09/08/99

TIP PROJECT: R-2576

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2576	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34470.1.TA1	BRSTP-000(494)	P.E.

PERMIT DRAWING
SHEET 1 OF 89

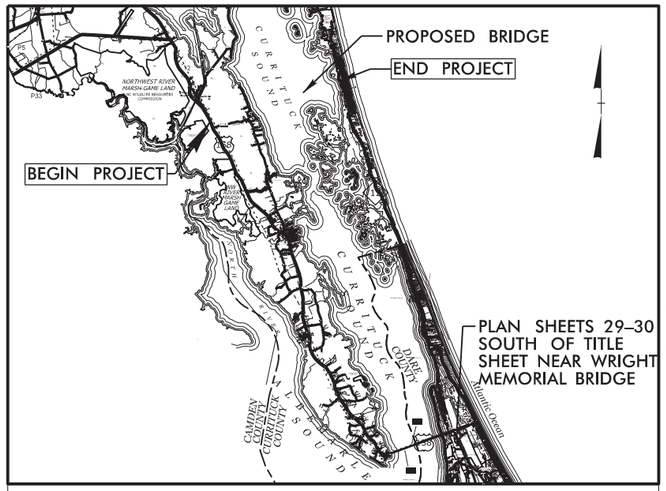
CURRITUCK & DARE COUNTIES

LOCATION: MID-CURRITUCK BRIDGE FROM US 158 SOUTH OF COINJOCK TO NC 12 SOUTH OF COROLLA

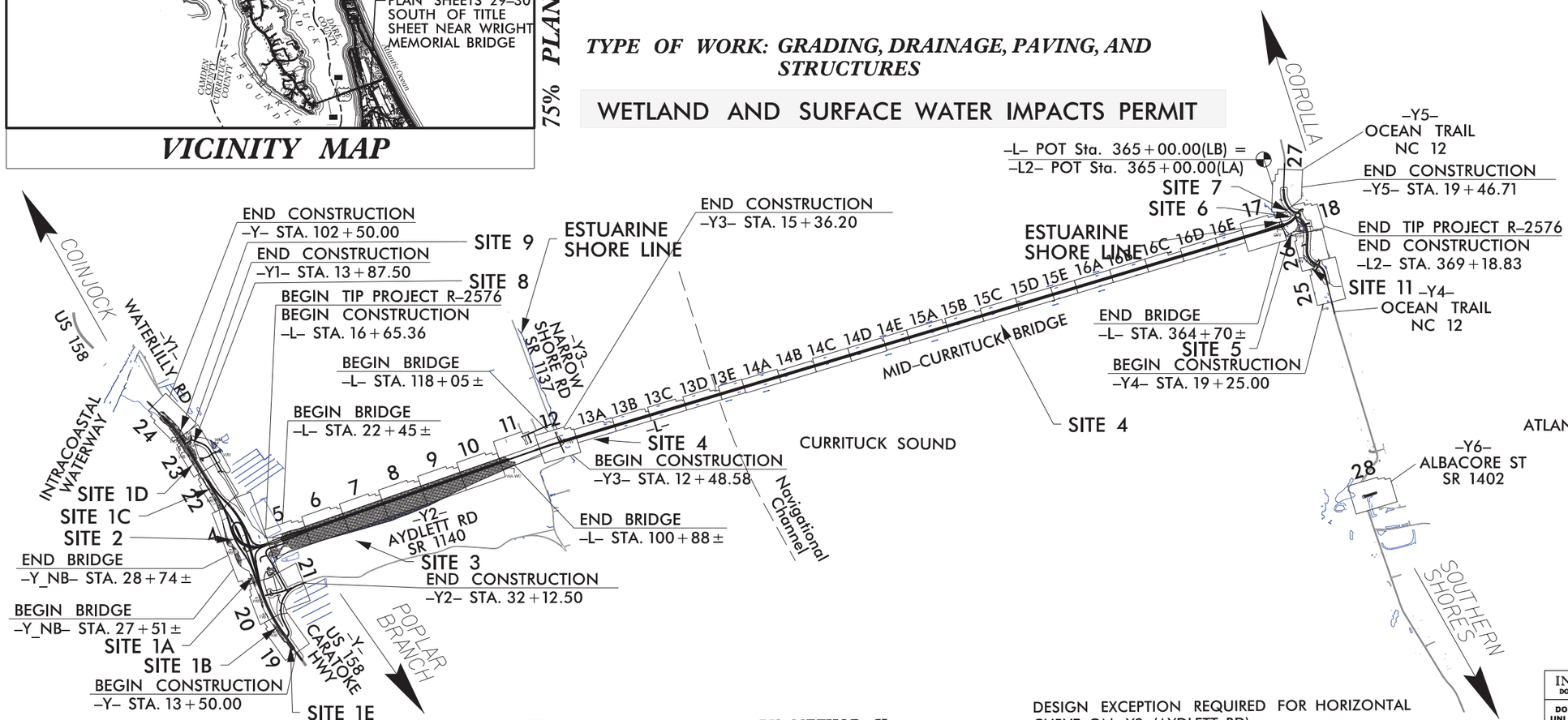
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

WETLAND AND SURFACE WATER IMPACTS PERMIT

75% PLANS



VICINITY MAP



DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE ON Y2 (AYDLETT RD)

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

CONTRACT:

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2020 = 11,800
ADT 2040 = 18,000
K = 9 %
D = 60 %
T = 7 % *
V = 60 MPH
* (TTST=2)+(DUAL=1) +(RV=4)
FUNC CLASS = ARTERIAL STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2576	= 0.520 Miles
LENGTH STRUCTURES	= 6.157 Miles
TOTAL LENGTH TIP PROJECT R-2576	= 6.677 Miles

PROJECT LEVEL TRAFFIC FORECAST (JUNE 2016) (SUMMER WEEKEND)

Prepared in the Office of:

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TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CAD/LRFD DESIGN • CEI/QAPP • CONSTRUCTION OBSERVATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FY 2024

LETTING DATE:
FY 2026

BRIAN K. EASON, PE
PROJECT ENGINEER

CHRISTINA L. YOKELEY, PE
PROJECT DESIGN ENGINEER

DENNIS JERNIGAN, PE
NCDOT /NCTA

HYDRAULICS ENGINEER
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
SIGNATURE: P.E.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

4/23/2024
R:\Hydraulics\PERMITS-Environmental\psh\R2576_HYD_TSH.dgn
USER: Mharvey

12/06/07

PROJECT REFERENCE NO.	SHEET NO.

PERMIT DRAWING
SHEET 1A OF 89

PLAN SHEET / PERMIT SHEET

PLAN SHEET	PERMIT SHEET NUMBER	IMPACT NUMBER
TSH	1	–
SITES	1A	–
01B	1B	–
Details	2	–
2D–2	3	–
2D–3	4	–
2D–4	5	–
PSH04	6	1A, 2
PSH04 con	7	1A, 2
X–21 Y	8	1A
PSH04 Enlarg.	9	1A
PSH04 Enlarg.	10	2
PSH05	11	3
PSH05 con	12	3
PSH06	13	3
PSH06 con	14	3
PSH07	15	3
PSH07 con	16	3
PSH08	17	3
PSH08 con	18	3
PSH09	19	3
PSH09 con	20	3
PSH10	21	3
PSH10 con	22	3
PSH11	23	3
PSH11 con	24	3
PSH12	25	4
PSH12 con	26	4
PSH12 Enlarg.	27	4
PFL 52	28	4
PFL 53	29	4
13A	30	4
13B	31	4
13C	32	4
13D	33	4
13E	34	4
14A	35	4
14B	36	4
14C	37	4
14D	38	4
14E	39	4
15A	40	4
15B	41	4
15C	42	4
15D	43	4
15E	44	4

PLAN SHEET	PERMIT SHEET NUMBER	IMPACT NUMBER
16A	45	4
16B	46	4
16C	47	4
16D	48	4
16E	49	4
PFL 54	50	4
PSH17	51	4
PSH17A	52	4
PFL 55	53	4
PSH18	54	5, 6, 7
PSH18 con	55	5, 6, 7
PSH18 Enlarg.	56	5
PSH18 Enlarg.	57	6, 7
X–11 L2	58	5, 6
X–83 Y4	59	5
X–90 Y5	60	7
PSH19	61	1B, 1E
PSH19 con	62	1B, 1E
PSH19 Enlarg.	63	1B
PSH19 Enlarg.	64	1E
X–14 Y	65	1B
PSH22	66	1C
PSH22 con	67	1C
PSH22 Enlarg.	68	1C
X–22 Y	69	1C
X–23 Y	70	1C
PSH23	71	1D, 8, 9
PSH23 con	72	1D, 8, 9
PSH23 Enlarg.	73	1D, 8
X–27 Y	74	1D, 8
PSH24	75	9, 10
PSH24 con	76	9, 10
PSH24 Enlarg.	77	9, 10
X–29 Y	78	9, 10
X–30 Y	79	9, 10
X–31 Y	80	9, 10
PSH25	81	11
PSH25 con	82	11
X–79 Y4	83	11
PSH26	84	11
PSH26 con	85	11
PSH26 Enlarg.	86	11
PSH29	87	AEC
PSH29 con	87A	AEC
PSH30	88	AEC
PSH30 con	88A	AEC
IMPACT TABLE	89	–

4/24/2024
ISF_PW_Level_1_2576_hyd_psh01A.dgn

9/10/2021

PROJECT REFERENCE NO.	SHEET NO.
R-2576	1-B

PERMIT DRAWING
SHEET 1B OF 89

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

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
- Geoenvironmental Boring
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

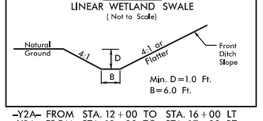
PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

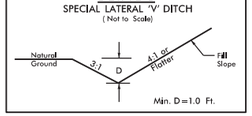
PERMIT DRAWING SHEET 2 OF 89

DETAIL A
LINEAR WETLAND SWALE
(Not to Scale)



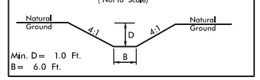
–Y2A– FROM STA. 12+00 TO STA. 16+00 LT
–Y2A– FROM STA. 12+00 TO STA. 17+00 RT
–Y2A– FROM STA. 24+00 TO STA. 25+00 LT
–Y– FROM STA. 22+85 TO STA. 32+50 RT
–Y– FROM STA. 36+00 TO STA. 41+50 RT
–RPD– FROM STA. 12+47 TO STA. 13+75 LT
–RPBD– FROM STA. 10+00 TO STA. 12+00 LT
–RPBD– FROM STA. 11+50 TO STA. 13+50 RT
–RPA– FROM STA. 14+50 TO STA. 15+00 RT
–Y NB– FROM STA. 29+75 TO STA. 35+00 RT
–Y NB– FROM STA. 30+66 TO STA. 34+00 LT
–Y NB– FROM STA. 24+50 TO STA. 25+00 RT
–Y2– FROM STA. 16+50 TO STA. 26+00 RT
–Y2– FROM STA. 18+00 TO STA. 25+50 LT
–Y4– FROM STA. 36+00 TO STA. 39+50 LT

DETAIL B
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



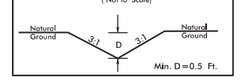
–Y2A– FROM STA. 17+00 TO STA. 17+50 LT
–Y2A– FROM STA. 25+00 TO STA. 27+00 LT
–Y– FROM STA. 33+00 TO STA. 36+00 RT
–Y– FROM STA. 41+50 TO STA. 43+00 RT
–Y2B– FROM STA. 9+58 RT TO STA. 11+34 LT
–Y NB– FROM STA. 20+00 TO STA. 24+50 RT
–Y NB– FROM STA. 35+00 TO STA. 39+00 RT
–RPBD– FROM STA. 10+00 TO STA. 11+50 RT
–Y2– FROM STA. 10+65 TO STA. 15+50 RT
–Y2– FROM STA. 10+85 TO STA. 15+50 LT
–Y2– FROM STA. 25+50 TO STA. 26+10 LT
–Y2– FROM STA. 28+50 TO STA. 31+75 LT
–Y2B– FROM STA. 12+00 TO STA. 16+44 RT
–Y2B– FROM STA. 12+00 TO STA. 16+00 LT
–Y1A– FROM STA. 10+50 TO STA. 13+85 LT
–Y1A– FROM STA. 10+50 TO STA. 14+00 RT
–Y1A– FROM STA. 18+00 TO STA. 19+00 LT

DETAIL C
LINEAR WETLAND SWALE
(Not to Scale)



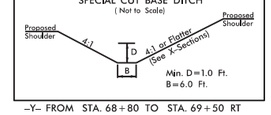
–Y NB – FROM STA. 34+00 TO STA. 36+00 LT
–Y NB – FROM STA. 38+50 TO STA. 41+50 LT

DETAIL D
STANDARD 'V' DITCH
(Not to Scale)



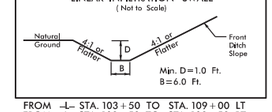
–Y1A– STA. 14+00 RT; DDE=42 cu.ft.
–Y1A– STA. 16+58 LT; DDE=185 cu.ft.
–Y1A– STA. 16+66 RT; DDE=60 cu.ft.
–Y1A– STA. 19+00 RT; DDE=94 cu.ft.

DETAIL E
SPECIAL CUT BASE DITCH
(Not to Scale)



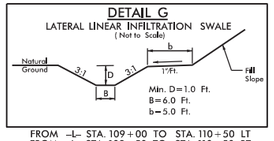
–Y– FROM STA. 68+80 TO STA. 69+50 RT

DETAIL F
LINEAR INFILTRATION SWALE
(Not to Scale)



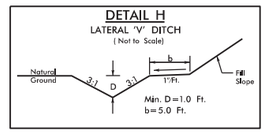
FROM –L– STA. 103+50 TO STA. 109+00 LT
FROM –L– STA. 103+50 TO STA. 109+50 RT

DETAIL G
LATERAL LINEAR INFILTRATION SWALE
(Not to Scale)



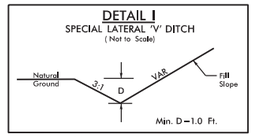
FROM –L– STA. 109+00 TO STA. 110+50 LT
FROM –L– STA. 109+50 TO STA. 110+50 RT

DETAIL H
LATERAL 'V' DITCH
(Not to Scale)



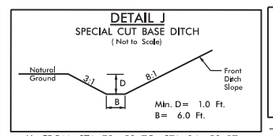
FROM –L– STA. 112+00 TO STA. 116+00 LT

DETAIL I
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



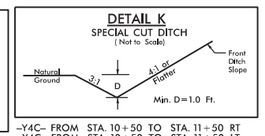
–Y– FROM STA. 70+50 TO STA. 72+50 RT

DETAIL J
SPECIAL CUT BASE DITCH
(Not to Scale)



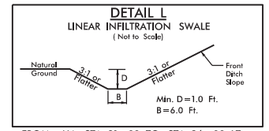
–Y– FROM STA. 72+50 TO STA. 84+50 RT

DETAIL K
SPECIAL CUT DITCH
(Not to Scale)



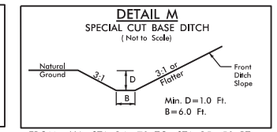
–Y4C– FROM STA. 10+50 TO STA. 11+50 RT
–Y4C– FROM STA. 10+50 TO STA. 11+50 LT
–Y– FROM STA. 15+00 TO STA. 16+00 RT
–Y2B– FROM STA. 10+75 LT TO STA. 11+50 RT
–Y7– FROM STA. 51+30 TO STA. 52+30 LT
–Y7– FROM STA. 58+27 TO STA. 59+50 LT

DETAIL L
LINEAR INFILTRATION SWALE
(Not to Scale)



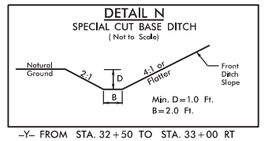
FROM –Y4– STA. 21+00 TO STA. 26+00 LT
FROM –Y4– STA. 20+50 TO STA. 22+50 RT
–Y5– FROM STA. 10+28 TO STA. 19+00 RT
–Y5R– FROM STA. 11+60 TO STA. 13+10 RT

DETAIL M
SPECIAL CUT BASE DITCH
(Not to Scale)



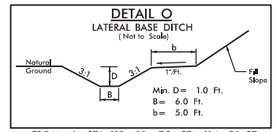
FROM –Y4– STA. 24+70 TO STA. 25+50 RT
FROM –Y4– STA. 30+50 TO STA. 32+50 RT
FROM –Y4– STA. 37+00 TO STA. 37+50 RT
FROM –Y4– STA. 39+50 TO STA. 42+50 RT

DETAIL N
SPECIAL CUT BASE DITCH
(Not to Scale)



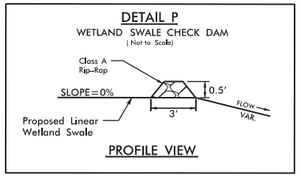
–Y– FROM STA. 32+50 TO STA. 33+00 RT

DETAIL O
LATERAL BASE DITCH
(Not to Scale)



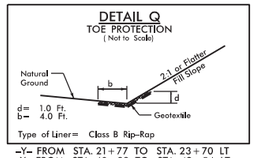
FROM –L– STA. 113+00 TO STA. 114+50 RT

DETAIL P
WETLAND SWALE CHECK DAM
(Not to Scale)



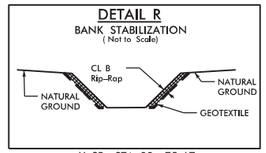
–Y2A– STA. 12+50 LT
–Y2A– STA. 13+00 RT
–Y2A– STA. 15+00 LT
–Y2A– STA. 15+00 RT
–Y2A– STA. 16+00 LT
–Y2A– STA. 16+50 RT
–Y2– STA. 18+50 LT
–Y2– STA. 18+50 RT
–Y2– STA. 22+00 LT
–Y2– STA. 22+50 RT
–Y2– STA. 23+00 LT
–Y2– STA. 24+50 RT
–Y2– STA. 25+50 LT
–Y2– STA. 25+50 RT
–Y– STA. 23+40 RT
–Y– STA. 28+75 RT
–Y– STA. 32+50 RT
–Y– STA. 34+00 RT
–Y– STA. 41+00 RT
–Y NB– STA. 31+50 LT
–Y NB– STA. 32+00 RT
–Y NB– STA. 32+50 LT
–Y NB– STA. 33+00 RT
–Y NB– STA. 40+00 LT
–Y NB– STA. 40+50 LT
–Y4– STA. 21+00 RT
–Y4– STA. 37+45 LT
–Y4– STA. 38+00 LT
–Y5– STA. 10+70 RT
–Y5– STA. 11+50 RT
–Y5– STA. 12+50 RT
–Y5– STA. 13+50 RT
–Y5– STA. 14+50 RT
–Y5R– STA. 12+70 RT

DETAIL Q
TOE PROTECTION
(Not to Scale)



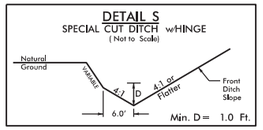
–Y– FROM STA. 21+77 TO STA. 23+70 LT
–Y– FROM STA. 40+83 TO STA. 42+54 LT
–Y– FROM STA 84+63 TO STA. 90+06 RT
–Y– FROM STA 91+24 TO STA. 99+89 RT
–Y– FROM STA. 94+20 TO STA. 98+11 LT
–Y1A– FROM STA. 24+37 TO STA. 24+57 LT
–Y1A– FROM STA. 24+59 TO STA. 24+92 RT

DETAIL R
BANK STABILIZATION
(Not to Scale)



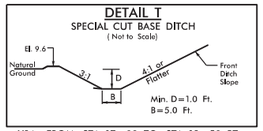
–Y SB– STA. 22+75 LT

DETAIL S
SPECIAL CUT DITCH wHINGE
(Not to Scale)



–Y– FROM STA. 18+00 TO STA. 19+00 RT
–Y– FROM STA. 20+00 TO STA. 22+85 RT

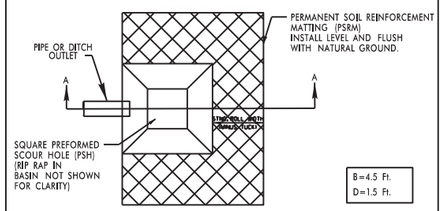
DETAIL T
SPECIAL CUT BASE DITCH
(Not to Scale)



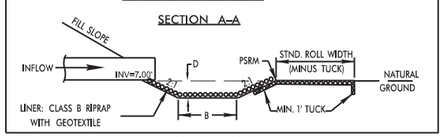
–Y2A– FROM STA. 17+00 TO STA. 18+50 RT

DETAIL U
PREFORMED SCOUR HOLE

PLAN VIEW

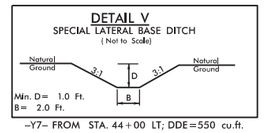


SECTION A–A



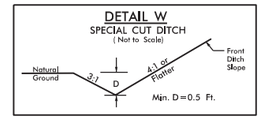
-L2- STA. 366+85 RT

DETAIL V
SPECIAL LATERAL BASE DITCH
(Not to Scale)



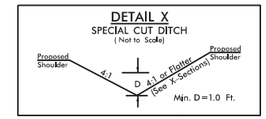
–Y7– FROM STA. 44+00 LT; DDE=550 cu.ft.

DETAIL W
SPECIAL CUT DITCH
(Not to Scale)



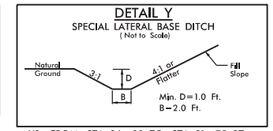
–Y2A– FROM STA. 22+50 TO STA. 23+50 LT

DETAIL X
SPECIAL CUT DITCH
(Not to Scale)



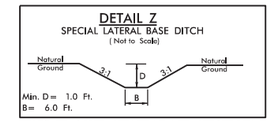
–Y– FROM STA. 69+50 TO STA. 73+00 RT

DETAIL Y
SPECIAL LATERAL BASE DITCH
(Not to Scale)



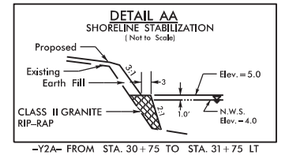
–Y2– FROM STA. 26+00 TO STA. 31+75 RT
–Y2A– FROM STA. 16+00 TO STA. 17+00 LT

DETAIL Z
SPECIAL LATERAL BASE DITCH
(Not to Scale)



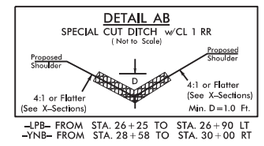
–Y NB– FROM STA. 42+50 TO STA. 46+14 LT

DETAIL AA
SHORELINE STABILIZATION
(Not to Scale)



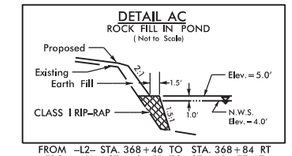
–Y2A– FROM STA. 30+75 TO STA. 31+75 LT

DETAIL AB
SPECIAL CUT DITCH w/CL 1 RR
(Not to Scale)



–LPB– FROM STA. 26+25 TO STA. 26+90 LT
–YNB– FROM STA. 28+58 TO STA. 30+00 RT

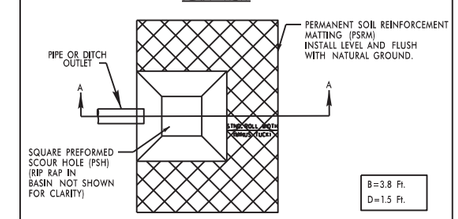
DETAIL AC
ROCK FILL IN POND
(Not to Scale)



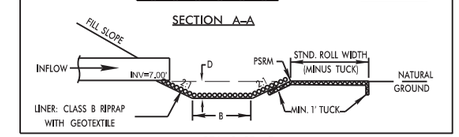
FROM –L2– STA. 368+46 TO STA. 368+84 RT
FROM –Y4– STA. 41+52 TO STA. 42+77 LT

DETAIL AD
PREFORMED SCOUR HOLE

PLAN VIEW

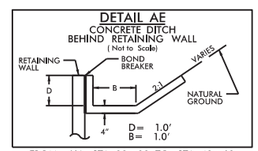


SECTION A–A



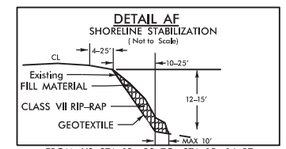
-L STA. 19+65 LT

DETAIL AE
CONCRETE DITCH BEHIND RETAINING WALL
(Not to Scale)



FROM –Y4– STA. 39+80 TO STA. 40+60

DETAIL AF
SHORELINE STABILIZATION
(Not to Scale)



FROM Y3 STA. 12+90 TO STA. 15+14 RT

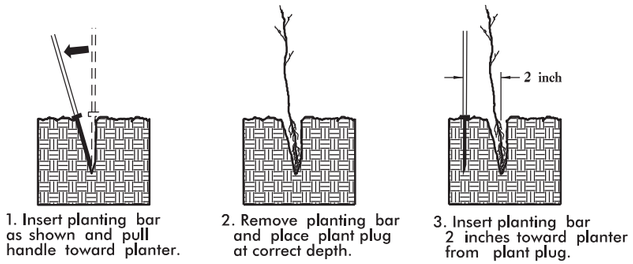
6/2/99
6/13/2024
R-2576_HYD_prm_details.dgn

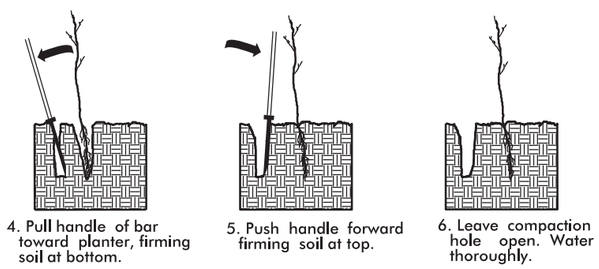
PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 3 OF 89

PLANTING DETAILS

DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR





PLANTING NOTES:

PLANTING BAG
During planting, plant plugs shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.

KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.

WET SWALE GRASS PLANTING

☐ WETLAND GRASS SPECIES SHALL BE PLANTED 18″ ON CENTER, APPROXIMATELY 19,360 PLANTS PER ACRE.

NOTE: SEE WET SWALE GRASS PLANTING DETAIL

WET SWALE GRASS PLANTING

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

ZONE 1

50% SAGITTARIA LANCIFOLIA	BULL TONGUE	1.5″ X 5″ DEEP PLUG
50% SCHOENOPLECTUS TABERNAEMONTANI	SOFTSTEM BULLRUSH	1.5″ X 5″ DEEP PLUG

ZONE 2

50% CAREX VULPINOIDA	FOX SEDGE	1.5″ X 5″ DEEP PLUG
50% JUNCUS EFFUSUS	SOFT RUSH	1.5″ X 5″ DEEP PLUG

ZONE 3

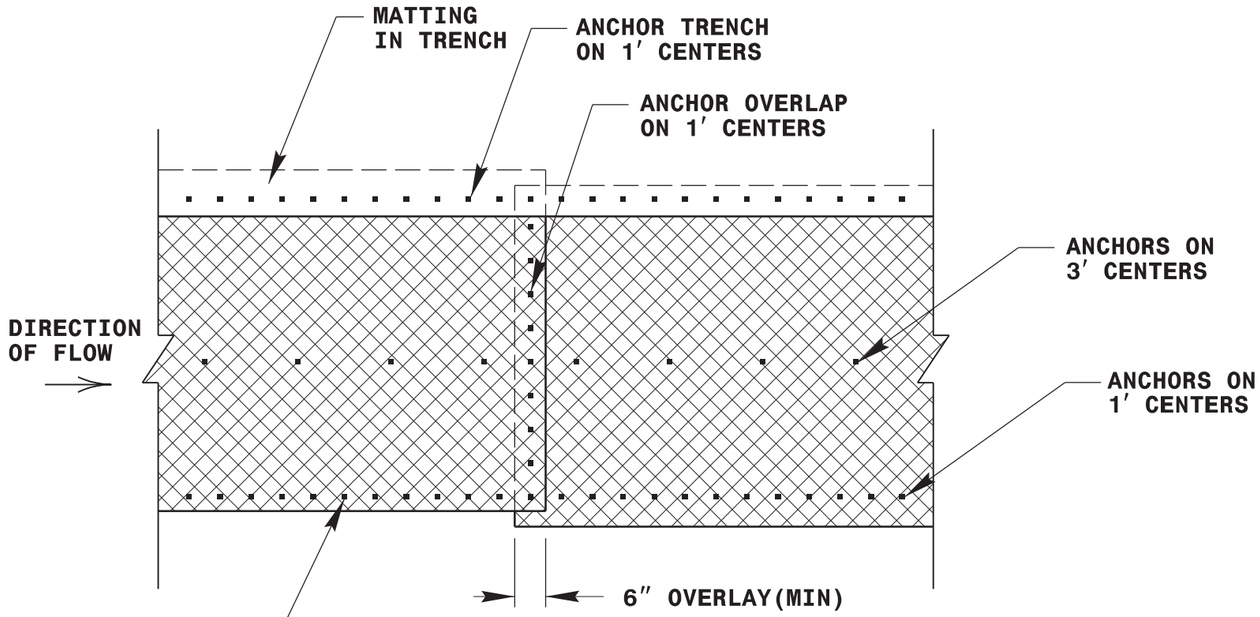
SEE PROJECT SPECIAL PROVISION FOR SEED MIX

WETLAND GRASS PLANTING DETAIL SHEET 1 OF 3

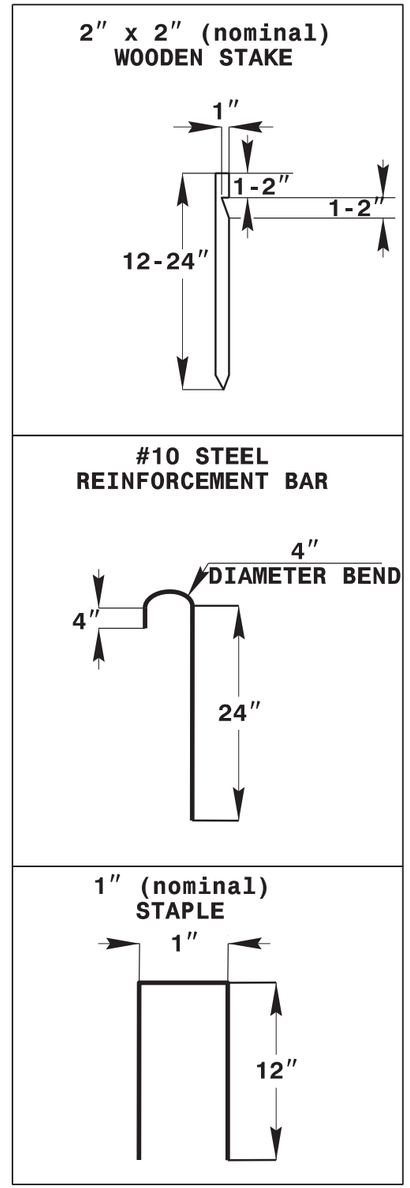
N.C.D.O.T. - ROADSIDE ENVIRONMENTAL UNIT

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

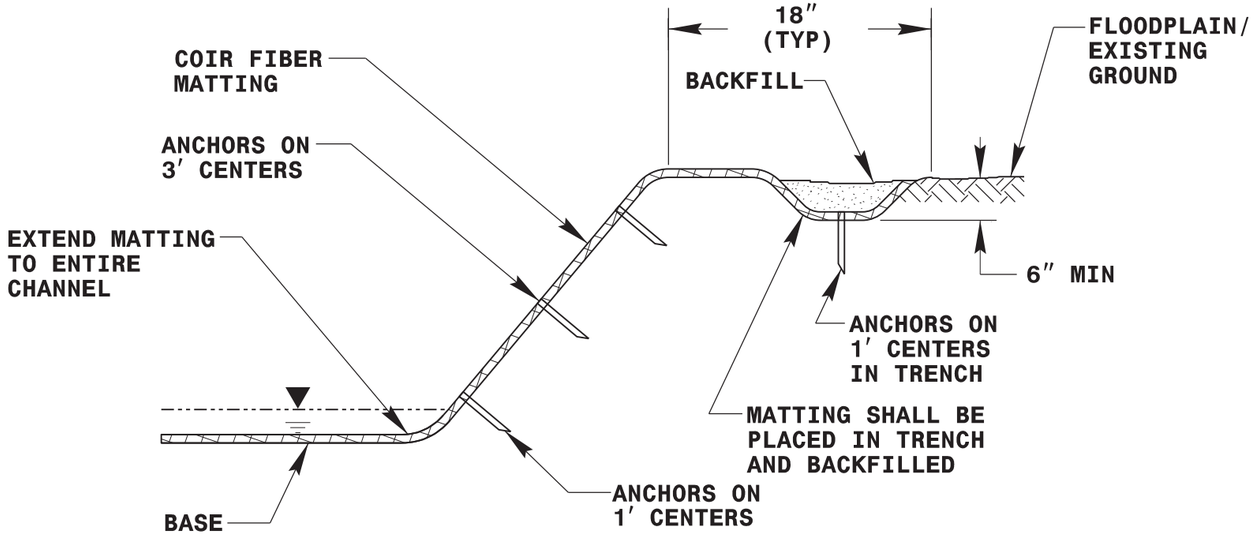
PERMIT DRAWING
SHEET 4 OF 89



PLAN VIEW



ANCHOR OPTIONS



TYPICAL CROSS SECTION

COIR FIBER MATTING DETAIL

NOT TO SCALE

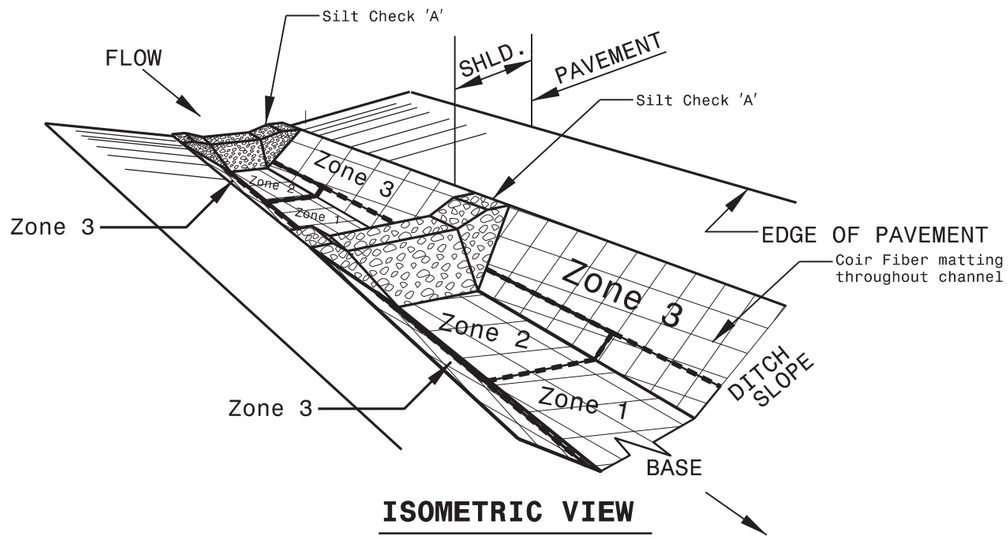
WET SWALE
DETAIL SHEET 2 OF 3

N.C.D.O.T.- ROADSIDE ENVIRONMENTAL UNIT

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 5 OF 89

WET SWALE GRASS PLANTING DETAIL

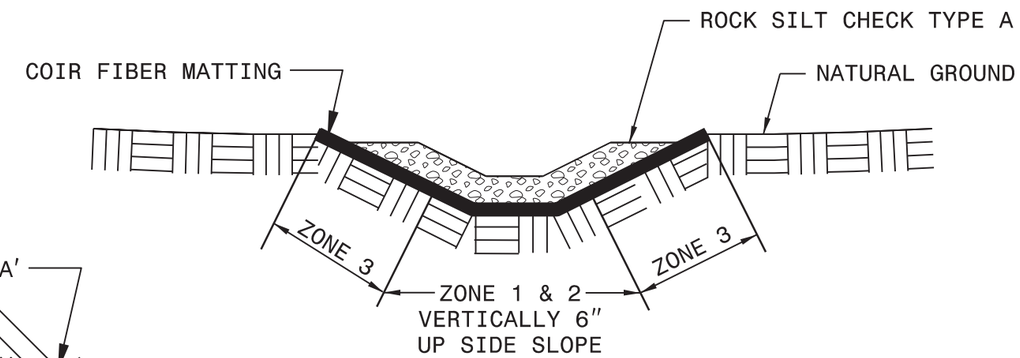


ISOMETRIC VIEW

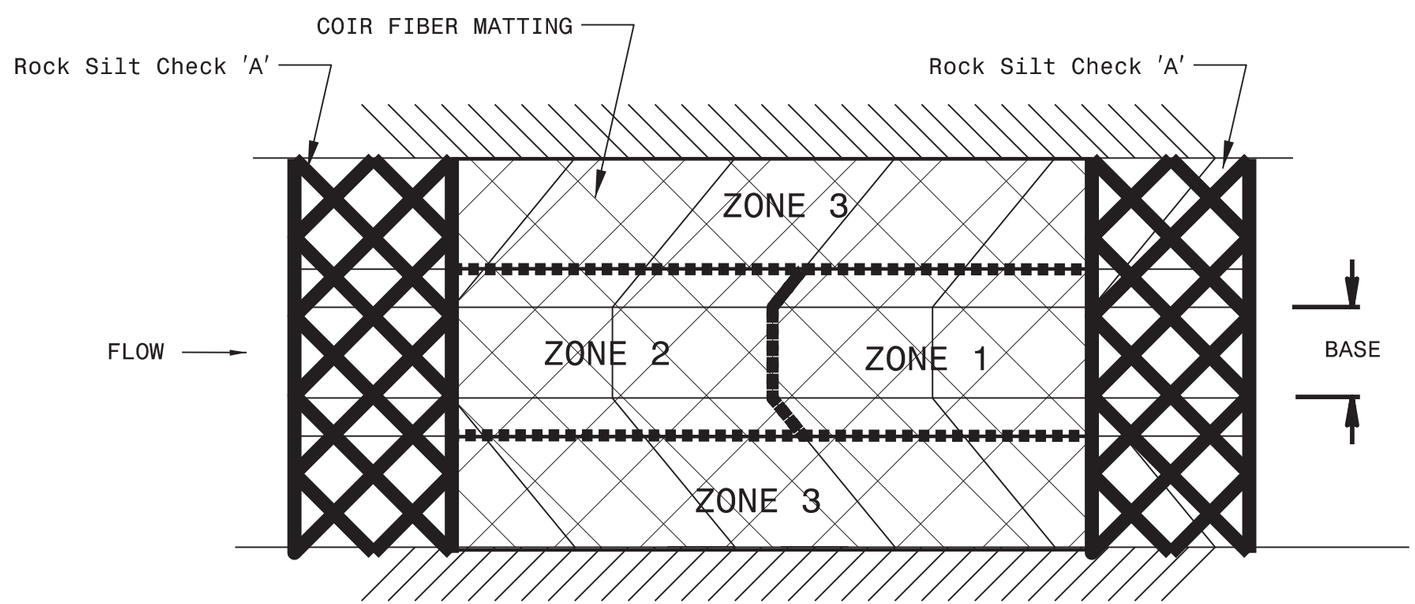
NOTES:

SEE DETAIL "XX" FOR SWALE DIMENSIONS.

INSTALL COIR MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS AND DETAIL 2 OF 3.



CROSS SECTION
TRAPEZOIDAL DITCH



TOP VIEW

LOCHNER

H. W. LOCHNER, INC.
7800 FOREST PLACE, SUITE 202
RALEIGH, NC 27615
(919) 577-1731

NC License Number F-0700

STRUDWICK ENGINEERING
1203 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0277
Bus: 919 851 8037
Fax: 919 851 8057

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CONSULTING DESIGN •ENGINEERS •CONSTRUCTION OBSERVATION

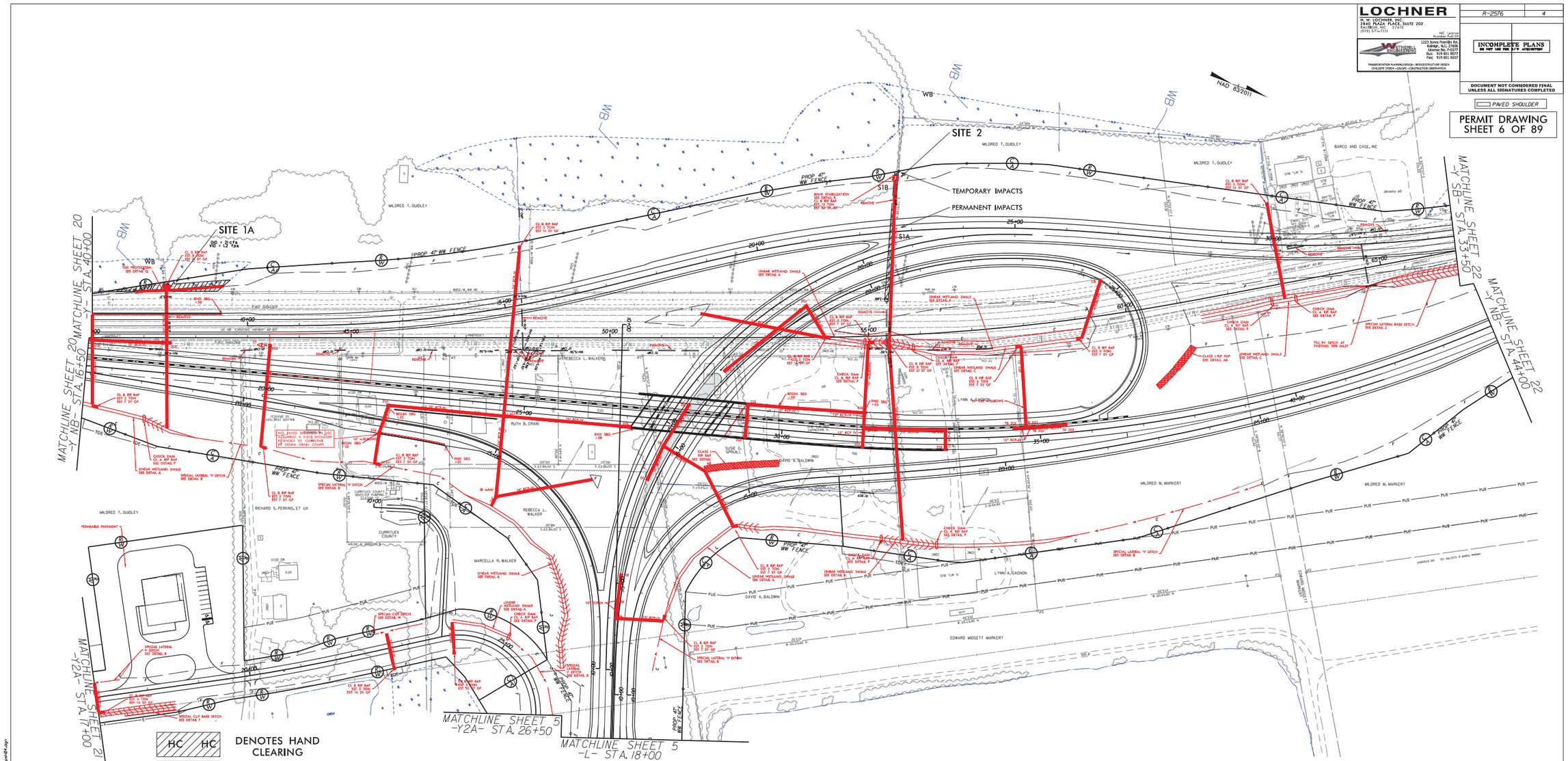
R-2576	4

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

PERMIT DRAWING
SHEET 6 OF 89



HC	HC	DENOTES HAND CLEARING
F	F	DENOTES FILL IN WETLAND
S	S	DENOTES IMPACTS IN SURFACE WATER
TS	TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

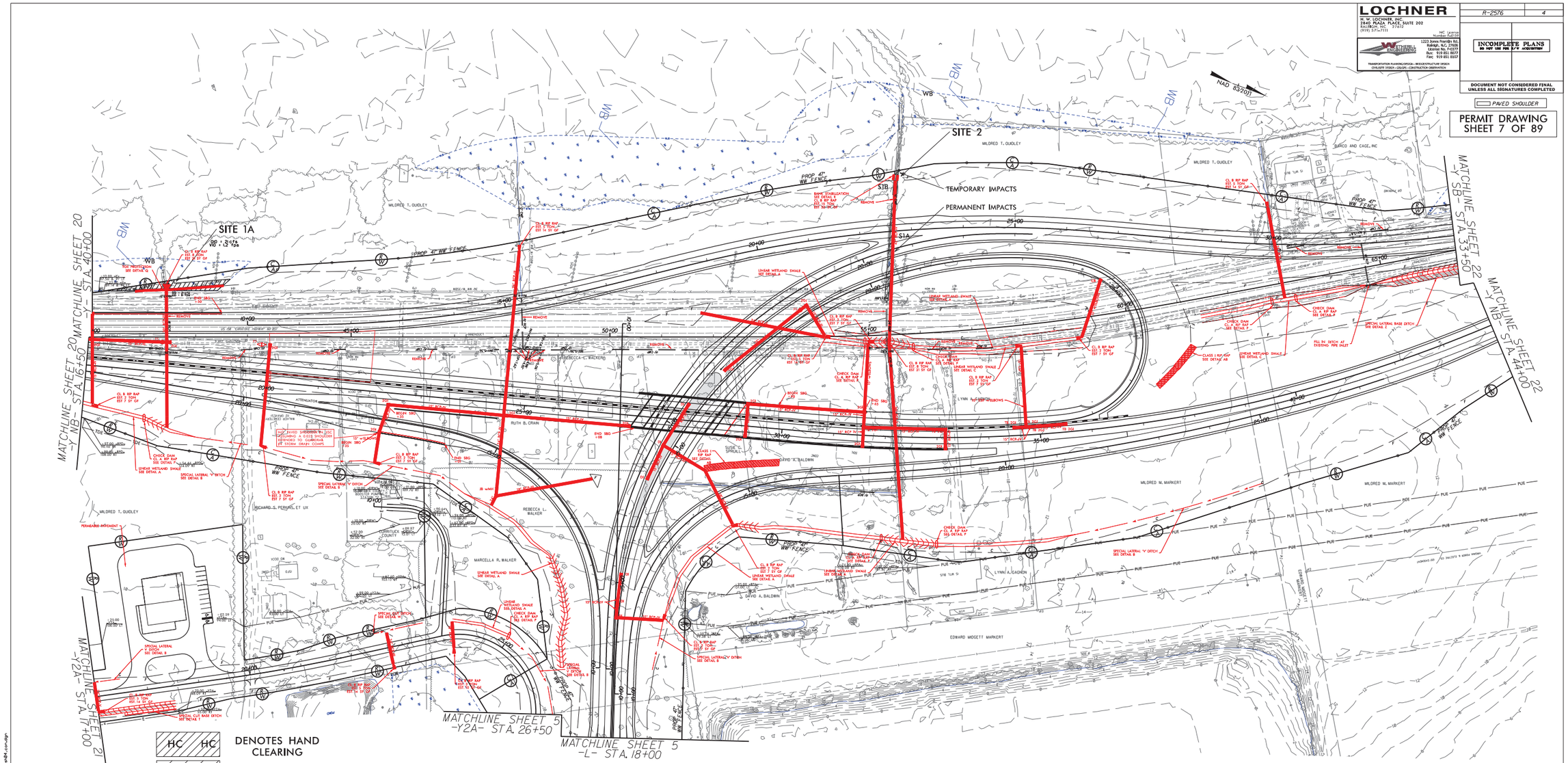
200' 0' 200'
GRAPHIC SCALE

US 158 35,800 / 48,000 — 700 / 1,000 — 11,100 / 17,000 — 47,600 / 64,000 US 158
US 158
11,800 / 18,000
MID-CURRITUCK BRIDGE
2020 ADT
2040 ADT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE
SEE SHEET 39-40 FOR -Y_NB- PROFILE
SEE SHEET 41-42 FOR -LPB- PROFILE
SEE SHEET 42 FOR -RPBD- PROFILE
SEE SHEET 43 FOR -RPA- PROFILE
SEE SHEET 44 FOR -RPD- PROFILE
SEE SHEET 46-47 FOR -Y2A- PROFILE
SEE SHEET 46 FOR -DRM1- PROFILE

MID CURRITUCK (x64) AT US 158 (x94)

PROJECT REFERENCE NO. R-2576
R/W SHEET NO.
PROFILE
DRAWN BY: Strudwick
CHECKED BY:
DATE: 10/26/2016
DESIGN ENGINEER



HC HC	DENOTES HAND CLEARING
F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

US 158 — 35,800 / 48,000 — 7,00 / 10,000 — 11,00 / 17,000 — 47,600 / 64,000 — US 158

11,800 / 18,000 — MID-CURRITUCK BRIDGE — 2020 ADT / 2040 ADT

SEE SHEET 20-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE
SEE SHEET 39-40 FOR -Y_NB- PROFILE
SEE SHEET 41-42 FOR -LPB- PROFILE
SEE SHEET 42 FOR -RPBD- PROFILE
SEE SHEET 43 FOR -RPA- PROFILE
SEE SHEET 44 FOR -RPD- PROFILE
SEE SHEET 46-47 FOR -Y2A- PROFILE
SEE SHEET 46 FOR -DPM1- PROFILE

MID CURRITUCK (v4e) AT US 158 (v4e)

LOCHNER

H. W. LOCHNER, INC.
7800 MCALPINE PLACE, SUITE 202
RALEIGH, NC 27616
(919) 577-1731

NC License Number F-0700

WILLIAMS MULL ENGINEERING
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Raleigh, N.C. 27606
License No. F-0277
Bus: 919 851 8037
Fax: 919 851 8057

R-2576	4

INCOMPLETE PLANS
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

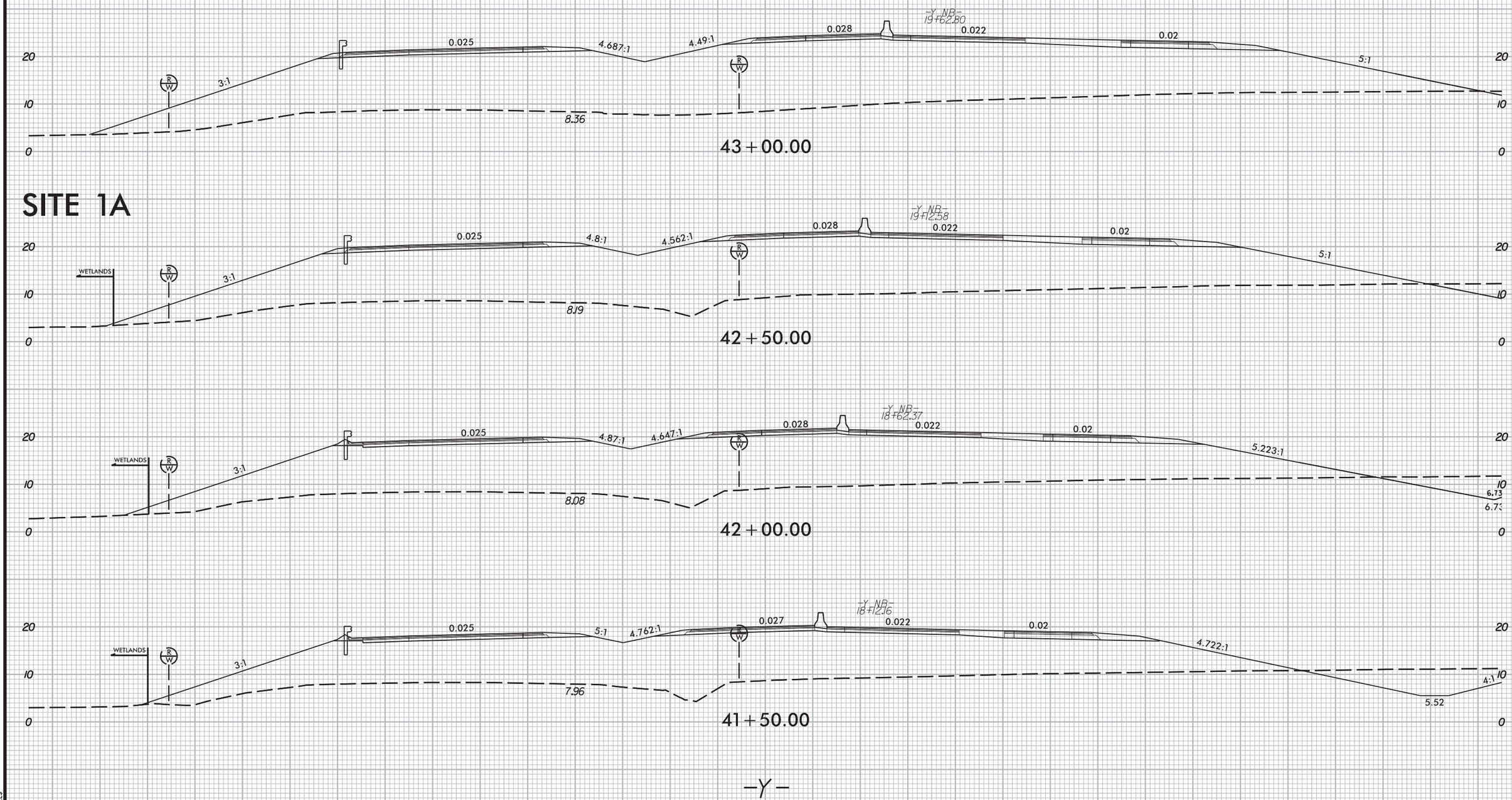
PERMIT DRAWING
SHEET 7 OF 89

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-21

PERMIT DRAWING
SHEET 8 OF 89

SITE 1A



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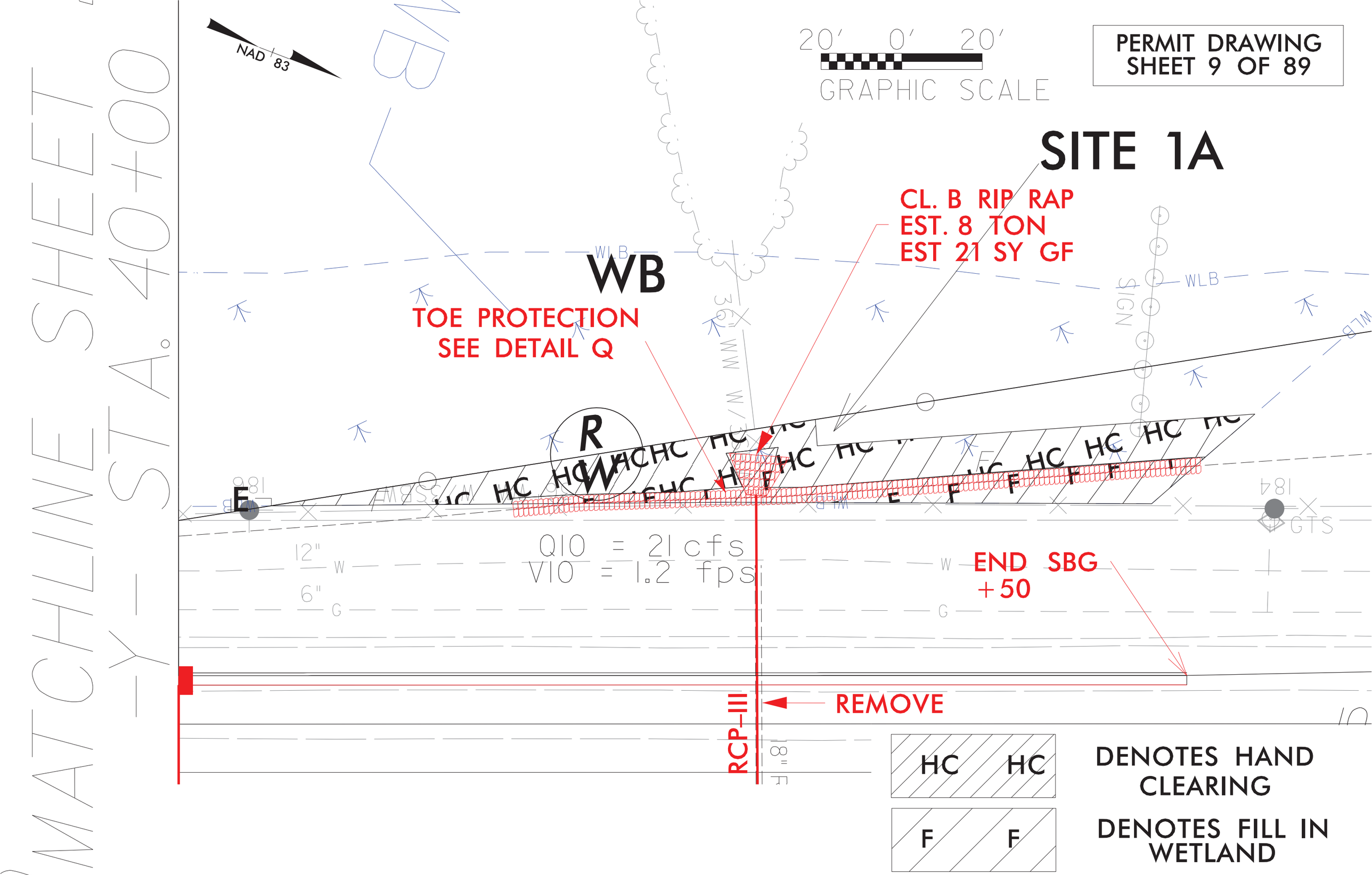
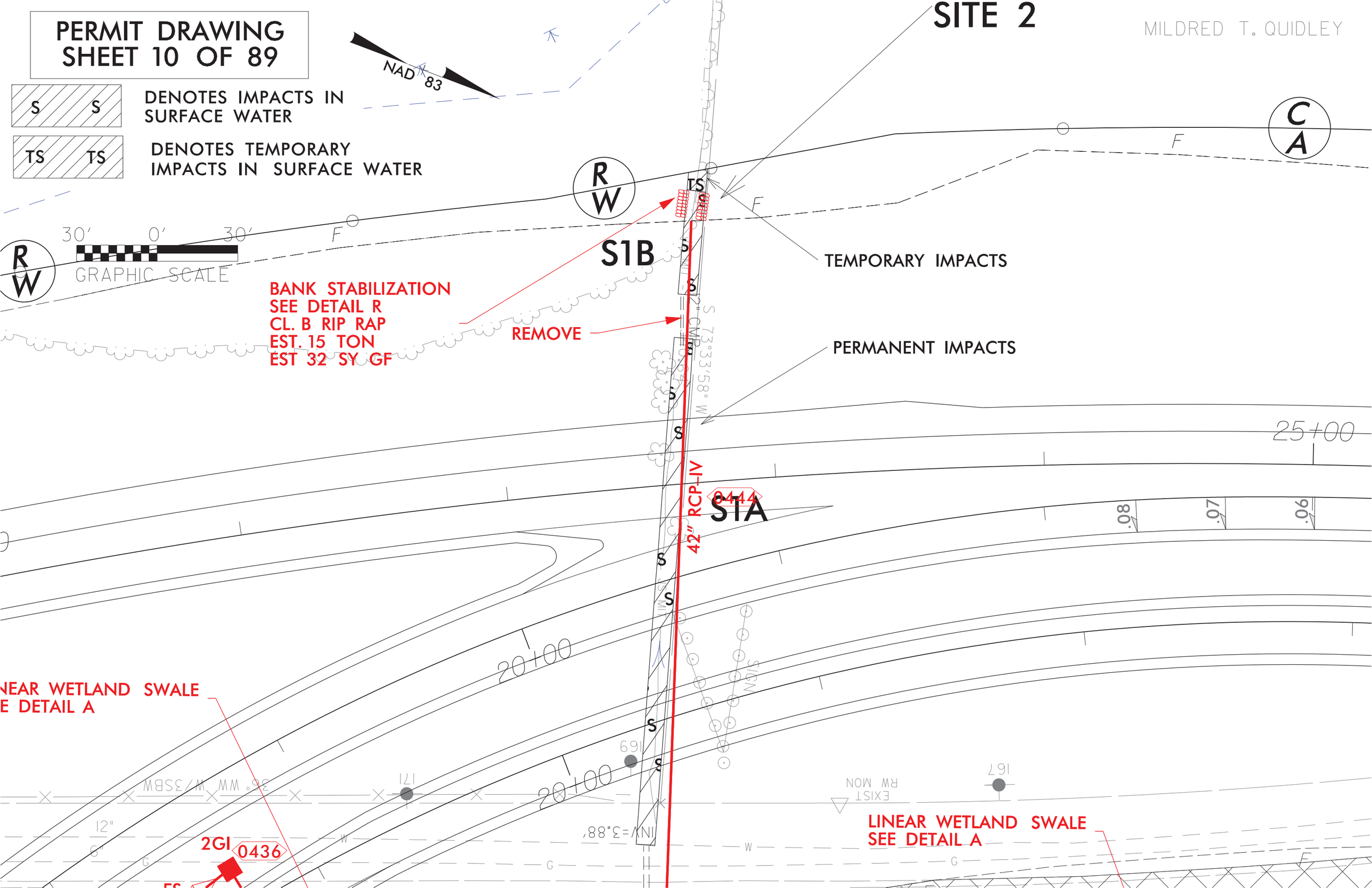
$USERNAME$
$FILE$


PERMIT DRAWING
SHEET 9 OF 89
20' 0' 20'
GRAPHIC SCALE
NAD 83
SITE 1A
CL. B RIP RAP
EST. 8 TON
EST 21 SY GF
WB
TOE PROTECTION
SEE DETAIL Q
R
W
E
Q10 = 21 cfs
V10 = 1.2 fps
END SBG
+50
REMOVE
RCP-III
HC HC
DENOTES HAND CLEARING
F F
DENOTES FILL IN WETLAND
MATCHLINE SHEET
-Y- ST A. 40+00


PERMIT DRAWING
SHEET 10 OF 89
S S
DENOTES IMPACTS IN SURFACE WATER
TS TS
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
NAD 83
SITE 2
MILDRED T. QUIDLEY
C A
R W
30' 0' 30'
GRAPHIC SCALE
S1B
TEMPORARY IMPACTS
BANK STABILIZATION
SEE DETAIL R
CL. B RIP RAP
EST. 15 TON
EST 32 SY GF
REMOVE
PERMANENT IMPACTS
42" RCP-IV
0444
STA
25+00
20+00
.08
.07
.06
NEAR WETLAND SWALE
E DETAIL A
2GI
0436
LINEAR WETLAND SWALE
SEE DETAIL A

6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING)

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING SHEET 11 OF 89

6" SCUPPER ON 12' CENTERS	
88' & 89' SPANS=	7 SCUPPERS LT. & RT.
100' SPAN=	8 SCUPPERS LT. & RT.
73' SPAN=	6 SCUPPERS LT. & RT.
70' SPAN=	5 SCUPPERS LT. & RT

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

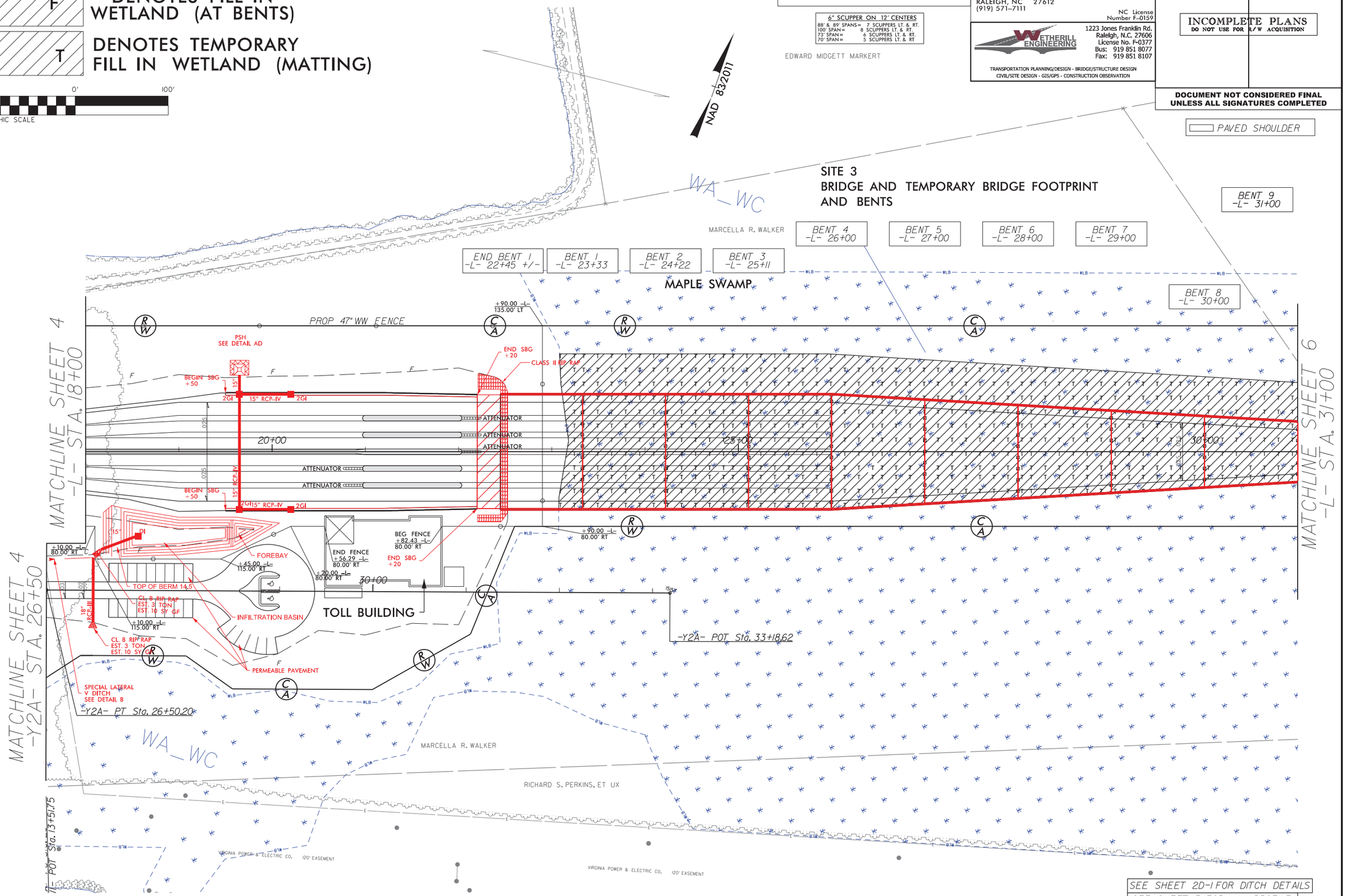
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 47 FOR -Y2A- PROFILE

4/23/2024
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PERMIT DRAWING
SHEET 12 OF 89

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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F F — DENOTES FILL IN WETLAND

T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
88' & 89' SPANS = 7 SCUPPERS LT. & RT.
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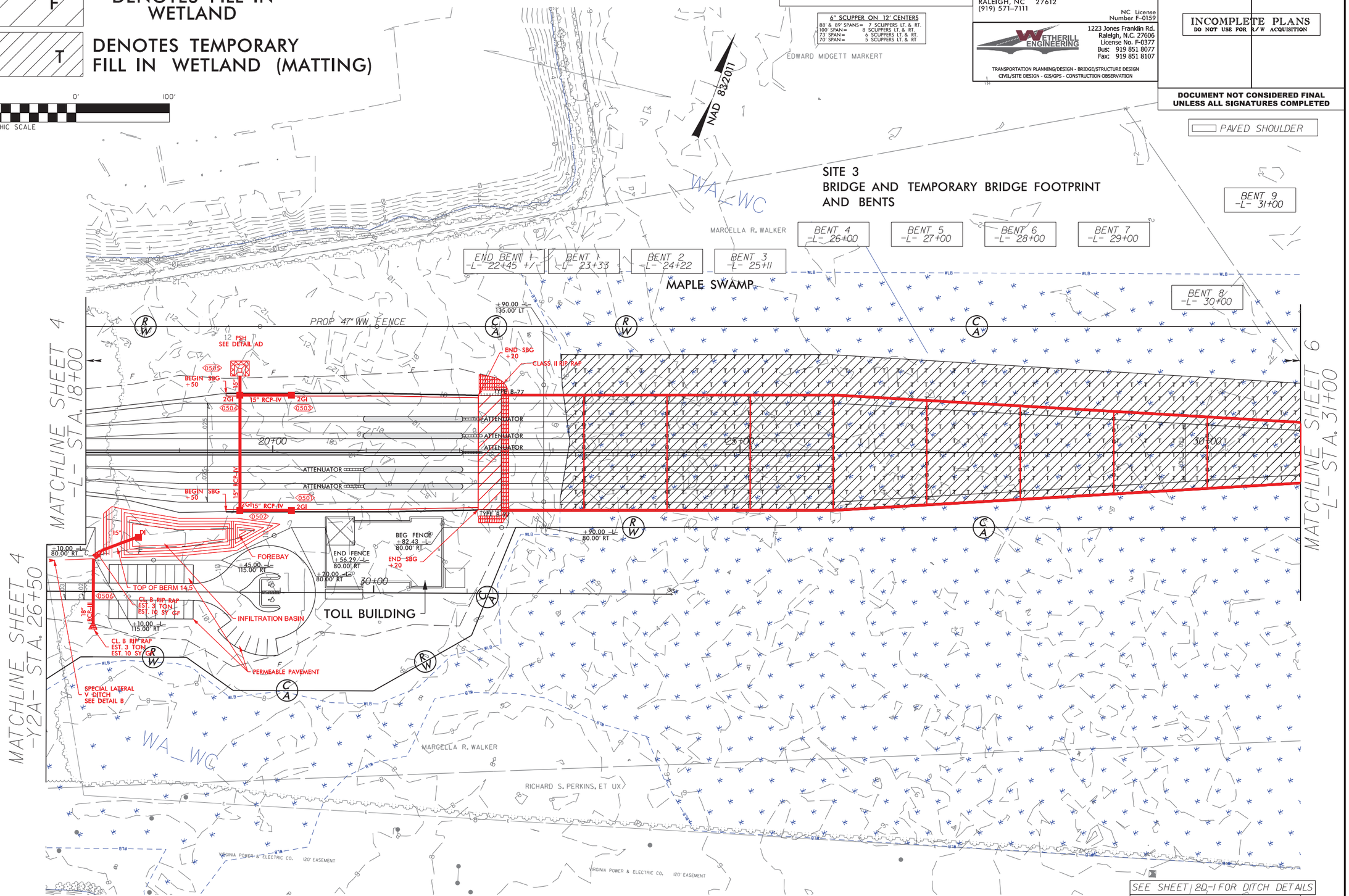
PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 47 FOR -Y2A- PROFILE

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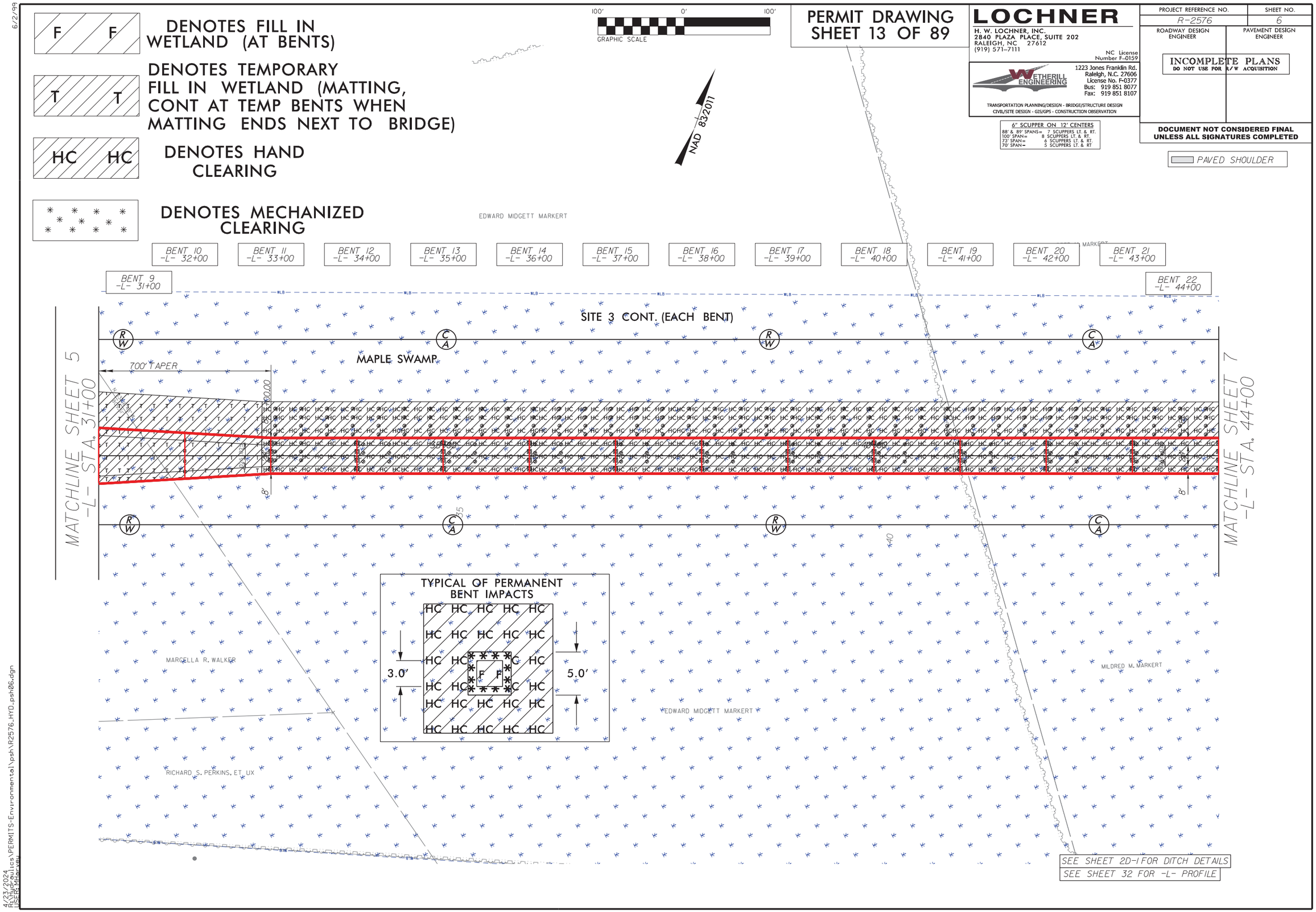
USER: Mlarvey



F F DENOTES FILL IN WETLAND (AT BENTS)
T T DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)
HC HC DENOTES HAND CLEARING
DENOTES MECHANIZED CLEARING
100' 0' 100'
GRAPHIC SCALE
NAD 83/2011
PERMIT DRAWING
SHEET 13 OF 89
LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
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NC License Number F-0159
WETHERILL ENGINEERING
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
6" SCUPPER ON 12' CENTERS
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70' SPAN= 5 SCUPPERS LT. & RT
PROJECT REFERENCE NO. R-2576
SHEET NO. 6
ROADWAY DESIGN ENGINEER
PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
PAVED SHOULDER
EDWARD MIDGETT MARKERT
BENT 10 -L- 32+00
BENT 11 -L- 33+00
BENT 12 -L- 34+00
BENT 13 -L- 35+00
BENT 14 -L- 36+00
BENT 15 -L- 37+00
BENT 16 -L- 38+00
BENT 17 -L- 39+00
BENT 18 -L- 40+00
BENT 19 -L- 41+00
BENT 20 -L- 42+00
BENT 21 -L- 43+00
BENT 9 -L- 31+00
BENT 22 -L- 44+00
SITE 3 CONT. (EACH BENT)
MAPLE SWAMP
700' TAPER
MATCHLINE SHEET 5 -L- STA. 31+00
MATCHLINE SHEET 7 -L- STA. 44+00
TYPICAL OF PERMANENT BENT IMPACTS
3.0'
5.0'
MARCELLA R. WALKER
RICHARD S. PERKINS, ET UX
EDWARD MIDGETT MARKERT
MILDRED M. MARKERT
SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE
6/2/99
4/23/2024
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USER: MHarvey

6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

HC HC DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 14 OF 89

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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70' SPAN= 5 SCUPPERS LT. & RT

PAVED SHOULDER

NAD 83/2011

EDWARD MIDGETT MARKERT

BENT 9 -L- 31+00
BENT 10 -L- 32+00
BENT 11 -L- 33+00
BENT 12 -L- 34+00
BENT 13 -L- 35+00
BENT 14 -L- 36+00
BENT 15 -L- 37+00
BENT 16 -L- 38+00
BENT 17 -L- 39+00
BENT 18 -L- 40+00
BENT 19 -L- 41+00
BENT 20 -L- 42+00
BENT 21 -L- 43+00
BENT 22 -L- 44+00

WLB

SITE 3 CONT. (EACH BENT)

MAPLE SWAMP

MATCHLINE SHEET 5 -L- STA. 31+00

MATCHLINE SHEET 7 -L- STA. 44+00

TYPICAL OF PERMANENT BENT IMPACTS

3.0' 5.0'

MARCELLA R. WALKER

RICHARD S. PERKINS, ET UX

EDWARD MIDGETT MARKERT

MILDRED M. MARKERT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE

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USER:Mbarvey

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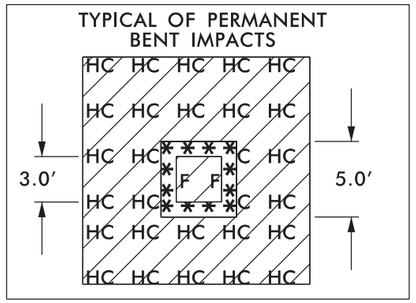
HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 15 OF 89

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
88' & 89' SPANS = 7 SCUPPERS LT. & RT.
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Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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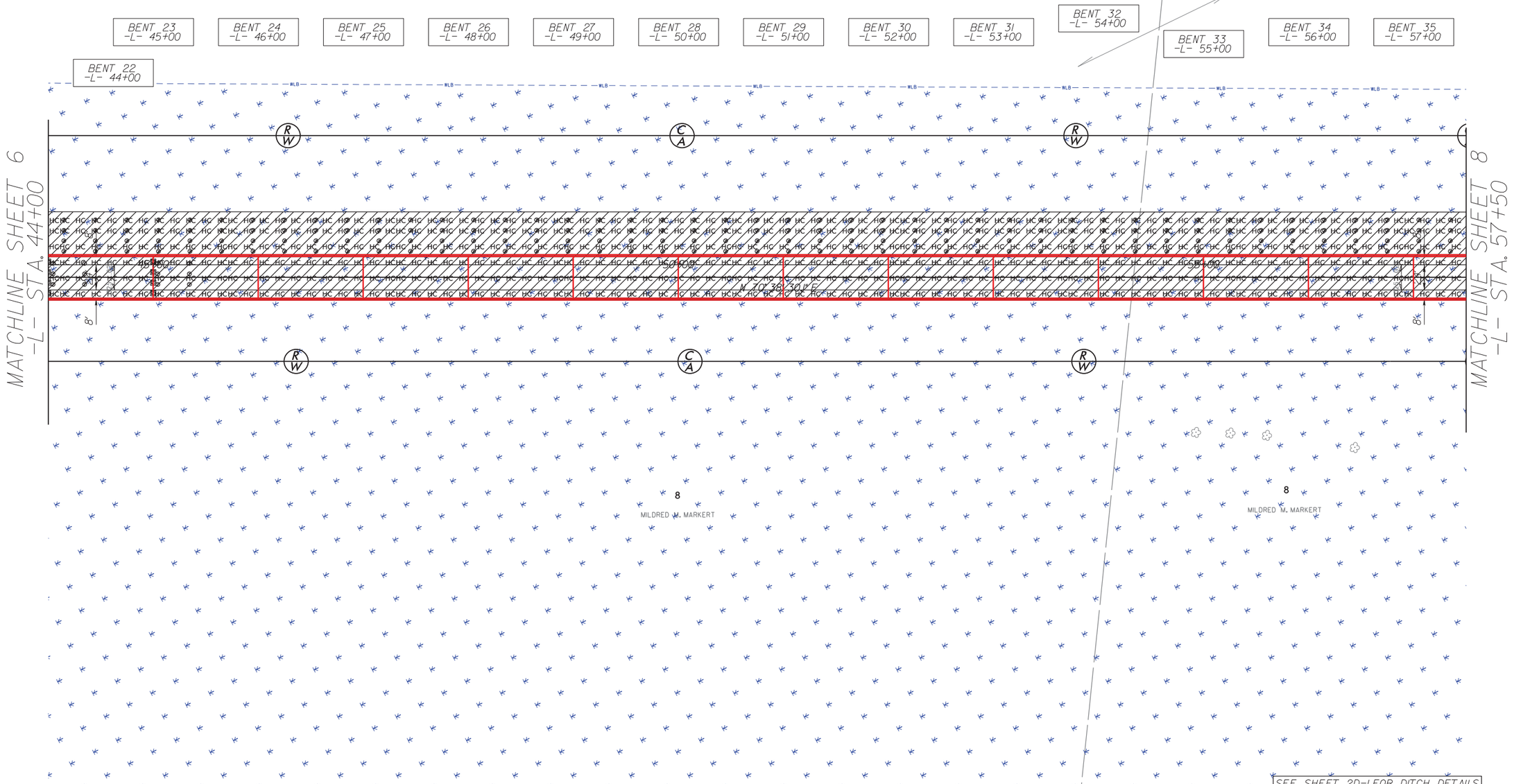
PAVED SHOULDER



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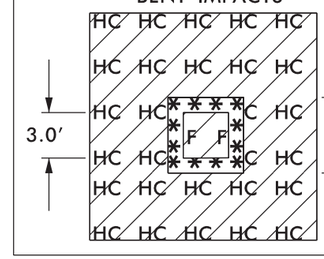
HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 16 OF 89

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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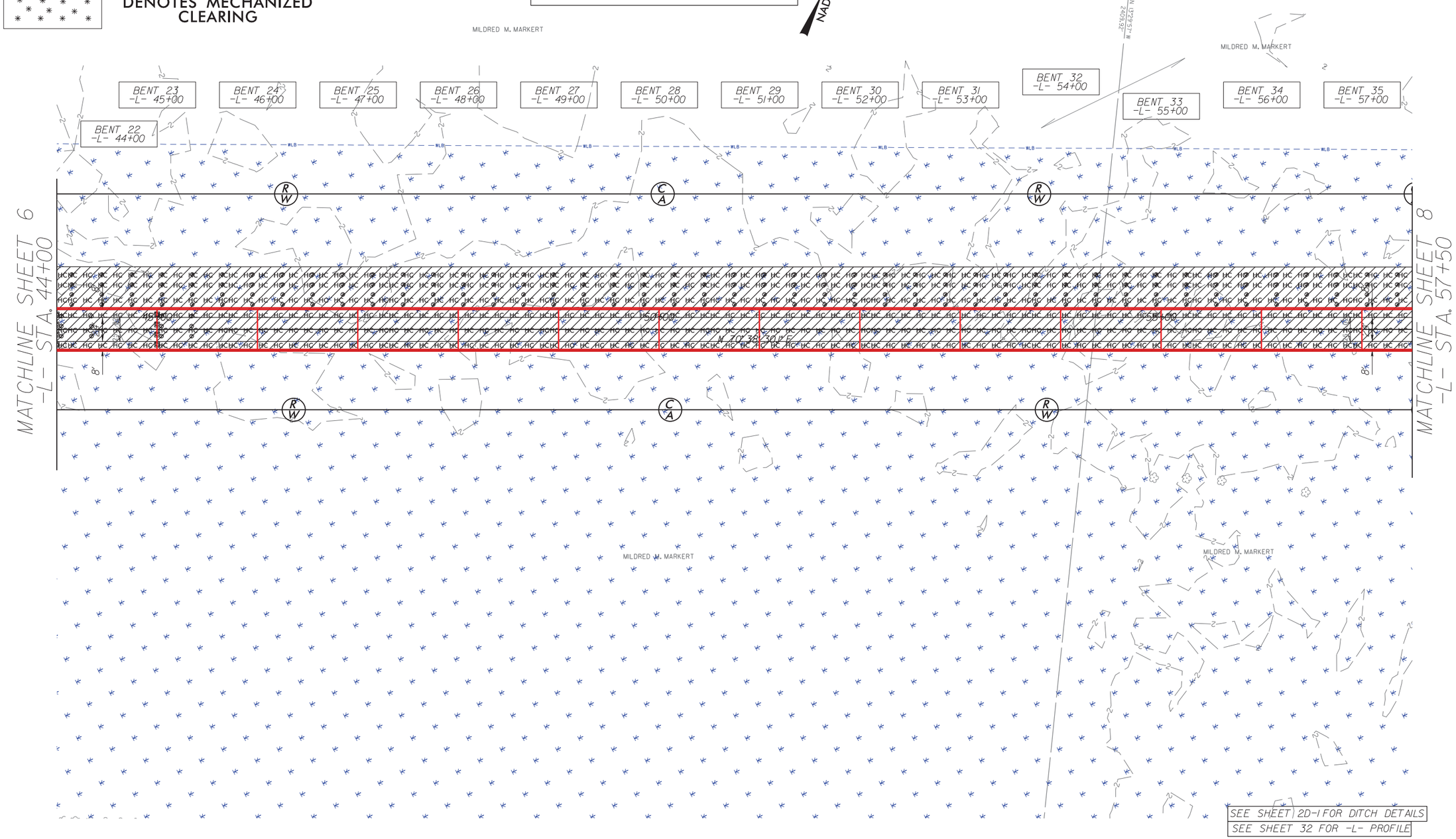
PAVED SHOULDER



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USER:MHarvey

6/2/99

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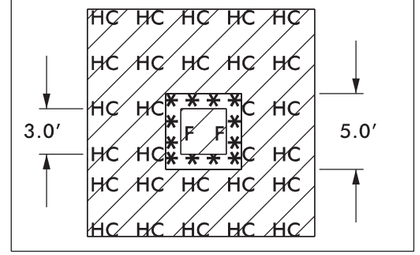
HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



MILDRED M. MARKERT

NAD 83/2011

PERMIT DRAWING SHEET 17 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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100' 0' 100'
GRAPHIC SCALE

PAVED SHOULDER

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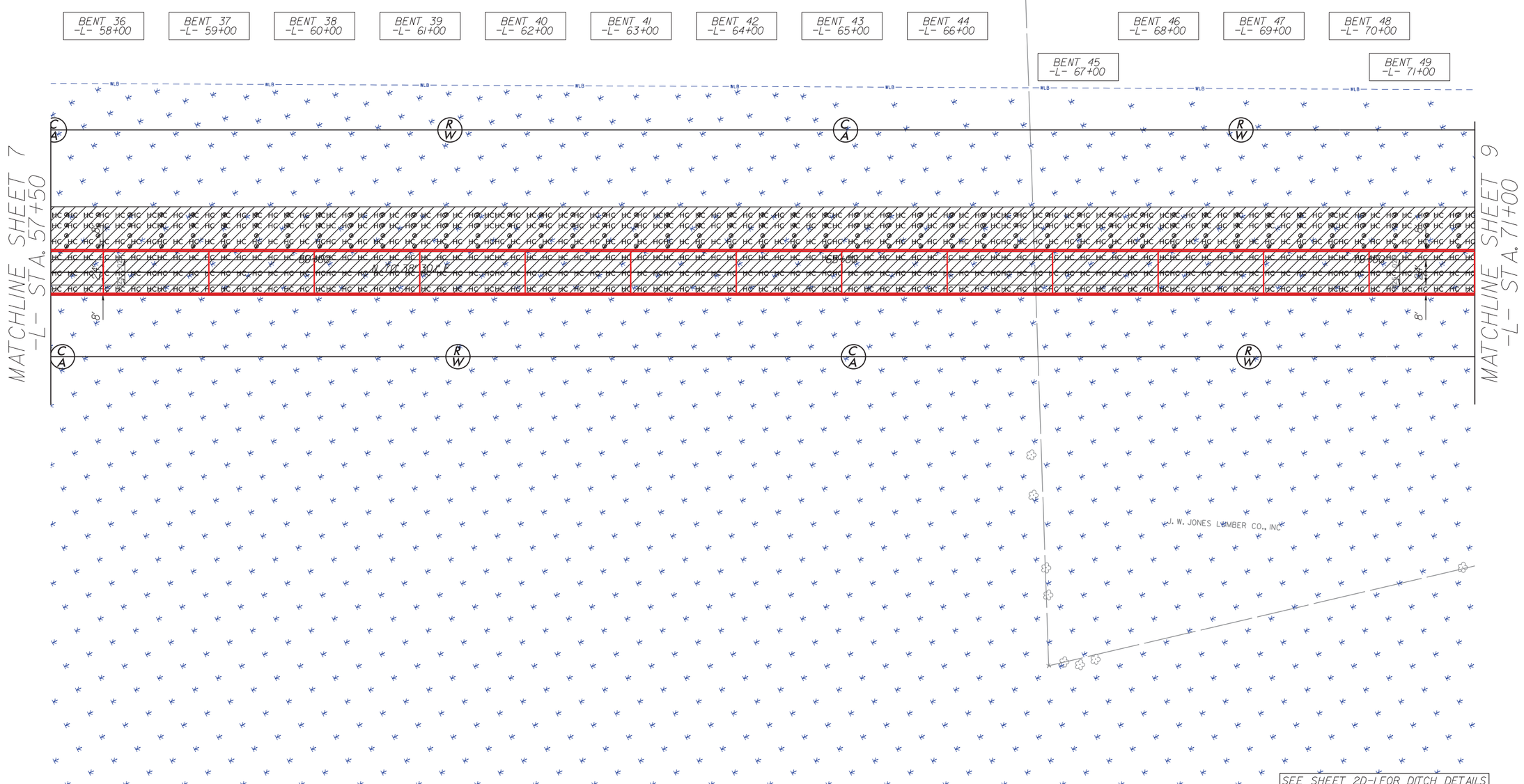

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

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T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

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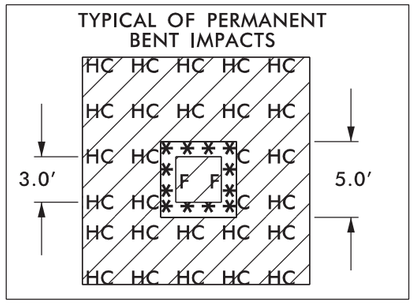
HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 18 OF 89

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Fax: 919 851 8107
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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PAVED SHOULDER

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
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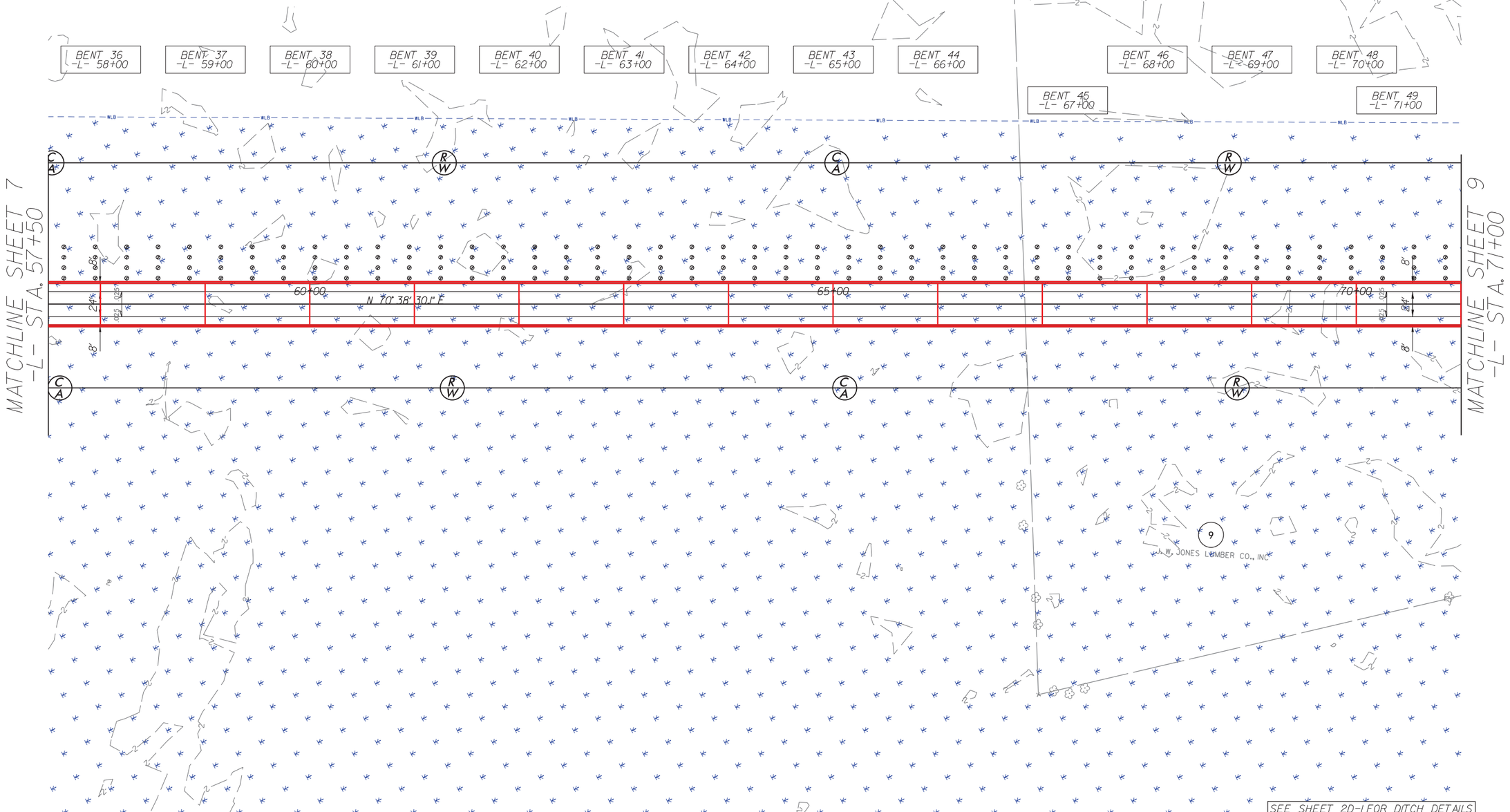
NAD 83/2011

N 70°38'30.1" E



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

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USER:MMarvel

6/2/99

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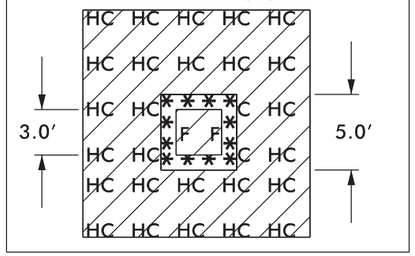
HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



9

J. W. JONES LUMBER CO., INC

NAD 83/2011

PERMIT DRAWING SHEET 19 OF 89

100' 0' 100'

GRAPHIC SCALE

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	9
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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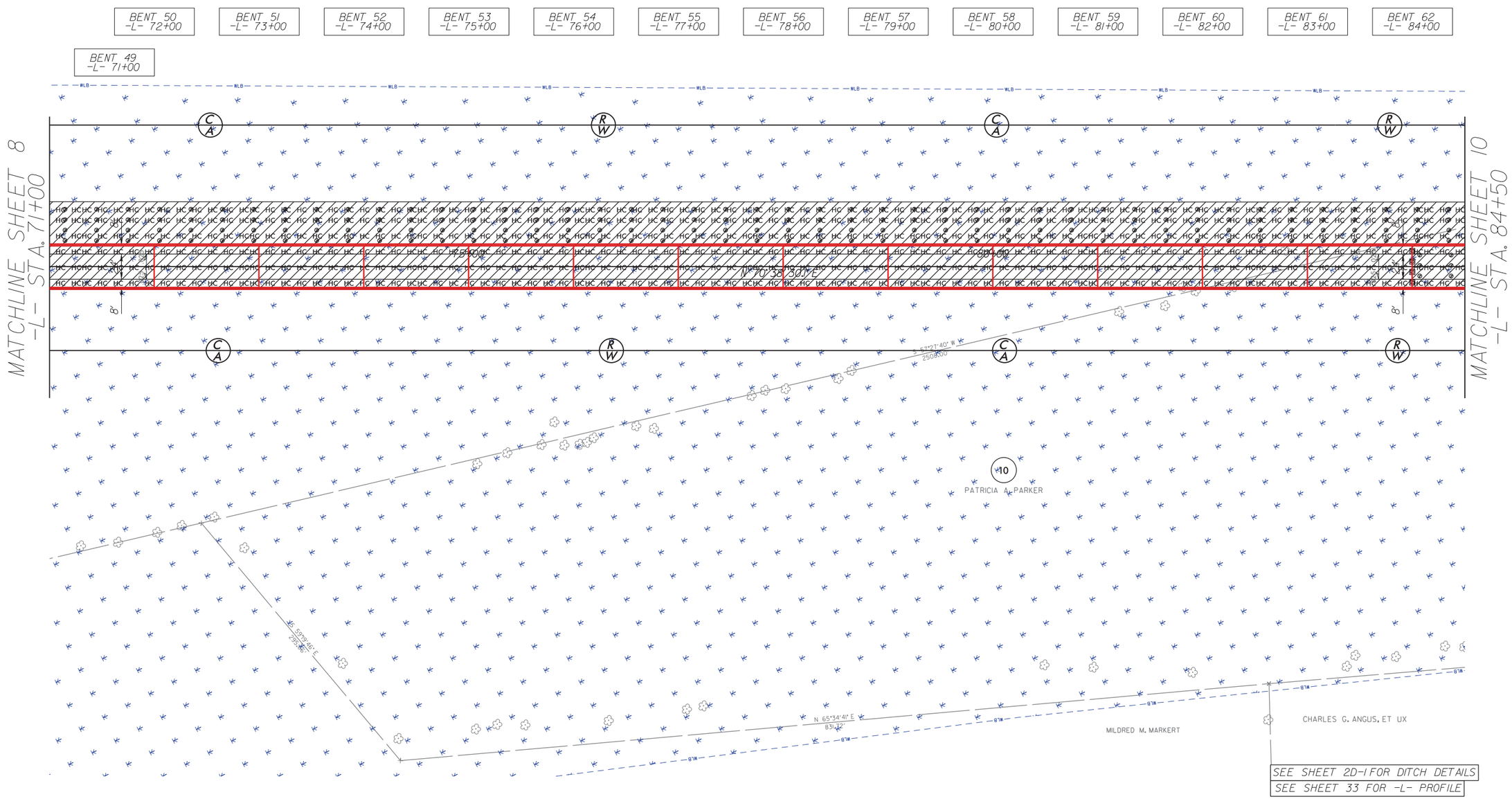
PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

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R:\Roadways\PERMITS-Environmental\psh\R2576_hyd_psh09.dgn
USER: Mharvey

6/2/99

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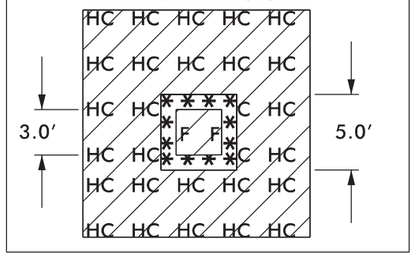
HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

