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GENERAL NOTES

- 1. WORK IN THIS PROJECT SHALL CONFORM TO THESE PLANS, THE LATEST EDITIONS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) ROAD AND BRIDGE SPECIFICATIONS, THE NCDOT ROAD AND BRIDGE STANDARDS, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK, THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL REGULATIONS, AND GENERAL DESIGN STANDARDS. IN THE EVENT OF CONFLICT BETWEEN ANY OF THESE STANDARDS, SPECIFICATIONS, OR PLANS, THE MOST STRINGENT SHALL GOVERN UNLESS OTHERWISE NOTED IN THESE PLANS.
2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL JOBSITE SAFETY, INCLUDING BUT NOT LIMITED TO TRENCH SAFETY, DURING ALL PHASES OF CONSTRUCTION.
3. THE LOCATION AND SIZE OF EXISTING UTILITIES AS SHOWN IS APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC OR PRIVATE UTILITIES (SHOWN OR NOT SHOWN) WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE NORTH CAROLINA ONE-CALL UTILITIES LOCATION SERVICE (ULOCO) AT 1-800-632-4949 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE SITE.
4. THE CONTRACTOR SHALL SALVAGE AND PROTECT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC. DURING ALL CONSTRUCTION PHASES. THE CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
5. TRAFFIC CONTROL ON PUBLIC STREETS IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN CONFORMANCE WITH THE TRAFFIC CONTROL PLAN, THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES," AND AS FURTHER DIRECTED BY THE CITY AND STATE INSPECTORS.
6. ALL MANUFACTURERS' PRODUCTS SPECIFIED IN THESE PLANS OR USED AS APPROVED ALTERNATES SHALL BE INSTALLED PER THE MANUFACTURERS' SPECIFICATIONS.
7. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
8. CONSTRUCTION STAKEOUT FOR THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR.
9. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ARRANGE THE MEETING WITH NCDOT.
10. CONTRACTOR IS RESPONSIBLE FOR VERIFYING OR OBTAINING ALL REQUIRED PERMITS AND APPROVALS PRIOR TO COMMENCING CONSTRUCTION. NCDOT ENCROACHMENTS SHALL BE OBTAINED BY THE ENGINEER.
11. THE FRAMES AND COVERS OF ALL EXISTING AND PROPOSED DRAINAGE, SANITARY SEWER, WATER MAIN, GAS, AND WIRE UTILITY STRUCTURES SHALL BE ADJUSTED TO MATCH PROPOSED FINISHED ELEVATIONS AND SLOPES.
12. ROADWAYS MUST BE CAPABLE OF SUPPORTING FIRE APPARATUS DURING CONSTRUCTION.
13. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT NCDOT STANDARDS. SPECIFICATIONS, DETAILS, AND ENCROACHMENT AGREEMENTS.
14. NO CHANGES TO ANY ASPECT OF THIS ROADWAY PLAN, INCLUDING BUT NOT LIMITED TO, LANDSCAPING, GRADING, BUILDING ELEVATIONS, LIGHTING, OR UTILITIES WILL BE MADE WITHOUT THE APPROVAL OF NCDOT.
15. ALL TREE PROTECTION FENCING SHALL BE MAINTAINED UNTIL ALL SITE WORK IS COMPLETED. THE FENCING SHALL BE REMOVED PRIOR TO THE FINAL SITE INSPECTION FOR THE CERTIFICATE OF OCCUPANCY (CO).
16. CONTRACTOR TO ENSURE THAT ALL STREETS WITHIN THE LIMITS OF THE PROJECT AND IN FRONT OF THE PROJECT ARE KEPT CLEAN AT ALL TIMES OR A WASH STATION WILL BE REQUIRED.
17. LIMITS OF OFFSITE IMPROVEMENTS NOT WITHIN FLOODPLAIN.

UTILITY NOTES

- 1. WATER VALVE BOXES THAT ARE ENCOUNTERED WITHIN THE PROJECT LIMITS ARE TO BE RAISED OR LOWERED TO MATCH THE ADJACENT FINISHED WORK.
2. WATER METER BOXES THAT ARE ENCOUNTERED WITHIN THE PROJECT LIMITS OUTSIDE THE PROPOSED PAVEMENT SECTION ARE TO BE RAISED OR LOWERED TO MATCH THE ADJACENT FINISHED WORK.
3. WATER METER BOXES THAT ARE ENCOUNTERED WITHIN THE PROPOSED PAVEMENT SECTION ARE TO BE RELOCATED OUT OF THE PROPOSED PAVEMENT.

GRADING

- 1. THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AND EXISTING PAVEMENT AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.
2. REFER TO EROSION CONTROL SHEETS FOR CLEARING LIMITS AND TEMPORARY EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION.
3. 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, RESEDED, AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.
4. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, AND AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. IN ADDITION TO THE MEASURES SHOWN IN THESE PLANS, THE CONTRACTOR SHALL USE INTERIM SILT FENCES, DIVERSION DITCHES, BERMS, OR OTHER METHODS AS REQUIRED TO DIRECT DRAINAGE AS SHOWN ON THESE PLANS, TO BEST UTILIZE THE EROSION CONTROL DEVICES IN PLACE, AND TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAND OF GRASS OR OTHER GROWTH TO PREVENT EROSION.
5. GRADING CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
6. ALL MATERIALS USED FOR BACKFILL SHALL BE FREE OF WOOD, ROOTS, ROCKS, BOULDERS, OR ANY OTHER NON-COMPATIBLE SOIL TYPE MATERIAL. UNSATISFACTORY MATERIALS ALSO INCLUDE MAN-MADE FILLS AND REFUSE DEBRIS DERIVED FROM ANY SOURCE.
7. ALL GRADING / SOIL COMPACTION OPERATIONS WITHIN THE LIMITS OF STATE RIGHT OF WAYS SHALL ADHERE TO NCDOT REQUIREMENTS, IN ACCORDANCE WITH AASHTO T99 AS MODIFIED BY THE DEPARTMENT. COPIES OF THESE MODIFIED TESTING PROCEDURES ARE AVAILABLE UPON REQUEST FROM THE DEPARTMENT'S MATERIALS AND TESTS UNIT.
8. ALL DEMOLITION DEBRIS AND OTHER EXCESS MATERIAL SHALL BE HAULED OFF-SITE AS DIRECTED BY THE OWNER AND PROPERLY DISPOSED OF.
9. PROPOSED CONTOURS AND GUTTER GRADIENTS ARE APPROXIMATE. PROPOSED ROADWAY PROFILES/SUPERELEVATIONS ARE TO BE USED IN CASE OF DISCREPANCY.
10. REFER TO ROADWAY PLAN FOR HORIZONTAL DIMENSIONS.
11. WHERE FILL IS TO BE PLACED ON EXISTING SLOPES STEEPER THAN 4:1, CONTRACTOR SHALL EXCAVATE BENCHES WITH A MAXIMUM DEPTH OF 3'.
12. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR BLASTING ROCK IF BLAST ROCK IS ENCOUNTERED. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL BLASTING AND SAFETY REQUIREMENTS.
13. TREE PROTECTION FENCING SHALL BE INSTALLED AND INSPECTED BEFORE THE GRADING PERMIT IS ISSUED.
14. CROSS SLOPES AND ELEVATIONS SHOWN ON CROSS SECTIONS ARE APPROXIMATE. PROPOSED PAVEMENT CROSS SLOPES ARE TO BE BASED ON EXISTING CROSS SLOPE DETERMINED IN FIELD. IF FIELD CONDITIONS VARY FROM THOSE SHOWN ON PLANS, NOTIFY ENGINEER IMMEDIATELY.

PAVING /CURBING

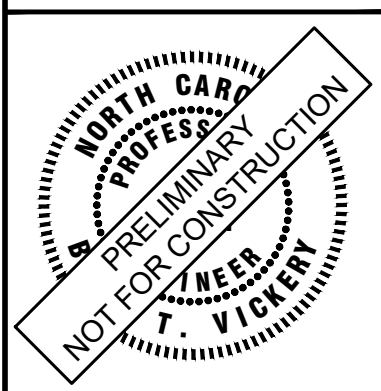
- 1. WHERE PROPOSED CURB AND GUTTER TIES TO EXISTING CURB OR CURB AND GUTTER, A TRANSITION OF 10' SHALL BE MADE TO CONFORM TO THE EXISTING HEIGHTS AND SHAPES.
2. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF PAVEMENT AND OTHER ITEMS ESTABLISHED IN THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO EARTHWORK.
3. ALL PAVEMENT SUB GRADES SHALL BE SCARIFIED TO A DEPTH OF 8 INCHES AND COMPACTED TO A MINIMUM DENSITY OF 100 PERCENT OF ASTM D-1557 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHICAL ENGINEER. FILL SHALL BE PLACED AND COMPACTED IN MAXIMUM 8" LIFTS. IN AREAS WHERE ROCK IS ENCOUNTERED AT FINAL SUB GRADE ELEVATION, THE EXPOSED ROCK SHALL BE TOPPED WITH A LEVELING COURSE OF SANDY CLAY OR CLAYEY SAND (P.I. BETWEEN 4 AND 15) AS NEEDED TO PROVIDE A SMOOTH SURFACE FOR PAVING.
4. THE CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
5. ALL CURB JOINTS SHALL EXTEND THROUGH THE CURB. MINIMUM LENGTH OF OFFSET JOINTS AT RADIUS POINTS IS 1.5 FEET. ALL JOINTS SHALL BE SEALED WITH JOINT SEALANT.
6. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE NOMINATION OF THE TESTING LABORATORY AND THE PAYMENT OF SUCH TESTING SERVICES SHALL BE MADE BY THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED DOES MEET THE REQUIREMENTS OF THE NCDOT SPECIFICATIONS.
7. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60, AND SHALL BE SUPPORTED BY BAR CHAIRS.
8. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES ON PUBLIC STREETS SHALL CONFORM TO MUTCD, AND NCDOT STANDARDS.
9. ALL HANDICAP RAMPING, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO ADA REQUIREMENTS AND THE "NORTH CAROLINA STATE BUILDING CODE, VOL 1-C ACCESSIBILITY CODE." ALL RAMPS SHALL COMPLY WITH THE LATEST NCDOT STANDARDS. WHEELCHAIR RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.
10. CONTRACTOR SHALL SAWCUT & REMOVE ANY THE EXISTING PAVEMENT WHEN THE EXISTING PAVEMENT IS BEING WIDENED OR WHERE NEW CURB AND GUTTER IS PROPOSED.
11. ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. 225.04 & 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.



BROADMOOR ROLESVILLE
PREPARED FOR
PULTE GROUP
WAKE
SHEET NUMBER
R0.01

GENERAL NOTES

Table with project details: KHA PROJECT 019867004, DATE 8/13/2024, SCALE AS SHOWN, DESIGNED BY GTG, DRAWN BY GTG, CHECKED BY BTY



Kimley >>> Horn
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NC FIRM #F-0102

Table with 3 columns: No., REVISIONS, DATE

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PROPOSED BOUNDARY INFORMATION	
	PROPOSED PROPERTY LINE
	PROPOSED ROW
	PROPOSED EASEMENT
	PROPOSED SETBACK
	PROPOSED BUFFER
	PROPOSED UTILITY EASEMENT
	PROPOSED STORM EASEMENT
	PROPOSED TCE EASEMENT
	PROPOSED SIDEWALK EASEMENT
	PROPOSED SIDEWALK/UTILITY EASEMENT
	PROPOSED CONSERVATION EASEMENT
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED SANITARY SEWER EASEMENT
	PROPOSED WATER LINE EASEMENT
	PROPOSED OVERHEAD UTILITY EASEMENT
	PROPOSED UNDERGROUND UTILITY EASEMENT

PROPOSED PAVEMENT INFORMATION	
	PROPOSED CENTERLINE
	PROPOSED CURB
	PROPOSED EDGE OF PAVEMENT
	PROPOSED SIDEWALK/CONC
	PROPOSED DRIVEWAY
	PROPOSED FENCE
	PROPOSED RETAINING WALL
	PROPOSED SIGNAL CONDUIT
	PROPOSED SAWCUT PAVEMENT
	PROPOSED GRAVEL ROAD
	PROPOSED PAVEMENT HATCH
	PROPOSED CONCRETE HATCH
	PROPOSED PAVEMENT REMOVAL HATCH
	PROPOSED GRAVEL HATCH
	PROPOSED MILL AND OVERLAY
	PROPOSED LIMITS OF OVERLAY
	PROPOSED PAVEMENT MARKINGS
	PROPOSED STRIPING SYMBOLS
	PROPOSED GUIDE RAIL
	PROPOSED FUTURE SYMBOLOGY
	PROPOSED SIGNAGE
	PP-TEXT

PROPOSED TOPO INFORMATION	
	PROPOSED BORING
	PROPOSED DETENTION
	PROPOSED GRADING LIMITS
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED SPOT ELEVATION
	PROPOSED CUT LIMITS
	PROPOSED CUT LIMITS
	PROPOSED DITCH
	PROPOSED DITCH BL

PROPOSED UTILITY INFORMATION	
	PROPOSED CABLE TV
	PROPOSED ELECTRIC
	UNDERGROUND ELECTRIC
	PROPOSED FIBER OPTIC
	PROPOSED GAS
	PROPOSED TELEPHONE
	PROPOSED SANITARY
	PROPOSED STORM
	PROPOSED STORM UNDER DRAIN
	PROPOSED DOMESTIC WATER
	PROPOSED IRRIGATION
	PROPOSED SOFT DIG
	PU-TXT

PROPOSED STRUCTURAL INFORMATION	
	PROPOSED STRUCTURE
	PROPOSED BUILDING HATCH
	PS-TXT

NO.	REVISIONS	DATE	BY

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 NC FIRM #F-0102

**PROFESSIONAL SEAL**  
 NORTH CAROLINA  
 PRELIMINARY  
 NOT FOR CONSTRUCTION  
 T. VIGOR

KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

WAKE NC



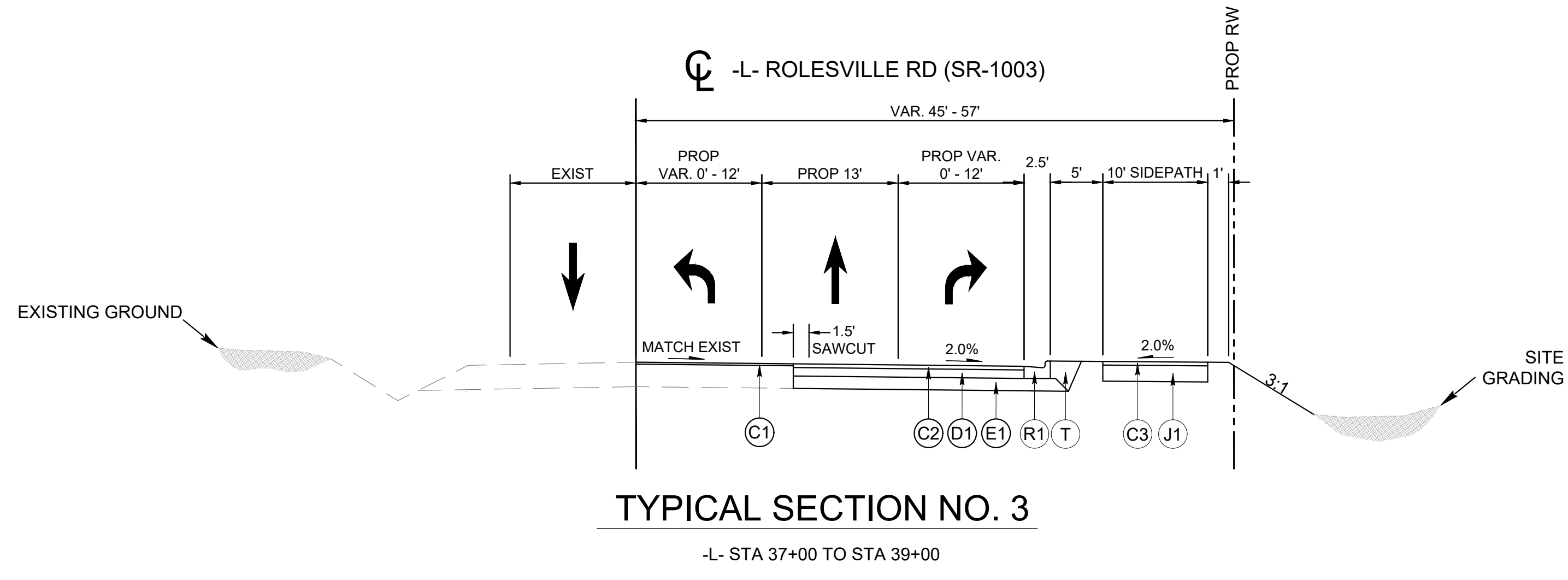
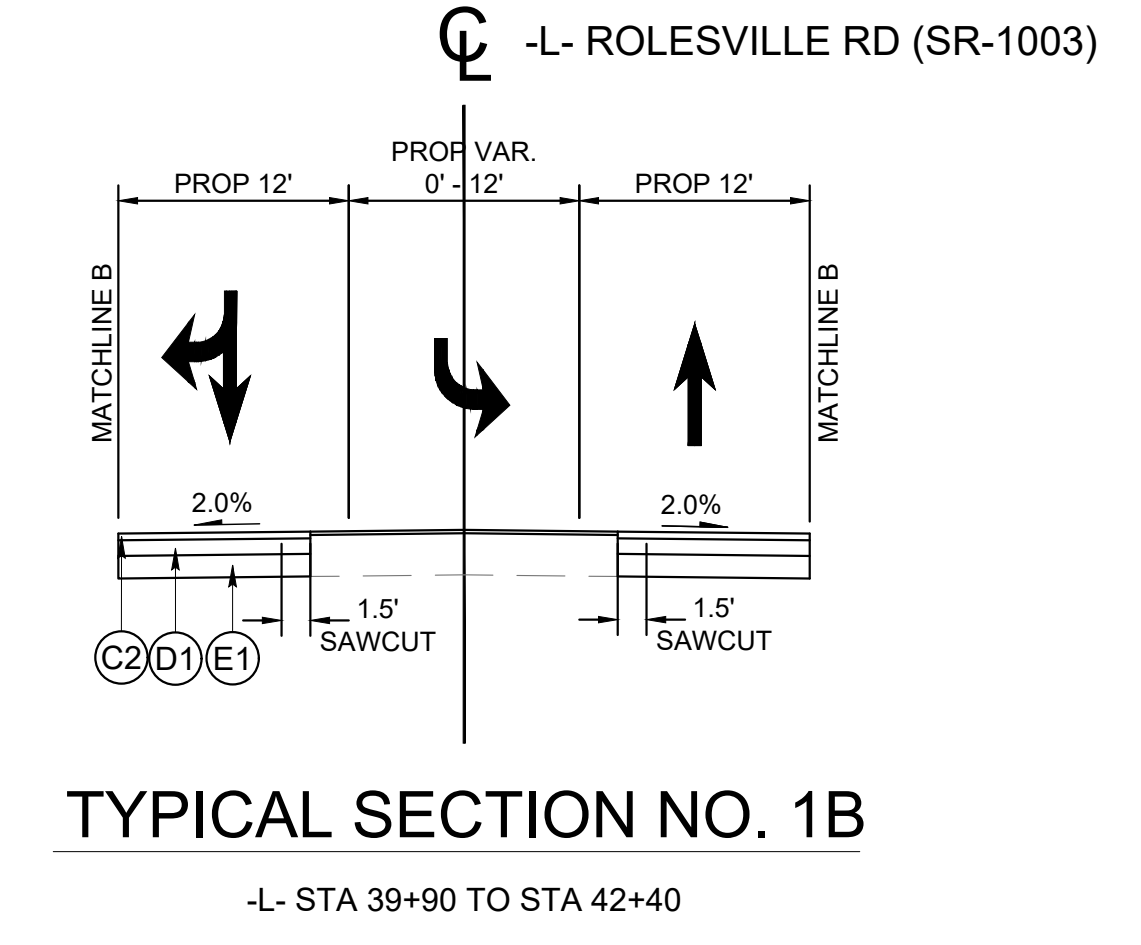
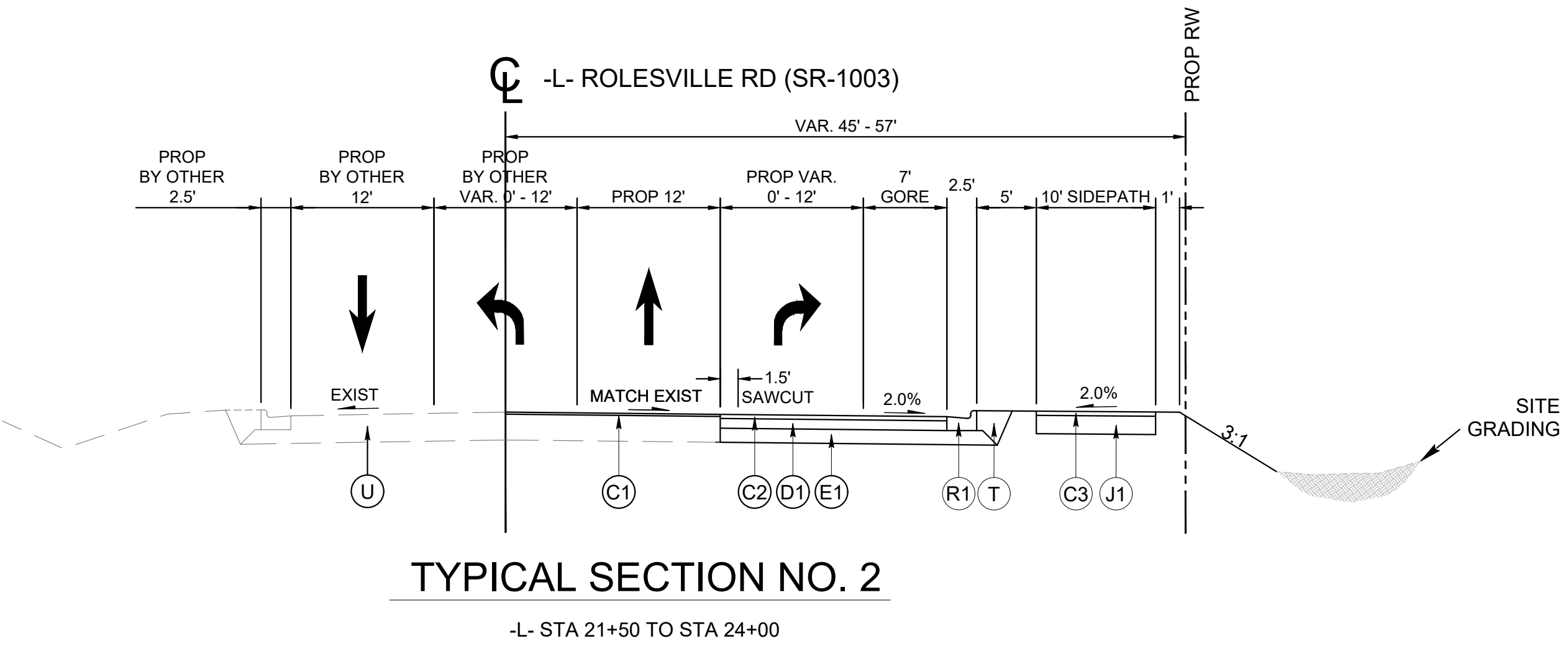
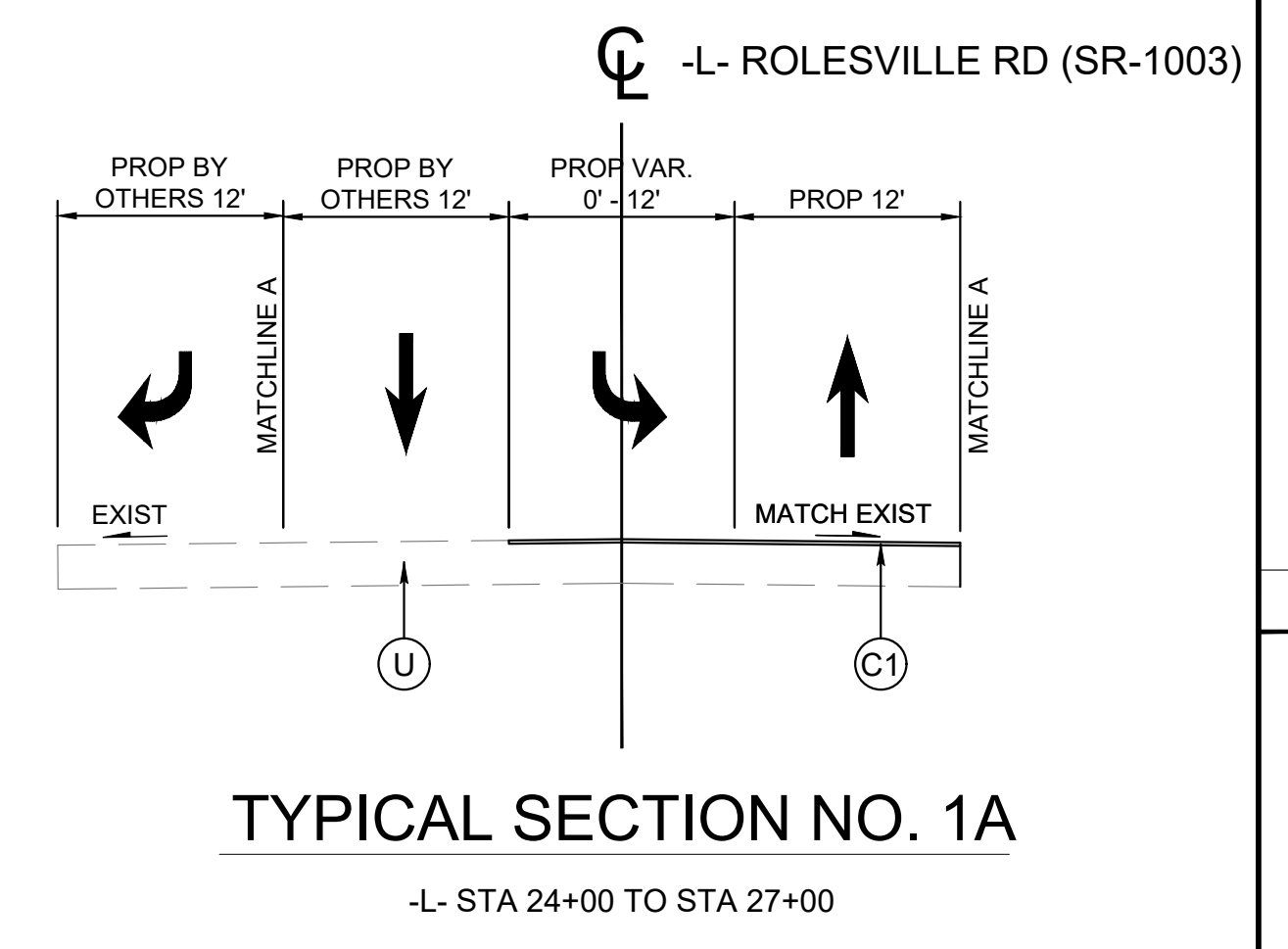
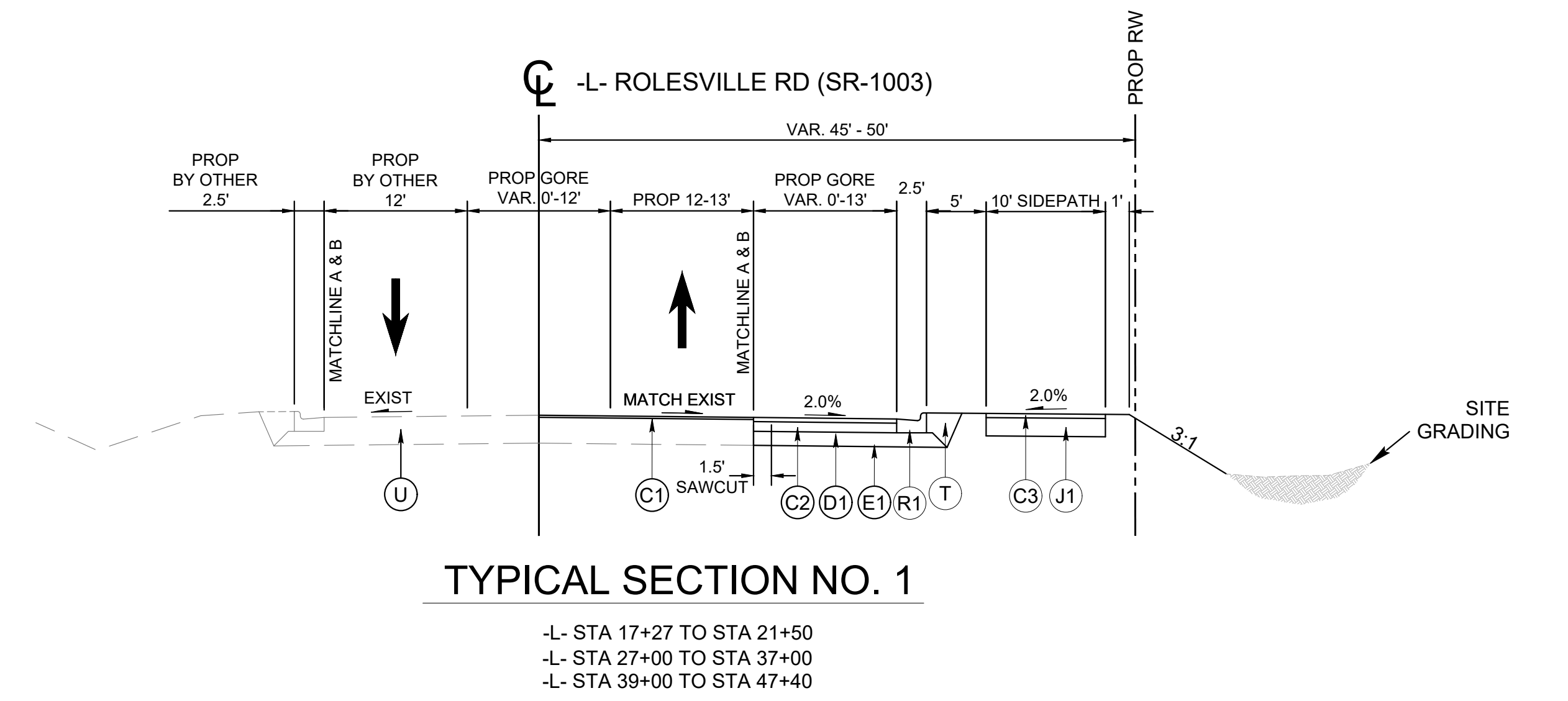
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PAVEMENT SCHEDULE (PRELIMINARY PAVEMENT DESIGN PROVIDED BY NCDOT)	
(C1)	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
(C2)	PROP. APPROX. 3.0" OF ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN TWO LAYERS.
(C3)	PROP. APPROX. 2.0" OF ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
(D1)	PROP. APPROX. 4.0" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
(E1)	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LB PER SQ. YARD IN ONE LIFT.
(J1)	PROP. APPROX. 6" AGGREGATE BASE COURSE
(R1)	2' - 6" CONCRETE CURB AND GUTTER
(T)	COMPACTED EARTH MATERIAL
(U)	EXISTING PAVEMENT

Rate is incorrect for 5".

- NOTES:
- 1) PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED.
  - 2) SEE CROSS SECTIONS FOR SUPERELEVATION RATES.
  - 3) USE REINFORCED SOIL SLOPES WHERE SLOPE IS GREATER THAN 2:1.
  - 4) CONTRACTOR TO VERIFY EXISTING CONDITIONS



No.	REVISIONS	DATE	BY

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NC FIRM # 0102



KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**TYPICAL SECTIONS**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**

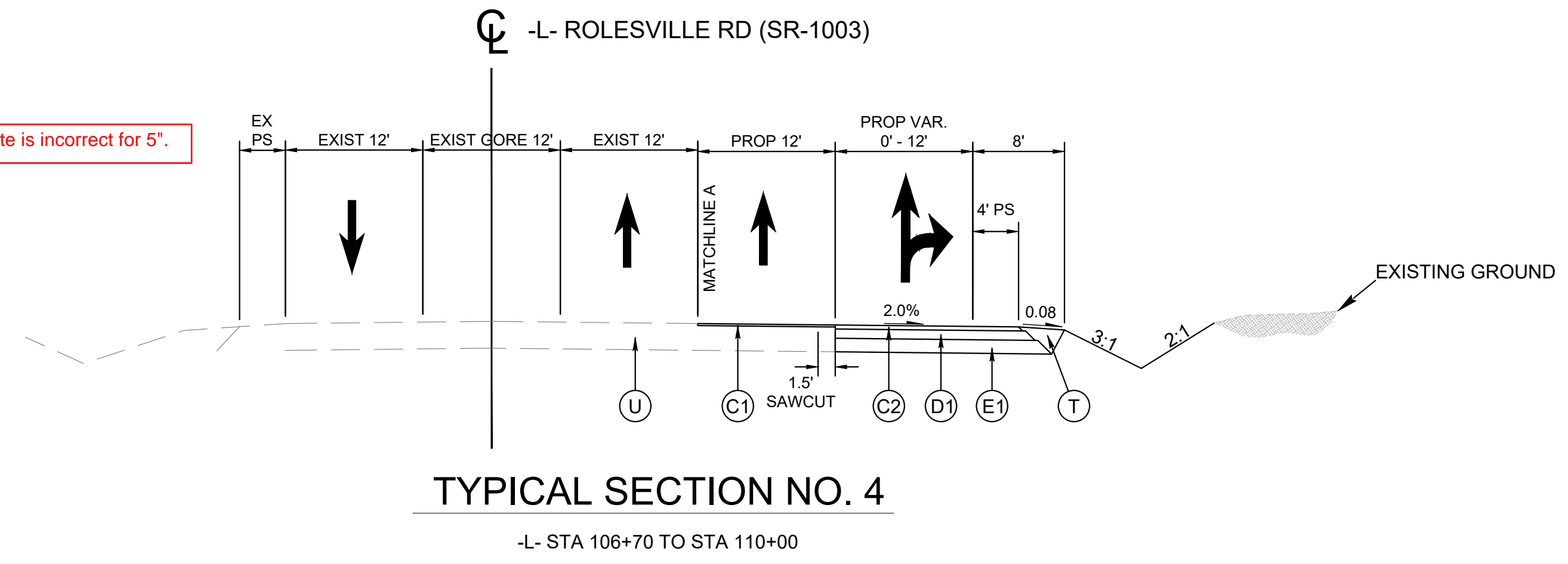
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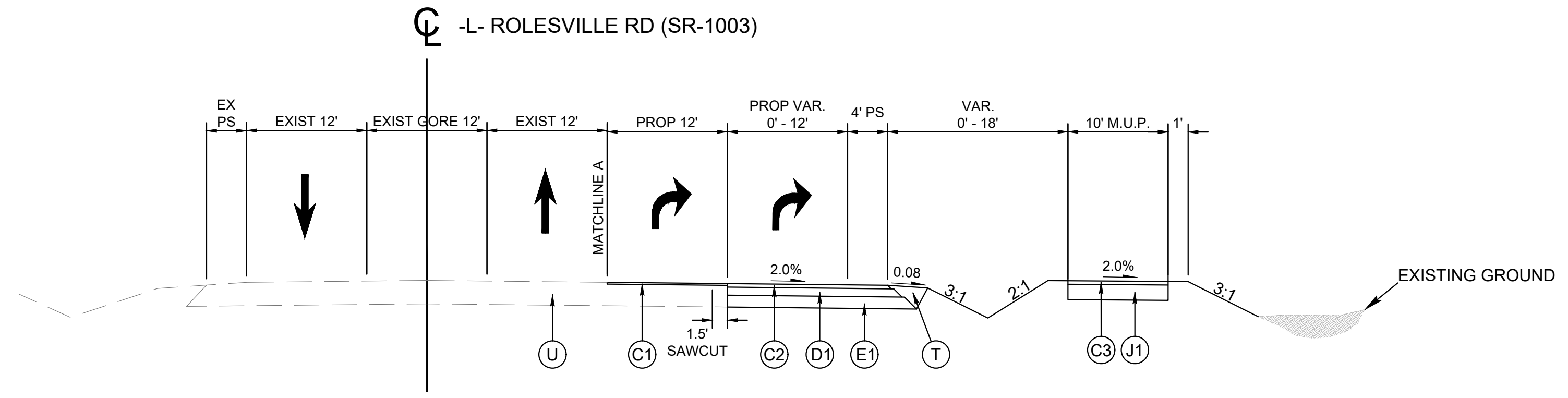
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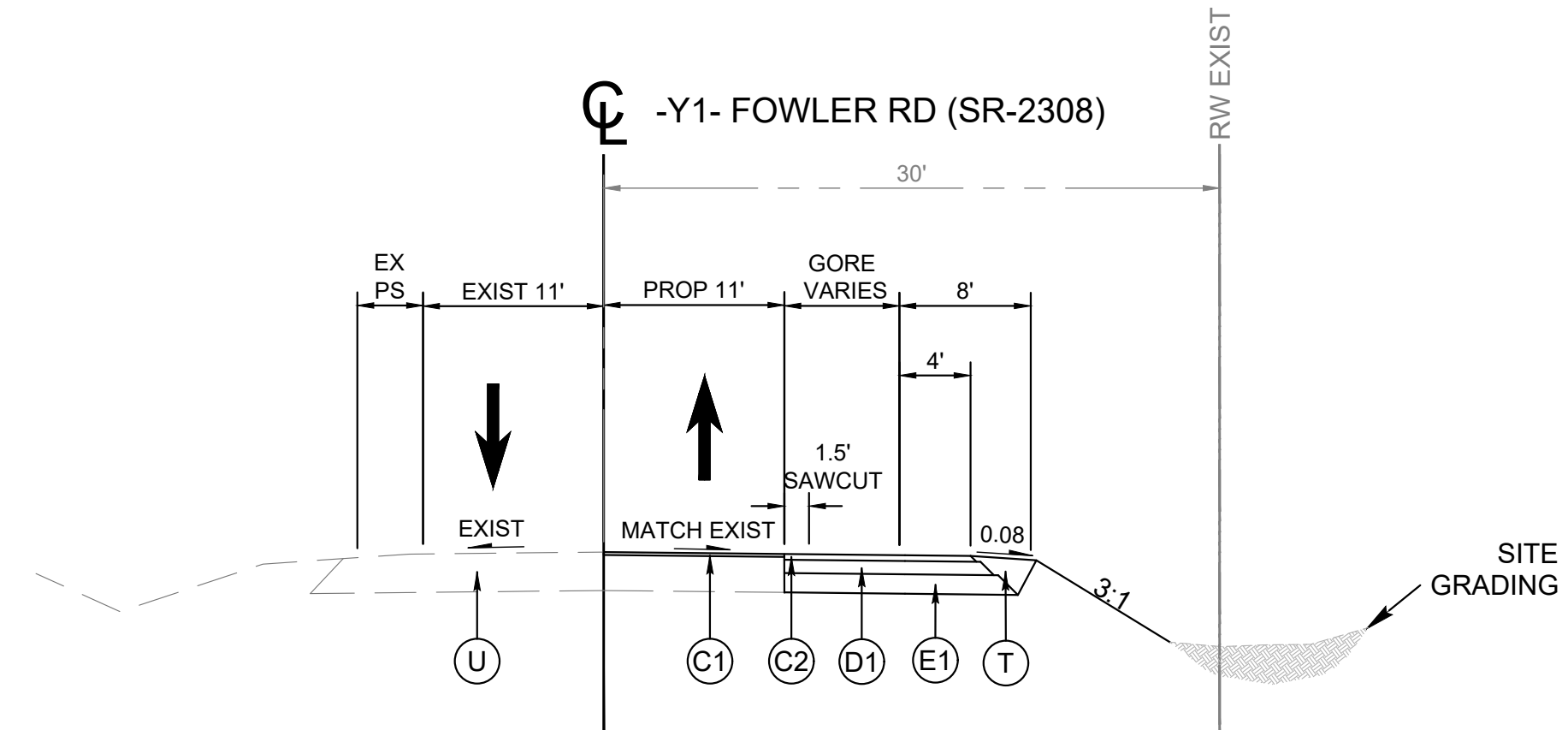
-L- STA 106+70 TO STA 110+00

- NOTES:
- 1) PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED.
  - 2) SEE CROSS SECTIONS FOR SUPERELEVATION RATES.
  - 3) USE REINFORCED SOIL SLOPES WHERE SLOPE IS GREATER THAN 2:1.
  - 4) CONTRACTOR TO VERIFY EXISTING CONDITIONS



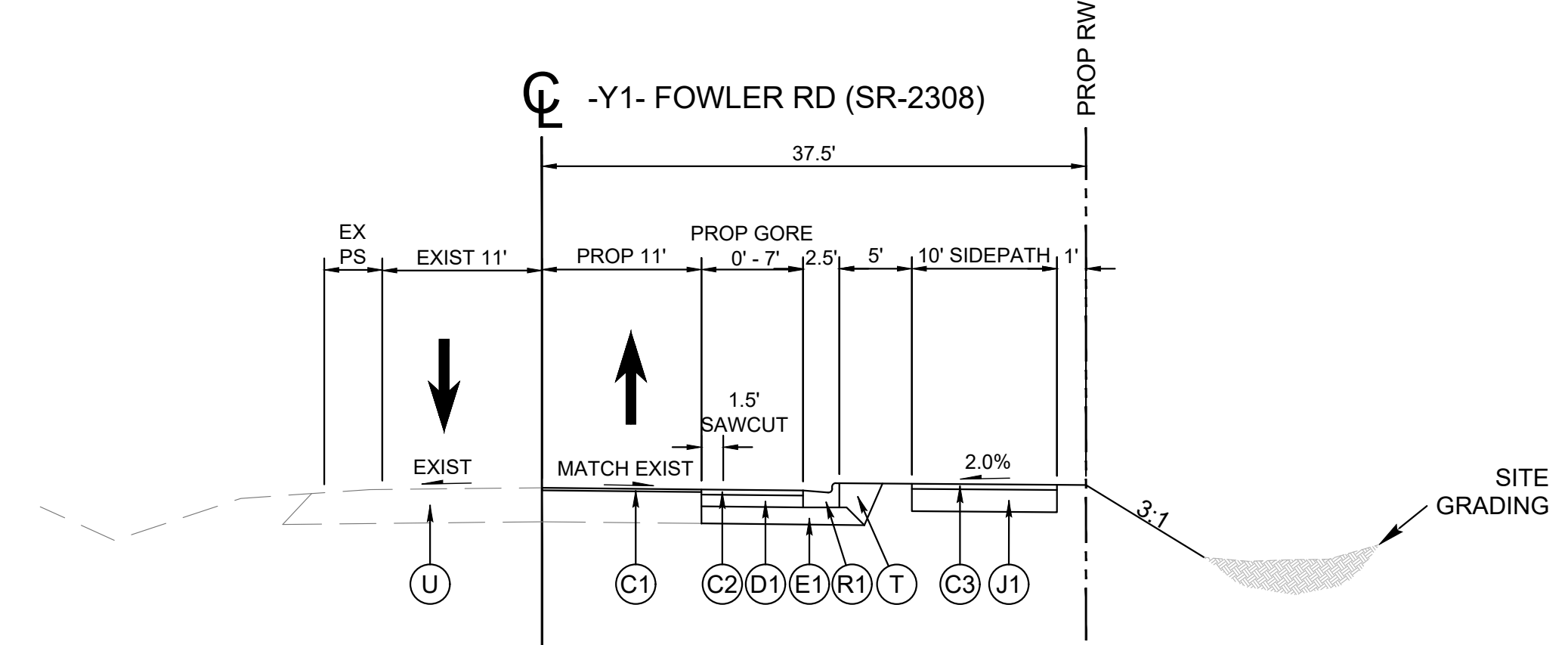
TYPICAL SECTION NO. 5

-L- STA 110+00 TO STA 111+75



TYPICAL SECTION NO. 6

-Y1- STA 19+57 TO STA 20+07  
-Y1- STA 24+55 TO STA 20+62



TYPICAL SECTION NO. 7

-Y1- STA 19+57 TO STA 24+62

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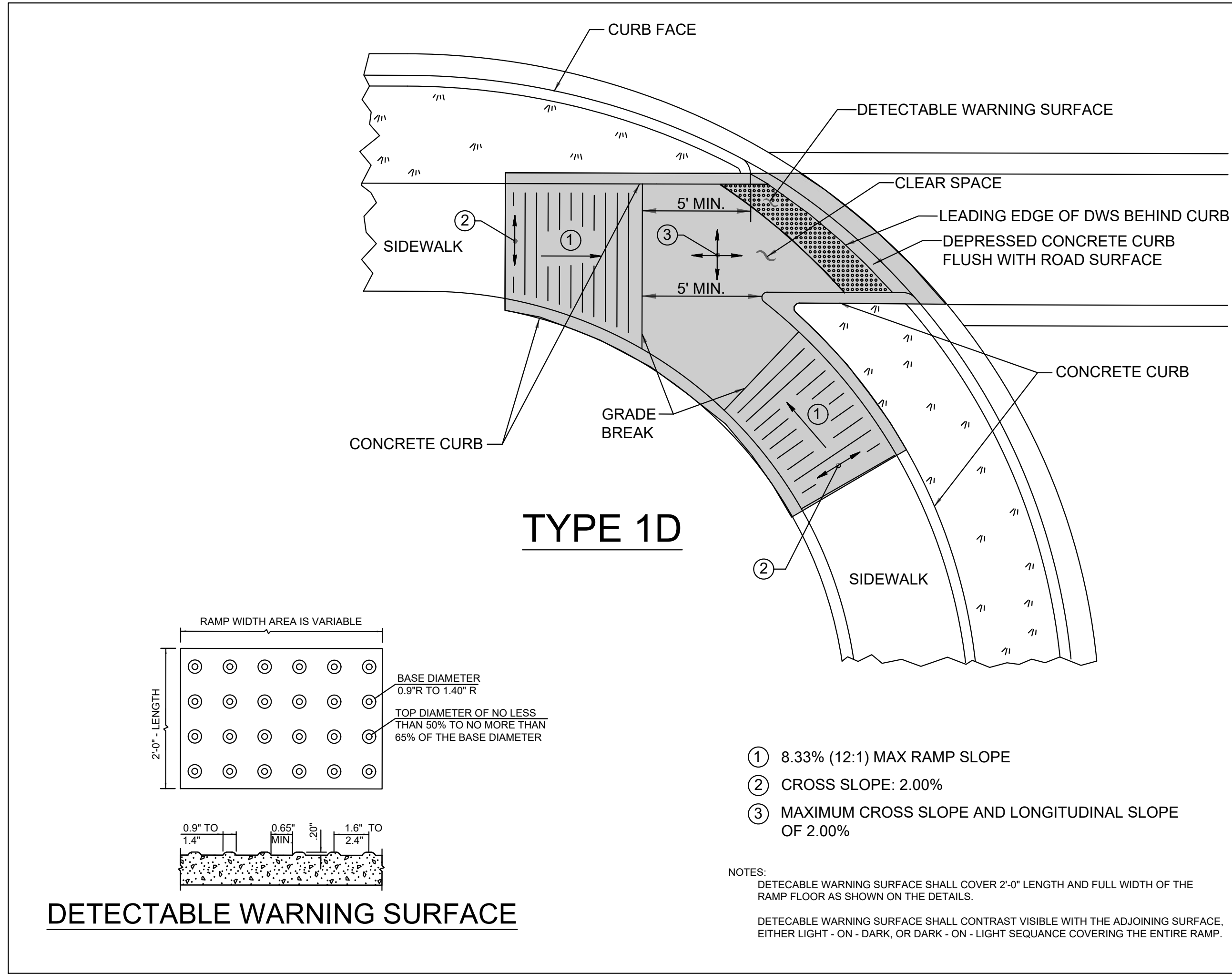
KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**TYPICAL SECTIONS**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC



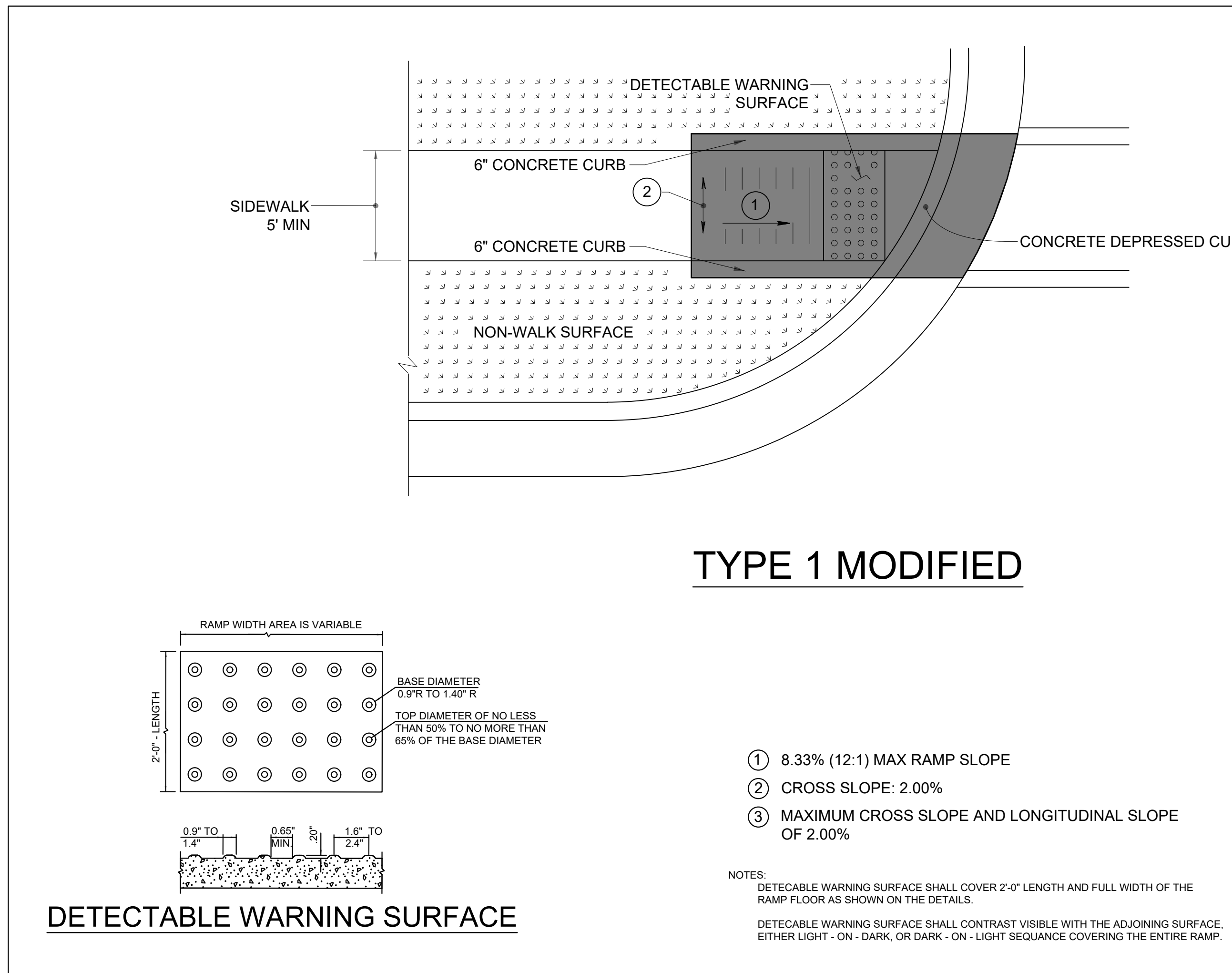
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1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CURB RAMP DIRECTIONAL RAMP

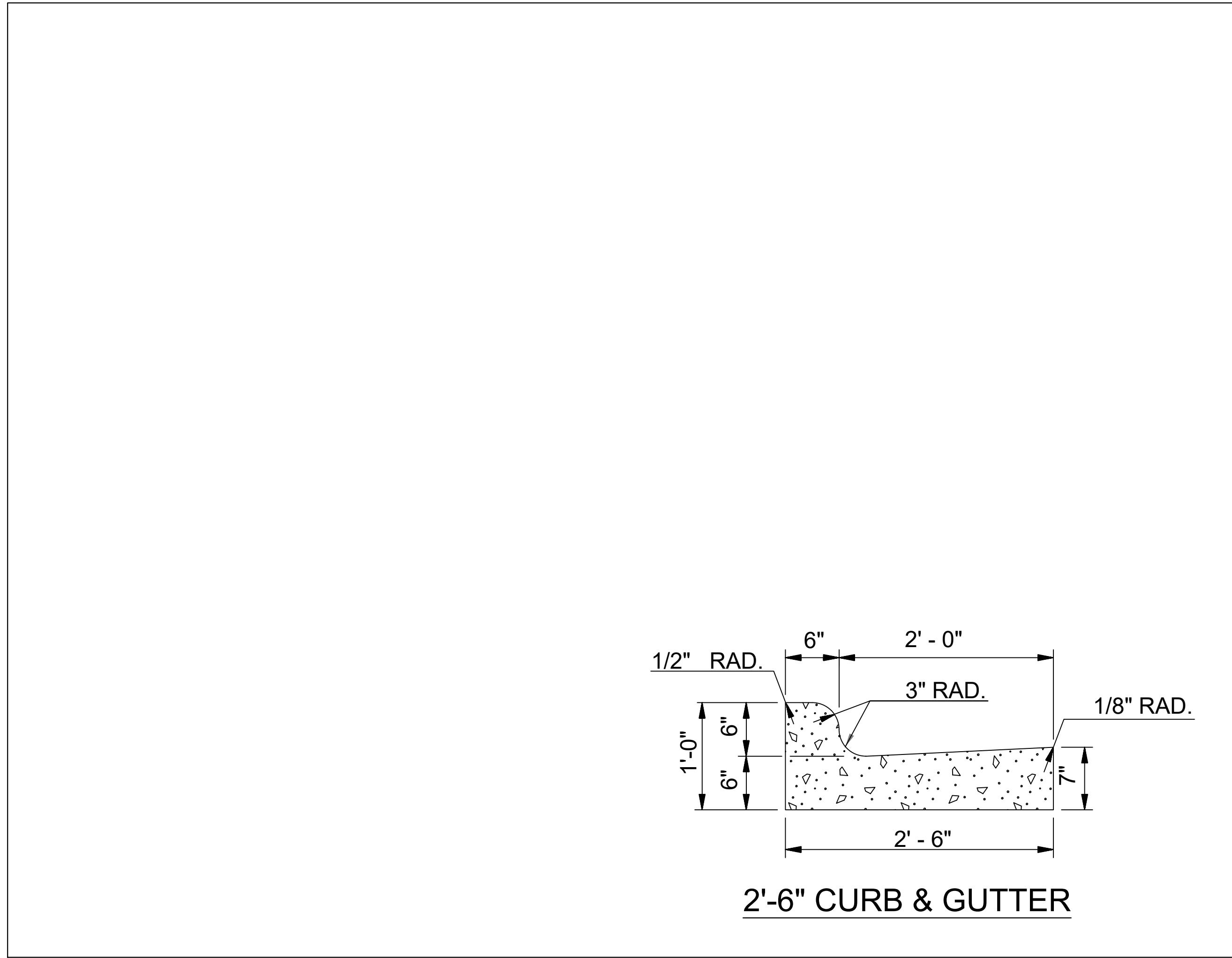
SHEET 7 OF 13  
**848.06**



1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR CURB RAMP DIRECTIONAL RAMP

SHEET 6 OF 13  
**848.06**



1-24 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

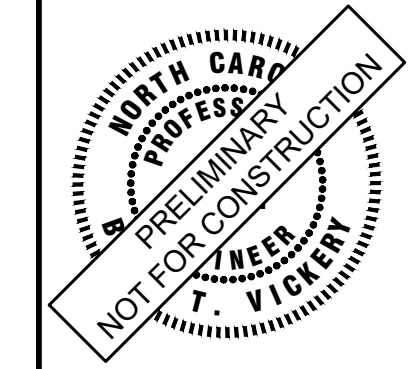
ROADWAY STANDARD DRAWING FOR CONCRETE CURB, GUTTER AND CURB & GUTTER

SHEET 1 OF 3  
**846.01**

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**DETAILS**

BROADMOOR ROLESVILLE  
PREPARED FOR  
PULTE GROUP

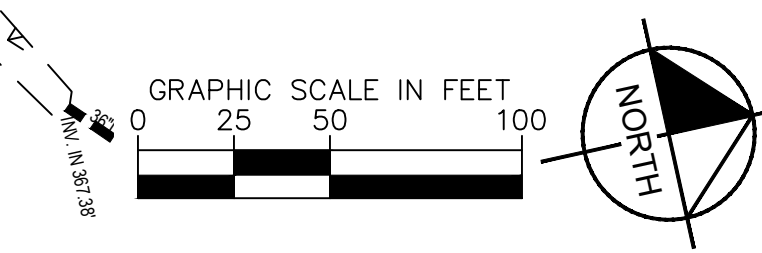
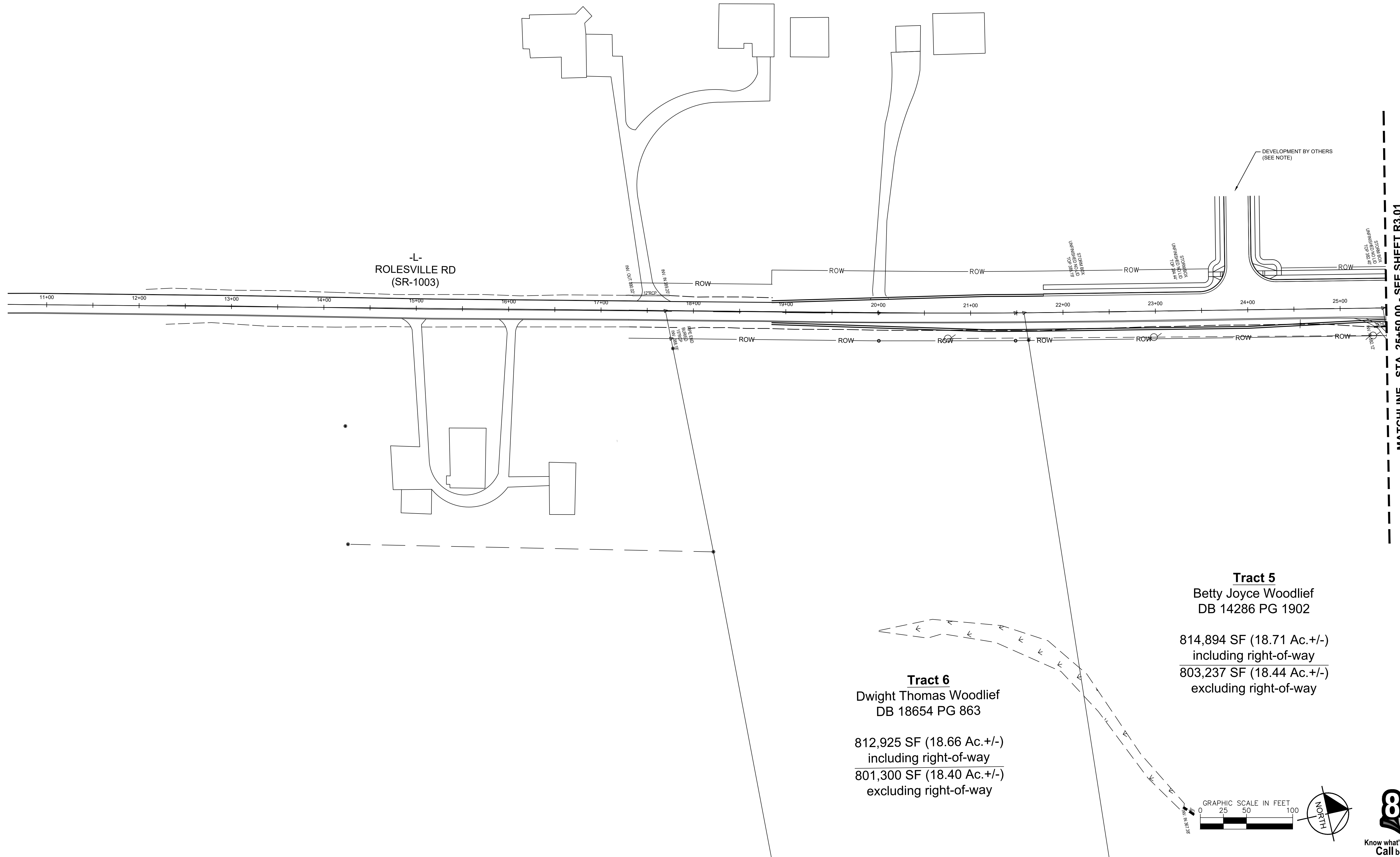
WAKE NC



SHEET NUMBER  
R2.00

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NOTES:  
1. CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED WORK BY OTHERS.



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NC FIRM # F-0102



KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTC
DRAWN BY	GTC
CHECKED BY	BTY

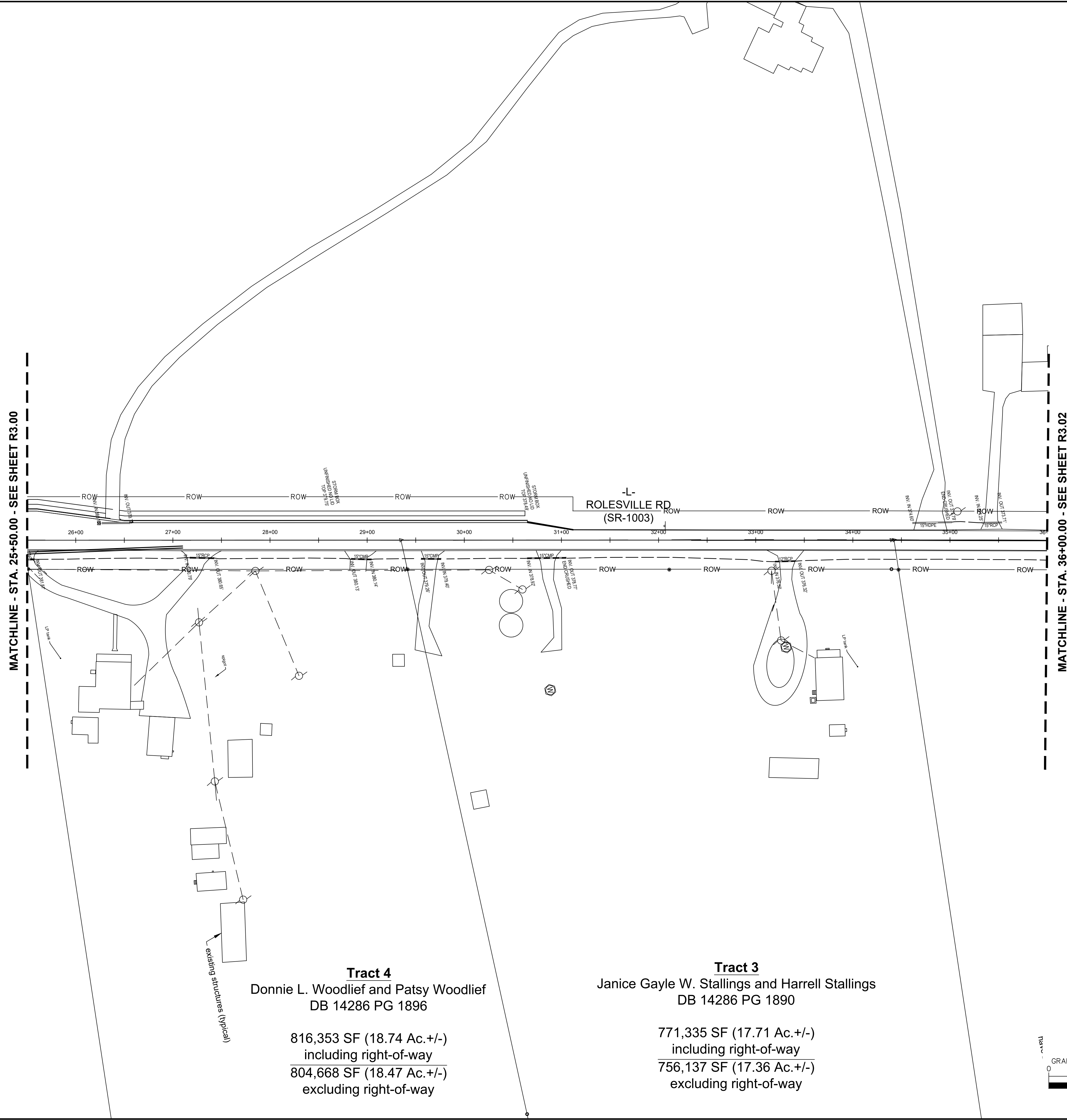
**EXISTING CONDITIONS**

BROADMOOR ROLESVILLE  
PREPARED FOR  
PULTE GROUP

WAKE NC

SHEET NUMBER  
R3.00

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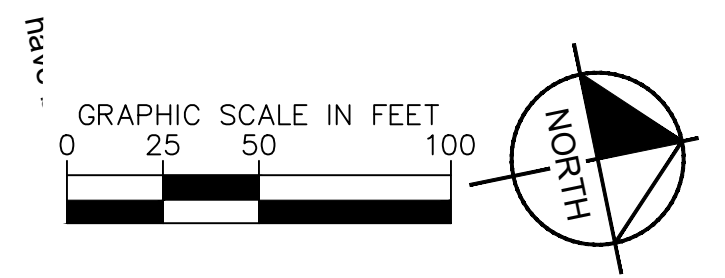


MATCHLINE - STA. 25+50.00 - SEE SHEET R3.00

MATCHLINE - STA. 36+00.00 - SEE SHEET R3.02

**Tract 4**  
 Donnie L. Woodlief and Patsy Woodlief  
 DB 14286 PG 1896  
 816,353 SF (18.74 Ac.+/-)  
 including right-of-way  
 804,668 SF (18.47 Ac.+/-)  
 excluding right-of-way

**Tract 3**  
 Janice Gayle W. Stallings and Harrell Stallings  
 DB 14286 PG 1890  
 771,335 SF (17.71 Ac.+/-)  
 including right-of-way  
 756,137 SF (17.36 Ac.+/-)  
 excluding right-of-way



<b>BROADMOOR ROLESVILLE</b> PREPARED FOR <b>PULTE GROUP</b>	NC WAKE
	SHEET NUMBER <b>R3.01</b>
<b>EXISTING CONDITIONS</b>	
KHA PROJECT 019867004 DATE 8/13/2024 SCALE AS SHOWN DESIGNED BY GTG DRAWN BY GTG CHECKED BY BTY	NORTH CAROLINA PROFESSIONAL ENGINEER NOT FOR CONSTRUCTION T. VIGOR
	© 2024 KIMLEY-HORN AND ASSOCIATES, INC. 3000 S. MAIN STREET, SUITE 212, HOLLY SPRINGS, NC 27540 PHONE: (919) 682-3583 WWW.KIMLEY-HORN.COM NC FIRM # 0102
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missing wetland flags  
to D-50 to D-53; appeared  
per approved

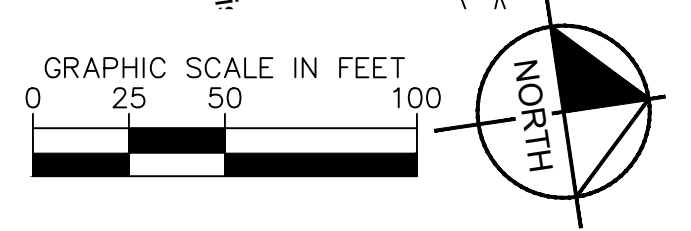
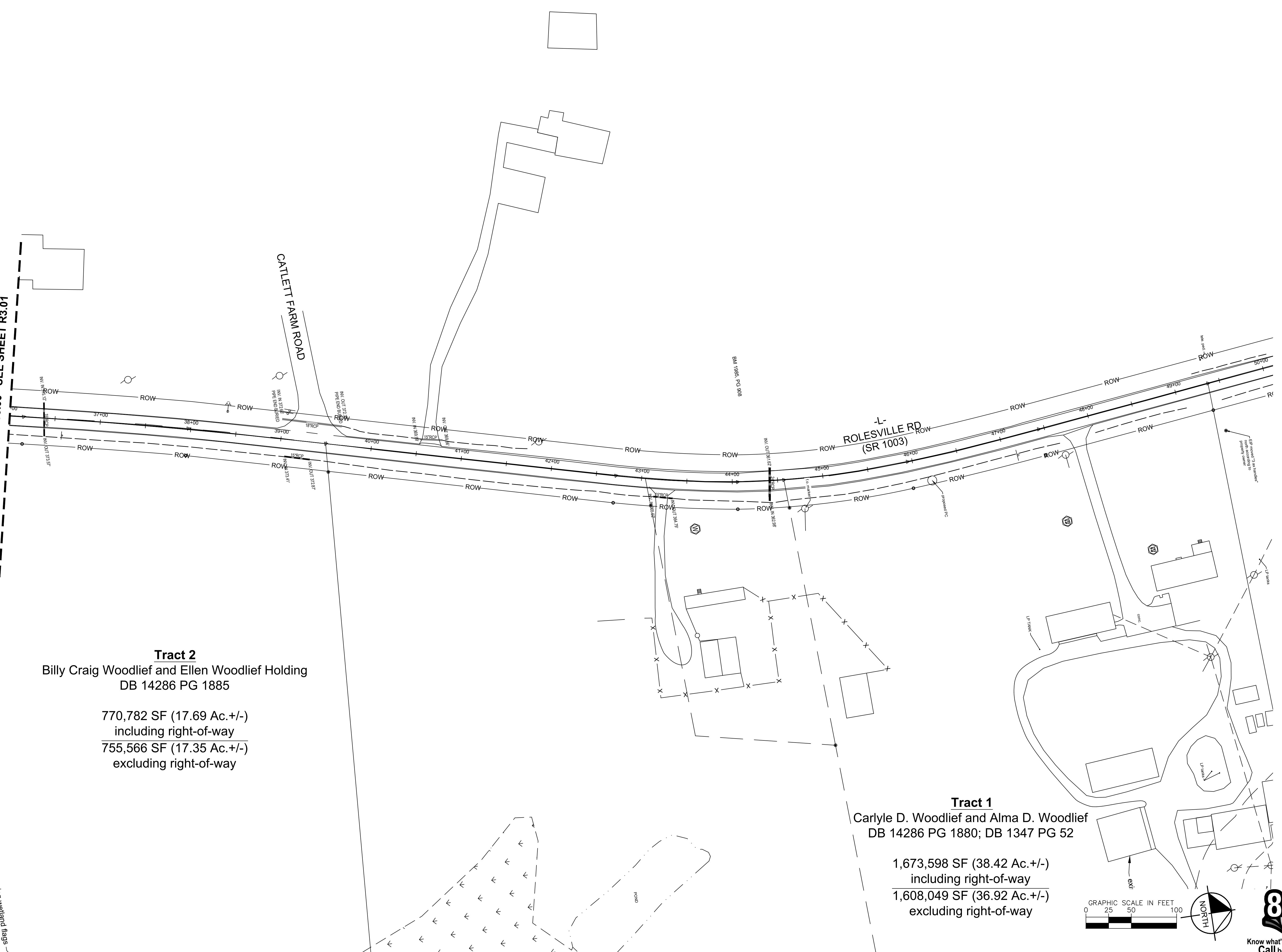
MATCHLINE - STA. 36+00.00 - SEE SHEET R3.01

**Tract 2**  
Billy Craig Woodlief and Ellen Woodlief Holding  
DB 14286 PG 1885

770,782 SF (17.69 Ac. +/-)  
including right-of-way  
755,566 SF (17.35 Ac. +/-)  
excluding right-of-way

**Tract 1**  
Carlyle D. Woodlief and Alma D. Woodlief  
DB 14286 PG 1880; DB 1347 PG 52

1,673,598 SF (38.42 Ac. +/-)  
including right-of-way  
1,608,049 SF (36.92 Ac. +/-)  
excluding right-of-way



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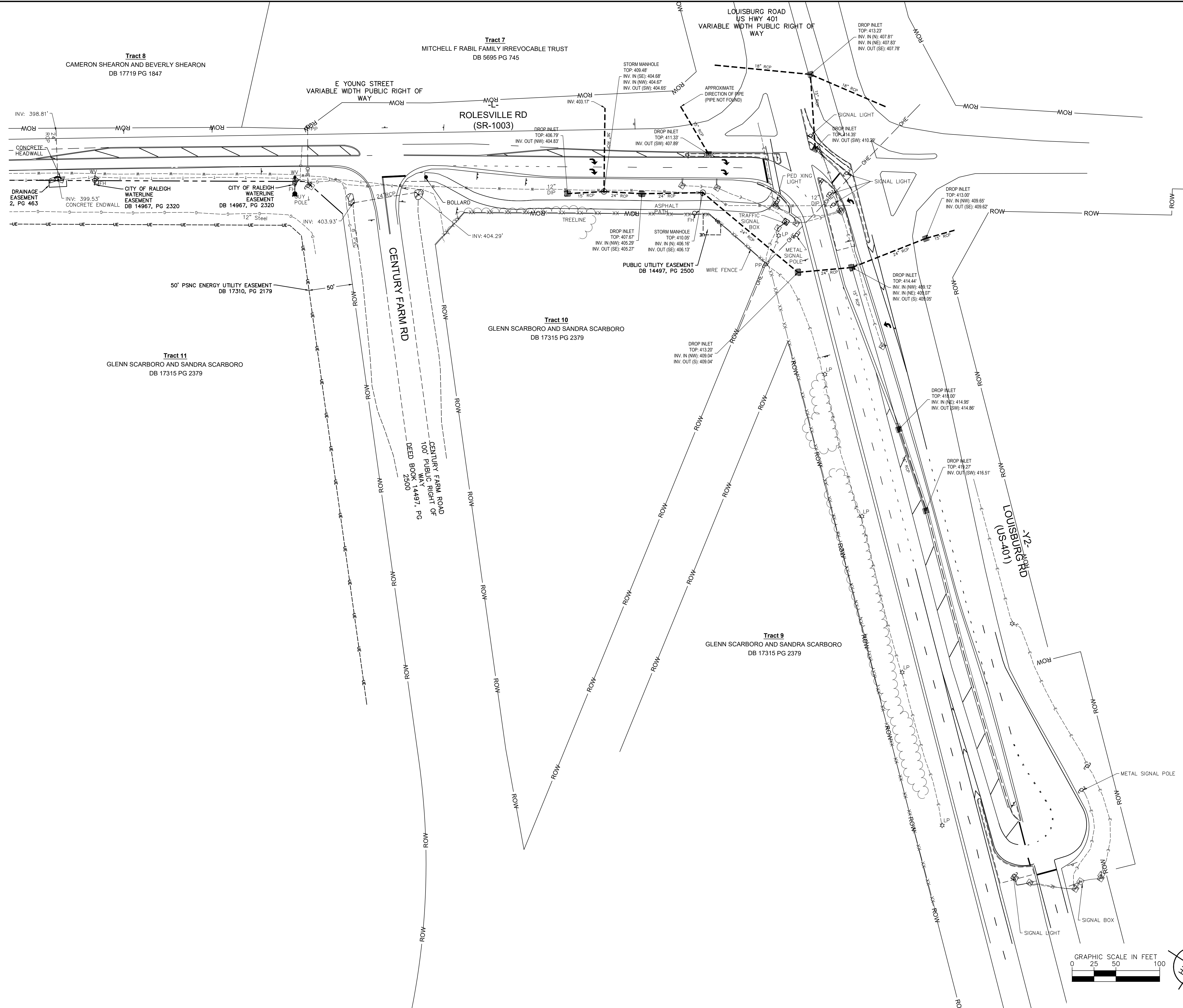
KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTC
DRAWN BY	GTC
CHECKED BY	BTY

**EXISTING CONDITIONS**

**BROADMOOR ROLESVILLE**  
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SHEET NUMBER  
R3.02

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KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**EXISTING CONDITIONS**

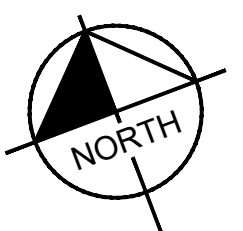
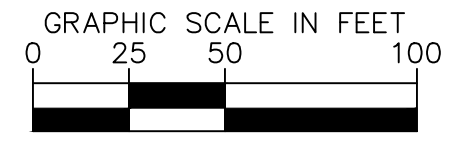
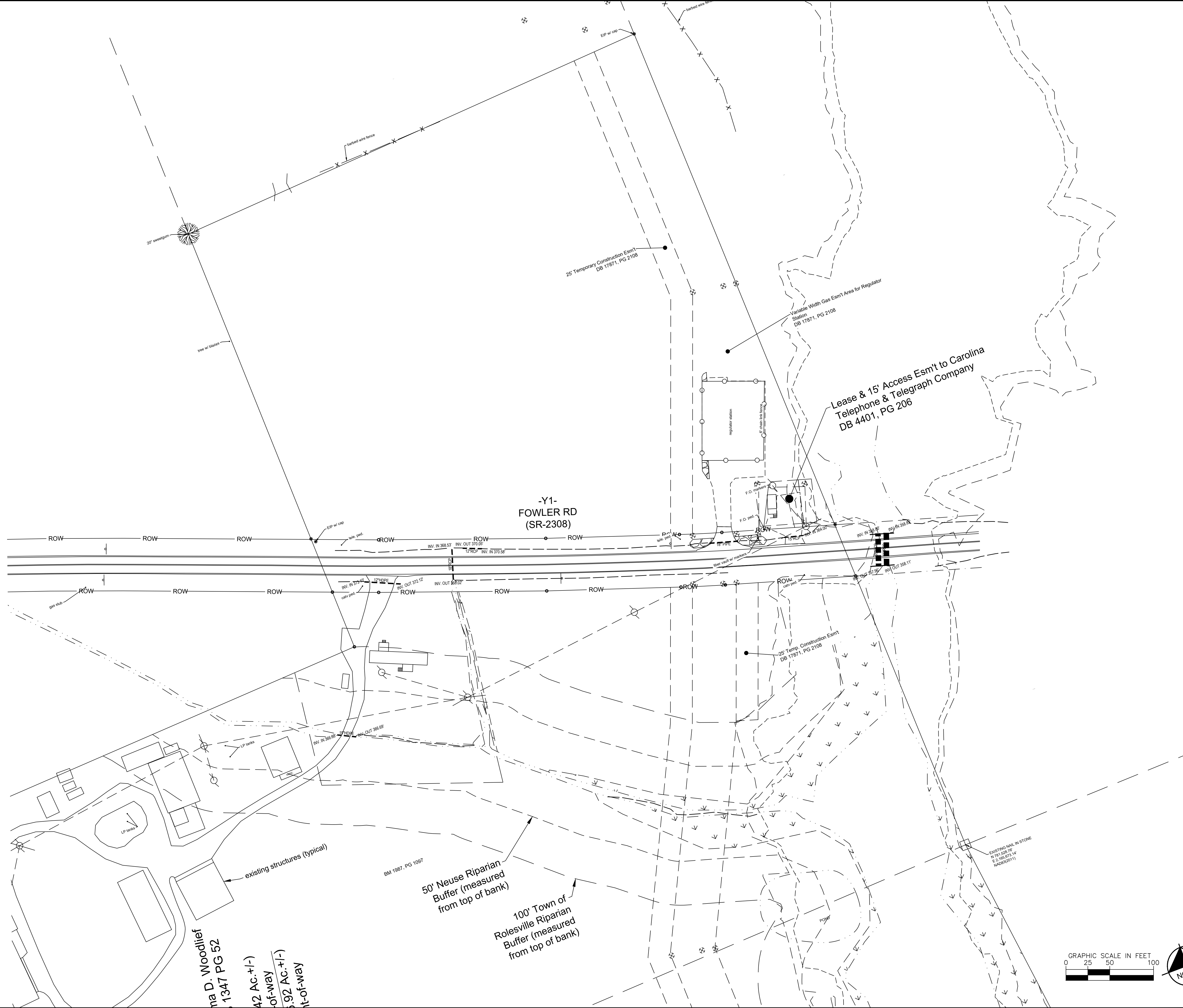
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 PREPARED FOR  
**PULTE GROUP**

WAKE NC

SHEET NUMBER  
**R3.03**



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KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTG

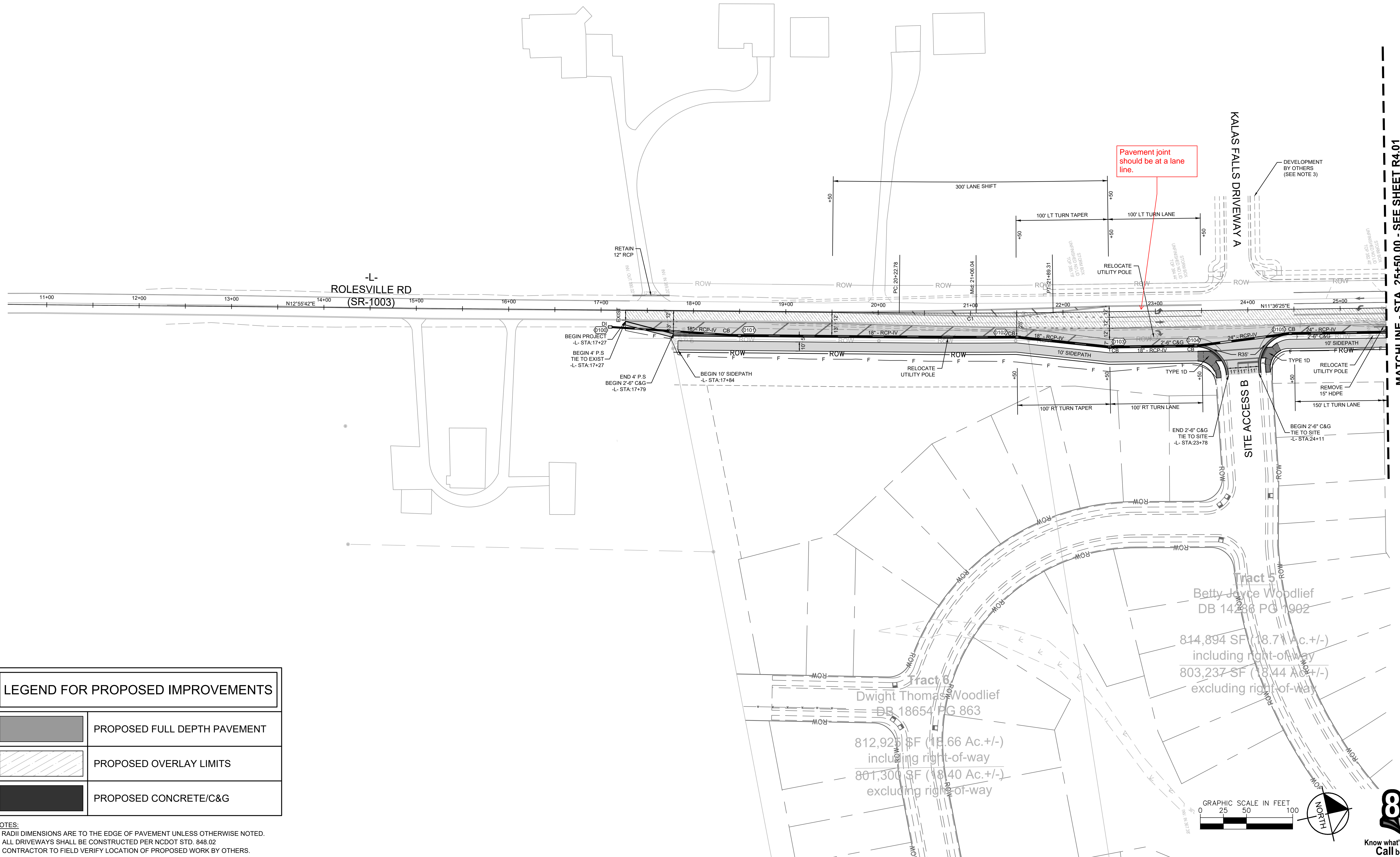
**EXISTING CONDITIONS**

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 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

SHEET NUMBER  
**R3.04**

**C1 - CURVE DATA**

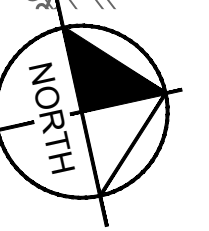
Δ=1°19'18"  
 R=7220.0'  
 L=166.5'  
 TAN=83.27'  
 ChD=166.5'



**LEGEND FOR PROPOSED IMPROVEMENTS**

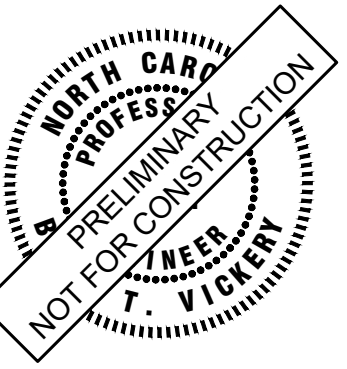
	PROPOSED FULL DEPTH PAVEMENT
	PROPOSED OVERLAY LIMITS
	PROPOSED CONCRETE/C&G

- NOTES:**
1. RADII DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  2. ALL DRIVEWAYS SHALL BE CONSTRUCTED PER NCDOT STD. 848.02
  3. CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED WORK BY OTHERS.



MATCHLINE - STA. 25+50.00 - SEE SHEET R4.01

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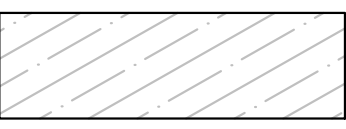

KHA PROJECT	019867004
DATE	8/13/2024
SCALE AS SHOWN	
DESIGNED BY	GTC
DRAWN BY	GTC
CHECKED BY	BTY

**PLAN VIEW**

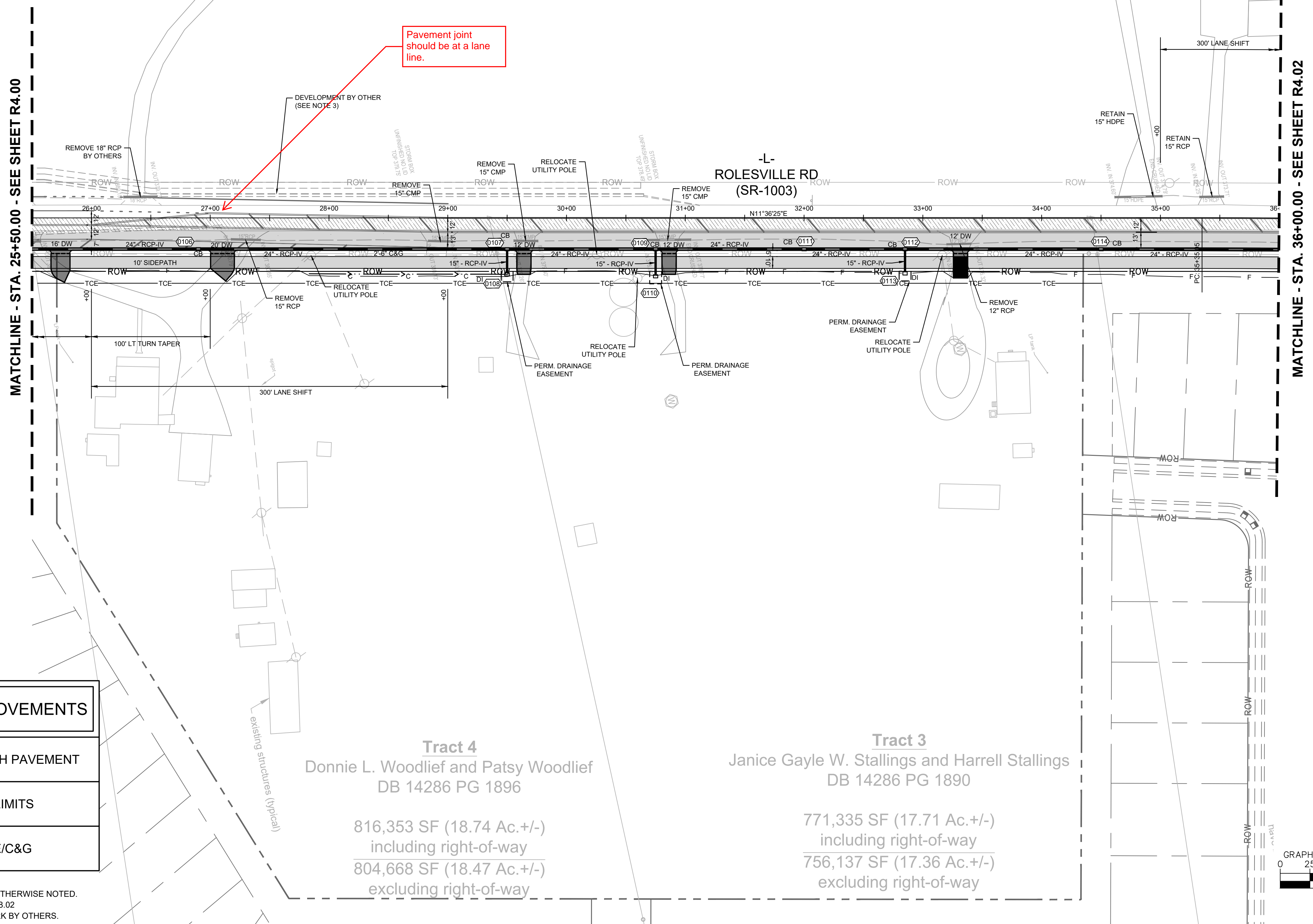
**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 SHEET NUMBER  
**R4.00**

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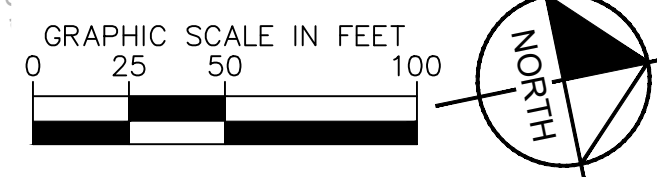
LEGEND FOR PROPOSED IMPROVEMENTS	
	PROPOSED FULL DEPTH PAVEMENT
	PROPOSED OVERLAY LIMITS
	PROPOSED CONCRETE/C&G

- NOTES:**
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  - ALL DRIVEWAYS SHALL BE CONSTRUCTED PER NCDOT STD. 848.02
  - CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED WORK BY OTHERS.



