# USC - AIKEN

471 University Parkway, Aiken, South Carolina 29801

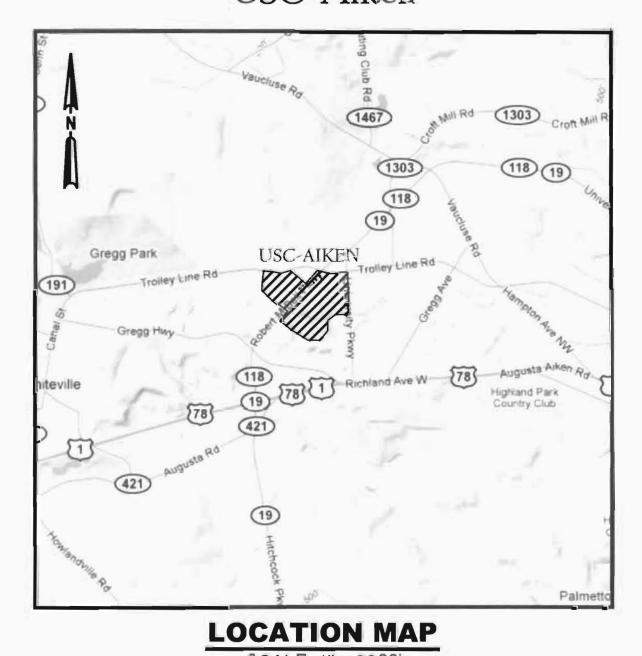
# USC Aiken Pedestrian Safety Improvements Project No. H29-I332

**PROJECT DATA** 

ZONING:	RUD
PARCEL NO. & TAX MAP	087-15-01-008
AREA OF PROPERTY	.62.07 ACRES
DISTURBED AREA(AREA OF CONSTRUCTION)	0.71 ACRES
IMPERVIOUS AREA OFPROPOSED IMPROVEMENTS	0.15 ACRES
DRAINAGE BASIN	SAND RIVER

TEL: (706) 724-5756

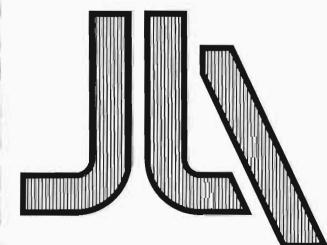
USC-Aiken



# **DRAWING INDEX**

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ALL HANDICAP ACCESSIBILITY STANDARDS WILL MEET THE MOST CURRENT ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.



JOHNSON, LASCHOBER & ASSOCIATES, P.C.

P.O. BOX 2103

AUGUSTA, GEORGIA 30901 FAX: (706) 724-3955

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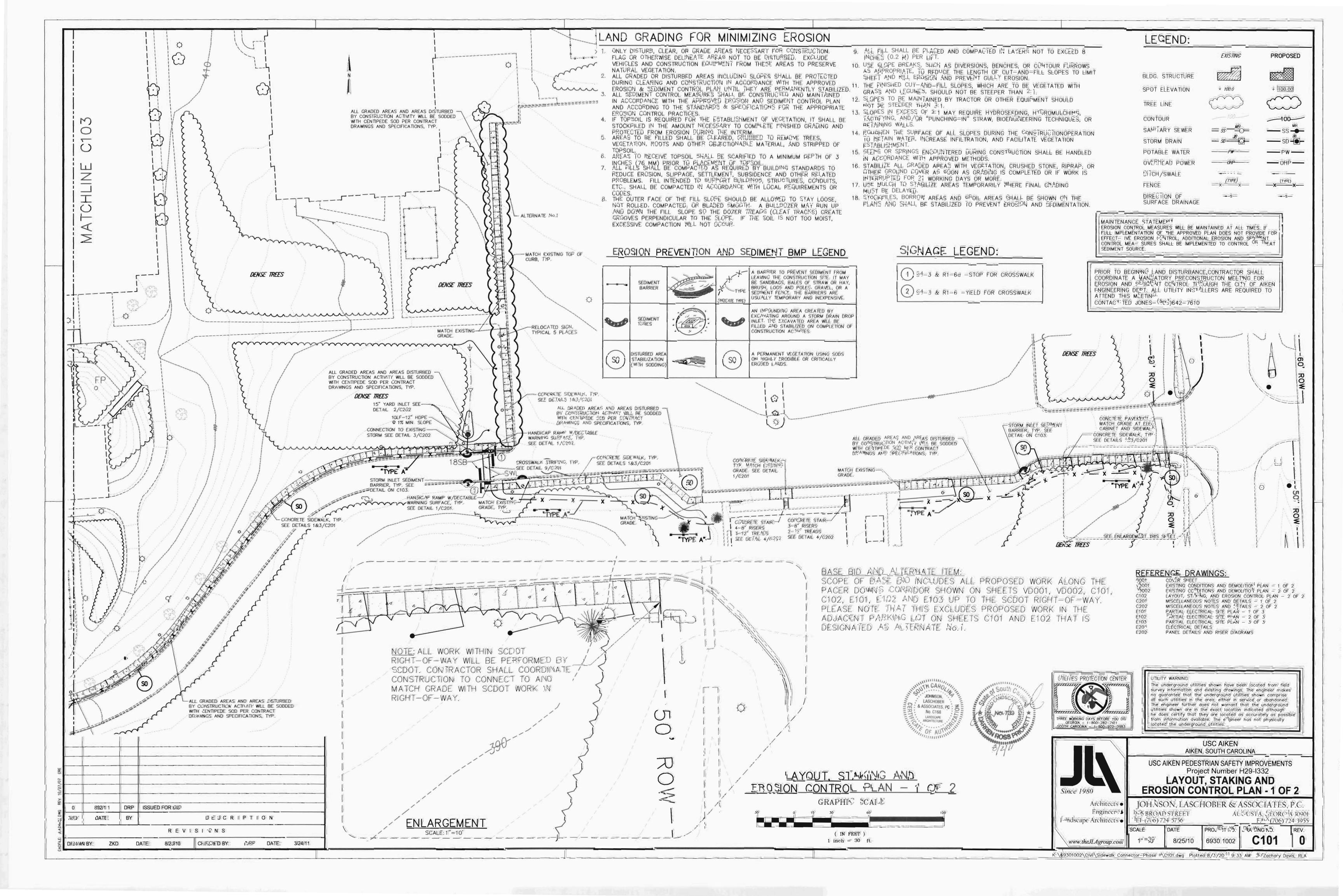
thereupon may be subject to legal action

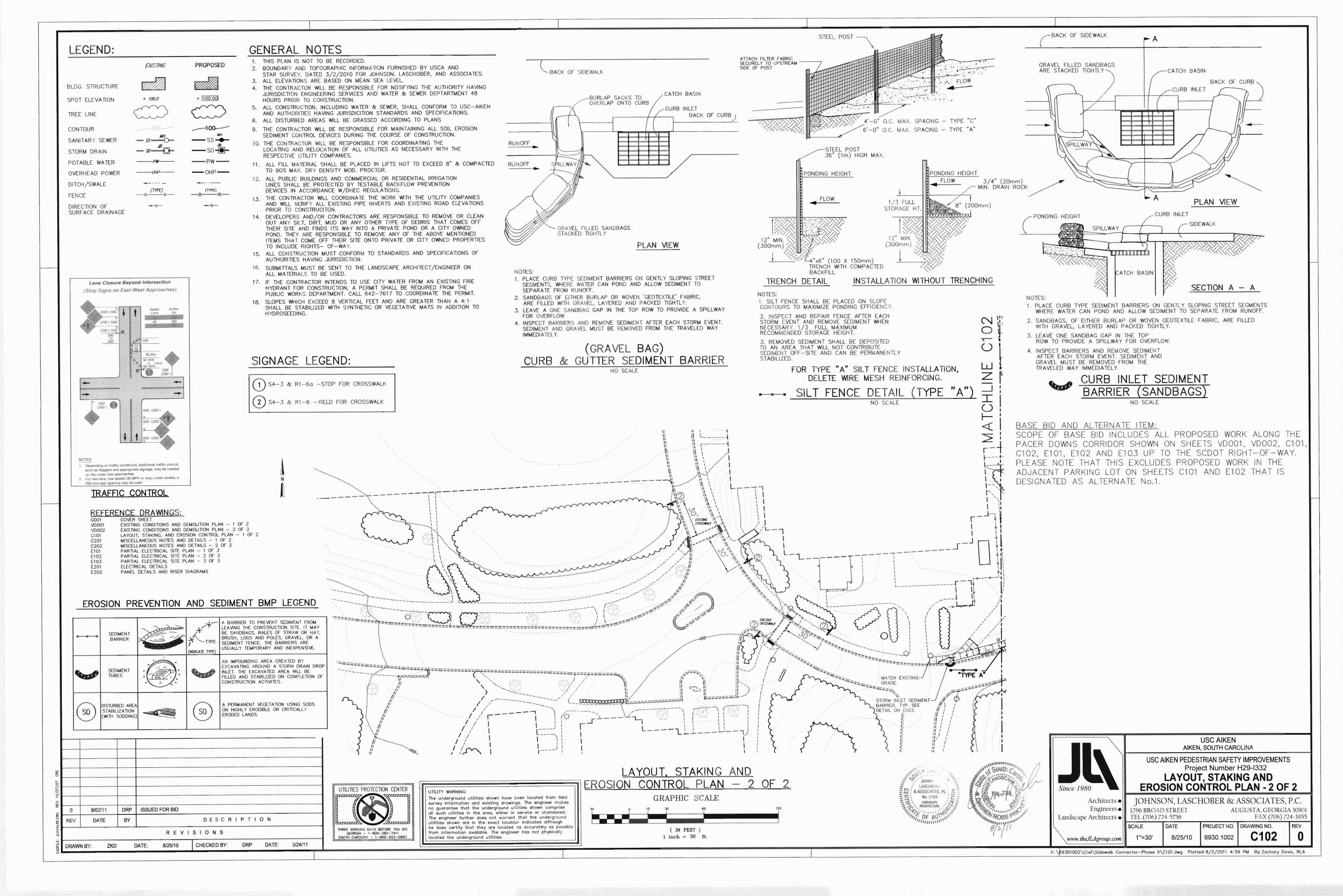
ARCHITECTS • ENGINEERS • LANDSCAPE ARCHITECTS