TYPICAL OF PERMANENT BENT IMPACTS



PERMIT DRAWING SHEET 20 OF 89

100' 0' 100'
GRAPHIC SCALE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	9
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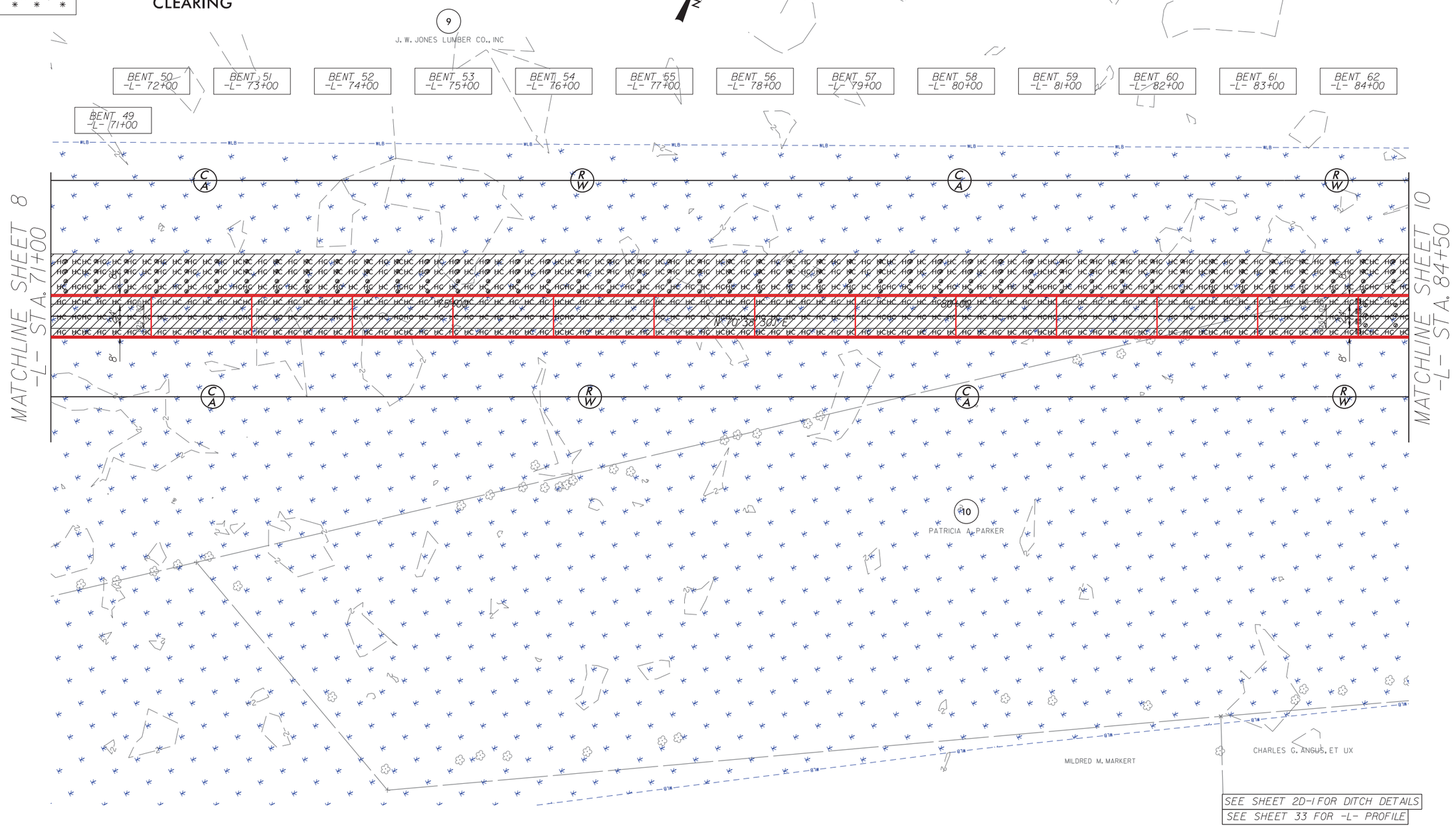
100' SPAN = 8 SCUPPERS LT. & RT.
73' SPAN = 6 SCUPPERS LT. & RT.
70' SPAN = 5 SCUPPERS LT. & RT

PAVED SHOULDER

NAD 83/2011



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

4/23/2024
R:\Hydraulics\PERMITS-Environmental\psh\R2576_hyd_psh09_con.dgn
USER: Mharvey

6/2/99

F F — DENOTES FILL IN WETLAND (AT BENTS)

T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 21 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

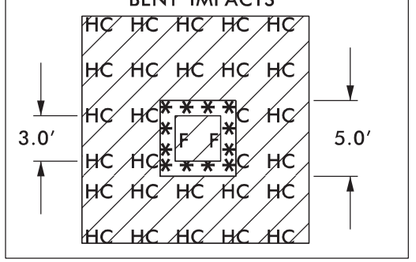
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	10
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

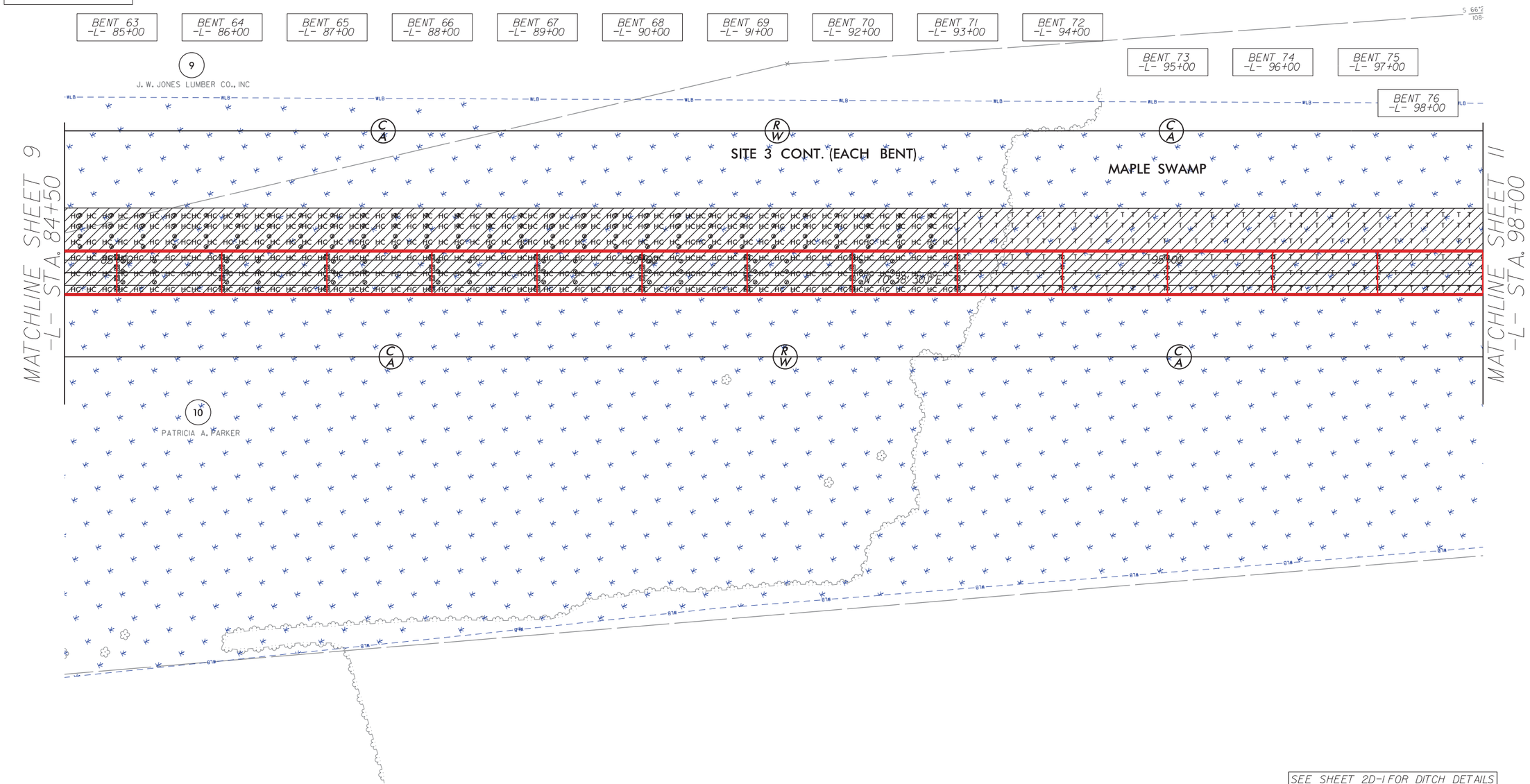
TYPICAL OF PERMANENT BENT IMPACTS



6" SCUPPER ON 12' CENTERS
88' & 89' SPANS = 7 SCUPPERS LT. & RT.
100' SPAN = 8 SCUPPERS LT. & RT.
73' SPAN = 6 SCUPPERS LT. & RT.
70' SPAN = 5 SCUPPERS LT. & RT

PAVED SHOULDER

NAD 83/2011



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 34 FOR -L- PROFILE

4/23/2024
R:\Hydraulics\PERMITS-Environmental\psh\R2576_HYD_psh10.dgn
USER:MHarvey

6/2/99

F F — DENOTES FILL IN WETLAND (AT BENTS)

T T — DENOTES TEMPORARY FILL IN WETLAND (MATTING, CONT AT TEMP BENTS WHEN MATTING ENDS NEXT TO BRIDGE)

HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 22 OF 89

LOCHNER
H. W. LOCHNER, INC.
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RALEIGH, NC 27612
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NC License Number F-0159

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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

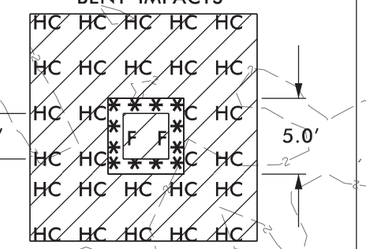
PROJECT REFERENCE NO.	SHEET NO.
R-2576	10
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

TYPICAL OF PERMANENT BENT IMPACTS



6" SCUPPER ON 12' CENTERS
88' & 89' SPANS = 7 SCUPPERS LT. & RT.
100' SPAN = 8 SCUPPERS LT. & RT.
73' SPAN = 6 SCUPPERS LT. & RT.
70' SPAN = 5 SCUPPERS LT. & RT

NAD 83/2011

BENT 63 -L- 85+00
BENT 64 -L- 86+00
BENT 65 -L- 87+00
BENT 66 -L- 88+00
BENT 67 -L- 89+00
BENT 68 -L- 90+00
BENT 69 -L- 91+00
BENT 70 -L- 92+00
BENT 71 -L- 93+00
BENT 72 -L- 94+00
BENT 73 -L- 95+00
BENT 74 -L- 96+00
BENT 75 -L- 97+00
BENT 76 -L- 98+00

J. W. JONES LUMBER CO., INC.

SITE 3 CONT. (EACH BENT)

MAPLE SWAMP

MATCHLINE SHEET 9 -L- STA. 84+50

MATCHLINE SHEET 11 -L- STA. 98+00

N 10°38'30" E

PATRICIA A. PARKER

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 34 FOR -L- PROFILE

4/23/2024
R:\Hydraulics\PERMITS-Environmental\psh\R2576_HYD_psh10_con.dgn
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6/2/99

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING)

PERMIT DRAWING SHEET 23 OF 89

LOCHNER
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2840 PLAZA PLACE, SUITE 202
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(919) 571-7111
NC License Number F-0159

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Raleigh, N.C. 27606
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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	11
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

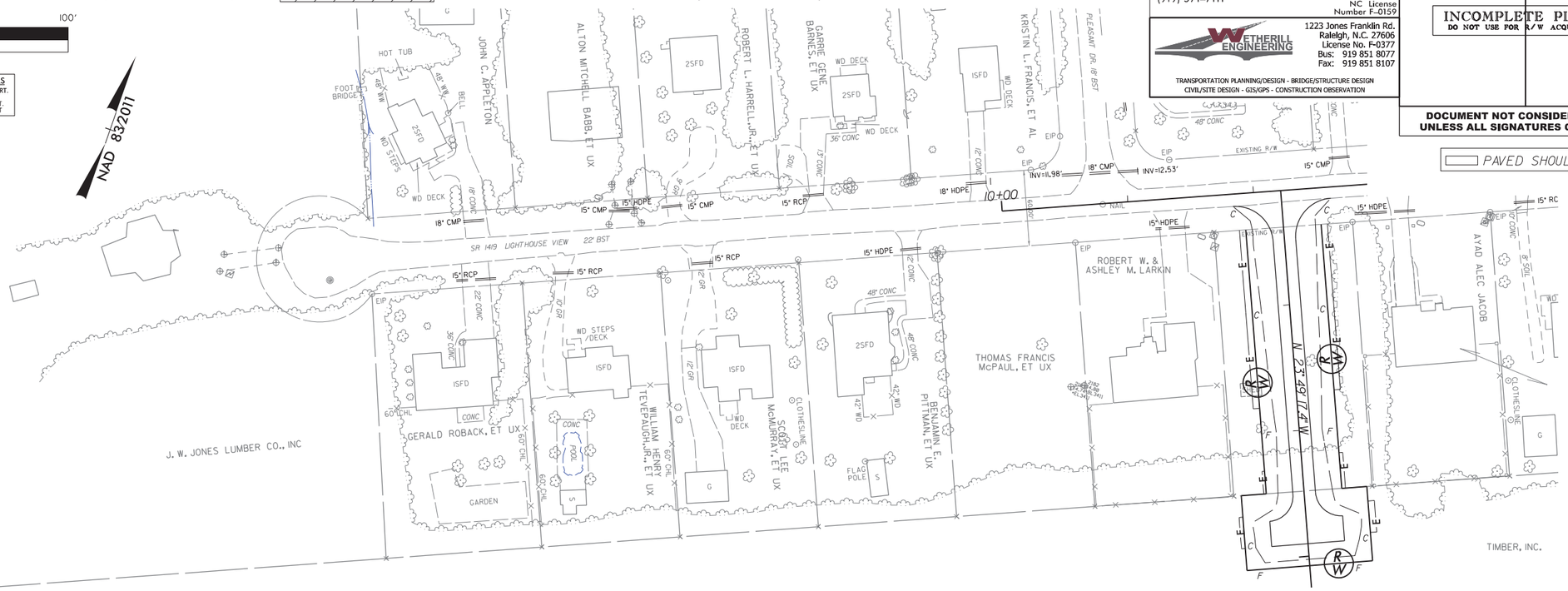
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
88' & 89' SPANS= 7 SCUPPERS LT. & RT.
100' SPAN= 8 SCUPPERS LT. & RT.
73' SPAN= 6 SCUPPERS LT. & RT.
70' SPAN= 5 SCUPPERS LT. & RT

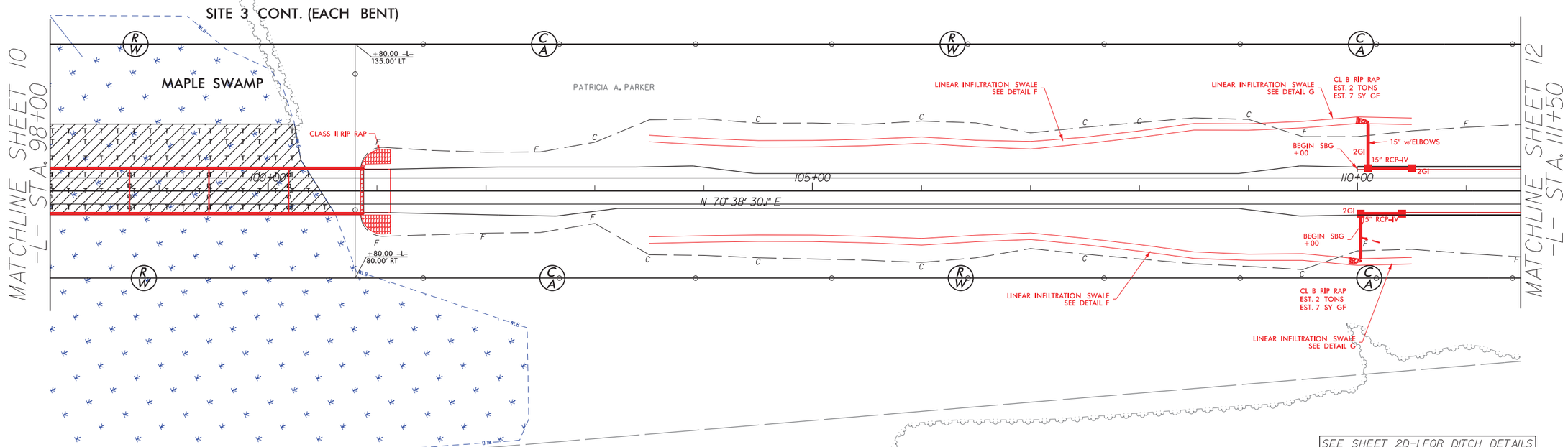
NAD 83/2011



BENT 77 -L- 98+73 | BENT 78 -L- 99+46 | BENT 79 -L- 100+19 | END BENT 2 -L- 100+88 +/-

BENT 76 -L- 98+00

SITE 3 CONT. (EACH BENT)



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 47 FOR -Y3B- PROFILE
SEE SHEET 34 FOR -L- PROFILE

6/13/2024
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USER: Mdarvey

F F DENOTES FILL IN WETLAND (AT BENTS)

T T DENOTES TEMPORARY FILL IN WETLAND (MATTING)

PERMIT DRAWING
SHEET 24 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
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WETHERILL ENGINEERING
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Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	11
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

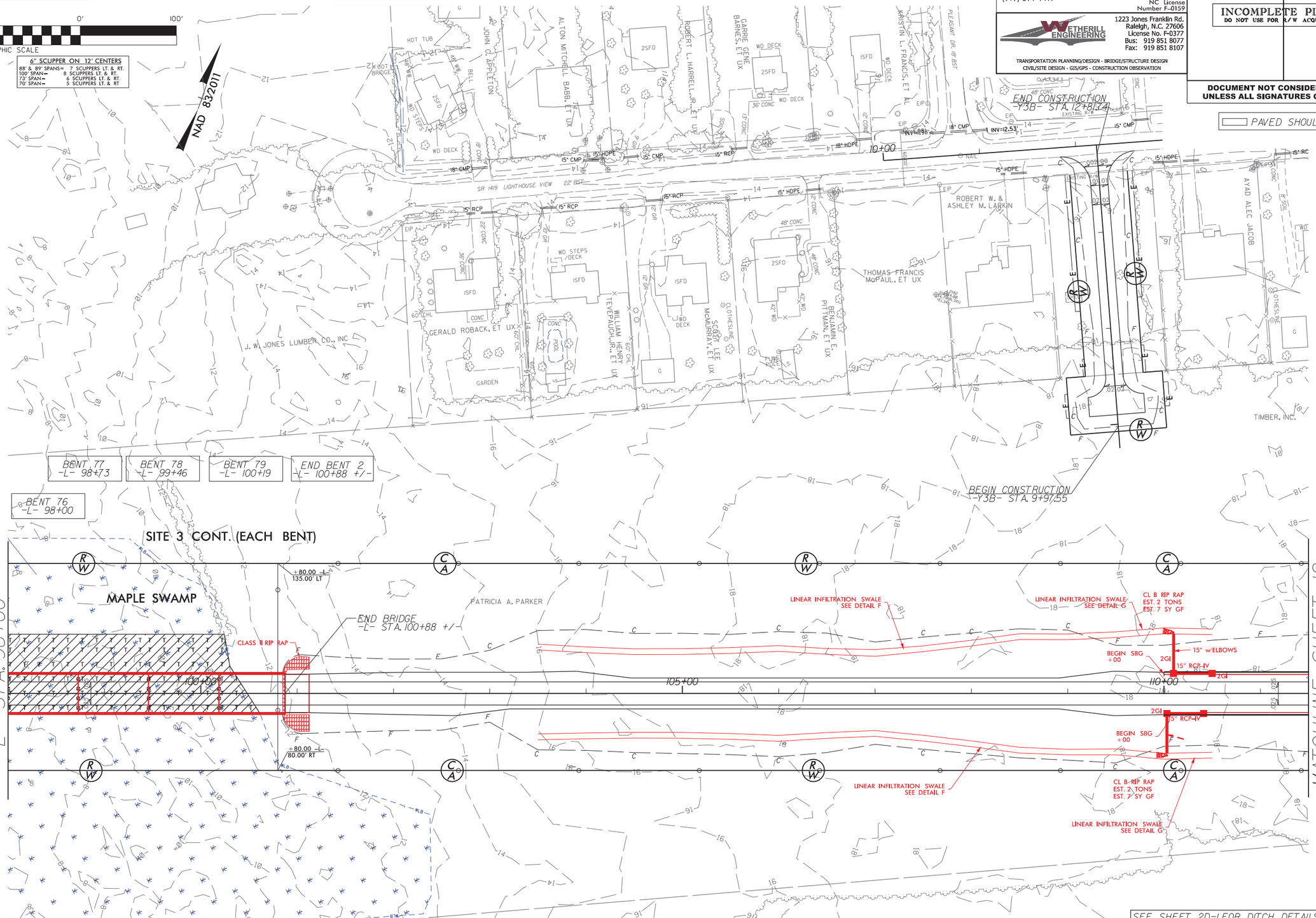
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

GRAPHIC SCALE 100' 0' 100'

6" SCUPPER ON 12' CENTERS
88' & 89' SPANS= 7 SCUPPERS LT. & RT.
100' SPAN= 8 SCUPPERS LT. & RT.
73' SPAN= 6 SCUPPERS LT. & RT.
70' SPAN= 5 SCUPPERS LT. & RT

NAD 83/2011



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 47 FOR -Y3B- PROFILE
SEE SHEET 34 FOR -L- PROFILE

6/2/99

8/13/2024
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USER: Mlarvey

6/2/99

PERMIT DRAWING
SHEET 25 OF 89

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RALEIGH, NC 27612
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Raleigh, N.C. 27606
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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	12
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORMAL HIGH WATER 0.3'

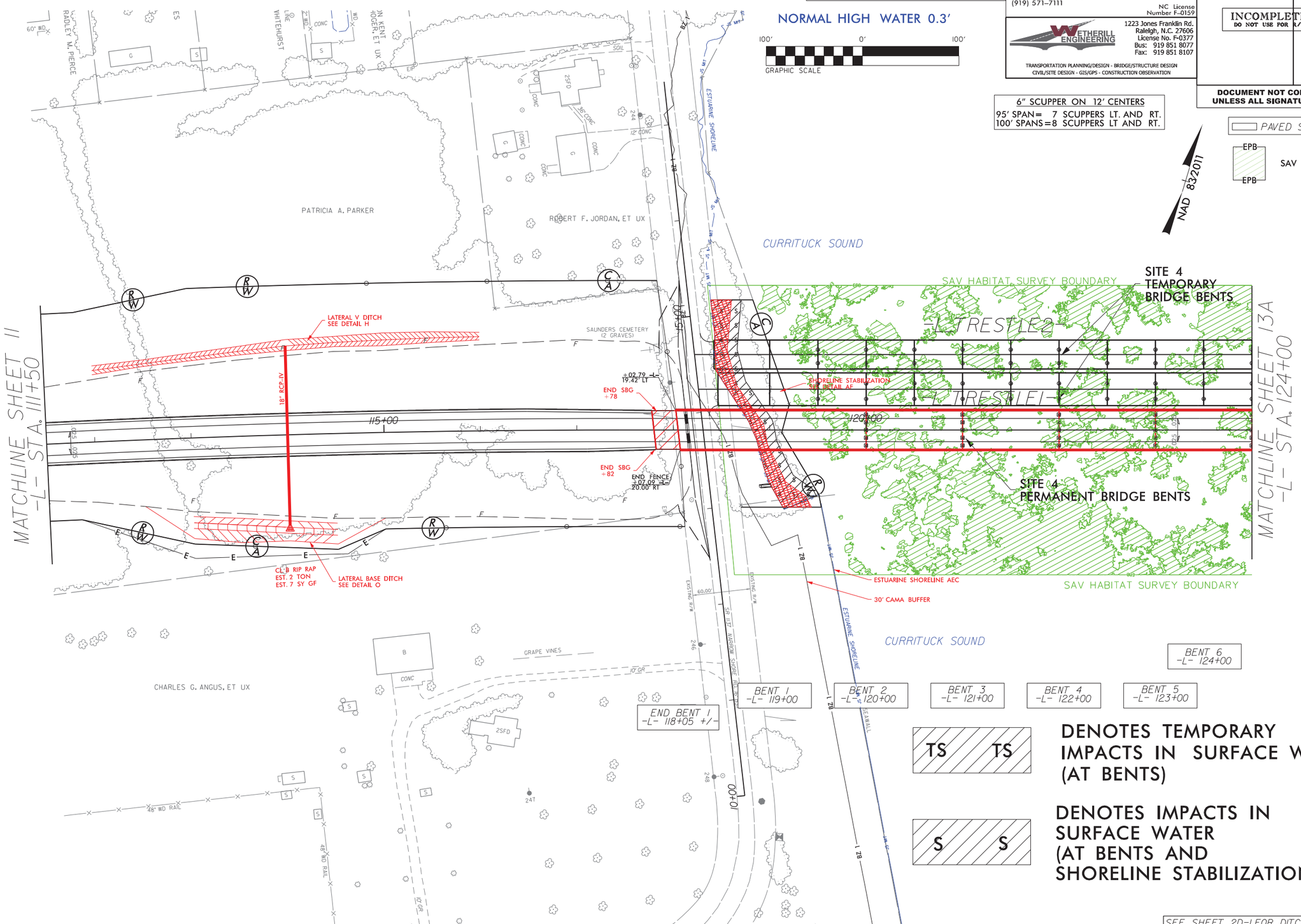
100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

PAVED SHOULDER

EPB SAV HABITAT EPB

NAD 83/2011



TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (AT BENTS)

S S — DENOTES IMPACTS IN SURFACE WATER (AT BENTS AND SHORELINE STABILIZATION)

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 47 FOR -Y3- PROFILE

6/13/2024
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USER: Mlarvey

6/2/99

PERMIT DRAWING
SHEET 26 OF 89

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1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	12
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORMAL HIGH WATER 0.3'

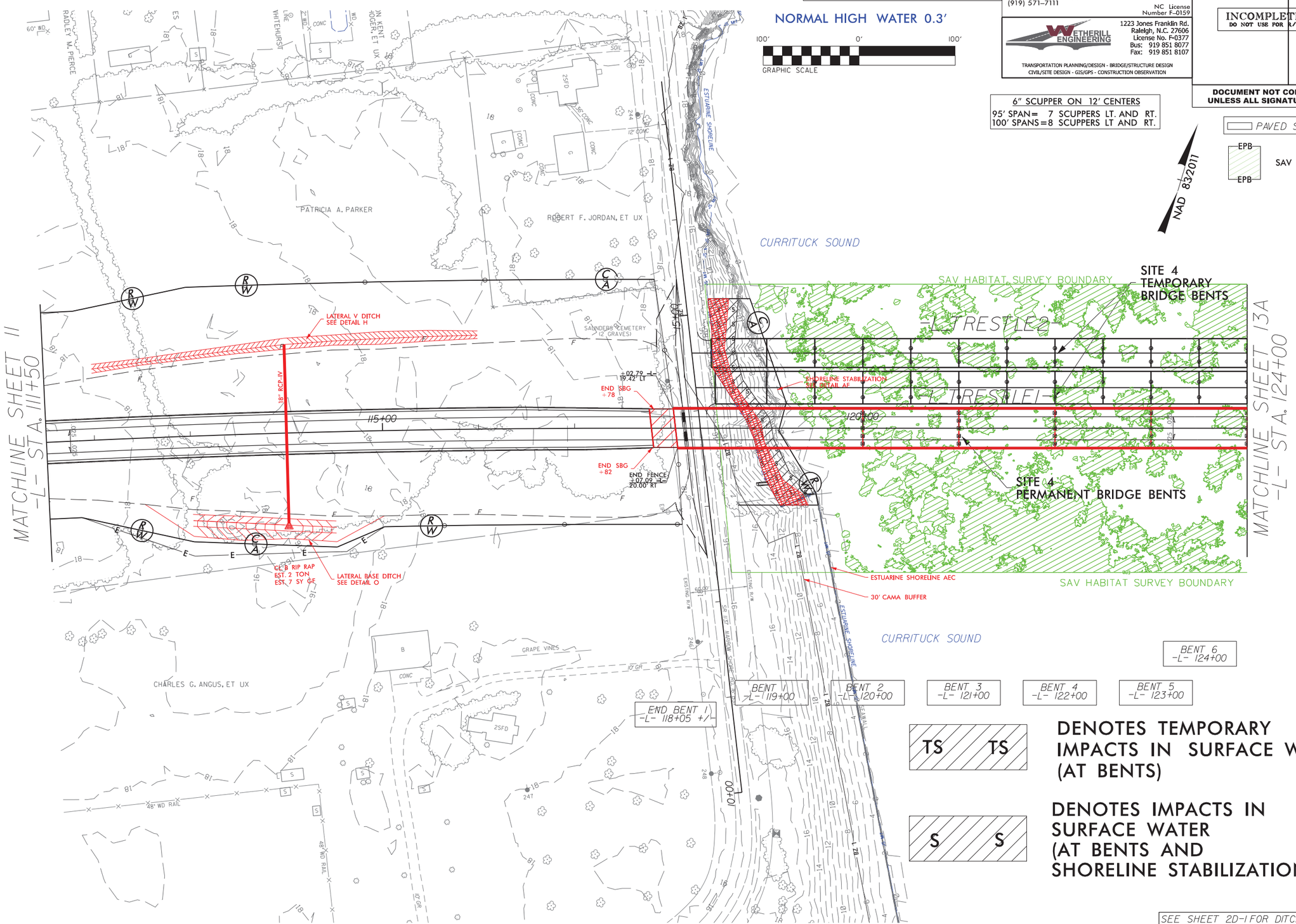
100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

PAVED SHOULDER

EPB SAV HABITAT EPB

NAD 83/2011



TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (AT BENTS)

S S — DENOTES IMPACTS IN SURFACE WATER (AT BENTS AND SHORELINE STABILIZATION)

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 47 FOR -Y3- PROFILE

8/13/2024
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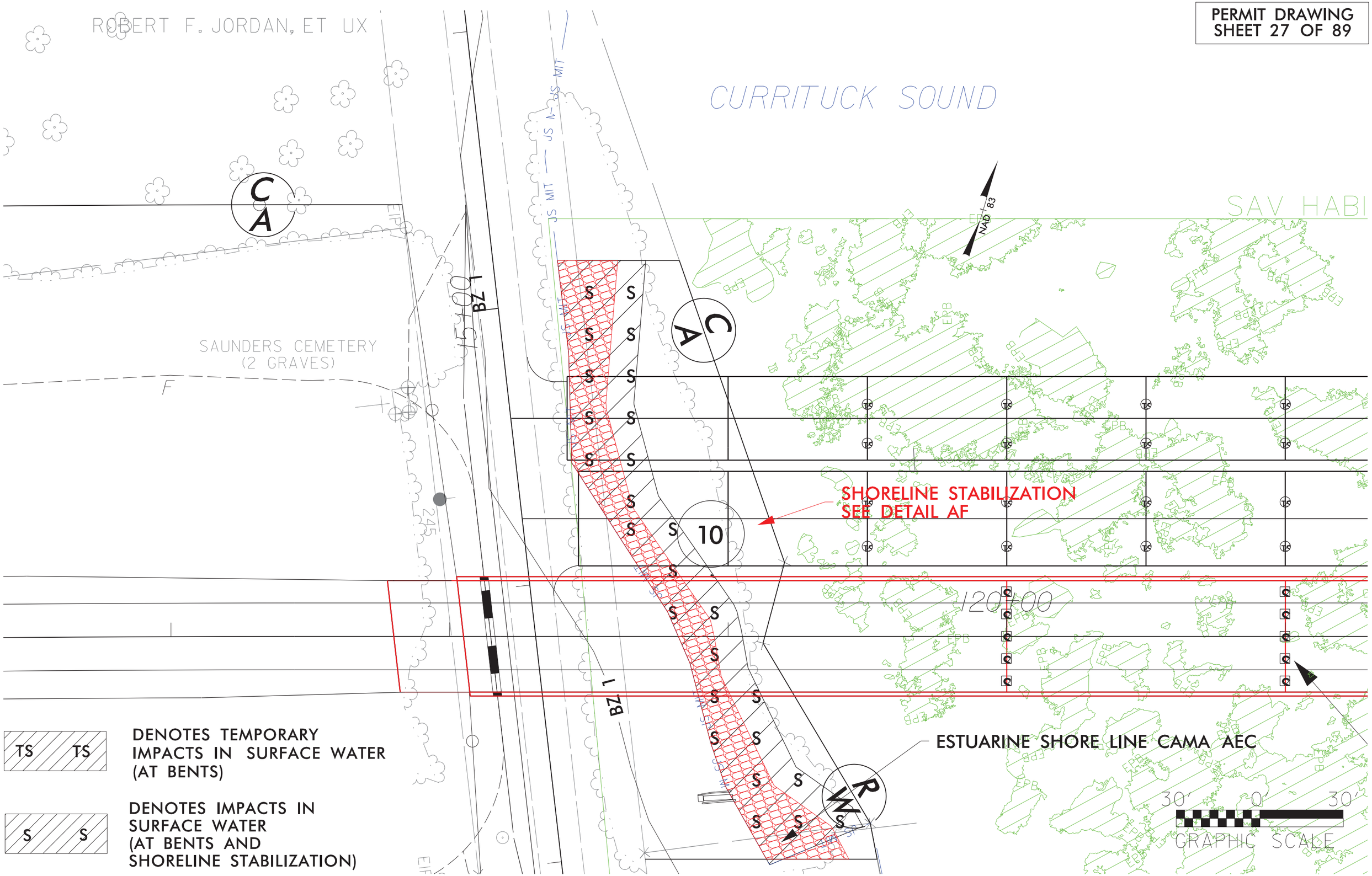
USER:KHarvey


ROBERT F. JORDAN, ET UX
CURRITUCK SOUND
SAV HABI
NAD 83
SAUNDERS CEMETERY
(2 GRAVES)
F
C
A
BZ 1
15+00
10
SHORELINE STABILIZATION
SEE DETAIL AF
120+00
ESTUARINE SHORE LINE CAMA AEC
R
W
30' 0' 30'
GRAPHIC SCALE
TS TS
DENOTES TEMPORARY IMPACTS IN SURFACE WATER (AT BENTS)
S S
DENOTES IMPACTS IN SURFACE WATER (AT BENTS AND SHORELINE STABILIZATION)

LOCHNER
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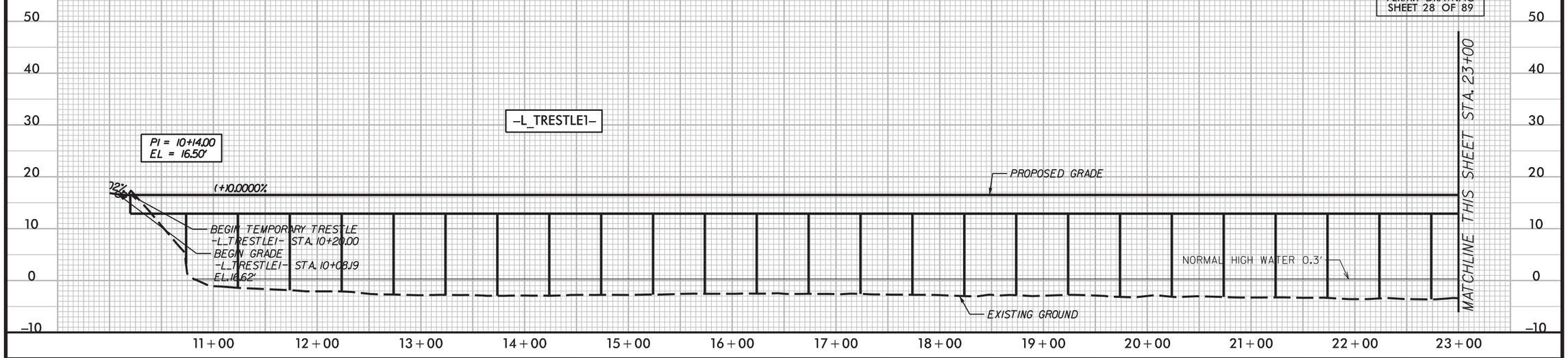
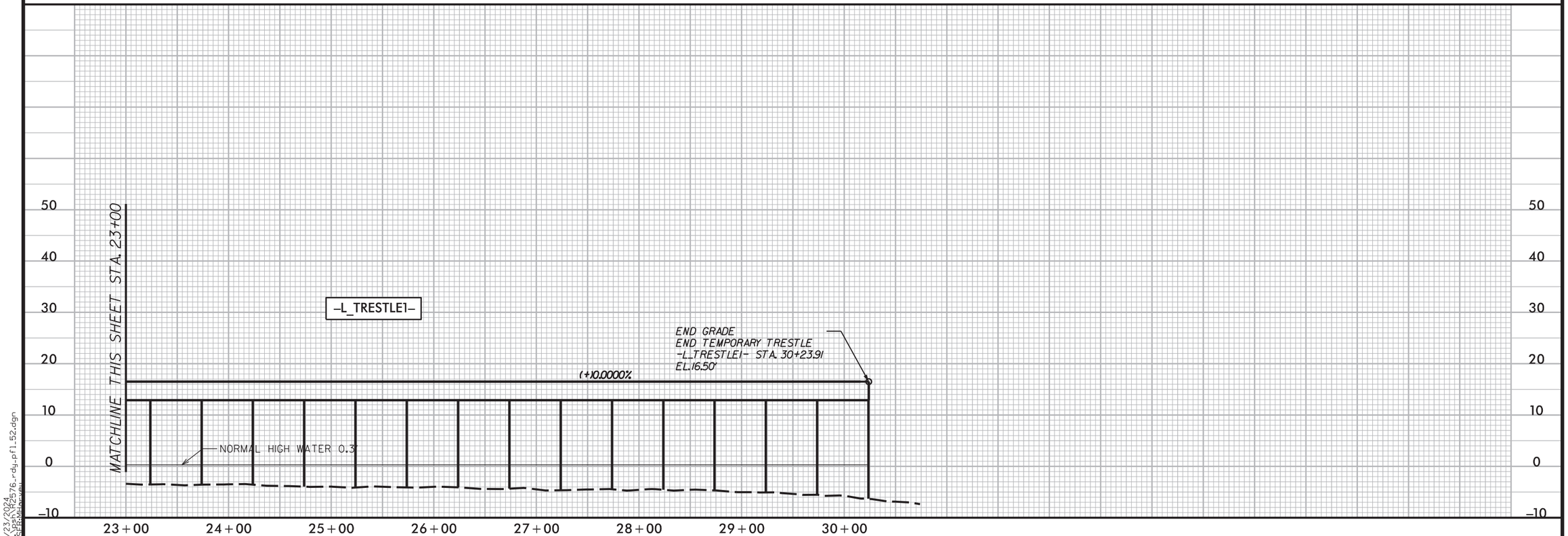
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	52
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 28 OF 89





5/28/99

4/23/2024
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USER:MHarvey

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RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

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Raleigh, N.C. 27606
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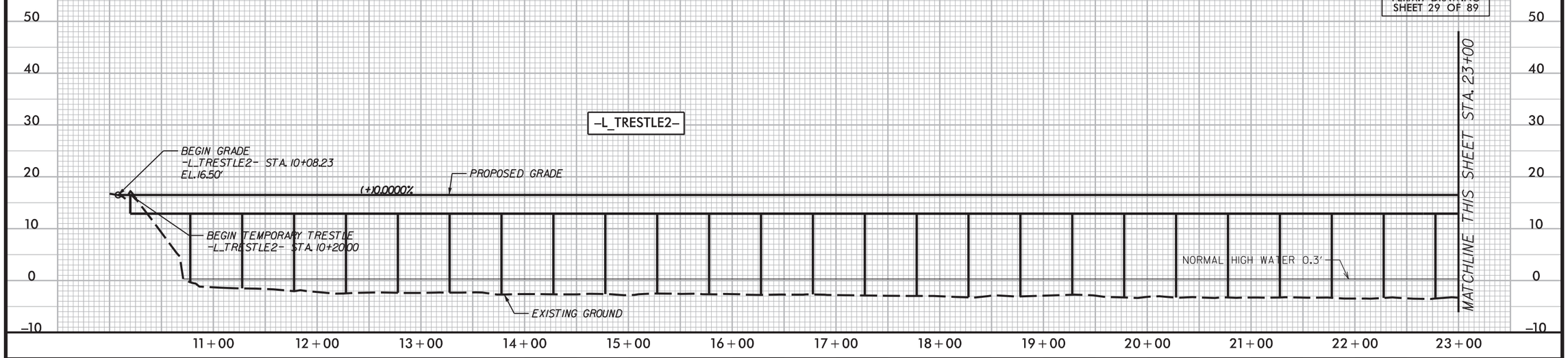
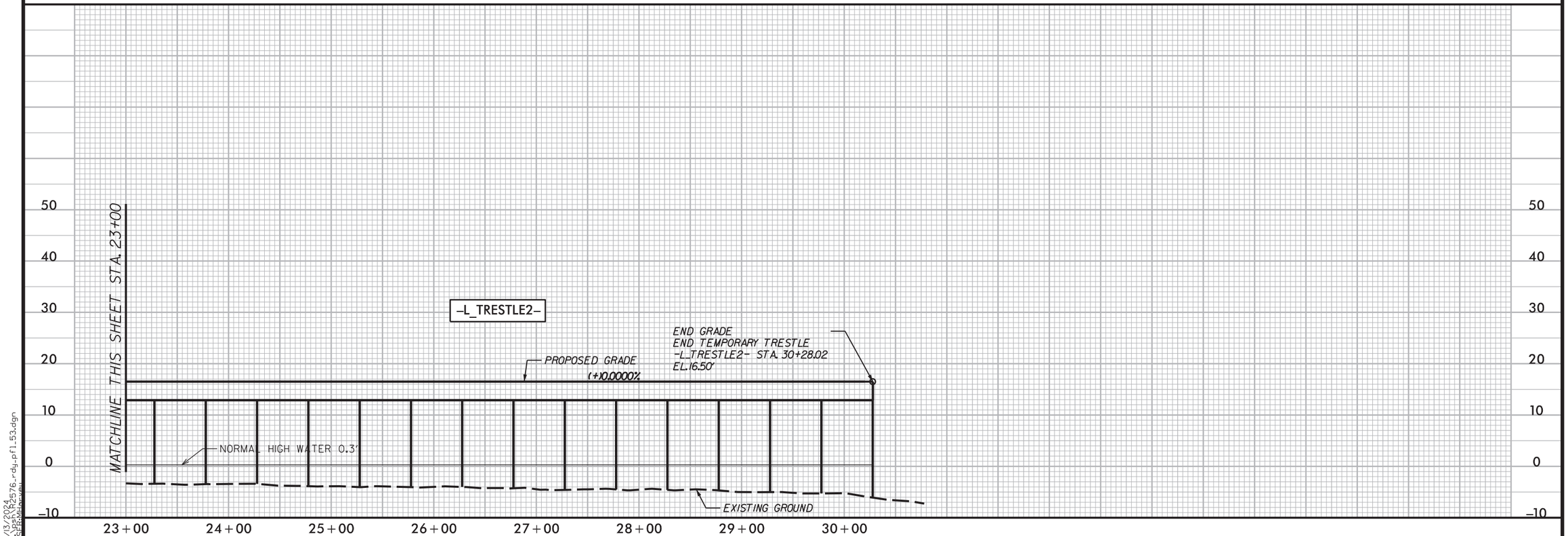
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	53
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 29 OF 89





5/28/99

6/13/2024
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PERMIT DRAWING
SHEET 30 OF 89

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H. W. LOCHNER, INC.
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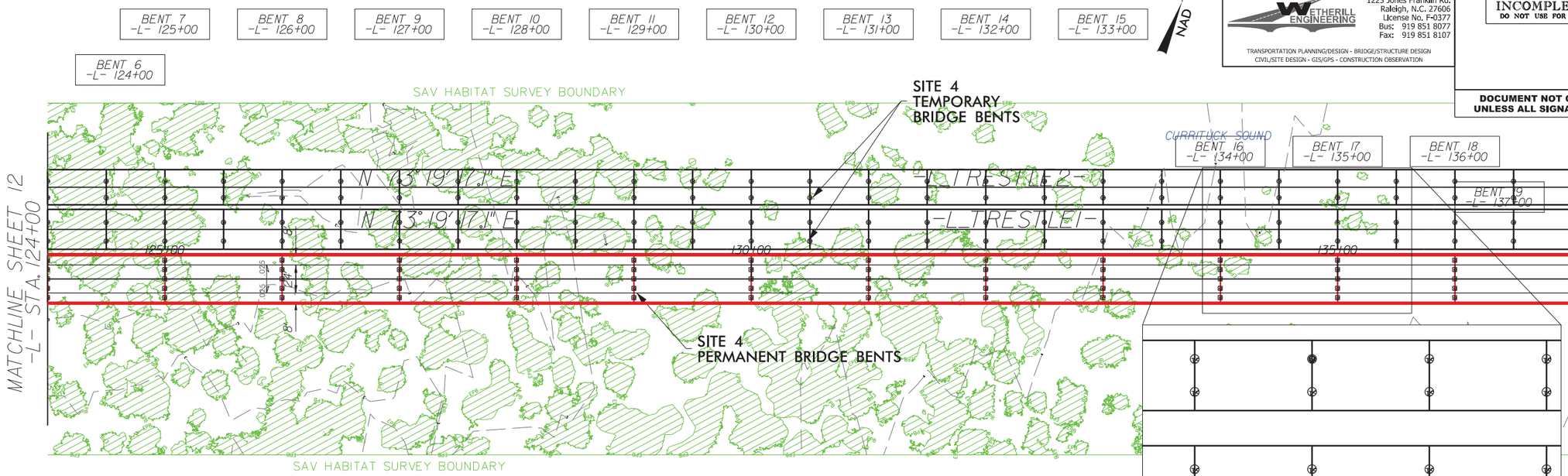
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

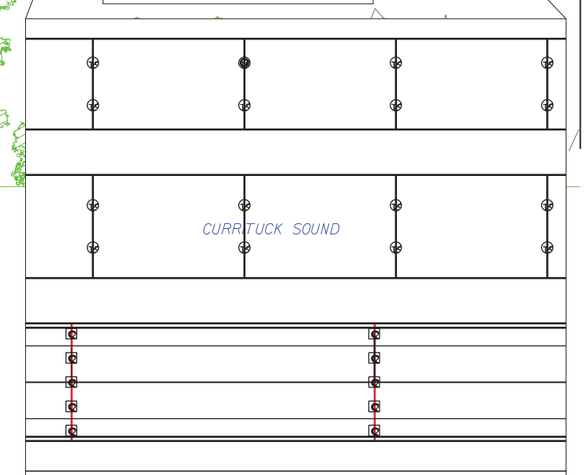


S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

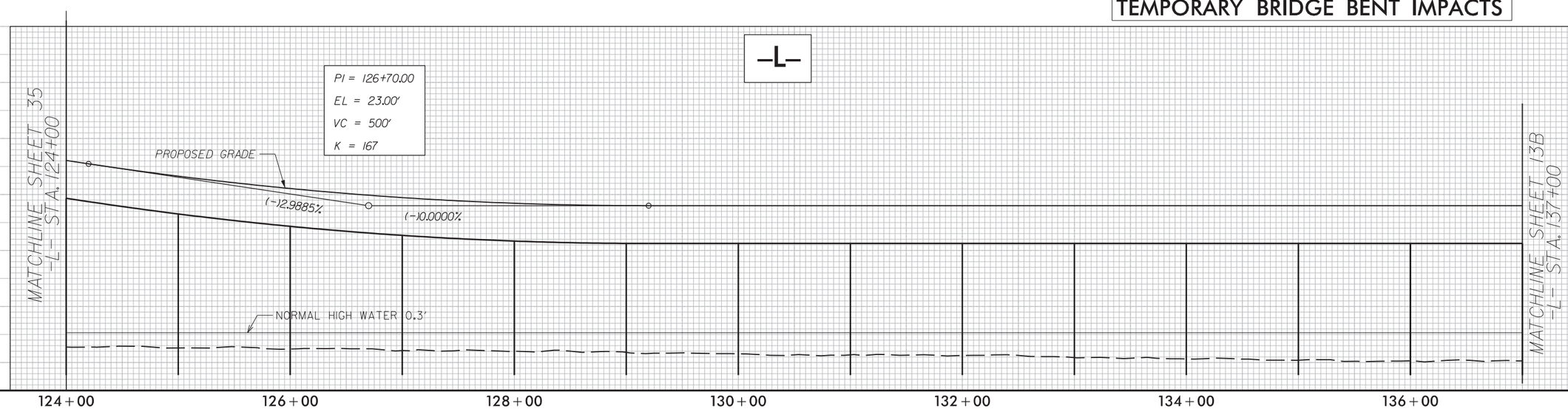
TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



4/24/2024
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USER: Mharvey

S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

EPB — SAV HABITAT

PERMIT DRAWING
SHEET 31 OF 89

NAD 83/2011

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Raleigh, N.C. 27606
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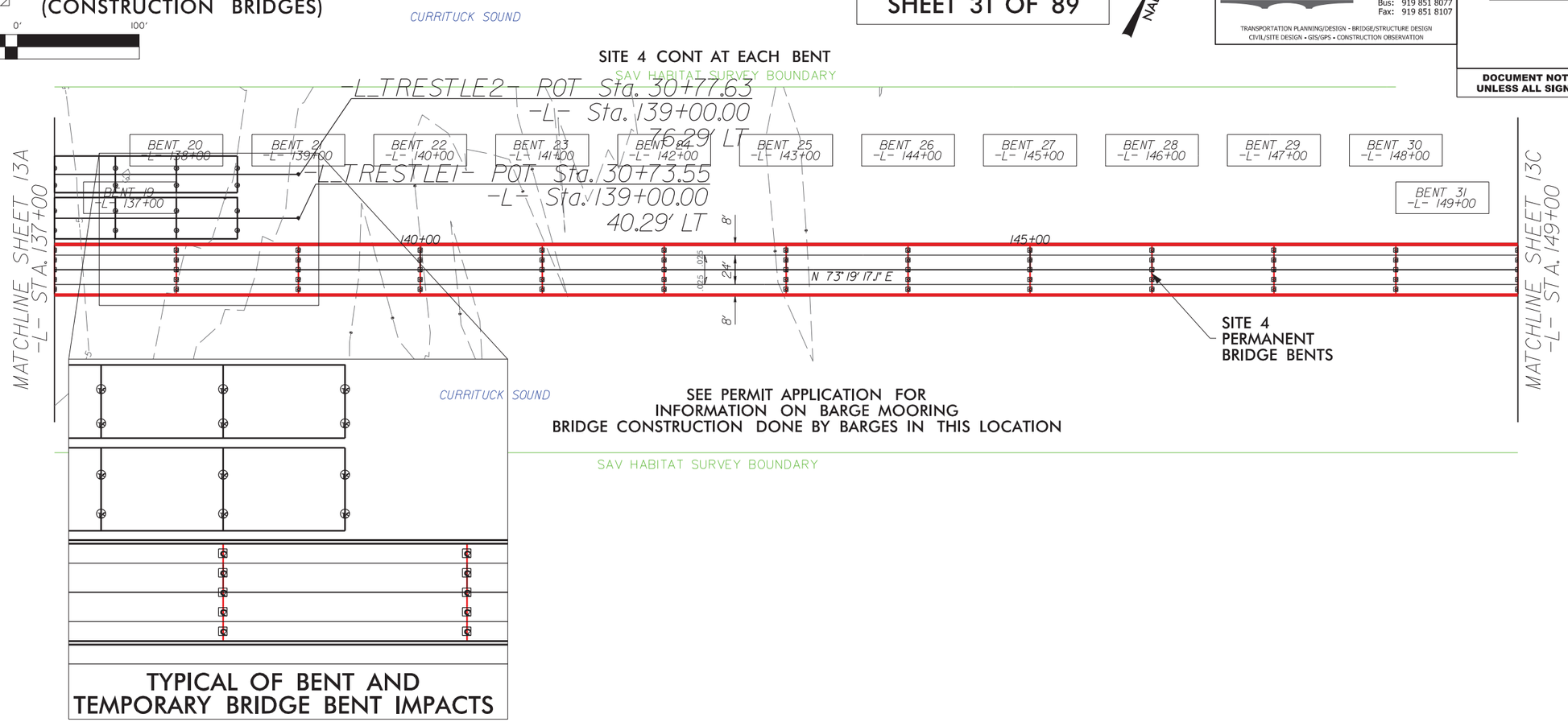
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

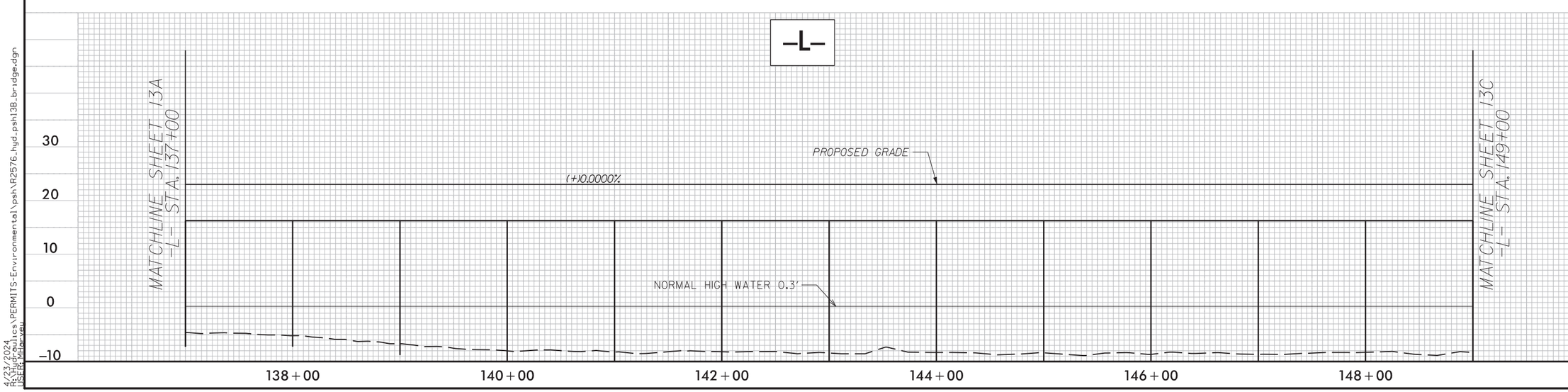
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

100' 0' 100'
GRAPHIC SCALE



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



4/23/2024
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USER: Mhorvey

DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

EPB
SAV HABITAT
EPB

PERMIT DRAWING
SHEET 32 OF 89

NAD 83/2011

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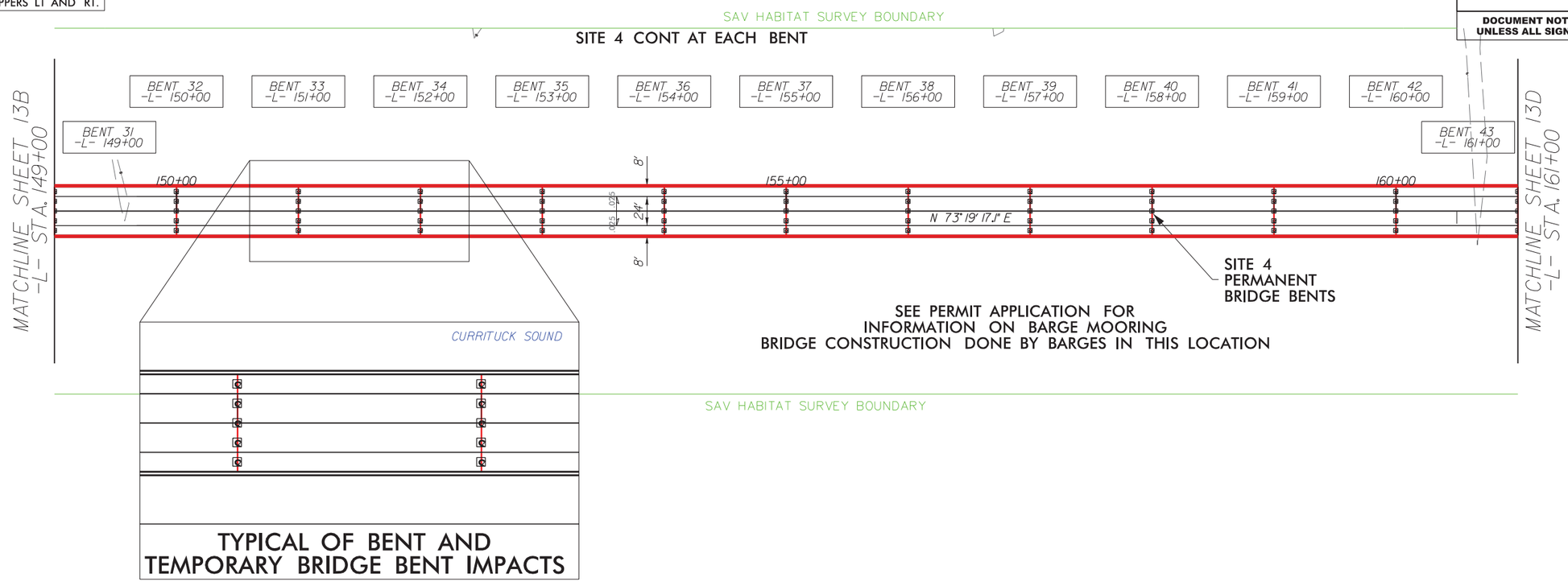
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

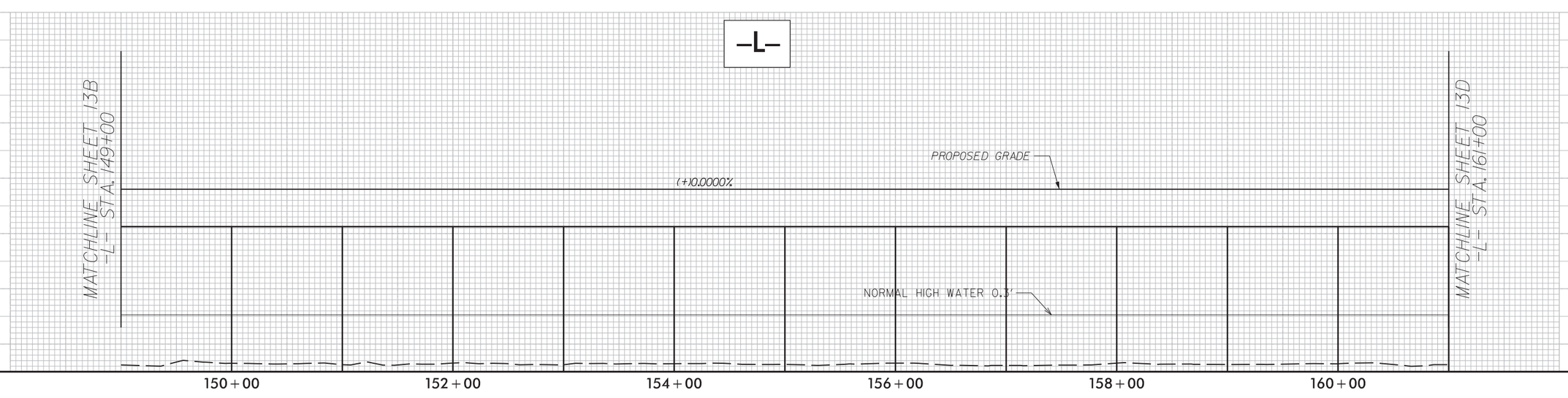
PROJECT REFERENCE NO.	SHEET NO.
R-2576	13C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS



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USER: Midgrvel

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

EPB
EPB
SAV HABITAT

PERMIT DRAWING
SHEET 33 OF 89

NAD 83/2011

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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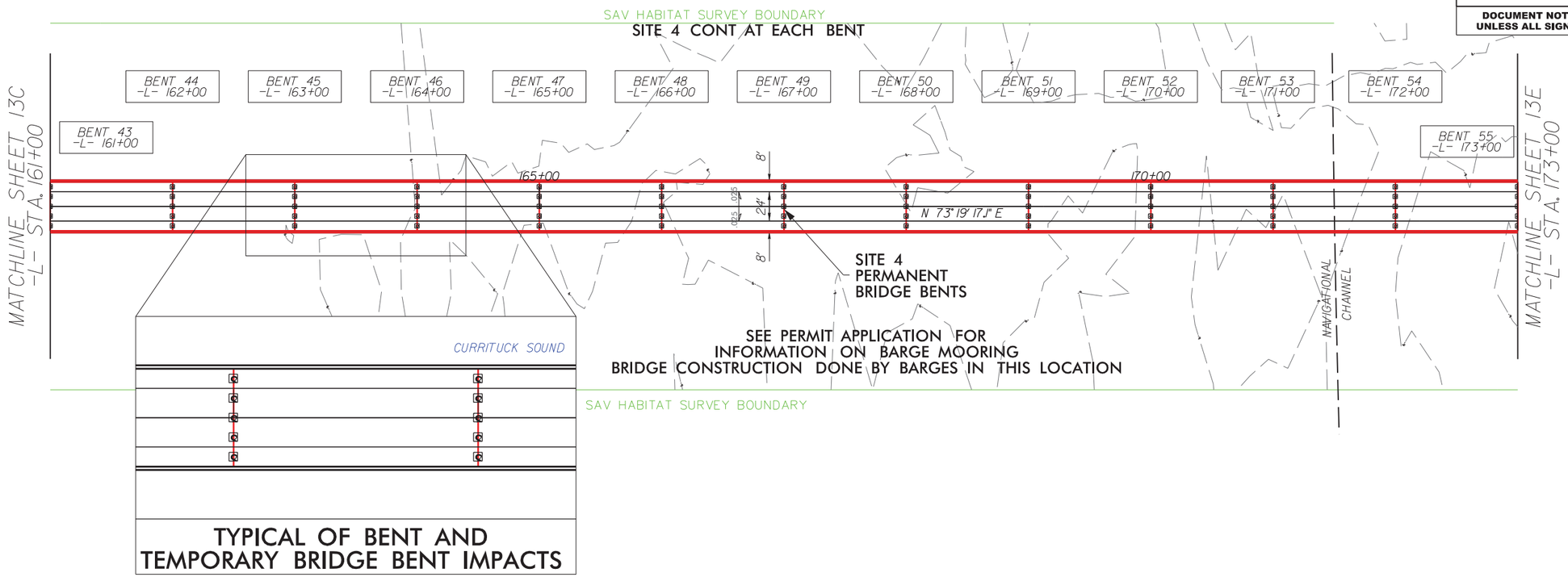
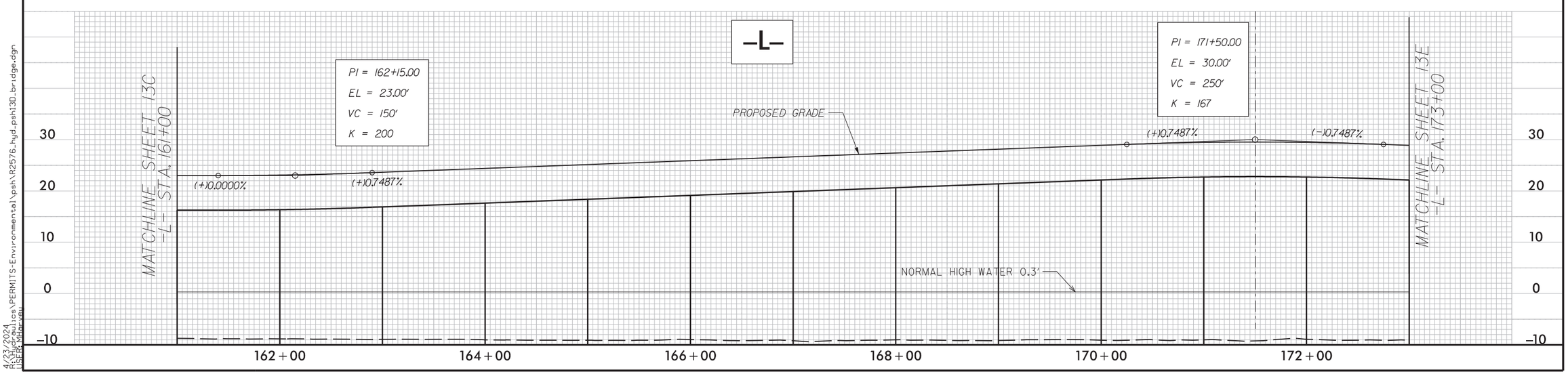


TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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USER: Mdarvey

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

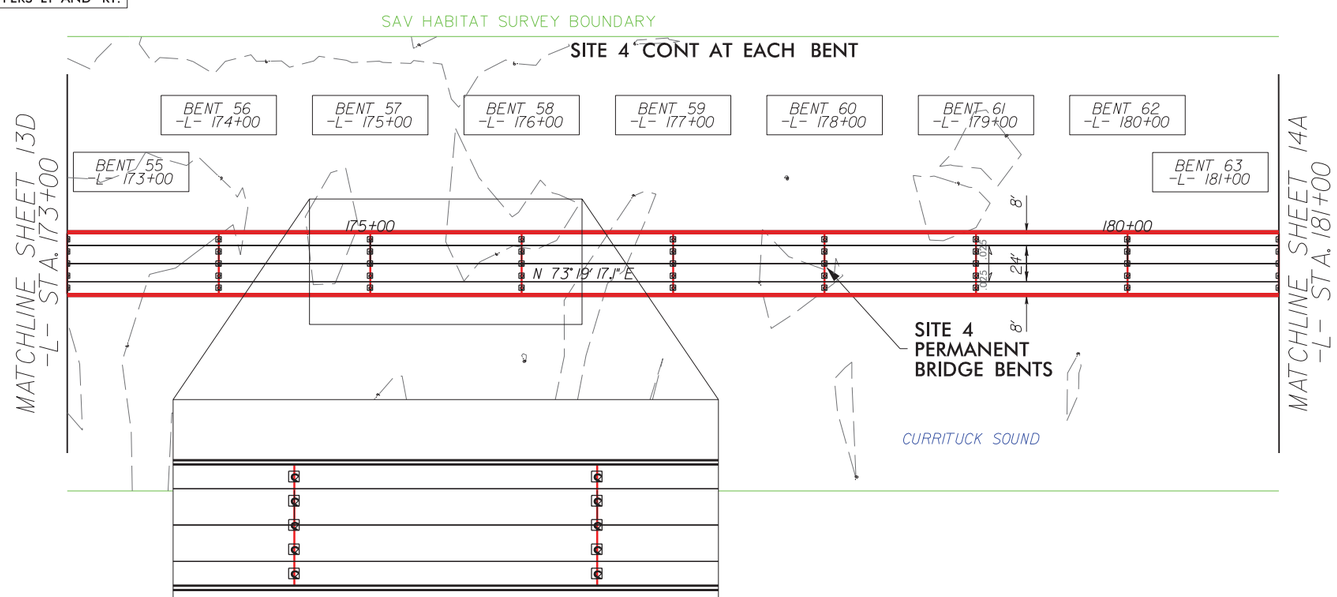
EPB SAV HABITAT EPB

100' 0' 100'
GRAPHIC SCALE

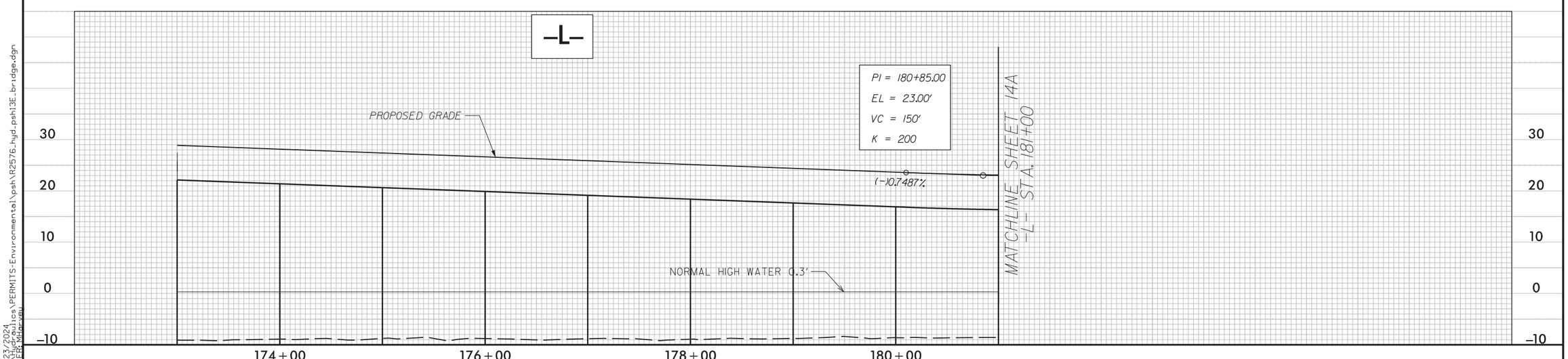
6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

SEE PERMIT APPLICATION FOR
INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

NAD 83/2011



TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS



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PROJECT REFERENCE NO.	SHEET NO.
R-2576	13E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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PERMIT DRAWING
SHEET 34 OF 89

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USER: Mdarvey

DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

PERMIT DRAWING SHEET 35 OF 89

EPB SAV HABITAT EPB

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	14A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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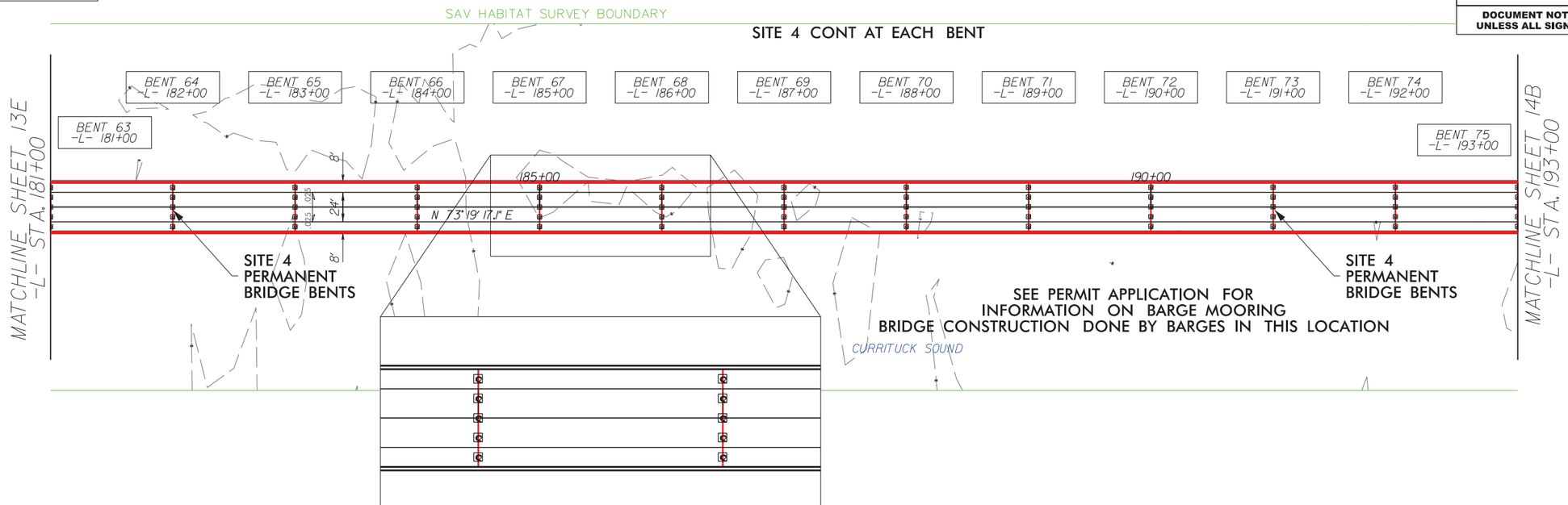
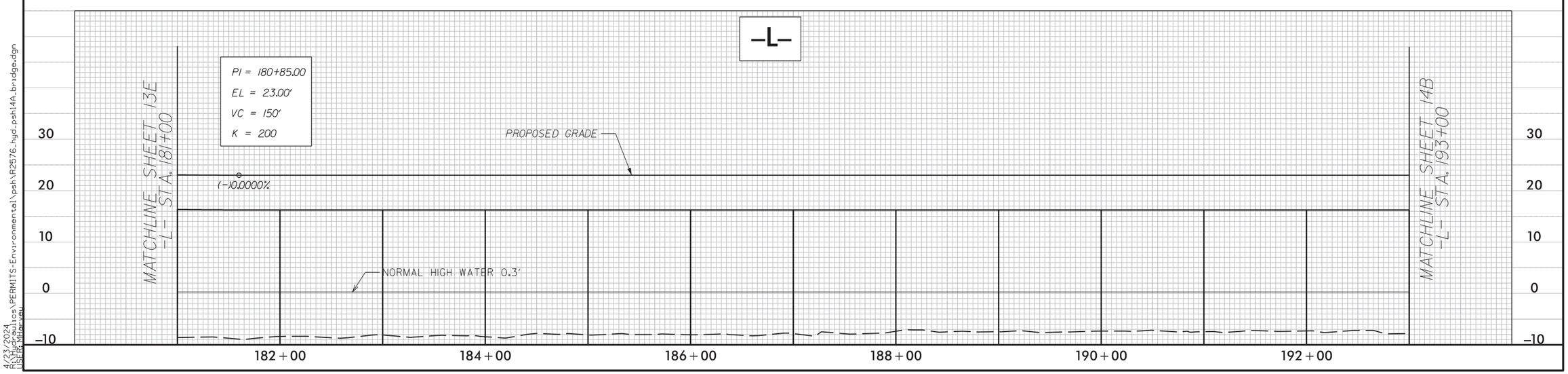


TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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USER:Mdarvey

DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
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EPB
SAV HABITAT
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SHEET 36 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	14B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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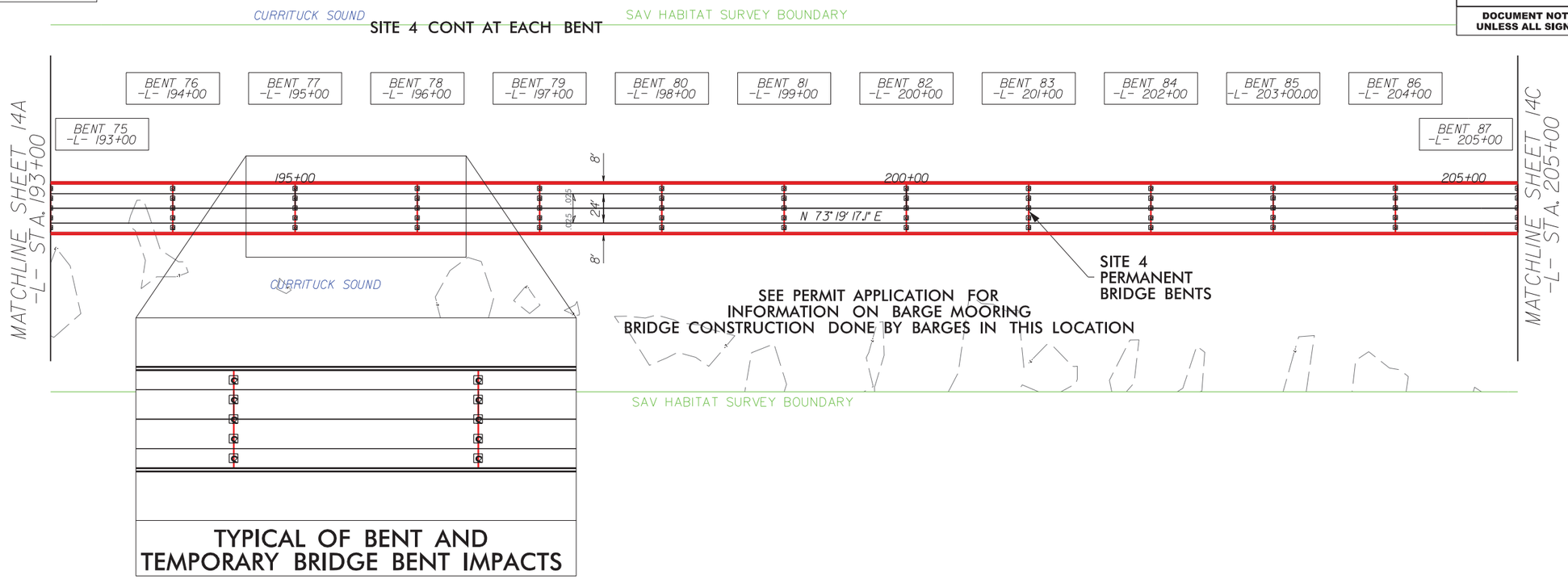

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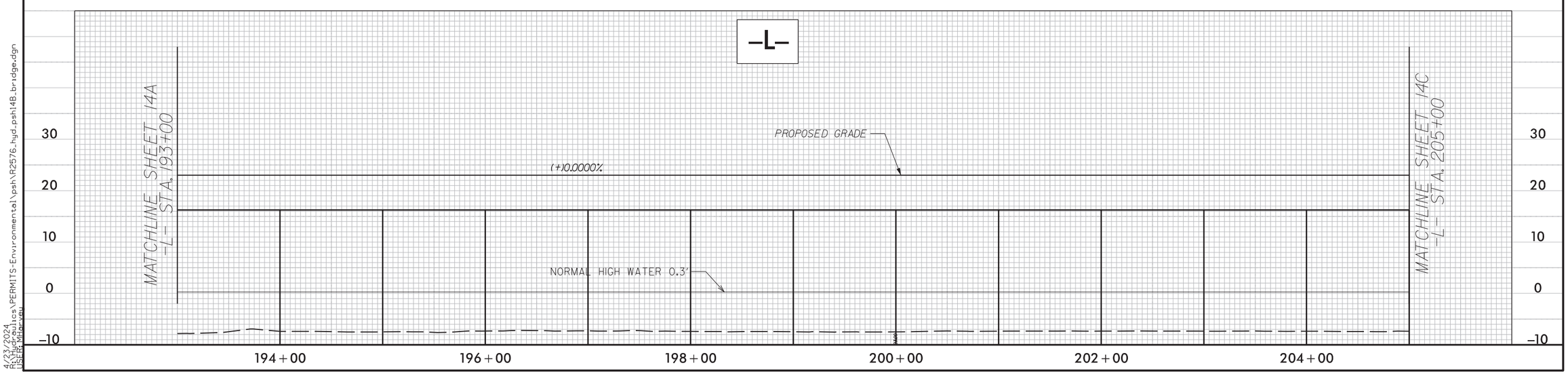

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USER:Mdarvey

DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

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GRAPHIC SCALE

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EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 37 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	14C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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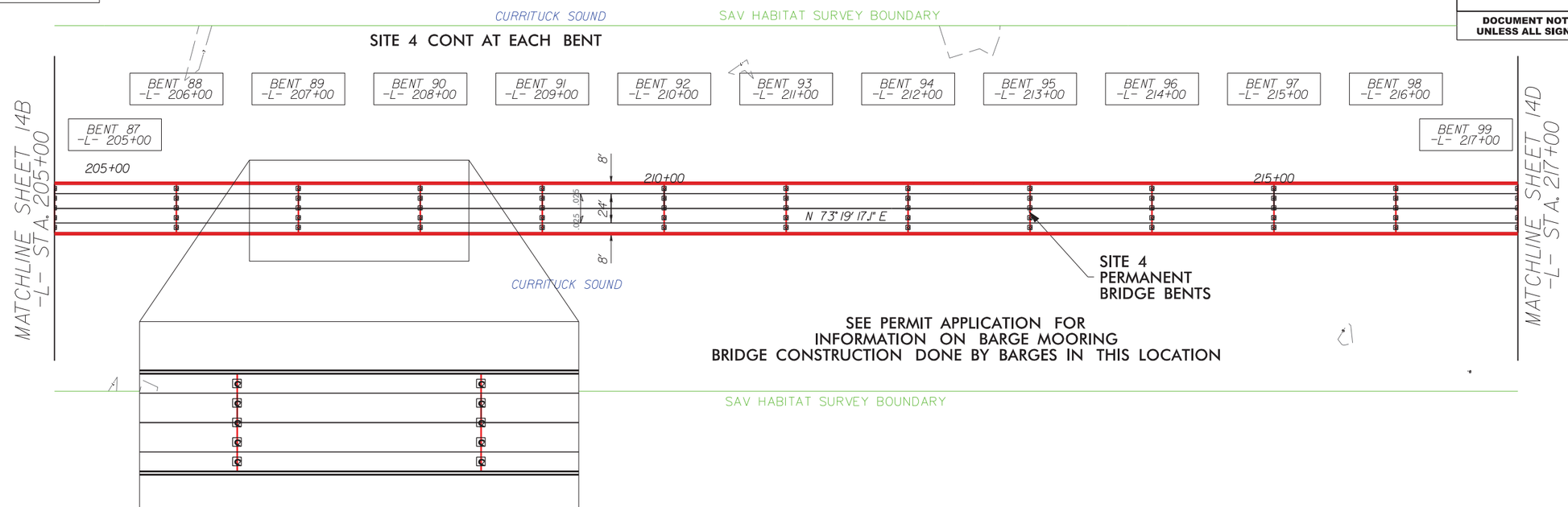

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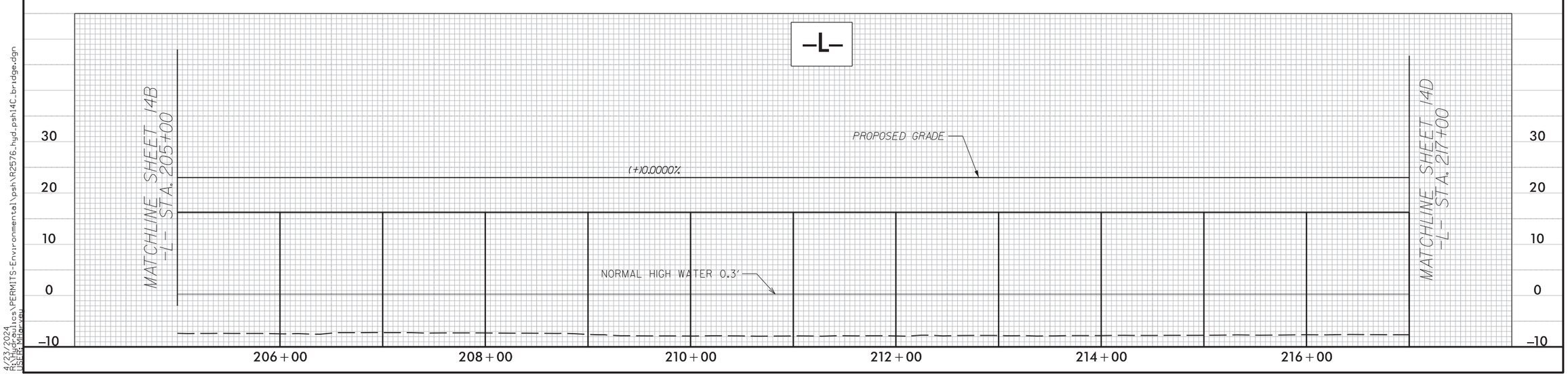

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USER:Mdarvey

DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
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EPB
SAV HABITAT
EPB

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SHEET 38 OF 89

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	14D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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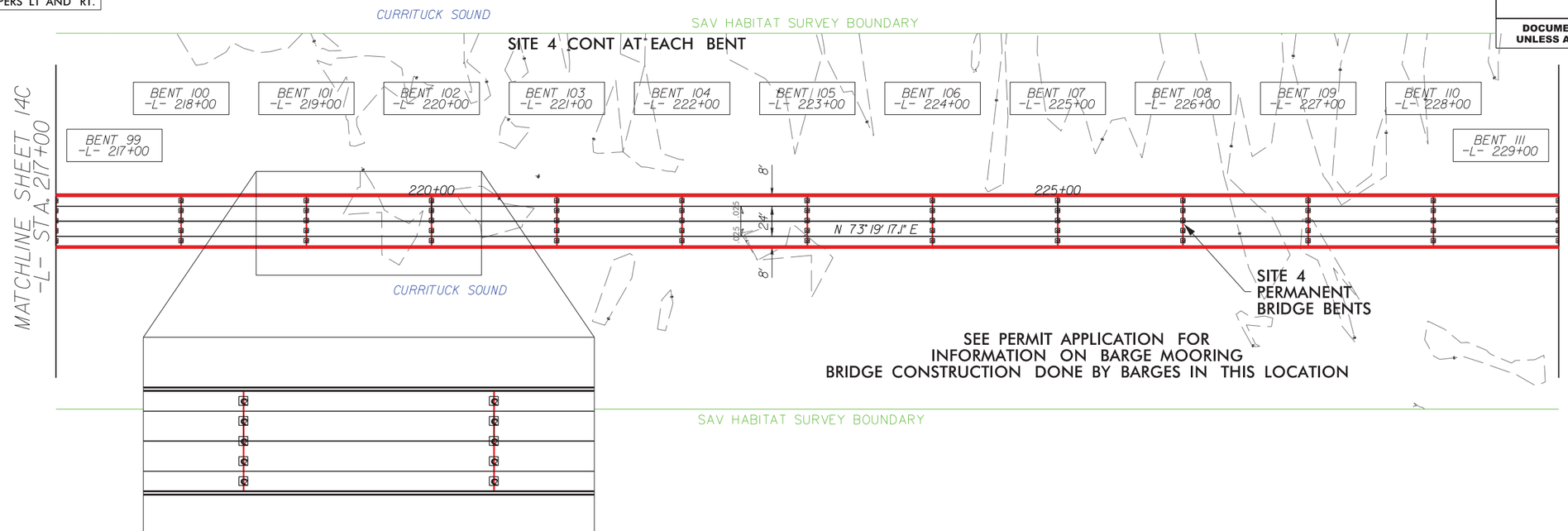
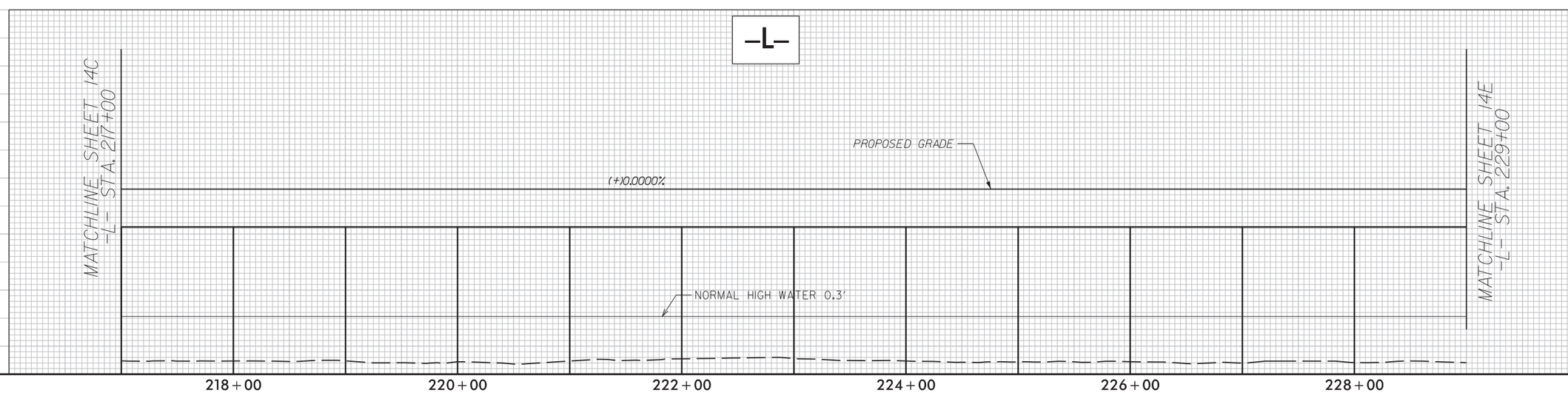


TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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USER: Mbarvel

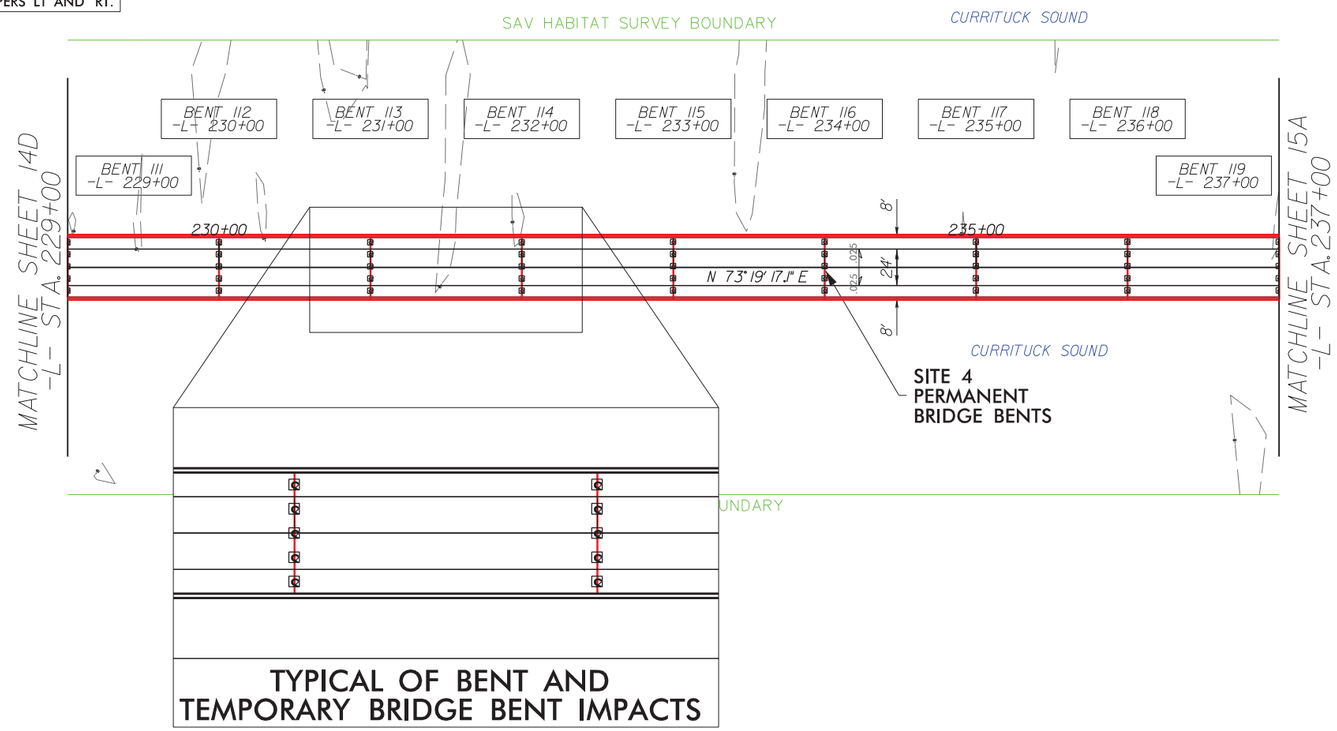
DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

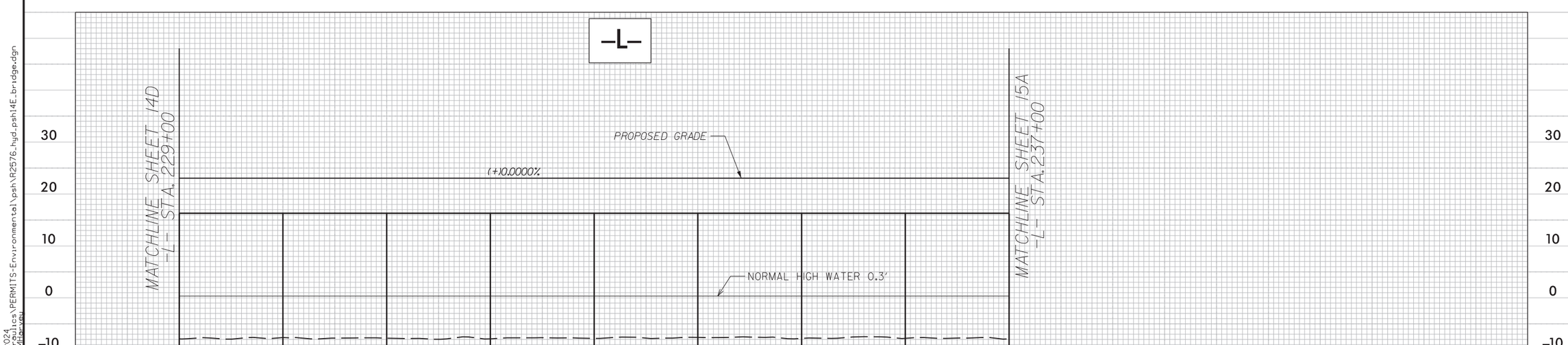
6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

EPB
SAV HABITAT
EPB

SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING SITE 4 CONT AT EACH BENT



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	14E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PERMIT DRAWING
SHEET 39 OF 89

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DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
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EPB
SAV HABITAT
EPB

PERMIT DRAWING
SHEET 40 OF 89

NAD 83/2011

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	15A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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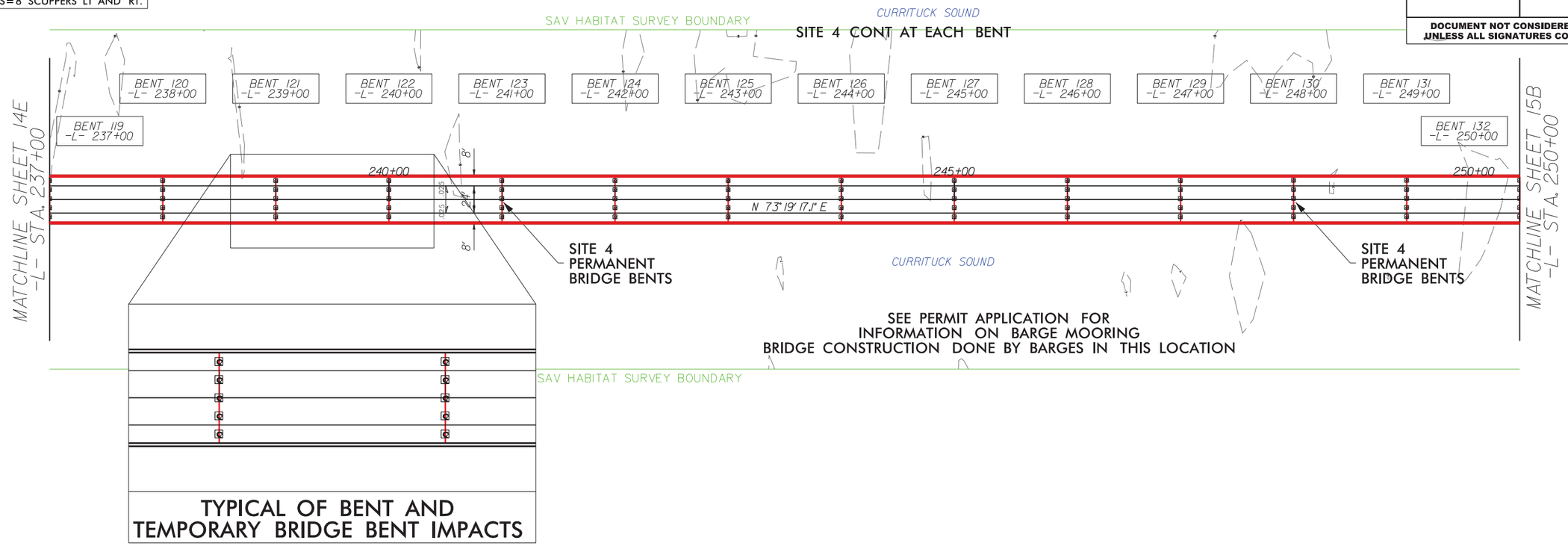
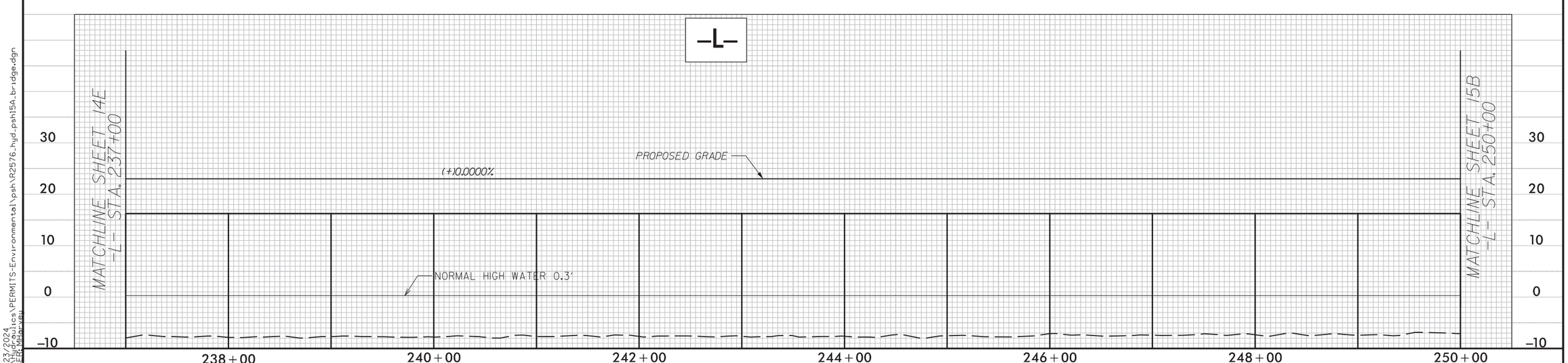


TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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USER: Mdarvey

DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

EPB
SAV HABITAT
EPB

PERMIT DRAWING
SHEET 41 OF 89

NAD 83/2011

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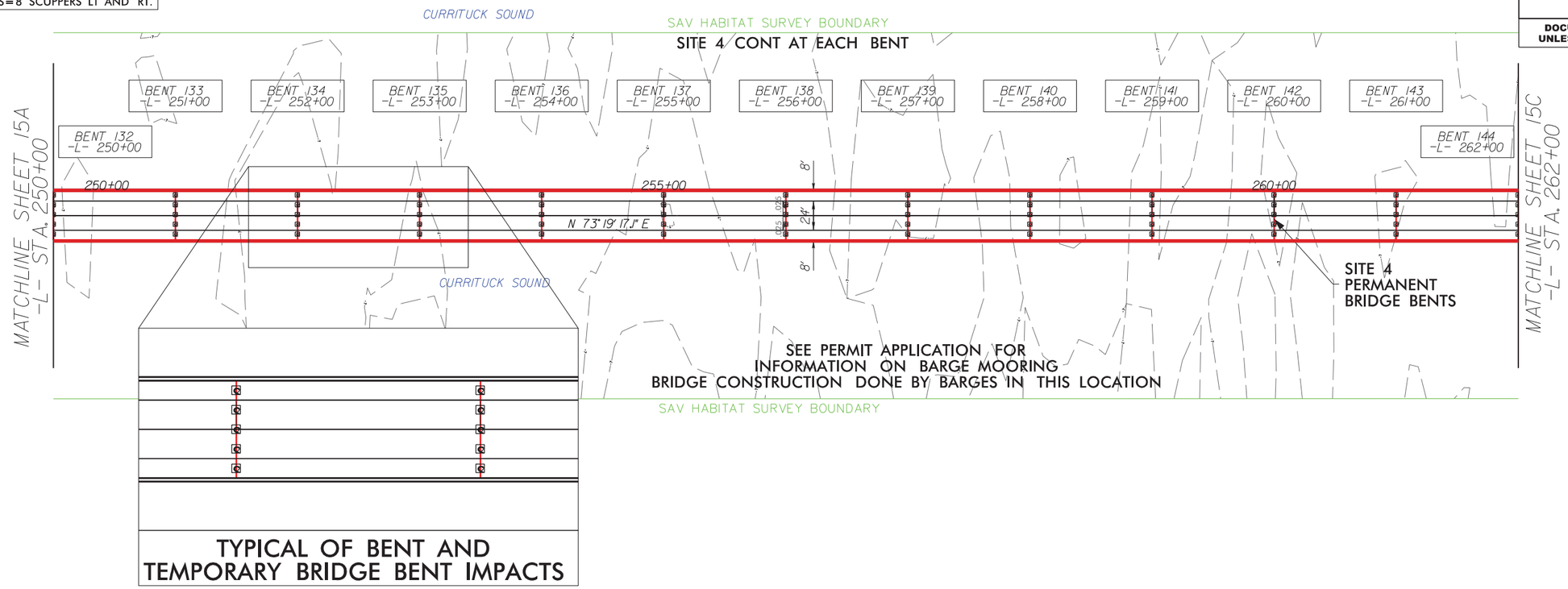
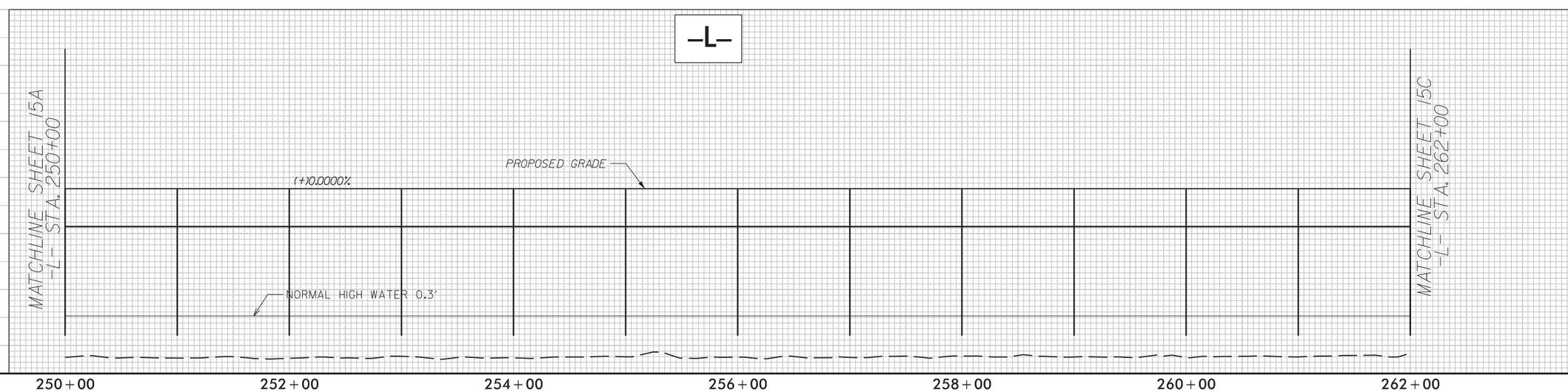


TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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USER: Mdarvey

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
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EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 42 OF 89

