06-17-11 LETTING ITEM 205

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	1

CONTRACT NO. 63576

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

FAP 0856 (WEBER ROAD) OVER THE E. BRANCH DUPAGE RIVER SUPERSTRUCTURE REPLACEMENT
SECTION 08–00050–00–BR
PROJECT BRS–0197 (114)
VILLAGE OF BOLINGBROOK
WILL COUNTY
JOB C–91–153–09

INDEX OF SHEETS

PROJECT LOCATED IN VILLAGE OF BOLINGBROOK

PROPOSED IMPROVEMENT: NEW CONSTRUCTION AND RECONSTRUCTION OF HOT–MIX ASPHALT ROADWAY PAVEMENT, BRIDGE AND BRIDGE APPROACH PAVEMENT CONSTRUCTION, STORM SEWER, LANDSCAPING. AND EROSION CONTROL.

TRAFFIC DATA
ADT (2009) = 31,300
POSTED SPEED = 45 MPH

DESIGN DESIGNATION
2800 (30) ARTERIAL 11.15 (FD–20)
ADT (2030) ADT = 40,000

100′ 200′ 300′ — 1″ = 100′
0 10′ 20′ 30′ — 1″ = 10′
0 50′ 100′ — 1″ = 50′
0 50′ 100′ — 1″ = 40′
0 50′ 100′ — 1″ = 30′
0 50′ 100′ — 1″ = 20′

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

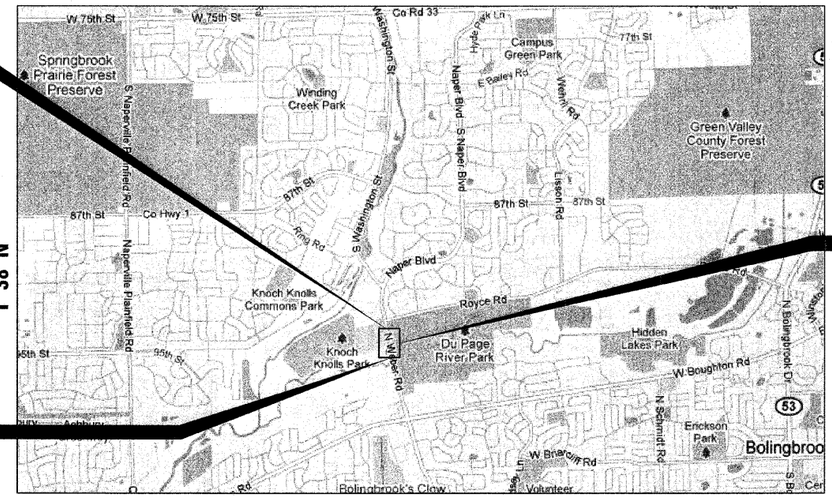
CONTRACT NO. 63576

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E.: 847–708–4406: SCHAUMBURG, IL

R 9 E – 3RD P.M.

PROJECT LIMIT STATION 68+03.8 WEBER RD.

PROJECT LIMIT STATION 70+29.8 WEBER RD.



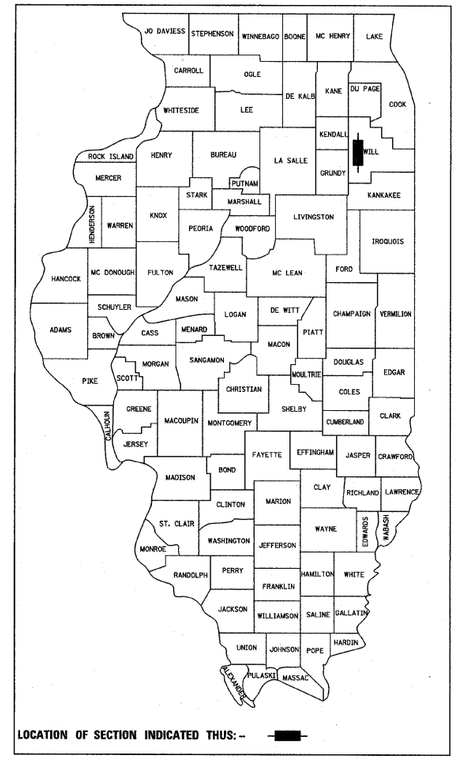
T 38 N

TWP. 37N

LOCATION MAP NOT TO SCALE

N

STRUCTURE NO. 099–3322



LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved March 28, 2011
Michael J. Dues
VILLAGE OF BOLINGBROOK

Passed April 11, 2011
CHRISTOPHER BOLT
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

Releasing for Bid Based on Limited Review April 11, 2011
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT LENGTH	
WEBER RD.	226 FT
TOTAL GROSS AND NET PROJECT LENGTH	226 FT (0.043 MILES)

JAMES R. TIPPETT 062-050888 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS Exp. 11/30/11

James R. Tippett DATE: 3-18-11
JAMES R. TIPPETT P.E.
LICENSE NO.: 062-050888
EXPIRES: NOVEMBER 30, 2011

PLANS PREPARED BY:

URS
100 S. WACKER DR., SUITE 500 TEL (312)-939-1000
CHICAGO IL, 60606 FAX (312)-939-4198

GENERAL NOTES

ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007. (HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS); THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED JANUARY 1, 2011; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS; THE "DETAILS" ON THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE CONTRACT DOCUMENTS. ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST STANDARD OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. THE CONTRACTOR SHALL CALL VILLAGE OF BOLINGBROOK PUBLIC WORKS AT 630-226-8800 FOR VILLAGE OWNED UTILITIES. (48 HOURS NOTIFICATIONS REQUIRED)

WORK HOURS ARE RESTRICTED TO: 7:30 AM TO 7:00 PM MONDAY THROUGH FRIDAY; 9:00 AM TO 5:00 PM SATURDAY; AND NO WORK ON SUNDAY.

ALL UTILITIES, SCHOOL DISTRICTS, LOCAL POLICE, AND FIRE DEPARTMENTS SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

THE SCALE SHOWN ON THE DRAWINGS APPLIES ONLY TO FULL SIZE PLANS AND NOT TO THE REDUCED SIZE PLANS.

BENCHMARKS FOR THE PROJECT ARE DESCRIBED IN THE PLANS AND ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). ALL BEARINGS AND COORDINATES REFERENCED IN THE PLAN DRAWINGS AND ALL CONTROL COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83 (2007).

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REESTABLISH THE CENTERLINE ALIGNMENT FOR NEW CONSTRUCTION BASED UPON THE EXISTING ALIGNMENT OF THE BRIDGE BEING REPLACED. EXISTING CENTER OF BRIDGE SHALL BE PROPOSED CENTER OF BRIDGE, AND THE EXISTING CENTER OF ABUTMENTS SHALL BE ON THE CENTERLINE ALIGNMENT.

NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.

CONSTRUCTION TRAFFIC SHALL OBEY ALL LOAD POSTING LIMITS ON ALL HAUL ROADS.

FLUORESCENT VESTS AND HARD HATS: ALL CONSTRUCTION PERSONNEL WILL BE REQUIRED TO WEAR FLUORESCENT ORANGE, FLUORESCENT YELLOW/GREEN OR A COMBINATION OF FLUORESCENT ORANGE AND YELLOW/GREEN VESTS AND HARD HATS AT ALL TIMES WHILE ON THE CONSTRUCTION SITE. COMPLIANCE WITH THIS REQUIREMENT SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.

WARNING SIGNS (OVERHEAD ELECTRIC) SHALL BE PLACED AT LOCATIONS OF OVERHEAD ELECTRIC LINES CROSSING THE ROADWAY CENTERLINE. SIGNS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE ITEMS OF WORK BEING PERFORMED.

THE CONTRACTOR SHALL DEVELOP A PLAN TO ACCOMPLISH THIS WORK AND MINIMIZE DISRUPTION OF ACCESS. THIS PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

WHEN DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL USE THE FOLLOWING METHOD TO ALLAY DUST AND PREVENT A NUISANCE WITHIN THE LIMITS OF THE CONSTRUCTION SITE. DUST SHALL BE CONTROLLED BY THE UNIFORM APPLICATION OF SPRINKLED WATER AND SHALL BE APPLIED ONLY WHEN DIRECTED BY THE ENGINEER, IN A MANNER MEETING HIS APPROVAL. CALCIUM CHLORIDE SHALL NOT BE USED FOR THIS PURPOSE. ALL EQUIPMENT USED FOR THIS WORK SHALL MEET WITH THE ENGINEER'S APPROVAL. THIS WORK SHALL CONSIST OF THE EXCLUSIVE CONTROL OF DUST RESULTING FROM CONSTRUCTION OPERATIONS AND IS NOT INTENDED FOR USE IN THE COMPACTION OF EARTH EMBANKMENTS, AS SPECIFIED UNDER ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS. NO EXTRA COMPENSATION SHALL BE ALLOWED THE CONTRACTOR FOR THIS WORK.

THE CONTRACTOR SHALL KEEP EXISTING ADJACENT STREETS CLEAN OF DIRT, MUD, AND OTHER DEBRIS AND, WHEN NECESSARY, CLEAN SAID PAVEMENTS ON A DAILY BASIS OR WHEN DIRECTED BY THE ENGINEER. NO EXTRA COMPENSATION SHALL BE ALLOWED THE CONTRACTOR FOR THIS WORK.

THE CONTRACTOR SHALL MAINTAIN THE SITE IN A CLEAN AND ORDERLY MANNER. DEBRIS AND ANY SURPLUS MATERIAL SHALL BE REMOVED AND RESTORATION SHALL PROCEED AS THE WORK PROCEEDS. IF THE ENGINEER SO DIRECTS, THE CONTRACTOR SHALL STOP ALL OTHER WORK AND CONCENTRATE ON CLEAN-UP. DEBRIS AND SURPLUS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED OFF-SITE DISPOSAL AREA.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS PRIOR TO BIDDING ON THISPROJECT, SPECIFICALLY AS THEY RELATE TO LUMP SUM PAY ITEMS.

EXISTING UTILITIES ARE SHOWN ON THE PLANS ACCORDING TO INFORMATION OBTAINED FROM THE LOCAL AGENCIES, OWNERS, AND FIELD SURVEYS. THE ACCURACY AND COMPLETENESS OF SAID INFORMATION IS NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXISTENCE, NATURE AND EXACT LOCATIONS OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE LIMITS OF THE IMPROVEMENTS.

THE CONTRACTOR SHALL USE ALL NECESSARY PRECAUTIONS AND PROTECTIVE MEASURES REQUIRED TO MAINTAIN EXISTING UTILITIES, SEWERS AND APPURTENANCES THAT MUST BE KEPT IN OPERATION. IN PARTICULAR, THE CONTRACTOR WILL TAKE ADEQUATE MEASURES TO PREVENT THE UNDERMINING OF UTILITIES AND SEWERS WHICH ARE STILL IN SERVICE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN DRAINAGE FLOWS AT ALL TIMES DURING THE PERFORMANCE OF THE WORK. METHODS USED BY THE CONTRACTOR SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER. COST OF MAINTAINING DRAINAGE FLOWS SHALL BE INCIDENTAL TO THE CONTRACT.

LANDSCAPING RESTORATION:
ALL LANDSCAPING DAMAGED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 4" OF PULVERIZED TOPSOIL AND SEEDING CLASS 2A. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT, OR SIDEWALK REPLACEMENT.

TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.5 OF THE STANDARDS SPECIFICATIONS.

ALL EXCESS MATERIAL (BROKEN CONCRETE, CULVERT PIPE, WASTE ROADWAY EXCAVATION, SURPLUS MATERIAL, ETC...) SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT-OF-WAY IN ACCORDANCE WITH SECTION 202 OF THE STANDARD SPECIFICATIONS.

10-FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE ITEM OF WORK SPECIFIED.

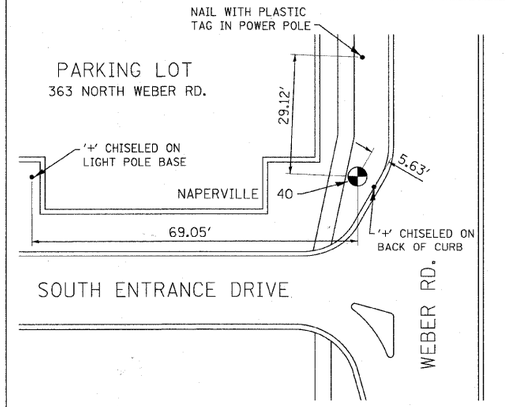
THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.

THE CONTRACTOR SHALL MAKE ALL FULL DEPTH SAW CUTS REQUIRED FOR THE REMOVAL OF PAVEMENTS, CONCRETE CURB AND GUTTERS, SIDEWALKS AND DRIVEWAYS AS SPECIFIED, OR AS DIRECTED BY THE ENGINEER. THE COST SHALL BE CONSIDERED INCLUDED IN THE COST FOR REMOVAL OF THE SPECIFIED ITEM IN THE CONTRACT.

IDOT STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
424001-05	CURB RAMPS FOR SIDEWALKS
515001-03	NAME PLATE FOR BRIDGES
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
631032-06	TRAFFIC BARRIER TERMINAL, TYPE 6A
701431-06	LANE CLOSURE, MULTILANE, UNDIVIDED WITH CROSSOVER, FOR SPEEDS > 45 MPH TO 55 MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
780001-02	TYPICAL PAVEMENT MARKINGS

BENCHMARK INFORMATION



LOCATION ADDRESS
363 NORTH WEBER ROAD
BOLINGBROOK, ILLINOIS

MONUMENT
NAPERVILLE 40

DEPTH
10' +

ELEVATION
651.34

DESCRIPTION
STAINLESS STEEL ROD IN PVC SLEEVE WITH METAL CAP AND LID SET FLUSH WITH GROUND, LOCATED AT NORTHWEST CORNER OF SOUTH ENTRANCE TO PARKING LOT OF HOBBY LOBBY, AT 363 NORTH WEBER ROAD (SOUTHWEST OF PROJECT LOCATION)

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, NOTE BOOK, NO., BY, DATE
PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, NOTE BOOK, NO., STRUCTURE NO(S), TYP'S, CH'KD, BY, DATE
FILE NAME: $FILE$

URS
100 S.WACKER DR.
SUITE 500
CHICAGO IL,60606
TEL (312)-939-1000
FAX (312)-939-4198

USER NAME = $USER$	DESIGNED - LML	REVISED -	
	DRAWN - LML	REVISED -	
PLOT SCALE = $SCALE$	CHECKED - JPB	REVISED	
PLOT DATE = $DATE$	DATE - 01/28/2011	REVISED -	

VILLAGE OF BOLINGBROOK
WEBER ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER

GENERAL NOTES AND STATE STANDARDS

SCALE: | SHEET NO. 2 OF 26 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	2
CONTRACT NO. 63576				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SPECIALTY ITEM	PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	CONSTRUCTION TYPE CODE 0014
	28000400	PERIMETER EROSION BARRIER	FOOT	316	316
	40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	50	50
	40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	3	3
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	48	48
	40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	21	21
	42001300	PROTECTIVE COAT	SQ YD	1,020	1,020
	42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	64	64
	44000100	PAVEMENT REMOVAL	SQ YD	384	384
	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	198	198
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	236	236
	50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1	1
	50102400	CONCRETE REMOVAL	CU YD	9.4	9.4
	50300225	CONCRETE STRUCTURES	CU YD	32.9	32.9
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	139.1	139.1
	50300260	BRIDGE DECK GROOVING	SQ YD	997	997
	50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	6,076	6,076
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	52,110	52,110
	50800515	BAR SPLICERS	EACH	344	344
*	50901050	STEEL RAILING, TYPE SM	FOOT	218	218
	51500100	NAME PLATES	EACH	2	2
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	112	112
	58700300	CONCRETE SEALER	SQ FT	835	835
	60250400	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, OPEN LID	EACH	2	2

