

McDONOUGH COUNTY	SHEET NO.	1
F.A.S. ROUTE 443	TOTAL SHEETS	2
PROJECT NO. RS-443(108)		
SECTION 02-00098-00-RS		
CONTRACT NO. 89295		

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- TYPICAL SECTIONS, DETAILS, AND GENERAL NOTES

LIST OF STANDARDS

- 701001-01 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701006-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701011-01 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701201-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701301-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701306-01 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 701311-02 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
- 702001-05 TRAFFIC CONTROL DEVICES
- BLR24-1 MAILBOX TURNOUT FOR LOCAL ROADS

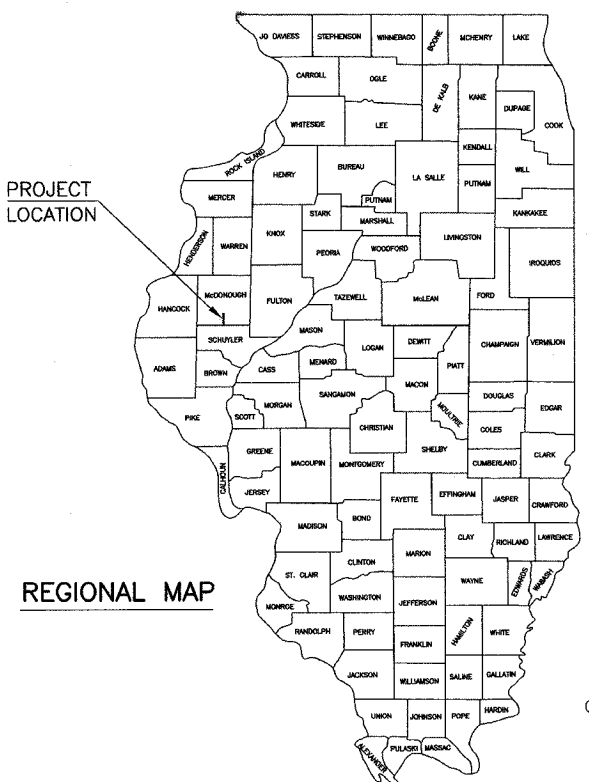
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PLANS FOR
PROPOSED LOCAL AGENCY IMPROVEMENT
SURFACE TRANSPORTATION RURAL**

