INITIAL SITE PLAN FOR

Wawa

1215 SEMINOLE TRAIL
RIO MAGISTERIAL DISTRICT
ALBEMARLE, VA 22901
DATE: 04/02/2021

WAWA INFORMATION

BUILDING AREA:	6,049 SF
BUILDING TYPE:	W50 FB I VA
CANOPY CONFIGURATION	TRIPLE STACKED
CANOPY TYPE:	FLAT
# OF MPD'S:	9
TYPE OF MPD'S:	(9) 4+1
S.F. OF ASPHALT:	74,923 S.F.
S.F. OF LAWN AREA:	28,617 S.F.
S.F. OF MULCH AREA:	1,332 S.F.

PROJECT CONTACT LIST

APPLICANT/DEVELOPER

RENAUD CONSULTING
8605 WESTWOOD CENTER DRIVE, SUITE 410
VIENNA, VA 22182
TEL: (571) 765-4436
CONTACT: MARK FONTAINE, CCIM
EMAIL: MFONTAINE@RENAUDCONSULTING.NET

OWNER
CHARLOTTESVILLE REALTY CORPORATION
PO BOX 6340
CHARLOTTESVILLE, VA 22906

CIVIL ENGINEER

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DRIVE, SUITE 200
RICHMOND, VA 23230
TEL: (804) 673-3882
CONTACT: RYAN PERKINS, P.E.
EMAIL: RYAN.PERKINS@KIMLEY-HORN.COM

ARCHITECT

CUHACI & PETERSON
930 WOODCOCK ROAD, SUITE 101
ORLANDO, FL 32803
TEL: (407) 661-9100
CONTACT: MARY ROSARIO
EMAIL: MARY.ROSARIO@C-P.COM

SURVEYOR

JENNING STEPHENSON P.C.
LAND SURVEYORS & PLANNERS

JENNING STEPHENSON, P.C.
10160 STAPLES MILL ROAD SUITE 103
GLEN ALLEN, VA 23060
TEL: (804) 545-6235
CONTACT: KENNETH R. BLAYLOCK JR.

WAWA CONTACT INFORMATION

Wawa

WAWA, INC.
260 W. BALTIMORE PIKE
WAWA, PA 19063
TEL: (267) 273-3575
CONTACT: JEB BELL
EMAIL: JEB.BELL@WAWA.COM

PLANNING/ZONING

PLANNING COMMISSION
401 MCINTIRE ROAD
CHARLOTTESVILLE, VA 22902
TEL: (804) 677-0463
CONTACT: COREY CLAYBORNE

STORMWATER

FACILITIES AND ENVIRONMENTAL SERVICES
401 MCINTIRE ROAD 4TH FLOOR
CHARLOTTESVILLE, VA 22902
TEL: (434) 296-5816

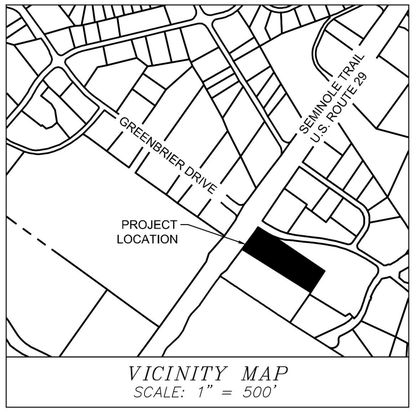
PUBLIC UTILITIES

PUBLIC WORKS
401 MCINTIRE ROAD 4TH FLOOR
CHARLOTTESVILLE, VA 22902
TEL: (434) 296-5816

FIRE MARSHAL

DEPARTMENT OF FIRE RESCUE
460 STAGECOACH ROAD
CHARLOTTESVILLE, VA 22902
TEL: (434) 296-5833
CONTACT: SHAWN MADDOX

VICINITY MAP



VICINITY MAP
SCALE: 1" = 500'

SHEET INDEX

INITIAL SITE PLAN

SHEET NUMBER	SHEET TITLE
CA-100	COVER SHEET
CV-101	EXISTING CONDITIONS
CS-101	SITE PLAN
CS-501	SITE DETAILS
CS-502	SITE DETAILS
CS-503	SITE DETAILS
CG-101	GRADING PLAN
CU-101	UTILITY PLAN
CL-101	LIGHTING PLAN
CL-501	LIGHTING DETAILS
CL-502	LIGHTING DETAILS
CP-101	PLANTING PLAN
CP-501	PLANTING DETAILS

TOTAL NUMBER OF SHEETS: 13

PROJECT DATA

SITE STATISTICS

PARCEL ID: 061W0-02-0A-00100
SITE ADDRESS: 1215 SEMINOLE TRAIL, CHARLOTTESVILLE, VA 22901
ZONED: C-1, COMMERCIAL
MAGISTERIAL DISTRICT: RIO
APPLICABLE OVERLAY DISTRICTS: ENTRANCE CORRIDOR
AIRPORT IMPACT AREA
STEEP SLOPES - MANAGED
EXISTING USE: SERVICE REPAIR GARAGE
PROPOSED USE: CONVENIENCE FOOD STORE WITH SERVICE STATION
BUILDING SIZE: 6,049 SF
BUILDING HEIGHT: 33 FT ±
TOTAL SITE AREA: 2.26 AC.
TOTAL DISTURBED AREA: 2.57 AC.
TOTAL IMPERVIOUS COVER: 1.74 AC. ± (77%)
OPEN SPACE: 0.52 AC. ± (23%)
STEEP SLOPES: DISTURBED
FLOOD ZONE: THIS PROPERTY APPEARS TO LIE IN FLOOD ZONE "X" AS SHOWN ON THE FLOOD INSURANCE RATE MAP, MAP COMMUNITY - PANEL NUMBER 51003C0278D EFFECTIVE DATE: FEBRUARY 4, 2005
WATER: ACSA
SEWER: ACSA
SOURCE OF TOPOGRAPHY: TOPOGRAPHIC SURVEY WAS PERFORMED BY JENNING STEPHENSON, P.C. ON NOVEMBER 13, 2020
DATUM: HORIZONTAL CONTROL BASED UPON VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983 THE VERTICAL DATUM SHOWN HEREON IS BASED ON NAVD 1988
LATITUDE: 38°04'11"N
LONGITUDE: 78°29'03"W
RECEIVING WATER(S): RIVANNA RIVER - MEADOW CREEK
VAHU6 CODE: JR14

BUILDING SETBACKS

FRONT: 10' (SEMINOLE TRAIL)
FRONT: 10' (GREENBRIER DRIVE)
SIDE: 0'
BACK: 0'

PARKING SCHEDULE

WAWA PARKING PROVIDED: 48 SPACES
HANDICAP SPACES PROVIDED: 2 SPACES
REAR PARKNIG LOT TO BENEFIT
PARCEL 061W0-02-00-00280 20 SPACES

MISS UTILITY OF VIRGINIA

CALL BEFORE YOU DIG
811

ONLY THE COMPLETE AND APPROVED PAPER COPY OF THE PLAN SET INCLUDING ALL SUBSEQUENT REVISIONS WILL SERVE AS THE OFFICIAL CONSTRUCTION PLANS.

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APPROVALS	DATE
DEPARTMENT OF COMMUNITY DEVELOPMENT	
PLANNER/ZONING	
ENGINEER	
INSPECTIONS	
ARB	
DEPARTMENT OF FIRE RESCUE	
ALBEMARLE COUNTY SERVICE AUTHORITY	
VIRGINIA DEPARMENT OF TRANSPORTATION	
HEALTH DEPARTMENT	

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
04/02/2021
PROFESSIONAL ENGINEER

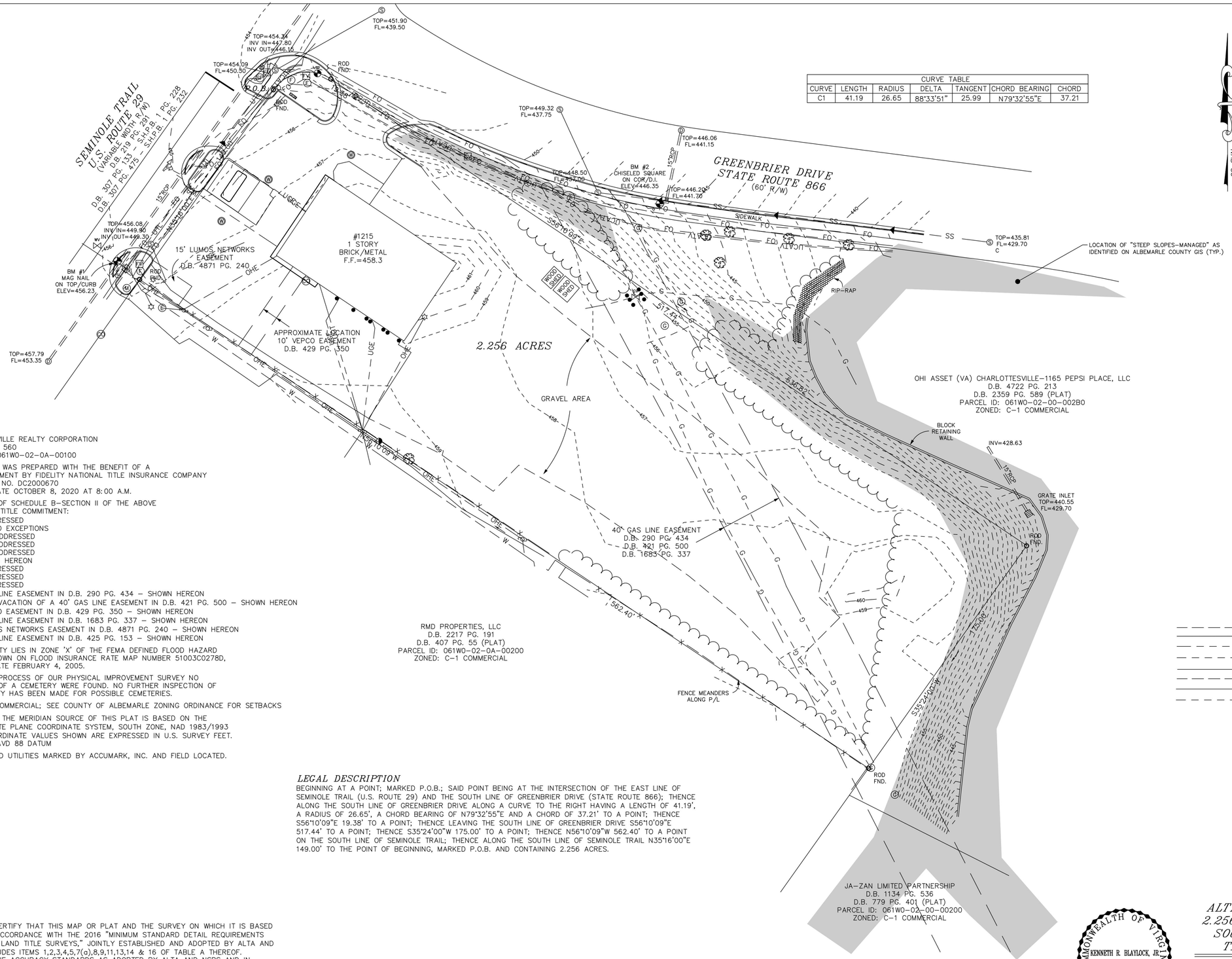
KHA PROJECT 113358001
DATE 04/02/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

COVER SHEET

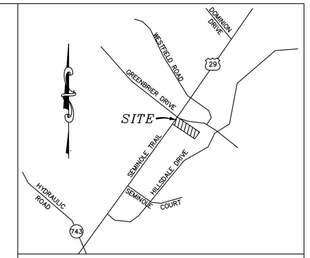
WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CA-100

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CA-100 COVER SHEET April 02, 2021 03:33:43pm K:\RIC_civ\113358 - renaud\V01 — route 29 and greenbrier\CAD\plansheets\CA-100 COVER SHEET.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



CURVE TABLE						
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD BEARING	CHORD
C1	41.19	26.65	88°33'51"	25.99	N79°32'55"E	37.21



VICINITY MAP
SCALE 1" = 2000'

NOTES

1. OWNERSHIP:
   CHARLOTTESVILLE REALTY CORPORATION
   D.B. 696 PG. 560
   PARCEL ID: 061W0-02-0A-00100
2. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A TITLE COMMITMENT BY FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. DC2000670 EFFECTIVE DATE OCTOBER 8, 2020 AT 8:00 A.M.
3. EXCEPTIONS OF SCHEDULE B-SECTION II OF THE ABOVE REFERENCED TITLE COMMITMENT:
   1.) NOT ADDRESSED
   2.) STANDARD EXCEPTIONS
   A. NOT ADDRESSED
   B. NOT ADDRESSED
   C. NOT ADDRESSED
   D. SHOWN HEREON
   3.) NOT ADDRESSED
   4.) NOT ADDRESSED
   5.) NOT ADDRESSED
   6.) 40' GAS LINE EASEMENT IN D.B. 290 PG. 434 – SHOWN HEREON
   7.) PARTIAL VACATION OF A 40' GAS LINE EASEMENT IN D.B. 421 PG. 500 – SHOWN HEREON
   8.) 10' VEPCO EASEMENT IN D.B. 429 PG. 350 – SHOWN HEREON
   9.) 40' GAS LINE EASEMENT IN D.B. 1683 PG. 337 – SHOWN HEREON
   10.) 15' LUMOS NETWORKS EASEMENT IN D.B. 4871 PG. 240 – SHOWN HEREON
   11.) 40' GAS LINE EASEMENT IN D.B. 425 PG. 153 – SHOWN HEREON
4. THIS PROPERTY LIES IN ZONE 'X' OF THE FEMA DEFINED FLOOD HAZARD AREA AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 51003C0278D, EFFECTIVE DATE FEBRUARY 4, 2005.
5. DURING THE PROCESS OF OUR PHYSICAL IMPROVEMENT SURVEY NO INDICATIONS OF A CEMETERY WERE FOUND. NO FURTHER INSPECTION OF THE PROPERTY HAS BEEN MADE FOR POSSIBLE CEMETERIES.
6. ZONED: C1 COMMERCIAL; SEE COUNTY OF ALBEMARLE ZONING ORDINANCE FOR SETBACKS
7. HORIZONTAL: THE MERIDIAN SOURCE OF THIS PLAT IS BASED ON THE VIRGINIA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 1983/1993 (HARN). COORDINATE VALUES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET. VERTICAL: NAVD 88 DATUM
8. UNDERGROUND UTILITIES MARKED BY ACCUMARK, INC. AND FIELD LOCATED.

LEGEND

- DECIDUOUS TREE
- BENCHMARK
- BOLLARD
- SIGN
- HANDICAP RAMP
- CV CABLE VAULT
- FV FIBER-OPTIC VAULT
- F FIBER-OPTIC MARKER
- TP TELEPHONE PEDESTAL
- GV GAS VALVE
- G GAS MARKER
- WV WATER VALVE
- M WATER METER
- W MONITORING WELL
- E ELECTRIC METER
- SP TRAFFIC SIGNAL POLE
- EV ELECTRIC VAULT
- LIGHT POLE
- GUY WIRE
- POWER POLE
- D DRAINAGE MANHOLE
- CO CLEANOUT
- S SANITARY SEWER
- OHE OVERHEAD ELECTRIC
- UNDERGROUND WATER
- G UNDERGROUND GAS
- UGE UNDERGROUND ELECTRIC
- UNDERGROUND FIBER-OPTIC
- UTL UNDERGROUND TRAFFIC
- UNDERGROUND CABLE TV
- UGT UNDERGROUND TELEPHONE

LEGAL DESCRIPTION

BEGINNING AT A POINT; MARKED P.O.B.; SAID POINT BEING AT THE INTERSECTION OF THE EAST LINE OF SEMINOLE TRAIL (U.S. ROUTE 29) AND THE SOUTH LINE OF GREENBRIER DRIVE (STATE ROUTE 866); THENCE ALONG THE SOUTH LINE OF GREENBRIER DRIVE ALONG A CURVE TO THE RIGHT HAVING A LENGTH OF 41.19', A RADIUS OF 26.65', A CHORD BEARING OF N79°32'55"E AND A CHORD OF 37.21' TO A POINT; THENCE S56°10'09"E 19.38' TO A POINT; THENCE LEAVING THE SOUTH LINE OF GREENBRIER DRIVE S56°10'09"E 517.44' TO A POINT; THENCE S35°24'00"W 175.00' TO A POINT; THENCE N56°10'09"W 562.40' TO A POINT ON THE SOUTH LINE OF SEMINOLE TRAIL; THENCE ALONG THE SOUTH LINE OF SEMINOLE TRAIL N35°16'00"E 149.00' TO THE POINT OF BEGINNING, MARKED P.O.B. AND CONTAINING 2.256 ACRES.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,3,4,5,7(a),8,9,11,13,14 & 16 OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA AND NSPS AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT IN MY PROFESSIONAL OPINION, AS A LAND SURVEYOR REGISTERED IN THE COMMONWEALTH OF VIRGINIA, THE RELATIVE POSITIONAL ACCURACY OF THIS SURVEY DOES NOT EXCEED THAT WHICH IS SPECIFIED THEREIN. THE FIELD WORK WAS COMPLETED ON NOVEMBER 13, 2020.