**Tract 4**  
 Donnie L. Woodlief and Patsy Woodlief  
 DB 14286 PG 1896  
 816,353 SF (18.74 Ac.+/-)  
 including right-of-way  
 804,668 SF (18.47 Ac.+/-)  
 excluding right-of-way

**Tract 3**  
 Janice Gayle W. Stallings and Harrell Stallings  
 DB 14286 PG 1890  
 771,335 SF (17.71 Ac.+/-)  
 including right-of-way  
 756,137 SF (17.36 Ac.+/-)  
 excluding right-of-way



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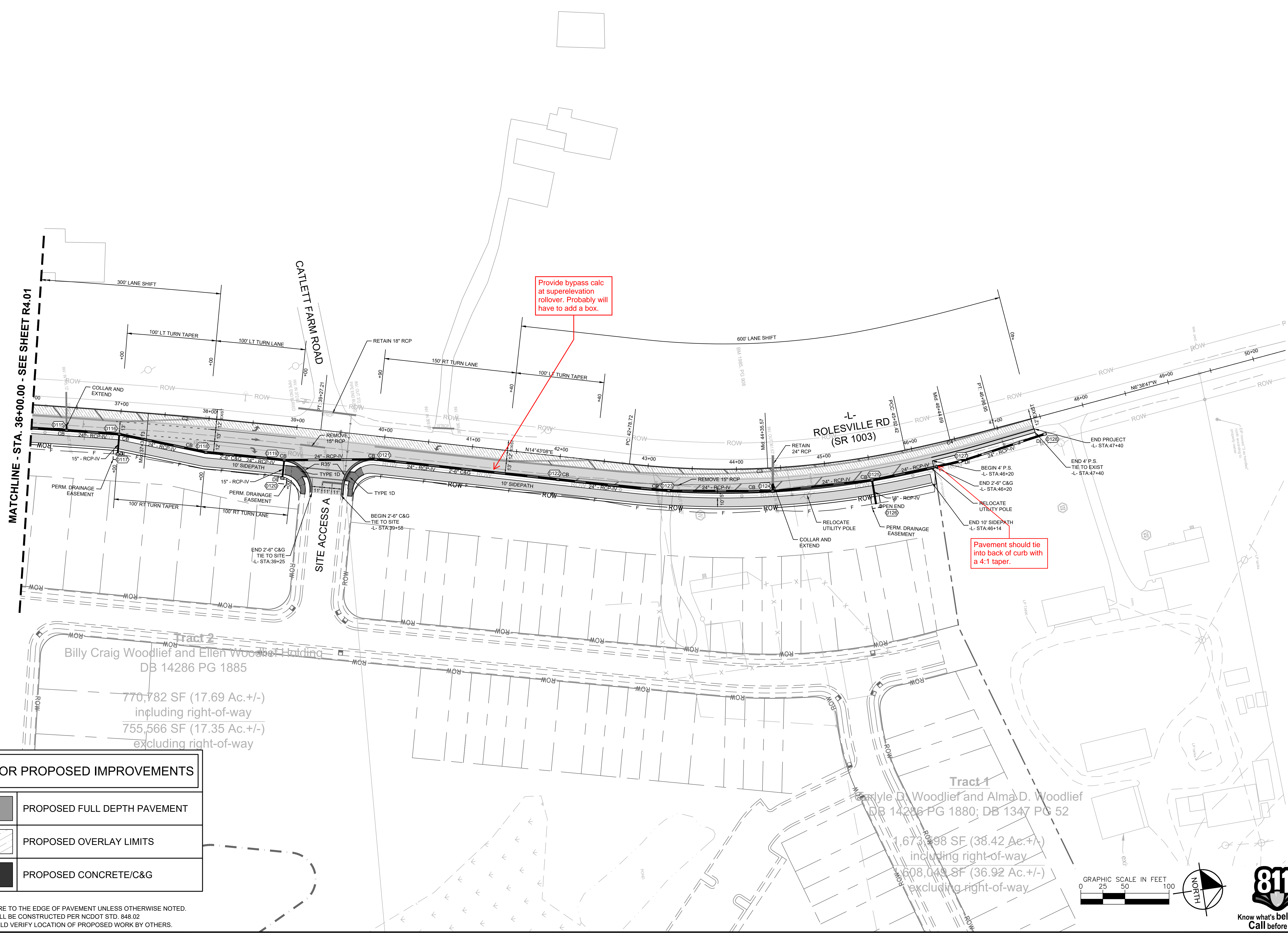


KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTC
DRAWN BY	GTC
CHECKED BY	BTY

**PLAN VIEW**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 SHEET NUMBER  
**R4.01**  
 WAKE NC

C2 - CURVE DATA	C3 - CURVE DATA	C4 - CURVE DATA
$\Delta=3^{\circ}06'43"$	$\Delta=18^{\circ}20'26"$	$\Delta=3^{\circ}01'29"$
$R=7220.0'$	$R=980.0'$	$R=1980.0'$
$L=392.2'$	$L=313.7'$	$L=104.5'$
$TAN=196.13$	$TAN=158.20$	$TAN=52.28$
$ChD=392.1'$	$ChD=312.4'$	$ChD=104.5'$



MATCHLINE - STA. 36+00.00 - SEE SHEET R4.01

Tract 2  
 Billy Craig Woodlief and Ellen Woodlief Building  
 DB 14286 PG 1885  
 770,782 SF (17.69 Ac. +/-)  
 including right-of-way  
 755,566 SF (17.35 Ac. +/-)  
 excluding right-of-way

Tract 1  
 Carlyle D. Woodlief and Alma D. Woodlief  
 DB 14286 PG 1880; DB 1347 PG 52  
 1,673,398 SF (38.42 Ac. +/-)  
 including right-of-way  
 608,049 SF (36.92 Ac. +/-)  
 excluding right-of-way

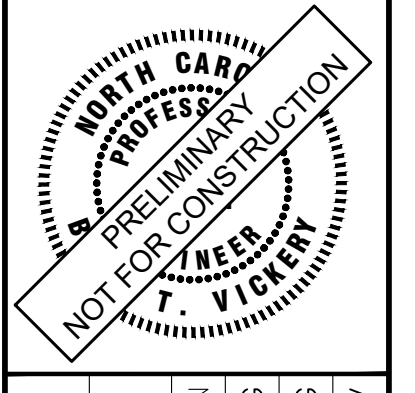
LEGEND FOR PROPOSED IMPROVEMENTS	
	PROPOSED FULL DEPTH PAVEMENT
	PROPOSED OVERLAY LIMITS
	PROPOSED CONCRETE/C&G

NOTES:  
 1. RADII DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.  
 2. ALL DRIVEWAYS SHALL BE CONSTRUCTED PER NCDOT STD. 848.02  
 3. CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED WORK BY OTHERS.



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KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**PLAN VIEW**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

SHEET NUMBER  
**R4.02**

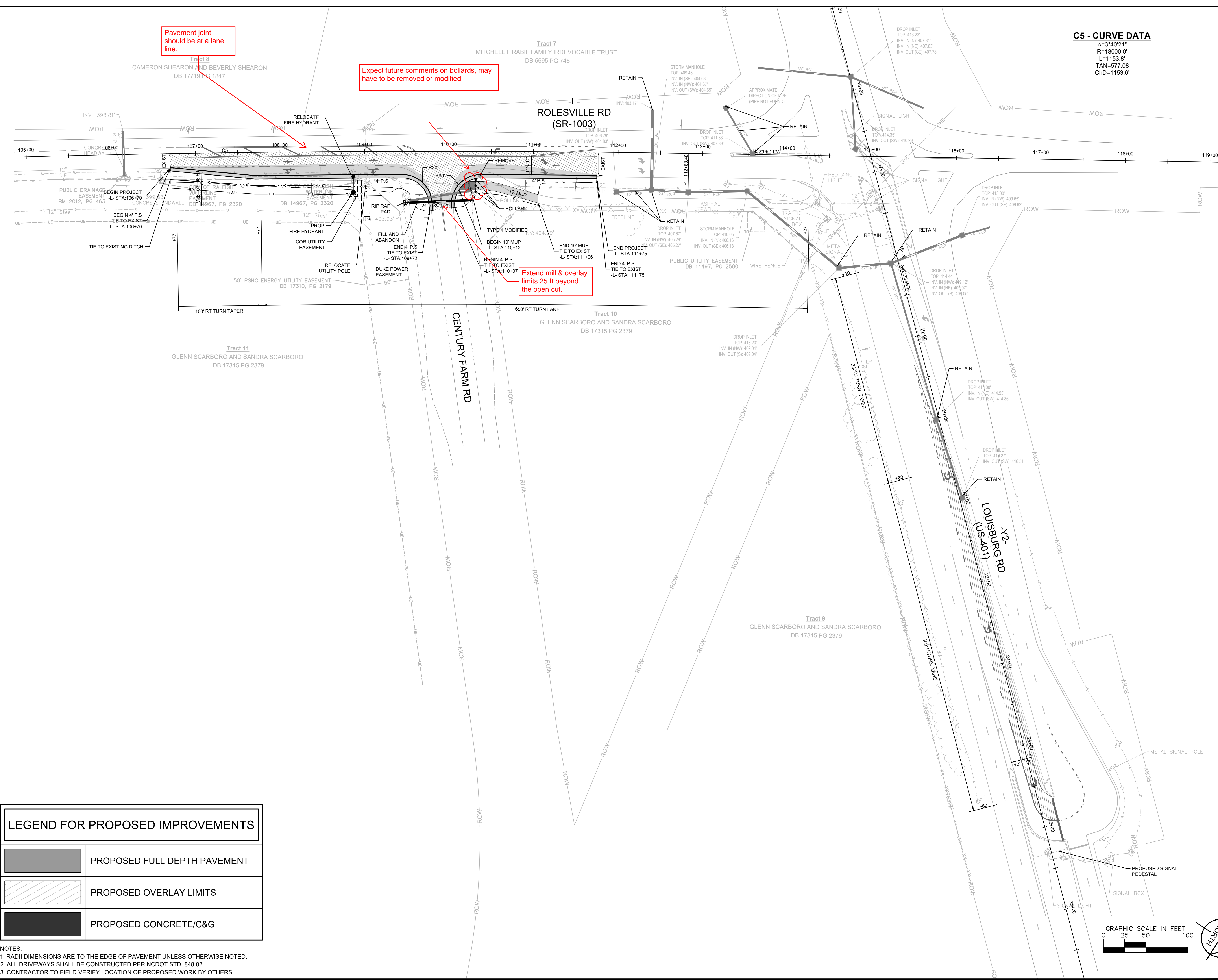
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Pavement joint should be at a lane line.

Expect future comments on bollards, may have to be removed or modified.

Extend mill & overlay limits 25 ft beyond the open cut.

**C5 - CURVE DATA**  
 $\Delta=3^{\circ}40'21''$   
 $R=18000.0'$   
 $L=1153.8'$   
 $TAN=577.08'$   
 $ChD=1153.6'$



**LEGEND FOR PROPOSED IMPROVEMENTS**

	PROPOSED FULL DEPTH PAVEMENT
	PROPOSED OVERLAY LIMITS
	PROPOSED CONCRETE/C&G

- NOTES:**
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  - CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED WORK BY OTHERS.

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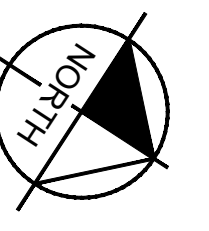
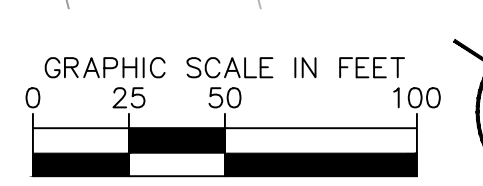
KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**PLAN VIEW**

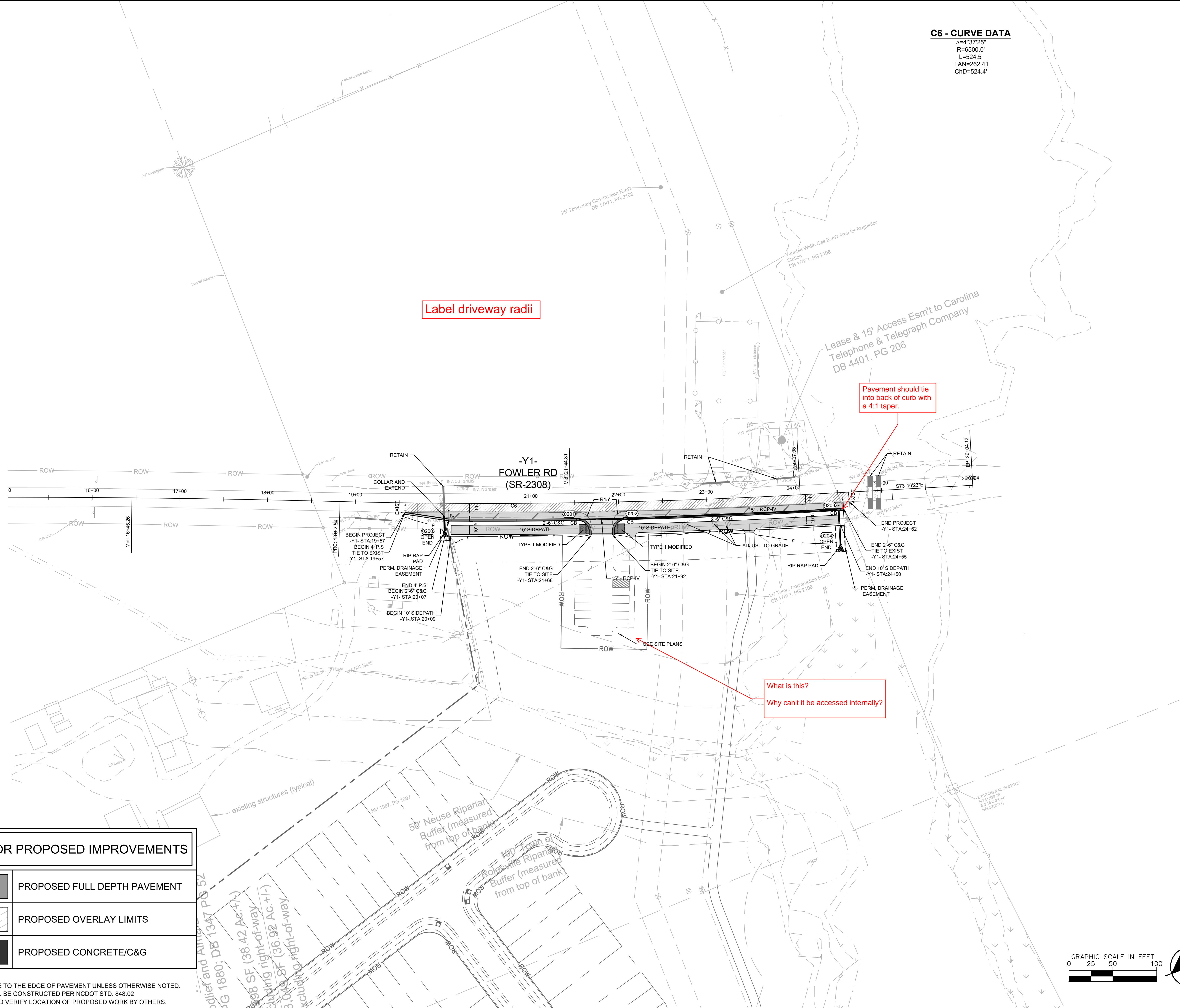
**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

SHEET NUMBER  
R4.03

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**C6 - CURVE DATA**  
 $\Delta=4^{\circ}37'25''$   
 $R=6500.0'$   
 $L=524.5'$   
 $TAN=262.41$   
 $ChD=524.4'$

Label driveway radii

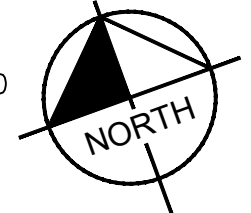
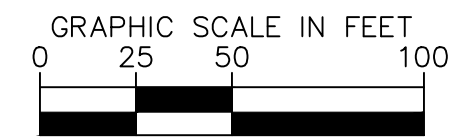
Pavement should tie into back of curb with a 4:1 taper.

What is this?  
 Why can't it be accessed internally?

**LEGEND FOR PROPOSED IMPROVEMENTS**

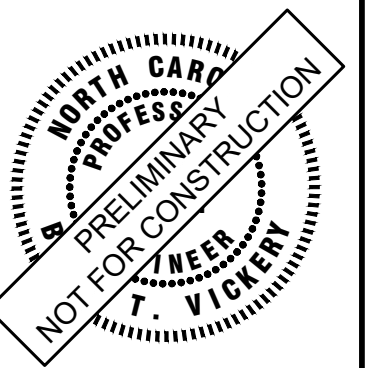
	PROPOSED FULL DEPTH PAVEMENT
	PROPOSED OVERLAY LIMITS
	PROPOSED CONCRETE/C&G

- NOTES:**
1. RADII DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
  2. ALL DRIVEWAYS SHALL BE CONSTRUCTED PER NCDOT STD. 848.02
  3. CONTRACTOR TO FIELD VERIFY LOCATION OF PROPOSED WORK BY OTHERS.



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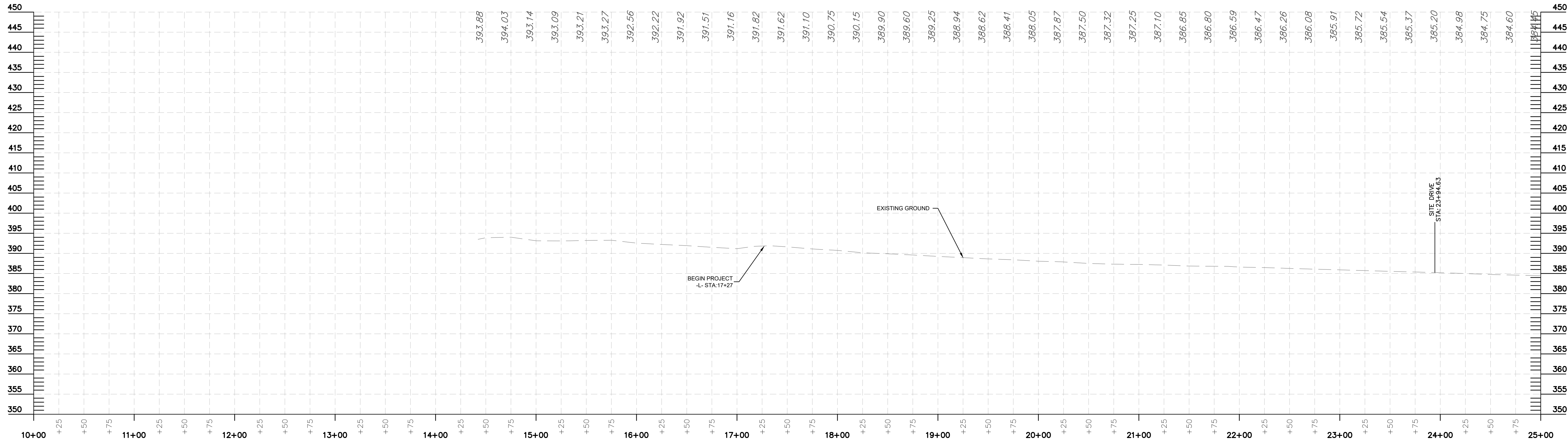
KHA PROJECT	019867004
DATE	8/13/2024
SCALE AS SHOWN	GTG
DESIGNED BY	GTG
DRAWN BY	BTY
CHECKED BY	BTY

**PLAN VIEW**

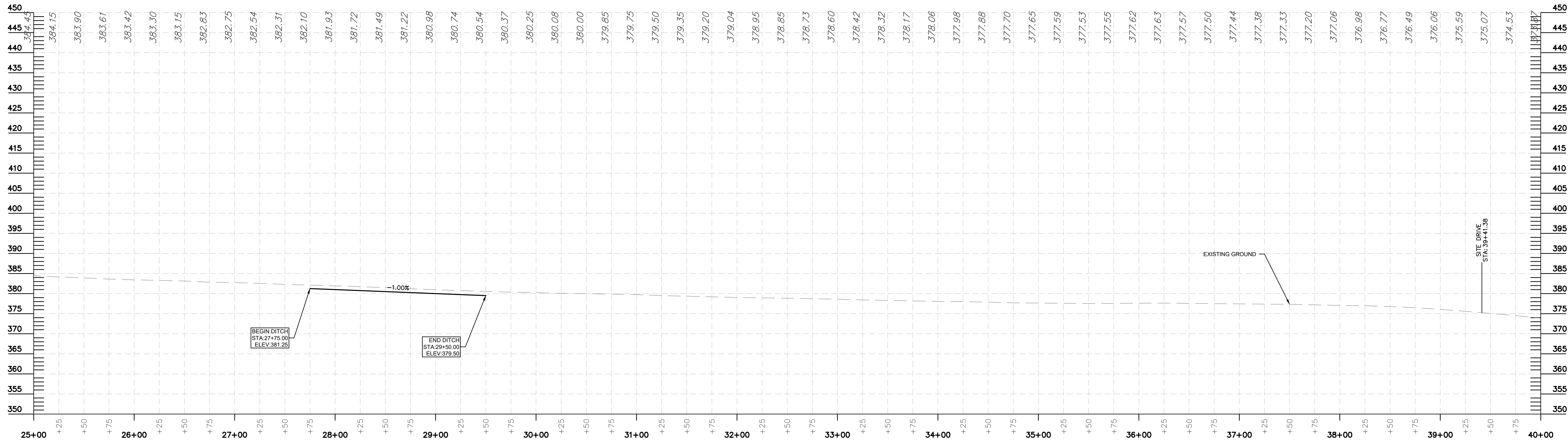
**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 SHEET NUMBER  
**R4.04**  
 WAKE NC



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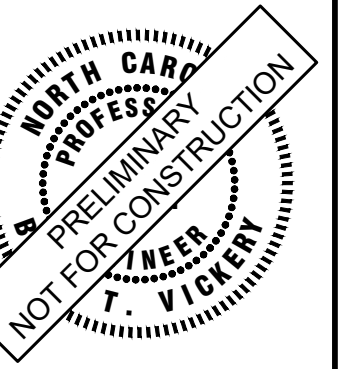


-L- ROLESVILLE RD (SR-1003)



-L- ROLESVILLE RD (SR-1003)

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KHA PROJECT	019867004
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DRAWN BY	GTG
CHECKED BY	BTY

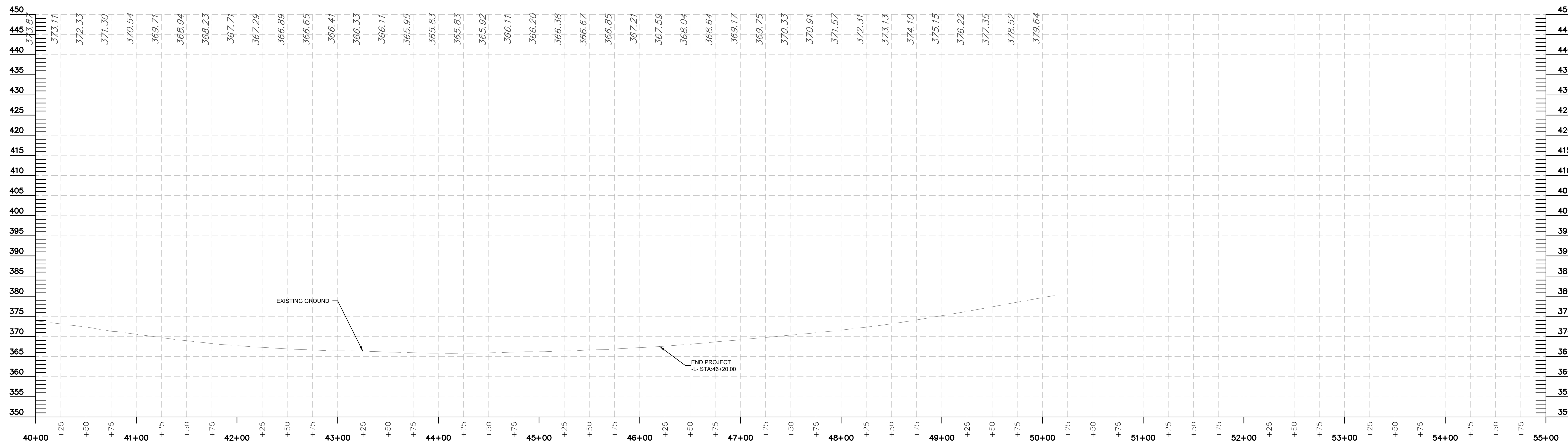
**PROFILE**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

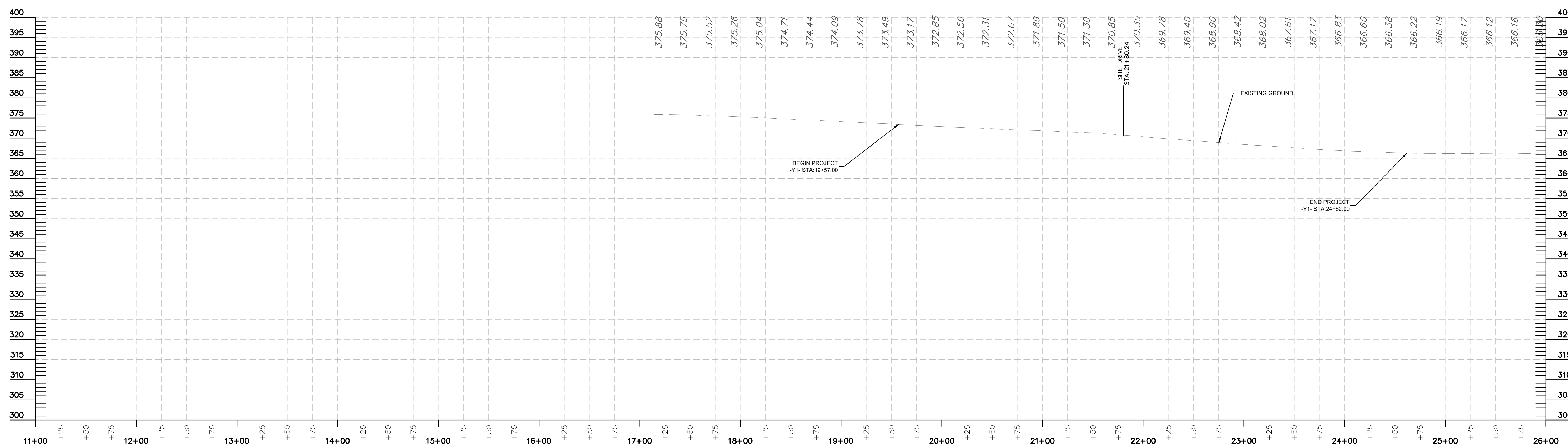
SHEET NUMBER  
**R5.00**

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-L- ROLESVILLE RD (SR-1003)



-Y- FOWLER RD (SR-1003)

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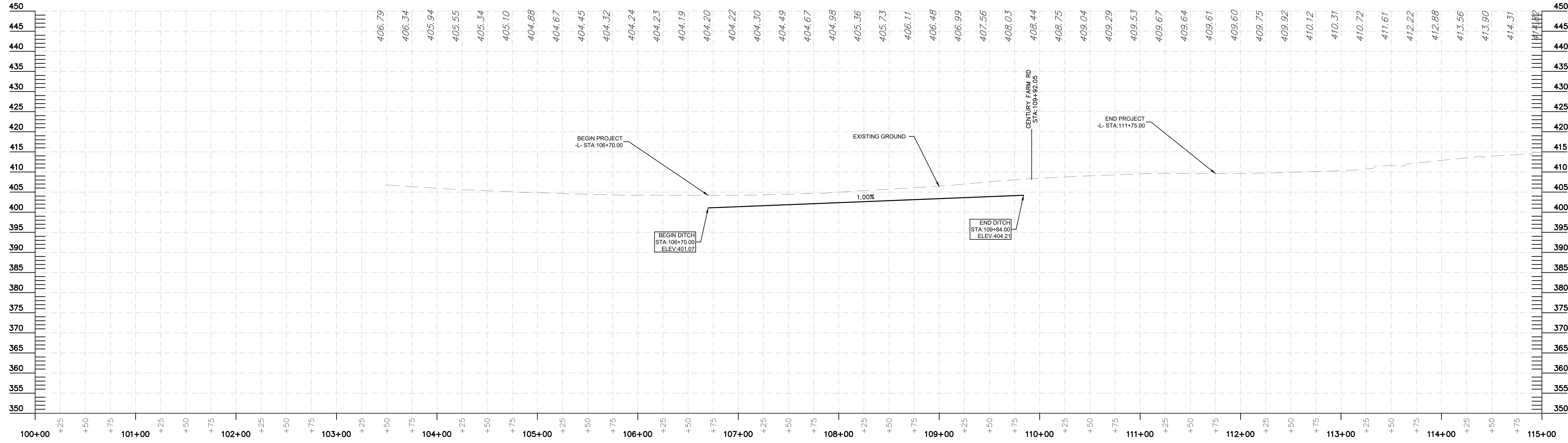


KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**PROFILE**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

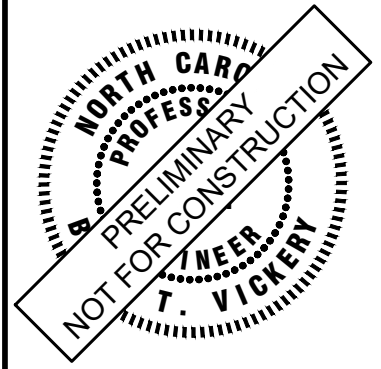
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**-L- ROLESVILLE RD - NORTH (SR-1003)**

No.	REVISIONS	DATE	BY

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KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**PROFILE**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

# TRAFFIC NOTES

ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST MUTCD AND 2024 NCDOT STANDARDS

ADAPT THE TRAFFIC CONTROL CONCEPTS WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE SAFE AND EFFICIENT TRAFFIC MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWING, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR UNDESIRABLE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

### TIME RESTRICTIONS:

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. ROLESVILLE RD	MONDAY THROUGH FRIDAY (FROM 6AM TO 9AM AND FROM 4PM TO 6PM)
2. LOUISBURG RD (US 401)	MONDAY THROUGH FRIDAY (FROM 6AM TO 9AM AND FROM 4PM TO 6PM)
3. FOWLER RD	MONDAY THROUGH FRIDAY (FROM 6AM TO 9AM AND FROM 4PM TO 6PM)

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
1. ROLESVILLE RD
2. LOUISBURG RD (US 401)
3. FOWLER RD

### HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER
  - FOR NEW YEAR'S, BETWEEN THE HOURS OF 9 PM DECEMBER 31ST TO 6AM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6 AM THE FOLLOWING TUESDAY.
  - FOR EASTER, BETWEEN THE HOURS OF 9PM THURSDAY AND 6AM TUESDAY.
  - FOR MEMORIAL DAY, BETWEEN THE HOURS OF 9PM FRIDAY TO 6AM TUESDAY.
  - FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 9PM THE DAY BEFORE INDEPENDENCE DAY AND 6 AM THE DAY AFTER INDEPENDENCE DAY.
- IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 9PM THE THURSDAY BEFORE INDEPENDENCE DAY AND 6AM THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 9PM FRIDAY AND 6AM TUESDAY.
  - FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 9PM TUESDAY TO 6AM MONDAY.
  - FOR CHRISTMAS, BETWEEN THE HOURS OF 9PM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6AM. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.
  - FOR SPECIAL EVENTS, NOTED BY THE ENGINEER, BETWEEN THE HOURS OF 9PM THE DAY BEFORE THE SPECIAL EVENT AND 6AM THE DAY FOLLOWING THE SPECIAL EVENT.
- IF THE SPECIAL EVENT IS ON A FRIDAY, SATURDAY, OR SUNDAY, THEN BETWEEN THE HOURS OF 9PM THE THURSDAY BEFORE THE SPECIAL EVENT AND 6AM THE MONDAY AFTER THE SPECIAL EVENT, OR AS OTHERWISE DIRECTED BY THE ENGINEER.

C) DO NOT STOP TRAFFIC FOR MORE THAN 15 MINS AS FOLLOWS

ROAD NAME	DAY AND TIME RESTRICTIONS	OPERATIONS
1. ROLESVILLE RD	MONDAY THROUGH FRIDAY (FROM 6AM TO 9AM AND FROM 4PM TO 6PM)	TRAFFIC SHIFTS
2. LOUISBURG RD (US-401)	MONDAY THROUGH FRIDAY (FROM 6AM TO 9AM AND FROM 4PM TO 6PM)	TRAFFIC SHIFTS
3. FOWLER RD	MONDAY THROUGH FRIDAY (FROM 6AM TO 9AM AND FROM 4PM TO 6PM)	TRAFFIC SHIFTS

D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR OTHERWISE DIRECTED BY THE ENGINEER.

### LANE AND SHOULDER CLOSURE REQUIREMENTS

- E) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NOT LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF ANY OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN LANE USING ROADWAY STANDARD DRAWING NO 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE ROADWAY STANDARD DRAWINGS OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.
- I) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.
- J) DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 15 FT OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.

### PAVEMENT EDGE DROP OFF REQUIREMENTS

- K) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF AS FOLLOWS:
- BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.
- BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER.
- L) DO NOT EXCEED A DIFFERENCE OF 1.5 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE OF THE UNEVEN AREA.

### SIGNING

M) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 100 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

N) NO PERMANENT SIGNING.

O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

### TRAFFIC CONTROL DEVICES

P) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.

Q) PLACE SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 300 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES.

### PAVEMENT MARKINGS AND MARKERS

- S) INSTALL PAVEMENT MARKINGS AS SHOWN ON PLAN SHEETS.
- T) REFER TO SECTION 1205 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES DATED JANUARY 2024 FOR APPLICATION TIMES AND TEMPERATURE CONDITIONS FOR PAVEMENT MARKINGS.
- U) PLACE AT LEAST TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE ON NEW ASPHALT PAVEMENT. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.
- V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- W) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.
- X) PLACE AT LEAST TWO APPLICATIONS OF PAINT ON NEW ASPHALT WITH TEMPORARY TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.

Y) CONTRACTOR SHALL MAINTAIN ALL TEMPORARY PAINT PAVEMENT MARKINGS UNTIL COMPLETION OF THERMOPLASTIC PAVEMENT MARKING INSTALLATION.

Z) BEFORE SHIFTING TRAFFIC TO NEW LOCATIONS, CONTRACTOR SHALL REMOVE ANY MARKINGS WHICH CONFLICT WITH THE NEW TRAFFIC PATTERN(S).

AA) CHANGES TO THE TRAFFIC CONTROL REQUIRE APPROVAL FROM TOWN OF SHALLOTE AND NCDOT PRIOR TO COMMENCING FIELD OPERATIONS.

### PEDESTRIAN AND BICYCLIST SAFETY

BB) PEDESTRIAN AND BICYCLIST SAFETY MUST BE MAINTAINED AT ALL TIMES BY ADEQUATE PROJECT LIMITS, FENCING, AND SIGNAGE.

### MISCELLANEOUS

- CC) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH INTERSECTIONS.
- DD) STOCKPILE EXISTING SIGNS FOR USE WHEN NEEDED IN TEMPORARY LOCATIONS DURING CONSTRUCTION.
- EE) ACCESS SHALL BE MAINTAINED TO ALL RESIDENCES, MAILBOXES, AND BUSINESSES AT ALL TIMES.
- FF) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) AND RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

# ADVANCE WARNING SIGNS

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ADVANCE WARNING SIGN SPACING IS RECOMMENDED TO BE THE FOLLOWING:
  - ROLESVILLE RD - 500' BEFORE CONSTRUCTION LIMITS
  - LOUISBURG RD (US-401) - 500' BEFORE CONSTRUCTION LIMITS
  - FOWLER RD - 500' BEFORE CONSTRUCTION LIMITS
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3 LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3 LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B). MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3 LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.

# ROADWAY STANDARD DRAWINGS

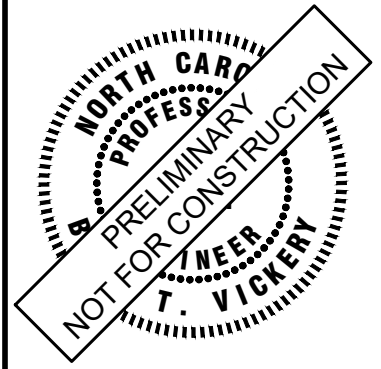
THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICE UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C. DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS.

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - DIVIDED AND UNDIVIDED ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.13	PAVEMENT MARKINGS - NEW INTERCHANGES AND INTERSECTIONS
1250.01	PAVEMENT MARKER SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	SNOWPLOWABLE RAISED PAVEMENT MARKERS

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NC FIRM #F-0102



KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTC
DRAWN BY	GTC
CHECKED BY	BTY

## TRAFFIC MANAGEMENT PLAN

BROADMOOR ROLESVILLE  
PREPARED FOR  
PULTE GROUP  
WAKE NC

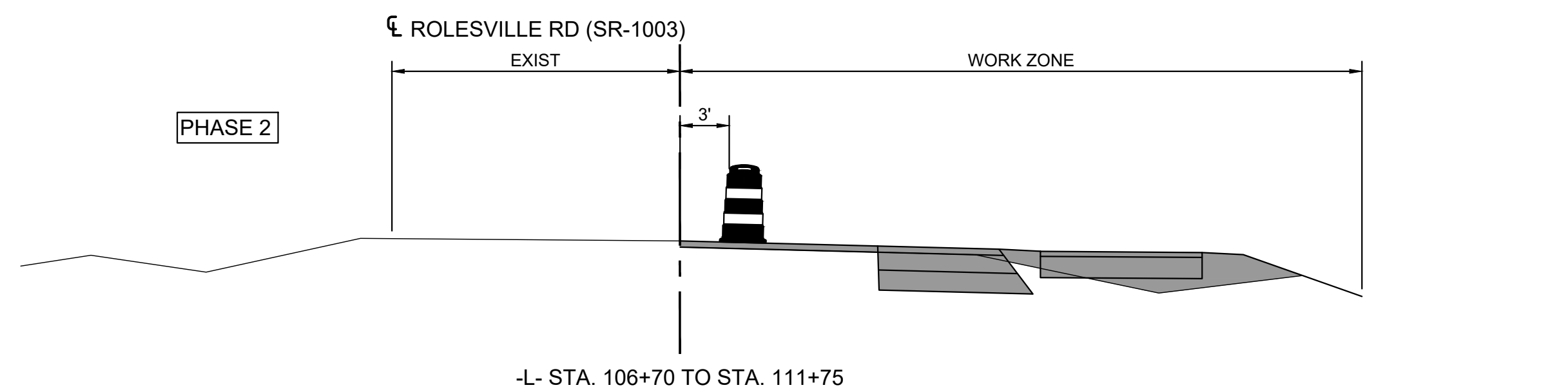
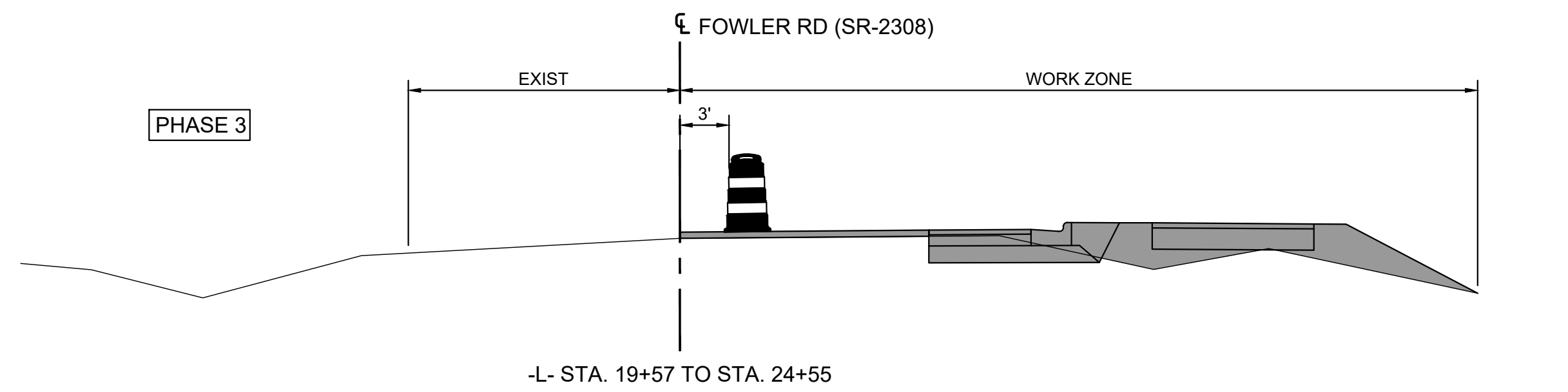
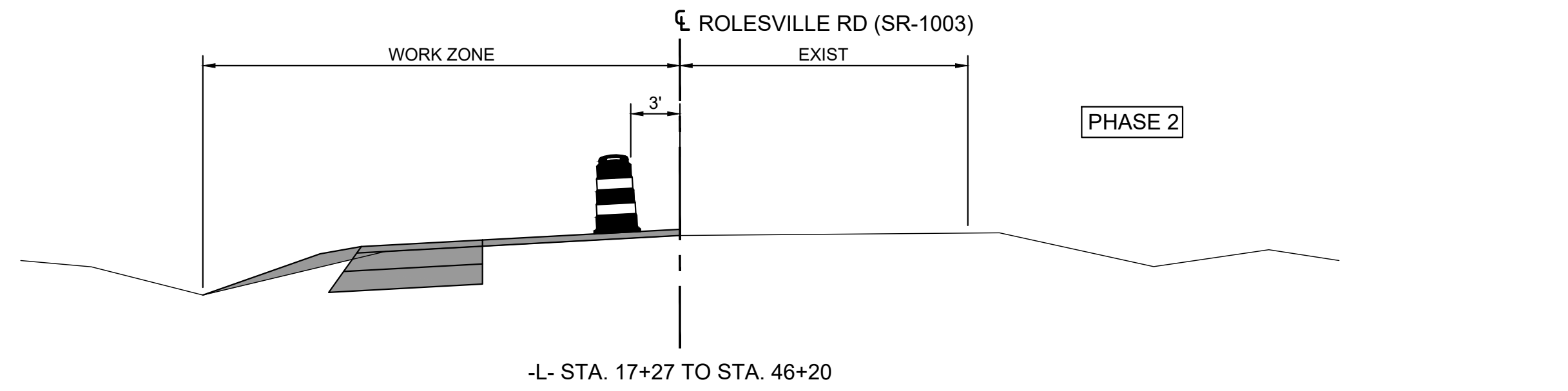
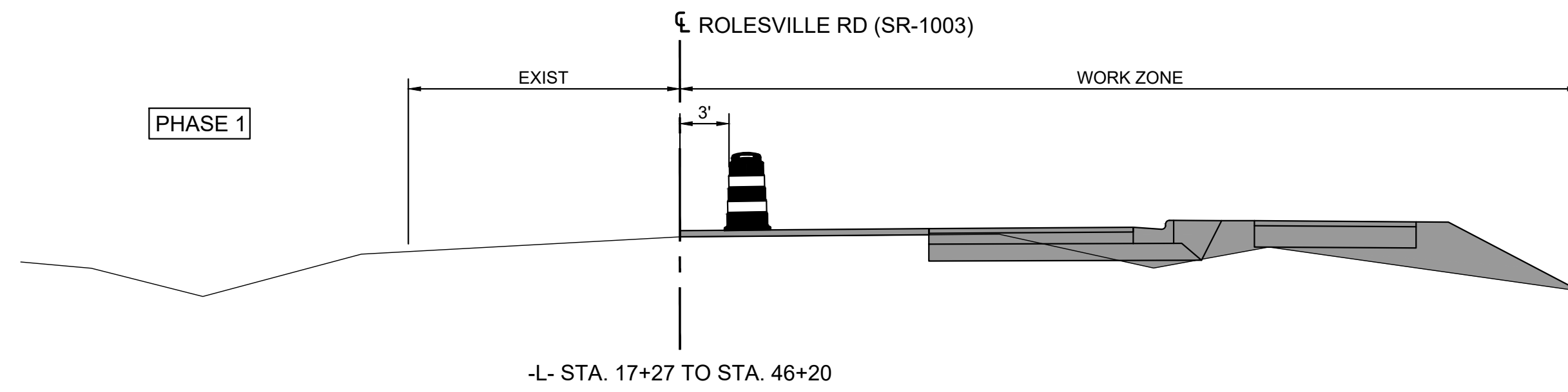
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# PHASING NOTES



## PHASE 1

THE CONTRACTOR SHALL PLACE ALL ADVANCE WARNING SIGNS PRIOR TO BEGINNING WORK ACCORDING TO NCDOT STANDARD DRAWING NO. 1101.01. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

WHILE MAINTAINING EXISTING TRAFFIC AND USING NCDOT STANDARD DRAWING 1101.02, SHEET 1 OF 19 FOR TEMPORARY LANE CLOSURES AS NEEDED, THE CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS ALONG ROLESVILLE RD (SR-1003) INCLUDING:

1. PAVEMENT WIDENING
2. CURB AND GUTTER INSTALLATION
3. MILLING
4. SIDEWALK INSTALLATION
5. STORM DRAINAGE
6. GRADING

UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE PAVEMENT.

