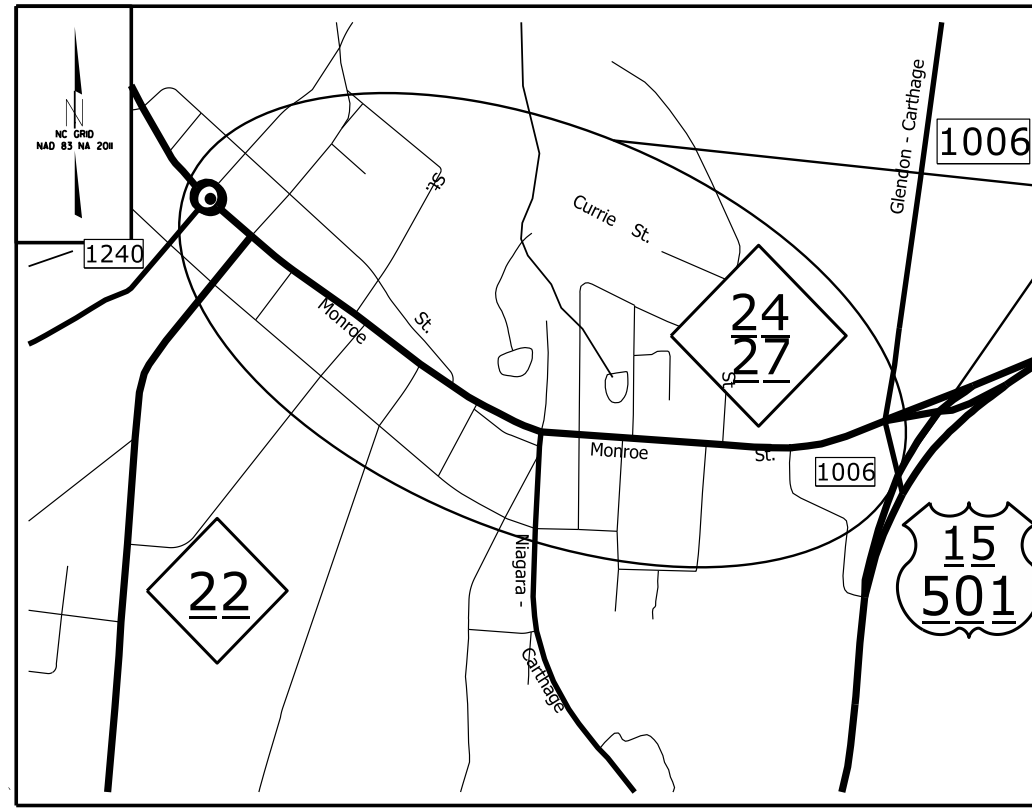


TIP PROJECT: U-3628

CONTRACT: C205042

See Sheet 1A for Index of Sheets
See Sheet 1B for Conventional Symbols



VICINITY MAP (NTS)

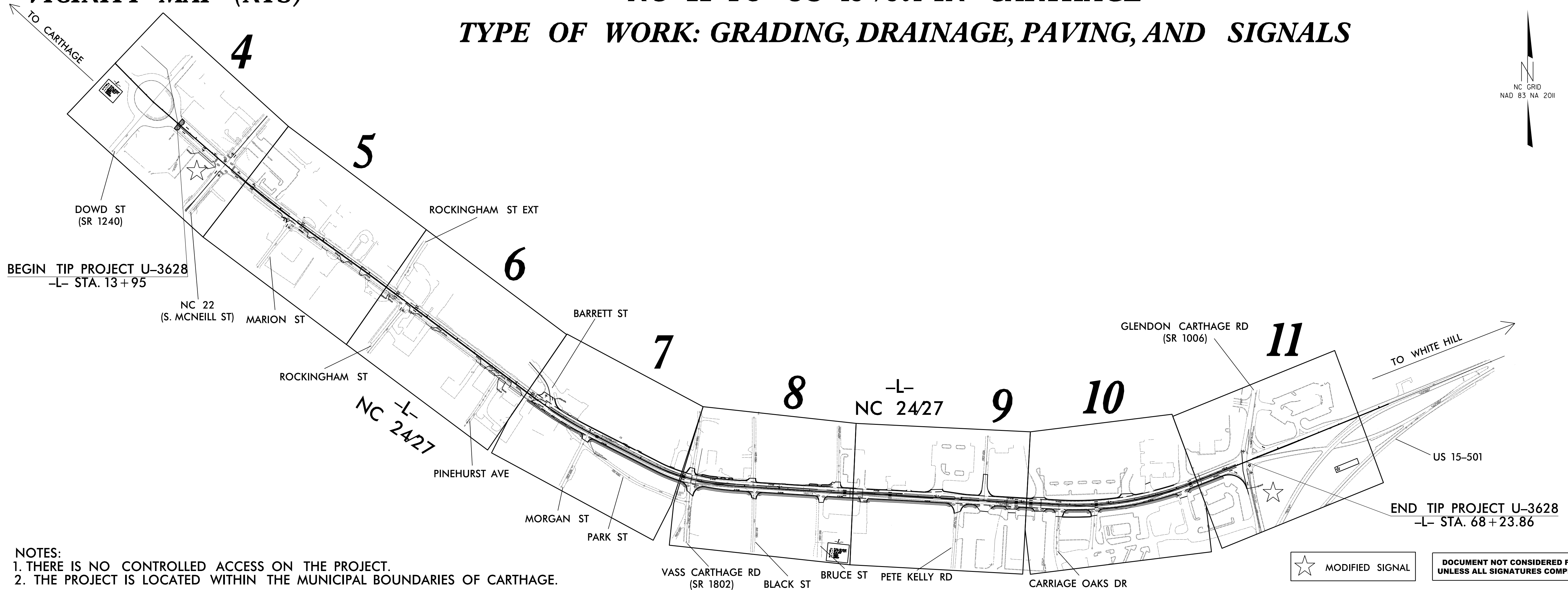
PROJECT
LOCATION

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MOORE COUNTY

LOCATION: NC 24-27 (MONROE STREET) FROM WEST OF
NC 22 TO US 15 /501 IN CARTHAGE

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND SIGNALS

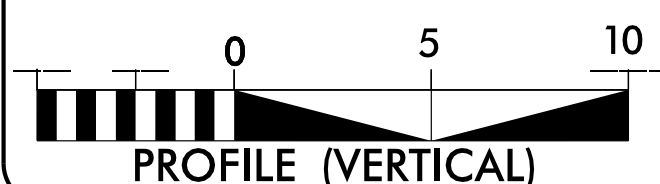
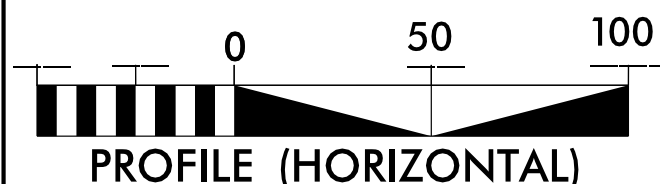
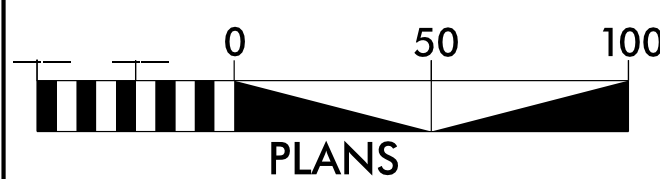


- NOTES:
1. THERE IS NO CONTROLLED ACCESS ON THE PROJECT.
 2. THE PROJECT IS LOCATED WITHIN THE MUNICIPAL BOUNDARIES OF CARTHAGE.

★ MODIFIED SIGNAL

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 12000
ADT 2045 = 18925

V = 40 MPH
FUNC CLASS =
MINOR ARTERIAL
REGIONAL TIER

Prepared in the Office of:
DIVISION OF HIGHWAYS
DIVISION 8 DESIGN & CONSTRUCT UNIT
121 DOT DRIVE.
CARTHAGE, NC 28327

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-3628 = 1.028 MILES
TOTAL LENGTH TIP PROJECT U-3628 = 1.028 MILES

DIVISION OF HIGHWAYS

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 16, 2018

LETTING DATE:
SEPTEMBER 16, 2025

Greg Davis, PE
PROJECT ENGINEER

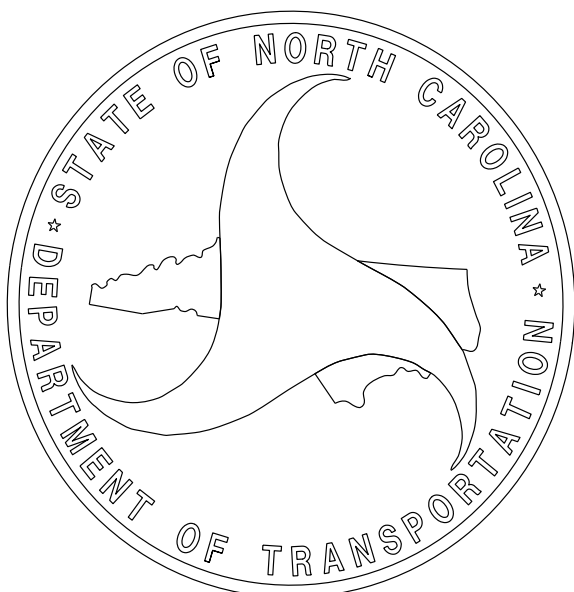
Michael Ricketts, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

Signed by:
Craig Lee
FEEEBE38E28440
07/11/2025
P.E.

SIGNATURE:
**ROADWAY DESIGN
ENGINEER**

DocuSigned by:
Michael Ricketts
38420AD0B84EB
07/11/2025
P.E.



DocuSigned by:
Michael Ricketts
3B420DAD80B44EB...

7/11/2025

DIVISION DESIGN ENGINEER

SEAL
052140
ENGINEER
MICHAEL E. RICKETTS
NORTH CAROLINA PROFESSIONAL

GENERAL NOTES:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

CLEARING:

SUPERELEVATION:

SHOULDER CONSTRUCTION:

SIDE ROADS:

DRIVEWAYS:

STREET TURNOUT:

TEMPORARY SHORING:

UTILITIES:

(WATER AND SEWER), DUKE ENERGY, CONTERRA, BRIGHTSPEED, SPECTRUM, AND

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.
CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.06.

SHEET NUMBER

SHEET

1	TITLE SHEET
1A	INDEX OF SHEETS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-5	TYPICAL SECTIONS
2C-1	DETAIL OF CONCRETE SIDEWALK
2C-2	METHOD OF PIPE INSTALLATION – RIGID PIPE
2C-3	DETAIL – MINIMUM DEPTH CONCRETE CATCH BASIN
2C-4	DETAIL – SPECIAL JUNCTION BOX WITH CATCH BASIN (1 OF 2)
2C-5	DETAIL – SPECIAL JUNCTION BOX WITH CATCH BASIN (2 OF 2)
3B-1	SUMMARY OF EARTHWORK
3D-1 THRU 3D-2	LIST OF PIPES, ENDWALLS, ETC.. (FOR PIPES 48" & UNDER)
3P-1	PARCEL INDEX SHEET
4 THRU 11	PLAN SHEETS
12 THRU 16	PROFILE SHEETS
RW01 THRU RW11	RIGHT OF WAY PLANS
TMP-1 THRU TMP-17	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-9	PAVEMENT MARKING PLANS
EC-1 THRU EC-12	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-11A	SIGNING PLANS
SIG. 1.0 THRU SIG. 4.1	SIGNAL PLANS
UC-1 THRU UC-11	UTILITY CONSTRUCTION PLANS
U0-1 THRU U0-9	UTILITIES BY OTHERS PLANS
X-1A	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-66	CROSS-SECTIONS (-L-)

2024 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in the "Roadway standard Drawings" highway Design Branch - N.C. Department of Transportation - Raleigh, N.C., dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2	– EARTHWORK
200.03	Method of Clearing – Method III
225.02	Guide for Grading Subgrade – Secondary and Local
225.04	Method of Obtaining Superlevation – Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3	– PIPE CULVERTS
310.10	Driveway Pipe Construction
DIVISION 5	– SUBGRADE, BASES AND SHOULDERS
560.01	Method of Shoulder Construction – High Side of Superelevated Curve – Method
DIVISION 6	– ASPHALT BASES AND PAVEMENTS
654.01	Pavement Repairs
DIVISION 8	– INCIDENTALS
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin – 12" thru 54" Pipe
840.02	Concrete Catch Basin – 12" thru 54" Pipe
840.03	Frame, Grates and Hood – to use on Standard Catch Basin
840.14	Concrete Drop Inlet – 12" thru 30" Pipe
840.15	Brick Drop Inlet – 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates – to use with Std. Dwg 840.14 and 840.15
840.18	Concrete Grated Drop Inlet Type 'B' – 12" thru 36" Pipe
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames – Brick, Concrete, or Precast
840.27	Brick Grated Drop Inlet Type 'B' – 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box – 12" thru 66" Pipe
840.32	Brick Junction Box – 12" thru 66" Pipe
840.45	Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
848.02	Driveway Turnout – Radius Type
848.04	Street Turnout
848.06	Curb Ramp
876.01	Rip Rap in Channels and Ditches
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

9/10/2021

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

PROJECT REFERENCE NO.
U-3628

SHEET NO.
1B

Note: Not to Scale

BOUNDARIES AND PROPERTY:

State Line

County Line

Township Line

City Line

Reservation Line

Property Line

Existing Iron Pin (EIP)

Computed Property Corner

Existing Concrete Monument (ECM)

Parcel/Sequence Number

Existing Fence Line

Proposed Woven Wire Fence

Proposed Chain Link Fence

Proposed Barbed Wire Fence

Existing Wetland Boundary

Proposed Wetland Boundary

Existing Endangered Animal Boundary

Existing Endangered Plant Boundary

Existing Historic Property Boundary

Known Contamination Area: Soil

Potential Contamination Area: Soil

Known Contamination Area: Water

Potential Contamination Area: Water

Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap

Sign

Well

Small Mine

Foundation

Area Outline

Cemetery

Building

School

Church

Dam

HYDROLOGY:

Stream or Body of Water

Hydro, Pool or Reservoir

Jurisdictional Stream

Buffer Zone 1

Buffer Zone 2

Flow Arrow

Disappearing Stream

Spring

Wetland

Proposed Lateral, Tail, Head Ditch

False Sump

RAILROADS:

Standard Gauge

RR Signal Milepost

Switch

RR Abandoned

RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point

Primary Horiz and Vert Control Point

Secondary Horiz and Vert Control Point

Vertical Benchmark

Existing Right of Way Monument

Proposed Right of Way Monument (Rebar and Cap)

Proposed Right of Way Monument (Concrete)

Existing Permanent Easement Monument

Proposed Permanent Easement Monument (Rebar and Cap)

Existing C/A Monument

Proposed C/A Monument (Rebar and Cap)

Proposed C/A Monument (Concrete)

Existing Right of Way Line

Proposed Right of Way Line

Existing Control of Access Line

Proposed Control of Access Line

Proposed ROW and CA Line

Existing Easement Line

Proposed Temporary Construction Easement

Proposed Temporary Drainage Easement

Proposed Permanent Drainage Easement

Proposed Permanent Drainage/Utility Easement

Proposed Permanent Utility Easement

Proposed Temporary Utility Easement

Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

Existing Edge of Pavement

Existing Curb

Proposed Slope Stakes Cut

Proposed Slope Stakes Fill

Proposed Curb Ramp

Existing Metal Guardrail

Proposed Guardrail

Existing Cable Guiderail

Proposed Cable Guiderail

Equality Symbol

Pavement Removal

VEGETATION:

Single Tree

Single Shrub

Hedge

Woods Line

Orchard

Vineyard

EXISTING STRUCTURES:

MAJOR:

Bridge, Tunnel or Box Culvert

Bridge Wing Wall, Head Wall and End Wall

MINOR:

Head and End Wall

Pipe Culvert

Footbridge

Drainage Box: Catch Basin, DI or JB

Paved Ditch Gutter

Storm Sewer Manhole

Storm Sewer

UTILITIES:

* SUE – Subsurface Utility Engineering

LOS – Level of Service – A,B,C or D (Accuracy)

POWER:

Existing Power Pole

Proposed Power Pole

Existing Joint Use Pole

Proposed Joint Use Pole

Power Manhole

Power Line Tower

Power Transformer

U/G Power Cable Hand Hole

H-Frame Pole

U/G Power Line Test Hole (SUE – LOS A)*

U/G Power Line (SUE – LOS B)*

U/G Power Line (SUE – LOS C)*

U/G Power Line (SUE – LOS D)*

TELEPHONE:

Existing Telephone Pole

Proposed Telephone Pole

Telephone Manhole

Telephone Pedestal

Telephone Cell Tower

U/G Telephone Cable Hand Hole

U/G Telephone Test Hole (SUE – LOS A)*

U/G Telephone Cable (SUE – LOS B)*

U/G Telephone Cable (SUE – LOS C)*

U/G Telephone Cable (SUE – LOS D)*

U/G Telephone Conduit (SUE – LOS B)*

U/G Telephone Conduit (SUE – LOS C)*

U/G Telephone Conduit (SUE – LOS D)*

U/G Fiber Optics Cable (SUE – LOS B)*

U/G Fiber Optics Cable (SUE – LOS C)*

U/G Fiber Optics Cable (SUE – LOS D)*

WATER:

Water Manhole

Water Meter

Water Valve

Water Hydrant

U/G Water Line Test Hole (SUE – LOS A)*

U/G Water Line (SUE – LOS B)*

U/G Water Line (SUE – LOS C)*

U/G Water Line (SUE – LOS D)*

Above Ground Water Line

TV:

TV Pedestal

TV Tower

U/G TV Cable Hand Hole

U/G TV Test Hole (SUE – LOS A)*

U/G TV Cable (SUE – LOS B)*

U/G TV Cable (SUE – LOS C)*

U/G TV Cable (SUE – LOS D)*

U/G Fiber Optic Cable (SUE – LOS B)*

U/G Fiber Optic Cable (SUE – LOS C)*

U/G Fiber Optic Cable (SUE – LOS D)*

GAS:

Gas Valve

Gas Meter

U/G Gas Line Test Hole (SUE – LOS A)*

U/G Gas Line (SUE – LOS B)*

U/G Gas Line (SUE – LOS C)*

U/G Gas Line (SUE – LOS D)*

Above Ground Gas Line

SANITARY SEWER:

Sanitary Sewer Manhole

Sanitary Sewer Cleanout

U/G Sanitary Sewer Line

Above Ground Sanitary Sewer

SS Force Main Line Test Hole (SUE – LOS A)*

SS Force Main Line (SUE – LOS B)*

SS Force Main Line (SUE – LOS C)*

SS Force Main Line (SUE – LOS D)*

MISCELLANEOUS:

Utility Pole

Utility Pole with Base

Utility Located Object

Utility Traffic Signal Box

Utility Unknown U/G Line (SUE – LOS B)*

U/G Tank; Water, Gas, Oil

Underground Storage Tank, Approx. Loc.

