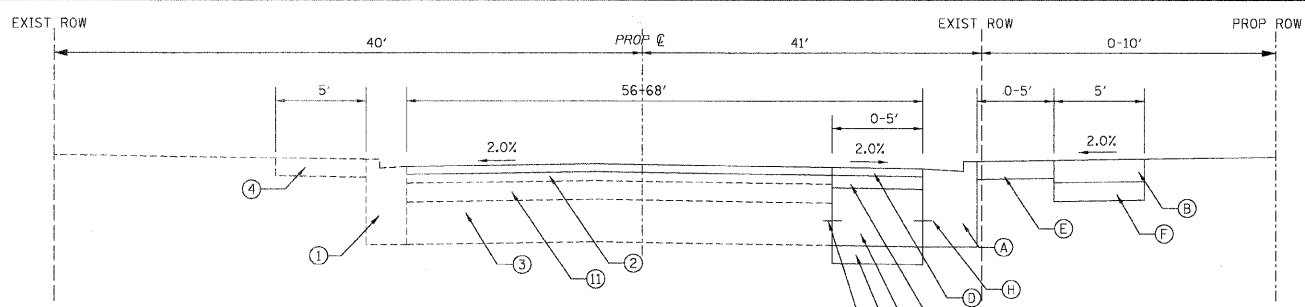
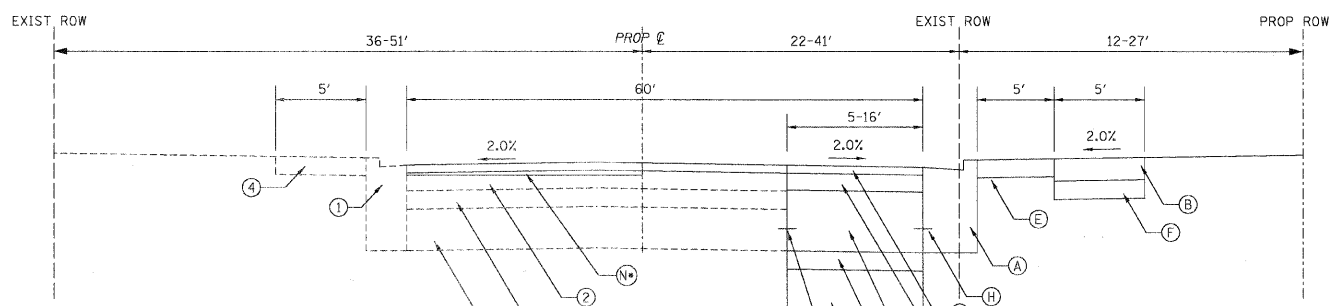


CONTRACT NO.: 83943

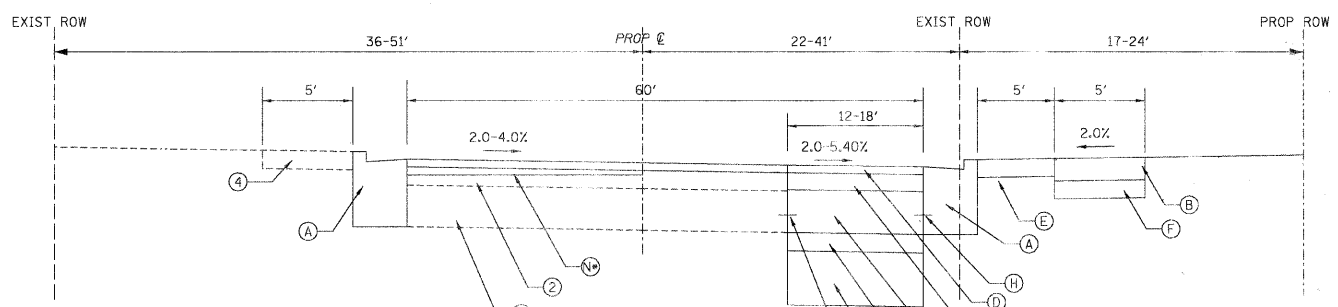
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3887	96-00159-00-CH	KANE	70	6
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



