100% PLANS

NORTH AMES STREET SIDEWALK IMPROVEMENTS

WEST MATTHEWS STREET TO PARK CENTER DRIVE

TOWN OF MATTHEWS
MECKLENBURG COUNTY, NC

TYPE OF WORK:
GRADING, SIDEWALK, DRAINAGE, PEDESTRIAN CROSSING, EROSION CONTROL

ENGINEER:

KIMLEY-HORN AND ASSOCIATES, INC.
200 SOUTH TRYON STREET
SUITE 200
CHARLOTTE, NC 28202
PHONE 704-626-1192
CONTACT: ALEX MCINTYRE, P.E.

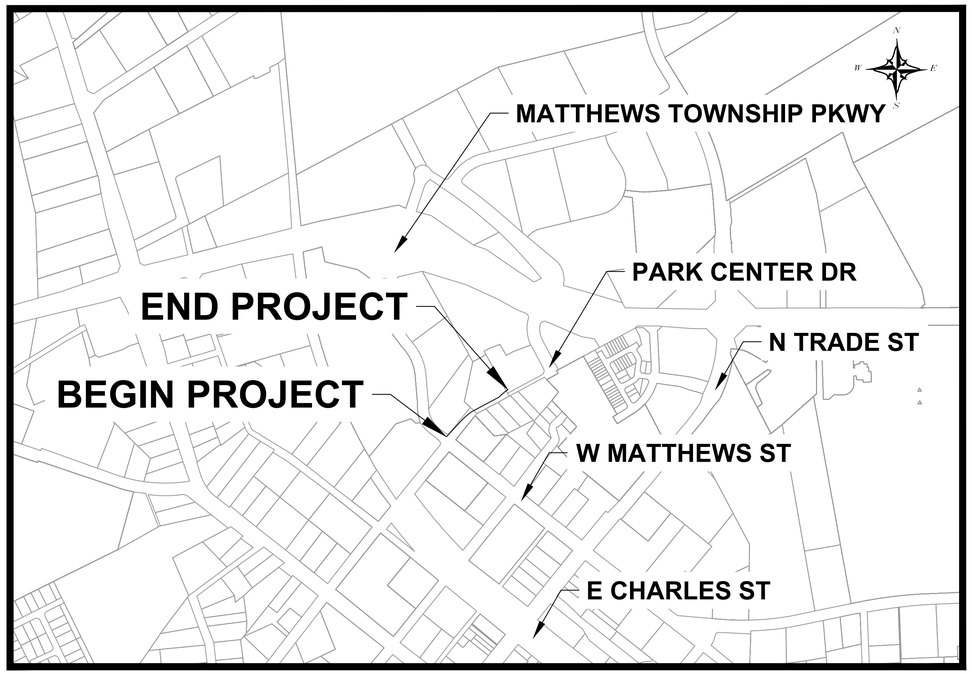
OWNER:

TOWN OF MATTHEWS
232 MATTHEWS STATION ST
MATTHEWS, NC 28105
PHONE (704) 847-4411
CONTACT: DANA STOOGENKE, AICP

SURVEYOR:

CES GROUP ENGINEERS, LLP
274 N. HIGHWAY 16 BUSINESS
SUITES 200-500
DENVER, NC 28037
PHONE (704) 489 1500
CONTACT: KENT HUDSON, PLS

CLEARING ON THIS PROJECT SHALL BE PERFORMED
BY THE LIMITS ESTABLISHED BY METHOD 2



VICINITY MAP
NTS

PROJECT LENGTH = 450 FEET

JANUARY 2022

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GRAPHIC SCALES

Plan View 20 40 60
Horz. Profile 20 40 60
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811 Know what's below. Call before you dig.

No.	REVISIONS	DATE	BY

Kimley»Horn
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NORTH CAROLINA PROFESSIONAL SEAL 050366 ENGINEER ALEXANDRA R. MCINTYRE
Signed by: Alexandra McIntyre
Date: 8/12/2022

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

COVER SHEET

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-1.0

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:C-1.0 COVER SHEET January 20, 2022 06:12:42pm K:\CHL_PRJ\015484 Town of Matthews\020 North Ames Street Sidewalk\04_CADD\PlanSheets\C10-COVER SHEET.dwg
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GENERAL NOTES

PROPOSED CURB ELEVATIONS:

THE CONTRACTOR SHALL SET AND ADJUST PROPOSED CURB ELEVATIONS AS NECESSARY TO ENSURE PROPER LONGITUDINAL GRADE FOR DRAINAGE. THE CONTRACTOR SHALL RETAIN EXISTING PAVEMENT, UNLESS OTHERWISE NOTED.

DRIVEWAYS AND SIDEWALKS:

PROPOSED DRIVEWAY ENTRANCE DIMENSIONS ARE FROM EXPANSION JOINT TO EXPANSION JOINT. MATCH REPLACEMENT MATERIALS TO THE EXISTING SURFACE ACCORDINGLY:

- CONCRETE – SIX INCH PORTLAND CEMENT CONCRETE (3600 PSI).
- ASPHALT – (COMMERCIAL) TWO INCH S9.5B COURSE AND FOUR INCH I19.0C INTERMEDIATE COURSE.
  (RESIDENTAL) TWO INCH S9.5B COURSE AND FOUR INCH AGGREGATE BASE (ABC) COURSE.
- GRAVEL – SIX INCH INCIDENTAL STONE

SIDEWALK SHALL BE FOUR INCHES THICK, AND SIX INCHES THICK AT DRIVEWAY CROSSINGS. SEE SHEET C–2.0 FOR PAVEMENT SCHEDULE.

CROSS SLOPES ON SIDEWALKS SHALL NOT EXCEED 2.0%.

RUNNING SLOPES ALONG SIDEWALKS SHALL NOT EXCEED 5.0%, OR THE ADJACENT ROADWAY SLOPE AS MEASURED AT THE GUTTER PAN, WHICHEVER IS GREATER.

A TURNING SPACE (LANDING) SHALL BE PROVIDED AT ALL LOCATIONS WHERE A PEDESTRIAN MIGHT TURN TO CHANGE DIRECTION OF TRAVEL. THE LANDING SHALL BE A MINIMUM OF 4 FEET BY 4 FEET, UNLESS NOTED BY THE ENGINEER. TYPICALLY LANDING DIMENSIONS WILL MATCH SIDEWALK WIDTH. THE LANDING ALSO SHALL NOT EXCEED 2.0% SLOPE MEASURED PERPENDICULAR TO THE ROADWAY. THE LANDING ALSO SHALL NOT EXCEED 2.0% OR ADJACENT ROADWAY SLOPE, WHICHEVER IS GREATER, MEASURED PARALLEL TO THE ROADWAY.

A CROSS SLOPE TRANSITION PANEL MAY BE REQUIRED WHERE PROPOSED SIDEWALK MEETS EXISTING SIDEWALK WITH A CROSS SLOPE GREATER THEN 2.0%. THE TRANSITION PANEL SHALL NOT EXCEED 2.0% ON THE SIDE OF THE PROPOSED SIDEWALK AND/OR RAMP, AND SHALL MATCH THE EXISTING CROSS SLOPE ON THE SIDE OF THE EXISTING SIDEWALK.

DRAINAGE STRUCTURES:

GRADES, ELEVATIONS AND LOCATIONS SHOWN ARE APPROXIMATE. AS DIRECTED BY THE ENGINEER, THEY MAY BE ADJUSTED TO ACCOMMODATE UNFORESEEN CONDITIONS. STATIONS, OFFSETS AND ELEVATIONS REFER TO THE CENTER OF DROP INLETS, MANHOLES AND JUNCTION BOXES, AND THE MIDPOINT OF THE LIP FOR CATCH BASINS. PIPE AND BOX CULVERT LENGTHS ARE REPORTED IN THE CONSTRUCTION DOCUMENTS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, INCLUDING TRANSITIONS, HORIZONTAL AND VERTICAL BENDS. ALL PIPES SHALL BE RCP CLASS III, UNLESS OTHERWISE NOTED.
WEEP HOLES ARE TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER. IF REQUIRED, WEEP HOLES ARE TO BE CONSTRUCTED IN THE BOTTOM ⅓ OF THE STRUCTURE. ATTACH HARDWARE CLOTH (ALUMINUM OR GALVANIZED STEEL NO. 4 WIRE REINFORCEMENT) TO THE OUTSIDE OF THE STRUCTURE WITH HEAVY DUTY CONSTRUCTION ADHESIVE OVER THE WEEP HOLE. PLACE A POROUS FABRIC BAG FILLED WITH ONE CUBIC FOOT OF NO. 78M STONE AT EACH WEEP HOLE AGAINST THE HARDWARE CLOTH. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK.

UTILITIES:

UTILITIES ARE ILLUSTRATED FOR INFORMATION PURPOSES ONLY. THE TOWN WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF UTILITY LOCATIONS, SIZES, DEPTHS, OR FOR COMPLETENESS OF UTILITY INFORMATION.
PRIOR TO CONSTRUCTION AND VIA THE TOWN UTILITY COORDINATOR AND TOWN INSPECTOR, THE CONTRACTOR SHALL NOTIFY AND MEET WITH ALL UTILITIES AFFECTED TO DETERMINE UTILITY LOCATIONS. THE CONTRACTOR SHALL PROTECT ALL UTILITIES FROM DAMAGE CAUSED BY HIS OPERATIONS OR THOSE OF HIS AGENTS. THE CONTRACTOR SHALL HOLD THE CITY HARMLESS FOR ANY THIRD–PARTY INCONVENIENCE CREATED BY WORK OF HIS OWN FORCES OR THAT OF HIS AGENTS. ANY DAMAGES INCURRED SHALL BE THE CONTRACTORS FINANCIAL RESPONSIBILITY.
AS NEEDED, THE CONTRACTOR SHALL ADJUST/RELOCATE THE SANITARY SEWER AND WATER LINES ONLY. ALL OTHER ADJUSTMENTS/RELOCATIONS WILL BE PERFORMED BY THE VARIOUS UTILITY OWNERS. VIA THE TOWN PROJECT MANAGER, THE CONTRACTOR SHALL COORDINATE WORK WITH UTILITY OWNERS SO AS NOT TO ADVERSELY AFFECT THE PROJECT SCHEDULE. THE TOWN WILL NOT BE HELD RESPONSIBLE FOR ANY DELAYS OR DISRUPTIONS TO THE WORK SCHEDULE OF OTHER UTILITY OWNERS. THE CONTRACTOR SHALL STAY A MINIMUM OF 5 FEET AWAY FROM ALL UTILITY POLES.

- FOR UTILITY LOCATES CALL NORTH CAROLINA ONE–CALL @ 1–800–632–4949.
- WARNING: OVERHEAD UTILITIES. UNLESS OTHERWISE NOTED FOR RELOCATION, THE CONTRACTOR IS TO WORK UNDER ALL EXISTING OVERHEAD UTILITIES.

THE CONTRACTOR SHALL ADJUST ALL WATER VALVES, WATER METER BOXES AND WATER VAULTS TO FINISHED GRADE. WATER METERS LOCATED IN SIDEWALKS OR CONCRETE DRIVEWAYS SHALL BE INSTALLED WITHIN CONCRETE BOXES.

GAS LINES WILL BE ADJUSTED/RELOCATED AS NEEDED BY PIEDMONT NATURAL GAS. VIA THE CITY UTILITY COORDINATOR AND CITY INSPECTOR, THE CONTRACTOR SHALL CONTACT PIEDMONT NATURAL GAS AT LEAST TWO WEEKS PRIOR TO CONSTRUCTION.

EXISTING SANITARY SEWER AND WATER LINE:

PRIOR TO THE BEGINNING OF ANY WATER AND/OR SANITARY SEWER WORK, CONTACT THE CHARLOTTE WATER PROJECT MANAGER, AND AN INSPECTOR WILL BE PROVIDED FOR WORK OVERSIGHT.

WHERE SANITARY SEWERS AND WATER LINES ARE ENCOUNTERED, THE CONTRACTOR SHALL USE CARE IN WORKING AROUND OR NEAR THEM. IF AN EXISTING SEWER OR WATER LINE IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPORT THE PROBLEM TO CHARMECK 311 AND THE CHARLOTTE WATER PROJECT MANAGER AND INSPECTOR, AND REPLACE THE SEWER OR WATER LINE WITH CLASS 350 DUCTILE IRON PIPE. THE CONTRACTOR SHALL REPLACE A MINIMUM OF 18 FEET OF SANITARY SEWER AND/OR WATER LINE WITH CLASS 350 DUCTILE IRON PIPE WHEN ANY OF THE MINIMUM SEPARATION DISTANCES OUTLINED IN THE SPECIAL PROVISIONS FOR THIS PROJECT ARE NOT MET. ALL WATER VALVES, WATER METER BOXES, AND WATER VAULTS AFFECTED BY THIS CONSTRUCTION ARE TO BE ADJUSTED TO THE FINISHED GRADE BY THE CONTRACTOR.

WATER AND SEWER MAINS ARE TO REMAIN ACTIVE DURING CONSTRUCTION. IF THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL FOLLOW CHARLOTTE WATER PROCEDURES AS OUTLINED IN THE DESIGN MANUAL AND SPECIAL PROVISIONS REGARDING OUTAGES, TEMPORARY WATER SERVICE AND BYPASS SEWER PUMPING. ALL PLANNED OUTAGES ARE TO BE COORDINATED WITH CHARLOTTE WATER, WITH A MINIMUM OF 72 HOURS NOTICES TO THE AFFECTED RESIDENTS AND BUSINESSES.

SANITARY SEWER AND WATER SERVICE LATERALS ARE NOT SHOWN ON THESE PLANS AND WILL BE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH CHARLOTTE WATER PERSONNEL TO ENSURE THAT ALL EXISTING SERVICES ARE RELOCATED AND KEPT IN SERVICE. THIS WORK IS INCIDENTAL TO ALL CONSTRUCTION ACTIVITIES.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR MAY MAKE HIS OWN INVESTIGATION TO DETERMINE SUBSURFACE CONDITIONS.

MAIL BOXES:

THE CONTRACTOR SHALL RELOCATE ALL MAIL BOXES AS REQUIRED BY SECTION 107–11 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. COORDINATE THIS WORK WITH THE U.S. POSTAL SERVICE.

GENERAL NOTES

FENCES:

THE CONTRACTOR SHALL REMOVE AND RESET FENCES AS NOTED ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

TREES, SHRUBS, AND HEDGES:

THE CONTRACTOR IS REQUIRED TO REMOVE TREES, SHRUBS, AND HEDGES WITHIN THE EASEMENT LINES UNLESS SHOWN ON THE PLANS TO BE PROTECTED. WHEN ROOT PRUNING IS NECESSARY, CUT ROOTS CLEANLY USING A DISC TRENCHER IN ACCORDANCE WITH SECTION 155.606 OF THE TOWN OF MATTHEWS UNIFIED DEVELOPMENT ORDINANCE. PRUNING SHALL BE PER THE LATEST STANDARD OF THE LANDSCAPE CONSTRUCTION STANDARDS MANUAL (TYP.) USE PLYWOOD FORMS WHEN TREE ROOTS ARE ADJACENT TO PROPOSED CURB & GUTTER OR SIDEWALK. USE MCLD STD. 40.11 FOR BRIDGING TREE ROOTS. TREES SPECIFIED BY THE PLANS TO HAVE ASPHALT CURBING MUST USE MCLD STD. 40.13. TREE PROTECTION SHALL BE IN ACCORDANCE WITH MCLD STD. 40.02. WHEN THE TREE IS CLOSE TO THE WORK AREA TREE PROTECTION MCLD STD. 40.12 SHALL BE USED.

SIDE SLOPES:

LIMITS OF PROPOSED SLOPES ARE INDICATED IN THE PLANS, DETAILS AND STANDARD DRAWINGS. THE MAXIMUM SLOPE SHALL NOT EXCEED A 4:1 (HORIZONTAL TO VERTICAL) UNLESS DESIGNATED BY THE ENGINEER. A CUT SLOPE OF 2:1 MAXIMUM WILL BE USED ONLY AS DIRECTED BY THE ENGINEER.

EROSION CONTROL:

THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL DEVICES IN ACCORDANCE WITH THE APPROPRIATE CITY AND STATE EROSION AND SEDIMENT CONTROL ORDINANCES. THE CONTRACTOR SHALL PREVENT STANDING WATER DUE TO CONSTRUCTION. DISTURBED AREAS SHALL BE SEEDED AND MULCHED AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL FOLLOW THE EROSION CONTROL MEASURES SHOWN ON SHEETS EC–01 – EC–08.

ACCESSIBLE RAMPS AND DEPRESSED CURB:

THE CONTRACTOR SHALL CONSTRUCT 6–INCH THICK CONCRETE ACCESSIBLE CURB RAMPS AT INTERSECTIONS IN ACCORDANCE WITH THE LATEST REVISIONS FOR ACCESSIBLE CURB RAMPS DETAILS, "PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT–OF–WAY" (PROWAG), CONSTRUCTION PLANS & NCDOT STANDARD DRAWINGS.

