

EXISTING TYPICAL SECTION
JORIE BOULEVARD
STA 1+25 TO STA 78+11

- LEGEND**
- ① EXISTING BITUMINOUS OR AGGREGATE PATHWAY SURFACE
 - ② EXISTING CURB AND GUTTER, TYPE B-6.12
 - ③ EXISTING CURB AND GUTTER, TYPE B-6.24
 - ④ EXISTING HMA SURFACE COURSE (APPROX. 1.5" THICK)
 - ⑤ EXISTING HMA BINDER COURSE (APPROX. 1.5" THICK)
 - ⑥ EXISTING HMA BASE COURSE (APPROX. 7" THICK)
 - ⑦ EXISTING AGGREGATE BASE (APPROX. 4" THICK)
 - ⑧ PROPOSED HMA SURFACE REMOVAL, 3 1/4 INCHES
 - ⑨ PROPOSED LEVELING BINDER (MACHINE METHOD), N70, 1 1/2"
 - ⑩ PROPOSED HMA SURFACE COURSE, MIX D, N70, 1 3/4"
 - ⑪ BITUMINOUS MATERIALS (PRIME COAT)
 - ⑫ AGGREGATE (PRIME COAT)
 - ⑬ COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT *
 - ⑭ SODDING *
 - ⑮ MEDIAN REMOVAL AND REPLACEMENT *

* AT LOCATIONS DETERMINED BY THE ENGINEER

PAVEMENT DESIGN CALCULATIONS

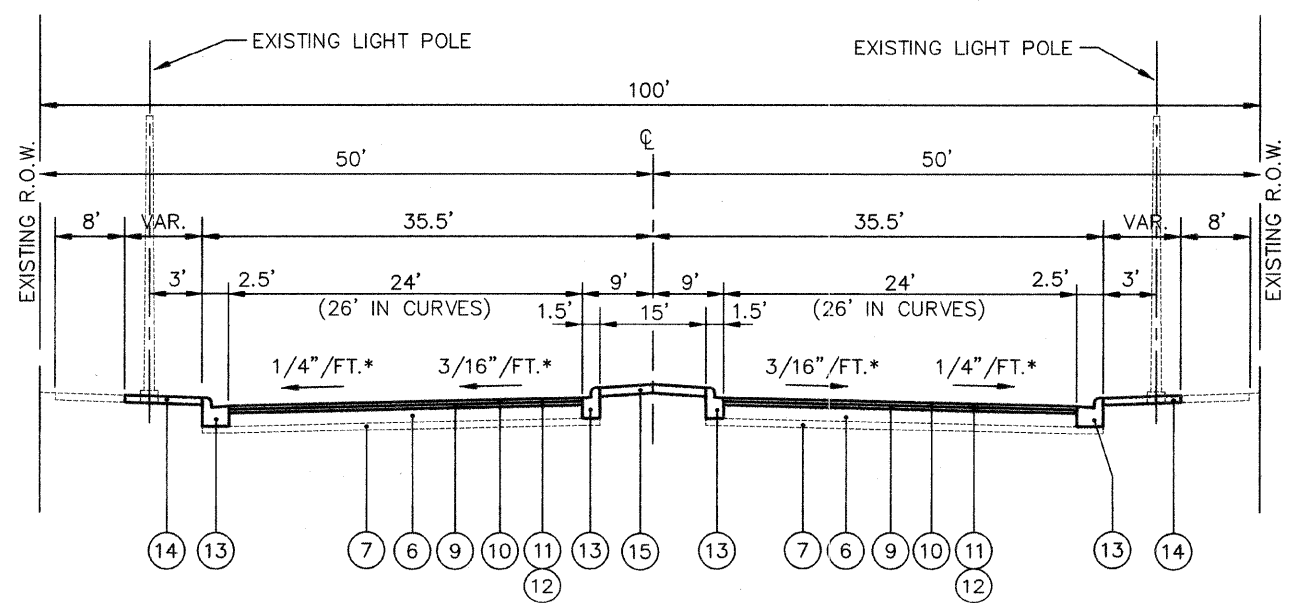
DATE: December 1, 2008
IMPROVEMENT TYPE: FLEXIBLE PAVEMENT CROSS SECTION (RESURFACING)
LOCATION: JORIE BOULEVARD, OAK BROOK

CLASSIFICATION OF ROADWAY: = CLASS I ROADWAY (ADT>3500) - FOUR LANE PAVEMENT
 TRAFFIC FACTOR = $DP((0.15^P \cdot PV) + (132.50^S \cdot SU) + (482.53^M \cdot MU)) / 1000000$
 DESIGN LANE VOLUME % OF ADT = 25 % TRUCKS 25 % PASS. VEHICLES
 DESIGN PERIOD, YEARS (DP) = 20 YEARS
 % OF PASSENGER VEHICLES (PV) = 99.00 %
 % OF SINGLE UNIT TRUCKS (SU) = 0.80 %
 % OF MULTI UNIT TRUCKS (MU) = 0.20 %

AVERAGE DAILY TRAFFIC	= 13200	TRAFFIC FACTOR.....	= 0.143455
DESIGN LANE VOLUME	= 3300	IB.R.....	= 3.0
NO. OF PASSENGER VEHICLES	= 3287	STRUCTURAL NUMBER (D _s) =	3.10
NO. OF SINGLE UNIT TRUCKS	= 26		
NO. OF MULTI UNIT TRUCKS	= 7		

PROPOSED PAVEMENT CROSS SECTION

MATERIAL THICKNESS	STRUCTURAL MATERIAL	COEFFICIENT	D _t
3.25	HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70	0.40	1.30
0.00	EXISTING HOT-MIX ASPHALT BINDER COURSE	0.25	0.00
6.75	EXISTING HOT-MIX ASPHALT BASE COURSE	0.25	1.69
4.00	EXISTING AGGREGATE BASE COURSE	0.10	0.40
TOTAL D_t PROVIDED =			3.39



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NOTE: CONTRACTOR SHALL MILL BEFORE PATCHING

MIXTURE TYPE	AIR VOIDS @ Ndes
PAVEMENT RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5 mm)	4% @ 70 Gyr.
LEVELING BINDER (MACHINE METHOD), N70	4% @ 70 Gyr.
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, (IL-9.5 mm)	4% @ 50 Gyr.
HOT-MIX ASPHALT BASE COURSE (HOT-MIX ASPHALT BINDER IL-19 mm)	4% @ 50 Gyr.
CLASS D PATCHING	
HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N70	4% @ 70 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

JAMES J. BENES & ASSOCIATES, INC.
 950 Warrenville Road, Suite 101, Lisle, Illinois 60532
 Tel. (630) 719-7570 • Fax (630) 719-7589

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.U. ROUTE 2662
 JORIE BOULEVARD

TYPICAL SECTIONS

SCALE: NTS
 DATE: 03/18/08

DRAWN BY: RAJ
 CHECKED BY: JDM