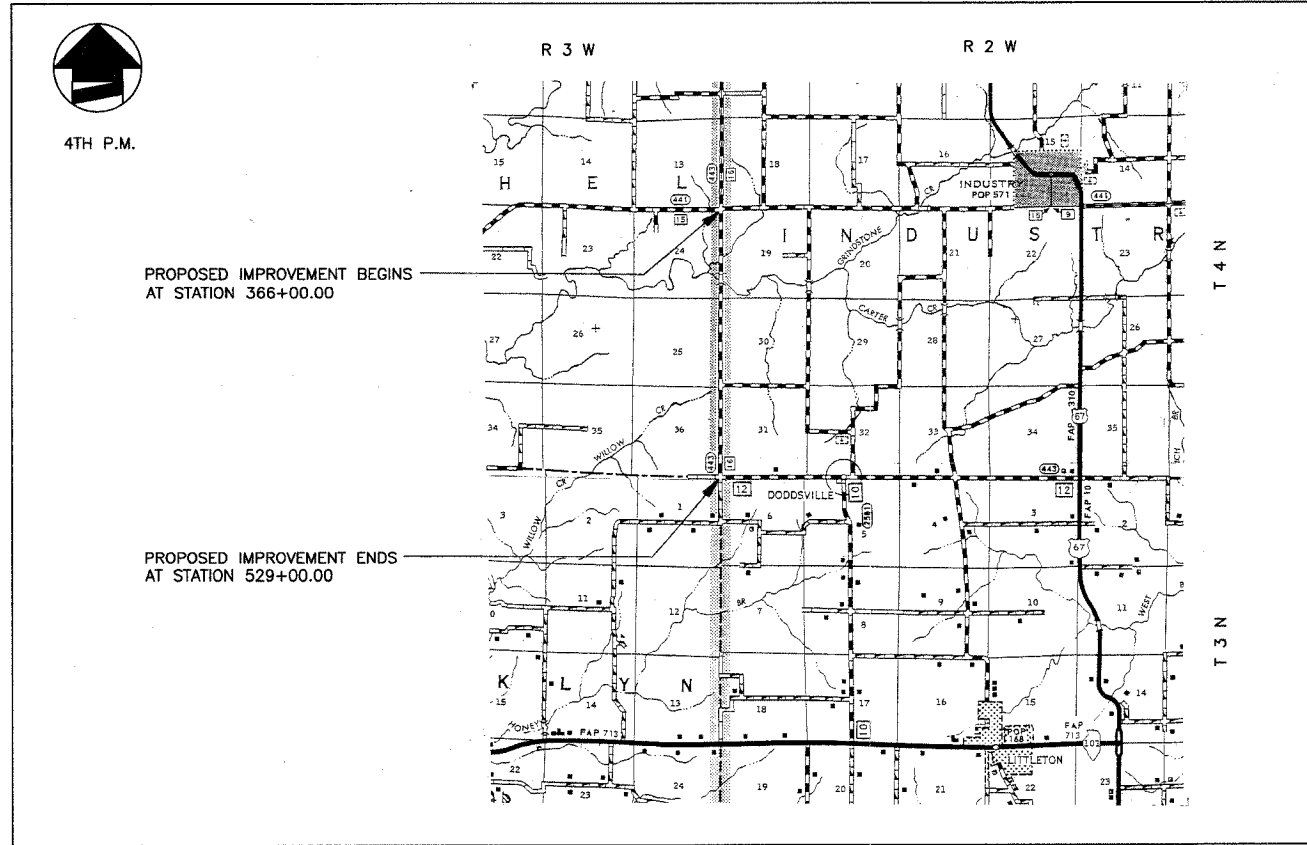
McDONOUGH COUNTY
F.A.S. ROUTE 443 - COUNTY HIGHWAY 16
ST. FRANCIS BLACKTOP
SECTION 02-00098-00-RS
JOB NO. C-94-080-03
PROJECT NO. RS-0443(108)

SUMMARY OF QUANTITIES
CONSTRUCTION TYPE CODE 1000-2A

X4066514	POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N50	4,597.0	TON
X4066654	POLYMERIZED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50	8,489.0	TON
40200800	AGGREGATE SURFACE COURSE, TYPE B	300.0	TON
40600100	BITUMINOUS MATERIALS (PRIME COAT)	7,969.0	GALLON
40600300	AGGREGATE (PRIME COAT)	159.0	TON
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	1,198.0	SQ YD
44300300	AREA REFLECTIVE CRACK CONTROL, TREATMENT SYSTEM A	39,527.0	SQ YD
48101200	AGGREGATE SHOULDERS, TYPE B	2,803.0	TON
70101700	TRAFFIC CONTROL AND PROTECTION	1.0	L SUM
70300100	SHORT-TERM PAVEMENT MARKING	3,260.0	FOOT
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	538.0	SQ FT
78001110	PAINT PAVEMENT MARKING LINE 4"	44,733.0	FOOT



REGIONAL MAP



LOCATION MAP

APPROXIMATE SCALE: 1" = 0.5 MILE
TOTAL & NET LENGTH OF PROJECT: 16,300.00 FT = 3.087 MI.
ROADWAY CLASSIFICATION: MAJOR COLLECTOR
DESIGN GUIDELINES: RURAL
DESIGN SPEED = 55 M.P.H.
ADT = 600/800 (YEAR 2002)
VARIANCES GRANTED - NONE
COMMITMENTS - NONE

QC\QA BITUMINOUS SUPERPAVE PROJECT

PLANS PREPARED BY THE
McDONOUGH COUNTY HIGHWAY DEPARTMENT
MACOMB, ILLINOIS

APPROVED FEB. 14 20 05
[Signature]
McDONOUGH COUNTY ENGINEER

PASSED FEBRUARY 23 20 05
[Signature]
DISTRICT 4 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW FEB 25 20 05
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION 3 ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROFESSIONAL ENGINEER
JOSHUA K. RICHARDSON
P.E. No. 062-55997
EXPIRES 11/30/2005

