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MIDLANDS - PARKING LOT REPAIRS - BELTLINE CAMPUS

H59-N091-MJ

LOCATED IN COLUMBIA, SC

PREPARED FOR MIDLANDS TECHNICAL COLLEGE

PREPARED BY

4D ENGINEERING

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REVISIONS

#	DESCRIPTION	DATE
1	BID PLANS	05-21-21
2	REVISED BID PLANS	06-11-21

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PROJECT
MIDLANDS - PARKING LOT
REPAIRS - BELTLINE CAMPUS -
H59-N091-MJ
IN
COLUMBIA, SC

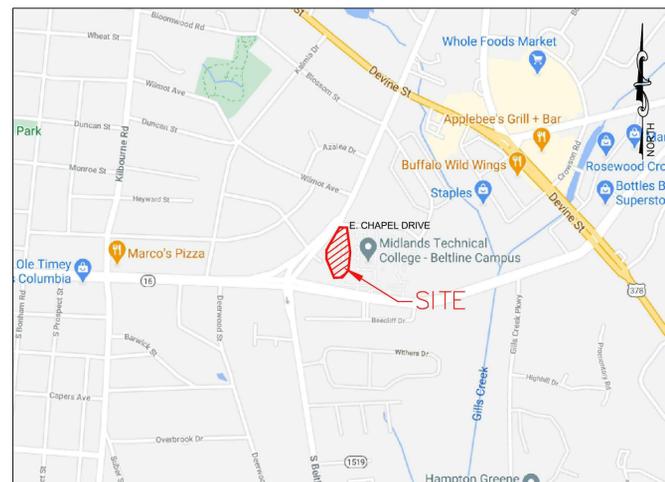
SCALE: NTS

4D PROJ NO: 21005

C0

APRIL 27, 2021

LOCATION MAP



SCALE: 1"=800'

DRAWING INDEX

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3 DAYS BEFORE DIGGING IN
SOUTH CAROLINA
CALL 1-888-721-7877
Palmetto Utility Protection Service

OWNER/DEVELOPER:
MIDLANDS TECHNICAL COLLEGE
P. O. BOX 2408
COLUMBIA, SC 29202
(803) 822-3217
PAGEWC@MIDLANDSTECH.EDU

ENGINEER:
4D ENGINEERING
603 S LAKE DRIVE
LEXINGTON, SC 29072
(803) 356-0909
JUSTIN@4DENGR.COM

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REFERENCES:

1. TOPOGRAPHIC SURVEY PERFORMED BY GEL ENGINEERING, LLC PROVIDED TO 4D ENGINEERING IN DIGITAL FORMAT ON MARCH 1, 2021.
2. TAX MAP NUMBER R13810-04-01 & R13809-02-01
3. GEOTECHNICAL REPORT BY ECS SOUTHEAST, LLP DATED MARCH 15, 2021.

GENERAL NOTES:

1. SOME UTILITIES MAY EXIST AT THE SITE THAT WERE NOT ABLE TO BE LOCATED BY TYPICAL SURVEY METHODS. CALL PALMETTO UTILITY PROTECTION SERVICE, AT (888) 721-7877, FOR ALL UNDERGROUND UTILITY LOCATIONS AT LEAST 72 HOURS PRIOR TO EXCAVATION.
2. VERIFY ALL FIELD CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IF ANY DIFFERING SITE CONDITIONS ARE NOTED.
3. REPAIR ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES AT NO ADDITIONAL COST TO THE OWNER.
4. REMOVE ALL DEBRIS AND OTHER MATERIALS RESULTING FROM DEMOLITION AND DISPOSE OF OFF SITE UNLESS OTHERWISE DIRECTED BY OWNER.
5. COORDINATE WITH OWNER FOR ACCESS, PROJECT SITE SECURITY, AND SEQUENCING REQUIREMENTS.

SITE INFORMATION:

1. PROPERTY IS IDENTIFIED AS TMS: R13810-04-01 & R13809-02-01
2. CURRENT ZONING IS C-1
3. PROPERTY ADDRESS IS 316 BELTLINE BOULEVARD
4. PROVIDED PARKING: 33 TOTAL (4 HANDICAPPED)
5. DISTURBED AREA IS 0.50 ACRES
6. TOTAL SITE AREA IS 12.85 ACRES

STORM DRAINAGE & GRADING NOTES:

1. WHEN GRADING BETWEEN CONTOURS AND BETWEEN SPOT ELEVATIONS, GRADE ON A UNIFORM SLOPE.
2. BEFORE BEGINNING GRADING ACTIVITIES, INSTALL ALL PERIMETER EROSION CONTROL MEASURES SUCH AS SILT FENCING, SEDIMENT TUBES, ETC. TO PREVENT ANY POTENTIAL OFFSITE SEDIMENTATION.
3. REMOVE ALL UNSUITABLE MATERIAL FROM AREAS TO BE FILLED.
4. TEMPORARY DEWATERING OF EXCAVATIONS AT THE SITE MAY BE REQUIRED TO PROPERLY PERFORM THE WORK. WHEN NECESSARY, PROVIDE ADEQUATE DEWATERING METHODS INCLUDING PUMPS AND INSTALLATION OF FRENCH DRAINS.
5. FINISH SURFACES TO WITHIN 0.10' OF THE FINAL ELEVATIONS SHOWN ON THE PLANS.
6. FIELD VERIFY EXACT ELEVATIONS AT ALL TIE IN LOCATIONS WITH EXISTING FINISHED SURFACES PRIOR TO CONSTRUCTION.
7. CONTRACTOR TO ENSURE POSITIVE DRAINAGE OF ALL FINISHED GRADE SURFACES.

