

### Town of Cornelius Architectural Review Board

### Agenda April 26, 2018 12:00 PM Cornelius Town Hall - Room 204

- 1. Call To Order
- 2. Determination of Quorum

### 3. Approval of Minutes

- **A.** January 26, 2018
- **B.** February 23, 2018

### 4. Review And Recommendation On Agenda Items

A. Starbucks - West Catawba Avenue

### 5. Old Business

- 6. New Business
- 7. Next Meeting
- 8. Adjournment

## **REQUEST FOR BOARD ACTION**

### 르 Print

Date of Meeting:

April 26, 2018

То:	Chair and ARB Members	
From:	Summer Smigelski, Planning Admin.	
Action Requested:		
Approval of Minutes		
Manager's Recommendation:		
Approval		

ATTACHMENTS:		
Name:	Description:	Туре:
ARB_Minutes_01262018-Draft-1.docx	January 26, 2018 Minutes	Backup Material

### Minutes TOWN OF CORNELIUS ARCHITECTURAL REVIEW BOARD MEETING

January 26, 2018 12:00 pm

### Members Present

Teresa Hawkins David Eve, Chairman Joe Harris, Vice Chair Recah Harward Members Absent

Rick Kamakaris

<u>Staff Present</u> Wayne Herron, Planning Director Aaron Tucker, Planner

### <u>VISITORS</u>

See Sign-In Sheet

### **DETERMINATION OF QUORUM**

Chairman Eve called the meeting to order. The meeting of the Architectural Review Board began at 12:00 p.m. He stated that a quorum was present for all items.

### **APPROVAL OF MINUTES**

Mr. Harris made a motion to approve the minutes from October 27, 2017. Ms. Hawkins second. All in favor and motion approved.

In Favor: Mr. Harris, Ms. Harward, Ms. Hawkins, Chairman Eve **Opposed:** None

Mr. Harris made a motion to approve the minutes from December 08, 2017. Ms. Hawkins second. All in favor and motion approved.

In Favor: Mr. Harris, Ms. Harward, Ms. Hawkins, Chairman Eve **Opposed:** None

### REZ 11-17 Vanderbilt Children's College

Mr. Herron presented Vanderbilt Children's College for the second time. The property is located at 8715 Westmoreland Rd. The property is almost 4.7 acre tract on Westmoreland. Zoned neighborhood residential on the zoning map. The land use map designates it as to be determined (TBD). The applicants appeared before the Town Board and was approved with the condition to gain Architectural Review Board approval before the approval of construction documents.

Mr. Herron presented updated plans.

Mr. Herron: "There is a condition that if a fourth leg is acquired at the signal, they will reconfigure the drive."

Chairman Eve: "On the variances they requested, can you list what those variances are?"

Mr. Herron: "The main one they are requesting is on the windows. The ordinance requires 70 percent windows on the front elevation. The other variance is to lower the windows. There is also a couple site variances that the Town Board accepted. We do not normally encroach into the 170 foot setback, the Porte Cochere encroaches there just slightly. The trade off on that encroachment is to increase landscaping. The parking meets the code but there are some concerns that there would not be enough. Our belief is that most parents will not park and walk their children in. We also believe that it will not be two minutes drop off. That is why we asked for the expanded drive through here. We have talked to some of the other preschools that are in town and what we hear is it takes about seven to twelve minutes for a parent to drop off. The applicants have added some capacity. It is not like a normal school where everyone comes in at one time so that is why we feel that this will be adequate with this space."

After discussion the board requested the following:

- To see a table showing the percentage of glass, since they are asking for a variance.
- To lower the window sills for the windows, the applicants agreed. Unless there is a very good reason for them not to, that the sills should be no higher than 24" AFF.
- With the raised roof in the central portion of the building they should add transoms above all the windows in the section. This will help with proportion and will also increase their glass area, with no impact to the floor plan.
- Because of the large expanse of roof that you will see from West Moreland, we believe that gable ends facing the front of the building at the end of each classroom wing would help to break up this roofing mass.
- The board would like to see the Porte Cochere soffit like be raised, to give some hierarchy on the elevation. This will also help to break up the roof line on the front elevation.
- The board is concerned with the width of the drive under the Porte Cochere, they recommend 24 foot clear, plus the width of the walkway from the parking lot.
- The board requested that the bottom of the foundation not be exposed concrete.
- The downspouts be painted to match the gutters.
- The dumpster enclosure materials should match the building and be shown in the elevations.
- The board would like to see cut sheets for the site lighting.

The board made some landscaping suggestions

Under Evergreen Trees:

- Substitute Prunus Caroliniana- Carolina Cherry Laurel for the Juniperus Virginiana- Red Cedar (The red cedar is prone to bag worms).
- Substitute Prunus Laurocerasus 'Magnoliigolia' for Thuja occidentalis- American Arborvitae (The arborvitae is also subject to bag worms and heart rot).
- Substitute Osmanthus americanus for Thuja plicata 'Green Giant' Arborvitae (same comment as above regarding pests)

Under Shrubs:

- Substitute Viburnum tinus for Myrica cerifera-Wax Myrtle (more suitable for coastal NC then the piedmont)
- Substitute llex cornuta 'Burfordii Nana' for Rhododendron catawbiense (the rhododendron is more suited for the NC mountains than here in the piedmont and all rhododendrons are

subject to a myriad of pest and disease problems and are not considered a hard screen shrub in this area due to the increasing hot and dry summers)

Under Trees:

• After researching, the species as specified are fine. All of the substituted plan material will be the same size as specified in the plan schedule.

Mr. Harris made a motion to recommend changes as noted. Ms. Hawkins second. All in favor and motion approved.

In Favor: Mr. Harris, Ms. Harward, Ms. Hawkins, Chairman Eve **Opposed:** None

### Town Center Townhomes

Mr. Herron presented the townhome modifications to the board. The applicants are requesting to remove all of the dormers.

After discussion the board agreed that it would be acceptable to remove the dormers.

Mr. Harris made a motion to recommend approval to remove the dormers. Ms. Hawkins second. All in favor and motion approved.

In Favor: Mr. Harris, Ms. Harward, Ms. Hawkins, Chairman Eve

### Quick Trip Building Modification

Mr. Herron presented revised elevations to the board. QT has requested to downsize the store about a thousand square feet.

After discussion the board agreed the applicants will need to come back with a more site specific plan.

### New Business

Mr. Herron introduced Aaron Tucker to the board.

### ADJOURNMENT

The meeting ended at 12:58 p.m.

## **REQUEST FOR BOARD ACTION**

### 르 Print

Date of Meeting:

April 26, 2018

То:	Chair and ARB Members	
From:	Summer Smigelski, Planning Admin.	
Action Requested:		
Approval of Minutes		
Manager's Recommendation:		
Approval		

ATTACHMENTS:		
Name:	Description:	Туре:
ARB_Minutes_022018-           Draft.docx	February 23, 2018 Minutes	Backup Material

### Minutes TOWN OF CORNELIUS ARCHITECTURAL REVIEW BOARD MEETING

February 23, 2018 12:00 pm

### Members Present

David Eve, Chairman Joe Harris, Vice Chair Recah Harward Rick Kamakaris Members Absent

Teresa Hawkins

<u>Staff Present</u> Wayne Herron, Planning Director Aaron Tucker, Planner

### **VISITORS**

See Sign-In Sheet

### **DETERMINATION OF QUORUM**

Chairman Eve called the meeting to order. The meeting of the Architectural Review Board began at 12:00 p.m. He stated that a quorum was present for all items.

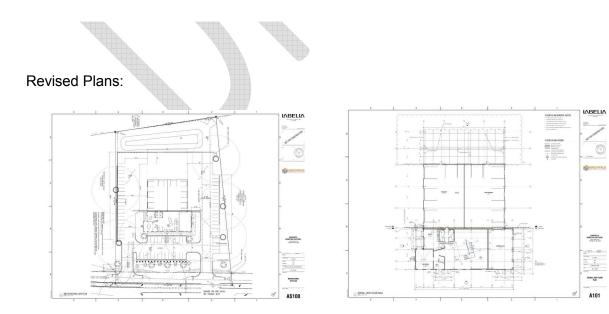
### **Hirschfield Marketing Solutions Revised Elevations**

Mr. Herron presented Hirschfield Marketing Solution revised elevations to the board. The property is located at 10231 Bailey Road and is a 2.35 acre tract. Zoned Industrial Campus on the zoning map. The land use map designates it as Industrial. The HMS building is currently in building review with Mecklenburg County. The building plans recently submitted show elevations that are different than what was originally approved by this Board. Both the original building plans with elevations have been included for your review.

Mr. Herron presented the original plans:









Mr. Herron asked the board if they have any questions or comments.

Chairman Eve: "What is the parapet height and where are your mechanical units?

Applicant: "Three foot six is the parapet height and the mechanical units are on top. The parapet does screen the unit."

Chairman Eve: My only concern is how well the parapet will screen from Bailey Road. I think the safe thing would be to have the parapet at or above those units, so you may have to raise the parapet."

Mr. Harris: "You have a nice building but what we would encourage you to make sure the parapet screens those units."

Mr. Herron: "What we can do is put a condition with a CO hold that the parapet covers the mechanical equipment."

Mr. Harris made a motion to recommend approval. Ms. Harward second. All in favor and motion approved.

In Favor: Mr. Kamakaris, Mr. Harris, Ms. Harward, Chairman Eve

Opposed: None

### **QT Revised Elevations**

Mr. Herron presented QT's revised elevations to the board. The property is located at Catawba Avenue and Holiday Lane with a 3.6 acre tract. The new proposed elevations are of a smaller building footprint. The original approved building footprint was roughly 104' long while the new proposed footprint is roughly 92' long. I have provided the original approved elevations and site plan along with the two new proposed elevations and site plan showing the smaller building footprint. The applicant would like guidance on any changes that will be required. The applicant cannot be in attendance and is asking the ARB to provide detailed written recommendations that can be provided to the QT corporate architectural staff.

In the original approved plan there was to be a roundabout so the building was cornered to face the roundabout. After the Traffic Impact Analysis (TIA) was reviewed by NCDOT for QT, it was determined that the roundabout would not work.





Mr. Herron presented the revised elevations to the board:

QT changed the site plan to show the front of the building facing Catawba.

The original approval did not have to have a door on the back. The language in the approval says that the side doors met the access to catawba. We still cannot require access on the back.



**Revised Elevation 2** 

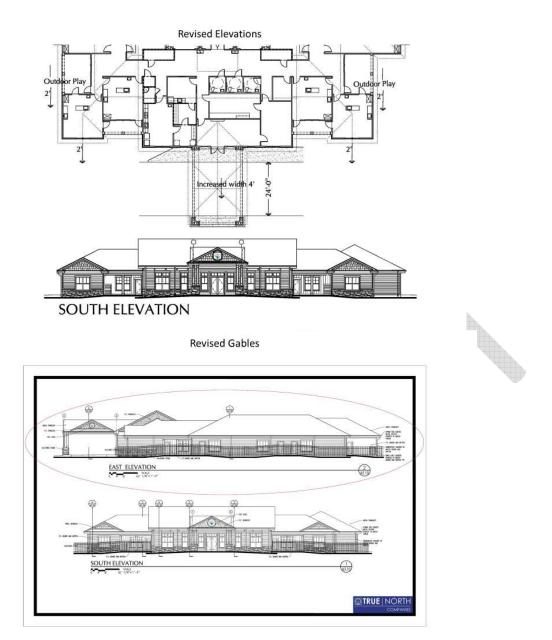


Chairman Eve: "I do not see a sidewalk."

Mr. Herron: "They are not showing it on this plan but they will have to do that."

After discussion the board agreed the applicants will need to come back with changes.

Vanderbilt Mr. Herron presented the revised elevations to the board.



Chairman Eve: "I think that it looks better but I do wish those gables were bigger."

After discussion the board agreed the applicants will need to make changes.

ADJOURNMENT The meeting ended at 12:29 p.m.

### **REQUEST FOR BOARD ACTION**

### 💻 Print

Date of Meeting:

April 26, 2018

To: Architectural Review Board

From:

Aaron Tucker - Planner

### Action Requested:

Starbucks is proposing to upfit the existing Pizza Hut facility located at 20300 West Catawba Avenue. Their plan includes an overall smaller building footprint and higher ceiling/roof. They also plan to retain the existing drive-through. Please review the attached site plan and elevations and provide feedback.

Due to the fact that this is an existing development, the Code allows Starbucks to utilize the site generally as is with minor upgrades for landscaping, etc. The only Code deficiency noted by Staff thus far is the front wall should contain a minimum 70% glass. This is an issue that will need to be vetted with the applicant.

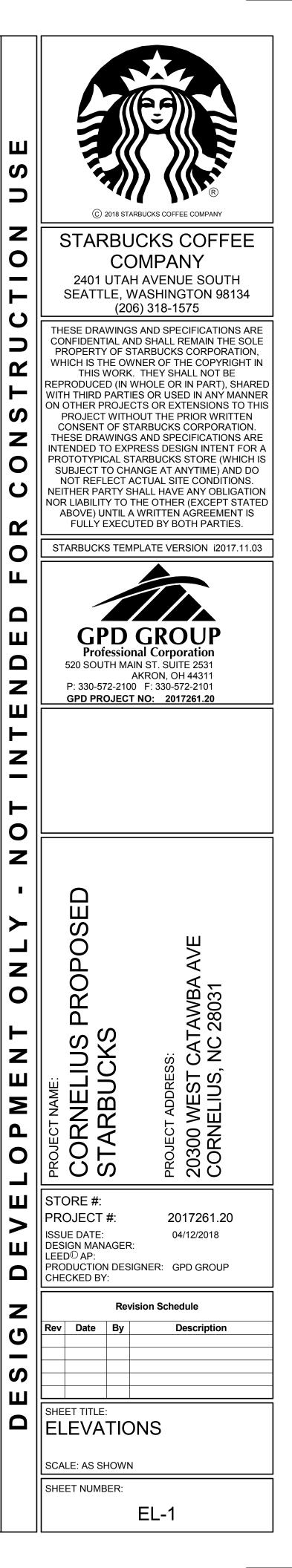
### Manager's Recommendation:

Review proposed Starbucks upfit elevations and provide feedback.

ATTACHMENTS:		
Name:	Description:	Туре:
Starbucks_ARB_Submittal_PackageR.pdf	Elevations and Site Plan	Cover Memo

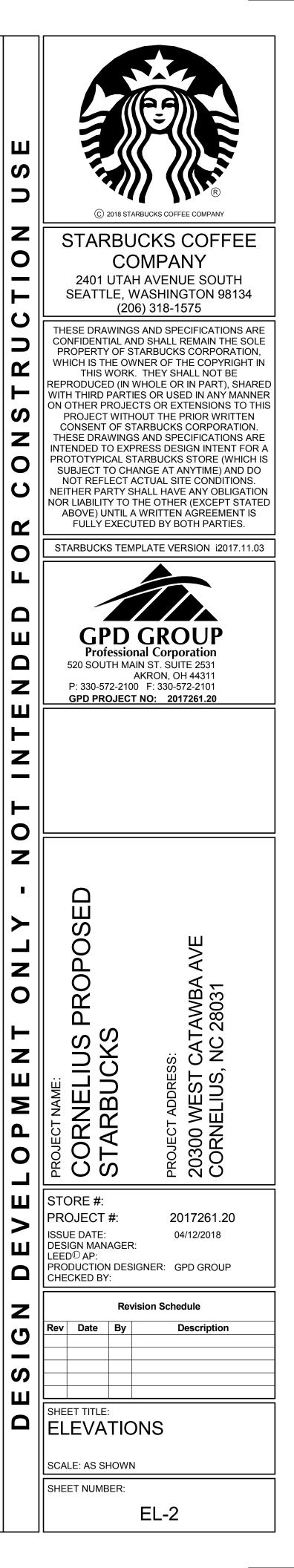


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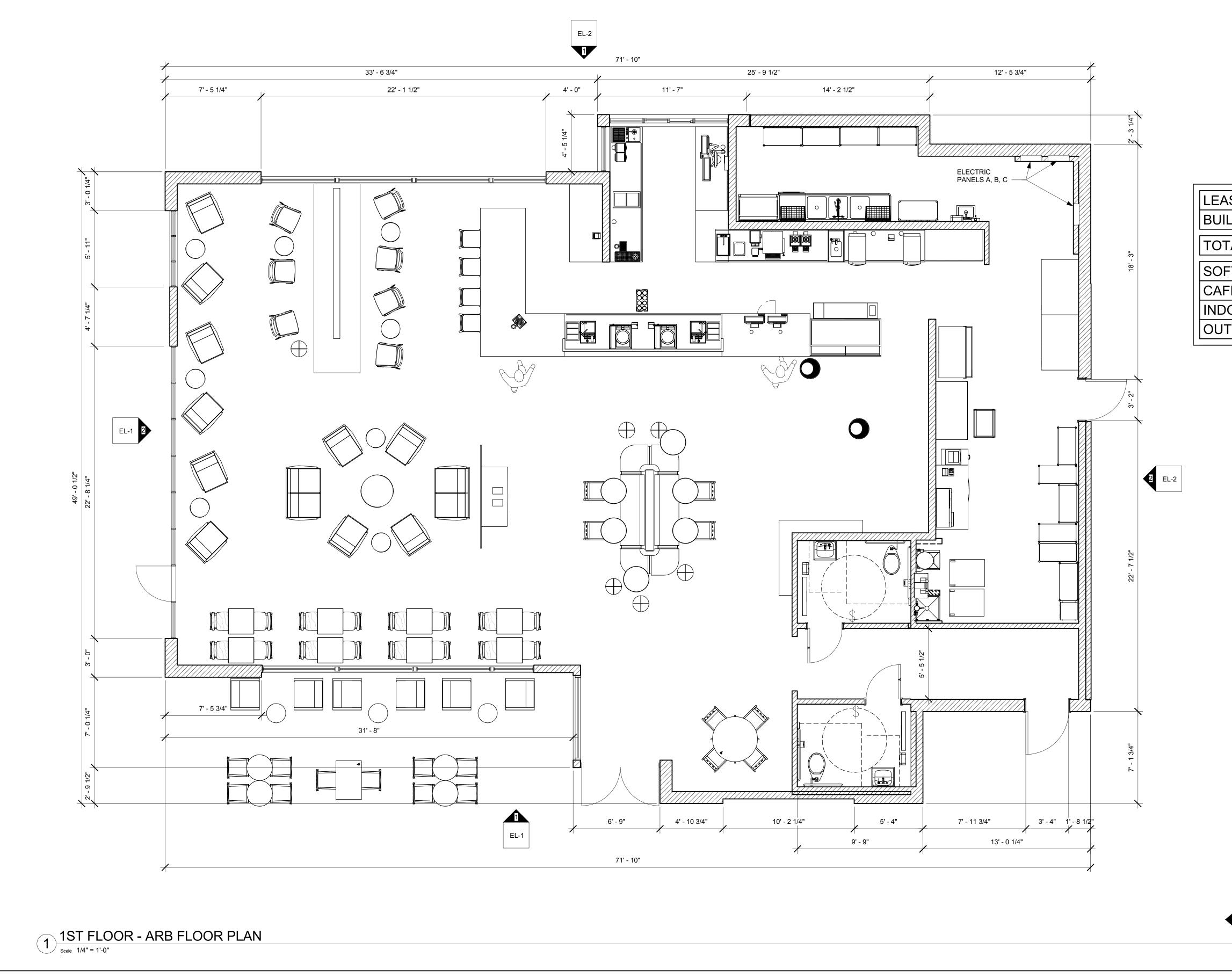
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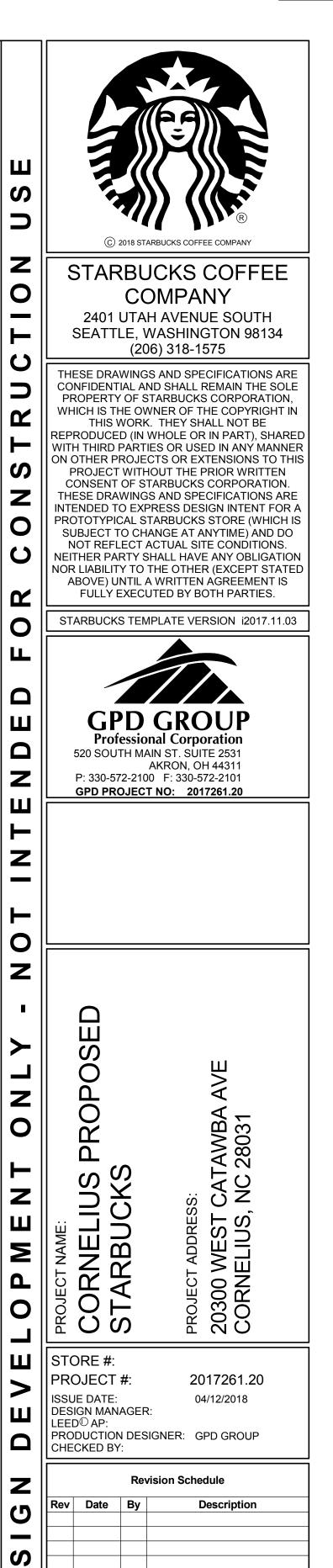


<u>MT-4 METAL CANOPY:</u> – POWDER COAT - MATCH RAL#7021 MATTE M0028 -"FLAT BLACK"

Scale: 1/4" = 1'-0"



SABLE AREA (SSP):	3,005
LDABLE AREA (SSP):	3,237
AL SEATING COUNT:	73
T SEATING:	22
E SEATING:	35
OOR SEATING:	57
TDOOR SEATING:	16



