F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	1

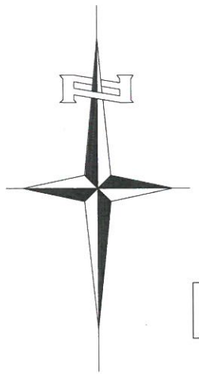
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
LOCAL FUNDING PROJECT
KENDALL COUNTY
SECTION 17-00139-00-BR
COUNTY HIGHWAY 1 OVER CLEAR CREEK

INDEX OF SHEETS

SCALES
- PLAN, PROFILE HORIZ. — 50′ 0 50′
- PROFILE VERT. — 5′ 0 5′
- CROSS SECTIONS HORIZ., CROSS SECTIONS VERT. — 5′ 0 5′

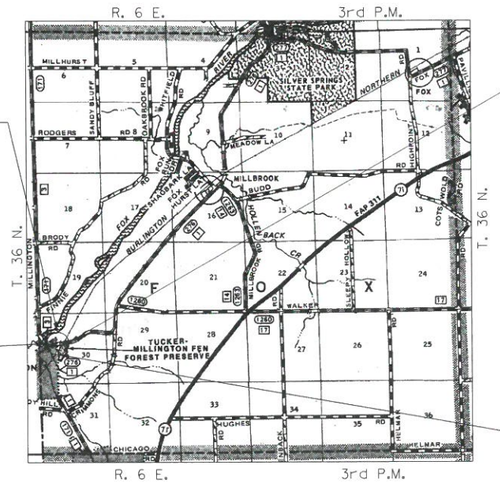
REQUIRED HIGHWAY STANDARDS

000001-08
280001-07
420406
515001-04
601101-02
630301-09
631031-15
701901-08
720011-01
725001-01
729001-01
780001-05
BLR 21-9



EXISTING STRUCTURE SN 047-3004
SINGLE SPAN CONCRETE DECK ON STEEL BEAMS WITH SPREAD FOOTING SUPPORTED CONCRETE CLOSED ABUTMENTS, 60′-6″ BK. TO BK., 26′-0″ O. TO O., NO SKEW. (TO BE REMOVED)

SECTION 17-00139-00-BR
BEGINS
STATION 18+12.85



SECTION 17-00139-00-BR
ENDS
STATION 22+15.39

PROPOSED STRUCTURE SN 047-3184
SINGLE SPAN PPC I BM STRUCTURE ON INTEGRAL ABUTMENTS, 108′-0″ BK. TO BK., AND 35′-2″ O. TO O. DECK, 20° SKEW RT. AH.

LOCATION MAP

1 MI 0 1 MI
APPROXIMATE SCALE

NET LENGTH OF PROJECT = 402.54 FEET = 0.076 MILES

DESIGN CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)
DESIGN ADT = 2,140 (39)
DESIGN SPEED = 50 MPH

UTILITY COMPANIES

AT&T
OAKBROOK, ILLINOIS

NICOR GAS
NAPERVILLE, ILLINOIS

AMEREN IP
LASALLE, ILLINOIS

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

4080e001.dgn

Hutchison Engineering, Inc.
JACKSONVILLE-SHOREWOOD
PEORIA-QUAD CITIES
2021 JOB#4080

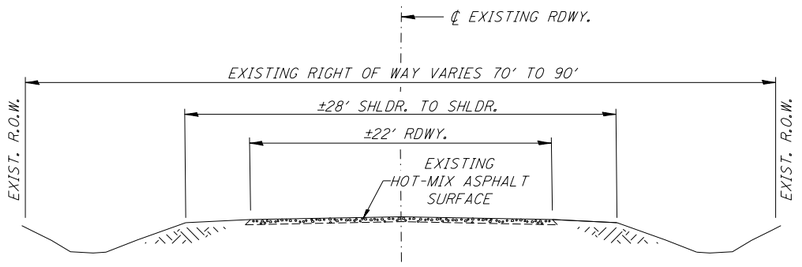
BENJAMIN A. NEBEL
58767
REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

SIGNATURE

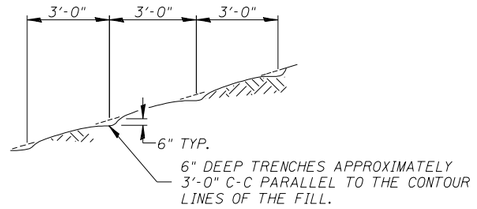
ENGINEERS SEAL

PLANS DESIGNED IN ACCORDANCE WITH BUREAU OF LOCAL ROADS AND STREETS MANUAL GUIDELINES FOR TWO LANE RURAL COLLECTORS - 3R GUIDELINES

APPROVED January 22, 2021
KENDALL COUNTY ENGINEER

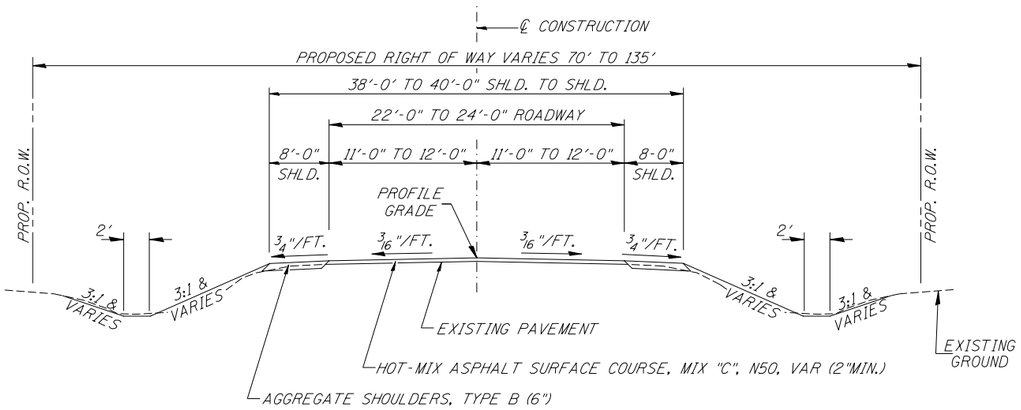


EXISTING TYPICAL SECTION



NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL. COST SHALL BE INCLUDED WITH SEEDING, CLASS 2 (SPECIAL).

DETAIL OF CONTOUR PLOWING



PROPOSED TYPICAL SECTION

STA. 18+12.85 TO STA. 19+18.41
STA. 21+16.59 TO STA. 22+15.39

EXCEPT TRANSITIONS

BRIDGE OMISSION
STA. 19+64.56 TO STA. 20+70.44

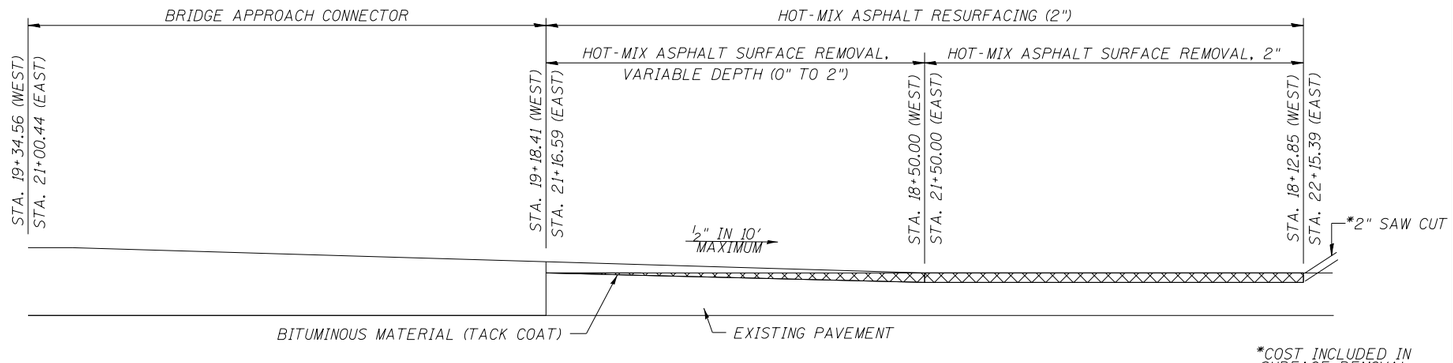
BRIDGE APPROACH PAVEMENT
STA. 19+34.56 TO STA. 19+64.56
STA. 20+70.44 TO STA. 21+00.44

BRIDGE APPROACH CONNECTOR
STA. 19+18.41 TO STA. 19+34.56
STA. 21+00.44 TO STA. 21+16.59

CONSTRUCT GUARDRAIL
SHOULDER WIDENING IN
ACCORDANCE WITH STD 630301

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE	SURFACE (MIX "C")
AC/PG	PG 64-22
DESIGN AIR VOIDS	4% @ N50
MIX COMPOSITION	IL-9.5



HOT-MIX ASPHALT RESURFACING DETAIL

*COST INCLUDED IN SURFACE REMOVAL.

GENERAL NOTES

PLAN QUANTITIES FOR TREE REMOVAL HAVE BEEN BASED ON ALL TREES WITHIN THE PROPOSED RIGHT OF WAY. THIS QUANTITY MAY BE REVISED DURING CONSTRUCTION, AT THE DIRECTION OF THE ENGINEER, BY DELETING FROM THE TREE REMOVAL QUANTITIES, SUCH TREES THAT DO NOT INTERFERE WITH THE PROPOSED CONSTRUCTION.

THE REMOVAL OF EXISTING HOT-MIX ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE PROJECT SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED OR ADJUSTED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED AT THE CONTRACTOR'S EXPENSE.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, EXCEPT STANDARD 631031 SHALL BE 631031-15.

THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

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

THE FINAL SURFACE OF ALL DISTURBED/EMBANKMENT AREAS SHALL BE SEEDED. THE TOP 4 INCHES OF THE SEEDED AREAS SHALL BE COHESIVE VEGETATION SUSTAINING SOIL SUBJECT TO THE APPROVAL OF THE ENGINEER. THE COST OF SHAPING THE SLOPES AND PROVIDING VEGETATION SUSTAINING SOIL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. TOPSOIL MAY BE STRIPPED AND STOCKPILED FROM THE SITE OR HAULED IN FROM AN ALTERNATE LOCATION AS APPROVED BY THE ENGINEER.

ALL ELEVATIONS SHOWN REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

FILE NAME = V:\4080 - CH 1 (Fox River Drive) over Clear Creek (Kendall)\CADD\CADD Sheets\4080t001.dgn	USER NAME = BNebel	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 2.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

GENERAL NOTES, TYPICAL SECTIONS, DETAILS, PAVEMENT DESIGN INFORMATION

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 18+12.85 | TO STA. 22+15.39

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	2
	ILLINOIS			

SUMMARY OF QUANTITIES

	ITEM	UNIT	QUANTITY
①	EARTH EXCAVATION	CU YD	400
	CHANNEL EXCAVATION	CU YD	1,035
①	FURNISHED EXCAVATION	CU YD	870
	EROSION CONTROL BLANKET	SQ YD	2,568
	TEMPORARY DITCH CHECKS	FOOT	72
	PERIMETER EROSION BARRIER	FOOT	385
	STONE RIPRAP, CLASS A4	SQ YD	770
	FILTER FABRIC	SQ YD	1,043
	AGGREGATE DITCH	TON	136
①	BITUMINOUS MATERIALS (TACK COAT)	POUND	242
①	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	60
	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	122
	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	261
	AGGREGATE SHOULDERS, TYPE B	TON	112
①	REMOVAL OF EXISTING STRUCTURES	EACH	1
	STRUCTURE EXCAVATION	CU YD	325
	FLOOR DRAINS	EACH	12
	CONCRETE STRUCTURES	CU YD	71.0
①	CONCRETE SUPERSTRUCTURE	CU YD	170.4
	BRIDGE DECK GROOVING	SQ YD	556
	CONCRETE ENCASEMENT	CU YD	5.0
	PROTECTIVE COAT	SQ YD	712
①	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	96.5
	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE BEAMS, IL45	FOOT	526
	REINFORCEMENT BARS, EPOXY COATED	POUND	77,830
	FURNISHING STEEL PILES HP12X63	FOOT	414
	DRIVING PILES	FOOT	414
	TEST PILE STEEL HP12X63	EACH	2
	PILE SHOES	EACH	14
	NAME PLATES	EACH	1
	GEOCOMPOSITE WALL DRAIN	SQ YD	80
	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2
①	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
	TERMINAL MARKER - DIRECT APPLIED	EACH	2
	TERMINAL MARKER - POST MOUNTED	EACH	2
	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,612
①	SEEDING, CLASS 2A (SPECIAL)	ACRE	0.4
	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	259
①	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
	GRANULAR BACKFILL FOR STRUCTURES	CU YD	145
①	CONSTRUCTION LAYOUT	L SUM	1
①	PIPE UNDERDRAINS FOR STRUCTURES	FOOT	136

① SEE SPECIAL PROVISIONS

TRAFFIC BARRIER TERMINAL, TYPE 6

STATION TO STATION		SIDE	EACH
19+17.89	19+55.39	RIGHT	1
20+79.61	21+17.11	LEFT	1
TOTAL			2

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

STATION TO STATION		SIDE	EACH
18+68.04	19+17.89	RIGHT	1
21+17.11	21+67.11	LEFT	1
TOTAL			2

TERMINAL MARKER - POST MOUNTED

STATION	OFFSET	SIDE	EACH
19+43.50	17'	LEFT	1
20+91.50	17'	RIGHT	1
TOTAL			2

PAINT PAVEMENT MARKING - LINE 4"

STATION TO STATION		SIDE	DESCRIPTION	FOOT
18+12.85	22+15.39	LEFT	SOLID WHITE	403
18+12.85	22+15.39	CL	DOUBLE YELLOW	806
18+12.85	22+15.39	RIGHT	SOLID WHITE	403
TOTAL				1,612

AGGREGATE DITCH*

STATION TO STATION		SIDE	WIDTH	AGGREGATE DITCH	FILTER FABRIC
				TON	SQ YD
20+47	22+13	RIGHT	14'	136	273
TOTAL				136	273

*AGGREGATE DITCH SHALL CONFORM TO
MATERIAL TYPE B-3 OF THE STANDARD SPECIFICATION

AGGREGATE SHOULDERS, TYPE B

STATION TO STATION		SIDE	WIDTH	LENGTH	TON
18+12.85	19+18.41	LEFT	5.44' AVG.	105.56'	20
18+12.85	18+58.10	RIGHT	6.60' AVG.	45.25'	10
18+58.10	18+92.89	RIGHT	9.95' AVG.	34.79'	12
18+92.89	19+18.41	RIGHT	9.39' AVG.	25.52'	8
19+18.41	19+43.74	LEFT	3.75'	25.33'	3
19+18.41	19+55.39	RIGHT	3.75'	36.98'	5
20+79.61	21+16.59	LEFT	3.75'	36.98'	5
20+91.26	21+16.59	RIGHT	3.75'	25.33'	3
21+16.59	21+42.11	LEFT	8.92' AVG.	25.52'	8
21+16.59	22+15.39	RIGHT	5.54' AVG.	98.80'	19
21+42.11	21+77.11	LEFT	9.16' AVG.	35.00'	11
21+77.11	22+15.39	LEFT	6.10' AVG.	38.28'	8
TOTAL					112

EARTHWORK SUMMARY

STATION TO STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD				
RDWY 18+12.85 - 19+63.50	75			390	(334)
RDWY 20+71.50 - 22+15.39	325			780	(536)
CHANNEL		1,035			
STRUCTURE			325		
TOTAL	400	1,035	325	1,170	(870)
USE	400	1,035	325	-	(870)

(@ 25% SHRINKAGE)

PERIMETER EROSION BARRIER

STATION TO STATION		SIDE	FOOT
18+13	19+25	RIGHT	120
19+00	19+54	LEFT	70
20+62	22+15	LEFT	195
TOTAL			385

TEMPORARY DITCH CHECKS

STATION	SIDE	FOOT
19+00	LEFT	12
19+77	RIGHT	12
20+47	RIGHT	12
21+00	RIGHT	12
21+50	RIGHT	12
21+95	RIGHT	12
TOTAL		72

EROSION CONTROL BLANKET

STATION TO STATION		SIDE	WIDTH	LENGTH	AREA
18+13	19+54	LEFT	VARIES	141'	463
18+13	19+77	RIGHT	VARIES	164'	601
20+62	22+15	LEFT	VARIES	153'	692
20+47	22+15	RIGHT	VARIES	168'	812
TOTAL					2,568

HOT-MIX ASPHALT SURFACE REMOVAL, 2"

STATION TO STATION		WIDTH	LENGTH	SQ YD
18+12.85	18+50.00	22.86' AVG.	37.15'	94
21+50.00	22+15.39	23.01' AVG.	65.39'	167
TOTAL				261

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

STATION TO STATION		WIDTH	LENGTH	SQ YD
18+50.00	19+18.41	22.85' AVG.	68.41'	174
21+16.59	21+50.00	22.84' AVG.	33.41'	85
TOTAL				259

PAVEMENT SCHEDULE

STATION TO STATION		WIDTH	LENGTH	BITUMINOUS MATERIALS (TACK COAT) 0.05 LBS/SQ FT	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50 112#/SQ YD/IN	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
				POUND	TON	SQ YD
18+12.85	19+18.41	23.67' AVG.	105.56'	125		
21+16.59	22+15.39	23.77' AVG.	98.80'	117		
18+12.85	19+18.41	23.50' AVG.	105.56'		31	
21+16.59	22+15.39	23.60' AVG.	98.80'		29	
19+18.41	19+34.56	33.83'	16.15'			61
21+00.44	21+16.59	33.83'	16.15'			61
TOTAL				242	60	122

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	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

SUMMARY OF QUANTITIES &
SCHEDULES OF QUANTITIES

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 18+12.85 TO STA. 22+15.39

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	3
		ILLINOIS		

SIGN LEGEND

1	DETOUR	M4-8 (10 REQ'D)
2	EAST	M4-8 (10 REQ'D)
3	WEST	M4-8 (4 REQ'D)
4	FOX RIVER DRIVE	M4-8 (14 REQ'D)
5		M5-1 L (2 REQ'D)
6		M6-1 L (3 REQ'D)
7		M5-1 R (1 REQ'D)
8		M6-1 R (4 REQ'D)
9	END DETOUR	M4-8A (2 REQ'D)
10	ROAD CLOSED TO THRU TRAFFIC	R11-4 (2 REQ'D)
11	ROAD CLOSED	R11-2 (4 REQ'D)
12	DETOUR AHEAD	W20-2, 48" x 48" WITH AMBER FLASHING LIGHT AND FLAG. (4 REQ'D)
13	ROAD CLOSED AHEAD	W20-3, 48" x 48" WITH AMBER FLASHING LIGHT AND FLAG. (2 REQ'D)
14	ROAD CLOSED 500 FT	W20-3, 48" x 48" WITH AMBER FLASHING LIGHT AND FLAG. (2 REQ'D)
15		TYPE III BARRICADES (4 REQ'D)

SEE SPECIAL PROVISIONS

R 5 E, 3rd PM | R 6 E, 3rd PM

SECTION 14, SECTION 13, SECTION 18, SECTION 17, SECTION 16, SECTION 23, SECTION 24, SECTION 19, SECTION 20, SECTION 21, SECTION 26, SECTION 25, SECTION 30, SECTION 29, SECTION 28, SECTION 35, SECTION 36, SECTION 31, SECTION 32, SECTION 33

T 36 N

FOX RIVER DRIVE (CH 1)

MILLINGTON

CRIMMIN ROAD

TUCKER MILLINGTON FEN FOREST PRESERVE

1/3 MI 0 1/3 MI

GRAPHIC SCALE IN MILES

DETOUR GENERAL NOTES

1. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED APRIL 1, 2016", "THE QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES ADOPTED 2010", AND THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
2. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES FOR APPROVAL OF SUCH DATE.
3. THE CONTRACTOR SHALL SUPPLY TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF HIS REPRESENTATIVES RESPONSIBLE FOR THE DETOUR SIGNING PRIOR TO THE START OF WORK.
4. IF REQUESTED BY THE CONTRACTOR IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT, THE ENGINEER WILL FIELD LOCATE THE POSITION OF ANY SIGNS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS AND OTHER DEVICES INSTALLED BY HIM ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE DETOUR IS IN EFFECT.
6. THE CONTRACTOR SHALL MAKE ALL CHANGES IN SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER.
7. THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC. THE ENGINEER WILL CONTACT THE APPROPRIATE AGENCIES AND INTERESTED PARTIES.
8. IN ADDITION TO THE DETOUR SIGNING, THE CONTRACTOR SHALL PROVIDE ROAD CLOSURE SIGNING IN ACCORDANCE WITH BLR 21-9 AND AS DIRECTED BY THE ENGINEER.