## PHASE 2

THE CONTRACTOR SHALL PLACE ALL ADVANCE WARNING SIGNS PRIOR TO BEGINNING WORK ACCORDING TO NCDOT STANDARD DRAWING NO. 1101.01. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

WHILE MAINTAINING EXISTING TRAFFIC AND USING NCDOT STANDARD DRAWING 1101.02, SHEET 1 OF 19 FOR TEMPORARY LANE CLOSURES AS NEEDED, THE CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS ALONG ROLESVILLE RD (SR-1003) INCLUDING:

1. PAVEMENT WIDENING
2. MILLING
3. STORM DRAINAGE
4. GRADING

UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE PAVEMENT.

## PHASE 3

THE CONTRACTOR SHALL PLACE ALL ADVANCE WARNING SIGNS PRIOR TO BEGINNING WORK ACCORDING TO NCDOT STANDARD DRAWING NO. 1101.01. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

WHILE MAINTAINING EXISTING TRAFFIC AND USING NCDOT STANDARD DRAWING 1101.02, SHEET 1 OF 19 FOR TEMPORARY LANE CLOSURES AS NEEDED, THE CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS ALONG FOWLER RD (SR-2308) INCLUDING:

1. PAVEMENT WIDENING
2. CURB AND GUTTER INSTALLATION
3. MILLING
4. SIDEWALK INSTALLATION
5. STORM DRAINAGE
6. GRADING

UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE PAVEMENT.

## PHASE 4

THE CONTRACTOR SHALL PLACE ALL ADVANCE WARNING SIGNS PRIOR TO BEGINNING WORK ACCORDING TO NCDOT STANDARD DRAWING NO. 1101.01. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.

WHILE MAINTAINING EXISTING TRAFFIC AND USING NCDOT STANDARD DRAWING 1101.02, SHEET 1 OF 19 FOR TEMPORARY LANE CLOSURES AS NEEDED, THE CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS ALONG ROLESVILLE RD (SR-1003) INCLUDING:

1. PAVEMENT WIDENING
2. MILLING
3. SIDEWALK INSTALLATION
4. STORM DRAINAGE
5. GRADING

UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE PAVEMENT.

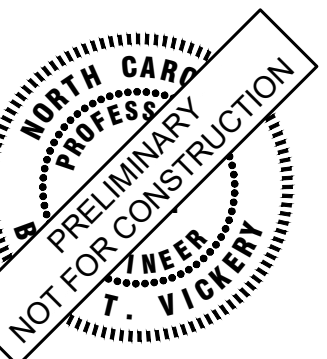
## PHASE 5

REPLACE PAVEMENT MARKINGS AS SHOWN ON PLAN SHEETS.

## PHASE 6

USING NCDOT STANDARD DRAWING 1101.01 SHEET 1 OF 19 AS REQUIRED PLACE THE FINAL SURFACE COURSE AND FINAL PAVEMENT MARKINGS. REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN TRAFFIC TO THE FINAL PATTERN.

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KHA PROJECT	019867004	DATE	8/13/2024	SCALE	AS SHOWN	DESIGNED BY	GTC	DRAWN BY	GTC	CHECKED BY	BTY
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## TRAFFIC MANAGEMENT PLAN

BROADMOOR ROLESVILLE  
 PREPARED FOR  
 PULTE GROUP



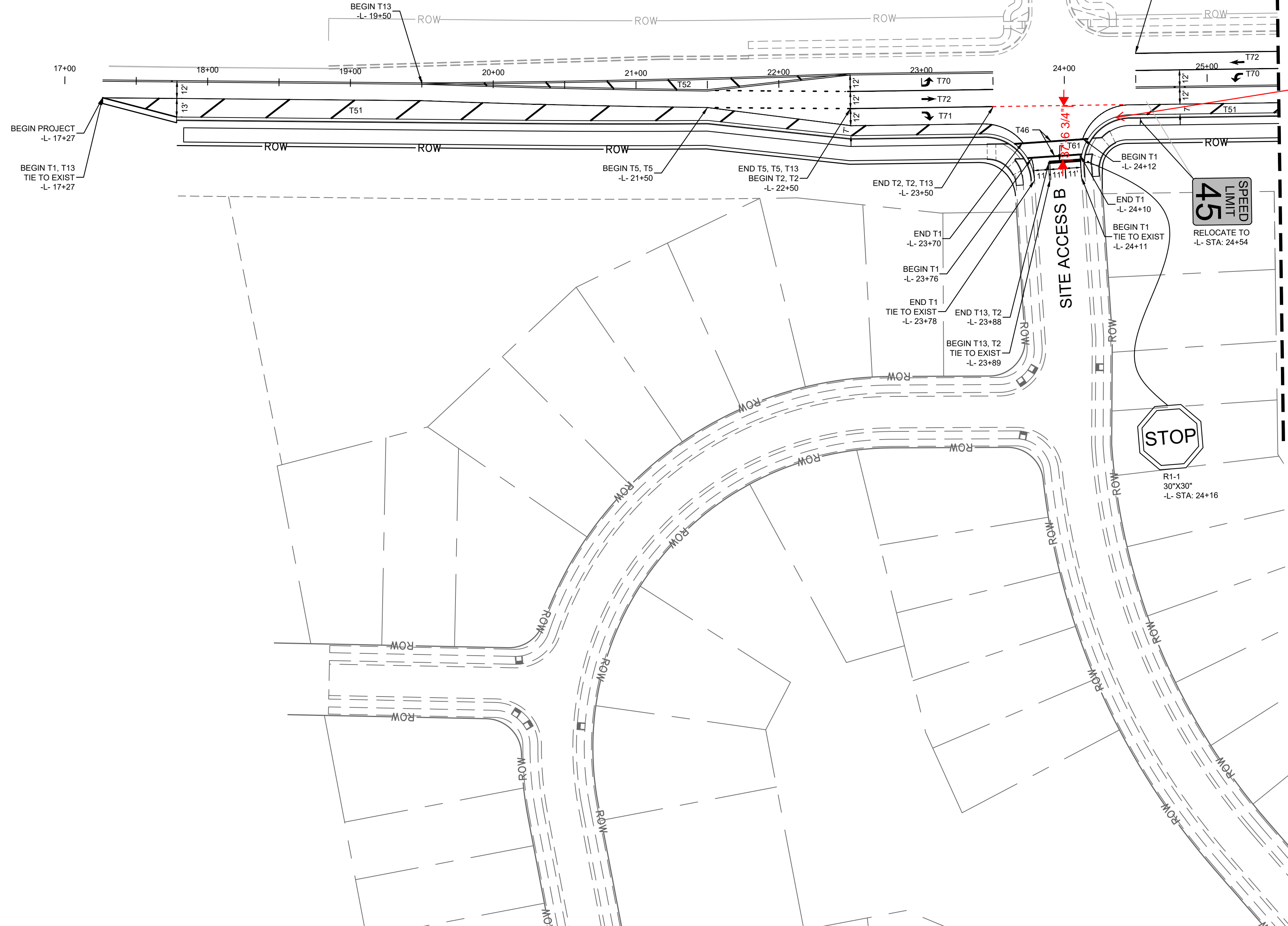
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13+00 | 14+00 | 15+00 | 16+00 | 17+00 | 18+00 | 19+00 | 20+00 | 21+00 | 22+00 | 23+00 | 24+00 | 25+00 | 26+00

-L- ROLESVILLE RD (SR-1003)



General striping notes:  
- Refer to NCDOT RSD 1205.05 for turn lane striping & arrow placement.  
- Skips for turn lane tapers should be 3'-9'

PAVEMENT MARKING LEGEND	SIGNING LEGEND
DIRECTION OF TRAVEL FLOW ARROW	DENOTES EXISTING SIGN
YELLOW / YELLOW REFLECTIVE PAVEMENT MARKER	DENOTES NEW "U" CHANNEL POST/PROPOSED SIGN LOCATION
CRYSTAL / RED REFLECTIVE PAVEMENT MARKER	DENOTES EXISTING "U" CHANNEL POST/EXISTING SIGN LOCATION

PAVEMENT MARKING NOTES	SIGNING NOTES
1. CONTRACTOR TO TIE PROPOSED MARKINGS TO EXISTING MARKINGS AT PROJECT LIMITS	1. REMOVE AND DISPOSE OF EXISTING U CHANNEL POST
2. CONTRACTOR SHALL MILL ANY EXISTING MARKINGS OR SYMBOLS IN CONFLICT WITH PROPOSED MARKINGS	2. ERECT EXISTING SIGN ON NEW "U" CHANNEL POST
3. RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED ACCORDING TO NCDOT ROADWAY STANDARD DRAWINGS.	3. REMOVE AND DISPOSE OF EXISTING SIGNS AND "U" CHANNEL POST
4. ALL RAISED REFLECTIVE PAVEMENT MARKERS TO BE SNOWPLOWABLE	4. THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING
	5. ALL STREET NAME SIGNS SHALL ADHERE TO 2009 MUTCD. ALL STREET NAME SIGNS SHALL BE APPROVED BY THE TRANSPORTATION AND FACILITIES DEPARTMENT STAFF PRIOR TO INSTALLATION

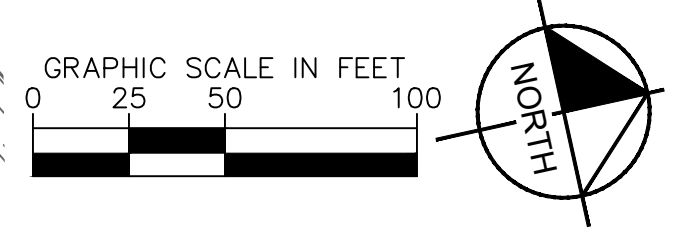
PAVEMENT MARKING LINES
T1 THERMOPLASTIC EDGE LINE (4" WHITE, 90 MIL)
T2 THERMOPLASTIC WHITE SOLID LANE LINE (4", 90 MIL)
T4 THERMOPLASTIC 3'-9" SP MINISKIP (4" WHITE, 90 MIL)
T5 THERMOPLASTIC 3'-6" SP MINISKIP (4" WHITE, 90 MIL)
T10 THERMOPLASTIC YELLOW EDGELINE (4", 90 MIL)
T13 THERMOPLASTIC DOUBLE CENTER LINE (6" YELLOW, 90 MIL)
T46 THERMOPLASTIC WHITE CROSSWALK LINE (8" 30 MIL)
T51 THERMOPLASTIC WHITE DIAGONAL (12", 90 MIL)
T52 THERMOPLASTIC YELLOW DIAGONAL (12", 90 MIL)
T81 THERMOPLASTIC STOP BAR (24" WHITE, 90 MIL)

Should be 9'

Is this supposed to be 2'-6'?

PAVEMENT MARKING SYMBOLS
T70 THERMOPLASTIC LEFT TURN ARROW (WHITE, 90 MIL)
T71 THERMOPLASTIC RIGHT TURN ARROW (WHITE, 90 MIL)
T72 THERMOPLASTIC STRAIGHT ARROW (WHITE, 90 MIL)
T74 THERMOPLASTIC COMBO, RIGHT/ STRAIGHT ARROW (WHITE, 90 MIL)
T77 THERMOPLASTIC U-TURN ARROW (WHITE, 90 MIL)

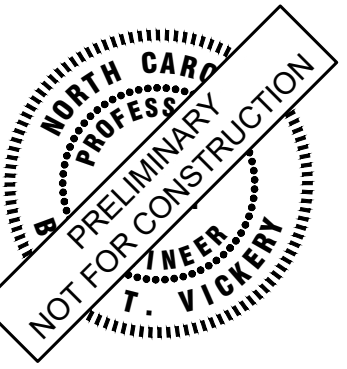
Delete stop bar & add 2'-6" mini-skips across driveway.



NO.	REVISIONS	DATE	BY

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NC FIRM # F-0102



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**PAVEMENT MARKING & SIGNING**

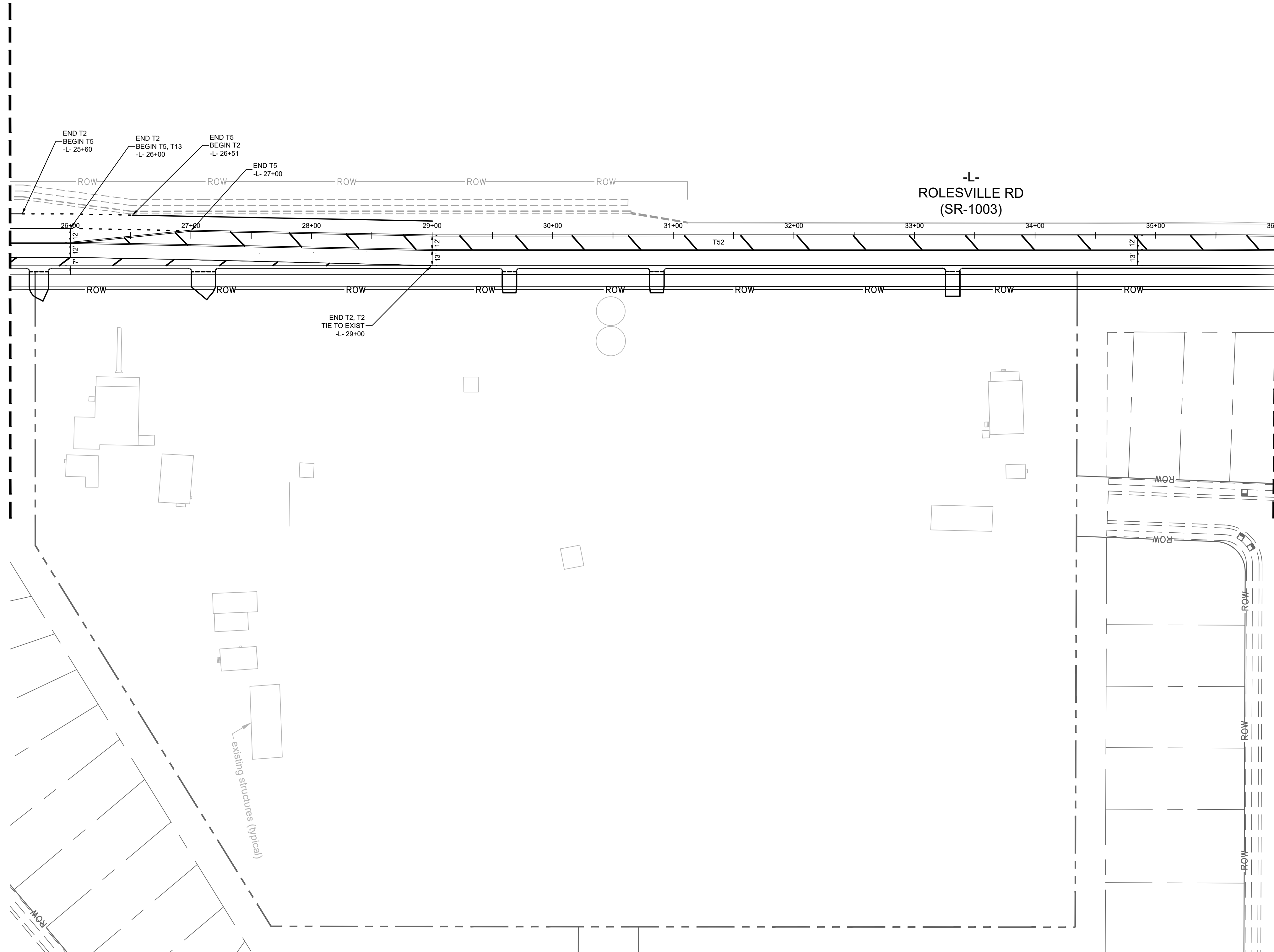
BROADMOOR ROLESVILLE  
PREPARED FOR  
PULTE GROUP

WAKE NC

SHEET NUMBER  
R7.00

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MATCHLINE - STA. 25+50.00 - SEE SHEET R7.00



MATCHLINE - STA. 36+00.00 - SEE SHEET R7.02

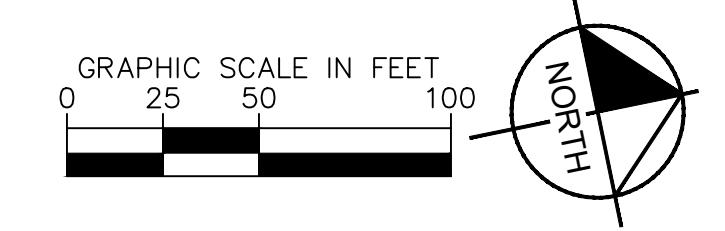
PAVEMENT MARKING LEGEND	SIGNING LEGEND
<ul style="list-style-type: none"> <li>← DIRECTION OF TRAVEL FLOW ARROW</li> <li>◆ YELLOW / YELLOW REFLECTIVE PAVEMENT MARKER</li> <li>■ CRYSTAL / RED REFLECTIVE PAVEMENT MARKER</li> </ul>	<ul style="list-style-type: none"> <li>◆ DENOTES EXISTING SIGN</li> <li>□ DENOTES NEW "U" CHANNEL POST/PROPOSED SIGN LOCATION</li> <li>□ DENOTES EXISTING "U" CHANNEL POST/EXISTING SIGN LOCATION</li> </ul>
PAVEMENT MARKING NOTES	SIGNING NOTES
<ol style="list-style-type: none"> <li>CONTRACTOR TO TIE PROPOSED MARKINGS TO EXISTING MARKINGS AT PROJECT LIMITS</li> <li>CONTRACTOR SHALL MILL ANY EXISTING MARKINGS OR SYMBOLS IN CONFLICT WITH PROPOSED MARKINGS</li> <li>RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED ACCORDING TO NCDOT ROADWAY STANDARD DRAWINGS.</li> <li>ALL RAISED REFLECTIVE PAVEMENT MARKERS TO BE SNOWPLOWABLE</li> </ol>	<ol style="list-style-type: none"> <li>REMOVE AND DISPOSE OF EXISTING U CHANNEL POST</li> <li>ERECT EXISTING SIGN ON NEW "U" CHANNEL POST</li> <li>REMOVE AND DISPOSE OF EXISTING SIGNS AND "U" CHANNEL POST</li> <li>THE BACKGROUND FOR TYPE E &amp; F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING</li> <li>ALL STREET NAME SIGNS SHALL ADHERE TO 2009 MUTCD. ALL STREET NAME SIGNS SHALL BE APPROVED BY THE TRANSPORTATION AND FACILITIES DEPARTMENT STAFF PRIOR TO INSTALLATION</li> </ol>

**PAVEMENT MARKING LINES**

- T1 THERMOPLASTIC EDGE LINE (4" WHITE, 90 MIL)
- T2 THERMOPLASTIC WHITE SOLID LANE LINE (4", 90 MIL)
- T4 THERMOPLASTIC 3'-6" SP MINISKIP (4" WHITE, 90 MIL)
- T5 THERMOPLASTIC 3'-6" SP MINISKIP (4" WHITE, 90 MIL)
- T10 THERMOPLASTIC YELLOW EDGELINE (4", 90 MIL)
- T13 THERMOPLASTIC DOUBLE CENTER LINE (4" YELLOW, 90 MIL)
- T46 THERMOPLASTIC WHITE CROSSWALK LINE (8", 30 MIL)
- T51 THERMOPLASTIC WHITE DIAGONAL (12", 90 MIL)
- T52 THERMOPLASTIC YELLOW DIAGONAL (12", 90 MIL)
- T61 THERMOPLASTIC STOPBAR (24" WHITE, 90 MIL)

**PAVEMENT MARKING SYMBOLS**

- T70 THERMOPLASTIC LEFT TURN ARROW (WHITE, 90 MIL)
- T71 THERMOPLASTIC RIGHT TURN ARROW (WHITE, 90 MIL)
- T72 THERMOPLASTIC STRAIGHT ARROW (WHITE, 90 MIL)
- T74 THERMOPLASTIC COMBO, RIGHT/ STRAIGHT ARROW (WHITE, 90 MIL)
- T77 THERMOPLASTIC U-TURN ARROW (WHITE, 90 MIL)



NO.	REVISIONS	DATE	BY

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 NC FIRM # - 0102



KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

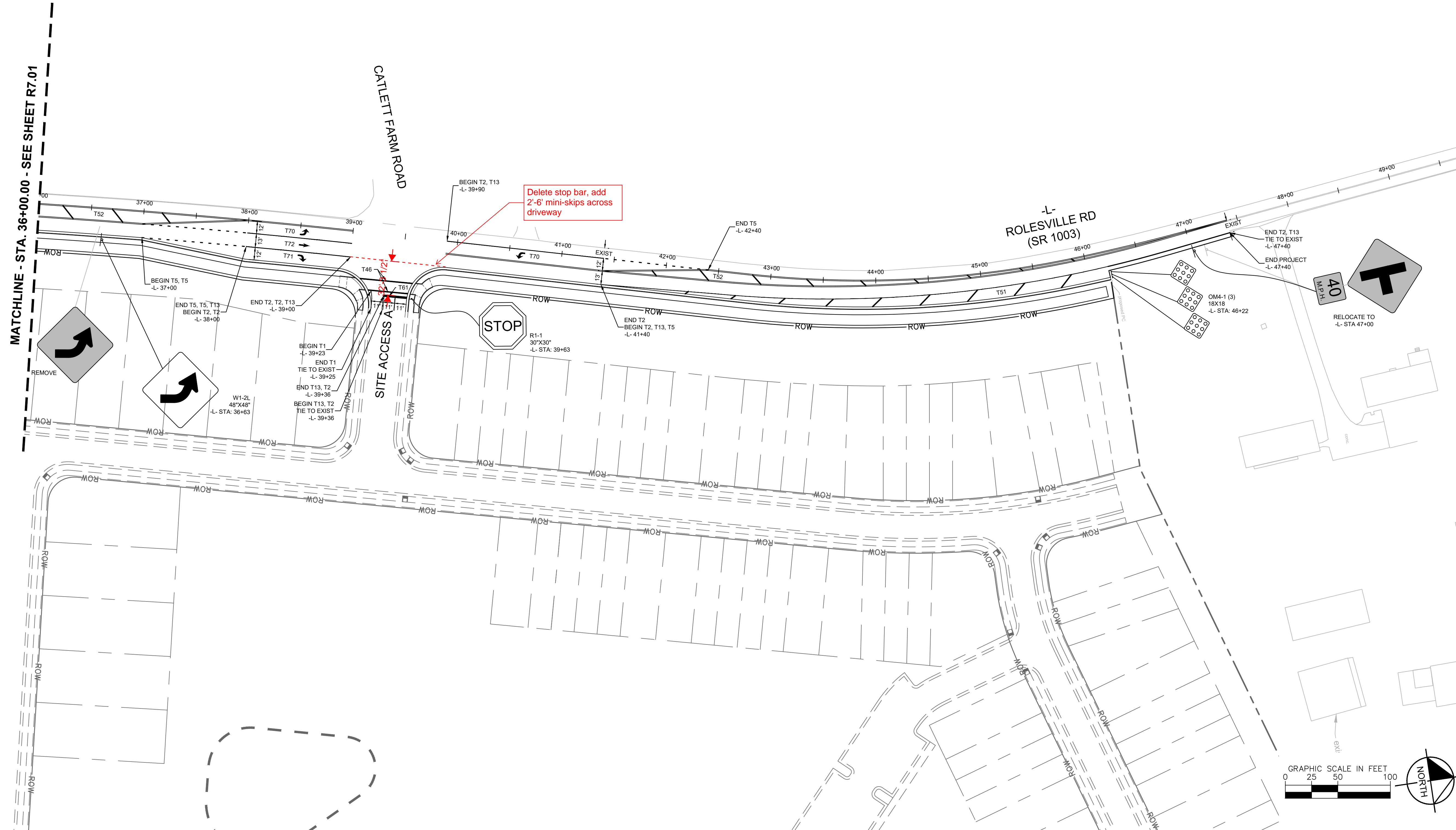
**PAVEMENT MARKING & SIGNING**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

WAKE NC

SHEET NUMBER  
**R7.01**

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PAVEMENT MARKING LEGEND	SIGNING LEGEND
← DIRECTION OF TRAVEL FLOW ARROW	◆ DENOTES EXISTING SIGN
◆ YELLOW / YELLOW REFLECTIVE PAVEMENT MARKER	⊥ DENOTES NEW "U" CHANNEL POST/PROPOSED SIGN LOCATION
■ CRYSTAL / RED REFLECTIVE PAVEMENT MARKER	⊥ DENOTES EXISTING "U" CHANNEL POST/EXISTING SIGN LOCATION
PAVEMENT MARKING NOTES	SIGNING NOTES
1. CONTRACTOR TO TIE PROPOSED MARKINGS TO EXISTING MARKINGS AT PROJECT LIMITS	1. REMOVE AND DISPOSE OF EXISTING U CHANNEL POST
2. CONTRACTOR SHALL MILL ANY EXISTING MARKINGS OR SYMBOLS IN CONFLICT WITH PROPOSED MARKINGS	2. ERECT EXISTING SIGN ON NEW "U" CHANNEL POST
3. RAISED REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED ACCORDING TO NCDOT ROADWAY STANDARD DRAWINGS.	3. REMOVE AND DISPOSE OF EXISTING SIGNS AND "U" CHANNEL POST
4. ALL RAISED REFLECTIVE PAVEMENT MARKERS TO BE SNOWPLOWABLE	4. THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING
	5. ALL STREET NAME SIGNS SHALL ADHERE TO 2009 MUTCD. ALL STREET NAME SIGNS SHALL BE APPROVED BY THE TRANSPORTATION AND FACILITIES DEPARTMENT STAFF PRIOR TO INSTALLATION

**PAVEMENT MARKING LINES**

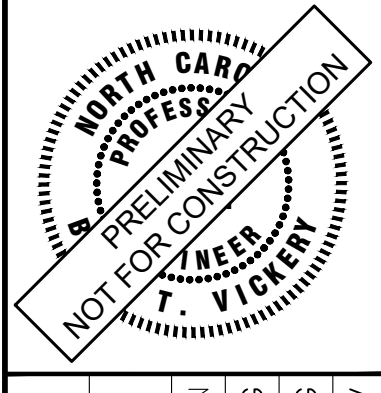
- T1 THERMOPLASTIC EDGE LINE (4" WHITE, 90 MIL)
- T2 THERMOPLASTIC WHITE SOLID LANE LINE (4" WHITE, 90 MIL)
- T4 THERMOPLASTIC 3-9/16" SP MINISKIP (4" WHITE, 90 MIL)
- T5 THERMOPLASTIC 3-6/7" SP MINISKIP (4" WHITE, 90 MIL)
- T10 THERMOPLASTIC YELLOW EDGELINE (4", 90 MIL)
- T13 THERMOPLASTIC DOUBLE CENTER LINE (4" YELLOW, 90 MIL)
- T46 THERMOPLASTIC WHITE CROSSWALK LINE (8" 30 MIL)
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KHA PROJECT	019867004
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SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
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**PAVEMENT MARKING & SIGNING**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

WAKE NC

SHEET NUMBER  
**R7.02**

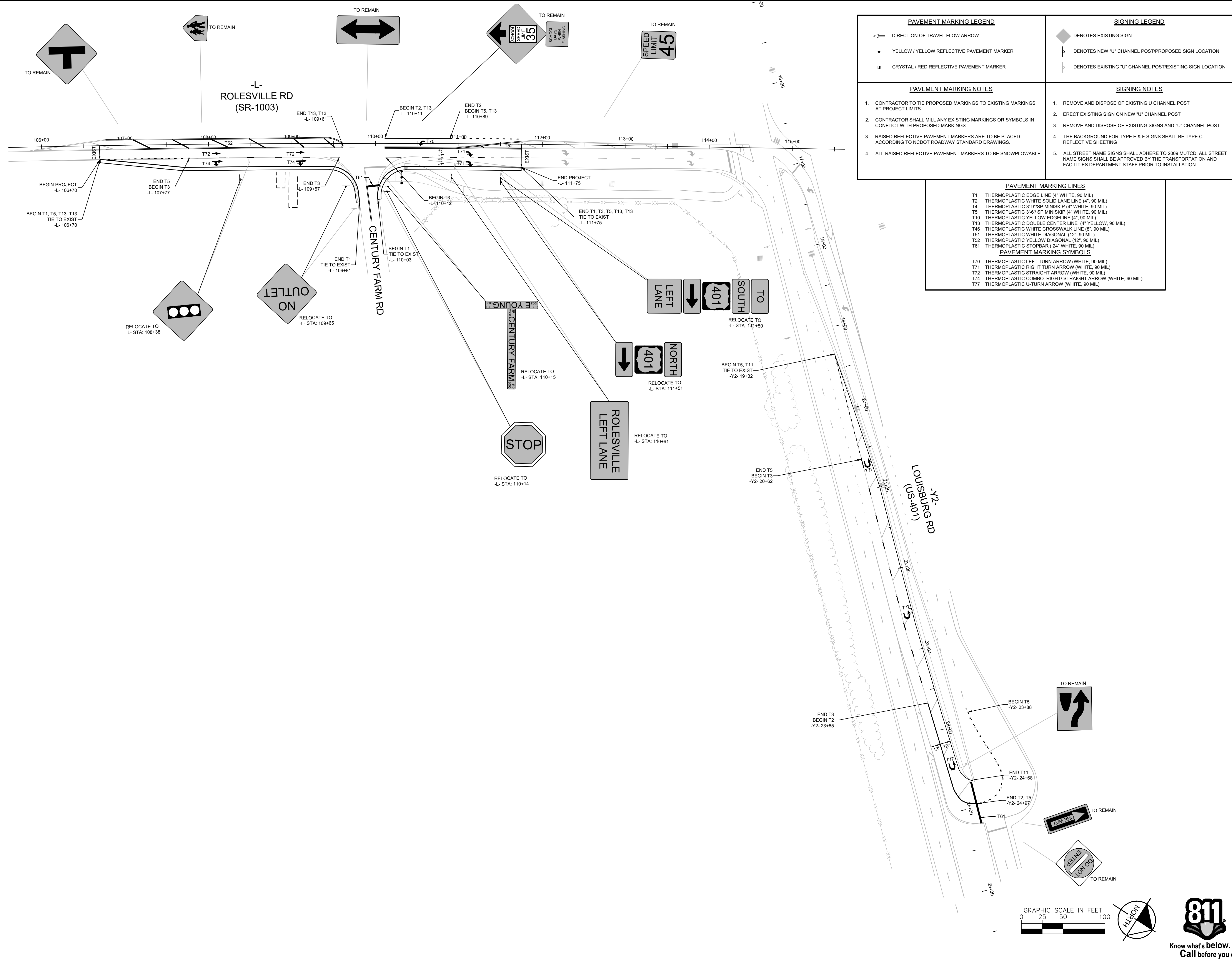
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NORTH

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



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PAVEMENT MARKING LEGEND	SIGNING LEGEND
<ul style="list-style-type: none"> <li>DIRECTION OF TRAVEL FLOW ARROW</li> <li>YELLOW / YELLOW REFLECTIVE PAVEMENT MARKER</li> <li>CRYSTAL / RED REFLECTIVE PAVEMENT MARKER</li> </ul>	<ul style="list-style-type: none"> <li>DENOTES EXISTING SIGN</li> <li>DENOTES NEW "U" CHANNEL POST/PROPOSED SIGN LOCATION</li> <li>DENOTES EXISTING "U" CHANNEL POST/EXISTING SIGN LOCATION</li> </ul>
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NO.	REVISIONS	DATE	BY

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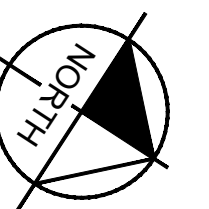
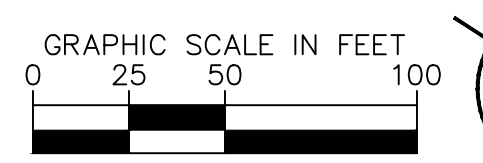
KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**PAVEMENT MARKING & SIGNING**

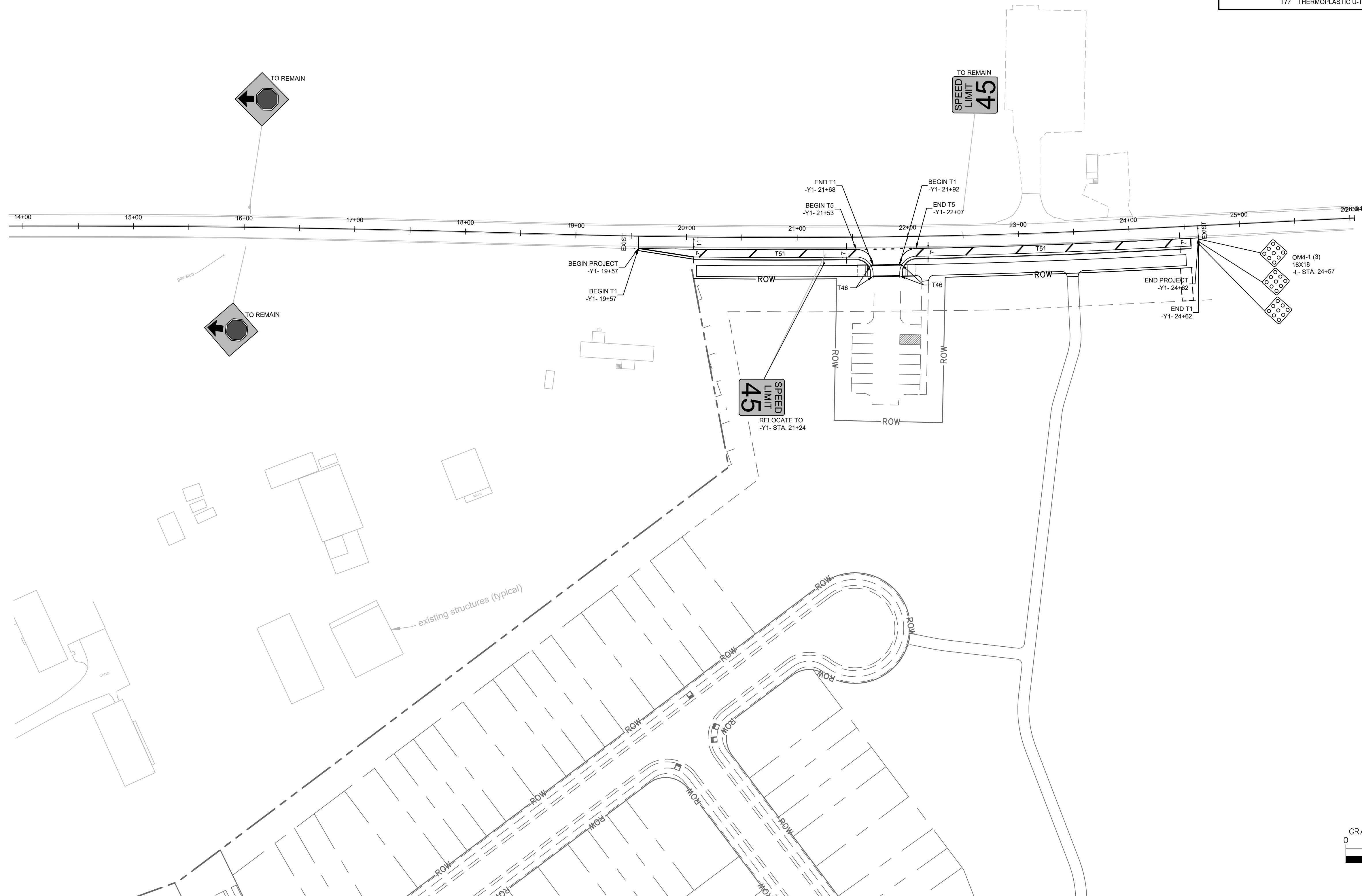
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**R7.03**



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PAVEMENT MARKING LEGEND	SIGNING LEGEND
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NO.	REVISIONS	DATE	BY

**Kimley»Horn**

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 NC FIRM # - 0102



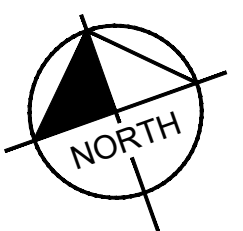
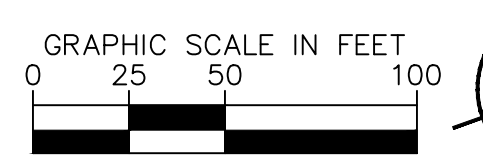
KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**PAVEMENT MARKING & SIGNING**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

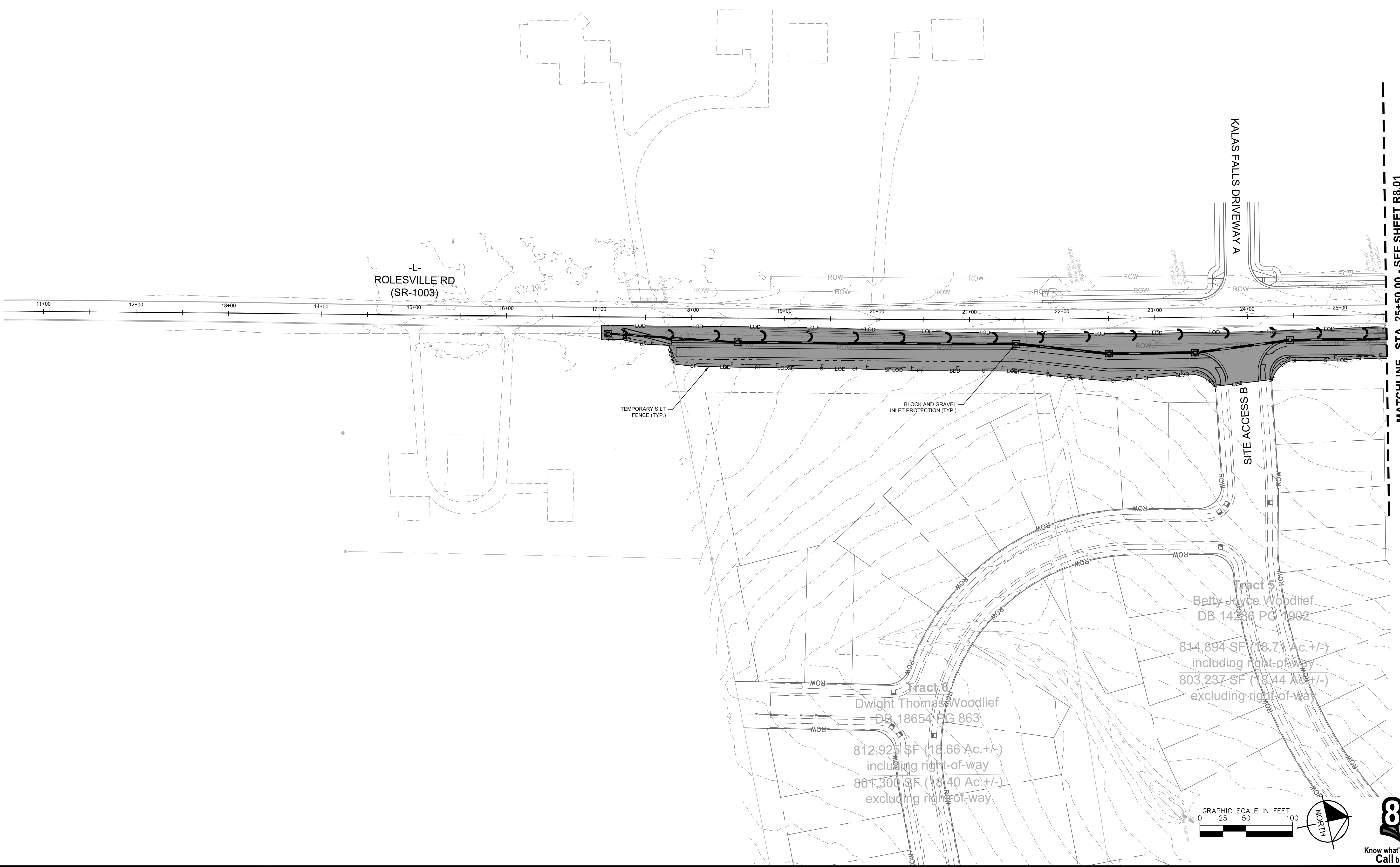
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NOTES:	
1. TOTAL DISTURBED AREA FOR OFFSITE IMPROVEMENTS = 0.36 AC	
2. ALL PUBLIC STREETS TO BE KEPT CLEAN OF SEDIMENT AT ALL TIMES OR A WASH STATION WILL BE REQUIRED	
EROSION CONTROL LEGEND	
LIMITS OF DISTURBANCE (LABELED ON PLANS)	
TEMPORARY SILT FENCE	
BLOCK AND GRAVEL INLET PROTECTION	
TEMPORARY WATTLE	
TYPE A SILT CHECK	



MATCHLINE - STA. 25+50.00 - SEE SHEET R8.01

No.	REVISIONS	DATE	BY

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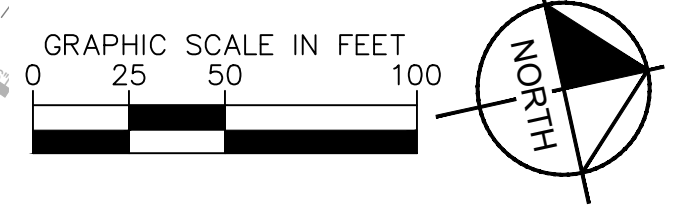
KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**EROSION CONTROL PLAN**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

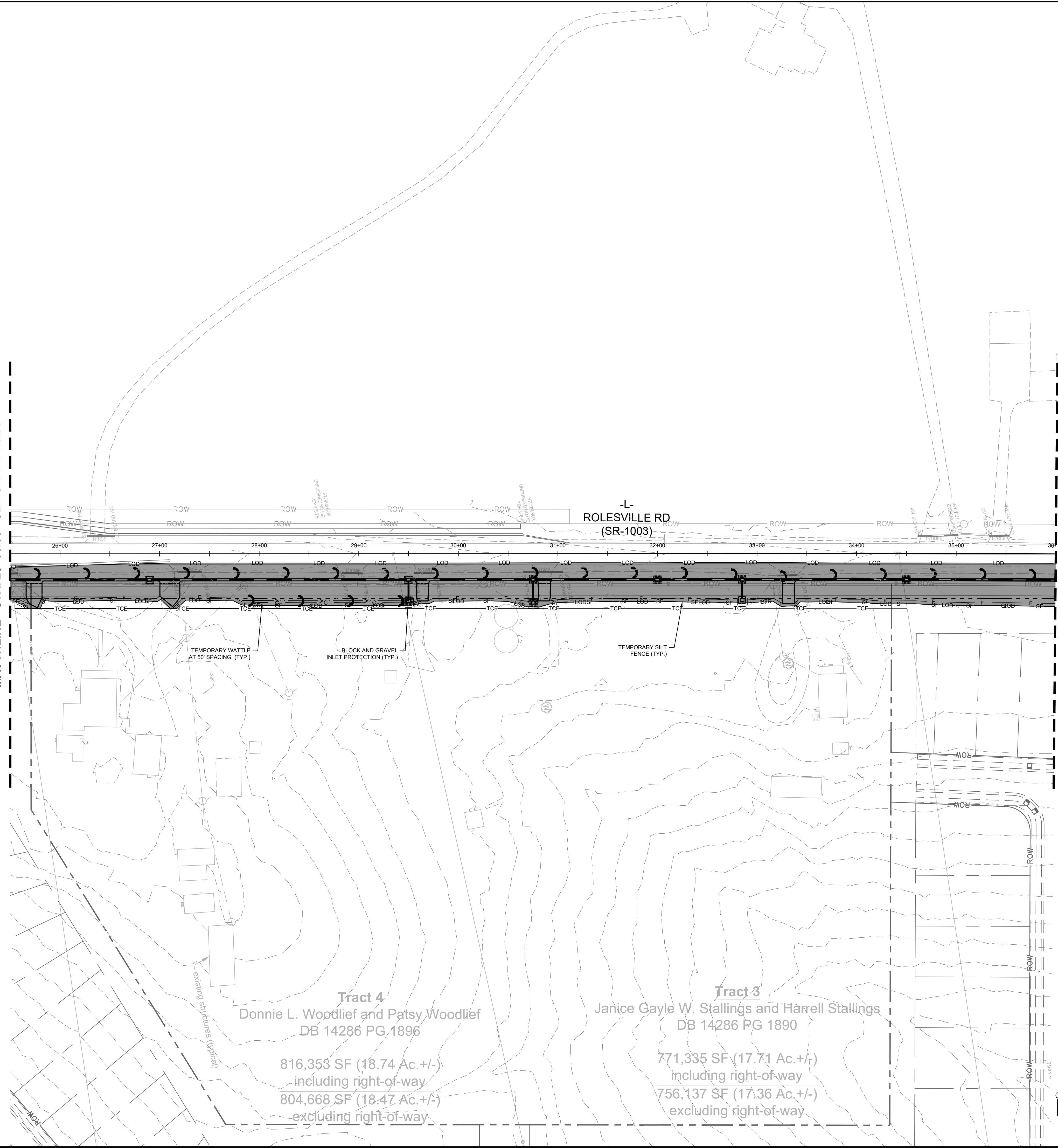
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MATCHLINE - STA. 25+50.00 - SEE SHEET R8.00