RUNNING SLOPES ALONG CURB RAMPS SHALL NOT EXCEED 8.3%, BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ALL PANELS OF THE RAMP MUST EQUAL THE SAME PERCENTAGE.

FLARES SHALL BE 10.0% MAXIMUM SLOPE (WHERE APPLICABLE), UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

RAMP CROSS SLOPE SHALL NOT EXCEED 2.0%, OR THE ADJACENT ROADWAY SLOPE AS MEASURED AT THE GUTTER PAN, WHICHEVER IS GREATER.

A TURNING SPACE (LANDING) SHALL BE PROVIDED AT ALL LOCATIONS WHERE A PEDESTRIAN MIGHT TURN TO CHANGE DIRECTION OF TRAVEL. THE LANDING SHALL BE A MINIMUM OF 4 FEET BY 4 FEET, UNLESS NOTED BY THE ENGINEER. TYPICALLY LANDING DIMENSIONS WILL MATCH SIDEWALK WIDTH. THE LANDING SHALL NOT EXCEED 2.0% SLOPE MEASURED PERPENDICULAR TO THE ROADWAY. THE LANDING ALSO SHALL NOT EXCEED 2.0% OR ADJACENT ROADWAY SLOPE, WHICHEVER IS GREATER, MEASURED PARALLEL TO THE ROADWAY.

SAWCUTS:

THE CONTRACTOR SHALL SAWCUT EXISTING ASPHALT AND/OR CONCRETE SURFACES PRIOR TO REMOVAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SAW CUT WIDTH SHALL BE 1 FOOT MINIMUM FROM THE EXISTING EDGE OF PAVEMENT. SAW CUT PAVEMENT SHALL BE REPLACED AS WELL AS ADDITIONAL PAVEMENT REQUIRED TO TIE–IN TO FACE OF PROPOSED CURB AND GUTTER.

TRAFFIC CONTROL:

TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CITY OF CHARLOTTE WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH).

STANDARDS

THE FOLLOWING STANDARDS AND THE LATEST REVISION THERETO ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE ARE CONSIDERED A PART OF THESE PLANS. NCDOT STANDARDS SHALL BE USED. MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS MAY BE USED IF THERE IS NOT AN APPLICABLE NCDOT STANDARD.

NCDOT:

STD. NO.:	TITLE:
200.02	METHOD OF CLEARING – METHOD II
300.01	METHOD OF PIPE INSTALLATION
848.01	4" CONCRETE SIDEWALK
848.02	DRIVEWAY TURNOUT – RADIUS TYPE
848.06	CURB RAMP – EXISTING CURB AND GUTTER
876.02	GUIDE FOR RIP RAP AT PIPE OUTLETS
1101.01	WORK ZONE ADVANCED WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY LANE CLOSURES
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUM
1150.01	FLAGGING DEVICES
1605.01	TEMPORARY SILT FENCE
1606.01	SPECIAL SEDIMENT CONTROL FENCE
1632.03	ROCK INLET SEDIMENT TRAP TYPE C
1632.03	ROCK INLET SEDIMENT TRAP TYPE C
1633.02	TEMPORARY ROCK SILT CHECK TYPE B
1635.02	ROCK PIPE INLET SEDIMENT TRAP TYPE B

MECKLENBURG COUNTY:

STD. NO.:	TITLE:
10.17A	STANDARD CURB AND GUTTER
10.25E	TYPE II–MODIFIED DRIVEWAY DETAIL WITH WIDE PLANTING STRIP AND STANDARD CURB
10.40A	DIRECTIONAL CURB RAMP WITH SMALL/MEDIUM CURB RADII
11.11	COMMERCIAL STREET TYPICAL SECTION
20.22	FLARED END SECTION 12" TO 72"
40.02	TREE PROTECTION DETAIL
40.12	TEMPORARY TREE PROTECTION DETAIL
50.09C	PARALLEL PARKING STANDARDS

ABBREVIATIONS

ABAND	ABANDONED
A.D.	ALGEBRAIC DIFFERENCE
ASPH	ASPHALT
APPROX	APPROXIMATELY
BOC	BACK OF CURB
BIT	BITUMINOUS
BM	BENCH MARK
BRG	BEARING
CB	CATCH BASIN
C&G	CURB AND GUTTER
CL	CLEARANCE
C/L FENCE	CHAIN LINK FENCE
CMP	CORRUGATED MTL PIPE
CONC	CONCRETE
CONST	CONSTRUCTION
DB	DEED BOOK
DCB	DOUBLE CB
DI	DROP INLET
DIA	DIAMETER
DW	DRIVEWAY
DIM	DIMENSION
E	EAST/EASTING
EA	EACH
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
ESMT	EASEMENT
EXIST	EXISTING
F/C	FACE OF CURB
FES	FLARED END SECTION
FH	FIRE HYDRANT
FOC	FIBER OPTIC CABLE
GV	GAS VALVE
HORIZ	HORIZONTAL
INT	INTERSECTION
INV	INVERT
IP	IRON PIN SET
L	LENGTH
LF	LINEAR FOOTAGE
LT	LEFT
lb	POUND
LP	LIGHT POLE
MAX	MAXIMUM
MIN	MINIMUM
MONO	MONOLITHIC
mph	MILES PER HOUR
MTL	METAL
N	NORTH/NORTHING
NTS	NOT TO SCALE
O/H	OVER HEAD
OC	ON CENTER
PAVT	PAVEMENT
PC	POINT OF CURVATURE
PERM	PERMANENT
PG	PAGE
PI	POINT OF INT
PK	PK NAIL SET
PP	POWER POLE
PROP	PROPOSED
PSE	PERM SW ESMT
PT	POINT OF TANGENCY
PVI	POINT OF VERT INT
r	RADIUS
RT	RIGHT
RCP	REINFORCED CONC PIPE
RELOC	RELOCATE
R/W	RIGHT OF WAY
S	SOUTH
SD	STORM DRAIN
SF	SQUARE FOOT
S/R FENCE	SPLIT RAIL FENCE
SS	SANITARY SEWER
STA	STATION
STD	STANDARD
SW	SIDEWALK
TAN	TANGENT
TCE	TEMP CONST ESMT
TEMP	TEMPORARY
TP	TRAVERSE POINT
T/W	TEST WIRE
TYP	TYPICAL
U/G	UNDER GROUND
UTE	PERM UTILITY ESMT
VC	VERTICAL CURVE
VERT	VERTICAL
W	WEST
W/	WITH
WM	WATER METER
W VAULT	WATER VAULT
WV	WATER VALVE
60p	SIXTY PENNY NAIL SET
'	FOOT
"	INCH

CONVENTIONAL SIGNS

- New Property Line
- Existing Property Line
- Maintained as R/W Line
- Existing Structures
- Railroad Tracks
- Proposed Edge of Pavement
- Fence
- Slope Stake Line
- Temporary Construction Easement
- Permanent Sidewalk Easement
- Sidewalk/Utility Easement
- Storm Drainage Easement
- Existing Gas Line
- Existing Water Line
- Existing Sanitary Sewer
- Existing Underground Telecommunications
- Existing Underground Electric
- Existing Storm Drainage
- Proposed Storm Drainage
- Accessible Ramp
- Tree Protection
- Proposed Guardrail
- Silt Fence
- Proposed Curb & Gutter, Conc. Drive, Sidewalk
- Proposed Full Depth Pavement/Sawcut
- Proposed Rip Rap Ditch
- Proposed Gravel
- Proposed Pavement Removal
- Proposed Sidewalk Bridging Tree Roots
- Sidewalk Cross Slope Transition
- Asphalt Milling

CONVENTIONAL SIGNS

- Existing Tree
- Existing Water Meter
- Existing Water Valve
- Proposed Water Valve
- Existing Gas Valve
- Existing Sanitary Sewer Manhole
- Proposed Sanitary Sewer Manhole
- Existing Storm Drain Manhole
- Proposed Storm Drain Manhole
- Existing Telephone Manhole
- Proposed Telephone Manhole
- Existing Electric Manhole
- Proposed Electric Manhole
- Existing Catch Basin
- Proposed Catch Basin
- Existing Light Pole
- Proposed Light Pole
- Existing Utility Pole
- Guy Wire
- Proposed Utility Pole
- Iron Pin
- Existing Fire Hydrant
- Proposed Fire Hydrant
- Existing Drop Inlet
- Proposed Drop Inlet

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 050386 ALEXANDRA R. McINTYRE
Signed by: Alexandra McIntyre
8/12/2022

KHA PROJECT	015484020
DATE	01/20/2022
SCALE	AS SHOWN
DESIGNED BY	ARM
DRAWN BY	EAC
CHECKED BY	BJT

GENERAL NOTES

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-1.1

Plotted By:McIntyre, Alexandra Street Set:North Ames Street Sidewalk Improvements Layout:C-1.1 GENERAL NOTES November 19, 2021 12:23:38pm K:\CHL_PRJ\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CADD\PlanSheets\C1T-GENERAL NOTES.dwg
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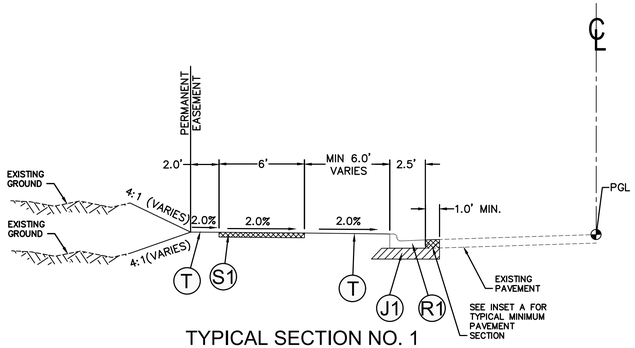
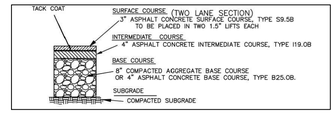


TYPICAL SECTION NO. 1

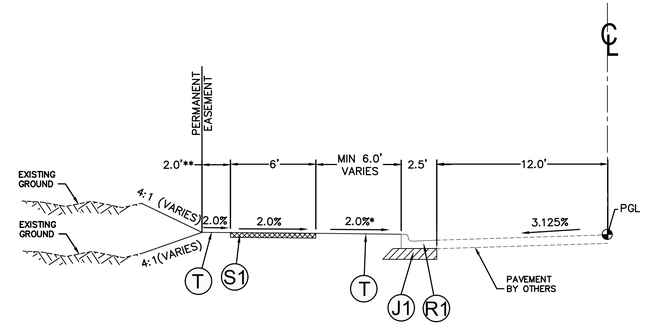
NOT TO SCALE

BEGIN STATION	END STATION	ALIGNMENT
0+02.77	0+20.04	-L1-



INSET A
TYPICAL MINIMUM PAVEMENT SECTION

NOT TO SCALE



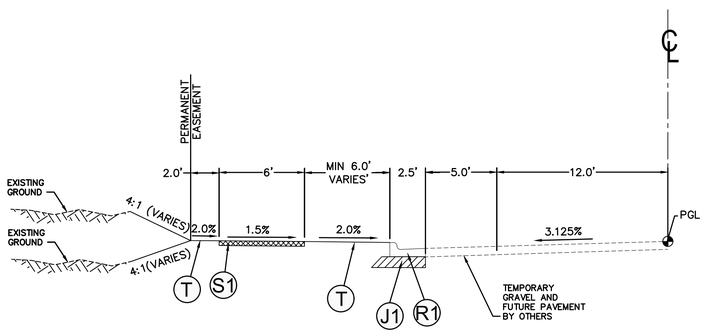
TYPICAL SECTION NO. 2

NOT TO SCALE

BEGIN STATION	END STATION	ALIGNMENT
0+27.46	0+47.87	-L1-
1+52.01	1+63.47	-L1-
1+97.61	2+10.21	-L1-
2+76.79	2+85.22	-L1-
3+22.72	4+48.56	-L1-

*PLANTING STRIP CROSS SLOPE VARIES FROM 0.1% TO 10% FROM STA. 1+44.3 TO 1+73.2, STA 1+87.5 TO 2+19.5, AND STA 2+77.1 TO 4+48.56

**SHOULDER TRANSITIONS FROM 2.0' TO 1.0' BETWEEN STA. 4+20.10 AND 4+25.58. SHOULDER REMAINS 1.0' FROM STA. 4+25.58 TO 4+48.56



TYPICAL SECTION NO. 3

NOT TO SCALE

BEGIN STATION	END STATION	ALIGNMENT
0+47.87	1+52.01	-L1-
2+10.21	2+76.79	-L1-

PAVEMENT SCHEDULE

J1	8" AGGREGATE BASE COURSE
R1	2'-6" STANDARD CONCRETE CURB AND GUTTER PER NCDOT STD. DWG. NO. 846.01
S1	PROPOSED 4" CONCRETE 2.00% MAX CROSS SLOPE
T	EARTH MATERIAL

NOTES:
1. SEE CROSS SECTIONS FOR VARYING CROSS SLOPES.
2. SLOPE SIDEWALK AND SHOULDERS PER PLANS.

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NORTH CAROLINA PROFESSIONAL SEAL 050360 ENGINEER ALEXANDRA R. McINTYRE
Signed by: Alexandra McIntyre
DocuSigned by:
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TYPICAL SECTIONS

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SHEET NUMBER
C-2.0

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:TS-1 December 07, 2021 07:36:02am K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CADD\PlanStreets\C-20-TYPICAL SECTIONS.dwg
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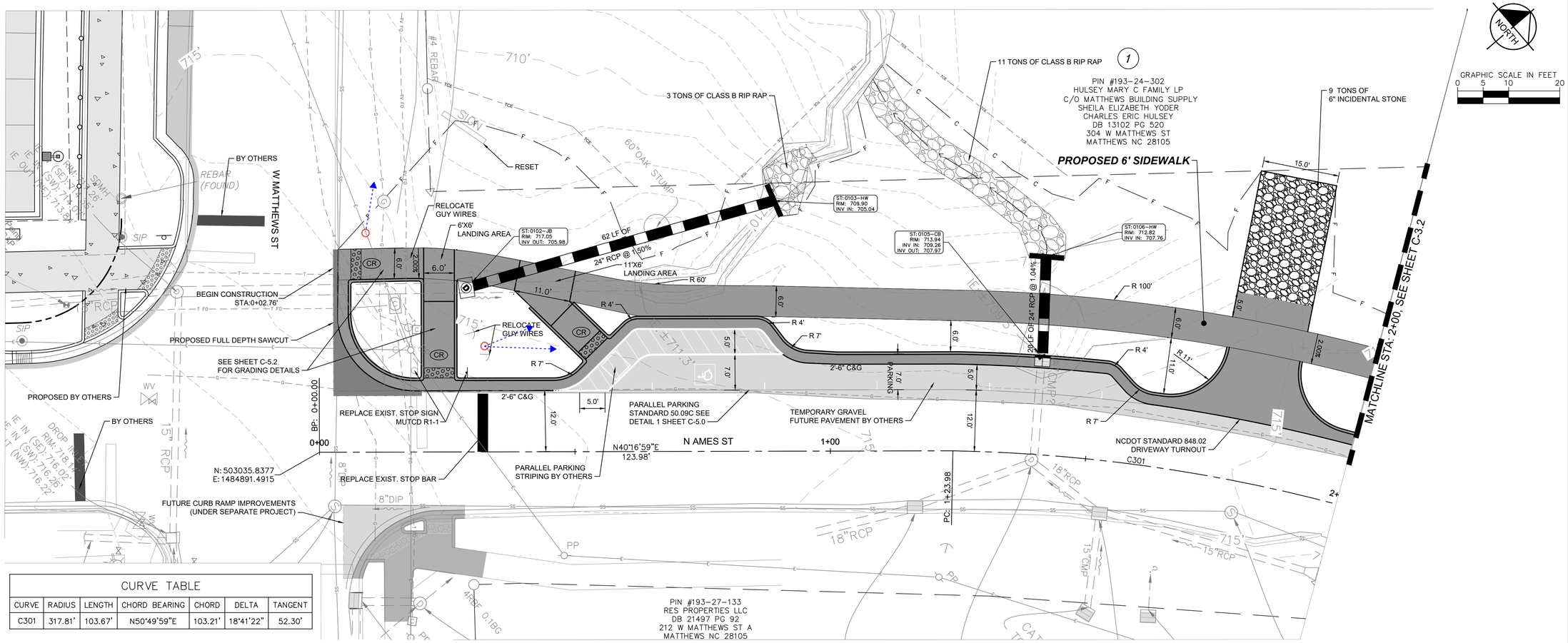
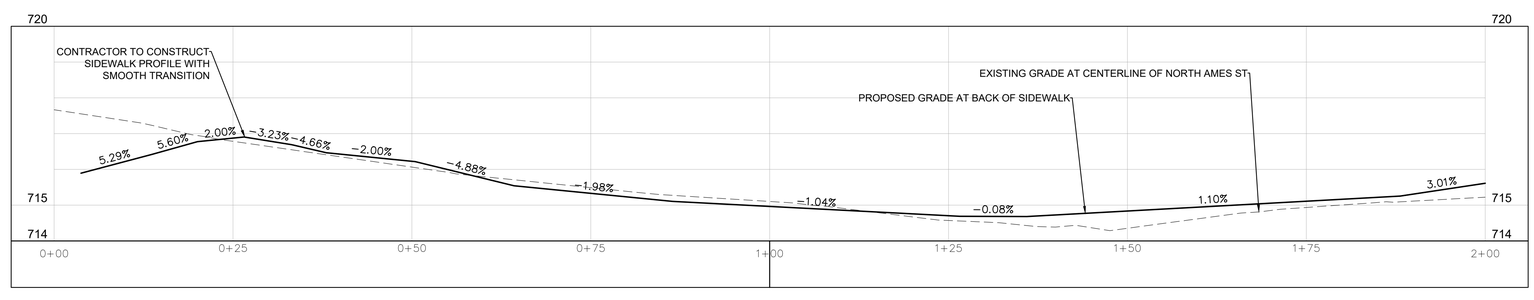