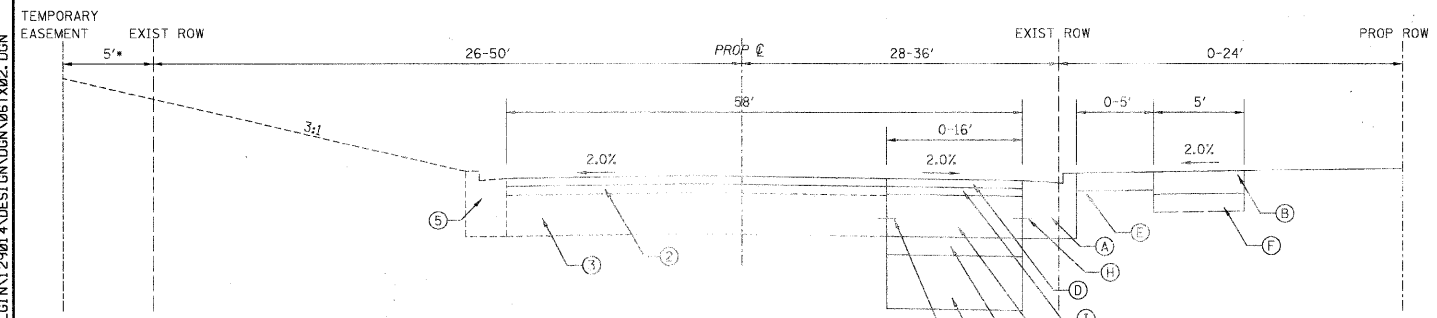
ILLINOIS ROUTE 31
PROPOSED SECTION
STA 89+79.30 TO STA 91+89.30



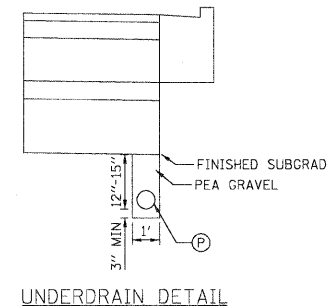
* STA 98+00 TO STA 99+50
ILLINOIS ROUTE 31
PROPOSED SECTION
STA 91+89.30 TO STA 99+50



* STA 99+50 TO STA 101+25
ILLINOIS ROUTE 31
PROPOSED SECTION
STA 99+50 TO STA 103+00



* STA 101+50.00 TO STA 104+92.00
ILLINOIS ROUTE 31
PROPOSED SECTION
STA 103+00.00 TO STA 104+84.30



LEGEND - EXISTING

- ① COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18
- ② BITUMINOUS CONCRETE OVERLAY, 1 - 10 1/4"
- ③ PORTLAND CEMENT CONCRETE BASE, 5 1/4 - 10 3/4"
- ④ PORTLAND CEMENT CONCRETE SIDEWALK
- ⑤ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- ⑥ BITUMINOUS CONCRETE OVERLAY, 4 1/4 - 6 1/4"
- ⑦ PORTLAND CEMENT CONCRETE BASE, 9 1/4 - 8"
- ⑧ RETAINING WALL
- ⑨ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.06
- ⑩ CONCRETE MEDIAN
- ⑪ PAVING BRICK, 0 - 4"

LEGEND - PROPOSED

- Ⓐ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
 - Ⓑ PORTLAND CEMENT CONCRETE SIDEWALK, 5"
 - Ⓒ PORTLAND CEMENT BASE COURSE, 7 1/2"
 - Ⓓ POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
 - Ⓔ TOPSOIL FURNISH AND PLACE, 4"
 - Ⓕ SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
 - Ⓖ LONGITUDINAL CONSTRUCTION JOINT NO. 6 TIE BAR, DEFORMED, EPOXY COATED, GROUDED IN PLACE, 24" LONG AT 24" CTS. (INCLUDED IN THE COST OF THE PCC BASE COURSE)
 - Ⓗ LONGITUDINAL JOINT NO. 6 TIE BAR, DEFORMED, EPOXY COATED, 24" LONG AT 24" CTS. (INCLUDED IN THE COST OF THE CURB AND GUTTER)
 - Ⓘ POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90, 2 1/4"
 - Ⓝ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2"
 - Ⓚ CONCRETE MEDIAN, TYPE SB-6.06
 - Ⓛ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, 2 1/4"
 - Ⓜ COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.06, REVERSE PITCH
 - Ⓝ POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90, VARIABLE DEPTH
 - Ⓞ POROUS GRANULAR EMBANKMENT, SUBGRADE, 12"
 - Ⓟ PIPE UNDERDRAIN 4"
- * THICKNESS OF CURB AND GUTTER SHALL BE EQUAL TO THICKNESS OF ASPHALT AND CONCRETE BASE COURSE.
- ** ANTICIPATED LIMITS OF POROUS GRANULAR EMBANKMENT, SUBGRADE