NAD 83/2011

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	15C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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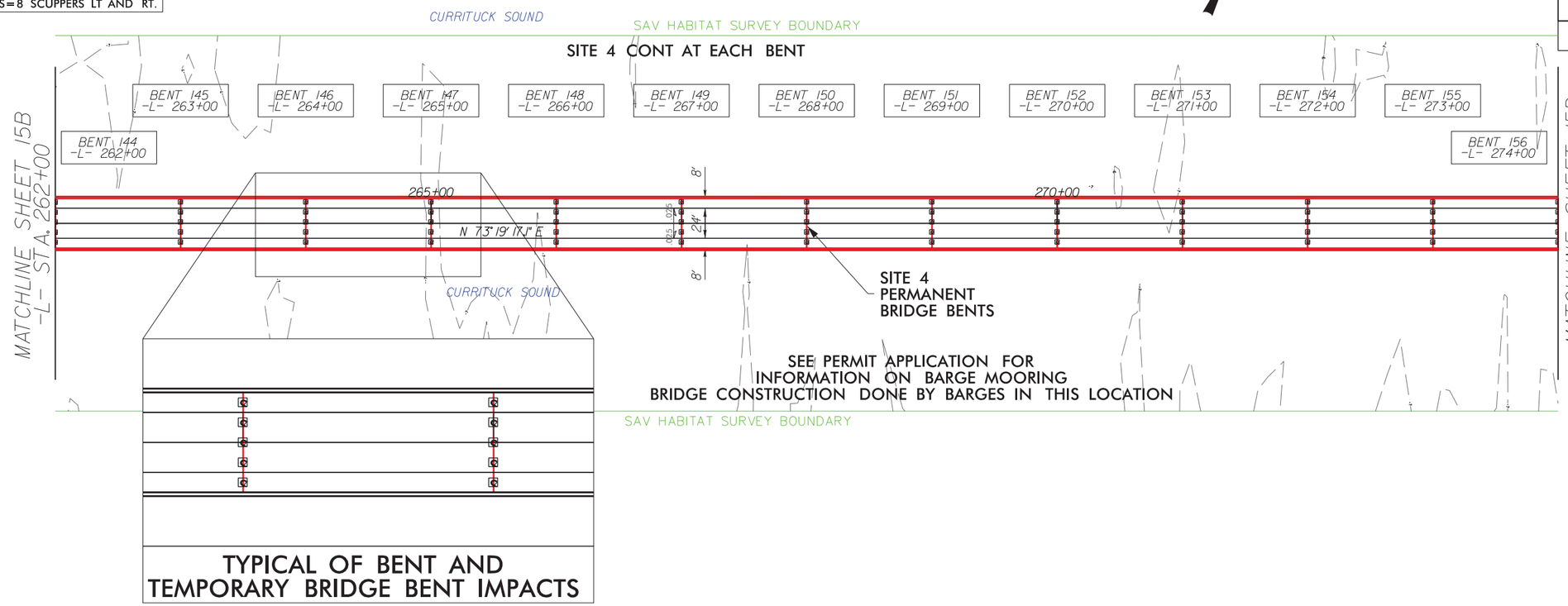

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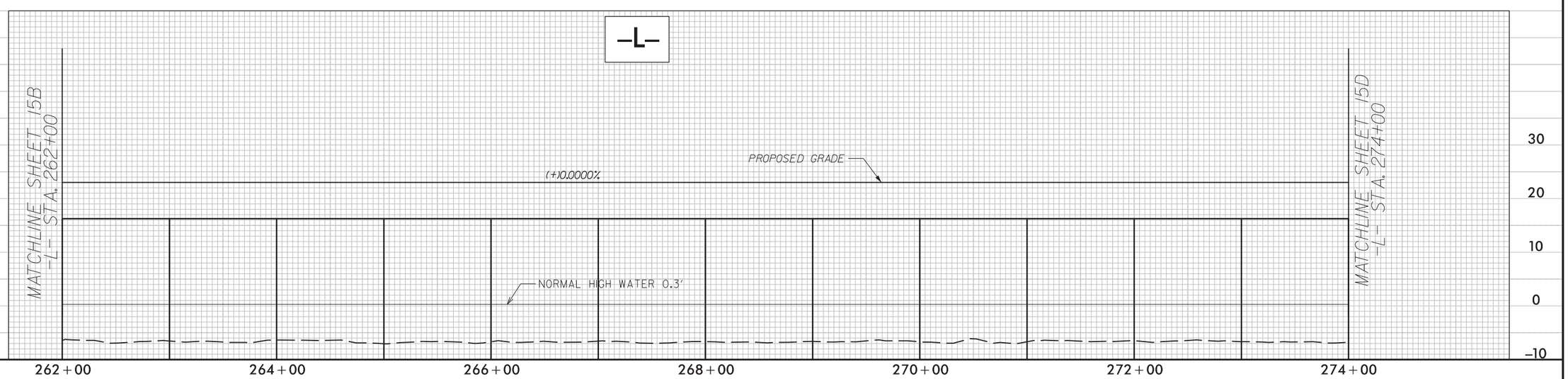

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USER: Mdarvey

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

PERMIT DRAWING SHEET 43 OF 89

EPB SAV HABITAT EPB

6" SCUPPER ON 12' CENTERS
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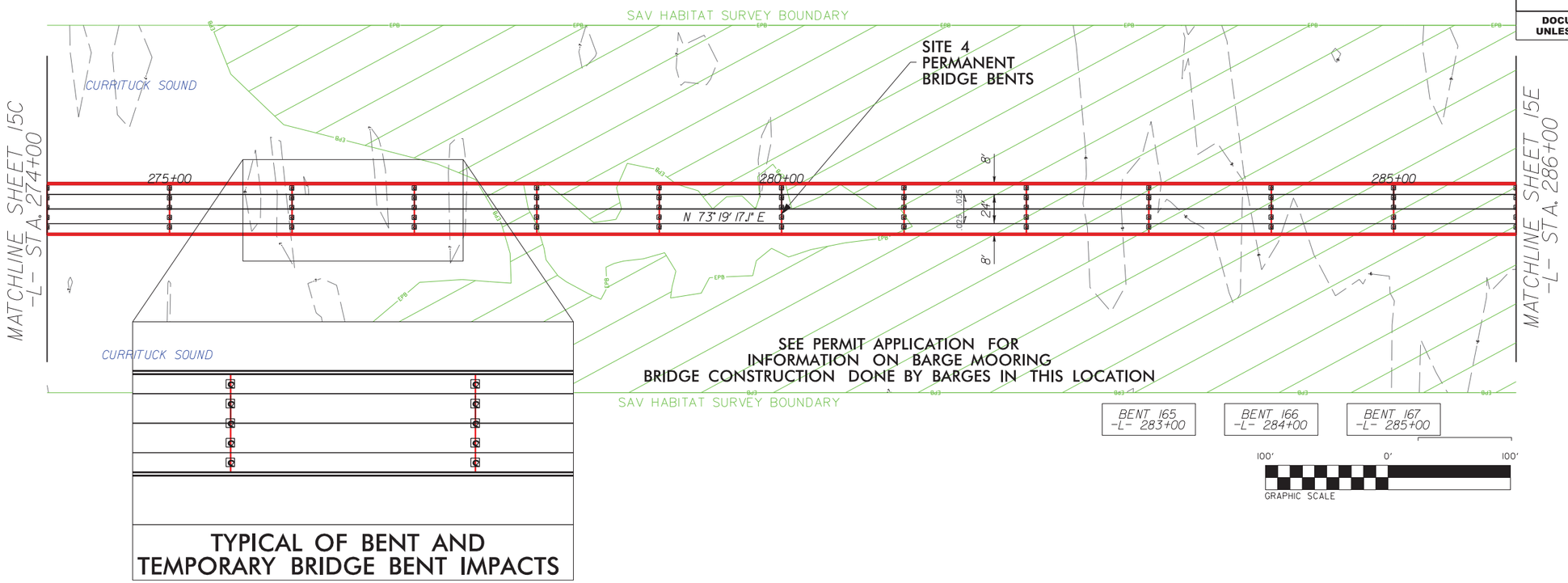
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	15D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

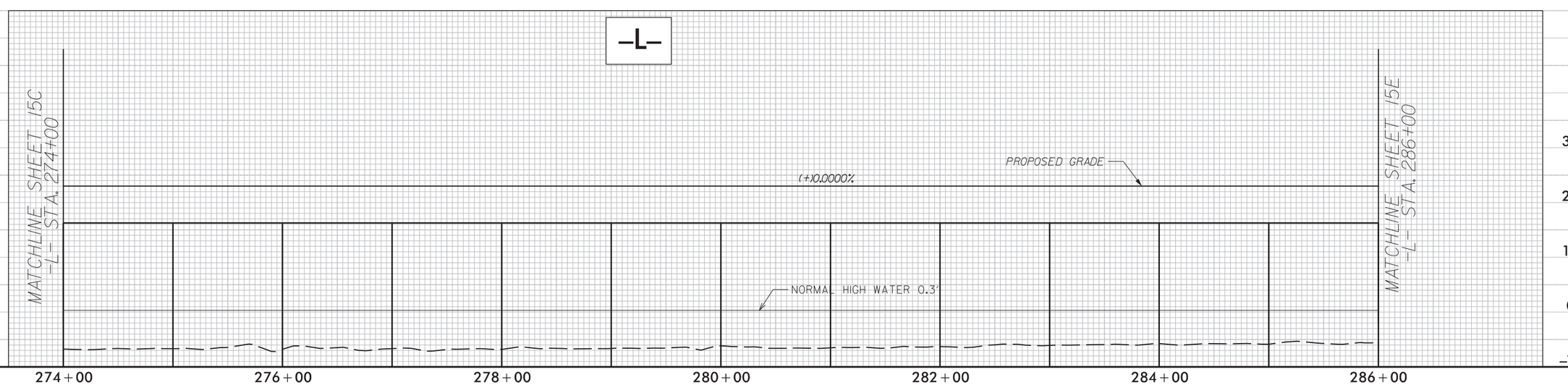
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BENT 156 -L- 274+00 | BENT 157 -L- 275+00 | BENT 158 -L- 276+00 | BENT 159 -L- 277+00 | BENT 160 -L- 278+00 | BENT 161 -L- 279+00 | BENT 162 -L- 280+00 | BENT 163 -L- 281+00 | BENT 164 -L- 282+00



TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS



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S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

100' 0' 100'
GRAPHIC SCALE

EPB EPB SAV HABITAT

NAD 83/2011

BENT 169 -L- 287+00 | BENT 170 -L- 288+00 | BENT 171 -L- 289+00 | BENT 172 -L- 290+00 | BENT 173 -L- 291+00 | BENT 174 -L- 292+00 | BENT 175 -L- 293+00

SEE PERMIT APPLICATION FOR
INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION

BENT 168 -L- 286+00 | BENT 176 -L- 294+00

CURRITUCK SOUND

SAV HABITAT SURVEY BOUNDARY

SITE 4 CONT AT EACH BENT

SITE 4 PERMANENT BRIDGE BENTS

MATCHLINE SHEET 15D -L- STA. 286+00

MATCHLINE SHEET 16A -L- STA. 294+00

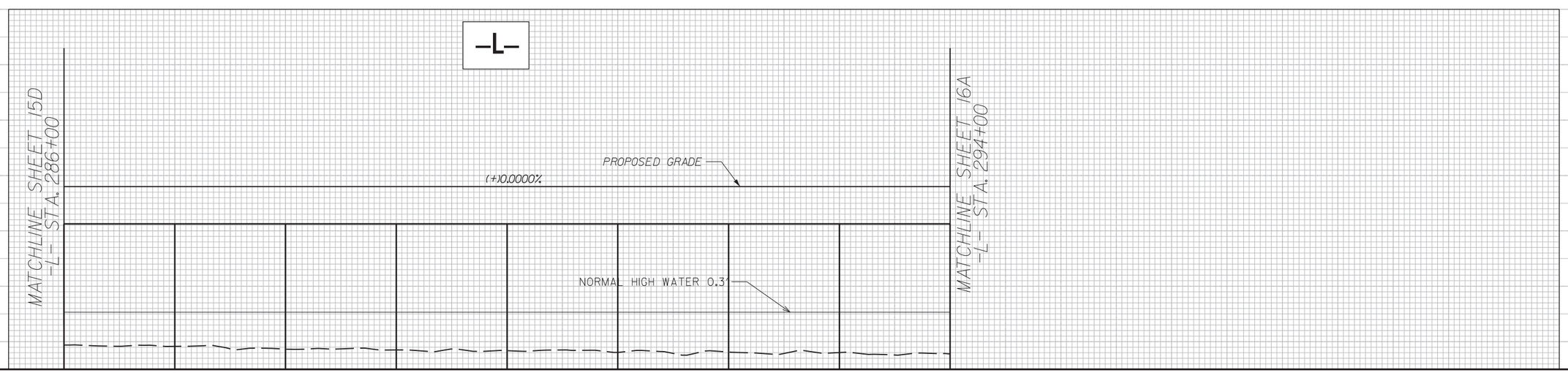
290+00

N 73°19'17" E

8' 24' 8'

.025 .025

TYPICAL OF BENT AND
TEMPORARY BRIDGE BENT IMPACTS



LOCHNER
H. W. LOCHNER, INC.
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RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	15E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 44 OF 89

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

4/23/2024
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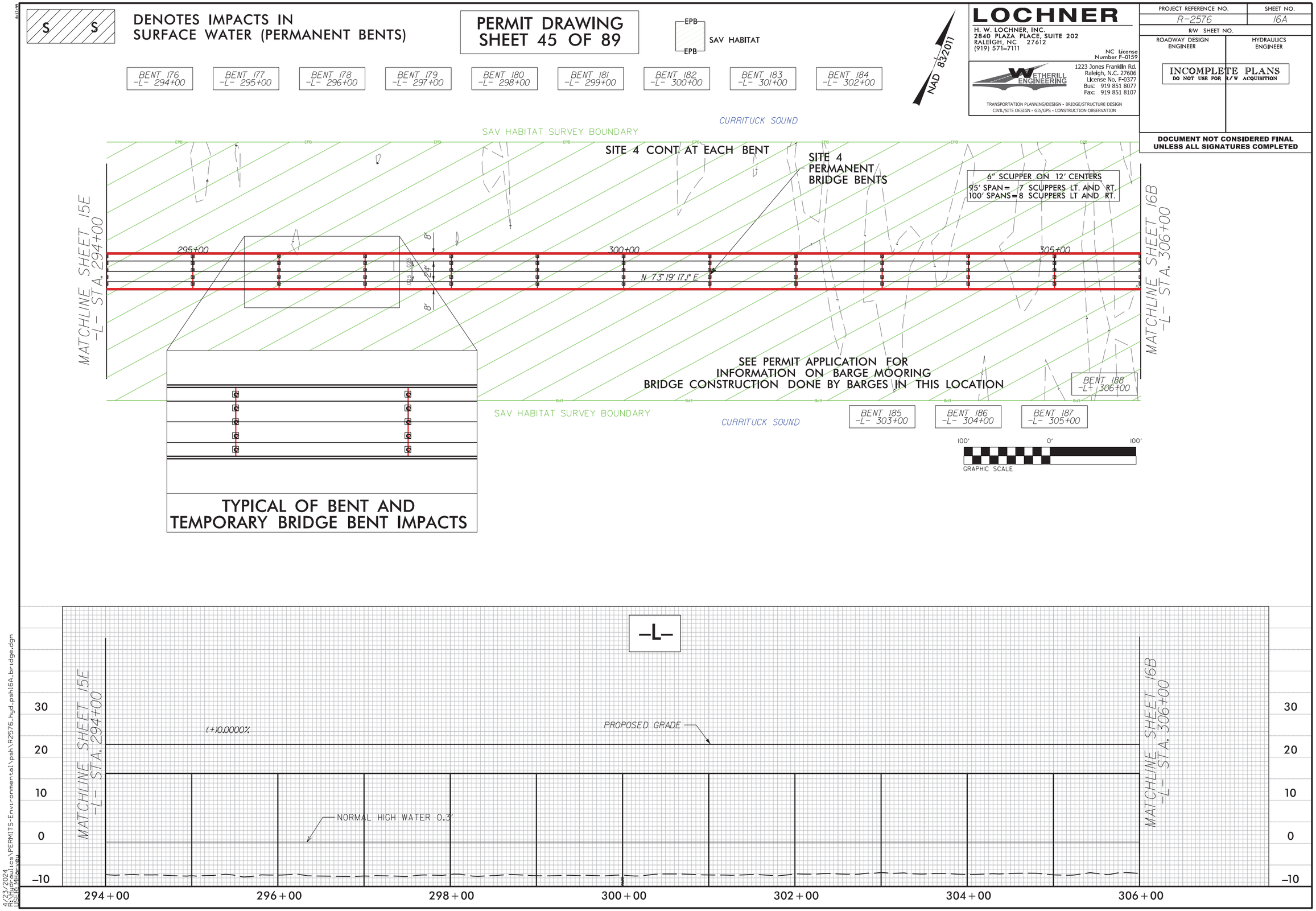

S S
DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)
PERMIT DRAWING SHEET 45 OF 89
EPB
SAV HABITAT
NAD 83/2011
LOCHNER
H. W. LOCHNER, INC.
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION
PROJECT REFERENCE NO.
R-2576
SHEET NO.
16A
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
BENT 176 -L- 294+00
BENT 177 -L- 295+00
BENT 178 -L- 296+00
BENT 179 -L- 297+00
BENT 180 -L- 298+00
BENT 181 -L- 299+00
BENT 182 -L- 300+00
BENT 183 -L- 301+00
BENT 184 -L- 302+00
CURRITUCK SOUND
SAV HABITAT SURVEY BOUNDARY
SITE 4 CONT AT EACH BENT
SITE 4 PERMANENT BRIDGE BENTS
6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.
MATCHLINE SHEET 15E -L- STA. 294+00
MATCHLINE SHEET 16B -L- STA. 306+00
295+00
300+00
305+00
N 73° 19' 17.1" E
8'
24'
8'
SEE PERMIT APPLICATION FOR INFORMATION ON BARGE MOORING
BRIDGE CONSTRUCTION DONE BY BARGES IN THIS LOCATION
BENT 188 -L- 306+00
SAV HABITAT SURVEY BOUNDARY
CURRITUCK SOUND
BENT 185 -L- 303+00
BENT 186 -L- 304+00
BENT 187 -L- 305+00
100' 0' 100'
GRAPHIC SCALE
TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS
-L-
MATCHLINE SHEET 15E -L- STA. 294+00
MATCHLINE SHEET 16B -L- STA. 306+00
(+)0.0000%
PROPOSED GRADE
NORMAL HIGH WATER 0.3'
30
20
10
0
-10
294+00
296+00
298+00
300+00
302+00
304+00
306+00
4/23/2024
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USER: MHarvey

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

PERMIT DRAWING
SHEET 46 OF 89

EPB SAV HABITAT EPB

NAD 83/2011

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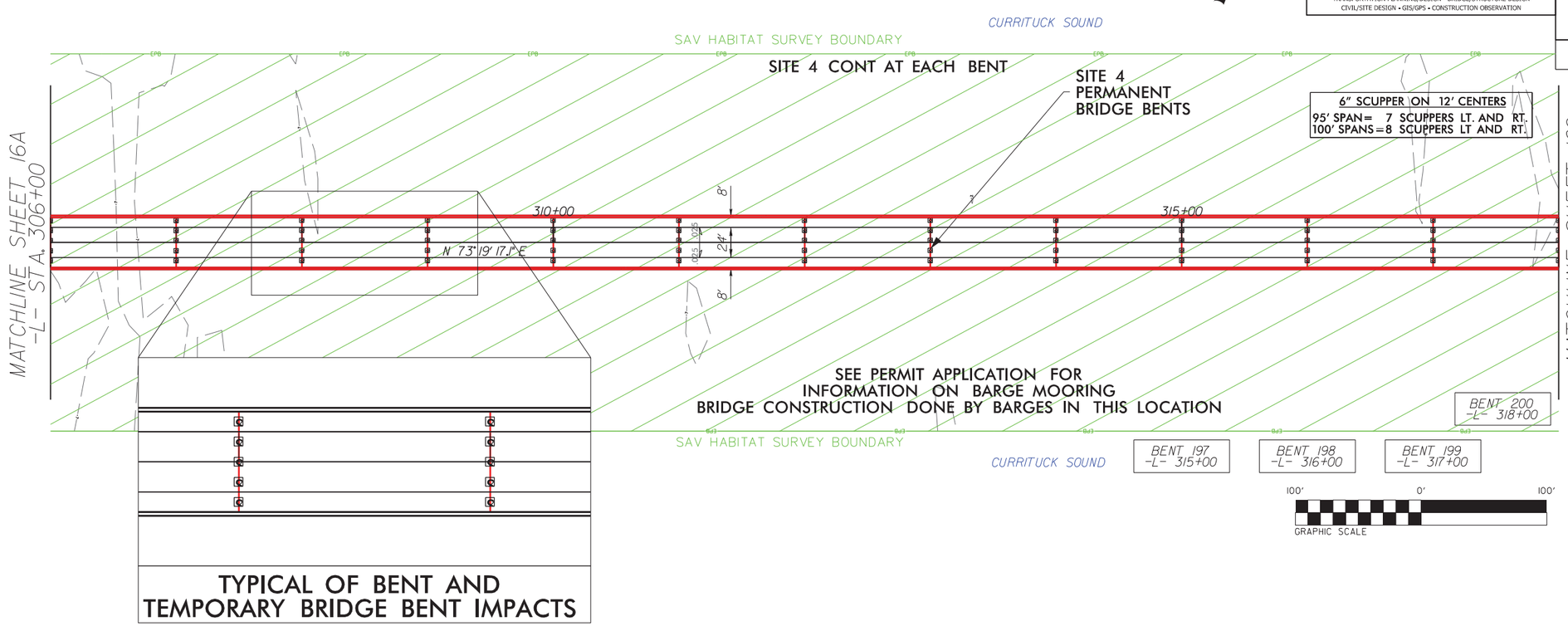
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

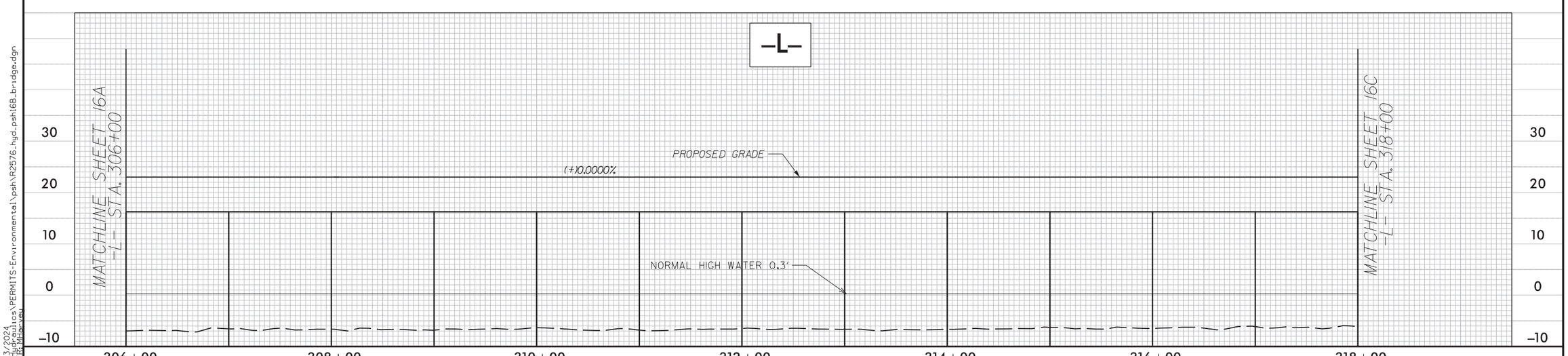
PROJECT REFERENCE NO.	SHEET NO.
R-2576	16B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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USER: Mdarvey

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

PERMIT DRAWING
SHEET 47 OF 89

EPB — SAV HABITAT — EPB

NAD 83/2011

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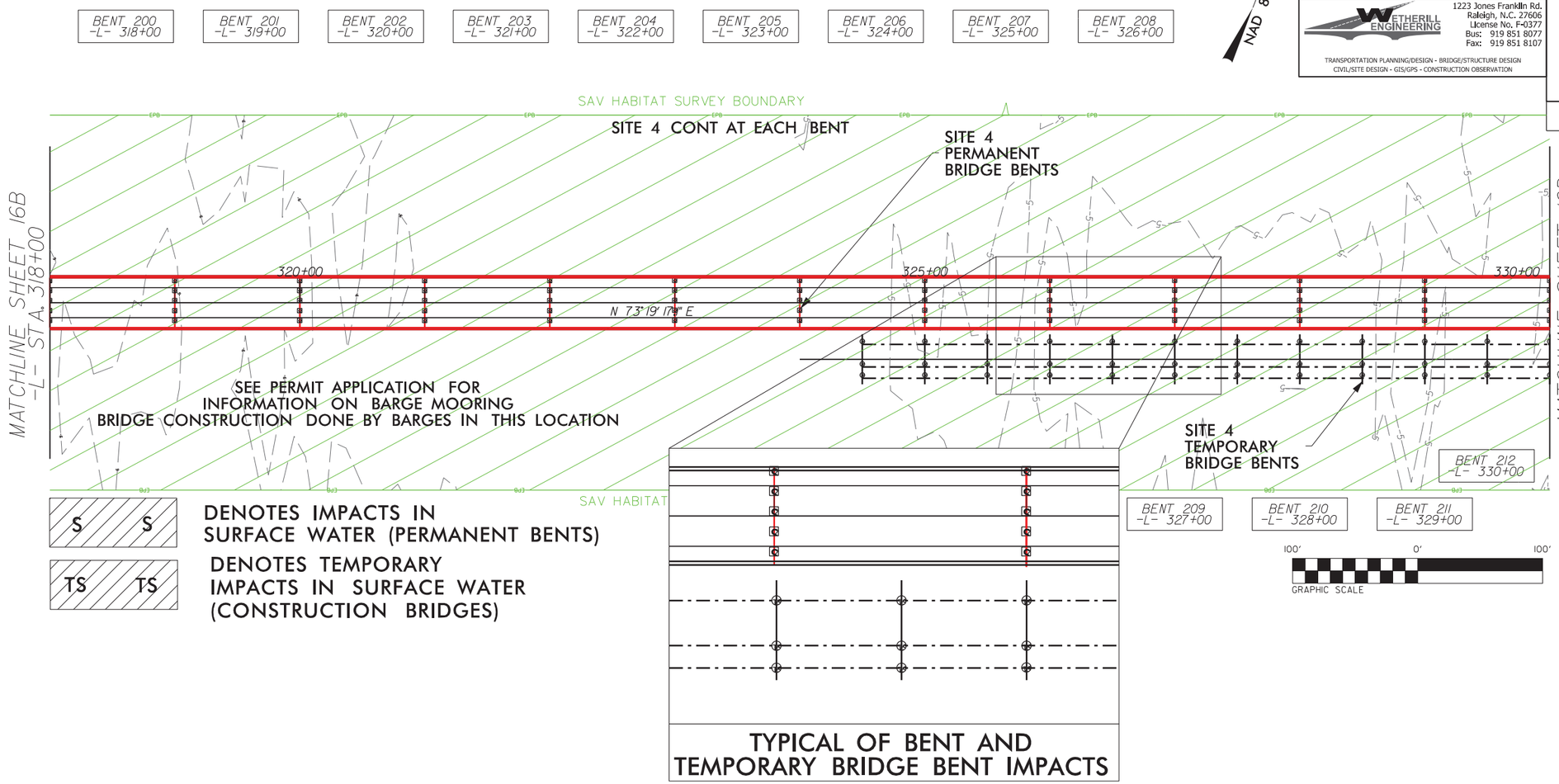
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

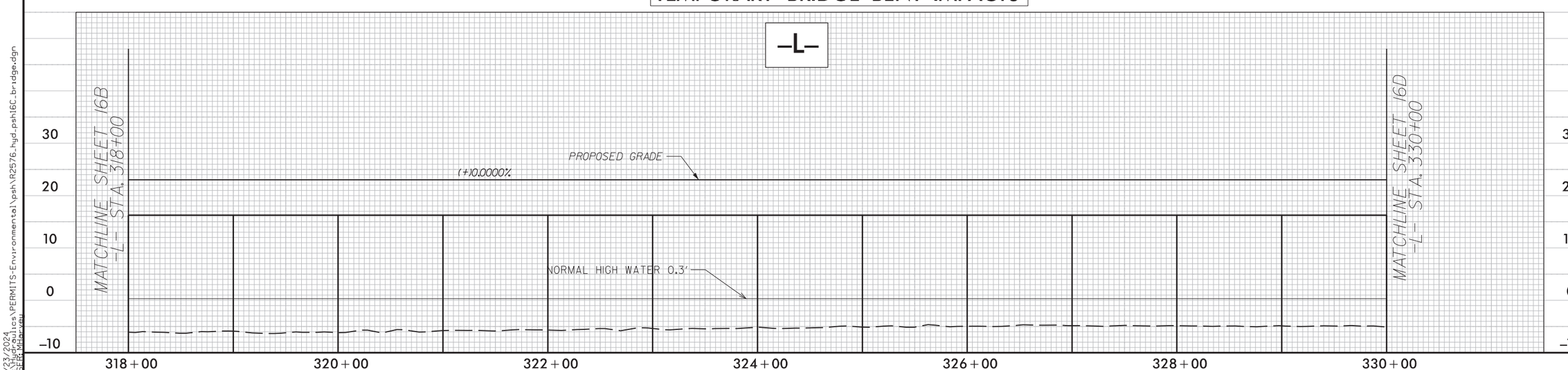
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS



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6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.

100' 0' 100'
GRAPHIC SCALE

EPB
SAV HABITAT
EPB

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CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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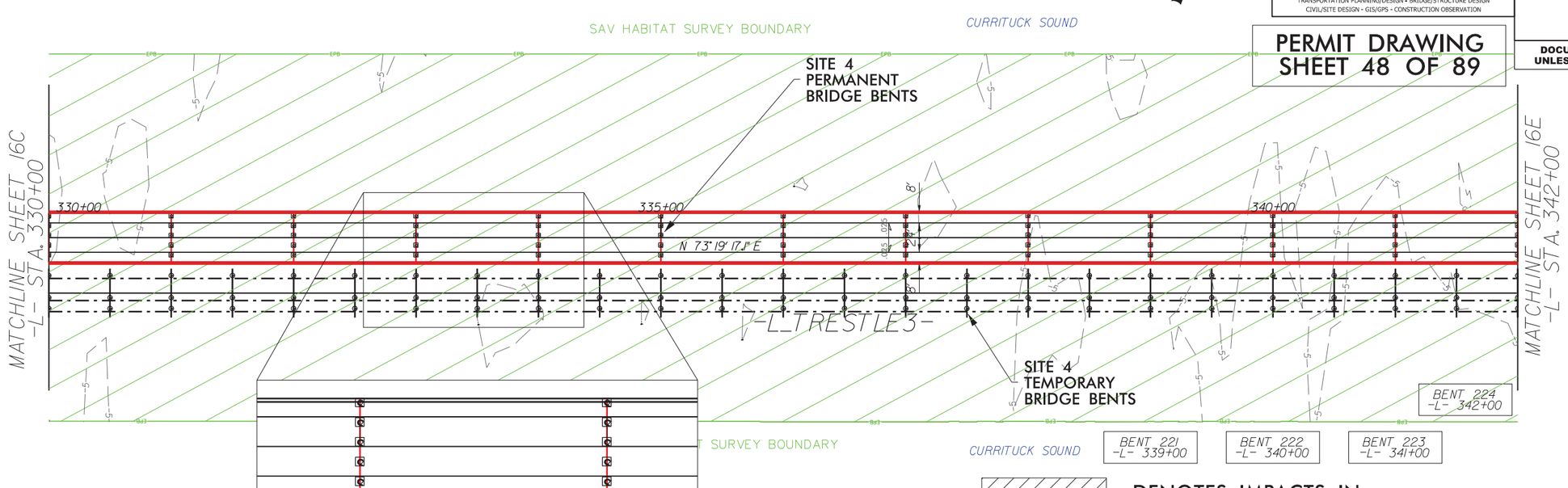
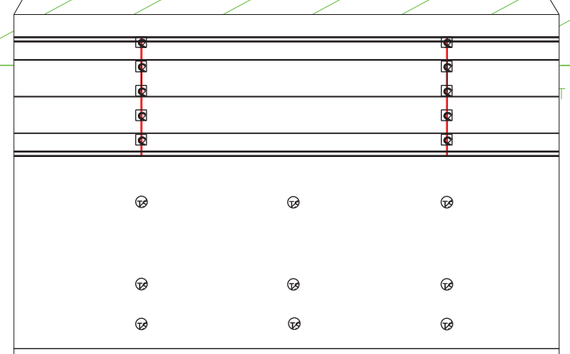
PERMIT DRAWING
SHEET 48 OF 89

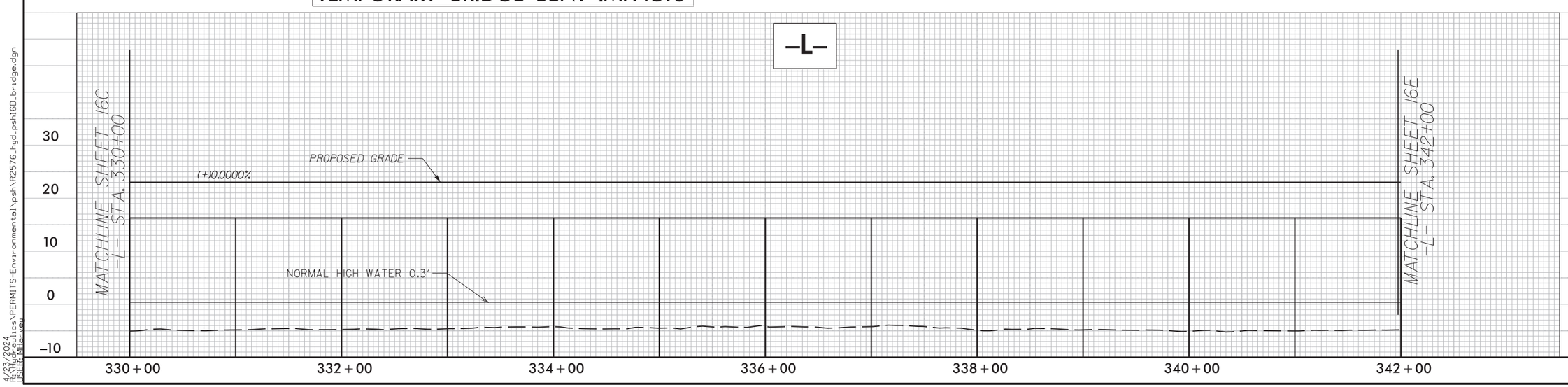




TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

S S DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)



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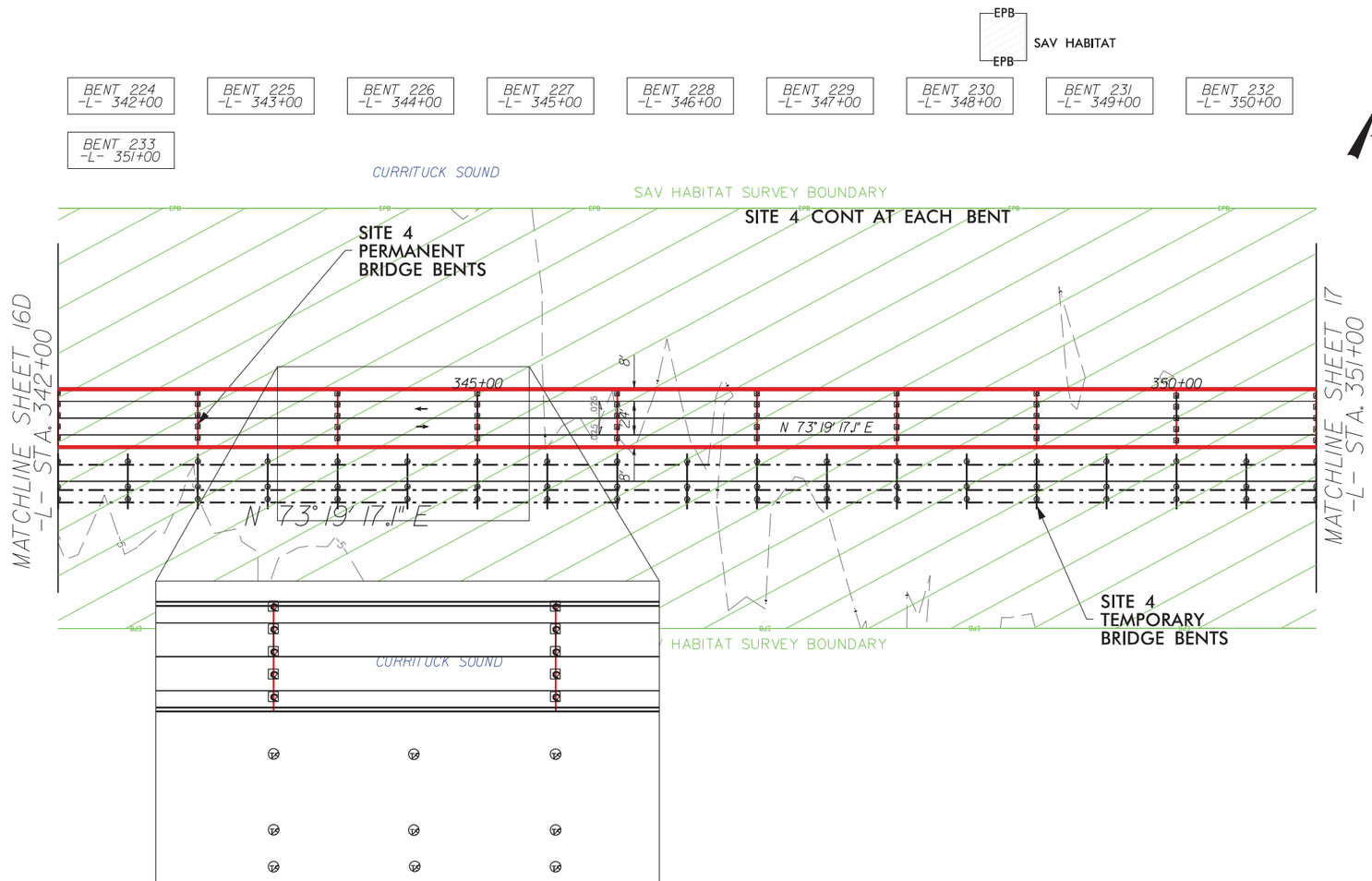
USER: MHarvey



TYPICAL OF BENT AND TEMPORARY BRIDGE BENT IMPACTS

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License No. F-0377
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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

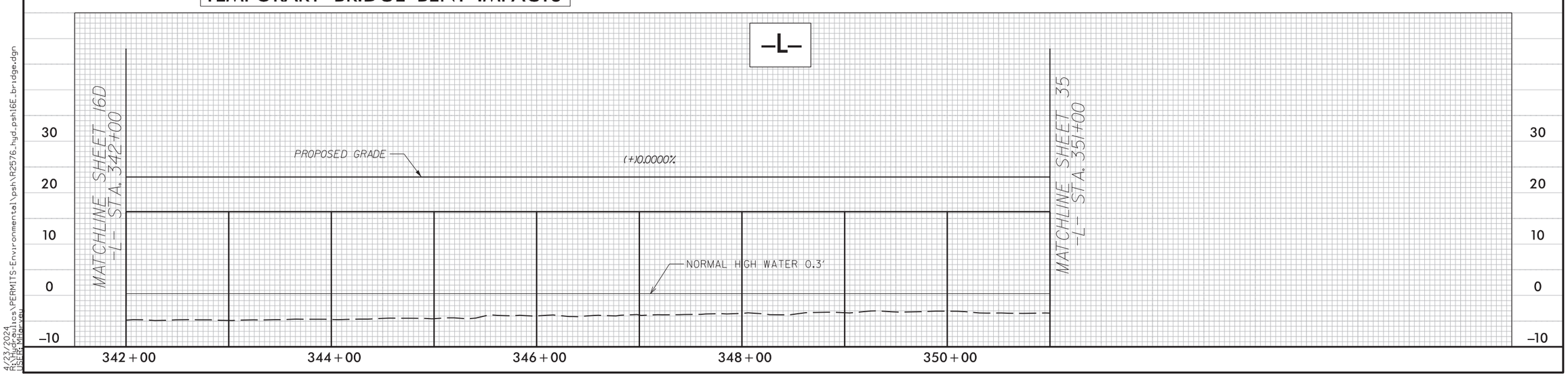
PERMIT DRAWING
SHEET 49 OF 89

S S — DENOTES IMPACTS IN SURFACE WATER (PERMANENT BENTS)

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER (CONSTRUCTION BRIDGES)

6" SCUPPER ON 12' CENTERS
95' SPAN = 7 SCUPPERS LT. AND RT.
100' SPANS = 8 SCUPPERS LT AND RT.

100' 0' 100'
GRAPHIC SCALE



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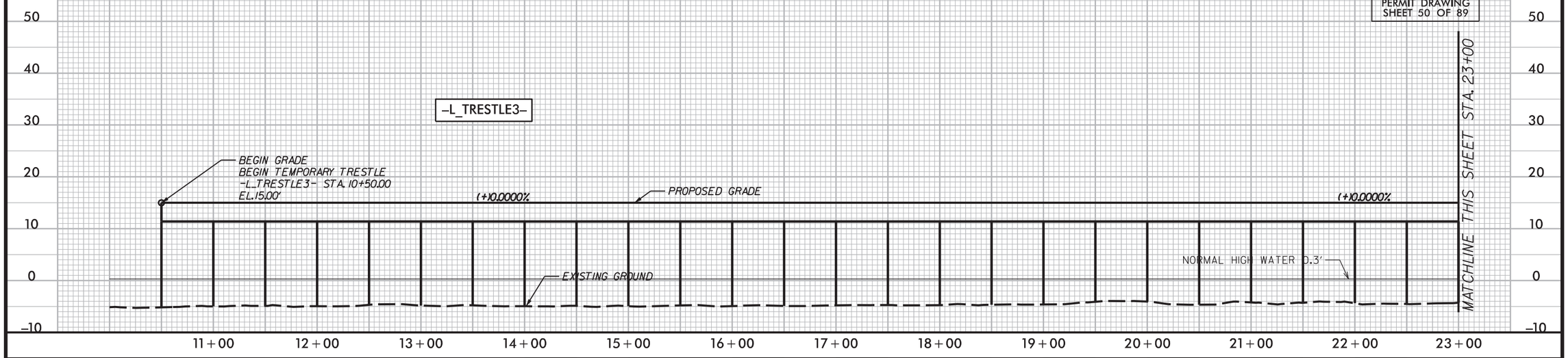
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	54
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 50 OF 89



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USER:MHarvey

6/2/99

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 51 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
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Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	17
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

6" SCUPPER ON 12' CENTERS
95' SPAN= 7 SCUPPERS LT. AND RT.
100' SPANS=8 SCUPPERS LT AND RT.
END DECK DRAINS STA. 358+45 RT.
END DECK DRAINS STA. 358+45 LT.

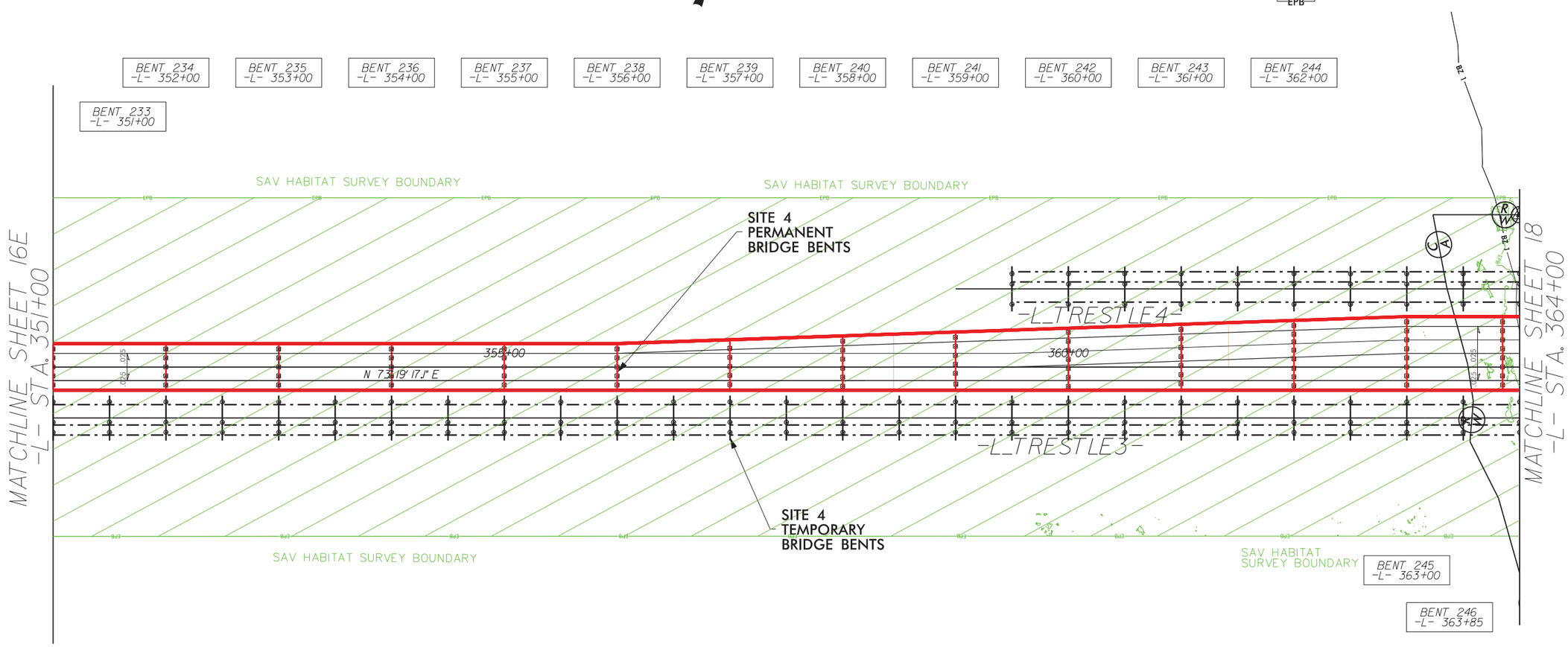
NAD 83/2011

100' 0' 100'
GRAPHIC SCALE

NORMAL HIGH WATER 0.3'

EPB SAV HABITAT EPB

PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE

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USER: MHarvey

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TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 52 OF 89

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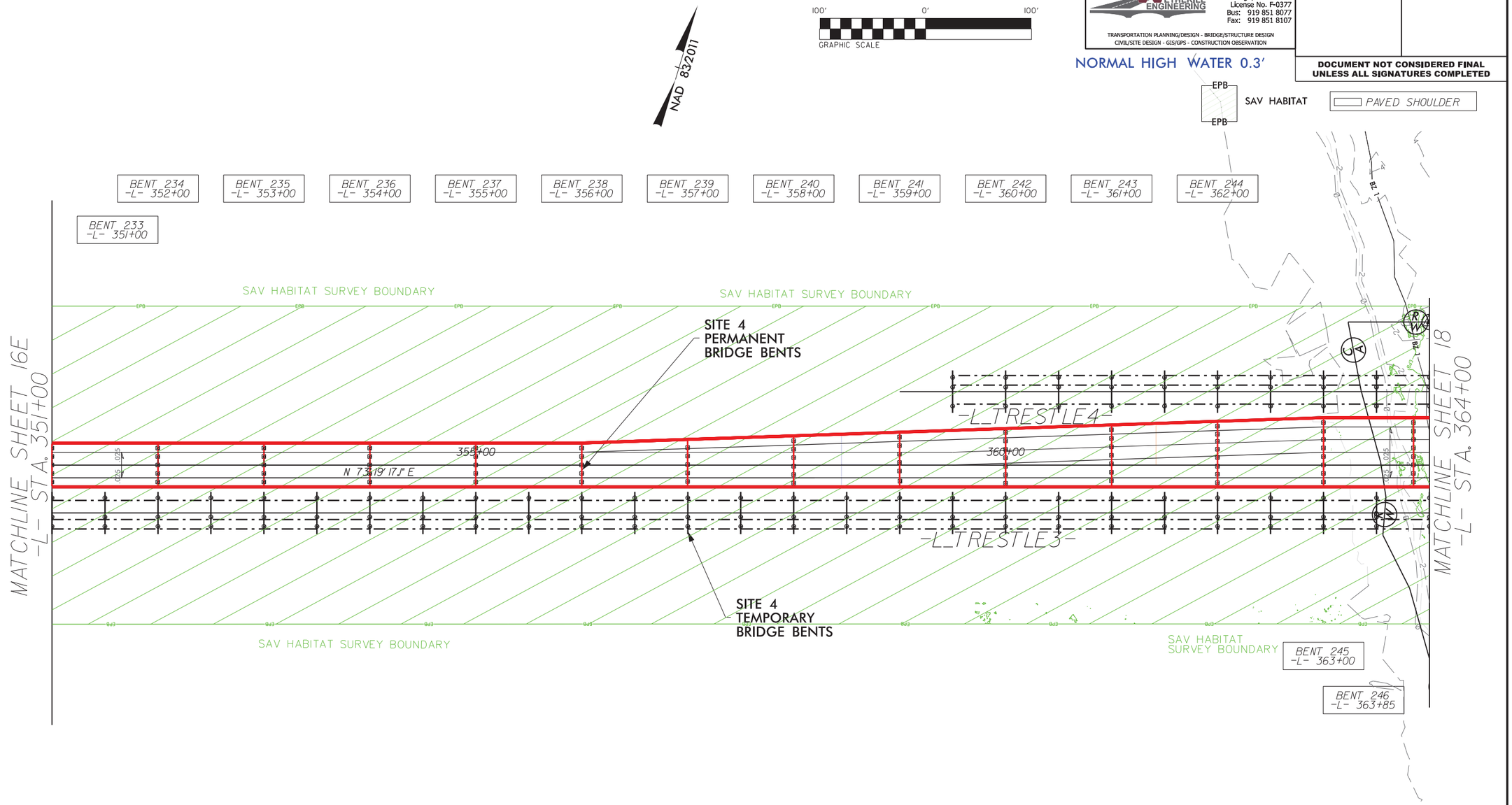
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	17
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE

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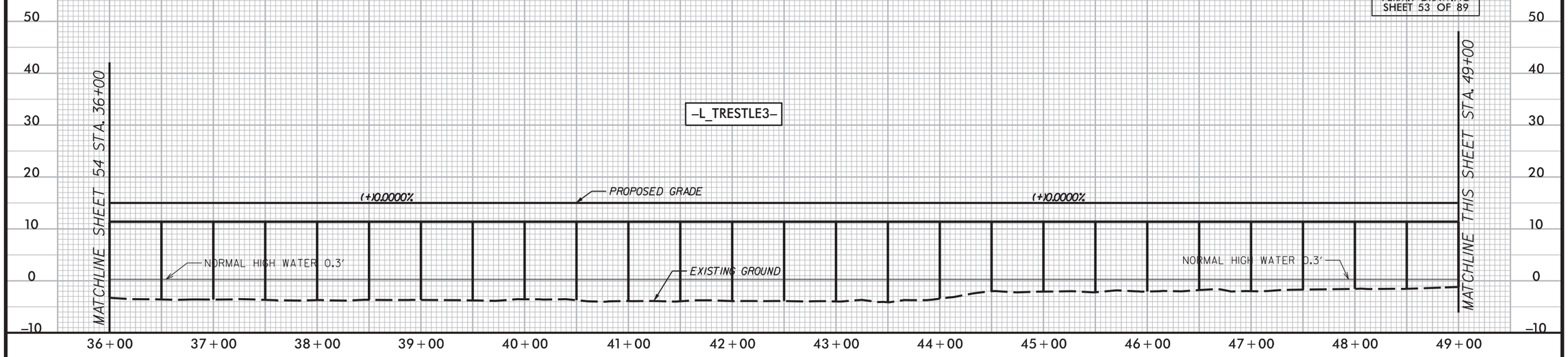
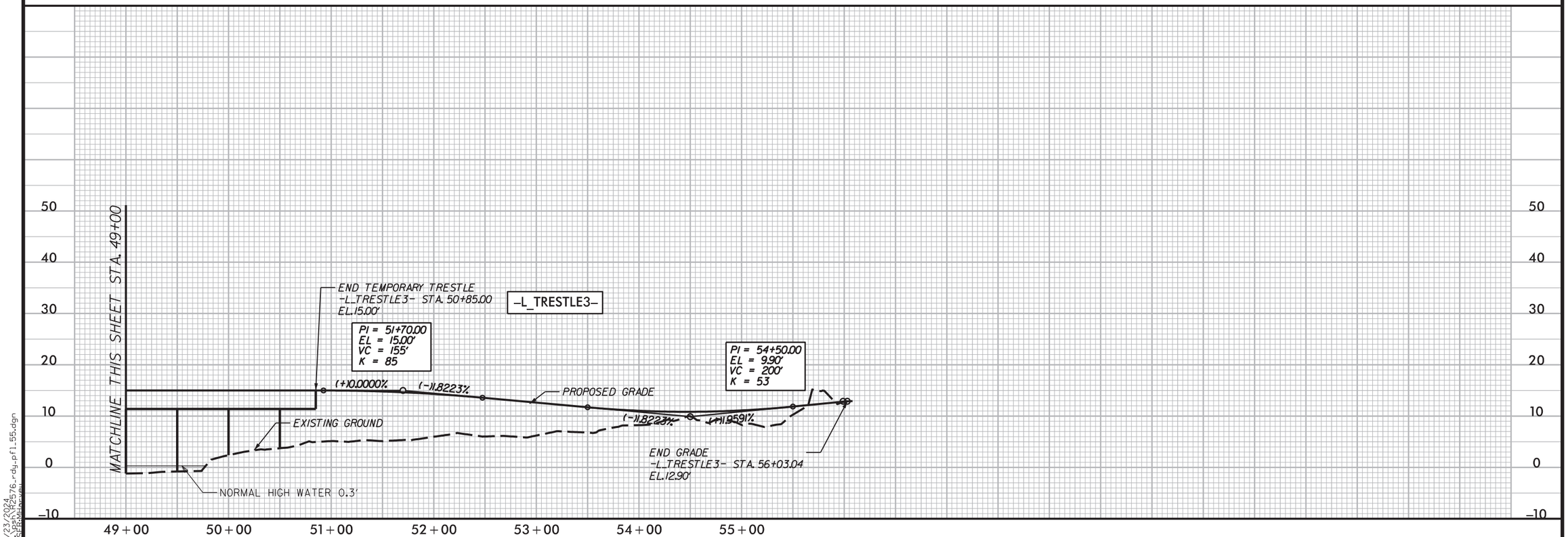
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	55
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 53 OF 89





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4/23/2024
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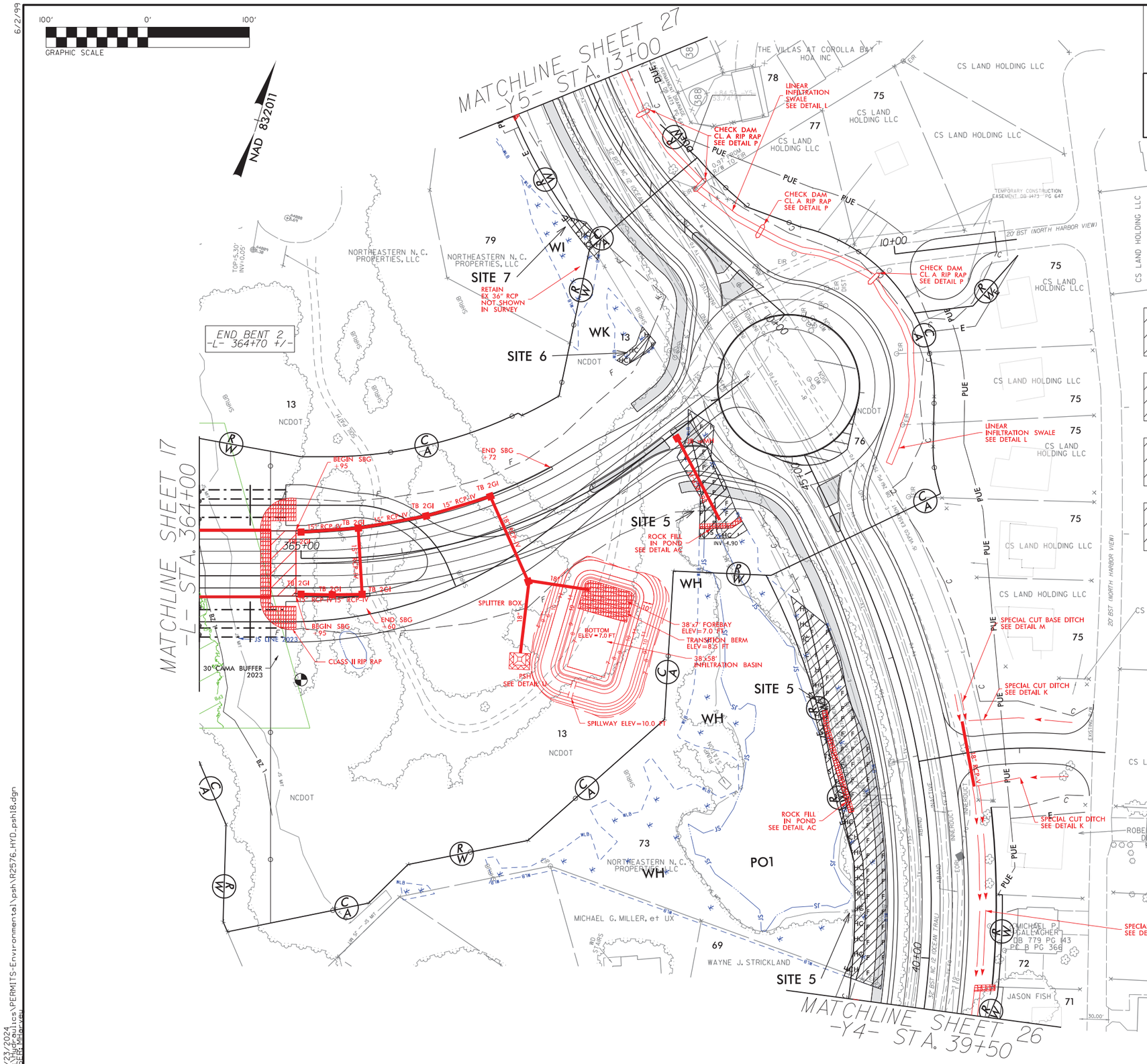

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	18
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 54 OF 89

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

P P DENOTES IMPACTS IN SURFACE WATER (POND)

6/2/99

4/23/2024
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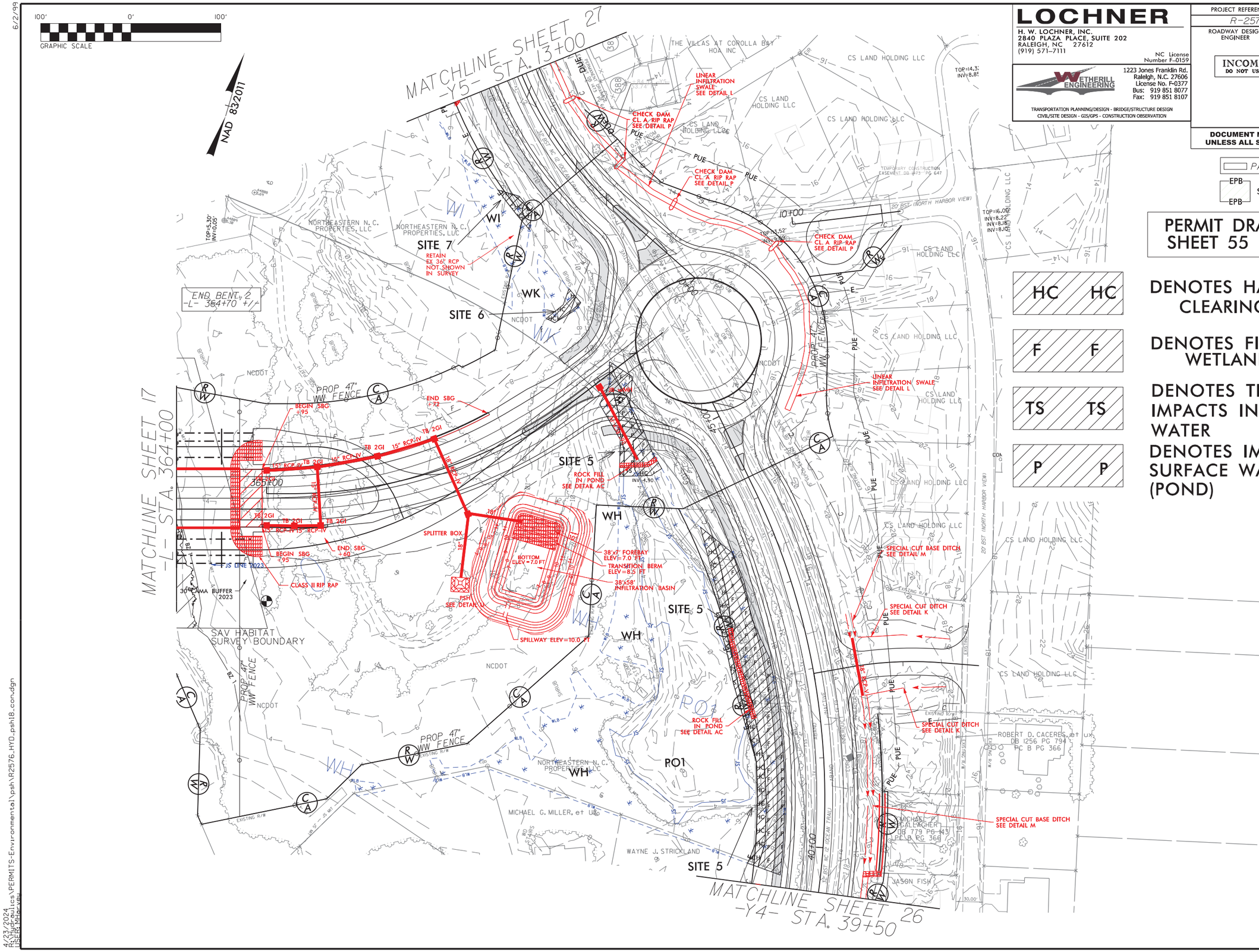
USER:MHarvey

6/2/99



LOCHNER

H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	18
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

EPB SAV HABITAT EPB

PERMIT DRAWING
SHEET 55 OF 89

HC HC — DENOTES HAND CLEARING

F F — DENOTES FILL IN WETLAND

TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER

P P — DENOTES IMPACTS IN SURFACE WATER (POND)

8/23/2024
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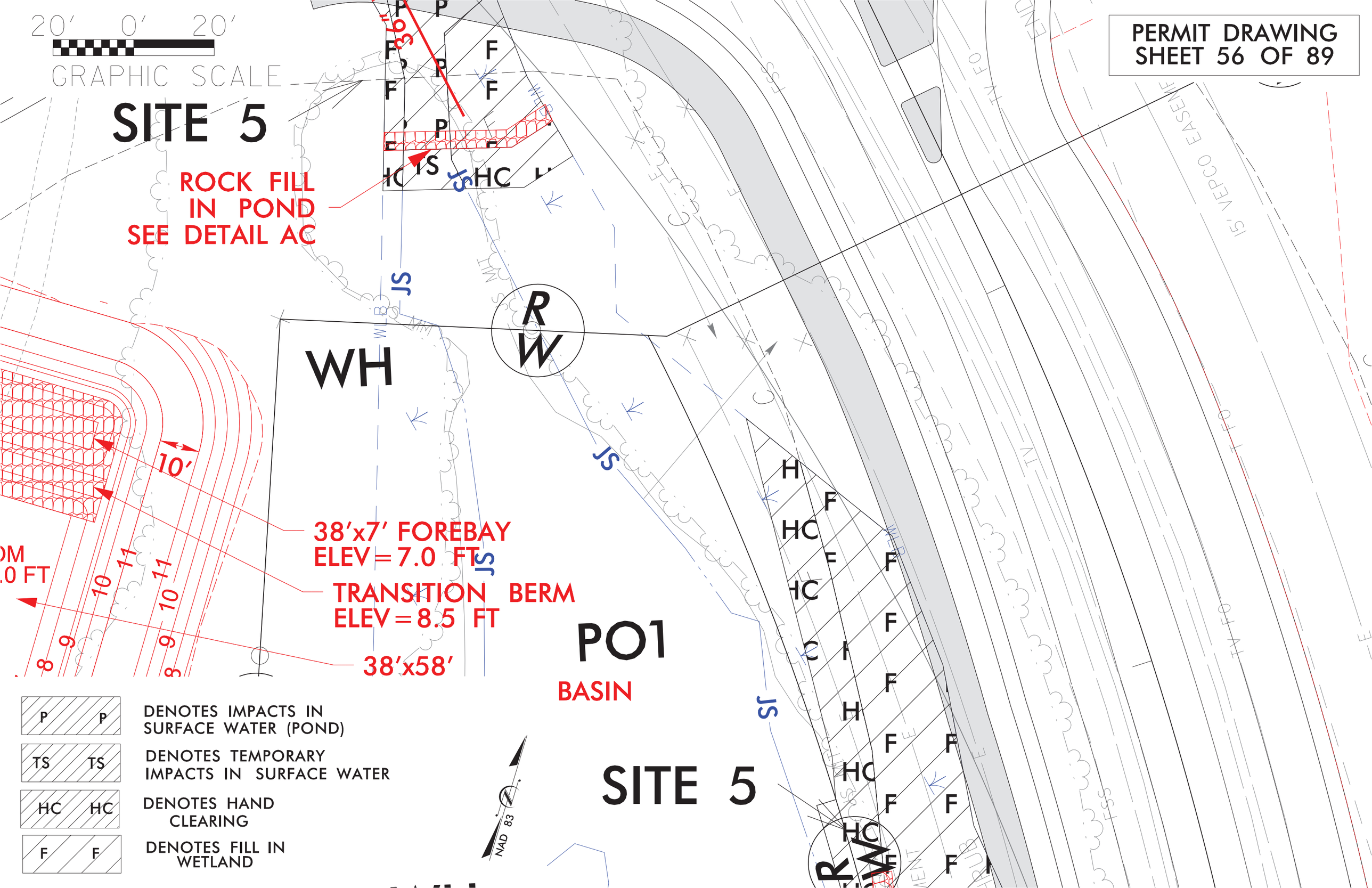
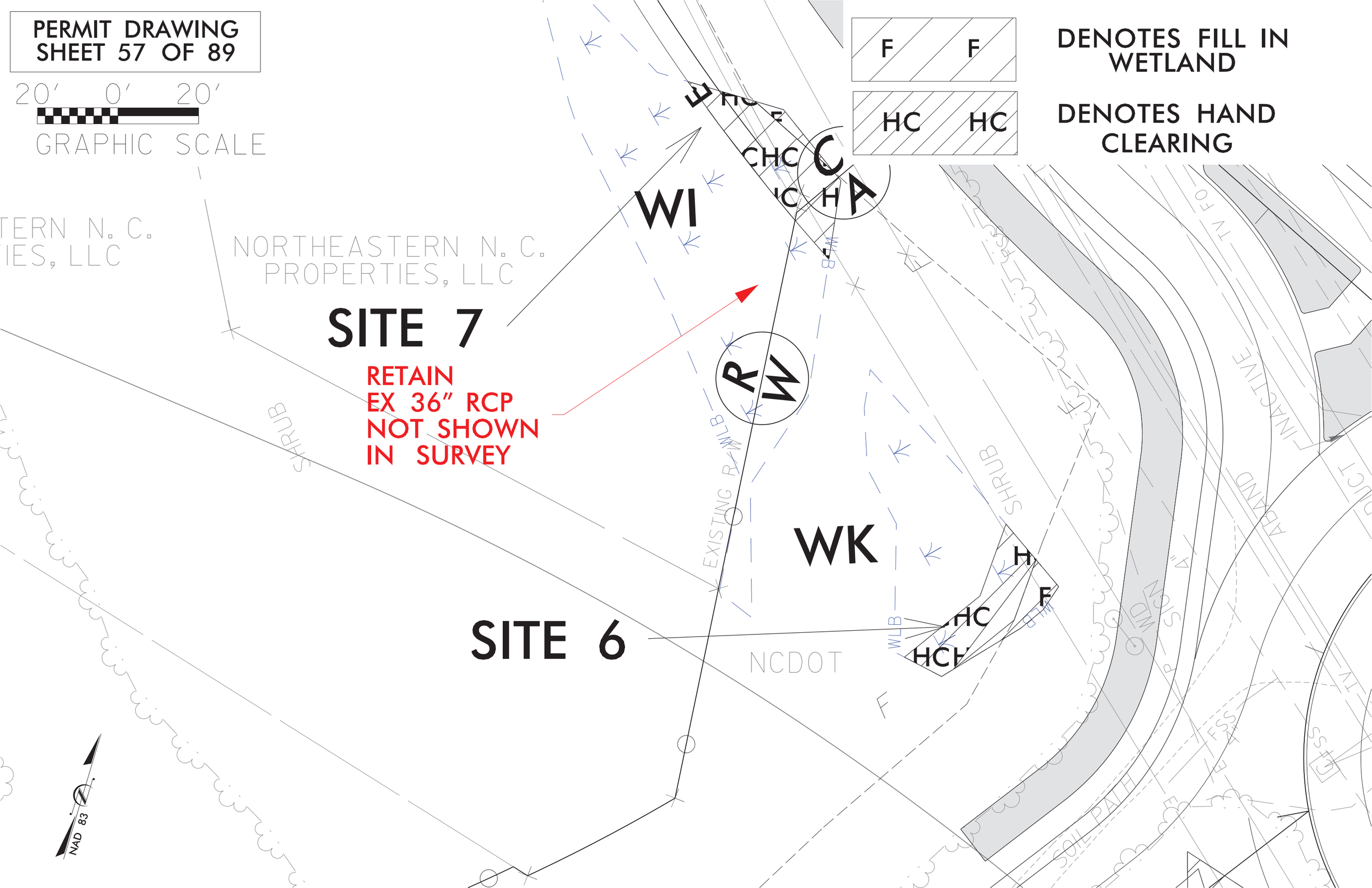
USER: Mhargrove

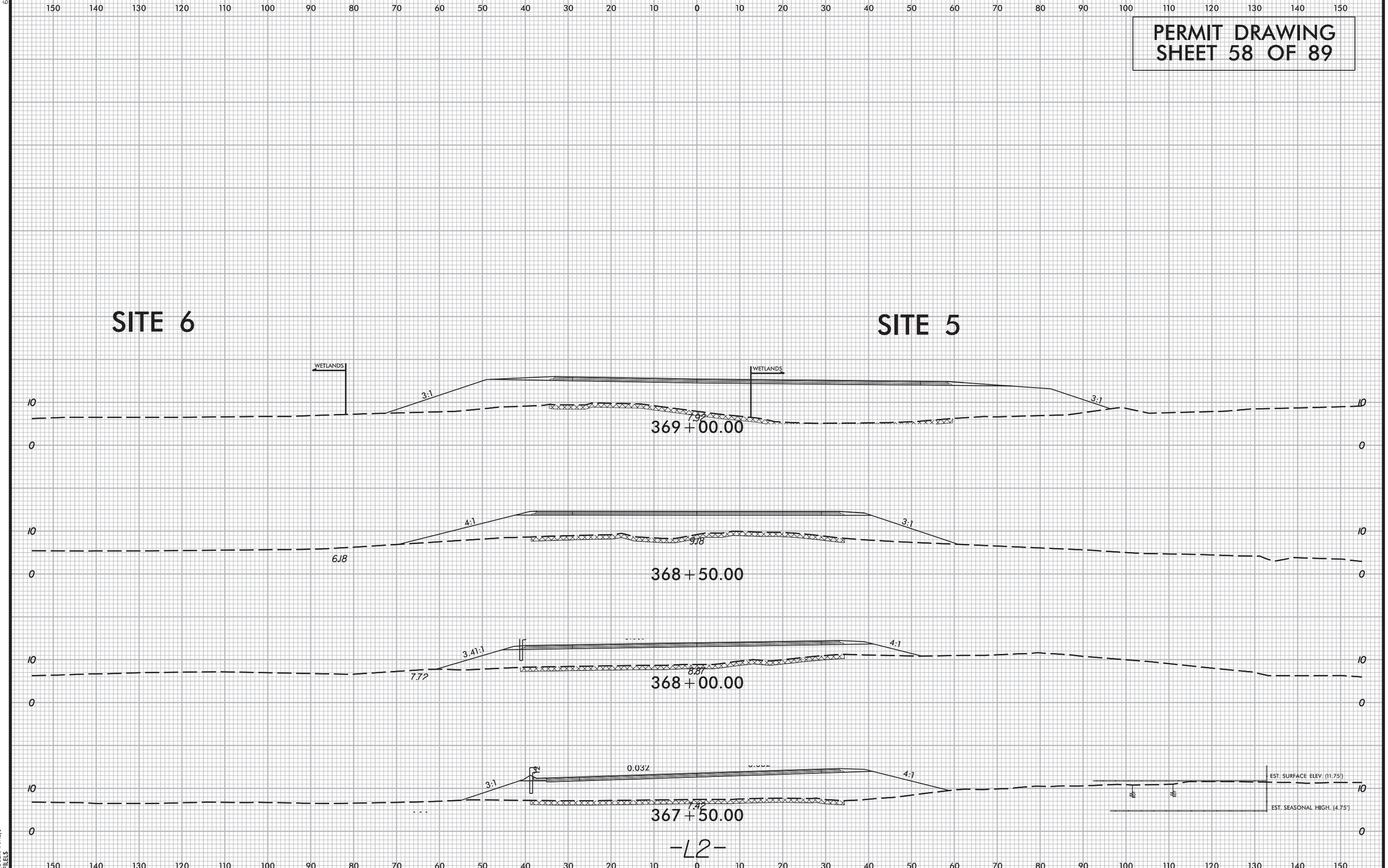

PERMIT DRAWING
SHEET 56 OF 89
20' 0' 20'
GRAPHIC SCALE
SITE 5
ROCK FILL
IN POND
SEE DETAIL AC
36"
WH
RW
10'
38'x7' FOREBAY
ELEV = 7.0 FT
TRANSITION BERM
ELEV = 8.5 FT
38'x58'
PO1
BASIN
SITE 5
NAD 83
P P DENOTES IMPACTS IN SURFACE WATER (POND)
TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC DENOTES HAND CLEARING
F F DENOTES FILL IN WETLAND


PERMIT DRAWING
SHEET 57 OF 89
20' 0' 20'
GRAPHIC SCALE
F F
DENOTES FILL IN WETLAND
HC HC
DENOTES HAND CLEARING
NORTHEASTERN N. C. PROPERTIES, LLC
SITE 7
RETAIN
EX 36" RCP
NOT SHOWN
IN SURVEY
WI
WK
SITE 6
NCDOT
EXISTING R/W
SHRUB
SOIL PATH
INACTIVE
ABAND
NAD 83

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-11

PERMIT DRAWING
SHEET 58 OF 89



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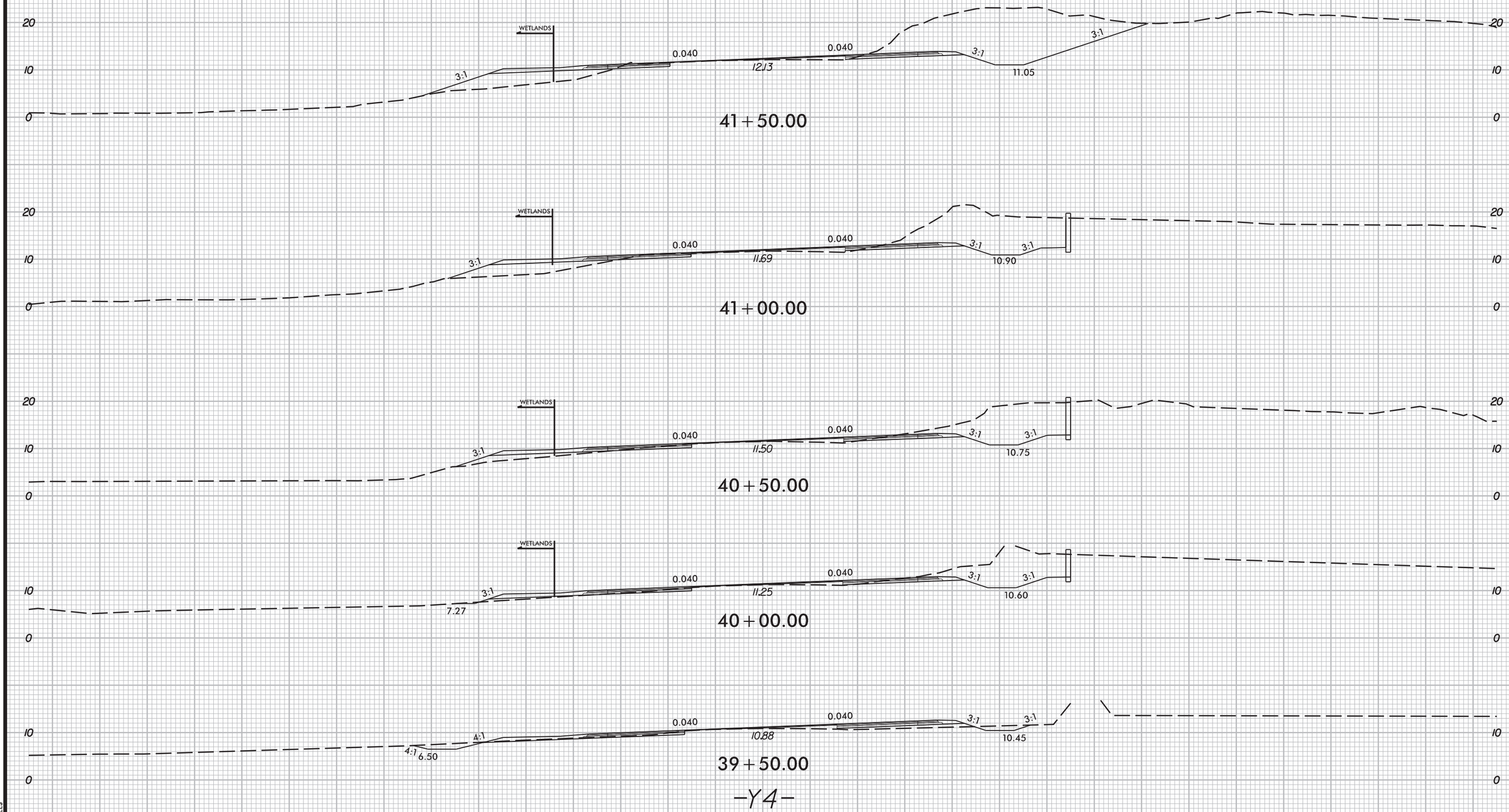
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-83

PERMIT DRAWING
SHEET 59 OF 89

SITE 5



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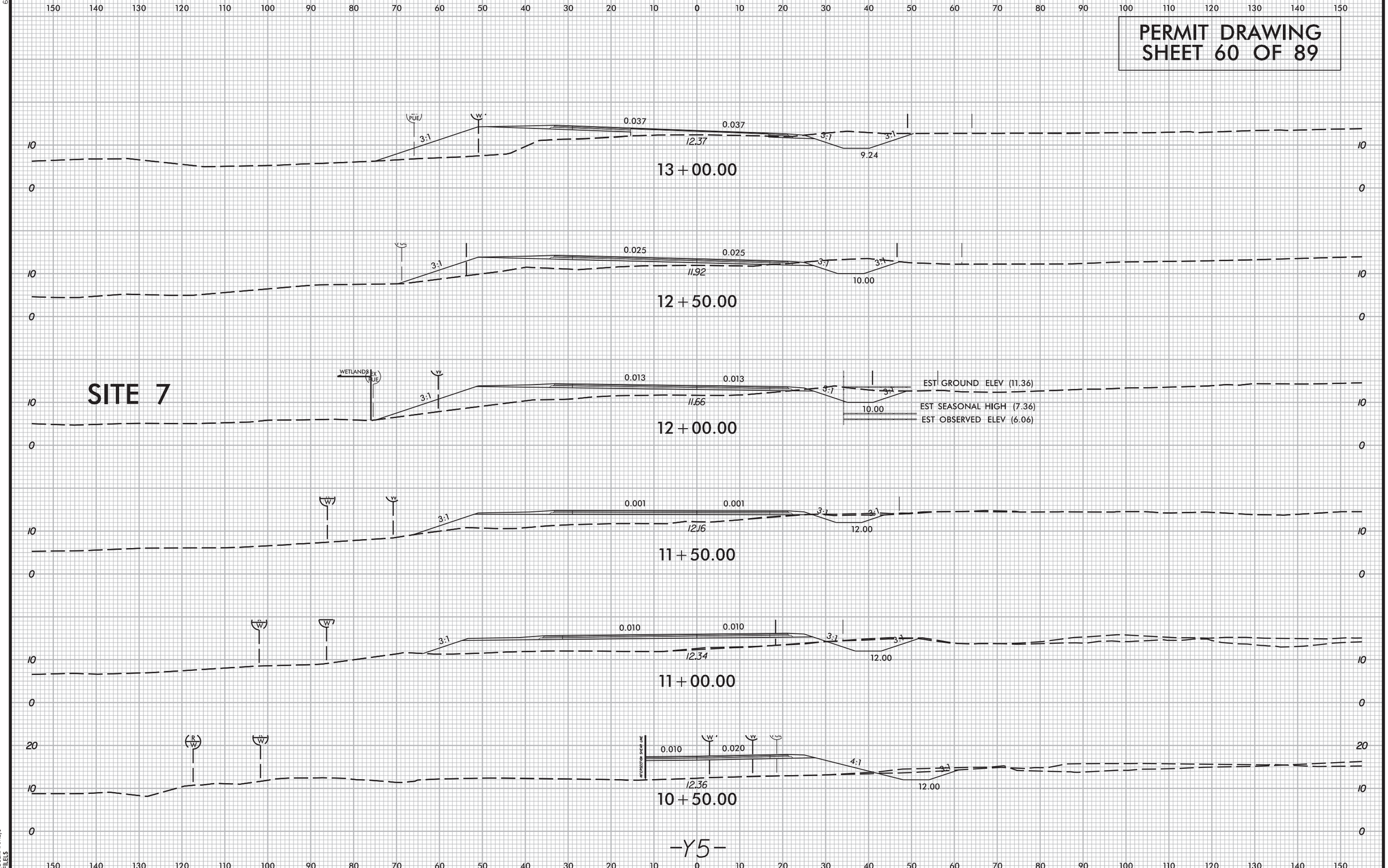
$FILE$

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-90

PERMIT DRAWING
SHEET 60 OF 89

SITE 7



6/23/16

$DATES
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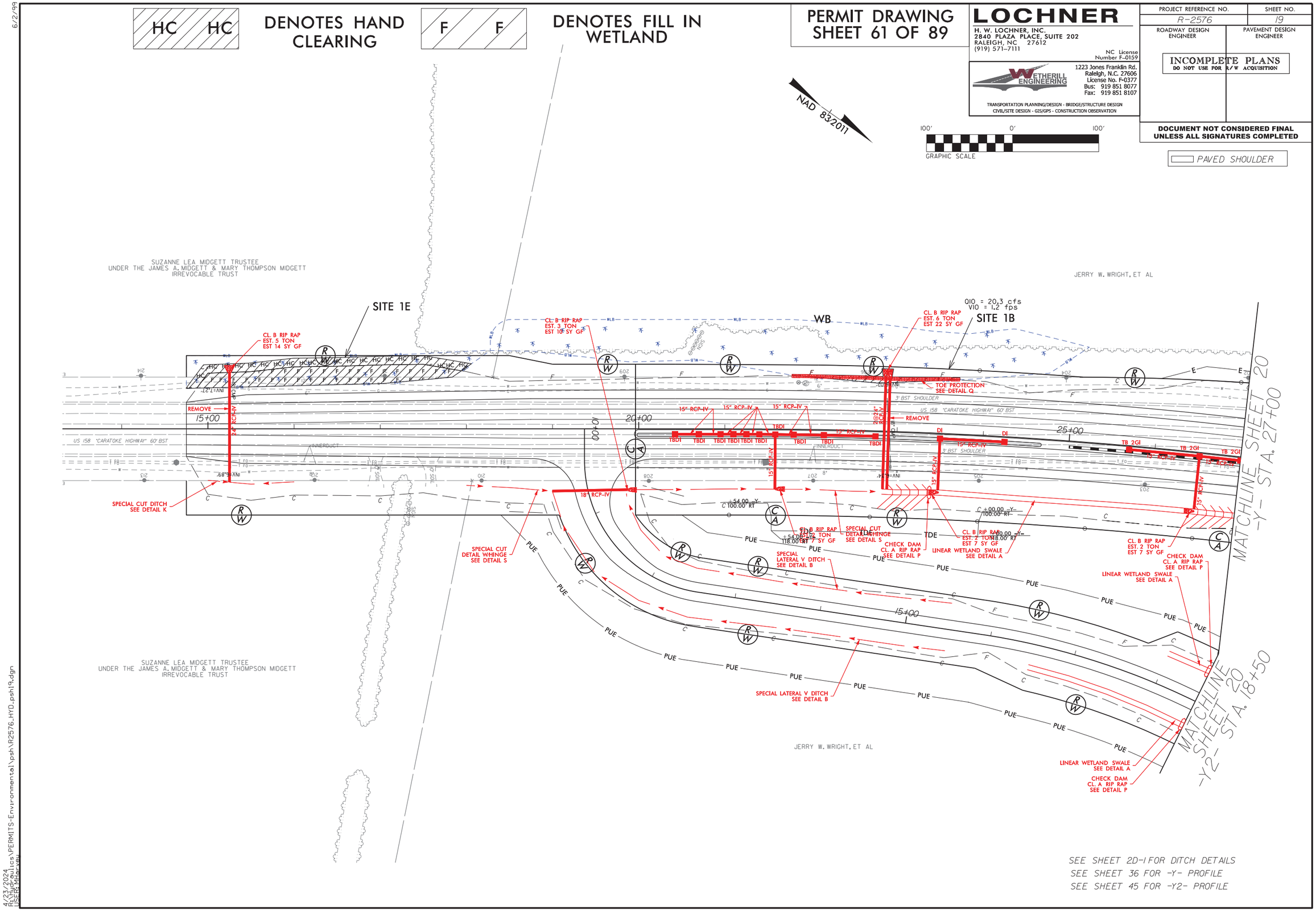

6/2/99

4/23/2024
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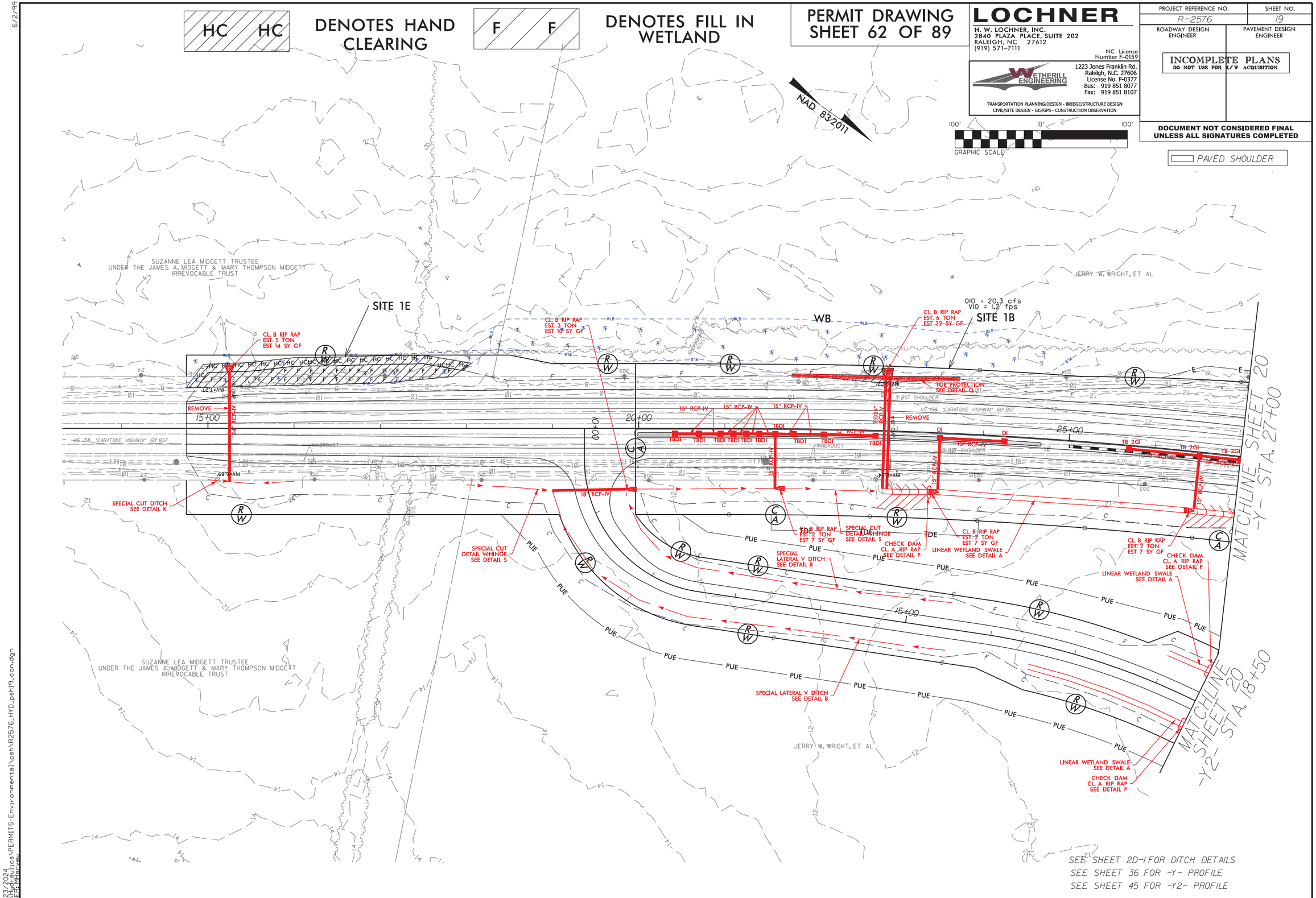
USER: MHarvey



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4/23/2024
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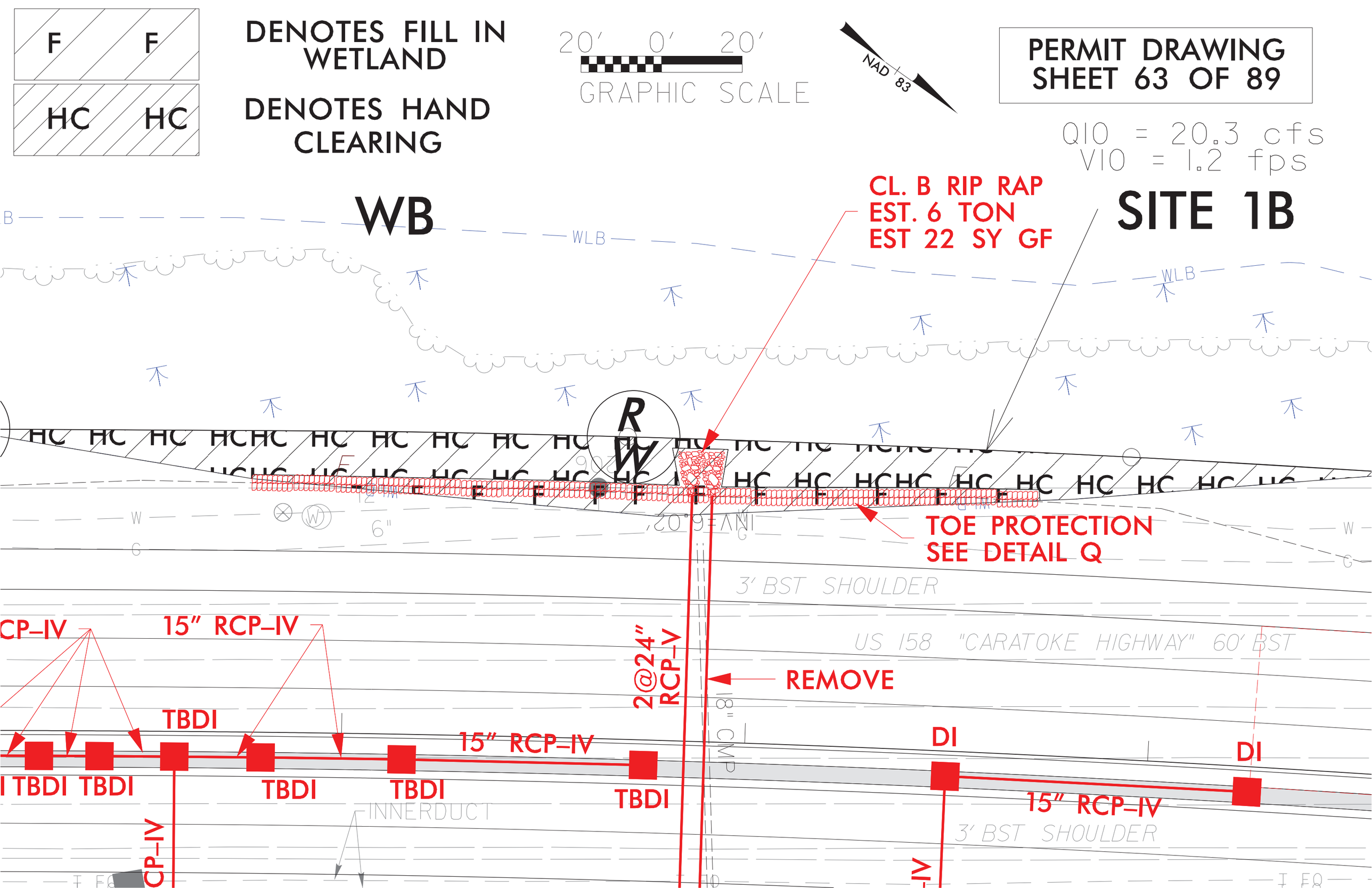
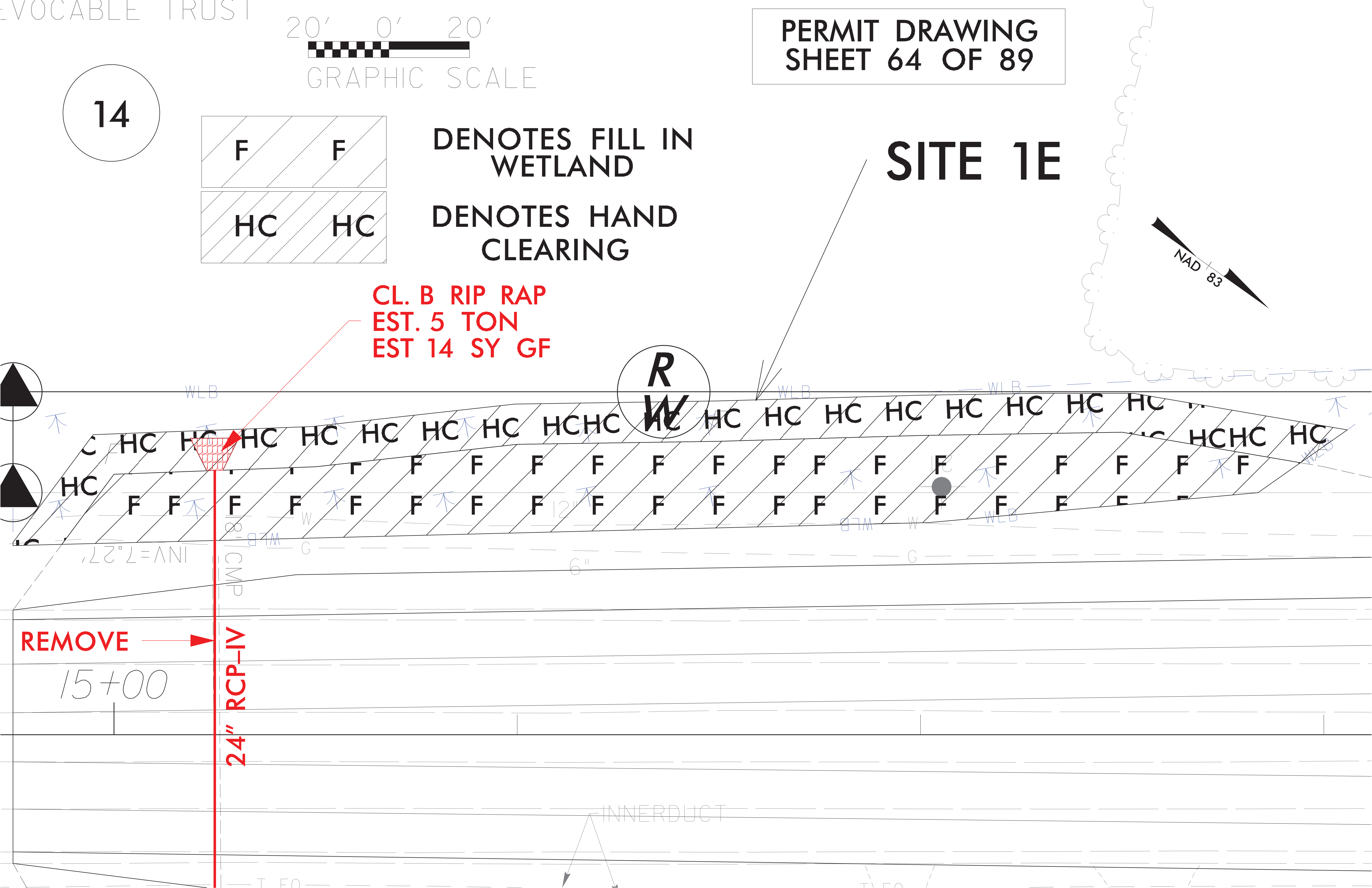
USER: MHarvey


F F
HC HC
DENOTES FILL IN WETLAND
DENOTES HAND CLEARING
20' 0' 20'
GRAPHIC SCALE
NAD 83
PERMIT DRAWING
SHEET 63 OF 89
Q10 = 20.3 cfs
V10 = 1.2 fps
WB
SITE 1B
CL. B RIP RAP
EST. 6 TON
EST 22 SY GF
WLB
R
W
TOE PROTECTION
SEE DETAIL Q
3' BST SHOULDER
US 158 "CARATOKE HIGHWAY" 60' BST
REMOVE
2@24" RCP-V
15" RCP-IV
TBDI
DI
INNERDUCT
18" CMP

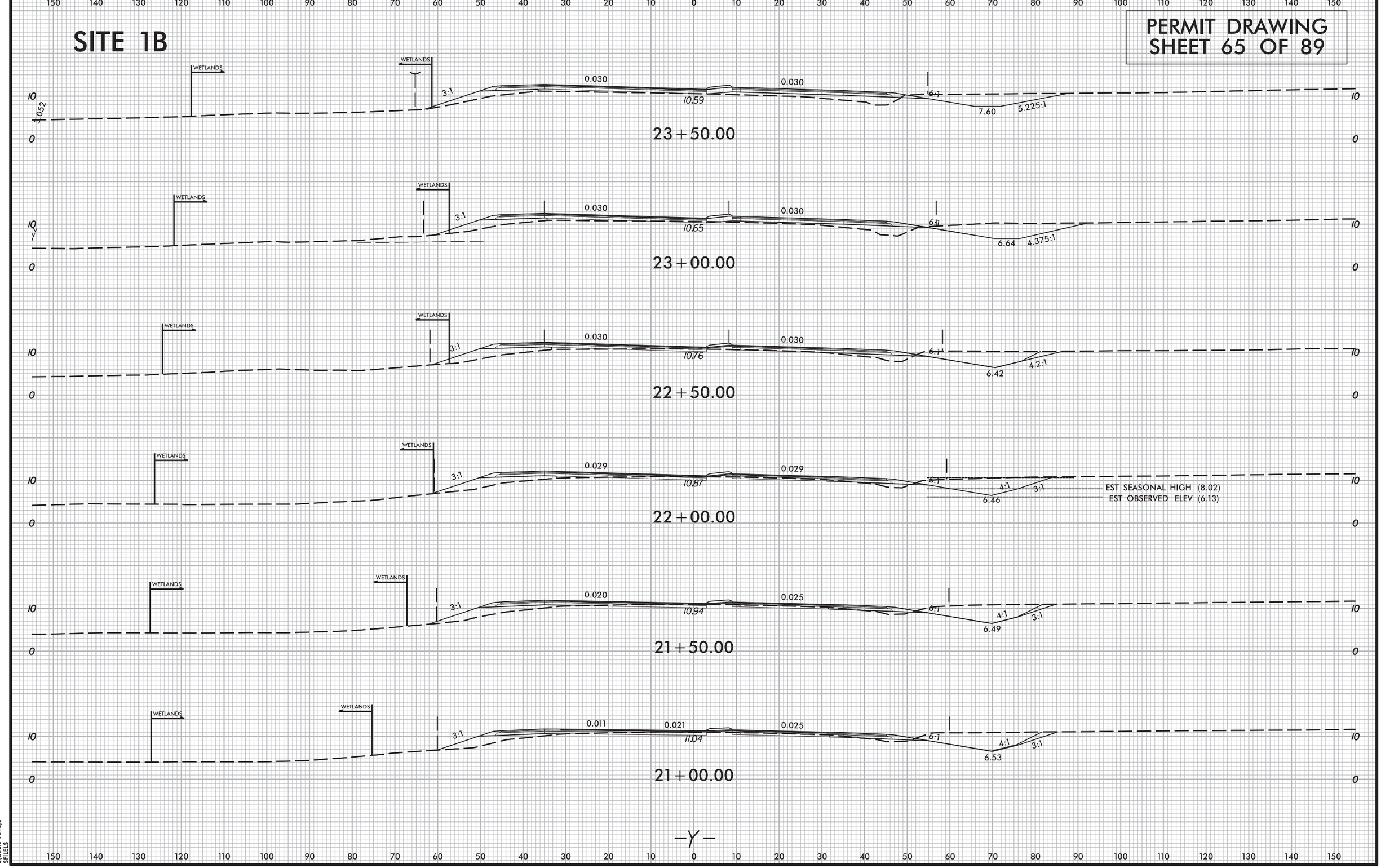

PERMIT DRAWING
SHEET 64 OF 89
20' 0' 20'
GRAPHIC SCALE
14
F F
DENOTES FILL IN WETLAND
HC HC
DENOTES HAND CLEARING
SITE 1E
NAD 83
CL. B RIP RAP
EST. 5 TON
EST 14 SY GF
R
W
WLB
INV=7.27'
18" CMP
6"
12"
G
REMOVE
15+00
24" RCP-IV
INNERDUCT