KENNETH R. BLAYLOCK, JR., L.S.
LIC. NO. 2833

DATE

COMMONWEALTH OF VIRGINIA
KENNETH R. BLAYLOCK, JR.
Lic. NO. 2833
LAND SURVEYOR

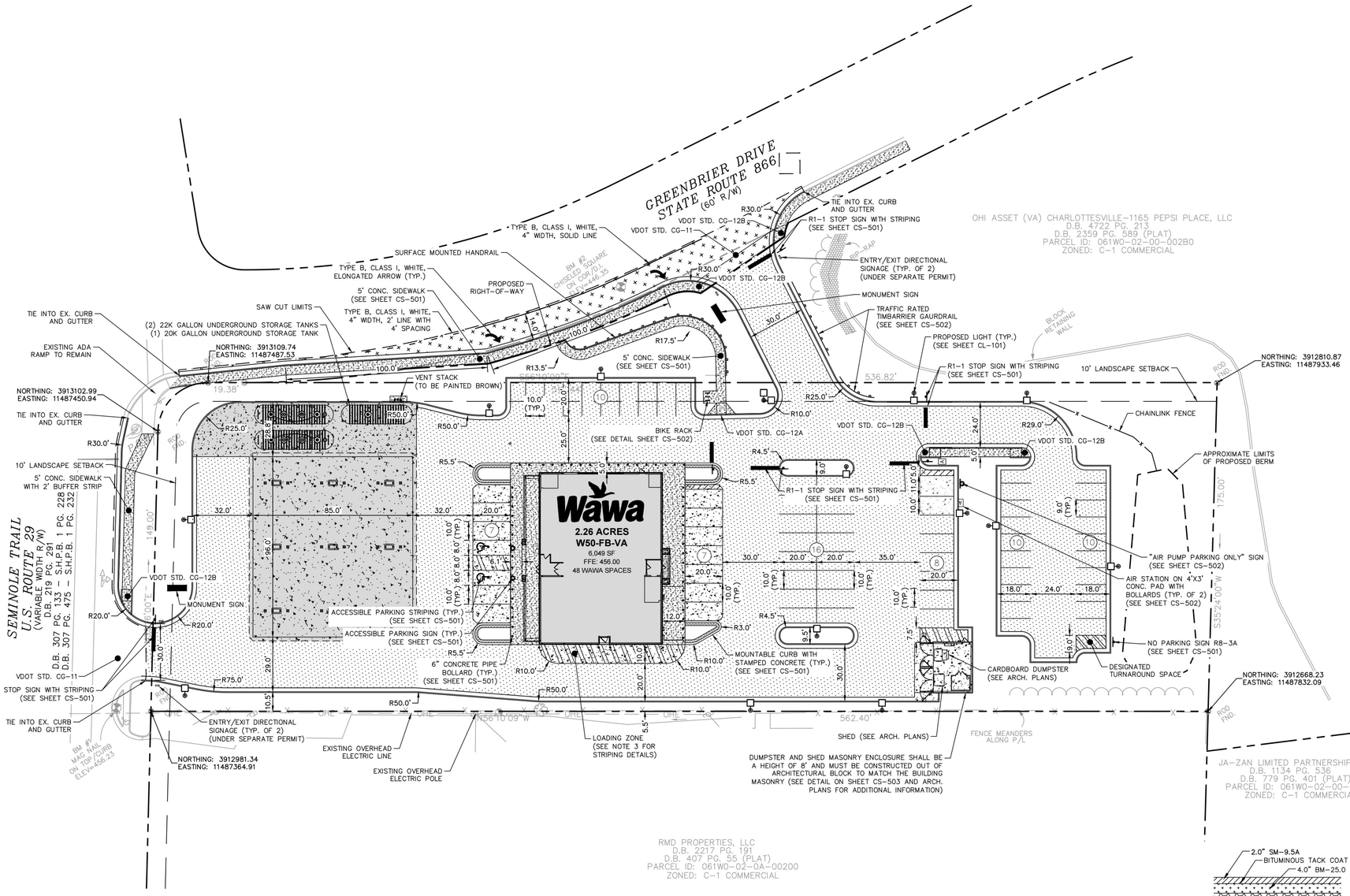
ALTA/NSPS LAND TITLE SURVEY OF 2.256 ACRES OF LAND LYING ON THE SOUTHEAST CORNER OF SEMINOLE TRAIL AND GREENBRIER DRIVE

RIO DISTRICT * ALBEMARLE COUNTY, VIRGINIA

DATE: NOVEMBER 13, 2020 SCALE: 1" = 30'

JENNINGS STEPHENSON P.C.
LAND SURVEYORS & PLANNERS
10160 STAPLES MILL ROAD
SUITE 103
GLEN ALLEN, VA 23060
PHONE – 804-545-6235
FAX – 804-545-6259

J.N. 20-681

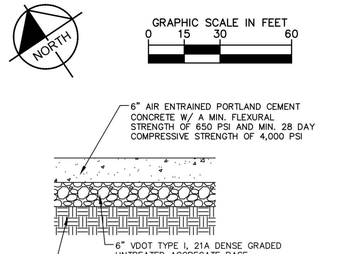


SITE LEGEND

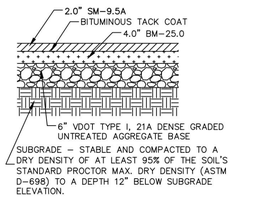
- GREENBRIER DRIVE TURN LANE ASPHALT PAVEMENT
- WAWA ASPHALT PAVEMENT SEE SECTION ON THIS SHEET
- CONCRETE SIDEWALK SEE SHEET CS-501
- STANDARD DUTY CONCRETE SEE SECTION THIS SHEET
- HEAVY DUTY CONCRETE SEE SECTION THIS SHEET
- VDOT STD. CG-6 SEE SHEET CS-502

SITE PLAN NOTES

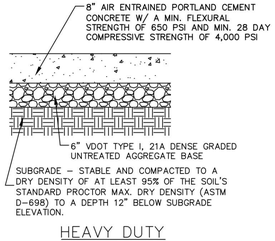
1. ALL CURB RADII ARE 5.0' UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. LOADING ZONE STRIPING SHALL BE PAINTED 4" SINGLE YELLOW SOLID LINE AT 2'-0" O.C. 45° TO THE DRIVE AISLE.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.
5. TWO COATS WHITE TRAFFIC PAINT (4" MIN. WIDTH) REQUIRED FOR PAVEMENT STRIPING EXCEPT TWO COATS BLUE TRAFFIC PAINT SHALL BE USED FOR ACCESSIBLE PARKING AREA (18" LETTERS, 2" PAINT STROKE).
6. PROPOSED CONCRETE PADS TO HAVE 1 FT X 1 FT CHAMFERED CORNERS.
7. THE BUILDING STREET NUMBER IS TO BE PLAINLY VISIBLE FROM THE STREET FOR EMERGENCY RESPONDERS.
8. ALL LIGHTING TO BE INSTALLED 5' BEHIND CURB AND CENTERED ON PAVEMENT STRIPING UNLESS NOTED OTHERWISE.
9. TYING TO EXISTING CURB/GUTTER: THE EXISTING PAVEMENT SHALL BE NEATLY SAWCUT AND REMOVED FOR A DISTANCE OF 2'0" FROM FACE OF THE CURB AND 2'0" FROM THE EDGE OF THE CURB AND GUTTER AND THE SUBGRADE, BASE COURSE, AND PAVING REPLACED WITH NEW PRODUCTS.
10. REFER TO FINAL GEOTECHNICAL REPORT FOR FINAL PAVEMENT SECTIONS.
11. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL STOP SIGNS, DIRECTIONAL SIGNS, AND STRIPING SHOWN ON THE PLANS.



STANDARD DUTY CONCRETE SECTION
FUEL CANOPY, BLDG. PARKING, AND DUMPSTER PAD



WAWA ASPHALT PAVEMENT SECTION
DRIVE AISLES/TRUCK ROUTES



HEAVY DUTY CONCRETE SECTION
UNDERGROUND TANK POD

GRAPHIC SCALE IN FEET
0 15 30 60

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
LIC. No. 046565
04/02/2021
PROFESSIONAL ENGINEER

KHA PROJECT	113358001
DATE	04/02/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

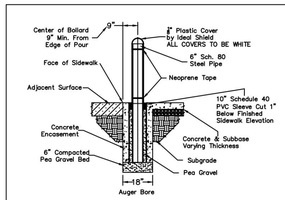
SITE PLAN

WAWA ROUTE 29 AND GREENBRIER

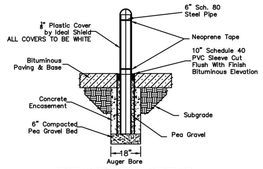
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-101

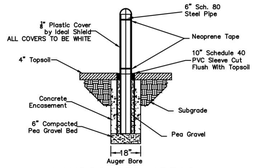
Plotted By:McCray, Stephen Sheet Set:Kha Layout:CS-101 SITE PLAN April 02, 2021 03:01:26pm K:\VIC_CIV\113358 - renoud\VDT - route 29 and greenbrier\CAD\plansheets\CS-101 SITE PLAN.dwg
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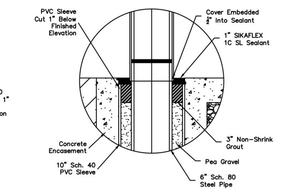
CONCRETE AREAS



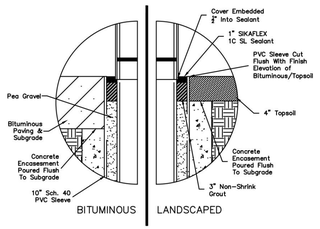
BITUMINOUS AREAS



LANDSCAPED AREAS



GENERAL DETAILS AND CAULK/GROUT DETAIL FOR CONCRETE AREAS

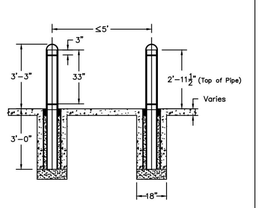


CAULK/GROUT DETAIL FOR LANDSCAPED & BITUMINOUS AREAS

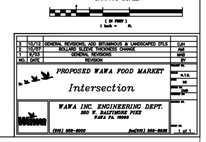
TYPICAL DETAIL

NEW CONSTRUCTION

NO SCALE

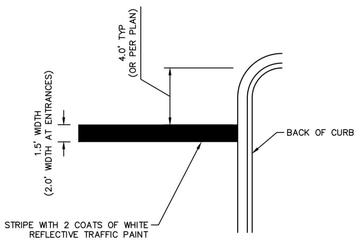


GENERAL BOLLARD DIMENSIONS AND SPACING AROUND BUILDING

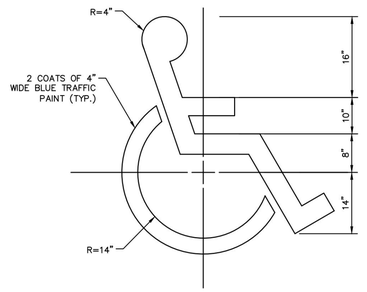




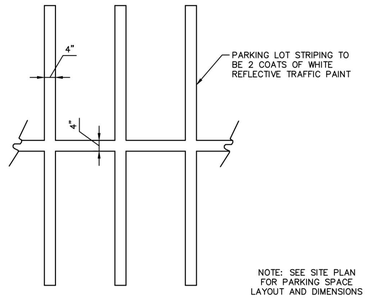
NO PARKING SIGN (R8-3A)



STOP BAR STRIPING

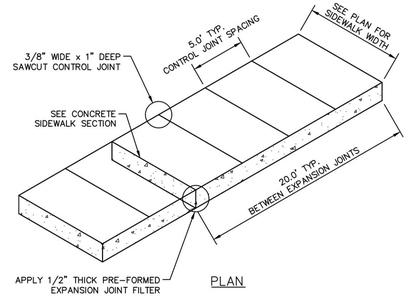


ADA PARKING SYMBOL



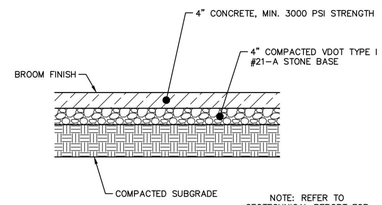
NOTE: SEE SITE PLAN FOR PARKING SPACE LAYOUT AND DIMENSIONS

PARKING LOT STRIPING



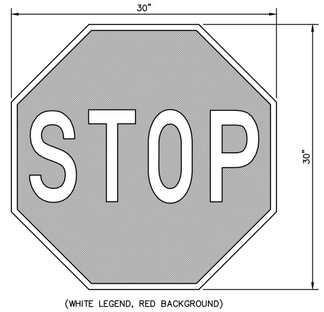
PLAN

CONCRETE SIDEWALK



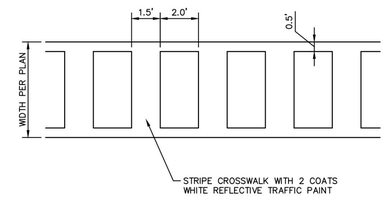
NOTE: REFER TO GEOTECHNICAL REPORT FOR FINAL SECTIONS AND DETAILS

SECTION

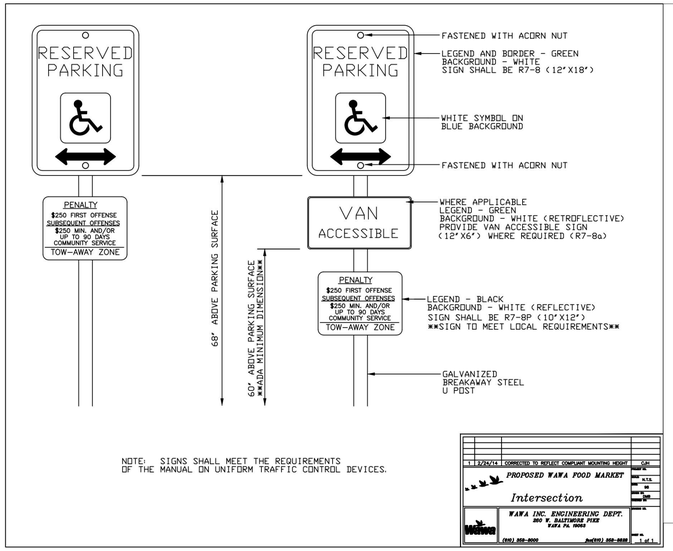


(WHITE LEGEND, RED BACKGROUND)

STOP SIGN (R1-1)



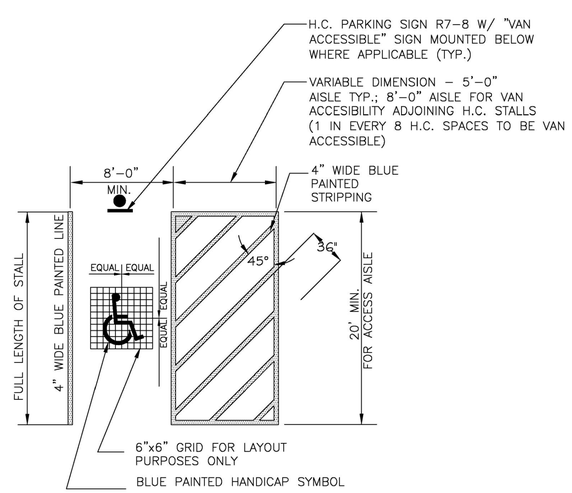
CROSSWALK STRIPING



NOTE: SIGNS SHALL MEET THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

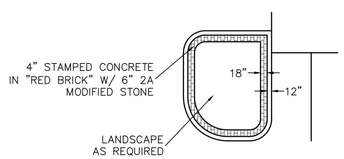
ADA PARKING SIGN DETAIL

N.T.S.



ADA PARKING SPACE STRIPING DETAIL

N.T.S.



MOUNTABLE CURB/ISLAND AND STAMPED CONCRETE DETAIL

N.T.S.

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CS-501 SITE DETAILS April 02, 2021 03:01:32pm K:\RIC_CIV\113358 - remov\001 - Route 29 and Greenbrier\CAD\plansheets\CS-501 SITE DETAILS.dwg
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No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
04/01/2021
PROFESSIONAL ENGINEER

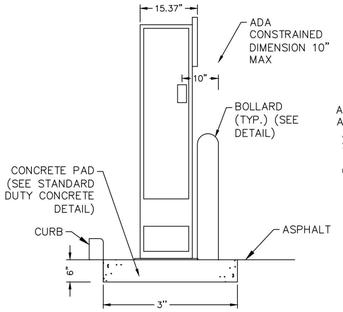
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DATE 04/02/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

SITE DETAILS

WAWA ROUTE 29 AND GREENBRIER

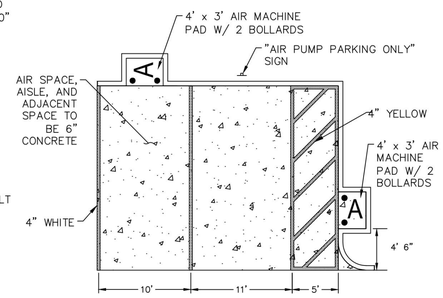
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-501



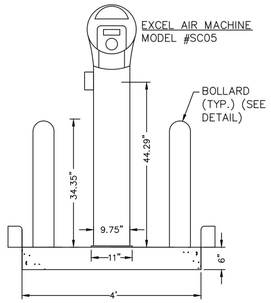
AIR PUMP SIDE ELEVATION

N.T.S.