SPECIALTY ITEM	PAY ITEM NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	CONSTRUCTION TYPE CODE 0014	CONSTRUCTION TYPE CODE 0042
	60605000	COMBINATION CONCRETE CURB AND GUTTER,TYPE B-6.24	FOOT	236	236	
*	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	
	63200310	GUARDRAIL REMOVAL	FOOT	180	180	
	67100100	MOBILIZATION	L SUM	1	1	
	70100400	TRAFFIC CONTROL AND PROTECTION, STANDARD 701431	EACH	1	1	
	70106800	CHANGEABLE MESSAGE SIGN	CAL. MO.	3	3	
	70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	27,736	27,736	
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	300	300	
	70400200	RELOCATE TEMPORARY CONCRTETE BARRIER	FOOT	300	300	
*	78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	8,890	8,890	
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	2,934	2,934	
	X5030305	CONCRETE WEARING SURFACE, 5"	SQ. YD.	676	676	
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	60	60	
	Z0012754	STRUCTURAL REPAIR OF CONCRETE(DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	45	45	
	Z0076600	TRAINEES	HOUR	500		500

PLAN / PROFILE — SURVEYED / PLOTTED / CHECKED / NOTE BOOK / NO. / BY / DATE

URS 100 S.WACKER DR., SUITE 500, CHICAGO IL,60606, TEL (312)-939-1000, FAX (312)-939-4198

USER NAME = #USER# | PLOT SCALE = #SCALE# | PLOT DATE = #DATE#

DESIGNED - | DRAWN - | CHECKED - | DATE -

REVISED - | REVISED - | REVISED - | REVISED -

VILLAGE OF BOLINGBROOK
WEBER ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER

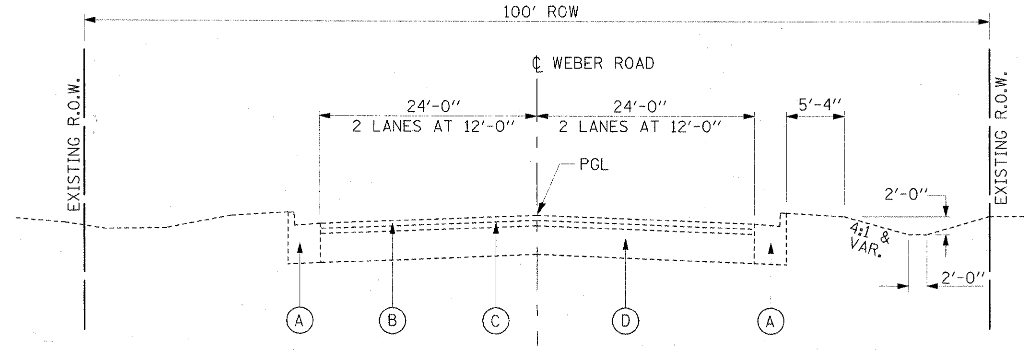
SUMMARY OF QUANTITIES

SCALE: | SHEET NO. 3 OF 26 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	3
CONTRACT NO. 63576				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

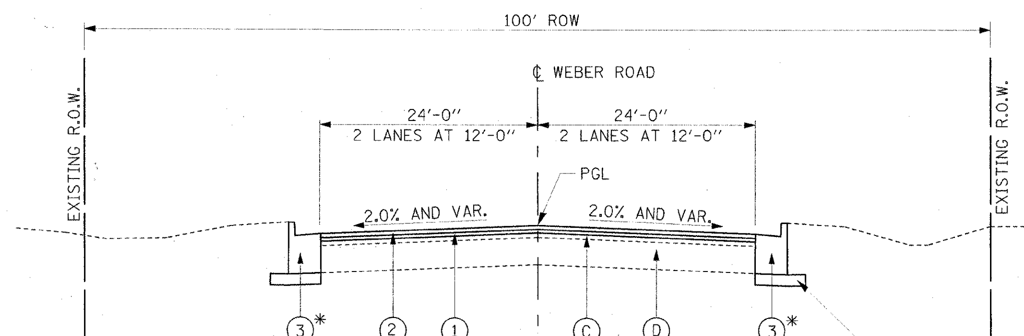
FILE NAME = #FILE#

003-Summary of Quantities.dgn 3/31/2011 2:51:47 PM



EXISTING TYPICAL SECTION

STA. 68+03.8 TO STA. 68+68.8
STA. 69+76.8 TO STA. 70+29.8



ADDITIONAL SUB-BASE GRANULAR MATERIAL, TYPE B SHALL BE INCLUDED IN PAY ITEM FOR COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

* AT LOCATIONS AS SHOWN IN PLANS

PROPOSED TYPICAL SECTION

STA. 68+03.8 TO STA. 68+32.8
STA. 70+12.8 TO STA. 70+29.8

LEGEND (EXISTING):

- (A) COMBINATION CURB AND GUTTER, TYPE B-6.24
- (B) BITUMINOUS SURFACE COURSE, 2"
- (C) BITIUMINOUS BINDER COURSE, 1½"
- (D) BITUMINOUS AGGREGATE MIXTURE BASE COURSE (8")

LEGEND (PROPOSED):

- (1) POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (1-1/2")
- (2) LEVELING BINDER (MACHINE METHOD), N70 (3/4")
- (3) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

ITEM	VOIDS
ROADWAY:	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL9.5MM) 1½"	4% @ 90 Gyr.
LEVELING BINDER (MACHINE METHOD), N70 (IL9.5MM) ¾"	4% @ 70 Gyr.
FLEXIBLE PAVEMENT CONNECTOR:	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90 (IL9.5MM) 1½"	4% @ 90 Gyr.
POLYMERIZED HOT-MIX ASPHALT (3 LIFTS) BINDER COURSE, IL-19.0, N90 5½"-13½"	4% @ 90 Gyr.

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

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

URS
100 S.WACKER DR., SUITE 500
CHICAGO IL 60606
TEL (312)-939-1000
FAX (312)-939-4198

USER NAME = $USER$	DESIGNED - MRF	REVISED -	
PLOT SCALE = $SCALE$	DRAWN - MRF	REVISED -	
PLOT DATE = $DATE$	CHECKED -	REVISED -	
	DATE - 01/28/2011	REVISED -	

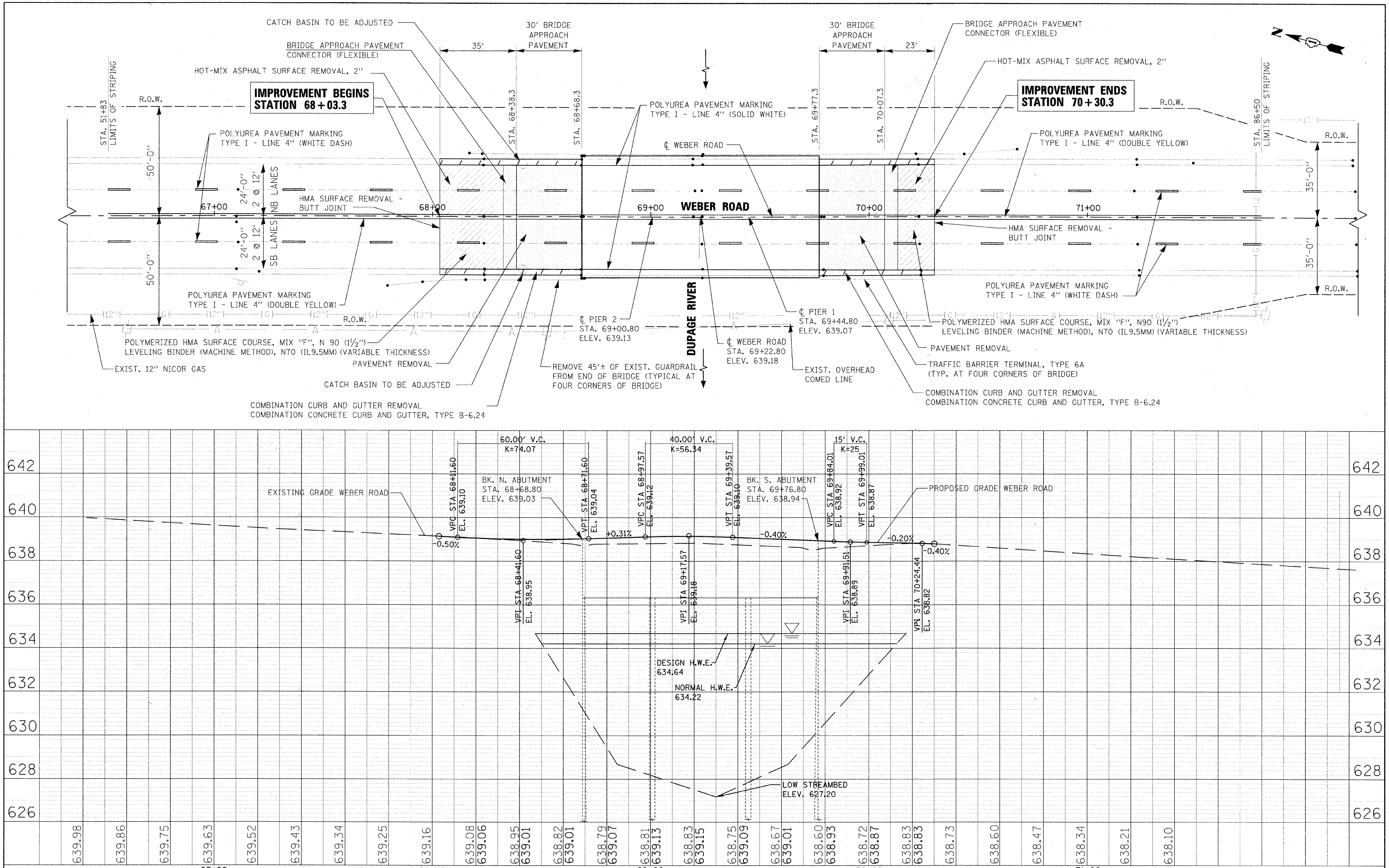
VILLAGE OF BOLINGBROOK
WEBER ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER

TYPICAL SECTIONS

SCALE: SHEET NO. 4 OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	4
CONTRACT NO. 63576				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



URS 100 S.WACKER DR. SUITE 500 CHICAGO IL 60606 TEL (312)-939-1000 FAX (312)-939-4198

USER NAME = $USER$	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = $SCALE$	CHECKED -	REVISED -	
PLOT DATE = $DATE$	DATE	REVISED -	

VILLAGE OF BOLINGBROOK
WEBER ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER

ROADWAY PLAN AND PROFILE

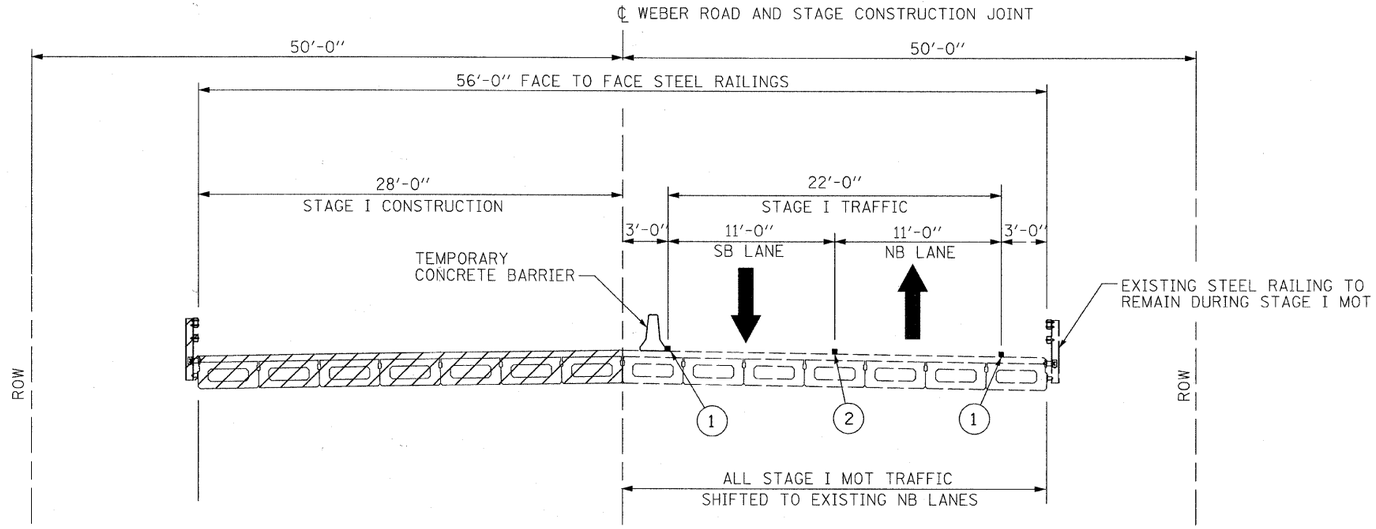
SCALE: SHEET NO. 5 OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	5

CONTRACT NO. 63576

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

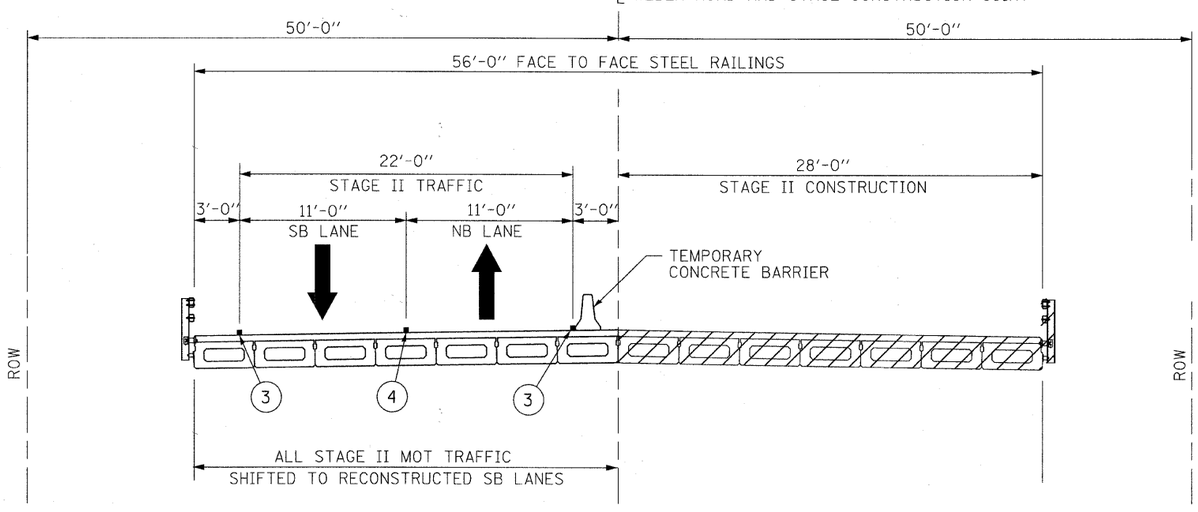
005-Plan and Profile.dgn 4/4/2011 8:05:53 AM



STAGE I CONSTRUCTION
(LOOKING NORTH)

LEGEND

- DIRECTION OF PROPOSED STAGED TRAFFIC FLOW
- TEMPORARY PAVEMENT MARKING LINE (TYP.)
- STAGE CONSTRUCTION WORK ZONE
- (1) TEMPORARY PAVEMENT MARKING LINE - 4" (WHITE)
- (2) TEMPORARY PAVEMENT MARKING LINE - 4" (DOUBLE YELLOW)
- (3) PAVEMENT MARKING TAPE, TYPE III - 4" (WHITE)
- (4) PAVEMENT MARKING TAPE, TYPE III - 4" (DOUBLE YELLOW)



STAGE II CONSTRUCTION
(LOOKING NORTH)

GENERAL NOTES FOR MAINTENANCE OF TRAFFIC

1. IDOT STANDARD 701431-06, "LANE CLOSURE, MULTILANE, UNDIVIDED WITH CROSSOVER, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH TO 55 MPH", SHALL BE FOLLOWED FOR THIS PROJECT.
2. PERMANENT PAVEMENT MARKINGS CONFLICTING WITH THE TEMPORARY PAVEMENT MARKINGS PLACED AS PART OF THIS PROJECT SHALL BE REMOVED OR MASKED.
3. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY MOT STAGE 1 STRIPING WHICH CONFLICTS WITH MOT STAGE II STRIPING.
4. THE CONTRACTOR SHALL COVER OR REMOVE ALL CONFLICTING EXISTING SPEED LIMIT SIGNS, GUIDE SIGNS, OR ANY OTHER CONFLICTING SIGNS FOR THE DURATION OF THE CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT THE METHOD IN WHICH THE SIGNS WILL BE COVERED TO THE ENGINEER FOR APPROVAL.
5. ADDITIONAL REQUIREMENTS FOR MAINTENANCE OF TRAFFIC SHALL BE AS INCLUDED IN PAY ITEM 70100400, "TRAFFIC CONTROL AND PROTECTION, STANDARD 701431-06".