R 5 E, 3rd PM | R 6 E, 3rd PM

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	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY COUNTY HIGHWAY 1 OVER CLEAR CREEK

TRAFFIC CONTROL PLAN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. 18+12.85 TO STA. 21+15.39

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	4
		ILLINOIS		

T 36 N, R 6 E, 3rd PM
SECTION 30

CREEK

PROPOSED STRUCTURE
S.N. 047-3184

+13 +00 +54 +62 +15

17 18 19 20 21 22 23

COUNTY HIGHWAY 1

30" CMP

+13 +25 +77

+47 +00 +50 +95 +13 +15

CLEAR

LEGEND

- PERIMETER EROSION BARRIER
- SPECIAL DITCH - FLOW LINE AND DIRECTION
- TEMPORARY DITCH CHECK
- PROPOSED RIPRAP PLACEMENT
- EROSION CONTROL BLANKET

T 36 N, R 6 E, 3rd PM
SECTION 30

20' 0' 20'
GRAPHIC SCALE IN FEET

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		DRAWN -	REVISED -
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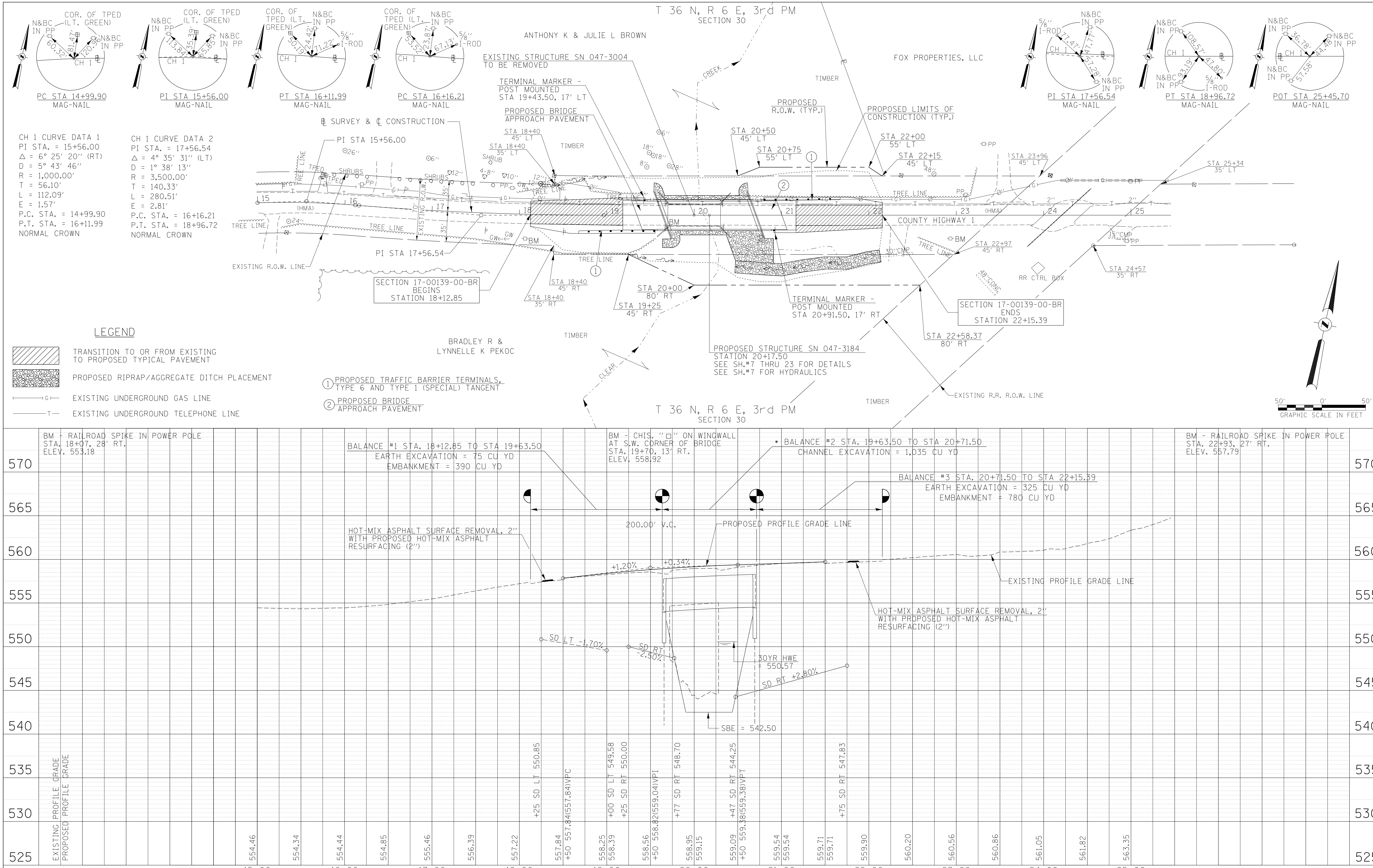
$MODELNAME$	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

EROSION CONTROL PLAN

SCALE: 1"=20' | SHEET NO. 1 OF 1 SHEETS | STA. 18+12.85 | TO STA. 22+15.39

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	5
	ILLINOIS			


N&BC IN PP
COR. OF TPED (LT. GREEN)
N&BC IN PP
60.32'
81.47'
120.96'
CH 1
PC STA 14+99.90
MAG-NAIL
N&BC IN PP
COR. OF TPED (LT. GREEN)
N&BC IN PP
113.84'
35.39'
65.85'
CH 1
PI STA 15+56.00
MAG-NAIL
COR. OF TPED (LT. GREEN)
N&BC IN PP
5/8" I-ROD
50.19'
24.42'
71.22'
CH 1
PT STA 16+11.99
MAG-NAIL
COR. OF TPED (LT. GREEN)
N&BC IN PP
5/8" I-ROD
53.52'
23.87'
67.13'
CH 1
PC STA 16+16.21
MAG-NAIL
5/8" I-ROD
N&BC IN PP
77.47'
47.77'
57.28'
N&BC IN PP
CH 1
PI STA 17+56.54
MAG-NAIL
N&BC IN PP
108.57'
CH 1
N&BC IN PP
93.19'
47.80'
5/8" I-ROD
PT STA 18+96.72
MAG-NAIL
N&BC IN PP
36.78'
44.48'
N&BC IN PP
CH 1
N&BC IN PP
57.58'
POT STA 25+45.70
MAG-NAIL
T 36 N, R 6 E, 3rd PM
SECTION 30
ANTHONY K & JULIE L BROWN
FOX PROPERTIES, LLC
CH 1 CURVE DATA 1
PI STA. = 15+56.00
△ = 6° 25' 20" (RT)
D = 5° 43' 46"
R = 1,000.00'
T = 56.10'
L = 112.09'
E = 1.57'
P.C. STA. = 14+99.90
P.T. STA. = 16+11.99
NORMAL CROWN
CH 1 CURVE DATA 2
PI STA. = 17+56.54
△ = 4° 35' 31" (LT)
D = 1° 38' 13"
R = 3,500.00'
T = 140.33'
L = 280.51'
E = 2.81'
P.C. STA. = 16+16.21
P.T. STA. = 18+96.72
NORMAL CROWN
℄ SURVEY & ℄ CONSTRUCTION
PI STA 15+56.00
EXISTING STRUCTURE SN 047-3004 TO BE REMOVED
TERMINAL MARKER - POST MOUNTED STA 19+43.50, 17' LT
PROPOSED BRIDGE APPROACH PAVEMENT
STA 18+40 45' LT
STA 18+40 35' LT
TIMBER
CREEK
PROPOSED R.O.W. (TYP.)
PROPOSED LIMITS OF CONSTRUCTION (TYP.)
STA 20+50 45' LT
STA 20+75 55' LT
STA 22+00 55' LT
STA 22+15 45' LT
STA 23+96 45' LT
STA 25+34 35' LT
TREE LINE
TPED
SHRUBS
SHRUB
PP
EXISTING R.O.W.
70'
35'
35'
(HMA)
15
16
17
18
19
20
21
22
23
24
25
BM
COUNTY HIGHWAY 1
30"CMP
15"CMP
48"CONC
RR CTRL BOX
STA 22+97 45' RT
STA 24+57 35' RT
PI STA 17+56.54
EXISTING R.O.W. LINE
SECTION 17-00139-00-BR BEGINS STATION 18+12.85
STA 18+40 45' RT
STA 18+40 35' RT
STA 20+00 80' RT
STA 19+25 45' RT
TERMINAL MARKER - POST MOUNTED STA 20+91.50, 17' RT
SECTION 17-00139-00-BR ENDS STATION 22+15.39
STA 22+58.37 80' RT
BRADLEY R & LYNNELLE K PEKOC
CLEAR
PROPOSED STRUCTURE SN 047-3184 STATION 20+17.50 SEE SH.#7 THRU 23 FOR DETAILS SEE SH.#7 FOR HYDRAULICS
EXISTING R.R. R.O.W. LINE
LEGEND
TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT
PROPOSED RIPRAP/AGGREGATE DITCH PLACEMENT
EXISTING UNDERGROUND GAS LINE
EXISTING UNDERGROUND TELEPHONE LINE
1 PROPOSED TRAFFIC BARRIER TERMINALS, TYPE 6 AND TYPE 1 (SPECIAL) TANGENT
2 PROPOSED BRIDGE APPROACH PAVEMENT
50' 0' 50'
GRAPHIC SCALE IN FEET
BM - RAILROAD SPIKE IN POWER POLE STA. 18+07, 28' RT. ELEV. 553.18
BALANCE #1 STA. 18+12.85 TO STA 19+63.50
EARTH EXCAVATION = 75 CU YD
EMBANKMENT = 390 CU YD
BM - CHIS. "□" ON WINGWALL AT S.W. CORNER OF BRIDGE STA. 19+70, 13' RT. ELEV. 558.92
* BALANCE #2 STA. 19+63.50 TO STA 20+71.50
CHANNEL EXCAVATION = 1,035 CU YD
BALANCE #3 STA. 20+71.50 TO STA 22+15.39
EARTH EXCAVATION = 325 CU YD
EMBANKMENT = 780 CU YD
BM - RAILROAD SPIKE IN POWER POLE STA. 22+93, 27' RT. ELEV. 557.79
200.00' V.C.
PROPOSED PROFILE GRADE LINE
HOT-MIX ASPHALT SURFACE REMOVAL, 2" WITH PROPOSED HOT-MIX ASPHALT RESURFACING (2")
+1.20%
+0.34%
EXISTING PROFILE GRADE LINE
SD LT -1.70%
SD RT -2.50%
30YR HWE = 550.57
SD RT +2.80%
SBE = 542.50
570
565
560
555
550
545
540
535
530
525
EXISTING PROFILE GRADE
PROPOSED PROFILE GRADE
+25 SD LT 550.85
+50 557.84(557.84)VPC
+00 SD LT 549.58
+25 SD RT 550.00
+50 558.82(559.04)VPI
+77 SD RT 548.70
+47 SD RT 544.25
+50 559.38(559.38)VPT
+75 SD RT 547.83
554.46
554.34
554.44
554.85
555.46
556.39
557.22
557.84
558.25
558.39
558.56
558.95
559.15
559.09
559.54
559.54
559.71
559.71
559.90
560.20
560.56
560.86
561.05
561.82
563.35
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
24+00
25+00

FILE NAME =	USER NAME = BNebel	DESIGNED -	REVISED -
V:\4080 - CH 1 (Fox River Drive) over Clear Creek (Kendall)\CADD\CADD Sheets\4080p001.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

PLAN AND PROFILE

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. 18+12.85 TO STA. 22+15.39

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	6

ILLINOIS

PLAN		
NOTE BOOK	SURVEYED	BY
NO.	PLOTTED	DATE
	ALIGNMENT CHECKED	
	RT. OF WAY CHECKED	
	CADD FILE NAME	

PROFILE		
NOTE BOOK	SURVEYED	BY
NO.	PLOTTED	DATE
	GRADES CHECKED	
	B.M. NOTED	
	STRUCTURE NOTAT'NS CH'KD	

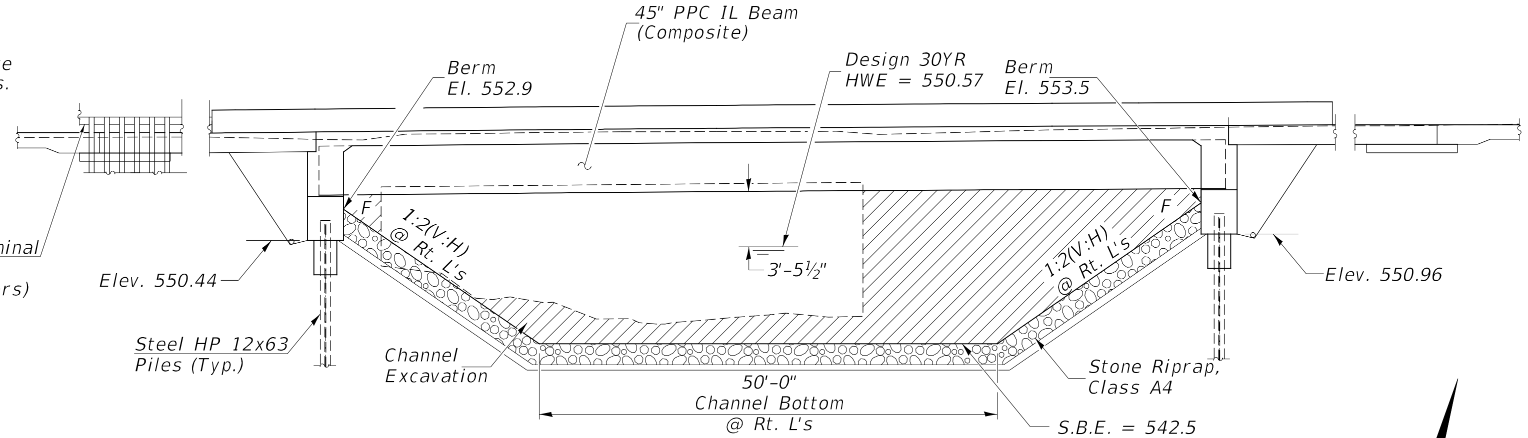
B.M.: RR Spike in Power Pole
Sta. 18+07, 28' Rt.
Elev. 553.18

RR Spike in Power Pole
Sta. 22+93, 27' Rt.
Elev. 557.79

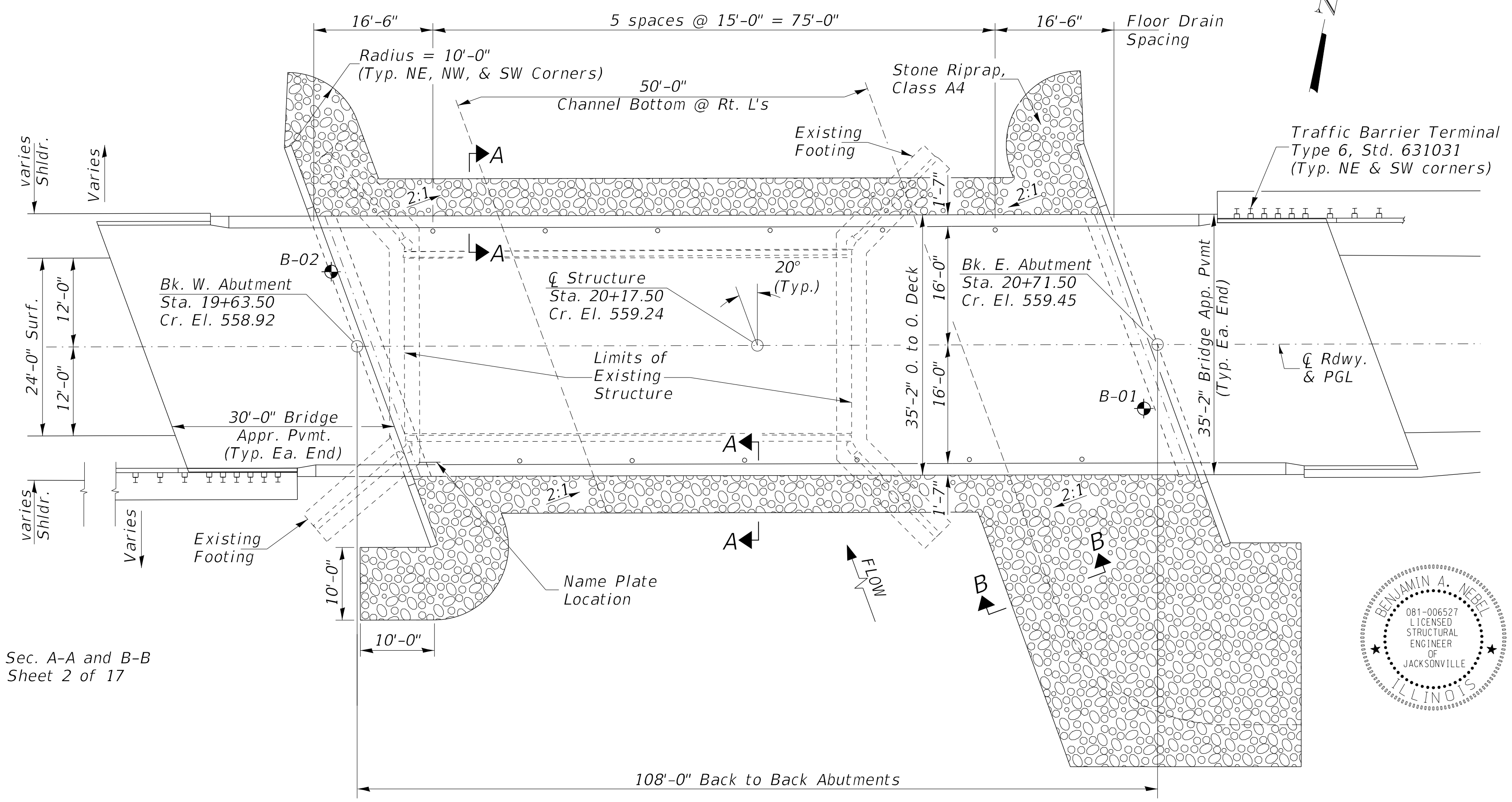
Existing Structure:
Single span concrete deck on steel beam superstructure on spread footing supported concrete closed abutments. The structure is 60'-6" back to back of abutments, 26'-0" out to out deck with a 24'-0" drivable width, and is not skewed. The structure was constructed in 1950.
Str. No. 047-3004

Salvage: None

Road to be closed to traffic during construction.



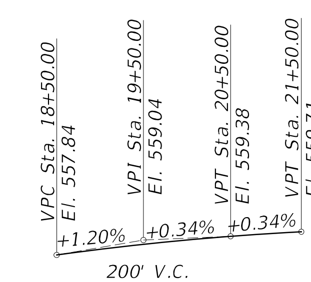
ELEVATION



For Sec. A-A and B-B
See Sheet 2 of 17

PLAN

INDEX TO SHEETS



PROFILE GRADE

F.A.S. 276 (CH 1)

BENJAMIN A. NEBEL
081-006527
LICENSED
STRUCTURAL
ENGINEER
OF
JACKSONVILLE
ILLINOIS

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.
This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

Illinois Structural No. 6527
Expires 11/30/2022

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)	W. Abut.	E. Abut.	Item 113
Q100	550.4	551.0	8
Q200	550.4	551.0	
Design	550.4	551.0	
Check	550.4	551.0	

WATERWAY INFORMATION

Drainage Area = 6.44 Sq. Mi. Low Grade Elev. = 554.34 @ Sta. 15+50.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	30	1,320	288	536	550.57	0.28	0.16	550.85	550.73
Base	100	1,701	316	577	551.06	0.40	0.20	551.46	551.26

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

(FIELD UNITS)

f'c = 4,000 p.s.i. (superstructure)
f'c = 3,500 p.s.i. (substructure)
fy = 60,000 p.s.i. (Rein.)

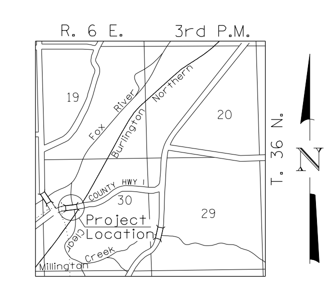
(PRECAST PRESTRESSED UNITS)
f'c = 8,500 p.s.i.
f'ci = 7,000 p.s.i.
f's = 270,000 p.s.i. (0.6" Strands)
f'si = 202,300 p.s.i. (0.6" Strands)

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.068g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.125g
Soil Site Class = C



LOCATION SKETCH

GENERAL PLAN & ELEVATION
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

DESIGNED	B.A.N.
CHECKED	C.T.M.
DRAWN	T.A.C.
CHECKED	B.A.N./C.T.M.