MATCHLINE - STA. 36+00.00 - SEE SHEET R8.02

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EROSION CONTROL LEGEND

LIMITS OF DISTURBANCE (LABELED ON PLANS)	
TEMPORARY SILT FENCE	
BLOCK AND GRAVEL INLET PROTECTION	
TEMPORARY WATTLE	
TYPE A SILT CHECK	

No.	REVISIONS	DATE	BY

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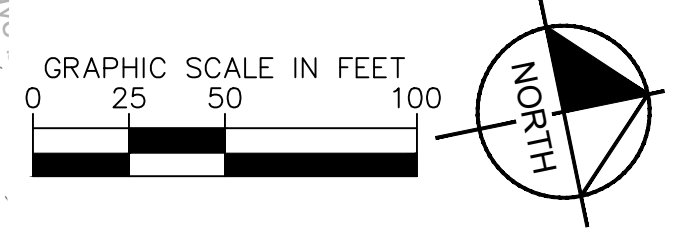
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DESIGNED BY	GTG
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**EROSION CONTROL PLAN**

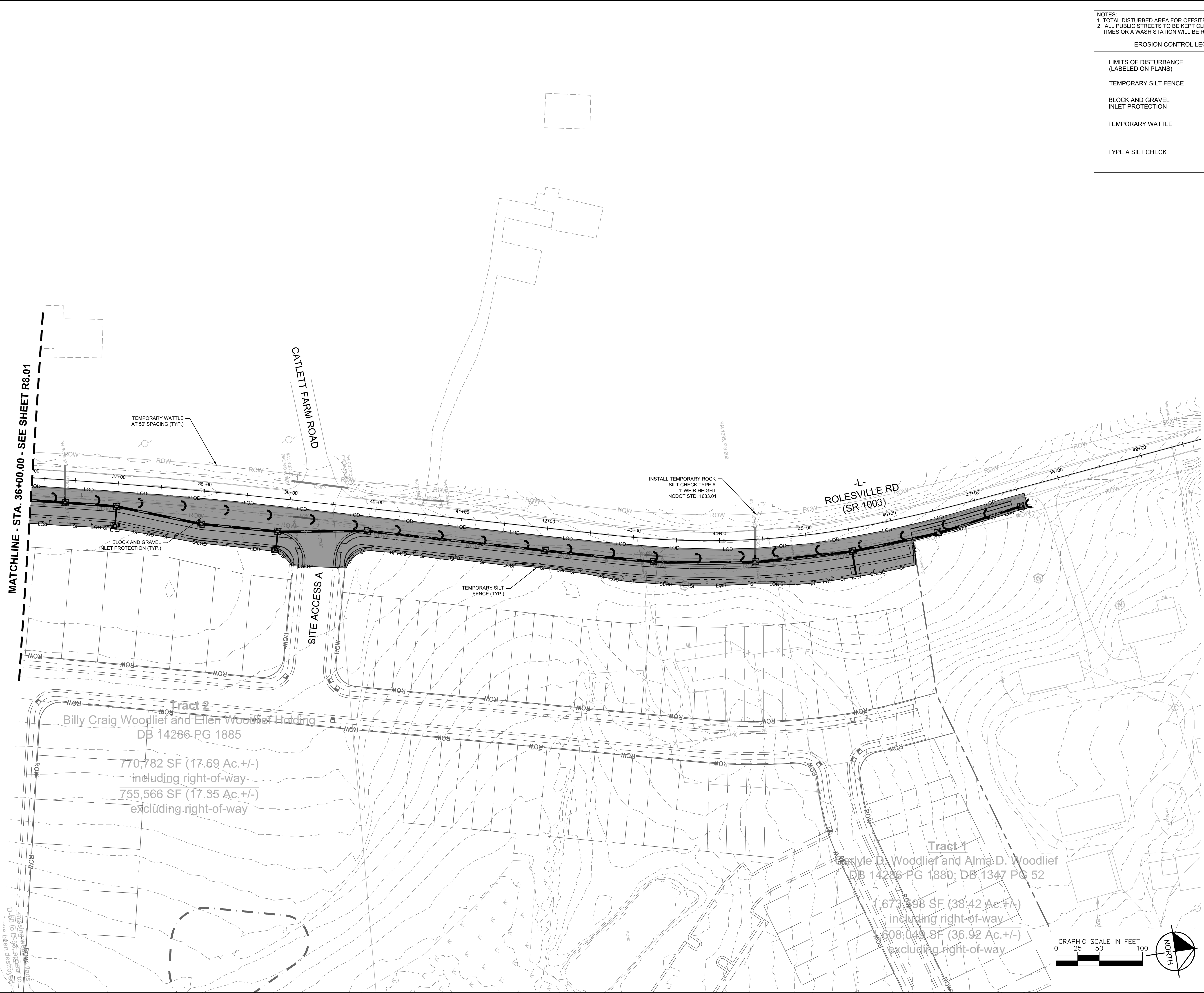
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BLOCK AND GRAVEL INLET PROTECTION	
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TYPE A SILT CHECK	

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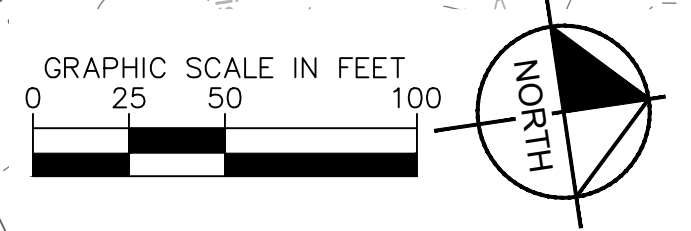
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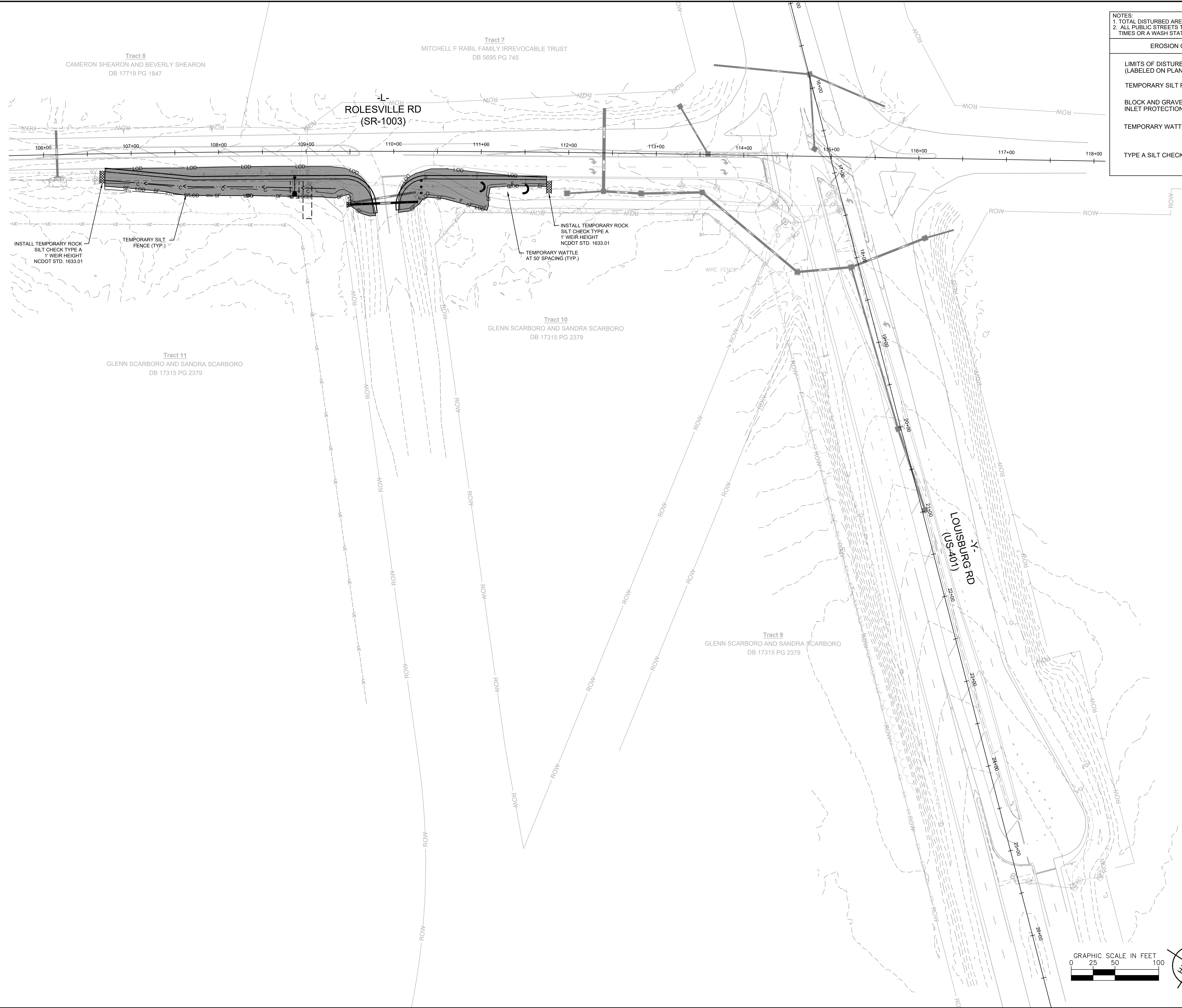
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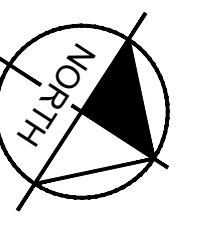
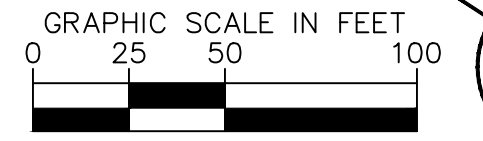
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**EROSION CONTROL LEGEND**

- LIMITS OF DISTURBANCE (LABELED ON PLANS)
- TEMPORARY SILT FENCE
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- TEMPORARY WATTLE
- TYPE A SILT CHECK



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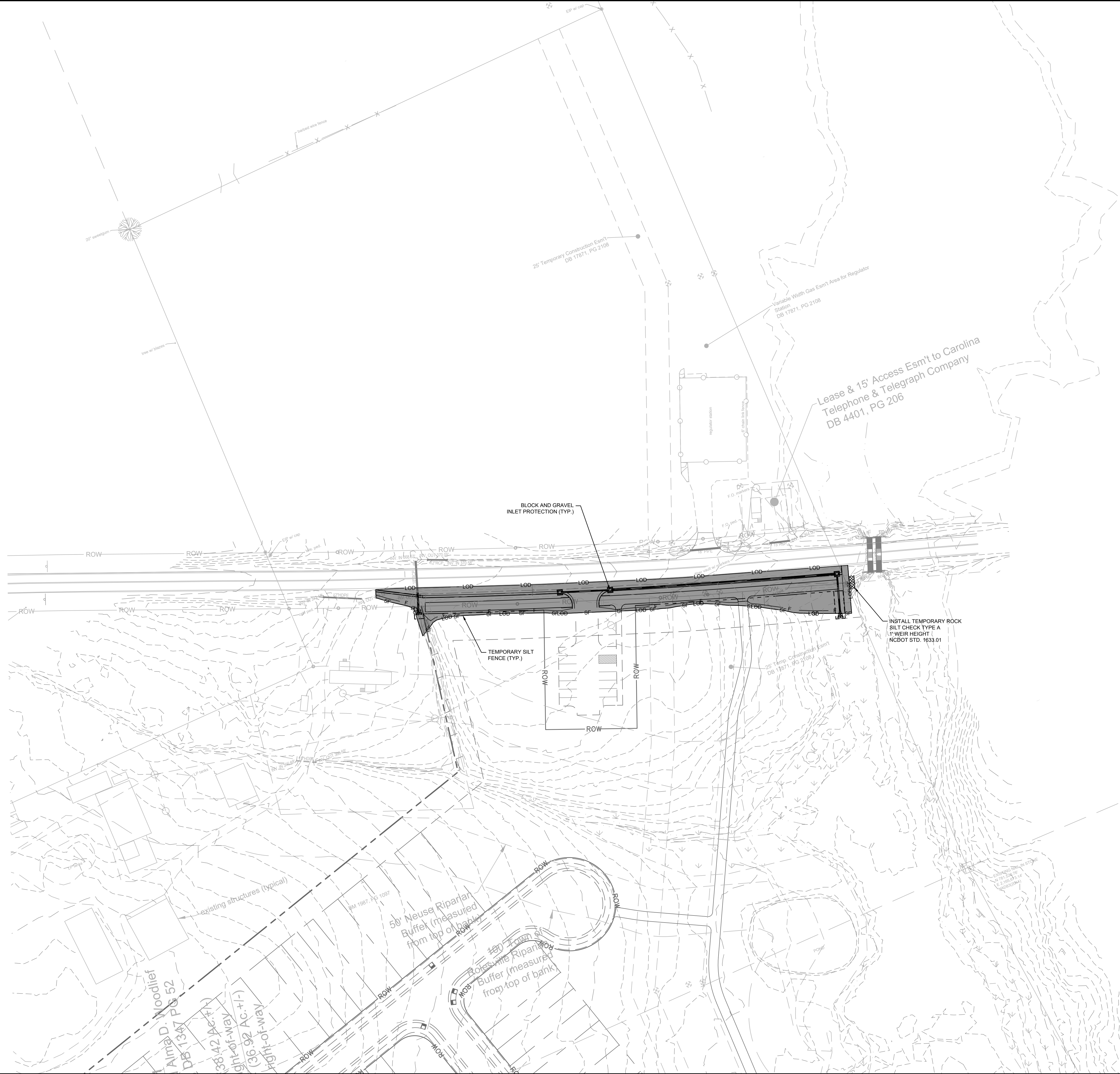
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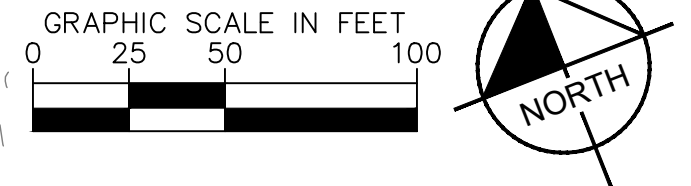
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 1. TOTAL DISTURBED AREA FOR OFFSITE IMPROVEMENTS = 0.36 AC  
 2. ALL PUBLIC STREETS TO BE KEPT CLEAN OF SEDIMENT AT ALL TIMES OR A WASH STATION WILL BE REQUIRED

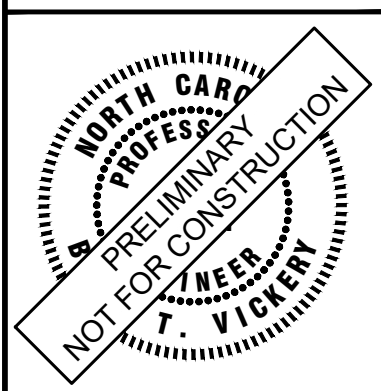
EROSION CONTROL LEGEND

LIMITS OF DISTURBANCE (LABELED ON PLANS)	
TEMPORARY SILT FENCE	
BLOCK AND GRAVEL INLET PROTECTION	
TEMPORARY WATTLE	
TYPE A SILT CHECK	



No.	REVISIONS	DATE	BY

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 300 S MAIN STREET, SUITE 212, HOLLY SPRINGS, NC 27540  
 PHONE: (919) 682-3583 WWW.KIMLEY-HORN.COM  
 NC FIRM # 0102



KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**EROSION CONTROL PLAN**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

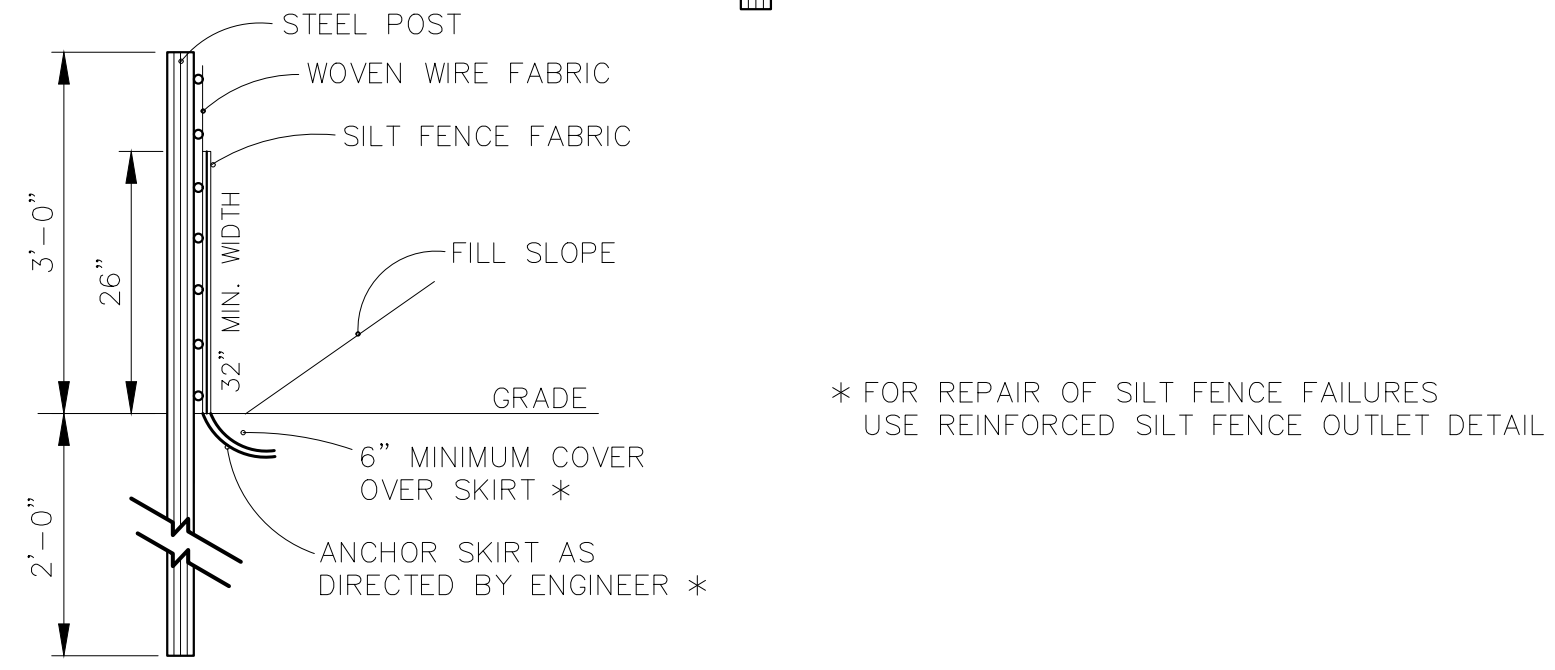
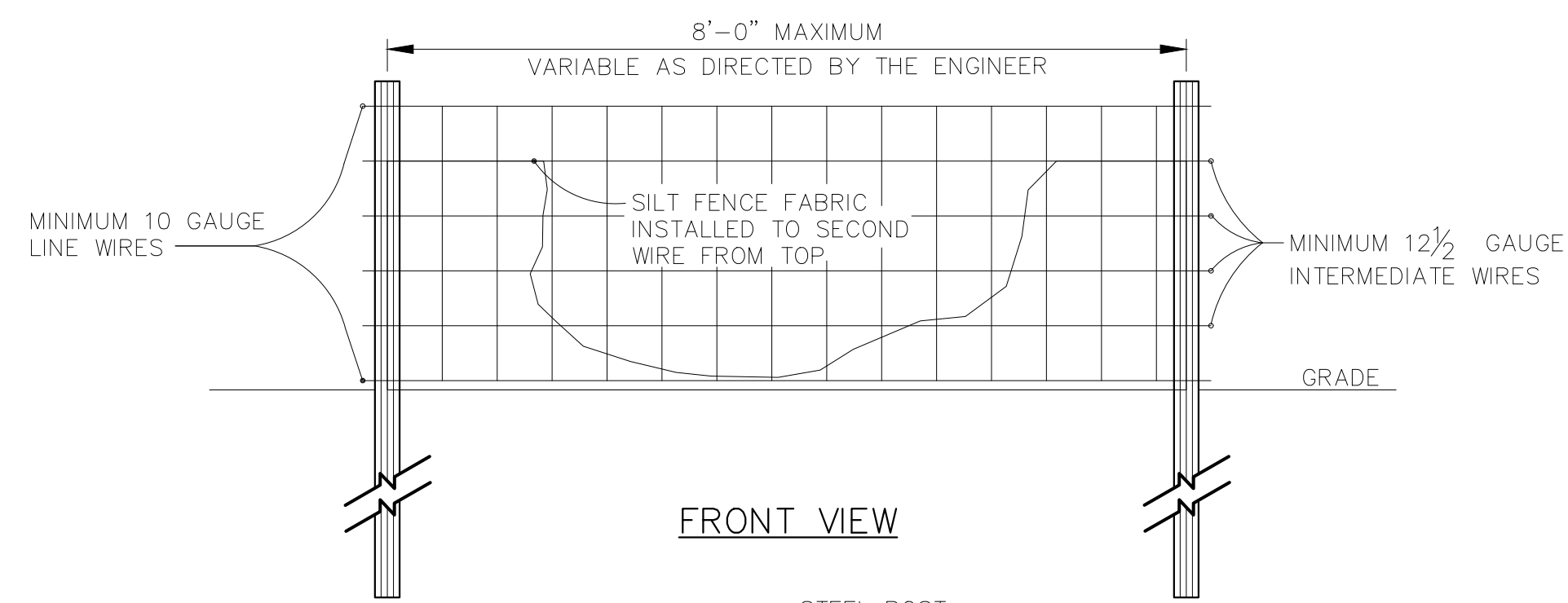
SHEET NUMBER  
**R8.04**

WAKE NC





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**NOTE:**  
USE SILT FENCE ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND NEVER IN AREAS OF CONCENTRATED FLOW.

\* FOR REPAIR OF SILT FENCE FAILURES USE REINFORCED SILT FENCE OUTLET DETAIL

STANDARD TEMPORARY SILT FENCE

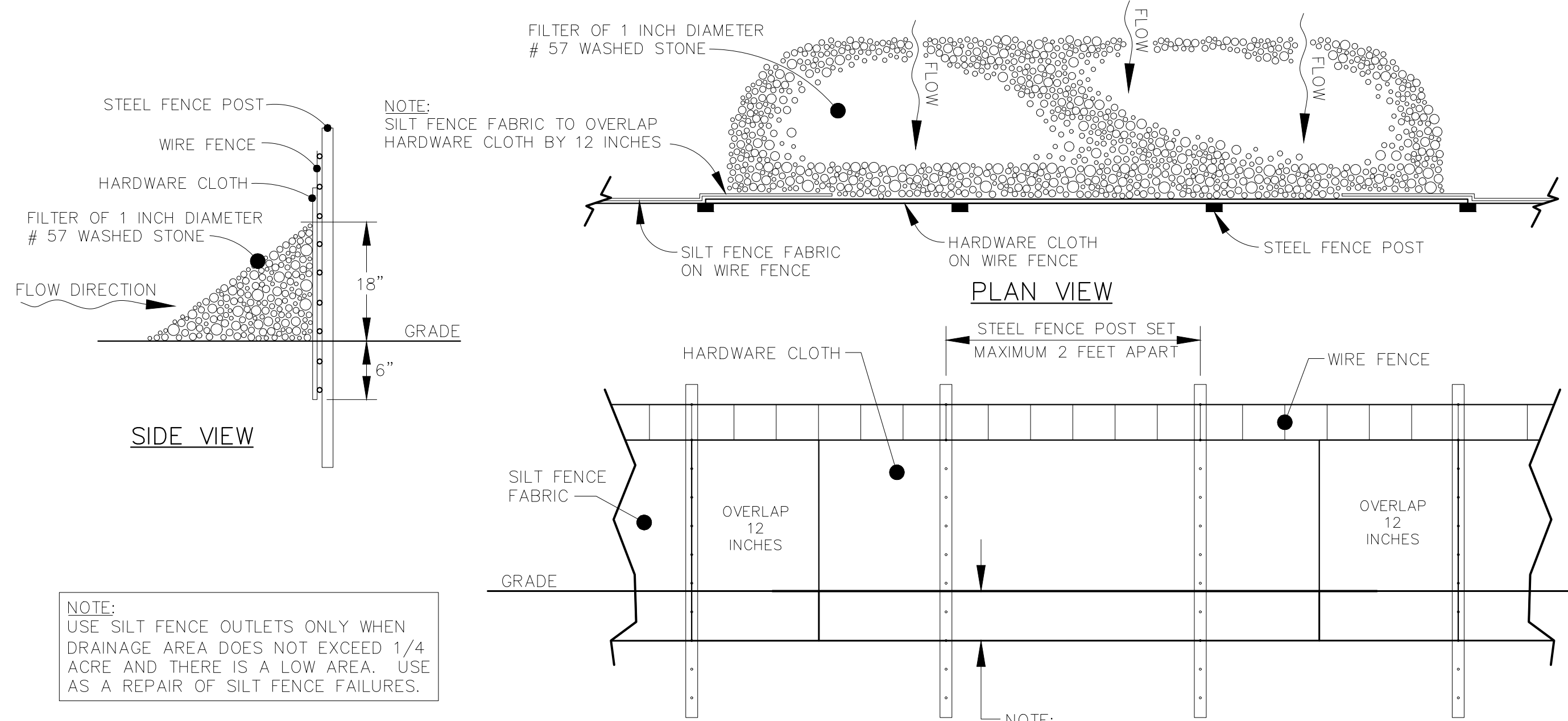
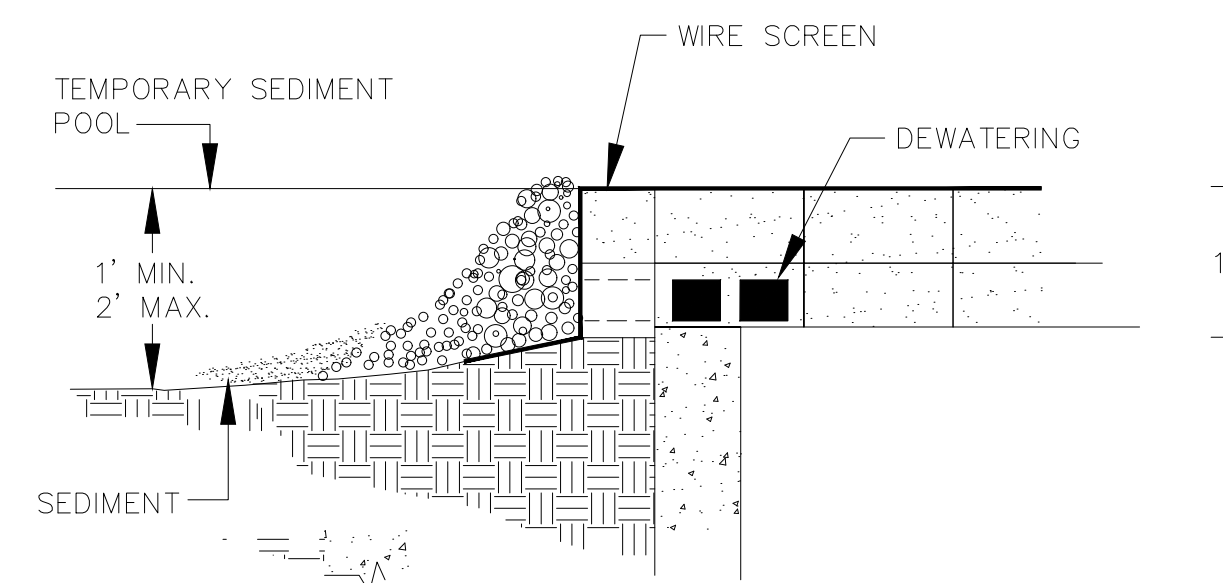
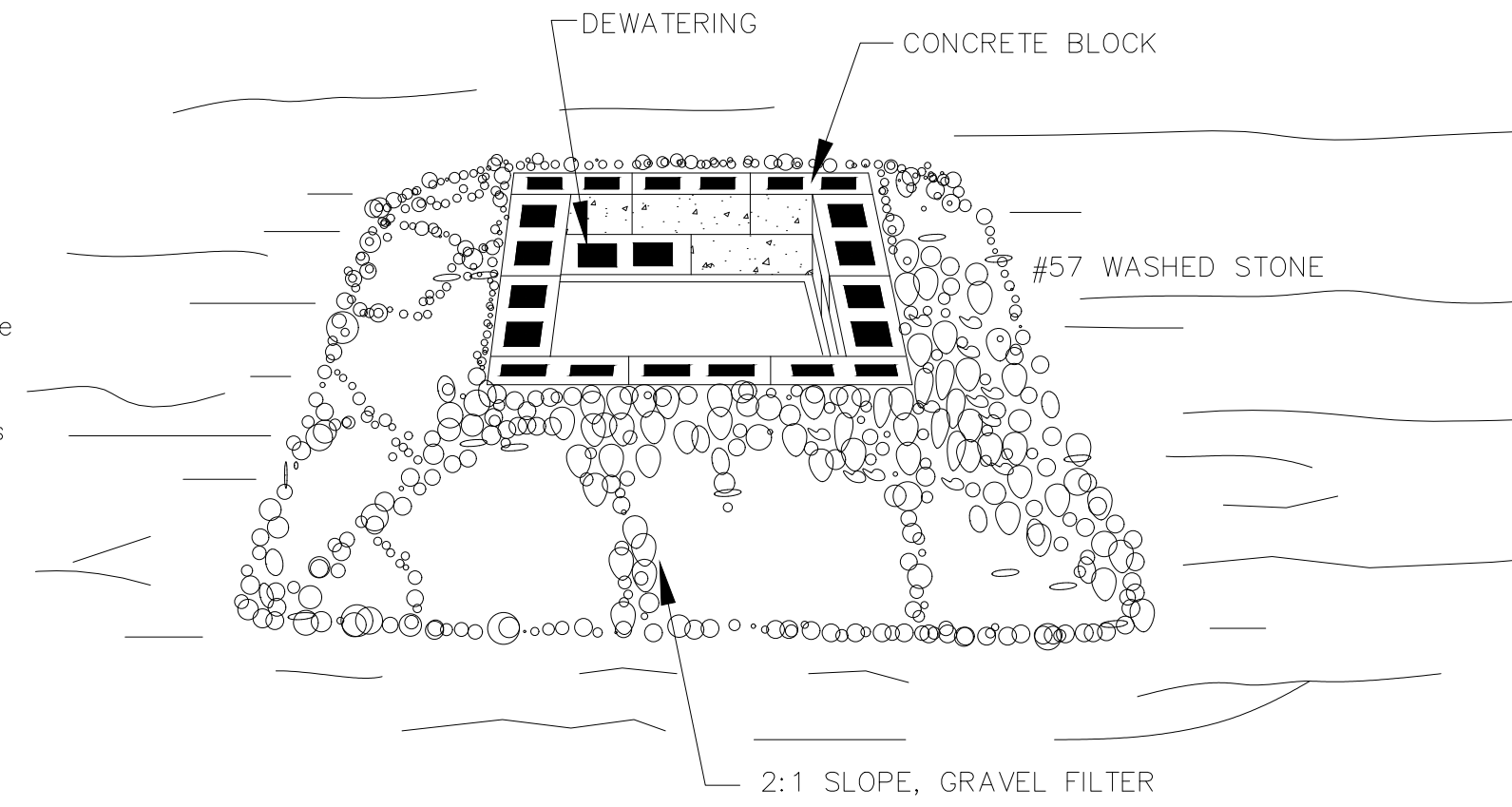
**BLOCK AND GRAVEL INLET PROTECTION (6.52)**

**NOTES:**

1. Use block and gravel inlet protection when inlet is at existing pavement locations.
2. Use block & gravel device or acceptable alternative over gate drain holes.

**CONSTRUCTION SPECIFICATIONS**

1. Lay one block on each side of the structure on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. Place the bottom row of blocks against the edge of the storm drain for lateral support and to avoid washouts when overflow occurs. If needed, give lateral support to subsequent rows by placing 2x4 wood studs through block openings.
2. Carefully fit hardware cloth or comparable wire mesh with 1/2-inch openings over all block openings to hold gravel in place.
3. Use clean gravel, 1/2-inch diameter, placed 2 inches below the top of the block on a 2:1 slope or flatter and smooth it to an even grade. Use DOT #57 washed stone.
4. The structure shall be inspected after each rain and repairs made as needed.
5. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
6. Sediment shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.
7. No. 57 stone shall be paid for at the contract unit price per ton.



**NOTE:**  
SILT FENCE FABRIC TO OVERLAP HARDWARE CLOTH BY 12 INCHES

**NOTE:**  
USE SILT FENCE OUTLETS ONLY WHEN DRAINAGE AREA DOES NOT EXCEED 1/4 ACRE AND THERE IS A LOW AREA. USE AS A REPAIR OF SILT FENCE FAILURES.

**NOTE:**  
BURY WIRE FENCE, HARDWARE CLOTH, AND SILT FENCE FABRIC 6 INCHES INTO THE TRENCH

STANDARD SILT FENCE OUTLET

**CONSTRUCTION SPECIFICATIONS**

**MATERIALS**

1. Use a synthetic filter fabric or a pervious sheet of polypropylene, nylon, polyester, or polyethylene yarn, which is certified by the manufacturer or supplier as conforming to the requirements shown in the table below.  
Synthetic filter fabric should contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 to 120 degrees F.
2. Ensure that posts for sediment fences are 1.33 lb/linear ft steel with a minimum length of 4 ft. Make sure that steel posts have projections to facilitate fastening the fabric.
3. For reinforcement of standard strength filter fabric, use wire fence with a minimum 14 gauge and a maximum mesh spacing of 6 inches.

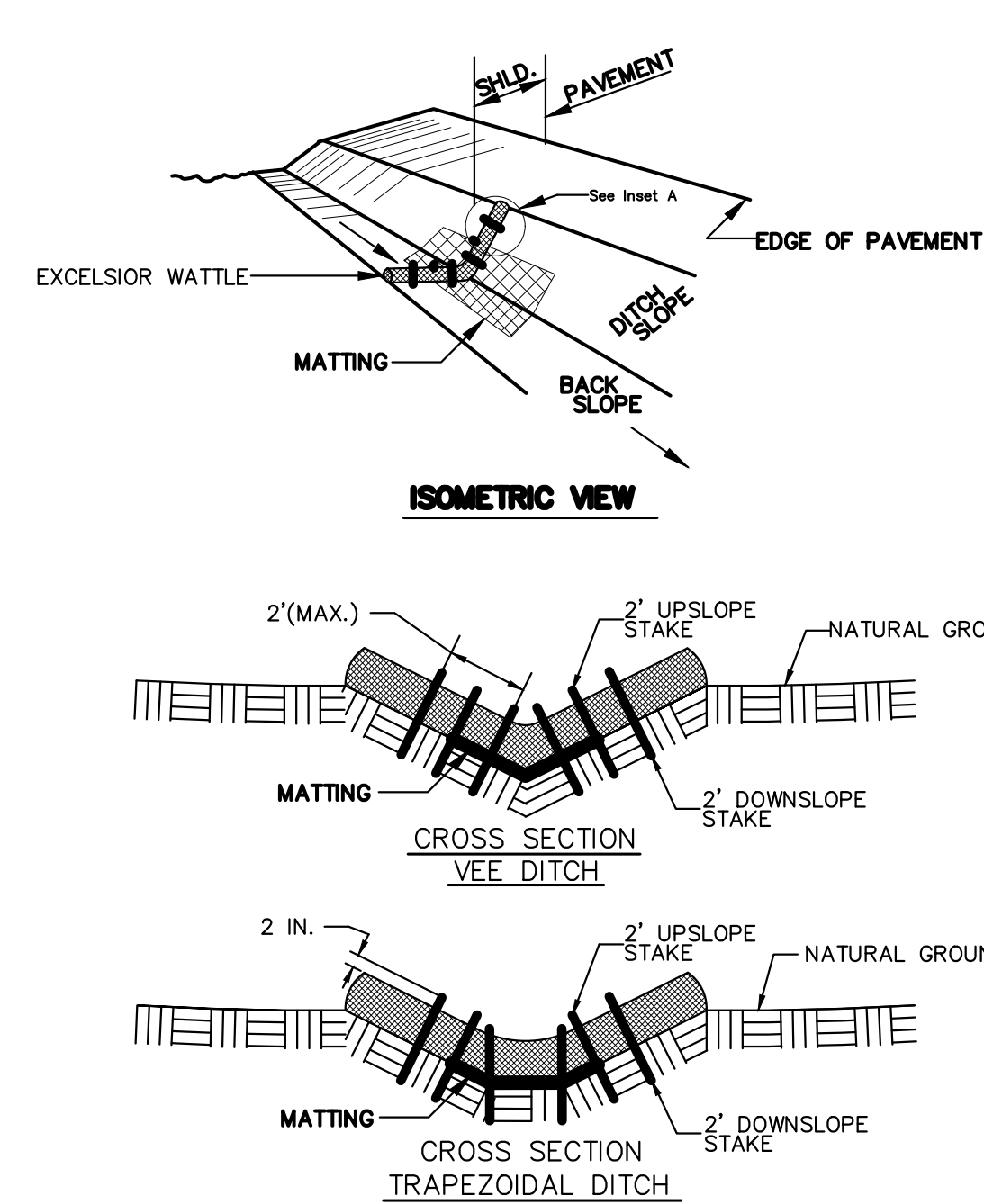
**CONSTRUCTION**

1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
2. Ensure that the height of the sediment fence does not exceed 18 inches above the ground surface. (Higher fences may impound volumes of water sufficient to cause failure of the structure).
3. Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with overlap to the next post.

3. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts using heavy duty wire staples at least 1 inch long, or the wires. Extend the wire mesh support to the bottom of the trench.
4. When a wire mesh support fence is used, space posts a maximum of 8 ft apart. Support posts should be driven securely into the ground to a minimum of 18 inches on the downslope side of the trench.
5. Extra strength filter fabric with 6-ft post spacing does not require wire mesh support fence. Staple or wire the filter fabric directly to posts.
6. Excavate a trench approximately 4 inches wide and 8 inches deep along the proposed line of posts and upslope from the barrier.
7. Adjust spacing to place posts at low points along the fence line.
8. Backfill the trench with compacted soil or gravel placed over the filter fabric.
9. Do not attach filter fabric to existing trees.

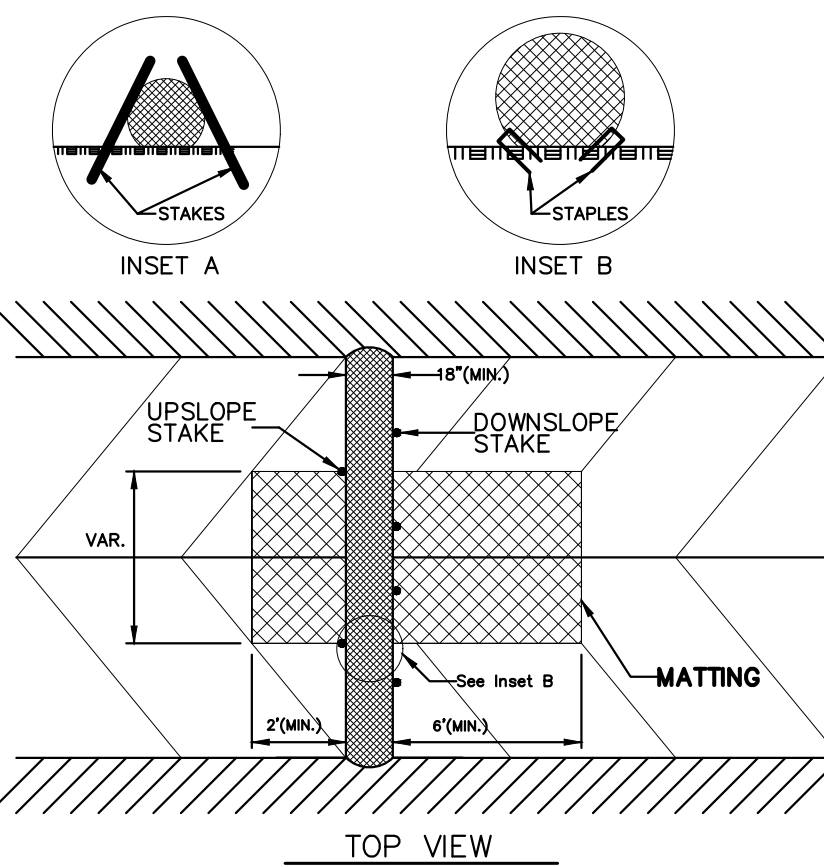
11. Fasten support wire fence to upslope side of posts, extending 6 inches into the trench.
  12. Attach continuous length of fabric to upslope side of fence posts. Avoid joints, particularly at low points in the fence line. When joints are necessary, fasten fabric securely support posts and overlap to the next post.
  13. Attach warning sign (see Tree Protection Detail) to fence where fence is located adjacent to and in buffer areas. Warning sign is incidental to silt fence.
- MAINTENANCE**
- Inspect sediment fences and fence outlets at least once a week and after each rainfall. Make any required repairs immediately.
- Should the fabric of a sediment fence collapse, tear, decompose or become ineffective, replace it promptly. Replace burlap every 60 days.
- Remove sediment deposits as necessary to provide adequate storage volume for the next rain and to reduce pressure on the fence. Take care to avoid undermining the fence during cleanout.
- Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

**WATTLE DETAIL**



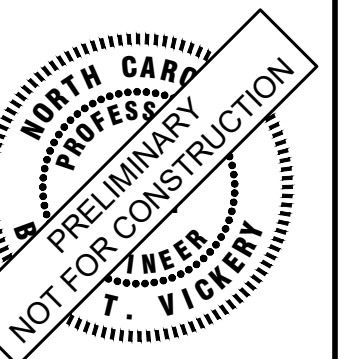
**NOTES:**

- USE MINIMUM 18 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 18" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



NO.	REVISIONS	DATE	BY

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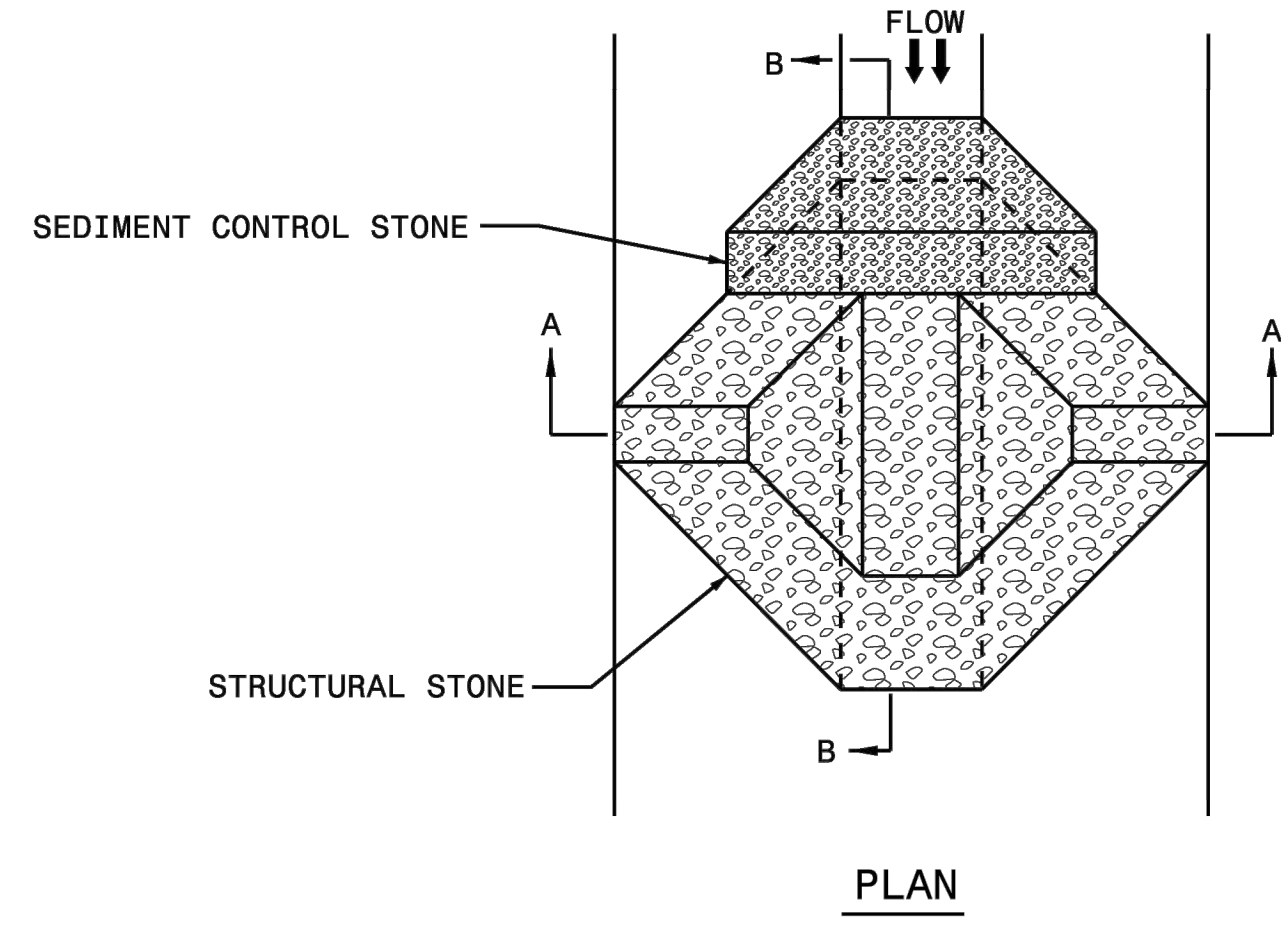