PLAN / PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, R.O.W. CHECKED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

URS
100 S.WACKER DR.
SUITE 500
CHICAGO IL 60606
TEL (312)-939-1000
FAX (312)-939-4198

USER NAME = $USER$ | DESIGNED - | REVISED -
DRAWN - | REVISED -
PLOT SCALE = $SCALE$ | CHECKED - | REVISED -
PLOT DATE = $DATE$ | DATE - | REVISED -

VILLAGE OF BOLINGBROOK
WEBER ROAD OVER THE EAST BRANCH OF THE DUPAGE RIVER

M.O.T. TYPICAL SECTIONS

SCALE: | SHEET NO. 6 OF 26 SHEETS | STA. | TO STA.

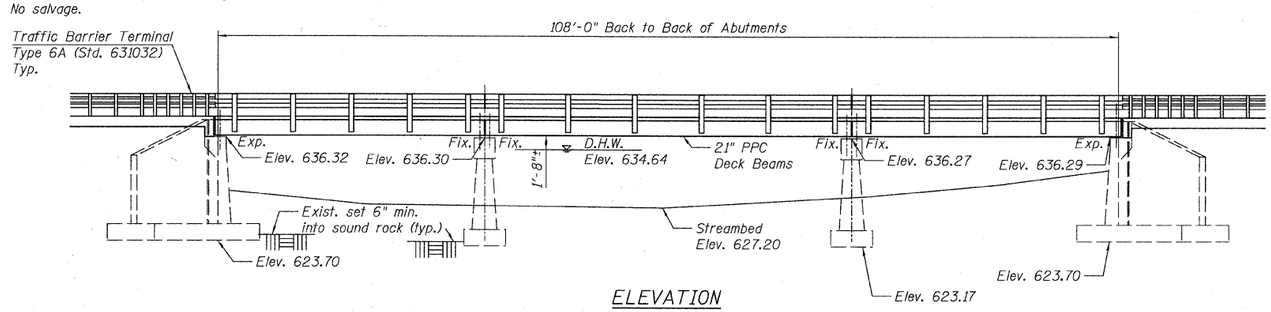
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	6
	CONTRACT NO. 63576			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

FILE NAME = $FILE$

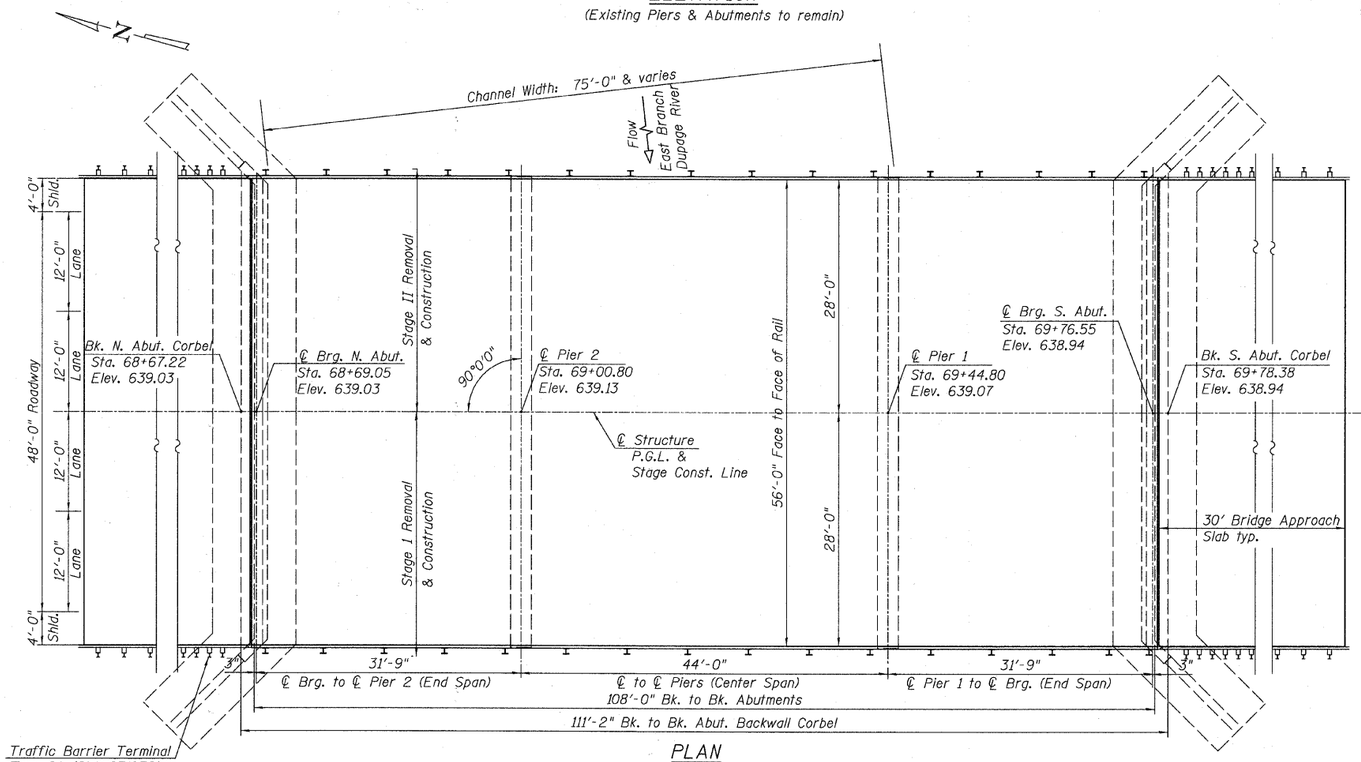
Bench Mark: BM Naperville 40-Stainless steel rod in PVC sleeve; 55'± right Sta. 88+47.86 Elev. 651.34 (NAVD 88)

Existing Structure: SN 099-3322 originally built in 1945 as Sec. 58-B-15d and widened in 1982 under Sec. 79-00058-01-BR by Will County. The original structure consisted of a three-span continuous reinforced concrete haunched girder bridge on R.C. closed abutments and solid wall piers supported by spread footings keyed into bedrock. Span lengths are 31'-9", 44'-0", and 31'-9"; with a total length of 108'-0" bk. to bk. abuts. In 1982 the superstructure was replaced with Prestressed Precast Conc. Deck Beams with a bituminous overlay, and the structure widened to an out to out width of 56'-0". The superstructure will be replaced, and substructure repaired. Stage construction with one lane each direction shall be utilized. No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

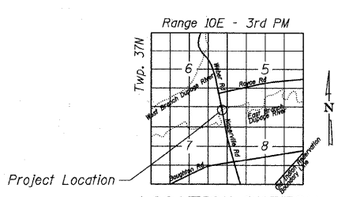


ELEVATION
(Existing Piers & Abutments to remain)

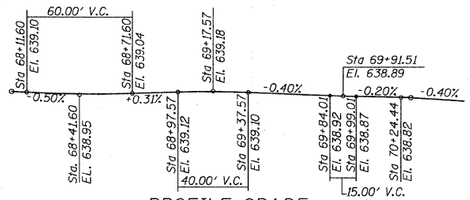


PLAN

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.



LOCATION SKETCH



PROFILE GRADE

INDEX OF SHEETS

RE-BUILT 2011 BY
VILLAGE OF BOLINGBROOK
SEC. 08-00050-00-BR
STATION 69+22.80
STR. NO. 099-3322
LOADING HL93

NAME PLATE
See Std. 515001

WATERWAY INFORMATION

Drainage Area = 81 Sq. Mi. Low Grade Elev. 636.20 @ Sta. 75+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.
	10	1970	628	628	634.22	0.28	0.28	634.50	634.50
Design	30	2460	703	703	634.64	0.36	0.36	635.00	635.00
	50	2950	767	767	634.92	0.58	0.58	635.50	635.50
Base	100	3410	834	834	634.99	0.76	0.76	635.75	635.75
Overtopping									
Max. Calc.	500	4550	972	972	635.17	1.33	1.33	636.50	636.50

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Protective Coat	Sq. Yd.	1,020		1,020
	Bridge Approach Pavement Connector (Flexible)	Sq. Yd.	64		64
	Removal of Existing Superstructures	Each	1		1
	Concrete Removal	Cu. Yd.		9.4	9.4
	Concrete Structures	Cu. Yd.		32.9	32.9
	Concrete Superstructures	Cu. Yd.	139.1		139.1
	Bridge Deck Grooving	Sq. Yd.	997		997
*	Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	6,076		6,076
*	Reinforcement Bars, Epoxy Coated	Pound	44,020	8,090	52,110
	Bar Splicers	Each	344		344
	Steel Railing, Type SM	Foot	218		218
	Name Plates	Each	2		2
	Performed Joint Strip Seal	Foot	112		112
	Concrete Sealer	Sq. Ft.		835	835
*	Concrete Wearing Surface, 5"	Sq. Yd.	676		676
	Asbestos Bearing Pad Removal	Each		60	60
	Structural Repair of Concrete (Depth less than or equal to 5")	Sq. Ft.		45	45

* See Special Provisions

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
4. The existing superstructure has a ±4.0" bituminous concrete overlay that will be removed. Cost included with Removal of Existing Superstructure.
5. Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

DESIGN SPECIFICATIONS

NEW CONSTRUCTION
AASHTO LRFD Bridge Design Specifications, 4th Edition, 2009
EXISTING CONSTRUCTION
2002 AASHTO Standard Specification

LOADING HL-93 (NEW CONST.)
LOADING HS20 (EXISTING CONST.)

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

DESIGN STRESSES

NEW CONSTRUCTION
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 (M270 Grade 50)
PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi ($\frac{1}{2}$" ϕ low lax strands)
fpbt = 201,960 psi ($\frac{1}{2}$" ϕ low lax strands)
EXISTING CONSTRUCTION
FIELD UNITS
f'c = 1,000 psi (Sub)
fy = 24,000 psi (Reinforcement)

I certify that to the best of 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.

STATE OF ILLINOIS
JEFFREY P. BUCHOLC
081-005605
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER
4/4/11 Exp. 11/30/12

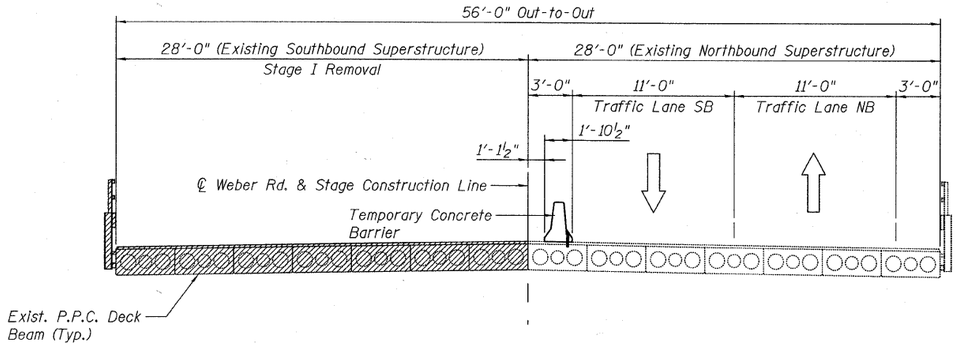
URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

GENERAL PLAN & ELEVATION
STRUCTURE NO. 099-3322

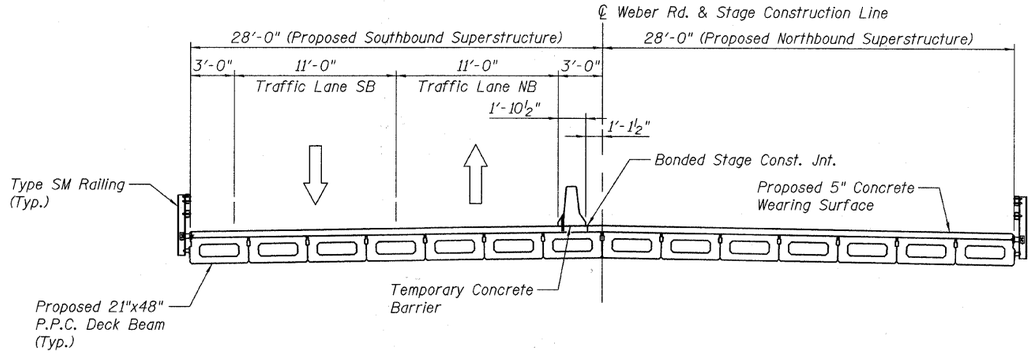
SHEET NO. S-1	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	7
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

001-GP&E.dgn 3/31/2011 4:13:39 PM

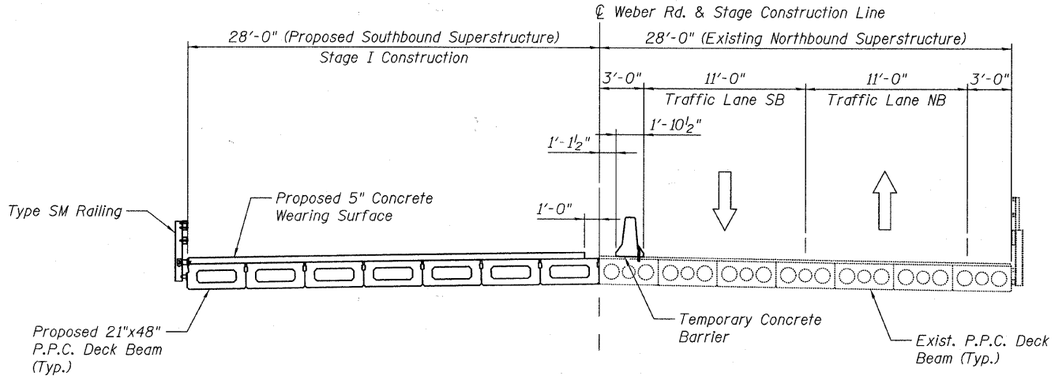
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



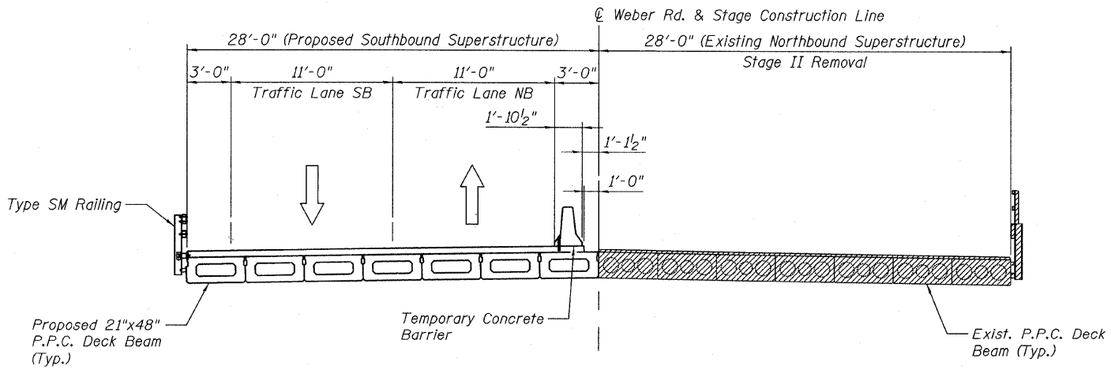
STAGE I REMOVAL
(Looking North)



STAGE II CONSTRUCTION
(Looking North)



STAGE I CONSTRUCTION
(Looking North)



STAGE II REMOVAL
(Looking North)

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

NOTE

Hatched area indicates Removal of Existing Superstructures.
For quantity of Temporary Concrete Barrier see Roadway Plans.
For Temporary Concrete Barrier details see sheet S-3.
For Shear Key Clamping Details at Stage Construction Joint, see sheets S-8 & S-10.