A/G Tank; Water, Gas, Oil

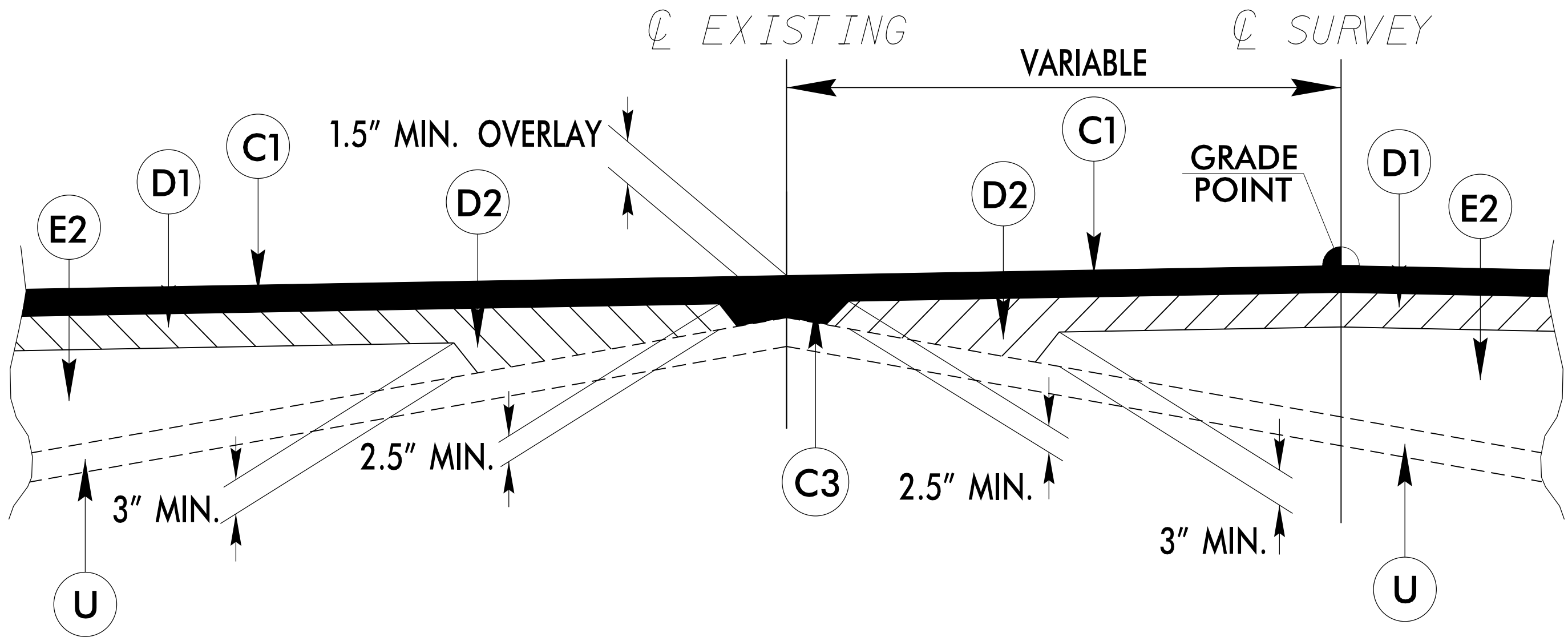
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Abandoned According to Utility Records

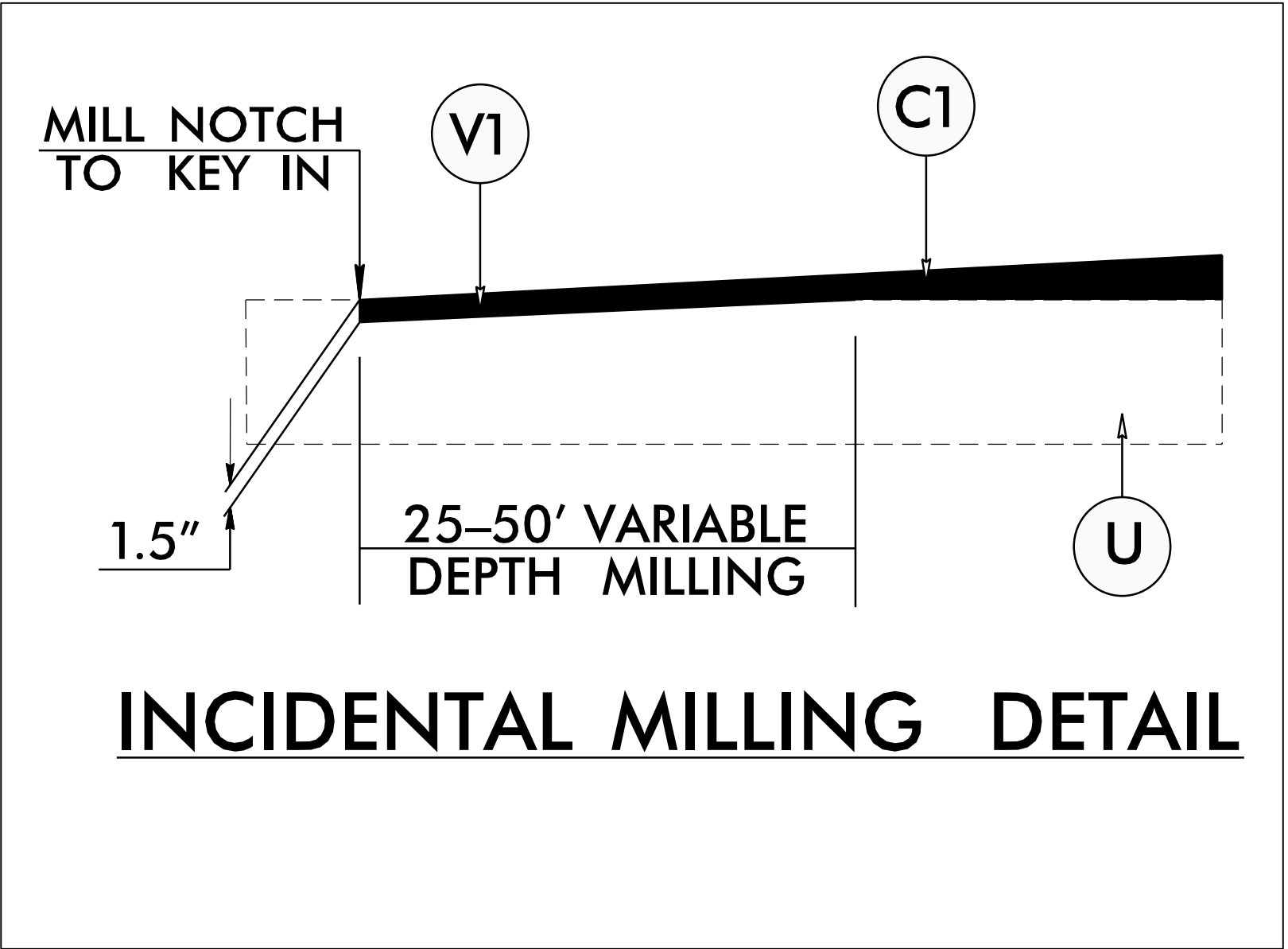
End of Information

FINAL PAVEMENT SCHEDULE			
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R1	2'6" CURB AND GUTTER
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS OF 1½".	S	4" CONCRETE SIDEWALK
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 2" IN DEPTH.	T_	EARTH MATERIAL
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	U_	EXISTING PAVEMENT
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	V1	MILLING EXISTING ASPHALT PAVEMENT, 1.5" DEPTH
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	W_	WEDGING OF EXISTING PAVEMENT (SEE WEDGING DETAIL)
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.		

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



DETAIL SHOWING METHOD OF WEDGING FOR:
-L-



NOTE: USE -L- LINE TYPICAL FOR RADIUS AT -Y- LINES AND DRIVEWAYS.

PROJECT REFERENCE NO.
U-3628

SHEET NO.
2A-2

R/W SHEET NO.

DocuSigned by:
Michael Rickells
38420AD9D8044EB
07/11/2025

PROFESSIONAL SEAL

052140

ENGINEER

MICHAEL E. RICKELLS

DIVISION DESIGN / CONSTRUCT ENGINEER

TYPICAL SECTION NO. 1

RESURFACING EXISTING

USE FROM -L- STA. 13+95 TO -L- STA. 34+21

TYPICAL SECTION NO. 2

USE FROM -L- STA. 34+21 TO -L- STA. 35+22.48

PAVEMENT SCHEDULE	
C1	1½" S9.5C
C2	3" S9.5C
C3	VAR. S9.5C
D1	4" I19.0C
D2	VAR. I19.0C
E1	4" B25.0C
E2	VAR. B25.0C
R1	2'6" C&G
S	4" CONC SW
T_	EARTH MATERIAL
U_	EXIST. PAVEMENT
V1	1½" MILLING
W_	VAR. WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

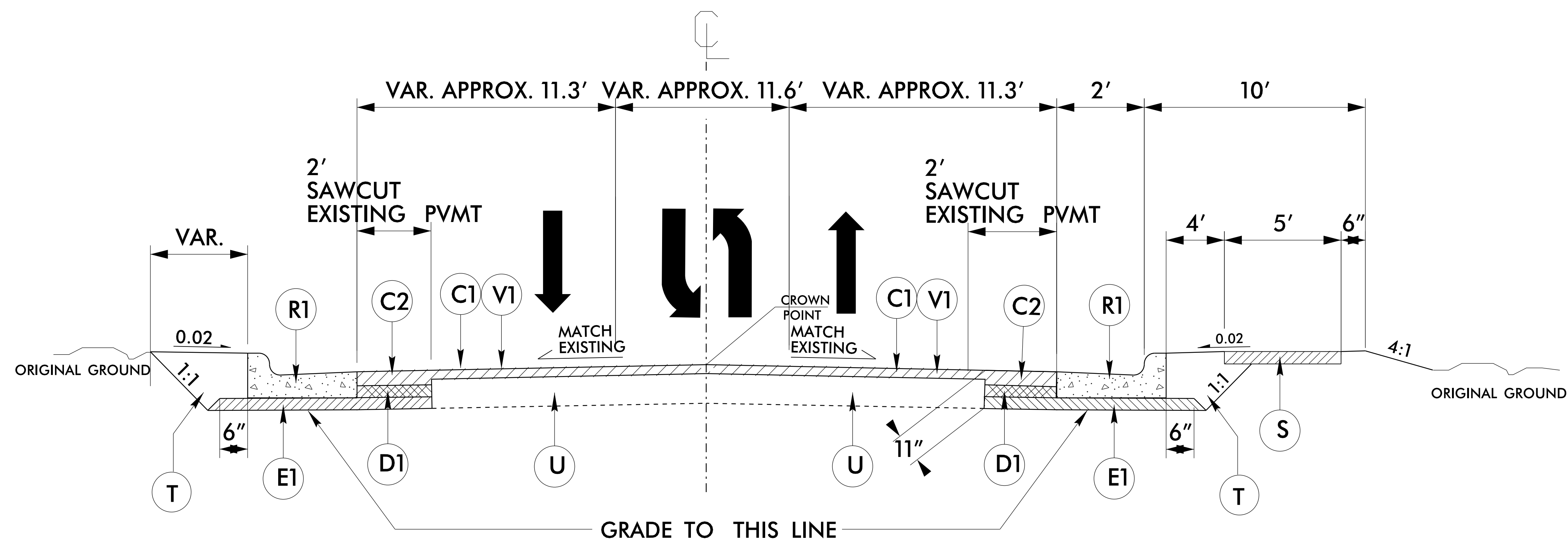
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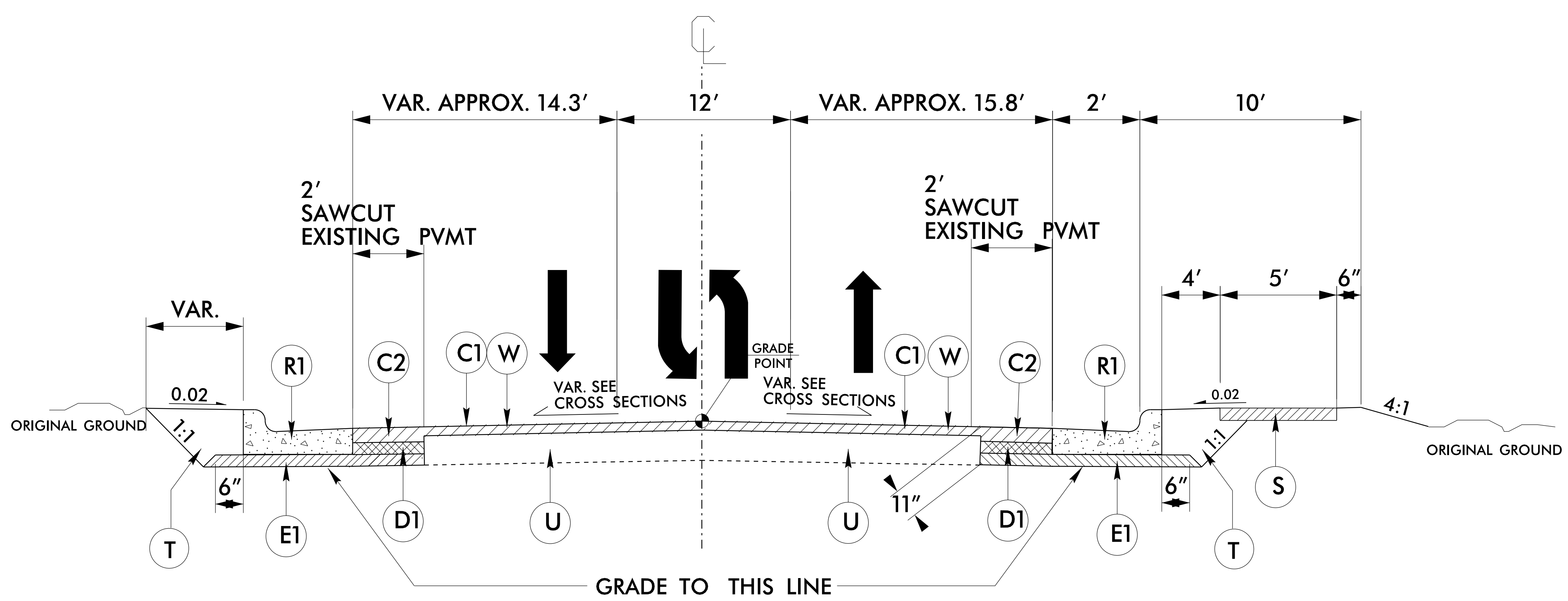
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TYPICAL SECTION NO. 3
USE FROM -L- STA. 35+22.48 TO -L- STA. 42+26.83



TYPICAL SECTION NO. 4
USE FROM -L- STA. 42+26.83 TO -L- STA. 42+75.44



PROJECT REFERENCE NO.
U-3628

SHEET NO.
2A-3

R/W SHEET NO.