CURVE TABLE						
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA	TANGENT
C301	317.81'	103.67'	N50°49'59"E	103.21'	18°41'22"	52.30'



Hor. Scale:1"=10'
Vert. Scale: 1"=2'

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WWW.KIMLEY-HORN.COM

NORTH CAROLINA PROFESSIONAL SEAL 050360 ENGINEER ALEXANDRA R. McINTYRE
Signature
8/12/2022

KHA PROJECT	015484020
DATE	01/20/2022
SCALE	AS SHOWN
DESIGNED BY	ARM
DRAWN BY	EAC
CHECKED BY	BJT

PLAN AND PROFILE

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-3.1

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:C-3.1 PLAN AND PROFILE January 20, 2022 06:09:04pm K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CADD\PlanSheets\C3D-PLAN AND PROFILE.dwg
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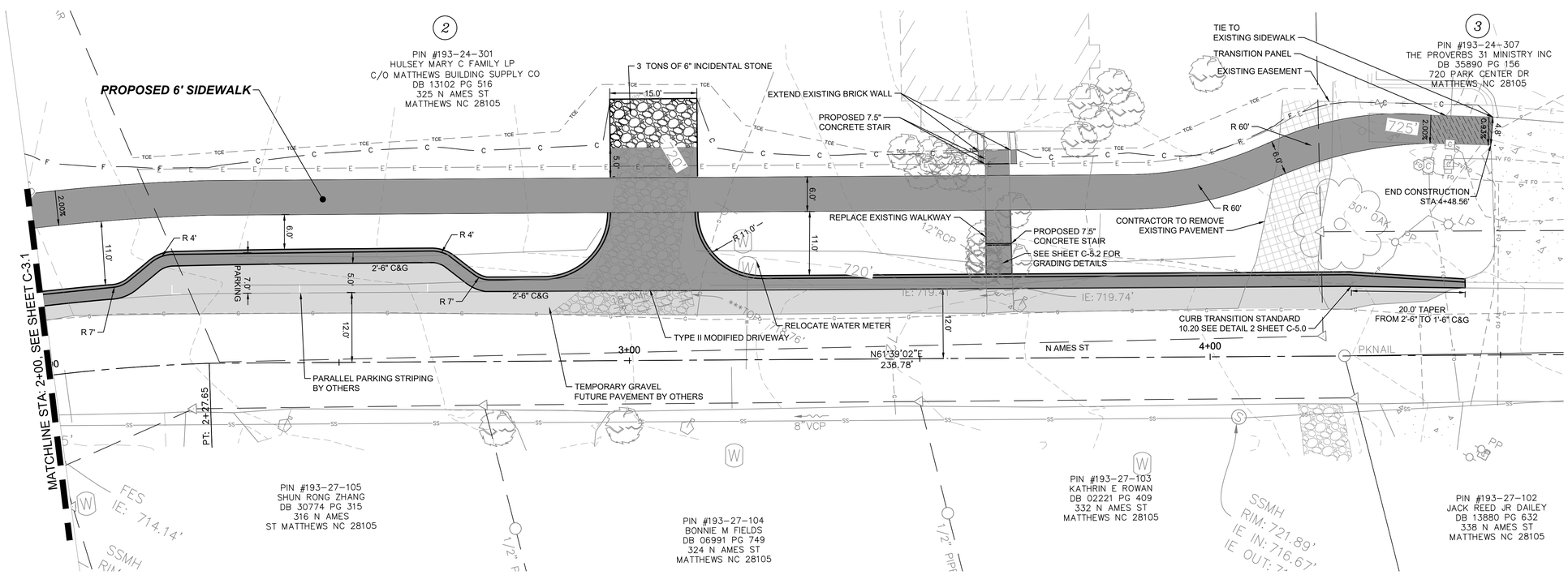

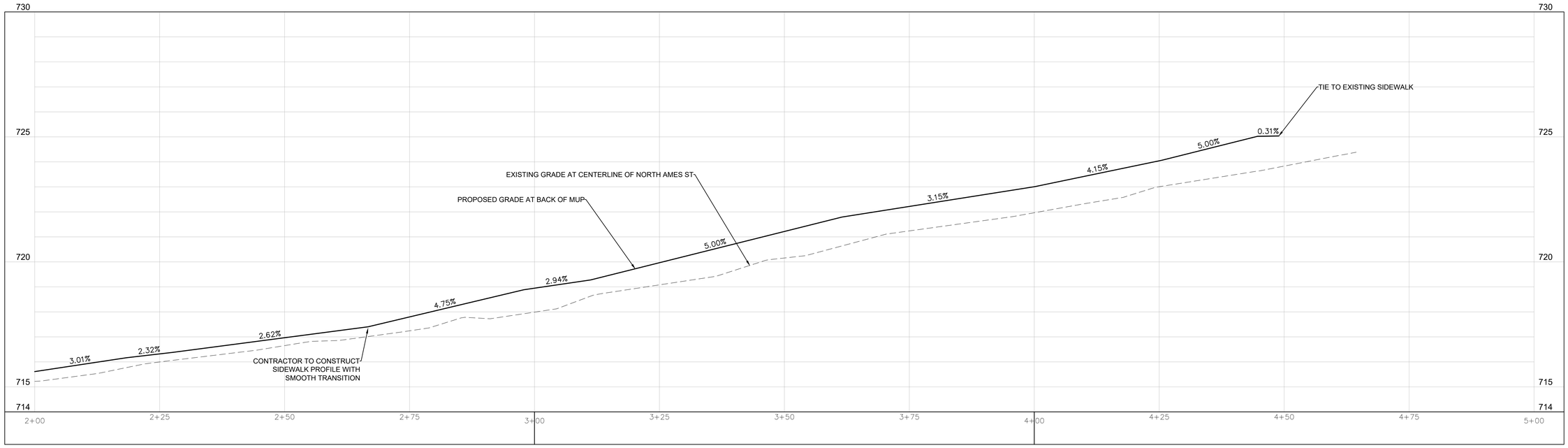

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Signature: Alexandra McIntyre
8/12/2022

KHA PROJECT	015484020
DATE	01/20/2022
SCALE	AS SHOWN
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PLAN AND PROFILE

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-3.2

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:C-3.2 PLAN AND PROFILE December 24, 2021 07:45:08am K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CADD\PlanSheets\C30-PLAN AND PROFILE.dwg
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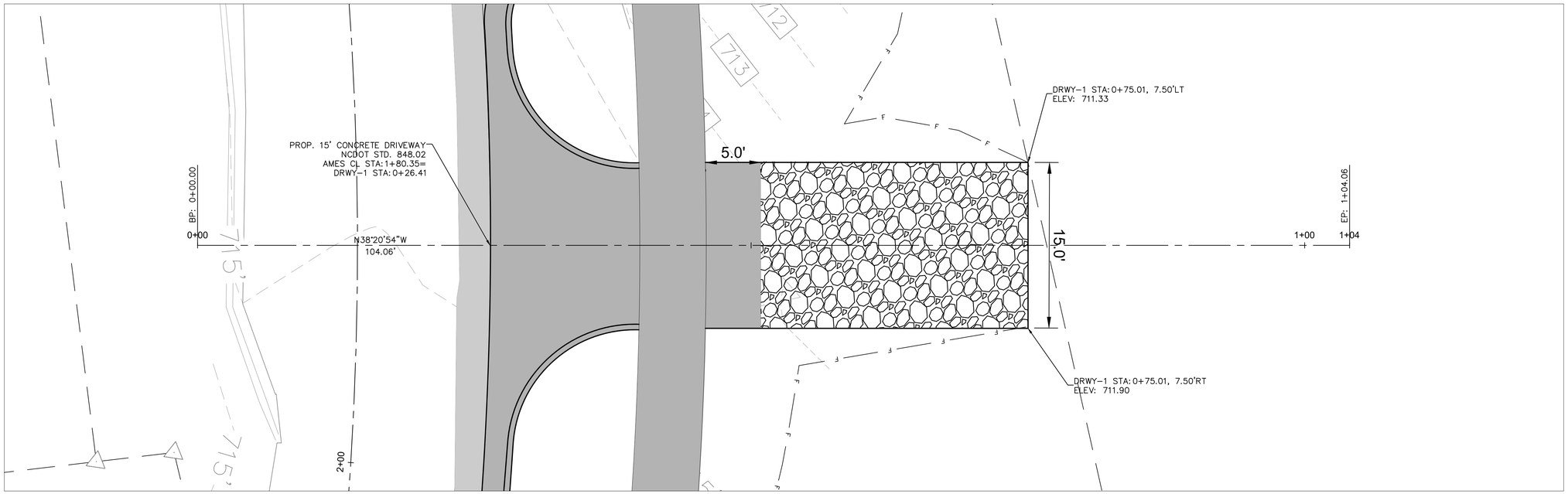

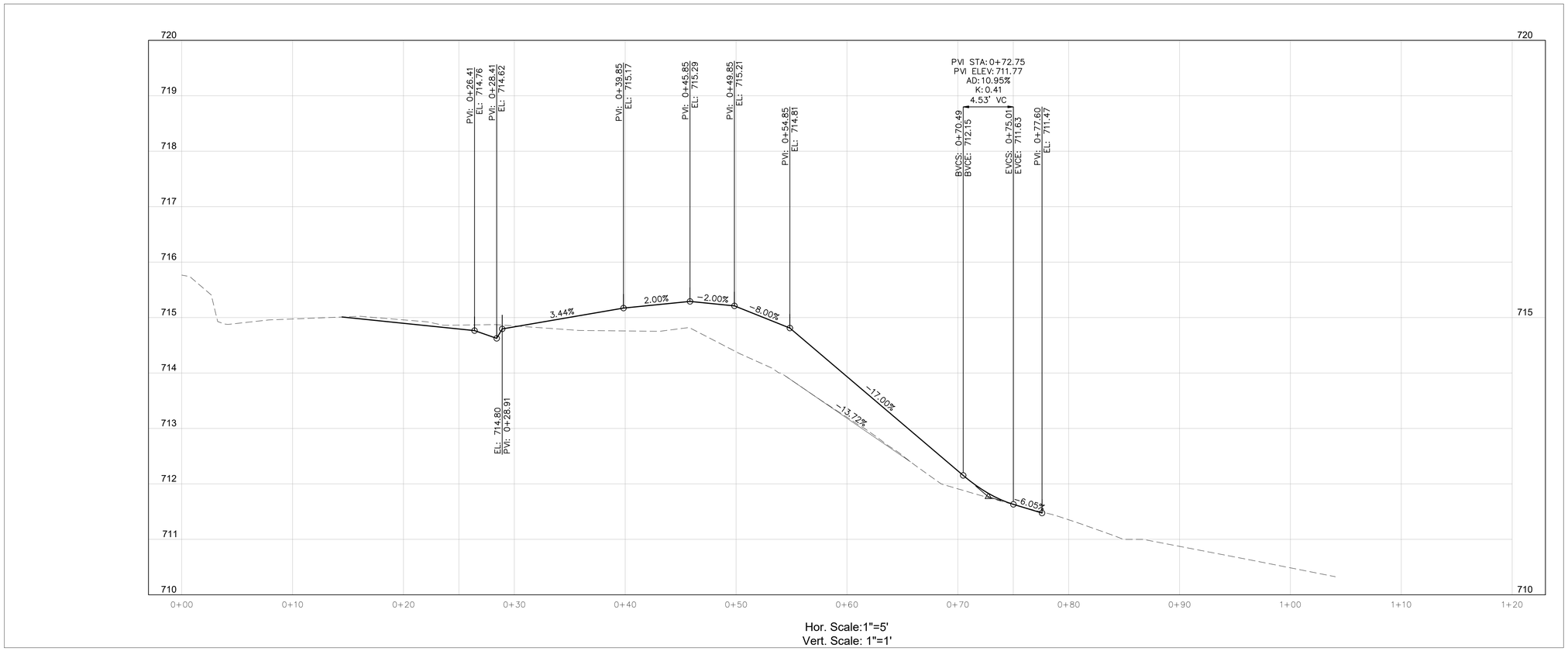

Hor. Scale:1"=5'
Vert. Scale: 1"=1'

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Signature: Alexandra McIntyre
8/12/2022

KHA PROJECT	015484020
DATE	01/20/2022
SCALE	AS SHOWN
DESIGNED BY	ARM
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DRIVEWAY PROFILES

NORTH AMES STREET SIDEWALK IMPROVEMENTS

PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-4.0

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:DS-1 November 22, 2021 04:58:38pm K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CADD\PlanSheets\C4D-DRIVEWAY SECTIONS.dwg
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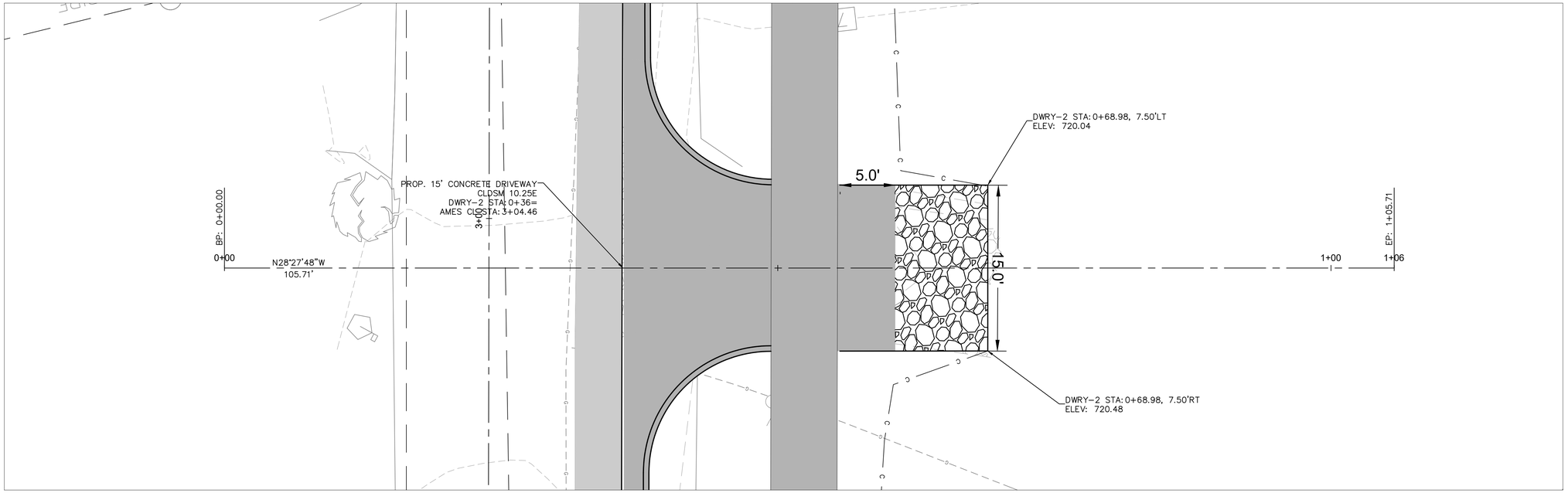