Hutchison Engineering, Inc.
JACKSONVILLE-SHOREWOOD-PEORIA-QUAD CITIES
Date: March 25, 2019
2021 JOB#4080

SHEET NO. 1
17 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	7
	S.N. 047-3184			

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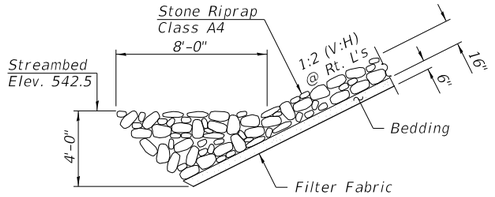
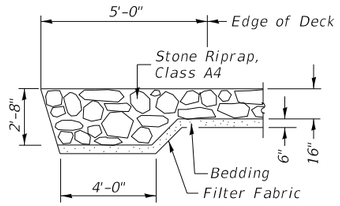


SECTION B-B



SECTION A-A

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$ in. ∅, holes $\frac{13}{16}$ in. ∅, unless otherwise noted.

If the Contractor elects to use cantilever forming brackets on the exterior beams, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.

See Special Provisions for boring logs.

Reinforcement bars designated (E) shall be epoxy coated.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

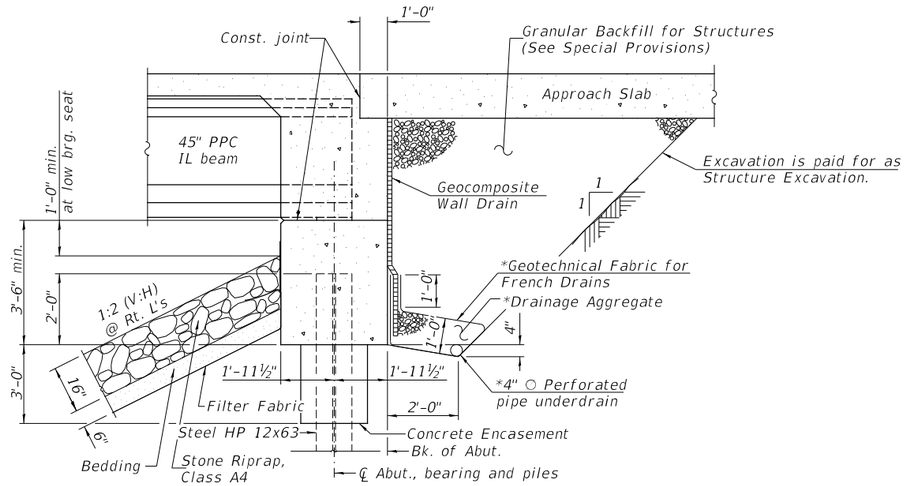
See Sh. 24-25 of 30 for existing plans.

Removal of footing at west abutment of existing structure will likely be required due to interference with proposed piles. Cost included in Removal of Existing Structures.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Structure Excavation	CU YD	–	325	325
	Stone Riprap, Class A4	SQ YD	–	770	770
	Filter Fabric	SQ YD	–	770	770
	Concrete Structures	CU YD	–	71.0	71.0
(1)	Concrete Superstructure	CU YD	170.4	–	170.4
(1)	Concrete Superstructures (Approach Slab)	CU YD	96.5	–	96.5
	Concrete Encasement	CU YD	–	5.0	5.0
	Reinforcement Bars, Epoxy Coated	POUND	70,430	7,400	77,830
	Furnishing and Erecting Precast Prestressed Concrete Beams, IL 45	FOOT	526	–	526
	Granular Backfill for Structures	CU YD	–	145	145
	Name Plates	EACH	1	–	1
	Furnishing Steel Pile HP 12x63	FOOT	–	414	414
	Driving Piles	FOOT	–	414	414
	Test Pile Steel HP 12x63	EACH	–	2	2
	Bridge Deck Grooving	SQ YD	556	–	556
	Protective Coat	SQ YD	712	–	712
	Floor Drains	EACH	12	–	12
	Geocomposite Wall Drain	SQ YD	–	80	80
(1)	Pipe Underdrains for Structures 4"	FOOT	–	136	136
	Channel Excavation	CU YD	–	1,035	1,035
	Pile Shoes	EACH	–	14	14
(1)	Removal of Existing Structures	EACH	–	–	1

(1) See Special Provisions



SECTION THRU INTEGRAL ABUTMENT

(Horiz. Dimensions @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures 4". (See Special Provisions)

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into *concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

CLEAR CREEK
BUILT 20__ BY
KENDALL COUNTY
SEC. 17-00139-00-BR
C.H. 1 STATION 20+17.50
STR. NO. 047-3184 LOADING HL-93

NAME PLATE

Locate Name Plate on Parapet
S.W. Corner of Bridge
(See Std. 515001)

GENERAL DATA
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	8
		S.N. 047-3184			

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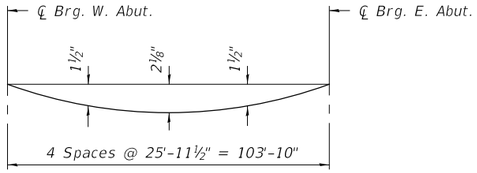
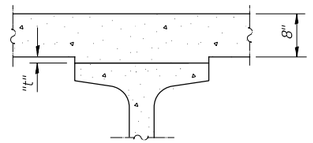


DEAD LOAD DEFLECTION DIAGRAM

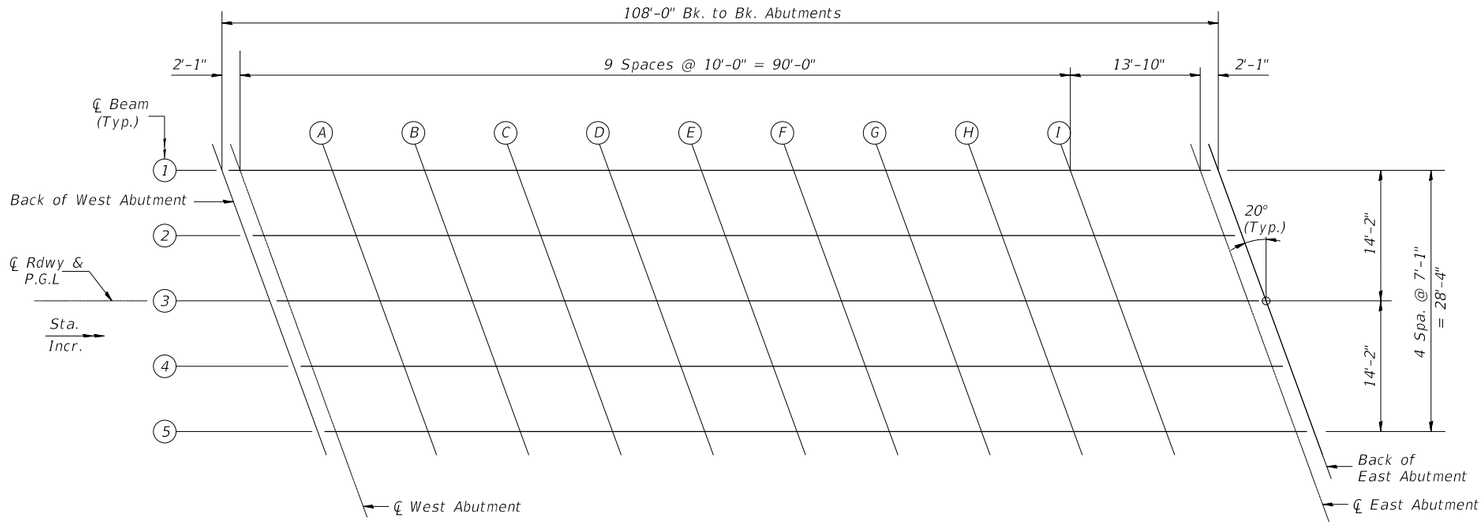
(Includes weight of concrete, excluding beams)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 4 of 17.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



PLAN

TOP OF SLAB ELEVATIONS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 3	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	9
		S.N. 047-3184			

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BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	1958.34	-14.17	558.65	558.65
CL Brg W. Abut.	1960.43	-14.17	558.67	558.67
A	1970.43	-14.17	558.74	558.79
B	1980.43	-14.17	558.80	558.90
C	1990.43	-14.17	558.87	558.99
D	2000.43	-14.17	558.92	559.07
E	2010.43	-14.17	558.98	559.13
F	2020.43	-14.17	559.02	559.18
G	2030.43	-14.17	559.07	559.20
H	2040.43	-14.17	559.11	559.21
I	2050.43	-14.17	559.14	559.21
CL Brg E. Abut.	2064.26	-14.17	559.19	559.19
Bk. E. Abutment	2066.34	-14.17	559.20	559.20

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	1960.92	-7.08	558.79	558.79
CL Brg W. Abut.	1963.01	-7.08	558.81	558.81
A	1973.01	-7.08	558.88	558.93
B	1983.01	-7.08	558.94	559.03
C	1993.01	-7.08	559.00	559.13
D	2003.01	-7.08	559.06	559.21
E	2013.01	-7.08	559.11	559.27
F	2023.01	-7.08	559.16	559.31
G	2033.01	-7.08	559.20	559.34
H	2043.01	-7.08	559.24	559.35
I	2053.01	-7.08	559.27	559.34
CL Brg E. Abut.	2066.84	-7.08	559.32	559.32
Bk. E. Abutment	2068.92	-7.08	559.33	559.33

BEAM #3/P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	1963.50	0.00	558.92	558.92
CL Brg W. Abut.	1965.58	0.00	558.94	558.94
A	1975.58	0.00	559.01	559.05
B	1985.58	0.00	559.07	559.16
C	1995.58	0.00	559.13	559.25
D	2005.58	0.00	559.18	559.33
E	2015.58	0.00	559.23	559.39
F	2025.58	0.00	559.28	559.43
G	2035.58	0.00	559.32	559.46
H	2045.58	0.00	559.36	559.47
I	2055.58	0.00	559.39	559.46
CL Brg E. Abut.	2069.42	0.00	559.44	559.44
Bk. E. Abutment	2071.50	0.00	559.45	559.45

BEAM #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	1966.08	7.08	558.83	558.83
CL Brg W. Abut.	1968.16	7.08	558.85	558.85
A	1978.16	7.08	558.91	558.96
B	1988.16	7.08	558.97	559.07
C	1998.16	7.08	559.03	559.16
D	2008.16	7.08	559.09	559.24
E	2018.16	7.08	559.14	559.29
F	2028.16	7.08	559.18	559.34
G	2038.16	7.08	559.22	559.36
H	2048.16	7.08	559.26	559.36
I	2058.16	7.08	559.29	559.36
CL Brg E. Abut.	2071.99	7.08	559.34	559.34
Bk. E. Abutment	2074.08	7.08	559.34	559.34

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abutment	1968.66	14.17	558.73	558.73
CL Brg W. Abut.	1970.74	14.17	558.74	558.74
A	1980.74	14.17	558.81	558.85
B	1990.74	14.17	558.87	558.96
C	2000.74	14.17	558.92	559.05
D	2010.74	14.17	558.98	559.13
E	2020.74	14.17	559.03	559.18
F	2030.74	14.17	559.07	559.22
G	2040.74	14.17	559.11	559.25
H	2050.74	14.17	559.14	559.25
I	2060.74	14.17	559.18	559.24
CL Brg E. Abut.	2074.57	14.17	559.22	559.22
Bk. E. Abutment	2076.66	14.17	559.23	559.23

TOP OF SLAB ELEVATIONS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 4	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	10
		S.N. 047-3184			

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INSIDE FACE OF NORTH PARAPET

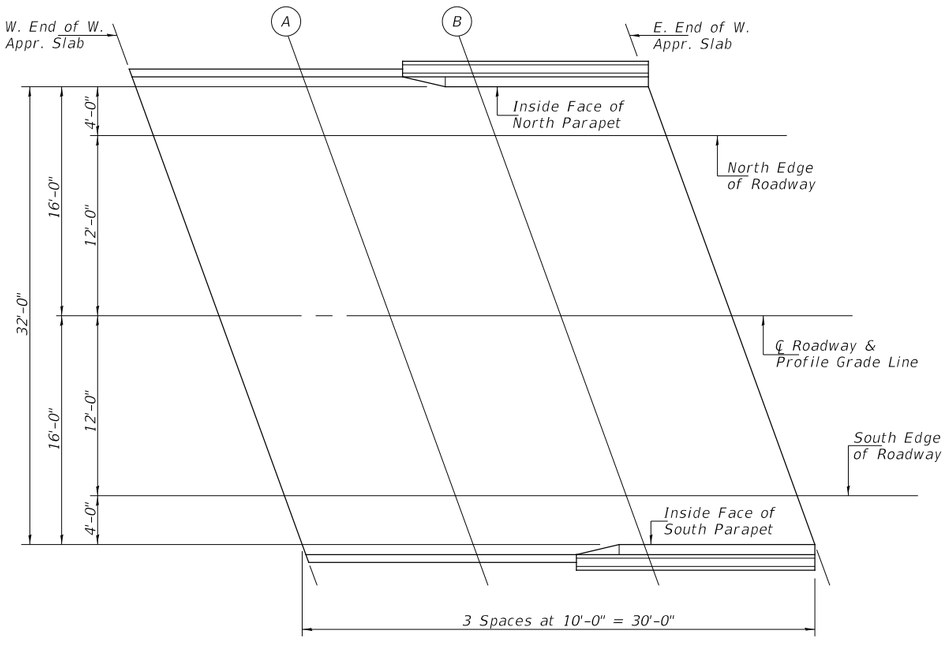
Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	1928.74	-16.00	558.38
A	1938.74	-16.00	558.46
B	1948.74	-16.00	558.54
E. End W. Appr. Pvmt.	1958.74	-16.00	558.62

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	1930.20	-12.00	558.48
A	1940.20	-12.00	558.56
B	1950.20	-12.00	558.64
E. End W. Appr. Pvmt.	1960.20	-12.00	558.71

℄ ROADWAY AND P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	1934.56	0.00	558.70
A	1944.56	0.00	558.78
B	1954.56	0.00	558.86
E. End W. Appr. Pvmt.	1964.56	0.00	558.93



WEST APPROACH PLAN

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	1938.93	12.00	558.55
A	1948.93	12.00	558.63
B	1958.93	12.00	558.70
E. End W. Appr. Pvmt.	1968.93	12.00	558.77

INSIDE FACE OF SOUTH PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End W. Appr. Pvmt.	1940.39	16.00	558.48
A	1950.39	16.00	558.56
B	1960.39	16.00	558.63
E. End W. Appr. Pvmt.	1970.39	16.00	558.70

N

WEST APPROACH SLAB ELEVATIONS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 5	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	11
		S.N. 047-3184			

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INSIDE FACE OF NORTH PARAPET

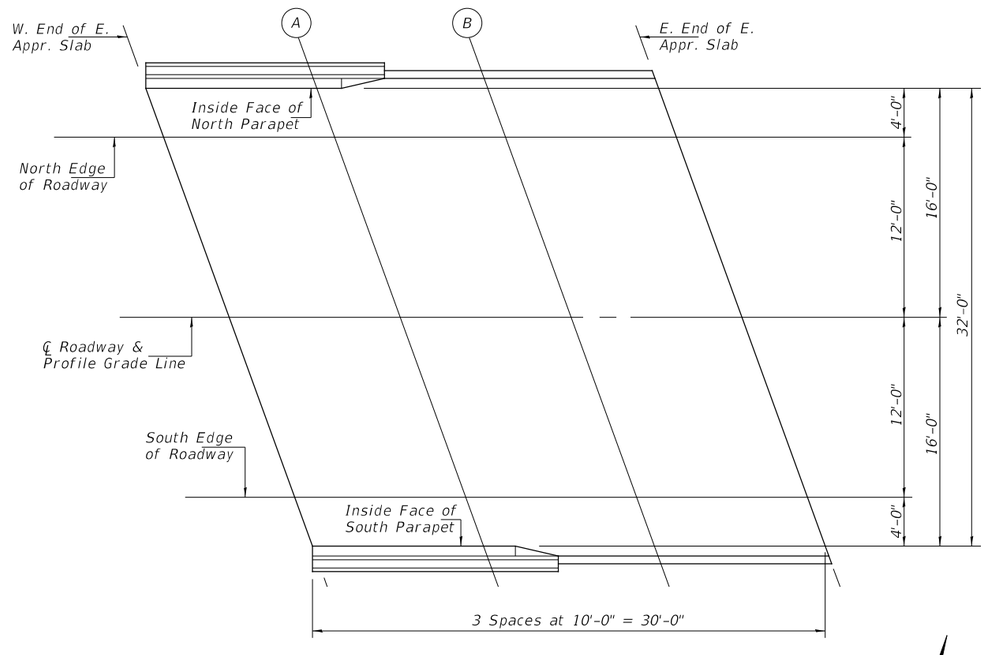
Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	2064.61	-16.00	559.15
A	2074.61	-16.00	559.19
B	2084.61	-16.00	559.22
E. End E. Appr. Pvmt.	2094.61	-16.00	559.25

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	2066.07	-12.00	559.24
A	2076.07	-12.00	559.27
B	2086.07	-12.00	559.31
E. End E. Appr. Pvmt.	2096.07	-12.00	559.34

℄ ROADWAY AND P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	2070.44	0.00	559.44
A	2080.44	0.00	559.48
B	2090.44	0.00	559.51
E. End E. Appr. Pvmt.	2100.44	0.00	559.54



EAST APPROACH PLAN

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	2074.80	12.00	559.27
A	2084.80	12.00	559.30
B	2094.80	12.00	559.34
E. End E. Appr. Pvmt.	2104.80	12.00	559.37

INSIDE FACE OF SOUTH PARAPET

Location	Station	Offset	Theoretical Grade Elevations
W. End E. Appr. Pvmt.	2076.26	16.00	559.19
A	2086.26	16.00	559.23
B	2096.26	16.00	559.26
E. End E. Appr. Pvmt.	2106.26	16.00	559.29

EAST APPROACH SLAB ELEVATIONS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 6	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	12
		S.N. 047-3184			

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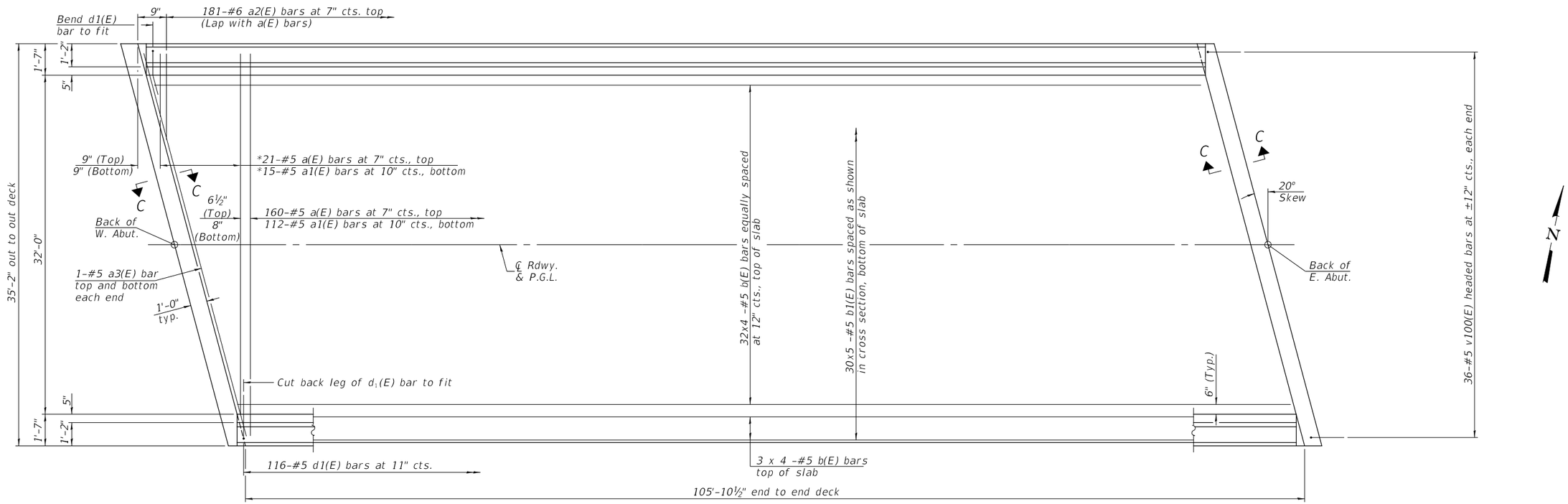


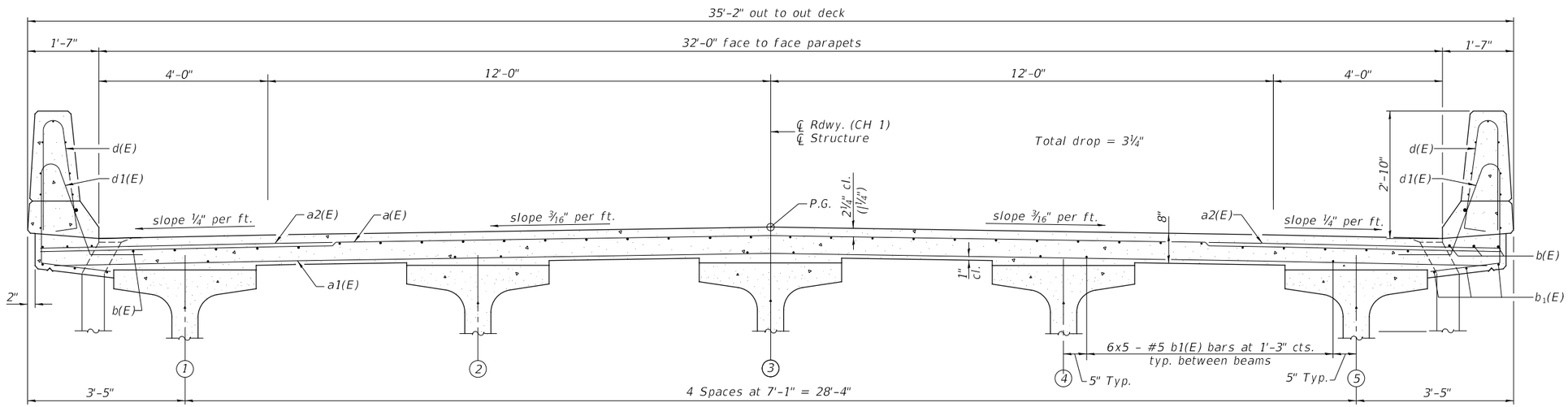
MINIMUM BAR LAP

#5 bar = 3'-6"

PLAN

* Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

Notes:
See sheet 8 of 17 for superstructure details, parapet reinforcement and Bill of Material.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
See sheet 1 of 17 for floor drain locations.
See sheet 9 of 17 for Section C-C and diaphragm details.