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-14

SITE 1B

PERMIT DRAWING
SHEET 65 OF 89



$DATES
$USERNAME$
$FILEL$

6/2/99

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 66 OF 89

LOCHNER
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WETHERILL ENGINEERING
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Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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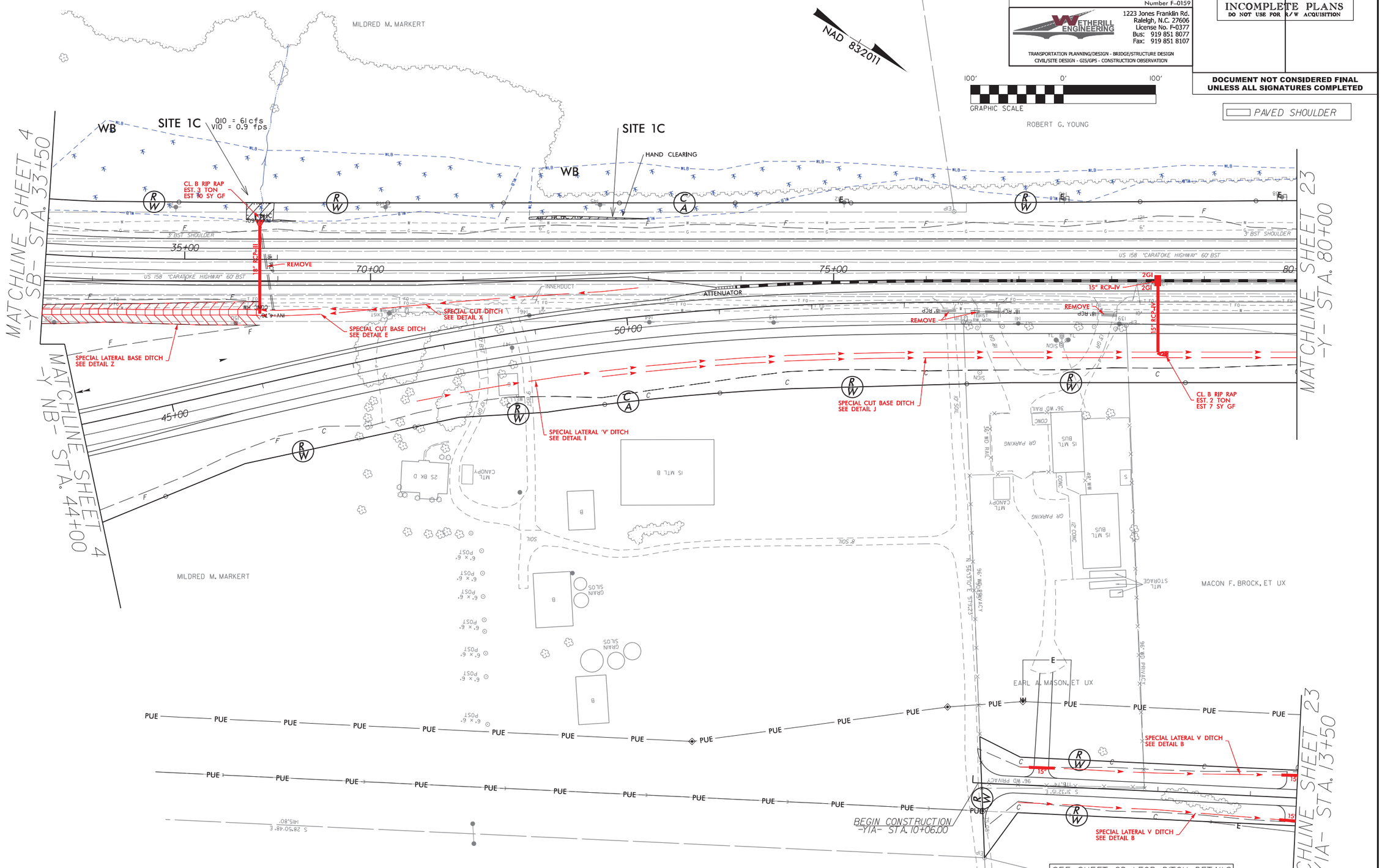
PAVED SHOULDER



	SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 37-38 FOR -Y- PROFILE	SEE SHEET 40-41 FOR -Y_NB- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE	SEE SHEET 44 FOR -YIA- PROFILE

4/23/2024
R:\Hydraulics\PERMITS-Environmental\psh\R2576_HYD_psh22.dgn
USER:MHarvey

6/2/99

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 67 OF 89

LOCHNER
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Bus: 919 851 8077
Fax: 919 851 8107
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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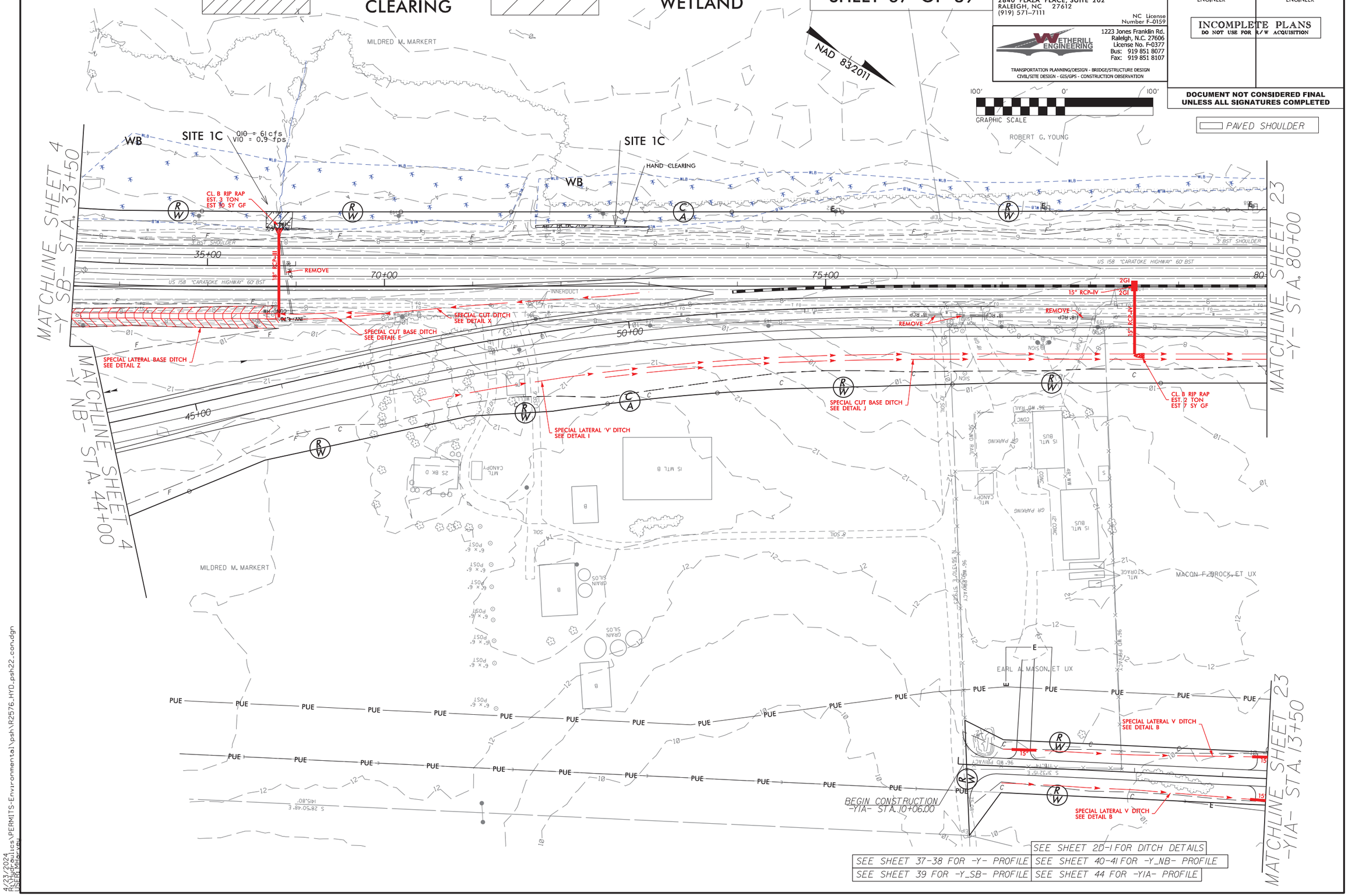
PAVED SHOULDER



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USER:MHarvey

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

PERMIT DRAWING SHEET 68 OF 89

NAD 83

50′ 0′ 50′
GRAPHIC SCALE

SITE 1C

Q10 = 61 cfs
V10 = 0.9 fps

SITE 1C

HAND CLEARING

WB

CL. B RIP RAP
EST. 3 TON
EST 10 SY GF

3′ BST SHOULDER

35+00

18" RCP-III

REMOVE

US 158 "CARATOKE HIGHWAY" 60′ BST

70+00

75+00

INNERDUCT

SPECIAL CUT DITCH
SEE DETAIL X

SPECIAL CUT BASE DITCH
SEE DETAIL E

50+00

AL BASE DITCH

45+00

SPECIAL CUT BASE DITC
SEE DETAIL J

SPECIAL LATERAL 'V' DITCH
SEE DETAIL I

25 BK D

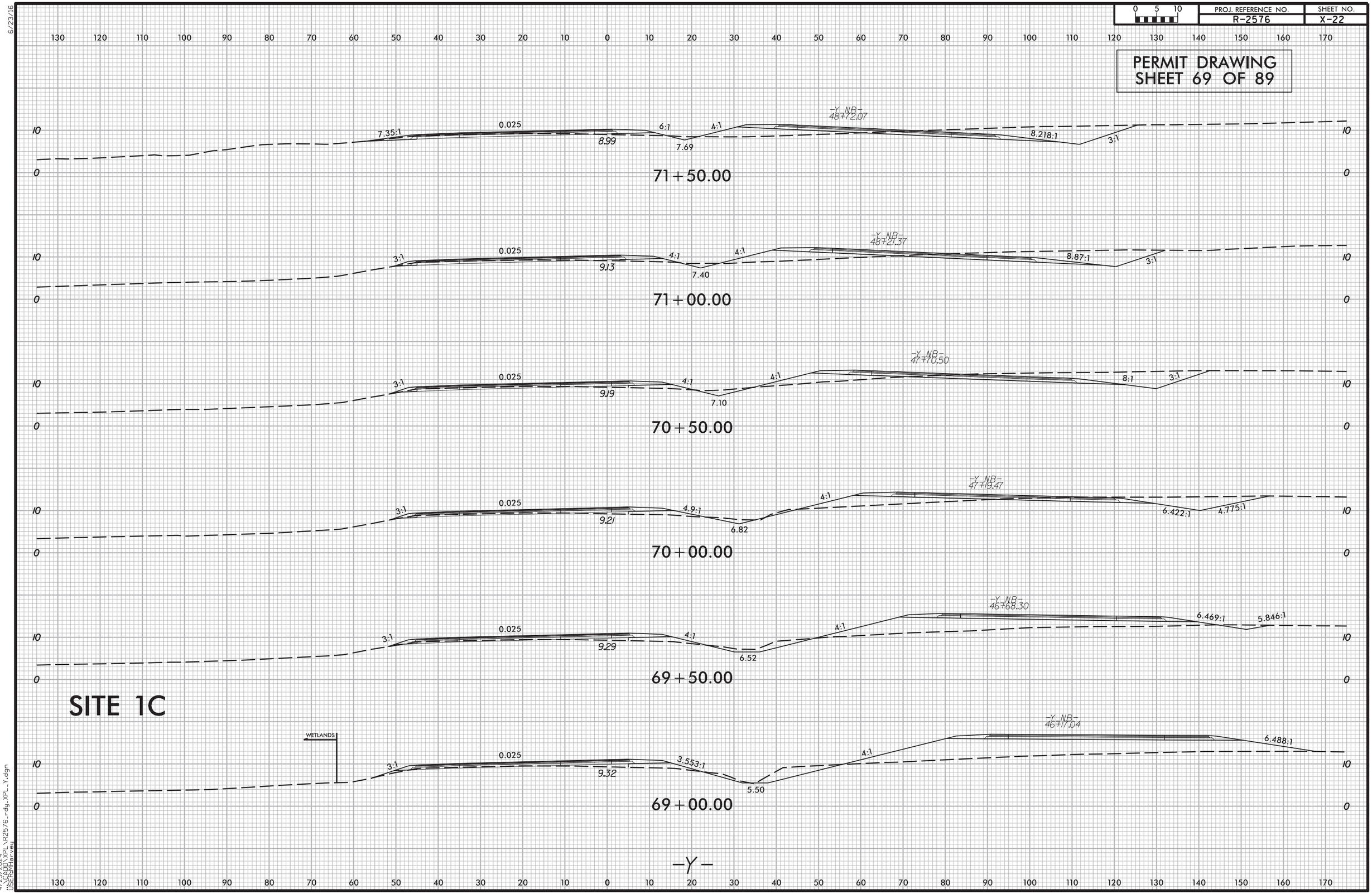
MTL CANOPY

15 MTL B

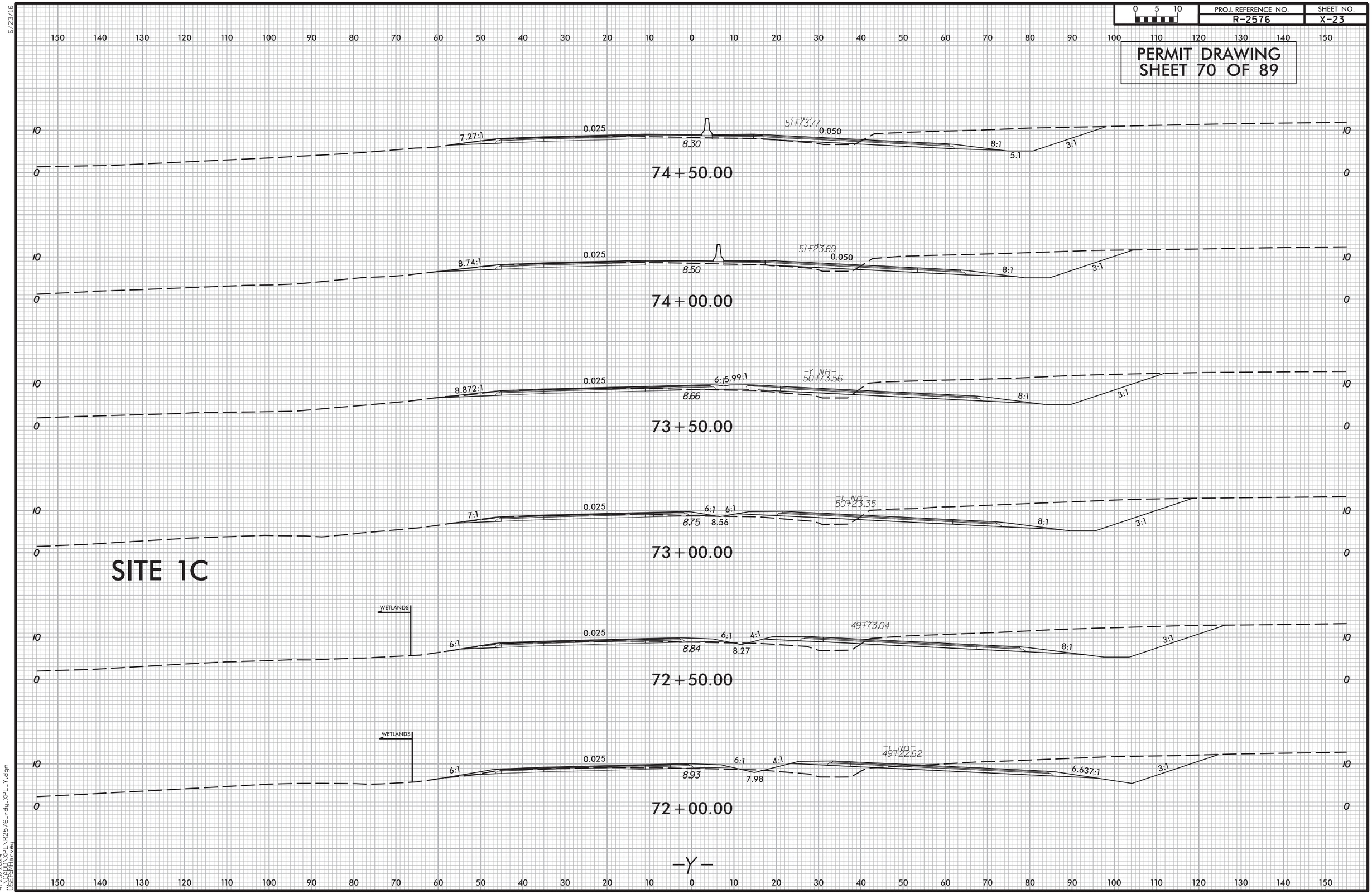
B

SOIL

8′ SOIL



PROJ. REFERENCE NO.
R-2576
SHEET NO.
X-22
PERMIT DRAWING
SHEET 69 OF 89
71+50.00
71+00.00
70+50.00
70+00.00
69+50.00
69+00.00
SITE 1C
WETLANDS
-Y-



PROJ. REFERENCE NO.
R-2576
SHEET NO.
X-23
PERMIT DRAWING
SHEET 70 OF 89
74+50.00
74+00.00
73+50.00
73+00.00
SITE 1C
72+50.00
72+00.00
WETLANDS
-Y-

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

GRAPHIC SCALE 100' 0' 100'

PERMIT DRAWING SHEET 71 OF 89

LOCHNER
H. W. LOCHNER, INC.
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WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	23
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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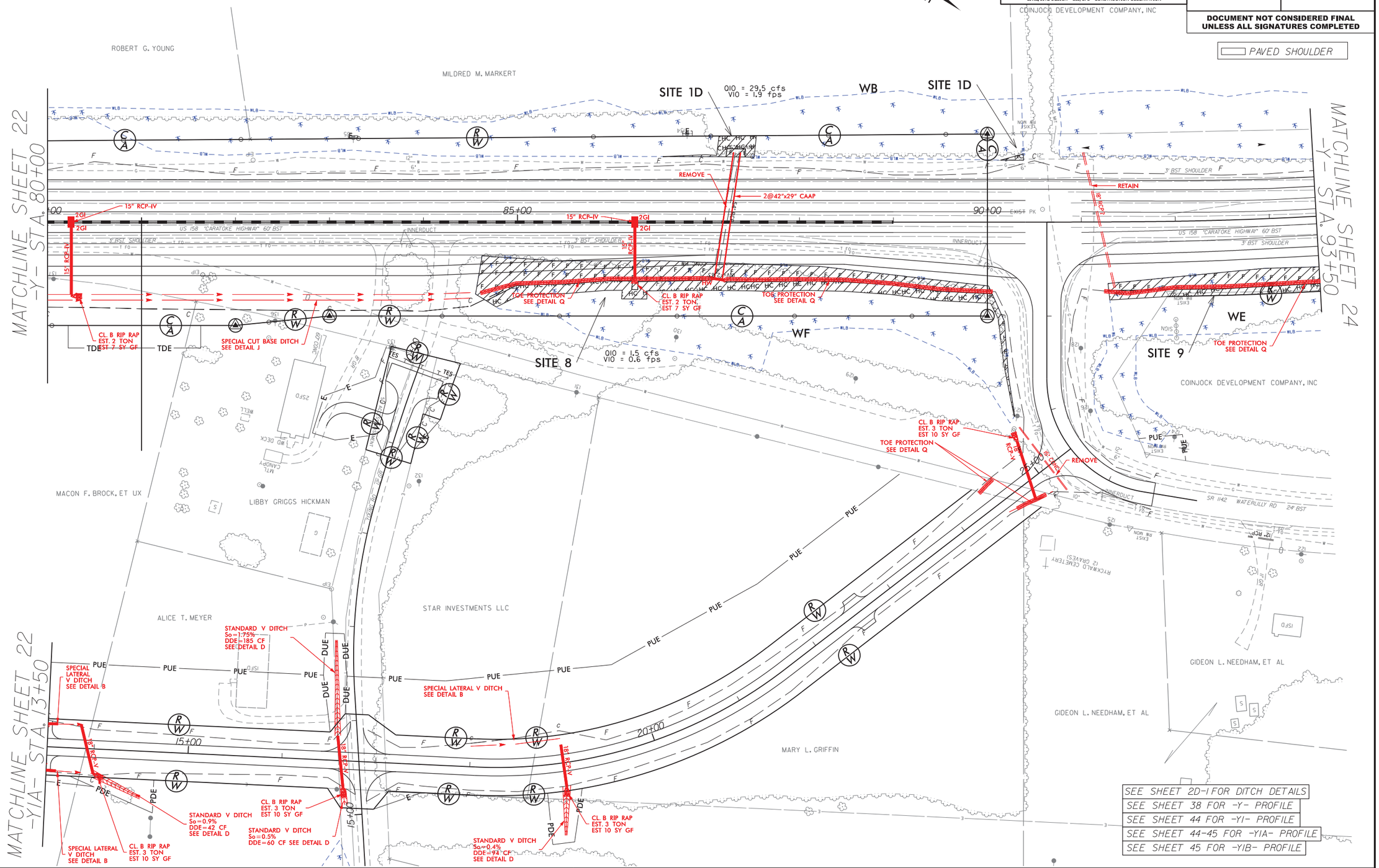
NAD 83/2011



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE
SEE SHEET 44 FOR -YI- PROFILE
SEE SHEET 44-45 FOR -YIA- PROFILE
SEE SHEET 45 FOR -YIB- PROFILE

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8/23/2024
R:\Hydraulics\PERMITS-Environmental\psh\R2576_HYD_psh23.dgn
USER: mharvey

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 72 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	23
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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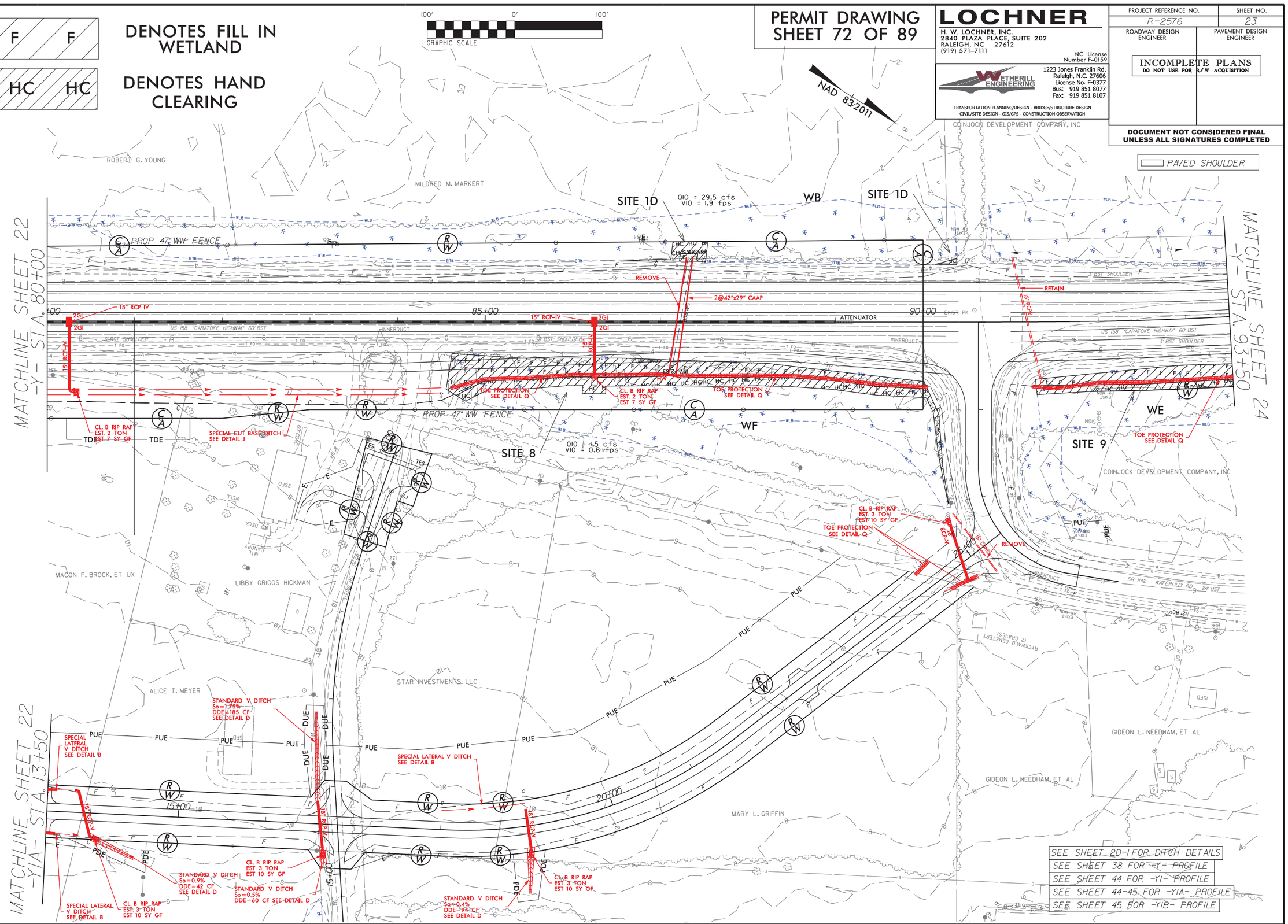
PAVED SHOULDER



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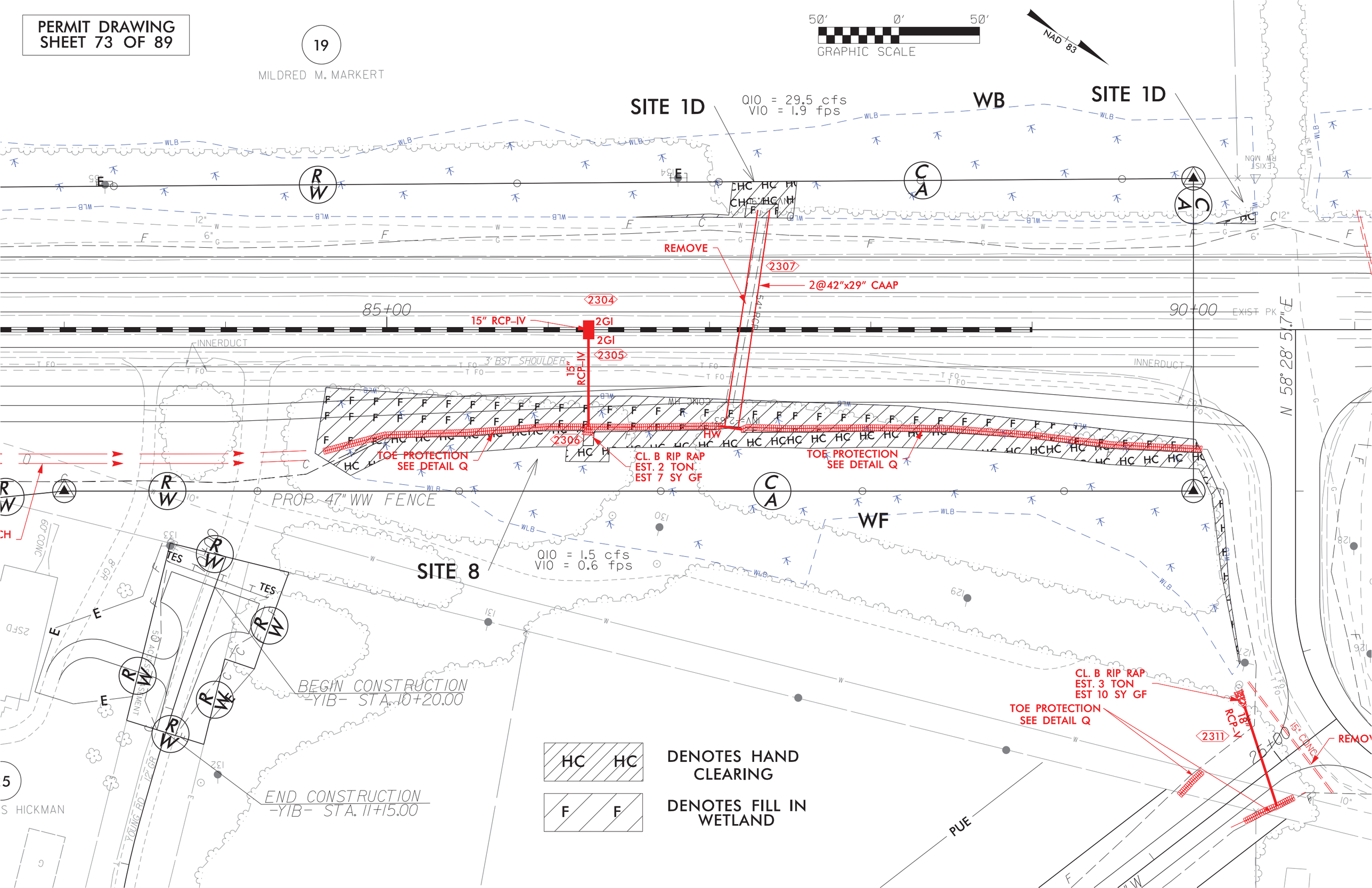
USER: Mdarvey

PERMIT DRAWING
SHEET 73 OF 89



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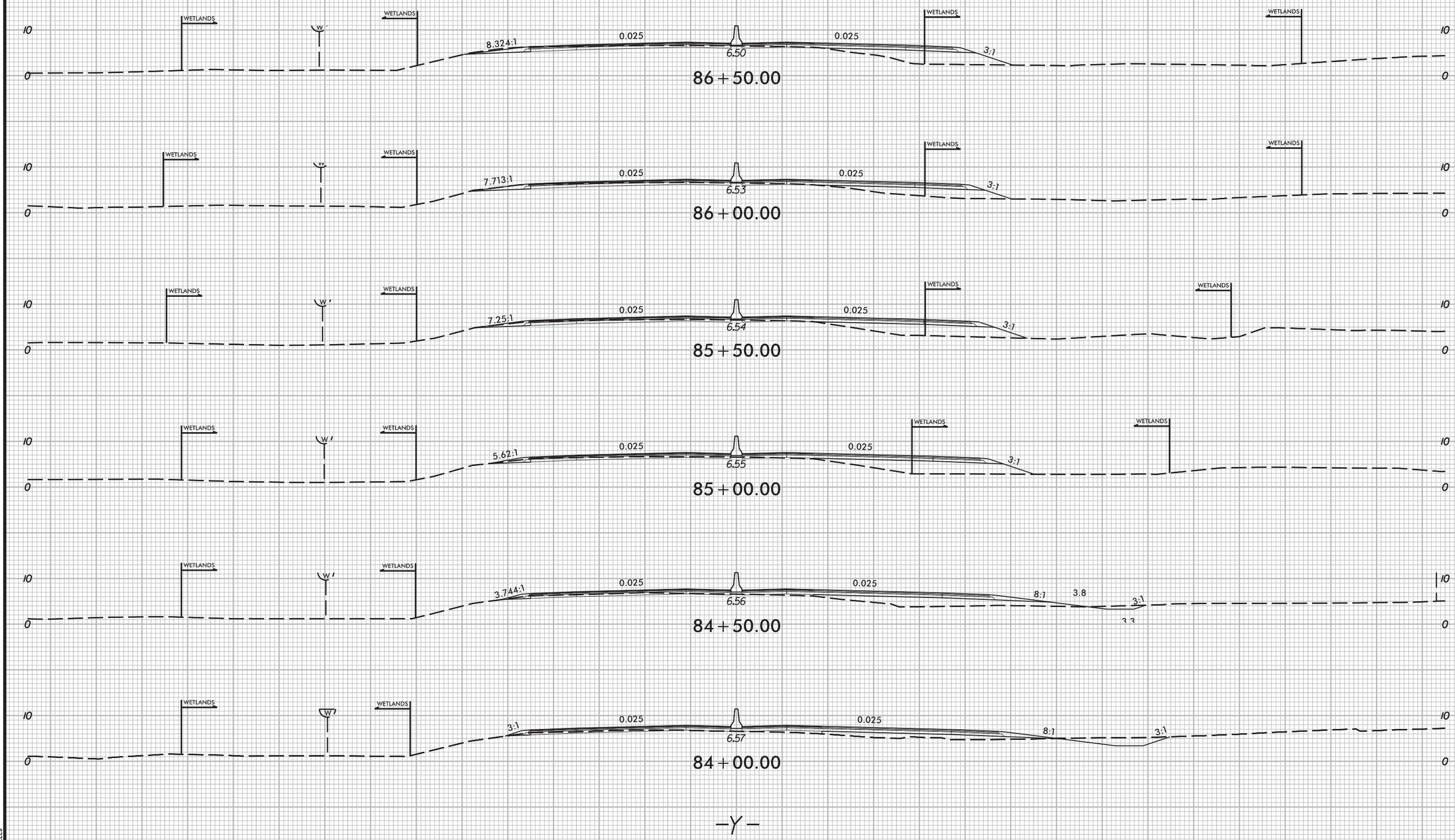
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-27

PERMIT DRAWING
SHEET 74 OF 89

SITE 1D

SITE 8



$DATE$
$USERNAME$
$FILE$

6/2/99

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 75 OF 89

LOCHNER
H. W. LOCHNER, INC.
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RALEIGH, NC 27612
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WETHERILL ENGINEERING
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Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	24
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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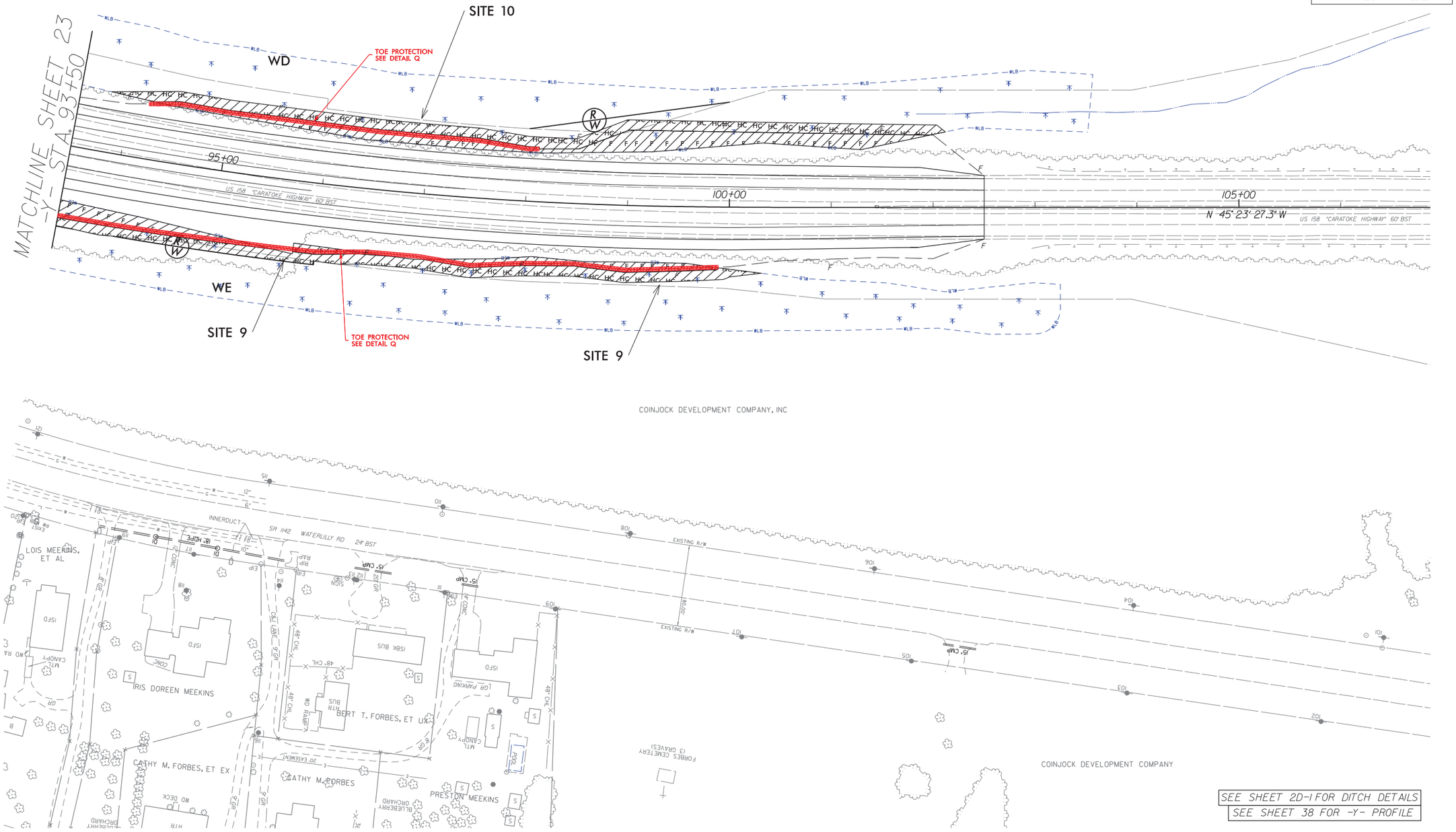
NAD 83/2011

COINJOCK DEVELOPMENT COMPANY, INC

PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE

8/23/2024
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USER:MHarvey

6/2/99

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

100' 0' 100'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 76 OF 89

LOCHNER
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	24
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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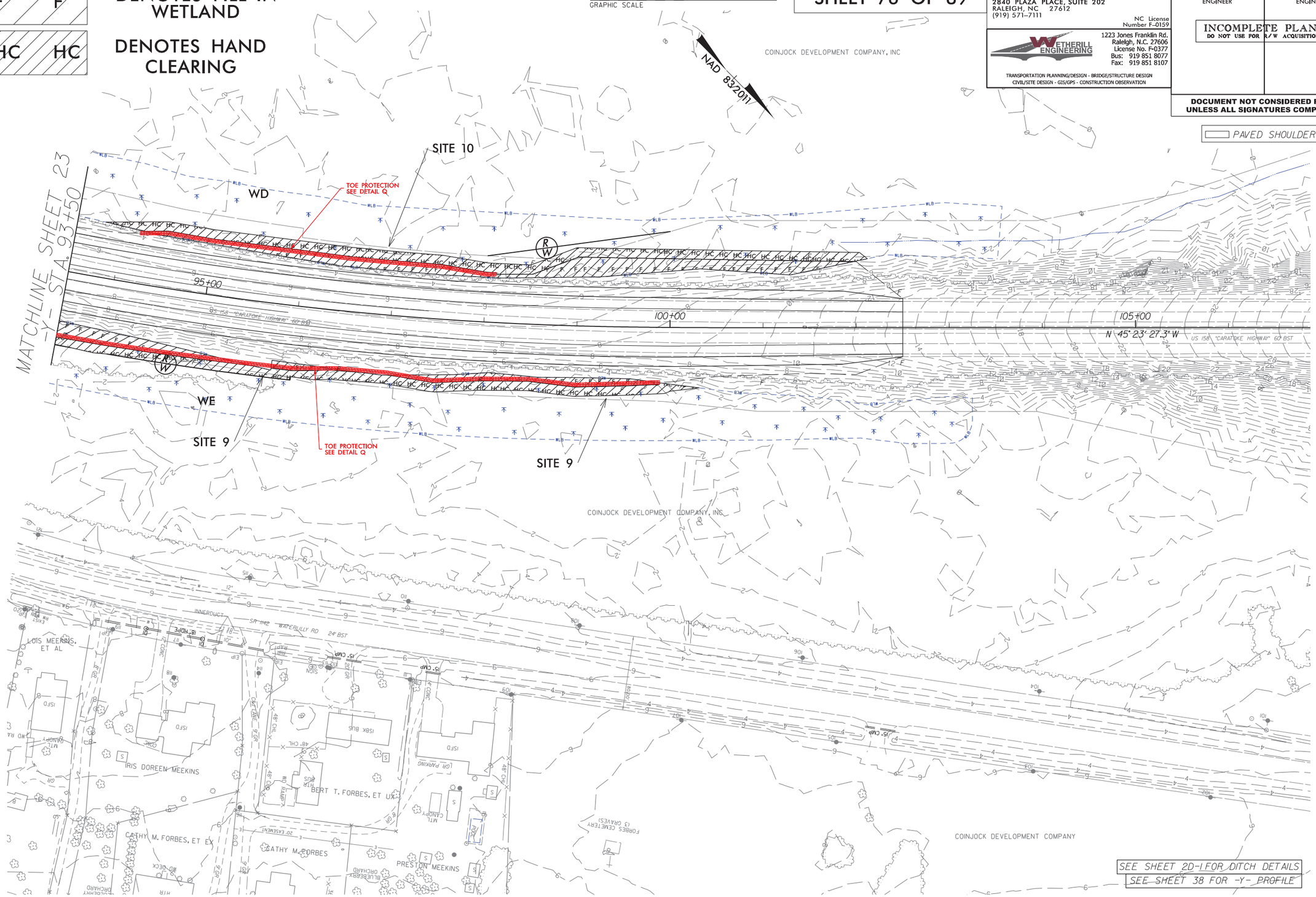
PAVED SHOULDER



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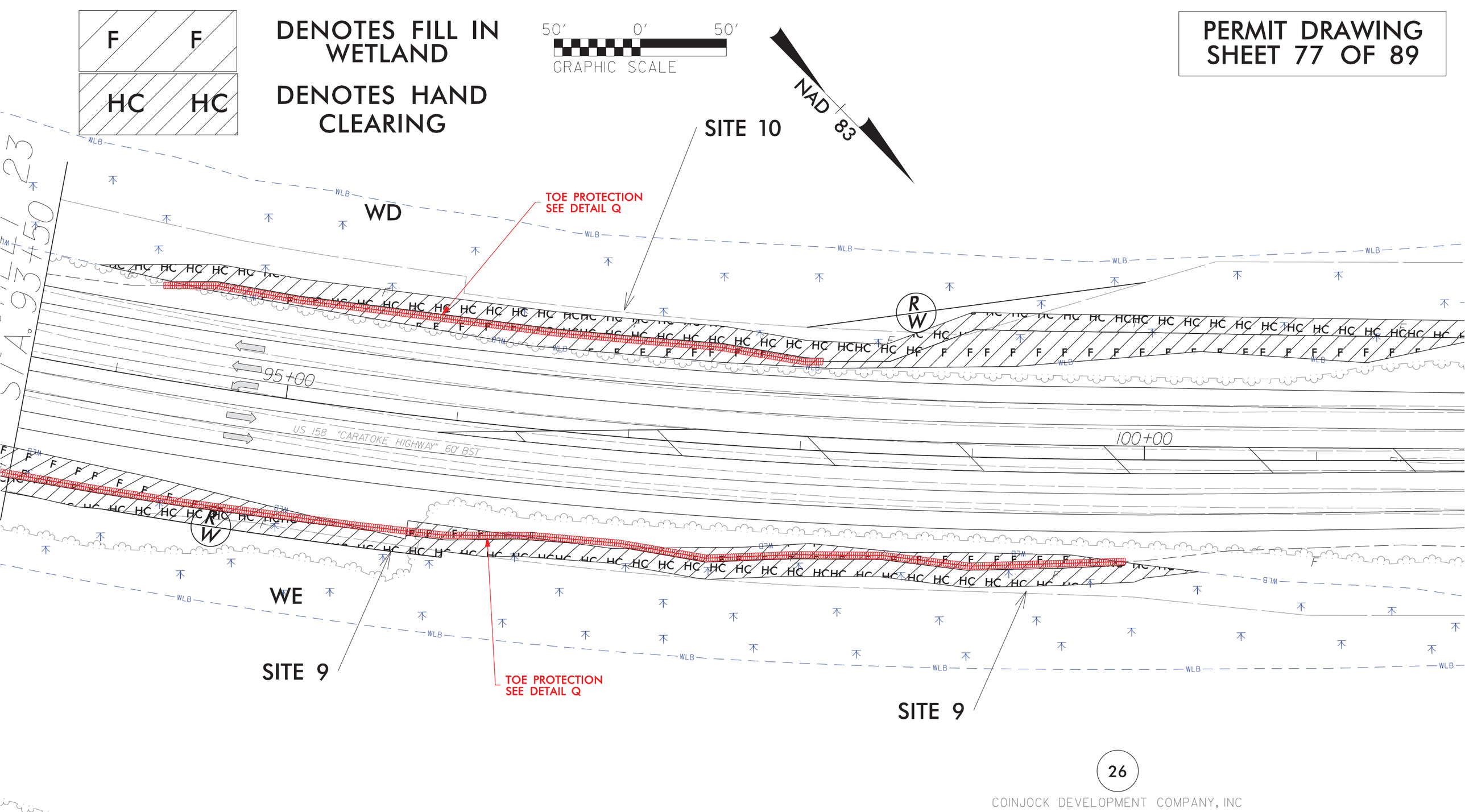
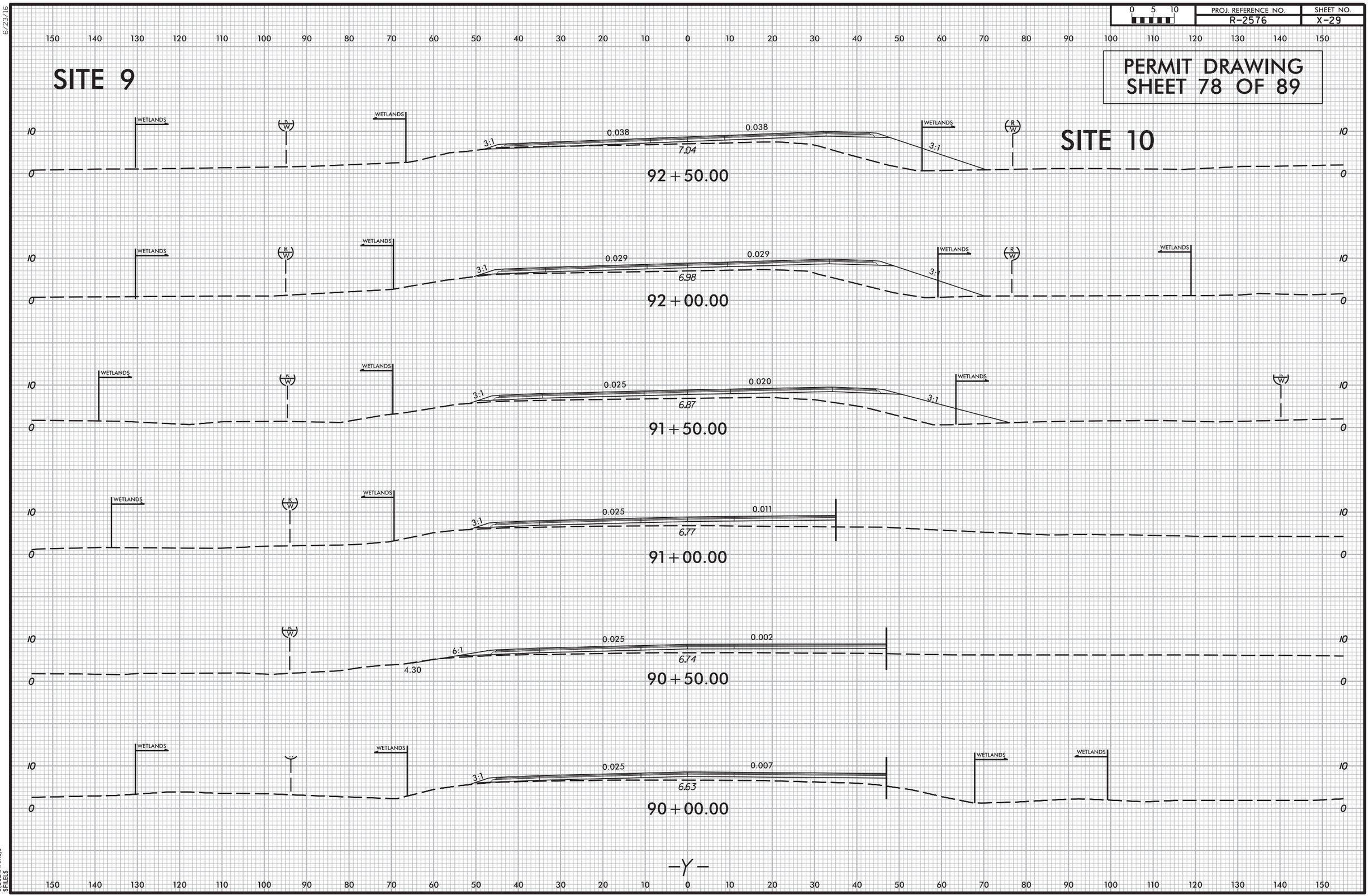
USER: Mbarvey


F F
HC HC
DENOTES FILL IN WETLAND
DENOTES HAND CLEARING
50' 0' 50'
GRAPHIC SCALE
NAD 83
PERMIT DRAWING
SHEET 77 OF 89
SITE 10
TOE PROTECTION
SEE DETAIL Q
WD
WE
SITE 9
SITE 9
TOE PROTECTION
SEE DETAIL Q
95+00
100+00
US 158 "CARATOKE HIGHWAY" 60' BST
WLB
26
COINJOCK DEVELOPMENT COMPANY, INC

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-29

PERMIT DRAWING
SHEET 78 OF 89



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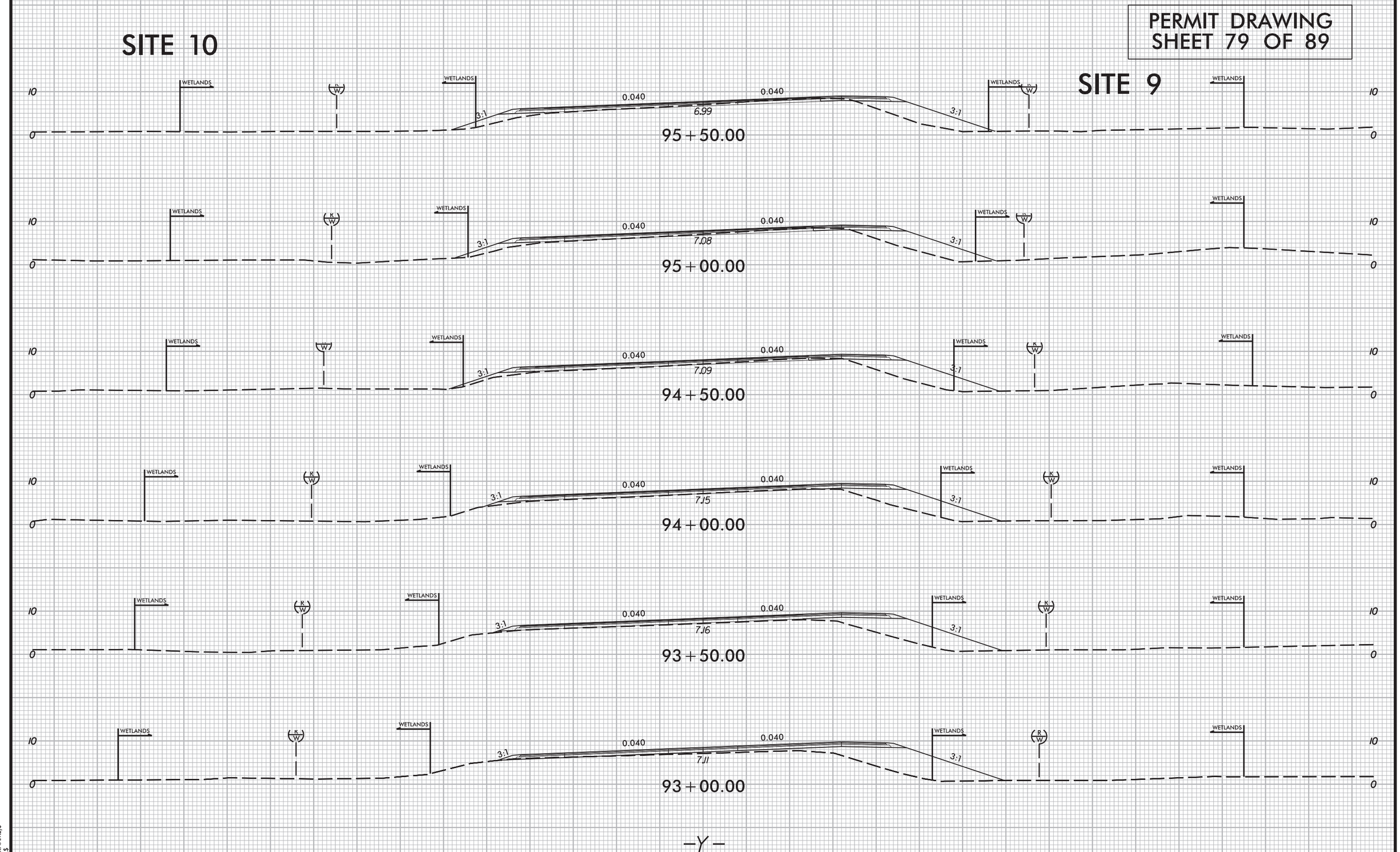
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-30

PERMIT DRAWING
SHEET 79 OF 89

SITE 10

SITE 9



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$(USERNAME)$
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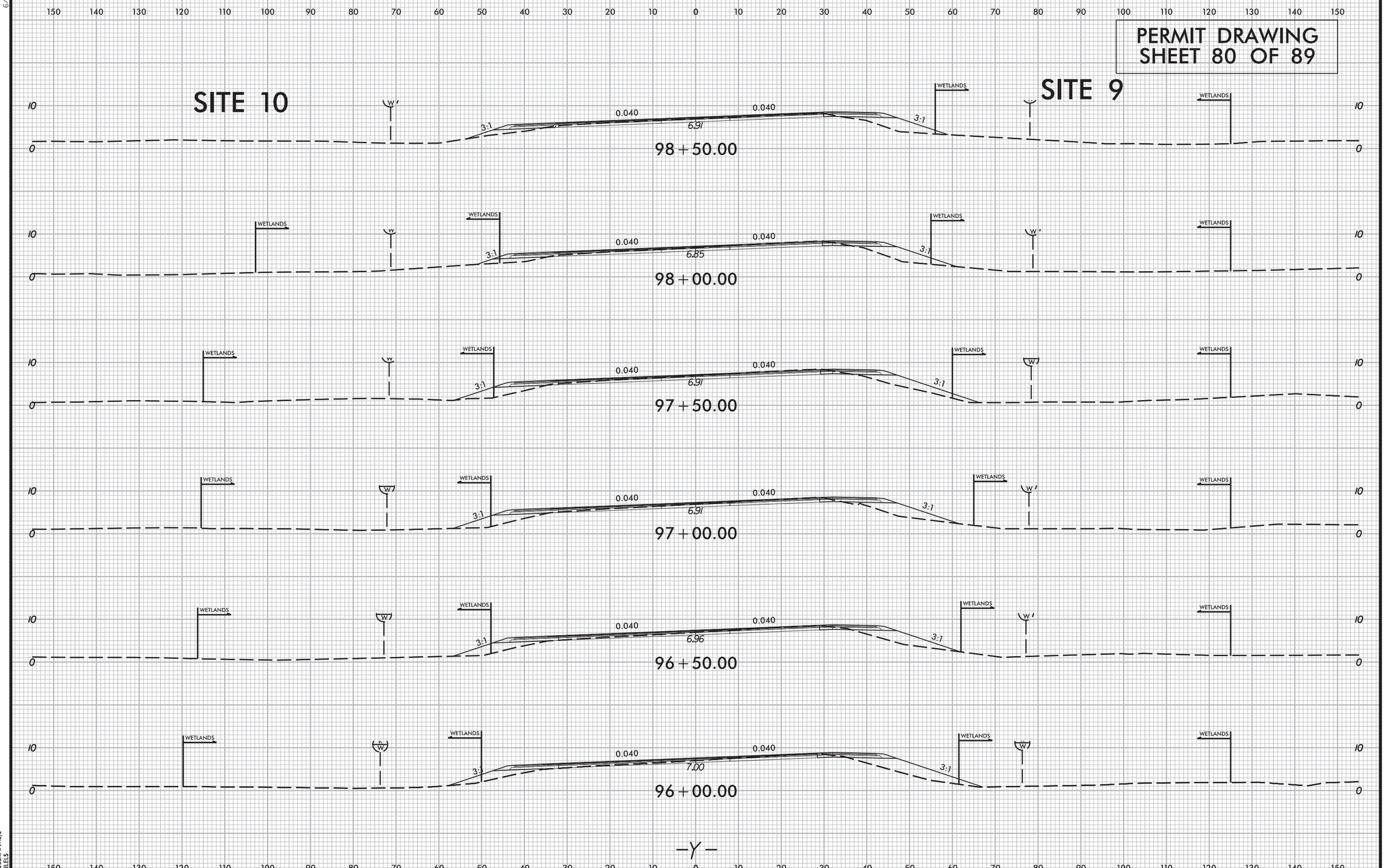
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2576	X-31

PERMIT DRAWING
SHEET 80 OF 89



$DATE$
$USERNAME$
$FILE$

6/2/99

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

NAD 83

GRAPHIC SCALE 100' 0' 100'

PERMIT DRAWING
SHEET 81 OF 89

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

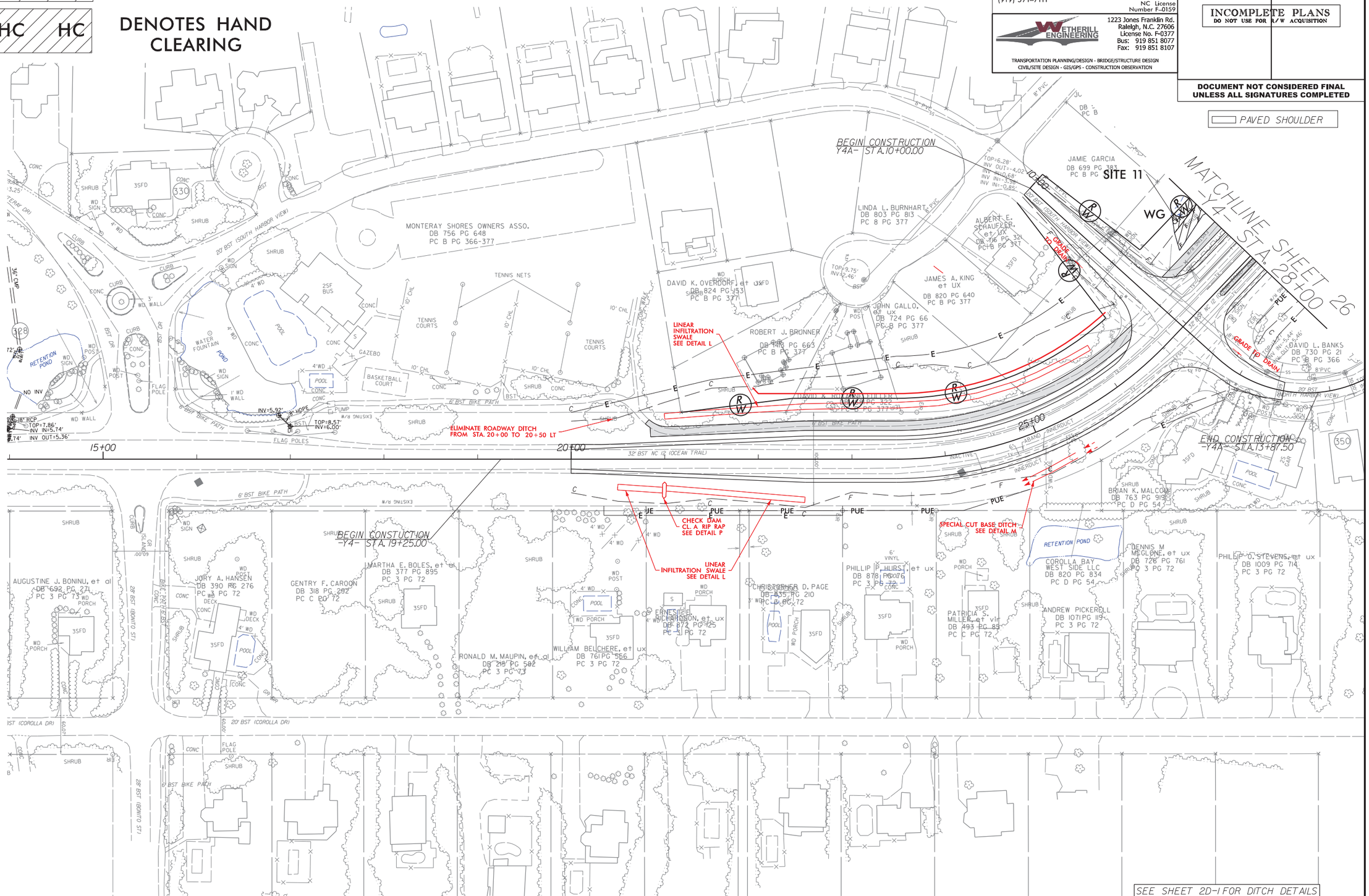
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	25
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4A- PROFILE

6/13/2024
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USER: Mdarvey

6/2/99

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

NAD 83

GRAPHIC SCALE 100' 0' 100'

PERMIT DRAWING
SHEET 82 OF 89

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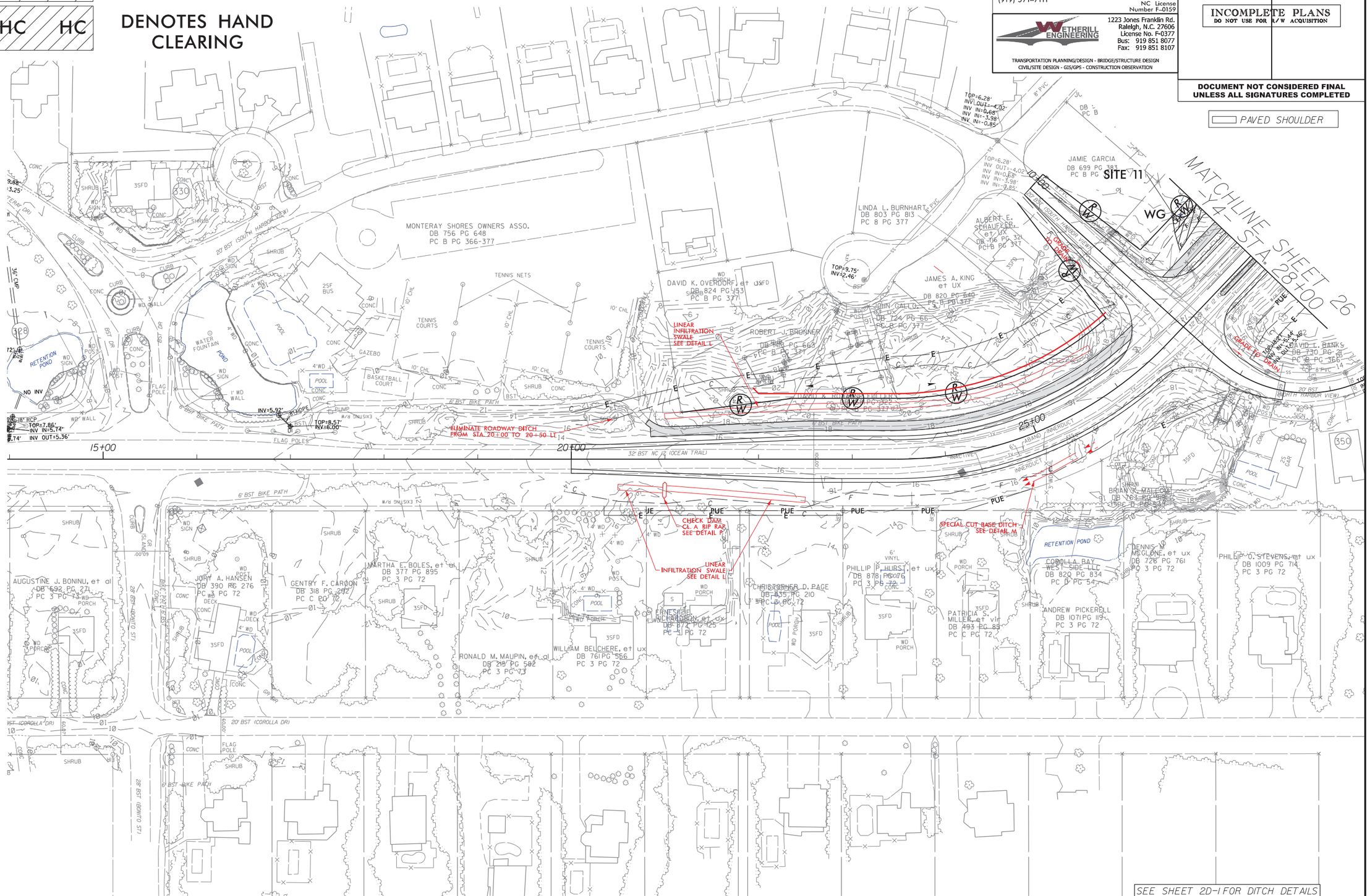

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4A- PROFILE

8/13/2024
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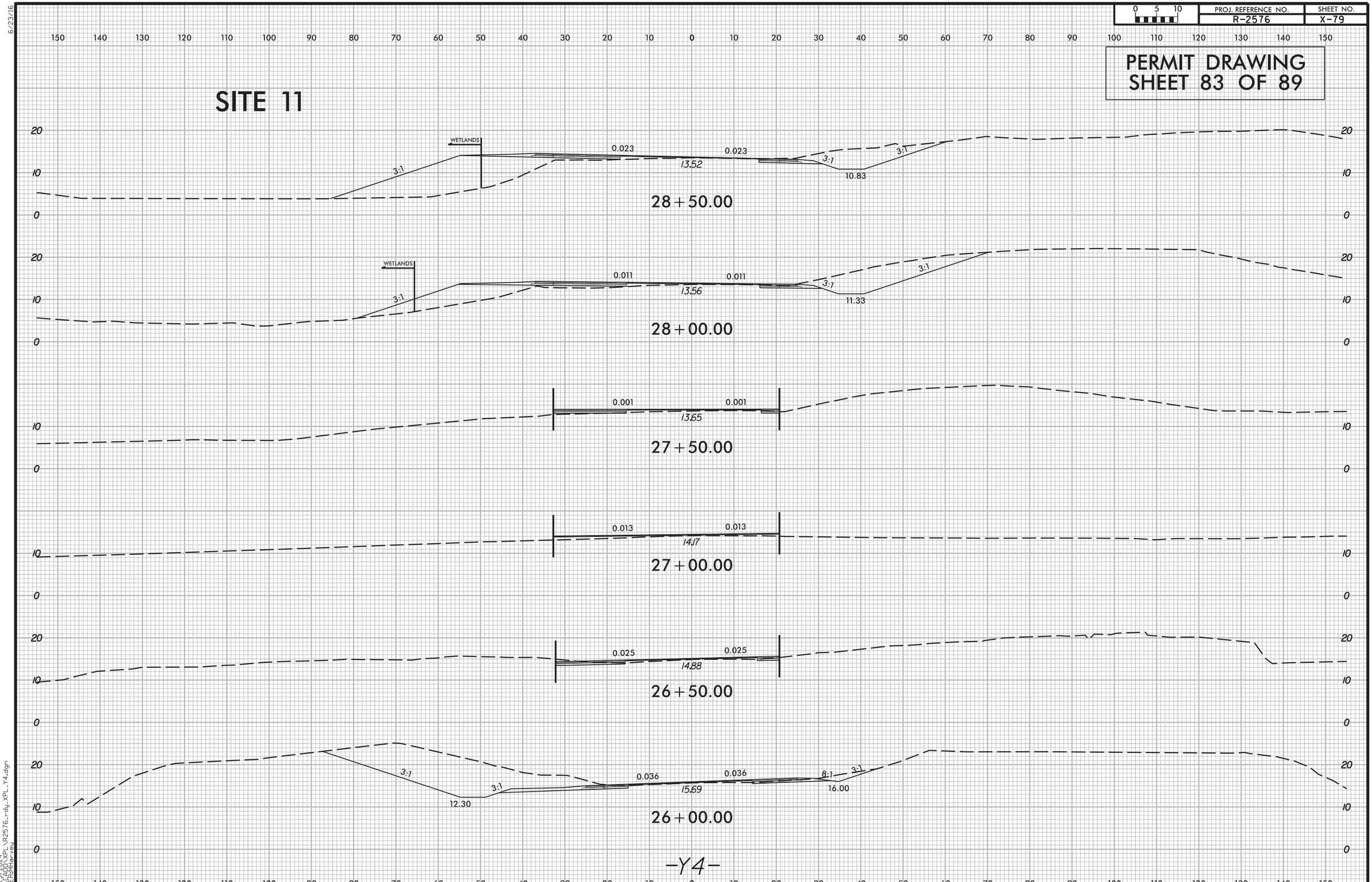
USER: Mdarvey



6/23/16

4/23/2024
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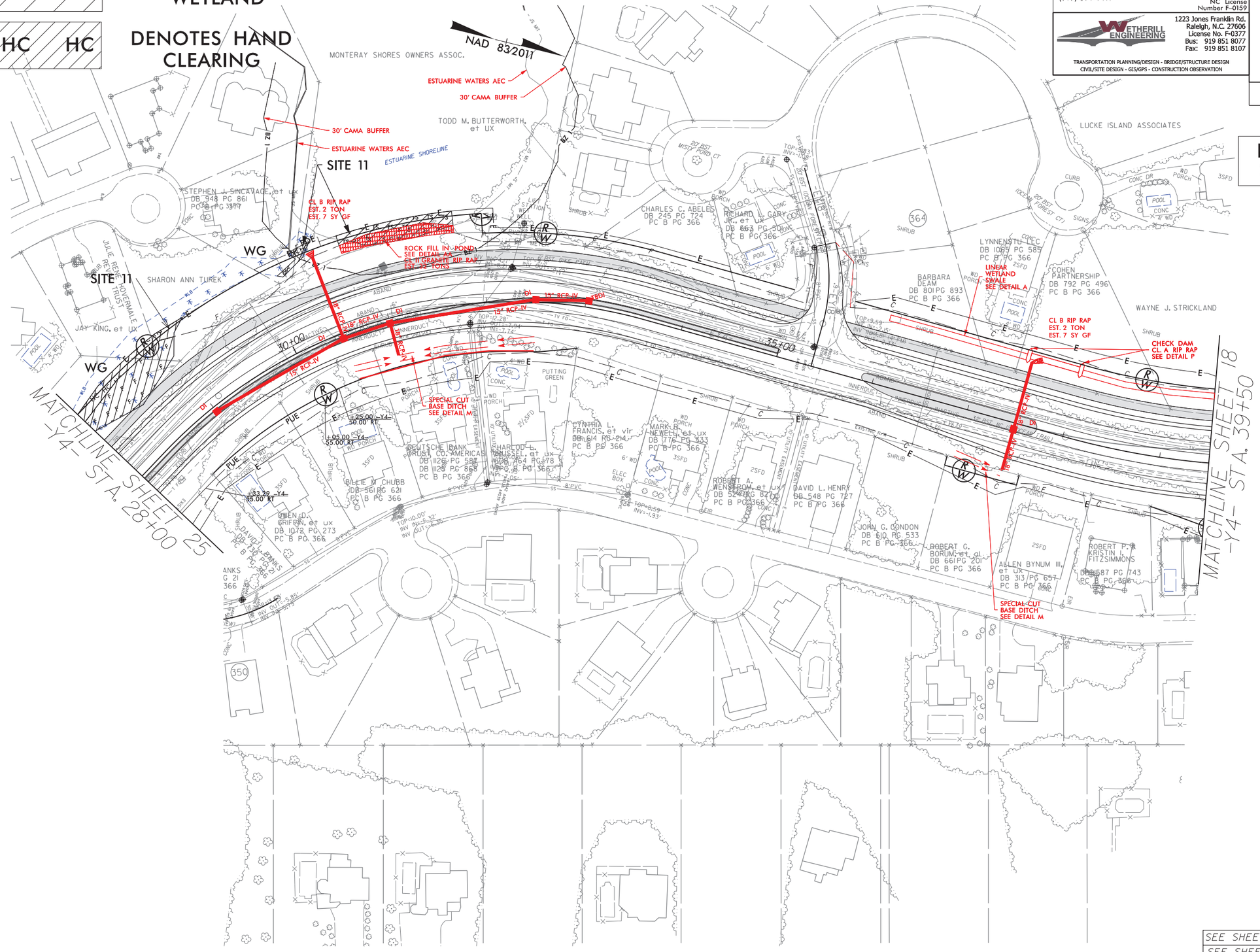
USER:MHarvey

6/2/99

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING



SEE SHEET 2D-1 FOR DITCH DETAILS

SEE SHEET 48 FOR -Y4- PROFILE

SEE SHEET 49 FOR -Y4B- PROFILE

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	26
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

PERMIT DRAWING SHEET 84 OF 89

6/24/2024
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USER:KAlford

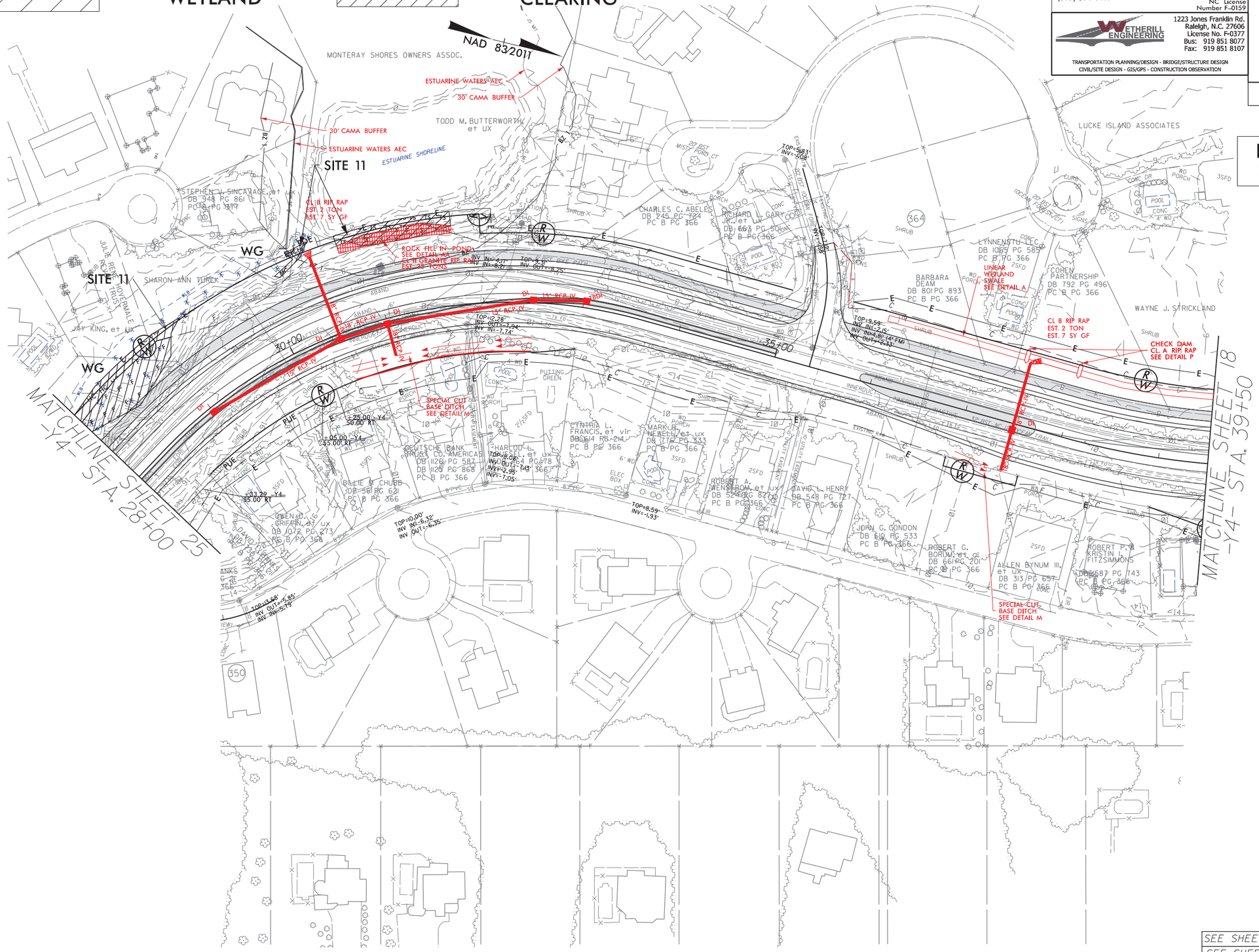
6/2/99

F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

100' 0' 100'
GRAPHIC SCALE

NAD 83/2011



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	26
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

PERMIT DRAWING SHEET 85 OF 89

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4B- PROFILE

8/24/2024
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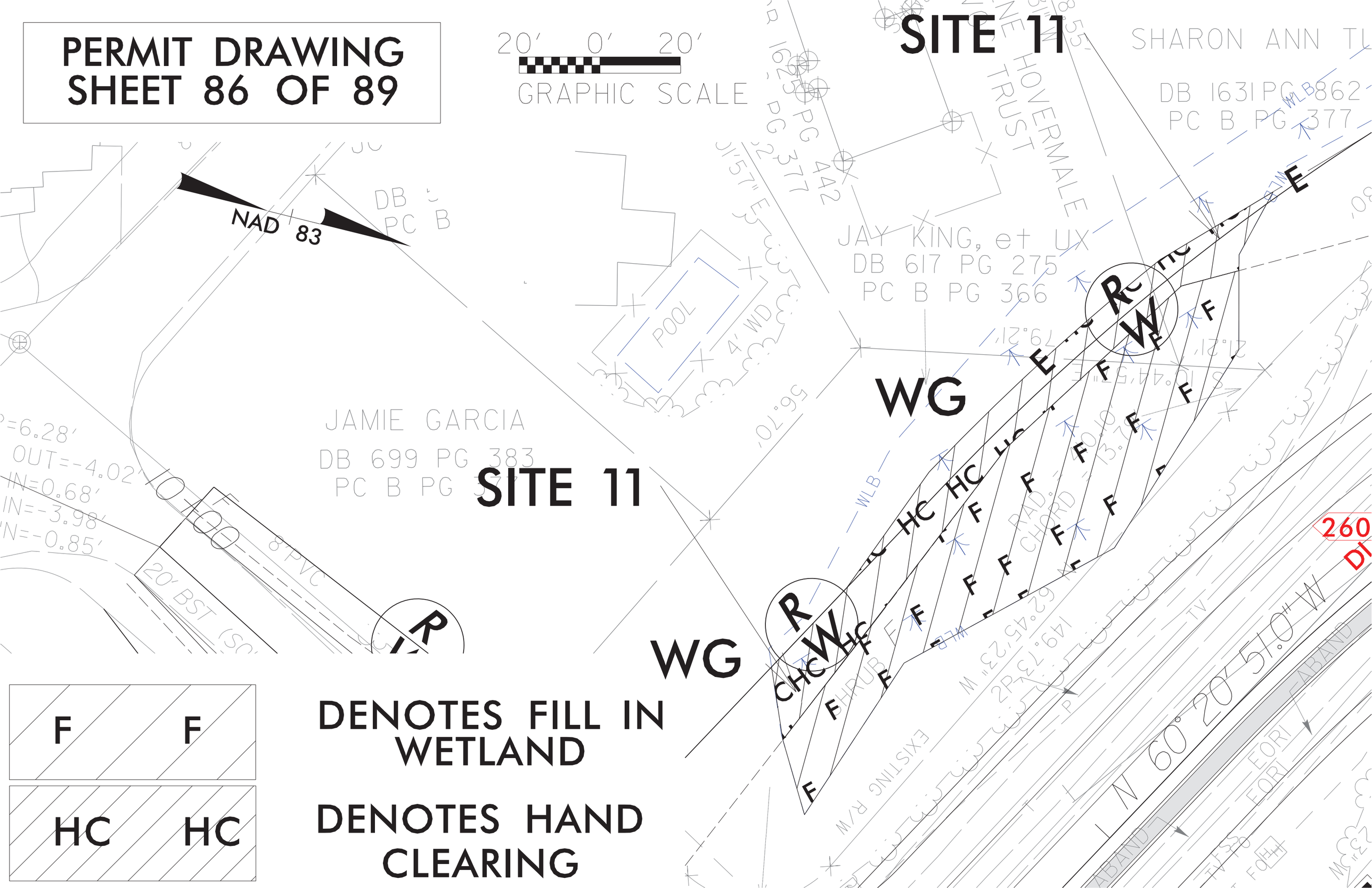
PERMIT DRAWING
SHEET 86 OF 89



F	F
HC	HC

DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 87 OF 89

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	29
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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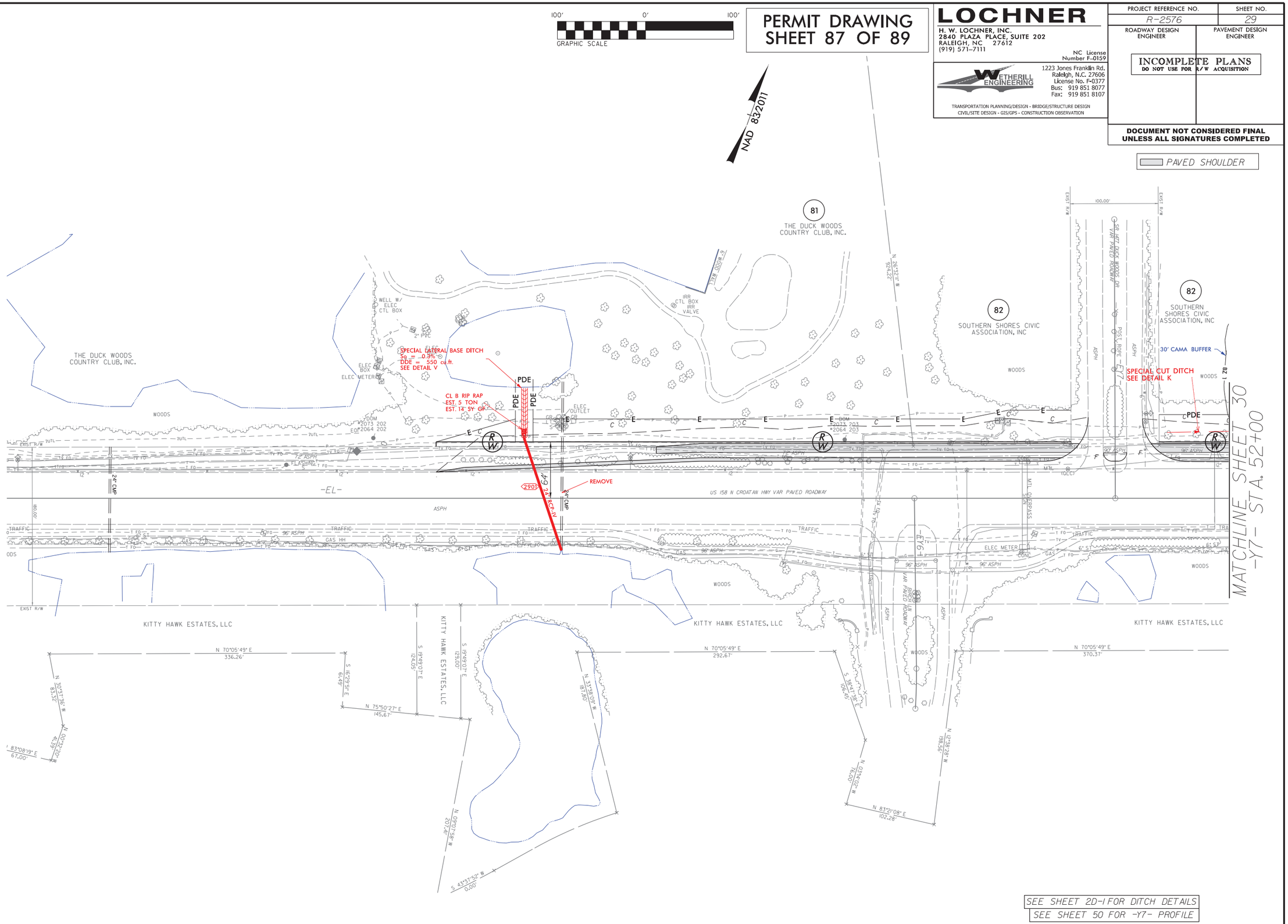

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 50 FOR -Y7- PROFILE

6/2/99

4/30/2024
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6/2/99

PERMIT DRAWING
SHEET 87A OF 89

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	29
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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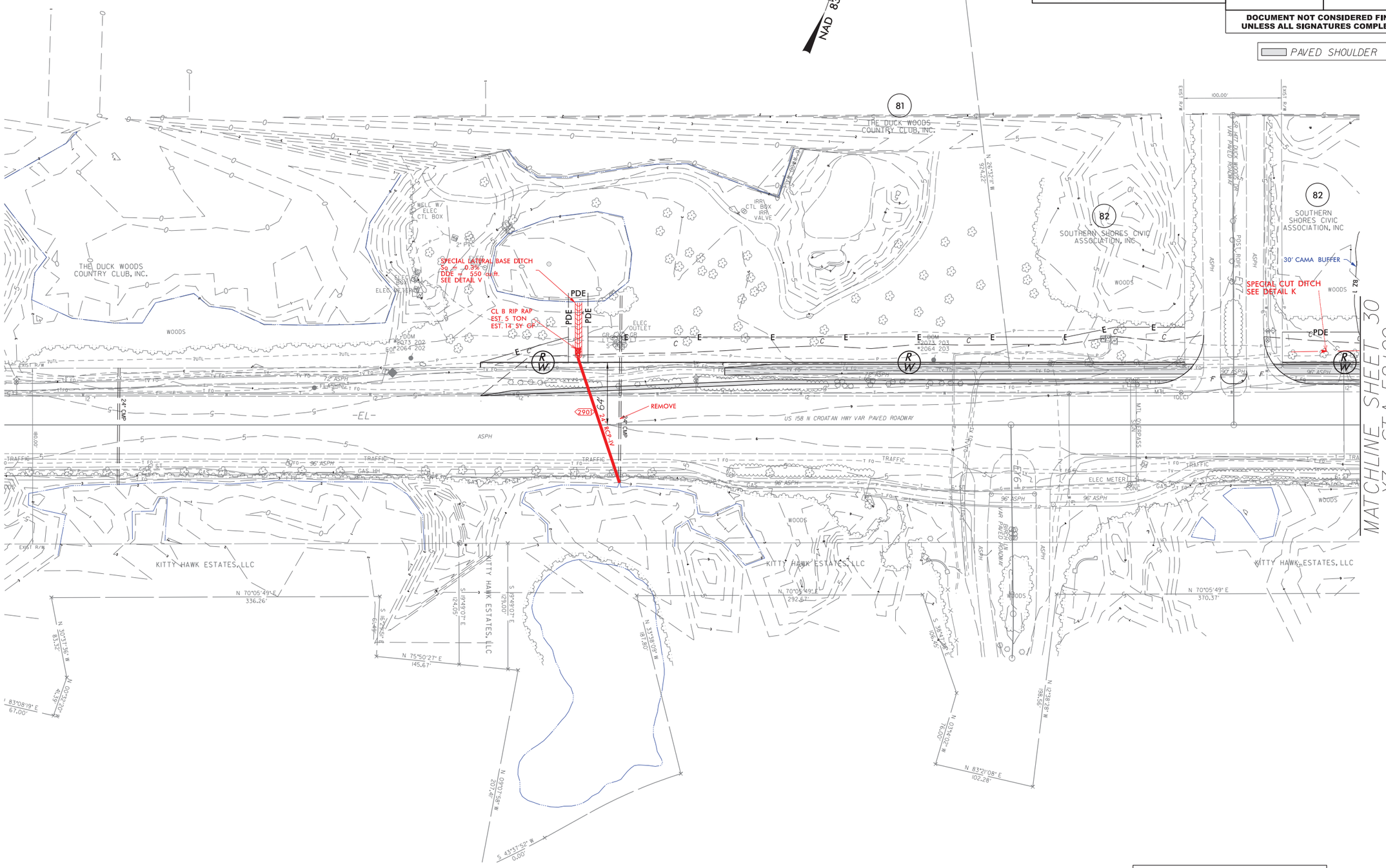

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USER: MHarvey

6/2/99

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	30
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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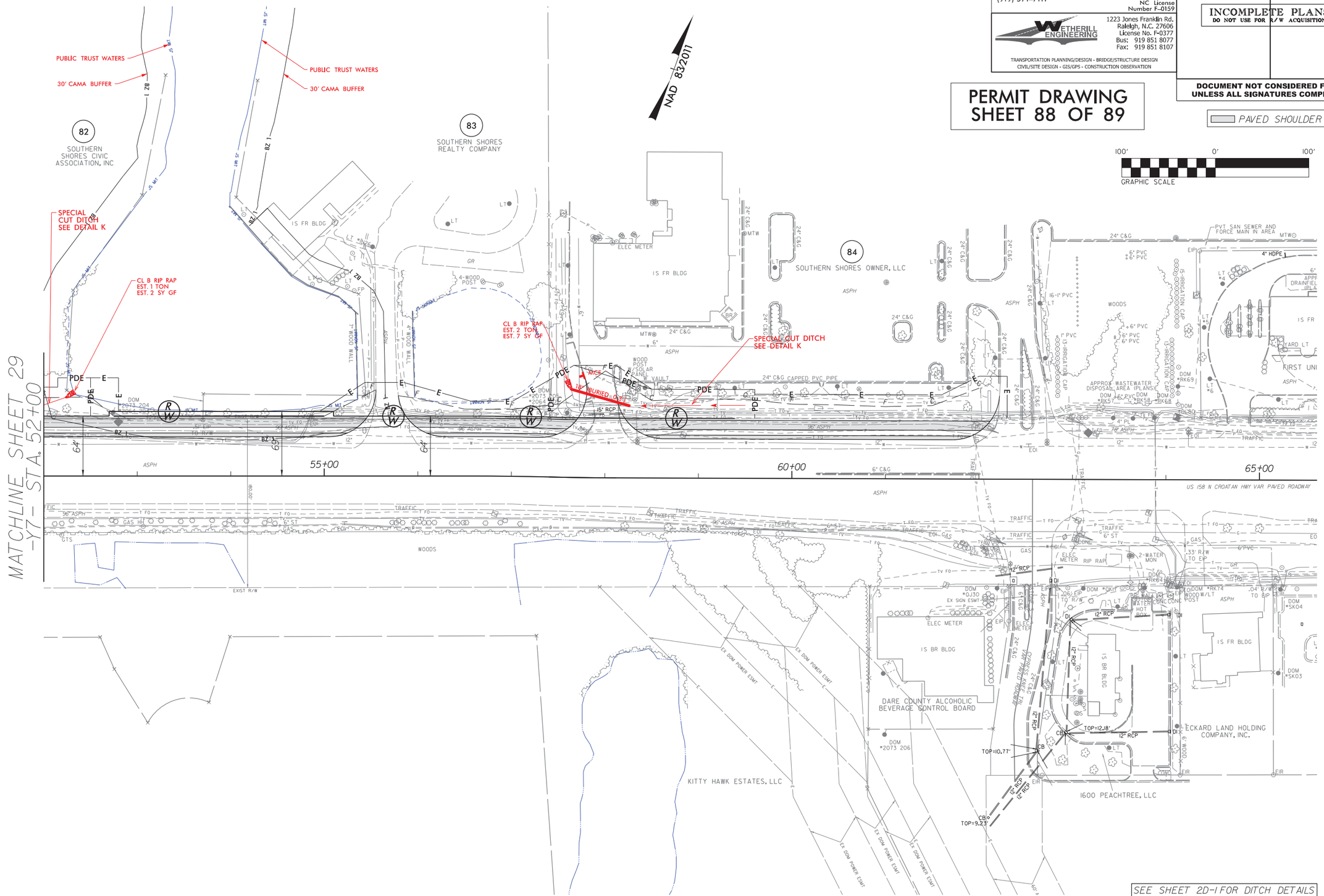
PAVED SHOULDER

PERMIT DRAWING
SHEET 88 OF 89



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 51 FOR -Y7- PROFILE

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6/2/99

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	30
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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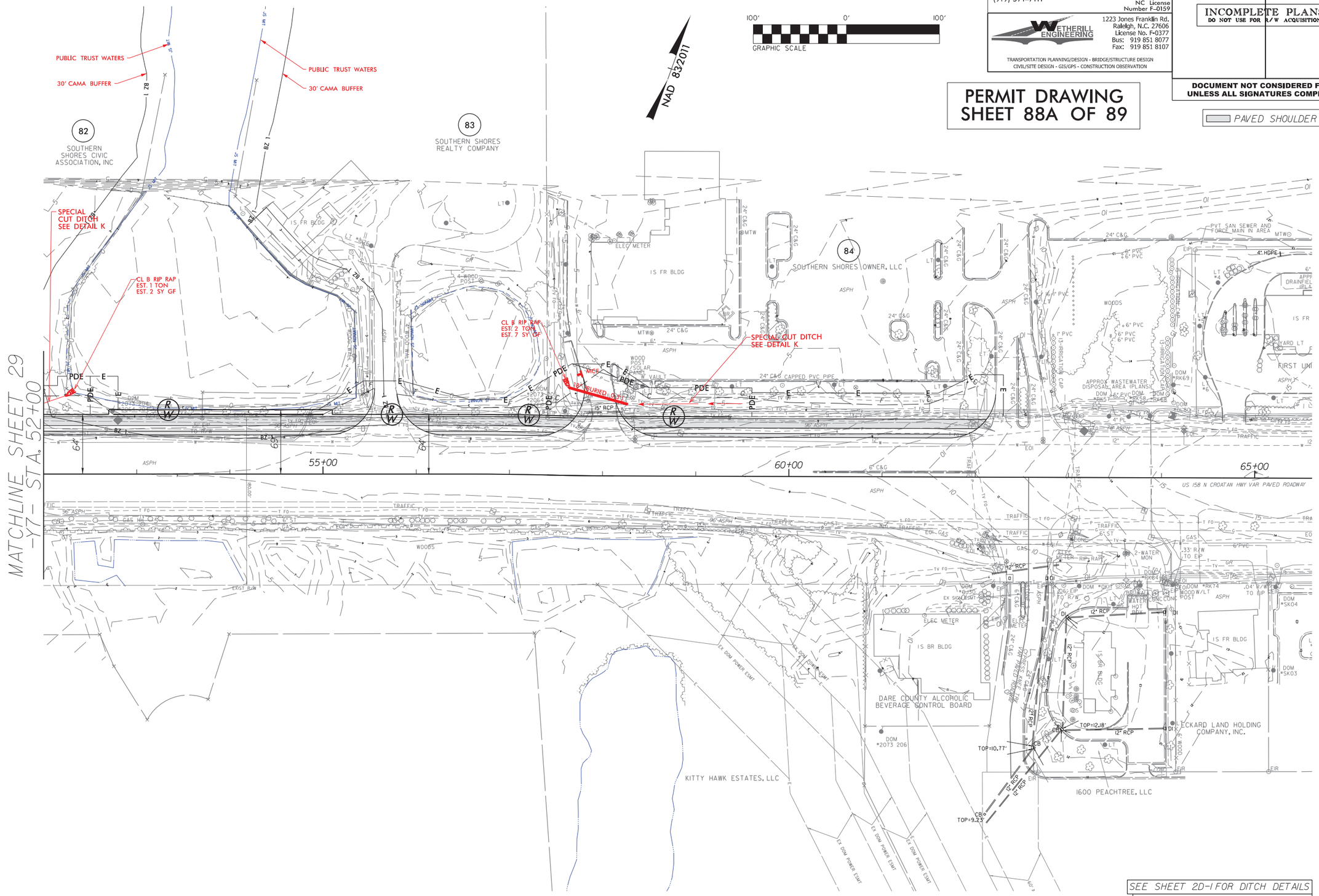
PERMIT DRAWING
SHEET 88A OF 89



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 51 FOR -Y7- PROFILE

4/30/2024
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USER: Mharvey

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1A	-Y- 40+26 to 42+66 LT	Fill with Toe Protection	0.02				0.05					
1B	-Y- 21+00 to 24+60 LT	Fill with Toe Protection	0.02				0.07					
1C	-Y- 68+65 to 73+00 LT	RipRap outlet/Proximity to Fill	< 0.01				0.02					
1D	-Y- 86+54 to 90+39 LT	2@42"x29" CAAP outlet	< 0.01				0.02					
1E	-Y- 14+74 to 18+10 LT	Fill slope	0.13				0.07					
2	-Y- 55+45	42" RCP-IV						0.04	< 0.01	228	9	
		Bank Stabilization						< 0.01		10		
3	-L- 23+00 to 100+60	Bridge	0.04	4.72		0.03	11.47					
4	-L- 119+00 to 364+00	Bridge										
		Shoreline Stabilization						0.13		229		
5	-Y4- 39+64 to -Y5R- 14+38 LT	Fill in Pond	0.26				0.08	0.04	0.02			
6	-Y5- 10+76 to 10+97 LT	Fill slope	< 0.01				< 0.01					
7	-Y5- 11+74 to 12+01 LT	Fill	< 0.01				0.01					
8	-Y- 84+55 to 90+18 RT	Fill with Toe Protection	0.24				0.14					
9	-Y- 91+28 to 100+32 RT	Fill with Toe Protection	0.19				0.19					
10	-Y- 93+80 to 102+12 LT	Fill with Toe Protection	0.18				0.18					
11	-Y4- 27+50 to 29+13 LT	Fill slope	0.09				0.05	0.02	0.03	105	118	
TOTALS*:			1.18	4.72		0.03	12.36	0.23	0.04	572	127	0

*Rounded totals are sum of actual impacts

NOTES:
Site 1 includes the entire wetland along the Y line (except near end of construction, North side of project)
Site 3 takes into account 1000' of 80' wide temp impacts due to matting at the beginning of the bridge, and 760' at the end.
Site 4 includes 2 temporary bridges for 2007' at the start of the bridge and 2 temporary bridges at the end (4035' and 535' for these two temporary bridges).
Site 4 includes 0.349 acres of Surface Water Impacts from bents and 0.108 acres of Temporary Surface Impacts.
0.13 Ac. of Temporary Fill will be provided for Hand Clearing areas for Erosion Control Devices.
All Wetlands are 404 (No CAMA Wetlands are Impacted)

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
6/13/2024
Currituck Co.
R-2576

Attachment 4:

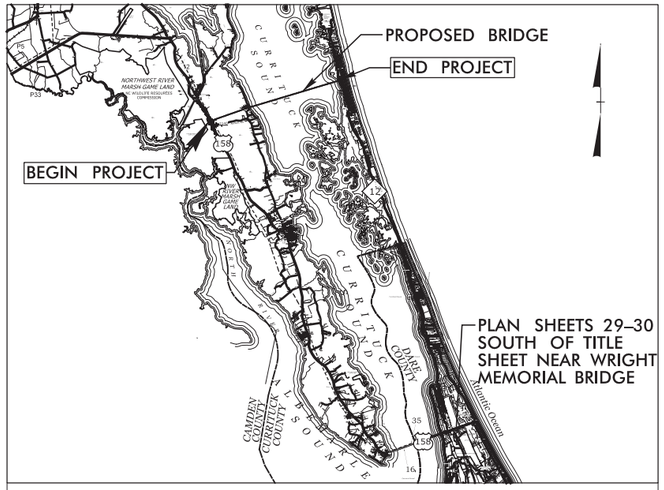
Right-of-Way Plans
June, 2024

09/08/99

TIP PROJECT: R-2576

CONTRACT:

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



VICINITY MAP

75% PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

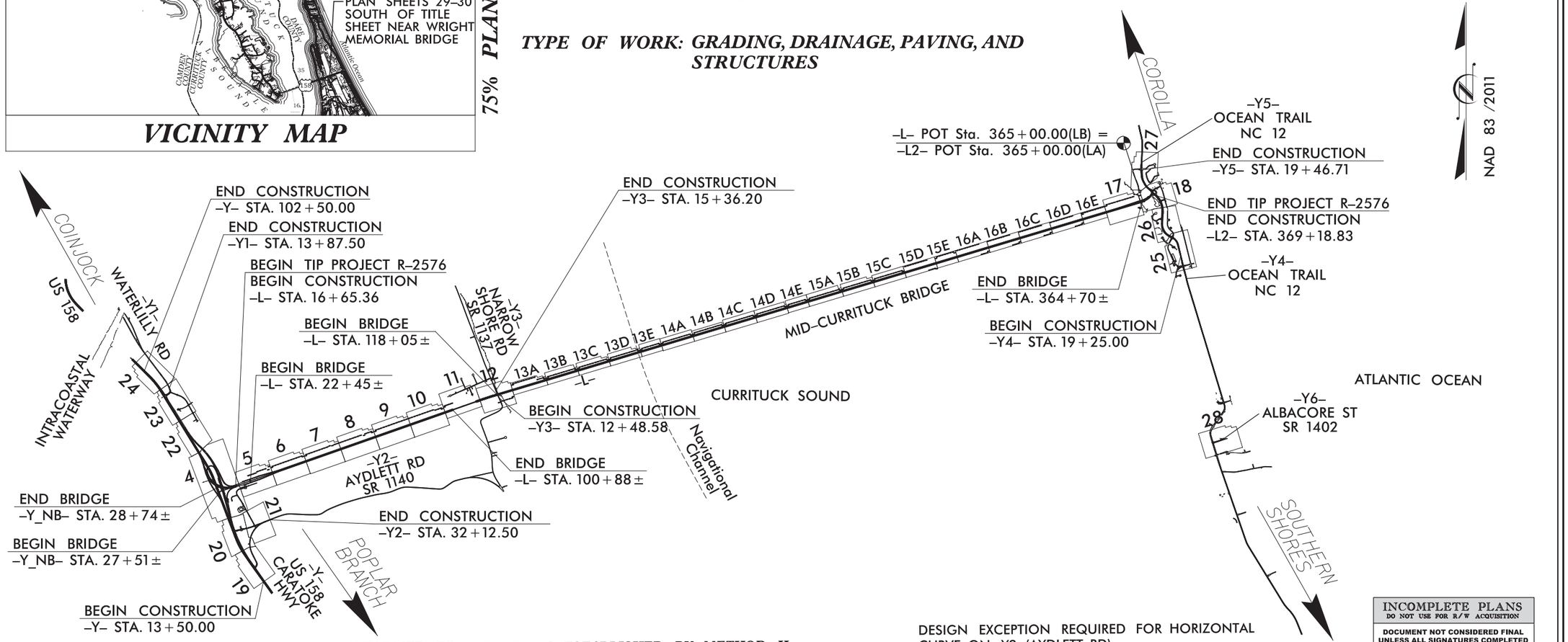
CURRITUCK & DARE COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2576	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34470.1.TA1	BRSTP-000(494)	P.E.