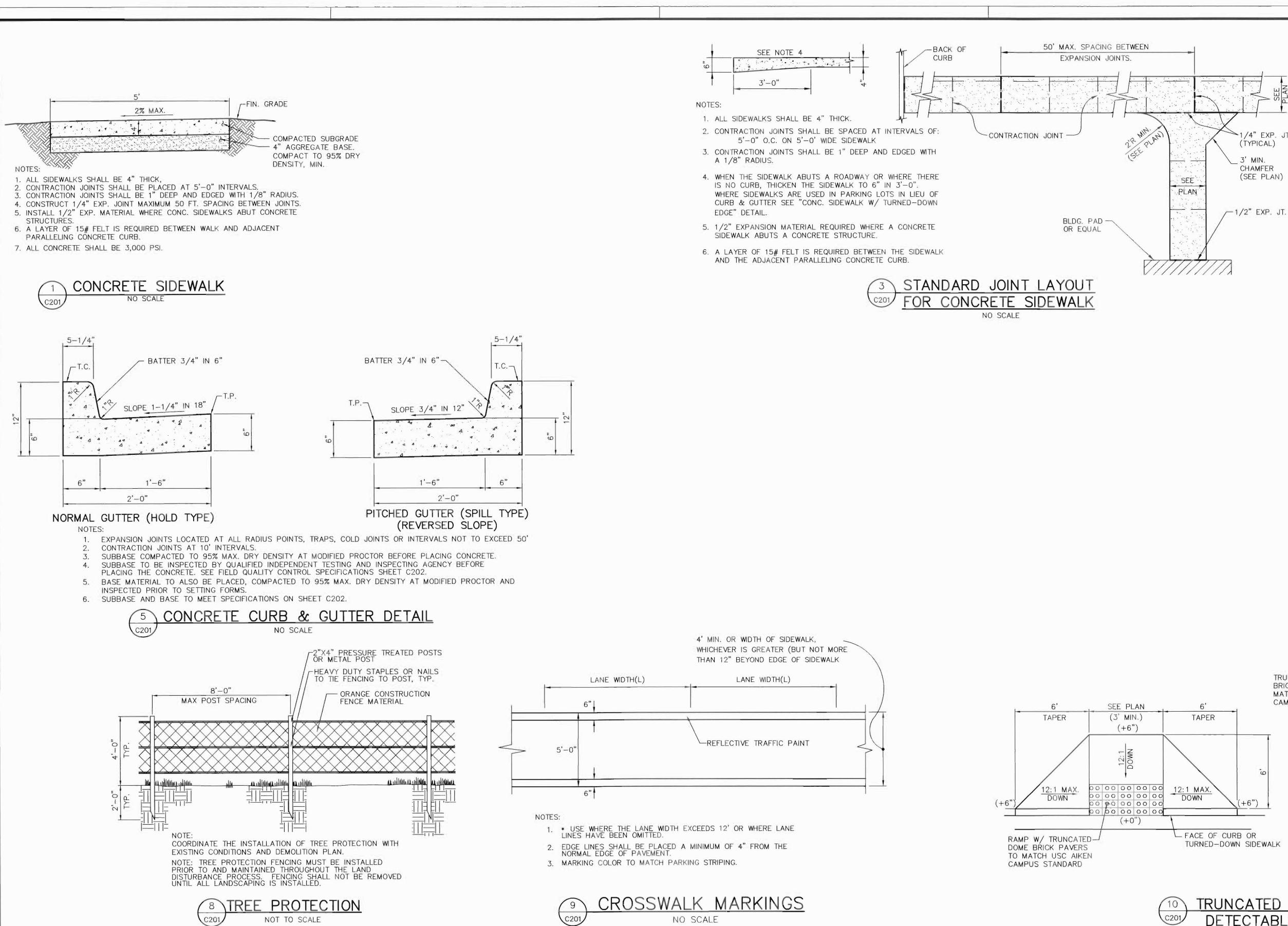
FILENAME: A.O.O DWG

JOB NO. 6930.1002

& ASSOCIATES, PC









TRUNCATED DOME

BRICK PAVERS TO

MATCH USC AIKEN

CAMPUS STANDARD —

MATCH GRADE-

AT GUTTER

COMPACTED-SUBGRADE

1/2" RUBBER-

EXP. JOINT

134" MORTAR BED-

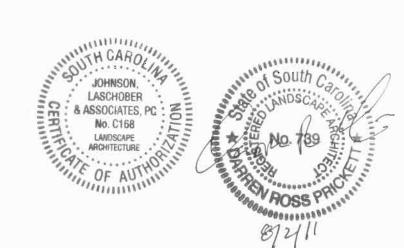
1/4" EXP. JT.

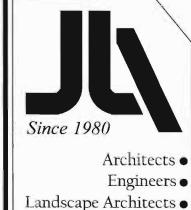
(TYPICAL)

CHAMFER

(SEE PLAN)

3' MIN.





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**USC AIKEN** AIKEN, SOUTH CAROLINA USC AIKEN PEDESTRIAN SAFETY IMPROVEMENTS Project Number H29-I332 MISCELLANEOUS NOTES AND DETAILS 1 OF 2

SCALE

4" THICK

CONCRETE SLAB

DRY DENSITY

4" AGGREGATE BASE TYP.—

COMPACT TO 100% MAX.

JOHNSON, LASCHOBER & ASSOCIATES, P.C. 1296 BROAD STREET AUGUSTA, GEORGIA 30901 TEL (706) 724-5756 FAX (706) 724-3955

一¼" MORTAR JOINT, TYP

- MATCH GRADE

AT RAMP

C201 7/8/10 3930.1002 K:\69301002\Civil\C201.dwg Plotted: 8/3/2011 9:30 AM By: Zachary Davis, RLA

PROJECT NO.

DRAWING NO.

8/02/11 DRP ISSUED FOR BID DESCRIPTION REV DATE REVISIONS CHECKED BY: DRP DATE: 3/24/11 DATE: DRAWN BY: ZKD

UTILITIES PROTECTION CENTER GEORGIA - 1-800-282-7411

The underground utilities shown have been located from field survey information and existing drawings. The engineer makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The engineer further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The engineer has not physically located the underground utilities.

#### REFERENCE DRAWINGS: EXISTING CONDITIONS AND DEMOLITION PLAN - 1 OF 2 EXISTING CONDITIONS AND DEMOLITION PLAN - 2 OF 2 LAYOUT, STAKING, AND EROSION CONTROL PLAN -- 1 OF 2 LAYOUT, STAKING, AND EROSION CONTROL PLAN - 2 OF 2 MISCELLANEOUS NOTES AND DETAILS - 2 OF 2 PARTIAL ELECTRICAL SITE PLAN - 1 OF 3 PARTIAL ELECTRICAL SITE PLAN - 2 OF 3 PARTIAL ELECTRICAL SITE PLAN - 3 OF 3 ELECTRICAL DETAILS PANEL DETAILS AND RISER DIAGRAMS

MISCELLANEOUS NOTES AND DETAILS - 1 OF 2

# CEMENT CONCRETE PAVEMENT

- PREPARE DESIGN MIXTURES, PROPORTIONED ACCORDING TO ACI 301, FOR EACH TYPE AND STRENGTH OF NORMAL-WEIGHT CONCRETE DETERMINED BY EITHER LABORATORY TRIAL MIXES OR FIELD EXPERIENCE. USE A QUALIFIED INDEPENDENT TESTING AGENCY FOR PREPARING AND
- REPORTING PROPOSED CONCRETE MIXTURE DESIGNS FOR THE TRIAL BATCH
- PROPORTION MIXTURES TO PROVIDE NORMAL-WEIGHT CONCRETE WITH THE FOLLOWING PROPERTIES:
- COMPRESSIVE STRENGTH (28 DAYS): 3000 PSI.
- MAXIMUM WATER-CEMENTITIOUS MATERIALS RATION AT POINT OF PLACEMENT:
- 3. SLUMP LIMIT: 4 INCHES, PLUS OR MINUS 1 INCH.
- LIMIT WATER-SOLUBLE, CHLORIDE-IION CONTENT IN HARDENED CONCRETE TO 0.15 PERCENT BY WEIGHT OF CEMENT.
- READY-MIXED CONCRETE: MEASURE, BATCH, AND MIX CONCRETE MATERIALS AND CONCRETE ACCORDING TO ASTM C 94/C 94M. FURNISH BATCH CERTIFICATES FOR EACH BATCH DISCHARGED AND USED IN THE WORK
- WHEN AIR TEMPERATURE IS BETWEEN 85'F AND 90'F, REDUCE MIXING AND DELIVERY TIME FROM 1-1/2 HOURS TO 75 MINUTES; WHEN AIR TEMPERATURE IS ABOVE 90°F, REDUCE MIXING AND DELIVERY TIME TO 60
- HOT-WEATHER PLACEMENT: COMPLY WITH ACI 301 AND AS FOLLOWS WHEN HOT-WEATHER CONDITIONS EXIST:
- COOL INGREDIENTS BEFORE MIXING TO MAINTAIN CONCRETE TEMPERATURE BELOW 90°F AT TIME OF PLACEMENT. CHILLED MIXING WATER OR CHOPPED ICE MAY BE USED TO CONTROL TEMPERATURE, PROVIDED WATER EQUIVALENT OF ICE IS CALCULATED TO TOTAL AMOUNT OF MIXING WATER. USING LIQUID NITROGEN TO COOL CONCRETE IS CONTRACTOR'S OPTION.
- COVER STEEL REINFORCEMENT WITH WATER-SOAKED BURLAP SO STEEL TEMPERATURE WILL NOT EXCEED AMBIENT AIR TEMPERATURE IMMEDIATELY
- BEFORE EMBEDDING IN CONCRETE. FOG-SPRAY FORMS. STEEL REINFORCEMENT, AND SUBGRADE JUST BEFORE PLACING CONCRETE. KEEP SUBGRADE MOISTURE UNIFORM WITHOUT STANDING WATER, SOFT SPOTS OR DRY AREAS.
- MEDIUM-TO-COARSE-TEXTURED BROOM FINISH: PROVIDE A MEDIUM COARSE FINISH BY STRIATING FLOAT-FINISHED CONCRETE SURFACE 1/6 TO 1/8 INCH DEEP WITH A STIFF BRISTLED BROOM, PERPENDICULAR TO LINE OF TRAFFIC.
- FIELD QUALITY CONTROL
- TESTING AGENCY: CONTRACTOR WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.
- TESTING SERVICES: TESTING OF COMPOSITE SAMPLES OF FRESH CONCRETE OBTAINED ACCORDING TO ASTM C 172 SHALL BE PERFORMED ACCORDING TO THE FOLLOWING REQUIREMENTS:
  - TESTING FREQUENCY: OBTAIN AT LEAST 1 COMPOSITE SAMPLE FOR EACH 100 CY OR FRACTION THEREOF OF EACH CONCRETE MIX PLACED EACH DAY. WHEN FREQUENCY OF TESTING WILL PROVIDE FEWER THAN FIVE COMPRESSIVE-STRENGHT TESTS FOR EACH CONCRETE MIXTURE, TESTING SHALL BE CONDUCTED FROM AT LEAST FIVE RANDOMLY SELECTED BATCHES OR FROM EACH BATCH IF FEWER THAN FIVE ARE USED.
- 2. SLUMP: ASTM C 143/C 143M; ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE
- CONSISTENCY APPEARS TO CHANGE. AIR CONTENT: ASTM C 231, PRESSURE METHOD; ONE TEST FOR EACH COMPOSITE SAMPLE. BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR
- OF EACH CONCRETE MIX. CONCRETE TEMPERATURE: ASTM C 1064; ONE TEST HOURLY WHEN AIR TEMPERATURE IS 40°F AND BELOW AND WHEN 80°F AND ABOVE, AND ONE
- TEST FOR EACH COMPOSITE SAMPLE. 5. COMPRESSION TEST SPECIMENS: ASTM C 31/C 31M; CAST AND LABORATORY
- CURE ONE SET OF THREE STANDARD CYLINDER SPECIMENS FOR EACH COMPOSITE SAMPLE. COMPRESSIVE-STRENGTH TESTS: ASTM C 39/C 39M; TEST 1 SPECIMEN AT 7
- DAYS AND 2 SPECIMENS AT 28 DAYS. a. A COMPRESSIVE-STRENGTH TEST SHALL BE THE AVERAGE COMPRESSIVE STRENGTH FROM 2 SPECIMENS OBTAINED FROM SAME
- COMPOSITE SAMPLE AND TESTED AT 28 DAYS. STRENGTH OF EACH CONCRETE MIX WILL BE SATISFACTORY IF AVERAGE OF ANY THREE CONSECUTIVE COMPRESSIVE-STRENGTH TEST EQUALS OR EXCEEDS SPECIFIED COMPRESSIVE-STRENGTH AND NO COMPRESSIVE STRENGTH TEST VALUE
- FALLS BELOW SPECIFIED COMPRESSIVE STRENGTH BY MORE THAN 500PSI TEST RESULTS SHALL BE REPORTED IN WRITING TO ENGINEER, CONC. MANUFACTURER AND CONTRACTOR WITHIN 48 HOURS OF TESTING. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN PROJECT IDENTIFICATION IN NAME AND NUMBER. DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING AND INSPECTION AGENCY, LOCATION OF CONCRETE BATCH IN WORK . DESIGN