SEQUENCE OF CONSTRUCTION

1. RECEIVE LAND DISTURBANCE APPROVAL FROM THE CITY OF COLUMBIA.
2. NOTIFY CITY OF COLUMBIA AT LEAST 48 HOURS PRIOR TO LAND DISTURBANCE ACTIVITIES.
3. HOLD PRE-CONSTRUCTION MEETING.
4. INSTALL INITIAL EROSION CONTROLS.
5. PERFORM DEMOLITION OPERATIONS.
6. PERFORM PAVEMENT REHABILITATION INCLUDING ASPHALT RESURFACING AND ASPHALT PAVEMENT INSTALLATION.
7. INSTALL EROSION CONTROL DEVICES AS REQUIRED OR NEEDED AS STORM DRAINAGE STRUCTURES ARE EXTENDED TO FINISHED GRADE.
8. INITIATE FINAL STABILIZATION MEASURES.
9. INSPECT AND MAINTAIN ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE SITE IS COMPLETELY STABILIZED.
10. UPON COMPLETE STABILIZATION OF THE SITE, REMOVE ALL TEMPORARY SEDIMENT & EROSION CONTROL MEASURES.
11. SUBMIT NOTICE OF TERMINATION (NOT) TO CITY OF COLUMBIA AS APPROPRIATE (BY ENGINEER).

SCDHEC STANDARD SEDIMENT & EROSION CONTROL NOTES:

1. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS. IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
 - WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
 - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE SEDIMENT BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C REG. 72-300 ET SEQ. AND SCR100000.
8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
11. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
12. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
13. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
14. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.
15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).
16. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
 - WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL
 - WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS
 - FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE
 - SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
17. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
18. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
19. A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.

ADDITIONAL SEDIMENT & EROSION CONTROL NOTES:

1. INSTALL SILT BARRIERS AS SHOWN ON THESE PLAN SHEETS. SILT BARRIERS SHALL BE MAINTAINED AND KEPT IN WORKING CONDITION UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SILT FENCING SHOULD BE CLEANED OR REPLACED WHEN SILT ACCUMULATION REACHES 1/3 THE HEIGHT OF THE FENCE.
2. ALL DISTURBED AREAS THAT WILL NOT BE PAVED SHALL BE GRASSED. TEMPORARY GRASSING, MULCHING, OR OTHER STRUCTURAL MEASURES MAY BE REQUIRED TO PREVENT EROSION.
3. ADDITIONAL EROSION CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL CLEARED AND GRADED AREAS SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS ESTABLISHED. ANY ERODED AREAS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION AND PROTECTED FROM FURTHER EROSION AT NO ADDITIONAL COST TO THE OWNER.
4. PROVIDE SILT FENCE AND/OR OTHER EROSION CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED AND STABILIZED WITH GRASSING IMMEDIATELY AFTER COMPLETION OF CONSTRUCTION IN THE AREA.
5. CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO THE PAVED ROADWAY FROM CONSTRUCTION AREAS. CONTRACTOR TO DAILY REMOVE MUD/SOIL FROM PAVEMENT AS REQUIRED.
6. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED TO THE SATISFACTION OF SCDHEC AND THE CITY OF COLUMBIA.

STABILIZATION NOTES:

1. ALL DISTURBED AREAS SHALL BE GRASSED IMMEDIATELY UPON COMPLETION OF GRADING OPERATIONS.
2. TEMPORARY STABILIZATION SHALL BE UTILIZED FROM NOVEMBER THROUGH FEBRUARY, BUT PERMANENT STABILIZATION IS REQUIRED IN ALL AREAS BEFORE PROJECT COMPLETION.
3. STABILIZATION OF CONVEYANCE CHANNELS IS TO BE COMPLETED WITHIN 7 DAYS OF CHANNEL CONSTRUCTION AND SHALL BE DOUBLE SEEDED.
4. ALL DITCHES, SWALES, AND SLOPES SHALL BE DOUBLE SEEDED AND COVERED WITH STRAW OR EROSION CONTROL MATTING TO PROMOTE RAPID STABILIZATION.

