MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY
JACKSON COUNTY
SECTIONS 22 AND 23, TOWNSHIP 48 NORTH, RANGE 32 WEST
CITY PROJECT NO. 89008226
FEDERAL PROJECT NO. STP-3337(411)
MODOT PROJECT NO. JKU0404

LEGEND

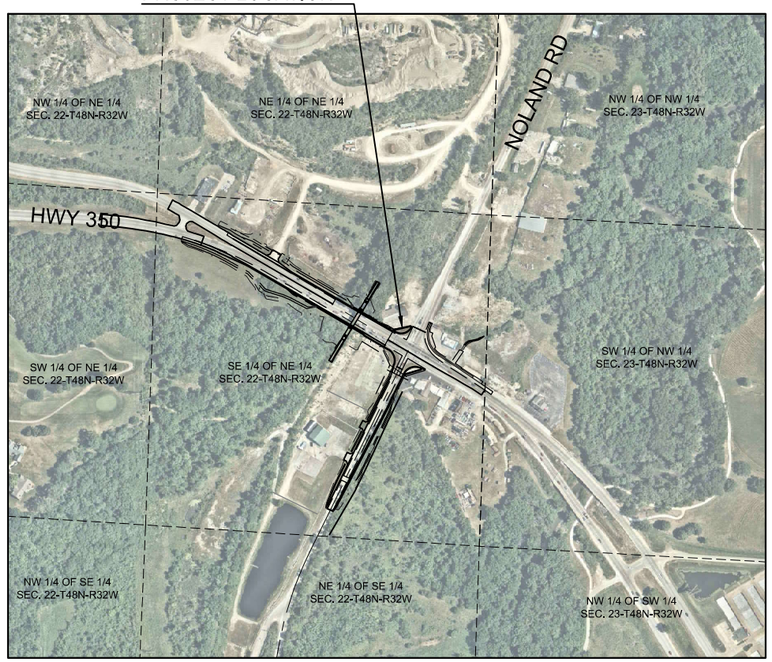
CTL	SURVEY CONTROL POINT		TRAFFIC SIGNAL BOX
	SURVEY BENCHMARK		TRAFFIC SIGNAL MANHOLE
TBM	SURVEY TEMPORARY BEMCHMARK		TRAFFIC SIGNAL POLE W/ ARM
GM	GAS METER		TRAFFIC SIGNAL POLE
GAR	GAS RISER		TRAFFIC SIGNAL CONTROL BOX
	GAS MANHOLE	TS	TRAFFIC SIGNAL PEDESTAL
GR	GAS REGULATOR		ELECTRIC MANHOLE
TVP	TELEVISION PEDESTAL	EM	ELECTRIC METER
	FIBER BOX	ER	ELECTRIC RISER
	FIBER PEDESTAL		ELECTRIC BOX
	CABLE BOX		ELECTRIC CABINET
CV	CABLE VAULT		ELECTRIC JUNCTION BOX
TP	TELEPHONE PEDESTAL	SPH	SPRINKLER HEAD
	STORM MANHOLE	SCV	SPRINKLER CONTROL VALVE
	STORM GRATE		WATER METER PIT
	SANITARY MANHOLE		FIRE HYDRANT
YL	YARD LIGHT	WM	WATER METER
LTP	LIGHT POLE	WV	WATER VALVE
	POWER POLE	FP	FLAG POLE
LPPP	POWER POLE W/ LIGHT		SIGN
	GUY WIRE		BOLLARD
BU	STUMP		WOOD POST
	BUSH		STEEL POST
	EVERGREEN TREE	COL	COLUMN
	DECIDUOUS TREE		BORE HOLE
			FLOW ARROW

	SECTION LINE
PL	PROPERTY LINE
	CENTER LINE
	PROPOSED ROW LINE
	EXISTING ROW LINE
	UTILITY EASEMENT
1371	EXISTING MAJOR CONTOUR
1371	EXISTING MINOR CONTOUR
1371	PROPOSED MAJOR CONTOUR
1371	PROPOSED MINOR CONTOUR
TEL	EXISTING TELEPHONE LINE
SS	EXISTING SANITARY LINE
	EXISTING STORM LINE
GAS GAS	EXISTING GAS LINE
W	EXISTING WATER LINE
	EXISTING CHAIN LINK FENCE
OHE	EXISTING OVERHEAD ELECTRIC
P	EXISTING PIPE LINE
	GRADING LIMITS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED CHAIN LINK FENCE
	PROPOSED WOOD PRIVACY FENCE
	EXISTING TREELINE

ABBREVIATION TABLE

M.G.	MATCH GRADE
P	PAVEMENT
TC	TOP OF CURB
BC	BACK OF CURB
EP	EDGE OF PAVEMENT
R/W	RIGHT-OF-WAY
D/E	DRAINAGE EASEMENT
S/E	SANITARY EASEMENT
S/W	SIDEWALK
TCE	TEMPORARY CONSTRUCTION EASEMENT
PROP.	PROPOSED
EXIST.	EXISTING
TYP.	TYPICAL
(R)	REMOVAL
TBM	TEMPORARY BENCMARK
C.P.	CONTROL POINT
D.N.D.	DO NOT DISTURB
U.I.P.	USE IN PLACE
ADJ.	ADJUST
EL.	ELEVATION
ESMT.	EASEMENT
SRV.	SURVEY
SHLD.	SHOULDER
HWY	HIGHWAY
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SHOULDER
S.L.	SLOPE LIMITS

PROJECT LOCATION



LOCATION MAP

NOT TO SCALE

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	TYPICAL SECTIONS (5 SHEETS)
3	SUMMARY OF QUANTITIES (7 SHEETS)
4	GENERAL LAYOUT
5-7	ALIGNMENT DATA & SURVEY CONTROL
8	GENERAL NOTES
9-13	RIGHT OF WAY & EASEMENTS
14-19	DEMOLITION & REMOVAL PLAN
20-25	PLAN & PROFILE
26	TRAIL PLAN & PROFILE
27	INTERSECTION LAYOUT
28-37	PAVING PLAN
38-39	DRIVEWAY LAYOUTS
40-43	DRAINAGE PLAN & PROFILES
44	GUARDRAIL & BARRIER LAYOUT
45-48	GRADING PLAN
49-63	EROSION CONTROL
64-66	STANDARD DETAILS
67-70	STREET LIGHTING PLANS
71-78	TRAFFIC SIGNAL PLANS
79-81	PAVEMENT MARKING & SIGNING PLANS
82-111	TEMPORARY TRAFFIC CONTROL PLANS
1-39	BRIDGE PLAN
1-35	CROSS SECTIONS

DESIGN VARIANCE:
- RIGHT-OF-WAY WIDTH DUE TO INTERSECTION FUNCTION IMPROVEMENTS ONLY.

	FULL DEPTH ASPHALT
	ASPHALT MILL AND OVERLAY
	ASPHALT DRIVEWAY
	FULL DEPTH CONCRETE
	CONCRETE MEDIAN STRIP
	GRAVEL SHOULDER

STREET CLASSIFICATION
HIGHWAY 350 = OTHER FREEWAY AND EXPRESSWAY
NOLAND ROAD = PARKWAY (EXCEPTION TO MINOR ARTERIAL)

TRAFFIC VOLUMES
HIGHWAY 350
AADT (2022) = 18445 (WB) & 18290 (EB)

NOLAND ROAD
AADT (2022) = 922 (NB) & 975 (SB)

DESIGN SPEED
HIGHWAY 350
V (POSTED) = 45 MPH
V (DESIGN) = 45 MPH
NOLAND ROAD
V (POSTED) = 35 MPH
V (DESIGN) = 40 MPH

LENGTH OF PROJECT
HIGHWAY 350
BEGINNING OF PROJECT = 197+11.81 (EB)
END OF PROJECT = 114+19.73 (WB)
PROJECT LENGTH = 0.32 MI
NOLAND ROAD
BEGINNING OF PROJECT = 303+70.65
END OF PROJECT = 312+10.92
PROJECT LENGTH = 0.16 MI

MISSOURI ONE CALL SYSTEM
1-800-DIG-RITE or 811
www.mo1call.com

THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!

UTILITY EMERGENCY CONTACTS DURING CONSTRUCTION

AT&T – DISTRIBUTION
ATTN: SHAN JARMAN
2121 EAST 63RD STREET
KANSAS CITY, MO 64160
sj3085@att.com
816-944-9428

LUMEN
ATTN: RICHARD REDEL
1212 E 19TH STREET
KANSAS CITY, MO 64106
richard.redel@lumen.com
816-518-28004

SPECTRUM
ATTN: BEATRICE BERNAL
8221 W 119TH STREET
OVERLAND PARK, KS 66213
beatrice.bernal@charter.com
816-222-5449

GOOGLE FIBER
ATTN: LAUREN MARCUCCI
4049 PENNSYLVANIA AVENUE, SUITE 300
KANSAS CITY, MO 64111
lmarcucci@google.com
913-663-1900

EVERGY (KANSAS CITY POWER & LIGHT)
ATTN: MARK PEARSON
8325 N PLATTE PURCHASE DR
KANSAS CITY, MO 64118
mark.pearson@evergy.com
816-347-4335

KC WATER SERVICES, SANITARY SEWER
ATTN: KARINE PAPIKIAN
4800 E. 63RD STREET
KANSAS CITY, MO 64130
karine.papikian@kcmo.org
816-513-0300

KC WATER SERVICES, WATER
ATTN: MELANIE JOLLETT
4800 E. 63RD STREET
KANSAS CITY, MO 64130
melanie.jollett@kcmo.org
816-513-0154

CITY OF KANSAS CITY – ENGINEERING DIVISION
ATTN: NIC BOSONETTO
CITY HALL, 414 E. 12TH STREET, 18TH FLOOR
KANSAS CITY, MO 64104
nicolas.bosonetto@kcmo.org
816-639-1416

CITY OF KANSAS CITY – POLICE DEPARTMENT
ATTN: STACEY GRAVES
1125 LOCUST STREET
KANSAS CITY, MO 64106
816-234-5000

CITY OF KANSAS CITY – FIRE DEPARTMENT
ATTN: ROSS GUNDYSON
635 WOODLAND AVE. SUITE 2100
KANSAS CITY, MO 64106
816-784-9200

VERIZON (MCI)
ATTN: JOE BULLIMORE
10740 NALL AVENUE, SUITE 400
OVERLAND PARK, KS 66211
joseph.bullimore@verizon.com
913-609-1024

THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION

PREPARED & SUBMITTED BY:

OLSSON
1301 BURLINGTON STREET
NORTH KANSAS CITY, MO 64116

JAMES P. GALLAGHER — DATE: 5/21/2025

I CERTIFY THESE PLANS WERE PREPARED BY ME OR UNDER MY IMMEDIATE PERSONAL SUPERVISION.

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Missouri Certificate of Authority #001592
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www.olsson.com

Digitally signed by James Gallagher
Date: 2025.05.21 14:21:16-05'00'

STATE OF MISSOURI — JAMES PATRICK GALLAGHER — NUMBER PE-2018010499 — PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TITLE SHEET

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T TTL 22374
DATE PREPARED:	5/21/2025

SHEET 1

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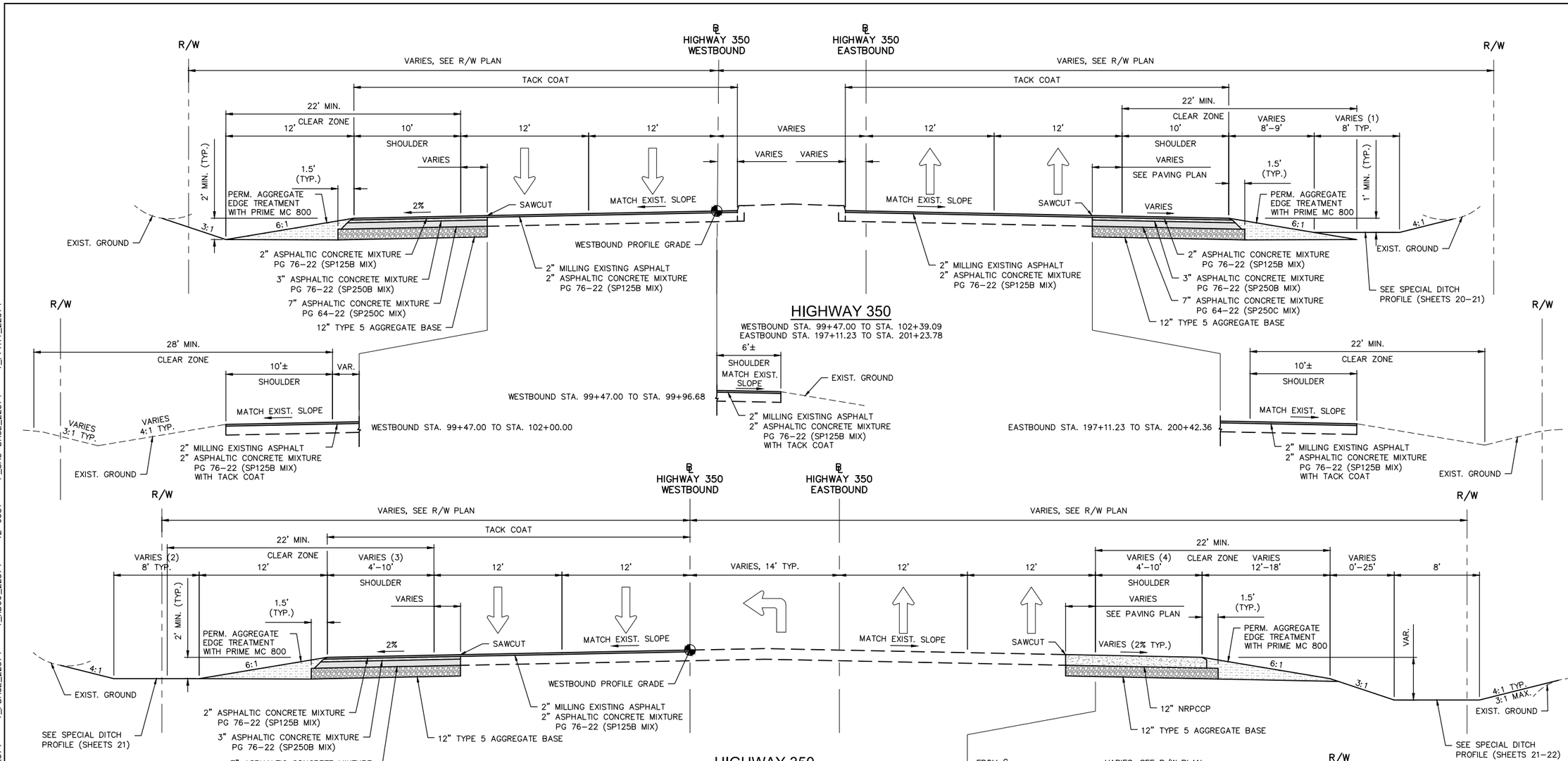
USER: jgallagher



ASPHALT FACTORS	
MATERIAL	TONS/C.Y.
SP125B PG 76-22	1.927
SP250B PG 76-22	1.946
SP250C PG 64-22	1.946
BITUMINOUS PAVEMENT MIX PG64-22 (BP-1)	1.948
BITUMINOUS PAVEMENT MIX PG64-22 (BASE)	1.943

TACK COAT APPLICATION RATE
0.10 GAL/SY (ALL LAYERS)

PERMANENT AGGREGATE EDGE TREATMENT
1.40 TONS/CY

NOTE:
SEE STANDARD PLAN 401.00 FOR SAFETY EDGE DETAILS.

NOTES:
(1) SHOULDER WIDTH VARIES FROM 0' TO 8' FROM STATION 200+42.57 TO STATION 200+75.00, RESPECTIVELY.
(2) V-DITCH FROM STATION 102+39.09 TO STATION 102+55.00. DITCH WIDTH VARIES FROM 0' TO 8' FROM STATION 102+55.00 TO STATION 103+00.00, RESPECTIVELY.
(3) SHOULDER WIDTH VARIES FROM 10' TO 4' FROM STATION 104+33.74 TO STATION 104+93.74, RESPECTIVELY.
(4) SHOULDER WIDTH VARIES FROM 10' TO 4' FROM STATION 102+04.00 TO STATION 103+31.22, RESPECTIVELY.
(5) DITCH WIDTH VARIES FROM 8' TO 0' FROM STATION 106+20.00 TO STATION 106+47.42, RESPECTIVELY.

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JAMES P. GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TYPICAL SECTIONS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TYP_22374
DATE PREPARED: 4/28/2025

TYPICAL SECTIONS
SHEET 1 OF 5

SHEET 2

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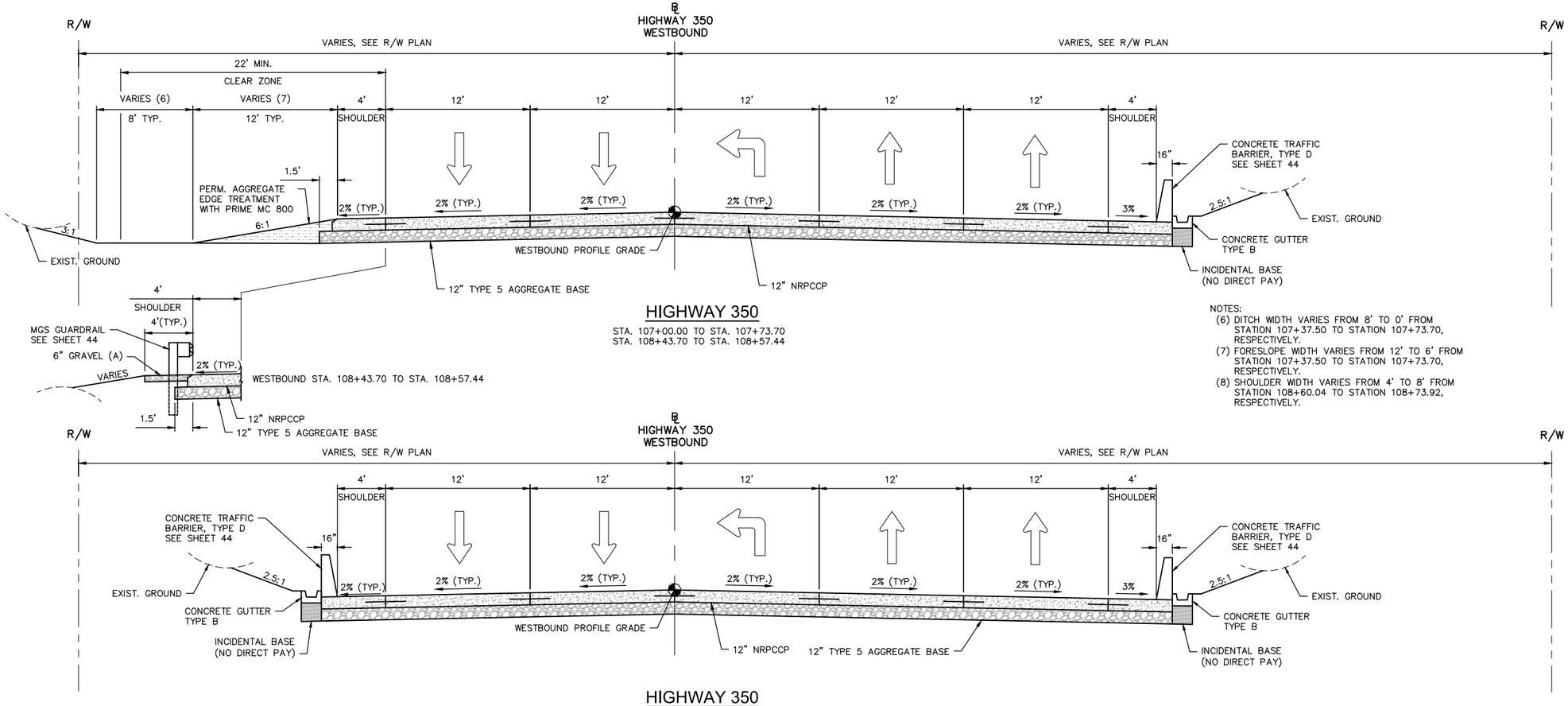


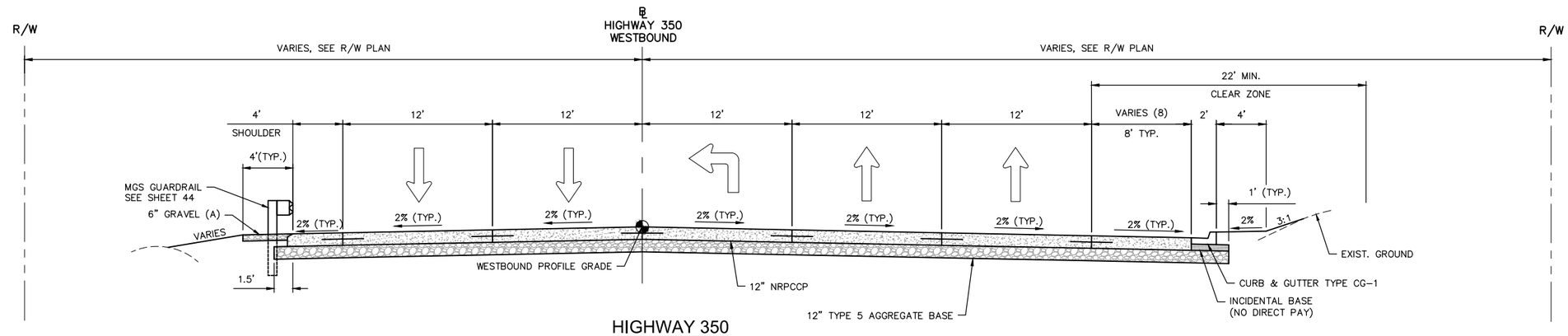
HIGHWAY 350

STA. 107+00.00 TO STA. 107+73.70
STA. 108+43.70 TO STA. 108+57.44

NOTES:
(6) DITCH WIDTH VARIES FROM 8' TO 0' FROM STATION 107+37.50 TO STATION 107+73.70, RESPECTIVELY.
(7) FORESLOPE WIDTH VARIES FROM 12' TO 6' FROM STATION 107+37.50 TO STATION 107+73.70, RESPECTIVELY.
(8) SHOULDER WIDTH VARIES FROM 4' TO 8' FROM STATION 108+60.04 TO STATION 108+73.92, RESPECTIVELY.

HIGHWAY 350

STA. 107+73.70 TO STA. 108+43.70



HIGHWAY 350

STA. 108+57.44 TO STA. 109+60.00

TYPICAL SECTIONS
SHEET 2 OF 5

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JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TYPICAL SECTIONS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TYP_22374
DATE PREPARED: 4/28/2025

SHEET 2

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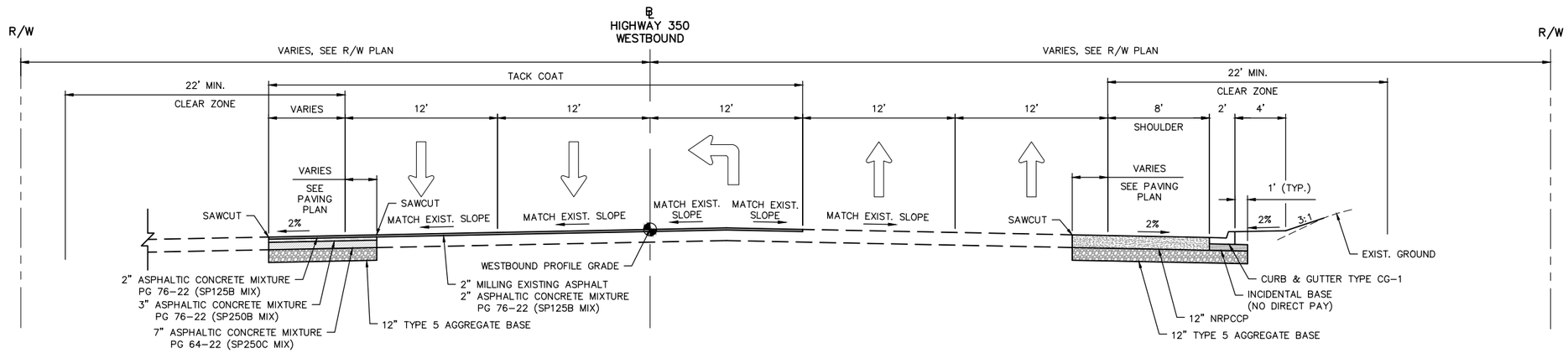
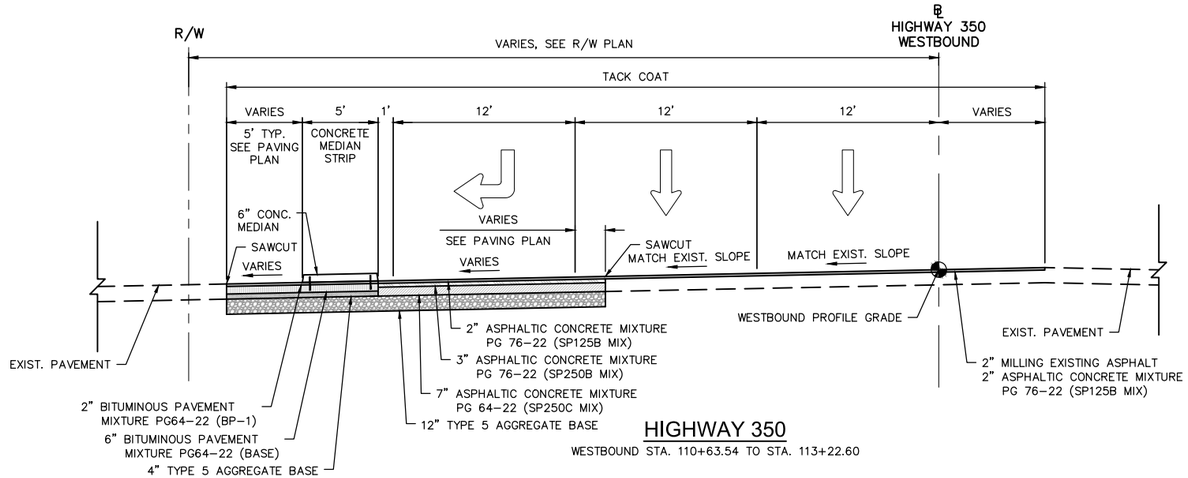
12-058T F_SAS-BASE_22374 T_PPAIT_22374



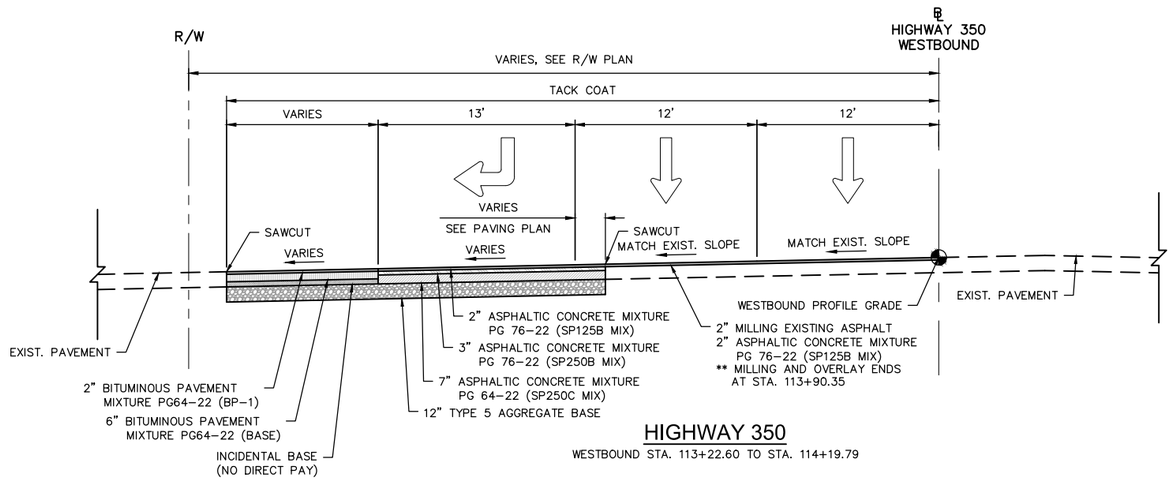
HIGHWAY 350

WESTBOUND STA. 109+60.00 TO STA. 110+63.54



HIGHWAY 350

WESTBOUND STA. 110+63.54 TO STA. 113+22.60



HIGHWAY 350

WESTBOUND STA. 113+22.60 TO STA. 114+19.79

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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TYPICAL SECTIONS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TYP_22374
DATE PREPARED: 4/28/2025

SHEET 2

TYPICAL SECTIONS
SHEET 3 OF 5

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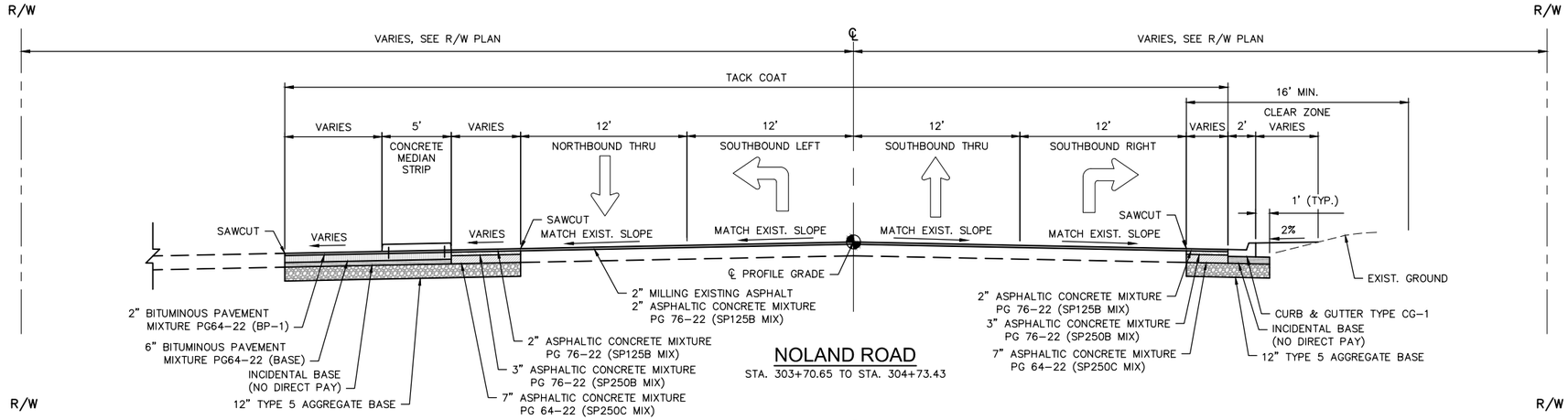
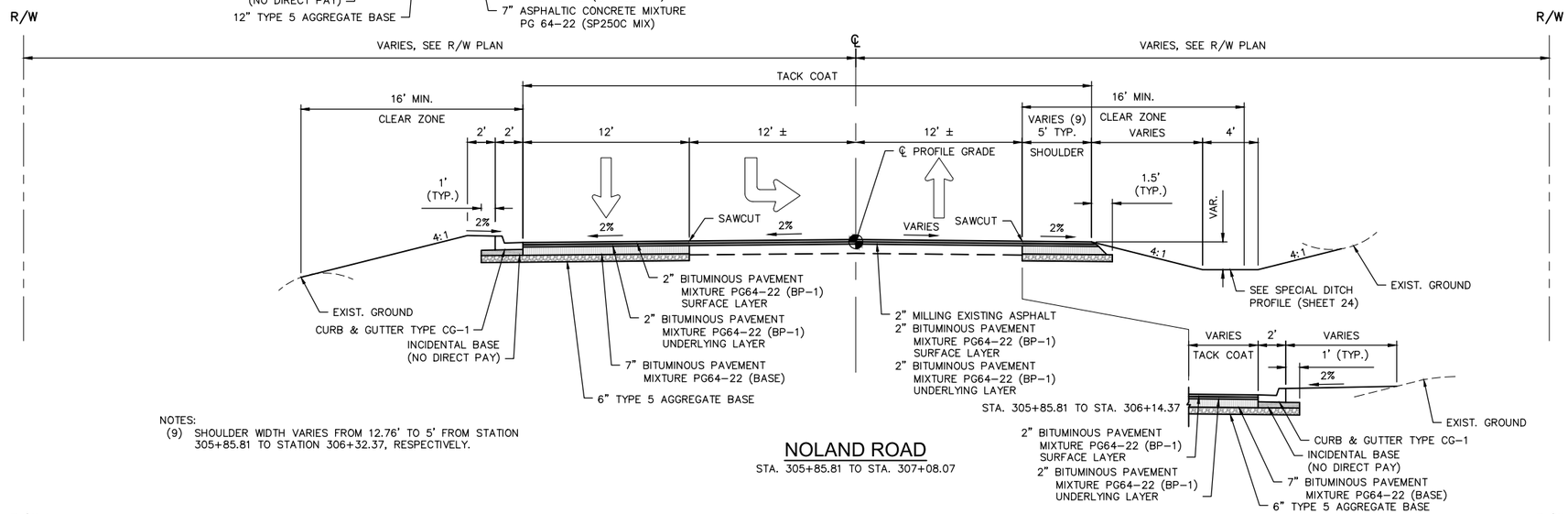


NOLAND ROAD

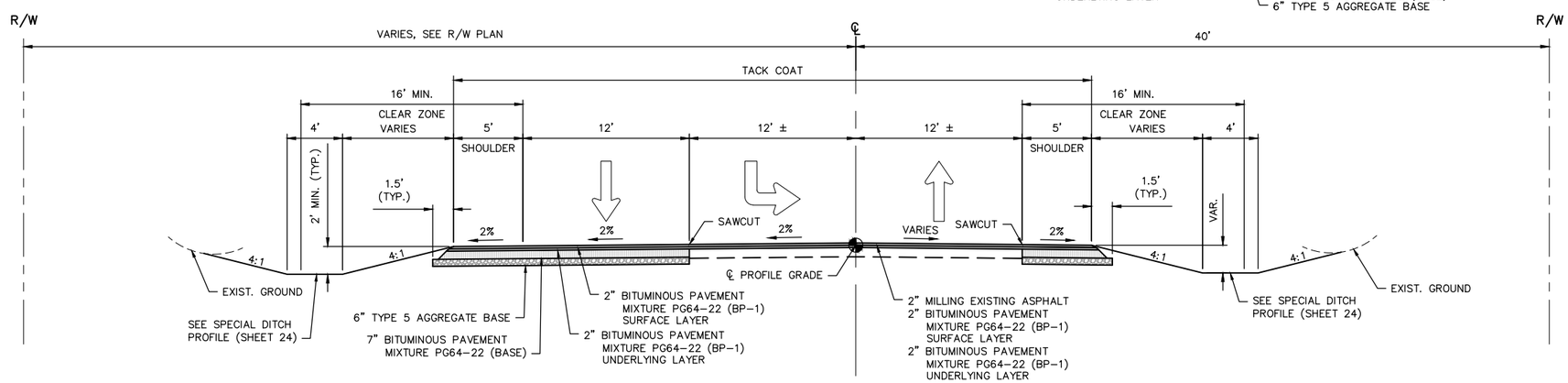
STA. 303+70.65 TO STA. 304+73.43



NOTES:
(9) SHOULDER WIDTH VARIES FROM 12.76' TO 5' FROM STATION 305+85.81 TO STATION 306+32.37, RESPECTIVELY.

NOLAND ROAD

STA. 305+85.81 TO STA. 307+08.07



NOLAND ROAD

STA. 307+08.07 TO STA. 307+43.32

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JAMES P. GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TYPICAL SECTIONS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

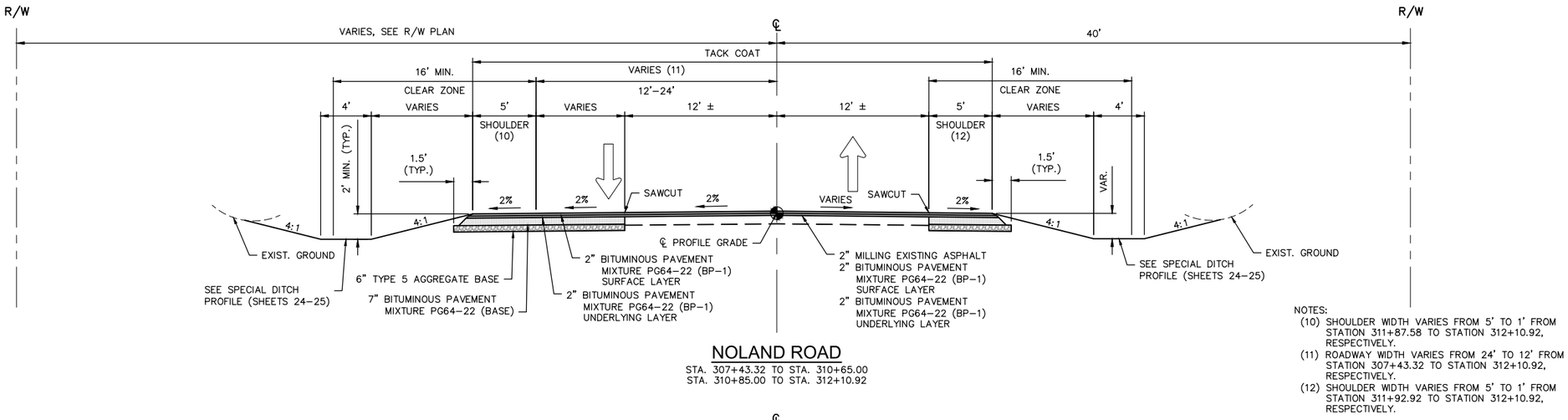
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TYP_22374
DATE PREPARED: 4/28/2025

TYPICAL SECTIONS
SHEET 4 OF 5

SHEET 2

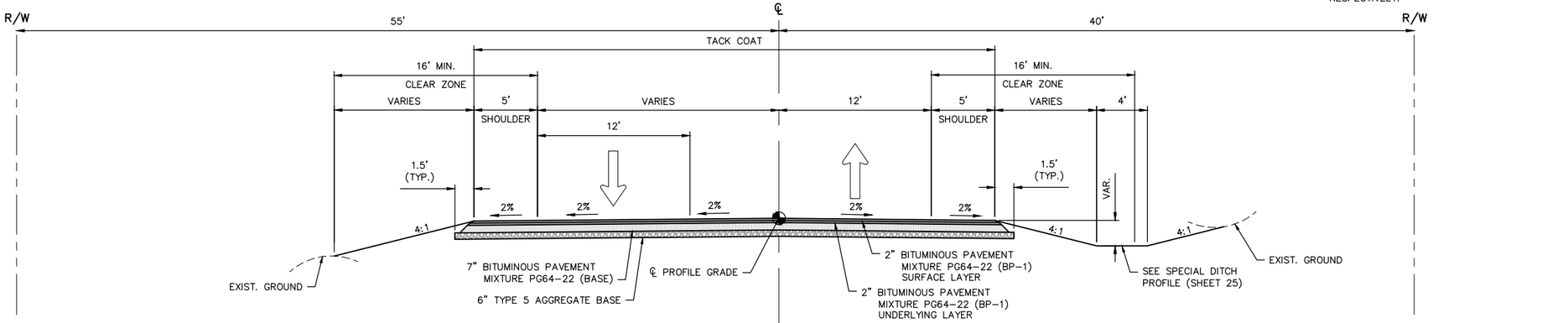
DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_TYP_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:06am XREFS: 22374_TRNS_TBLK T_PreA-Date_22374 T_PBASE_22374 T_XBOU_22374
F_SAS-BASE_22374 T_PPAIT_22374 12-058T



NOLAND ROAD

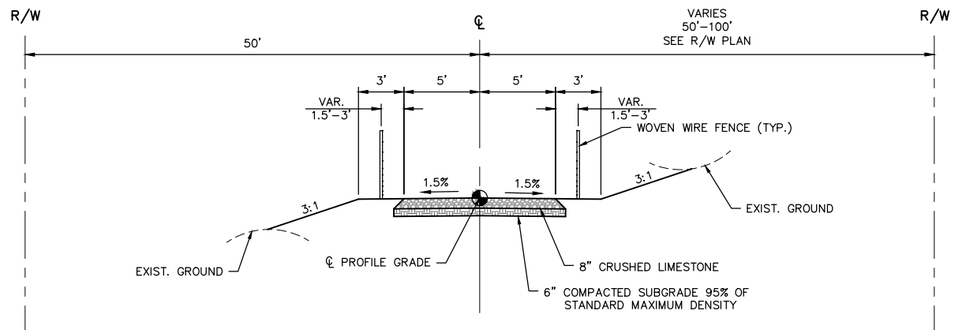
STA. 307+43.32 TO STA. 310+65.00
STA. 310+85.00 TO STA. 312+10.92

NOTES:
(10) SHOULDER WIDTH VARIES FROM 5' TO 1' FROM STATION 311+87.58 TO STATION 312+10.92, RESPECTIVELY.
(11) ROADWAY WIDTH VARIES FROM 24' TO 12' FROM STATION 307+43.32 TO STATION 312+10.92, RESPECTIVELY.
(12) SHOULDER WIDTH VARIES FROM 5' TO 1' FROM STATION 311+92.92 TO STATION 312+10.92, RESPECTIVELY.



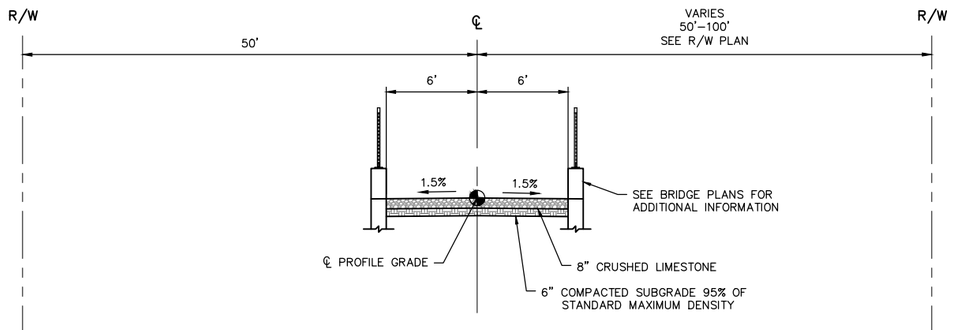
NOLAND ROAD

STA. 310+65.00 TO STA. 310+85.00



ROCK ISLAND SHARED USE PATH

STA. 400+25.00 TO STA. 401+63.26
STA. 403+50.76 TO STA. 404+75.00



ROCK ISLAND SHARED USE PATH

STA. 401+63.26 TO STA. 401+75.25
STA. 403+36.75 TO STA. 403+50.76

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TYPICAL SECTIONS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TYP_22374
DATE PREPARED: 5/15/2025

TYPICAL SECTIONS
SHEET 5 OF 5

SHEET 2

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_TYP_22374.dwg USER: jgallagher
DATE: May 15, 2025 1:38pm XREFS: 22374_TRNS_TBLK T_PreA-Date_22374 T_PBASE_22374 T_XBOU_22374
F_SAS-BASE_22374 T_PPATT_22374

RECAPITULATION OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1081000	SIGNET DBE REPORTING	LS	1
2013000	CLEARING AND GRUBBING	ACRE	1
2022010	REMOVAL OF IMPROVEMENTS	LS	1
2035000	UNCLASSIFIED EXCAVATION	CUYD	11908
2036000	COMPACTING EMBANKMENT	CUYD	1048
2061000	CLASS 1 EXCAVATION	CUYD	240
2063000	CLASS 3 EXCAVATION	CUYD	223
2063100	CLASS 3 EXCAVATION IN ROCK	CUYD	26
2063300	CLASS 4 EXCAVATION	CUYD	13
2063500	CULVERT CLEANOUT	EA	1
2160500	REMOVAL OF BRIDGES	LS	1
3040504	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	SQYD	1003
3040506	TYPE 5 AGGREGATE FOR BASE (6 IN. THICK)	SQYD	1386
3049905	MISC. TYPE 5 AGGREGATE FOR BASE (12 IN. THICK)	SQYD	5059
3049910	MISC. PERMANENT AGGREGATE EDGE TREATMENT	TONS	835
3101003	GRAVEL (A)	SQYD	128
3109905	MISC. CRUSHED LIMESTONE (8 IN. THICK)	SQYD	237
4011209	BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)	TONS	710.4
4013000	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)	TONS	767.8
4030116	ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)	TONS	809.6
4030306	ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)	TONS	471.3
4030317	ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP250B MIX)	TONS	202.1
4071005	TACK COAT	GAL	1755
4081018	PRIME-LIQUID ASPHALT MC 800	GAL	448
5021312	CONCRETE PAVEMENT (12 IN. NON-REINFORCED 15 FT. JOINTS)	SQYD	3347.1
5024010	CONCRETE BASE (10 IN. NON-REINF)	SQYD	6.6
6039902	WATER ADJUSTING WATER VALVE	EA	8
6039902	WATER ADJUSTING HYDRANT	EA	2
6039902	WATER ADJUSTING AIR RELEASE VALVE	EA	1
6061060	MGS GUARDRAIL	LF	25.0
6061068	MGS BRIDGE APPROACH TRANSITION SECTION (EXTENDED CURB)	EA	1
6061069	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR/NO CURB)	EA	1
6063014	TYPE A CRASHWORTHY END TERMINAL (MASH)	EA	2
6072010	WOVEN WIRE FENCE	LF	308
6073001	(48 IN.) DECORATIVE PEDESTRIAN FENCE (STRUCTURES)	LF	372
6083006	6 IN. CONCRETE MEDIAN STRIP	SQYD	168.4
6091041	CONCRETE GUTTER TYPE A	LF	4
6091042	CONCRETE GUTTER TYPE B	LF	280
6092011	INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A	LF	38
6096010A	FURNISHING TYPE 1 ROCK DITCH LINER	CUYD	22
6096040A	FURNISHING TYPE 4 ROCK DITCH LINER	CUYD	134
6096041	PLACING TYPE 1 ROCK DITCH LINER	CUYD	22
6096044	PLACING TYPE 4 ROCK DITCH LINER	CUYD	134
6096050	BEDDING MATERIAL FOR ROCK DITCH LINER	CUYD	45
6099903	MISC. CURB AND GUTTER TYPE CG-1 (APWA)	LF	642
6113020	FURNISHING TYPE 2 ROCK BLANKET	CUYD	1378
6113040	PLACING TYPE 2 ROCK BLANKET	CUYD	1378
6122009	IMPACT ATTENUATOR 45 MPH (SAND BARREL ARRAY)	EA	8
6122020	REPLACEMENT SAND BARREL	EA	14
6122030	IMPACT ATTENUATOR (RELOCATION)	EA	2
6141120	CURVED VANE GRATE AND FRAME (2 FT. X 2 FT. OR 600MM X 600MM)	EA	2
6161005	CONSTRUCTION SIGNS	SQFT	3721
6161025	CHANNELIZER (TRIM LINE)	EA	195
6161030	TYPE III MOVEABLE BARRICADE	EA	54
6161033	DIRECTIONAL INDICATOR BARRICADE	EA	28
6161040	FLASHING ARROW PANEL	EA	4
6161055	SEQUENTIAL FLASHING WARNING LIGHT	EA	28
6161098A	CHANGEABLE MESSAGE SIGN WITHOUT COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED	EA	10
6173100	CONCRETE TRAFFIC BARRIER, TYPE D	LF	280
6173600D	TEMPORARY TRAFFIC BARRIER, CONTRACTOR FURNISHED / RETAINED	LF	3150
6175010A	RELOCATING TEMPORARY TRAFFIC BARRIER	LF	1200
6181000	MOBILIZATION	LS	1
6181020	ADDITIONAL MOBILIZATION FOR SEEDING	EA	5
6200015	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE	LF	144
6200021	PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT/RIGHT ARROW	EA	10
6200027	PREFORMED THERMOPLASTIC PAVEMENT MARKING, COMBINATION STR/LT/RT	EA	2
6205301B	TEMPORARY REMOVABLE MARKING TAPE 4 IN., WHITE	LF	11001
6205303B	TEMPORARY REMOVABLE MARKING TAPE 4 IN., YELLOW	LF	9775
6205309	TEMPORARY REMOVABLE MARKING TAPE, 24 IN., WHITE	LF	95
6205440A	TEMPORARY NON-REMOVABLE MARKING TAPE LEFT/RIGHT ARROW	EA	4
6205902A	6 IN. WHITE HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS	LF	913
6206000C	4 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS	LF	4965
6206001C	4 IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS	LF	4801
6207001	PAVEMENT MARKING REMOVAL	LF	34610
6207002	PAVEMENT MARKING REMOVAL (SYMBOLS)	EA	4
6208076	4 IN TEMPORARY PAVEMENT MARKING PAINT	LF	12499
6209903	12 IN. YELLOW HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT	LF	258
6221001	COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)	SQYD	7838
6240103A	PERMANENT EROSION CONTROL GEOTEXTILE	SQYD	184

RECAPITULATION OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
6240104A	SEPARATION GEOTEXTILE	SQYD	2066
6274000	CONTRACTOR FURNISHED SURVEYING AND STAKING	LS	1
7021214	GALVANIZED STRUCTURAL STEEL PILES (14 IN)	LF	1506
7026000	PRE-BORE FOR PILING	LF	316
7027000	PILE POINT REINFORCEMENT	EA	35
7032003	CLASS B CONCRETE (SUBSTRUCTURE)	CUYD	163.6
7034226	SLAB ON CONCRETE ADJACENT BEAM	SQYD	247
7039903	MISC. BARRIER CURB (24 IN. X 12 IN.)	LF	372
7039903	MISC. 8 FT. X 8 FT. REINFORCED CONCRETE BOX CULVERT	LF	35.8
7056058	42 IN., PRESTRESSED CONCRETE ADJACENT BOX BEAM	LF	241
7059903	MISC. 54 IN. PRESTRESSED CONCRETE ADJACENT BOX BEAM	LF	233
7061060	REINFORCING STEEL (BRIDGES)	LB	12090
7101000	REINFORCING STEEL (EPOXY COATED)	LB	20610
7110200	PROTECTIVE COATING - CONCRETE BENTS AND PIERS (EPOXY)	LS	1
7151001	VERTICAL DRAIN AT END BENTS	EA	2
7161002	LAMINATED NEOPRENE BEARING PAD	EA	18
7171002	PREFORMED COMPRESSION SEAL	LF	58
7261012	12 IN. PIPE GROUP A	LF	142
7261015	15 IN. PIPE GROUP A	LF	14
7261018	18 IN. PIPE GROUP A	LF	74
7269903	MISC. 23 IN. X 14 IN. CLASS IV REINFORCED CONCRETE ELLIPTICAL PIPE	LF	277
7311022	PRECAST CONCRETE DROP INLET 2 FT X 2 FT	FT	7
7319902	MISC. KCMO CURB INLET TYPE 2 (8'X3')	EA	2
7319902	MISC. JUNCTION BOX (SPECIAL 14'X12')	EA	1
7319902	MISC. AREA INLET (SPECIAL 4'X4')	EA	1
7320618A	18 IN. OR ALLOWED SUBSTITUTE GROUP A FLARED END SECTION	EA	1
7322015A	BEVELED PIPE END TREATMENT FOR 15 IN. OR ALLOWED SUBSTITUTE PIPE	EA	1
7329902	MISC. 23 IN. X 14 IN. ELLIPTICAL REINFORCED PRECAST FLARED END SECTION	EA	9
8025006	MULCHING	ACRE	2.4
8031000A	TURF TYPE TALL FESCUE SODDING	SQYD	621
8051000A	SEEDING - COOL SEASON GRASSES	ACRE	1.9
8061003	SEDIMENT TRAP EXCAVATION	CUYD	10.0
8061004	SEDIMENT TRAP ROCK	CUYD	10.0
8061005	ROCK DITCH CHECK	LF	278
8061006	ALTERNATE DITCH CHECK	LF	601
8061007A	CURB INLET CHECK	EACH	2
8061016	SEDIMENT REMOVAL	CUYD	63
8061017	TEMPORARY SEEDING	ACRE	0.5
8061019	SILT FENCE	LF	1425
8064128	TYPE 1 TURF REINFORCEMENT MAT	SQYD	218
8064130	TYPE 3 TURF REINFORCEMENT MAT	SQYD	405
8064137	TYPE 2C EROSION CONTROL BLANKET	SQYD	7011
9011112	BRACKET ARM, 12 FT. OR 3.6 M	EA	4
9011115	BRACKET ARM, 15 FT. OR 4.6 M	EA	1
9011311	LUMINAIRE, LED-A	EA	5
9019902	MISC. (COBRA-HEAD LUMINAIRE (240V) TYPE C LED EQ, KCMO)	EACH	4
9019902	MISC. (30' CONCRETE FOUNDATION, KCMO)	EACH	4
9019902	MISC. (6" ANTI-THIFT CABLE RETAINER, KCMO)	EACH	4
9019903	MISC. (2" SCHEDULE 40 PVC CONDUIT, KCMO)	LF	601
9019903	MISC. ((2)#4 RHH/RHW/USE CU, KCMO)	LF	633
9019903	MISC. (1c No.8 AWG BARE COPPER GROUND WIRE)	LF	633
9020213	SIGNAL HEAD, TYPE 3S	EA	4
9020513	SIGNAL HEAD, TYPE 3B	EA	9
9020514	SIGNAL HEAD, TYPE 4B	EA	2
9020833	SH-FLAT SHEET - SIGNAL SIGN	SF	56
9020834	SIGNAL SIGN, MOUNTING HARDWARE	EA	6
9023230	POST, TYPE C, 30 FT. ARM OR 9.1 M ARM	EA	1
9023250	POST, TYPE C, 50 FT. ARM OR 15.2 M ARM	EA	2
9023255	POST, TYPE C, 55 FT. ARM	EA	1
9024975	VIDEO DETECTION SYSTEM	EA	1
9025200	CONDUIT, 2 IN., TRENCH WITH TRACER WIRE	LF	103
9025300	CONDUIT, 3 IN., TRENCH WITH TRACER WIRE	LF	230
9027200	CONDUIT, 2 IN., PUSHED WITH TRACER WIRE	LF	337
9027400	CONDUIT, 4 IN., PUSHED WITH TRACER WIRE	LF	337
9028100	CABLE, 10 AWG 1 CONDUCTOR, POLE AND BRACKET	LF	720
9028203	CABLE, 3 AWG 1 CONDUCTOR, POWER	LF	160
9028204	CABLE, 4 AWG 1 CONDUCTOR, POWER	LF	2010
9028311	CABLE, 16 AWG 7 CONDUCTOR	LF	2550
9028811	PULL BOX, PREFORMED CLASS 2	EA	2
9028812	PULL BOX, PREFORMED CLASS 3	EA	2
9029100	BASE, CONCRETE	CUYD	12.82
9029901	MISC. REMOVE AND RELOCATE OGL EQUIPMENT	LS	1
9029902	MISC. TRAFFIC SIGNAL CONTROLLER ASSEMBLY, NEMA	EA	1
9029903	MISC. CCTV ETHERNET CABLE	LF	210
9029903	MISC. CATV CABLE (OGL)	LF	190
9031210	STRUCTURAL STEEL POSTS	LB	130
9031280	2.5 IN. PSST POST - 12 GA.	LF	80
9031281A	DRIVEN POST ANCHOR FOR 2.5 IN. PSST - 7 GA.	EA	5

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SUMMARY OF QUANTITIES

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_QTY_22374
DATE PREPARED: 5/15/2025

SUMMARY OF QUANTITIES
SHEET 1 OF 7

SHEET 3

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_QTY_22374.dwg USER: jgallagher
DATE: May 15, 2025 9:24am XREFS: 22374_TRNS_TBLK

REMOVAL OF IMPROVEMENTS					
SHEET NO.	STATION	STATION	LOCATION	SIDE	DESCRIPTION
15, 16	102+00.00	107+00.00	HIGHWAY 350 WESTBOUND	LT	541 SY ASPHALT PAVEMENT
15, 16	102+00.00	107+00.00	HIGHWAY 350 WESTBOUND	LT	511 LF SAWCUT
15, 16	103+00.00	107+00.00	HIGHWAY 350 WESTBOUND	RT	339 SY CONC. PAVEMENT
15, 16	103+00.00	107+00.00	HIGHWAY 350 WESTBOUND	RT	400 LF SAWCUT
15	103+76.06	104+30.41	HIGHWAY 350 WESTBOUND	LT	154 SY ASPHALT DRIVEWAY
15	103+76.29	104+29.45	HIGHWAY 350 WESTBOUND	LT	56 LF - 18" RCP
15	104+32.32		HIGHWAY 350 WESTBOUND	RT	TYPE 3 OBJECT MARKER
15	104+35.61	104+45.18	HIGHWAY 350 WESTBOUND	RT	RCB HEADWALL AND WINGWALLS
15	104+37.60	104+46.48	HIGHWAY 350 WESTBOUND	LT	RCB HEADWALL AND WINGWALLS
16	105+40.36	107+97.73	HIGHWAY 350 WESTBOUND	RT	258 LF GUARD RAIL
16	106+66.67	107+98.74	HIGHWAY 350 WESTBOUND	LT	133 LF GUARD RAIL
16, 17	107+00.00	109+60.00	HIGHWAY 350 WESTBOUND	RT/LT	840 SY ASPHALT PAVEMENT
16, 17	107+00.00	109+60.00	HIGHWAY 350 WESTBOUND	RT	691 SY CONC. PAVEMENT
16	107+00.00		HIGHWAY 350 WESTBOUND	LT/RT	46 LF SAWCUT
16	107+98.33		HIGHWAY 350 WESTBOUND	RT	TYPE 3 OBJECT MARKER
16	108+17.50	108+87.38	HIGHWAY 350 WESTBOUND	RT	71 LF GUARD RAIL
16	108+18.13	108+89.05	HIGHWAY 350 WESTBOUND	LT	72 LF GUARD RAIL
16	108+18.95		HIGHWAY 350 WESTBOUND	LT	TYPE 3 OBJECT MARKER
16, 17	108+74.91	110+18.59	HIGHWAY 350 WESTBOUND	RT	199 LF SAWCUT
16, 17	108+74.91	110+44.42	HIGHWAY 350 WESTBOUND	RT	399 SY ASPHALT PAVEMENT
16	108+94.67		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
16	109+06.02		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
16	109+18.44		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
16	109+29.09		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
16	109+41.61		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	109+52.92		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	109+59.46	110+21.38	HIGHWAY 350 WESTBOUND	LT	187 LF CONC. C&G
17	109+60.00	110+46.51	HIGHWAY 350 WESTBOUND	RT	158 LF SAWCUT
17	109+60.00	110+24.09	HIGHWAY 350 WESTBOUND	LT	65 SY ASPHALT PAVEMENT
17	109+60.00	110+44.42	HIGHWAY 350 WESTBOUND	RT	46 SY CONC. PAVEMENT
17	109+60.00	110+24.09	HIGHWAY 350 WESTBOUND	LT	202 LF SAWCUT
17	109+60.00		HIGHWAY 350 WESTBOUND	LT/RT	59 LF SAWCUT
17	109+67.52		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	109+69.97	110+42.70	HIGHWAY 350 WESTBOUND	RT	213 LF CONC. C&G
17	109+74.88		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	109+88.32		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	109+93.82		HIGHWAY 350 WESTBOUND	LT	TRAFFIC SIGNAL POLE AND FOUNDATON
17	109+93.98		HIGHWAY 350 WESTBOUND	RT	ROUTE V LEFT/HIGHWAY 350 THROUGH SIGN
17	109+96.45		HIGHWAY 350 WESTBOUND	LT	HIGHWAY 350 SIGN
17	109+98.75		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	110+08.45		HIGHWAY 350 WESTBOUND	LT	PULL BOX
17	110+09.40		HIGHWAY 350 WESTBOUND	RT	CONTROLLER
17	110+10.31		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	110+21.15		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	110+22.11		HIGHWAY 350 WESTBOUND	RT	PULL BOX
17	110+22.57		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	110+22.98		HIGHWAY 350 WESTBOUND	RT	CONCRETE BLOCK
17	110+33.49		HIGHWAY 350 WESTBOUND	RT	TRAFFIC SIGNAL POLE AND FOUNDATION
17	110+63.54	114+19.73	HIGHWAY 350 WESTBOUND	LT	826 SY ASPHALT PAVEMENT
17	110+63.54	114+19.73	HIGHWAY 350 WESTBOUND	LT	858 LF SAWCUT
17	110+65.19	111+69.18	HIGHWAY 350 WESTBOUND	RT	75 SY CONC. PAVEMENT
17	110+65.19	111+69.28	HIGHWAY 350 WESTBOUND	RT	299 LF SAWCUT
17	110+65.79	111+93.81	HIGHWAY 350 WESTBOUND	LT	98 SY CONC. MEDIAN STRIP
17	110+69.49	111+69.28	HIGHWAY 350 WESTBOUND	RT	188 SY ASPHALT PAVEMENT
17	110+71.67	111+34.48	HIGHWAY 350 WESTBOUND	RT	192 LF CONC. C&G
17	110+77.98		HIGHWAY 350 WESTBOUND	LT	PULL BOX
17	110+79.49		HIGHWAY 350 WESTBOUND	LT	TRAFFIC SIGNAL POLE AND FOUNDATION
17	110+88.03		HIGHWAY 350 WESTBOUND	LT	YIELD SIGN
17	110+99.20		HIGHWAY 350 WESTBOUND	RT	SIGNAL AND FOUNDATION
17	111+32.95	111+69.28	HIGHWAY 350 WESTBOUND	RT	36 LF CONCRETE GUTTER
17	112+13.20		HIGHWAY 350 WESTBOUND	LT	HIGHWAY 350 THROUGH/ROUTE V RIGHT SIGN
17	112+27.51		HIGHWAY 350 WESTBOUND	LT	STORM STRUCTURE
17	112+27.51	112+28.42	HIGHWAY 350 WESTBOUND	LT	87 LF 12" CMP/HDPE
14, 15	200+42.66	201+23.78	HIGHWAY 350 EASTBOUND	RT	90 SY CONCRETE PAVEMENT
14, 15	200+42.66	203+00.00	HIGHWAY 350 EASTBOUND	RT	262 LF SAWCUT
14	200+78.67		HIGHWAY 350 EASTBOUND	RT	ROUTE V LEFT AHEAD SIGN
15	201+23.78	203+00.00	HIGHWAY 350 EASTBOUND	RT	202 SY CONC. PAVEMENT
18	306+13.89	306+89.65	NOLAND ROAD	LT	110 SY ASPHALT DRIVEWAY
18, 19	306+13.89	310+65.00	NOLAND ROAD	LT	451 LF SAWCUT
18	306+13.92	307+26.98	NOLAND ROAD	RT	325 SY ASPHALT PAVEMENT
18, 19	306+13.92	310+65.00	NOLAND ROAD	RT	451 LF SAWCUT
18	306+13.92	307+17.60	NOLAND ROAD	RT	104 LF SAWCUT
18, 19	307+02.93	313+00.00	NOLAND ROAD	LT	609 LF WOVEN WIRE FENCE

REMOVAL OF IMPROVEMENTS					
SHEET NO.	STATION	STATION	LOCATION	SIDE	DESCRIPTION
18, 19	307+26.98	312+10.92	NOLAND ROAD	RT	27 SY ASPHALT PAVEMENT
19	309+65.99	310+17.29	NOLAND ROAD	RT	115 SY ASPHALT DRIVEWAY
19	309+71.94	310+12.06	NOLAND ROAD	RT	40 LF - 12" CMP
19	309+76.36	310+09.36	NOLAND ROAD	RT	33 LF SAWCUT
19	310+65.00	310+85.00	NOLAND ROAD	LT/RT	50 SY APHALT PAVEMENT
19	310+65.00		NOLAND ROAD	LT/RT	23 LF SAWCUT
19	310+85.00		NOLAND ROAD	LT/RT	23 LF SAWCUT
19	310+85.00	312+10.92	NOLAND ROAD	RT	126 LF SAWCUT
19	310+85.00	312+10.92	NOLAND ROAD	LT	126 LF SAWCUT
1 LUMP SUM					
NOTE: ALL SAWCUTS SHALL BE PAID FOR UNDER REMOVAL OF IMPROVEMENTS, NO DIRECT PAY.					

CLEARING AND GRUBBING
1 ACRE

EARTHWORK							
SHEET NO.	STATION	STATION	LOCATION	SIDE	2035000 UNCLASSIFIED EXCAVATION (CUYD)	2036000 COMPACTING EMBANKMENT (CUYD)	REMARKS
20-23	99+47.15	114+19.73	HIGHWAY 350 WESTBOUND	LT/RT	9856	590	
20, 21	197+11.81	203+00.00	HIGHWAY 350 EASTBOUND	LT/RT	373	4	
24, 25	303+70.65	312+10.92	NOLAND ROAD	LT/RT	1650	426	
26	400+85.00	404+50.00	TRAIL	LT/RT	29	28	
				TOTAL	11908	1048	
NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR STOCKPILING OR DISPOSING OF EXCESS MATERIAL AT NO DIRECT PAY.							

CULVERT CLEANOUT					
SHEET NO.	STATION	STATION	LOCATION	SIDE	2063500 CULVERT CLEANOUT EACH
21, 40	104+39.44	104+42.23	HIGHWAY 350 WESTBOUND	LT/RT	1
				TOTAL	1

AGGREGATE BASE COURSE							
SHEET NO.	STATION	STATION3	LOCATION	SIDE	3040504 TYPE 5 AGGREGATE FOR BASE (4 IN. THICK) (SQYD)	3040506 TYPE 5 AGGREGATE FOR BASE (6 IN. THICK) (SQYD)	3049905 TYPE 5 AGGREGATE FOR BASE (12 IN. THICK) (SQYD)
21, 22	102+00.00	107+00.00	HIGHWAY 350 WESTBOUND	LT	144		587
21, 22	103+00.00	107+00.00	HIGHWAY 350 WESTBOUND	RT			735
22	107+00.00	109+60.00	HIGHWAY 350 WESTBOUND	LT/RT			2110
23	109+60.00	110+44.42	HIGHWAY 350 WESTBOUND	RT			311
23	109+60.00	110+24.09	HIGHWAY 350 WESTBOUND	LT			202
23	110+63.54	114+19.73	HIGHWAY 350 WESTBOUND	LT	552		534
23	110+65.19	111+69.28	HIGHWAY 350 WESTBOUND	RT	88		209
20, 21	201+23.78	203+00.00	HIGHWAY 350 EASTBOUND	RT			371
24, 25	306+13.90	312+10.92	NOLAND ROAD	LT/RT	219	1386	
				TOTALS	1003	1386	5059

PERMANENT AGGREGATE EDGE TREATMENT								
SHEET NO.	STATION	STATION	LOCATION	SIDE	WIDTH (FT)	DEPTH (INCHES)	3049910 PERMANENT AGGREGATE EDGE TREATMENT (TONS)	4081018 PRIME-LIQUID ASPHALT MC 800 (GAL)
21, 22	102+00.00	107+73.70	HIGHWAY 350 WESTBOUND	LT	13.64	24	406	218
21, 22	103+00.00	106+47.44	HIGHWAY 350 WESTBOUND	RT	13.64	24	246	132
20, 21	200+42.36	203+00.00	HIGHWAY 350 EASTBOUND	RT	13.64	24	183	98
(EDGE TREATMENT CALCULATED AT 1.40 TONS/CY)						TOTAL	835	448

AGGREGATE SURFACE						
SHEET NO.	STATION	STATION	LOCATION	SIDE	3101003 GRAVEL (A) (6 IN. THICK) (SQYD)	3109905 CRUSHED LIMESTONE (8 IN. THICK) (SQYD)
21, 22	105+15.43	106+47.44	HIGHWAY 350 WESTBOUND	RT	62	
22	108+43.70	109+59.66	HIGHWAY 350 WESTBOUND	LT	66	
26	400+85.00	401+75.25	ROCK ISLAND TRAIL	LT/RT		104
26	403+36.75	404+50.00	ROCK ISLAND TRAIL	LT/RT		133
				TOTALS	128	237

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ROUTE: 350

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DATE PREPARED: 4/28/2025

SUMMARY OF QUANTITIES SHEET 2 OF 7

SHEET 3

DWG: F:\projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_QTY_22374.dwg USER: jgallagher
DATE: Apr 29, 2025 12:29am XREFS: 22374_TRNS_TBLK

ASPHALT PAVEMENT										
SHEET NO.	STATION	STATION4	LOCATION	SIDE	4011209 BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) (TONS)	4013000 BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE) (TONS)	4030116 ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX) (TONS)	4030306 ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX) (TONS)	4030317 ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP250B MIX) (TONS)	4071005 TACK COAT (GAL.)
21, 22	99+47.00	107+00.00	HIGHWAY 350 WESTBOUND	LT			306.2	190.3	81.6	387
21, 38	103+75.74	104+33.74	HIGHWAY 350 WESTBOUND	LT	15.6	46.8				29
23	109+60.00	114+19.73	HIGHWAY 350 WESTBOUND	LT/RT			289.6	247.7	106.2	402
23	110+67.61	113+64.85	HIGHWAY 350 WESTBOUND	LT	59.8	179.2				91
23	110+88.72	111+48.07	HIGHWAY 350 WESTBOUND	RT	7.0	20.9				13
20, 21	197+11.90	201+23.78	HIGHWAY 350 EASTBOUND	LT/RT			213.8	33.3	14.3	218
24, 25	305+85.81	312+10.92	NOLAND ROAD	LT/RT	604.3	470.0				589
24, 38	305+99.19	306+62.68	NOLAND ROAD	LT	3.8	11.2				7
24, 25, 39	308+26.09	308+76.09	NOLAND ROAD	RT	9.5	19.0				9
25, 39	309+66.36	310+19.36	NOLAND ROAD	RT	10.4	20.7				10
				TOTALS	710.4	767.8	809.6	471.3	202.1	1755

MOBILIZATION
1 LUMP SUM

ADDITIONAL MOBILIZATION FOR SEEDING
5 EACH

CONTRACTOR FURNISHED SURVEYING AND STAKING
1 LUMP SUM

CONCRETE MEDIAN STRIP					
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	6083006 6 IN. CONCRETE MEDIAN STRIP (SQYD)
23	110+67.88	113+22.60	HIGHWAY 350 WESTBOUND	LT	168.4
				TOTAL	168.4

CONCRETE PAVEMENT						
SHEET NO.	STATION	STATION4	LOCATION	SIDE	5021312 CONCRETE PAVEMENT (12 IN. NON-REINFORCED 15 FT. JOINTS) (SQYD)	5024010 CONCRETE BASE (10 IN. NON-REINFORCED) (SQYD)
21, 22	103+00.00	107+00.00	HIGHWAY 350 WESTBOUND	RT	676.2	
22, 23	107+00.00	109+60.00	HIGHWAY 350 WESTBOUND	LT/RT	2039.6	
23	109+60.00	110+44.42	HIGHWAY 350 WESTBOUND	RT	182.2	
22	109+63.30	110+07.74	HIGHWAY 350 WESTBOUND	LT		6.6
23	110+65.19	111+69.28	HIGHWAY 350 WESTBOUND	RT	203.5	
23	111+60.44	111+78.35	HIGHWAY 350 WESTBOUND	LT	2.1	
23	112+18.23	112+36.11	HIGHWAY 350 WESTBOUND	LT	2.1	
21	201+23.78	203+00.00	HIGHWAY 350 EASTBOUND	RT	241.4	
26	401+63.26	401+75.25	ROCK ISLAND TRAIL	LT/RT		
26	403+36.75	403+50.76	ROCK ISLAND TRAIL	LT/RT		
				TOTALS	3347.1	6.6

GUARDRAIL								
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	6061060 MGS GUARDRAIL (LF)	6061068 MGS BRIDGE APPROACH TRANSITION SECTION (EXTENDED CURB) (EACH)	6061069 MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR/NO CURB) (EACH)	6063014 TYPE A CRASHWORTHY END TERMINAL (MASH) (EACH)
22, 44	105+47.46	106+47.44	HIGHWAY 350 WESTBOUND	RT	12.5	1		1
22, 44	108+43.70	109+43.69	HIGHWAY 350 WESTBOUND	LT	12.5		1	1
				TOTALS	25.0	1	1	2

CONCRETE CURB & GUTTER								
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	6091041 CONCRETE GUTTER TYPE A (LF)	6091042 CONCRETE GUTTER TYPE B (LF)	6092011 INTEGRAL CURB (6 IN. HEIGHT AND UNDER) TYPE A (LF)	6099903 CURB & GUTTER TYPE 1 (APWA) (LF)
22	106+09.94	106+47.44	HIGHWAY 350 WESTBOUND	RT			38	
22	106+47.44	108+57.44	HIGHWAY 350 WESTBOUND	RT		210		
22	107+73.70	108+43.70	HIGHWAY 350 WESTBOUND	LT		70		
22	109+63.54	110+14.62	HIGHWAY 350 WESTBOUND	LT				151
22, 23	108+57.44	110+38.35	HIGHWAY 350 WESTBOUND	RT				225
23	110+84.27	111+32.78	HIGHWAY 350 WESTBOUND	RT				150
24	305+95.21	307+10.47	NOLAND ROAD	LT				116
24	306+15.11	306+17.39	NOLAND ROAD	RT	1			
24	307+10.47	307+14.53	NOLAND ROAD	LT	3			
				TOTALS	4	280	38	642

ADJUSTING WATER FACILITIES						
SHEET NO.	STATION	LOCATION	SIDE	6039902 ADJUSTING WATER VALVE (EA)	6039902 ADJUSTING HYDRANT (EA)	6039902 ADJUSTING AIR RELEASE VALVE (EA)
22	107+57.36	HIGHWAY 350 WESTBOUND	RT			1
22	109+35.60	HIGHWAY 350 WESTBOUND	RT	3		
23	110+71.16	HIGHWAY 350 WESTBOUND	LT	2		
23	110+77.13	HIGHWAY 350 WESTBOUND	LT	1	1	
24	306+35.62	NOLAND ROAD	RT	1	1	
25	310+94.31	NOLAND ROAD	RT	1		
			TOTAL	8	2	1

ROCK BLANKET								
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	DEPTH (FT)	6113020 FURNISHING TYPE 2 ROCK BLANKET (CUYD)	6113040 PLACING TYPE 2 ROCK BLANKET (CUYD)	6240104A SEPARATION GEOTEXTILE (SQYD)
55	106+11.97	108+69.02	HIGHWAY 350 WESTBOUND	RT	2	1091	1091	1636
55	107+57.03	108+54.59	HIGHWAY 350 WESTBOUND	LT	2	287	287	430
					TOTAL	1378	1378	2066

ROCK DITCH LINER												
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	DEPTH (FT)	WIDTH (FT)	LENGTH (FT)	6096010A FURNISHING TYPE 1 ROCK DITCH LINER (CUYD)	6096040A FURNISHING TYPE 4 ROCK DITCH LINER (CUYD)	6096041 PLACING TYPE 1 ROCK DITCH LINER (CUYD)	6096044 PLACING TYPE 4 ROCK DITCH LINER (CUYD)	6096050 BEDDING MATERIAL FOR ROCK DITCH LINER (CUYD)	6240103A PERMANENT EROSION CONTROL GEOTEXTILE (SQYD)
21, 40	104+22.88	104+55.44	HIGHWAY 350 WESTBOUND	RT	3	32	37.5		134		134	45	184
22, 43	106+14.20	106+18.20	HIGHWAY 350 WESTBOUND	RT	1	4	12	2		2			
22	106+36.42	106+48.34	HIGHWAY 350 WESTBOUND	RT	1	4	12	2		2			
22	107+62.35	107+73.70	HIGHWAY 350 WESTBOUND	LT	1	4	12	2		2			
22, 42	112+26.49	112+31.95	HIGHWAY 350 WESTBOUND	LT	1	4	12	2		2			
24	306+16.38	306+29.57	NOLAND ROAD	RT	1	4	12	2		2			
24	307+10.38	307+24.81	NOLAND ROAD	LT	1	4	12	2		2			
25	308+77.59	308+89.59	NOLAND ROAD	RT	1	4	12	2		2			
25	310+22.02	310+34.02	NOLAND ROAD	RT	1	4	12	2		2			
25, 42	310+69.76	310+80.24	NOLAND ROAD	LT	1	10.5	14.2	6		6			
							TOTAL	22	134	22	134	45	184

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SUMMARY OF QUANTITIES SHEET 3 OF 7

SHEET 3

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_QTY_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:07am XREFS: 22374_TRNS_TBLK

COLD MILLING EXISTING PAVEMENT FOR REMOVAL OF SURFACE					
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	6221001 COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS) (SQYD)
14, 15	99+47.00	107+00.00	HIGHWAY 350 WESTBOUND	LT	2394
16	109+60.00	113+90.14	HIGHWAY 350 WESTBOUND	LT/RT	2021
14	197+11.90	201+23.78	HIGHWAY 350 EASTBOUND	RT	1873
17, 18	305+85.81	310+65.00	NOLAND ROAD	LT/RT	1233
18	310+85.00	312+10.92	NOLAND ROAD	LT/RT	317
				TOTAL	7838

PERMANENT CONCRETE TRAFFIC BARRIER					
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	6173100 CONCRETE TRAFFIC BARRIER TYPE D (LF)
44	106+47.44	108+57.44	HIGHWAY 350 WESTBOUND	RT	210
44	107+73.70	108+43.70	HIGHWAY 350 WESTBOUND	LT	70
TOTAL					280

FENCE					
SHEET NO.	STATION	STATION	ALIGNMENT	SIDE	6072010 WOVEN WIRE FENCE (LF)
26	400+85.00	401+63.26	TRAIL	LT	79
26	400+85.00	401+63.26	TRAIL	RT	79
26	403+50.76	404+50.00	TRAIL	LT	100
26	403+50.76	404+00.00	TRAIL	RT	50
				TOTAL	308

PRECAST DROP INLETS											
SHEET NO.	STATION	LOCATION	SIDE	STRUCTURE NO.	6141120 CURVED VANE GRATE AND FRAME (2 FT. X 2 FT. OR 600MM X 600MM) (EACH)	7319902 KCMO CURB INLET TYPE 2 (8'x3') (EACH)	7319902 JUNCTION BOX (SPECIAL 14'x12') (EACH)	7319902 INLET (AREA) (SPECIAL 4'x4') (EACH)	7311022 PRECAST CONCRETE DROP INLET (FT)	2063000 CLASS 3 EXCAVATION (CUYD)	2063100 CLASS 3 EXCAVATION IN ROCK (CUYD)
21, 40	104+42.73	HIGHWAY 350 WESTBOUND	LT	A-1			1			49	
21, 40	104+60.00	HIGHWAY 350 WESTBOUND	LT	B-2				1		12	
23, 42	112+27.17	HIGHWAY 350 WESTBOUND	LT	E-2		1				3	
23, 42	111+69.42	HIGHWAY 350 WESTBOUND	LT	E-3		1				2	
22, 43	106+16.20	HIGHWAY 350 WESTBOUND	RT	G-2	1				3		3
22, 43	107+00.00	HIGHWAY 350 WESTBOUND	RT	G-3	1				4		4
				TOTALS	2	2	1	1	7	66	7

PIPE CULVERTS															
SHEET NO.	FROM STRUCTURE NO.	STATION	TO STRUCTURE NO.	STATION	ALIGNMENT	SIDE	7261012 12 IN. PIPE GROUP A (LF)	7261015 15 IN. PIPE GROUP A (LF)	7261018 18 IN. PIPE GROUP A (LF)	7269903 23 IN. X 14 IN. CLASS IV REINFORCED CONCRETE ELLIPTICAL PIPE (LF)	7320618A 18 IN. OR ALLOWED SUBSTITUTE GROUP A FLARED END SECTION (EACH)	7322015A BEVELED PIPE END TREATMENT FOR 15 IN. OR ALLOWED SUBSTITUTE PIPE (EACH)	7329902 23 IN. X 14 IN. PRECAST ELLIPTICAL FLARED END SECTION (EACH)	2063000 CLASS 3 EXCAVATION (CUYD)	2063100 CLASS 3 EXCAVATION IN ROCK (CUYD)
21, 40	B-1	103+74.75	A-1	104+42.73	HIGHWAY 350 WESTBOUND	LT			56.0		1			43	
21, 40	B-2	104+60.00	A-1	104+42.73	HIGHWAY 350 WESTBOUND	LT			17.7					8	
24, 25, 41	C-2	308+24.36	C-1	308+77.57	NOLAND ROAD	RT				41.2			2	15	
25, 41	D-2	309+35.57	D-1	310+22.00	NOLAND ROAD	RT				44.4			2	18	
23, 42	E-3	111+69.42	E-2	112+27.17	HIGHWAY 350 WESTBOUND	LT	58.2							11	
23, 42	E-2	112+27.17	E-1	112+28.44	HIGHWAY 350 WESTBOUND	LT				83.4			1	20	
25, 42	F-2	310+75.00	F-1	310+75.00	NOLAND ROAD	RT/LT				107.8			4	42	
22, 43	G-2	106+16.20	G-1	106+16.20	HIGHWAY 350 WESTBOUND	RT		13.8				1			6
22, 43	G-3	107+00.00	G-2	106+16.20	HIGHWAY 350 WESTBOUND	RT	83.8								13
						TOTALS	142	14	74	277	1	1	9	157	19
NOTE: ALL PIPES ARE CLASS IV UNLESS OTHERWISE NOTED.															

REINFORCED CONCRETE BOX CULVERT						
SHEET NO.	STATION	STATION	LOCATION	SIDE	7039903 8' X 8' REINFORCED CONCRETE BOX CULVERT (LF)	2063300 CLASS 4 EXCAVATION (CUYD)
21, 40	104+39.94	104+40.47	HIGHWAY 350 WESTBOUND	RT	35.8	13
				TOTALS	35.8	13

SEEDING AND MULCH								
SHEET NO.	STATION	STATION2	LOCATION	SIDE	8025006 MULCHING (ACRE)	8031000A TURF TYPE TALL FESCUE SODDING (SQYD)	8051000A SEEDING - COOL SEASON MIX (ACRE)	8061017 TEMPORARY SEEDING (ACRE)
59, 60	101+50.00	103+86.59	HIGHWAY 350 WESTBOUND	LT	0.4		0.3	0.08
59, 60	103+00.00	106+76.87	HIGHWAY 350 WESTBOUND	RT	0.6		0.5	0.13
60	104+23.74	109+60.00	HIGHWAY 350 WESTBOUND	LT	0.3		0.2	0.05
60, 61	108+56.83	110+34.46	HIGHWAY 350 WESTBOUND	RT		412		
61	109+69.00	110+14.12	HIGHWAY 350 WESTBOUND	LT		86		
61	110+84.78	111+32.27	HIGHWAY 350 WESTBOUND	RT		91		
61	112+21.13	112+76.58	HIGHWAY 350 WESTBOUND	LT	0.1		0.1	0.03
59	200+42.66	203+00.00	HIGHWAY 350 EASTBOUND	RT	0.3		0.2	0.05
62	306+13.47	308+36.09	NOLAND ROAD	RT	0.1		0.1	0.03
62	306+61.20	307+09.49	NOLAND ROAD	LT		32		
62, 63	307+08.33	312+10.92	NOLAND ROAD	LT	0.4		0.3	0.08
62, 63	308+66.09	309+76.36	NOLAND ROAD	LT	0.1		0.1	0.03
63	310+09.36	312+10.92	NOLAND ROAD	LT	0.1		0.1	0.03
TOTALS					2.4	621	1.9	0.5

SUMMARY OF QUANTITIES SHEET 4 OF 7

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SHEET 3

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_QTY_22374.dwg USER: jgallagher
DATE: Apr 29, 2025 1:46pm XREFS: 22374_TRNS_TBLK

TEMPORARY EROSION CONTROL															
SHEET NO.	STATION	STATION3	LOCATION	SIDE	8061003 SEDIMENT TRAP EXC. (CUYD)	8061004 SEDIMENT TRAP ROCK (CUYD)	8061005 ROCK DITCH CHECK (LF)	8061006 ALTERNATE DITCH CHECK (LF)	8061007A CURB INLET CHECK (EACH)	8061016 SEDIMENT REMOVAL (CUYD)	8061019 SILT FENCE (LF)	8064128 TYPE 1 TURF REINFORCEMENT MAT (SQYD)	8064130 TYPE 3 TURF REINFORCEMENT MAT (SQYD)	8064137 TYPE 2C EROSION CONTROL BLANKET (SQYD)	REMARKS
50, 51	108+57.83	110+12.01	HIGHWAY 350 WESTBOUND	LT						2	175				PHASE A
51	112+49.55		HIGHWAY 350 WESTBOUND	LT	5	5									
53	309+41.53	312+22.24	NOLAND ROAD	LT						3	289				PHASE A
53	310+73.87		NOLAND ROAD		5	5									
50	400+65.13	402+14.49	TRAIL	LT						2	193				PHASE A
50	400+65.13	402+14.49	TRAIL	RT						3	217				PHASE A
50	403+12.64	404+75.00	TRAIL	LT						2	175				PHASE A
50	403+12.64	404+75.00	TRAIL	RT						2	175				PHASE A
54	101+72.29		HIGHWAY 350 WESTBOUND	LT				13		1					PHASE B
54	102+35.74		HIGHWAY 350 WESTBOUND	LT				14		1					PHASE B
54	102+60.00	103+34.52	HIGHWAY 350 WESTBOUND	LT						1	77				PHASE B
54	102+83.38		HIGHWAY 350 WESTBOUND	LT				19		1					PHASE B
54	103+21.00		HIGHWAY 350 WESTBOUND	RT				23		1					PHASE B
54, 55	103+25.00	105+50.00	HIGHWAY 350	RT									405		PHASE B
54	103+25.81		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
54	103+44.20		HIGHWAY 350 WESTBOUND	RT			26			1					PHASE B
55	103+64.04		HIGHWAY 350 WESTBOUND	RT			24			1					PHASE B
55	103+67.77		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
55	103+82.13		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	103+84.34	105+06.78	HIGHWAY 350 WESTBOUND	RT						2	124				PHASE B
55	103+93.76		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	104+06.52		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	104+18.01		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	104+61.25		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	104+77.19		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	104+92.84		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
55	104+93.77		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	105+10.43		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	105+27.26		HIGHWAY 350 WESTBOUND	RT			20			1					PHASE B
55	105+33.13		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
55	105+44.16		HIGHWAY 350 WESTBOUND	RT			22			1					PHASE B
55	105+70.94		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
55	106+05.00		HIGHWAY 350 WESTBOUND	RT			26			1					PHASE B
55	106+11.60		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
55	106+56.72		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
55	107+01.84		HIGHWAY 350 WESTBOUND	LT				22		1					PHASE B
55	107+47.81		HIGHWAY 350 WESTBOUND	LT				19		1					PHASE B
56	111+69.42		HIGHWAY 350 WESTBOUND	LT					1						PHASE B
56	112+27.19		HIGHWAY 350 WESTBOUND	LT					1						PHASE B
54	200+80.34		HIGHWAY 350 EASTBOUND	RT				23		1					PHASE B
54	201+27.45		HIGHWAY 350 EASTBOUND	RT				23		1					PHASE B
54	201+73.55		HIGHWAY 350 EASTBOUND	RT				23		1					PHASE B
54	202+23.10		HIGHWAY 350 EASTBOUND	RT				23		1					PHASE B
54	202+69.90		HIGHWAY 350 EASTBOUND	RT				23		1					PHASE B
57	306+37.83		NOLAND ROAD	RT				12		1					PHASE B
57	307+28.33		NOLAND ROAD	RT				12		1					PHASE B
57	307+44.77		NOLAND ROAD	LT				16		1					PHASE B
57	307+92.93		NOLAND ROAD	LT				16		1					PHASE B
57	308+18.42		NOLAND ROAD	RT				14		1					PHASE B
57	308+38.74		NOLAND ROAD	LT				16		1					PHASE B
62, 63	308+66.09	309+76.36	NOLAND ROAD	LT										217	PHASE B
57	308+86.88		NOLAND ROAD	LT				16		1					PHASE B
58	309+39.23		NOLAND ROAD	LT				16		1					PHASE B
58	309+62.08		NOLAND ROAD	RT				15		1					PHASE B
58	309+91.85		NOLAND ROAD	LT				16		1					PHASE B
58	310+45.04		NOLAND ROAD	LT				15		1					PHASE B
58	310+65.20		NOLAND ROAD	RT				15		1					PHASE B
58	310+84.78		NOLAND ROAD	RT				15		1					PHASE B
58	311+25.54		NOLAND ROAD	RT				15		1					PHASE B
58	311+70.42		NOLAND ROAD	RT				13		1					PHASE B
55	400+85.00	401+63.26	TRAIL	LT								55			PHASE B
55	400+85.00	401+63.26	TRAIL	RT								54			PHASE B
55	403+50.76	404+50.00	TRAIL	RT								64			PHASE B
55	403+50.76	404+50.00	TRAIL	LT								45			PHASE B
59, 60	101+50.00	103+86.59	HIGHWAY 350 WESTBOUND	LT										1155	PHASE C
59, 60	103+00.00	106+76.87	HIGHWAY 350 WESTBOUND	RT										2014	PHASE C
60, 61	104+23.74	109+60.00	HIGHWAY 350 WESTBOUND	LT										899	PHASE C
59	200+42.66	203+00.00	HIGHWAY 350 EASTBOUND	RT										672	PHASE C
62	306+13.47	308+36.09	NOLAND ROAD	RT										336	PHASE C
62, 63	307+08.33	312+10.92	NOLAND ROAD	LT										1165	PHASE C
63	310+09.36	312+10.92	NOLAND ROAD	LT										335	PHASE C
60	400+85.00	401+63.26	TRAIL	LT										55	PHASE C
60	400+85.00	401+63.26	TRAIL	RT										54	PHASE C
60	403+48.89	404+50.00	TRAIL	RT										64	PHASE C
60	403+50.76	404+50.00	TRAIL	LT										45	PHASE C
				TOTALS	10	10	278	601	2	63	1425	218	405	7011	

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

SUMMARY OF QUANTITIES

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_QTY_22374
DATE PREPARED: 4/28/2025

SUMMARY OF QUANTITIES SHEET 5 OF 7

SHEET 3

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_QTY_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:07am XREFS: 22374_TRNS_TBLK

TEMPORARY PAVEMENT MARKING												
			TEMPORARY REMOVABLE MARKING TAPE			TEMPORARY PAVEMENT MARKING		6205440A TEMPORARY NON-REMOVABLE MARKING TAPE LEFT/RIGHT ARROW (EA)	6200027 PREFORMED THERMOPLASTIC PAVEMENT MARKING COMINATION STR/RT (EA)	6207001 PAVEMENT MARKING REMOVAL (LF)	6207002 PAVEMENT MARKING REMOVAL (SYMBOLS) (EA)	
SHEET NO.	PHASE	LOCATION	6205301B 4" SOLID WHITE (LF)	6205303B 4" SOLID YELLOW (LF)	6205309 24" SOLID WHITE (LF)	6208076 4" SOLID WHITE (LF)	6208076 4" SOLID YELLOW (LF)					REMARKS
84, 85, 86	1A	HIGHWAY 350				2442						EASTBOUND EDGELINE
85, 86	1A	HIGHWAY 350					875					EASTBOUND EDGELINE
85, 86	1A	HIGHWAY 350				1018						WESTBOUND EDGELINE
85, 86	1A	HIGHWAY 350					854					WESTBOUND EDGELINE
86	1A	HIGHWAY 350				72						EB STOP BAR, 6 TIMES LENGTH
86	1A	HIGHWAY 350				90						WB STOP BAR, 6 TIMES LENGTH
86, 87	1A	HIGHWAY 350				728						EASTBOUND EDGELINE
86, 87	1A	HIGHWAY 350					664					EASTBOUND EDGELINE
86, 87	1A	HIGHWAY 350				1290						WESTBOUND EDGELINE
86	1A	HIGHWAY 350					596					WESTBOUND EDGELINE
86	1A	HIGHWAY 350				186						WESTBOUND MEDIAN EDGELINE
86	1A	NOLAND ROAD					197					SOUTHBOUND EDGELINE
87, 88	1A	HIGHWAY 350				832						WESTBOUND EDGELINE
85, 86	1A	HIGHWAY 350								2200		EXISTING PM REMOVALS
90, 91	1B	HIGHWAY 350				329						WESTBOUND EDGELINE
90, 91	1B	HIGHWAY 350					328					WESTBOUND EDGELINE
91	1B	HIGHWAY 350				125						EASTBOUND EDGELINE
91	1B	HIGHWAY 350					200					DOUBLE CENTERLINE, 2 TIMES LENGTH
91	1B	HIGHWAY 350				207						WESTBOUND EDGELINE
91	1B	HIGHWAY 350				418						WESTBOUND LANE LINE
91	1B	HIGHWAY 350				503						WESTBOUND LANE LINE
91	1B	NOLAND ROAD					359					SOUTHBOUND EDGELINE
91	1B	NOLAND ROAD				186						SB STOP BAR, 6 TIMES LENGTH
91	1B	NOLAND ROAD						2			2	SOUTHBOUND RIGHT ARROWS
	1B	HIGHWAY 350								1698		TEMPORARY PM REMOVALS
94, 95, 96	2	HIGHWAY 350		2875								EASTBOUND EDGELINE
95, 96	2	HIGHWAY 350	998									EASTBOUND EDGELINE
95, 96	2	HIGHWAY 350		1226								WESTBOUND EDGELINE
95, 96	2	HIGHWAY 350	857									EASTBOUND EDGELINE
96	2	HIGHWAY 350	370									WESTBOUND EDGELINE
96	2	NOLAND ROAD	626									SOUTHBOUND EDGELINE
96	2	NOLAND ROAD		643								SOUTHBOUND EDGELINE
96	2	NOLAND ROAD		643								NORTHBOUND EDGELINE
96	2	NOLAND ROAD	616									NORTHBOUND EDGELINE
96	2	NOLAND ROAD	357									SOUTHBOUND EDGELINE
96	2	NOLAND ROAD		253								SOUTHBOUND EDGELINE
96	2	NOLAND ROAD			18							SOUTHBOUND STOP BAR
96	2	NOLAND ROAD			20							NORTHBOUND STOP BAR
96	2	NOLAND ROAD						2			2	SOUTHBOUND RIGHT ARROWS
96, 97	2	HIGHWAY 350	464									EASTBOUND EDGELINE
	2	HIGHWAY 350								6566		TEMPORARY PM REMOVALS
100, 101	3	HIGHWAY 350	1199									WESTBOUND EDGELINE
100, 101, 102	3	HIGHWAY 350		2341								WESTBOUND EDGELINE
101	3	HIGHWAY 350	91									WESTBOUND EDGELINE
101	3	HIGHWAY 350	92									WESTBOUND EDGELINE
101	3	NOLAND ROAD		341								SOUTHBOUND EDGELINE
101	3	NOLAND ROAD			35							SOUTHBOUND STOP BAR
102, 103	3	HIGHWAY 350		832								WESTBOUND EDGELINE
	3	HIGHWAY 350								5001		TEMPORARY PM REMOVALS
104, 105	4	HIGHWAY 350	1700									EASTBOUND EDGELINE
105, 106	4	HIGHWAY 350	1125									WESTBOUND EDGELINE
106, 107	4	HIGHWAY 350	1254									WESTBOUND EDGELINE
106	4	NOLAND ROAD	110									SOUTHBOUND LANELINE
106	4	NOLAND ROAD		311								SOUTHBOUND EDGELINE
106	4	NOLAND ROAD		310								SOUTHBOUND EDGELINE
106	4	NOLAND ROAD	310									SOUTHBOUND EDGELINE
106	4	NOLAND ROAD			22							SOUTHBOUND STOP BAR
106	4	NOLAND ROAD							2			SOUTHBOUND RIGHT/THRU ARROWS
107, 108	4	HIGHWAY 350	832									WESTBOUND EDGELINE
	4	HIGHWAY 350								19145		TEMPORARY PM REMOVALS
		TOTAL	11001	9775	95	8426	4073	4	2	34610	4	
		PAY TOTAL	11001	9775	95	12499		4	2	34610	4	
NOTE: PERMANENT PAVEMENT MARKING QUANTITIES SHOWN ELSEWHERE IN PLAN.												

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SUMMARY OF QUANTITIES

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
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QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_QTY_22374
DATE PREPARED: 4/28/2025

SUMMARY OF QUANTITIES SHEET 6 OF 7

SHEET 3

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_QTY_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:07am XREFS: 22374_TRNS_TBLK

SIGN	SIZE IN.	AREA SQ. FT.	QTY EACH	TOTAL AREA SQ. FT.	QTY RELOC EACH	TOTAL RELOC SQ. FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
WO1-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
WO1-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
WO1-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
WO1-2R	48X48	16.00						CURVE (SYMBOL RIGHT ARROW)
WO1-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT ARROW)
WO1-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT ARROW)
WO1-4L	48X48	16.00	2	32.00				REVERSE CURVE (SYMBOL LEFT ARROW)
WO1-4R	48X48	16.00	4	64.00				REVERSE CURVE (SYMBOL RIGHT ARROW)
WO1-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
WO1-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
WO1-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
WO1-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
WO1-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
WO1-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
WO1-8	18X24	3.00						CHEVRON (SYMBOL)
WO1-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
WO3-1	48X48	16.00						STOP AHEAD (SYMBOL)
WO3-2	48X48	16.00						YIELD AHEAD (SYMBOL)
WO3-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
WO3-4	48X48	16.00						BE PREPARED TO STOP
WO3-5	48X48	16.00	4	64.00				SPEED LIMIT AHEAD
WO4-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
WO4-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
WO4-1aL	48X48	16.00	4	64.00				MERGE (ARROW SYMBOL)
WO4-1aR	48X48	16.00	2	32.00				MERGE (ARROW SYMBOL)
WO5-1	48X48	16.00						ROAD/BRIDGE/RAMP NARROWS
WO5-3	48X48	16.00						ONE LANE BRIDGE
WO5-5	48X48	16.00	4	64.00				NARROW LANES
WO6-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
WO6-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
WO6-3	48X48	16.00	4	64.00				TWO WAY TRAFFIC (SYMBOL)
WO7-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
WO8-1	48X48	16.00						BUMP
WO8-2	48X48	16.00						DIP
WO8-3	48X48	16.00						PAVEMENT ENDS
WO8-4	48X48	16.00						SOFT SHOULDER
WO8-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
WO8-6	48X48	16.00						TRUCK CROSSING
WO8-6c	48X48	16.00						TRUCK ENTRANCE
WO8-7	36X36	9.00						LOOSE GRAVEL
WO8-7a	36X36	9.00						FRESH OIL/LOOSE GRAVEL
WO8-9	48X48	16.00						LOW SHOULDER
WO8-11	48X48	16.00	4	64.00				UNEVEN LANES
WO8-12	48X48	16.00						NO CENTER LINE
WO8-15	48X48	16.00						GROOVED PAVEMENT
WO8-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
WO8-17	48X48	16.00						SHOULDER DROP-OFF (SYMBOL)
WO8-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
WO12-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
WO12-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
W012-2X	24X18	3.00						LOW CLEARANCE (PLAQUE)
WO12-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
WO12-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
WO12-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
WO13-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
WO16-2	30X24	5.00						XXX FEET (PLAQUE)
WO16-3	30X24	5.00						X MILE (PLAQUE)
WO20-1	48X48	16.00	7	112.00				ROAD/BRIDGE/RAMP WORK AHEAD
WO20-2	48X48	16.00	12	192.00				DETOUR AHEAD
WO20-3	48X48	16.00						ROAD CLOSED AHEAD
WO20-4	48X48	16.00						ONE LANE ROAD AHEAD
WO20-5	48X48	16.00	4	64.00				RIGHT/CENTER/LEFT LANE CLOSED AHEAD
WO20-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
WO20-6a	48X48	16.00	2	32.00				RIGHT/CENTER/LEFT LANE CLOSED
WO20-7a	48X48	16.00						FLAGGER (SYMBOL) WITH FLAGS
WO21-2	36X36	9.00						FRESH OIL
WO21-5	48X48	16.00						SHOULDER WORK AHEAD
WO22-1	48X48	16.00						BLASTING ZONE AHEAD
WO22-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
WO22-3	42X36	10.50						END BLASTING ZONE
GO22-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ. FT.	QTY EACH	TOTAL AREA SQ. FT.	QTY RELOC EACH	TOTAL RELOC SQ. FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00						GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00						EXIT CLOSED
GO20-1	60X24	10.00						ROAD WORK NEXT XX MILES
GO20-2	48X24	8.00	6	48.00				END ROAD WORK
GO20-4	36X18	4.50						PILOT CAR FOLLOW ME
GO20-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
GO20-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
GO20-5aP	36X24	6.00	8	48.00				WORK ZONE (PLAQUE)
MO4-8a	24X18	3.00	6	18.00				END DETOUR
MO4-9L	48X36	12.00						DETOUR (LEFT ARROW)
MO4-9R	48X36	12.00						DETOUR (RIGHT ARROW)
MO4-9P	48X12	4.00						STREET NAME (PLAQUE)
MO4-10L	48X18	6.00						DETOUR (ARROW LEFT)
MO4-10R	48X18	6.00						DETOUR (ARROW RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25	4	53.00				STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00	8	96.00				SPEED LIMIT XX (4-60, 4-70)
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00	12	192.00				NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25	3	18.75				RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00	4	48.00				DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-7a	36X48	12.00	5	60.00				KEEP RIGHT (HORIZONTAL ARROW)
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R5-1	30X30	6.25	4	25.00				DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75	1	6.75				ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75	8	54.00				ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00	2	4.00				SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45^ ARROW)
R11-2	48X30	10.00	7	70.00				ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50	2	25.00				ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00						POINT OF PRESENCE
CONST-8	48X36	12.00	4	48.00				WORK ZONE NO PHONE ZONE
SP1-1	36X78	19.50	81	1579.50				HIGHWAY 350 DETOUR
SP1-2	36X60	15.00	24	360.00				ROUTE V DETOUR
SP1-3	30X30	6.25	19	118.75				NOLAND ROAD DETOUR

616-10.05 CONSTRUCTION SIGNS	TOTAL
	3721.00

616-10.10 RELOCATED SIGNS	TOTAL
	0.00

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009	8	IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020	14	REPLACEMENT SAND BARREL
6122030	2	IMPACT ATTENUATOR (RELOCATION)
6123000A		TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
6161008		ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	195	CHANNELIZER (TRIM LINE)
6161030	54	TYPE III MOVEABLE BARRICADE
6161033	28	DIRECTION INDICATOR BARRICADE
6161040	4	FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161055	28	SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A	10	CHANGEABLE MESSAGE SIGN WITHOUT COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6161099		CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002		TEMPORARY LONG-TERM RUMBLE STRIPS
6173600D	3150	TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A	1200	RELOCATING TEMPORARY TRAFFIC BARRIER
6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SUMMARY OF QUANTITIES SHEET 7 OF 7

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STATE OF MISSOURI
JAMES P. GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SUMMARY OF QUANTITIES

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

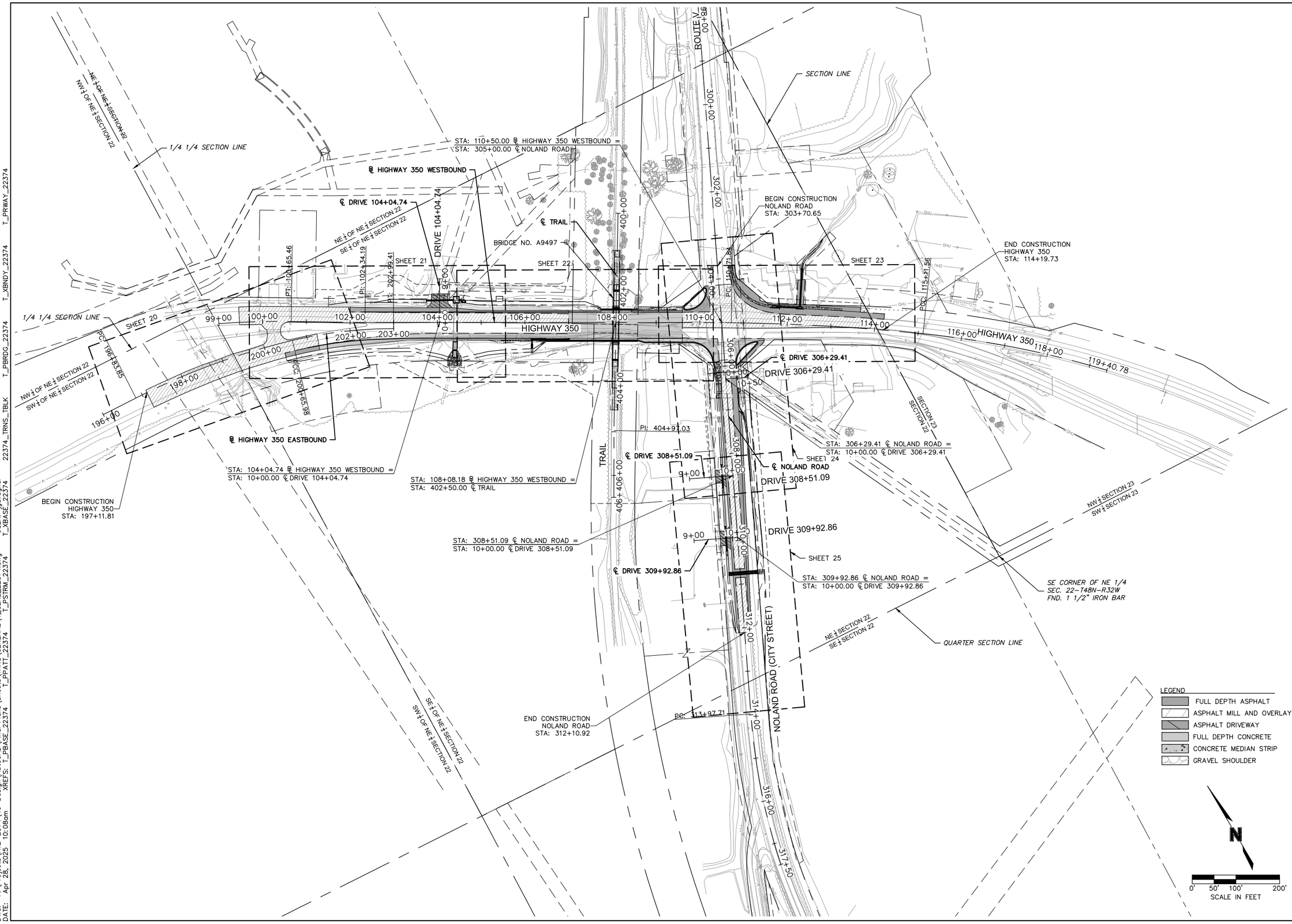
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_QTY_22374
DATE PREPARED: 4/28/2025

SHEET 3

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_QTY_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:07am XREFS: 22374_TRNS_TBLK



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GENERAL LAYOUT

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APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_GENL_22374
DATE PREPARED:	4/28/2025

SHEET 4

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_GENL_22374.dwg
DATE: Apr 28, 2025 10:08am
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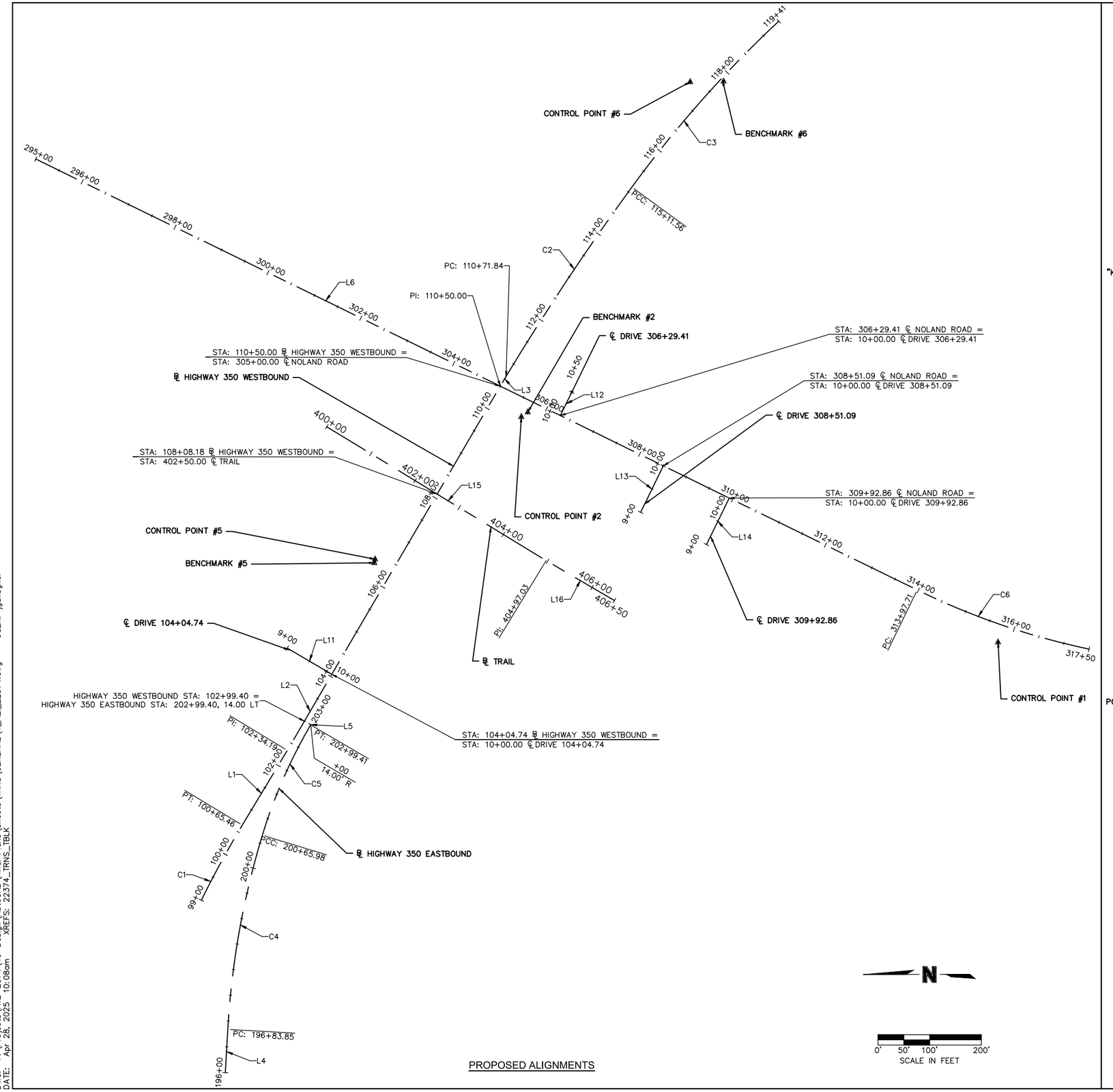

BENCHMARK #2

CHISELED SQUARE ON NORTHEAST CORNER SIGNAL POLE BASE AT SOUTHWEST CORNER OF HIGHWAY 350 AND NOLAND ROAD.
ELEV.=805.35

BENCHMARK #5

RAILROAD SPIKE IN SOUTH FACE OF POWER POLE, NORTH SIDE OF HIGHWAY 350, ±175' WEST OF RAILROAD BRIDGE.
ELEV.=806.24

BENCHMARK #6

CHISELED SQUARE ON WEST END OF NORTH BARRIER WALL OF BRIDGE OVER LITTLE BLUE RIVER ALONG WEST BOUND HIGHWAY 350.
ELEV.=807.76

SURVEYOR NOTES:

1) COORDINATES SHOWN HEREON ARE BASED ON THE MISSOURI STATE PLANE COORDINATE SYSTEM, NAD 83, NAVD 88, WEST ZONE BASED ON MISSOURI GEOGRAPHIC REFERENCE SYSTEM JA-98, USING A GRID FACTOR OF .9999086. ALL PROJECT COORDINATES ARE IN U.S. SURVEY FEET.