COMPRESSIVE STRENGTH AT 28 DAYS. CONCRETE MIXTURE PROPORTIONS AND

- MATERIALS. COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7 AND 28 DAY TESTS. ADDITIONAL TESTS: TESTING AND INSPECTING AGENCY SHALL MAKE ADDITIONAL TESTS OF CONCRETE WHEN TEST RESULTS INDICATE THAT SLUMP, AIR ENTRAPMENT, COMPRESSIVE STRENGTH, OR OTHER REQUIREMENTS HAVE NOT BEEN
- MET. AS DIRECTED BY ENGINEER. REMOVE AND REPLACE CONCRETE PAVEMENT WHERE TEST RESULTS INDICATE
- THAT IT DOES NOT COMPLY WITH SPECIFIED REQUIREMENTS. ADDITIONAL TESTING AND INSPECTING, AT CONTRACTORS EXPENSE, WILL BE PERFORMED TO DETERMINE COMPLIANCE OF REPLACED OR ADDITIONAL WORK WITH SPECIFIED REQUIREMENTS.

- REPAIRS AND PROTECTION
- A. REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR
- DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION. B. DRILL TEST CORES, WHERE DIRECTED BY ENGINEER, WHEN NECESSARY TO DETERMINE MAGNITUDE OF CRACKS OR DEFECTIVE AREAS. FILL DRILLED HOLES IN SATISFACTORY PAVEMENT ARES WITH PORTLAND CEMENT BONDED TO PAVEMENT
- WITH EPOXY ADHESIVE. C. PROTECT CONCRETE FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 14 DAYS AFTER PLACEMENT. WHEN CONSTRUCTION TRAFFIC IS PERMITTED MAINTAIN PAVEMENT AS CLEAN AS POSSIBLE BY REMOVING SURFACE STAINS AND SPILLAGE AS THEY OCCUR.
- D. MAINTAIN CONCRETE PAVEMENT FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PAVEMENT NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

## EARTHWORK

- COMPACTION OF SOIL BACKFILLS AND FILLS
- A. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 4 TO 8 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
- B. PLACE BACKFILL AND FILL SOIL MATERIALS EVENLY ON ALL SIDES OF STRUCTURES TO REQUIRED ELEVATIONS, AND UNIFORMLY ALONG THE FULL LENGTH
- OF EACH STRUCTURE C. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698, UNLESS NOTED
- OTHERWISE ON DRAWINGS: 1. UNDER PAVEMENT RECOMPACT TOP 6" SUBGRADE TO 100 PER CENT STANDARD PROCTER. ANY AREA THAT CANNOT BE RECOMPACTED OR YIELDS WHILE PROOF ROLLING WILL BE UNDERCUT AS DIRECTED BY THE OWNER'S ENGINEER AND BACKFILLED WITH GDOT CLASS "A" BASE TO 95 PERCENT MODIFIED PROCTER, ASTM D 1557. THE UPPER 18" OF FILL BENEATH PAVING BASE HALL BE COMPACTED TO 98 PERCENT STANDARD PROCTER.
- 2. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL
- 3. UNDER LAWN OR UNPAVED AREAS, SCARIFY AND RECOMPACT TOP 6 INCHES BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 85 PERCENT.
- A. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES, COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES AND ELEVATIONS INDICATED. 1. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND
- 2. CUT OUT SOFT SPOTS, FILL LOW SPOTS AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
- SITE GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:
- 1. LAWN OR UNPAVED AREAS: PLUS OR MINUS 1 INCH. 2. WALKS: PLUS OR MINUS 1 INCH.
- 3. PAVEMENTS: PLUS OR MINUS 1/2 INCH.

- A. PLACE BASE COURSE ON SUBGRADES FREE OF MUD. FROST, SNOW OR ICE. B. ON PREPARED SUBGRADE, PLACE BASE COURSE UNDER PAVEMENTS AND WALKS AS FOLLOWS:
- 1. PLACE BASE COURSE MATERIAL OVER SUBGRADE UNDER HOT-MIX ASPHALT PAVEMENT.
- 2. SHAPE BASE COURSE TO REQUIRED CROWN ELEVATIONS AND CROSS-SLOPE
- 3. PLACE BASE COURSE 6 INCHES OR LESS IN COMPACTED THICKNESS IN A SINGLE LAYER.
- 4. PLACE BASE COURSE THAT EXCEEDS 6 INCHES IN COMPACTED THICKNESS IN LAYERS OF EQUAL THICKNESS, WITH NO COMPACTED LAYER MORE THAN 6 INCHES THICK OR LESS THAN 3 INCHES THICK. 5. COMPACT BASE COURSE AT OPTIMUM MOISTURE CONTENT TO REQUIRED
- GRADES, LINES, CROSS SECTIONS, AND THICKNESS TO NOT LESS THAN 98 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 1557. C. PAVEMENT SHOULDERS: PLACE SHOULDERS ALONG EDGES OF BASE COURSE TO PREVENT LATERAL MOVEMENT, CONSTRUCT SHOULDERS, AT LEAST 12 INCHES
- WIDE, OF SATISFACTORY SOIL MATERIALS AND COMPACT SIMULTANEOUSLY WITH EACH BASE LAYER TO NOT LESS THAN 95 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 1557.
- FIELD QUALITY CONTROL A. TESTING AGENCY: CONTRACTOR WILL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM FIELD
- QUALITY-CONTROL TESTING. B. ALLOW TESTING AGENCY TO INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS.
- C. TESTING AGENCY WILL TEST COMPACTION OF SOILS IN PLACE ACCORDING TO ASTM D 1556, ASTM D 2167, ASTM D 2922 AND ASTM D 2937 AS APPLICABLE. TESTS WILL BE PERFORMED AT THE FOLLOWING LOCATIONS AND FREQUENCIES: 1. PAVED AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST 1 TEST FOR EVERY 3,000 SQ. FT. OR LESS OF PAVED
- AREA OR BUILDING SLAB, BUT IN NO CASE FEWER THAN 3 TESTS. D. WHEN CONTRACTOR'S TESTING AGENCY REPORTS THAT SUBGRADES, FILLS OR BACKFILLS HAVE NOT ACHIEVED THE DEGREE OF COMPACTION SPECIFIED, THE CONTRACTOR SHALL SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED. RETESTING COST SHALL BE BY CONTRACTOR.

# DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. DISPOSAL: REMOVE SURPLUS SATISFACTORY SOIL FROM SITE AND LEGALLY
- B. DISPOSE OF UNSUITABLE EXCAVATED MATERIALS OFF SITE IN A LEGAL MANNER. REMOVAL OF WASTE MATERIALS, INCLUDING UNSATISFACTORY MATERIALS, TRASH AND DEBRIS SHALL BE LEGALLY TRANSPORTED AND DISPOSED OF OFF OWNER'S

# TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. PROVIDE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES ACCORDING TO THE SEDIMENT AND EROSION CONTROL PLAN, SPECIFIC TO THE SITE THAT COMPLIES WITH THE
- REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. B. INSPECT, REPAIR AND MAINTAIN EROSION CONTROL PLAN, SPECIFIC TO THE SITE
- THAT COMPLIES WITH THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. C. REMOVE EROSION AND SEDIMENTATION CONTROLS AND RESTORE AND STABILIZE

# TOPSOIL STRIPPING

AREAS DISTURBED DURING REMOVAL.

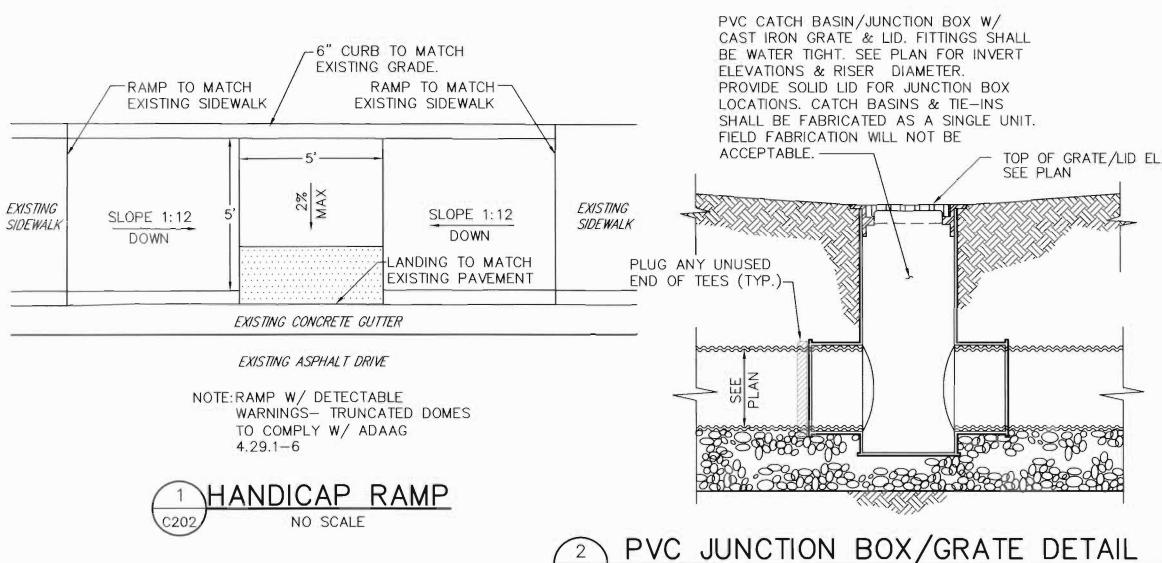
DISPOSE.