LOCATION: MID-CURRITUCK BRIDGE FROM US 158 SOUTH OF COINJOCK TO NC 12 SOUTH OF COROLLA

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



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

DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE ON Y2 (AYDLETT RD)

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2020 = 11,800
ADT 2040 = 18,000
K = 9 %
D = 60 %
T = 7 % *
V = 60 MPH
* (TTST=2)+(DUAL=1) +(RV=4)
FUNC CLASS = ARTERIAL STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2576	=0.520 Miles
LENGTH STRUCTURES	=6.157 Miles
TOTAL LENGTH TIP PROJECT R-2576	=6.677 Miles

PROJECT LEVEL TRAFFIC FORECAST (JUNE 2016) (SUMMER WEEKEND)

Prepared In the Office of:

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H. W. LOCHNER, INC.
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NC License Number F-0159

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Fax: 919-851 8105
TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FY 2024

LETTING DATE:
FY 2026

BRIAN K. EASON, PE
PROJECT ENGINEER

CHRISTINA L. YOKELEY, PE
PROJECT DESIGN ENGINEER

DENNIS JERNIGAN, PE
NCDOT /NCTA

HYDRAULICS ENGINEER
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
SIGNATURE: P.E.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

17-JUN-2024 08:35
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$$$$USERNAME$$$$

9/10/2021

PROJECT REFERENCE NO.	SHEET NO.
R-2576	1-B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

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
- Geoenvironmental Boring
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

6/2/99

PAVEMENT DESIGN PENDING

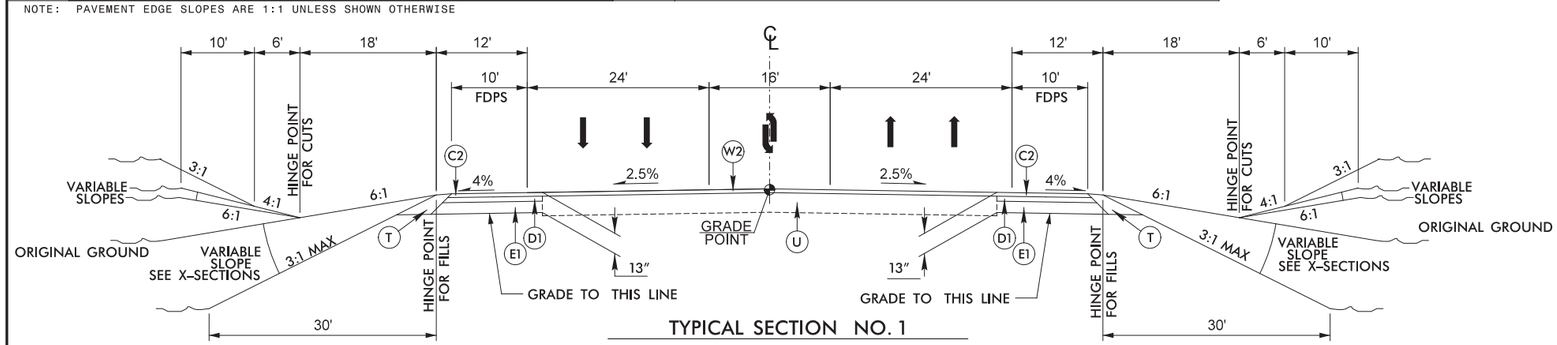
PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

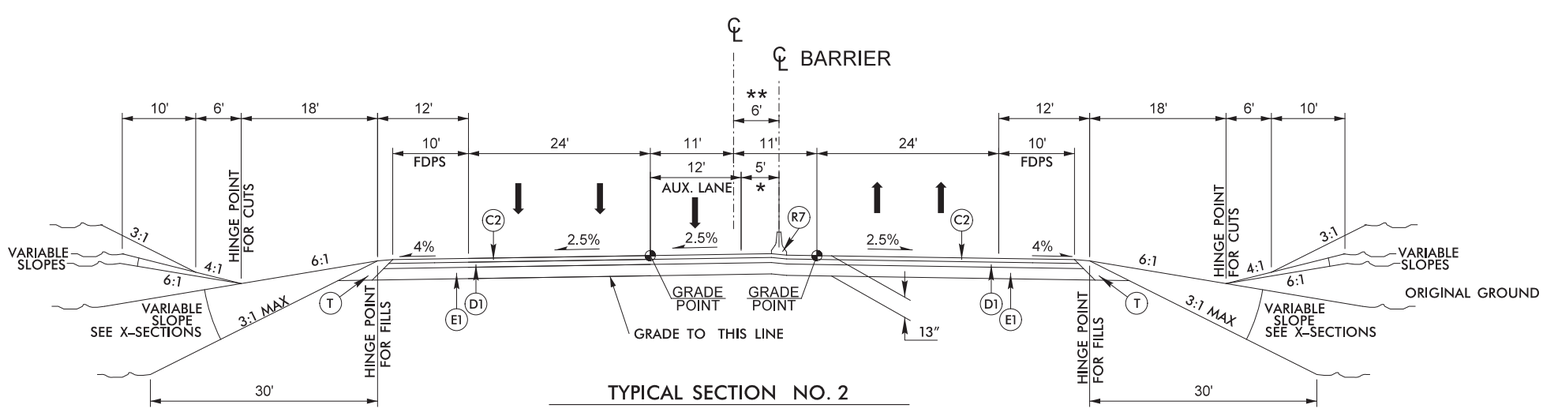
A	12″ PORTLAND CEMENT CONCRETE PAVEMENT (WITH DOWELS)	D4	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS PER SQ YD PER 1″ DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2″ IN DEPTH OR GREATER THAN 4″ IN DEPTH.	R3	8″x18″ CONCRETE CURB		
C1	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS	E1	PROP. APPROX. 7″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS	R4	7″ JOINTED CONCRETE PAVEMENT REINFORCED WITH WIRE MESH 4x4 W3.5xW3.5		
C2	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS	E2	PROP. APPROX. 5″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	R5	5″ MONOLITHIC CONCRETE ISLAND		
C3	PROP. APPROX. 1″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.	E3	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 5 1/2″ IN DEPTH.	R6	SHOULDER BERM GUTTER		
C4	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	J1	PROP. 11.5″ AGGREGATE BASE COURSE.	R7	MEDIAN CONCRETE BARRIER		
C5	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS PER SQ YD PER 1″ DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2″ IN DEPTH	J2	PROP. 4″ AGGREGATE BASE COURSE.	T	EARTH MATERIAL.	W2	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL 2)
C6	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 TO EXCEED 1 1/2″ IN DEPTH	J3	PROP. 11″ AGGREGATE BASE COURSE.	U	EXISTING PAVEMENT.	X	PROP. APPROX. 4″ PERMEABLE ASPHALT DRAINAGE LAYER, TYPE P-57, AT AN AVERAGE RATE OF XXX LBS. PER SQ. YD.
D1	PROP. APPROX. 3″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J4	PROP. 5″ AGGREGATE BASE COURSE.	V	MILLING (VARIABLE DEPTH)	Y	8″ PERVIOUS CONCRETE PAVEMENT
D2	PROP. APPROX. 3.5″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.	R1	1′-6″ CONCRETE CURB AND GUTTER.	W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL 1)	Z	6″ #57 STONE
D3	PROP. APPROX. 2.5″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	R2	2′-6″ CONCRETE CURB AND GUTTER.				

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



TYPICAL SECTION NO. 1

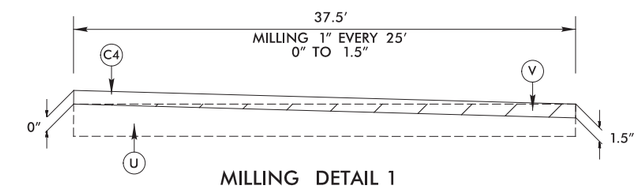
–Y– (US 158) STA. 14+75.00 TO 19+37.13
–Y– (US 158) STA. 89+00.00 TO 102+50.00



TYPICAL SECTION NO. 2

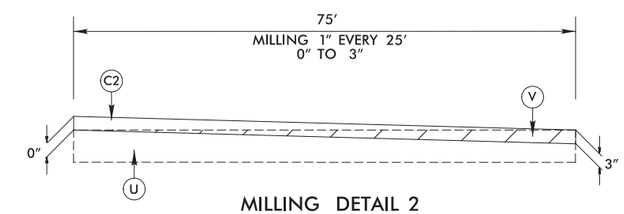
–Y– (US 158) STA. 19+37.13 TO 33+39.23

* 6′ FROM -Y- STA. 25+00.00 TO 33+39.23
** 7′ FROM -Y- STA. 25+00.00 TO 33+39.23



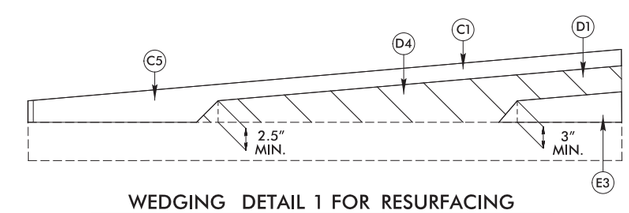
MILLING DETAIL 1

USE MILLING DETAIL AT RESURFACING TIES

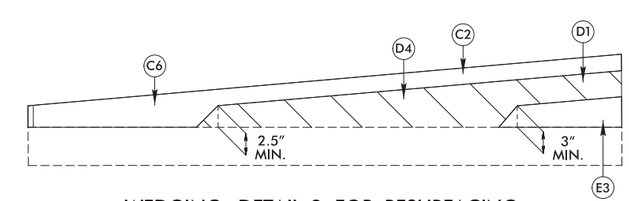


MILLING DETAIL 2

USE MILLING DETAIL AT RESURFACING TIES



WEDGING DETAIL 1 FOR RESURFACING



WEDGING DETAIL 2 FOR RESURFACING

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TIMELEY

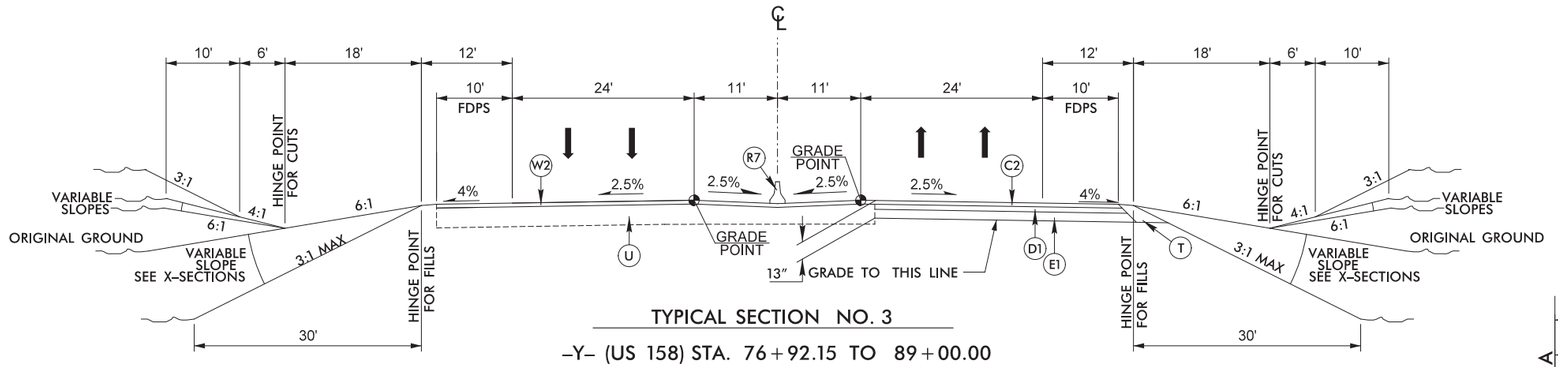
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

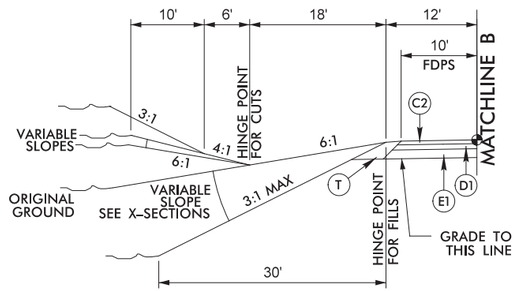
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



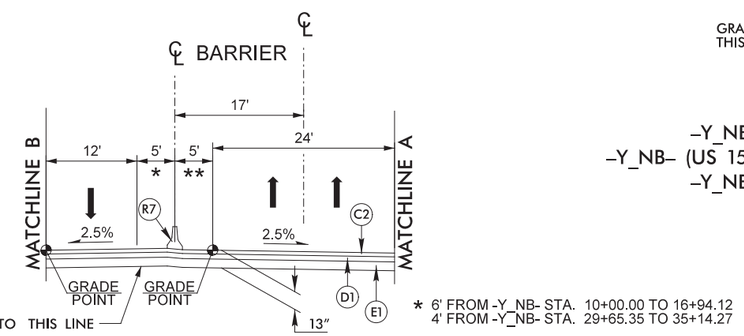
TYPICAL SECTION NO. 3

–Y– (US 158) STA. 76+92.15 TO 89+00.00



TYPICAL SECTION NO. 4A

–Y_NB– (US 158) STA. 10+00.00 TO 27+45± (BEGIN BRIDGE)
–Y_NB– (US 158) STA. 29+90.00 TO 35+14.27

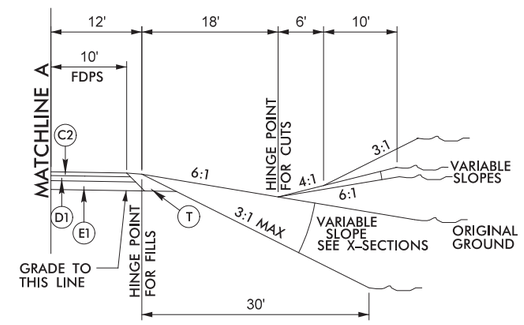


* 6' FROM -Y_NB- STA. 10+00.00 TO 16+94.12
4' FROM -Y_NB- STA. 29+65.35 TO 35+14.27

** 4' FROM -Y_NB- STA. 10+00.00 TO 16+94.12
6' FROM -Y_NB- STA. 29+65.35 TO 35+14.27

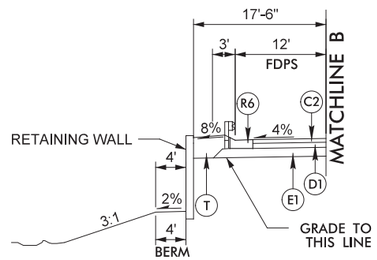
TYPICAL SECTION NO. 4

–Y_NB– (US 158) STA. 10+00.00 TO 27+45± (BEGIN BRIDGE)
–Y_NB– (US 158) STA. 28+77± (END BRDIGE) TO 35+14.27



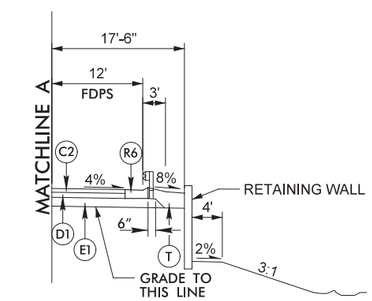
TYPICAL SECTION NO. 4A

–Y_NB– (US 158) STA. 10+00.00 TO 22+50.00
–Y_NB– (US 158) STA. 24+50.00 TO 27+45± (BEGIN BRIDGE)
–Y_NB– (US 158) STA. 33+20.00 TO 35+14.27



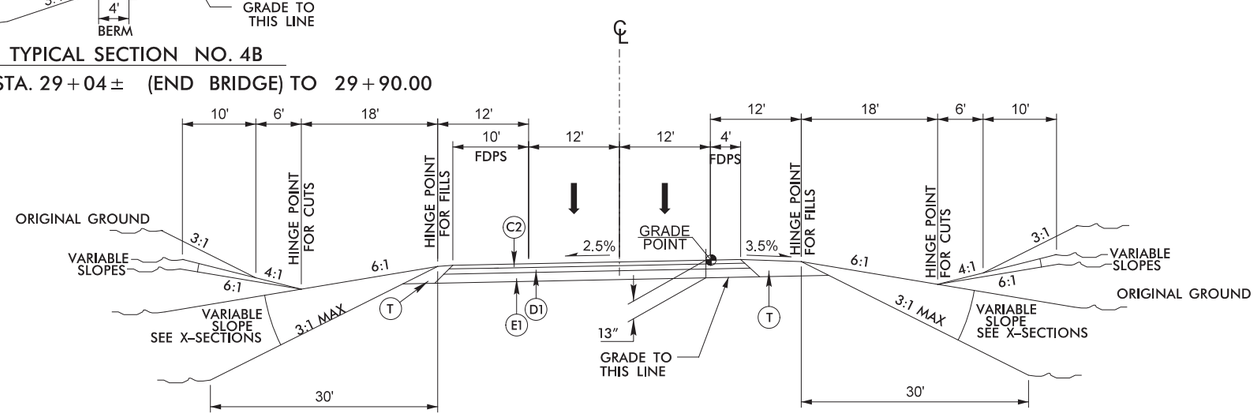
TYPICAL SECTION NO. 4B

–Y_NB– (US 158) STA. 29+04± (END BRIDGE) TO 29+90.00



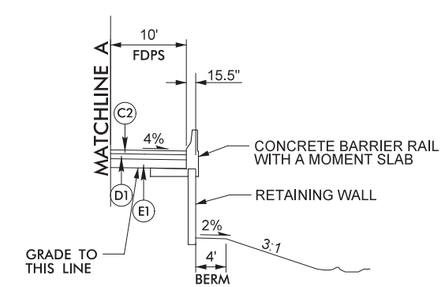
TYPICAL SECTION NO. 4B

–Y_NB– (US 158) STA. 22+50.00 TO 24+50.00



TYPICAL SECTION NO. 5

–Y_SB– (US 158) STA. 10+00.00 TO 25+34.39
–Y_SB– (US 158) STA. 27+50.00 TO 36+00.49
–Y_NB– (US 158) STA. 35+14.27 TO 54+15.97 (MIRRORED)



TYPICAL SECTION NO. 4C

–Y_NB– (US 158) STA. 28+64± (END BRIDGE) TO 33+20.00

6/17/2024
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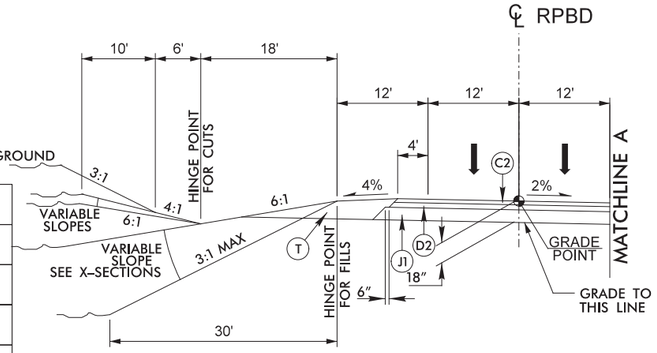
PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-3
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

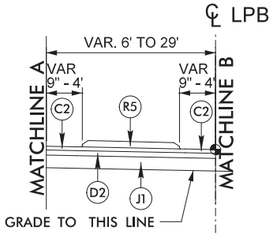
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



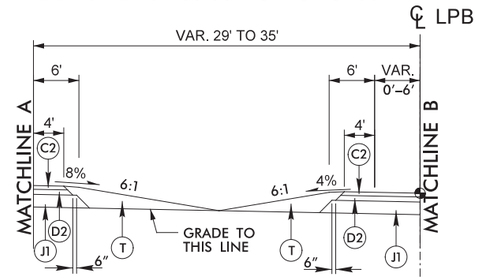
TYPICAL SECTION NO. 6

–RPBD– STA. 10+00.00 TO 23+34.20



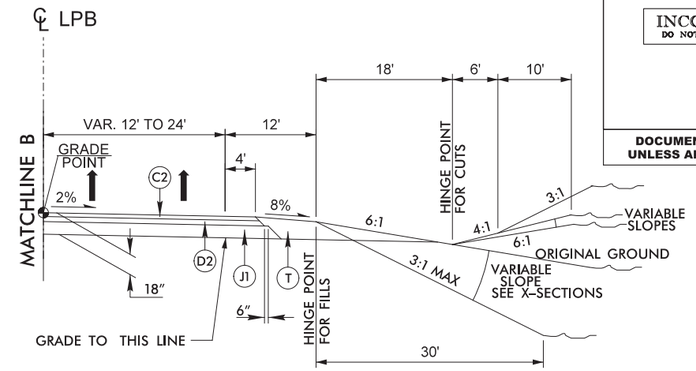
TYPICAL SECTION NO. 6A

–RPBD– STA. 10+00.00 TO 16+36.36
–LPB– STA. 10+00.00 TO 16+61.00



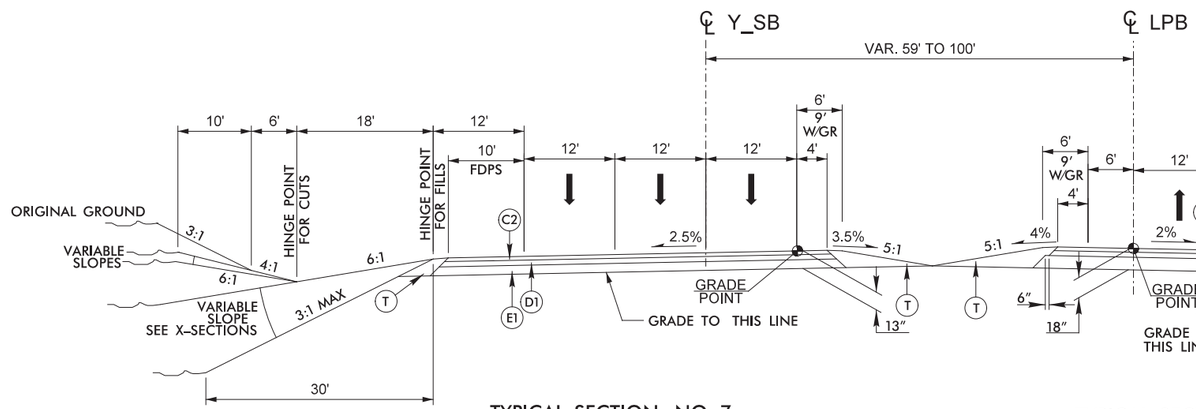
TYPICAL SECTION NO. 6B

–RPBD– STA. 16+36.36 TO 23+34.20
–LPB– STA. 16+61.00 TO 23+16.82



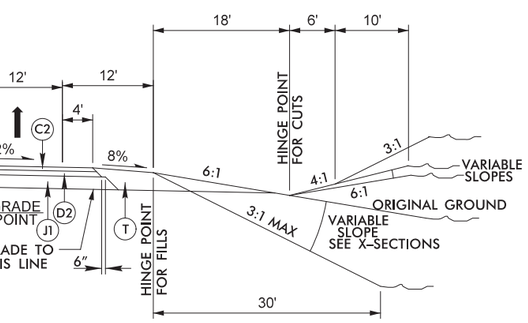
TYPICAL SECTION NO. 6

–LPB– STA. 10+00.00 TO 23+16.82



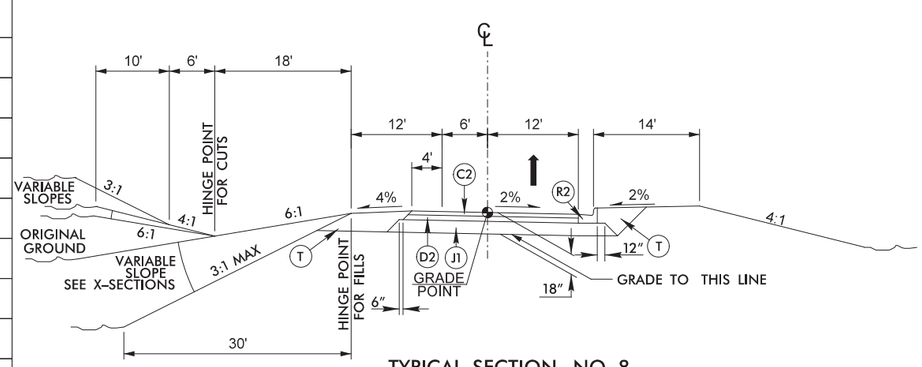
TYPICAL SECTION NO. 7

–Y_SB– (US 158) STA. 25+34.39 TO 27+50.00



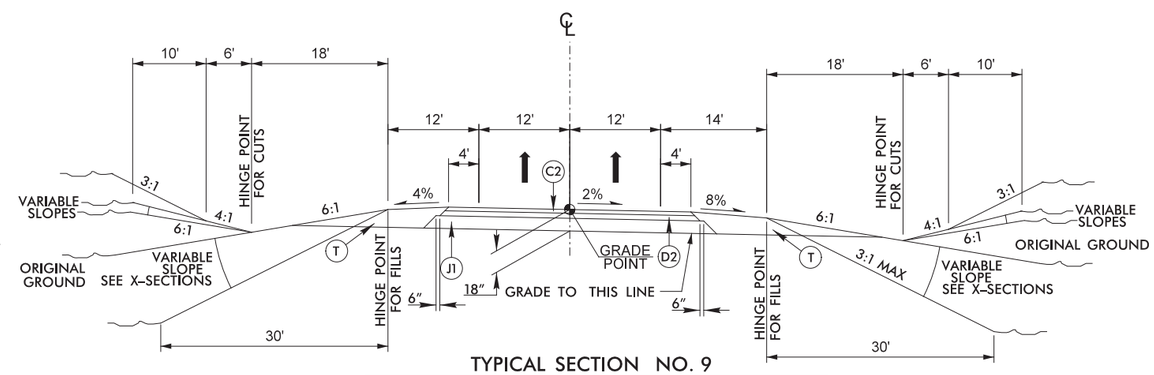
TYPICAL SECTION NO. 7

–LPB– STA. 23+16.82 TO 24+59.90



TYPICAL SECTION NO. 8

–LPB– STA. 24+59.90 TO 28+90.61



TYPICAL SECTION NO. 9

–RPA– STA. 10+00.00 TO 27+50.42

6/17/2024
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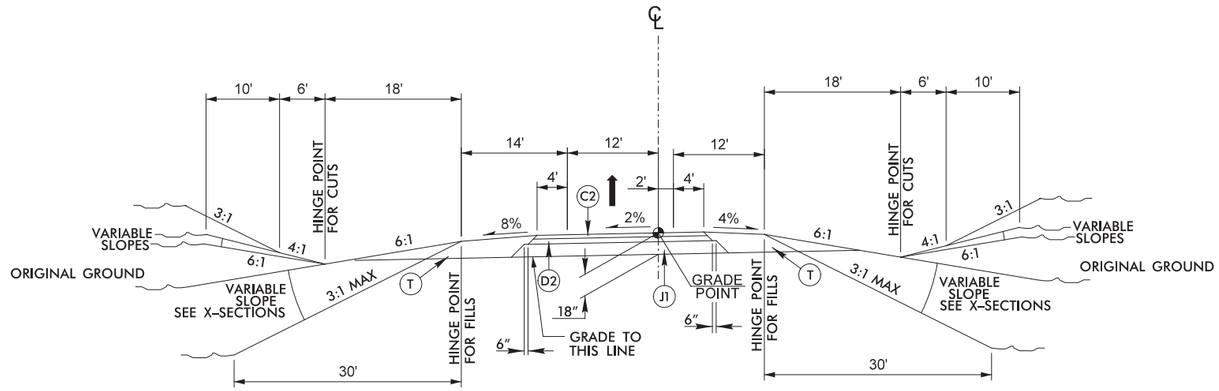
CLOKEY

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-4
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

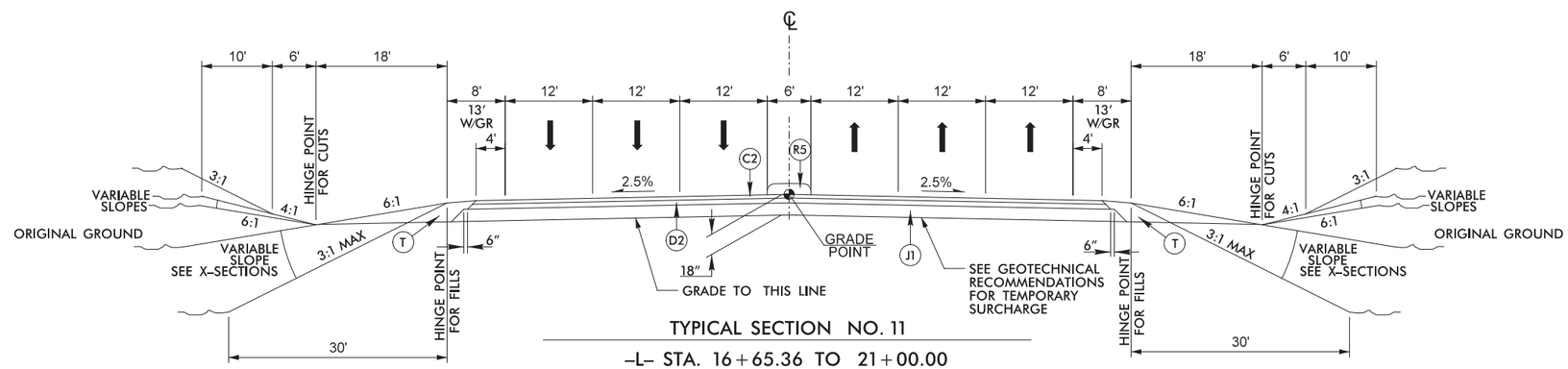
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



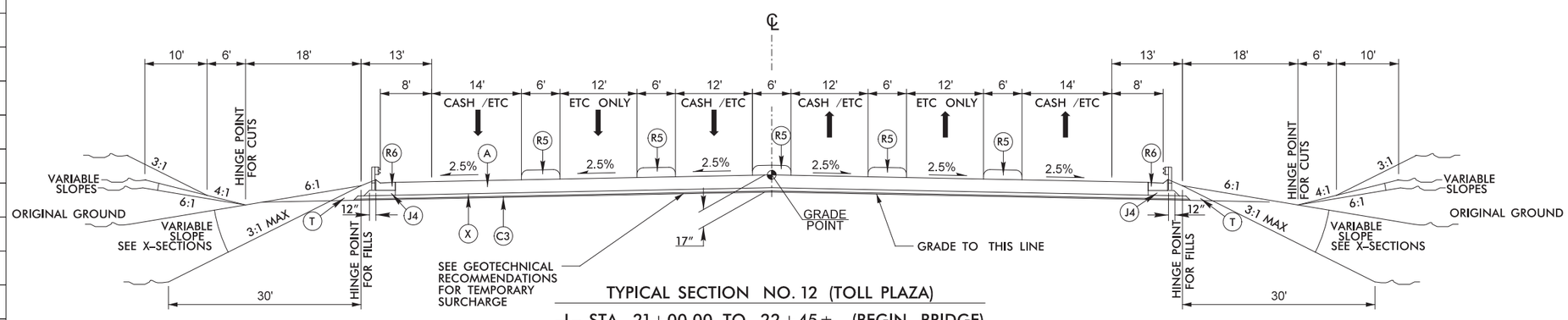
TYPICAL SECTION NO. 10

–RPD– STA. 10+00.00 TO 23+09.74



TYPICAL SECTION NO. 11

–L– STA. 16+65.36 TO 21+00.00



TYPICAL SECTION NO. 12 (TOLL PLAZA)

–L– STA. 21+00.00 TO 22+45± (BEGIN BRIDGE)

6/2/99

6/17/2024
R2576_rdy_TYP.dgn
CYOKELEY

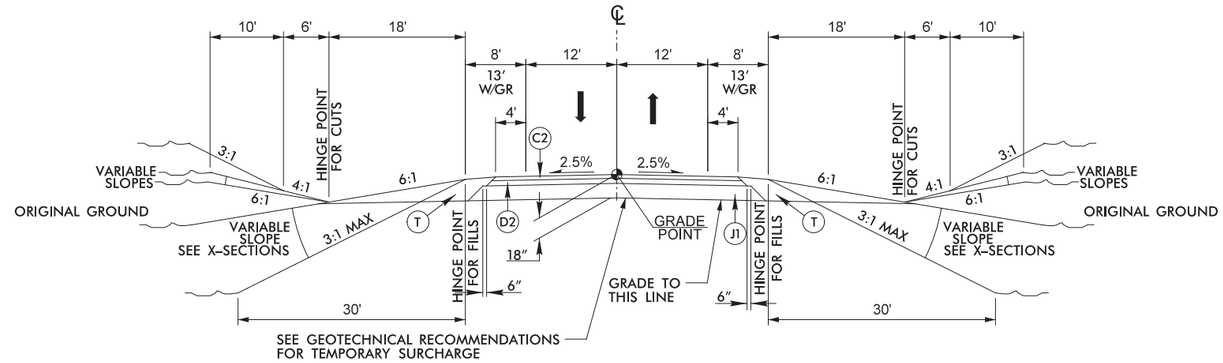
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

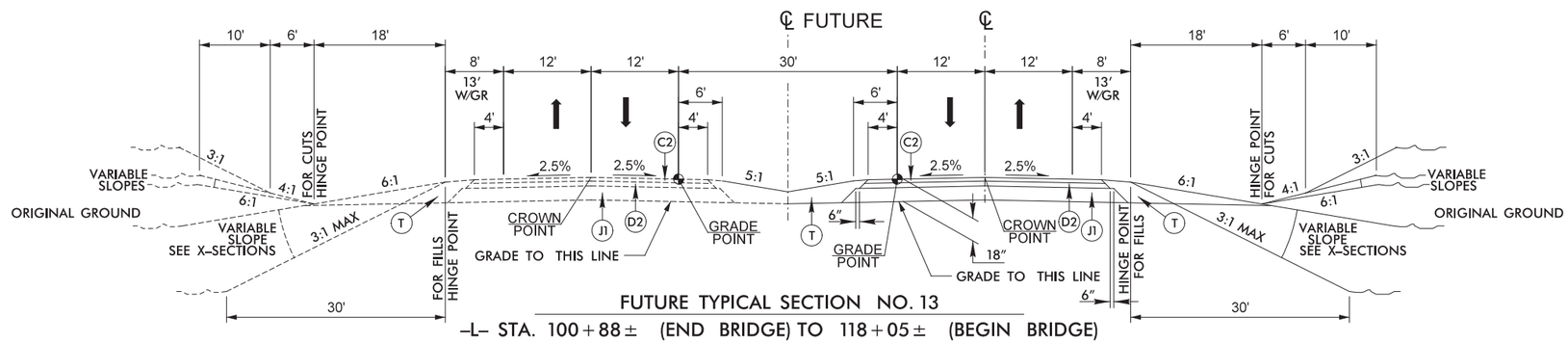
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

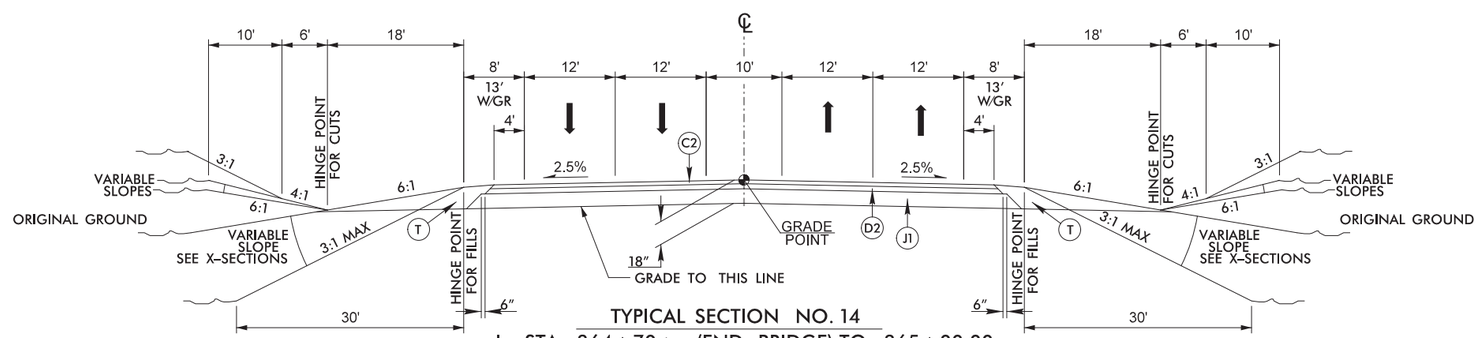
A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



TYPICAL SECTION NO. 13
–L– STA. 100+88± (END BRIDGE) TO 118+05± (BEGIN BRIDGE)

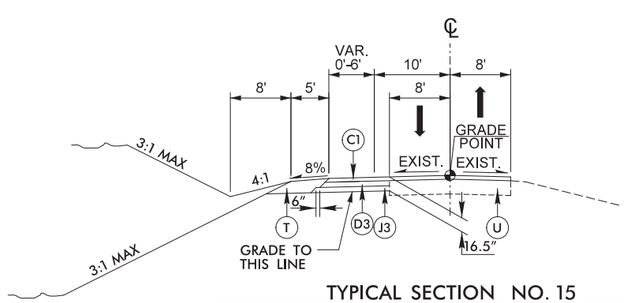


FUTURE TYPICAL SECTION NO. 13
–L– STA. 100+88± (END BRIDGE) TO 118+05± (BEGIN BRIDGE)

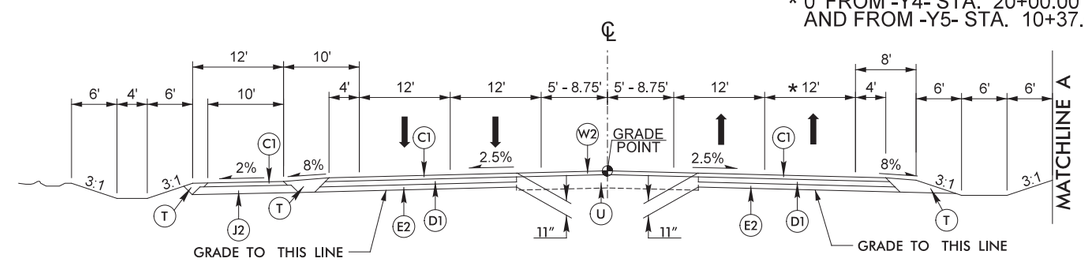


TYPICAL SECTION NO. 14
–L– STA. 364+70± (END BRIDGE) TO 365+00.00
–L2– STA. 365+00.00 TO 369+18.83

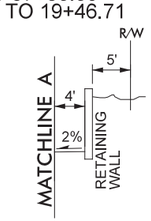
* 0' FROM -Y4- STA. 20+00.00 TO 37+50.00
AND FROM -Y5- STA. 10+37.57 TO 19+46.71



TYPICAL SECTION NO. 15
–Y3– (NARROW SHORE RD) STA. 12+48.58 TO 15+36.20



TYPICAL SECTION NO. 16
–Y4– (NC 12) STA. 20+00.00 TO 44+86.83
–Y5– (NC 12) STA. 10+37.57 TO 19+46.71



TYPICAL SECTION NO. 16A
–Y4– (NC 12)
STA. 39+80.00
TO 40+60.00

6/17/2024
R2576_rdy_TYP.dgn
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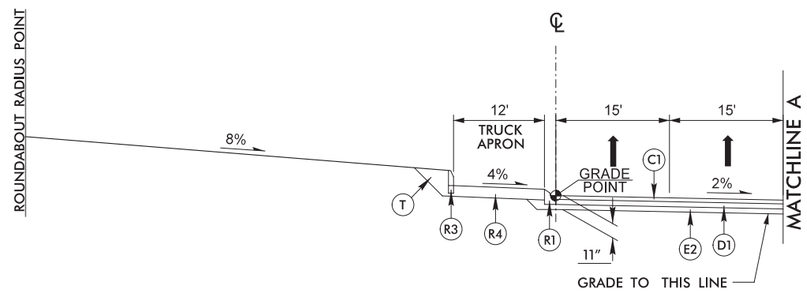
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

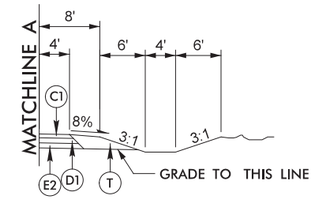
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

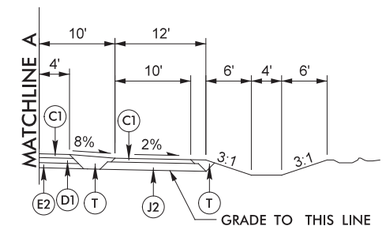
A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



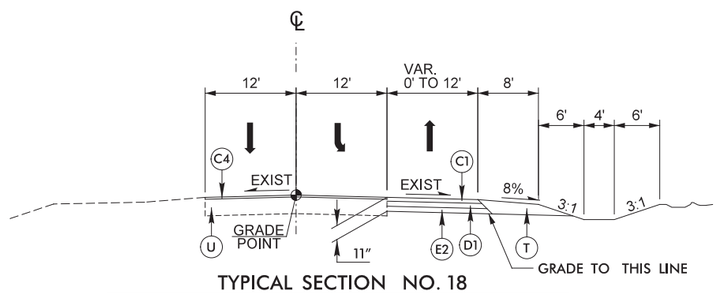
TYPICAL SECTION NO. 17
–Y5R– (ROUNDABOUT) STA. 10+00.00 TO 14+39.82



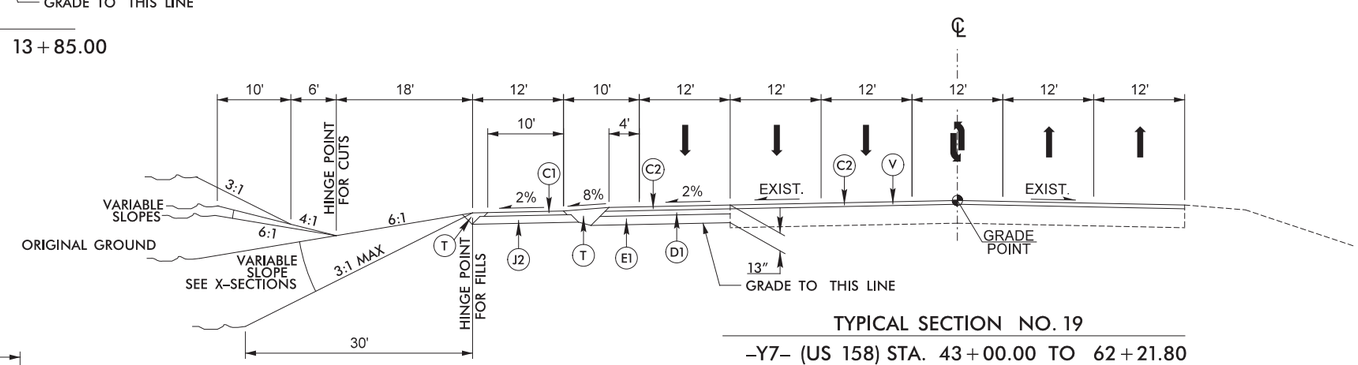
TYPICAL SECTION NO. 17A
–Y5R– STA. 11+12.25 TO 13+20.32



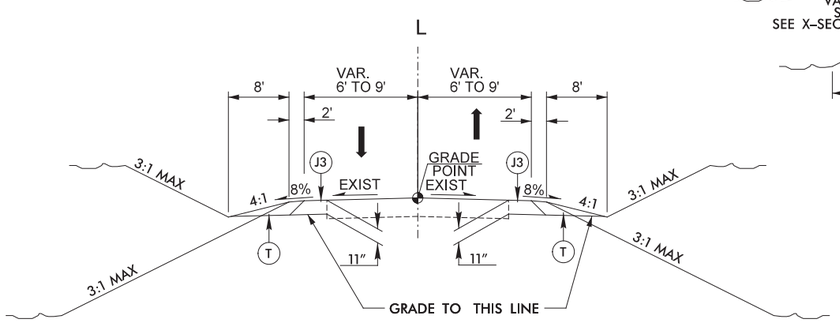
TYPICAL SECTION NO. 17B
–Y5R– STA. 10+00.00 TO 11+12.25
–Y5R– STA. 13+20.32 TO 14+39.82



TYPICAL SECTION NO. 18
–Y6– (ALBACORE RD) STA. 10+15.06 TO 13+85.00



TYPICAL SECTION NO. 19
–Y7– (US 158) STA. 43+00.00 TO 62+21.80



TYPICAL SECTION NO. 20
–Y1B– (YOUNG RD) STA. 10+20.00 TO 11+15.00

6/17/2024
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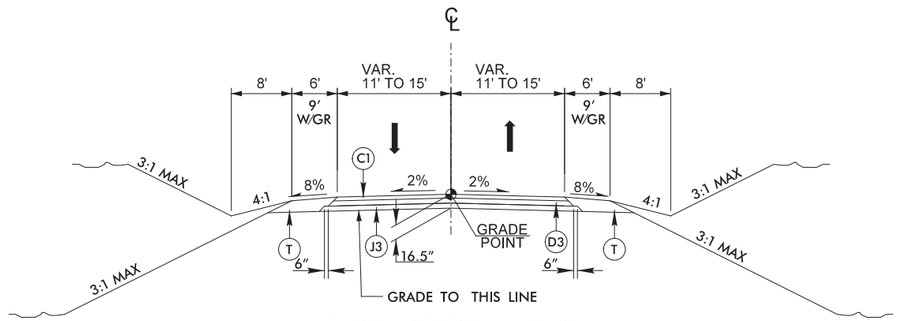
PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

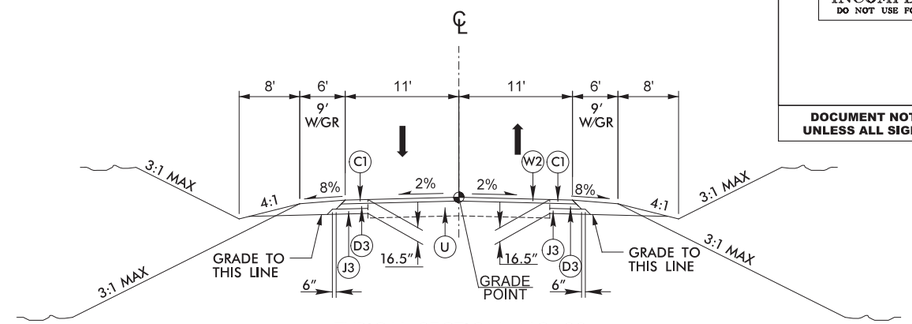
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

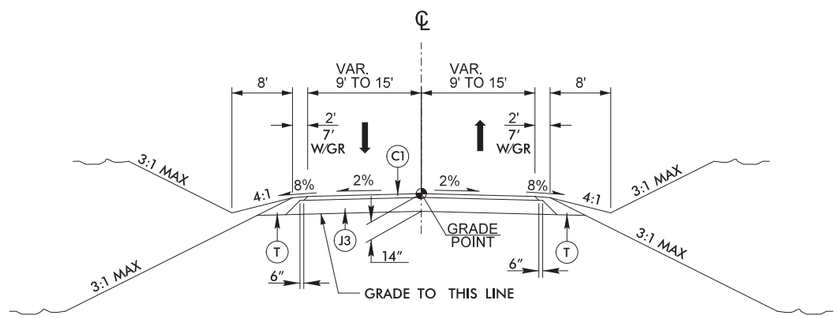
A	12" PCCP (WITH DOWELS)
C1	3" S9.5B
C2	3" S9.5C
C3	1" S9.5B
C4	1.5" S9.5B
C5	VAR. S9.5B
C6	VAR. S9.5C
D1	3" I19.5C
D2	3.5" I19.5C
D3	2.5" I19.5C
D4	VAR. I19.0C
E1	7" B25.0
E2	5" B25.0
E3	VAR. B25.0
J1	11.5" ABC
J2	4" ABC
J3	11" ABC
J4	5" ABC
R1	1'-6" CURB
R2	2'-6" CURB
R3	8"x18" CURB
R4	7" JOINTED CONC. PAV.
R5	5" MONOLITHIC CONC. ISLAND
R6	SBG
R7	MEDIAN CONC BARRIER
T	EARTH MATERIAL
U	EXISTING PAV.
V	MILLING
W1	WEDGING
W2	WEDGING
X	4" PADL
Y	8" PERVIOUS CONC. PAVEMENT
Z	6" #57 STONE



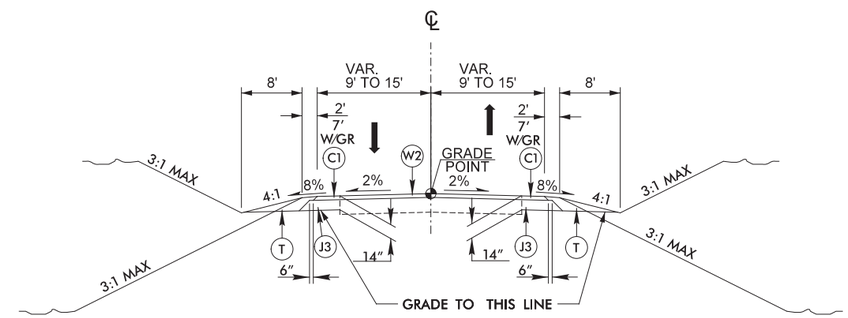
TYPICAL SECTION NO. 21
–Y2– (AYDLETT RD) STA. 10+35.00 TO 28+08.04



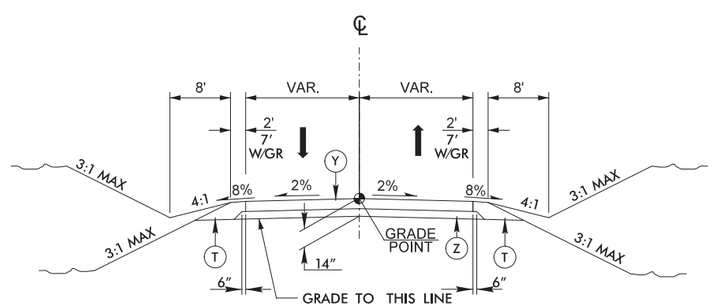
TYPICAL SECTION NO. 22
–Y2– (AYDLETT RD) STA. 28+08.04 TO 31+75.00



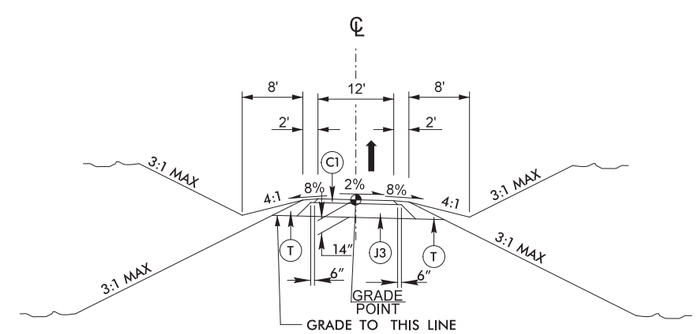
TYPICAL SECTION NO. 23
–Y1A– STA. 10+06.00 TO 25+27.92
–Y2A– STA. 10+11.02 TO 27+16.90
–Y3B– STA. 10+10.00 TO 12+81.74
–Y4C– STA. 10+32.75 TO 11+71.09



TYPICAL SECTION NO. 24
–Y1– (WATERLILLY RD) STA. 10+35.00 TO 13+50.00
–Y2B– (AYDLETT RD) STA. 11+00.00 TO 16+56.18
–Y4A– (SOUTH HARBOR VIEW) STA. 10+00.00 TO 11+87.73
–Y4A– (NORTH HARBOR VIEW) STA. 12+41.25 TO 13+50.00
–Y4B– (OCEAN FOREST CT) STA. 10+80.00 TO 11+72.61



TYPICAL SECTION NO. 25
PARKING LOT PORTION OF –Y2A– STA. 17+26.72 TO 19+74.16 (LT)
–Y2A– STA. 27+16.90 TO 29+37.64



TYPICAL SECTION NO. 26
–DRW1– STA. 10+70.00 TO 13+51.27

6/2/99

6/17/2024
R2576-rdy-TYP.dgn
CYOKELEY

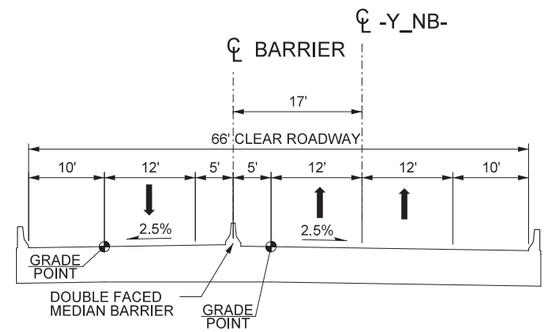
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

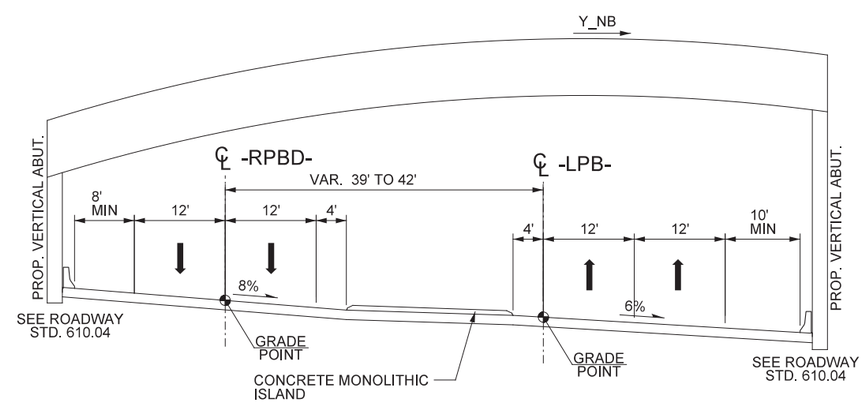
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BRIDGE AT FROM –Y_NB– STA. 27+78.62 OVER –RPBD– STA. 15+04.95 AND AT –Y_NB– STA. 28+24.01 OVER –LPB STA. 15+57.67



STRUCTURE TYPICAL SECTION



TYPICAL SECTION UNDER BRIDGE

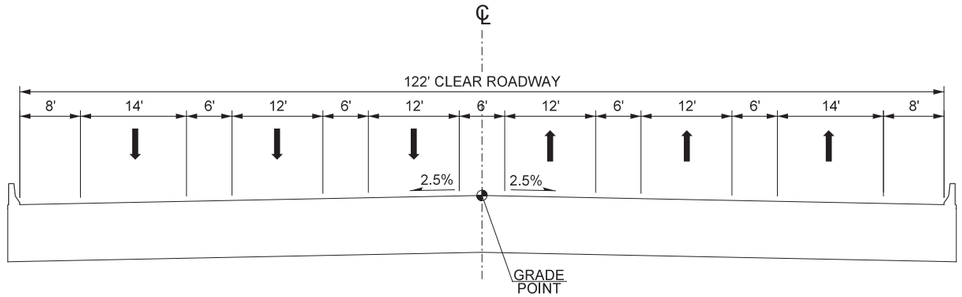
6/17/2024
R2576-rdy-TYP.dgn
CTOKELEY

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2A-9
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

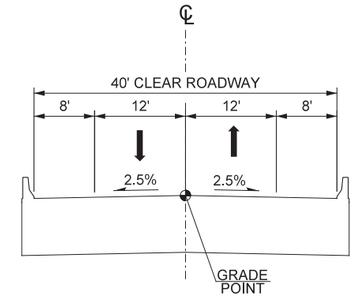
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BRIDGE FROM –L– STA. 22+46± TO STA. 100+88±
OVER MAPLE SWAMP



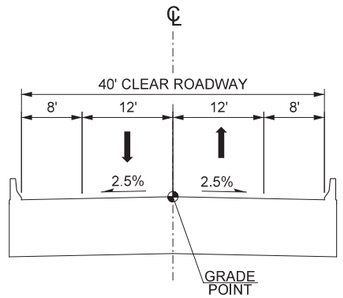
BRIDGE TYPICAL NO. 1
–L– STA. 22+45± (BEGIN BRIDGE) TO 26+00.00

TRANSITION FROM BRIDGE TYPICAL NO. 1 TO NO. 2
AT THE FOLLOWING LOCATIONS:
–L– STA. 26+00.00 TO 33+00.00



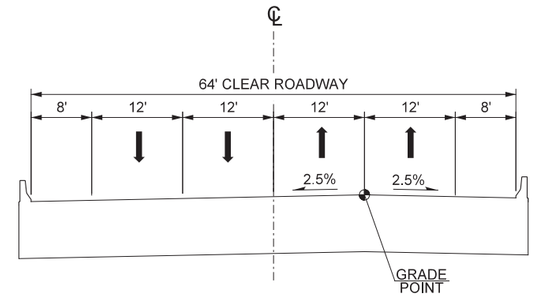
BRIDGE TYPICAL NO. 2
–L– STA. 33+00.00 TO STA. 100+88± (END BRIDGE)

BRIDGE FROM –L– STA. 118+05± TO STA. 364+70±
OVER CURRITUCK SOUND AND AT –L– STA. 118+31.91 OVER –Y3– STA. 13+81.47

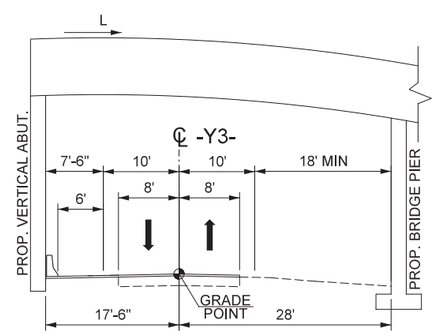


BRIDGE TYPICAL NO. 3
–L– STA. 118+05± TO 356+00.00

TRANSITION FROM BRIDGE TYPICAL NO. 3 TO NO. 4
AT THE FOLLOWING LOCATIONS:
–L– STA. 356+00.00 TO 363+00.00



BRIDGE TYPICAL NO. 4
–L– STA. 363+00.00 TO STA. 364+70±



TYPICAL SECTION UNDER STRUCTURE

6/2/99

6/17/2024
R2576-rdu_TYP.dgn
CLOKELEY

6/2/99

DITCH DETAILS

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571–7111
NC License Number F–0159

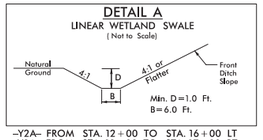
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	2D-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

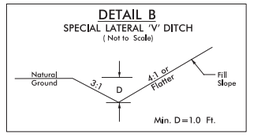
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DETAIL A
LINEAR WETLAND SWALE
(Not to Scale)



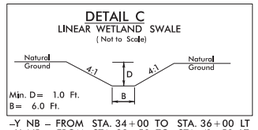
–Y2A– FROM STA. 12+00 TO STA. 16+00 LT
–Y2A– FROM STA. 12+00 TO STA. 17+00 RT
–Y2A– FROM STA. 24+00 TO STA. 25+00 LT
–Y– FROM STA. 22+85 TO STA. 32+50 RT
–Y– FROM STA. 36+00 TO STA. 41+50 RT
–RPD– FROM STA. 12+47 TO STA. 13+75 LT
–RPBD– FROM STA. 10+00 TO STA. 12+00 LT
–RPBD– FROM STA. 11+50 TO STA. 13+50 RT
–RPA– FROM STA. 14+50 TO STA. 15+00 RT
–Y NB– FROM STA. 29+75 TO STA. 35+00 RT
–Y NB– FROM STA. 30+66 TO STA. 34+00 LT
–Y NB– FROM STA. 24+50 TO STA. 25+00 RT
–Y2– FROM STA. 16+50 TO STA. 26+00 RT
–Y2– FROM STA. 18+00 TO STA. 25+50 LT
–Y4– FROM STA. 36+00 TO STA. 39+50 LT

DETAIL B
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



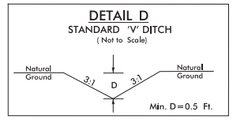
–Y2A– FROM STA. 17+00 TO STA. 17+50 LT
–Y2A– FROM STA. 25+00 TO STA. 27+00 LT
–Y– FROM STA. 33+00 TO STA. 36+00 RT
–Y– FROM STA. 41+50 TO STA. 43+00 RT
–Y2B– FROM STA. 9+58 RT TO STA. 11+34 LT
–Y NB– FROM STA. 20+00 TO STA. 24+50 RT
–Y NB– FROM STA. 35+00 TO STA. 39+00 RT
–RPBD– FROM STA. 10+00 TO STA. 11+50 RT
–Y2– FROM STA. 10+65 TO STA. 15+50 RT
–Y2– FROM STA. 10+85 TO STA. 15+50 LT
–Y2– FROM STA. 25+50 TO STA. 26+10 LT
–Y2– FROM STA. 28+50 TO STA. 31+75 LT
–Y2B– FROM STA. 12+00 TO STA. 16+44 RT
–Y2B– FROM STA. 12+00 TO STA. 16+00 LT
–Y1A– FROM STA. 10+50 TO STA. 13+85 LT
–Y1A– FROM STA. 10+50 TO STA. 14+00 RT
–Y1A– FROM STA. 18+00 TO STA. 19+00 LT

DETAIL C
LINEAR WETLAND SWALE
(Not to Scale)



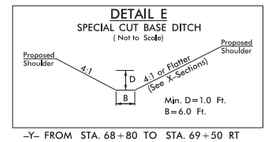
–Y NB – FROM STA. 34+00 TO STA. 36+00 LT
–Y NB – FROM STA. 38+50 TO STA. 41+50 LT

DETAIL D
STANDARD 'V' DITCH
(Not to Scale)



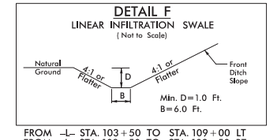
–Y1A– STA. 14+00 RT; DDE=42 cu.ft.
–Y1A– STA. 16+58 LT; DDE=185 cu.ft.
–Y1A– STA. 16+66 RT; DDE=60 cu.ft.
–Y1A– STA. 19+00 RT; DDE=94 cu.ft.

DETAIL E
SPECIAL CUT BASE DITCH
(Not to Scale)



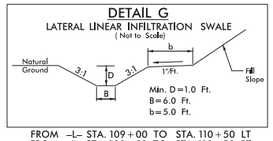
–Y– FROM STA. 68+80 TO STA. 69+50 RT

DETAIL F
LINEAR INFILTRATION SWALE
(Not to Scale)



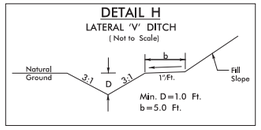
FROM –L– STA. 103+50 TO STA. 109+00 LT
FROM –L– STA. 103+50 TO STA. 109+50 RT

DETAIL G
LATERAL LINEAR INFILTRATION SWALE
(Not to Scale)



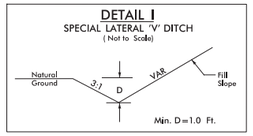
FROM –L– STA. 109+00 TO STA. 110+50 LT
FROM –L– STA. 109+50 TO STA. 110+50 RT

DETAIL H
LATERAL 'V' DITCH
(Not to Scale)



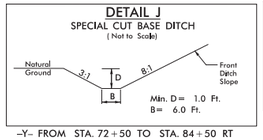
FROM –L– STA. 112+00 TO STA. 116+00 LT

DETAIL I
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



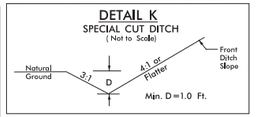
–Y– FROM STA. 70+50 TO STA. 72+50 RT

DETAIL J
SPECIAL CUT BASE DITCH
(Not to Scale)



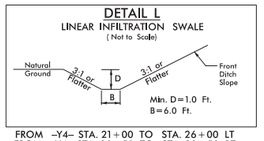
–Y– FROM STA. 72+50 TO STA. 84+50 RT

DETAIL K
SPECIAL CUT DITCH
(Not to Scale)



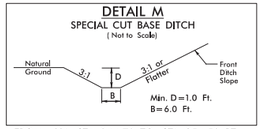
–Y4C– FROM STA. 10+50 TO STA. 11+50 RT
–Y4C– FROM STA. 10+50 TO STA. 11+50 LT
–Y– FROM STA. 15+00 TO STA. 16+00 RT
–Y2B– FROM STA. 10+75 LT TO STA. 11+50 RT
–Y7– FROM STA. 51+30 TO STA. 52+30 LT
–Y7– FROM STA. 58+27 TO STA. 59+50 LT

DETAIL L
LINEAR INFILTRATION SWALE
(Not to Scale)



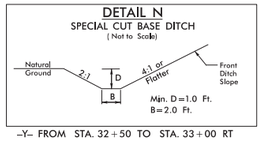
FROM –Y4– STA. 21+00 TO STA. 26+00 LT
FROM –Y4– STA. 20+50 TO STA. 22+50 RT
–Y5– FROM STA. 10+28 TO STA. 19+00 RT
–Y5R– FROM STA. 11+60 TO STA. 13+10 RT

DETAIL M
SPECIAL CUT BASE DITCH
(Not to Scale)



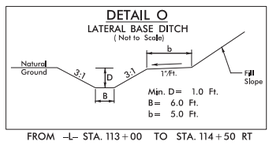
FROM –Y4– STA. 24+70 TO STA. 25+50 RT
FROM –Y4– STA. 30+50 TO STA. 32+50 RT
FROM –Y4– STA. 37+00 TO STA. 37+50 RT
FROM –Y4– STA. 39+50 TO STA. 42+50 RT

DETAIL N
SPECIAL CUT BASE DITCH
(Not to Scale)



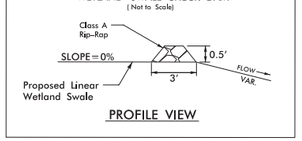
–Y– FROM STA. 32+50 TO STA. 33+00 RT

DETAIL O
LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 113+00 TO STA. 114+50 RT

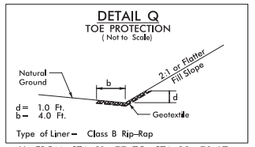
DETAIL P
WETLAND SWALE CHECK DAM
(Not to Scale)



PROFILE VIEW

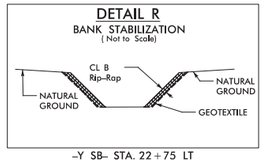
–Y2A– STA. 12+50 LT
–Y2A– STA. 13+00 RT
–Y2A– STA. 15+00 LT
–Y2A– STA. 15+00 RT
–Y2A– STA. 16+00 LT
–Y2A– STA. 16+50 RT
–Y2– STA. 18+50 LT
–Y2– STA. 18+50 RT
–Y2– STA. 22+00 LT
–Y2– STA. 22+50 RT
–Y2– STA. 23+00 LT
–Y2– STA. 24+50 RT
–Y2– STA. 25+50 LT
–Y2– STA. 25+50 RT
–Y– STA. 23+40 RT
–Y– STA. 28+75 RT
–Y– STA. 32+50 RT
–Y– STA. 34+00 RT
–Y– STA. 41+00 RT
–Y NB– STA. 31+50 LT
–Y NB– STA. 32+00 RT
–Y NB– STA. 32+50 LT
–Y NB– STA. 33+00 RT
–Y NB– STA. 40+00 LT
–Y NB– STA. 40+50 LT
–Y4– STA. 21+00 RT
–Y4– STA. 37+45 LT
–Y4– STA. 38+00 LT
–Y5– STA. 10+70 RT
–Y5– STA. 11+50 RT
–Y5– STA. 12+50 RT
–Y5– STA. 13+50 RT
–Y5– STA. 14+50 RT
–Y5R– STA. 12+70 RT

DETAIL Q
TOE PROTECTION
(Not to Scale)



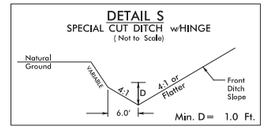
–Y– FROM STA. 21+77 TO STA. 23+70 LT
–Y– FROM STA. 40+83 TO STA. 42+54 LT
–Y– FROM STA 84+63 TO STA. 90+06 RT
–Y– FROM STA 91+24 TO STA. 99+89 RT
–Y– FROM STA. 94+20 TO STA. 98+11 LT
–Y1A– FROM STA. 24+37 TO STA. 24+57 LT
–Y1A– FROM STA. 24+59 TO STA. 24+92 RT

DETAIL R
BANK STABILIZATION
(Not to Scale)



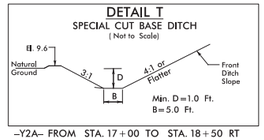
–Y SB– STA. 22+75 LT

DETAIL S
SPECIAL CUT DITCH wHINGE
(Not to Scale)



–Y– FROM STA. 18+00 TO STA. 19+00 RT
–Y– FROM STA. 20+00 TO STA. 22+85 RT

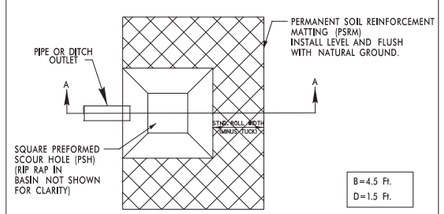
DETAIL T
SPECIAL CUT BASE DITCH
(Not to Scale)



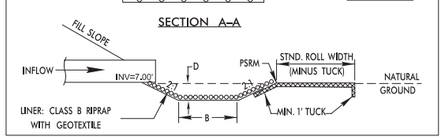
–Y2A– FROM STA. 17+00 TO STA. 18+50 RT

DETAIL U
PREFORMED SCOUR HOLE

PLAN VIEW

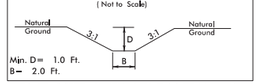


SECTION A–A



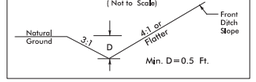
–L2– STA. 366+85 RT

DETAIL V
SPECIAL LATERAL BASE DITCH
(Not to Scale)



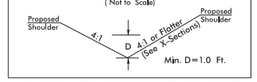
–Y7– FROM STA. 44+00 LT; DDE=550 cu.ft.

DETAIL W
SPECIAL CUT DITCH
(Not to Scale)



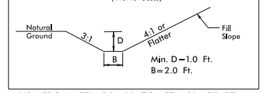
–Y2A– FROM STA. 22+50 TO STA. 23+50 LT

DETAIL X
SPECIAL CUT DITCH
(Not to Scale)



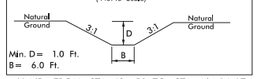
–Y– FROM STA. 69+50 TO STA. 73+00 RT

DETAIL Y
SPECIAL LATERAL BASE DITCH
(Not to Scale)



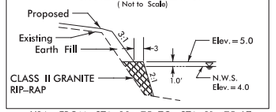
–Y2– FROM STA. 26+00 TO STA. 31+75 RT
–Y2A– FROM STA. 16+00 TO STA. 17+00 LT

DETAIL Z
SPECIAL LATERAL BASE DITCH
(Not to Scale)



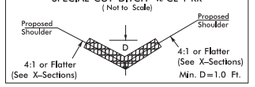
–Y NB– FROM STA. 42+50 TO STA. 46+14 LT

DETAIL AA
SHORELINE STABILIZATION
(Not to Scale)



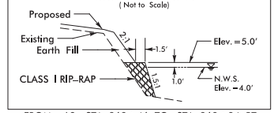
–Y2A– FROM STA. 30+75 TO STA. 31+75 LT

DETAIL AB
SPECIAL CUT DITCH w/CL 1 RR
(Not to Scale)



–LPB– FROM STA. 26+25 TO STA. 26+90 LT
–YNB– FROM STA. 28+58 TO STA. 30+00 RT

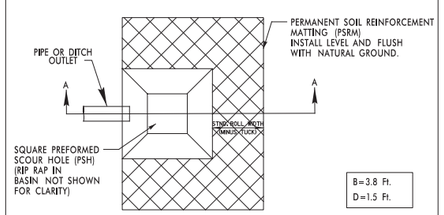
DETAIL AC
ROCK FILL IN POND
(Not to Scale)



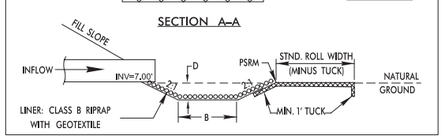
FROM –L2– STA. 368+46 TO STA. 368+84 RT
FROM –Y4– STA. 41+52 TO STA. 42+77 LT

DETAIL AD
PREFORMED SCOUR HOLE

PLAN VIEW

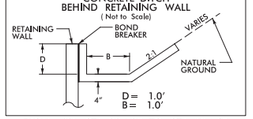


SECTION A–A



–L STA. 19+65 LT

DETAIL AE
CONCRETE DITCH
BEHIND RETAINING WALL
(Not to Scale)



FROM –Y4– STA. 39+80 TO STA. 40+60

DETAIL AF
SHORELINE STABILIZATION
(Not to Scale)

FROM Y3 STA. 12+90 TO STA. 15+14 RT

6/17/2024
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TIDWELL

COMPUTED BY: CLY DATE: 032620
CHECKED BY: — DATE: —

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919)571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	3B

PRELIMINARY SUMMARY OF EARTHWORK IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
SUMMARY #1					
-L- 16+65 TO 22+46	333	3,612	16,901	16,900	3,944
-Y_NB-20+00 TO 27+51 (BEG BRIDGE)	770	--	221,550	220,780	--
-RPD- 13+00 TO 13+50	179	--	2,459	2,370	--
-RPBD- 10+00 TO 17+00	1,994		26,681	24,687	
-Y_SB- 18+00 TO 36+00	38		163,249	163,211	
TOTAL SUMMARY #1	3,314	3,612	430,931	427,949	3,944
SUMMARY #2					
-Y_NB- 28+74 (END BRIDGE) TO 46+00	2,821	--	346,648	343,827	
-LPB- 25+00 TO 27+00	--	--	20,344	20,344	
-RPA- 14+50 TO 15+00	34	--	2,102	2,068	
TOTAL SUMMARY #2	2,855	--	369,093	366,238	--
					--
SUMMARY #3					--
-Y- 14+75 TO 43+00	10,620	--	50,185	39,565	--
-Y2- 10+35 TO 31+75	4,077	--	4,996	919	--
-Y2A- 10+11 TO 29+38	962		12,879	11,917	--
-Y2B- 11+00 TO 16+56	1,182		407	--	775
-DRW1- 10+25 TO 13+51.27	19	--	649	630	--
TOTAL SUMMARY #3	16,860	--	69,116	53,031	775
SUMMARY #4					
-Y- 69+00 TO 102+50	7,894	--	21,379	13,485	--
-Y1- 10+35 TO 13+50	47	--	416	369	--
-Y1A- 10+06 TO 25+28	298	--	2,423	2,125	--
TOTAL SUMMARY #4	8,239	--	24,218	15,979	--
SUMMARY #5					
-L- 100+89 (END BRIDGE) TO 118+05 (BEG BRIDGE)	2,544	2,285	77,743	75,337	2,423
-Y3- 12+50 TO 15+00	441	--	--	--	441
-Y3B- 9+98 TO 12+82	165	--	282	117	--
TOTAL SUMMARY #5	3,150	2,285	78,025	75,454	2,864
SUMMARY #6					
-L- 364+70 (END BRIDGE) TO -L2- 369+51.21	132	1,342	16,095	16,095	1,474
-Y5R- 10+00 TO 14+39	471	--	10,979	10,508	--
TOTAL SUMMARY #6	603	1,342	27,074	26,063	1,474

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
SUMMARY #7					--
-Y4- 20+00 TO 44+85	14,880	--	5,225	--	9,655
-Y4A- 10+00 TO 11+88	104	--	3	--	101
-Y4A- 12+41 TO 13+50	41	--	1	--	40
-Y4B- 10+80 TO 11+73	16	--	3	--	13
-Y4C- 10+33 TO 11+71	1,529	--	--	--	1,529
TOTAL SUMMARY #7	16,570	--	5,231	--	11,339
		--	10,936	10,616	--
SUMMARY #8					
-Y5- 10+38 TO 19+47	1,933	--	3,916	1,983	
TOTAL SUMMARY #8	1,933		3,916	1,983	
SUMMARY #9					
-Y6- 10+15 TO 13+03	143	--	60	--	83
TOTAL SUMMARY #9	143	--	60	--	83
SUMMARY #10					
-Y7- 42+50 TO 62+22	2,347	--	814	--	1,533
TOTAL SUMMARY #10	2,347	--	814	--	1,533
TOTAL SUMMARIES 1-10	56,134	7,239	1,008,055	966,980	22,297
WASTE IN LIEU OF BORROW	--	--	--	-14,456	-14,456
EST.5% TO REPLACE TOP SOIL ON BORROW PIT	--	--	--	47,626	--
GRAND TOTAL	56,134	7,239	1,008,055	1,000,149	7,841
SAY	56,140	--	--	1,000,150	7,850

6/21/00

6/17/2024
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CLOKEY

REVISIONS

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

-Y-

Station	Curve data
PIs Sta 54+10.60	θs = 1°34′ 32.3″; Ls = 220.00′; LT = 146.67′; ST = 73.34′
PI Sta 57+47.38	Δ = 7°32′ 10.4″ (LT); D = 1°25′ 56.6″; L = 526.13′; T = 263.44′; R = 4,000.00′
PIs Sta 60+83.40	θs = 1°34′ 32.3″; Ls = 220.00′; LT = 146.67′; ST = 73.34′

-Y_NB-

Station	Curve data
PIs Sta 31+05.35	θs = 2°51′ 53.2″; Ls = 270.00′; LT = 180.02′; ST = 90.02′
PI Sta 37+51.49	Δ = 23°16′ 43.1″ (LT); D = 2°07′ 19.4″; L = 1,096.98′; T = 556.16′; R = 2,700.00′; SE = 0.05
PIs Sta 43+82.33	θs = 2°51′ 53.2″; Ls = 270.00′; LT = 180.02′; ST = 90.02′

-Y_SB-

Station	Curve data
PIs Sta 11+33.35	θs = 2°26′ 17.2″; Ls = 200.00′; LT = 133.35′; ST = 66.68′
PI Sta 13+88.76	Δ = 9°11′ 04.7″ (LT); D = 2°26′ 17.2″; L = 376.71′; T = 188.76′; R = 2,350.00′; SE = 0.05
PIs Sta 16+43.39	θs = 2°26′ 17.2″; Ls = 200.00′; LT = 133.35′; ST = 66.68′
PIs Sta 19+10.06	θs = 2°26′ 17.2″; Ls = 200.00′; LT = 133.35′; ST = 66.68′
PI Sta 22+68.73	Δ = 14°10′ 01.7″ (RT); D = 2°26′ 17.2″; L = 581.07′; T = 292.02′; R = 2,350.00′; SE = 0.05
PIs Sta 26+24.46	θs = 2°26′ 17.2″; Ls = 200.00′; LT = 133.35′; ST = 66.68′
PIs Sta 28+91.13	θs = 2°26′ 17.2″; Ls = 200.00′; LT = 133.35′; ST = 66.68′
PI Sta 31+79.79	Δ = 10°47′ 37.5″ (LT); D = 2°26′ 17.2″; L = 442.71′; T = 222.01′; R = 2,350.00′; SE = 0.05
PIs Sta 34+67.17	θs = 2°26′ 17.2″; Ls = 200.00′; LT = 133.35′; ST = 66.68′

-RPA-

Station	Curve data
PIs Sta 11+34.02	θs = 17°54′ 17.8″; Ls = 200.00′; LT = 134.02′; ST = 67.29′
PI Sta 13+46.16	Δ = 49°05′ 52.9″ (RT); D = 17°54′ 17.8″; L = 274.22′; T = 146.16′; R = 320.00′; SE = 0.08
PIs Sta 15+41.51	θs = 17°54′ 17.8″; Ls = 200.00′; LT = 134.02′; ST = 67.29′
PIs Sta 18+07.55	θs = 1°25′ 56.6″; Ls = 200.00′; LT = 133.34′; ST = 66.67′
PI Sta 22+13.13	Δ = 9°41′ 09.3″ (LT); D = 1°25′ 56.6″; L = 676.21′; T = 338.91′; R = 4,000.00′; SE = 0.03
PIs Sta 26+56.78	θs = 1°25′ 56.3″; θs = 2°06′ 12.4″; Ls = 200.00′; LT = 106.36′; ST = 93.71′

-RPD-

Station	Curve data
PIs Sta 11+33.91	θs = 16°22′ 12.8″; Ls = 200.00′; LT = 133.91′; ST = 67.19′
PI Sta 13+61.11	Δ = 49°26′ 03.4″ (LT); D = 16°22′ 12.8″; L = 301.98′; T = 161.11′; R = 350.00′; SE = 0.08
PIs Sta 15+69.17	θs = 16°22′ 12.8″; Ls = 200.00′; LT = 133.91′; ST = 67.19′

-RPBD-

Station	Curve data
PIs Sta 11+33.45	θs = 7°32′ 20.1″; Ls = 200.00′; LT = 133.45′; ST = 66.78′
PI Sta 18+15.08	Δ = 77°58′ 02.4″ (RT); D = 7°32′ 20.1″; L = 1,034.20′; T = 615.08′; R = 760.00′; SE = 0.08
PIs Sta 22+75.74	θs = 1°13′ 29.0″; θs = 3°46′ 12.2″; Ls = 100.00′; LT = 58.52′; ST = 41.54′

-LPB-

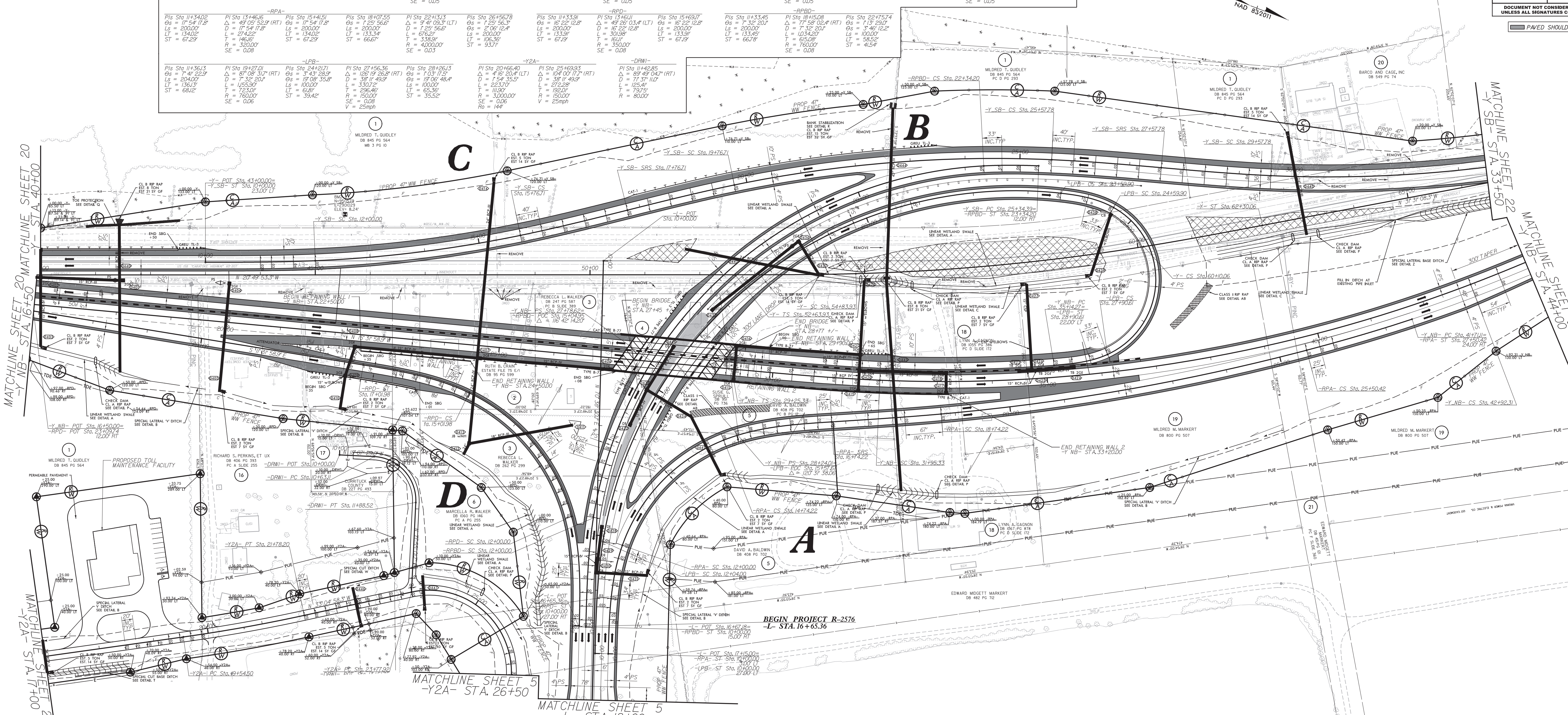
Station	Curve data
PIs Sta 11+36.13	θs = 7°41′ 22.9″; Ls = 204.00′; LT = 136.13′; ST = 68.12′
PI Sta 19+27.01	Δ = 87°08′ 31.7″ (RT); D = 7°32′ 20.1″; L = 1,155.90′; T = 723.01′; R = 760.00′; SE = 0.06
PIs Sta 24+21.71	θs = 3°43′ 28.9″; θs = 19°08′ 35.8″; Ls = 100.00′; LT = 61.81′; ST = 39.42′
PI Sta 27+56.36	Δ = 126°19′ 26.8″ (RT); D = 38°11′ 49.9″; L = 330.72′; T = 296.46′; R = 150.00′; SE = 0.08; V = 25mph
PIs Sta 28+26.13	θs = 1°03′ 17.5″; θs = 19°06′ 48.4″; Ls = 100.00′; LT = 65.36′; ST = 35.52′

-Y2A-

Station	Curve data
PI Sta 20+66.40	Δ = 4°16′ 20.4″ (LT); D = 1°54′ 35.5″; L = 223.70′; T = 111.90′; R = 3,000.00′; SE = 0.06; Ro = 144′
PI Sta 25+69.93	Δ = 104°00′ 17.7″ (RT); D = 38°11′ 49.9″; L = 272.28′; T = 192.01′; R = 150.00′; V = 25mph

-DRW1-

Station	Curve data
PI Sta 11+42.85	Δ = 89°49′ 04.7″ (RT); D = 71°37′ 11.0″; L = 125.41′; T = 79.75′; R = 80.00′



US 158	US 158	US 158
35,800 / 48,000	700 / 1,000 — 11,100 / 17,000	47,600 / 64,000
	11,800 / 18,000	

MID-CURRITUCK BRIDGE — 2020 ADT / 2040 ADT

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE
SEE SHEET 39-40 FOR -Y_NB- PROFILE
SEE SHEET 41-42 FOR -LPB- PROFILE
SEE SHEET 42 FOR -RPBD- PROFILE
SEE SHEET 43 FOR -RPA- PROFILE
SEE SHEET 44 FOR -RPD- PROFILE
SEE SHEET 46-47 FOR -Y2A- PROFILE
SEE SHEET 46 FOR -DRW1- PROFILE

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION: MID CURRITUCK (-L-) AT US 158 (-Y-)

TIP NO.: COUNTY:

DESIGNED BY:

CHECKED BY: DATE:

6/17/2024
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CYOKELEY

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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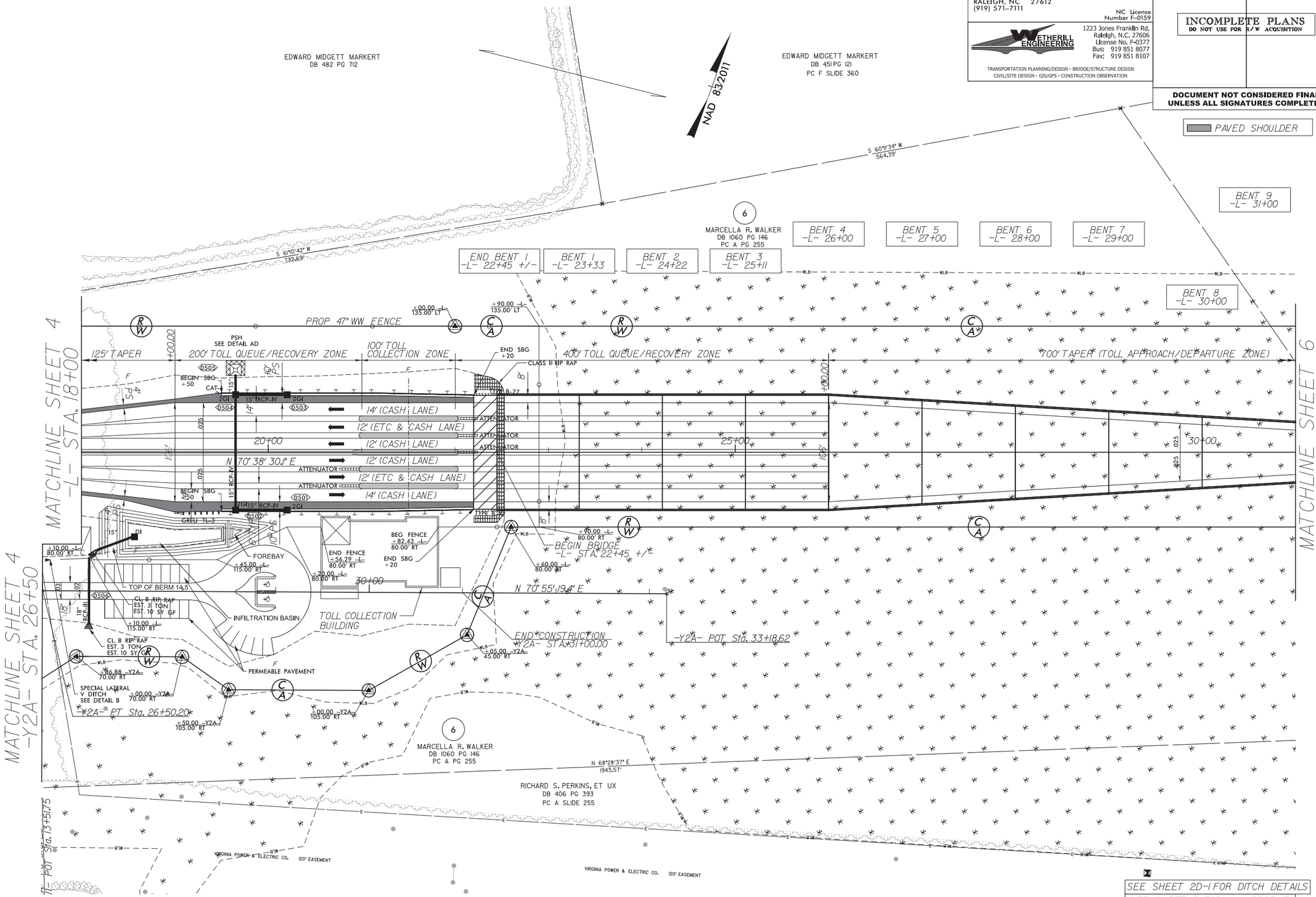
PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 47 FOR -Y2A- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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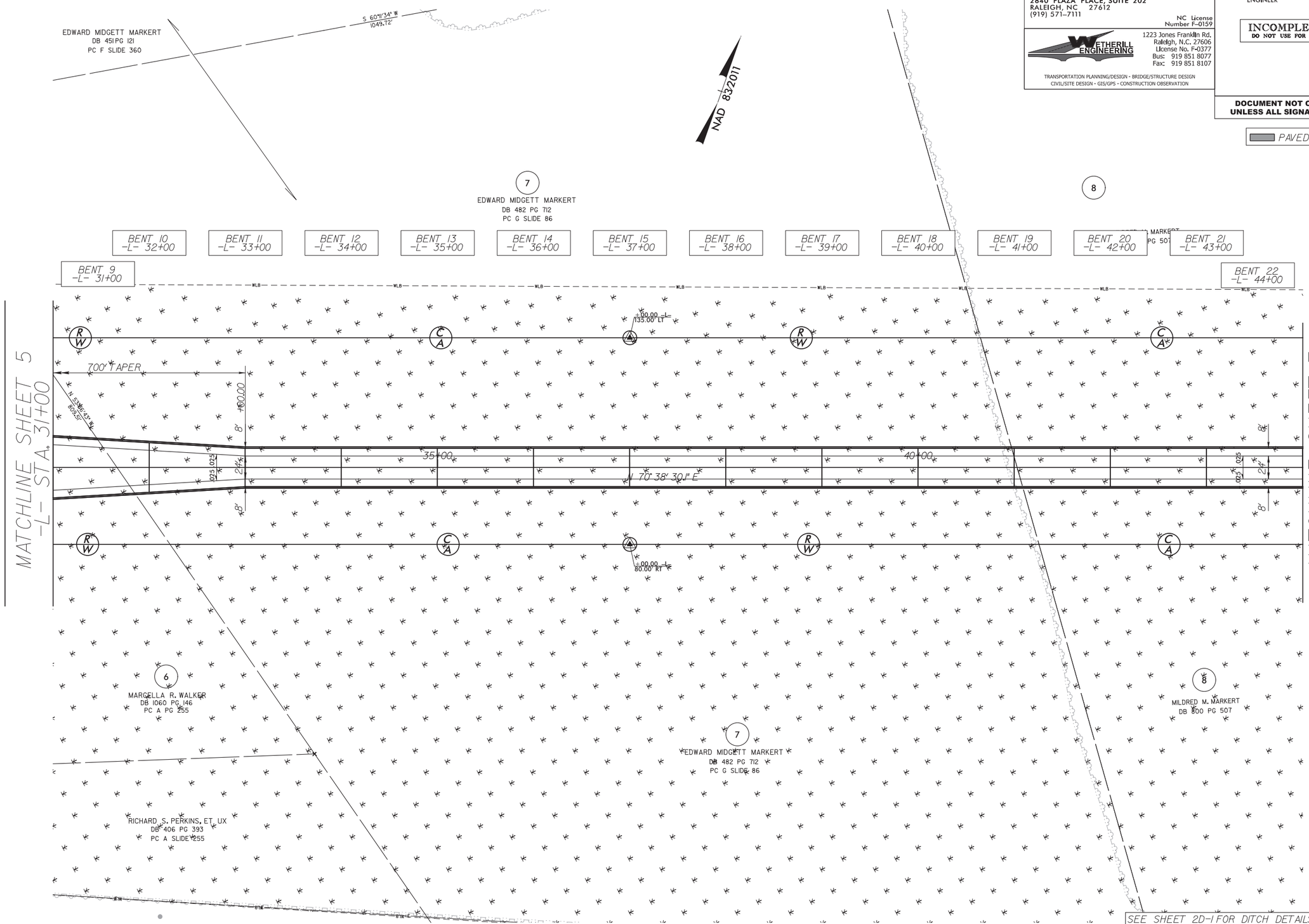

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SEE SHEET 32 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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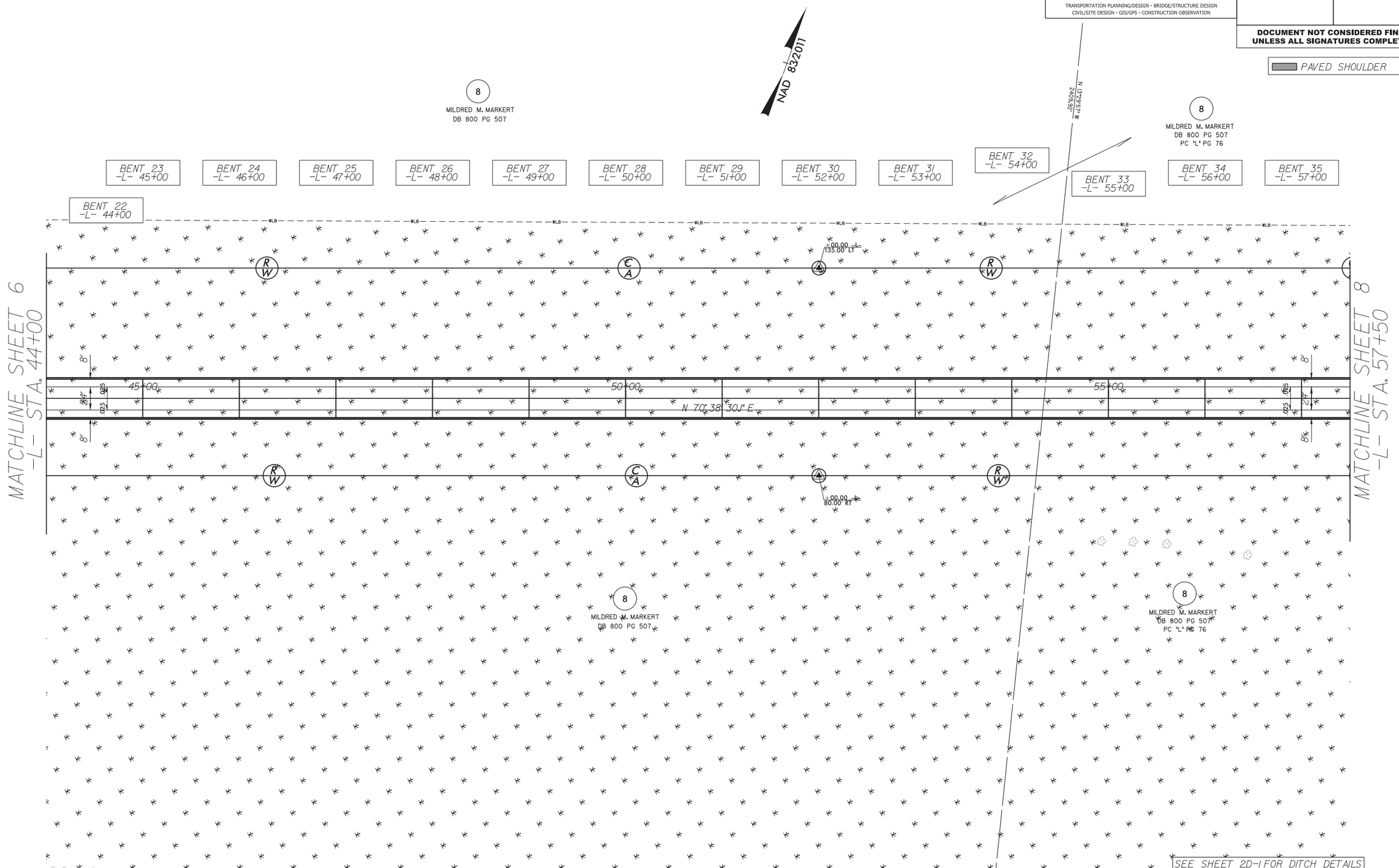