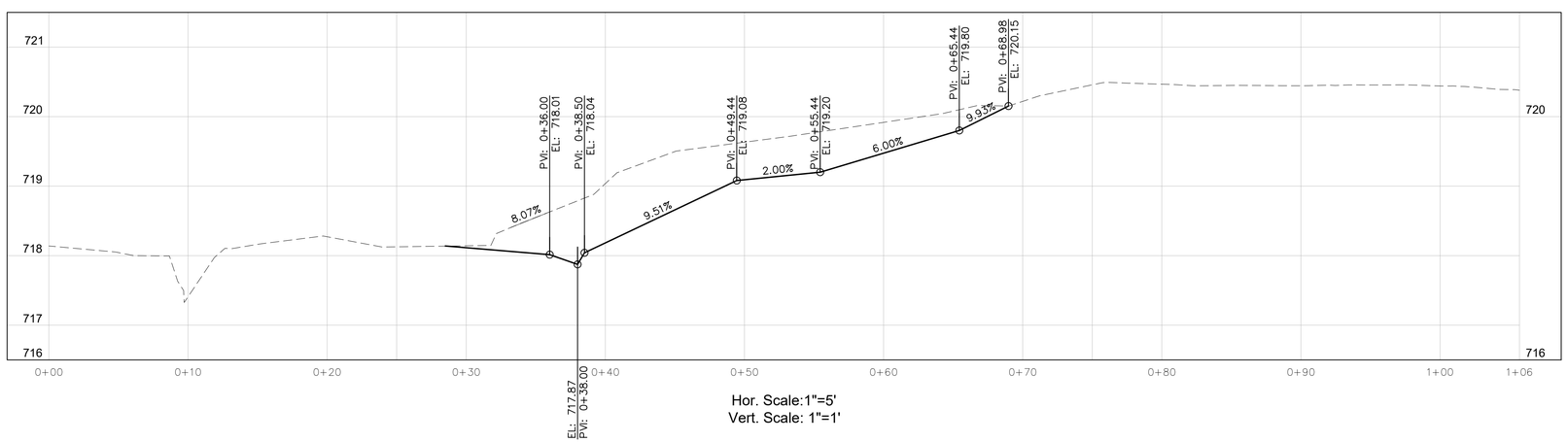

Hor. Scale:1"=5'
Vert. Scale: 1"=1'

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NORTH CAROLINA PROFESSIONAL SEAL 050360 ENGINEER ALEXANDRA R. McINTYRE
Signed by: Alexandra McIntyre
Licensed to Practice in NC
8/12/2022

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

DRIVEWAY PROFILES

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-4.1

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:DS-2 January 20, 2022 08:09:19am K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CADD\PlanSheets\C40-DRIVEWAY SECTIONS.dwg
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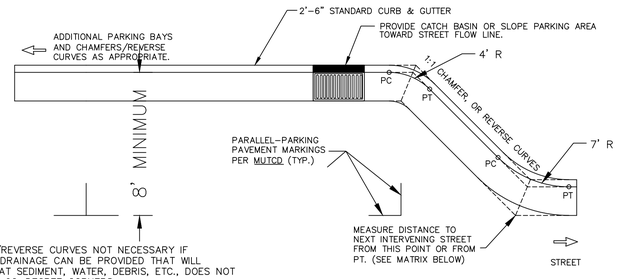


NOTES:

1. CHAMFERS/REVERSE CURVES NOT NECESSARY IF ADEQUATE DRAINAGE CAN BE PROVIDED THAT WILL ENSURE THAT SEDIMENT, WATER, DEBRIS, ETC., DOES NOT COLLECT IN 90-DEGREE CORNERS.
2. PARALLEL ACCESSIBLE SPACES AND LOADING ZONES TO BE REVIEWED ON A CASE-BY-CASE BASIS.
3. FOR PARKING BAYS THAT ARE 8 FEET IN WIDTH OR GREATER, THE PAVEMENT MARKINGS SHALL BE SET AT ONE (1) FOOT LESS THAN THE STALL WIDTH.
4. GREATER SEPARATION FROM INTERVENING STREETS THAN THE DISTANCES PROVIDED IN THE MATRIX MAY BE REQUIRED AT TOWN OR COUNTY'S DISCRETION.
5. POSITIVE DRAINAGE SHALL BE PROVIDED EITHER BY INSTALLATION OF APPROPRIATE DRAINAGE STRUCTURES OR SLOPE PARKING AREA TO STREET FLOW LINE.

MINIMUM DISTANCE TO NEXT INTERVENING STREET

PARALLEL PARKING BAY LOCATED ON	DRIVEWAY	LOCAL/COLLECTOR	TH'FARE
LOCAL/COLLECTOR	20'	20'	20'
THOROUGHFARE	20'	20'	50'

APPROVED DATE: 02/2007

NOT TO SCALE

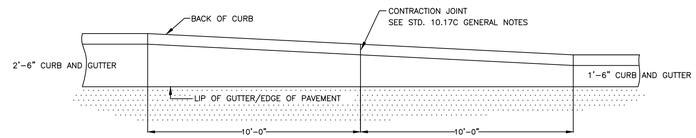
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

PARALLEL PARKING STANDARDS

STD. NO. 50.09C REV.

1 / C-5.0 PARALLEL PARKING STANDARDS

SCALE: NTS



PLAN VIEW

NOTES:

1. TRANSITION TO BE ALONG BACK OF CURB.

APPROVED DATE: 02/2007

NOT TO SCALE

MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

CURB TRANSITION

2'-6" CURB AND GUTTER TO 1'-6" CURB AND GUTTER

STD. NO. 10.20 REV.

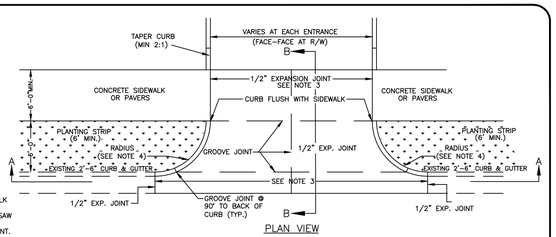
2 / C-5.0 CURB TRANSITION

SCALE: NTS

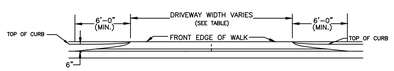
DRIVEWAY DIMENSIONS		
OPERATION/RADIUS	MINIMUM	MAXIMUM
ONE-WAY WITH 6-12 FT. RADII	20'	30'
ONE-WAY WITH 13+ FT. RADII	15'	25'
TWO-WAY WITH 6-12 FT. RADII	26'	50'
TWO-WAY WITH 13+ FT. RADII	22'	40'

NOTES:

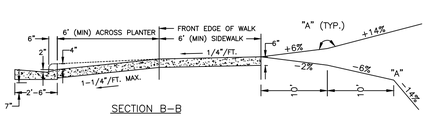
1. ALL CONCRETE TO BE 3600 P.S.I.
2. ALL CURB OR CURB AND GUTTER AND SIDEWALK ARE TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT. SEE STD. NO. 10.17 FOR JOINT DETAIL.
3. ALL DRIVEWAYS MUST MEET THE CURRENT TOWN DRIVEWAY REGULATIONS AND NCDOT REQUIREMENTS FOR SPACING, SIGHT DISTANCE AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
4. RADII MUST BE MINIMUM 6 FEET OR THE WIDTH OF THE PLANTING STRIP, WHICHEVER IS GREATER. RADII GREATER THAN THESE MINIMUMS MAY BE REQUIRED ON A CASE-BY-CASE BASIS. FOR RADII GREATER THAN 6 FEET, THE RADII ARE TO CONTINUE AS A BAND AT-GRADE THROUGH THE SIDEWALK.
5. PAVERS USED IN DRIVEWAY MUST HAVE A THICKNESS OF 3 INCHES.
6. "A" BREAKOVER SHALL BE 8% OR LESS (A = ALGEBRAIC DIFFERENCE).
7. PRIOR APPROVAL IS REQUIRED ON GRADES EXCEEDING WHAT ARE SHOWN.



PLAN VIEW



SECTION A-A (ALONG FLOW LINE)



SECTION B-B

NOT TO SCALE

APPROVED DATE: 02/2007

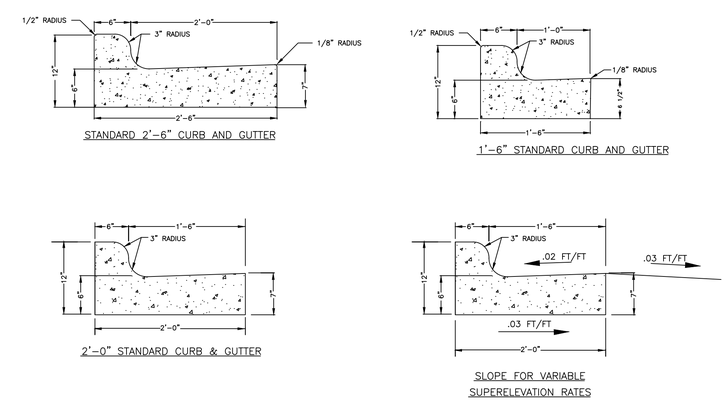
MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

TYPE II-MODIFIED DRIVEWAY DETAIL WITH WIDE PLANTING STRIP AND STANDARD CURB

STD. NO. 10.25E REV.

3 / C-5.0 TYPE II-MODIFIED DRIVEWAY

SCALE: NTS



APPROVED DATE: 02/2007

NOT TO SCALE

MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

STANDARD CURB AND GUTTER

STD. NO. 10.17A REV.

4 / C-5.0 STANDARD CURB AND GUTTER

SCALE: NTS

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NORTH CAROLINA PROFESSIONAL SEAL 050360 ENGINEER ALEXANDRA R. McINTYRE
Signature: Alexandra McIntyre
8/12/2022

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

DETAILS

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-5.0

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:C-5.0 November 19, 2021 12:25:40pm K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CAD\PlanSheets\C50-DETAILS.dwg
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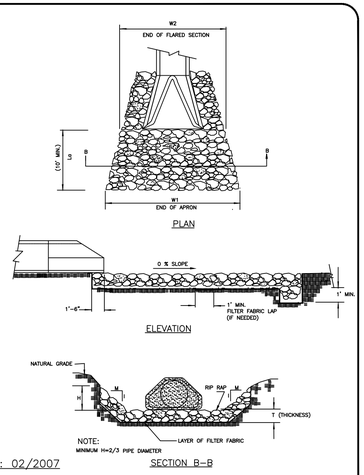
NOTES:

1. CLASS OR MEDIAN SIZE OF RIPRAP AND LENGTH, WIDTH AND DEPTH OF APRON TO BE DESIGNED BY THE ENGINEER.
2. REFER TO THE CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR RIPRAP APRON DESIGN STANDARDS.
3. RIPRAP SHOULD EXTEND UP BOTH SIDES OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
4. THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIPRAPPED SHALL BE UNDERCUT SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR TOE WALL AT THE DOWNSTREAM END.
5. THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL. MAXIMUM TAPER TO RECEIVING CHANNEL 5:1.
6. ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
7. THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
8. NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.
9. FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIP RAP.
10. ANY DISTURBED AREA FROM END OF APRON TO RECIEVING CHANNEL MUST BE STABILIZED.

USE USDA NOMOGRAPH FROM NC SEDIMENT AND EROSION CONTROL MANUAL OR CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR DESIGN DATA.

RIP RAP SUMMARY CHART

OUTLET	La	W1	W2	T*	H
HW-0106	50'	6'	6'	1'	1'
HW-0103	12'	6'	6'	1'	1'



NOTE:
MINIMUM H=2/3 PIPE DIAMETER

* d50 (see fig 8.06 a&b "NC SEDIMENT AND EROSION CONTROL MANUAL"
dmax = 1.5 x d50
T = 1.5 X dmax.

APPROVED DATE: 02/2007

MECKLENBURG COUNTY LAND DEVELOPMENT STANDARDS

RIP RAP APRON AT PIPE OUTFALLS OTHER THAN AT SWIM

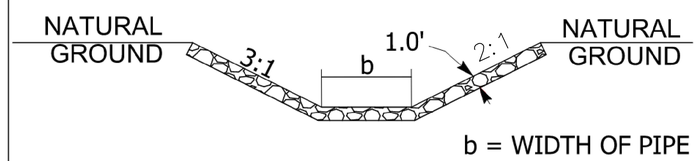
STD. NO. 20.23 REV.

1 / C-5.1 DITCH DETAILS
SCALE: NTS

DETAIL 1

DITCH AT PIPE OUTLET

(Not to Scale)



Type of Liner= Well-graded mix of Class A, B, I and II Rip-Rap w/ Geotextile Fabric

DITCH STATION	RIP RAP (TONS) [CLASS B]
STA 0+89.6 LT	3
STA 1+39.6 LT	11

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8/12/2022

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

DETAILS

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-5.1

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:C-5.0 (2) November 19, 2021 12:25:41pm K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk\04-CADD\PlanSheets\C50-DETAILS.dwg
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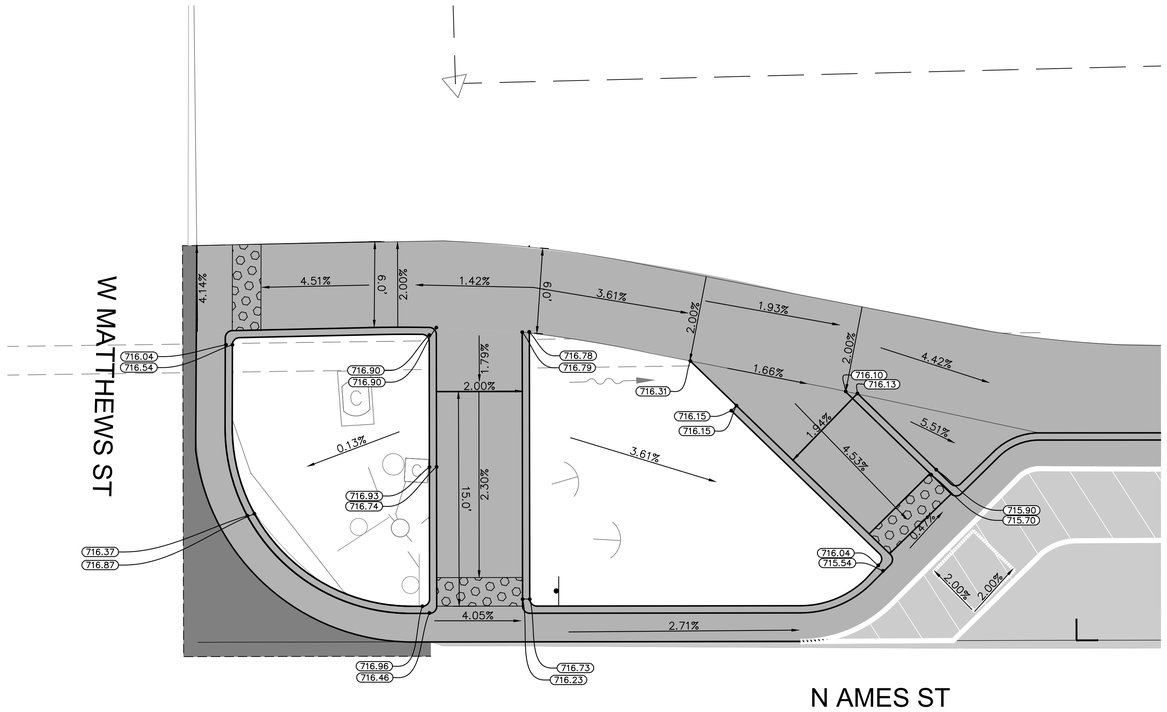

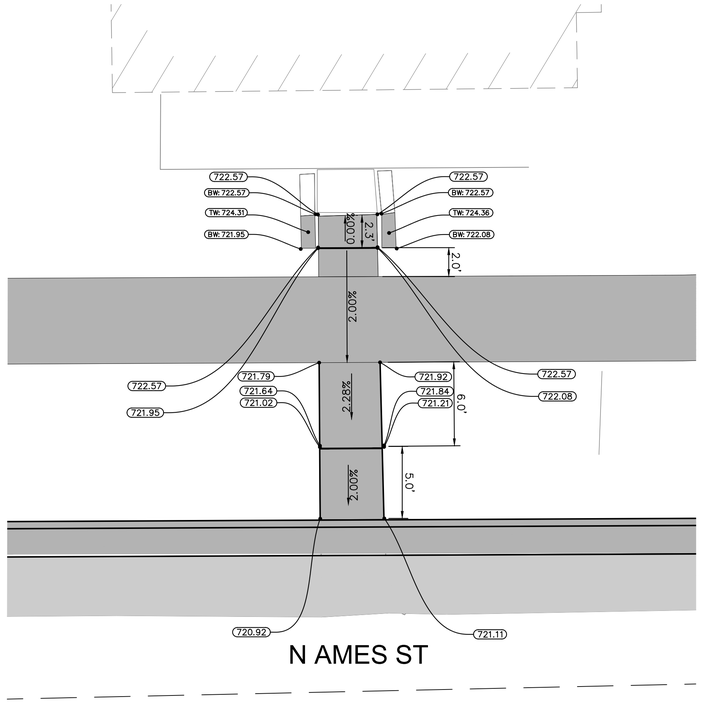

1
C-5.2
GRADING DETAILS
SCALE: 1"=5'

NORTH

GRAPHIC SCALE IN FEET
0 2.5 5 10

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KHA PROJECT	015484020
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GRADING DETAILS