DocuSigned by:
Michael Rickert
38420DAD0844EB

07/11/2025

SEAL
052140
ENGINEER
MICHAEL E. RICKERT

DIVISION DESIGN / CONSTRUCT ENGINEER

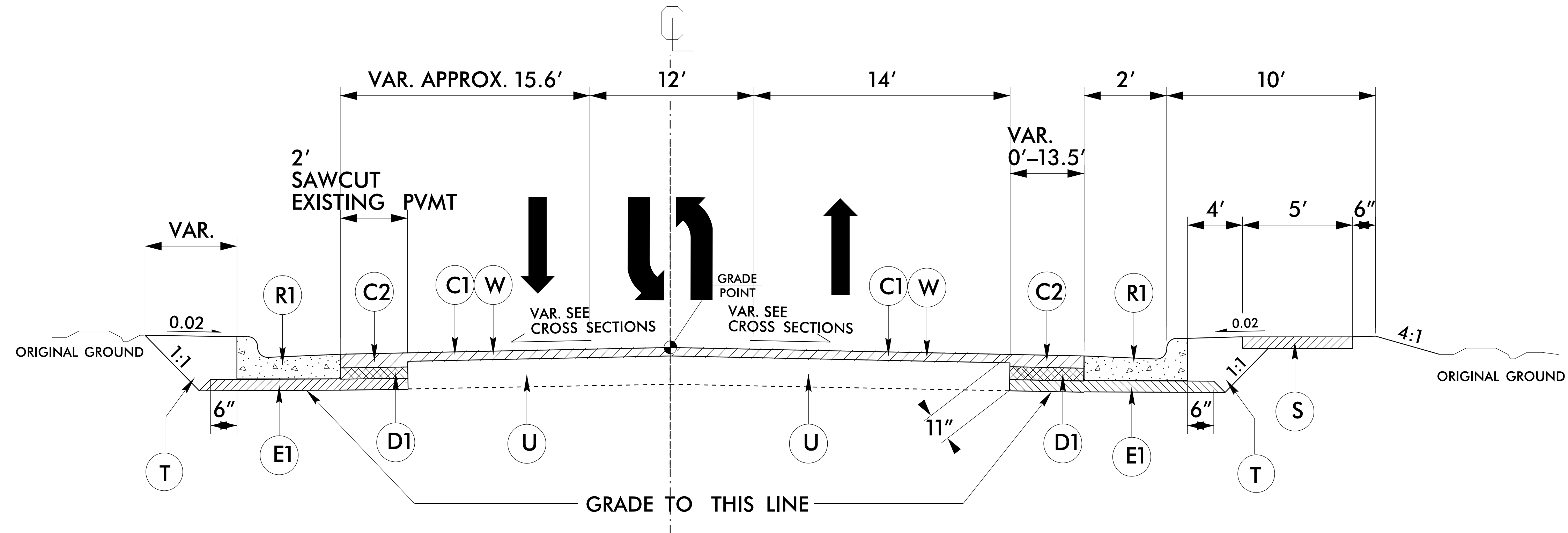
PAVEMENT SCHEDULE

C1	1 1/2" S9.5C
C2	3" S9.5C
C3	VAR. S9.5C
D1	4" I19.0C
D2	VAR. I19.0C
E1	4" B25.0C
E2	VAR. B25.0C
R1	2'6" C&G
S	4" CONC SW
T_	EARTH MATERIAL
U_	EXIST. PAVEMENT
V1	1 1/2" MILLING
W_	VAR. WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

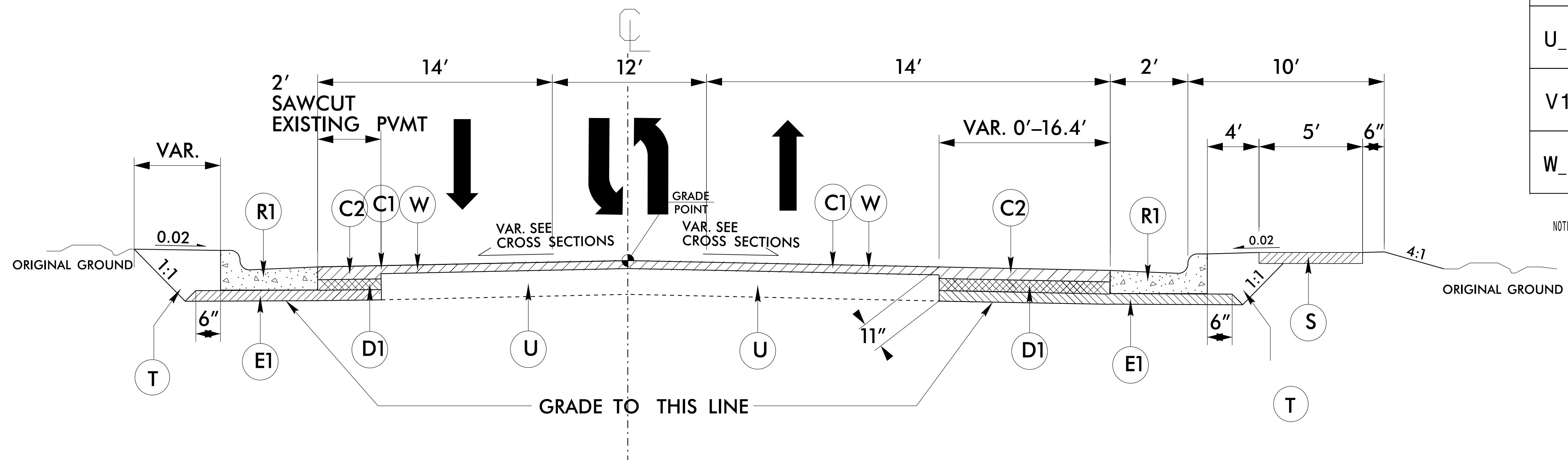
TYPICAL SECTION NO. 5

USE FROM -L- STA. 42+75.44 TO -L- STA. 44+44.35



TYPICAL SECTION NO. 6

USE FROM -L- STA. 44+44.35 TO -L- STA. 65+00.00



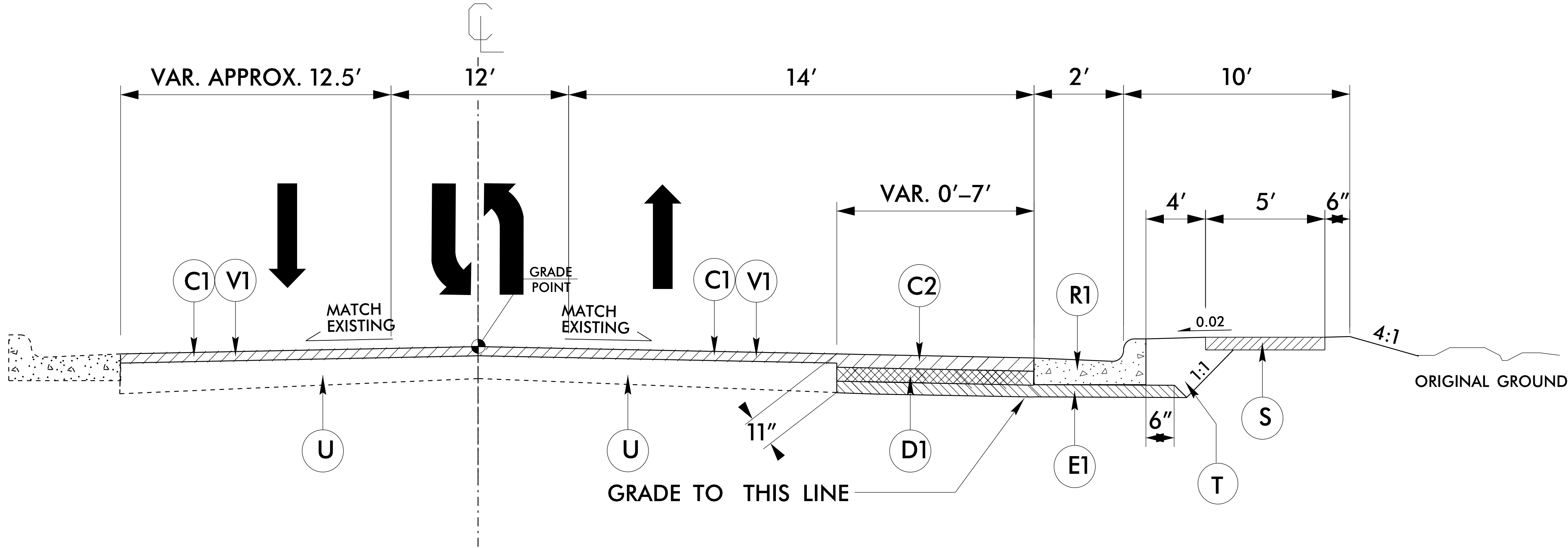
PAVEMENT SCHEDULE	
C1	1½" S9.5C
C2	3" S9.5C
C3	VAR. S9.5C
D1	4" I19.0C
D2	VAR. I19.0C
E1	4" B25.0C
E2	VAR. B25.0C
R1	2'6" C&G
S	4" CONC SW
T_	EARTH MATERIAL
U_	EXIST. PAVEMENT
V1	1½" MILLING
W_	VAR. WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

8/17/99

06-JUN-2025 15:40
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menckett AT 01008-3300841

TYPICAL SECTION NO. 7
USE FROM -L- STA. 65+00.00 TO -L- STA. 68+23.86 (END PROJECT)



PAVEMENT SCHEDULE

C1	1 1/2" S9.5C
C2	3" S9.5C
C3	VAR. S9.5C
D1	4" I19.0C
D2	VAR. I19.0C
E1	4" B25.0C
E2	VAR. B25.0C
R1	2'6" C&G
S	4" CONC SW
T_	EARTH MATERIAL
U_	EXIST. PAVEMENT
V1	1 1/2" MILLING
W_	VAR. WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO.
U-3628

SHEET NO.
2A-5

R/W SHEET NO.

DocuSigned by:
Michael Rickards
3B420DA060B44EB

07/11/2025

PROFESSIONAL
SEAL
052140
ENGINEER
MICHAEL E. RICKARDS

DIVISION DESIGN / CONSTRUCT ENGINEER

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

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
RIGID PIPE

SHEET 2 OF 2
300.01

TOP OF FILL

GROUND LINE

H

I.D. /6 MIN.
NOT LESS THAN 6"

O.D. + 3'

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

I.D. /6 MIN.
NOT LESS THAN 6"

ROCK

O.D. + 3'

**ROCK FOUNDATION
PIPE IN TRENCH**

TOP OF FILL

GROUND LINE

H

TYPE 4a
GEOTEXTILE

I.D. /6 MIN.
NOT LESS
THAN 6"

1 1/2" PER FOOT OF 'H'
BUT NOT LESS THAN 12"
NOR MORE THAN 24"
AS DIRECTED BY ENGR.

O.D. + 3'

UNSUITABLE MATERIAL FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

MIN. O.D.

I.D. /6 MIN.
NOT LESS THAN 6"

O.D. + 2'

NORMAL EARTH FOUNDATION

TOP OF FILL

GROUND LINE

H

MIN. O.D.

MIN. O.D.

I.D. /6 MIN.
NOT LESS THAN 6"

O.D. + 2'

**ROCK FOUNDATION
PIPE ABOVE GROUND**

TOP OF FILL

GROUND LINE

H

MIN. O.D.

MIN. O.D.

TYPE 4a
GEOTEXTILE

COMPACT AFTER
PIPE IS PLACED
& PRIOR TO
PLACEMENT OF
FILL

I.D. /6 MIN.
NOT LESS THAN 6"

1 1/2" PER FOOT OF 'H'
BUT NOT LESS THAN 12"
NOR MORE THAN 24"
AS DIRECTED BY ENGINEER

MIN. O.D.

MIN. O.D.

UNSUITABLE MATERIAL FOUNDATION

GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT
ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP
OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1
FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE
UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL
ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS
BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS
FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II,
BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE
WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

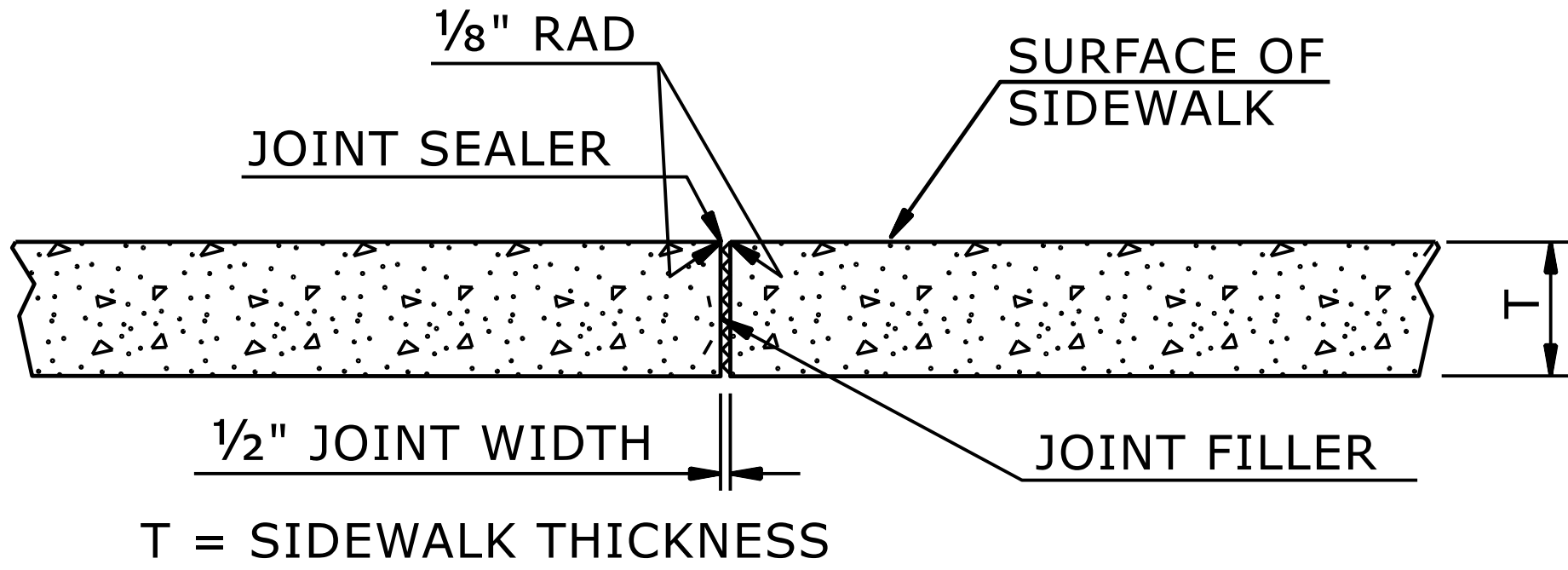
ORIGINAL BY:	S.CALHOUN	DATE:	7-25-2024
MODIFIED BY:		DATE:	
CHECKED BY:		DATE:	
FILE SPEC:			

NOTES:

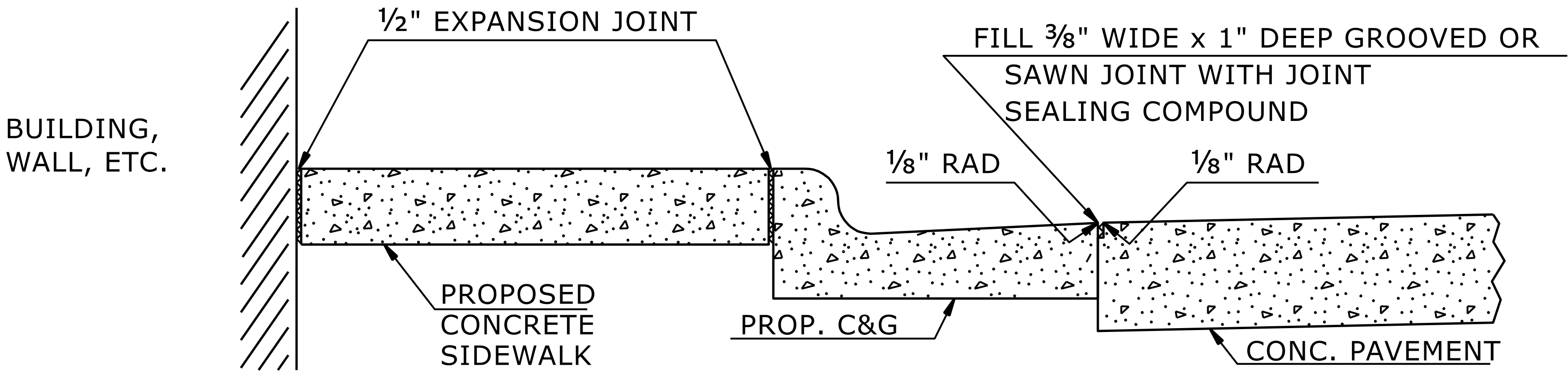
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.06 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



TRANSVERSE EXPANSION JOINT
IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

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

ROADWAY DETAIL DRAWING FOR
CONCRETE SIDEWALK



05/29/2025

SHEET 1 OF 1
848D01

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN	DATE: 7-25-2024
MODIFIED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
FILE SPEC.: _____	