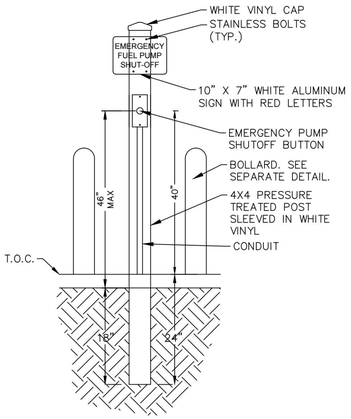
AIR PUMP PARKING DETAIL

N.T.S.

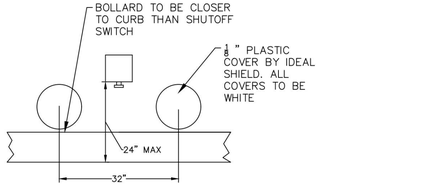


AIR PUMP FRONT ELEVATION

N.T.S.



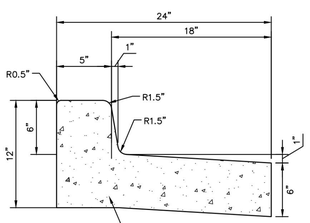
FRONT ELEVATION



PLAN VIEW

EMERGENCY PUMP SHUTOFF ("E-STOP) DETAIL

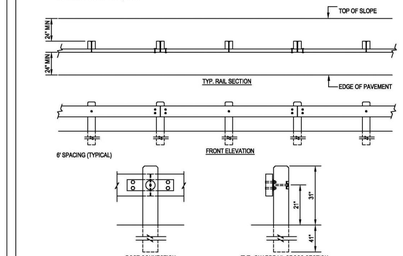
N.T.S.



SPILLING CURB AND GUTTER (24")

S.I. STOREY LUMBER CO., INC.
285 SIKE STOREY RD NW, P.O. BOX 99
ARMUCHEE, GA 30105-0099
TOLL FREE: 1-888-934-1605
PHONE: (706) 234-1605
FAX: (706) 235-8132
www.timbarrier.com

S.I. STOREY LUMBER COMPANY, INC.



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. IF TOP OF SLOPE IS CLOSER THAN 24" INCREASE POST LENGTH TO 7'.
4. DRIVE POSTS OR AUGER, BACKFILL WITH NATIVE SOIL AND COMPACT EVERY 12".
5. ALL TIMBER #1 S4S SOUTHERN PINE, PRESSURE TREATED: AWPA-C14, WOOD FOR USE IN HWY. CONSTR.
6. TYP. POST: 8" X 8" X 8' - TYP. RAIL: 4" X 12" X 11'-10"
7. FASTENERS: ASTM A307, A242; FASR TYPE 3; A563 DH3.
8. TIMBARRIER™ SPLICE PLATE & PLATE WASHER ASTM-A686.
9. UNDER EACH BOLT HEAD OR FACE OF RAIL INSTALL ONE 7/8" WASHER.
10. REFER TO DRAWINGS 651-003b OR 651-003c FOR TERMINAL DETAILS
11. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 651-003.

TIMBARRIER™
STREETGUARD™ ROADWAY AND STREET APPLICATIONS (25 MPH MAX.)

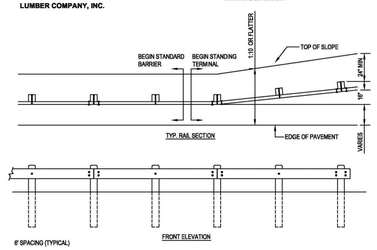
651-003

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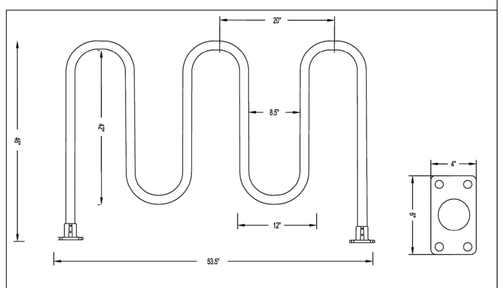
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. REFER TO DRAWING 651-003 FOR MATERIAL SPECIFICATIONS AND CONNECTION DETAIL.
4. THIS TERMINAL MAY ONLY BE UTILIZED AS FOLLOWS OR AS OTHERWISE DIRECTED BY THE ARCHITECT OR ENGINEER.
   A. AS AN APPROACH TERMINAL OR AS A TRAILING TERMINAL ON TWO WAY UNDIVIDED ROADWAYS WHEN:
      I. SPEEDS WOULD NOT EXCEED 10 MPH.
      II. BURIED IN BACK-SLOPE.
      III. END OF TERMINAL IS OBSTRUCTED BY AN OBJECT OR STRUCTURE OF A SUFFICIENT MASS SO AS TO PREVENT A VEHICLE FROM COMING INTO CONTACT IT,
      IV. IT IS LOCATED A SUFFICIENT DISTANCE FROM THE ROADWAYS SO THAT A VEHICLE COULD NOT COME INTO CONTACT WITH THE END OF THE TERMINAL.
   B. AS A TRAILING END TERMINAL ON A ONE-WAY OR DIVIDED ROADWAY.
5. CONTRACTORS NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 651-003c.

TIMBARRIER™
STREETGUARD™ STANDING-END-TERMINAL

651-003c

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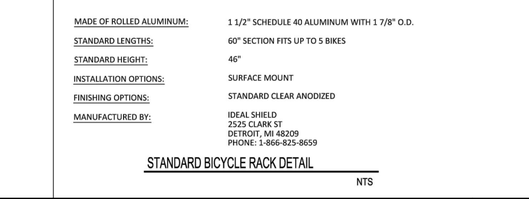
www.CADdetails.com



MADE OF ROLLED ALUMINUM:	1 1/2" SCHEDULE 40 ALUMINUM WITH 1 7/8" O.D.
STANDARD LENGTHS:	60" SECTION FITS UP TO 5 BIKES
STANDARD HEIGHT:	46"
INSTALLATION OPTIONS:	SURFACE MOUNT
FINISHING OPTIONS:	STANDARD CLEAR ANODIZED
MANUFACTURED BY:	IDEAL SHIELD 2525 CLARK ST DETROIT, MI 48209 PHONE: 1-866-825-8659

STANDARD BICYCLE RACK DETAIL

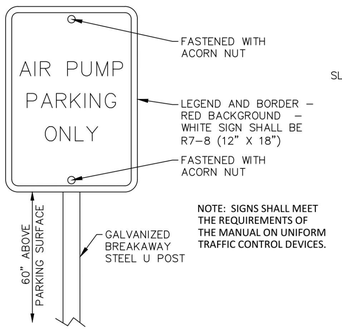
NTS



CG-6

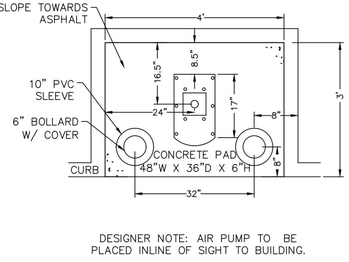
NOTES:
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAD FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.

SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS	
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE	SHEET 1 OF 1 201.03



AIR PUMP PARKING SIGN DETAIL

N.T.S.

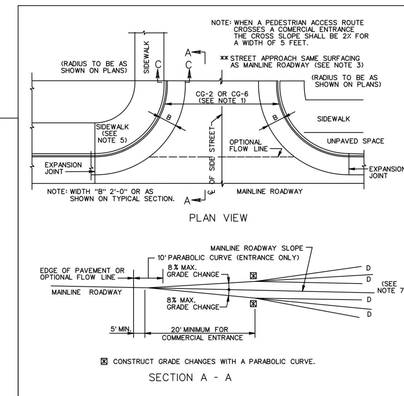


DESIGNER NOTE: AIR PUMP TO BE PLACED INLINE OF SIGHT TO BUILDING.

AIR PUMP PLAN VIEW DETAIL

N.T.S.

CG-11



GENERAL NOTES

1. WHEN USED IN CONJUNCTION WITH STANDARD CG-3 OR CG-7, THE CURB FACE ON THIS STANDARD IS TO BE ADJUSTED TO MATCH THE MOUNTABLE CURB CONFIGURATION.
2. SEE STANDARD CG-12 FOR CURB RAMP DESIGN TO BE USED WITH THIS STANDARD.
3. MAINLINE PAVEMENT SHALL BE CONSTRUCTED TO THE R/W LINE (EXCEPT ANY SUBGRADE STABILIZATION REQUIRED FOR MAINLINE PAVEMENT WHICH CAN BE OMITTED IN THE ENTRANCE.)
4. RADIAL CURB OR COMBINATION CURB AND GUTTER SHALL NOT BE CONSTRUCTED BEYOND THE R/W LINE EXCEPT FOR REPLACEMENT PURPOSES.

ENTRANCE NOTES

5. WHEN THE ENTRANCE RADII CANNOT ACCOMMODATE THE TURNING REQUIREMENTS OF ANTICIPATED HEAVY TRUCK TRAFFIC, THE DEPTH FOR SIDEWALK & CURB RAMPS WITHIN THE LIMITS OF THE RADII SHOULD BE INCREASED TO 7". (SEE CG-13)
6. PLANS ARE TO INDICATE WHEN CONSTRUCTION OF A FLOW LINE IS REQUIRED TO PROVIDE POSITIVE DRAINAGE ACROSS THE ENTRANCE.
7. THE DESIRABLE AND MAXIMUM ENTRANCE GRADE CHANGES "D" ARE LISTED IN THE ALLOWABLE ENTRANCE GRADE TABLE. THESE VALUES ARE NOT APPLICABLE TO STREET CONNECTIONS.

INTERSECTION NOTES

8. WHEN CG-11 IS USED FOR STREET CONNECTIONS, THE CONNECTION MUST BE DESIGNED IN ACCORDANCE WITH AASHTO POLICY AND THE APPLICABLE REQUIREMENTS OF THE VDOT ROAD DESIGN MANUAL, INCLUDING STOPPING SIGHT DISTANCE AND K VALUE REQUIREMENTS.
9. OPTIONAL FLOWLINE MAY REQUIRE WARPING OF A PORTION OF GUTTER TO PROVIDE POSITIVE DRAINAGE ACROSS THE INTERSECTION.

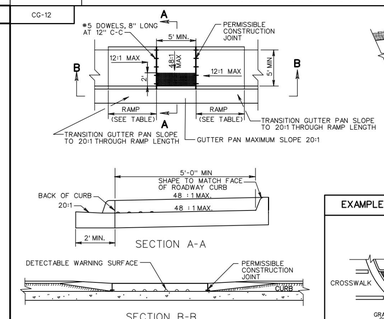
ALLOWABLE ENTRANCE GRADE CHANGES

ENTRANCE VOLUME		GRADE CHANGE "D"	
		DESIRABLE	MAXIMUM
HIGH	MORE THAN 1500 VPD	0 %	3 %
MEDIUM	500-1500 VPD	≤ 3 %	6 %
LOW	LESS THAN 500 VPD	≤ 6 %	8 %

NOTE: ALLOWABLE ENTRANCE GRADE TABLE IS NOT APPLICABLE TO STREET CONNECTIONS

SPECIFICATION REFERENCE	METHOD OF TREATMENT (CONNECTION FOR STREET INTERSECTIONS AND COMMERCIAL ENTRANCES) VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
502		REVISION DATE 07/15	SHEET 1 OF 1 203.04

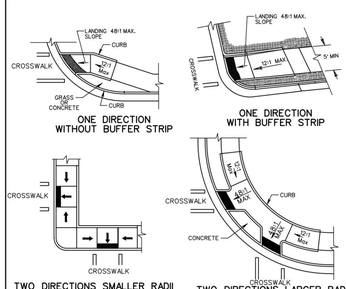
CG-12



NOTES:
1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.
3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
4. DIAGONAL PLACEMENT IS NOT PERMITTED.

TYPE B PARALLEL APPLICATION		
ROADWAY GRADE IN PERCENT	MINIMUM RAMP LENGTH IN FEET	
	4" CURB	6" CURB
0	4	6
1	5	7
2	5	8
3	6	9
4	8	12
5	10	15
6	14	15

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT



SPECIFICATION REFERENCE	CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105 502 504	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.	SHEET 3 OF 5 204.03	REVISION DATE 04/19

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
04/02/2021
PROFESSIONAL ENGINEER

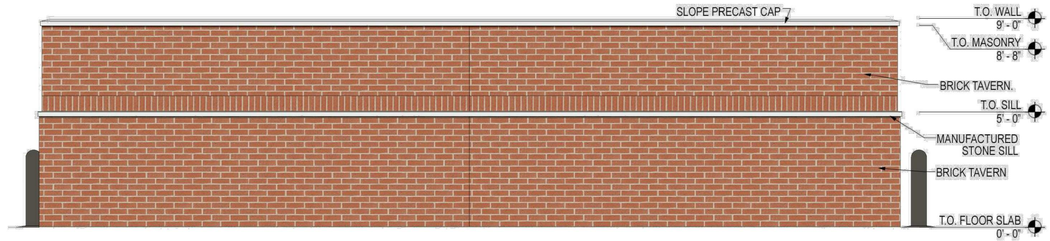
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DATE	04/02/2021
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DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

SITE DETAILS

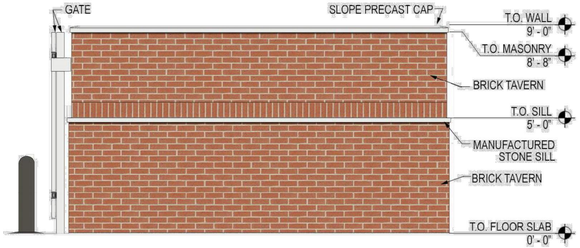
WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-502

Plotted By:McCrory, Stephen Sheet Setting Layout:CS-502 SITE DETAILS April 02, 2021 03:01:40pm K:\RIC_CIVIL\113358 — renpu\CAD\planSheets\CS-502 SITE DETAILS.dwg
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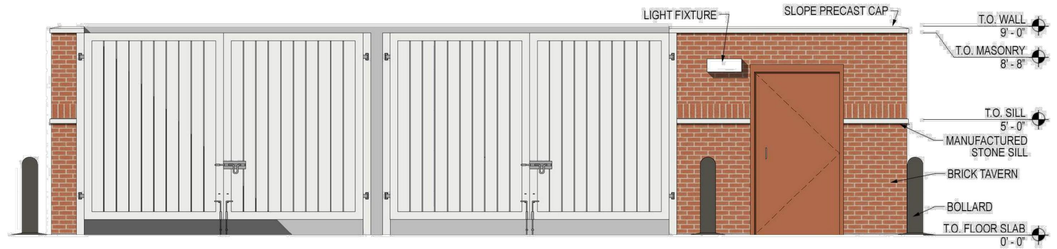


REAR ELEVATION

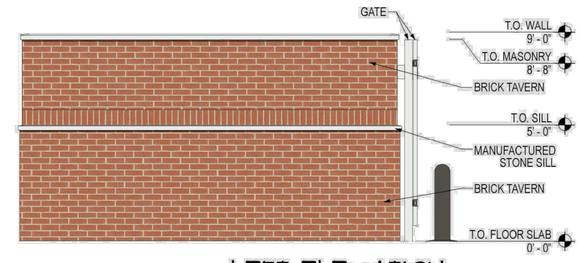


RIGHT ELEVATION

Metal Door	Trim	Thin Brick
Benjamin Moore	James Hardie	Tavern Flash Red
Pumice Stone	Arctic White	Marion Ceramics
BM #1197	JH10-20	



FRONT ELEVATION



LEFT ELEVATION

No.	REVISIONS	DATE	BY

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RYAN R. PERKINS
Lic. No. 046565
04/02/2021
PROFESSIONAL ENGINEER