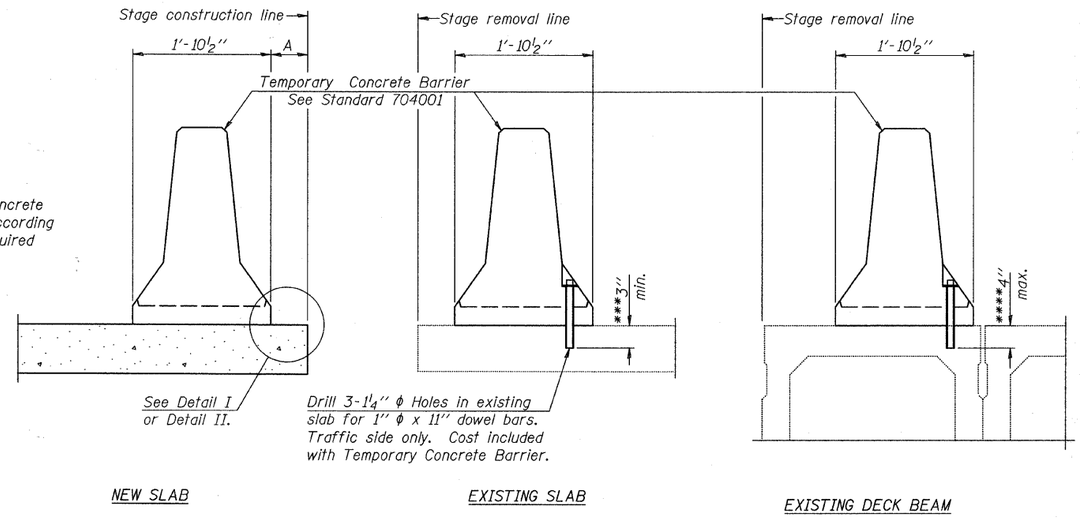
TYPICAL STAGING CROSS SECTION(S)
STRUCTURE NO. 099-3322

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

SHEET NO. S-2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	8
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" 'x "W" steel PL to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

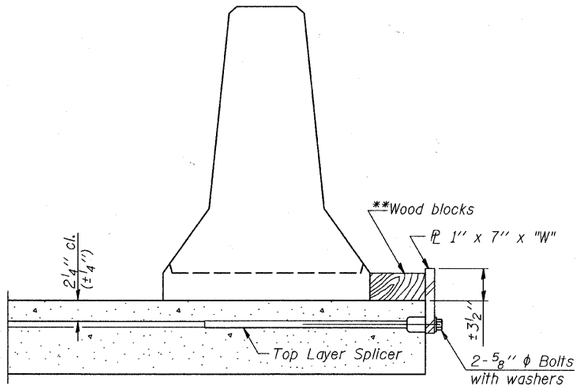
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

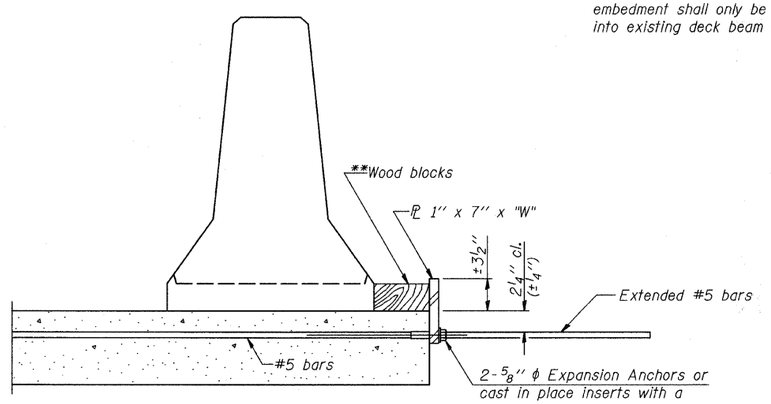
The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



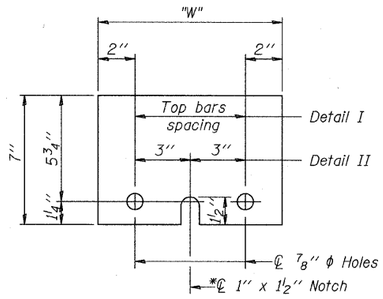
DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

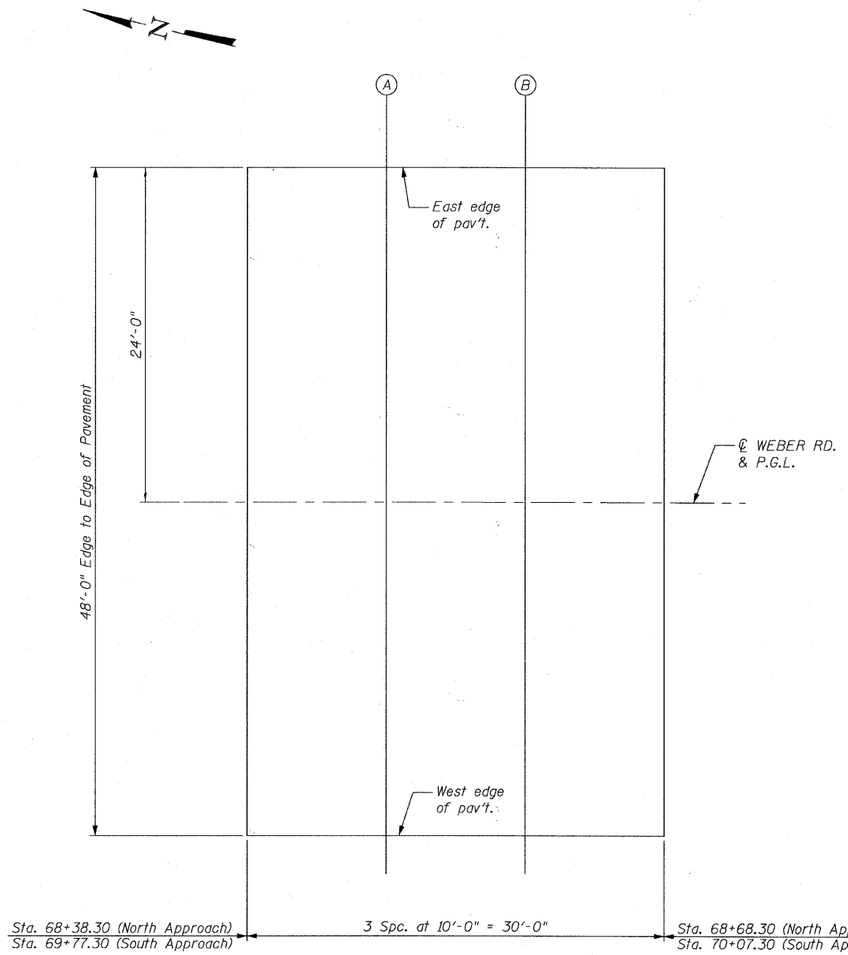
DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 099-3322

SHEET NO. S-3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	9
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN - APPROACH PAVEMENT

NORTH APPROACH SLAB
EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. end North appr. pav't.	68+38.30	-24.0	638.64
A	68+48.30	-24.0	638.64
B	68+58.30	-24.0	638.64
S. end North appr. pav't.	68+68.30	-24.0	638.66

SOUTH APPROACH SLAB
EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. end South appr. pav't.	69+77.13	-24.0	638.57
A	69+87.13	-24.0	638.54
B	69+97.13	-24.0	638.51
S. end South appr. pav't.	70+07.13	-24.0	638.48

NORTH APPROACH SLAB
℄ WEBER ROAD & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
N. end North appr. pav't.	68+38.30	0.00	639.01
A	68+48.30	0.00	639.01
B	68+58.30	0.00	639.01
S. end North appr. pav't.	68+68.30	0.00	639.03

SOUTH APPROACH SLAB
℄ WEBER ROAD & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
N. end South appr. pav't.	69+77.13	0.00	638.94
A	69+87.13	0.00	638.91
B	69+97.13	0.00	638.88
S. end South appr. pav't.	70+07.13	0.00	638.85

NORTH APPROACH SLAB
WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. end North appr. pav't.	68+38.30	24.0	638.64
A	68+48.30	24.0	638.64
B	68+58.30	24.0	638.64
S. end North appr. pav't.	68+68.30	24.0	638.66

SOUTH APPROACH SLAB
WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. end South appr. pav't.	69+77.13	24.0	638.57
A	69+87.13	24.0	638.54
B	69+97.13	24.0	638.51
S. end South appr. pav't.	70+07.13	24.0	638.48

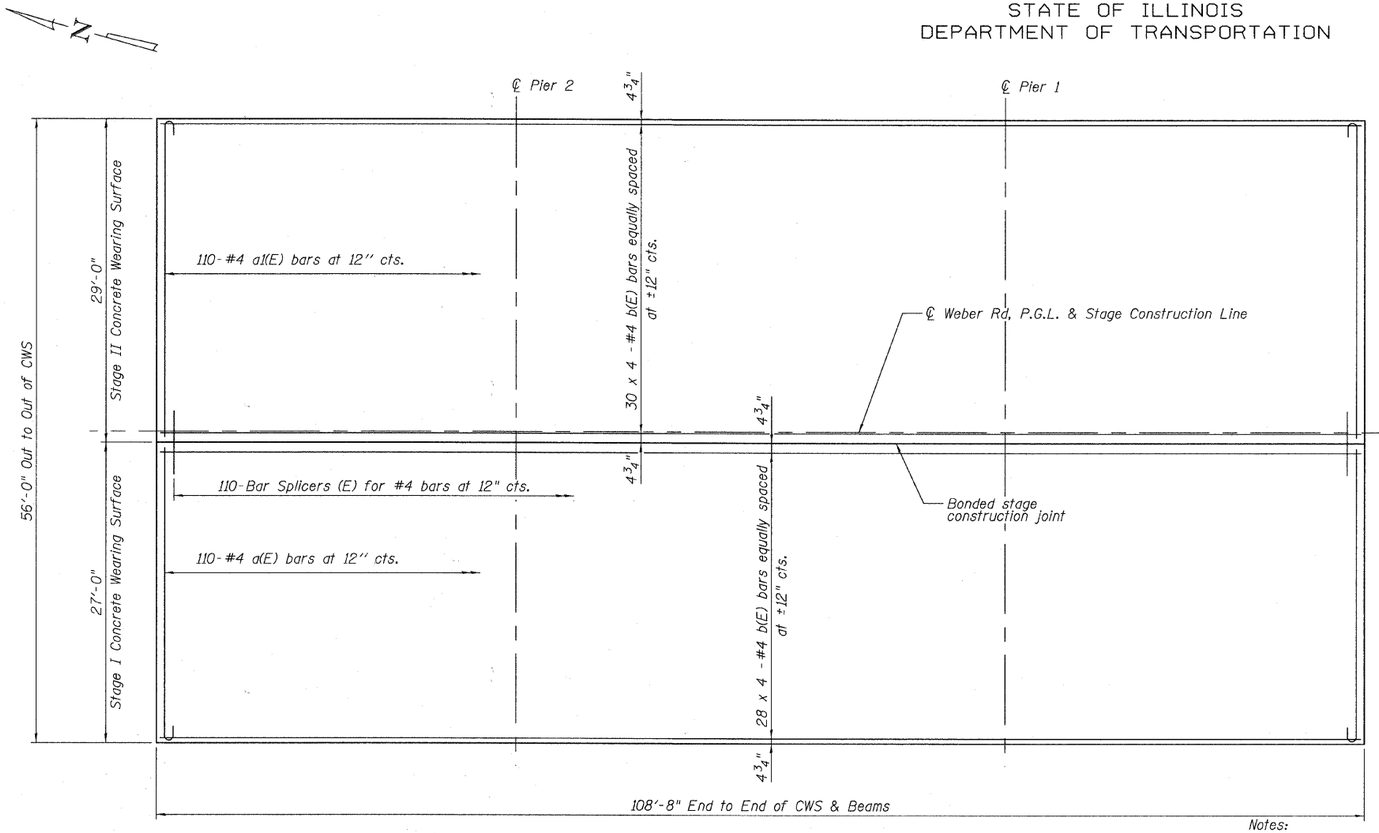
DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

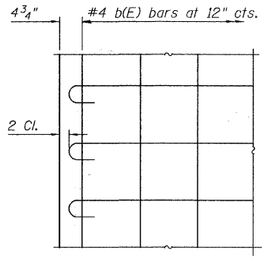
TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 099-3322

SHEET NO. S-4	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	10
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

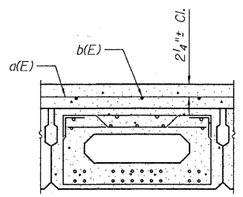
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Bars indicated thus 1 x 2#4 etc. indicates
1 line of bars with 2 lengths per line.