2/14/05
DATE

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JOB NO. C-94-080-03
CONTRACT NO. 89295

QUANTITIES NOT OTHERWISE SHOWN ON THE PLANS

X4066514: POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C" N50
APPLIED AT A RATE OF 112 LB PER SQ YD PER INCH

MAINLINE - STA. 366+00.00 TO STA. 529+00.00
 $[(16,300' \times 22.0')/9 = 39,844.4 \text{ SQ YD} \times 112 \times 1.5"]/2000 = 3,346.9 \text{ TON}$
 4 MAILBOX TURNOUTS @ 2.4 TONS EACH = 9.6 TON
 5 SIDE ROAD INTERSECTIONS @ 34.3 TONS EACH = 171.5 TON
 5 PRIVATE ENTRANCES @ 1.6 TONS EACH = 8.0 TON

TOTAL = 3,346.9 TON + 9.6 TON + 171.5 TON + 8.0 TON = 3,536.0 TON
 $3,536.0 \times 1.30 \text{ (ADD 30% FOR RUTTING)} = 4,596.8 \text{ TON}$
 PAY QUANTITY = 4,597.0 TON

X406654: POLYMERIZED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50
APPLIED AT A RATE OF 112 LB PER SQ YD PER INCH

(BRIDGE OMISSION FROM STA. 409+75.00 TO STA. 411+05.00 FOR BINDER COURSE ONLY)

MAINLINE - STA. 366+00.00 TO STA. 409+75.00 AND FROM STA. 411+05.00 TO STA. 529+00.00
 $[(16,170.0 \times 22.5')/9 = 40,425.0 \text{ SQ YD} \times 112.0 \times 2.50"]/2000 = 5,659.5 \text{ TON}$

TOTAL = 5,659.5 TON $\times 1.50 \text{ (ADD 50% FOR RUTTING)} = 8,489.3 \text{ TON}$
 PAY QUANTITY = 8,489.0 TON

40600100: BITUMINOUS MATERIALS (PRIME COAT)

APPLIED AT A RATE OF 0.10 GAL PER SQ YD

MAINLINE - STA. 366+00.00 TO STA. 529+00.00
 $(16,300' \times 22.0')/9 = 39,844.4 \text{ SQ YD} \times 0.10 \text{ GAL/SQ YD} \times 2 \text{ LIFTS} = 7,968.9 \text{ GALLON}$

PAY QUANTITY = 7,969.0 GALLON

40600300: AGGREGATE (PRIME COAT)

APPLIED AT A RATE OF 4 LB PER SQ YD

MAINLINE - STA. 366+00.00 TO STA. 529+00.00
 $[(16,300' \times 22.0')/9 = 39,844.4 \text{ SQ YD} \times 4 \text{ LB/SQ YD} \times 2 \text{ LIFTS}]/2000 = 159.4 \text{ TON}$

PAY QUANTITY = 159.0 TON

48101200: AGGREGATE SHOULDERS, TYPE B

APPLIED AT A RATE OF 2.0 TON PER CU YD

BRIDGE OMISSION FROM STA. 409+75.00 TO STA. 411+05.00

MAINLINE - STA. 366+00.00 TO STA. 409+75.00 AND FROM STA. 411+05.00 TO STA. 529+00.00
 $[(16,170' \times 3.0' \times 0.3' \text{ DEPTH})/27 = 539 \text{ CU YD} \times 2 \text{ TON/CU YD} = 1,078.0 \text{ TON} \times 2 \text{ SIDES} = 2,156.0 \text{ TON}$
 $2,156.0 \text{ TON} \times 1.30 \text{ (ADD 30% LOW SHOULDERS)} = 2,802.8 \text{ TON}$