KHA PROJECT	113358001
DATE	04/02/2021
SCALE	AS SHOWN
DESIGNED BY	CBB
DRAWN BY	STM
CHECKED BY	RRP

SITE DETAILS

WAWA
ROUTE 29 AND
GREENBRIER

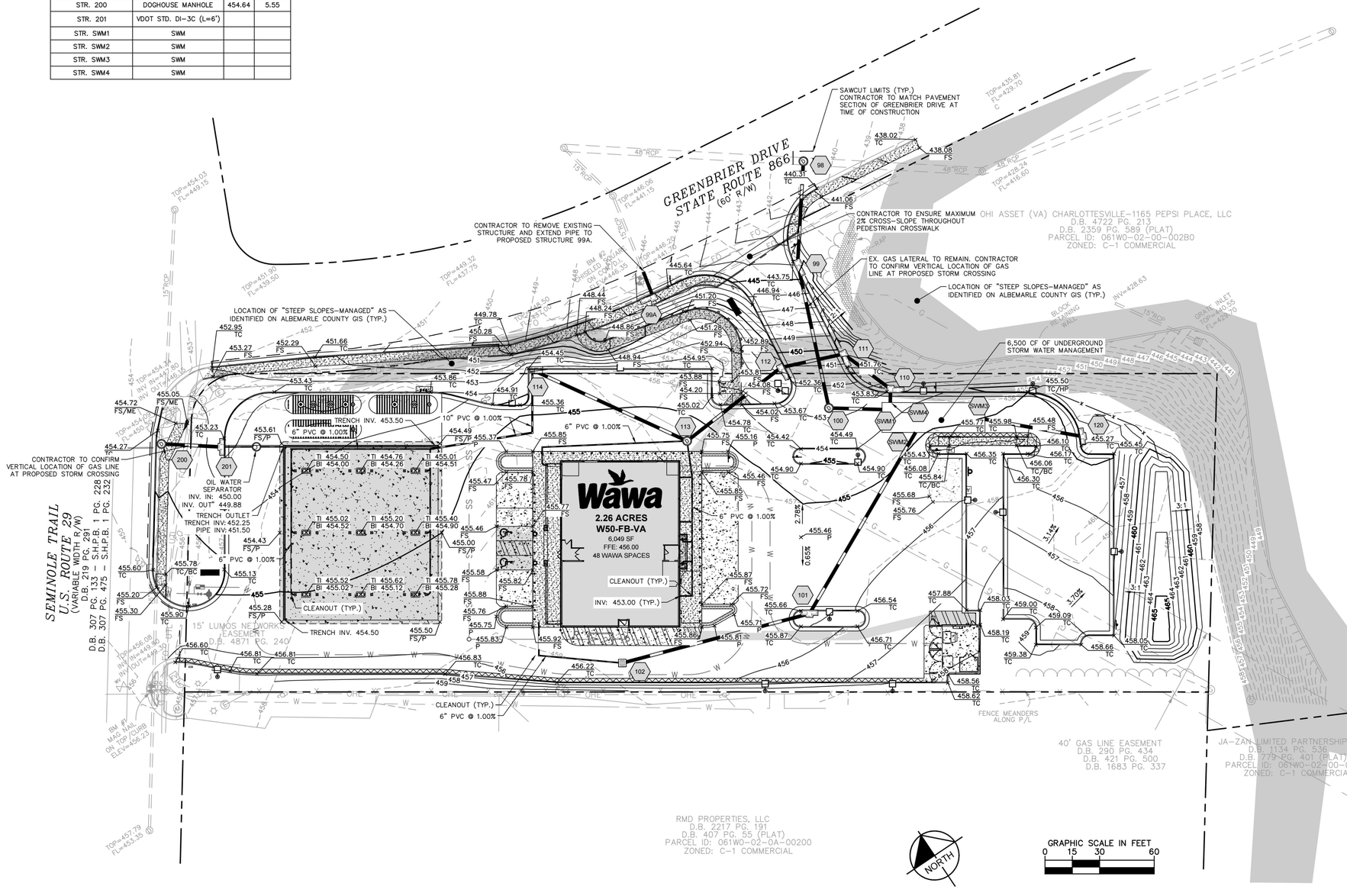
ALBEMARLE COUNTY VA

SHEET NUMBER
CS-503

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STRUCTURE TABLE			
STRUCTURE NAME	DESCRIPTION	RIM	HEIGHT
STR. 98	DOGHOUSE MANHOLE	440.99	5.06
STR. 99	VDOT STD. DI-3B (L=6')	444.60	7.98
STR. 99A	VDOT STD. DI-3B (L=6')	446.09	5.24
STR. 100	VDOT STD. MH-1	452.74	7.87
STR. 101	VDOT STD. DI-3C (L=6')	455.66	3.91
STR. 102	VDOT STD. DI-1	455.45	3.17
STR. 110	VDOT STD. DI-3B (L=6')	453.87	8.39
STR. 111	VDOT STD. DI-3B (L=6')	450.91	5.17
STR. 112	VDOT STD. DI-3B (L=6')	451.47	5.46
STR. 113	VDOT STD. MH-1	455.56	6.12
STR. 114	VDOT STD. DI-2B (L=6')	454.46	4.45
STR. 120	VDOT STD. DI-3C (L=6')	455.27	3.77
STR. 200	DOGHOUSE MANHOLE	454.64	5.55
STR. 201	VDOT STD. DI-3C (L=6')		
STR. SWM1	SWM		
STR. SWM2	SWM		
STR. SWM3	SWM		
STR. SWM4	SWM		

STORM PIPES					
PIPE SEGMENT	LENGTH	DESCRIPTION	SLOPE	INV. (IN)	INV. (OUT)
STR. 99 TO STR. 98	56 LF	15 IN RCP	11.83%	436.62	430.00
STR. 99A TO STR.	15 LF	15 IN RCP	2.01%	442.00	441.70
STR. 100 TO STR. 99	82 LF	15 IN RCP	10.00%	444.87	436.72
STR. 101 TO STR. SWM2	116 LF	15 IN RCP	0.50%	451.75	451.17
STR. 102 TO STR. 101	106 LF	15 IN RCP	0.50%	452.28	451.75
STR. 110 TO STR. SWM4	7 LF	15 IN RCP	0.50%	445.48	445.44
STR. 111 TO STR. 110	32 LF	15 IN RCP	0.50%	445.74	445.58
STR. 112 TO STR. 111	35 LF	15 IN RCP	0.50%	446.01	445.84
STR. 113 TO STR. 112	66 LF	15 IN RCP	5.08%	449.44	446.11
STR. 114 TO STR. 113	94 LF	15 IN RCP	0.50%	450.01	449.54
STR. 120 TO STR. SWM3	55 LF	15 IN RCP	6.56%	451.50	447.92
STR. 201 TO STR. 200	33 LF	15 IN RCP	0.50%	449.26	449.09
STR. SWM1 TO STR. 100	29 LF	15 IN RCP	0.10%	445.00	444.97



GRADING LEGEND

TC:	TOP OF CURB ELEVATION
BC:	BOTTOM OF CURB ELEVATION
TW:	TOP OF WALL ELEVATION
BW:	BOTTOM OF WALL ELEVATION
TI:	TOP OF ISLAND ELEVATION
BI:	BOTTOM OF ISLAND ELEVATION
FF:	FINISHED FLOOR ELEVATION
FS:	FINISHED SURFACE ELEVATION
P:	PAVEMENT ELEVATION
G:	GROUND ELEVATION
RIM:	STRUCTURE RIM ELEVATION
ME:	MATCH EXISTING

XXX — DRAINAGE STRUCTURE CALLOUT

HENRICO COUNTY STANDARD CURB AND GUTTER

SPILLING CURB AND GUTTER

GRADING NOTES

1. THE ROOF/LANDSCAPE DRAINAGE SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH THE CURRENT EDITION OF THE INTERNATIONAL PLUMBING CODE.
2. PIPE LENGTHS ARE MEASURED FROM CENTER OF CHAMBER TO CENTER OF CHAMBER.
3. VDOT STANDARD ST-1 STEPS ARE REQUIRED ON ALL STRUCTURES WITH HEIGHT GREATER THAN 4 FEET.
4. ADA ACCESSIBLE PARKING SPACES ARE SHOWN AS SHADED AND DESIGNED WITH A MAXIMUM 1.5% SLOPE IN ALL DIRECTIONS. CONTRACTOR TO ENSURE SLOPE DOES NOT EXCEED 2.0% IN ANY DIRECTION.
5. PROPOSED SIDEWALK/ADA ACCESSIBLE ROUTES ARE SHOWN AS SHADED. CONTRACTOR TO ENSURE CROSS SLOPES DO NOT EXCEED 2.0% AND LONGITUDINAL SLOPE DOES NOT EXCEED 5.0%.
6. ALL CURB INLETS TO HAVE REBAR TRASH RACK INSTALLED.

GRADING NOTES

STORMWATER QUANTITY:

TO ADDRESS STORMWATER QUANTITY REQUIREMENTS FOR THE SITE, THE ENERGY BALANCE METHOD WAS CHOSEN. THE LIMITS OF ANALYSIS USED FOR THE ENERGY BALANCE CALCULATIONS (2.57 AC.) IS THE LIMITS OF DISTURBANCE. THIS SITE OUTFALLS TO STRUCTURE 98 AND THE EXISTING STORMWATER CONVEYANCE SYSTEM CONTINUES DOWNSTREAM WITHIN GREENBRIER DRIVE. THE ENERGY BALANCE IS MET FOR THE 1-YEAR STORM WITH AN UNDERGROUND DETENTION FACILITY. ADDITIONALLY, THE POST-DEVELOPMENT FLOW FROM THE 10-YEAR STORM IS GREATER THAN THE PRE-DEVELOPMENT 10-YEAR FLOW, THEREFORE, THE UNDERGROUND DETENTION FACILITY IS DESIGNED TO REDUCE THE FLOW LEAVING THE SITE. SEE THE STORMWATER MANAGEMENT CALCULATIONS ON THIS SHEET. CHANNEL PROTECTION AND FLOOD PROTECTION REQUIREMENTS ARE MET AND NO FURTHER ANALYSIS IS REQUIRED.

STORMWATER QUALITY:

THE LIMITS OF ANALYSIS FOR THE WATER QUALITY CALCULATIONS (2.57 AC.) INCLUDE THE ENTIRE LIMITS OF DISTURBANCE FOR THE SITE. PHOSPHORUS LOAD REDUCTION IS REQUIRED AND WILL BE MET WITH THE PURCHASE OF NUTRIENT CREDITS FROM A NUTRIENT BANK.

Pre-Development

Runoff Curve Number (CN)	86			
Drainage Area	2.57 acres	Storm Event	Runoff Volume V	Peak Flow q (cfs)
Impervious Area	*1.44 acres*			
Managed Turf	*0.84 acres*	1 -year	14,199	7.56
Forest/Open Space	*0.29 acres*	10 -year		17.16
Time of Concentration (Tc)	5.0 min			

Post-Development (Prior to Routing)

Runoff Curve Number (CN)	92			
		Storm Event	Runoff Volume V	Peak Flow q (cfs)
Drainage Area	2.57 acres	1 -year	18,710	9.46
Impervious Area	*1.98 acres*	10 -year		19.02
Managed Turf	*0.59 acres*			
Forest/Open Space	*0.00 acres*			
Time of Concentration (Tc)	5.0 min			

Channel Protection Compliance

Energy Balance Equation, 1-year Storm

Improvement Factor = 0.8

Q_post < I.F. x Q_pre x RV_pre/RV_post

< 0.8 x 7.56 x 14199 / 18710

9.46 < 4.59

DETENTION REQUIRED

Flood Protection Compliance

10-year storm

Q_post < Q_pre

19.02 < 17.16

DETENTION REQUIRED

Post-Development Summary (Routed flows)

Storm Event	Peak Flow q (cfs)			
1 -year	4.51	(< Required	4.59	cfs)
10 -year	16.80	(< Required	17.16	cfs)

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2021 KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
04/02/2021
PROFESSIONAL ENGINEER

KHA PROJECT 113358001
DATE 04/02/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

GRADING PLAN

WAWA ROUTE 29 AND GREENBRIER

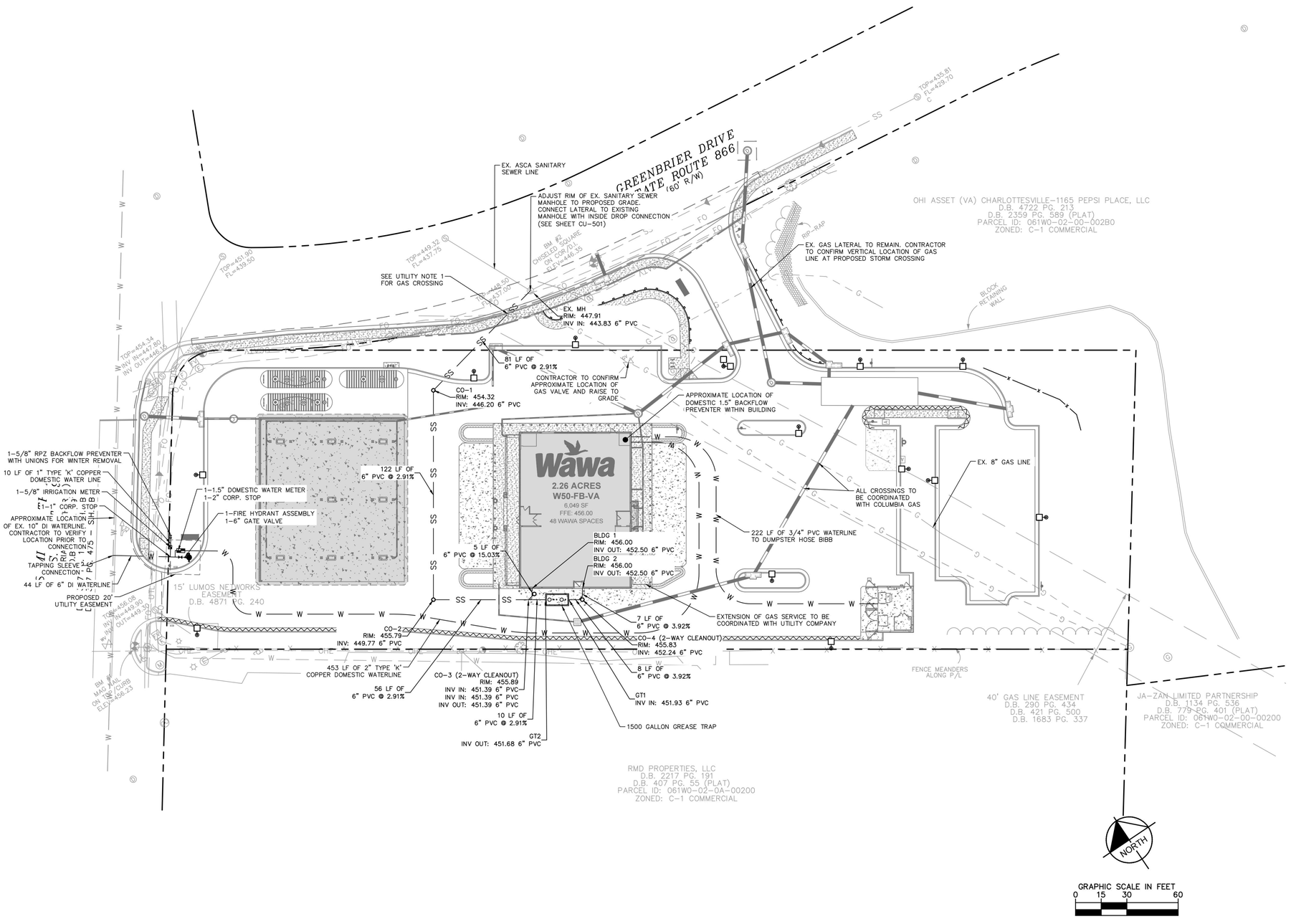
ALBEMARLE COUNTY VA

SHEET NUMBER
CG-101

Plotted By: McCray, Stephen Sheet Set: Kha Layout: CG-101 GRADING PLAN April 02, 2021 03:02:27pm K:\ENG_DIV\113358 renaud\001 - route 29 and greenbrier\CAD\plansheets\CG-101 GRADING PLAN.dwg
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UTILITY NOTES

1. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY KIMLEY-HORN IN ORDER TO VERIFY ADEQUATE SEPARATION BETWEEN UTILITIES CAN BE ACHIEVED AND NO CONFLICTS EXIST.
2. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND INCLUDING ELECTRIC, TELEPHONE, AND CATV.
3. WAWA DOMESTIC METER SERVICE PIPE SHALL BE TYPE K COPPER PIPE ON BOTH SIDES OF THE METER.
4. RPZ BACKFLOW PREVENTERS FOR DOMESTIC SERVICE LINE SHALL BE PROVIDED WITHIN BUILDING MECHANICAL ROOM.
5. ABOVE GROUND IRRIGATION EQUIPMENT SHALL BE COVERED BY AN ALL-WEATHER BOX OR DECORATIVE COVER.
6. REFER TO SHEET CV-101 FOR ALL EXISTING EASEMENTS.
7. REFER TO SHEET CE-101 FOR INFORMATION REGARDING ABANDONMENT OF EXISTING UTILITIES.
8. REFER TO SHEET CU-501 FOR ALL UTILITY DETAILS.
9. ALL PROPOSED SANITARY CLEANOUTS SHALL BE TRAFFIC-RATED.