1	2'	4'	8'
Scale	e: 1/4" = 1'-0		

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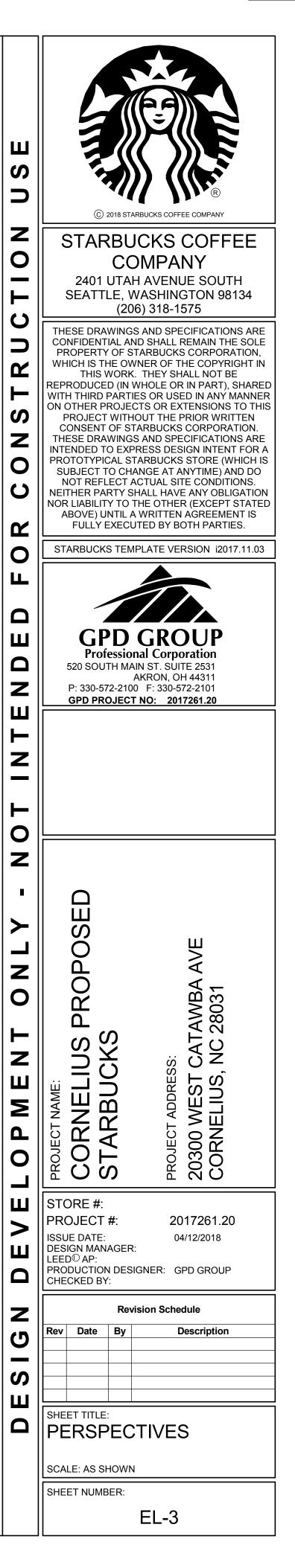
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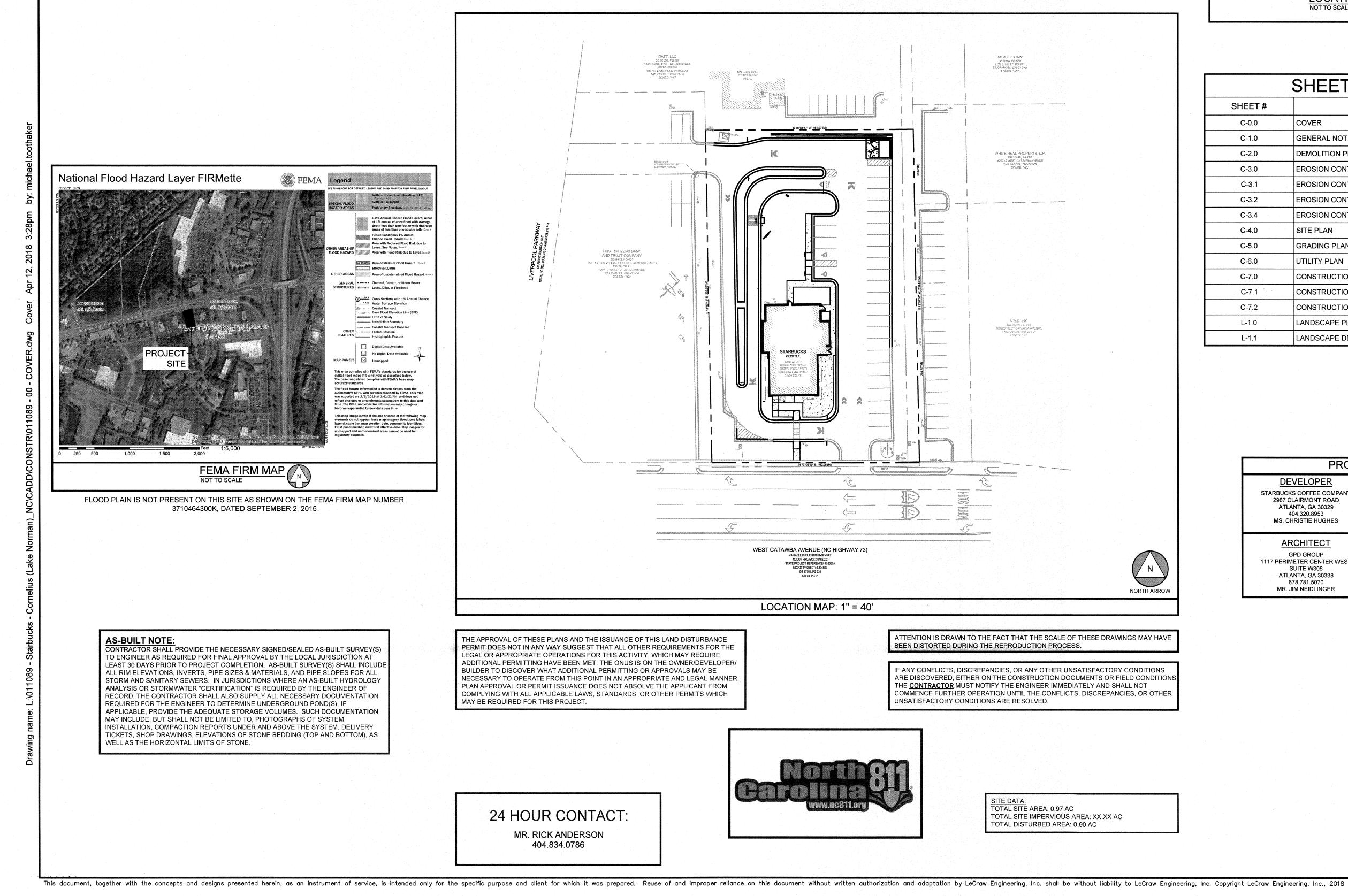






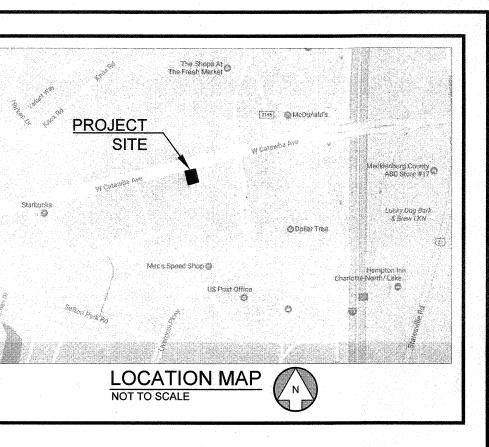






# **STARBUCKS - CORNELIUS, NC**

# 20300 WEST CATAWBA AVENUE PARCEL 0058-271-05 CORNELIUS, MECKLENBURG COUNTY, NORTH CAROLINA

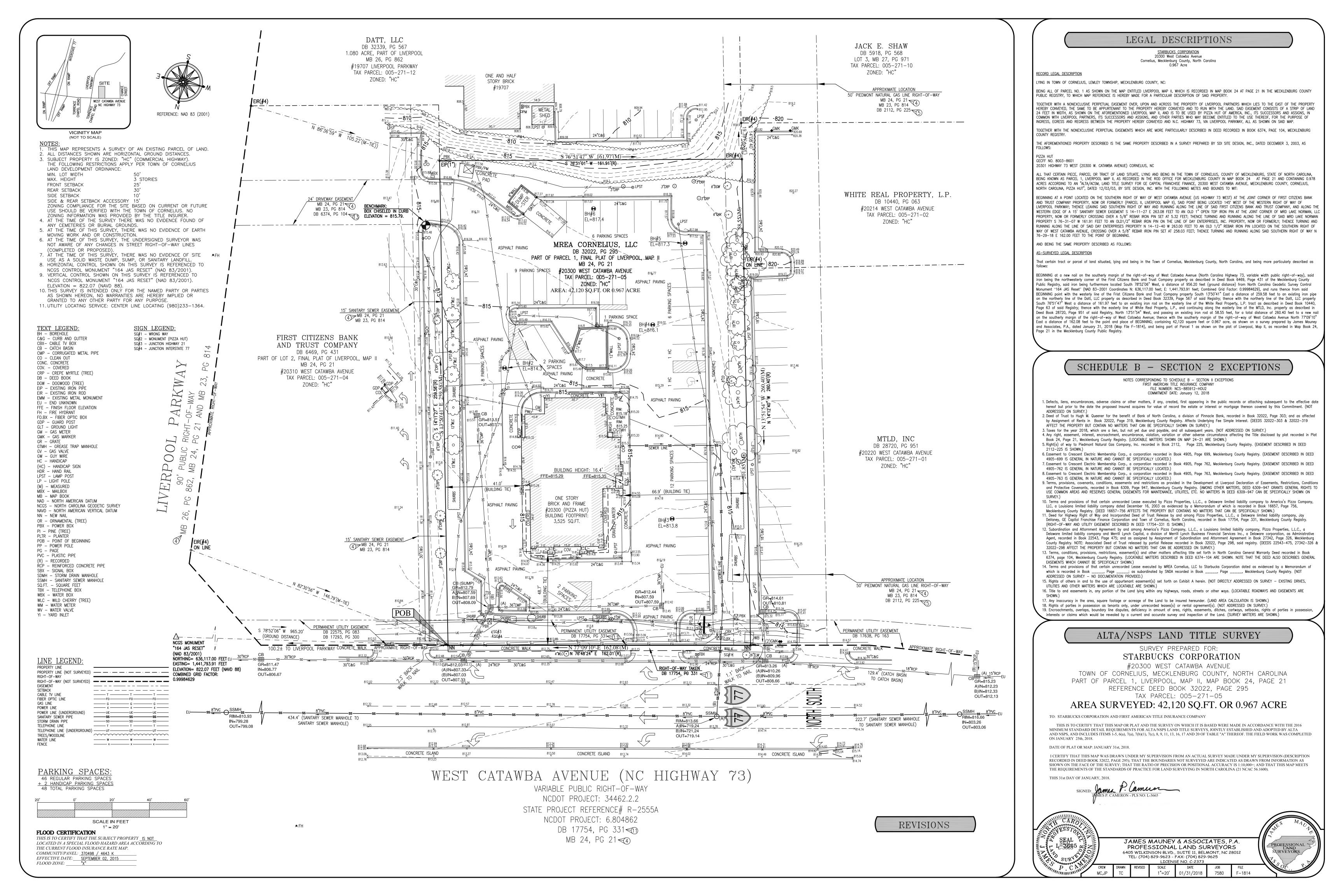


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L-1.0	LANDSCAPE PLAN	
L-1.1	LANDSCAPE DETAILS	
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SHEET

PROJEC	CT TEAM
DEVELOPER STARBUCKS COFFEE COMPANY 2987 CLAIRMONT ROAD ATLANTA, GA 30329 404.320.8953 MS. CHRISTIE HUGHES	CIVIL ENGINEERING LeCRAW ENGINEERING, INC. 3475 CORPORATE WAY SUITE A DULUTH, GA 30096 678.546.8100 MR. MICHAEL TOOTHAKER (PROJECT MGR.)
ARCHITECT GPD GROUP 1117 PERIMETER CENTER WEST SUITE W306 ATLANTA, GA 30338 678.781.5070 MR. JIM NEIDLINGER	SURVEYOR JAMES MAUNEY & ASSOCIATES 6405 WILKINSON BLVD. SUITE 11 BELMONT, NC 28012 704.829.9623 MR. JAMES CAMERON, PLS

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PROJECT #:          CASEWORK CONCEPT:       CONCEPT         ISSUE DATE:       APRIL 12, 2018         DESIGN MANAGER:       ERIKA ZAKAMAREK         LEED <sup>®</sup> AP:       XXX         PRODUCTION DESIGNER:       MAT         CHECKED BY:       MSL         Revision Schedule         Rev       Date         By       Description         SHEET TITLE:       SHEET TITLE:	PROJECT NAME: STARBUCKS - CORNELIUS PROJECT ADDRESS: 20300 WEST CATAWBA AVENUE PARCEL 0058-271-05 CORNELIUS, MECKLENBURG COUNTY, NORTH
Rev     Date     By     Description	STODE #
COVER	PROJECT #:CASEWORK CONCEPT:CONCEPTISSUE DATE:APRIL 12, 2018DESIGN MANAGER:ERIKA ZAKAMAREKLEED <sup>®</sup> AP:XXXPRODUCTION DESIGNER:MAT
SCALE: AS SHOWN	PROJECT #:          CASEWORK CONCEPT:       CONCEPT         ISSUE DATE:       APRIL 12, 2018         DESIGN MANAGER:       ERIKA ZAKAMAREK         LEED <sup>®</sup> AP:       XXX         PRODUCTION DESIGNER:       MAT         CHECKED BY:       MSL         Revision Schedule         Rev       Date         By       Description



DEMOLITION NOTES	EROSION CONTROL NOTES
DEMOLITION NOTES: THE CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO ANY DEMOLITION.	EROSION CONTROL: CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THESE DRAWINGS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES. THESE FEES ARE TO BE INCLUDED WITH THE BID.	BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.	CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE
THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK.	CONTAINED AND PROPERLY TREATED OR DISPOSED. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
IN ACCORDANCE WITH THE DEMOLITION PLAN, CONTRACTOR TO COMPLETELY DEMOLISH AND DISPOSE OF OFFSITE IN A LAWFUL MANNER EXISTING BUILDINGS, INCLUDING FOUNDATIONS AND ALL APPURTENANCES LOCATED ON AND AROUND THE PROPERTY INCLUDING BUT NOT LIMITED TO BOLLARDS, GAS METERS, AIR CONDITIONING UNITS, SIGNS, CURBS, SIDEWALKS, ELECTRIC METERS, FENCING, ETC.	DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED
REMOVE AND/OR PLUG EXISTING UTILITIES SUCH AS SANITARY SEWER, WATER, GAS, ELECTRIC, AND TELEPHONE AS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH UTILITY COMPANY TO COORDINATE REMOVAL OF ALL UTILITIES AND FOR DETERMINING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO COMMENCING WORK.	CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR JURISDICTIONAL WATERS. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE EROSION AND SEDIMENT CONTROL PLANS SHALL BE INITIATED AS SOON AS PRACTICABLE.
THE CONTRACTOR SHALL CUT AND PLUG, OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND PLUG, ALL SERVICE PIPING AT THE STREET LINE OR MAIN, AS REQUIRED, OR AS OTHERWISE NOTED. ALL SERVICES MAY NOT BE SHOWN ON THIS PLAN. THE CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTEND OF SERVICE PIPING TO BE REMOVED, CUT OR PLUGGED.	DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE EROSION CONTROL PLANS AND/OR LANDSCAPE PLAN.
THE CONTRACTOR SHALL ARRANGE FOR RESETTING OF CURB BOXES, VALVE BOXES AND REMOVAL AND/OR RELOCATION OF OVERHEAD UTILITIES AND POLES WITH THE APPROPRIATE UTILITY COMPANY. INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.	IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID UNNECESSARY DAMAGE TO EXISTING ROAD	ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
SURFACE. SAWCUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN. SAWCUT EXISTING PAVEMENT AT THE R/W. ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO ITS	CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM THE EROSION CONTROL BASINS AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO THE ADJOINING PROPERTIES DURING THE	SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
DEMOLITION PROCESS. SHOULD ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED	ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY. THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY FOR DIRECTION BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA. ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS	ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STATE EROSION AND SEDIMENT CONTROL REGULATIONS, U.S. DEPARTMENT OF AGRICULTURE, AND U.S. SOIL CONSERVATION SERVICE REGULATIONS.
MATERIAL CONTRACTOR AND DISPOSED OF PROPERLY	THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
GENERAL NOTES	STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE STATE REGULATIONS. TOPSOILING, PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
ALL WORK AND MATERIALS SHALL COMPLY WITH ALL STATE, CITY AND COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS, BUILDING	ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
UTILITY ENTRANCE LOCATIONS, EXACT LOCATIONS AND DIMENSIONS OF ENTRIES, SIDEWALKS, DOWNSPOUTS, AND BOLLARDS IN BUILDING SIDEWALKS.	WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED, AT NO ADDITIONAL COST TO
UNLESS SHOWN OTHERWISE ON THE PLANS, CONTRACTOR SHALL APPLY 4" OF TOP SOIL TO ALL DISTURBED AREAS OF THE SITE, PLANT GRASS SEED OR SOD, APPLY STRAW, AND WATER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED OR SODDED AREAS. IF A HEALTHY STAND OF GRASS CAN NOT BE ESTABLISHED BY THE TIME THE BUILDING BECOMES OCCUPIED, THEN SOD SHALL BE INSTALLED AND WATERED UNTIL GRASS IS ESTABLISHED.	THE OWNER, WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION. ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.
ALL ISLANDS WITH CURB & GUTTER SHALL BE LANDSCAPED. THOSE ISLANDS ARE TO HAVE CURB & GUTTER AS SHOWN ON THE CONSTRUCTION DRAWINGS.	SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND
ALL DIMENSIONS AND RADII ARE REFERENCED TO THE FACE OF CURB UNLESS OTHERWISE NOTED. ALL BUILDING DIMENSIONS ARE REFERENCED TO THE OUTSIDE FACE OF THE STRUCTURE UNLESS OTHERWISE NOTED.	SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. STABILIZATION MEASURES SHALL BE APPLIED TO STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BID. AREAS TO BE DISTURBED SHALL BE IMPROVED PER THESE PLANS OR RESTORED TO	LIMITS OF GRADING SHOWN ON THE PLAN ARE MAXIMUM LIMITS FOR EROSION CONTROL PURPOSES ONLY. SURVEYOR TO DETERMINE ACTUAL LIMIT.
THEIR ORIGINAL OR BETTER CONDITION. ACCESSIBLE SIGNS WITH A "VAN" MARKING SHALL HAVE ADDITIONAL SIGN MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY SIGN DENOTING VAN ACCESSIBILITY. ALL ACCESSIBLE SIGNS SHALL MEET THE CURRENT MINIMUM ADA AND LOCAL STANDARDS.	MAINTENANCE: ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLANS, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED
REFER TO THE DETAIL SHEETS FOR DETAILS OF ON-SITE SIGNAGE, STRIPING, AND PAVEMENT MARKING. REFER TO SITE PLAN FOR ADDITIONAL DIMENSIONAL INFORMATION.	BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A 0.5" RAINFALL EVENT, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING: CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE
ALL HEIGHTS AND SETBACKS SHALL MEET THE MINIMUM STANDARDS SET FORTH IN THE LOCAL CODE. THE CONTRACTOR SHALL EMPLOY ALL NECESSARY BARRICADES, SIGNS, FENCES, FLASHING LIGHTS, TRAFFIC MEN, ETC. FOR MAINTENANCE AND PROTECTION OF TRAFFIC AS REQUIRED.	CONSTRUCTION DRAWINGS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
THE CONTRACTOR SHALL PROTECT ALL MONUMENTS, IRON PINS, AND PROPERTY CORNERS DURING CONSTRUCTION.	INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
CONTRACTOR AGREES TO REPAIR ANY DAMAGE TO THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE STANDARDS OF THE DOT.	ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER ANY DISCREPANCIES FOUND BETWEEN THE ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.	SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION) FOR DETAILS OF STANDARD TRAFFIC CONTROL SIGNS AND STANDARDS.	OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

## **GRADING AND DRAINAGE NOTES**

### GRADING:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

ALL CUT OR FILL SLOPES SHALL BE 2:1 OR FLATTER UNLESS OTHERWISE NOTED.

EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT

CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT

AND CONTINUOUS GRADE.

CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY LECRAW ENGINEERING.

ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS AND MAINTAIN DISTURBED AREAS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

ALL WORK AND MATERIALS SHALL COMPLY WITH ALL STATE AND LOCAL REGULATIONS AND CODES AND O.S.H.A. STANDARDS.

ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES.

ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING UTILITIES, AND SHALL REPAIR ALL DAMAGE TO EXISTING UTILITIES THAT OCCUR DURING CONSTRUCTION.

CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE. ALL SITE PREPARATION AND UNSUITABLE SOIL REMOVAL, AS WELL AS THE PLACEMENT OF FILL MATERIALS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT (BY OTHERS).

LIMITS OF CLEARING SHOWN ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.

THE PROPOSED CONTOURS SHOWN IN DRIVES AND PARKING LOTS AND SIDEWALKS ARE FINISHED ELEVATIONS INCLUDING PAVEMENT. REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORREC SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS.

CONTRACTOR SHALL INSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW ACROSS NEW PAVEMENT AREAS TO NEW OR EXISTING DRAINAGE INLETS OR SHEET OVERLAND. ANY GRADING BEYOND THE LIMITS OF CONSTRUCTION AS SHOWN ON THE GRADING PLAN IS PROHIBITED.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS. THE DESIGN ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE DESIGN(S) TO INSTALL SAID ITEMS.

THE CONTRACTOR SHALL INCLUDE IN THE BID ANY DEWATERING AND MOISTURE CONDITIONING NECESSARY TO CONSTRUCT THE PROJECT AS SHOWN ON THE PLANS.

ALL FOUNDATION EXCAVATION SHALL BE INSPECTED BY A QUALIFIED GEOTECHNIAL REPRESENTATIVE TO DETERMINE WHETHER UNSUITABLE MATERIAL MUST BE REMOVED. ALL UNDESIRABLE MATTER SHALL BE REMOVED, BACKFILLED AND COMPACTED AS REQUIRED BY THE GEOTECHNICAL REPRESENTATIVE.

GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. STATIONS, OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS, MANHOLES AND JUNCTION BOXES, AND THE MIDPOINT OF THE LIP FOR CATCH BASINS.

### DRAINAGE:

CONTRACTOR TO CONFIRM STRUCTURE ELEVATIONS SHOWN AND PROVIDE SHOP DRAWINGS TO OWNER & ENGINEER FOR REVIEW PRIOR TO ORDERING OF OR INSTALLATION OF STRUCTURES.

TYPE 1: RCP, CLASS III PER ASTM C-76, WITH FLEXIBLE PLASTIC BITUMEN GASKETS AT JOINTS.

PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION. STORM PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED

- TYPE 2: SPIRAL RIB METAL PIPE TYPE 1R: ALUMINIZED COATED AS SPECIFIED ON CONSTRUCTION DRAWINGS. ONLY PERMITTED WHEN SPECIFICALLY INDICATED ON CONSTRUCTION DRAWINGS. PIPE ENDS SHALL BE RE-CORRUGATED AND INSTALLED WITH SEMI-CORRUGATED HUGGER-TYPE BANDS AND "O" RING GASKETS IN ACCORDANCE WITH PIPE MANUFACTURER'S INSTALLATION REQUIREMENTS. SPIRAL RIB METAL PIPE MUST COMPLY WITH ASTM A 760 TYPE 1R. ACCEPTABLE MANUFACTURER: CONTECH, INC." ULTRA FLO OR ULTRA FLO II", CALDWELL CULVERT CO. "SMOOTH RIB" OR APPROVED FOLIAI
- TYPE 3: HIGH DENSITY POLYETHYLENE, ADS N-12 ST IB PIPE (PER AASHTO M294), OR APPROVED EQUAL, SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. 4- THROUGH 60-INCH SHALL MEET AASHTO M294. PIPE SHALL BE JOINED USING A BELL & SPIGOT JOINT MEETING ASTM F2648. THE JOINT SHALL BE SOIL-TIGHT AND GASKETS, WHEN APPLICABLE, SHALL MEET THE REQUIREMENTS OF ASTM F477. FITTINGS SHALL CONFORM TO ASTM F 2306. MATERIAL FOR PIPE PRODUCTION SHALL BE AN ENGINEERED COMPOUND OF VIRGIN AND RECYCLED HIGH DENSITY POLYETHYLENE CONFORMING WITH THE MINIMUM REQUIREMENTS OF CELL CLASSIFICATION 424420C (ESCR TEST CONDITION B) FOR 4- THROUGH 10-INCH (100 TO 250 MM) DIAMETERS, AND 435420C (ESCR TEST CONDITION B) FOR 12- THROUGH 60-INCH DIAMETERS, AS DEFINED AND DESCRIBED IN THE LATEST VERSION OF ASTM D3350, EXCEPT THAT CARBON BLACK CONTENT

SHOULD NOT EXCEED 4%. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 OR PER MANUFACTURER'S RECOMMENDATION.

EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.

ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT

ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE. TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".

ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.

ALL STORM DRAINAGE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE CLASS III REINFORCED CONCRETE PIPE, UNLESS OTHERWISE SHOWN.

A MINIMUM GRADE OF 0.50% SHALL BE MAINTAINED ON ALL PIPES.

ALL PIPE LENGTHS AND SLOPES ARE APPROXIMATE.

ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.

SUBSURFACE DRAINAGE FACILITIES MAY RE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE INSPECTOR.

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA: A. NO MORE THAN 500 LF OF TRENCH MAY BE OPENED AT ONE TIME.

 B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

D. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO IINIMIZE EROSION AND PROMOTE STABILIZATION.

E. DESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REGULATIONS.

F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

THIS PLAN DETAILS PIPES UP TO 5FT FROM THE BUILDING FACE. REFER TO ARCHITECTURAL DRAWINGS FOR BUILDING CONNECTIONS. CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY STRUCTURE TOP ELEVATIONS SHOWN HERE ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NECESSARY.

## UTILITY NOTES

### UTILITY NOTES:

ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72-HOURS BEFORE CONNECTING TO

ANY EXISTING LINE.

SANITARY SEWER PIPE, AS SHOWN ON PLANS, SHALL BE AS FOLLOWS: PVC PER ASTM D 3034 DUCTILE IRON PIPE PER AWWA C150

PIPE RUNS BETWEEN MANHOLES TO BE THE SAME CLASS. WATER LINES. AS SHOWN ON PLANS, SHALL BE AS FOLLOWS:

PVC C-900 PER ASTM D 2241, CLASS 200 UNDER PUBLIC ROADS, OTHERWISE CLASS 150 DUCTILE IRON PIPE PER AWWA C150 EITHER COPPER TUBE TYPE "L" (SOFT) PER ANSI 816.22 PVC, 200 P.S.I, PER ASTM D1784 AND D2241.

MINIMUM TRENCH WIDTH SHALL BE 2 FEET.

ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AS CALLED OUT IN THE SPECIFICATIONS.

ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" VERTICAL CLEARANCE (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).

CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'-0" COVER ON ALL WATERLINES.

IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING, THE WATERLINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).

LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.

TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS IN UNPAVED AREAS WITH WATER TIGHT LIDS.

ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3,000

DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.

EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.

REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.

CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL JURISDICTION WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS WAS PROVIDED BY THE LAND SURVEYOR AND IS BASED ON

RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

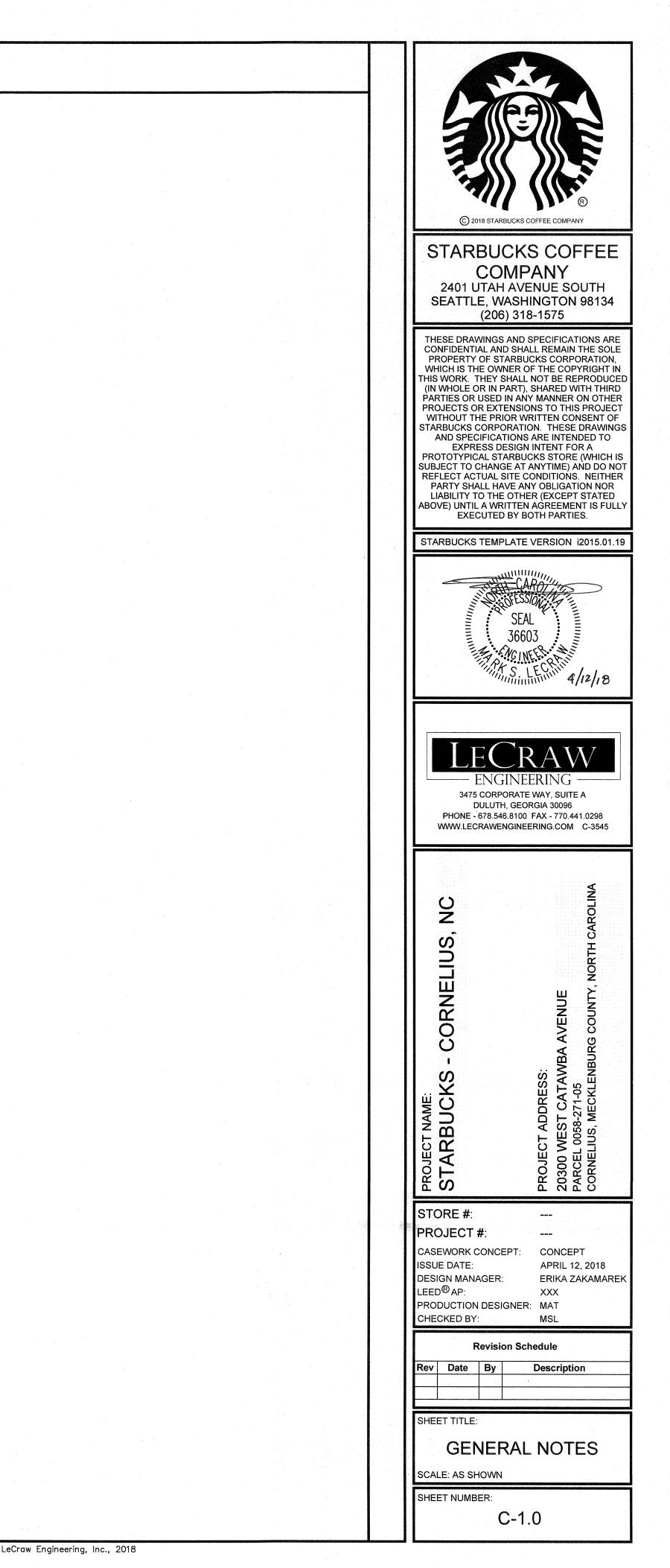
CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.

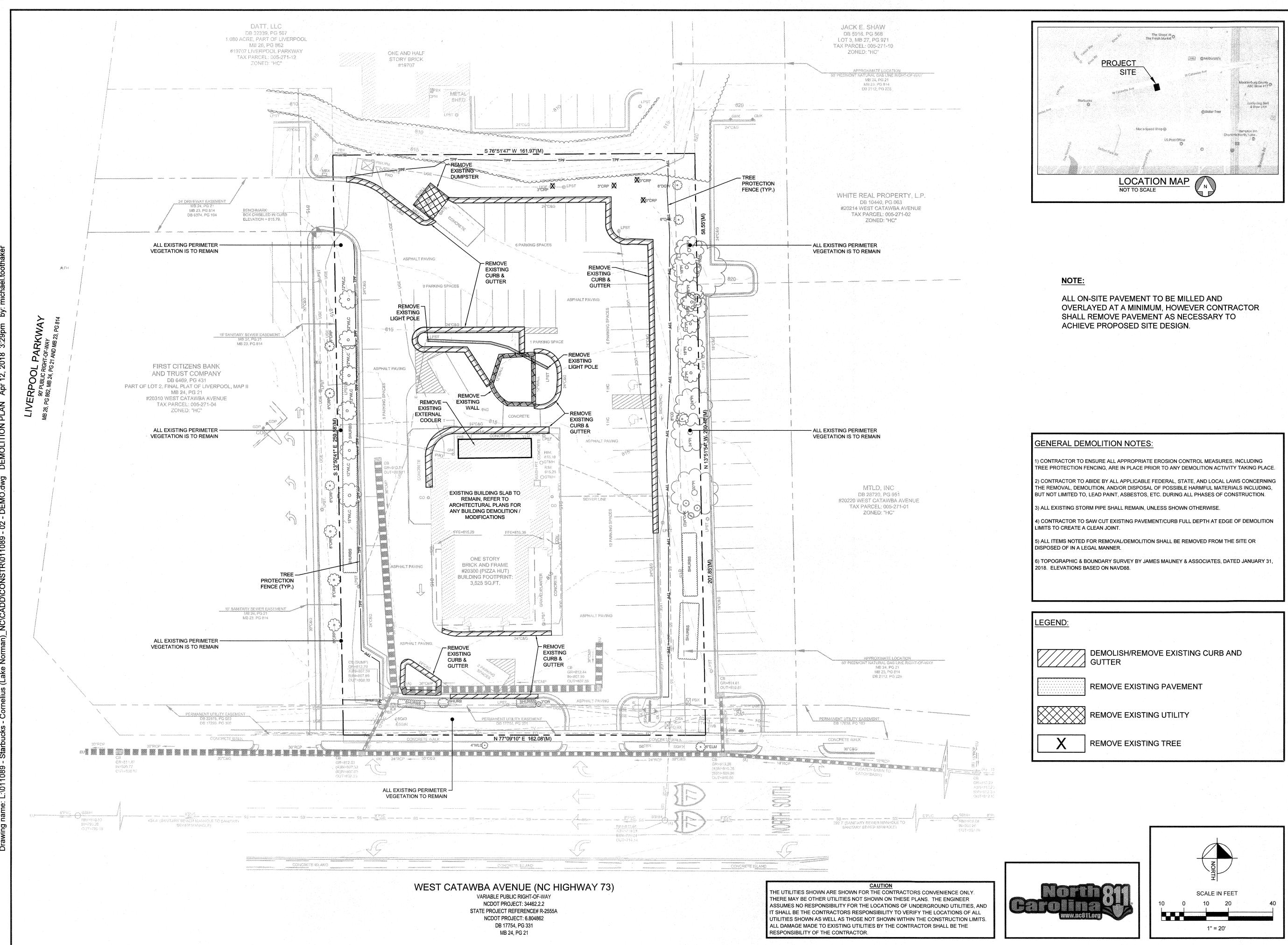
IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

ALL EXISTING AND PROPOSED UTILITY MAIN LENGTHS SHOWN ARE APPROXIMATE.

ALL EXISTING UTILITIES PROPOSED TO BE RELOCATED ON THESE PLANS SHALL BE PLACED UNDERGROUND, UNLESS OTHERWISE NOTED.

CONTRACTOR TO REFERENCE MEP PLANS FOR ALL GREASE TRAP SIZING, DETAILS, CLEANOUTS, SAMPLE WELLS, AND VENT PIPING. GREASE TRAPS SHOWN ON CIVIL DRAWINGS ARE FOR REFERENCE ONLY.





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### **EROSION CONTROL NOTES:** 1. TOTAL AREA DISTURBED - 0.90 ACRES

### TOTAL SITE AREA - 0.97 ACRES

EXISTING SOILS GROUP - CEB2 - CECIL SANDY CLAY LOAM, 2 TO 8 PERCENT SLOPES, MODERATELY ERODED. 2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN

ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NCDENR EROSION AND SEDIMENT CONTROL HANDBOOK. 3. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT

CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS

4. CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT.

5. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE. 6. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT

SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. 7. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.

8. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS A REVISED PLAN SHOWING OFF-SITE IMPACTS SHOULD BE SUBMITTED AND APPROVED PRIOR TO BEGINNING OFF-SITE GRADING. CONTACT PROJECT ENGINEER AND PROJECT. EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL

MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING. 9. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS, IF APPLICABLE), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL

PLAN TO THE OWNER FOR REVIEW AND TO NCDENR FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT 10. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED

CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RE-SEEDED AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS. 11. STABILIZATION IS THE BEST FORM OF EROSION CONTROL ALL DISTURBED AREAS

WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NCDENR SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS

REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE. 12. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.

13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. SIX INCHES OF STONE SHALL BE USED FOR THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.

14. ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING

15. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE.

16. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS COMPLETED

17. DURING DE-WATERING OPERATIONS. WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET 18. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY

CONSTRUCTION SEQUENCE:

1. CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED AND THAT THOSE REQUIRED TO BE DISPLAYED ON-SITE ARE AVAILABLE. 2. CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS BEFORE THE ACTUAL START OF CONSTRUCTION. CONTACT NCDENR INSPECTOR. 3. CONTRACTOR SHALL CONTACT CAROLINA ONE CALL AND ALL ENTITIES HAVING BURIED UTILITIES AT LEAST 72 HOURS PRIOR TO DIGGING OR AS DIRECTED AT THE PRE-CONSTRUCTION MEETING. 4. CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ENTRANCES AT EACH

POINT OF ACCESS TO STORAGE AND CONSTRUCTION AREAS 5. INITIAL PHASE SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH PLANS BEFORE STARTING WORK INCLUDING SILT FENCE, INLET PROTECTION, SKIMMER BASIN, DIVERSION DITCHES, TREE PROTECTION, ETC., CLEARING ONLY AS NECESSARY FOR THE INSTALLATION OF THESE MEASURES.

6. CONTRACTOR SHALL INCLUDE A RAIN GAUGE AND LOG BOOK CONTAINING THE INSPECTION RECORDS FOR THE SITE. 7. CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION

CONTROL DEVICES AND STRUCTURES. ALL APPLICABLE E&S CONTROL MEASURES MUST BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.

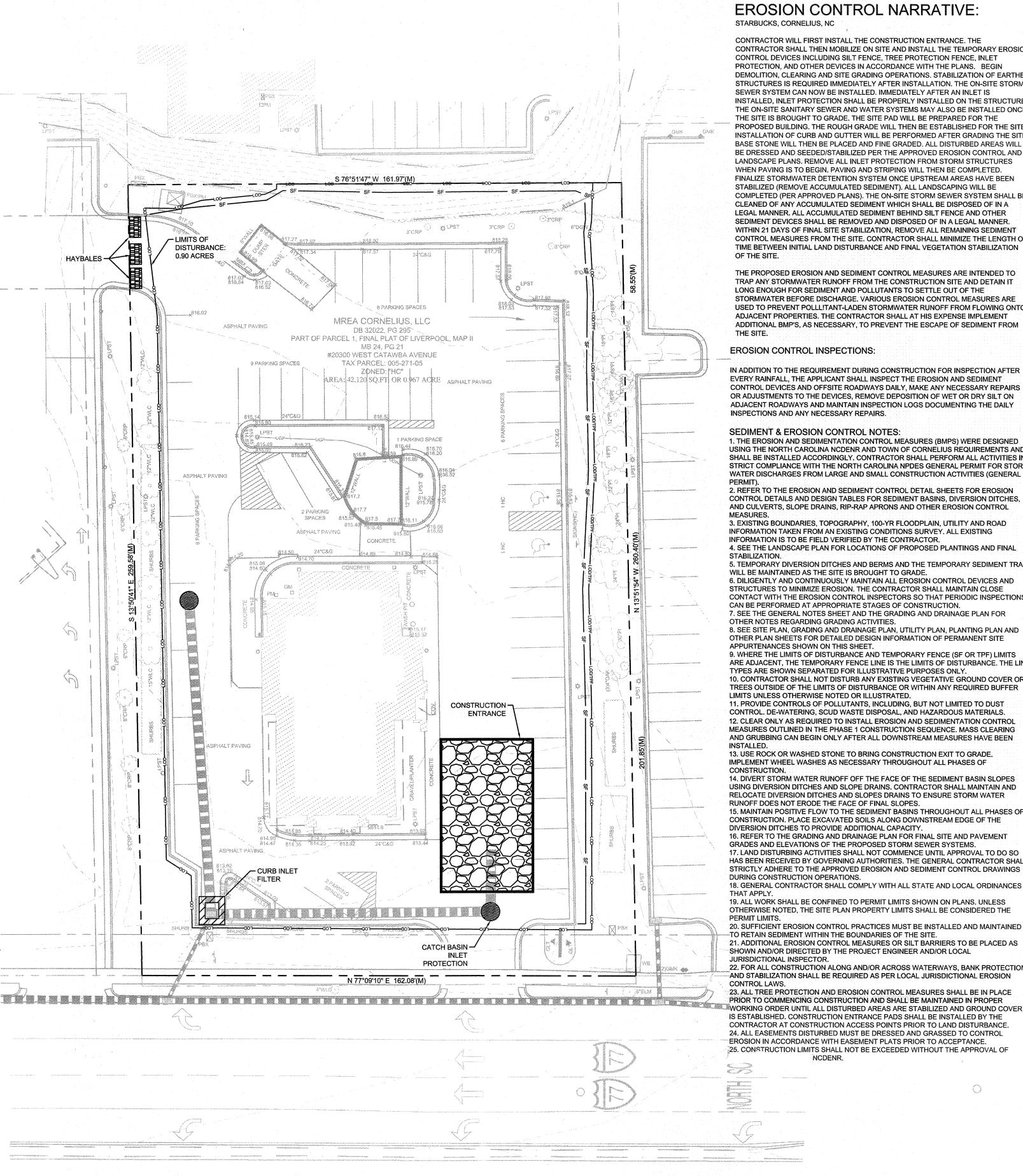
8. STOCKPILE RIP-RAP ON SITE AND INSTALL ALL OTHER EROSION CONTROL MEASURES WHERE THE WORK IS OCCURRING. THE CONTRACTOR SHALL NOT INSTALL EROSION CONTROL MEASURES IN AREAS WHERE THE WORK WILL NOT OCCUR FOR SOME TIME. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER OR UPON RECOMMENDATION OF NCDENR INSPECTION PERSONNEL AS CONDITIONS WARRANT

9. IN AREAS WHERE IT IS NOT FEASIBLE TO INSTALL EROSION CONTROL DEVICES, ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED BY THE CONTRACTOR WITHIN THREE DAYS OF INITIAL DISTURBANCE. TEMPORARY SEEDING SHALL BE REQUIRED ON ALL OTHER AREAS TO BE DISTURBED FOR A PERIOD OF 10 DAYS OR LONGER 10. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE.

11. UPON COMPLETION OF THE INSTALLATION AND WITH APPROVAL OF NCDENR, ALL EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. EACH SECTION SHALL BE SEEDED AT THE EARLIEST POSSIBLE DATE AFTER INSTALLATION OF PIPE, STRUCTURE, OR ACCESS. COORDINATE WITH THE EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES

CONTRACTOR SHALL NOT CONVERT TO PERMANENT BMP FACILITY UNTIL UPSTREAM AREAS ARE STABILIZED. AS PART OF THE CONVERSION FROM THE TO THE PERMANENT STORMWATER BMP ALL ACCUMULATED SEDIMENT WITHIN THE BASIN SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE MANNER. INSTALL FINAL EROSION CONTROL MEASURES AND PERMANENTLY SEED EXPOSED AREAS. 12. ONCE GROUND COVER IS FIRMLY ESTABLISHED, ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITH THE APPROVAL OF NCDENR INSPECTOR.

13. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION & SEDIMENT CONTROL PLANNING AND DESIGN MANUAL NCDOT. U.S. DEPT. OF AGRICULTURE. AND COUNTY STANDARDS.



WEST CATAWBA AVENUE (NC HIGHWAY 73) VARIABLE PUBLIC RIGHT-OF-WAY NCDOT PROJECT: 34462.2.2

MB 24, PG 21

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## STATE PROJECT REFERENCE# R-2555A NCDOT PROJECT: 6.804862 DB 17754, PG 331

## **EROSION CONTROL NARRATIVE:** STARBUCKS, CORNELIUS, NC

CONTRACTOR WILL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, TREE PROTECTION FENCE, INLET PROTECTION, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS. BEGIN DEMOLITION, CLEARING AND SITE GRADING OPERATIONS, STABILIZATION OF EARTHEN STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED. INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE THE ON-SITE SANITARY SEWER AND WATER SYSTEMS MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE INSTALLATION OF CURB AND GUTTER WILL BE PERFORMED AFTER GRADING THE SITE. BASE STONE WILL THEN BE PLACED AND FINE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEEDED/STABILIZED PER THE APPROVED EROSION CONTROL AND LANDSCAPE PLANS. REMOVE ALL INLET PROTECTION FROM STORM STRUCTURES WHEN PAVING IS TO BEGIN, PAVING AND STRIPING WILL THEN BE COMPLETED. FINALIZE STORMWATER DETENTION SYSTEM ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING WILL BE COMPLETED (PER APPROVED PLANS). THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LEGAL MANNER, ALL ACCUMULATED SEDIMENT BEHIND SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER. WITHIN 21 DAYS OF FINAL SITE STABILIZATION, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE, VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLL!TANT-LADEN STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES. THE CONTRACTOR SHALL AT HIS EXPENSE IMPLEMENT ADDITIONAL BMP'S, AS NECESSARY, TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE.

### **EROSION CONTROL INSPECTIONS:**

IN ADDITION TO THE REQUIREMENT DURING CONSTRUCTION FOR INSPECTION AFTER EVERY RAINFALL, THE APPLICANT SHALL INSPECT THE EROSION AND SEDIMENT CONTROL DEVICES AND OFFSITE ROADWAYS DAILY, MAKE ANY NECESSARY REPAIRS OR ADJUSTMENTS TO THE DEVICES, REMOVE DEPOSITION OF WET OR DRY SILT ON ADJACENT ROADWAYS AND MAINTAIN INSPECTION LOGS DOCUMENTING THE DAILY INSPECTIONS AND ANY NECESSARY REPAIRS.

### SEDIMENT & EROSION CONTROL NOTES:

1. THE EROSION AND SEDIMENTATION CONTROL MEASURES (BMPS) WERE DESIGNED USING THE NORTH CAROLINA NCDENR AND TOWN OF CORNELIUS REQUIREMENTS AND SHALL BE INSTALLED ACCORDINGLY. CONTRACTOR SHALL PERFORM ALL ACTIVITIES IN STRICT COMPLIANCE WITH THE NORTH CAROLINA NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (GENERAL PERMIT)

2. REFER TO THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS FOR EROSION CONTROL DETAILS AND DESIGN TABLES FOR SEDIMENT BASINS, DIVERSION DITCHES, AND CULVERTS, SLOPE DRAINS, RIP-RAP APRONS AND OTHER EROSION CONTROL MEASURES.