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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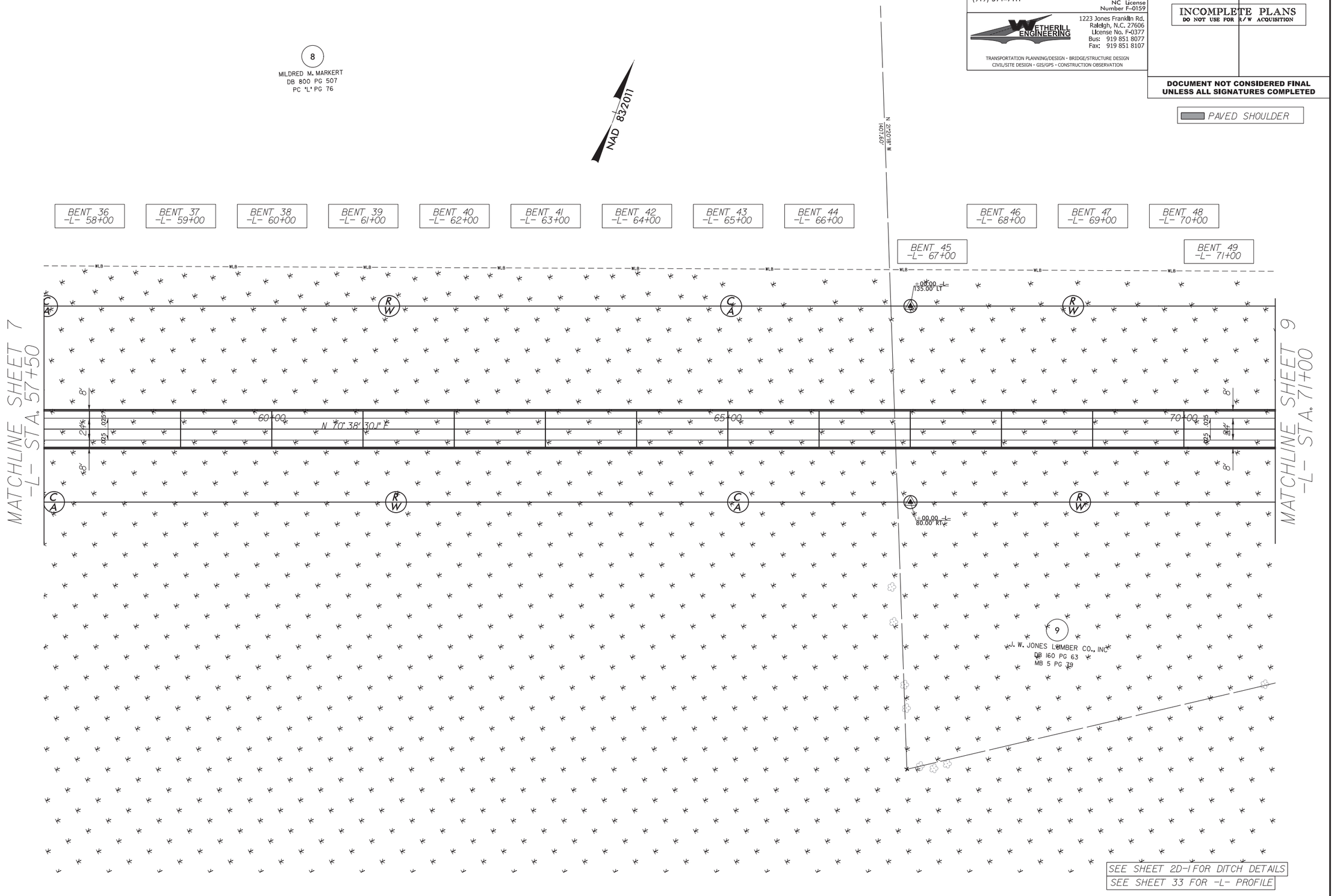

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 33 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	9
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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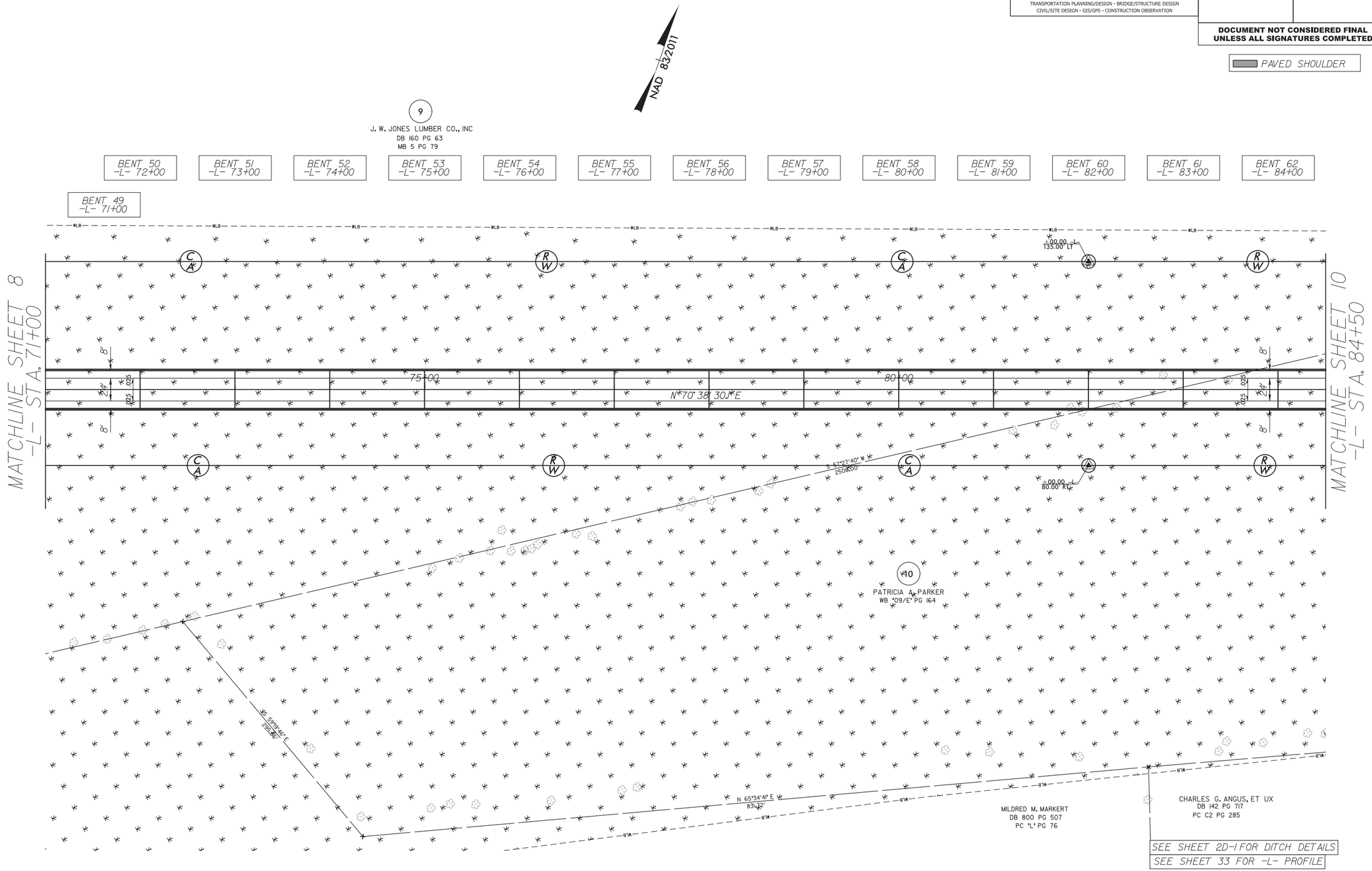

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	10
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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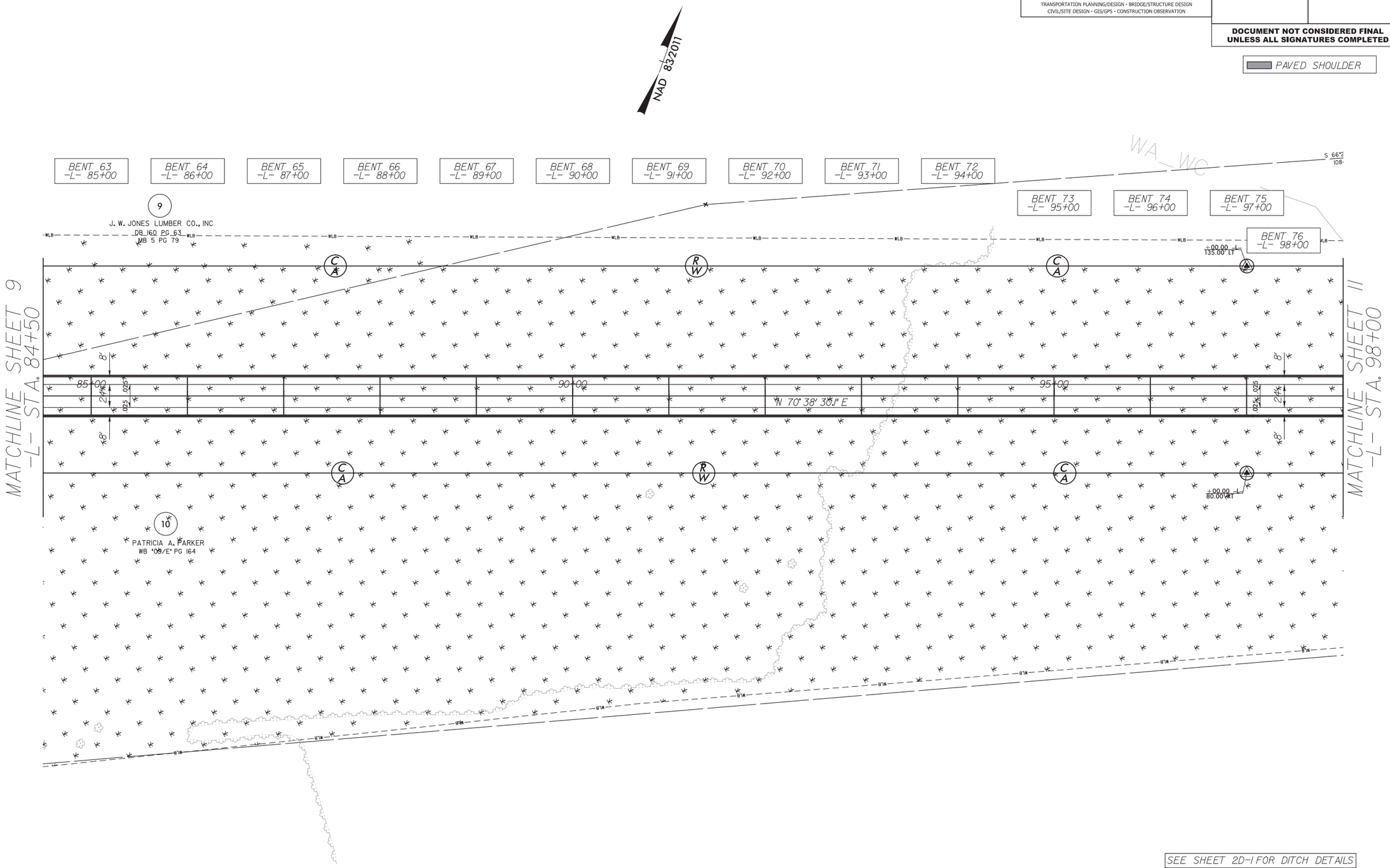

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 34 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	11
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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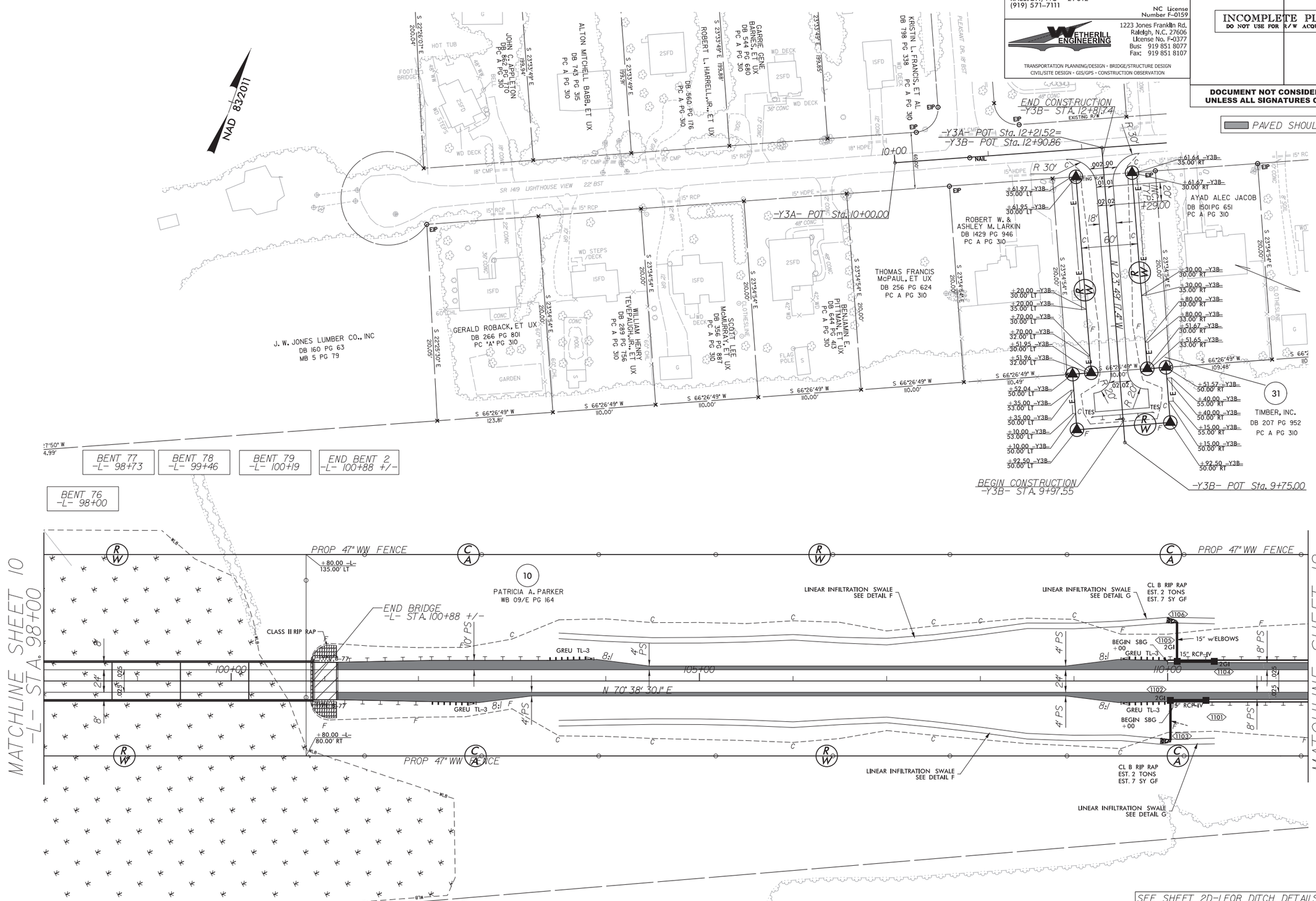

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 47 FOR -Y3B- PROFILE
SEE SHEET 34 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	12
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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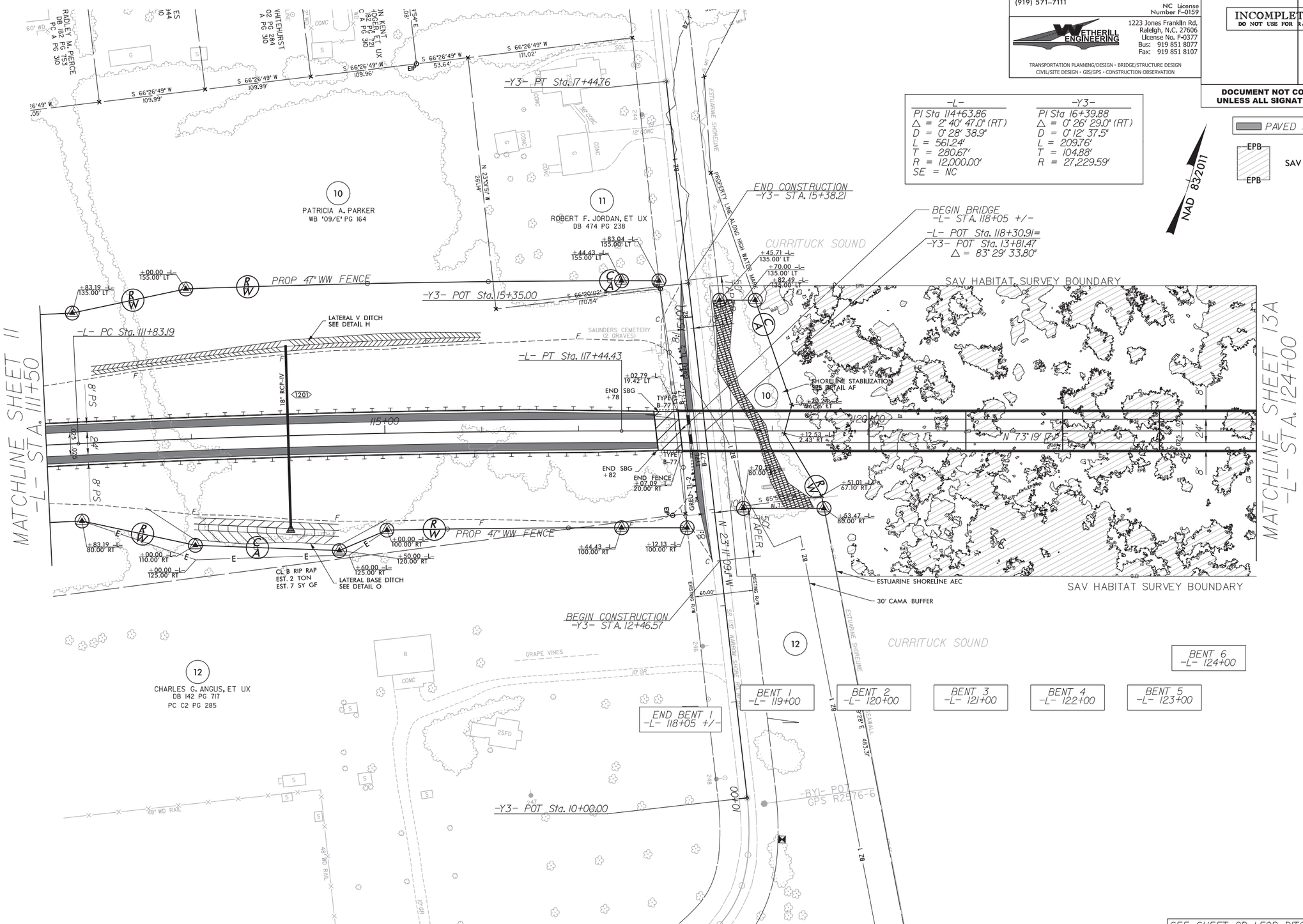
-L-	-Y3-
PI Sta 114+63.86	PI Sta 16+39.88
Δ = 2° 40' 47.0" (RT)	Δ = 0° 26' 29.0" (RT)
D = 0° 28' 38.9"	D = 0° 12' 37.5"
L = 561.24'	L = 209.76'
T = 280.67'	T = 104.88'
R = 12,000.00'	R = 27,229.59'
SE = NC	

PAVED SHOULDER

EPB — EPB: SAV HABITAT

NAD 83/2011



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 47 FOR -Y3- PROFILE

6/17/2024
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	13A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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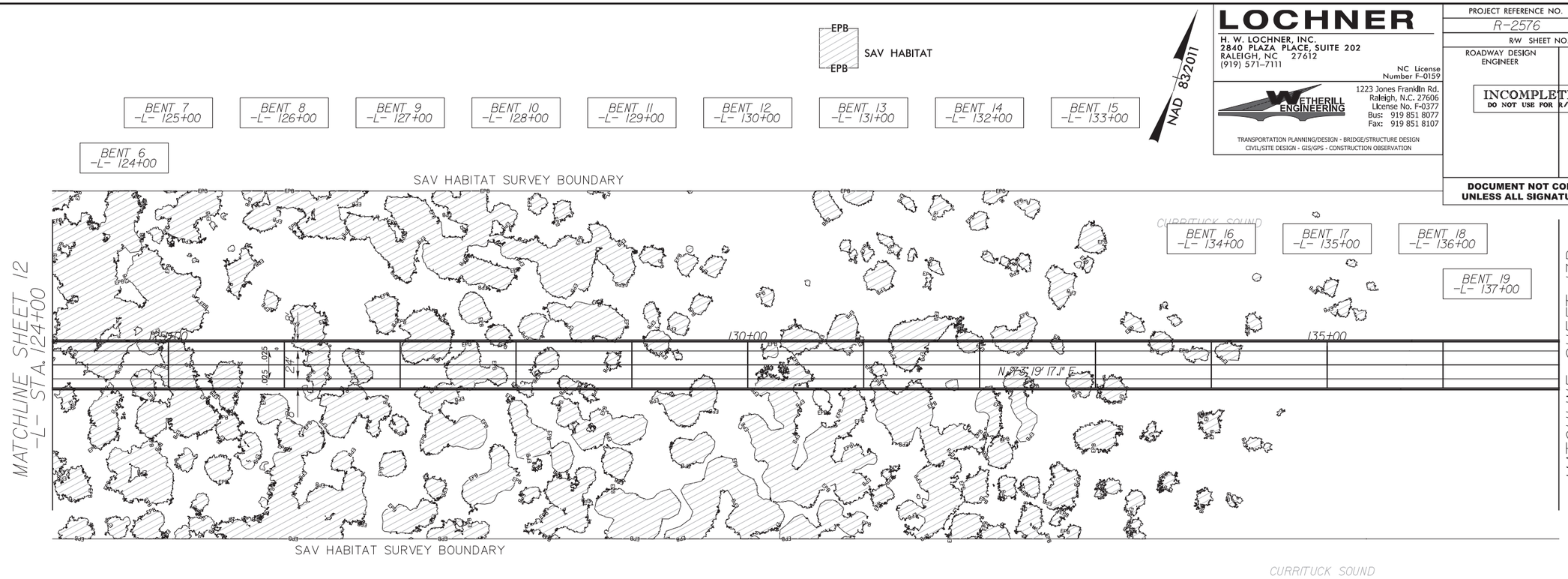

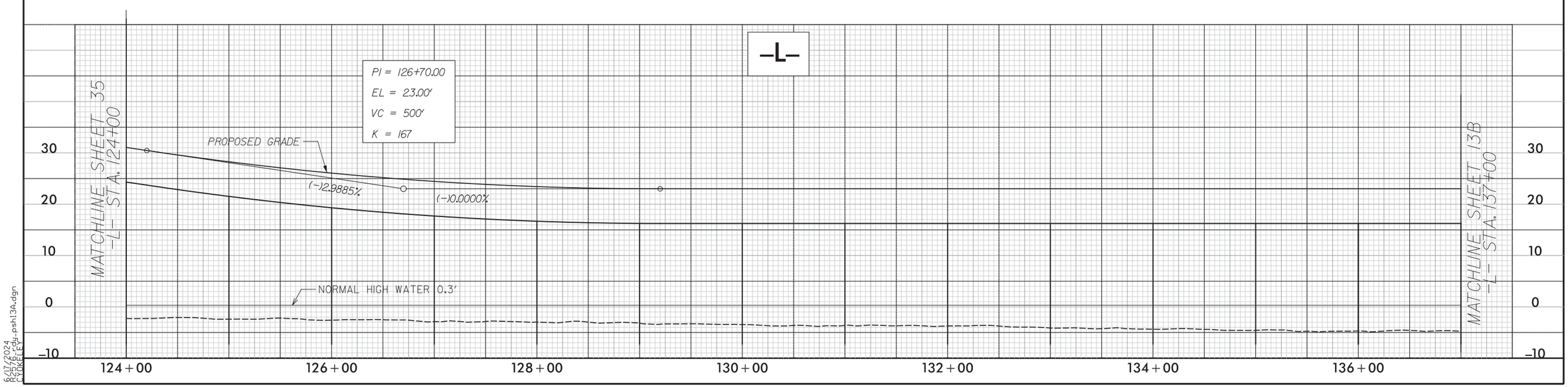

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	13B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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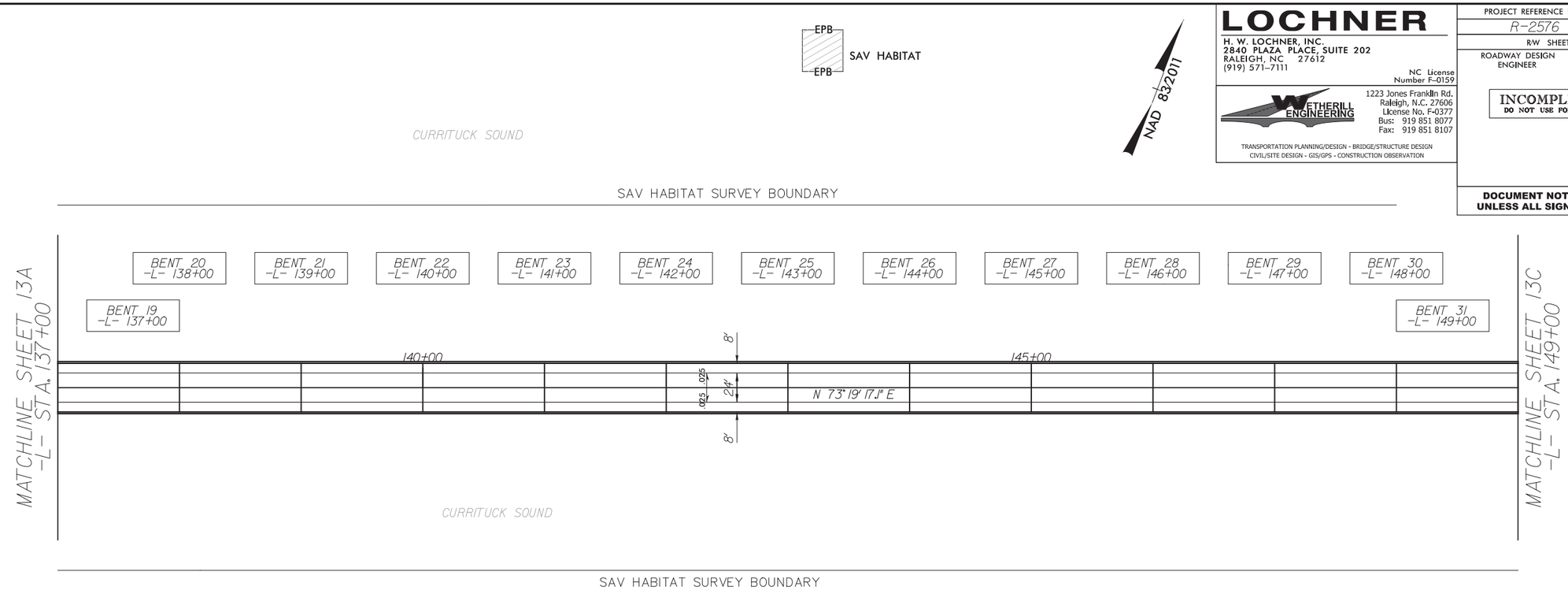

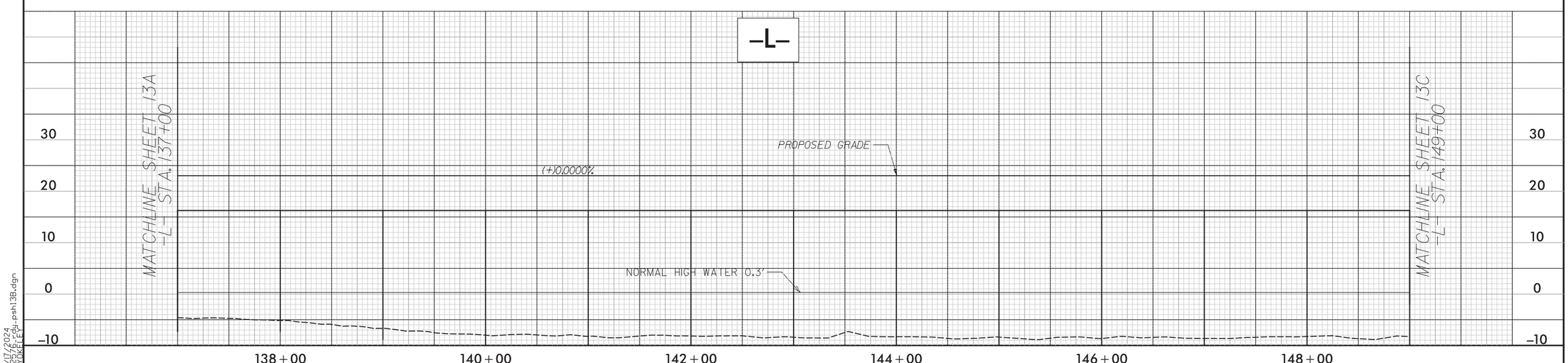

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R2576_PROP_psh13B.dgn
KYOKELEY

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	13C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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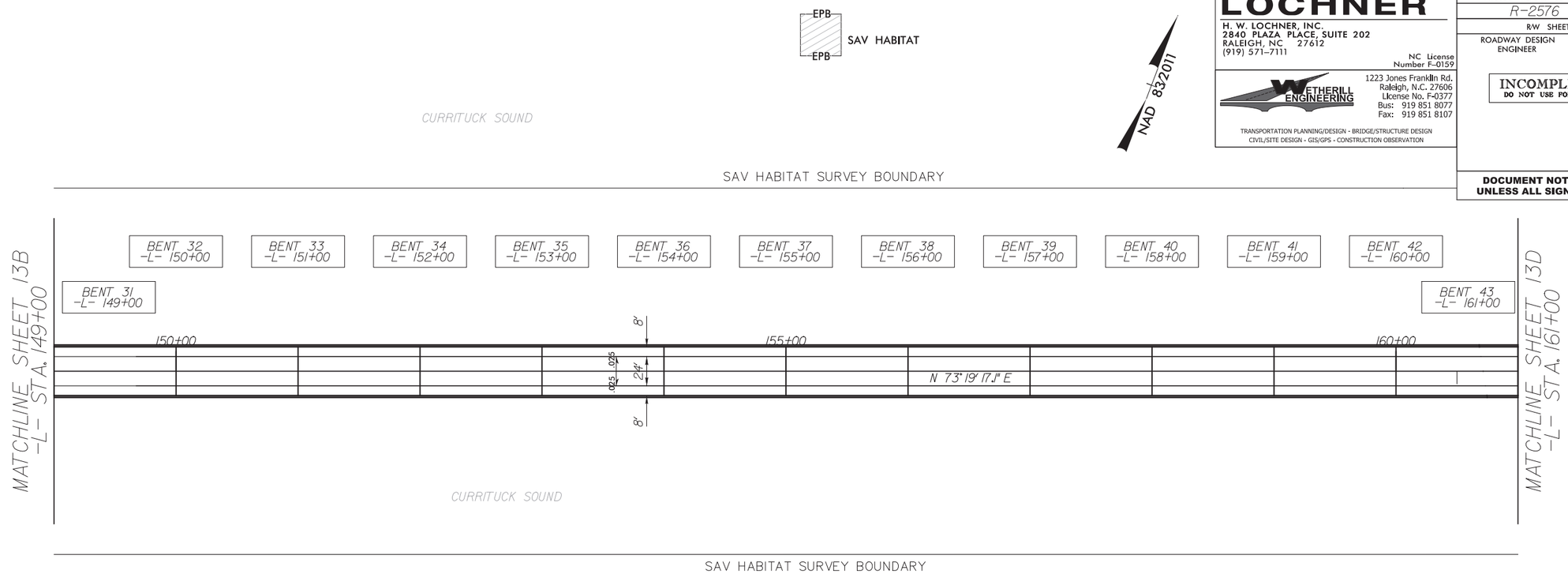

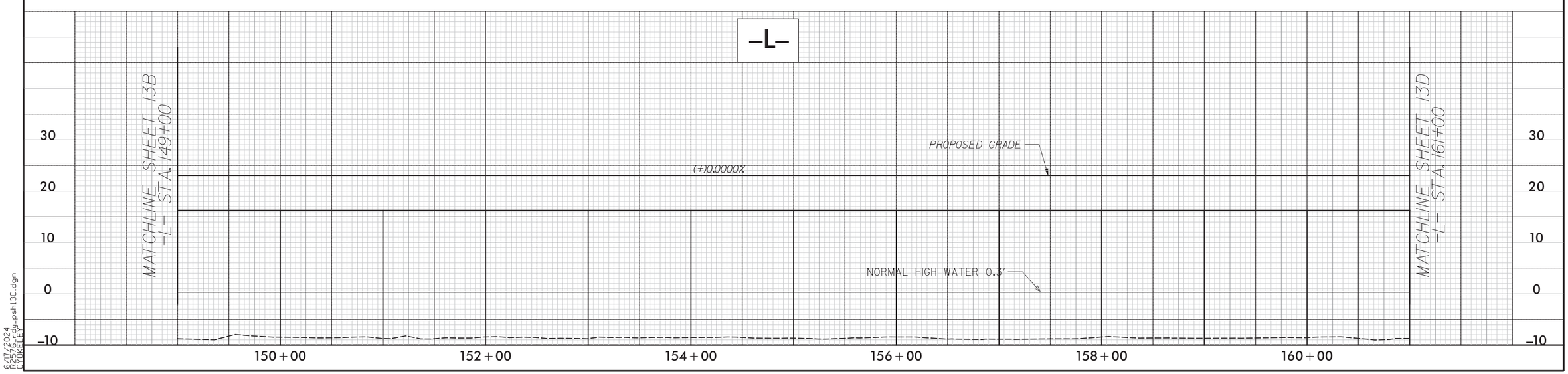

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CYOKELEY

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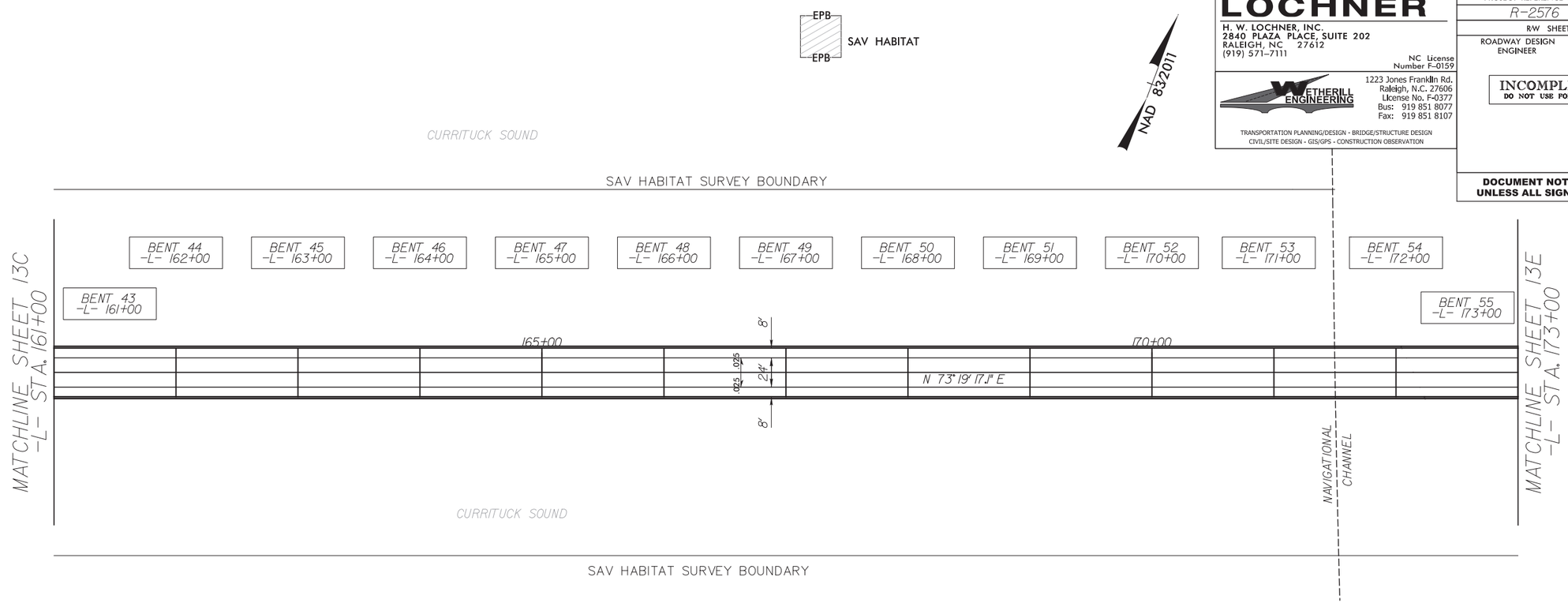
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

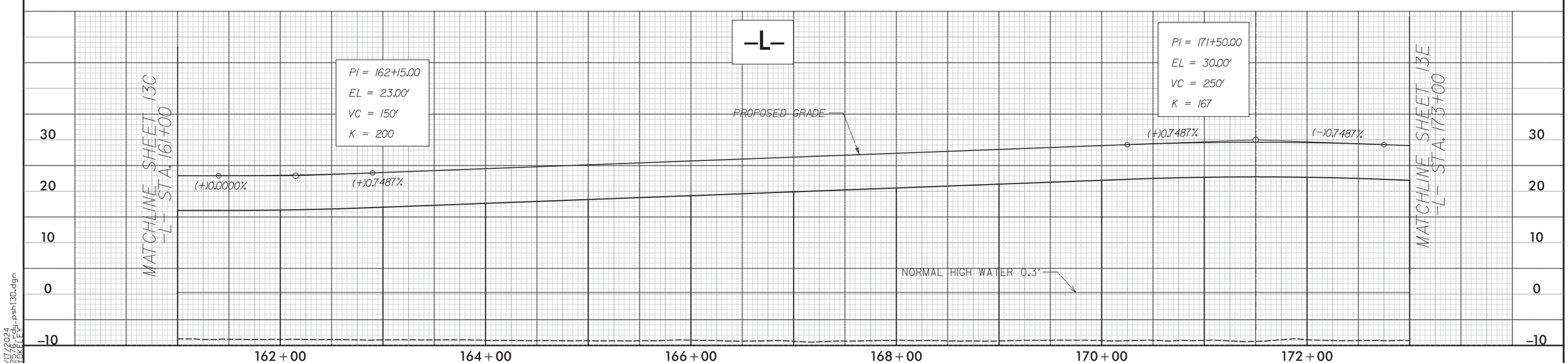
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	13D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





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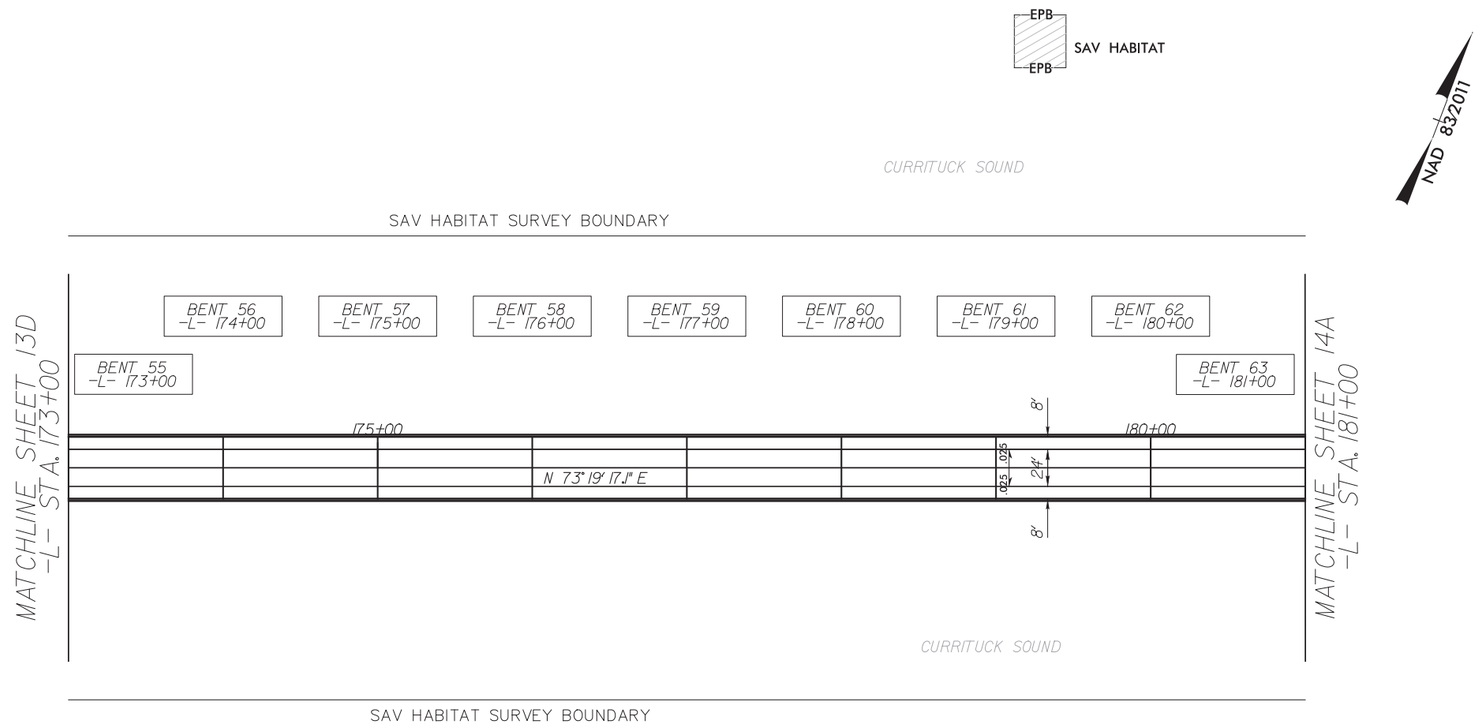

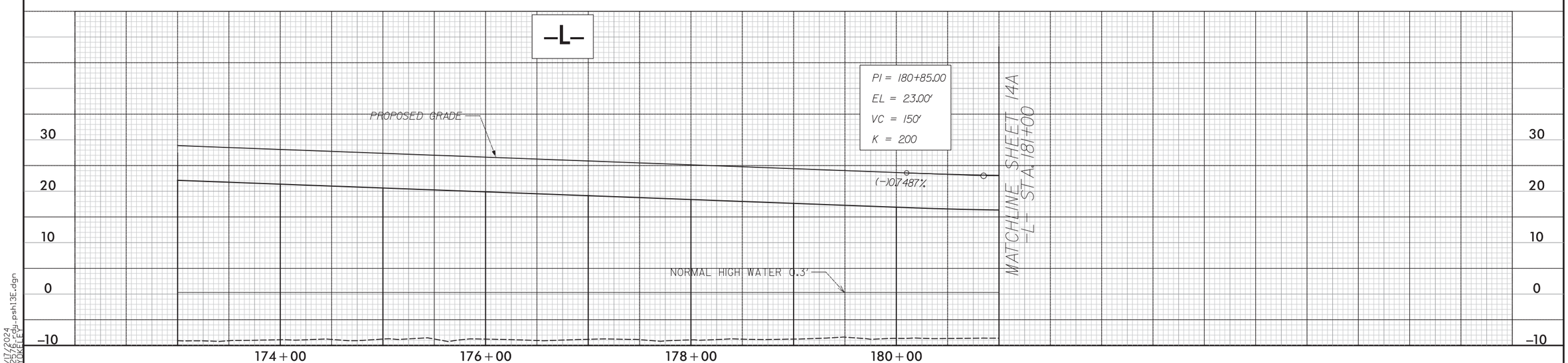

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R-2576	14A
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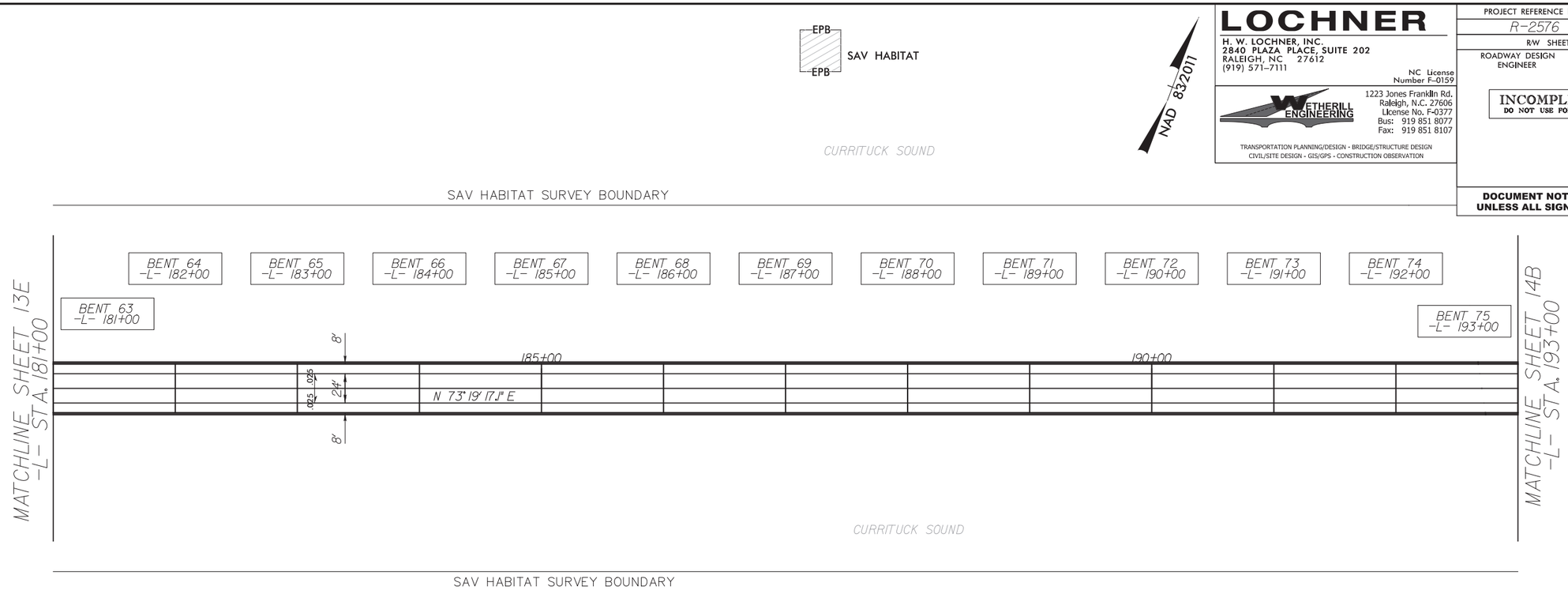

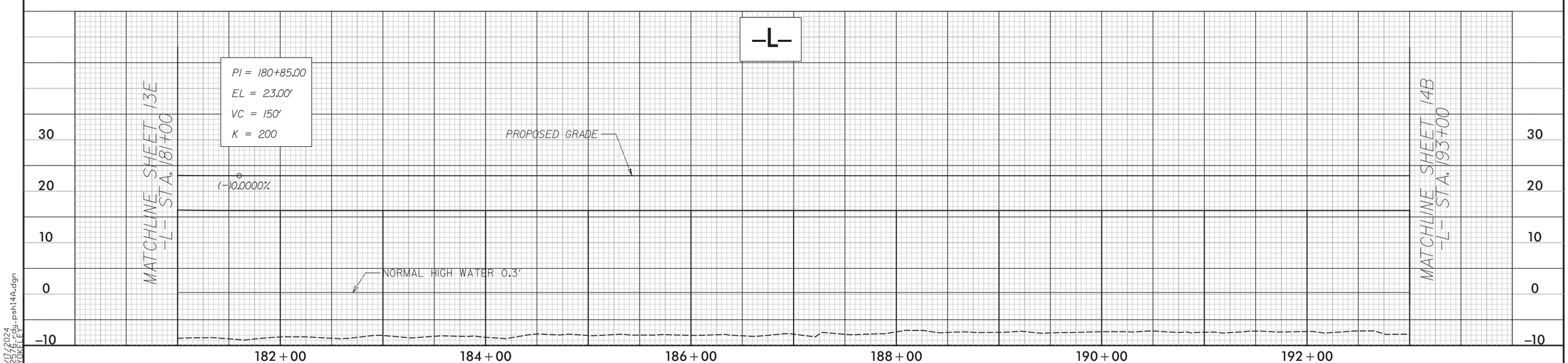

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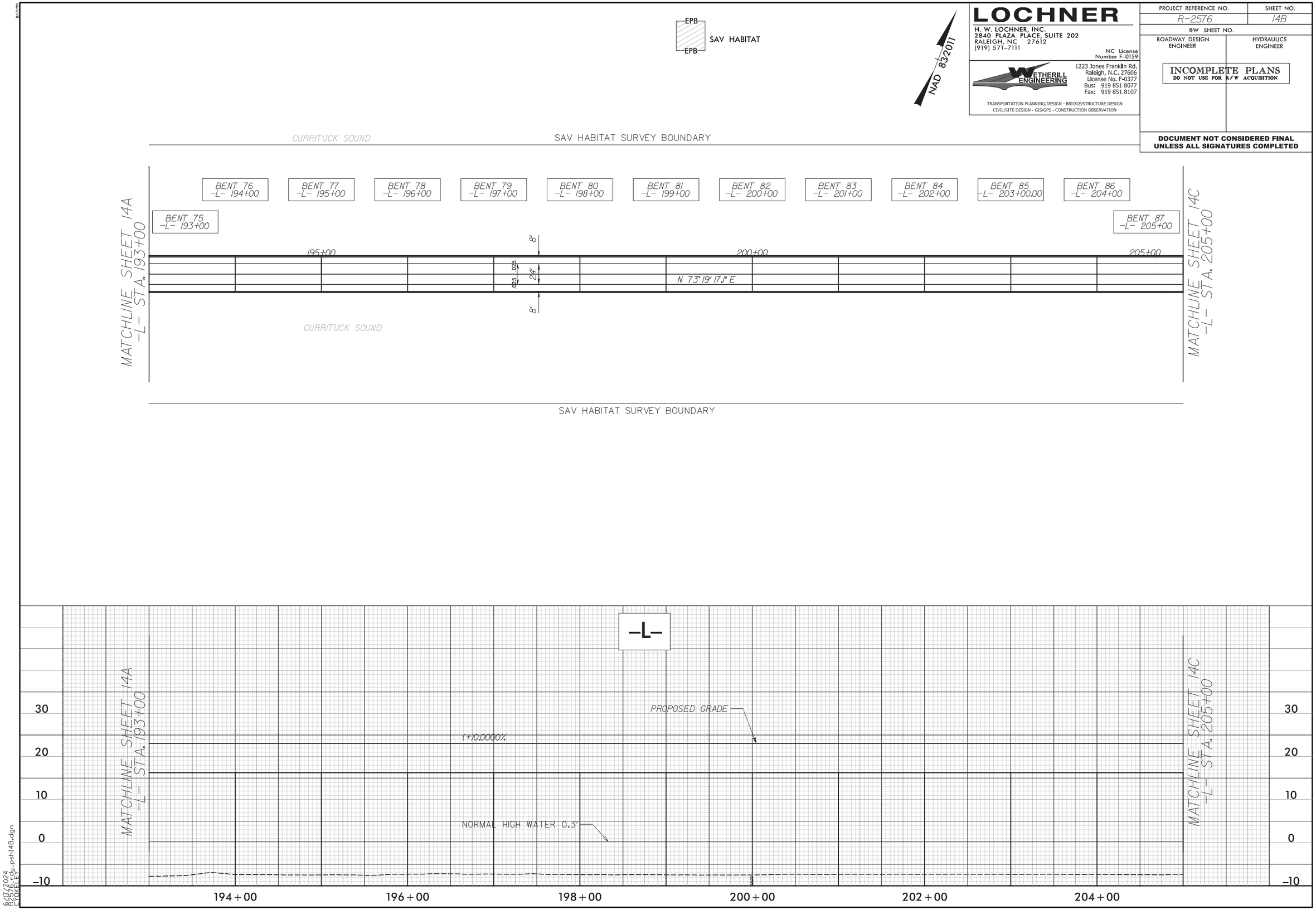

EPB
SAV HABITAT
EPB
NAD 83/2011
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CURRITUCK SOUND
SAV HABITAT SURVEY BOUNDARY
BENT 75 -L- 193+00
BENT 76 -L- 194+00
BENT 77 -L- 195+00
BENT 78 -L- 196+00
BENT 79 -L- 197+00
BENT 80 -L- 198+00
BENT 81 -L- 199+00
BENT 82 -L- 200+00
BENT 83 -L- 201+00
BENT 84 -L- 202+00
BENT 85 -L- 203+00.00
BENT 86 -L- 204+00
BENT 87 -L- 205+00
MATCHLINE SHEET 14A -L- STA. 193+00
MATCHLINE SHEET 14C -L- STA. 205+00
195+00
200+00
205+00
8'
24'
.025
.025
N 73° 19' 17.1" E
8'
CURRITUCK SOUND
SAV HABITAT SURVEY BOUNDARY
-L-
PROPOSED GRADE
(+)0.0000%
NORMAL HIGH WATER 0.3'
30
20
10
0
-10
194+00
196+00
198+00
200+00
202+00
204+00

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R-2576	14C
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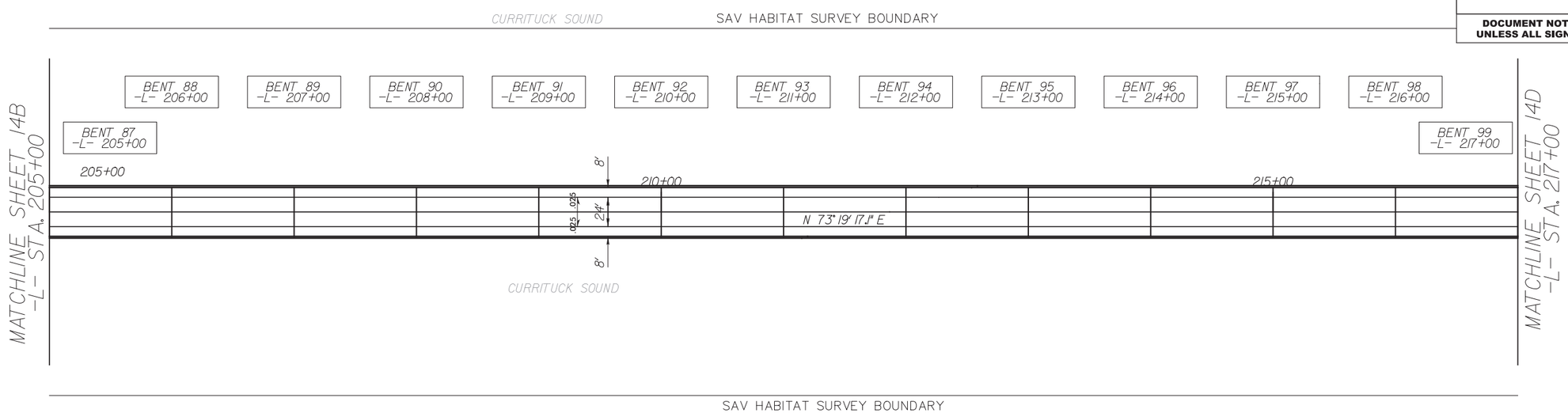

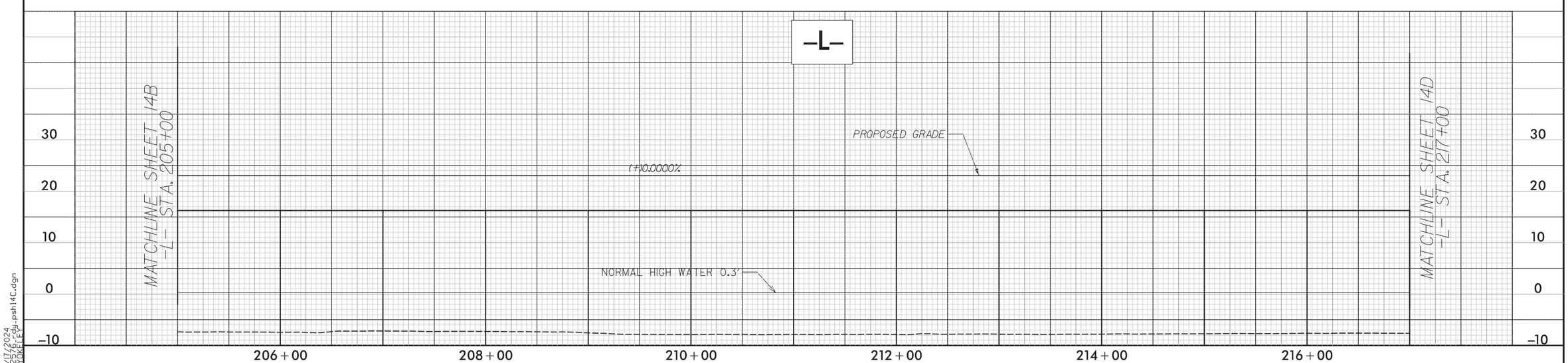

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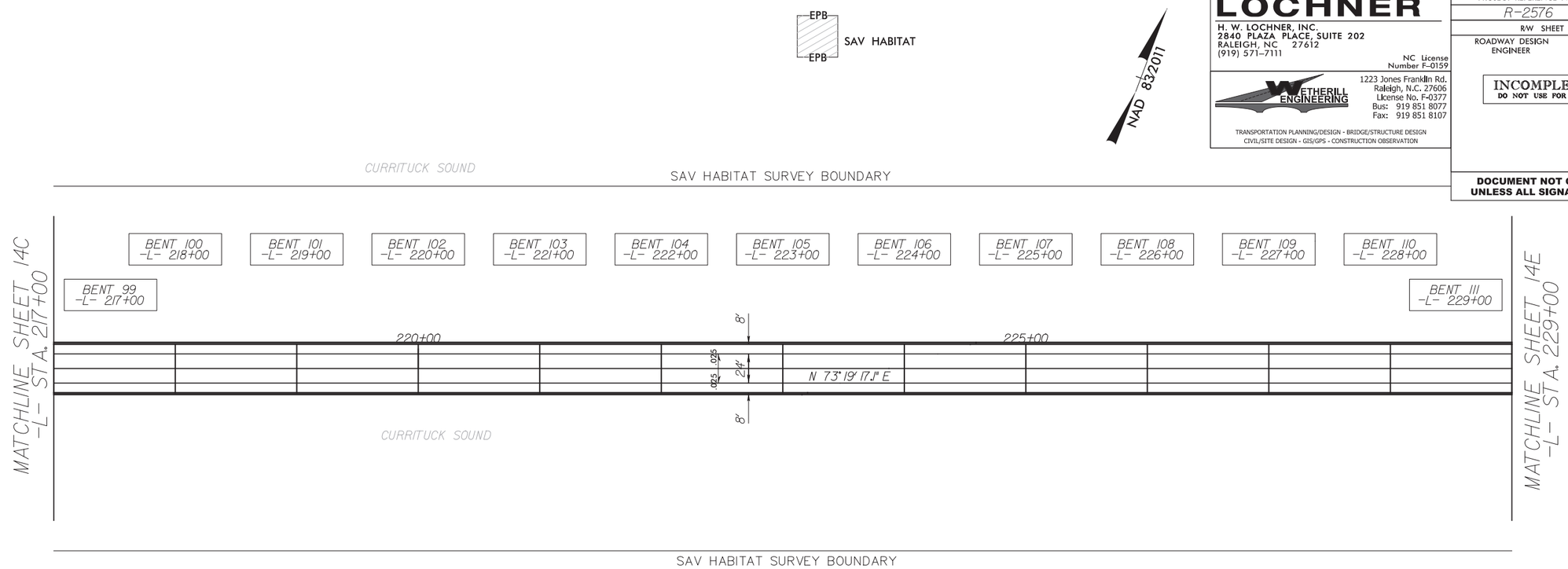

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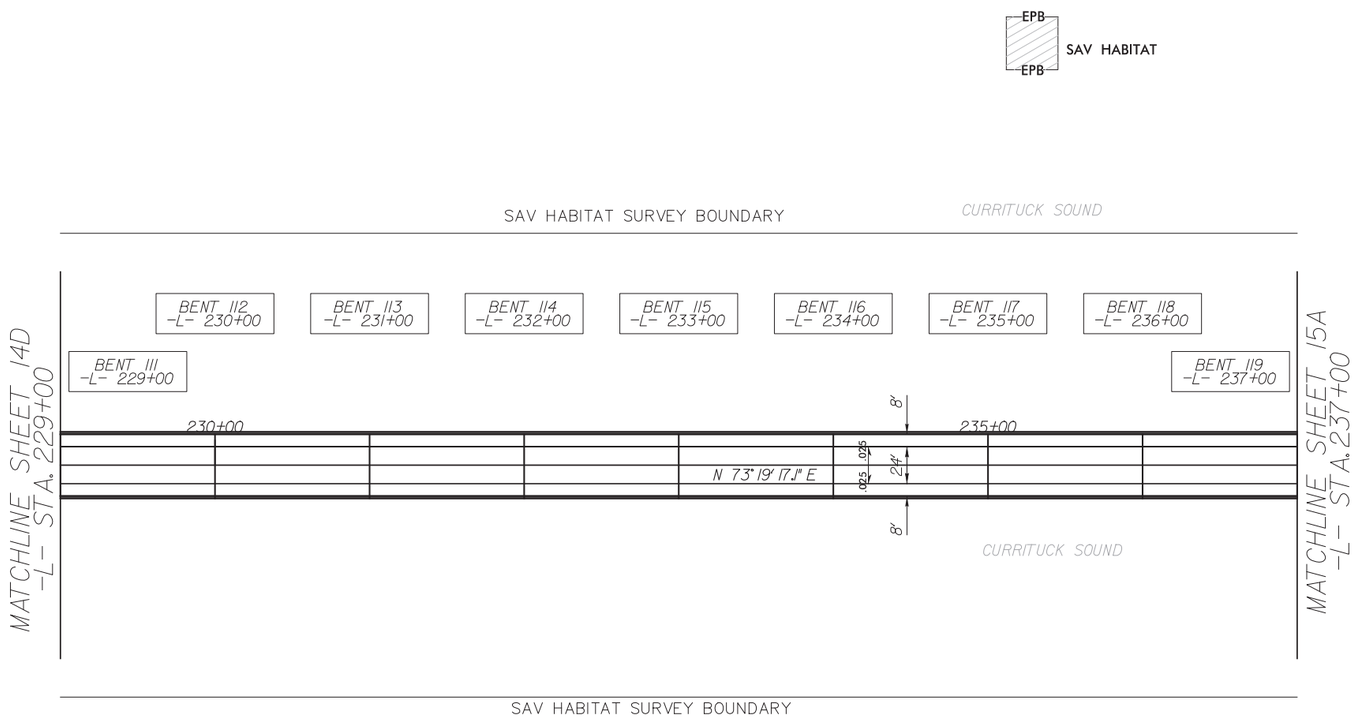

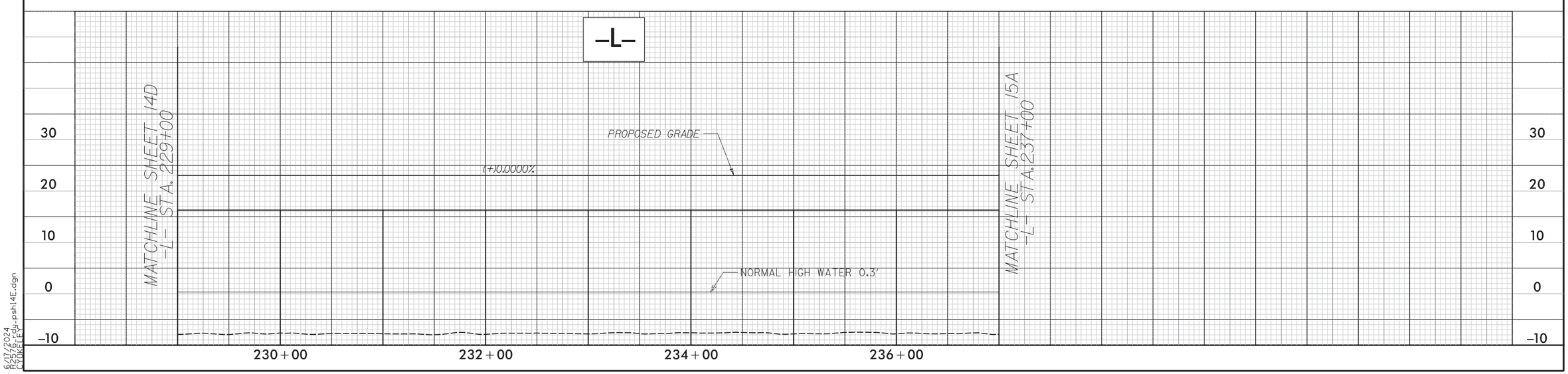

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R-2576	15A
R/W SHEET NO.	
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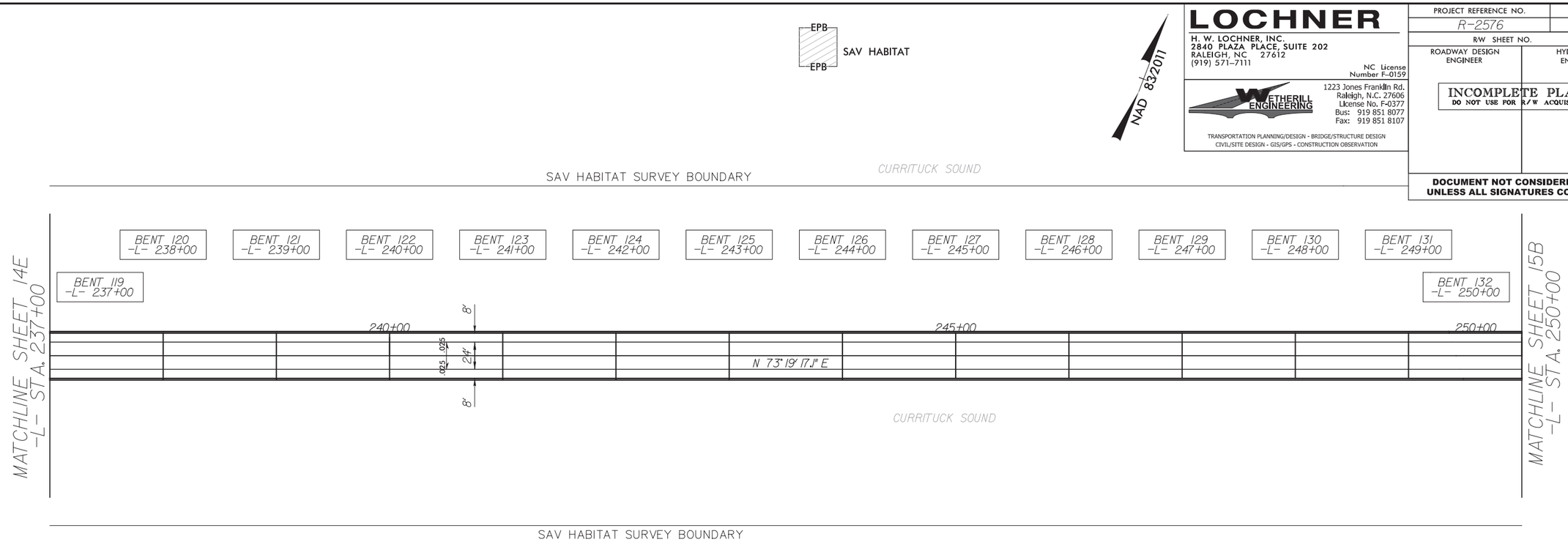

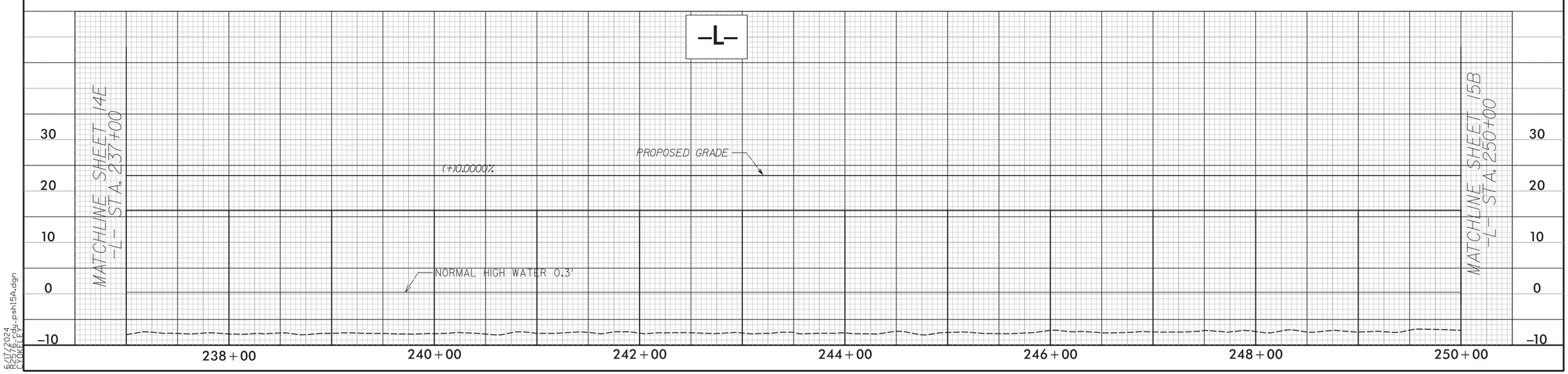

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R-2576	15B
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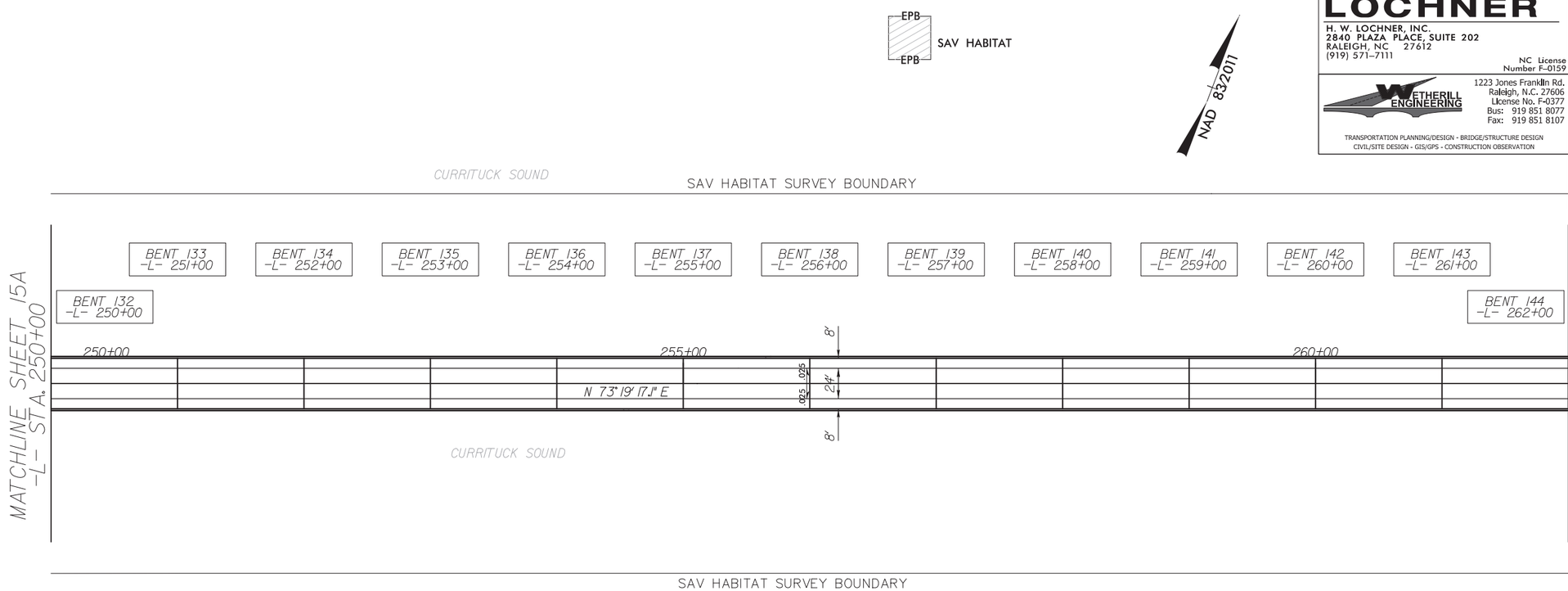

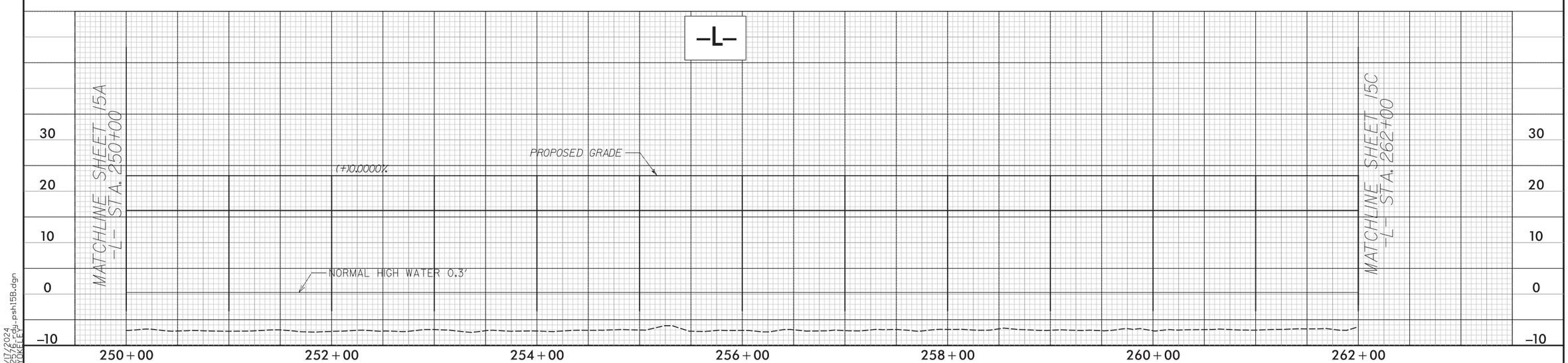

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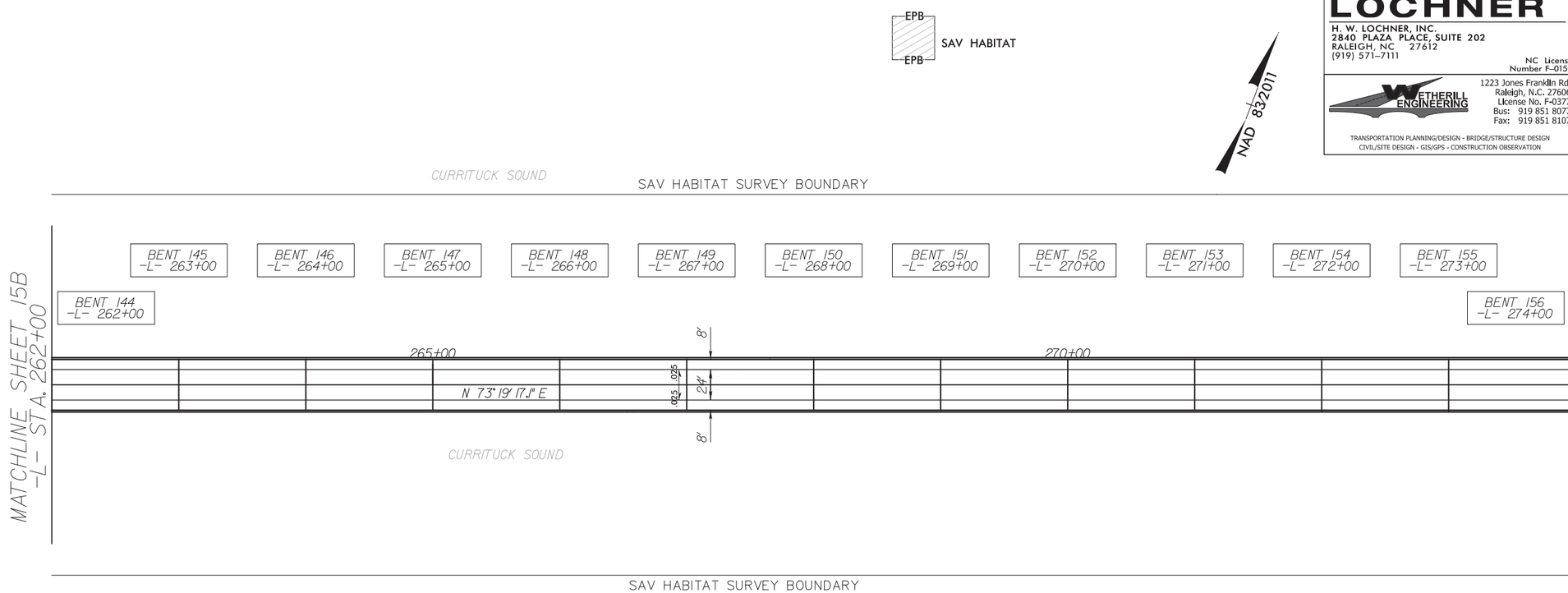

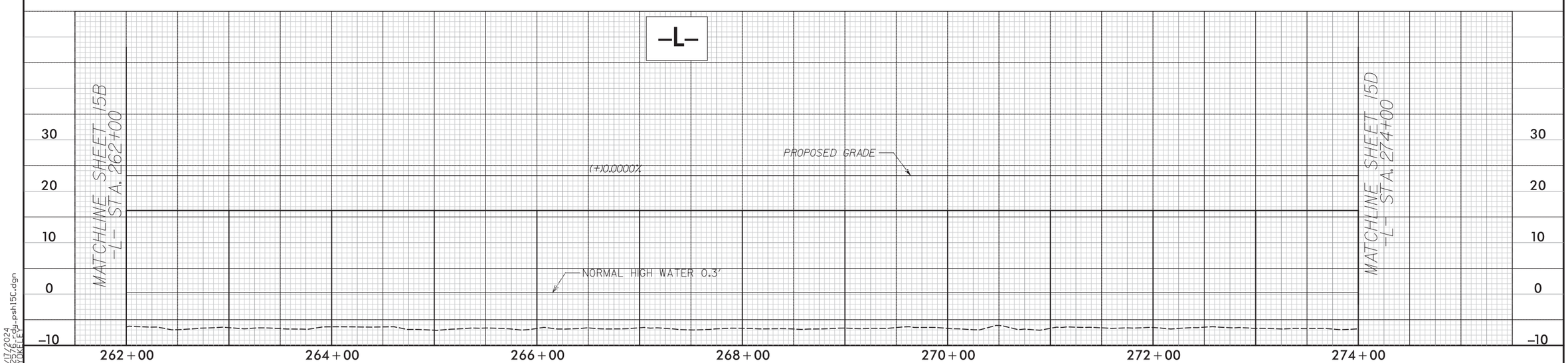

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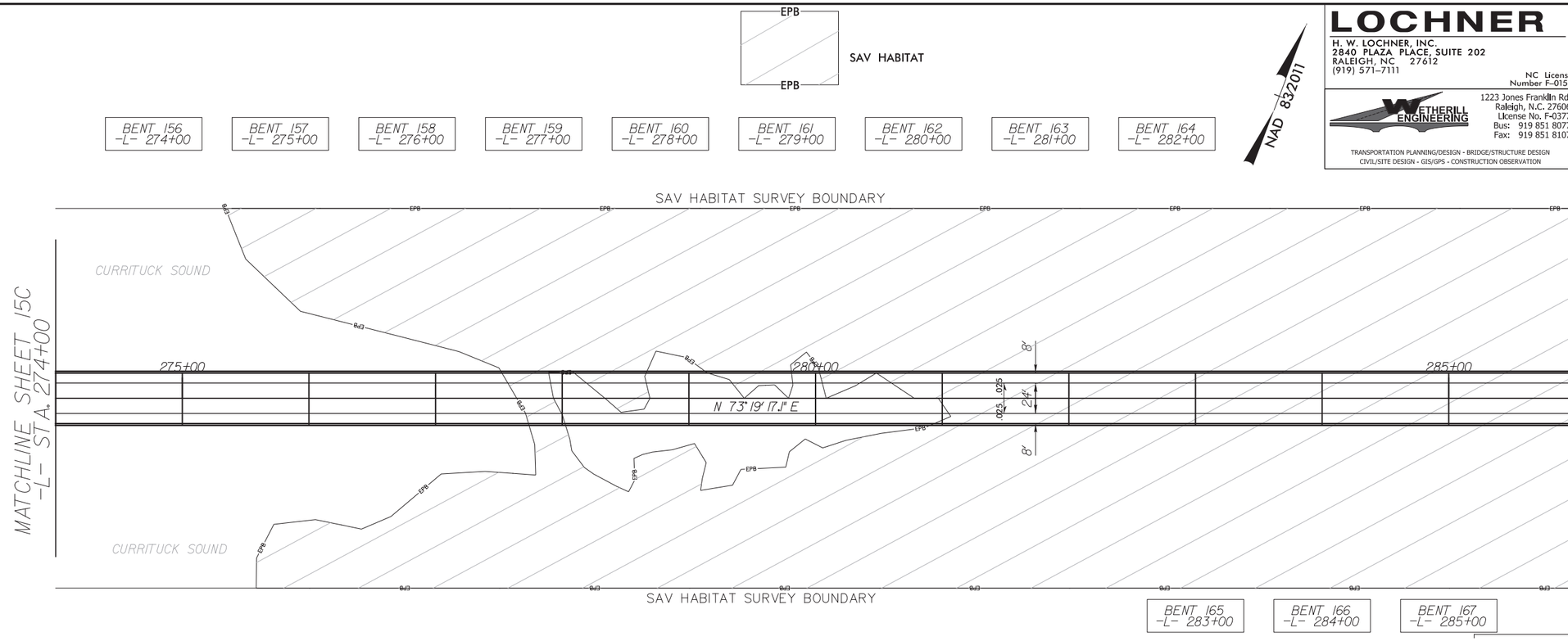

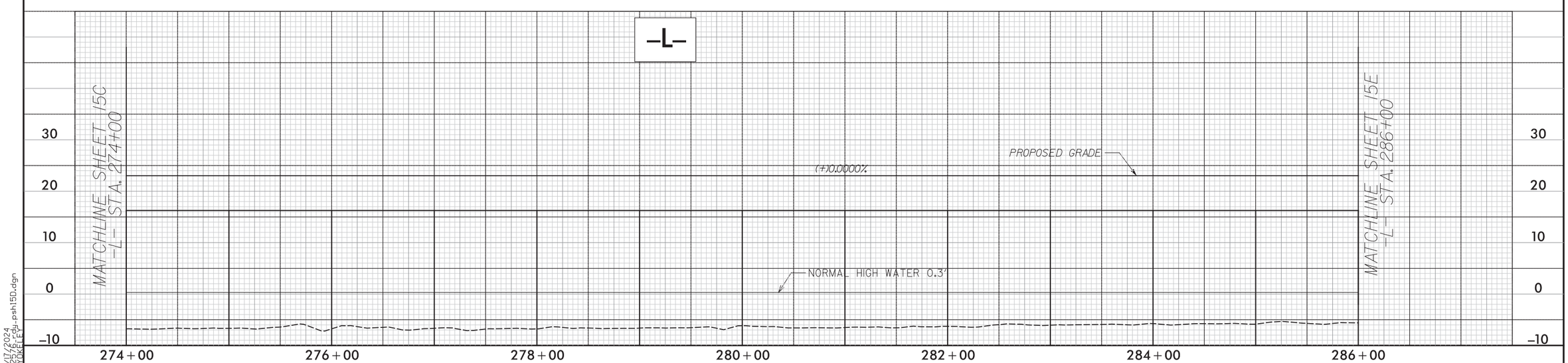

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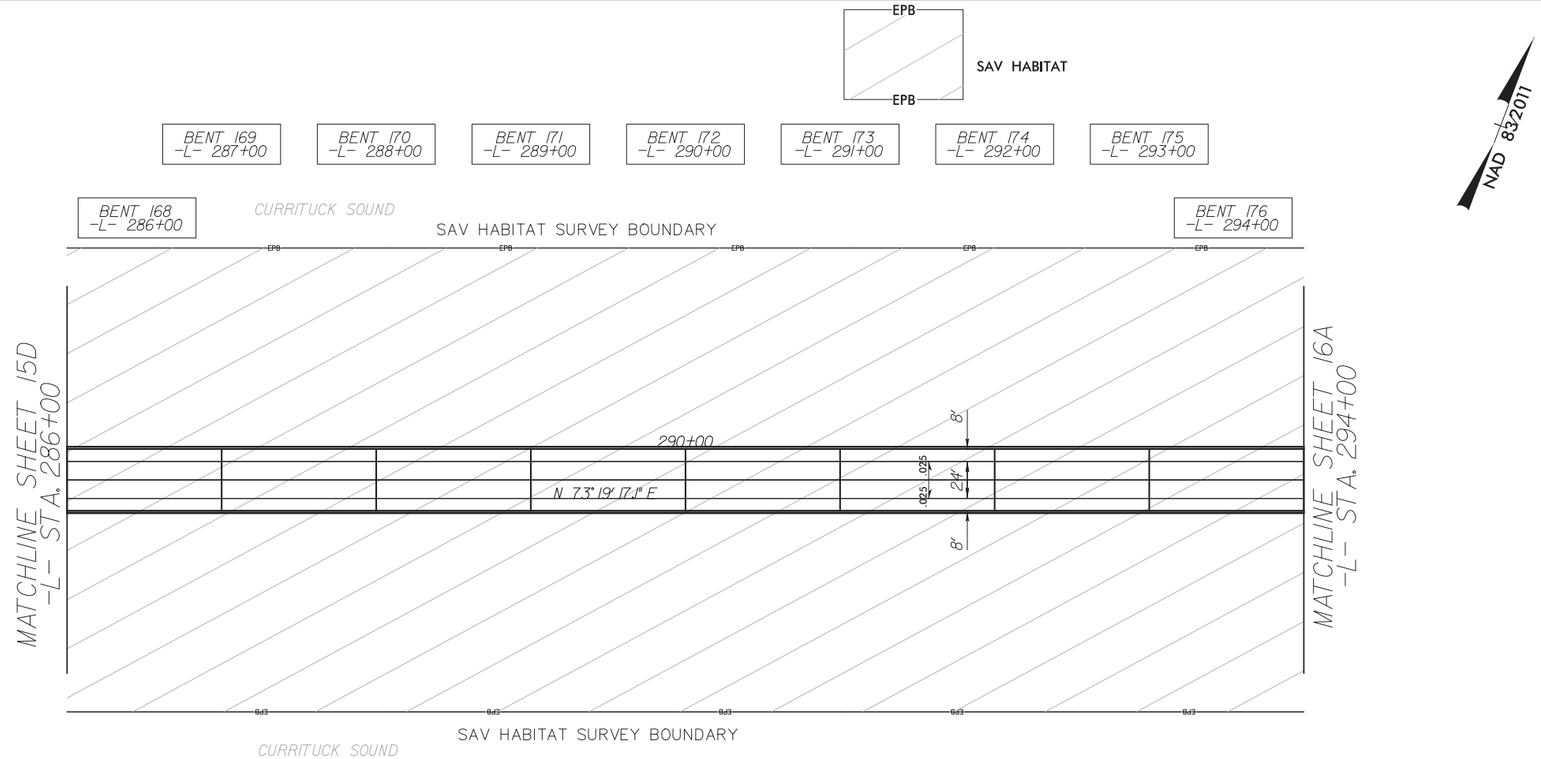

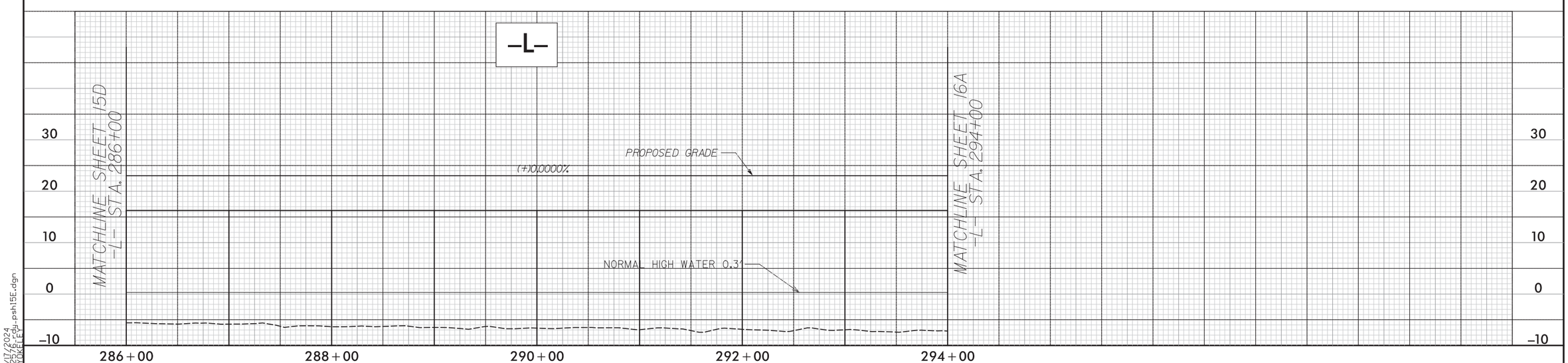

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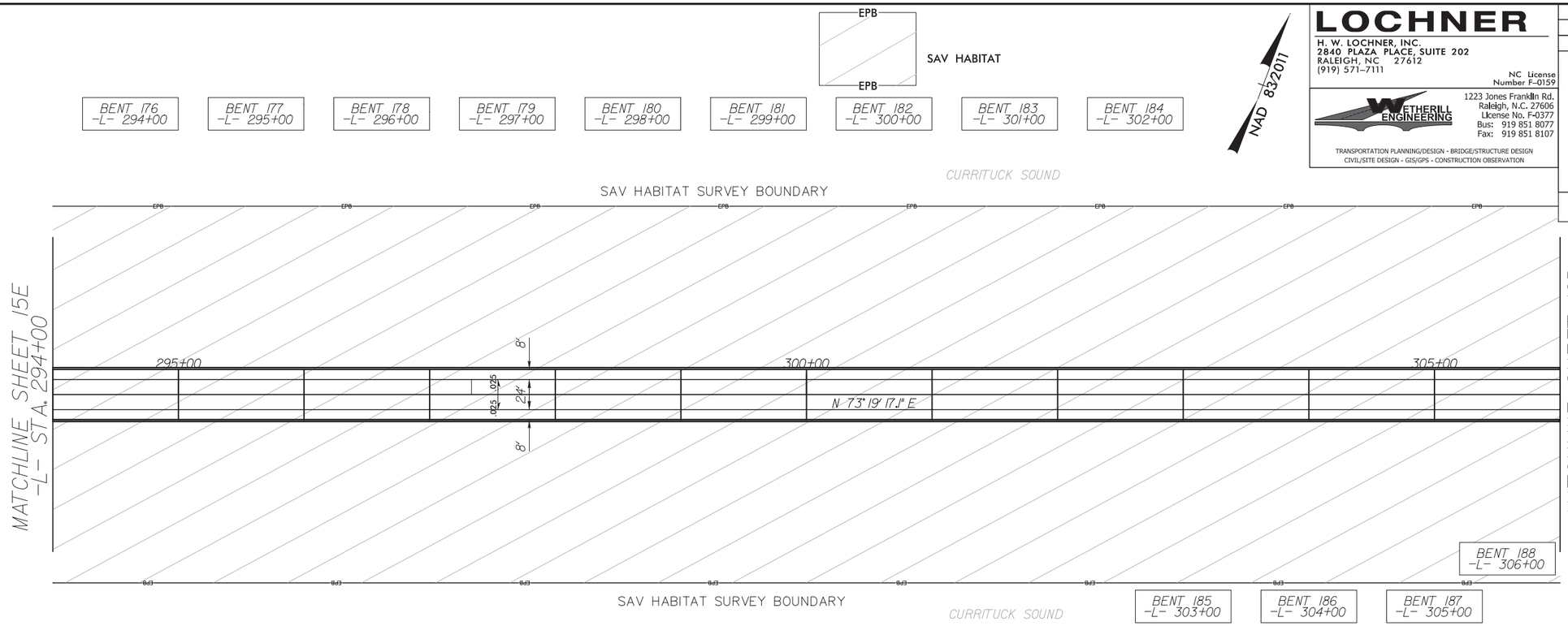

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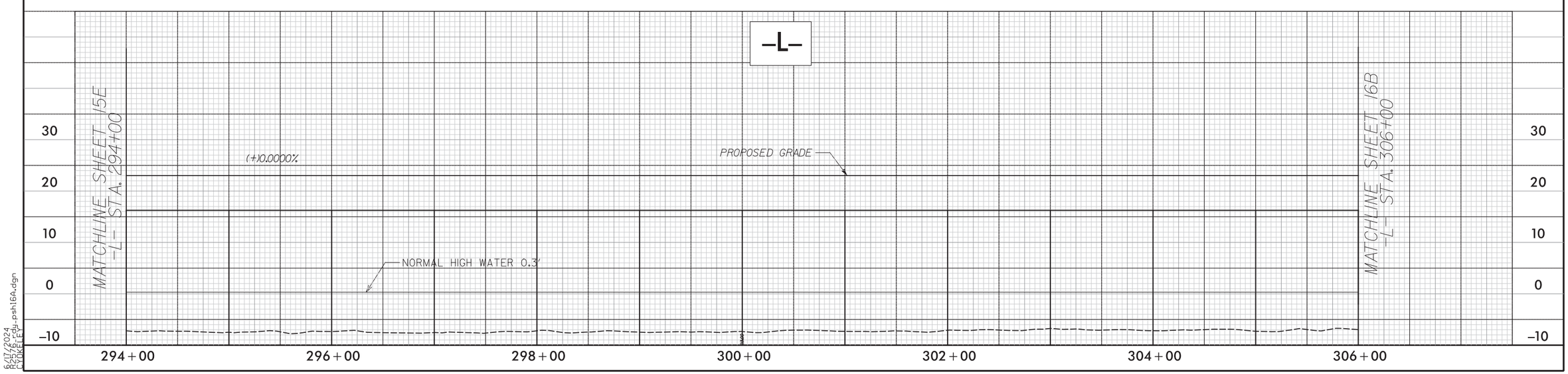

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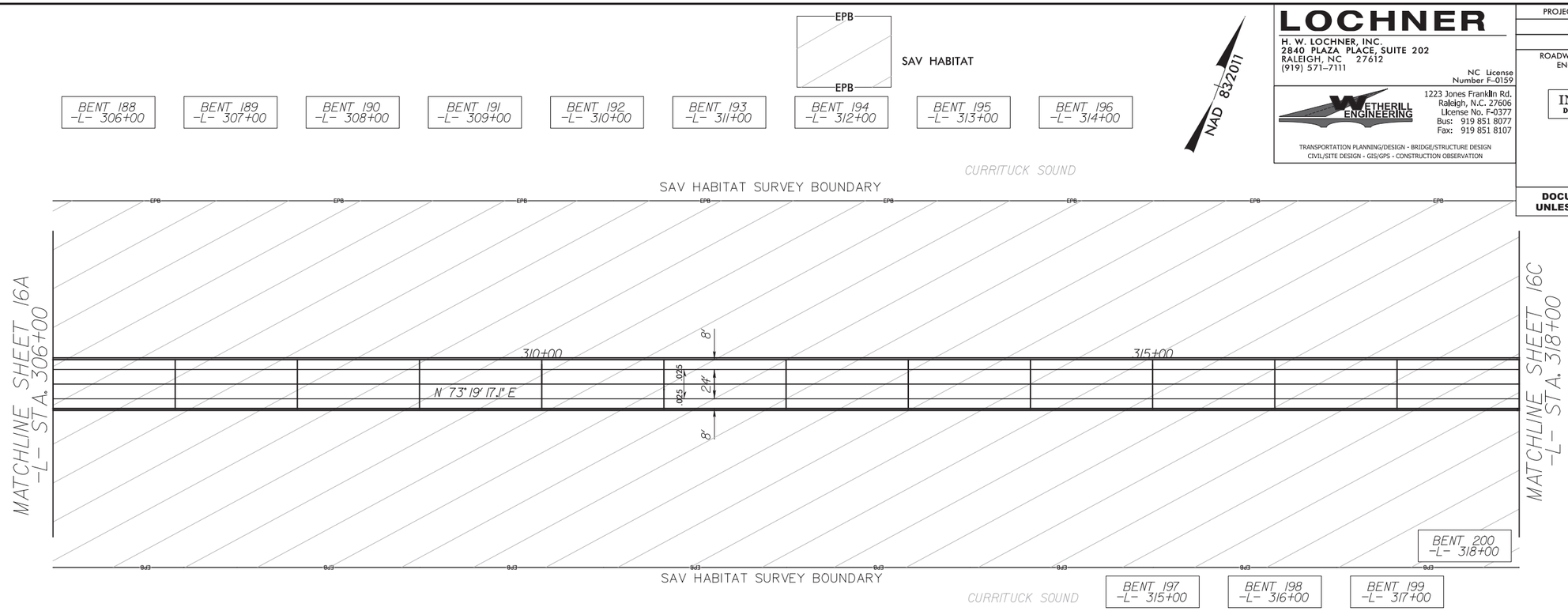

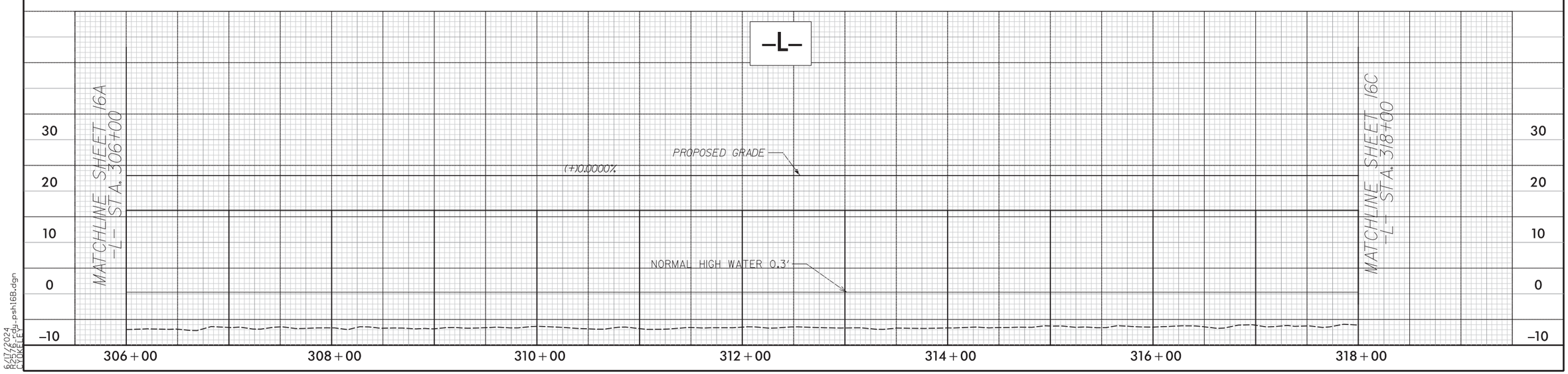

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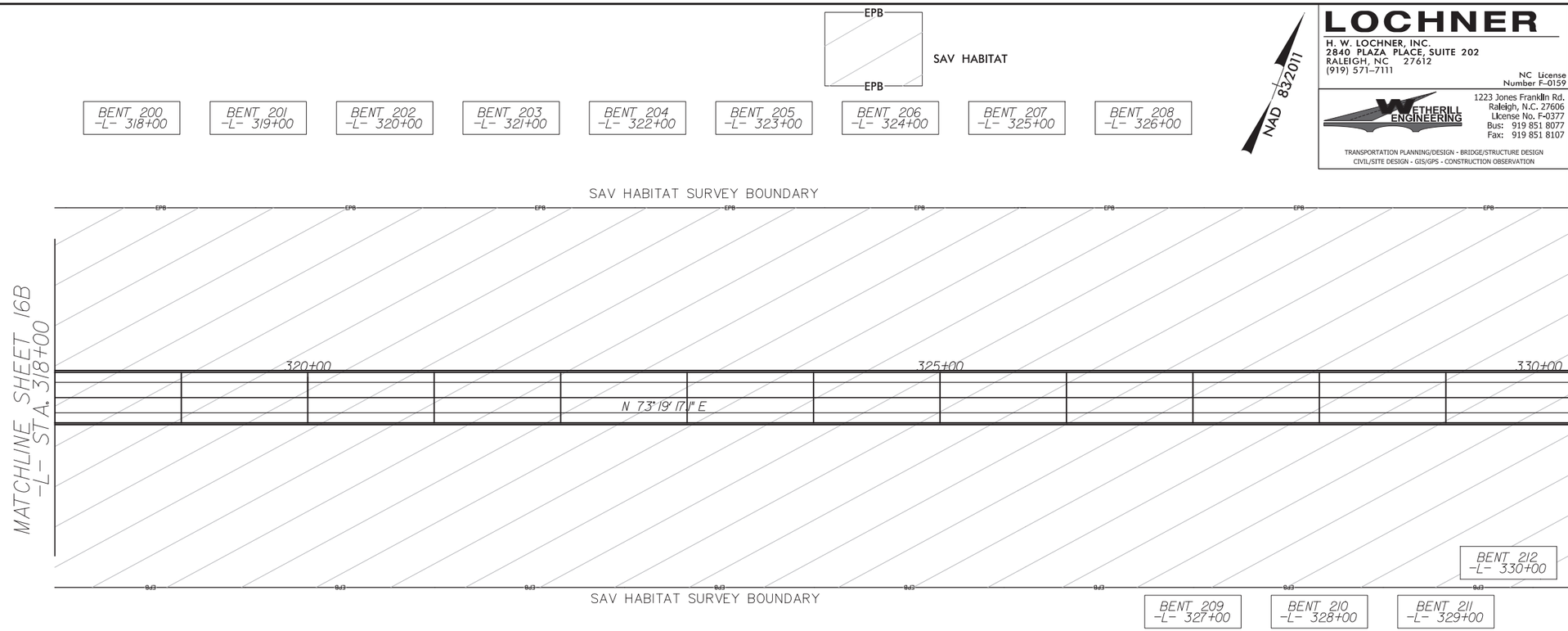
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

