

PERMEABLE PAVER CALCULATION

NEW IMPERVIOUS SURFACE:

ASPHALT	= 4,635 S.F.
CONCRETE	= 6,131 S.F.
SUBTOTAL	= 10,766 S.F.
PERMEABLE PAVER	= -991 S.F.
TOTAL	= 9,775 S.F.

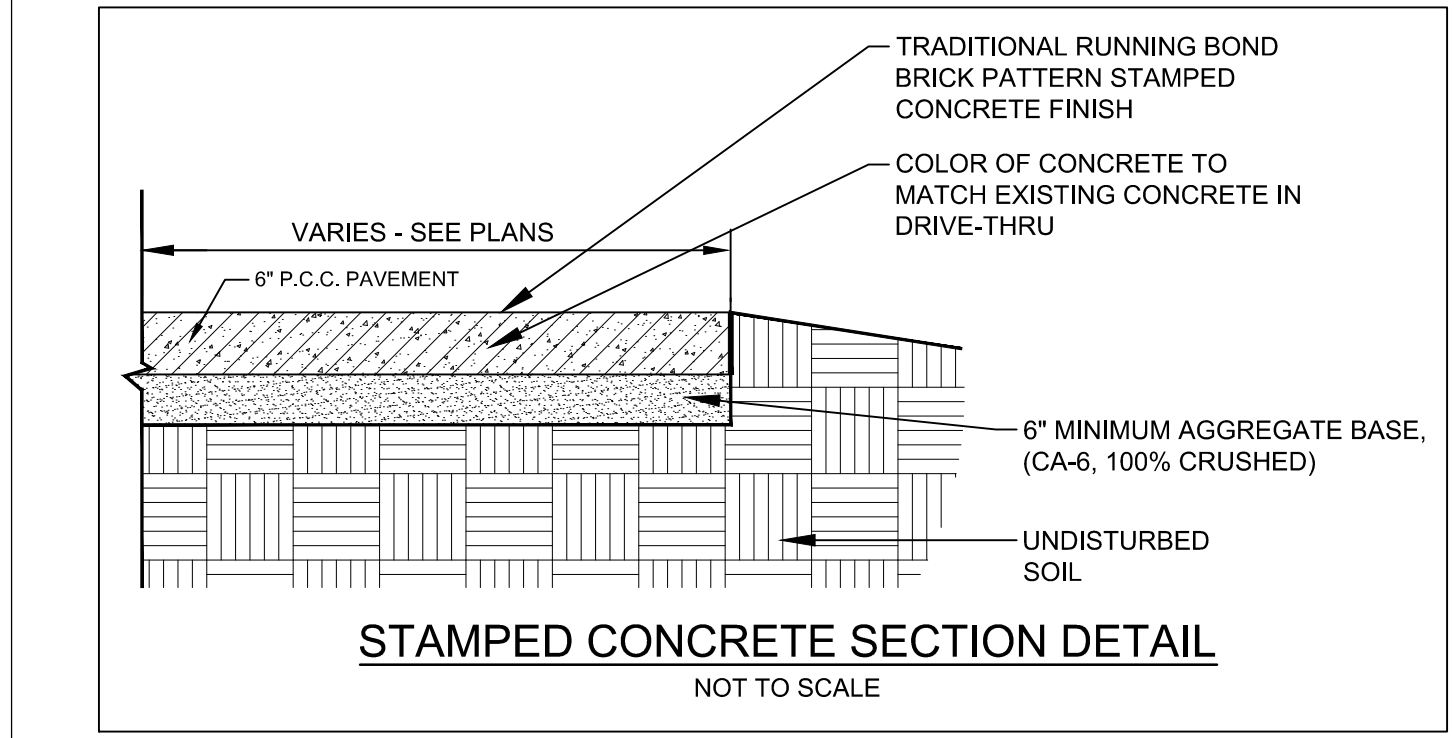
REQUIRED VOLUME:
9,775 S.F. X 1-INCH = 815 C.F.

BOTTOM OF THE FACILITY:
SEASONALLY HIGH GROUNDWATER SEPARATION: ELEV. 691.24 (PER GEOTECH REPORT PREPARED BY TERRACON DATED 9/18/2020)
ELEV. 681.85
FEET 9.74

VOLUME TYPE	SURFACE AREA	DEPTH	POROSITY	STORAGE VOLUME	VOLUME PROVIDED
V _A : COARSE AGGREGATE (ABOVE INVERT)	2,478 S.F.	12"	0.36	0.50 X 0.36 X V _A	446 C.F.
V _B : COARSE AGGREGATE (BELOW INVERT)	2,478 S.F.	5"	0.36	0.36 X V _B	375 C.F.
TOTAL					821 C.F.