CROSS SECTION

(Looking East)

SUPERSTRUCTURE
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 7	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	13
		S.N. 047-3184			

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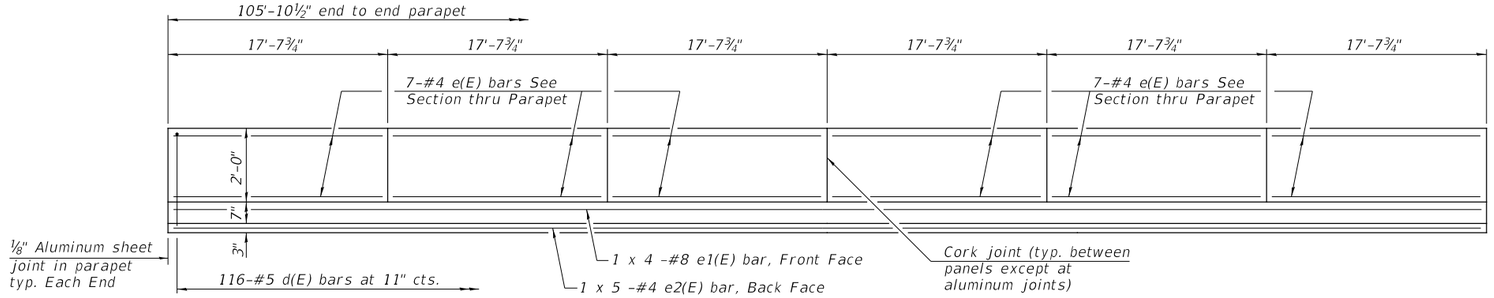
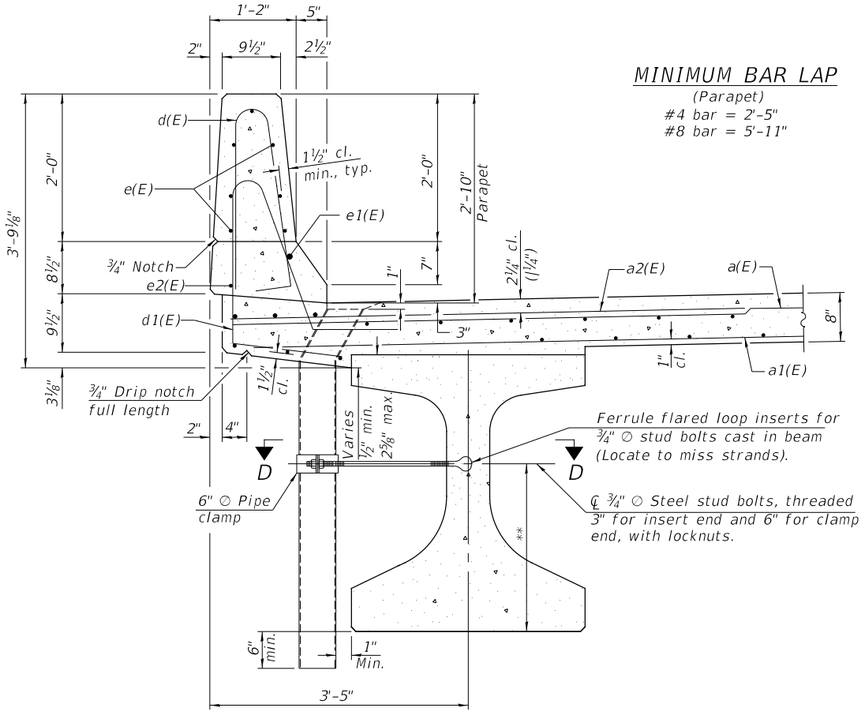


INSIDE ELEVATION OF PARAPET

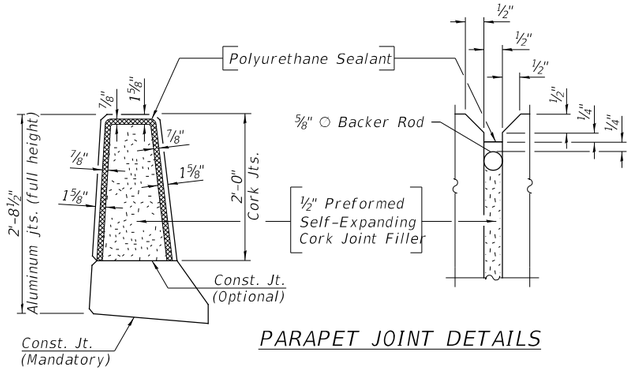


SECTION THRU PARAPET

**For insert locations See sheet 13 of 17.

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-5"
#8 bar = 5'-11"



PARAPET JOINT DETAILS

Notes:

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

The exterior surfaces of the fiberglass floor drains shall be pigmented by the manufacturer with a color that matches the concrete.

The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.

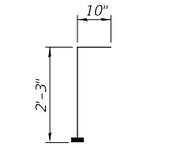
The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and inserts included with Floor Drains.

The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

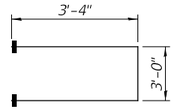
The ½" Preformed Self-Expanding Cork Joint Filler shall be according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.



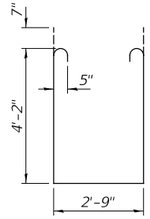
BAR v100(E)

(Headed)



BAR s10(E)

(Headed)



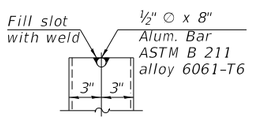
BAR s11(E)

SUPERSTRUCTURE BILL OF MATERIAL

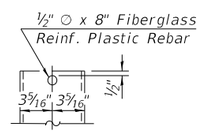
BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	181	#5	34'-7"	
a1(E)	127	#5	33'-7"	
a2(E)	362	#6	6'-6"	
a3(E)	4	#5	37'-1"	
b(E)	152	#5	29'-1"	
b1(E)	150	#5	24'-0"	
d(E)	232	#5	5'-7"	
d1(E)	232	#5	7'-0"	
e(E)	84	#4	17'-4"	
e1(E)	8	#8	30'-11"	
e2(E)	10	#4	23'-1"	
m10(E)	12	#6	37'-1"	
m11(E)	32	#6	6'-6"	
m12(E)	16	#6	2'-11"	
m13(E)	8	#6	3'-9"	
m14(E)	4	#6	1'-7"	
m15(E)	20	#5	4'-0"	
s10(E)	52	#5	9'-8"	
s11(E)	52	#5	12'-3"	
v100(E)	72	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			POUND	30,470
① Concrete Superstructure			CU YD	163.8

① See Special Provisions

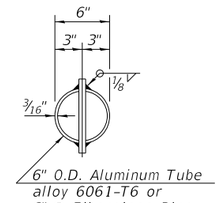
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.



ALUMINUM TUBE

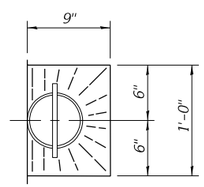


FIBERGLASS PIPE

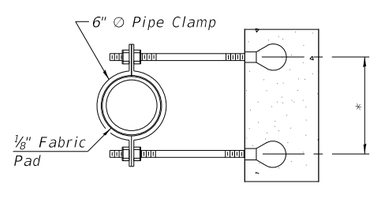


TOP PLAN

(Showing Aluminum Tube)

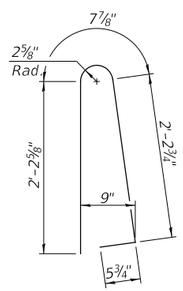


TOP PLAN

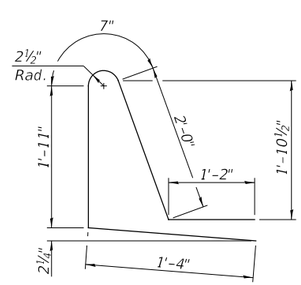


SECTION D-D

*Dimension as required by Pipe Clamp



BAR d(E)



BAR d1(E)

SUPERSTRUCTURE DETAILS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 8	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	14
		S.N. 047-3184			

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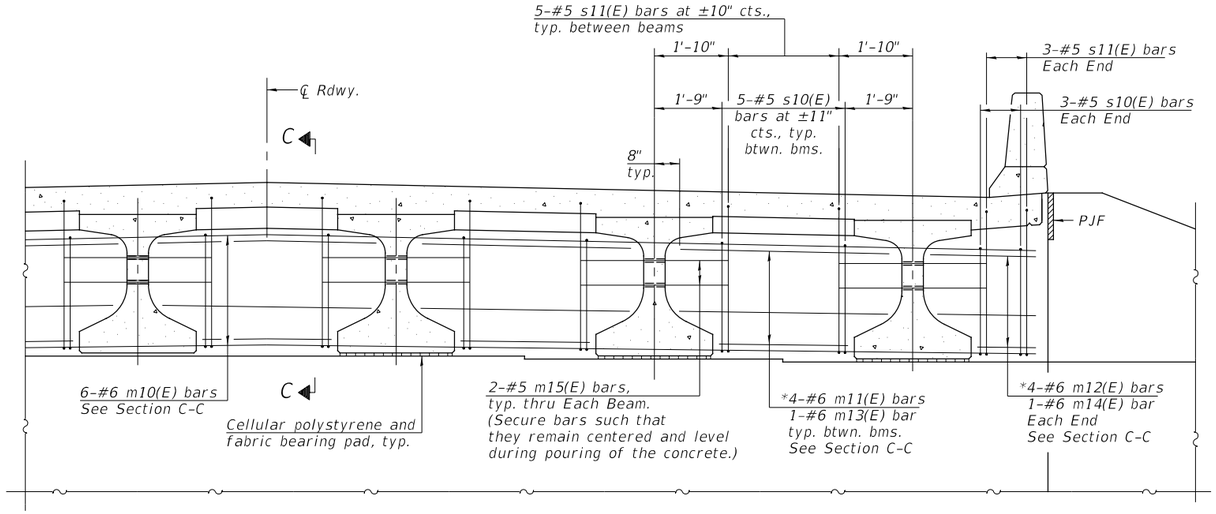
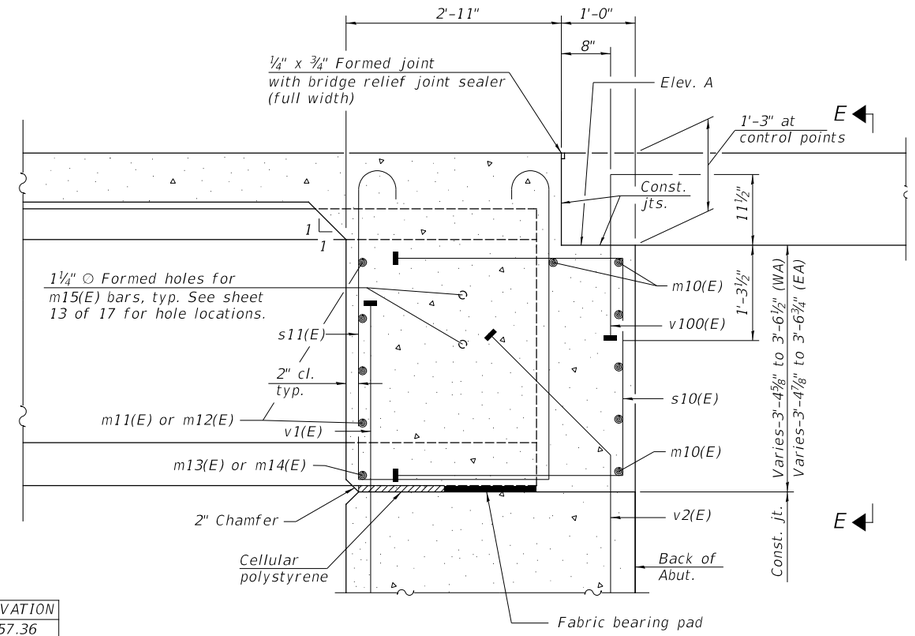


DIAPHRAGM AT ABUTMENT

*m11(E) and m12(E) bars shall be cut to fit as required.

ELEV. A

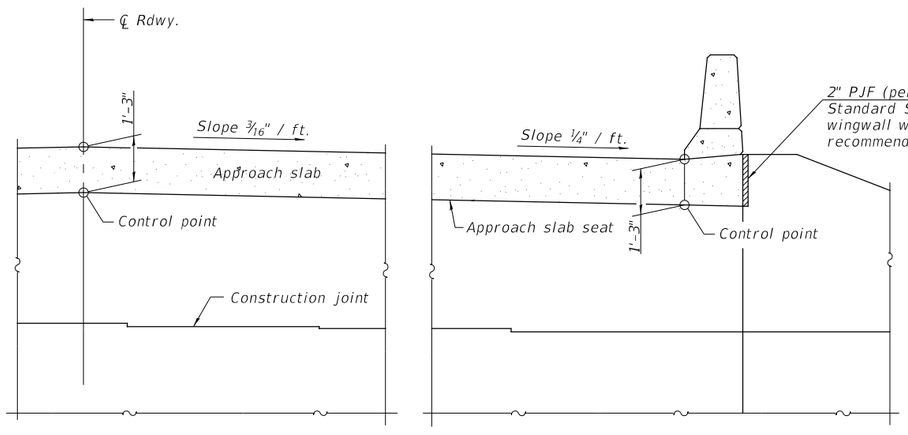
LOCATION	ELEVATION
W. Abut. North Cont. Pt.	557.36
W. Abut. Center Cont. Pt.	557.67
W. Abut. South Cont. Pt.	557.44
E. Abut. North Cont. Pt.	557.91
E. Abut. Center Cont. Pt.	558.20
E. Abut. South Cont. Pt.	557.95



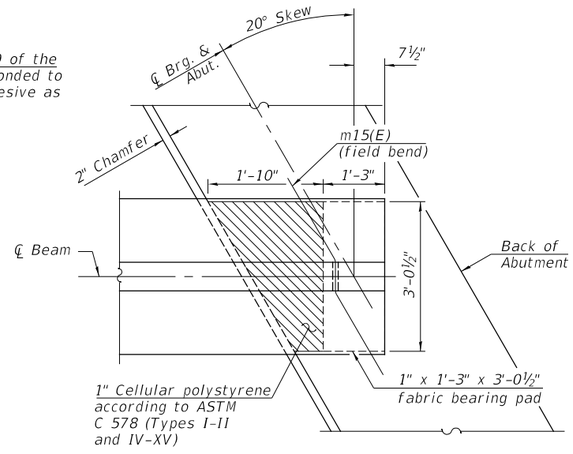
SECTION C-C

(at Rt. L's)

W.A. = West Abutment
E.A. = East Abutment



VIEW E-E



PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 17.
Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 17.
For details of bars s10(E), s11(E) and v100(E) see sheet 8 of 17.
The s10(E) and s11(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
The approach slab seat shall have a constant slope determined from the control points shown.
Cost of cellular polystyrene is included with Concrete Superstructure.
Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

DIAPHRAGM DETAILS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 9	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	15
		S.N. 047-3184			

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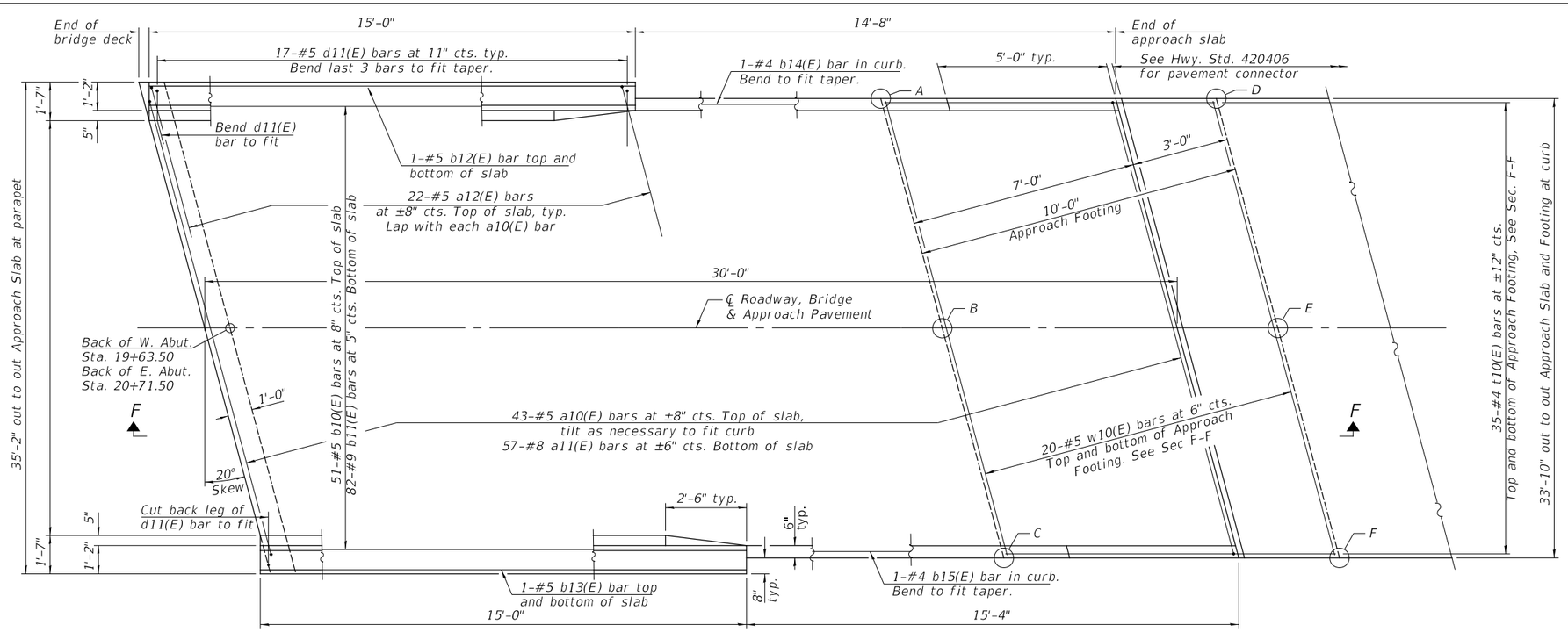
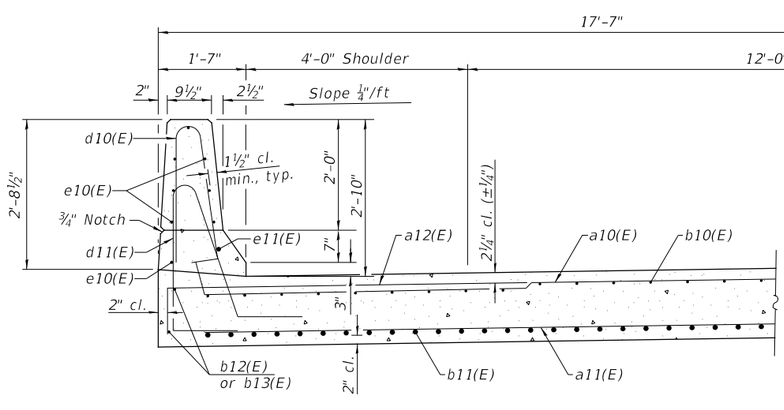
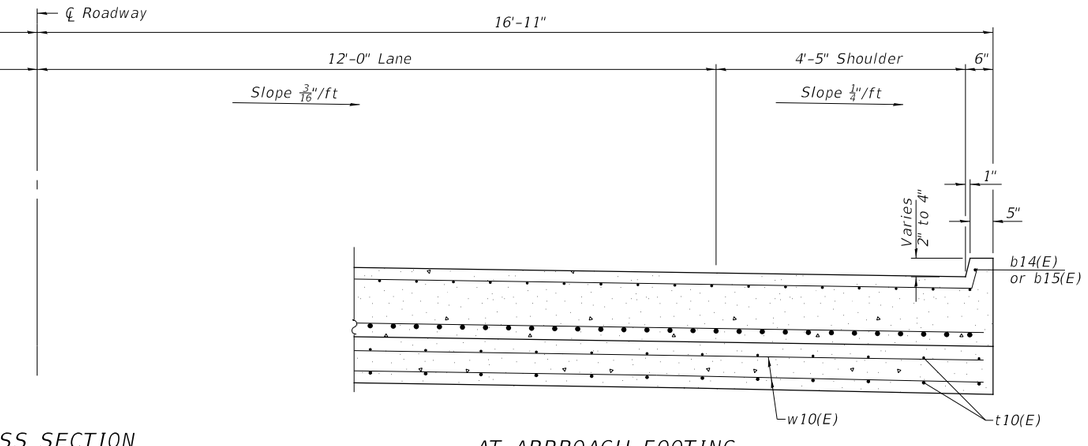