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

5/14/99

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

ENGLISH DETAIL DRAWING FOR
**MINIMUM DEPTH
CONCRETE CATCH BASIN**
12" THRU 84" PIPE

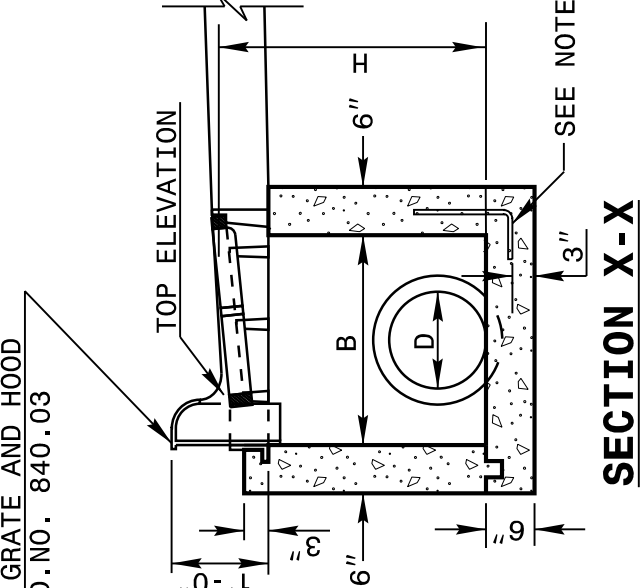
SHEET 1 OF 2

840D02

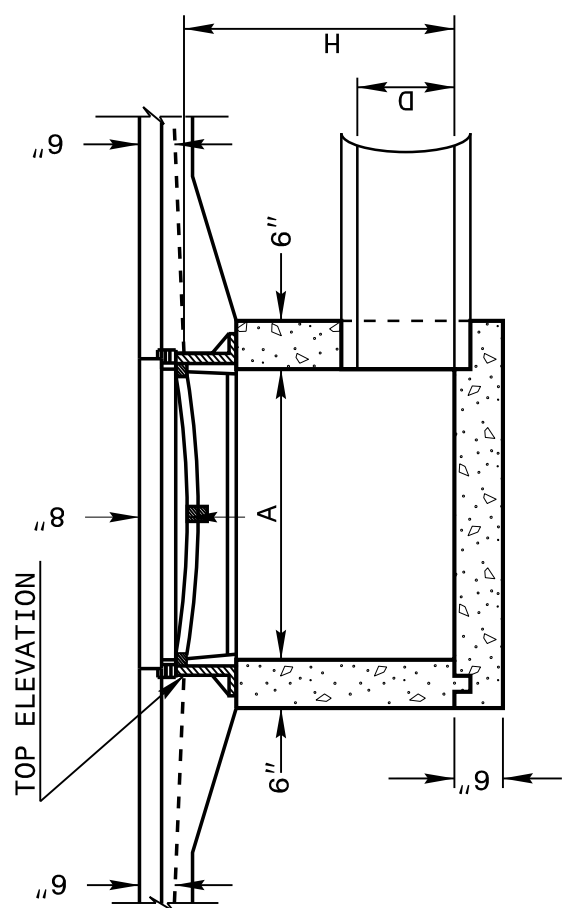
GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12"
ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT
12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB
AS SHOWN ON STD. NO. 840.00.
USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.
FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER
8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST
QUANTITIES ACCORDINGLY.
CONSTRUCT WITH PIPE CROWNS MATCHING.
CHAMFER ALL EXPOSED CORNERS 1".
** FOR STRUCTURES WITH PIPE LARGER THAN 54",
MAKE THE TOP SLAB 8" THICK.

FRAME, GRATE AND HOOD
SEE STD. NO. 840.03

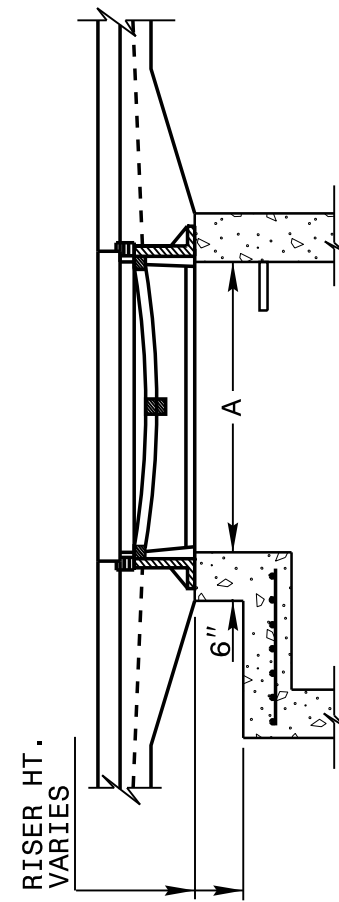
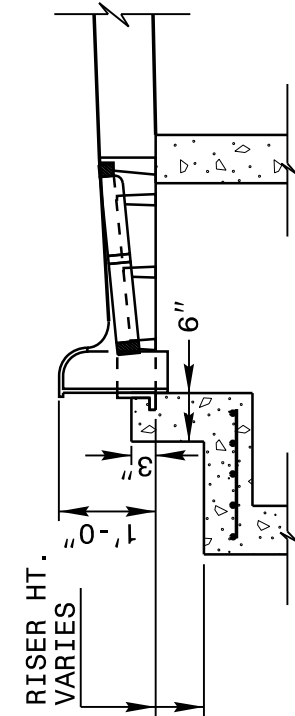


SECTION X-X

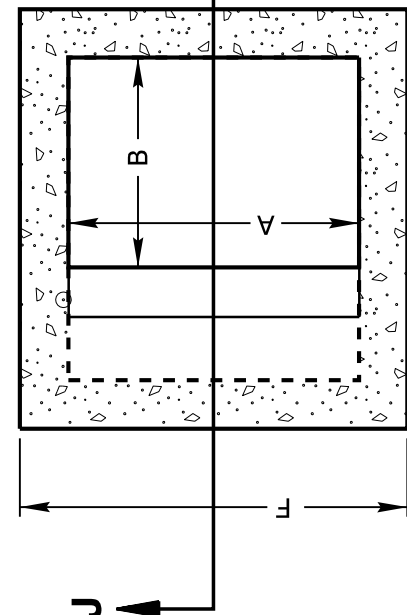


PLAN

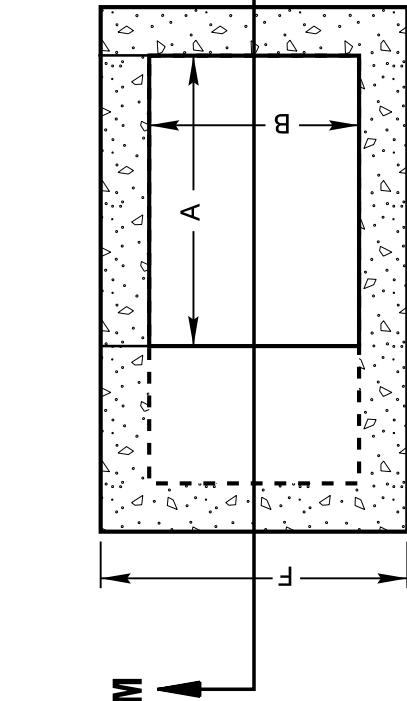
SECTION Y-Y



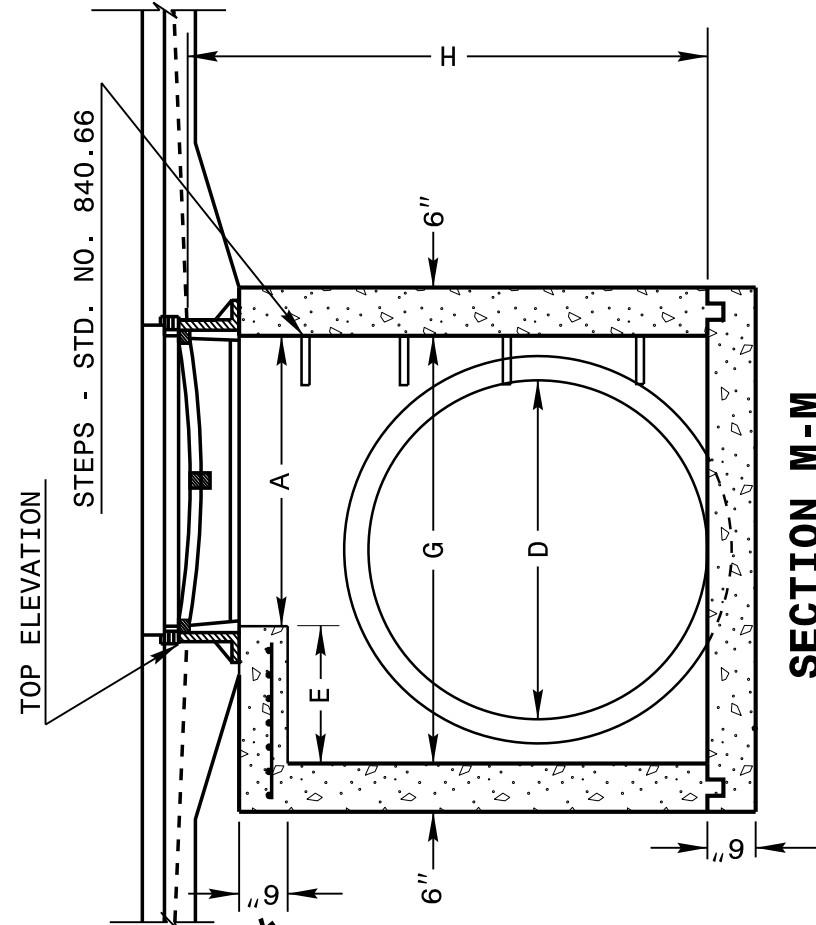
DETAIL SHOWING METHOD
OF RISER CONSTRUCTION



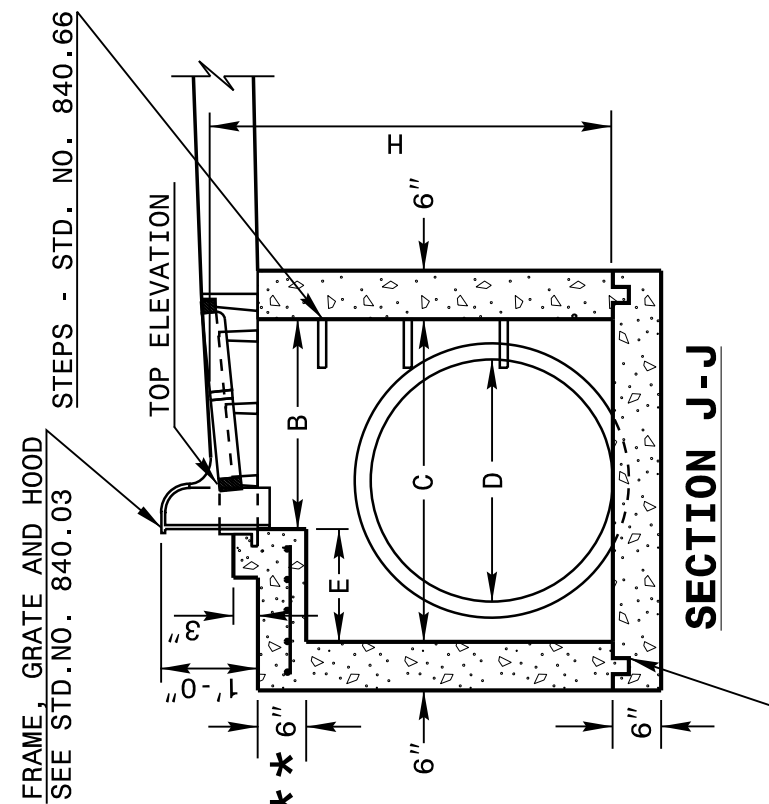
PLAN



PLAN



SECTION M-M



SECTION J-J

ENGLISH DETAIL DRAWING FOR
**MINIMUM DEPTH
CONCRETE CATCH BASIN**
12" THRU 84" PIPE

SHEET 1 OF 2

840D02

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

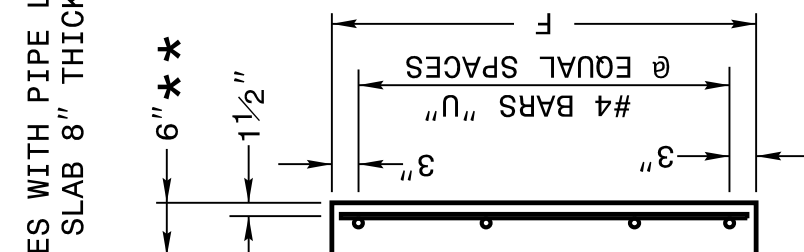
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
**MINIMUM DEPTH
CONCRETE CATCH BASIN**
12" THRU 84" PIPE

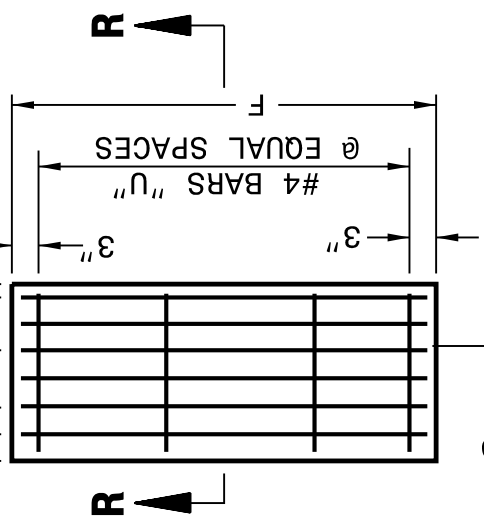
SHEET 2 OF 2

840D02

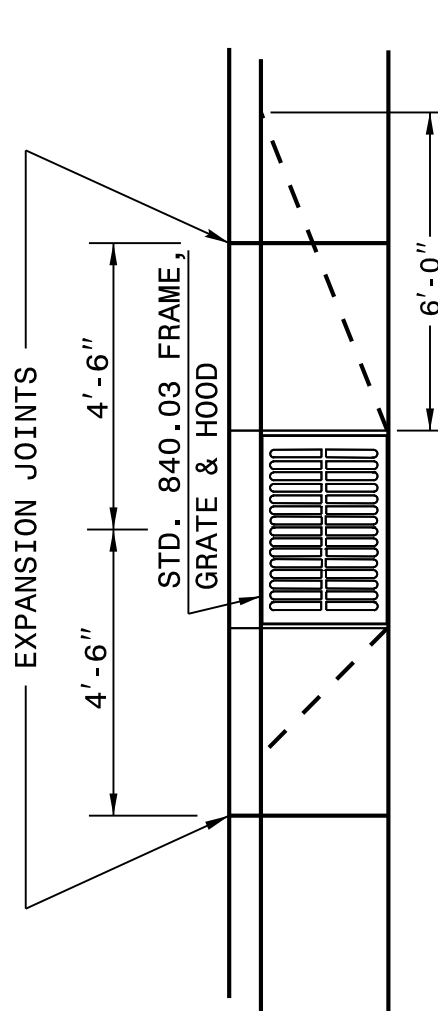
** FOR STRUCTURES WITH PIPE LARGER THAN 54",
MAKE THE TOP SLAB 8" THICK.