"KEEP OUT SIGN" POWER POLE
8.19' 93.95' 89.03'
POWER POLE

CONTROL POINT #1

SET 100"D" SPIKE 14' WEST OF EDGE OF PAVEMENT AT NORTHWEST CORNER NOLAND ROAD AND BRICKYARD ROAD.

NORTH, 93.95': DUPLEX NAIL IN EAST FACE POWER POLE.
SOUTHWEST, 89.03': DUPLEX NAIL IN SOUTHEAST FACE POWER POLE.
NORTHWEST, 8.19': FACE OF "KEEP OUT SIGN".

NORTH 1018252.7830
EAST 2808610.6949
ELEV.=801.76

POWER POLE TRAFFIC CONTROLLER
28.56' 17.88' 14.05'
SIGNAL POLE

CONTROL POINT #2

SET 1/2" IRON BAR AT SOUTHWEST CORNER OF 350 HIGHWAY AND NOLAND ROAD.

NORTH, 17.88': CHISELED "+" ON SOUTHEAST CORNER TRAFFIC CONTROLLER BASE.
SOUTHEAST, 14.05': CHISELED "+" ON NORTHWEST CORNER OF SIGNAL POLE BASE.
NORTHWEST, 28.56': NAIL AND BOTTLE CAP IN SOUTH FACE POWER POLE.

NORTH 1019174.7195
EAST 2809046.5565
ELEV.=803.99

POWER POLE 6.98' 84.91' 30.92' POWER POLE
GUARD RAIL

CONTROL POINT #5

SET 1/2" IRON BAR 9.5' NORTH OF NORTH SHOULDER OF 350, +/- 160' WEST OF RAILROAD BRIDGE.

SOUTHEAST, 84.91': DUPLEX NAIL IN SOUTHWEST FACE POWER POLE.
SOUTHEAST, 30.92': DUPLEX NAIL IN NORTH FACE WOOD POST AT END OF GUARD RAIL.
WEST, 6.98': NAIL IN SOUTH FACE POWER POLE.

NORTH 1019457.5596
EAST 2808771.1002
ELEV.=805.32

POWER POLE
31.81' 58.65' 19.09'
SIGN BASE
TOP OF BARRIER

CONTROL POINT #6

SET MAG NAIL IN SIDEWALK +/- 36' EAST OF "PURE" ENTRANCE OFF 350 HIGHWAY.

NORTHWEST, 31.81': DUPLEX NAIL IN SOUTH FACE POWER POLE.
SOUTHEAST, 19.09': NORTHWEST ANCHOR BOLT ON SIGN BASE.
SOUTHEAST, 58.65': NORTHWEST CORNER OF CHISELED SQUARE ON TOP OF BARRIER WALL AT SOUTHWEST CORNER OF BRIDGE.

NORTH 1018848.2081
EAST 2809693.9931
ELEV.=804.81

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ALIGNMENT DATA & SURVEY CONTROL

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MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_ALI_22374
DATE PREPARED:	4/28/2025

SHEET 5

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_ALI_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:08am XREFS: 22374_TRNS_TBLK

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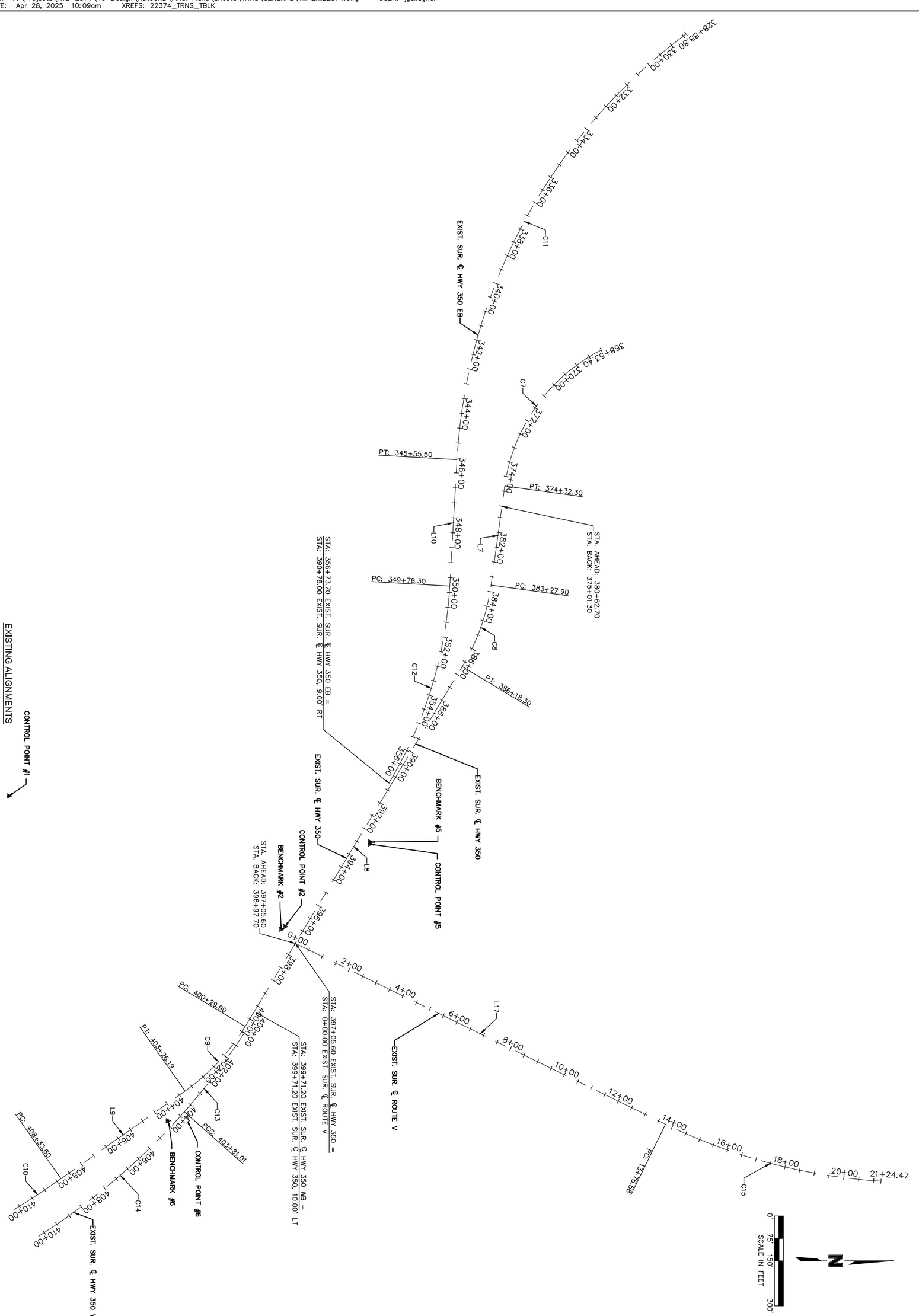
DATE: Apr 28, 2025 10:09am XREFS: 22374_TRNS_TBLK



ALIGNMENT DATA & SURVEY CONTROL			
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS			
MODOT JOB NO.: JKU0404	FEDERAL PROJECT STP-3337(411)		
ROUTE: 350	DISTRICT: KC	COUNTY: JACKSON	STATE: MO

SHEET 6

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JAM
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HIGHWAY 350 WESTBOUND									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
C1	PC= PI= PT=	99+00.00 99+82.78 100+65.46	1019793.7123 1019757.2152 1019714.4743	2808111.8424 2808186.1430 2808257.0361	165.46'	S61°22'37"E	4°55'29"	82.78'	1925.00'
L1		100+65.46 102+34.19	1019714.4743 1019627.3550	2808257.0361 2808401.5386	168.73'	S58°54'53"E			
L2		102+34.19 110+50.00	1019627.3550 1019215.5995	2808401.5386 2809105.8115	815.81'	S59°41'14"E			
L3		110+50.00 110+71.84	1019215.5995 1019204.3219	2809105.8115 2809124.5172	21.84'	S58°54'53"E			
C2	PC= PI= PT=	110+71.84 112+91.84 115+11.56	1019204.3219 1019090.7319 1018961.0327	2809124.5172 2809312.9261 2809490.6302	439.72'	S56°23'43"E	5°02'20"	220.00'	5000.00'
C3	PC= PI= PT=	115+11.56 117+26.81 119+40.78	1018961.0327 1018834.1378 1018676.9215	2809490.6302 2809664.4921 2809811.5068	429.21'	S48°28'39"E	10°47'47"	215.24'	2277.83'

HIGHWAY 350 EASTBOUND									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L4		196+00.00 196+83.85	1019747.2800 1019742.5197	2807778.3614 2807862.0782	83.85'	S86°44'44"E			
C4	PC= PI= PT=	196+83.85 198+75.83 200+65.98	1019742.5197 1019731.6211 1019675.6909	2807862.0782 2808053.7436 2808237.3906	382.12'	S79°54'13"E	13°41'02"	191.98'	1600.00'
C5	PC= PI= PT=	200+65.98 201+83.22 202+99.41	1019675.6909 1019641.5317 1019582.3542	2808237.3906 2808349.5524 2808450.7707	233.43'	S66°22'28"E	13°22'28"	117.25'	1000.00'
L5		202+99.41 203+00.00	1019582.3542 1019582.0543	2808450.7707 2808451.2835	0.59'	S59°41'14"E			

NOLAND ROAD									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L6		295+00.00 313+97.71	1020114.0455 1018409.0576	2809544.8955 2808711.6424	1897.71'	S26°02'44"W			
C6	PC= PI= PT=	313+97.71 315+74.75 317+50.00	1018409.0576 1018249.9972 1018076.7969	2808711.6424 2808633.9072 2808597.2382	352.29'	S18°59'59"W	14°05'30"	177.04'	1432.40'

EXIST. SUR. ℄ HWY 350									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
C7	PC= PI= PT=	368+53.40 371+67.33 374+32.30	1020230.6298 1019951.2877 1019908.3918	2807121.1004 2807264.3533 2807575.3409	578.90'	S54°38'53"E	54°59'48"	313.93'	603.10'
L7		374+32.30 383+27.90	1019908.3918 1019862.7265	2807575.3409 2807906.4064	334.20'	S82°08'47"E			
C8	PC= PI= PT=	383+27.90 384+75.12 386+18.30	1019862.7265 1019842.6099 1019766.5967	2807906.4064 2808052.2481 2808178.3293	290.40'	S70°31'50"E	23°13'55"	147.22'	716.20'
L8		386+18.30 400+29.90	1019766.5967 1019041.8448	2808178.3293 2809380.4561	1403.70'	S58°54'53"E			
C9	PC= PI= PT=	400+29.90 401+80.19 403+26.19	1019041.8448 1018964.2472 1018841.4849	2809380.4561 2809509.1653 2809595.8649	296.29'	S47°04'23"E	23°41'00"	150.29'	716.80'
L9		403+26.19 408+33.60	1018841.4849 1018427.0173	2809595.8649 2809888.5784	507.41'	S35°13'53"E			
C10	PC= PI= PT=	408+33.60 409+28.03 410+22.40	1018427.0173 1018349.8806 1018269.3237	2809888.5784 2809943.0554 2809992.3342	188.80'	S33°20'36"E	3°46'34"	94.43'	2864.79'

EXIST. SUR. ℄ HWY 350 EB									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
C11	PC= PI= PT=	328+88.80 337+79.40 345+55.50	1020513.8081 1019799.9767 1019749.0928	2806065.6934 2806598.2462 2807487.3911	1666.70'	S61°43'29"E	50°00'00"	890.60'	1909.90'
L10		345+55.50 349+78.30	1019749.0928 1019724.9364	2807487.3911 2807909.5005	422.80'	S86°43'29"E			
C12	PC= PI= PT=	349+78.30 353+32.99 356+73.70	1019724.9364 1019704.6713 1019521.5389	2807909.5005 2808263.6121 2808567.3689	695.40'	S72°49'11"E	27°48'36"	354.69'	1432.70'

EXIST. SUR. ℄ HWY 350 WB									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
C13	PC= PI= PT=	399+71.20 401+76.67 403+81.01	1019080.7166 1018974.6308 1018838.5822	2809335.3486 2809511.3103 2809665.2827	409.81'	S53°43'32"E	10°22'41"	205.47'	2262.49'
C14	PC= PI= PT=	403+81.01 407+04.45 410+23.64	1018838.5822 1018624.4206 1018351.5479	2809665.2827 2809907.6590 2810081.3021	642.63'	S40°30'13"E	16°03'57"	323.44'	2291.83'

DRIVE 104+04.74									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L11		9+00.00 10+00.00	1019627.6035 1019541.2752	2808599.2429 2808548.7708	100.00'	S30°18'46"W			

DRIVE 306+29.41									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L12		10+00.00 10+50.00	1019099.3344 1019077.3802	2809048.9910 2809093.9133	50.00'	S63°57'16"E			

DRIVE 308+51.09									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L13		9+00.00 10+00.00	1018944.0746 1018900.1662	2808861.8099 2808951.6545	100.00'	S63°57'16"E			

DRIVE 309+92.86									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L14		9+00.00 10+00.00	1018816.7040 1018772.7956	2808799.5620 2808889.4066	100.00'	S63°57'16"E			

TRAIL									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L15		400+00.00 404+97.03	1019551.1015 1019126.7304	2809027.2023 2808768.4541	497.03'	S31°22'18"W			
L16		404+97.03 406+50.00	1019126.7304 1018994.7188	2808768.4541 2808691.1757	152.97'	S30°20'40"W			

EXIST. SUR. ℄ ROUTE V									
NO.		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD BEARING	DELTA	TANGENT	RADIUS
L17		0+00.00 13+75.58	1019209.2859 1020445.1703	2809102.7260 2809706.7212	1375.58'	N26°02'44"E			
C15	PC= PI= PT=	13+75.58 17+54.90 21+24.47	1020445.1703 1020785.9668 1021164.5448	2809706.7212 2809873.2736 2809896.9507	748.89'	N14°48'44"E	22°28'00"	379.32'	1909.86'

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SHEET
7

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_ALI_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:09am XREFS: 22374_TRNS_TBLK

GENERAL NOTES:

1. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS AS APPROVED BY THE MISSOURI DEPARTMENT OF TRANSPORTATION (MODOT) AND (1) COPY OF THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES.

2. MODOT DESIGN STANDARDS SHALL GOVERN CONSTRUCTION OF HIGHWAY 350 AND NOLAND ROAD NORTH OF HIGHWAY 350. KCMO PUBLIC WORKS DESIGN & CONSTRUCTION STANDARDS SHALL GOVERN CONSTRUCTION OF NOLAND ROAD SOUTH OF HIGHWAY 350.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.

4. CONSTRUCTION OF THE IMPROVEMENTS SHOWN OR IMPLIED BY THIS SET OF DRAWINGS SHALL NOT BE INITIATED OR ANY PART THEREOF UNDERTAKEN UNTIL MODOT IS NOTIFIED OF SUCH INTENT AND ALL REQUIRED PERMITS, PROPERTY ACQUISITIONS, SECURITY AND OTHER CONTRACT BONDS, AND CONTRACT AGREEMENTS ARE RECEIVED AND APPROVED BY MODOT.

5. CONTRACTOR SHALL NOT BE ALLOWED TO WORK WEEKENDS OR HOLIDAYS WITHOUT REQUESTING PRIOR APPROVAL FROM MODOT THREE WORKING DAYS IN ADVANCE.

6. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE DESIGN ENGINEER SHALL INDICATE APPROVAL OF THE SHOP DRAWINGS.

MISSOURI ONE CALL SYSTEM

1-800-DIG-RITE or 811

www.mo1call.com

7. ALL EXISTING UTILITIES INDICATED ON THE DRAWINGS ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR TO OBTAIN THE EXACT LOCATION OF SAME SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE. ONE-CALL/DIG RITE (1-800-344-7483 AND 1-800-DIG-RITE).

8. ALL PRIVATELY OWNED UTILITIES IN CONFLICT WITH THESE IMPROVEMENTS SHALL BE RELOCATED BY THE APPROPRIATE UTILITY COMPANIES. UTILITY RELOCATIONS WILL BE COMPLETED PRIOR TO THE START OF CONSTRUCTION, WHEN PRACTICABLE.

9. CONSTRUCTION STAKING IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SET THOSE STAKES NECESSARY TO CONSTRUCT THIS PROJECT IN ACCORDANCE WITH THE PLANS.

10. CONTRACTOR SHALL REMOVE THOSE TREES NECESSARY TO ACCOMPLISH THE GRADING WORK SHOWN HEREON. ALL TREES AND BRUSH FROM THE WORK SHALL BE COMPLETELY REMOVED FROM THE SITE BY THE CONTRACTOR. BURNING WILL NOT BE ALLOWED ON THE PROJECT.

11. ALL BACKFILL SHALL BE PLACED AND COMPACTED TO THE REQUIRED DENSITY AS INDICATED IN THE SPECIFICATIONS.

12. ALL ROADWAY EXCAVATION IN ROCK (SHALE, SANDSTONE OR LIMESTONE) WILL BE UNDERCUT NO LESS THAN 6" INCHES FOR THE FULL WIDTH OF THE ROADWAY AND BACKFILLED WITH SUITABLE SOIL OR GRANULAR MATERIAL. THERE WILL BE NO DIRECT PAYMENT FOR ROCK EXCAVATION. PAYMENT FOR ALL MATERIAL WILL BE MADE AT THE CONTRACT BID PRICE FOR UNCLASSIFIED EXCAVATION.

13. THE CONTRACTOR SHALL USE ADEQUATE DUST CONTROL MEASURES DURING ALL PHASES OF THE CONSTRUCTION TO MINIMIZE DUST ON SURROUNDING PROPERTIES AT THE CONTRACTOR'S EXPENSE.

14. WATER CAN BE OBTAINED BY RENTING A FIRE HYDRANT METER FROM THE CITY OF KANSAS CITY, MO WATER UTILITIES DEPARTMENT.

15. DRIVEWAYS, SIDEWALKS, FENCES, SPRINKLER SYSTEMS AND OTHER AREAS DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT EXISTING BEFORE DAMAGE OCCURRED. THIS WORK WILL NOT BE PAID FOR DIRECTLY, BUT IS CONSIDERED SUBSIDIARY TO OTHER BID ITEMS.

16. WHERE THE NEW STREET IS TO CONNECT TO AN EXISTING STREET ALL DETERIORATED OR CRACKED ASPHALT WITHIN TWO (2) FEET OF THE CONNECTION POINT SHALL BE REMOVED TO A DEPTH WHERE SOUND MATERIAL IS FOUND. IF FULL-DEPTH PAVEMENT REMOVAL IS REQUIRED, THE SUB-GRADE SHALL BE RE-COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D-698).

17. ALL EXISTING FENCING, DRIVEWAYS, SIDEWALKS AND OTHER ITEMS WITHIN THE CONSTRUCTION LIMITS DAMAGED OR REMOVED BY THE CONTRACTOR, SHALL BE REPLACED WITH NEW MATERIALS. ALL FENCE REPLACEMENT SHOULD BE RELOCATED TO THE PROPERTY LINES UNLESS THE EXISTING FENCE WAS LOCATED INSIDE THE PROPERTY LINES, THEN THE FENCE SHOULD BE REPLACED IN ITS ORIGINAL LOCATION. FENCE CORNERS OF FENCES TO BE RELOCATED AT THE ORIGINAL LOCATIONS SHALL BE REFERENCE OUT BY THE CONTRACTOR BEFORE REMOVAL. REMOVALS SHALL BE AS SHOWN ON THESE PLANS, OR APPROVED BY MODOT PRIOR TO REMOVAL. REMOVALS NOT PRE-APPROVED WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

18. REMOVAL OF EXISTING STORM DRAINAGE STRUCTURES AND OTHER EXISTING PHYSICAL FEATURES OF THE EXISTING ROADWAY SHALL BE CONSIDERED INCIDENTAL AND REMOVED AS A SUBSIDIARY ITEM TO REMOVAL OF IMPROVEMENTS. ALL WASTE SHALL BE TRANSPORTED TO AN APPROVED DUMP SITE FOR DISPOSAL.

19. ALL EXISTING WATER VALVES, METERS, FIRE HYDRANTS AND BLOW-OFF ASSEMBLIES WITHIN THE LIMITS OF THE PROPOSED PAVEMENT SHALL BE RELOCATED OR ADJUSTED TO GRADE BY THE CONTRACTOR. WATER METERS SHALL BE RELOCATED SO THAT THEY ARE WITHIN THE PUBLIC RIGHT-OF -WAY, APPROXIMATELY ONE FOOT FROM RIGHT-OF WAY LINE. WATER SERVICE LINES AFFECTED BY METER RELOCATION AND/OR THE WATER MAIN RELOCATIONS SHOWN IN THESE PLANS SHALL BE RECONNECTED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY RESIDENTS OF ANY WATER SERVICE INTERRUPTIONS 48 HOURS PRIOR TO INTERRUPTING THE SERVICE. ANY SERVICE INTERRUPTIONS MUST BE RESTORED THE SAME DAY.

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS AND SURVEY MONUMENTS WHICH HAVE BEEN DAMAGED OR DESTROYED BY THIS CONSTRUCTION OPERATION INCLUDING THOSE BURIED WITH EMBANKMENT OR REMOVED DURING EXCAVATION. SUCH IRONS AND MONUMENTS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR. REPLACEMENT OF PROPERTY IRONS AND MONUMENTS SHALL BE SUBSIDIARY TO OTHER BID ITEMS.

21. THE TOP 6" OF ALL DISTURBED AREAS THAT ARE TO BE SEEDED OR SODDED SHALL BE OF MATERIAL SUITABLE FOR SUSTAINING GRASS. THE GRADED SURFACE SHALL BE MADE FREE OF ROCK, CONCRETE, BRICK, OR FRAGMENTS THEREOF, OR RUBBISH AND SHALL BE FINISHED TO THE LINES, GRADES, AND CROSS-SECTION INDICATED ON THE PLANS.

22. ALL EXISTING TRAFFIC CONTROL SIGNS REMOVED SHALL BE SALVAGED AND DELIVERED TO THE MODOT MAINTENANCE YARD.

23. ALL WATERLINE MAINS, SANITARY SEWER MAINS AND STORM WATER DRAINAGE CROSSINGS UNDER PROPOSED STREET PAVEMENTS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF THE ASPHALT OR CONCRETE SURFACE AND BASE COURSES.

24. APPROPRIATE TRAFFIC CONTROL DEVICES, SIGNAGE, AND PAVEMENT MARKINGS SHALL BE ESTABLISHED AND MAINTAINED THROUGHOUT THE PROJECT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND MUTCD.

25. HANDICAP RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ADA REQUIREMENTS AT ALL LOCATIONS WHERE POSSIBLE.

26. THE CONTRACTOR MUST REMOVE AT THEIR COST ANY BAD SUBSURFACE SOIL WHICH WOULD NOT BE ABLE TO SUPPORT ANY PROPOSED PUBLIC IMPROVEMENT. BACKFILL SHOULD BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 209 ENTITLED "SUBGRADE PREPARATION."

27. ALL SIGNS INSTALLED AND RELOCATED, ALONG WITH THE SIGN POSTS, SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND MODOT GUIDELINES.

BEST MANAGEMENT PRACTICES:

1. PRIOR TO LAND DISTURBANCE ACTIVITIES, THE CONTRACTOR SHALL:

   A. PRIOR TO BEGINNING EXCAVATION, THE CONTRACTOR SHALL INSTALL SILT FENCE ALONG THE CONSTRUCTION LIMITS TO RETAIN SOIL AND SEDIMENT IN THE DISTURBED SITE. THE CONTRACTOR AND THE ENGINEER SHALL USE DISCRETION IN THE PLACEMENT OF THE SILT FENCE AS TO PREVENT FLOODING IN UNDESIRABLE LOCATIONS.

   B. CONSTRUCT A STABILIZED ENTRANCE/PARKING/DELIVERY AREA AND INSTALL ALL PERIMETER SEDIMENT CONTROLS ON THE SITE.

   C. INSTALL AND REQUEST THE INSPECTION OF THE PRE-CONSTRUCTION EROSION AND SEDIMENT CONTROL MEASURES DESIGNATED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. LAND DISTURBANCE WORK SHALL NOT PROCEED UNTIL THERE IS A SATISFACTORY INSPECTION.

   D. TEMPORARY FENCING SHALL BE INSTALLED ALONG ALL TEMPORARY EASEMENTS AND MAINTAINED FOR THE DURATION OF THE PROJECT.

2. THE CONTRACTOR SHALL MINIMIZE THE AREA DISTURBED DURING EXCAVATION AND CONSTRUCTION OF THE STORM SEWER PIPES AND STRUCTURES. FOLLOWING THE CONSTRUCTION OF THE STORM SEWER LINE, THE CONTRACTOR SHALL INSTALL THE TEMPORARY DITCH CHECKS AT 100' INTERVALS WITHIN TWO WORKING DAYS AFTER CONSTRUCTION ACTIVITY HAS CEASED IN THAT AREA. THE TEMPORARY DITCH CHECKS SHALL REMAIN IN PLACE UNTIL SOD HAS BEEN PLACED ON THE DISTURBED AREAS. INLETS SHALL BE PROTECTED WITH SEDIMENT BARRIERS AS SHOWN ON THE DETAIL.

3. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF MODOT DIVISION 800 ROADSIDE DEVELOPMENT, SUCH AS:

   THE CONTRACTOR SHALL TEMPORARY SEED, MULCH, OR OTHERWISE STABILIZE ANY DISTURBED AREA NECESSARY TO ELIMINATE EROSION OR ESTABLISH TEMPORARY STABILIZATION WITHIN 7 DAYS AFTER EARTHWORK OPERATIONS HAVE CEASED AND SHALL BE COMPLETED WITHIN 14 DAYS (7 DAYS ON SLOPES STEEPER THAN 3:1 OR GREATER THAN 3% AND LONGER THAN 150 FEET), WEATHER PERMITTING. ALL DISTURBED AREAS SHALL BE STABILIZED DURING THE FALL TO PREVENT EROSION, WITH THE EXCEPTION OF THE ROAD GRADE ITSELF. IF FINAL GRADE HAS BEEN ACHIEVED, PERMANENT VEGETATION SHALL BE ESTABLISHED IN AREAS WHERE PLANTING IS IN SEASON.

   THE CONTRACTOR SHALL PERFORM INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES AT LEAST ONCE PER WEEK AND WITHIN 48 HOURS OF THE END OF EACH RUNOFF EVENT.

   THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG INCLUDING THE INSPECTOR'S NAME, DATE OF INSPECTION, INSPECTION TYPE, OBSERVATIONS AS TO THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL MEASURES, ACTIONS NECESSARY TO CORRECT DEFICIENCIES, WHEN THE DEFICIENCIES WERE CORRECTED, AND THE SIGNATURE OF THE PERSON PERFORMING THE INSPECTION. THE LOG SHALL BE AVAILABLE FOR REVIEW BY MODOT.

4. THE CONTRACTOR SHALL MAINTAIN INSTALLED EROSION AND SEDIMENT CONTROL DEVICES IN A MANNER THAT PRESERVES THEIR EFFECTIVENESS FOR PREVENTING SEDIMENT FROM LEAVING THE SITE OR ENTERING A SENSITIVE AREA SUCH AS A NATURAL STREAM CORRIDOR, AREAS OF THE SITE INTENDED TO BE LEFT UNDISTURBED, A STORM SEWER, OR AN ON-SITE DRAINAGE CHANNEL.

5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING EROSION AND SEDIMENT CONTROL FOR THE DURATION OF A PROJECT. IF THE CITY DETERMINES THAT THE BMP'S IN PLACE DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL AT ANY TIME DURING THE PROJECT, THE CONTRACTOR SHALL INSTALL ADDITIONAL OR ALTERNATE MEASURES THAT PROVIDE EFFECTIVE CONTROL.

6. THE CONTRACTOR MAY UTILIZE PUBLIC RIGHT-OF-WAY, PERMANENT DRAINAGE EASEMENTS AND TEMPORARY EASEMENTS FOR STAGING EQUIPMENT AND MATERIALS SO LONG AS TWO-WAY TRAFFIC AND ACCESS TO DRIVEWAYS IS MAINTAINED AT ALL TIMES.

7. EXCAVATED MATERIAL AND TOPSOIL STAGING SHALL NOT BE PERMITTED IN STREET RIGHT-OF-WAY AND SHALL BE CONFINED TO DRAINAGE EASEMENTS AND THOSE AREAS IDENTIFIED ON THIS PLAN. STOCKPILE AREAS SHALL BE PROTECTED WITH SILT FENCING TO PREVENT SOIL LOSS TO NEARBY STORM DRAINAGE SYSTEMS AND PROPERTY.

8. PROJECT SHALL BE CONSTRUCTED DOWNSTREAM TO UPSTREAM. THE AMOUNT OF DISTURBED AREA LEFT EXPOSED SHALL BE MINIMIZED.

9. ALL AREA INLETS AND CURB INLETS SHALL BE PROTECTED WITH TEMPORARY INLET SEDIMENT BARRIERS PRIOR TO TOP SLAB INSTALLATION AS WELL AS AFTER TOP SLAB INSTALLATION UNTIL SODDING AND PAVING IS COMPLETE.

10. SEEDING AND SODDING SHALL OCCUR IN PHASES AS DEPICTED ON THIS PLAN. THE SEEDING WINDOW SHALL FOLLOW SPEC 805.3.

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

GENERAL NOTES

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

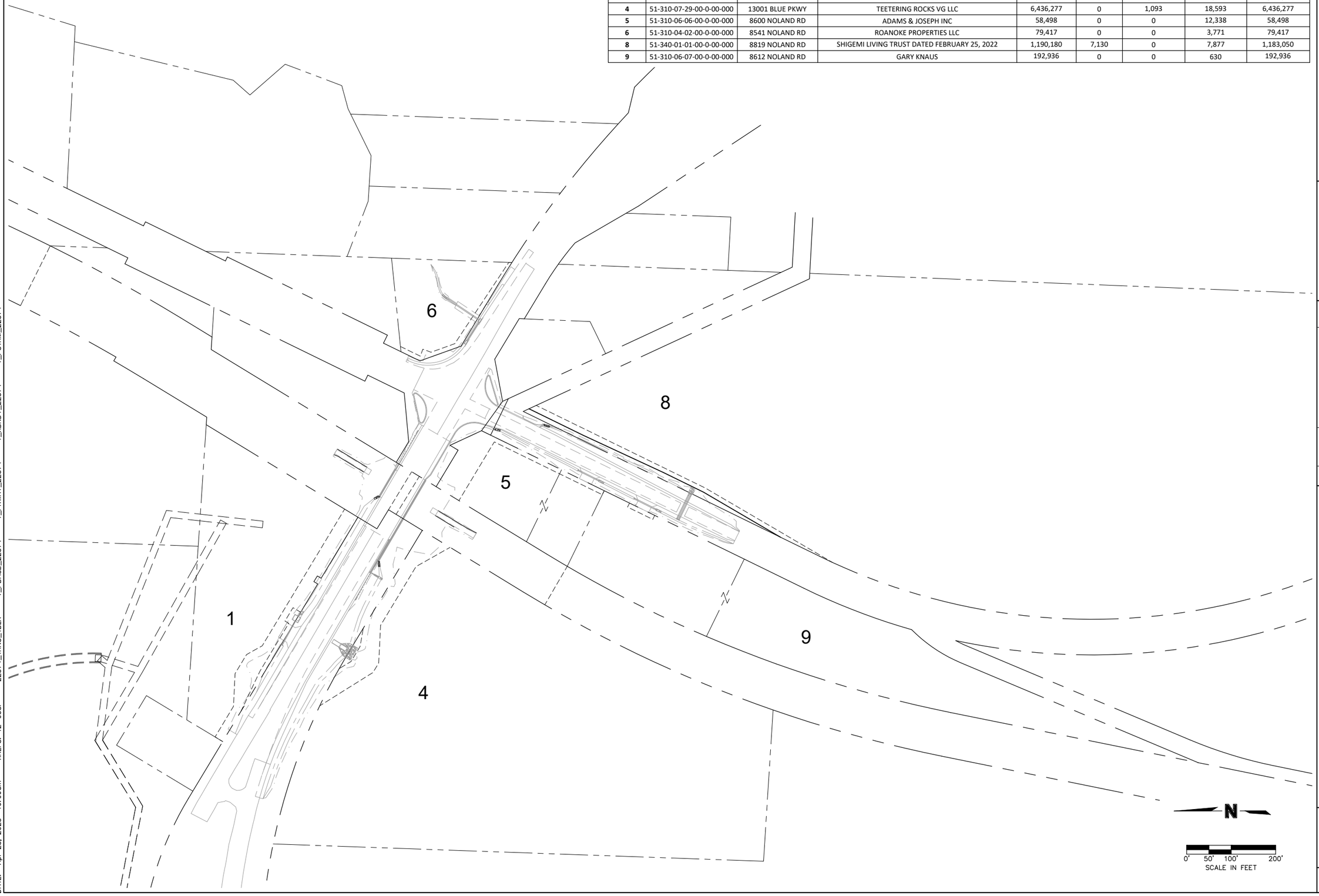
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_GENN_22374
DATE PREPARED: 4/28/2025

SHEET 8

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_GENN_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:09am XREFS: 22374_TRNS_TBLK

TRACT NO.	PARCEL ID	ADDRESS	OWNER	TOTAL TRACT AREA (SF)	R/W (SF)	PERM. EASEMENT (SF)	TEMP. EASEMENT (SF)	REMAINING TRACT AREA (SF)
1	51-310-01-05-00-0-00-000	12902 BLUE PKWY	QUALITY HOLDINGS LLC	10,549,625	0	2,447	20,759	10,549,625
4	51-310-07-29-00-0-00-000	13001 BLUE PKWY	TEETERING ROCKS VG LLC	6,436,277	0	1,093	18,593	6,436,277
5	51-310-06-06-00-0-00-000	8600 NOLAND RD	ADAMS & JOSEPH INC	58,498	0	0	12,338	58,498
6	51-310-04-02-00-0-00-000	8541 NOLAND RD	ROANOKE PROPERTIES LLC	79,417	0	0	3,771	79,417
8	51-340-01-01-00-0-00-000	8819 NOLAND RD	SHIGEMI LIVING TRUST DATED FEBRUARY 25, 2022	1,190,180	7,130	0	7,877	1,183,050
9	51-310-06-07-00-0-00-000	8612 NOLAND RD	GARY KNAUS	192,936	0	0	630	192,936



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PROFESSIONAL ENGINEER

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MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

RIGHT OF WAY IMPACTS SHEET

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PRP0_22374
DATE PREPARED: 4/28/2025

SHEET 9

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PROPERTY OWNERSHIP PLANS\T_PRP0_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:09am XREFS: 12-058P 22374_TRNS_TBLK T_PBASE_22374 T_PRWAY_22374 T_XBNDY_22374

GENERAL NOTES:
THE STATIONING AND OFFSET CALLOUTS ON THIS SHEET REFERENCE THE EXISTING SURVEY CENTERLINE OF HIGHWAY 350, UNLESS OTHERWISE NOTED.

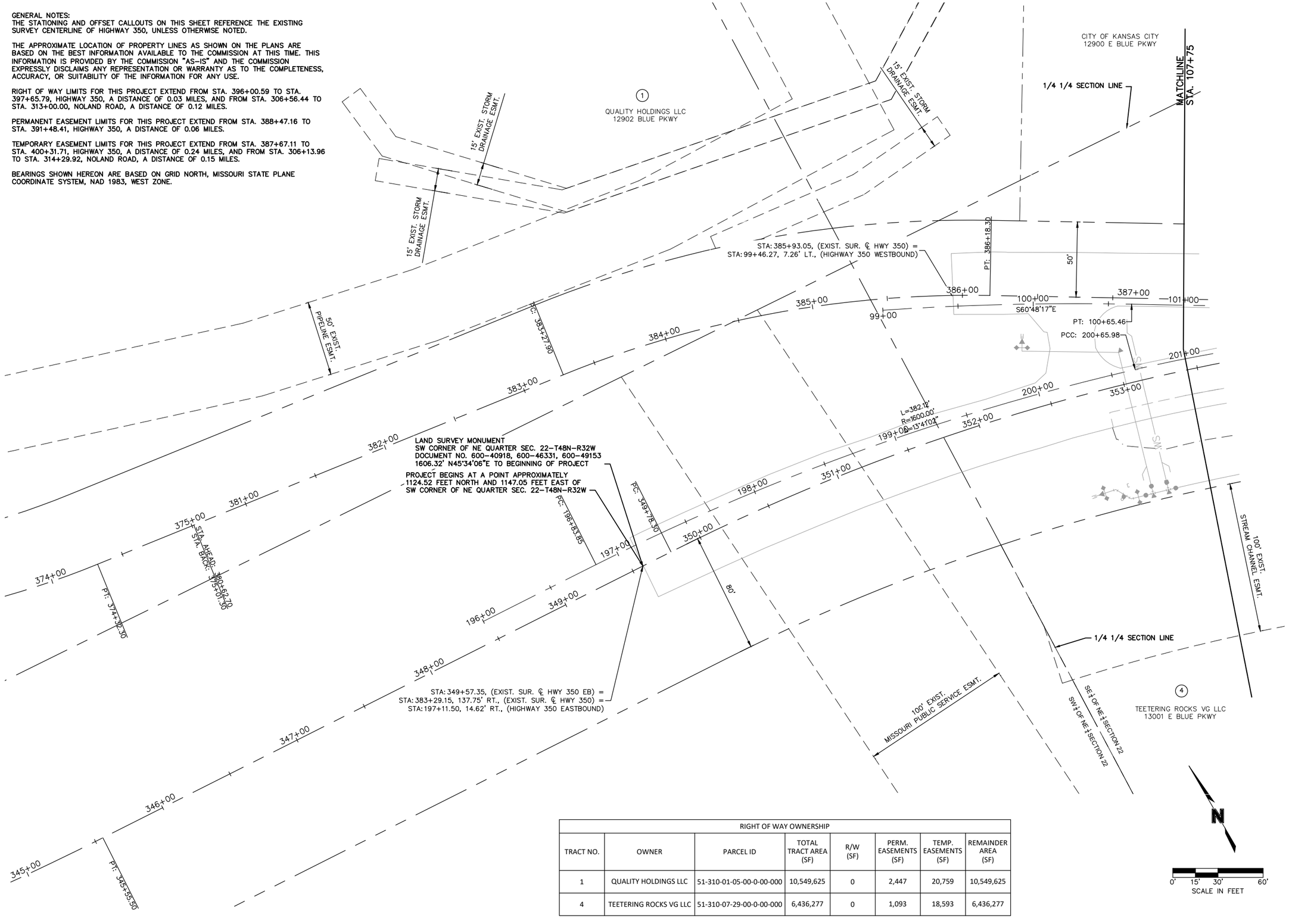
THE APPROXIMATE LOCATION OF PROPERTY LINES AS SHOWN ON THE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE.

RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM STA. 396+00.59 TO STA. 397+65.79, HIGHWAY 350, A DISTANCE OF 0.03 MILES, AND FROM STA. 306+56.44 TO STA. 313+00.00, NOLAND ROAD, A DISTANCE OF 0.12 MILES.

PERMANENT EASEMENT LIMITS FOR THIS PROJECT EXTEND FROM STA. 388+47.16 TO STA. 391+48.41, HIGHWAY 350, A DISTANCE OF 0.06 MILES.

TEMPORARY EASEMENT LIMITS FOR THIS PROJECT EXTEND FROM STA. 387+67.11 TO STA. 400+31.71, HIGHWAY 350, A DISTANCE OF 0.24 MILES, AND FROM STA. 306+13.96 TO STA. 314+29.92, NOLAND ROAD, A DISTANCE OF 0.15 MILES.

BEARINGS SHOWN HEREON ARE BASED ON GRID NORTH, MISSOURI STATE PLANE COORDINATE SYSTEM, NAD 1983, WEST ZONE.



RIGHT OF WAY OWNERSHIP

TRACT NO.	OWNER	PARCEL ID	TOTAL TRACT AREA (SF)	R/W (SF)	PERM. EASEMENTS (SF)	TEMP. EASEMENTS (SF)	REMAINDER AREA (SF)
1	QUALITY HOLDINGS LLC	51-310-01-05-00-0-00-000	10,549,625	0	2,447	20,759	10,549,625
4	TEETERING ROCKS VG LLC	51-310-07-29-00-0-00-000	6,436,277	0	1,093	18,593	6,436,277

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

RIGHT OF WAY & EASEMENTS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | STATE: MO
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PRP1_22374
DATE PREPARED: 4/28/2025

SHEET 10

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PROPERTY OWNERSHIP PLANS\T_PRP1_22374.dwg
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USER: jgallagher
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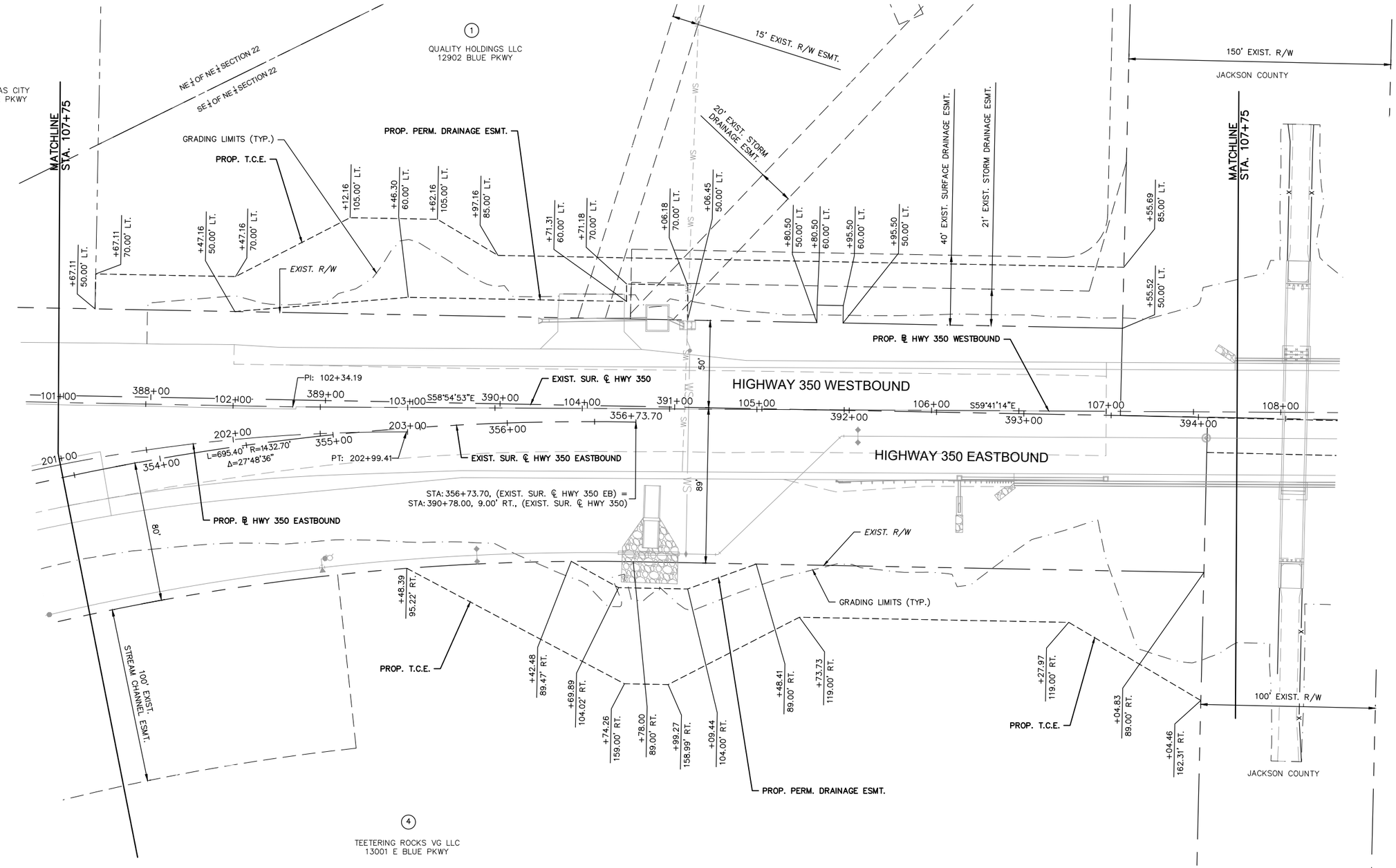

GENERAL NOTES:
THE STATIONING AND OFFSET CALLOUTS ON THIS SHEET REFERENCE THE EXISTING SURVEY CENTERLINE OF HIGHWAY 350, UNLESS OTHERWISE NOTED.

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PERMANENT EASEMENT LIMITS FOR THIS PROJECT EXTEND FROM STA. 388+47.16 TO STA. 391+48.41, HIGHWAY 350, A DISTANCE OF 0.06 MILES.

TEMPORARY EASEMENT LIMITS FOR THIS PROJECT EXTEND FROM STA. 387+67.11 TO STA. 400+31.71, HIGHWAY 350, A DISTANCE OF 0.24 MILES, AND FROM STA. 306+13.96 TO STA. 314+29.92, NOLAND ROAD, A DISTANCE OF 0.15 MILES.

BEARINGS SHOWN HEREON ARE BASED ON GRID NORTH, MISSOURI STATE PLANE COORDINATE SYSTEM, NAD 1983, WEST ZONE.

RIGHT OF WAY OWNERSHIP							
TRACT NO.	OWNER	PARCEL ID	TOTAL TRACT AREA (SF)	R/W (SF)	PERM. EASEMENTS (SF)	TEMP. EASEMENTS (SF)	REMAINDER AREA (SF)
1	QUALITY HOLDINGS LLC	51-310-01-05-00-0-00-000	10,549,625	0	2,447	20,759	10,549,625
4	TEETERING ROCKS VG LLC	51-310-07-29-00-0-00-000	6,436,277	0	1,093	18,593	6,436,277

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

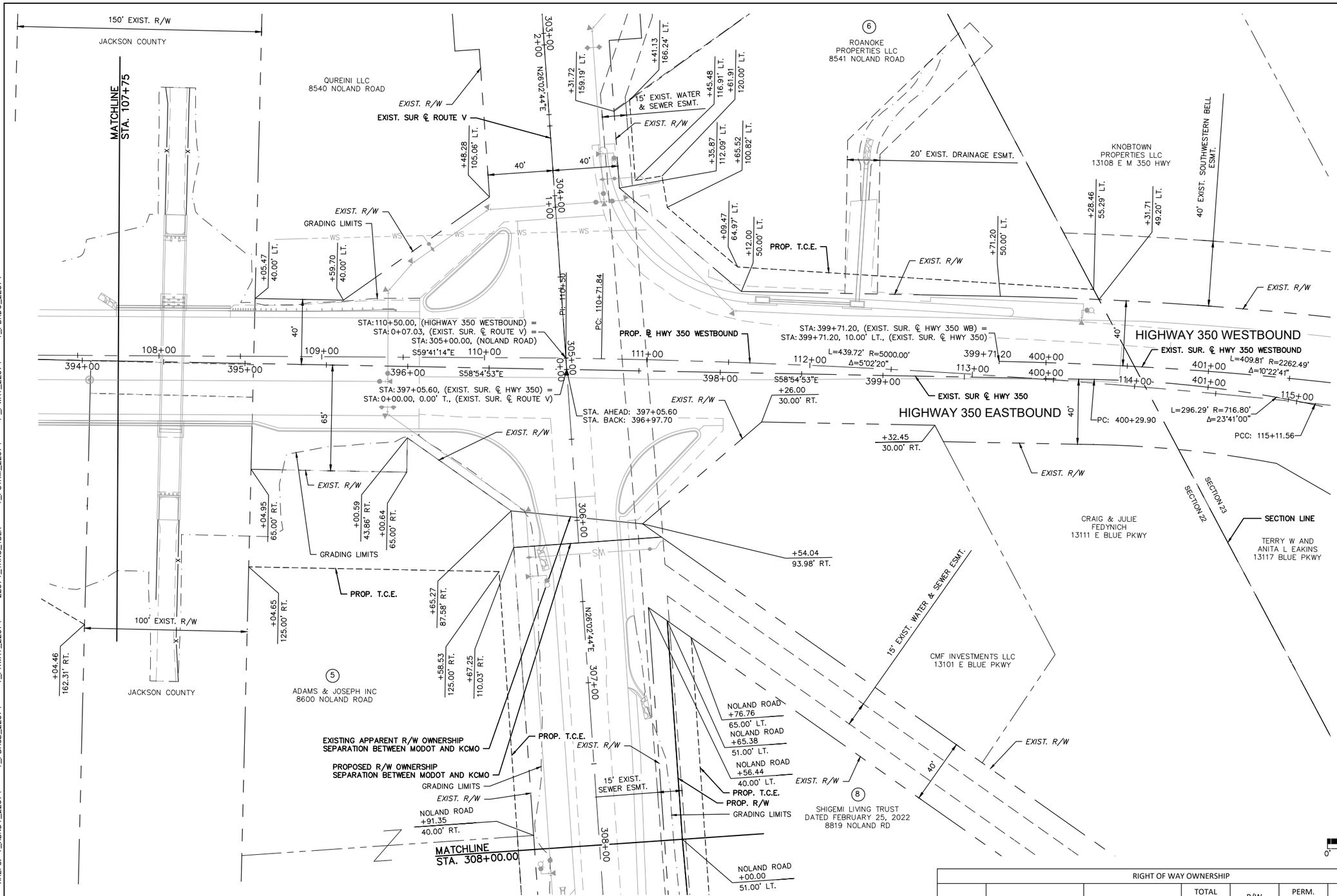
RIGHT OF WAY & EASEMENTS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PRP1_22374
DATE PREPARED: 4/28/2025

SHEET
11

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PROPERTY OWNERSHIP PLANS\T_PRP1_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:10am XREFS: T_XBNDY_22374 T_PBASE_22374 T_PRWAY_22374 22374_TRNS_TBLK P_PWAT_22374 T_PSTRM_22374 T_PBROG_22374



GENERAL NOTES:
THE STATIONING AND OFFSET CALLOUTS ON THIS SHEET REFERENCE THE EXISTING SURVEY CENTERLINE OF HIGHWAY 350, UNLESS OTHERWISE NOTED.

RIGHT OF WAY OWNERSHIP

TRACT NO.	OWNER	PARCEL ID	TOTAL TRACT AREA (SF)	R/W (SF)	PERM. EASEMENTS (SF)	TEMP. EASEMENTS (SF)	REMAINDER AREA (SF)
5	ADAMS & JOSEPH INC	51-310-06-06-00-0-00-000	58,498	0	0	12,338	58,498
6	ROANOKE PROPERTIES LLC	51-310-04-02-00-0-00-000	79,417	0	0	3,771	79,417

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NUMBER PE-2018010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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RIGHT OF WAY & EASEMENTS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PRP1_22374
DATE PREPARED: 4/28/2025

SHEET 12

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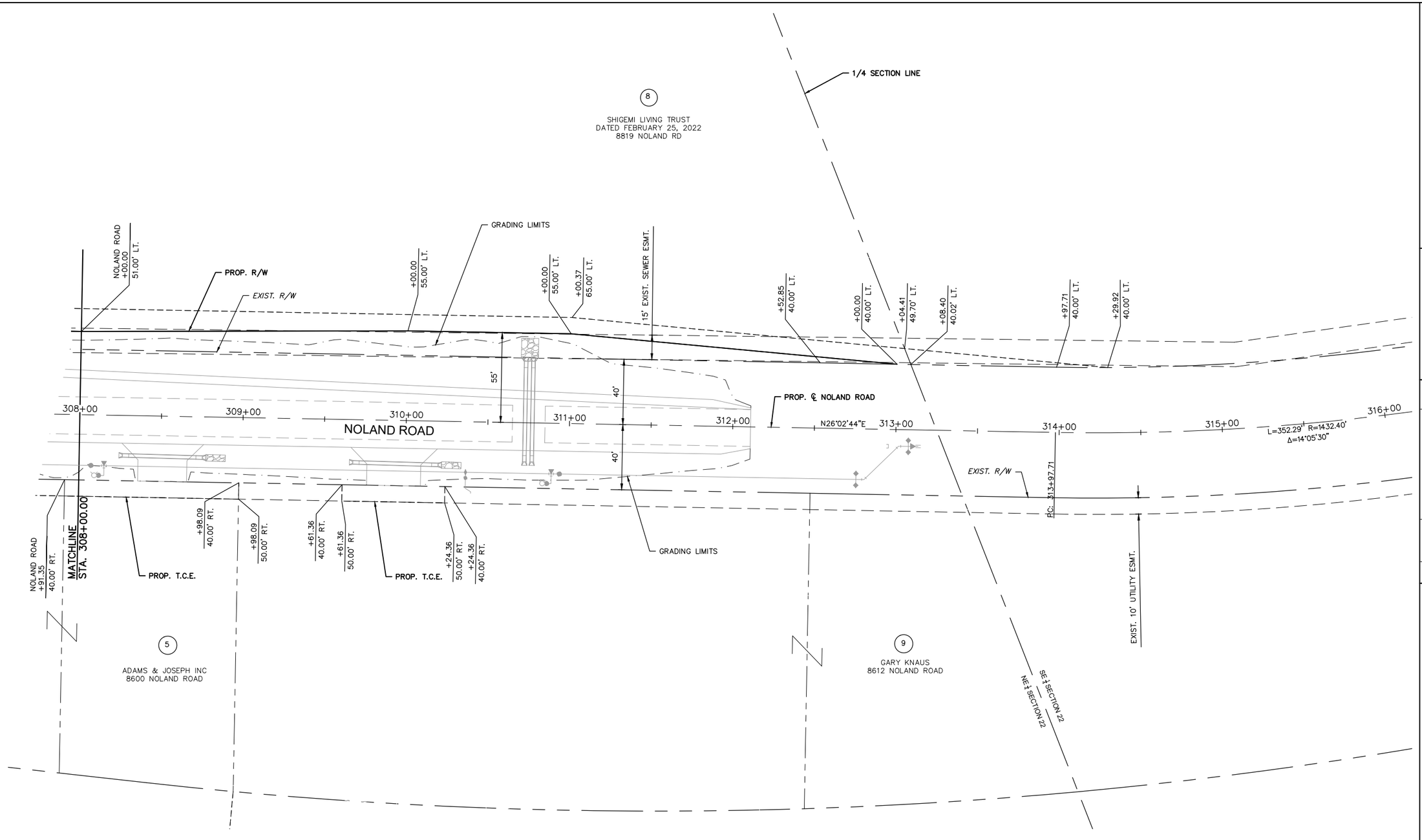

RIGHT OF WAY OWNERSHIP							
TRACT NO.	OWNER	PARCEL ID	TOTAL TRACT AREA (SF)	R/W (SF)	PERM. EASEMENTS (SF)	TEMP. EASEMENTS (SF)	REMAINDER AREA (SF)
8	SHIGEMI LIVING TRUST DATED FEBRUARY 25, 2022	51-340-01-01-00-0-00-000	1,190,180	7,130	0	7,877	1,183,050
9	GARY KNAUS	51-310-06-07-00-0-00-000	192,936	0	0	630	192,936

GENERAL NOTES:
THE STATIONING AND OFFSET CALLOUTS ON THIS SHEET REFERENCE THE NOLAND ROAD ALIGNMENT, UNLESS OTHERWISE NOTED.

N

0' 15' 30' 60'
SCALE IN FEET

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

RIGHT OF WAY & EASEMENTS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
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PROJECT NO.: JKU0404
DWG NO.: T_PRP1_22374
DATE PREPARED: 4/28/2025

SHEET
13

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PROPERTY OWNERSHIP PLANS\T_PRP1_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:10am XREFS: T_XBNDY_22374 T_PBASE_22374 T_PRWAY_22374 T_PRTRM_22374 P_PWAT_22374 T_PBRDG_22374

QUALITY HOLDINGS LLC.
12902 BLUE PKWY

CITY OF KANSAS CITY
12900 E BLUE PKWY

℄ HIGHWAY 350 EASTBOUND

U.I.P. EXIST. 18–INCH CMP

U.I.P. EXIST. 15–INCH CMP

U.I.P. SIGN

+47
35.15' LT

+47
5.39' RT

+96.68
6.38' RT

+99.59
7.66' LT

+11.90
6.03' LT

+11.90
37.50' RT

+42.66
23.93' RT

+42.66
34.10' RT

99+00

100+00

101+00

MATCHLINE
101+00.00

PT: 100+65.46

197+00

198+00

199+00

200+00

201+00

PC: 196+83.85

PCC: 200+85.98

TEETERING ROCKS VG LLC
13001 E BLUE PKWY

TEETERING ROCKS VG LLC
12401 E BLUE PKWY

NOTE:
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WATER LINE TO BE ABANDONED WITH FLOWABLE FILL BY OTHERS. CONTRACTOR SHALL COORDINATE WITH KC WATER SERVICES.

UTILITIES TO BE RELOCATED BY OTHERS. CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY CONTACT FOR EACH COMPANY.

LEGEND
- ASPHALT REMOVAL
- STORM SEWER AND CULVERT REMOVAL
- CONCRETE REMOVAL
- TREE REMOVAL
- 2" MILL
- CURB, GUTTER, AND CURB & GUTTER REMOVAL
- FENCE REMOVAL

DWG: F:\projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GENERAL\T_DEM_22374.dwg USER: jgallagher
DATE: Apr 29, 2025 12:29am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PRWAY_22374 T_XBNDY_22374

olsson
Olsson Inc.
Missouri Certificate of Authority #001592
1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
FAX 816.361.1888
www.olsson.com

STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

DEMOLITION AND REMOVAL PLAN

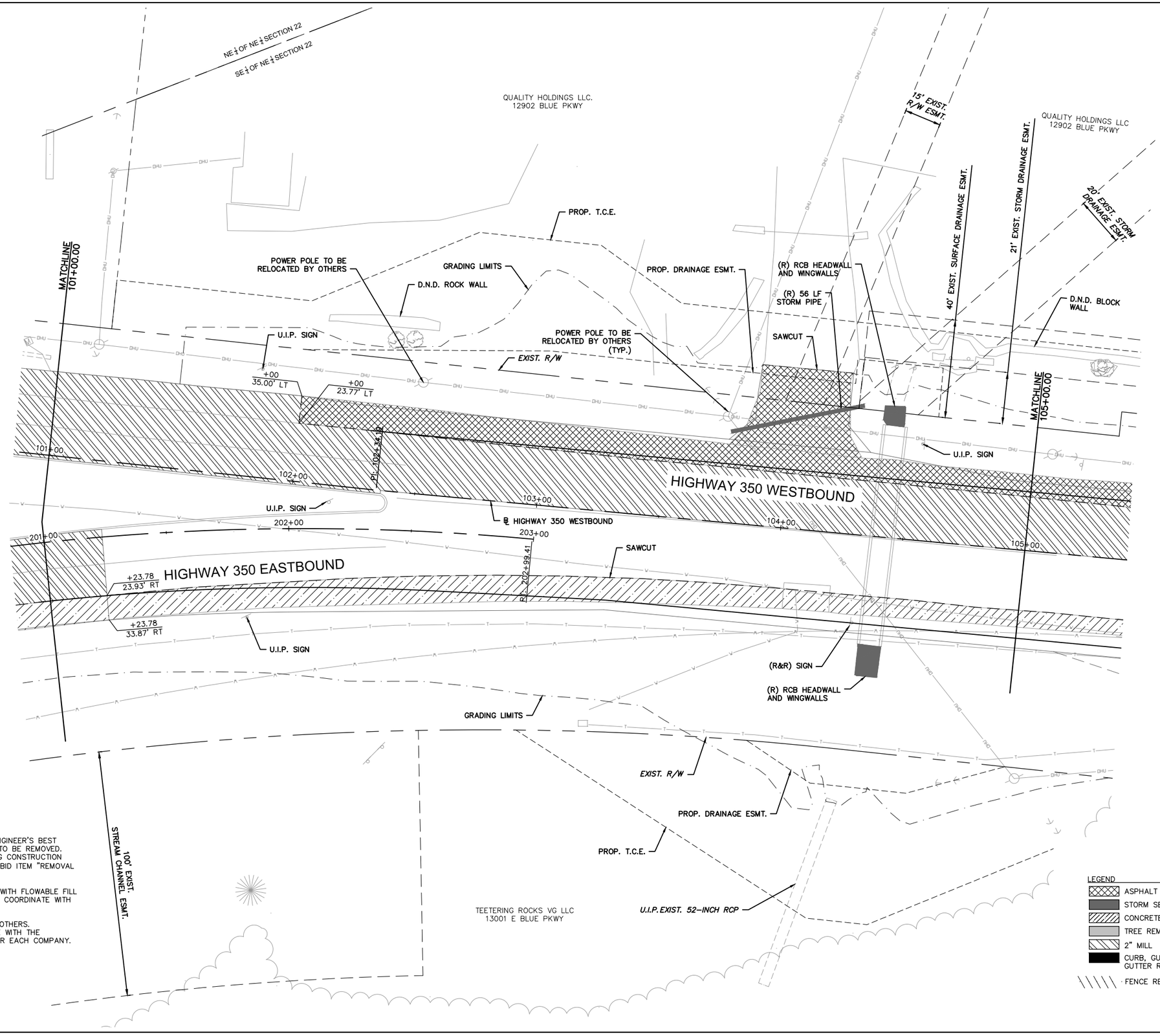
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_DEM_22374
DATE PREPARED:	4/28/2025

SHEET
14



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STATE OF MISSOURI
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NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

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DEMOLITION AND REMOVAL PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_DEM_22374
DATE PREPARED:	4/28/2025

SHEET 15

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DATE: Apr 29, 2025 12:29pm XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PRWAY_22374 T_XBNDY_22374 T_XBASE_22374

QUALITY HOLDINGS LLC
12902 BLUE PKWY

JACKSON COUNTY

QUREINI LLC
8540 NOLAND ROAD

20' EXIST. STORM DRAINAGE ESMT.

40' EXIST. SURFACE DRAINAGE ESMT.

21' EXIST. STORM DRAINAGE ESMT.

150' EXIST. RAILROAD R/W

℄ NOLAND ROAD

NOLAND ROAD

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

TEMP. CONSTRUCTION ESMT.

D.N.D. CONCRETE BULB-OUT

D.N.D. BLOCK WALL

D.N.D. CONCRETE BULB-OUT

CONTRACTOR TO COORDINATE DISCONNECTION OF ALL UTILITIES TO STRUCTURE PRIOR TO DEMOLITION

EXIST. R/W

+11.56
83.45' LT

+19.66
84.05' LT

304+00

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

(R) 133 LF GUARD RAIL

MATCHLINE
105+00.00

GRADING LIMITS

U.I.P. SIGN

EXIST. R/W

U.I.P. SIGN

MATCHLINE
109+50.00

+60
36.12' LT

+60
23.54' LT

(R) 72 LF GUARD RAIL

(R) SIGN

+00
20.13' LT

HIGHWAY 350 WESTBOUND

+24.09
24.71' LT

105+00 106+00 107+00 108+00 109+00 110+00

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

+00
2.48' RT

SAWCUT

SAWCUT

℄ HIGHWAY 350 WESTBOUND

HIGHWAY 350 EASTBOUND

+60
12.00' RT
SAWCUT

+60
35.01' RT

12.00' RT

+00
25.45' RT

(R) 258 LF GUARD RAIL

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

(R) SIGN

EXIST. R/W

SAWCUT

(R) CONCRETE BLOCK

(R&R) SIGN

(R) 71 LF GUARD RAIL

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

GRADING LIMITS

EXIST. R/W

PROP. T.C.E.

PROP. T.C.E.

(R) RAILROAD BRIDGE AND ABUTMENTS

100' EXIST. RAILROAD R/W

TEETERING ROCKS VG LLC
13001 E BLUE PKWY

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LEGEND

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- STORM SEWER AND CULVERT REMOVAL
- CONCRETE REMOVAL
- TREE REMOVAL
- 2" MILL
- CURB, GUTTER, AND CURB & GUTTER REMOVAL
- FENCE REMOVAL

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

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MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_DEM_22374
DATE PREPARED: 4/28/2025

SHEET
16

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℄ NOLAND ROAD
NOLAND ROAD
QUREINI LLC
8540 NOLAND ROAD
ROANOKE PROPERTIES LLC
8541 NOLAND ROAD
KNOBTOWN PROPERTIES LLC
13108 E M 350 HWY
D.N.D. BILLBOARD
D.N.D. STRUCTURE
15' EXIST. WATER ESMT.
20' EXIST. DRAINAGE ESMT.
40' EXIST. TELEPHONE ESMT.
EXIST. R/W
(R) 187 LF OF C&G
(R) 87 LF OF 12" CMP/HDPE
POWER POLE TO BE RELOCATED BY OTHERS (TYP.)
(R&R) SIGN
(R) PULL BOX
SAWCUT
(R) SIGNAL AND FOUNDATION
(R) 98 SY OF CONCRETE MEDIAN STRIP
D.N.D. SIGN
D.N.D. LIGHT POLE
PROP. T.C.E.
MATCHLINE 109+50.00
HIGHWAY 350 WESTBOUND
(R) STORM STRUCTURE
REMOVE AND RESET SIGN
℄ HIGHWAY 350 WESTBOUND
(R) CONTROLLER
(R) 192 LF OF C&G
(R) 15 LF OF GUTTER
HIGHWAY 350 EASTBOUND
SECTION LINE
(R) CONCRETE BLOCK
(R) 213 LF OF C&G
U.I.P. SIGN
TERRY W & ANITA L EAKINS
13117 BLUE PKWY
CMF INVESTMENTS LLC
13101 E BLUE PKWY
CRAIG & JULIE FEDYNICH
13111 E BLUE PKWY
D.N.D. CONCRETE BLOCK
GRADING LIMITS
40' EXIST. WATER & SEWER ESMT.
15' EXIST. WATER & SEWER ESMT.
PROP. R/W
ADAMS AND JOSEPH INC
8600 NOLAND ROAD

LEGEND
- ASPHALT REMOVAL
- STORM SEWER AND CULVERT REMOVAL
- CONCRETE REMOVAL
- TREE REMOVAL
- 2" MILL
- CURB, GUTTER, AND CURB & GUTTER REMOVAL
- FENCE REMOVAL

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DEMOLITION AND REMOVAL PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
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ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_DEM_22374
DATE PREPARED: 4/28/2025

SHEET 17

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DATE: Apr 29, 2025 12:30am
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USER: jgallagher T_XBNDY_22374

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

REMOVE AND RESET LIGHT POLE

(R) SIGN

D.N.D. SIGN

TEMP. CONSTRUCTION ESMT.

ROANOKE PROPERTIES LLC
8541 NOLAND ROAD

(R) 98 SY OF CONCRETE MEDIAN STRIP

SAWCUT

(R) SIGNAL AND FOUNDATION

EXIST. R/W

(R) SIGN

(R) PULL BOX

HIGHWAY 350

112+00

111+00

110+00

109+00

PC: 110+71.84

+36.87
12.00' LT

+36.32
12.00' RT

+85.81
12.00' LT

+85.81
12.00' RT

PT: 110+50.00

303+00

304+00

305+00

306+00

307+00

308+00

NOLAND ROAD

(R) PULL BOX

(R) SIGNAL AND FOUNDATION

QUREINI LLC
8540 NOLAND ROAD

EXIST. R/W

(R) 187 LF OF C&G

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

CMF INVESTMENTS LLC
13101 E BLUE PKWY

(R) 15 LF OF GUTTER

(R) 192 LF OF C&G

(R) SIGNAL AND FOUNDATION

EXIST. R/W

15' EXIST. WATER & SEWER ESMT.

EXIST. R/W

SAWCUT

(R) SIGNAL AND FOUNDATION

(R) CONCRETE BLOCK

(R) PULL BOX

(R) CONTROLLER

(R) 213 LF OF C&G

TEMP. CONSTRUCTION ESMT.

(R) CONCRETE BLOCK

ADAMS AND JOSEPH INC
8600 NOLAND ROAD

GRADING LIMITS (TYP.)

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

TEMP. CONSTRUCTION ESMT.

GRADING LIMITS

+05.24
51.00' LT

PROP. R/W

EXIST. R/W

15' EXIST. WATER & SEWER ESMT.

MATCHLINE
308+50.00

SAWCUT +61.20
31.00' LT

SAWCUT

NOLAND ROAD

SAWCUT

GRADING LIMITS

SAWCUT

D.N.D. CONCRETE BLOCK

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

D.N.D. CONCRETE BLOCK

POWER POLE TO BE RELOCATED BY OTHERS (TYP.)

D.N.D. CONCRETE BLOCK

EXIST. R/W

(R) CONCRETE BLOCK

LEGEND

- ASPHALT REMOVAL
- STORM SEWER AND CULVERT REMOVAL
- CONCRETE REMOVAL
- TREE REMOVAL
- 2" MILL
- CURB, GUTTER, AND CURB & GUTTER REMOVAL
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USER: jgallagher T_XBNDY_22374

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DEMOLITION AND REMOVAL PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_DEM_22374
DATE PREPARED: 4/28/2025

SHEET
18

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SHIGEMI LIVING TRUST
8819 NOLAND RD

SE ¼ NE ¼
SEC. 22-T48-R32W

SECTION LINE

MATCHLINE
308+50.00

15' EXIST. WATER & SEWER ESMT.

PROP. T.C.E.

EXIST. R/W

PROP. R/W

GRADING LIMITS

15' EXIST.
WATER LINE & SEWER ESMT.

+00
40.00' LT

SAWCUT
+65
10.54' LT

+85
10.45' LT

+10.92
10.64' LT

NOLAND ROAD

309+00

310+00

311+00

312+00

313+00

314+00

PC: 313+97.71

SAWCUT

SAWCUT

SAWCUT

+65
12.00' RT

+85
12.00' RT

+10.92
12.00' RT

(R) 40 LF OF 12" CMP

D.N.D. CONCRETE WALL

D.N.D. CONCRETE WALL

+76.22
40.00' RT

D.N.D. POWER POLE
BY OTHERS (TYP.)

SAWCUT

D.N.D. GATE

POWER POLE TO BE RELOCATED
BY OTHERS (TYP.)

+09.49
40.00' RT

EXIST. R/W

D.N.D. POWER POLE

PROP. T.C.E.

GRADING LIMITS

TEMP. CONSTRUCTION ESMT.

D.N.D. CONCRETE BLOCK

10' EXIST. UTILITY ESMT.

ADAMS AND JOSEPH INC
8600 NOLAND ROAD

GARY KNAUS
8612 NOLAND ROAD

LEGEND
- ASPHALT REMOVAL
- STORM SEWER AND CULVERT REMOVAL
- CONCRETE REMOVAL
- TREE REMOVAL
- 2" MILL
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- FENCE REMOVAL

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DEMOLITION AND REMOVAL PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

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PROJECT NO.: JKU0404
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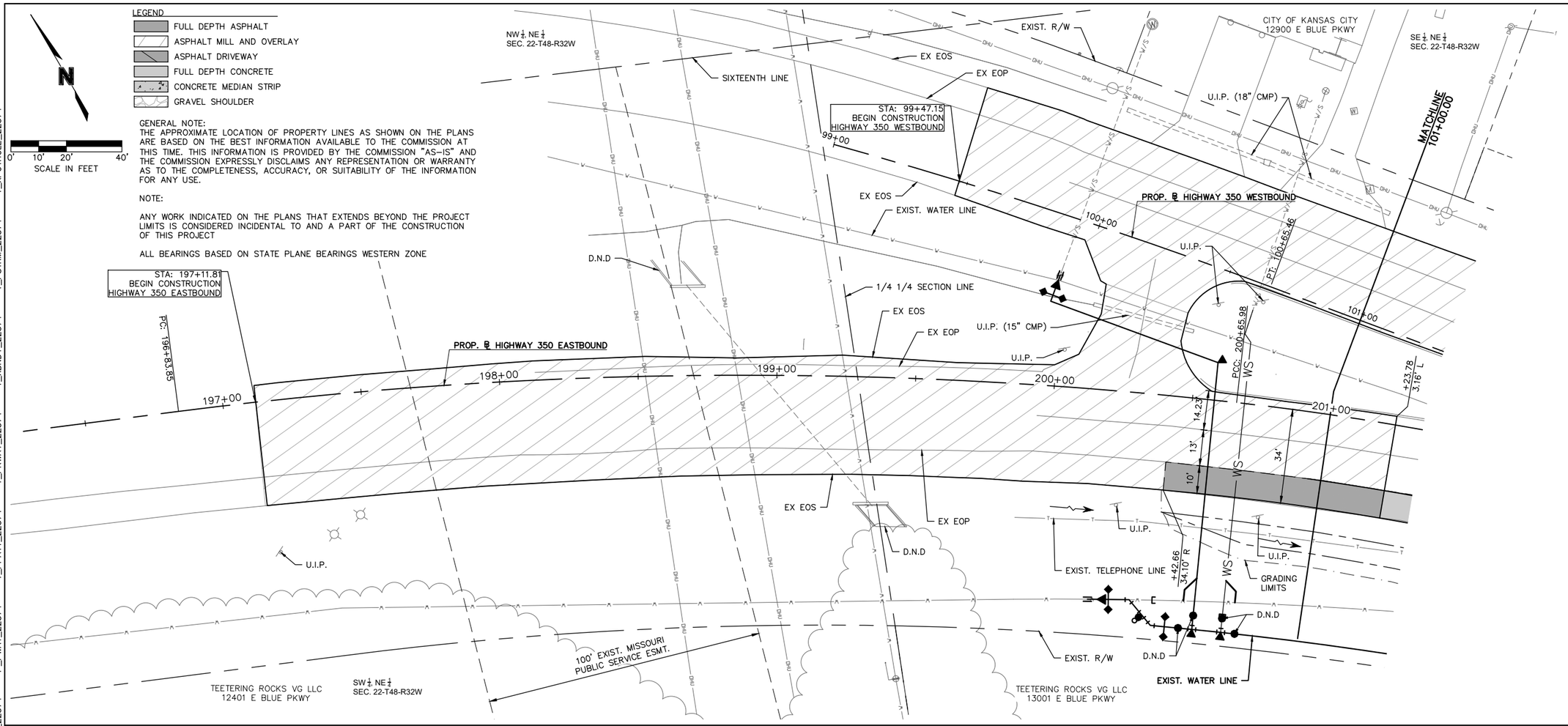
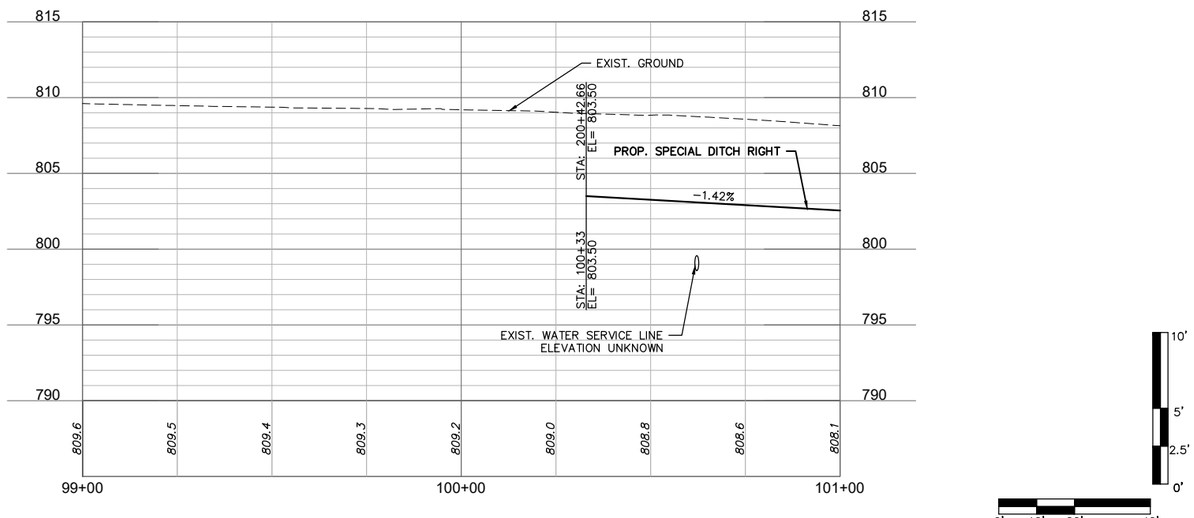
DATE PREPARED: 4/28/2025

SHEET
19





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STATE OF MISSOURI JAMES PATRICK GALLAGHER NUMBER PE-2010010499 PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PLAN & PROFILE
HIGHWAY 350

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
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APPROVED BY: JPG
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DWG NO.: T_RPP0_22374
DATE PREPARED: 4/28/2025

SHEET 20

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PLAN & PROFILE\T_RPP0_22374.dwg USER: jgallagher
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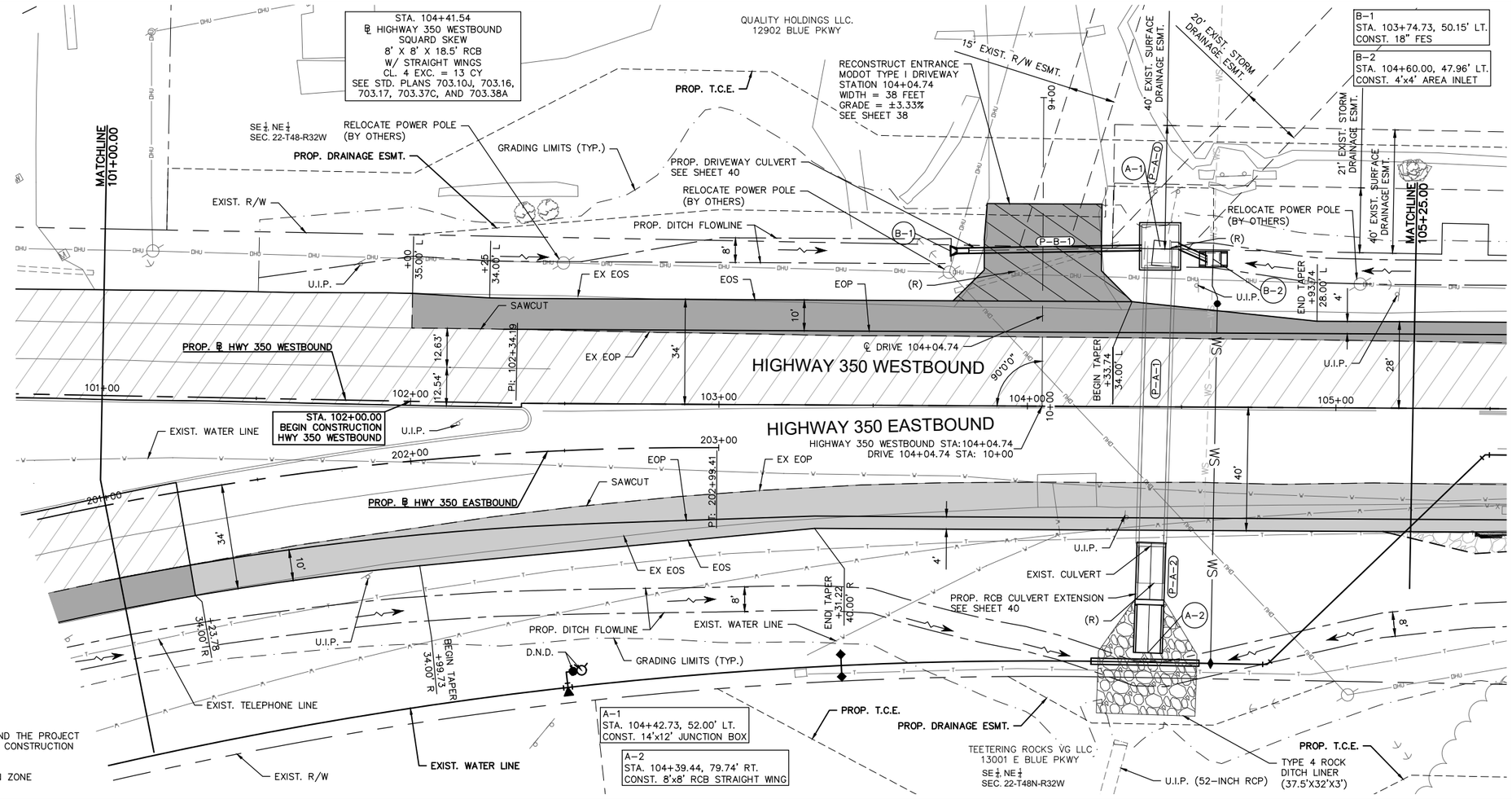

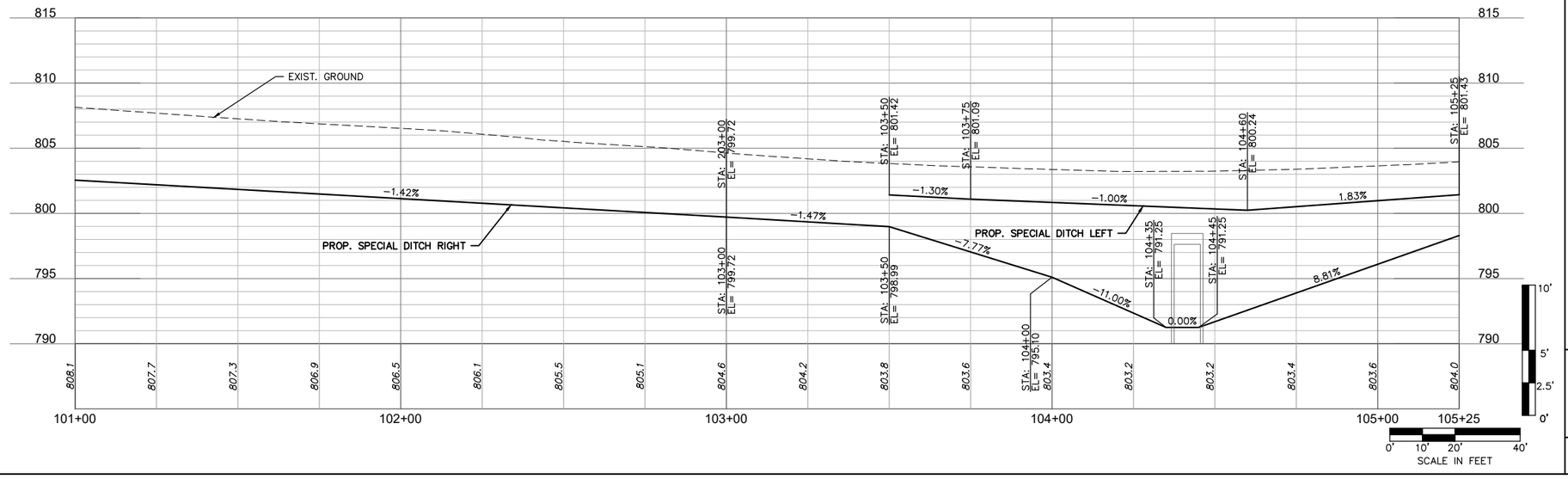

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PLAN & PROFILE
HIGHWAY 350

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
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SHEET 21

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PLAN & PROFILE\T_RPP1_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:14am XREFS: 22374_TRNS_TBLK T_PBASE_22374 T_XBASE_22374 P_PWAT_22374 T_PPATT_22374 T_PRWAY_22374 T_XBNDY_22374 T_PSTRM_22374 T_XPOTHOLE_22374

G-1
STA. 106+16.20, 59.93' RT.
CONST. 15" BEVELED PIPE END TREATMENT

G-2
STA. 106+16.20, 38.75' RT.
CONST. PRECAST CONCRETE DROP INLET
2 FT X 2 FT (TYPE A) WITH CURVED
VANE GRATE AND FRAME

G-3
STA. 107+00.00, 38.75' RT.
CONST. PRECAST CONCRETE DROP INLET
2 FT X 2 FT (TYPE B) WITH CURVED
VANE GRATE AND FRAME

STA. 105+47.46 TO STA. 106+57.44, RT
℄ HIGHWAY 350 WESTBOUND
BUILD 12.5' MGS GUARDRAIL, 1 TYPE A
CRASHWORTHY END TERMINAL (MASH),
1 MGS BRIDGE APPROACH TRANSITION

STA. 108+43.70 TO STA. 109+43.52, LT
℄ HIGHWAY 350 WESTBOUND
BUILD 25' MGS GUARDRAIL, 1 TYPE A
CRASHWORTHY END TERMINAL (MASH),
1 MGS BRIDGE APPROACH TRANSITION

NOTE:

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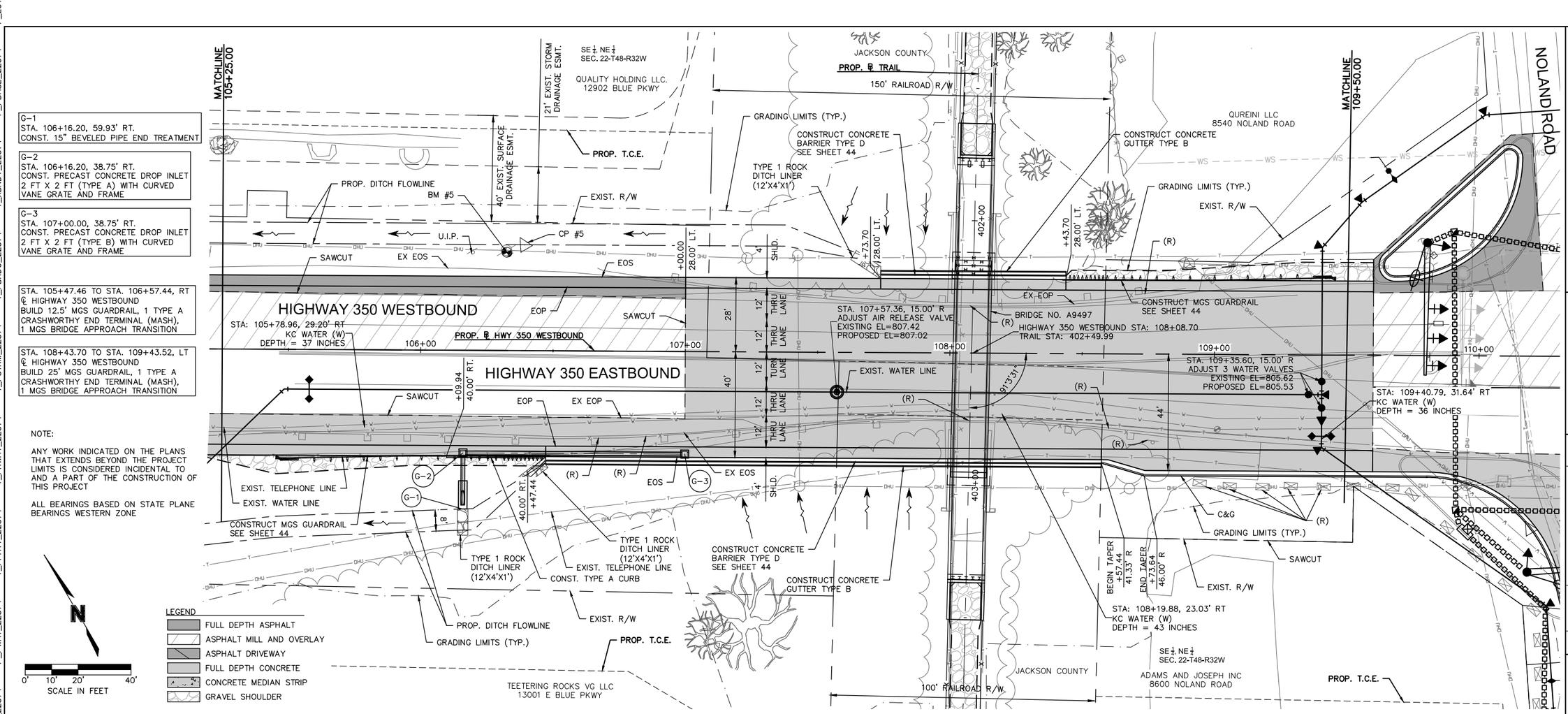
ALL BEARINGS BASED ON STATE PLANE BEARINGS WESTERN ZONE

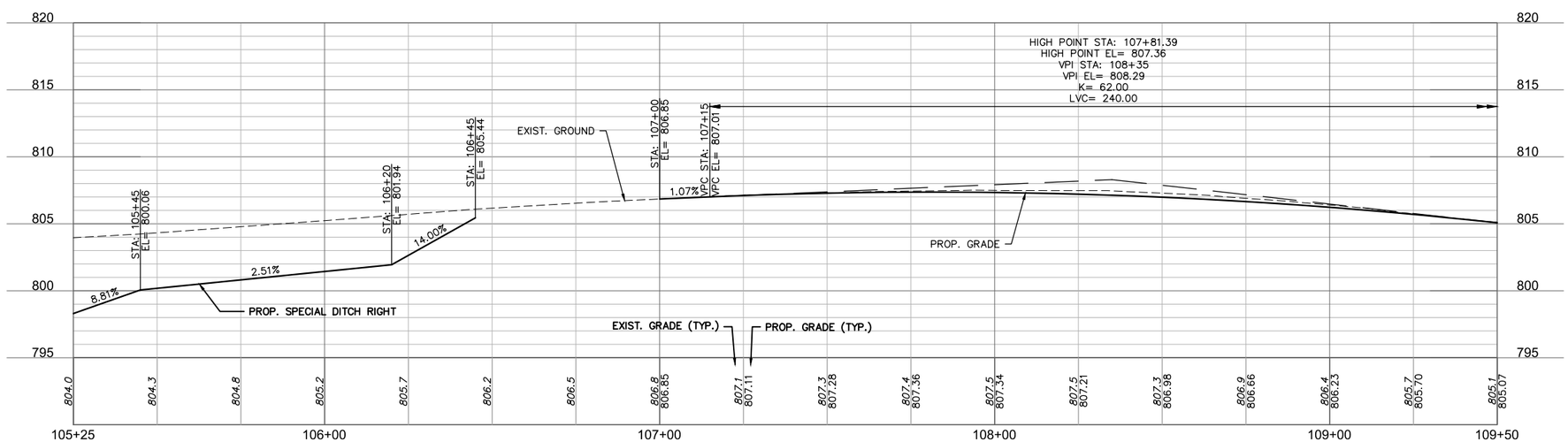


LEGEND

- FULL DEPTH ASPHALT
- ASPHALT MILL AND OVERLAY
- ASPHALT DRIVEWAY
- FULL DEPTH CONCRETE
- CONCRETE MEDIAN STRIP
- GRAVEL SHOULDER

N

0' 10' 20' 40'
SCALE IN FEET



10' 5' 2.5' 0'
0' 10' 20' 40'
SCALE IN FEET

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1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
FAX 816.361.1888
www.olsson.com

STATE OF MISSOURI
JAMES P. GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PLAN & PROFILE
HIGHWAY 350

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_RPP2_22374
DATE PREPARED: 4/28/2025

SHEET 22

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PLAN & PROFILE\T_RPP2_22374.dwg USER: jgallagh
DATE: Apr 28, 2025 10:15am XREFS: 22374_TRNS_TBLK T_PBASE_22374 T_XBASE_22374 P_PWAT_22374
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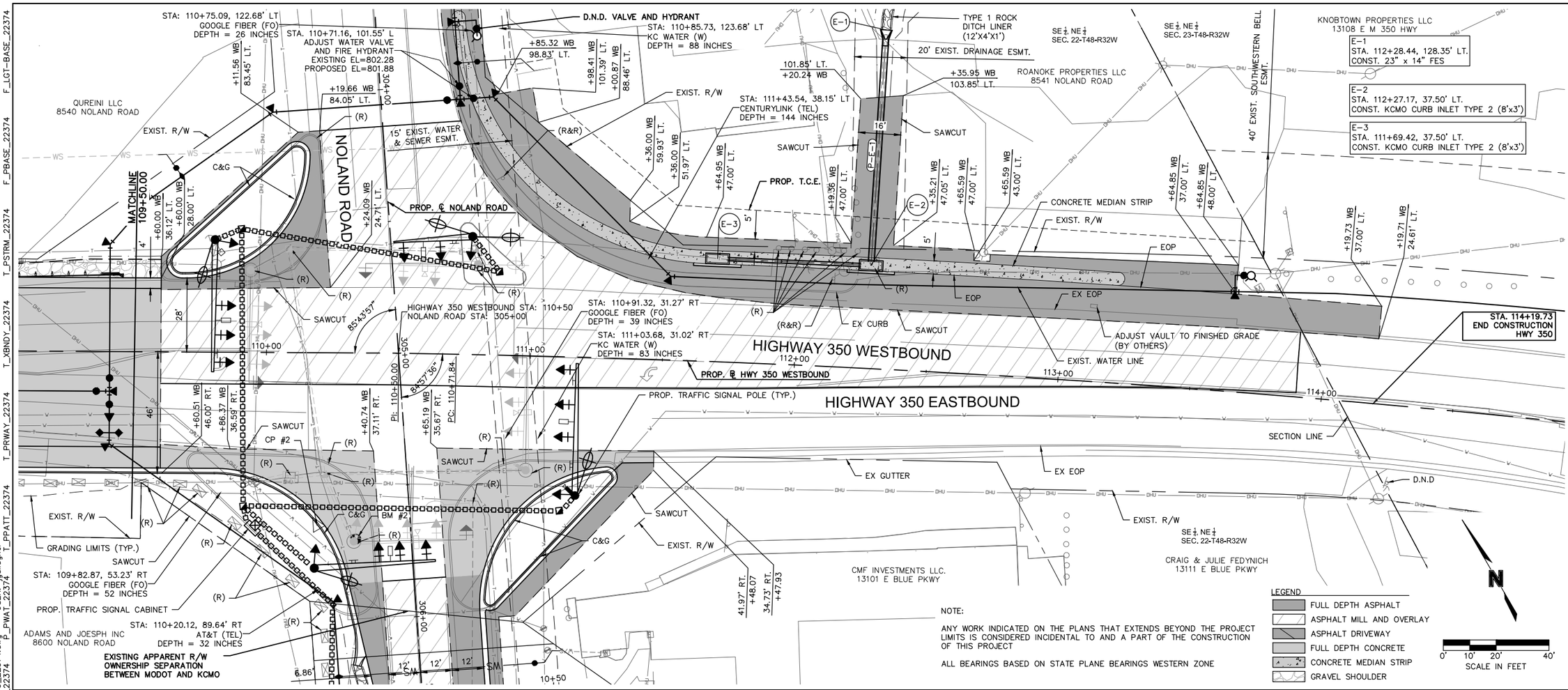

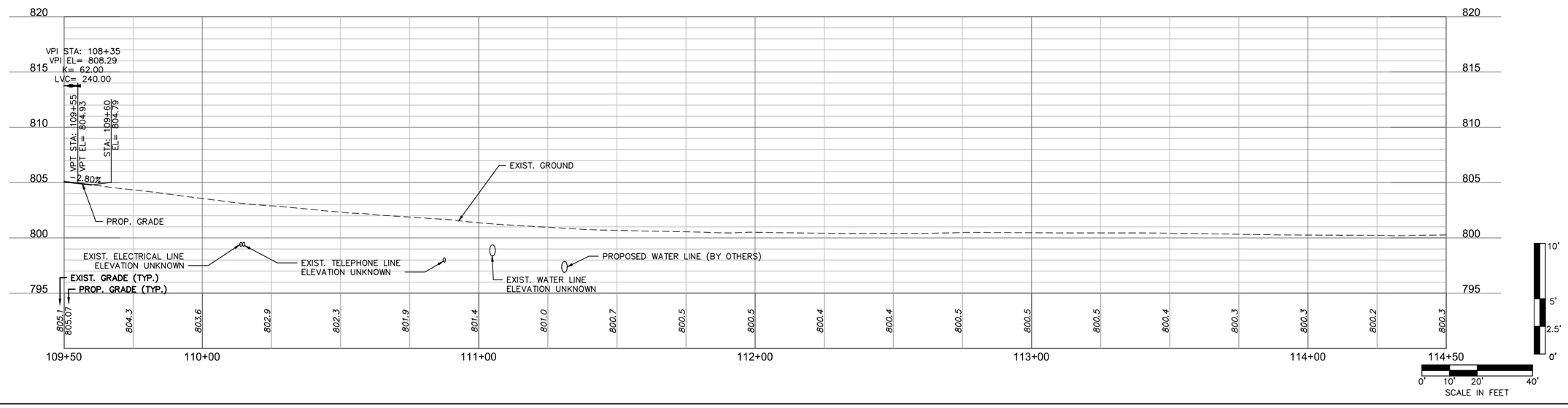

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MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PLAN & PROFILE
HIGHWAY 350

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_RPP3_22374
DATE PREPARED:	4/28/2025

SHEET
23

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USER: jgallagher
P_PWAT_22374

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PLAN & PROFILE\T_RPP4_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:16am XREFS: 22374_TRNS_TBLK T_PBASE_22374 T_XBASE_22374 P_PWAT_22374
T_PPATT_22374 T_PRWAY_22374 T_XBNDY_22374 T_PSTRM_22374 F_PBASE_22374 F_LGT-BASE_22374

ROANOKE PROPERTIES LLC
8541 NOLAND ROAD

KNOBTOWN PROPERTIES
8540 NOLAND ROAD

CMF INVESTMENTS LLC.
13101 E BLUE PKWY

SHIGEMI LIVING TRUST
8819 NOLAND RD

ADAMS AND JOSEPH INC
8600 NOLAND ROAD

C–2
STA. 308+24.36, 24.47' RT.
CONST. 23" x 14" FES

PROP. T.C.E.
EXIST. WATER LINE
PROP. & HIGHWAY 350 WESTBOUND
SAWCUT
EXIST. R/W
15' EXIST. WATER & SEWER ESMT.
15' SEWER & WATER ESMT.
STA: 303+79.99, 46.79' LT
KC WATER (W)
DEPTH = 88 INCHES
STA: 303+80, 35.85' LT
GOOGLE FIBER (FO)
DEPTH = 26 INCHES
+70.65 25.00' LT.
+70.65 39.00' LT.
+04.70 44.13' LT.
+03.37 57.66' LT.
+16.48 58.95' LT.
STA: 305+35.70, 50.54' LT
KC WATER (W)
DEPTH = 82 INCHES
STA: 305+34.80, 38.29' LT
GOOGLE FIBER (FO)
DEPTH = 39 INCHES
CONCRETE MEDIAN STRIP
(R&R)
(R)
PC: 110+71.84
94°16'37"
84°57'36"
111+00
10+50
10+00
304+00
305+00
306+00
307+00
308+00
NOLAND ROAD STA: 305+00
HIGHWAY 350 WESTBOUND STA: 110+50
PI: 110+50.00
STA. 303+70.65
BEGIN CONSTRUCTION
NOLAND ROAD
BM #2
CP #2
C&G
CONST. CONCRETE GUTTER TYPE A (FLUME)
TYPE 1 ROCK DITCH LINER (12'X4'X1')
RECONSTRUCT ENTRANCE
KCMO TYPE VI DRIVEWAY
STATION 306+29.41
WIDTH = 61 FEET
GRADE = ±2.40%
SEE SHEET 38
+43.39 29.00' LT.
BEGIN TAPER +43.32 24.00' LT.
PROP. STREET LIGHT (TYP.)
PROP. R/W
GRADING LIMITS (TYP.)
PROP. DITCH FLOWLINE
EOS
EOP
EX EOP
MATCHLINE 308+50.00
NOLAND ROAD
PROP. ℄ NOLAND ROAD
12'
16'
24'
91'
90°00'
5'
4'
PROP. TRAFFIC SIGNAL CABINET
PROP. TRAFFIC SIGNAL POLE (TYP.)
GRADING LIMITS (TYP.)
HIGHWAY 350
STA: 305+87.17, 36.46' RT
AT&T (TEL)
DEPTH = 32 INCHES
STA: 305+48.08, 70.90' RT
GOOGLE FIBER (FO)
DEPTH = 52 INCHES
STA. 306+35.62, 21.00' R
ADJUST WATER VALVE AND FIRE HYDRANT
EXISTING EL=802.48
PROPOSED EL=801.91
D.N.D.
D.N.D. HYDRANT AND VALVE
P–C–1
C–2