PLAN

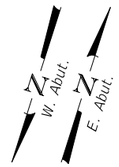


NEAR ABUTMENT



CROSS SECTION
(Looking East)

AT APPROACH FOOTING

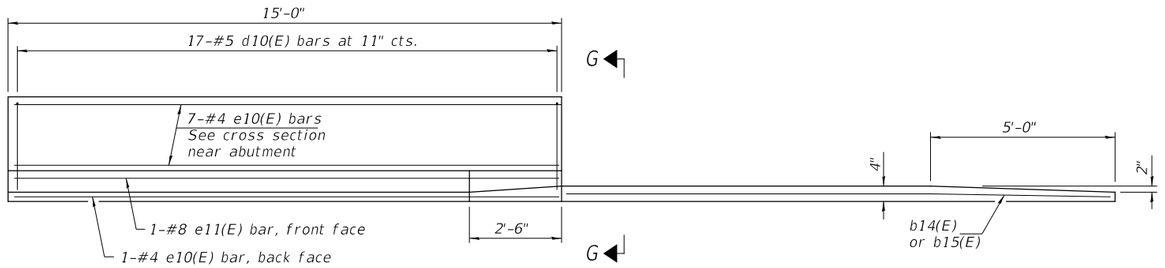


TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

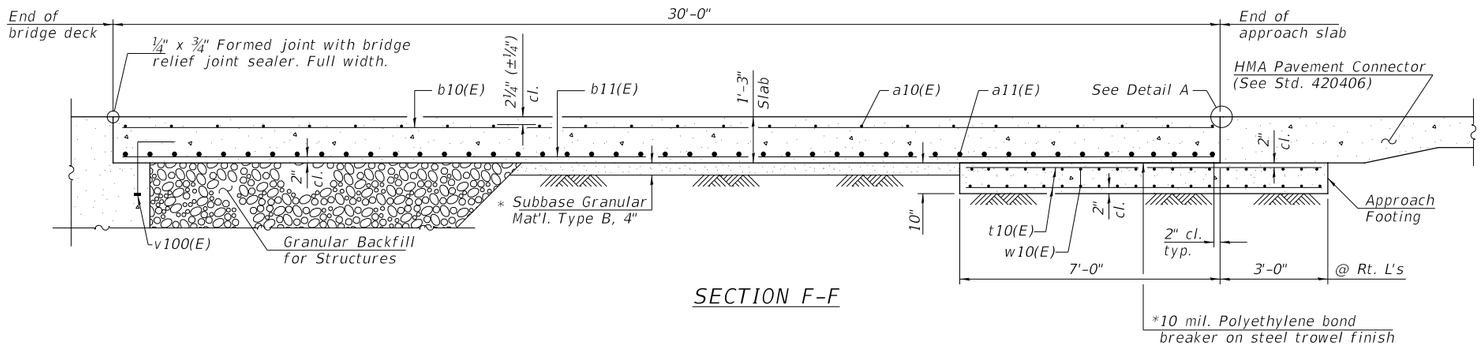
	West Approach		East Approach	
Point	Top	Bottom	Top	Bottom
A	557.27	556.44	557.96	557.13
B	557.51	556.68	558.27	557.44
C	557.17	556.34	558.00	557.17
D	557.18	556.35	557.99	557.16
E	557.42	556.59	558.30	557.47
F	557.08	556.25	558.04	557.20

BRIDGE APPROACH SLAB DETAILS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 10	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	16
		S.N. 047-3184			



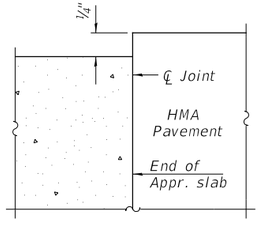
INSIDE ELEVATION OF PARAPET AND CURB



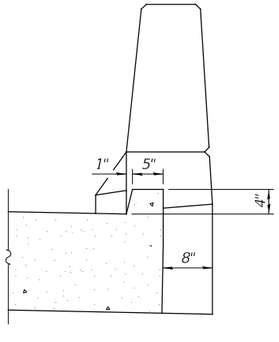
SECTION F-F

* Cost included with Concrete Superstructure (Approach Slab)

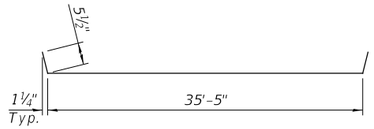
Notes:
- Parapet concrete shall be paid for as Concrete Superstructure.
- Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
- Approach footing concrete shall be paid for as Concrete Structures.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- Cost of excavation for approach footing included with Concrete Structures.
- For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 17.



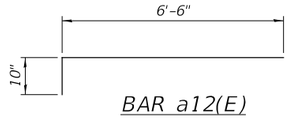
FLEXIBLE PAVEMENT DETAIL A



VIEW G-G



BAR a10(E)

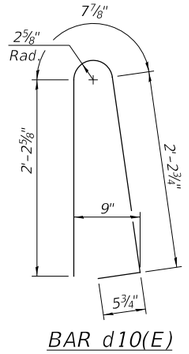


BAR a12(E)

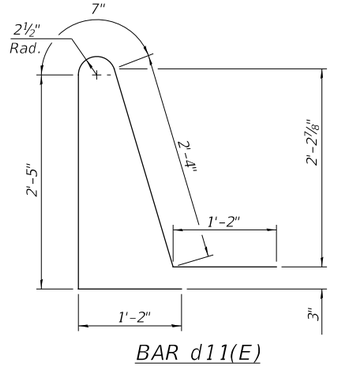
TWO APPROACHES BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a10(E)	86	#5	36'-4"	
a11(E)	114	#8	35'-7"	
a12(E)	88	#5	7'-4"	
b10(E)	102	#5	29'-8"	
b11(E)	164	#9	29'-8"	
b12(E)	4	#5	15'-2"	
b13(E)	4	#5	14'-1"	
b14(E)	2	#4	14'-5"	
b15(E)	2	#4	14'-9"	
d10(E)	68	#5	5'-7"	
d11(E)	68	#5	7'-8"	
e10(E)	32	#4	14'-8"	
e11(E)	4	#8	14'-8"	
t10(E)	140	#4	10'-3"	
w10(E)	80	#5	35'-7"	
① Concrete Superstructure		CU YD	6.6	
① Concrete Superstructure (Approach Slab)		CU YD	96.5	
Concrete Structures		CU YD	22.2	
Reinforcement Bars, Epoxy Coated		POUND	39,960	

① See Special Provisions



BAR d10(E)



BAR d11(E)

(Sheet 2 of 2)

BRIDGE APPROACH SLAB DETAILS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 11	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	17
		S.N. 047-3184			

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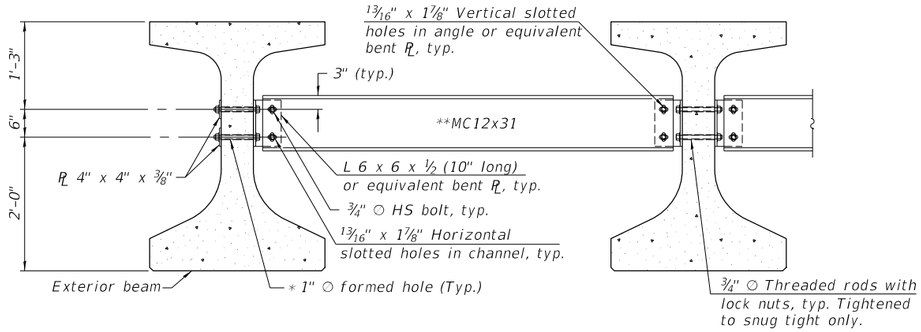
INTERIOR BEAM MOMENT TABLE		
		0.5 Sp. 1
I	(in^4)	223,604
I'	(in^4)	489,128
S_b	(in^3)	11,004
S_b'	(in^3)	15,843
S_t	(in^3)	9,060
S_t'	(in^3)	34,623
$DC1$	(k/')	1.70
M_{DC1}	('k)	2,290
$DC2$	(k/')	0.18
M_{DC2}	('k)	241
DW	(k/')	0.35
M_{DW}	('k)	477
M_{LL+IM}	('k)	1,801

INTERIOR BEAM REACTION TABLE		
		Abut.
R_{DC1}	(k)	88.2
R_{DC2}	(k)	9.3
R_{DW}	(k)	18.4
R_{LL+IM}	(k)	90.7
R_{Total}	(k)	206.6

I: Non-composite moment of inertia of beam section ($in.^4$).
I': Composite moment of inertia of beam section ($in.^4$).
S_b: Non-composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_b': Composite section modulus for the bottom fiber of the prestressed beam ($in.^3$).
S_t: Non-composite section modulus for the top fiber of the prestressed beam ($in.^3$).
S_t': Composite section modulus for the top fiber of the prestressed beam ($in.^3$).
$DC1$: Un-factored non-composite dead load (kips/ft.).
M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
$DC2$: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft).
M_{LL+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

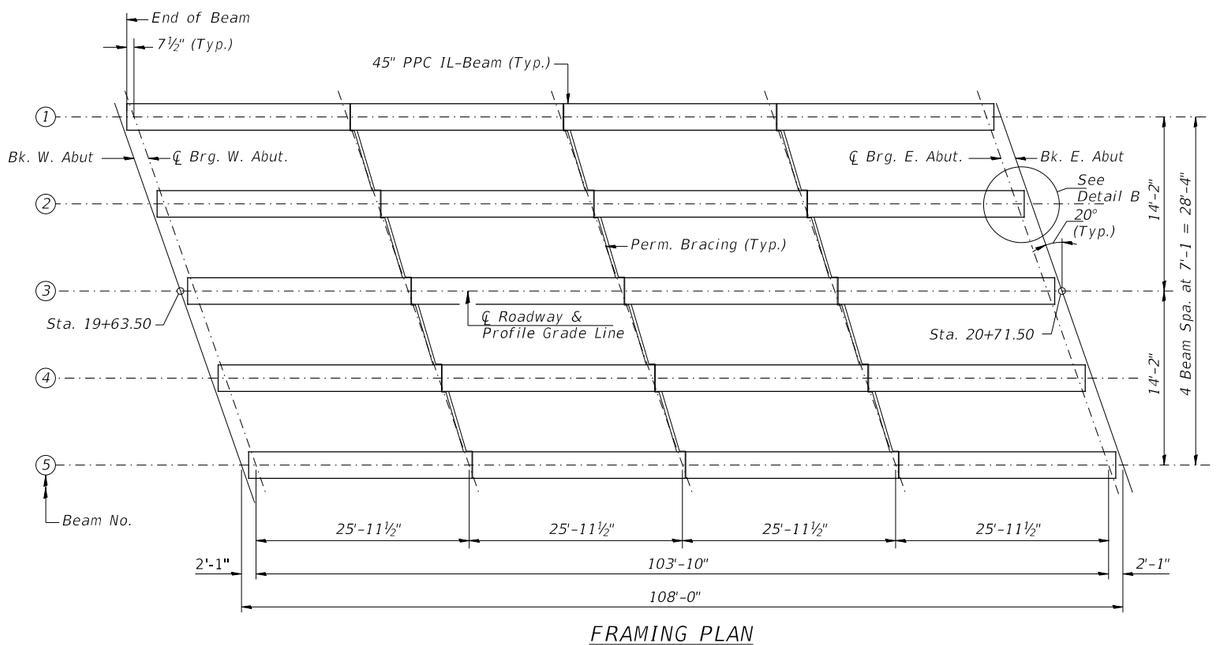


* Fabricator shall locate to miss strands within permissible tolerances.

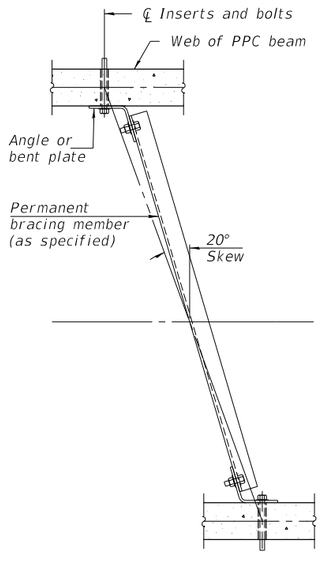
** Alternate MC12x35 channels are permitted to facilitate material acquisition.

Notes:
All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
Two hardened washers are required for each set of oversized holes.
All holes shall be 15/16" ∅ unless otherwise noted. 5/16" x 3" x 3" plate washers are required over all slotted holes.
All bolts, threaded rods, and hardware shall be galvanized according to AASHTO M232.
Threaded rods shall be ASTM F1554 Grade 55.
Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete Beams.

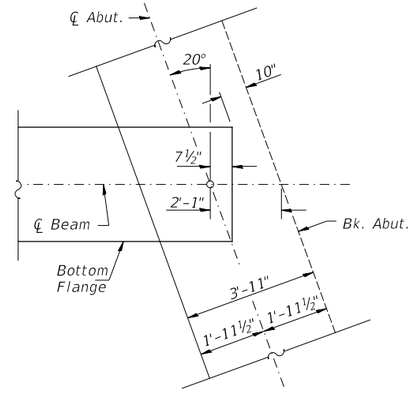
PERMANENT BRACING DETAILS



FRAMING PLAN



PERMANENT BRACING PLAN



DETAIL B

(Typical @ Abutments)

FRAMING PLAN
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 12	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	18
		S.N. 047-3184			

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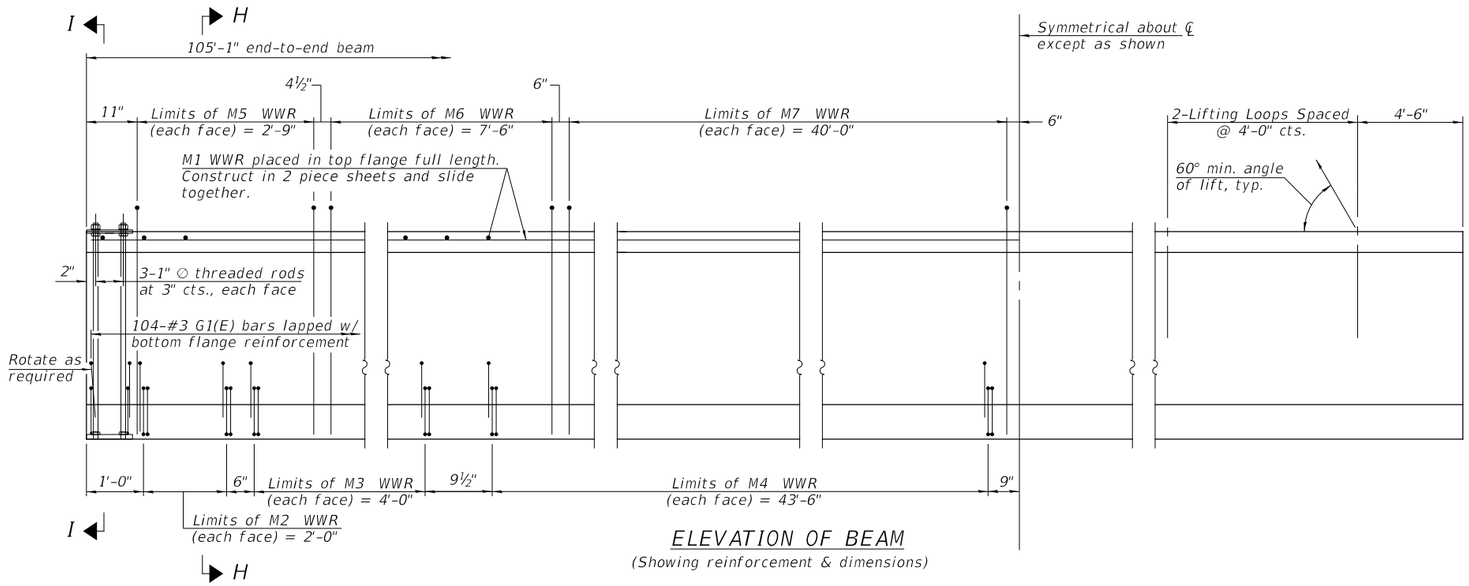
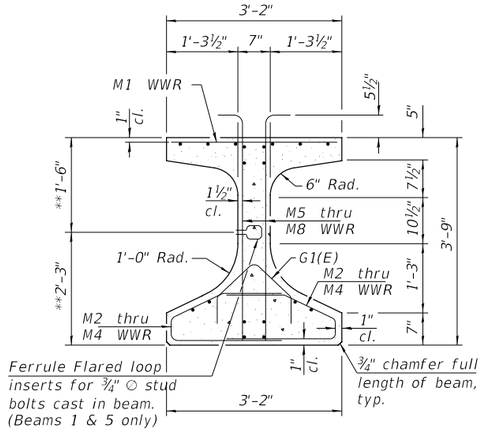
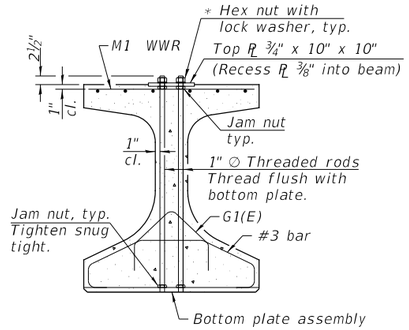


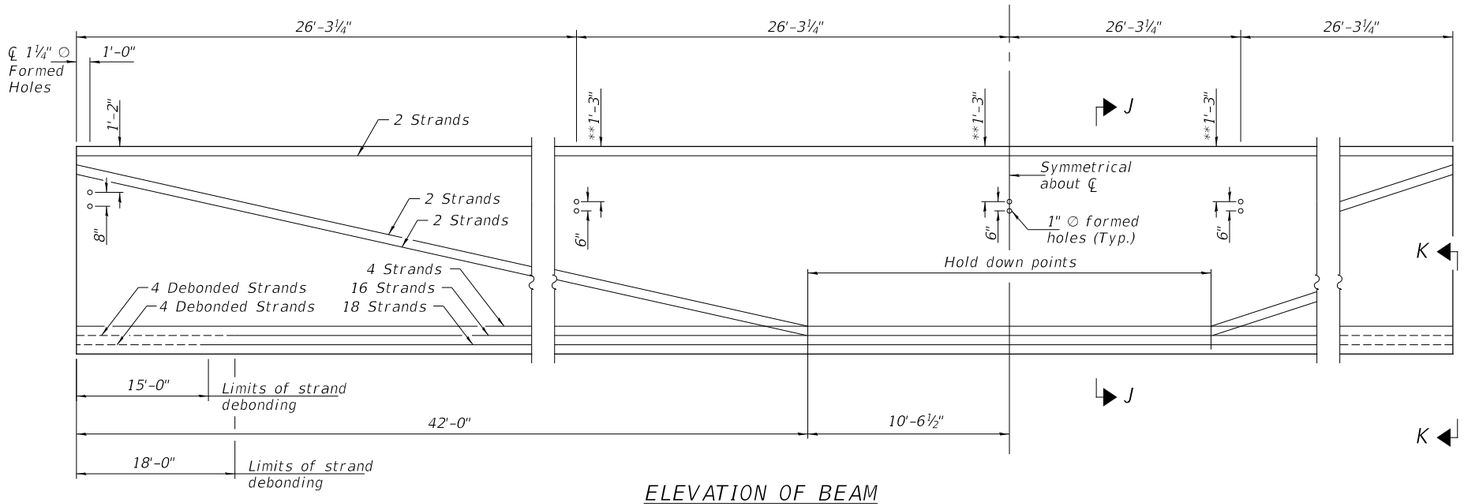
ELEVATION OF BEAM
(Showing reinforcement & dimensions)



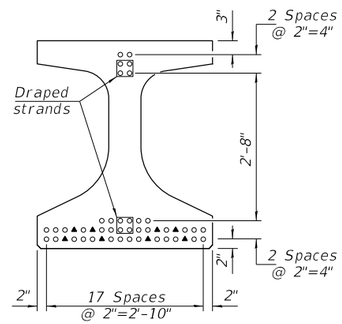
SECTION H-H
** Adjust these dimensions to miss draped strands.