GRASSING SCHEDULE

PERMANENT STABILIZATION: (LBS PER 1000 SQ FT)

- 0.5 RYE GRASS
- 1.5 COMMON BERMUDA (HULLED)
- 25 10-10-10 FERTILIZER
- 75 AGRICULTURAL LIME (MAY BE REDUCED IF APPLIED DURING PREVIOUS TEMPORARY STABILIZATION EFFORTS)

TEMPORARY STABILIZATION: (LBS PER 1000 SQ FT)

- 2 RYE GRASS
- 1 COMMON BERMUDA (HULLED)
- 1 COMMON BERMUDA (UNHULLED)
- 25 10-10-10 FERTILIZER
- 75 AGRICULTURAL LIME

ZONING CERTIFICATION

"I hereby certify that, to the best of my knowledge, these plans comply with applicable zoning ordinances, and that plans have been submitted to appropriate authority for their review and/or approval."

Signed: Justin Wainwright Architect/Engineer Date 6/10/21

If the project does not require a National Pollution Discharge Elimination System (NPDES) permit from SCDHEC, include the following certification on the Site Plan(s):

EROSION AND SEDIMENT REDUCTION/STORMWATER MANAGEMENT

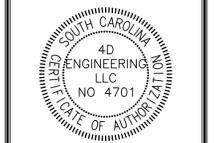
Designer's Certification:

"I hereby certify that the measures in this plan are designed to control erosion, retain sediment on the site, and manage stormwater in a manner that neither any on-site nor off-site damage or problem is caused or increased, that all structural measures are designed to the minimum standards for health and safety, and that all the provisions of the plan are in compliance with the Regulations contained in Chapter 72, Article 2, SC Code of Regulations (Erosion and Sediment Reduction and Stormwater Management Regulations)."

Signed: Justin Wainwright Engineer or Registered Landscape Architect (Circle one) Date 6/10/21



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SHEET NOTES

PROJECT
MIDLANDS - PARKING LOT
REPAIRS - BELTLINE CAMPUS -
H59-N091-IMJ
IN
COLUMBIA, SC

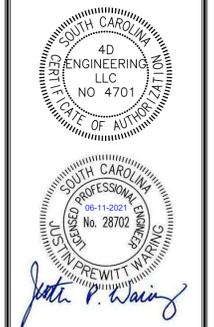
SCALE: NTS

4D PROJ NO: 21005

C1

APRIL 27, 2021

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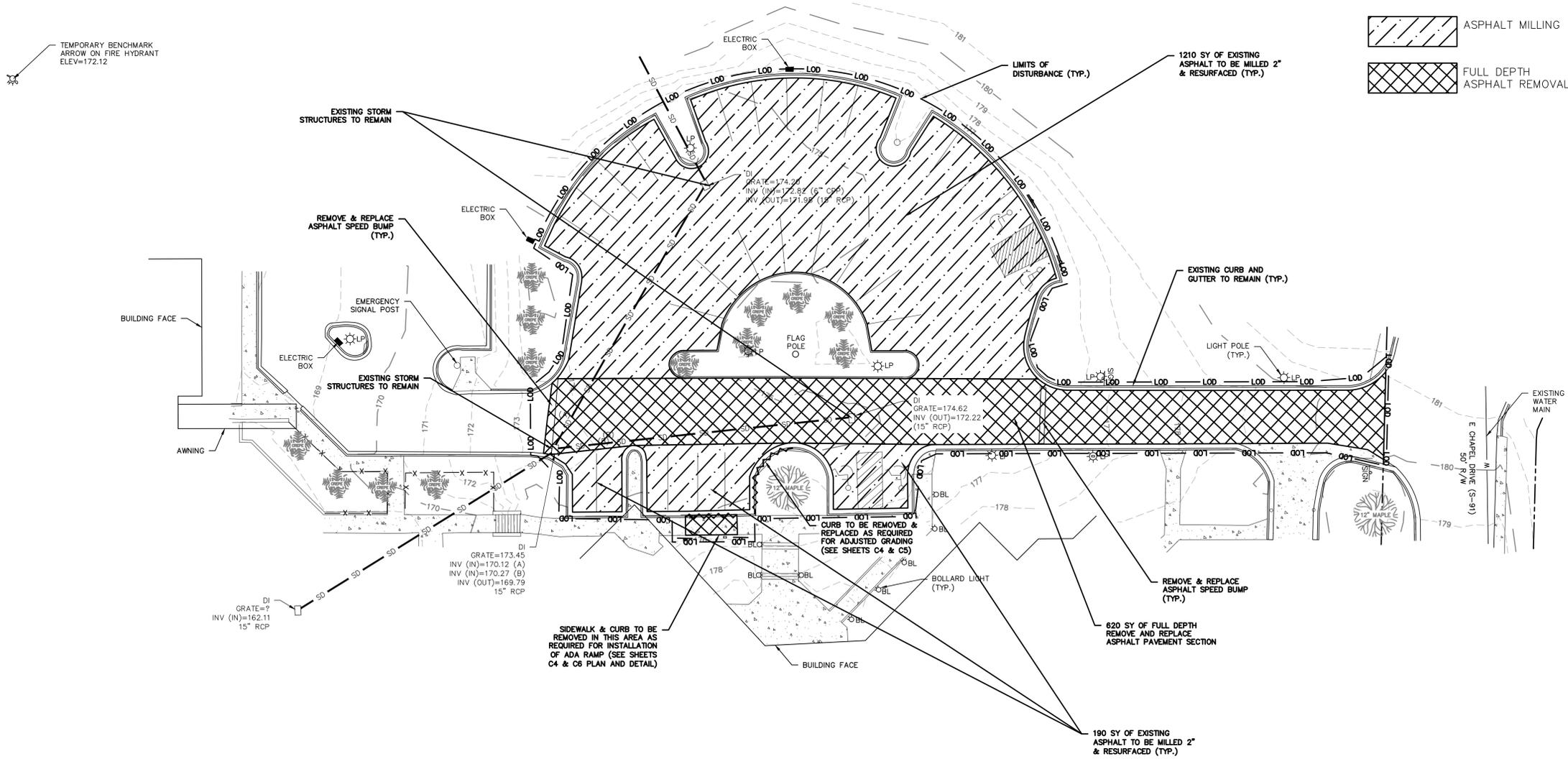
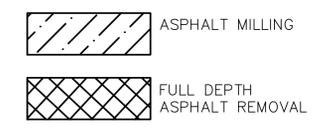
REVISIONS		
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SHEET
DEMOLITION PLAN