NOTES

1. PIPE UNDERDRAINS TO BE PLACED IN AREAS WHERE POROUS GRANULAR EMBANKMENT IS USED.
2. CAPS, PLUGS, WYES, AND TEES ARE CONSIDERED INCLUDED IN THE COST OF THE UNDERDRAINS.
3. ALL END RUNS SAHLL HAVE A CAP OR PLUG.
4. UNDERDRAINS SHALL BE CONNECTED TO THE NEAREST DRAINAGE STRUCTURE TO CREATE POSITIVE DRAINAGE.
5. UNDERDRAIN MATERIAL SHALL BE PERFORATED CORRUGATED POLYETHYLENE TUBING.
6. EXCAVATION AND PEA GRAVEL OR EQUIVALENT SHALL BE INCLUDED IN THE COST OF THE UNDERDRAIN.

STRUCTURAL PAVEMENT DESIGN FOR ILLINOIS ROUTE 31 AND WING STREET

STRUCTURAL DESIGN TRAFFIC: Year 2025
 PV = 39770 SU = 1240 MU = 415
 ROAD/STREET CLASSIFICATION: Class I
 PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
 P = 32 S = 45 M = 45
 TRAFFIC FACTOR: Actual TF = 4.15 AC Type = SBS/SBR PG 70-22 (IL 31) PG 64-22 (WING ST)
 Minimum TF = 5.33
 PG GRADE: Binder = SBS/SBR PG 70-22 (IL 31) PG 64-22/58-22 (WING ST) Surface = 1 3/4" (IL RT 31) 1 1/2" (WING ST)
 SUBGRADE SUPPORT RATING:
 IBR = 2

LOCATION	TREATMENT DEPTH	TREATMENT WIDTH
STA 96+19 TO STA 100+19	12 INCHES	ENTIRE PAVEMENT WIDENING
STA 102+19 TO STA 104+84	12 INCHES	ENTIRE PAVEMENT WIDENING

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
ITEM	AC TYPE	VOIDS
ILLINOIS ROUTE 31		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	SBS/SBR PG 70-22	4% @ 90 GYR.
POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	SBS/SBR PG 70-22	4% @ 90 GYR.
WING STREET		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	PG 64-22	4% @ 70 GYR.
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL 9.5 mm)	SBS/SBR PG 70-22	4% @ 90 GYR.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	PG 64-22/58-22 *	4% @ 70 GYR.
DRIVEWAYS		
8" HOT-MIX ASPHALT BASE COURSE (BINDER IL-19mm)	PG 64-22/58-22 *	4% @ 50 GYR.
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (BINDER IL 9.5 mm)	PG 64-22	4% @ 50 GYR.
PATCHING		
CLASS D PATCHES, TYPE I-IV, 10 INCH (BINDER IL-9 mm)	PG 64-22/58-22 *	4% @ 70 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LB/SQ YD/IN.
 * WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

REVISIONS	
NAME	DATE

RHA&A
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 Consulting Engineers
 Timbers Professional Center
 220 West River Drive, St. Charles, IL 60177
 Phone - 630.584.3530 Fax - 630.584.3447

ILLINOIS DEPARTMENT OF TRANSPORTATION
 ILLINOIS ROUTE 31 AND WING STREET

PROPOSED TYPICAL SECTIONS

SCALE: VERT. NONE
 HORIZ. NONE
 DATE: FEBRUARY 13, 2008

DRAWN BY: TC
 DESIGN BY: TC
 CHECKED BY: KMA

2/12/2008 H:\ELGIN\129814\DESIGN\0617X02.DGN