NOTE:

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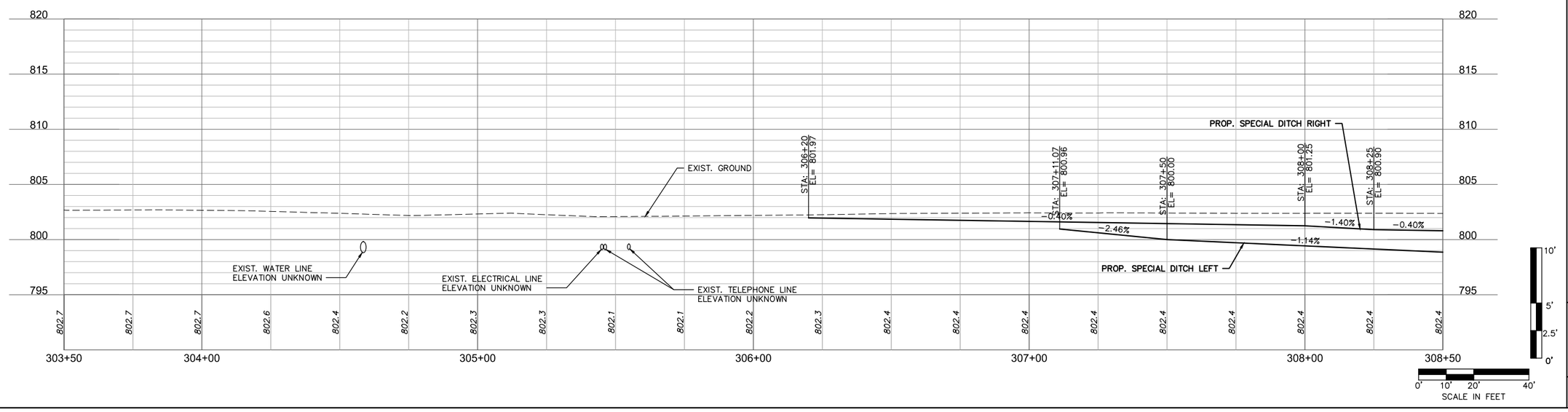
ALL BEARINGS BASED ON STATE PLANE BEARINGS WESTERN ZONE

N
0' 10' 20' 40'
SCALE IN FEET

LEGEND
- FULL DEPTH ASPHALT
- ASPHALT MILL AND OVERLAY
- ASPHALT DRIVEWAY
- FULL DEPTH CONCRETE
- CONCRETE MEDIAN STRIP
- GRAVEL SHOULDER



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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

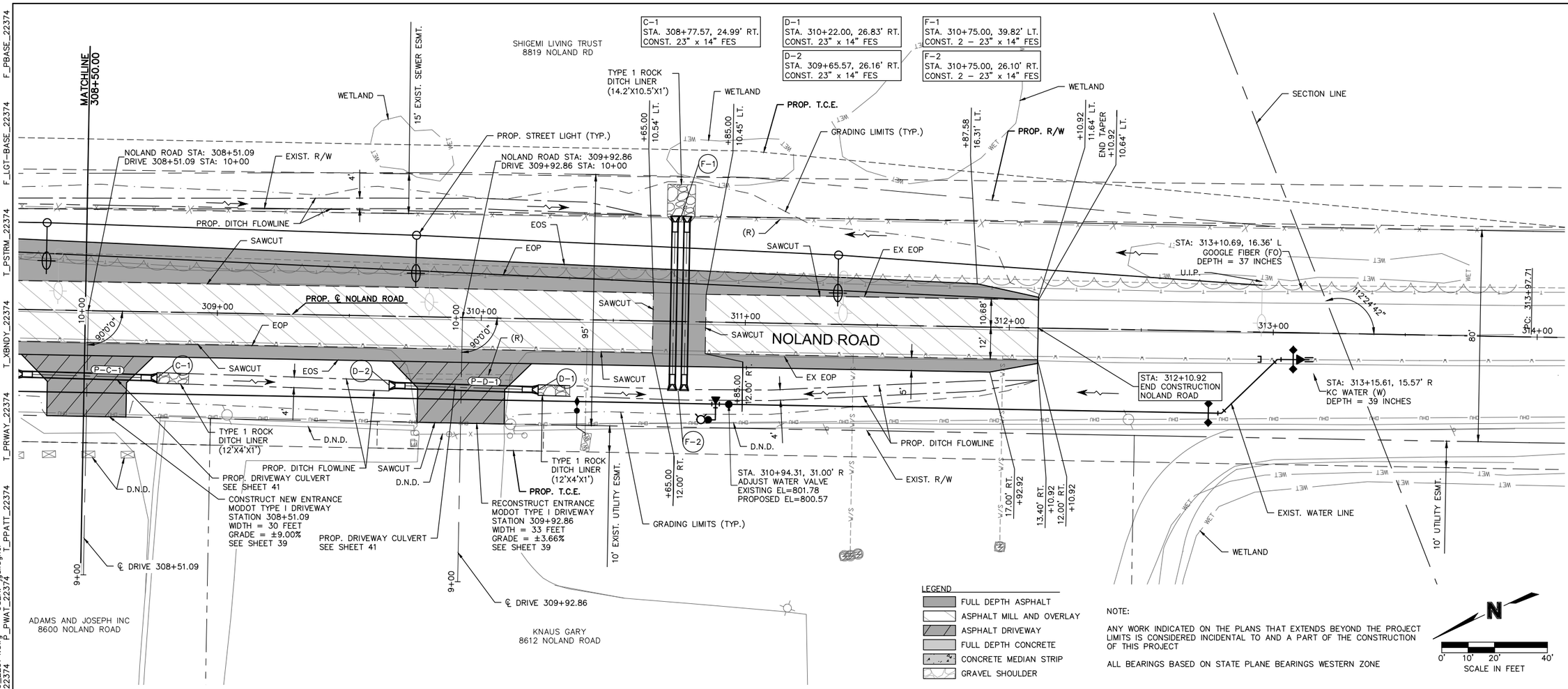
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

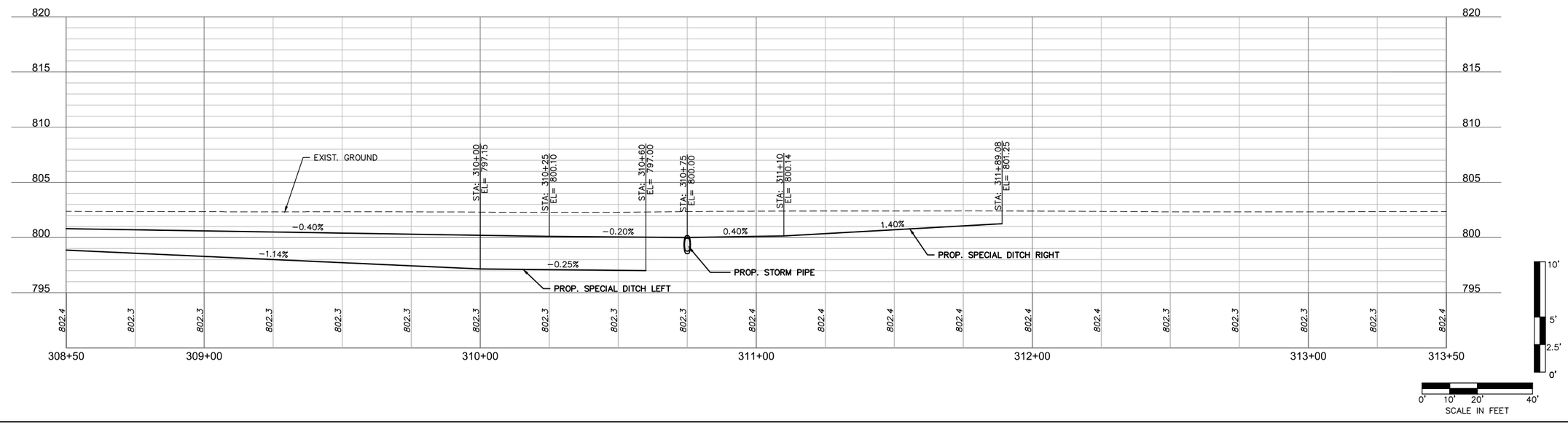
PLAN & PROFILE
NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_RPP4_22374
DATE PREPARED: 4/28/2025

SHEET
24





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JAMES P. GALLAGHER
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PLAN & PROFILE
NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404	FEDERAL PROJECT STP-3337(411)	COUNTY: JACKSON	STATE: MO
ROUTE: 350	DISTRICT: KC		

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_RPP5_22374
DATE PREPARED:	4/28/2025

SHEET
25

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PLAN & PROFILE\T_RPP5_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:17am XREFS: 22374_TRNS_TBLK T_PBASE_22374 T_XBASE_22374 P_PWAT_22374
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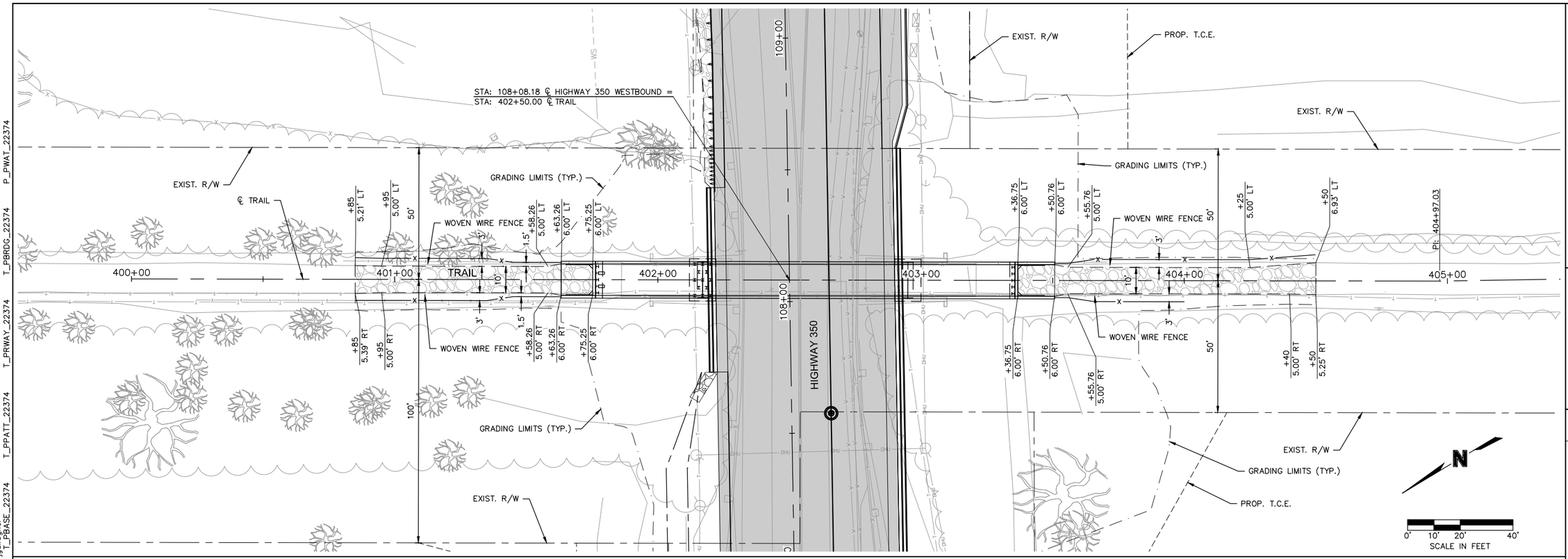

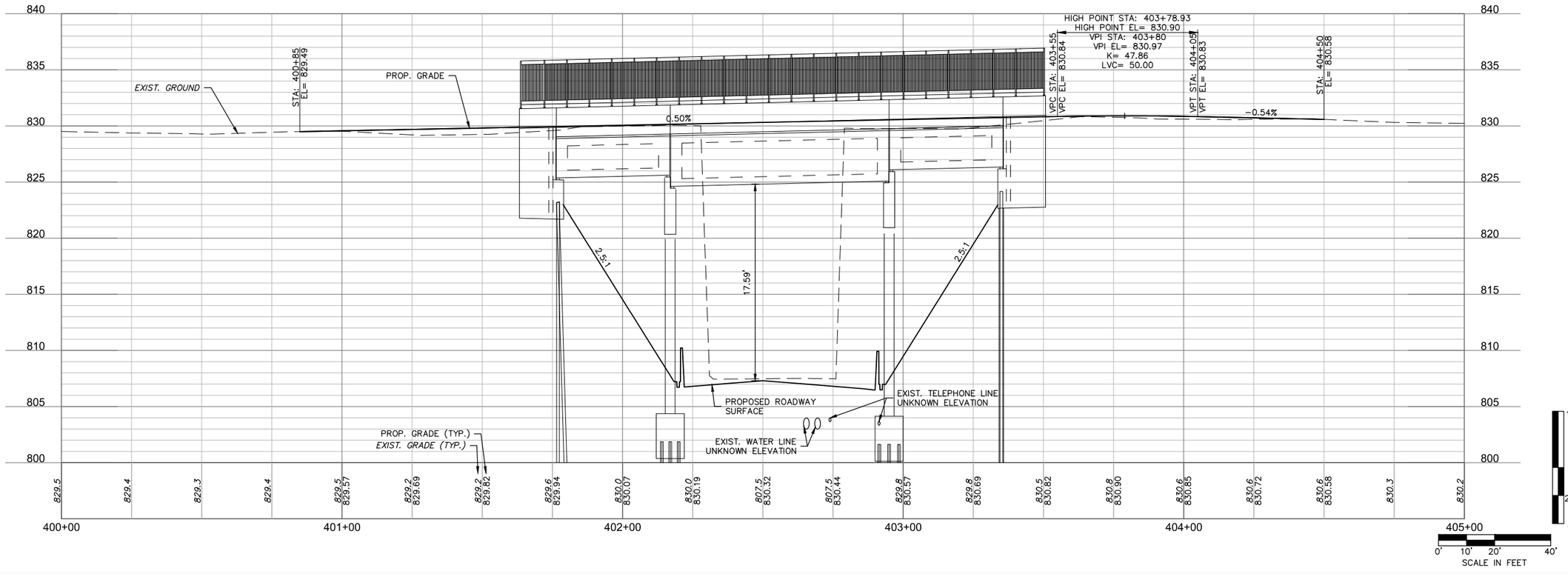

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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAIL PLAN & PROFILE

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TRL1_22374
DATE PREPARED:	5/15/2025

SHEET
26

DWG: F:\projects\a12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAIL PLAN & PROFILE\T_TRL1_22374.dwg USER: jgallagher
DATE: May 15, 2025 1:32pm XREFS: 22374_TRNS_TBLK T_PSTRM_22374 T_XBASE_22374 T_XBNDY_22374
T_PBASE_22374 T_PPATT_22374 T_PRWAY_22374 T_PBRDG_22374 P_PWAT_22374

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\INTERSECTION LAYOUTS\T_INT_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:18am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374 T_PBRDG_22374

① STA: 304+20.06, 35.06' RT
BC EL= 802.65

② STA: 304+22.64, 30.21' RT
BC EL= 802.75

③ STA: 304+39.53, 34.93' RT
BC EL= 803.16

④ STA: 110+00.90, 43.14' LT
BC EL= 803.58

⑤ STA: 109+86.32, 33.42' LT
BC EL= 804.00

⑥ STA: 109+69.12, 30.00' LT
BC EL= 804.42

⑦ STA: 109+68.04, 30.00' RT
BC EL= 804.44

⑧ STA: 109+65.33, 36.95' LT
BC EL= 804.01

℄ TRAIL

401+00

402+00

403+00

404+00

℄ NOLAND ROAD

304+00

HIGHWAY 350 WESTBOUND STA: 110+11.12, 74.90 LT =
NOLAND ROAD STA: 304+22.41, 33.20 RT
R=3.00'
Δ=132°43'25"
L=6.95'

HIGHWAY 350 WESTBOUND STA: 109+69.12, 75.00 LT =
NOLAND ROAD STA: 304+19.19, 75.08 RT
R=45.00'
Δ=89°52'13"
L=70.58'

HIGHWAY 350 WESTBOUND STA: 109+68.04, 34.00 LT =
NOLAND ROAD STA: 304+60.00, 79.21 RT
R=4.00'
Δ=137°27'03"
L=9.60'

SAWCUT (TYP.)

CONST. CURB AND GUTTER TYPE CG-1

2.11%

℄ HIGHWAY 350 WESTBOUND

108+00 109+00 110+00 111+00 112+00 113+00

STA: 110+50.00 ℄ HIGHWAY 350 WESTBOUND
STA: 305+00.00 ℄ NOLAND ROAD =

85°43'57" 95°2'24" 94°16'3" 84°57'36"

PC: 110+71.84

305+00

PI: 110+50.27

1.45%

CONST. CURB AND GUTTER TYPE CG-1

1.10%

⑨ STA: 303+74.74, 29.00' LT
FL EL= 801.87

⑩ STA: 303+92.94, 30.67' LT
FL EL= 801.85

⑪ STA: 110+77.52, 92.25' LT
FL EL= 801.64

⑫ STA: 110+86.88, 76.65' LT
FL EL= 801.39

⑬ STA: 110+98.94, 63.06' LT
FL EL= 801.11

⑭ STA: 111+13.30, 51.97' LT
FL EL= 800.82

⑮ STA: 111+29.47, 43.75' LT
FL EL= 800.52

⑯ STA: 111+46.89, 38.70' LT
FL EL= 800.34

⑰ STA: 111+64.95, 37.00' LT
FL EL= 800.15

⑱ STA: 111+84.35, 37.00' LT
FL EL= 800.08

⑲ STA: 112+03.74, 37.00' LT
FL EL= 800.00

⑳ STA: 112+23.14, 37.00' LT
FL EL= 799.94

㉑ STA: 112+42.54, 37.00' LT
FL EL= 799.98

㉒ STA: 112+61.93, 37.00' LT
FL EL= 800.12

㉓ STA: 112+81.33, 37.00' LT
FL EL= 800.28

㉔ STA: 113+00.73, 37.00' LT
FL EL= 800.44

㉕ STA: 113+20.12, 37.00' LT
FL EL= 800.59

HIGHWAY 350 WESTBOUND STA: 111+64.95, 137.00 LT =
NOLAND ROAD STA: 303+74.74, 129.00 LT
R=100.00'
Δ=83°53'35"
L=146.42'

STA: 112+27.17, 37.00' LT
EL= 799.93

CURVE INFORMATION
STA: 110+04.42, 4999.84' RT
R=5037.00'
Δ=1°46'41"
L=156.32'

SAWCUT (TYP.)

1.19% 1.65% 0.30%

CONST. CONCRETE MEDIAN STRIP

SAWCUT (TYP.)

HIGHWAY 350 WESTBOUND

CONST. CURB AND GUTTER TYPE CG-1

1.27%

SAWCUT (TYP.)

㉖ STA: 108+57.44, 41.33' RT
BC EL= 809.52

㉗ STA: 108+73.64, 46.00' RT
BC EL= 806.28

㉘ STA: 109+00, 46.00' RT
BC EL= 806.00

㉙ STA: 109+25, 46.00' RT
BC EL= 805.61

㉚ STA: 109+50, 46.00' RT
BC EL= 805.12

㉛ STA: 109+75, 46.00' RT
BC EL= 804.53

㉜ STA: 109+80.26, 46.00' RT
BC EL= 804.39

㉝ STA: 109+96.60, 48.74' RT
BC EL= 803.96

㉞ STA: 110+11.14, 56.67' RT
BC EL= 803.52

㉟ STA: 305+66.66, 32.76' RT
BC EL= 803.08

㊱ STA: 305+82.32, 27.37' RT
BC EL= 802.81

㊲ STA: 306+02.14, 24.07' RT
BC EL= 802.71

HIGHWAY 350 WESTBOUND STA: 109+80.26, 96.00 RT =
NOLAND ROAD STA: 305+90.54, 76.69 RT
R=50.00'
Δ=76°16'13"
L=66.56'

0.23%

306+00

NOLAND ROAD

307+00

2.00%

㊳ STA: 111+31.76, 46.60' RT
BC EL= 801.44

㊴ STA: 111+30.03, 43.28' RT
BC EL= 801.32

㊵ STA: 111+12.51, 48.51' RT
BC EL= 801.61

㊶ STA: 110+97.97, 59.53' RT
BC EL= 801.91

㊷ STA: 305+78.01, 31.31' LT
BC EL= 802.19

㊸ STA: 305+95.41, 26.26' LT
BC EL= 802.33

㊹ STA: 305+97.09, 29.60' LT
BC EL= 802.21

㊺ STA: 306+00.43, 26.01' LT
BC EL= 801.92

㊻ STA: 306+25, 26.00' LT
BC EL= 801.98

㊼ STA: 306+50, 26.00' LT
BC EL= 802.08

㊽ STA: 306+75, 26.00' LT
BC EL= 802.54

㊾ STA: 306+89.26, 26.00' LT
BC EL= 802.56

㊿ STA: 307+08.27, 26.00' LT
BC EL= 802.53

HIGHWAY 350 WESTBOUND STA: 111+30.25, 45.27 RT =
NOLAND ROAD STA: 305+52.43, 75.41 LT
R=2.00'
Δ=138°14'09"
L=4.83'

HIGHWAY 350 WESTBOUND STA: 111+35.72, 92.96 RT =
NOLAND ROAD STA: 306+00.43, 76.01 LT
R=50.00'
Δ=83°32'27"
L=72.90'

HIGHWAY 350 WESTBOUND STA: 110+86.82, 92.74 RT =
NOLAND ROAD STA: 305+95.61, 28.25 LT
R=2.00'
Δ=138°31'04"
L=4.83'

N

0' 10' 20' 40'
SCALE IN FEET

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MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

INTERSECTION LAYOUT

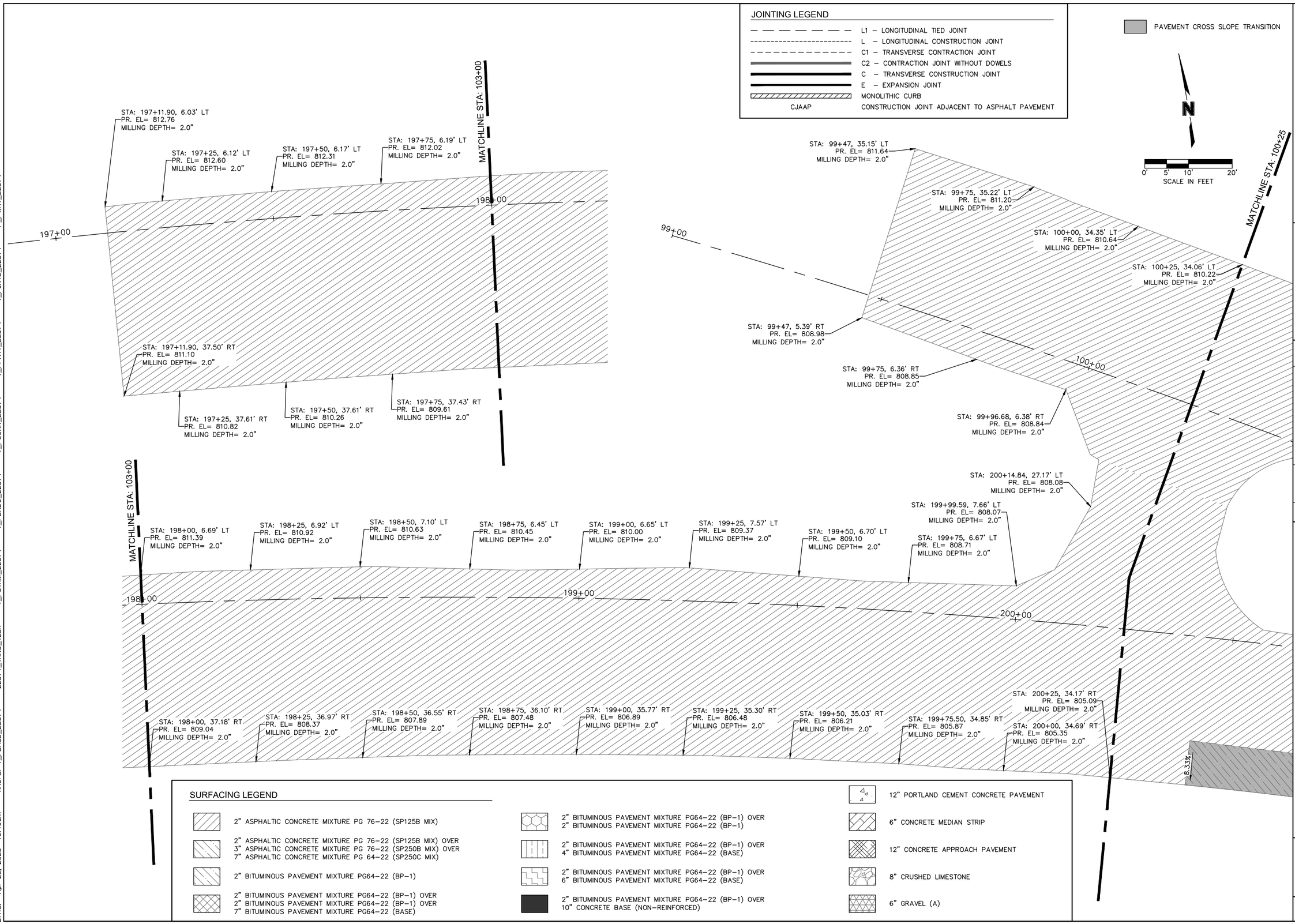
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_INT_22374
DATE PREPARED: 4/28/2025

SHEET
27



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DATE: Apr 28, 2025 10:19am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374 T_PBRDG_22374 T_PCORR_22374 T_PPAIT_22374 T_PJNTS_22374 P_PWAT_22374

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PAV_22374
DATE PREPARED: 4/28/2025

SHEET 28

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 7" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 4" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 6" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 10" CONCRETE BASE (NON-REINFORCED)
- 12" PORTLAND CEMENT CONCRETE PAVEMENT
- 6" CONCRETE MEDIAN STRIP
- 12" CONCRETE APPROACH PAVEMENT
- 8" CRUSHED LIMESTONE
- 6" GRAVEL (A)

MATCHLINE STA: 100+25

MATCHLINE STA: 103+00

STA: 100+50, 33.84' LT PR. EL= 809.61 MILLING DEPTH= 2.0"

STA: 100+75, 33.99' LT PR. EL= 809.10 MILLING DEPTH= 2.0"

STA: 101+00, 34.25' LT PR. EL= 808.53 MILLING DEPTH= 2.0"

STA: 101+25, 34.51' LT PR. EL= 807.78 MILLING DEPTH= 2.0"

STA: 101+50, 34.55' LT PR. EL= 807.03 MILLING DEPTH= 2.0"

STA: 101+75, 34.74' LT PR. EL= 806.39 MILLING DEPTH= 2.0"

STA: 102+00, 35.00' LT PR. EL= 805.82 MILLING DEPTH= 2.0"

+00, 35.00' LT EL= 805.82

+25, 34.00' LT EL= 805.55

+50, 34.00' LT EL= 805.05

+75, 34.00' LT EL= 804.64

+50, 24.00' LT EL= 805.25

+75, 24.00' LT EL= 804.84

2.00%

STA: 102+00, 23.77' LT PR. EL= 806.25 MILLING DEPTH= 2.0"

STA: 102+25, 23.94' LT PR. EL= 805.75 MILLING DEPTH= 2.0"

STA: 102+50, 23.73' LT PR. EL= 805.26 MILLING DEPTH= 2.0"

STA: 102+75, 23.33' LT PR. EL= 804.86 MILLING DEPTH= 2.0"

PT: 100+65.46

STA: 100+56.23, 1.41' RT PR. EL= 808.79 MILLING DEPTH= 2.0"

℄ HIGHWAY 350 WESTBOUND

101+00

STA: 100+75, 1.26' RT PR. EL= 808.62 MILLING DEPTH= 2.0"

STA: 101+00, 1.30' RT PR. EL= 808.12 MILLING DEPTH= 2.0"

STA: 101+25, 1.21' RT PR. EL= 807.67 MILLING DEPTH= 2.0"

STA: 101+50, 1.17' RT PR. EL= 807.24 MILLING DEPTH= 2.0"

STA: 101+75, 1.25' RT PR. EL= 806.87 MILLING DEPTH= 2.0"

STA: 102+00, 0.00' PR. EL= 806.53 MILLING DEPTH= 2.0"

102+00

STA: 102+25, 0.00' PR. EL= 806.07 MILLING DEPTH= 2.0"

PT: 102+34.19

SAWCUT (TYP.)

STA: 102+50, 0.00' PR. EL= 805.53 MILLING DEPTH= 2.0"

103+00

STA: 102+75, 0.00' PR. EL= 805.12 MILLING DEPTH= 2.0"

STA: 102+35.97, 0.00' PR. EL= 805.84 MILLING DEPTH= 2.0"

203+00

STA: 100+40.71, 19.09' RT PR. EL= 808.26 MILLING DEPTH= 2.0"

STA: 100+41.74, 29.43' RT PR. EL= 807.94 MILLING DEPTH= 2.0"

℄ HIGHWAY 350 EASTBOUND

STA: 201+23.78, 3.16' LT PR. EL= 806.63 MILLING DEPTH= 2.0"

202+00

PCC: 200+65.98

HIGHWAY 350 EASTBOUND

SAWCUT (TYP.)

201+00

STA: 200+75, 2.62' LT PR. EL= 807.15 MILLING DEPTH= 2.0"

STA: 201+00, 2.78' LT PR. EL= 806.89 MILLING DEPTH= 2.0"

STA: 200+56.62, 3.10' LT PR. EL= 807.28 MILLING DEPTH= 2.0"

PT: 202+99.41

+25, 23.92' RT (EB) EL= 804.56

+50, 23.30' RT (EB) EL= 804.29

+75, 22.63' RT (EB) EL= 804.00

+00, 21.70' RT (EB) EL= 803.74

+25, 20.16' RT (EB) EL= 803.55

+50, 18.57' RT (EB) EL= 803.38

+75, 16.85' RT (EB) EL= 803.23

+42.57, 23.93' RT (EB) EL= 805.66

+50, 24.01' RT (EB) EL= 805.56

+75, 24.07' RT (EB) EL= 805.23

+00, 24.00' RT (EB) EL= 804.88

+25, 24.00' RT (EB) EL= 804.55

+50, 24.00' RT (EB) EL= 804.23

+75, 24.00' RT (EB) EL= 803.90

+00, 24.00' RT (EB) EL= 803.57

+25, 24.00' RT (EB) EL= 803.28

+50, 24.00' RT (EB) EL= 803.05

+75, 23.89' RT (EB) EL= 802.85

+42.66, 34.10' RT (EB) EL= 804.81

+50, 34.05' RT (EB) EL= 804.73

+75, 34.00' RT (EB) EL= 804.43

+00, 34.00' RT (EB) EL= 804.09

+25, 34.00' RT (EB) EL= 803.78

+50, 34.00' RT (EB) EL= 803.48

+75, 34.00' RT (EB) EL= 803.17

+00, 34.00' RT (EB) EL= 802.86

+25, 33.69' RT (EB) EL= 802.61

+50, 32.78' RT (EB) EL= 802.51

+75, 31.26' RT (EB) EL= 802.45

CJAAP

8.33%

10.07'

12.42'

12.43'

12.44'

12.43'

12.44'

11.14'

10.67'

11.37'

12.45'

11.75'

2.33'

9.98'

14.72'

14.66'

9.87'

3.19'

14.66'

14.74'

4.13'

9.54'

14.76'

14.66'

5.09'

8.99'

14.78'

14.66'

6.11'

8.23'

14.03'

14'

7.01'

7.39'

14.03'

14'

7.85'

6.54'

14.01'

14'

L1

L

C1

JOINTING LEGEND

- L1 – LONGITUDINAL TIED JOINT
- L – LONGITUDINAL CONSTRUCTION JOINT
- C1 – TRANSVERSE CONTRACTION JOINT
- C2 – CONTRACTION JOINT WITHOUT DOWELS
- C – TRANSVERSE CONSTRUCTION JOINT
- E – EXPANSION JOINT
- MONOLITHIC CURB
- CJAAP – CONSTRUCTION JOINT ADJACENT TO ASPHALT PAVEMENT

PAVEMENT CROSS SLOPE TRANSITION

N

0' 5' 10' 20'

SCALE IN FEET

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PAVING PLAN T_PAV_22374.dwg
DATE: Apr 28, 2025 10:19am
XREFS: T_PBASE_22374 T_PCORR_22374 T_PPAIT_22374 T_PJNTS_22374 P_PWAT_22374 22374_TRNS_TBLK T_PSTRM_22374 T_PBRDG_22374
USER: jgallagher

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STATE OF MISSOURI JAMES PATRICK GALLAGHER NUMBER PE-2018010499 PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_PAV_22374
DATE PREPARED:	4/28/2025

SHEET
29

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 7" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
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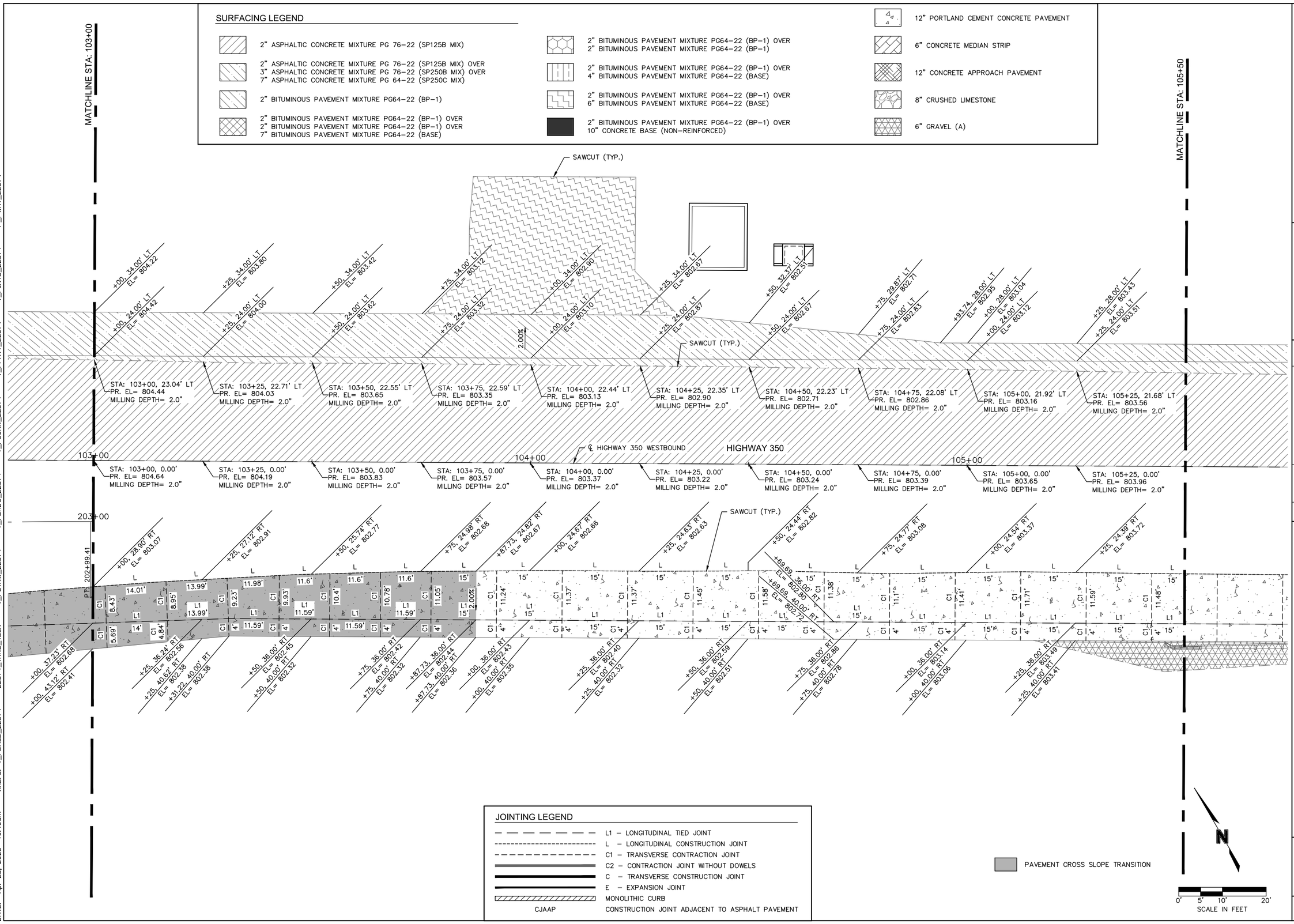
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 4" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 6" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 10" CONCRETE BASE (NON-REINFORCED)
- 12" PORTLAND CEMENT CONCRETE PAVEMENT
- 6" CONCRETE MEDIAN STRIP
- 12" CONCRETE APPROACH PAVEMENT
- 8" CRUSHED LIMESTONE
- 6" GRAVEL (A)



JOINTING LEGEND

- L1 – LONGITUDINAL TIED JOINT
- L – LONGITUDINAL CONSTRUCTION JOINT
- C1 – TRANSVERSE CONTRACTION JOINT
- C2 – CONTRACTION JOINT WITHOUT DOWELS
- C – TRANSVERSE CONSTRUCTION JOINT
- E – EXPANSION JOINT
- MONOLITHIC CURB
- CJAAP – CONSTRUCTION JOINT ADJACENT TO ASPHALT PAVEMENT

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JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_PAV_22374
DATE PREPARED:	4/28/2025

SHEET 30

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PAVING PLAN\T_PAV_22374.dwg
DATE: Apr 28, 2025 10:19am
XREFS: T_PBASE_22374 T_PCORR_22374 T_PPAIT_22374 T_PJNTS_22374 P_PWAT_22374 T_PSTRM_22374 22374_TRNS_TBLK T_PBRDG_22374
USER: jgallagher

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 7" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 4" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 6" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 10" CONCRETE BASE (NON-REINFORCED)
- 12" PORTLAND CEMENT CONCRETE PAVEMENT
- 6" CONCRETE MEDIAN STRIP
- 12" CONCRETE APPROACH PAVEMENT
- 8" CRUSHED LIMESTONE
- 6" GRAVEL (A)

MATCHLINE STA: 105+50

MATCHLINE STA: 108+00

HIGHWAY 350

℄ HIGHWAY 350 WESTBOUND

106+00

107+00

108+00

402+00

403+00

SAWCUT (TYP.)

CROWN SHIFT

+50, 28.00' LT EL= 805.87
+50, 24.00' LT EL= 803.95
STA: 105+50, 21.43' LT PR. EL= 804.00 MILLING DEPTH= 2.0"
+50, 36.00' RT EL= 803.91
+50, 40.00' RT EL= 803.83
STA: 105+50, 0.00' PR. EL= 804.32 MILLING DEPTH= 2.0"
+50, 24.56' RT EL= 804.14

+75, 28.00' LT EL= 804.31
+75, 24.00' LT EL= 804.39
STA: 105+75, 21.23' LT PR. EL= 804.45 MILLING DEPTH= 2.0"
+75, 36.00' RT EL= 804.40
+75, 40.00' RT EL= 804.32
STA: 105+75, 0.00' PR. EL= 804.78 MILLING DEPTH= 2.0"
+75, 24.63' RT EL= 804.63

+00, 28.00' LT EL= 804.77
+00, 24.00' LT EL= 804.85
STA: 106+00, 21.09' LT PR. EL= 804.91 MILLING DEPTH= 2.0"
+84.94, 36.00' RT EL= 804.62
+84.94, 40.00' RT EL= 804.54
STA: 106+00, 0.00' PR. EL= 805.23 MILLING DEPTH= 2.0"
+00, 36.00' RT EL= 804.93
+00, 40.00' RT EL= 804.82
+09.94, 36.00' RT EL= 805.08
+09.94, 40.00' RT EL= 804.96
+00, 24.68' RT EL= 805.15

+25, 28.00' LT EL= 805.23
+25, 24.00' LT EL= 805.31
STA: 106+25, 20.88' LT PR. EL= 805.37 MILLING DEPTH= 2.0"
+25, 36.00' RT EL= 805.30
+25, 40.00' RT EL= 805.18
STA: 106+25, 0.00' PR. EL= 805.71 MILLING DEPTH= 2.0"
+25, 24.93' RT EL= 805.53

+50, 28.00' LT EL= 805.69
+50, 24.00' LT EL= 805.77
STA: 106+50, 20.87' LT PR. EL= 805.83 MILLING DEPTH= 2.0"
STA: 106+50, 20.57' LT PR. EL= 806.22 MILLING DEPTH= 2.0"
+50, 36.00' RT EL= 805.67
+50, 40.00' RT EL= 805.55
STA: 106+50, 0.00' PR. EL= 806.16 MILLING DEPTH= 2.0"
+50, 25.10' RT EL= 805.88

+75, 28.00' LT EL= 806.07
+75, 24.00' LT EL= 806.15
STA: 107+00, 20.13' LT PR. EL= 806.52 MILLING DEPTH= 2.0"
+75, 36.00' RT EL= 806.07
+75, 40.00' RT EL= 805.95
STA: 107+00, 0.00' PR. EL= 806.85 MILLING DEPTH= 2.0"
+75, 25.18' RT EL= 806.29

+00, 28.00' LT EL= 806.37
+00, 24.00' LT EL= 806.45
+00, 0.00' EL= 806.85
+00, 2.48' RT EL= 806.89
+00, 25.45' RT EL= 806.61
+00, 36.00' RT EL= 806.39
+00, 40.00' RT EL= 806.27

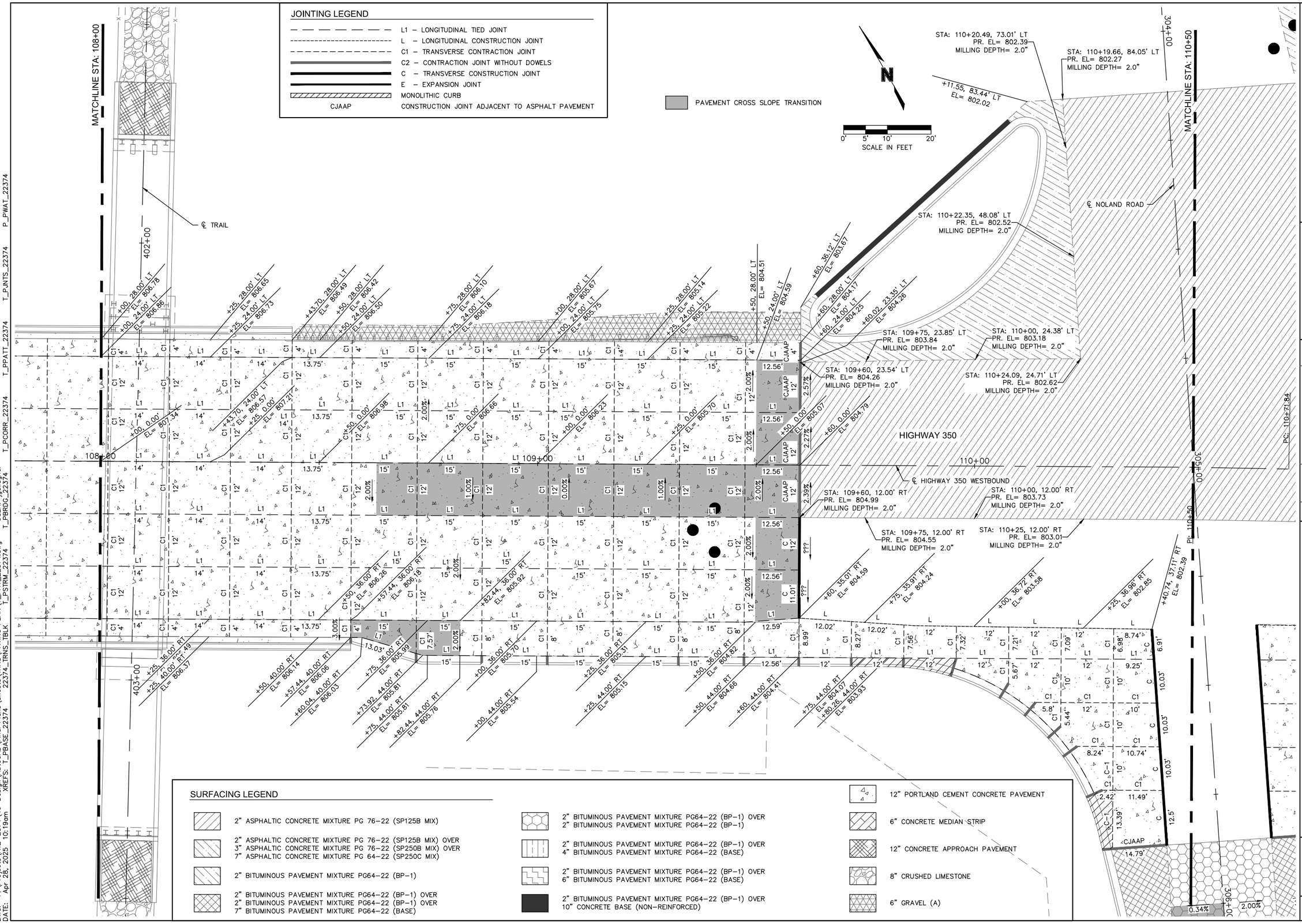
+25, 28.00' LT EL= 806.55
+25, 24.00' LT EL= 806.63
+25, 0.00' EL= 807.11
+25, 1.24' RT EL= 807.13
+25, 36.00' RT EL= 806.50
+25, 40.00' RT EL= 806.38

+50, 28.00' LT EL= 806.72
+50, 24.00' LT EL= 806.80
+50, 0.00' EL= 807.28
+50, 36.00' RT EL= 806.56
+50, 40.00' RT EL= 806.44

+73.70, 28.00' LT EL= 806.80
+73.70, 24.00' LT EL= 806.88
+75, 28.00' LT EL= 806.80
+75, 24.00' LT EL= 806.88
+75, 0.00' EL= 807.36
+75, 36.00' RT EL= 806.64
+75, 40.00' RT EL= 806.52
+00, 36.00' RT EL= 806.62
+00, 40.00' RT EL= 806.50

2.00%
1.64%
1.59%
1.25%
3.00%

C1 4' | L1 | C1 | L1 | C1 | L1 | C1



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USER: jgallagher T_PBROG_22374

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PAVING PLAN\T_PAV_22374.dwg T_PSTRM_22374

DATE: Apr 28, 2025 10:19am XREFS: T_PBASE_22374 22374_TRNS_TBLK

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PAV_22374
DATE PREPARED: 4/28/2025

SHEET 32

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76-22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64-22 (SP250C MIX)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 7" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 4" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 6" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64-22 (BP-1) OVER 10" CONCRETE BASE (NON-REINFORCED)
- 12" PORTLAND CEMENT CONCRETE PAVEMENT
- 6" CONCRETE MEDIAN STRIP
- 12" CONCRETE APPROACH PAVEMENT
- 8" CRUSHED LIMESTONE
- 6" GRAVEL (A)

JOINTING LEGEND

- L1 – LONGITUDINAL TIED JOINT
- L – LONGITUDINAL CONSTRUCTION JOINT
- C1 – TRANSVERSE CONTRACTION JOINT
- C2 – CONTRACTION JOINT WITHOUT DOWELS
- C – TRANSVERSE CONSTRUCTION JOINT
- E – EXPANSION JOINT
- MONOLITHIC CURB
- CJAAP – CONSTRUCTION JOINT ADJACENT TO ASPHALT PAVEMENT

+63.54, 131.05' LT EL= 802.02
+67.88, 127.32' LT EL= 801.87
+72.84, 127.76' LT EL= 801.44
+77.34, 132.28' LT EL= 801.07
+66.65, 109.41' LT EL= 802.05
STA: 110+72.06, 88.36' LT PR. EL= 801.87 MILLING DEPTH= 2.0"
+75, 97.96' LT EL= 801.73
+85.32, 98.83' LT EL= 801.07
+98.41, 101.39' LT EL= 800.30
+00.87, 88.46' LT EL= 800.52
MATCHLINE STA: 110+50
304+00
STA: 110+75, 80.41' LT PR. EL= 801.73 MILLING DEPTH= 2.0"
+00, 68.95' LT EL= 801.09
+00, 62.09' LT EL= 801.09
+25, 68.80' LT EL= 800.44
+25, 51.16' LT EL= 800.80
+36, 59.93' LT EL= 800.64
+36, 51.97' LT EL= 800.72
STA: 110+85.66, 62.83' LT PR. EL= 801.38 MILLING DEPTH= 2.0"
+25, 45.65' LT EL= 800.60
+50, 48.30' LT EL= 800.64
+50, 43.23' LT EL= 800.68
+50, 38.16' LT EL= 800.31
STA: 111+00, 49.24' LT PR. EL= 801.01 MILLING DEPTH= 2.0"
+69.42, 37.00' LT EL= 800.14
+75, 47.00' LT EL= 800.58
+75, 42.00' LT EL= 800.47
+75, 37.00' LT EL= 800.12
STA: 111+25, 34.77' LT PR. EL= 800.65 MILLING DEPTH= 2.0"
1.07%
STA: 111+50, 27.24' LT PR. EL= 800.43 MILLING DEPTH= 2.0"
PC: 110+71.84
305+00
STA: 111+75, 24.03' LT PR. EL= 800.23 MILLING DEPTH= 2.0"
111+00
STA: 112+00, 22.73' LT PR. EL= 800.09 MILLING DEPTH= 2.0"
+20.24, 101.85' LT EL= 799.78
+35.95, 103.85' LT EL= 799.64
+19.36, 47.00' LT EL= 800.22
+00, 47.00' LT EL= 800.39
+00, 42.00' LT EL= 800.39
+00, 37.00' LT EL= 800.02
1.65%
STA: 112+25, 22.64' LT PR. EL= 800.15 MILLING DEPTH= 2.0"
+25, 42.00' LT EL= 800.32
+25, 37.00' LT EL= 799.94
+25, 47.00' LT EL= 800.29
+35.21, 47.00' LT EL= 800.29
+27.17, 37.00' LT EL= 799.93
112+00
℄ HIGHWAY 350 WESTBOUND
HIGHWAY 350
STA: 112+50, 22.66' LT PR. EL= 800.30 MILLING DEPTH= 2.0"
+50, 47.00' LT EL= 800.25
+50, 42.00' LT EL= 800.32
+50, 37.00' LT EL= 800.02
1.63%
STA: 112+75, 22.81' LT PR. EL= 800.44 MILLING DEPTH= 2.0"
+75, 45.65' LT EL= 801.09
+75, 42.00' LT EL= 800.59
+75, 37.00' LT EL= 800.23
MATCHLINE STA: 113+00
113+00
Pt. 110+50
STA: 110+50.08, 12.00' RT PR. EL= 802.42 MILLING DEPTH= 2.0"
STA: 110+75, 12.01' RT PR. EL= ??? MILLING DEPTH= ???"
STA: 111+00, 12.01' RT PR. EL= ??? MILLING DEPTH= ???"
STA: 111+25, 11.47' RT PR. EL= 801.15 MILLING DEPTH= 2.0"
STA: 111+50, 10.77' RT PR. EL= 800.80 MILLING DEPTH= 2.0"
STA: 111+75, 9.90' RT PR. EL= 800.67 MILLING DEPTH= 2.0"
STA: 112+00, 8.70' RT PR. EL= 800.56 MILLING DEPTH= 2.0"
STA: 112+25, 7.29' RT PR. EL= 800.45 MILLING DEPTH= 2.0"
STA: 112+50, 5.84' RT PR. EL= 800.45 MILLING DEPTH= 2.0"
STA: 112+75, 4.30' RT PR. EL= 800.44 MILLING DEPTH= 2.0"
+65.19, 35.67' RT EL= 801.95
+75, 35.63' RT EL= 801.80
+00, 35.44' RT EL= 801.19
+25, 35.13' RT EL= 800.82
+47.93, 34.73' RT EL= 800.47
+48.01, 39.04' RT EL= 800.53
+48.07, 41.08' RT EL= 800.69
L L L L L L
C 12.05' 8.04' C1 11.95' 8.04' C1 12' 7.91' C1 12' 7.8' C1 12' 7.69' C1 8.77' 4.76'
L1 L1 L1 L1
C 12.04' 10.03' C1 11.35' 10.03' C1 12' 10' C1 12' 7.42' C1 8.84' C1 10.61' C1 12.04'
PAVEMENT CROSS SLOPE TRANSITION
N
0' 5' 10' 20'
SCALE IN FEET

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PAVING PLAN\T_PAV_22374.dwg
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USER: jgallagher

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TEL 816.361.1177
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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | STATE: MO
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PAV_22374
DATE PREPARED: 4/28/2025

SHEET 33

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64–22 (SP250C MIX)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 7" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 4" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 6" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 10" CONCRETE BASE (NON–REINFORCED)
- 12" PORTLAND CEMENT CONCRETE PAVEMENT
- 6" CONCRETE MEDIAN STRIP
- 12" CONCRETE APPROACH PAVEMENT
- 8" CRUSHED LIMESTONE
- 6" GRAVEL (A)

MATCHLINE STA: 113+00

+00, 46.20' LT EL= 800.69
+00, 42.00' LT sm 1.04 EL= 800.69
+00, 37.00' LT EL= 800.43
+25, 46.80' LT EL= 800.98
+20.12, 42.00' LT EL= 800.77
+20.12, 37.00' LT EL= 800.59
+50, 47.55' LT EL= 800.93
+50, 37.00' LT EL= 800.67
+64.85, 48.00' LT EL= 800.87
+64.85, 37.00' LT EL= 800.67
+75, 37.00' LT EL= 800.71
+00, 37.00' LT EL= 801.05
+00, 24.61' LT EL= 801.09
+19.73, 37.00' LT EL= 801.18
+19.70, 24.61' LT EL= 801.19

STA: 113+00, 23.09' LT
PR. EL= 800.59
MILLING DEPTH= 2.0"

STA: 113+25, 23.50' LT
PR. EL= 800.64
MILLING DEPTH= 2.0"

STA: 113+50, 23.94' LT
PR. EL= 800.73
MILLING DEPTH= 2.1"

STA: 113+75, 24.32' LT
PR. EL= 800.88
MILLING DEPTH= 2.1"

STA: 113+90.14, 24.54' LT
PR. EL= 801.00
MILLING DEPTH= 2.1"

STA: 113+90.35, 1.62' LT
PR. EL= 800.37
MILLING DEPTH= 2.0"

113+00

STA: 113+00, 2.76' RT
PR. EL= 800.43
MILLING DEPTH= 2.0"

STA: 113+25, 1.28' RT
PR. EL= 800.43
MILLING DEPTH= 2.0"

STA: 113+50, 0.11' LT
PR. EL= 800.42
MILLING DEPTH= 2.0"

STA: 113+75, 1.01' LT
PR. EL= 800.39
MILLING DEPTH= 2.0"

114+00

HIGHWAY 350

115+00

PCC: 115+11.56

℄ HIGHWAY 350 WESTBOUND

JOINTING LEGEND

- L1 – LONGITUDINAL TIED JOINT
- L – LONGITUDINAL CONSTRUCTION JOINT
- C1 – TRANSVERSE CONTRACTION JOINT
- C2 – CONTRACTION JOINT WITHOUT DOWELS
- C – TRANSVERSE CONSTRUCTION JOINT
- E – EXPANSION JOINT
- MONOLITHIC CURB
- CJAAP – CONSTRUCTION JOINT ADJACENT TO ASPHALT PAVEMENT

PAVEMENT CROSS SLOPE TRANSITION

N

0' 5' 10' 20'
SCALE IN FEET

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PAVING PLAN\T_PAV_22374.dwg
DATE: Apr 28, 2025 10:20am
XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374
USER: jgallagher
T_PBRDG_22374 T_PCORR_22374 T_PPAITT_22374 T_PJNTS_22374 P_PWAT_22374

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JAMES PATRICK GALLAGHER
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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE–2018010499

REVISIONS

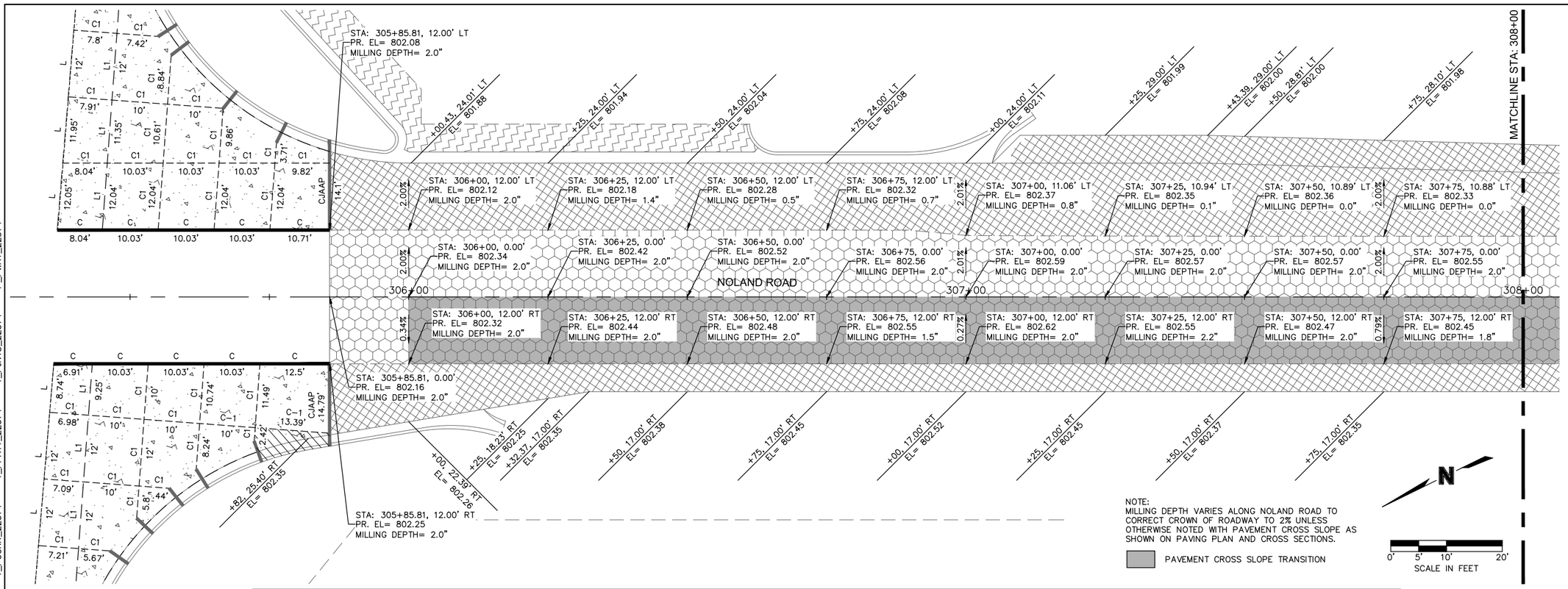
REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PAV_22374
DATE PREPARED: 4/28/2025

SHEET
34



NOTE:
MILLING DEPTH VARIES ALONG NOLAND ROAD TO CORRECT CROWN OF ROADWAY TO 2% UNLESS OTHERWISE NOTED WITH PAVEMENT CROSS SLOPE AS SHOWN ON PAVING PLAN AND CROSS SECTIONS.

PAVEMENT CROSS SLOPE TRANSITION

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64–22 (SP250C MIX)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 7" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 4" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 6" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 10" CONCRETE BASE (NON–REINFORCED)
- 12" PORTLAND CEMENT CONCRETE PAVEMENT
- 6" CONCRETE MEDIAN STRIP
- 12" CONCRETE APPROACH PAVEMENT
- 8" CRUSHED LIMESTONE
- 6" GRAVEL (A)

JOINTING LEGEND

- L1 – LONGITUDINAL TIED JOINT
- L – LONGITUDINAL CONSTRUCTION JOINT
- C1 – TRANSVERSE CONTRACTION JOINT
- C2 – CONTRACTION JOINT WITHOUT DOWELS
- C – TRANSVERSE CONSTRUCTION JOINT
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- MONOLITHIC CURB
- CJAAP – CONSTRUCTION JOINT ADJACENT TO ASPHALT PAVEMENT

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JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PAV_22374
DATE PREPARED: 4/28/2025

SHEET
35

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PAVING PLAN\T_PAV_22374.dwg
DATE: Apr 28, 2025 10:20am
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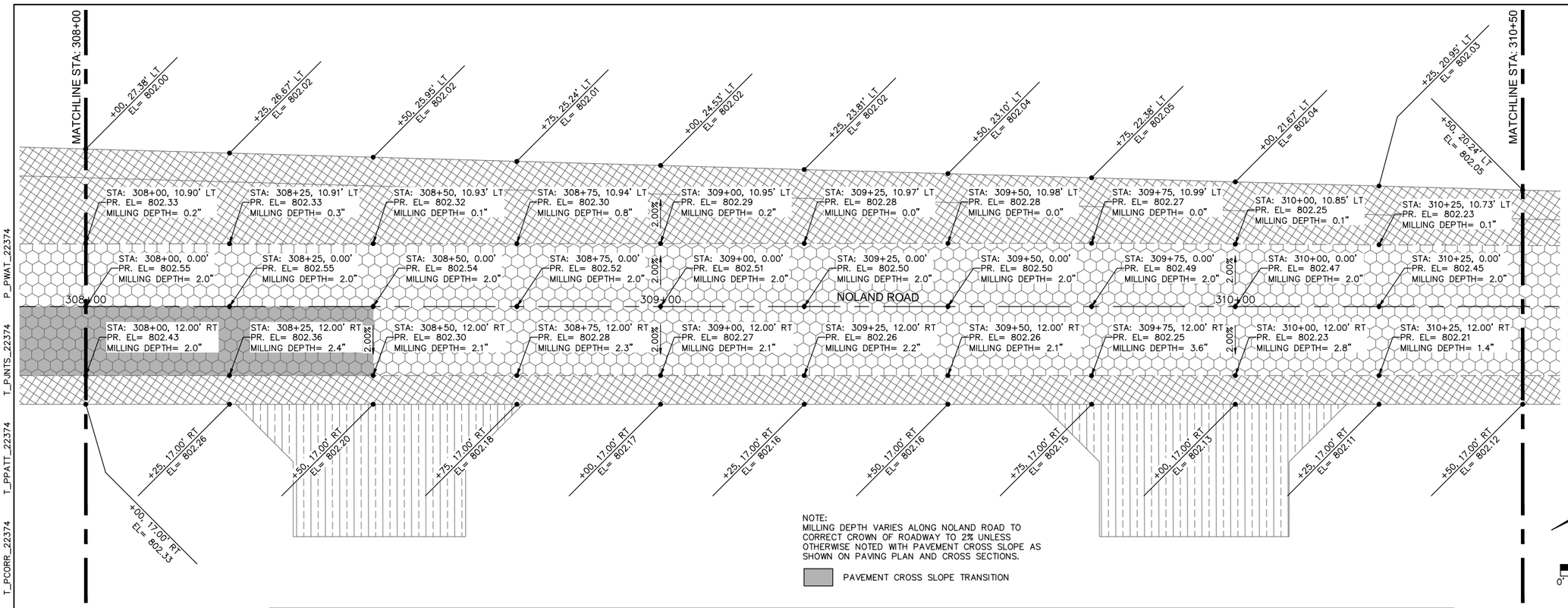
USER: jgallagher T_PBRDG_22374
T_PCORR_22374 T_PPAIT_22374 T_PJNTS_22374 P_PWAT_22374



NOTE:
MILLING DEPTH VARIES ALONG NOLAND ROAD TO CORRECT CROWN OF ROADWAY TO 2% UNLESS OTHERWISE NOTED WITH PAVEMENT CROSS SLOPE AS SHOWN ON PAVING PLAN AND CROSS SECTIONS.

PAVEMENT CROSS SLOPE TRANSITION

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64–22 (SP250C MIX)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1)
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- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 4" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
- 2" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BP–1) OVER 6" BITUMINOUS PAVEMENT MIXTURE PG64–22 (BASE)
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- 12" PORTLAND CEMENT CONCRETE PAVEMENT
- 6" CONCRETE MEDIAN STRIP
- 12" CONCRETE APPROACH PAVEMENT
- 8" CRUSHED LIMESTONE
- 6" GRAVEL (A)

JOINTING LEGEND

- L1 – LONGITUDINAL TIED JOINT
- L – LONGITUDINAL CONSTRUCTION JOINT
- C1 – TRANSVERSE CONTRACTION JOINT
- C2 – CONTRACTION JOINT WITHOUT DOWELS
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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE–2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PAV_22374
DATE PREPARED: 4/28/2025

SHEET 36

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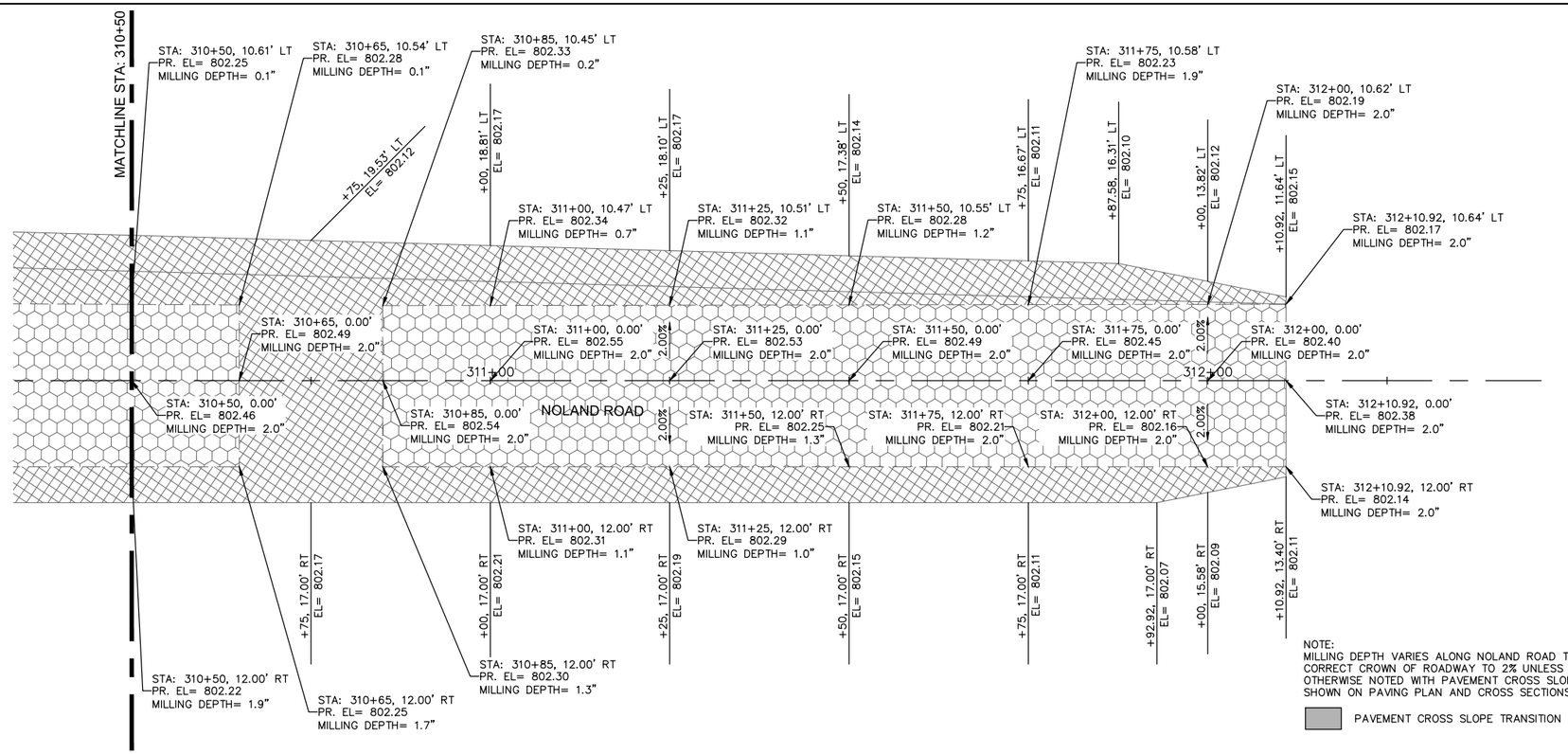

NOTE:
MILLING DEPTH VARIES ALONG NOLAND ROAD TO CORRECT CROWN OF ROADWAY TO 2% UNLESS OTHERWISE NOTED WITH PAVEMENT CROSS SLOPE AS SHOWN ON PAVING PLAN AND CROSS SECTIONS.

PAVEMENT CROSS SLOPE TRANSITION

N

0' 5' 10' 20'
SCALE IN FEET

SURFACING LEGEND

- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX)
- 2" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP125B MIX) OVER 3" ASPHALTIC CONCRETE MIXTURE PG 76–22 (SP250B MIX) OVER 7" ASPHALTIC CONCRETE MIXTURE PG 64–22 (SP250C MIX)
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JOINTING LEGEND

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MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PAVING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_PAV_22374
DATE PREPARED: 4/28/2025

SHEET
37

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\PAVING PLAN\T_PAV_22374.dwg
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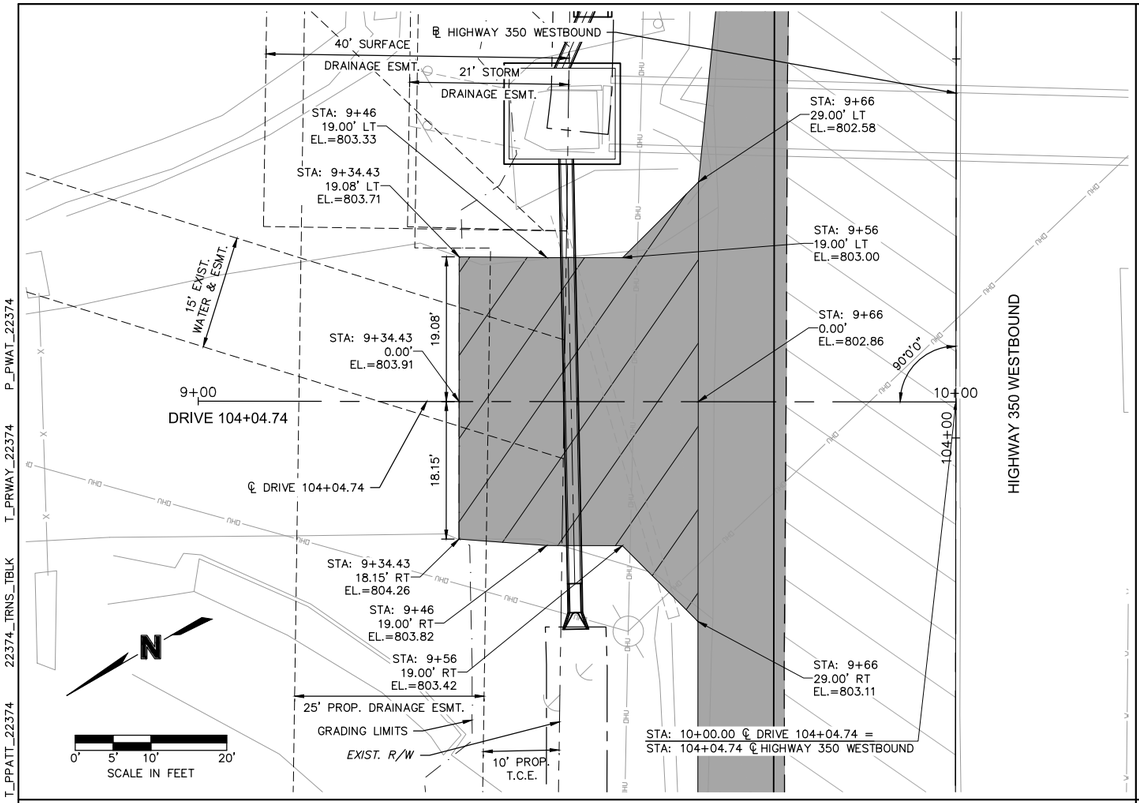
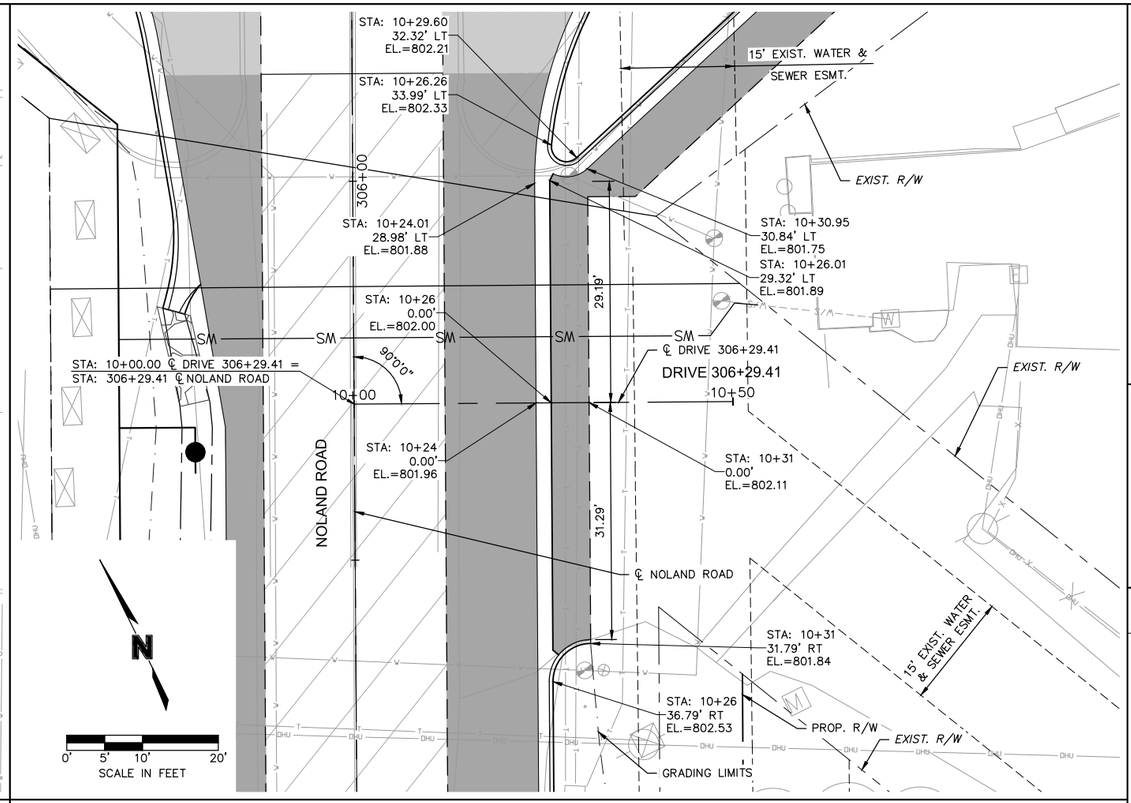
USER: jgallagher T_PBRDG_22374
T_PCORR_22374 T_PPAIT_22374 T_PJNTS_22374 P_PWAT_22374





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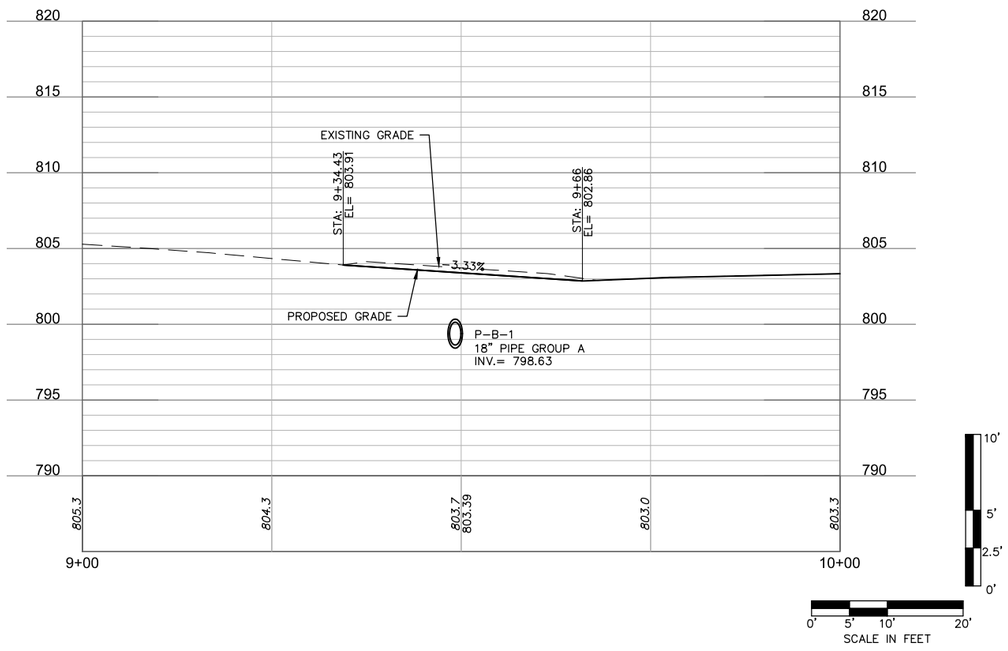

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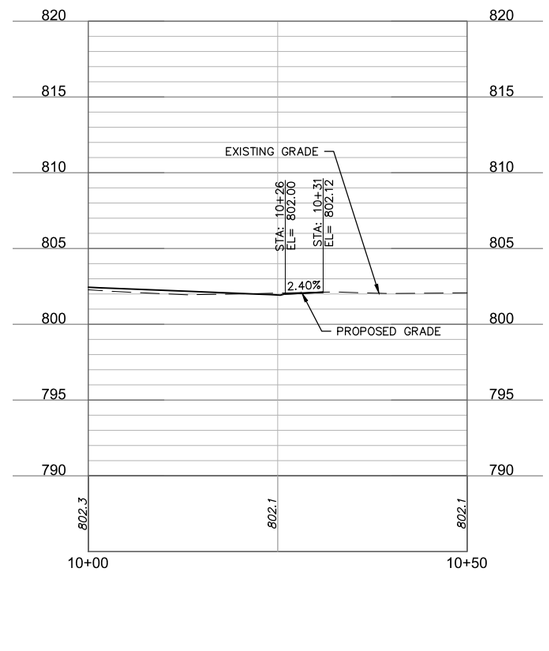

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MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DRIVEWAY LAYOUTS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_DRV_22374
DATE PREPARED: 4/28/2025

SHEET
38

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\DRIVES\T_DRV_22374.dwg
DATE: Apr 28, 2025 10:21am
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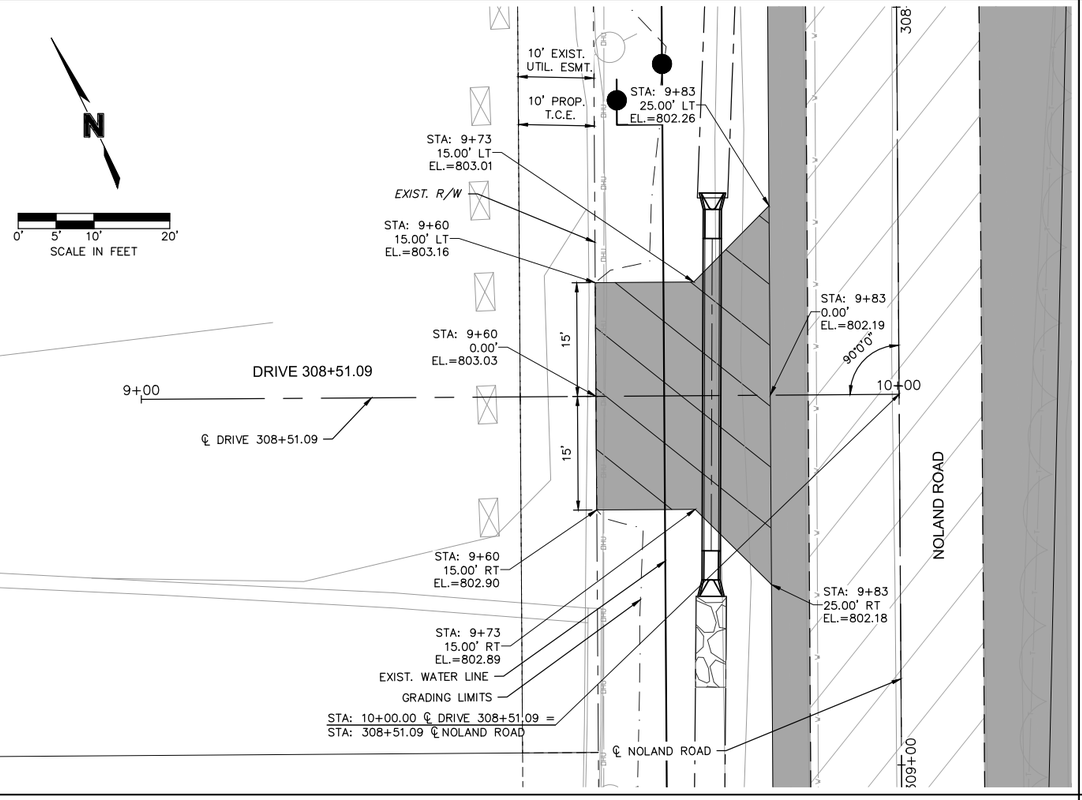
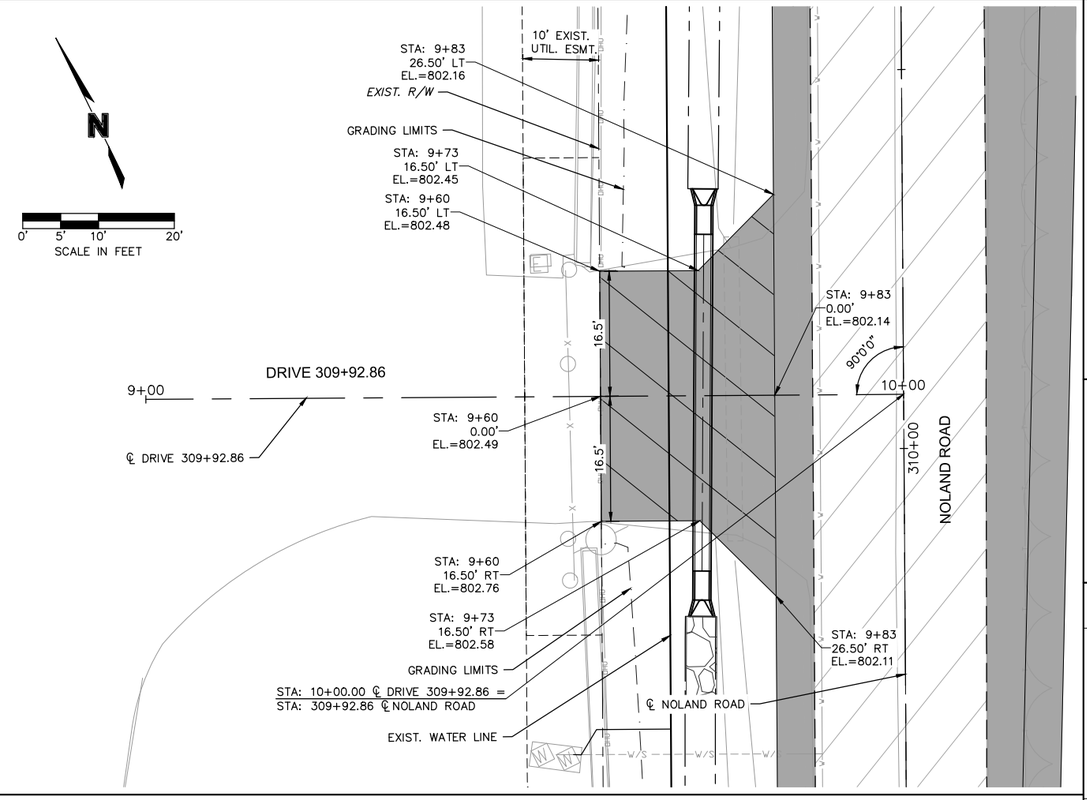
USER: jgallagher





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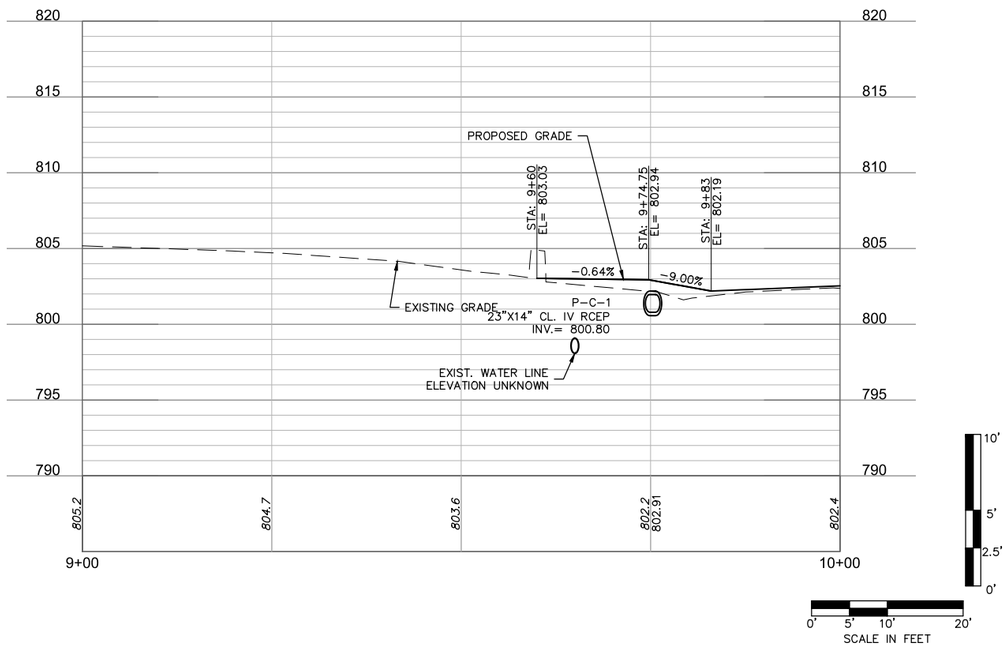

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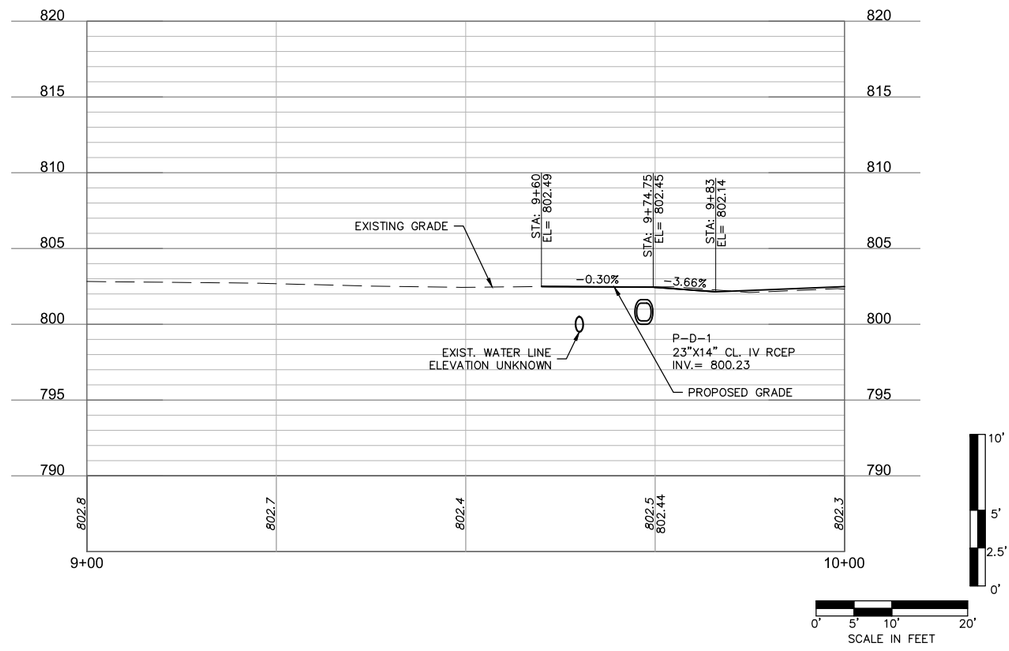

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DRIVEWAY LAYOUTS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_DRV_22374
DATE PREPARED: 4/28/2025

SHEET
39

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\DRIVES\T_DRV_22374.dwg
DATE: Apr 28, 2025 10:21am
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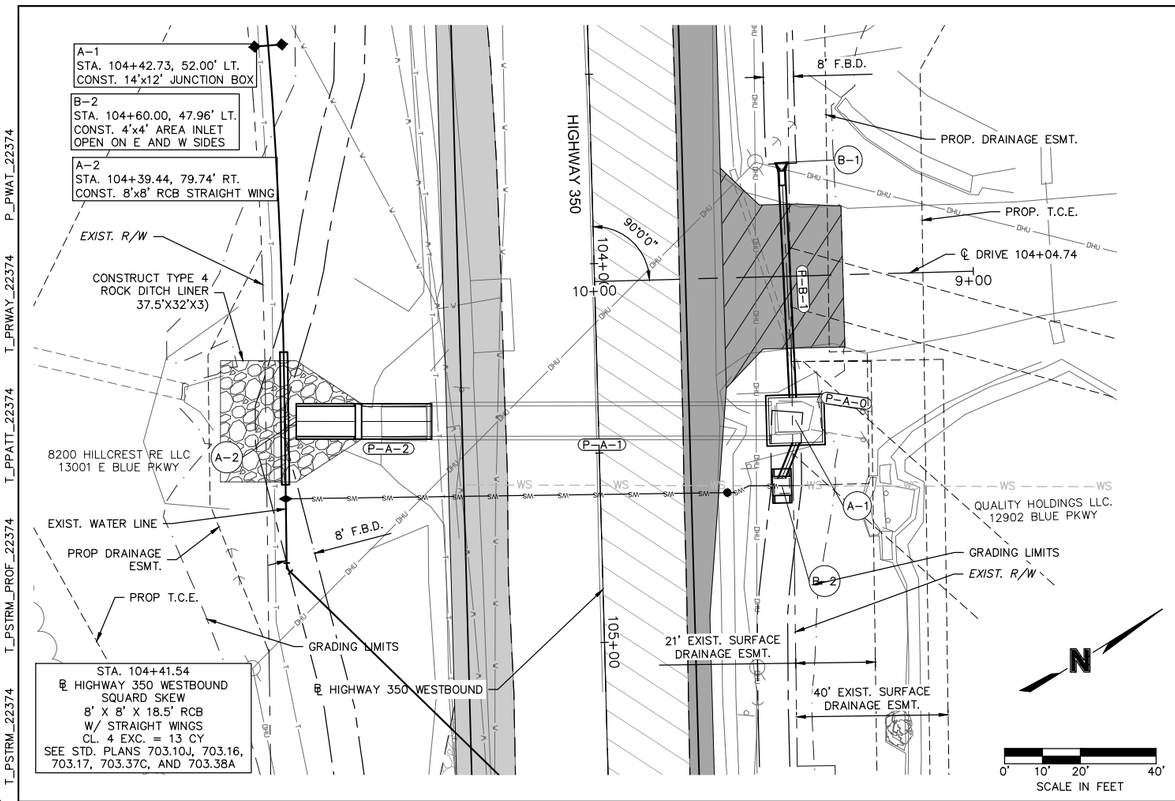
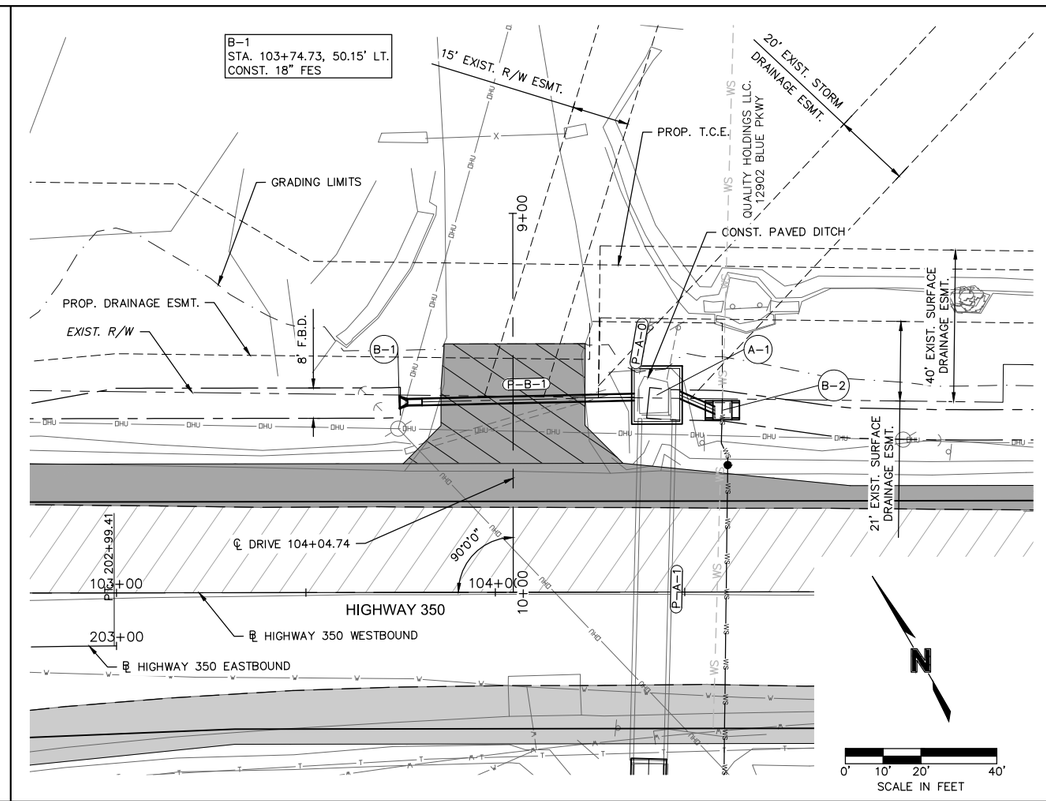
USER: jgallagher





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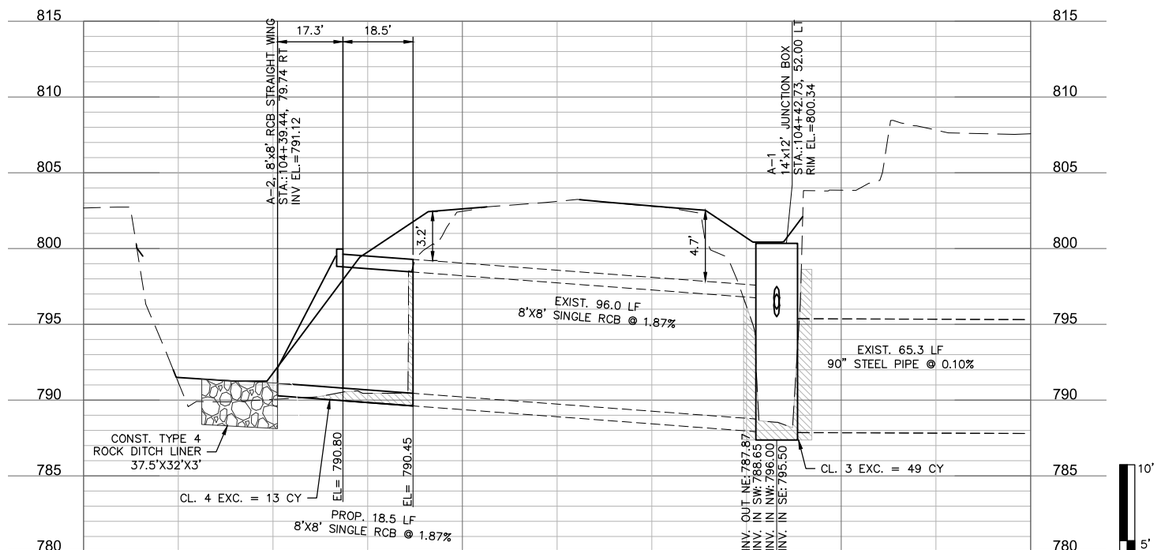

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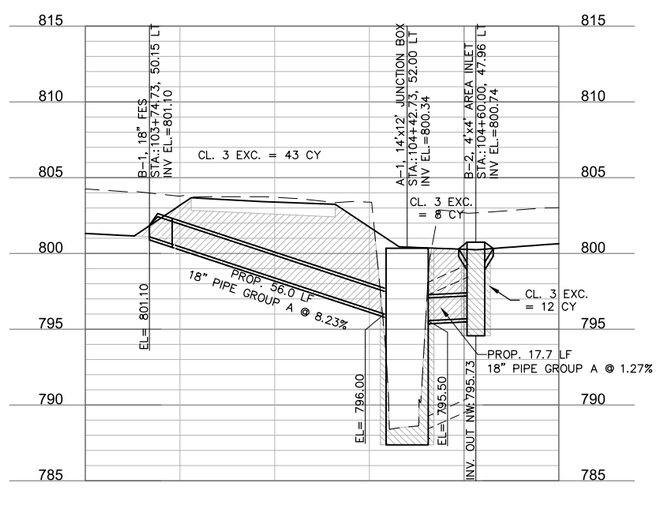

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JAMES P. GALLAGHER
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DRAINAGE PLAN & PROFILE

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_STRM_22374
DATE PREPARED: 4/28/2025

SHEET
40

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USER: jgallagher
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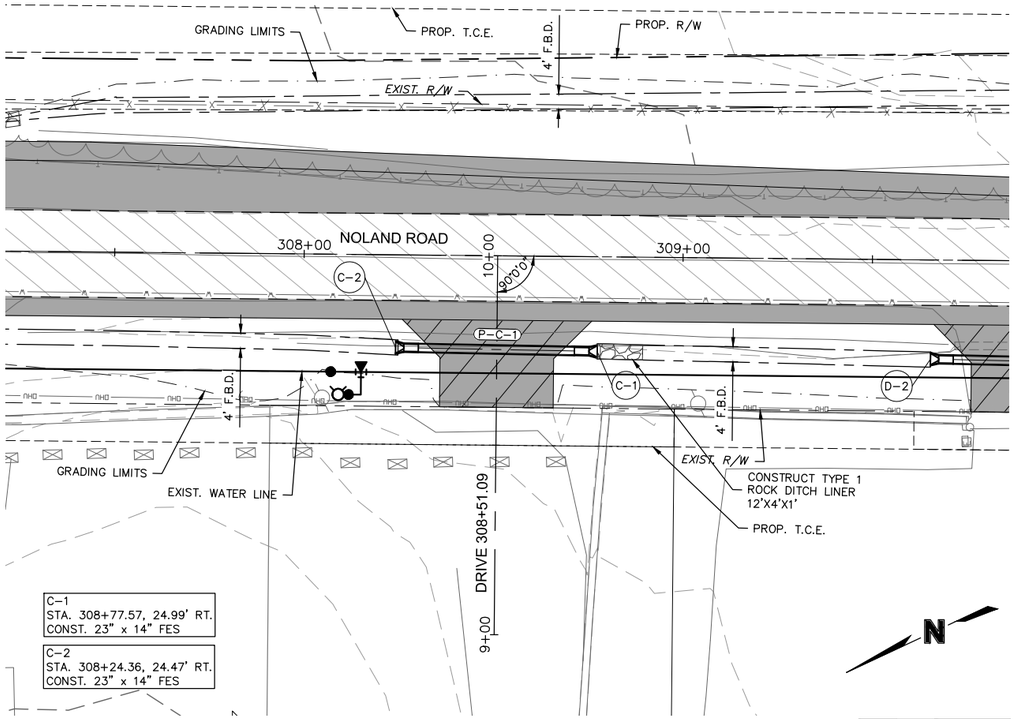

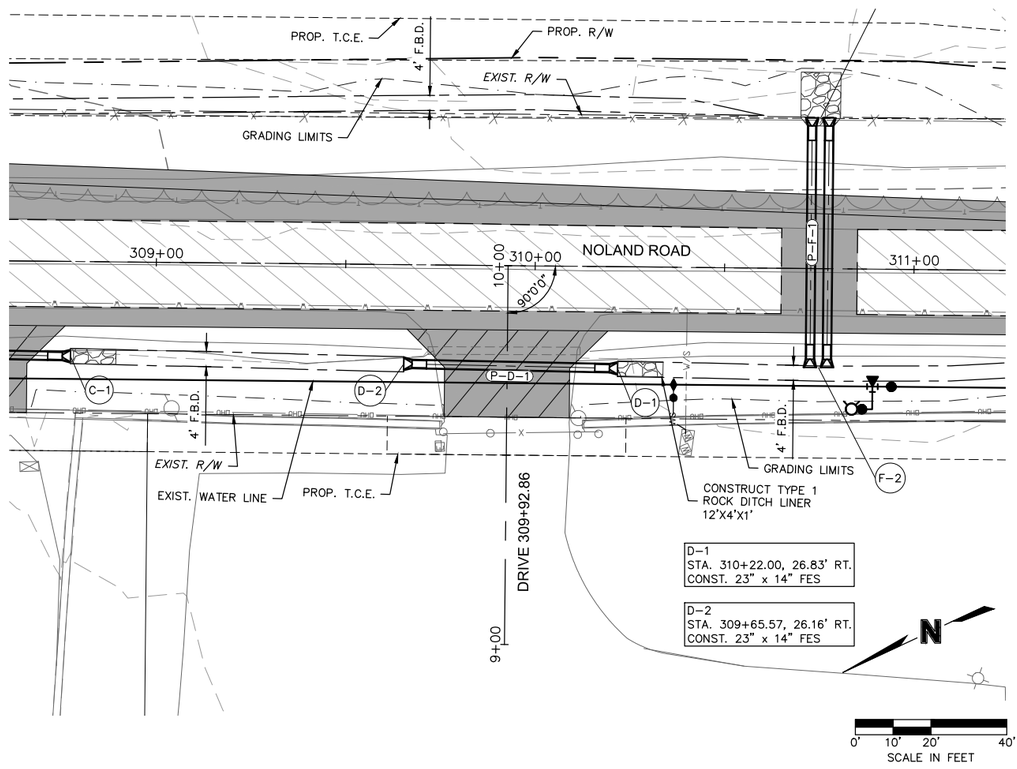

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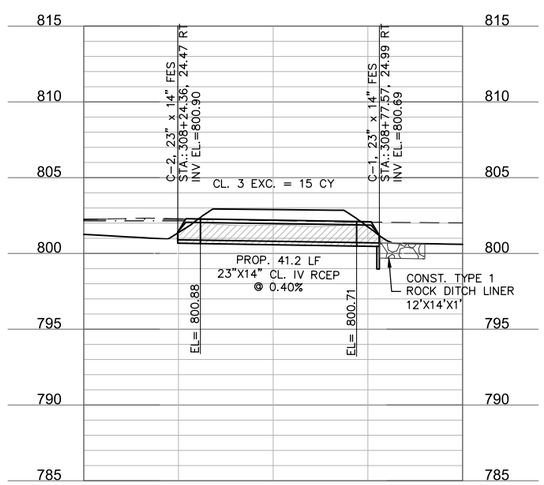

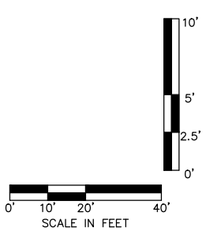

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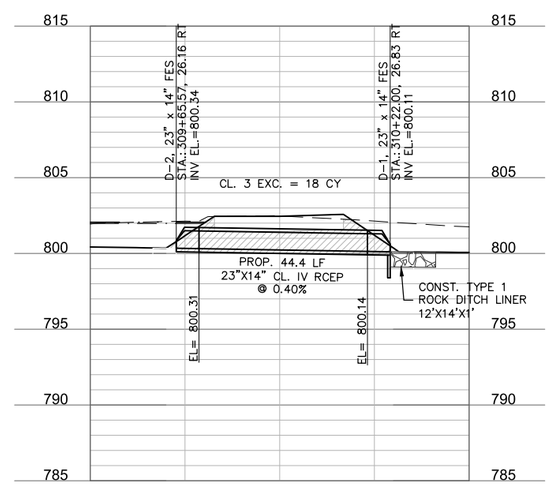