No.	REVISIONS	DATE	BY

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COMMONWEALTH OF VIRGINIA
RYAN R. PERKINS
Lic. No. 046565
04/02/2021
PROFESSIONAL ENGINEER

KHA PROJECT	113358001
DATE	04/02/2021
SCALE	AS SHOWN
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DRAWN BY	STM
CHECKED BY	RRP

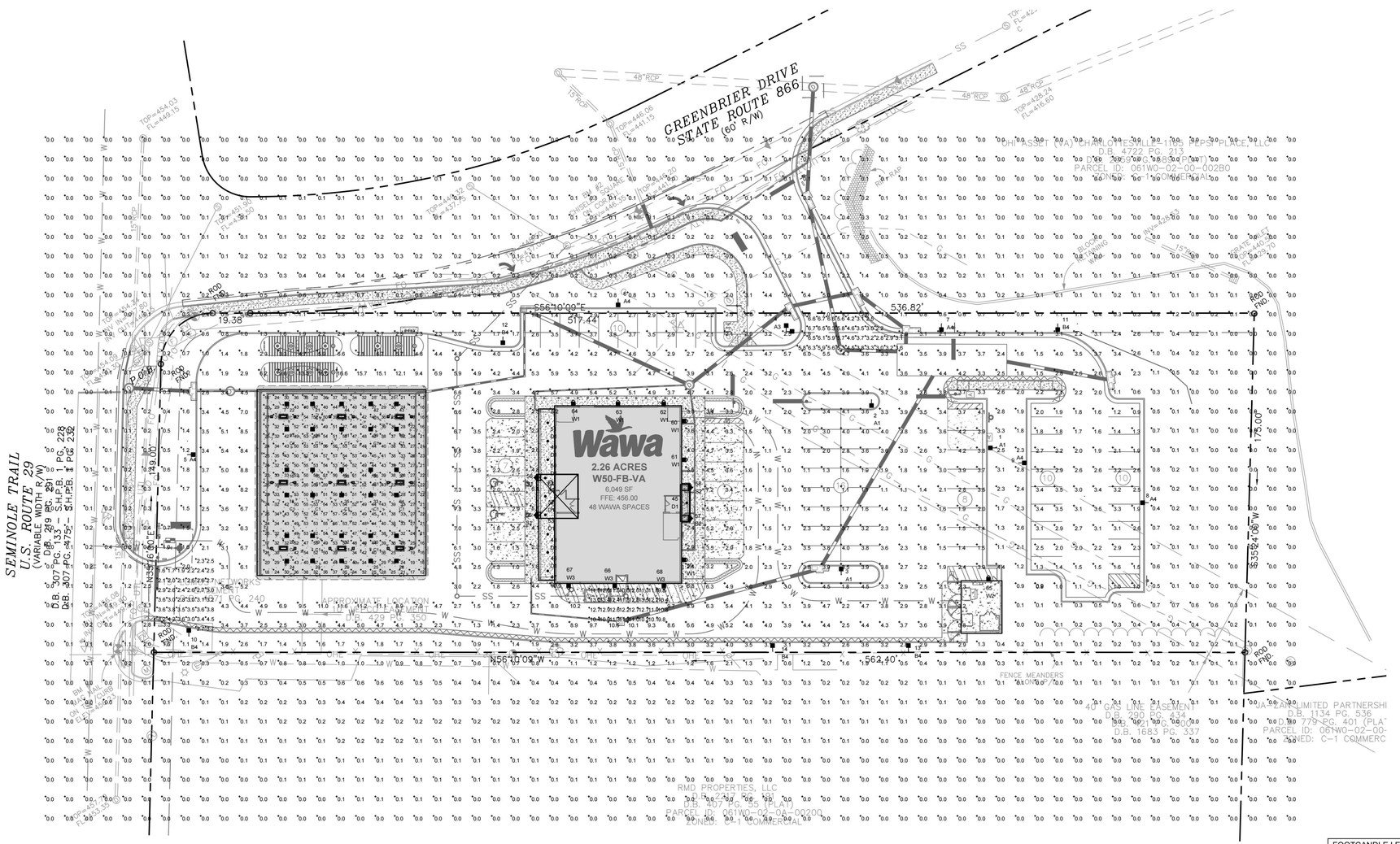
UTILITY PLAN

WAWA
ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CU-101

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CU-101 UTILITY PLAN April 02, 2021 03:02:56pm K:\Nfc_Civil\113358 remsud\001 - route 29 and greenbrier\CAD\plansheets\CU-101 UTILITY PLAN.dwg
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THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS REGULATED BY LOCAL ORDINANCES

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
1	A1	20.5
2	A1	20.5
3	A1	20.5
4	A3	20.5
5	A4	20.5
6	A4	20.5
7	A4	20.5
8	A4	20.5
9	A4	20.5
10	B4	20.5
11	B4	20.5
12	B4	20.5
13	B4	20.5
14	B4	20.5
15	C1	19.32
16	C1	17.11
17	C1	19.32
18	C1	17.11
19	C1	19.32
20	C1	17.11
21	C1	19.32
22	C1	17.11
23	C1	19.32
24	C1	17.11
25	C1	24.5
26	C1	19.333
27	C1	17
28	C1	26.75
29	C1	21.75
30	C1	24.5
31	C1	26.75
32	C1	21.75
33	C1	24.5
34	C1	26.75

LUMINAIRE LOCATION SUMMARY		
LUM NO.	LABEL	MTG. HT.
35	C1	21.75
36	C1	24.5
37	C1	26.75
38	C1	21.75
39	C1	24.5
40	C1	26.75
41	C1	21.75
42	C1	24.5
43	C1	26.75
44	C1	21.75
45	D1	9
46	D1	9
47	D1	9
48	D1	9
49	D1	9
50	D1	9
51	D1	9
52	D1	9
53	D1	9
54	D1	9
55	S1	9
56	S1	9
57	S2	8.5
58	S2	8.5
59	W1	15
60	W1	15
61	W1	15
62	W1	15
63	W1	15
64	W1	15
65	W2	8
66	W3	15
67	W3	15
68	W3	15

NOTES:
- ALL AREA LIGHTS ON 20 FT. POLES MOUNTED ON 6 IN. CONCRETE BASES
- ALL CONCRETE BASES TO BE LOCATED 5 FT. BEHIND CURB

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CANOPY	38.45	60	12	3.20	5.00
DELIVERY	11.70	13.5	9.8	1.19	1.38
ENTRANCES & EXITS	3.75	6.7	1.6	2.34	4.19
PAVED	3.63	16.6	0.9	4.03	18.44
UNDEFINED	0.43	10.9	0.0	N.A.	N.A.

LUMINAIRE SCHEDULE										
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	3	A1	SINGLE	12019	1.030	B3-U0-G3	134.2	402.6	Cree Lighting	ARE-EDG-3M-DA-06-E-UL-XX-700-57K
	1	A3	2 @ 90 DEGREES	12019	1.030	B3-U0-G3	134.2	268.4	Cree Lighting	ARE-EDG-3M-DA-06-E-UL-XX-700-57K
	5	A4	SINGLE	8891	1.030	B1-U0-G2	134	670	CREE, INC.	ARE-EDG-3MB-DA-06-E-UL-XX-700-57K
	5	B4	SINGLE	9549	1.030	B1-U0-G2	134	670	CREE, INC.	ARE-EDG-4MB-DA-06-E-UL-XX-700-57K
	30	C1	SINGLE	13251	1.030	B3-U0-G1	134	4020	CREE, INC.	CAN-304-SL-RD-06-E-UL-XX-700-57K
	10	D1	SINGLE	1652	1.020	B2-U0-G0	27.2	272	Cree Inc	KR6-20L-35K-120V + KR6T-SSGC-FF
	2	S1	SINGLE	2659	1.000	B0-U5-G2	20	40	FC/SSL Lighting	FCWS7170-XXX-35K-2500-CRI85-XX-D
	2	S2	SINGLE	2542	1.000	B0-U4-G2	20	40	FC/SSL Lighting	FCWS7168-XXX-35K-2500-CRI85-XX-D
	6	W1	SINGLE	4210	1.030	B1-U0-G1	43	258	CREE, INC.	SEC-EDG-3M-WM-04-E-UL-XX-350-57K
	1	W2	SINGLE	2105	1.030	B1-U0-G1	25	25	CREE, INC.	SEC-EDG-3M-WM-02-E-UL-XX-350-57K
	3	W3	SINGLE	12455	1.030	B3-U0-G3	127	381	CREE, INC.	SEC-EDG-3M-DM-12-E-UL-XX-350-57K

No.	REVISIONS	DATE	BY

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KHA PROJECT 113358001
DATE 04/02/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

LIGHTING PLAN

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CL-101

Plotted By:McGroy, Stephen Sheet Set:Kha Layout:CL-101 LIGHTING PLAN April 02, 2021 03:03:30pm K:\RIC_CIV\113358 – remp\V001 – route 29 and greenbrier\CAD\sheets\CL-101 LIGHTING PLAN.dwg
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AREA		QTY	LABEL	DESCRIPTION
		3	A1	ARE-EDG-3M-DA-06-E-UL-XX-700-57K
		1	A3	ARE-EDG-3M-DA-06-E-UL-XX-700-57K
		5	A4	ARE-EDG-3MB-DA-06-E-UL-XX-700-57K
		5	B4	ARE-EDG-4MB-DA-06-E-UL-XX-700-57K

CANOPY		QTY	LABEL	DESCRIPTION
		30	C1	CAN-304-SL-RD-06-E-UL-XX-700-57K

DOWNLIGHT		QTY	LABEL	DESCRIPTION
		10	D1	KR6-20L-35K-120V + KR6T-SSGC-FF

WALL MOUNTED		QTY	LABEL	DESCRIPTION
		2	S1	FCWS7170-XXX-35K-2500-CRI85-XX-D

WALL MOUNTED		QTY	LABEL	DESCRIPTION
		2	S2	FCWS7168-XXX-35K-2500-CRI85-XX-D

THE EDGE® Series

LED Area/Flood Luminaire

Rev. Date: V9 04/01/2020

Product Description

THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (details on page 2). Includes a leaf/debris guard.
Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

Performance Summary

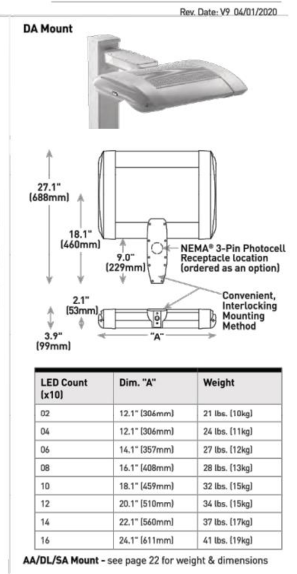
- Patented NanoOptic® Product Technology
- Assembled in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed	
Bird Spikes XA-BRDSPK **Hand-Held Remote** XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	**Backlight Control Shields** XA-20BLS-4 - Four-pack - Unpainted stainless steel **Shorting Cap** XA-XSLSHRT

DA Mount



LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	21 lbs. (10kg)
04	12.1" (306mm)	24 lbs. (11kg)
06	14.1" (357mm)	27 lbs. (12kg)
08	16.1" (408mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)

AA/DL/SA Mount - see page 22 for weight & dimensions

Ordering Information

Example: ARE-EDG-2M-AA-12-E-UL-SV-350

Product	Optic	Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
ARE-EDG	2M Type II Medium; 2MB Type II Medium w/BLS; 2MP Type II Medium w/Partial BLS; 3M Type III Medium; 3MB Type III Medium w/BLS; 3MP Type III Medium w/Partial BLS; 4M Type IV Medium; 4MB Type IV Medium w/BLS; 4MP Type IV Medium w/Partial BLS; 5M Type V Medium; 5S Type V Short	AA Adjustable Arm; DA Direct Arm; DL Direct Long Arm	02, 04, 06, 08, 10, 12, 14, 16	E	UL Universal 120-277V; UH Universal 347-480V	BK Black; BZ Bronze; SV Silver; WH White	350 350mA; 525 525mA; 700 700mA - Available with 20-60 LEDs	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current - Not available with PML options; HL Hi/Low (Dual Circuit Input) - Refer to HL spec sheet for details - Sensor not included; P Photocell - Refer to PML spec sheet for availability with PML options - Available with UL voltage only; PML Programmable Multi-Level, 20-40' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt; PML2 Programmable Multi-Level, 10-30' Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt; R NEMA® 3-Pin Photocell Receptacle - 3-pin receptacle per ANSI C136.10 - Not available with SA mount - Intended for downlight applications with maximum 45° tilt - Requires photocell or shorting cap by others - Refer to PML spec sheet for availability with PML options; 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire
FLD-EDG	25 25° Flood; 40 40° Flood; 70 70° Flood; SN Sign; N6 NEMA® 6	AA Adjustable Arm; SA Side Arm - Available with 20-60 LEDs						

* Reference EPA and pole configuration suitability data beginning on page 19

US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

304 Series™

LED Recessed Canopy Luminaire

Product Description

Luminaire housing is constructed from rugged die cast aluminum components (RS Mount) or die cast and extruded aluminum components (RD Mount). LED driver is mounted in a sealed weathertight center chamber that allows for access from below the fixture. Luminaire mounts directly to the canopy deck and is secured in place with die cast aluminum trim frame. Luminaire housing is provided with factory applied foam gasket that provides a watertight seal between luminaire housing and canopy deck. Suitable for use in single or double skin canopies with 16" (406 mm) wide panels. Designed for canopies of 19-22 gauge (maximum 0.040" (1 mm) thickness).
Applications: Petroleum stations, convenience stores, drive-thru banks and restaurants, retail and grocery

Performance Summary

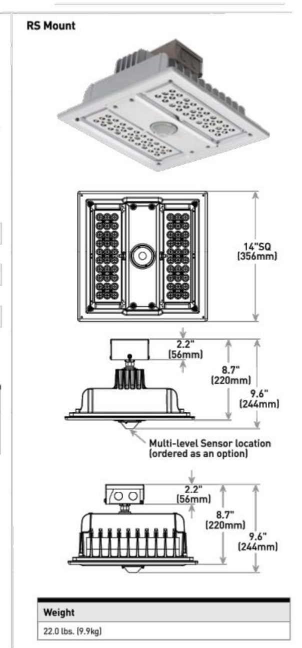
- Patented NanoOptic® Product Technology
- Assembled in the U.S.A. of U.S. and imported parts
- **CRI:** Minimum 70 CRI
- **CCT:** 4000K (+/- 300K), 5700K (+/- 500K) standard
- **Limited Warranty†:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://lighting.cree.com/warranty for warranty terms

Accessories

Field-Installed
Hand-Held Remote XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required

RS Mount



Weight
22.0 lbs. (9.9kg)

Ordering Information

Example: CAN-304-5M-RS-04-E-UL-SV-350

Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
CAN-304	5M Type V Medium; 5S Type V Short; PS Petroleum Symmetric; SL Sparkle Petroleum	RS Recessed Single Skin; RD Recessed Double Skin	04, 06	E	UL Universal 120-277V; UH Universal 347-480V	BK Black; BZ Bronze; SV Silver; WH White	350 350mA; 525 525mA; 700* 700mA	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current; F Fuse - When code dictates fusing use time delay fuse - Refer to PML spec sheet for availability with PML options; PML Programmable Multi-Level - Refer to PML spec sheet for details; 40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire

* 60 LED luminaire requires marked spacing: 48" x 24" x 6" (1,219mm x 610mm x 152mm); 48" (1,219mm) center-to-center of adjacent luminaires, 24" (610mm) luminaire center to side building member, 6" (152mm) top of luminaire to overhead building member

Rev. Date: V2 10/26/2018

US: lighting.cree.com T (800) 236-6800 F (262) 504-5415 Canada: www.cree.com/canada T (800) 473-1234 F (800) 890-7507

CREE

KR Series

KR6™ LED Specification Downlight – Round 6"

Rev. Date: V15 06/11/2020

Product Description

The KR6™ LED specification downlight features Cree TrueWhite® Technology and delivers beautiful, high-quality light with efficacy up to 76 lumens per watt. Designed for new construction applications, the KR Series is available in a variety of color temperatures, round and square trims with high-quality anodized aluminum reflector finishes, a sloped ceiling adaptor accessory, and a variety of dimming options including Cree Lighting's Sunset Dimming Technology which provides rich, warm light that transitions from 2700K to 1800K as naturally as an incandescent source.

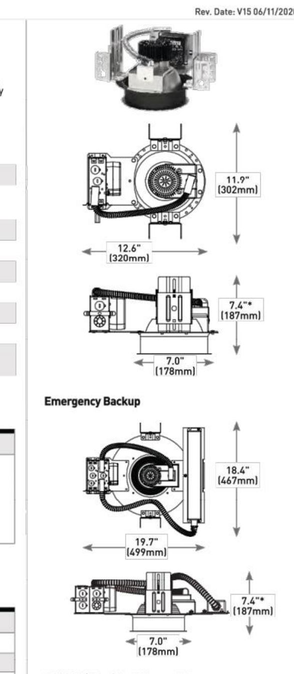
Performance Summary

- Utilizes Cree TrueWhite® Technology
- **Initial Delivered Lumens:** 700-5,300 lumens; Delivered lumen output is typical when using a SSGC type reflector
- **Input Power:** 13-87 watts
- **Emergency Performance:** Up to 1,210 Lumens; 10W; Minimum 90 Minutes
- **CRI:** 90
- **CCT:** 2700K, 3000K, 3500K, 4000K, 5000K
- **Controls:** Triac Dimming to 5%, 0/1-10V Dimming to 10%, and Lutron EcoSystem® Dimming to 1%
- **Limited Warranty†:** 10 years on KR6™ luminaire/1 year on accessories
- **Limited Warranty Emergency Back Up (EB) Battery**: 1 Year Battery Back Up. Test regularly in accordance with local codes

† See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed		
Sloped Ceiling Adaptor KRKS6**WW ** 0-35 (order in 5 degree increments)	**C-Channel Hanger Bars** RBH30C - Pair of 30" (762mm) rigid 3/4" x 1/2" (19mm x 13mm) C-Channel bars; RBH24C-1 - Pair of 24" (610mm) x 1-1/2" (38mm) x 1/2" (13mm) standard C-Channel bars	**T-Bar Clips** RARC7 - Set of four - For use with RBH24C-1 hanger bars; **Beauty Ring** KR6TA - White beauty ring to cover pan head fasteners on KR6T reflector



* Add 1.5" (38mm) for 60L Lumen Package

Ordering Information

Fully assembled luminaire is composed of two components that must be ordered separately:
Example: **Housing:** KR6-20L-35K-120V-10V + **Reflector:** KR6T-SSGC-FF

Reflector (Housing must be ordered separately) — KR6T

Series	Reflector Finish	Flange Finish	Options
KR6T Standard Trim - Reflector attaches to housing with pan head fasteners and keyhole slots	SSGC Soft Satin Glow, Clear	FF Matches Reflector; WF White Paint	WW Wall Wash

Housing (Reflector must be ordered separately) — KR6

Series	Size	Reflector	Lumen Package	Optic	CCT	Voltage	Controls	Options
KR	6 6 inch	Blank Round	9L 13W, 700 Lumens – 54 LPW; 13L 18W, 1,100 Lumens – 61 LPW; 20L 30W, 1,700 Lumens – 57 LPW; 30L 39W, 2,550 Lumens – 65 LPW; 40L 44W, 3,350 Lumens – 76 LPW; 60L 87W, 5,300 Lumens – 61 LPW - Available on 120V and 277V only	Blank 70° Beam Angle	27K - 2700K - 9L thru 40L only; 30K 3000K; 35K 3500K; 40K 4000K; 50K 5000K - Available on 40L and 60L only	120V 120 Volts; 277V 277 Volts; 347V 347 Volts	Blank - For standard control offering refer to control availability chart on page 4; 10V 0/1-10V Dimming - Refer to control availability chart on page 4; LES Lutron EcoSystem® Dimming - Refer to control availability chart on page 4 - Not available with 60L	WD Sunset Dim - 9L and 13L @ 27K with Triac Dimming only; EB7 Emergency Backup - Minimum 90 minutes - 120V, 277V only - Minimum operating temperature: 0°C (32°F)

US: creelighting.com T (800) 236-6800
Canada: creelighting-canada.com T (800) 473-1234

CREE LIGHTING

FCWS7170

FC LIGHTING



Date:	Approved:
Type:	
Fixture:	
Project:	

FCWS7170 Exterior Decor fixture is an IP65 rated, ADA compliant, easy to maintain fixture that has an impact resistant lens and face options to meet the design requirements of your building.