NORTH AMES STREET
SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
C-5.2

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EROSION CONTROL

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT CONSTRUCTION UNTIL THE FINAL INSPECTION ALL EROSION CONTROL MEASURES SHOWN WITHIN THESE PLANS IN ACCORDANCE WITH APPLICABLE NCDEMLR EROSION AND SEDIMENT CONTROL REGULATIONS.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS, U.S. DEPARTMENT OF AGRICULTURE, AND U.S. SOIL CONSERVATION SERVICE REGULATIONS.
3. ALL CONSTRUCTION WORK SHALL BE IN COMPLIANCE WITH REGULATIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER GENERAL PERMIT.
4. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES TO MINIMIZE EROSION. THE CONTRACTOR SHALL MAINTAIN CLOSE CONTACT WITH THE NCDEMLR EROSION CONTROL INSPECTOR SO THAT PERIODIC INSPECTIONS CAN BE PERFORMED AT APPROPRIATE STAGES OF CONSTRUCTION.
5. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS. CONTACT PROJECT ENGINEER AND PROJECT EROSION CONTROL INSPECTOR TO ENSURE ADDITIONAL EROSION CONTROL MEASURES ARE INSTALLED PRIOR TO OFF-SITE GRADING.
6. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL DISTURBED AREAS WHICH ARE NOT OTHERWISE STABILIZED SHALL BE TOP SOILED AND SEEDED, TEMPORARILY OR PERMANENTLY IN ACCORDANCE WITH THE NORTH CAROLINA SEDIMENT CONTROL REGULATIONS. PERMANENT SEEDING AND GRASS ESTABLISHMENT IS REQUIRED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE.
7. CONTRACTOR SHALL PROVIDE GROUND COVER ON EXPOSED SLOPES WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF ANY PHASE OF GRADING. PERMANENT GROUND COVER FOR ALL DISTURBED AREAS SHALL BE PROVIDED WITHIN 14 CALENDAR DAYS FOLLOWING COMPLETION OF CONSTRUCTION.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 14 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
9. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
10. WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.
11. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
12. STABILIZATION OF DISTURBED AREAS SHALL PROGRESS WITH PIPE INSTALLATION. AT NO TIME SHALL PIPE INSTALLATION PROGRESS MORE THAN 500 FEET AHEAD OF FINE GRADING, SEEDING, AND MULCHING OPERATIONS.
13. THE CONTRACTOR SHALL MAINTAIN STORM DRAINAGE DURING PIPE INSTALLATION.
14. DISTURBED AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE GRADED DAILY TO PREVENT PONDING OF STORM WATER RUNOFF AND UNNECESSARY SOIL EROSION.
15. THE ROADWAY CUT SHALL BE BACKFILLED AND STABILIZED AT THE END OF EACH WORK DAY WITH STONE MATERIAL, AND GRADED TO MATCH NORMAL GUTTER LINE ELEVATIONS AND SLOPES SO THAT NORMAL DRAINAGE WILL BE PROVIDED.
16. SECURE EXISTING SANITARY SEWER DURING TRENCHING AND BACKFILLING OPERATION.
17. THE CONTRACTOR SHALL NOTIFY CHARLOTTE-MECKLENBURG UTILITY DEPARTMENT AND PIEDMONT NATURAL GAS COMPANY, INC. PRIOR TO EXCAVATING AT OR NEAR SEWER MAINS, WATER MAINS, AND GAS MAINS.
18. WHEN EXISTING FENCES ARE MOVED DURING CONSTRUCTION, THE CONTRACTOR SHALL SECURE PETS WITH TEMPORARY FENCING UNTIL PERMANENT FENCING IS RESET.
19. THE CONTRACTOR IS TO MAINTAIN CONTINUOUS SANITARY SEWER FLOW AT ALL EXISTING SANITARY SEWERS.
20. THE CONTRACTOR IS TO MAINTAIN CONTINUOUS WATER SERVICE TO ALL RESIDENCES.
21. ANY STOCKPILING OF SOIL ON PAVED SURFACE SHALL HAVE SAND AND OR ROCK SCREENING UNDERNEATH AREA.
22. CONTRACTOR IS RESPONSIBLE FOR AMENDMENTS TO PLAN FOR ADDITIONAL AREAS FOR STAGING PURPOSE. SUCH AREAS WILL BE STABILIZED.
23. PERMANENT VEGETATION SHALL BE INSTALLED IN CONJUNCTION WITH TEMPORARY SEEDING IF CONSTRUCTION OCCURS DURING THE SPECIFIED SEASON IN THE VEGETATION PLANS AND SPECIFICATIONS. IF NOT, PERMANENT VEGETATION SHALL BE PLANTED DURING THE SPECIFIED SEASON.
24. CONTRACTOR IS TO USE NO. 57 STONE WHERE STONE IS REFERENCED FOR ALL SEDIMENTATION AND EROSION CONTROL DETAILS.
25. ADDITIONAL EROSION CONTROL MEASURES AND CONSTRUCTION ENTRANCES/EXITS MAY BE REQUIRED BASED ON FIELD CONDITIONS.

GROUND STABILIZATION

1) SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:

i) ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

ii) ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.

2) CONDITIONS – IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:

i) EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.

ii) ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY GROUNDCOVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1, THE 7 DAY-REQUIREMENT APPLIES.

iii) ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.

iv) SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.

v) ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.

vi) FOR PORTIONS OF PROJECTS WITHIN THE SEDIMENT CONTROL COMMISSION-DEFINED "HIGH QUALITY WATER ZONE" (15A NCAC 04A. 0105) , STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACT.

vii) PORTIONS OF A SITE THAT ARE LOWER IN ELEVATION THAN ADJACENT DISCHARGE LOCATIONS AND ARE NOT EXPECTED TO DISCHARGE DURING CONSTRUCTION MAY BE EXEMPT FROM THE TEMPORARY GROUND COVER REQUIREMENTS IF IDENTIFIED ON THE APPROVED E&SC PLAN OR ADDED BY THE PERMITTING AUTHORITY.

SEDIMENT AND EROSION CONTROL PROCEDURES

1. PRIOR TO CLEARING AND EARTHWORK ACTIVITIES, THE COUNTY/CONSULTANT SHALL OBTAIN AN APPROVED GRADING PERMIT FROM THE NCDEMLR INSPECTOR AND THEN INSTALL ALL EROSION CONTROL DEVICES SPECIFIED AND AS INDICATED ON THE DRAWINGS. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, RELOCATE, AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND SEDIMENT DISCHARGE FROM THE SITE.
2. SILT FENCE AND TREE PROTECTION FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES, AS APPLICABLE.
3. SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED.
4. THE CONTRACTOR SHALL IMMEDIATELY CLEAN UP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND REINSTALL ADEQUATE CONTROL MEASURES AS NECESSARY TO PREVENT REOCCURRENCE OF DAMAGE.
5. ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24 HOUR PERIOD. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
6. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED.

MAINTENANCE PLAN

1. ALL EROSION AND SEDIMENTATION CONTROL DEVICES WILL BE CHECKED BY THE CONTRACTOR FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED WHEN AND AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL. SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RESEEDED AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.

2. MAINTAIN EROSION CONTROL DEVICES AS FOLLOW:

- TEMPORARY SILT FENCE– REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. AVOID UNDERMINING THE FENCE.
- TEMPORARY CHECK DAM– REMOVE SEDIMENT ACCUMULATION BEHIND THE DAMS AS NEEDED TO PREVENT DAMAGE TO CHANNEL VEGETATION. ADD STONE TO DAMS AS NEEDED TO MAINTAIN DESIGN HEIGHT AND CROSS SECTION.
- STORM DRAIN INLET PROTECTION– REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAINFALL.
- TEMPORARY DIVERSION DITCH– INSPECT TEMPORARY DIVERSIONS ONCE A WEEK AND AFTER EVERY RAINFALL. IMMEDIATELY REMOVE SEDIMENT FROM THE FLOW AREA AND REPAIR THE DIVERSION RIDGE. CAREFULLY CHECK OUTLETS AND MAKE TIMELY REPAIRS AS NEEDED. WHEN THE AREA PROTECTED IS PERMANENTLY STABILIZED, REMOVE THE RIDGE AND THE CHANNEL TO BLEND WITH THE NATURAL GROUND.

3. ALL GRADED AREAS WILL BE SEEDED, FERTILIZED AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE, VEGETATIVE COVER WITHIN FOURTEEN (14) DAYS OF COMPLETION OF ANY PHASE OF GRADING. IF WORK ON THE PROJECT CEASES FOR MORE THAN THE AFOREMENTIONED LENGTH OF TIME, ALL DISTURBED AREAS SHALL HAVE TEMPORARY VEGETATIVE GROUND COVER ESTABLISHED AND EROSION CONTROL DEVICES MAINTAINED.

SEEDING SCHEDULE AND SEEDBED PREPARATION

SEEDBED PREPARATION

1. GRADED SLOPES AND FILL – THE ANGLE FOR GRADED SLOPES AND FILLS SHALL BE NO GREATER THAN THE ANGLE WHICH CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED SHALL, WITHIN 14 WORKING DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.
2. GROUND COVER – WHENEVER LAND DISTURBING ACTIVITY IS UNDERTAKEN ON A TRACT COMPRISING MORE THAN ONE ACRE, IF MORE THAN ONE CONTIGUOUS ACRE IS UNCOVERED, A GROUND COVER SUFFICIENT TO RESTRAIN EROSION MUST BE PLANTED OR OTHERWISE PROVIDED WITHIN 14 WORKING DAYS ON THAT PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN.
3. SURFACE WATER CONTROL MEASURES TO BE INSTALLED ACCORDING TO THE PLANS.
4. AREAS TO BE SEEDED SHALL BE RIPPED AND SPREAD WITH AVAILABLE TOPSOIL 3" DEEP. TOTAL SEEDBED PREPARED DEPTH SHALL BE 4" TO 8" DEEP.
5. LOOSE ROCKS, ROOTS, AND OTHER OBSTRUCTIONS SHALL BE REMOVED FROM THE SURFACE SO THAT THEY WILL NOT INTERFERE WITH ESTABLISHMENT AND MAINTENANCE OF VEGETATION. SURFACE FOR FINAL SEEDBED PREPARATION, AT FINISH GRADES SHOWN, SHALL BE REASONABLY SMOOTH AND UNIFORM.
6. SOIL TEST MUST BE TAKEN. NO AMENDMENTS SHALL BE MADE THAT ARE NOT IN ACCORDANCE WITH SOIL TESTING RESULTS.
7. LIME AND FERTILIZER SHALL BE APPLIED UNIFORMLY AND MIXED WITH THE SOIL DURING SEEDBED PREPARATION.

STORM DRAINAGE NOTES

1. ALL STORM DRAINAGE PIPE WITHIN PUBLIC ROAD RIGHT-OF-WAYS TO BE CLASS III REINFORCED CONCRETE PIPE PER NCDOT STANDARDS, UNLESS OTHERWISE NOTED.
2. FLARED END SECTION INVERTS ARE SET AT OR SLIGHTLY BELOW EXISTING GRADE. VERIFY ELEVATIONS IN FIELD PRIOR TO CONSTRUCTING PIPE SYSTEMS.
3. A MINIMUM GRADE OF 0.50% SHALL BE MAINTAINED ON ALL PIPES.
4. ALL PIPE AND INLETS MUST BE PROTECTED AT THE CLOSE OF BUSINESS EACH DAY. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.
5. SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE INSPECTOR.
6. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
7. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
8. EFFLUENT FROM DENATURING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
9. MATERIAL USED FOR BACK-FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
10. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL REGULATIONS.
11. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

GRADING

1. 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 THE NORTH CAROLINA ONE-CALL UTILITIES LOCATION SERVICE AT 1-800-632-4949 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.
2. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR AND REPLACEMENT OF ANY CURB & GUTTER, PAVEMENT, LANDSCAPING, ETC. THAT MAY BE DAMAGED DURING CONSTRUCTION. DAMAGED ITEMS SHALL BE REPAIRED TO AT LEAST THE QUALITY OF WORKMANSHIP FOUND IN THE ORIGINAL ITEM.
3. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE.
4. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL DEVICES SHOWN ON THE APPROVED PLANS FOR THE DURATION OF CONSTRUCTION OR UNTIL FINAL INSPECTION AND APPROVAL.
5. IN ORDER TO ENSURE PROPER DRAINAGE, MAINTAIN A MINIMUM 0.50% SLOPE ON THE CURB.
6. ALL MATERIALS USED FOR FILL OR BACK-FILL SHALL BE FREE OF WOOD, ROOTS, ROCKS, BOULDERS OR ANY OTHER NON-COMPACTABLE SOIL TYPE MATERIAL. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS REFUSE DEBRIS DERIVED FROM ANY SOURCE.
7. ALL CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES. REFER TO THE PAVEMENT CROSS-SECTION DETAILS TO ESTABLISH THE CORRECT SUBBASE OR AGGREGATE BASE COURSE ELEVATIONS.
8. ALL CONTOURS ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO GROUND BREAKING.
9. CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
10. THE LIMITS OF CLEARING SHOWN ON THE GRADING AND EROSION CONTROL PLAN IS BASED ON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.
11. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1 WITHOUT A GUARDRAIL OR SAFETY RAIL.
12. COORDINATE ALL CURB AND STREET GRADES AT INTERSECTIONS WITH MECKLENBURG COUNTY INSPECTORS.
13. ALL DEBRIS FROM CLEARING OPERATIONS SHALL BE DISPOSED OF IN A LEGAL MANNER.
14. HAUL ROADS USED DURING CONSTRUCTION SHALL BE OUTSIDE THE STREAM TOP OF BANK TO THE EXTENT POSSIBLE. HAUL ROADS SHALL FOLLOW THE NATURAL CONTOURS OF THE TERRAIN IF POSSIBLE. A 6" COURSE OF #57 STONE SHALL BE SPREAD OVER HAUL ROADS IN AREAS THAT ARE SUBJECT TO WET CONDITIONS. PROVIDE SUBSURFACE DRAINS IN SEEPAGE AREAS OR SEASONALLY WET AREAS.

MISCELLANEOUS NOTES

1. CONTRACTOR TO INSTALL IMPERVIOUS DIKES ALONG THE STREAM AS NEEDED AND UTILIZE SPECIAL STILLING BASINS FOR DEWATERING.
2. PROPOSED CONTOURS SHOWN AS APPROXIMATE ONLY TO ILLUSTRATE GENERAL FLOW PATHS. SEE CROSS SECTIONS FOR ACTUAL ELEVATIONS.
3. DO NOT INSTALL FILTER BAG INLET PROTECTION UNTIL GRADING BEGINS THAT WILL REQUIRE THE PROTECTION.
4. STABILIZE ALL SLOPES 3:1 AND GREATER WITH MULCH AND SEED AS NOTED IN EROSION CONTROL DETAILS. STABILIZE AS SHOWN (UNLESS OTHERWISE NOTES) ON THIS PLAN WITHIN 14 DAYS OF COMPLETION PER EROSION CONTROL NOTES.

ACREAGE SUMMARY

1. PROJECT DISTURBED AREA ±0.54 ACRES

Know what's below. Call before you dig.

No.	REVISIONS	DATE	BY

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200 SOUTH TRYON STREET SUITE 200, CHARLOTTE, NC 28202
PHONE: 704-333-5131
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NORTH CAROLINA PROFESSIONAL SEAL 050360 ENGINEER ALEXANDRA R. McINTYRE
Digitally signed by: Alexandra McIntyre
Licensed to: Kimley-Horn and Associates, Inc.
8/12/2022

KHA PROJECT	015484020
DATE	01/20/2022
SCALE	AS SHOWN
DESIGNED BY	ARM
DRAWN BY	EAC
CHECKED BY	BJT

EROSION CONTROL NOTES

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
EC-01

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:EC-01 November 19, 2021 12:26:23pm K:\CHL_PRJ\015484 Town of Matthews\020 North Ames Street Sidewalk Improvements\CAD\PlanSheets\C70-EROSION CONTROL.dwg
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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Required Ground Stabilization Timeframes

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(e) Areas with slopes flatter than 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

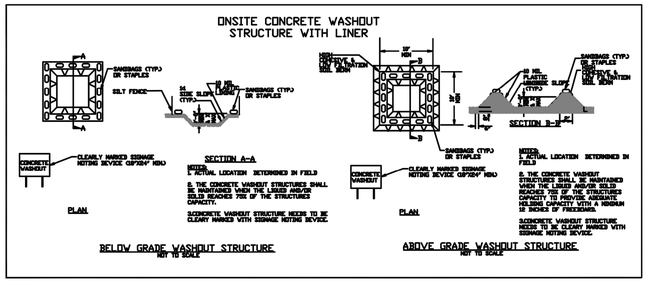
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

811 Know what's below. Call before you dig.

No.	REVISIONS	DATE	BY

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Signature: Alexandra McIntyre
8/12/2022

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

EROSION CONTROL NOTES

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
EC-02

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:EC-02 EROSION CONTROL NOTES November 19, 2021 12:26:25pm K:\CHL_LPR\015484 Town of Matthews\020 North Ames Street Sidewalk\04_CADD\PlanSheets\C70-EROSION CONTROL.dwg
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PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be documented in the manner described:

Item to Document	Documentation Requirements
(a) Each E&SC Measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC Plan.	Initial and date each E&SC Measure on a copy of the approved E&SC Plan or complete, date and sign an inspection report that lists each E&SC Measure shown on the approved E&SC Plan. This documentation is required upon the initial installation of the E&SC Measures or if the E&SC Measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC Plan.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC Measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC Measures.	Initial and date a copy of the approved E&SC Plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation

In addition to the E&SC Plan documents above, the following items shall be kept on the site

and available for agency inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This general permit as well as the certificate of coverage, after it is received.