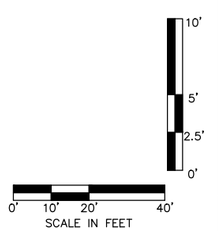

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JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

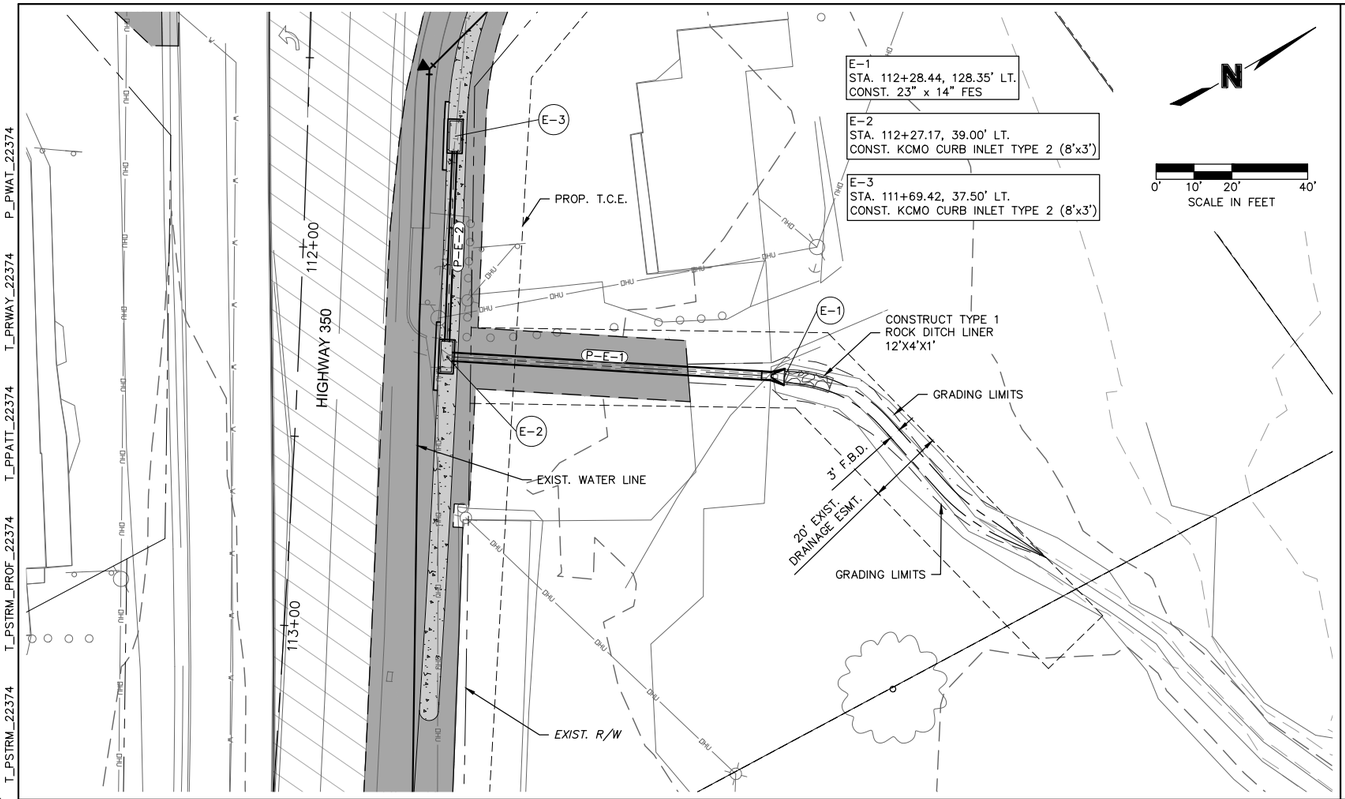
DRAINAGE PLAN & PROFILE

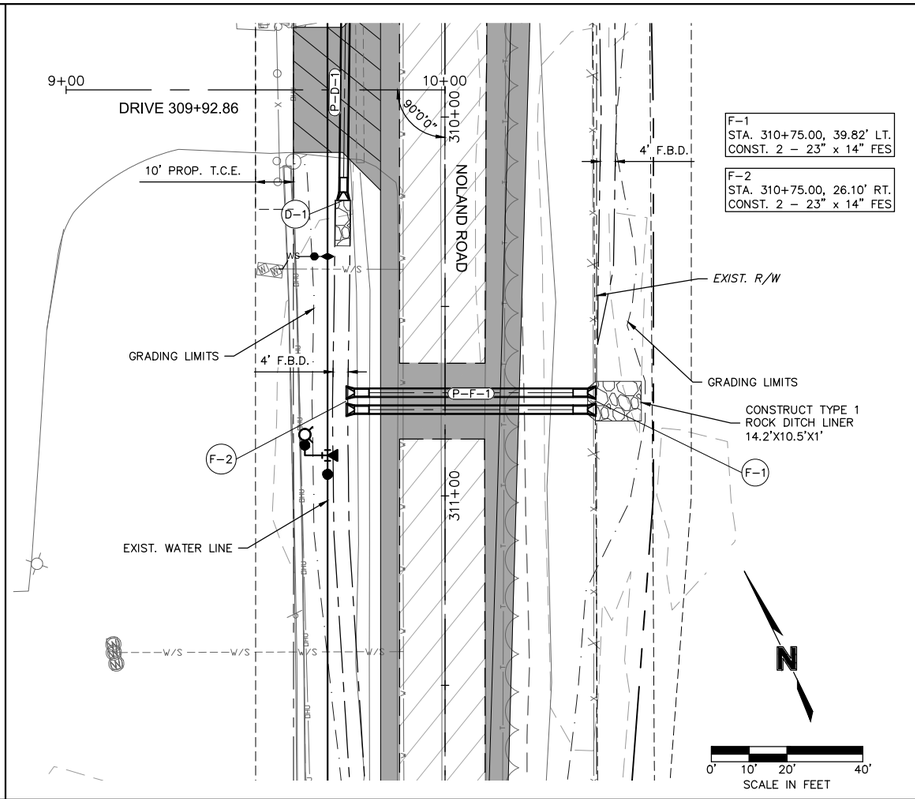
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_STRM_22374
DATE PREPARED: 4/28/2025

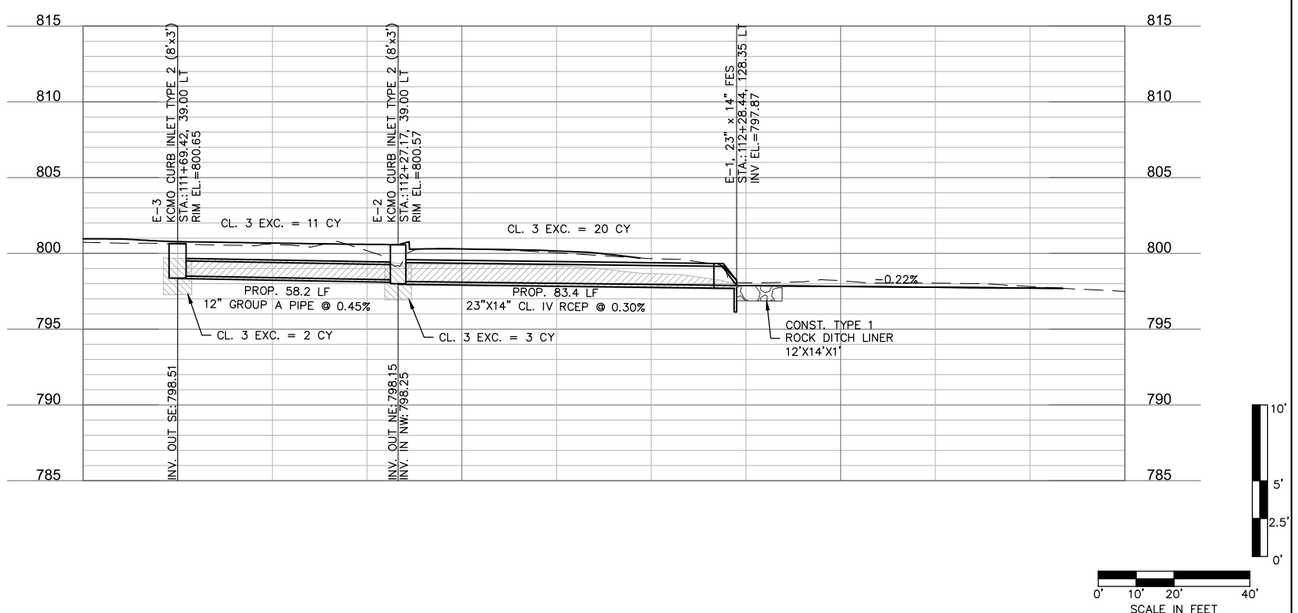
SHEET
41

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\STORM SEWER\T_STRM_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:23am XREFS: 22374_TRNS_TBLK T_XBASE_22374 T_XBNDY_22374 T_PBASE_22374
T_PSTRM_22374 T_PSTRM_PROF_22374 T_PPATT_22374 T_PRWAY_22374 P_PWAT_22374





STORM LINE E



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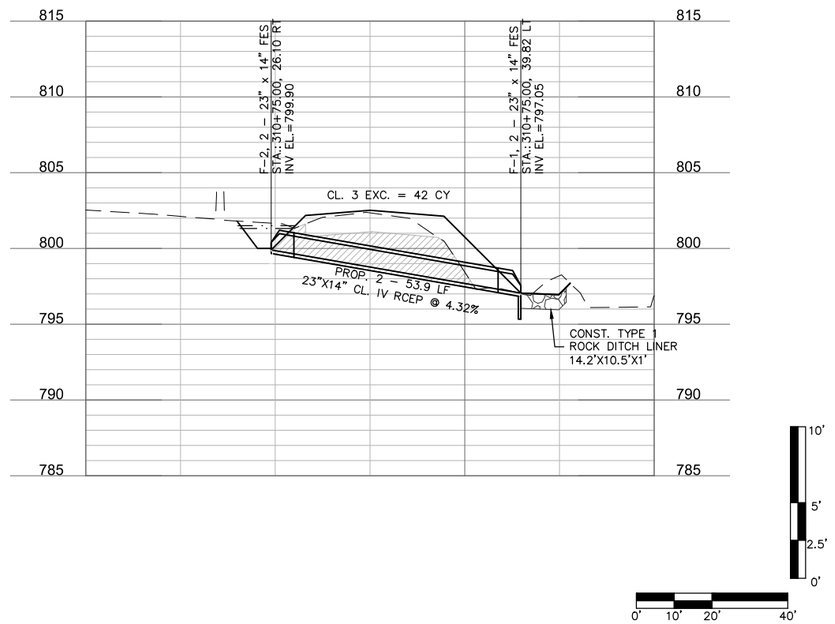

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JAMES PATRICK GALLAGHER
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JAMES P. GALLAGHER
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DRAINAGE PLAN & PROFILE

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_STRM_22374
DATE PREPARED: 4/28/2025

SHEET
42

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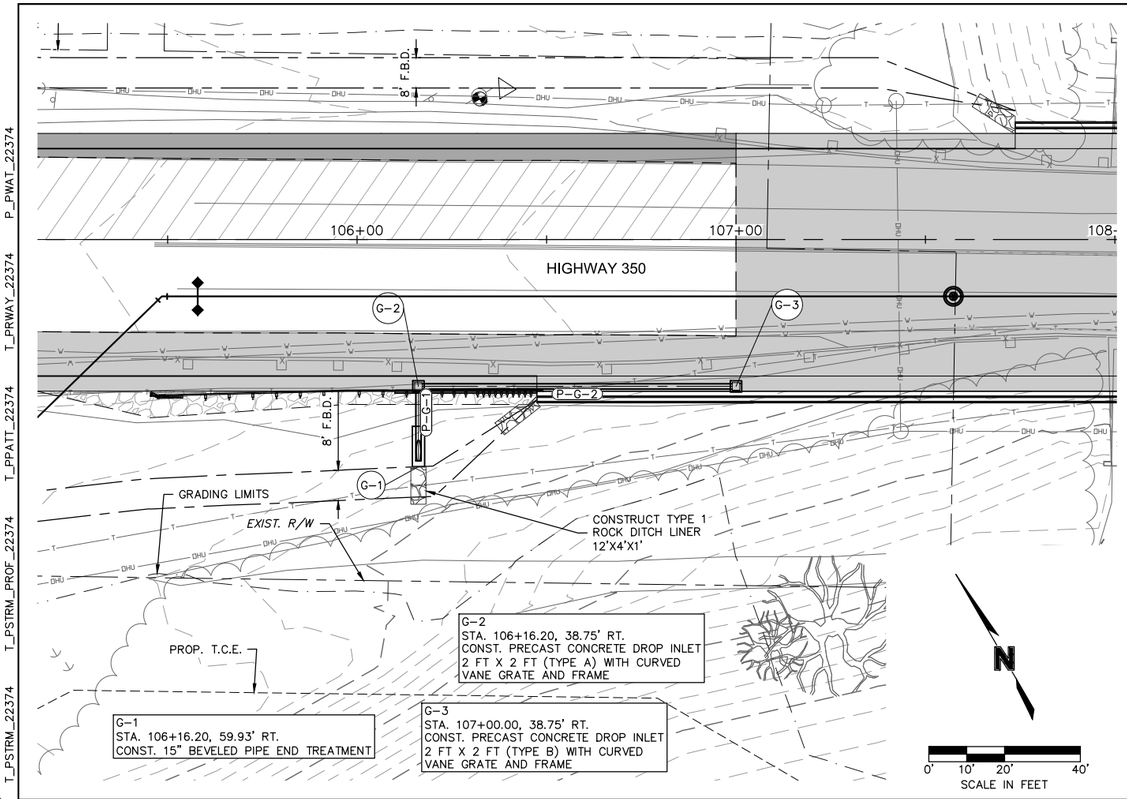

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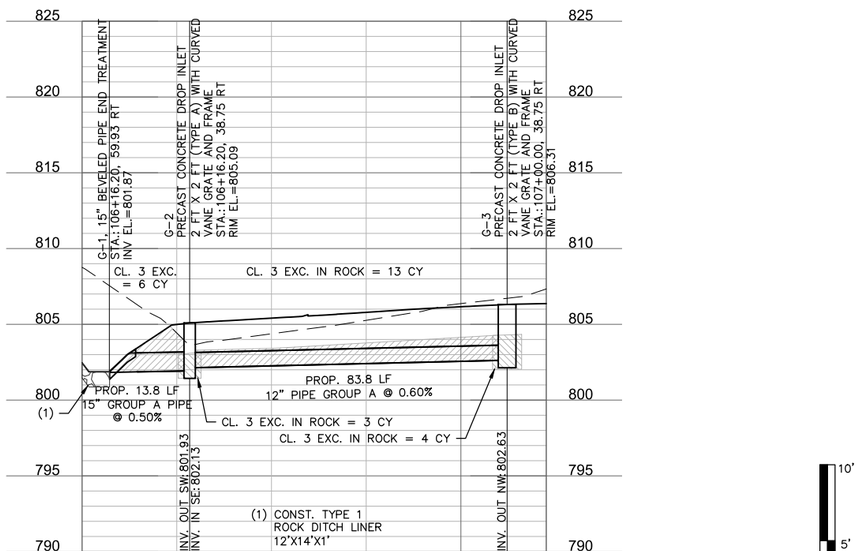

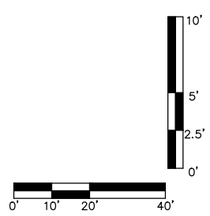

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

DRAINAGE PLAN & PROFILE

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_STRM_22374
DATE PREPARED: 4/28/2025

SHEET
43

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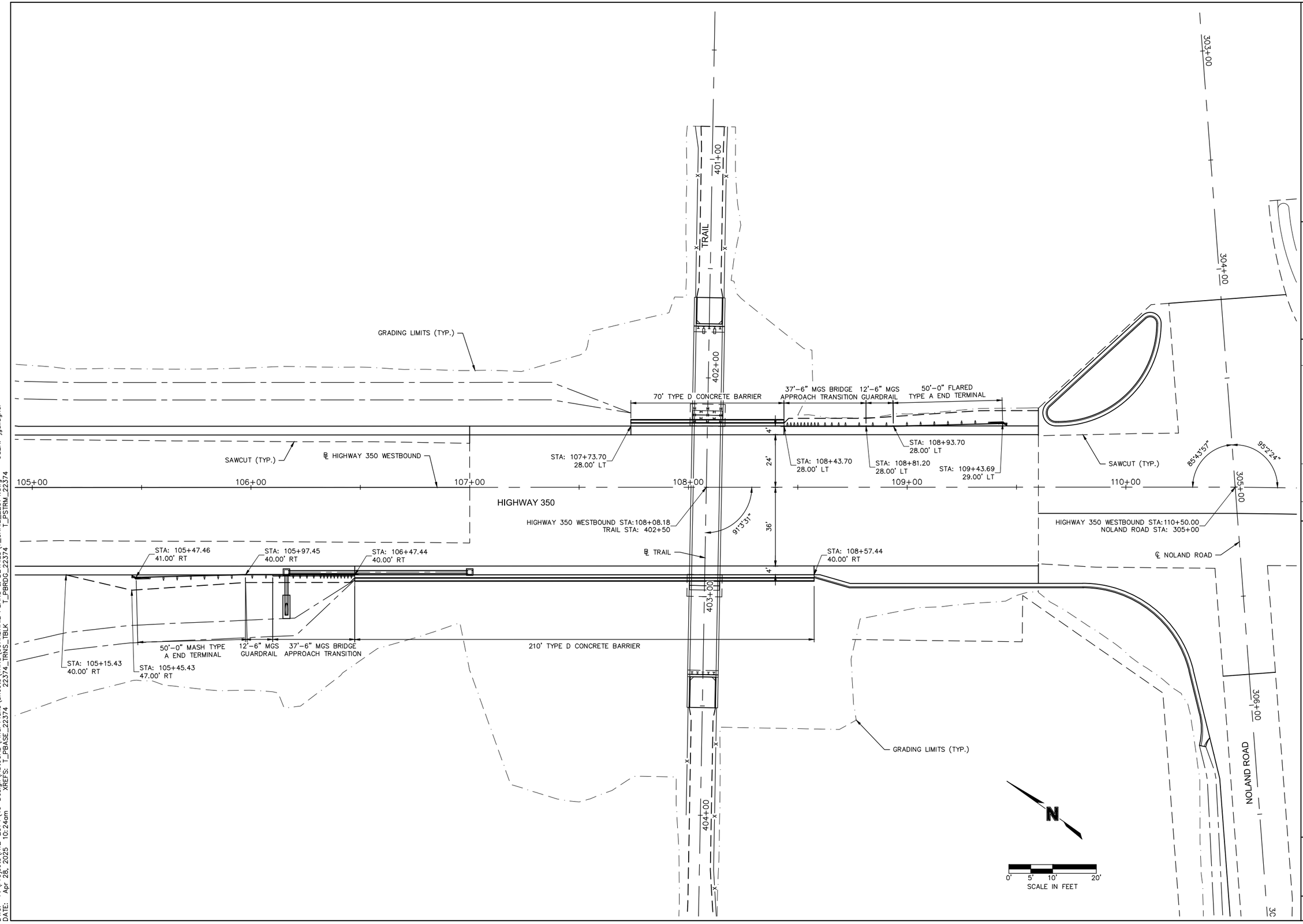

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USER: jgallagher

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JAMES P. GALLAGHER
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

GUARDRAIL & BARRIER LAYOUT

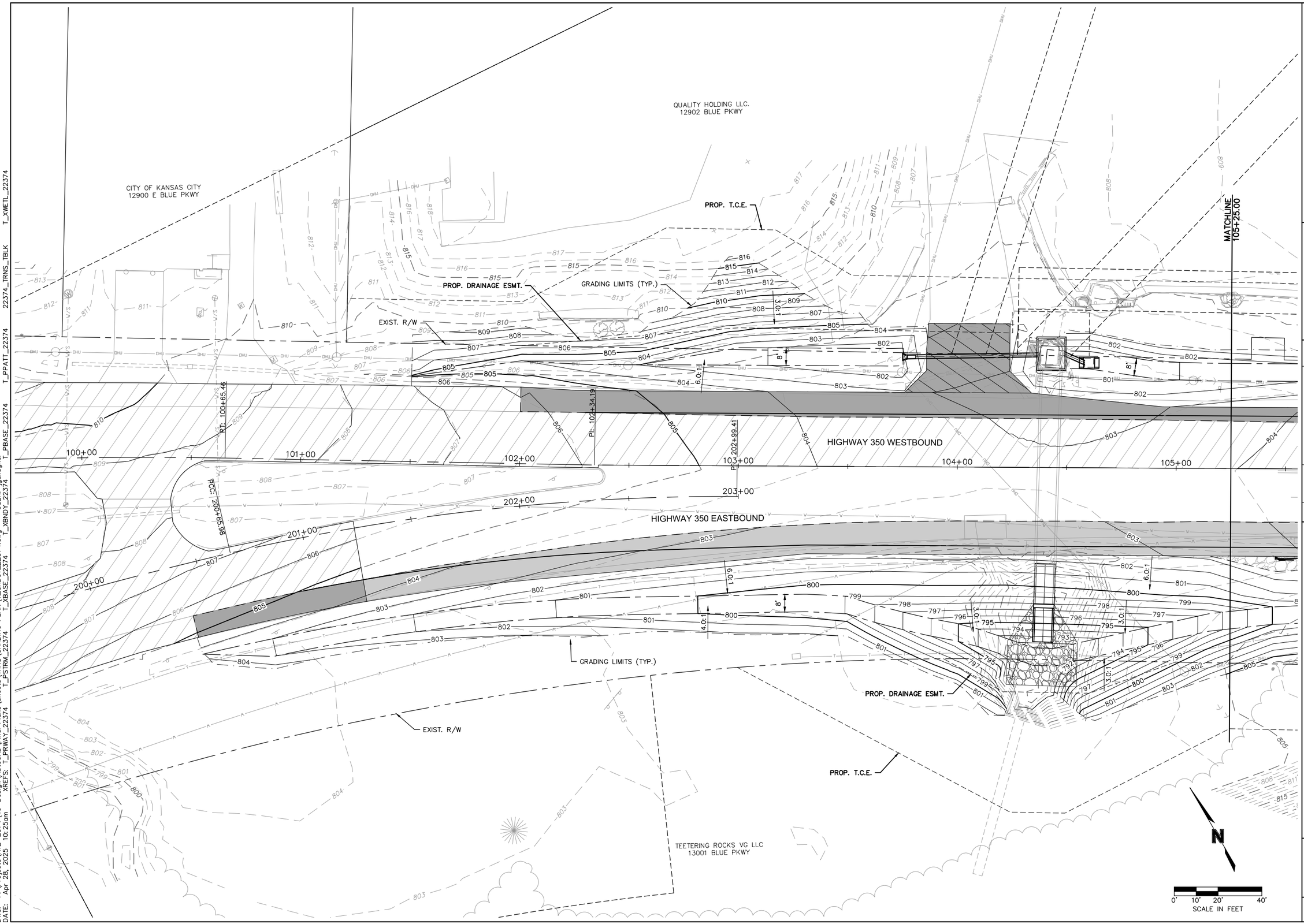
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T GRAIL 22374
DATE PREPARED: 4/28/2025

SHEET
44



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DATE: Apr 28, 2025 10:25am XREFS: T_PRWAY_22374 T_PSTRM_22374 T_XBASE_22374 T_XBND1_22374
T_PBASE_22374 T_PPATT_22374 22374_TRNS_TBLK T_XWETL_22374

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

GRADING PLAN

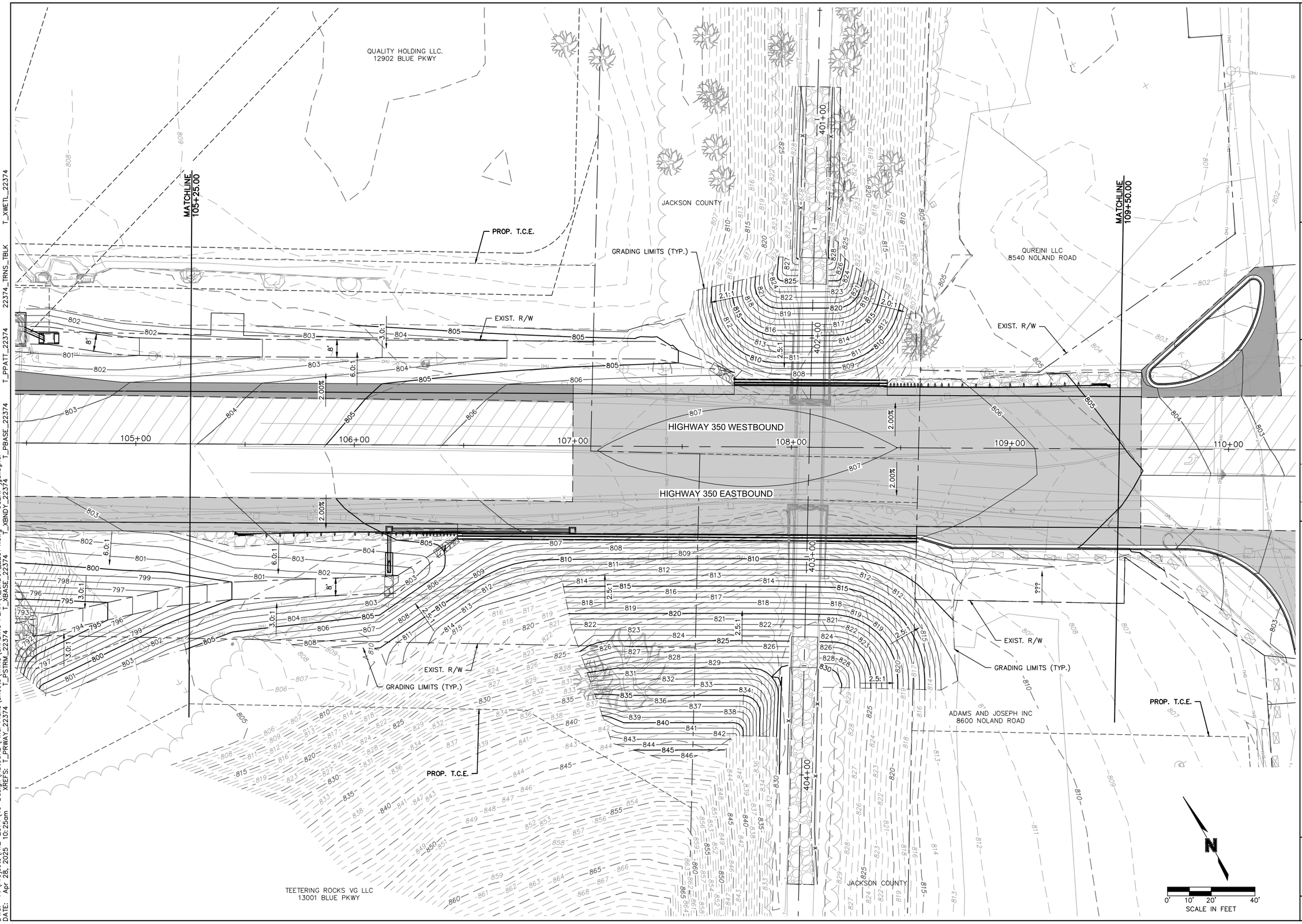
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_GRD01_22374
DATE PREPARED:	4/28/2025

SHEET
45



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DATE: Apr 28, 2025 10:25am XREFS: T_PRWAY_22374 T_PSTRM_22374 T_XBASE_22374 T_XBND1_22374 T_PBASE_22374 T_PPATT_22374 22374_TRNS_TBLK T_XWETL_22374

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GRADING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_GRD01_22374
DATE PREPARED:	4/28/2025

SHEET
46

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\GRADING PLAN\T_GRD01_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:25am XREFS: T_PRWAY_22374 T_PSTRM_22374 T_XBASE_22374 T_XBNDY_22374
T_PBASE_22374 T_PPATT_22374 22374_TRNS_TBLK T_XWETL_22374

MATCHLINE
109+50.00

304+00

305+00

306+00

307+00

MATCHLINE
307+00.00

110+00

111+00

112+00

113+00

114+00

Pt: 110+50

PC: 110+71.84

PROP. T.C.E.

EXIST. R/W

HIGHWAY 350 WESTBOUND

HIGHWAY 350 EASTBOUND

NOLAND ROAD

KNOBTOWN PROPERTIES LLC
13108 E M 350 HWY

ROANOKE PROPERTIES LLC
8541 NOLAND ROAD

CMF INVESTMENTS LLC.
13101 E BLUE PKWY

CRAIG & JULIE FEDYNICH
13111 E BLUE PKWY

N

0' 10' 20' 40'
SCALE IN FEET

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

GRADING PLAN

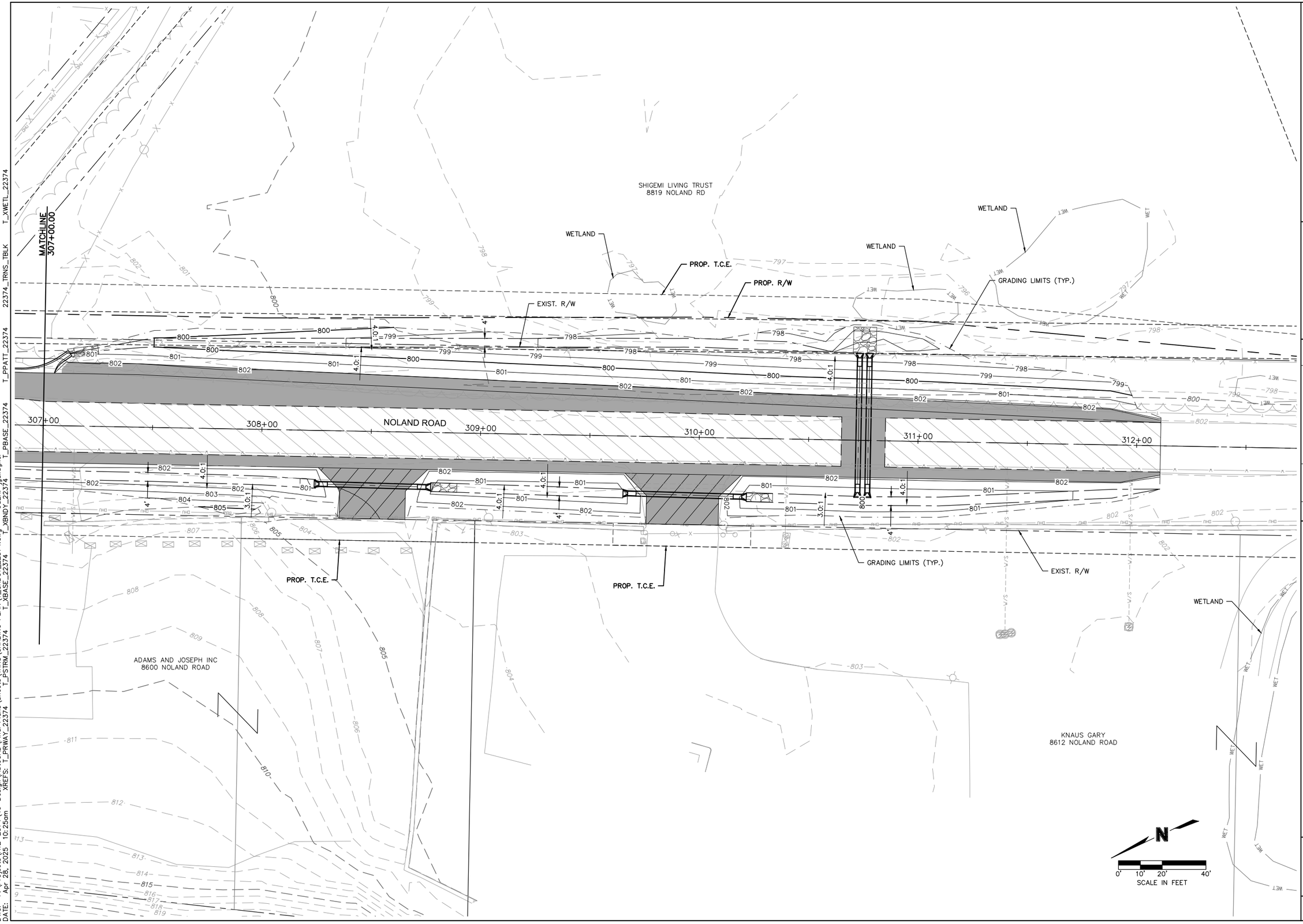
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: LJW
PROJECT NO.: JKU0404
DWG NO.: T_GRD01_22374
DATE PREPARED: 4/28/2025

SHEET
47



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USER: jgallagher

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

GRADING PLAN

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO

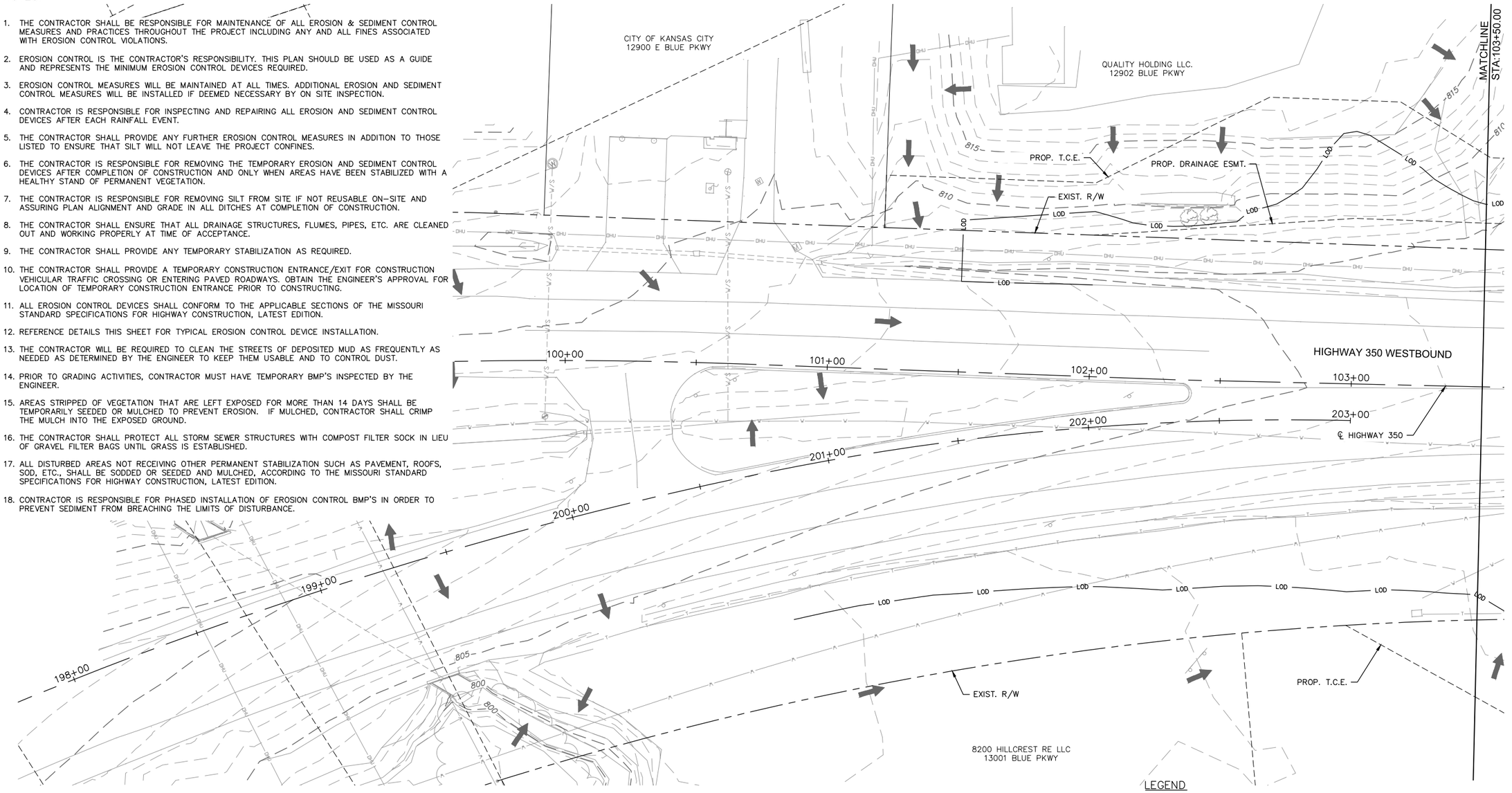
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_GRD01_22374
DATE PREPARED:	4/28/2025

SHEET
48

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT INCLUDING ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS.
2. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN SHOULD BE USED AS A GUIDE AND REPRESENTS THE MINIMUM EROSION CONTROL DEVICES REQUIRED.
3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
4. CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND REPAIRING ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAINFALL EVENT.
5. THE CONTRACTOR SHALL PROVIDE ANY FURTHER EROSION CONTROL MEASURES IN ADDITION TO THOSE LISTED TO ENSURE THAT SILT WILL NOT LEAVE THE PROJECT CONFINES.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF PERMANENT VEGETATION.
7. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AT COMPLETION OF CONSTRUCTION.
8. THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
9. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY STABILIZATION AS REQUIRED.
10. THE CONTRACTOR SHALL PROVIDE A TEMPORARY CONSTRUCTION ENTRANCE/EXIT FOR CONSTRUCTION VEHICULAR TRAFFIC CROSSING OR ENTERING PAVED ROADWAYS. OBTAIN THE ENGINEER'S APPROVAL FOR LOCATION OF TEMPORARY CONSTRUCTION ENTRANCE PRIOR TO CONSTRUCTING.
11. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
12. REFERENCE DETAILS THIS SHEET FOR TYPICAL EROSION CONTROL DEVICE INSTALLATION.
13. THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE STREETS OF DEPOSITED MUD AS FREQUENTLY AS NEEDED AS DETERMINED BY THE ENGINEER TO KEEP THEM USABLE AND TO CONTROL DUST.
14. PRIOR TO GRADING ACTIVITIES, CONTRACTOR MUST HAVE TEMPORARY BMP'S INSPECTED BY THE ENGINEER.
15. AREAS STRIPPED OF VEGETATION THAT ARE LEFT EXPOSED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED OR MULCHED TO PREVENT EROSION. IF MULCHED, CONTRACTOR SHALL CRIMP THE MULCH INTO THE EXPOSED GROUND.
16. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER STRUCTURES WITH COMPOST FILTER SOCK IN LIEU OF GRAVEL FILTER BAGS UNTIL GRASS IS ESTABLISHED.
17. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOFS, SOD, ETC., SHALL BE SODDED OR SEEDED AND MULCHED, ACCORDING TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
18. CONTRACTOR IS RESPONSIBLE FOR PHASED INSTALLATION OF EROSION CONTROL BMP'S IN ORDER TO PREVENT SEDIMENT FROM BREACHING THE LIMITS OF DISTURBANCE.



EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRIOR TO LAND DISTURBANCE	N/A	STAGING AREA	PHASE B	SEE EROSION CONTROL NOTES FOR DETAILS.
	1	INSTALL SILT FENCE	PHASE C	INSTALL SILT FENCE AS INDICATED ON PLANS.
	N/A	STOCKPILE TOPSOIL	N/A	SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED.
	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK-OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
	3	INSTALL SILT FENCE	N/A	INSTALL SILT FENCE AS INDICATED ON PLANS
	4	INSTALL BIODEGRADABLE LOG DITCH CHECKS	PHASE C	INSTALL BIODEGRADABLE LOG DITCH CHECKS AS INDICATED ON PLANS
	5	INSTALL ROCK DITCH CHECKS	PHASE C	INSTALL ROCK DITCH CHECKS AS INDICATED ON PLANS
	6	INSTALL INLET PROTECTION	PHASE C	INSTALL INLET PROTECTION AS INDICATED ON PLANS
	7	INSTALL OUTLET PROTECTION	PHASE C	INSTALL OUTLET PROTECTION AS INDICATED ON PLANS
	8	INSTALL TURF REINFORCEMENT MAT (TRM)	N/A	INSTALL TURF REINFORCEMENT MAT AS INDICATED ON PLANS.
C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK-OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

LEGEND

- LOD — LIMITS OF DISTURBANCE
- SILT FENCE
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
- INLET PROTECTION
- CONCRETE WASHOUT
- SEDIMENT TRAP
- ROCK DITCH CHECK
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- RIPRAP SLOPE PROTECTION
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JAMES P. GALLAGHER
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		REVISIONS	

EROSION CONTROL PLANS
PHASE A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC01_22374
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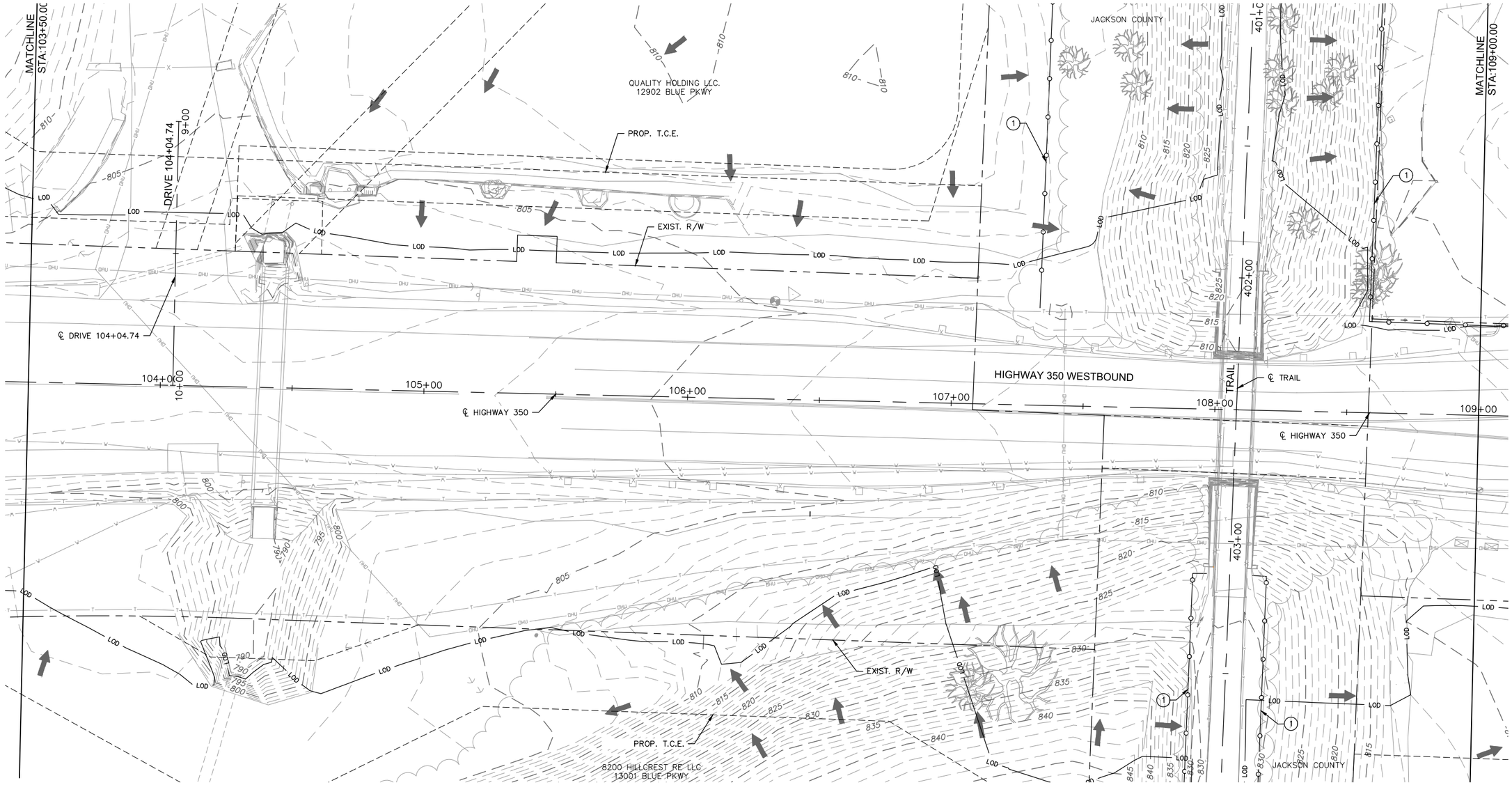

EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRIOR TO LAND DISTURBANCE	N/A	STAGING AREA	PHASE B	SEE EROSION CONTROL NOTES FOR DETAILS.
	1	INSTALL SILT FENCE	PHASE C	INSTALL SILT FENCE AS INDICATED ON PLANS.
	N/A	STOCKPILE TOPSOIL	N/A	SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED.
	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
	3	INSTALL SILT FENCE	N/A	INSTALL SILT FENCE AS INDICATED ON PLANS
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C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK–OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

LEGEND

- LOD — LIMITS OF DISTURBANCE
- SILT FENCE
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
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JAMES P. GALLAGHER
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

EROSION CONTROL PLANS
PHASE A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
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SHEET
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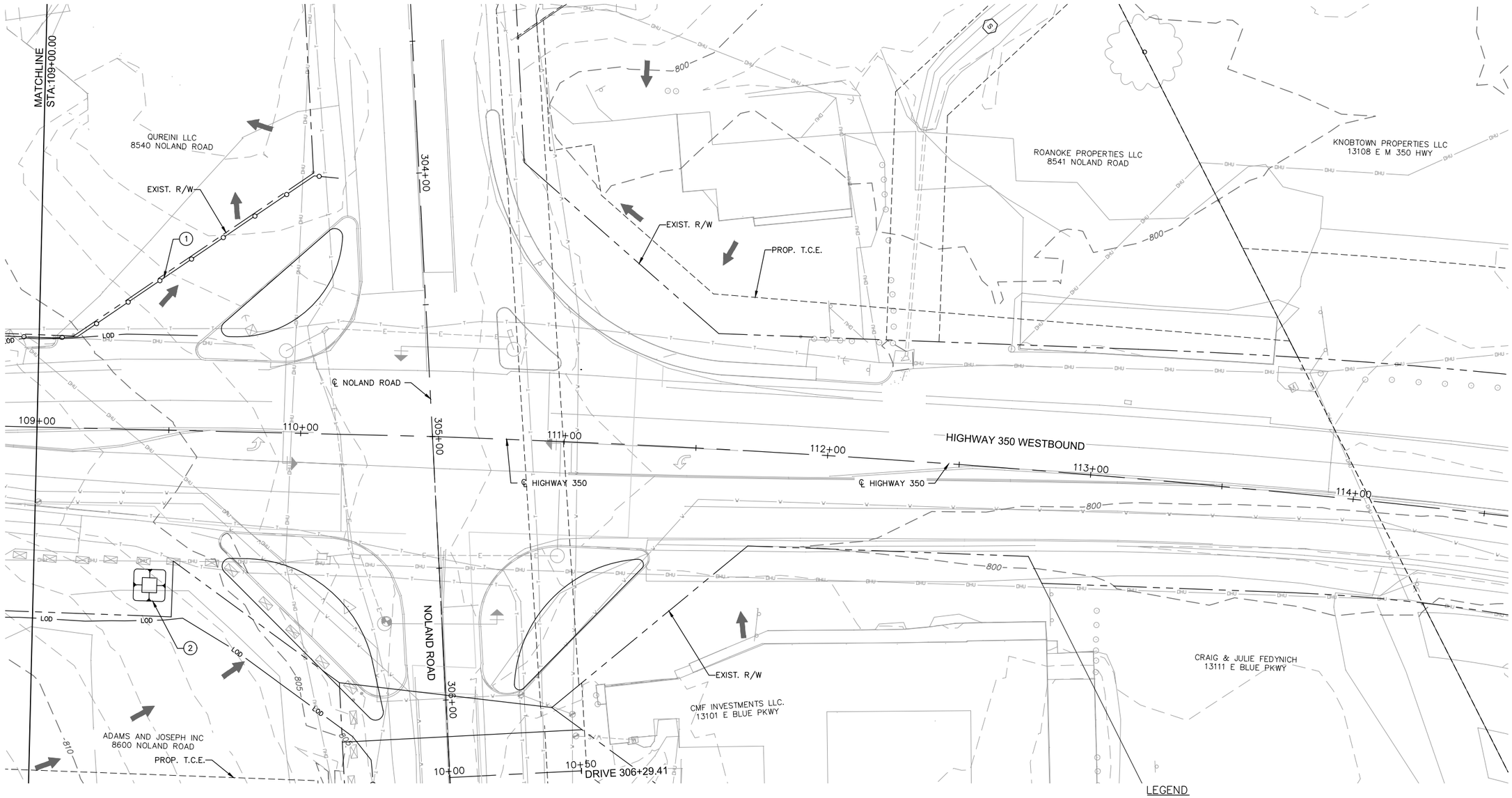

EROSION AND SEDIMENT CONTROL STAGING CHART				
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	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
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- LOD — LIMITS OF DISTURBANCE
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EROSION CONTROL PLANS
PHASE A

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MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

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C.O.A. NO.: 001592
DRAWN BY: MLW
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SHEET
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DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL\T_ERC01_22374.dwg USER: jgallagher
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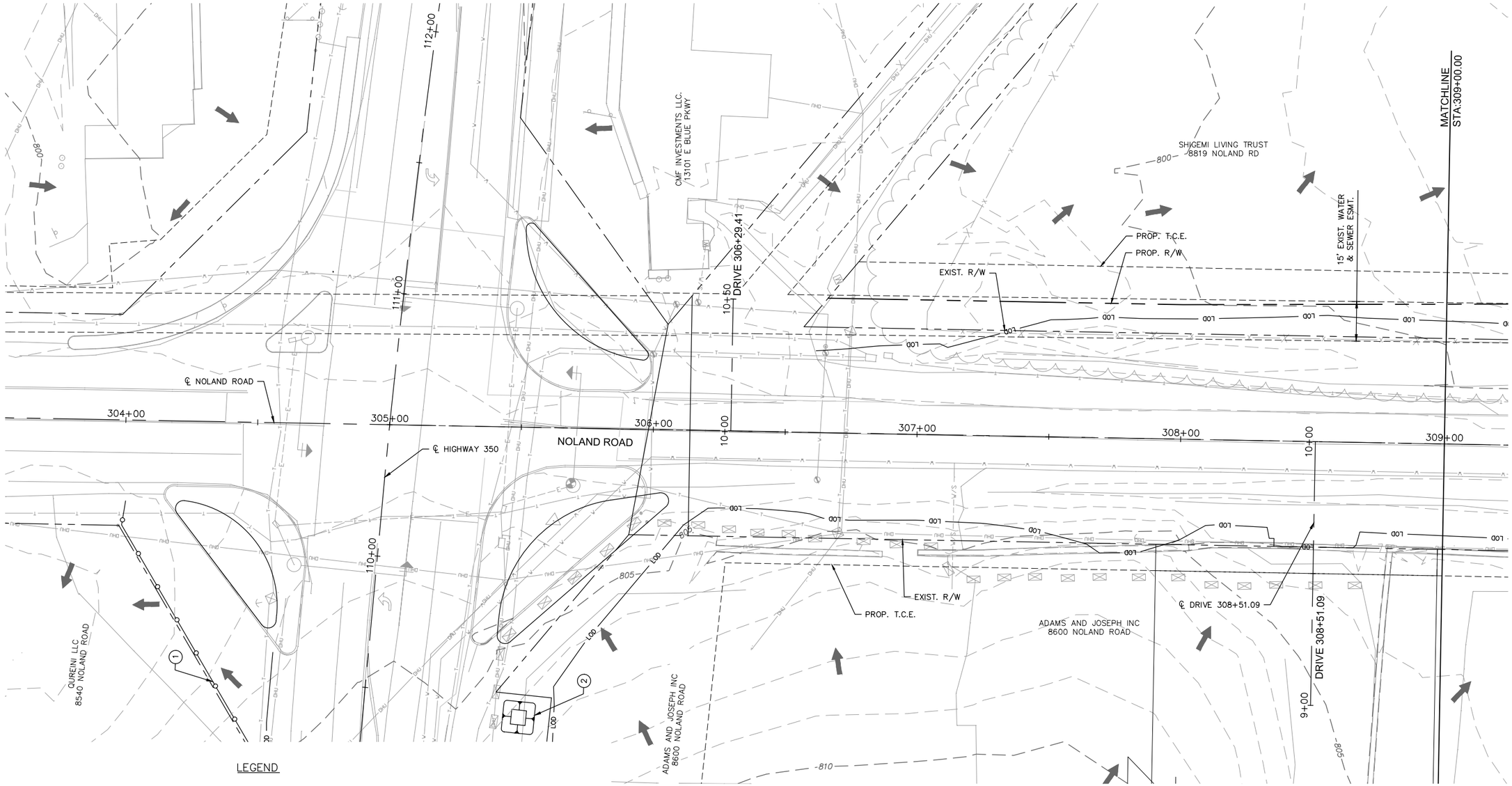

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EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
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	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
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B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
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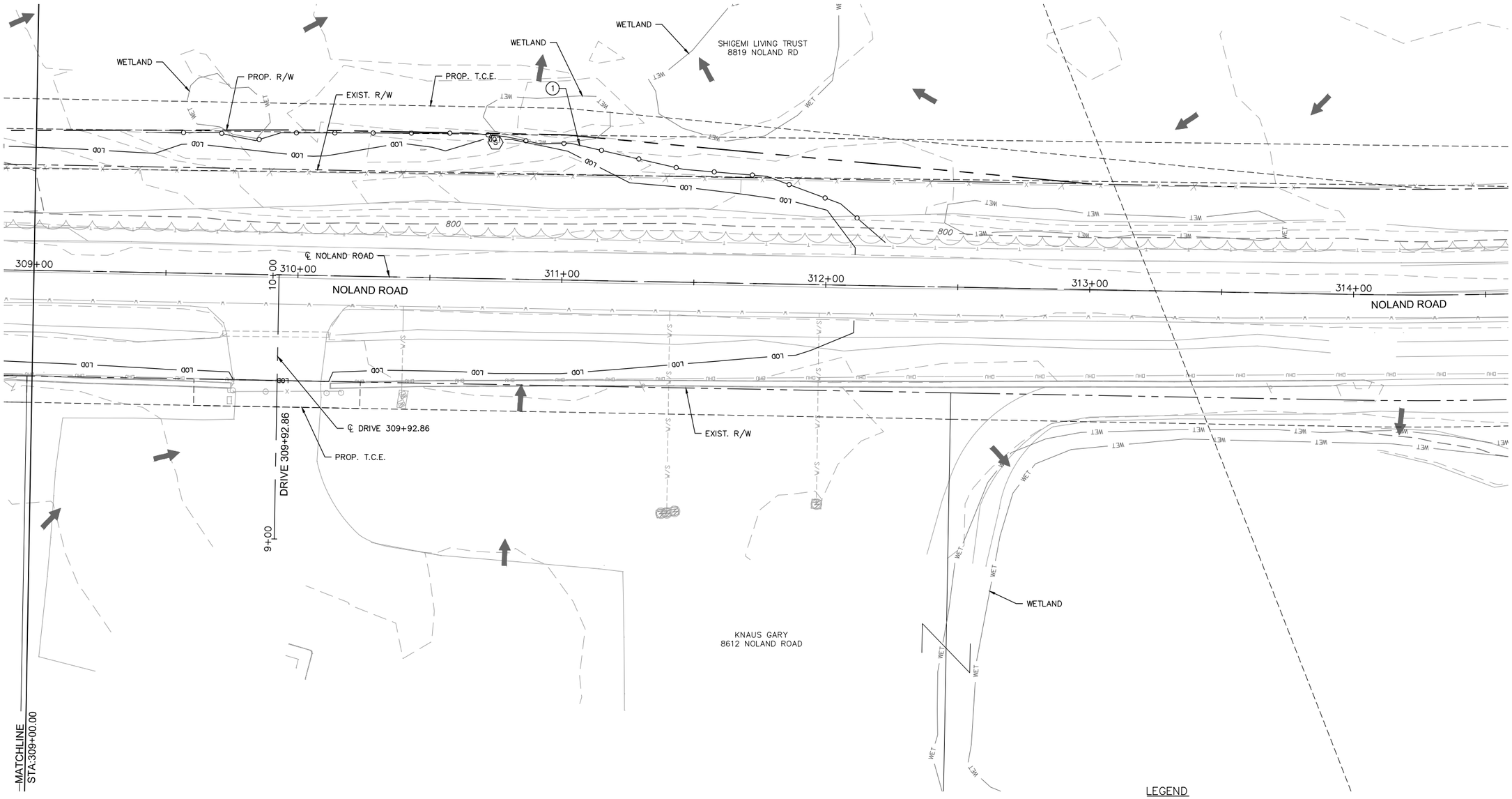

EROSION AND SEDIMENT CONTROL STAGING CHART				
PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
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	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
	3	INSTALL SILT FENCE	N/A	INSTALL SILT FENCE AS INDICATED ON PLANS
	4	INSTALL BIODEGRADABLE LOG DITCH CHECKS	PHASE C	INSTALL BIODEGRADABLE LOG DITCH CHECKS AS INDICATED ON PLANS
	5	INSTALL ROCK DITCH CHECKS	PHASE C	INSTALL ROCK DITCH CHECKS AS INDICATED ON PLANS
	6	INSTALL INLET PROTECTION	PHASE C	INSTALL INLET PROTECTION AS INDICATED ON PLANS
	7	INSTALL OUTLET PROTECTION	PHASE C	INSTALL OUTLET PROTECTION AS INDICATED ON PLANS
	8	INSTALL TURF REINFORCEMENT MAT (TRM)	N/A	INSTALL TURF REINFORCEMENT MAT AS INDICATED ON PLANS.
C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK–OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

LEGEND

- LOD — LIMITS OF DISTURBANCE
- SILT FENCE
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
- INLET PROTECTION
- CONCRETE WASHOUT
- SEDIMENT TRAP
- ROCK DITCH CHECK
- ALTERNATE DITCH CHECK
- ROCK DITCH LINER
- EROSION CONTROL BLANKET (TYPE 2C)
- TURF REINFORCEMENT MAT (TYPE 1)
- TURF REINFORCEMENT MAT (TYPE 3)
- RIPRAP SLOPE PROTECTION
- SEED
- SOD

N

0' 10' 20' 40'
SCALE IN FEET

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

EROSION CONTROL PLANS
PHASE A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

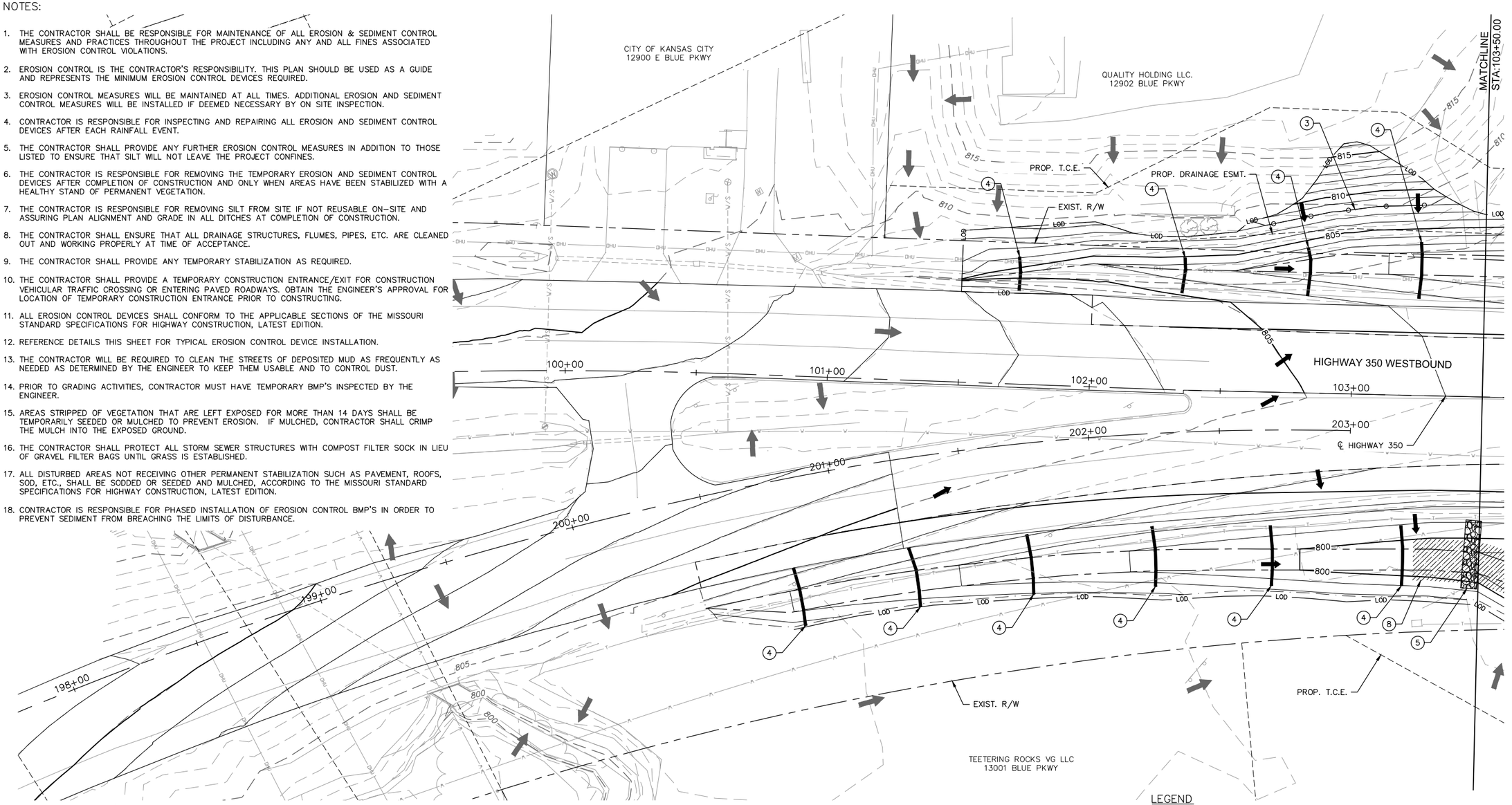
C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC01_22374
DATE PREPARED: 4/28/2025

SHEET
53

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL\T_ERC01_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:27am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374 T_XBASE_22374 T_PRWAY_22374 T_XBNDY_22374 T_PEROC_22374 T_XWETL_22374

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT INCLUDING ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS.
2. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN SHOULD BE USED AS A GUIDE AND REPRESENTS THE MINIMUM EROSION CONTROL DEVICES REQUIRED.
3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
4. CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND REPAIRING ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAINFALL EVENT.
5. THE CONTRACTOR SHALL PROVIDE ANY FURTHER EROSION CONTROL MEASURES IN ADDITION TO THOSE LISTED TO ENSURE THAT SILT WILL NOT LEAVE THE PROJECT CONFINES.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF PERMANENT VEGETATION.
7. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AT COMPLETION OF CONSTRUCTION.
8. THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
9. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY STABILIZATION AS REQUIRED.
10. THE CONTRACTOR SHALL PROVIDE A TEMPORARY CONSTRUCTION ENTRANCE/EXIT FOR CONSTRUCTION VEHICULAR TRAFFIC CROSSING OR ENTERING PAVED ROADWAYS. OBTAIN THE ENGINEER'S APPROVAL FOR LOCATION OF TEMPORARY CONSTRUCTION ENTRANCE PRIOR TO CONSTRUCTING.
11. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
12. REFERENCE DETAILS THIS SHEET FOR TYPICAL EROSION CONTROL DEVICE INSTALLATION.
13. THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE STREETS OF DEPOSITED MUD AS FREQUENTLY AS NEEDED AS DETERMINED BY THE ENGINEER TO KEEP THEM USABLE AND TO CONTROL DUST.
14. PRIOR TO GRADING ACTIVITIES, CONTRACTOR MUST HAVE TEMPORARY BMP'S INSPECTED BY THE ENGINEER.
15. AREAS STRIPPED OF VEGETATION THAT ARE LEFT EXPOSED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED OR MULCHED TO PREVENT EROSION. IF MULCHED, CONTRACTOR SHALL CRIMP THE MULCH INTO THE EXPOSED GROUND.
16. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER STRUCTURES WITH COMPOST FILTER SOCK IN LIEU OF GRAVEL FILTER BAGS UNTIL GRASS IS ESTABLISHED.
17. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOFS, SOD, ETC., SHALL BE SODDED OR SEEDED AND MULCHED, ACCORDING TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
18. CONTRACTOR IS RESPONSIBLE FOR PHASED INSTALLATION OF EROSION CONTROL BMP'S IN ORDER TO PREVENT SEDIMENT FROM BREACHING THE LIMITS OF DISTURBANCE.



EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRIOR TO LAND DISTURBANCE	N/A	STAGING AREA	PHASE B	SEE EROSION CONTROL NOTES FOR DETAILS.
	1	INSTALL SILT FENCE	PHASE C	INSTALL SILT FENCE AS INDICATED ON PLANS.
	N/A	STOCKPILE TOPSOIL	N/A	SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED.
	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK-OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
	3	INSTALL SILT FENCE	N/A	INSTALL SILT FENCE AS INDICATED ON PLANS
	4	INSTALL BIODEGRADABLE LOG DITCH CHECKS	PHASE C	INSTALL BIODEGRADABLE LOG DITCH CHECKS AS INDICATED ON PLANS
	5	INSTALL ROCK DITCH CHECKS	PHASE C	INSTALL ROCK DITCH CHECKS AS INDICATED ON PLANS
	6	INSTALL INLET PROTECTION	PHASE C	INSTALL INLET PROTECTION AS INDICATED ON PLANS
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	8	INSTALL TURF REINFORCEMENT MAT (TRM)	N/A	INSTALL TURF REINFORCEMENT MAT AS INDICATED ON PLANS.
C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK-OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

LEGEND

- LOD — LIMITS OF DISTURBANCE
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- PROPOSED FLOW DIRECTION
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

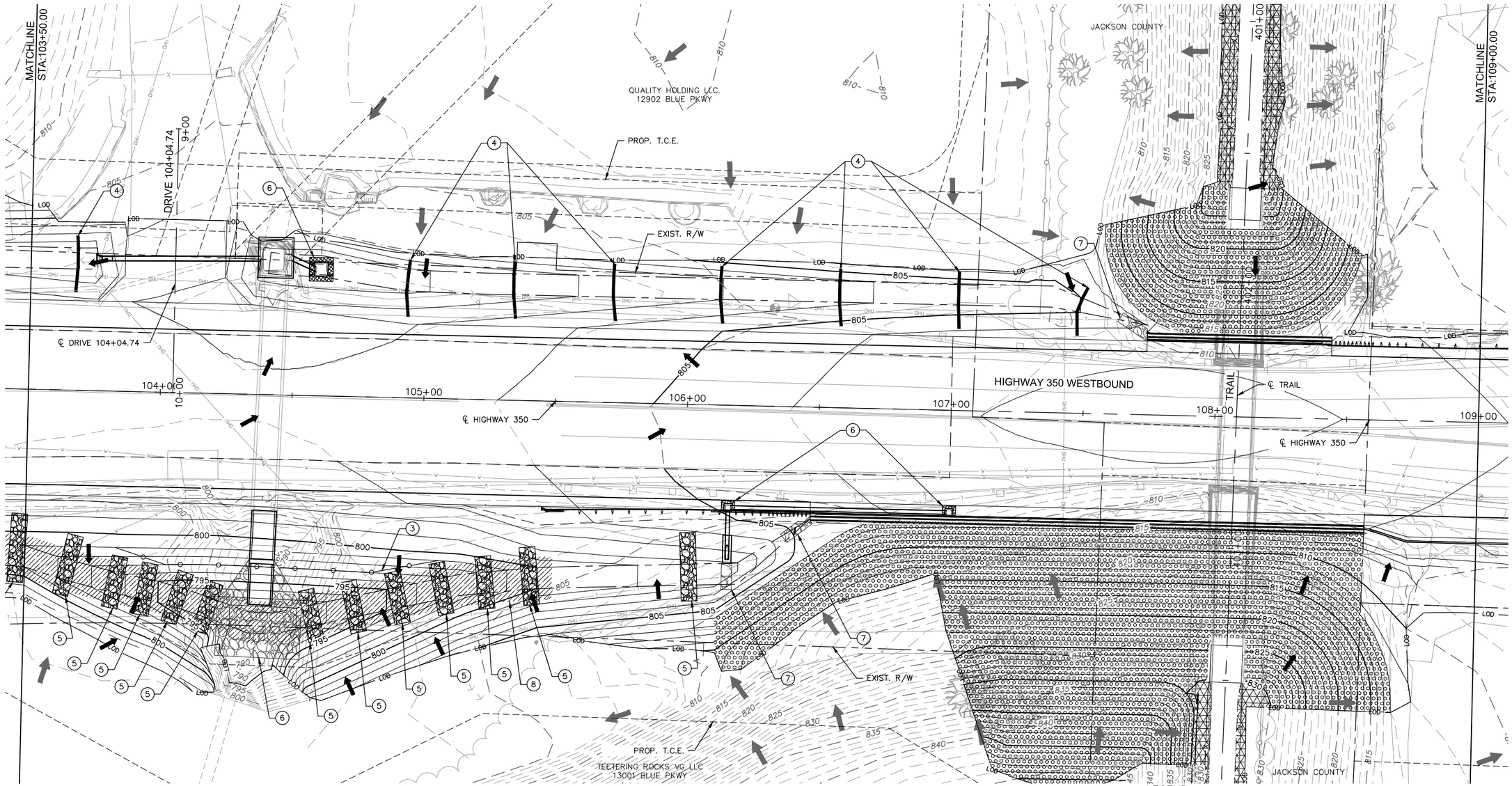
EROSION CONTROL PLANS
PHASE B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC02_22374
DATE PREPARED: 4/28/2025

SHEET
54

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL\T_ERC02_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:28am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374 T_XBASE_22374 T_PRWAY_22374 T_XBNDY_22374 T_PEROC_22374 T_XWETL_22374



EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRIOR TO LAND DISTURBANCE	N/A	STAGING AREA	PHASE B	SEE EROSION CONTROL NOTES FOR DETAILS.
	1	INSTALL SILT FENCE	PHASE C	INSTALL SILT FENCE AS INDICATED ON PLANS.
	N/A	STOCKPILE TOPSOIL	N/A	SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED.
	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
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	8	INSTALL TURF REINFORCEMENT MAT (TRM)	N/A	INSTALL TURF REINFORCEMENT MAT AS INDICATED ON PLANS.
C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK–OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

LEGEND

- LOD — LIMITS OF DISTURBANCE
- SILT FENCE
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
- INLET PROTECTION
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PROFESSIONAL ENGINEER

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

EROSION CONTROL PLANS
PHASE B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

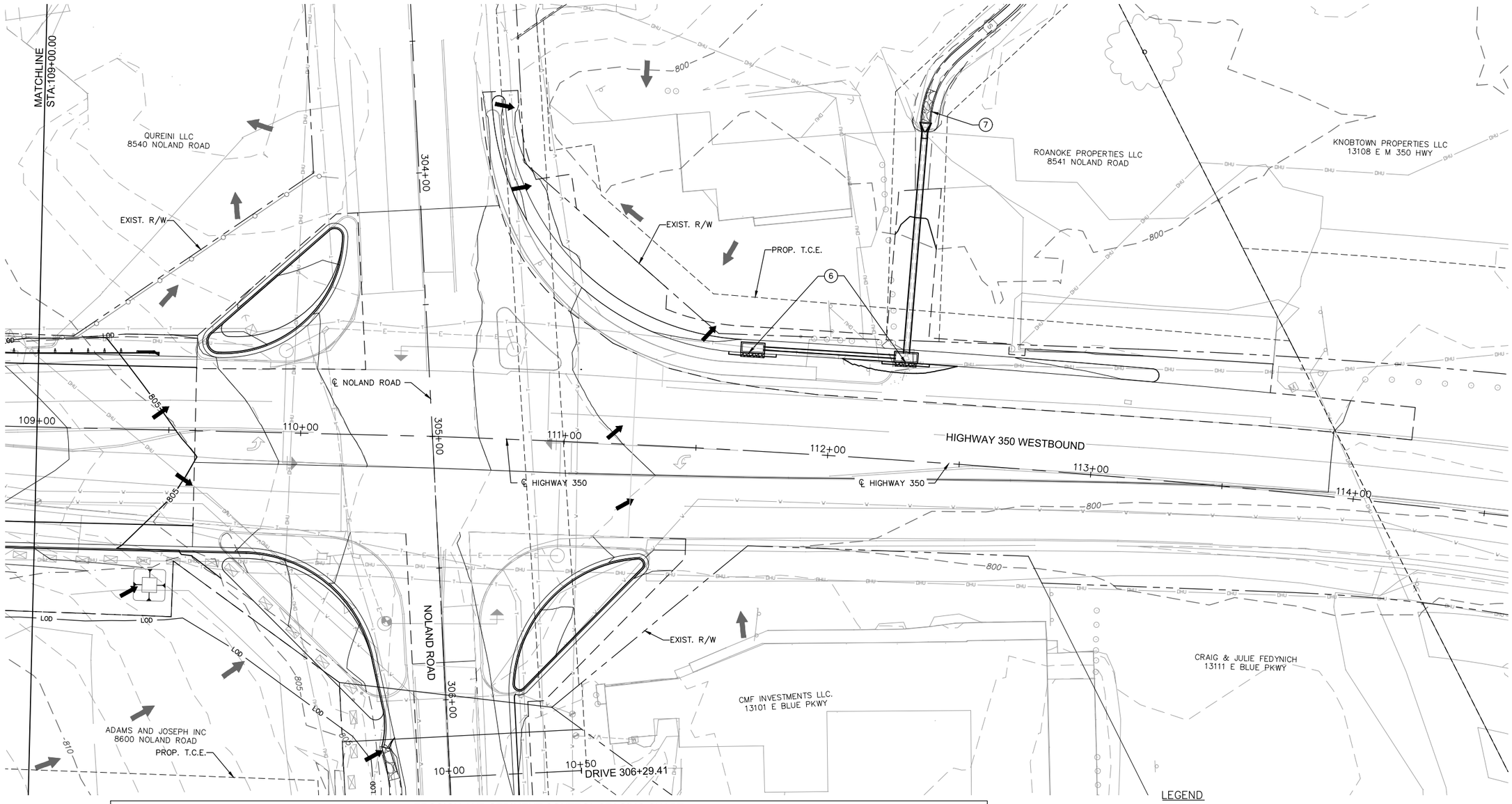
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC02_22374
DATE PREPARED: 4/28/2025

SHEET
55

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL\T_ERC02_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:28am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374 T_XBASE_22374 T_PRWAY_22374 T_XBNDY_22374 T_PEROC_22374 T_XWETL_22374



EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
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	N/A	STOCKPILE TOPSOIL	N/A	SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED.
	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
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LEGEND

- LOD — LIMITS OF DISTURBANCE
- SILT FENCE
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
- INLET PROTECTION
- CONCRETE WASHOUT
- (S) SEDIMENT TRAP
- ROCK DITCH CHECK
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REVISIONS

EROSION CONTROL PLANS
PHASE B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

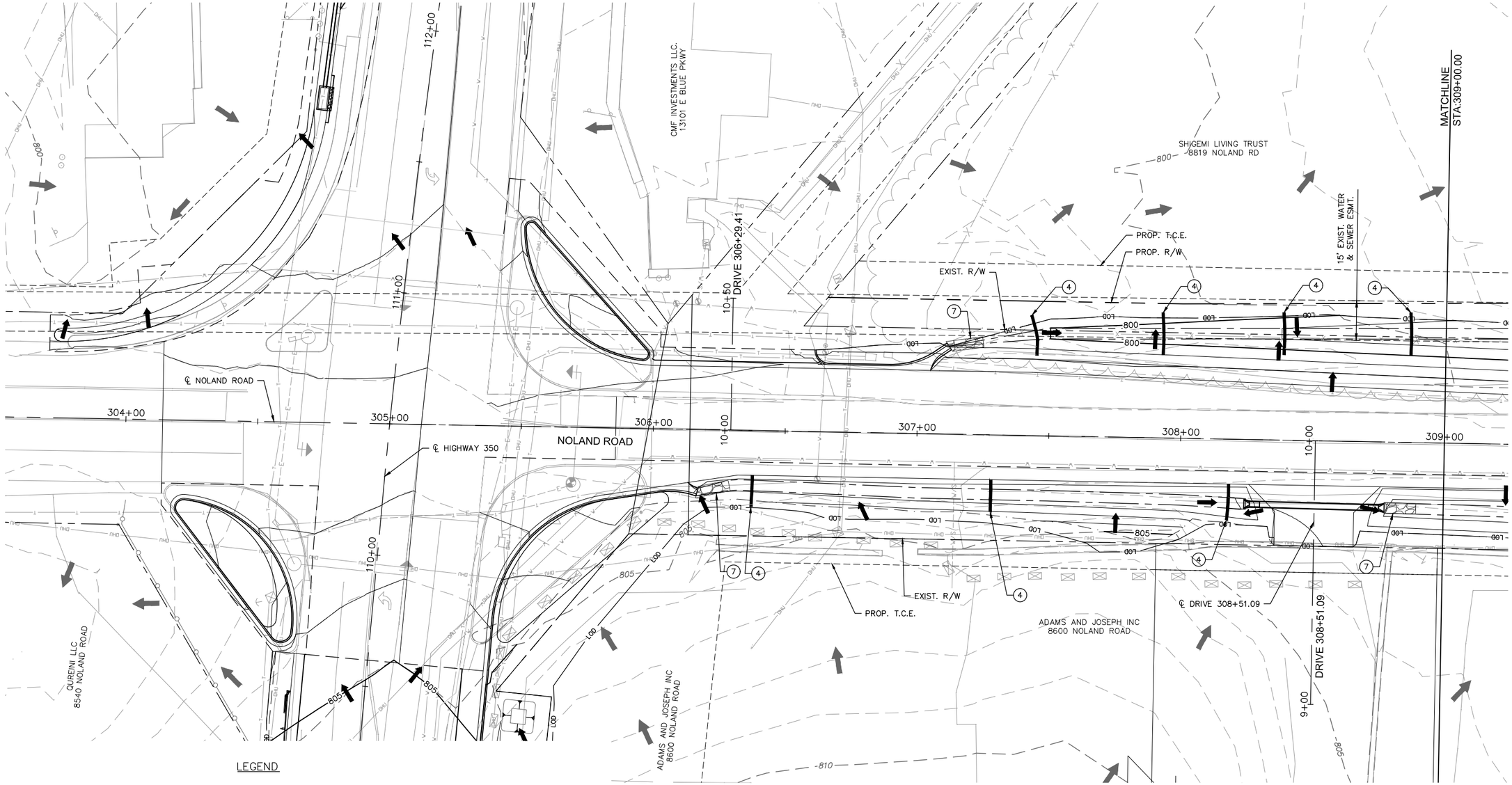
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC02_22374
DATE PREPARED: 4/28/2025

SHEET
56

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL\T_ERC02_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:29am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374 T_XBASE_22374 T_PRWAY_22374 T_XBNDY_22374 T_PEROC_22374 T_XWETL_22374



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EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
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PHASE B

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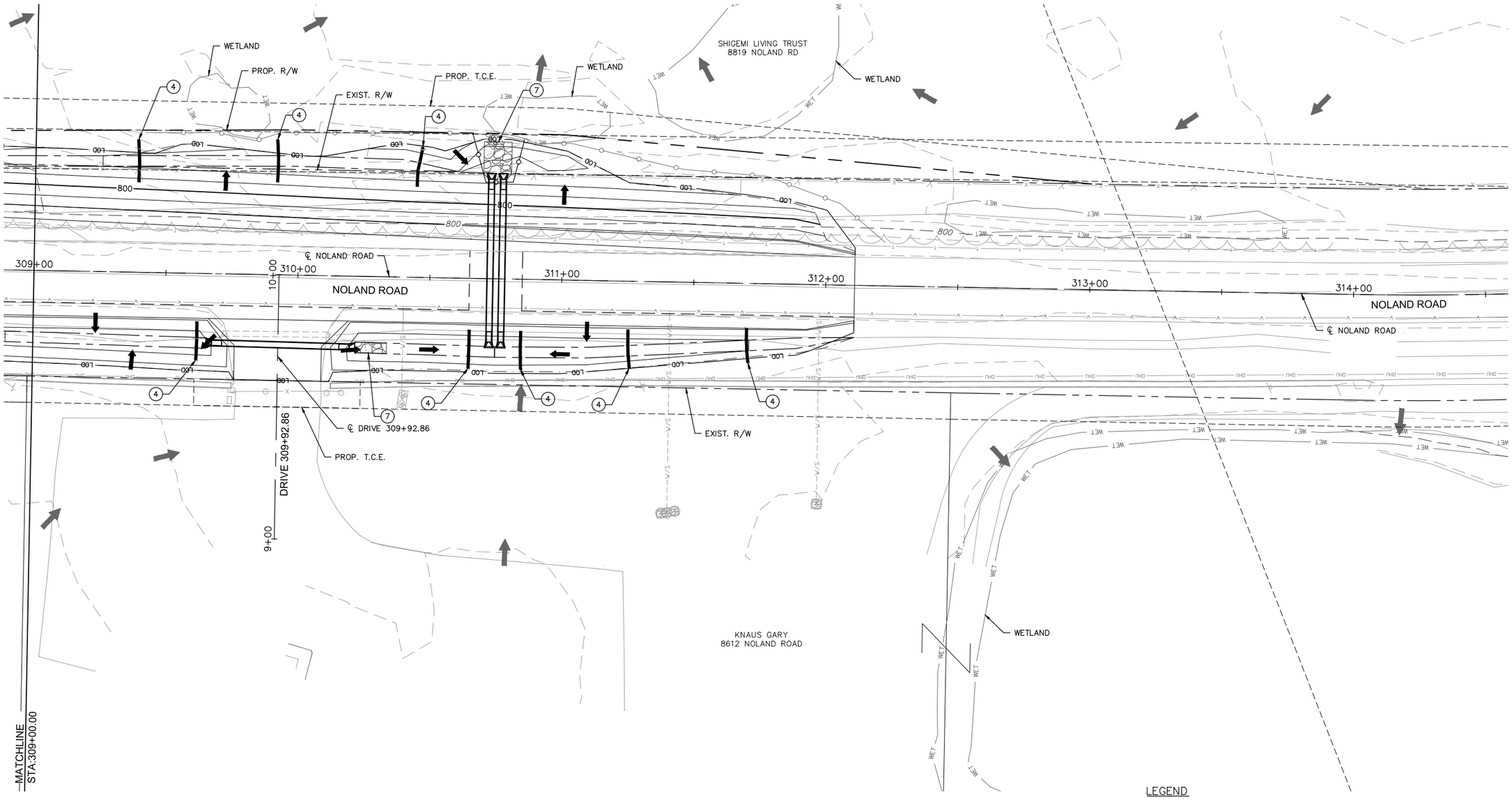

EROSION AND SEDIMENT CONTROL STAGING CHART				
PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRIOR TO LAND DISTURBANCE	N/A	STAGING AREA	PHASE B	SEE EROSION CONTROL NOTES FOR DETAILS.
	1	INSTALL SILT FENCE	PHASE C	INSTALL SILT FENCE AS INDICATED ON PLANS.
	N/A	STOCKPILE TOPSOIL	N/A	SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED.
	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
	3	INSTALL SILT FENCE	N/A	INSTALL SILT FENCE AS INDICATED ON PLANS
	4	INSTALL BIODEGRADABLE LOG DITCH CHECKS	PHASE C	INSTALL BIODEGRADABLE LOG DITCH CHECKS AS INDICATED ON PLANS
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	6	INSTALL INLET PROTECTION	PHASE C	INSTALL INLET PROTECTION AS INDICATED ON PLANS
	7	INSTALL OUTLET PROTECTION	PHASE C	INSTALL OUTLET PROTECTION AS INDICATED ON PLANS
	8	INSTALL TURF REINFORCEMENT MAT (TRM)	N/A	INSTALL TURF REINFORCEMENT MAT AS INDICATED ON PLANS.
C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK–OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

LEGEND

- LOD — LIMITS OF DISTURBANCE
- SILT FENCE
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
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- CONCRETE WASHOUT
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JAMES PATRICK GALLAGHER
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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
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REVISIONS

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EROSION CONTROL PLANS
PHASE B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC02_22374
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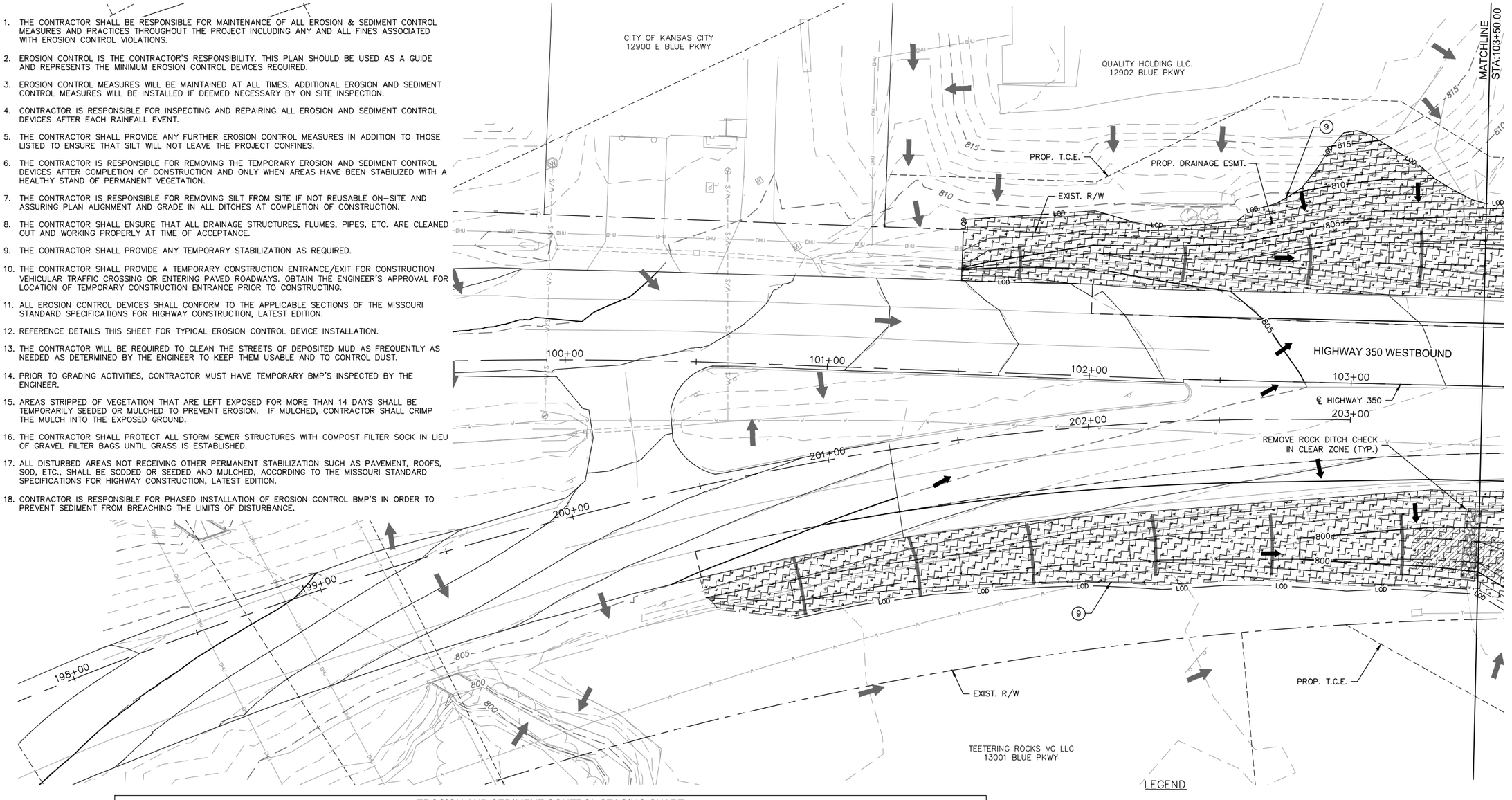
NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT INCLUDING ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS.
2. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN SHOULD BE USED AS A GUIDE AND REPRESENTS THE MINIMUM EROSION CONTROL DEVICES REQUIRED.
3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
4. CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND REPAIRING ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAINFALL EVENT.
5. THE CONTRACTOR SHALL PROVIDE ANY FURTHER EROSION CONTROL MEASURES IN ADDITION TO THOSE LISTED TO ENSURE THAT SILT WILL NOT LEAVE THE PROJECT CONFINES.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF PERMANENT VEGETATION.
7. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AT COMPLETION OF CONSTRUCTION.
8. THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
9. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY STABILIZATION AS REQUIRED.
10. THE CONTRACTOR SHALL PROVIDE A TEMPORARY CONSTRUCTION ENTRANCE/EXIT FOR CONSTRUCTION VEHICULAR TRAFFIC CROSSING OR ENTERING PAVED ROADWAYS. OBTAIN THE ENGINEER'S APPROVAL FOR LOCATION OF TEMPORARY CONSTRUCTION ENTRANCE PRIOR TO CONSTRUCTING.
11. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
12. REFERENCE DETAILS THIS SHEET FOR TYPICAL EROSION CONTROL DEVICE INSTALLATION.
13. THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE STREETS OF DEPOSITED MUD AS FREQUENTLY AS NEEDED AS DETERMINED BY THE ENGINEER TO KEEP THEM USABLE AND TO CONTROL DUST.
14. PRIOR TO GRADING ACTIVITIES, CONTRACTOR MUST HAVE TEMPORARY BMP'S INSPECTED BY THE ENGINEER.
15. AREAS STRIPPED OF VEGETATION THAT ARE LEFT EXPOSED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED OR MULCHED TO PREVENT EROSION. IF MULCHED, CONTRACTOR SHALL CRIMP THE MULCH INTO THE EXPOSED GROUND.
16. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER STRUCTURES WITH COMPOST FILTER SOCK IN LIEU OF GRAVEL FILTER BAGS UNTIL GRASS IS ESTABLISHED.
17. ALL DISTURBED AREAS NOT RECEIVING OTHER PERMANENT STABILIZATION SUCH AS PAVEMENT, ROOFS, SOD, ETC., SHALL BE SODDED OR SEEDED AND MULCHED, ACCORDING TO THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION.
18. CONTRACTOR IS RESPONSIBLE FOR PHASED INSTALLATION OF EROSION CONTROL BMP'S IN ORDER TO PREVENT SEDIMENT FROM BREACHING THE LIMITS OF DISTURBANCE.



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PROFESSIONAL ENGINEER
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MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

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EROSION CONTROL PLANS
PHASE C

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MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
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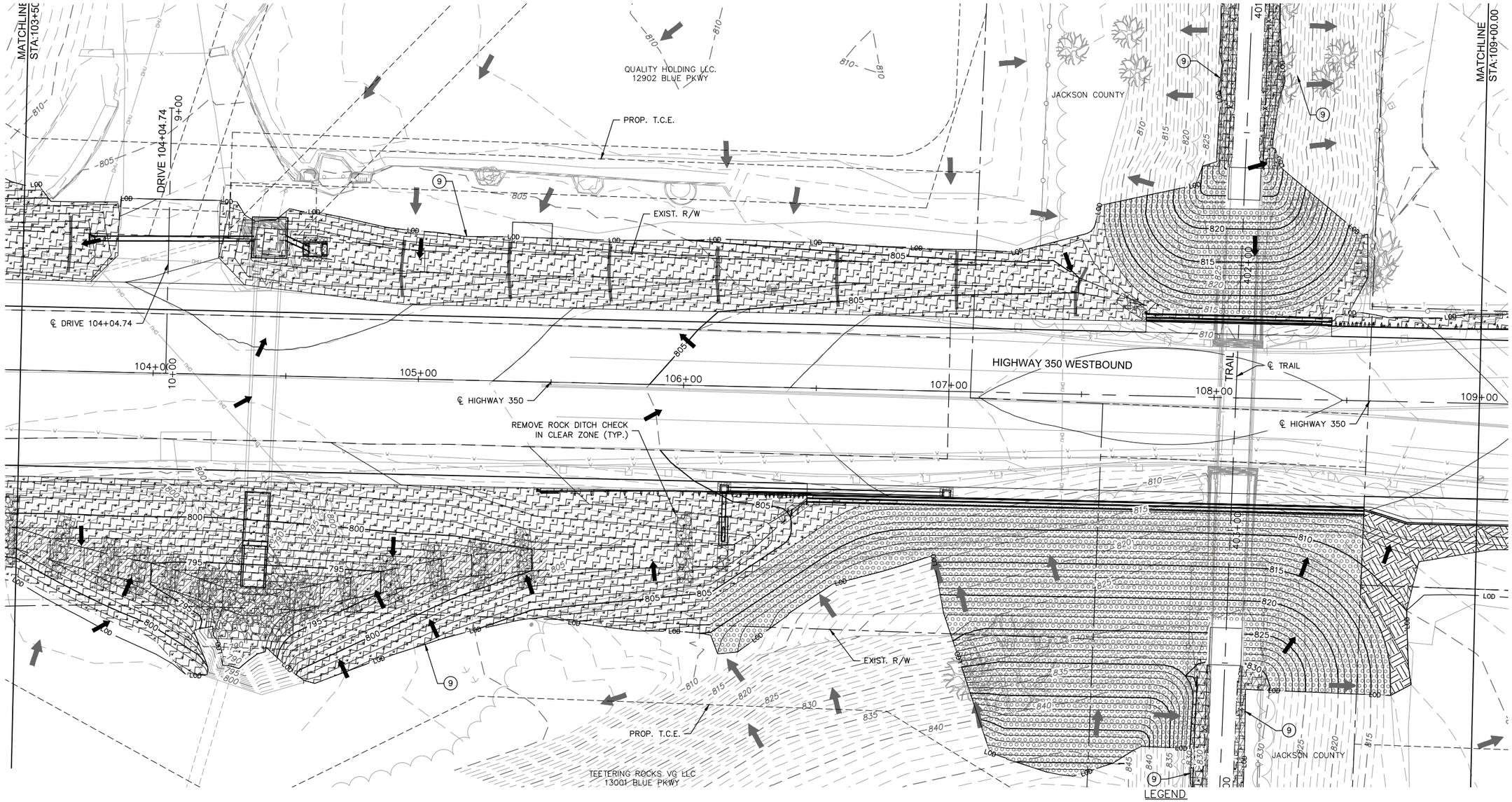

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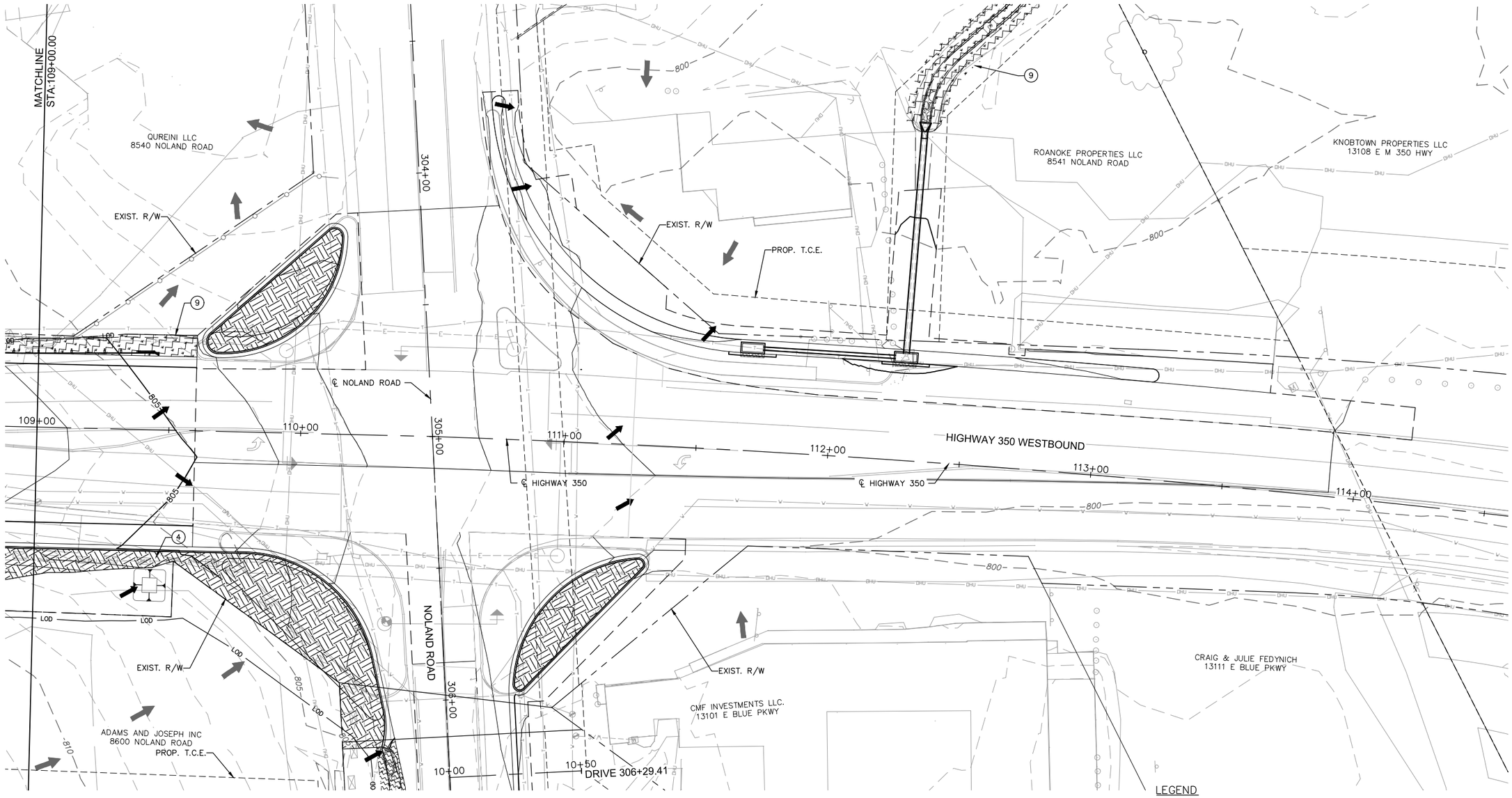

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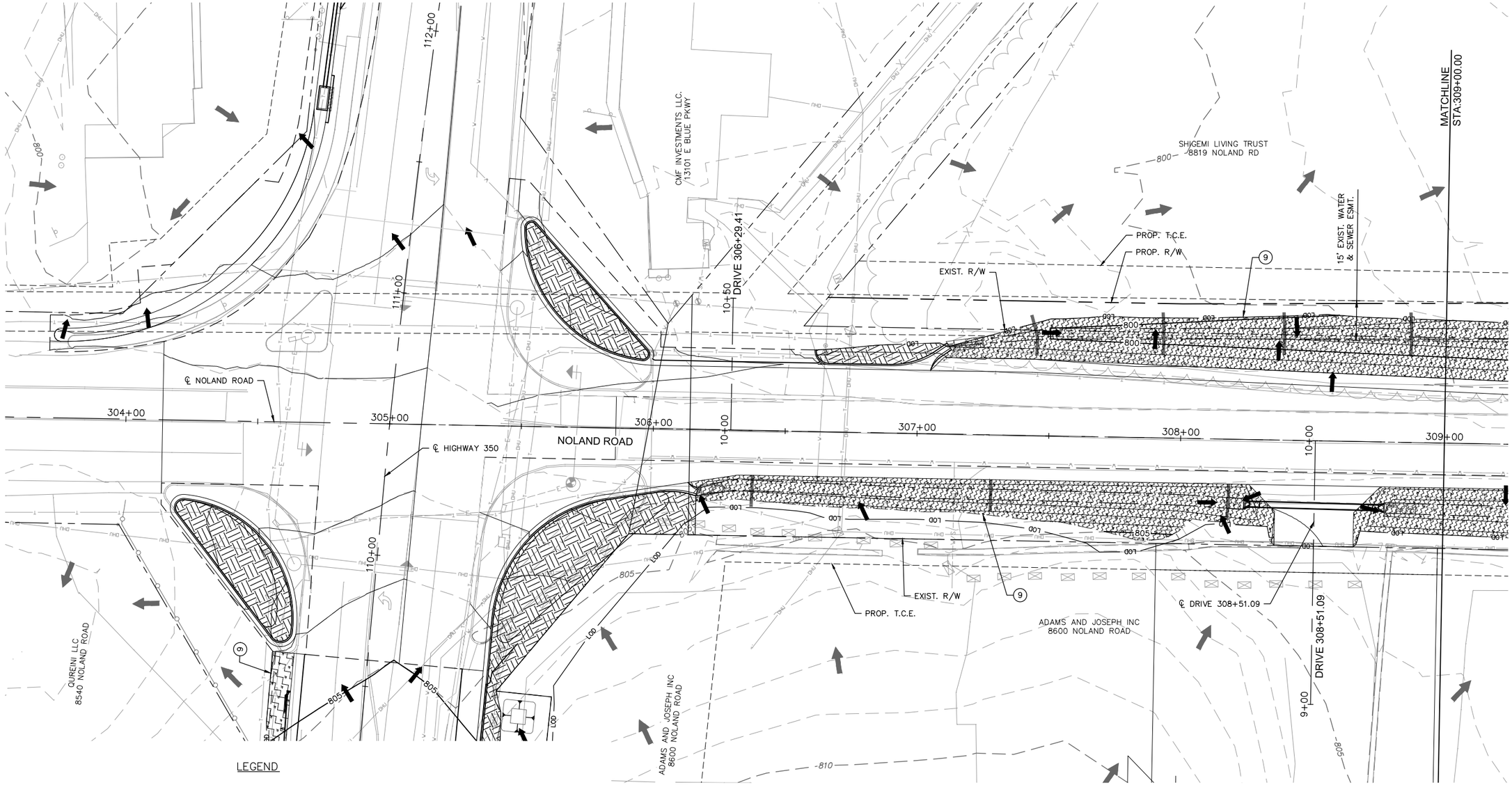

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C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK–OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

EROSION CONTROL PLANS
PHASE C

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

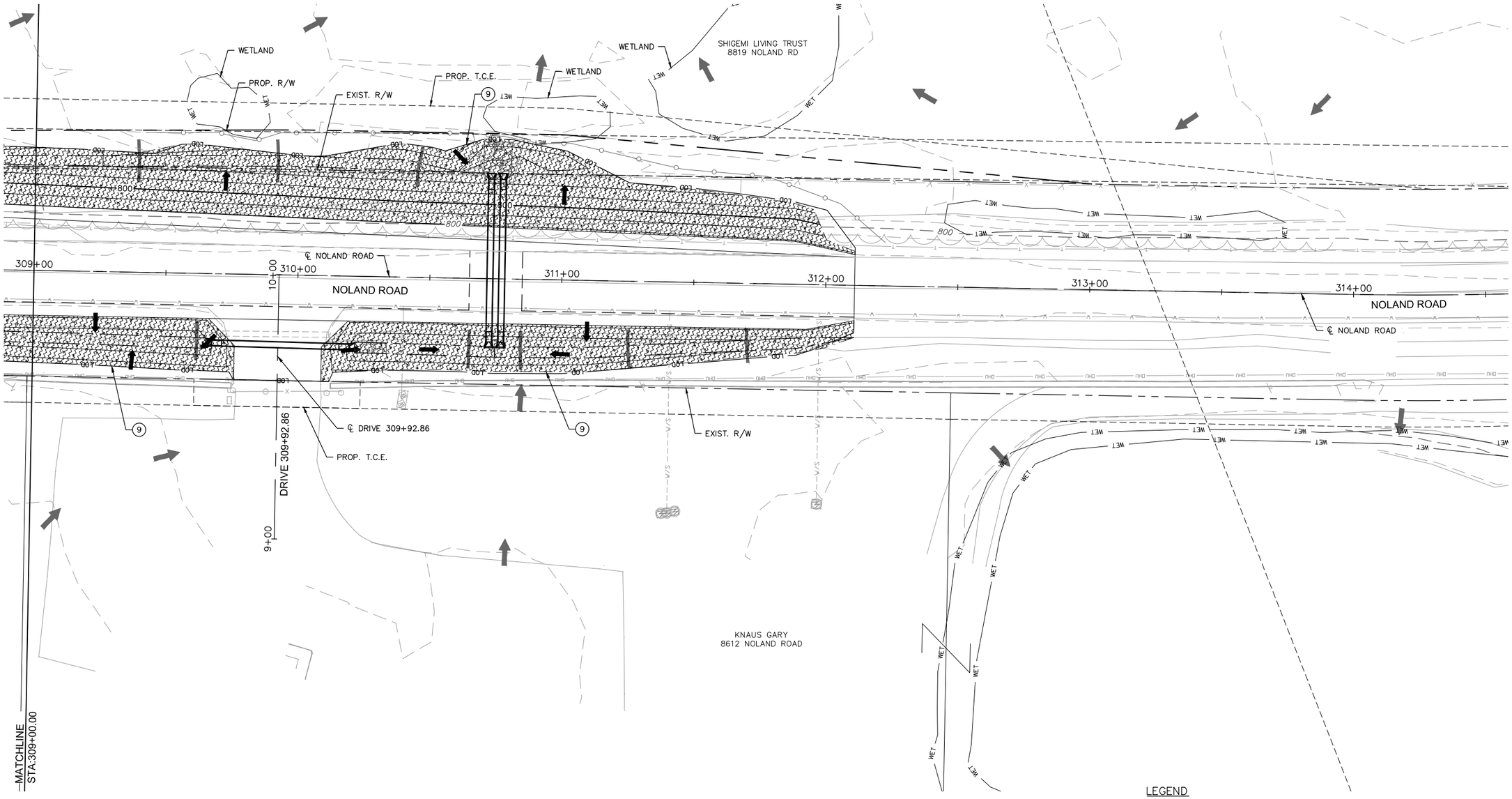
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC03_22374
DATE PREPARED: 4/28/2025

SHEET
62

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\EROSION CONTROL\T_ERC03_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:31am XREFS: T_PBASE_22374 22374_TRNS_TBLK T_PSTRM_22374 T_XBASE_22374 T_XBNDY_22374 T_PERQC_22374 T_XWETL_22374 T_PRWAY_22374



EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL PLAN BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRIOR TO LAND DISTURBANCE	N/A	STAGING AREA	PHASE B	SEE EROSION CONTROL NOTES FOR DETAILS.
	1	INSTALL SILT FENCE	PHASE C	INSTALL SILT FENCE AS INDICATED ON PLANS.
	N/A	STOCKPILE TOPSOIL	N/A	SEED STOCKPILE AREA AS SOON AS STOCKPILING ACTIVITIES HAVE CEASED.
	N/A	TEMPORARY CONSTRUCTION ENTRANCE	PHASE B	INSTALL AT INGRESS/EGRESS OF CONSTRUCTION SITE TO PREVENT TRACK–OUT ONTO PAVED PUBLIC ROADS FROM WORK ZONE.
	2	CONCRETE WASHOUT	PHASE B	TO BE INSTALLED PRIOR TO POURING CONCRETE. SEED WASHOUT AREA AS SOON AS CONCRETE CONSTRUCTION HAS CEASED.
B – ROAD CONSTRUCTION	N/A	EROSION AND SEDIMENT CONTROL	N/A	PERFORM MAINTENANCE ON ALL EROSION CONTROL MEASURES FOR ALL PREVIOUS AS NECESSARY.
	N/A	BEGIN GRADING FOR ROAD IMPROVEMENTS	N/A	SEE ROADWAY PLAN AND PROFILES FOR DETAILS
	3	INSTALL SILT FENCE	N/A	INSTALL SILT FENCE AS INDICATED ON PLANS
	4	INSTALL BIODEGRADABLE LOG DITCH CHECKS	PHASE C	INSTALL BIODEGRADABLE LOG DITCH CHECKS AS INDICATED ON PLANS
	5	INSTALL ROCK DITCH CHECKS	PHASE C	INSTALL ROCK DITCH CHECKS AS INDICATED ON PLANS
	6	INSTALL INLET PROTECTION	PHASE C	INSTALL INLET PROTECTION AS INDICATED ON PLANS
	7	INSTALL OUTLET PROTECTION	PHASE C	INSTALL OUTLET PROTECTION AS INDICATED ON PLANS
	8	INSTALL TURF REINFORCEMENT MAT (TRM)	N/A	INSTALL TURF REINFORCEMENT MAT AS INDICATED ON PLANS.
C – FINAL STABILIZATION	N/A	STREET CLEANING	N/A	SHOVELING, BROOMING, SWEEPING, AND/OR VACUUMING TO REMOVE TRACK–OUT OF SEDIMENT FROM PAVED PUBLIC ROADS
	N/A	ESTABLISH PERENNIAL VEGETATION	N/A	SEED OR SOD ALL DISTURBED AREAS. INSTALL AS INDICATED ON PLANS.
	9	INSTALL EROSION CONTROL BLANKET	N/A	INSTALL EROSION CONTROL BLANKET AS INDICATED ON PLANS.