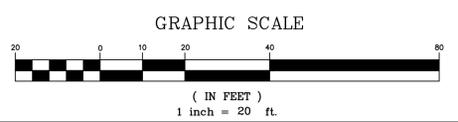
PROJECT
**MIDLANDS - PARKING LOT
REPAIRS - BELTLINE CAMPUS -
H59-N091-MJ**
IN
COLUMBIA, SC

SCALE: 1"=20'
4D PROJ NO: 21005
C3
APRIL 27, 2021

NOTES:
1. COORDINATE WITH OWNER FOR BUILDING, SIDEWALK, AND DUMPSTER ACCESS REQUIREMENTS DURING CONSTRUCTION, INCLUDING PROJECT SITE SECURITY AND SAFETY REQUIREMENTS.



3 DAYS BEFORE DIGGING IN
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Palmetto Utility Protection Service



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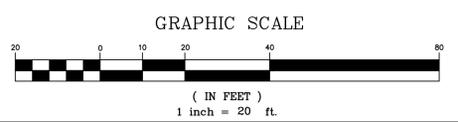
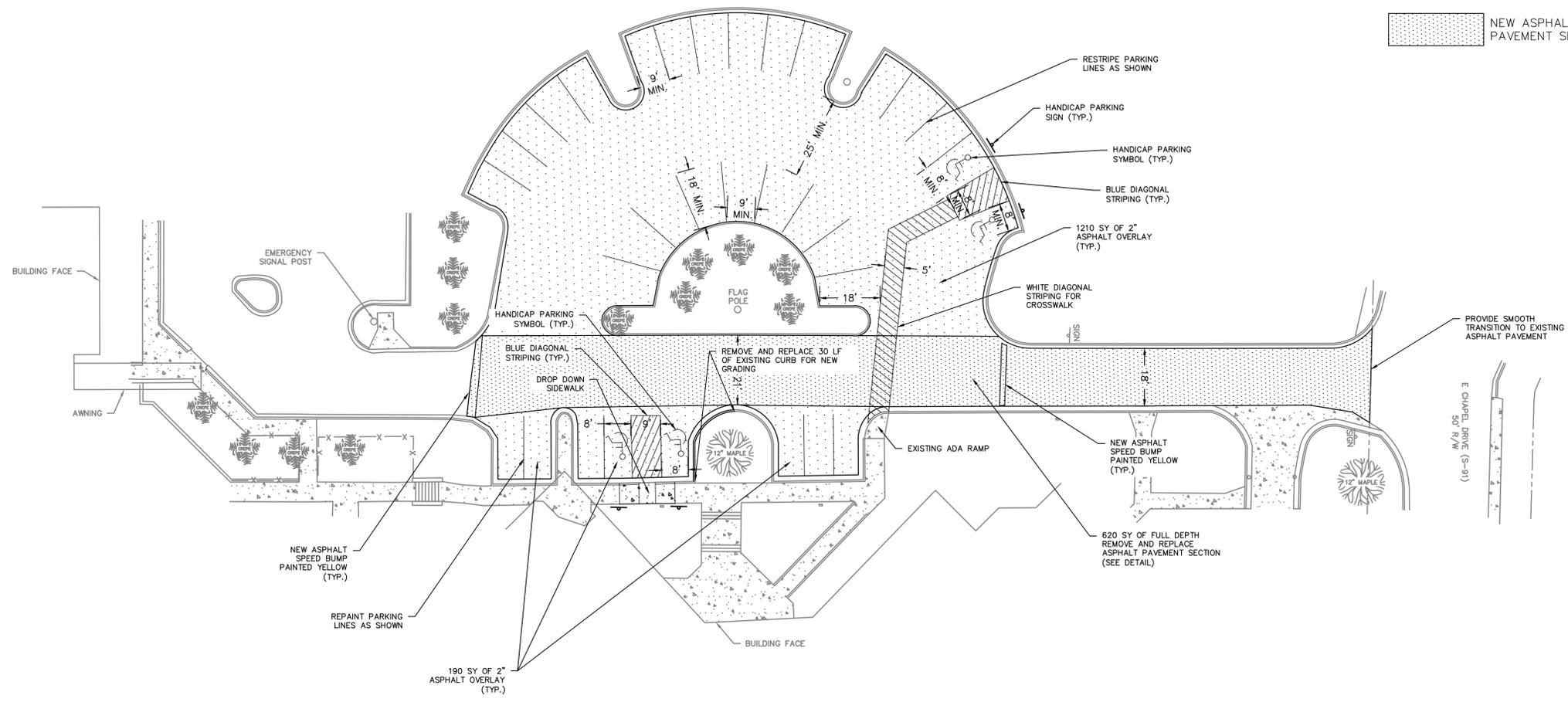
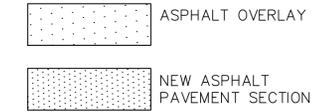
John P. Wainwright