SPECIFICATIONS	
PHYSICAL	
lengths/dimensions [LxDxH]	fixture: 24" H x 7.25" W x 4" D
weight	9.25 lbs
housing	marine grade, corrosion resistant, heavy gauge high pressure die cast aluminum
lens	impact resistant, UV stabilized, opal, polycarbonate diffuser
mounting	mounts directly to standard junction box; masonry applications use four (4) 0.25" x 0.75" screws with lead anchors (fasteners not included, j-box by others)
ingress protection	IP65: dry, damp, or wet locations with PVC closed cell foam gasket to seal out contaminants
finish	six stage chemical iron phosphate substrate pre-treatment process with UV stable, polyester powder coat
PERFORMANCE	
color temperature	2700K | 3000K | 3500K | 4000K
lumen output	1200 lm | 1800 lm | 2500 lm | 3800 lm | 5100 lm | 9555 lm
lifetime	> 70,000 hours / L70 or better
color consistency	3-Step McAdam Ellipse / standard: CRI ≥ 85 | optional: CRI ≥ 90 CRI
temperature	operating: -13°F to 104°F (-25°C to 40°C) | start up: -13°F to 104°F (-25°C to 40°C) | storage: -40°F to 176°F (-40°C to 80°C)
junction temperature	73°C @ Tᵃ 25°C
warranty	5 year limited warranty (refer to website for details)
NON-LED	
CFL	socket: PL: four pin plug-in type compact fluorescent lamp holder (lamp by others)
ballast	ballast: fluorescent electronic, UL listed ballast standard
ELECTRICAL	
input voltage	Universal 120-277VAC | optional: 347VAC (integral)
power supply	Integral Class II, electronic, high power factor > 94% @120V
certifications	ETL/cETL Listed, CEC Title 24 JA8 compliant (only 90CRI complies), ADA Compliant
standards	UL 1598 / CSA C22.2 No. 250.0 - Class II / IES LM-79 / LM-80
power consumption	79W @ 120V - 277V (maximum)
dimming interface	standard: 0-10V (1%) | optional: ELV (120V only)/DMX (remote only)/DALI (integral)

Expanded Disclaimer: Due to continuous development and improvements, specifications are subject to change without notice. FC Lighting and Solid State Luminaires reserves the right to change lab test details or specifications without notice. Product use certifies agreement to Solid State Luminaires terms and conditions. FCW & FCWS Series fixtures are engineered and produced in our Illinois manufacturing facility.

FC LIGHTING a US Commercial Lighting Manufacturer Since 1982 — Specification Sheet — JS Rev. 01/03/2018

FCWS7168

FC LIGHTING



Date:	Approved:
Type:	
Fixture:	
Project:	

FCWS7168 Exterior Decor fixture is an IP65 rated, ADA compliant, easy to maintain fixture that has an impact resistant lens and face options to meet the design requirements of your building.

SPECIFICATIONS	
PHYSICAL	
lengths/dimensions	fixture: 18.5" H x 7.25" W x 4" D
weight	7.5 lbs
housing	marine grade, corrosion resistant, heavy gauge high pressure die cast aluminum
lens	impact resistant, UV stabilized, opal, polycarbonate diffuser
mounting	mounts directly to standard junction box; masonry applications use four (4) 0.25" x 0.75" screws with lead anchors (fasteners not included, j-box by others)
ingress protection	IP65: dry, damp, or wet locations with PVC closed cell foam gasket to seal out contaminants
finish	six stage chemical iron phosphate substrate pre-treatment process with UV stable, polyester powder coat
PERFORMANCE	
color temperature	2700K | 3000K | 3500K | 4000K
lumen output	1200 lm | 1800 lm | 2500 lm | 4000 lm | 6200 lm
lifetime	> 70,000 hours / L70 or better
color consistency	3-Step MacAdam Ellipse / standard: CRI ≥ 85 | optional: CRI ≥ 90 CRI
temperature	operating: -13°F to 104°F (-25°C to 40°C) | start up: -13°F to 104°F (-25°C to 40°C) | storage: -40°F to 176°F (-40°C to 80°C)
junction temperature	73°C @ Tᵃ 25°C
warranty	5 year limited warranty (refer to website for details)
ELECTRICAL	
input voltage	Universal 120-277VAC | optional: 347VAC (integral)
power supply	Integral Class II, electronic, high power factor > 94% @120V
certifications	ETL/cETL Listed, CEC Title 24 JA8 compliant (only 90CRI complies), ADA Compliant
standards	UL 1598 / CSA C22.2 No. 250.0 - Class II / IES LM-79 / LM-80
power consumption	49W @ 120V - 277V (maximum)
dimming interface	standard: 0-10V (1%) | optional: ELV (120V only)/DMX (remote only)/DALI (remote only)

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Due to continuous development and improvements, specifications are subject to change without notice. FC Lighting reserves the right to change lab test details or specifications without notice. Product use certifies agreement to FC Lighting terms and conditions.

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THE EDGE® LED Area/Flood Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks
- DA and DL mount utilizes convenient interlocking mounting method. Mounting is rugged die cast aluminum, mounts to 3-6" (76-152mm) square or round pole and secures to pole with 5/16-18 UNC bolts spaced on 2" (51mm) centers
- AA and SA mounts are rugged die cast aluminum and mount to 2" (51mm) IP, 2.375" (60mm) O.D. tenons
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight Charts on pages 1 and 22

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- DA and DL mounts designed with integral weathertight electrical box with terminal strips (12Ga-20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Consult factory if in-luminaire fusing is required
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20 LED (525 & 700mA) and 40-80 LED: 0.15mA; 100-160 LED: 0.30mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards when ordered with AA, DA and DL mounts
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Meets Buy American requirements within ARRA
- CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*

LED Count (x10)	System Watts 120-480V	120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	46	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.52	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	110	0.92	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
14	158	1.32	0.77	0.68	0.62	0.47	0.35
16	179	1.49	0.87	0.77	0.68	0.53	0.39
525mA							
02	37	0.30	0.19	0.17	0.16	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
10	171	1.43	0.83	0.74	0.66	0.50	0.38
12	202	1.69	0.98	0.86	0.77	0.59	0.44
14	232	1.94	1.12	0.98	0.87	0.68	0.50
16	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.36	0.27	0.20
06	134	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

THE EDGE® Series Ambient Adjusted Lumen Maintenance¹

Ambient	Initial LMF	25K hr Reported² LMF	50K hr Reported² LMF	75K hr Estimated³ LMF	100K hr Estimated³ LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED
³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED

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Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

304 Series™ LED Recessed Canopy Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- RS Mount luminaire housing is constructed from rugged die cast aluminum and incorporates integral, high performance heatsink fins specifically designed for LED canopy applications
- RD Mount luminaire housing is constructed from rugged die cast aluminum and features high performance extruded aluminum heatsinks specifically designed for LED canopy applications
- LED driver is mounted in a sealed weathertight center chamber that allows for access from below the luminaire
- Field adjustable drive current between 350mA, 525mA and 700mA on Non-IC rated luminaires
- Luminaire housing provided with factory applied foam gasket and provides for a watertight seal between luminaire housing and canopy deck
- Mounts directly to the canopy deck and is secured in place with a die cast aluminum trim frame
- RS mount includes integral junction box which allows ease of installation without need to open luminaire
- Suitable for use in single (RS Mount) or double (RD Mount) skin canopies with 16" (406mm) wide panels
- Designed for canopies of 19-22 gauge (maximum 0.040" (1mm) thickness)
- See 228 Series™ canopy luminaires for canopies using 12" (305mm) deck sections
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weathertight electrical box with terminal strips (12Ga-20Ga) for easy power hookup
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **10V Source Current:** 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15 standards for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified when ordered with PS or SL optics and 525 or 700mA drive current. Please refer to www.designlights.org/QPL for most current information
- RoHS Compliant. Consult factory for additional details
- Meets Buy American requirements within ARRA
- CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*

LED Count (x10)	System Watts 120-480V	120V	208V	240V	277V	347V	480V
350mA							
04	46	0.39	0.24	0.22	0.21	0.15	0.12
06	69	0.57	0.34	0.30	0.27	0.21	0.16
525mA							
04	71	0.59	0.35	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
700mA							
04	94	0.79	0.46	0.40	0.36	0.28	0.21
06	135	1.14	0.65	0.57	0.50	0.40	0.29

* Electrical data at 25°C (77°F)

304 Series™ Ambient Adjusted Lumen Maintenance¹

Ambient	Initial LMF	25K hr Projected² LMF	50K hr Projected² LMF	75K hr Calculated³ LMF	100K hr Calculated³ LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the Temperature Zone Reference Document for outdoor average nighttime ambient conditions
² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)

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CREE

KR6™ LED Specification Downlight – Round 6"

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIAL

- Low brightness parabolic spun Alzak aluminum cone, 0.06" (2mm) thick with polished radius and continuous self-flange
- Soft Satin Glow Clear finish, standard
- 2" (51mm) aperture throat to accommodate all standard and up to 3" (76mm) thick ceilings and provide flexibility in mounting within grid
- Provided with quick mounting brackets for optional carrying channels
- Light engine, optics, and driver accessible from below ceiling

ELECTRICAL SYSTEM

- **Power Factor:** > 0.9 for 120V and 277V
- **Total Harmonic Distortion:** < 20% at full load
- **Input Power:** 120, 277V, or 347V, 50/60Hz
- **Operating Temperature Range:** -18°C - +40°C (0°F - +104°F); minimum operating temperature with EB7 option is 0°C (32°F)
- **10V Source Current:** 9L & 13L: 0.15mA; 20L-40L: 2.2mA; 60L: 0.11mA

CONTROLS

- For standard control offering refer to control availability chart on page 4
- Triac dimming to 5%
- Continuous dimming to 10% with 0-10V DC control protocol
- **10V Source Current:** 9L & 13L: 0.15mA; 20L-40L: 2.2mA
- For use with Class 2 dimming systems only
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Lutron EcoSystem® Dimming to 1%
- Reference http://creelighting.com/products/indoor/new-construction-downlights/kr-series for recommended dimming controls and wiring diagrams

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for thru-wiring 8#12AWG-90°C
- Suitable for damp locations
- Designed for indoor use only
- Thermally protected Type NON-IC in accordance with Article 410 of the NEC and UL 1598
- Requires minimum 90°C supply conductors
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- EnergyStar® certified with the exception of 9L, 13L and 50K CCT. Please refer to https://www.energystar.gov/productfinder/product/certified-light-fixtures/results for most current information
- RoHS compliant. Consult factory for additional details
- CA RESIDENTS WARNING: Cancer and Reproductive Harm – www.p65warnings.ca.gov

KR Series Ambient Adjusted Lumen Maintenance¹

Ambient	Initial Delivered Lumens	Initial LMF	25K hr Reported² LMF	50K hr Reported² LMF	75K hr Estimated³ LMF	100K hr Estimated³ LMF
5°C (41°F)	9L, 13L	1.04	1.04	1.04	1.04	1.04
	20L	1.04	1.04	1.04	1.04	1.04
	30L	1.04	1.03	1.03	1.03	1.03
	40L, 60L	1.04	1.01	1.00	1.00	1.00
10°C (50°F)	9L, 13L	1.03	1.03	1.03	1.03	1.03
	20L	1.03	1.03	1.03	1.03	1.03
	30L	1.03	1.02	1.02	1.02	1.02
	40L, 60L	1.03	1.00	0.99	0.99	0.99
15°C (59°F)	9L, 13L	1.02	1.02	1.02	1.02	1.02
	20L	1.02	1.02	1.02	1.02	1.02
	30L	1.02	1.01	1.01	1.01	1.01
	40L, 60L	1.02	0.99	0.98	0.98	0.98
20°C (68°F)	9L, 13L	1.01	1.01	1.01	1.01	1.01
	20L	1.01	1.01	1.01	1.01	1.01
	30L	1.01	1.00	1.00	1.00	1.00
	40L, 60L	1.01	0.98	0.97	0.97	0.96
25°C (77°F)	9L, 13L	1.00	1.00	1.00	1.00	1.00
	20L	1.00	1.00	1.00	1.00	1.00
	30L	1.00	0.99	0.99	0.99	0.99
	40L, 60L	1.00	0.96	0.96	0.96	0.95
30°C (86°F)	9L, 13L	0.99	0.99	0.99	0.99	0.99
	20L	0.99	0.98	0.98	0.98	0.98
	30L	0.99	0.98	0.98	0.98	0.98
	40L, 60L	0.99	0.96	0.95	0.95	0.94
35°C (95°F)	9L, 13L	0.98	0.98	0.98	0.98	0.98
	20L	0.98	0.97	0.97	0.97	0.97
	30L	0.98	0.97	0.97	0.97	0.97
	40L, 60L	0.98	0.95	0.94	0.94	0.94

¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors.
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.
³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Installation

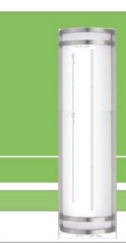
- Recommended ceiling cutout 6.5" (165mm)

Note: 30L and 40L versions require marked spacing: 24" (600mm) x 12" (300mm) x ½" (12mm). 24" (600mm) luminaire to luminaire, 12" (300mm) luminaire to side wall, ½" (12mm) above luminaire
60L versions require marked spacing: 48" (1219mm) x 24" (600mm) x 1" (25mm). 48" (1219mm) luminaire to luminaire, 24" (600mm) luminaire to side wall, 1" (25mm) above luminaire

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CREE LIGHTING

FCWS7170 — Ordering Information



ORDERING INFORMATION

SERIES	VOLTAGE	SOURCE/TEMPERATURE/LED LUMENS	CRI	FINSH	OPTIONS & ACCESSORIES
FCWS7170	UNV UNV 120V-277V; 347V* 347V* (integral)	LED 27K, 3K, 35K, 4K; 1200 Lumens (10W), 1800 Lumens (15W), 2500 Lumens (21W), 3800 Lumens (31W), 5100 Lumens (40W), 9555 Lumens (79W); Contact the Factory for Non-LED source options	CRI85 85 CRI (CR85 Standard); CRI90 90 CRI	BK Black; BZ Bronze; CC Custom Color; SL Silver; WH White; BA Brushed Aluminum	LD 0-10V Dimming (1%); ELV* ELV Dimming* (120V only); DMX* DMX Dimming* (integral); DALI* DALI Dimming* (integral); BBU Battery Backup (remote only); * consult factory for lead time

Face Options *(standard face is included - see face options on dimensions page for reference)*

- **A** Face A *(see face on dimensions page)*
- **B** Face B *(see face on dimensions page)*
- **D** Face D *(see face on dimensions page)*

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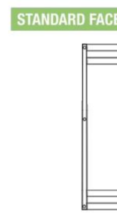
FCWS7168 — Ordering Information



ORDERING INFORMATION

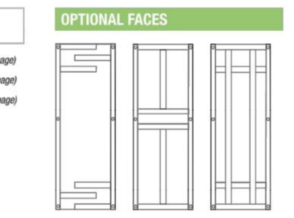
SERIES	VOLTAGE	TEMPERATURE	LUMENS	CRI	FINISH	OPTIONS & ACCESSORIES
FCWS7168	UNV UNV 120V-277V; 347V* 347V* (integral)	LED 27K, 3K, 35K, 4K	1200 lumens (9.5W); 1800 lumens (14W); 2500 lumens (20W); 4000 lumens (32W); 6200 lumens (49W)	CRI85 85 CRI; CRI90 90 CRI	BK Black; BZ Bronze; CC Custom Color; SL Silver; WH White; BA Brushed Aluminum	LD 0-10V Dimming (1%); ELV* ELV Dimming* (120V only); DMX DMX Dimming (remote only); DALI DALI Dimming (remote only); BBU Battery Backup (remote only); * consult factory for lead time

STANDARD FACE INCLUDED



- **A** Face A *(see dimensions next page)*
- **B** Face B *(see dimensions next page)*
- **D** Face D *(see dimensions next page)*

OPTIONAL FACES



Consult Factory for other options and configurations.