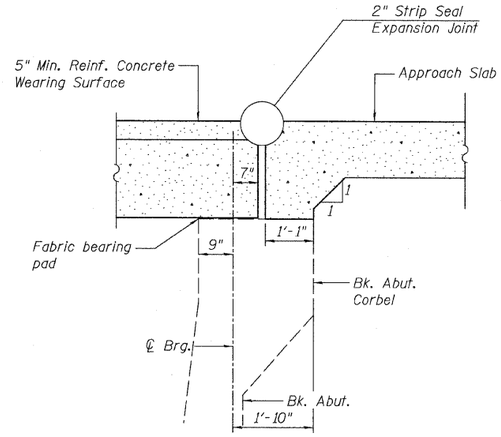


PLAN

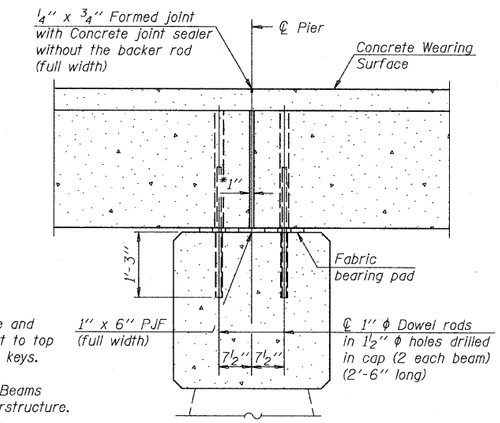


CROSS SECTION

REINFORCED CONCRETE WEARING SURFACE DETAILS



SECTION THRU EXISTING ABUTMENT

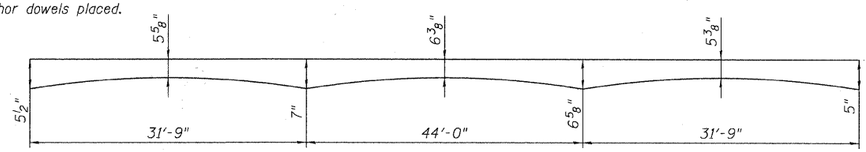


SECTION AT PIERS

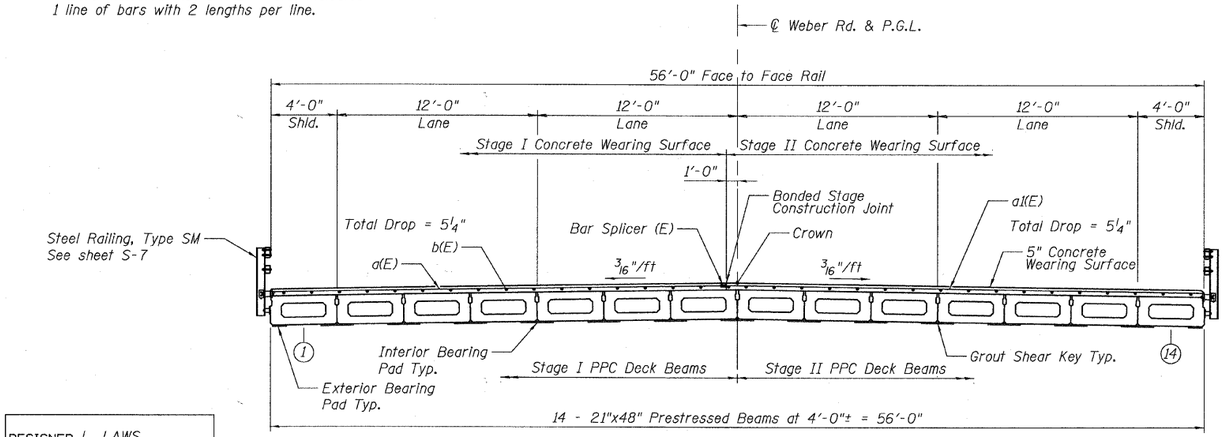
MINIMUM BAR LAP

#4 bar = 2'-0"

Notes:
1. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
2. All horizontal dimensions are at right angles to beam ends.
3. Hatched area to be poured after Precast Prestressed Concrete Deck Beams have been erected. Quantity of concrete included with Concrete Superstructure.
4. See Sheets S-8 thru S-11 for beam & bearing pad details.
5. See Sheet S-6 for superstructure details and Bill of Material.
6. See Sheet S-18 for bar splicer assembly details.
7. See Sheet S-6 for strip seal joint details.
8. Existing Dowel Rods shall be cut flush with the top of pier cap. After beams have been erected, holes shall be drilled into substructure and anchor dowels placed.



APPROX. REINFORCED CONRETE WEARING SURFACE PROFILE
(For information only)



CROSS SECTION
(Looking North)

Note

Typical Construction Staging Section(s) sheet S-2. The Concrete Wearing Surface shall be poured after the beams have been erected and the shear keys have been grouted.

DESIGNED L. LAWS
CHECKED J.P.B.
DRAWN L. LAWS
CHECKED J.P.B.

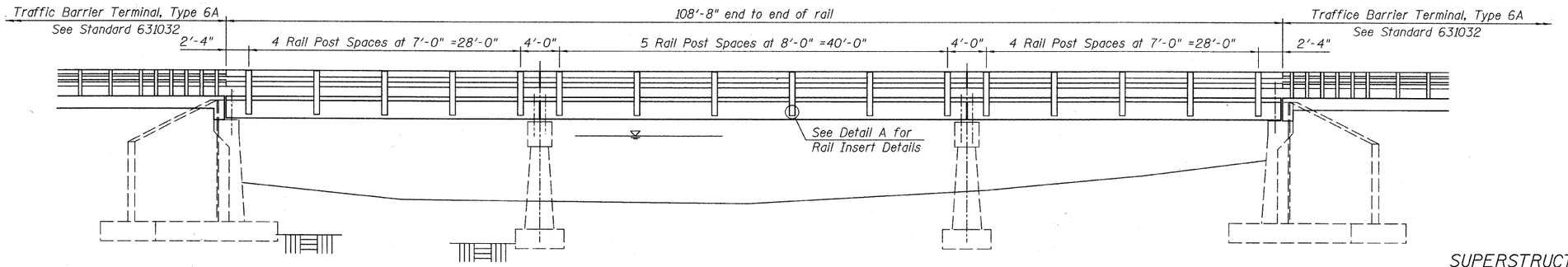
URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

DECK PLAN & SECTION
STRUCTURE NO. 099-3322

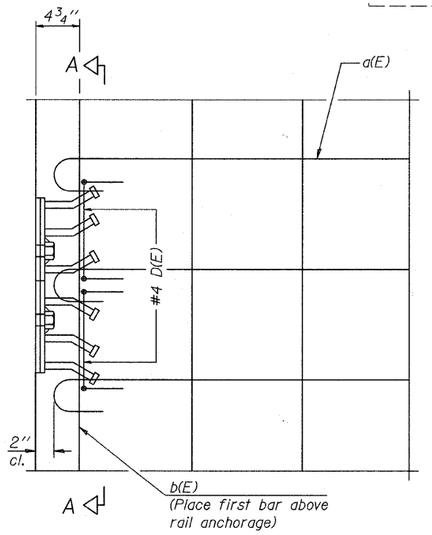
SHEET NO. S-5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	11
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

Note: See sheet 5 for Railing Details

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



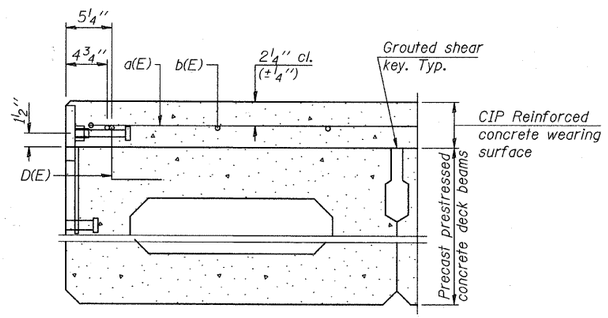
ELEVATION
Showing Rail Post Spaces



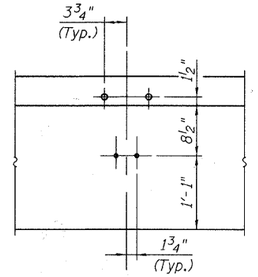
PLAN

Notes:
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.

MINIMUM BAR LAP
#4 bar = 2'-0"



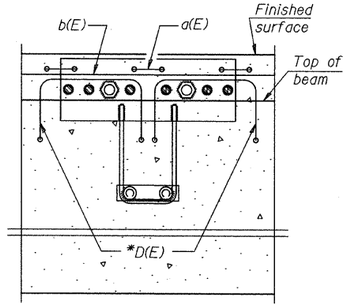
SECTION THRU FASCIA BEAM



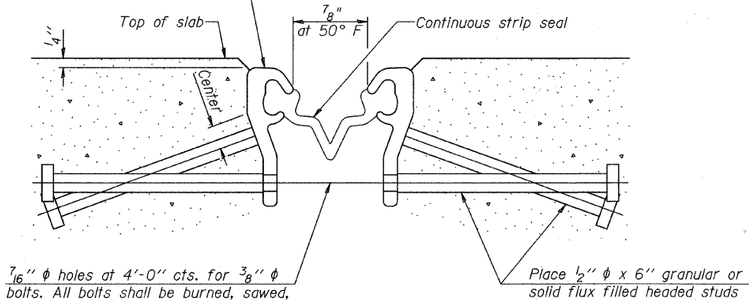
DETAIL A

SUPERSTRUCTURE
BILL OF MATERIAL

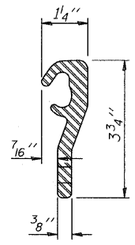
Bar	No.	Size	Length	Shape
a(E)	110	#4	27'-2"	
a1(E)	110	#4	29'-2"	
b(E)	232	#4	28'-6"	
Reinforcement Bars, Epoxy Coated		Pound	8,560	
Bridge Deck Grooving		Sq. Yd.	677	
Name Plates		Each	2	
Preformed Joint Strip Seal		Foot	112	
Protective Coat		Sq. Yd.	677	
Bar Splicers		Each	110	
Concrete Wearing Surface, 5"		Sq. Yd.	676	



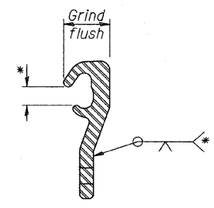
SECTION A-B



SECTION THRU STRIP SEAL JOINT
FOR OVERLAY OVER DECK BEAMS
AT BOTH ABUTMENTS

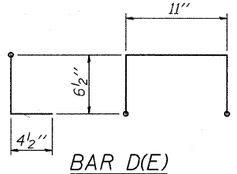


LOCKING EDGE RAIL



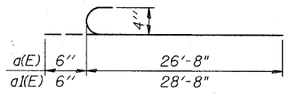
*Omit weld at seal opening.

LOCKING EDGE RAIL SPLICE



BAR D(E)

* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.



BARS a(E) & a1(E)

Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.
The inside of the Locking Edge Rail groove shall be free of weld residue.
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
The manufacturer's recommended installation methods shall be followed.

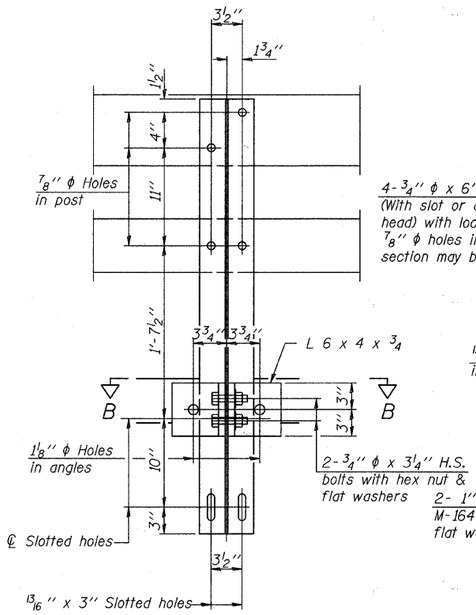
DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

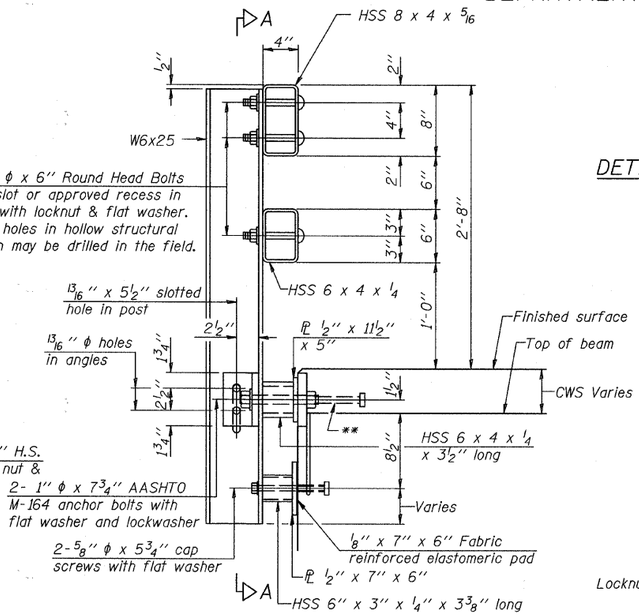
DECK PLAN & SECTION DETAILS
STRUCTURE NO. 099-3322

SHEET NO. S-6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	12
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

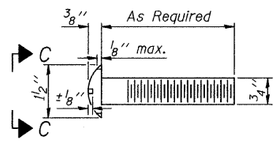
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



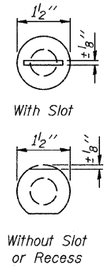
SECTION A-A



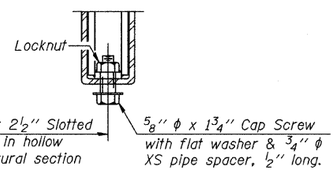
SECTION AT RAIL POST



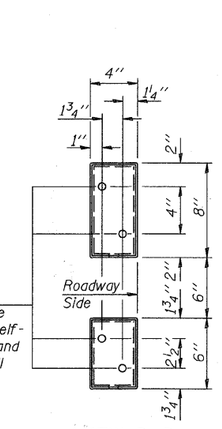
DETAIL OF ¾" ϕ ROUND HEAD BOLT



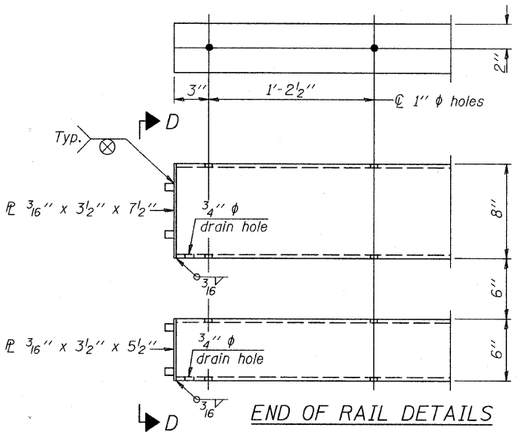
VIEW C-C



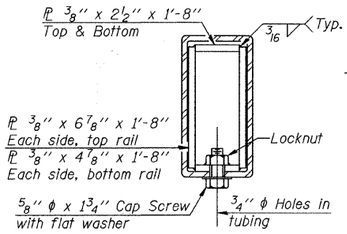
RAIL SPLICE CONNECTION AT EXPANSION JT.