3. EXISTING BOUNDARIES, TOPOGRAPHY, 100-YR FLOODPLAIN, UTILITY AND ROAD INFORMATION TAKEN FROM AN EXISTING CONDITIONS SURVEY. ALL EXISTING INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR.

4. SEE THE LANDSCAPE PLAN FOR LOCATIONS OF PROPOSED PLANTINGS AND FINAL STABILIZATION. 5. TEMPORARY DIVERSION DITCHES AND BERMS AND THE TEMPORARY SEDIMENT TRAP

WILL BE MAINTAINED AS THE SITE IS BROUGHT TO GRADE. 6. DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE EROSION CONTROL INSPECTORS SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.

7. SEE THE GENERAL NOTES SHEET AND THE GRADING AND DRAINAGE PLAN FOR OTHER NOTES REGARDING GRADING ACTIVITIES. 8, SEE SITE PLAN, GRADING AND DRAINAGE PLAN, UTILITY PLAN, PLANTING PLAN AND

OTHER PLAN SHEETS FOR DETAILED DESIGN INFORMATION OF PERMANENT SITE APPURTENANCES SHOWN ON THIS SHEET.

9. WHERE THE LIMITS OF DISTURBANCE AND TEMPORARY FENCE (SF OR TPF) LIMITS ARE ADJACENT, THE TEMPORARY FENCE LINE IS THE LIMITS OF DISTURBANCE. THE LINE TYPES ARE SHOWN SEPARATED FOR ILLUSTRATIVE PURPOSES ONLY 10. CONTRACTOR SHALL NOT DISTURB ANY EXISTING VEGETATIVE GROUND COVER OR

TREES OUTSIDE OF THE LIMITS OF DISTURBANCE OR WITHIN ANY REQUIRED BUFFER LIMITS UNLESS OTHERWISE NOTED OR ILLUSTRATED. 11. PROVIDE CONTROLS OF POLLUTANTS, INCLUDING, BUT NOT LIMITED TO DUST CONTROL. DE-WATERING, SCUD WASTE DISPOSAL, AND HAZARDOUS MATERIALS. 12. CLEAR ONLY AS REQUIRED TO INSTALL EROSION AND SEDIMENTATION CONTROL

MEASURES OUTLINED IN THE PHASE 1 CONSTRUCTION SEQUENCE. MASS CLEARING AND GRUBBING CAN BEGIN ONLY AFTER ALL DOWNSTREAM MEASURES HAVE BEEN INSTALLED. 13. USE ROCK OR WASHED STONE TO BRING CONSTRUCTION EXIT TO GRADE.

IMPLEMENT WHEEL WASHES AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION 14. DIVERT STORM WATER RUNOFF OFF THE FACE OF THE SEDIMENT BASIN SLOPES

JSING DIVERSION DITCHES AND SLOPE DRAINS. CONTRACTOR SHALL MAINTAIN AND RELOCATE DIVERSION DITCHES AND SLOPES DRAINS TO ENSURE STORM WATER RUNOFF DOES NOT ERODE THE FACE OF FINAL SLOPES 15. MAINTAIN POSITIVE FLOW TO THE SEDIMENT BASINS THROUGHOUT ALL PHASES OF

CONSTRUCTION. PLACE EXCAVATED SOILS ALONG DOWNSTREAM EDGE OF THE DIVERSION DITCHES TO PROVIDE ADDITIONAL CAPACITY. 16. REFER TO THE GRADING AND DRAINAGE PLAN FOR FINAL SITE AND PAVEMENT

GRADES AND ELEVATIONS OF THE PROPOSED STORM SEWER SYSTEMS. 17. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED EROSION AND SEDIMENT CONTROL DRAWINGS DURING CONSTRUCTION OPERATIONS.

18. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY. 19. ALL WORK SHALL BE CONFINED TO PERMIT LIMITS SHOWN ON PLANS. UNLESS

OTHERWISE NOTED, THE SITE PLAN PROPERTY LIMITS SHALL BE CONSIDERED THE PERMIT LIMITS. 20. SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED

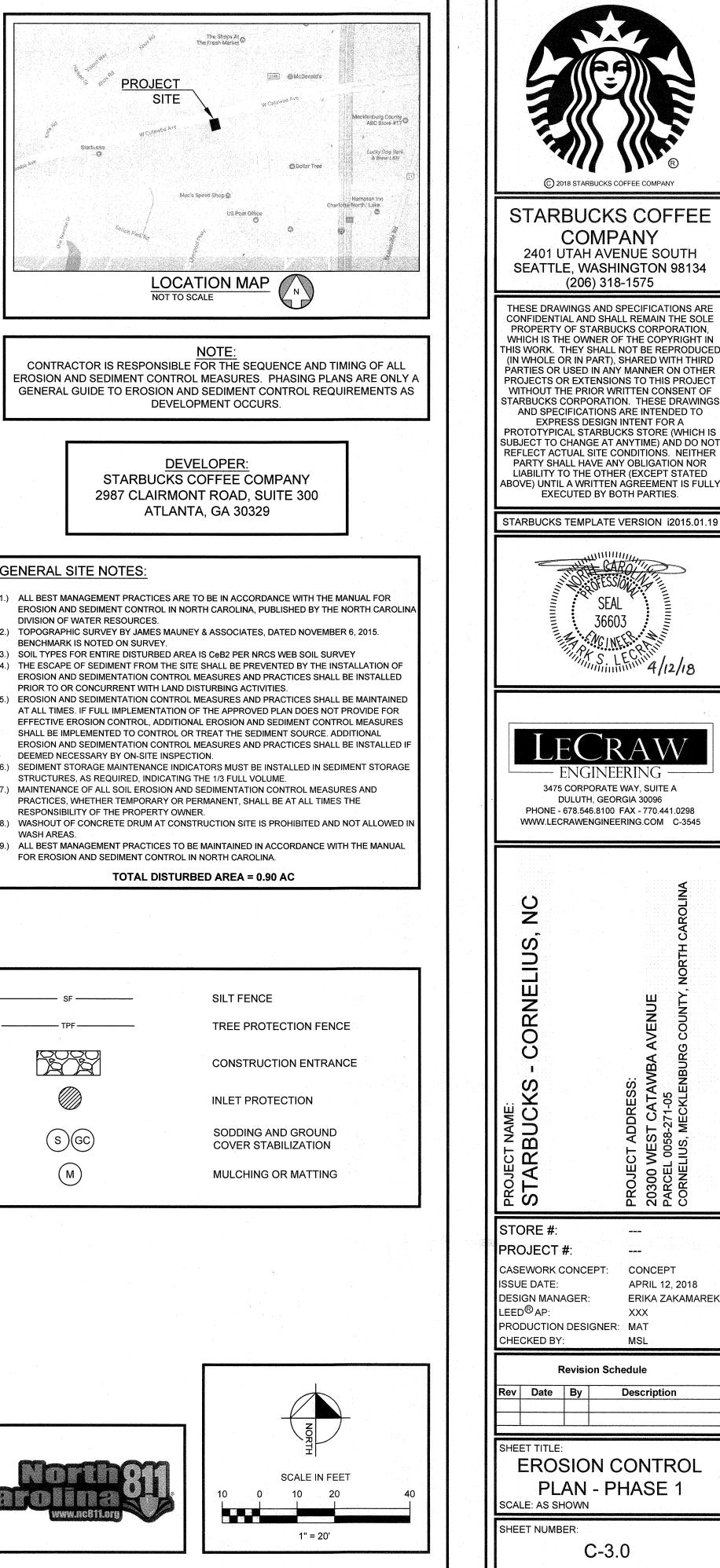
TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. 21. ADDITIONAL EROSION CONTROL MEASURES OR SILT BARRIERS TO BE PLACED AS SHOWN AND/OR DIRECTED BY THE PROJECT ENGINEER AND/OR LOCAL

JURISDICTIONAL INSPECTOR. 22. FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS, BANK PROTECTION AND STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LAWS.

23. ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE IS ESTABLISHED. CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE

CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE. 24. ALL EASEMENTS DISTURBED MUST BE DRESSED AND GRASSED TO CONTROL EROSION IN ACCORDANCE WITH EASEMENT PLATS PRIOR TO ACCEPTANCE. 25. CONSTRUCTION LIMITS SHALL NOT BE EXCEEDED WITHOUT THE APPROVAL OF

NCDENR.



### **EROSION CONTROL NOTES:** 1. TOTAL AREA DISTURBED - 0.90 ACRES TOTAL SITE AREA - 0.97 ACRES

EXISTING SOILS GROUP - CEB2 - CECIL SANDY CLAY LOAM, 2 TO 8 PERCENT SLOPES, MODERATELY ERODED. 2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN

ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NCDENR EROSION AND SEDIMENT CONTROL HANDBOOK.

3. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS

4. CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT

5. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.

6. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. 7. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR EROSION

CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION. 8. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS, A REVISED PLAN SHOWING OFF-SITE IMPACTS SHOULD BE SUBMITTED AND APPROVED PRIOR TO

BEGINNING OFF-SITE GRADING. CONTACT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING.

9. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS, IF APPLICABLE), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NCDENR FOR APPROVAL. CONTRACTOR

SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT 10. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED

CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RE-SEEDED AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS. 11. STABILIZATION IS THE BEST FORM OF EROSION CONTROL ALL DISTURBED AREAS

WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NCDENR SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS

REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE. 12. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION

13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. SIX INCHES OF STONE SHALL BE USED FOR THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.

14. ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING 15. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND

OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE. 16. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL

MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS COMPLETED. 17. DURING DE-WATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN

APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET 18. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

CONSTRUCTION SEQUENCE:

1. CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED AND THAT THOSE REQUIRED TO BE DISPLAYED ON-SITE ARE AVAILABLE. 2. CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS BEFORE THE ACTUAL START OF CONSTRUCTION. CONTACT NCDENR INSPECTOR. 3. CONTRACTOR SHALL CONTACT CAROLINA ONE CALL AND ALL ENTITIES HAVING BURIED UTILITIES AT LEAST 72 HOURS PRIOR TO DIGGING OR AS DIRECTED AT THE PRE-CONSTRUCTION MEETING. 4. CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ENTRANCES AT EACH

POINT OF ACCESS TO STORAGE AND CONSTRUCTION AREAS. 5. INITIAL PHASE SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH PLANS BEFORE STARTING WORK INCLUDING SILT FENCE, INLET PROTECTION, SKIMMER BASIN, DIVERSION DITCHES, TREE PROTECTION, ETC.,

CLEARING ONLY AS NECESSARY FOR THE INSTALLATION OF THESE MEASURES. 6. CONTRACTOR SHALL INCLUDE A RAIN GAUGE AND LOG BOOK CONTAINING THE INSPECTION RECORDS FOR THE SITE. 7. CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION

CONTROL DEVICES AND STRUCTURES. ALL APPLICABLE E&S CONTROL MEASURES MUST BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.

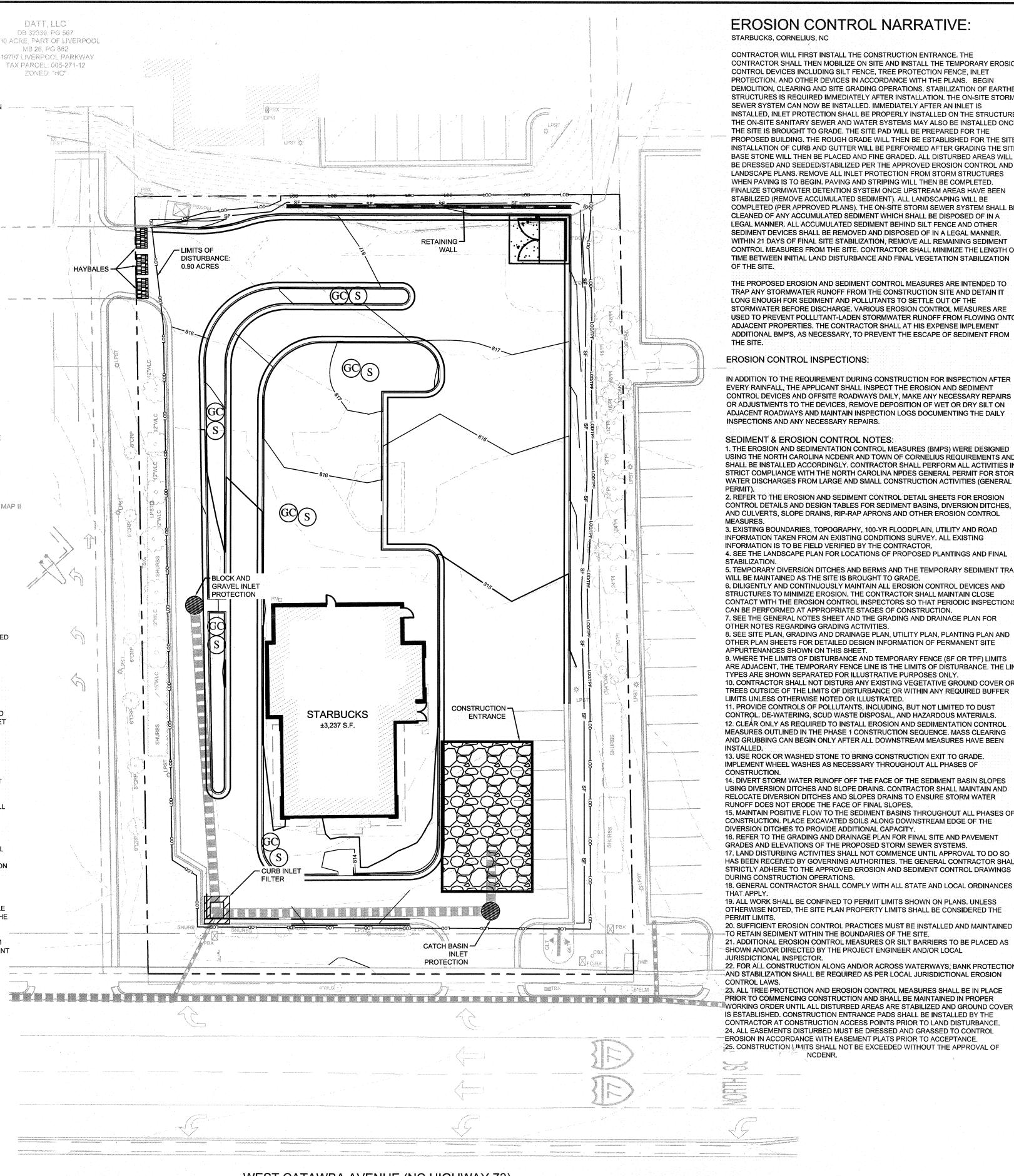
8. STOCKPILE RIP-RAP ON SITE AND INSTALL ALL OTHER EROSION CONTROL MEASURES WHERE THE WORK IS OCCURRING. THE CONTRACTOR SHALL NOT INSTALL EROSION CONTROL MEASURES IN AREAS WHERE THE WORK WILL NOT OCCUR FOR SOME TIME. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER OR UPON RECOMMENDATION OF NCDENR INSPECTION PERSONNEL AS

CONDITIONS WARRANT 9. IN AREAS WHERE IT IS NOT FEASIBLE TO INSTALL EROSION CONTROL DEVICES, ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED BY THE CONTRACTOR WITHIN THREE DAYS OF INITIAL DISTURBANCE. TEMPORARY SEEDING SHALL BE REQUIRED ON ALL OTHER AREAS TO BE DISTURBED FOR A PERIOD OF 10 DAYS OR LONGER.

10. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE. 11. UPON COMPLETION OF THE INSTALLATION AND WITH APPROVAL OF NCDENR, ALL EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER. EACH SECTION SHALL BE SEEDED AT THE EARLIEST POSSIBLE DATE AFTER INSTALLATION OF PIPE, STRUCTURE, OR ACCESS. COORDINATE WITH THE EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL

MEASURES. CONTRACTOR SHALL NOT CONVERT TO PERMANENT BMP FACILITY UNTIL UPSTREAM AREAS ARE STABILIZED. AS PART OF THE CONVERSION FROM THE TO THE PERMANENT STORMWATER BMP ALL ACCUMULATED SEDIMENT WITHIN THE BASIN SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE MANNER. INSTALL FINAL EROSION CONTROL MEASURES AND PERMANENTLY SEED EXPOSED AREAS. 12. ONCE GROUND COVER IS FIRMLY ESTABLISHED, ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITH THE APPROVAL OF NCDENR

INSPECTOR. 13. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION & SEDIMENT CONTROL PLANNING AND DESIGN MANUAL NCDOT. U.S. DEPT. OF AGRICULTURE. AND COUNTY STANDARDS.



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MB 24, PG 21

# WEST CATAWBA AVENUE (NC HIGHWAY 73) DB 17754, PG 331

## **EROSION CONTROL NARRATIVE:** STARBUCKS, CORNELIUS, NC

CONTRACTOR WILL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, TREE PROTECTION FENCE, INLET PROTECTION, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS. BEGIN DEMOLITION, CLEARING AND SITE GRADING OPERATIONS. STABILIZATION OF EARTHEN STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED, INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE THE ON-SITE SANITARY SEWER AND WATER SYSTEMS MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE INSTALLATION OF CURB AND GUTTER WILL BE PERFORMED AFTER GRADING THE SITE. BASE STONE WILL THEN BE PLACED AND FINE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEEDED/STABILIZED PER THE APPROVED EROSION CONTROL AND LANDSCAPE PLANS. REMOVE ALL INLET PROTECTION FROM STORM STRUCTURES WHEN PAVING IS TO BEGIN. PAVING AND STRIPING WILL THEN BE COMPLETED. FINALIZE STORMWATER DETENTION SYSTEM ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING WILL BE COMPLETED (PER APPROVED PLANS). THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LEGAL MANNER. ALL ACCUMULATED SEDIMENT BEHIND SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER. WITHIN 21 DAYS OF FINAL SITE STABILIZATION, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE, VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLL!TANT-LADEN STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES. THE CONTRACTOR SHALL AT HIS EXPENSE IMPLEMENT ADDITIONAL BMP'S, AS NECESSARY, TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE.

### **EROSION CONTROL INSPECTIONS:**

IN ADDITION TO THE REQUIREMENT DURING CONSTRUCTION FOR INSPECTION AFTER EVERY RAINFALL, THE APPLICANT SHALL INSPECT THE EROSION AND SEDIMENT CONTROL DEVICES AND OFFSITE ROADWAYS DAILY. MAKE ANY NECESSARY REPAIRS OR ADJUSTMENTS TO THE DEVICES, REMOVE DEPOSITION OF WET OR DRY SILT ON ADJACENT ROADWAYS AND MAINTAIN INSPECTION LOGS DOCUMENTING THE DAILY INSPECTIONS AND ANY NECESSARY REPAIRS.

### SEDIMENT & EROSION CONTROL NOTES:

1. THE EROSION AND SEDIMENTATION CONTROL MEASURES (BMPS) WERE DESIGNED USING THE NORTH CAROLINA NCDENR AND TOWN OF CORNELIUS REQUIREMENTS AND SHALL BE INSTALLED ACCORDINGLY. CONTRACTOR SHALL PERFORM ALL ACTIVITIES IN STRICT COMPLIANCE WITH THE NORTH CAROLINA NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (GENERAL PERMIT)

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3. EXISTING BOUNDARIES, TOPOGRAPHY, 100-YR FLOODPLAIN, UTILITY AND ROAD INFORMATION TAKEN FROM AN EXISTING CONDITIONS SURVEY. ALL EXISTING INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR.

4. SEE THE LANDSCAPE PLAN FOR LOCATIONS OF PROPOSED PLANTINGS AND FINAL STABILIZATION. 5. TEMPORARY DIVERSION DITCHES AND BERMS AND THE TEMPORARY SEDIMENT TRAP

WILL BE MAINTAINED AS THE SITE IS BROUGHT TO GRADE. 6. DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION, THE CONTRACTOR SHALL MAINTAIN CLOSE

CONTACT WITH THE EROSION CONTROL INSPECTORS SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION. 7. SEE THE GENERAL NOTES SHEET AND THE GRADING AND DRAINAGE PLAN FOR OTHER NOTES REGARDING GRADING ACTIVITIES.

8. SEE SITE PLAN, GRADING AND DRAINAGE PLAN, UTILITY PLAN, PLANTING PLAN AND OTHER PLAN SHEETS FOR DETAILED DESIGN INFORMATION OF PERMANENT SITE APPURTENANCES SHOWN ON THIS SHEET.

9. WHERE THE LIMITS OF DISTURBANCE AND TEMPORARY FENCE (SF OR TPF) LIMITS ARE ADJACENT, THE TEMPORARY FENCE LINE IS THE LIMITS OF DISTURBANCE. THE LINE TYPES ARE SHOWN SEPARATED FOR ILLUSTRATIVE PURPOSES ONLY 10. CONTRACTOR SHALL NOT DISTURB ANY EXISTING VEGETATIVE GROUND COVER OR

TREES OUTSIDE OF THE LIMITS OF DISTURBANCE OR WITHIN ANY REQUIRED BUFFER LIMITS UNLESS OTHERWISE NOTED OR ILLUSTRATED. 11. PROVIDE CONTROLS OF POLLUTANTS, INCLUDING, BUT NOT LIMITED TO DUST CONTROL. DE-WATERING, SCUD WASTE DISPOSAL, AND HAZARDOUS MATERIALS.

12. CLEAR ONLY AS REQUIRED TO INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES OUTLINED IN THE PHASE 1 CONSTRUCTION SEQUENCE. MASS CLEARING AND GRUBBING CAN BEGIN ONLY AFTER ALL DOWNSTREAM MEASURES HAVE BEEN INSTALLED. 13. USE ROCK OR WASHED STONE TO BRING CONSTRUCTION EXIT TO GRADE.