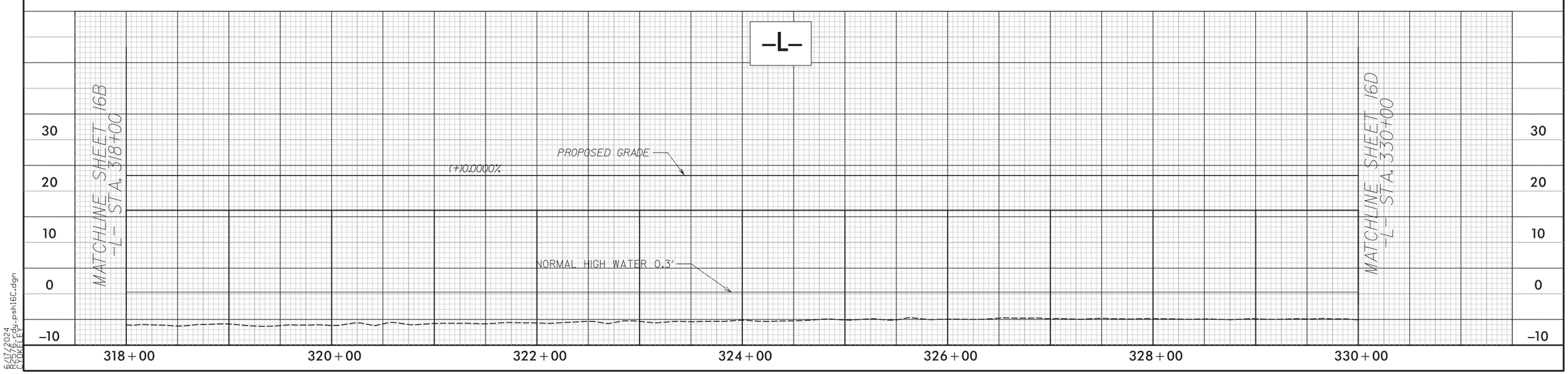
PROJECT REFERENCE NO.	SHEET NO.
R-2576	16C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011





8/17/2024
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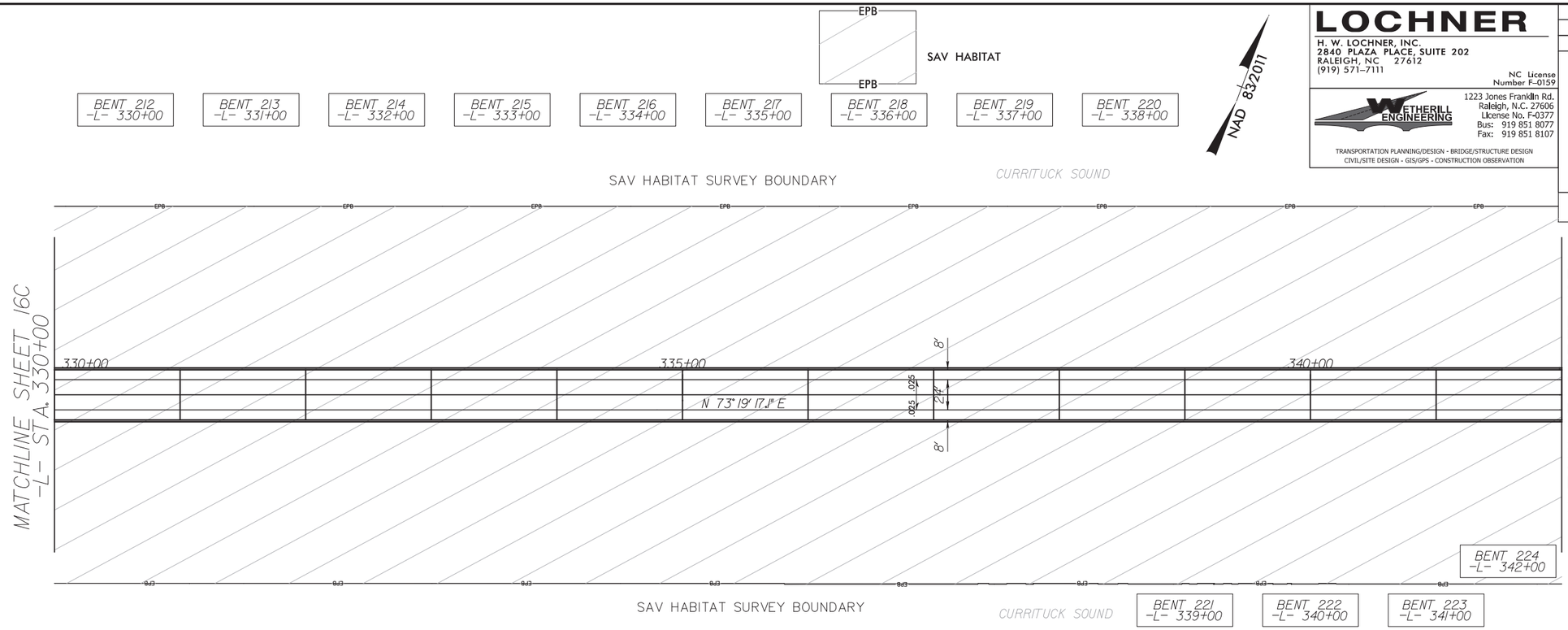
YOKELEY



LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

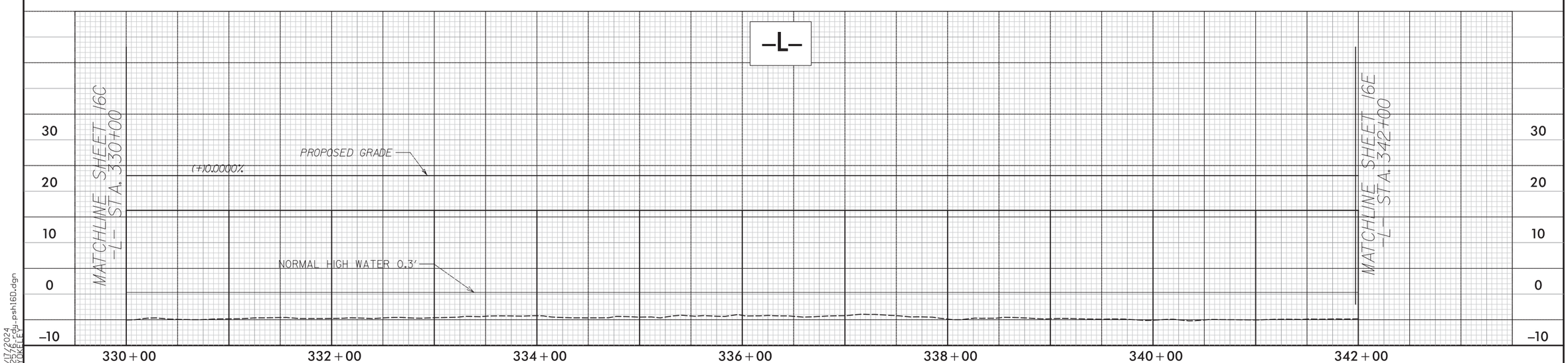
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16D
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

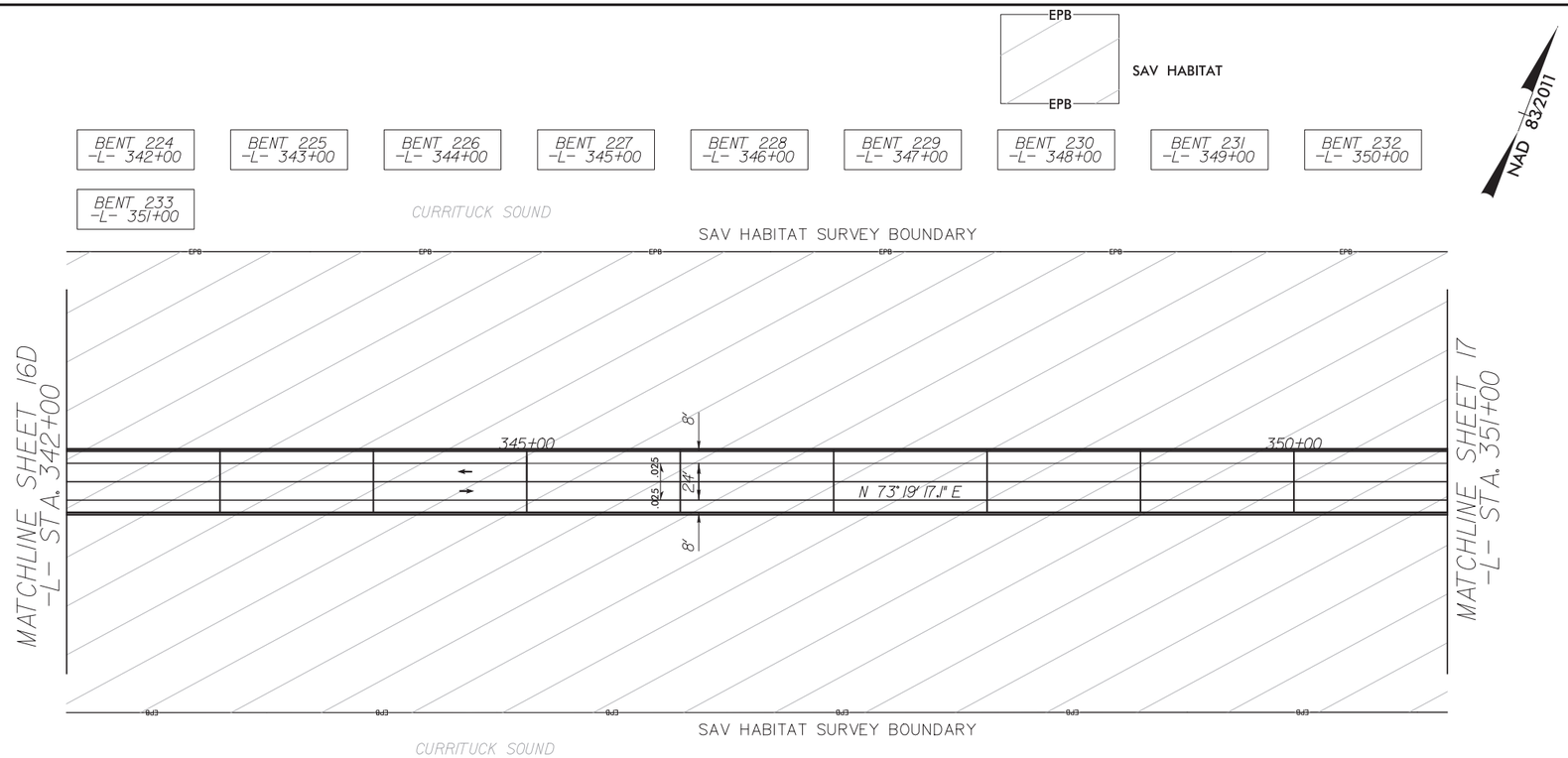
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



8/17/99

8/17/2024
R2576_PL_ph16D.dgn
CKOKELEY



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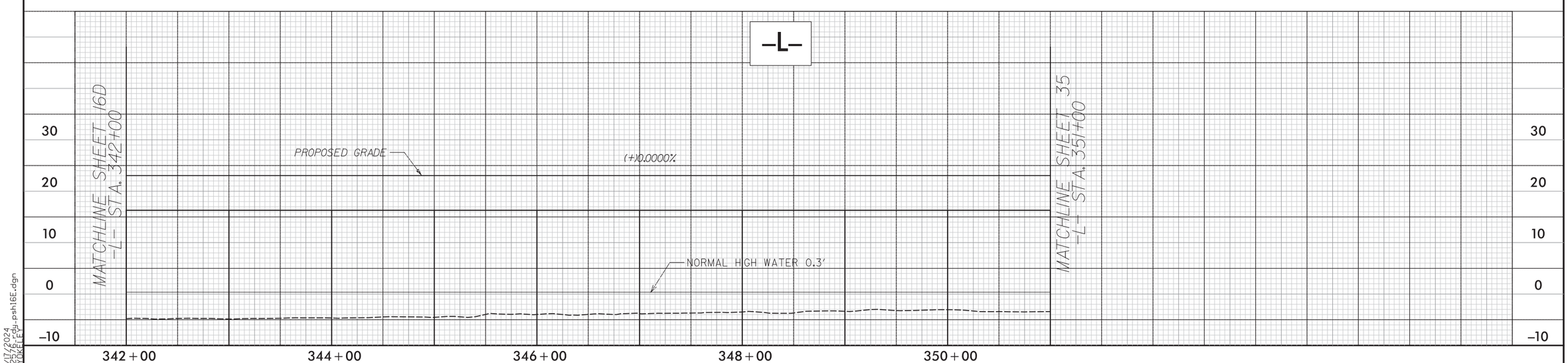
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	16E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



8/17/99

6/17/2024
R2576_PROF_psh16E.dgn
CKOKELEY

6/2/99

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TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	17
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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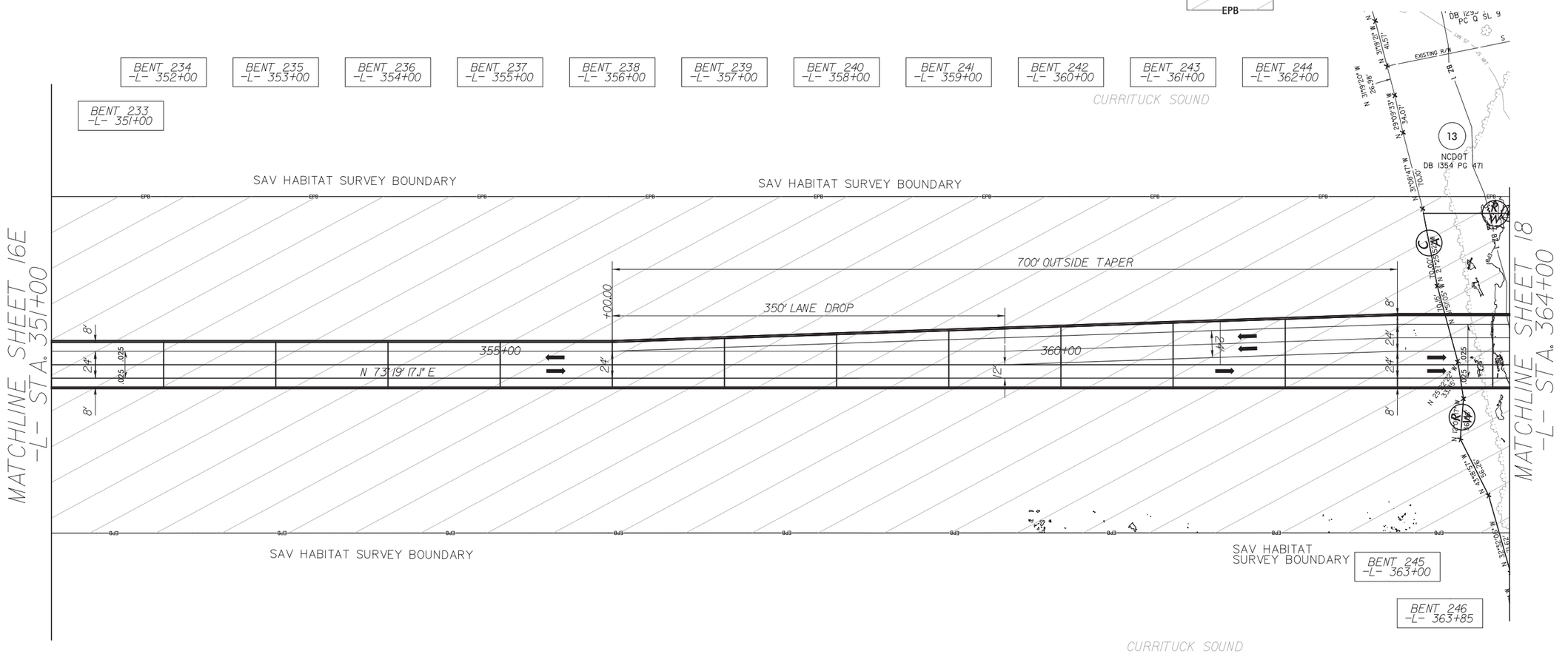
NAD 83/2011

EPB
SAV HABITAT

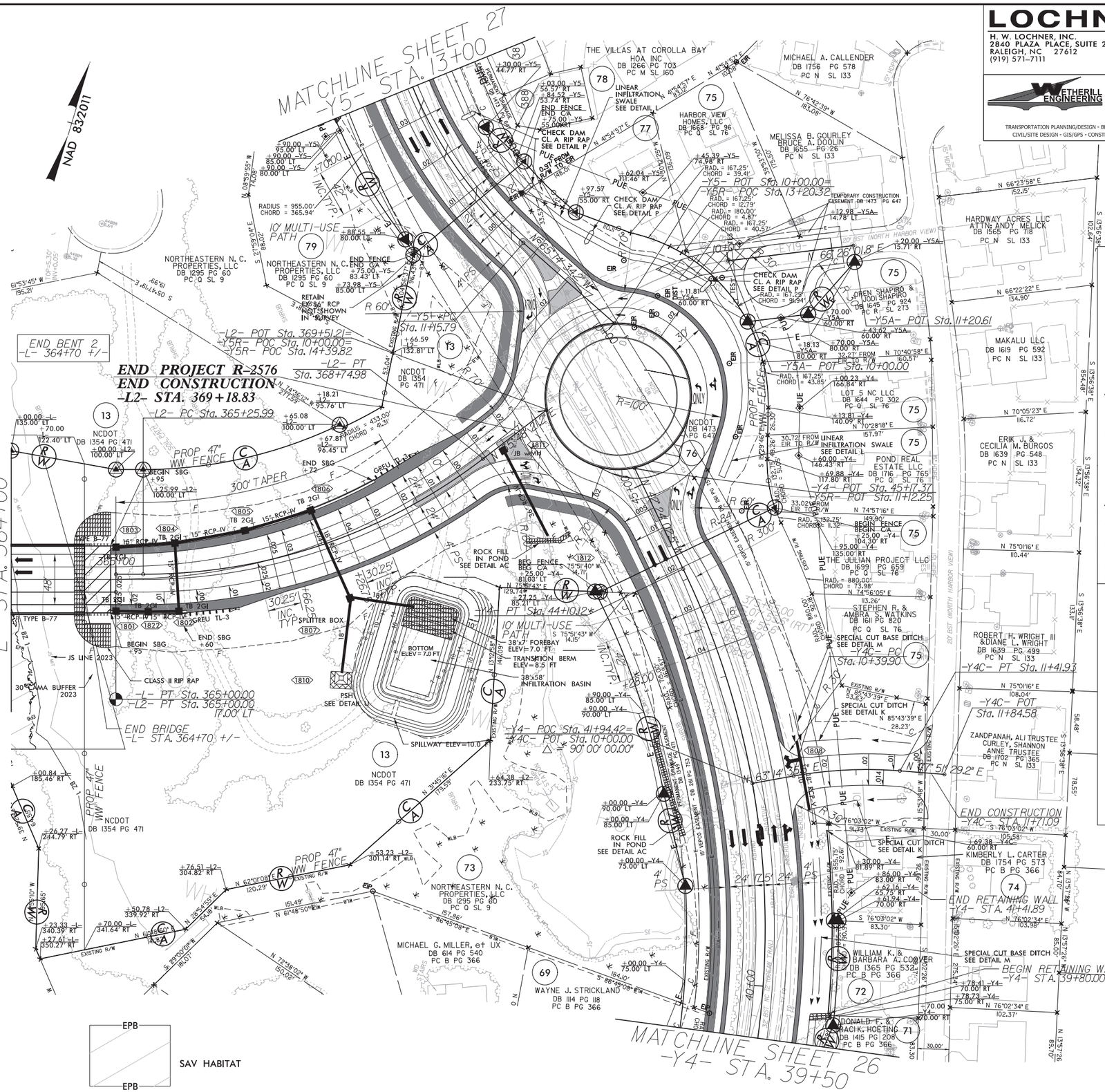
PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE

6/17/2024
R2576-rdy-psh17.dgn
CLOKELEY

6/2/99



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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	18
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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PAVED SHOULDER

-L2-
PI Sta 367+07.00
△ = 37° 30' 55.8" (LT)
D = 10° 44' 58.8"
L = 348.99'
T = 181.01'
R = 533.00'
SE = 0.04
Ro = 128'

-Y4-
PI Sta 41+22.31
△ = 44° 03' 11.7" (LT)
D = 7° 15' 09.5"
L = 607.41'
T = 319.61'
R = 790.00'
SE = 0.04
Ro = 168'

-Y4C-
PI Sta 10+91.19
△ = 14° 36' 53.7" (RT)
D = 14° 19' 26.2"
L = 102.03'
T = 51.29'
R = 400.00'
SE = 0.02
Ro = 48'

-Y5-
PI Sta 12+15.37
△ = 27° 57' 40.8" (RT)
D = 14° 19' 26.2"
L = 195.21'
T = 99.59'
R = 400.00'
SE = 0.04
Ro = 168'
V = 35mph

-Y5R-
PI Sta 10+00.00
△ = 359° 59' 57.1" (LT)
D = 8° 51' 04.0"
L = 439.82'
T = 0.00'
R = 70.00'
SE = 0.02

MID-CURRITUCK BRIDGE

	NC 12	
2020 ADT	11,800	14,700
2040 ADT	18,000	14,000
	3,400	5,200
	8,400	12,800
	19,700	21,600
	NC 12	

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 36 FOR -L2- PROFILE
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4C- PROFILE
SEE SHEET 49 FOR -Y5- PROFILE
SEE SHEET 50 FOR -Y5R- PROFILE
SEE SHEET 50 FOR -Y5A- PROFILE

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	19
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

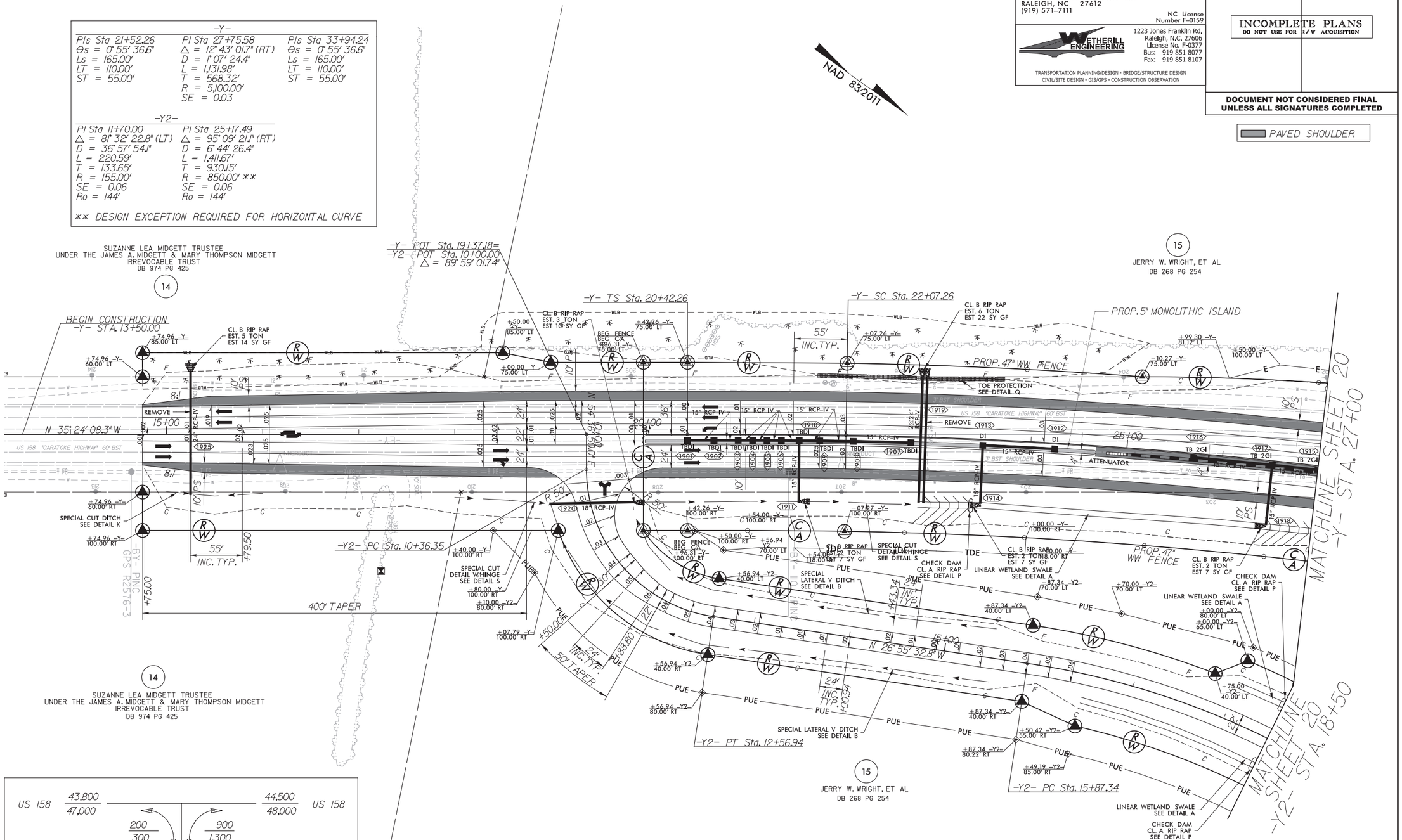
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

-Y-		
PIs Sta 21+52.26	PI Sta 27+75.58	PIs Sta 33+94.24
Θs = 0° 55' 36.6"	Δ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y2-	
PI Sta 11+70.00	PI Sta 25+17.49
Δ = 81° 32' 22.8" (LT)	Δ = 95° 09' 21.1" (RT)
D = 36° 57' 54.1"	D = 6° 44' 26.4"
L = 220.59'	L = 1,411.67'
T = 133.65'	T = 930.15'
R = 155.00'	R = 850.00' **
SE = 0.06	SE = 0.06
Ro = 144'	Ro = 144'

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 36 FOR -Y- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE

6/17/2024
R2576_rdy_psh19.dgn
CYOKELEY

6/2/99

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TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	20
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

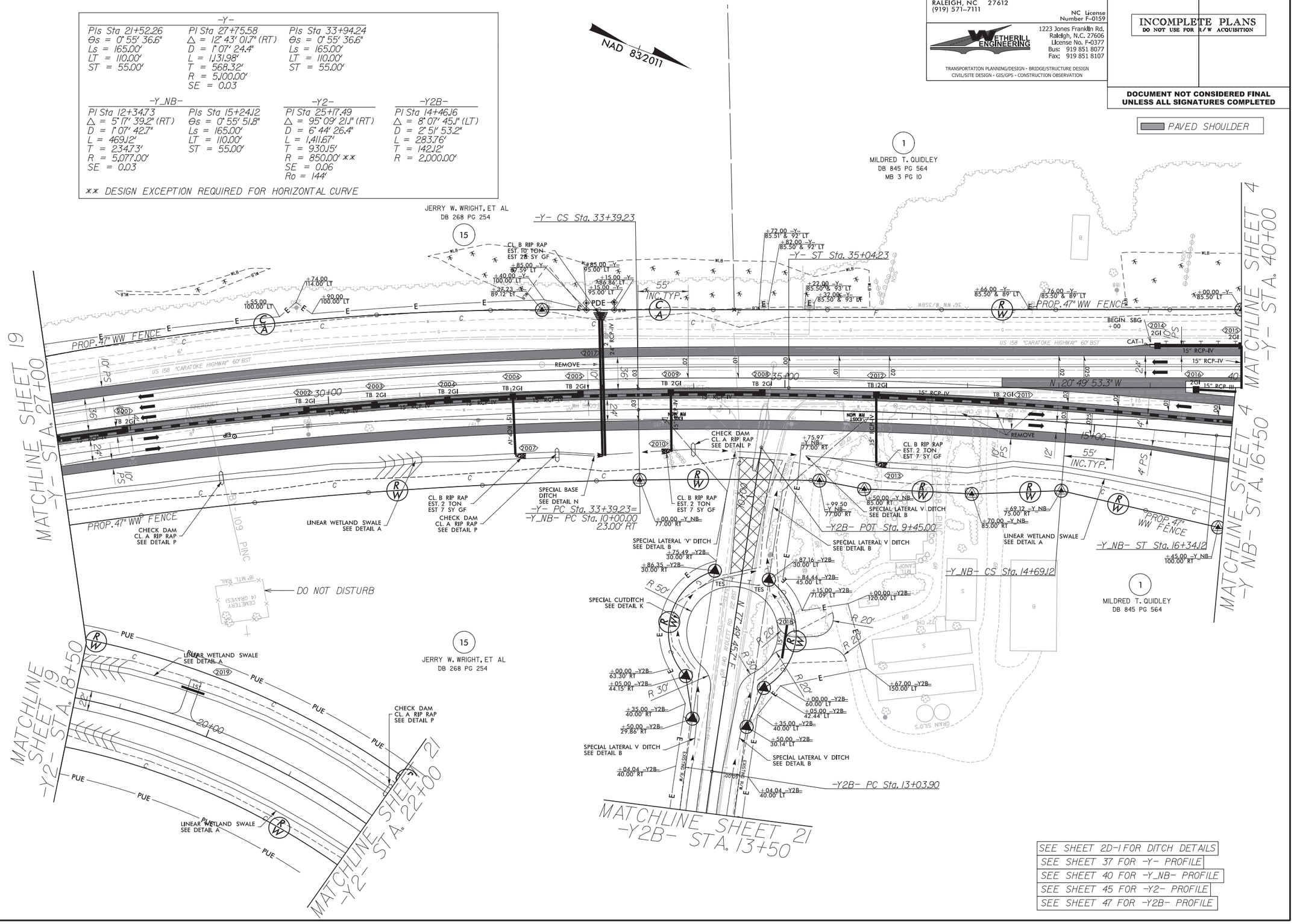
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

-Y-		
PIs Sta 21+52.26	PI Sta 27+75.58	PIs Sta 33+94.24
Θs = 0° 55' 36.6"	Δ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y_NB-		-Y2-	-Y2B-
PI Sta 12+34.73	PIs Sta 15+24.12	PI Sta 25+17.49	PI Sta 14+46.16
Δ = 5° 17' 39.2" (RT)	Θs = 0° 55' 51.8"	Δ = 95° 09' 21.1" (RT)	Δ = 8° 07' 45.1" (LT)
D = 1° 07' 42.7"	Ls = 165.00'	D = 6° 44' 26.4"	D = 2° 51' 53.2"
L = 469.12'	LT = 110.00'	L = 1,411.67'	L = 283.76'
T = 234.73'	ST = 55.00'	T = 930.15'	T = 142.12'
R = 5,077.00'		R = 850.00' **	R = 2,000.00'
SE = 0.03		SE = 0.06	
		Ro = 144'	

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 40 FOR -Y_NB- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE
SEE SHEET 47 FOR -Y2B- PROFILE

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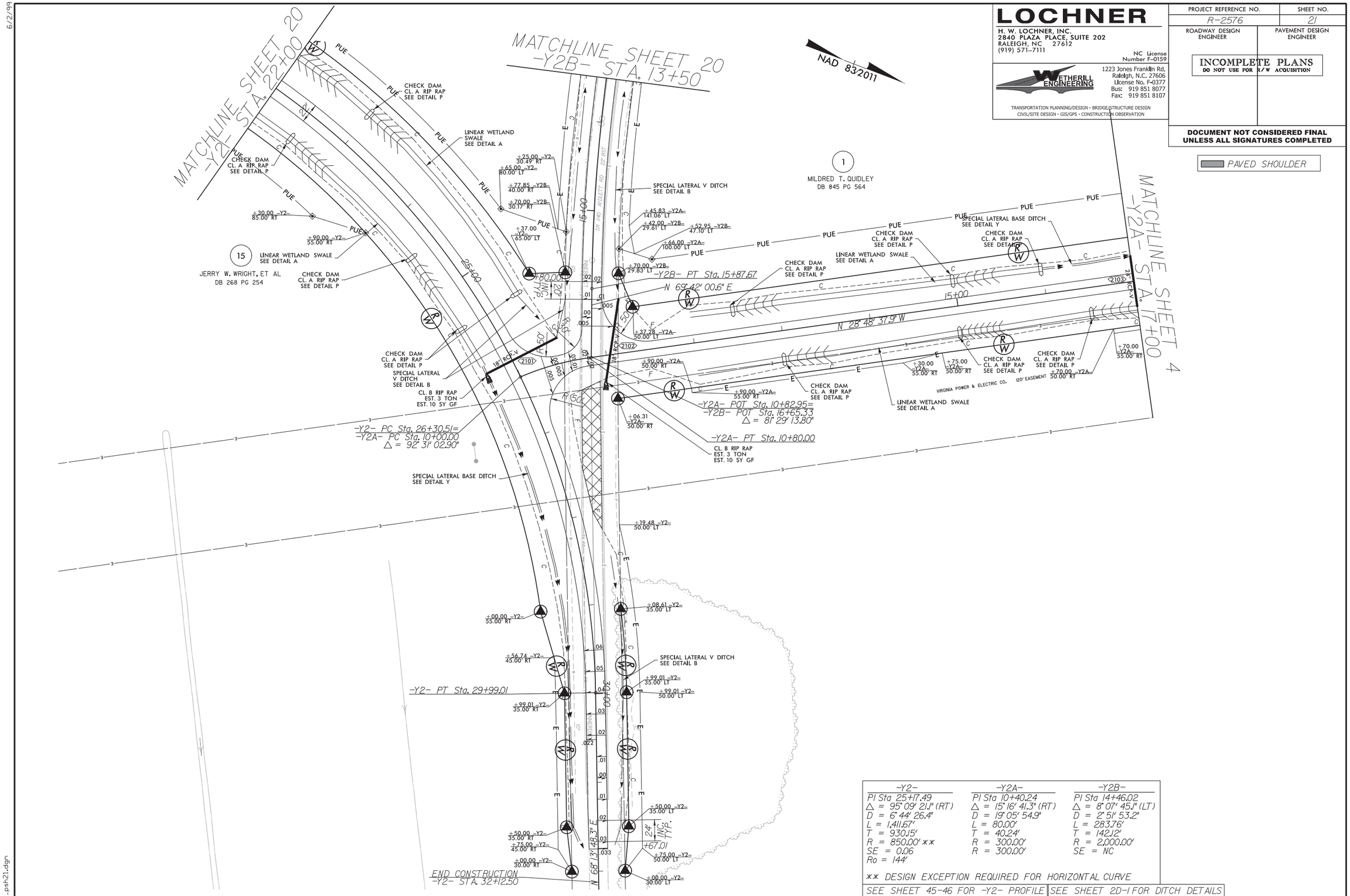
CTOKELEY

6/2/99



LOCHNER

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NC License Number F-0159

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	21
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

-Y2-	-Y2A-	-Y2B-
PI Sta 25+17.49	PI Sta 10+40.24	PI Sta 14+46.02
△ = 95° 09' 21.1" (RT)	△ = 15° 16' 41.3" (RT)	△ = 8° 07' 45.1" (LT)
D = 6° 44' 26.4"	D = 19° 05' 54.9"	D = 2° 51' 53.2"
L = 1,411.67'	L = 80.00'	L = 283.76'
T = 930.15'	T = 40.24'	T = 142.12'
R = 850.00' **	R = 300.00'	R = 2,000.00'
SE = 0.06	R = 300.00'	SE = NC
Ro = 144'		

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

SEE SHEET 45-46 FOR -Y2- PROFILE
SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 46 FOR -Y2A- PROFILE
SEE SHEET 47 FOR -Y2B- PROFILE

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CTOKELEY

6/2/99

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

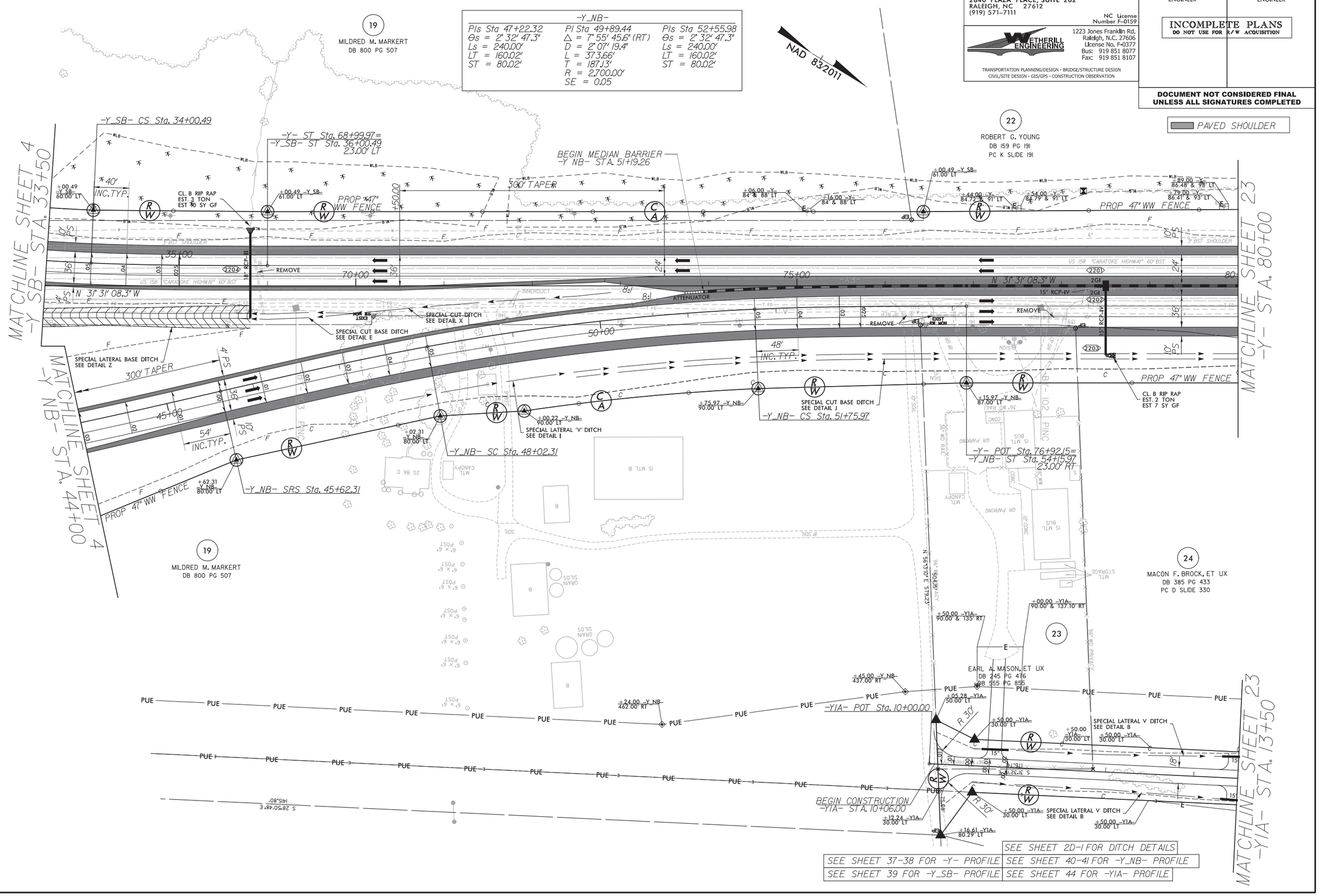
PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

-Y_NB-		
PIs Sta 47+22.32	PI Sta 49+89.44	PIs Sta 52+55.98
Θs = 2° 32' 47.3"	△ = 7° 55' 45.6" (RT)	Θs = 2° 32' 47.3"
Ls = 240.00'	D = 2° 07' 19.4"	Ls = 240.00'
LT = 160.02'	L = 373.66'	LT = 160.02'
ST = 80.02'	T = 187.13'	ST = 80.02'
	R = 2,700.00'	
	SE = 0.05	



SEE SHEET 37-38 FOR -Y- PROFILE	SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 39 FOR -Y_SB- PROFILE	SEE SHEET 40-41 FOR -Y_NB- PROFILE
	SEE SHEET 44 FOR -YIA- PROFILE

6/17/2024
R2576_rdy_psh22.dgn
CTOKLEY

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-Y1-	-Y1A-	-Y1B-		-Y-		
PI Sta 12+70.31	PI Sta 19+89.68	PI Sta 10+83.72	PI Sta 12+68.51	PIs Sta 91+87.20	PI Sta 95+75.07	PIs Sta 99+61.26
Δ = 80° 42' 12.5" (LT)	Δ = 40° 22' 05.5" (LT)	Δ = 4° 47' 38.4" (LT)	Δ = 19° 08' 28.0" (LT)	Θs = 1° 48' 02.6"	Δ = 10° 16' 13.8" (LT)	Θs = 1° 48' 02.6"
D = 46° 55' 31.0"	D = 11° 27' 33.0"	D = 2° 51' 53.2"	D = 9° 32' 57.5"	Ls = 220.00'	D = 1° 38' 13.3"	Ls = 220.00'
L = 171.98'	L = 352.28'	L = 167.34'	L = 200.45'	LT = 146.67'	L = 627.39'	LT = 146.67'
T = 103.74'	T = 183.81'	T = 83.72'	T = 101.17'	ST = 73.34'	T = 314.54'	ST = 73.34'
R = 122.10'	R = 500.00'	R = 2,000.00'	R = 600.00'		R = 3,500.00'	
SE = 0.06	SE = 0.05				SE = 0.04	
Ro = 124'	Ro = 100'					

NAD 83/2011

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	23
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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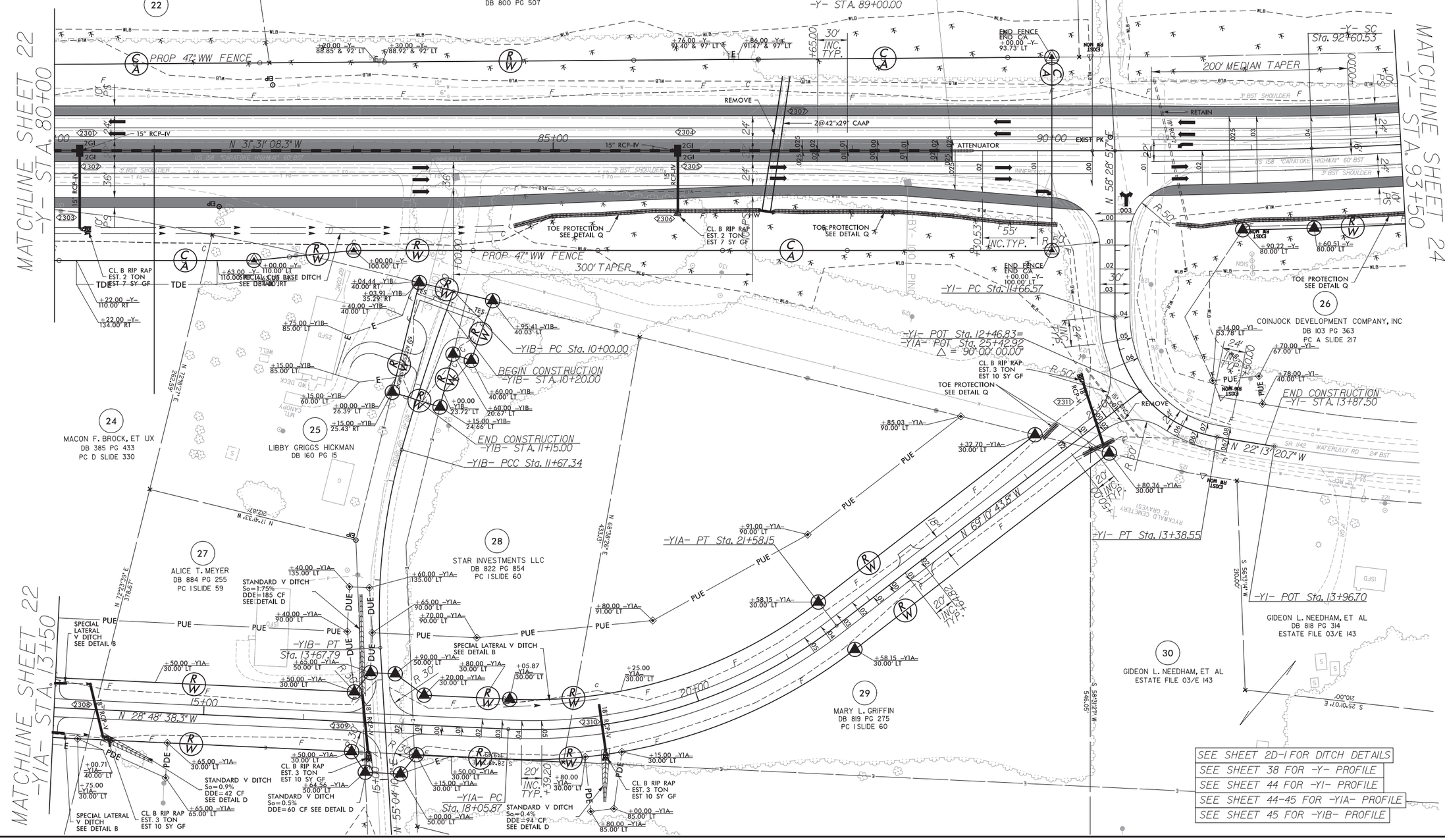
PAVED SHOULDER



6/17/2024
R2576_rdu_psh23.dgn
CLOKEY

-Y-		
PIs Sta 91+87.20	PI Sta 95+75.07	PIs Sta 99+61.26
Θs = 1° 48' 02.6"	Δ = 10° 16' 13.8" (LT)	Θs = 1° 48' 02.6"
Ls = 220.00'	D = 1° 38' 13.3"	Ls = 220.00'
LT = 146.67'	L = 627.39'	LT = 146.67'
ST = 73.34'	T = 314.54'	ST = 73.34'
	R = 3,500.00'	
	SE = 0.04	

26
COINJOCK DEVELOPMENT COMPANY, INC
DB 103 PG 363
PC A SLIDE 217

NAD 83/2011

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	24
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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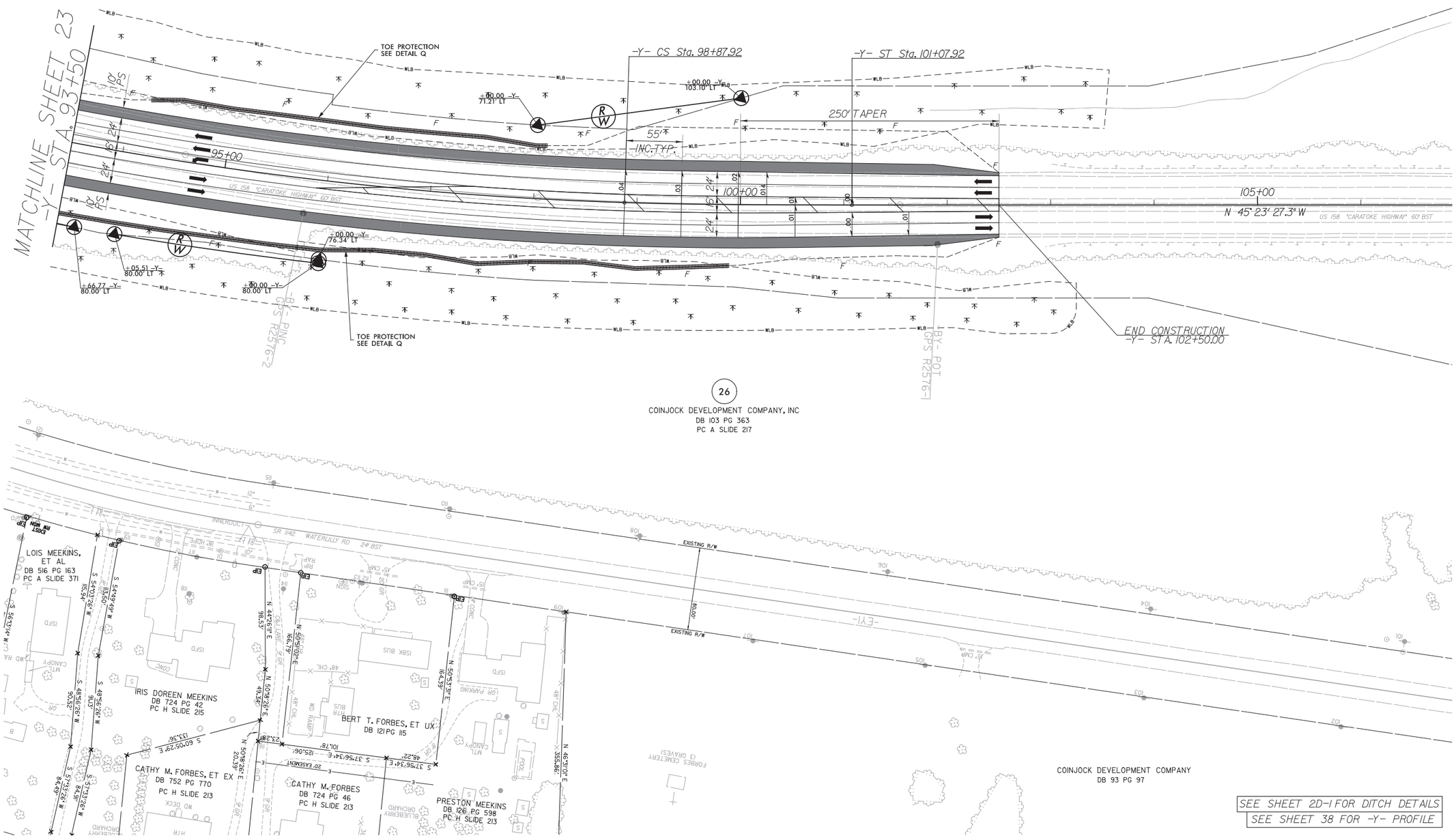
PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE

6/2/99
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R2576_rdy_psh24.dgn
CYOKELEY

6/2/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	25
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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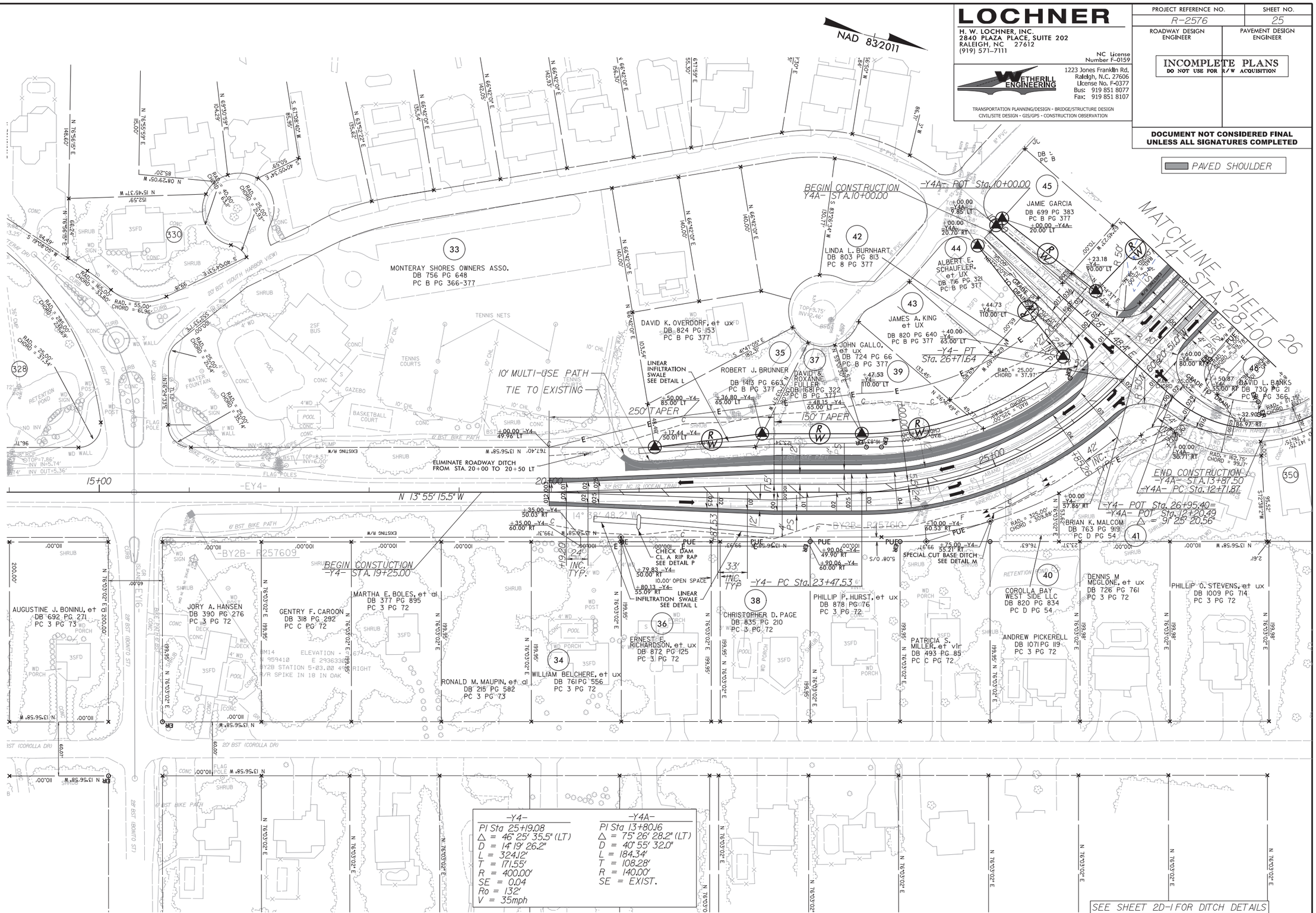
PAVED SHOULDER



-Y4-	-Y4A-
PI Sta 25+19.08	PI Sta 13+80.16
Δ = 46° 25' 35.5" (LT)	Δ = 75° 26' 28.2" (LT)
D = 14° 19' 26.2"	D = 40° 55' 32.0"
L = 324.12'	L = 184.34'
T = 171.55'	T = 108.28'
R = 400.00'	R = 140.00'
SE = 0.04	SE = EXIST.
Ro = 132'	
V = 35mph	

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(919) 571-7111

NC License Number F-0159

WETHERILL ENGINEERING
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Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	26
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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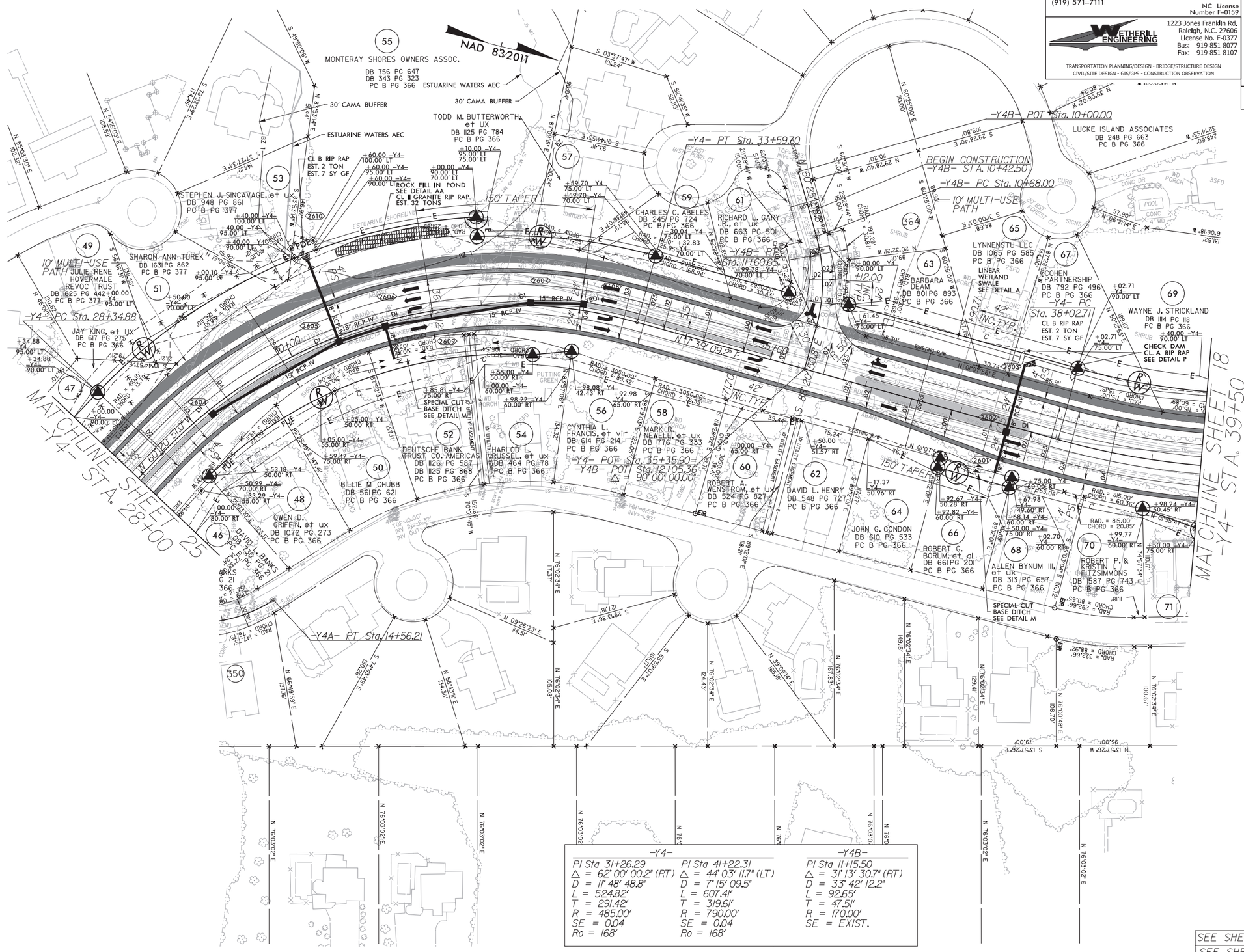
PAVED SHOULDER



-Y4-		-Y4B-
PI Sta 31+26.29	PI Sta 41+22.31	PI Sta 11+15.50
Δ = 62° 00' 00.2" (RT)	Δ = 44° 03' 11.7" (LT)	Δ = 31° 13' 30.7" (RT)
D = 11° 48' 48.8"	D = 7° 15' 09.5"	D = 33° 42' 12.2"
L = 524.82'	L = 607.41'	L = 92.65'
T = 291.42'	T = 319.61'	T = 47.51'
R = 485.00'	R = 790.00'	R = 170.00'
SE = 0.04	SE = 0.04	SE = EXIST.
Ro = 168'	Ro = 168'	

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 48 FOR -Y4- PROFILE
SEE SHEET 49 FOR -Y4B- PROFILE

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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	27
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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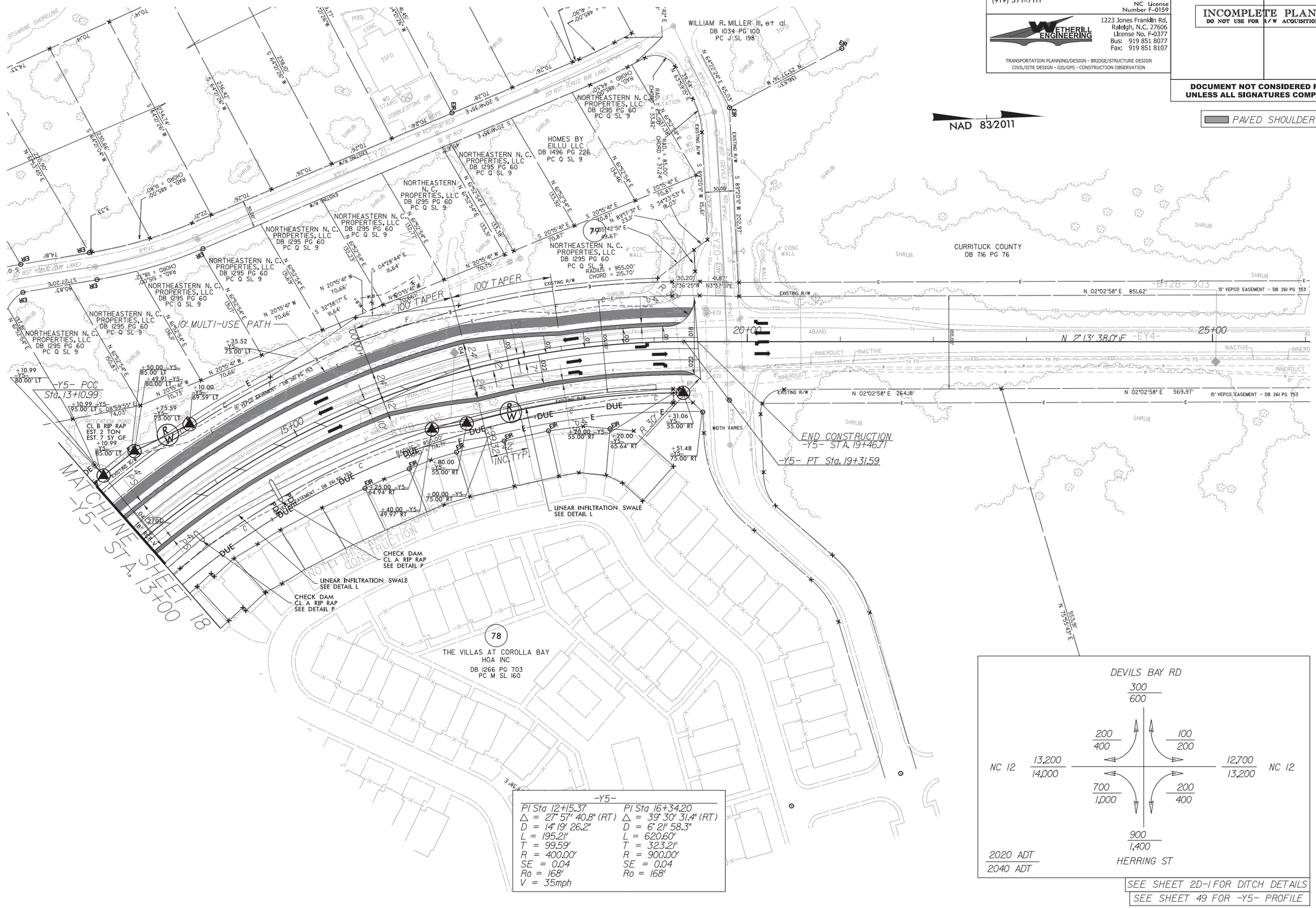
PAVED SHOULDER



-Y5-	
PI Sta 12+15.37	PI Sta 16+34.20
Δ = 27° 57' 40.8" (RT)	Δ = 39° 30' 31.4" (RT)
D = 14° 19' 26.2"	D = 6° 21' 58.3"
L = 195.21'	L = 620.60'
T = 99.59'	T = 323.21'
R = 400.00'	R = 900.00'
SE = 0.04	SE = 0.04
Ro = 168'	Ro = 168'
V = 35mph	

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 49 FOR -Y5- PROFILE

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TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	28
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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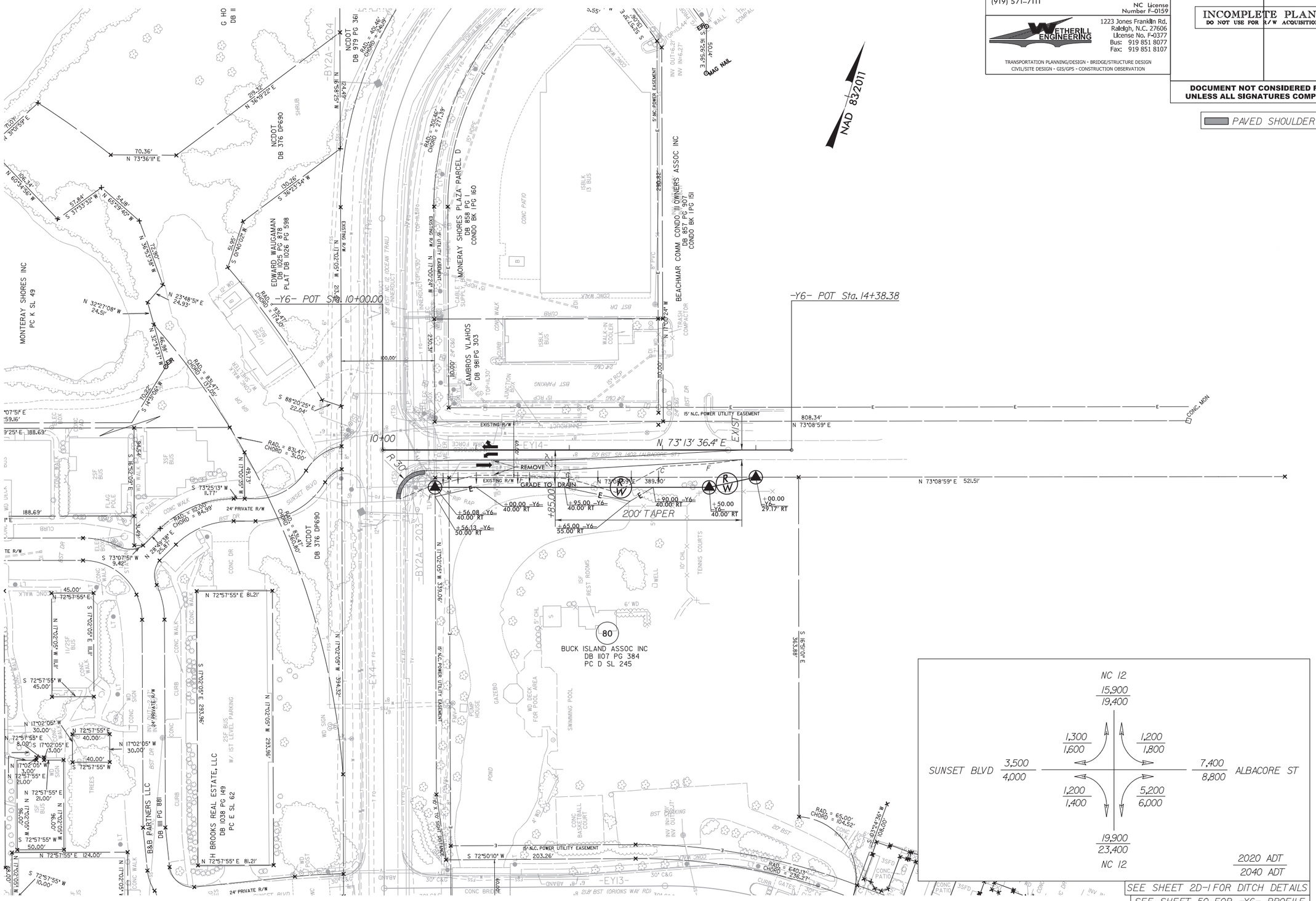

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 50 FOR -Y6- PROFILE

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	29
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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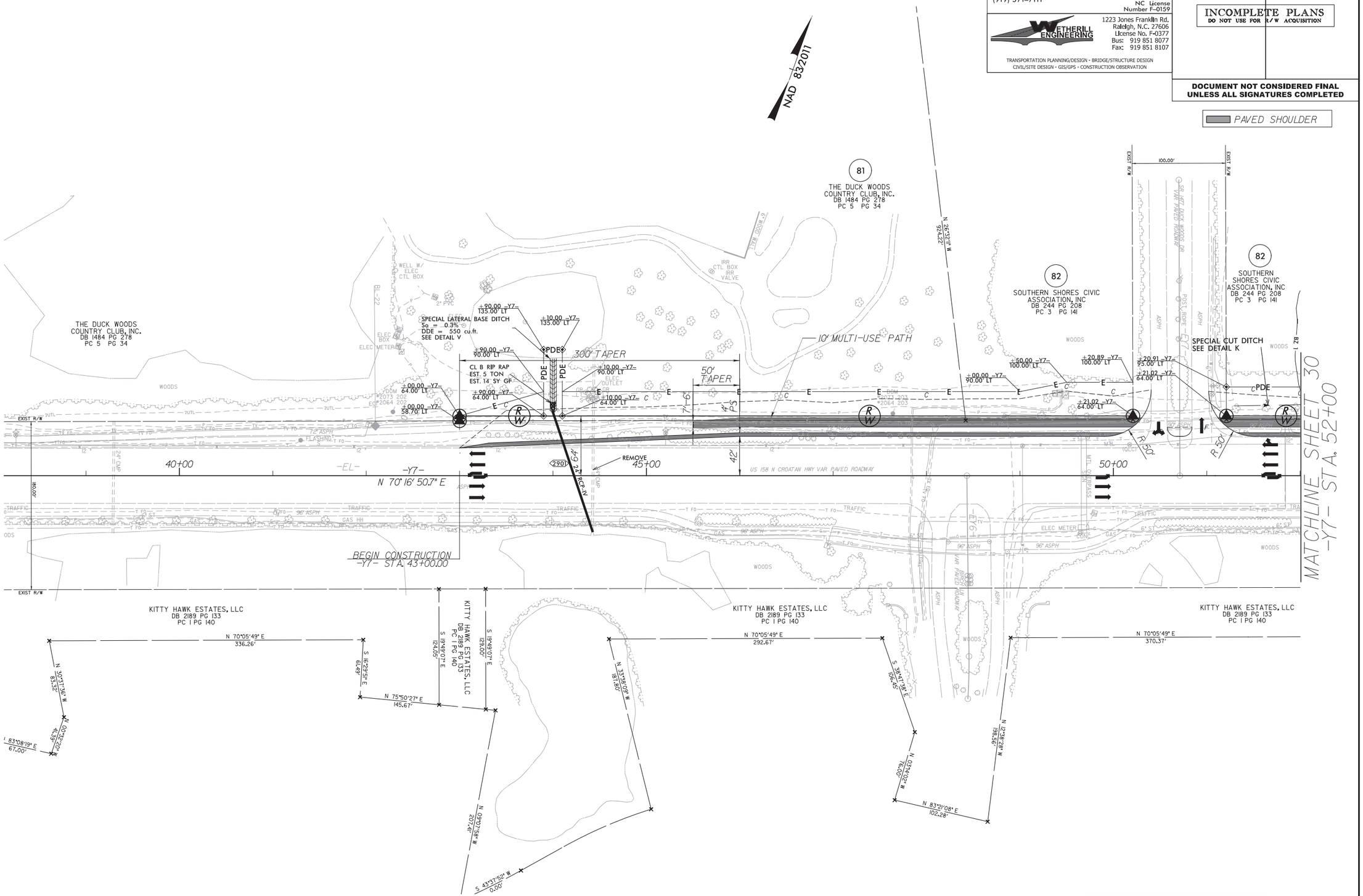

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 50 FOR -Y7- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	30
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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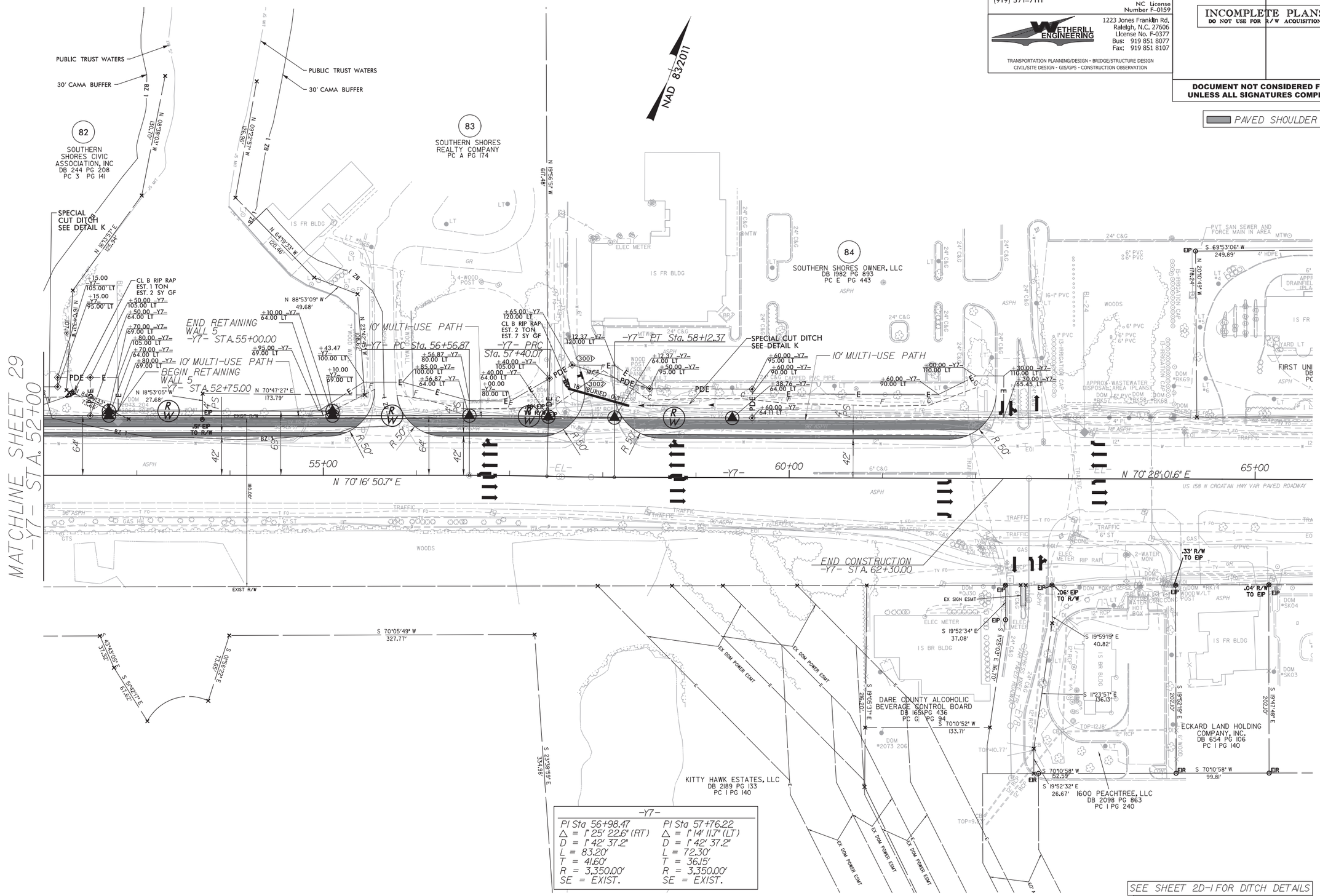
PAVED SHOULDER



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 51 FOR -Y7- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	31
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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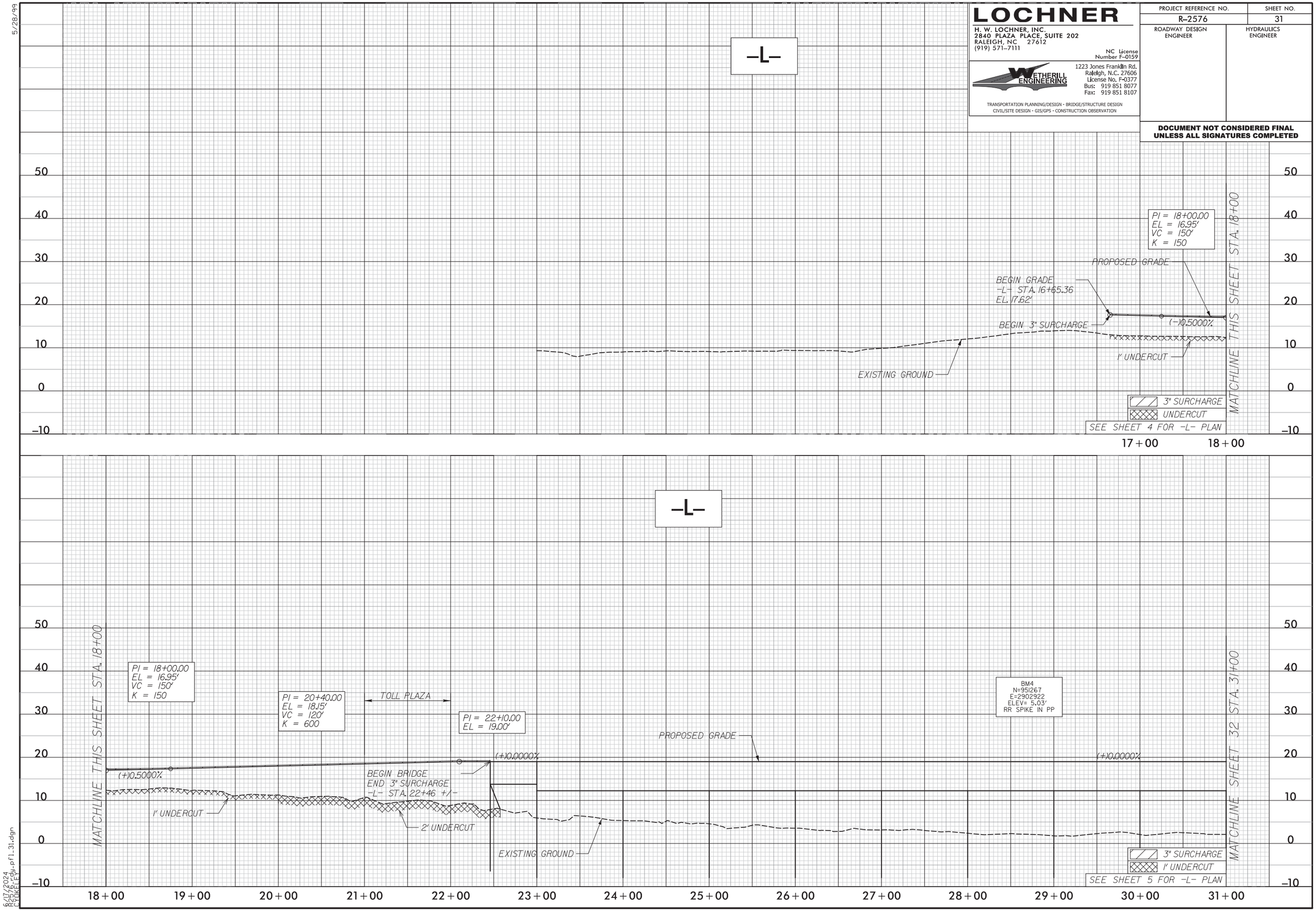

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	32
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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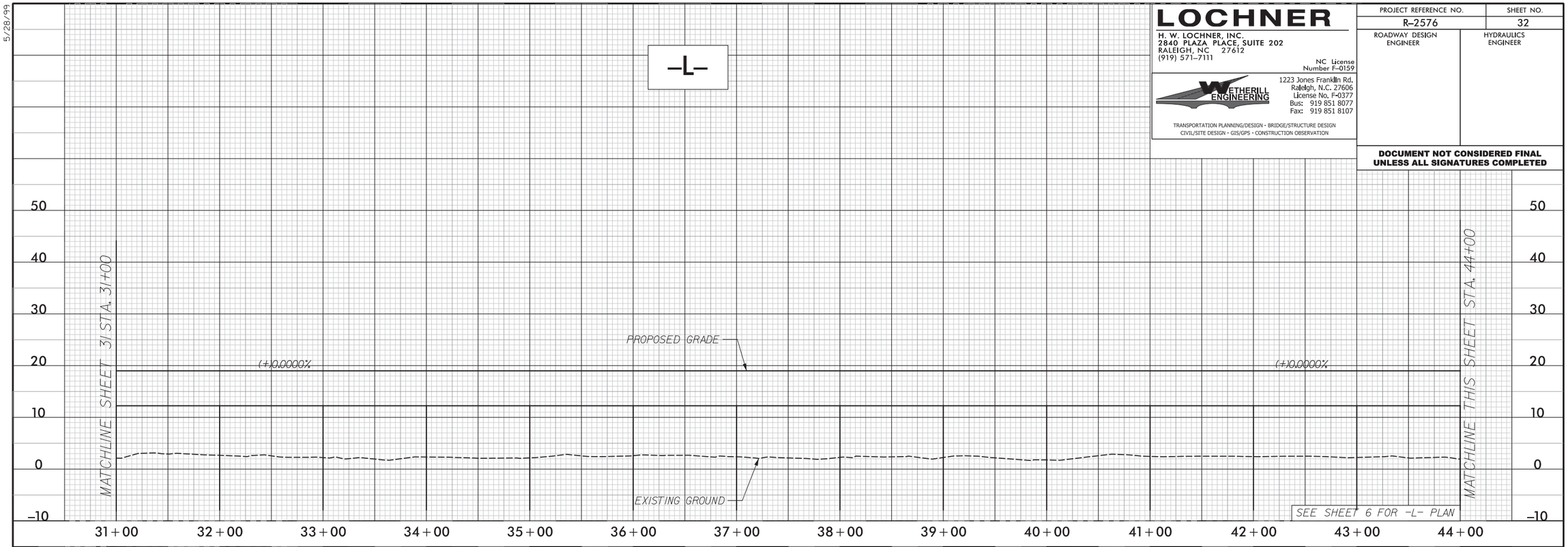

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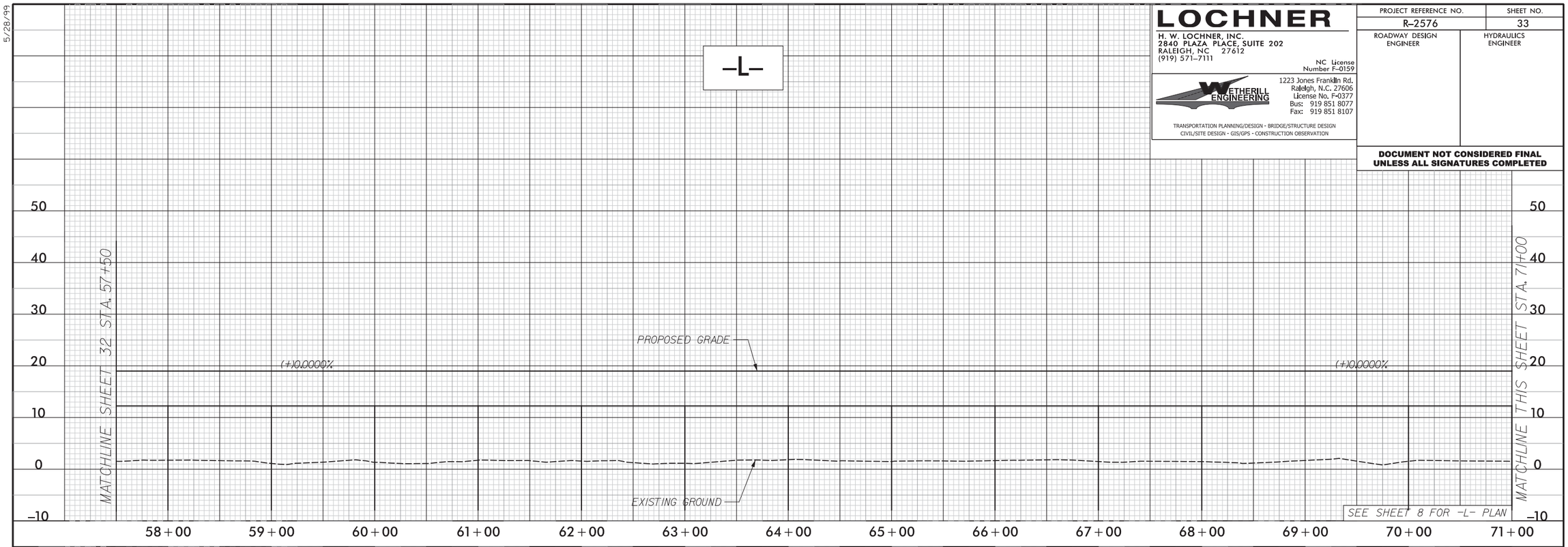
PROJECT REFERENCE NO.	SHEET NO.
R-2576	33
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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PROJECT REFERENCE NO.	SHEET NO.
R-2576	34
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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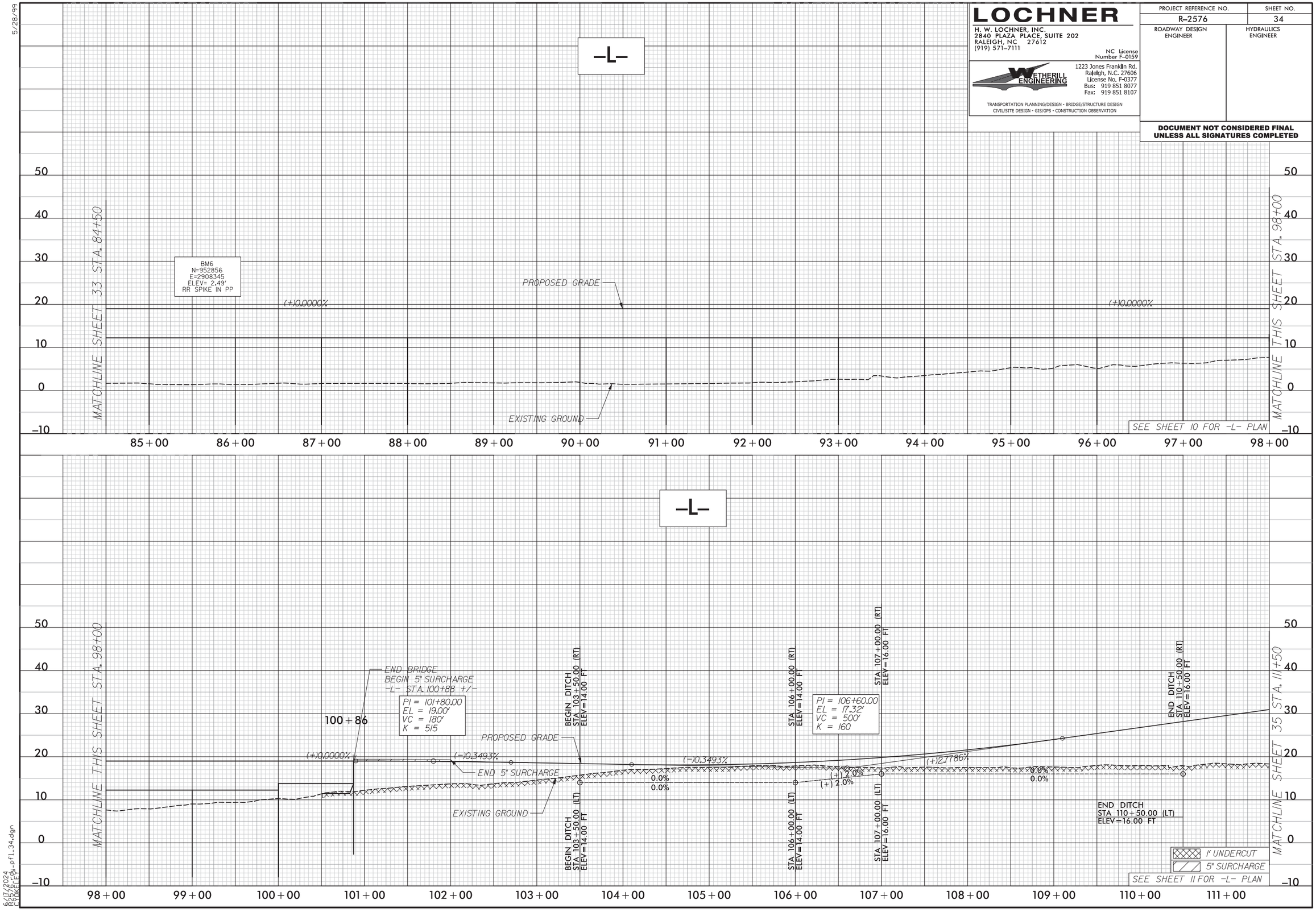

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	35
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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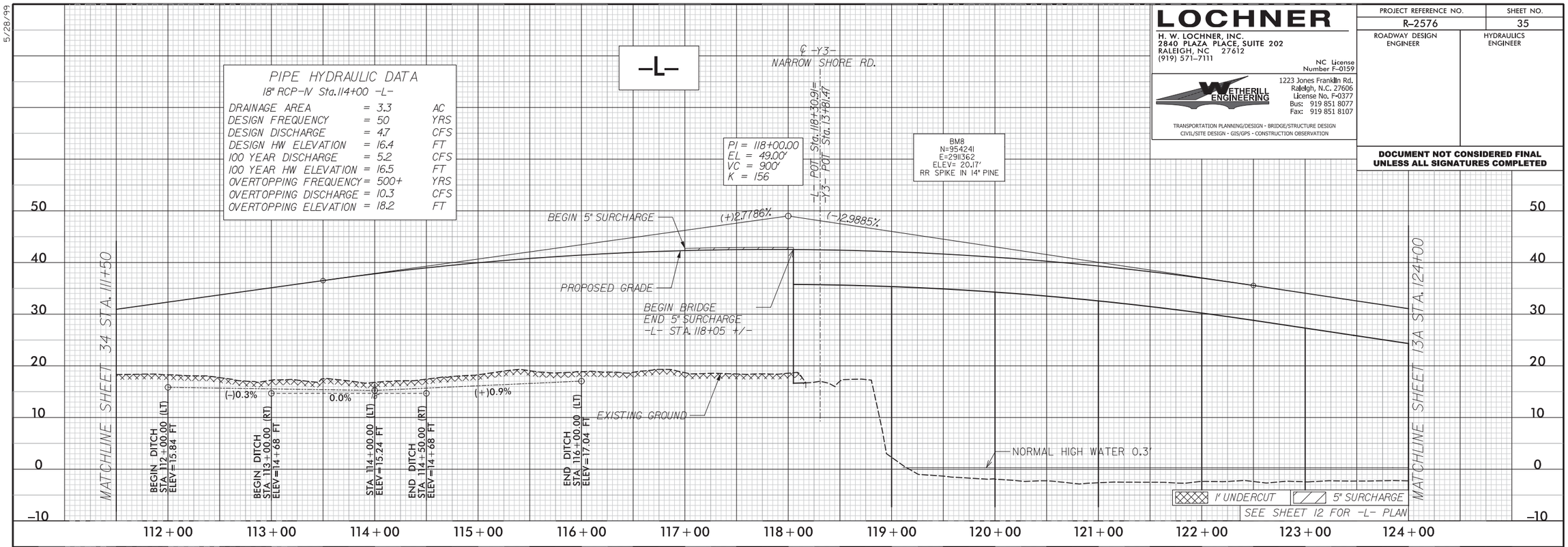

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	36
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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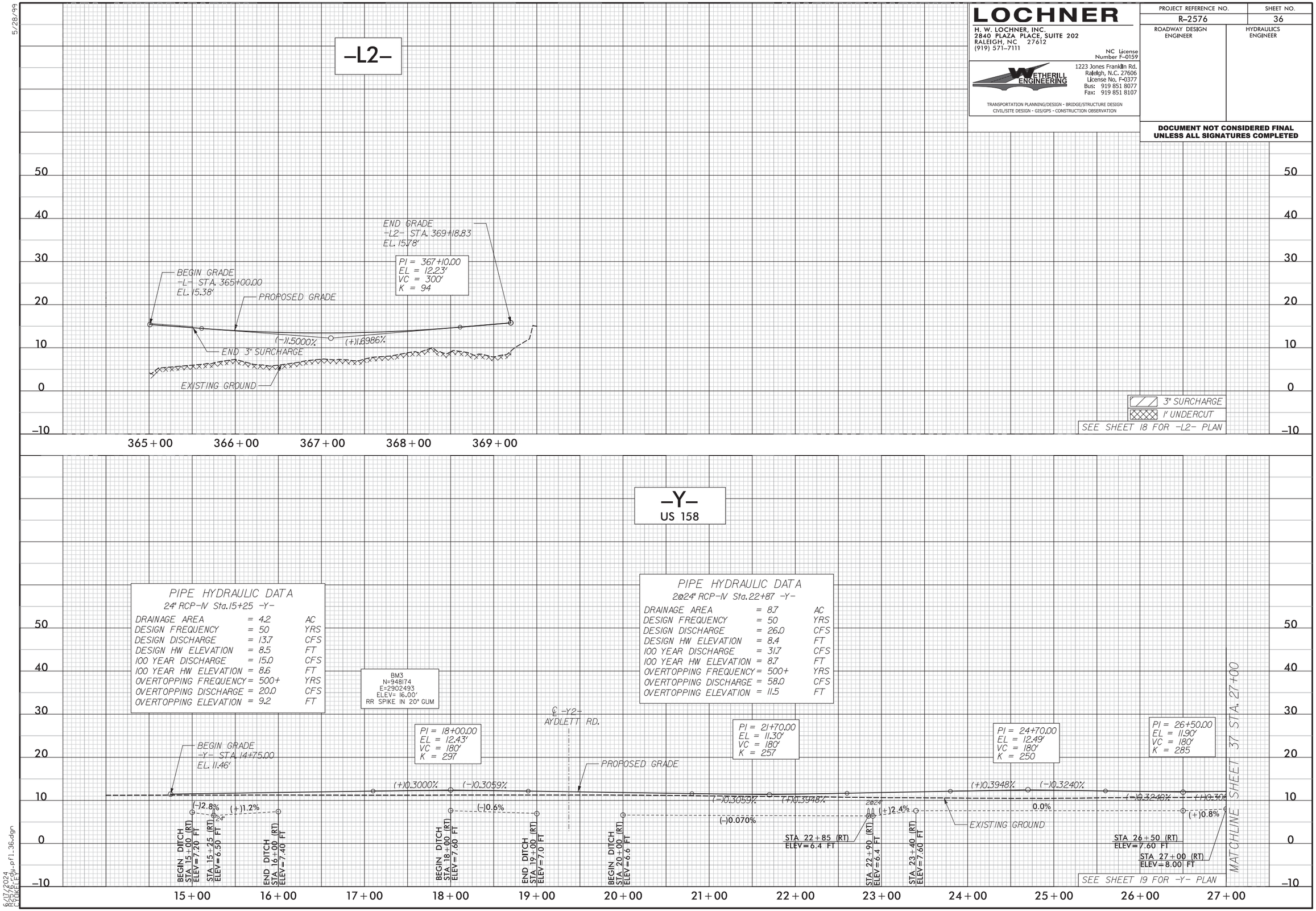

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	37
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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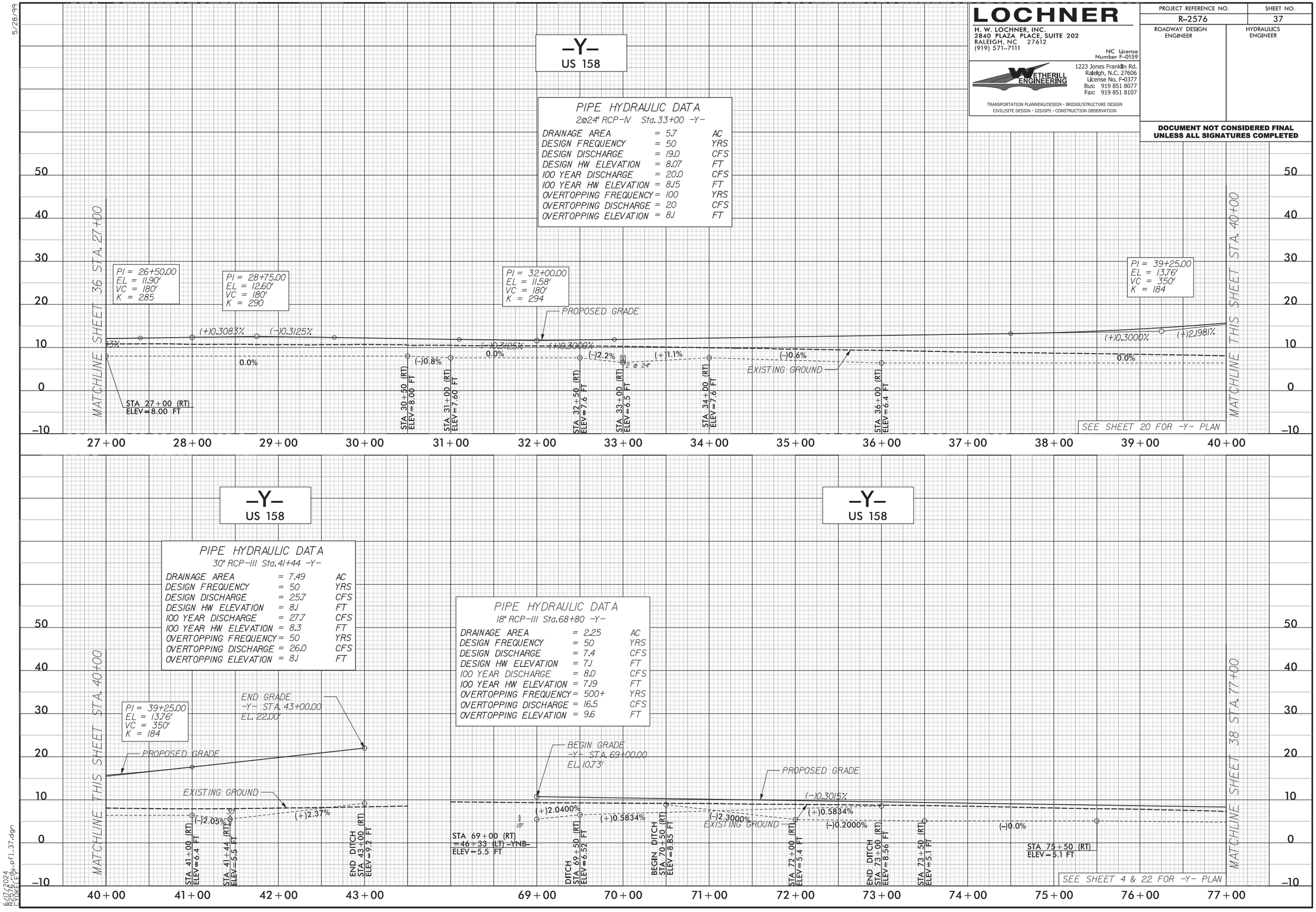

