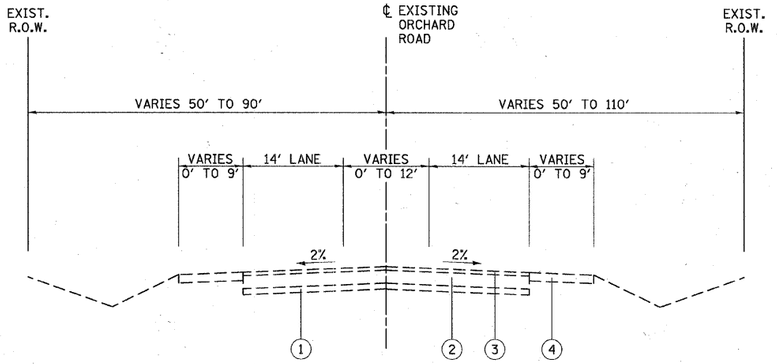



## EXISTING ORCHARD ROAD

STA 100+60 TO 171+63

STRUCTURAL DESIGN TRAFFIC: Year 2020

PV = 30,723 SU = 1,122 MU = 1,155

ROAD/STREET CLASSIFICATION: Class 1

PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:

P = 32 % S = 45 % M = 45 %

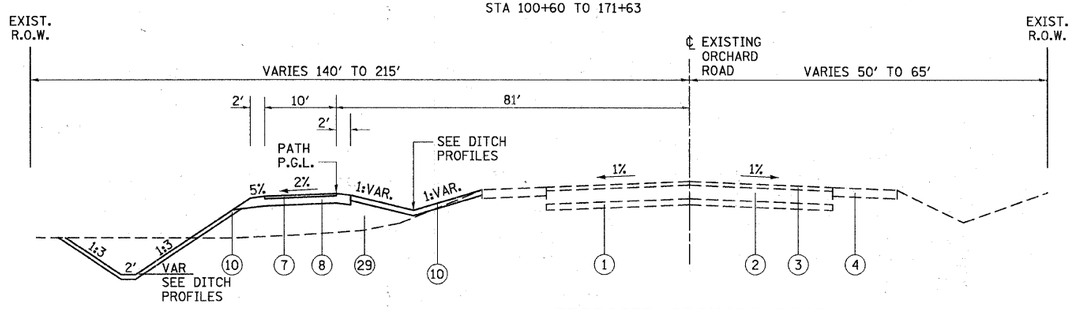
TRAFFIC FACTOR: Actual TF = 6.38 AC Type = PG 70-22 (AC-20)

Minimum TF = 3.83

PG GRADE: Binder = SBS/SBR PG70-22 Surface = SBS/SBR PG70-22

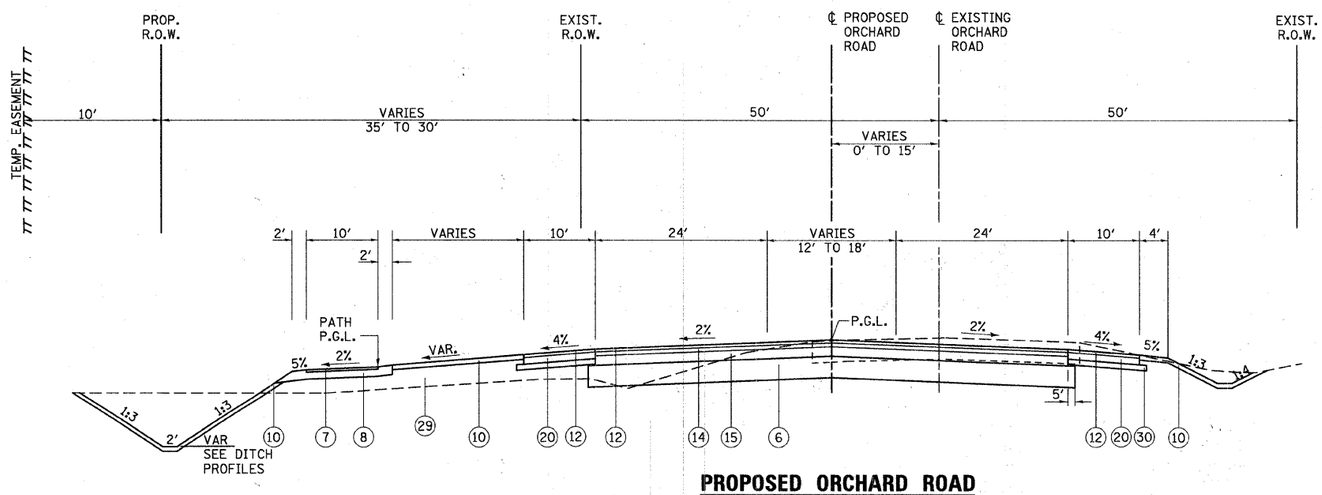
SUBGRADE SUPPORT RATING:

SSR = Poor (Sta. 104+89.01 to 111+22.39)




## PROPOSED ORCHARD ROAD

STA 100+60 TO 104+89.01




## PROPOSED ORCHARD ROAD

STA. 104+89.01 TO 111+22.39

(CORRUGATED MEDIAN STA 110+23.35 TO 111+22.39)