IMPLEMENT WHEEL WASHES AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION. 14. DIVERT STORM WATER RUNOFF OFF THE FACE OF THE SEDIMENT BASIN SLOPES

USING DIVERSION DITCHES AND SLOPE DRAINS, CONTRACTOR SHALL MAINTAIN AND RELOCATE DIVERSION DITCHES AND SLOPES DRAINS TO ENSURE STORM WATER RUNOFF DOES NOT ERODE THE FACE OF FINAL SLOPES 15. MAINTAIN POSITIVE FLOW TO THE SEDIMENT BASINS THROUGHOUT ALL PHASES OF

CONSTRUCTION. PLACE EXCAVATED SOILS ALONG DOWNSTREAM EDGE OF THE DIVERSION DITCHES TO PROVIDE ADDITIONAL CAPACITY. 16. REFER TO THE GRADING AND DRAINAGE PLAN FOR FINAL SITE AND PAVEMENT

GRADES AND ELEVATIONS OF THE PROPOSED STORM SEWER SYSTEMS. 17. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED EROSION AND SEDIMENT CONTROL DRAWINGS DURING CONSTRUCTION OPERATIONS.

18. GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY. 19. ALL WORK SHALL BE CONFINED TO PERMIT LIMITS SHOWN ON PLANS. UNLESS

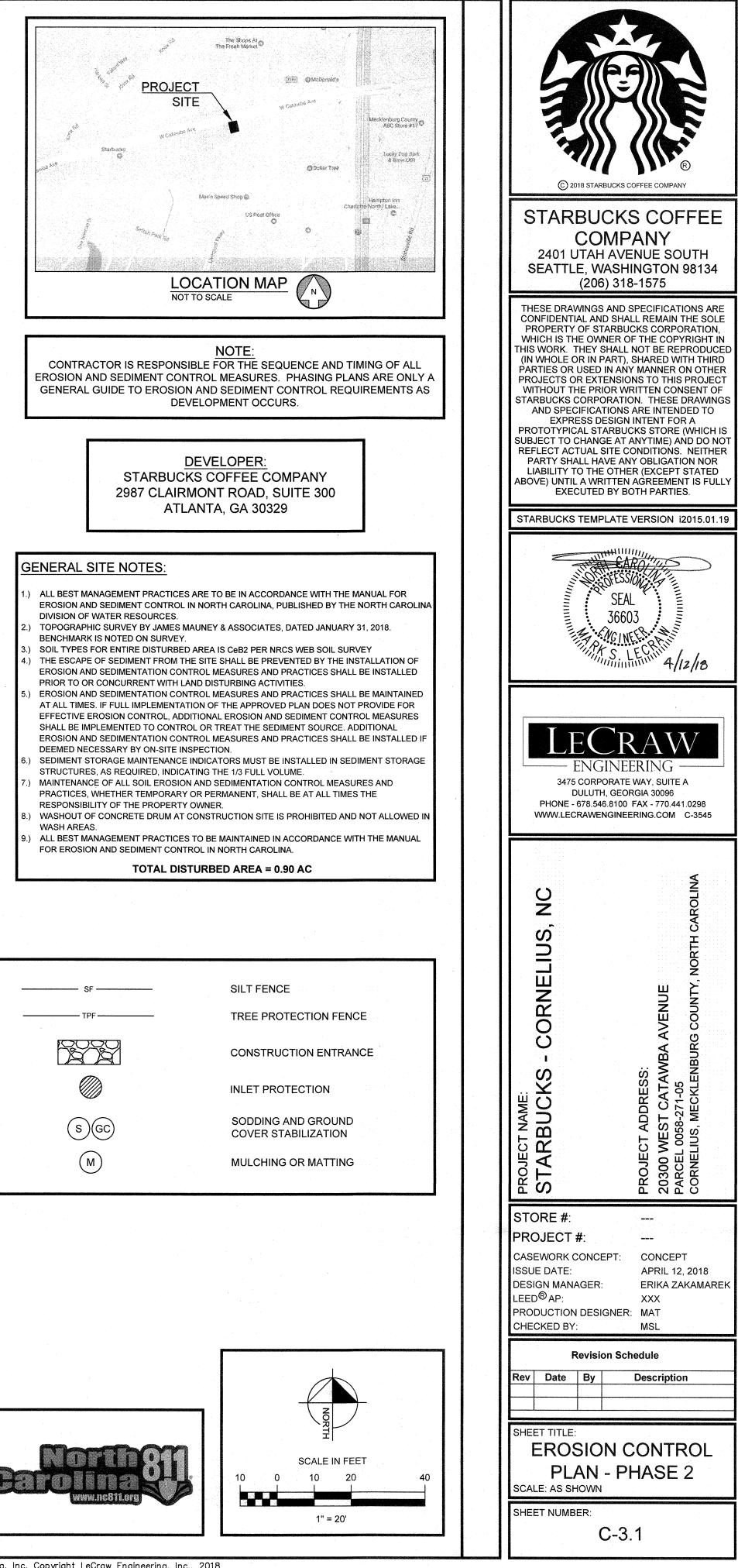
OTHERWISE NOTED, THE SITE PLAN PROPERTY LIMITS SHALL BE CONSIDERED THE PERMIT LIMITS. 20. SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED

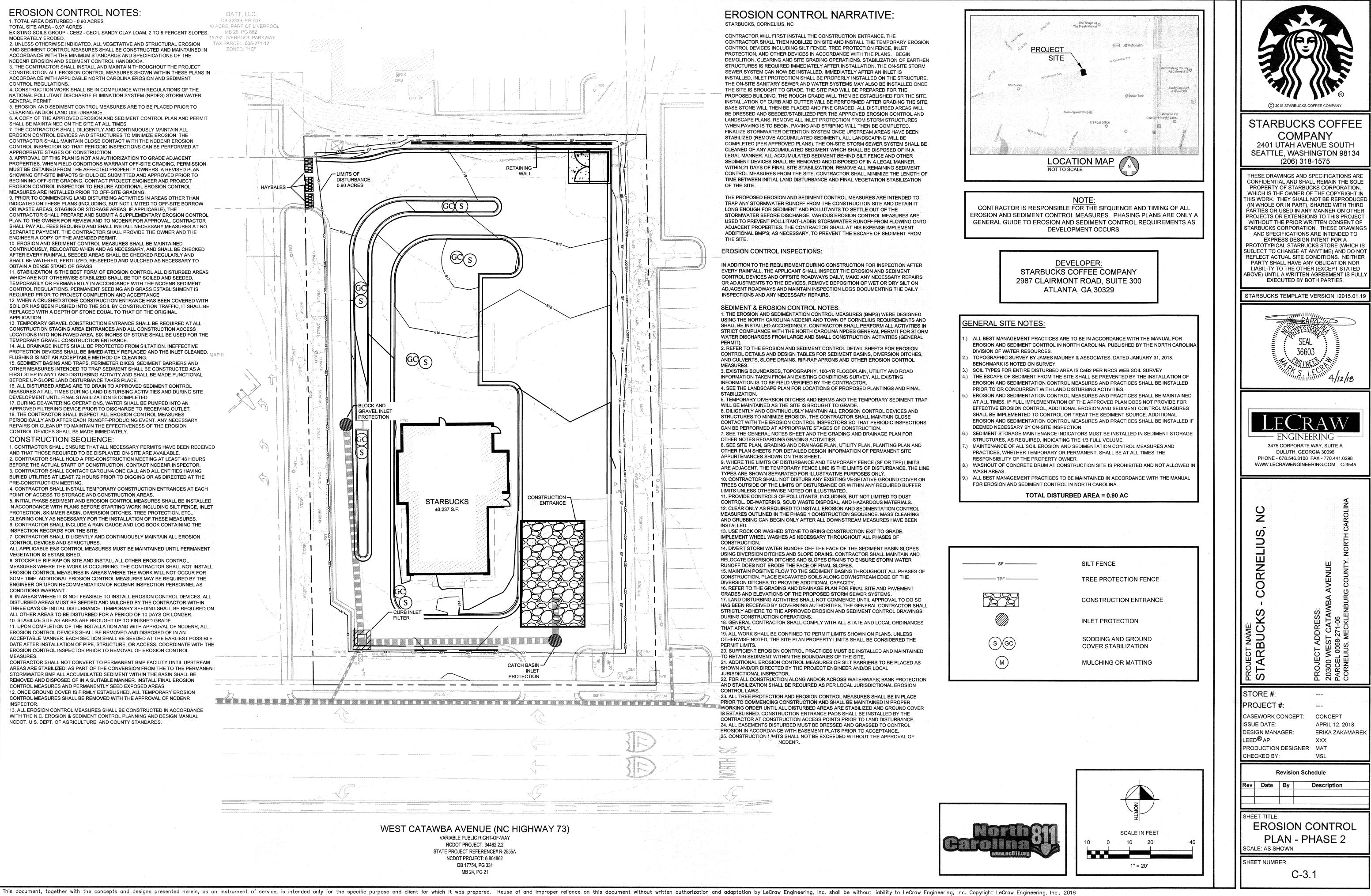
TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF THE SITE. 21. ADDITIONAL EROSION CONTROL MEASURES OR SILT BARRIERS TO BE PLACED AS SHOWN AND/OR DIRECTED BY THE PROJECT ENGINEER AND/OR LOCAL JURISDICTIONAL INSPECTOR.

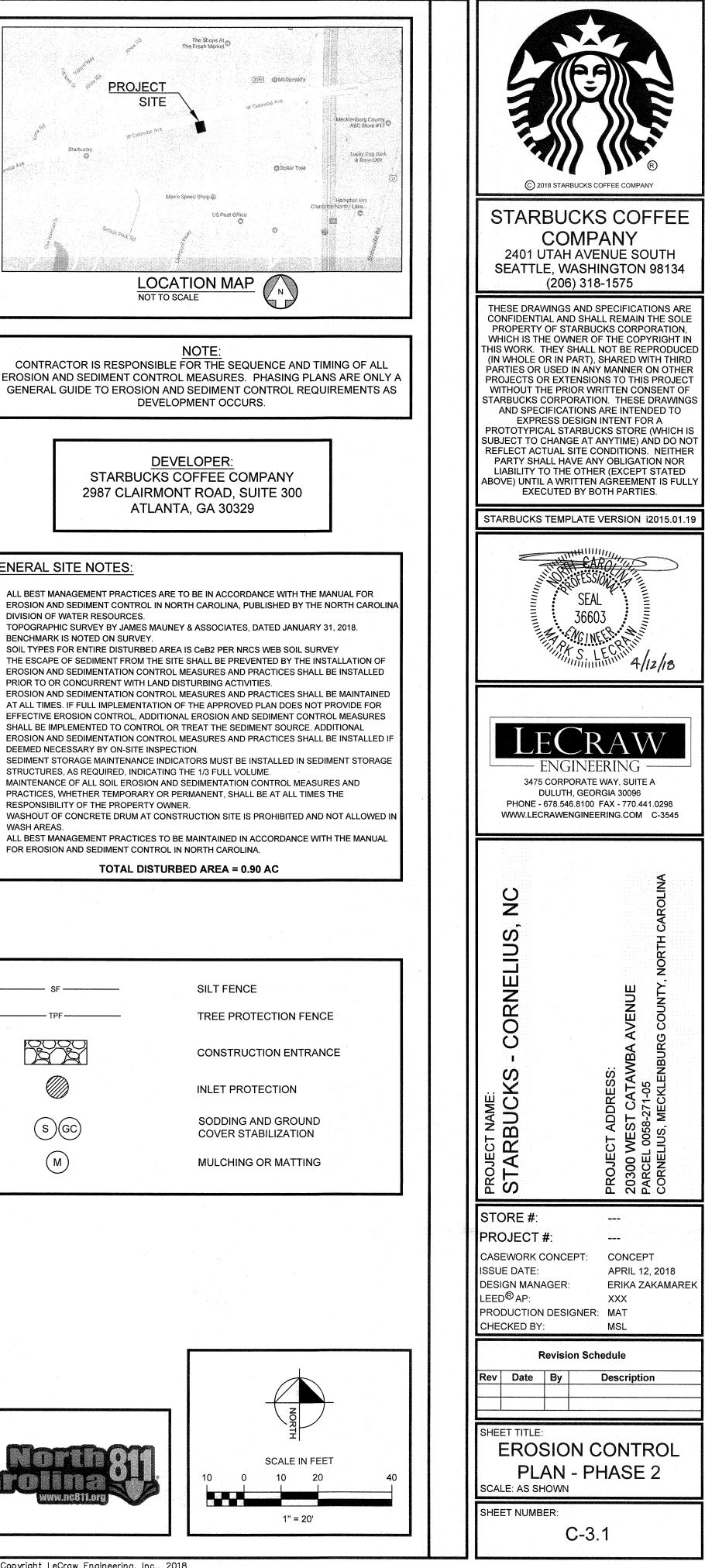
22. FOR ALL CONSTRUCTION ALONG AND/OR ACROSS WATERWAYS; BANK PROTECTION AND STABILIZATION SHALL BE REQUIRED AS PER LOCAL JURISDICTIONAL EROSION CONTROL LAWS.

23. ALL TREE PROTECTION AND EROSION CONTROL MEASURES SHALL BE IN PLACE IS ESTABLISHED, CONSTRUCTION ENTRANCE PADS SHALL BE INSTALLED BY THE CONTRACTOR AT CONSTRUCTION ACCESS POINTS PRIOR TO LAND DISTURBANCE

24. ALL EASEMENTS DISTURBED MUST BE DRESSED AND GRASSED TO CONTROL EROSION IN ACCORDANCE WITH EASEMENT PLATS PRIOR TO ACCEPTANCE. 25. CONSTRUCTION LIMITS SHALL NOT BE EXCEEDED WITHOUT THE APPROVAL OF NCDENR. . Some and the second s







### **EROSION CONTROL NOTES:** 1. TOTAL AREA DISTURBED - 0.90 ACRES

TOTAL SITE AREA - 0.97 ACRES

EXISTING SOILS GROUP - CEB2 - CECIL SANDY CLAY LOAM, 2 TO 8 PERCENT SLOPES, MODERATELY ERODED. 2. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN

ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NCDENR EROSION AND SEDIMENT CONTROL HANDBOOK.

3. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS

4. CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT

5. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE. 6. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT

SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. 7. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDENR EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT

APPROPRIATE STAGES OF CONSTRUCTION. 8. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS, A REVISED PLAN SHOWING OFF-SITE IMPACTS SHOULD BE SUBMITTED AND APPROVED PRIOR TO BEGINNING OFF-SITE GRADING. CONTACT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL

MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING. 9. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS, IF APPLICABLE), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL

PLAN TO THE OWNER FOR REVIEW AND TO NCDENR FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT 10. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED

CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RE-SEEDED AND MULCHED AS NECESSARY TO **OBTAIN A DENSE STAND OF GRASS.** 11. STABILIZATION IS THE BEST FORM OF EROSION CONTROL ALL DISTURBED AREAS

WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NCDENR SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.

12. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION

13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. SIX INCHES OF STONE SHALL BE USED FOR THE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE.

14. ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING

15. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP-SLOPE LAND DISTURBANCE TAKES PLACE. 16. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL

MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS COMPLETED. 17. DURING DE-WATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN

APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET. 18. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

CONSTRUCTION SEQUENCE

1. CONTRACTOR SHALL ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED AND THAT THOSE REQUIRED TO BE DISPLAYED ON-SITE ARE AVAILABLE 2. CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS BEFORE THE ACTUAL START OF CONSTRUCTION. CONTACT NCDENR INSPECTOR. 3. CONTRACTOR SHALL CONTACT CAROLINA ONE CALL AND ALL ENTITIES HAVING BURIED UTILITIES AT LEAST 72 HOURS PRIOR TO DIGGING OR AS DIRECTED AT THE PRE-CONSTRUCTION MEETING. 4. CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION ENTRANCES AT EACH

POINT OF ACCESS TO STORAGE AND CONSTRUCTION AREAS. 5. INITIAL PHASE SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH PLANS BEFORE STARTING WORK INCLUDING SILT FENCE, INLET PROTECTION, SKIMMER BASIN, DIVERSION DITCHES, TREE PROTECTION, ETC., CLEARING ONLY AS NECESSARY FOR THE INSTALLATION OF THESE MEASURES. 6. CONTRACTOR SHALL INCLUDE A RAIN GAUGE AND LOG BOOK CONTAINING THE

INSPECTION RECORDS FOR THE SITE. 7. CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.

ALL APPLICABLE E&S CONTROL MEASURES MUST BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED. 8. STOCKPILE RIP-RAP ON SITE AND INSTALL ALL OTHER EROSION CONTROL

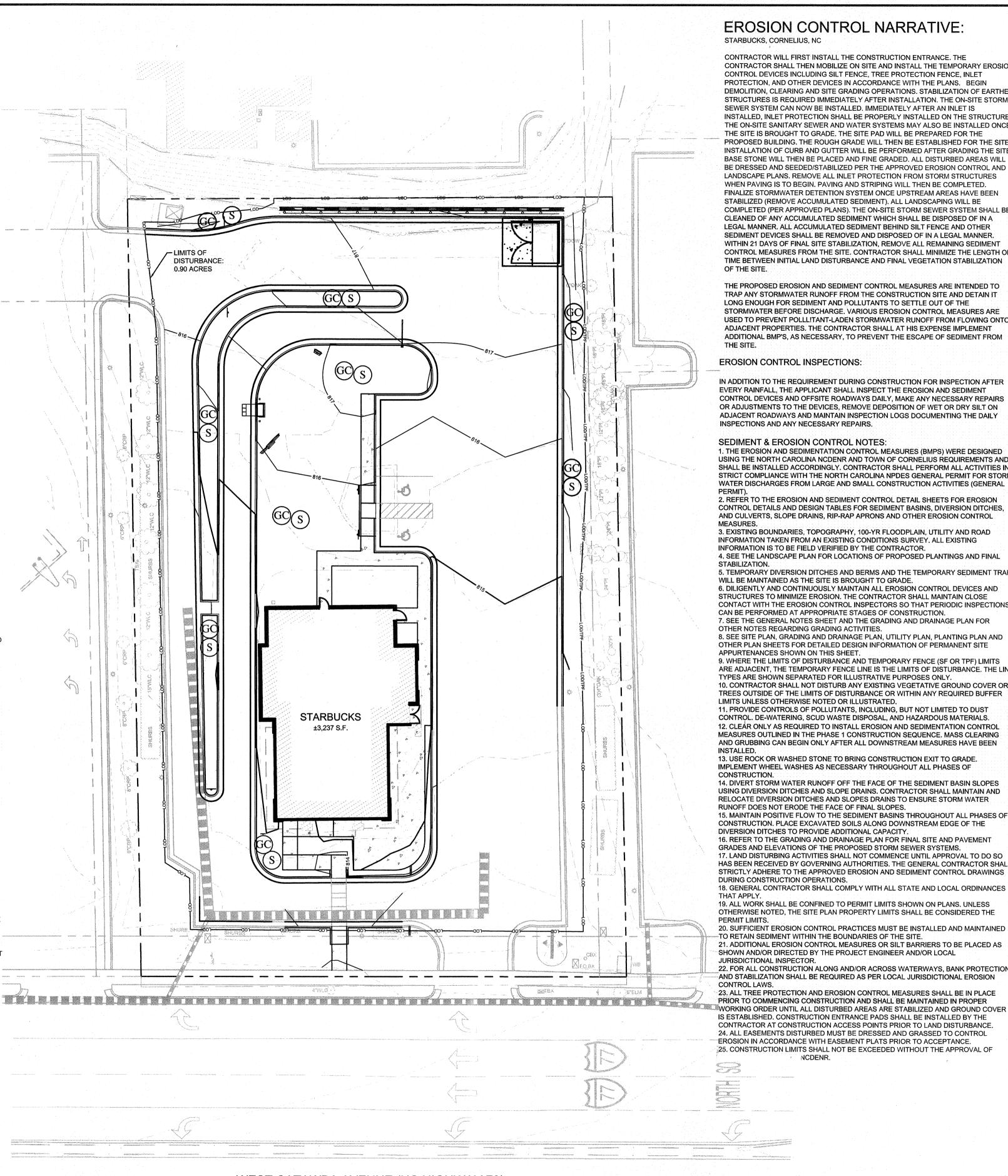
MEASURES WHERE THE WORK IS OCCURRING. THE CONTRACTOR SHALL NOT INSTALL EROSION CONTROL MEASURES IN AREAS WHERE THE WORK WILL NOT OCCUR FOR SOME TIME. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER OR UPON RECOMMENDATION OF NCDENR INSPECTION PERSONNEL AS CONDITIONS WARRANT.

9. IN AREAS WHERE IT IS NOT FEASIBLE TO INSTALL EROSION CONTROL DEVICES, ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED BY THE CONTRACTOR WITHIN THREE DAYS OF INITIAL DISTURBANCE. TEMPORARY SEEDING SHALL BE REQUIRED ON ALL OTHER AREAS TO BE DISTURBED FOR A PERIOD OF 10 DAYS OR LONGER. 10. STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE.

11. UPON COMPLETION OF THE INSTALLATION AND WITH APPROVAL OF NCDENR, ALL EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER, EACH SECTION SHALL BE SEEDED AT THE EARLIEST POSSIBLE DATE AFTER INSTALLATION OF PIPE, STRUCTURE, OR ACCESS, COORDINATE WITH THE EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.

CONTRACTOR SHALL NOT CONVERT TO PERMANENT BMP FACILITY UNTIL UPSTREAM AREAS ARE STABILIZED. AS PART OF THE CONVERSION FROM THE TO THE PERMANENT STORMWATER BMP ALL ACCUMULATED SEDIMENT WITHIN THE BASIN SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE MANNER. INSTALL FINAL EROSION CONTROL MEASURES AND PERMANENTLY SEED EXPOSED AREAS. 12. ONCE GROUND COVER IS FIRMLY ESTABLISHED, ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITH THE APPROVAL OF NCDENR INSPECTOR.

13. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION & SEDIMENT CONTROL PLANNING AND DESIGN MANUAL NCDOT. U.S. DEPT. OF AGRICULTURE. AND COUNTY STANDARDS.