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	38
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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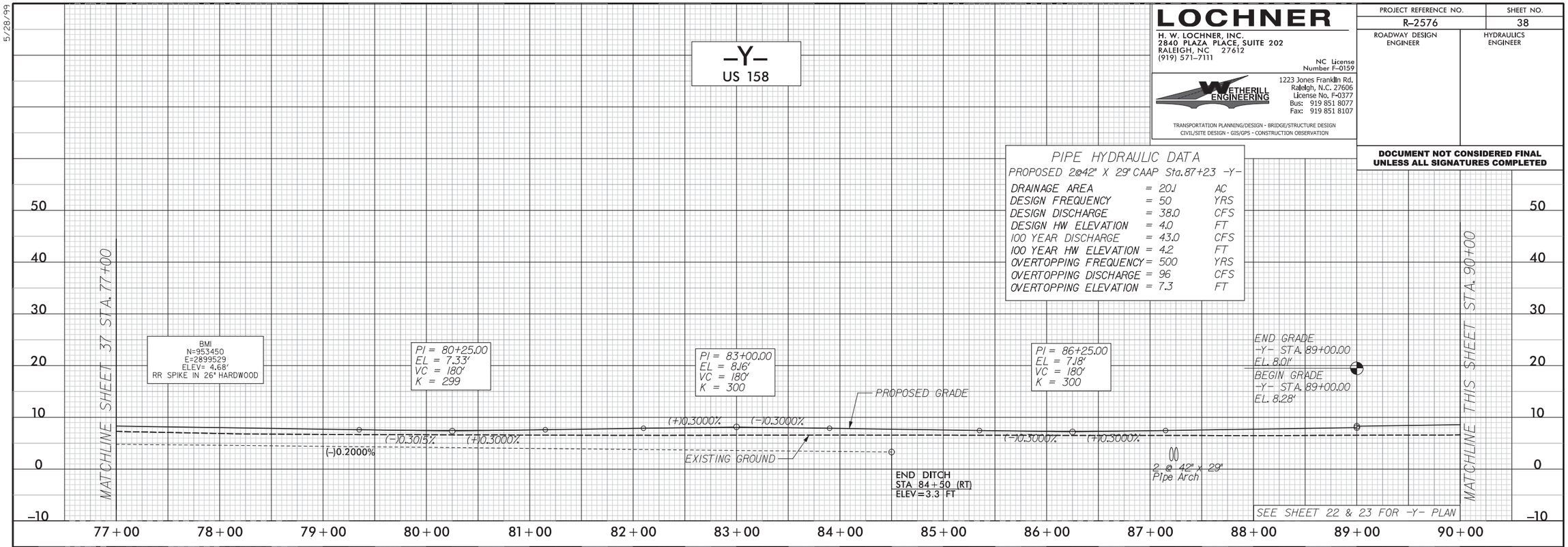
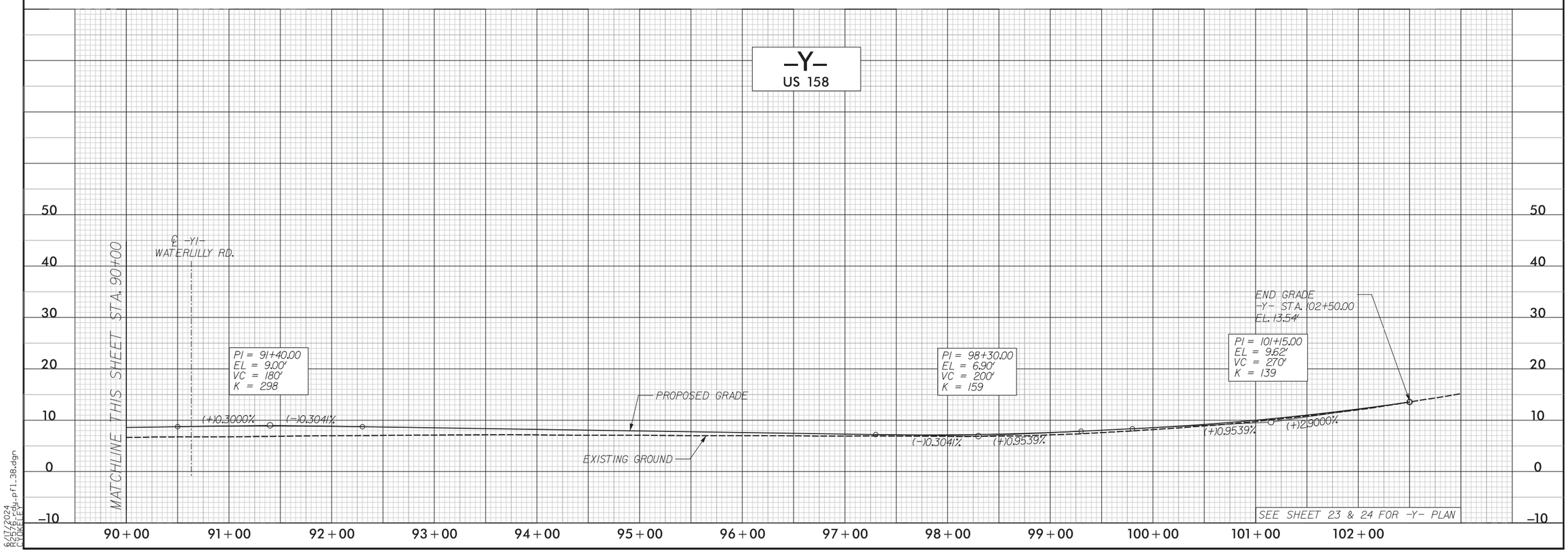
PIPE HYDRAULIC DATA

PROPOSED 2@42" X 29" CAAP Sta.87+23 -Y-

DRAINAGE AREA	= 20.1	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 38.0	CFS
DESIGN HW ELEVATION	= 4.0	FT
100 YEAR DISCHARGE	= 43.0	CFS
100 YEAR HW ELEVATION	= 4.2	FT
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING DISCHARGE	= 96	CFS
OVERTOPPING ELEVATION	= 7.3	FT





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PROJECT REFERENCE NO.	SHEET NO.
R-2576	39
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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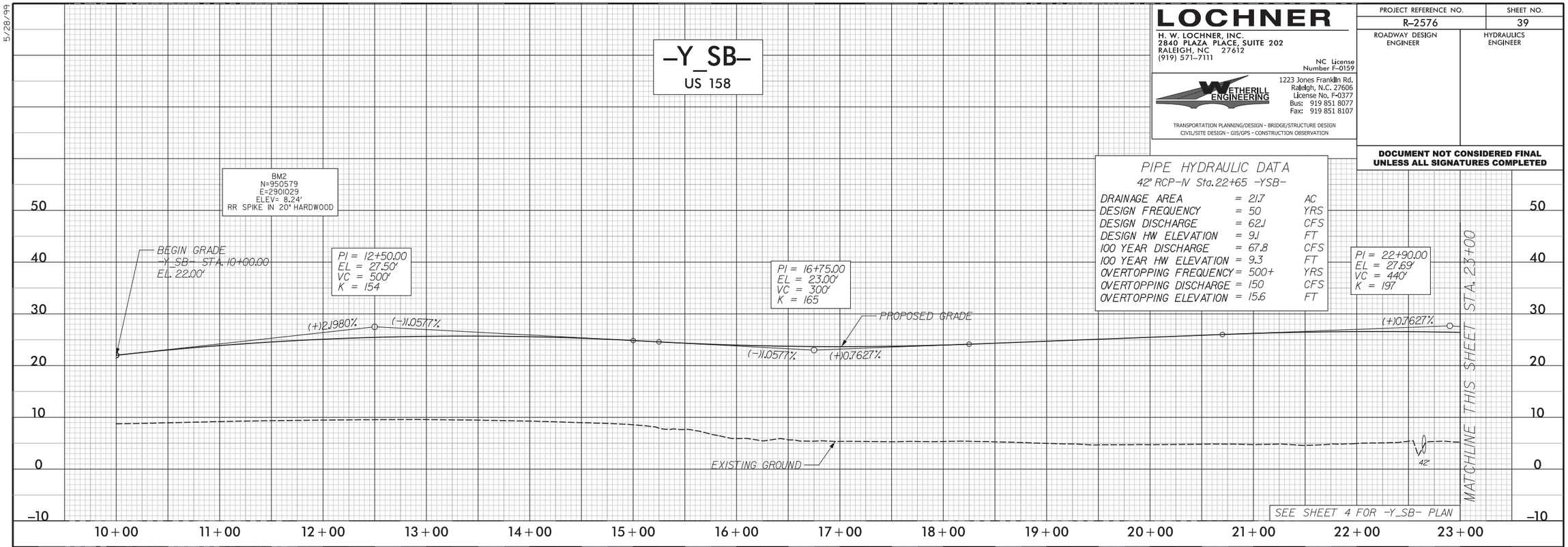
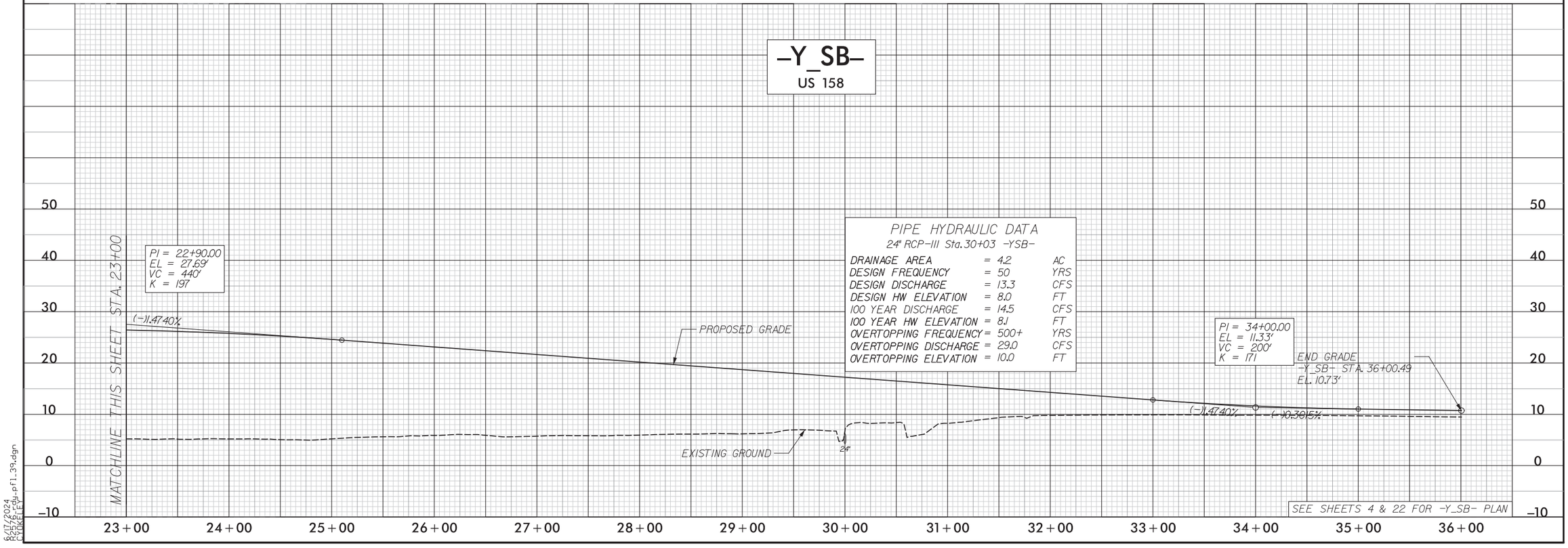


PIPE HYDRAULIC DATA
42" RCP-IV Sta. 22+65 -YSB-

DRAINAGE AREA	= 21.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 62.1	CFS
DESIGN HW ELEVATION	= 9.1	FT
100 YEAR DISCHARGE	= 67.8	CFS
100 YEAR HW ELEVATION	= 9.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 150	CFS
OVERTOPPING ELEVATION	= 15.6	FT



PIPE HYDRAULIC DATA
24" RCP-III Sta. 30+03 -YSB-

DRAINAGE AREA	= 4.2	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 13.3	CFS
DESIGN HW ELEVATION	= 8.0	FT
100 YEAR DISCHARGE	= 14.5	CFS
100 YEAR HW ELEVATION	= 8.1	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 29.0	CFS
OVERTOPPING ELEVATION	= 10.0	FT

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5/28/99

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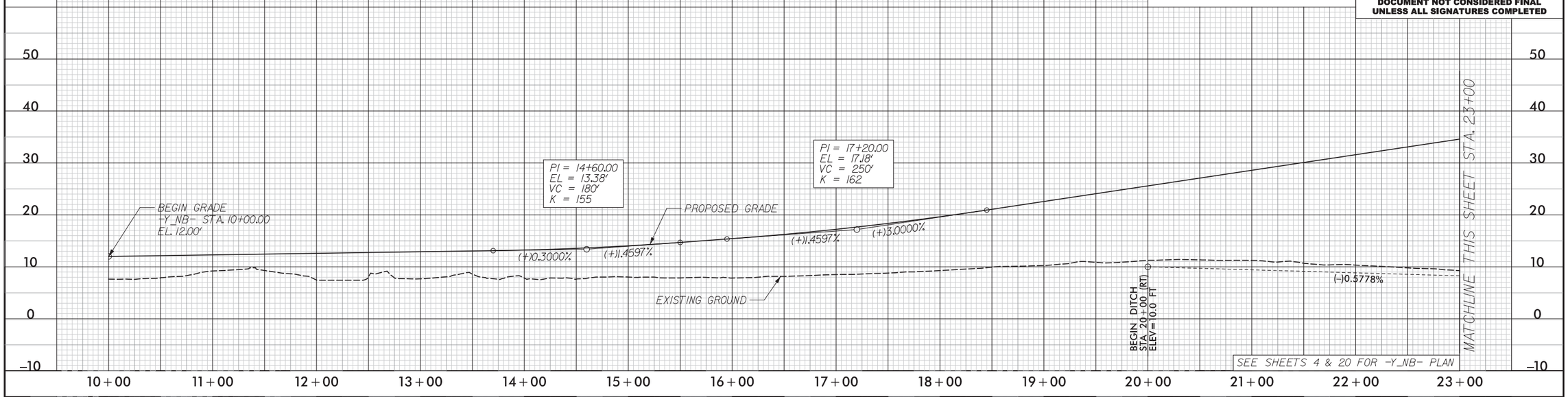
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	40
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y_NB-
US 158



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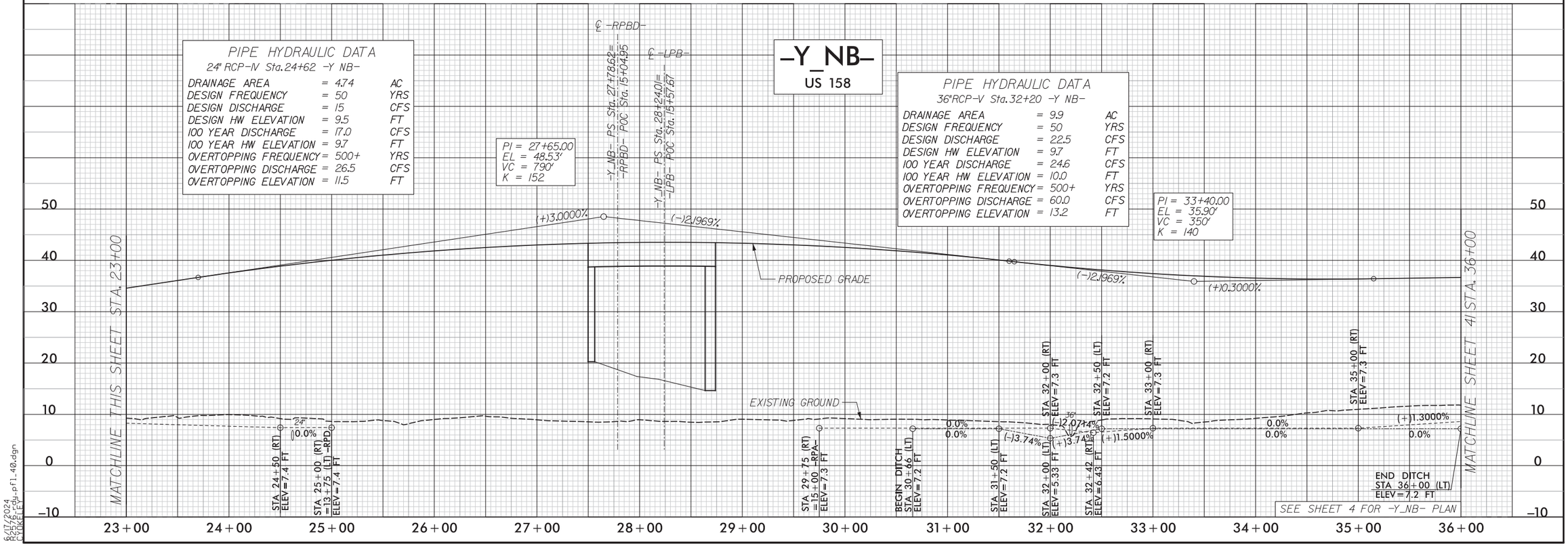
US 158



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R2576_rdy_pf1_40.dgn
CLINKLEY

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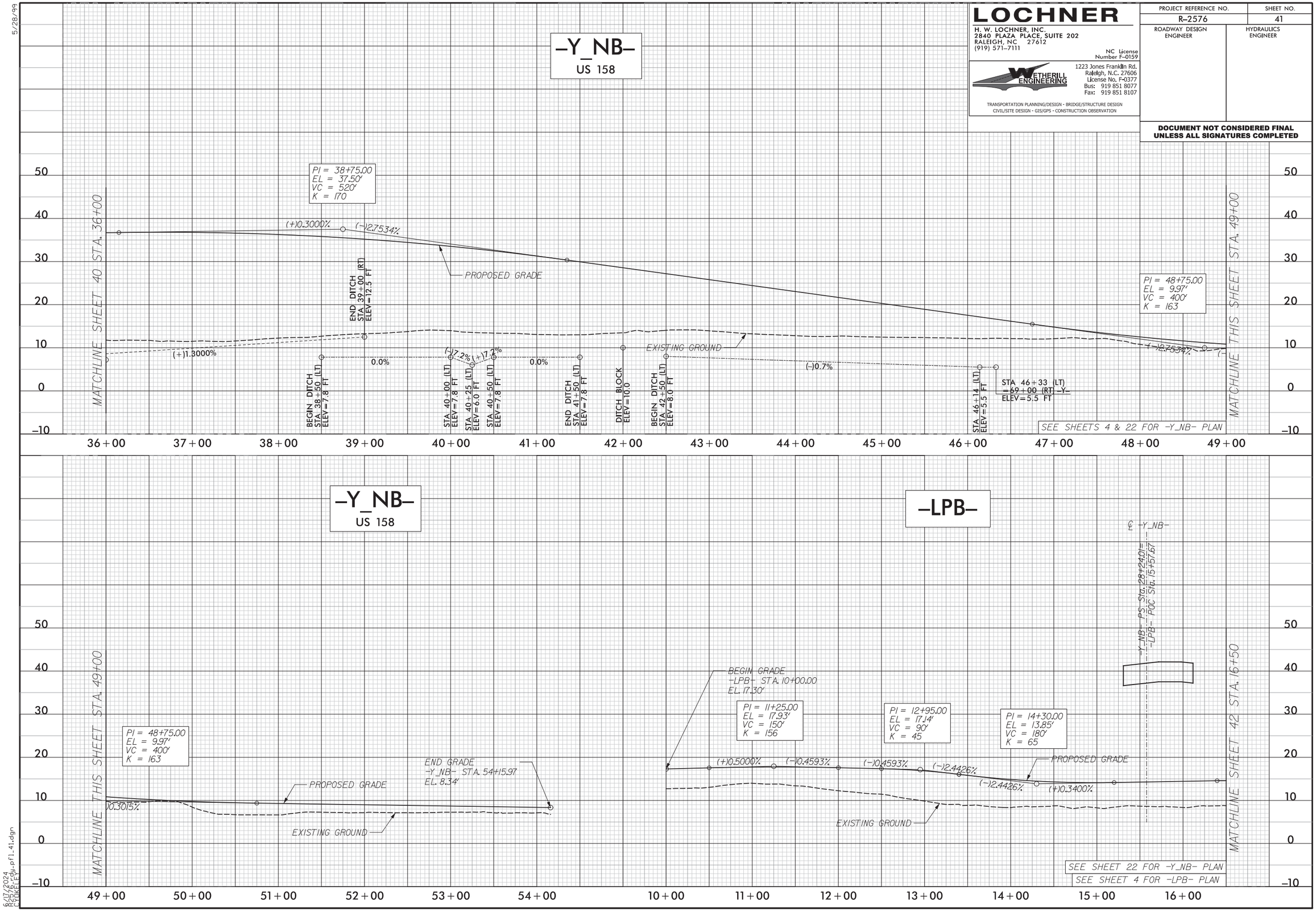
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	41
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/28/99

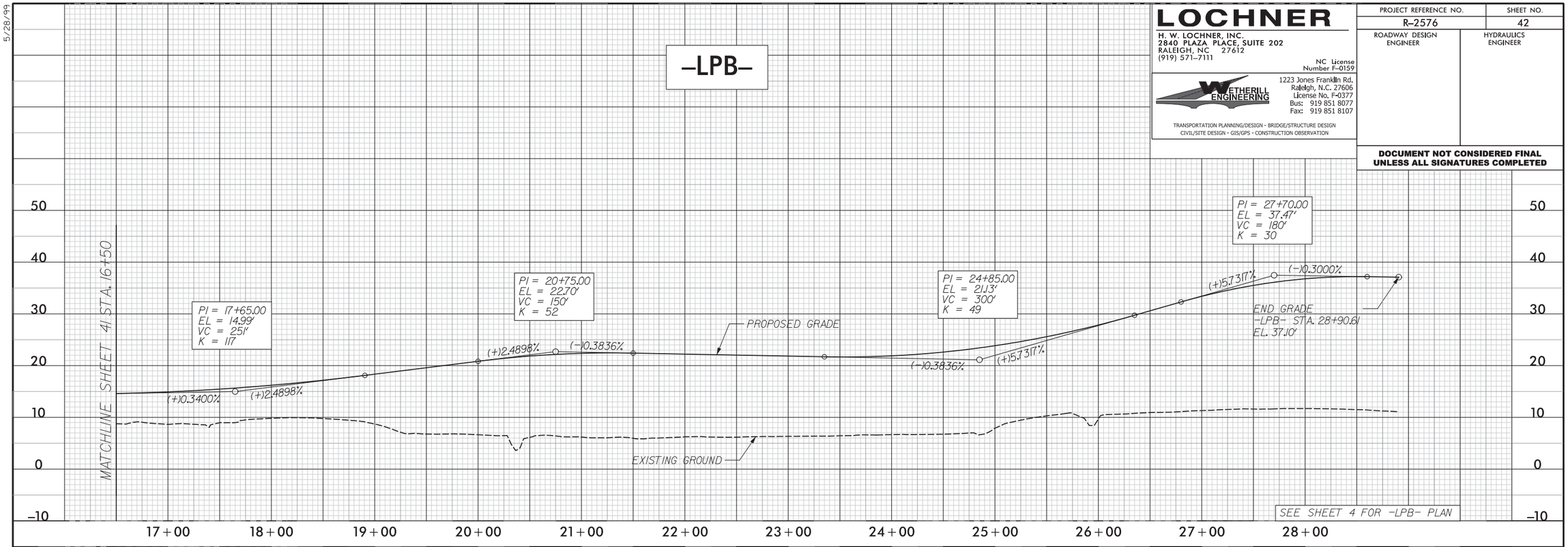
6/17/2024
R2576_rdy_pfl_41.dgn
CYOKELEY

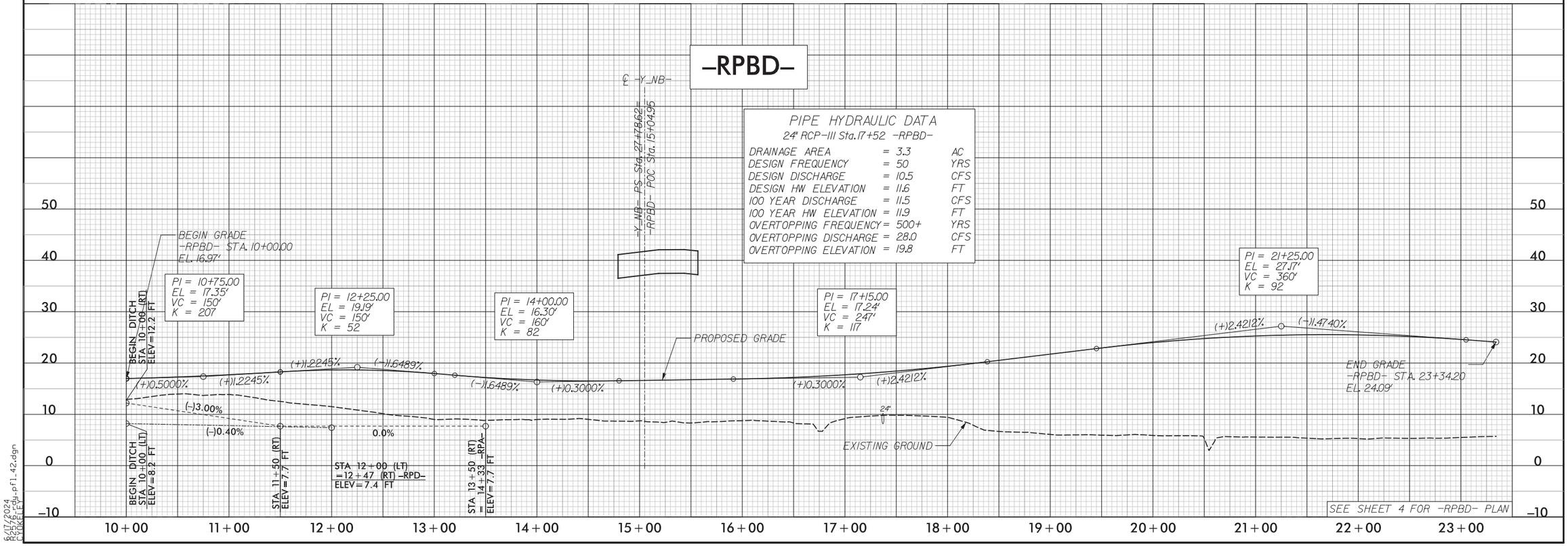
LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-7111
NC License Number F-0159

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	42
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





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R2576_rdy_pfl_42.dgn
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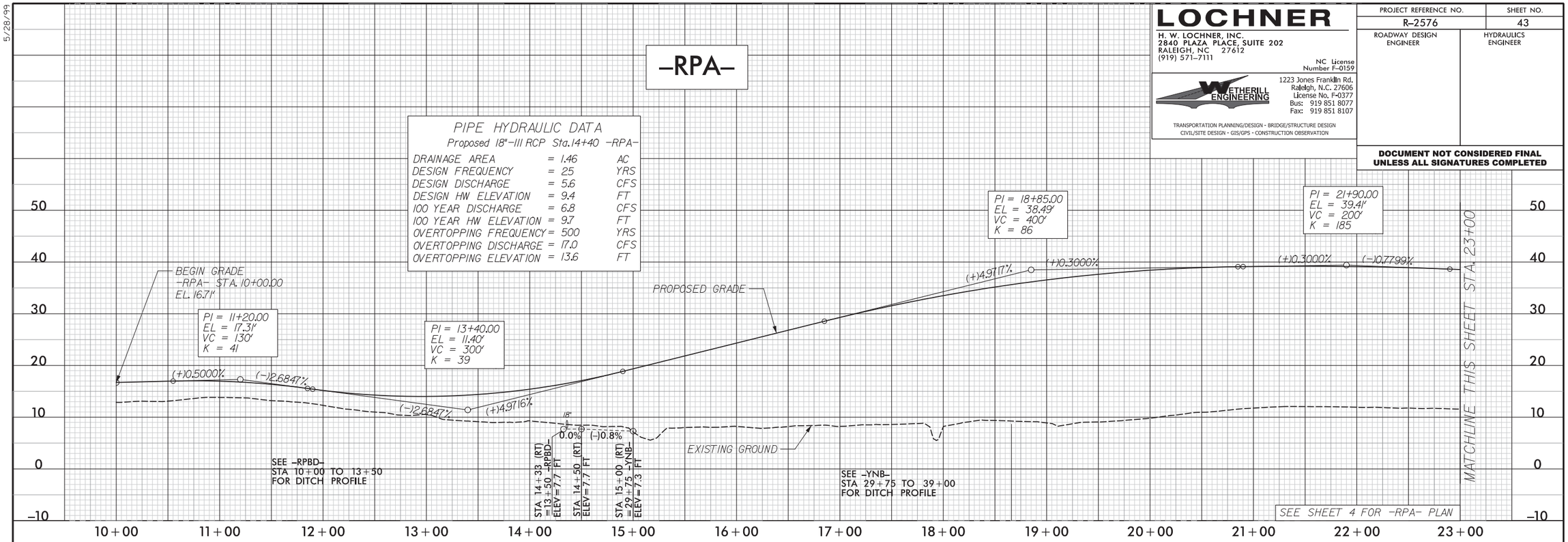
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	43
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



5/28/99

6/17/2024
R2576_rdy_pfl_43.dgn
CYOKELEY

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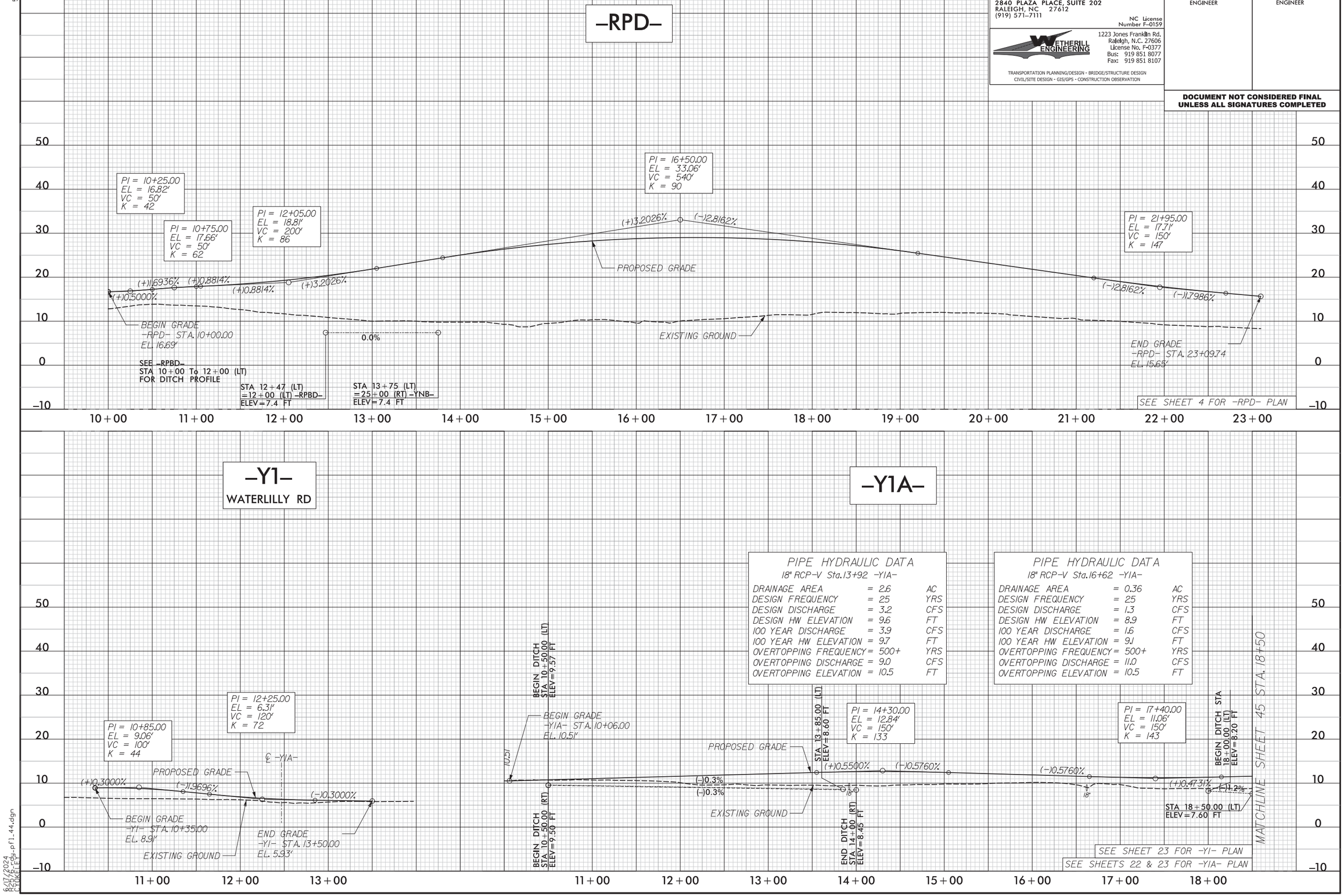
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	44
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PIPE HYDRAULIC DATA
18" RCP-V Sta.13+92 -Y1A-

DRAINAGE AREA	= 2.6	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 3.2	CFS
DESIGN HW ELEVATION	= 9.6	FT
100 YEAR DISCHARGE	= 3.9	CFS
100 YEAR HW ELEVATION	= 9.7	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 9.0	CFS
OVERTOPPING ELEVATION	= 10.5	FT

PIPE HYDRAULIC DATA
18" RCP-V Sta.16+62 -Y1A-

DRAINAGE AREA	= 0.36	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 1.3	CFS
DESIGN HW ELEVATION	= 8.9	FT
100 YEAR DISCHARGE	= 1.6	CFS
100 YEAR HW ELEVATION	= 9.1	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 11.0	CFS
OVERTOPPING ELEVATION	= 10.5	FT

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	45
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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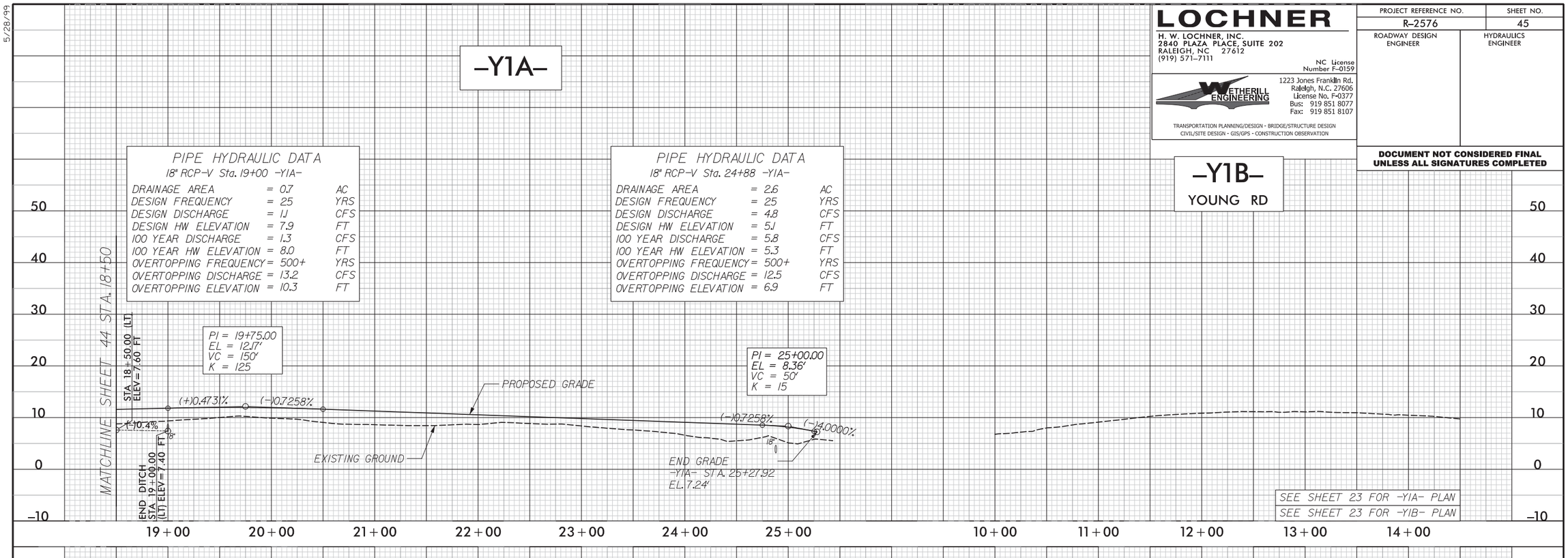
-Y1A-

PIPE HYDRAULIC DATA
18" RCP-V Sta. 19+00 -Y1A-

DRAINAGE AREA	= 0.7	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 1.1	CFS
DESIGN HW ELEVATION	= 7.9	FT
100 YEAR DISCHARGE	= 1.3	CFS
100 YEAR HW ELEVATION	= 8.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 13.2	CFS
OVERTOPPING ELEVATION	= 10.3	FT

PIPE HYDRAULIC DATA
18" RCP-V Sta. 24+88 -Y1A-

DRAINAGE AREA	= 2.6	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 4.8	CFS
DESIGN HW ELEVATION	= 5.1	FT
100 YEAR DISCHARGE	= 5.8	CFS
100 YEAR HW ELEVATION	= 5.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 12.5	CFS
OVERTOPPING ELEVATION	= 6.9	FT

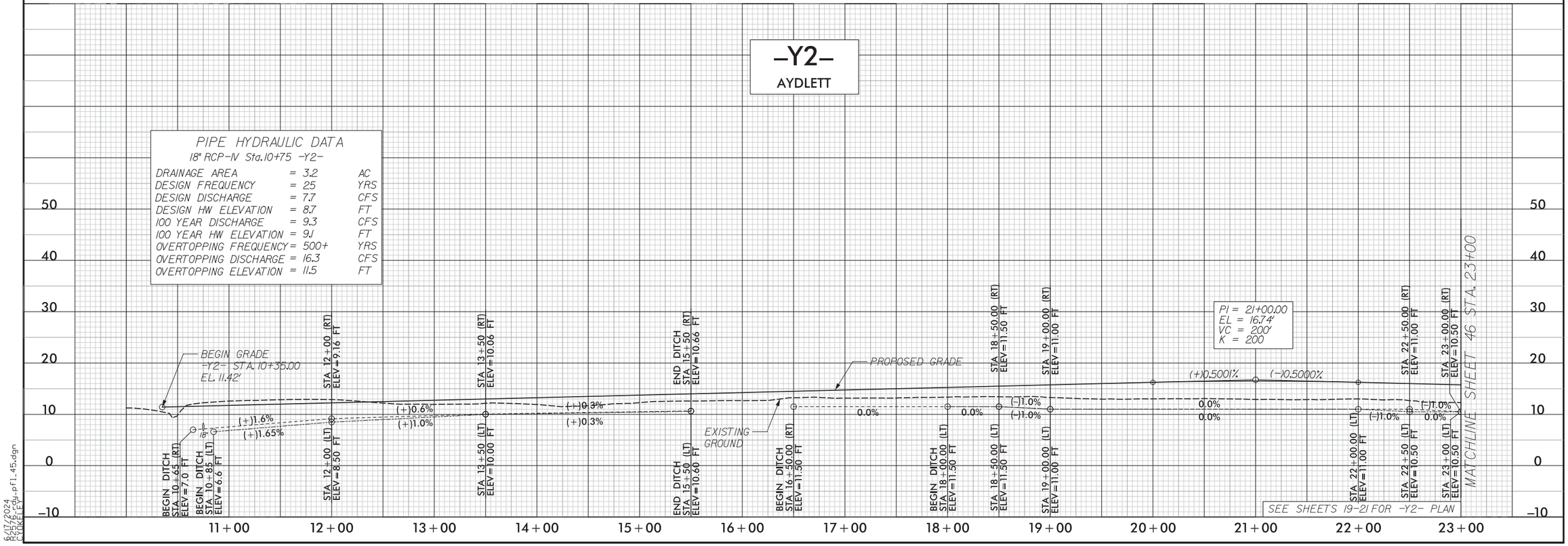


-Y1B-
YOUNG RD

-Y2-
AYDLETT

PIPE HYDRAULIC DATA
18" RCP-IV Sta. 10+75 -Y2-

DRAINAGE AREA	= 3.2	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 7.7	CFS
DESIGN HW ELEVATION	= 8.7	FT
100 YEAR DISCHARGE	= 9.3	CFS
100 YEAR HW ELEVATION	= 9.1	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 16.3	CFS
OVERTOPPING ELEVATION	= 11.5	FT



6/17/2024
R2576_rdy_pf1_45.dgn
C.TUCKER

5/28/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	46
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

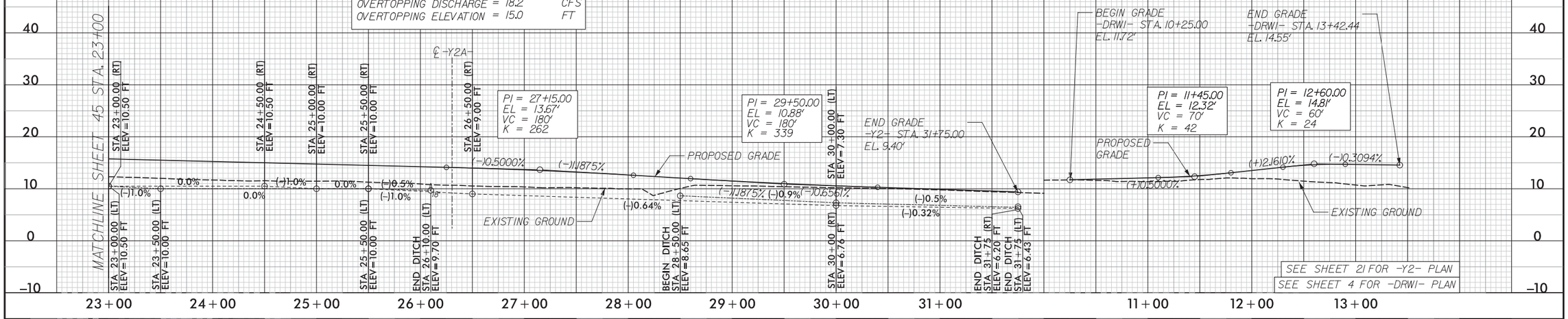
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y2-
AYDLETT

PIPE HYDRAULIC DATA
18" RCP-V Sta.26+10 -Y2-

DRAINAGE AREA	= 2.3	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 4.2	CFS
DESIGN HW ELEVATION	= 10.8	FT
100 YEAR DISCHARGE	= 5.1	CFS
100 YEAR HW ELEVATION	= 11.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 18.2	CFS
OVERTOPPING ELEVATION	= 15.0	FT

-DRW1-



-Y2A-

PIPE HYDRAULIC DATA
18" RCP-V Sta.11+04 -Y2A-

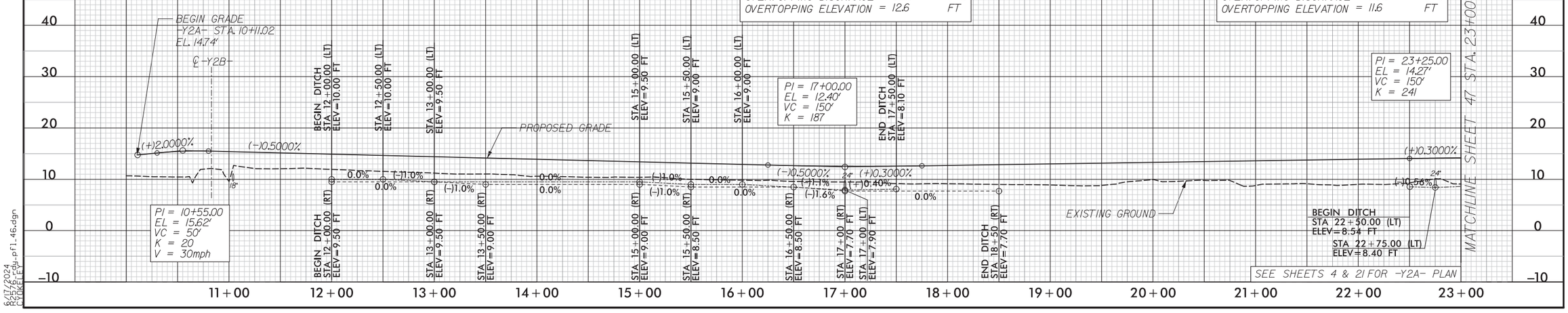
DRAINAGE AREA	= 0.16	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 0.6	CFS
DESIGN HW ELEVATION	= 10.3	FT
100 YEAR DISCHARGE	= 0.8	CFS
100 YEAR HW ELEVATION	= 10.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 2.3	CFS
OVERTOPPING ELEVATION	= 10.7	FT

PIPE HYDRAULIC DATA
24" RCP-V Sta.17+00 -Y2A-

DRAINAGE AREA	= 5.7	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 10.5	CFS
DESIGN HW ELEVATION	= 9.6	FT
100 YEAR DISCHARGE	= 14.1	CFS
100 YEAR HW ELEVATION	= 9.9	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 32.0	CFS
OVERTOPPING ELEVATION	= 12.6	FT

PIPE HYDRAULIC DATA
24" RCP-V Sta.22+75 -Y2A-

DRAINAGE AREA	= 4.0	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 10.6	CFS
DESIGN HW ELEVATION	= 10.1	FT
100 YEAR DISCHARGE	= 12.8	CFS
100 YEAR HW ELEVATION	= 10.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 23.0	CFS
OVERTOPPING ELEVATION	= 11.6	FT



6/17/2024
R2576_rdy_pf1_46.dgn
C.LOKEY

LOCHNER
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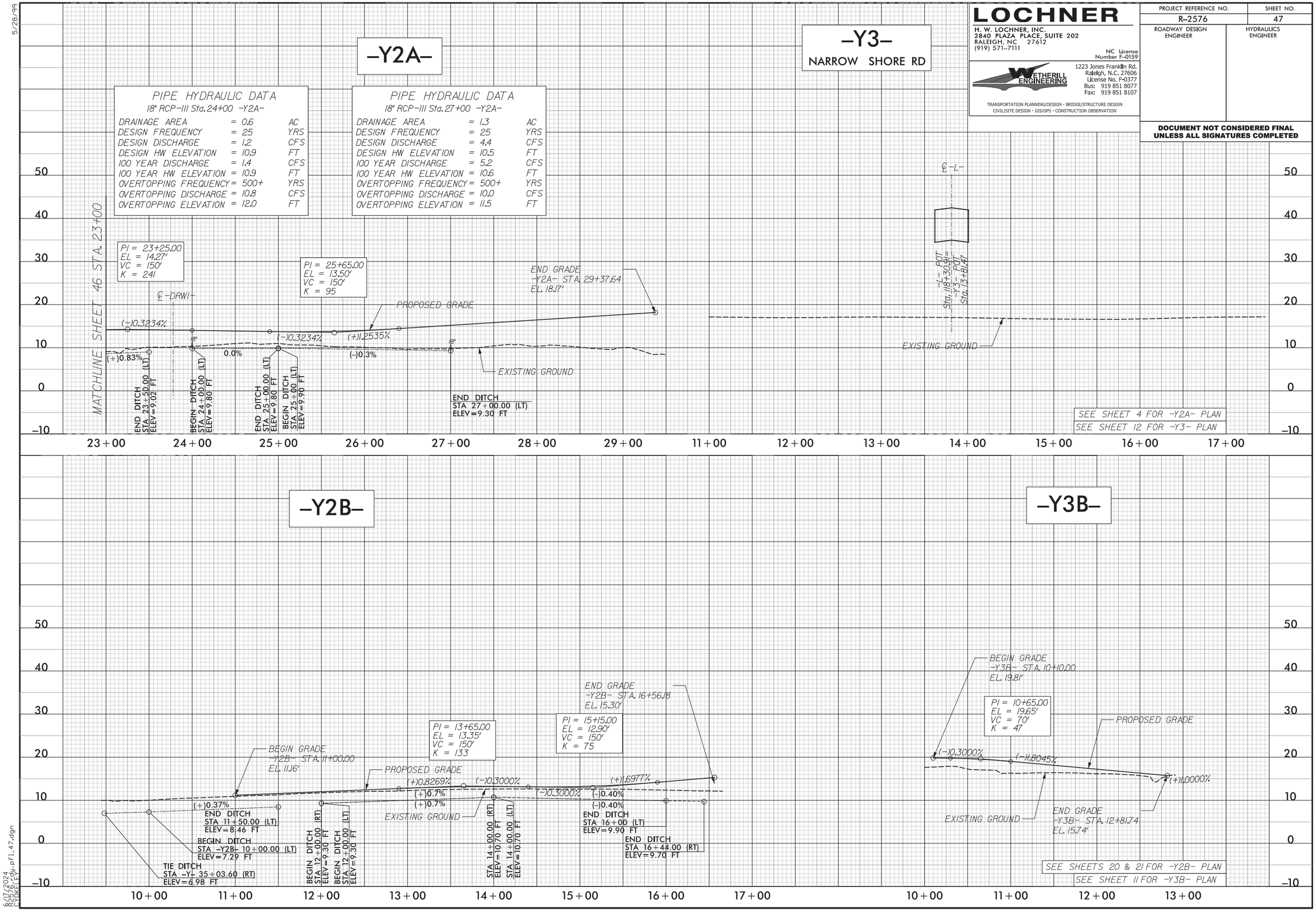
PROJECT REFERENCE NO.	SHEET NO.
R-2576	47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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R2576_rdy_pfl_47.dgn
CYOKELEY

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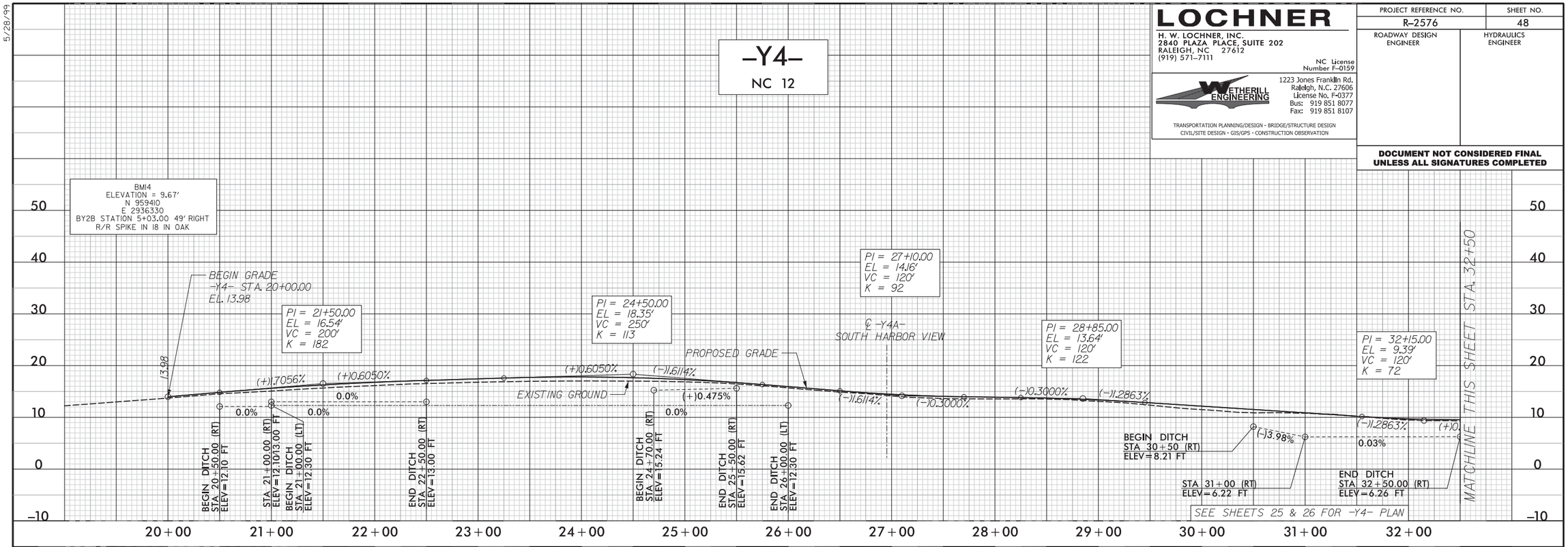
PROJECT REFERENCE NO.	SHEET NO.
R-2576	48
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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R2576_rdy_pfl_48.dgn
CYOKELEY

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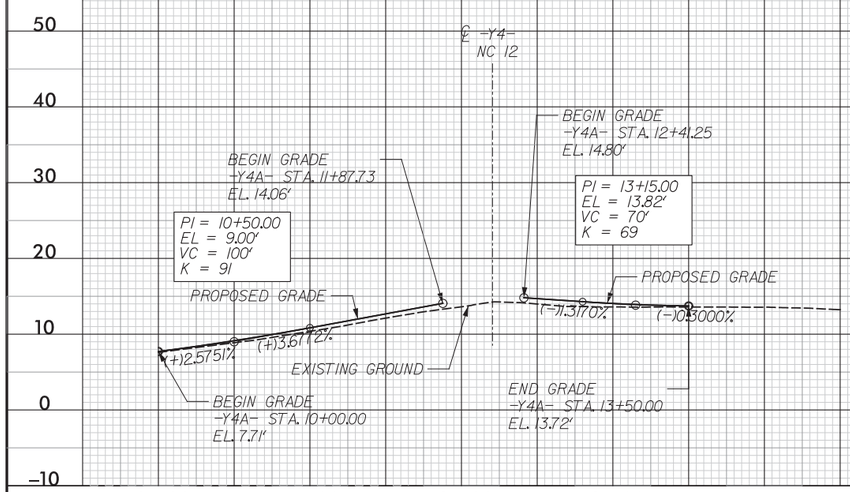
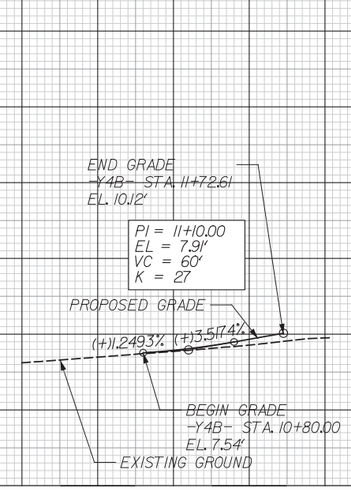
PROJECT REFERENCE NO.	SHEET NO.
R-2576	49
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y4A-
SOUTH HARBOR VIEW



-Y4B-
OCEAN FOREST CT



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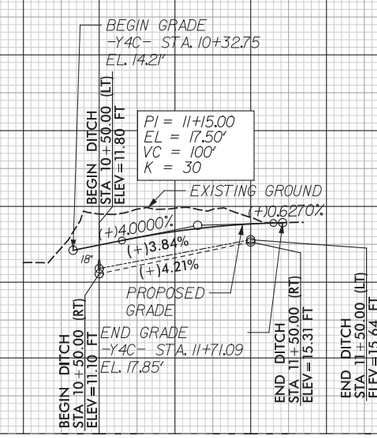


PIPE HYDRAULIC DATA
18" RCP-V Sta.10+50 -Y4C-

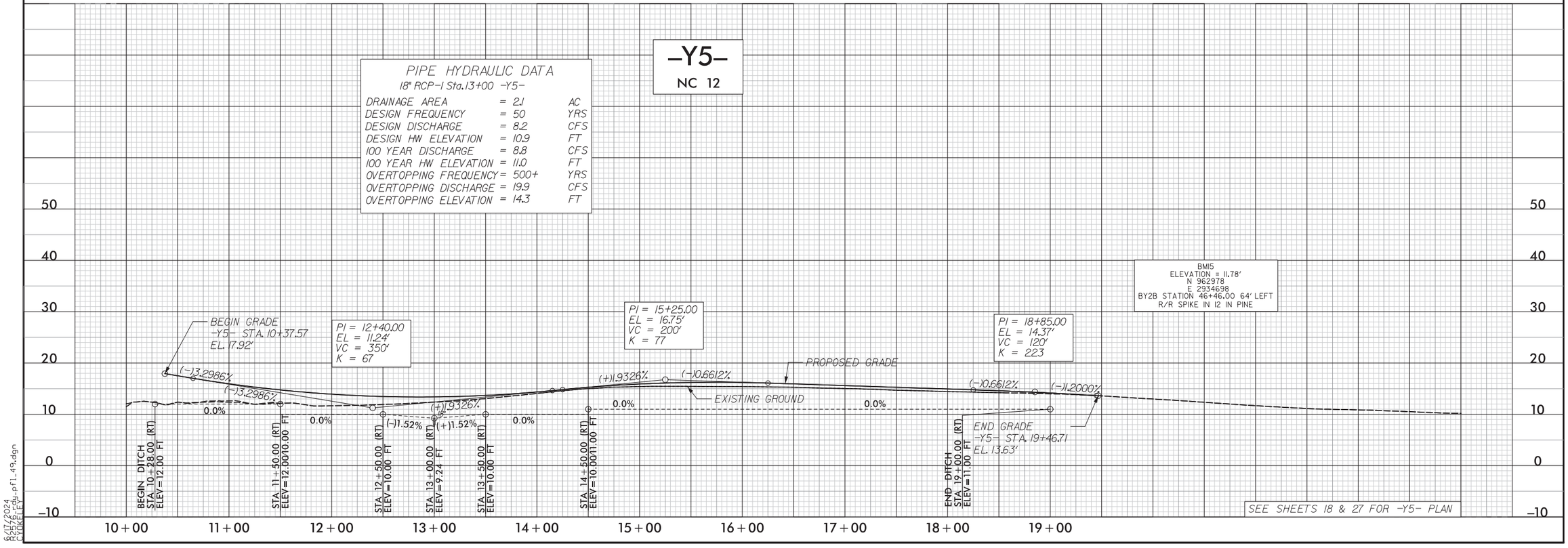
DRAINAGE AREA	= 0.3	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 0.8	CFS
DESIGN HW ELEVATION	= 12.2	FT
100 YEAR DISCHARGE	= 1.0	CFS
100 YEAR HW ELEVATION	= 12.3	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 13.5	CFS
OVERTOPPING ELEVATION	= 14.7	FT

SEE SHEET 25 FOR -Y4A- PLAN
SEE SHEET 26 FOR -Y4B- PLAN
SEE SHEET 18 FOR -Y4C- PLAN

-Y5-
NC 12

PIPE HYDRAULIC DATA
18" RCP-I Sta.13+00 -Y5-

DRAINAGE AREA	= 2.1	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 8.2	CFS
DESIGN HW ELEVATION	= 10.9	FT
100 YEAR DISCHARGE	= 8.8	CFS
100 YEAR HW ELEVATION	= 11.0	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 19.9	CFS
OVERTOPPING ELEVATION	= 14.3	FT



BM15
ELEVATION = 11.78'
N 962978
E 2934698
BY2B STATION 46+46.00 64' LEFT
R/R SPIKE IN 12 IN PINE

SEE SHEETS 18 & 27 FOR -Y5- PLAN

6/17/2024
R2576_rdy_pf1_49.dgn
C.WICKETT

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	50
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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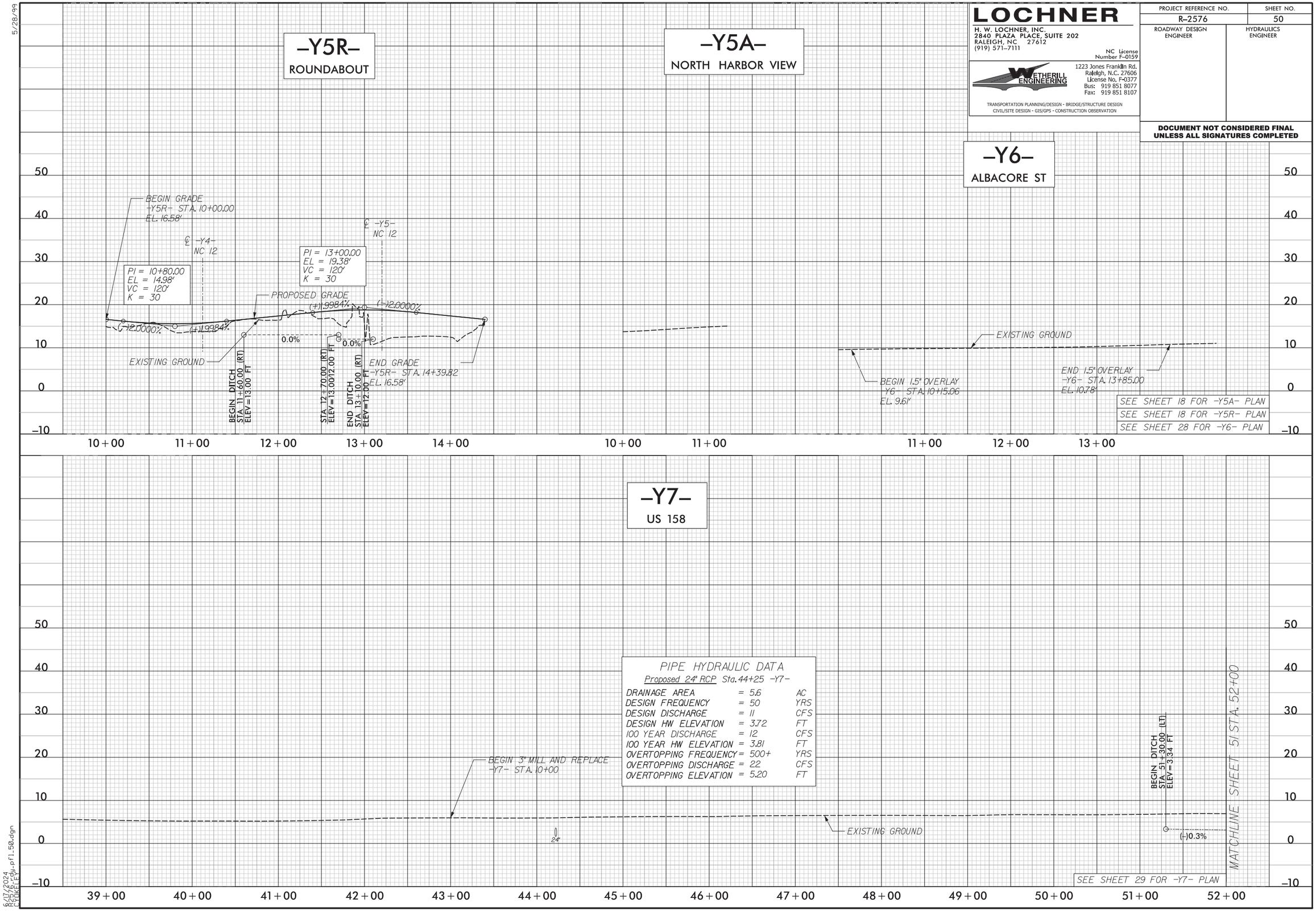

PIPE HYDRAULIC DATA

Proposed 24" RCP Sta. 44+25 -Y7-

DRAINAGE AREA	= 5.6	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 11	CFS
DESIGN HW ELEVATION	= 3.72	FT
100 YEAR DISCHARGE	= 12	CFS
100 YEAR HW ELEVATION	= 3.81	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 22	CFS
OVERTOPPING ELEVATION	= 5.20	FT

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CYOKELEY

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	51
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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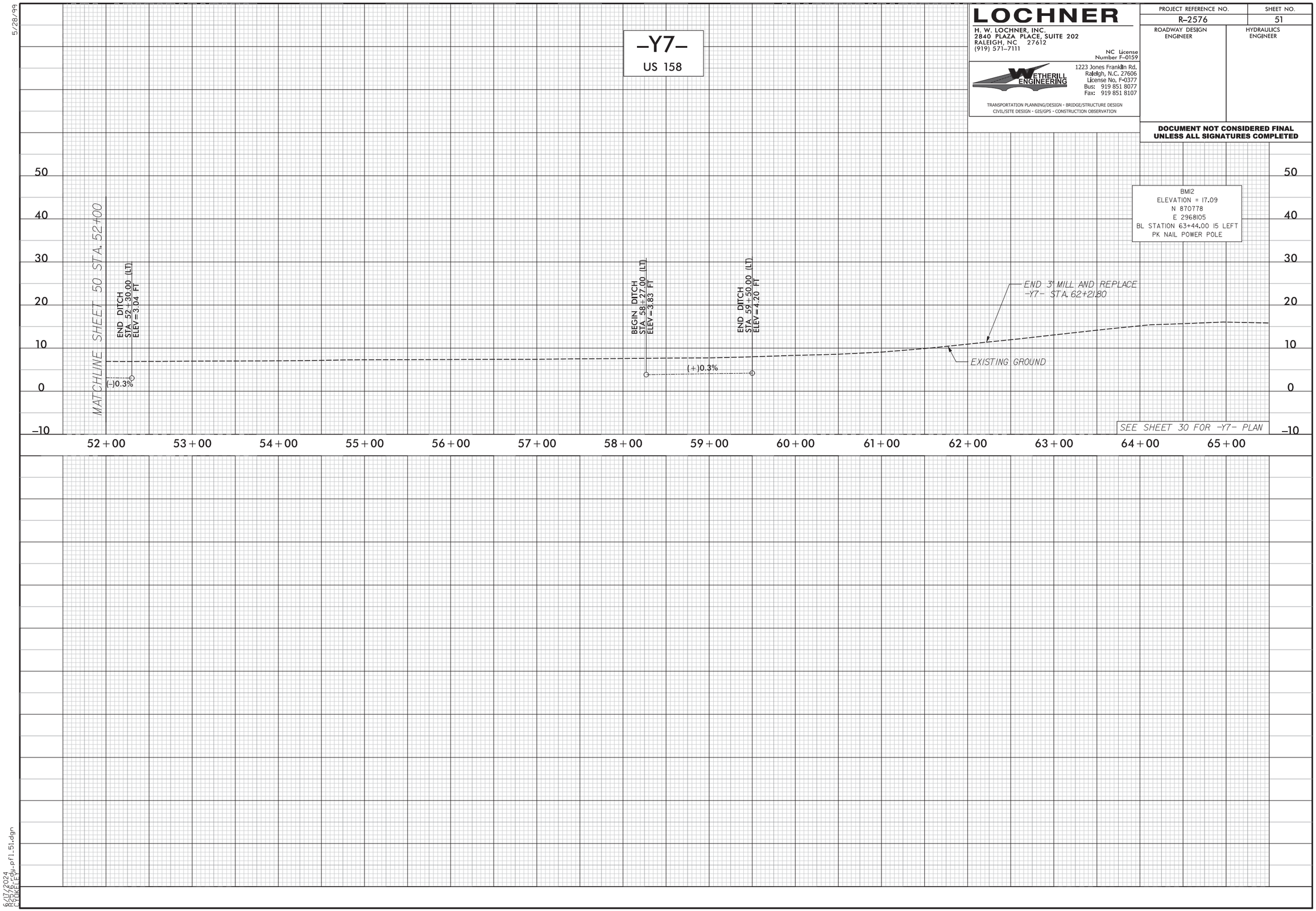


5/28/99

6/17/2024
R2576_rdy_pfl_51.dgn
CYOKELEY

Attachment 5:

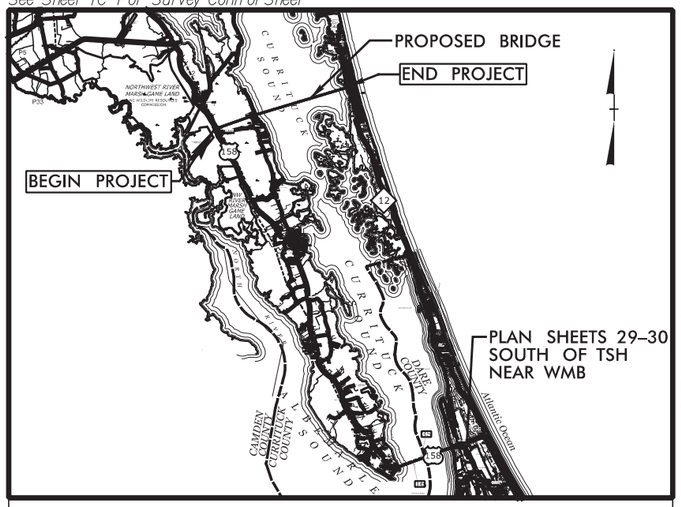
Wetland Utility Impacts Permit Drawings

09/08/99

TIP PROJECT: R-2576

CONTRACT:

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols
See Sheet 1C For Survey Control Sheet



VICINITY MAP

75% PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

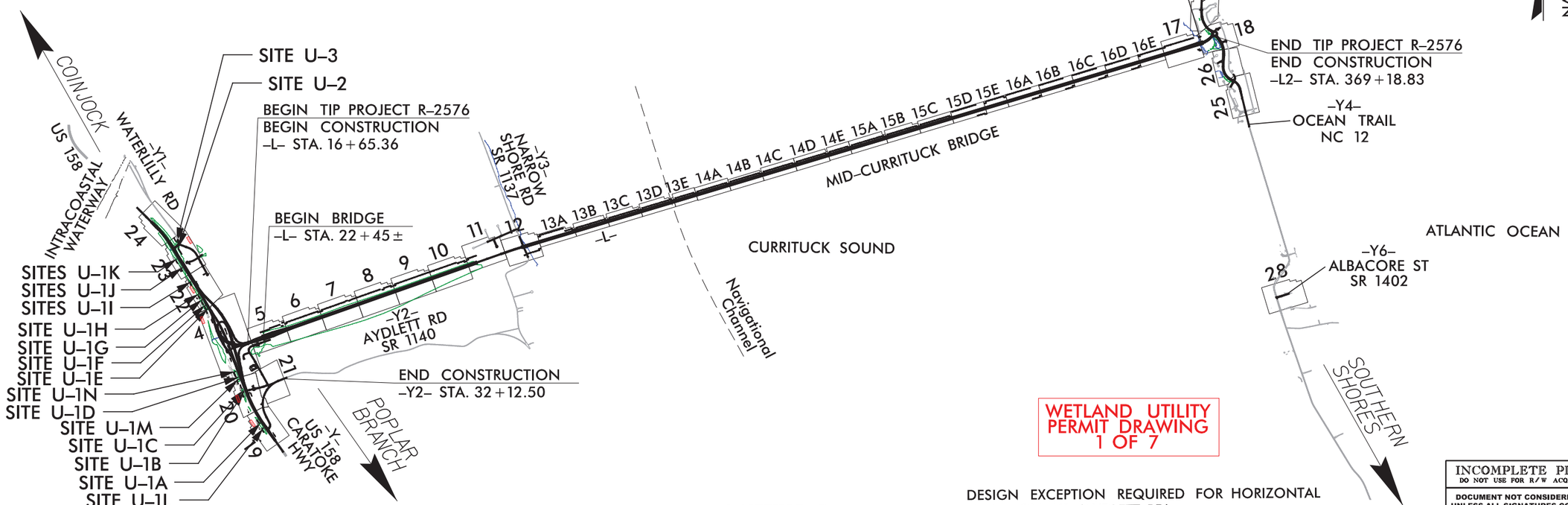
CURRITUCK & DARE COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2576	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34470.1.TA1	BRSTP-000(494)	P.E.

LOCATION: MID-CURRITUCK BRIDGE FROM US 158 SOUTH OF COINJOCK TO NC 12 SOUTH OF COROLLA

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



WETLAND UTILITY PERMIT DRAWING 1 OF 7

DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE ON Y2 (AYDLETT RD)

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2020 = 11,800
ADT 2040 = 18,000
K = 9 %
D = 60 %
T = 7 % *
V = 60 MPH
* (TTST=2)+(DUAL=1)+(RV=4)
FUNC CLASS = ARTERIAL STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2576	=0.524 Miles
LENGTH STRUCTURES	=6.153 Miles
TOTAL LENGTH TIP PROJECT R-2576	=6.677 Miles

PROJECT LEVEL TRAFFIC FORECAST (JUNE 2016) (SUMMER WEEKEND)

Prepared In the Office of:

LOCHNER
H. W. LOCHNER, INC.
2840 PLAZA PLACE, SUITE 202
RALEIGH, NC 27612
(919)571-7111
NC License Number F-0159

KETHERLL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FY 2026

LETTING DATE:
FY 2026

BRIAN K. EASON, PE
PROJECT ENGINEER

CHRISTINA L. YOKELEY, PE
PROJECT DESIGN ENGINEER

DENNIS JERNIGAN, PE
NCDOT /NCTA

HYDRAULICS ENGINEER
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
SIGNATURE: P.E.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2/5/2024
R2576_rdy_TSH.dgn
ACHOOD

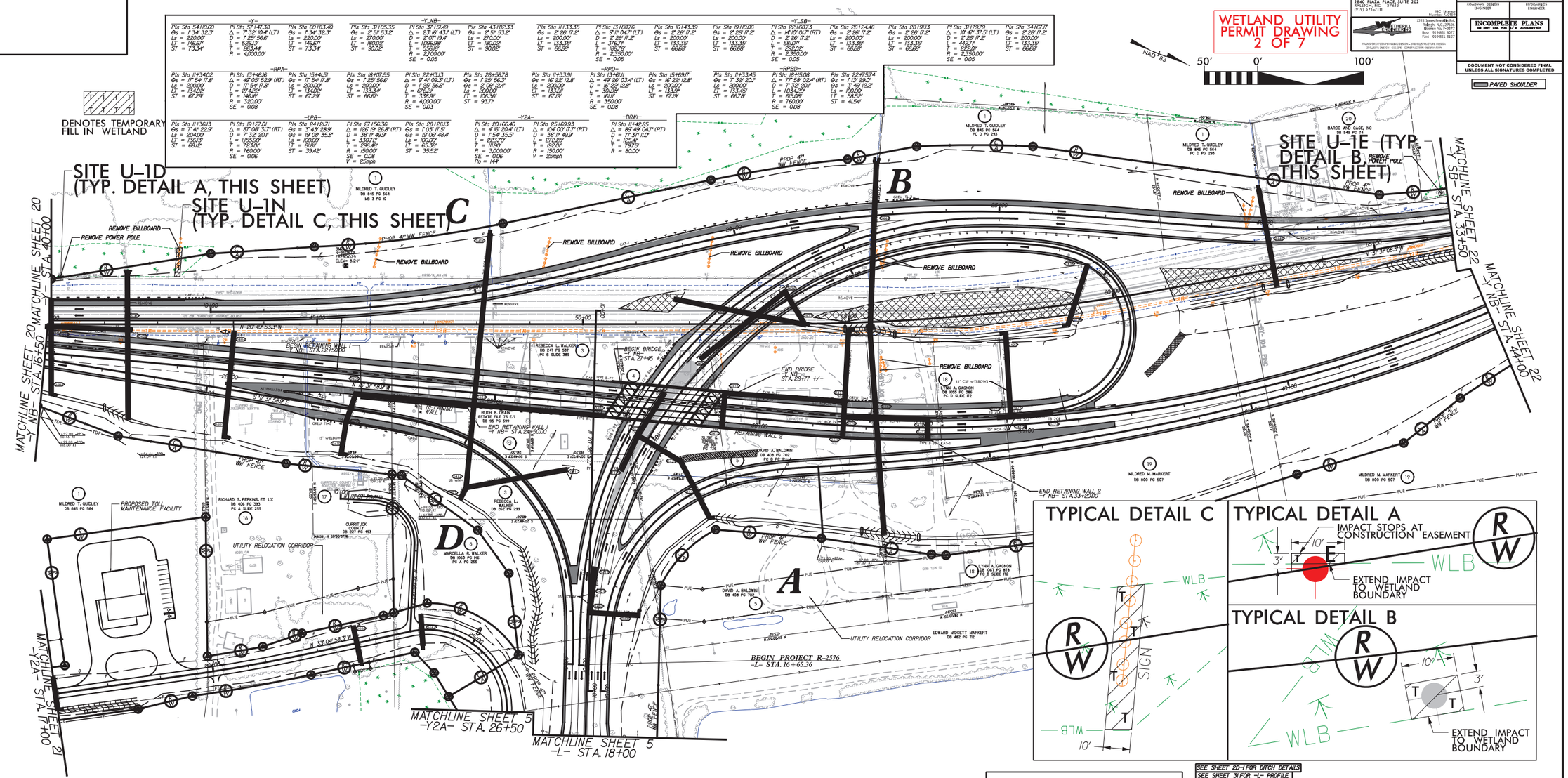
REVISIONS

-Y-			-Y_NB-			-Y_SB-					
PIs Sta 54+10.80 θs = 1° 34' 32.3" Ls = 220.00' LT = 146.67' ST = 73.34'	PI Sta 57+47.38 Δ = 7° 39' 10.4" (LT) D = 1° 25' 56.6" L = 526.13' T = 263.44' R = 4000.00'	PIs Sta 60+83.40 θs = 1° 34' 32.3" Ls = 220.00' LT = 146.67' ST = 73.34'	PIs Sta 31+05.35 θs = 0° 53.2" LT = 180.00' ST = 90.02'	PI Sta 37+15.49 Δ = 23° 16' 43.2" (LT) D = 2° 07' 19.4" L = 1,096.98' T = 556.61' R = 2,700.00' SE = 0.05	PIs Sta 43+82.33 θs = 0° 53.2" LT = 180.00' ST = 90.02'	PIs Sta 11+33.35 θs = 2° 28' 17.2" Ls = 200.00' LT = 133.35' ST = 66.68'	PI Sta 13+88.76 Δ = 17° 11' 04.7" (LT) D = 2° 28' 17.2" L = 376.71' T = 188.70' R = 2,350.00' SE = 0.05	PIs Sta 16+43.39 θs = 2° 28' 17.2" Ls = 200.00' LT = 133.35' ST = 66.68'	PIs Sta 19+10.06 θs = 2° 28' 17.2" Ls = 200.00' LT = 133.35' ST = 66.68'	PI Sta 22+68.73 Δ = 14° 01' 06.1" (RT) D = 2° 28' 17.2" L = 581.07' T = 292.02' R = 2,350.00' SE = 0.05	PIs Sta 26+24.46 θs = 2° 28' 17.2" Ls = 200.00' LT = 133.35' ST = 66.68'	PIs Sta 28+91.13 θs = 2° 28' 17.2" Ls = 200.00' LT = 133.35' ST = 66.68'	PI Sta 31+79.79 Δ = 10° 41' 37.5" (LT) D = 2° 28' 17.2" L = 448.71' T = 225.24' R = 2,350.00' SE = 0.05	PIs Sta 34+67.17 θs = 2° 28' 17.2" Ls = 200.00' LT = 133.35' ST = 66.68'

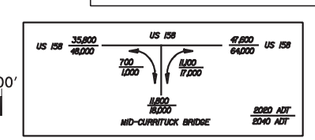
-RPA-			-RPB-			-RPD-			-RPBD-		
PIs Sta 11+34.02 θs = 17° 54' 17.8" Ls = 200.00' LT = 134.02' ST = 67.29'	PI Sta 13+46.28 Δ = 49° 05' 53.9" (RT) D = 11° 54' 17.8" L = 274.22' T = 146.16' R = 480.00' SE = 0.08	PIs Sta 15+44.51 θs = 17° 54' 17.8" Ls = 200.00' LT = 134.02' ST = 67.29'	PIs Sta 18+07.55 θs = 7° 25' 56.6" Ls = 200.00' LT = 133.34' ST = 66.67'	PIs Sta 22+13.13 Δ = 9° 41' 09.3" (LT) D = 7° 25' 56.6" L = 675.23' T = 338.38' R = 4,000.00' SE = 0.03	PIs Sta 26+56.78 θs = 7° 25' 56.3" Ls = 200.00' LT = 133.34' ST = 93.37'	PIs Sta 11+33.91 θs = 16° 22' 12.8" Ls = 200.00' LT = 133.91' ST = 67.19'	PIs Sta 13+61.11 Δ = 49° 26' 03.4" (LT) D = 16° 22' 12.8" L = 301.98' T = 160.11' R = 350.00' SE = 0.08	PIs Sta 15+69.17 θs = 16° 22' 12.8" Ls = 200.00' LT = 133.91' ST = 67.19'	PIs Sta 11+33.45 θs = 7° 32' 20.2" Ls = 200.00' LT = 133.45' ST = 66.74'	PIs Sta 18+15.08 Δ = 77° 58' 05.4" (RT) D = 7° 32' 20.1" L = 1,034.20' T = 615.28' R = 760.00' SE = 0.08	PIs Sta 22+75.74 θs = 7° 11' 29.0" θs = 3° 46' 18.2" Ls = 100.00' LT = 34.52' ST = 41.54'

-LPB-					-Y2A-			-DRM-	
PIs Sta 11+36.13 θs = 7° 41' 22.9" Ls = 204.00' LT = 136.01' ST = 68.12'	PIs Sta 19+27.01 Δ = 87° 08' 31.7" (RT) D = 7° 32' 20.1" L = 1,155.00' T = 723.10' R = 760.00' SE = 0.08	PIs Sta 24+21.71 θs = 3° 43' 28.9" θs = 19° 08' 13.8" Ls = 100.00' LT = 61.84' ST = 39.42'	PIs Sta 27+56.36 Δ = 108° 19' 26.8" (RT) D = 39° 11' 49.9" L = 330.72' T = 236.46' R = 150.00' SE = 0.08 V = 25mph	PIs Sta 28+26.13 θs = 7° 33' 17.5" θs = 19° 08' 48.4" Ls = 100.00' LT = 65.36' ST = 35.52'	PIs Sta 20+66.40 Δ = 4° 16' 20.4" (LT) D = 1° 54' 35.5" L = 223.70' T = 111.90' R = 3,000.00' SE = 0.06 Ro = 144'	PIs Sta 25+69.93 Δ = 104° 00' 17.7" (RT) D = 38° 11' 49.9" L = 272.28' T = 180.01' R = 150.00' V = 25mph		PIs Sta 11+42.85 Δ = 80° 49' 04.7" (RT) D = 71° 31' 11.0" L = 125.46' T = 73.73' R = 80.00'	

DENOTES TEMPORARY FILL IN WETLAND



100' 0' 100' 200'
50'



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE
SEE SHEET 39-40 FOR -Y_NB- PROFILE
SEE SHEET 41-42 FOR -LPB- PROFILE
SEE SHEET 42 FOR -RPBD- PROFILE
SEE SHEET 43 FOR -RPA- PROFILE
SEE SHEET 44 FOR -RPD- PROFILE
SEE SHEET 46-47 FOR -Y2A- PROFILE
SEE SHEET 48 FOR -DRM- PROFILE

LOCATION: MID CURRITUCK 34 mi AT US 158 bridge

TIP NO.: COUNTY:

DESIGNED BY:

CHECKED BY: DATE:

LOCHNER
HR W. LOCHNER, INC.
3840 FACON PLACE, SUITE 202
RALEIGH, NC 27612
(919) 571-2711
NC License Number C-0910

WETLAND UTILITY PERMIT DRAWING
2 OF 7

PROJECT REFERENCE NO.	SHEET NO.
R-2576	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVED SHOULDER

TRANSPORTATION PLANNING DIVISION • ROADWAY FEATURES DESIGN
STRUCTURE DESIGN • STUDIES • CERTIFICATION VERIFICATION

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Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN • BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2576	19
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

WETLAND UTILITY PERMIT DRAWING 3 OF 7

PAVED SHOULDER

50' 0' 100'

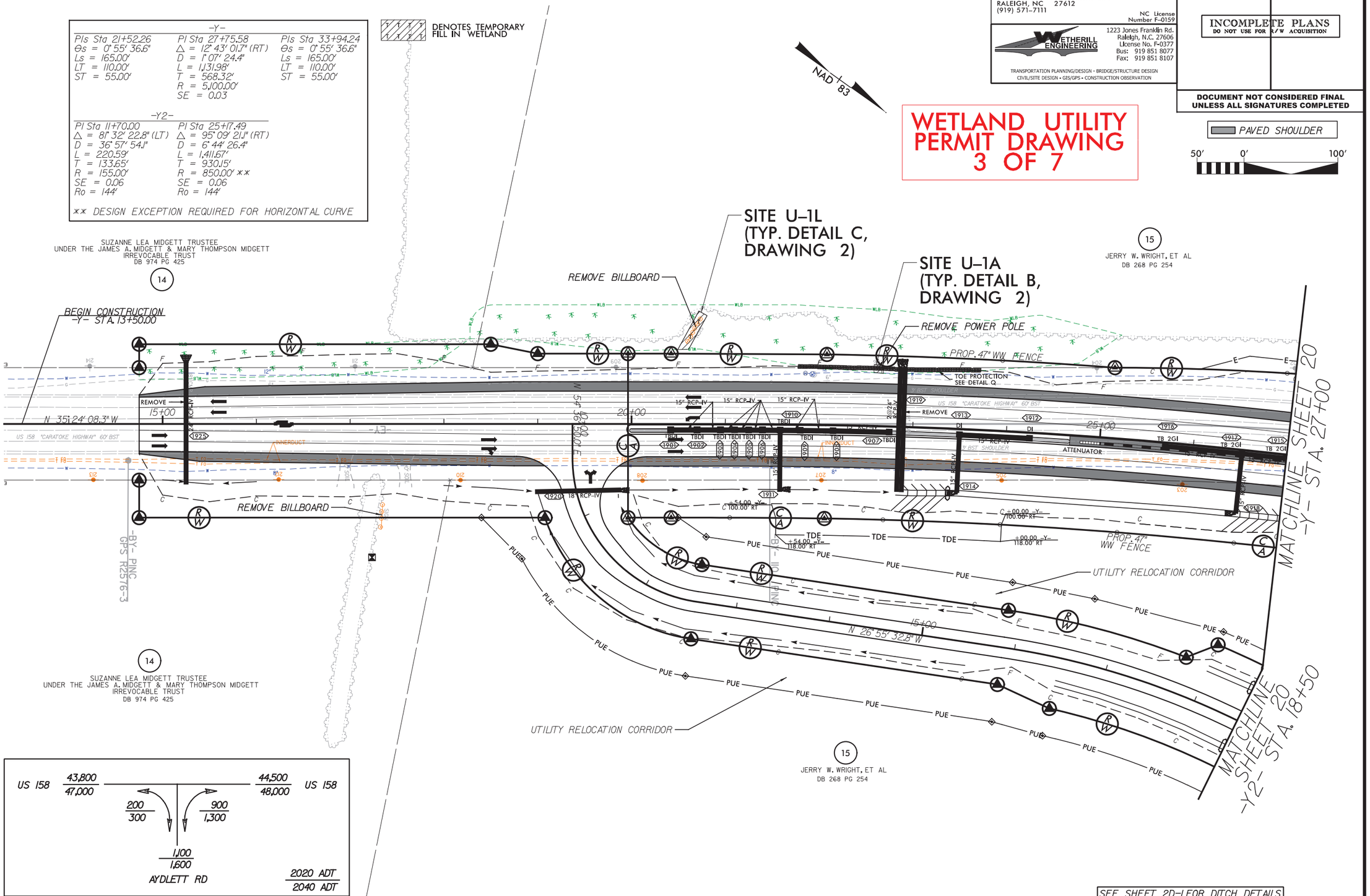
-Y-

PIs Sta 21+52.26	PI Sta 27+75.58	PIs Sta 33+94.24
Θs = 0° 55' 36.6"	Δ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y2-

PI Sta 11+70.00	PI Sta 25+17.49
Δ = 81° 32' 22.8" (LT)	Δ = 95° 09' 21.1" (RT)
D = 36° 57' 54.1"	D = 6° 44' 26.4"
L = 220.59'	L = 1,411.67'
T = 133.65'	T = 930.15'
R = 155.00'	R = 850.00' **
SE = 0.06	SE = 0.06
Ro = 144'	Ro = 144'

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 36 FOR -Y- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE

6/2/99
2/5/2024
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PROJECT REFERENCE NO.	SHEET NO.
R-2576	20
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

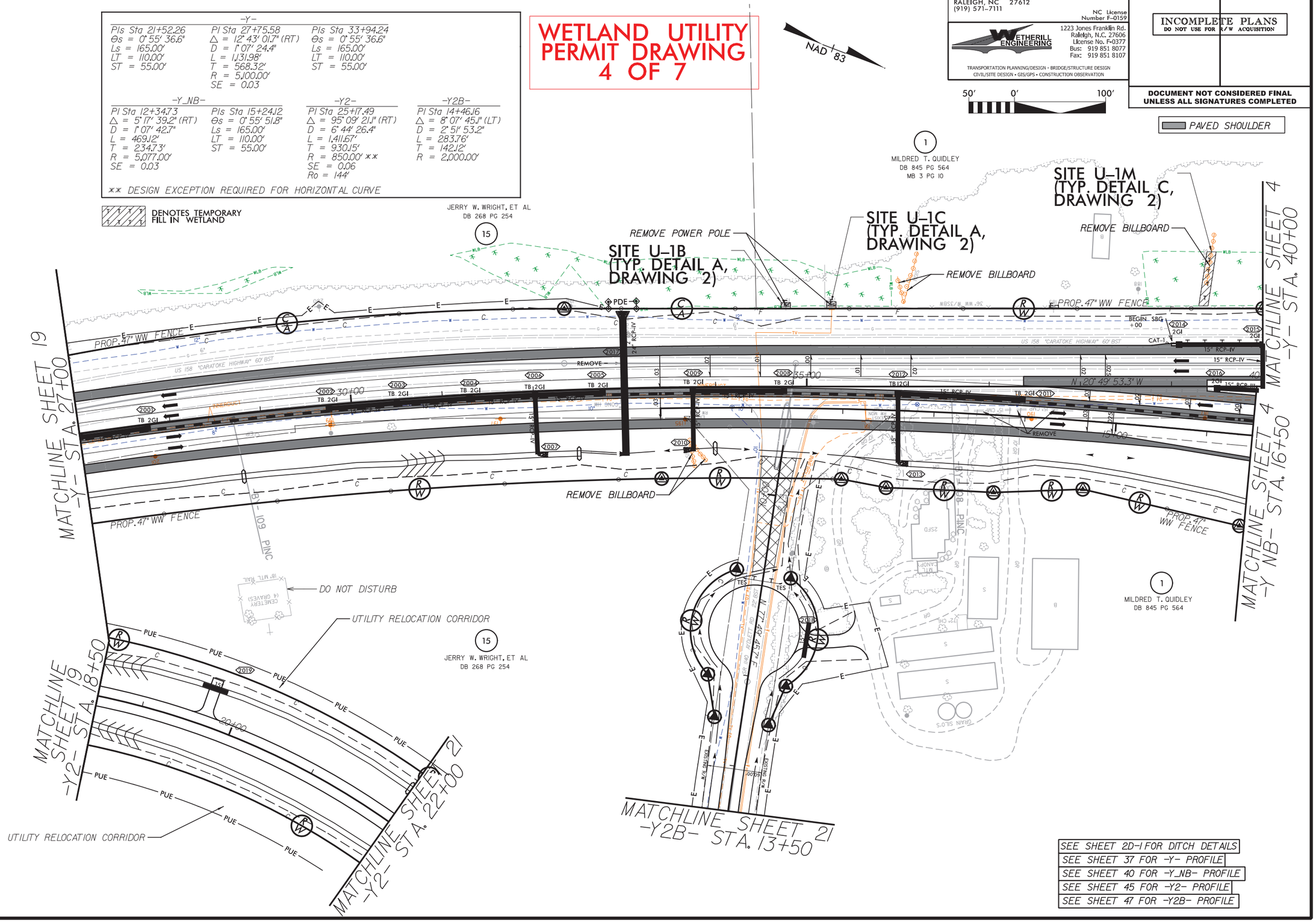
WETLAND UTILITY PERMIT DRAWING 4 OF 7

-Y-		
PIs Sta 21+52.26	PI Sta 27+75.58	PIs Sta 33+94.24
Θs = 0° 55' 36.6"	Δ = 12° 43' 01.7" (RT)	Θs = 0° 55' 36.6"
Ls = 165.00'	D = 1° 07' 24.4"	Ls = 165.00'
LT = 110.00'	L = 1,131.98'	LT = 110.00'
ST = 55.00'	T = 568.32'	ST = 55.00'
	R = 5,100.00'	
	SE = 0.03	

-Y_NB-		-Y2-	-Y2B-
PI Sta 12+34.73	PIs Sta 15+24.12	PI Sta 25+17.49	PI Sta 14+46.16
Δ = 5° 17' 39.2" (RT)	Θs = 0° 55' 51.8"	Δ = 95° 09' 21.1" (RT)	Δ = 8° 07' 45.1" (LT)
D = 1° 07' 42.7"	Ls = 165.00'	D = 6° 44' 26.4"	D = 2° 51' 53.2"
L = 469.12'	LT = 110.00'	L = 1,411.67'	L = 283.76'
T = 234.73'	ST = 55.00'	T = 930.15'	T = 142.12'
R = 5,077.00'		R = 850.00' **	R = 2,000.00'
SE = 0.03		SE = 0.06	
		Ro = 144'	

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE

DENOTES TEMPORARY FILL IN WETLAND



SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 37 FOR -Y- PROFILE
SEE SHEET 40 FOR -Y_NB- PROFILE
SEE SHEET 45 FOR -Y2- PROFILE
SEE SHEET 47 FOR -Y2B- PROFILE

6/2/99

2/5/2024
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6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2576	22
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
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CIVIL/SITE DESIGN • GIS/GPS • CONSTRUCTION OBSERVATION

50' 0' 100'

NAD 83

PAVED SHOULDER

-Y_NB-		
PIs Sta 47+22.32	PI Sta 49+89.44	PIs Sta 52+55.98
Θs = 2° 32' 47.3"	△ = 7° 55' 45.6" (RT)	Θs = 2° 32' 47.3"
Ls = 240.00'	D = 2° 07' 19.4"	Ls = 240.00'
LT = 160.02'	L = 373.66'	LT = 160.02'
ST = 80.02'	T = 187.13'	ST = 80.02'
	R = 2,700.00'	
	SE = 0.05	

DENOTES TEMPORARY FILL IN WETLAND

WETLAND UTILITY PERMIT DRAWING 5 OF 7

19 MILDRED M. MARKERT DB 800 PG 507

22 ROBERT G. YOUNG DB 159 PG 191 PC K SLIDE 191

24 MACON F. BROCK, ET UX DB 385 PG 433 PC D SLIDE 330

23 EARL A. MASON, ET UX DB 245 PG 476 DB 555 PG 855

SITE U-1F (TYP. DETAIL B, DRAWING 2)

SITE U-1G (TYP. DETAIL B, DRAWING 2)

SITE U-1H (TYP. DETAIL B, DRAWING 2)

SITE U-1I (TYP. DETAIL A, DRAWING 2)

MATCHLINE SHEET 4 -Y SB- STA. 33+50

MATCHLINE SHEET 4 -Y NB- STA. 44+00

MATCHLINE SHEET 23 -Y- STA. 80+00

MATCHLINE SHEET 23 -Y1A- STA. 13+50

REMOVE POWER POLE

PROP 47" WW FENCE

REMOVE

US 158 "CARATOKE HIGHWAY" 60' BST

N 31° 31' 08.3" W

18" RCP-II

15" RCP-IV

INNERDUCT

ATTENUATOR

REMOVE BILLBOARD

B-103 PINC

B-102 PINC

UTILITY RELOCATION CORRIDOR

PUE

+45.00 -Y NB- 437.00' RT

+24.00 -Y NB- 462.00' RT

BEGIN CONSTRUCTION -Y1A- STA. 10+06.00

+12.24 -Y1A- 30.00' LT

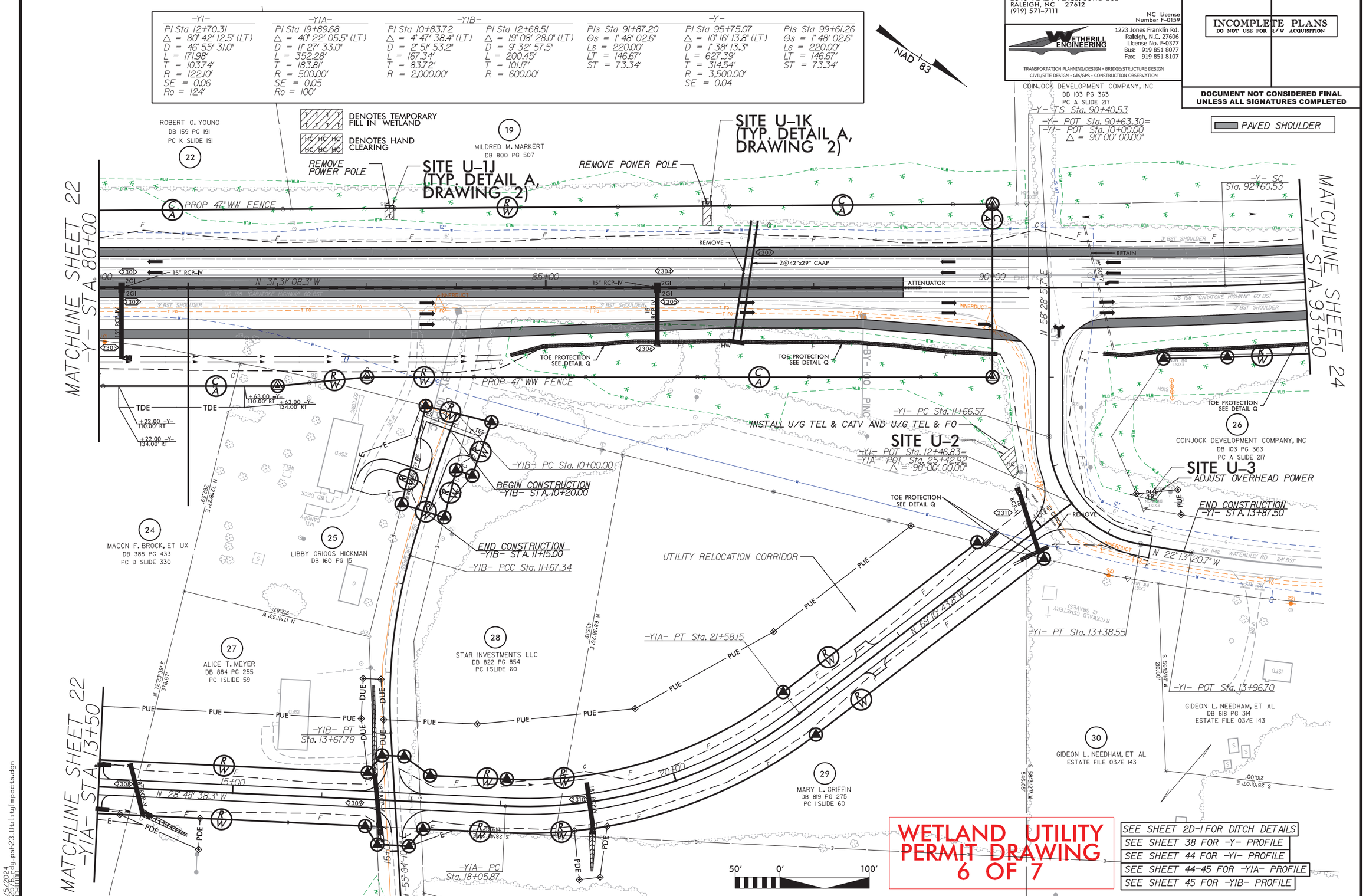
SPECIAL LATERAL V DITCH SEE DETAIL B

	SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 37-38 FOR -Y- PROFILE	SEE SHEET 40-41 FOR -Y_NB- PROFILE
SEE SHEET 39 FOR -Y_SB- PROFILE	SEE SHEET 44 FOR -Y1A- PROFILE

2/5/2024
R2576_rdu_psh22_Utilityimpacts.dgn
ahammond

6/2/99

-Y1-	-Y1A-	-Y1B-		-Y-	
PI Sta 12+70.31	PI Sta 19+89.68	PI Sta 10+83.72	PI Sta 12+68.51	PIs Sta 91+87.20	PI Sta 95+75.07	PIs Sta 99+61.26
△ = 80° 42' 12.5" (LT)	△ = 40° 22' 05.5" (LT)	△ = 4° 47' 38.4" (LT)	△ = 19° 08' 28.0" (LT)	Θs = 1° 48' 02.6"	△ = 10° 16' 13.8" (LT)	Θs = 1° 48' 02.6"
D = 46° 55' 31.0"	D = 11° 27' 33.0"	D = 2° 51' 53.2"	D = 9° 32' 57.5"	Ls = 220.00'	D = 1° 38' 13.3"	Ls = 220.00'
L = 171.98'	L = 352.28'	L = 167.34'	L = 200.45'	LT = 146.67'	L = 627.39'	LT = 146.67'
T = 103.74'	T = 183.81'	T = 83.72'	T = 101.17'	ST = 73.34'	T = 314.54'	ST = 73.34'
R = 122.10'	R = 500.00'	R = 2,000.00'	R = 600.00'		R = 3,500.00'	
SE = 0.06	SE = 0.05				SE = 0.04	
Ro = 124'	Ro = 100'					



WETLAND UTILITY PERMIT DRAWING 6 OF 7

SEE SHEET 2D-1 FOR DITCH DETAILS
SEE SHEET 38 FOR -Y- PROFILE
SEE SHEET 44 FOR -Y1- PROFILE
SEE SHEET 44-45 FOR -Y1A- PROFILE
SEE SHEET 45 FOR -Y1B- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-2576	23
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

2/5/2024
R2576_dy_psh23_Utilityimpacts.dgn
dethinh

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
U-1A	-Y- 34+72 to 34+82 LT			0.002								
U-1B	-Y- 34+72 to 34+82 LT			0.001								
U-1C	-Y- 35+22 to 35+32 LT			0.001								
U-1D	-Y- 40+13 to 40+23 LT			< 0.001								
U-1E	-Y- 66+37 to 66+47 LT			0.002								
U-1F	-Y- 67+85 to 67+95 LT			0.003								
U-1G	-Y- 70+11 to 70+21 LT			0.003								
U-1H	-Y- 72+43 to 72+53 LT			0.004								
U-1I	-Y- 77+44 to 77+54 LT			< 0.001								
U-1J	-Y- 83+20 to 83+30 LT			0.004								
U-1K	-Y- 86+76 to 86+86 LT			0.006								
U-1L	-Y- 20+49 to 20+81 LT			0.010								
U-1M	-Y- 39+30 to 39+49 LT			0.014								
U-1N	-Y- 42+32 to 42+47 LT			0.012								
2	-Y1- 11+75 to 12+01 RT						0.009					
3	-Y1- 13+03 to 13+53 RT						0.004					
TOTALS*:				0.062			0.013			0	0	0

*Rounded totals are sum of actual impacts

NOTES:

Site 1 includes the entire wetland along the Y line (US 158)

Site 1 assumes the use a 10' wide construction mat in wetlands to access power poles to be removed.

Site 1 assumes a 5' buffer for construction mats around billboards to be removed.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
2/5/2024
Currituck County
R-2576
34470.1.TA1

Revised 2018 Feb