LEGEND

- LOD — LIMITS OF DISTURBANCE
- SILT FENCE
- PROPOSED FLOW DIRECTION
- EXISTING FLOW DIRECTION
- INLET PROTECTION
- CONCRETE WASHOUT
- SEDIMENT TRAP
- ROCK DITCH CHECK
- ALTERNATE DITCH CHECK
- ROCK DITCH LINER
- EROSION CONTROL BLANKET (TYPE 2C)
- TURF REINFORCEMENT MAT (TYPE 1)
- TURF REINFORCEMENT MAT (TYPE 3)
- RIPRAP SLOPE PROTECTION
- SEED
- SOD

N

0' 10' 20' 40'
SCALE IN FEET

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JAMES P. GALLAGHER
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REVISIONS

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EROSION CONTROL PLANS
PHASE C

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
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APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_ERC03_22374
DATE PREPARED: 4/28/2025

SHEET
63

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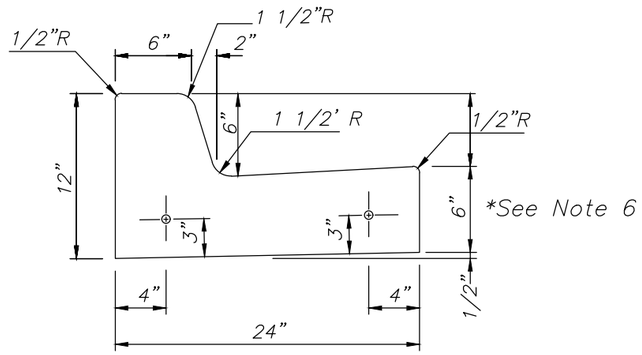
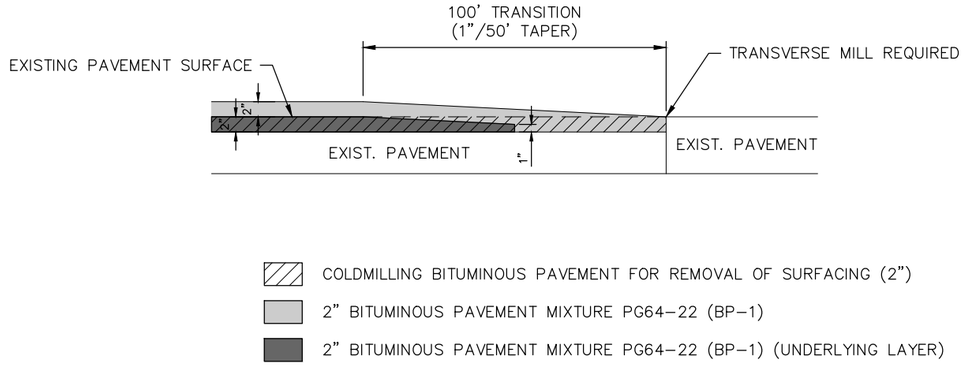


NOTES:

1. ½" EXPANSION JOINTS WITH 2' DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWELS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. FIX DOWELS WITH BAR SUPPORTS.
4. CONCRETE SHALL CONFORM TO SECTION 2200 UNLESS OTHERWISE SPECIFIED IN PLANS PROJECT MANUAL. FOR CBD OF K.C.MO. SEE SECTION 2300 OF STANDARD SPECIFICATIONS AND DESIGN CRITERIA.
5. USE ⅝" DIAMETER BY SMOOTH DOWELS AT LOCATIONS SHOWN ON EACH TYPICAL SECTION.
6. DEPTH OF GUTTER SHALL BE A MINIMUM OF 8" THROUGH THE HANDICAP ACCESS RAMP.
7. ONLY WHITE CURING MEMBRANES SHALL BE PERMITTED AND SHALL CONFORM TO STANDARD SPECIFICATION SECTION 2200.

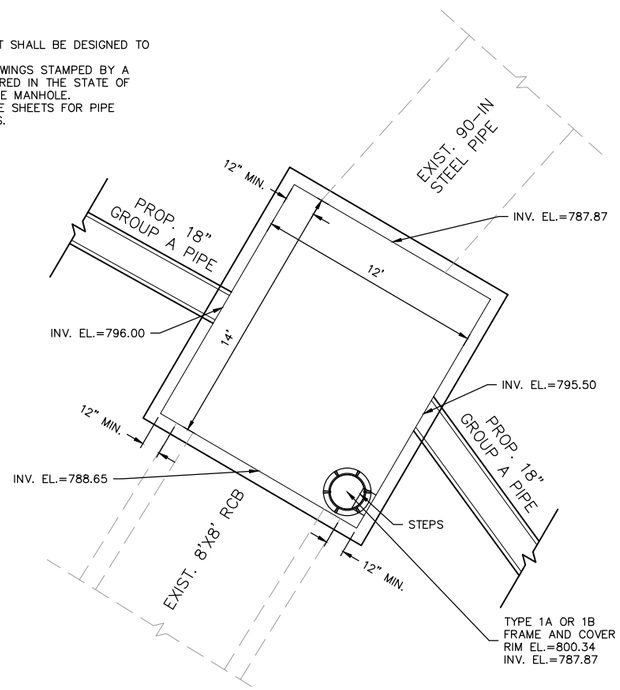
STRAIGHT BACK CURB & GUTTER DETAIL
(TYPE CG-1)

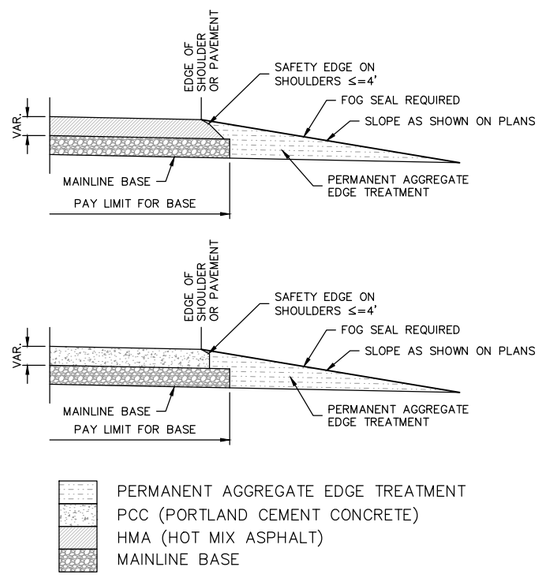


PAVEMENT TRANSITION BUTT JOINT DETAIL
(NOLAND ROAD)

NOTES:

1. STRUCTURES AND REINFORCEMENT SHALL BE DESIGNED TO SUPPORT HS-20 LOADINGS.
2. CONTRACTOR SHALL SUPPLY DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI FOR THE DESIGN OF THE MANHOLE.
3. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR PIPE CONFIGURATIONS AND ELEVATIONS.





PERMANENT AGGREGATE EDGE TREATMENT

NOTES:

1. PERMANENT AGGREGATE EDGE TREATMENT WILL BE PAID FOR UNDER PAY ITEM 30499910 PERMANENT AGGREGATE EDGE TREATMENT PER TON.
2. SEE STANDARD PLAN 401.00C FOR SAFETY EDGE DETAILS.

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JAMES P. GALLAGHER
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STANDARD DETAILS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411)
ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON | STATE: MO

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_DTL_22374
DATE PREPARED: 4/28/2025

SHEET
64

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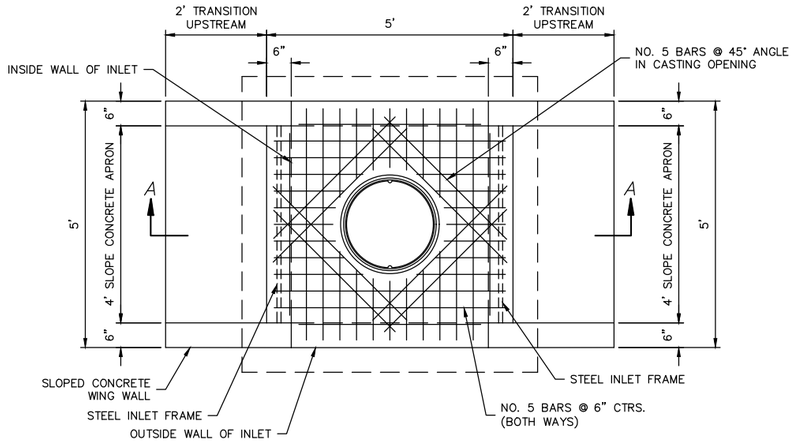
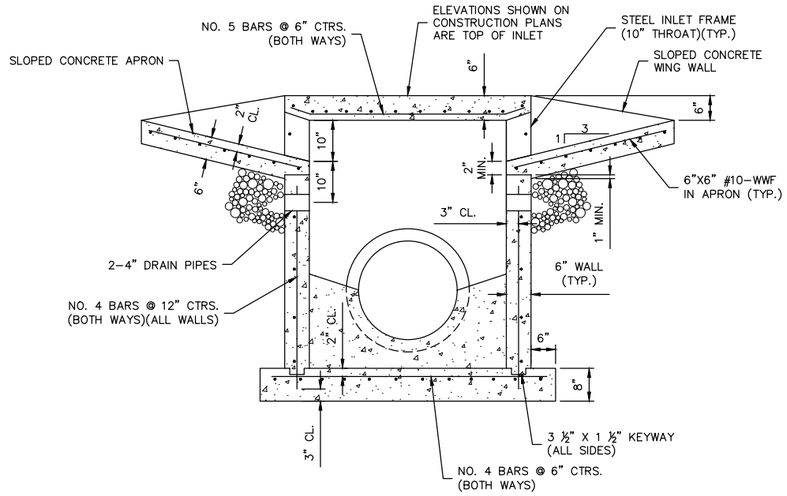
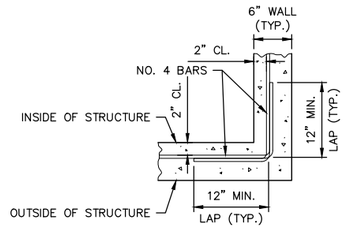


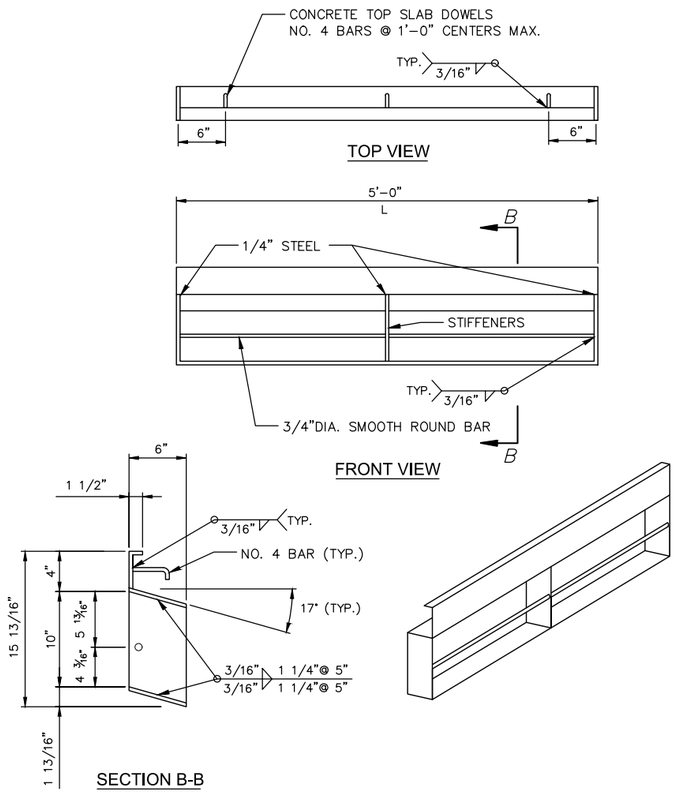
AREA INLET DETAIL
(PLAN VIEW)



AREA INLET DETAIL
(SECTION A-A)



WALL CORNER DETAIL - PLAN VIEW
NOT TO SCALE



STEEL INLET FRAME DETAIL
NOT TO SCALE

NOTES:

1. ALL WORK SHALL MEET SECTION 604 FOR CAST-IN-PLACE CONSTRUCTION AND SECTION 731 FOR PRECAST CONSTRUCTION. ALL MATERIAL SHALL BE IN ACCORDANCE WITH DIVISION 1000.
2. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR PIPE CONFIGURATIONS AND ELEVATIONS.
3. BEVEL ALL EXPOSED EDGES WITH 3/4" CHAMFER OR 1/2" TOOLED EDGE.
4. CONTRACTOR SHALL PROVIDE STEPS SPACED AT 1'-4" O.C. FOR AREA INLET GREATER THAN 4' IN DEPTH. STEPS SHALL BE SET LEVEL AND IN VERTICAL ALIGNMENT. NO DIRECT PAYMENT WILL BE MADE FOR STEPS.
5. CONCRETE USED FOR THE CONSTRUCTION OF CURB INLETS SHALL CONFORM TO SECTION 2000, CONCRETE CONSTRUCTION.
6. THE INVERT SHALL HAVE A TROWEL FINISH TO SECURE SMOOTH INVERT SLOPING TO OUTLET PIPE.
7. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD. WELDING OF REINFORCING STEEL WILL NOT BE PERMITTED.
8. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF ± 1/8" SHALL BE PERMITTED.
9. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
10. PIPE CONNECTIONS TO PRECAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2 FEET OF THE STRUCTURE, UNLESS SEALED WITH APPROVED FLEXIBLE WATERPROOF GASKETS IN PRECAST OPENINGS. MINIMUM CLEARANCE BETWEEN PIPE BOXOUTS AND BARREL JOINTS IS 8 1/4" WITHOUT SPECIAL DESIGN.
11. BACKFILL AROUND STRUCTURES SHALL BE CLASS II GRANULAR BACKFILL MATERIAL CONFORMING TO ASTM D2321 AND 24" THICK AROUND STRUCTURE.
12. THE STRUCTURE ELEVATION SHOWN ON THE PLANS IS THE TOP SURFACE OVER THE LOCATING POINT.
13. ALL SURFACES CONTACTING NON-OPEN SIDE OF INLET SHALL MATCH AT TOP EDGE OF LID AT EACH CORNER.
14. 4" DRAIN OPENINGS SHALL BE COVERED WITH AN APPROVED 1/4" GALVANIZED SCREEN AND FILTER FABRICE PRIOR TO PLACEMENT OF 3/8" CLEAN ROCK, A MINIMUM OF 15" IN ALL DIRECTIONS.
15. OUTLET PIPE SHALL BE PLACED AS SPECIFIED OR AS DIRECTED BY THE ENGINEER. REINFORCING STEEL SHALL BE BENT AROUND PIPE OPENINGS WHEN POSSIBLE. WHEN REINFORCING IS CUT, #4 DIAGONAL BARS SHALL BE USED TO TIE ALL CUT ENDS TOGETHER.
16. CONTRACTOR SHALL HAND FORM AND FINISH GUTTER WITHIN THE INLET THROAT TO THE REAR OF FRONT INLET WALL AT THE TIME THE FINISHING OF NORMAL CURB IS DONE.

STEEL INLET FRAME NOTES:

17. ALL WELDS SHALL BE PREFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
18. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED SURFACE.
19. THE ENTIRE FRAME SHALL BE GALVANIZED PER ASTM A-123.
20. STEEL INLET FRAME STIFFENERS SHALL BE AT EQUAL INTERVALS NOT TO EXCEED 4'-0".

DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.

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PROFESSIONAL ENGINEER

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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

STANDARD DETAILS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | STATE: MO

ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON

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PROJECT NO.: JKU0404
DWG NO.: T_DTL_22374
DATE PREPARED: 4/28/2025

SHEET 65

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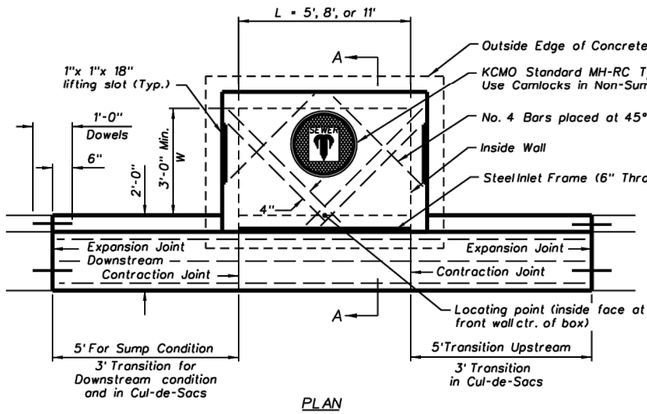
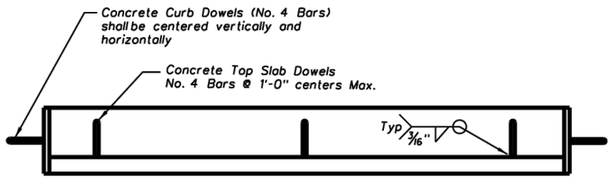
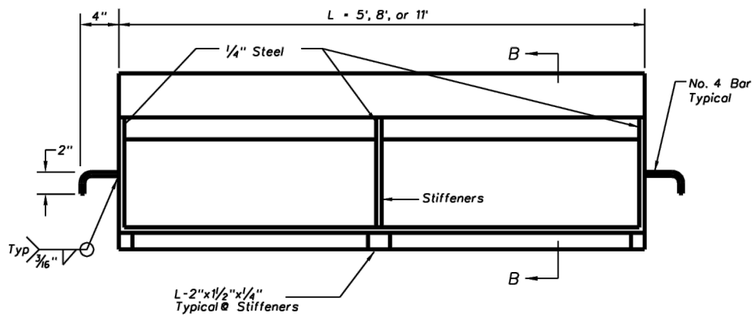


PLAN

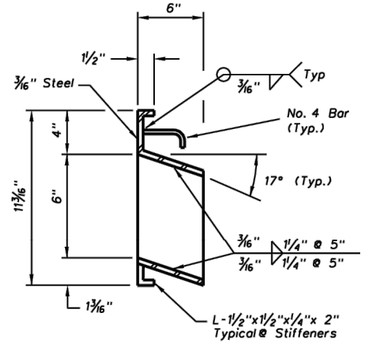


Top View

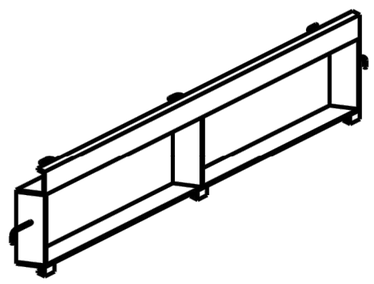


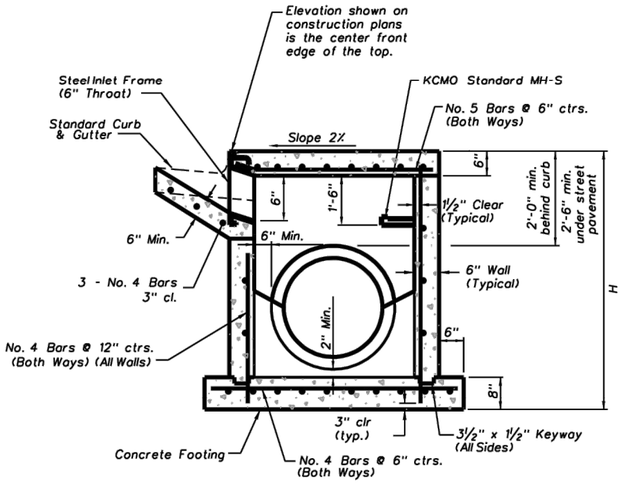
Front View

1. All work shall meet the requirements of APWA-KCMO 2600.
2. Inlet lid and throat shall conform to the street grade, except sump inlets which shall be level.
3. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension.
4. Locate KCMO Standard MH-RC ring and cover over outlet. Add a second ring and cover over inlet when L=11'.
5. Steps shall be spaced at 1'-4" O.C. vertically. The distance from the last step to the top of concrete invert should be a maximum of 24".
6. Bevel all exposed edges with ¾" chamfer or ½" tooled edge.
7. Expansion joint material shall comply with APWA - KCMO 2209.
8. The tops may be precast. When poured in place, the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the City Engineer.
9. Boxouts shall not project through the structure corners. Reinforcing shall be bent around pipe openings when possible. When reinforcing is cut, a diagonal bar shall be used to tie all cut ends together.
10. Floor of inlet shall be shaped with invert to provide smooth flow.
11. Reinforcing steel shall be ASTM A615 Grade 40 new billet, and shall be bent cold.
12. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted. Tolerance of +/-⅛" shall be permitted.
13. All lap splices not shown shall be a minimum of 40 bar diameters in length.
14. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
15. Precast inlets shall be set on four 8" solid concrete blocks with one at each corner, and the base and invert shall be poured monolithically. The vertical reinforcing shall be as per cast in place, except that the bars shall not protrude through the lid and base.
16. All curb inlet tops are to be constructed after final curb string line has been approved by the Engineer and prior to curb construction.
17. Pipe connections to precast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure, unless sealed with approved flexible waterproof gaskets in precast openings. Minimum clearance between pipe boxouts and precast riser joints is 8" without special design.
18. Backfill around structures shall comply with APWA-KCMO 2604.3.D.
19. These drawings are not to scale. Any questions regarding dimensions shall be brought to the attention of the Engineer prior to construction.
20. The structure elevation shown on the plans is the top surface over the locating point.
21. The curb inlet throat shall be 2' wide at the expansion joints, regardless of curb type.

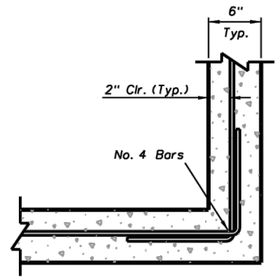


Section B-B





Section A-A



WALL CORNER DETAIL

THIS STANDARD IS ADAPTED FROM 1996 APWA "CI-2" FOR USE IN RECONSTRUCTION OF NON-SETBACK CURB INLETS ONLY.

ADOPTED

Acting Director of Public Works — Date 6/26/03

Entry No.

Kansas City, Missouri
Public Works Department
Engineering Division

CURB INLET TYPE 2	STANDARD DRAWING NUMBER CI-2

Steel Inlet Frame Notes

1. All welds shall be performed in accordance with appropriate AWS Specifications and Procedures.
2. All welds on exposed surfaces shall be dressed so as to provide a pleasing finished surface.
3. The entire frame shall be galvanized per ASTM A-123.
4. Steel inlet frame stiffeners shall be at equal intervals not to exceed 4'-0".

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STATE OF MISSOURI — JAMES PATRICK GALLAGHER — NUMBER PE-2010010499 — PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

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DATE PREPARED: 4/28/2025

SHEET 66

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\DRAINAGE DETAILS\T_DTL_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:33am XREFS: 22374_TRNS_TBLK

GENERAL NOTES KCMO

All work shall comply with the Kansas City, MO., Department of Public Works, Standard Construction and Materials Specification, Division II, Section 2800, and Division V, Section 5800, supplemental changes and other APWA sections required to restore the City's "right-of-way" to its original condition. Breakaway fused are required for all distribution cables.

1. Classification:
   1.1. Public Street: Area classification is Residential. Roadway classification is Collector. Pavement classification is R3. Light loss factor is 0.68.

2. The streetlight layout was based on the following:
   Type B: Signify Lumec RFS 80W40LED(3K) G2 R2M UNV DMG API PH9 RCD7 SP2 GY3 (79 Watt), Multi-volt, Type II Optics, 20kV SPD, 7 Pin Receptacle, and Dimmable Driver with Shorting Cap or approved equal.
   Type C: Signify Lumec RFL 145W64LED(3K) G2 R2M UNV DMG API PH9 RCD7 SP2 GY3 (137 Watt), Multi-volt, Type II Optics, 20kV SPD, 7 Pin Receptacle, and Dimmable Driver with Shorting Cap or approved equal.

3. Refer to "Street Lighting Details" for specifications on LED luminaires.

4. All distribution cable shall be placed in a 2" schedule 40 PVC conduit or pre-assembled cable-in-duct. All conduit runs shall be placed 2' back of curb where possible and at a minimum depth of 24". Circuits are 240v, 1ø.

5. Individual and system grounds shall be installed on all circuits (pole grounding rods and a ground wire from pole to pole). Grounding shall comply with Section 2803.8 of standards as noted above.

6. All conduit crossings shall be indicated with an aluminum marker in top of curb. Aluminum markers to be furnished and installed by the contractor.

7. The contractor is responsible for making his own determination as to type and location of existing underground utilities as may be necessary to avoid damage. The contractor shall verify location of underground pipe lines, conduits and structures by contacting owners of underground utilities.

8. All conduits are to be trenched in place after roadway rough grade is established and prior to any final roadway paving, curb & gutter, median or sidewalk sections are placed. At option of contractor, conduits under street sections may be bored after roadway improvements are completed.

9. All conduit may be trenched unless it crosses new or existing pavement, then it must be bored horizontally for a 2" conduit, 30" below top of pavement.

10. Poles shall be a Valmont or approved equal, round tapered aluminum. The mounting height shall be 30' with a 6' arm. Poles shall meet APWA Section 2802.18.

11. Per APWA Section 5800, all street light poles, materials and controller must be installed within the City's "Right of Way".

12. Distribution cable must be per "One Line Diagram", 2-#(2,4,6,or8) Distribution and 1#(2,4,6,or8) Ground, type RHH/RHW/USE, 600V, copper stranded, U.L. listed, and color coded red, black, and green (APWA 2802.10) for a grounded 240V system (single phase).

13. Cable used within the poles shall be 3-#10, type RHW/USE, 600V rated, copper stranded, U.L. listed and color coded red, black, and green according to the NEC.

14. Provide and install in each pole base, 3 single-pole, set-screw, in-line, breakaway, fuseholders. Use Bussman (or approved equal) Model No. HEB-JW-RYC and HEB-JW-RLC-J (last pole). For the 2 "hot" breakaway conductors, place a 10Amp KTK fuse in each breakaway fuseholder and a NNB Copper Slug in the system ground fuseholder.

15. All workmanship and materials shall be subject to inspection and approval by the Streetlighting, Public Works Department. Coordinate a final joint inspection with Octavio Moncada at (816) 513-9850.

16. The contractor shall install a cable retainer assembly mounted between a luminaire type pole and foundation anchor. The retainer is designed to secure the electrical conductors to prevent conductor theft. Contact PELCO at (405) 562-4680 for information and material.

17. The Contractor shall be responsible for all restoration of the construction site to City specifications. The contractor shall also be responsible for all cost associated with any damage, including but not limited to landscaping, sprinkler systems, water, sewer, curbs and sidewalk, gas main, etc..., caused by the construction.

18. Luminaire and Controller Cabinet Labels: The labels shall be KCMO-2X16-ADDS or equal. Contact William Frick and Company at (847) 918-3700. The Contractor shall furnish and install luminaire and controller cabinet identification labels according to the construction plans. Identification labels shall consist of three letters and four numerals in vertical orientation with the letters at the top so as to read downward. Legend shall be 2 inch series "C" upper case black characters on silver retro-reflective sheeting with pressure sensitive adhesive backing, as prescribed for use on standard highways signs in the FHWA Manual of Uniform Traffic Control Devices. Labels for decorative poles must be coordinated with the Streetlighting Section at (816) 513-9500.

    Steel poles shall be labeled by affixing self-adhesive decal directly on the pole. The label shall be positioned on the vertical axis of the pole facing the street and 8-10 feet above the pavement surface. Labels on cabinets shall be positioned near the top of the door adjacent to the door hinge.

19. All equipment removed shall be returned in good condition to the City of Kansas City Missouri's Maintenance Contractor at the contractors expense. Any equipment damaged during removal shall be paid for by the Contractor.

20. Refer to technician special provisions for additional requirements.

21. Submit street lighting shop drawings to Mr. Victor Pecina (victor.pecina@kcmo.org).

SUMMARY OF STREET LIGHTING QUANTITIES*		
ITEM	UNIT	QUANTITY
REMOVE & RESET EXISTING EQUIPMENT	EACH	4
REMOVE & DISPOSE OF EXISTING EQUIPMENT	EACH	1
30' CONCRETE FOUNDATION	EACH	4
6" ANTI-THEFT RETAINER	EACH	4
COBRA HEAD LUMINAIRE (240V) TYPE C LED EQUIVALENT	EACH	4
2" SCHEDULE 40 PVC CONDUIT	LN. FT.	601
3" SCHEDULE 40 PVC CONDUIT (CONTROLLER TO KCP&L)	LN. FT.	–
(2)#4 RHH/RHW/USE Cu	LN. FT.	633
1c No. 8 AWG BARE COPPER GROUND WIRE	LN. FT.	633

* THESE QUANTITIES WERE PREPARED FOR THE CONTRACTORS CONVENIENCE AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED ON THE CONTENTS OF THESE PLANS.

DESIGN CRITERIA:

Noland Road:
1. Roadway Classification: Collector/Residential
2. Illum. Ave.: 6 Lux *1.2 (City Multiplier)=7.2 Lux (Min) or 12.0 Lux (Max)
3. Illum. Ave/Min: 4 to 1
4. Luminance Average: 0.4 cd/m^2
5. Luminance Ave/Min: 4 to 1
6. Luminance Max/Min: 8 to 1
7. Veiling Lum Ratio: 0.4 to 1
8. LLF = 0.68
9. 6ft Arm
10. Type C
11. Pole Mounting Height: 30ft
12. Pole Setback: Varies

SPECIFICATIONS

LUMINARIES:

Type C: Signify Lumec RFL 145W64LED(3K) G2 R2M UNV DMG API PH9 RCD7 SP2 GY3 (137 Watt), Multi-volt, Type II Optics, 20kV SPD, 7 Pin Receptacle, and Dimmable Driver with Shorting Cap or approved equal.

Luminaires shall be adjusted and leveled to match the elevation of the pavement. Luminaire mounting height shall be 30-ft.

RELOCATION NOTES KCMO

1. General: The Contractor is responsible for the complete removal of all existing street lighting equipment. The contractor shall coordinate the disconnection of the existing lighting circuit to any adjacent poles with the Public Work's Inspector Octavio Moncada at (816) 513-9850. Removal and installation must also be coordinated with the KCMO Streetlight inspector.

2. Pole Relocation: The Contractor shall stake the pole relocation per plans. Prior to any construction, the City inspector shall verify the pole relocation staked by the Contractor. The pole must be installed perpendicular to the street and 3ft behind back of curb or per plans. No diagonal installations are allowed. The mounting height and pole alignment shall match existing installation. The Engineer will determine exceptions. Minimum ADA sidewalk clearances shall be maintained.

3. Pole and Construction: Pole and hardware can be re-used where they are properly sized, except if damaged or determined to be unfit for installation. Work shall include removing and resetting the pole. All removed lighting equipment shall be delivered to the City's Maintenance contractor Black & McDonald. Coordinated delivery with the City Inspector.

4. Utilities Locates & Repairs: All utility locates shall be ordered by the Contractor. Prior to any construction, the Engineer shall approve any changes to the plans due to utility or other conflicts. The contractor will be responsible for repairing all street lighting equipment and utilities damaged during the construction of the project. Any damage caused by the contractor's construction operation to existing lighting equipment and utilities shall be repaired by the appropriate utility at the contractor's expense.

5. Cable and Conduit: All distribution cable shall be installed in Schedule 40, 2"PVC conduit or in preassembled "cable-in-duct." Match existing cable size and type. All conduit runs shall be place 2ft from back of cub where possible and at a minimum depth of 24". All splices must be done in the pole base or pull box. No mid-span splices or buried splices are allowed.

6. Fusing: Match existing lighting equipment or per KCMO APWA.

7. Anti-Theft Device: PELCO or approved equal retainers shall be installed on new and relocated pole.

8. Storage: The contractor shall be responsible for the temporary storage of materials, maintaining, and replacing materials (in like kind) damaged during the construction Contract.

9. Clearance and Right of Way: All streetlighting equipment shall meet or exceed the latest revision of National Electrical Code (NEC) and National Electrical Safety Code (NESC) Standards for line and equipment clearance. All poles and distribution cable must be installed in the City's "Right-of-Way."

10. Site Restoration: The contractor is responsible for all restoration of the construction site to City specifications at no additional cost. . Contractor is also responsible for all costs associated with any damage, including but not limited to landscaping, sprinkler systems, water, sewer, curb and sidewalk, gas main, etc., caused by the construction.

LEGEND

- 30' TYPE C LED STREET LIGHT POLE
- EXISTING 30' TYPE B LED STREET LIGHT POLE
- EXISTING STREET LIGHT CONDUIT
- STREET LIGHT CONDUIT
- STREET LIGHT PULL BOX
- STREET LIGHT POWER PEDESTAL

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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STREET LIGHTING PLAN
ROUTE 350 AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_SL_012-2374
DATE PREPARED: 4/28/2025

SHEET
67

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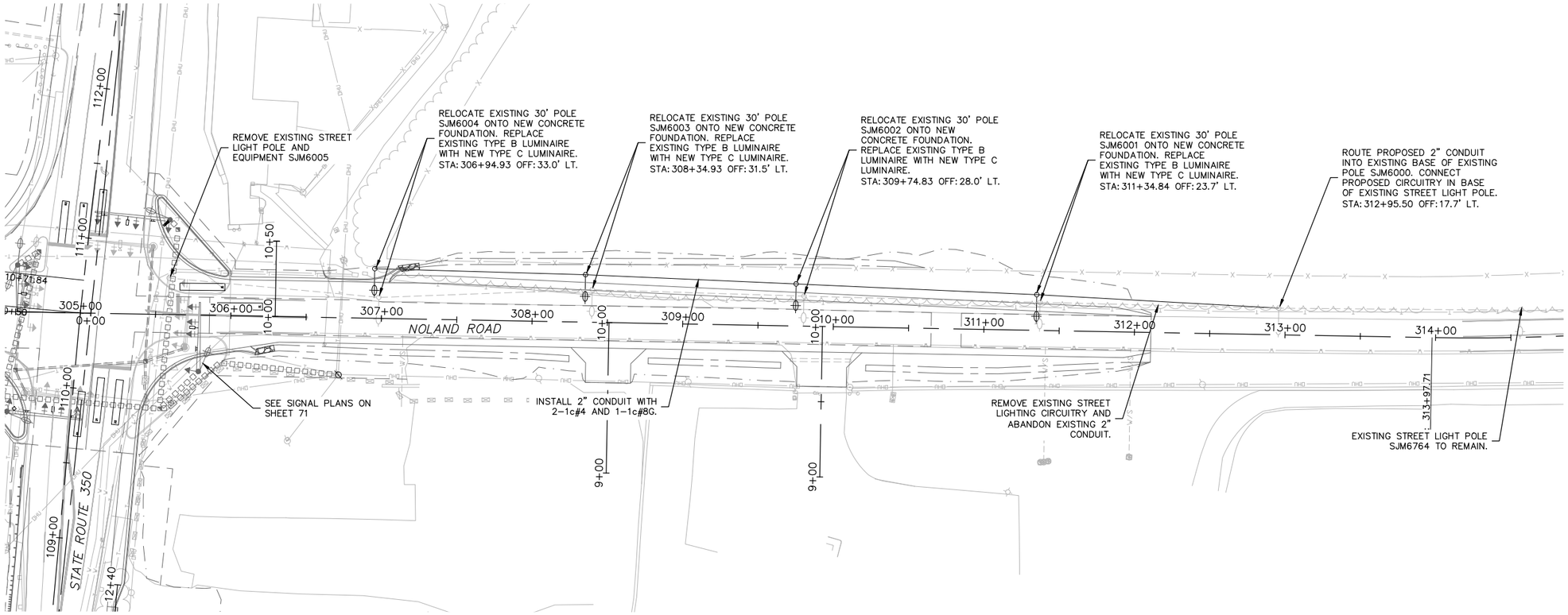

NOTES:
1. REFER TO THE RELOCATION NOTES ON THE PREVIOUS SHEET FOR DETAILS REGARDING EQUIPMENT RELOCATION AND REMOVAL.

N

0' 20' 40' 80'
SCALE IN FEET

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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER
04/28/25

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STREET LIGHTING PLAN
ROUTE 350 AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: JCC
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APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_SL_012-2374
DATE PREPARED: 4/28/2025

SHEET
68

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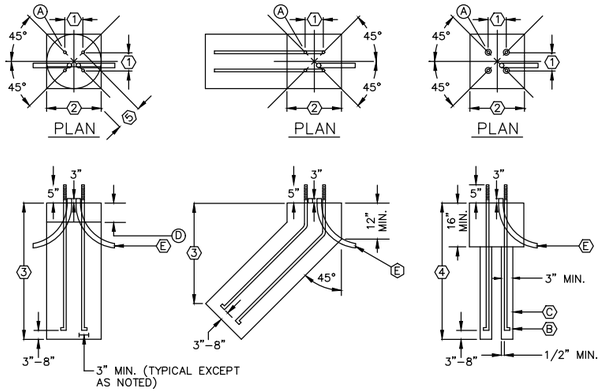
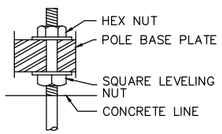


DIMENSIONS — DIMENSIONS BY MOUNTING HEIGHTS

NO.	ITEM	25'	30'	35'	40'
1	BOLT SPACING	7-3/8"	7-3/4"	8-1/8"	8-1/2"
2	MIN. DIAMETER OF FOUNDATION	21"	22"	23"	24"
3	DEPTH OF FOUNDATION	5'-0"	6'-0"	7'-0"	8'-0"
4	DEPTH OF FOUNDATION TYPE C	3'-6"	3'-6"	4'-0"	4'-0"
5	BOLT CIRCLE DIAMETER	10-1/2"	11"	11-1/2"	12"

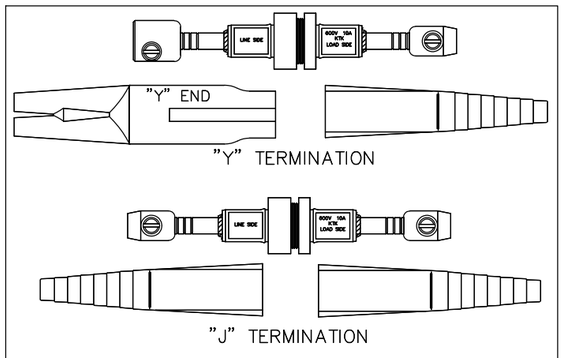


STREET LIGHT FOUNDATIONS

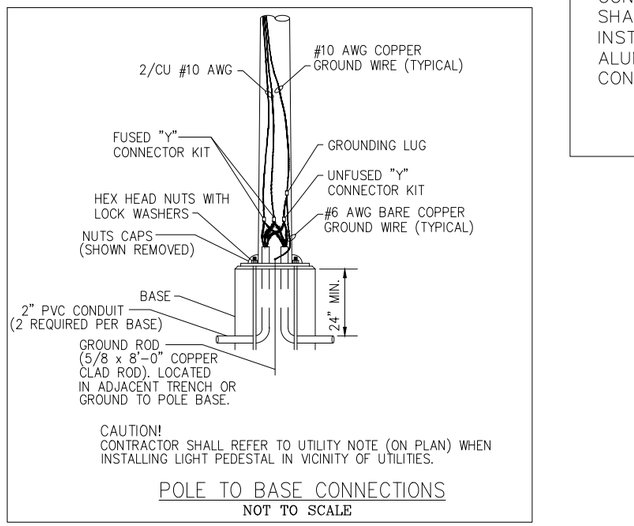
(A) 1" DIAMETER ANCHOR BOLTS EXTENDED WITH 6" REBAR AS REQUIRED.
(B) CUT ANCHOR BOLTS AS REQUIRED & DEFORM BOTTOM ENDS TO LOCK POSITIVELY.
(C) WITH MODIFIED ANCHOR RODS IN PLACE, FILL DRILLED HOLES WITH EPOXY RESIN SIKADUR HI-MOD CARTER WATERS 202 TYPE II OR EQUIVALENT.
(D) 6" DEEP SQUARE TOP (ROUND TOP ACCEPTABLE IN EARTH SURFACE). THIS 6" CAP TO BE POURED AFTER POLE IS ERECTED AND PLUMBED. EXPANSION JOINT TO BE USED WHERE PAVING ADJOINS FOUNDATION.
(E) PLUG ALL CONDUIT OPENINGS WITH DUXSEAL OR EQUIVALENT BEFORE PLACING CONCRETE & AFTER CABLE INSTALLATION. SEE PLANS FOR NUMBER AND DIRECTION OF BENDS.

FOUNDATION NOTES

1) TOP 8" OF ANCHOR BOLT TO BE HOT-DIP GALVANIZED
2) BOTTOM ENDS OF ANCHOR BOLTS MUST HAVE 3" MINIMUM CONCRETE COVER.
3) USE BOLT POSITIONING JIF OF SUFFICIENT WEIGHT & STRENGTH TO MAINTAIN ACCURATE ANCHOR BOLT LOCATION DURING CONCRETE PLACEMENT.
4) CITY-AUTHORIZED INSPECTOR MUST INSPECT EACH EXCAVATION, WITH ALL FORMS, ANCHOR BOLTS, REINFORCING STEEL, CONDUIT, & CONDUIT PLUGS IN PLACE IMMEDIATELY PRIOR TO PLACING CONCRETE.
5) CONCRETE FOR FOUNDATIONS OUTSIDE THE C.B.D. SHALL BE MCIB MIX NO. A558-1-2 OR MCIB MIX NO. A618-1-4. CONCRETE FOR FOUNDATIONS IN THE C.B.D. SHALL BE PER OFFICAL DOCUMENT NO. 85199 DATED 8/20/69 & ANY REVISION OR REPLACEMENT THERETO.
6) CONCRETE TO BE VIBRATED DURING PLACEMENT.
7) FOUNDATIONS IN EARTH TO BE 1" ABOVE ANY ADJACENT EARTH & HAVE EDGES BEVELED.
8) TIE ANCHOR BOLTS NEAR THE BOTTOM. USE TWO #3 REBAR HOOPS SPACED 12", TWO #3 REBAR "U" 'S SPACED 12", OR TWO TURNS OF #3 REBAR SPIRAL WITH 12" PITCH.

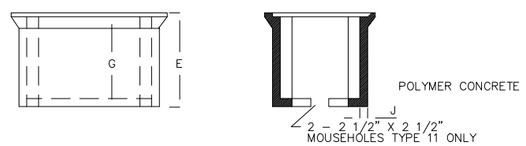


BREAK AWAY FUSE KITS

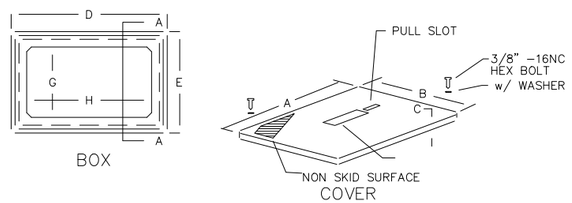


POLE TO BASE CONNECTIONS

NOT TO SCALE



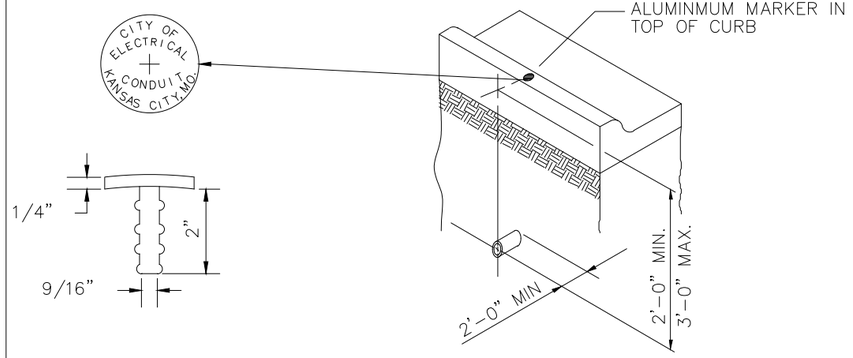
SECTION A–A



TYPE	DIMENSIONS (IN.)									
	A	B	C	D	E	F	G	H	J	K
II	18 1/2	11 1/2	3/4	20 1/2	13 1/2	12	10 1/4	17 1/4	3/8	11 1/4

PULL BOX

TRENCHING



CONDUIT SHALL BE PLACED 2'-0" TO 3'-0" BELOW THE TOP OF CURB ELEVATION AND SHALL EXTEND 2'-0" MINIMUM BEYOND THE BACK OF CURB. CONDUIT SHALL BE INSTALLED TO DRAIN, AND ALL ENDS SHALL BE THREADED AND CAPPED. AN ALUMINUM MARKER SHALL BE PLACED IN THE TOP OF THE CURB DIRECTLY OVER THE CONDUIT. ALUMINUM MARKERS WILL BE FURNISHED BY THE CONTRACTOR.

CONDUIT MARKING DETAIL

PELCO PRODUCTS, INC. — www.pelcoinc.com, EDMOND, OK 73013, 405-340-3434, FAX: 405-340-3435

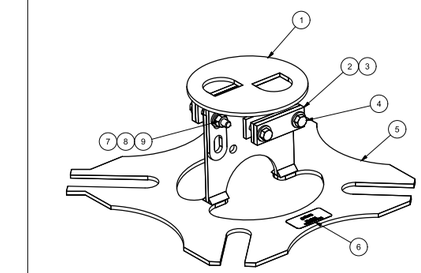
This drawing is for reference only. It is the property of Pelco and is not to be used in whole or in part without Pelco's permission.

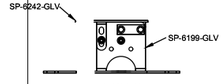
ASSEMBLY SHEET

REF:

TITLE: Cable Retainer Assy, w/ Conductor Guide, for 6" Foundation Anchor, Galv

PART NO.: SP-6200-GLV





SP-6242-GLV STRADDLES SP-6199-GLV

NOTE: INCLUDE Z-2057 INSTALLATION INSTRUCTIONS

ITEM	PART NUMBER	DESCRIPTION	QTY
1	SP-6242-GLV	Weldment, Conductor Guide, for 6" Cable Retainer Assy, Steel, Galv	1
2	SP-6199-3-GLV	Bar, Cable Retainer Assembly, Steel	2
3	SP-6199-4	Pad, Cable Retainer, 3/16" Thick, 90 Duro, Red Urethane	4
4	FS-2016-SS	Bolt, Hex Hd Tap, 5/16"-18 x 2-1/4" , Type 304 Stainless	4
5	SP-6199-GLV	Weldment, Cable Retainer Assembly, for 6" Foundation Anchor, Steel, Galv	1
6	O-3140	Label, 1" x 2", Cable Retainer	1
7	FS-4101-SS	Washer, Flat, 5/16" x 3/4" OD, Type 304 Stainless	8
8	FS-4201-SS	Lock Washer, Split, 5/16", Type 304 Stainless	4
9	FS-1001-SS	Nut, Hex 5/16"-18, Type 304 Stainless	4

DRAWN: KennethGeorge 2/17/2009 | CHK'D: R WOODS 2/17/2009 | REV: A08/22/10 GMB | REV CHK'D: XAAA | DATE: 8/23/2010 | SHEET 1 OF 1

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STATE OF MISSOURI — JOSHUA PUDLOWSKI — NUMBER PE-2021009515 — PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

STREET LIGHTING DETAILS
ROUTE 350 AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_SL_012-2374
DATE PREPARED: 4/28/2025

SHEET 69

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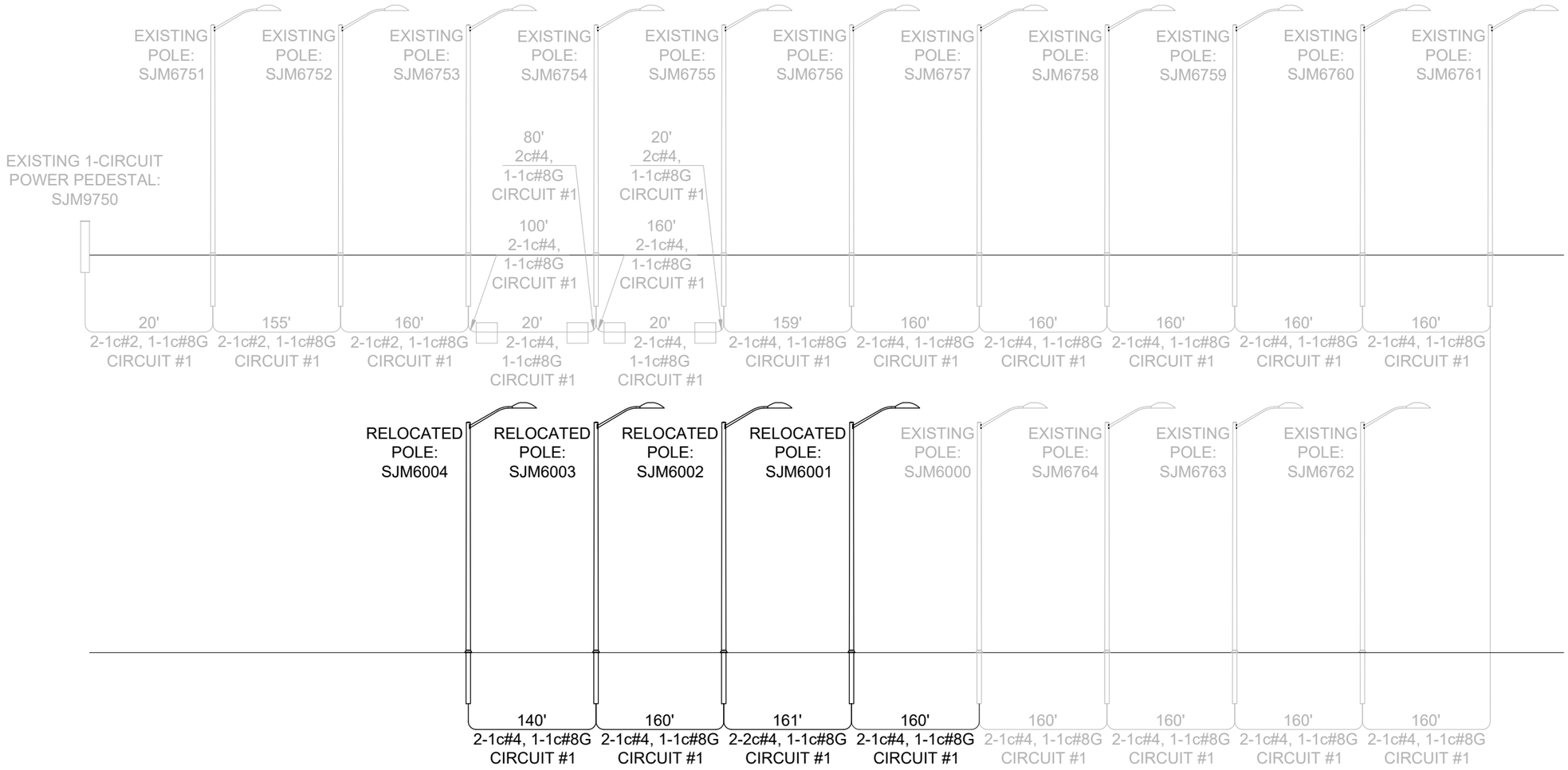

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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

STREET LIGHTING WIRING DIAGRAM
ROUTE 350 AND NOLAND ROAD

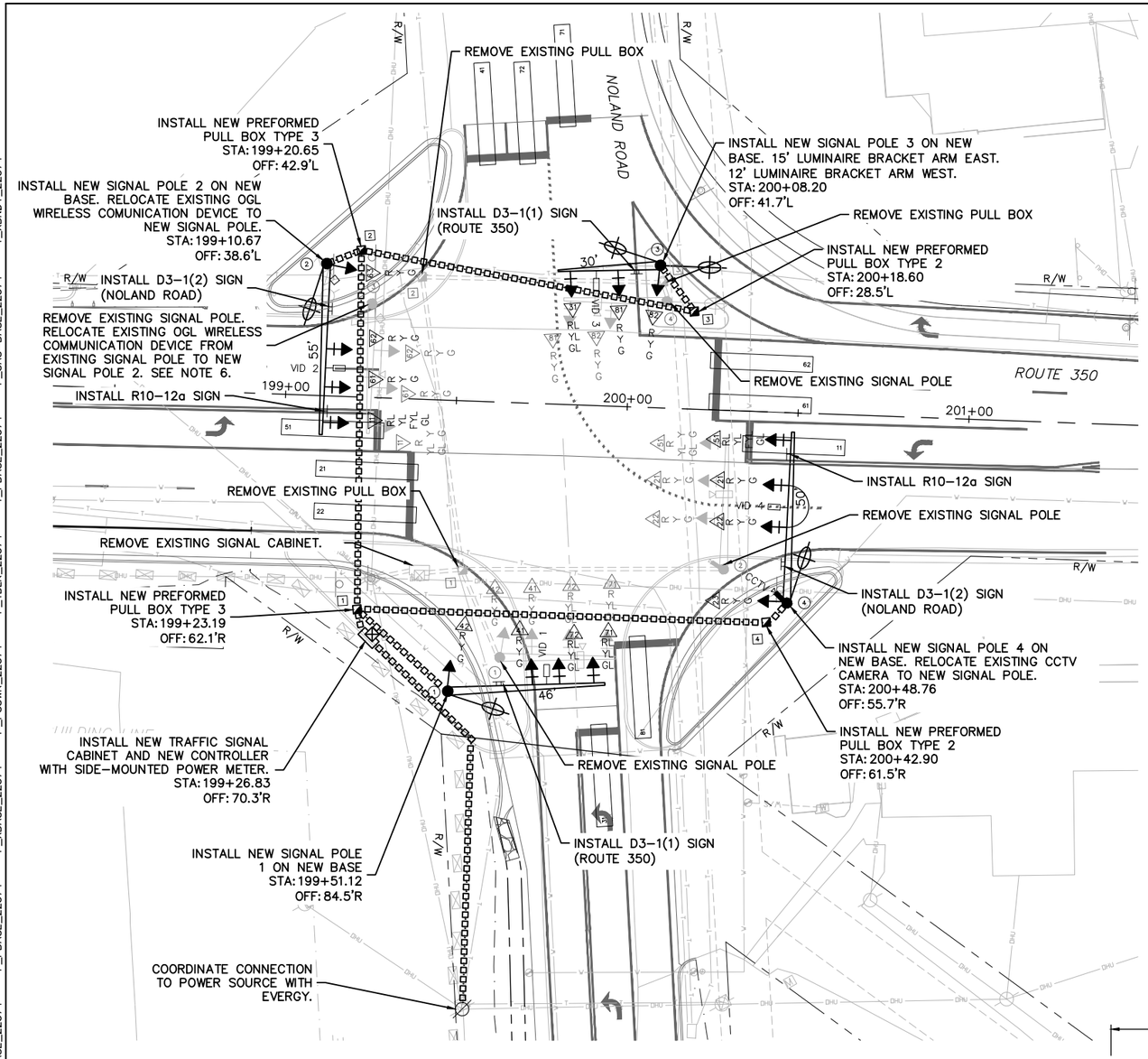
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_SL_012-2374
DATE PREPARED: 4/28/2025

SHEET
70



NOTES:
1.) ALL TRAFFIC SIGNAL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE MISSOURI STANDARDS SPECIFICATION FOR HIGHWAY CONSTRUCTION, SECTION 902 "TRAFFIC SIGNALS", UNLESS OTHERWISE NOTED.

2.) THE CONTRACTOR SHALL STAKE LOCATIONS WHERE POLES, BOXES, AND THE CONTROLLER ARE TO BE INSTALLED. STAKED LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF EQUIPMENT. SERVICE BOXES AND CONDUITS RUNS ARE APPROXIMATE AND MAY BE FIELD ADJUSTED TO CLEAR OBSTRUCTIONS AND FACILITATE WIRING, AS APPROVED BY THE ENGINEER.

3.) CONDUITS UNDER ANY NEW PAVEMENT SHALL EITHER BE TRENCHED PRIOR TO PAVEMENT CONSTRUCTION OR BORED FOLLOWING PAVEMENT CONSTRUCTION. CONDUITS UNDER ANY EXISTING PAVEMENT, INCLUDING SIDEWALKS AND DRIVEWAYS, SHALL BE BORED WITHOUT DISTURBANCE TO THE EXISTING INFRASTRUCTURE.

4.) EXISTING CONDUIT AND WIRING TO BE ABANDONED IN PLACE.

5.) STREET LIGHT BRACKET ARMS TO BE ORIENTED OVER SIGNAL MAST ARMS WITH THE EXCEPTION OF POLE 3 WHICH WILL HAVE ONE BRACKET ARM ORIENTED OVER THE TRAFFIC SIGNAL MAST ARM AND THE OTHER STREET LIGHT BRACKET ARM ORIENTED AS SHOWN ON THE PLAN.

6.) REMOVE AND RESET EXISTING WIRELESS SUBSCRIBER UNIT, INCLUDING MOUNTING HARDWARE. CONTRACTOR TO VERIFY APPROPRIATE CABLE TYPE FOR EXISTING WIRELESS SYSTEM AND PROVIDE/INSTALL NEW CABLE. CONTACT AND COORDINATE INSTALLATION WITH CHRIS JENKINS AT 816-622-0732.

7.) EXISTING OGL INFRASTRUCTURE SHALL BE REINSTALLED IN THE SAME MANNER AS CURRENTLY INSTALLED ON TRAFFIC SIGNAL POLE AND IN TRAFFIC SIGNAL CABINET. SEE DETAIL SHEETS FOR ADDITIONAL INFORMATION.

TRAFFIC SIGNALS LEGEND

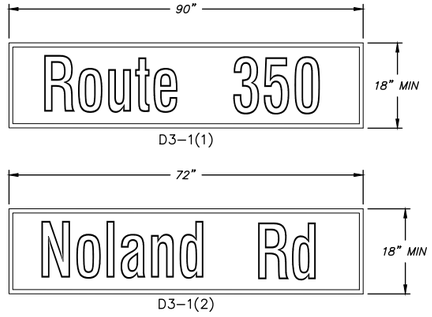
CONTROLLER	PUSH BUTTON DETECTOR		CONDUIT MEDIAN
CONTROLLER (EXISTING)	PREFORMED PULL BOX TYPE 1		CONDUIT PUSHED
JUNCTION BOX	PREFORMED PULL BOX TYPE 2		CONDUIT BRIDGE
POWER SOURCE	PULL BOX TYPE 1		CONDUIT EXISTING
POWER SUPPLY	PULL BOX TYPE 2		CONDUIT TRENCHED
WOOD POST	ITS PULL BOX TYPE 2		TYPE C BASE
SIGNAL HEAD (OPT LIM CONV)	ITS PULL BOX TYPE 5		TYPE C MAST ARM A BASE
SIGNAL HEAD (OPT LIM)	VIDEO DETECTOR		EXISTING TYPE C BASE
SIGNAL HEAD (PEDESTRIAN)	15' ARM 400W H.P.S.L		EXISTING TYPE C MAST ARM A BASE
SIGNAL HEAD (STANDARD)	V VIDEO DETECTION ZONE		EXISTING SIGNAL HEAD (STANDARD)
BIKE SIGNAL HEAD (STANDARD)	BICYCLE RADAR DETECTION		EXISTING SIGNAL HEAD (PEDESTRIAN)
	CCTV CAMERA		EXISTING PULL BOX TYPE 1
	EXISTING CCTV CAMERA		
	OGL WIRELESS COMM DEVICE		

R	RED BALL
Y	YELLOW BALL
G	GREEN BALL
RL	RED LEFT ARROW
YL	YELLOW LEFT ARROW
GL	GREEN LEFT ARROW
YR†	YELLOW RIGHT ARROW
GR†	GREEN RIGHT ARROW
S	STRAIGHT GREEN ARROW
S✳45	STRAIGHT GREEN ARROW MOUNTED AT 45° ANGLE

ALL 12" LENS WITH TUNNEL VISOR

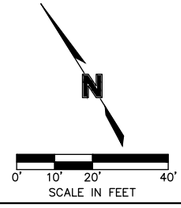
✳8" LENS WITH TUNNEL VISOR

W	PEDESTRIAN INDICATIONS SHALL BE LED
DW	COUNTDOWN TYPE.



R10-12a

TRAFFIC SIGNAL SHEETS
SHEET 1 OF 6



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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER
04-28-25

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC SIGNAL PLAN
350 HIGHWAY AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: StJ
PROJECT NO.: JKU0404
DWG NO.: F_TRS_22374
DATE PREPARED: 4/28/2025

SHEET
71

DWG: F:\projects\A12-2374\40-design\AutoCAD\final plans\Sheets\TRFC\SIGNAL DESIGN\F_TRS_22374.dwg USER: jnieveyer
DATE: Apr 28, 2025 1:12pm XREFS: T_PSTM_22374 T_XBASE_22374 F_PBASE_22374 F_XBASE_22374 P_PSSWR_22374 F_TBLK_22374 T_PBASE_22374 F_SAS-BASE_22374 T_XBNDY_22374

| POST NUMBER | PULL BOX NUMBER | LOCATION | | | BASE | | | | | | | | | | | | PULL BOX | | | | | | | POST | | | | | | | | | | | |

CONDUIT (WITH #14 TRACER WIRE)

FROM	TO	CENTER TO CENTER DISTANCE	LOOP DET.	TRENCH			PUSHED			MEDIAN			ON STRUCTURE		REMARKS
			1"	2"	3"	4"	2"	3"	4"	2"	3"	4"	2"	3"	
Ø	CONT	117			121										
CONT	BOX 1	6		10	10	10									
BOX 1	POLE 1	36		40	40										
BOX 1	BOX 2	105					104		104						
BOX 2	POLE 2	11		15	15										
BOX 2	BOX 3	99					98		98						
BOX 3	POLE 3	17		21	21										
BOX 1	BOX 4	120					119		119						
BOX 4	POLE 4	8		12	12										

DWG: F:\projects\A12-2374\40-design\AutoCAD\final plans\Sheets\TRFC\SIGNAL DESIGN\F_TRS_22374.dwg USER: jniemeyer
DATE: Apr 28, 2025 1:13pm XREFS: T_PSTM_22374 T_XBASE_22374 F_PBASE_22374 F_XBASE_22374 P_PSSWR_22374 F_TBLK_22374 T_PBASE_22374 F_SAS-BASE_22374 T_XBNDY_22374

POWER SUPPLY

LOCATION			POWER SUPPLY ASSEMBLY		CIRCUIT BREAKER TRIP RATING*				LIGHTING CONTROL * (ON POWER SUPPLY)		SERVICE POLE	
					CONTROLLER		POWER SUPPLY DISCONNECT					
APPROACH	STATION	OFFSET	DRAWING 902.15	DRAWING	AUXILIARY BREAKER	CONT & SIGNAL LAMS	MAIN BREAKER		120 VOLT CONTROL CABINET	MAIN BREAKER	CONTRACT FURNISH	UTILITY COMPANY
							SIGNALS	LIGHTING				
HWY 350	199+58.13	177.4' RT	Type 2		15 Amps	40 Amps	100 Amps	Amps		Amps	Cl. Ft.	EVERGY

EFFECTIVE 04-01-2018

CONTROLLER ASSEMBLY AND AUXILIARY EQUIPMENT

LOCATION			SYSTEM MASTER (CLOSER LOOP)		ACTUATED		ON-OFF* SWITCH		COORDINATION INTERFACE *						TIME * CLOCK	NEMA CABINET TYPE *			170 CABINET TYPE *		170 SOFTWARE *	
							TYPE		12C/7C HARDWIRE (1)		TIME BASE	CLOSED LOOP		EXISTING WIRELESS								
APPROACH	STATION	OFFSET	NEMA	170	NEMA	170	I	II	MASTER	LOCAL		NEMA	170			E	EV	DOUBLE	332	336S	BITRAN	WAPITI
HWY 350	199+26.83	70.3' RT.												1			1					

NEMA DETECTOR ASSIGNMENT

		CARD POSITION							
		1	2	3	4	5	6	7	8
CHANNEL	1			VIDEO					
	2								

TOTAL NUMBER OF DETECTOR CARDS(2-CHANNEL) = (2)

NEMA LOAD SWITCH ASSIGNMENTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
11	21 22 23	31	41 42	51	61 62 63	71 72	81 82								

SIGNS

QUANTITY	MUTCD SIGN NUMBER	SIZE	AREA	SIGN TOTAL AREA ITEM NO. 90208.33	SIGNAL SIGN MOUNTING HARDWARE ITEM NO. 90208.34
		INCHES	SQ.FT.	SQ.FT.	EA.
	R10-10L	24 X 30	5.0	0.0	
	R10-10R	24 X 30	5.0	0.0	
	R3-5L	30 X 36	7.5	0.0	
	R3-5R	30 X 36	7.5	0.0	
	R3-5A	30 X 36	7.5	0.0	
	R3-6L	30 X 36	7.5	0.0	
	R3-6R	30 X 36	7.5	0.0	
	R3-2	24 X 24	4.0	0.0	
	R3-1	24 X 24	4.0	0.0	
	R3-3	24 X 24	4.0	0.0	
	R3-4	36 X 36	9.0	0.0	
	R10-5	24 X 30	5.0	0.0	
	R10-12	24 X 30	5.0	0.0	
2	R10-12A	30 X 36	7.5	15.0	2
2	D3-1 (ROUTE 350)***	90 X 18	11.3	22.5	2
2	D3-1 (NOLAND ROAD)***	72 X 18	9.0	18.0	2
	R10-3E(L)	9 X 15	0.9		
	R10-3E(R)	9 X 15	0.9		
	R10-3E	9 X 15	0.9		
	R10-11A	24 X 30	7.5	0.0	
	R10-13	36 X 24	6.0	0.0	
	R10-27A	30 X 36	7.5	0.0	
	R10-15R	30 X 36	7.5	0.0	
				0.0	
			SUBTOTAL	55.5	6
			TOTAL	55.5	6

DETECTOR SCHEDULE

DETECTOR NUMBER	APPROACH	TYPE				
		PUSH BUTTON (3)	INDUCTION LOOP (2)		MICROWAVE DETECTER (4)	VIDEO (5)
			STANDARD	DELAY/ EXTEND ✳		
VIDEO 1	NOLAND ROAD NB					1
VIDEO 2	HWY 350 EB					1
VIDEO 3	NOLAND ROAD SB					1
VIDEO 4	HWY 350 WB					1
						4

✳ ITEMS FOR WHICH SEPARATE PAYMENT WILL NOT BE MADE.

✳✳✳ USE D3-1 FOR ONE LINE. USE D3-1B FOR TWO LINE.

\# INSTALL WITH PUSH BUTTON EXTENDER. EXTENSION SHALL BE 12" OR AS NEEDED TO MAINTAIN LESS THAN 10" REACH DISTANCE. PUSH BUTTON EXTENDER SHALL BE SUBSIDIARY TO PUSH BUTTON BID ITEM

(1) MoDOT "D" PLUG SHALL BE WIRED INTO ALL NEMA CONTROLLERS WITH 7C HARDWIRE INTERCONNECT.

(2) PAYMENT IS MADE FOR THE NUMBER OF 2-CHANNEL DETECTOR CARDS AS SHOWN BELOW THE ASSIGNMENT CHART.

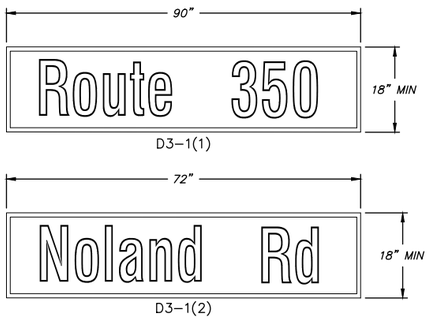
(3) PAYMENT IS MADE FOR EACH DEVICE. PUSH BUTTONS SHALL BE ACCESSIBLE PEDESTRIAN SIGNAL (APS) COMPLIANT. EACH PUSH BUTTON UNIT SHALL BE COMPRISED OF A PUSH BUTTON, SPEAKER, SIGN, AND ALL ASSOCIATED MOUNTING HARDWARE FOR A FULLY FUNCTIONAL SYSTEM. CONTROL UNIT SHALL BE INTEGRATED INTO THE PUSH BUTTON UNIT OR AT CONTROLLER CABINET PER MANUFACTURER RECOMMENDATIONS.

(4) PAYMENT IS MADE FOR EACH DEVICE UNDER THE "DETECTOR, MICROWAVE" BID ITEM AND SHALL CONSIST OF FURNISHING, INSTALLING, AND PLACING INTO OPERATION A MICROWAVE DETECTION SYSTEM THAT DETECTS BICYCLES BY PROCESSING MICROWAVES AND PROVIDING DETECTION OUTPUTS TO A TRAFFIC SIGNAL CONTROLLER.

(5) PAYMENT IS MADE FOR THE "VIDEO DETECTION SYSTEM" AND SHALL CONSIST OF FURNISHING, INSTALLING AND PLACING INTO OPERATION A VEHICLE DETECTION SYSTEM THAT DETECTS VEHICLES BY PROCESSING VIDEO IMAGES AND PROVIDING DETECTION OUTPUTS TO A TRAFFIC SIGNAL CONTROLLER.

(6) POWER SUPPLY ASSEMBLY TO BE SIDE-MOUNTED TO CONTROLLER CABINET.

(7) RELOCATE EXISTING SIGNAL CONTROLLER TO NEW TRAFFIC SIGNAL CABINET.



R10-12a
30" X 36"

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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC SIGNAL QUANTITIES
350 HIGHWAY AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_TRS_22374
DATE PREPARED: 4/28/2025

SHEET 74

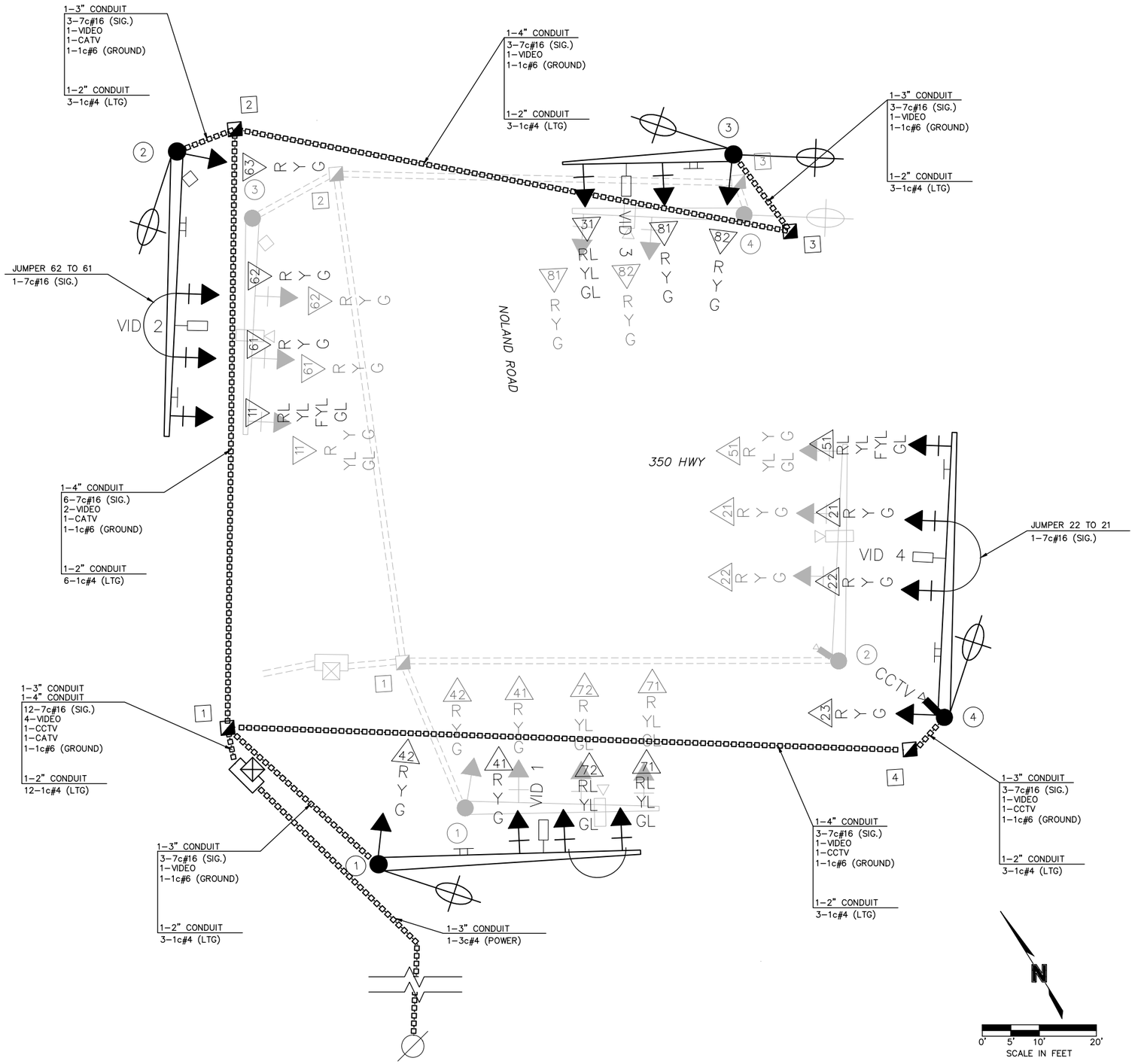
TRAFFIC SIGNAL SHEETS
SHEET 4 OF 6

350 HIGHWAY & NOLAND ROAD

INTERSECTION

D-37C

WIRING DIAGRAM



NOTE: CABLE AND CONDUIT FROM POWER SUPPLY ASSEMBLY TO UTILITY COMPANY FACILITIES SHALL ALSO BE PROVIDED AND ARE INCLUDED IN PRICE BID FOR POWER SUPPLY ASSEMBLY.

LEGEND

3"	CONDUIT CONTAINING CABLE WITH SIZE
	CABLE
X-Xc	MULTI-CONDUCTOR CABLE #16 AWG (UNLESS OTHERWISE INDICATED)
LIC	#14 AWG DETECTOR LEAD-IN CABLE (2C TWISTED SHIELDED)
X	PULL BOX WITH NUMBER
X	POST WITH NUMBER
X	POST WITH MAST ARM
X	POST WITH MAST ARM AND LUMINAIRE
X	DETECTOR WITH NUMBER
X	SIGNAL HEAD WITH NUMBER
	SIGNAL CONTROLLER
	POWER SUPPLY
	LIGHTING CONTROLLER
P.S.	POWER SOURCE
	VIDEO DETECTOR
	CCTV CAMERA
	OGL WIRELESS COMM DEVICE

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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER
07/28/25

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC SIGNAL WIRING DIAGRAM
350 HIGHWAY AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_TRS_22374
DATE PREPARED: 4/28/2025

SHEET 75

TRAFFIC SIGNAL SHEETS
SHEET 5 OF 6

350 HIGHWAY & NOLAND ROAD
INTERSECTION

D-37D

DWG: F:\projects\A12-2374\40-design\AutoCAD\final plans\Sheets\TRFC\SIGNAL DESIGN\F_TRS_22374.dwg USER: jhiemeyer
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T_PBASE_22374 F_TBLK_22374 P_PSSWR_22374 F_XBASE_22374

TRAFFIC PHASING AND COLOR SEQUENCE – ACTUATED CONTROLLERS

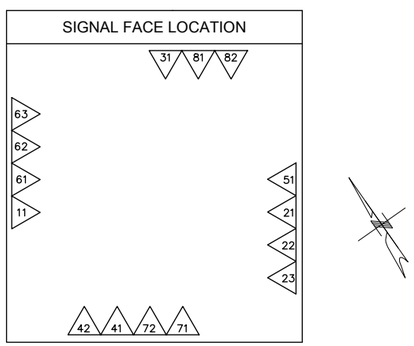
		PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PED φ2 OVERLAP	PED φ4 OVERLAP	PED φ6 OVERLAP	PED φ8 OVERLAP	
FACE NUMBERS		11	21 22 23	31	41 42	51	61 62 63	71 72	81 82					FACE NUMBERS
SIGNAL INDICATIONS	R	RL	R R R	RL	R R	RL	R R R	RL RL	R R					R
	Y	YL	Y Y Y	YL	Y Y	YL	Y Y Y	YL YL	Y Y					Y
	FYA	FYL				FYL								FYA
	G	GL	G G G	GL	G G	GL	G G G	GL GL	G G					G
DETECTOR ASSIGNMENTS		11	21 22 22	31	41 42	51	61 62 62	71 71	81 81					DETECTOR ASSIGNMENTS
DETECTOR ASSIGNMENTS (PEDS. ONLY)														
OVERLAP PARENT PHASES														

	PHASE 1	PHASE 2	PHASE 3	PHASE 4
RING 1				
RING 2				
	PHASE 5	PHASE 6	PHASE 7	PHASE 8

BARRIER

RING STRUCTURE

SIGNAL FACE LOCATION



LEGEND

- ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED ACTUATED VEHICULAR MOVEMENT
- NON-ACTUATED VEHICULAR MOVEMENT
- PARTIALLY RESTRICTED NON-ACTUATED VEHICULAR MOVEMENT
- ACTUATED PEDESTRIAN MOVEMENT
- NON-ACTUATED PEDESTRIAN MOVEMENT
- VEHICLE STOPPED
- FDW – FLASHING DON'T WALK
- W – WALK
- DW – DON'T WALK
- R/W – RIGHT OF WAY INTERVAL
- YR† – YELLOW RIGHT ARROW
- RT. – GREEN RIGHT ARROW
- LY –YL – YELLOW LEFT ARROW
- L – GREEN LEFT ARROW
- S – GREEN STRAIGHT AHEAD ARROW
- G – CIRCULAR GREEN
- Y – CIRCULAR YELLOW
- R – CIRCULAR RED
- RL – RED LEFT ARROW
- Ø – TRAFFIC PHASE
- AO – ALL OTHERS
- FR – FLASHING RED
- FY – FLASHING CIRCULAR YELLOW
- FYL – FLASHING YELLOW LEFT ARROW

IF CALLED, ALL NON-CONFLICTING PHASES SHALL COMBINE AND TIME CONCURRENTLY. TIME TO BE DETERMINED BY THE ENGINEER AT SIGNAL TURN ON AND SET IN THE CONTROLLER BY THE CONTRACTOR.

FLASHING OPERATION	
NOLAND ROAD	FR
HIGHWAY 350	FR

CONTROLLER TYPE	NEMA

TRAFFIC SIGNAL CONTROL OPERATION

INTERSECTION OF HIGHWAY 350

WITH NOLAND ROAD

NOTES:
CABLE AND CONDUIT FROM POWER SUPPLY ASSEMBLY TO UTILITY COMPANY FACILITIES SHALL ALSO BE PROVIDED AND ARE INCLUDED IN PRICE BID FOR POWER SUPPLY ASSEMBLY.

TRAFFIC SIGNAL SHEETS
SHEET 6 OF 6

350 HIGHWAY & NOLAND ROAD

INTERSECTION

D-38A

D-38A

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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TRAFFIC SIGNAL PHASING PLAN
350 HIGHWAY AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: JCC
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DWG NO.: F_TRS_22374
DATE PREPARED: 4/28/2025

SHEET 76

DWG: F:\projects\A12-2374\40-design\AutoCAD\final plans\Sheets\TRFC\SIGNAL DESIGN\F_TRS_22374.dwg USER: jniemeyer
DATE: Apr 28, 2025 1:13pm XREFS: T_PSTM_22374 T_XBASE_22374 F_PBASE_22374 F_XBASE_22374 P_PSSWR_22374
T_XBNDY_22374 F_SAS-BASE_22374 T_PBASE_22374 F_TBLK_22374 P_PSSWR_22374

TRAFFIC SIGNAL CONTROLLER

IF SWITCH IS INSTALLED & SIGNAL CONTROLLER IS ETHERNET-CAPABLE, CONNECT CAT5E CABLE FROM SWITCH TO SIGNAL CONTROLLER

COORDINATE WITH OPERATION GREEN LIGHT STAFF FOR ETHERNET SWITCH PORT ASSIGNMENTS

IF SWITCH IS NOT INSTALLED & SIGNAL CONTROLLER IS ETHERNET-CAPABLE, CONNECT CAT5E CABLE FROM IDU TO SIGNAL CONTROLLER

SUPPLIED BY OTHERS OR EXISTING

MANAGED ETHERNET SWITCH

IF SWITCH IS INSTALLED, CONNECT SHIELDED STRAIGHT-THRU CAT5E PATCH CABLE FROM IDU ETHERNET PORT TO SWITCH

ETHERNET

SHIELDED STRAIGHT-THRU CAT5E PATCH CABLE

RADIO

ETH POWER

RESET

SHIELDED I-CAT5E STRAIGHT-THRU CABLE WITH SHIELDED RJ-45 CONNECTORS TO RADIO ETHERNET PORT

Surge

Protected

TO CABINET GROUND

LIGHTNING/SURGE PROTECTION EQUIPMENT

TO CABINET AC POWER SOURCE PROVIDED BY OTHERS

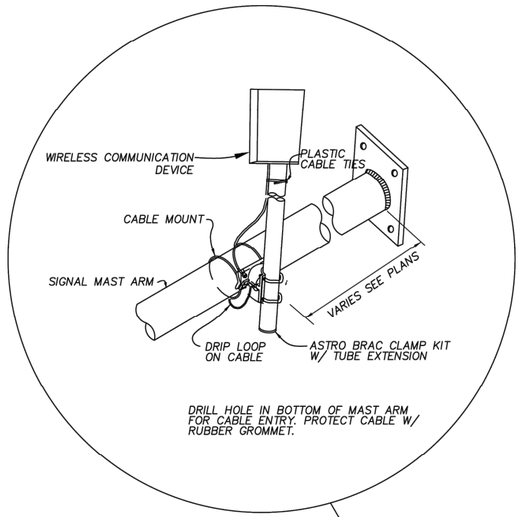
6-OUTLET SURGE STRIP

COMPONENTS TO BE INSTALLED IN EXISTING SIGNAL CONTROLLER CABINET

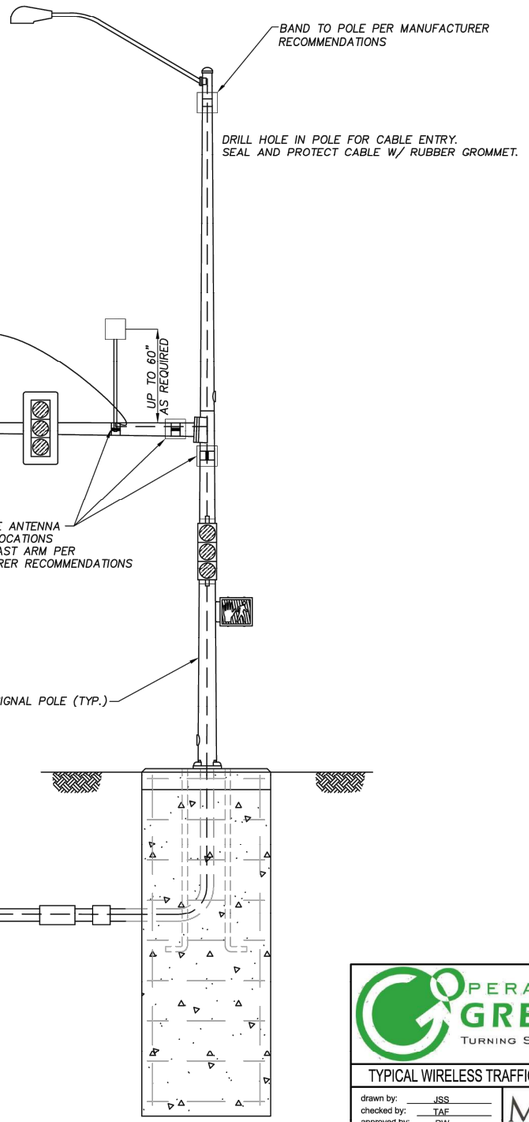
EXISTING SIGNAL CONTROLLER CABINET

TRAFFIC CONTROL

INSTALL WIRELESS EQUIPMENT IN TRAFFIC SIGNAL CABINET AT REQUIRED LOCATIONS



DRILL HOLE IN BOTTOM OF MAST ARM FOR CABLE ENTRY. PROTECT CABLE W/ RUBBER GROMMET.



EXISTING SERVICE BOX

EXISTING CONDUIT

INSTALL CABLE IN EXISTING CONDUIT

GENERAL NOTES:

1. REFER TO INTERSECTION WIRING DETAIL FOR DETAILED WIRING INSTALLATION.

2. REFER TO DESIGN PLAN SHEETS AND/OR JOB SPECIAL PROVISIONS FOR THE ORDER OF PREFERENCE REGARDING THE ANTENNA MOUNTING LOCATION.

3. ACTUAL TRAFFIC SIGNAL CABINETS, POLE AND SERVICE BOXES VARY BY AGENCY.

TYPICAL ANTENNA INSTALLATION DETAIL AT INTERSECTIONS

OPERATION GREENLIGHT
TURNING STOP LIGHTS INTO GO LIGHTS

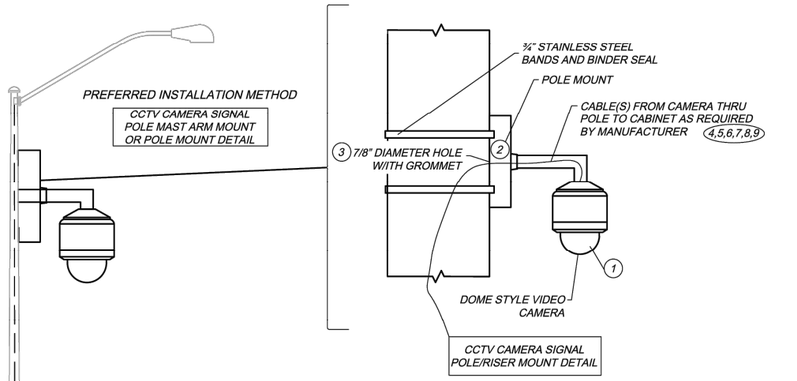
TYPICAL WIRELESS TRAFFIC SIGNAL INSTALLATION DETAIL

drawn by: JSS
checked by: TAF
approved by: RW
last revised: 05-06-2014

MARC Mid-America Regional Council

SHEET 77

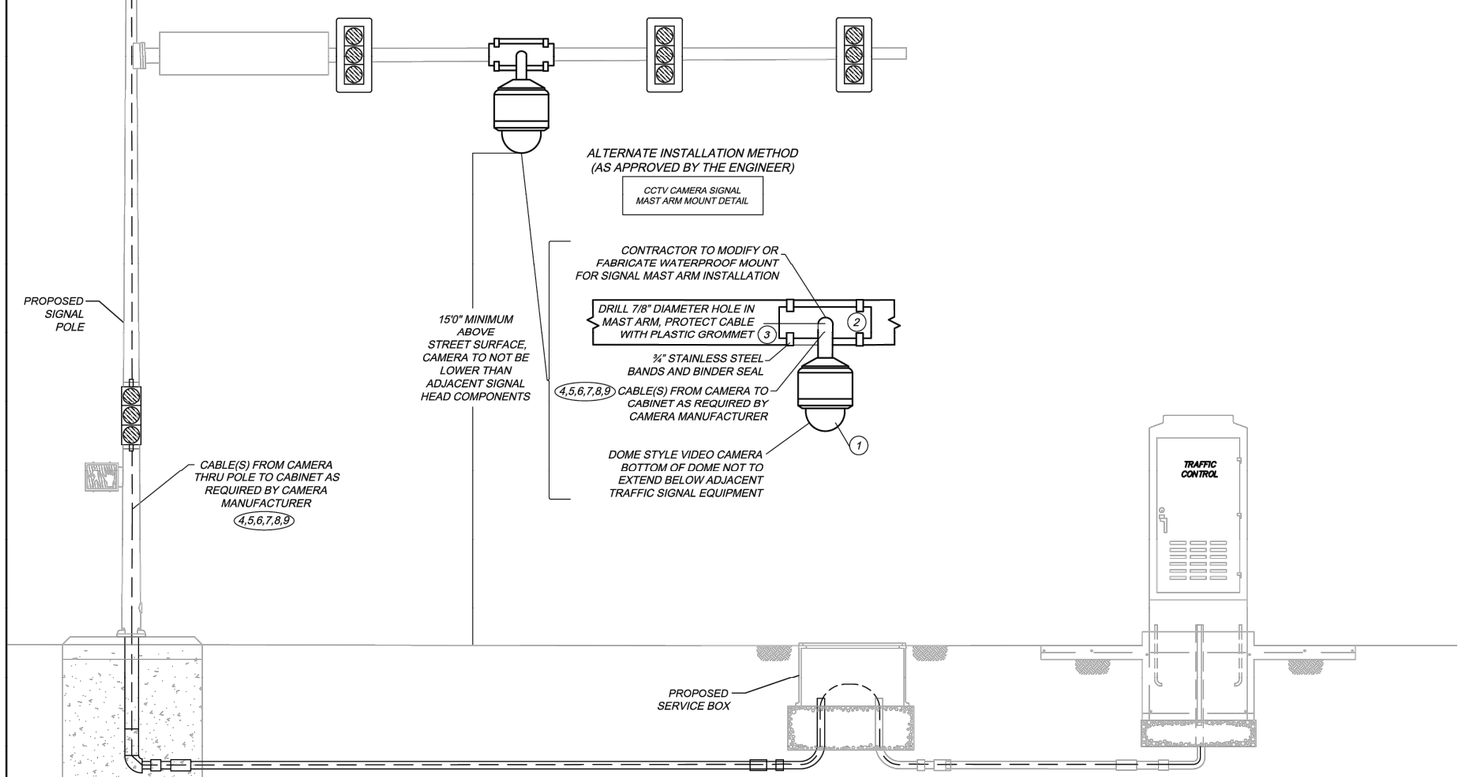
TYPICAL CCTV INSTALLATION DETAIL

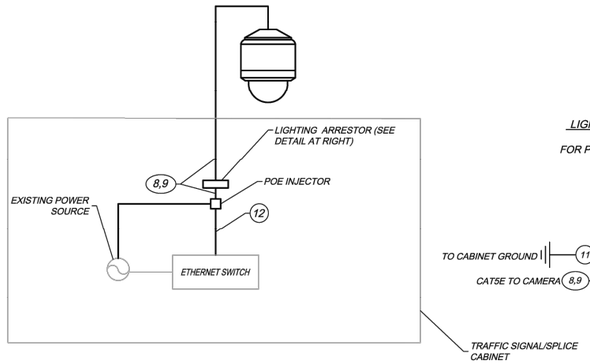


CCTV PARTS LIST

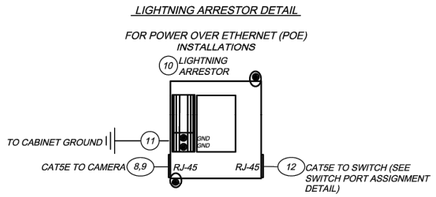
ITEM	QTY	EXAMPLE PART NO.	DESCRIPTION
1	1	----------	CCTV CAMERA (SEE SPECIFICATIONS)
2	1	----------	CAMERA POLE MOUNT KIT (SEE SPECIFICATIONS)
3	1	2558	THOMAS & BETTS CABLE GRIP/BUSHING
4	1	----------	RG-6 COAX CABLE, UP TO 330' (IF REQ'D)
5	4	----------	COAX END CONNECTORS (IF REQ'D)
6	1	----------	SHIELDED 3c#18 CABLE, UP TO 330' (IF REQ'D) (CCTV POWER)
7	1	----------	SHIELDED 4c#20, UP TO 330' (IF REQ'D) (CCTV DATA)
8	1	----------	SHIELDED OUTDOOR-RATED CAT5E CABLE, 330' (IF REQ'D)
9	4	----------	SHIELDED RJ-45 END CONNECTORS (IF REQ'D)
10	1	----------	LIGHTNING ARRESTOR (SEE SPECIFICATIONS)
11	1	----------	GREEN #12 STRANDED GROUND WIRE, 4'
12	1	----------	STANDARD CAT5E CABLE, 3' BLUE (IF REQ'D)

NOTE:
CONTACT OGL STAFF TO CONFIRM SWITCH PORT ASSIGNMENTS





CCTV WIRING DIAGRAM - POWER OVER ETHERNET (ONE CABLE)



GENERAL NOTES:

1. FOR CAMERA INSTALLATION AT WHICH THE CAMERA IS LESS THAN (<) 300 FEET FROM THE CABINET, REFERENCE "ONE CABLE" OR "SEPARATE" CABLE INSTALLATION DETAIL. FIELD INSTALL A CAT5 ETHERNET CABLE WHICH SHALL NOT BE GREATER THAN 300 FEET IN LENGTH.

2. FOR CAMERA INSTALLATIONS AT WHICH THE CAMERA IS GREATER THAN (>) 300 FEET FROM THE CABINET, REFERENCE THE "INSTALLATION OVER 300' DETAIL. PREFERENCE IS FOR INSTALLATIONS TO BE <300'. IF CAMERA INSTALLATION IS REQUIRED AT >300' DISTANCE, THE CONTRACTOR SHALL COORDINATE WITH ENGINEER TO CONFIRM LOCATION PREFERENCE AND PROVIDE ADDITIONAL EQUIPMENT PER MANUFACTURER RECOMMENDATIONS TO ACCOMMODATE ADDITIONAL LENGTH.

3. COMPOSITE CABLE MAY BE INSTALLED IN LIEU OF SEPARATE CABLES AS APPROVED BY THE ENGINEER.

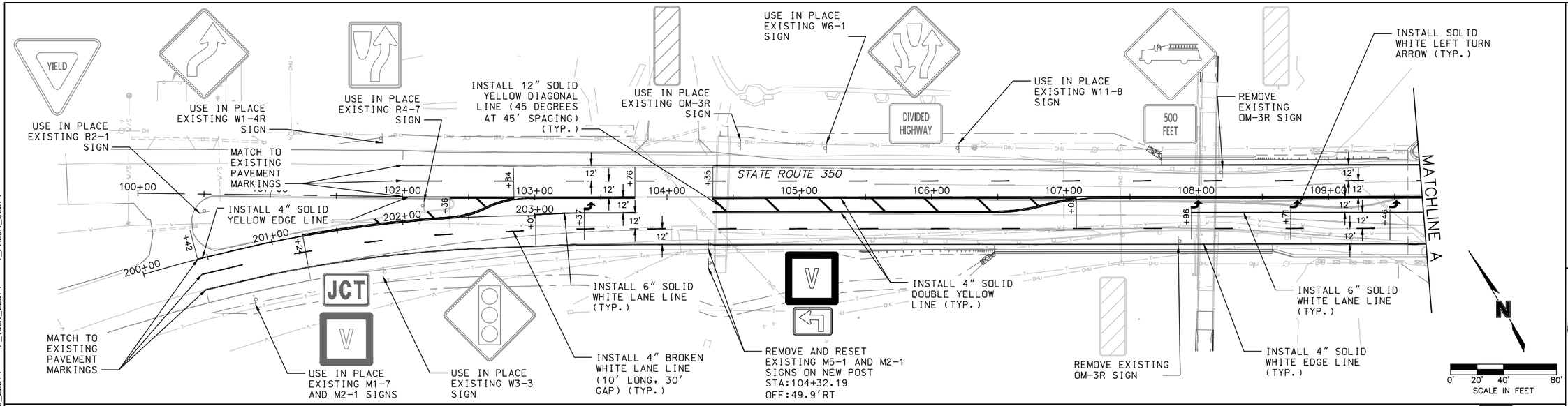
OPERATION GREENLIGHT
TURNING STOP LIGHTS INTO GO LIGHTS

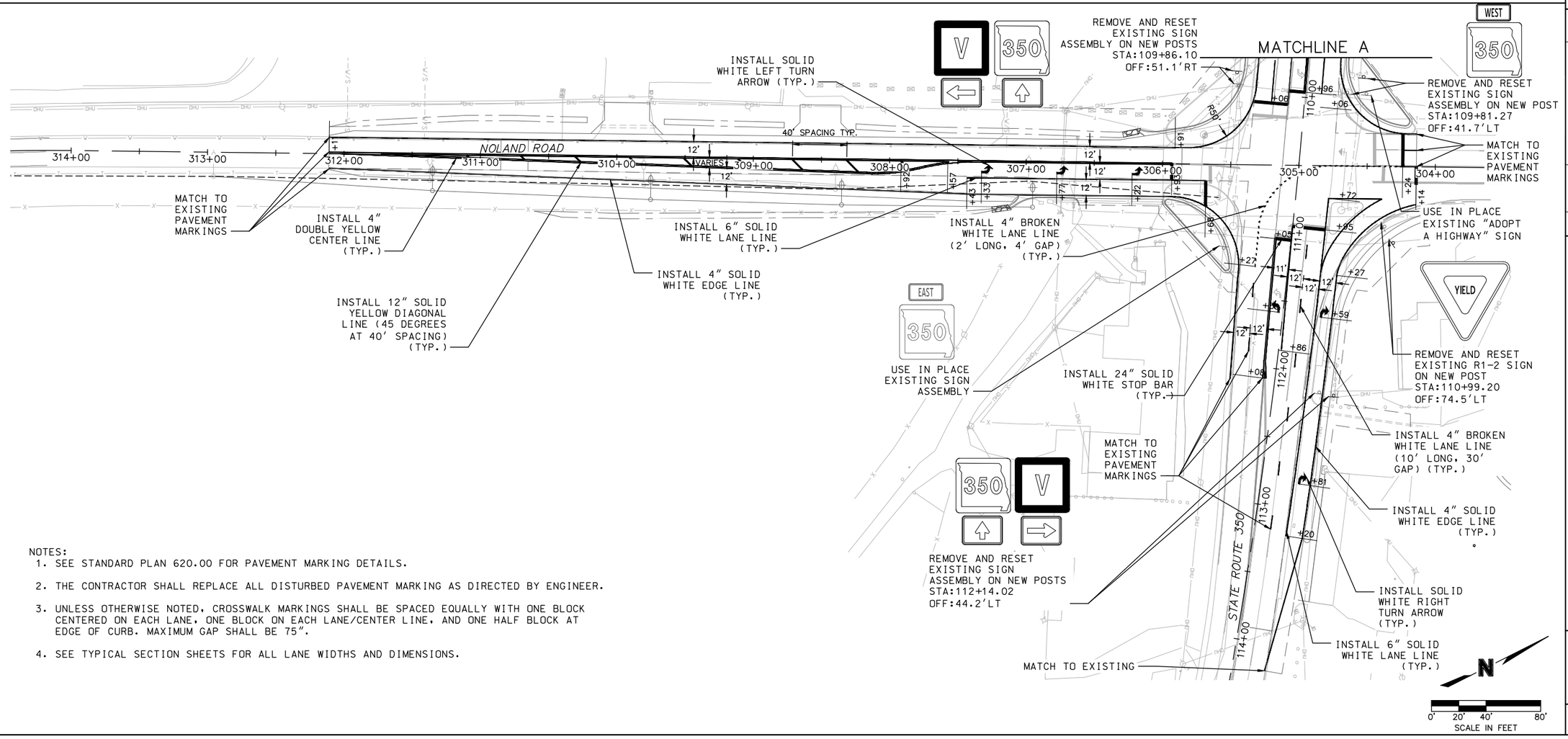
TYPICAL CCTV INSTALLATION DETAIL

drawn by: JSS
checked by: TAF
approved by: RW
last revised: 05-06-2014

MARC Mid-America Regional Council

SHEET
~~78~~ 81





NOTES:

1. SEE STANDARD PLAN 620.00 FOR PAVEMENT MARKING DETAILS.
2. THE CONTRACTOR SHALL REPLACE ALL DISTURBED PAVEMENT MARKING AS DIRECTED BY ENGINEER.
3. UNLESS OTHERWISE NOTED, CROSSWALK MARKINGS SHALL BE SPACED EQUALLY WITH ONE BLOCK CENTERED ON EACH LANE, ONE BLOCK ON EACH LANE/CENTER LINE, AND ONE HALF BLOCK AT EDGE OF CURB. MAXIMUM GAP SHALL BE 75".
4. SEE TYPICAL SECTION SHEETS FOR ALL LANE WIDTHS AND DIMENSIONS.