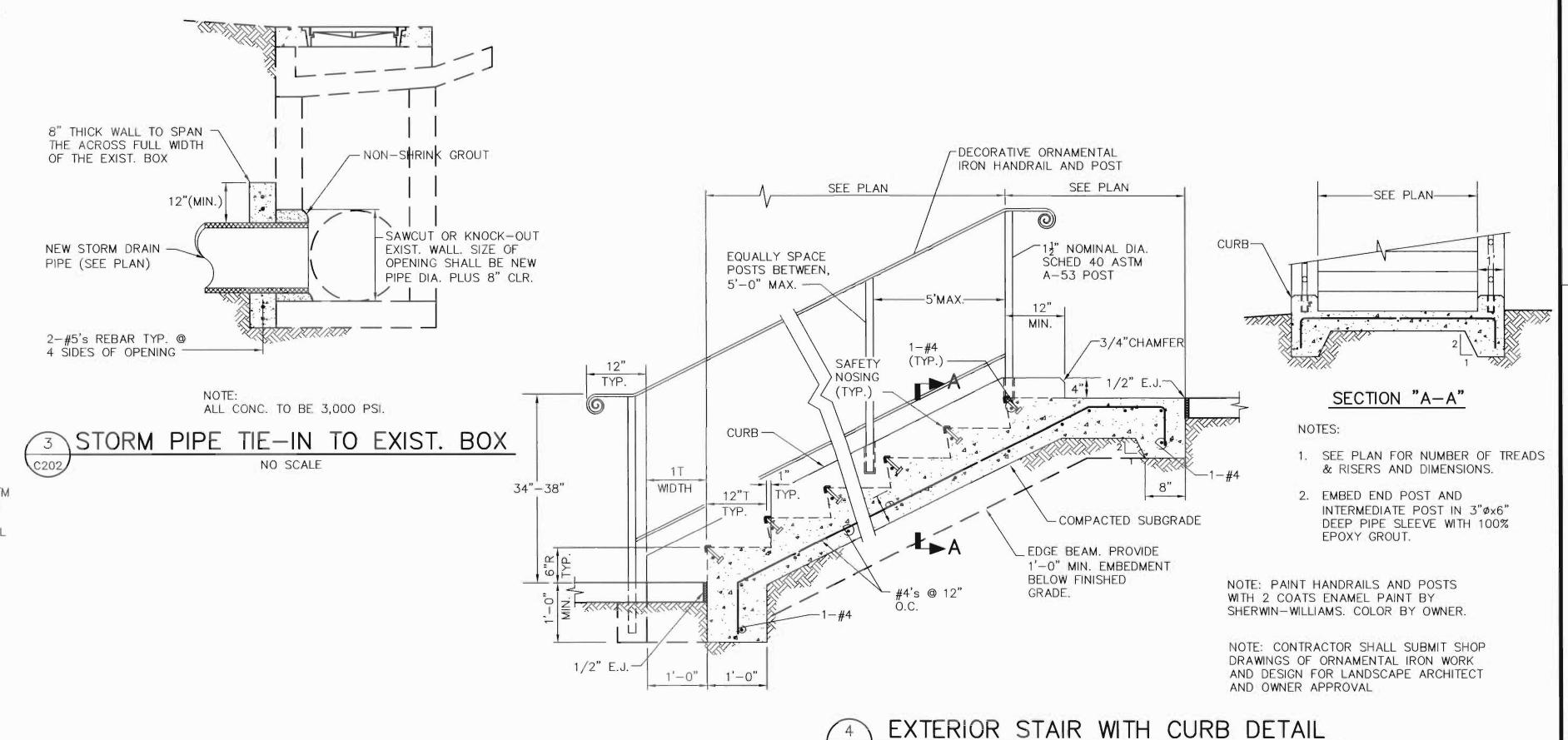
- A. REMOVE SOD AND GRASS BEFORE STRIPPING TOPSOIL B. STRIP TOPSOIL TO WHATEVER DEPTHS ARE ENCOUNTERED IN A MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER WASTE MATERIALS. REMOVE SUBSOIL AND NON-SOIL MATERIALS FROM TOPSOIL, INCLUDING
- TRASH, DEBRIS, WEEDS, ROOTS AND OTHER WASTE MATERIALS. C. STOCKPILE TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.
- LIMIT HEIGHT OF TOPSOIL STOCKPILES TO 72 INCHES DO NOT STOCKPILE TOPSOIL WITHIN TREE PROTECTION ZONES.
- DISPOSE OF EXCESS TOPSOIL AS SPECIFIED FOR WASTE MATERIAL DISPOSAL 4. STOCKPILE SURPLUS TOPSOIL TO ALLOW FOR RE-SPREADING DEEPER

## SCHEDULE OF ALTERNATES

ADD ALTERNATE No.1-ALL MATERIALS, COST, CONSTRUCTION, OVERHEAD AND PROFIT ASSOCIATED WITH THE COMPLETE CONSTRUCTION OF APPROXIMATELY 335LF OF NEW SIDEWALK ALONG THE WESTERN EDGE OF PARKING LOT. SEE SHEETS VD002 AND C102.

ADD ALTERNATE No.2-ALL MATERIALS, COST, CONSTRUCTION, OVERHEAD AND PROFIT ASSOCIATED WITH THE COMPLETE CONSTRUCTION OF THE IMPROVEMENTS AT THE RUTH PATRICK SCIENCE CENTER. SEE SHEETS VD001 AND C101.





DRP ISSUED FOR BID 8/02/11 DESCRIPTION REV DATE REVISIONS CHECKED BY: DRP DATE: 3/24/11 ZKD DATE: 7/8/10 DRAWN BY:

UTILITIES PROTECTION CENTER UTILITY WARNING:

GEORGIA - 1-800-282-7411 COUTH CAROLINA - 1-800-922-0983

The underground utilities shown have been located from field survey information and existing drawings. The engineer makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The engineer further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The engineer has not physically located the underground utilities.

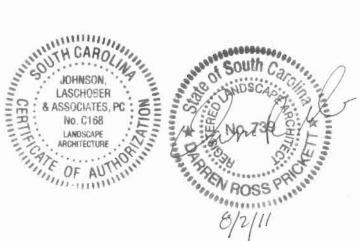
#### REFERENCE DRAWINGS: COVER SHEET

E202

EXISTING CONDITIONS AND DEMOLITION PLAN - 1 OF 2 VD001 EXISTING CONDITIONS AND DEMOLITION PLAN - 2 OF 2 C101 LAYOUT, STAKING, AND EROSION CONTROL PLAN - 1 OF 2 C102 LAYOUT, STAKING, AND EROSION CONTROL PLAN - 2 OF 2 C201 MISCELLANEOUS NOTES AND DETAILS - 1 OF 2 E101 PARTIAL ELECTRICAL SITE PLAN - 1 OF 3 PARTIAL ELECTRICAL SITE PLAN - 2 OF 3 E102 E103 PARTIAL ELECTRICAL SITE PLAN - 3 OF 3 E201 ELECTRICAL DETAILS

PANEL DETAILS AND RISER DIAGRAMS

MISCELLANEOUS NOTES AND DETAILS - 2 OF 2



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USC AIKEN PEDESTRIAN SAFETY IMPROVEMENTS Project Number H29-I332 **MISCELLANEOUS NOTES AND DETAILS** 2 OF 2

7/8/10

TEL (706) 724-5756 SCALE DATE

JOHNSON, LASCHOBER & ASSOCIATES, P.C. AUGUSTA, GEORGIA 30901 FAX (706) 724-3955

PROJECT NO.

