCHES AND PONDS TO DESIGNED GRADES.
- 13. CONTRACTOR SHALL REMOVE ALL SEDIMENT CONTROL BARRIERS ONCE CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED.
- 14. ALL PROPOSED EROSION AND SEDIMENT CONTROL SHALL BE IN CONFORMANCE WITH THE CITY OF FRANKLIN STORMWATER SPECIFICATIONS, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE STORMWATER SPECIFICATIONS SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET
- 15. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY THE INSPECTOR.

WATER UTILITY INSTALLATION NOTES

FORTH IN THE STORMWATER SPECIFICATIONS.

- Rev 06-17-2019
- INSTALLATION OF WATER MAIN, FITTINGS, VALVES, FIRE HYDRANTS, AND APPURTENANCES SHALL BE IN ACCORDANCE WITH INDIANA AMERICAN WATER STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION, SIZE AND MATERIAL OF THE EXISTING WATER MAIN PRIOR TO CONSTRUCTION.
- 3. FOR DUCTILE IRON PIPE INSTALLATION: THICKNESS CLASS 52 FOR TYPICAL DISTRIBUTION MAINS 12—INCH NOMINAL SIZE AND SMALLER. WHEN RESTRAINT OF PIPE—TO—PIPE JOINTS ARE REQUIRED, PUSH—ON RESTRAINING GASKETS WITH INTEGRAL STAINLESS STEEL LOCKING SEGMENTS ARE PERMITTED ON PIPE—TO—PIPE CONNECTIONS 12—INCH NOMINAL SIZE AND SMALLER ONLY. PIPE—TO—PIPE CONNECTIONS GREATER THAN 12—INCH NOMINAL SIZE SHALL BE RESTRAINED PER SPECIFICATION SECTION 15105.
- 4. ENCASE ALL DUCTILE IRON PIPING, DUCTILE IRON FITTINGS, VALVES, HYDRANTS, AND ALL OTHER METALLIC APPURTENANCES IN 12MIL POLYETHYLENE.
- 5. ALL FIRE HYDRANT LATERALS SHALL BE DUCTILE IRON PIPE.

11. MAINTAIN MINIMUM COVER DEPTH OF X" AND A MAXIMUM OF X"+24".

- 6. ALL MJ T-BOLTS AND FLANGE BOLTS SHALL HAVE XYLAN OR FLUOROKOTE #1 CORROSION RESISTANT COATING.
- 7. ALL FITTINGS SHALL BE RESTRAINED USING MJ RETAINER GLANDS OR POURED CONCRETE THRUST BLOCKS.
- 8. COPPER-CLAD STEEL TRACER WIRE REQUIRED ON INSTALLATION OF ALL PIPE. TRACER WIRE SHALL BE TAPED TO PIPE OR POLYETHYLENE ENCASEMENT AT A MINIMUM SPACING OF 10-FEET. SPLICES SHALL BE ENCASED IN WATERPROOF CONNECTORS. CONTINUITY SHALL BE TESTED AFTER COMPLETION OF BACKFILL.
- 9. SELECT FILL MATERIAL REQUIRED FOR FINAL BACKFILL WHEN WITHIN 5-FEET OF PAVEMENT PER SPECIFICATION
- 10. MAINTAIN THE REQUIRED 10—FEET OF HORIZONTAL SEPARATION AND 18—INCHES OF VERTICAL SEPARATION FROM SANITARY AND STORM SEWERS. MAINTAIN 8—FEET OF HORIZONTAL SEPARATION FROM SANITARY AND STORM STRUCTURES. SEE 327 IAC 8—3.2—9 OF THE INDIANA ADMINISTRATIVE CODE FOR MORE INFORMATION.

EXISTING LEGEND

BEEHIVE INLET

COMBINATION POLE

E ELECTRIC METER BOX

SUB SURFACE DRAIN

SUB SURFACE DRAIN

TEMPORARY BENCH MARK

TEST HOLE

TELEPHONE MARKER SIGN

HOSE BIB

MAILBOX

TRANSFORMER

TREE

MAILBOX

RIGHT OF WAY MONUMENT

■ MAILBOX

POET

POET

WELL

RIGHT OF WAY MONUMENT

BENCHMARK DATA

(NAVD '8

─o SIGN

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

CHISELED "X' ON SW BOLT OF FIRE HYDRANT EAST SIDE OF BARTRAM PARKWAY; ±300' SOUTH OF SR 44. ELEV = 731.40

ASI TBM #50
MAG SPIKE SET IN WEST SIDE UTILITY POLE AT SW CORNER
OF SR 44 AND COUNTY ROAD 525 E.
ELEV = 725.39

ASI TBM #51
MAG SPIKE SET IN SOUTH SIDE UTILITY POLE #40792
SOUTH SIDE OF SR 44 AND ±400' WEST OF MAILBOX
#5557.
ELEV = 721.56

ASI TBM #52
CHISELED SQUARE ON WEST CORNER OF NW END OF
CONCRETE HEADWALL OF BOX CULVERT UNDER SR 44
LOCATED ±600' SOUTHWEST OF COUNTY ROAD 600 E.
ELEV = 720.38

ASI TBM #53
MAG SPIKE SET IN WEST SIDE UTILITY POLE #06135 ON
WEST SIDE OF OF COUNTY ROAD 525 E AND ±900' SOUTH
OF SR 44.
ELEV = 735.00

SOUTH PROPERTY LINE. ELEV = 724.93

ASI TBM #54
MAG SPIKE SET IN NW SIDE UTILITY POLE #12P1002 ON

WEST SIDE OF COUNTY ROAD 525 E AND ±200' NORTH OF



9775 Crosspoint Blvd Suite 105

> Indianapolis, IN 46256 317.567.6100



9025 River Road, Suite 200 | Indianapolis, Indiana 46240 TEL 317.547.5580 | FAX 317.543.0270 www.structurepoint.com

I-65 SOUTH LOGISTICS CENTER LOT 1

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX
DATE:
04/07/2021
PROJECT PHASE:
CONSTRUCTION DOCUMENTS

REVISION SCHEDULE

NO. DESCRIPTION DATE

CONTRACTOR SHALL REFER TO THE GEOTECHNICAL ENGINEERING REPORT FOR INFORMATION ABOUT SOIL CONDITIONS.

GEOTECHNICAL & ENVIRONMENTAL NOTE:

GENERAL NOTES:

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- 2. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY

CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS

3. SEE SHEET COO2 GENERAL NOTES FOR MORE INFORMATION.

!! CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but

not limited to, manholes, inlets, valves, and marks made upon the

ground by others) and are speculative in Nature. There may also be other existing underground utilities for which there is no above ground evidence or for which no above ground evidence was observed. The exact locations of said existing underground utilities shall be verified by the contractor prior to any and all construction.

CALL TOLL FREE
"811" OR 1-800-382-5544
- INDIANA UNDERGROUND -

Project Number 2019.02798

GENERAL NOTES

A. GENERAL

- 1. EARTHWORK INCLUDES CLEARING, GRUBBING, SUBGRADE PREPARATION, REMOVAL OF TREES AND VEGETATION (INCLUDING STUMPS), PROTECTION OF TREES TO REMAIN, STRIPPING AND STORAGE OF TOPSOIL, FILL COMPACTION AND ROUGH GRADING OF ENTIRE SITE AS INDICATED ON DRAWINGS.
- 2. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING OF ANY CHANGES, ERRORS, OR OMISSIONS FOUND ON THE PLANS OR IN THE FIELD, BEFORE WORK IS STARTED OR RESUMED.
- 3. CONTRACTOR SHALL PROVIDE AND PLACE ANY ADDITIONAL FILL MATERIAL FROM OFF THE SITE AS MAY BE NECESSARY TO PRODUCE THE GRADES REQUIRED AS SHOWN ON THE DRAWINGS. FILL OBTAINED FROM OFF SITE MUST BE SUITABLE SOIL AS DEFINED IN THE SPECIFICATIONS OR AS OTHERWISE APPROVED BY OWNER.
- 4. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS CURRENT STATE AND SHALL REMOVE ALL TRASH, RUBBISH, AND DEBRIS FROM THE SITE PRIOR TO STARTING EXCAVATION.
- 5. EXCEPT FOR STRIPPED TOPSOIL AND OTHER MATERIALS INDICATED TO BE STOCKPILED OR OTHERWISE REMAIN OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED
- 6. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, DRIVES, FACILITIES, ETC. WITHOUT OWNER PERMISSION OR AUTHORITY HAVING JURISDICTION.
- 7. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING EARTHWORK AND CLEARING OPERATIONS. EROSION CONTROL MEASURES SHOULD BE PROTECTED AND MAINTAINED THROUGHOUT CONSTRUCTION.
- 8. CONTRACTOR SHALL CAREFULLY MAINTAIN ALL BENCHMARKS, MONUMENTS, AND OTHER REFERENCE POINTS. IF DISTURBED, CONTRACTOR SHALL ENGAGE LICENSED LAND SURVEY FOR REPLACEMENT OF REFERENCE POINTS.
- 9. WHERE THESE SPECIFICATIONS CONFLICT WITH THE CITY OF FRANKLIN STANDARDS, THE STANDARDS OF THE JURISDICTION HAVING AUTHORITY SHALL PREVAIL.

- 1. CONTRACTOR TO PROVIDE BORROW SOIL MATERIALS WHEN SUFFICIENT SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE FROM EXCAVATIONS.
- DIMENSION, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION AND OTHER DELETERIOUS MATERIAL 3. UNSATISFACTORY (OR UNSUITABLE) SOILS: SOIL CLASSIFICATION GROUPS GC, SC, CL, ML, OL, CH, MH, OH, AND PT ACCORDING TO ASTM D 2487, OR A COMBINATION OF THESE GROUPS. UNSATISFACTORY SOILS ALSO INCLUDES A. GENERAL SATISFACTORY SOILS NOT MAINTAINED WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF

2. SATISFACTORY (OR SUITABLE) SOILS: SOIL CLASSIFICATION GROUPS GW, GP, GM, SW, SP, AND SM ACCORDING TO

ASTM D2487, OR A COMBINATION OF THESE GROUPS; FREE OF ROCK OR GRAVEL LARGER THAN 3 INCHES IN ANY

. EXECUTION

- 1. CONTRACTOR SHALL LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP UTILITIES INDICATED TO BE REMOVED OR ABANDONED IN PLACE. DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER UNLESS PERMISSION B. PRODUCTS IS GRANTED. NOTIFY OWNER AT LEAST TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS.
- 2. REMOVE OBSTRUCTIONS, TREES, SHRUBS, AND OTHER VEGETATION AS REQUIRED FOR NEW CONSTRUCTION. STRIP TOPSOIL TO DEPTH AS REQUIRED IN THE FIELD TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS. STOCKPILE TOPSOIL AWAY FROM EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL AND GRADE STOCKPILES TO DRAIN SURFACE WATER.
- 3. REMOVE EXISTING ABOVE AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND NECESSARY TO FACILITATE NEW CONSTRUCTION.
- 4. PROTECT SUBGRADES AND FOUNDATION SOILS FROM FREEZING TEMPERATURES, FROST, AND PONDING WATER.
- 5. EXCAVATE TO INDICATED ELEVATIONS AND DIMENSIONS FOR ALL STRUCTURES, WALKS, PAVEMENTS, AND UTILITY
- 6. CONTRACTOR SHALL FURNISH AND OPERATE ALL DEWATERING MEASURES REQUIRED TO FACILITATE NEW CONSTRUCTION AND IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- 6. PROOF ROLL SUBGRADE BELOW BUILDING PAVEMENTS WITH A PNEUMATIC-TIRED DUMP TRUCK TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. DO NOT PROOF ROLL WET OR SATURATED SUBGRADES. RECONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURES, FROST, RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES AS DIRECTED BY ENGINEER OR OWNER REPRESENTATIVE, WITHOUT ADDITIONAL COMPENSATION.
- 7. BACKFILL ALL UTILITY TRENCHES BENEATH PAVEMENT (AND WITHIN 5') WITH GRANULAR MATERIAL.
- 8. SOIL FILL: USE SATISFACTORY SOIL MATERIAL UNDER ALL WALKS, PAVEMENTS, STEPS, RAMPS, BUILDING SLABS, FOOTINGS, AND FOUNDATIONS.
- 9. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT. DO NOT PLACE BACKFILL OR FILL SOIL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN, OR CONTAIN FROST OR ICE, REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT EXCEEDS OPTIMUM MOISTURE CONTENT BY 2 PERCENT AND IS TOO WET TO COMPACT TO SPECIFIED UNIT WEIGHT.
- 10. COMPACTION OF SOIL BACKFILLS AND FILLS ARE TO BE IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS. WHERE NO GEOTECHNICAL REPORT EXISTS, COMPACT ALL FILL MATERIAL BELOW STRUCTURES, PAVEMENTS, WALKS, UTILITY TRENCHES AND STEPS (AND WITHIN 5 FEET OF SAID AREAS) TO 95 PERCENT OF THE MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D-698 (STANDARD PROCTOR DENSITY). COMPACT ALL FILL MATERIALS BELOW TURF OR UNPAVED AREAS TO 90 PERCENT OF THE MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D-698 (STANDARD PROCTOR DENSITY). ALL FILL MATERIALS TO BE COMPACTED IN MAXIMUM 8-INCH LIFTS.
- 11. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES: TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH ii. WALKS: PLUS OR MINUS 1/2 INCH.
 - iii. PAVEMENTS: PLUS OR MINUS 1/2 INCH iv. Inside building lines: finish subgrade to a tolerance of $\frac{1}{2}$ inch when tested with a 10-foot
- STRAIGHTEDGE.
- 12. QUALITY CONTROL: QUALIFIED GEOTECHNICAL ENGINEER TO BE ENGAGED AS TESTING AGENCY AS DIRECTED BY
- 13. REPAIR AND REESTABLISH GRADES TO SPECIFIED TOLERANCES WHERE COMPLETED OR PARTIALLY COMPLETED SURFACES BECOME ERODED, RUTTED, SETTLED, OR WHERE THEY LOSE COMPACTION DUE TO SUBSEQUENT CONSTRUCTION OPERATIONS OR WEATHER

STORM SEWER:

. GENERAL

- 1. STORM SEWER INCLUDES ALL PIPES, FITTINGS, MANHOLES, CLEANOUTS, TRANSITION COUPLINGS, CATCH BASINS, INLETS, END SECTIONS, AND OUTLETS.
- 2. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING OF ANY CHANGES, ERRORS, OR OMISSIONS FOUND ON THE PLANS OR IN THE FIELD, BEFORE WORK IS STARTED OR RESUMED.
- 3. CONTRACTOR SHALL LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP UTILITIES INDICATED TO BE REMOVED OR ABANDONED IN PLACE. DO NOT INTERRUPT UTILITIES SERVING FACILITIES OCCUPIED BY OWNER UNLESS PERMISSION IS GRANTED. NOTIFY OWNER AT LEAST TWO DAYS IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS.

- 1. PE PIPE AND FITTINGS: PE DRAINAGE PIPE AND FITTINGS NP 3 TO NPS 10, AASHTO M 252M, TYPE S, WITH SMOOTH WATERWAY FOR COUPLING JOINTS. PE DRAINAGE PIPE AND FITTINGS NPS 12 TO NPS 60, AASHTO M 294M. TYPE S. WITH SMOOTH WATERWAY FOR COUPLING JOINTS.
- 2. PVC PIPE AND FITTINGS: PIPE: ASTM F 949, PVC, OR ASTM 0-3034, F-1336, F-679, CORRUGATED PIPE WITH BELL AND SPIGOT ENDS FOR GASKETED JOINTS. FITTINGS: ASTM 949, PVC MOLDED OR FABRICATED, SOCKET TYPE. GASKETS: ASTM F 477, ELASTOMERIC SEALS.
- 3. CONCRETE PIPE AND FITTINGS: REINFORCED CONCRETE SEWER PIPE AND FITTINGS MEETING ASTM C 76 WITH BELL AND SPIGOT ENDS AND GASKETED JOINTS WITH ASTM C 443 RUBBER GASKETS. PIPE TO BE CLASS III UNLESS
- 4. COMPLY WITH ASTM C 1173, ELASTOMERIC SLEEVE-TYPE REDUCING OR TRANSITION COUPLING, FOR JOINTING UNDERGROUND NON-PRESSURE PIPING. INCLUDE ENDS OF SAME SIZES AS PIPING TO BE JOINED, AND CORROSION-RESISTANT METAL TENSION BAND AND TIGHTENING MECHANISM ON EACH END.
- 5. CLEANOUTS: CAST IRON CLEANOUTS: ASME A112.36.2M ROUND, GRAY-IRON HOUSING WITH CLAMPING DEVICE AND ROUND, SECURED, SCORIATED, GRAY-IRON COVER. HEAVY DUTY TOP LOADING IS REQUIRED. PLASTIC CLEANOUTS:
- 6. MANHOLES AND CATCH BASINS: STANDARD REINFORCED PRECAST CONCRETE MANHOLES MEETING ASTM C 478. MINIMUM 48-INCH DIAMETER UNLESS OTHERWISE INDICATED. BASE SECTION TO BE MINIMUM 6-INCH THICKNESS AND 4-INCH THICKNESS FOR WALLS AND BASE RISER SECTION. REINFORCED CONCRETE GRADE RINGS, 6-9 INCH TOTAL THICKNESS, TO MATCH DIAMETER OF MANHOLE FRAME AND COVER. MANHOLE FRAMES AND COVERS AS INDICATED ON DRAWINGS. PIPE CONNECTORS SHOULD BE PROVIDED TO MEET ASTM C293, RESILIENT, OF SIZE REQUIRED, FOR EACH PIPE CONNECTING TO THE BASE SECTION.
- 7. CONCRETE: CAST-IN-PLACE CONCRETE ACCORDING TO ACI 318 AND ACI 350/350R AND IN ACCORDANCE WITH THE FOLLOWING: i. CEMENT: ASTM C 150, TYPE III
 - ii. FINE AGGREGATE: ASTM C 33, SAND iii. COARSE AGGREGATE: ASTM C 33, CRUSHED GRAVEL
 - iv. WATER: POTABLE
- 8. PORTLAND CEMENT DESIGN MIX: 4,000 PSI MINIMUM WITH 0.45 MAXIMUM WATER/CEMENTIOUS MATERIALS RATIO. REINFORCING FABRIC TO MEET ASTM A 185/A 185M, STEEL, WELDED WIRE FABRIC, PLAIN. REINFORCING BARS TO MEET ASTM A 615/A 615M, GRADE 60 DEFORMED STEEL.
- 9. MANHOLE CHANNELS TO BE FORMED WITH AN INVERT SLOPE OF 2 PERCENT THROUGH THE MANHOLE AND BENCHES AT 4 PERCENT, SLOPED TO DRAIN INTO CHANNEL.
- 10. INLETS: PROVIDE INLETS WITH HEAVY DUTY CASTINGS AS SHOWN ON DRAWINGS.
- 11. OUTLETS: CONCRETE END SECTION SHOULD BE PROVIDED AT ALL PIPE ENDS AND AS INDICATED ON DRAWINGS. RIP RAP APRONS TO BE INSTALLED AT ALL END SECTIONS TO DIMENSIONS INDICATED. AVERAGE RIP-RAP SIZE

TO BE 6-INCHES UNLESS OTHERWISE INDICATED ON DRAWINGS. <u>STORM SEWER (CONT.):</u>

- 1. INSTALL PIPING BEGINNING AT LOW POINT, TRUE TO GRADES AND ALIGNMENT INDICATED WITH UNBROKEN CONTINUITY OF INVERT. PLACE BELL ENDS OF PIPING FACING UPSTREAM. INSTALL GASKETS, SEALS, SLEEVES, AND OTHER COUPLINGS ACCORDING TO MANUFACTURERS WRITTEN INSTRUCTIONS.
- 2. WHEN INSTALLING PIPE UNDER STREETS OR OTHER OBSTRUCTIONS THAT CANNOT BE DISTURBED, USE PIPE-JACKING PROCESS OF MICRO-TUNNELING.
- 3. INSTALL PIPING PITCHED DOWN IN DIRECTION OF FLOW. INSTALL PE CORRUGATED SEWER PIPING IN ACCORDANCE WITH ASTM D 2231. INSTALL PVC PIPING ACCORDING TO ASTM D 2321 AND ASTM F 1668. INSTALL REINFORCED CONCRETE SEWER PIPING IN ACCORDANCE WITH ASTM C 1479 AND ACPA'S "CONCRETE PIPE INSTALLATION
- 4. PIPE JOINT CONSTRUCTION: JOIN CORRUGATED PE PIPE ACCORDING TO ASTM D 3212 FOR PUSH ON JOINTS. JOIN PVC CORRUGATED SEWER PIPING IN ACCORDANCE WITH ASTM D 2321 FOR ELASTOMERIC-SEAL JOINTS. JOIN REINFORCED CONCRETE PIPE ACCORDING TO ACPA'S "CONCRETE PIPE INSTALLATION MANUAL" FOR

RUBBER-GASKETED JOINTS. JON DISSIMILAR PIPE MATERIALS WITH NON-PRESSURE TYPE FLEXIBLE COUPLINGS.

- 5. CONTRACTOR TO INSPECT INTERIOR OF PIPING AND MANHOLES FOR DEFECTS. DEFECTS REQUIRING CORRECTION INCLUDE THE FOLLOWING:
- ALIGNMENT: LESS THAN FULL DIAMETER OF INSIDE OF PIPE IS VISIBLE BETWEEN STRUCTURES. DEFLECTION: FLEXIBLE PIPING WITH DEFLECTION THAT PREVENTS PASSAGE OF BALL OR CYLINDER OF SIZE
- NOT LESS THAN 92.5 PERCENT OF PIPING DIAMETER. iii. DAMAGE: CRUSHED, BROKEN, CRACKED, OR OTHERWISE DAMAGED PIPING.

iv. INFILTRATION: WATER LEAKAGE INTO PIPING.

- v. EXFILTRATION: WATER LEAKAGE FROM OR AROUND PIPING REPLACE DEFECTIVE PIPING USING NEW MATERIALS, AND REPEAT INSPECTION UNTIL DEFECTS ARE WITHIN
- 6. TEST NEW PIPING SYSTEMS, AND PARTS OF EXISTING SYSTEMS THAT HAVE BEEN ALTERED, EXTENDED, REPAIRED, FOR LEAKS AND DEFECTS. FOR GRAVITY FLOW STORM DRAINAGE PIPING: TEST ACCORDING TO REQUIREMENTS OF
- AUTHORITIES HAVING JURISDICTION, UNI-B-6, AND THE FOLLOWING: EXCEPTION: PIPING WITH SOILTIGHT JOINTS UNLESS REQUIRED BY AUTHORITIES HAVING JURISDICTION OPTION: TEST PLASTIC PIPING ACCORDING TO ASTM F 1417

OPTION: TEST CONCRETE PIPING ACCORDING TO ASTM C 924 7. SUBMIT TESTING REPORTS AS REQUIRED BY OWNER OR AUTHORITY HAVING JURISDICTION.

- 1. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING OF ANY CHANGES, ERRORS, OR OMISSIONS FOUND ON THE PLANS OR IN THE FIELD, BEFORE WORK IS STARTED OR RESUMED.
- 2. USE MATERIALS AND GRADATIONS THAT HAVE PERFORMED SATISFACTORILY IN PREVIOUS INSTALLATIONS.

- COURSE AGGREGATE: ASTM D 692/D92M, SOUND; ANGULAR CRUSHED STONE,
- CRUSHED GRAVEL, OR CURED, CRUSHED BLAST-FURNANCE SLAG. FINE AGGREGATE: ASTM D 1073 OR AASHTO M 29, SHARP-EDGED NATURAL SAND OR SAND PREPARED FROM STONE, GRAVEL, CURED BLAST-FURNANCE SLAG, OR COMBINATIONS THEREOF. a. FOR HOT-MIX ASPHALT, LIMIT NATURAL SAND TO A MAXIMUM OF 20 PERCENT BY WEIGHT OF
- THE TOTAL AGGREGATE MASS. iii. MINERAL FILLER: ASTM D 242 OR AASHTO M 17, ROCK OR SLAG DUST, HYDRAULIC CEMENT, OR OTHER INERT MATERIAL
- ASPHALT BINDER: AASHTO M 320, PG 64-22 (OR AS OTHERWISE RECOMMENDED BY INDOT STANDARDS)
- ASPHALT CEMENT: PER INDOT STANDARDS CUTBACK PRIME COAT: PER INDOT STANDARDS
- EMULSIFIED ASPHALT PRIME COAT: PER INDOT STANDARDS
- TACK COAT: PER INDOT STANDARDS
- WATER: POTABLE. vii. UNDERSEALING ASPHALT: ASTM D 3141; PUMPING CONSISTENCY.
- 3. AUXILIARY MATERIALS
 - RECYCLED MATERIALS FOR HOT-MIX ASPHALT MIXES: RECLAIMED ASPHALT PAVEMENT; RECLAIMED, UNBOUND AGGREGATE BASE MATERIAL; AND RECYCLED ASPHALT SHINGLES FROM SOURCES AND GRADATIONS THAT HAVE PERFORMED SATISFACTORILY IN PREVIOUS INSTALLATIONS, EQUAL TO PERFORMANCE OF REQUIRED HOT-MIX ASPHALT PAVING PRODUCED FROM ALL NEW MATERIALS. ii. HERBICIDE: COMMERCIAL CHEMICAL FOR WEED CONTROL, REGISTERED BY THE EPA, AND NOT CLASSIFIED

AS "RESTRICTED USE" FOR LOCATIONS AND CONDITIONS OF APPLICATION. PROVIDE IN GRANULAR,

LIQUID, OR WETTABLE POWDER FORM. iii. SAND: ASTM D 1073 OR AASHTO M 29, GRADE NO. 2 OR NO. 3.

4. MIXES

- RECYCLED CONTENT OF HOT-MIX ASPHALT: PER INDOT STANDARDS HOT-MIX ASPHALT: DENSE-GRADED, HOT-LAID, HOT-MIX ASPHALT PLANT MIXES APPROVED BY INDOT AND COMPLYING WITH THE FOLLOWING REQUIREMENTS:
 - PROVIDE MIXES WITH A HISTORY OF SATISFACTORY PERFORMANCE IN GEOGRAPHICAL AREA WHERE PROJECT IS LOCATED.
 - BASE COURSE: 25.0 MM OR 19.0 MM (AS INDICATED ON DRAWINGS) c. SURFACE COURSE: 9.5MM

1. EXAMINATION

- VERIFY THAT SUBGRADE IS DRY AND IN SUITABLE CONDITION TO BEGIN PAVING. PROOF-ROLL SUBGRADE BELOW PAVEMENTS WITH HEAVY PNEUMATIC-TIRED EQUIPMENT TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. DO NOT PROOF-ROLL WET OR SATURATED SUBGRADES. PROOFROLL TO BE PERFORMED BY QUALIFIED GEOTECHNICAL ENGINEER.
 - a. COMPLETELY PROOF-ROLL SUBGRADE IN ONE DIRECTION LIMIT VEHICLE SPEED
 - PROOF ROLL WITH A LOADED 10-WHEEL, TANDEM-AXLE DUMP TRUCK WEIGHING NOT LESS

d. PROCEED WITH PAVING ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

EXCAVATE SOFT SPOTS, UNSATISFACTORY SOILS, AND AREAS OF EXCESSIVE PUMPING OR RUTTING, AS DETERMINED BY ENGINEER, AND REPLACE WITH COMPACTED BACKFILL OR FILL AS

- i. GENERAL: IMMEDIATELY BEFORE PLACING ASPHALT MATERIALS, REMOVE LOOSE AND DELETERIOUS MATERIAL FROM SUBSTRATE SURFACES. ENSURE THAT PREPARED SUBGRADE IS READY TO RECEIVE ii. HERBICIDE TREATMENT: APPLY HERBICIDE ACCORDING TO MANUFACTURER'S RECOMMENDED RATES
- AND WRITTEN APPLICATION INSTRUCTIONS. APPLY TO DRY, PREPARED SUBGRADE OR SURFACE OF COMPACTED-AGGREGATE BASE BEFORE APPLYING PAVING MATERIALS. a. MIX HERBICIDE WITH PRIME COAT IF FORMULATED BY MANUFACTURER FOR THAT PURPOSE2 iii. CUTBACK PRIME COAT: APPLY UNIFORMLY OVER SURFACE OF COMPACTED UNBOUND-AGGREGATE BASE COURSE AT A RATE OF 0.15 TO 0.50 GAL./SQ. YD. APPLY ENOUGH MATERIAL TO PENETRATE AND
- SEAL, BUT NOT FLOOD, SURFACE. ALLOW PRIME COAT TO CURE. a. IF PRIME COAT IS NOT ENTIRELY ABSORBED WITHIN 24 HOURS AFTER APPLICATION, SPREAD SAND OVER SURFACE TO BLOT EXCESS ASPHALT. USE ENOUGH SAND TO PREVENT PICKUP UNDER TRAFFIC. REMOVE LOOSE SAND BY SWEEPING BEFORE PAVEMENT IS PLACED AND AFTER
- VOLATILES HAVE EVAPORATED. b. PROTECT PRIMED SUBSTRATE FROM DAMAGE UNTIL READY TO RECEIVE PAVING. iv. TACK COAT: APPLY UNIFORMLY TO SURFACES OF EXISTING PAVEMENT AT A RATE OF 0.05 TO 0.15 GAL./SQ. YD.
- a. ALLOW TACK COAT TO CURE UNDISTURBED BEFORE APPLYING HOT-MIX ASPHALT PAVING AVOID SMEARING OR STAINING ADJOINING SURFACES, APPURTENANCES, AND SURROUNDINGS. REMOVE SPILLAGES AND CLEAN AFFECTED SURFACES.
- 3. PLACING HOT-MIX ASPHALT MACHINE PLACE HOT-MIX ASPHALT ON PREPARED SURFACE, SPREAD UNIFORMLY, AND STRIKE OFF PLACE ASPHALT MIX BY HAND IN AREAS INACCESSIBLE TO EQUIPMENT IN A MANNER THAT PREVENTS SEGREGATION OF MIX. PLACE EACH COURSE TO REQUIRED GRADE, CROSS SECTION, AND
 - THICKNESS WHEN COMPACTED. PLACE HOT-MIX ASPHALT BASE COURSE IN NUMBER OF LIFTS AND THICKNESSES INDICATED. PLACE HOT-MIX ASPHALT SURFACE COURSE IN SINGLE LIFT.
 - SPREAD MIX AT A MINIMUM TEMPERATURE OF 250 DEG F BEGIN APPLYING MIX ALONG CENTERLINE OF CROWN FOR CROWNED SECTIONS AND ON HIGH SIDE OF ONE-WAY SLOPES UNLESS OTHERWISE INDICATED. REGULATE PAVER MACHINE SPEED TO OBTAIN SMOOTH, CONTINUOUS SURFACE FREE OF PULLS
- AND TEARS IN ASPHALT-PAVING MAT. ii. PLACE PAVING IN CONSECUTIVE STRIPS NOT LESS THAN 10 FEET WIDE UNLESS INFILL EDGE STRIPS OF A LESSER WIDTH ARE REQUIRED. a. AFTER FIRST STRIP HAS BEEN PLACED AND ROLLED, PLACE SUCCEEDING STRIPS AND EXTEND ROLLING TO OVERLAP PREVIOUS STRIPS. OVERLAP MIX PLACEMENT ABOUT 1 TO 1-1/2