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JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PAVEMENT MARKING AND SIGNING PLAN
ROUTE 350 AND NOLAND ROAD

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	JCC
CHECKED BY:	JLN
APPROVED BY:	JMP
QA/QC BY:	SLJ
PROJECT NO.:	JKU0404
DWG NO.:	F_SAS_012-2374
DATE PREPARED:	4/28/2025

SHEET
79

DWG: F:\projects\A12-2374\40-design\AutoCAD\final plans\Sheets\TRFC\PAVEMENT MARKING & SIGNING\F_SAS_012-2374.dwg
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XREFS: T_XBASE_22374 F_PBASE_22374 F_XBASE_22374 F_LGT-BASE_22374 T_PBASE_22374 F_TBLK_22374 T_PALGN_22374
USER: jniemeyer
F_SAS-BASE_22374

PAVEMENT MARKING

STA.	STA.	LOCATION	HIGH BUILD WATERBORNE PAINT						PREFORMED THERMOPLASTIC			REMARKS
			12" SOLID YELLOW (L.F.)	4" SOLID LANE LINE YELLOW (L.F.)	6" SOLID LANE LINE WHITE (L.F.)	4" SOLID EDGE LINE WHITE (L.F.)	4" BROKEN LANE LINE WHITE (L.F.)	4" DOTTED EXTENSION LINE WHITE (L.F.)	24" SOLID STOP BAR WHITE (L.F.)	LEFT-TURN ARROW WHITE (EACH)	RIGHT-TURN ARROW WHITE (EACH)	
200+42	202+83	ROUTE 350 EB				241						SOLID EDGE LINE
200+42	202+83	ROUTE 350 EB					241					BROKEN LANE LINE
200+42	201+24	ROUTE 350 EB		82								SINGLE YELLOW
200+42	203+00	ROUTE 350 EB				258						SOLID EDGE LINE
201+24	202+84	ROUTE 350 EB		320								DOUBLE YELLOW
201+24	202+84	ROUTE 350 EB	21									DIAGONAL YELLOW
102+00	102+36	ROUTE 350		36								SINGLE YELLOW
102+00	110+06	ROUTE 350				806						SOLID EDGE LINE
102+00	110+06	ROUTE 350					806					BROKEN LANE LINE
102+36	103+76	ROUTE 350		280								DOUBLE YELLOW
102+84	103+76	ROUTE 350				92						SOLID EDGE LINE
102+84	103+76	ROUTE 350								1		LEFT-TURN ARROW
102+84	110+06	ROUTE 350				722						SOLID EDGE LINE
102+84	110+06	ROUTE 350					722					BROKEN LANE LINE
103+00	109+96	ROUTE 350				696						SOLID EDGE LINE
104+35	107+76	ROUTE 350		1364								DOUBLE YELLOW * 2
104+35	107+76	ROUTE 350	120									DIAGONAL YELLOW
107+96	109+96	ROUTE 350			200							SOLID LANE LINE
107+96	109+96	ROUTE 350								3		LEFT-TURN ARROW
107+76	109+96	ROUTE 350		440								DOUBLE YELLOW
109+96	110+06	ROUTE 350							38			STOP BAR
110+72	114+20	ROUTE 350			457							SOLID LANE LINE
110+72	113+20	ROUTE 350									2	RIGHT-TURN ARROW
110+95	111+05	ROUTE 350							36			STOP BAR
111+05	112+08	ROUTE 350		206								DOUBLE YELLOW
111+05	111+86	ROUTE 350			81							SOLID EDGE LINE
111+05	111+86	ROUTE 350								1		LEFT-TURN ARROW
110+95	112+08	ROUTE 350					113					BROKEN LANE LINE
111+27	112+00	ROUTE 350				73						SOLID EDGE LINE
111+27	112+00	ROUTE 350					73					BROKEN LANE LINE
304+14	304+24	NOLAND ROAD				30						SOLID LANE LINE
304+14	305+94	NOLAND ROAD							70			STOP BAR
305+68	312+11	NOLAND ROAD				1286						SOLID EDGE LINE
305+68	307+43	NOLAND ROAD			175							SOLID LANE LINE
305+68	307+43	NOLAND ROAD								3		LEFT-TURN ARROW
305+94	313+68	NOLAND ROAD		1548								DOUBLE YELLOW
307+57	312+82	NOLAND ROAD		525								DOUBLE YELLOW
307+57	312+82	NOLAND ROAD	117									DIAGONAL YELLOW
		INTERSECTON				233						SOLID EDGE LINE
		INTERSECTON						157				DOTTED EXTENSION LINE
		Subtotal:	**258**	**4801**	**913**	**4437**	**1955**	**157**	**144**	**8**	**2**	
		Multipier:	1.00	1.00	1.00	1.00	0.25	0.25	1.00	1.00	1.00	
		TOTAL:	**258**	**4801**	**913**	**4437**	**489**	**39**	**144**	**8**	**2**	

Pay Item	Item Description	Quantity
6206000C	4" White	4965
6206001C	4" Yellow	4801
6206000C	6" White	913
6209903	12" Yellow	258
6200015	24" White	144
6200021	Left/Right Arrow	10
6200027	Str/Lt/Rt. Arrow	2

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STATE OF MISSOURI
JOSHUA PUDLOWSKI
NUMBER PE-2021009515
PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

PAVEMENT MARKING QUANTITIES

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_SAS_012-2374
DATE PREPARED: 4/28/2025

SHEET 80

DWG: F:\projects\A12-2374\40-design\AutoCAD\final plans\Sheets\TRFC\PAVEMENT MARKING & SIGNING\F_SAS_012-2374.dwg
DATE: Apr 28, 2025 1:14pm XREFS: T_XBASE_22374 F_PBASE_22374 F_SAS-BASE_22374 F_XBASE_22374 F_LGT-BASE_22374
USER: jniemeyer
F_SAS-BASE_22374 T_PBASE_22374 F_TBLK_22374 T_PALGN_22374

SIGNS						PIPE POST					STRUCTURAL STEEL					PERFORATED SQUARE STEEL TUBE POST							FOOTINGS		
											BACKING BARS				TOTAL	2.5 IN.									
SIGN NO.	SIGN SIZE	STATION	OFFSET	LOCATION	SIGN DTL. SHT. NO.	PIPE SIZE	POST NO. 1	POST NO. 2	LBS PER FT	TOTAL	No. Each	LGTH	TOTAL	TOTAL		POST NO. 1	POST NO. 2	TOTAL	2.25" INSERT	ANCHOR 7 GA.	OMNI 7 GA.	BREAKWAY ASSEMBLY	EMBD	BOLT DOWN	REMARKS AND OTHER REQUIRED ITEMS.
						IN.	LF	LF		LBS		IN.	LF	LBS	LBS	LF	LF	LF	EA	EA	EA	EACH	CU. YDS.	CU. YDS.	
1	ASSEMBLY	104+32.19	49.9' RT.	ROUTE 350							4	50.00	16.67	42.75	42.75	16		16		1					1 - RELOCATED SIGN ASSEMBLY
2	ASSEMBLY	109+81.27	41.7' LT.	ROUTE 350												16		16		1					1 - RELOCATED SIGN ASSEMBLY
3	ASSEMBLY	109+86.10	51.1' RT.	ROUTE 350							4	50.00	16.67	42.75	42.75	16		16		1					1 - RELOCATED SIGN ASSEMBLY
4	36"x36"	110+99.20	74.5 LT.	ROUTE 350												16		16		1					REMOVE AND RESET SIGN
5	ASSEMBLY	112+14.02	44.2' LT.	ROUTE 350							4	50.00	16.67	42.75	42.75	16		16		1					1 - RELOCATED SIGN ASSEMBLY
			-																						
			-																						
			-																						
			-																						
			-																						
										0.00					128			80	0	5		0	0.00		
										0.00					130			80	0	5		0	0.0		

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NUMBER PE-2021009515
PROFESSIONAL ENGINEER

JOSHUA M PUDLOWSKI
MO. NO. PE-2021009515

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

SIGNING QUANTITIES

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411)

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON | STATE: MO

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: JCC
CHECKED BY: JLN
APPROVED BY: JMP
QA/QC BY: SLJ
PROJECT NO.: JKU0404
DWG NO.: F_SAS_012-2374
DATE PREPARED: 4/28/2025

SHEET
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USER: jniemeyer
F_SAS-BASE_22374 T_PBASE_22374 F_TBLK_22374 T_PALGN_22374

SPACING AND TAPER LENGTHS FOR WORK ZONE SIGNS, CHANNELIZERS AND CONCRETE BARRIER

SIGN SPACING FOR ADVANCE SIGN SERIES (1)		
PERMANENT POSTED SPEED MPH	**UNDIVIDED HIGHWAYS**	**DIVIDED HIGHWAYS**
0-35	200'	200'
40-45	350'	500'
50-55	500'	1000'
60-70	1000'	SA - 1000' SB - 1500' SC - 2640'

TAPER LENGTHS AND END TREATMENTS FOR CONCRETE BARRIER				
PERMANENT POSTED SPEED MPH	**MINIMUM LANE TAPER LENGTHS (2)**			**END TREATMENT (3)**
	10'	11'	12'	
< 40	160'	168'	176'	BARRIER HEIGHT TRANSITION
> 40	160'	168'	176'	APPROVED CRASH CUSHION

TAPER LENGTHS AND END TREATMENTS FOR CONCRETE BARRIER							
PERMANENT POSTED SPEED MPH	**MINIMUM LANE TAPER LENGTHS (2)**			**MINIMUM SHOULDER TAPER LENGTH BASED ON 10' SHOULDER**	**BUFFER LENGTH FT.**	**MAXIMUM CHANNELIZER SPACING**	
	10'	11'	12'			THROUGH TAPER	THROUGH WORK AREA
0-35	205'	225'	245'	70'	280'	35'	40'
40-45	450'	495'	540'	150'	400'	40'	80'
50-55	550'	605'	660'	185'	560'	50'	80'
60-70	700'	770'	840'	235'	840'	60'	120'

NOTES:

(1) SPACING BETWEEN SIGNS AND SPACING BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER, OF SIGNED CONDITION MAY BE ADJUSTED BY INCREASING TO ACCOMMODATE FIELD CONDITIONS AND VISIBILITY.

(2) TAPER LENGTHS SHOWN INCLUDE LENGTH REQUIRED FOR LANE AND 10' SHOULDER.

(3) CONCRETE BARRIER MAY BE INSTALLED AT AN 8:1 FLARE RATE FROM THE SHOULDER POINT TO THE LIMITS OF THE CLEAR ZONE WHERE THE SIDE SLOPE IS 6:1 OR FLATTER.

GENERAL NOTES:

1. AS WITH ALL CONSTRUCTION ACTIVITIES TRAFFIC SITUATIONS ARE SUBJECT TO CHANGE. THE CONTRACTOR SHALL BE AWARE THAT ALL TEMPORARY TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE MISSOURI STANDARD PLANS FOR HIGHWAY CONSTRUCTION, SECTION 600 AND SHALL FOLLOW THE GUIDELINES IN THE MoDOT "TRAFFIC CONTROL FOR FIELD OPERATIONS MANUAL".
2. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE SUPPLIED A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF ANY TURNING RESTRICTIONS, LANE CLOSURES, OR DETOURS REQUIRED BY THE TEMPORARY TRAFFIC CONTROL
3. PLACE A "ROAD WORK AHEAD" SIGN ON THE APPROACH TO ALL INTERSECTIONS WHERE THE ADVANCE SIGNING FOR THE TEMPORARY TRAFFIC CONTROL EXTENDS PAST THAT INTERSECTION.
4. NOTIFY RUSSELL PENNER, MoDOT RESIDENT ENGINEER, AT (816) 347-4143 (OFFICE) 48-HOURS IN ADVANCE OF ANY LANE CLOSURE OR ROADWAY CLOSURE.
5. ALL EXISTING SIGNS SHALL BE USED IN PLACE, ADJUSTED AND/OR COVERED AS CONDITIONS REQUIRE.
6. ALL STATIONING, DISTANCES, AND SPACING OF WORK ZONE DEVICES ARE APPROXIMATE AND MAY BE REVISED AS APPROVED BY ENGINEER.
7. TYPE III MOVEABLE BARRICADES TO BE LOCATED AS APPROVED BY THE ENGINEER TO FIT FIELD CONDITIONS.
8. FIRST ORDER OF WORK ON ALL PHASES SHALL BE PLACEMENT OF ALL WORK ZONE WARNING DEVICES AND SIGNS AS NOTED.
9. SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED OR AS APPROVED BY THE ENGINEER.
10. PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED OR OBLITERATED. REFER TO QUANTITY SHEET FOR LIMITS OF PAVEMENT MARKINGS.
11. SIGNS LEFT IN PLACE OVERNIGHT MUST BE MOUNTED AT 5' MINIMUM HEIGHT.
12. ALTERNATE TRAFFIC CONTROL MAY BE USED AS NEEDED AT THE APPROVAL OF THE ENGINEER.
13. SPEED LIMIT SIGNS INDICATING THE NORMAL SPEED LIMIT SHALL BE INSTALLED AT THE END OF THE WORK ZONE. IF NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.
14. TEMPORARY SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONDITIONS REQUIRING REDUCED SPEEDS DO NOT EXIST.
15. NO DIRECT PAYMENT WILL BE MADE FOR RELOCATION OF CONSTRUCTION SIGNS.
16. SIGN SPACINGS MAY BE ADJUSTED (INCREASED, TYPICALLY) ACCORDING TO FIELD CONDITIONS.
17. REFER TO MoDOT STANDARD PLAN, 612.20 FOR SAND FILLED IMPACT ATTENUATORS AND 617.20 FOR TEMPORARY CONCRETE TRAFFIC BARRIER.
18. REFER TO MoDOT STANDARD PLAN 619.10J FOR PAVEMENT EDGE TREATMENT AND PROVIDE AS NEEDED.

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC00_22374
DATE PREPARED: 4/28/2025

TRAFFIC CONTROL
SHEET 1 OF 30

SHEET
82

DWG: F:\Projects\412-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC00_22374.dwg USER: jgallagher
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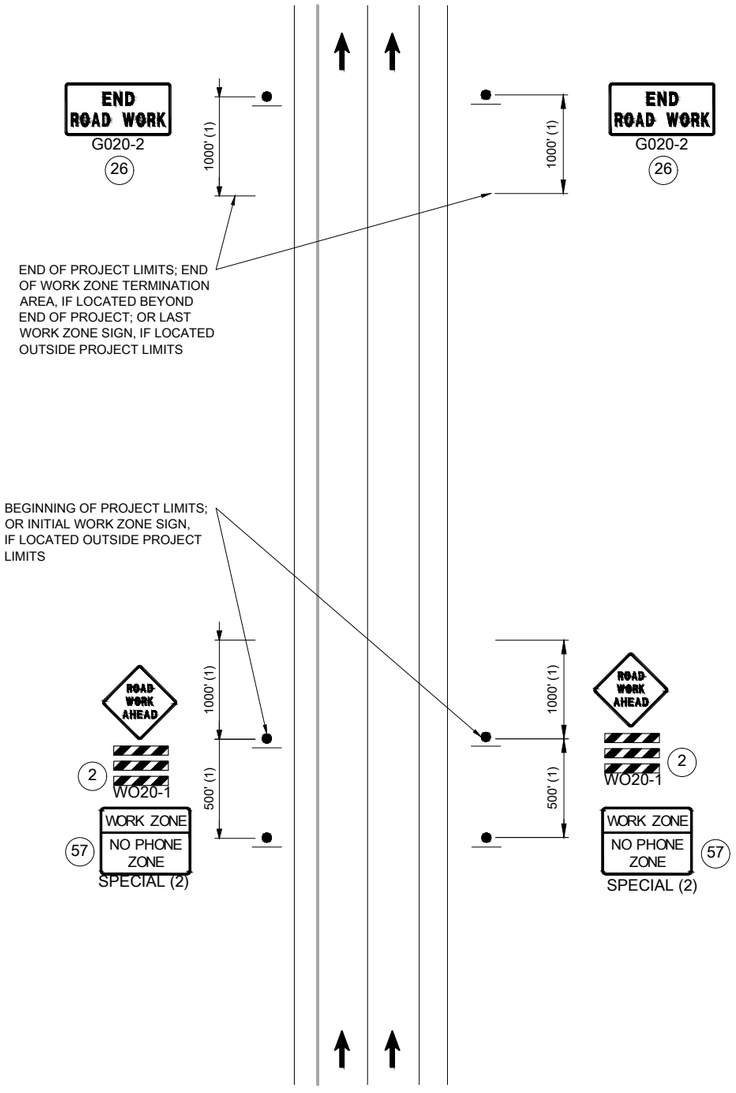

BEGIN/END PROJECT SIGNING

BEGINNING/END PROJECT SIGNING NOTES:

OTHER SIGNS SUCH AS DETOUR OR ALTERNATE ROUTE SIGNING MAY BE USED OUTSIDE THE PROJECT LIMITS.

ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCED WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(2) THE "WORK ZONE ON PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC00_22374
DATE PREPARED: 5/14/2025

TRAFFIC CONTROL
SHEET 2 OF 30

SHEET
83

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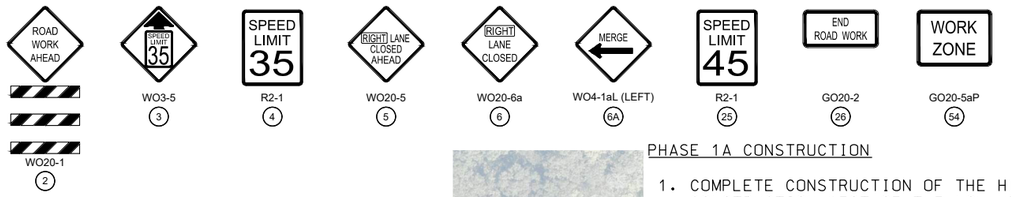
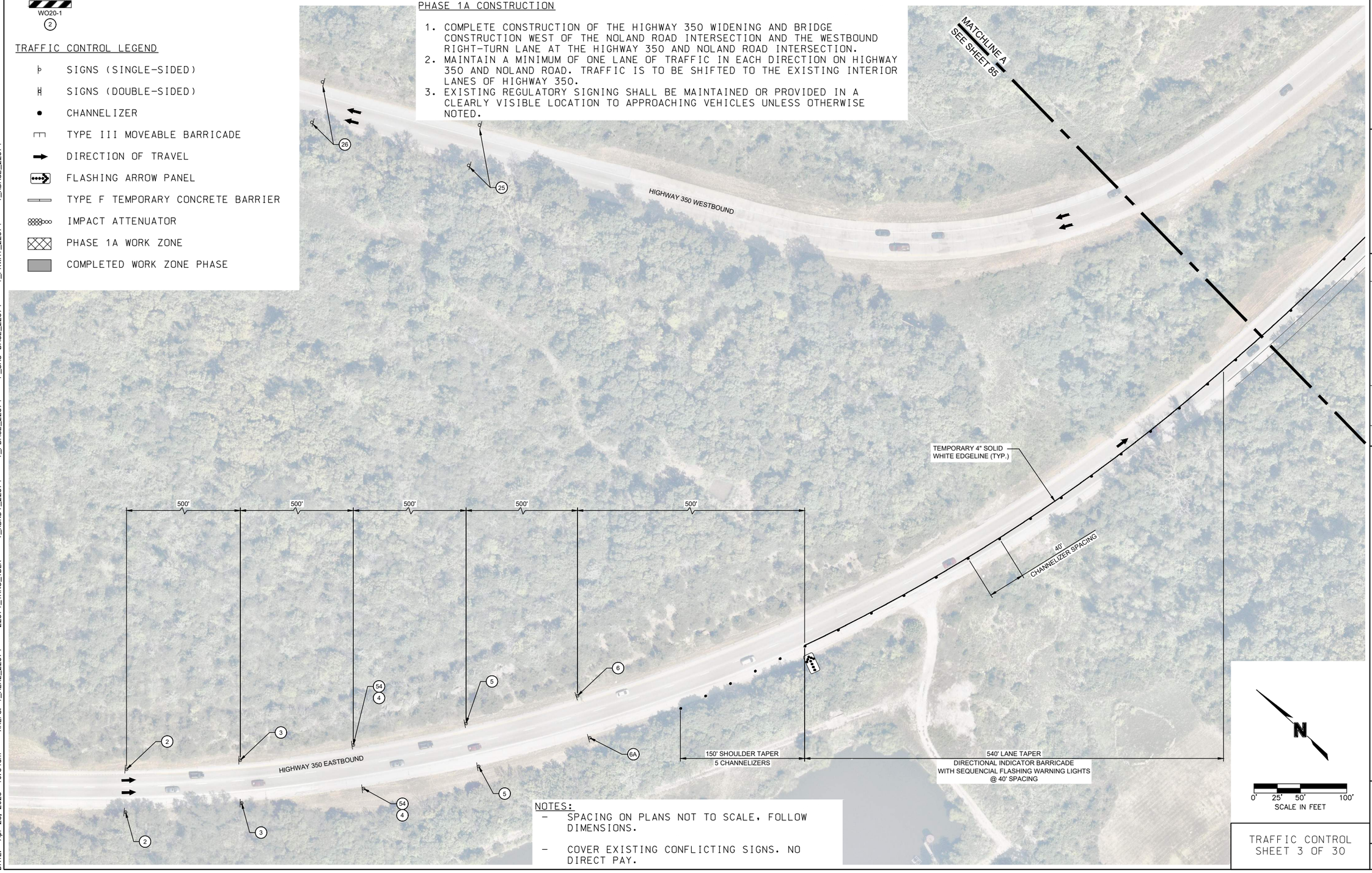


TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1A WORK ZONE
- COMPLETED WORK ZONE PHASE

PHASE 1A CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 WIDENING AND BRIDGE CONSTRUCTION WEST OF THE NOLAND ROAD INTERSECTION AND THE WESTBOUND RIGHT-TURN LANE AT THE HIGHWAY 350 AND NOLAND ROAD INTERSECTION.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE EXISTING INTERIOR LANES OF HIGHWAY 350.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.



NOTES:

- SPACING ON PLANS NOT TO SCALE. FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.

TRAFFIC CONTROL
SHEET 3 OF 30

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1301 Burlington Street
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TEL 816.361.1177
FAX 816.361.1888
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STATE OF MISSOURI
JAMES P. GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 1A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

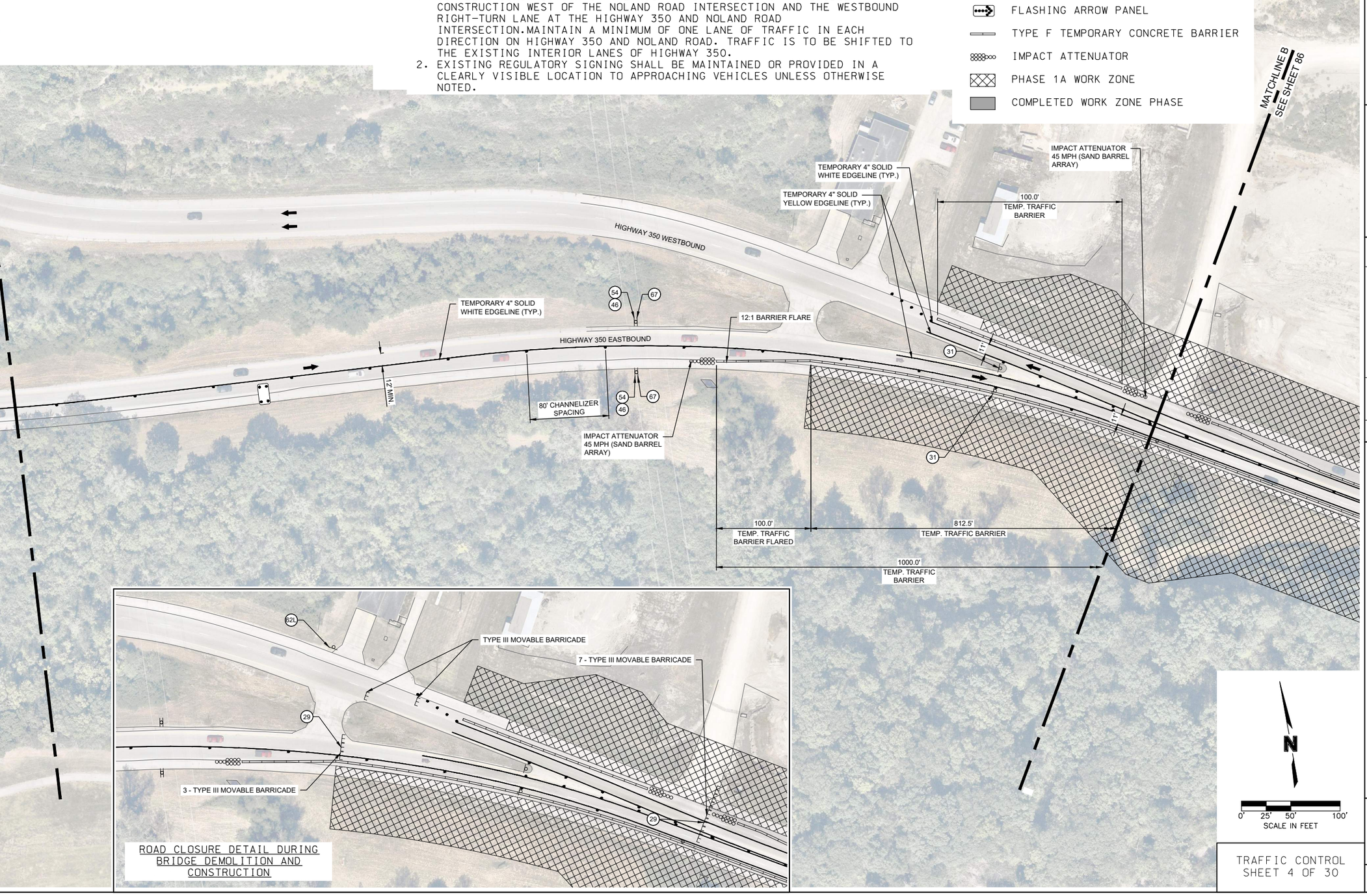
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC01_22374
DATE PREPARED:	4/28/2025

SHEET
84

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC01_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:34am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 T_PBASE_22374 T_SAS-BASE_22374 T_PRWAY_22374 T_XBASE_22374



TRAFFIC CONTROL SHEET 4 OF 30

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STATE OF MISSOURI JAMES PATRICK GALLAGHER NUMBER PE-2018010499 PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 1A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC01_22374
DATE PREPARED: 4/28/2025

SHEET 85

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC01_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:35am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 T_PBASE_22374 T_PRWAY_22374 T_XBASE_22374 F_SAS-BASE_22374

WO20-1 (2)

WO1-4R (RIGHT) (15)

GO20-2 (26)

R11-2 (29)

WO6-3 (31)

GO20-5aP (54)

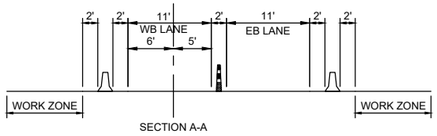
R3-2 (57)

R6-1R (62R)

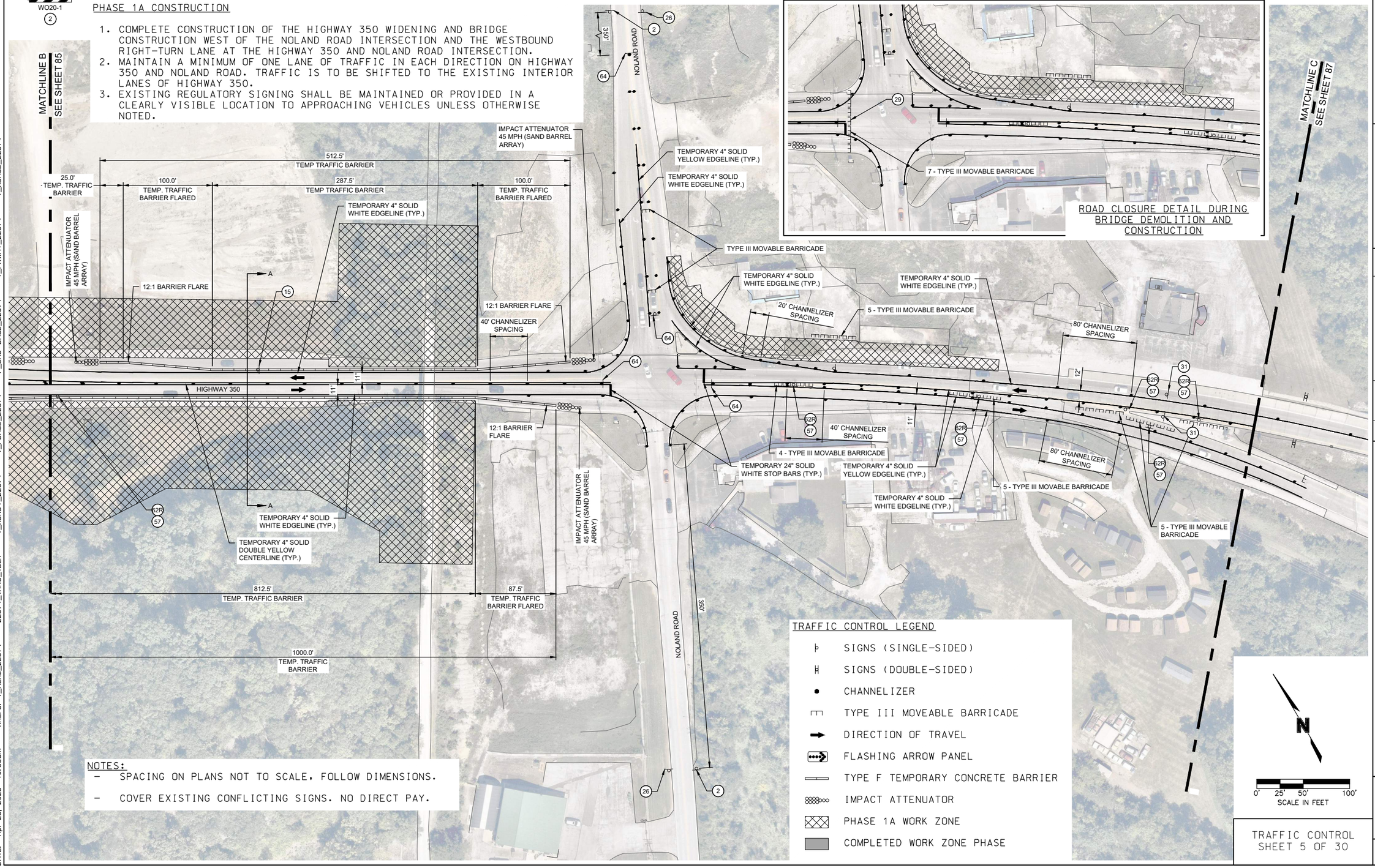
R4-7a (64)

PHASE 1A CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 WIDENING AND BRIDGE CONSTRUCTION WEST OF THE NOLAND ROAD INTERSECTION AND THE WESTBOUND RIGHT-TURN LANE AT THE HIGHWAY 350 AND NOLAND ROAD INTERSECTION.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE EXISTING INTERIOR LANES OF HIGHWAY 350.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.



ROAD CLOSURE DETAIL DURING BRIDGE DEMOLITION AND CONSTRUCTION



NOTES:
- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1A WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL SHEET 5 OF 30

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JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

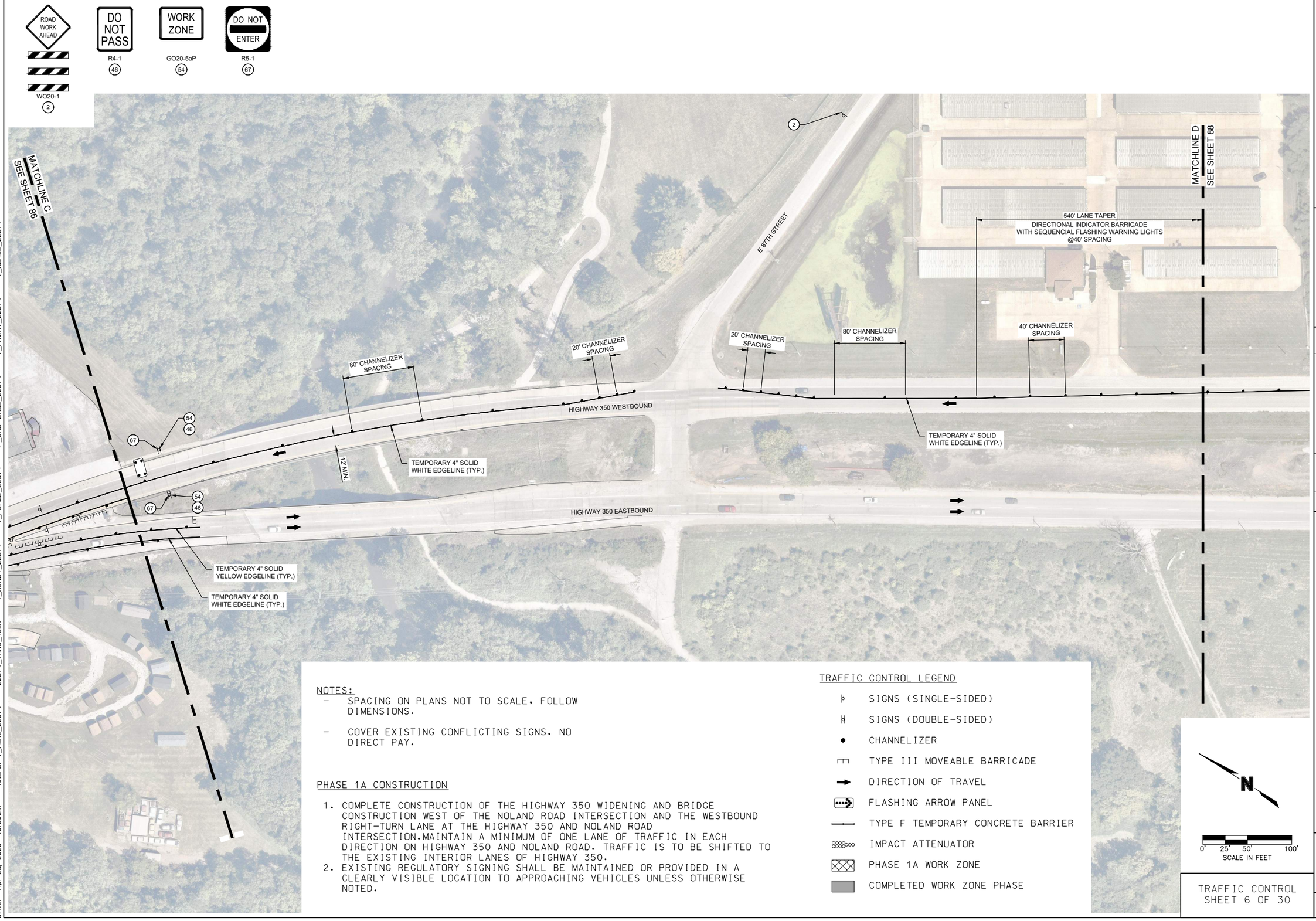
TRAFFIC CONTROL PLANS
PHASE 1A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC01_22374
DATE PREPARED: 4/28/2025

SHEET 86

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC01_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:35am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 T_PBASE_22374 T_SAS-BASE_22374 T_PRWAY_22374 T_XBASE_22374



NOTES:

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- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.

PHASE 1A CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 WIDENING AND BRIDGE CONSTRUCTION WEST OF THE NOLAND ROAD INTERSECTION AND THE WESTBOUND RIGHT-TURN LANE AT THE HIGHWAY 350 AND NOLAND ROAD INTERSECTION.MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE EXISTING INTERIOR LANES OF HIGHWAY 350.
2. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1A WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL
SHEET 6 OF 30

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JAMES P. GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 1A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404	FEDERAL PROJECT STP-3337(411)	COUNTY: JACKSON	STATE: MO
ROUTE: 350	DISTRICT: KC		

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.	T_TTC01_22374
DATE PREPARED	4/28/2025

SHEET
87

DWG: F:\Projects\VA12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC01_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:36am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 T_PBASE_22374 T_SAS-BASE_22374 T_PRWAY_22374 T_XBASE_22374

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.

PHASE 1A CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 WIDENING AND BRIDGE CONSTRUCTION WEST OF THE NOLAND ROAD INTERSECTION AND THE WESTBOUND RIGHT-TURN LANE AT THE HIGHWAY 350 AND NOLAND ROAD INTERSECTION.
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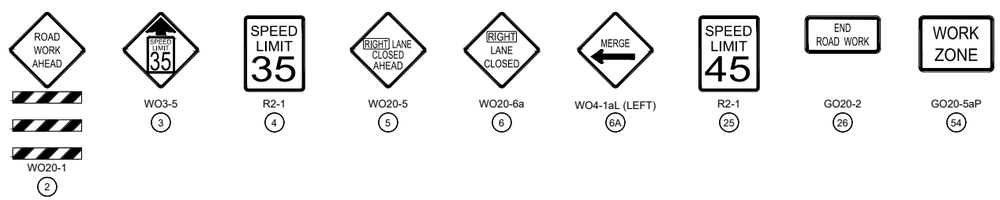
TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1A WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET



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JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 1A

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC01_22374
DATE PREPARED: 4/28/2025

TRAFFIC CONTROL
SHEET 7 OF 30

SHEET
88

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC01_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:36am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 T_PBASE_22374 F_SAS-BASE_22374 T_PRWAY_22374 T_XBASE_22374

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1B WORK ZONE
- COMPLETED WORK ZONE PHASE

NOTES:

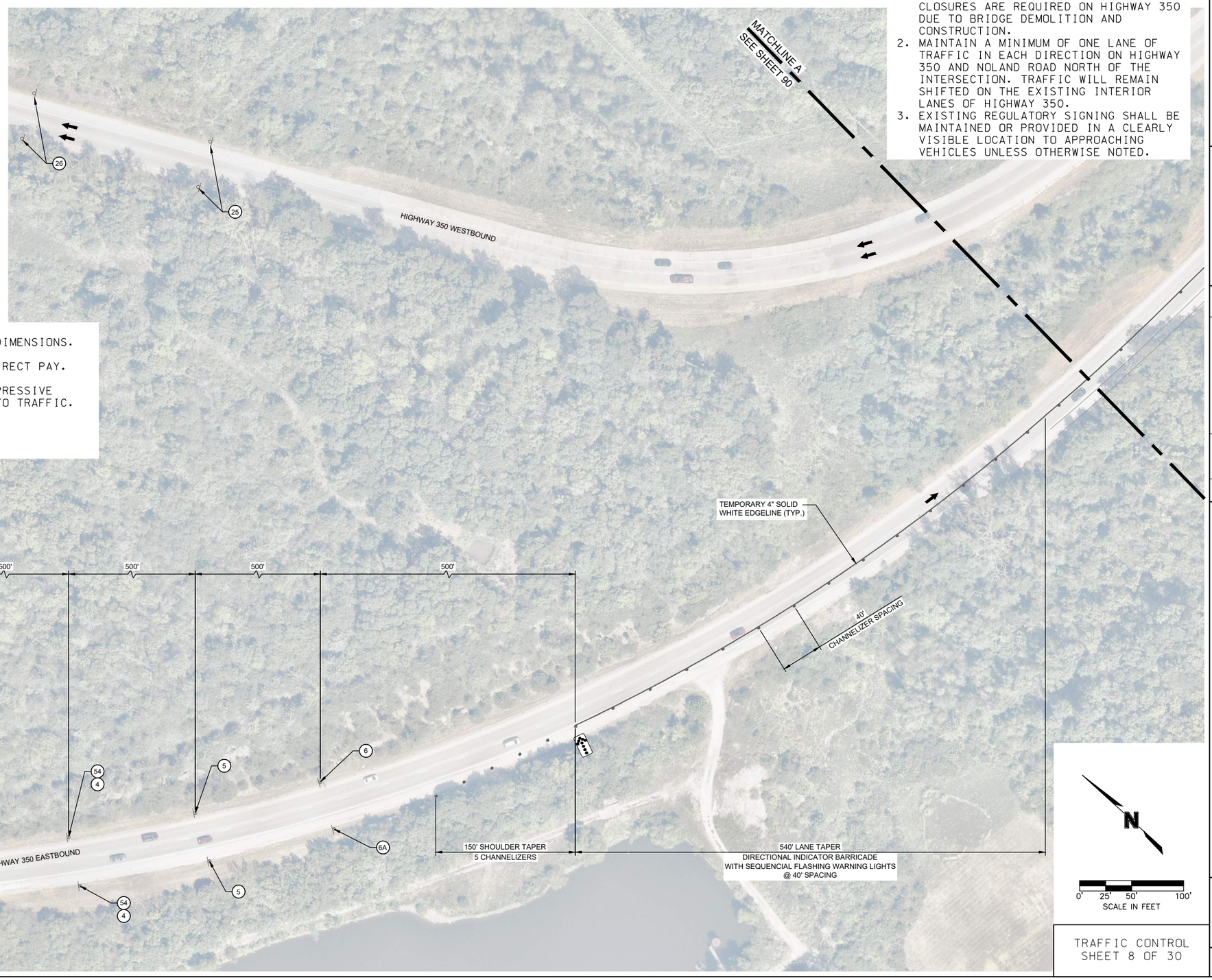
- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 1B CONSTRUCTION

1. COMPLETE CONSTRUCTION OF NOLAND ROAD SOUTH OF HIGHWAY 350. THIS WORK CAN BE COMPLETED SIMULTANEOUSLY AS PHASE 1A WITH THE EXCEPTION THAT NOLAND ROAD SHALL REMAIN OPEN TO TRAFFIC IN BOTH DIRECTIONS WHEN FULL ROAD CLOSURES ARE REQUIRED ON HIGHWAY 350 DUE TO BRIDGE DEMOLITION AND CONSTRUCTION.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD NORTH OF THE INTERSECTION. TRAFFIC WILL REMAIN SHIFTED ON THE EXISTING INTERIOR LANES OF HIGHWAY 350.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.



TRAFFIC CONTROL SHEET 8 OF 30

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STATE OF MISSOURI
JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

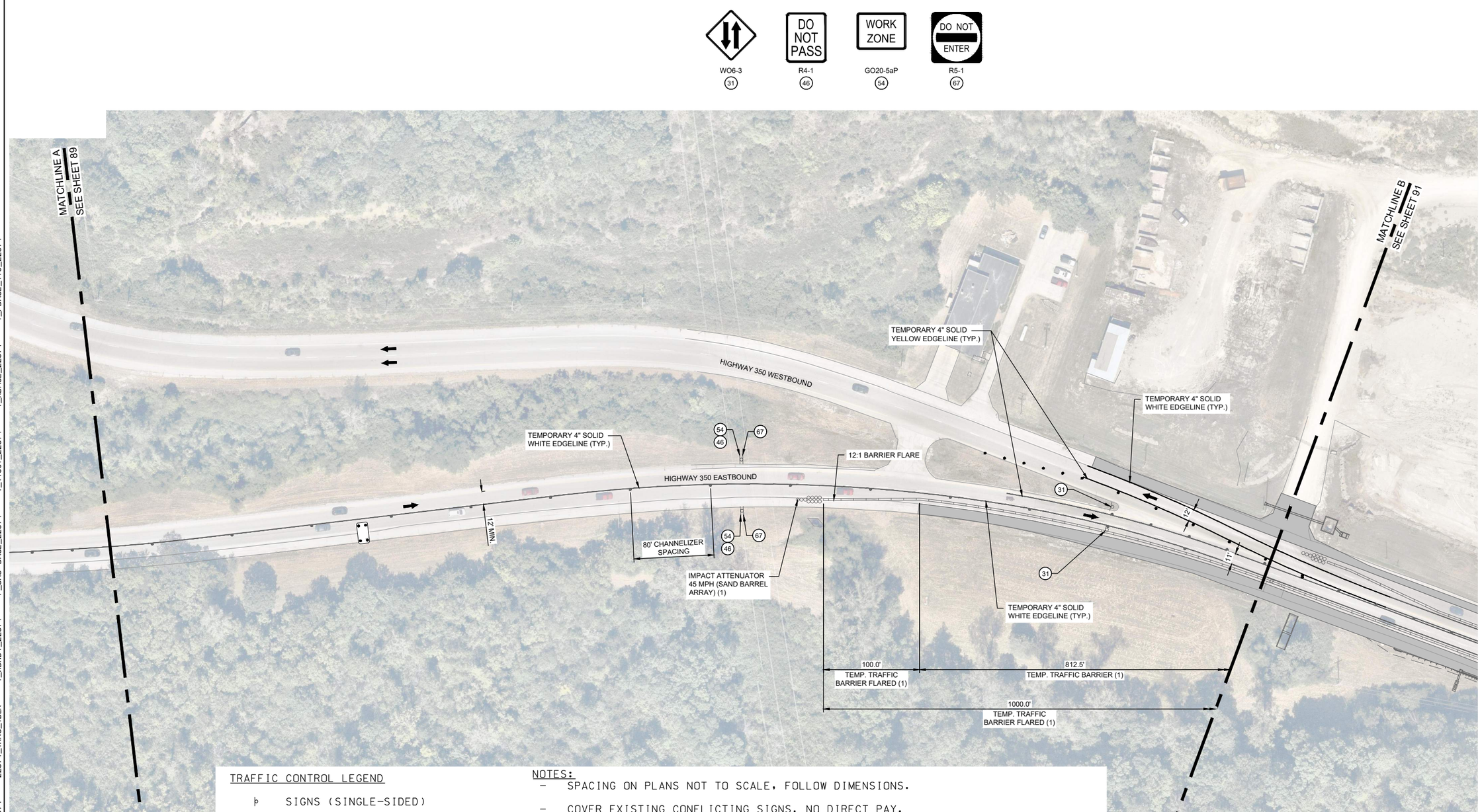
TRAFFIC CONTROL PLANS
PHASE 1B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC02_22374
DATE PREPARED:	4/28/2025

SHEET 89

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC02_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:37am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
T_TTC01_22374 T_XBASE_22374 T_PBASE_TTC_22374



TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1B WORK ZONE
- COMPLETED WORK ZONE PHASE

NOTES:

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(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 1B CONSTRUCTION

1. COMPLETE CONSTRUCTION OF NOLAND ROAD SOUTH OF HIGHWAY 350. THIS WORK CAN BE COMPLETED SIMULTANEOUSLY AS PHASE 1A WITH THE EXCEPTION THAT NOLAND ROAD SHALL REMAIN OPEN TO TRAFFIC IN BOTH DIRECTIONS WHEN FULL ROAD CLOSURES ARE REQUIRED ON HIGHWAY 350 DUE TO BRIDGE DEMOLITION AND CONSTRUCTION.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD NORTH OF THE INTERSECTION. TRAFFIC WILL REMAIN SHIFTED ON THE EXISTING INTERIOR LANES OF HIGHWAY 350.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL
SHEET 9 OF 30

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NUMBER PE-2018010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

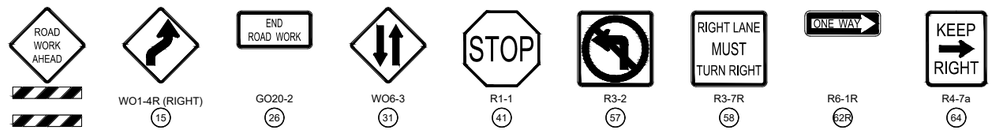
TRAFFIC CONTROL PLANS
PHASE 1B

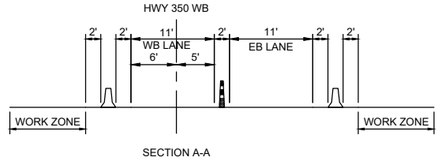
HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC02_22374
DATE PREPARED: 4/28/2025

SHEET
90

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC02_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:38am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374 T_TTC01_22374 T_XBASE_22374 T_PBASE_TTC_22374





SECTION A-A

PHASE 1B CONSTRUCTION

1. COMPLETE CONSTRUCTION OF NOLAND ROAD SOUTH OF HIGHWAY 350. THIS WORK CAN BE COMPLETED SIMULTANEOUSLY AS PHASE 1A WITH THE EXCEPTION THAT NOLAND ROAD SHALL REMAIN OPEN TO TRAFFIC IN BOTH DIRECTIONS WHEN FULL ROAD CLOSURES ARE REQUIRED ON HIGHWAY 350 DUE TO BRIDGE DEMOLITION AND CONSTRUCTION.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD NORTH OF THE INTERSECTION. TRAFFIC WILL REMAIN SHIFTED ON THE EXISTING INTERIOR LANES OF HIGHWAY 350.
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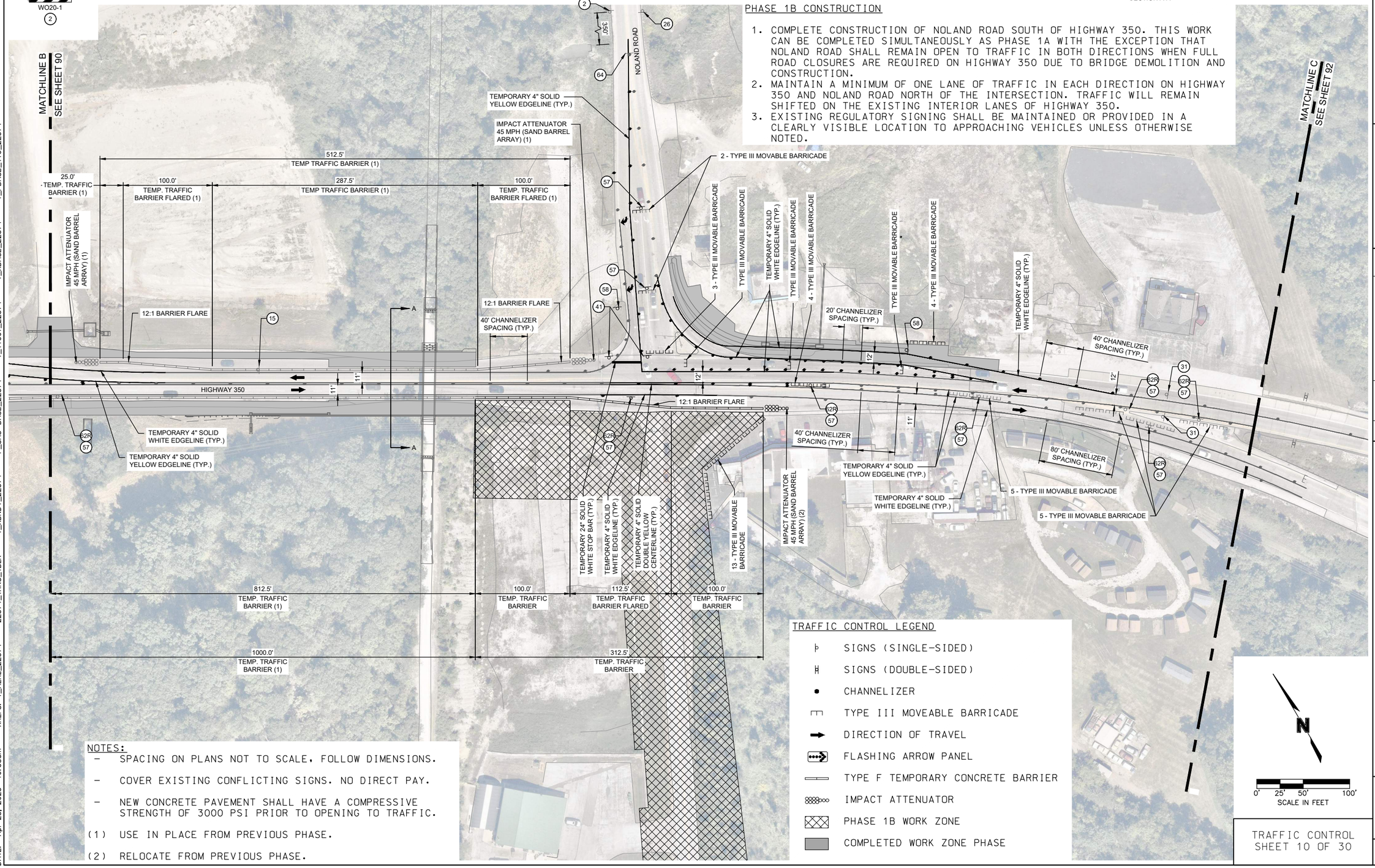

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1B WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL SHEET 10 OF 30

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PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 1B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC02_22374
DATE PREPARED: 4/28/2025

SHEET 91

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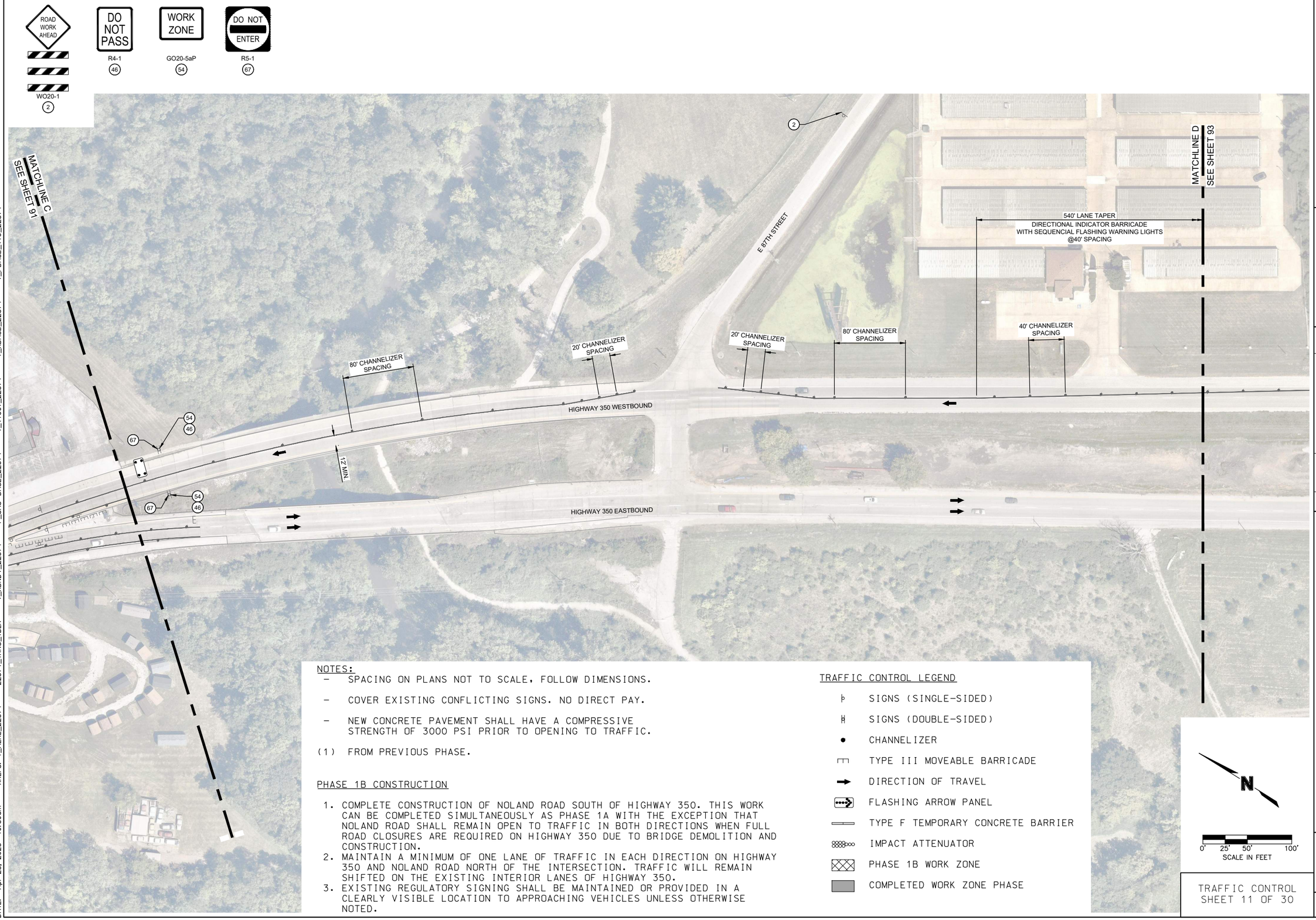
DATE: Apr 28, 2025 10:38am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374 T_XBASE_22374 T_TTC01_22374 T_PBASE_TTC_22374



NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) FROM PREVIOUS PHASE.

PHASE 1B CONSTRUCTION

1. COMPLETE CONSTRUCTION OF NOLAND ROAD SOUTH OF HIGHWAY 350. THIS WORK CAN BE COMPLETED SIMULTANEOUSLY AS PHASE 1A WITH THE EXCEPTION THAT NOLAND ROAD SHALL REMAIN OPEN TO TRAFFIC IN BOTH DIRECTIONS WHEN FULL ROAD CLOSURES ARE REQUIRED ON HIGHWAY 350 DUE TO BRIDGE DEMOLITION AND CONSTRUCTION.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD NORTH OF THE INTERSECTION. TRAFFIC WILL REMAIN SHIFTED ON THE EXISTING INTERIOR LANES OF HIGHWAY 350.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1B WORK ZONE
- COMPLETED WORK ZONE PHASE

TRAFFIC CONTROL
SHEET 11 OF 30

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JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 1B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC02_22374
DATE PREPARED: 4/28/2025

SHEET
92

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC02_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:39am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374 T_XBASE_22374 T_TTC01_22374 T_PBASE_TTC_22374

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 1B CONSTRUCTION

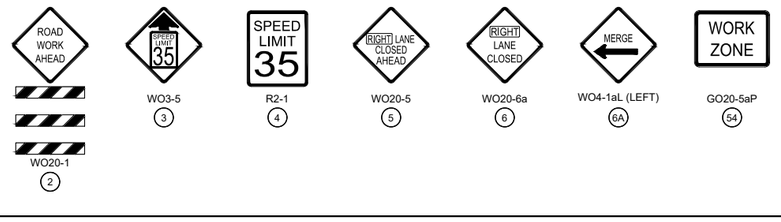
1. COMPLETE CONSTRUCTION OF NOLAND ROAD SOUTH OF HIGHWAY 350. THIS WORK CAN BE COMPLETED SIMULTANEOUSLY AS PHASE 1A WITH THE EXCEPTION THAT NOLAND ROAD SHALL REMAIN OPEN TO TRAFFIC IN BOTH DIRECTIONS WHEN FULL ROAD CLOSURES ARE REQUIRED ON HIGHWAY 350 DUE TO BRIDGE DEMOLITION AND CONSTRUCTION.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD NORTH OF THE INTERSECTION. TRAFFIC WILL REMAIN SHIFTED ON THE EXISTING INTERIOR LANES OF HIGHWAY 350.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 1B WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET



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JAMES P. GALLAGHER
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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 1B

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC02_22374
DATE PREPARED: 4/28/2025

TRAFFIC CONTROL
SHEET 12 OF 30

SHEET
93

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC02_22374.dwg USER: jgallagher
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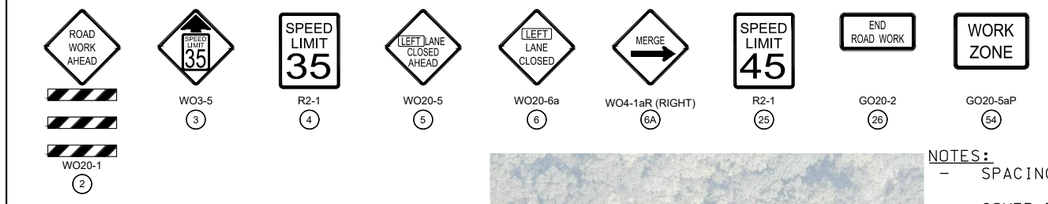


TRAFFIC CONTROL LEGEND

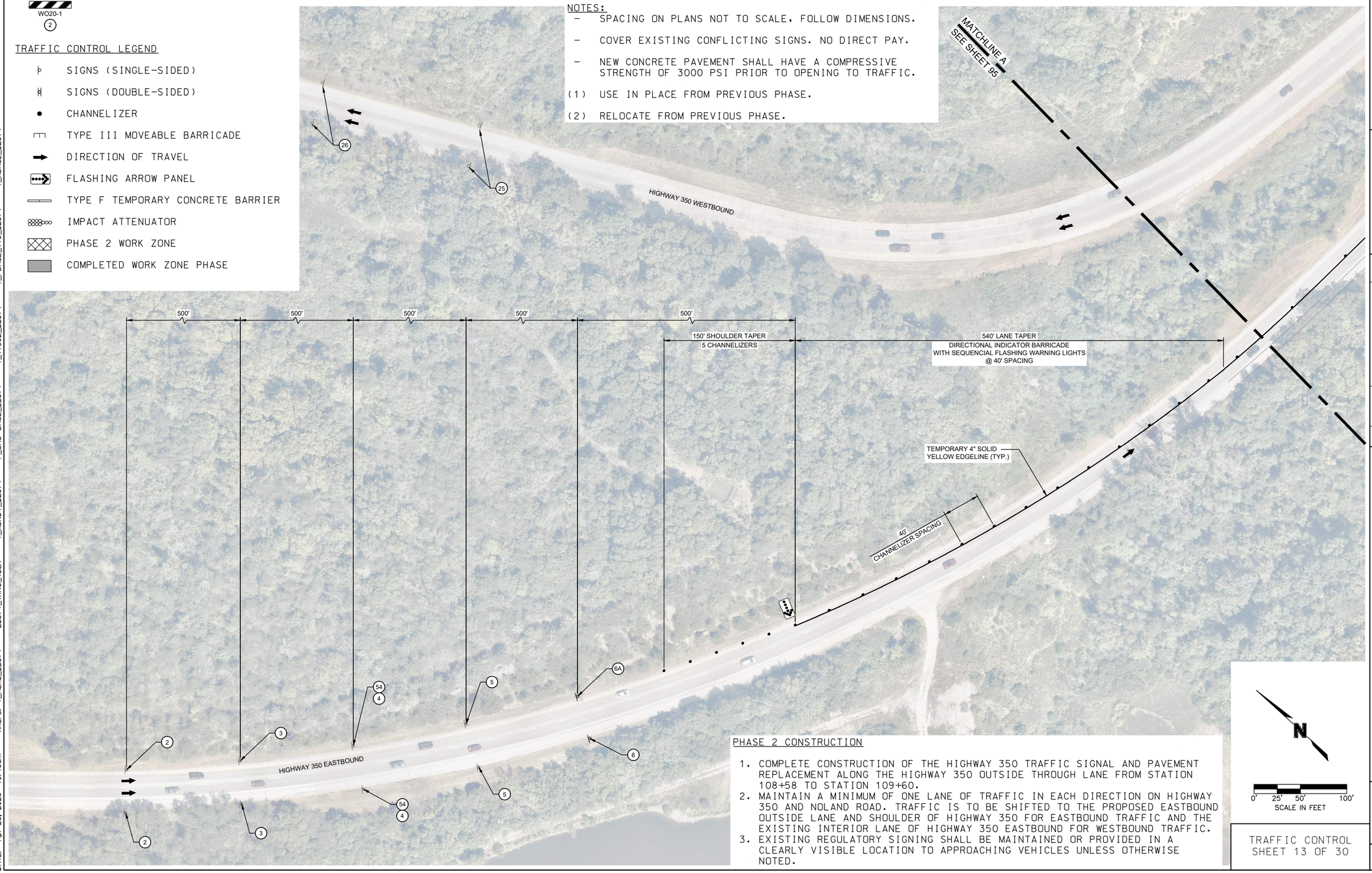
- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 2 WORK ZONE
- COMPLETED WORK ZONE PHASE

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.



PHASE 2 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 TRAFFIC SIGNAL AND PAVEMENT REPLACEMENT ALONG THE HIGHWAY 350 OUTSIDE THROUGH LANE FROM STATION 108+58 TO STATION 109+60.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED EASTBOUND OUTSIDE LANE AND SHOULDER OF HIGHWAY 350 FOR EASTBOUND TRAFFIC AND THE EXISTING INTERIOR LANE OF HIGHWAY 350 EASTBOUND FOR WESTBOUND TRAFFIC.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL
SHEET 13 OF 30

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NUMBER PE-2010010499
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MO. NO. PE-2010010499

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REVISIONS

TRAFFIC CONTROL PLANS
PHASE 2

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | STATE: MO

ROUTE: 350 | DISTRICT: KC | COUNTY: JACKSON

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC03_22374
DATE PREPARED: 4/28/2025

SHEET
94

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC03_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:40am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
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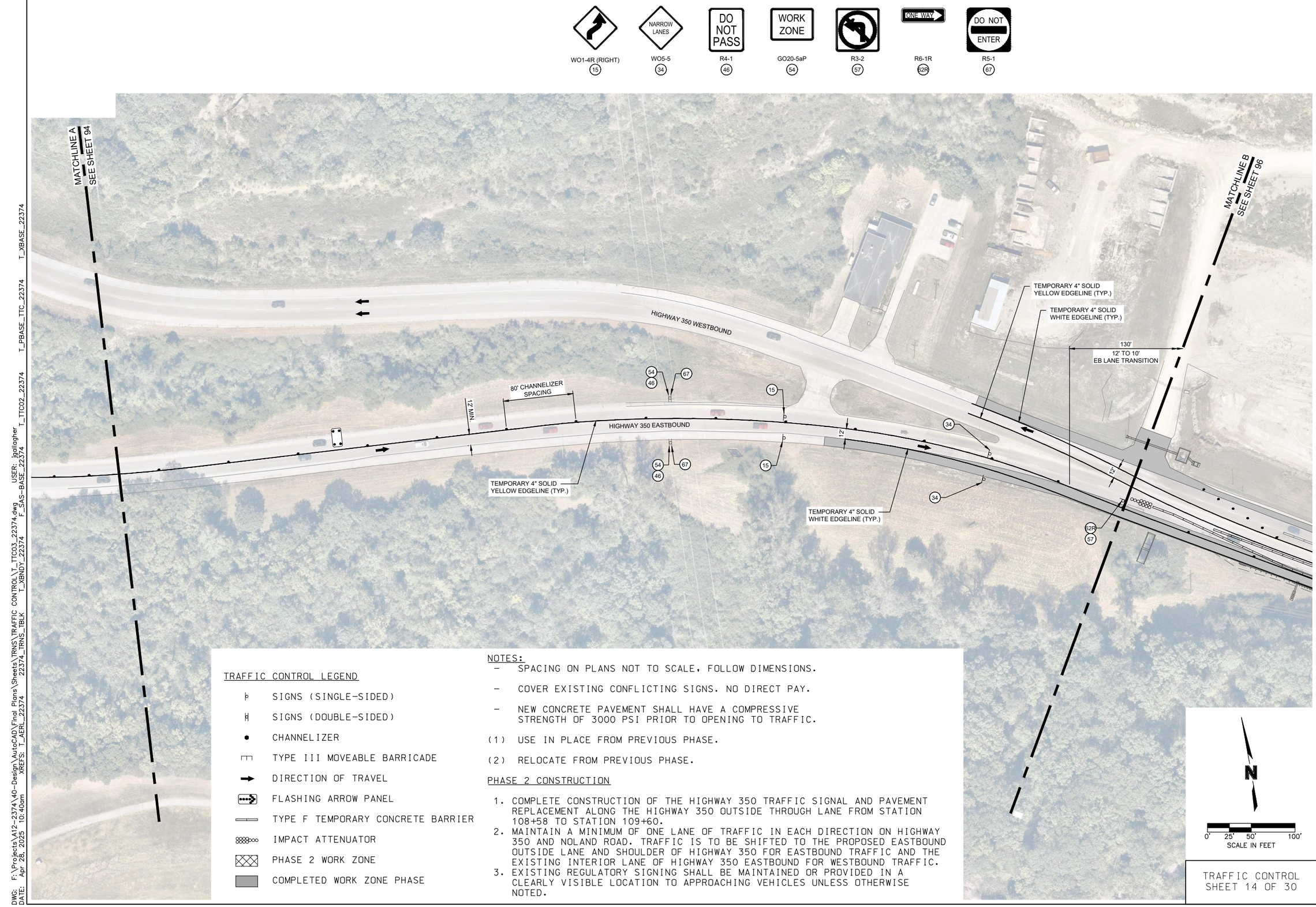

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 2 WORK ZONE
- COMPLETED WORK ZONE PHASE

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
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- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 2 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 TRAFFIC SIGNAL AND PAVEMENT REPLACEMENT ALONG THE HIGHWAY 350 OUTSIDE THROUGH LANE FROM STATION 108+58 TO STATION 109+60.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED EASTBOUND OUTSIDE LANE AND SHOULDER OF HIGHWAY 350 FOR EASTBOUND TRAFFIC AND THE EXISTING INTERIOR LANE OF HIGHWAY 350 EASTBOUND FOR WESTBOUND TRAFFIC.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL SHEET 14 OF 30

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JAMES PATRICK GALLAGHER
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PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TRAFFIC CONTROL PLANS
PHASE 2

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC03_22374
DATE PREPARED:	4/28/2025

SHEET 95

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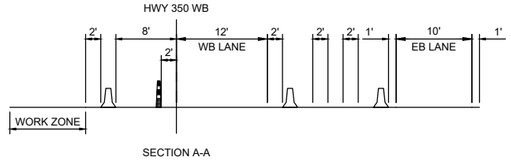
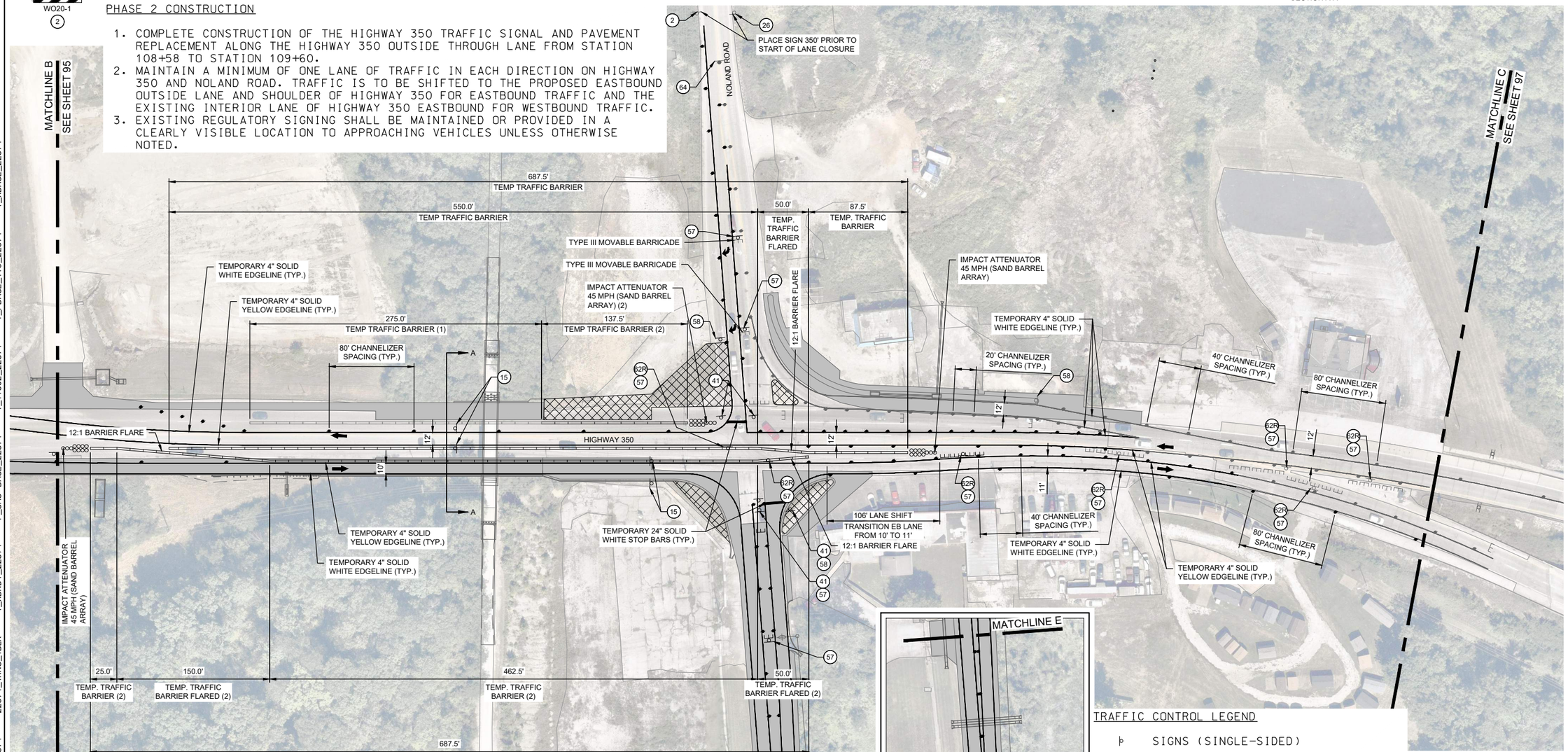


PHASE 2 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 TRAFFIC SIGNAL AND PAVEMENT REPLACEMENT ALONG THE HIGHWAY 350 OUTSIDE THROUGH LANE FROM STATION 108+58 TO STATION 109+60.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED EASTBOUND OUTSIDE LANE AND SHOULDER OF HIGHWAY 350 FOR EASTBOUND TRAFFIC AND THE EXISTING INTERIOR LANE OF HIGHWAY 350 EASTBOUND FOR WESTBOUND TRAFFIC.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.



NOTES:
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- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATED FROM PREVIOUS PHASE.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 2 WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL SHEET 15 OF 30

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MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 2

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC03_22374
DATE PREPARED: 4/28/2025

SHEET 96

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USER: jgallagher

NOTES:

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(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 2 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 TRAFFIC SIGNAL AND PAVEMENT REPLACEMENT ALONG THE HIGHWAY 350 OUTSIDE THROUGH LANE FROM STATION 108+58 TO STATION 109+60.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED EASTBOUND OUTSIDE LANE AND SHOULDER OF HIGHWAY 350 FOR EASTBOUND TRAFFIC AND THE EXISTING INTERIOR LANE OF HIGHWAY 350 EASTBOUND FOR WESTBOUND TRAFFIC.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 2 WORK ZONE
- COMPLETED WORK ZONE PHASE

TRAFFIC CONTROL
SHEET 16 OF 30

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NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 2

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC03_22374
DATE PREPARED:	4/28/2025

SHEET
97

DWG: F:\Projects\VA12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC03_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:41am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
T_PBASE_TTC_22374 T_XBASE_22374

NOTES:

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(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 2 CONSTRUCTION

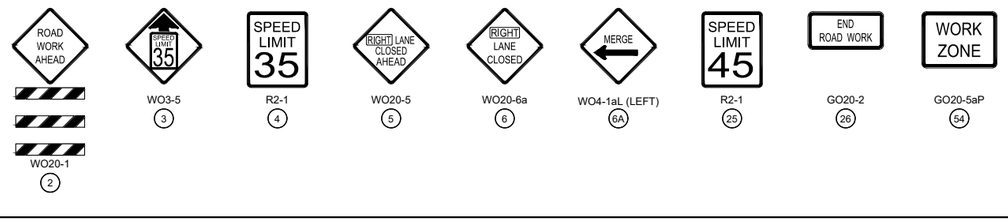
1. COMPLETE CONSTRUCTION OF THE HIGHWAY 350 TRAFFIC SIGNAL AND PAVEMENT REPLACEMENT ALONG THE HIGHWAY 350 OUTSIDE THROUGH LANE FROM STATION 108+58 TO STATION 109+60.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED EASTBOUND OUTSIDE LANE AND SHOULDER OF HIGHWAY 350 FOR EASTBOUND TRAFFIC AND THE EXISTING INTERIOR LANE OF HIGHWAY 350 EASTBOUND FOR WESTBOUND TRAFFIC.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 2 WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET



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NUMBER PE-2010010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 2

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON
ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC03_22374
DATE PREPARED: 4/28/2025

TRAFFIC CONTROL
SHEET 17 OF 30

SHEET
98

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC03_22374.dwg USER: jgallagher
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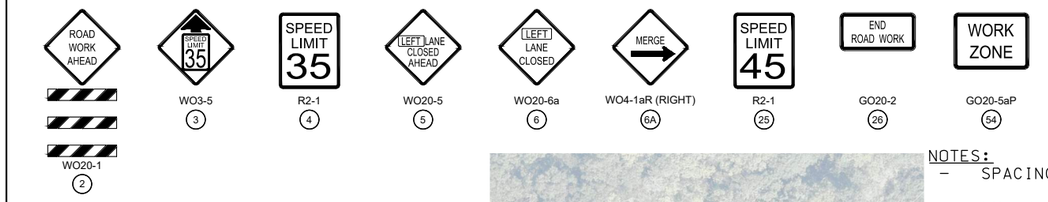
T_TTC02_22374 S-BASE_22374



TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 3 WORK ZONE
- COMPLETED WORK ZONE PHASE

NOTES:

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- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
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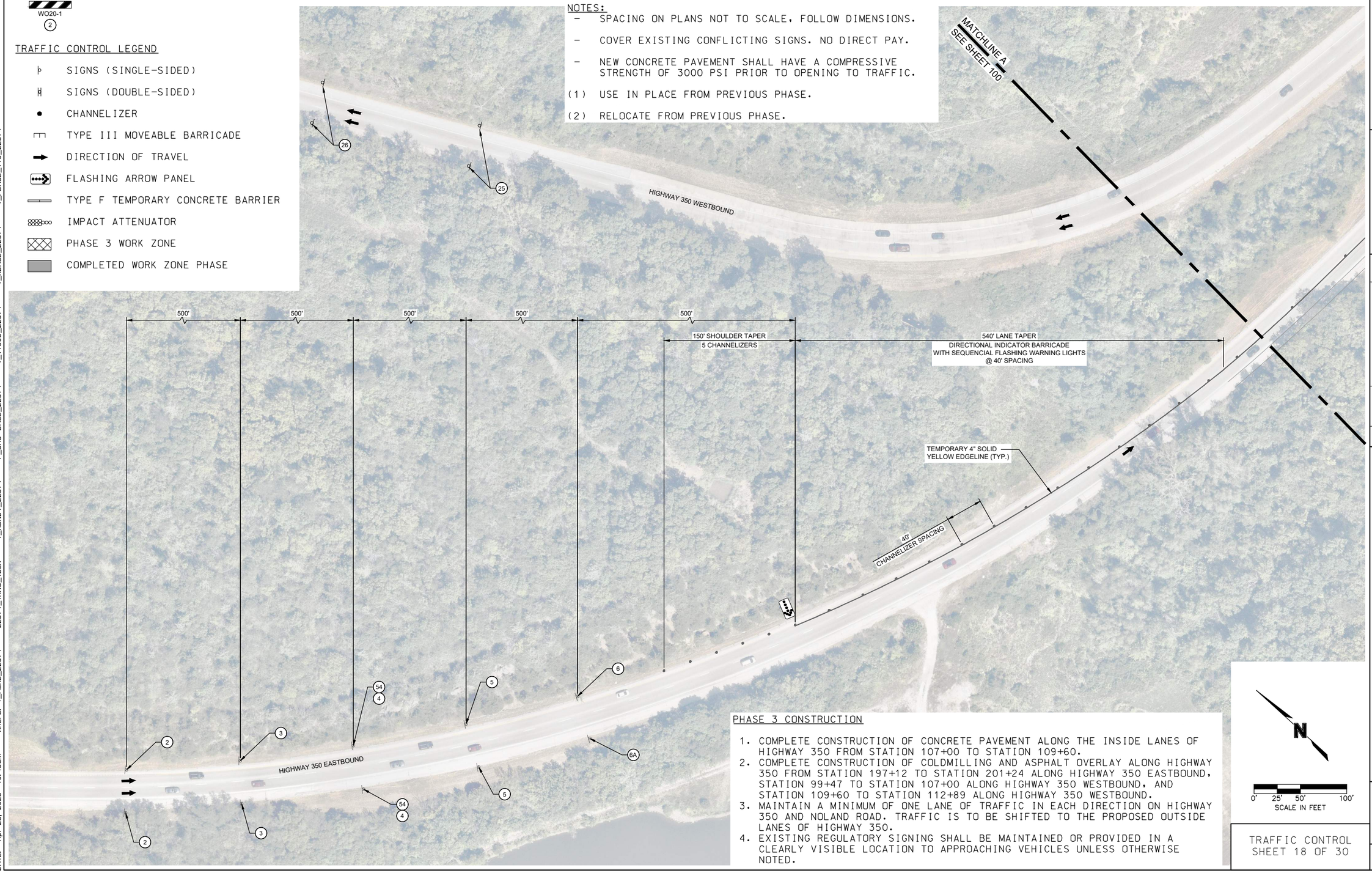
(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.



PHASE 3 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF CONCRETE PAVEMENT ALONG THE INSIDE LANES OF HIGHWAY 350 FROM STATION 107+00 TO STATION 109+60.
2. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 112+89 ALONG HIGHWAY 350 WESTBOUND.
3. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES OF HIGHWAY 350.
4. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL
SHEET 18 OF 30

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JAMES PATRICK GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 3

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

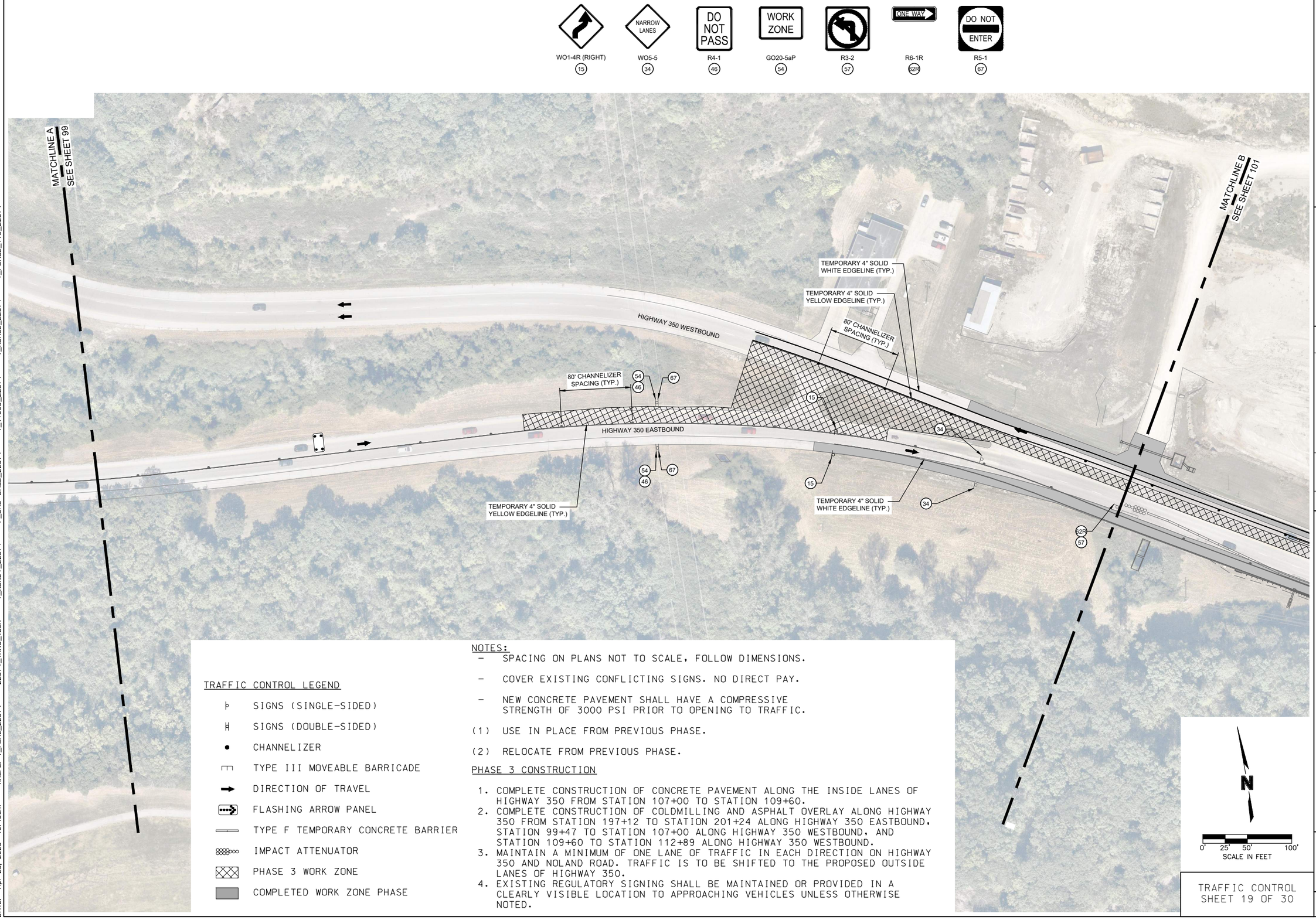
MODOT JOB NO.: JKU0404 | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO

ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC04_22374
DATE PREPARED: 4/28/2025

SHEET
99

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC04_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:43am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
T_XBASE_22374 T_PBASE_TTC_22374 T_TTC03_22374



TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 3 WORK ZONE
- COMPLETED WORK ZONE PHASE

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 3 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF CONCRETE PAVEMENT ALONG THE INSIDE LANES OF HIGHWAY 350 FROM STATION 107+00 TO STATION 109+60.
2. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 112+89 ALONG HIGHWAY 350 WESTBOUND.
3. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES OF HIGHWAY 350.
4. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL
SHEET 19 OF 30

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REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 3

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO

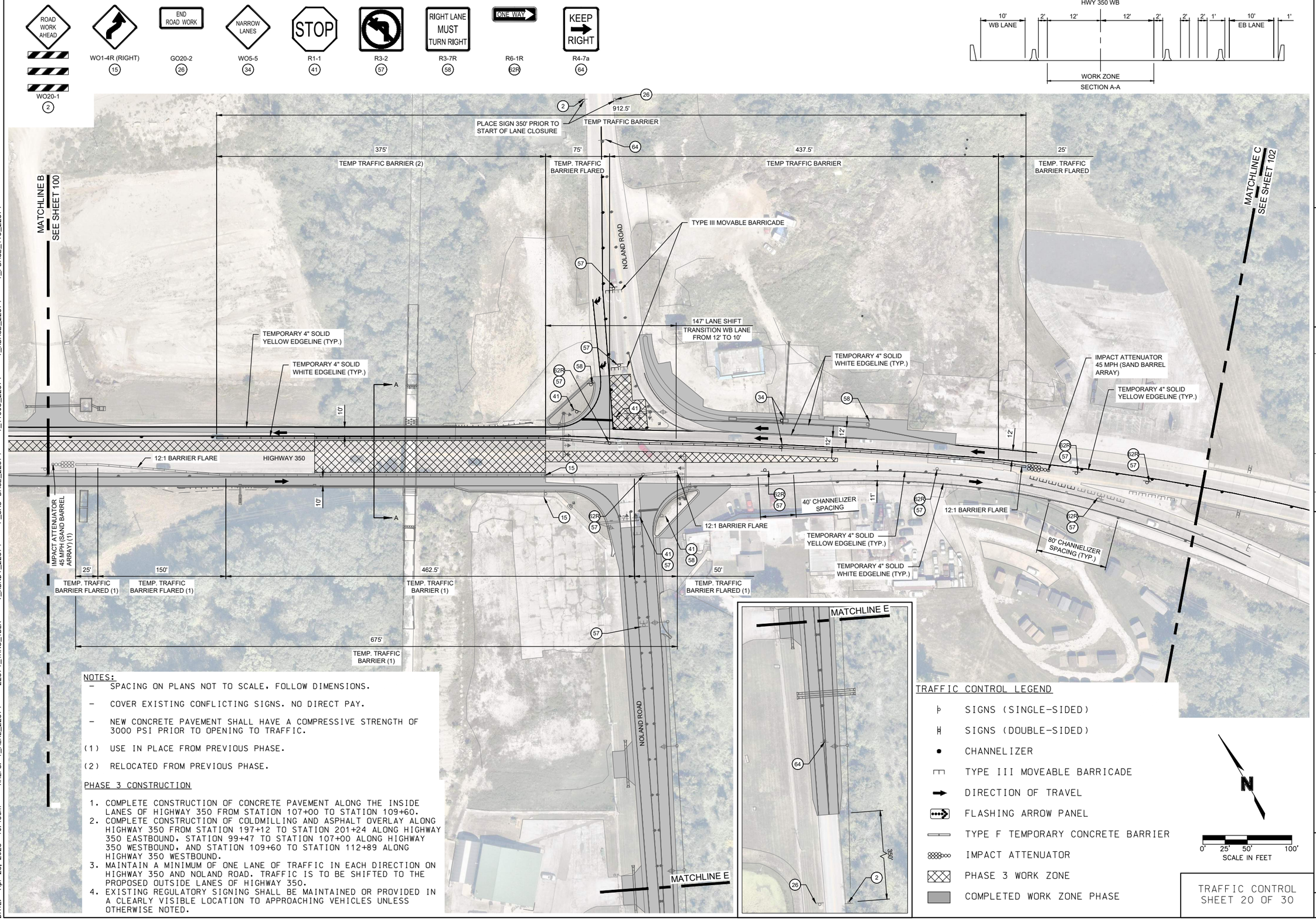
MODOT JOB NO.: JKU0404 | DISTRICT: KC

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC04_22374
DATE PREPARED:	4/28/2025

SHEET
100

DWG: F:\Projects\VA12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC04_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:43am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374 T_TTC03_22374 T_XBASE_22374 T_PBASE_TTC_22374



NOTES:

- SPACING ON PLANS NOT TO SCALE. FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATED FROM PREVIOUS PHASE.

PHASE 3 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF CONCRETE PAVEMENT ALONG THE INSIDE LANES OF HIGHWAY 350 FROM STATION 107+00 TO STATION 109+60.
2. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 112+89 ALONG HIGHWAY 350 WESTBOUND.
3. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES OF HIGHWAY 350.
4. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 3 WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL SHEET 20 OF 30

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STATE OF MISSOURI JAMES PATRICK GALLAGHER NUMBER PE-2018010499 PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 3

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC04_22374
DATE PREPARED:	4/28/2025

SHEET 101

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC04_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:43am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
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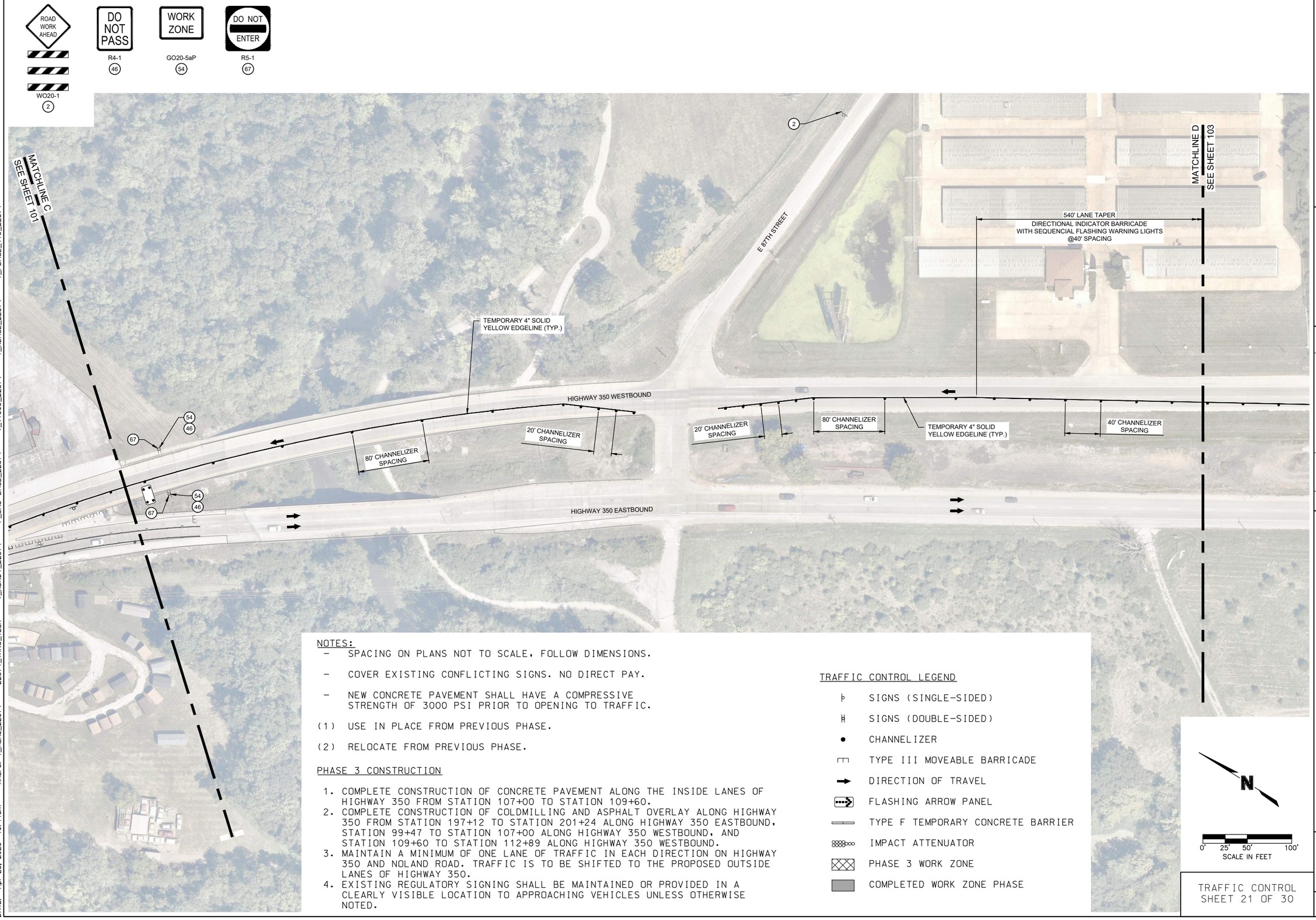

NOTES:

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(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 3 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF CONCRETE PAVEMENT ALONG THE INSIDE LANES OF HIGHWAY 350 FROM STATION 107+00 TO STATION 109+60.
2. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 112+89 ALONG HIGHWAY 350 WESTBOUND.
3. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES OF HIGHWAY 350.
4. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 3 WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL
SHEET 21 OF 30

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JAMES PATRICK GALLAGHER
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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 3

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC04_22374
DATE PREPARED:	4/28/2025

SHEET
102

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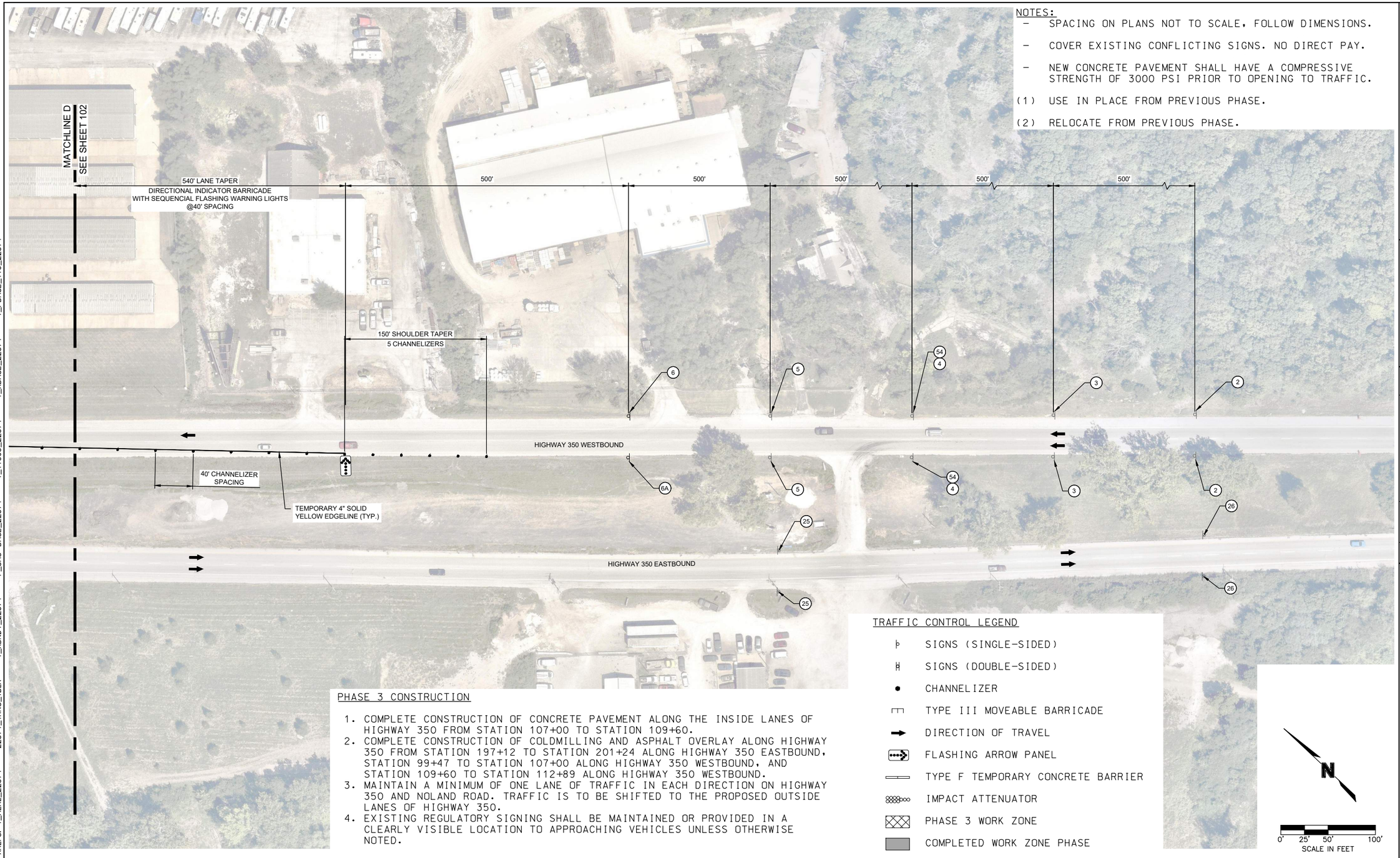
DATE: Apr 28, 2025 10:44am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 T_SAS-BASE_22374 T_XBASE_22374 T_PBASE_TTC_22374



NOTES:

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PHASE 3 CONSTRUCTION

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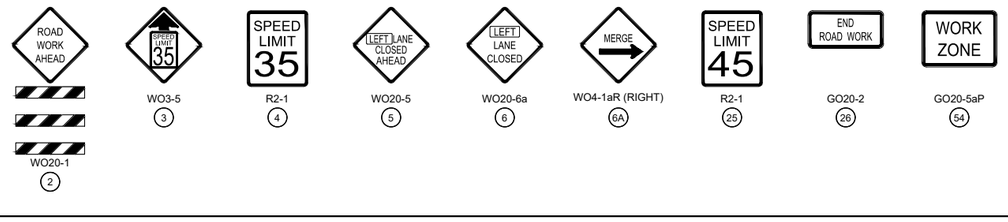
2. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 112+89 ALONG HIGHWAY 350 WESTBOUND.
3. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES OF HIGHWAY 350.
4. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 3 WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET



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JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 3

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | COUNTY: JACKSON | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC04_22374
DATE PREPARED: 4/28/2025

TRAFFIC CONTROL
SHEET 22 OF 30

SHEET
103

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC04_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:44am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
T_XBASE_22374 T_TTC03_22374 T_PBASE_TTC_22374

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 4A WORK ZONE
- PHASE 4B WORK ZONE
- PHASE 4C WORK ZONE
- COMPLETED WORK ZONE PHASE

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
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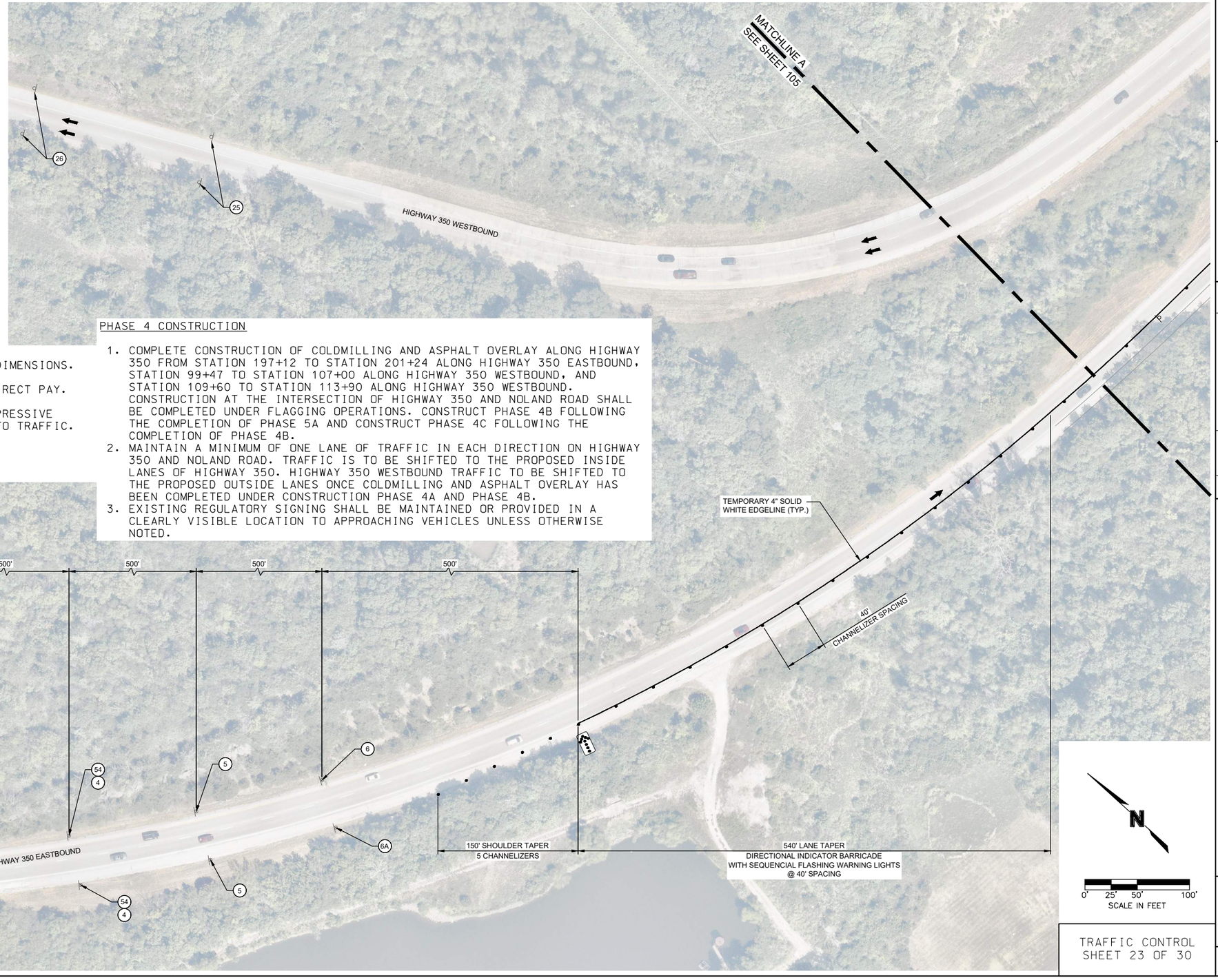
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

PHASE 4 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 113+90 ALONG HIGHWAY 350 WESTBOUND. CONSTRUCTION AT THE INTERSECTION OF HIGHWAY 350 AND NOLAND ROAD SHALL BE COMPLETED UNDER FLAGGING OPERATIONS. CONSTRUCT PHASE 4B FOLLOWING THE COMPLETION OF PHASE 5A AND CONSTRUCT PHASE 4C FOLLOWING THE COMPLETION OF PHASE 4B.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED INSIDE LANES OF HIGHWAY 350. HIGHWAY 350 WESTBOUND TRAFFIC TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES ONCE COLDMILLING AND ASPHALT OVERLAY HAS BEEN COMPLETED UNDER CONSTRUCTION PHASE 4A AND PHASE 4B.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.