3930.1002

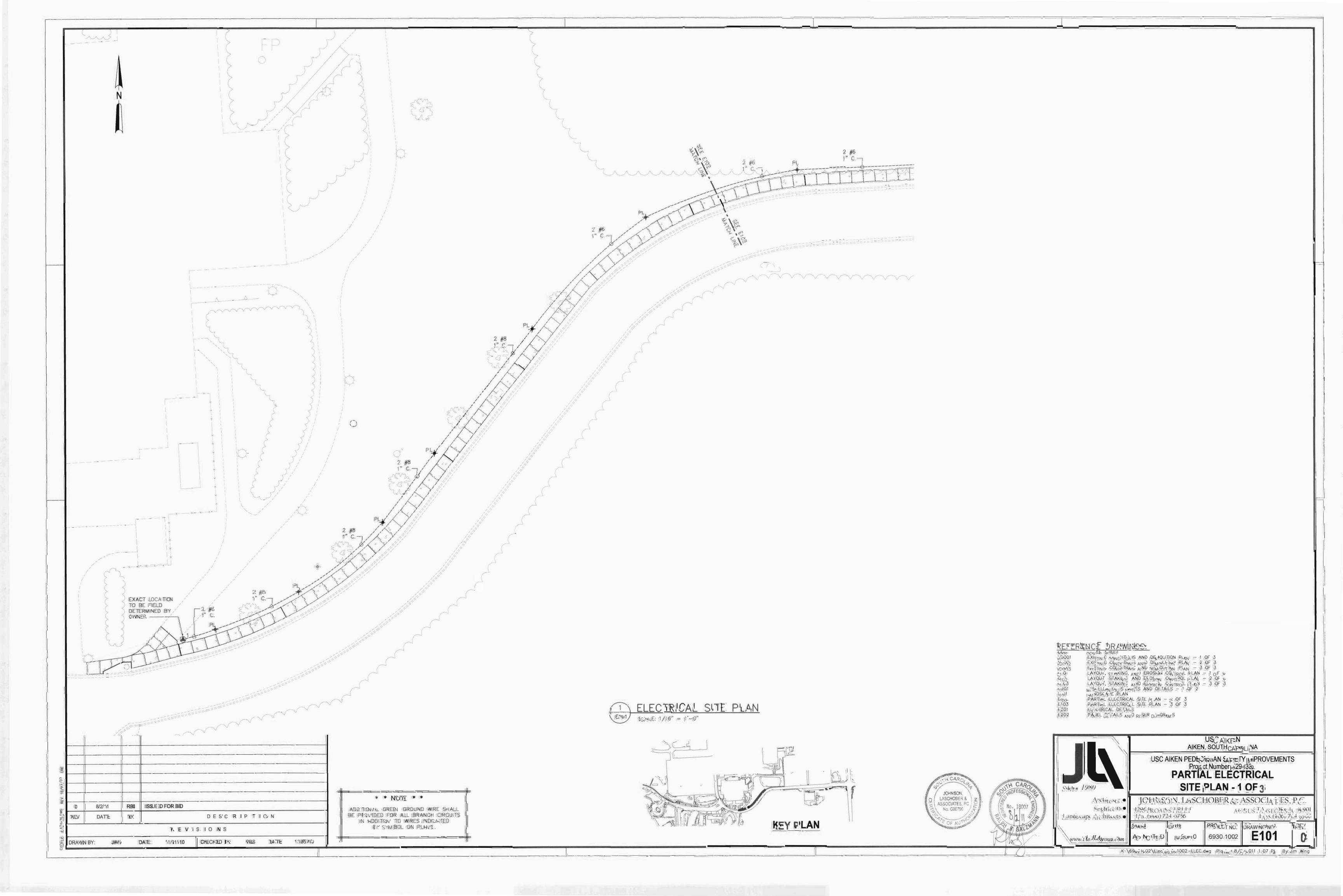
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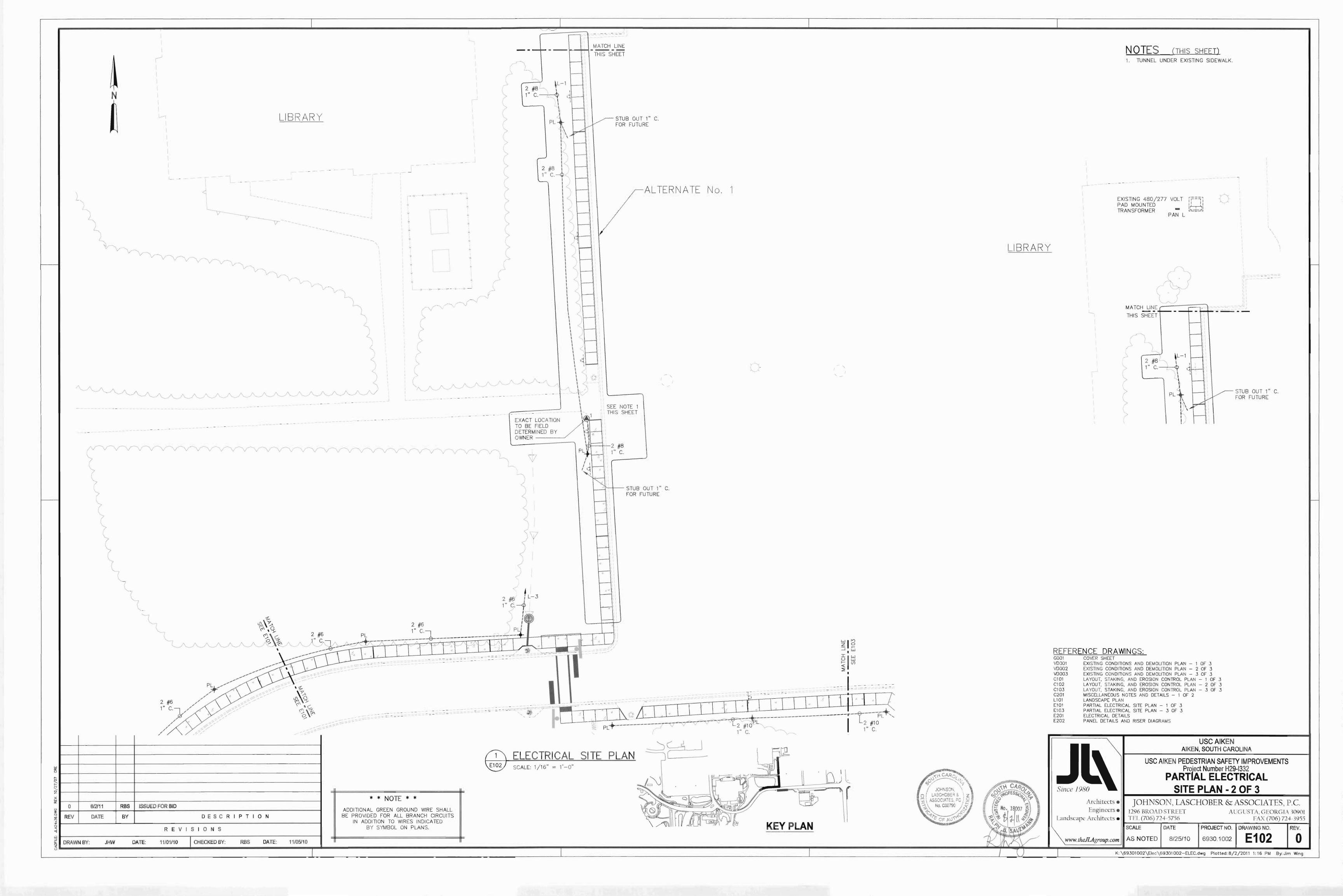
C202

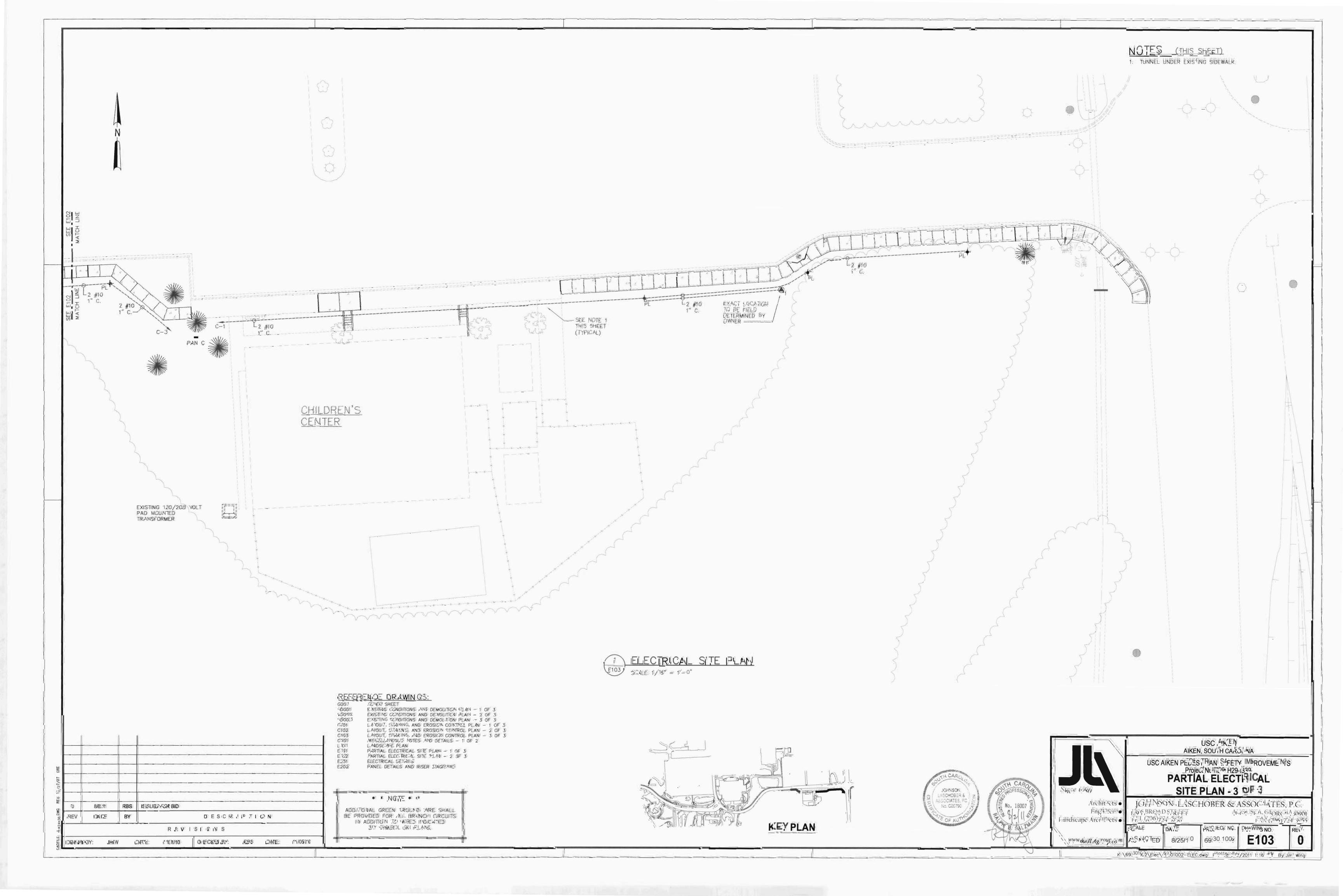
REV.

USC AIKEN

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				L	IGHTING FIXTU	JRE SCHE	EDULE
				RE	QUIRED LAMPS		
ID	MANUFACTURER	MODEL NO.	VOLTAGE	NUM.	TYPE	MOUNTING	REMARKS
PL	Sternberg	6ARC45T5 508 PEC1	120	1	LED	Post	MOUNT FIXTURE ON 4212-FP5 POLE ON CONCRETE BASE. SEE DETAIL 2/E201 INTEGRAL PHOTO CELL REQUIRED. ALL FINISHES SHALL BE BLACK. FIXTURES SHALL MATCH EXISTING FIXTURES INSTALLED UNDER PHASE 1 SIDEWALK CONTRACT.

	SPECIAL OUTLET SCHEDULE								
ID	WATTS	VOLTS	PHASE	DESCRIPTION					
1	400	120	1	EMERGENCY CALL STATION. SEE DETAIL 1/E201. PROVIDE 2 - 3/4" E.C. STUB OUTS FOR OWNER FURNISHED AND INSTALLED CATSE CABLES.					