(b) Records of inspections made during the previous 30 days. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

(c) All data used to complete the Notice of Intent and older inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that must be reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(a) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(b) Anticipated bypasses and unanticipated bypasses.

(c) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Division's Emergency Response personnel at (800) 662-7956, (800) 858-0368 or (919) 733-3300.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible***. The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

Know what's below. Call before you dig.

No.	REVISIONS	DATE	BY

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WWW.KIMLEY-HORN.COM

NORTH CAROLINA PROFESSIONAL SEAL 050360 ENGINEER ALEXANDRA R. McINTYRE
Signature
8/12/2022

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

EROSION CONTROL NOTES

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
EC-03

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:EC-03 EROSION CONTROL NOTES November 19, 2021 12:26:47pm K:\CHL_LPR\015484 Town of Matthews\020 North Ames Street Sidewalk\04_CADD\PlanSheets\C70-EROSION CONTROL.dwg
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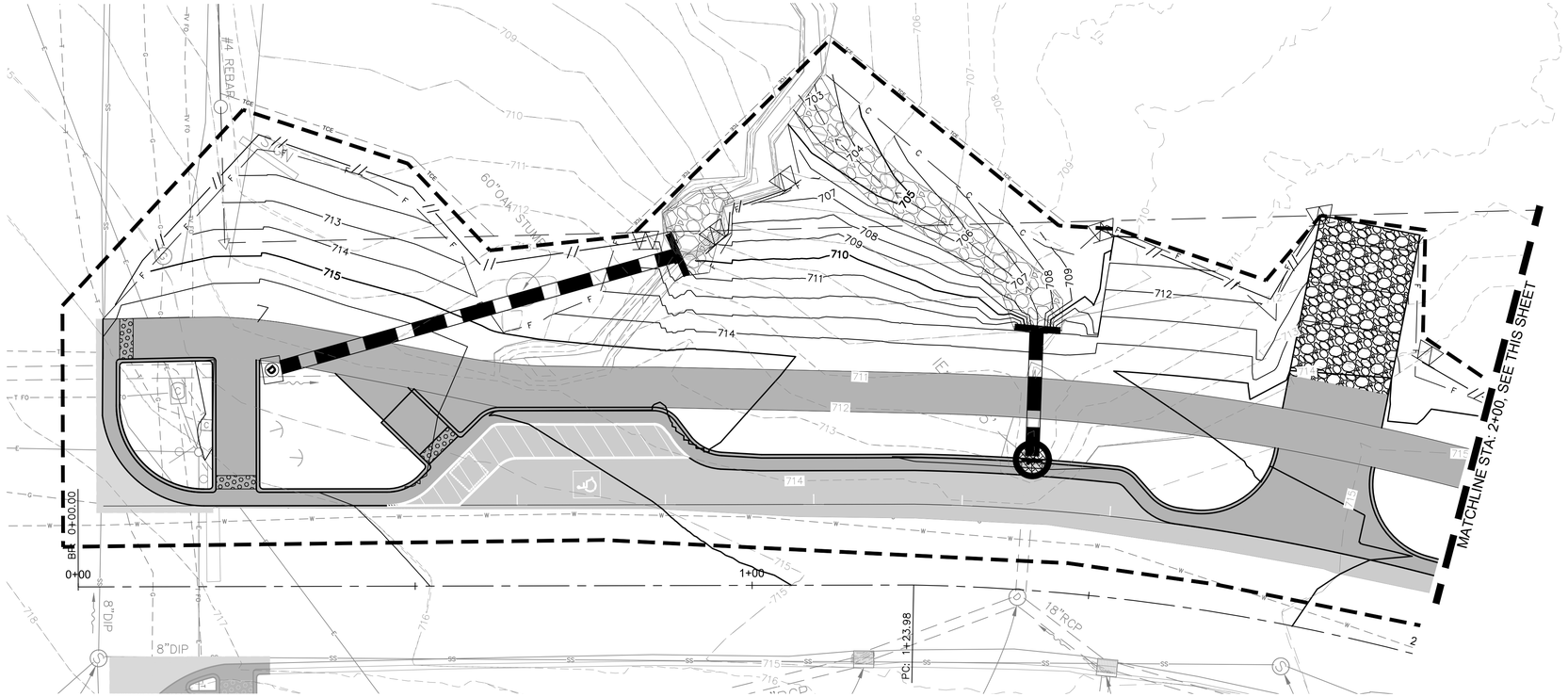
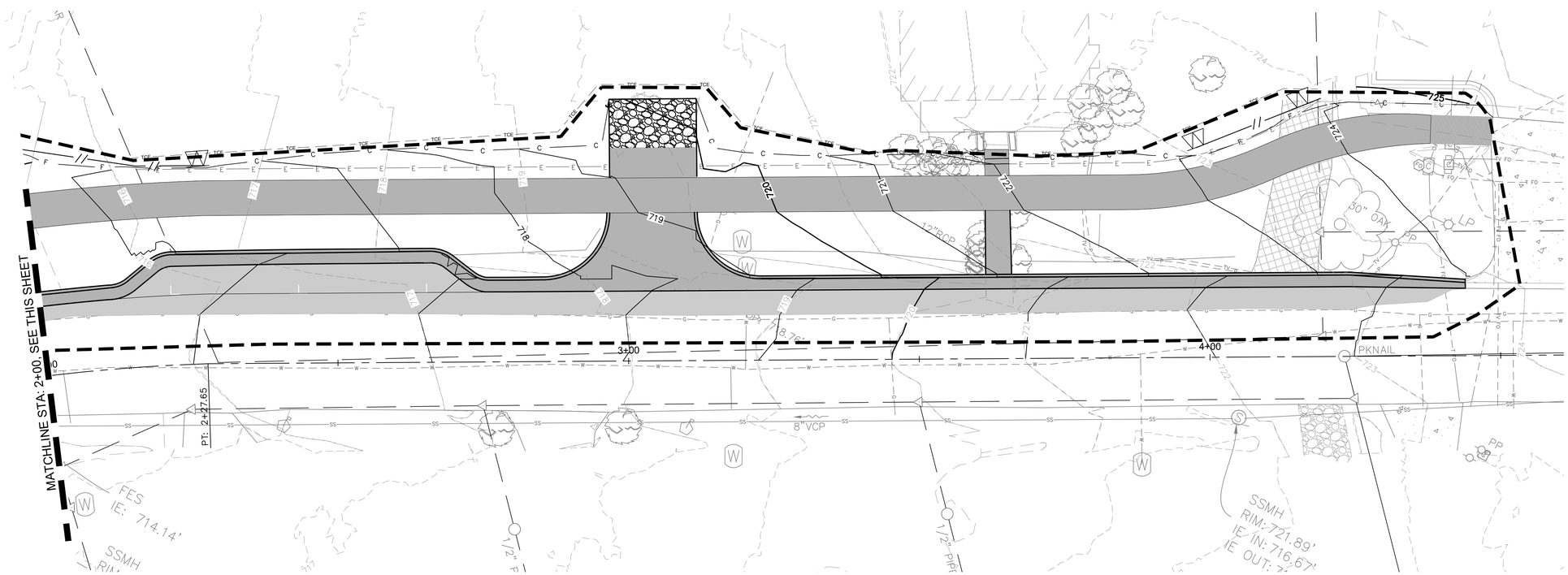
PROPOSED EROSION CONTROL INFO

	TEMPORARY DIVERSION DITCH
	DISTURBED AREA
644	PROPOSED CONTOURS
	EXISTING CONTOURS
	6' CHAIN LINK FENCE WITH GREEN SCREENING
	HIGH HAZARD TEMPORARY SILT FENCE, SEE SPECIAL PROVISIONS FOR SPECIFICATIONS AND DETAILS
	SILT FENCE
	SPECIAL SEDIMENT CONTROL FENCE
	CONSTRUCTION ENTRANCE
	RIP RAP APRON
	ROCK INLET SEDIMENT TRAP, TYPE C
	ROCK PIPE INLET SEDIMENT TRAP, TYPE A AND B
	TEMPORARY ROCK SILT CHECK, TYPE A
	TREE PROTECTION FENCE
	TEMPORARY ROCK SILT CHECK

SEE SHEETS EC-01 THRU EC-03 FOR NOTES AND DETAILS





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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 050360 ALEXANDRA R. McINTYRE
Signature: Alexandra McIntyre
8/12/2022

No.	REVISIONS	DATE	BY

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

EROSION CONTROL

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
EC-04

Plotted By:McIntyre, Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:EC-04 EROSION CONTROL December 07, 2021 07:36:30am K:\CHL_PR\015484 Town of Matthews\020 North Ames Street Sidewalk Improvements\CADD\PlanSheets\C70-EROSION CONTROL.dwg
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Posted By:McIntyre,Alexandra Sheet Set:North Ames Street Sidewalk Improvements Layout:TCN-01 November 19, 2021 12:27:07pm K:\CHL_PRJ\015484 Town of Matthews\020 North Ames Street Sidewalk\04_CAD\PlanSheets\CRD-TRAFFIC CONTROL NOTES.dwg
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GENERAL NOTES

A) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MOST CURRENT EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES(M.U.T.C.D.), THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION(NCDOT) SUPPLEMENT TO THE M.U.T.C.D., THE NCDOT ROADWAY STANDARD DRAWINGS AND THE CURRENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

B) THE CONTRACTOR IS TO NOTIFY THE TOWN OF MATTHEWS IN WRITING 10 WORKING DAYS IN ADVANCE OF ANY ROAD CLOSURE OR 5 WORKING DAYS PRIOR TO CLOSING ONE OR MORE TRAVEL LANES IN ACCORDANCE WITH SECTION 3 OF THE WORK AREA TRAFFIC CONTROL HANDBOOK (W.A.T.C.H).

C) THE CONTRACTOR SHALL BE REQUIRED TO FURNISH, INSTALL, RELOCATE, AND MAINTAIN ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES FOR WORK SITES AND DETOUR ROUTES AS SHOWN IN TRAFFIC CONTROL PLANS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

D) CONSTRUCTION PHASING MAY DICTATE THAT TWO OR MORE TYPICAL W.A.T.C.H. DIAGRAMS OR STANDARDS BE USED IN ONE AREA OF CONSTRUCTION. CHANNELIZING DEVICES ASSOCIATED WITH THESE TYPICALS SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS NECESSARY TO COMPLY WITH THE CONSTRUCTION PHASING OF THE PLANS. THE LOCATION AND POSITIONING OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER TO ENSURE THAT THE MOTORIST DOES NOT RECEIVE FALSE INFORMATION WHEN TWO OR MORE TYPICALS AND/OR ROADWAY STANDARD DRAWINGS OVERLAP.

E) CONTRACTOR SHOULD BE AWARE THAT WHEN THE CONSTRUCTION AREA IS IN OR NEAR A VERTICAL CREST OR HORIZONTAL CURVE, THE WORK AREA SHALL BE EXTENDED SO THAT LANE CLOSURE BEGINS IN ADVANCE OF THE CURVE AND MINIMUM STOPPING SIGHT DISTANCE IS MET.

F) OFF-DUTY POLICE OFFICERS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER TO BE PRESENT FOR CONTROLLING TRAFFIC DURING CONSTRUCTION HOURS.

G) THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT WITH WELL-MAINTAINED SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES. ON CONNECTING ROADS, ALL BARRICADES, SIGNS, WARNING, AND/OR CHANNELIZING DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS REQUIRED DURING THE PROGRESS OF CONSTRUCTION AS APPROVED BY THE ENGINEER.

H) WORK ON THE PROJECT OR ANY SEPARATE ACTIVITY THEREIN SHALL NOT START UNTIL ALL OF THE REQUIRED SIGNS, BARRICADES, WARNING, AND/OR CHANNELIZING DEVICES ARE INSTALLED AND APPROVED BY THE ENGINEER.

I) THE CONTRACTOR SHALL CONTACT DANA STOOGENKE, PROJECT MANAGER (704-708-1245) WITH THE TOWN OF MATTHEWS TWO WEEKS PRIOR TO BEGINNING ANY WORK THAT WILL REQUIRE THE RELOCATION OR PLACEMENT OF SIGNS OR OTHER TRAFFIC CONTROL DEVICES BY THE TOWN.

J) THE CONTRACTOR MUST MAINTAIN DURING ALL PERIODS OF CONSTRUCTION ACTIVITY THE ABILITY TO FLAG TRAFFIC USING QUALIFIED FLAGGERS WHEN NECESSARY OR REQUIRED

K) THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS AND ADDRESS CONFLICTING PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 17 OF THE W.A.T.C.H. OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN ANY EXISTING PAVEMENT MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

L) THE CONTRACTOR SHALL MAINTAIN TWO WAY TRAFFIC ON ALL PORTIONS OF THIS PROJECT UNLESS OTHERWISE SPECIFIED IN THE PLANS, PROJECT NOTES, OR BY THE ENGINEER.

M) CONTRACTOR WILL BE REQUIRED TO PROVIDE PROPERTY OWNERS AND TENANTS ACCESS TO THEIR PROPERTY THROUGHOUT THE PROJECT LIMITS, INCLUDING REASONABLE INGRESS AND EGRESS FOR BUSINESSES. SPECIAL ATTENTION SHALL BE PAID TO FIRE HYDRANTS.

N) THE CONTRACTOR IS TO NOTIFY (BY MAIL) ALL PROPERTY OWNERS AND OCCUPANTS WHO HAVE DIRECT ACCESS TO THE ROADWAY WITHIN THE PROJECT LIMITS A MINIMUM OF 5 AND A MAXIMUM OF 10 WORKING DAYS PRIOR TO INSTALLING TRAFFIC CONTROL DEVICES IN FRONT OF THOSE PROPERTIES. NOTIFICATIONS SHOULD INCLUDE CONTACT PERSONS NAME, TELEPHONE NUMBER, EMAIL ADDRESS, AND MAILING ADDRESS.

O) THE CONTRACTOR SHALL PATROL THE WORK SITE AT THE BEGINNING AND END OF EACH WORK DAY (AT A MINIMUM) TO ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING PROPERLY. CONTRACTOR SHALL ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING AT ALL TIMES DURING PERIODS OF CONSTRUCTION INACTIVITY.

P) DURING PERIODS OF INACTIVITY OR AT NIGHT, EQUIPMENT SHALL NOT BE PARKED IN SUCH A MANNER AS TO BLOCK SIDEWALKS, TRAFFIC CONTROL DEVICES, OR THE MOTORISTS' VIEW OF TRAFFIC. EQUIPMENT SHALL BE AT LEAST 10 FEET AWAY FROM THE TRAVEL LANE.

Q) WHENEVER TRAFFIC MUST BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION ACTIVITY, THE TWO OPPOSING DIRECTIONS MUST BE PHYSICALLY SEPARATED. TRAFFIC CONES CAN BE USED FOR THIS PURPOSE DURING DAYLIGHT HOURS; REFLECTORIZED CONES OR DRUMS MUST BE USED AT NIGHT. TRAFFIC SHALL NOT BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION INACTIVITY UNLESS PAVEMENT MARKING CONFLICTS ARE APPROPRIATELY ADDRESSED AND AGREEMENT ON REMOVAL OR NOT IS WORKED OUT WITH THE ENGINEER. IF THE ENGINEER APPROVES TRAFFIC TO CROSS THE CENTER LINE DURING CONSTRUCTION INACTIVITY, ONLY REFLECTORIZED DRUMS MUST BE USED.

R) THE TOWN ENGINEER OR THEIR APPOINTED REPRESENTATIVES ARE AUTHORIZED TO STOP ANY WORK WITHIN PUBLIC RIGHT OF WAY THAT DOES NOT FOLLOW THIS TRAFFIC CONTROL PLAN OR REQUIREMENTS OF THE W. A.T.C.H. AND THE M.U.T.C.D. UNTIL SUCH REQUIREMENTS ARE MET.