INCHES FROM STRIP TO STRIP TO ENSURE PROPER COMPACTION OF MIX ALONG LONGITUDINAL

- b. COMPLETE A SECTION OF ASPHALT BASE COURSE BEFORE PLACING ASPHALT SURFACE iii. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. USE SUITABLE
- HAND TOOLS TO REMOVE EXCESS MATERIAL FORMING HIGH SPOTS. FILL DEPRESSIONS WITH HOT-MIX ASPHALT TO PREVENT SEGREGATION OF MIX; USE SUITABLE HAND TOOLS TO SMOOTH SURFACE.
- CONSTRUCT JOINTS TO ENSURE A CONTINUOUS BOND BETWEEN ADJOINING PAVING SECTIONS. CONSTRUCT JOINTS FREE OF DEPRESSIONS, WITH SAME TEXTURE AND SMOOTHNESS AS OTHER SECTIONS OF HOT-MIX ASPHALT COURSE CLEAN CONTACT SURFACES AND APPLY TACK COAT TO JOINTS.
 - OFFSET LONGITUDINAL JOINTS, IN SUCCESSIVE COURSES, A MINIMUM OF 6 INCHES OFFSET TRANSVERSE JOINTS, IN SUCCESSIVE COURSES, A MINIMUM OF 24 INCHES CONSTRUCT TRANSVERSE JOINTS AT EACH POINT WHERE PAVER ENDS A DAY'S WORK AND RESUMES WORK AT A SUBSEQUENT TIME. CONSTRUCT THESE JOINTS USING EITHER "BULKHEAD"

OR "PAPERED" METHOD ACCORDING TO AI MS-22, FOR BOTH "ENDING A LANE" AND

"RESUMPTION OF PAVING OPERATIONS." COMPACT JOINTS AS SOON AS HOT-MIX ASPHALT WILL BEAR ROLLER WEIGHT WITHOUT EXCESSIVE DISPLACEMENT. COMPACT ASPHALT AT JOINTS TO A DENSITY WITHIN 2 PERCENT OF SPECIFIED COURSE

ASPHALT PAVING (CONT.):

- GENERAL: BEGIN COMPACTION AS SOON AS PLACED HOT-MIX PAVING WILL BEAR ROLLER WEIGHT WITHOUT EXCESSIVE DISPLACEMENT. COMPACT HOT-MIX PAVING WITH HOT, HAND TAMPERS OR WITH
- VIBRATORY-PLATE COMPACTORS IN AREAS INACCESSIBLE TO ROLLERS. a. COMPLETE COMPACTION BEFORE MIX TEMPERATURE COOLS TO 185 DEG F BREAKDOWN ROLLING: COMPLETE BREAKDOWN OR INITIAL ROLLING IMMEDIATELY AFTER ROLLING JOINTS
- AND OUTSIDE EDGE. EXAMINE SURFACE IMMEDIATELY AFTER BREAKDOWN ROLLING FOR INDICATED CROWN, GRADE, AND SMOOTHNESS. CORRECT LAYDOWN AND ROLLING OPERATIONS TO COMPLY WITH REQUIREMENTS iii. INTERMEDIATE ROLLING: BEGIN INTERMEDIATE ROLLING IMMEDIATELY AFTER BREAKDOWN ROLLING WHILE
- HOT-MIX ASPHALT IS STILL HOT ENOUGH TO ACHIEVE SPECIFIED DENSITY. CONTINUE ROLLING UNTIL HOT-MIX ASPHALT COURSE HAS BEEN UNIFORMLY COMPACTED TO THE FOLLOWING DENSITY: AVERAGE DENSITY: 96 PERCENT OF REFERENCE LABORATORY DENSITY ACCORDING TO ASTM D 6927 OR AASHTO T 245, BUT NOT LESS THAN 94 PERCENT OR GREATER THAN 100 PERCENT.
- AVERAGE DENSITY: 92 PERCENT OF REFERENCE MAXIMUM THEORETICAL DENSITY ACCORDING TO ASTM D 2041, BUT NOT LESS THAN 90 PERCENT OR GREATER THAN 96 PERCENT. iv. FINISH ROLLING: FINISH ROLL PAVED SURFACES TO REMOVE ROLLER MARKS WHILE HOT-MIX ASPHALT IS
- EDGE SHAPING: WHILE SURFACE IS BEING COMPACTED AND FINISHED, TRIM EDGES OF PAVEMENT TO PROPER ALIGNMENT. BEVEL EDGES WHILE ASPHALT IS STILL HOT; COMPACT THOROUGHLY. vi. REPAIRS: REMOVE PAVED AREAS THAT ARE DEFECTIVE OR CONTAMINATED WITH FOREIGN MATERIALS AND REPLACE WITH FRESH, HOT-MIX ASPHALT. COMPACT BY ROLLING TO SPECIFIED DENSITY AND
- SURFACE SMOOTHNESS viil. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED. viiil. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.
- 6. INSTALLATION TOLERANCES PAVEMENT THICKNESS: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN THE
 4. JOINTS **FOLLOWING TOLERANCES:** a. BASE COURSE: PLUS OR MINUS 1/2 INCH
 - . SURFACE COURSE: PLUS 1/4 INCH NO MINUS. PAVEMENT SURFACE SMOOTHNESS: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED
 - TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS: a. BASE COURSE: 1/4 INCH SURFACE COURSE: 1/8 INCH
- c. CROWNED SURFACES: TEST WITH CROWNED TEMPLATE CENTERED AND AT RIGHT ANGLE TO CROWN. MAXIMUM ALLOWABLE VARIANCE FROM TEMPLATE IS 1/4 INCH 7. FIELD QUALITY CONTROL
 - THICKNESS: IN-PLACE COMPACTED THICKNESS OF HOT-MIX ASPHALT COURSES WILL BE DETERMINED ACCORDING TO ASTM D 3549.

TESTING AGENCY: CONTRACTOR TO ENGAGE A QUALIFIED TESTING AGENCY TO PERFORM TESTS AND

- iii. SURFACE SMOOTHNESS: FINISHED SURFACE OF EACH HOT-MIX ASPHALT COURSE WILL BE TESTED FOR 5. CONCRETE PLACEMENT COMPLIANCE WITH SMOOTHNESS TOLERANCES. iv. IN-PLACE DENSITY: TESTING AGENCY WILL TAKE SAMPLES OF UNCOMPACTED PAVING MIXTURES AND COMPACTED PAVEMENT ACCORDING TO ASTM D 979 OR AASHTO T 168.
 - REFERENCE MAXIMUM THEORETICAL DENSITY WILL BE DETERMINED BY AVERAGING RESULTS FROM FOUR SAMPLES OF HOT-MIX ASPHALT-PAVING MIXTURE DELIVERED DAILY TO SITE, PREPARED ACCORDING TO ASTM D 2041, AND COMPACTED ACCORDING TO JOB-MIX SPECIFICATIONS.

b. IN-PLACE DENSITY OF COMPACTED PAVEMENT WILL BE DETERMINED BY TESTING CORE SAMPLES

- ACCORDING TO ASTM D 1188 OR ASTM D 2726. ONE CORE SAMPLE WILL BE TAKEN FOR EVERY 1000 SQ. YD. OR LESS OF INSTALLED PAVEMENT, NO FEWER THAN THREE CORES TAKEN. vi. FIELD DENSITY OF IN-PLACE COMPACTED PAVEMENT MAY ALSO BE DETERMINED BY NUCLEAR METHOD
- ACCORDING TO ASTM D 2950 AND CORRELATED WITH ASTM D 1188 OR ASTM D 2726. vii. REPLACE AND COMPACT HOT-MIX ASPHALT WHERE CORE TESTS WERE TAKEN. viii. REMOVE AND REPLACE OR INSTALL ADDITIONAL HOT-MIX ASPHALT WHERE TEST RESULTS OR MEASUREMENTS INDICATE THAT IT DOES NOT COMPLY WITH SPECIFIED REQUIREMENTS.

CONCRETE PAVING:

1. CONCRETE PAVING SECTION INCLUDES DRIVEWAYS, ROADWAYS, PARKING LOTS, CURBS AND GUTTERS, WALKS, AND CONCRETE APRONS

2. ACTION SUBMITTALS

- PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. OTHER ACTION SUBMITTALS
- DESIGN MIXTURES: FOR EACH CONCRETE PAVING MIXTURE. INCLUDE ALTERNATE DESIGN MIXTURES WHEN CHARACTERISTICS OF MATERIALS PROJECT CONDITIONS, WEATHER, TEST
 - RESULTS, OR OTHER CIRCUMSTANCES WARRANT ADJUSTMENTS. . MATERIAL TEST REPORTS: FROM A QUALIFIED TESTING AGENCY INDICATING AND INTERPRETING TEST RESULTS FOR COMPLIANCE OF THE FOLLOWING WITH REQUIREMENTS INDICATED, BASED ON COMPREHENSIVE TESTING OF CURRENT MATERIALS.
- QUALITY ASSURANCE READY-MIX-CONCRETE MANUFACTURER QUALIFICATIONS: A FIRM EXPERIENCED IN MANUFACTURING READY-MIXED CONCRETE PRODUCTS AND THAT COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR
 - PRODUCTION FACILITIES AND EQUIPMENT.
- ii. ACI PUBLICATIONS: COMPLY WITH ACI 301 (ACI 301M) UNLESS OTHERWISE INDICATED. HANDICAP STANDARDS: PROVIDE RAMPS INDICATED FOR HANDICAP ACCESS IN ACCORDANCE WITH ANSI A117 AND FEDERAL AMERICANS WITH DISABILITIES ACT (ADA).

B. PRODUCTS

- 1. STEEL REINFORCEMENT RECYCLED CONTENT: POST CONSUMER RECYCLED CONTENT PLUS ONE-HALF OF PRECONSUMER
 - RECYCLED CONTENT NOT LESS THAN 25 PERCENT. PLAIN-STEEL WELDED WIRE REINFORCEMENT: ASTM A 185/A 185M, FABRICATED FROM AS-DRAWN
- STEEL WIRE INTO FLAT SHEETS. iii. DEFORMED-STEEL WELDED WIRE REINFORCEMENT: ASTM A 497/A 497M, FLAT SHEET.
- iv. REINFORCING BARS: ASTM A 615/A 615M, GRADE 60 (GRADE 420); DEFORMED.
- v. PLAIN-STEEL WIRE: ASTM A 82/A 82M, AS DRAWN. vi. DEFORMED-STEEL WIRE: ASTM A 496/A 496M.
- vii. DOWEL BARS: ASTM A 615/A 615M, GRADE 60 (GRADE 420) PLAIN-STEEL BARS; ZINC COATED (GALVANIZED) AFTER FABRICATION ACCORDING TO ASTM A 767/A 767M, CLASS I COATING. CUT BARS TRUE TO LENGTH WITH ENDS SQUARE AND FREE OF BURRS. viii. BAR SUPPORTS: BOLSTERS, CHAIRS, SPACERS, AND OTHER DEVICES FOR SPACING, SUPPORTING, AND FASTENING REINFORCING BARS, WELDED WIRE REINFORCEMENT, AND DOWELS IN PLACE. MANUFACTURE
- OR PRECAST CONCRETE OF GREATER COMPRESSIVE STRENGTH THAN CONCRETE SPECIFIED. i. CEMENTITIOUS MATERIAL: USE THE FOLLOWING CEMENTITIOUS MATERIALS, OF SAME TYPE, BRAND, AND B.

BAR SUPPORTS ACCORDING TO CRSI'S "MANUAL OF STANDARD PRACTICE" FROM STEEL WIRE, PLASTIC,

- SOURCE THROUGHOUT PROJECT: a. PORTLAND CEMENT: ASTM C 150, PORTLAND CEMENT TYPE FLY ASH: ASTM C 618, CLASS C OR CLASS F.
- GROUND GRANULATED BLAST-FURNACE SLAG: ASTM C 989, GRADE 100 OR 120. NORMAL-WEIGHT AGGREGATES: ASTM C 33,UNIFORMLY GRADED, AND AS FOLLOWS: a. COMBINED AGGREGATE GRADATION: WELL GRADED FROM COARSEST TO FINEST WITH NOT MORE THAN 18 PERCENT AND NOT LESS THAN 8 PERCENT RETAINED ON A INDIVIDUAL SIEVE, EXPECT THAT LESS THAN 8 PERCENT MAY BE RETAINED ON COARSEST SIEVE AND ON NO. 50 SIEVE. AND LESS THAN 8 PERCENT MAY BE RETAINED ON SIEVES FINER THAN NO. 50.
- iii. WATER: POTABLE AND COMPLYING WITH ASTM C 94/C 94M. iv. AIR-ENTRAINING ADMIXTURE: ASTM C 260. V. CHEMICAL ADMIXTURES: ADMIXTURES CERTIFIED BY MANUFACTURER TO BE COMPATIBLE WITH OTHER D. JOB CONDITIONS ADMIXTURES AND TO CONTAIN NOT MORE THAN 0.1 PERCENT WATER-SOLUBLE CHLORIDE IONS BY MASS

. USE CRUSHED LIMESTONE COARSE AGGREGATE FOR CONCRETE EXPOSED TO WEATHER.

- OF CEMENTITIOUS MATERIAL. vi. NOTE: WHERE CLASS A, B, OR C CONCRETE IS REFERENCE IN PLANS OR SPECIFICATIONS, THE CLASS IS AS DEFINED IN ACI 347-04.
- ABSORPTIVE COVER: AASHTO M 182, CLASS 3, BURLAP CLOTH MADE FROM JUTE OR KENAF, WEIGHING APPROXIMATELY 9 OZ./SQ. YD. (305 G/SQ. M) DRY. MOISTURE-RETAINING COVER: ASTM C 171, POLYETHYLENE FILM OR WHITE BURLAP-POLYETHYLENE
- iii. WATER: POTABLE EVAPORATION RETARDER: WATERBORNE, MONOMOLECULAR, FILM FORMING, MANUFACTURED FOR APPLICATION TO FRESH CONCRETE. CLEAR, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, TYPE 1, CLASS B,

vi. WHITE, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND: ASTM C 309, TYPE 2, CLASS B,

- 4. FIBER REINFORCEMENT FIBROUS REINFORCEMENT: 100% VIRGIN HOMOPOLYMER POLYPROPYLENE MULTIFILAMENT FIBERS FOR SECONDARY REINFORCEMENT OF CONCRETE, ASTM C 116, TYPE III. SHALL CONTAIN NO REPROCESSED OLEFIN MATERIALS.
 - a. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ONE OF THE FOLLOWING: F. DISPOSAL OF DEMOLISHED MATERIALS FIBERMESH 150; PROPEX CONCRETE SYSTEMS CORP., STEALTH FIBER MICRO REINFORCEMENT; 1. GENERAL: REMOVE WEEKLY FROM SI SI CONCRETE SYSTEMS, OR APPROVED EQUAL
- 5. RELATED MATERIALS JOINT FILLERS: ASTM D 1751, ASPHALT-SATURATED CELLULOSIC FIBER OR ASTM D 1752, CORK OR SELF-EXPANDING CORK IN PREFORMED STRIPS.
 - MUST EXHIBIT NO SCALING WHEN EXPOSED TO 120 CYCLES OF FREEZING-AND-THAWING IN ACCORDANCE WITH ASTM C 672. a. PRODUCTS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ONE OF THE FOLLOWING: "WEATHER WORKER HEAVY-DUTY WB (J-27 WB)"; DAYTON SUPERIOR CORP., "ENVIROSEAL 20"; HYDROZO INCORP., "PENTANE WB"; L & M CONSTRUCTION CHEMICALS, INC.

PENETRATING ANTI-SPALLING SEALER: THE SEALER SHALL BE A SILANE WATER BASED COMPOUND

ACCORDANCE WITH NCHRP #244, TEST METHOD. IN ADDITION, THE SEALER-TREATED CONCRETE

WHICH HAS A 96% CHLORIDE-ION SCREEN AND A REPELLENCY FACTOR OF 92% WHEN TESTED IN

i. PREPARE DESIGN MIXTURES, PROPORTIONED ACCORDING TO ACI 301 (ACI 301M), WITH THE FOLLOWING PROPERTIES:

a. COMPRESSIVE STRENGTH (28 DAYS): 4000 PSI (27.6 MPA).

- **CONCRETE PAVING (CONT.):**
 - MAXIMUM WATER-CEMENTITIOUS MATERIALS RATIO AT POINT OF PLACEMENT: 0.45. SLUMP LIMIT: 5 INCHES (125 MM), PLUS OR MINUS 1 INCH (25 MM).
 - AIR CONTENT: 6.5 PERCENT PLUS OR MINUS 1.5 PERCENT. ii. CHEMICAL ADMIXTURES: USE ADMIXTURES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
 - 7. CONCRETE MIXING READY-MIXED CONCRETE: MEASURE, BATCH, AND MIX CONCRETE MATERIALS AND CONCRETE ACCORDING TO ASTM C 94/C 94M. FURNISH BATCH CERTIFICATES FOR EACH BATCH DISCHARGED

AND USED IN THE WORK.

FROM CONCRETE WITHOUT DAMAGE.

AND CONSOLIDATING CONCRETE

CONCRETE.

- PROOF-ROLL PREPARED SUBBASE SURFACE BELOW CONCRETE PAVING TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING REMOVE LOOSE MATERIAL FROM COMPACTED SUBBASE SURFACE IMMEDIATELY BEFORE PLACING
- 2. EDGE FORMS AND SCREED CONSTRUCTION SET, BRACE, AND SECURE EDGE FORMS, BULKHEADS, AND INTERMEDIATE SCREED GUIDES TO REQUIRED LINES, GRADES, AND ELEVATIONS. INSTALL FORMS TO ALLOW CONTINUOUS PROGRESS OF WORK AND SO FORMS CAN REMAIN IN PLACE AT LEAST 24 HOURS AFTER CONCRETE PLACEMENT.
- 3. STEEL REINFORCEMENT GENERAL: COMPLY WITH CRSI'S "MANUAL OF STANDARD PRACTICE" FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT.

CLEAN FORMS AFTER EACH USE AND COAT WITH FORM-RELEASE AGENT TO ENSURE SEPARATION

- GENERAL: FORM CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGES TRUE TO LINE, WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE
 - JOINTS AT RIGHT ANGLES TO CENTERLINE UNLESS OTHERWISE INDICATED. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVING AND AT LOCATIONS WHERE PAVING OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVING TERMINATES AT ISOLATION JOINTS.
 - iii. ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, OTHER FIXED OBJECTS, AND WHERE INDICATED. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO
- AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS. EDGING: AFTER INITIAL FLOATING, TOOL EDGES OF PAVING, GUTTERS, CURBS, AND JOINTS IN CONCRETE WITH AN EDGING TOOL TO A 1/4-INCH (6-MM) RADIUS. REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE EDGING-TOOL MARKS ON CONCRETE SURFACES.
- MOISTEN SUBBASE TO PROVIDE A UNIFORM DAMPENED CONDITION AT TIME CONCRETE IS PLACED. COMPLY WITH ACI 301 (ACI 301M) REQUIREMENTS FOR MEASURING, MIXING, TRANSPORTING, PLACING,
- DEPOSIT AND SPREAD CONCRETE IN A CONTINUOUS OPERATION BETWEEN TRANSVERSE JOINTS. DO NOT PUSH OR DRAG CONCRETE INTO PLACE OR USE VIBRATORS TO MOVE CONCRETE INTO PLACE. SCREED PAVING SURFACE WITH A STRAIGHTEDGE AND STRIKE OFF.
- COMMENCE INITIAL FLOATING USING BULL FLOATS OR DARBIES TO IMPART AN OPEN-TEXTURED AND UNIFORM SURFACE PLANE BEFORE EXCESS MOISTURE OR BLEED WATER APPEARS ON THE SURFACE. DO NOT FURTHER DISTURB CONCRETE SURFACES BEFORE BEGINNING FINISHING OPERATIONS OR SPREADING SURFACE TREATMENTS.

6. CONCRETE PROTECTION AND CURING i. GENERAL: PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES.

- COMPLY WITH ACI 306.1 FOR COLD-WEATHER PROTECTION. EVAPORATION RETARDER: APPLY EVAPORATION RETARDER TO CONCRETE SURFACES IF HOT, DRY, OR WINDY CONDITIONS CAUSE MOISTURE LOSS APPROACHING 0.2 LB/SQ. FT. X H (1 KG/SQ. M X H) BEFORE AND DURING FINISHING OPERATIONS. APPLY ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AFTER PLACING, SCREEDING, AND BULL FLOATING OR DARBYING CONCRETE BUT BEFORE
- FLOAT FINISHING iv. BEGIN CURING AFTER FINISHING CONCRETE BUT NOT BEFORE FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACE. CURING METHODS: CURE CONCRETE BY MOISTURE CURING, MOISTURE-RETAINING-COVER CURING,
- CURING COMPOUND, OR A COMBINATION OF THESE. vi. PENETRATING, ANTI-SPALLING SEALER TREATMENT: APPLY COMPOUNDS TO CLEAN, DRY CONCRETE SURFACES FREE OF OIL, DIRT, AND OTHER FOREIGN MATERIAL ACCORDING TO MANUFACTURER'S SPECIFICATIONS. SEALER TO BE APPLIED TO ALL EXTERIOR CONCRETE PAVING AND CURBS AFTER CONCRETE HAS CURED 28 DAYS.
- COMPLY WITH TOLERANCES IN ACI 117 AND AS FOLLOWS:

a. ELEVATION: 3/4 INCH (19 MM).

EXCEED 1/2 INCH (13 MM).

- THICKNESS: PLUS 3/8 INCH (10 MM), MINUS 1/4 INCH (6 MM). SURFACE: GAP BELOW 10-FOOT- (3-M-) LONG, UNLEVELED STRAIGHTEDGE NOT TO
- JOINT SPACING: 3 INCHES (75 MM). CONTRACTION JOINT DEPTH: PLUS 1/4 INCH (6 MM), NO MINUS. JOINT WIDTH: PLUS 1/8 INCH (3 MM), NO MINUS. ii. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE MARKINGS OF DIMENSIONS INDICATED WITH
- MINIMUM WET FILM THICKNESS OF 15 MILS (0.4 MM).

UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES TO PROVIDE A

- REMOVE AND REPLACE CONCRETE PAVING THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION. REMOVE WORK IN COMPLETE SECTIONS FROM JOINT TO JOINT UNLESS OTHERWISE APPROVED BY ENGINEER.
- II. PROTECT CONCRETE PAVING FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVING FOR AT LEAST 14 DAYS AFTER PLACEMENT. WHEN CONSTRUCTION TRAFFIC IS PERMITTED, MAINTAIN PAVING AS CLEAN AS POSSIBLE BY REMOVING SURFACE STAINS AND SPILLAGE OF MATERIALS AS THEY OCCUR. MAINTAIN CONCRETE PAVING FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL SWEEP PAVING NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION

THE CONTRACTOR SHALL REMOVE AND DISPOSE OFF SITE, ALL EXISTING STRUCTURES, FENCES, CONCRETE AND PAVEMENT ON SITE, UNLESS NOTED TO REMAIN ON THE CONTRACT DRAWINGS.

THE CONTRACTOR SHALL PROTECT AND NOT DESTROY PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

- THIS SECTION REQUIRES REMOVAL AND DISPOSAL, OFF SITE, OF THE FOLLOWING: 1. ASPHALT PARKING LOT.
- 2. MISCELLANEOUS CONCRETE, STORM SEWER, PLANT MATERIAL, UNDERGROUND CONDUITS, SITE LIGHTS, ETC., LOCATED ON SITE. SUBMIT THE FOLLOWING IN ACCORDANCE WITH CONDITIONS OF CONTRACT AND DIVISION 1 SPECIFICATION SECTIONS.

PROVIDE A DETAILED SEQUENCE AND SCHEDULE OF DEMOLITION AND REMOVAL WORK TO BE

WORK PROGRESSES. TRANSPORT SALVAGED ITEMS FROM THE SITE AS THEY ARE REMOVED.

UTILITY SERVICES AS REQUIRED.

LOCAL UTILITIES.

DEMOLITION OPERATIONS.

AND SPECIFICATIONS, LATEST EDITION.

i. STORAGE OR SALE OF REMOVED ITEMS WILL NOT BE PERMITTED ON SITE. 2. EXPLOSIVES: USE OF ANY TYPE OF EXPLOSIVES WILL NOT BE PERMITTED. 3. TRAFFIC: CONDUCT DEMOLITION OPERATIONS AND REMOVAL OF DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED AND USED FACILITIES. . DO NOT CLOSE OR OBSTRUCT ROADS, STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES

1. SALVAGED MATERIALS: ITEMS OF SALVAGEABLE VALUE TO CONTRACTOR MAY BE REMOVED FROM STRUCTURE AS

A PROPOSED SCHEDULE OF OPERATIONS COORDINATION FOR SHUTOFF, CAPPING, AND CONTINUATION OF

- WITHOUT PERMISSION FROM THE LOCAL AUTHORITIES HAVING JURISDICTION. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS, IF REQUIRED BY GOVERNING AUTHORITIES. 4. PROTECTIONS: ENSURE SAFE PASSAGE OF PERSONS AROUND AREAS OF DEMOLITION. CONDUCT OPERATIONS TO PREVENT DAMAGE TO ADJACENT BUILDINGS, STRUCTURES, AND OTHER FACILITIES AND INJURY TO PERSONS. 5. DAMAGES: PROMPTLY REPAIR ANY DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION OPERATIONS. 6. UTILITY SERVICES: MAINTAIN EXISTING UTILITIES TO STAY IN SERVICE AND PROTECT AGAINST DAMAGE DURING DEMOLITION OPERATIONS. DISCONNECT, CAP AND REMOVE UTILITY SERVICES PER LOCAL REQUIREMENTS. DO NOT START DEMOLITION WORK UNTIL UTILITY DISCONNECTIONS HAVE BEEN COMPLETED TO THE SATISFACTION OF
- 1. BELOW-GRADE CONSTRUCTION: DEMOLISH FOUNDATION WALLS AND OTHER BELOW-GRADE CONSTRUCTION INCLUDING CONCRETE SLABS, TO A DEPTH OF NOT LESS THAN 48 INCHES BELOW LOWEST FOUNDATION LEVEL 2. FILLING VOIDS: COMPLETELY FILL BELOW-GRADE AREAS AND VOIDS RESULTING FROM DEMOLITION STRUCTURES.

1. GENERAL: REMOVE WEEKLY FROM SITE ACCUMULATED DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM

- 2. REMOVAL: TRANSPORT MATERIALS REMOVED FROM DEMOLITION OPERATIONS AND LEGALLY DISPOSE OF OFF-SITE. A. ALL WATER MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH INDIANA AMERICAN WATER STANDARDS
 - A. ALL SANITARY MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CITY OF FRANKLIN STANDARDS AND SPECIFICATIONS, LATEST EDITION.