RBS ISSUED FOR BID

DESCRIPTION

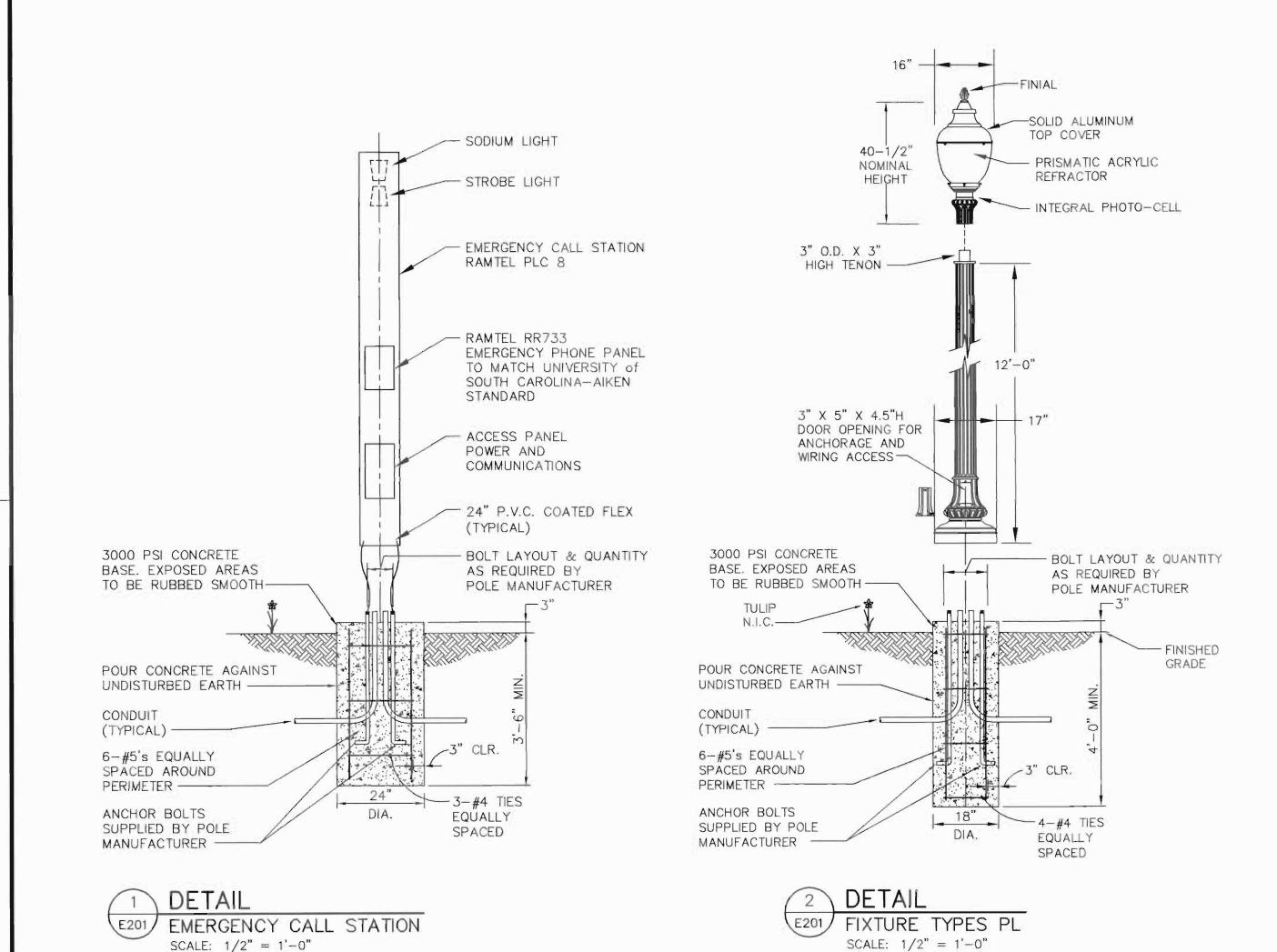
REVISIONS

DRAWN BY: JHW DATE: 11/01/10 CHECKED BY: RBS DATE: 11/05/10

8/2/11

DATE

REV



REFERENCE DRAWINGS:
GOO1 COVER SHEET

LANDSCAPE PLAN

EXISTING CONDITIONS AND DEMOLITION PLAN - 1 OF 3

EXISTING CONDITIONS AND DEMOLITION PLAN - 2 OF 3

EXISTING CONDITIONS AND DEMOLITION PLAN - 3 OF 3

MISCELLANEOUS NOTES AND DETAILS - 1 OF 2

PARTIAL ELECTRICAL SITE PLAN - 1 OF 3

PARTIAL ELECTRICAL SITE PLAN - 2 OF 3

PARTIAL ELECTRICAL SITE PLAN - 3 OF 3

PANEL DETAILS AND RISER DIAGRAMS

LAYOUT, STAKING, AND EROSION CONTROL PLAN - 1 OF 3

LAYOUT, STAKING, AND EROSION CONTROL PLAN - 2 OF 3

LAYOUT, STAKING, AND EROSION CONTROL PLAN - 3 OF 3

VD001

VD002

VD003

C101

C102

C103 C201

E101

# GENERAL NOTES

- 1. COORDINATE OUTLET LOCATIONS WITH LANDSCAPE PLANS, ELEVATIONS AND DETAILS.
- COORDINATE EMERGENCY CALL STATION LOCATIONS WITH LANDSCAPE PLANS, ELEVATIONS AND DETAILS.
- 3. COORDINATE SITE LIGHTING AND SITE UTILITIES WITH LANDSCAPING PLANS AND DETAILS AND EXISTING CONDITIONS.
- 4. COORDINATE ELECTRICAL SERVICE REQUIREMENTS WITH SERVING UTILITY.
- 5. COORDINATE SIGNAL SERVICE REQUIREMENTS WITH SERVING UTILITY.
- DO NOT SCALE DRAWINGS. DEVICE LOCATIONS ARE APPROXIMATE UNLESS DIMENSIONED. ACTUAL DEVICE LOCATIONS SHALL BE FIELD COORDINATED WITH ALL OTHER TRADES AND APPLICABLE CODES.
- CONTRACTOR SHALL 'STAKE' LOCATION OF POLES FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 8. LOCATION OF POLES MAY BE MOVED UP TO 10'-0" AT NO ADDITIONAL COST TO THE OWNER.
- 9. CONTRACTOR SHALL 'STAKE' LOCATION OF PANELS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 10. LOCATION OF PANELS MAY BE MOVED UP TO 25'-0" AT NO ADDITIONAL COST TO THE OWNER.
- 11. CONTRACTOR SHALL 'STAKE' LOCATION OF EMERGENCY CALL STATIONS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION
- 12. LOCATION OF EMERGENCY CALL STATIONS MAY BE MOVED UP TO 10'-0" AT NO ADDITIONAL COST TO THE OWNER.

# SYMBOLS







UNDERFLOOR/UNDERGROUND RACEWAY AS ABOVE



SPECIAL OUTLET - SEE SCHEDULE

# **SPECIFICATIONS**

GENERAL — ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (NFPA 70-2008) AND ALL APPLICABLE STATE AND LOCAL CODES. ALL MATERIALS SHALL BE NEW AND UL LISTED/LABELED AS APPROPRIATE. FINAL LOCATIONS FOR ROUGH—INS SHALL BE VERIFIED WITH ACTUAL EQUIPMENT BEING CONNECTED. AFTER COMPLETING INSTALLATION, REMOVE BURRS, DIRT, AND CONSTRUCTION DEBRIS FROM ALL ELECTRICAL WORK.

CONDUCTORS — INSULATION SHALL COMPLY WITH NEMA WC 5.
CONDUCTORS #8 AWG AND LARGER SHALL BE CONCENTRIC
STRANDED. CONDUCTORS #10 AND SMALLER SHALL BE SOLID.

TYPE AND INSULATION (BRANCH): COPPER, TYPE THHN/THWN
TYPE AND INSULATION (FEEDER): COPPER, TYPE THHN/THWN

COLOR CODING (480/277 V, 3ø): A-YELLOW, B-BROWN, C-ORANGE, N-WHITE, G-GREEN
COLOR CODING (120/240 V, 1ø): A-BLACK, B-RED, N-WHITE, G-GREEN

RACEWAYS — CONDUIT BODIES AND FITTINGS FOR RIGID METAL CONDUIT SHALL BE CAST THREADED TYPE. CONDUIT FITTINGS FOR ELECTRICAL METALLIC TUBING SHALL BE COMPRESSION TYPE. INSTALL 200 Ib NYLON PULL CORD IN ALL EMPTY RACEWAYS FOR FUTURE USE. APPLY FIRESTOPPING TO ELECTRICAL PENETRATIONS OF FIRE—RATED FLOOR AND WALL ASSEMBLIES TO RESTORE ORIGINAL FIRE—RESISTANCE RATING OF ASSEMBLY.

OUTDOORS EXPOSED: RIGID GALVANIZED STEEL CONFORMING TO ANSI C80.5

OUTDOORS UNDERGROUND: RIGID NONMETALLIC CONDUIT (SCHEDULE 40 PVC) CONFORMING TO NEMA TC 2

PULL AND JUNCTION BOXES — BOXES SHALL BE HOT—DIPPED GALVANIZED STEEL. BOX COVERS SHALL BE GASKETED TYPE WITH SCREWED OR BOLTED FASTENERS.

ELECTRICAL IDENTIFICATION — IN ADDITION TO CODE—REQUIRED LABELING, ALL PANELBOARDS, ELECTRICAL ENCLOSURES, TRANSFORMERS, AND DISCONNECT SWITCHES SHALL BE IDENTIFIED WITH AN ENGRAVED PLASTIC LAMINATED NAMEPLATE. LETTERING SHALL BE 1/2" INCHES HIGH AND SHALL BE WHITE ON A BLACK BACKGROUND. NAMEPLATES SHALL BE ATTACHED TO EQUIPMENT WITH STAINLESS STEEL SELF—TAPPING SCREWS.

GROUNDING — GROUNDING AND BONDING COMPONENTS SHALL COMPLY WITH UL 467. AN INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH CIRCUIT CONDUCTORS FOR ALL FEEDER AND BRANCH CIRCUITS. EXOTHERMIC—WELDED CONNECTIONS SHALL BE USED FOR ATTACHMENT TO STRUCTURAL STEEL AND UNDERGROUND CONNECTIONS. GROUNDING ELECTRODES SHALL BE 3/4" x 10' COPPERWELD TYPE.

PANELBOARD — PANELBOARD SHALL COMPLY WITH NEMA PB 1. SHOP DRAWINGS FOR EACH PANELBOARD SHALL BE SUBMITTED AND SHALL INCLUDE BUS CONFIGURATION AND CURRENT RATINGS, OVERCURRENT DEVICE ARRANGEMENT AND SETTINGS, AND PANELBOARD SHORT CIRCUIT RATING. AN EQUIPMENT GROUND BUS SHALL BE PROVIDED AND SHALL BE BONDED TO THE PANEL BOX. PANELBOARDS WITH A MAIN SERVICE DISCONNECT SHALL BE LISTED FOR USE AS SERVICE EQUIPMENT. CIRCUIT BREAKERS SHALL BE BOLT—ON TYPE. CIRCUIT BREAKERS SHALL BE LISTED FOR SWD, HID OR HACR USE AS APPROPRIATE. MULTIPOLE CIRCUIT BREAKERS SHALL NOT BE USED. FILLER PLATES SHALL BE INSTALLED IN UNUSED SPACES. A TYPED CIRCUIT DIRECTORY SHALL BE INSTALLED ON THE INSIDE OF THE PANELBOARD DOOR.







USC AIKEN AIKEN, SOUTH CAROLINA

USC AIKEN PEDESTRIAN SAFETY IMPROVEMENTS
Project Number H29-I332

ELECTRICAL DETAILS

Architects • JOHNSON, LASCHOBER & A

DATE

Architects • JOHNSON, LASCHOBER & ASSOCIATES, P.C.
Engineers • 1296 BROAD STREET AUGUSTA, GEORGIA 30901
Landscape Architects • TEL (706) 724-5756 FAX (706) 724-3955