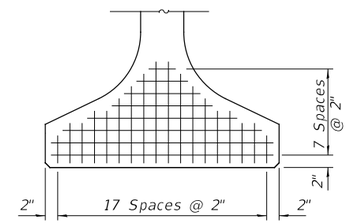
SECTION I-I
* Only tighten sufficiently to compress lock washers.



ELEVATION OF BEAM
(Showing prestressing steel)



SECTION J-J
(44-0.6" ∅ 270 ksi strands)



VIEW K-K

○ Fully bonded strand

▲ Partially debonded strand

Note:
See sheet 14 of 17 for additional details and Bill of Material.

IL 45 BEAM
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 13	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	19
		S.N. 047-3184			

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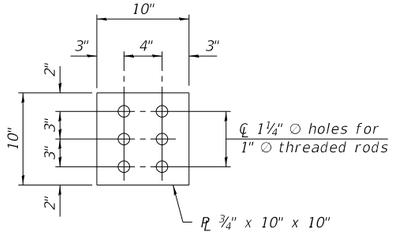
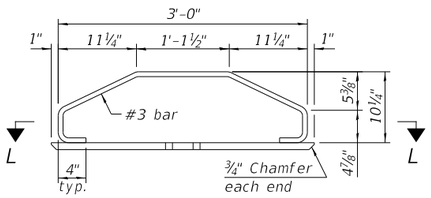
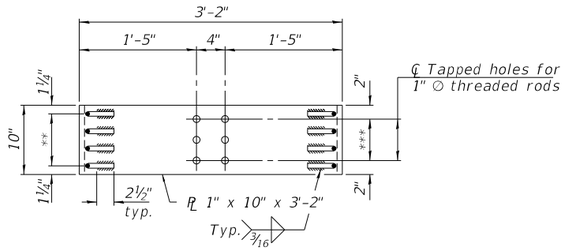


PLAN – TOP PLATE



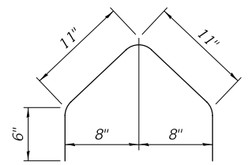
ELEVATION – BOTTOM PLATE ASSEMBLY



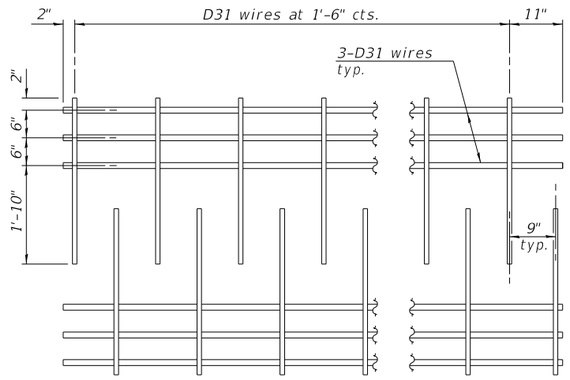
SECTION L-L

** 3 Spaces at 2½" = 7½"

*** 2 Spaces at 3" = 6"

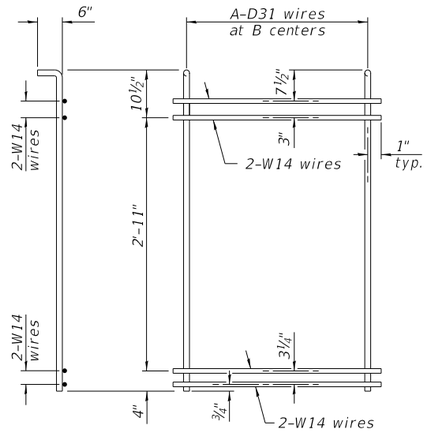


BAR G1(E)



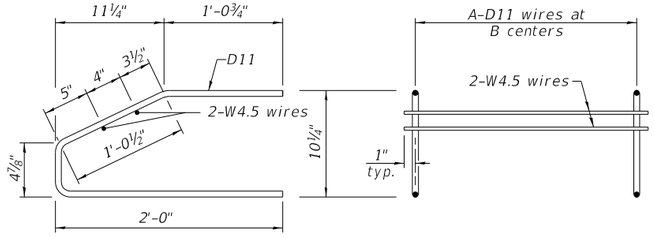
M1 WWR DETAIL

When multiple sheets of M1 WWR are required along the beam length, #5(E) bars (5'-0" long) shall be used to splice the longitudinal D31 wires together (Min. Lap 2'-2").



M5 THRU M8 WWR DETAIL

(See Table of Dimensions)



M2 THRU M4 WWR DETAIL

(See Table of Dimensions)

TABLE OF DIMENSIONS

SPAN 1

WWR	A	B
M2	9	3"
M3	9	6"
M4	30	1'-6"
M5	12	3"
M6	16	6"
M7	41	1'-0"

NOTES

Inserts for ¾" ∅ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter for beam strands shall be 0.6" and the nominal cross-sectional area shall be 0.217 sq. in. The nominal diameter for lifting loops shall be ½" and the nominal cross sectional area shall be 0.153 sq. in.

The beams shall have a final concrete compressive strength, f'c, of 8500 psi and a release concrete compressive strength, f'ci, of 7000 psi.

A minimum 2½" ∅ lifting pin shall be used to engage the lifting loops during handling.

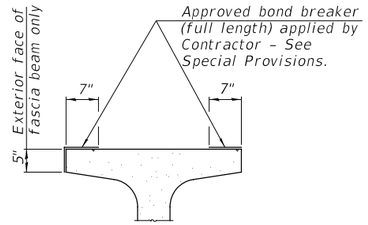
The top and bottom plates shall be AASHTO M270 Grade 50.

The top plates and bottom plate assemblies shall be galvanized according to AASHTO M111. The threaded rods, nuts and washers shall be galvanized according to AASHTO M232.

Threaded rods shall be ASTM F 1554 Grade 55.

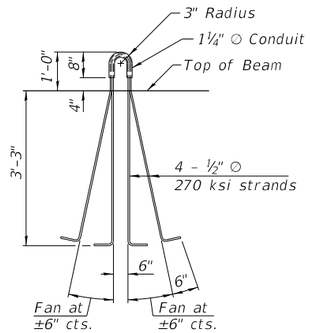
Beams shall not be released from the fabricator until they have attained 45 days of age or older.

Welded Wire Reinforcement (WWR) shall conform to ASTM A884 with a Class A, Type 1 epoxy coating.

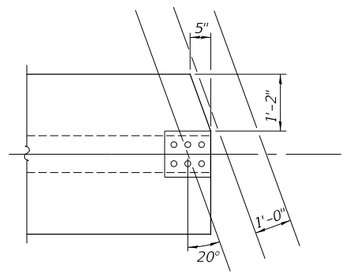


SECTION THRU TOP FLANGE

(Showing limits of bond breaker)



LIFTING LOOP DETAIL



TOP FLANGE PLAN – CLIPPED

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Furnishing and Erecting Precast Prestressed Concrete Beams, IL45	FOOT	526

IL 45 BEAM DETAILS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 14	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	20
		S.N. 047-3184			

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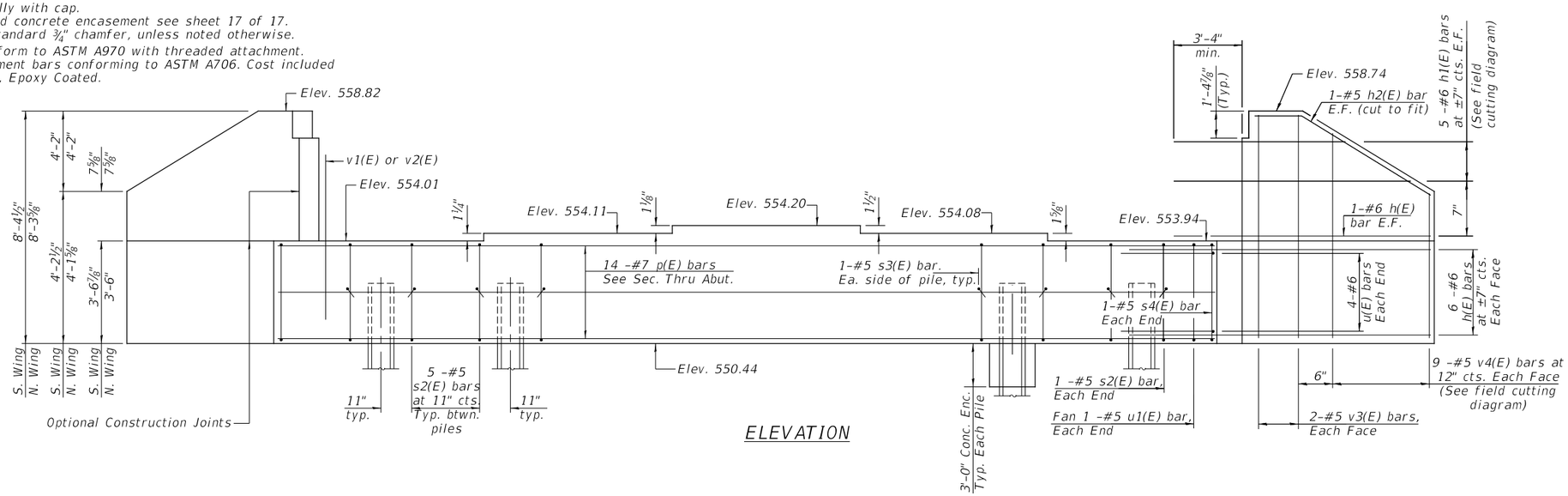
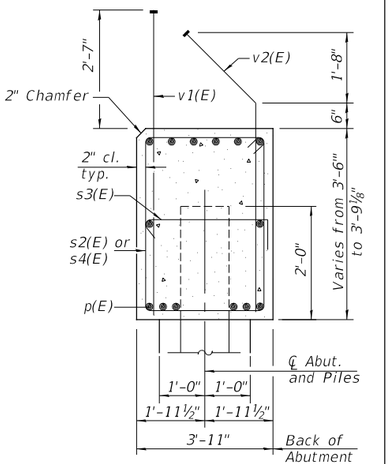
Notes:
Pour steps monolithically with cap.
For details of piles and concrete encasement see sheet 17 of 17.
All edges shall have standard ¾" chamfer, unless noted otherwise.
Headed bars shall conform to ASTM A970 with threaded attachment. Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

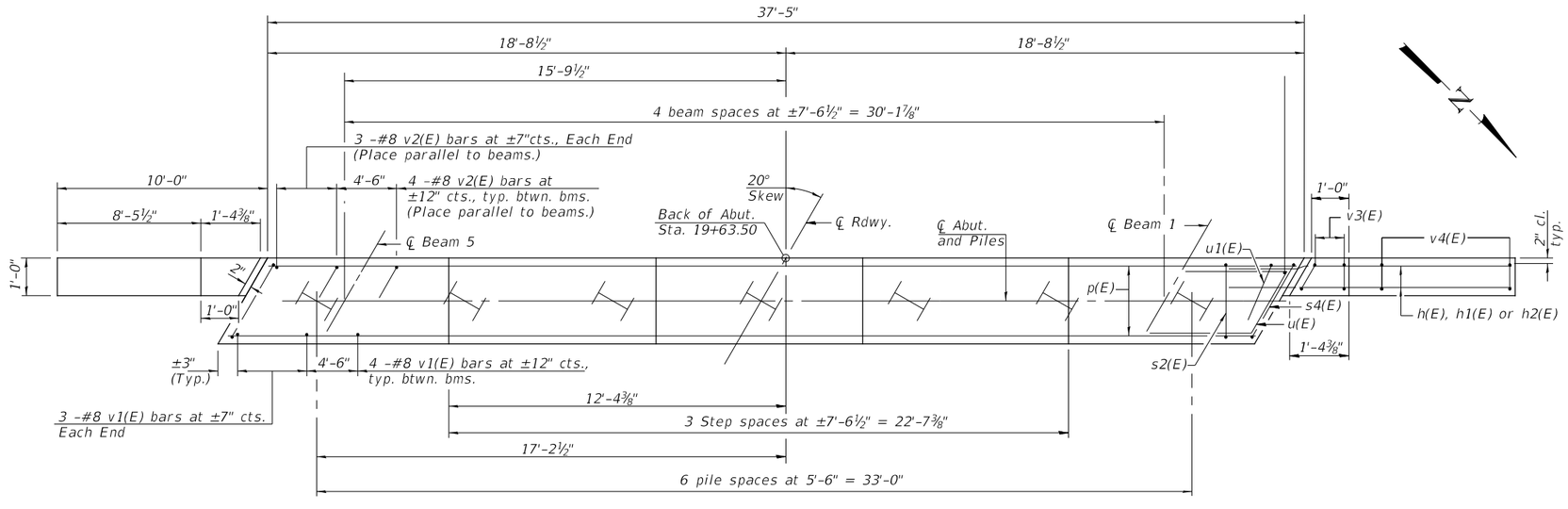


ELEVATION



SEC. THRU ABUT.

(Dimensions at right angles to abutment.)



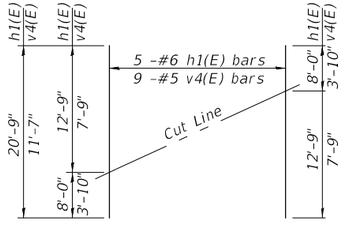
PLAN

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	28	#6	13'-2"	
h1(E)	10	#6	20'-9"	
h2(E)	4	#5	10'-5"	
p(E)	14	#7	37'-1"	
s2(E)	32	#5	14'-5"	
s3(E)	14	#5	4'-7"	
s4(E)	2	#5	14'-10"	
u(E)	8	#6	11'-4"	
u1(E)	2	#5	10'-4"	
v1(E)	22	#8	5'-11"	
v2(E)	22	#8	6'-2"	
v3(E)	8	#5	7'-11"	
v4(E)	18	#5	11'-7"	
Structure Excavation		CU YD	155	
Concrete Structures		CU YD	24.4	
Concrete Encasement		CU YD	2.5	
Reinforcement Bars, Epoxy Coated		POUND	3,700	
Furnishing Steel Piles, HP 12x63		FOOT	210	
Driving Piles		FOOT	210	
Test Pile, HP 12x63		EACH	1	
Pile Shoes		EACH	7	

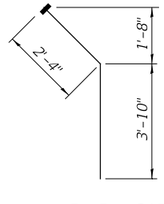
PILE DATA

Type: HP 12x63 w/ Pile Shoes
Nominal Required Bearing: 497k
Factored Resistance Available: 273k
Est. Length: 35'
No. Required: 7 (Include 1 Test Pile)

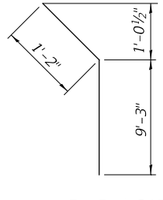


FIELD CUTTING DIAGRAM

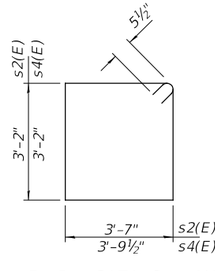
Order h1(E) and v4(E) full length. Cut as shown and use remainder of bars in opposite face.



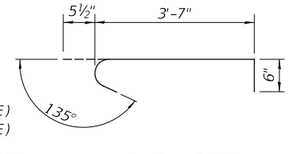
BAR v2(E)



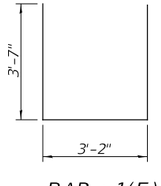
BAR h2(E)



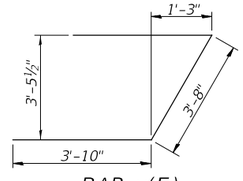
BAR s2(E) & s4(E)



BAR s3(E)



BAR u1(E)



BAR u(E)

WEST ABUTMENT
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 15	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	21
		S.N. 047-3184			

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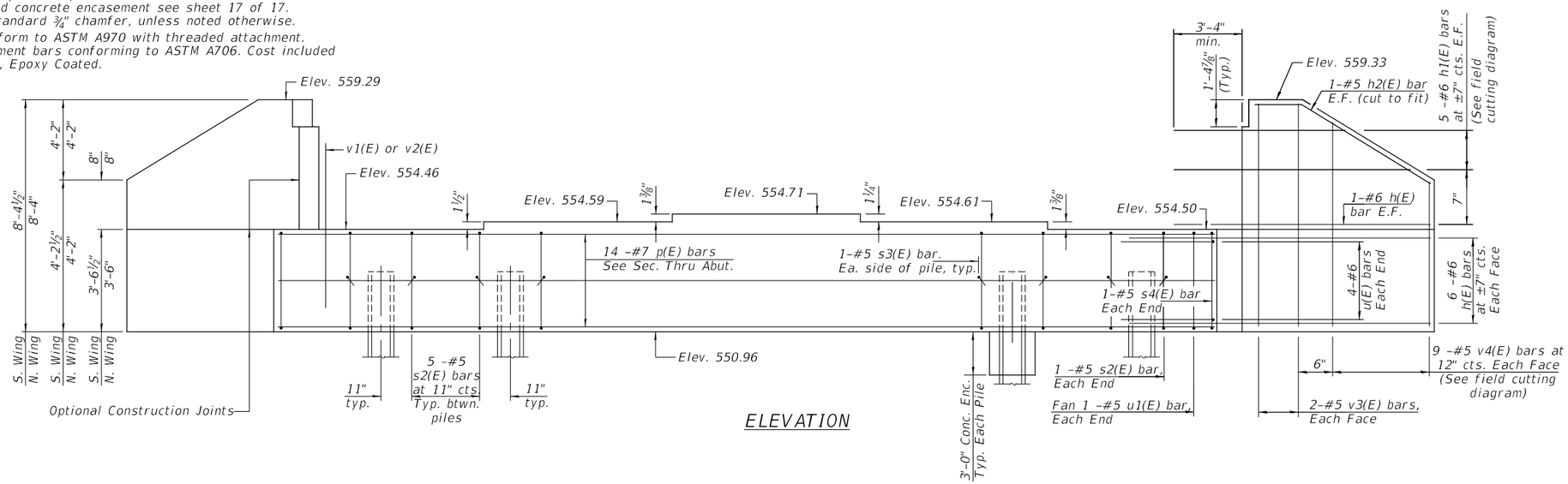
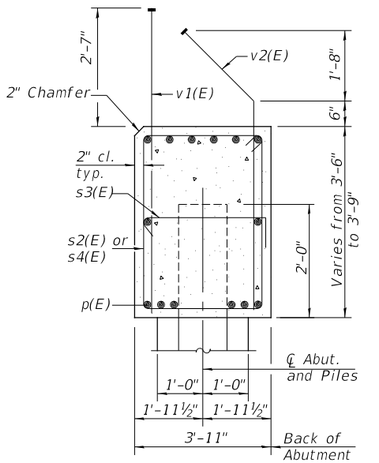
Notes:
Pour steps monolithically with cap.
For details of piles and concrete encasement see sheet 17 of 17.
All edges shall have standard ¾" chamfer, unless noted otherwise.
Headed bars shall conform to ASTM A970 with threaded attachment. Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

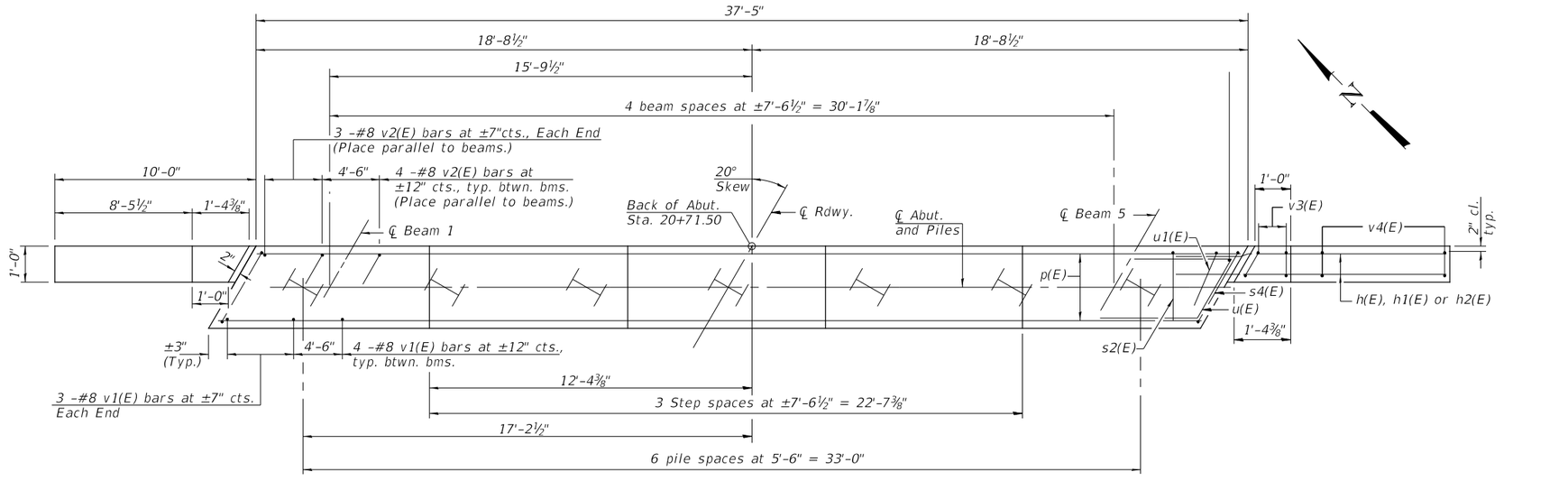


ELEVATION



SEC. THRU ABUT.