To ensure you receive proper configurations for your lighting specifications, contact us directly about any unique application requirements. This may include but not be limited to lumen output, mounting needs, or electrical components.

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Due to continuous development and improvements, specifications are subject to change without notice. FC Lighting reserves the right to change lab test details or specifications without notice. Product use certifies agreement to FC Lighting terms and conditions.

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No.	REVISIONS	DATE	BY

Kimley»Horn
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KHA PROJECT 113358001
DATE 04/02/2021
SCALE AS SHOWN
DESIGNED BY CBB
DRAWN BY STM
CHECKED BY RRP

LIGHTING DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CL-501

Plotted By: McCray, Stephen Sheet Set: Kha Layout: CL-501 LIGHTING DETAILS April 02, 2021 03:03:40pm K:\RIC_CIVIL\113358 - renaud\001 - route 29 and greenbrier\CAD\plansheets\CL-501 LIGHTING DETAILS.dwg
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WALL MOUNTED	QTY	LABEL	DESCRIPTION
	6	W1	SEC-EDG-3M-WM-04-E-UL-XX-350-57K
	1	W2	SEC-EDG-3M-WM-02-E-UL-XX-350-57K
	3	W3	SEC-EDG-3M-DM-12-E-UL-XX-350-57K

Cree Edge® Series

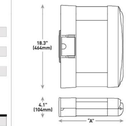
LED Security Wall Pack Luminaire

Rev. Date: V4-28/25/2019

Product Description

The Cree Edge® wall mount luminaire has a slim, low profile design. The luminaire end caps are available in a variety of architectural aluminum finishes using weatherlight LED driver compartment and high performance aluminum heat sinks specifically designed for LED applications. Housing is rugged aluminum. Includes a lightweight mounting box for installation over standard and mud ring single gang J-Boxes. Secures to wall with four 3/16" (5mm) screws (by others). Conduit entry from top, bottom, sides and rear. Allows mounting for uplight or downlight. Designed and approved for easy through-wiring. Includes leaf/debris guard.
Applications: General area and security lighting





Performance Summary

Patented NanoOptic® Product Technology

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See https://creelighting.com/warranty for warranty terms.

Accessories

Field-Installed		
Bird Spikes SA-BSSQRK	**Beauty Plate** WM-PLT1***** – 12" (305mm) Square WM-PLT14***** – 14" (356mm) Square Surface mount, field cut by incumbent; matt paints	**Hand-Held Remote** SA-SOUDEM - For successful implementation of the occupancy sensor function, a minimum of one hand-held remote is required

* Must specify color

LED Count (x10)	Dim. "A"	Weight
02	9.9" (251mm)	20 lbs. (9.1kg)
04	11.9" (302mm)	22 lbs. (10.0kg)
06	13.9" (353mm)	25 lbs. (11.3kg)
08	15.9" (404mm)	27 lbs. (12.2kg)
10	17.9" (455mm)	31 lbs. (14.1kg)
12	19.9" (505mm)	32 lbs. (14.5kg)

Ordering Information

Example: SEC-EDG-3M-WM-06-E-UL-SW-700

SEC-EDG		WM		E				
Product	**Optic**	**Mounting**	**LED Count (x10)**	**Series**	**Voltage**	**Color Options**	**Drive Current**	**Options**
SEC-EDG	**3M** Type 3 Medium **3MB** Type 3 Medium w/BLS **3S** Type 3 Short **3SB** Type 3 Short w/BLS **4M** Type 4 Medium **4MB** Type 4 Medium w/BLS **4W** Type IV Medium **4WB** Type IV Medium w/BLS	**WM** Wall Mount	**02** **04** **06** **08** **10** **12**	**E**	**UL** Universal 120-277V **HV** Universal 347-480V **XV** 347V	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**350** 350mA **525** 525mA - Available with 06-12 LEDs **700** 700mA - Available with 06-10 LEDs	**DIM** **0-10V Dimming** - Control by others - Refer to Dimming spec sheet for details - Don't exceed installed drive current - Not available with PML option **P** **Photocell** - Available only at, or 3x voltage **PML** **Programmable Multi-Level** - Refer to PML spec sheet for details - Not available with DIM options with 9***** 00 **xxK** **4000K Color Temperature** - Minimum 70 CRI - Color temperature per luminaire

UL: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

Cree Edge® LED Security Wall Pack Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire sides are rugged die cast aluminum with integral, weatherlight LED driver compartment and high performance aluminum heat sinks specifically designed for LED applications
- Housing is rugged aluminum
- Furnished with low copper, light weight mounting box designed for installation over standard and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Allows mounting for uplight or downlight
- Designed and approved for easy through-wiring
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultraduralex powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white finishes
- **Weight:** See Dimensions and Weight Chart on page 1

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral weatherlight J-Box with leads (wire nuts) for easy power hook up
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Consult factory if in-luminaire fusing is required
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 28 LED (525 & 700 mA) and 40-120 LED: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Enclosure rated IP66 per IEC 60529 when ordered without P or PML options
- ANSI C136.2 10kV surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- DLC qualified with select SKUs. Refer to www.designlights.org/QPL for most current information
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*							
LED Count (x10)	System Watts 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
350mA							
02	25	0.21	0.13	0.11	0.10	0.08	0.07
04	44	0.36	0.23	0.21	0.20	0.15	0.12
06	66	0.53	0.31	0.28	0.26	0.20	0.15
08	90	0.75	0.44	0.38	0.34	0.26	0.20
10	113	0.93	0.53	0.47	0.41	0.32	0.24
12	130	1.10	0.63	0.55	0.48	0.38	0.28
525mA							
02	37	0.30	0.19	0.17	0.14	0.12	0.10
04	70	0.58	0.34	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
08	133	1.13	0.66	0.58	0.51	0.39	0.28
700mA							
02	50	0.41	0.25	0.22	0.20	0.15	0.12
04	93	0.78	0.46	0.40	0.34	0.27	0.20
06	136	1.14	0.65	0.57	0.50	0.39	0.29

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V ±1.0%.

Cree Edge® Series Ambient Adjusted Lumen Maintenance†						
Ambient	Initial LMF	25K hr Reported‡ LMF	50K hr Reported‡ LMF	75K hr Extrapolated§ LMF	100K hr Extrapolated§ LMF
5°C (41°F)	1.04	1.01	0.99	0.98	0.96
10°C (50°F)	1.03	1.00	0.98	0.97	0.95
15°C (59°F)	1.02	0.99	0.97	0.96	0.94
20°C (68°F)	1.01	0.98	0.96	0.95	0.93
25°C (77°F)	1.00	0.97	0.95	0.94	0.92

† Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED component. Actual performance may differ as in-situ operating conditions vary. Cree LED luminaires are not user serviceable or maintenance factors. Please refer to the Temperature Zone Reference Document for numbers-average nighttime ambient temperature.

‡ In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are within six times the actual LED test data (per IES LM-80).

§ Extrapolated values are calculated and represent time durations that exceed the six test durations of the LED

UL: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING

No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 804-673-3862
WWW.KIMLEY-HORN.COM

KHA PROJECT 113358001
DATE 04/02/2021
SCALE AS SHOWN
DESIGNED BY CRB
DRAWN BY STM
CHECKED BY RRP

LIGHTING DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CL-502

WAWA ALBEMARLE COUNTY - ENTRANCE CORRIDOR OVERLAY DISTRICT & SEC. 32.7.9.5						
Location and Requirement	*Width (LF)*	*LF*	*Required*		*Provided*	
North Property Line (Greenbriar Drive) 10' LANDSCAPE SETBACK ALONG ROAD. LARGE SHADE STREET TREE (2.5" CAL.) /50' W/ INTERSPERSED ORNAMENTALS (8' HT.),& SHRUBS/5'.	10	352	*7.0*	Large Deciduous Tree (1 per 50 LF)	*8*	Large Deciduous Tree
			70.4	Medium Shrubs (1 per 5 LF)	*74*	Medium Shrubs
			N/A	Ornamental Tree (Interspersed)	*2*	Ornamental Trees
West Property Line (Semonile Trail) 10' LANDSCAPE SETBACK ALONG ROAD. LARGE SHADE STREET TREE (3.5" CAL.) 35' OC W/ INTERSPERSED ORNAMENTALS (8' HT.) & SHRUBS 5' OC.	10	165	*4.7*	Large Deciduous Tree (1 per 35 LF)	*5*	Large Deciduous Tree
			33.0	Medium Shrubs (1 per 5 LF)	*33*	Medium Shrubs
			N/A	Ornamental Tree (Interspersed)	2	Ornamental Trees
South Property Lines (Along Adjacent Property) INTERIOR - NO SETBACK- LIKE ZONING.	N/A	N/A	N/A	N/A	N/A	N/A
East Property Lines (Along Adjecent Property) INTERIOR - NO SETBACK- LIKE ZONING.	N/A	N/A	N/A	N/A	N/A	N/A

WAWA PARKING LOT LANDSCAPE REQUIREMENT - SEC. 32.7.9.6 AND ENTRANCE CORRIDOR OVERLAY			
Required SF	*Required Trees*	*Calulation*	*Provided*
5% of parking paved area.	1 Tree for every 10 parking spaces provided	53,801.73 SF x .05 = 2,609.09 SF 68 /10 = 6.8 Trees	2661 SF 7 *Large Trees*

TREE CANOPY REQUIREMENT CALCULATIONS (as noted in Sec. 32.7.9.8)			
Gross Site Area		**2.260 Acres**	**98,446 SF**
Tree Canopy Required		10%	**9,845 SF**
Tree Canopy Existing to Remain			**0 SF**
Tree Canopy Provided (Total)	*(Refer to Tree Canopy Breakdown)*		**10,188 SF**

TREE CALCULATION BREAKDOWN				
Qty.	**Type**	**Size**	**10 Yr. Canopy Coverage**	**Provided**
4	Acer rubrum 'October Glory'	2.5" Cal. Min.	452 SF	1,808 SF
3	Gleditsia triacanthos inermis 'Shademaster'	2.5" Cal. Min.	481 SF	1,443 SF
5	Quercus rubra	3.5" Cal. Min.	541 SF	2,705 SF
8	Ulmus americana 'Princeton'	2.5" Cal. Min.	464 SF	3,712 SF
4	Amelanchier x grandiflora 'Autumn Brilliance'	8' Ht. Min.	130 SF	520 SF
			Total:	**10,188 SF**

GENERAL NOTES

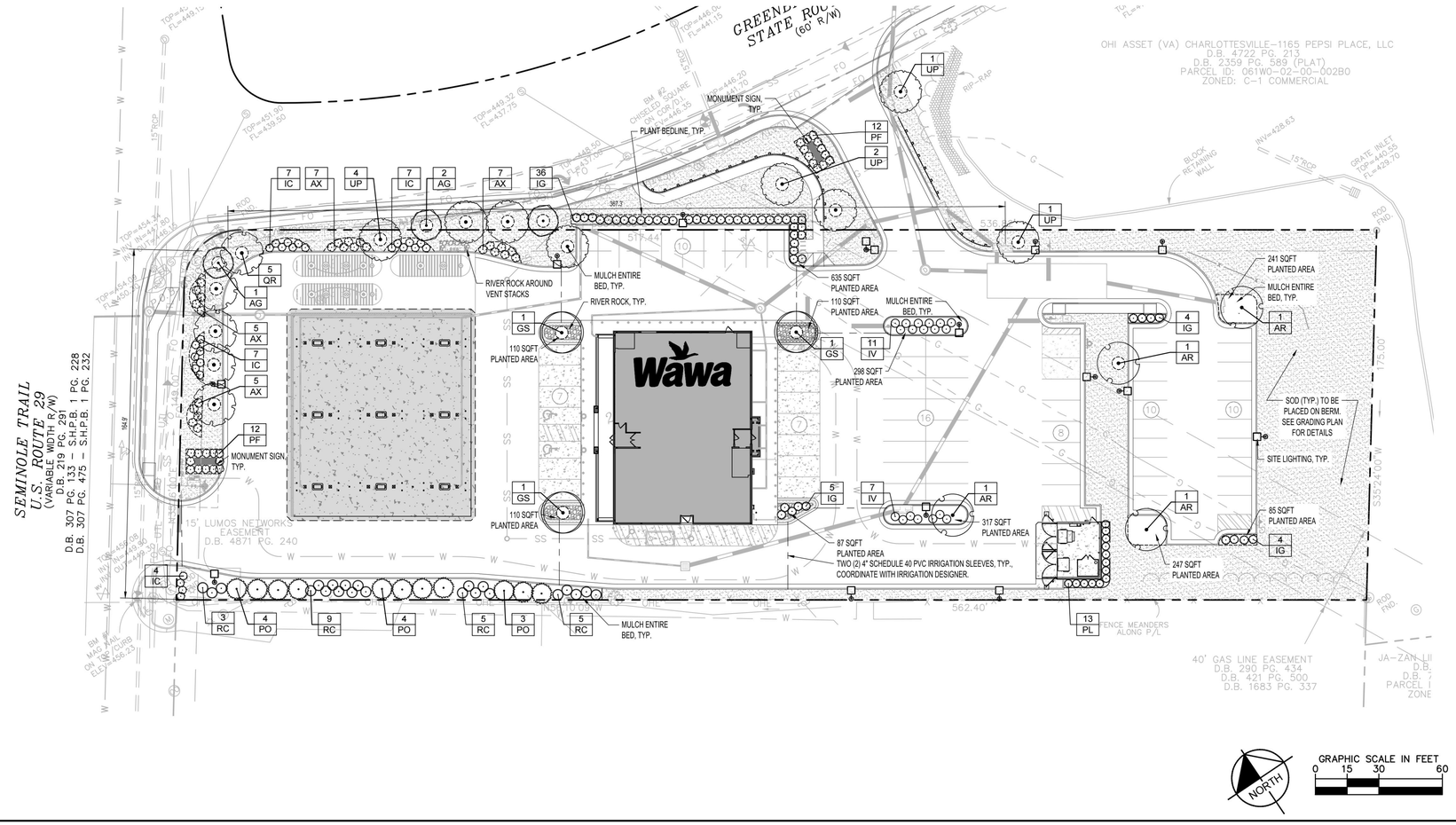
1. SOD ALL AREAS WITHIN WAWA PROPERTY LIMITS THAT ARE NOT COVERED WITH MULCHED PLANT BEDS, STONE MULCH, BUILDINGS, HARDSCAPE, PAVEMENT, OR OTHERWISE NOTED.
2. SEED WITH PERMANENT LAWN GRASS ALL AREAS WITHIN THE RIGHT OF WAY'S WHICH ARE NOT OTHERWISE COVERED WITH PLANTING BEDS, PAVEMENT,BUILDINGS, OR HARDSCAPE, PER THE SEEDING SPECIFICATIONS ON SHEET CP-501.
3. EXISTING TREES AND SHRUBS INDICATED TO REMAIN SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY INSTALLING TREE PROTECTIVE FENCING PER THE PROJECT PLANS AND SPECIFICATIONS.
4. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN IRRIGATION PLAN AND INSTALLATION OF THE IRRIGATION SYSTEM. SEE SHEET CP-501 FOR GENERAL LANDSCAPE NOTES, PARAGRAPH R.
5. SEE SHEET CP-501 FOR PLANTING NOTES AND DETAILS.

GENERAL LANDSCAPING NOTES

1. 1. ALL LANDSCAPING SHALL BE INSTALLED BY THE FIRST PLANTING SEASON FOLLOWING THE ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY WITHIN THE DEVELOPMENT.
2. ALL LANDSCAPING AND SCREENING SHALL BE MAINTAINED IN A HEALTHY CONDITION BY THE CURRENT OWNER OR A PROPERTY OWNERS' ASSOCIATION. REPLACEMENT MATERIAL SHALL COMPLY WITH THE APPROVED LANDSCAPE PLAN.
3. ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT, THE TOPPING OF TREES IS PROHIBITED. SHRUBS AND TREES SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL / HT	REMARKS
	AR	4	Acer rubrum `October Glory`	October Glory Red Maple	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
	GS	3	Gleditsia triacanthos inermis `Shademaster`	Shademaster Honey Locust	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
	QR	5	Quercus rubra	Red Oak	B & B	3.5" CAL. MIN.	Strong Central Leader, Matched.
	UP	8	Ulmus americana `Princeton`	Princeton American Elm	B & B	2.5" CAL. MIN.	Strong Central Leader, Matched.
EVERGREEN TREES	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**CAL / HT**	**REMARKS**
	PO	11	Picea omorika	Serbian Spruce	B & B	8` HT. MIN	Full To Base
ORNAMENTAL TREES	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**CAL / HT**	**REMARKS**
	AG	3	Amelanchier x grandiflora `Autumn Brilliance`	Autumn Brilliance Apple Serviceberry	B & B	8` HT. MIN	Strong Central Leader, Matched.
SHRUBS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**CONT**	**HEIGHT**	**REMARKS**
	AX	24	Abelia x grandiflora `Compacta`	Compact Glossy Abelia	CONT.	24" HT MIN.	Full To Base
	IC	25	Ilex cornuta `Burfordii Nana`	Dwarf Burford Holly	CONT.	24" HT MIN.	Full To Base
	IG	49	Ilex glabra `Shamrock`	Shamrock Inkberry Holly	CONT.	24" HT MIN.	Full To Base
	IV	18	Ilex verticillata	Winterberry	CONT.	24" HT MIN.	Full To Base
	PF	24	Pieris floribunda	Mountain Pieris	CONT.	24" HT MIN.	Full To Base
	PL	13	Prunus laurocerasus `Schipkaensis`	Schipka English Laurel	CONT.	24" HT MIN.	Full To Base
	RC	22	Rhododendron catawbiense	Catawba Rhododendron	CONT.	24" HT MIN.	Full To Base



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COMMONWEALTH OF VIRGINIA
ROBBIE D. ROACH
Lic. No. 1870
04/02/2021
LANDSCAPE ARCHITECT

KHA PROJECT 113358001	
DATE	04/02/2021
SCALE	AS SHOWN
DESIGNED BY	JTS
DRAWN BY	JTS
CHECKED BY	RDR

PLANTING PLAN

WAWA ROUTE 29 AND GREENBRIER

ALBEMARLE COUNTY VA

SHEET NUMBER
CP-101

WAWA STANDARD LANDSCAPING SPECIFICATIONS:

1. ALL TOPSOIL SHALL BE A MINIMUM 4" IN ALL SOD AREAS AND 10" - 12" IN TREE, SHRUB AND GROUND COVER BEDS, INCLUDING PARKING LOT ISLAND BEDS. IT SHALL BE APPROVED BY A WAWA CONSTRUCTION REPRESENTATIVE, PRIOR TO INSTALLATION.