8/25/10

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SCALE

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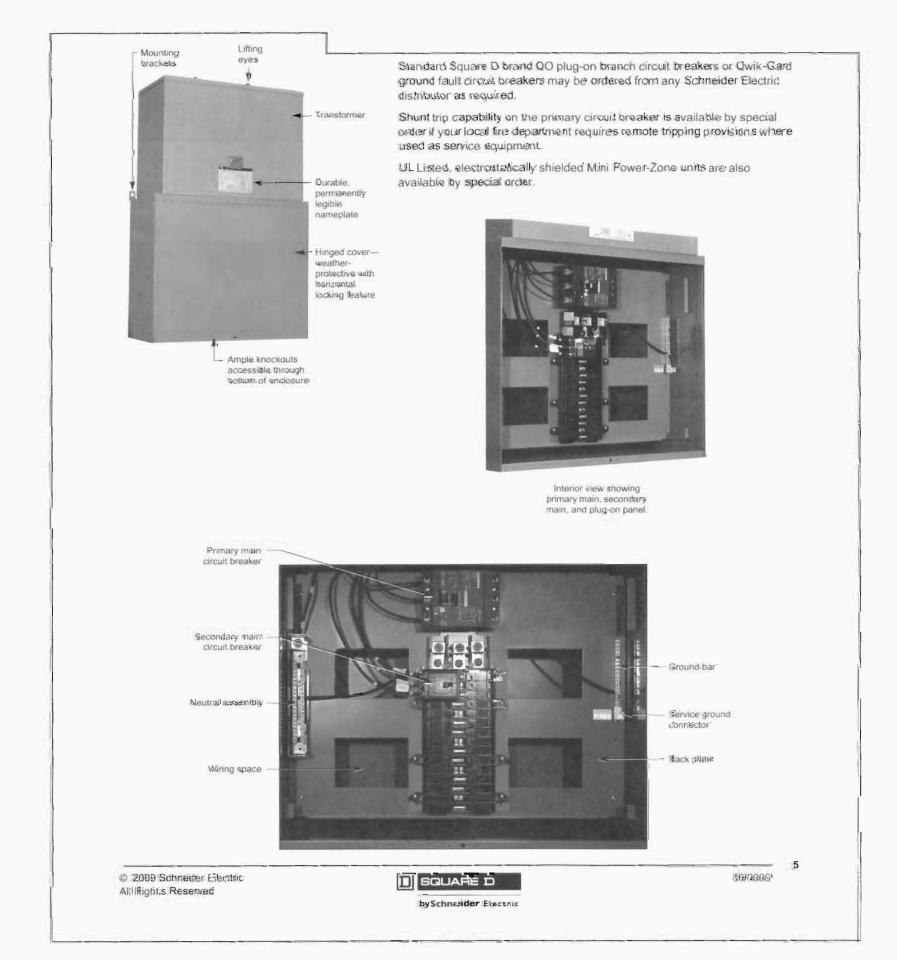
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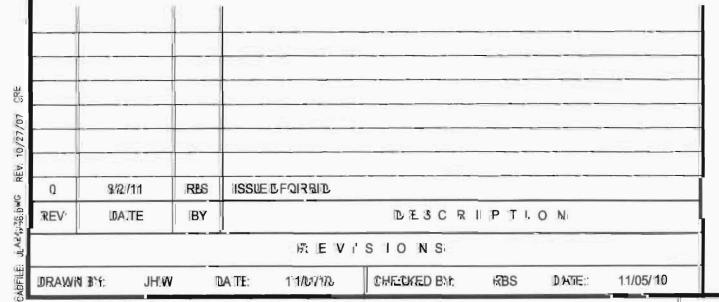
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VOLTA	AGE (L	_N):	2	120	VOLTA	AGE (L-L):	240V	TYPE NEMA 3R SURFACE MOUN	TING			
PHAS	ES, WI	RES:		1 \$ 3 W				MIN SCC: 10000 A.I.C.	EED 5	EED EROM		
MINIMUM BUS CAPACITY (A): 100 A MAIN SIZ					MAIN	SIZE (A):	100 A	MAIN TYPE: MCB		FED FROM		
CKT NO	TRIP AMPS	POLES	DESCRIPTION			PHASE LOADS (VA)		DESCRIPTION	POLES	TRIP	CKT	
1	20	1		POST LIGHTS				SPARE_BREAKER		20	2	
3	20	1	POS	POST LIGHTS			288	SPARE BREAKER	1	20	4	
5	20	1	SPAR	SPARE BREAKER				SPARE BREAKER	1	20	6	
7	20	1	SPACE ONLY				0	SPACE ONLY	1	20	8	
9	20	1	SPA	SPACE ONLY				SPACE ONLY	1	20	10	
11	20	1	SPA	ACE ONLY		0	0	SPACE ONLY	1	20	12	
	CONNECTED LOAD PHASE TOTALS (VA)					688	288	= 976		_		
		CO	NNECTED LOAD	PHASE TOTALS	(AMPS)	6	2					

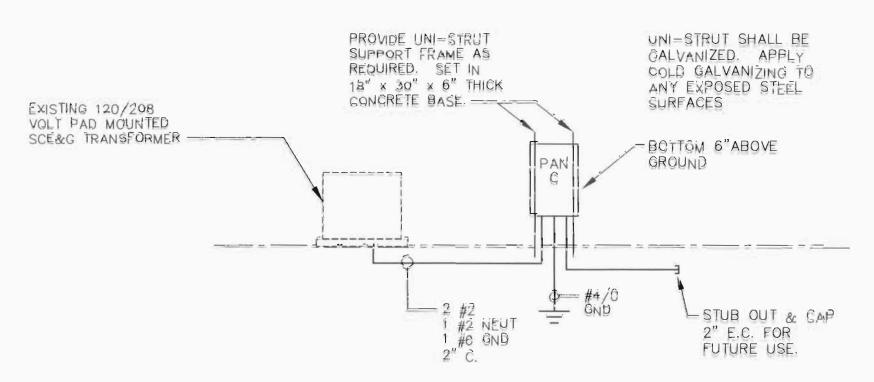
				P	AN	EL L	SCHE	DULE				
VOLTAGE (L-N): 120 VOLTAG						AGE (L-L):	240V	TYPE NEMA 3R SURFACE MOUNTING				
PHASES, WIRES: 1 \$\phi\$ 3 W								MIN SCC: 10000 A.I.C.	LED E	FED FROM		
					MAIN	SIZE (A):	60 A	MAIN TYPE: MCB	FED F			
CKT TRIP POLES DESCRIPTION						PHASE LOADS (VA)		DESCRIPTION	POLES	TRIP AMPS	CKT NO	
1	20	1	POS	T LIGHTS		592		SPARE BREAKER	ĭ	20	2	
3	20	1	POST LIGHTS				1168	SPARE BREAKER	1	20	4	
5	20	1	SPARE BREAKER			0		SPARE BREAKER	1	20	6	
7	20	1	SPACE ONLY				0	SPACE ONLY	1	20	8	
9	20	1	SPACE ONLY			0		SPACE ONLY	1	20	10	
11	20	-1	SPA			0	SPACE ONLY	1	20	12		
	CONNECTED LOAD PHASE TOTALS (VA)					592	1168	=1760				
		CON	NNECTED LOAD P	HASE TOTALS (A	AMPS)	) 5	10					

PANEL L SHALL BE COMBINATION TRANSFORMER PANELBOARD EQUAL TO SQUARE D MPZ10S40F

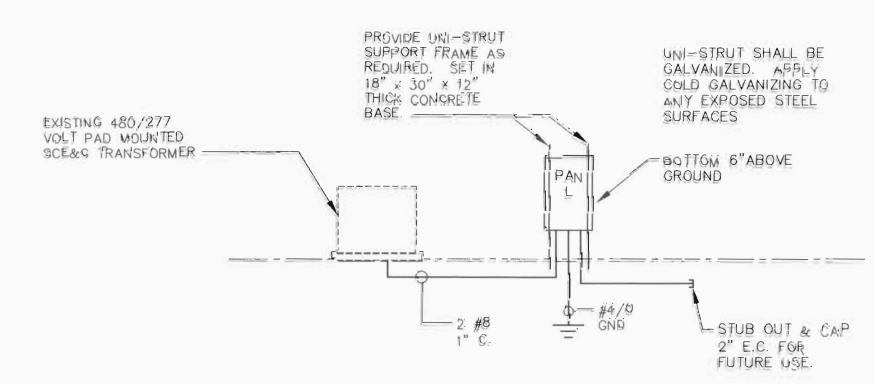




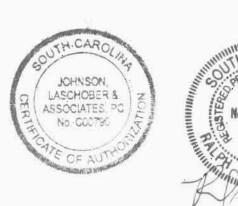
REFERENCE DRAWINGS: EXISTING CONDITIONS AND DEMOLITION PLAN  $-\ 1$  OF 3 EXISTING CONDITIONS AND DEMOLITION PLAN  $-\ 2$  OF 3 VD001 VD/002 VI.)2003 EXISTING CONDITIONS AND IDEMOLITION PLAN - 3 OF 3 LAYOUT, STAKING, AND EROSION CONTROL PLAN - 1 OF 3 C101 C102 LAYOUT, STAKING AND EROSION CONTROL PLAN - 2 OF 3 C103 C201 LAYOUT, STAKING, AND EROSION CONTROL PLAN - 3 OF 3 MILSCELLANEOUS NOTES AND DETAILS - 1 OF 2 L101 E101 LANDSCAPE PLAN PARTIAL ELECTRICAL SITE PLAN - 1 OF 3 PARTIAL ELECTRICAL SITE PLAN - 2 OF 3 E102 PARTIAL ELECTRICAL SITE PLAN - 3 OF 3 E103 E201 ELECTRICAL DETAILS



# POWER RISER DIAGRAM E292 SCALE: NONE



POWER RISER DIAGRAM E292 SCALE: NONE







USC AIR PEDESTRIAN SAFETY IMPROVEMENTS
Project Number H29-I332
PANEL DETAILS AND

RISER DIAGRAMS The House I hop broad STREET

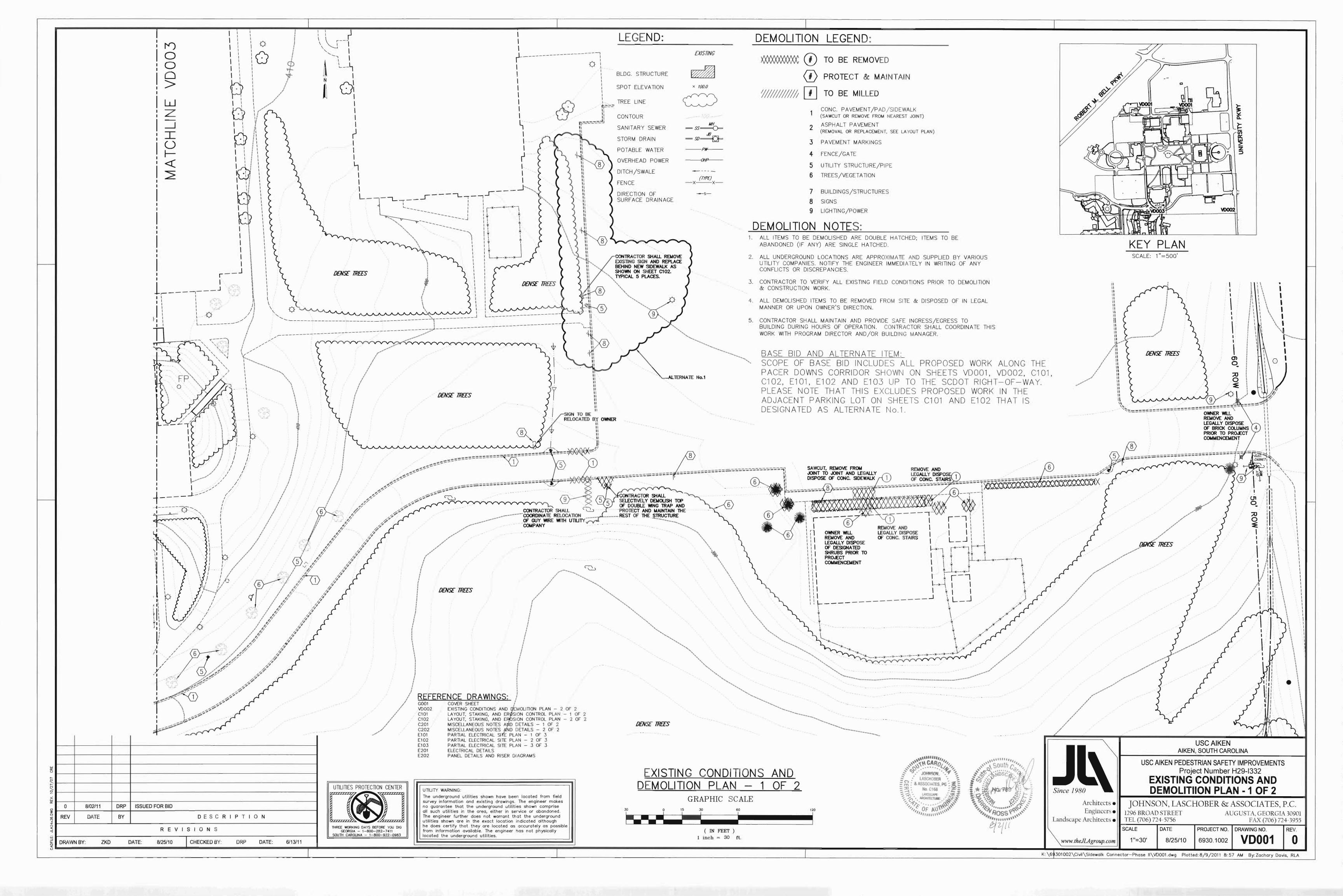
JOHNSON, LASCHOBER & ASSOCIATES P.C AUGUSTA, GEORGIA 30901 Landscape Architects • TEL (766) 724-5756 FAX (706) 724-3955 PROJECT NO. DRAWING NO.