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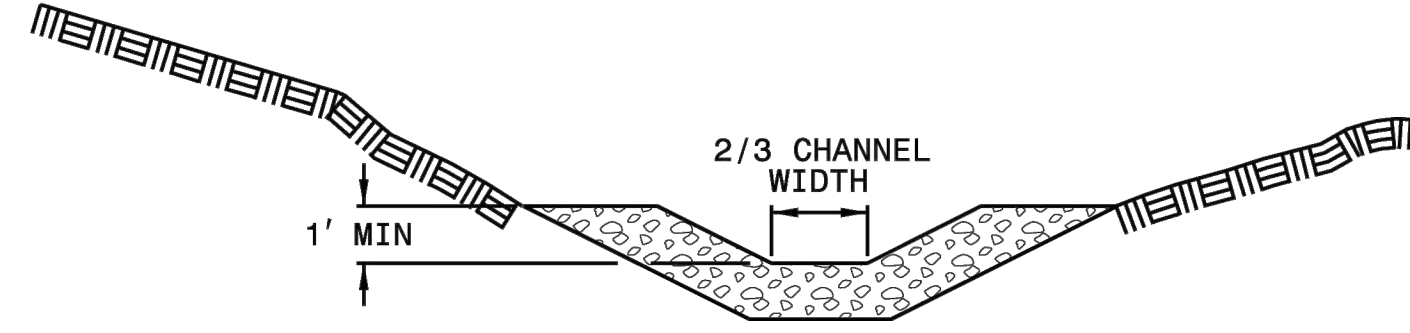
**EROSION CONTROL DETAILS**

**BROADMOOR ROLESVILLE  
PREPARED FOR  
PULTE GROUP**

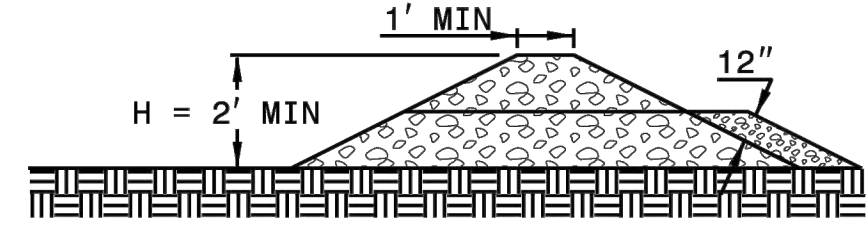
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PLAN



SECTION A-A



SECTION B-B

**NOTES**

- USE CLASS B EROSION CONTROL STONE FOR STRUCTURAL STONE.
- USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

SHEET 1 OF 1  
**1633.01**

ROADWAY STANDARD DRAWING FOR  
**TEMPORARY ROCK SILT CHECK TYPE A**

1-24  
STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

SHEET NUMBER  
**R8.07**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**

WAKE

NC

**EROSION CONTROL  
DETAILS**

KHA PROJECT  
019667004  
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NC FIRM # F-0102

No. REVISIONS

DATE BY

**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
<ul style="list-style-type: none"><li>Temporary grass seed covered with straw or other mulches and tackifiers</li><li>Hydroseeding</li><li>Roller erosion control products with or without temporary grass seed</li><li>Appropriately applied straw or other mulch</li><li>Plastic sheeting</li></ul>	<ul style="list-style-type: none"><li>Permanent grass seed covered with straw or other mulches and tackifiers</li><li>Geotextile fabrics such as permanent soil reinforcement matting</li><li>Hydroseeding</li><li>Shrubs or other permanent plantings covered with mulch</li><li>Uniform and evenly distributed ground cover sufficient to restrain erosion</li><li>Structural methods such as concrete, asphalt or retaining walls</li><li>Roller erosion control products with grass seed</li></ul>

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

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

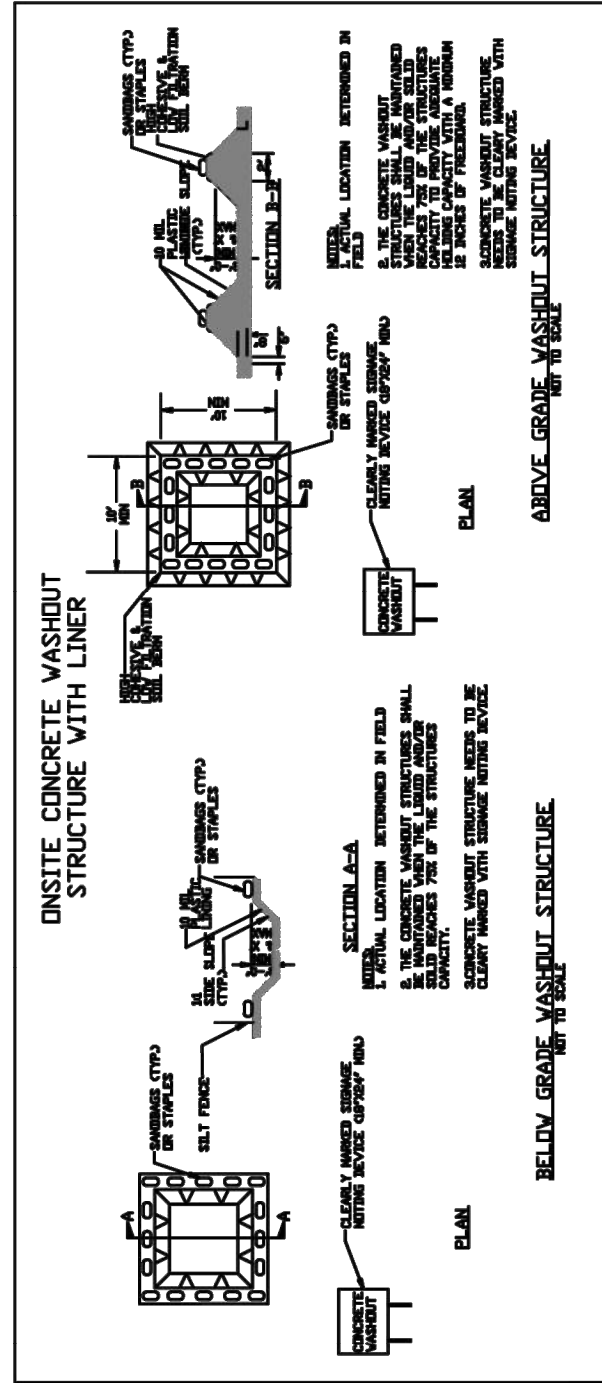
- EQUIPMENT AND VEHICLE MAINTENANCE**
- Maintain vehicles and equipment to prevent discharge of fluids.
  - Provide drip pans under any stored equipment.
  - Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
  - Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
  - Remove leaking vehicles and construction equipment from service until the problem has been corrected.
  - 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**
- Never bury or burn waste. Place litter and debris in approved waste containers. Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
  - Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
  - 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.
  - Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
  - Anchor all lightweight items in waste containers during times of high winds.
  - Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
  - Dispose waste off-site at an approved disposal facility.
  - On business days, clean up and dispose of waste in designated waste containers.

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

- PORTABLE TOILETS**
- 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.
  - Provide stacking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
  - 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**
- 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.
  - Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
  - Provide stable stone access point when feasible.
  - 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.



- CONCRETE WASHOUTS**
- Do not discharge concrete or cement slurry from the site.
  - Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
  - 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.
  - 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 standards details are not available, use one of the two types of temporary concrete washouts provided on this detail.
  - 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.
  - 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.
  - 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.
  - 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.
  - 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.
  - 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**
- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
  - 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.
  - 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.
  - Do not stockpile these materials onsite.

- HAZARDOUS AND TOXIC WASTE**
- Create designated hazardous waste collection areas on-site.
  - Place hazardous waste containers under cover or in secondary containment.
  - Do not store hazardous chemicals, drums or bagged materials directly on the ground.

EFFECTIVE: 04/01/19

**NGCG01 GROUND STABILIZATION AND MATERIALS HANDLING**

**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, then a record of the following shall be made: - Inspected 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, 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 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	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 releases, 3. An explanation as to the actions taken to control future releases.
(5) Streams or other water bodies on site (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 discharge of pollutants, a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and releases, 2. Records of the required reports to the appropriate Division 3. Regional Office per Part III, Section C, Item 2(a) 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 stabilization), 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 7 calendar day inspection requirement.

**PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item 2(c) and (d) of this permit,
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above,
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

**SECTION C: REPORTING**

- Occurrences shall report the following occurrences:
- Visible sediment deposition in a stream or wetland.
  - Oil spills if:
    - They are 25 gallons or more,
    - They are less than 25 gallons but cannot be cleaned up within 24 hours, or
    - They cause sheen on surface waters (regardless of volume), or
    - They are within 100 feet of surface waters (regardless of volume).
  - 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. 143-215.95.
  - Anticipated bypasses and unanticipated bypasses.
  - 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 Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• <b>Within 24 hours</b> , an oral or electronic notification. • <b>Within 7 calendar days</b> , 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.
(b) Oil spills and release of hazardous substances per Item 1b)(c) above	• If the stream is named on the <a href="#">NC 303(a) list</a> 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.
(c) Anticipated bypasses (40 CFR 122.41(m)(3))	• <b>Within 24 hours</b> , an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.
(d) Unanticipated bypasses (40 CFR 122.41(m)(3))	• <b>A report at least ten days before the date of the bypass</b> , if possible 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))	• <b>Within 24 hours</b> , an oral or electronic notification. • <b>Within 7 calendar days</b> , a report that includes an evaluation 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 recurrence of the noncompliance. [40 CFR 122.41(j)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

**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 kept on site and available for inspection at all times during normal business hours.

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 to be Kept on Site**  
In addition to the E&SC plan documents above, the following items shall be kept on the site and available for 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:

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. 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.

**3. Documentation to be Retained for Three Years**  
All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**PART II, SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item 2(c) and (d) of this permit,
- Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in item (c) above,
- Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

EFFECTIVE: 04/01/19

**NGCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING**

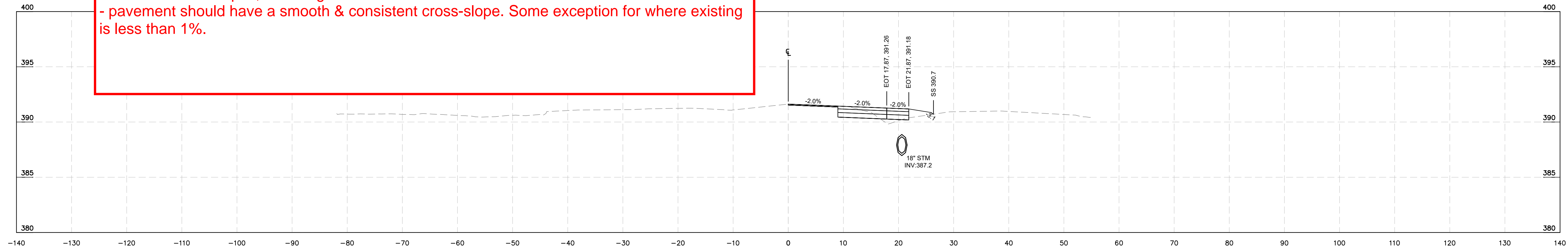
KHA PROJECT 019867004		KIMLEY-HORN & ASSOCIATES, INC. 300 S MAIN STREET, SUITE 212, HOLLY SPRINGS, NC 27540 PHONE: (919) 682-3583 WWW.KIMLEY-HORN.COM NC FRM #F-0102	
SCALE: AS SHOWN	DATE: 8/13/2024	DESIGNED BY: GTG	BY: BTY
DRAWN BY: GTG	CHECKED BY: BTY	REVISIONS	
SHEET NUMBER R8.08		DATE	

**BROADMOOR ROLESVILLE**  
EROSION CONTROL  
DETAILS  
PREPARED FOR  
PULTE GROUP

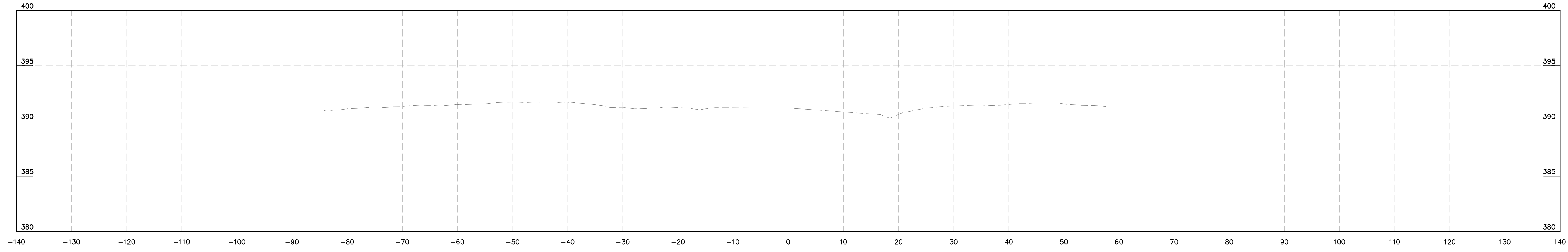
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NORTH CAROLINA Environmental Quality

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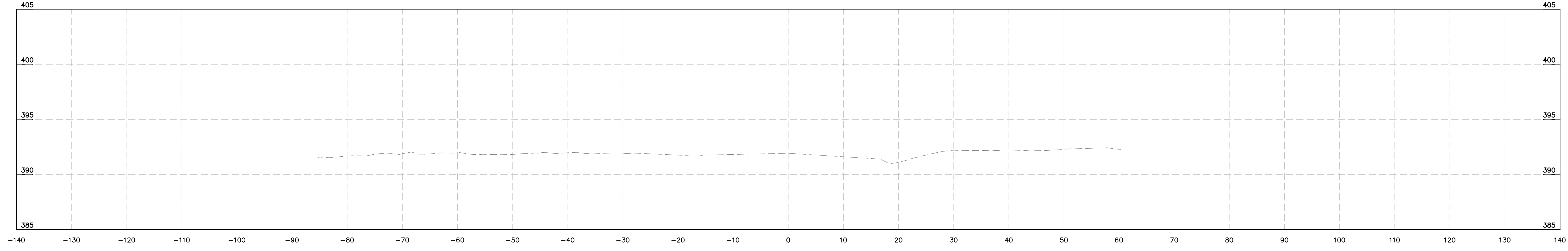
**General XSC notes:**  
 - Label all cross-slopes, including berms & shoulders.  
 - pavement should have a smooth & consistent cross-slope. Some exception for where existing is less than 1%.



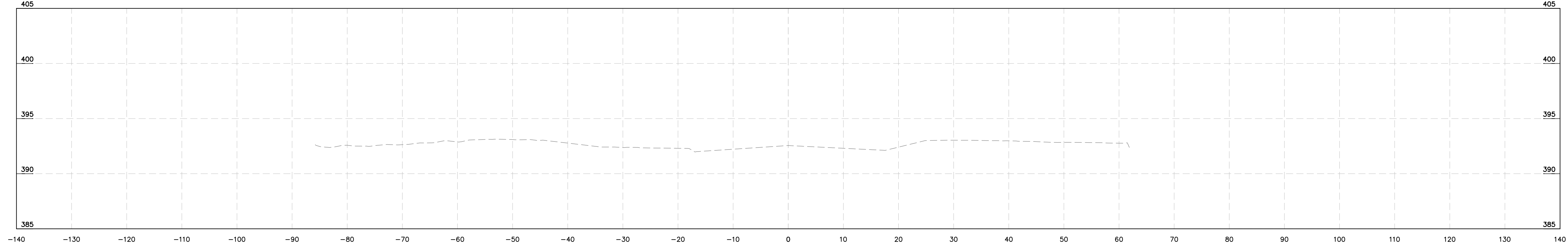
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**-L- ROLESVILLE RD  
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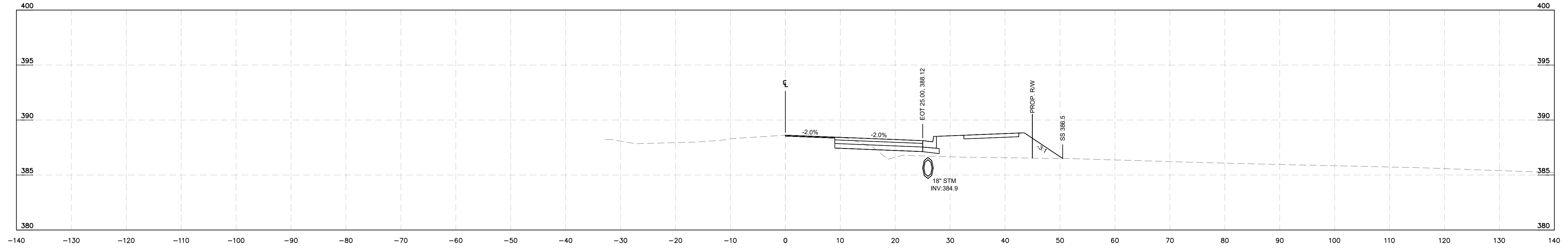
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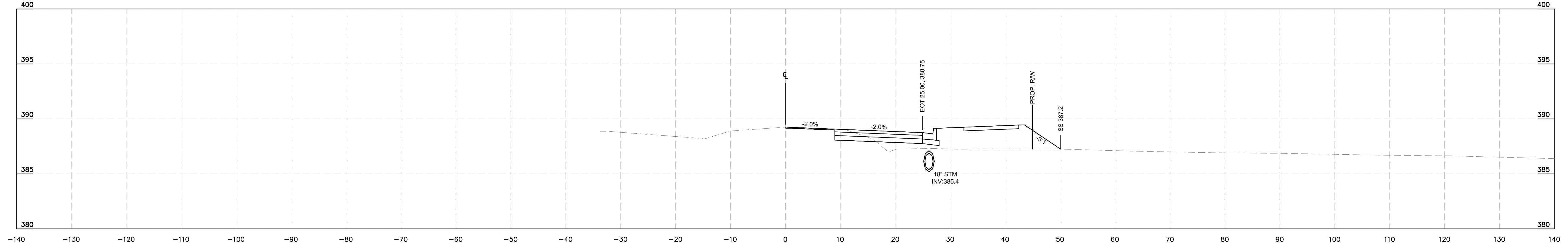
**BROADMOOR ROLESVILLE**  
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**PULTE GROUP**

WAKE NC

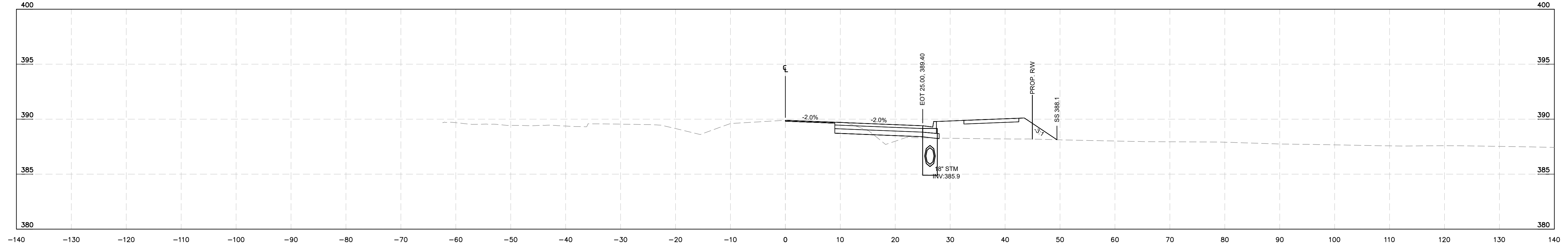
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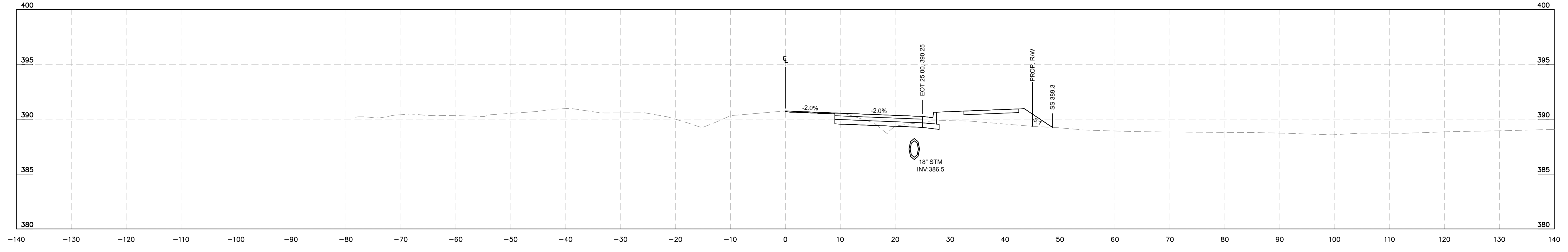
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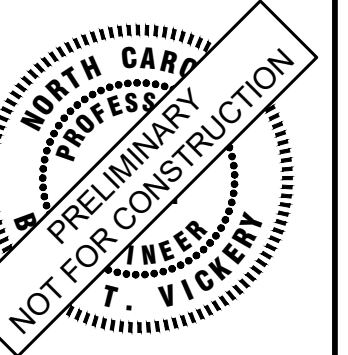


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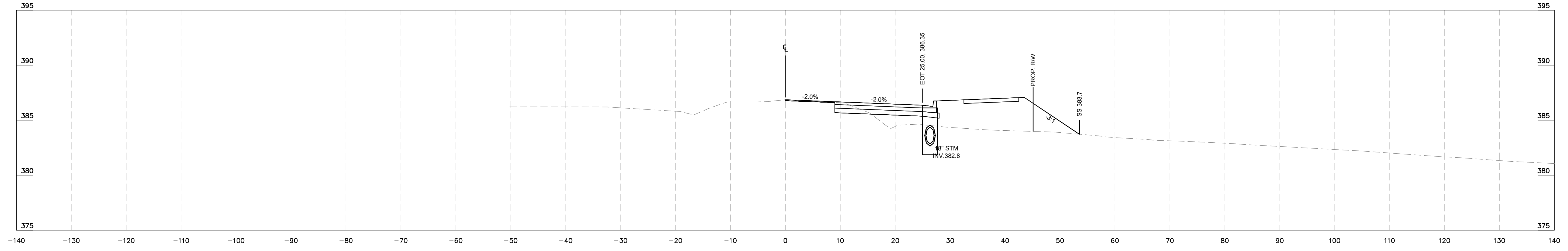
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PREPARED FOR  
**PULTE GROUP**  
WAKE NC

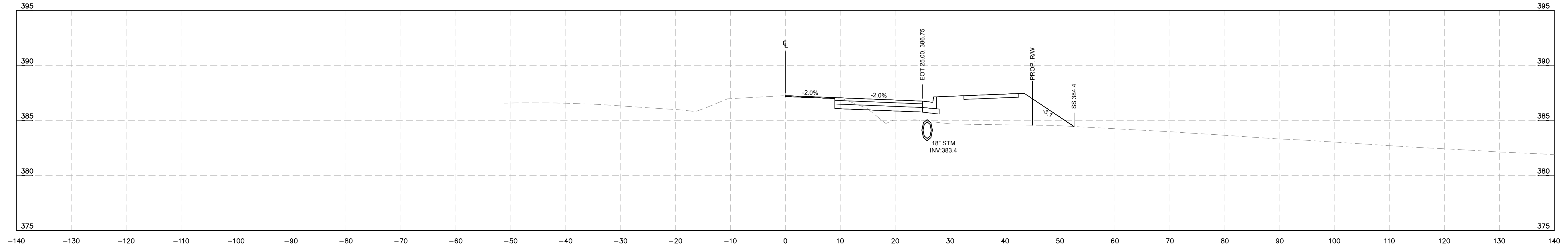
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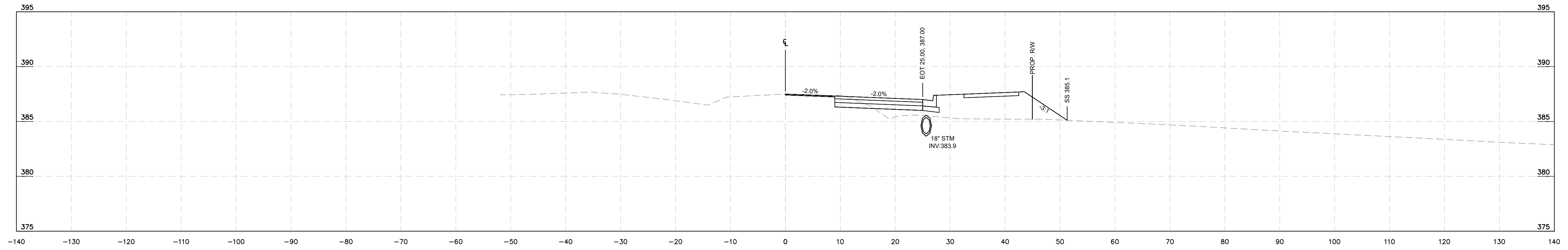
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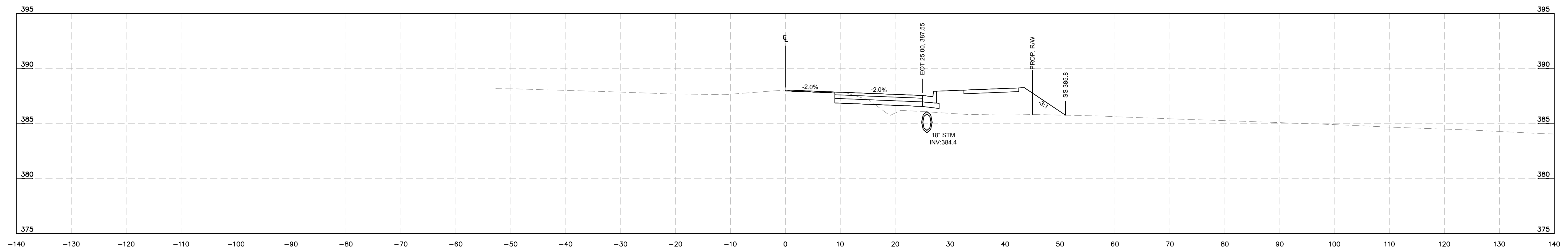
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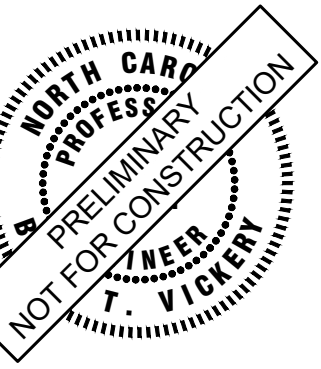


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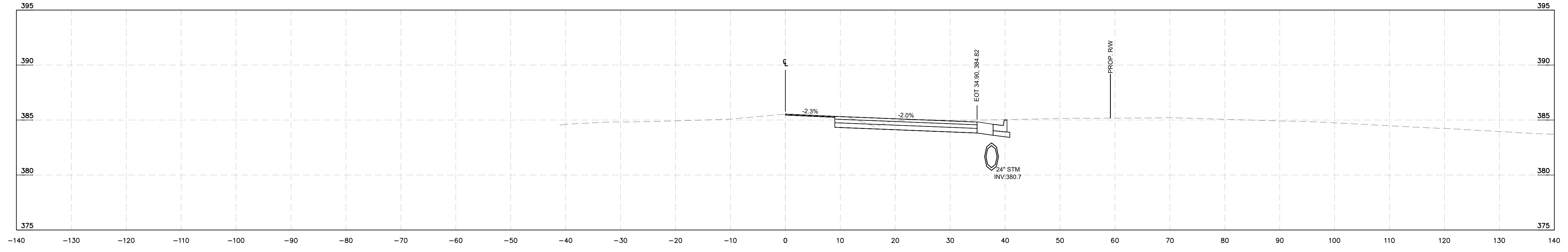
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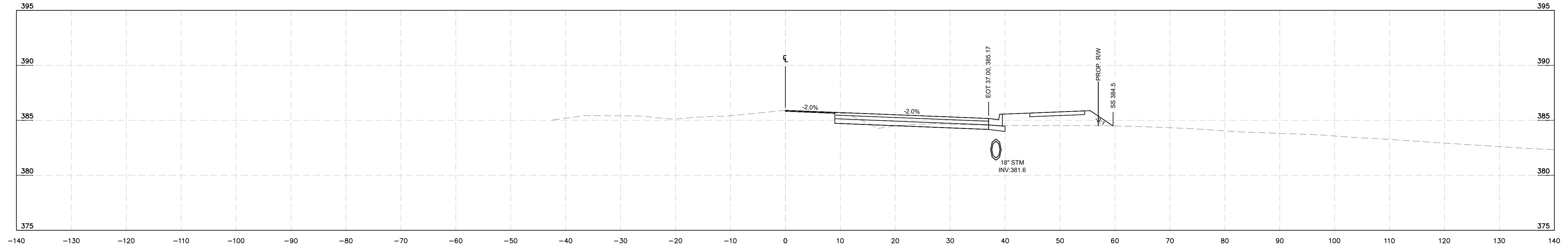
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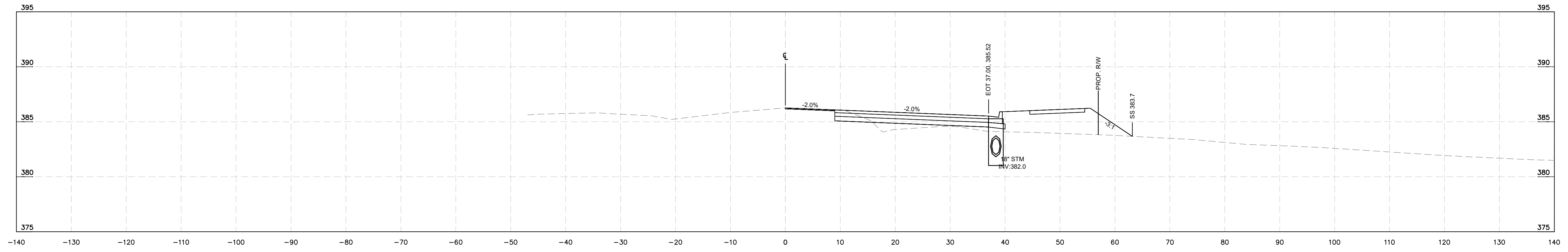
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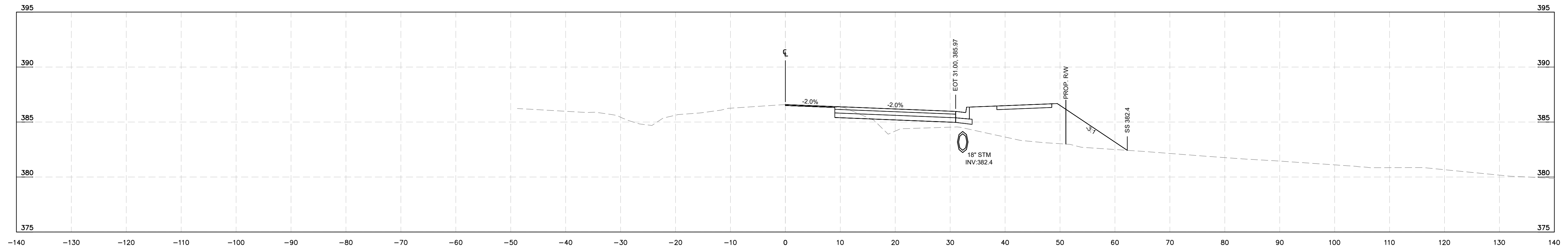
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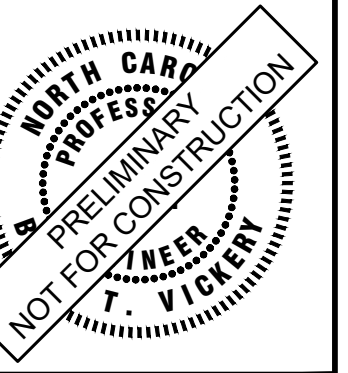


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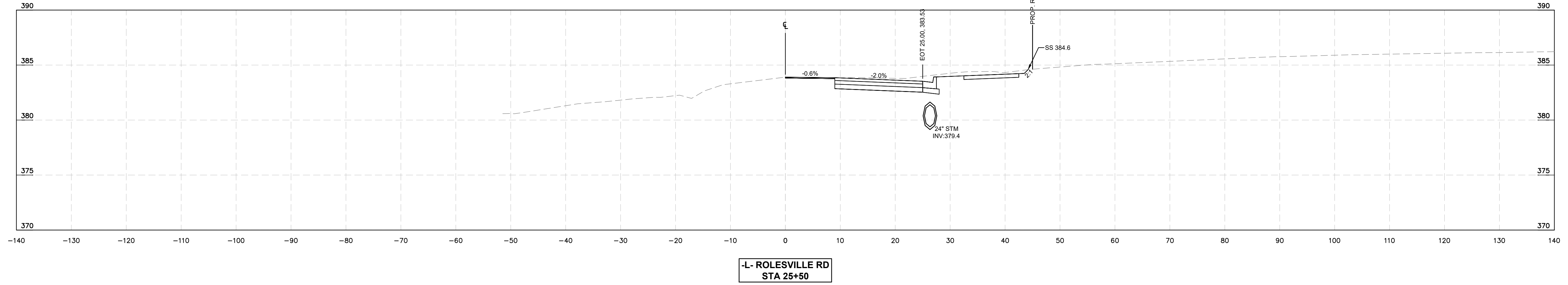
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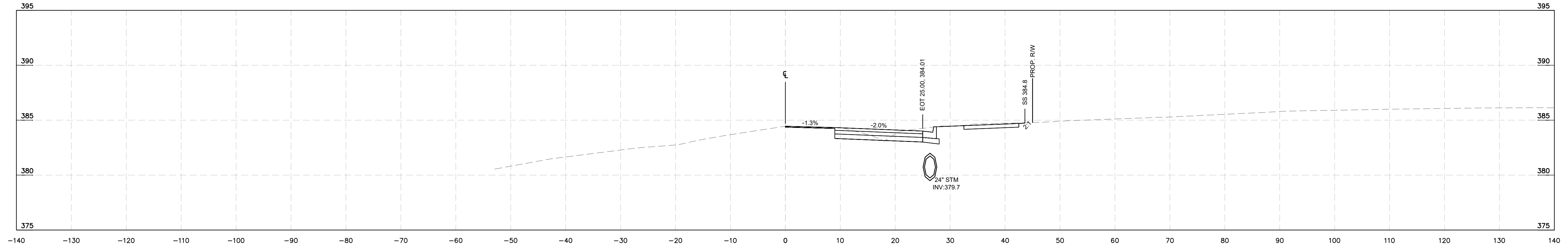
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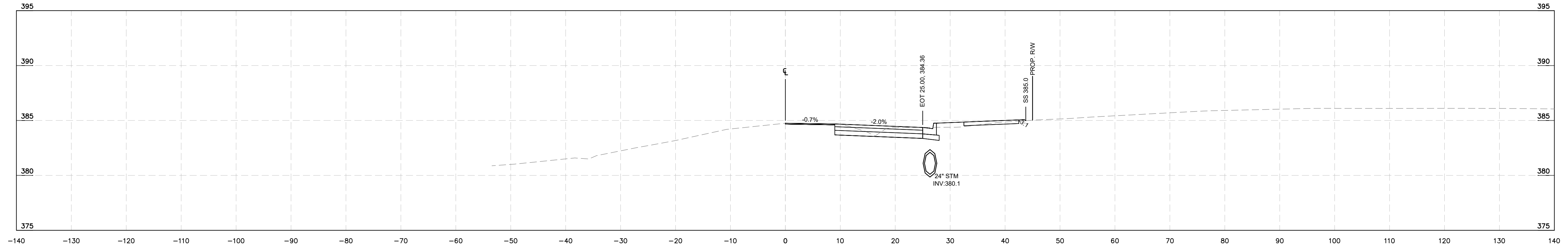
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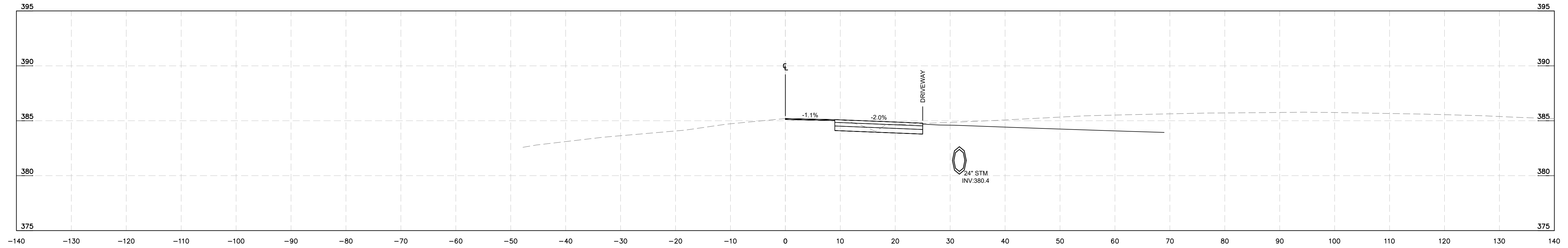
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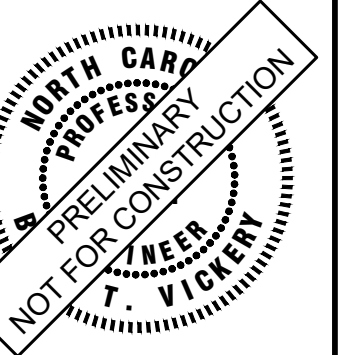


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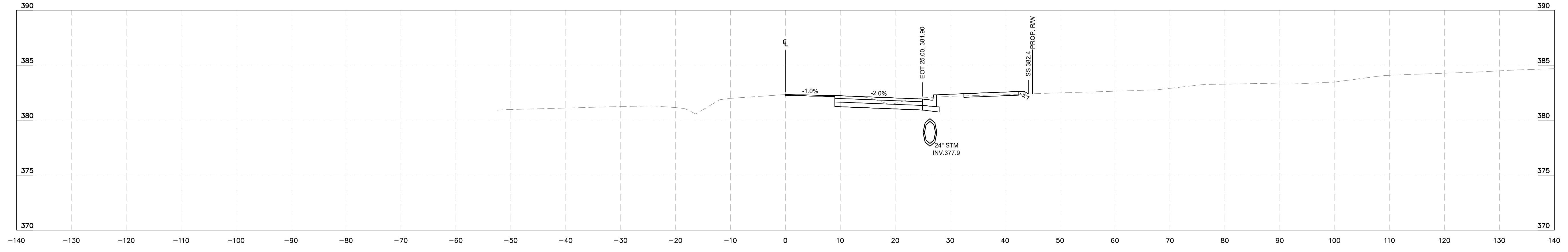
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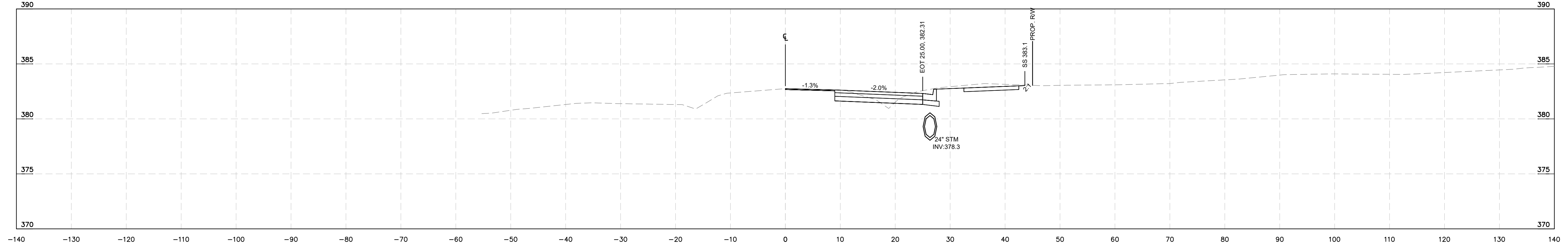
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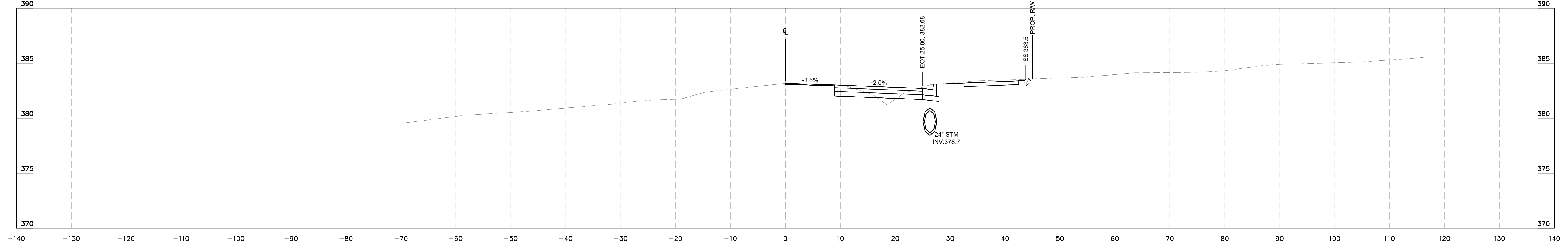
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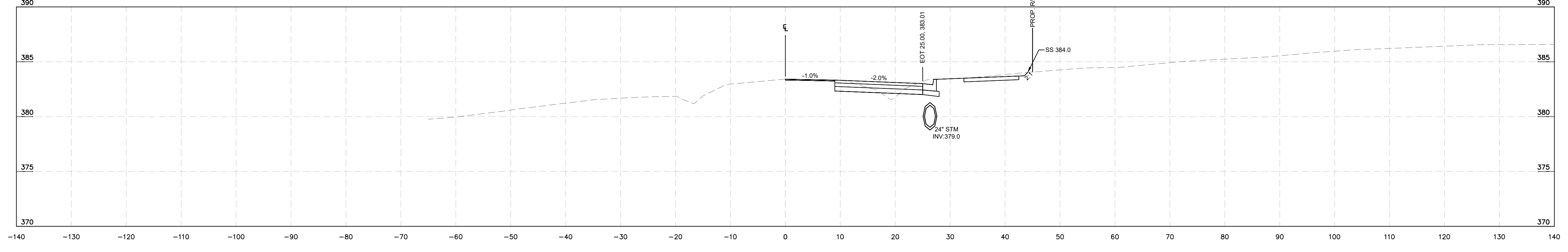
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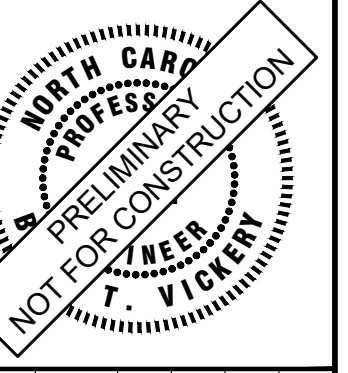