2. PLANTING BEHIND PERPENDICULAR PARKING IS TO BE LOCATED A MINIMUM OF 5' BEHIND THE CURB LINE.

3. ALL LANDSCAPE AND GRASS AREAS ARE TO BE HAND RAKED AND LEFT CLEAR OF ALL STONES, ROCK, CONSTRUCTION DEBRIS AND ANY UNSUITABLE MATERIALS.

4. ALL LANDSCAPE AND GRASS AREAS ARE TO BE IRRIGATED BY AUTOMATIC SPRINKLER SYSTEM. (SEE IRRIGATION SPECIFICATION.)

5. LANDSCAPE CONTRACTOR WILL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION AND PLANTING INSTALLATION.

6. ALL AREAS TO BE LANDSCAPED OR COVERED WITH STONE MUST BE TREATED WITH A PRE-EMERGENCE HERBICIDE (SURFLAN, DACTAL OR APPROVED EQUAL) IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE REGULATIONS AND THE MANUFACTURER'S INSTRUCTIONS.

7. MULCH BEDS ARE TO BE DELINEATED WITH HAND OR MACHINE DUG SHOVEL EDGING.

8. LANDSCAPE CONTRACTOR TO SUPPLY AND INSTALL A PERVIOUS WEED BARRIER (DEWITT, DUPONT OR APPROVED EQUAL) IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS WITHIN ALL LANDSCAPES, INCLUDING STONE AND MULCH BEDS. ALL WEED BARRIER WILL BE OVERLAPPED A MINIMUM OF 6" AT ALL SEAMS. AT PLANT LOCATIONS, BARRIER SHOULD BE CUT IN AN "X" PATTERN SO TO ACCOMMODATE ROOT BALL AND REPLACED AFTER PLANT HAS BEEN INSTALLED.

9. WEED BARRIER SHALL NOT BE VISIBLE IN AREAS DESIGNATED FOR STONE MULCH. WHEN STONE IS CALLED FOR ADJACENT TO CURB OR SIDEWALKS, IT SHALL BE FEATHERED DOWN TO CURB LEVEL FROM A DISTANCE 24" FROM THE CURB.

10. ALL PROPOSED LANDSCAPING TO BE NURSERY GROWN, TYPICAL OF THEIR SPECIES OR VARIETY. THEY ARE TO HAVE NORMAL VIGOROUS ROOT SYSTEMS, FREE FROM DEFECTS AND INFECTIONS AND IN ACCORDANCE WITH ANSI Z60.1

11. ALL PROPOSED PLANTINGS SHOULD BE INSTALLED PER STANDARDS OF THE "AMERICAN ASSOCIATION OF NURSERYMEN" AND STATE NURSERY/ LANDSCAPE ASSOCIATIONS WITH REGARD TO PLANTING, PIT SIZE, BACKFILL MIXTURE, STAKING AND GUYING.

12. ALL PLANTING CONTAINERS AND BASKETS SHALL BE REMOVED DURING PLANTING. ALL PLANTS SHALL BE SET PLUMB AND POSITIONED SO THAT THE TOP OF THE ROOT COLLAR MATCHES, OR IS NO MORE THAN TWO (2") INCHES ABOVE, FINISHED GRADE. REPLACE AMENDED BACKFILL IN 6-INCH LAYERS AND COMPACT BACKFILL TO ELIMINATE VOIDS. CONTRACTOR SHALL PROVIDE A FOUR-INCH HIGH EARTHEN WATERING SAUCER ALONG THE PERIMETER OF EACH PLANTING PIT. CONTRACTOR SHALL WATER NEWLY PLANTED VEGETATION PRIOR TO MULCHING PLANTING PIT. ALL VOIDS SHALL BE FILLED AND SETTLING MITIGATED AS REQUIRED. ALUMINUM EDGING SHALL BE INSTALLED AROUND ALL PLANTING AREAS TO DELINEATE BETWEEN DIFFERENT LANDSCAPE MATERIALS.

13. AFTER INITIAL WATERING AND PRIOR TO MULCHING, CONTRACTOR SHALL APPLY HERBICIDES AND PRE-EMERGENT HERBICIDES AS REQUIRED TO ELIMINATE ANY WEED SEEDS OR PLANTS PRESENT ON ROOT BALL.

14. ALL PLANTING BEDS AND PITS EXCEPT FOR LANDSCAPE ISLANDS ADJACENT TO THE BUILDING AND DESIGNATED AREA AT THE FUEL VENT STACKS, SHALL BE MULCHED WITH DOUBLE GROUND HARDWOOD MULCH AT A MINIMUM DEPTH OF 3". LANDSCAPE ISLANDS ADJACENT TO THE TANK MAT SHALL BE MULCHED WITH 1"-3" "RIVER STONE" MULCH TO AT LEAST TO A DISTANCE OF 5' FROM THE TANK MAT AND VENT STACK. FOR LANDSCAPES ADJACENT TO BUILDING, CONTACT PROJECT ENGINEER.

15. SEEDBED PREPARATION

   A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS OR FERTILIZER MAY BE APPLIED AT THE RATE OF 260 POUNDS PER ACRE OR 6 POUNDS PER 1000 SQUARE FEET USING 10-20-10 OR EQUIVALENT. IN ADDITION, 300 POUNDS 4-1-2 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING.

   B. WORK LIME AND FERTILIZER INTO THE SOIL AS PRACTICAL TO A DEPTH OF 4-INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD PARALLEL TO THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.

   C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS OUTLINED BELOW.

   D. UNLESS REQUIRED FOR PARTICULAR BMP AREAS, ALL TURF ON WAWA LEASED PREMISES IS TO BE SOD. WHEN REQUIRED FOR BMP'S, SEED MIX IS TO MEET LOCAL REQUIREMENTS. SOD SHALL BE TURF TYPE TALL FESCUE AND INSTALLED ON A MINIMUM OF 4" OF TOPSOIL.

16. PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETENESS. THE CONTRACTOR SHALL REPLACE PLANTS, DEAD, UNHEALTHY, DYING OR DAMAGED THROUGH LOSS OF BRANCHES AND/OR FOLIAGE. LAWNS THAT ARE NOT IN GOOD CONDITION AT THE END OF THE GUARANTEE PERIOD SHALL BE REPAIRED UNTIL A GOOD LAWN RESULTS. *IT IS UNDERSTOOD THAT THE OWNER SHALL ASSUME RESPONSIBILITY FOR WATERING ALL PLANT MATERIAL AND LAWN AREA BEGINNING WITH THE DATE OF SUBSTANTIAL COMPLETENESS.*

GENERAL LANDSCAPE NOTES:

A. CONTRACTOR SHALL REVIEW ALL DRAWINGS, SPECIFICATIONS, PERMITS, AND REGULATORY REQUIREMENTS PRIOR TO COMMENCEMENT OF WORK.

B. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPING AND IRRIGATION PERMITS.

C. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS PROVIDED BY OTHERS.

D. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" OF VIRGINIA @ 1-800-552-7001 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.

E. FINAL LOCATION OF ALL PLANTINGS SHALL BE DETERMINED IN THE FIELD BY THE OWNER'S CHOSEN REPRESENTATIVE.

F. SUBSTITUTIONS AND/OR MODIFICATIONS TO PLANTING LAYOUT, PLANT MATERIALS, ETC. SHALL NOT BE MADE WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.

G. CONTRACTOR SHALL INSTALL ALL PLANT MATERIALS AS SHOWN IN THE DETAILS, AND AS INDICATED IN THE LANDSCAPE SPECIFICATIONS.

H. THE PLANTING OF TREES SHALL BE DONE IN ACCORDANCE WITH THE STANDARDIZED LANDSCAPE SPECIFICATIONS JOINTLY ADOPTED BY THE VIRGINIA NURSERYMEN'S ASSOCIATION, THE VIRGINIA SOCIETY OF LANDSCAPE DESIGNERS AND THE VIRGINIA CHAPTER OF THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS.

I. SIZE AND GRADING STANDARDS OF PLANT MATERIALS SHALL CONFORM TO THE LATEST ADDITION OF ANSI Z60.1, AMERICAN STANDARD FOR NURSERY STOCK, BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

J. ALL PLANT MATERIALS SHALL BE NURSERY GROWN STOCK AND SHALL BE FREE OF ANY DEFORMITIES, DISEASES, OR INSECT DAMAGE. ANY MATERIALS WITH DAMAGED OR DISFIGURED/ CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, INSECT DAMAGE, ETC., ARE NOT ACCEPTABLE AND WILL BE REJECTED.

K. TREES NOT EXHIBITING A CENTRAL LEADER WILL BE REJECTED UNLESS CALLED OUT IN THE PLANT LIST AS MULTI-STEM.

L. ALL PLANTING BEDS AND LAWN AREAS SHALL BE SEPARATED BY SHOVEL EDGING. NO EDGE SHALL BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS.

M. PLANTING BEDS SHALL RECEIVE 3" OF DARK, SHREDDED HARDWOOD MULCH THROUGHOUT. ORANGE AND/ OR RED MULCH IS NOT ACCEPTABLE.

N. ALL AREAS ON PLANS NOT INDICATED TO RECEIVE SOD PLANTING, PAVEMENT, OR HARDSCAPE WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE SEEDED WITH FESCUE, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. SEE SEEDING NOTES THIS SHEET.

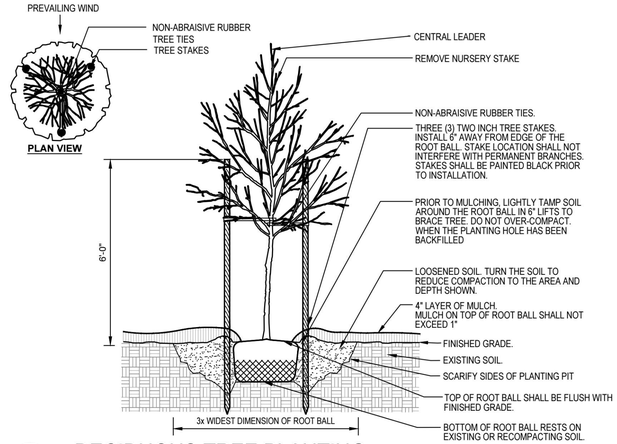
O. PLANT MATERIALS SHOWN ON PLANS ARE A GRAPHIC REPRESENTATION ONLY. CONTRACTOR SHALL PERFORM ALL LANDSCAPE INSTALLATION ON THE SUBJECT PROPERTY, AND NOT ON ADJACENT PROPERTIES, UNLESS OTHERWISE DIRECTED BY THE OWNER OR THE OWNER'S REPRESENTATIVE. ROOTBALLS OF SHRUBS AND TREES SHALL BE PLANTED, IN THEIR ENTIRETY, WITHIN THE BOUNDARIES OF THE SUBJECT PROPERTY.

P. CONTRACTOR SHALL PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES, UNLESS OTHERWISE DIRECTED BY THE CIVIL ENGINEER.

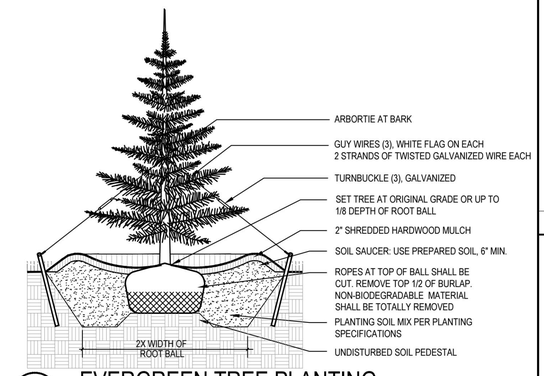
Q. QUANTITY TAKE-OFFS INDICATED ON THE PLANTING SCHEDULE ARE FOR CONVENIENCE ONLY. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLANS AND THE SCHEDULE, THE GRAPHIC REPRESENTATION IN THE PLANS SHALL DICTATE.

R. ALL LANDSCAPED AND LAWN AREAS ARE TO BE IRRIGATED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING A TURNKEY DESIGN BUILD IRRIGATION SYSTEM AS PART OF THE BASE BID FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE AN IRRIGATION PLAN AND PRODUCT CUT SHEETS FOR REVIEW AND APPROVAL BY THE OWNER PRIOR TO BEGINNING WORK. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING IRRIGATION SLEEVING AS SHOWN ON THE LANDSCAPE PLAN PRIOR TO INSTALLATION OF PAVING MATERIALS.

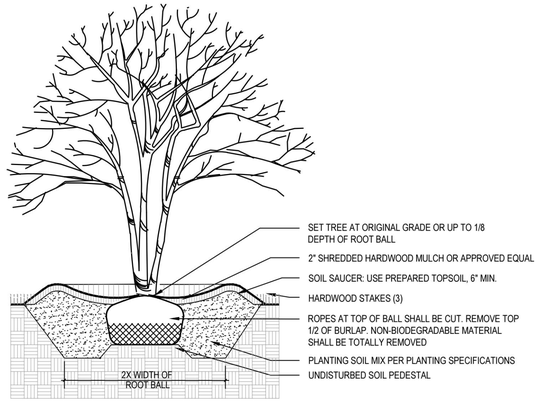
S. ALL MULCHED BEDS SHALL HAVE AN APPROVED GEO-TEXTILE WEED BARRIER INSTALLED PER THE PLANTING DETAILS . PRODUCT SPECIFICATION SHEETS SHALL BE SUBMITTED TO THE OWNER OR OWNERS REPRESENTATIVE PRIOR TO ORDERING MATERIAL.



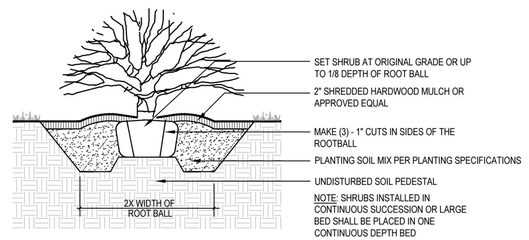
1 DECIDUOUS TREE PLANTING
NOT TO SCALE



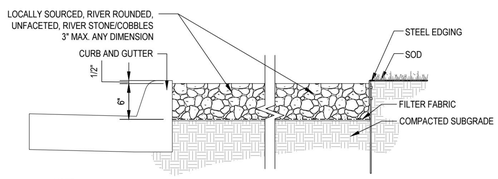
4 EVERGREEN TREE PLANTING
NOT TO SCALE



2 ORNAMENTAL TREE PLANTING
NOT TO SCALE



5 SHRUB PLANTING
NOT TO SCALE



NOTE:
1. COLOR AND TEXTURE TO BE APPROVED BY OWNER PRIOR TO PURCHASE
2. ***ALTERNATE SETTING BED*** : PRIOR APPROVAL BY OWNER REQUIRED
   - SET STONES IN 2" CONCRETE SLAG.
   - DO NOT COVER MORE THAN 25% OF THE STONES

3 RIVER STONE
1"=1'-0"

No.	REVISIONS	DATE	BY

Kimley»Horn
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COMMONWEALTH OF VIRGINIA
ROBBIE D. ROACH
Lic. No. 1870
04/02/2021
LANDSCAPE ARCHITECT

KHA PROJECT	113358001
DATE	04/02/2021
SCALE	AS SHOWN
DESIGNED BY	JTS
DRAWN BY	JTS
CHECKED BY	RDR

PLANTING DETAILS

WAWA
ROUTE 29 AND GREENBRIER
ALBEMARLE COUNTY VA

SHEET NUMBER
CP-501

Plotted By:McCray, Stephen Sheet Set:Kha Layout:CP-501 PLANTING DETAILS April 02, 2021 03:04:17pm K:\CIC_CV\113358 remus\001 route 29 and greenbrier\CAD\plansheets\CP-501 PLANTING DETAILS.dwg
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