S) ADJACENT LANES TO CONSTRUCTION ZONES MAY REMAIN OPEN IF LATERAL CLEARANCE BETWEEN EDGE OF TRAVEL LANE AND EQUIPMENT IS EQUAL TO OR GREATER THAN 2 FEET (INCLUDING WIDTH OF DRUM). IF A DROPOFF EXISTS WITHIN THE WORK ZONE, CONTRACTOR SHOULD FOLLOW SECTION 10 OF THE W.A.T.C.H. PERTAINING TO ADJACENT LANE CLOSURES DUE TO DROPOFFS.

T) THE CONTRACTOR SHALL FOLLOW THE PHASING AS DESCRIBED HEREIN. THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH CONSTRUCTION PHASE IN SEQUENCE. WHEN A CONSTRUCTION PHASE IS DIVIDED INTO STEPS, THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH STEP IN SEQUENCE. (EXAMPLE: THE REQUIREMENTS OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO PHASE II; THE REQUIREMENTS OF STEP 1 OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO STEP 2 OF PHASE I). ALL WORK DESCRIBED IN THE PROJECT PHASING SHALL BE PERFORMED BY THE CONTRACTOR, EXCEPT WHERE IT IS SPECIFIED FOR CERTAIN WORK TO BE PERFORMED BY OTHERS.

U) THE CONTRACTOR SHALL NOT BE ALLOWED TO STOP TRAFFIC FOR MORE THAN 5 MINUTES AT A TIME IN ANY ONE DIRECTION.

V) CONTRACTOR SHALL NOT BE ALLOWED TO WORK ON BOTH SIDES OF THE ROAD SIMULTANEOUSLY WITHIN THE SAME AREA EXCEPT WHERE THE ROADWAY IS DIVIDED BY A RAISED MEDIAN. IT WILL BE ACCEPTABLE TO CONSTRUCT BORE PITS ON EACH SIDE OF A ROADWAY FOR BORING UTILITIES UNDER THE ROADWAY UNLESS SUPERCEDED BY ENGINEER TO COMPLY WITH PEDESTRIAN REQUIREMENTS OR LATERAL CLEARANCE FROM TRAVEL LANES.

W) THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO SECTION VII (PEDESTRIAN CONSIDERATIONS) OF THE W.A.T.C.H.

PROJECT NOTES

1. CONTRACTOR SHALL PROVIDE AND INSTALL ALL FINAL PAVEMENT MARKINGS AND SIGNAGE.

2. DURING THE HOURS OF 7:00 AM-9:00 AM AND 4:30 PM-6:30 PM MONDAY THRU FRIDAY CONSTRUCTION OR MAINTENANCE WORK WHICH INVOLVES CLOSURE OF A TRAVEL LANE WILL NOT BE ALLOWED ON THOROUGHFARE STREETS EXCEPT FOR EMERGENCY SITUATIONS OR WITH APPROVAL FROM THE TOWN OF MATTHEWS.

3. CONTRACTOR SHALL SUPPLY AND INSTALL ALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

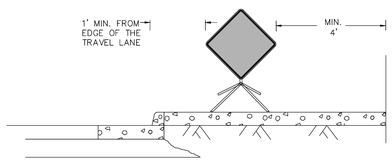
4. CONTRACTOR SHALL WORK IN THE SHOULDER USING W.A.T.C.H DIAGRAM #4 AND #10 (DETAILS, THIS SHEET) TO CONSTRUCT CURB & GUTTER, DRAINAGE, SIDEWALK, TEMPORARY GRAVEL, DRIVEWAYS, ETC. ALONG THE WEST SIDE OF NORTH AMES STREET AND AT THE INTERSECTION OF NORTH AMES STREET AND WEST MATTHEWS STREET.

STANDARDS

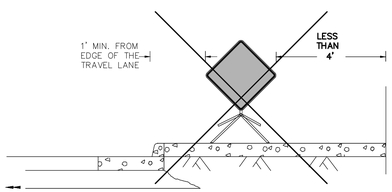
1101.01.....WORK ZONE ADVANCE WARNING SIGNS
1101.02.....TEMPORARY LANE CLOSURES
1101.04.....TEMPORARY SHOULDER CLOSURES
1110.02.....PORTABLE WORK ZONE SIGNS
1135.01.....CONES
1150.01.....FLAGGERS

WATCH DIAGRAMS

#4 WORK AREA ON SHOULDER (MINOR ENCROACHMENT ON PAVEMENT)
#10 WORK AREA BEFORE AN INTERSECTION (FLAGGER CONTROL)

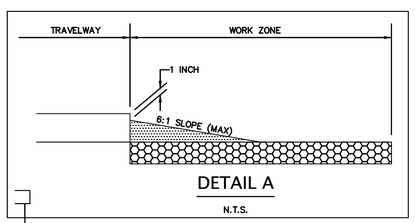


PORTABLE SIGN IN SIDEWALK ACCEPTABLE



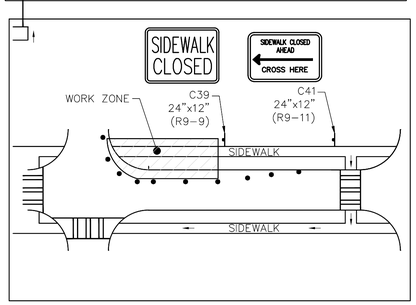
PORTABLE SIGN BLOCKING SIDEWALK UNACCEPTABLE

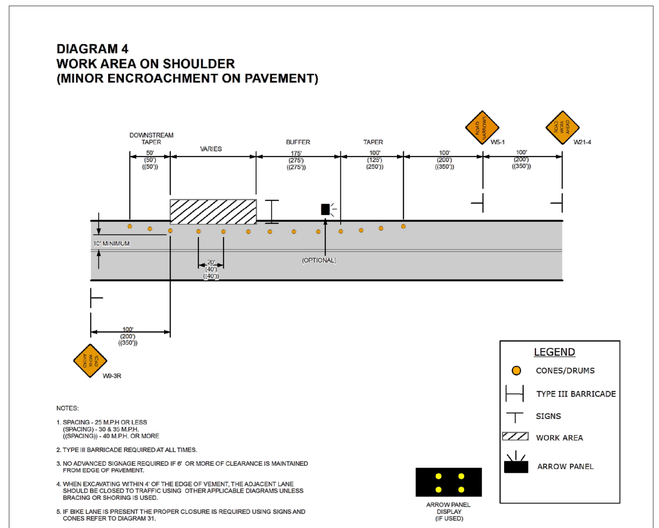
ALTERNATIVE OPTION IS TO PLACE SIGN BEHIND SIDEWALK WHEN POSSIBLE, OTHERWISE, MAY NEED TO POST MOUNT SIGN WITH 7' MINIMUM VERTICAL CLEARENCE FROM SIDEWALK SURFACE

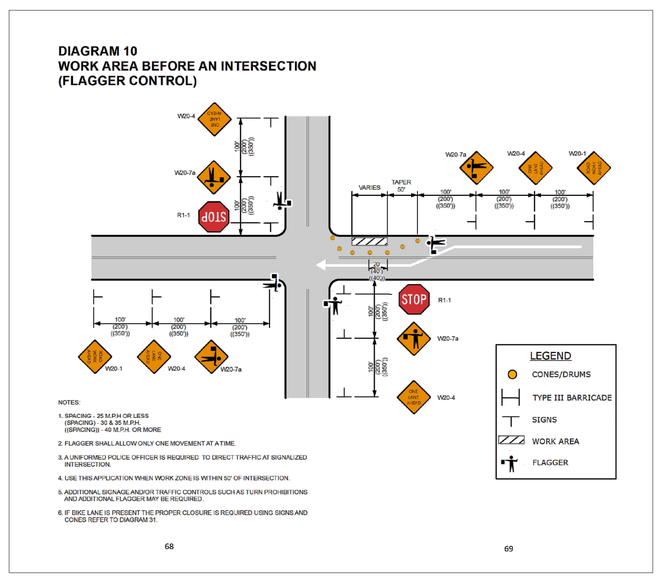


DETAIL A

N.T.S.







Know what's below. Call before you dig.

No.	REVISIONS	DATE	BY

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WWW.KIMLEY-HORN.COM

NORTH CAROLINA PROFESSIONAL SEAL 050360 ENGINEER ALEXANDRA R. McINTYRE
Signature: Alexandra McIntyre
Licensed Professional Engineer
8/12/2022

KHA PROJECT 015484020
DATE 01/20/2022
SCALE AS SHOWN
DESIGNED BY ARM
DRAWN BY EAC
CHECKED BY BJT

TRAFFIC CONTROL NOTES

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

SHEET NUMBER
TCP-01

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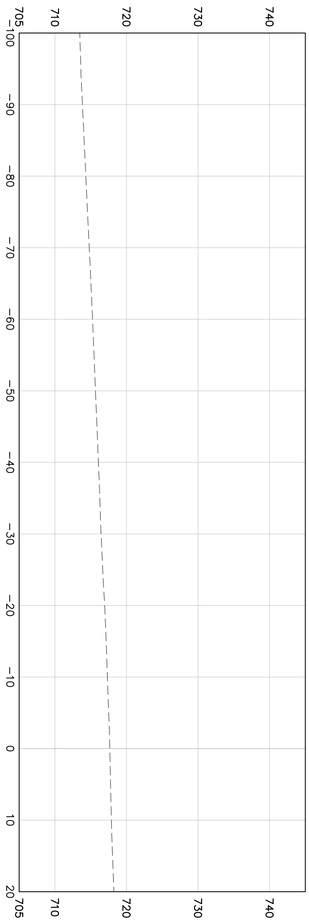

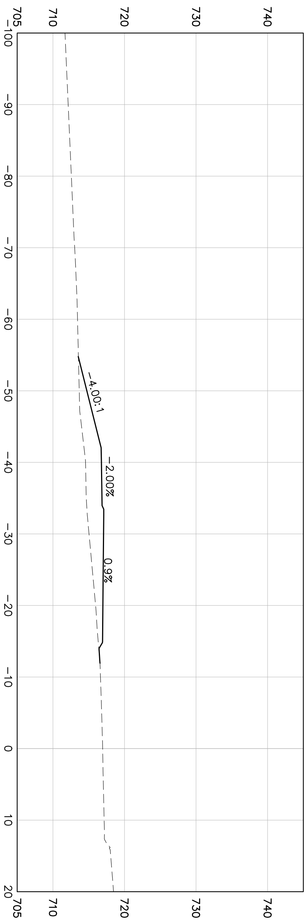

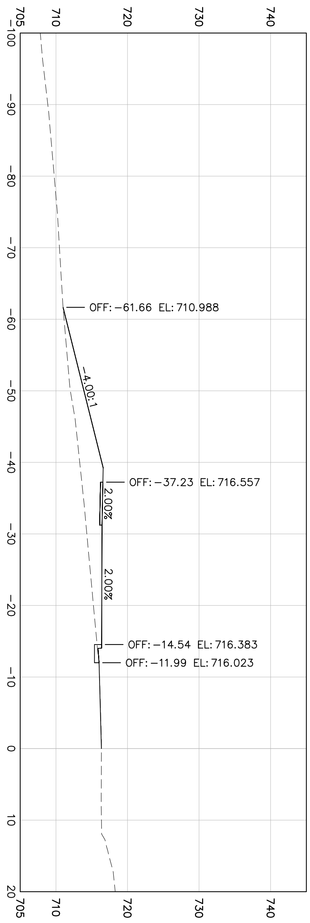

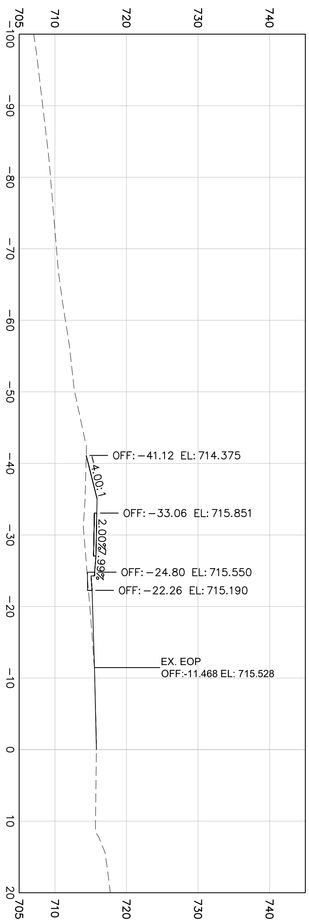

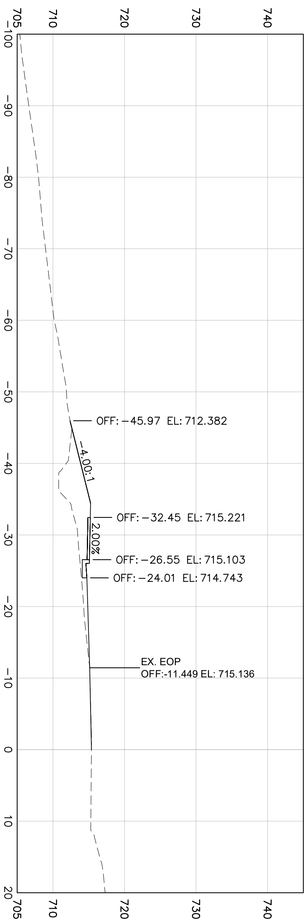

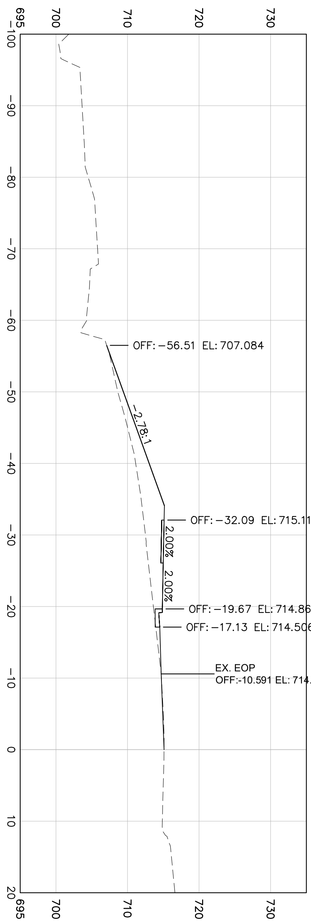

Know what's below. Call before you dig.