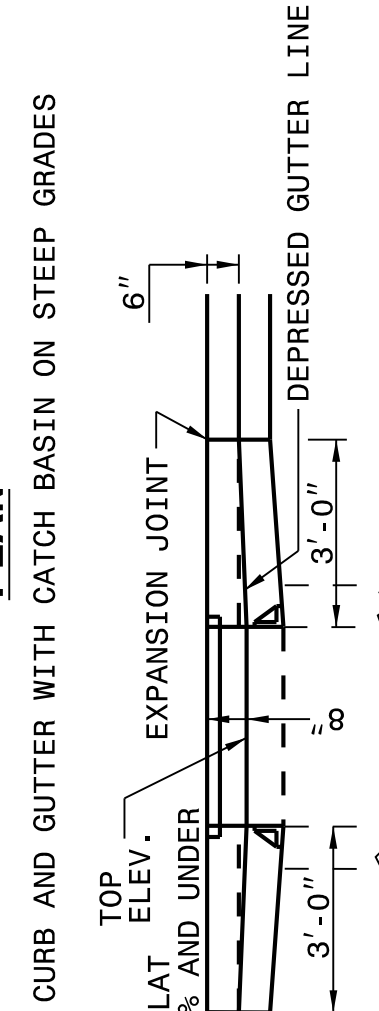
SECTION S-S



PLAN OF TOP SLAB

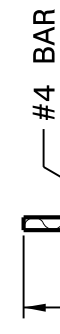


PLAN

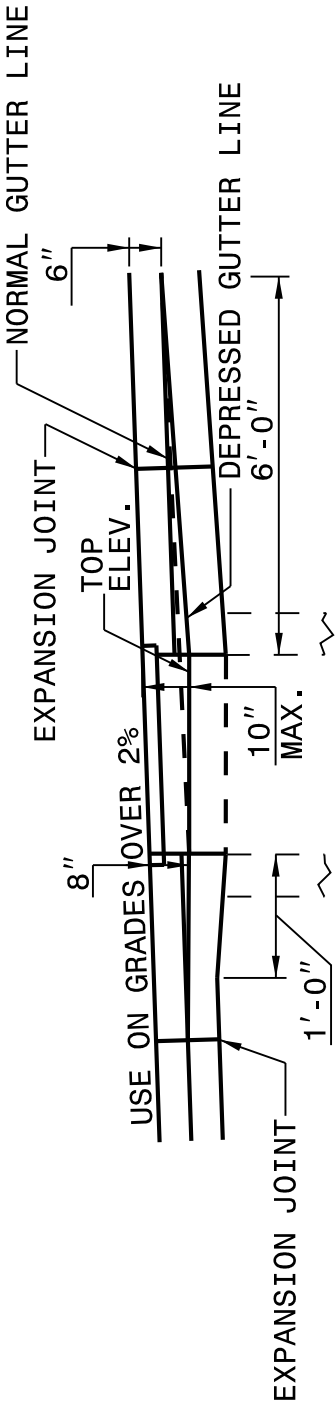


ELEVATION

NORMAL CURB AND GUTTER ON LIGHT GRADES



DOWEL



ELEVATION

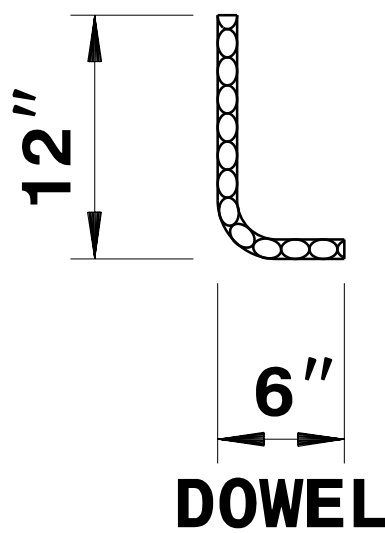
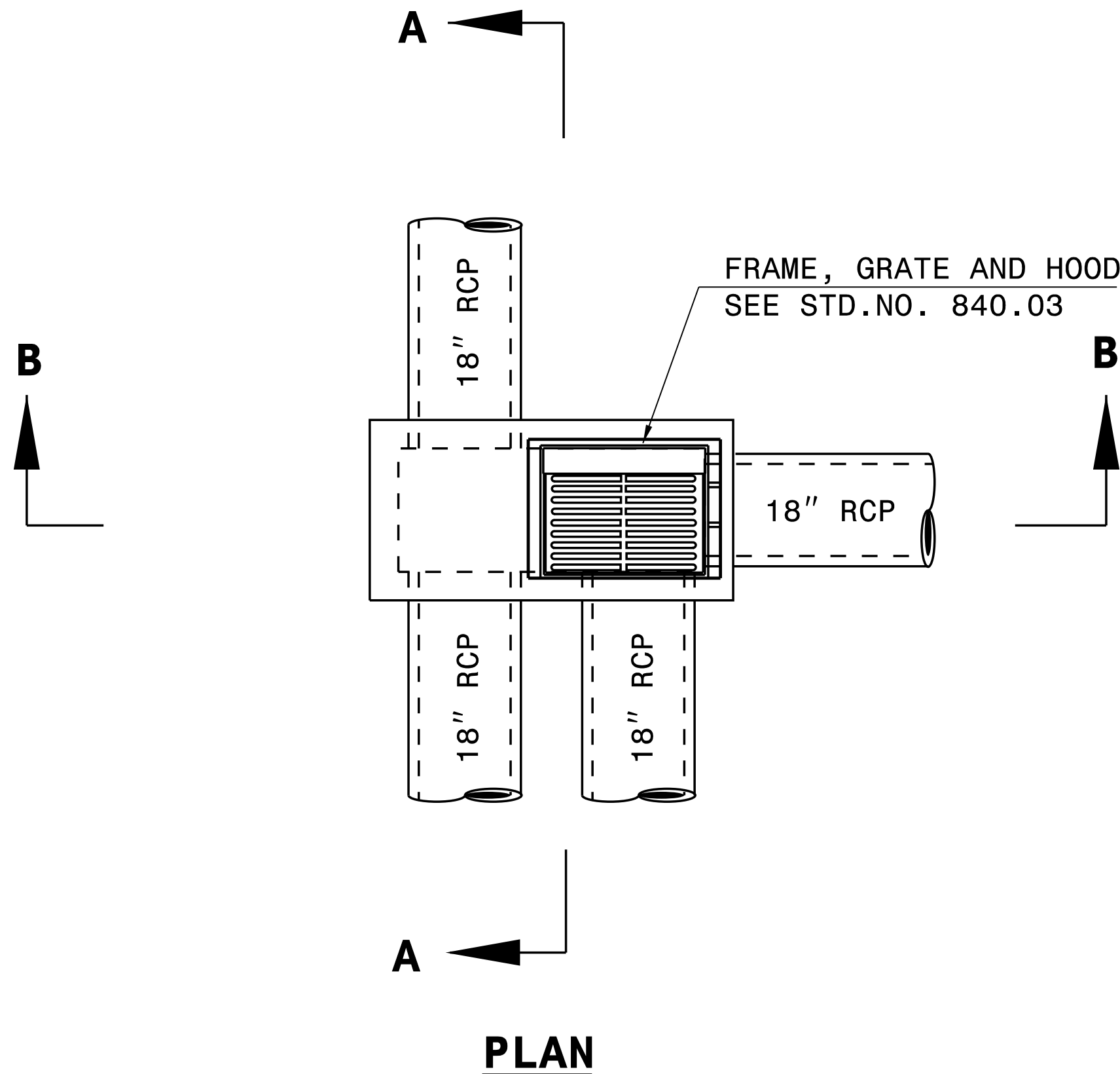
NORMAL CURB AND GUTTER ON STEEP GRADES

* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H, WITH NO RISER) *																			
DIMENSIONS OF BOX AND PIPE					COVER DIMENSION		BARS-U			BARS-V		BARS-W		TOTAL LBS.	CU.-YDS.	CONC. IN. BOX BOTTOM FOR MIN. SLAB HEIGHT	* IN. BOX CONC. HEIGHT	DEDUCTIONS ONE PIPE	
PIPE	SPAN	WIDTH	DEPTH	SPAN	MIN. HEIGHT	E	F	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH						
12"	A	2'-2"	C	G	H													C.M.	R.C.
D	3'-0"	2'-2"		--	2'-0"					--	--	--	--	--	--			0.015	0.026
15"	3'-0"	2'-2"		--	2'-3"													0.022	0.036
18"	3'-0"	2'-2"		--	2'-6"													0.023	0.036
24"	3'-0"	2'-2"		--	3'-1"													0.023	0.049
30"	3'-0"	2'-2"	3'-4"		3'-10"	1'-2"	4'-4"	4	1'-5"	2	4'-1"	3	4'-1"	39	0.123	0.347	1.433	0.059	0.085
36"	3'-0"	2'-2"	3'-10"	3'-10"	4'-6"	1'-8"	4'-10"	4	1'-11"	3	4'-7"	3	4'-7"	43	0.161	0.432	1.714	0.132	0.178
42"	3'-0"	2'-2"	4'-5"	4'-5"	4'-11"	1'-8"	5'-5"	5	2'-5"	4	5'-2"	3	5'-2"	47	0.200	0.563	2.083	0.180	0.243
48"	3'-0"	2'-2"	5'-0"	5'-0"	5'-6"	2'-10"	6'-0"	5	3'-11"	4	5'-9"	3	5'-9"	51	0.235	0.667	2.505	0.235	0.317
54"	3'-0"	2'-2"	5'-7"	5'-7"	6'-0"	3'-5"	6'-7"	6	3'-8"	5	6'-4"	3	6'-4"	56	0.269	0.802	2.387	0.287	0.401
60"	3'-0"	2'-2"	6'-3"	6'-3"	6'-6"	4'-1"	7'-3"	6	4'-4"	5	7'-0"	3	7'-0"	61	0.340	0.973	2.722	0.363	0.546
66"	3'-0"	2'-2"	6'-11"	6'-11"	7'-0"	4'-9"	7'-11"	7	5'-0"	6	7'-8"	3	7'-8"	66	0.391	1.160	3.057	0.440	0.655
72"	3'-0"	2'-2"	7'-6"	7'-6"	7'-6"	5'-3"	8'-6"	7	5'-6"	6	8'-3"	3	8'-3"	72	0.442	1.340	3.392	0.524	0.774
78"	3'-0"	2'-2"	8'-1"	8'-1"	8'-6"	5'-11"	9'-1"	8	6'-2"	7	9'-10"	3	9'-10"	78	0.493	1.530	3.727	0.615	0.893
84"	3'-0"	2'-2"	8'-9"	8'-9"	8'-6"	6'-7"	9'-9"	8	6'-10"	7	9'-6"	3	9'-6"	84	0.544	1.700	4.062	0.713	1.010

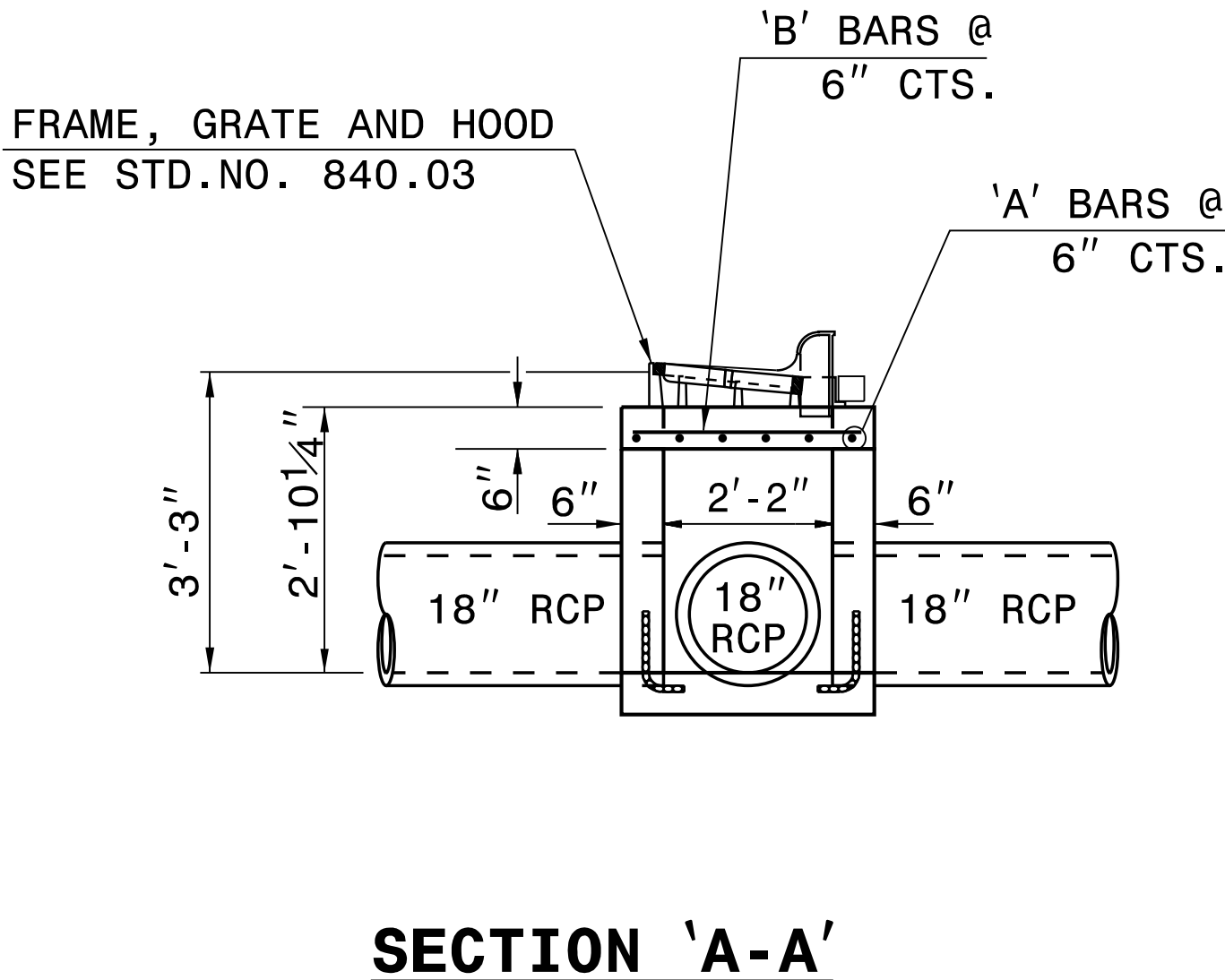
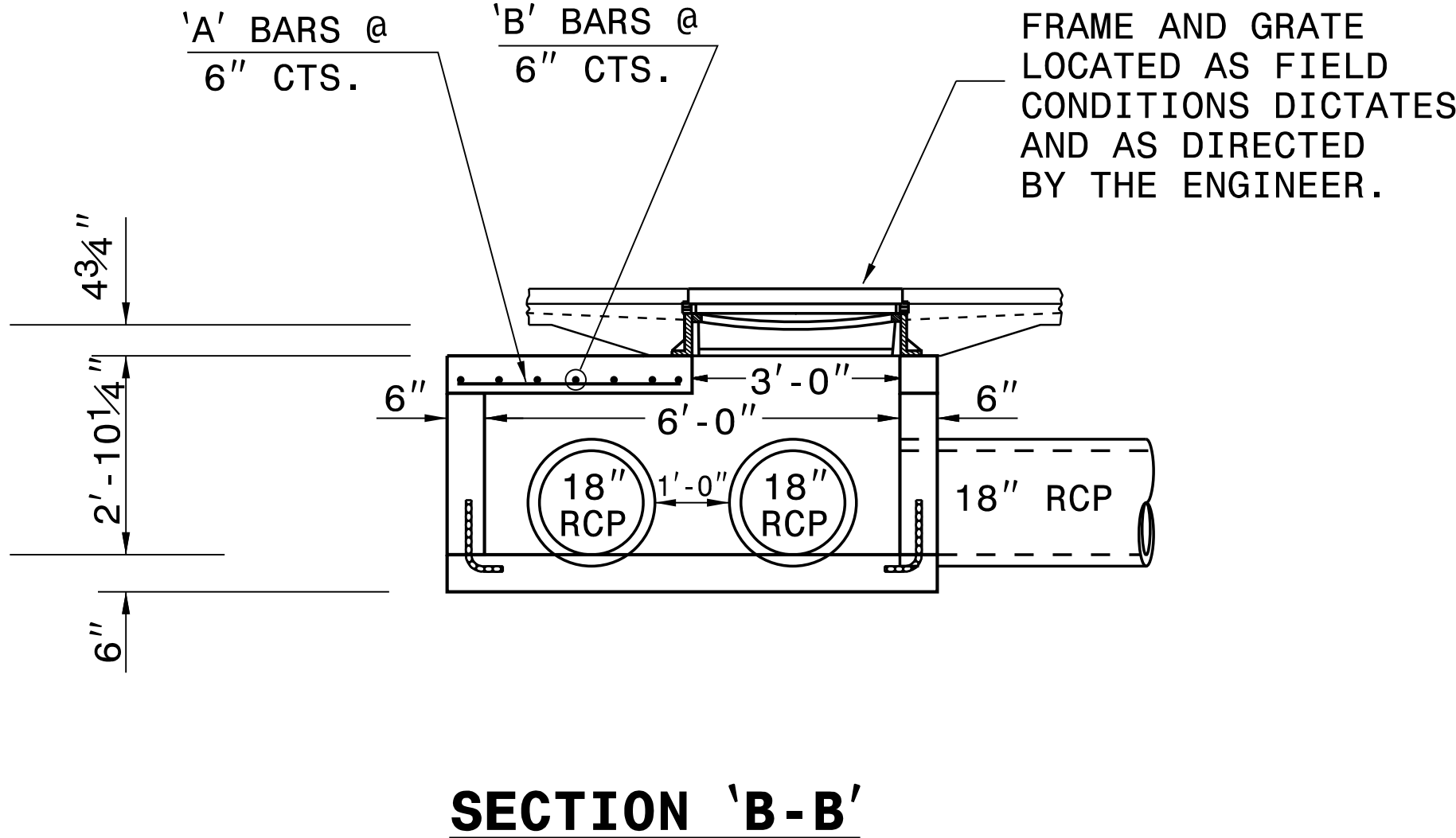
GENERAL NOTES:

- CONSTRUCT THE BASE SLAB BY FORMING AND POURING OF CONCRETE, CLASS "A".
- IF REINFORCED CONCRETE PIPE IS SET BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD.NO. 840.00
- USE CLASS "A" CONCRETE THROUGHOUT.
- BASE SLAB OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
- CHAMFER ALL EXPOSED CORNERS 1".
- MAXIMUM HEIGHT OF THIS STRUCTURE IS 12'-0".
- PROVIDE JUNCTION BOX WITH STEPS TO BE PLACED ON 12" CTRS. REFERENCE STD.NO. 840.66.