WEST CATAWBA AVENUE (NC HIGHWAY 73) VARIABLE PUBLIC RIGHT-OF-WAY NCDOT PROJECT: 34462.2.2

## **EROSION CONTROL NARRATIVE:** STARBUCKS, CORNELIUS, NC

CONTRACTOR WILL FIRST INSTALL THE CONSTRUCTION ENTRANCE. THE CONTRACTOR SHALL THEN MOBILIZE ON SITE AND INSTALL THE TEMPORARY EROSION CONTROL DEVICES INCLUDING SILT FENCE, TREE PROTECTION FENCE, INLET PROTECTION, AND OTHER DEVICES IN ACCORDANCE WITH THE PLANS. BEGIN DEMOLITION, CLEARING AND SITE GRADING OPERATIONS. STABILIZATION OF EARTHEN STRUCTURES IS REQUIRED IMMEDIATELY AFTER INSTALLATION. THE ON-SITE STORM SEWER SYSTEM CAN NOW BE INSTALLED. IMMEDIATELY AFTER AN INLET IS INSTALLED, INLET PROTECTION SHALL BE PROPERLY INSTALLED ON THE STRUCTURE THE ON-SITE SANITARY SEWER AND WATER SYSTEMS MAY ALSO BE INSTALLED ONCE THE SITE IS BROUGHT TO GRADE. THE SITE PAD WILL BE PREPARED FOR THE PROPOSED BUILDING. THE ROUGH GRADE WILL THEN BE ESTABLISHED FOR THE SITE INSTALLATION OF CURB AND GUTTER WILL BE PERFORMED AFTER GRADING THE SITE. BASE STONE WILL THEN BE PLACED AND FINE GRADED. ALL DISTURBED AREAS WILL BE DRESSED AND SEEDED/STABILIZED PER THE APPROVED EROSION CONTROL AND LANDSCAPE PLANS, REMOVE ALL INLET PROTECTION FROM STORM STRUCTURES WHEN PAVING IS TO BEGIN. PAVING AND STRIPING WILL THEN BE COMPLETED. FINALIZE STORMWATER DETENTION SYSTEM ONCE UPSTREAM AREAS HAVE BEEN STABILIZED (REMOVE ACCUMULATED SEDIMENT). ALL LANDSCAPING WILL BE COMPLETED (PER APPROVED PLANS). THE ON-SITE STORM SEWER SYSTEM SHALL BE CLEANED OF ANY ACCUMULATED SEDIMENT WHICH SHALL BE DISPOSED OF IN A LEGAL MANNER. ALL ACCUMULATED SEDIMENT BEHIND SILT FENCE AND OTHER SEDIMENT DEVICES SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER. WITHIN 21 DAYS OF FINAL SITE STABILIZATION, REMOVE ALL REMAINING SEDIMENT CONTROL MEASURES FROM THE SITE. CONTRACTOR SHALL MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL LAND DISTURBANCE AND FINAL VEGETATION STABILIZATION OF THE SITE.

THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES ARE INTENDED TO TRAP ANY STORMWATER RUNOFF FROM THE CONSTRUCTION SITE AND DETAIN IT LONG ENOUGH FOR SEDIMENT AND POLLUTANTS TO SETTLE OUT OF THE STORMWATER BEFORE DISCHARGE. VARIOUS EROSION CONTROL MEASURES ARE USED TO PREVENT POLLLITANT-LADEN STORMWATER RUNOFF FROM FLOWING ONTO ADJACENT PROPERTIES. THE CONTRACTOR SHALL AT HIS EXPENSE IMPLEMENT ADDITIONAL BMP'S, AS NECESSARY, TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE.

### EROSION CONTROL INSPECTIONS:

IN ADDITION TO THE REQUIREMENT DURING CONSTRUCTION FOR INSPECTION AFTER EVERY RAINFALL, THE APPLICANT SHALL INSPECT THE EROSION AND SEDIMENT CONTROL DEVICES AND OFFSITE ROADWAYS DAILY, MAKE ANY NECESSARY REPAIRS OR ADJUSTMENTS TO THE DEVICES, REMOVE DEPOSITION OF WET OR DRY SILT ON ADJACENT ROADWAYS AND MAINTAIN INSPECTION LOGS DOCUMENTING THE DAILY INSPECTIONS AND ANY NECESSARY REPAIRS.

### SEDIMENT & EROSION CONTROL NOTES:

1. THE EROSION AND SEDIMENTATION CONTROL MEASURES (BMPS) WERE DESIGNED USING THE NORTH CAROLINA NCDENR AND TOWN OF CORNELIUS REQUIREMENTS AND SHALL BE INSTALLED ACCORDINGLY. CONTRACTOR SHALL PERFORM ALL ACTIVITIES IN STRICT COMPLIANCE WITH THE NORTH CAROLINA NPDES GENERAL PERMIT FOR STORM WATER DISCHARGES FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (GENERAL PERMIT)

2. REFER TO THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS FOR EROSION CONTROL DETAILS AND DESIGN TABLES FOR SEDIMENT BASINS, DIVERSION DITCHES, AND CULVERTS, SLOPE DRAINS, RIP-RAP APRONS AND OTHER EROSION CONTROL MEASURES.

3. EXISTING BOUNDARIES, TOPOGRAPHY, 100-YR FLOODPLAIN, UTILITY AND ROAD INFORMATION TAKEN FROM AN EXISTING CONDITIONS SURVEY. ALL EXISTING INFORMATION IS TO BE FIELD VERIFIED BY THE CONTRACTOR.

4. SEE THE LANDSCAPE PLAN FOR LOCATIONS OF PROPOSED PLANTINGS AND FINAL STABILIZATION. 5. TEMPORARY DIVERSION DITCHES AND BERMS AND THE TEMPORARY SEDIMENT TRAP

WILL BE MAINTAINED AS THE SITE IS BROUGHT TO GRADE. 6. DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE

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9. WHERE THE LIMITS OF DISTURBANCE AND TEMPORARY FENCE (SF OR TPF) LIMITS ARE ADJACENT. THE TEMPORARY FENCE LINE IS THE LIMITS OF DISTURBANCE. THE LINE TYPES ARE SHOWN SEPARATED FOR ILLUSTRATIVE PURPOSES ONLY. 10. CONTRACTOR SHALL NOT DISTURB ANY EXISTING VEGETATIVE GROUND COVER OR

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RUNOFF DOES NOT ERODE THE FACE OF FINAL SLOPES. 15. MAINTAIN POSITIVE FLOW TO THE SEDIMENT BASINS THROUGHOUT ALL PHASES OF CONSTRUCTION. PLACE EXCAVATED SOILS ALONG DOWNSTREAM EDGE OF THE DIVERSION DITCHES TO PROVIDE ADDITIONAL CAPACITY.

16. REFER TO THE GRADING AND DRAINAGE PLAN FOR FINAL SITE AND PAVEMENT GRADES AND ELEVATIONS OF THE PROPOSED STORM SEWER SYSTEMS. 17. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES. THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE APPROVED EROSION AND SEDIMENT CONTROL DRAWINGS

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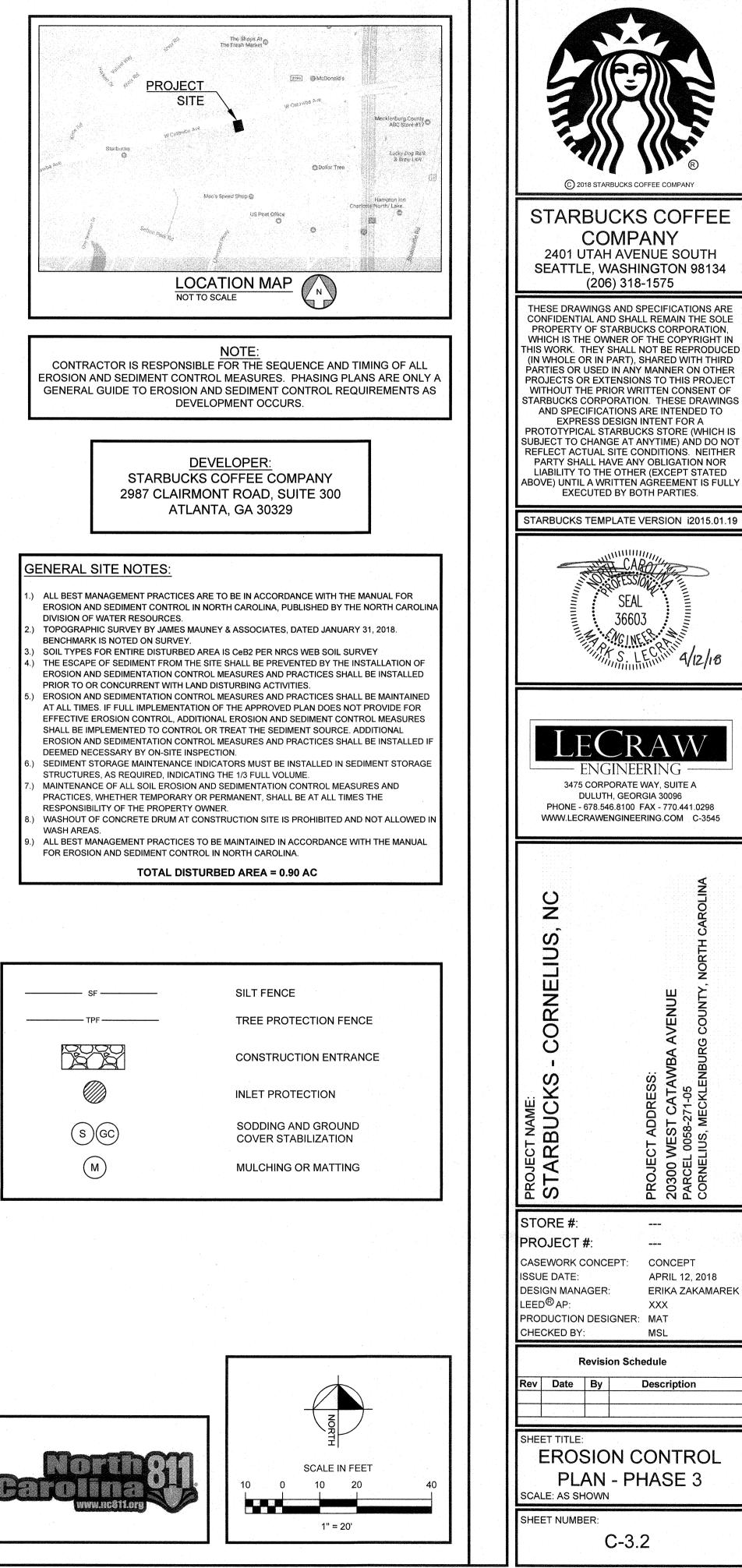
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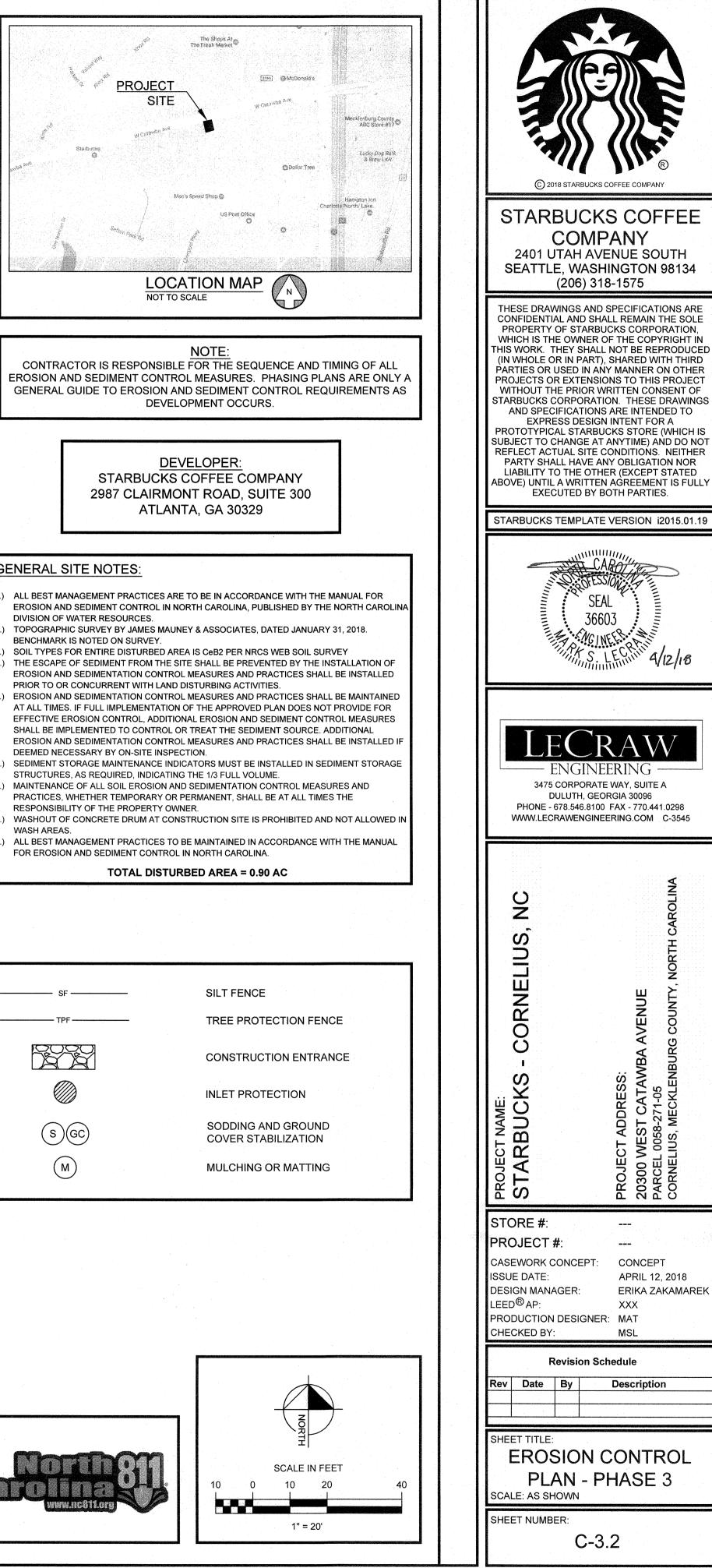
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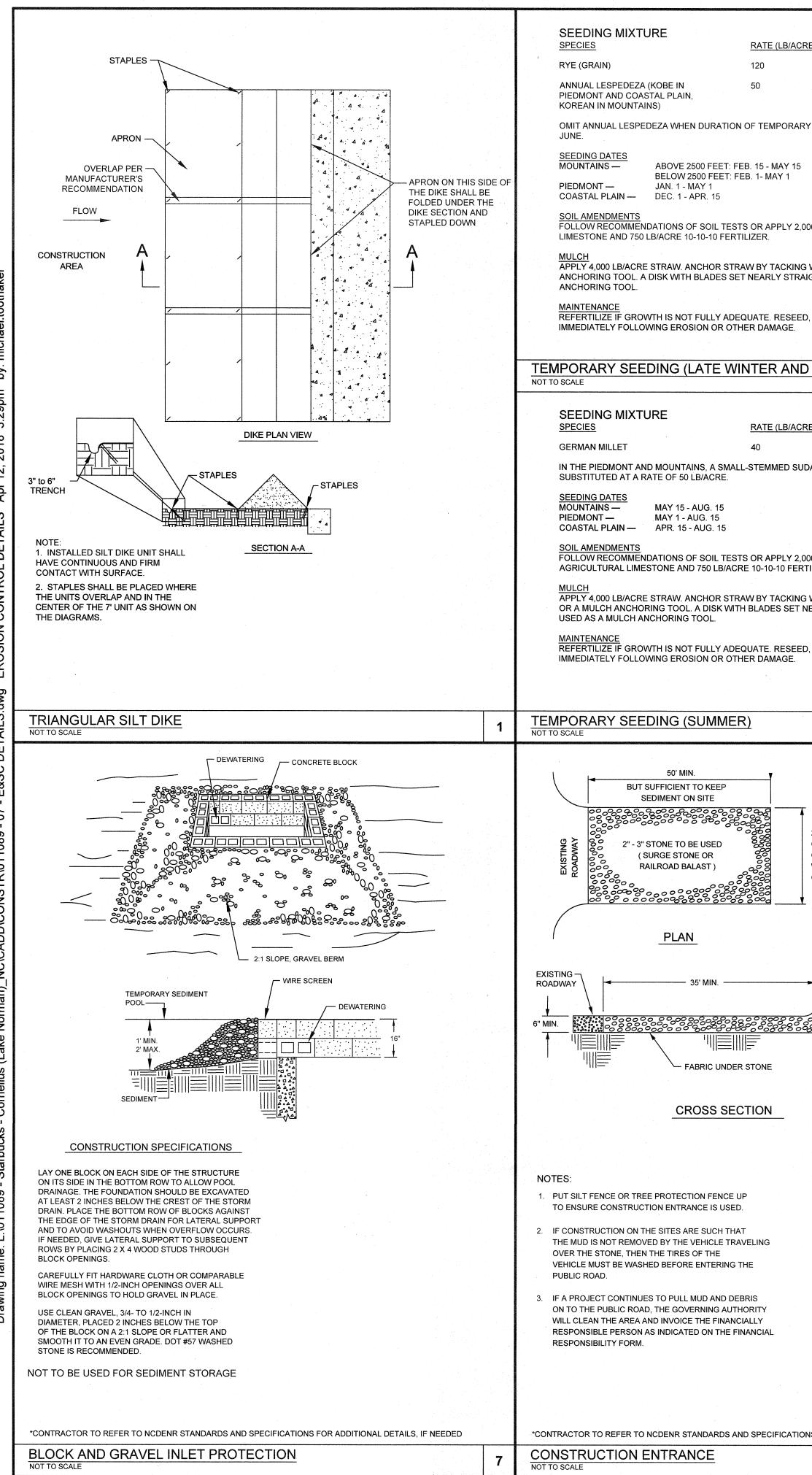
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STATE PROJECT REFERENCE# R-2555A NCDOT PROJECT: 6.804862 DB 17754, PG 331 MB 24, PG 21



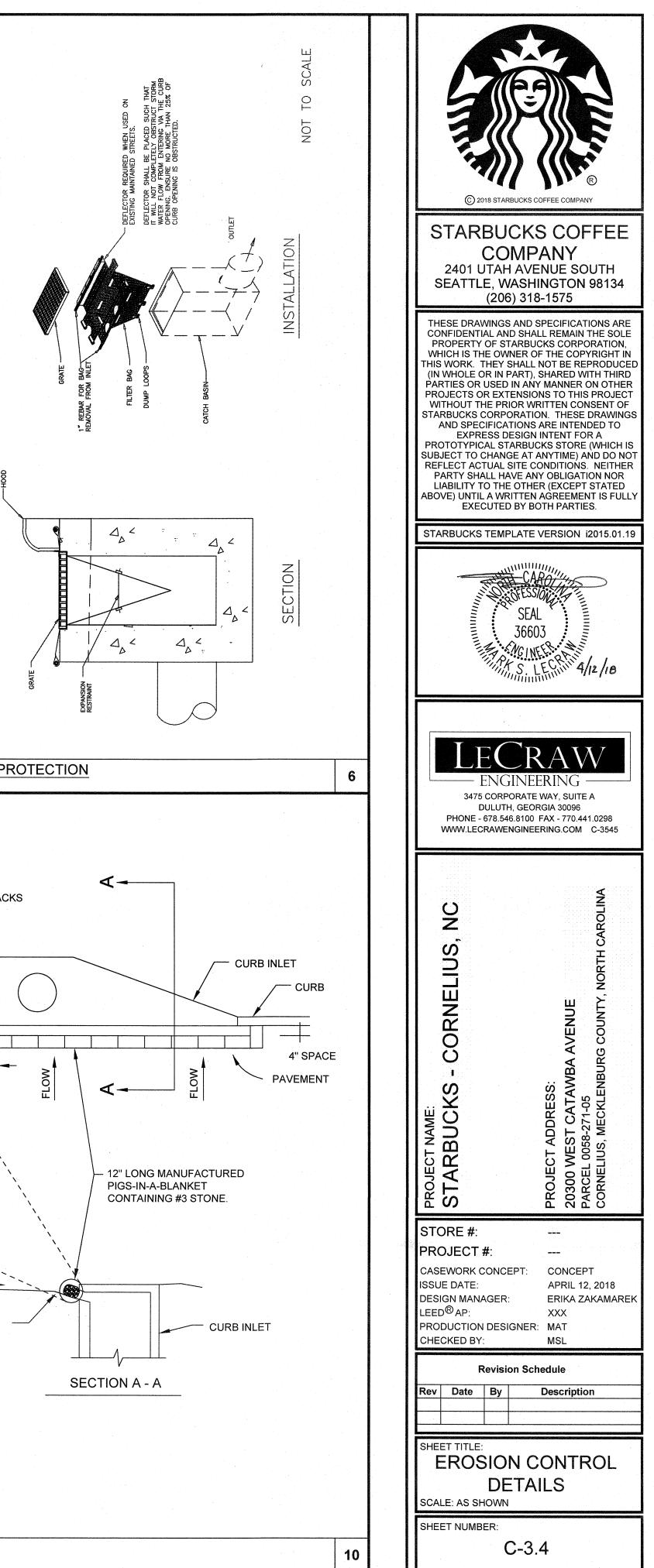
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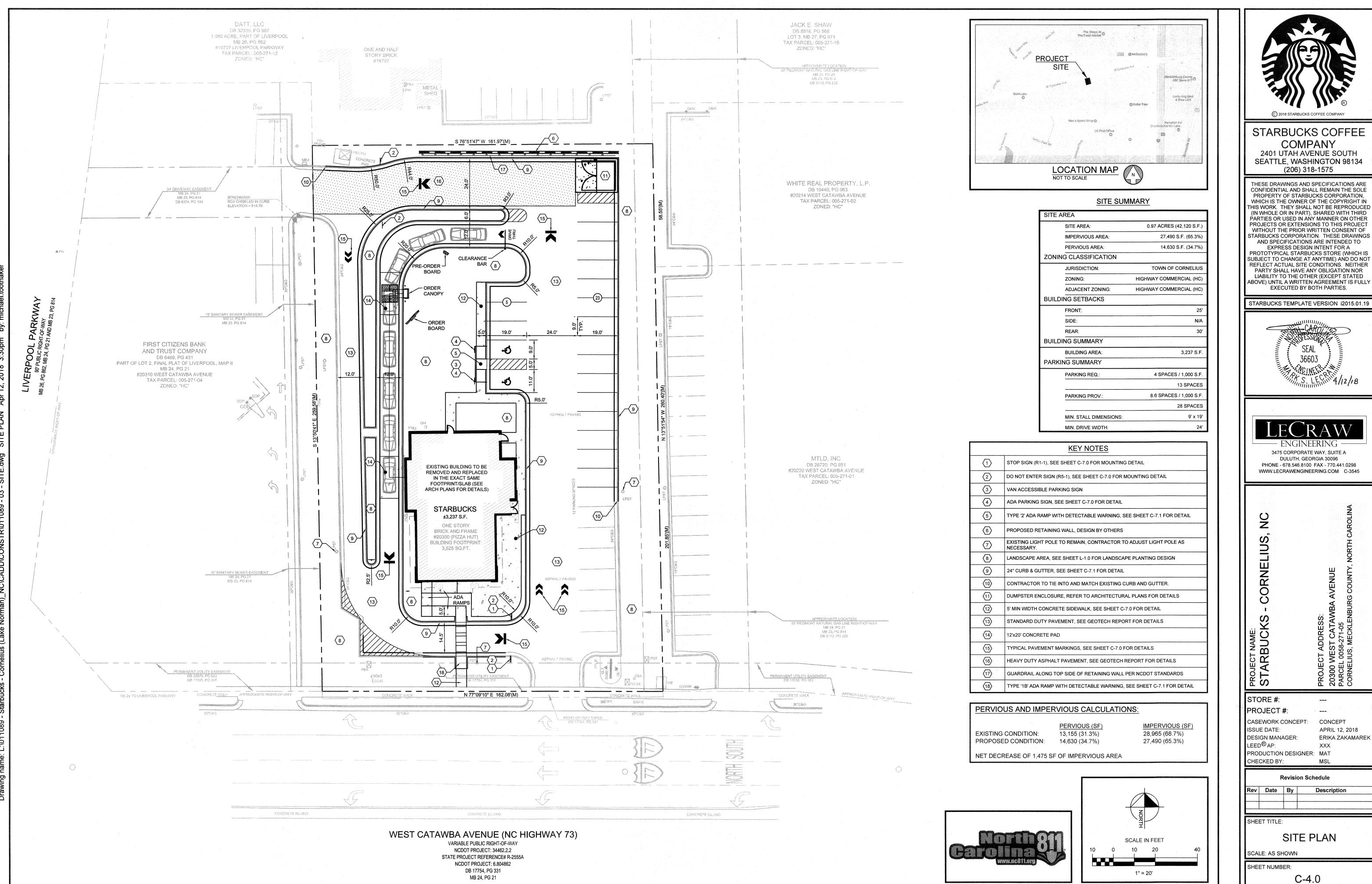