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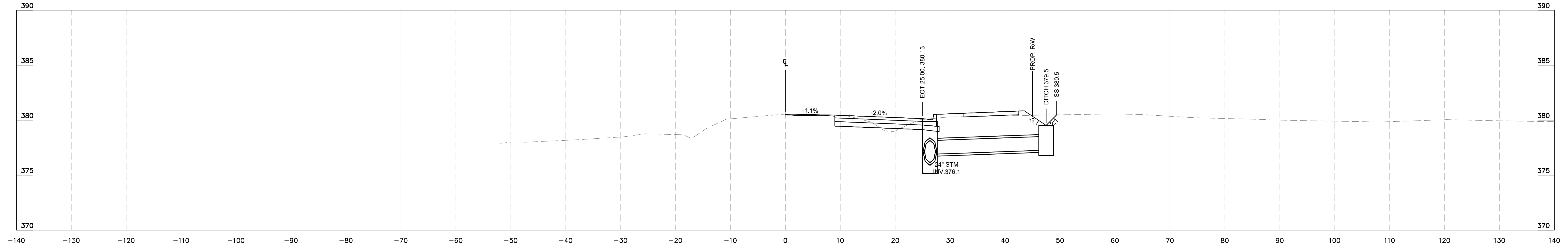
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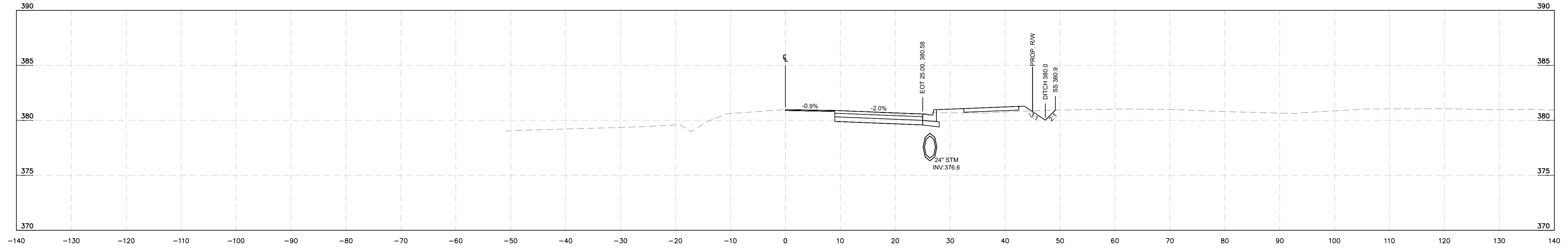
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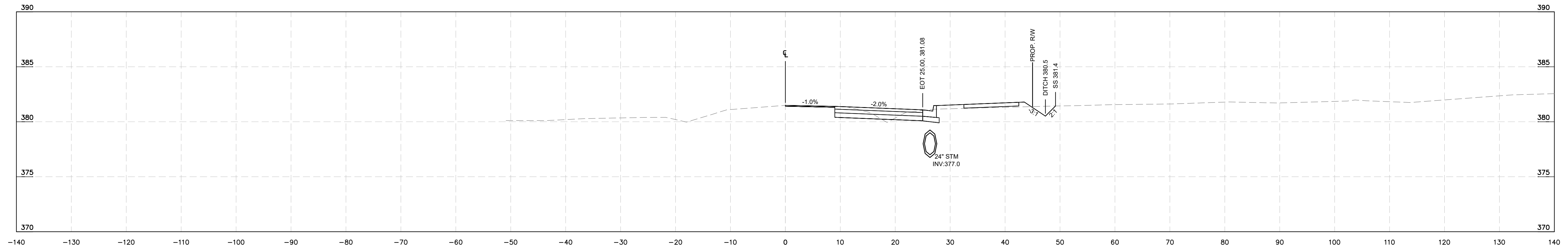
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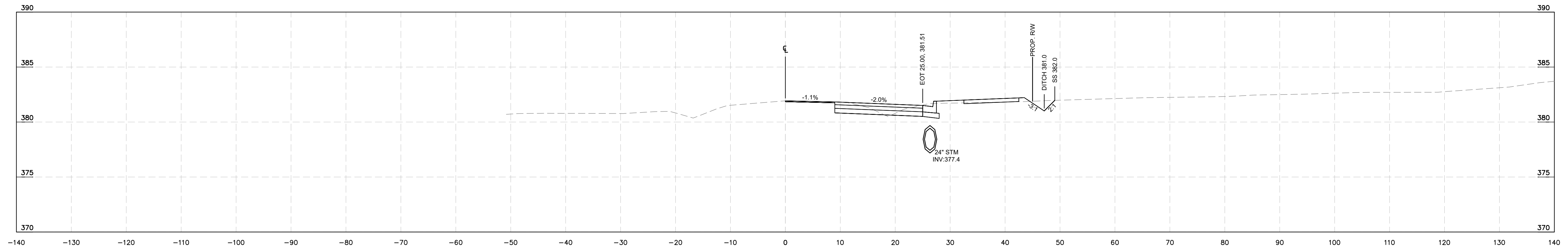
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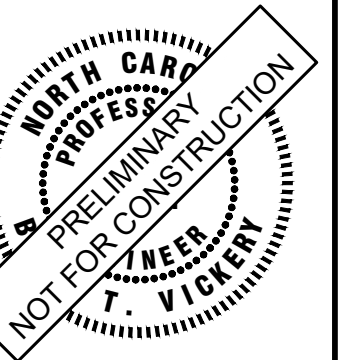


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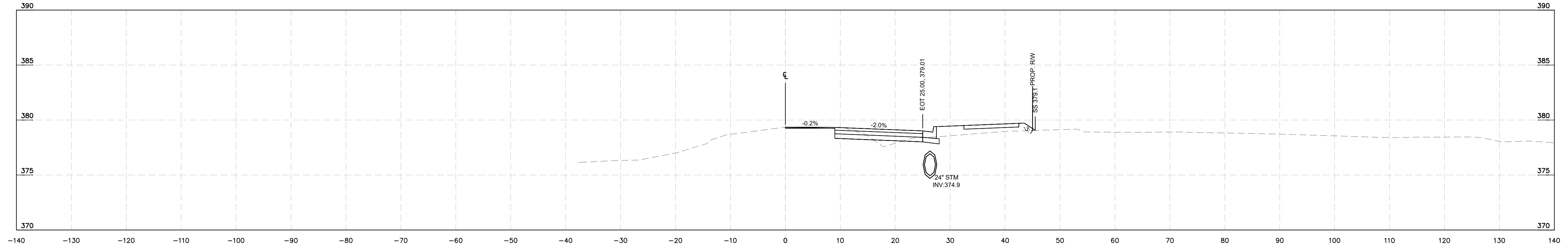
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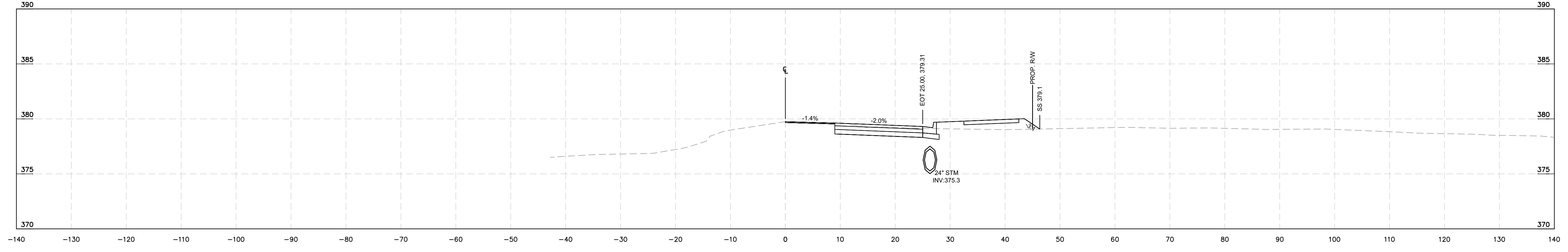
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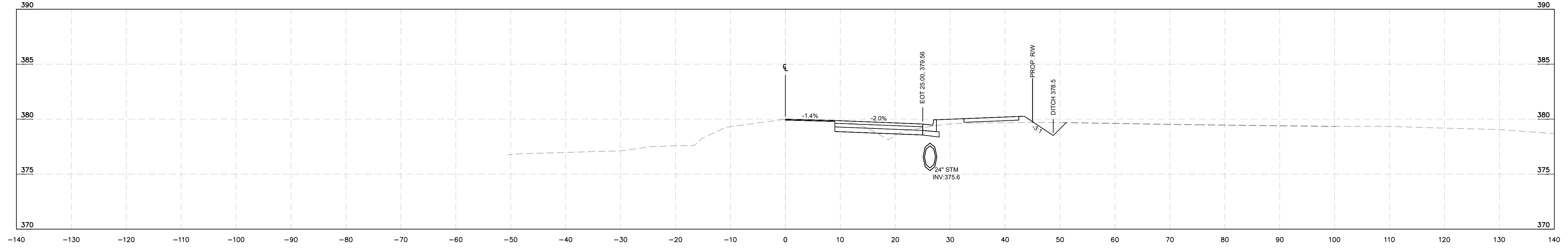
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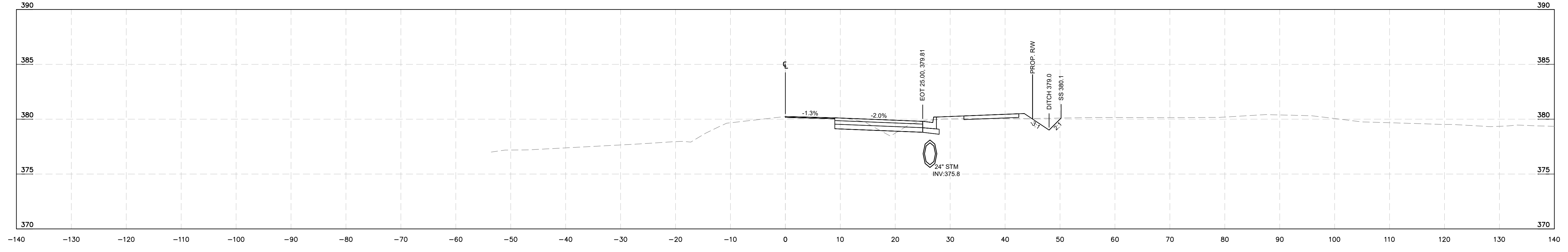
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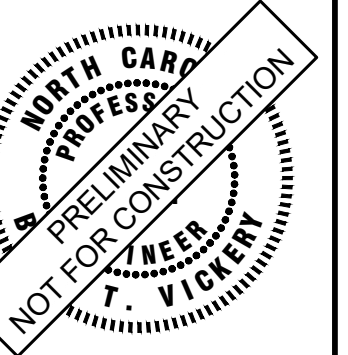


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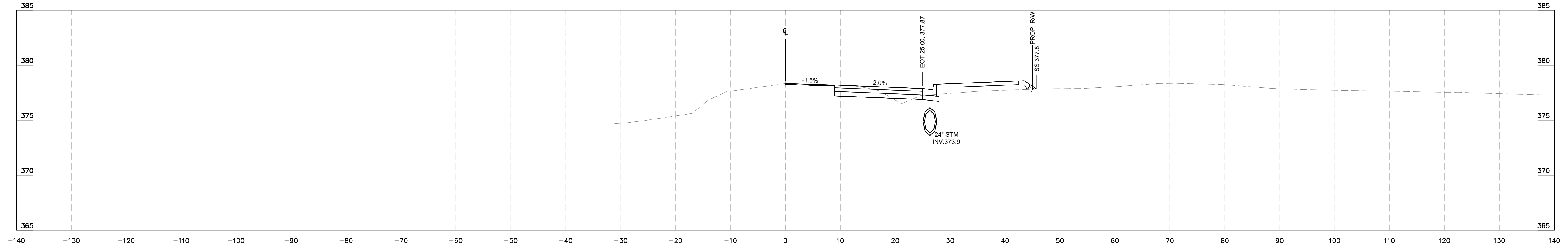
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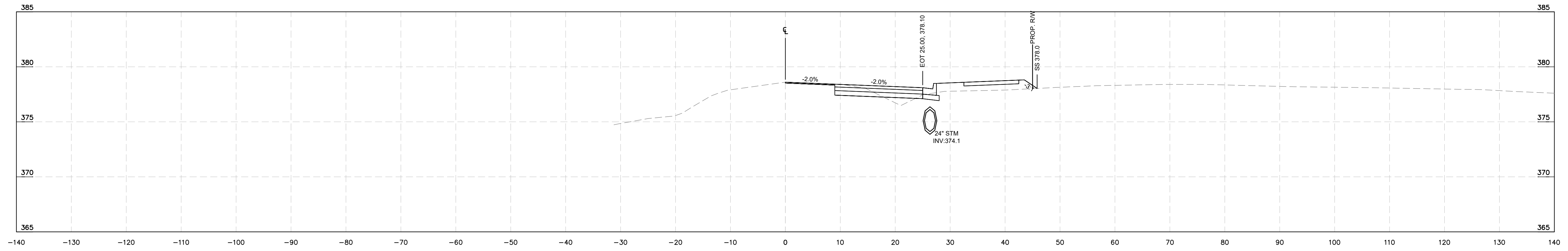
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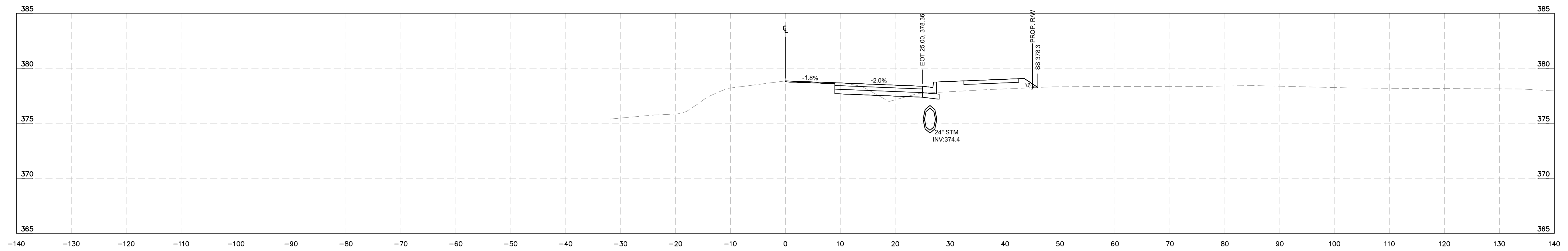
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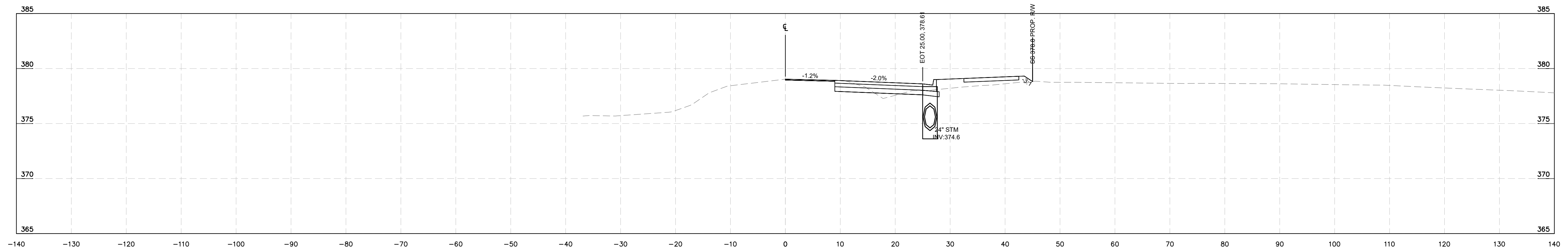
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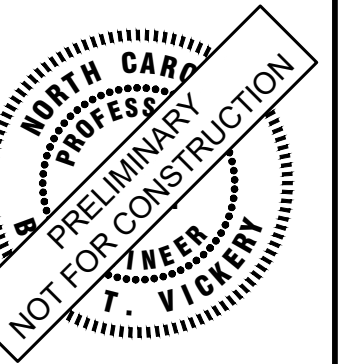


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DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

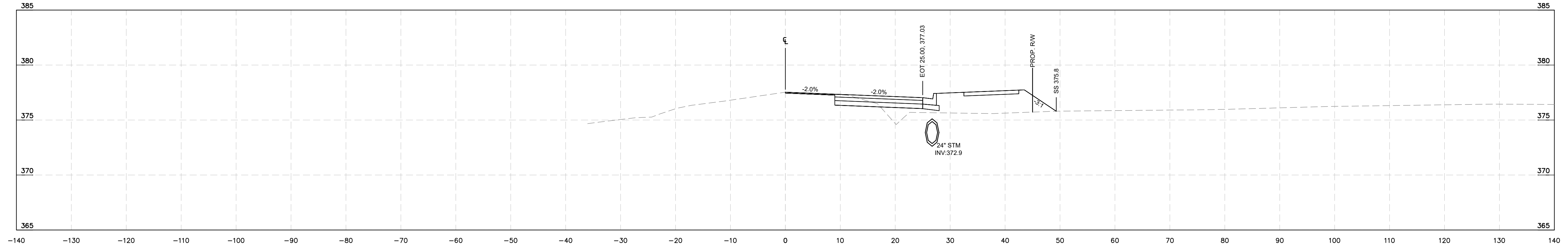
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

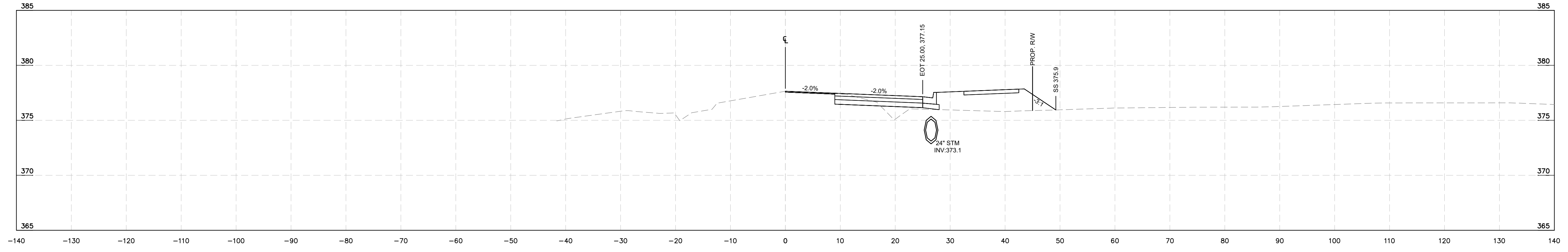
SHEET NUMBER  
**R9.08**

No.	REVISIONS	DATE	BY

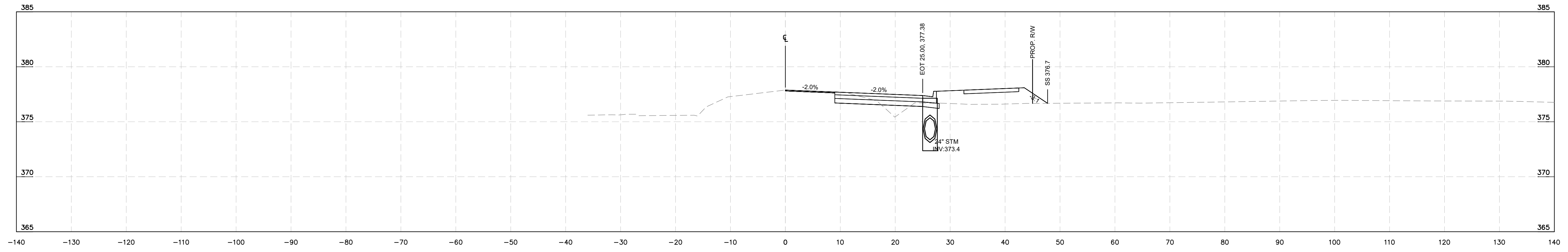
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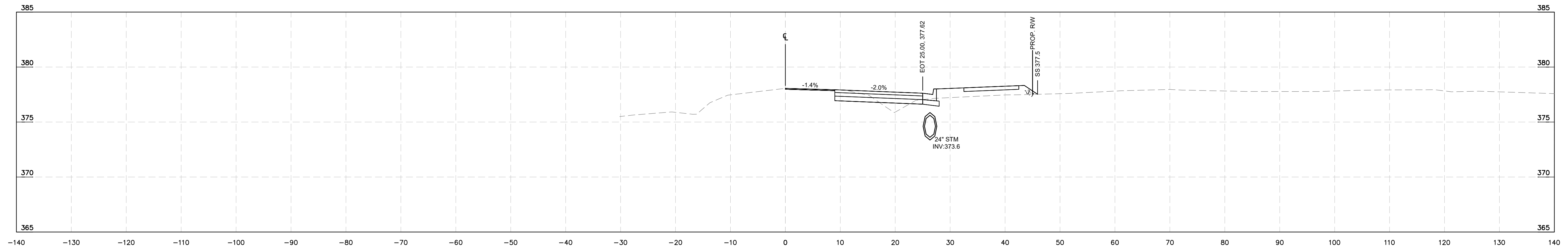
-L- ROLESVILLE RD  
STA 35+50



-L- ROLESVILLE RD  
STA 35+00

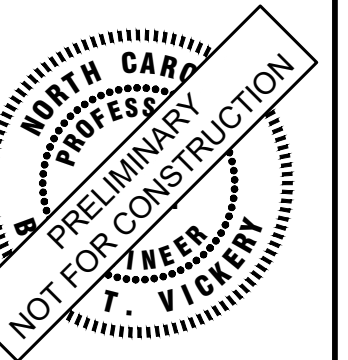


-L- ROLESVILLE RD  
STA 34+50



-L- ROLESVILLE RD  
STA 34+00

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NC FIRM # F-0102



KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

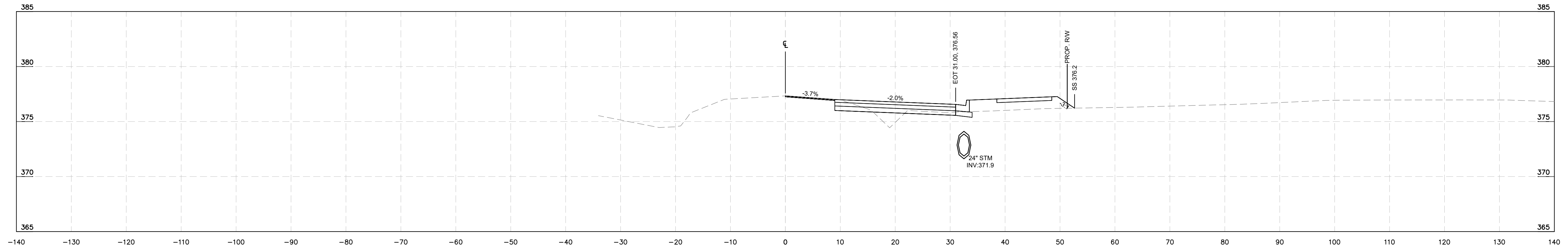
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**  
WAKE NC

SHEET NUMBER  
**R9.09**

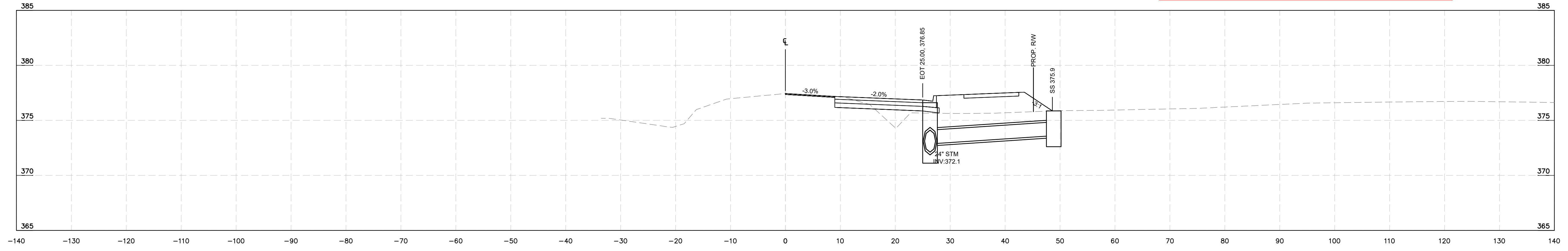
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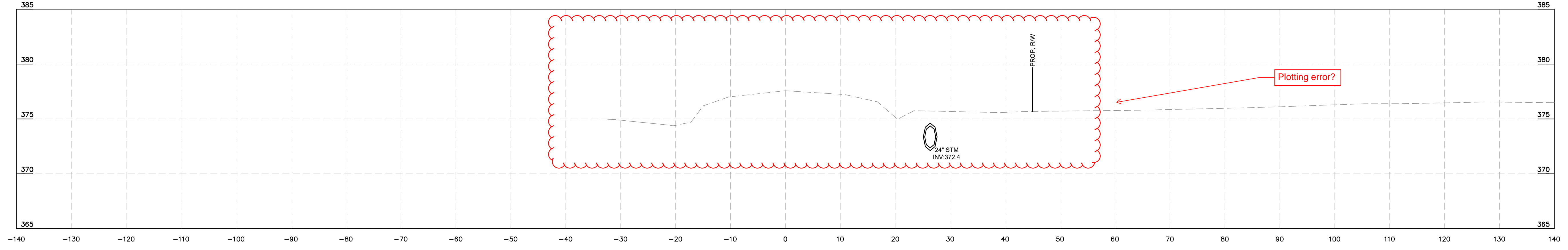


-L- ROLESVILLE RD  
STA 37+50

Use wedging to improve transition from  
37+00 to 38+00

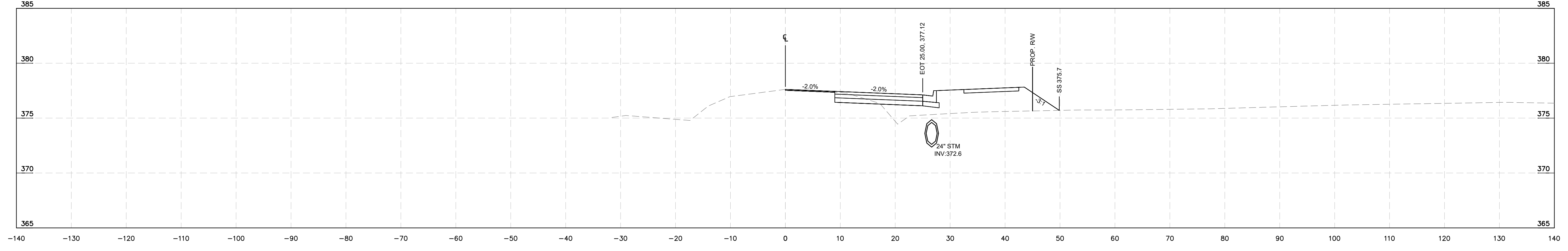


-L- ROLESVILLE RD  
STA 37+00



-L- ROLESVILLE RD  
STA 36+50

Plotting error?



-L- ROLESVILLE RD  
STA 36+00

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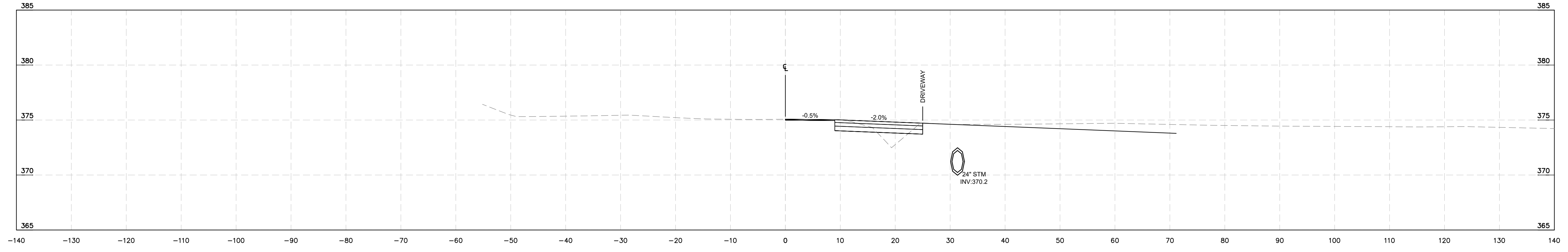


KHA PROJECT	019667004	DATE	8/13/2024	SCALE	AS SHOWN	DESIGNED BY	GTG	DRAWN BY	GTG	CHECKED BY	BTY
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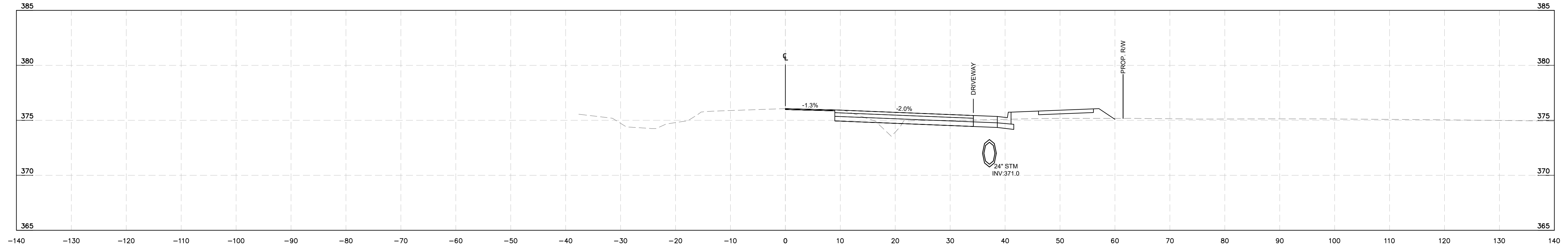
## CROSS SECTIONS

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PREPARED FOR  
PULTE GROUP  
WAKE NC

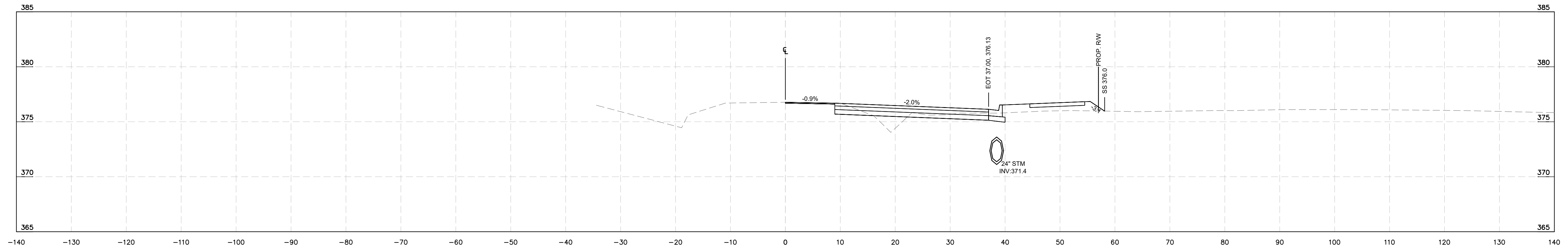
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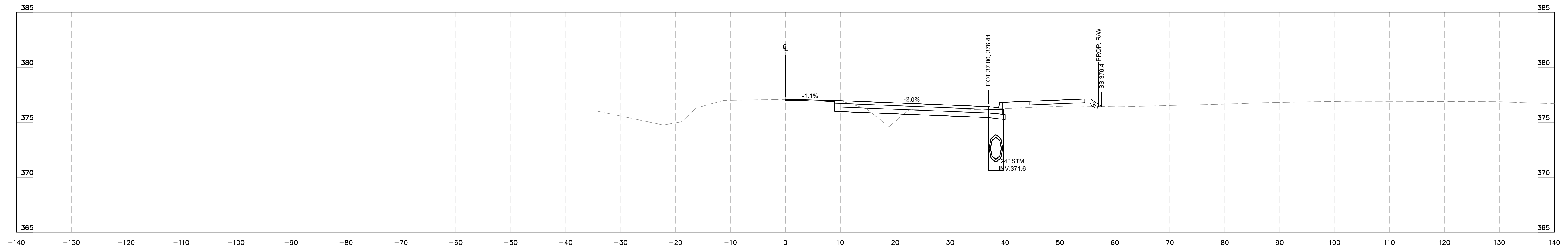
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STA 39+50



-L- ROLESVILLE RD  
STA 39+00

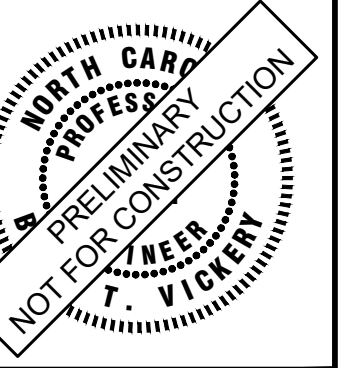


-L- ROLESVILLE RD  
STA 38+50



-L- ROLESVILLE RD  
STA 38+00

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NC FIRM # F-0102



KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

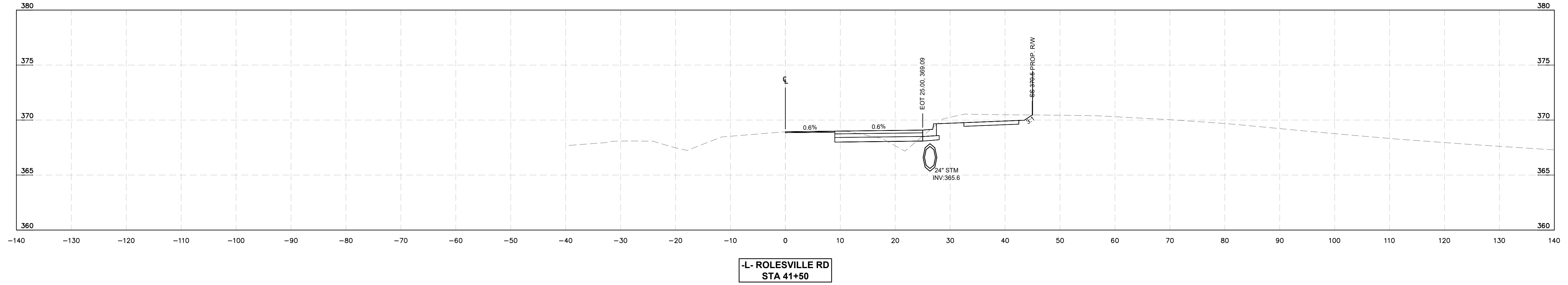
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**  
WAKE NC

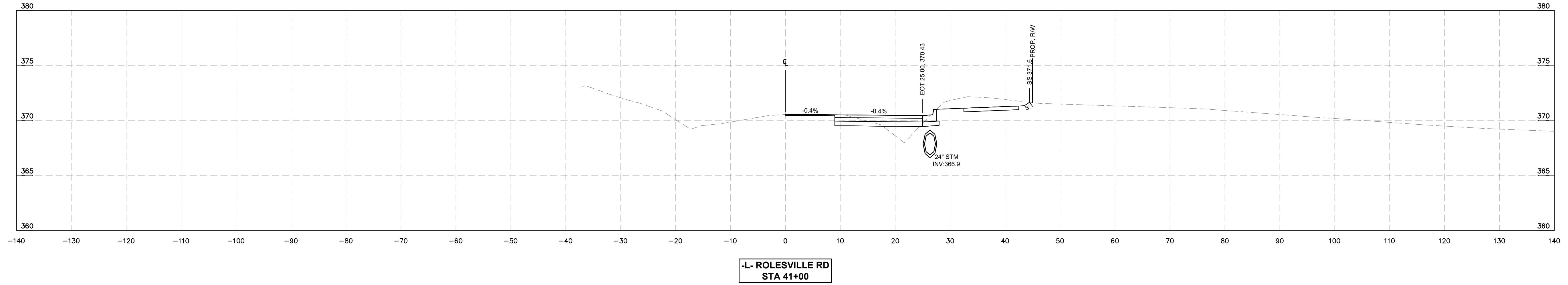
SHEET NUMBER  
**R9.11**

No.	REVISIONS	DATE	BY

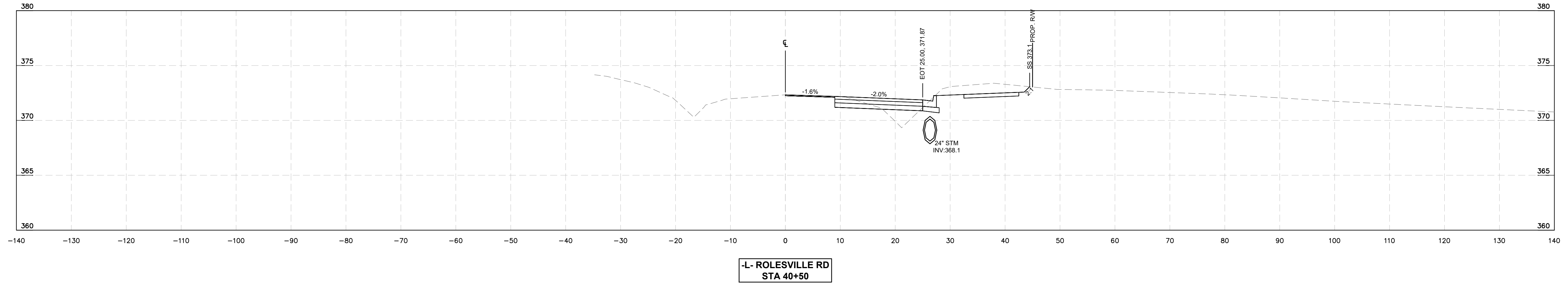
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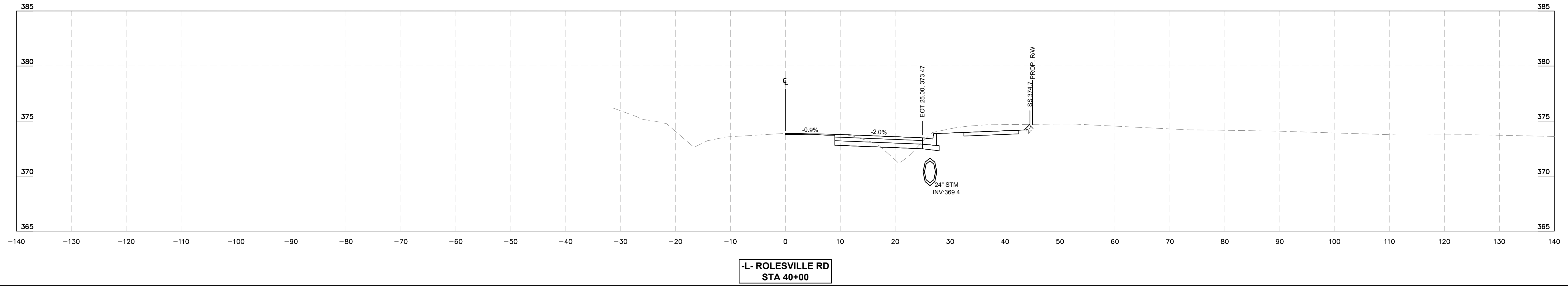
-L- ROLESVILLE RD  
STA 41+50



-L- ROLESVILLE RD  
STA 41+00

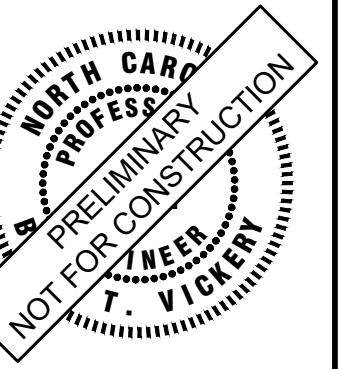


-L- ROLESVILLE RD  
STA 40+50



-L- ROLESVILLE RD  
STA 40+00

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KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**CROSS SECTIONS**

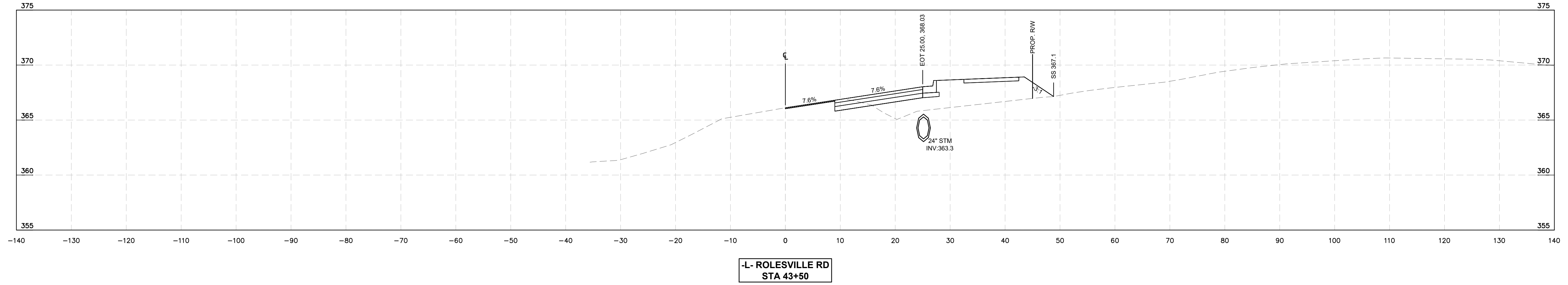
**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**  
WAKE NC

SHEET NUMBER  
**R9.12**

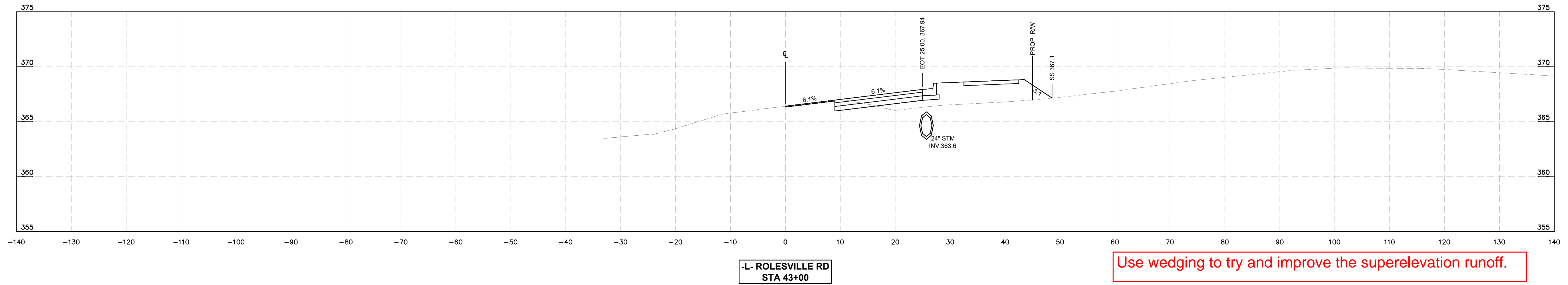
No.	REVISIONS	DATE	BY



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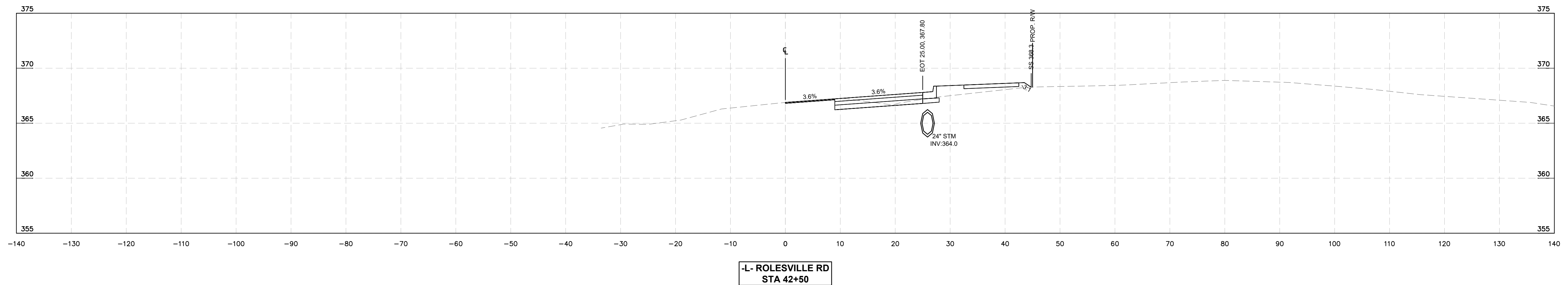


-L- ROLESVILLE RD  
STA 43+50

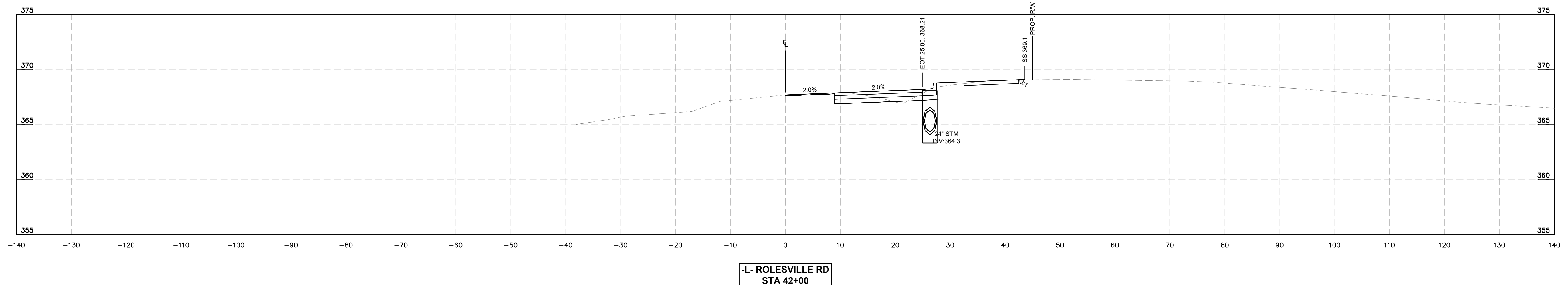


-L- ROLESVILLE RD  
STA 43+00

Use wedging to try and improve the superelevation runoff.