- NOTES:**
- THE PERIMETER OF THE VOLUME CONTROL FACILITY SHALL MAINTAIN THE MINIMUM HORIZONTAL SEPARATION DISTANCE OF: 10-FEET FROM FOUNDATIONS, UNLESS WATERPROOFED; 20-FEET FROM ROADWAY GRAVEL SHOULDER; AND 100-FEET FROM POTABLE WATER WELLS, SEPTIC TANKS/FIELDS, OR OTHER UNDERGROUND TANKS.
 - SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED WITHIN THE VOLUME CONTROL FACILITY. SANITARY OR COMBINED SEWERS SHALL NOT BE LOCATED BELOW THE FOOTPRINT OF THE VOLUME CONTROL FACILITY. WHEN LOCAL CONDITIONS PREVENT THE SEWER FROM BEING LOCATED OUTSIDE THE FOOTPRINT OF THE FACILITY THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN QUALITY STANDARDS, OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
 - AVOID INSTALLATION ON SLOPES GREATER THAN 3.00%. AVOID COMPACTING NATIVE SOILS. SCARIFY ANY COMPACTED SOIL. GEOTEXTILE FABRIC SHALL MEET REQUIREMENTS OF IUM MATERIAL SPECIFICATION 592. FOR WOVEN: APPARENT OPENING SIZE OF 0.50 MM (TABLE 1, CLASS 1). FOR NON WOVEN: APPARENT OPENING SIZE OF 0.30 MM (TABLE 2, CLASS II).
 - STONE STORAGE OPTIONS ARE 100T CA-1, CA-3, CA-7, DISTRICT VULCAN MIX, OR APPROVED ALTERNATE. NO RECYCLED MATERIALS.
 - MINIMUM DISTANCE OF 2 FEET (3.5 FEET IN COMBINED SEWER AREAS) BETWEEN BOTTOM OF BMP AND SEASONALLY HIGH GROUNDWATER LEVEL.
 - UNDERDRAINS ARE REQUIRED IN TYPICAL CLAYEY SOILS WHERE INFILTRATION RATES ARE LESS THAN 0.5 INCH/HOUR. MAXIMUM OF 1 UNDERDRAIN PER 30 FEET. PROVIDE A SOIL REPORT DOCUMENTING NATIVE INFILTRATION RATE TO FOREGO UNDERDRAINS.
 - MINIMUM UNDERDRAIN BEDDING OF TWO INCHES, MAXIMUM OF 12 INCHES.
 - OBSERVATION WELL REQUIRED PER 6,000 SQUARE FEET OF SURFACE AREA.
 - FOLLOW THE REQUIRED PRETREATMENT MEASURES LISTED ON THE VOLUME CONTROL PRETREATMENT MEASURES DETAIL.
 - MAINTENANCE REQUIREMENTS INCLUDE ANNUAL VACUUMING AND LOW-PRESSURE POWER WASHING OF PAVEMENT SURFACE. ADJACENT VEGETATED AREAS SHALL BE WELL-MAINTAINED. BARE SPOTS AND ERODED AREAS SHALL BE REPLANTED AND STABILIZED IMMEDIATELY. DO NOT SEALCOAT OR APPLY DE-ICING SAND/GRAVEL/SALT.
 - APPROPRIATE SIGNAGE REQUIRED FOR FACILITY, REFER TO THE TYPICAL SIGNAGE FOR PERMEABLE PAVEMENT DETAIL.

TECHNICAL GUIDANCE MANUAL	8/24/18
PERMEABLE PAVERS DETAIL	STD. DWG. NO.9 PAGE NO. 10 - FC



EXISTING AREA TABULATION

IMPERVIOUS AREA:

BUILDINGS	= 4,195 S.F.
ASPHALT PAVEMENT	= 23,799 S.F.
CONCRETE PAVEMENT	= 16,445 S.F.
SUBTOTAL	= 44,439 S.F. (76.46%)

PERVIOUS AREA:

LANDSCAPE/PLANTING	= 13,681 S.F. (23.54%)
TOTAL AREA	= 58,120 S.F. (1,3343 AC.)