BILL OF MATERIAL				
BAR	NO.	SIZE	LENGTH	WEIGHT
A	7	#4	3'-4"	16
B	6	#4	3'-0"	12
TOTAL REINFORCING STEEL (lbs.)				28
CLASS "A" CONC. (cu. yds.)				1.2

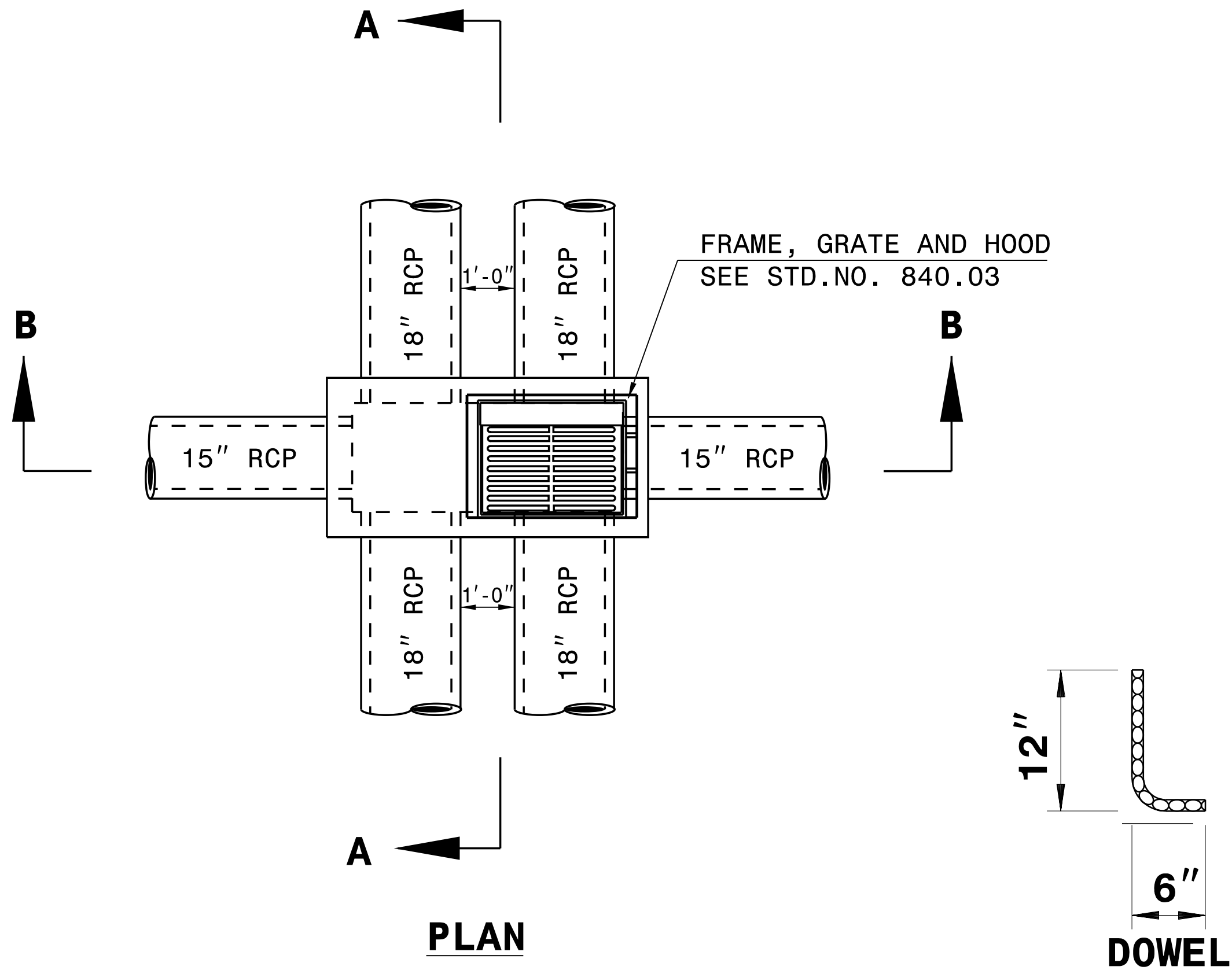
NO DEDUCTIONS HAVE BEEN MADE TO ACCOMMODATE PIPES, CATCH BASIN OPENING AND MANHOLE OPENING.



CONTRACTS STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
SPECIAL JUNCTION BOX WITH CATCH BASIN	
ORIGINAL BY: K.A.KEMPF	DATE: Jul.22,2019
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: w:kkempf/english/U5908 2-18 cb.dgn	

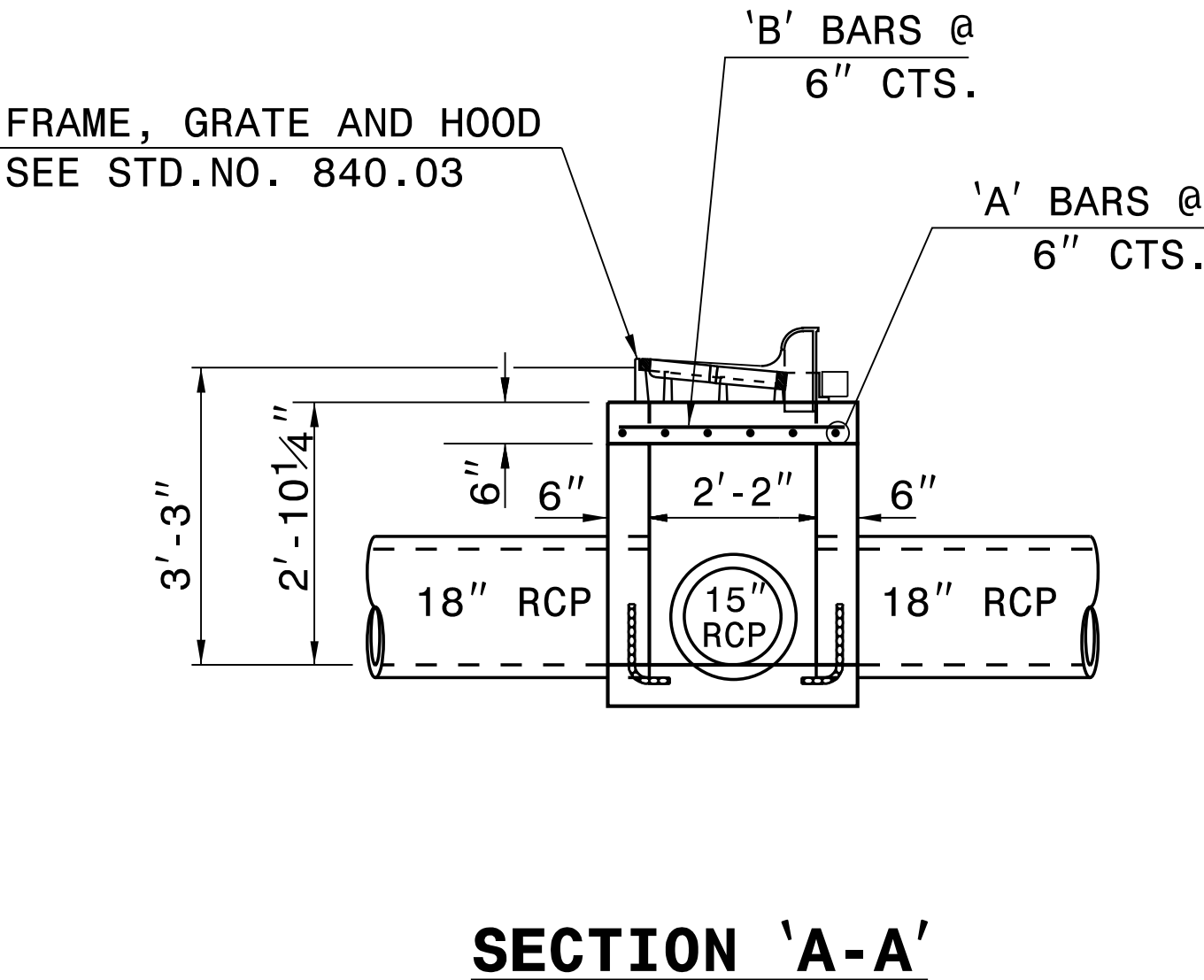
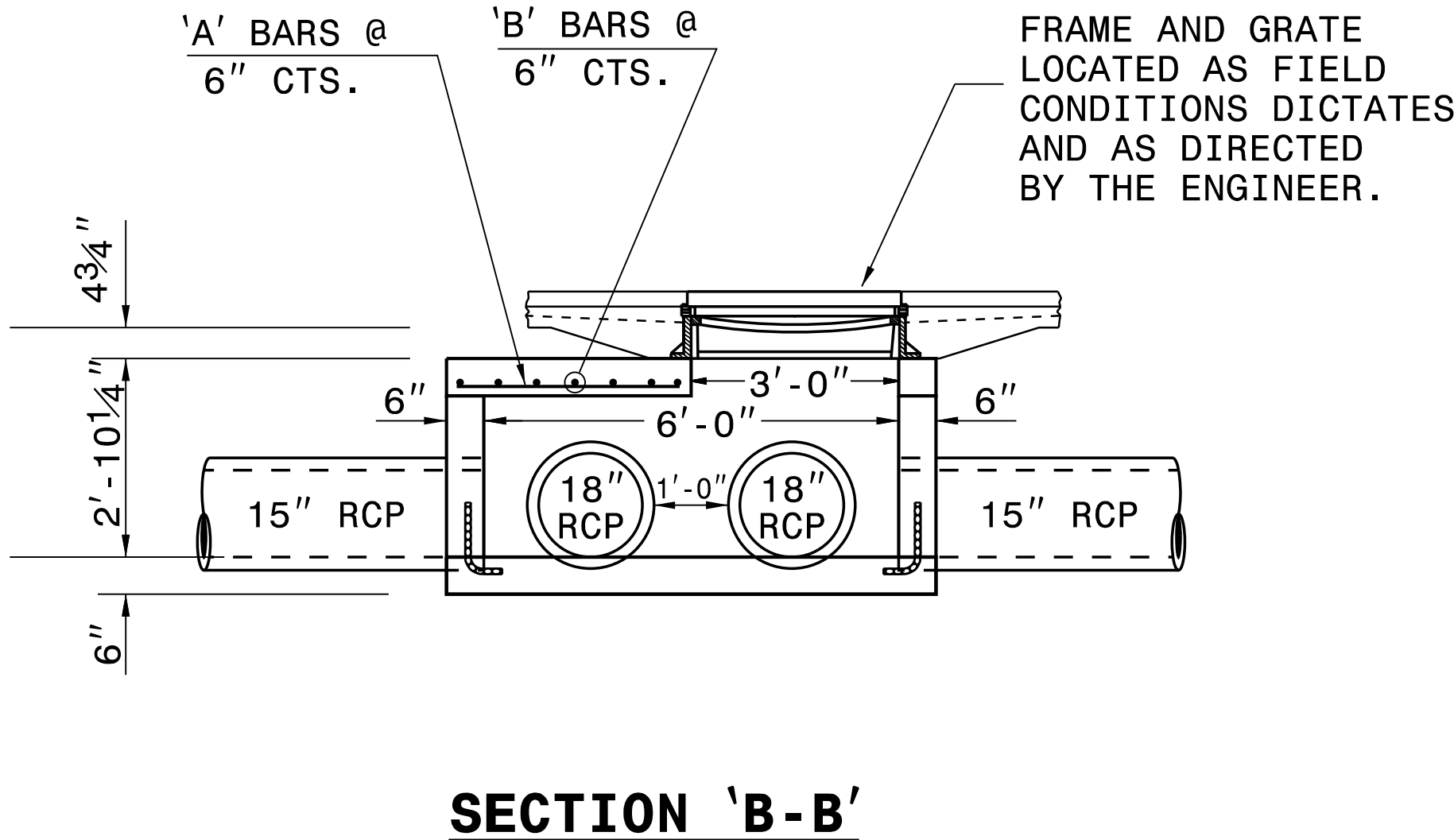
GENERAL NOTES:

- CONSTRUCT THE BASE SLAB BY FORMING AND POURING OF CONCRETE, CLASS "A".
- IF REINFORCED CONCRETE PIPE IS SET BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD.NO. 840.00
- USE CLASS "A" CONCRETE THROUGHOUT.
- BASE SLAB OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
- CHAMFER ALL EXPOSED CORNERS 1".
- MAXIMUM HEIGHT OF THIS STRUCTURE IS 12'-0".
- PROVIDE JUNCTION BOX WITH STEPS TO BE PLACED ON 12" CTRS. REFERENCE STD.NO. 840.66.



BILL OF MATERIAL				
BAR	NO.	SIZE	LENGTH	WEIGHT
A	7	#4	3'-4"	16
B	6	#4	3'-0"	12
TOTAL REINFORCING STEEL (lbs.)				28
CLASS "A" CONC. (cu. yds.)				2.0

NO DEDUCTIONS HAVE BEEN MADE TO ACCOMMODATE PIPES, CATCH BASIN OPENING AND MANHOLE OPENING.



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK
IN CUBIC YARDS

Station	Station	Uncl. Excav.	Embank. '+%	Borrow	Waste
-L- 34+50	-L- 67+50	106	3346	3240	
SUBTOTAL		106	3346	3240	
SUBTOTAL		106	3346	3240	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				162	
GRAND TOTALS:		106	3341	3402	
SAY:		110	3350	3500	

Contingency Undercut = 300 CY

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR GRADING.

REMOVAL OF EXISTING PAVEMENT
IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL
-L-	20+32	20+56	RT	20
-L-	34+36	42+75	RT	172
-L-	35+22	65+00	LT	720
		TOTAL:		912
		SAY:		920

PROJ. REFERENCE NO.	SHEET NO.
U-3628	3P-1

U-3628	3P-1
--------	------

[illegible]

-L- POT Sta. 10+00.00

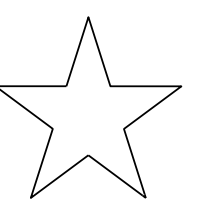


BEGIN PROJECT U-3628
-L- STA. 13+95

-L-

$-L = Pl Sta 19+24.17$
 $\Delta = 5^{\circ} 11' 36.5'' (LT)$
 $D = 0^{\circ} 52' 53.3''$
 $L = 589.18'$
 $T = 294.79'$
 $R = 6,500.00'$

SEE SHEET 12 FOR -L- PROFILE



MODIFIED SIGNAL

**MATCH LINE -L- 18+00
SEE SHEET 5**

8/17/99

U-3628_nc24-27.dgn

25 JUN 2025 10:52
Z:\pdu\moore\U-3628_nc24-27\us15-501\psh\dsn
osdavis2

REVISIONS

DONNA ELIZABETH TANNER
DB 5579 PG 268

BROKEN ARROW INVESTMENTS, LLC
DB 5735 PG 476

SOUTHERN PINES
GAINES
DB 5503 PG 432

JAMES MICHAEL &
SHEREE KELLY
DB 765 PG 532

SPENCER ROLAND
GILLIAM
DB 838 PG 515

HURLEY JR &
RHONDA THOMPSON
DB 1021 PG 415

KEITH'S INCORPORATED
DB 534 PG 667

MOORE COUNTY
DB 1128 PG 292
DB 1177 PG 300

RONALD & DELIA GRAY
DB 1554 PG 132
DB 4068 PG 305
DB 645 PG 403

QUIDA S. NEWELL
DB 4158 PG 110

QUIDA S. NEWELL
DB 1257 PG 470

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO. U-3628		SHEET NO. 5	
RW SHEET NO. RW-05		RW-05	
DIVISION DESIGN ENGINEER		HYDRAULICS ENGINEER	
Michael Roberts		Craig Lee	