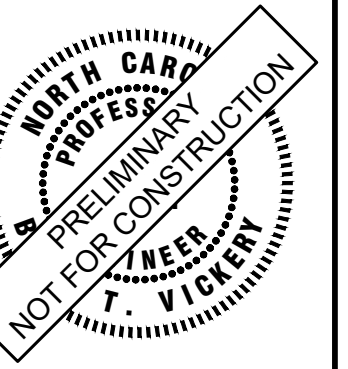


-L- ROLESVILLE RD  
STA 42+50



-L- ROLESVILLE RD  
STA 42+00

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KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

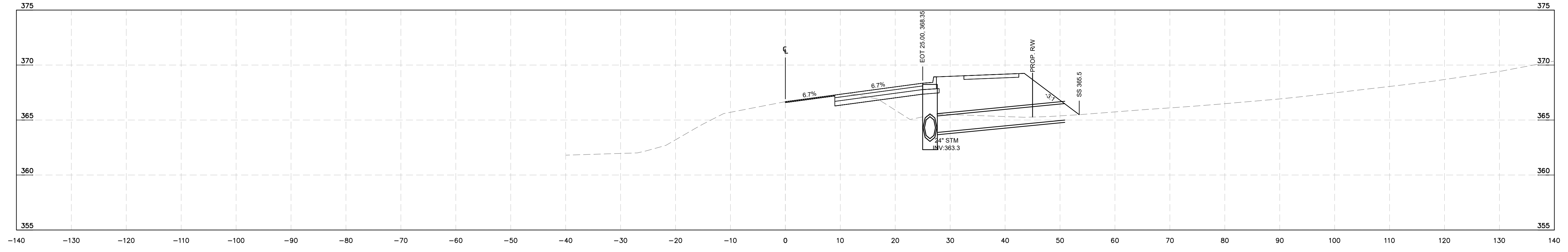
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**  
WAKE NC

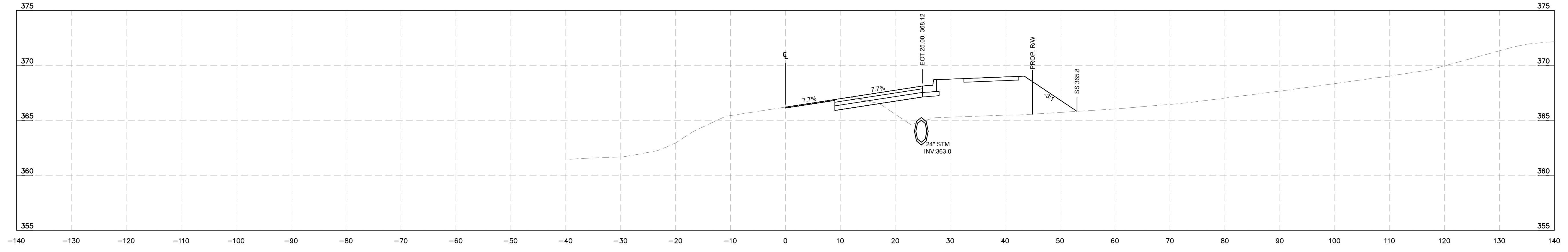
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**R9.13**

No.	REVISIONS	DATE	BY

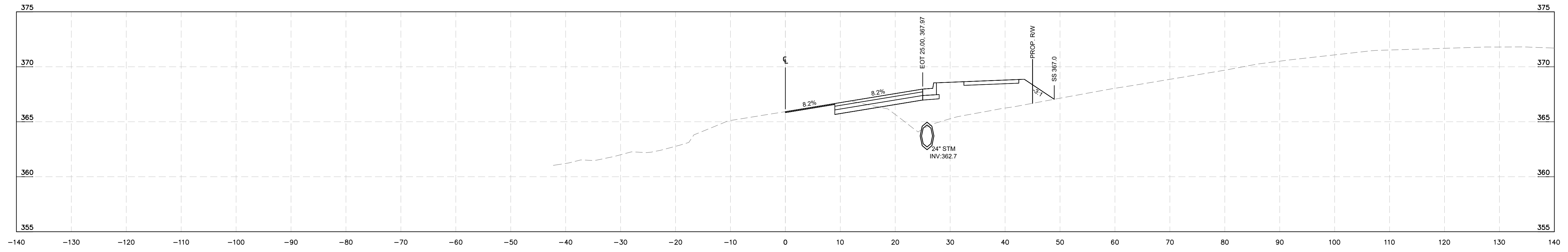
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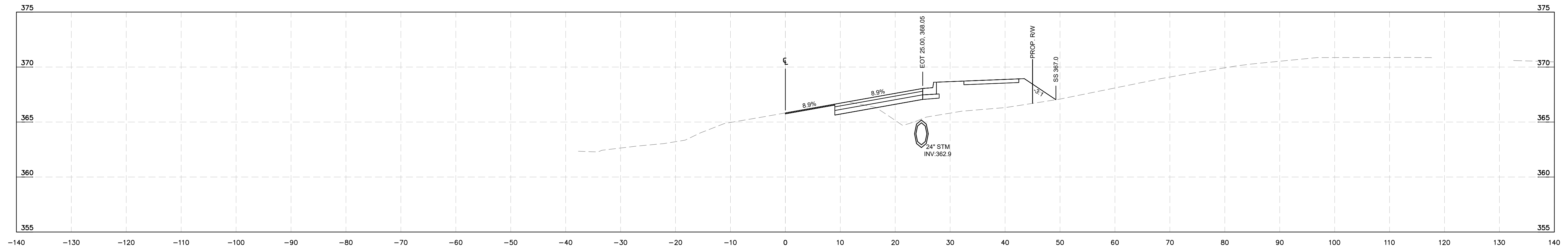
-L- ROLESVILLE RD  
STA 45+50



-L- ROLESVILLE RD  
STA 45+00

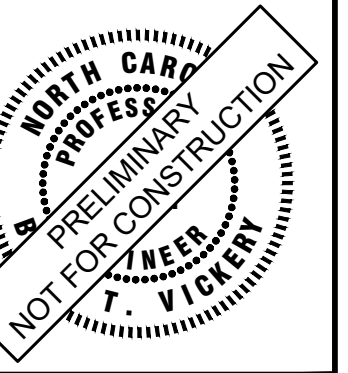


-L- ROLESVILLE RD  
STA 44+50



-L- ROLESVILLE RD  
STA 44+00

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KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

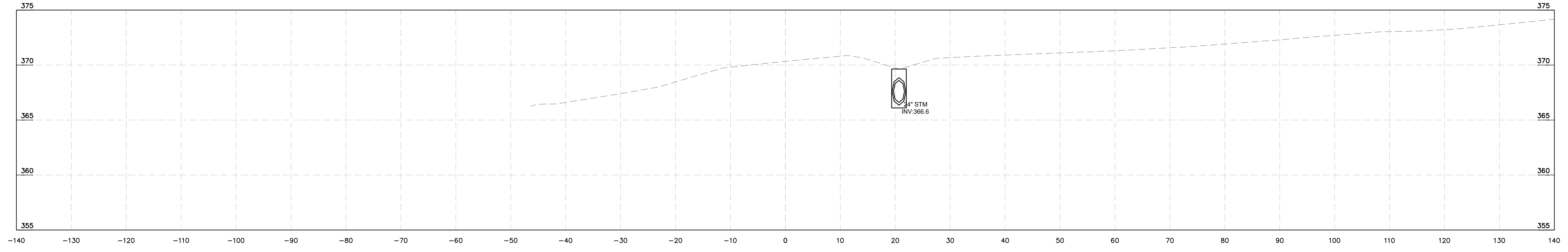
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**  
WAKE NC

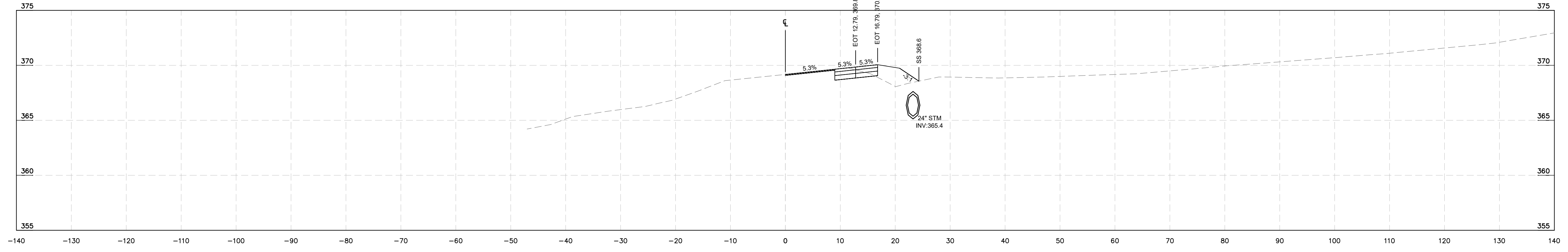
SHEET NUMBER  
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No.	REVISIONS	DATE	BY

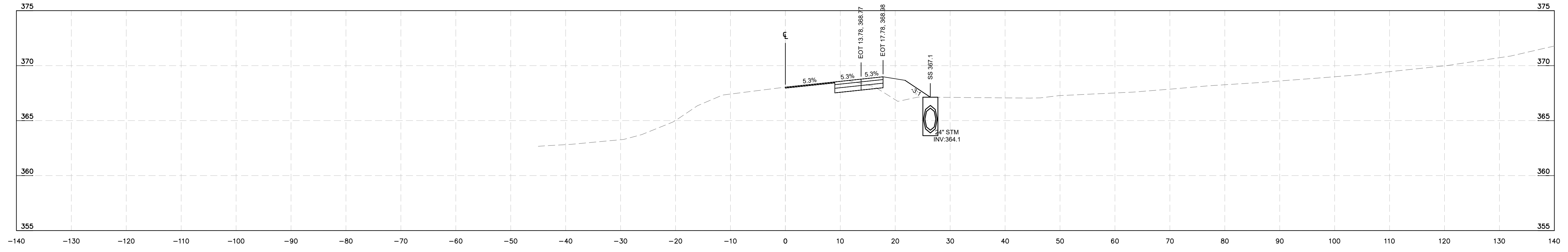
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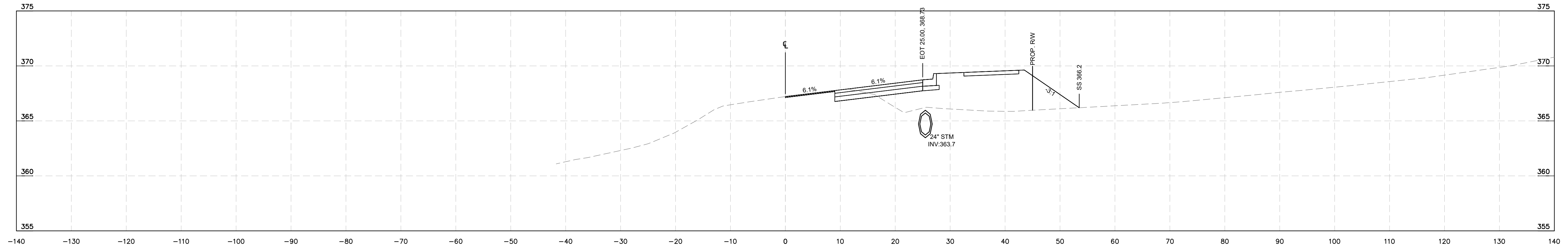
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STA 47+50**



**-L- ROLESVILLE RD  
STA 47+00**

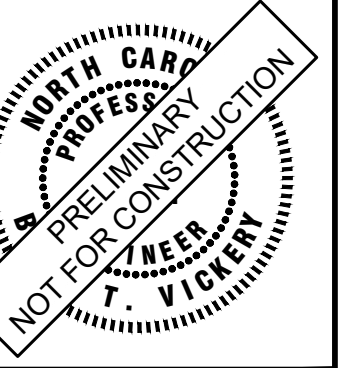


**-L- ROLESVILLE RD  
STA 46+50**



**-L- ROLESVILLE RD  
STA 46+00**

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KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

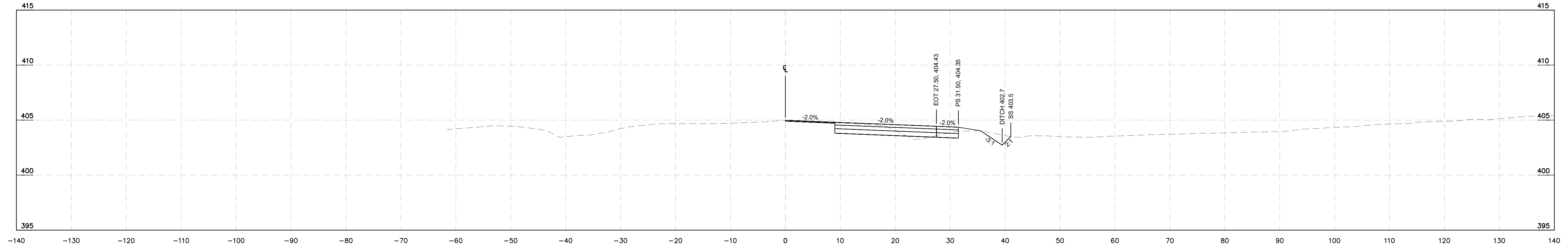
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

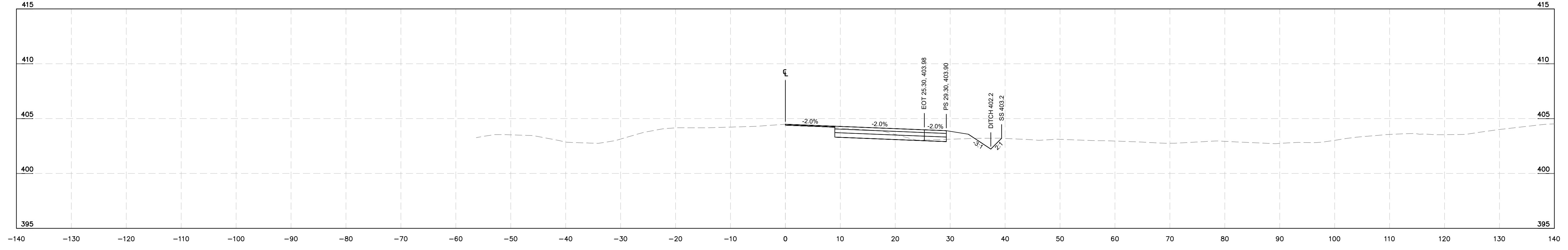
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**R9.15**

No.	REVISIONS	DATE	BY

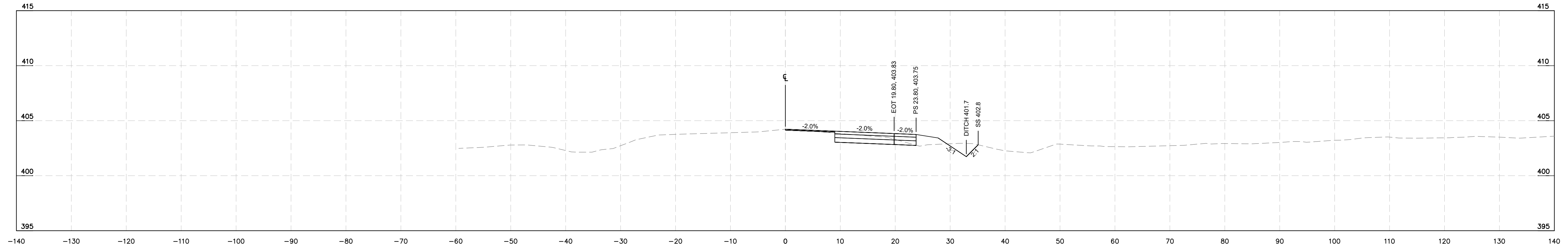
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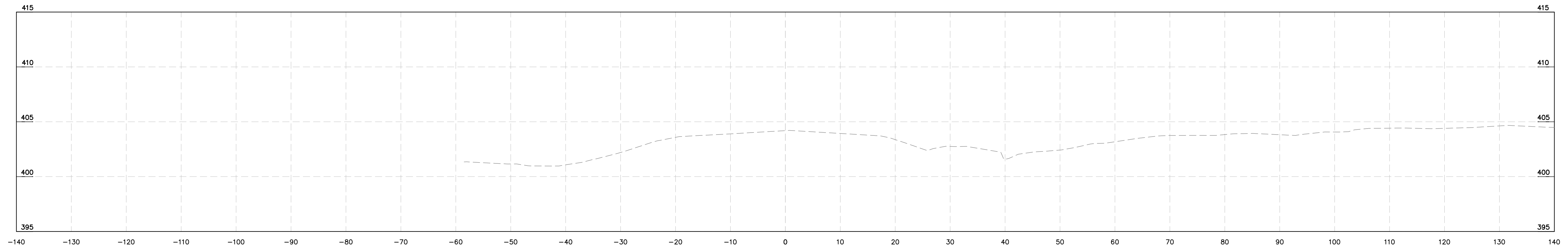
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STA 108+00



-L- ROLESVILLE RD - NORTH  
STA 107+50

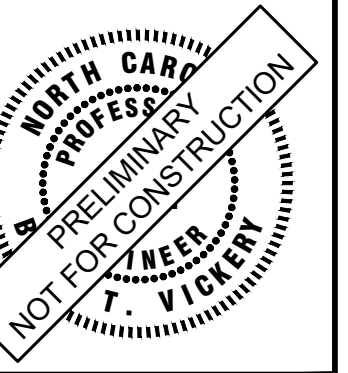


-L- ROLESVILLE RD - NORTH  
STA 107+00



-L- ROLESVILLE RD - NORTH  
STA 106+50

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KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

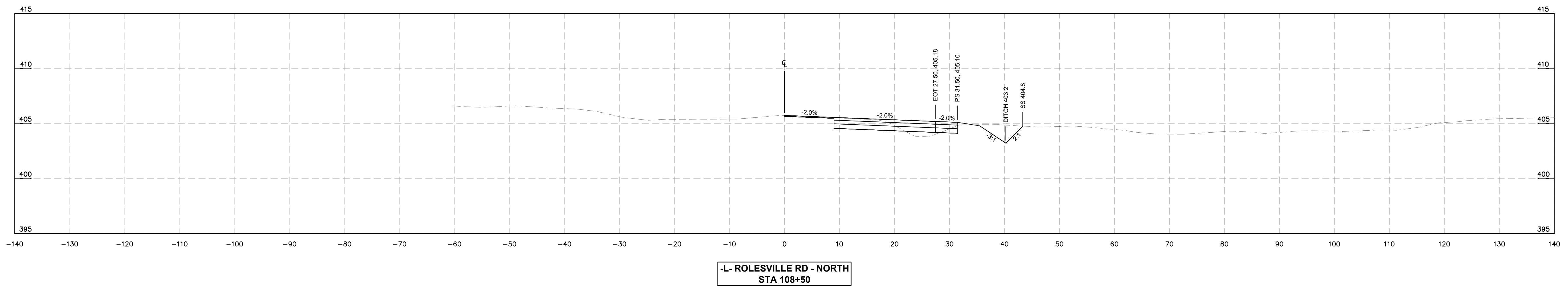
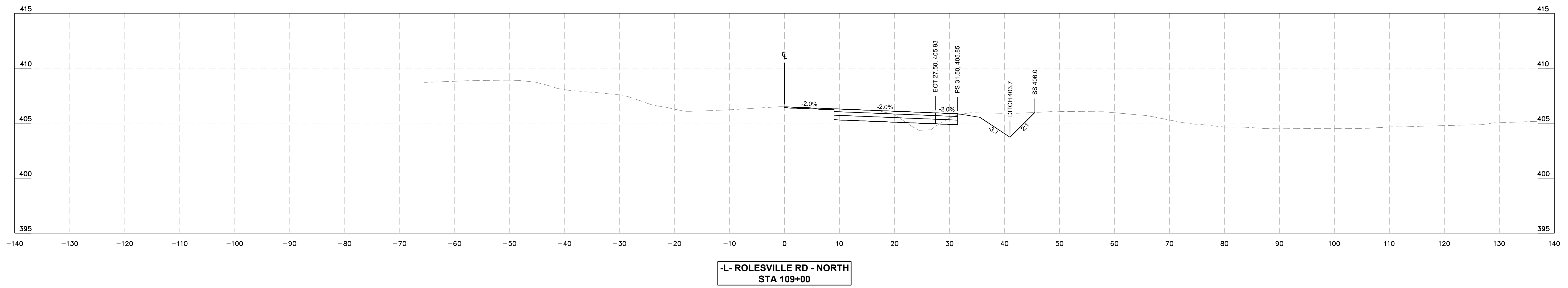
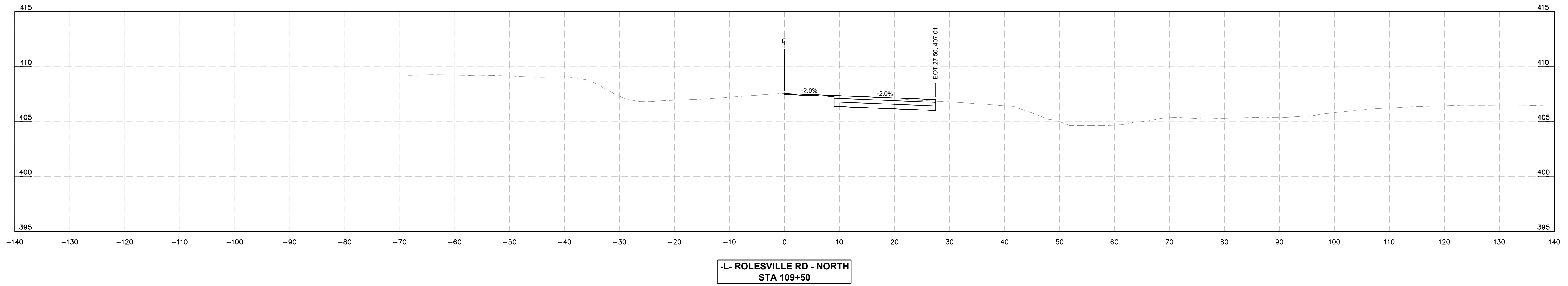
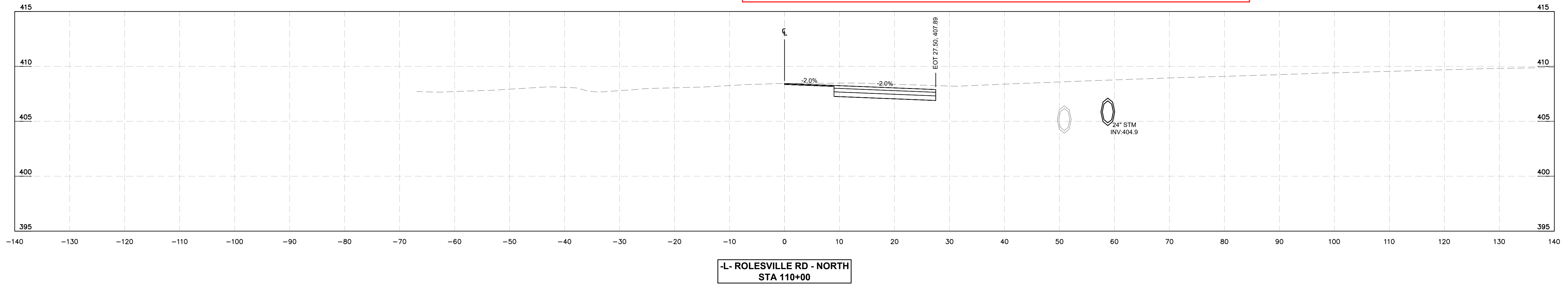
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**  
WAKE NC

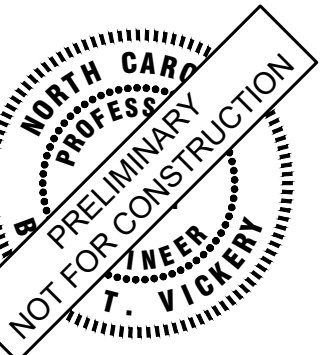
SHEET NUMBER  
R9.17

No.	REVISIONS	DATE	BY

This cross-section and several after it show pavement structure being reduced. This should not happen unless existing pavement structure is verified and is more than sufficient (very unlikely).



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KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

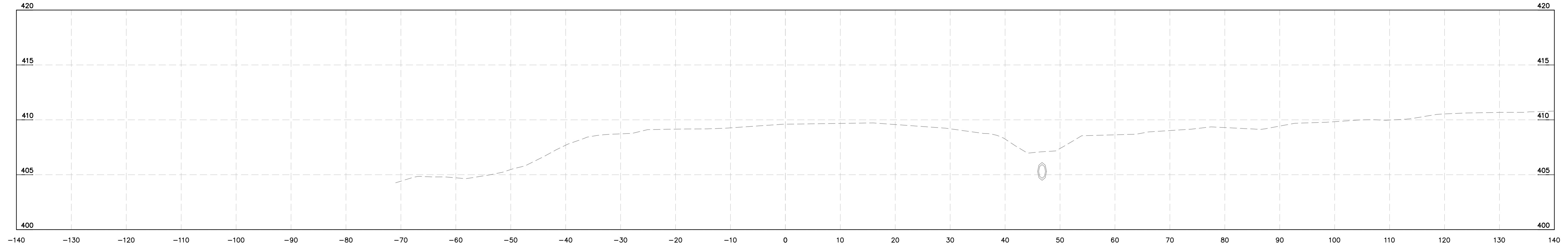
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**  
 WAKE NC

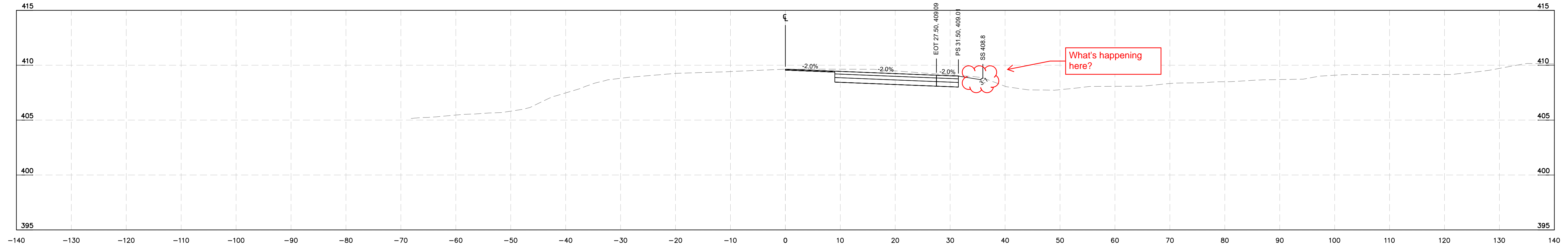
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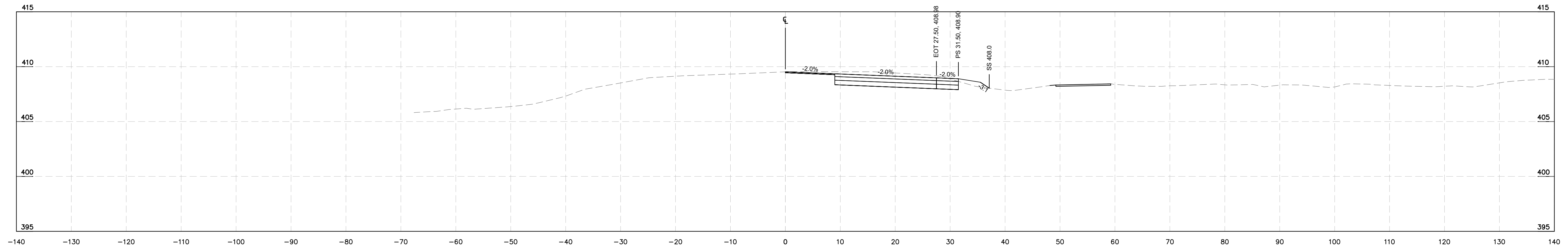
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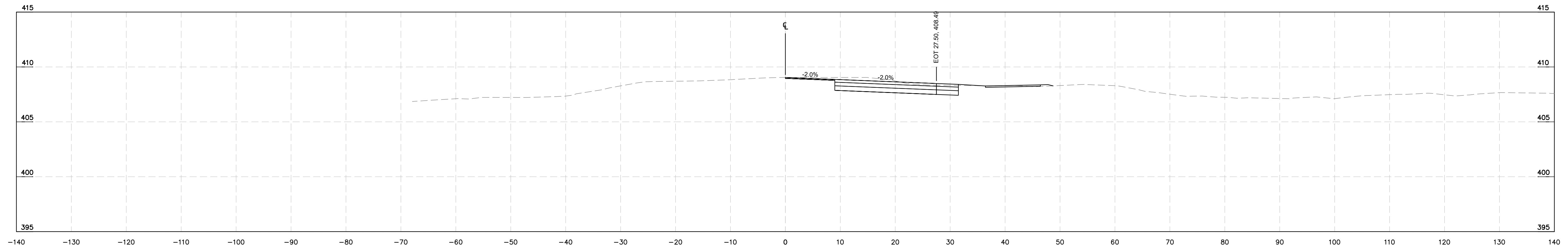
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STA 112+00



-L- ROLESVILLE RD - NORTH  
STA 111+50



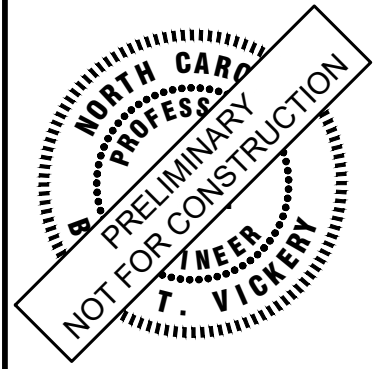
-L- ROLESVILLE RD - NORTH  
STA 111+00



-L- ROLESVILLE RD - NORTH  
STA 110+50

No.	REVISIONS	DATE	BY

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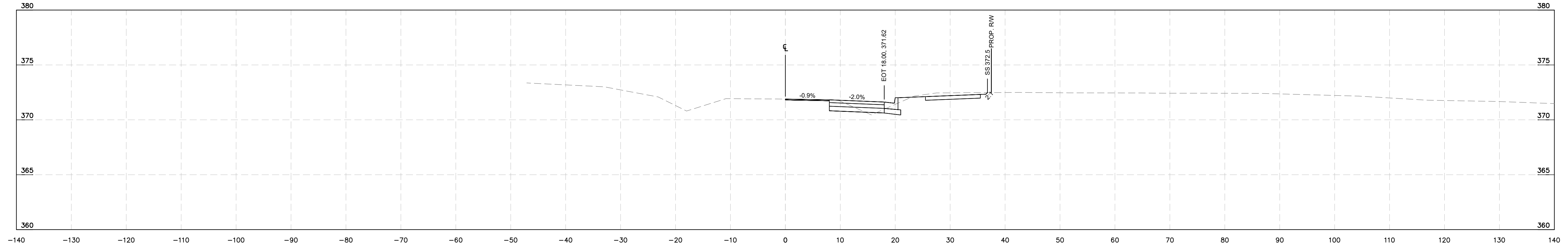
KHA PROJECT	019867004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
 PREPARED FOR  
**PULTE GROUP**

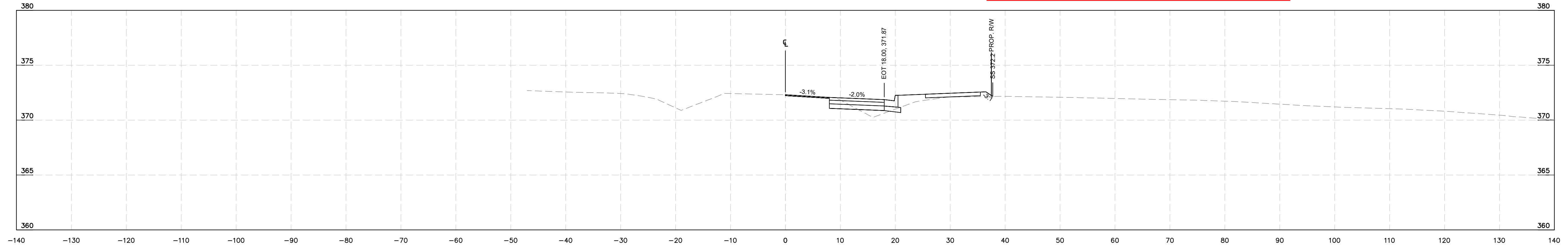
WAKE NC

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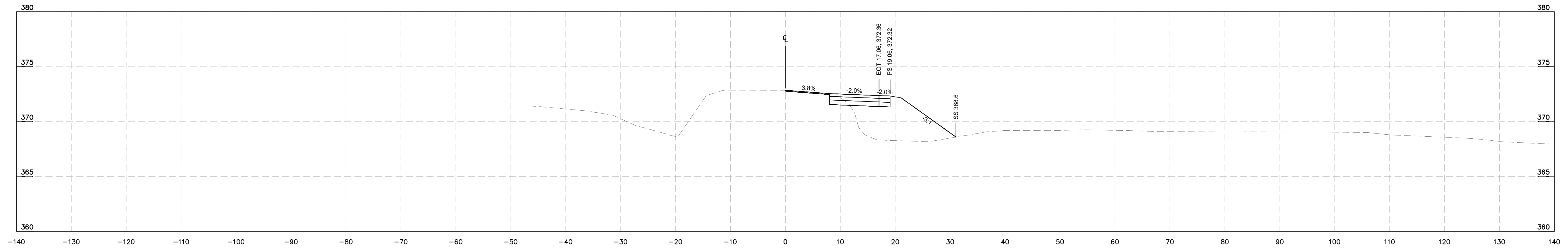


-Y1- FOWLER RD  
STA 21+00

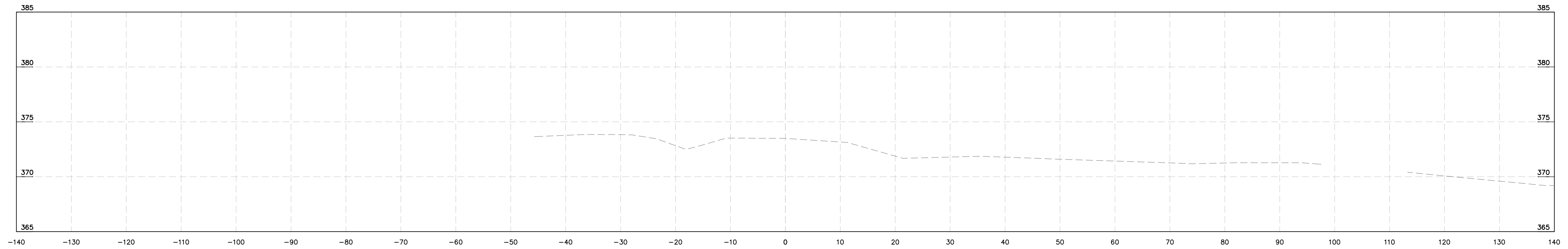
Use wedging to smooth out this transition.



-Y1- FOWLER RD  
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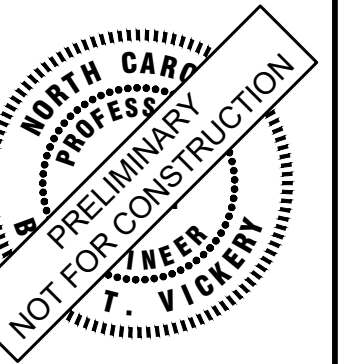


-Y1- FOWLER RD  
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-Y1- FOWLER RD  
STA 19+50

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NC FIRM # F-0102



KHA PROJECT	019667004
DATE	8/13/2024
SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

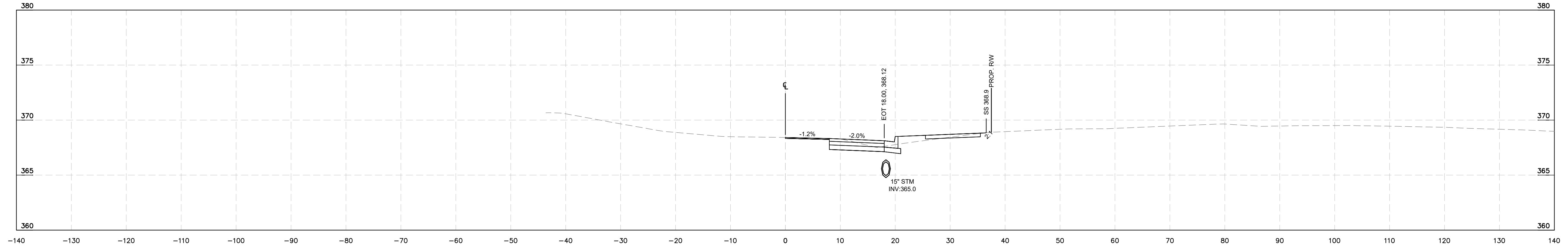
**CROSS SECTIONS**

**BROADMOOR ROLESVILLE**  
PREPARED FOR  
**PULTE GROUP**

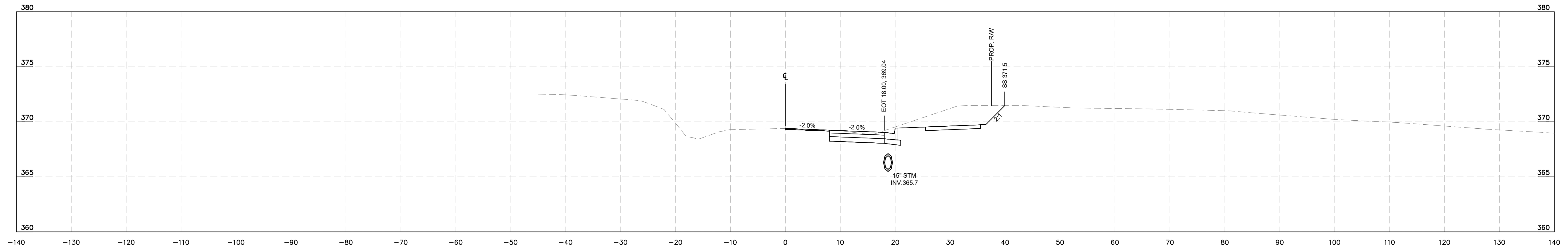
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**R9.20**

No.	REVISIONS	DATE	BY

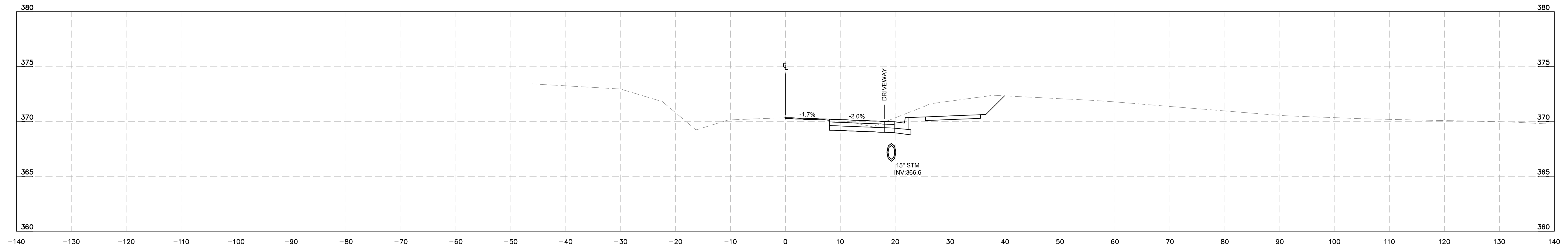
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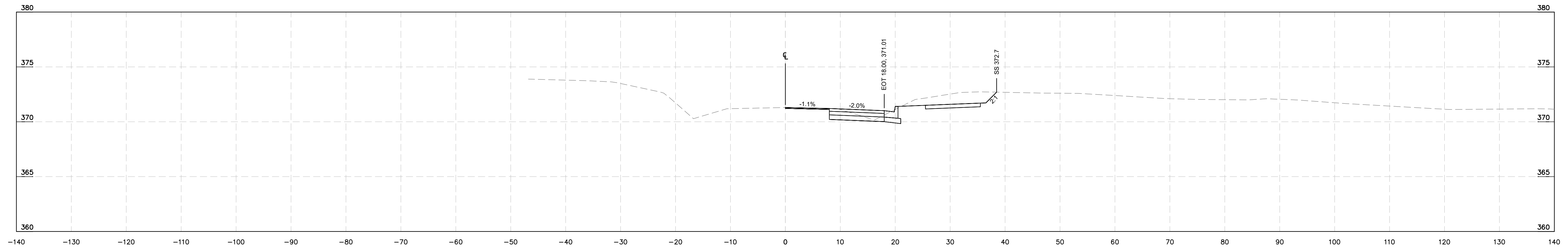
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**-Y1- FOWLER RD  
STA 22+50**



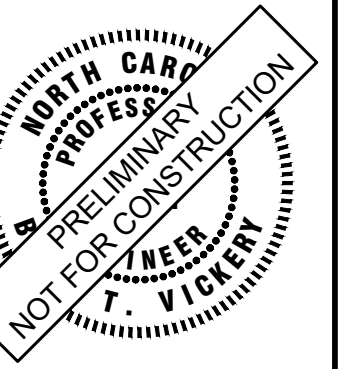
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STA 22+00**



**-Y1- FOWLER RD  
STA 21+50**

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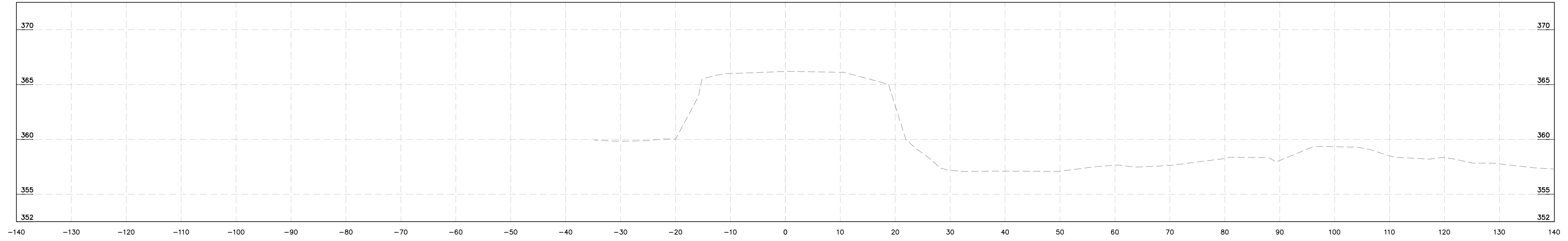
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SCALE	AS SHOWN
DESIGNED BY	GTG
DRAWN BY	GTG
CHECKED BY	BTY

**CROSS SECTIONS**

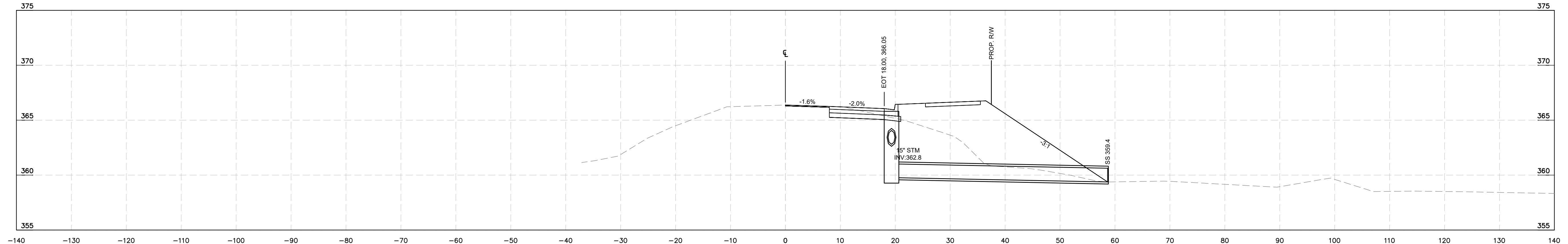
**BROADMOOR ROLESVILLE**  
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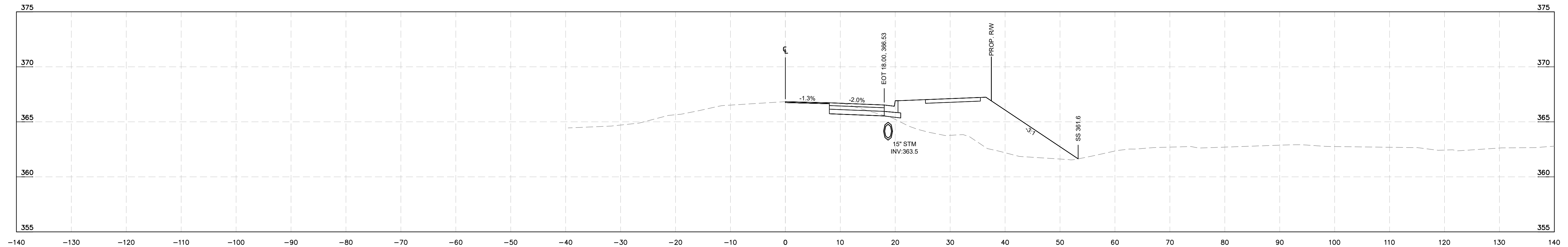
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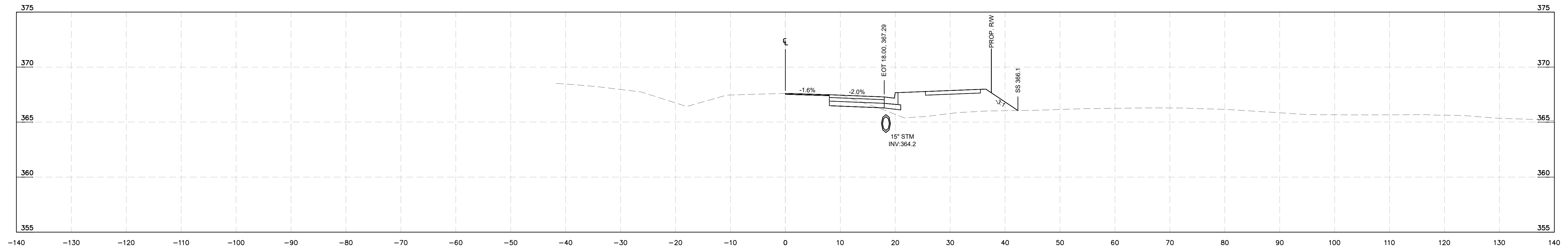
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-Y1- FOWLER RD  
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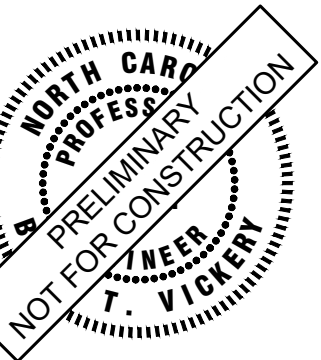


-Y1- FOWLER RD  
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-Y1- FOWLER RD  
STA 23+50

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KHA PROJECT	019867004
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