GDI CONSTRUCTION 9775 Crosspoint Blvd Suite 105 Indianapolis, IN 46256



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I-65 SOUTH LOGISTICS CENTER

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX

CONSTRUCTION DOCUMENTS

04/07/2021

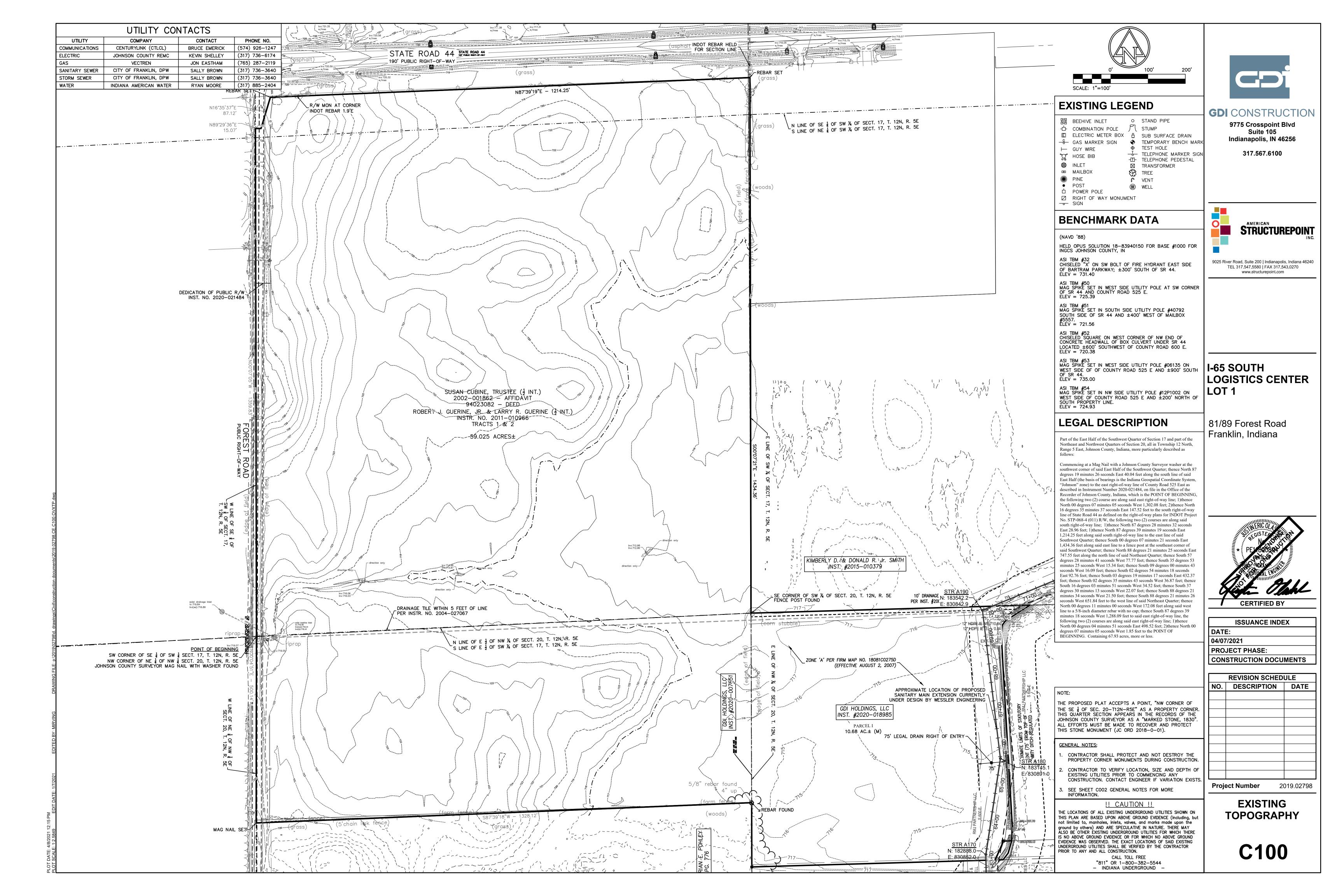
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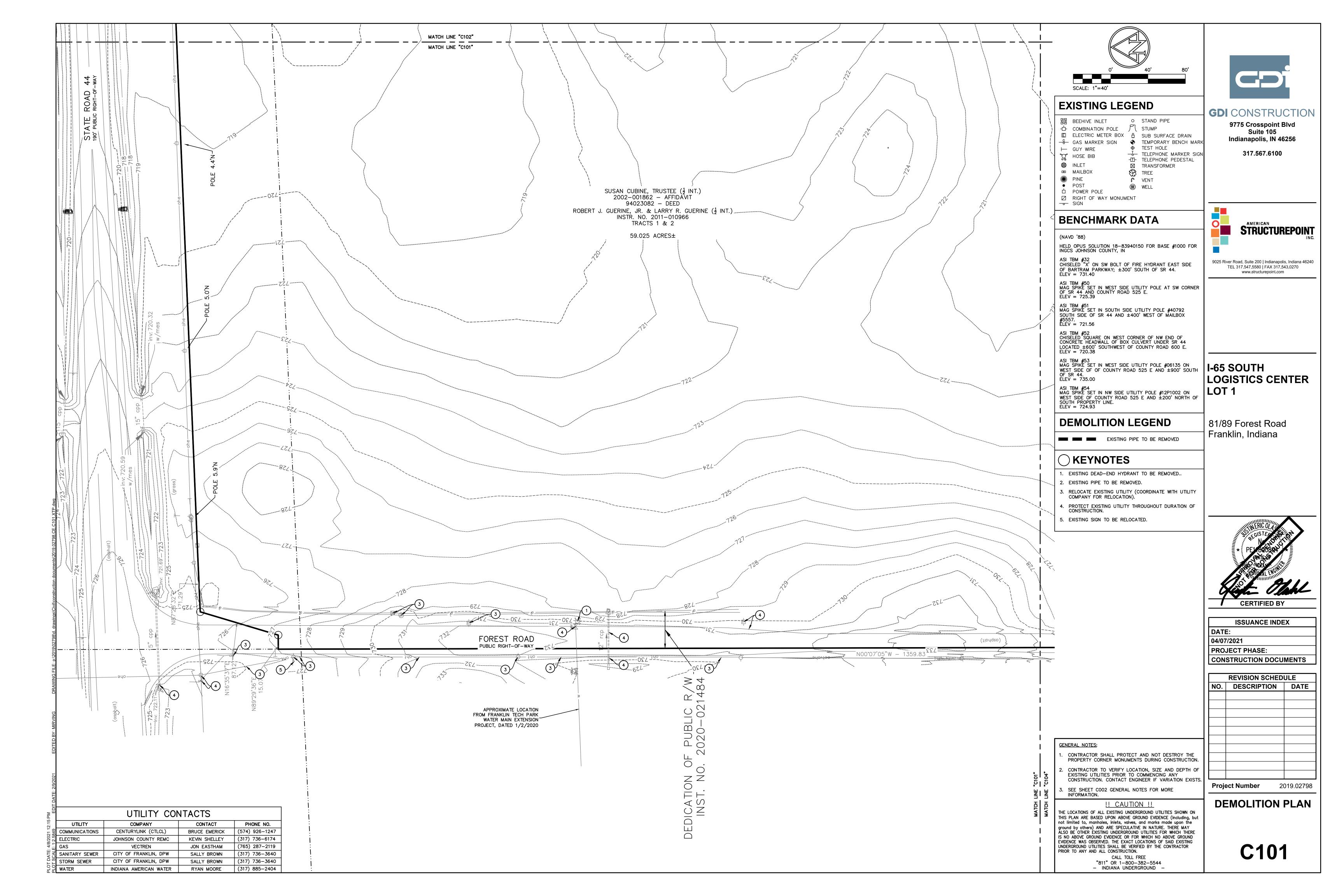
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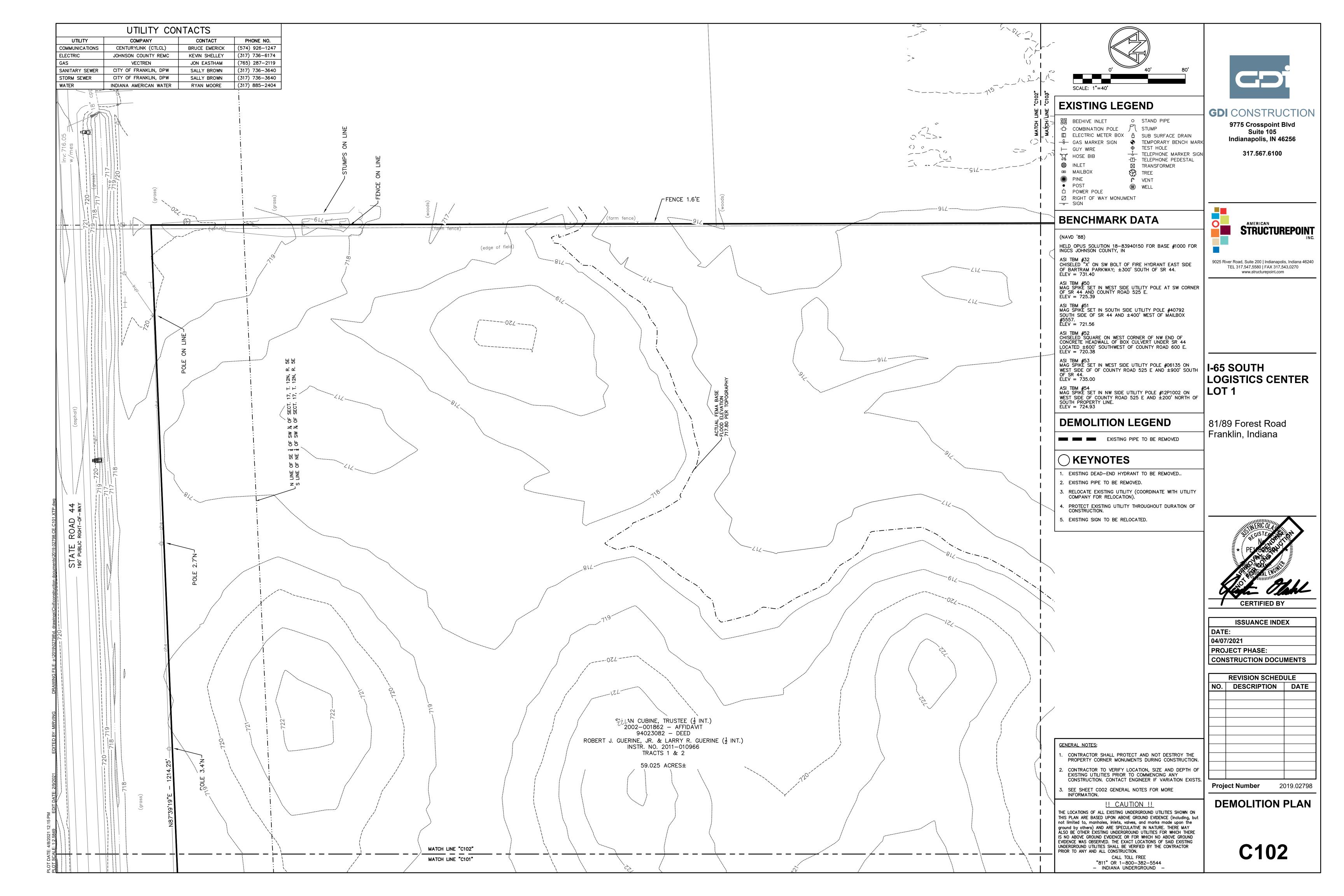
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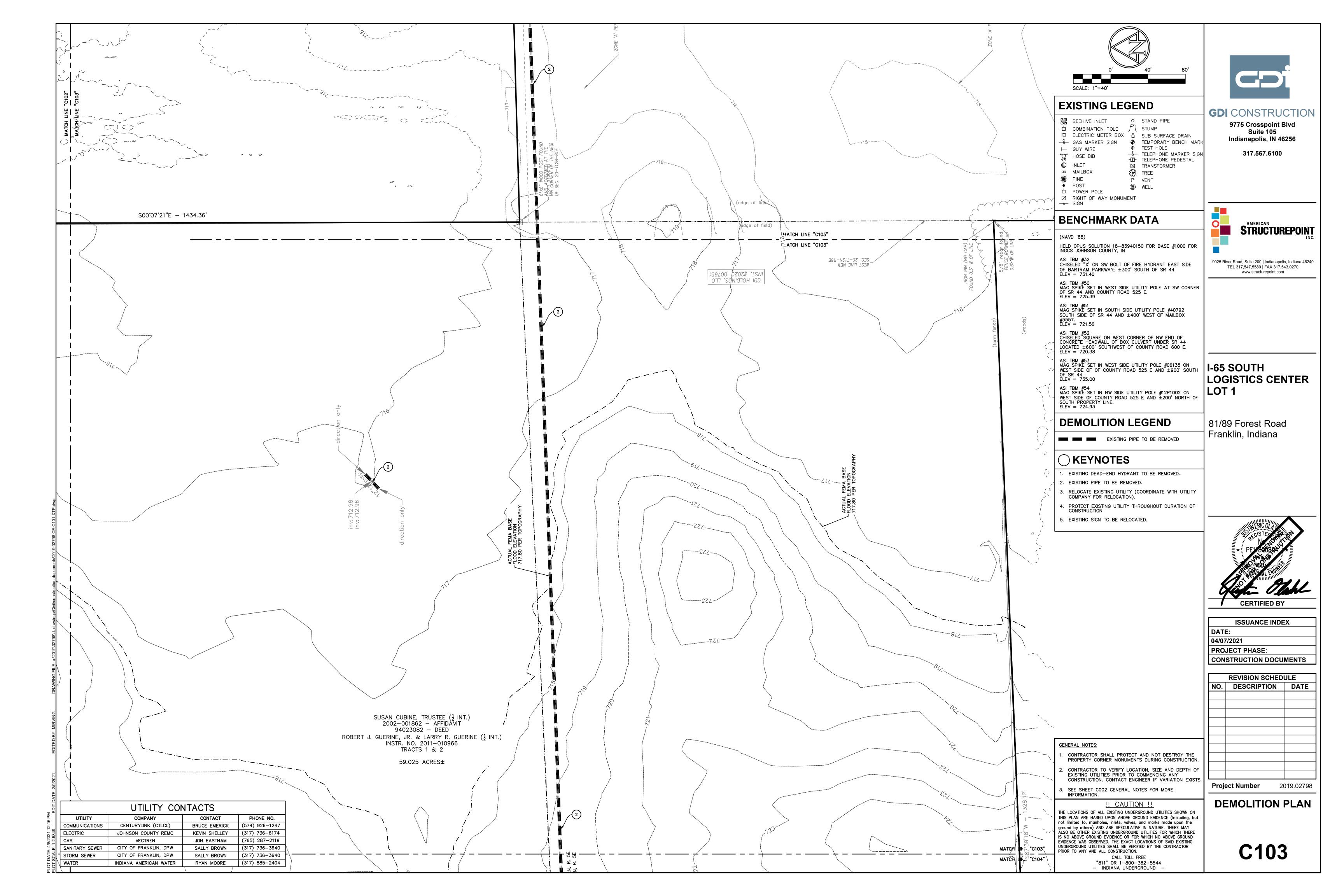
SPECIFICATIONS

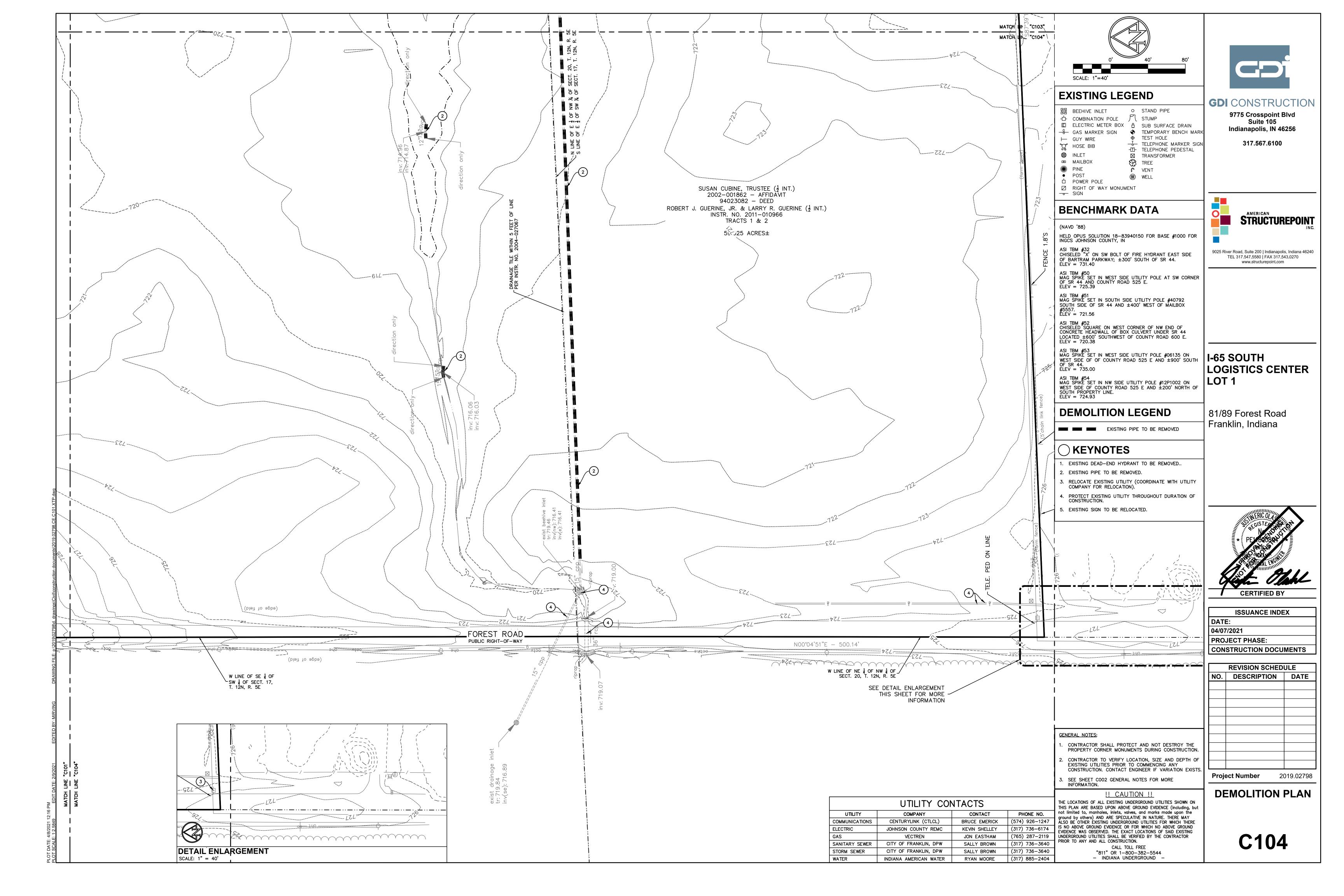
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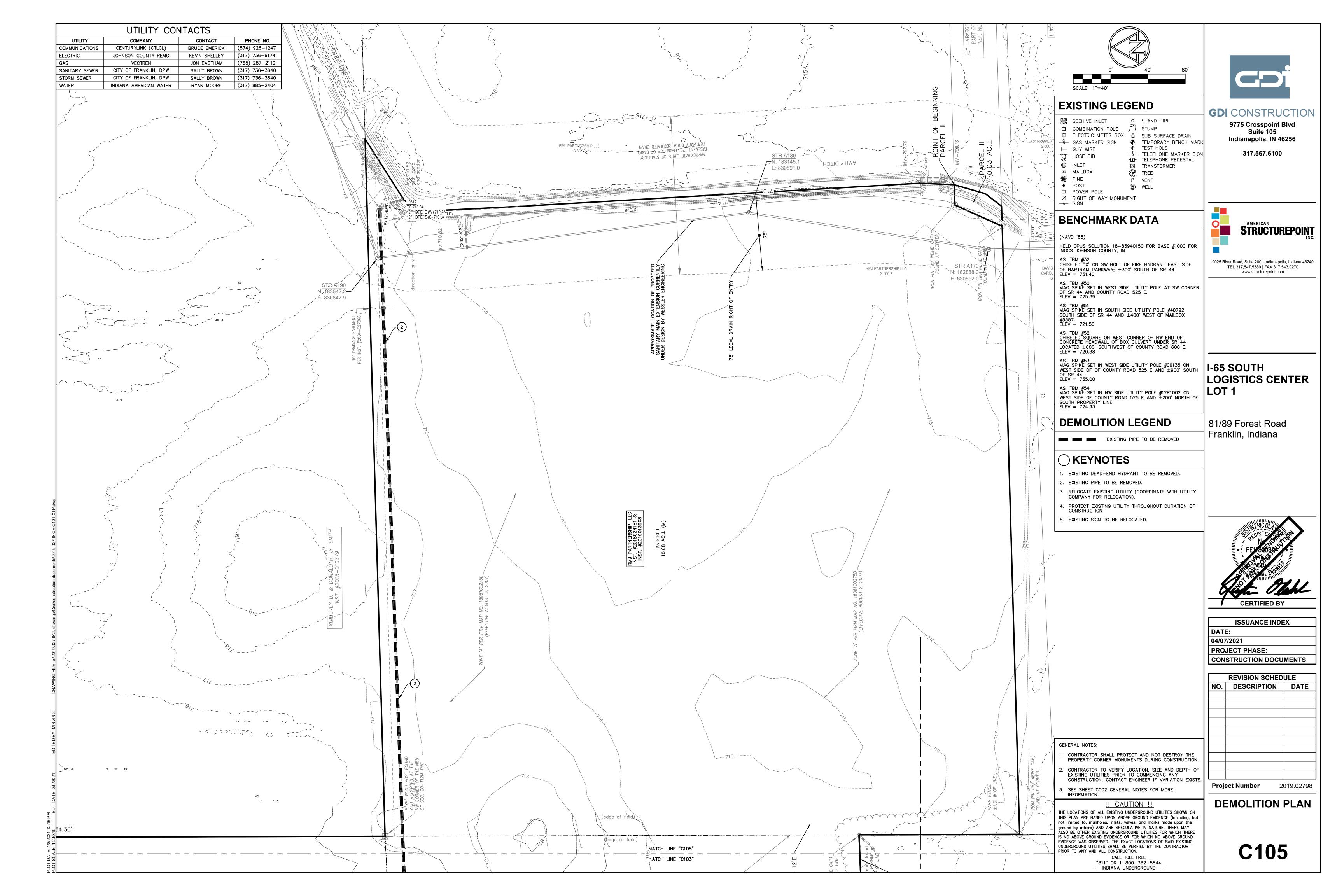