(Dimensions at right angles to abutment.)



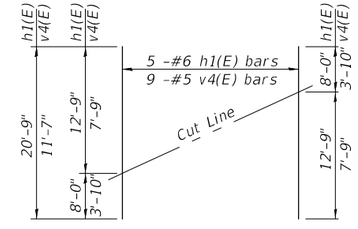
PLAN

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	28	#6	13'-2"	
h1(E)	10	#6	20'-9"	
h2(E)	4	#5	10'-5"	
p(E)	14	#7	37'-1"	
s2(E)	32	#5	14'-5"	
s3(E)	14	#5	4'-7"	
s4(E)	2	#5	14'-10"	
u(E)	8	#6	11'-4"	
u1(E)	2	#5	10'-4"	
v1(E)	22	#8	5'-11"	
v2(E)	22	#8	6'-2"	
v3(E)	8	#5	7'-11"	
v4(E)	18	#5	11'-7"	
Structure Excavation		CU YD	170	
Concrete Structures		CU YD	24.4	
Concrete Encasement		CU YD	2.5	
Reinforcement Bars, Epoxy Coated		POUND	3,700	
Furnishing Steel Piles, HP 12x63		FOOT	204	
Driving Piles		FOOT	204	
Test Pile, HP 12x63		EACH	1	
Pile Shoes		EACH	7	

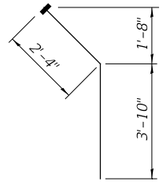
PILE DATA

Type: HP 12x63 w/ Pile Shoes
Nominal Required Bearing: 497k
Factored Resistance Available: 273k
Est. Length: 34'
No. Required: 7 (Include 1 Test Pile)

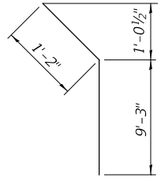


FIELD CUTTING DIAGRAM

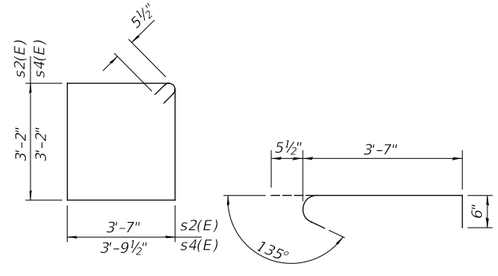
Order h1(E) and v4(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR v2(E)

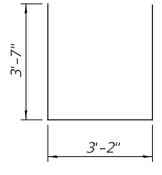


BAR h2(E)

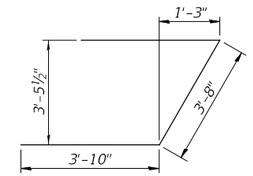


BAR s2(E) & s4(E)

BAR s3(E)



BAR u1(E)



BAR u(E)

EAST ABUTMENT
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 16	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	22
		S.N. 047-3184			

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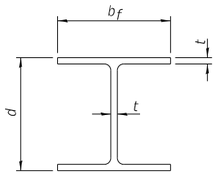
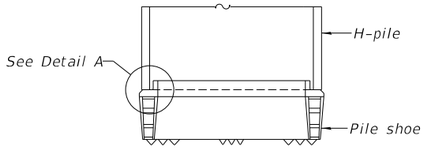
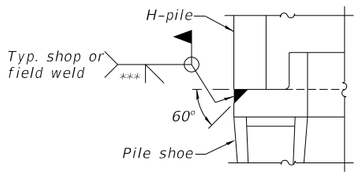


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t
HP 14x117	14¼"	14⅞"	13/16"
x102	14"	14¾"	11/16"
x89	13⅞"	14¾"	⅝"
x73	13⅝"	14⅝"	½"
HP 12x84	12¼"	12¼"	11/16"
x74	12⅛"	12¼"	⅝"
x63	12"	12⅛"	½"
x53	11¾"	12"	7/16"
HP 10x57	10"	10¼"	9/16"
x42	9¾"	10⅛"	7/16"
HP 8x36	8"	8⅛"	7/16"

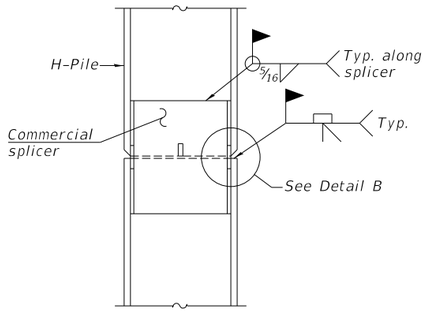


ELEVATION

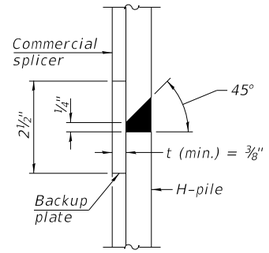


DETAIL A

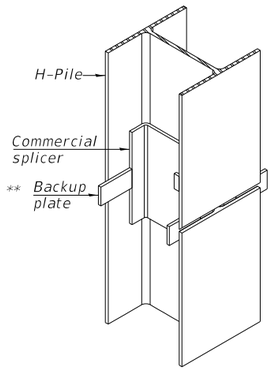
H-PILE SHOE ATTACHMENT



ELEVATION

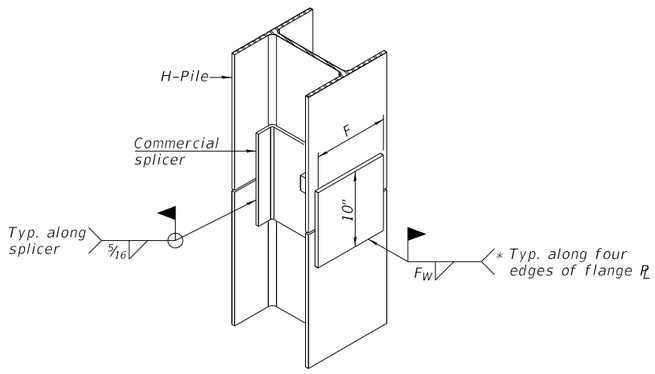


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



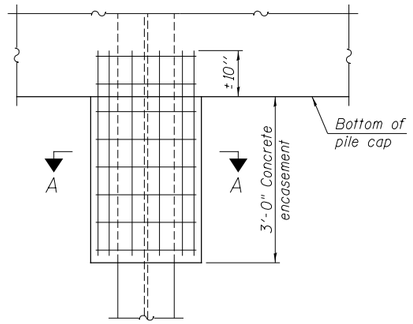
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

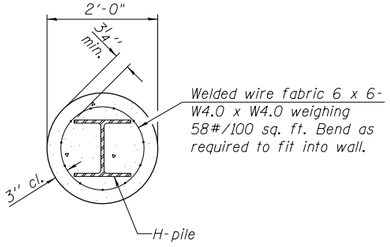
* Interrupt welds ¼" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



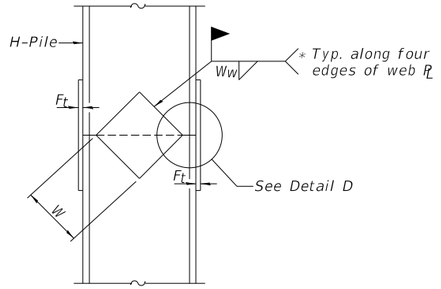
ELEVATION



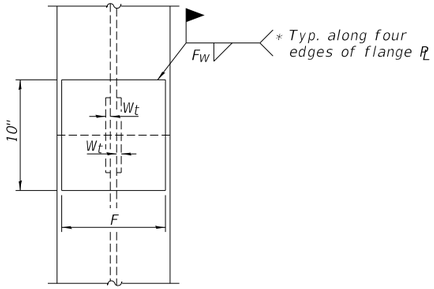
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

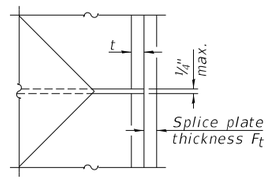
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12½"	1"	⅞"	7¾"	⅝"	½"
x102	12½"	⅞"	¾"	7¾"	⅝"	½"
x89	12½"	¾"	11/16"	7¾"	⅝"	½"
x73	12½"	⅝"	9/16"	7¾"	⅝"	½"
HP 12x84	10"	⅞"	11/16"	6½"	⅝"	½"
x74	10"	⅞"	11/16"	6½"	⅝"	½"
x63	10"	⅝"	½"	6½"	½"	⅜"
x53	10"	⅝"	½"	6½"	½"	⅜"
HP 10x57	8"	¾"	9/16"	5¼"	½"	⅜"
x42	8"	⅝"	9/16"	5¼"	½"	⅜"
HP 8x36	7"	⅝"	7/16"	4¼"	½"	⅜"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

HP PILE DETAILS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY
STATION 20+17.50
STRUCTURE NO. 047-3184

SHEET NO. 17	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17 SHEETS	276	17-00139-00-BR	KENDALL	30	23
		S.N. 047-3184			

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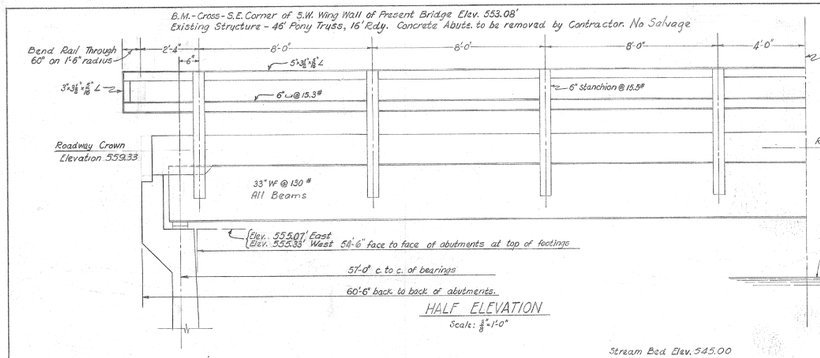
C. H. 1

ROUTE NUMBER	ROUTE NUMBER	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
F.A.S. 276	S.A. 1	10-1-B	KENDALL	5	4

PROJECT S-175(1)

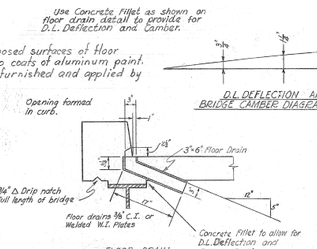
B.M.-Cross-S.E. Corner of S.W. Wing Wall of Present Bridge Elev. 553.08'
Existing Structure - 45' Pony Truss, 16' Rdy. Concrete Abute. to be removed by Contractor. No Salvage



HALF ELEVATION
Scale: ⅛"=1'-0"

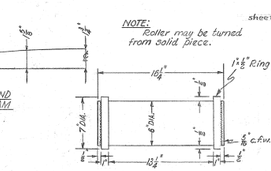
Use Concrete fillet as shown on floor drain detail to provide for D.L. Deflection and Camber.

Paint exposed surfaces of Floor drains two coats of aluminum paint. Paint to be furnished and applied by Contractor.

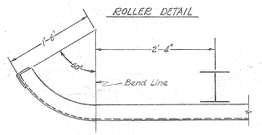


FLOOR DRAIN
Scale: ¾"=1'-0"

NOTE: Roller may be turned from solid piece.

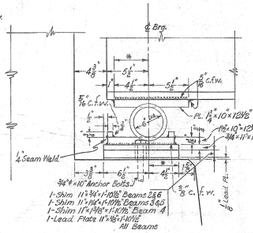


ROLLER DETAIL

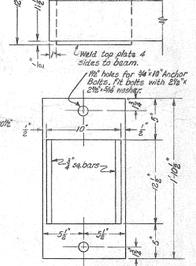


RAIL BEND DETAIL
Scale: 1"=1'-0"

* NOTE TO ERECTOR
Increase each dimension by same amount if Abut. has moved in. If Temp. is above 50°F. Decrease each by same amount if Temp. is below 50°F.



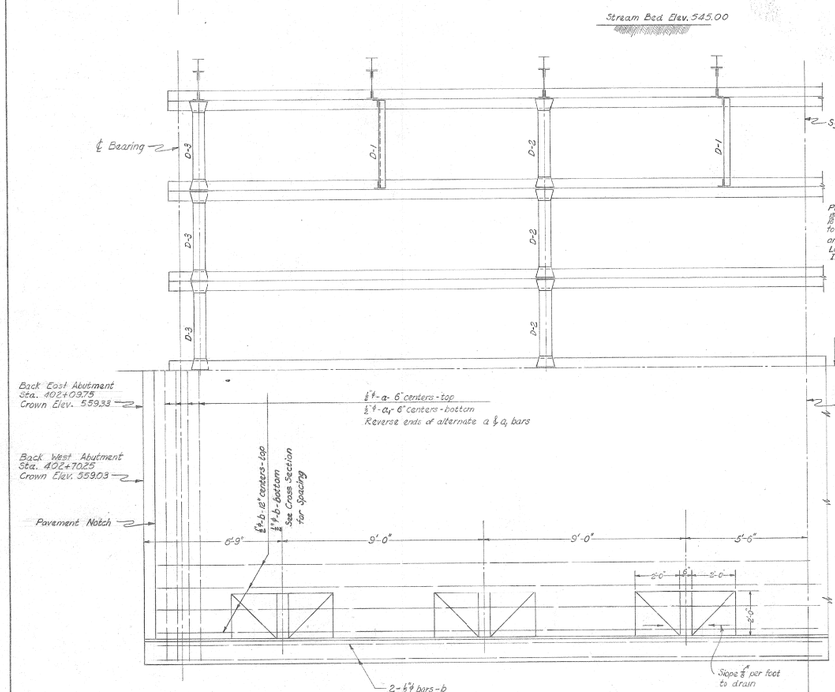
DETAIL OF BEARING PLATES AT EAST ABUTMENT
Scale: 1½"=1'-0"



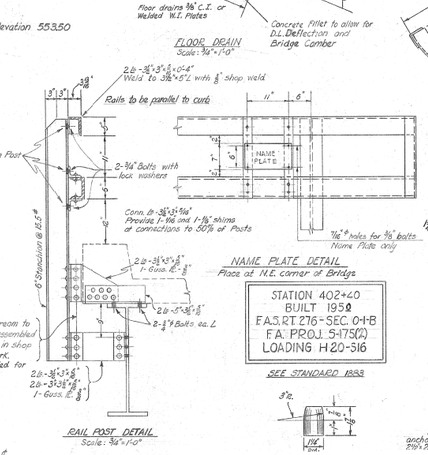
BILL OF MATERIALS - SUPERSTR.

Bar	No.	Size	Length	Shape
a	121	½" ϕ	26'-6"	
a_1	121	½" ϕ	26'-0"	
b	216	½" ϕ	21'-0"	
c	104	⅝" ϕ	5'-3"	

Class X Concrete	cu.yds.	377
Reinforcement Bars	lbs.	7850
Structural Steel	lbs.	65,000
Floor Drains	ea.	12
Name Plate	ea.	One
Removal of Existing Structure	ea.	One



HALF PLAN
Scale: ⅛"=1'-0"



NAME PLATE DETAIL
Place at N.E. corner of Bridge

STATION 402+40
BUILT 1950
F.A.S. RT. 276 - SEC. 01-B
F.A. PROJ. S-175(1)
LOADING H20-S16

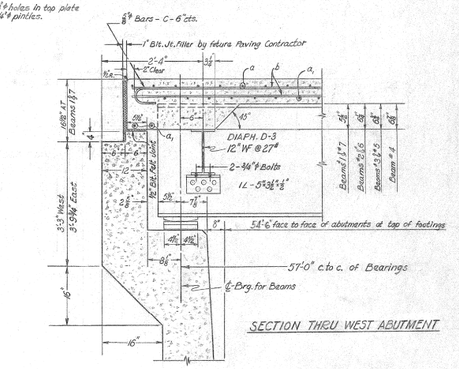
SEE STANDARD 1883

RAIL POST DETAIL
Scale: ¾"=1'-0"

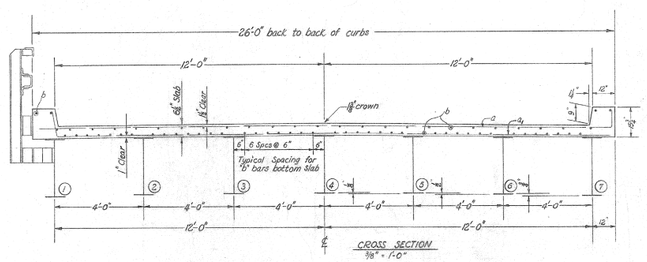
PINTLE

DIAPHRAGM D-1
Scale: 1"=1'-0"

DIAPHRAGM D-2
Scale: 1"=1'-0"



SECTION THRU WEST ABUTMENT



STRESSES:
f_s = 18,000 #/in² (Structural)
f_s = 20,000 #/in² (Reinforcing)
f_c = 1800 #/in² (Superstructure)
f_c = 800 #/in² (Substructure)
n = 10
Loading - H20-S16-44

EXAMINED 5-26-1950
G. T. Burch BRIDGE ENGINEER
PASSED [signature] ENGINEER OF DESIGN
APPROVED E. M. Hathaway CHIEF HIGHWAY ENGINEER

WATERWAY INFORMATION

Drainage Area	6,000 Ac.±
Character	Rolling to Flat
Proposed Bridge Opening	420 Sq. ft.

PROJECT S-175(2)
BRIDGE OVER CLARK CREEK
F.A.S. RT 276 ~ S.A. RT. 1 ~ SEC. 10-1-B
KENDALL COUNTY
STA. 402+40
SUPERSTRUCTURE

WALTER E. DEUCHLER COMPANY
CONSULTING ENGINEERS
AURORA, ILLINOIS
MARCH - 1950

047-3004

EXISTING PLANS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2 SHEETS	276	17-00139-00-BR	KENDALL	30	24
		S.N. 047-3184			

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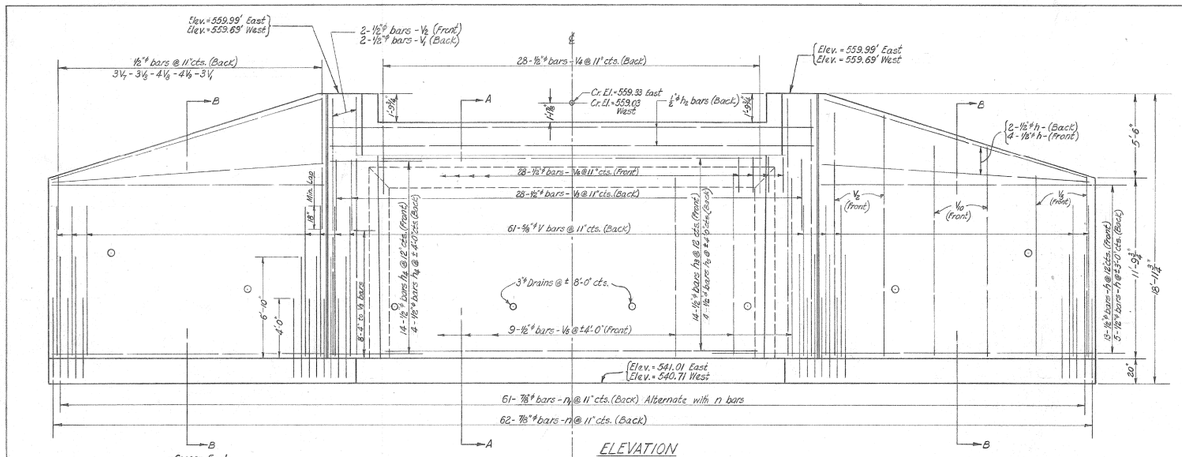
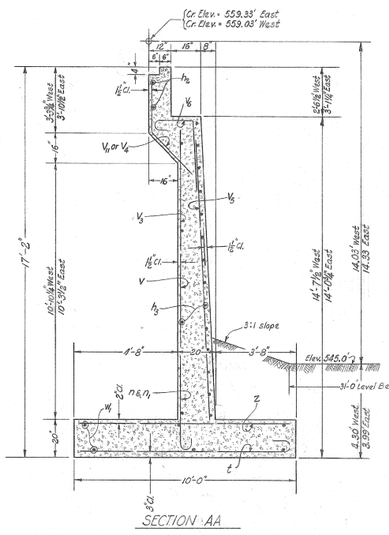
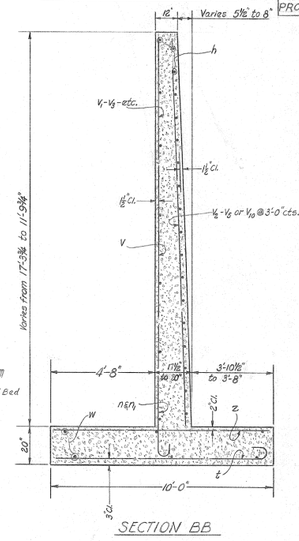
C. H. 1

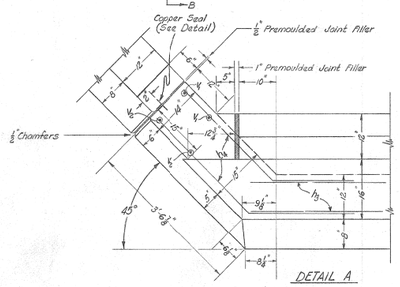
ROUTE NUMBER	ROUTE NUMBER	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
F.A.S. 276	S.A. 1	10-1-B	KENDALL	5	5
				PROJECT S-175(1).	