NEW DEVELOPMENT AREA TABULATION

IMPERVIOUS AREA:

BUILDINGS	= 4,280 S.F.
ASPHALT PAVEMENT	= 18,155 S.F.
CONCRETE PAVEMENT	= 19,929 S.F.
PERMEABLE PAVER (0.6)	= 1,482 S.F.
SUBTOTAL	= 43,851 S.F. (75.45%)

PERVIOUS AREA:

LANDSCAPE/PLANTING	= 13,278 S.F.
PERMEABLE PAVERS (0.4)	= 991 S.F.
SUBTOTAL	= 14,269 S.F. (24.55%)

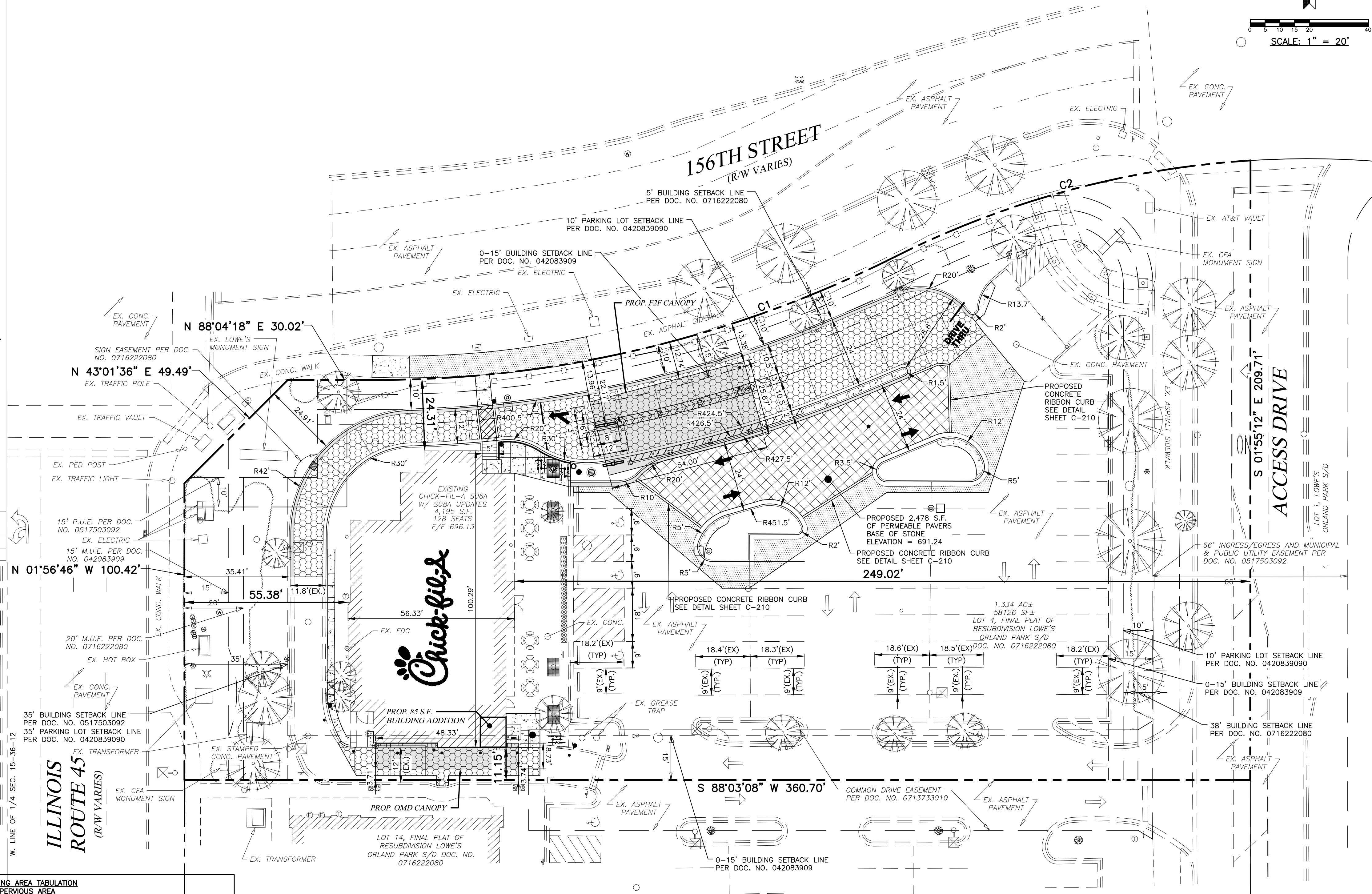
TOTAL AREA = 58,120 S.F. (1.3343 AC.)
FLOOR AREA RATIO (F.A.R.) = 0.074

THIS PROPERTY IS LOCATED WITHIN AN AREA HAVING ZONE DESIGNATIONS OF "X" BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, ON FLOOD INSURANCE RATE MAP NO.17031C07014, WITH A MAP REVISED DATE OF AUGUST 19, 2008, IN COOK COUNTY, STATE OF ILLINOIS, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP FOR THE COMMUNITY IN WHICH SAID PROPERTY IS SITUATED.