811

SHEET NUMBER
XS-01

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

CROSS SECTIONS

KHA PROJECT	015484020
DATE	01/20/2022
SCALE	AS SHOWN
DESIGNED BY	ARM
DRAWN BY	EAC
CHECKED BY	BJT

NORTH CAROLINA PROFESSIONAL SEAL 050395 ENGINEER BRANDON J. TAYLOR
8/27/2021

Kimley»Horn
200 SOUTH TRYON STREET SUITE 200, CHARLOTTE, NC 28202
PHONE: 704-333-5131
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

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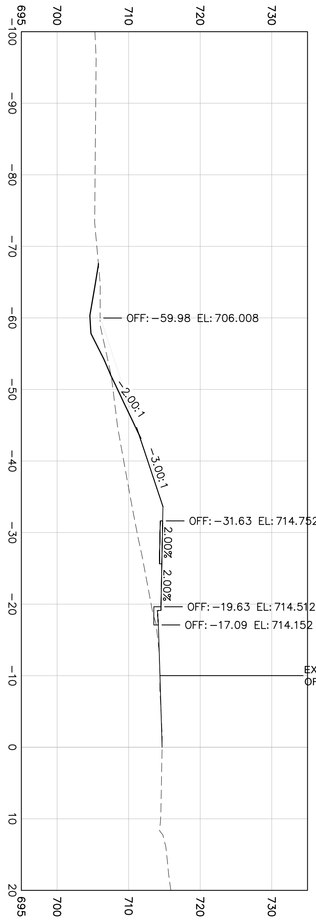

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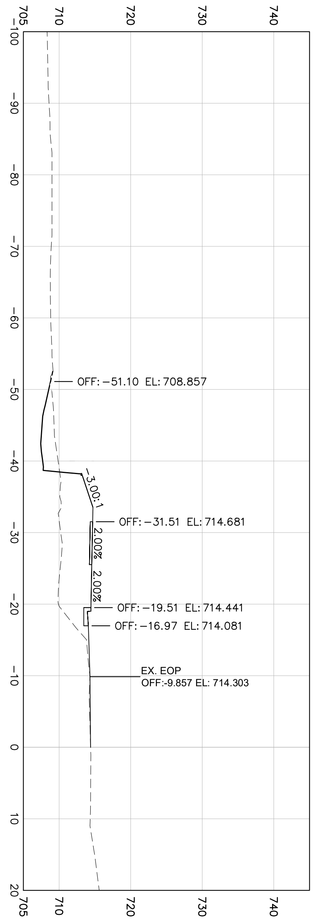

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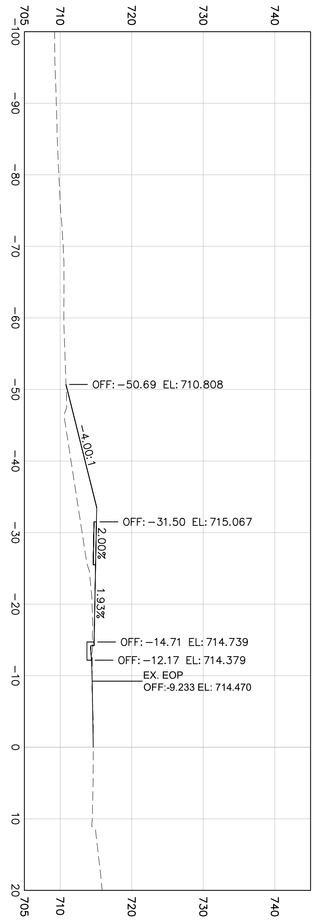

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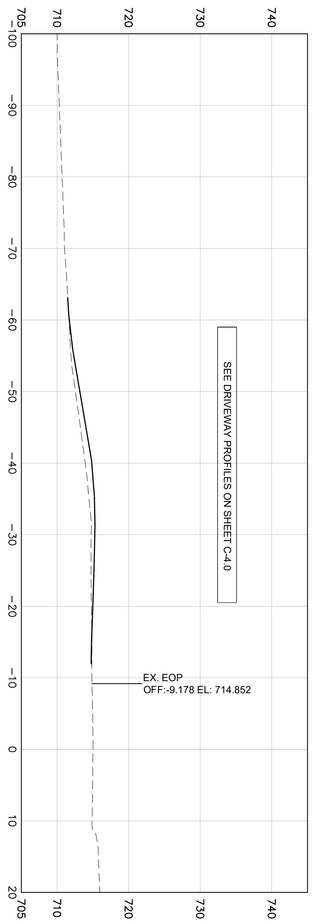

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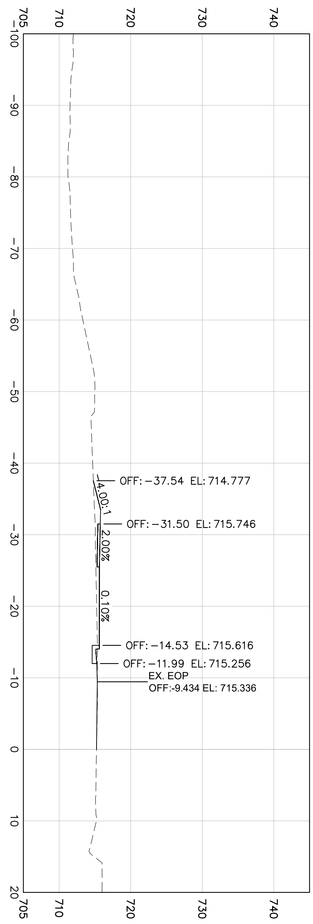

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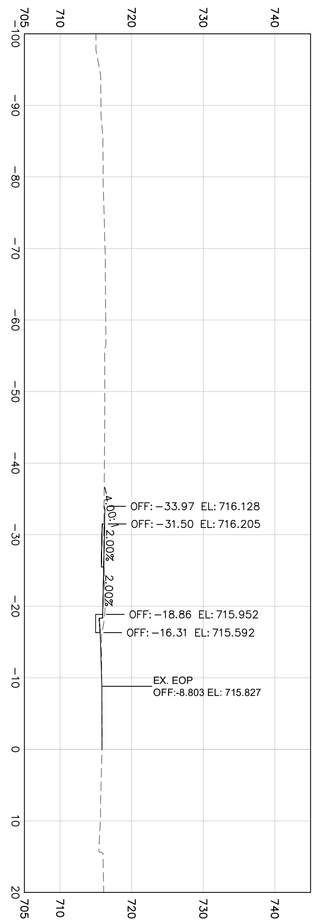

2+20

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SHEET NUMBER
XS-02

NORTH AMES STREET SIDEWALK IMPROVEMENTS
PREPARED FOR
Town of Matthews North Carolina

CROSS SECTIONS

KHA PROJECT	015484020
DATE	01/20/2022
SCALE	AS SHOWN
DESIGNED BY	ARM
DRAWN BY	EAC
CHECKED BY	BJT

NORTH CAROLINA PROFESSIONAL SEAL 050395 ENGINEER BRANDON J. TAYLOR
8/12/2021
ALEXANDRA R. MCINTYRE

Kimley»Horn
200 SOUTH TRYON STREET SUITE 200, CHARLOTTE, NC 28202
PHONE: 704-333-5131
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

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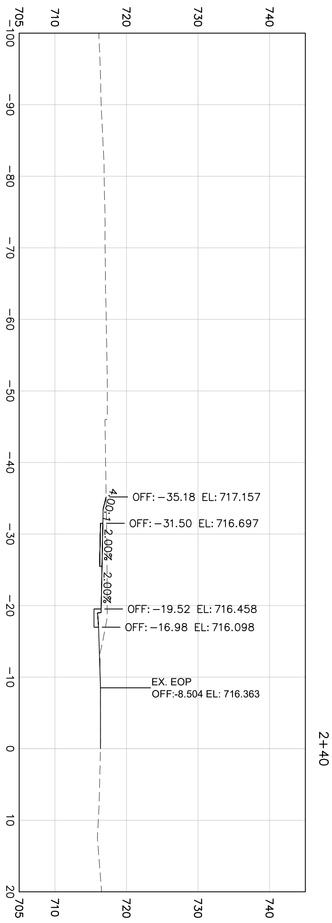

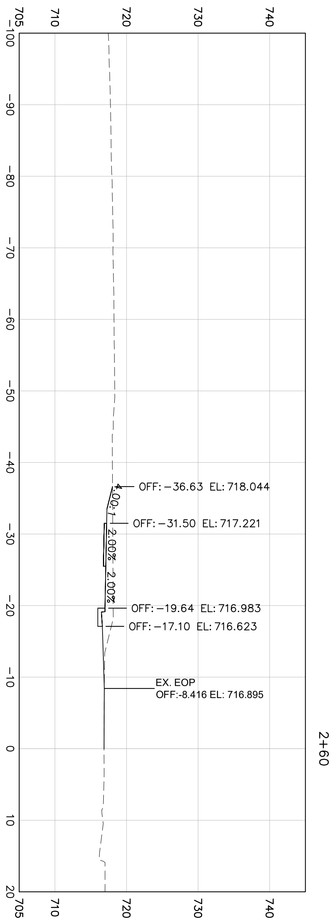

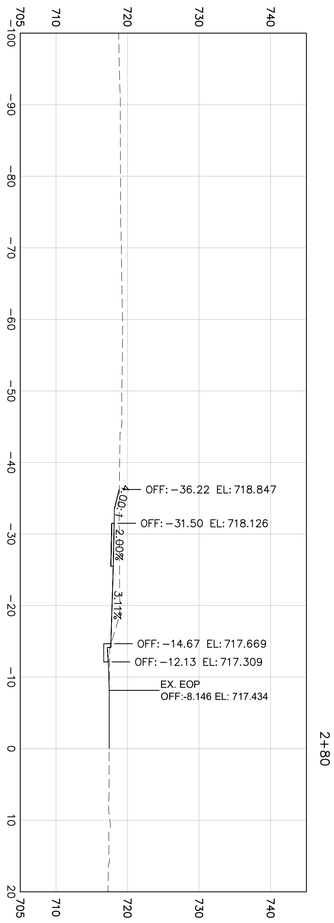

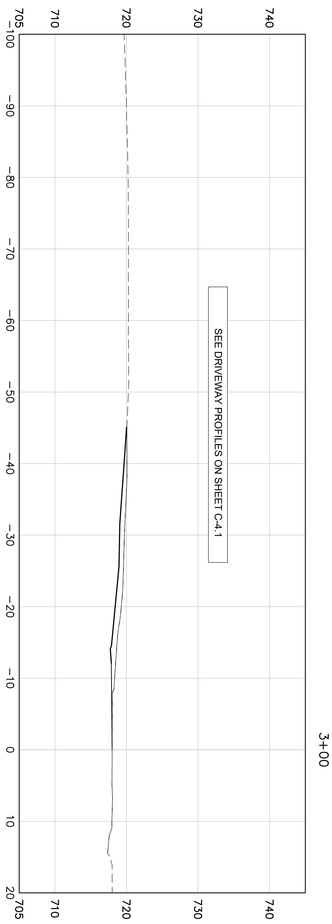

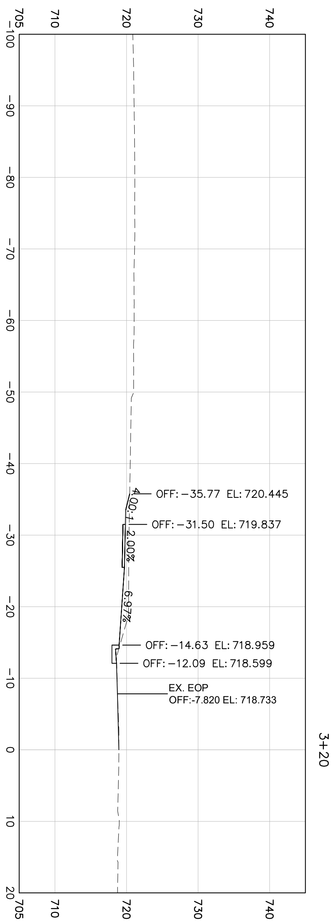

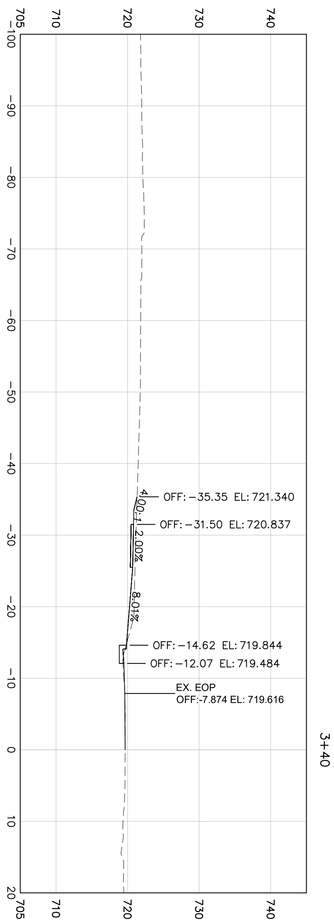

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SHEET NUMBER XS-03	NORTH AMES STREET SIDEWALK IMPROVEMENTS PREPARED FOR Town of Matthews North Carolina	CROSS SECTIONS	KHA PROJECT 015484020 DATE 01/20/2022 SCALE AS SHOWN DESIGNED BY ARM DRAWN BY EAC CHECKED BY BJT	NORTH CAROLINA PROFESSIONAL SEAL 050395 ENGINEER BRIAN J. TUCKER 8/12/2021 ALEXANDRA N. MCINTYRE

Kimley»Horn
200 SOUTH TRYON STREET SUITE 200, CHARLOTTE, NC 28202
PHONE: 704-333-5131
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

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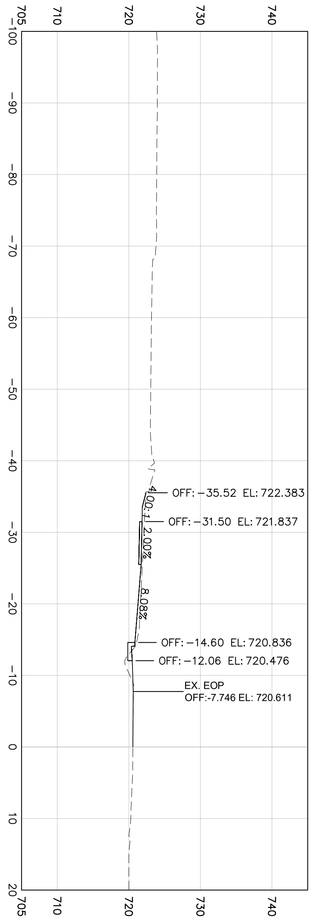

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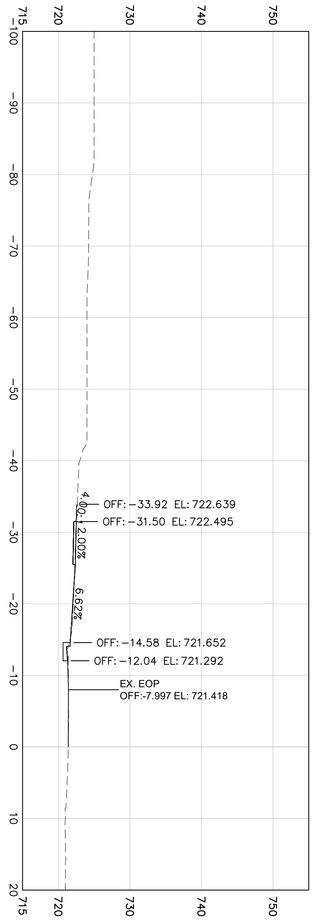

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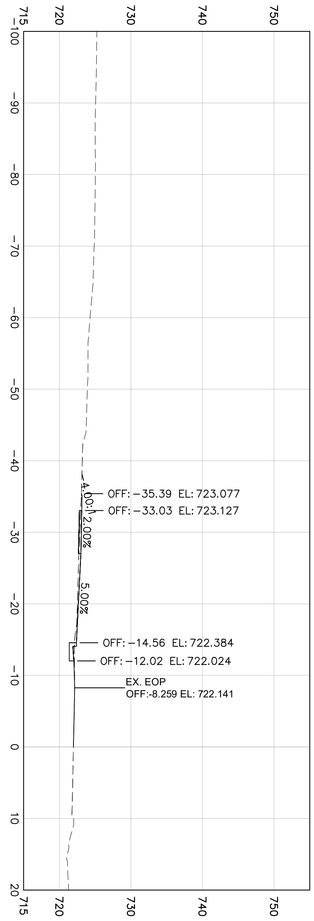

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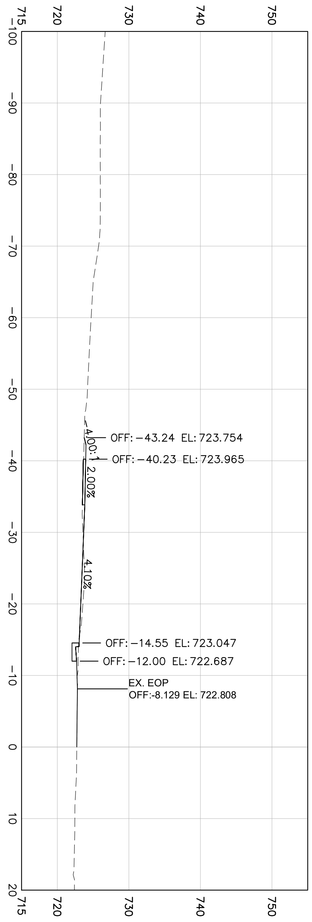

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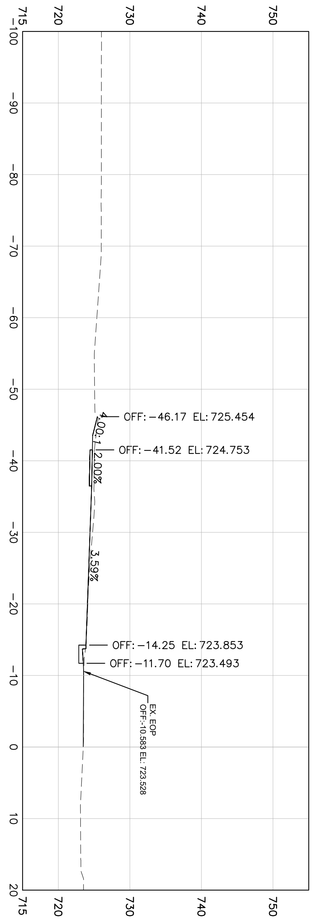

4+40

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SHEET NUMBER						
XS-04	NORTH AMES STREET SIDEWALK IMPROVEMENTS PREPARED FOR Town of Matthews North Carolina	CROSS SECTIONS	KHA PROJECT 015484020 DATE 01/20/2022 SCALE AS SHOWN DESIGNED BY ARM DRAWN BY EAC CHECKED BY BJT	NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 050395 ALEXANDRA R. MCINTYRE 8/12/2021	Kimley»Horn 200 SOUTH TRYON STREET SUITE 200, CHARLOTTE, NC 28202 PHONE: 704-333-5131 WWW.KIMLEY-HORN.COM	No. REVISIONS DATE BY