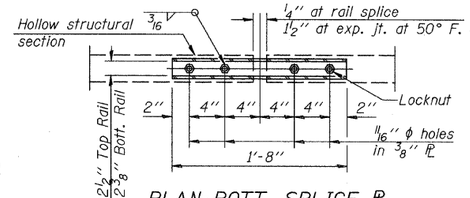
VIEW D-D



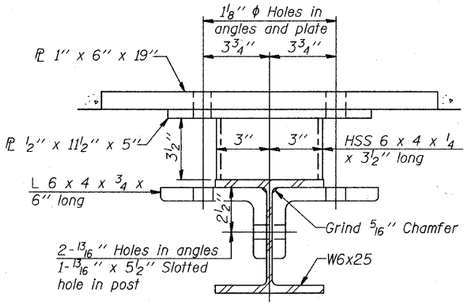
END OF RAIL DETAILS



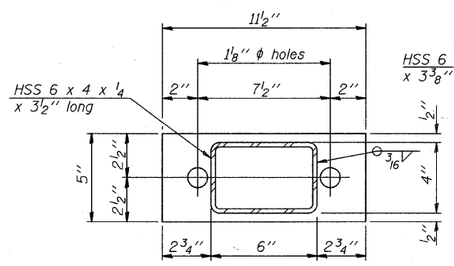
SECTION AT RAIL SPLICE



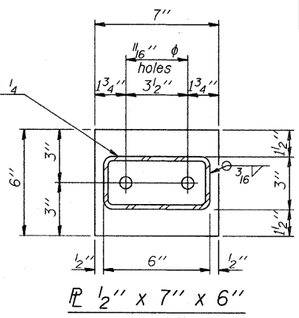
PLAN-BOTT. SPLICE PL TYPICAL



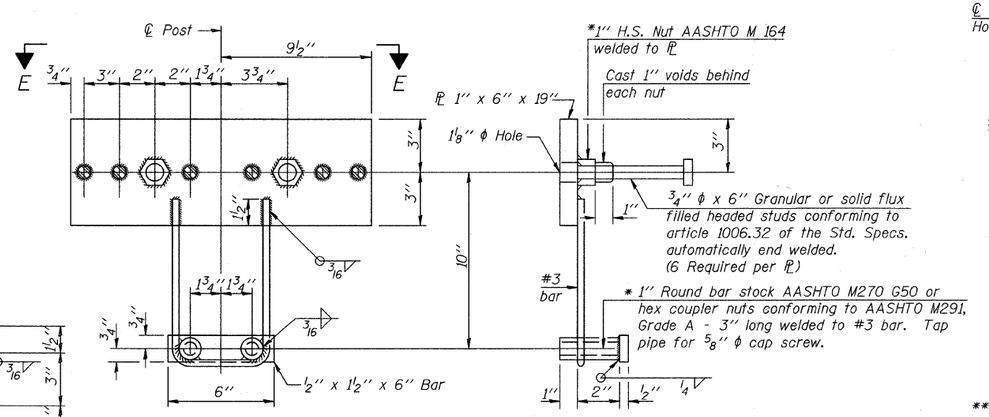
SECTION B-B



PL ½" x 11½" x 5"

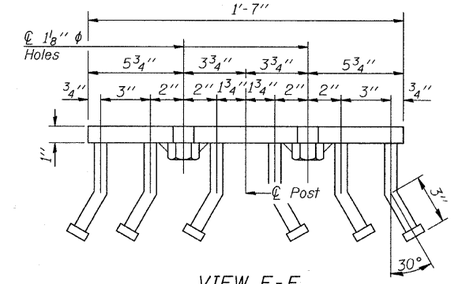


PL ½" x 7" x 6"



ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



VIEW E-E

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
For multi-span bridges, sufficient ¼" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	218

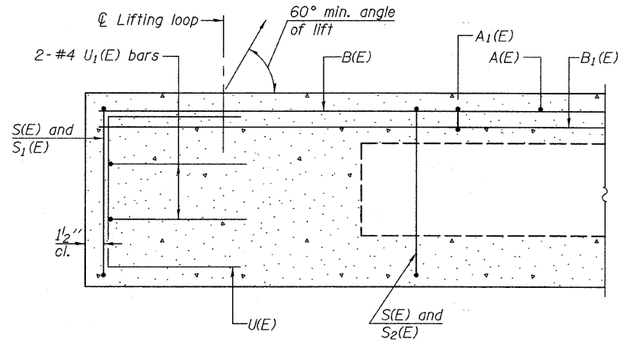
DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

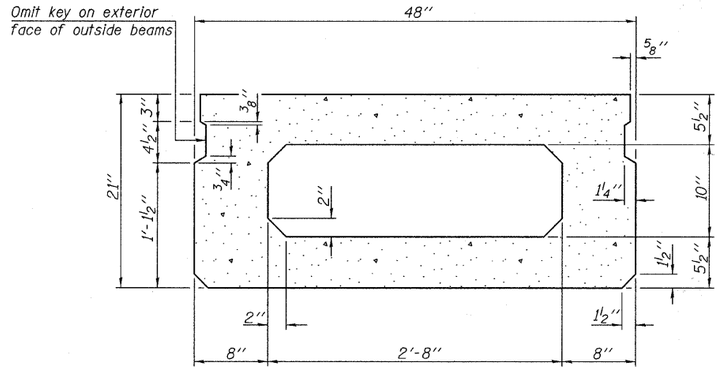
STEEL RAILING DETAILS
STRUCTURE NO. 099-3322

SHEET NO. S-7	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	13
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

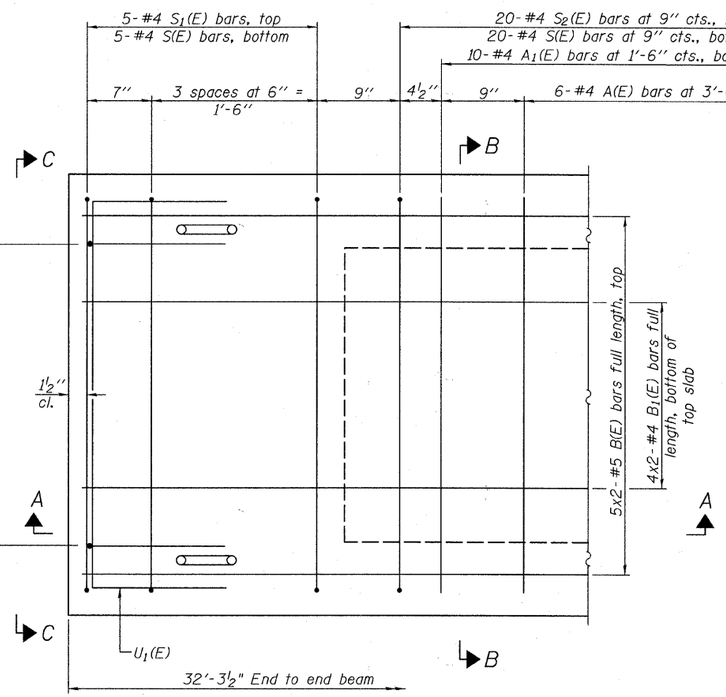
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



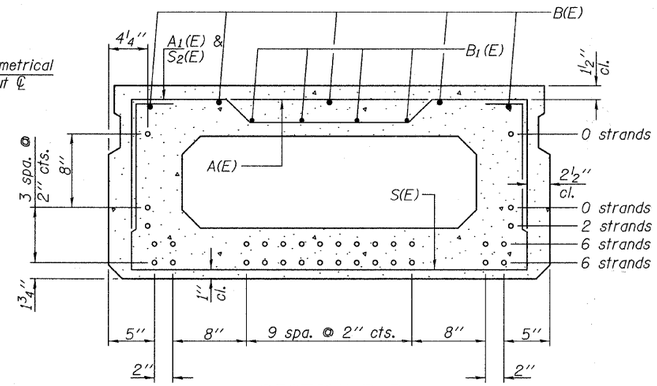
SECTION A-A



SECTION B-B
(Showing dimensions)

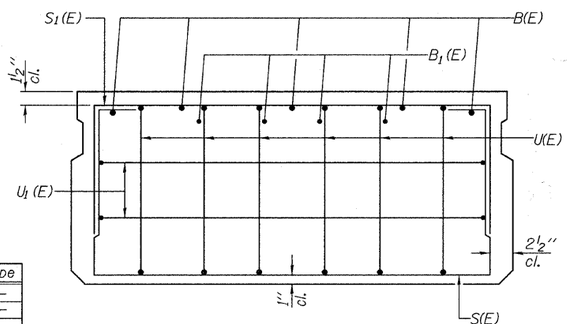


PLAN VIEW

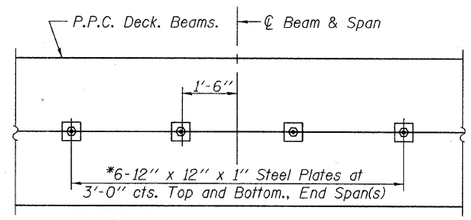


SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

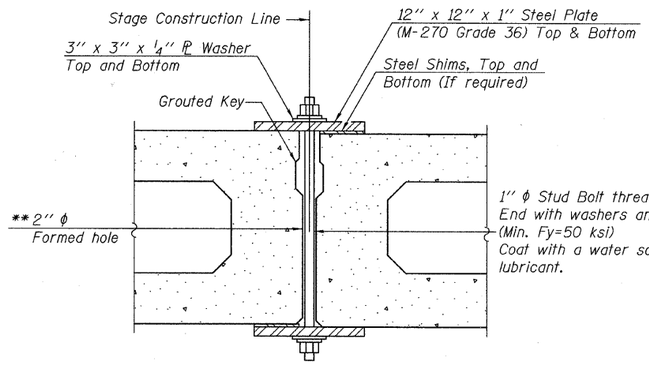


VIEW C-C

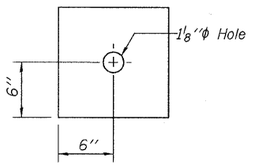


PLAN

*Space plates to miss Temporary Bridge Rail Posts.



SECTION



CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams.
See Stage Construction Details for traffic lanes.

** Cast semicircular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.

BAR LIST
ONE BEAM ONLY
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	26	#4	3'-7"	—
$A_1(E)$	20	#4	3'-10"	⌒
B(E)	10	#5	17'-7"	—
$B_1(E)$	8	#4	17'-4"	—
S(E)	50	#4	7'-5"	⌊⌋
$S_1(E)$	10	#4	5'-11"	⌐¬
$S_2(E)$	40	#4	6'-2"	⌐¬
U(E)	12	#5	4'-0"	⊏
$U_1(E)$	4	#4	6'-0"	⌐¬

Note: See sheet S-9 for additional details and Bill of Material.

MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

Note: Spacing of S(E) and $S_2(E)$ bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

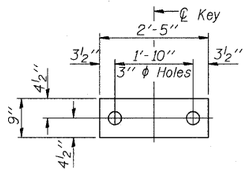
DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

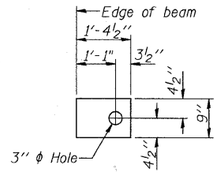
SUPERSTRUCTURE
21"x48"-14SS PPC DECK BEAM-END SPAN
STRUCTURE NO. 099-3322

SHEET NO. S-8	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	14
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



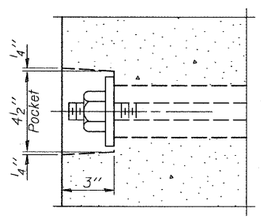
FABRIC BEARING PAD
(48-Interior)



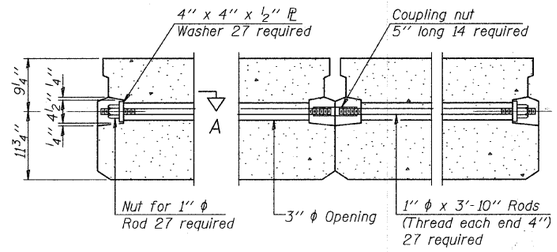
FABRIC BEARING PAD
(16-Exterior & Stage Construction Line)

FIXED

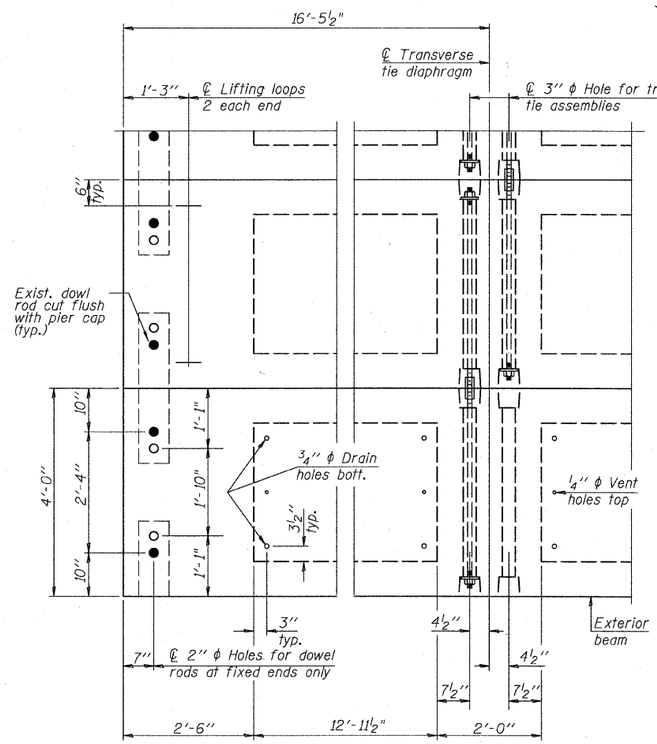
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.
Exterior Fabric Bearing Pad shall be used for the beams along the stage construction line.



SECTION A-A



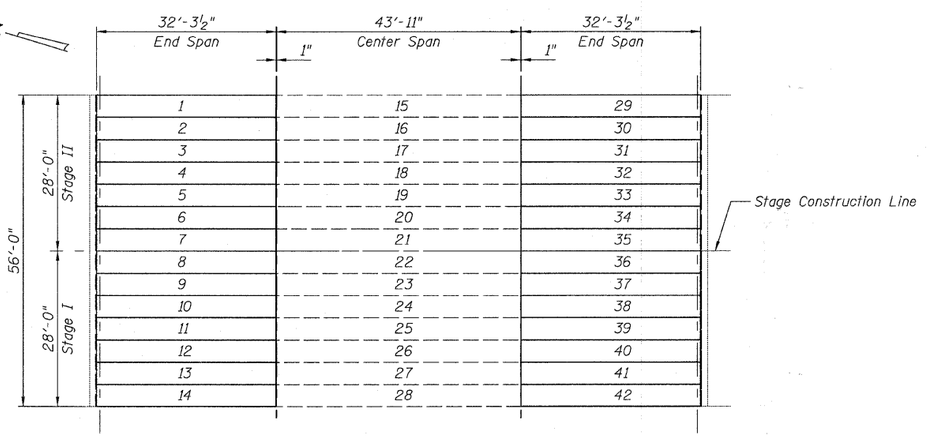
TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

Verify existing 1"ϕ dowel spacing and existing dimensions in field prior to ordering 21"x48" PPC deck beams.