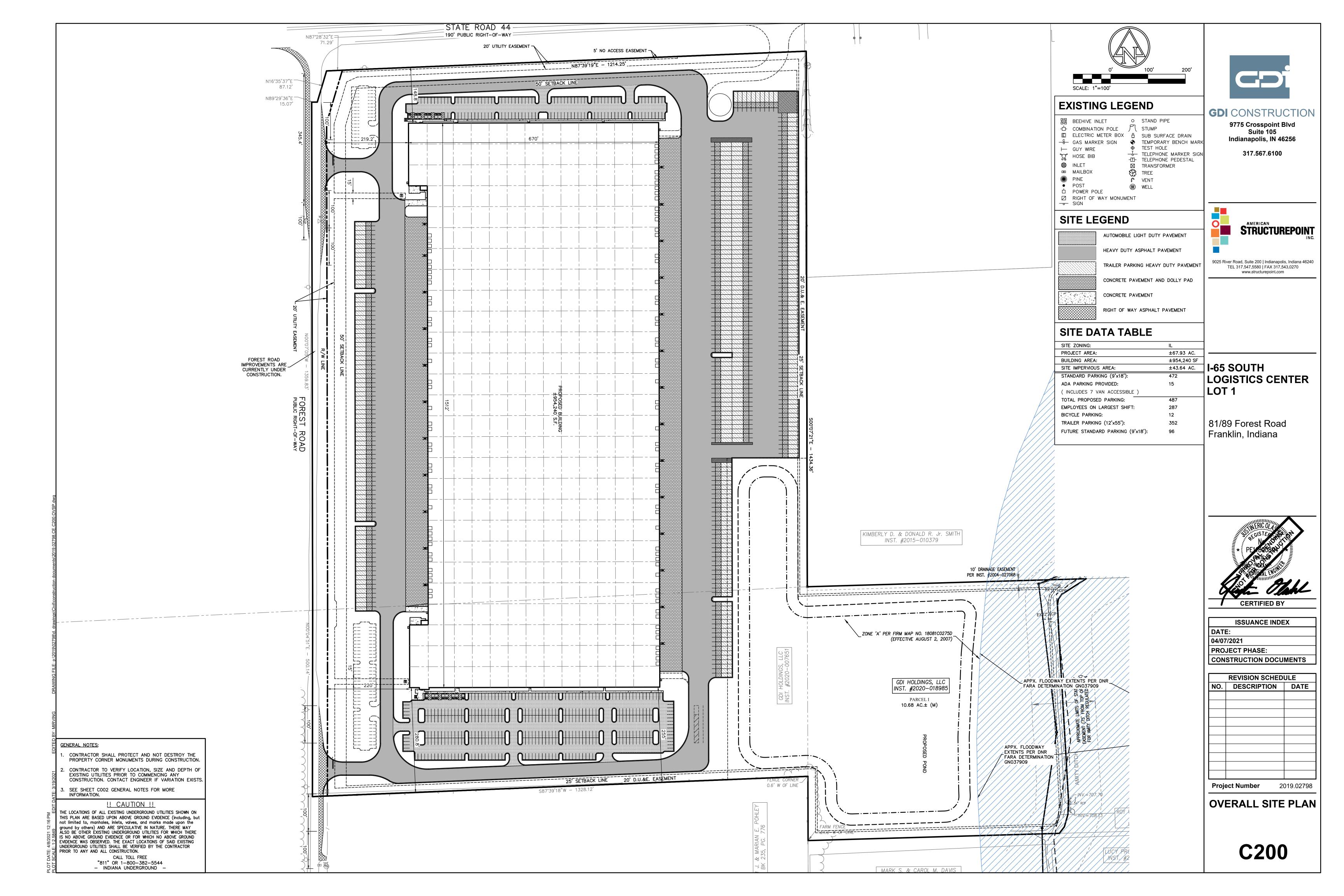


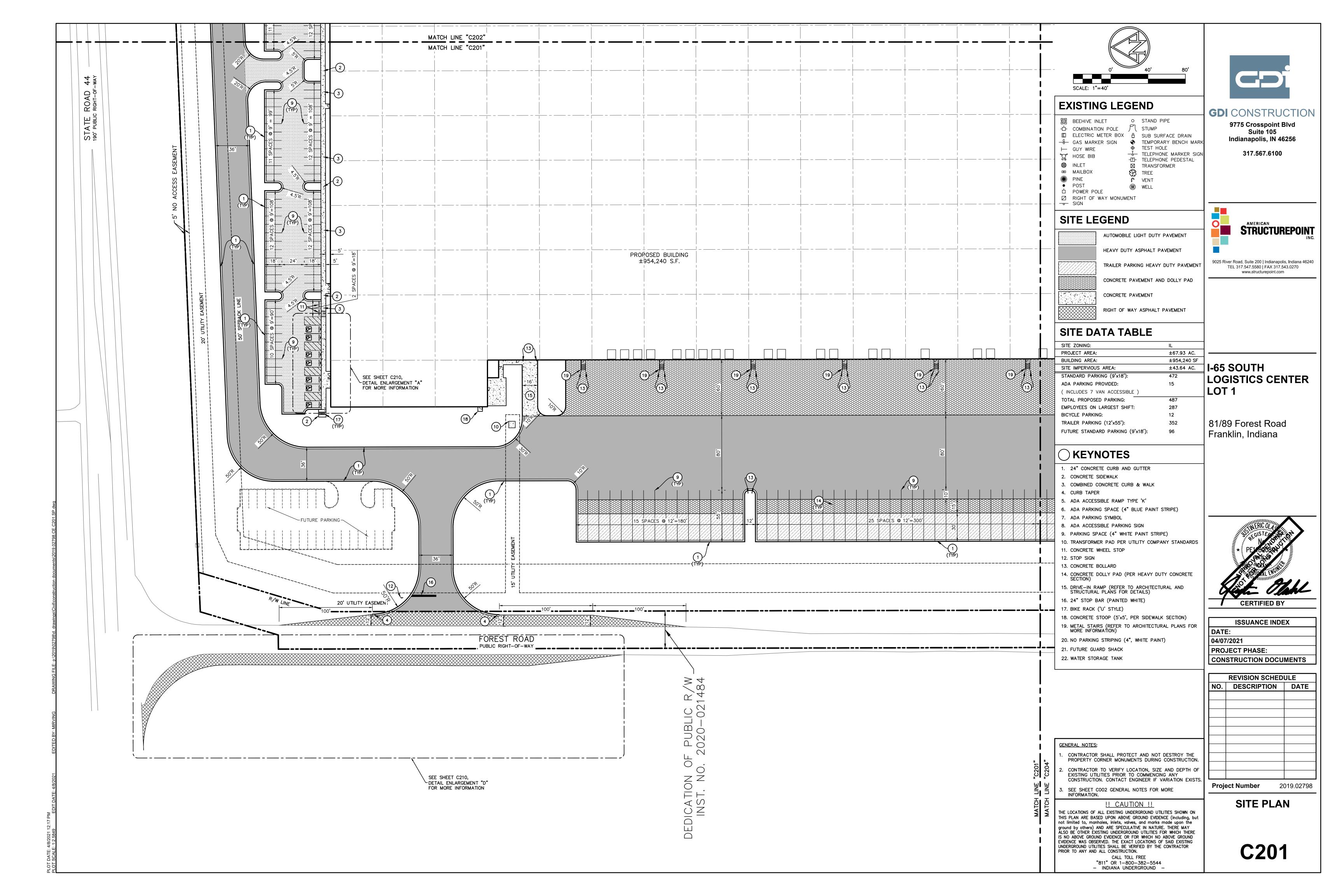


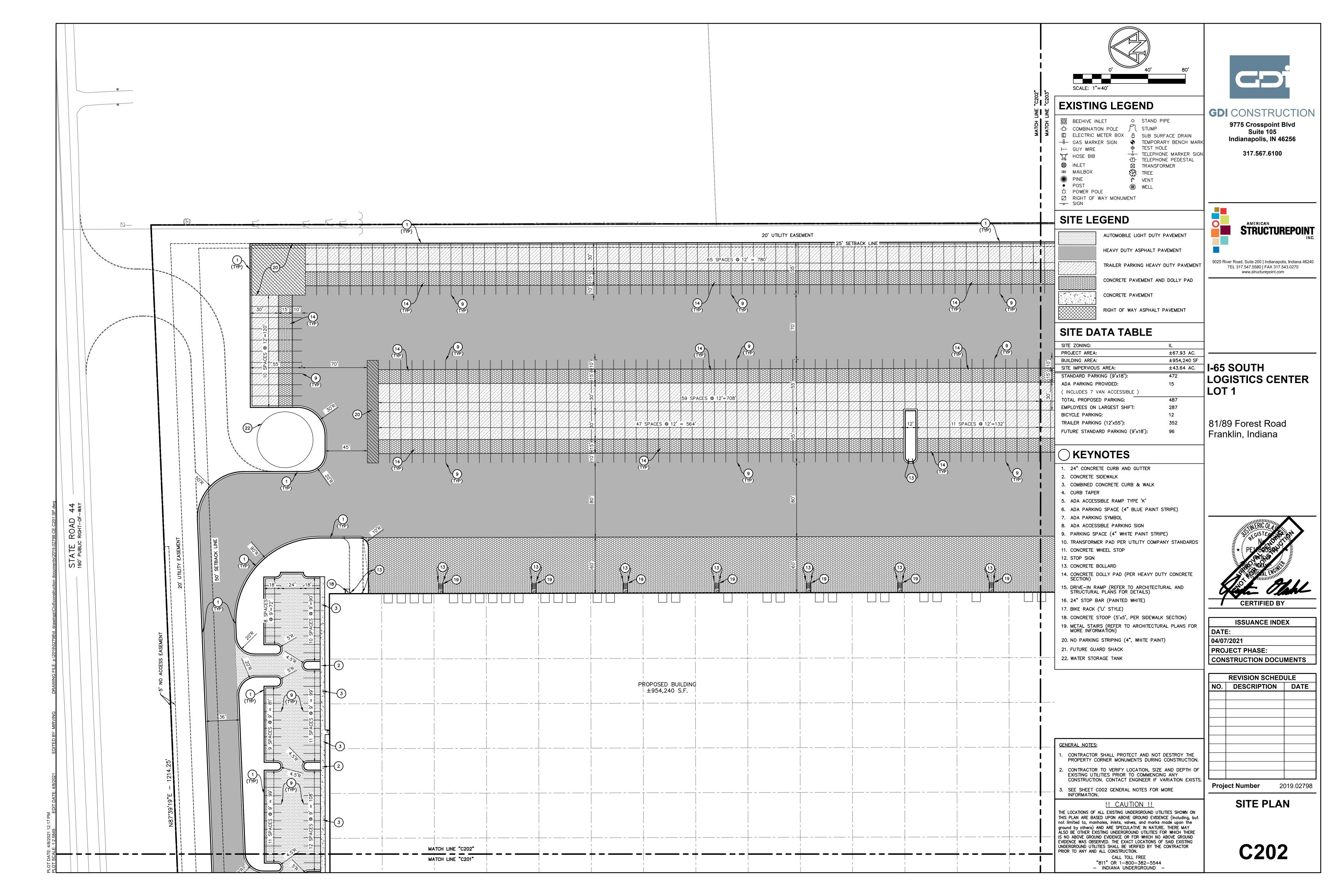


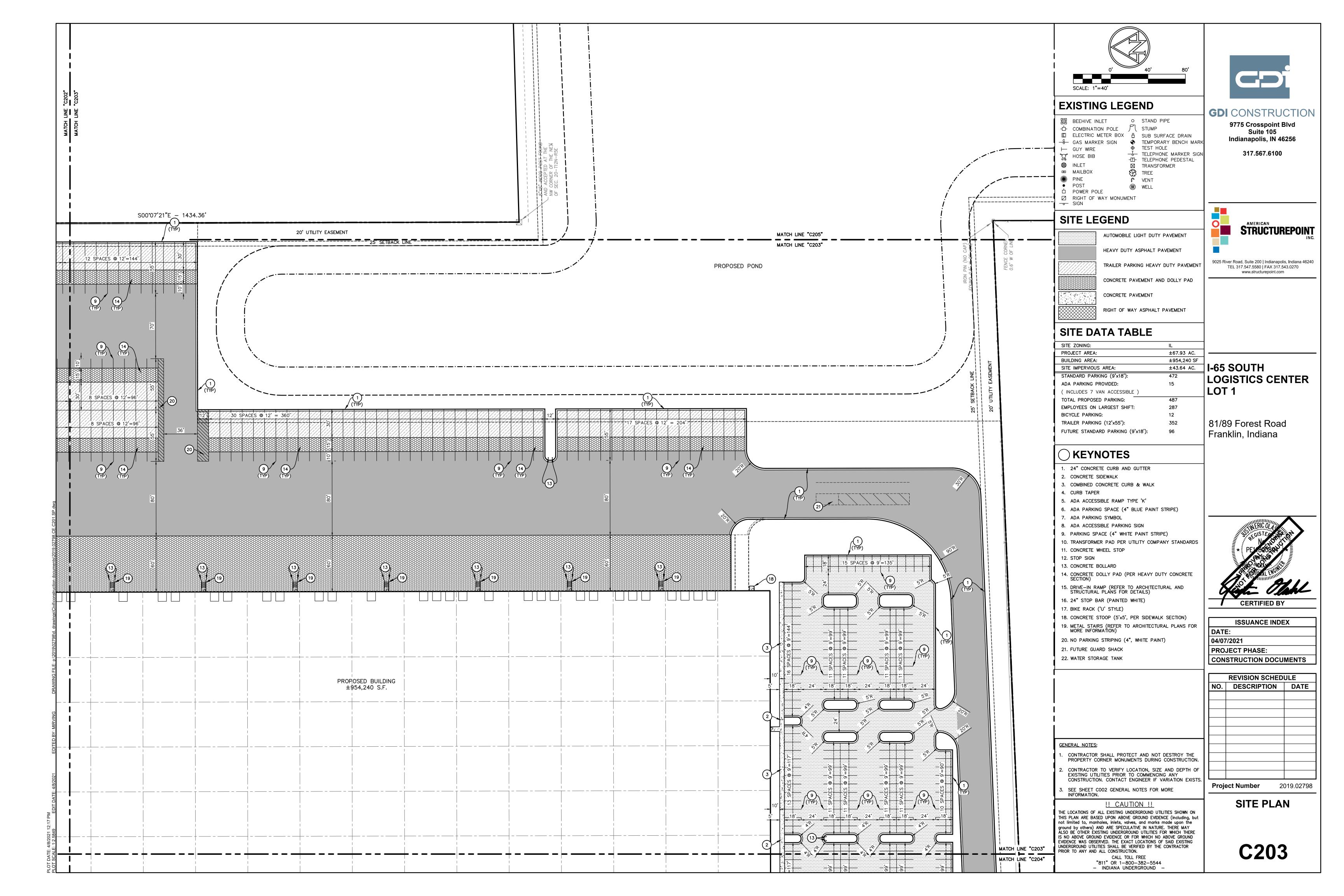


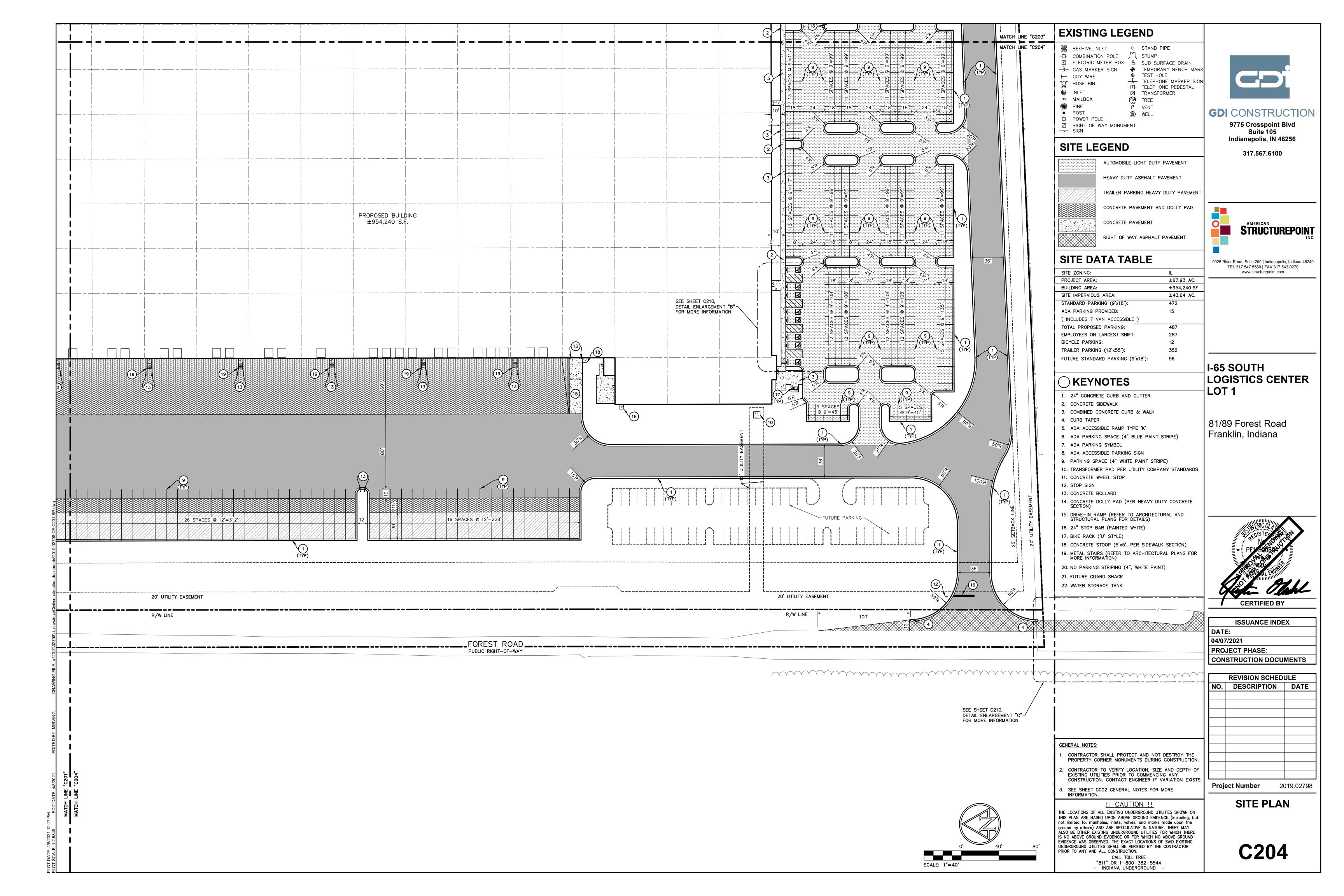


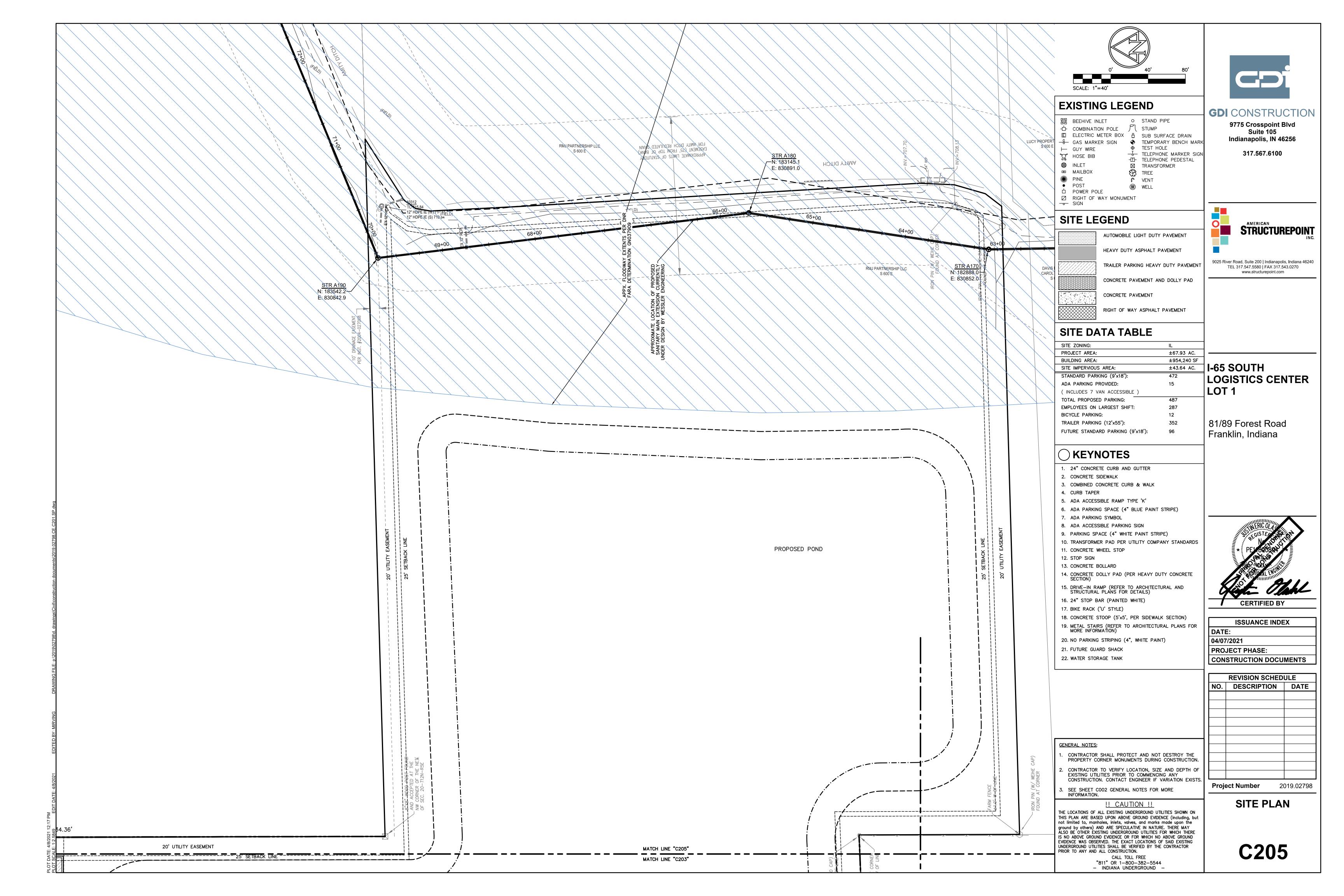


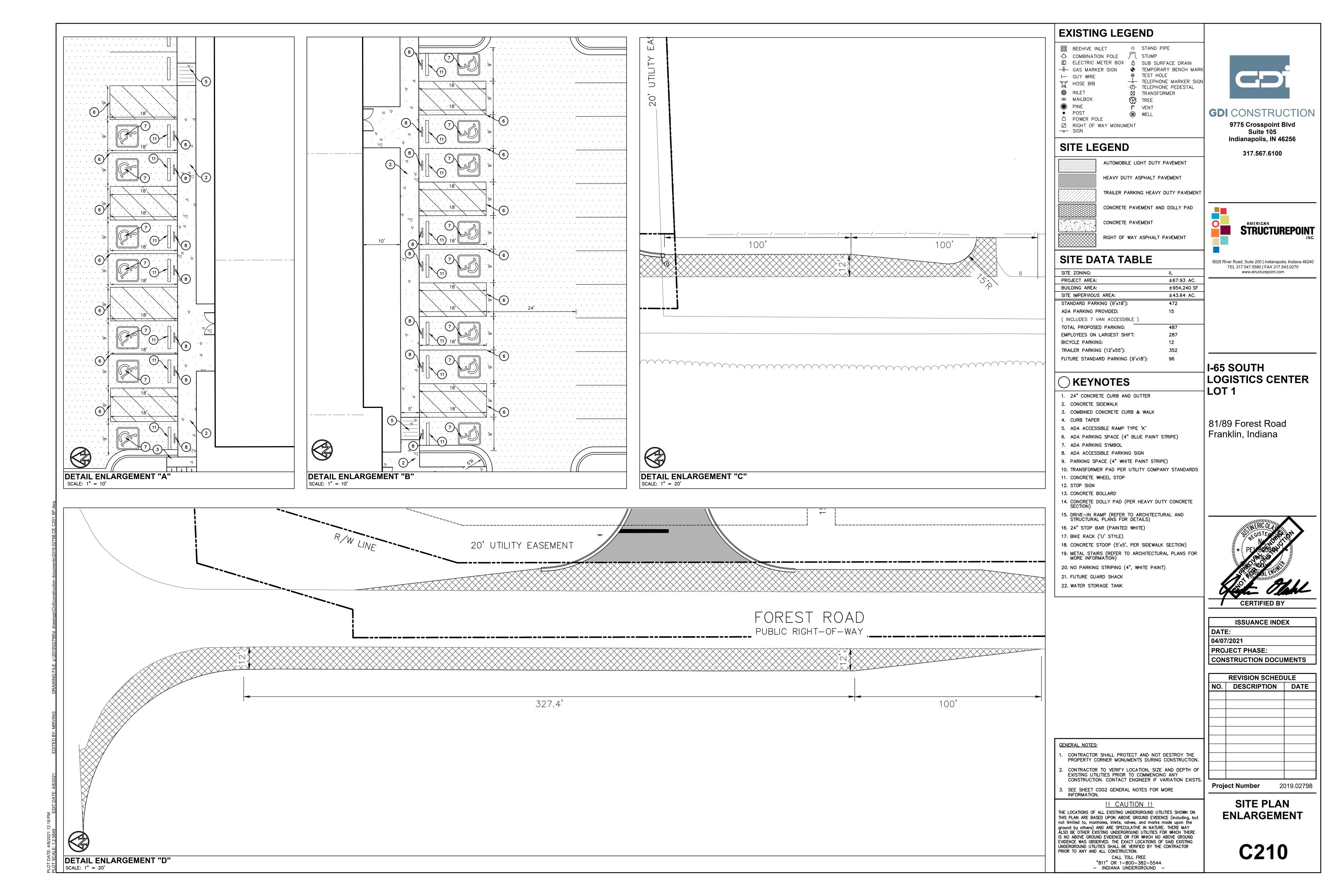


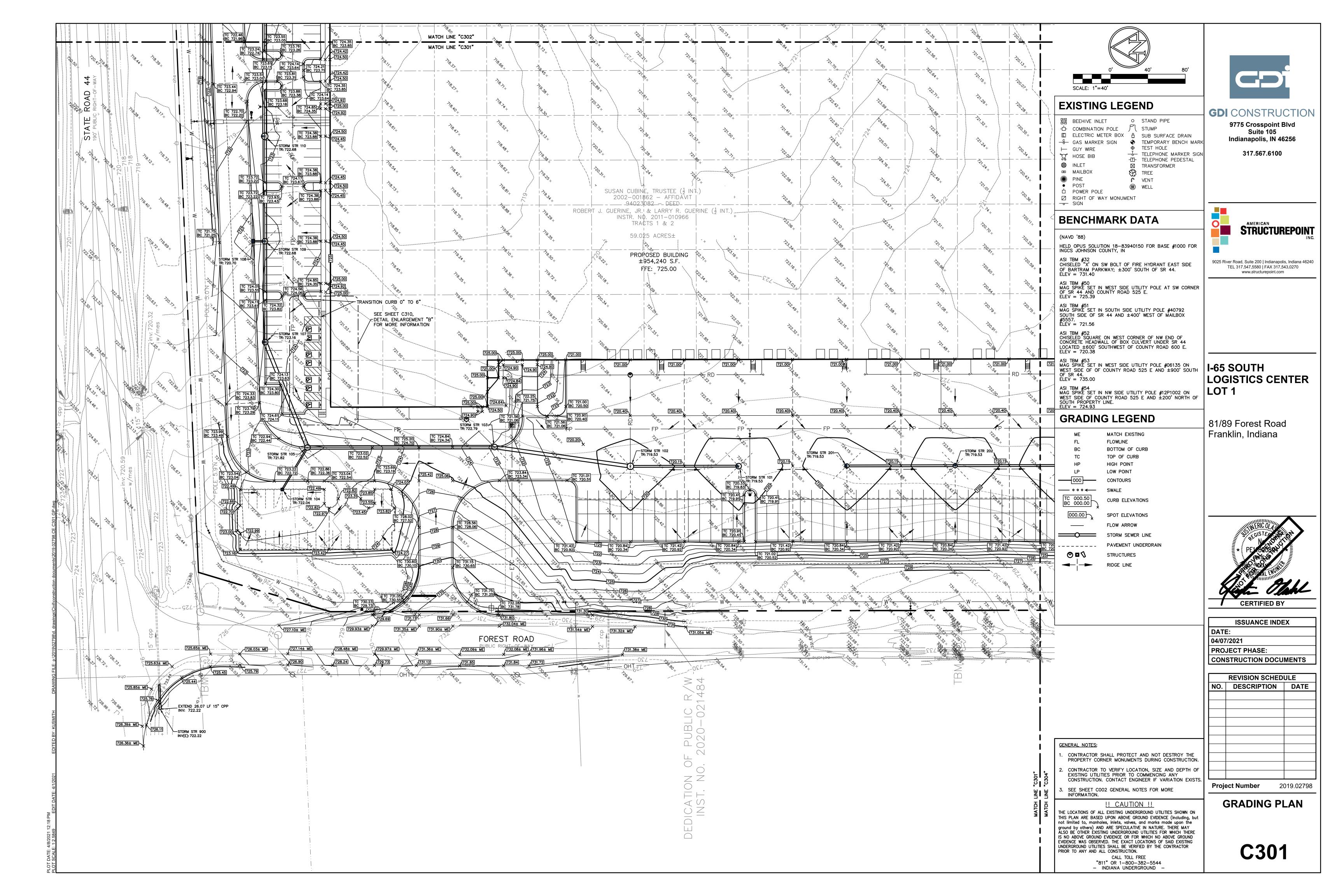


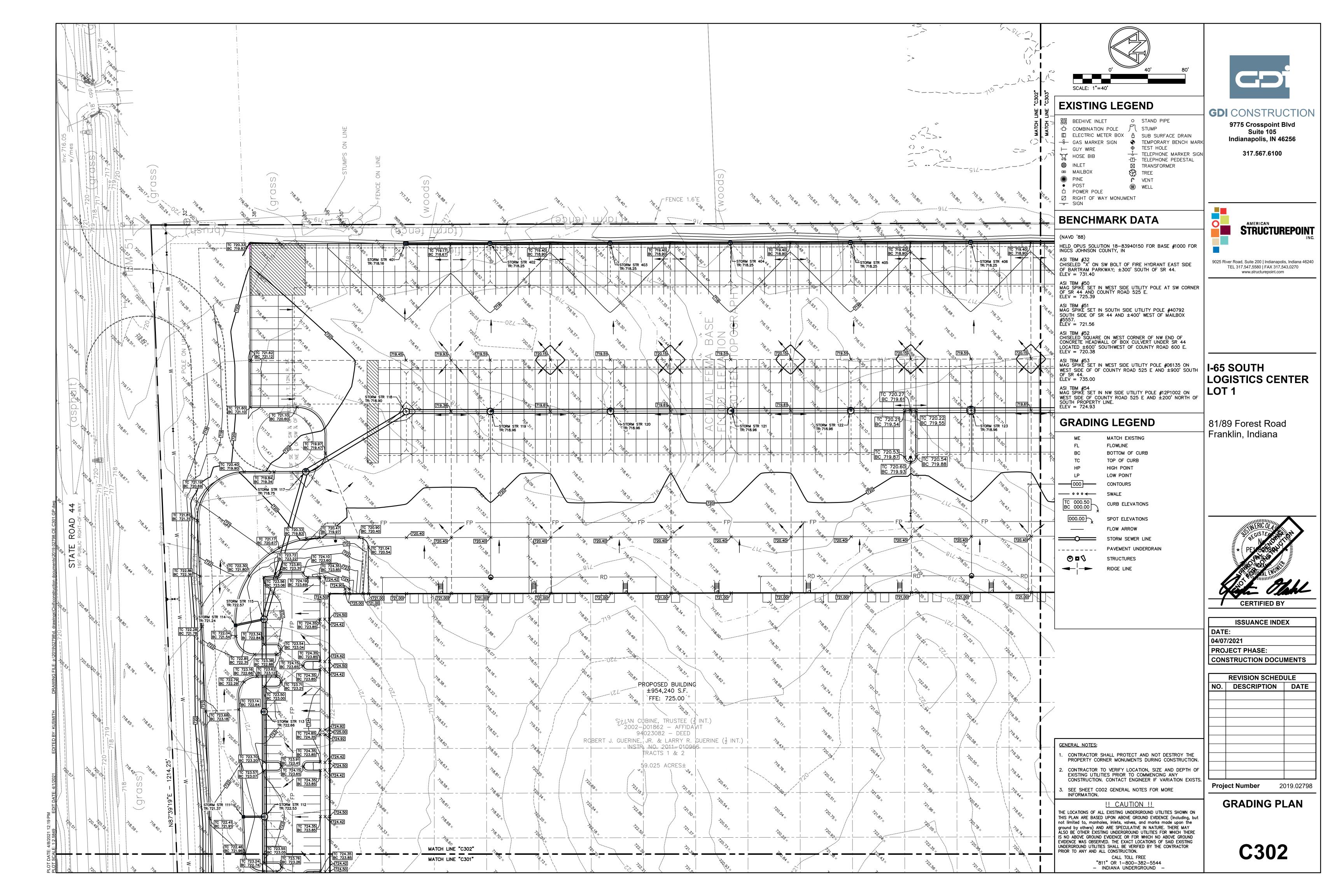


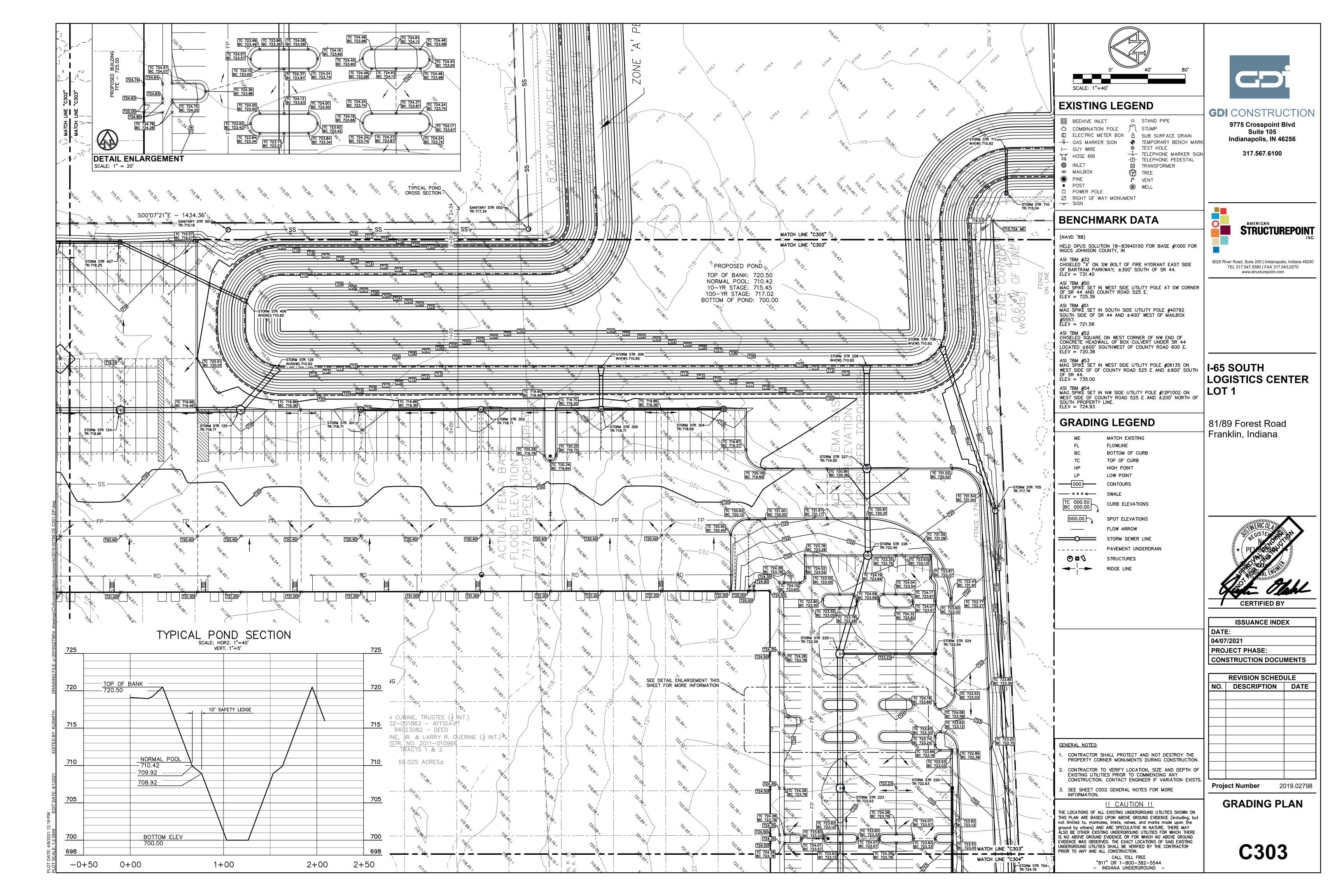


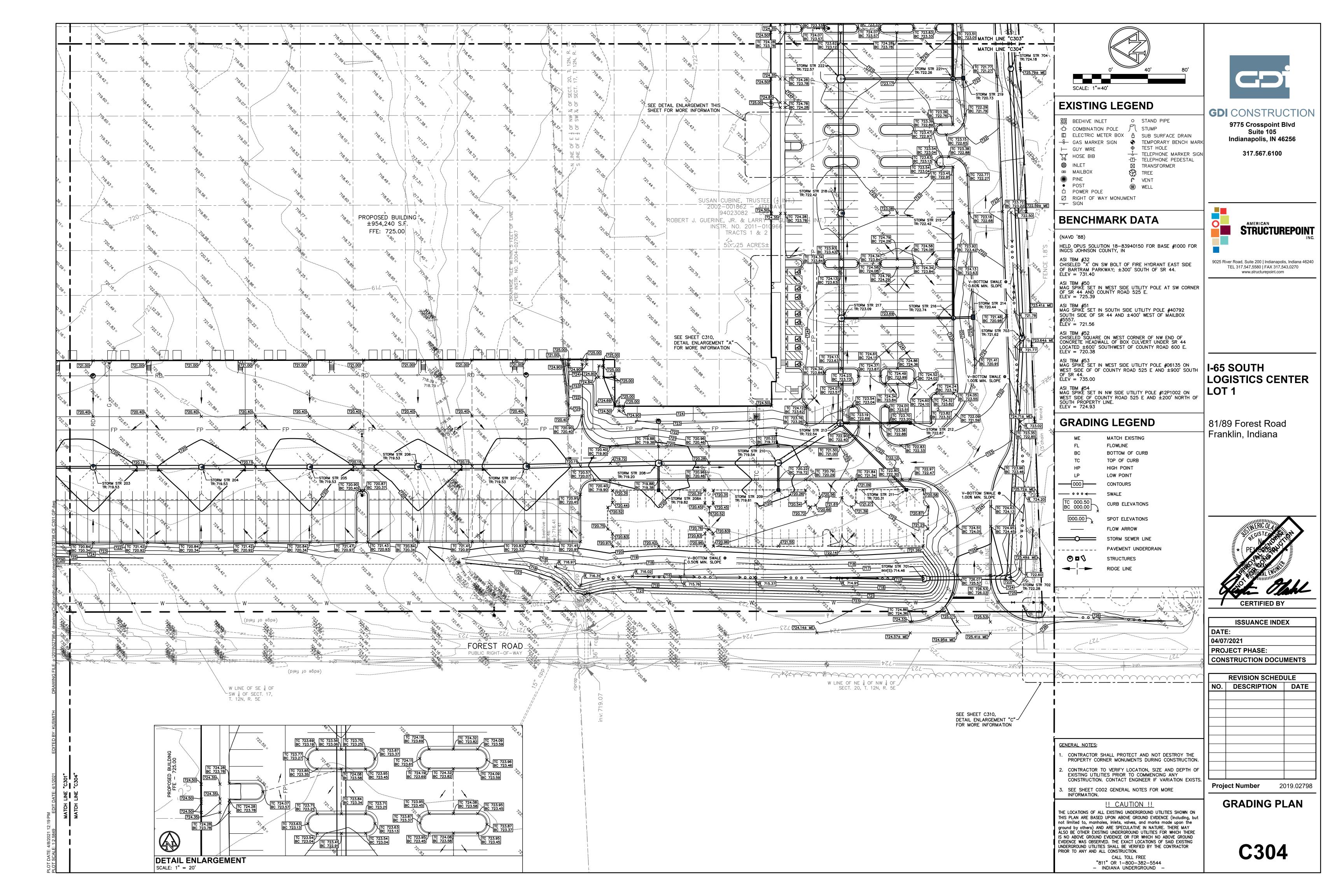


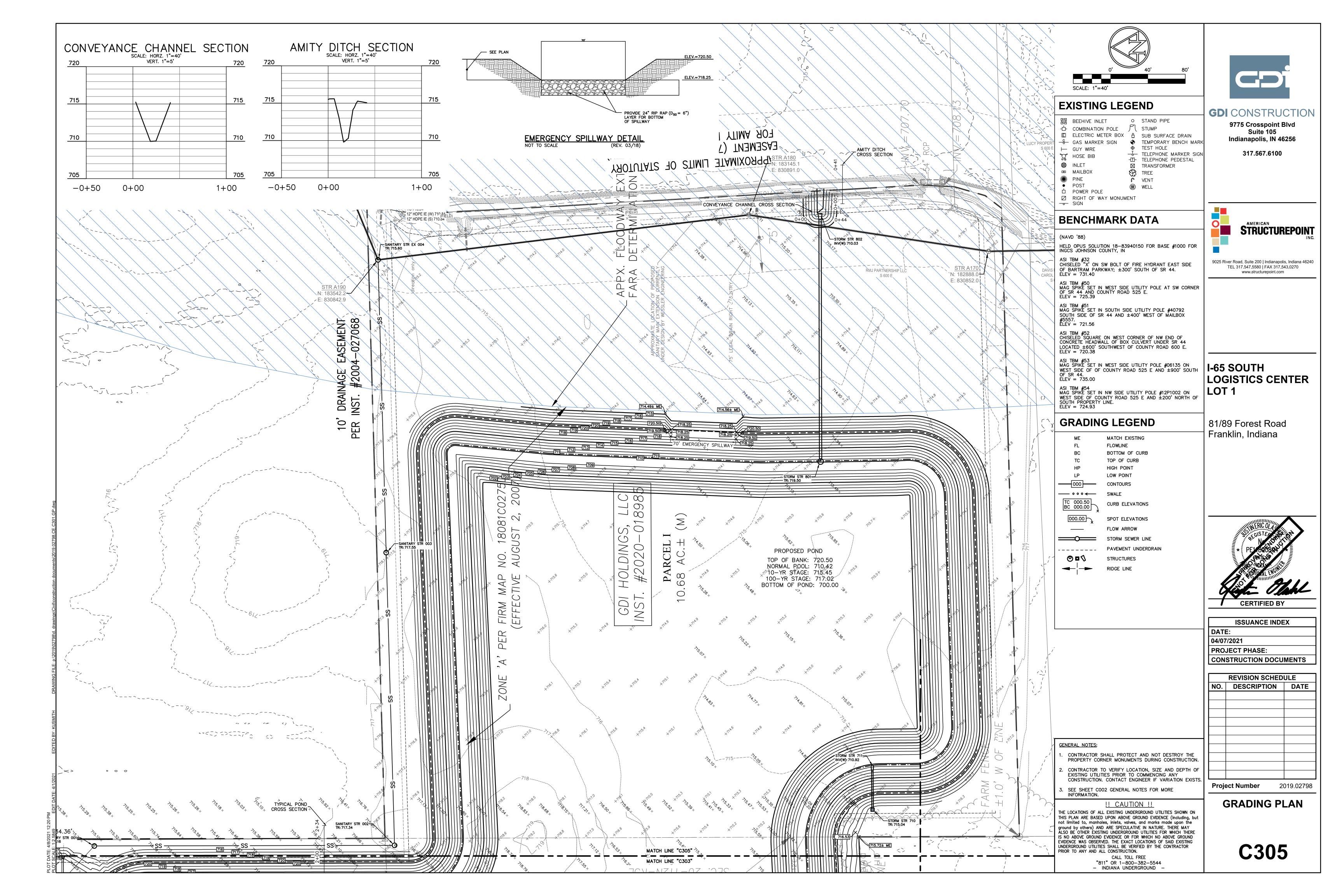


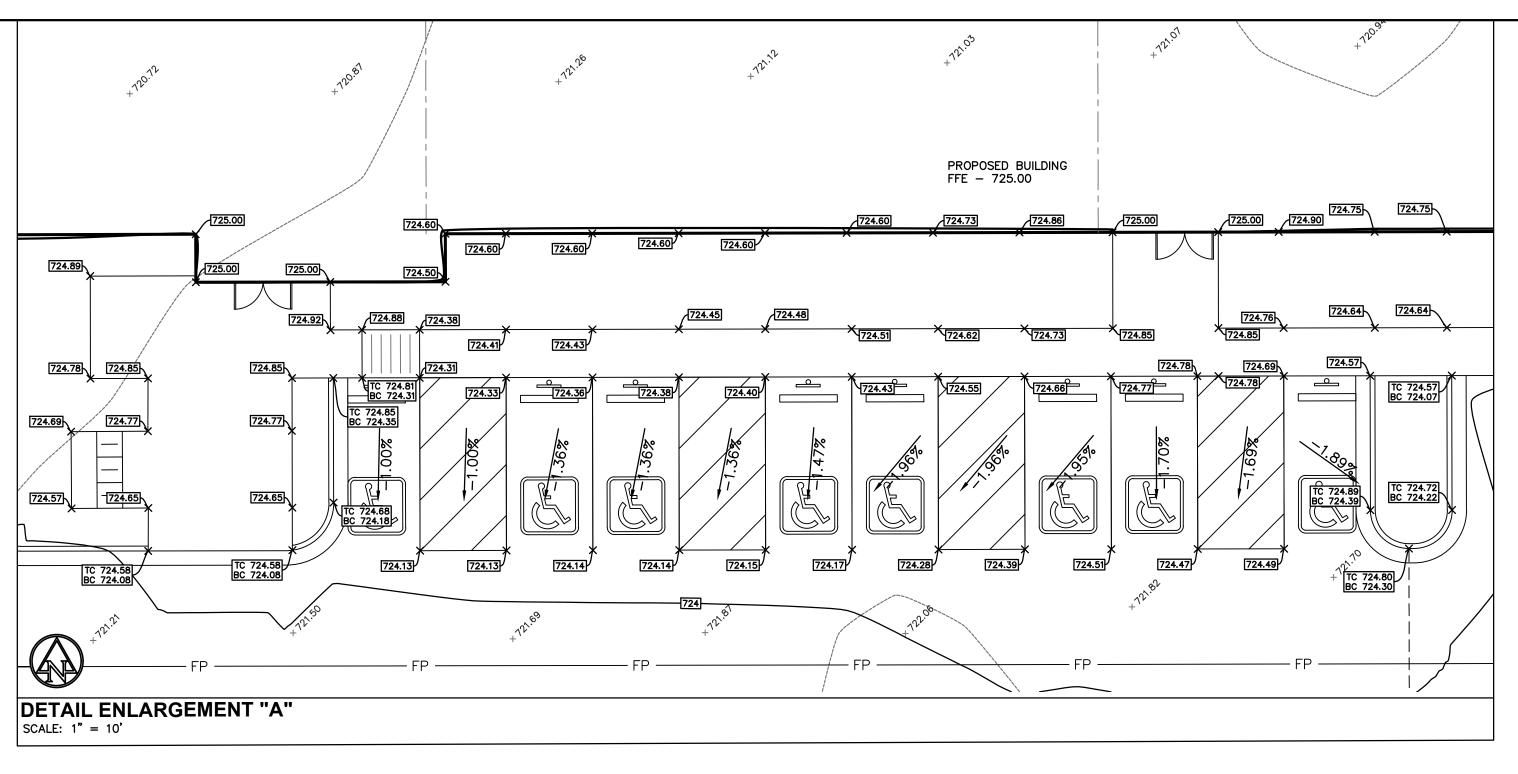


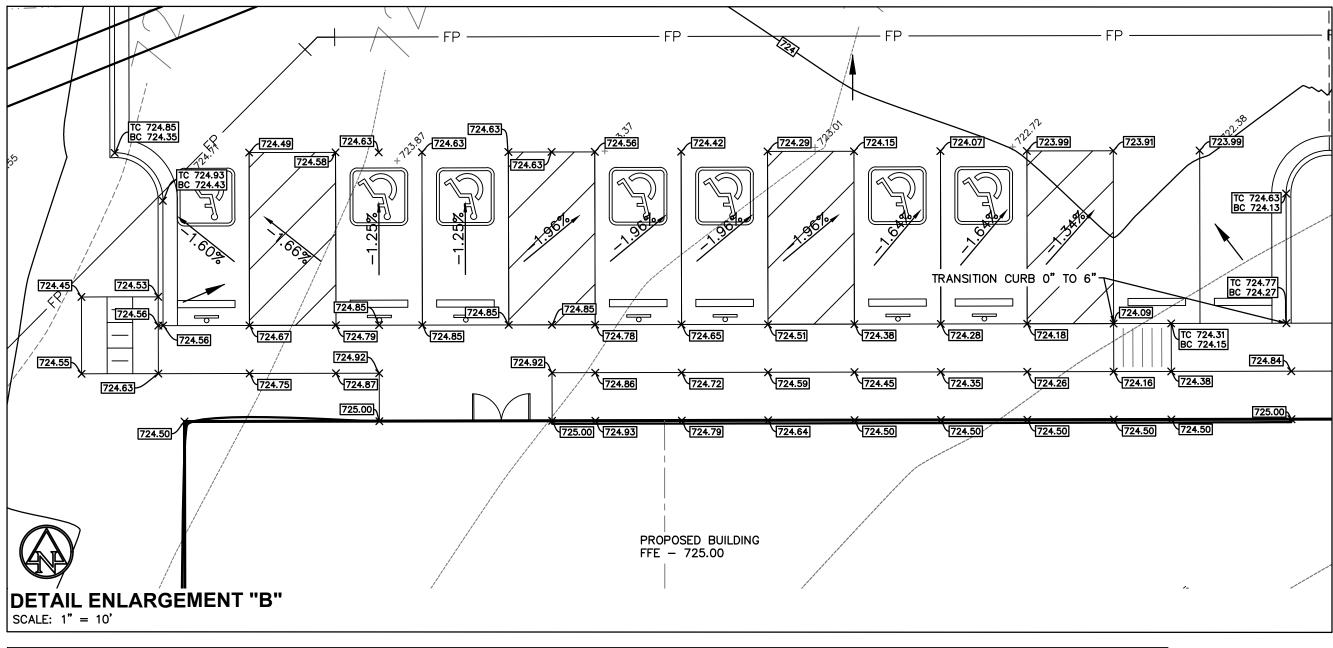


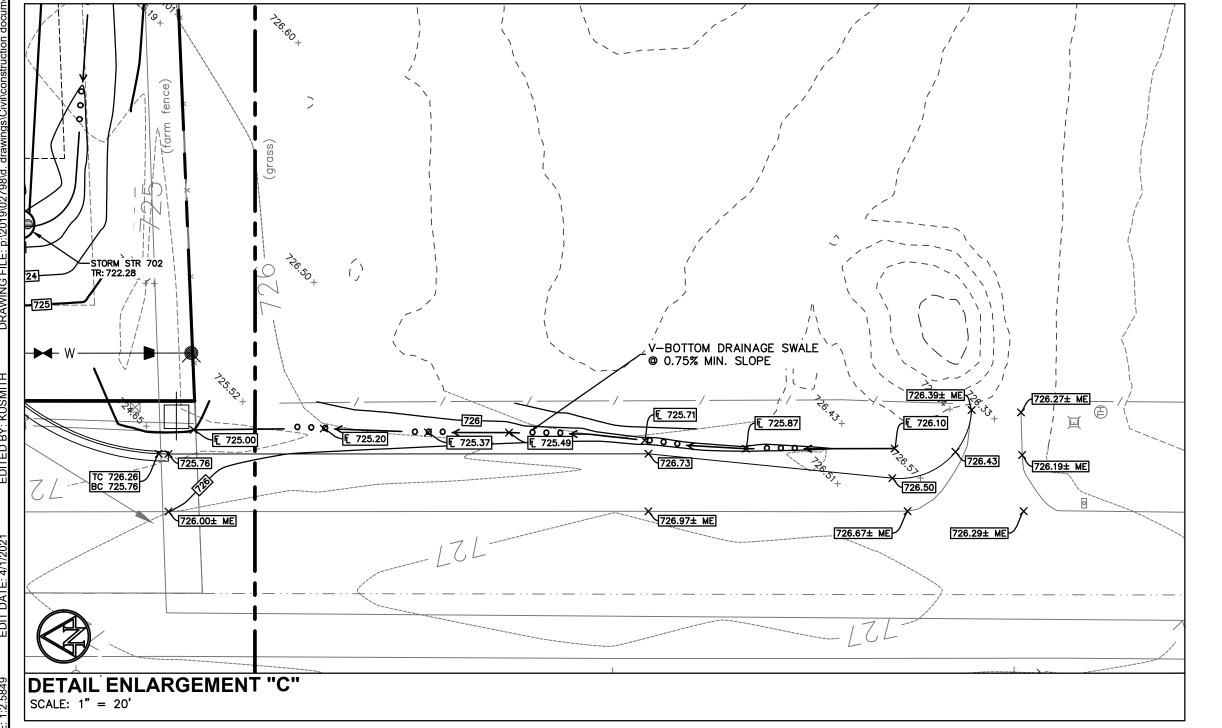












EXISTING LEGEND

BEEHIVE INLET

COMBINATION POLE

STUMP

ELECTRIC METER BOX

SUB SURFACE DRAIN

FEMPORARY BENCH MARK

GUY WIRE

FEST HOLE

TOTAL STUMP

HOSE BIB

HOSE BIB

INLET

MAILBOX

PINE

POST

TELEPHONE MARKER SIGN
TELEPHONE PEDESTAL

TRANSFORMER

VENT

WELL

PINE
POST
POWER POLE
RIGHT OF WAY MONUMENT
SIGN

BENCHMARK DATA

(NAVD '88)

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

ASI TBM #32
CHISELED "X' ON SW BOLT OF FIRE HYDRANT EAST SIDE
OF BARTRAM PARKWAY; ±300' SOUTH OF SR 44.
ELEV = 731.40

ASI TBM #50
MAG SPIKE SET IN WEST SIDE UTILITY POLE AT SW CORNER
OF SR 44 AND COUNTY ROAD 525 E.
ELEV = 725.39

ASI TBM #51
MAG SPIKE SET IN SOUTH SIDE UTILITY POLE #40792
SOUTH SIDE OF SR 44 AND ±400' WEST OF MAILBOX
#5557.
ELEV = 721.56

ASI TBM #52
CHISELED SQUARE ON WEST CORNER OF NW END OF
CONCRETE HEADWALL OF BOX CULVERT UNDER SR 44
LOCATED ±600' SOUTHWEST OF COUNTY ROAD 600 E.
ELEV = 720.38

ASI TBM #53
MAG SPIKE SET IN WEST SIDE UTILITY POLE #06135 ON
WEST SIDE OF OF COUNTY ROAD 525 E AND ±900' SOUTH
OF SR 44.
ELEV = 735.00

ASI TBM #54
MAG SPIKE SET IN NW SIDE UTILITY POLE #12P1002 ON
WEST SIDE OF COUNTY ROAD 525 E AND ±200' NORTH OF
SOUTH PROPERTY LINE.
ELEV = 724.93

GDi

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GRADING LEGEND

ME MATCH EXISTING
FL FLOWLINE
BC BOTTOM OF CURB
TC TOP OF CURB
HP HIGH POINT
LP LOW POINT
O00 CONTOURS

TC 000.50 BC 000.00 CURB ELEVATIONS

FLOW ARROW

STORM SEWER LINE

PAVEMENT UNDERDRAIN

STRUCTURES

SPOT ELEVATIONS

I-65 SOUTH LOGISTICS CENTER LOT 1

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX

DATE:
04/07/2021

PROJECT PHASE:
CONSTRUCTION DOCUMENTS

	REVISION SCHEDULE						
NO.	DESCRIPTION)N	DATE				
Project Number 2019.027			019.02798				

GENERAL NOTES:

 CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

2. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

SEE SHEET C002 GENERAL NOTES FOR MORE INFORMATION.

!! CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR

PRIOR TO ANY AND ALL CONSTRUCTION.

CALL TOLL FREE

"811" OR 1-800-382-5544

- INDIANA UNDERGROUND -

GRADING PLAN ENLARGEMENT

				STINGS SHALL BE LA INCOMING PIPE DATA	OUTGOING PIPE DATA	ı	OUTGOING	OUTGOING	CONNECT TO	
STR. NO.	STRUCTURE TYPE	CASTING TYPE		(DIRECTION) [FROM STR]	(DIRECTION) [TO STR]	PIPE L.F.	PIPE SIZE	GRADE (%)	STRUCT	REMARKS
101	TYPE "J" MH TYPE "K" MH	R-3455-C R-3257-C2	719.53 719.53	18" RCP 715.05 (S) [101]	18" RCP 715.29 (N) [102] 36" RCP 713.85 (N) [103]	116' 147'	18" 36"	0.20%	102	
103	TYPE "J" MH	R-3287-10V	722.79	36" RCP 713.71 (S) [102]	36" RCP 713.71 (N) [105]	200'	36"	0.15%	105	
104	TYPE "A" INLET	R-4342	722.04		12" RCP 717.92 (SE) [105]	53'	12"	0.40%	105	
105	TYPE "J" MH	R-3287-15	721.82	36" RCP 713.41 (S) [103] 12" RCP 717.71 (NW) [104]	36" RCP 713.41 (E) [107]	122'	36"	0.18%	107	
107	TYPE "J" MH	R-3010	723.16	36" RCP 713.19 (W) [105]	36" RCP 713.19 (E) [109]	108'	36"	0.19%	109	
108	TYPE "J" INLET	R-3287-SB10	720.70	36" RCP 712 99 (W) [107]	12" RCP 717.04 (S) [109]	13'	12"	0.35%	109	
109	TYPE "J" MH	R-3010	722.68	36" RCP 712.99 (W) [107] 12" RCP 716.99 (N) [108]	36" RCP 712.99 (E) [110]	112'	36 "	0.20%	110	
110	TYPE "K" MH TYPE "A" INLET	R-3010 R-3010	722.68 721.37	36" RCP 712.77 (W) [109]	42" RCP 712.77 (E) [112] 12" RCP 717.71 (S) [112]	141' 23'	42" 12"	0.10% 0.35%	112	
112	TYPE "K" MH	R-3010	722.53	42" RCP 712.63 (W) [110] 12" RCP 717.63 (N) [111]	42" RCP 712.63 (E) [113]	112'	42"	0.10%	113	
113	TYPE "K" MH	R-3010	722.66	12" RCP 717.63 (N) [111] 42" RCP 712.52 (W) [112]	42" RCP 712.52 (E) [115]	99'	42"	0.10%	115	
114	TYPE "A" INLET	R-3010	721.24		12" RCP 717.52 (S) [115]	31'	12"	0.35%	115	
115	TYPE "K" MH	R-3010	722.57	42" RCP 712.42 (W) [113] 12" RCP 717.42 (N) [114]	42" RCP 712.42 (E) [117]	164'	42"	0.10%	117	
117	TYPE "K" MH	R-3287-SB10	718.75	42" RCP 712.25 (W) [115]	42" RCP 712.25 (SE) [118]	125'	42"	0.11%	118	
118	TYPE "K" MH	R-3457-C2	718.90	42" RCP 712.12 (NW) [117]	42" RCP 712.12 (S) [119]	90'	42"	0.12%	119	
119	TYPE "K" MH	R-3455-C	718.96	42" RCP 712.01 (N) [118]	42" RCP 712.01 (S) [120]	129'	42"	0.21%	120	
120 121	TYPE "K" MH TYPE "K" MH	R-3455-C R-3455-C	718.96 718.96	42" RCP 711.75 (N) [119] 48" RCP 711.61 (N) [120]	48" RCP 711.75 (S) [121] 48" RCP 711.61 (S) [122]	129' 129'	48" 48"	0.11% 0.12%	121	
122	TYPE "K" MH	R-3455-C	718.96	48" RCP 711.45 (N) [121]	48" RCP 711.45 (S) [123]	129'	48"	0.13%	123	
123	TYPE "L" MH	R-3455-C	718.96	48" RCP 711.28 (N) [122]	54" RCP 711.28 (S) [124]	129'	54"	0.11%	124	
124	TYPE "L" MH	R-3457-C2	718.96	54" RCP 711.14 (N) [123]	54" RCP 711.14 (S) [125] 54" RCP 710.99 (SE) [126]	129'	54"	0.11%	125	
125 126	TYPE "L" MH 54" CONCRETE END SECTION	R-3287-15 -	718.71	54" RCP 710.99 (N) [124] 54" RCP 710.92 (NW) [125]	04 ROP /10.99 (SE) [126]	60'	54"	0.12%	126	DEBRIS GUARD REQUIRED
201	TYPE "C" MH	R-3455-C	719.53	(, , , , , , , , , , , , , , , , , , ,	18" RCP 715.31 (S) [202]	116'	18"	0.18%	202	
202	TYPE "C" MH	R-3455-C	719.53	18" RCP 715.10 (N) [201]	18" RCP 715.10 (S) [203]	116'	18"	0.40%	203	
203	TYPE "J" MH	R-3455-C R-3455-C	719.53 719.53	18" RCP 714.64 (N) [202] 36" RCP 713.72 (N) [203]	36" RCP 713.88 (S) [204] 36" RCP 713.72 (S) [205]	116' 116'	36" 36"	0.14% 0.17%	204	