MATCH LINE -L- 18+00
SEE SHEET 4

MATCH LINE -L- 26+00
SEE SHEET 6

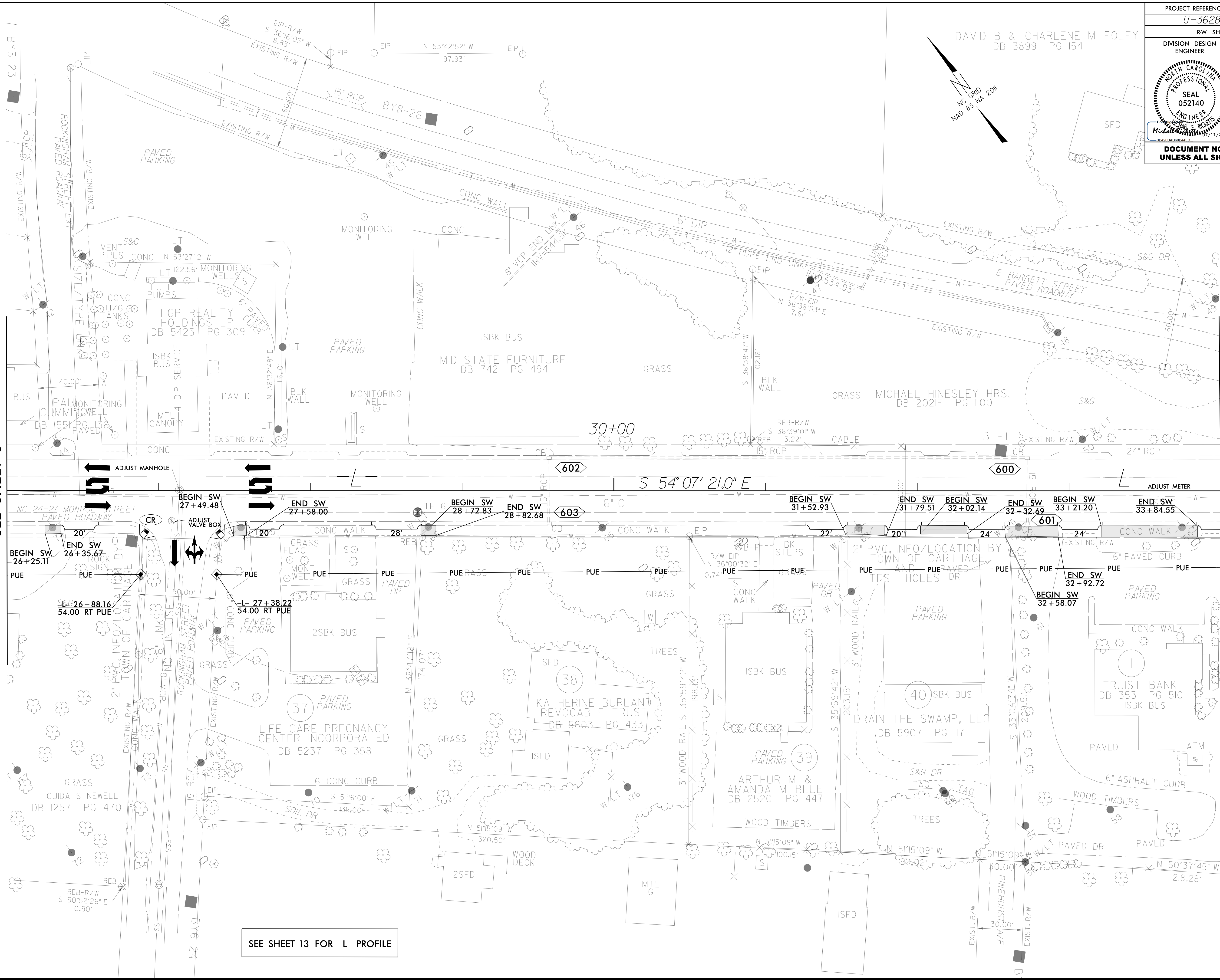
-L- PI Sta 19+24.17 Δ = 5°11'36.5" (LT) D = 0°52'53.3" L = 589.18' T = 294.79' R = 6,500.00'	-L- PI Sta 25+18.48 Δ = 1°00'18.9" (RT) D = 1°54'35.5" L = 52.63' T = 26.32' R = 3,000.00'
---	---

SEE SHEET 12 AND 13 FOR -L- PROFILE

30-JUN-2025 11:35
Z:\city\more\U-3628.nc24-27\us15-501\psh\dsn-6.dgn
menckel
U-3628.nc24-27.dsn-6.dgn
U-3628.nc24-27.dsn-6.dgn
8/17/2025

REVISIONS	

MATCH LINE -L- 26+00
SEE SHEET 5

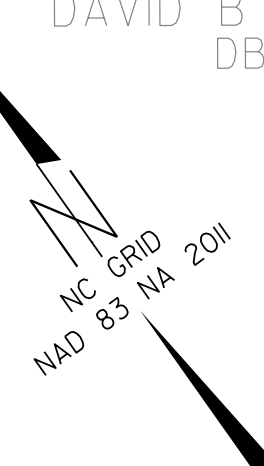


SEE SHEET 13 FOR -L- PROFILE

MATCH LINE -L- 34+00
SEE SHEET 7

PROJECT REFERENCE NO. U-3628		SHEET NO. 6	
RW SHEET NO.		RW-06	
DIVISION DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

DAVID B & CHARLENE M FOLEY
DB 3899 PG 154

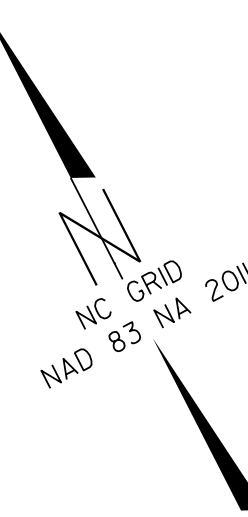


8/17/99

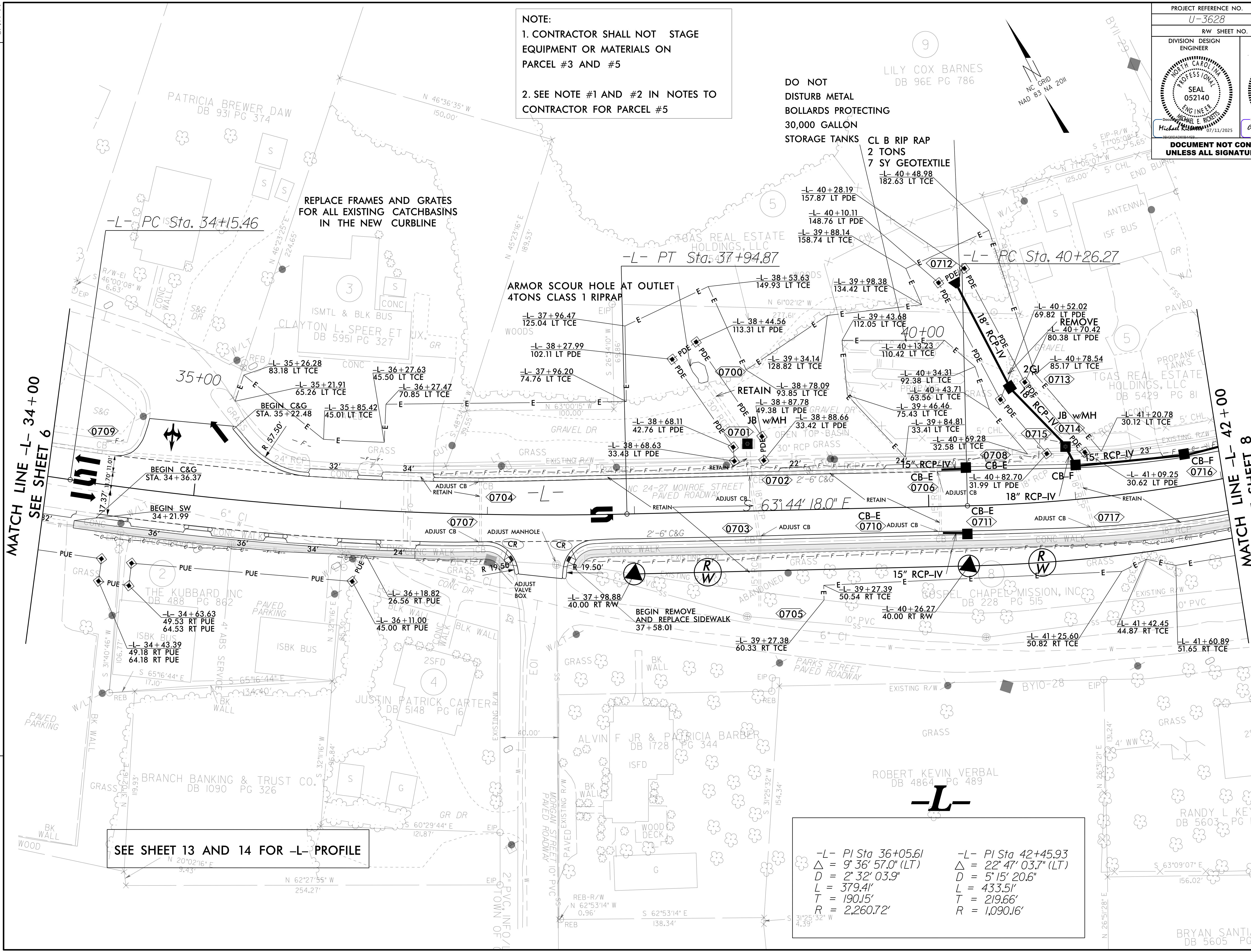
NOTE:
1. CONTRACTOR SHALL NOT STAGE EQUIPMENT OR MATERIALS ON PARCEL #3 AND #5
2. SEE NOTE #1 AND #2 IN NOTES TO CONTRACTOR FOR PARCEL #5

DO NOT
DISTURB METAL
BOLLARDS PROTECTING
30,000 GALLON
STORAGE TANKS

LILY COX BARNES
DB 96E PG 786



PROJECT REFERENCE NO. U-3628		SHEET NO. 7	
RW SHEET NO.		RW-07	
DIVISION DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



SEE SHEET 13 AND 14 FOR -L- PROFILE

-L- PI Sta 36+05.61
Δ = 9° 36' 57.0" (LT)
D = 2° 32' 03.9"
L = 379.41'
T = 190.15'
R = 2,260.72'

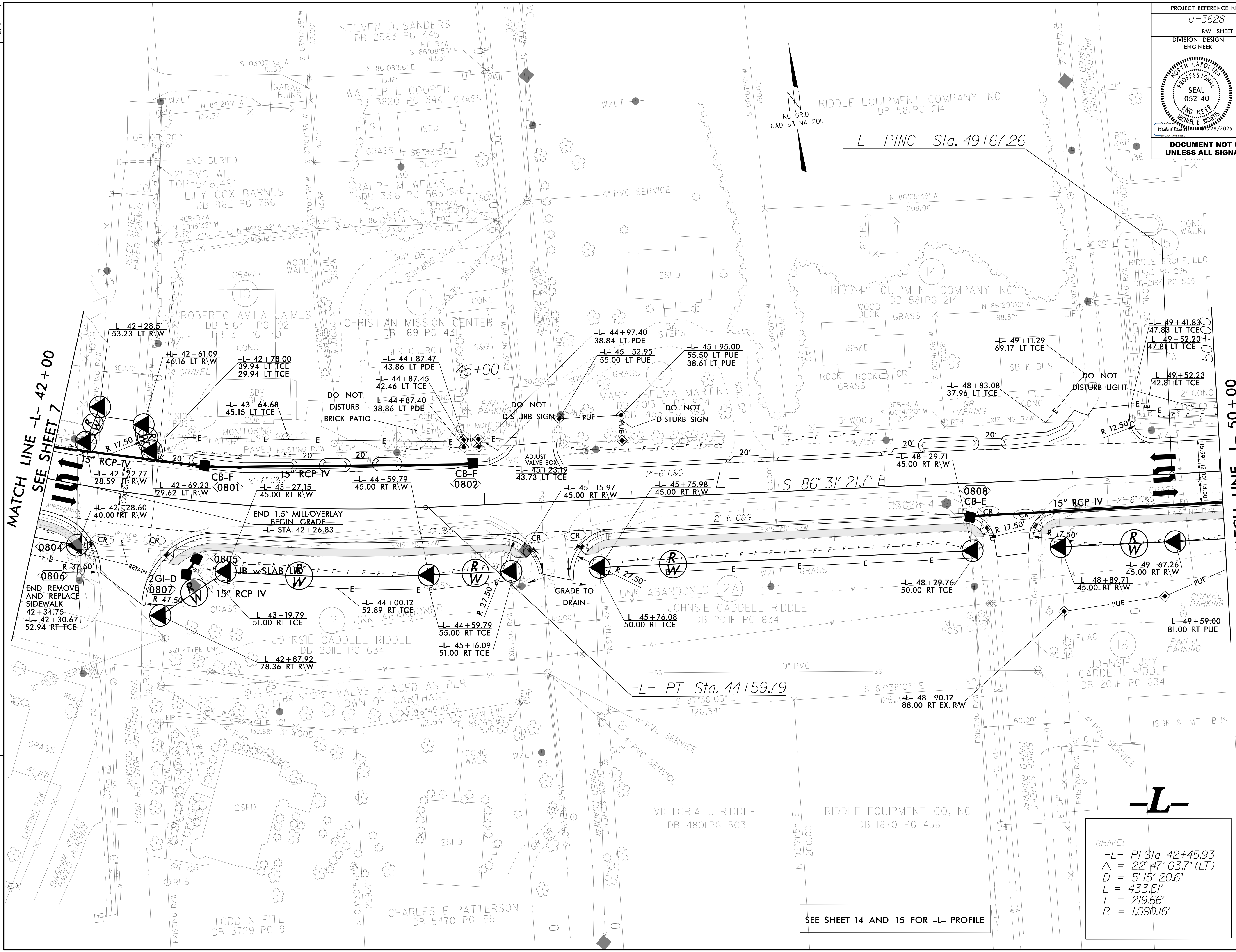
-L- PI Sta 42+45.93
Δ = 22° 47' 03.7" (LT)
D = 5° 15' 20.6"
L = 433.51'
T = 219.66'
R = 1,090.16'

BRYAN SANTIAGO
DB 5605 PG 401

8/17/2025

REVISIONS

PROJECT REFERENCE NO. U-3628		SHEET NO. 8	
RW SHEET NO. RW-08		HYDRAULICS ENGINEER	
DIVISION DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



-L- PINC Sta. 49+67.26

-L- PT Sta. 44+59.79

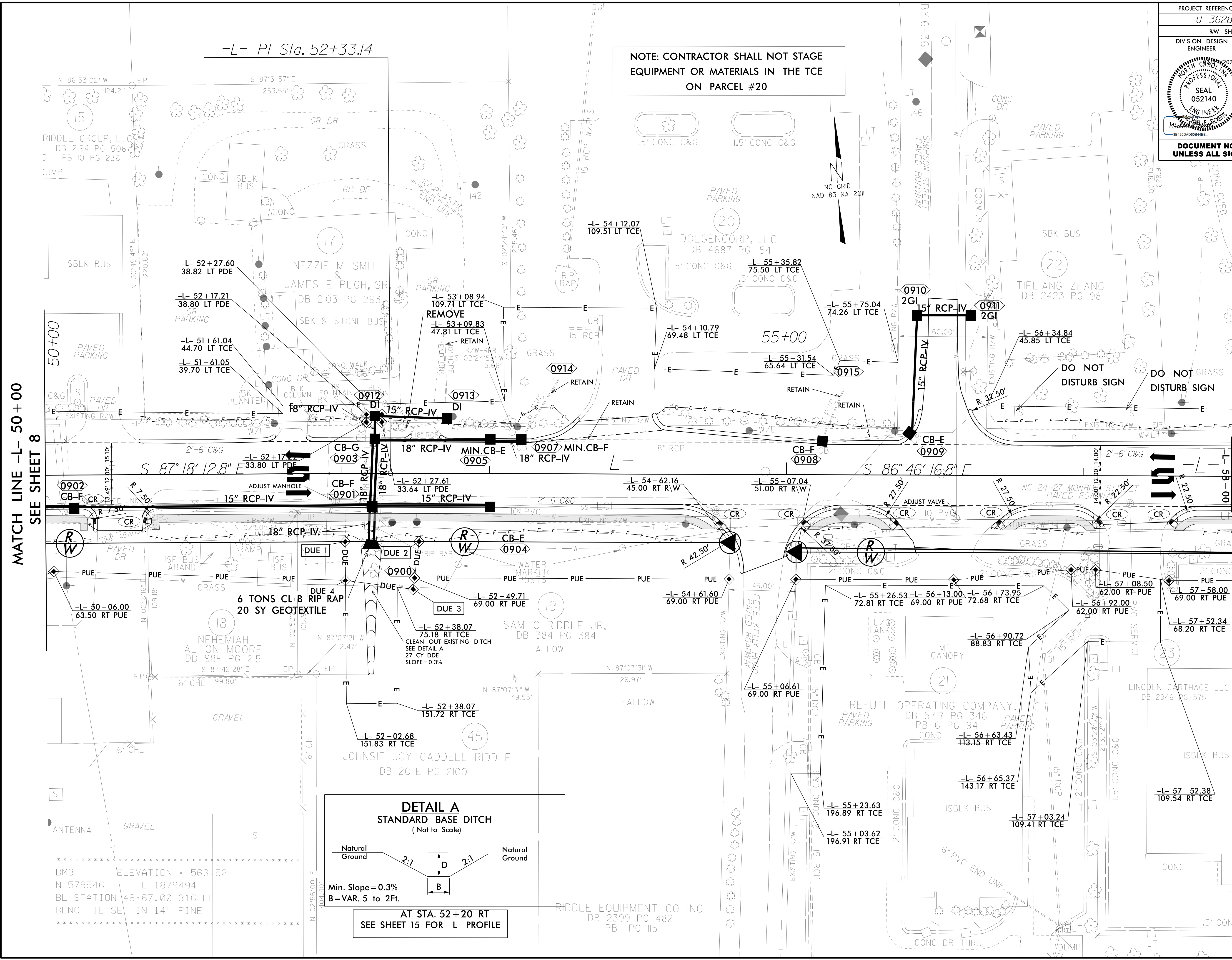
-L-

GRAVEL
-L- PI Sta 42+45.93
 $\Delta = 22^\circ 47' 03.7''$ (LT)
 $D = 5' 15'' 20.6''$
 $L = 433.51'$
 $T = 219.66'$
 $R = 1,090.16'$