TRAFFIC CONTROL
SHEET 23 OF 30

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PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 4

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

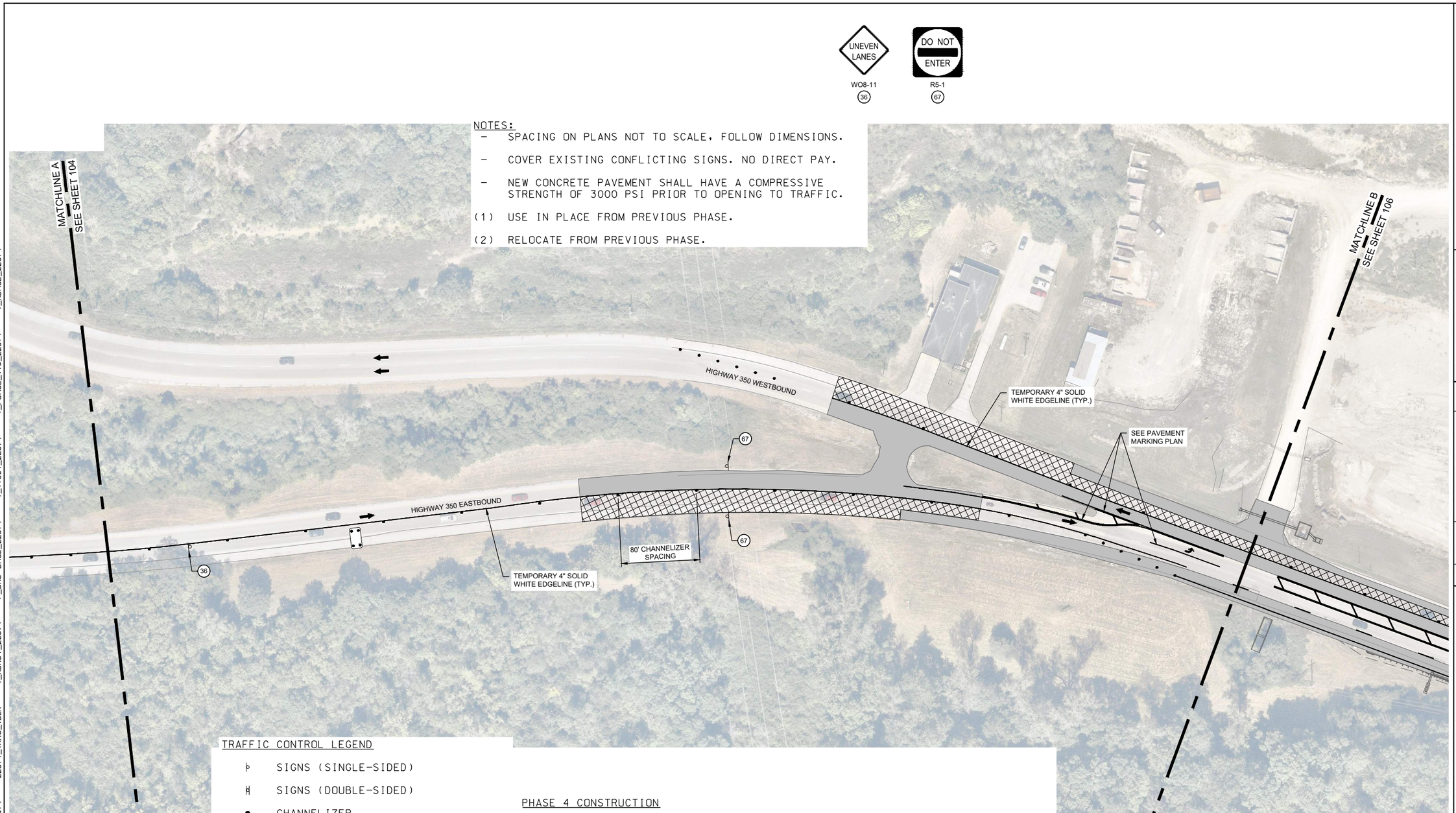
MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC05_22374
DATE PREPARED: 4/28/2025

SHEET
104

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC05_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:45am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
T_TTC04_22374 T_PBASE_TTC_22374 T_XBASE_22374



NOTES:

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(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 4A WORK ZONE
- PHASE 4B WORK ZONE
- PHASE 4C WORK ZONE
- COMPLETED WORK ZONE PHASE

PHASE 4 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 113+90 ALONG HIGHWAY 350 WESTBOUND. CONSTRUCTION AT THE INTERSECTION OF HIGHWAY 350 AND NOLAND ROAD SHALL BE COMPLETED UNDER FLAGGING OPERATIONS. CONSTRUCT PHASE 4B FOLLOWING THE COMPLETION OF PHASE 5A AND CONSTRUCT PHASE 4C FOLLOWING THE COMPLETION OF PHASE 4B.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED INSIDE LANES OF HIGHWAY 350. HIGHWAY 350 WESTBOUND TRAFFIC TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES ONCE COLDMILLING AND ASPHALT OVERLAY HAS BEEN COMPLETED UNDER CONSTRUCTION PHASE 4A AND PHASE 4B.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL
SHEET 24 OF 30

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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
		REVISIONS	

TRAFFIC CONTROL PLANS
PHASE 4

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

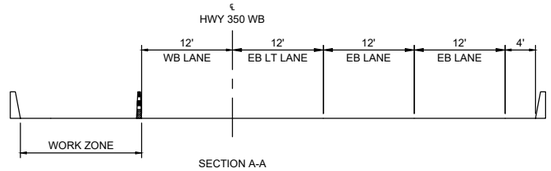
C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC05_22374
DATE PREPARED: 4/28/2025

SHEET
105

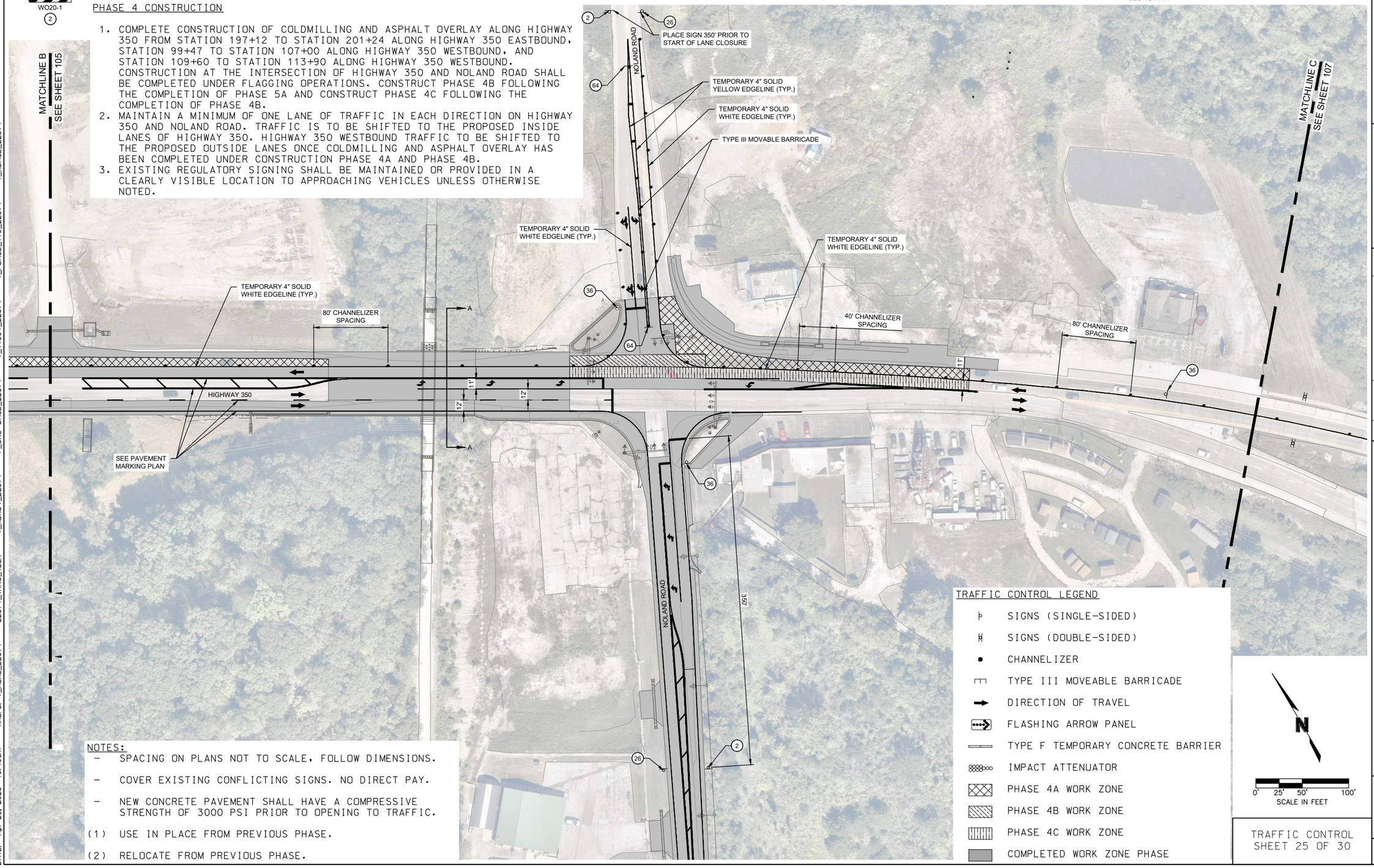
DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC05_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:46am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
T_TTC04_22374 T_PBASE_TTC_22374 T_XBASE_22374

PHASE 4 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 113+90 ALONG HIGHWAY 350 WESTBOUND. CONSTRUCTION AT THE INTERSECTION OF HIGHWAY 350 AND NOLAND ROAD SHALL BE COMPLETED UNDER FLAGGING OPERATIONS. CONSTRUCT PHASE 4B FOLLOWING THE COMPLETION OF PHASE 5A AND CONSTRUCT PHASE 4C FOLLOWING THE COMPLETION OF PHASE 4B.
2. MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON HIGHWAY 350 AND NOLAND ROAD. TRAFFIC IS TO BE SHIFTED TO THE PROPOSED INSIDE LANES OF HIGHWAY 350. HIGHWAY 350 WESTBOUND TRAFFIC TO BE SHIFTED TO THE PROPOSED OUTSIDE LANES ONCE COLDMILLING AND ASPHALT OVERLAY HAS BEEN COMPLETED UNDER CONSTRUCTION PHASE 4A AND PHASE 4B.
3. EXISTING REGULATORY SIGNING SHALL BE MAINTAINED OR PROVIDED IN A CLEARLY VISIBLE LOCATION TO APPROACHING VEHICLES UNLESS OTHERWISE NOTED.



SECTION A-A



NOTES:

- SPACING ON PLANS NOT TO SCALE. FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 4A WORK ZONE
- PHASE 4B WORK ZONE
- PHASE 4C WORK ZONE
- COMPLETED WORK ZONE PHASE

N

0' 25' 50' 100'
SCALE IN FEET

TRAFFIC CONTROL
SHEET 25 OF 30

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STATE OF MISSOURI
JAMES P. GALLAGHER
NUMBER PE-2010010499
PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

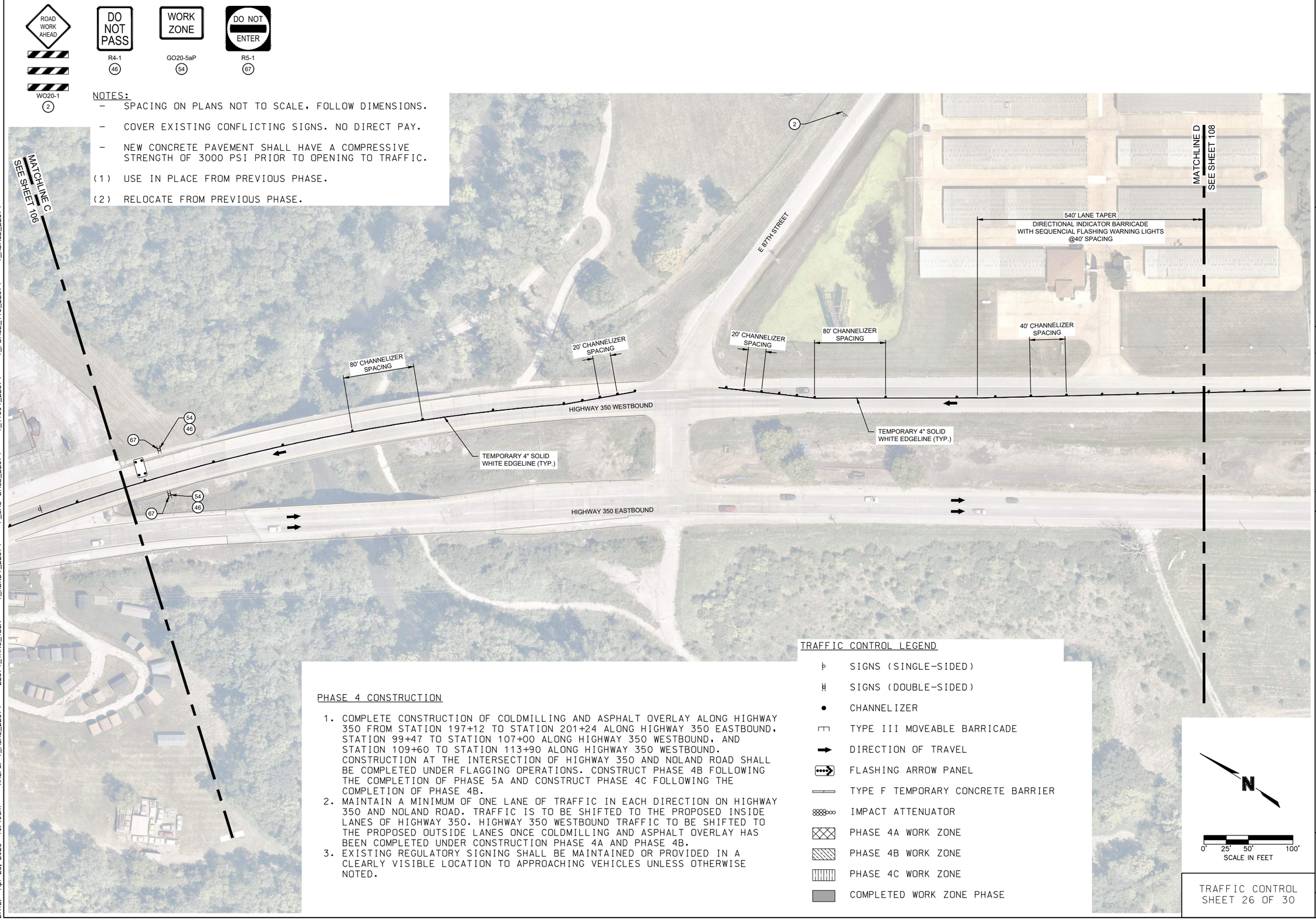
TRAFFIC CONTROL PLANS
PHASE 4

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	LJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC05_22374
DATE PREPARED:	4/28/2025

SHEET
106

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC05_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:46am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374
T_PBASE_TTC_22374 T_TTC04_22374 T_XBASE_22374



TRAFFIC CONTROL SHEET 26 OF 30

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DATE: Apr 28, 2025 10:46am XREFS: T_AERL_22374 22374_TRNS_TBLK T_XBNDY_22374 F_SAS-BASE_22374 T_PBASE_TTC_22374 T_TTC04_22374 T_XBASE_22374

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JAMES PATRICK GALLAGHER
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PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 4

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_TTC05_22374
DATE PREPARED:	4/28/2025

SHEET 107

NOTES:

- SPACING ON PLANS NOT TO SCALE, FOLLOW DIMENSIONS.
- COVER EXISTING CONFLICTING SIGNS. NO DIRECT PAY.
- NEW CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI PRIOR TO OPENING TO TRAFFIC.

(1) USE IN PLACE FROM PREVIOUS PHASE.

(2) RELOCATE FROM PREVIOUS PHASE.

TRAFFIC CONTROL LEGEND

- SIGNS (SINGLE-SIDED)
- SIGNS (DOUBLE-SIDED)
- CHANNELIZER
- TYPE III MOVEABLE BARRICADE
- DIRECTION OF TRAVEL
- FLASHING ARROW PANEL
- TYPE F TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- PHASE 4A WORK ZONE
- PHASE 4B WORK ZONE
- PHASE 4C WORK ZONE
- COMPLETED WORK ZONE PHASE

PHASE 4 CONSTRUCTION

1. COMPLETE CONSTRUCTION OF COLDMILLING AND ASPHALT OVERLAY ALONG HIGHWAY 350 FROM STATION 197+12 TO STATION 201+24 ALONG HIGHWAY 350 EASTBOUND, STATION 99+47 TO STATION 107+00 ALONG HIGHWAY 350 WESTBOUND, AND STATION 109+60 TO STATION 113+90 ALONG HIGHWAY 350 WESTBOUND. CONSTRUCTION AT THE INTERSECTION OF HIGHWAY 350 AND NOLAND ROAD SHALL BE COMPLETED UNDER FLAGGING OPERATIONS. CONSTRUCT PHASE 4B FOLLOWING THE COMPLETION OF PHASE 5A AND CONSTRUCT PHASE 4C FOLLOWING THE COMPLETION OF PHASE 4B.
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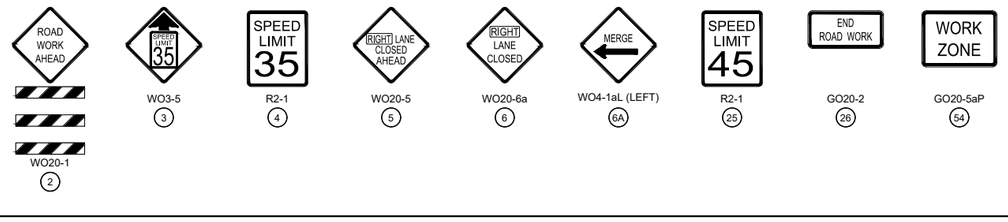

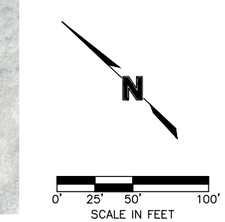

TRAFFIC CONTROL
SHEET 27 OF 30

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JAMES PATRICK GALLAGHER
NUMBER PE-2018010499
PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2018010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 4

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | DISTRICT: KC | COUNTY: JACKSON

ROUTE: 350

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_TTC05_22374
DATE PREPARED: 4/28/2025

SHEET
108

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_TTC05_22374.dwg USER: jgallagher
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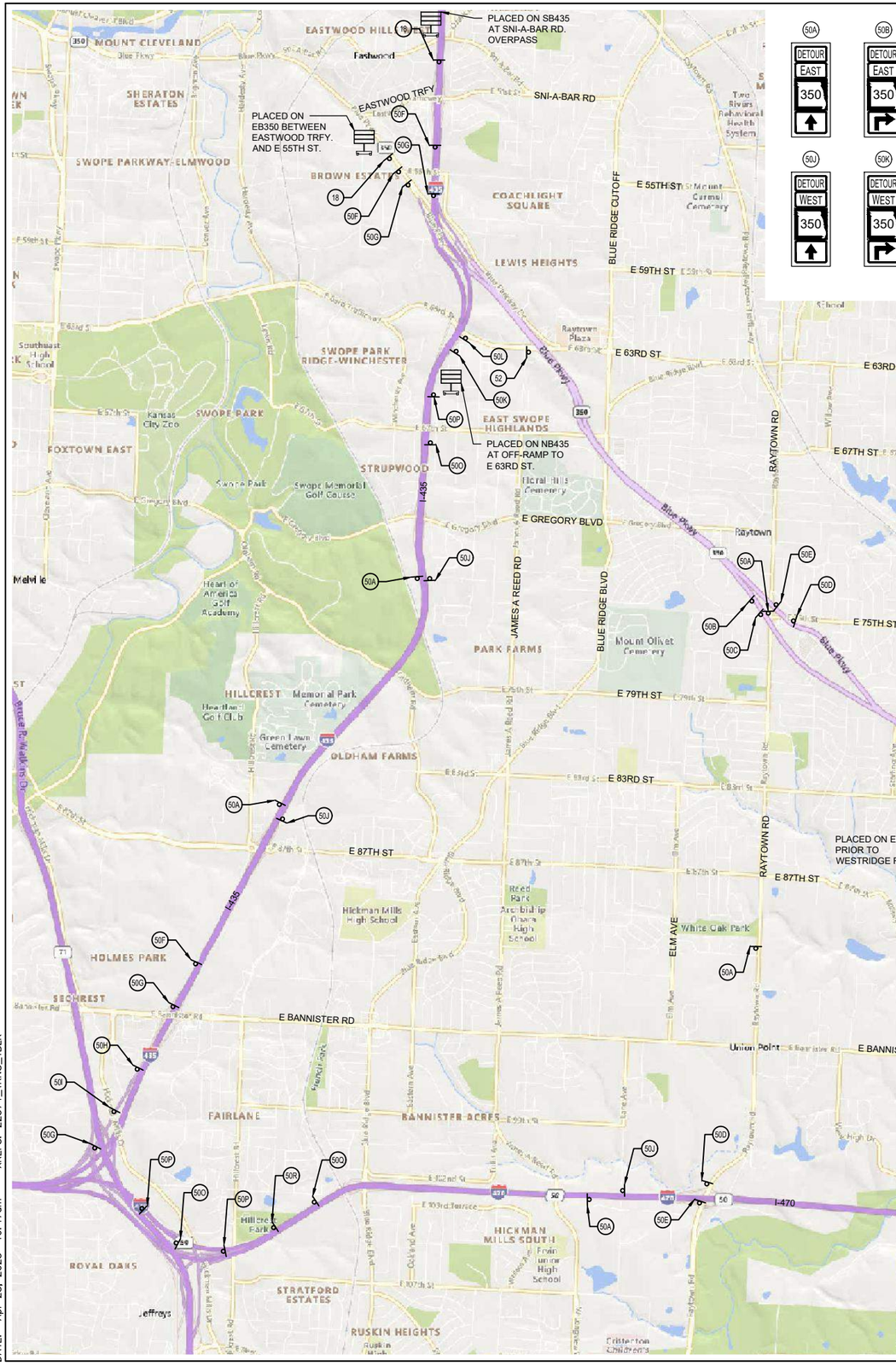

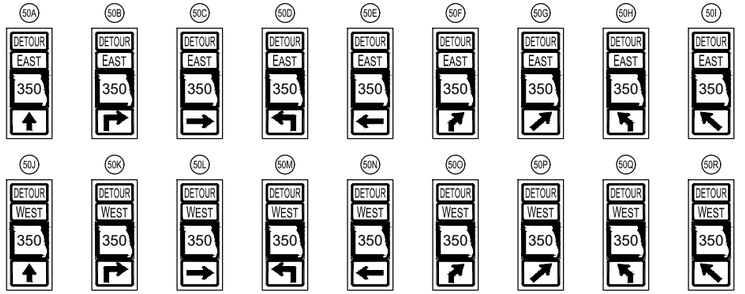

STAGE 1 (HIGHWAY 350 ROAD CLOSURE)

- HIGHWAY 350 SHALL ONLY BE CLOSED ON WEEKENDS FOR THE DEMOLITION OF THE EXISTING ROCK ISLAND TRAIL BRIDGE AND THE CONSTRUCTION OF THE PROPOSED ROCK ISLAND TRAIL BRIDGE SPANNING HIGHWAY 350. THE CLOSURE ALONG HIGHWAY 350 SHALL ONLY BE ALLOWED FROM FRIDAY AT 7:00 PM TO MONDAY AT 6:00 AM.
- TRAIL CLOSURE ALONG ROCK ISLAND TRAIL ONLY ALLOWED FROM DECEMBER 1 THROUGH FEBRUARY 28.
- INSTALL PORTABLE CHANGEABLE MESSAGE SIGN AT LOCATIONS IDENTIFIED.
- CONSIDER GEOMETRICS WHEN LOCATING PCMS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1000 FEET IN ADVANCE OF THE PCMS.
- PCMS SHOULD BE PLACED AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY. IN ADVANCE OF HIGHWAY CONSTRUCTION PROJECTS, THESIGNS SHOULD BE PLACED ON THE BACKSLOPE BEHIND HE DITCH. WHERE SITE CONDITIONS DO NOT ALLOW OTHERWISE, THE SIGNS MAY BE PLACED ON THE SHOULDER. THE SITE SHOULD BE VISITED TO ASSURE VISIBILITY, SAFETY, AND MAINTENANCE CONSIDERATIONS. A TAPER OF REFLECTORIZED DRUMS OR BARRICADES SHOULD BE PLACED AHEAD OF THE PCMS PLACED ON THE SHOULDER IF IT IS NOT SHIELDED BY A BARRIER.
- COORDINATE MESSAGES WITH WORK ON ADJACENT PROJECTS.
- THE ENGINEER SHALL MAKE THE FINAL DETERMINATION TO THE PLACEMENT OF PCMS BOARDS BASED UPON EXISTING CONDITIONS AND STAGING.

(1) PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) BOARD PLACEMENT FOR HIGHWAY 350 AS SHOWN ON THIS SHEET. THE MESSAGE FOR EACH PHASE PRIOR TO AND DURING THE ROAD CLOSURE SHALL BE AS FOLLOWS:

	PLACED 7 DAYS PRIOR TO CLOSURE	PLACED THROUGHOUT DURATION OF CLOSURE
PHASE 1 (2 SEC.)	HWY 350 TO CLOSE	HWY 350 CLOSED
PHASE 2 (2 SEC.)	AT NOLAND ROAD	AT NOLAND ROAD
PHASE 3 (2 SEC.)	FRIDAY 12/5 AT 7 PM	USE ALT ROUTE

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STATE OF MISSOURI — JAMES P. GALLAGHER — NUMBER PE-2010010499 — PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASE 1A PCMS LAYOUT AND DETOUR ROUTE

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411) | STATE: MO

MODOT JOB NO.: JKU0404 | COUNTY: JACKSON

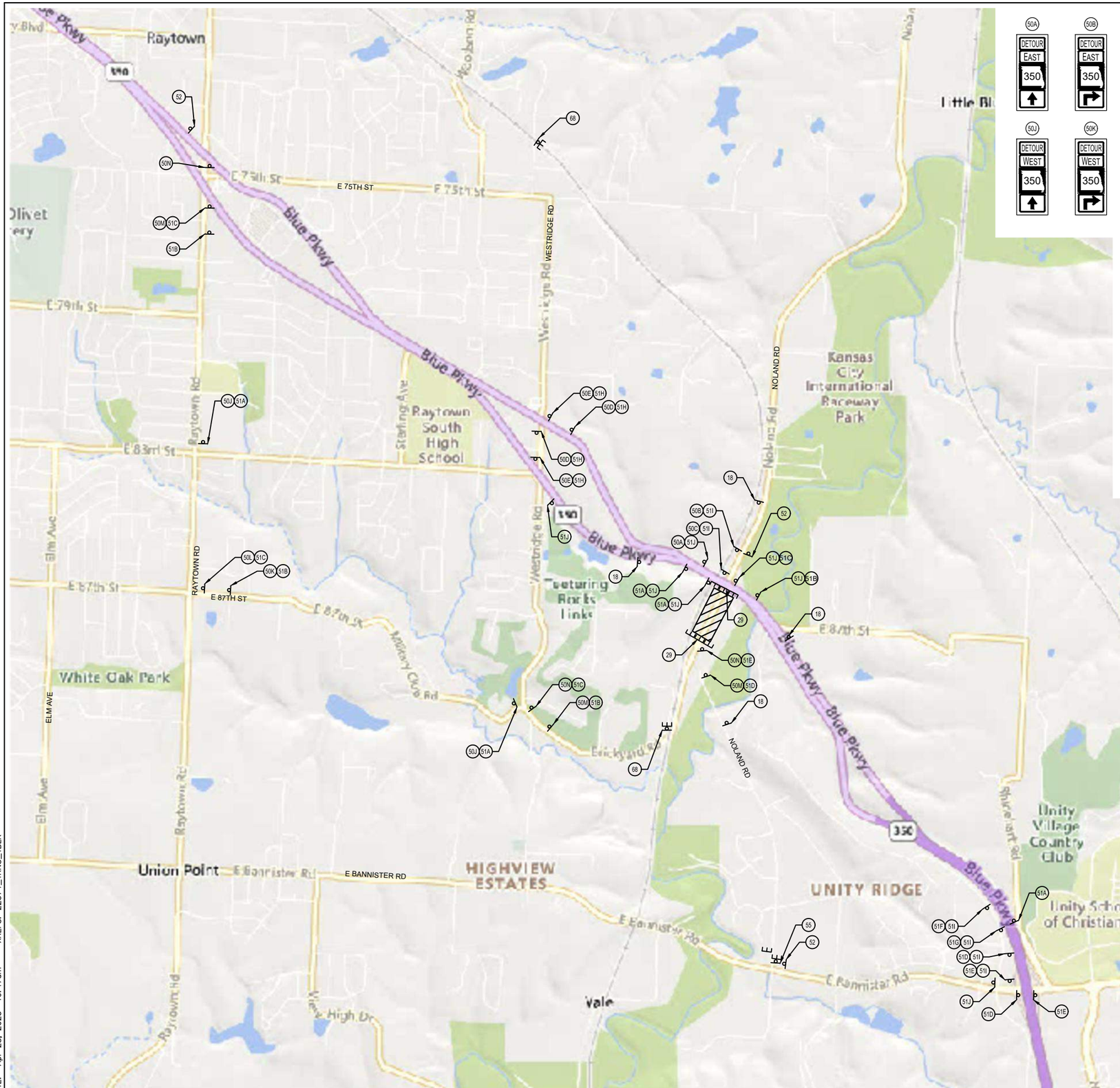
ROUTE: 350 | DISTRICT: KC

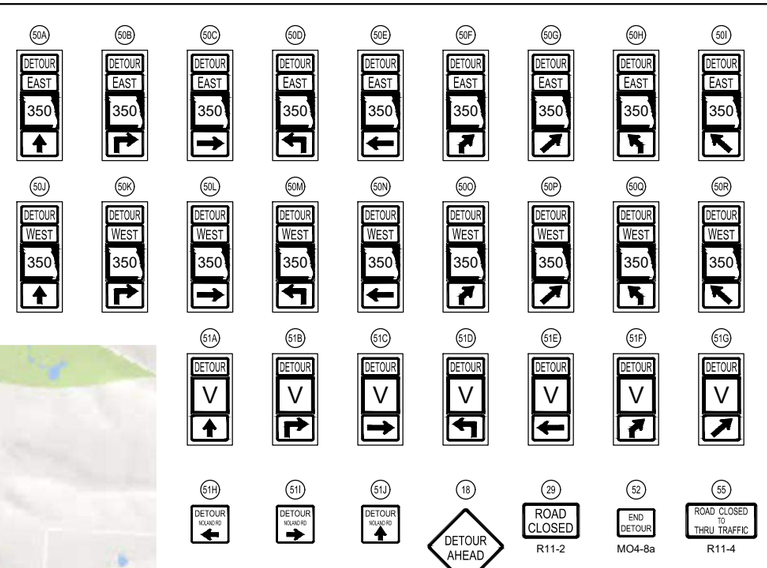
C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.:	T_DET_22374
DATE PREPARED:	4/28/2025

TRAFFIC CONTROL
SHEET 28 OF 30

SHEET
109

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_DET_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:47am XREFS: 22374_TRNS_TBLK





NOTE:
DETOUR ROUTE FOR NOLAND ROAD SHALL ONLY BE UTILIZED IF HIGHWAY 350 IS OPEN TO TRAFFIC. WHEN HIGHWAY 350 CLOSES DUE TO BRIDGE DEMOLITION AND CONSTRUCTION, NOLAND ROAD SHALL REMAIN OPEN TO TRAFFIC IN EACH DIRECTION. TRAIL CLOSURE ALONG ROCK ISLAND TRAIL ONLY ALLOWED FROM DECEMBER 1 THROUGH FEBRUARY 28.

NOT TO SCALE

TRAFFIC CONTROL
SHEET 29 OF 30

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JAMES P. GALLAGHER
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PROFESSIONAL ENGINEER
JAMES P. GALLAGHER
MO. NO. PE-2010010499

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

TRAFFIC CONTROL PLANS
PHASE 1B DETOUR ROUTE

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS | FEDERAL PROJECT STP-3337(411)
MODOT JOB NO.: JKU0404 | COUNTY: JACKSON | STATE: MO
ROUTE: 350 | DISTRICT: KC

C.O.A. NO.: 001592
DRAWN BY: MLW
CHECKED BY: JPG
APPROVED BY: JPG
QA/QC BY: JJW
PROJECT NO.: JKU0404
DWG NO.: T_DET_22374
DATE PREPARED: 4/28/2025

SHEET
110

DWG: F:\Projects\A12-2374\40-Design\AutoCAD\Final Plans\Sheets\TRNS\TRAFFIC CONTROL\T_DET_22374.dwg USER: jgallagher
DATE: Apr 28, 2025 10:47am XREFS: 22374_TRNS_TBLK

50A DETOUR EAST 350 | 50B DETOUR EAST 350 | 50C DETOUR EAST 350 | 50D DETOUR EAST 350 | 50E DETOUR EAST 350 | 50F DETOUR EAST 350 | 50G DETOUR EAST 350 | 50H DETOUR EAST 350 | 50I DETOUR EAST 350

50J DETOUR WEST 350 | 50K DETOUR WEST 350 | 50L DETOUR WEST 350 | 50M DETOUR WEST 350 | 50N DETOUR WEST 350 | 50O DETOUR WEST 350 | 50P DETOUR WEST 350 | 50Q DETOUR WEST 350 | 50R DETOUR WEST 350

51A DETOUR V | 51B DETOUR V | 51C DETOUR V | 51D DETOUR V | 51E DETOUR V | 51F DETOUR V | 51G DETOUR V

51H DETOUR | 51I DETOUR | 51J DETOUR | 18 DETOUR AHEAD WO20-2 | 29 ROAD CLOSED R11-2 | 52 END DETOUR MO4-8a | 55 ROAD CLOSED TO THRU TRAFFIC R11-4

* USE IN PLACE FROM PREVIOUS PHASE

NOT TO SCALE

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JAMES PATRICK GALLAGHER
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PROFESSIONAL ENGINEER

JAMES P. GALLAGHER
MO. NO. PE-2010010499

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

TRAFFIC CONTROL PLANS
PHASES 3 AND 4 DETOUR ROUTE

HIGHWAY 350 AND NOLAND ROAD ROADWAY IMPROVEMENTS

MODOT JOB NO.: JKU0404	FEDERAL PROJECT STP-3337(411)		
ROUTE: 350	DISTRICT: KC	COUNTY: JACKSON	STATE: MO

C.O.A. NO.:	001592
DRAWN BY:	MLW
CHECKED BY:	JPG
APPROVED BY:	JPG
QA/QC BY:	JJW
PROJECT NO.:	JKU0404
DWG NO.	T_DET_22374
DATE PREPARED:	4/28/2025

TRAFFIC CONTROL
SHEET 30 OF 30

SHEET
111

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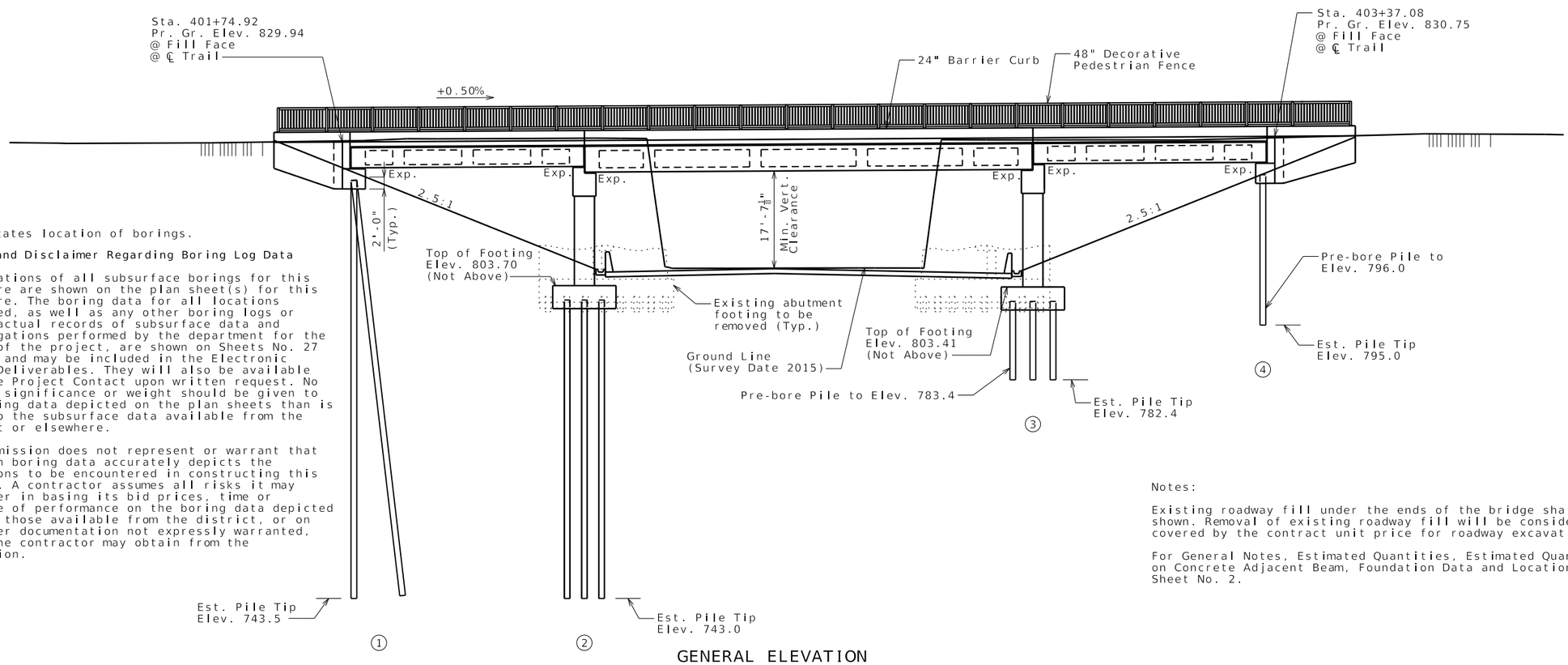
DATE: Apr 28, 2025 10:47am
USER: jgallagher
XREFS: 22374_TRNS_TBLK

(40')(78')(40') PRESTRESSED CONCRETE ADJACENT BOX BEAM SPANS



GENERAL ELEVATION

Indicates location of borings.

Notice and Disclaimer Regarding Boring Log Data

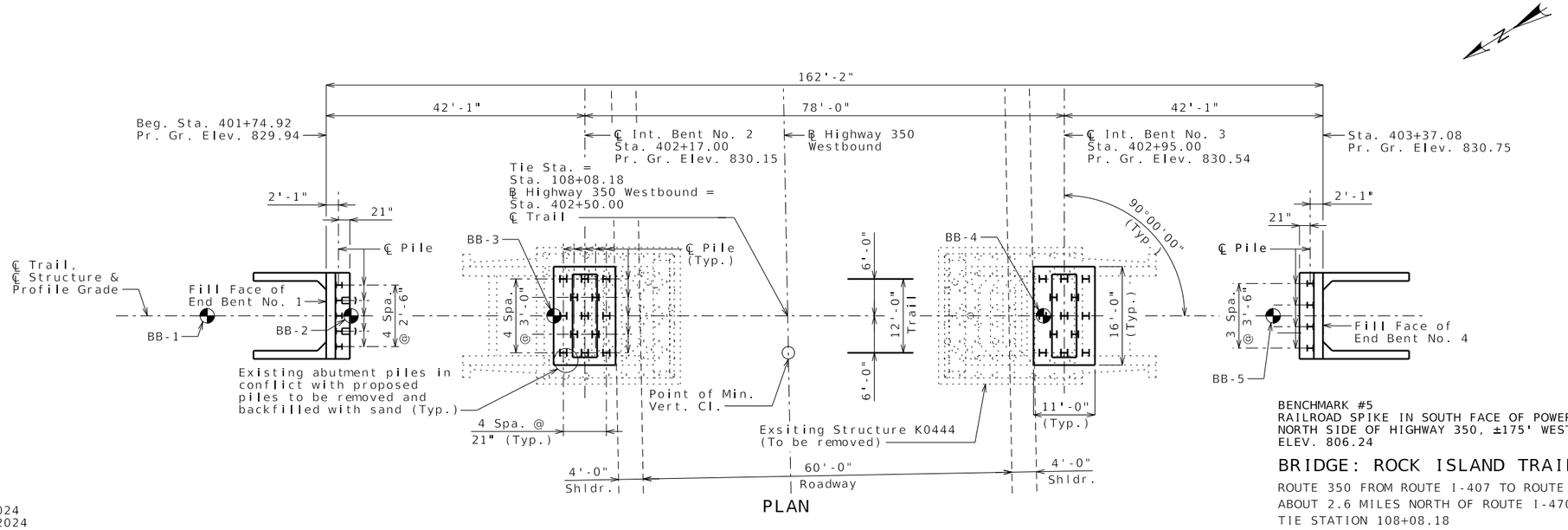
The locations of all subsurface borings for this structure are shown on the plan sheet(s) for this structure. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, are shown on Sheets No. 27 thru 39 and may be included in the Electronic Bridge Deliverables. They will also be available from the Project Contact upon written request. No greater significance or weight should be given to the boring data depicted on the plan sheets than is given to the subsurface data available from the district or elsewhere.

The Commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the Commission.

Notes:

Existing roadway fill under the ends of the bridge shall be removed as shown. Removal of existing roadway fill will be considered completely covered by the contract unit price for roadway excavation.

For General Notes, Estimated Quantities, Estimated Quantities for Slab on Concrete Adjacent Beam, Foundation Data and Location Sketch, see Sheet No. 2.



PLAN

BENCHMARK #5
RAILROAD SPIKE IN SOUTH FACE OF POWER POLE
NORTH SIDE OF HIGHWAY 350, ±175' WEST OF RAILROAD BRIDGE
ELEV. 806.24

BRIDGE: ROCK ISLAND TRAIL OVER ROUTE 350

ROUTE 350 FROM ROUTE I-407 TO ROUTE I-435
ABOUT 2.6 MILES NORTH OF ROUTE I-470
TIE STATION 108+08.18

Designed May 2024
Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
REGISTERED PROFESSIONAL ENGINEER
05/14/2025

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 1
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

Estimated Quantities

Item		Substr.	Superstr.	Total
Class 1 Excavation	cu. yard	240		240
Removal of Bridges (K0444)	lump sum			1
(48 in.) Decorative Pedestrian Fence (Structures)	linear foot		372	372
Galvanized Structural Steel Piles (14 in.)	linear foot	1506		1506
Pre-Bore for Piling	linear foot	316		316
Pile Point Reinforcement	each	35		35
Class B Concrete (Substructure)	cu. yard	163.6		163.6
Slab on Concrete Adjacent Beam	sq. yard			247
Barrier Curb (24 in. x 12 in.)	linear foot		372	372
42 in., Prestressed Concrete Adjacent Box Beam	linear foot		241	241
54 in., Prestressed Concrete Adjacent Box Beam	linear foot		233	233
Reinforcing Steel (Bridges)	pound	12,090		12,090
Reinforcing Steel (Epoxy Coated)	pound	20,610		20,610
Protective Coating - Concrete Bents and Piers (Epoxy)	lump sum			1
Vertical Drain at End Bents	each			2
Laminated Neoprene Bearing Pad	each		18	18
Preformed Compression Seal	linear foot		58	58

Cost of L4x4 ASTM A709 Grade 50 HP pile anchors and 3/4-inch diameter ASTM F3125 Grade A325 Type 1 bolts, complete in place, will be considered completely covered by the contract unit price for Galvanized Structural Steel Piles (14 in.).

Foundation Data

Type	Design Data		Bent Number 1	2	3	4
Load Bearing Pile	Pile Type and Size		HP14x89	HP14x89	HP14x89	HP14x89
	Number	ea	5	13	13	4
	Approximate Length Per Each	ft	80	58	18	29
	Min. Galvanized Penetration (Elev.)	ft	802	787	Full Length	Full Length
	Pile Point Reinforcement	ea	All	All	All	All
	Pile Driving Verification Method		ENR	ENR	ENR	ENR
	Factor of Safety		4	4	4	4
	Maximum Axial Service Load	kip	270	280	280	165

ENR = Modified Engineering News-Record Formula

Estimated capacity of driven piles shall be calculated using the Modified ENR formula with factor of safety of 4. See Job Special Provisions.

Prebore for piles at Bent(s) No. 3 and 4 to elevation(s) 783.4 and 796.0, respectively. Piles shall be inserted into the prebored holes and driven in accordance with Sec 702. Prebored pile holes at Bent No. 3 shall be backfilled with commercial grade concrete to elevation 791.41. Prebored pile holes at Bent No. 4 shall be backfilled with commercial grade concrete to elevation 817.75. The remaining sections of pile holes shall be backfilled with sand. All materials and labor shall be considered completely covered by the contract unit price for Pre-Bore for Piling per linear foot.

All piles shall be galvanized down to the minimum galvanized penetration (elevation).

Pile point reinforcement need not be galvanized. Shop drawings will not be required for pile point reinforcement.

The contractor shall make every effort to achieve the minimum galvanized penetration (elevation) shown on the plans for all piles. Deviations in penetration less than 5 feet of the minimum will be considered acceptable provided the contractor makes the necessary corrections to ensure the minimum penetration is achieved on subsequent piles.

HP piles are anticipated to be driven to refusal on rock. Review all borings for depth of rock and restrict driving as appropriate to comply with hard rock driving criteria in accordance with Sec 702. When pile refusal on rock occurs, as approved by the engineer, the axial compressive resistance is verified and no additional pile driving verification method is required.

General Notes:

Design Specifications:

AREMA Manual for Railway Engineering (2023)
2009 AASHTO Guide Specifications for the Design of Pedestrian Bridges (2nd Ed.) with 2015 Interims
Seismic Design Category = A

Design Loading:

Live Load = E-80 with a 30" maximum total depth of ballast.
Future Ballast = 300.0 lb/sf
Earth = 120 lb/cf
Equivalent Fluid Pressure = 51 lb/cf
Superstructure: Simply Supported Non-Composite for dead load.
Simply Supported Composite for live load.

Design Unit Stresses:

Class B Concrete	(Substructure)	f'c = 3,000 psi
Class B-1 Concrete	(Barrier curb)	f'c = 4,000 psi
Class B-2 Concrete (Modified)	(Superstructure, except prestressed beam and barrier curb)	f'c = 5,000 psi
Reinforcing Steel	(ASTM A615 Grade 60)	fy = 60,000 psi
Structural Steel HP Pile (ASTM A709 Grade 50)		fy = 50,000 psi

For prestressed box beam stresses, see Sheets No. 14 and 15.

Neoprene Pads:

Neoprene bearing pads shall be 60 durometer and shall be in accordance with Sec 716.

Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

Reinforcing Steel:

Minimum clearance to reinforcing steel shall be 1 1/2", unless otherwise shown.

Concrete Protective Coatings:

Protective coating for concrete bents and piers (Epoxy) shall be applied to all exposed concrete surfaces on the bent caps, backwalls, and stem walls above the groundline and in accordance with Sec 711.

Traffic Handling:

Structure to be closed during construction. Traffic to be maintained on other routes. See roadway plans for traffic control.

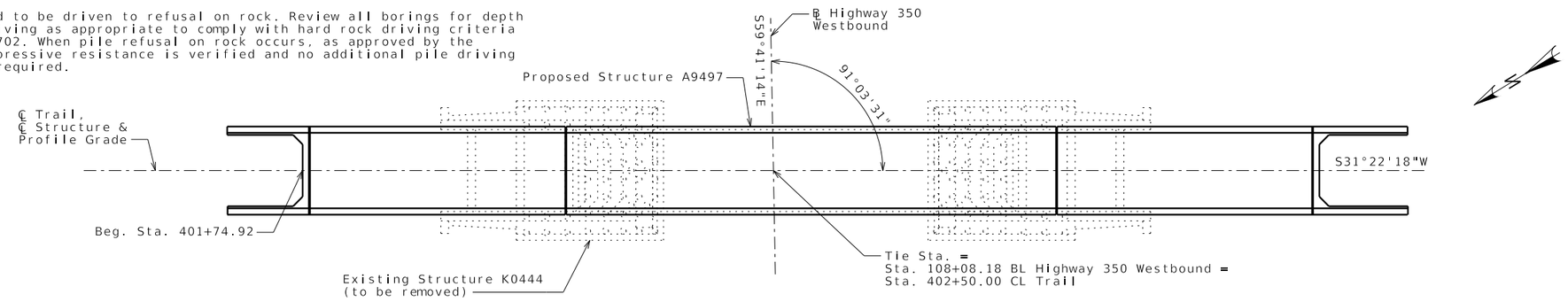
Estimated Quantities for Slab on Concrete Adjacent Beam

Item		Total
Class B-2 Concrete (Modified)	cu. yard	70
Reinforcing Steel (Epoxy Coated)	pound	8370

The table of Estimated Quantities for Slab on Concrete Adjacent Beam represents the quantities used by the State in preparing the cost estimate for concrete slabs. The area of the concrete slab will be measured to the nearest square yard longitudinally from end of slab to end of slab and transversely from out to out of bridge slab (or with the horizontal dimensions as shown on the plan of slab). Payment for conventional forms, all concrete and epoxy coated reinforcing steel will be considered completely covered by the contract unit price for the slab. Variations may be encountered in the estimated quantities but the variations cannot be used for an adjustment in the contract unit price.

Contractor shall provide a mix design for modified Class B-2 Concrete with a minimum design compressive strength of 5,000 psi. Mix design shall meet the requirements Sec 501.

Method of forming the slab shall be as shown on the plans and in accordance with Sec 703. All hardware for forming the slab to be left in place as a permanent part of the structure shall be coated in accordance with ASTM A123 or ASTM B633 with a thickness class SC 4 and a finish type I, II or III.



LOCATION SKETCH

GENERAL NOTES AND QUANTITIES

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

DATE PREPARED 5/14/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 2
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

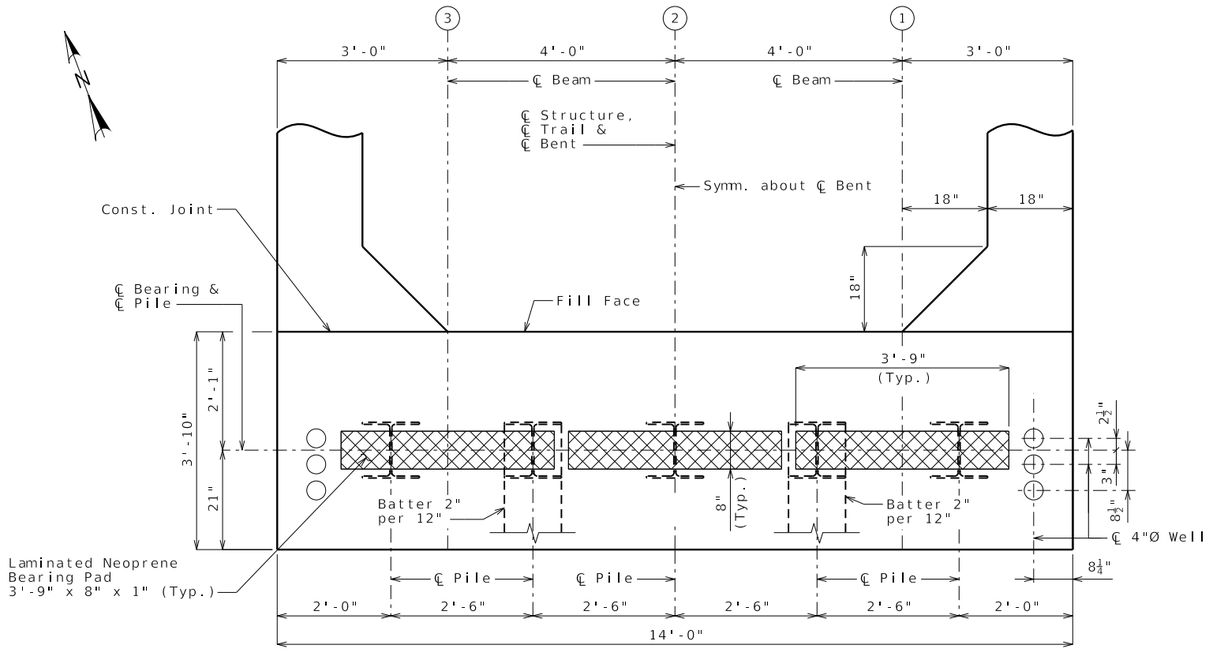
DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

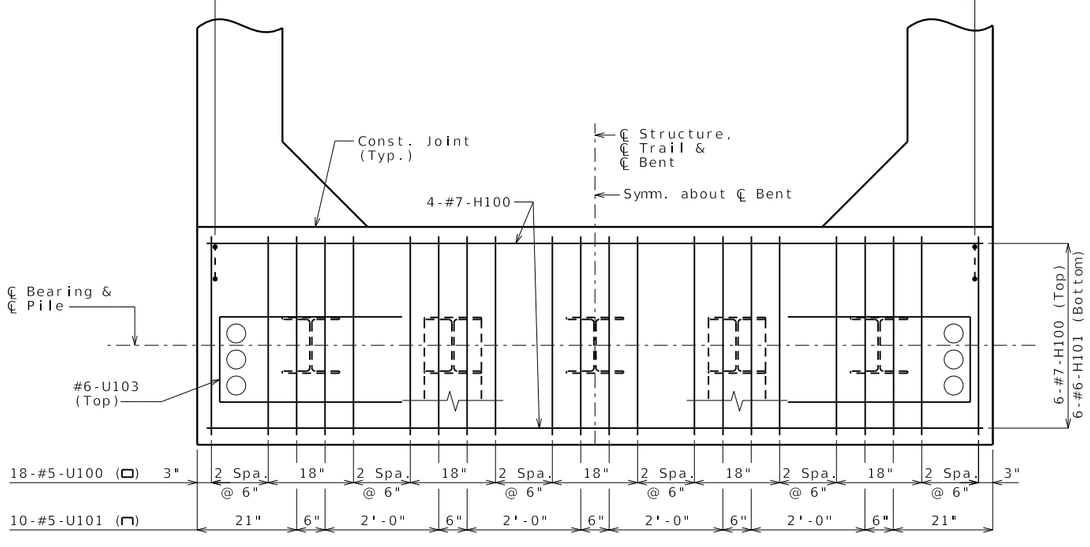
Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_002_KU0404_General Notes and Quantities.dgn 12:09:45 PM 5/14/2025



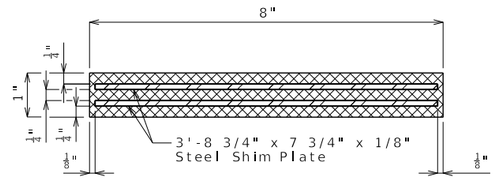
PLAN OF BEAM



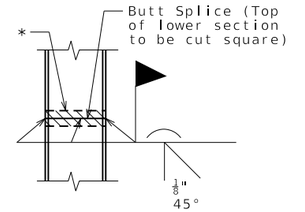
PLAN OF BEAM SHOWING REINFORCEMENT

Substructure Quantity Table for Bent No. 1		
Item		Quantity
Class 1 Excavation	cu. yard	30
Galvanized Structural Steel Piles (14 in.)	linear foot	402
Pile Point Reinforcement	each	5
Class B Concrete (Substructure)	cu. yard	18.2
Reinforcing Steel (Bridges)	pound	3680

These quantities are included in the Estimated Quantities table on Sheet No. 2.

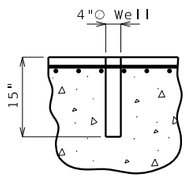


SECTION THRU LAMINATED NEOPRENE BEARING PAD



STEEL PILE SPLICE
(If required)

* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



ANCHOR BOLT WELLS

Notes:

Work this sheet with Sheets No. 4 and 5.

Reinforcing steel shall be shifted to clear anchor bolt wells by at least 1/2".

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

For details of beam stops, see Sheet No. 17.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	3

COUNTY JACKSON

JOB NO. JKU0404

CONTRACT ID.

PROJECT NO. STP3337(441)

BRIDGE NO. A9497

DESCRIPTION | DATE

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105 WEST CAPITOL
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1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

DETAILS OF END BENT NO. 1

Detailed June 2024
Checked July 2024

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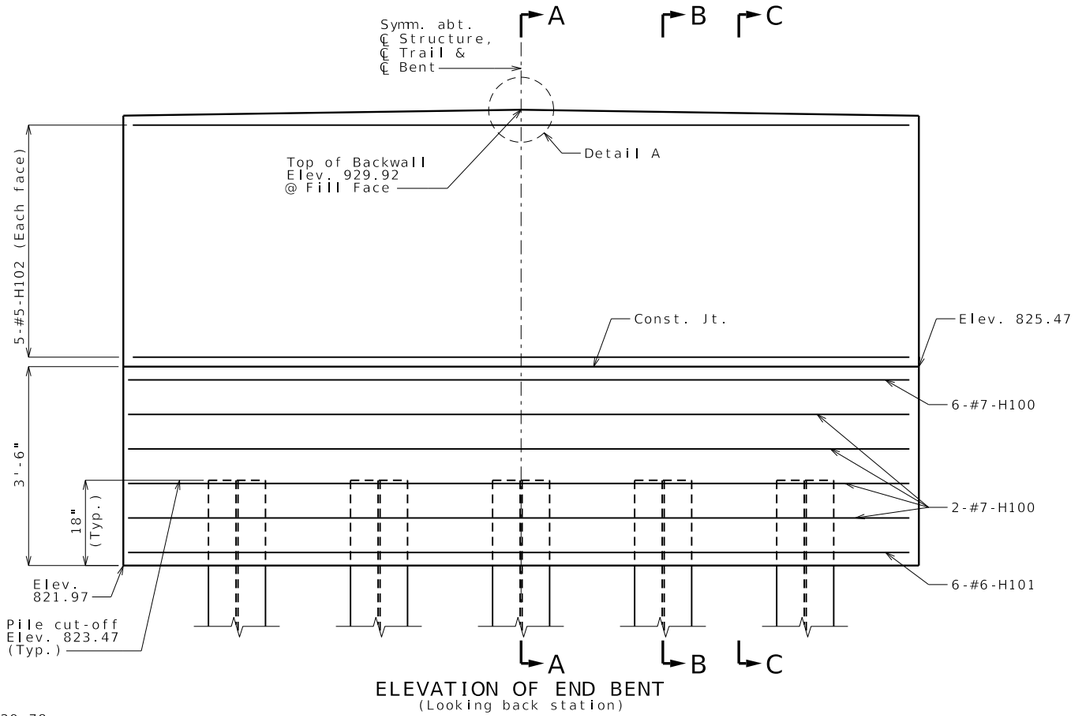
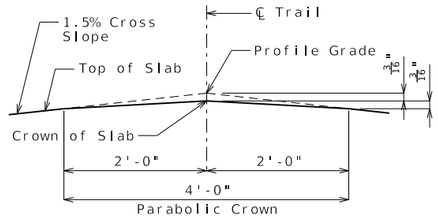
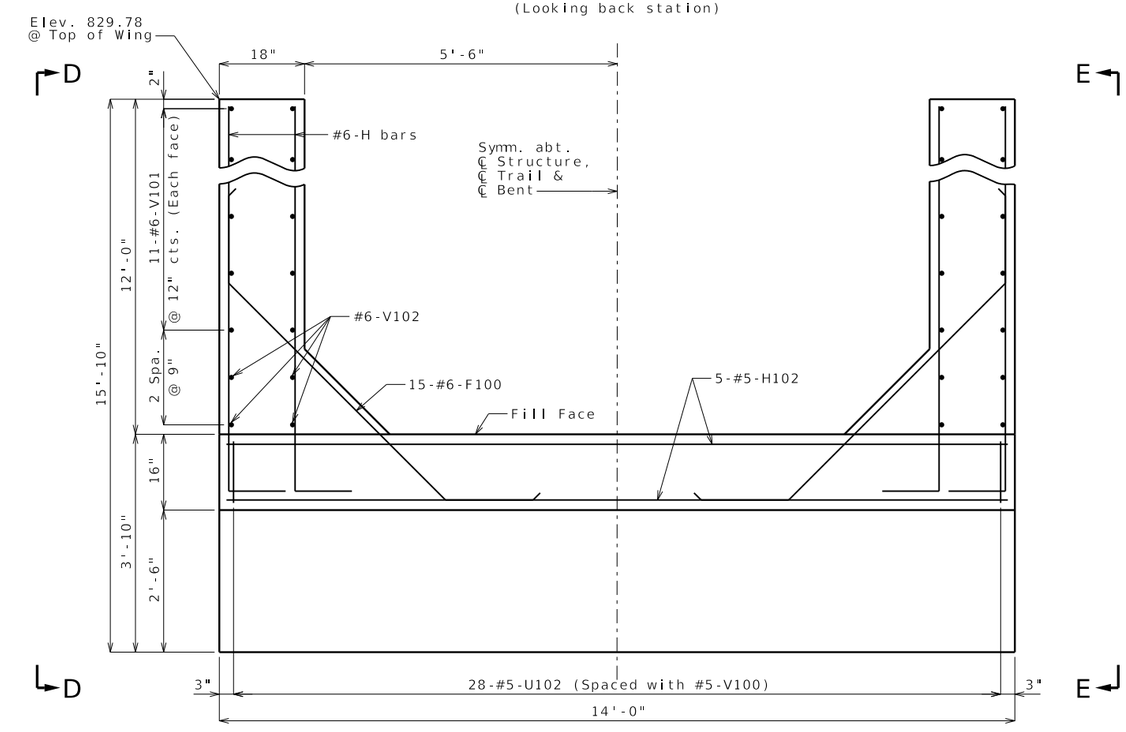


ELEVATION OF END BENT
(Looking back station)



DETAIL A



PLAN OF BACKWALL AND WINGS

Notes:

Work this sheet with Sheets No. 3 and 5.

The bearings shall be bonded to the bearing beam and the box beam using an adhesive approved for bonding elastomer to concrete.

For details of vertical drain at end bents, see Sheet No. 6.

DETAILS OF END BENT NO. 1

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	4

COUNTY JACKSON

JOB NO. JKU0404

CONTRACT ID.

PROJECT NO. STP3337(441)

BRIDGE NO. A9497

DESCRIPTION | DATE

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NORTH KANSAS CITY, MO 64116
CERTIFICATE OF
AUTHORITY NO. 001592

Detailed June 2024
Checked July 2024

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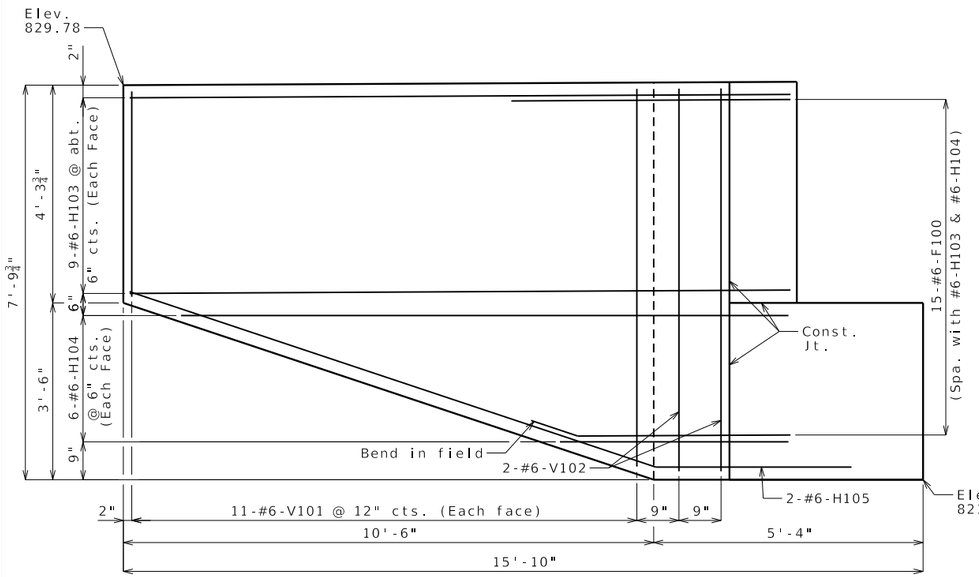
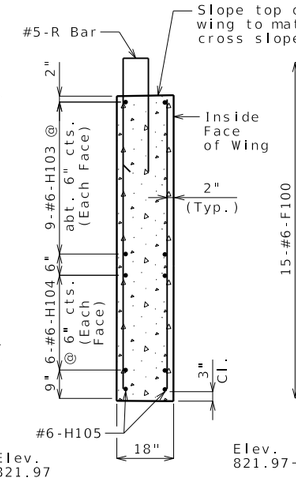
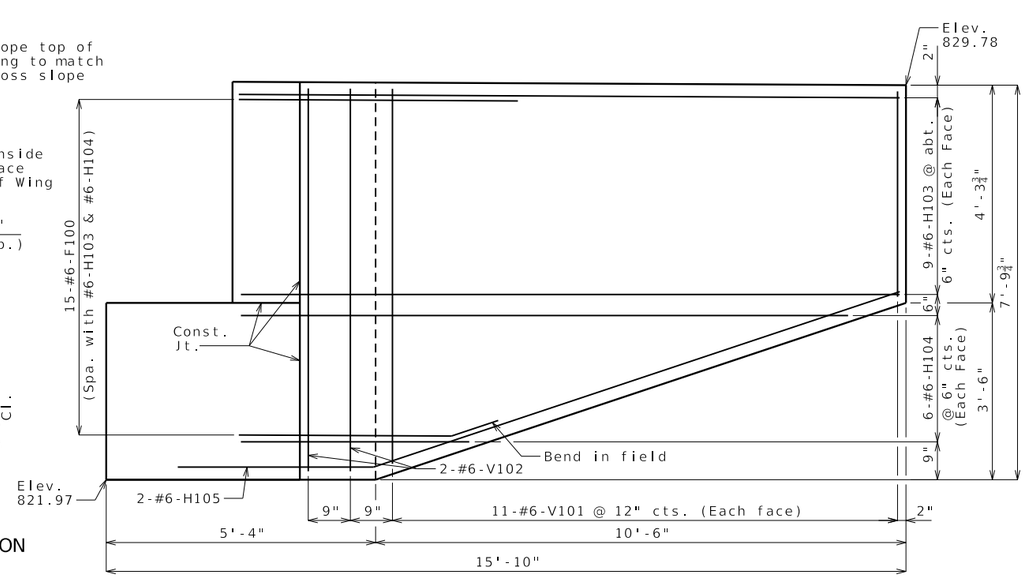


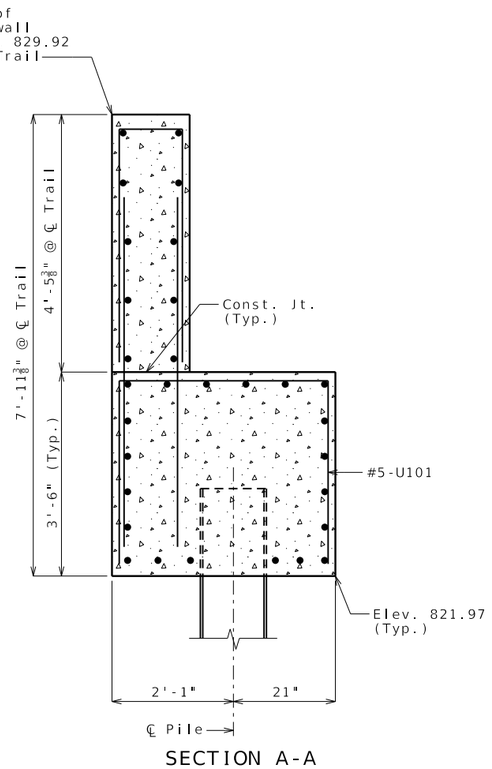
ELEVATION D-D



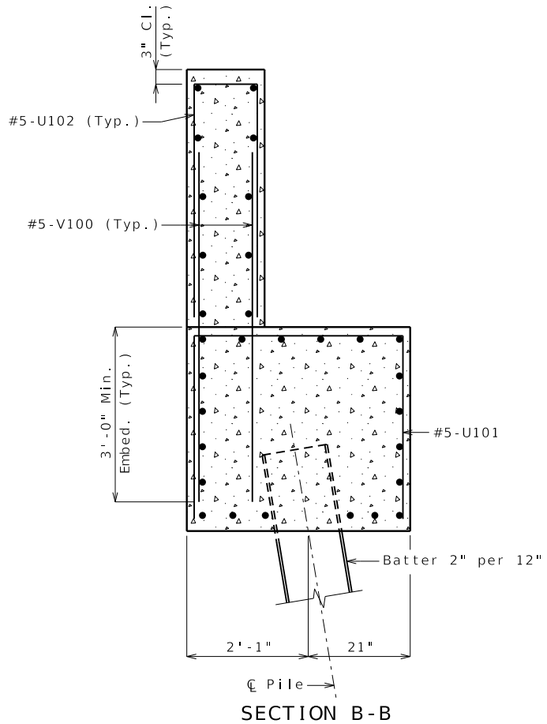
TYPICAL SECTION THRU WING



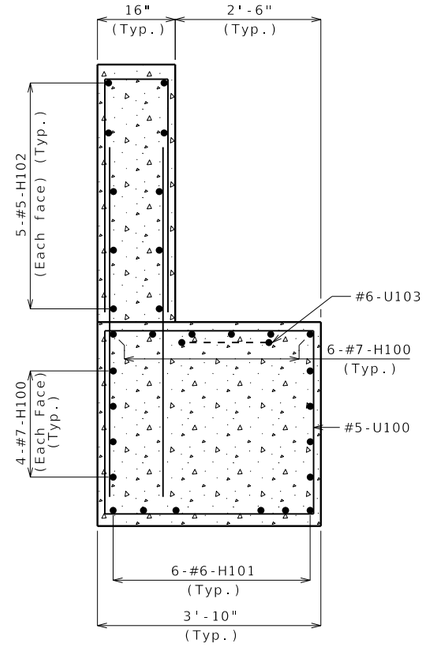
ELEVATION E-E



SECTION A-A



SECTION B-B



SECTION C-C

Notes:

Work this sheet with Sheets No. 3 and 4.

For reinforcement of the barrier curb, see Sheet No. 22.

DETAILS OF END BENT NO. 1

Detailed June 2024
Checked July 2024

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STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 5
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DESCRIPTION | DATE

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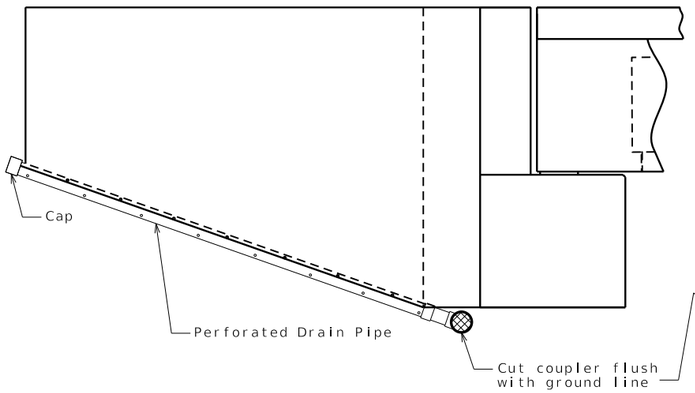
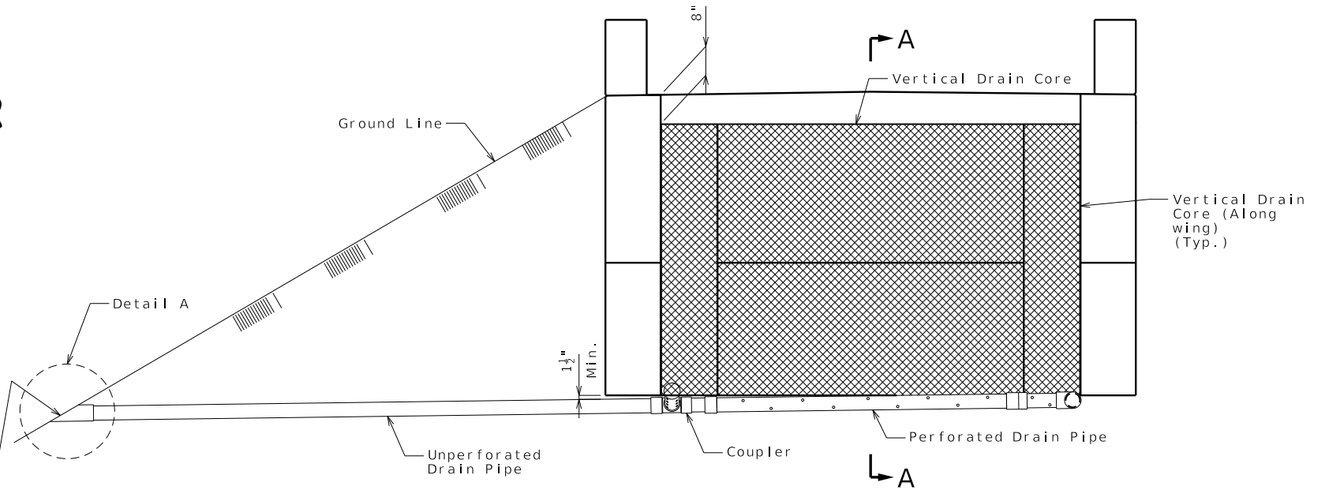
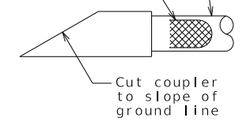
CERTIFICATE OF AUTHORITY NO. 001592



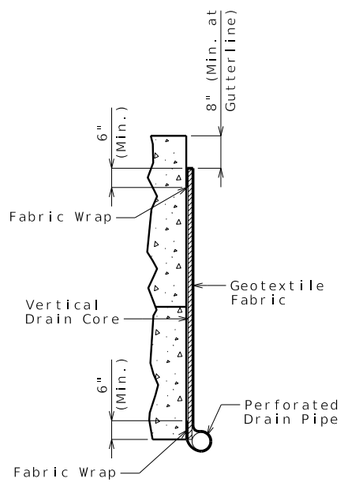
ELEVATION OF WING



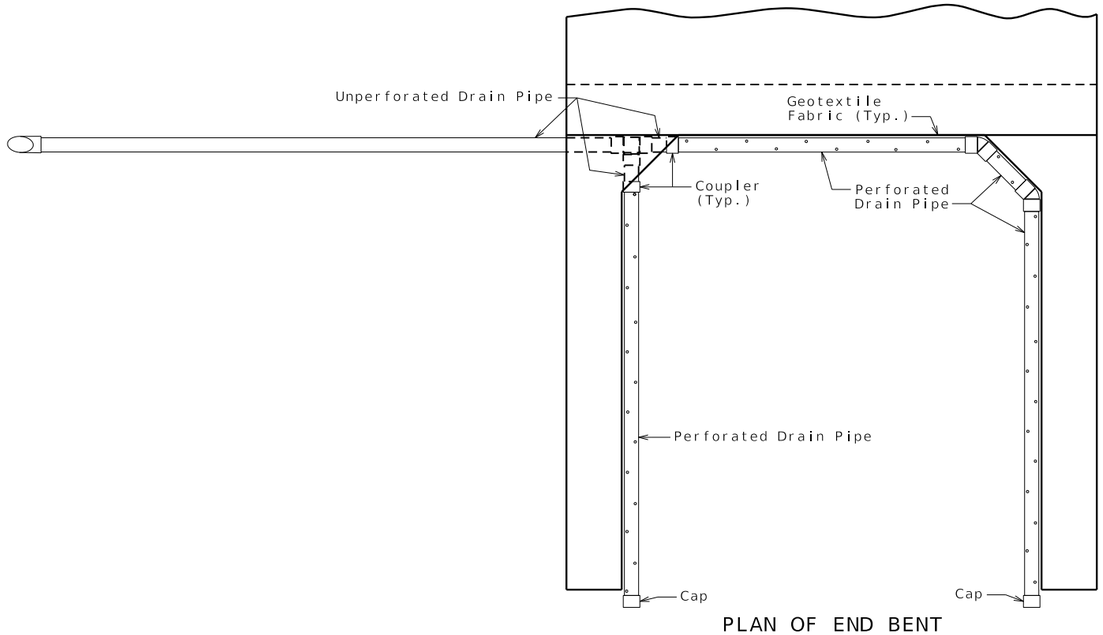
ELEVATION OF END BENT



DETAIL A



PART SECTION A-A
(Section thru wing similar)



PLAN OF END BENT

General Notes:

All drain pipe shall be sloped 1 to 2 percent.

Drain pipe may be either 6-inch diameter corrugated metallic-coated steel pipe underdrain, 4-inch diameter corrugated polyvinyl chloride (PVC) drain pipe, or
4-inch diameter corrugated polyethylene (PE) drain pipe.

Drain pipe shall be placed at fill face of end bent and inside face of wings. The pipe shall slope to lowest grade of ground line, also missing the lower beam of end bent by a minimum of 1 1/2 inches.

Perforated pipe shall be placed at fill face side and inside face of wings at the bottom of end bent and plain pipe shall be used where the vertical drain ends to the exit at ground line.

VERTICAL DRAIN AT END BENTS

Detailed June 2024
Checked July 2024

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STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	6

COUNTY
JACKSON

JOB NO.
JKU0404

CONTRACT ID.

PROJECT NO.
STP3337(441)

BRIDGE NO.
A9497

DESCRIPTION	DATE

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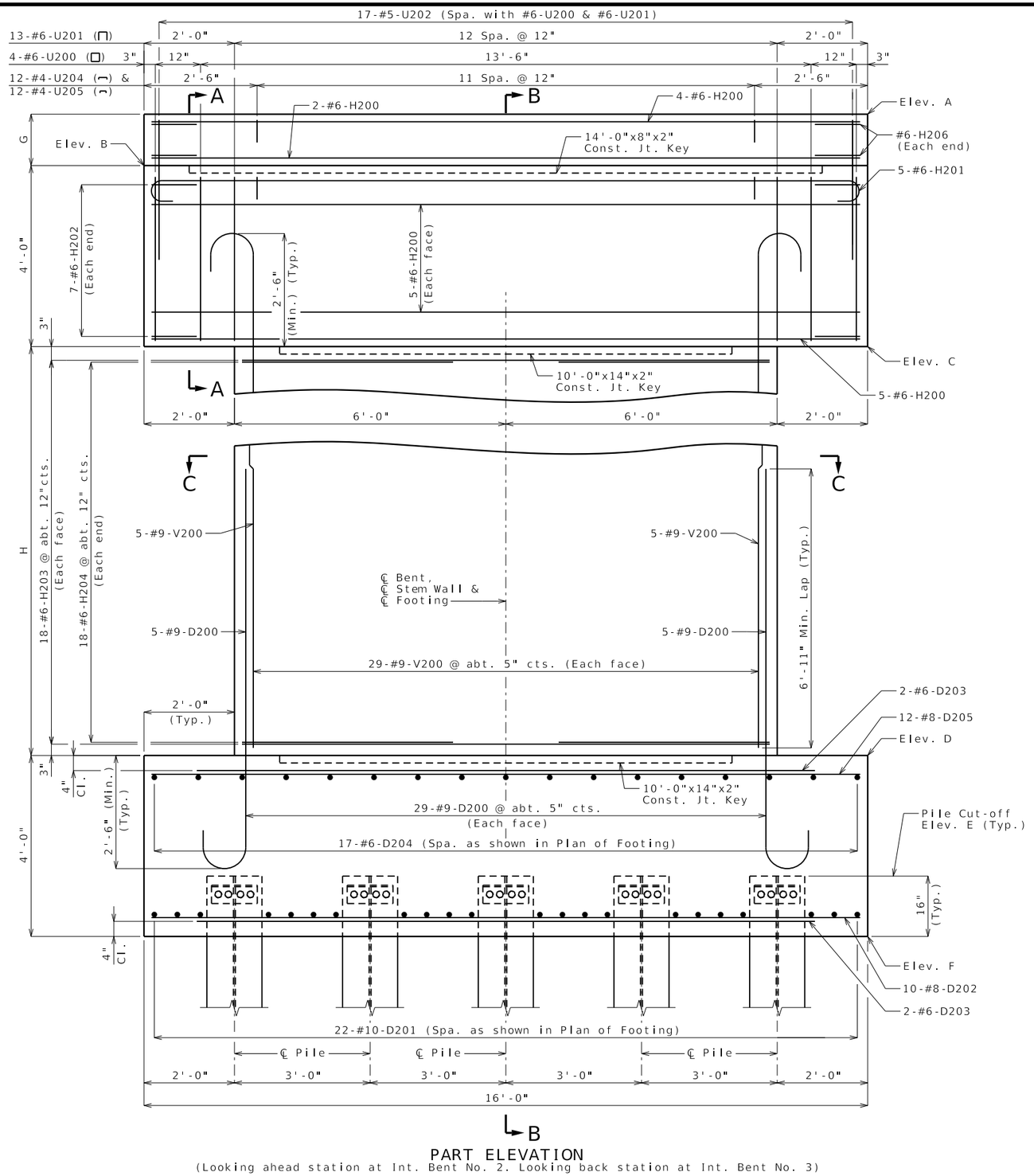
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592



PART ELEVATION

(Looking ahead station at Int. Bent No. 2. Looking back station at Int. Bent No. 3)

DETAILS OF INTERMEDIATE BENTS NO. 2 & 3

Table of Variables		
Variable	Bent No. 2	Bent No. 3
A - Top of Beam Step Elevation	825.67	826.06
B - Top of Beam Elevation	824.53	824.91
C - Bottom of Beam Elevation	820.53	820.91
D - Top of Footing Elevation	803.70	803.41
E - Pile Cut-off Elevation	801.03	800.74
F - Bottom of Footing Elevation	799.70	799.41
G - Height of Beam Step	$13\frac{5}{8}$"	$13\frac{3}{4}$"
H - Height of Stem Wall	16'-10"	17'-6"

Substructure Quantity Table for Bent No. 2		
Item		Quantity
Class 1 Excavation	cu. yard	90
Galvanized Structural Steel Piles (14 in.)	linear foot	754
Pile Point Reinforcement	each	13
Class B Concrete (Substructure)	cu. yard	63.1
Reinforcing Steel (Bridges)	pound	2390
Reinforcing Steel (Epoxy Coated)	pound	10,230

Substructure Quantity Table for Bent No. 3		
Item		Quantity
Class 1 Excavation	cu. yard	90
Galvanized Structural Steel Piles (14 in.)	linear foot	234
Pre-Bore for Piling	linear foot	208
Pile Point Reinforcement	each	13
Class B Concrete (Substructure)	cu. yard	64.1
Reinforcing Steel (Bridges)	pound	2390
Reinforcing Steel (Epoxy Coated)	pound	10,380

These quantities are included in the Estimated Quantities table on Sheet No. 2.

Notes:

This sheet shall be used as a template for Bents No. 2 & 3. Bar marks shown are applicable for Bent No. 2. The Bill or Reinforcing Steel will use separate bar marks for each bent. The first number in the bar mark will match the corresponding Bent No.

Work this sheet with Sheets No. 8 and 9.

Reinforcing steel shall be shifted to clear piles by at least 1 1/2 inches.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	7

COUNTY JACKSON

JOB NO. JKU0404

CONTRACT ID.

PROJECT NO. STP3337(441)

BRIDGE NO. A9497

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF
AUTHORITY NO. 001592

Detailed June 2024
Checked July 2024

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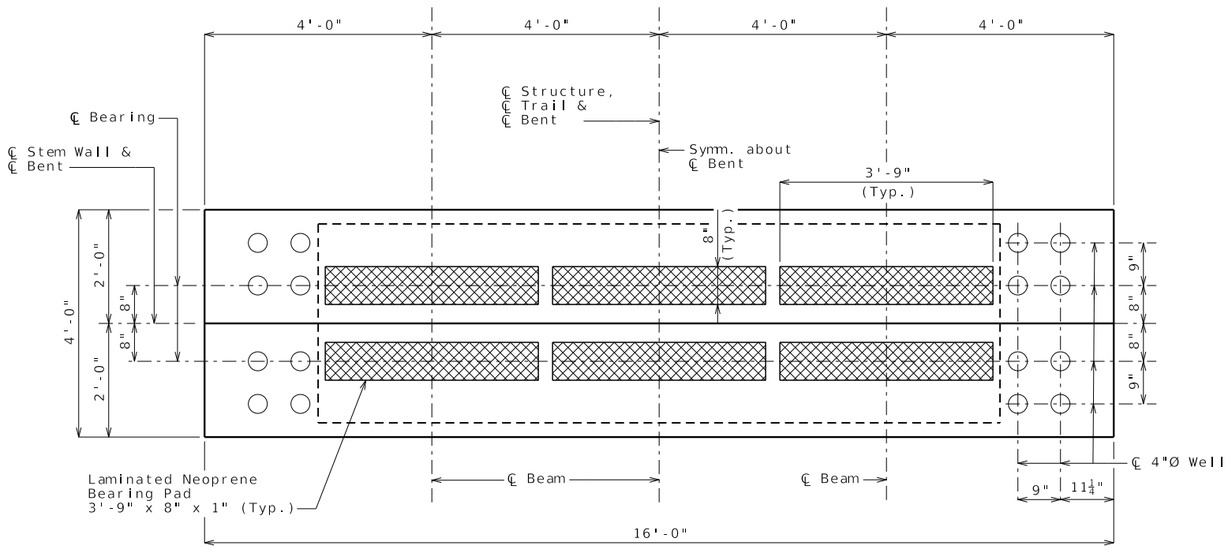
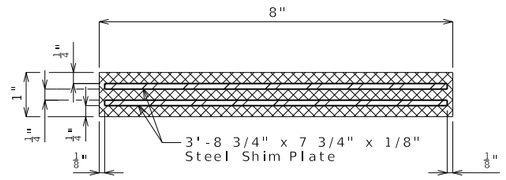
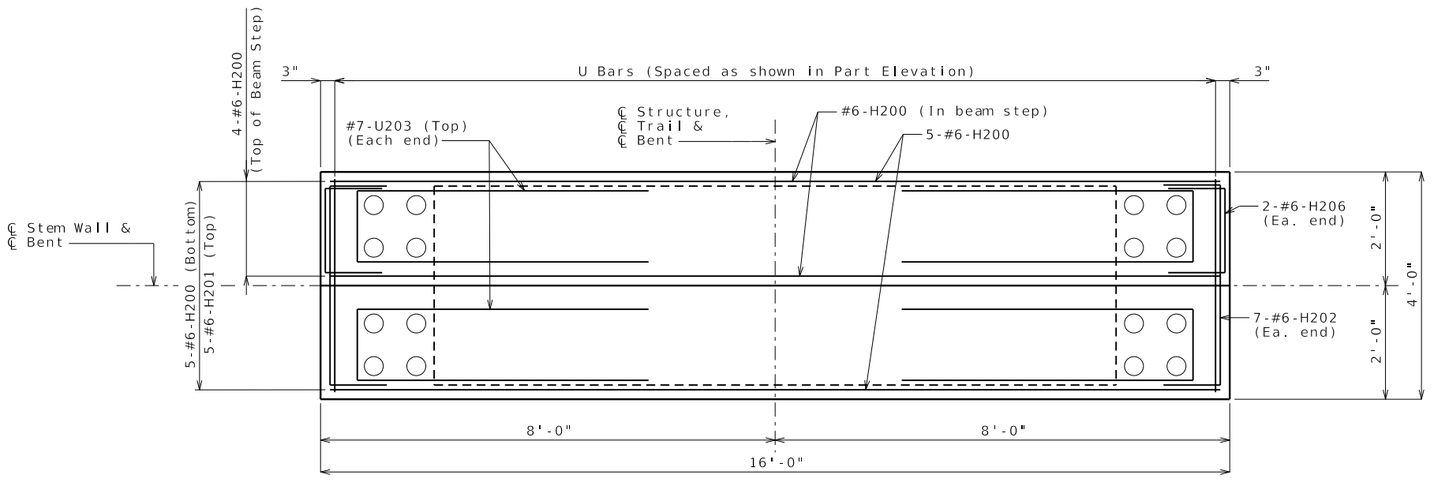


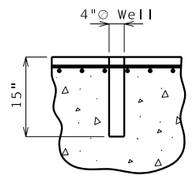
PLAN OF BEAM
(Footing not shown for clarity)



SECTION THRU LAMINATED NEOPRENE BEARING PAD



PLAN SHOWING REINFORCEMENT
(Footing not shown for clarity)



ANCHOR BOLT WELLS

Notes:

This sheet shall be used as a template for Bents No. 2 & 3. Bar marks shown are applicable for Bent No. 2. The Bill of Reinforcing Steel will use separate bar marks for each bent. The first number in the bar mark will match the corresponding Bent No.

Work this sheet with Sheets No. 7 and 9.

The bearings shall be bonded to the bearing beam and the box beams using an adhesive approved for bonding elastomer to concrete.

Reinforcing steel shall be shifted to clear anchor bolt wells by at least 1/2".

For details of beam stops, see Sheet No. 17.

DETAILS OF INTERMEDIATE BENTS NO. 2 & 3

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	8

COUNTY
JACKSON

JOB NO.
JKU0404

CONTRACT ID.

PROJECT NO.
STP3337(441)

BRIDGE NO.
A9497

DESCRIPTION	DATE

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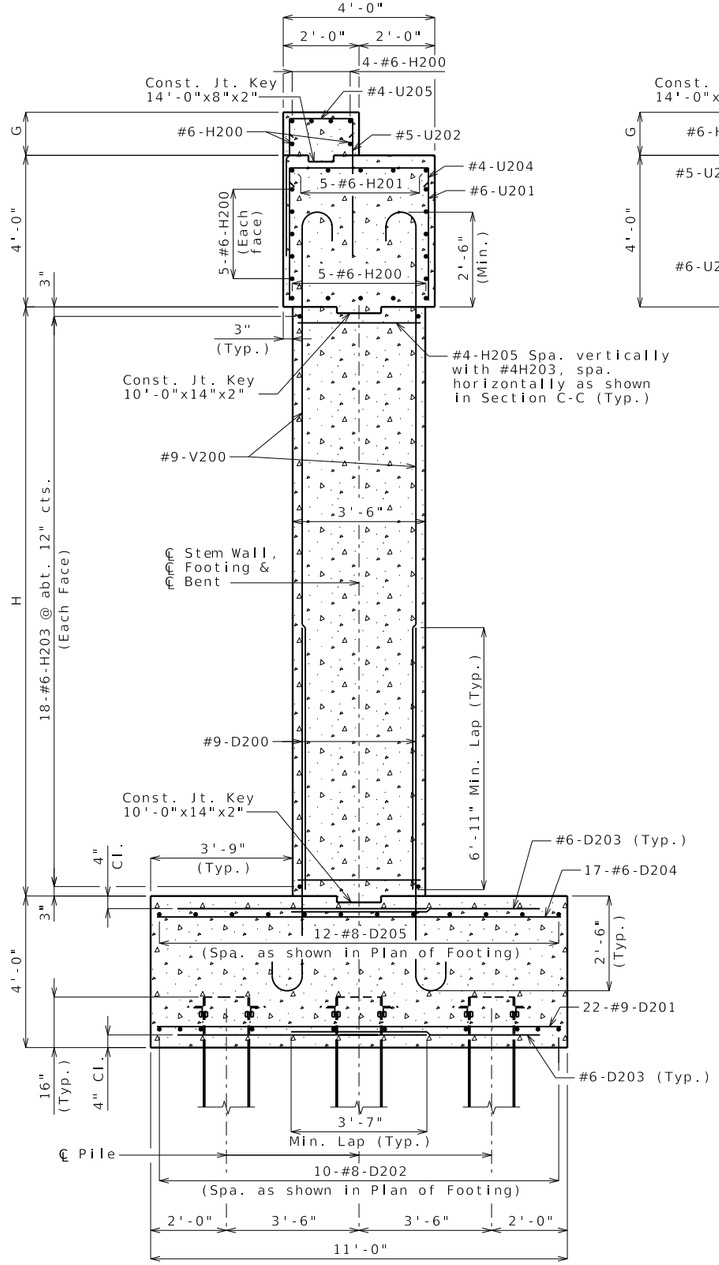
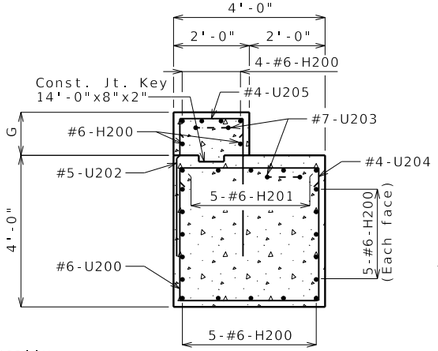
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

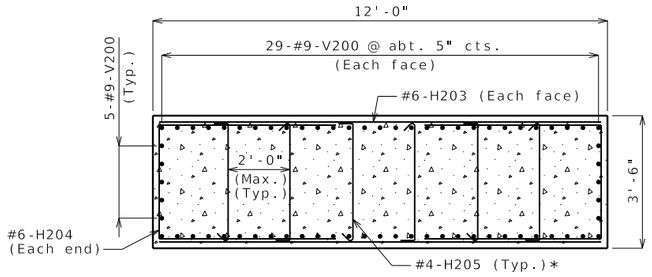
olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592



SECTION B-B

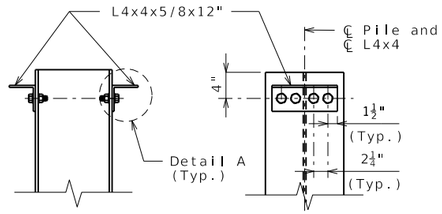


SECTION A-A

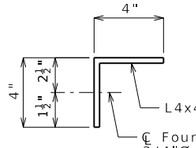


SECTION C-C

* Alternate hooked ends in both the vertical and horizontal directions



DETAILS OF HP PILE ANCHORS

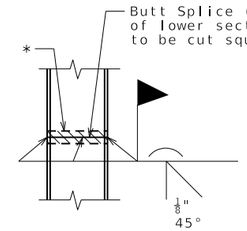


℄ Four 13/16"Ø Holes for 3/4"Ø bolts (ASTM F3125 Grade A325 Type 1) with two washers and one nut each.

DETAIL A

Angles shall be ASTM A709 Grade 50. Angles shall be coated with a minimum of two coats of non-aluminum epoxy mastic primer to provide a dry film thickness of 4 mils minimum, 8 mils maximum, or galvanized in accordance with Sec 1081. Bolts, washers and nuts shall be galvanized in accordance with AASHTO M 232 (ASTM A153), Class C.

PLAN OF FOOTING



STEEL PILE SPLICE

(If required)

* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.

Notes:

This sheet shall be used as a template for Bents No. 2 & 3. Bar marks shown are applicable for Bent No. 2. The Bill of Reinforcing Steel will use separate bar marks for each bent. The first number in the bar mark will match the corresponding Bent No.

Work this sheet with Sheets No. 7 and 8.

Reinforcing steel shall be shifted to clear piles by at least 1 1/2 inches.

DETAILS OF INTERMEDIATE BENTS NO. 2 & 3

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	9

COUNTY JACKSON

JOB NO. JKU0404

CONTRACT ID.

PROJECT NO. STP3337(441)

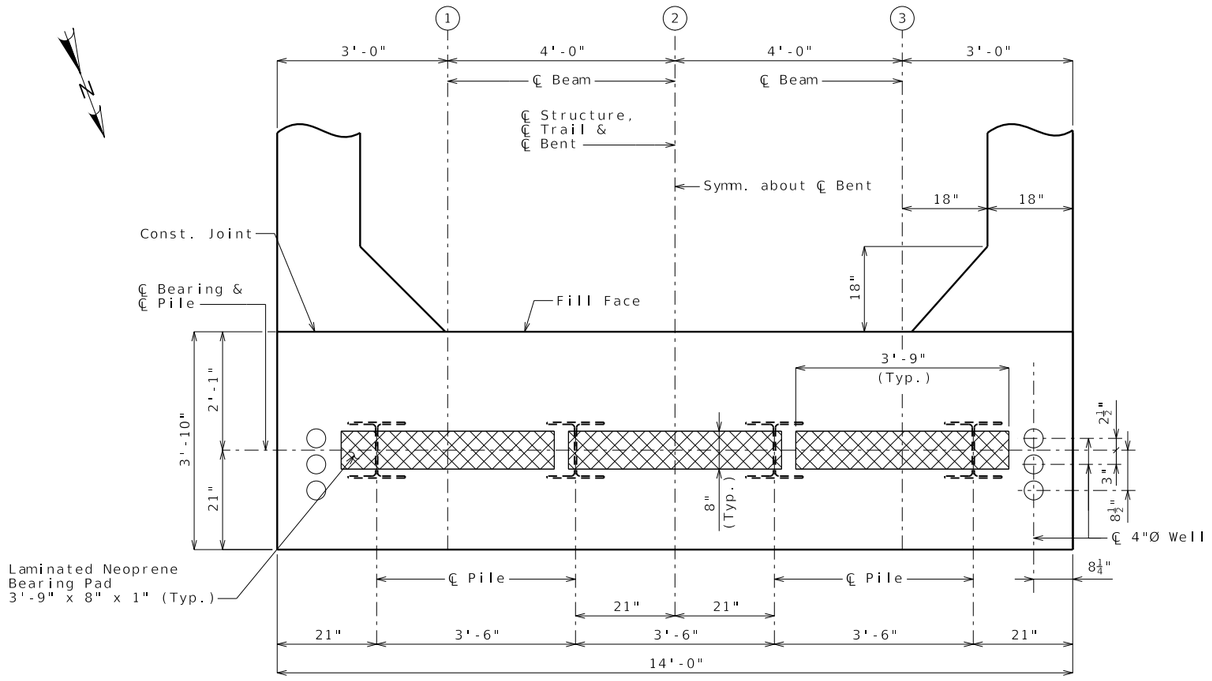
BRIDGE NO. A9497

DATE	DESCRIPTION

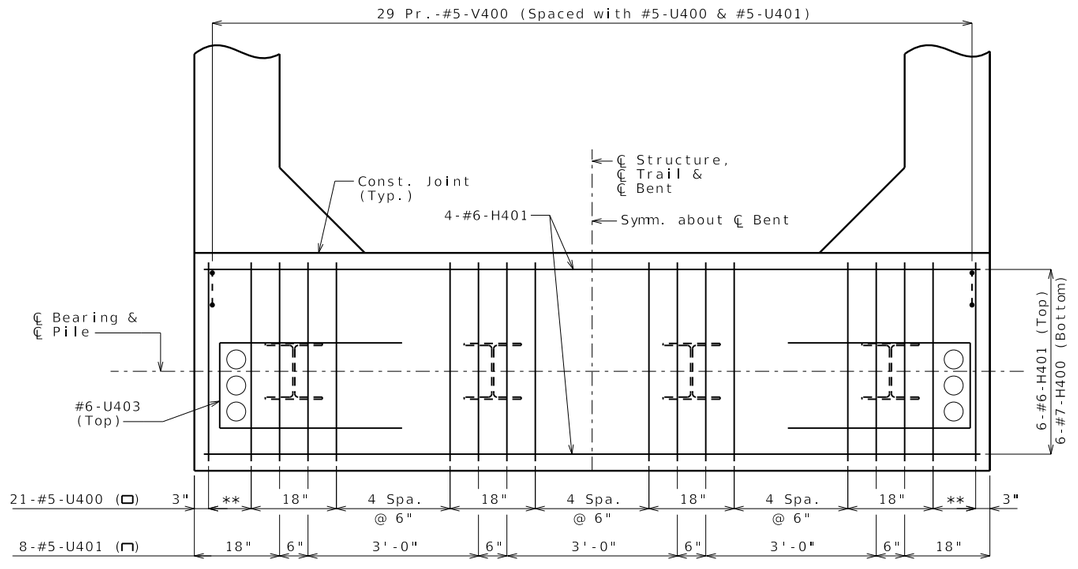
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



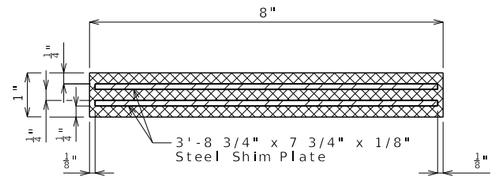
PLAN OF BEAM



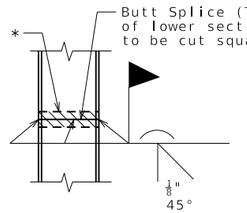
PLAN OF BEAM SHOWING REINFORCEMENT
** 2 Spa. @ 4½"

Substructure Quantity Table for Bent No. 4		
Item		Quantity
Class 1 Excavation	cu. yard	30
Galvanized Structural Steel Piles (14 in.)	linear foot	116
Pre-Bore for Piling	linear foot	108
Pile Point Reinforcement	each	4
Class B Concrete (Substructure)	cu. yard	18.2
Reinforcing Steel (Bridges)	pound	3630

These quantities are included in the Estimated Quantities table on Sheet No. 2.

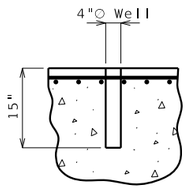


SECTION THRU LAMINATED NEOPRENE BEARING PAD



STEEL PILE SPLICE
(If required)

* Galvanizing material shall be omitted or removed one inch clear of weld locations in accordance with Sec 702.



ANCHOR BOLT WELLS

Notes:

Work this sheet with Sheets No. 11 and 12.

Reinforcing steel shall be shifted to clear anchor bolt wells by at least 1/2".

Reinforcing steel shall be shifted to clear piles. U bars shall clear piles by at least 1 1/2 inches.

For details of beam stops, see Sheet No. 17.

DETAILS OF END BENT NO. 4

Detailed June 2024
Checked July 2024

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STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 10
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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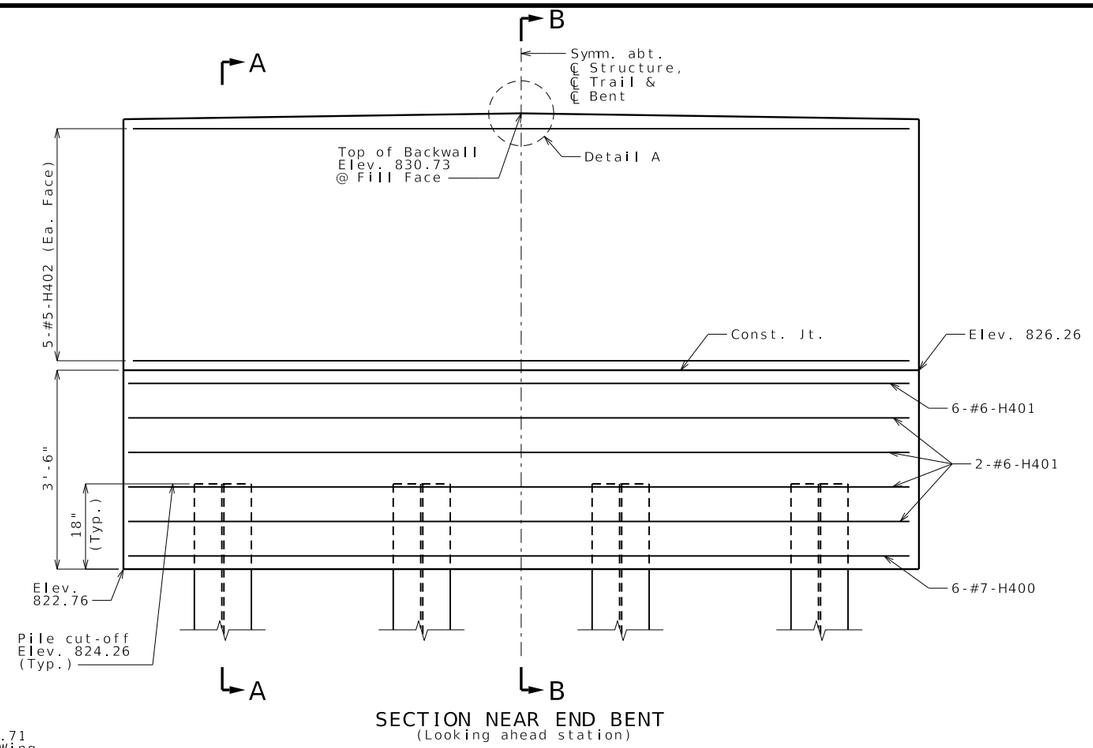
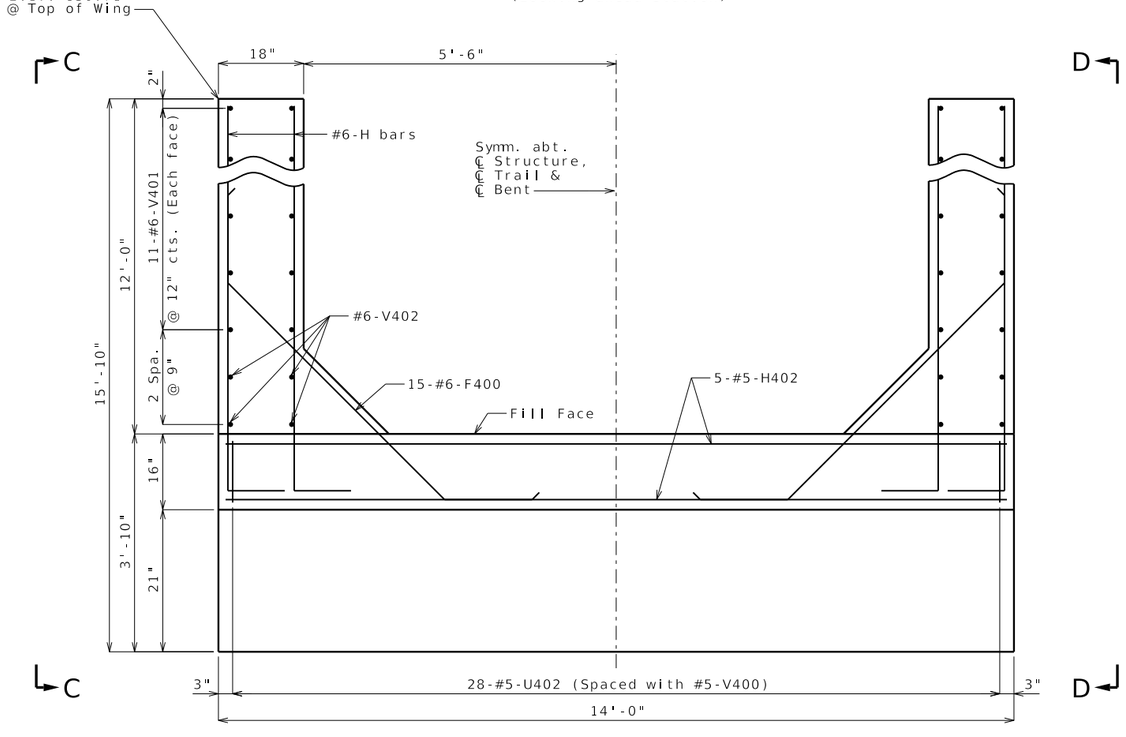
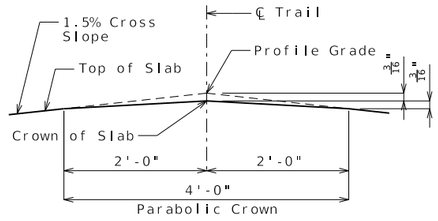
CERTIFICATE OF AUTHORITY NO. 001592



SECTION NEAR END BENT
(Looking ahead station)



PLAN



DETAIL A

Notes:

Work this sheet with Sheets No. 10 and 12.

The bearings shall be bonded to the bearing beam and the box beam using an adhesive approved for bonding elastomer to concrete.

For details of vertical drain at end bents, see Sheet No. 6.