204	TYPE J MH	R-3455-C	719.53	36" RCP 713.52 (N) [204]	36" RCP 713.52 (S) [206]	116'	36"	0.17%	205	
206	TYPE "K" MH	R-3455-C	719.53	36" RCP 713.28 (N) [205]	42" RCP 713.28 (S) [207]	116'	42"	0.11%	207	
207	TYPE "K" MH	R-3455-C	719.53	42" RCP 713.16 (N) [206]	42" RCP 713.16 (S) [208]	142'	42"	0.23%	208	
208	TYPE "K" MH	R-3472	719.20	42" RCP 712.83 (N) [207] 12" RCP 715.53 (W) [208A]	42" RCP 712.83 (S) [210]	128'	42"	0.31%	210	
208A	TYPE "A" INLET	R-4342	719.82		12" RCP 715.64 (E) [208]	29'	12"	0.35%	208	
209	TYPE "A" INLET	R-4342	719.61	42" PCD 712 44 (N) [208]	12" RCP 715.94 (E) [210]	29'	12"	0.35%	210	
210	TYPE "K" MH	R-3472	719.54	42" RCP 712.44 (N) [208] 12" RCP 715.84 (W) [209]	48" RCP 712.44 (SE) [213]	79'	48"	0.16%	213	
211	TYPE "A" INLET	R-4342	720.31		12" RCP 716.56 (NE) [213]	101'	12"	0.35%	213	
212	TYPE "A" INLET	R-3010	722.87	48" RCP 712.31 (NW) [210]	12" RCP 719.07 (N) [213]	75'	12"	0.35%	213	
213	TYPE "K" MH	R-3010	722.54	12" RCP 716.21 (SW) [211] 12" RCP 718.81 (S) [212]	48" RCP 712.31 (E) [217]	113'	48"	0.17%	217	
214	TYPE "B" INLET	R-3287-15	720.44		15" RCP 716.39 (N) [216]	21'	15"	0.25%	216	
215	TYPE "A" INLET	R-3010	722.42	15" RCP 716.34 (S) [214]	12" RCP 718.73 (W) [216]	112'	12"	0.35%	216	
216	TYPE "C" MH	R-3010	722.74	12" RCP 718.34 (E) [215]	15" RCP 716.34 (N) [217]	120'	15"	0.60%	217	
217	TYPE "K" MH	R-3472	723.09	48" RCP 712.12 (W) [213] 15" RCP 715.62 (S) [216]	48" RCP 712.12 (E) [218]	112'	48"	0.19%	218	
218	TYPE "K" MH	R-3455-C	722.42	48" RCP 711.91 (W) [217]	48" RCP 711.91 (E) [222]	144'	48"	0.20%	222	
219	TYPE "J" INLET TYPE "A" INLET	R-3287-SB10 R-3010	720.73 722.63		15" RCP 716.75 (N) [221] 12" RCP 718.85 (W) [221]	11' 108'	15 " 12"	0.25% 0.35%	221	
221	TYPE "C" MH	R-3010	722.03	15" RCP 716.72 (S) [219] 12" RCP 718.47 (E) [220]	15" RCP 716.72 (N) [222]	120'	15"	0.50%	222	
222	TYPE "L" MH	R-3472	722.57	48" RCP 711.62 (W) [218] 15" RCP 716.12 (S) [221]	54" RCP 711.62 (E) [223]	108'	54"	0.12%	223	
223	TYPE "L" MH TYPE "A" INLET	R-3455-C R-3010	722.63 722.54	54" RCP 711.49 (W) [222]	54" RCP 711.49 (E) [225] 12" RCP 718.67 (N) [225]	144' 102'	54 " 12"	0.12% 0.35%	225	
225			722.55	54" RCP 711.32 (W) [223] 12" RCP 718.32 (S) [224]	54" RCP 711.32 (E) [226]			0.12%	226	
225	TYPE "L" MH TYPE "L" MH	R-3472 R-3010	722.45	12" RCP 718.32 (S) [224] 54" RCP 711.18 (W) [225]	54" RCP 711.18 (E) [227]	110' 93'	54" 54"	0.12%	226	
227	TYPE "L" MH	R-3287-SB10	719.50	54" RCP 711.06 (W) [226]	54" RCP 711.06 (E) [228]	110'	54"	0.12%	228	
228	54" CONCRETE END SECTION	-		54" RCP 710.92 (W) [227]						DEBRIS GUARD REQUIRED
301	TYPE "J" MH	R-3287-15	718.71	45" BOD 74 77 60 7	15" RCP 715.05 (S) [302]	129'	15"	0.40%	302	
302 304	TYPE "J" MH TYPE "J" MH	R-3287-15 R-3287-15	718.71 718.69	15" RCP 714.53 (N) [301]	30" RCP 712.43 (S) [305] 15" RCP 715.02 (N) [305]	129' 131'	30" 15"	0.65% 0.40%	305 305	
305	TYPE "J" MH	R-3287-15	718.71	30" RCP 711.60 (N) [302]	36" RCP 711.10 (E) [306]	44'	36"	0.40%	306	
	36" CONCRETE END SECTION			15" RCP 714.50 (S) [304] 36" RCP 710.92 (W) [305]	(-) [500]					DEBRIS GUARD REQUIRED
401	TYPE "B" INLET	R-3287-15	718.16	- () [255]	15" RCP 714.27 (S) [402]	90'	15"	0.38%	402	
402	TYPE "C" MH	R-3287-SB10	718.25	15" RCP 713.93 (N) [401]	18" RCP 713.93 (S) [403]	129'	18"	0.31%	403	
403 404	TYPE "C" MH	R-3287-SB10	718.25 718.25	18" RCP 713.53 (N) [402] 18" RCP 712.78 (N) [403]	18" RCP 713.53 (S) [404] 24" RCP 712.78 (S) [405]	129'	18"	0.58%	404	
404	TYPE "C" MH	R-3287-SB10 R-3287-SB10	718.25 718.25	24" RCP 712.52 (N) [404]	24" RCP 712.78 (S) [405]	129' 129'	24" 24"	0.20%	405 406	
406	TYPE "C" MH	R-3287-SB10	718.25	24" RCP 712.16 (N) [405]	24" RCP 712.16 (S) [407]	129'	24"	0.37%	407	
407	TYPE "C" MH	R-3287-SB10	718.25		24" RCP 711.69 (SW) [408]	149'	24"	0.51%	408	
	24" CONCRETE END SECTION 36" CONCRETE END SECTION	-		24" RCP 710.92 (NE) [407]	36" RCP 714.46 (S) [702]	92'	36"	0.31%	702	DEBRIS GUARD REQUIRED DEBRIS GUARD REQUIRED
701	TYPE "J" MH	R-4342	722.28	36" RCP 714.18 (N) [701]	36" RCP 714.18 (E) [703]	257'	36"	0.31%	702	SESTIO SOUND INEWOINED
703	TYPE "J" MH	R-4342	721.62	36" RCP 713.44 (W) [702]	36" RCP 713.44 (E) [704]	289'	36"	0.29%	704	
704	TYPE "J" MH	R-4342	724.18	36" RCP 712.60 (W) [703]	36" RCP 712.60 (E) [705]	395'	36"	0.29%	705	
705 706	TYPE "J" MH 36" CONCRETE END SECTION	R-1772	717.76	36" RCP 711.46 (W) [704] 36" RCP 710.92 (W) [705]	36" RCP 711.46 (E) [706]	184'	36"	0.29%	706	DEBRIS GUARD REQUIRED
710	TYPE "E" INLET	R-4215-C	715.04	7.5.02 (11) [700]	15" RCP 711.62 (E) [711]	47'	15"	1.48%	711	CONNO NEGOTILE
711	15" CONCRETE END SECTION	-		15" RCP 710.92 (W) [710]						DEBRIS GUARD REQUIRED
801	TYPE "J" MH	R-4342	719.50	04" DOD 740 07 (110 50 17	24" RCP 710.42 (E) [802]	266'	24"	0.15%	802	OUTLET CONTROL STRUCTURE
802	24" CONCRETE END SECTION	-		24" RCP 710.03 (W) [801]	15" RCP 722.22 (E) []	26'	15"	0.42%		DEBRIS GUARD REQUIRED

15" RCP 722.22 (E) []

15**"**

DEBRIS GUARD REQUIRED

900 15" CONCRETE END SECTION

	STORM STRUCTURE DATA TABLE NOTE: ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE-DRAINS TO WATERWAY"									
STR. NO.	STRUCTURE TYPE	CASTING TYPE	TOP OF RIM	INCOMING PIPE DATA (DIRECTION) [FROM STR]	OUTGOING PIPE DATA (DIRECTION) [TO STR]	OUTGOING PIPE L.F.	OUTGOING PIPE SIZE	OUTGOING GRADE (%)	CONNECT TO STRUCT	REMARKS
001	48" SANITARY MH	SEE DETAIL	715.16		7" PVC SDR 26 701.74 (S) [002]	322'	7"	0.45%	002	SANITARY MANHOLE
002	48" SANITARY MH	SEE DETAIL	717.34	7" PVC SDR 26 700.29 (N) [001]	7" PVC SDR 26 700.19 (E) [003]	314'	7"	0.45%	003	SANITARY MANHOLE
003	48" SANITARY MH	SEE DETAIL	717.55	7" PVC SDR 26 698.78 (W) [002]	7" PVC SDR 26 698.68 (E) [EX 004]	314'	7"	0.45%	EX 004	SANITARY MANHOLE
EX 004	48" SANITARY MH	SEE DETAIL	715.60	7" PVC SDR 26 697.27 (W) [003]						SANITARY MANHOLE