REVISIONS

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NOTES:

1. FOR AREAS NOTED FOR ASPHALT OVERLAY, EXISTING ASPHALT PAVEMENT TO BE MILLED 2" AND RESURFACED WITH 2" OF NEW ASPHALT.
2. FOR AREAS NOTED FOR NEW FULL DEPTH ASPHALT PAVEMENT, EXISTING PAVEMENT SECTION AND SUBGRADE TO BE REMOVED AS NECESSARY FOR NEW FULL DEPTH SECTION INSTALLATION.
3. MATCH EXISTING PARKING SPACE LABELS. COORDINATE WITH OWNER FOR CONFIRMATION ON LABELS BEFORE MARKING. RELOCATE PARKING SIGNAGE AS REQUIRED.
4. ADA PARKING SPACES, RAMPS, AND ACCESSIBLE ROUTES TO MEET ADA REQUIREMENTS.



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SHEET
SITE LAYOUT PLAN

PROJECT
**MIDLANDS - PARKING LOT
 REPAIRS - BELTLINE CAMPUS -
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COLUMBIA, SC

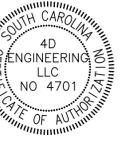
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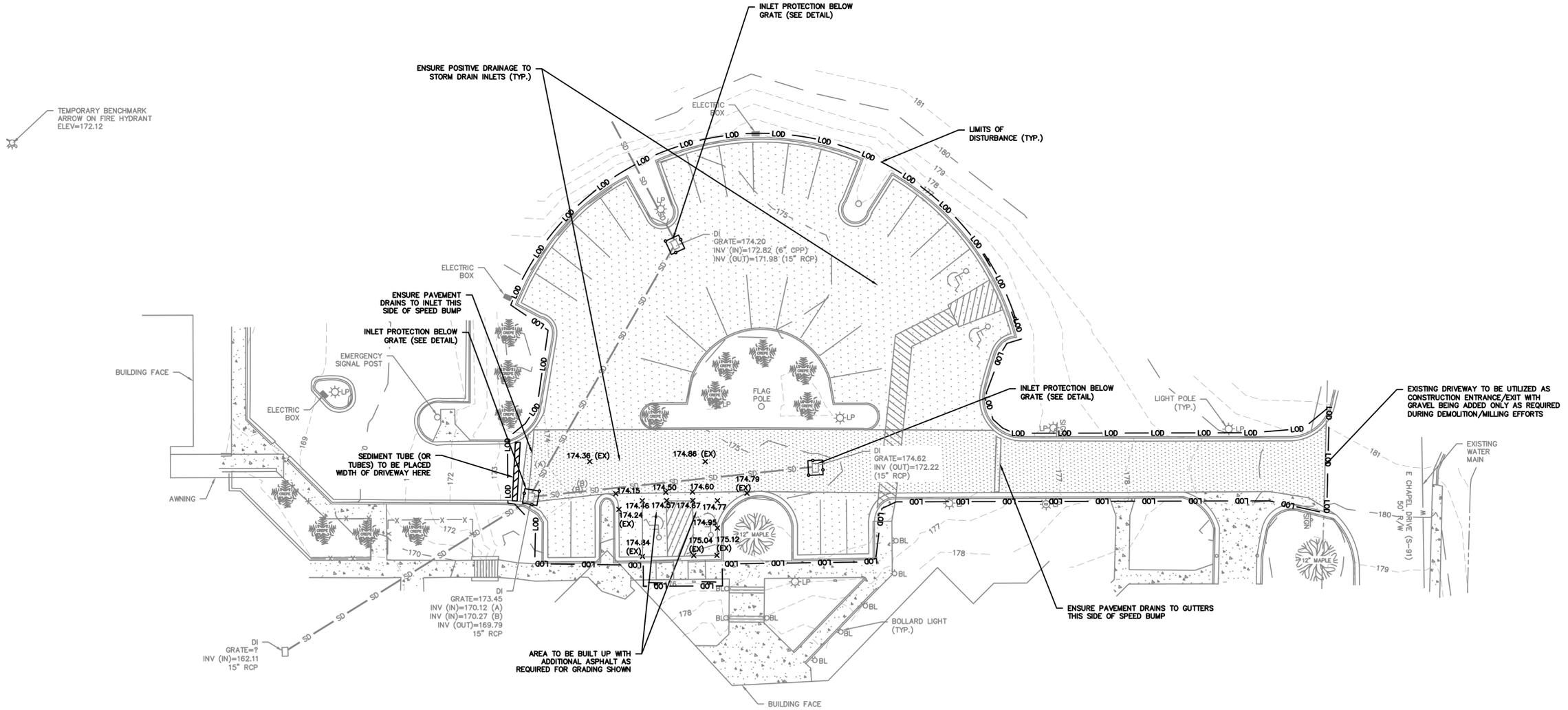
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NOTES:

1. NEW ASPHALT SURFACE TO MATCH EXISTING GRADES, UNLESS OTHERWISE NOTED.
2. ENSURE POSITIVE DRAINAGE OF ALL FINISHED GRADE SURFACES.
3. GRADING OF ADA PARKING SPACES, RAMPS, AND ACCESSIBLE ROUTES TO MEET ADA REQUIREMENTS.



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SHEET
GRADING, STORM DRAINAGE & SEDIMENT & EROSION CONTROL PLAN

PROJECT
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IN COLUMBIA, SC

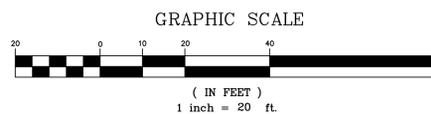
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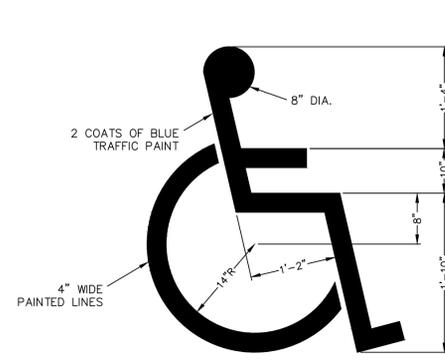
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APRIL 27, 2021

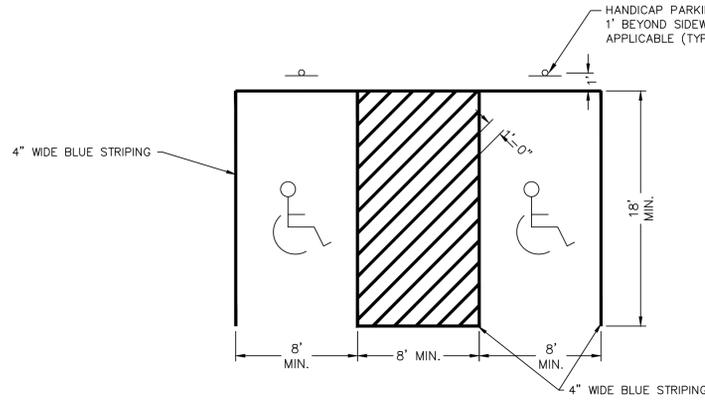
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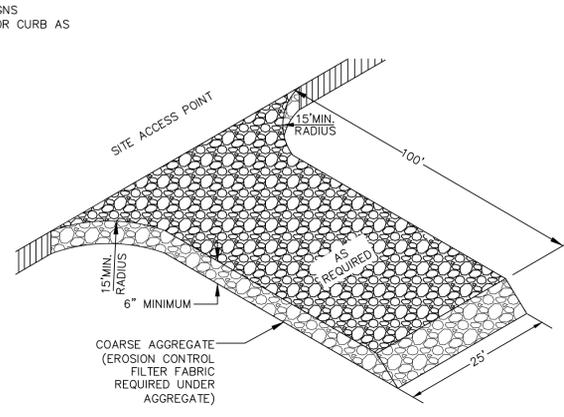
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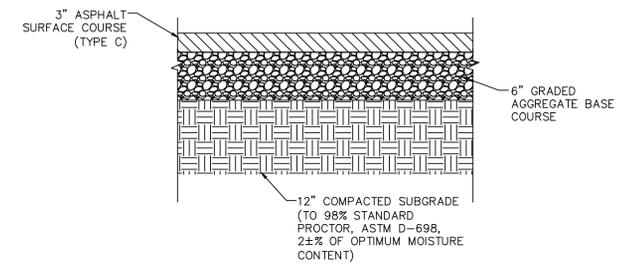
HANDICAPPED PARKING SYMBOL DETAIL
NOT TO SCALE