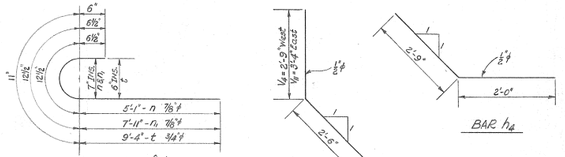
sheet 2 of 2









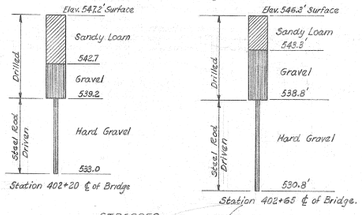


GENERAL NOTES

Class X Concrete shall be used throughout.
Concrete floor shall be finished in accordance with Art. 610.3(e) of the standard specifications.
The Contractor shall pour the floor slab in one continuous operation.
Rivets ⅞"ϕ, bolts ¾"ϕ, holes ⅞"ϕ except as noted.
Provide one lock washer on all bolts connecting rail to post. Also provide one ⅛" and one ⅜" shims for rail connections to 50% of posts.
Rail posts shall be vertical. Railing shall be adjusted to true alignment after roadway slab and curb have been poured.
Inspection of Structural Steel by Illinois Division of Highways before painting.
All structural steel shall receive one shop coat of red lead and two field coats of aluminum paint. Paint and application of paint shall be furnished by the Contractor.
All rollers, bearing plates, lead plates and anchor bolts shall be furnished, painted and set in accordance with Art. 54.3(d) of the Specifications, and shall be included for payment as Structural Steel.
All work to be constructed in accordance with Illinois Division of Highways Standard Specifications for Road and Bridge Construction, including Supplements thereto.

BORING DATA

Boring Data are shown on the Plans only as a guide to bidders in estimating Soil Conditions which may be encountered in the work.



STRESSES
f_s = 10,000#/□" (Structural)
f_s = 20,000#/□" (Reinforcing)
f_c = 1,200#/□" (Superstructure)
f_c = 800#/□" (Substructure)
n = 10
Loading = H 20-S16-44

BILL OF MATERIALS - SUBSTRUCTURE

BAR	NO.	SIZE	LENGTH	SHAPE
h	96	1¼"ϕ	15'-3"	
h_2	4	"	28'-0"	
h_3	36	"	25'-3"	
h_4	72	"	4'-9"	
n	124	⅞"ϕ	6'-8"	
n_1	122	"	9'-6"	
t	240	¾"ϕ	10'-9"	
Z	184	"	9'-9"	
W	24	1⅛"ϕ	20'-0"	
W_1	12	"	26'-0"	
V	122	⅞"ϕ	10'-0"	
V_1	20	1¼"ϕ	9'-0"	
V_2	16	"	16'-6"	
V_3	68	"	4'-0"	
V_4	28	"	5'-3"	
V_5	28	"	11'-3"	
V_6	56	"	6'-3"	
V_7	12	"	3'-6"	
V_8	16	"	6'-0"	
V_9	16	"	7'-6"	
V_{10}	8	"	14'-0"	
V_{11}	28	"	5'-10"	
Class X Concrete			cu. yds.	169.4
Reinforcement Bars			lbs.	15680

Copper Seal shall be 16 oz. Cold Rolled Annealed Copper with perforated flanges. Splices if necessary shall be soldered or brazed. Cost shall be included in contract unit price for Class X concrete.

PROJECT S-175(2)
BRIDGE OVER CLARK CREEK
F.A.S. RT. 276 ~ S.A. RT. 1 ~ SEC. 10-1-B
KENDALL COUNTY
STA. 402+40
SUBSTRUCTURE

WALTER E. DEUCHLER COMPANY
CONSULTING ENGINEERS
AURORA, ILLINOIS

MARCH-1950

EXISTING PLANS
C.H. 1 OVER CLEAR CREEK
SECTION 17-00139-00-BR
KENDALL COUNTY

SHEET NO. 2	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2 SHEETS	276	17-00139-00-BR	KENDALL	30	25
		S.N. 047-3184			

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FINAL SURVEY	NOTE BOOK	BY	DATE
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	NOTE BOOK	BY	DATE
	SURVEYED		
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

560 555 550 545

557.84

3:1

EXIST. ROW

SD 550.4

C = 3 F = 62

3:1

EXIST. ROW

18 + 50.00

560 555 550 545

SP DT LT BEGINS
STA 18+25.00
GRADE = -1.70%
ELEV. 550.85

EXIST. ROW

SD 550.9

3:1

C = 4 F = 1

EXIST. ROW

18 + 25.00

560 555 550 545

SEC 17-00139-00-BR
BEGINS STA 18+12.85
C = 3 F = 0 AH
C = 0 F = 0 BK

EXIST. ROW

EXIST. ROW

18 + 00.00

560 555 550 545

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

FILE NAME = V:\4080 - CH 1 (Fox River Drive) over Clear Creek\$MODELNAME$	USER NAME = BNebel	DESIGNED -	REVISED -
	(Kendall)\CADD\CADD Sheets\4080xshts.dgn	DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/22/2021	DATE -	REVISED -

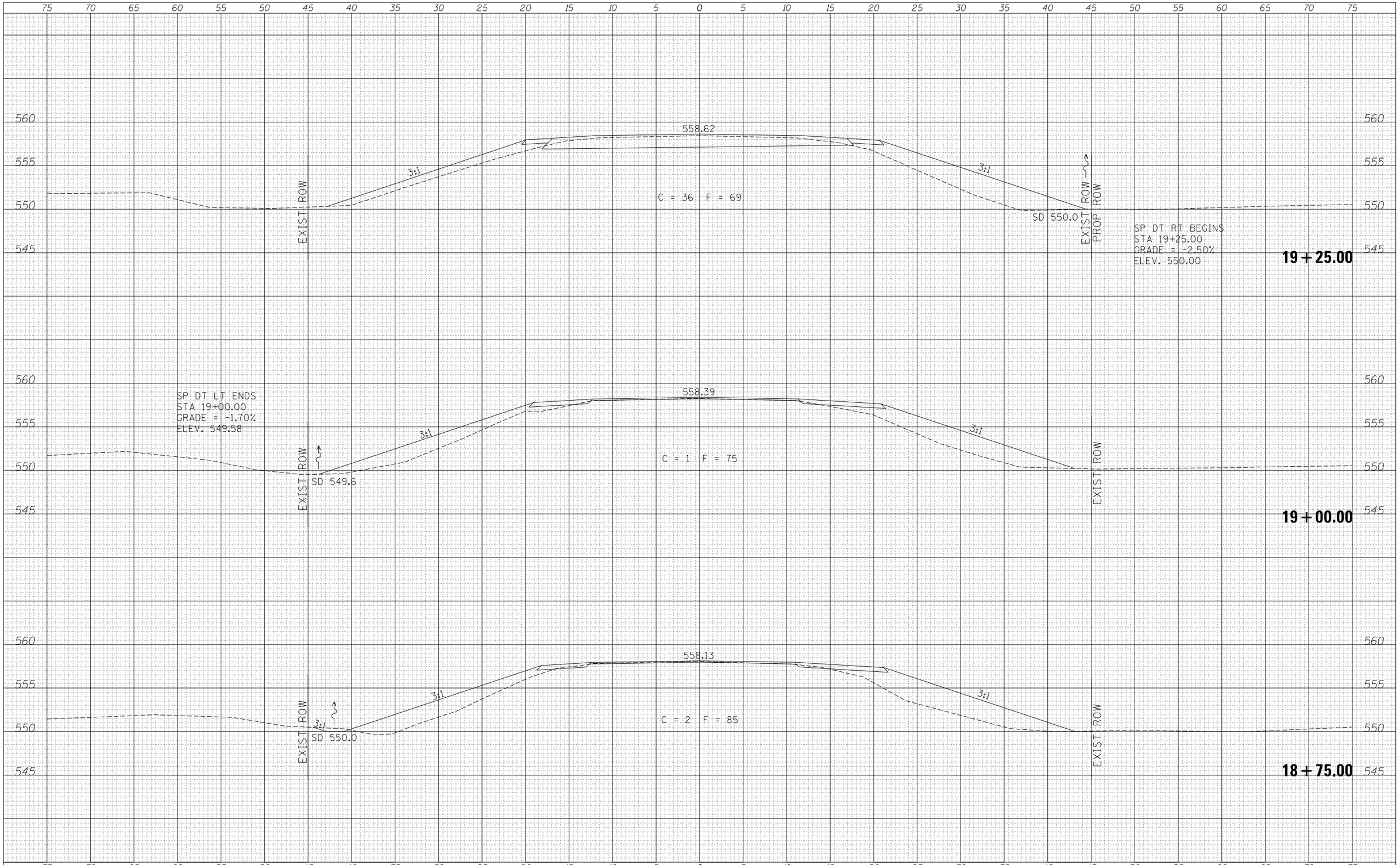
KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

CROSS SECTIONS

SCALE: 1"=5' | SHEET 1 OF 5 SHEETS | STA. 18+00.00 TO STA. 18+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	26
		ILLINOIS		

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED	BY	
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		DATE



ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED	BY	
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		DATE

FILE NAME = V:\4080 - CH 1 (Fox River Drive) over Clear Creek\$MODELNAME$	USER NAME = BNebel	DESIGNED -	REVISED -
	(Kendall)\CADD\CADD Sheets\4080xshts.dgn	DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

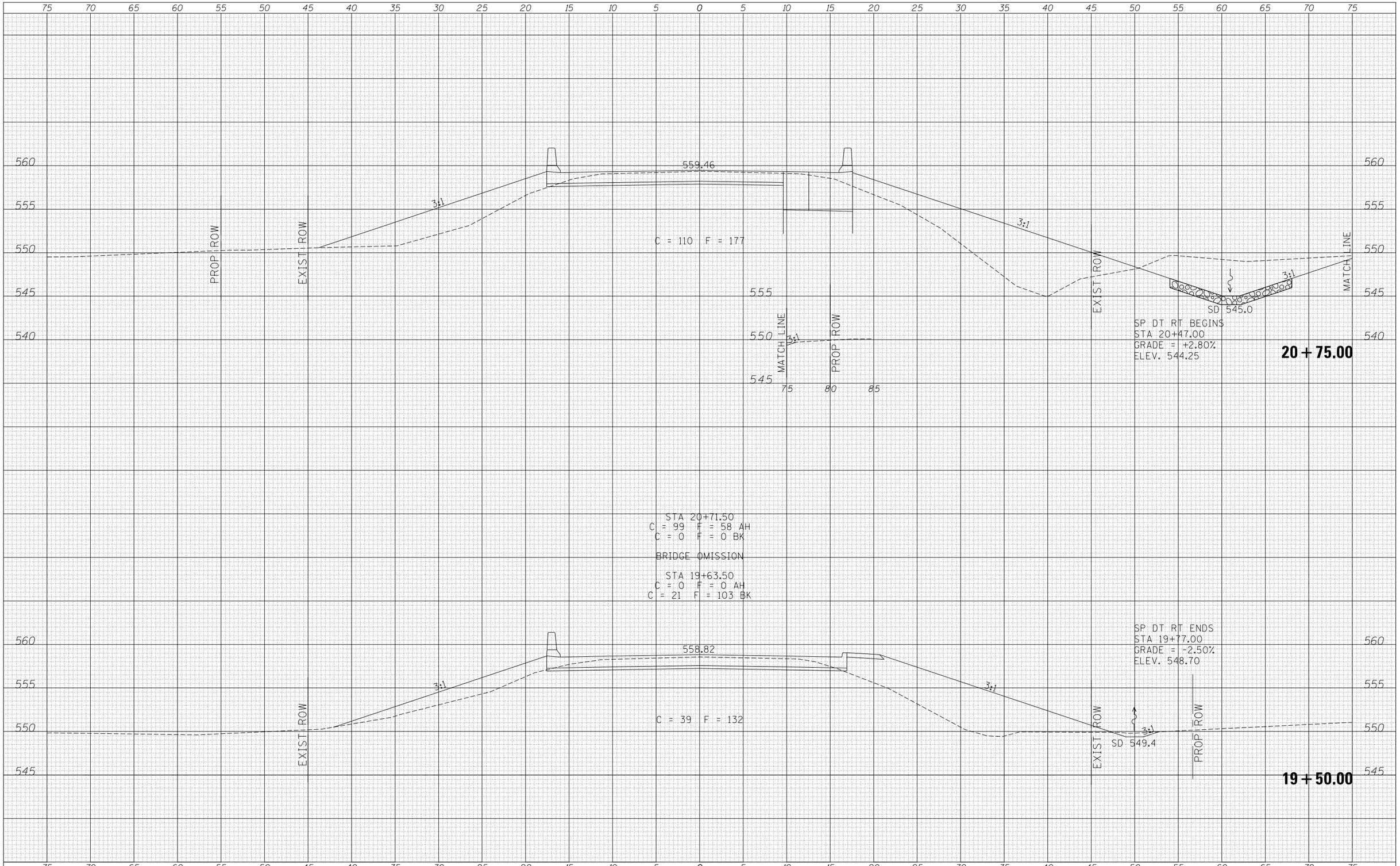
CROSS SECTIONS

SCALE: 1"=5' | SHEET 2 OF 5 SHEETS | STA. 18+75.00 TO STA.19+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	27
		ILLINOIS		

FINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE



FILE NAME =	USER NAME = BNebel	DESIGNED -	REVISED -
V:\4080 - CH 1 (Fox River Drive) over Clear Creek	(Kendall)\CADD\CADD Sheets\4080xshts.dgn	DRAWN -	REVISED -
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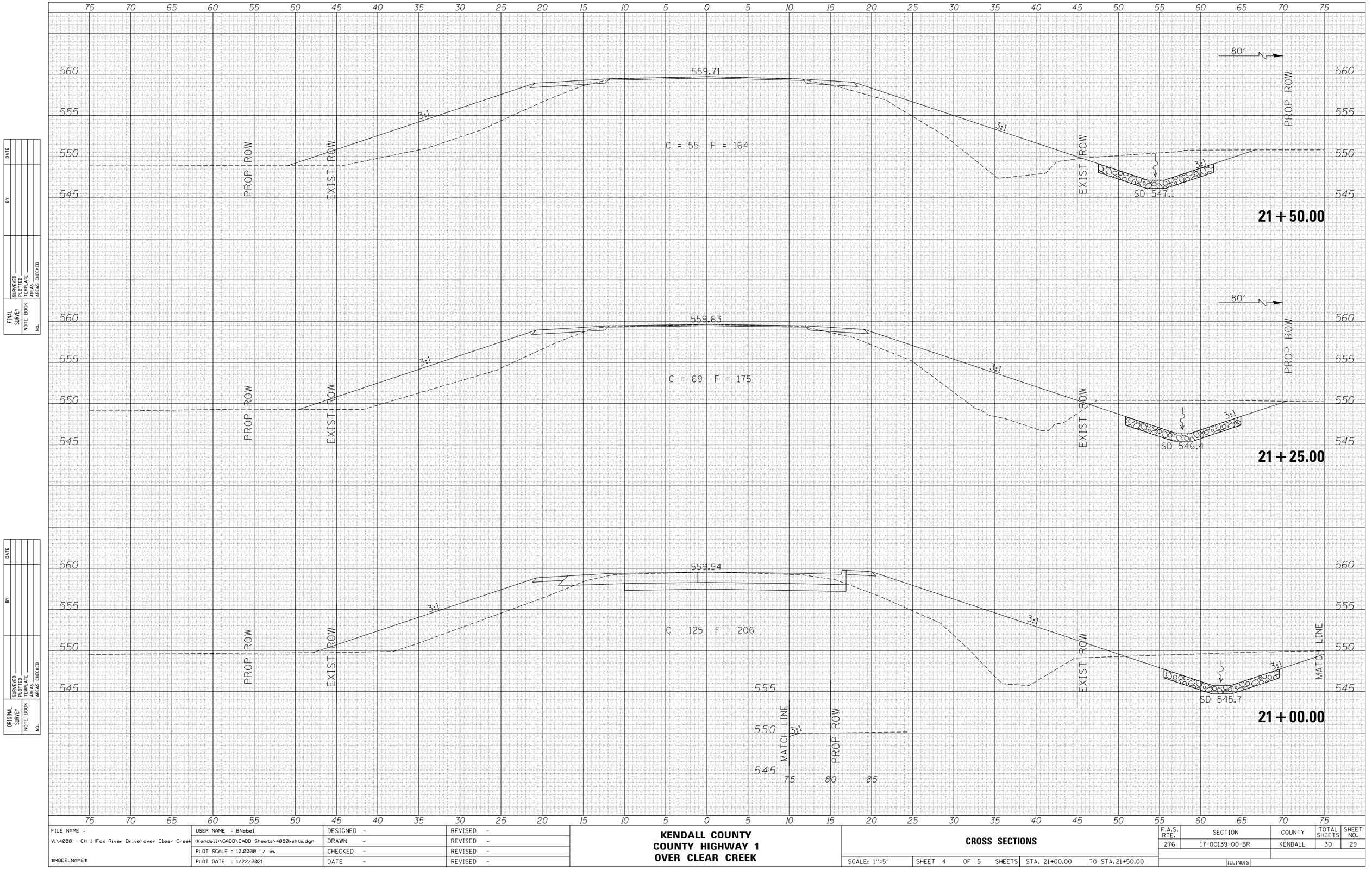
$MODELNAME$	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

CROSS SECTIONS

SCALE: 1"=5' | SHEET 3 OF 5 SHEETS | STA. 19+50.00 TO STA. 20+75.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	28
	ILLINOIS			



FINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

FILE NAME = V:\4080 - CH 1 (Fox River Drive) over Clear Creek\$MODELNAME$	USER NAME = BNebel	DESIGNED -	REVISED -
	(Kendall)\CADD\CADD Sheets\4080xshts.dgn	DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

CROSS SECTIONS

SCALE: 1"=5' | SHEET 4 OF 5 SHEETS | STA. 21+00.00 TO STA. 21+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	29
		ILLINOIS		

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

560
555
550
545

EXIST. ROW

80'

PROP. ROW

22 + 25.00

SEC 17-00139-00-BR
ENDS STA 22+15.39
C = 0 F = 0 AH
C = 3 F = 0 BK

3:1

C = 18 F = 84

EXIST. ROW

22 + 00.00

SP DT RT ENDS
STA 21+75.00
GRADE = +2.80%
ELEV. 547.83

C = 18 F = 124

SD 547.8

21 + 75.00

FILE NAME = V:\4080 - CH 1 (Fox River Drive) over Clear Creek\$MODELNAME$	USER NAME = BNebel	DESIGNED -	REVISED -
	(Kendall)\CADD\CADD Sheets\4080xshts.dgn	DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/22/2021	DATE -	REVISED -

KENDALL COUNTY
COUNTY HIGHWAY 1
OVER CLEAR CREEK

CROSS SECTIONS

SCALE: 1"=5' | SHEET 5 OF 5 SHEETS | STA. 21+75.00 | TO STA. 22+25.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
276	17-00139-00-BR	KENDALL	30	30
		ILLINOIS		