PLAN
(Showing Beam Numbers)

NOTES

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

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

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

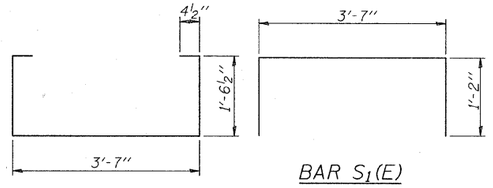
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

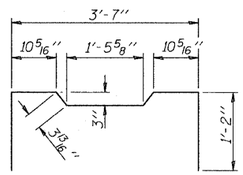
Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	3,617



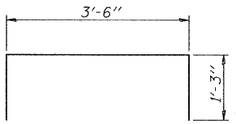
BAR S(E)

BAR S1(E)

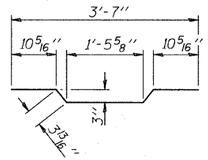
BAR U(E)



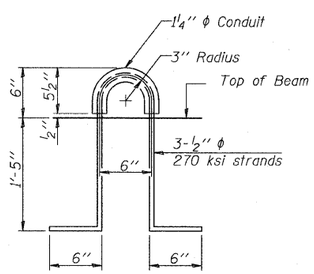
BAR S2(E)



BAR U1(E)



BAR A1(E)



LIFTING LOOP DETAIL

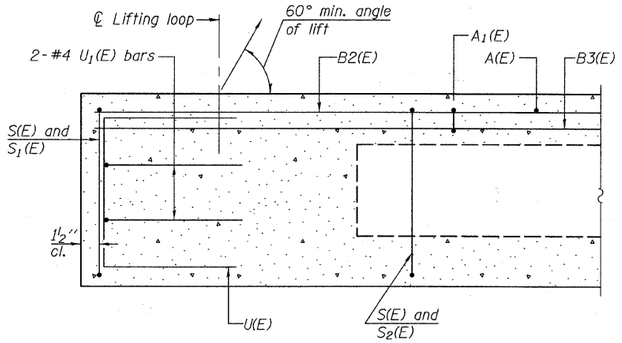
DESIGNED L. LAWS
CHECKED J.P.B.
DRAWN L. LAWS
CHECKED J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

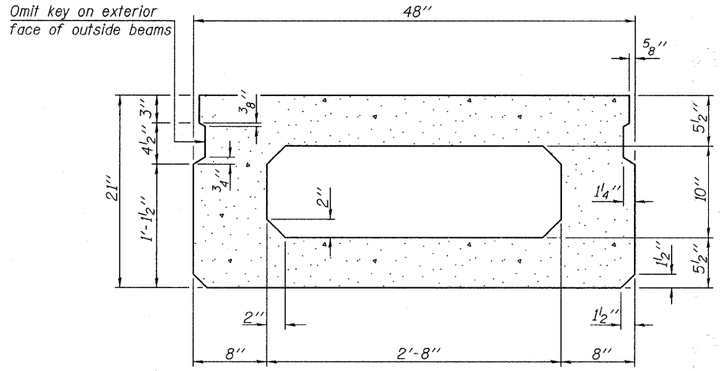
SUPERSTRUCTURE DETAILS
21"x48"-14SS PPC DECK BEAM DETAILS-END SPAN
STRUCTURE NO. 099-3322
BEAMS 1 THRU 14 & 29 THRU 42

SHEET NO. S-9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	15
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

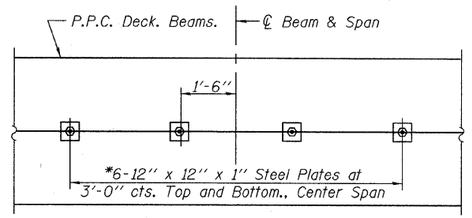
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A

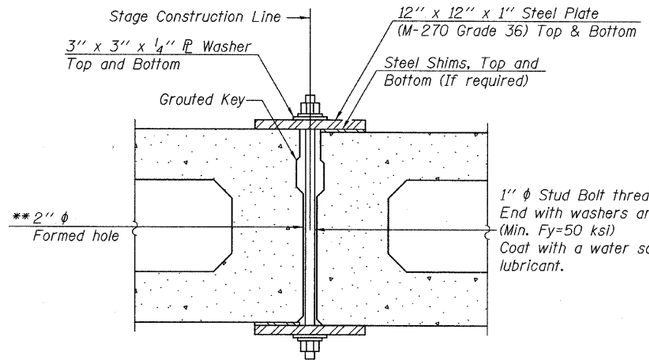


SECTION B-B
(Showing dimensions)

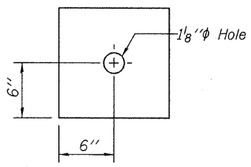


PLAN

*Space plates to miss Temporary Bridge Rail Posts.



SECTION

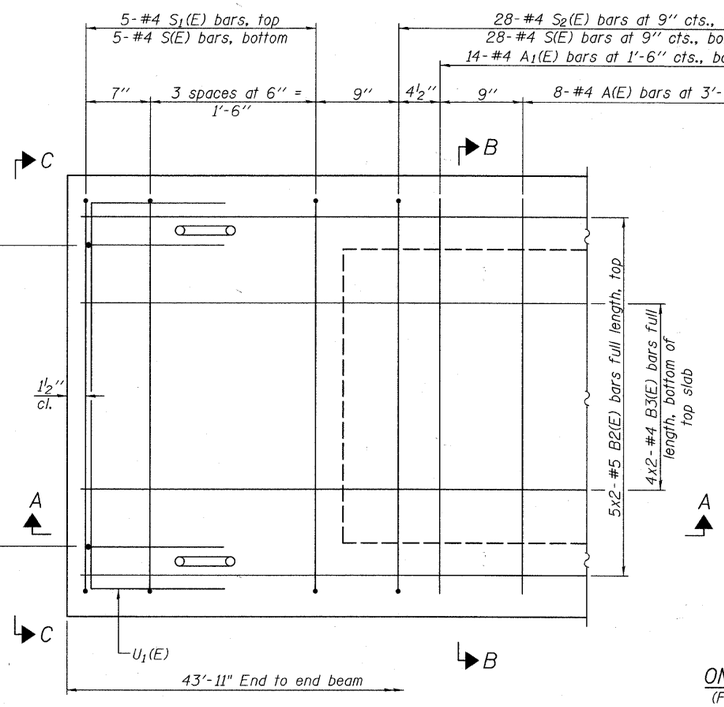


CLAMPING PLATE

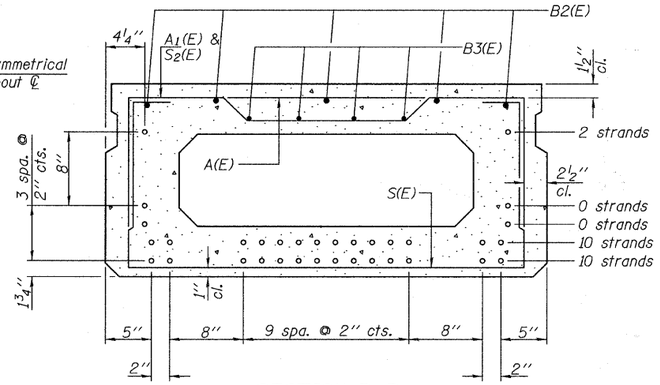
SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams.
See Stage Construction Details for traffic lanes.

** Cast semicircular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.

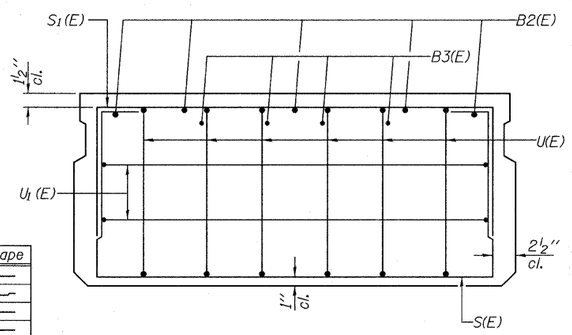


PLAN VIEW



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



VIEW C-C

BAR LIST
ONE BEAM ONLY
(For Information Only)

Bar	No.	Size	Length	Shape
A(E)	16	#4	3'-7"	—
$A_1(E)$	28	#4	3'-10"	⌇
B2(E)	10	#5	23'-9"	—
B3(E)	8	#4	23'-6"	—
S(E)	66	#4	7'-5"	⌴
$S_1(E)$	10	#4	5'-11"	⌐¬
$S_2(E)$	56	#4	6'-2"	⌐¬
U(E)	12	#5	4'-0"	⊏
$U_1(E)$	4	#4	6'-0"	⌐¬

Note: See sheet S-11 for additional details and Bill of Material.

MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

Note: Spacing of S(E) and $S_2(E)$ bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

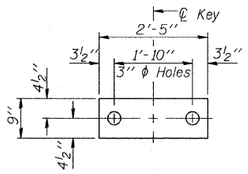
DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

SUPERSTRUCTURE
21"x48"-22SS PPC DECK BEAM-CENTER SPAN
STRUCTURE NO. 099-3322

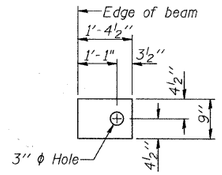
URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

SHEET NO. S-10	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	16
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



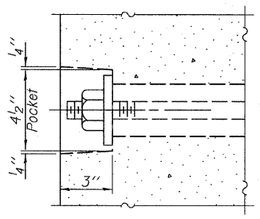
FABRIC BEARING PAD
(24-Interior)



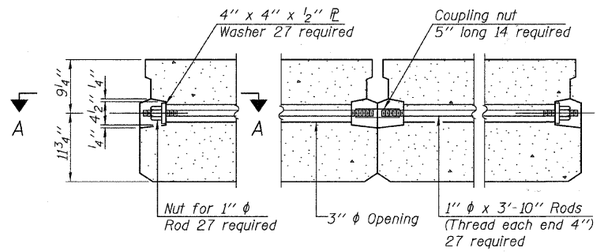
FABRIC BEARING PAD
(8-Exterior & Stage Construction Line)

FIXED

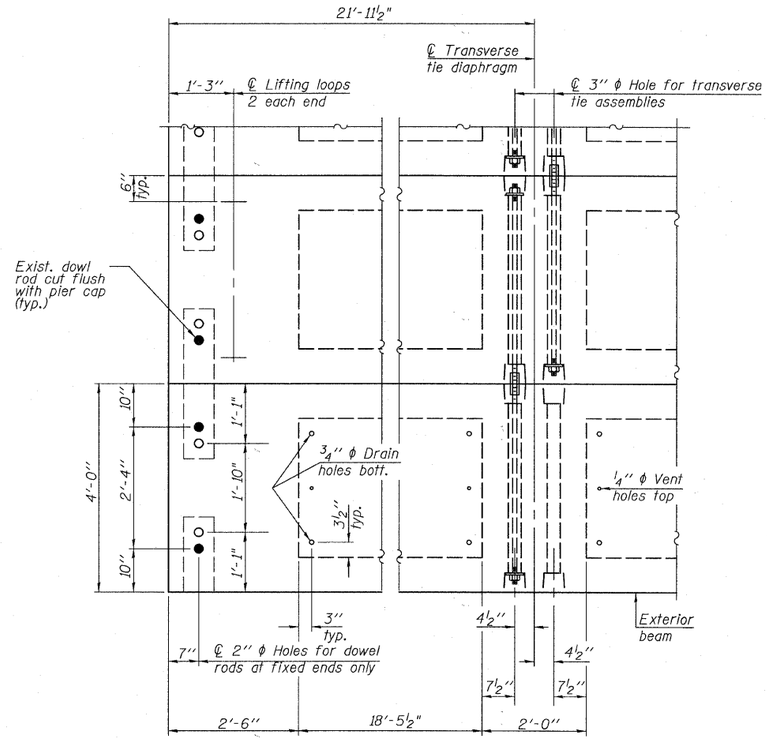
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.
Exterior Fabric Bearing Pad shall be used for the beams along the stage construction line.



SECTION A-A



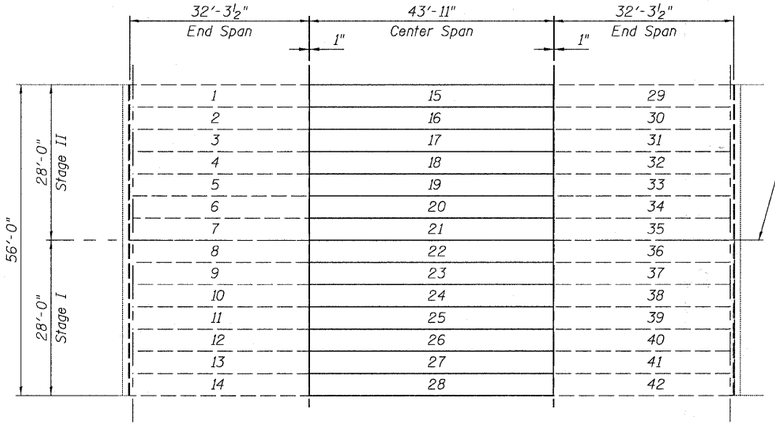
TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.

Verify existing 1"ϕ dowel spacing and existing dimensions in field prior to ordering 21"x48" PPC deck beams.



PLAN
(Showing Beam Numbers)

NOTES

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

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

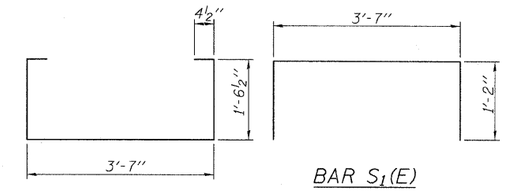
Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

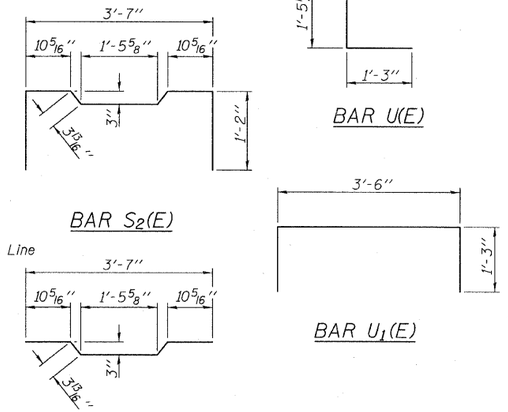
A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

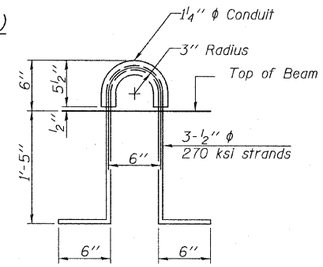
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.







LIFTING LOOP DETAIL

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

BILL OF MATERIAL

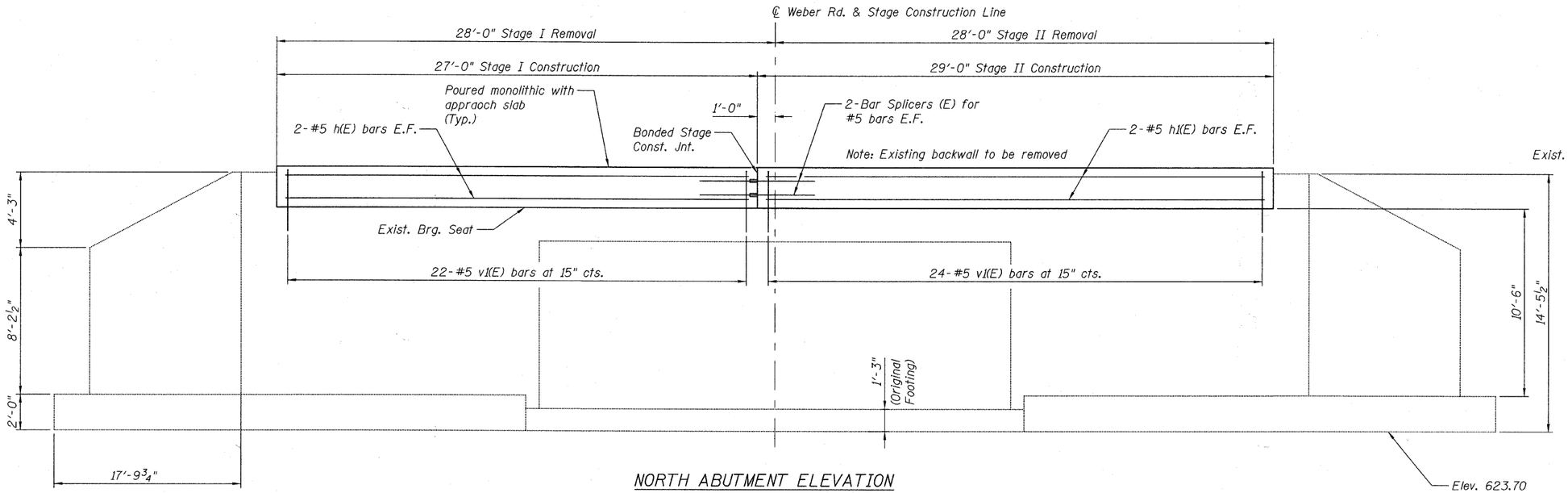
Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	2,459