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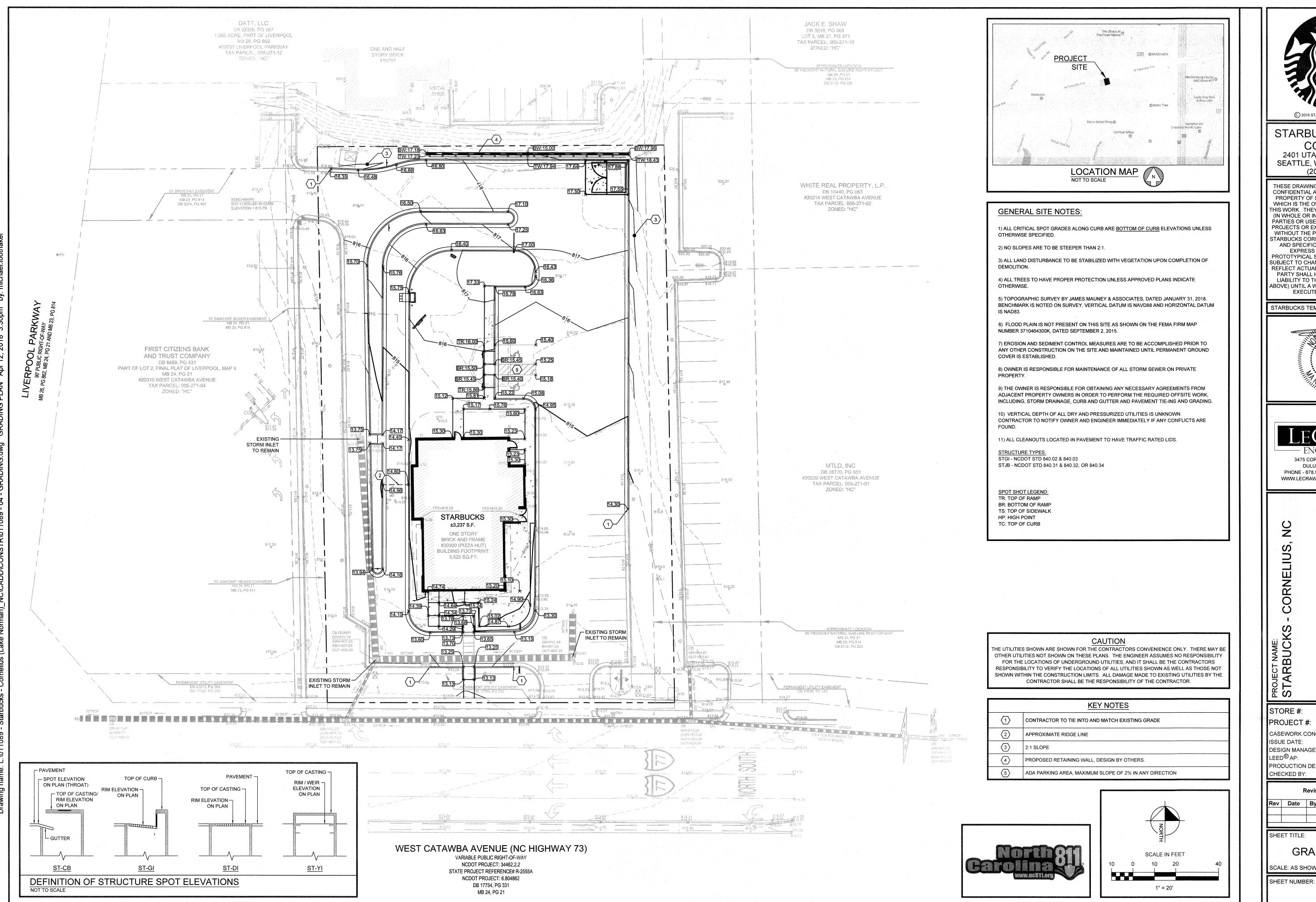
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NGHT CAN BE USED AS A MULCH	COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBE (PIEDMONT AND COASTAL PLAIN) OR KOREAN (MOUNTAINS) LESPEDEZA IN LATE FEBRUARY OR	ANCE SI SHALL E ON. THE EN SHALL B SE OUT ( SHALL B SHALL B STORM E STORM E
D, REFERTILIZE AND MULCH	EARLY MARCH.	VTENAR PES SI COF TI COF TI COF TI COSE SI COSE SI MA SI SI SI SI SI SI SI SI SI SI SI SI SI
		ER BA INSTAL INSTAL NOR CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION CCTION
DEARLY SPRING)	TEMPORARY SEEDING (FALL)	A NOTES: 3. FILTI BASS 6. FILTI AS AND AS
2	NOT TO SCALE	4 Z - N H K W
<u>RE)</u>	SCHEDULE OF MAJOR ACTIVITIES	
DANGRASS MAY BE	BEGIN CONSTRUCTION JULY 2018 JULY AUG SEPT OCT	
	DESCRIPTION     1     2     3     4       INSTALL & MAINTAIN SEDIMENT CONTROL STRUCTURES     ////////////////////////////////////	
	CLEARING, AND GRUBBING	
	GRADING	
000 LB/ACRE GROUND TILIZER.	TEMPORARY MULCHING/SEEDING AS NECESSARY TO STABLIIZE	
	UTILITIES UTILITIES UTILITIES UTILITIES	
B WITH ASPHALT, NETTING, NEARLY STRAIGHT CAN BE	PAVING 20110111111111111111111111111111111111	
	FINAL STABILIZATION / PERMANENT VEGETATION	
D, REFERTILIZE AND MULCH	REMOVE SEDIMENT CONTROL STRUCTURES	
	ACTIVITIES SCHEDULE	CATCH BASIN INLET P
3	NOT TO SCALE	5 CATCH BASIN INLET P
25' OR FULL WIDTH OF PROPOSED STREET OR ENTRANCE, WHICHEVER IS GREATER.	MIN. 10 GA UNE WIRES UNE WIRES SILT FENCE FABRIC UNE FROM TOP FILL SLOPE FILL SLOPE	
	NOTES: - END OF SILT FENCE SHOULD BE TURNED UPHILL - SEE N.C. STATE DENR PRACTICE STANDARDS & SPECIFICATIONS SEDIMENT FENCE SET FOR CONDITIONS WHERE PRACTICE APPLIES; PLANNING CONSIDERATIONS & DESIGN CRITERIA. (HOWEVER FLOW SHALL NOT RUN PARRALLEL WITH THE TOE OF THE FENCE).	GUTTER
NS FOR ADDITIONAL DETAILS, IF NEEDED	*CONTRACTOR TO REFER TO NCDENR STANDARDS AND SPECIFICATIONS FOR ADDITIONAL DETAILS, IF NEEDED SILT FENCE WITH WIRE BACKING NOT TO SCALE	9 CURB INLET FILTER NOT TO SCALE

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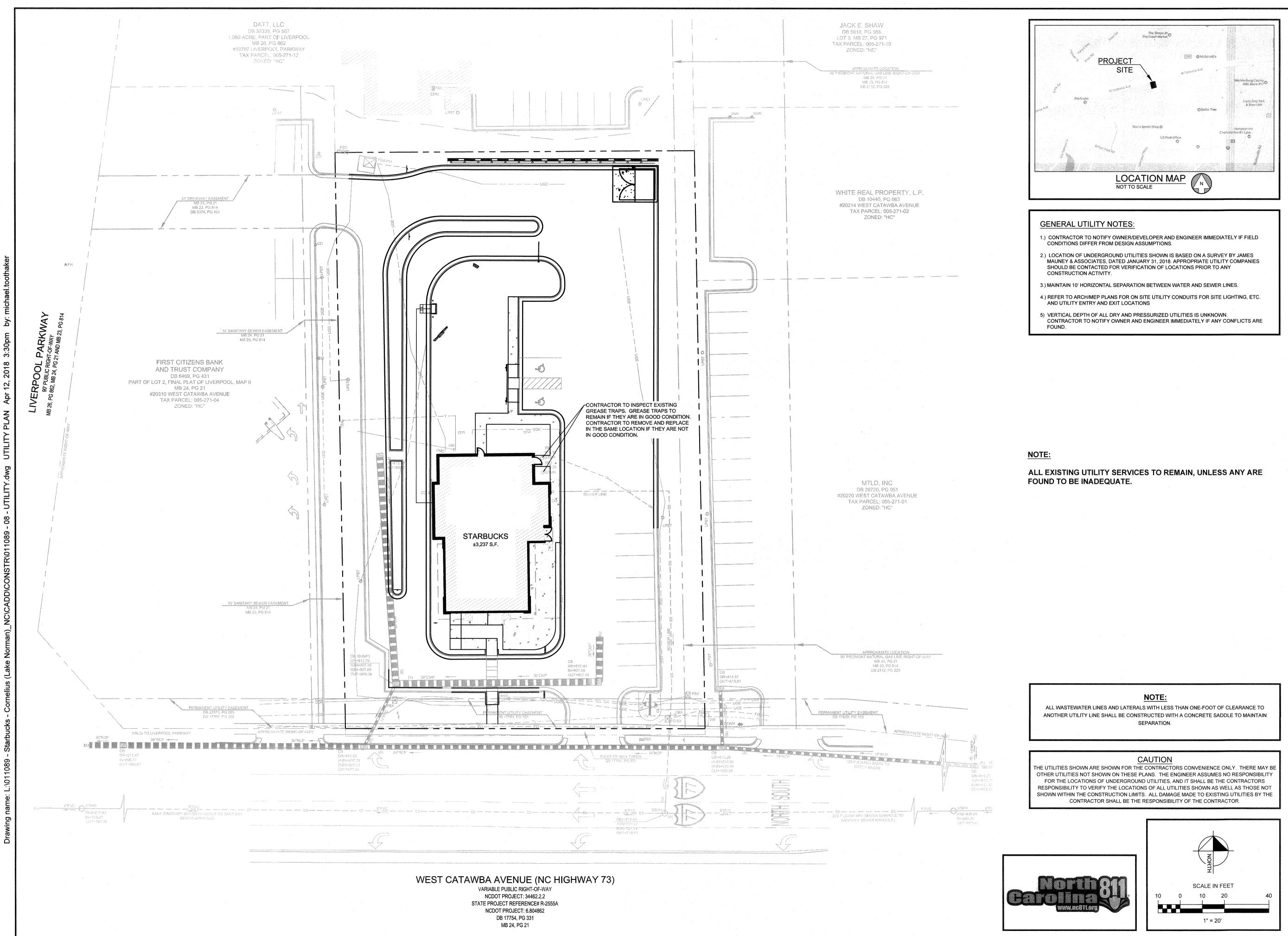


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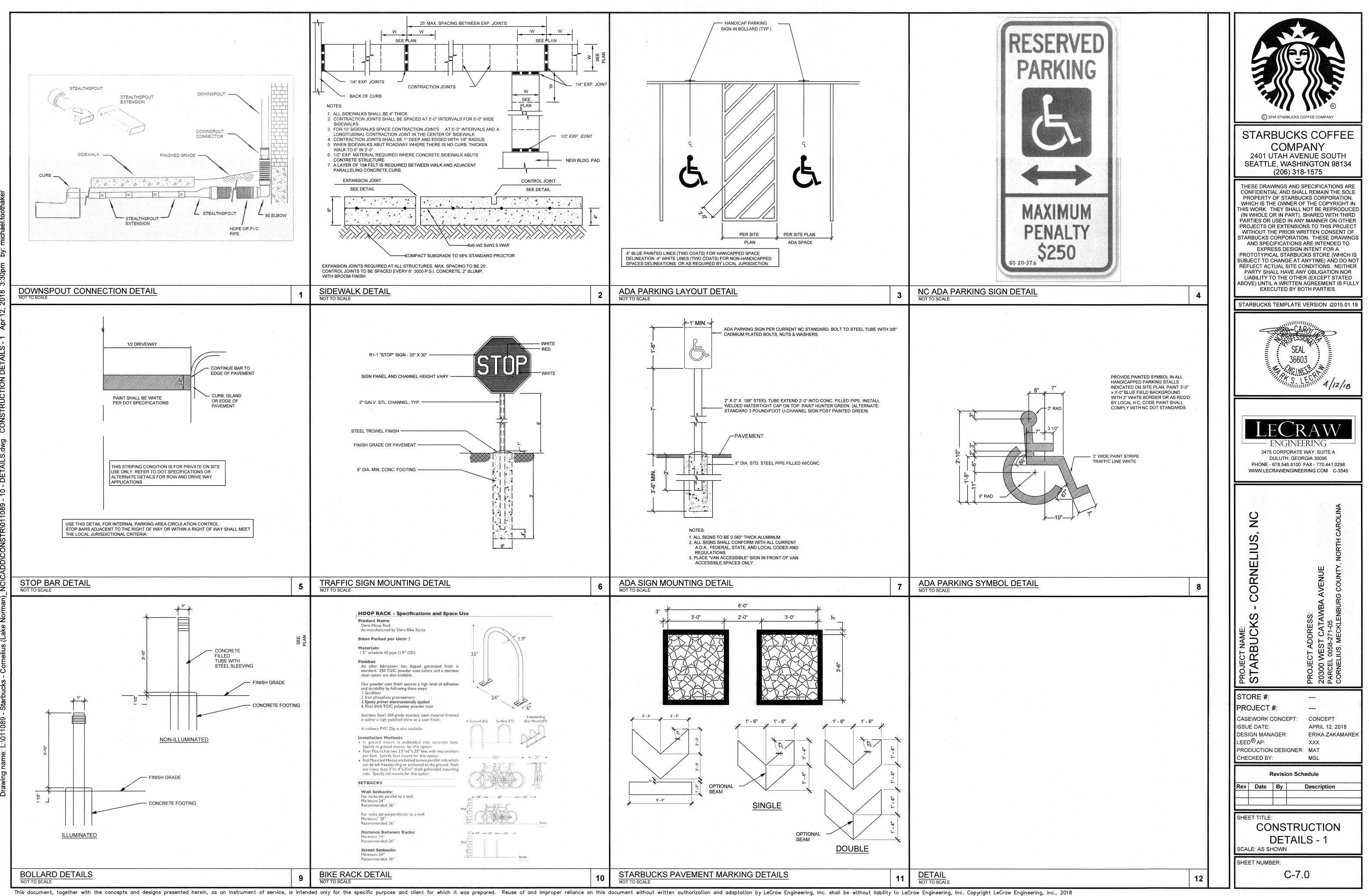
C 2018 STARBUCKS COFFEE COMPANY STARBUCKS COFFEE COMPANY 2401 UTAH AVENUE SOUTH SEATTLE. WASHINGTON 98134 (206) 318-1575 THESE DRAWINGS AND SPECIFICATIONS ARE CONFIDENTIAL AND SHALL REMAIN THE SOLE PROPERTY OF STARBUCKS CORPORATION. WHICH IS THE OWNER OF THE COPYRIGHT IN THIS WORK. THEY SHALL NOT BE REPRODUCED (IN WHOLE OR IN PART), SHARED WITH THIRD PARTIES OR USED IN ANY MANNER ON OTHER PROJECTS OR EXTENSIONS TO THIS PROJECT WITHOUT THE PRIOR WRITTEN CONSENT OF STARBUCKS CORPORATION. THESE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO EXPRESS DESIGN INTENT FOR A PROTOTYPICAL STARBUCKS STORE (WHICH IS SUBJECT TO CHANGE AT ANYTIME) AND DO NOT REFLECT ACTUAL SITE CONDITIONS. NEITHER PARTY SHALL HAVE ANY OBLIGATION NOR LIABILITY TO THE OTHER (EXCEPT STATED ABOVE) UNTIL A WRITTEN AGREEMENT IS FULLY EXECUTED BY BOTH PARTIES. STARBUCKS TEMPLATE VERSION i2015.01.19 SEAL 36603 R ENGINEERING 3475 CORPORATE WAY, SUITE A DULUTH, GEORGIA 30096 PHONE - 678.546.8100 FAX - 770.441.0298 WWW.LECRAWENGINEERING.COM C-3545 Õ DJECT NAME: PAF CO STORE #: -PROJECT #: ----CASEWORK CONCEPT: CONCEPT ISSUE DATE: APRIL 12, 2018 DESIGN MANAGER: ERIKA ZAKAMAREK LEED<sup>®</sup>AP: XXX PRODUCTION DESIGNER: MAT CHECKED BY: MSL **Revision Schedule** Description Rev Date By SHEET TITLE: **GRADING PLAN** SCALE: AS SHOWN