PAY QUANTITY = 2,803.0 TON

40200800: AGGREGATE SURFACE COURSE, TYPE B

30 PRIVATE OR FIELD ENTRANCES @ 10.0 TON EACH = 300.0 TON

PAY QUANTITY = 300.0 TON

70300100: SHORT-TERM PAVEMENT MARKING

MAINLINE - STA. 366+00.00 TO STA. 529+00.00 (USE 4' STRIPE WITH A 36" SPACE)

$16,300 \text{ FT}/40 \text{ FT} = 407.5 \text{ STRIPES} \times 4' = 1,630.0 \text{ FT} \times 2 \text{ LIFTS} = 3,260.0 \text{ FEET}$

PAY QUANTITY = 3,260.0 FOOT

78001110: PAINT PAVEMENT MARKING LINE 4

MAINLINE - STA. 366+00.00 TO STA. 529+00.00

NO PASSING ZONES: (4" YELLOW)

STA. 385+03 LT. TO STA. 396+04 LT. = 1,101.0 FT.
 STA. 403+40 LT. TO STA. 411+14 LT. = 774.0 FT.
 STA. 421+46 LT. TO STA. 431+31 LT. = 985.0 FT.
 STA. 440+80 LT. TO STA. 452+94 LT. = 1,214.0 FT.
 STA. 375+94 RT. TO STA. 387+05 RT. = 1,111.0 FT.
 STA. 394+93 RT. TO STA. 401+73 RT. = 680.0 FT.
 STA. 412+36 RT. TO STA. 422+91 RT. = 1,055.0 FT.
 STA. 431+54 RT. TO STA. 445+15 RT. = 1,361.0 FT.

TOTAL NO PASSING ZONES = 8,281.0 FT.

SKIP-DASH CENTERLINE (4" YELLOW)

$16,300.0 \text{ FT.} - 893.0 \text{ FT. (DOUBLE NO PASSING ZONES)} = 15,407.0 \text{ FT.} \times 0.25 \text{ (10' DASH \& 30' SKIP)} = 3,852.0 \text{ FT.}$

TOTAL NO PASSING ZONES = 3,852.0 FT.

EDGE STRIPING (4" WHITE)

$16,300.0 \text{ FT.} \times 2 \text{ SIDES} = 32,600.0 \text{ FT.}$

TOTAL NO PASSING ZONES = 32,600.0 FT.

TOTAL = 8,281.0 + 3,852.0 + 32,600.0 = 44,733.0 FT.

PAY QUANTITY = 44,733.0 FOOT

70301000: WORK ZONE PAVEMENT MARKING REMOVAL

$1630.0 \text{ FT} \times 0.33 \text{ FT.} = 537.9 \text{ SQ. FT.}$

PAY QUANTITY = 538.0 SQ. FT.

44300300: AREA REFLECTIVE CRACK CONTROL TREATMENT SYSTEM A

STA. 366+00 TO STA. 409+75 = $(4,375.0 \text{ FT.} \times 22')/9 = 10,894.4 \text{ SQ. YD.}$

STA. 411+05 TO STA. 529+00 = $(11,795.0 \text{ FT.} \times 22')/9 = 28,832.2 \text{ SQ. YD.}$

TOTAL = 39,526.6 SQ. YD.

PAY QUANTITY = 39,527.0 SQ. YD.

40600980: BITUMINOUS SURFACE REMOVAL - BUTT JOINT

STA. 366+00 (B.O.P.) TO STA. 367+20 = $(120.0' \times 22.0')/9 = 293.3 \text{ SQ. YD.}$

STA. 367+45 LT. (INDUSTRY ROAD) = $(50.0' \times 22.0')/9 = 122.2 \text{ SQ. YD.}$

STA. 367+45 RT. (PLYMOUTH ROAD) = $(50.0' \times 22.0')/9 = 122.2 \text{ SQ. YD.}$

STA. 409+00 TO STA. 409+75 (BK ABUT) = $(75.0' \times 22.0')/9 = 183.3 \text{ SQ. YD.}$

STA. 411+05 (BK ABUT) TO STA. 411+80 = $(75.0' \times 22.0')/9 = 183.3 \text{ SQ. YD.}$

STA. 527+80 TO STA. 529+00 (E.O.P.) = $(120.0' \times 22.0')/9 = 293.3 \text{ SQ. YD.}$

TOTAL = 1,197.6 SQ. YD.