## HOT-MIX ASPHALT MIXTURE

| MIXTURE | AIR VOIDS (%) | THICKNESS | STREET |
|---|---|---|---|
| POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm) | 4% @ 90 GYR. | 2" (3 LIFTS) | ORCHARD ROAD |
| POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90 | 4% @ 90 GYR. | 2¼" | ORCHARD ROAD |
| HOT-MIX ASPHALT BASE COURSE (HMA BINDER, IL-19mm) | 4% @ 90 GYR. | 9½" (4 LIFTS) | ORCHARD ROAD |
| HOT-MIX ASPHALT BINDER COURSE IL-19.0, N70 | 4% @ 70 GYR. | 2¼" | AUCUTT ROAD & KNELL ROAD |
| HOT-MIX ASPHALT SHOULDERS (HMA BINDER, IL-19mm) | 2% @ 30 GYR. | 6" (3 LIFTS) | ORCHARD ROAD |
| HOT-MIX ASPHALT SHOULDERS (HMA BINDER, IL-19mm) | 2% @ 30 GYR. | 8" (3 LIFTS) | AUCUTT RD. & ROCHESTER DR. |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL-9.5mm) | 4% @ 50 GYR. | 2" | MULTI-USE PATH |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm) | 4% @ 70 GYR. | 1½" | AUCUTT, KNELL & ROCHESTER |
| HOT-MIX ASPHALT BASE COURSE WIDENING (HMA BINDER, IL-19mm) | 4% @ 70 GYR. | 8" (3 LIFTS) | AUCUTT ROAD & KNELL ROAD |
| LEVELING BINDER (MACHINE METHOD), N70 (IL 9.5 mm) | 4% @ 70 GYR. | ¾" | AUCUTT, KNELL & ROCHESTER |
| CLASS D PATCHES (HMA BINDER, IL-19 mm) | 4% @ 70 GYR. | 10" (4 LIFTS) | ORCHARD ROAD |
| HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER, IL-19 mm) | 4% @ 70 GYR. | 4" (2 LIFTS) | ORCHARD ROAD |
| HOT-MIX ASPHALT DRIVEWAY PAVEMENT (HMA BINDER, IL-19 mm) | 4% @ 50 GYR. | 6" (3 LIFTS) | DRIVEWAYS |
| TEMPORARY PAVEMENT (HMA BINDER, IL-19 mm) | 4% @ 50 GYR. | 10" (4 LIFTS) | ALL ROADS |

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES 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.

## LEGEND

1. EXISTING SUB-BASE GRANULAR MATERIAL
2. EXISTING POZZOLANIC BASE, 8½"
3. EXISTING HOT-MIX ASPHALT OVERLAY, DEPTH VARIES 5" TO 7"
4. EXISTING AGGREGATE SHOULDER, 6"
5. PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)-(STD 420106)
6. AGGREGATE SUBGRADE, 12"
7. HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 2"
8. SUB-BASE GRANULAR MATERIAL, TYPE B, 8"
9. COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
10. FURNISHING & PLACING TOPSOIL, 6"
11. HOT-MIX ASPHALT SHOULDER, 6" (IN 3 LIFTS)
12. POLYMERIZED HOT-MIX ASPHALT CONCRETE SURFACE COURSE, MIX "F", N90, 2"
13. LEVELING BINDER (MACHINE METHOD), N70, ¾"
14. POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 2¼"
15. HOT-MIX ASPHALT BASE COURSE, 9½" (IN 4 LIFTS)
16. HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70, 1½"
17. HOT-MIX ASPHALT, IL-19, N70, 2¼"
18. HOT-MIX ASPHALT BASE COURSE WIDENING, 8" (IN 3 LIFTS)
19. EXISTING HOT-MIX ASPHALT PAVEMENT, THICKNESS AS NOTED
20. HOT-MIX ASPHALT SHOULDER, 8" (IN 3 LIFTS)
21. STRIP REFLECTIVE CRACK CONTROL
22. COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
23. SAWED LONGITUDINAL JOINT WITH EPOXY COATED #6x30" TIE BARS @ 30" CTS. (COST OF SAW CUT AND TIE BAR INCLUDED IWITH PCC PAVEMENT)
24. LONGITUDINAL CONSTRUCTION JOINT WITH DRILL AND GROUT EPOXY COATED #6x24" TIE BARS @ 24" CTS. (COST OF TIE BARS AND PLACEMENT INCLUDED WITH PCC PAVEMENT)
25. EPOXY COATED #6x24" TIE BARS @ 24" CTS. (COST OF TIE BARS AND PLACEMENT INCLUDED WITH PCC PAVEMENT)
26. EXISTING PCC PAVEMENT
27. EXISTING PCC COMBINATION CURB & GUTTER
28. EXISTING HOT-MIX ASPHALT MULTI-USE PATH
29. SUITABLE EXCAVATED FILL MATERIAL
30. AGGREGATE SUBGRADE, 4" (INCLUDED IN COST OF HMA SHOULDERS)

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, Il 60187

| | | | |
|---|---|---|---|
| DESIGNED | MK | REVISED | - |
| DRAWN | DW | REVISED | - |
| CHECKED | MH | REVISED | - |
| DATE | 12/20/2010 | REVISED | - |

**KANE COUNTY**
**DIVISION OF TRANSPORTATION**
**ORCHARD ROAD RECONSTRUCTION**

**ORCHARD ROAD**
**TYPICAL SECTIONS**

SCALE: N/A | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 336 | 99-00232-01-WR | KANE | 215 | 10 |
| | | CONTRACT NO. 63541 | | |
| | | ILLINOIS FED. AID PROJECT | | |

49.9999 / IN.
dadas
1/20/2011
K:\Jtt\77782\CAD\Sheets\177782_TYP_SEC.dgn