GDI CONSTRUCTION

9775 Crosspoint Blvd

Suite 105

Indianapolis, IN 46256

317.567.6100

BEEHIVE INLET O STAND PIPE 古 COMBINATION POLE 凡 STUMP E ELECTRIC METER BOX A SUB SURFACE DRAIN — GAS MARKER SIGN → TEMPORARY BENCH MARK → TEST HOLE ├─ GUY WIRE TELEPHONE MARKER SIGN HOSE BIB -T- TELEPHONE PEDESTAL

₩ PINE POST □ POWER POLE

BENCHMARK DATA

(NAVD '88)

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

ASI TBM #32 CHISELED "X" ON SW BOLT OF FIRE HYDRANT EAST SIDE OF BARTRAM PARKWAY; ±300' SOUTH OF SR 44. ELEV = 731.40

ASI TBM #50 MAG SPIKE SET IN WEST SIDE UTILITY POLE AT SW CORNER OF SR 44 AND COUNTY ROAD 525 E. ELEV = 725.39

ASI TBM #51
MAG SPIKE SET IN SOUTH SIDE UTILITY POLE #40792
SOUTH SIDE OF SR 44 AND ±400' WEST OF MAILBOX
#5557.
ELEV = 721.56

ASI TBM #52
CHISELED SQUARE ON WEST CORNER OF NW END OF
CONCRETE HEADWALL OF BOX CULVERT UNDER SR 44
LOCATED ±600' SOUTHWEST OF COUNTY ROAD 600 E.
ELEV = 720.38

ASI TBM #53
MAG SPIKE SET IN WEST SIDE UTILITY POLE #06135 ON
WEST SIDE OF OF COUNTY ROAD 525 E AND ±900' SOUTH
OF SR 44.
ELEV = 735.00

ASI TBM #54
MAG SPIKE SET IN NW SIDE UTILITY POLE #12P1002 ON
WEST SIDE OF COUNTY ROAD 525 E AND ±200' NORTH OF
SOUTH PROPERTY LINE.
ELEV = 724.93

EXISTING LEGEND

■ MAILBOX स्ट्रिंडे TREE W WELL

AMERICAN **STRUCTUREPOINT**

9025 River Road, Suite 200 | Indianapolis, Indiana 46240 TEL 317 547 5580 | FAX 317 543 0270 www.structurepoint.com

I-65 SOUTH LOGISTICS CENTER

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX 04/07/2021 PROJECT PHASE: CONSTRUCTION DOCUMENTS

	REVISION SO	CHED	ULE
NO.	DESCRIPTI	ON	DATE
Proje	ect Number	2	019.02798

GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

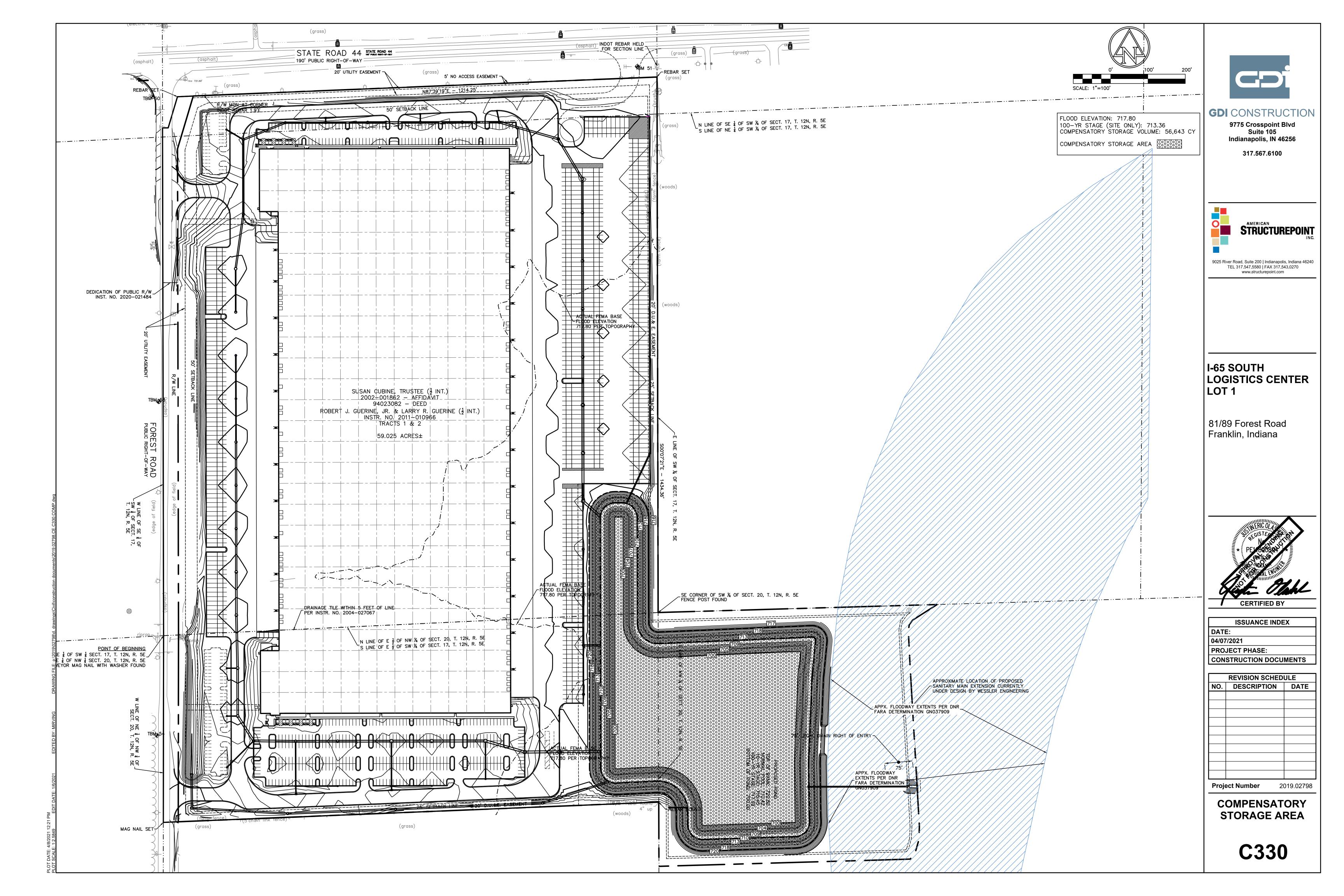
 CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

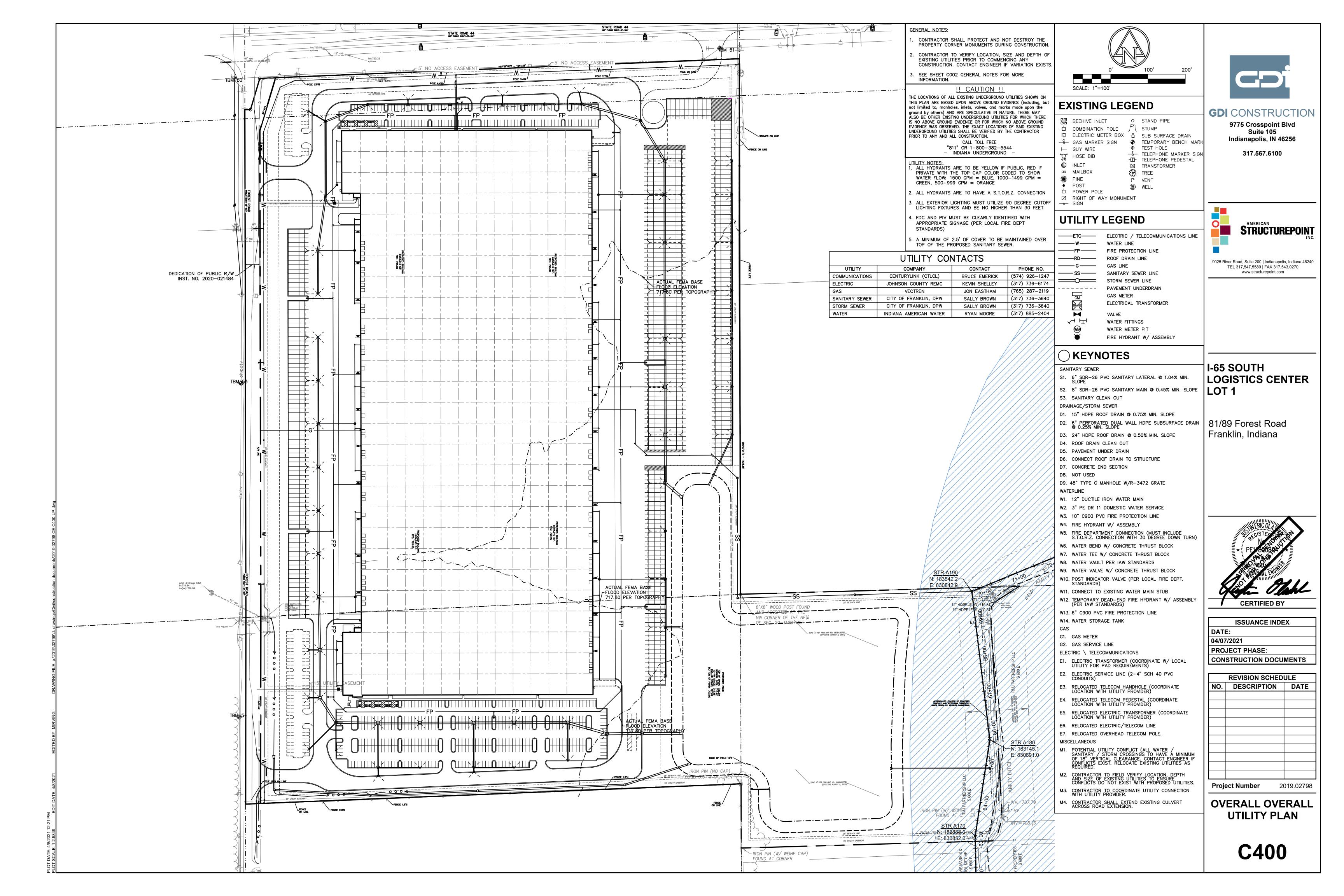
3. SEE SHEET CO02 GENERAL NOTES FOR MORE INFORMATION.

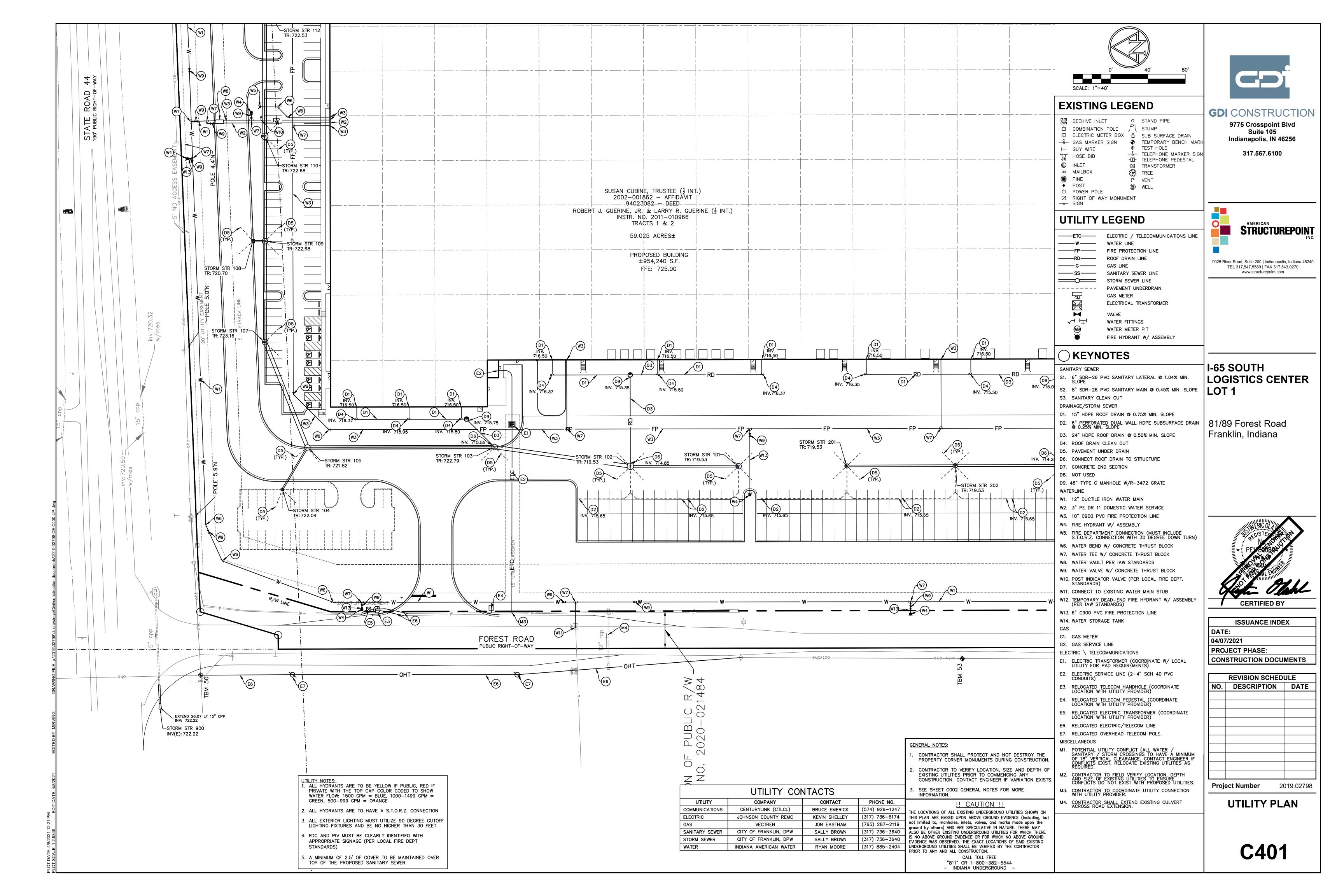
!! CAUTION !!

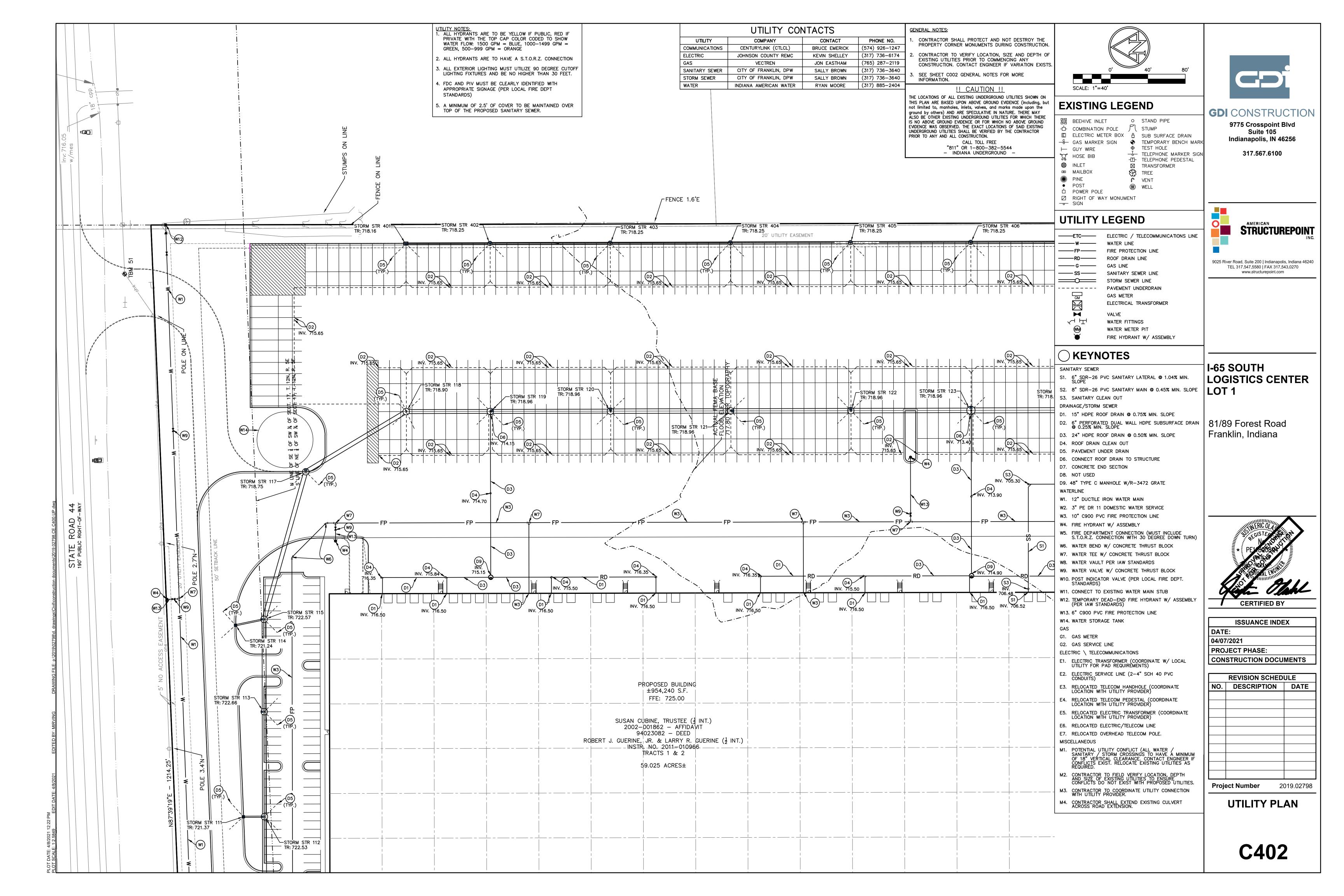
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

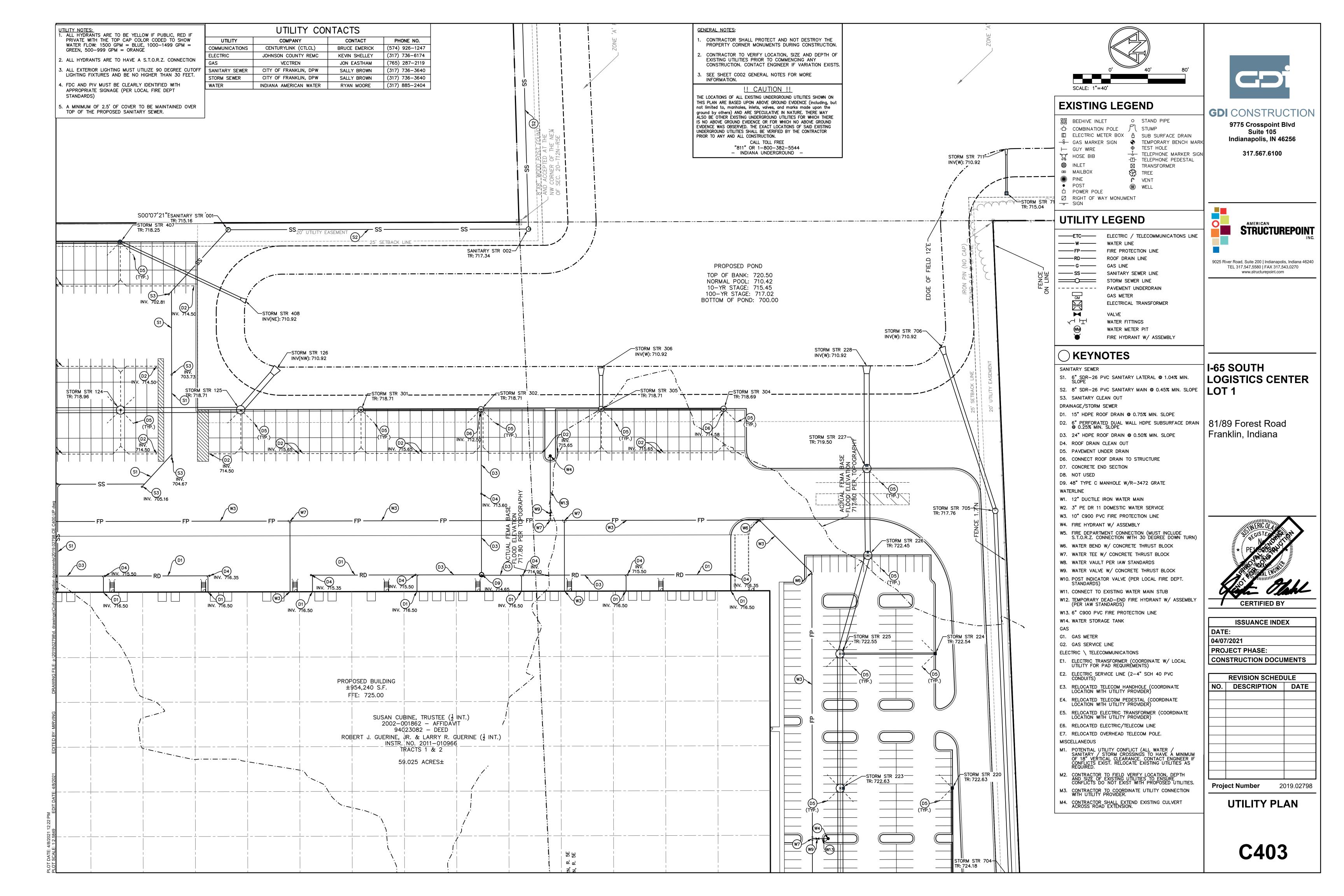
CALL TOLL FREE "811" OR 1-800-382-5544 INDIANA UNDERGROUND — **STORM & SANITARY** STRUCTURE DATA **TABLE**

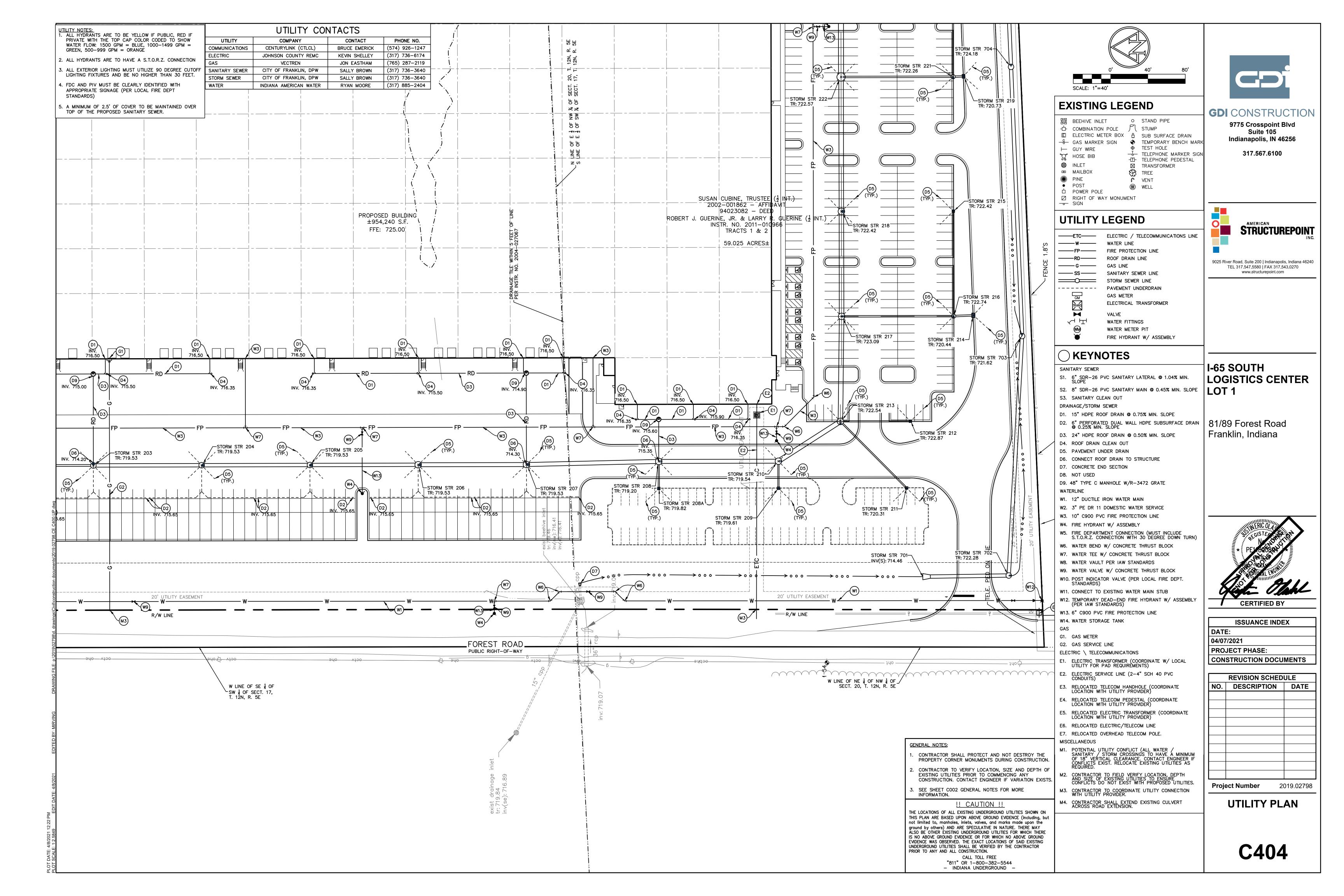


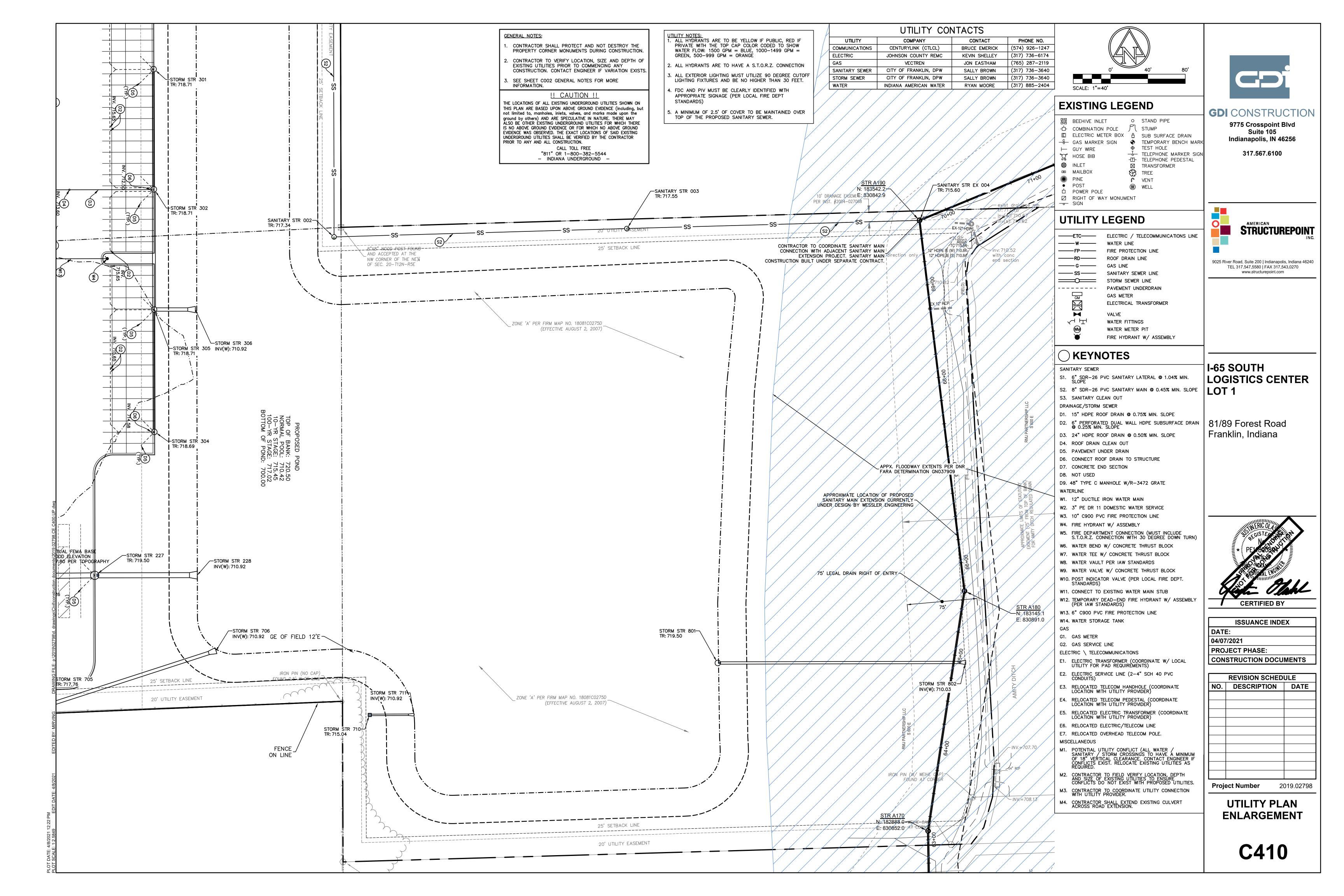


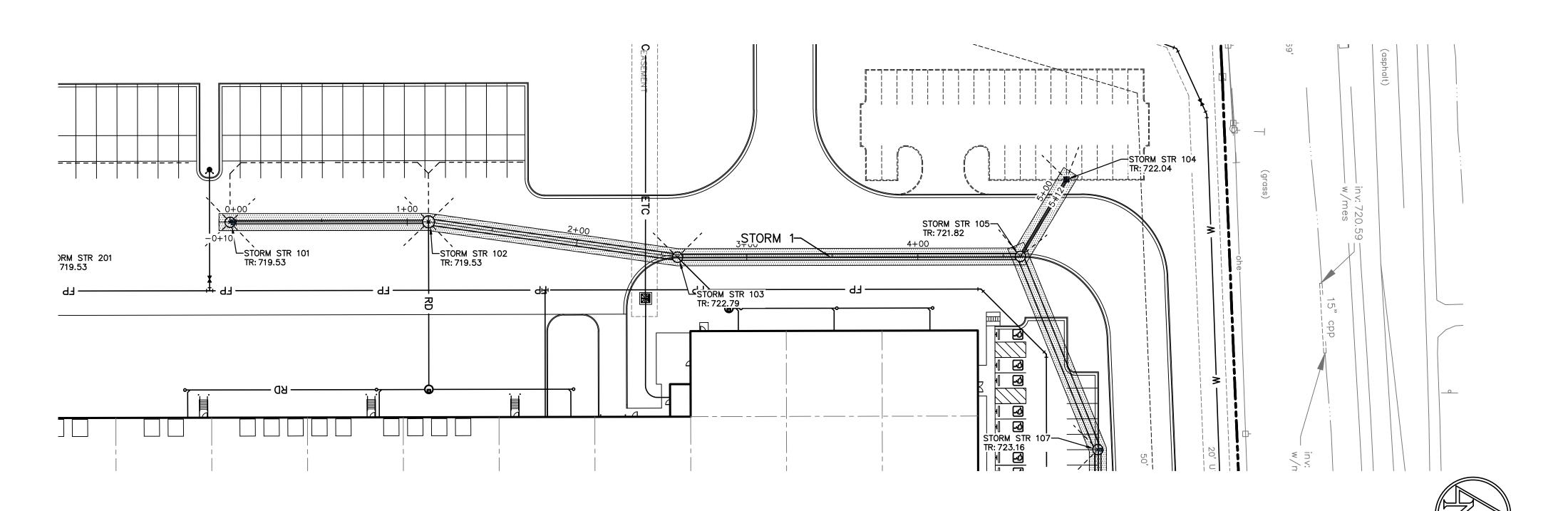












STORM 1 STORM STR .