PAY QUANTITY = 1,198.0 SQ. YD.

GENERAL NOTES

1. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PROTECT AND PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

2. BITUMINOUS MIXTURE REQUIREMENTS

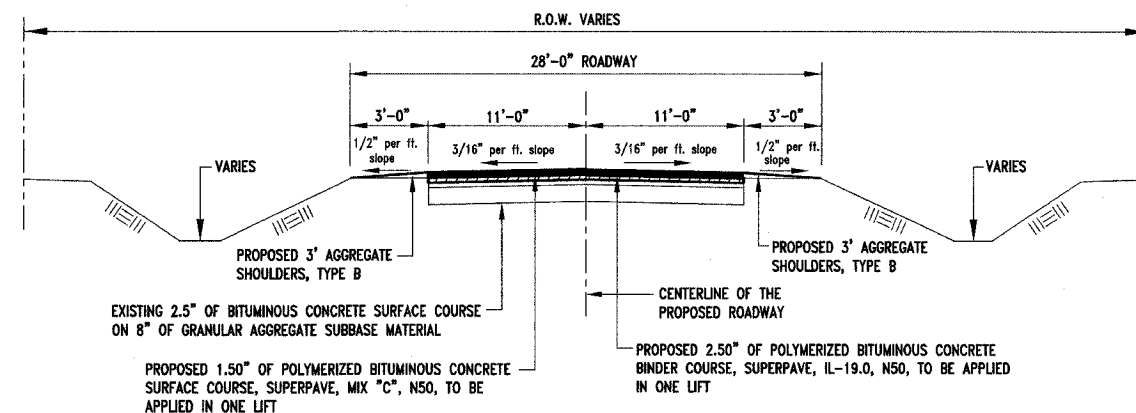
THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT.

MIXTURE USE(S):	SURFACE COURSE	BINDER COURSE
AC/PG:	SBS-PG70-28	SBS-PG70-28
RAP %: (MAX)	0%	0%
DESIGN AIR VOIDS:	4.2% @ Ndes = 50	4.2% @ Ndes = 50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5 or IL 12.5	IL 19.0
FRICTION AGGREGATE:	MIXTURE D (SEE NOTE)	N/A

NOTE: DOLOMITE ONLY IS TO BE USED FOR THE FRICTION AGGREGATE IN THE SURFACE COURSE MATERIAL.

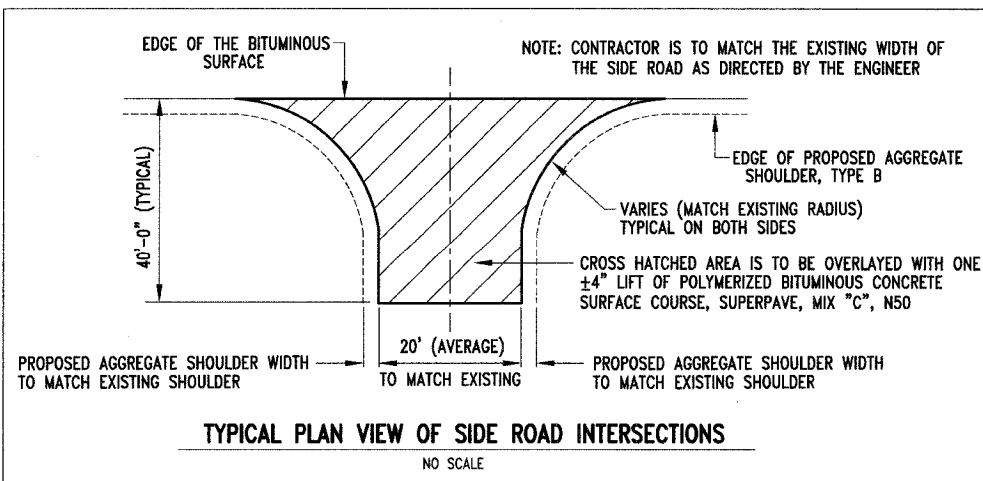
3. PAVEMENT DESIGN: STA 366+00.00 TO STA 529+00.00
 AVERAGE DAILY TRAFFIC (ADT) = 800 (YEAR COUNTED 2002)
 80,000 LB TRUCK ROUTE
 PV = 94.00%, SU = 2.00%, MU = 4.00%
 DESIGN PERIOD = 20 YEARS
 CLASS III ROAD