SEE SHEET 14 AND 15 FOR -L- PROFILE

MATCH LINE -L- 42+00
SEE SHEET 7

MATCH LINE -L- 50+00
SEE SHEET 9



REVISIONS

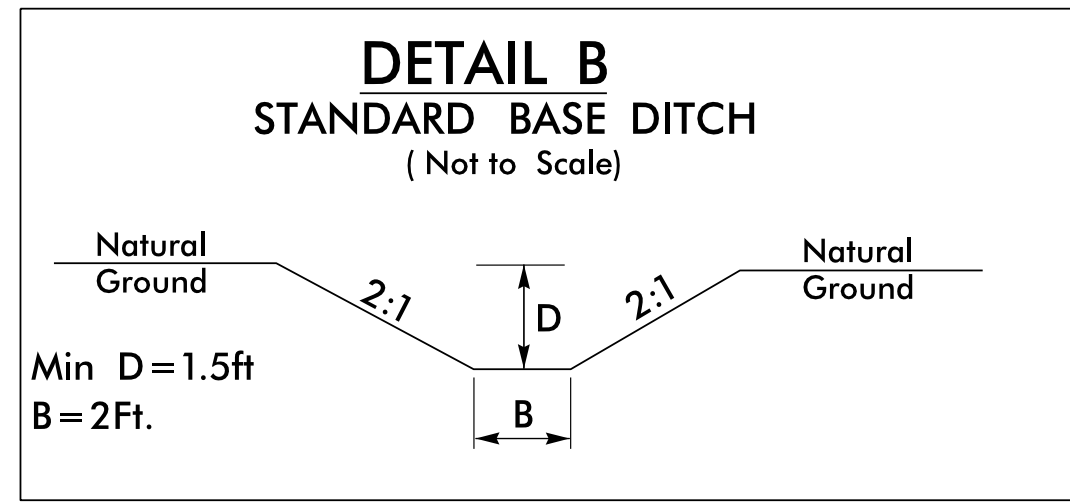
**MATCH LINE -L- 58+00
SEE SHEET 10**

II-JUL-2025 09:59
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mericketts AT DIV08-330084L

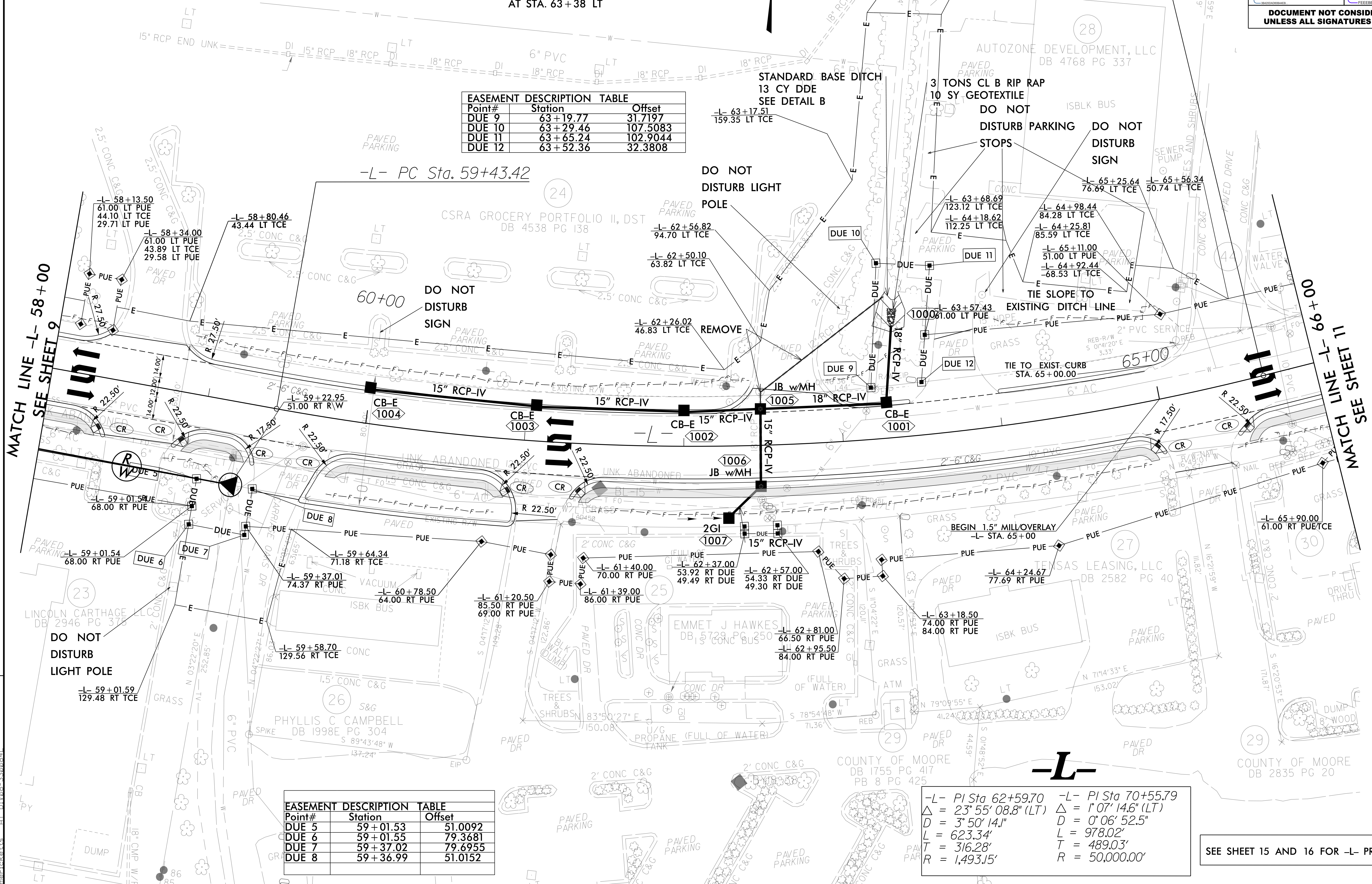
8/17/99

28-JUL-2025 14:39
Z:\pdu\moore\U-3628.nc24-27\us15-501\psh\dsn\U-3628.nc24-27.dsn-10.dgn
mentakett AT DU008-3300841

REVISIONS



EASEMENT DESCRIPTION TABLE		
Point#	Station	Offset
DUE 9	63+19.77	31.7197
DUE 10	63+29.46	107.5083
DUE 11	63+65.24	102.9044
DUE 12	63+52.36	32.3808



EASEMENT DESCRIPTION TABLE		
Point#	Station	Offset
DUE 5	59+01.53	51.0092
DUE 6	59+01.55	79.3681
DUE 7	59+37.02	79.6955
DUE 8	59+36.99	51.0152

-L- PI Sta 62+59.70 Δ = 23° 55' 08.8" (LT) D = 3° 50' 14.1" L = 623.34' T = 316.28' R = 1,493.15'	-L- PI Sta 70+55.79 Δ = 1° 07' 14.6" (LT) D = 0° 06' 52.5" L = 978.02' T = 489.03' R = 50,000.00'
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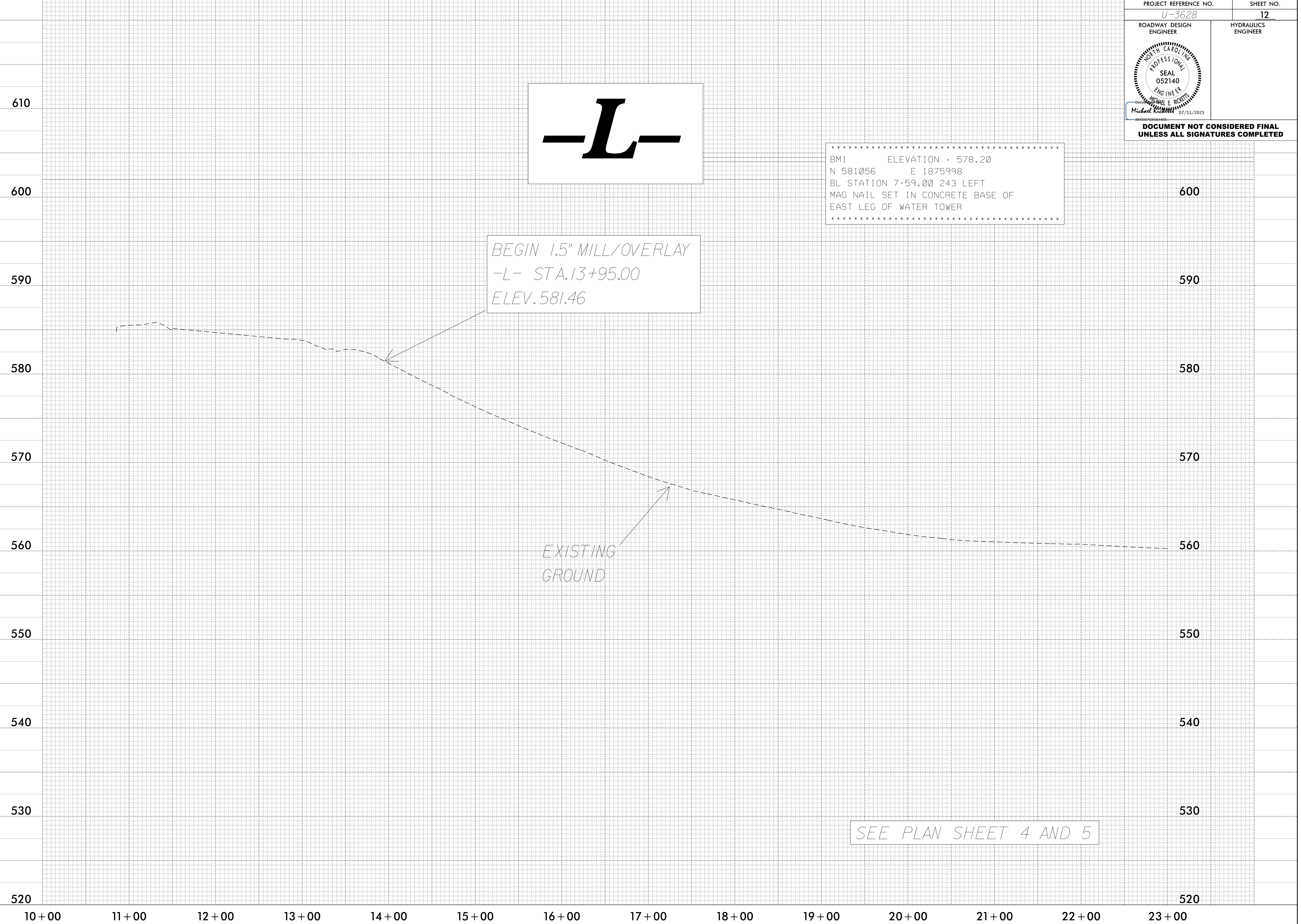
SEE SHEET 15 AND 16 FOR -L- PROFILE

PROJECT REFERENCE NO. U-3628	SHEET NO. 10
RW SHEET NO.	RW-10
DIVISION DESIGN ENGINEER SEAL 052140 ENGINEER MICHAEL E. RICHIE 11/29/2025	HYDRAULICS ENGINEER SEAL 042644 ENGINEER CRAIG J. LEE 11/29/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



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mencketts

5/14/99



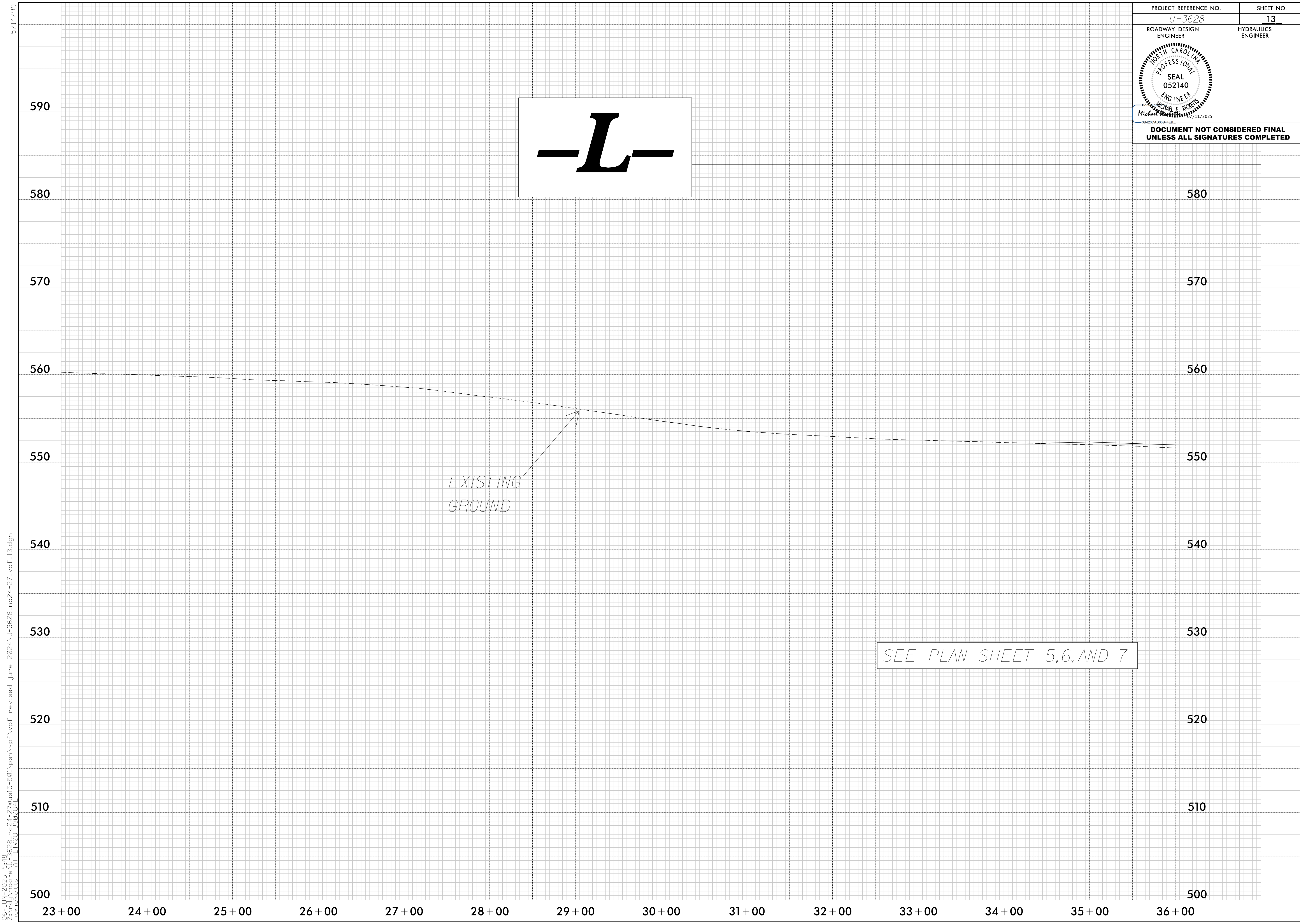
-L-

BEGIN 1.5" MILL/OVERLAY
-L- STA.13+95.00
ELEV.581.46

BM1 ELEVATION = 578.20
N 581056 E 1875998
BL STATION 7+59.00 243 LEFT
MAG NAIL SET IN CONCRETE BASE OF
EAST LEG OF WATER TOWER

SEE PLAN SHEET 4 AND 5

PROJECT REFERENCE NO. <i>U-3628</i>		SHEET NO. 12
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
		
Michael E. Ricketts 07/11/2025		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



5/14/99

06-JUN-2025 15:49
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menckett

PROJECT REFERENCE NO. <i>U-3628</i>		SHEET NO. 14
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

BM2 ELEVATION = 553.11
N 578754 E 1877873
BL STATION 35+08.00 596 RIGHT
BENCHTIE SET IN BASE OF 15" BIRCH

-L-

600

590

580

570

560

550

540

530

520

510

590

580

570

560

550

540

530

520

510

END MILL/OVERLAY
BEGIN GRADE
-L- STA.42+26.83
ELEV.554.66

PROPOSED
GRADE

EXISTING
GROUND

SEE PLAN SHEET 7 AND 8

PI = 41+58.81
EL = 550.15'
VC = 148.50'
K = 47
V = 40 MPH

PI = 41+58.81
EL = 550.15'
VC = 198.01'
K = 84
V = 40 MPH

PI = 46+21.92
EL = 574.01'
VC = 239.33'
K = 56
V = 40 MPH

PI = 46+21.92
EL = 574.01'
VC = 269.88'
K = 71
V = 40 MPH

(+10.3264%)
(+5.1513%)

(+5.1513%)
(-12.9700%)

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*****
BM3          ELEVATION = 563.52
N 579546     E 1879494
BL STATION 48+67.00 316 LEFT
BENCHTIE SET IN 14" PINE
*****

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-L-