TYPE "J" MH / .

STA: 4+60
TR: 721.82
INV(S): 713.41 (36" R
INV(E): 713.41 (36" R
INV(NW): 717.71 (12"
INV(NW): 717.71 (12 730 .f. — 8; 88 — GRADE_ 725 <u>-----</u> PROPOSED ⁼GRADE 720 720 715 715 710 710 116 LF OF 18" RCP @ 0.20% SLOPE 147 LF OF 36" RCP @ 0.10% SLOPE 200 LF OF 36" RCP @ 0.15% SLOPE 705 705 53 LF OF 12" RCP @ 0.40% SLOPE

3+00

2+00

EXISTING LEGEND

BEEHIVE INLET O STAND PIPE - COMBINATION POLE

↑ STUMP E ELECTRIC METER BOX A SUB SURFACE DRAIN

S GAS MARKER SIGN + TEMPORARY BENCH MARK ⊕ TEST HOLE ─ GUY WIRE -- TELEPHONE MARKER SIGN HOSE BIB -T- TELEPHONE PEDESTAL MAILBOX TREE

₩ PINE VENT • POST ☐ POWER POLE



BENCHMARK DATA

(NAVD '88)

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

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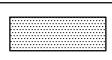
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MAG SPIKE SET IN SOUTH SIDE UTILITY POLE #40792
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CHISELED SQUARE ON WEST CORNER OF NW END OF
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MAG SPIKE SET IN WEST SIDE UTILITY POLE #06135 ON
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OF SR 44.
ELEV = 735.00

ASI TBM #54
MAG SPIKE SET IN NW SIDE UTILITY POLE #12P1002 ON
WEST SIDE OF COUNTY ROAD 525 E AND ±200' NORTH OF
SOUTH PROPERTY LINE.
ELEV = 724.93

- 1. ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE -DRAINS TO WATERWAY"
- 2. MANNINGS COEFFICIENT n = 0.012
- 3. THE GRANULAR BACKFILL AREAS SHOWN IN PLAN VIEW ARE AN ESTIMATE PROVIDED BY THE ENGINEER. EXACT LIMITS OF GRANULAR BACKFILL ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR BASED ON TRENCH WIDTH AND AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.



SCALE: HORZ. 1"=40'

VERT. 1"=5'

GRANULAR BACKFILL REQUIRED



GDI CONSTRUCTION

Suite 105 Indianapolis, IN 46256

317.567.6100

9775 Crosspoint Blvd



9025 River Road, Suite 200 | Indianapolis, Indiana 46240 TEL 317 547 5580 | FAX 317 543 0270

www.structurepoint.com

I-65 SOUTH **LOGISTICS CENTER**

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX DATE: 04/07/2021 PROJECT PHASE: CONSTRUCTION DOCUMENTS

	REVISION SCI	HED	ULE	
NO.	DESCRIPTION	N	DATE	
Project Number 2019.0279			019.02798	

GENERAL NOTES:

. CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

3. SEE SHEET COO2 GENERAL NOTES FOR MORE

INFORMATION. !! CAUTION !!

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STORM SEWER PLAN **AND PROFILE**

C420

UTILITY CONTACTS COMPANY CONTACT PHONE NO. CENTURYLINK (CTLCL) (574) 926-1247 BRUCE EMERICK JOHNSON COUNTY REMC (317) 736-6174 KEVIN SHELLEY JON EASTHAM (765) 287-2119 VECTREN

RYAN MOORE (317) 885-2404

COMMUNICATIONS **ELECTRIC** GAS SANITARY SEWER CITY OF FRANKLIN, DPW (317) 736-3640 SALLY BROWN STORM SEWER CITY OF FRANKLIN, DPW SALLY BROWN (317) 736-3640

INDIANA AMERICAN WATER

700

UTILITY

WATER

5+50

5+00

4+00

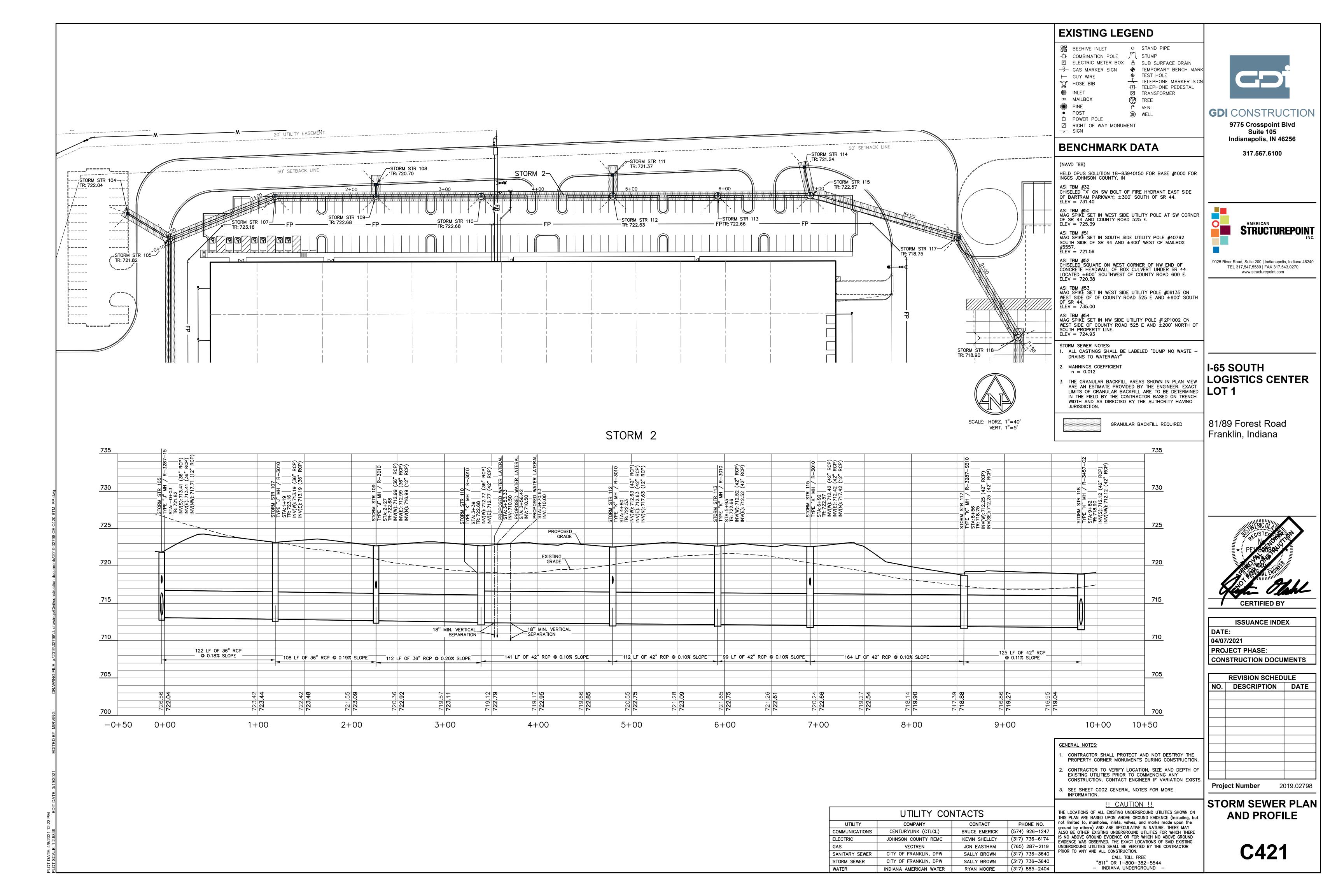
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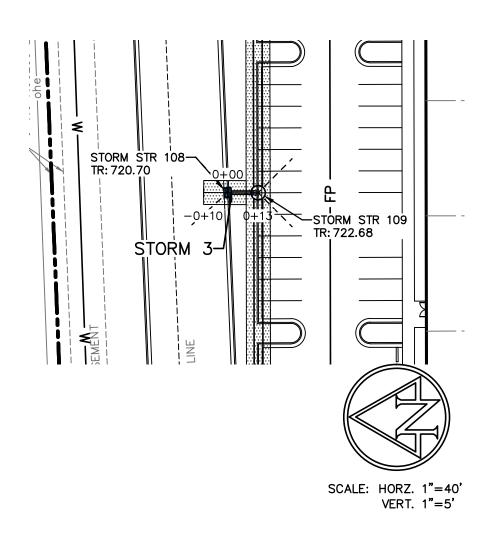
-0+50

0+00

1+00

CALL TOLL FREE "811" OR 1-800-382-5544 INDIANA UNDERGROUND —





STORM 3

EXISTING GRADE

0+00

13 LF OF 12" RCP © 0.35% SLOPE —

730

725

720

715

710

705

700

-0+50

PROPOSED_

735

730

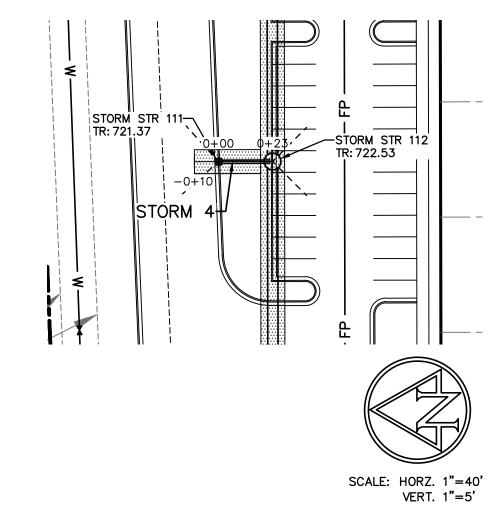
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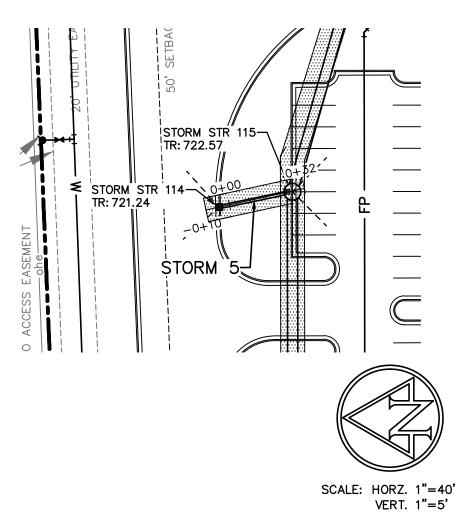
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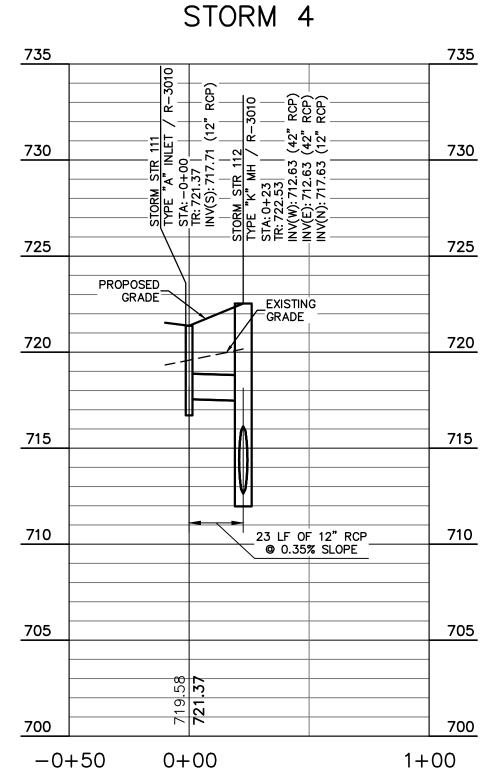
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700

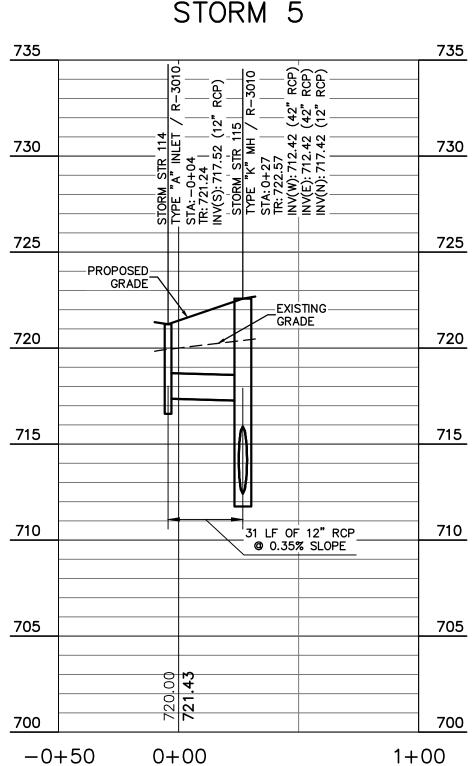
1+00











UTILITY CONTACTS UTILITY COMPANY CONTACT PHONE NO. CENTURYLINK (CTLCL) (574) 926-1247 COMMUNICATIONS BRUCE EMERICK **ELECTRIC** JOHNSON COUNTY REMC (317) 736-6174 KEVIN SHELLEY GAS VECTREN JON EASTHAM (765) 287-2119 CITY OF FRANKLIN, DPW (317) 736-3640 SANITARY SEWER SALLY BROWN (317) 736-3640 STORM SEWER CITY OF FRANKLIN, DPW SALLY BROWN INDIANA AMERICAN WATER WATER RYAN MOORE (317) 885-2404

EXISTING LEGEND

BEEHIVE INLET O STAND PIPE -- COMBINATION POLE M STUMP E ELECTRIC METER BOX A SUB SURFACE DRAIN GAS MARKER SIGN + TEMPORARY BENCH MARK → TEST HOLE ─ GUY WIRE -- TELEPHONE MARKER SIGN HOSE BIB -II- TELEPHONE PEDESTAL

MAILBOX 行う TREE ₩ PINE C VENT • POST ₩ WELL ☐ POWER POLE

☑ RIGHT OF WAY MONUMENT

BENCHMARK DATA

(NAVD '88)

─o SIGN

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

ASI TBM #32
CHISELED "X" ON SW BOLT OF FIRE HYDRANT EAST SIDE
OF BARTRAM PARKWAY; ±300" SOUTH OF SR 44.
ELEV = 731.40

ASI TBM #50
MAG SPIKE SET IN WEST SIDE UTILITY POLE AT SW CORNER
OF SR 44 AND COUNTY ROAD 525 E.
ELEV = 725.39

ASI TBM #51
MAG SPIKE SET IN SOUTH SIDE UTILITY POLE #40792
SOUTH SIDE OF SR 44 AND ±400' WEST OF MAILBOX
#5557.
ELEV = 721.56

ASI TBM #52
CHISELED SQUARE ON WEST CORNER OF NW END OF CONCRETE HEADWALL OF BOX CULVERT UNDER SR 44 LOCATED ±600' SOUTHWEST OF COUNTY ROAD 600 E. ELEV = 720.38

ASI TBM #53 MAG SPIKE SET IN WEST SIDE UTILITY POLE #06135 ON WEST SIDE OF OF COUNTY ROAD 525 E AND ±900' SOUTH OF SR 44. ELEV = 735.00

ASI TBM #54
MAG SPIKE SET IN NW SIDE UTILITY POLE #12P1002 ON
WEST SIDE OF COUNTY ROAD 525 E AND ±200' NORTH OF
SOUTH PROPERTY LINE.
ELEV = 724.93

STORM SEWER NOTES: 1. ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE -DRAINS TO WATERWAY"

2. MANNINGS COEFFICIENT n = 0.012

3. THE GRANULAR BACKFILL AREAS SHOWN IN PLAN VIEW ARE AN ESTIMATE PROVIDED BY THE ENGINEER. EXACT LIMITS OF GRANULAR BACKFILL ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR BASED ON TRENCH WIDTH AND AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.

GRANULAR BACKFILL REQUIRED



GDI CONSTRUCTION 9775 Crosspoint Blvd

> Indianapolis, IN 46256 317.567.6100

Suite 105



9025 River Road, Suite 200 | Indianapolis, Indiana 46240 TEL 317 547 5580 | FAX 317 543 0270 www.structurepoint.com

I-65 SOUTH LOGISTICS CENTER

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX DATE: 04/07/2021 PROJECT PHASE: CONSTRUCTION DOCUMENTS

	REVISION SO	CHED	ULE	
NO.	DESCRIPTI	ON	DATE	
Project Number 2019.0279			019.02798	

GENERAL NOTES:

CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

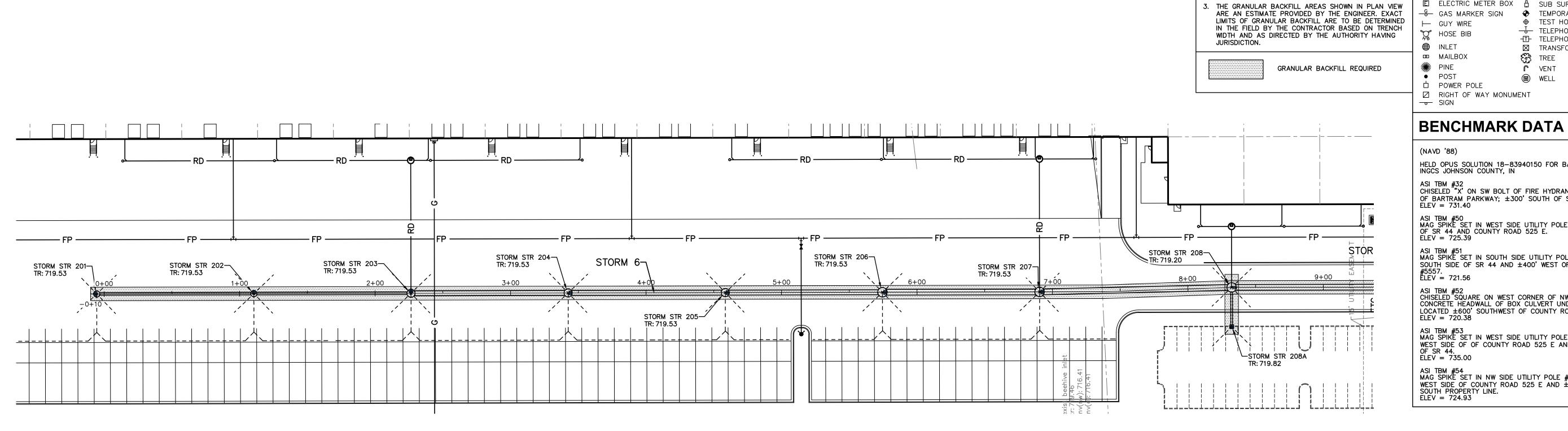
CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

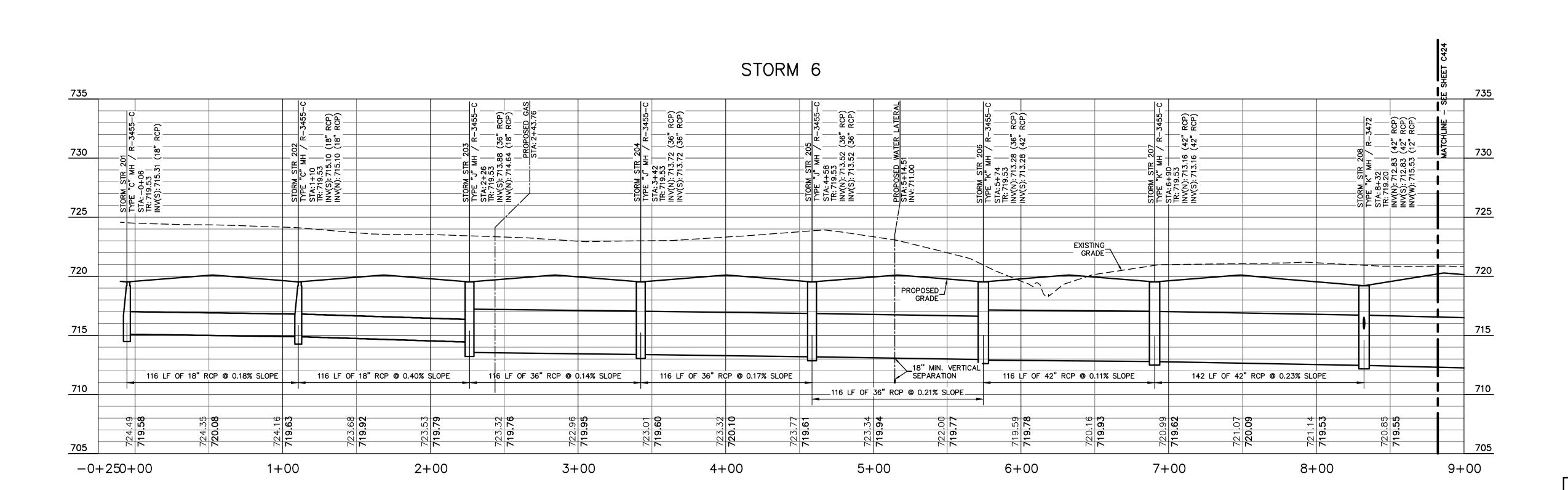
3. SEE SHEET COO2 GENERAL NOTES FOR MORE

INFORMATION.

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CALL TOLL FREE "811" OR 1-800-382-5544 INDIANA UNDERGROUND — STORM SEWER PLAN **AND PROFILE**



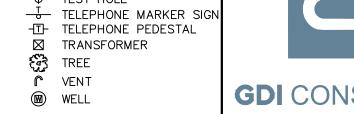


EXISTING LEGEND

BEEHIVE INLET

O STAND PIPE —் COMBINATION POLE │ STUMP E ELECTRIC METER BOX A SUB SURFACE DRAIN GAS MARKER SIGN + TEMPORARY BENCH MARK ⊕ TEST HOLE ├─ GUY WIRE

HOSE BIB TREE MAILBOX ₩ PINE VENT • POST ₩ WELL ☐ POWER POLE ☑ RIGHT OF WAY MONUMENT



Suite 105

(NAVD '88)

STORM SEWER NOTES:

n = 0.012

DRAINS TO WATERWAY"

2. MANNINGS COEFFICIENT

. ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE -

SCALE: HORZ. 1"=40"

UTILITY CONTACTS

CONTACT

BRUCE EMERICK

KEVIN SHELLEY

JON EASTHAM

SALLY BROWN

SALLY BROWN

RYAN MOORE (317) 885-2404

PHONE NO.

(574) 926-1247

(317) 736-6174

(765) 287-2119

(317) 736-3640

(317) 736-3640

COMPANY

CENTURYLINK (CTLCL)

JOHNSON COUNTY REMC

VECTREN

CITY OF FRANKLIN, DPW

CITY OF FRANKLIN, DPW

INDIANA AMERICAN WATER

UTILITY

SANITARY SEWER

STORM SEWER

ELECTRIC

WATER

GAS

COMMUNICATIONS

VERT. 1"=5"

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

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GDI CONSTRUCTION 9775 Crosspoint Blvd

Indianapolis, IN 46256

317.567.6100



9025 River Road, Suite 200 | Indianapolis, Indiana 46240 TEL 317 547 5580 | FAX 317 543 0270 www.structurepoint.com

I-65 SOUTH LOGISTICS CENTER LOT 1

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX DATE: 04/07/2021 PROJECT PHASE: CONSTRUCTION DOCUMENTS

		REVISION SCHEDULE					
	NO.	NO. DESCRIPTION					
1							
	Project Number			019.0279			

GENERAL NOTES:

CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY

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3. SEE SHEET COO2 GENERAL NOTES FOR MORE INFORMATION.

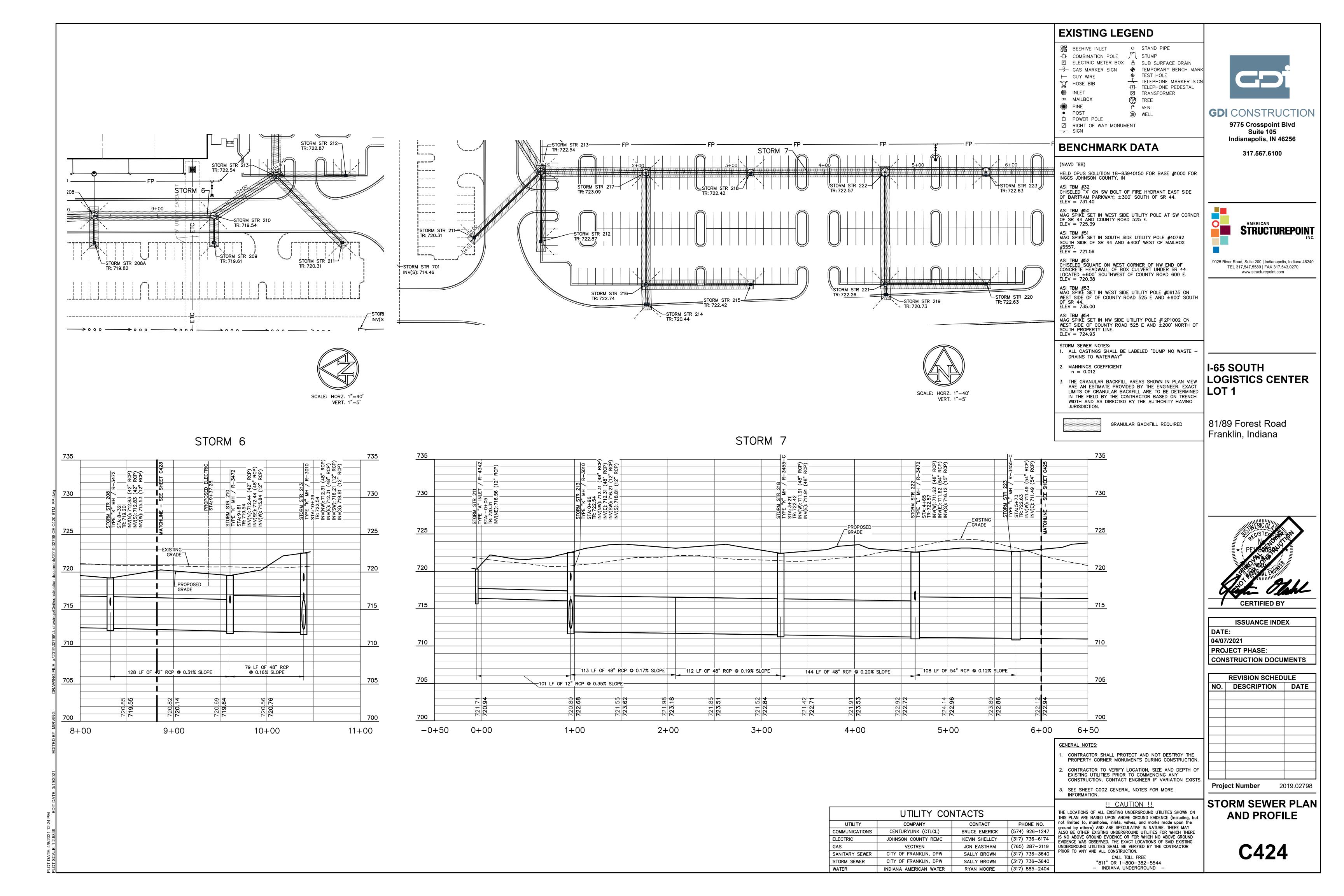
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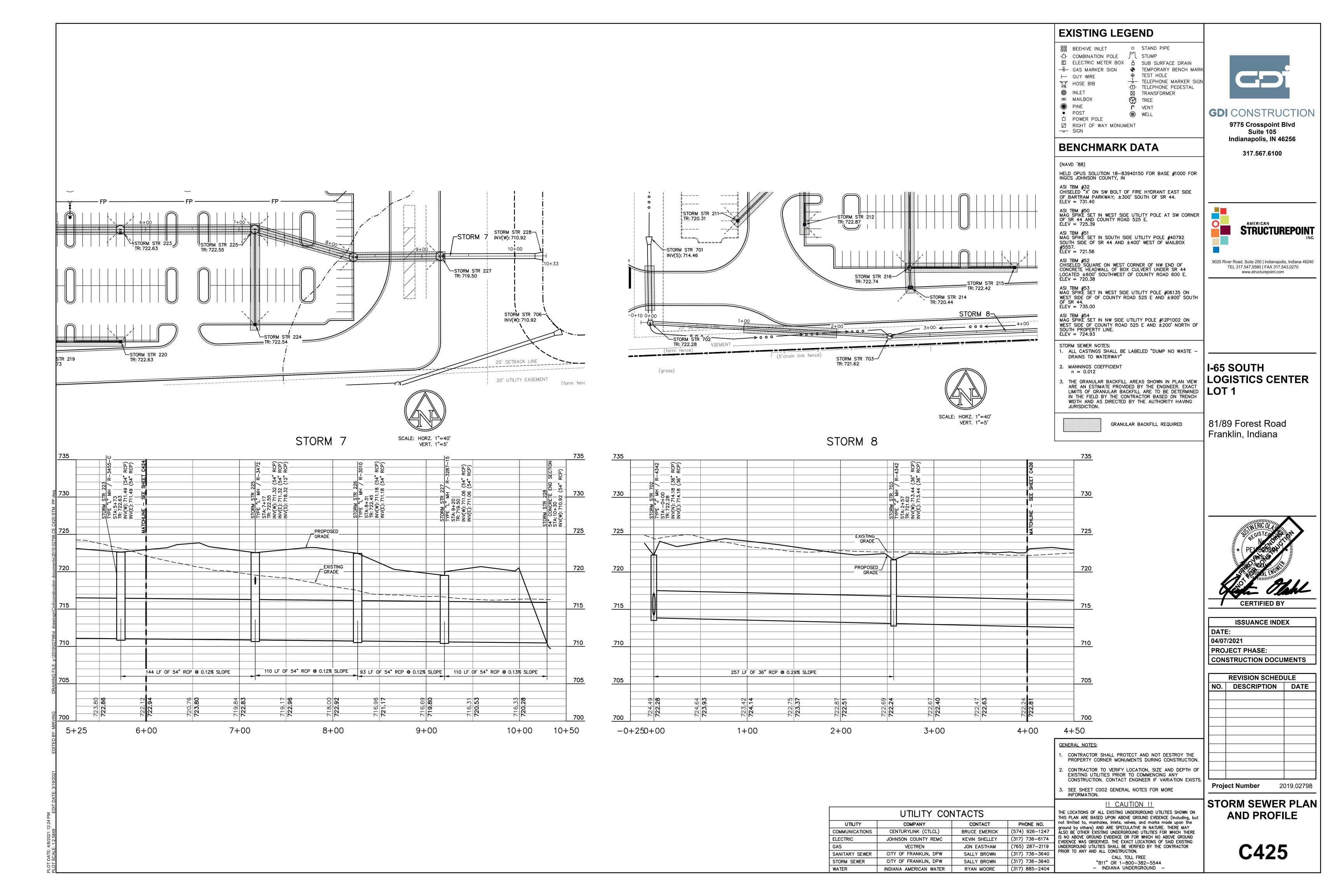
S NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION. CALL TOLL FREE "811" OR 1-800-382-5544