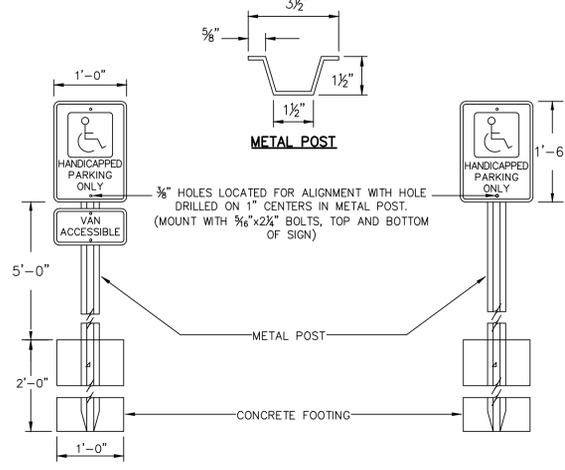
TYPICAL HANDICAPPED PARKING STRIPING
NOT TO SCALE



STONE CONSTRUCTION ENTRANCE/EXIT DETAIL
NOT TO SCALE

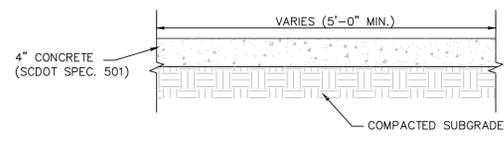


STANDARD ASPHALT PAVEMENT SECTION
NOT TO SCALE

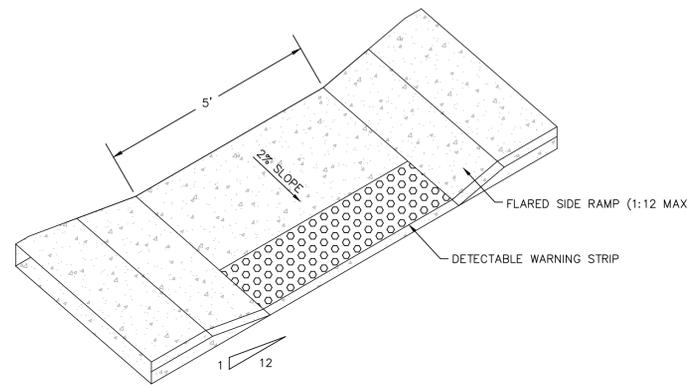


VAN ACCESSIBLE SIGN **AUTOMOBILE SIGN**

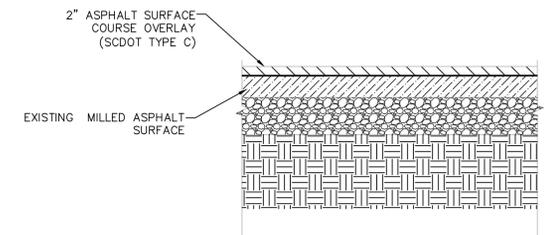
- NOTES:**
- METAL POST TO BE GALVANIZED. ALL BOLTS, NUTS, WASHERS AND SCREWS MUST BE RUSTPROOF.
 - CONCRETE FOR FOOTING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I.
 - SIGNS WILL BE FABRICATED BY USING A REFLECTING COATING IN THE SYMBOL, MESSAGE AND BORDERS APPLIED TO A SHEET ALUMINUM BACKING (0.80) IN THICKNESS.
 - THE SYMBOL IS COMPOSED OF TWO ELEMENTS; A WHITE WHEELCHAIR FIGURE (WHICH SHOULD ALWAYS FACE RIGHT) ON A SQUARE BACKGROUND, INTERNATIONAL BLUE IN COLOR (FED. STD. 595A, COLOR #15180).