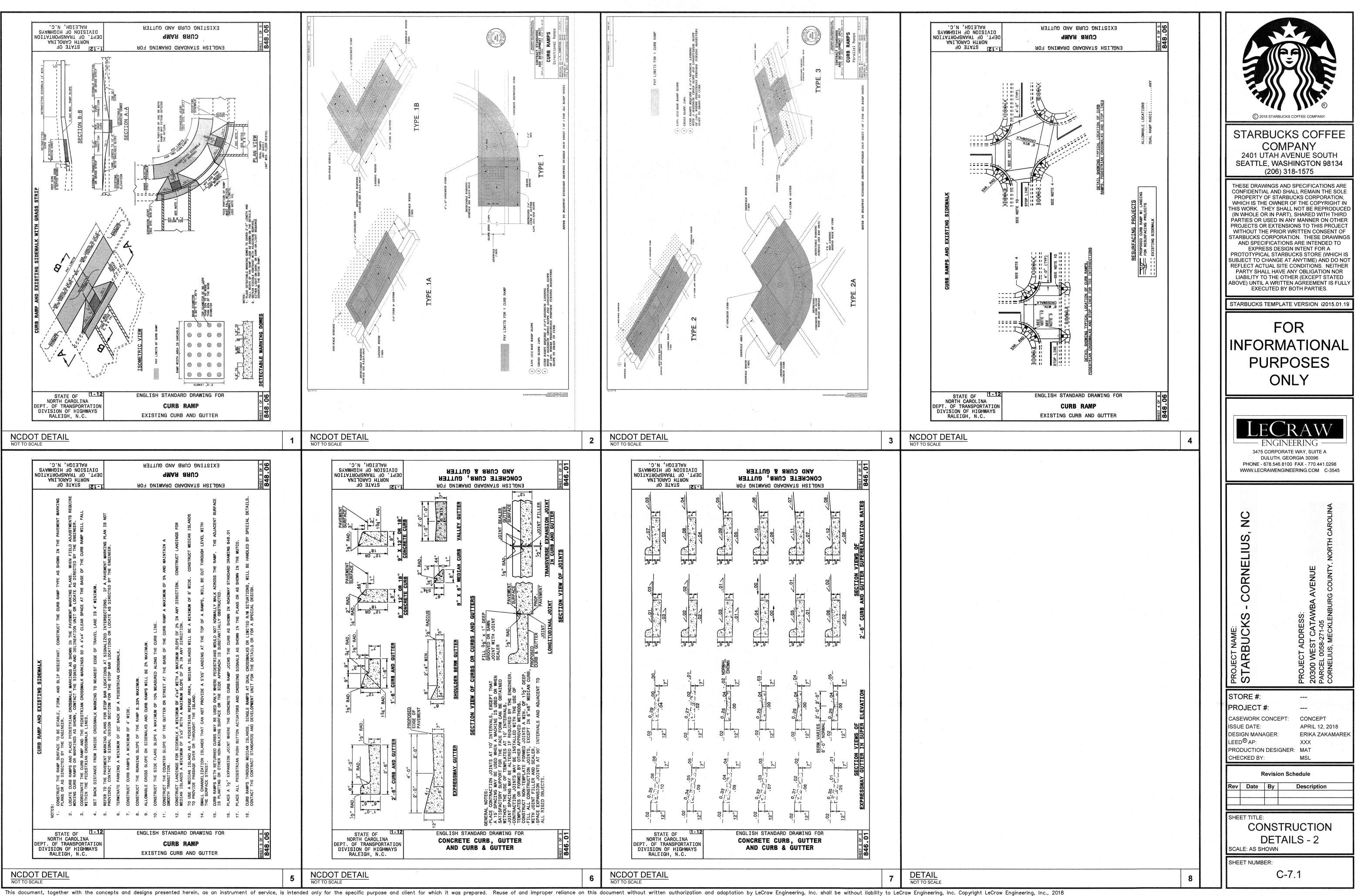


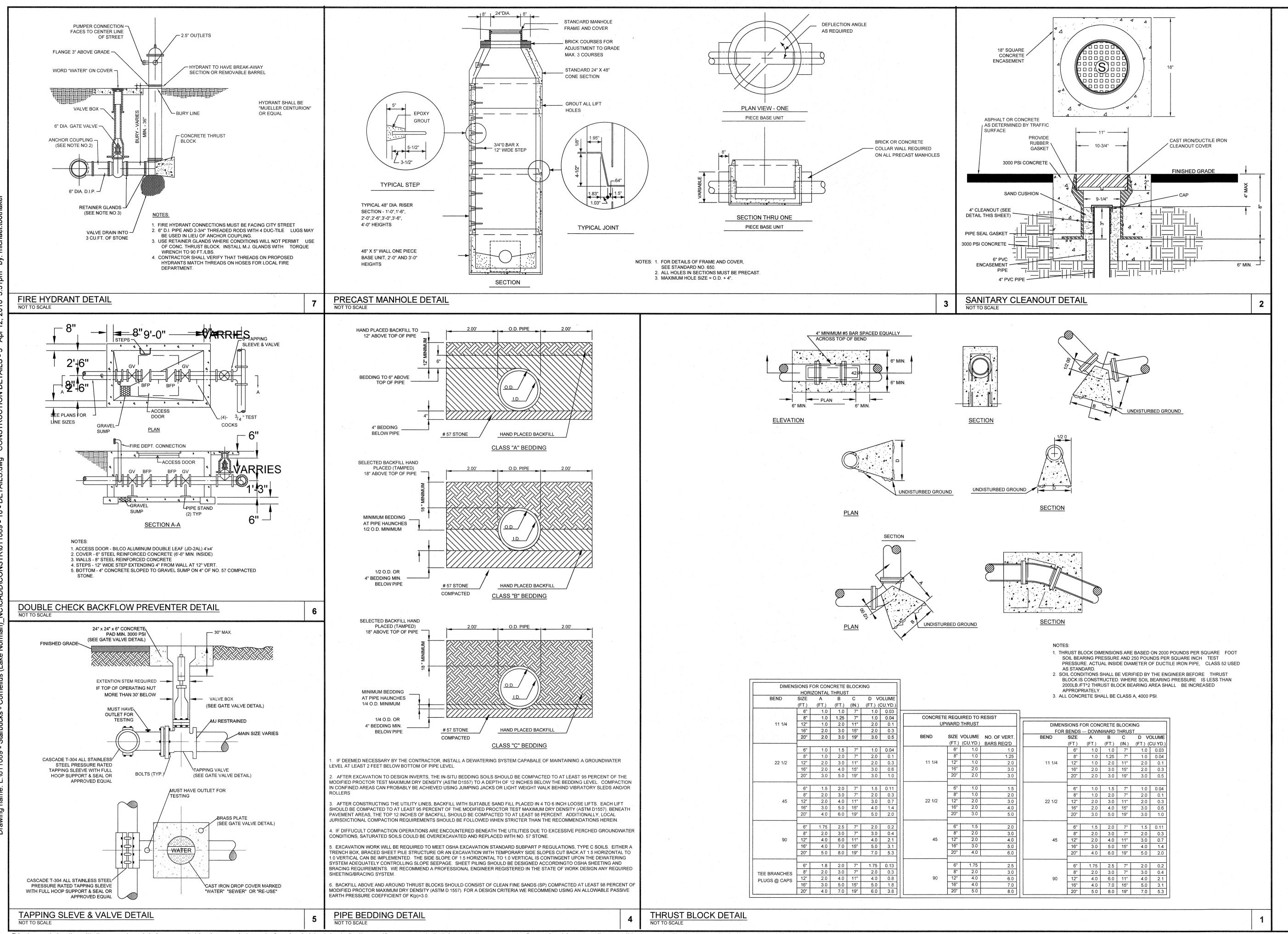
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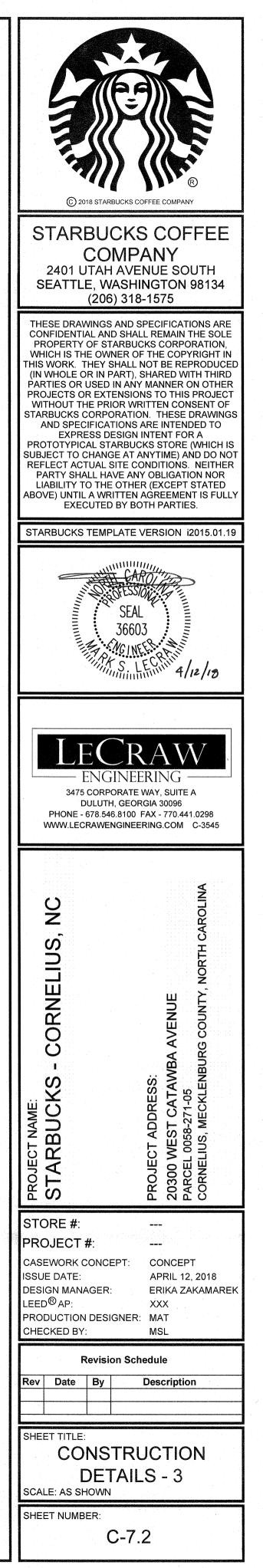
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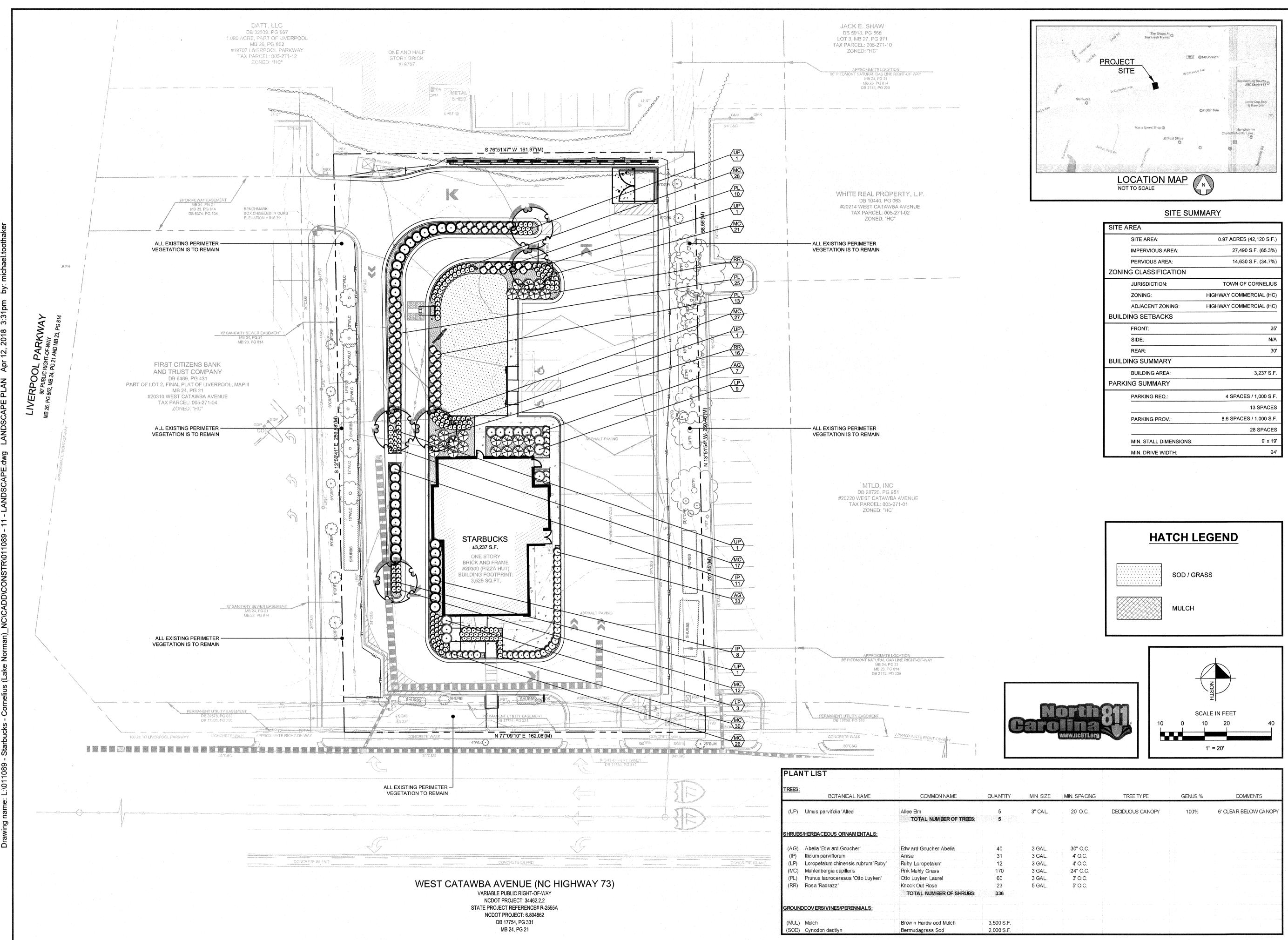






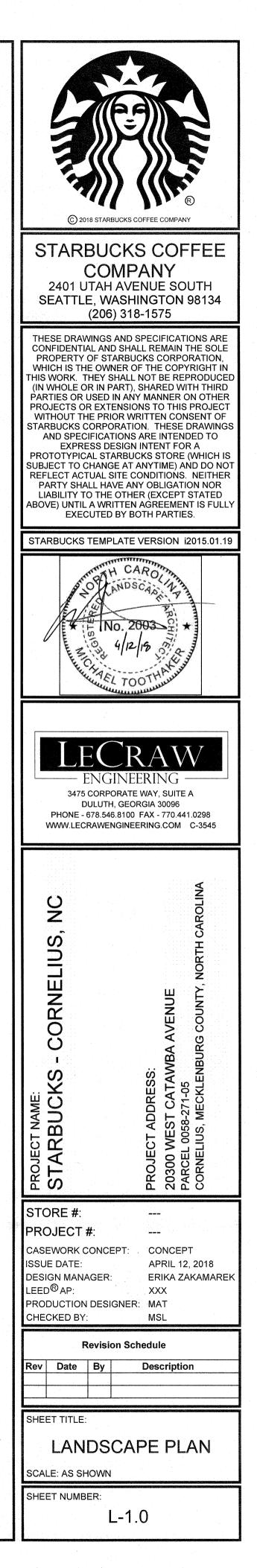
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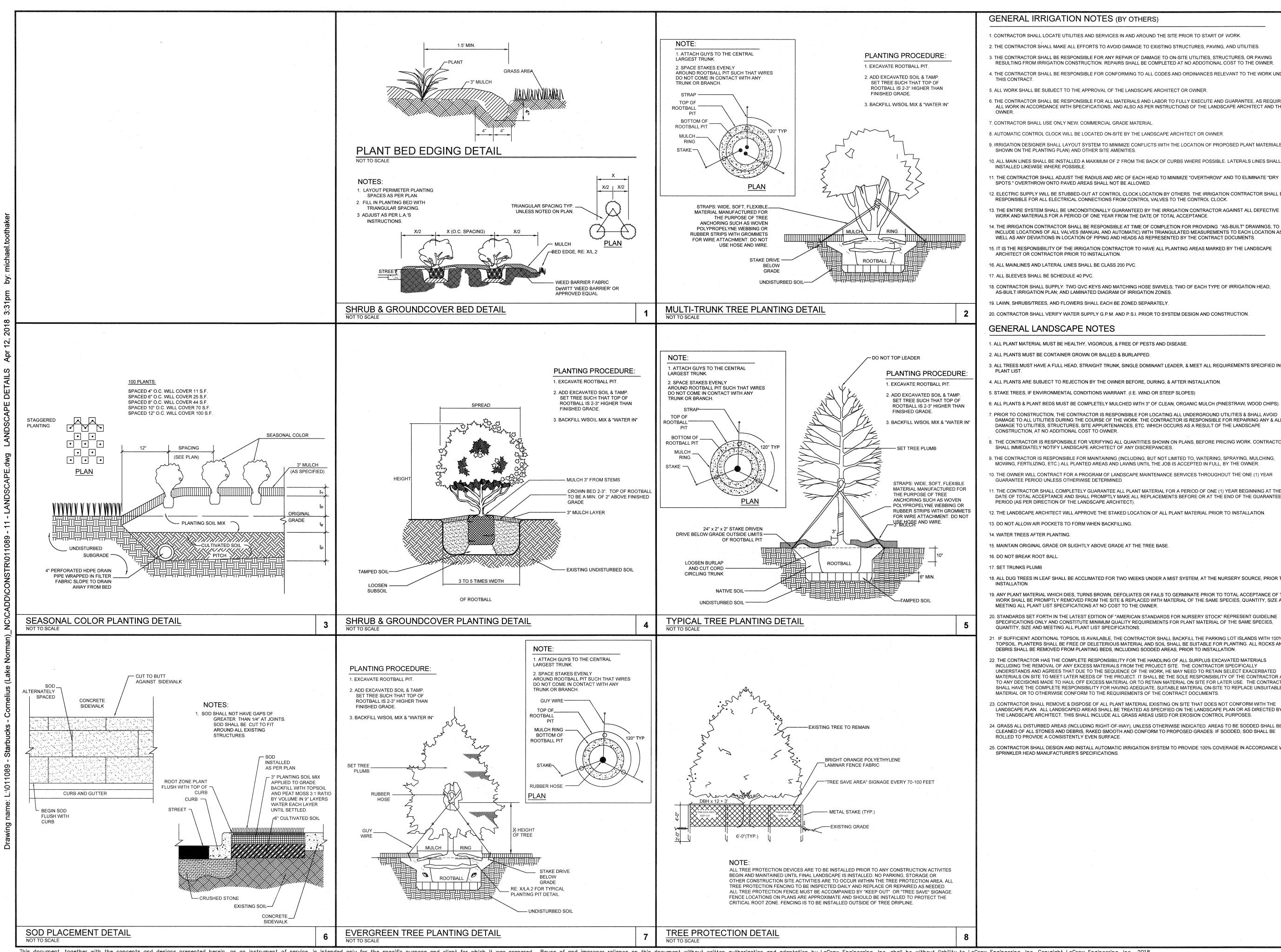




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REAR:	30'				
BUILDING SUMMARY					
BUILDING AREA:	3,237 S.F.				
PARKING SUMMARY					
PARKING REQ.:	4 SPACES / 1,000 S.F.				
	13 SPACES				
PARKING PROV.:	8.6 SPACES / 1,000 S.F.				
	28 SPACES				
MIN. STALL DIMENSIONS:	9' x 19'				
MIN. DRIVE WIDTH:	24'				





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### **GENERAL IRRIGATION NOTES (BY OTHERS)**

1. CONTRACTOR SHALL LOCATE UTILITIES AND SERVICES IN AND AROUND THE SITE PRIOR TO START OF WORK.

3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIR OF DAMAGE TO ON-SITE LITUITIES. STRUCTURES, OR PAVING

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMING TO ALL CODES AND ORDINANCES RELEVANT TO THE WORK UNDER

5. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND LABOR TO FULLY EXECUTE AND GUARANTEE, AS REQUIRED ALL WORK IN ACCORDANCE WITH SPECIFICATIONS, AND ALSO AS PER INSTRUCTIONS OF THE LANDSCAPE ARCHITECT AND THE

8. AUTOMATIC CONTROL CLOCK WILL BE LOCATED ON-SITE BY THE LANDSCAPE ARCHITECT OR OWNER.

9. IRRIGATION DESIGNER SHALL LAYOUT SYSTEM TO MINIMIZE CONFLICTS WITH THE LOCATION OF PROPOSED PLANT MATERIALS (AS 10. ALL MAIN LINES SHALL BE INSTALLED A MAXIMUM OF 2' FROM THE BACK OF CURBS WHERE POSSIBLE. LATERALS LINES SHALL BE

SPOTS." OVERTHROW ONTO PAVED AREAS SHALL NOT BE ALLOWED.

12. ELECTRIC SUPPLY WILL BE STUBBED-OUT AT CONTROL CLOCK LOCATION BY OTHERS. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL CONNECTIONS FROM CONTROL VALVES TO THE CONTROL CLOCK.

13. THE ENTIRE SYSTEM SHALL BE UNCONDITIONALLY GUARANTEED BY THE IRRIGATION CONTRACTOR AGAINST ALL DEFECTIVE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM THE DATE OF TOTAL ACCEPTANCE.

14. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE AT TIME OF COMPLETION FOR PROVIDING "AS-BUILT" DRAWINGS, TO INCLUDE LOCATIONS OF ALL VALVES (MANUAL AND AUTOMATIC) WITH TRIANGULATED MEASUREMENTS TO EACH LOCATION AS WELLAS ANY DEVIATIONS IN LOCATION OF PIPING AND HEADS AS REPRESENTED BY THE CONTRACT DOCUMENTS.

15. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO HAVE ALL PLANTING AREAS MARKED BY THE LANDSCAPE

18. CONTRACTOR SHALL SUPPLY: TWO QVC KEYS AND MATCHING HOSE SWIVELS; TWO OF EACH TYPE OF IRRIGATION HEAD; AS-BUILT IRRIGATION PLAN; AND LAMINATED DIAGRAM OF IRRIGATION ZONES.

20. CONTRACTOR SHALL VERIFY WATER SUPPLY G.P.M. AND P.S.I. PRIOR TO SYSTEM DESIGN AND CONSTRUCTION.

1. ALL PLANT MATERIAL MUST BE HEALTHY, VIGOROUS, & FREE OF PESTS AND DISEASE.

3. ALL TREES MUST HAVE A FULL HEAD, STRAIGHT TRUNK, SINGLE DOMINANT LEADER, & MEET ALL REQUIREMENTS SPECIFIED IN

4. ALL PLANTS ARE SUBJECT TO REJECTION BY THE OWNER BEFORE, DURING, & AFTER INSTALLATION.

5. STAKE TREES, IF ENVIRONMENTAL CONDITIONS WARRANT. (I.E. WIND OR STEEP SLOPES)

6. ALL PLANTS & PLANT BEDS MUST BE COMPLETELY MULCHED WITH 3" OF CLEAN, ORGANIC MULCH (PINESTRAW, WOOD CHIPS). 7 PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES & SHALL AVOID DAMAGE TO ALL UTILITIES DURING THE COURSE OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY & ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC. WHICH OCCURS AS A RESULT OF THE LANDSCAPE

8. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON PLANS, BEFORE PRICING WORK. CONTRACTOR SHALL IMMEDIATELY NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.

9. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING (INCLUDING, BUT NOT LIMITED TO, WATERING, SPRAYING, MULCHING, MOWING, FERTILIZING, ETC.) ALL PLANTED AREAS AND LAWNS UNTIL THE JOB IS ACCEPTED IN FULL, BY THE OWNER. 10. THE OWNER WILL CONTRACT FOR A PROGRAM OF LANDSCAPE MAINTENANCE SERVICES THROUGHOUT THE ONE (1) YEAR

1. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING AT THE

DATE OF TOTAL ACCEPTANCE AND SHALL PROMPTLY MAKE ALL REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE

12. THE LANDSCAPE ARCHITECT WILL APPROVE THE STAKED LOCATION OF ALL PLANT MATERIAL PRIOR TO INSTALLATION.

15. MAINTAIN ORIGINAL GRADE OR SLIGHTLY ABOVE GRADE AT THE TREE BASE

18. ALL DUG TREES IN LEAF SHALL BE ACCLIMATED FOR TWO WEEKS UNDER A MIST SYSTEM, AT THE NURSERY SOURCE, PRIOR TO

19. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, DEFOLIATES OR FAILS TO GERMINATE PRIOR TO TOTAL ACCEPTANCE OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE & REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, SIZE AND MEETING ALL PLANT LIST SPECIFICATIONS AT NO COST TO THE OWNER.

20. STANDARDS SET FORTH IN THE LATEST EDITION OF "AMERICAN STANDARDS FOR NURSERY STOCK" REPRESENT GUIDELINE SPECIFICATIONS ONLY AND CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL OF THE SAME SPECIES,

21. IF SUFFICIENT ADDITIONAL TOPSOIL IS AVAILABLE, THE CONTRACTOR SHALL BACKFILL THE PARKING LOT ISLANDS WITH 100% TOPSOIL. PLANTERS SHALL BE FREE OF DELETERIOUS MATERIAL AND SOIL SHALL BE SUITABLE FOR PLANTING. ALL ROCKS AND DEBRIS SHALL BE REMOVED FROM PLANTING BEDS, INCLUDING SODDED AREAS, PRIOR TO INSTALLATION.

22. THE CONTRACTOR HAS THE COMPLETE RESPONSIBILITY FOR THE HANDLING OF ALL SURPLUS EXCAVATED MATERIALS INCLUDING THE REMOVAL OF ANY EXCESS MATERIALS FROM THE PROJECT SITE. THE CONTRACTOR SPECIFICALLY LINDERSTANDS AND AGREES THAT DUE TO THE SEQUENCE OF THE WORK HE MAY NEED TO RETAIN SELECT EXACERBATED MATERIALS ON SITE TO MEET LATER NEEDS OF THE PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AS TO ANY DECISIONS MADE TO HAUL OFF EXCESS MATERIAL OR TO RETAIN MATERIAL ON SITE FOR LATER USE. THE CONTRACTOR SHALL HAVE THE COMPLETE RESPONSIBILITY FOR HAVING ADEQUATE. SUITABLE MATERIAL ON-SITE TO REPLACE UNSUITABLE MATERIAL OR TO OTHERWISE CONFORM TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

23. CONTRACTOR SHALL REMOVE & DISPOSE OF ALL PLANT MATERIAL EXISTING ON SITE THAT DOES NOT CONFORM WITH THE LANDSCAPE PLAN. ALL LANDSCAPED AREAS SHALL BE TREATED AS SPECIFIED ON THE LANDSCAPE PLAN OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. THIS SHALL INCLUDE ALL GRASS AREAS USED FOR EROSION CONTROL PURPOSES.

24. GRASS ALL DISTURBED AREAS (INCLUDING RIGHT-OF-WAY), UNLESS OTHERWISE INDICATED. AREAS TO BE SODDED SHALL BE CLEANED OF ALL STONES AND DEBRIS, RAKED SMOOTH AND CONFORM TO PROPOSED GRADES. IF SODDED, SOD SHALL BE

25. CONTRACTOR SHALL DESIGN AND INSTALL AUTOMATIC IRRIGATION SYSTEM TO PROVIDE 100% COVERAGE IN ACCORDANCE WITH