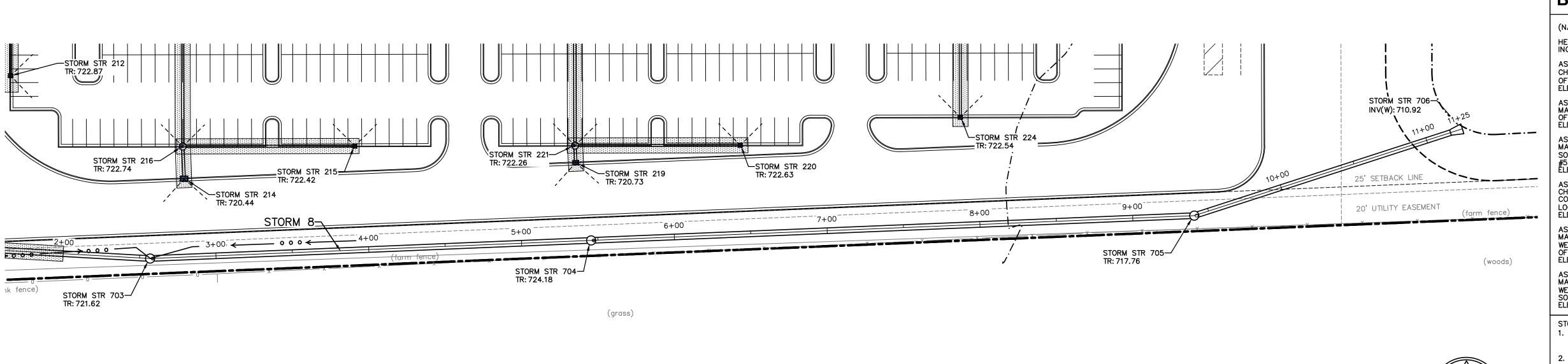
– INDIANA UNDERGROUND –

ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE

STORM SEWER PLAN **AND PROFILE**







STORM 8

6+00

395 LF OF 36" RCP @ 0.29% SLOPE

8+00

7+00



O STAND PIPE BEEHIVE INLET - COMBINATION POLE M STUMP ■ ELECTRIC METER BOX SUB SURFACE DRAIN S GAS MARKER SIGN + TEMPORARY BENCH MARK ⊕ TEST HOLE ─ GUY WIRE - - Telephone Marker Sign HOSE BIB -T- TELEPHONE PEDESTAL

MAILBOX TREE ₩ PINE ∨ENT • POST ₩ WELL ☐ POWER POLE ☑ RIGHT OF WAY MONUMENT



9775 Crosspoint Blvd Suite 105

317.567.6100

Indianapolis, IN 46256

BENCHMARK DATA

(NAVD '88)

─o SIGN

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

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SOUTH PROPERTY LINE.
ELEV = 724.93

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- 3. THE GRANULAR BACKFILL AREAS SHOWN IN PLAN VIEW ARE AN ESTIMATE PROVIDED BY THE ENGINEER. EXACT LIMITS OF GRANULAR BACKFILL ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR BASED ON TRENCH WIDTH AND AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.

SCALE: HORZ. 1"=40' VERT. 1"=5'

GRANULAR BACKFILL REQUIRED

STRUCTUREPOINT

AMERICAN

9025 River Road, Suite 200 | Indianapolis, Indiana 46240 TEL 317 547 5580 | FAX 317 543 0270 www.structurepoint.com

I-65 SOUTH LOGISTICS CENTER

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX DATE: 04/07/2021 PROJECT PHASE: CONSTRUCTION DOCUMENTS

	REVISION SCHEDULE				
NO.	DESCRIPTION	DATE			

STORM SEWER PLAN

AND PROFILE

2019.02798

GENERAL NOTES:

715

710

705

700

11+50

- CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.
- 3. SEE SHEET COO2 GENERAL NOTES FOR MORE INFORMATION.

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Project Number

735

730

725

720

715

710

705

700

2+00

3+00

289 LF OF 36" RCP @ 0.29% SLOPE

4+00

5+00

UTILITY CONTACTS UTILITY COMPANY CONTACT PHONE NO. CENTURYLINK (CTLCL) (574) 926-1247 COMMUNICATIONS BRUCE EMERICK **ELECTRIC** JOHNSON COUNTY REMC (317) 736-6174 KEVIN SHELLEY GAS VECTREN JON EASTHAM (765) 287-2119 CITY OF FRANKLIN, DPW (317) 736-3640 SANITARY SEWER SALLY BROWN

├─~*~~~*├~~~~~|_*~~~*~~

184 LF OF 36" RCP @ 0.29% SLOPE

10+00

PROPOSED_ GRADE

9+00

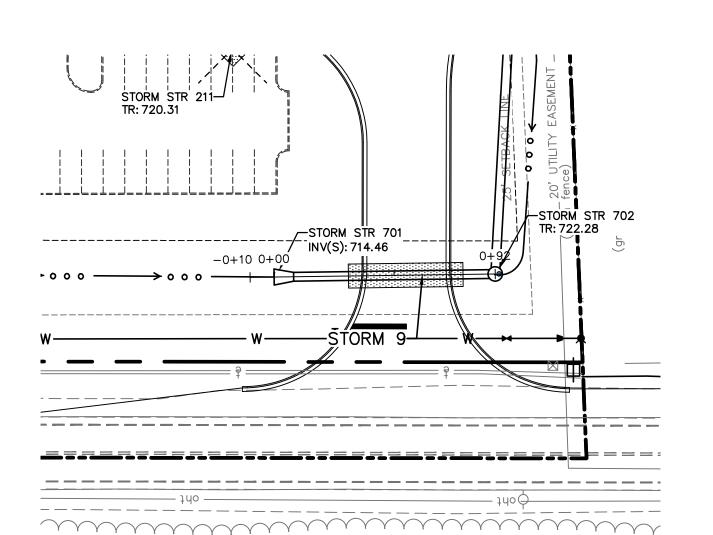
_EXISTING__ GRADE

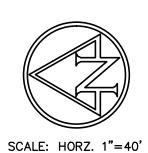
CITY OF FRANKLIN, DPW SALLY BROWN (317) 736-3640 "811" OR 1-800-382-5544 INDIANA UNDERGROUND —

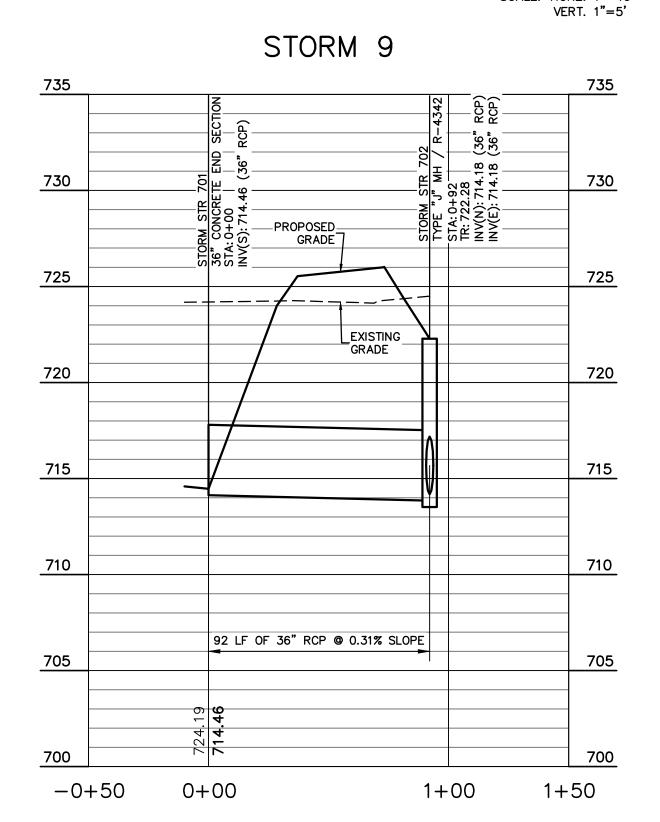
11 + 00

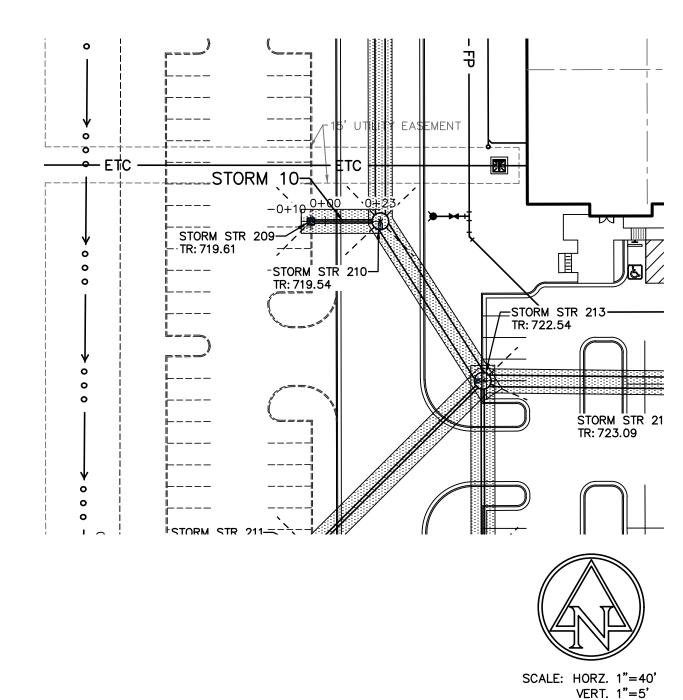
STORM SEWER

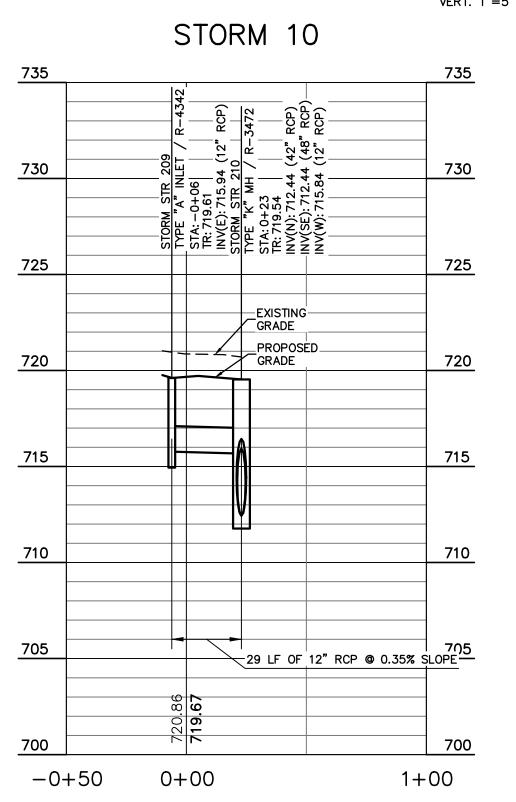
WATER INDIANA AMERICAN WATER RYAN MOORE (317) 885-2404

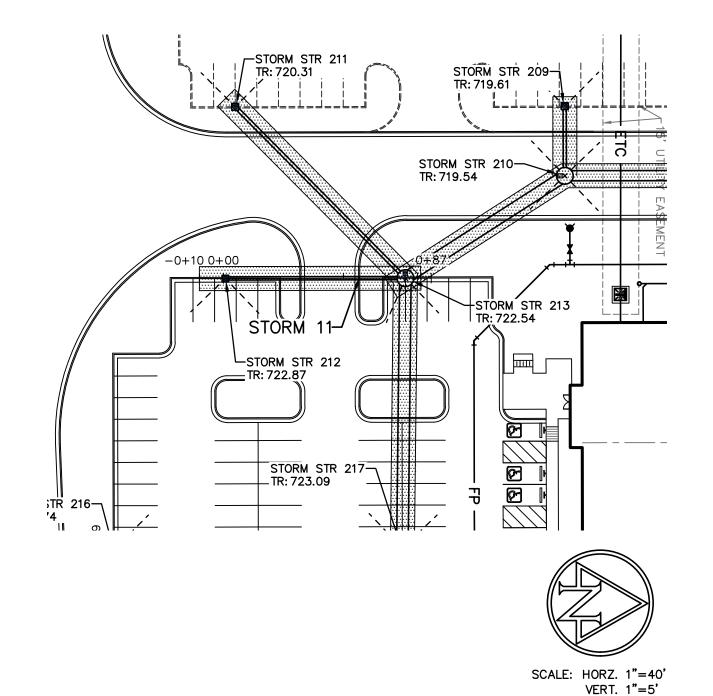




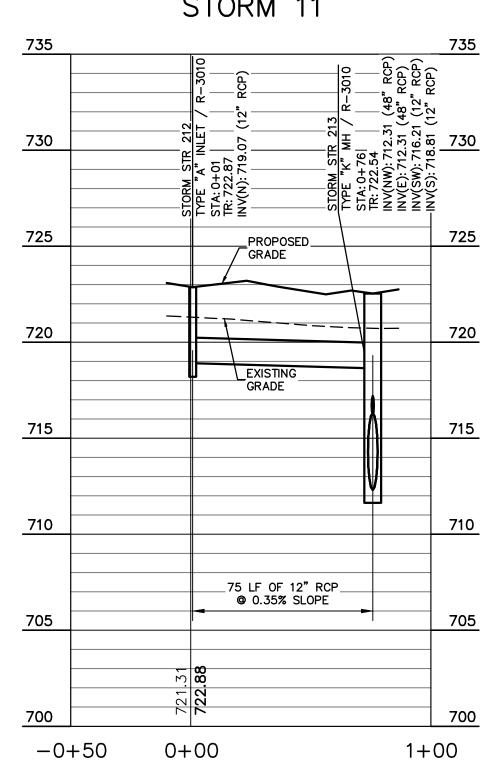








STORM 11



UTILITY CONTACTS UTILITY COMPANY CONTACT PHONE NO. CENTURYLINK (CTLCL) (574) 926-1247 COMMUNICATIONS BRUCE EMERICK JOHNSON COUNTY REMC (317) 736-6174 **ELECTRIC** KEVIN SHELLEY UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR GAS JON EASTHAM (765) 287-2119 VECTREN CITY OF FRANKLIN, DPW (317) 736-3640 SANITARY SEWER SALLY BROWN (317) 736-3640 STORM SEWER CITY OF FRANKLIN, DPW SALLY BROWN RYAN MOORE (317) 885-2404 WATER INDIANA AMERICAN WATER

EXISTING LEGEND

BEEHIVE INLET O STAND PIPE -- COMBINATION POLE M STUMP E ELECTRIC METER BOX A SUB SURFACE DRAIN GAS MARKER SIGN + TEMPORARY BENCH MARK → TEST HOLE ├─ GUY WIRE - - Telephone Marker Sign HOSE BIB -T- TELEPHONE PEDESTAL ■ MAILBOX 行う TREE ₩ PINE C VENT • POST ₩ WELL ☐ POWER POLE

BENCHMARK DATA

☑ RIGHT OF WAY MONUMENT

(NAVD '88)

─o SIGN

HELD OPUS SOLUTION 18-83940150 FOR BASE #1000 FOR INGCS JOHNSON COUNTY, IN

ASI TBM #32
CHISELED "X" ON SW BOLT OF FIRE HYDRANT EAST SIDE
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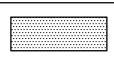
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GRANULAR BACKFILL REQUIRED



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I-65 SOUTH **LOGISTICS CENTER**

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ISSUANCE INDEX DATE: 04/07/2021 PROJECT PHASE: CONSTRUCTION DOCUMENTS

REVISION SCHEDULE				
NO.	DESCRIPT	ION	DATE	
Project Number 2019.027			019.02798	

CONTRACTOR SHALL PROTECT AND NOT DESTROY THE PROPERTY CORNER MONUMENTS DURING CONSTRUCTION. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY

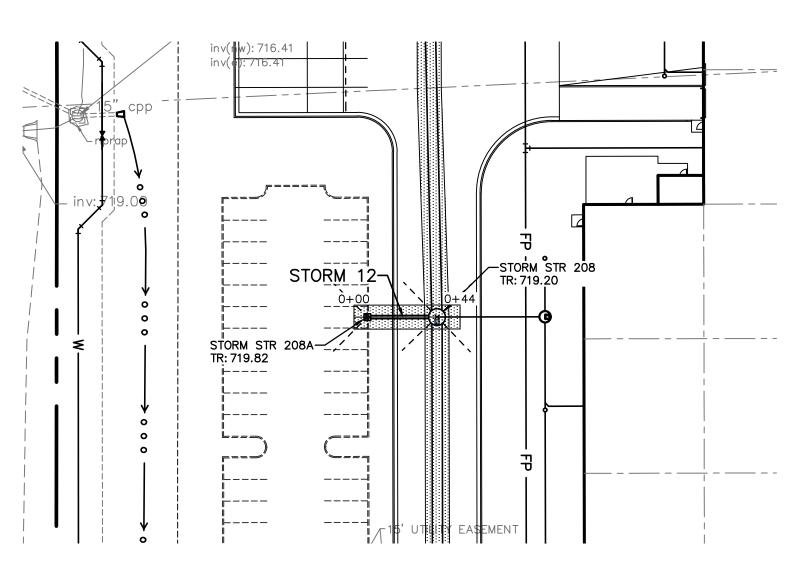
CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

GENERAL NOTES:

3. SEE SHEET COO2 GENERAL NOTES FOR MORE INFORMATION.

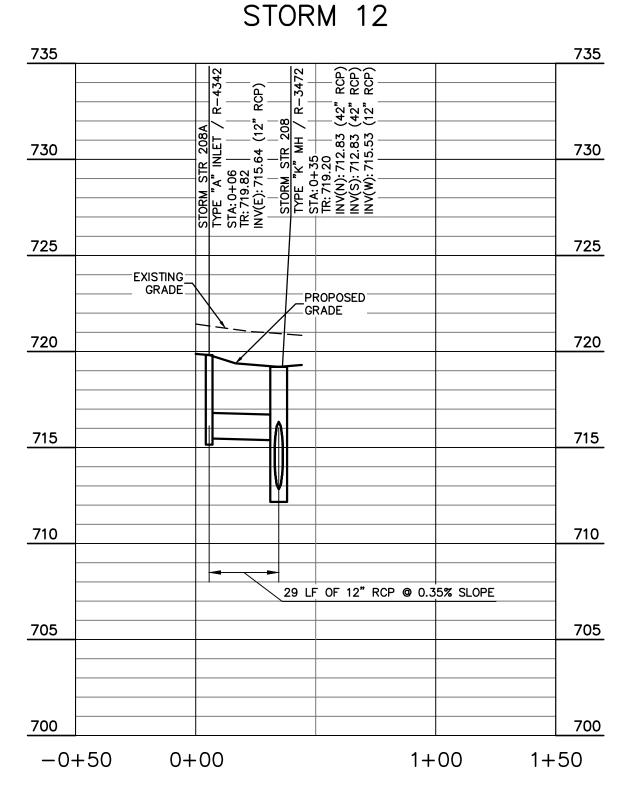
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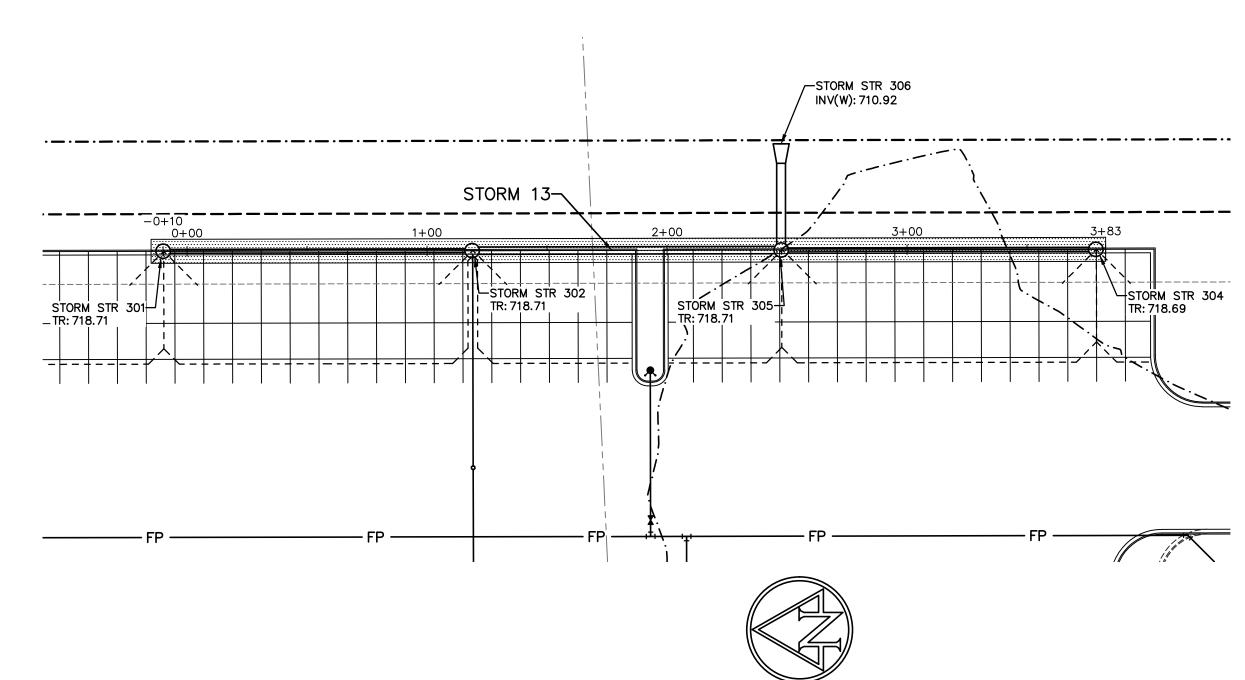
PRIOR TO ANY AND ALL CONSTRUCTION. CALL TOLL FREE "811" OR 1-800-382-5544 – INDIANA UNDERGROUND – STORM SEWER PLAN **AND PROFILE**

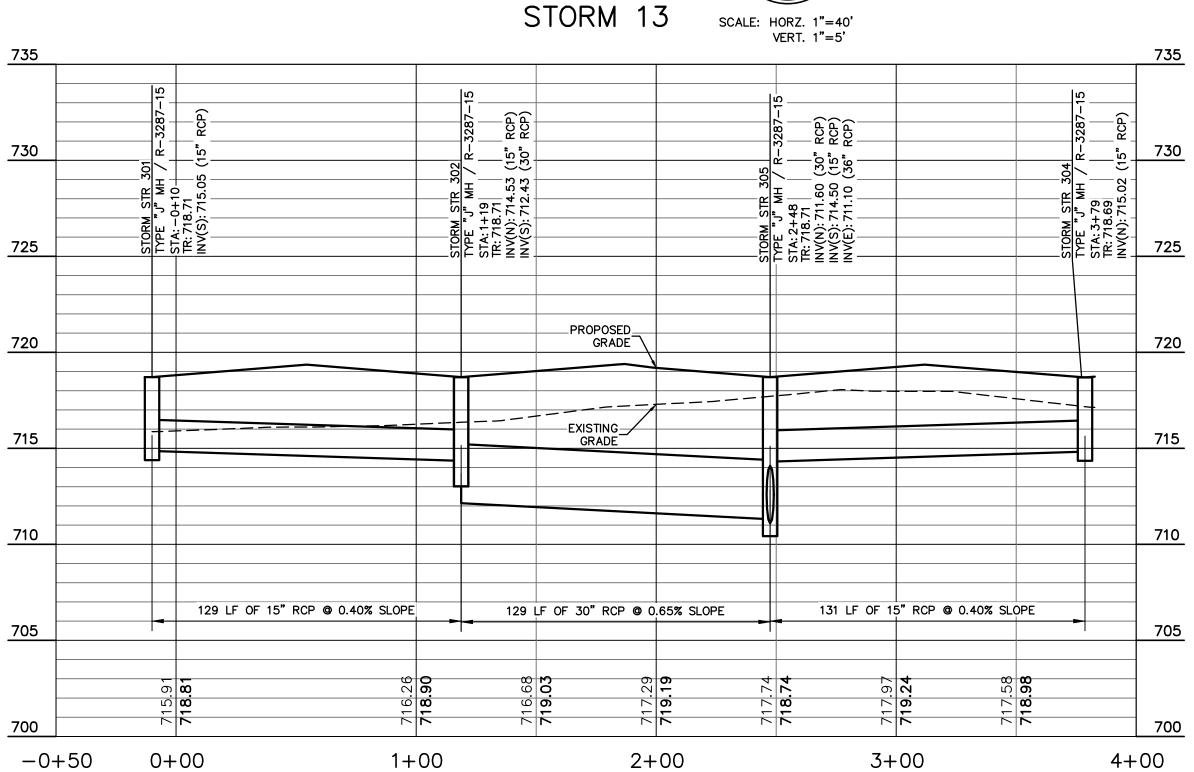




SCALE: HORZ. 1"=40' VERT. 1"=5'







UTILITY CONTACTS UTILITY COMPANY CONTACT PHONE NO. CENTURYLINK (CTLCL) (574) 926-1247 COMMUNICATIONS BRUCE EMERICK JOHNSON COUNTY REMC (317) 736-6174 **ELECTRIC** KEVIN SHELLEY GAS VECTREN JON EASTHAM (765) 287-2119 SANITARY SEWER CITY OF FRANKLIN, DPW (317) 736-3640 SALLY BROWN (317) 736-3640 STORM SEWER CITY OF FRANKLIN, DPW SALLY BROWN RYAN MOORE (317) 885-2404 WATER INDIANA AMERICAN WATER

EXISTING LEGEND

BEEHIVE INLET O STAND PIPE - COMBINATION POLE M STUMP E ELECTRIC METER BOX A SUB SURFACE DRAIN S GAS MARKER SIGN + TEMPORARY BENCH MARK → TEST HOLE ─ GUY WIRE - - Telephone Marker Sign HOSE BIB -T- TELEPHONE PEDESTAL MAILBOX TREE ₩ PINE C VENT • POST ₩ WELL

GDI CONSTRUCTION

9775 Crosspoint Blvd Suite 105 Indianapolis, IN 46256

317.567.6100

AMERICAN

9025 River Road, Suite 200 | Indianapolis, Indiana 46240

TEL 317.547.5580 | FAX 317.543.0270

www.structurepoint.com

STRUCTUREPOINT

BENCHMARK DATA

(NAVD '88)

☐ POWER POLE

- SIGN

☑ RIGHT OF WAY MONUMENT

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OF SR 44.
ELEV = 735.00

ASI TBM #54
MAG SPIKE SET IN NW SIDE UTILITY POLE #12P1002 ON
WEST SIDE OF COUNTY ROAD 525 E AND ±200' NORTH OF
SOUTH PROPERTY LINE.
ELEV = 724.93

- STORM SEWER NOTES:

 1. ALL CASTINGS SHALL BE LABELED "DUMP NO WASTE DRAINS TO WATERWAY"
- 2. MANNINGS COEFFICIENT n = 0.012
- 3. THE GRANULAR BACKFILL AREAS SHOWN IN PLAN VIEW ARE AN ESTIMATE PROVIDED BY THE ENGINEER. EXACT LIMITS OF GRANULAR BACKFILL ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR BASED ON TRENCH WIDTH AND AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.



I-65 SOUTH LOGISTICS CENTER

81/89 Forest Road Franklin, Indiana



ISSUANCE INDEX

DATE:
04/07/2021
PROJECT PHASE:
CONSTRUCTION DOCUMENTS

	REVISION SCHEDULE				
NO.	NO. DESCRIPT		DATE		
Project Number		20	019.02798		

1. CONTRACTOR SHALL PROTECT AND NOT DESTROY THE

GENERAL NOTES:

PROPERTY CORNER MONUMENTS DURING CONSTRUCTION.

2. CONTRACTOR TO VERIFY LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO COMMENCING ANY

CONSTRUCTION. CONTACT ENGINEER IF VARIATION EXISTS.

3. SEE SHEET COO2 GENERAL NOTES FOR MORE INFORMATION.

!! CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

CALL TOLL FREE
"811" OR 1-800-382-5544
- INDIANA UNDERGROUND -

STORM SEWER PLAN AND PROFILE