TYPICAL SIDEWALK DETAIL
NOT TO SCALE

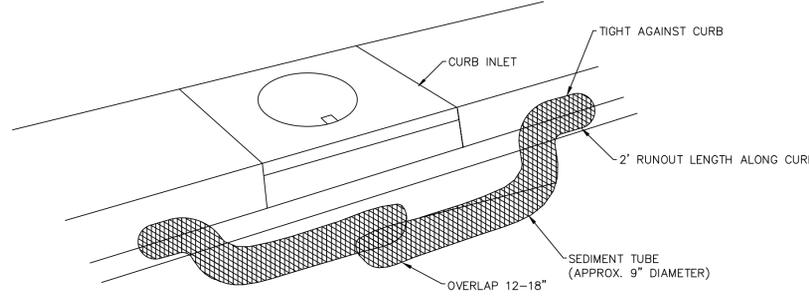


DROP DOWN SIDEWALK DETAIL
NOT TO SCALE



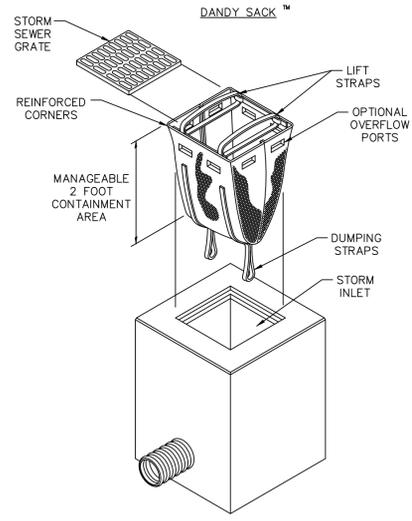
OVERLAY ASPHALT PAVEMENT SECTION
NOT TO SCALE

HANDICAPPED SIGN DETAIL
NOT TO SCALE



- NOTES:**
- APPROVED SEDIMENT TUBES ARE 'TERRA TUBES' AND 'EROSION EEL'. CONTRACTOR SHALL SUBMIT ANY OTHER SEDIMENT TUBES TO ENGINEER FOR APPROVAL BEFORE USE.
 - PLACE AN ADEQUATE NUMBER OF SEDIMENT TUBES AROUND AN INLET TO PROVIDE COMPLETE PROTECTION. LEAVE APPROXIMATELY 3"-6" BETWEEN THE SEDIMENT TUBE AND THE INLET OR GRATE.
 - ENDS SHOULD OVERLAP 12-18 INCHES. SIDES SHOULD BE PRESSED TIGHTLY TO CURB.
 - USE SMALL ROCK BAGS TO HOLD TUBES IN PLACE IN PAVED AREAS. USE WOOD STAKES TO SECURE TUBES IN PLACE IN UNPAVED AREAS.
 - INSPECT INLET PROTECTION DEVICE BEFORE AND AFTER RAIN EVENTS, AND WEEKLY THROUGHOUT THE RAINY SEASON. DURING EXTENDED RAIN EVENTS, INSPECT AT LEAST ONCE EVERY 24 HOURS.
 - REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SILT AND DEBRIS TO ALLOW FOR PROPER FUNCTION OF DEVICE.
 - COMPLY WITH ALL MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS.

SEDIMENT TUBE INLET PROTECTION DETAIL
NOT TO SCALE



DANDY SACK™ SPECIFICATIONS

NOTE: THE DANDY SACK™ WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY SACK™ (BLACK)

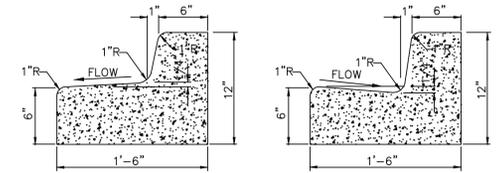
MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	KN (LBS)	1.78 (400) x 1.40 (315)
GRAB TENSILE ELONGATION	ASTM D 4632	%	15 x 15
PUNCTURE STRENGTH	ASTM D 4833	KN (LBS)	0.67 (150)
MULLEN BURST STRENGTH	ASTM D 3786	KPA (PSI)	5506 (800)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	KN (LBS)	0.67 (150) x 0.73 (165)
UV RESISTENCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	MM (US STD SIEVE)	0.425 (40)
FLOW RATE	ASTM D 4491	1/MIN/M ² (GAL/MIN/FT ²)	2852 (70)
PERMITTIVITY	ASTM D 4491	SEC ⁻¹	0.90

HI-FLOW DANDY SACK™ (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	KN (LBS)	1.62 (365) X 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 x 10
PUNCTURE STRENGTH	ASTM D 4833	KN (LBS)	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	KPA (PSI)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	KN (LBS)	0.51 (115) X 0.33 (75)
UV RESISTENCE	ASTM D 4355	%	90
APPARENT OPENING SIZE	ASTM D 4751	MM (US STD SIEVE)	0.425 (40)
FLOW RATE	ASTM D 4491	1/MIN/M ² (GAL/MIN/FT ²)	5907 (145)
PERMITTIVITY	ASTM D 4491	SEC ⁻¹	2.1

*NOTE: ALL DANDY SACKS™ CAN BE ORDERED WITH OUR OPTIONAL OIL ABSORBENT PILLOWS

INLET PROTECTION BELOW GRATE
NOT TO SCALE



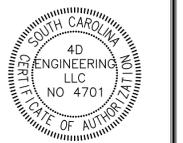
TYPE "A" **TYPE "B"**

- NOTES:**
- CONTRACTOR SHALL MATCH THE EXISTING CURB TYPE AND SIZE.
 - CURB AND GUTTER TO BE CONSTRUCTED IN 10 FOOT LENGTHS.
 - A 1/2" EXPANSION JOINT SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 50 FEET, AT THE ENDS AND MID-POINT OF RETURNS, AND AT ANY POINT WHERE THE NEW CURB AND GUTTER ABUTS OTHER CONCRETE STRUCTURES.
 - 5' LONG TRANSITIONS SHALL BE PROVIDED BETWEEN NORMAL GUTTER AND PITCHED GUTTER, UNLESS OTHERWISE NOTED ON THE PAVING PLANS.
 - NORMAL CURB AND GUTTER (TYPE B) WILL BE USED WHERE THE PAVEMENT SLOPES TOWARD THE CURB.
 - PITCHED CURB AND GUTTER (TYPE A) WILL BE USED WHERE THE PAVEMENT SLOPES AWAY FROM THE CURB.

BARRIER CURB & GUTTER
NOT TO SCALE

4D ENGINEERING

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REVISIONS

#	DESCRIPTION	DATE
1	BID PLANS	05-21-21
2	REVISED BID PLANS	06-11-21

SHEET
CONSTRUCTION DETAILS

PROJECT
MIDLANDS - PARKING LOT REPAIRS - BELTLINE CAMPUS - H59-N091-MJ
IN
COLUMBIA, SC

SCALE: NTS
4D PROJ NO: 21005
C6
APRIL 27, 2021