NOTE: CONTRACTOR TO VERIFY SIGNAGE ITEMS WITH CLAYTON SIGNS PRIOR TO THE START OF CONSTRUCTION.

LEGEND

▲	PROP. FIRE HYDRANT	---	EX. CURB
△	EX. FIRE HYDRANT	---	PROP. CURB & GUTTER
●	PROP. VALVE	---	PROP. ASPHALT PAVEMENT
○	EX. VALVE	---	PROP. CONCRETE PAVEMENT/WALK
⊙	PROP. MANHOLE	---	PROP. STAMPED CONCRETE SEE DETAIL SHEET C-200
⊠	EX. MANHOLE	---	PROP. PERMEABLE PAVERS SEE DETAIL SHEET C-200
⊞	PROP. INLET		
⊟	EX. BOX INLET		
⊠	EX. LIGHT POLE		
⊡	PROP. LIGHT POLE		
⊢	PROP. ACCESSIBLE RAMP - RAMP IS NOT TO BE SCORED OR GROOVED		



PARCEL ID: 27-15-302-037-000

TOTAL PARCEL SIZE: 1.334 AC.

ZONING INFORMATION:

EXISTING ZONING: COR (CORE MIXED USE)
EXISTING LAND USE: FAST-FOOD RESTAURANT
PROPOSED LAND USE: FAST-FOOD RESTAURANT

REQUIRED SETBACKS

	BUILDING	LANDSCAPING
FRONT (W)	35'	10'
LEFT SIDE (N)	5'	10'
RIGHT SIDE (S)	12'	0'
REAR (W)	38'	10'

PARKING SUMMARY: PROPOSED CONDITIONS

REQUIREMENT: 1 SPACE FOR EACH 100 S.F. + 7 STACKING SPACES PER DRIVE THRU LANE

TOTAL PARKING SPACES REQUIRED:
4,195 S.F. (EX.) + 85 S.F. (PROP.) = 4,280 S.F.
4,280 S.F. / 100 S.F. = 43 SPACES REQUIRED
2 DRIVE-THRU LANES = 14 STACKING SPACES REQUIRED

BICYCLE PARKING REQUIREMENT:

3 BICYCLE SPACES FOR FIRST 30 PARKING SPACES. 1 ADDITIONAL BICYCLE SPACE FOR EACH 10 ADDITIONAL PARKING SPACES.

REQUIRED SPACES = 3+(1 BICYCLE SPACES X 2) = 5 SPACES
PROVIDED SPACES = 6 BICYCLE SPACES

EXISTING PARKING SPACES PROVIDED:

REGULAR SPACES	= 63
ACCESSIBLE SPACES	= 3
TOTAL	= 66

PROPOSED PARKING SPACES PROVIDED:

REGULAR SPACES	= 47
ACCESSIBLE SPACES	= 3
TOTAL	= 50

TOTAL STACKING SPACES PROVIDED = 24

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD LENGTH	CHORD BEARING
C1	182.10'	390.00'	28°45'12"	92.74'	180.46'	N 74°40'41" E
C2	125.42'	310.00'	23°10'50"	63.58'	124.57'	N 72°54'15" E

CONTRACTOR RESPONSIBLE TO FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITY TIE-INS AND CROSSINGS AS SHOWN ON SITE PLANS (SANITARY, STORM, WATER, GAS, ELECTRIC, PHONE, ETC.) PRIOR TO THE START OF CONSTRUCTION. CONTACT ALLAN WILEY AT GBC DESIGN, INC., 330-836-0228, WITH ANY CONCERNS OR CONFLICTS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR TO VERIFY THE THICKNESS OF ANY OFF-SITE PAVEMENT (ASPHALT AND CONCRETE) AND SIDEWALK SO THE RESTORATION WORK IS INCLUDED IN THE BID.



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998

GBC DESIGN, INC.
565 White Pond Dr.
Akron, OH 44320-1123
Phone 330-836-0228 Fax 330-836-5782



Signature: [Signature]
Date: 3/5/21
License Expires: 11/30/2021

CHICK-FIL-A
ORLAND PARK FSU
2020 REINVESTMENT
15605 SOUTH LA GRANGE ROAD
ORLAND PARK, IL 60462

FSU# 02638

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
1	10/6/2020	CITY COMMENTS
2	1/27/2021	CITY COMMENTS

GBC PROJECT # 52188R
PRINTED FOR Permit
DATE 5/1/20
DRAWN BY B.A.W.

Permit **SITE PLAN**

SHEET NUMBER **C-200**