DETAILS OF END BENT NO. 4

Detailed June 2024
Checked July 2024

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STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 11
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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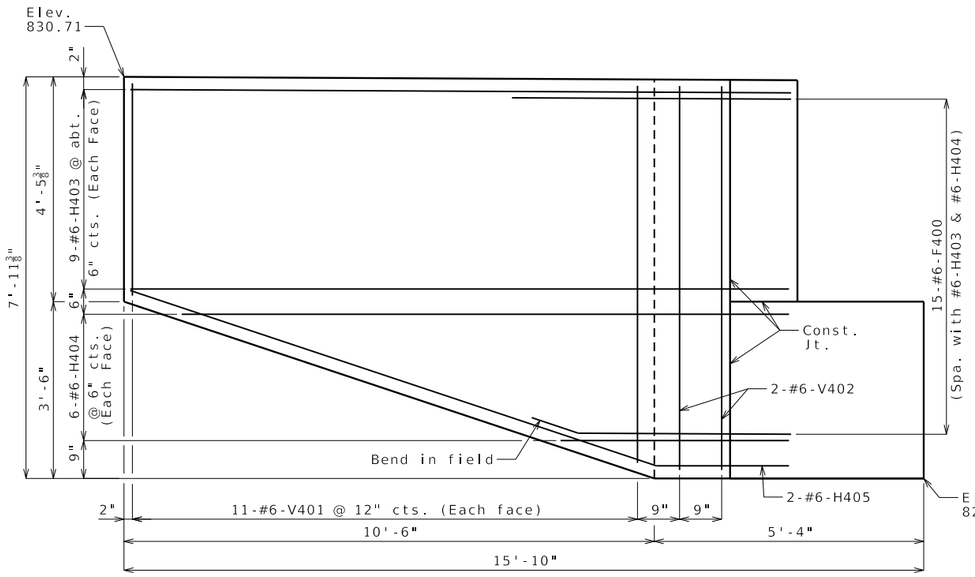
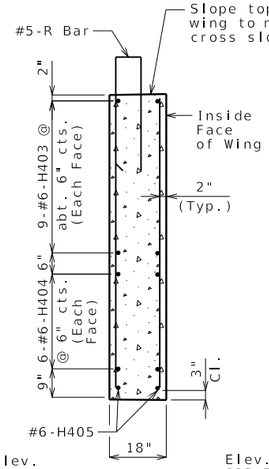
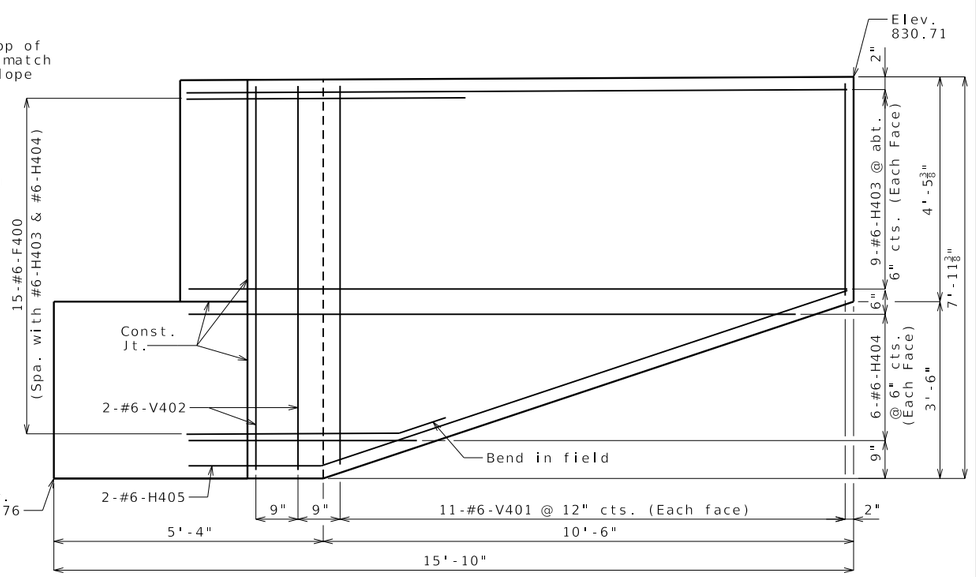


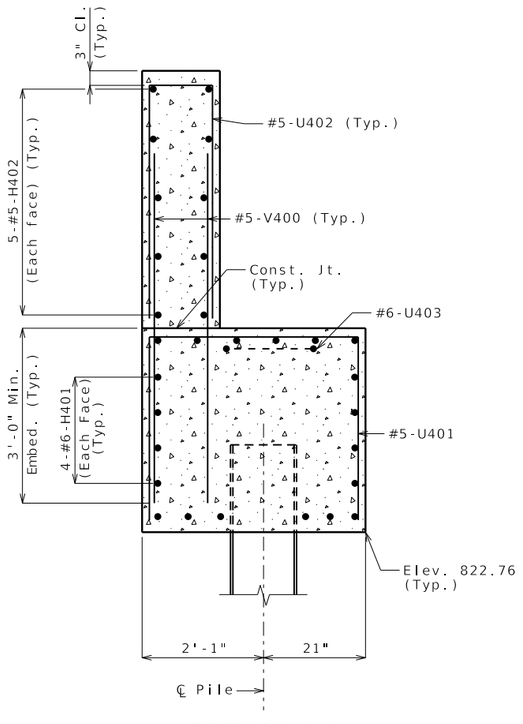
ELEVATION C-C



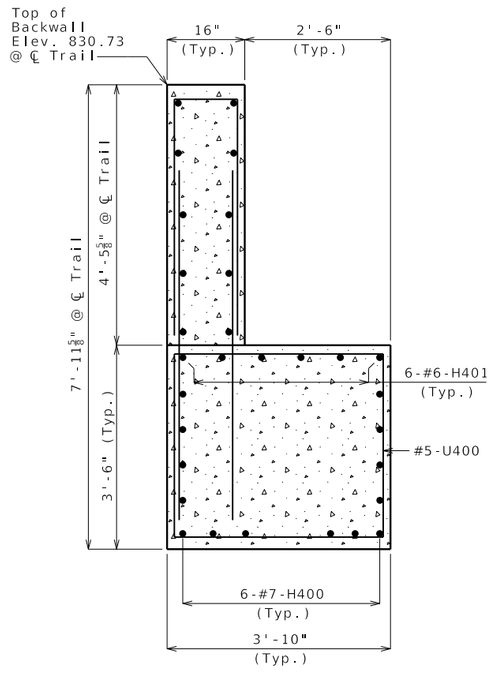
TYPICAL SECTION THRU WING



ELEVATION D-D



SECTION A-A



SECTION B-B

Notes:

Work this sheet with Sheets No. 10 and 11.

For reinforcement of the barrier curb, see Sheet No. 22.

DETAILS OF END BENT NO. 4

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_012_KU0404_End Bent No. 4 (3 of 3).dgn 3:40:26 PM 5/13/2025

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	12

COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DATE	DESCRIPTION

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
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1-888-ASK-MODOT (1-888-275-6636)

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1301 BURLINGTON STREET, STE. 100
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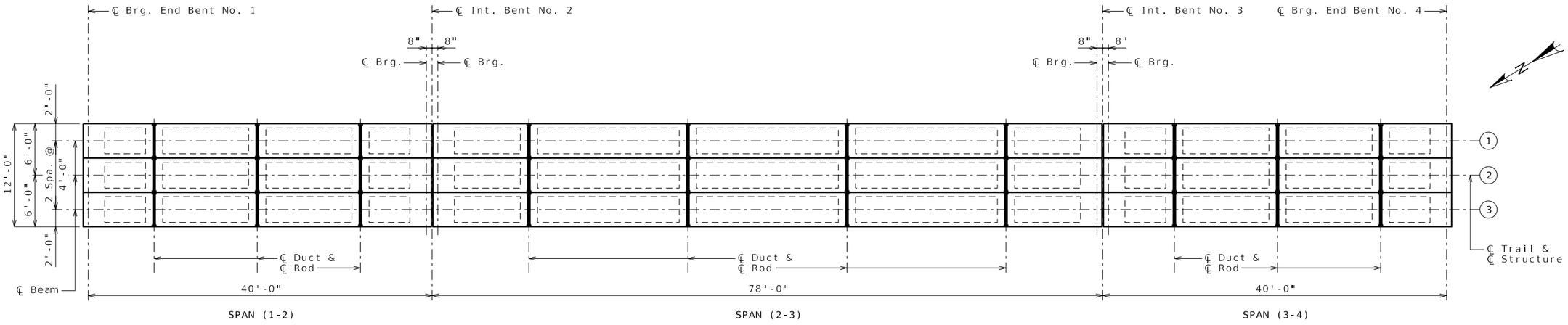

PLAN SHOWING LAYOUT OF CONCRETE BOX BEAMS

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/13/2025

ROUTE	STATE
350	MO

DISTRICT	SHEET NO.
BR	13

COUNTY
JACKSON

JOB NO.
JKU0404

CONTRACT ID.

PROJECT NO.
STP3337(441)

BRIDGE NO.
A9497

DESCRIPTION	DATE

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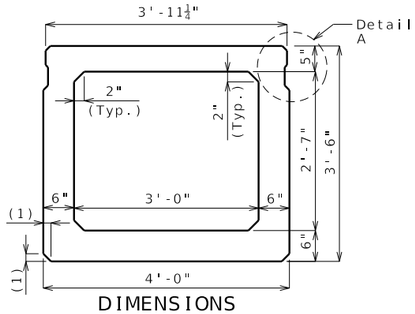
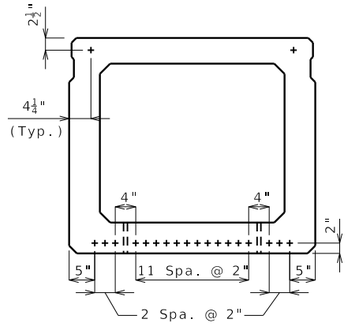
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF
AUTHORITY NO. 001592



DIMENSIONS

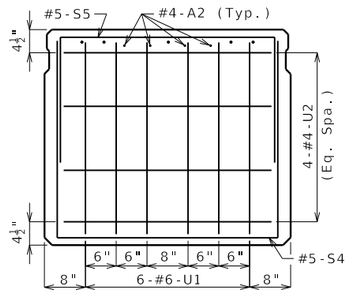
(1) 1½" (Typ.) (¾" Optional)



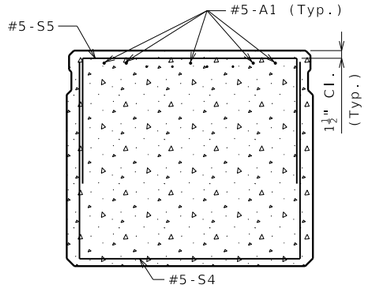
STRAND ARRANGEMENT

All strands are fully bonded.

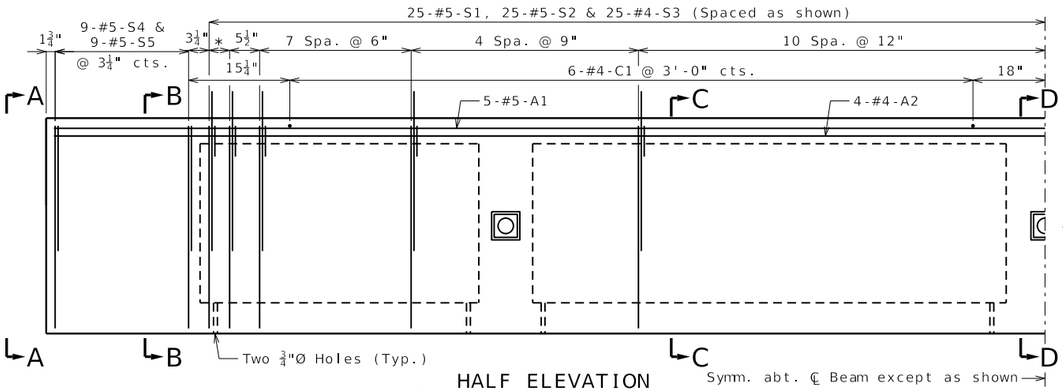
+ Indicates prestressing strand.



ELEVATION A-A



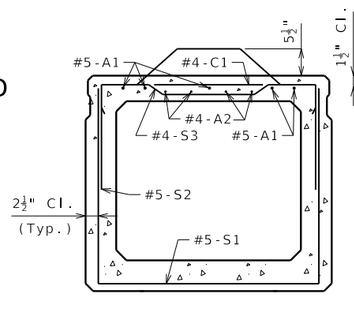
SECTION B-B



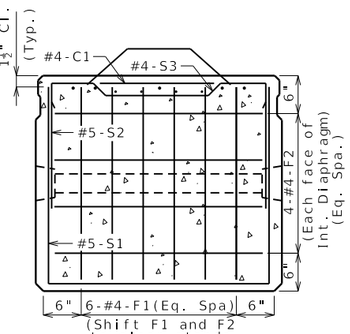
HALF ELEVATION

Strands not shown for clarity.

* 2 Spa. @ 3¼"



SECTION C-C

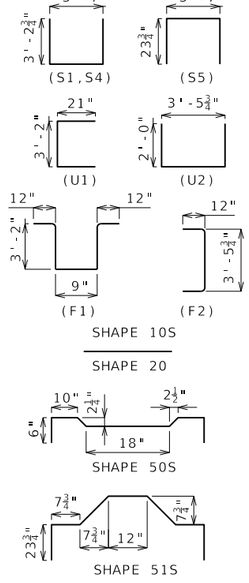


(Shift F1 and F2 to clear stands by 1/2" min.)

SECTION D-D

BILL OF REINFORCING STEEL - EACH BEAM

NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
5	5 A1	39'-11"	20	
4	4 A2	39'-11"	20	
12	4 C1	3'-7"	20	
49	5 S1	9'-10"	10S	
49	5 S2	7'-9"	51S	
49	4 S3	4'-6"	50S	
18	5 S4	9'-10"	10S	
18	5 S5	7'-4"	10S	
12	6 U1	6'-4"	10S	
8	4 U2	7'-4"	10S	
18	4 F1	8'-9"	10S	
24	4 F2	5'-4"	10S	



All dimensions are out to out. Use symmetry for dimensions not shown.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch, unless otherwise shown.

All reinforcement shall be Grade 60.

All S2 bars shall be epoxy coated.

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 6,000 psi and f'ci = 4,500 psi.

Use 20 strands, 0.6"Ø Grade 270, with an initial prestress force of 879 kips.

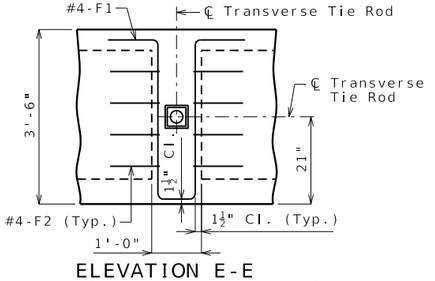
Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior beams are the same except: keyways and optional blockouts.

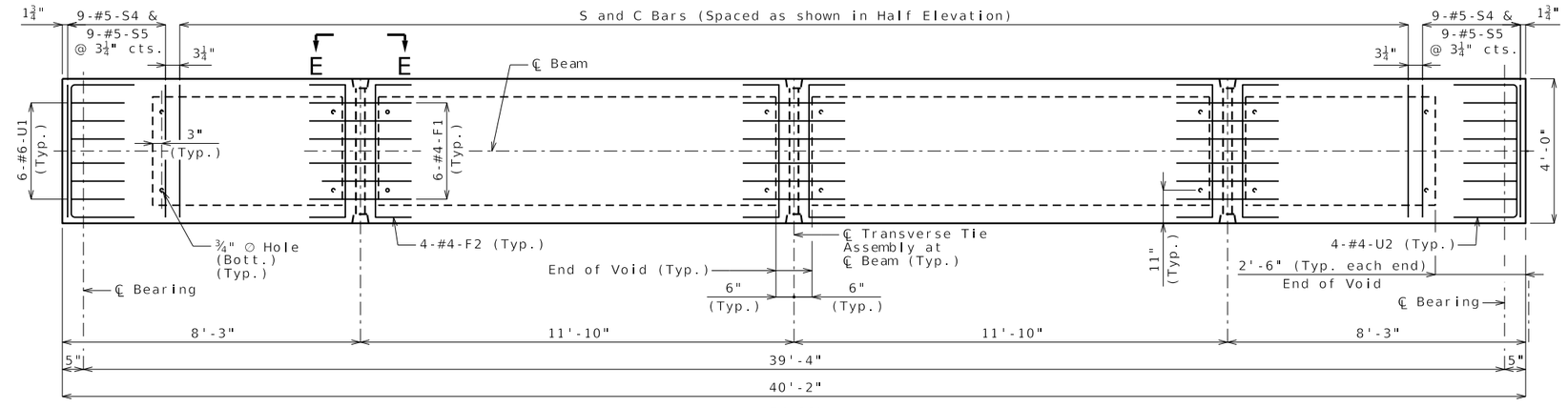
For Beam Camber Diagram, see Sheet No. 19.

For Detail A & additional Box Beam Details, see Sheets No. 16 & 17.



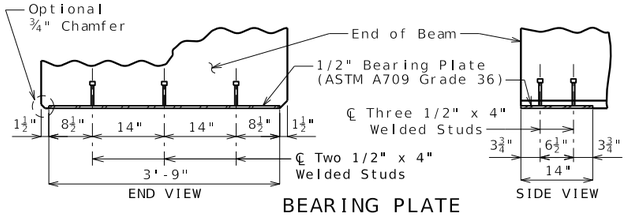
ELEVATION E-E

A, C, & S Bars not shown for clarity.



PLAN

Strands not shown for clarity.



BEARING PLATE

ADJACENT BOX BEAMS - SPANS (1-2) AND (3-4)

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	14

COUNTY JACKSON

JOB NO. JKU0404

CONTRACT ID.

PROJECT NO. STP3337(441)

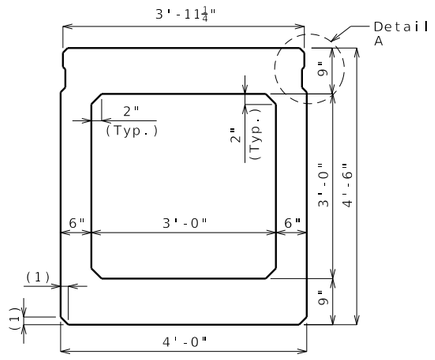
BRIDGE NO. A9497

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

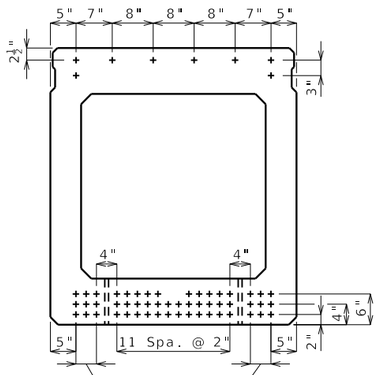
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592



DIMENSIONS

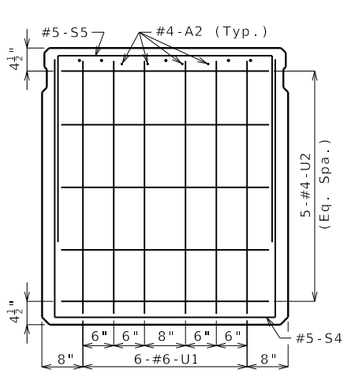
(1) 1½" (Typ.) (¾" Optional)



STRAND ARRANGEMENT

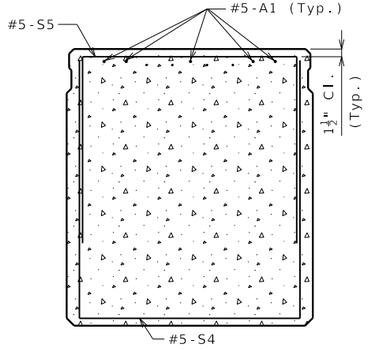
All strands are fully bonded.

+ Indicates prestressing strand.



ELEVATION A-A

Strands not shown for clarity.

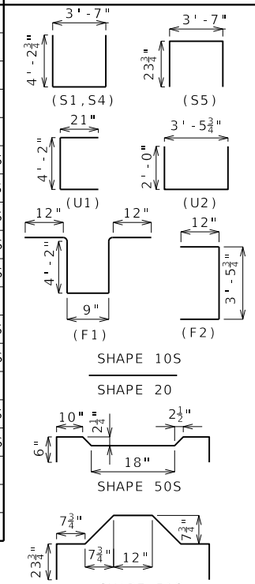


SECTION B-B

Strands not shown for clarity.

BILL OF REINFORCING STEEL - EACH BEAM

NO.	SIZE & MARK	ACTUAL LENGTH	SHAPE	BENDING DIAGRAM
10	5 A1	39'-11"	20	
8	4 A2	39'-8"	20	
25	4 C1	3'-7"	20	
97	5 S1	11'-10"	10S	
97	5 S2	7'-9"	51S	
97	4 S3	4'-6"	50S	
18	5 S4	11'-10"	10S	
18	5 S5	7'-4"	10S	
12	6 U1	7'-4"	10S	
10	4 U2	7'-4"	10S	
24	4 F1	10'-9"	10S	
40	4 F2	5'-4"	10S	



All dimensions are out to out. Use symmetry for dimensions not shown.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Actual lengths are measured along centerline of bar to the nearest inch.

Minimum clearance to reinforcing shall be one inch, unless otherwise shown.

All reinforcement shall be Grade 60.

All S2 bars shall be epoxy coated.

General Notes:

Concrete for prestressed beams shall be Class A-1 with f'c = 10,000 psi and f'ci = 7,500 psi.

Use 60 strands, 0.6"Ø Grade 270, with an initial prestress force of 2636 kips.

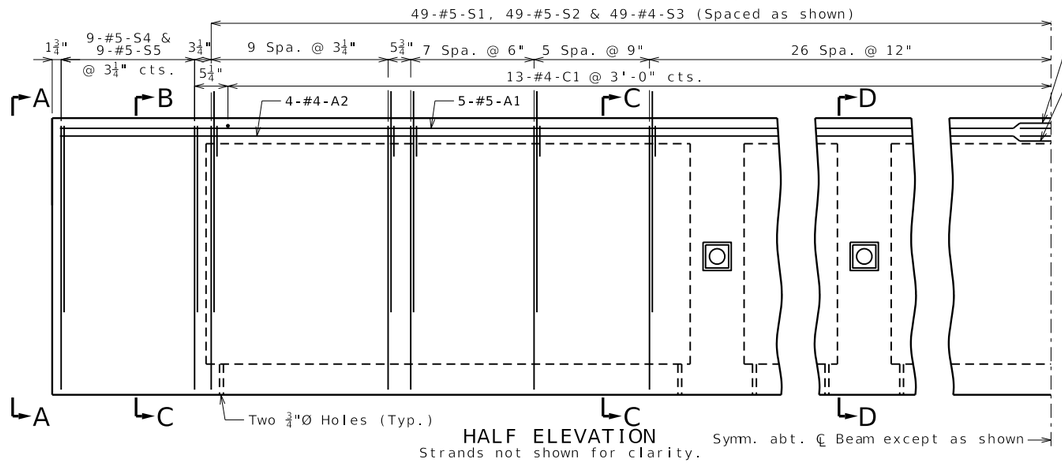
Pretensioned members shall be in accordance with Sec 1029.

Fabricator shall be responsible for location and design of lifting devices.

Exterior and interior beams are the same except: keyways and optional blockouts.

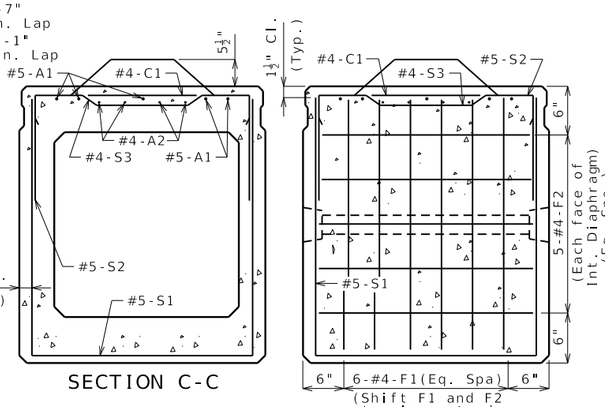
For Beam Camber Diagram, see Sheet No. 19.

For Detail A and additional beam details, see Sheets No. 16 & 17.



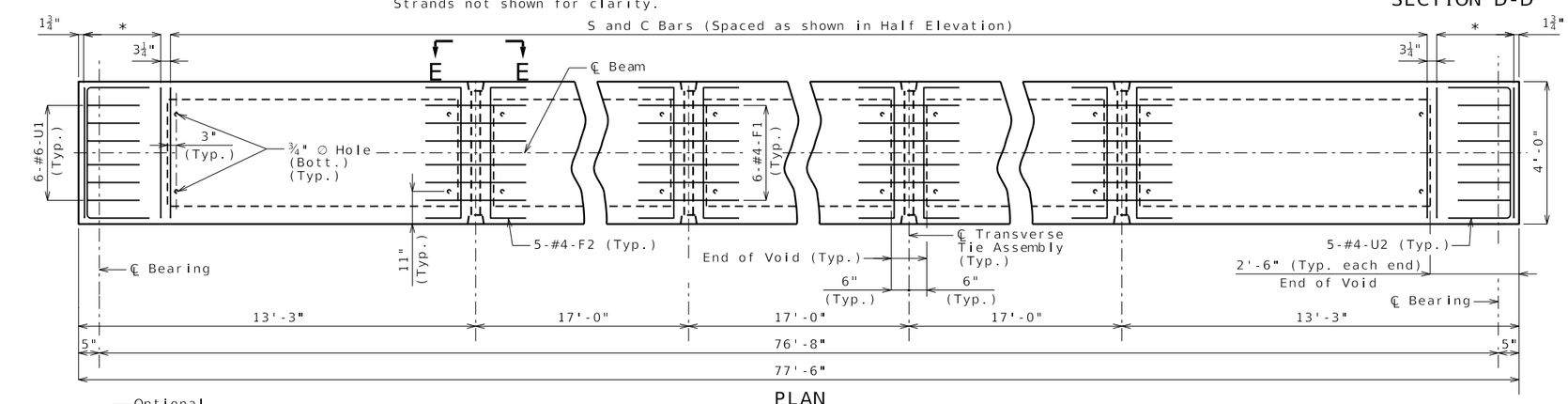
HALF ELEVATION

Strands not shown for clarity.



SECTION C-C

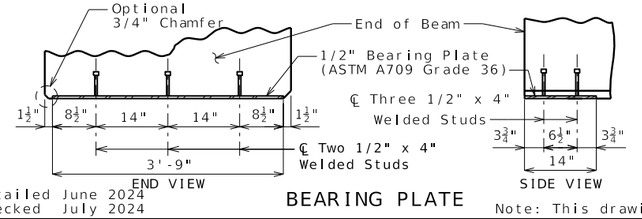
SECTION D-D



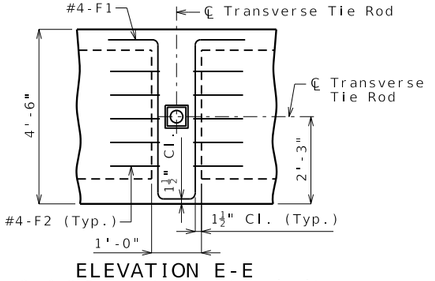
PLAN

Strands not shown for clarity.

* 9-#5-S4 & 9-#5-S5 @ 3¼"cts.



BEARING PLATE



ELEVATION E-E

A, C, & S Bars not shown for clarity.

ADJACENT BOX BEAMS - SPAN (2-3)

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	15

COUNTY JACKSON

JOB NO. JKU0404

CONTRACT ID.

PROJECT NO. STP3337(441)

BRIDGE NO. A9497

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

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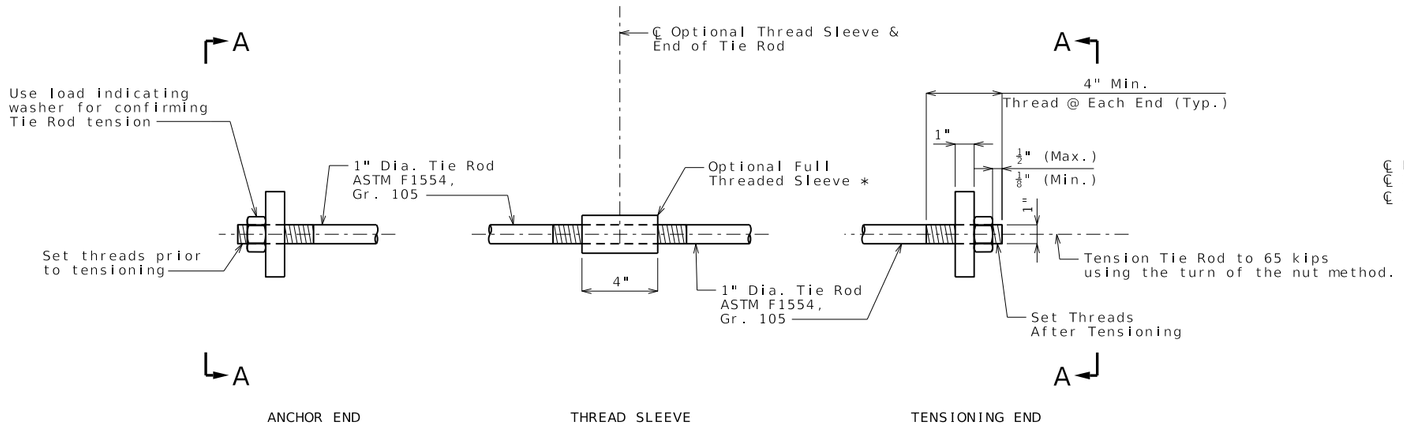
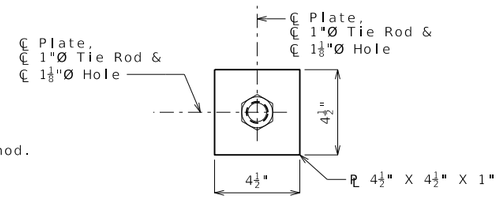
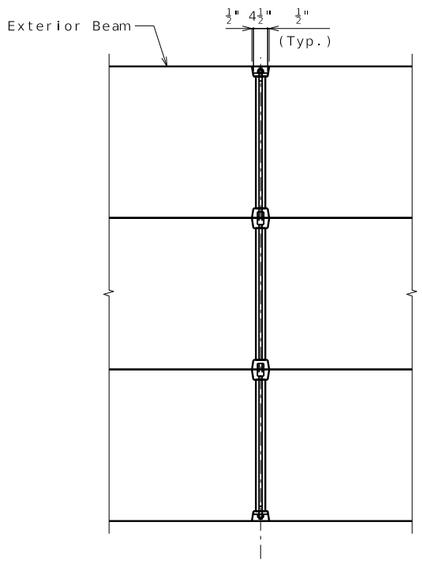
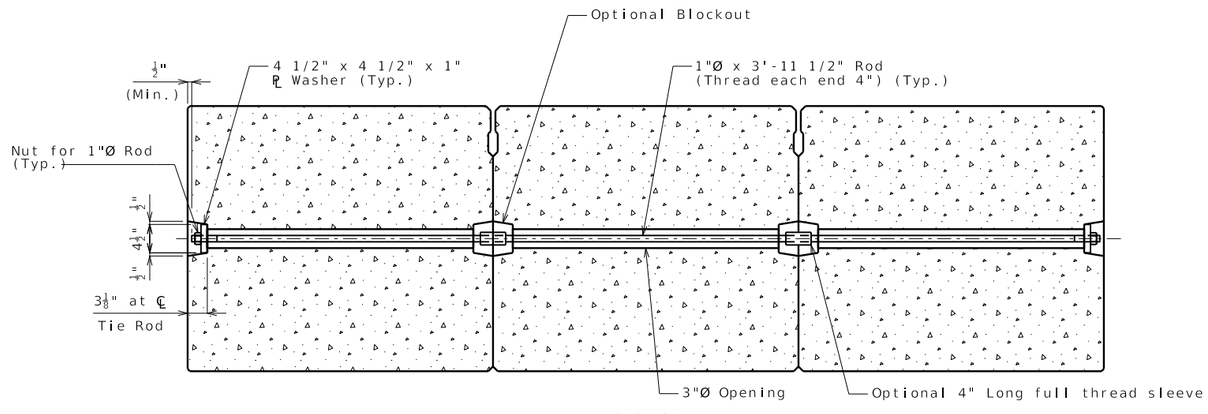




TIE ROD & BEARING PLATE DETAILS

* Certification of Thread Sleeve
Capacity in excess of tie rod capacity shall be provided.





TYPICAL TRANSVERSE TIE ASSEMBLY

Reinforcement & Strands not shown for clarity

Notes:

The 1" Dia. rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bars on outside shall be filled with grout after transverse tie assembly is in place.

Keyway surface shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

Use high strength tie rods that conform to ASTM F1554 Grade 105. Use heavy hexagon nuts that conform to ASTM A563. Hot-dip galvanize tie rods, plates, nuts and washers after fabrication. Tighten tie rods to a minimum tension of 65 kips.

Use mechanically galvanized load indicating washers conforming to ASTM F959. The load indicating washers shall be placed on the anchor end, not the tensioning end.

Tighten all tie rods (per box) to about one half of the specified tension before proceeding with the final tensioning.

The cost of furnishing and installing the tie rod assembly will be considered completely covered by the contract unit price for 42 in., Prestressed Concrete Adjacent Box Beam and 54 in., Prestressed Concrete Adjacent Box Beam.

MISCELLANEOUS BOX BEAM DETAILS

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_016_KU0404_Misc. Beam Details (1 of 2).dgn 3:40:35 PM 5/13/2025

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	16

COUNTY
JACKSON

JOB NO.
JKU0404

CONTRACT ID.

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1301 BURLINGTON STREET, STE. 100
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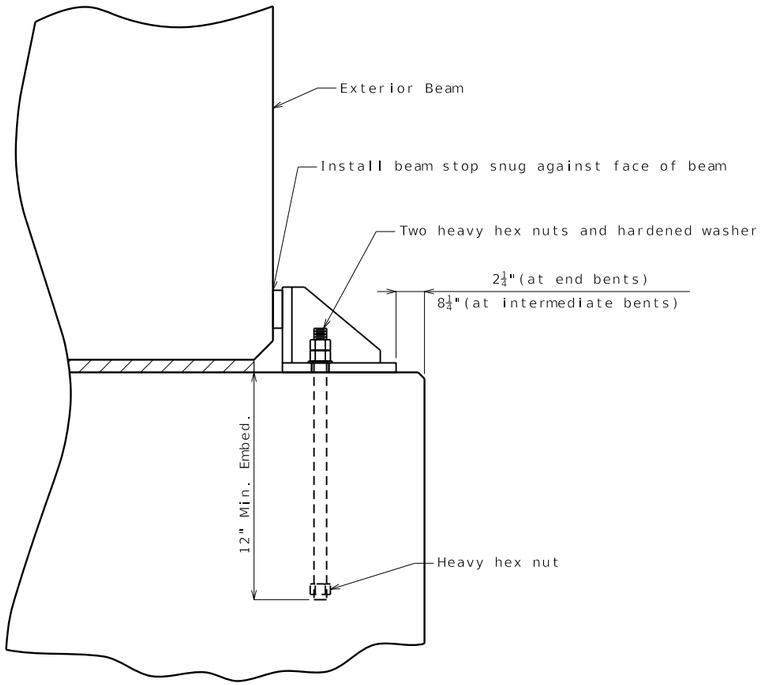
AUTHORITY NO. 001592



BEAM STOP INSTALLATION DETAIL

Notes:

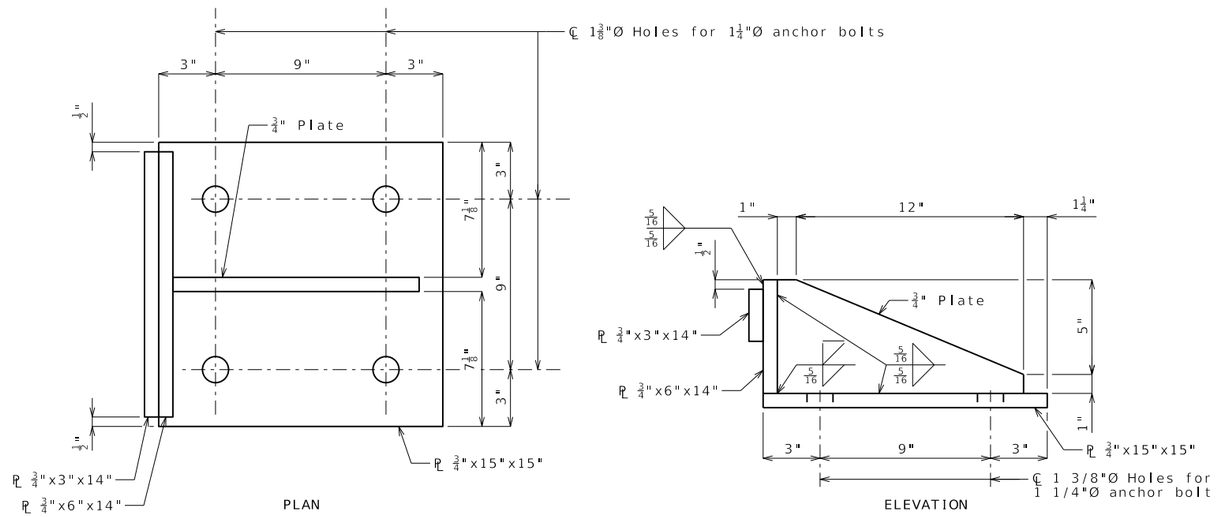
All beam stop materials including anchor bolts, nuts, and washers shall be galvanized.

Fabricated structural steel for beam stops shall be ASTM A709 Grade 36.

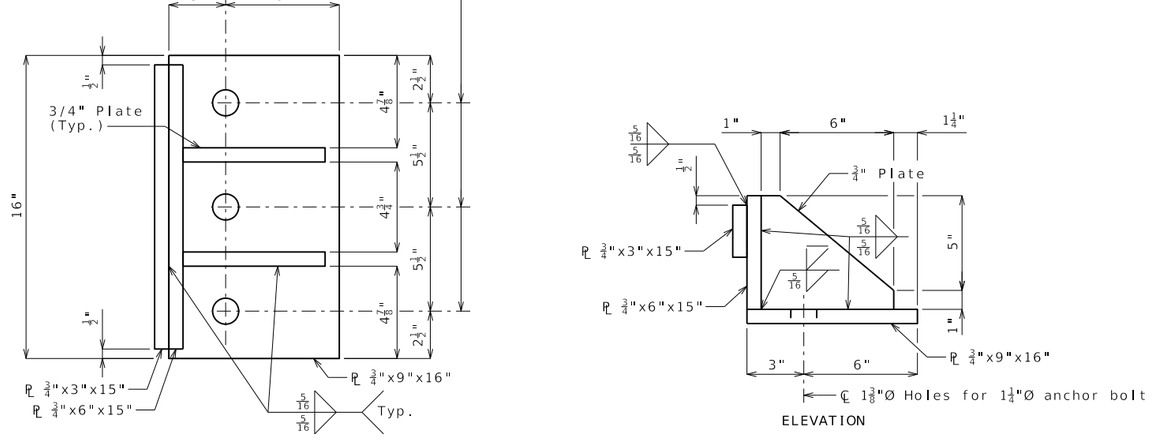
Anchor bolts shall be 1 1/4" Ø ASTM F1554 Grade 55.

Install beam stops after tie rods have been tensioned.

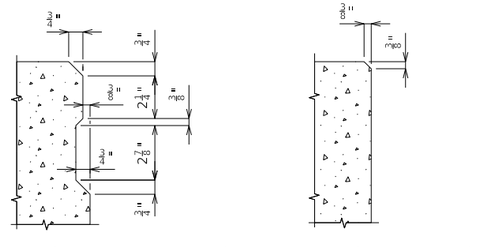
The cost of furnishing and installing the beam stops will be considered completely covered by the contract unit price for 42 in., Prestressed Concrete Adjacent Box Beam and 54 in., Prestressed Concrete Adjacent Box Beam.



INTERMEDIATE BENT BEAM STOP DETAIL



END BENT BEAM STOP DETAIL

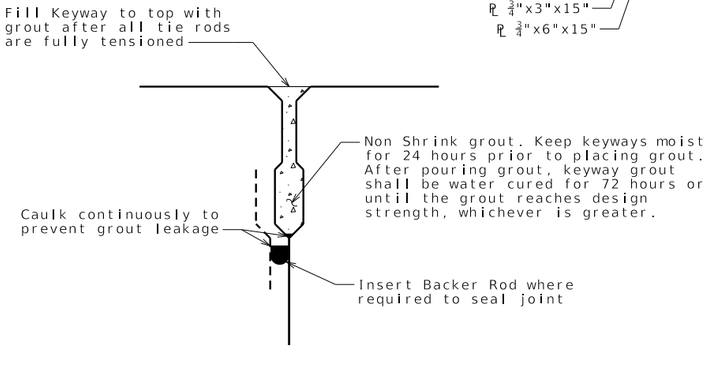


(@ Int. Face of Ext. Beams & @ Interior Beams)

(@ Ext. Face of Ext. Beams)

DETAIL A

See Sheets No. 14 & 15 for location of Detail A



KEYWAY GROUT DETAIL

MISCELLANEOUS BOX BEAM DETAILS

Detailed June 2024
Checked July 2024

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PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 17
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

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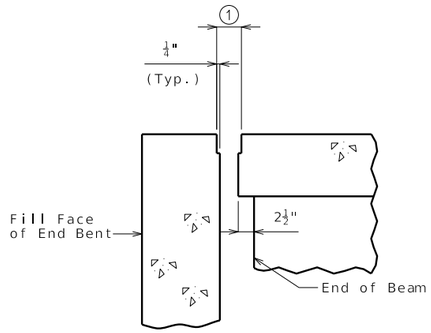
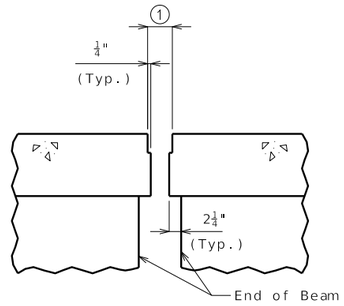
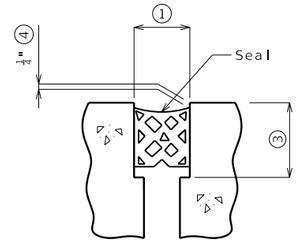


PART SECTION AT END BENT



PART SECTION AT INTERMEDIATE BENT



SECTION THRU SEAL

Table of Transverse Preformed Compression Seal Expansion Joint Dimensions

Location	Seal Width Perpendicular to Joint	Height ③	Movement Capacity (Normal to Joint)	Min. Joint Width (Normal to Joint)	Max. Joint Width (Normal to Joint)	Allowed Installation Gap Normal to Joint at RDWY Surface @ Air/Surface Temperature ② ①				Manufacturer	Seal Name
						@ 40°F	@ 50°F	@ 60°F	@ 70°F		
End Bents No. 1 & 4	3½"	Manufacturer's Recommended Height	1⅝"	1⅜"	3"	2"	2"	2"	2"		
Int. Bents No. 2 & 3	3½"	Manufacturer's Recommended Height	1⅝"	1⅜"	3"	1 15/16"	2"	2"	2 1/16"		

Notes:

Depth of seal shall not be less than width of seal.

Extend preformed compression seal 3" past the edge of slab.

② The installation temperature shall be taken as the actual air temperature averaged over the 24-hour period immediately preceding installation.

④ Manufacturer shall adjust this 1/4" dimension based on anticipated rise of compression seal, if needed. Surface of seal shall not project above the top of concrete and present a tripping hazard when fully compressed to the design movement.

MoDOT Construction personnel will record the manufacturer and seal name that was used.

PREFORMED COMPRESSION SEAL EXPANSION JOINT

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/14/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	18

COUNTY
JACKSON

JOB NO.
JKU0404

CONTRACT ID.

PROJECT NO.
STP3337(441)

BRIDGE NO.
A9497

DESCRIPTION	DATE

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105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF
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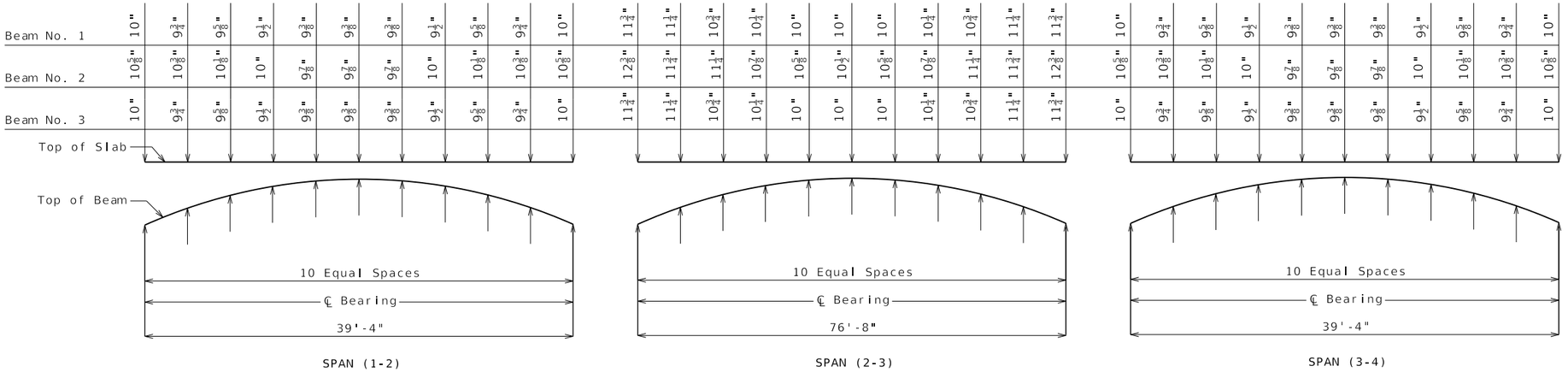
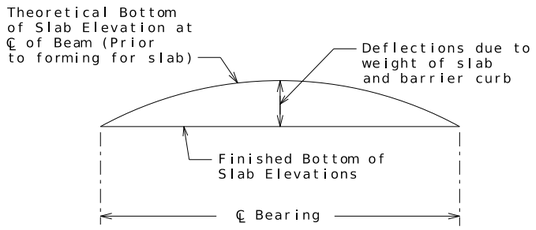


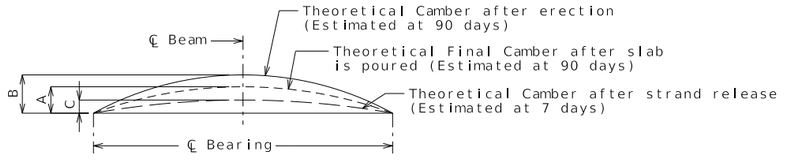
THEORETICAL SLAB THICKNESS DIAGRAM (ESTIMATED AT 90 DAYS)

If beam camber is different from that shown in the camber diagram, in order to maintain minimum slab thickness an increase in slab thickness or a raise in grade uniformly throughout the structure shall be necessary. No payment will be made for additional labor or materials required for variation in slab thickness or grade adjustment.

Beam No. 2 is measured from Top of Beam to Crown of Slab. See Detail A on Sheet No. 21.



TYPICAL SLAB ELEVATIONS DIAGRAM



Span (1-2)			Span (2-3)			Span (3-4)		
A	B	C	A	B	C	A	B	C
$\frac{5}{08}$"	$\frac{3}{4}$"	$\frac{3}{08}$"	$1\frac{7}{8}$"	$2\frac{1}{8}$"	$1\frac{3}{8}$"	$\frac{5}{08}$"	$\frac{3}{4}$"	$\frac{3}{08}$"

BEAM CAMBER DIAGRAM

Conversion Factors for Beam Camber (Estimated at 90 days):
0.1 pt. = 0.314 x 0.5 pt.
0.2 pt. = 0.593 x 0.5 pt.
0.3 pt. = 0.813 x 0.5 pt.
0.4 pt. = 0.952 x 0.5 pt.

Theoretical Bottom of Slab Elevations (Prior to forming for slab) (Estimated at 90 days)

Beam Number	Span (1-2) (39'-4" ℄ Brg. - ℄ Brg.)										
	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.
All	829.06	829.10	829.13	829.17	829.19	829.22	829.23	829.24	829.25	829.25	829.25
Beam Number	Span (2-3) (76'-8" ℄ Brg. - ℄ Brg.)										
	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.
All	829.11	829.21	829.29	829.37	829.43	829.48	829.51	829.52	829.52	829.51	829.50
Beam Number	Span (3-4) (39'-4" ℄ Brg. - ℄ Brg.)										
	℄ Brg.	.10	.20	.30	.40	.50	.60	.70	.80	.90	℄ Brg.
All	829.65	829.69	829.73	829.76	829.79	829.81	829.83	829.84	829.84	829.85	829.85

Elevations include allowance for theoretical dead load deflections due to weight of slab, barrier curb, and pedestrian fence.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 19
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

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105 WEST CAPITOL
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1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

Detailed June 2024
Checked July 2024

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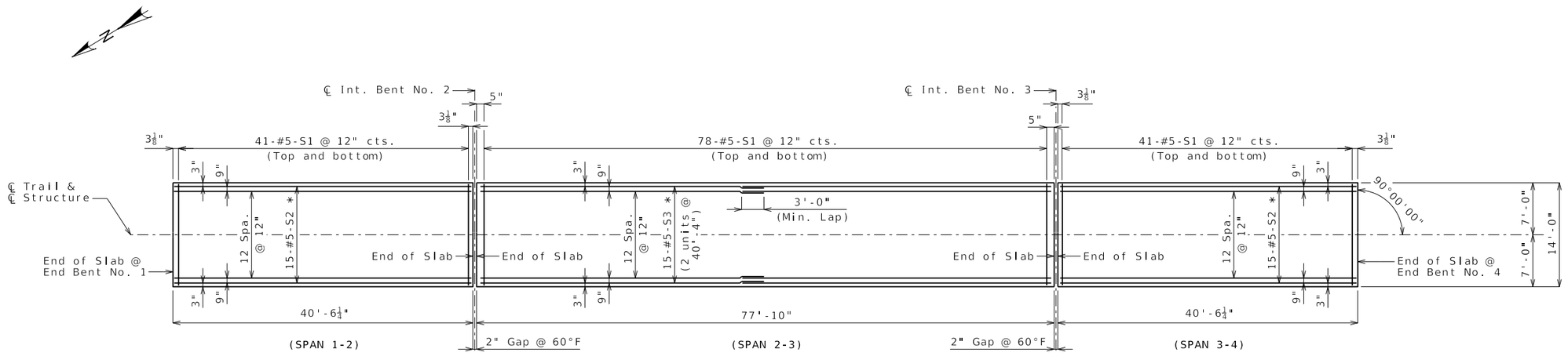

* Spaced as shown (Top and bottom)

Notes:

Longitudinal slab dimensions are measured horizontally.

For Section Thru Slab, see Sheet No. 21.

For details of Barrier Curb not shown, see Sheet No. 22.

For Theoretical Bottom of Slab Elevations, Beam Camber Diagram, and Theoretical Slab Haunching Diagram, see Sheet No. 19.

PLAN OF SLAB SHOWING REINFORCEMENT

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_020_KU0404_Slab Plans.dgn 3:40:44 PM 5/13/2025

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	20

COUNTY
JACKSON

JOB NO.
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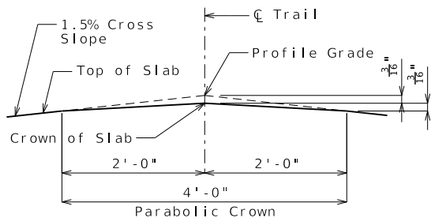
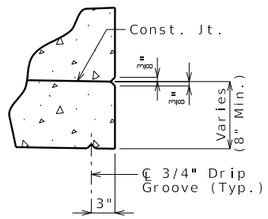
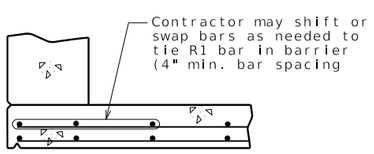
CERTIFICATE OF
AUTHORITY NO. 001592



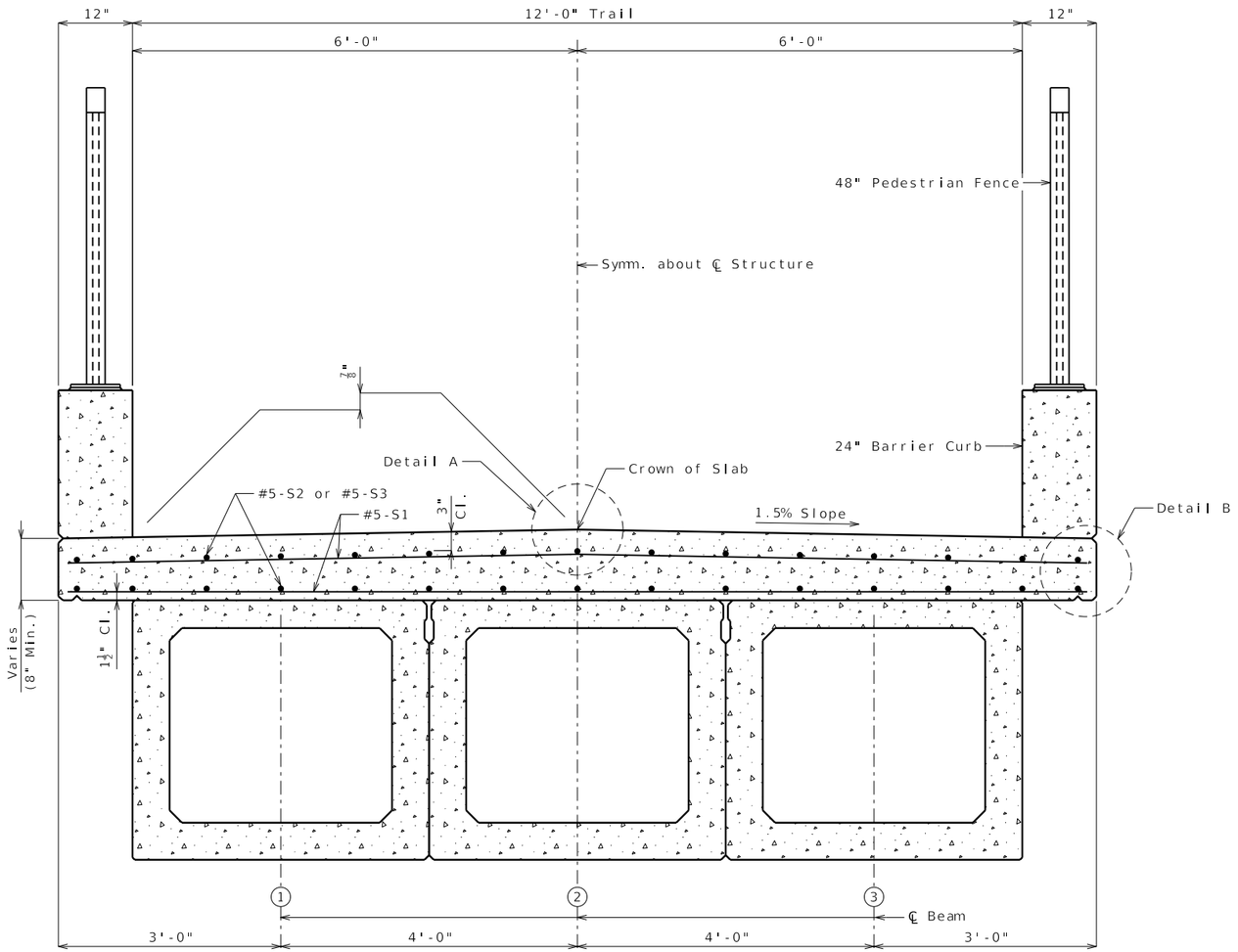
DETAIL A



DETAIL B



OPTIONAL SHIFTING TOP BARS AT BARRIER



SECTION THRU SLAB

Notes:

For details of Pedestrian Fence not shown, see Sheet No. 23.

For details and reinforcement of 24 in. Barrier Curb not shown, see Sheet No. 22.

For Theoretical Bottom of Slab Elevations, Beam Camber Diagram and Theoretical Slab Haunching Diagram, see Sheet No. 19.

For Plan of Slab Showing Reinforcement, see Sheet No. 20.

The contractor shall pour up grade and satisfactorily finish the roadway slab at a rate of not less than 25 cubic yards per hour.

SLAB DETAILS

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_021_KU0404_Typical Slab Details.dgn 3:40:46 PM 5/13/2025

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	21

COUNTY
JACKSON

JOB NO.
JKU0404

CONTRACT ID.

PROJECT NO.
STP3337(441)

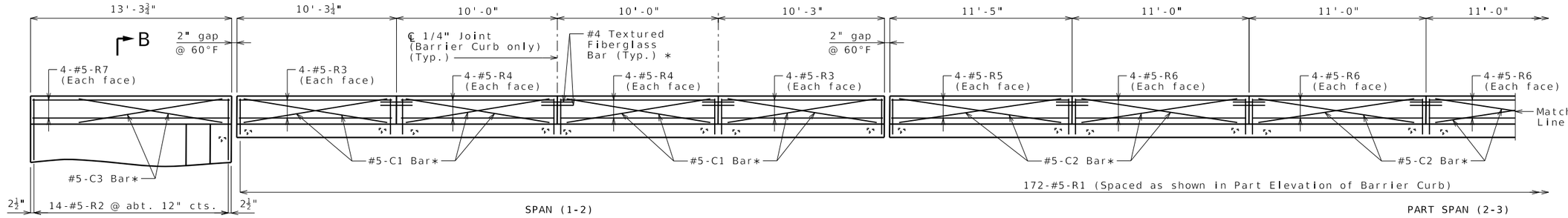
BRIDGE NO.
A9497

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

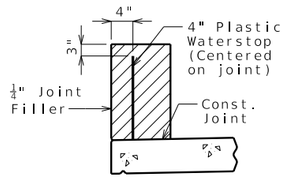
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592



ELEVATION OF 24 IN. BARRIER CURB

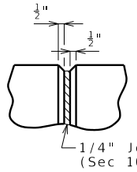
(Left barrier curb shown, right barrier curb similar)
Longitudinal dimensions are horizontal.



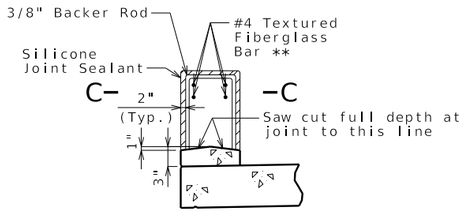
WATERSTOP DETAIL

Plastic waterstop shall be placed in all formed joints, except structures with superelevation, use on lower joints only.

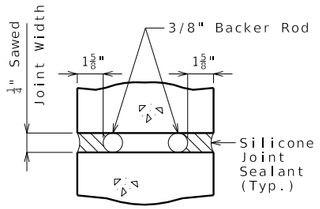
Cost of plastic waterstop, complete in place, will be considered completely covered by the contract unit price for Barrier Curb (24 in. x 12 in.).



PART ELEVATION AT FORMED JOINT



SECTION THRU SAW CUT JOINT



SECTION C-C

Notes:

* Slip-formed option only.

Pedestrian fence not shown for clarity. See Sheet No. 23 for details of pedestrian fence.

Conventional forming or slip forming may be used. Saw cut joints may be used with conventional forming.

Top of barrier curb shall be built parallel to grade and barrier curb joints normal to grade.

All exposed edges of barrier curb shall have either a 1/2-inch radius or a 3/8-inch bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete in place, will be considered completely covered by the contract unit price for Barrier Curb (24 in. x 12 in.) per linear foot.

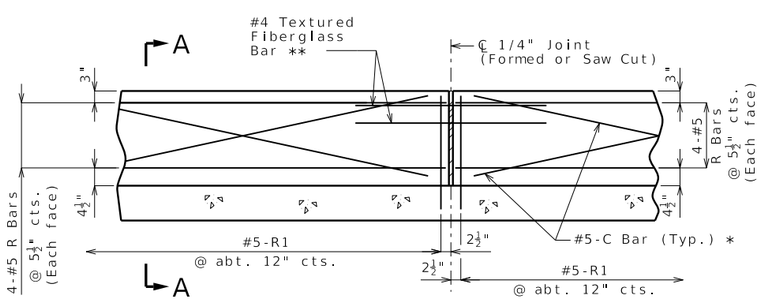
Concrete in barrier curb shall be Class B-1.

Measurement of barrier curb is to the nearest linear foot for each structure, measured along the outside top of slab from end of wing to end of wing.

Joint sealant and backer rods shall be in accordance with Sec 717 for silicone joint sealant for saw cut and formed joints.

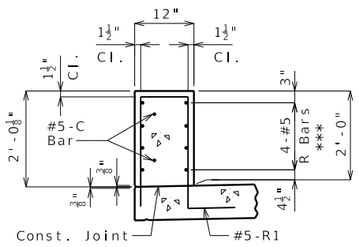
For slip-formed option, both sides of barrier shall have a vertically broomed finish and the top shall have a transversely broomed finish.

Plastic waterstop shall not be used with saw cut joints.



PART ELEVATION OF BARRIER CURB

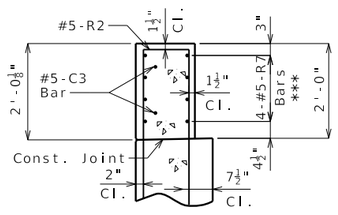
** Four feet long, centered on joint, slip-formed option only



SECTION A-A

Use a minimum lap of 3'-1" for #5 horizontal parapet bars.

The cross-sectional area above the slab is 2.01 square feet.



SECTION B-B

*** Spaced @ 5½" cts. (Each face)

24 IN. BARRIER CURB

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 22
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

Notes:

(48 in.) Decorative Pedestrian Fence shall be installed to the top of the barrier curb for the full length of the barrier curb.

These details are a general representation of a Decorative Pedestrian Fence. The actual fence components and component positions may be different than what is shown.

Fence shall have a gloss black finish (Federal Standard #17038). See special provisions.

Base plate shall be ASTM A709, Grade 50.

All base plates, U bolts, hex nuts and washers shall be galvanized in accordance with ASTM A123 and Sec 1081.

Center of posts shall clear barrier curb joints or ends by at least 6 inches.

Measurement of decorative pedestrian fence will be made horizontally and to the nearest linear foot along centerline fence.

Payment for furnishing and erecting the fence, complete in place, will be considered completely covered by the contract unit price for (48 in.) Decorative Pedestrian Fence (Structures).

All fence posts shall be vertical.

Grout shall be placed under the post base plates in accordance with Sec 1066.

Decorative pedestrian fencing shall be in accordance with 2020-AASHTO LRFD Bridge Design Specifications, 9th Ed.

The design line load for pedestrian railings will not require a 50lb/ft and 200lb load be applied simultaneously. The posts of pedestrian railing will require both loadings applied simultaneously.

Contractor shall submit complete detailed shop drawings in accordance with Sec 1080.

All materials used in fabrication and construction of the decorative pedestrian fencing shall be in accordance with the manufacturer's specifications, except as modified in the contract documents.

Decorative pedestrian fencing system shall be supplied by only one of the manufacturers. Decorative pedestrian fencing system shall include all components except the anchor bolts and hardware, and #4 bars welded to the anchor bolts. The assembly of the pickets to the rails and the rails to the posts shall be the same as the style mentioned for the manufacturer.

Ameristar Fence Products, Inc.
1555 N. Mingo
Tulsa, OK, 74116
(800) 321-8724
www.ameristarfence.com

Style: AEGIS II Majestic

Iron Eagle Industries, Inc.
1256 Cardiff Blvd.
Mississauga, Ontario Canada L5S1R1
(905) 670-2558
www.ironeagleind.com

Style: Silver Eagle II

Betafence USA
3309 S.W. Interstate 45
Ennis, TX, 75119
(888) 650-4766
www.betafenceusa.com

Style: Upgrade-I Landmark

Merchants Metals
6575 Romiss Court
St. Louis, MO 63134
(800) 293-3363
www.merchantmetals.com

Style: Guardsman Monroe

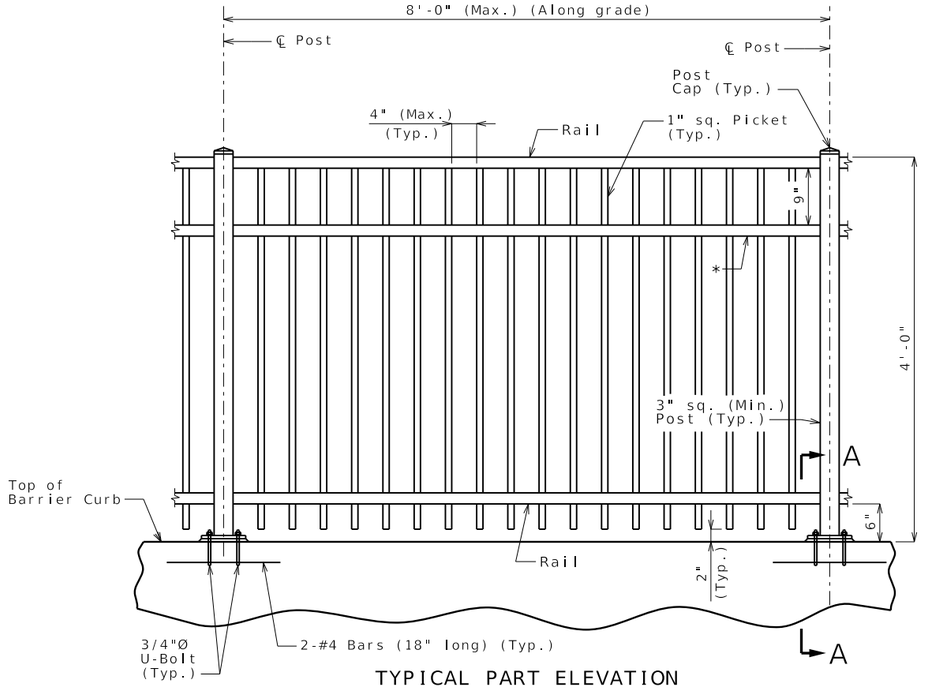
Substitution for the U-bolt cages will not be permitted.

U-bolts shall be ASTM F1554 Grade 36.

Contractor shall spot weld two nuts to the anchor bolts at each post to prevent removal. No special measurement or payment will be made.

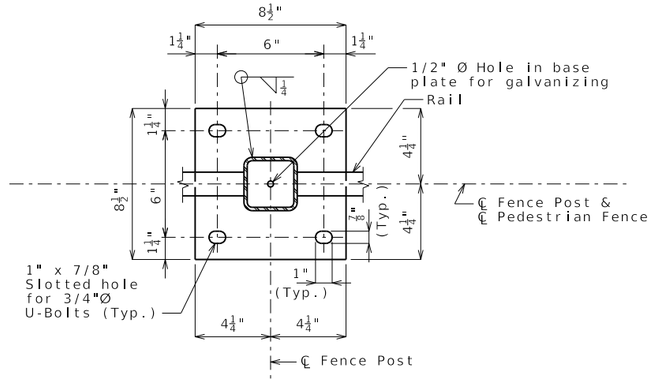
Contractor to provide an approved tamper resistant hardware for exposed bolted connections.

For details of Barrier Curb, see Sheet No. 22.

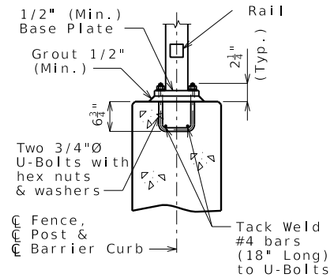


TYPICAL PART ELEVATION

* Optional rail. Need is based on design computations performed by the manufacturer and approved by MoDOT, or may be added for aesthetics.

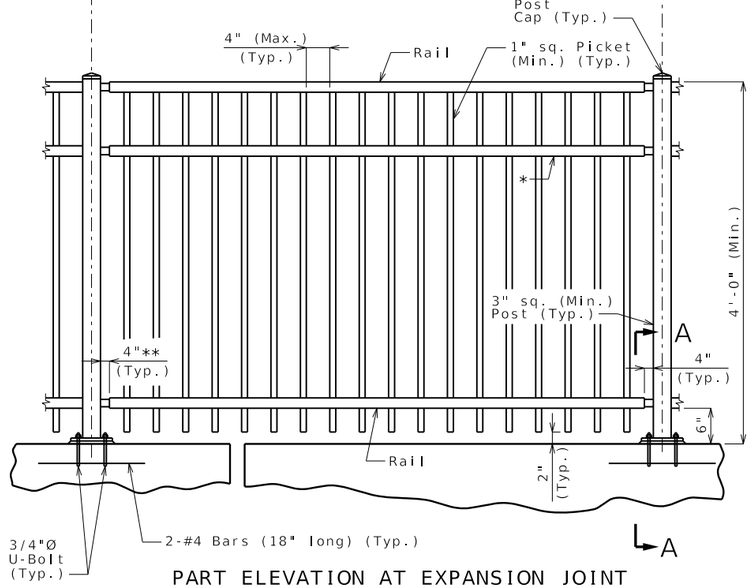


PART PLAN SHOWING BASE PLATE



SECTION A-A

1/2-inch diameter hole in base plate not shown for clarity.



PART ELEVATION AT EXPANSION JOINT SHOWING EXPANSION PANEL

** Connection shall allow 4" movement.

(48 IN.) DECORATIVE PEDESTRIAN FENCE

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/14/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 23
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DESCRIPTION | DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
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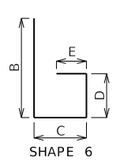
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592



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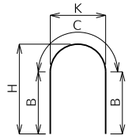

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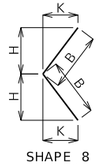

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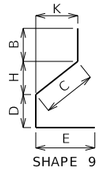

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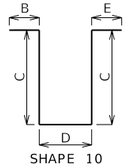

SHAPE 10
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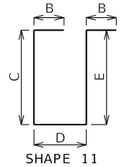

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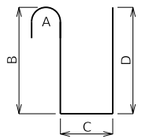

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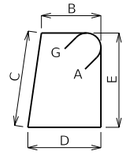

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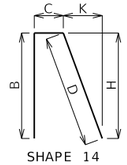

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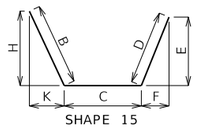

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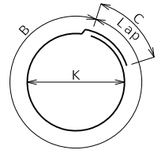

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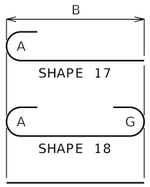
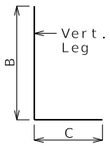


SHAPE 17
SHAPE 18
SHAPE 20



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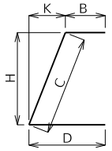

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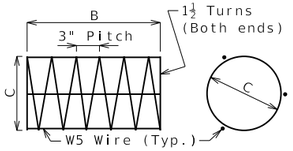

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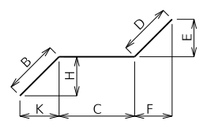

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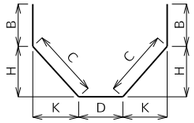

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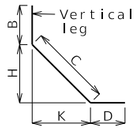

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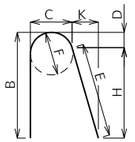

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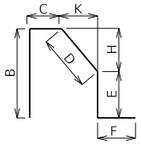

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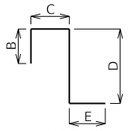

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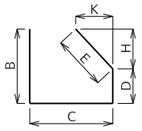

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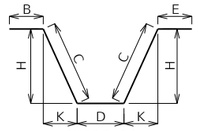

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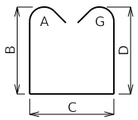
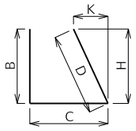
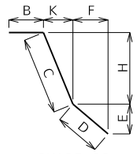


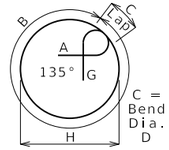
SHAPE 31S



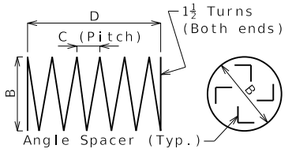
SHAPE 32
or 32S



SHAPE 33
or 33S



SHAPE 34S



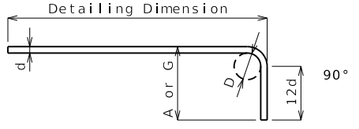
SHAPE 35 (1)

SHAPE 36

Finished Bend Diameters D and Hook Dimensions

Standard Pin Bend Shapes

Size	Case	D	A or G		J
			90°	180°	180°
#4	1	3"	8"	6"	4"
#5	1	3¾"	10"	7"	5"
#6	1	4½"	12"	8¼"	6"
#7	2	5¼"	14"	9¾"	7"
	3	7"	15"	11½"	8¾"
#8	2	6"	16"	11"	8"
	3	8"	17"	13¼"	10"
#9	1	9½"	19½"	15½"	11¾"
#10	1	10¾"	22"	17½"	13¼"
#11	1	12"	24½"	19½"	14⅞"
#14	1	18¼"	31¼"	27½"	21⅝"
#18	1	24"	41½"	36¼"	28½"

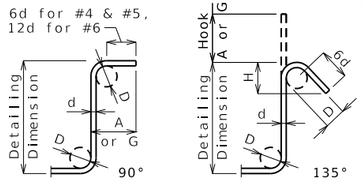


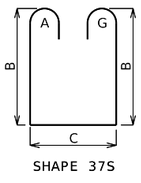
Stirrup Pin Bend Shapes (S)

Size	Case	D	A or G			H	J
			90°	135°	180°	135°	180°
#4	2	2"	4½"	4½"	5"	2⅝"	3"
	3	3"	5"	5¼"	6"	3"	4"
#5	2	2½"	5¾"	5¾"	5¾"	3⅝"	3¾"
	3	3¾"	6¼"	6½"	7"	3⅞"	5"
#6	1	4½"	12"	7¾"	8¼"	4⅝"	6"

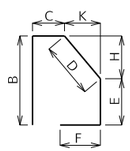
Applicable for all grades of steel.

Case 1 applies to all reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to galvanized bars only.

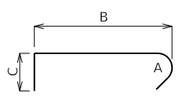




SHAPE 37S



SHAPE 38S



SHAPE 50S

BENDING DIAGRAMS

All dimensions are out to out.

Shapes ending with an S shall be bent in accordance with stirrup pin bend shapes.

Unless otherwise noted, finished bending diameter D is the same for all bends of a shape.

(1) Shall be a deformed or plain spiral bar or wire.

Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.

Reinforcing Steel Totals (Pounds)

	Size	Substructure		Superstructure				Entire Bridge	
				Slab			Slip		
		Plain	Epoxy	Plain	Epoxy	Barrier	Form	Plain	Epoxy
By Size	W5	0	0	0	0	0	0	0	0
	4	0	682	0	0	0	0	0	682
	5	2272	316	0	8370	5658	743	2272	15,087
	6	5363	4720	0	0	0	0	5363	4720
	7	562	176	0	0	0	0	562	176
	8	1852	0	0	0	0	0	1852	0
	9	0	14,720	0	0	0	0	0	14,720
	10	2036	0	0	0	0	0	2036	0
	11	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0
	18	0	0	0	0	0	0	0	0
By Type		12,085	20,614	0	8370	5658	743	12,085	35,385

All superstructure reinforcing steel shall be epoxy coated unless otherwise specified.

BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025
ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 24
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Nom. Length ft in.	Actual Length ft in.	Weight lb
		Substructure													
		End Bent 1													
30	6 F100	WING BRACE		15S		20.00	5 4.75	20.00	14.25	14.25	14.25	14.25	8 9	8 8	391
14	7 H100	BEAM		20		13 9.00							13 9	13 9	393
6	6 H101	BEAM		20		13 9.00							13 9	13 9	124
10	5 H102	BACKWALL		20		13 9.00							13 9	13 9	143
36	6 H103	WING		19		13 0.00	12.00						14 0	13 10	748
24	6 H104	WING		19	4	4 6.00	12.00						5 6	5 4	
		Incr. = 18.00"				12 0.00	12.00						13 0	12 10	327
4	6 H105	WING		23		2 1.00	10 11.75				8.00	23.75	13 1	13 1	79
18	5 U100	BEAM		13S		3 7.00	3 3.00	3 7.00	3 3.00				14 8	14 4	269
10	5 U101	BEAM		10S			3 3.00	3 7.00					10 1	9 10	103
28	5 U102	BACKWALL		10S			3 11.50	13.00					9 0	8 9	256
2	6 U103	BEAM		10S			3 0.25	17.50					7 6	7 2	22
56	5 V100	BEAM		20		6 3.00							6 3	6 3	365
44	6 V101	WING		20	4	4 0.00							4 0	4 0	
		Incr. = 4.00"				7 4.00							7 4	7 4	374
8	6 V102	WING		20		7 6.00							7 6	7 6	90
		Int Bent 2													
68	9 D200	FOOTING	E	17		9 7.00							10 11	10 11	2524
22	10 D201	FOOTING		20		10 9.00							10 9	10 9	1018
10	8 D202	FOOTING		20		15 9.00							15 9	15 9	421
4	6 D203	FOOTING		10S			6 10.00	15 0.00					28 8	28 4	170
17	6 D204	FOOTING		20		10 9.00							10 9	10 9	274
12	8 D205	FOOTING		20		15 9.00							15 9	15 9	505
21	6 H200	BEAM	E	20		15 9.00							15 9	15 9	497
5	6 H201	BEAM	E	18		15 9.00							17 2	17 2	129
14	6 H202	BEAM	E	10S			12.00	3 9.00					5 9	5 5	114
36	6 H203	STEM WALL	E	20		11 9.00							11 9	11 9	635
36	6 H204	STEM WALL	E	10S			4 8.00	3 3.00					12 7	12 3	662
108	4 H205	STEM WALL	E	50S		3 3.00	4.50						4 0	3 11	283
4	6 H206	BEAM	E	10S			12.00	21.00					3 9	3 5	21
4	6 U200	BEAM	E	13S		3 9.00	3 7.50	3 9.00	3 7.50				16 1	15 7	94
13	6 U201	BEAM	E	10S			3 7.50	3 9.00					11 0	10 8	208
17	5 U202	BEAM	E	10S			3 8.25	21.00					9 2	8 11	158
4	7 U203	BEAM	E	10			4 11.00	15.75					11 2	10 9	88
12	4 U204	BEAM	E	10S			6.00	3 9.00					4 9	4 7	37
12	4 U205	BEAM	E	10S			6.00	21.00					2 9	2 7	21
68	9 V200	STEM WALL	E	17		19 3.00							20 7	20 7	4759
		Int Bent 3													
68	9 D300	FOOTING	E	17		9 7.00							10 11	10 11	2524
22	10 D301	FOOTING		20		10 9.00							10 9	10 9	1018
10	8 D302	FOOTING		20		15 9.00							15 9	15 9	421
4	6 D303	FOOTING		10S			6 10.00	15 0.00					28 8	28 4	170
17	6 D304	FOOTING		20		10 9.00							10 9	10 9	274
12	8 D305	FOOTING		20		15 9.00							15 9	15 9	505
21	6 H300	BEAM	E	20		15 9.00							15 9	15 9	497
5	6 H301	BEAM	E	18		15 9.00							17 2	17 2	129
14	6 H302	BEAM	E	10S			12.00	3 9.00					5 9	5 5	114
36	6 H303	STEM WALL	E	20		11 9.00							11 9	11 9	635
36	6 H304	STEM WALL	E	10S			4 8.00	3 3.00					12 7	12 3	662
108	4 H305	STEM WALL	E	50S		3 3.00	4.50						4 0	3 11	283
4	6 H306	BEAM	E	10S			12.00	21.00					3 9	3 5	21
4	6 U300	BEAM	E	13S		3 9.00	3 7.50	3 9.00	3 7.50				16 1	15 7	94
13	6 U301	BEAM	E	10S			3 7.50	3 9.00					11 0	10 8	208
17	5 U302	BEAM	E	10S			3 8.25	21.00					9 2	8 11	158
4	7 U303	BEAM	E	10			4 11.00	15.75					11 2	10 9	88
12	4 U304	BEAM	E	10S			6.00	3 9.00					4 9	4 7	37
12	4 U305	BEAM	E	10S			6.00	21.00					2 9	2 7	21
68	9 V300	STEM WALL	E	17		19 11.00							21 3	21 3	4913

Bill of Reinforcing Steel

No. Req.	Size/ Mark	Location	Codes C	SH	V	Dimensions B ft in.	C ft in.	D ft in.	E ft in.	F ft in.	H ft in.	K ft in.	Nom. Length ft in.	Actual Length ft in.	Weight lb
		End Bent 4													
30	6 F400	WING BRACE		15S		20.00	5 4.75	20.00	14.25	14.25	14.25	14.25	8 9	8 8	391
6	7 H400	BEAM		20		13 9.00							13 9	13 9	169
14	6 H401	BEAM		20		13 9.00							13 9	13 9	289
10	5 H402	BACKWALL		20		13 9.00							13 9	13 9	143
36	6 H403	WING		19		13 0.00	12.00						14 0	13 10	748
24	6 H404	WING		19	4	4 6.00	12.00						5 6	5 4	
		Incr. = 18.00"				12 0.00	12.00						13 0	12 10	327
4	6 H405	WING		23		2 1.00	10 11.75				8.00	23.75	13 1	13 1	79
18	5 U400	BEAM		13S		3 7.00	3 3.00	3 7.00	3 3.00				14 8	14 4	269
10	5 U401	BEAM		10S			3 3.00	3 7.00					10 1	9 10	103
28	5 U402	BACKWALL		10S			3 11.50	13.00					9 0	8 9	256
2	6 U403	BEAM		10S			3 0.25	17.50					7 6	7 2	22
56	5 V400	BEAM		20		6 3.00							6 3	6 3	365
44	6 V401	WING		20	4	4 0.00							4 0	4 0	
		Incr. = 4.00"				7 4.00							7 4	7 4	374
8	6 V402	WING		20		7 6.00							7 6	7 6	90
		Superstructure													
		Slab													
320	5 S1	SLAB	E	20		13 9.00							13 9	13 9	4589
60	5 S2	SLAB	E	20		40 3.00							40 3	40 3	2519
30	5 S3	SLAB	E	20		40 4.00							40 4	40 4	1262
		Barrier													
344	5 R1	BARRIER	E	28S		2 3.50	9.00	2 3.00	12.00				6 4	6 0	2153
56	5 R2	BARRIER	E	10S			3 10.50	8.50					8 6	8 3	482
64	5 R3	BARRIER	E	20		10 0.00							10 0	10 0	668
64	5 R4	BARRIER	E	20		9 9.00							9 9	9 9	651
32	5 R5	BARRIER	E	20		11 2.00							11 2	11 2	373
80	5 R6	BARRIER	E	20		10 9.00							10 9	10 9	897
32	5 R7	BARRIER	E	20		13 0.00							13 0	13 0	434
		Slip Form													
32	5 C1	SLIP FORM	E	20		10 0.00							10 0	10 0	334
28	5 C2	SLIP FORM	E	20		11 0.00							11 0	11 0	321
8	5 C3	SLIP FORM	E	20		10 6.00							10 6	10 6	88

Nominal lengths are based on out to out dimensions shown in bending diagrams and are listed to the nearest inch for fabricator's use. Actual lengths are measured along centerline bar to the nearest inch. Weights are based on actual lengths.

For bending diagrams and steel reinforcing totals, see Sheet No. 24.

All bars shall be Grade 60.

Codes: C = Required coatings, where E = Epoxy Coated and G = Galvanized.

SH = Required shape, see bending diagrams.

V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified increment.

Detailed June 2024
Checked July 2024

BILL OF REINFORCING STEEL

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 25 of 39

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED 5/13/2025

ROUTE 350 | STATE MO
DISTRICT BR | SHEET NO. 25
COUNTY JACKSON
JOB NO. JKU0404
CONTRACT ID.
PROJECT NO. STP3337(441)
BRIDGE NO. A9497

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

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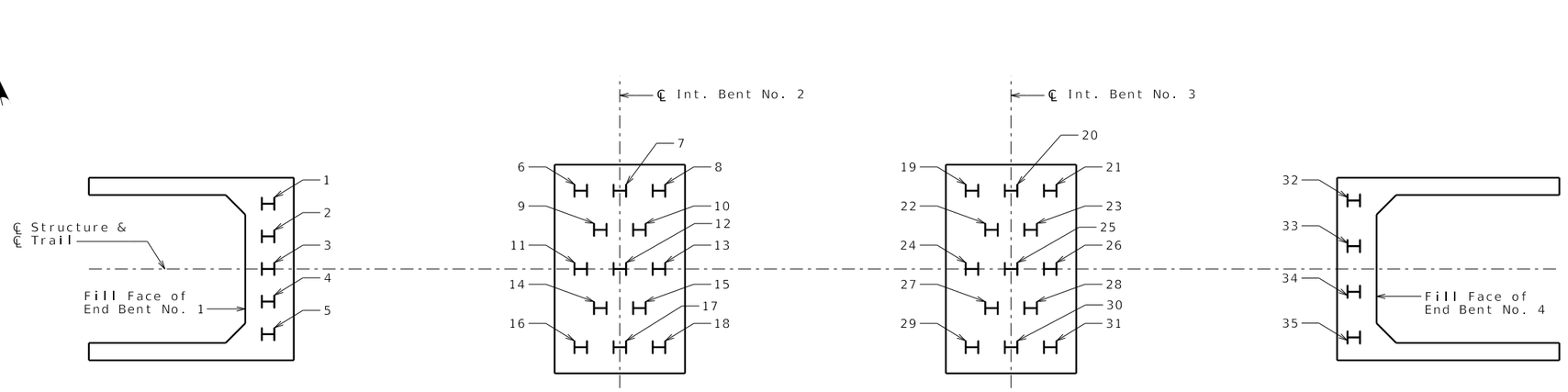

PART PLAN SHOWING PILE NUMBERING
FOR RECORDING AS-BUILT PILE DATA

As-Built Pile Data			
Pile No.	Length in Place (ft.)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			End Bent No. 1
1			
2			
3			
4			
5			
			Int. Bent No. 2
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

As-Built Pile Data			
Pile No.	Length in Place (ft.)	Computed Nominal Axial Compressive Resistance (kips)	Remarks
			Int. Bent No. 3
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
			End Bent No. 4
32			
33			
34			
35			

Note:
Indicate in remarks column:
A. Pile type and grade
B. Batter
C. Driven to practical refusal

This sheet to be completed by construction personnel.

AS-BUILT PILE DATA

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_026_KU0404_Asbuilt.dgn 3:40:58 PM 5/13/2025

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED
5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	26

COUNTY
JACKSON

JOB NO.
JKU0404

CONTRACT ID.

PROJECT NO.
STP3337(441)

BRIDGE NO.
A9497

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF
AUTHORITY NO. 001592

olsson

BOREHOLE REPORT NO. BB #1

Sheet 1 of 5

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
PROJECT NUMBER: A12-2374
CLIENT: City of Kansas City, Missouri
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

APPROX. SURFACE ELEV. (ft): 828

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	GRAVEL ROAD		0								
	Gravel, dark brown silt			SS 1		50/5"		2.7			
	2.5'										
825	***FILL***										
	Light brown clay, moist		5	SS 2		6-5-7 N=12		20.7			
	7.0'										
820	*Grades to slightly moist*										
			10	SS 3	CL	6-9-12 N=21		10.3		44/22	
815											
			15	SS 4		8-11-14 N=25		12.2			
810											
			20	SS 5		2-13-35 N=48		16.7			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/7/22	FINISHED:	11/7/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

olsson

BOREHOLE REPORT NO. BB #1

Sheet 2 of 5

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
PROJECT NUMBER: A12-2374
CLIENT: City of Kansas City, Missouri
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	Grades to slightly moist (continued)		20								
	22.0'										
805	*Grades to dry*										
			25	SS 6		6-18-22 N=40		7.7			
800	**28.0'**										
	LEAN CLAY										
	Very stiff, blueish gray, moist.		30	SS 7		5-7-12 N=19		18.8			
795											
			35	U 8				22.8	102.5		P.P. = 3.0 tsf
790											
			40	SS 9		3-4-5 N=9		25.2			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/7/22	FINISHED:	11/7/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
REGISTERED PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 27
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_027_KU0404_Boring Log (1 of 13).dgn 3:41:01 PM 5/13/2025

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BOREHOLE REPORT NO. BB #1

Sheet 3 of 5

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
			40								
	LEAN CLAY										
	Very stiff, blueish gray, moist. (continued)										
785	***43.0'***										
	Grades to firm,		45	SS 10		1-3-4 N=7		27.6			
780			50	U 11	CL			27.2	98.1	42/24	P.P. = 1.0 tsf
775	***53.0'***										
	LEAN CLAY		55	SS 12		2-3-3 N=6		28.5			
	Soft, gray, moist										
770			60	U 13				27.9	97.5		P.P. = 0.5 tsf

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/7/22	FINISHED:	11/7/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

olsson

BOREHOLE REPORT NO. BB #1

Sheet 4 of 5

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
			60								
	LEAN CLAY										
	Soft, gray, moist (continued)										
	62.0'										
765	*grades to firm*		65	SS 14		0-2-5 N=7		27.4			
760			70	SS 15		3-4-3 N=7		26.9			
	72.0'										
755	*grades to very stiff*		75	SS 16		4-7-11 N=18		24.2			
	78.0'										
750	***WEATHERED SHALE***										
	Gray		80	SS 17		50		15.1			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/7/22	FINISHED:	11/7/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 28
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_028_KU0404_Boring Log (2 of 13).dgn 3:41:05 PM 5/13/2025

olsson

BOREHOLE REPORT NO. BB #1

Sheet 5 of 5

PROJECT NAME: MO 350 Hwy and Noland Road Final Design

CLIENT: City of Kansas City, Missouri

PROJECT NUMBER: A12-2374

LOCATION: Kansas City, Missouri

Split Spoon | Shelby Tube | Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	80										
	WEATHERED SHALE										
	Gray (continued)										
745											
	84.0'			SS 18		50/3"		14.2			
	SHALE		85								
	Gray			RC 19							Recovery 98.3% RQD 70.0%
740											
	89.0'										

BASE OF BORING AT 89.0 FEET

WATER LEVEL OBSERVATIONS	
WD	Not Encountered
IAD	Not Encountered
AD	Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/7/22	FINISHED:	11/7/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
REGISTERED PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	29

COUNTY: JACKSON

JOB NO.: JKU0404

CONTRACT ID.:

PROJECT NO.: STP3337(441)

BRIDGE NO.: A9497

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_029_KU0404_Boring Log (3 of 13).dgn 3:41:09 PM 5/13/2025

olsson

BOREHOLE REPORT NO. BB #2

Sheet 1 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ▩ Shelby Tube ▩ Rock Core

APPROX. SURFACE ELEV. (ft): 828

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	0										
825	***FILL*** *Light gray sand, dry, silt, gravel*			SS 1		27-31-39 N=70		5.0			
	3.0'										
	Dark brown, gray, clay, slightly moist, silt, sand, gravel		5	SS 2		8-11-11 N=22		14.3			
	6.0'										
820	***FILL*** *Gravel*										
	8.0'										
	FILL *Brown, olive clay, dry, silt, sand*		10	SS 3		50/4"		2.5			
	12.0'										
815	*Grades to slightly moist*		15	SS 4		5-11-14 N=25		15.5			
	17.0'										
810	*Light brown clay, slighlty moist, silt, sand, gravel*		20	SS 5		9-18-12 N=30		15.5			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ 38.0 ft
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/8/22	FINISHED:	11/8/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

olsson

BOREHOLE REPORT NO. BB #2

Sheet 2 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ▩ Shelby Tube ▩ Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	20										
	Light brown clay, slighlty moist, silt, sand, gravel (continued)										
805	***23.0'***										
	FILL *Brown, gray, reddish brown, moist, silt, sand*		25	SS 6		4-5-7 N=12		18.1			
800	***28.0'***										
	Grades to brownish gray, dark brown, dark gray clay, silt		30	U 7				14.4			P.P. = 4.5+ tsf
	32.0'										
795	***LEAN CLAY*** *Very stiff, brownish gray and dark brown with dark gray, moist, silty*		35	SS 8		4-7-11 N=18		21.2			
	37.0'										
790	▽ *Grades to stiff, wet*		40	U 9				26.3	97.9		P.P. = 2.0 tsf
	40.0'										

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ 38.0 ft
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/8/22	FINISHED:	11/8/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 30
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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BOREHOLE REPORT NO. BB #2

Sheet 3 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
			40								
785	*Grades to soft, brown with gray, reddish brown, wet, silty*		45	SS 10		0-2-0 N=2		26.2			
780	***48.0'***										
	Grades to soft, gray, wet, silty		50	U 11				27.5	98.0		P.P. = 1.5 tsf
775			55	SS 12		1-1-1 N=2		29.4			
770			60	U 13				27.3	98.5		P.P. = 0.5 tsf

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ 38.0 ft
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/8/22	FINISHED:	11/8/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

olsson

BOREHOLE REPORT NO. BB #2

Sheet 4 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	Grades to soft, gray, wet, silty (continued)		60								
765	***61.0'***										
	Grades to stiff, brown with olive, dark gray and gray, wet, sandy, silty		65	SS 14		1-3-6 N=9		26.4			
760			70	SS 15		3-4-6 N=10		21.5			
755			75	SS 16		2-5-5 N=10		30.9			
750	***79.5'***		80	SS 17		1-4-50/4"		32.7			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ 38.0 ft
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/8/22	FINISHED:	11/8/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 31
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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BOREHOLE REPORT NO. BB #2

Sheet 5 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon | Shelby Tube | Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	WEATHERED SHALE		80								
	Gray (continued)										
745											
	83.5'			SS 18		50/3"					
	SHALE		85								
	Gray			RC 19							Recovery 100.0% RQD 90.0%
740											
			90								
				RC 20							Recovery 100.0% RQD 70.0%
735											
			95								
	97.0'			RC 21							Recovery 96.7% RQD 33.3%
730	*Blueish gray*										
			100								
	CONTINUED NEXT PAGE										

WATER LEVEL OBSERVATIONS	
WD	▽ 38.0 ft
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/8/22	FINISHED:	11/8/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

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BOREHOLE REPORT NO. BB #2

Sheet 6 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon | Shelby Tube | Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	Blueish gray (continued)		100								
				RC 22							Recovery 30.0% RQD 18.3%
725											
			105								
				RC 23							Recovery 100.0% RQD 80.0%
720											
			110								
				RC 24							Recovery 96.7% RQD 91.7%
715											
	114.0'										
	BASE OF BORING AT 114.0 FEET										

WATER LEVEL OBSERVATIONS	
WD	▽ 38.0 ft
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/8/22	FINISHED:	11/8/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	S. FAHRENKRUG
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 32
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

olsson

BOREHOLE REPORT NO. BB #3

Sheet 1 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

MATERIAL DESCRIPTION

LAT: 38.96606 **LONG**: 94.42981
APPROX. SURFACE ELEV. (ft):828

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	GRAVEL ROAD		0								
				SS 1		15-33-43 N=76					
825	***FILL*** *Gravel, dry, cobbles, gray silt*										
	4.5'										
	Gray, brown, yellowish brown clay, dry, gravel, silt		5	SS 2		20-23-16 N=39		9.8			
820	***8.0'***										
	Gray, brown, yellowish brown clay, slightly moist, gray shale fragments		10	SS 3		8-10-15 N=25		12.3			
815			15	SS 4		6-10-12 N=22		15.2			
810			20	SS 5		5-6-11 N=17		10.1			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/1/22	FINISHED:	11/3/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: ROTARY WASH			

olsson

BOREHOLE REPORT NO. BB #3

Sheet 2 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Shelby Tube ■ Rock Core ◧

MATERIAL DESCRIPTION

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	Gray, brown, yellowish brown clay, slightly moist, gray shale fragments (continued)		20								
805	***23.0'***										
	FILL *Gray, brown clay, slightly moist, sand*		25	SS 6		7-10-15 N=25		17.8			
800			30	SS 7		12-19-21 N=40		19.2			
795	***33.0'***										
	Grades to moist		35	SS 8		5-10-12 N=22		21.1			
790	***38.0'***										
	LEAN CLAY *Firm, gray clay, wet, silty, trace sand.*		40	SS 9		3-4-5 N=9		37.3			

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/1/22	FINISHED:	11/3/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: ROTARY WASH			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 33
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

F:\projects\A12-2374\40-Design\Microstation\KU0404\plan_sheets\16 Bridge Sheets\B_A9497_033_KU0404_Boring Log (7 of 13).dgn 3:41:26 PM 5/13/2025

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BOREHOLE REPORT NO. BB #3

Sheet 3 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon | Shelby Tube | Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	LEAN CLAY		40								
	Firm, gray clay, wet, silty, trace sand. (continued)										
785			45	U 10	CL			26.3	101.0	40/23	P.P. = 1.25 tsf
780	***48.0'***										
	Grades to stiff		50	SS 11		6-7-7 N=14		25.6			
775	***53.0'***										
	Grades to firm		55	SS 12		4-2-4 N=6		22.5			
770			60	SS 13		0-3-4 N=7		29.4			

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WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/1/22	FINISHED:	11/3/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: ROTARY WASH			

olsson

BOREHOLE REPORT NO. BB #3

Sheet 4 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon | Shelby Tube | Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	Grades to firm (continued)		60								
765	***65.0'***		65	U 14				28.0	100.6		P.P. = 1.25 tsf
	Grades to soft		70	SS 15		0-0-0 N=0		32.5			
755	***73.0'***		75	U 16				28.7	105.8		P.P. = 3.5 tsf
750	***78.0'***										
	WEATHERED SHALE		80	SS 17		50/4"		12.0			
	Olive gray, silty										

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/1/22	FINISHED:	11/3/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: ROTARY WASH			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 34
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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BOREHOLE REPORT NO. BB #3

Sheet 5 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
PROJECT NUMBER: A12-2374
CLIENT: City of Kansas City, Missouri
LOCATION: Kansas City, Missouri

Split Spoon | Shelby Tube | Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	WEATHERED SHALE		80								
	Olive gray, silty (continued)										
745				SS 18		50/2"		19.8			
	84.0'										
	SHALE		85								
	Gray			RC 19							Recovery 100.0% RQD 100.0%
740											
	89.0'										
	Grades to interbeded black, gray, greenish gray, and reddish brown		90								
				RC 20							Recovery 93.3% RQD 78.3%
735											
			95								
				RC 21							Recovery 100.0% RQD 86.7%
730											
	99.0'										
			100								
	CONTINUED NEXT PAGE										

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/1/22	FINISHED:	11/3/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: ROTARY WASH			

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BOREHOLE REPORT NO. BB #3

Sheet 6 of 6

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
PROJECT NUMBER: A12-2374
CLIENT: City of Kansas City, Missouri
LOCATION: Kansas City, Missouri

Split Spoon | Shelby Tube | Rock Core

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
	SHALE		100								
	Greenish gray, reddish brown lenses from 99' to 100' (continued)			RC 22							Recovery 86.7% RQD 78.3%
725											
	104.0'										
	Grades to greenish gray and gray		105								
				RC 23							Recovery 100.0% RQD 80.0%
720											
			110								
				RC 24							Recovery 95.0% RQD 93.3%
715											
	114.0'										
	BASE OF BORING AT 114.0 FEET										

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/1/22	FINISHED:	11/3/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: ROTARY WASH			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 35
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

olsson

BOREHOLE REPORT NO. BB #4

Sheet 1 of 3

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Rock Core ◧

LAT: 38.96568 LONG: 94.43012
APPROX. SURFACE ELEV. (ft): 830

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
830	***GRAVEL ROAD*** *Gravel, dark brown clay, dry*		0	SS 1		18-50		2.5			
				SS 2		50		6.1			
825	***FILL*** *Reddish brown clay, dry, silt, gravel*		5								
	LEAN CLAY *Hard, dark brown grading to dark gray clay, dry, trace silt, shaley*			SS 3		20-50/5"		12.3			
820	***HIGHLY WEATHERED SHALE*** *Dark gray, dry*		10								
				SS 4		50		9.9			
815			15								
				SS 5		50		10.1			
810			20								

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/16/22	FINISHED:	11/17/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: HOLLOW STEM AUGER			

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BOREHOLE REPORT NO. BB #4

Sheet 2 of 3

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
810	***SHALE*** *Dark gray (continued)*		20	RC 6							Recovery 71.7% RQD 49.2%
805			25	RC 7							Recovery 100.0% RQD 92.5%
800			30	RC 8							Recovery 86.7% RQD 75.0%
795			35	RC 9							Recovery 96.7% RQD 90.8%
790			40								

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/16/22	FINISHED:	11/17/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 36
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF
AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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BOREHOLE REPORT NO. BB #4

Sheet 3 of 3

PROJECT NAME: MO 350 Hwy and Noland Road Final Design

CLIENT: City of Kansas City, Missouri

PROJECT NUMBER: A12-2374

LOCATION: Kansas City, Missouri

Split Spoon ☒ Rock Core ▮

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
790			40								
	SHALE			RC 10							Recovery 95.0% RQD 0.0%
	Dark gray (continued)										
785			45								
				RC 11							Recovery 95.0% RQD 0.0%
	49.0'										

BASE OF BORING AT 49.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	11/16/22	FINISHED:	11/17/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025

ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 37
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

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1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

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BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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BOREHOLE REPORT NO. BB #5

Sheet 1 of 3

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
830	**LAT**: 38.96569 **LONG**: 94.4301 **APPROX. SURFACE ELEV. (ft)**: 830		0								
	GRAVEL ROAD 1.0'										
	FILL *Limestone gravel, dry, sand, dark brown silt, cobbles.*			SS 1		50/5.5"		4.1			
825			5	SS 2		50/3"		4.5			
	7.0' ***WEATHERED SHALE*** *Gray, dry*										
820			10	SS 3		29-50/5"		11.5			
				SS 4		35-50/3"		9.4			
815			15								
				SS 5		37-50/2"		9.4			
810			20								

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WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	10/31/22	FINISHED:	10/31/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: HOLLOW STEM AUGER			

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BOREHOLE REPORT NO. BB #5

Sheet 2 of 3

PROJECT NAME: MO 350 Hwy and Noland Road Final Design
CLIENT: City of Kansas City, Missouri
PROJECT NUMBER: A12-2374
LOCATION: Kansas City, Missouri

Split Spoon ☒ Rock Core ◧

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
810	***WEATHERED SHALE*** *Gray, dry (continued)*		20								
				SS 6		50/5"		8.8			
805			25								
				SS 7		50/5"		9.3			
800			30								
				SS 8		50/4"		8.5			
	34.0' ***SHALE***										
795			35	RC 9							Recovery 85.4% RQD 85.4%
				RC 10							Recovery 100.0% RQD 100.0%
790			40								

CONTINUED NEXT PAGE

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	10/31/22	FINISHED:	10/31/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025
ROUTE: 350 | STATE: MO
DISTRICT: BR | SHEET NO.: 38
COUNTY: JACKSON
JOB NO.: JKU0404
CONTRACT ID.:
PROJECT NO.: STP3337(441)
BRIDGE NO.: A9497

DESCRIPTION | DATE

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Detailed June 2024
Checked July 2024

Note: This drawing is not to scale. Follow dimensions.

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BOREHOLE REPORT NO. BB #5

Sheet 3 of 3

PROJECT NAME: MO 350 Hwy and Noland Road Final Design

CLIENT: City of Kansas City, Missouri

PROJECT NUMBER: A12-2374

LOCATION: Kansas City, Missouri

Split Spoon ☒ Rock Core ▮

ELEVATION (ft)	MATERIAL DESCRIPTION	GRAPHIC LOG	DEPTH (ft)	SAMPLE TYPE NUMBER	CLASSIFICATION (USCS)	BLOWS/6" N-VALUE	UNC. STR. (tsf)	MOISTURE (%)	DRY DENSITY (pcf)	LL/PI (%)	ADDITIONAL DATA/ REMARKS
790			40								
	***SHALE** (continued)*			RC 11							Recovery 93.8% RQD 93.8%
	44.0'										

BASE OF BORING AT 44.0 FEET

WATER LEVEL OBSERVATIONS	
WD	▽ Not Encountered
IAD	▼ Not Encountered
AD	▼ Not Encountered

OLSSON, INC.
1700 E. 123RD STREET
OLATHE, KANSAS 66061

STARTED:	10/31/22	FINISHED:	10/31/22
DRILL CO.:	KCTE	DRILL RIG:	CME 55
DRILLER:	BRANDON	LOGGED BY:	E. CRIPS
METHOD: HOLLOW STEM AUGER			

STATE OF MISSOURI
TRAVIS MICHAEL SCHAFER
NUMBER PE-2020000246
PROFESSIONAL ENGINEER
05/14/2025

DATE PREPARED: 5/13/2025

ROUTE	STATE
350	MO
DISTRICT	SHEET NO.
BR	39

COUNTY: JACKSON

JOB NO.: JKU0404

CONTRACT ID.:

PROJECT NO.: STP3337(441)

BRIDGE NO.: A9497

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

olsson
1301 BURLINGTON STREET, STE. 100
NORTH KANSAS CITY, MO 64116
CERTIFICATE OF
AUTHORITY NO. 001592

BORING DATA

Note: For locations of borings, see Sheet No. 1.

Note: This drawing is not to scale. Follow dimensions.

Detailed June 2024
Checked July 2024

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