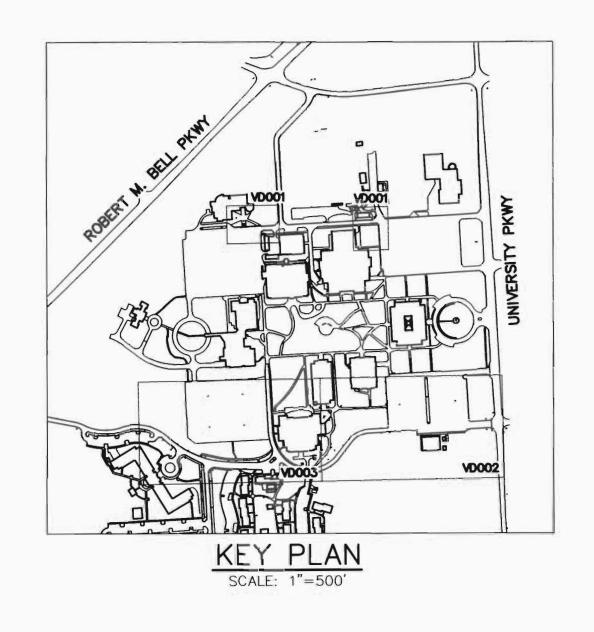
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E202 

USC AIKEN

AIKE N. SOUTH CAROLING





DRP ISSUED FOR BID

DATE: 8/25/10

DESCRIPTION

CHECKEDRY: DRF' DATE: 6/13/11

REVISIONS

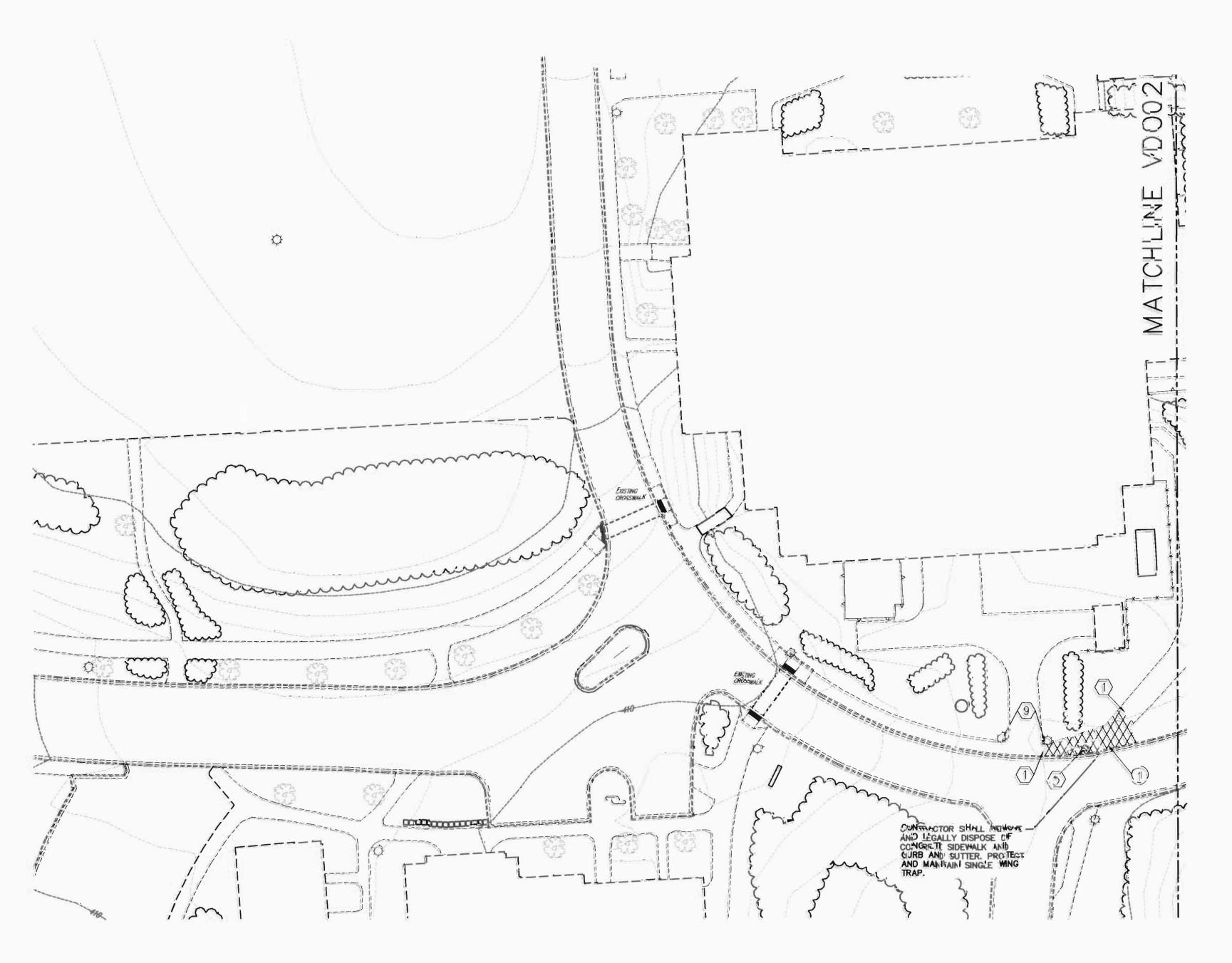
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# **DEMOLITION NOTES:**

- 1. ALL ITEMS TO BE DEMOLISHED ARE DOUBLE HATCHED, ITEMS TO BE ABANDONED (IF ANY) ARE SINGLE HATCHED.
- 2. ALL UNDERGROUND LOCATIONS ARE APPROXIMATE AND SUPPLIED BY VARIOUS UTILITY COMPANIES. NOTIFY THE ENGINEER IMMEDIATELY IN WRITING OF ANY CONFLICTS OR DISCREPANCIES.
- 3. CONTRACTOR TO VERIFY ALL EXISTING FIELD CONDITIONS PRIOR TO DEMOLITION & CONSTRUCTION WORK.
- 4. ALL DEMOLISHED ITEMS TO BE REMOVED FROM SITE & DISPOSED OF IN LEGAL MANNER OR UPON OWNER'S DIRECTION.

# **DEMOLITION LEGEND:**

XXXXXXXXXX # TO BE REMOVED

FROTECT & MAINTAIN

PROJECT & MAI

//////// # TO BE MILLED

CONC. PAVEMENT/PAD/SIDEWALK
(SAWCUT OR REMOVE FROM NEAREST JOINT)

- 2 ASPHALT PAVEMENT
- (REMOVAL OR REPLACEMENT, SEE LAYOUT PLAN)
- 3 PAVEMENT MARKINGS
- ) FAVEMENT MARK
- 4 FENCE/GATE
- 5 UTILITY STRUCTURE/PIPE
- 6 TREES/VEGETATION
- (NOT HATCHED FOR CLARITY, SEE CLEARING LIMITS)
- 7 BUILDINGS/STRUCTURES
- 8 SIGNS
- 9 LIGHTING/POWER

# LEGEND:

EXISTING

BLDG. STRUCTURE

SPOT ELEVATION × 100.0

TREE LINE

CONTOUR

SANITARY SEWER = 55

STORM DRAIN

POTABLE WATER

OVERHEAD POWER

DITCH/SWALE

------

DIRECTION OF SURFACE DRAINAGE

FENCE

BASE BID AND ALTERNATE ITEM:

<del>-</del>-S--

SCOPE OF BASE BID INCLUDES ALL PROPOSED WORK ALONG THE PACER DOWNS CORRIDOR SHOWN ON SHEETS VD001, VD002, C101, C102, E101, E102 AND E103 UP TO THE SCOOT RIGHT-OF-WAY. PLEASE NOTE THAT THIS EXCLUDES PROPOSED WORK IN THE ADJACENT PARKING LOT ON SHEETS \$101 AND E102 THAT IS DESIGNATED AS ALTERNATE No.1.

# REFERENCE DRAWINGS:

- COVER SHEET

  VD001 EXISTING CONDITIONS AND DEMOLITION PLAN 1 OF 2

  C101 LAYOUT, STAKING, AND EROSION CONTROL PLAN 1 OF 2

  C102 LAYOUT, STAKING, AND EROSION CONTROL PLAN 2 OF 2

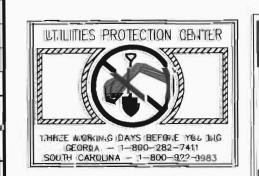
  C201 MISCELLANEOUS NOTES AND DETAILS 1 OF 2

  C202 MISCELLANEOUS NOTES AND DETAILS 2 OF 2

  E101 PARTIAL ELECTRICAL SITE PLAN 1 OF 3

  E102 PARTIAL ELECTRICAL SITE PLAN 2 OF 3

  E103 PARTIAL ELECTRICAL SITE PLAN 3 OF 3
- E201 ELECTRICAL DETAILS
  E202 PANEL DETAILS AND RISER DIAGRAMS



Interpretation and existing drawings. The engineer makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or attandaned. The engineer further does not warrant that the underground utilities shown are in the exact location indicated although the does certify that they are located as accurately as passible ifrom information available. The engineer has not physically located the underground utilities.



( IN FEET )

 $1 \text{ inch} = \mathfrak{M}$  ft.







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Project Number H29-I332

EXISTING CONDITIONS AND

EXISTING CONDITIONS AND DEMOLITION PLAN - 2 OF 2

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SCALE DATE PROJECT NO. DRAWING NO. REV.

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1"=30"