4. THERE IS TO BE AN OMISSION IN THE PROPOSED BITUMINOUS CONCRETE BINDER CONCRETE FROM STATION 409+75.00 TO STATION 411+05.00, FOR THE EXISTING BRIDGE.



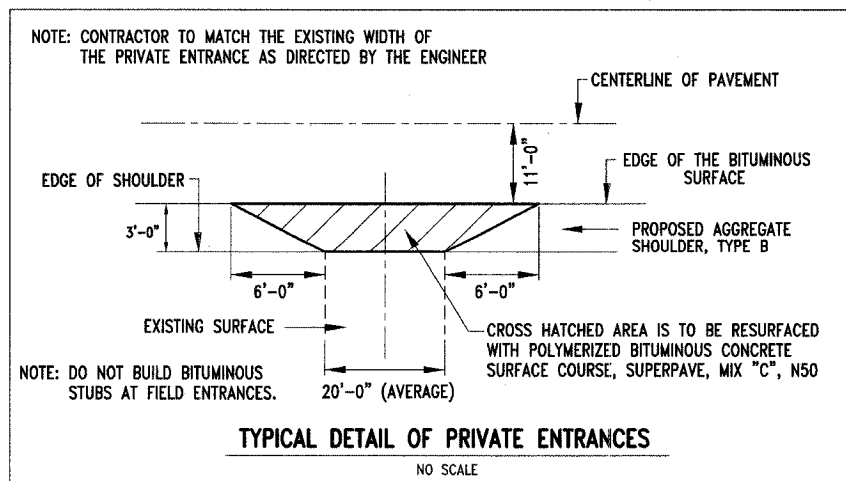
TYPICAL SECTION THROUGH THE PROPOSED ROADWAY FROM STATION 366+00.00 TO STATION 409+75.00 AND FROM STATION 411+05.00 TO STATION 529+00.00

NO SCALE



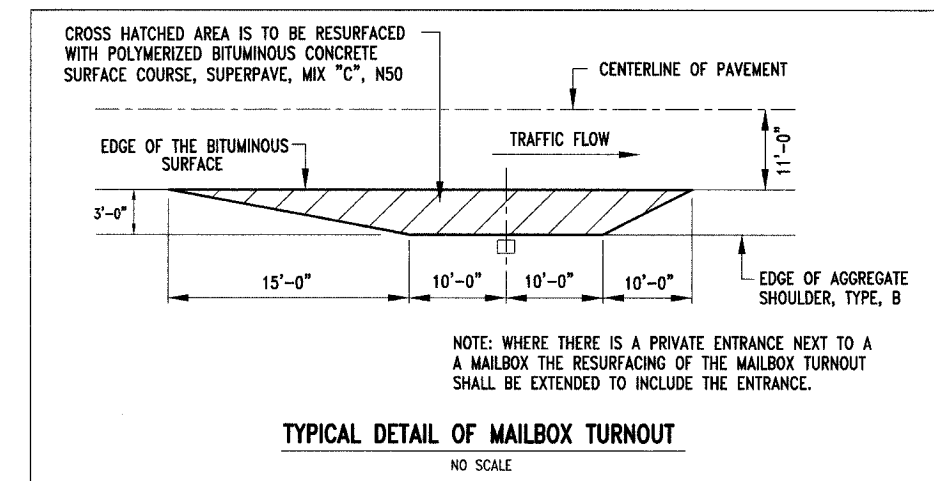
TYPICAL PLAN VIEW OF SIDE ROAD INTERSECTIONS

NO SCALE



TYPICAL DETAIL OF PRIVATE ENTRANCES

NO SCALE



TYPICAL DETAIL OF MAILBOX TURNOUT

NO SCALE