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

SUPERSTRUCTURE DETAILS
21"x48"-22SS PPC DECK BEAM DETAILS-CENTER SPAN
STRUCTURE NO. 099-3322
BEAMS 15 THRU 28

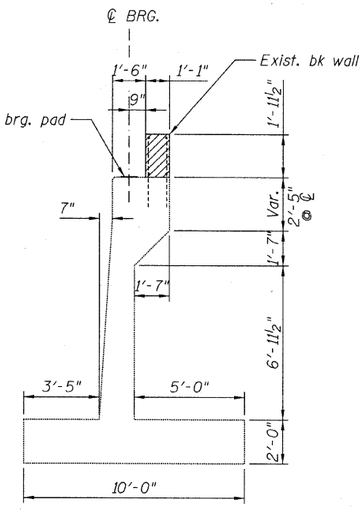
SHEET NO. S-11	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	17
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

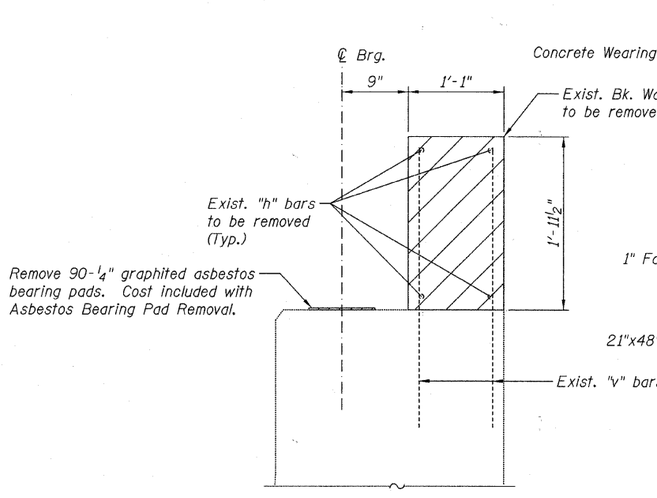


NORTH ABUTMENT ELEVATION

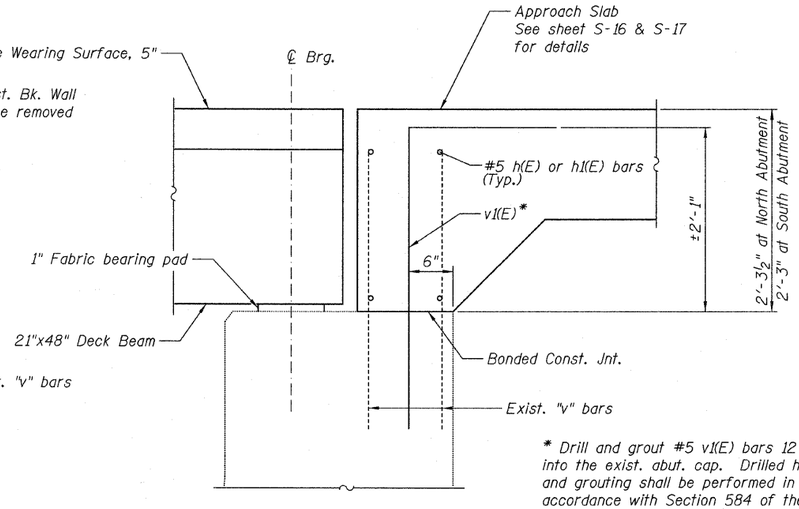
(Looking North-South Abutment Similar)



SECTION THRU EXIST. ABUTMENT



DETAIL THRU EXIST. ABUTMENT



* Drill and grout #5 v1(E) bars 12" min. into the exist. abut. cap. Drilled holes and grouting shall be performed in accordance with Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.

DETAIL THRU PROP. ABUTMENT

Note: Existing vertical reinforcement shown are to be cleaned and inocorporated into new construction.

NOTES:

Existing reinforcement bars that have been cut and/or damaged during repair operations shall be supplemented by new in kind reinforcing bars. New bars shall be lapped a minimum of 32 bar diameters to existing bars. A mechanical bar splicer shall be used when it is not feasible to provide the minimum bar lap. No welding of bars shall be performed. See Special Provisions.

Concrete Sealer shall be applied to each abutment cap according to Section 587 of the Standard Specifications.

All construction joints shall be bonded unless otherwise noted.

End of new deck beams shall be aligned at the abutment. Any variation in the length of the deck beams shall be placed at the pier.

Backfill required for the stage being constructed shall be placed behind the abutment after the new deck beams have been set, the backwall has been poured, and formwork removed. See Article 502.10 of the Standard Specifications.

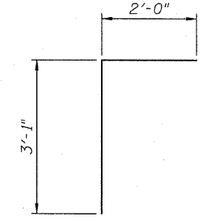
Existing bearing seat to be inspected by the Engineer after deck beam removal. Deteriorated concrete areas shall be repaired and cracks shall be sealed as required.

Structural Repair of Concrete and Epoxy Crack Injection locations and dimensions are estimated from survey work. Actual locations and dimensions shall be shown by the Engineer on the as-built plans for this section.

For bearing pad details see sheets S-9 and S-11.

TOTAL BILL OF MATERIAL-2 ABUTS.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	16	#5	26'-8"	——
h1(E)	16	#5	28'-8"	——
v1(E)	92	#5	5'-1"	⌐
Concrete Removal			Cu. Yd.	9.4
Reinforcement Bars, Epoxy Coated			Pound	1,410
Bar Splicers			Each	8
Asbestos Bearing Pad Removal			Each	60



BAR v1(E)

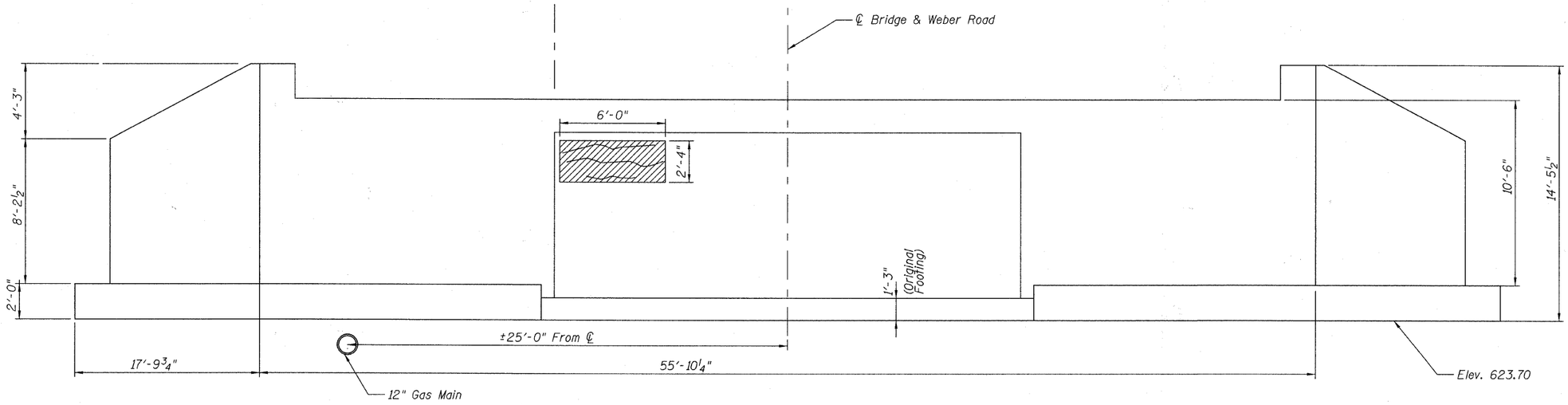
SUBSTRUCTURE REPAIRS & DETAILS
STRUCTURE NO. 099-3322

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

SHEET NO. S-12	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	18
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

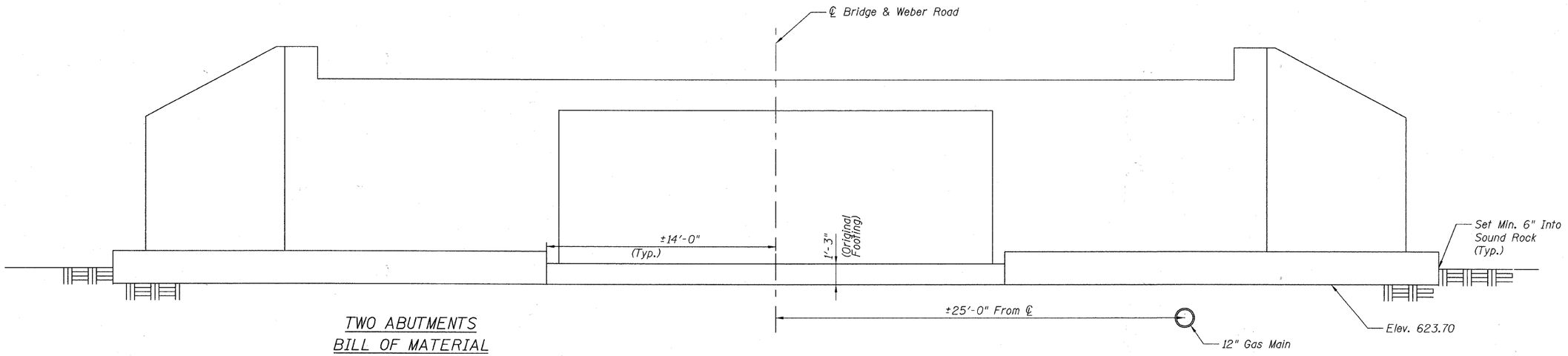
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SOUTH ABUTMENT
(Looking South)

LEGEND

Structural Repair of Concrete, Depth equal to or less than 5"



TWO ABUTMENTS
BILL OF MATERIAL

ITEM	UNIT	QTY
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	14

NORTH ABUTMENT
(Looking North)

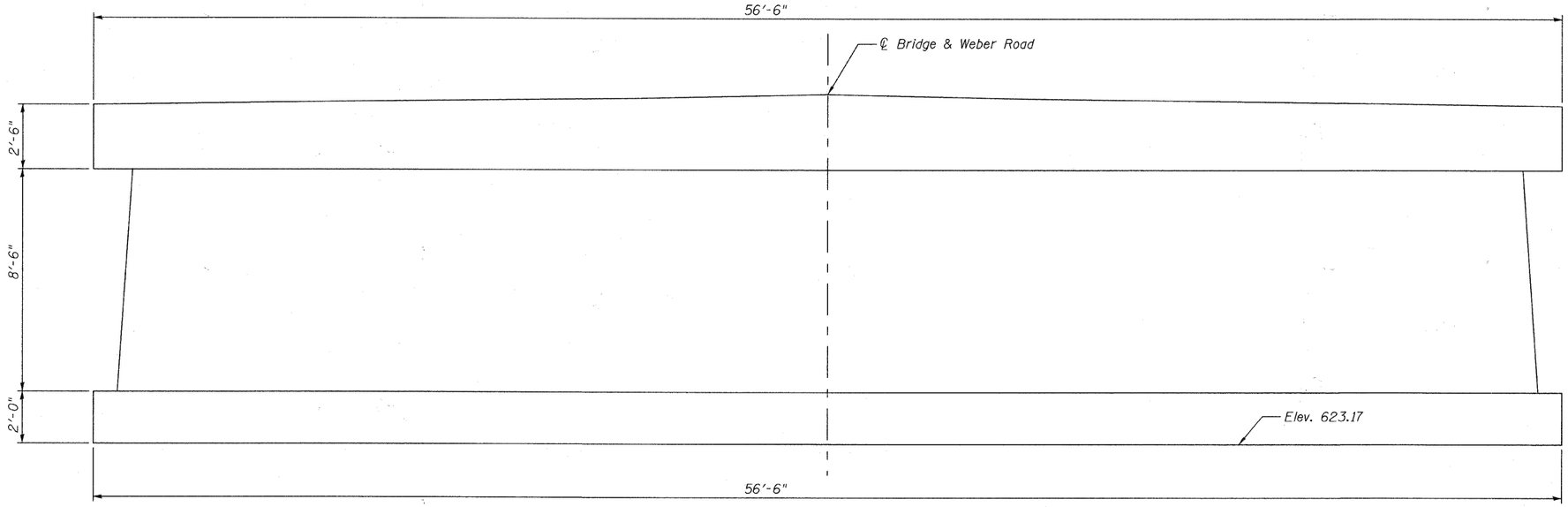
DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

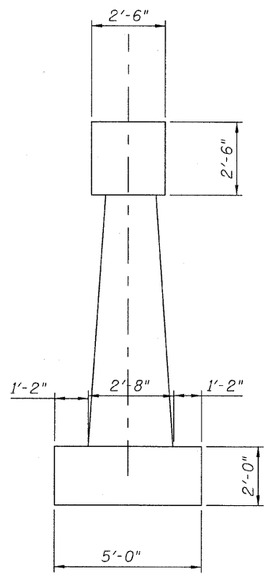
ABUTMENT REPAIRS & DETAILS
STRUCTURE NO. 099-3322

SHEET NO. S-13	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	19
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

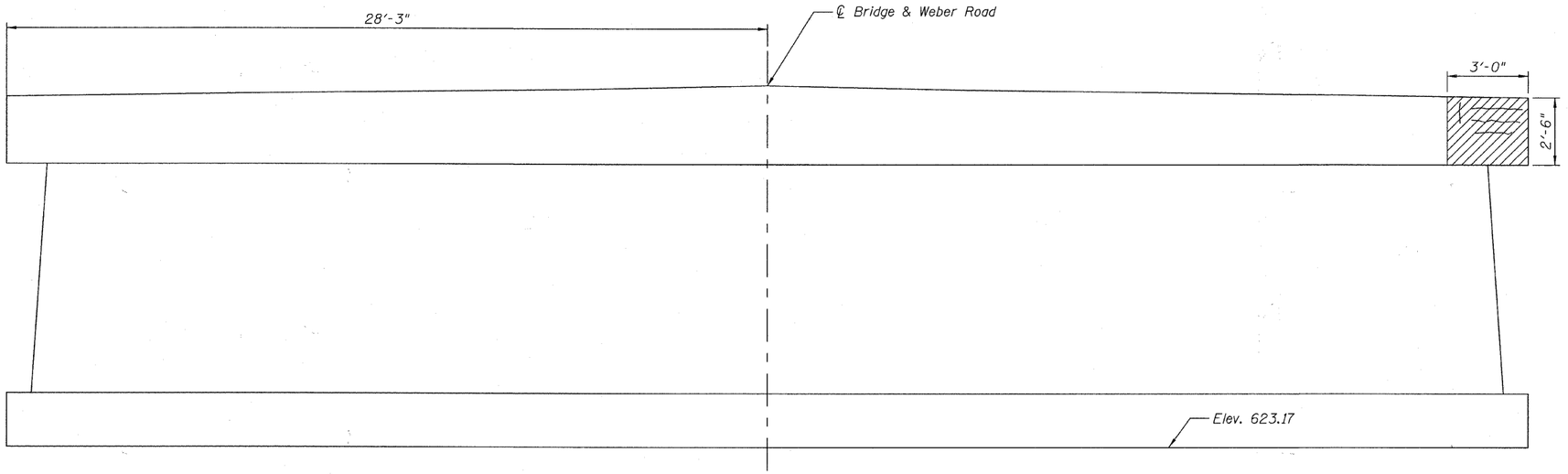
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



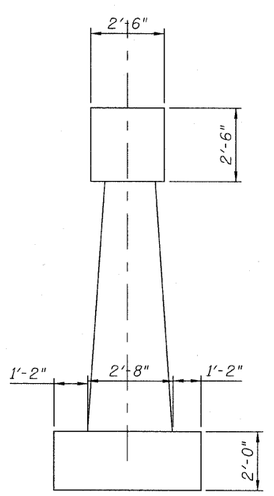
NORTH FACE
(Looking South)



SIDE VIEW



SOUTH FACE
(Looking North)



SIDE VIEW

PIER 1 REPAIRS & DETAILS
STRUCTURE NO. 099-3322

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

LEGEND

Structural Repair of Concrete
Depth equal to or less than 5"

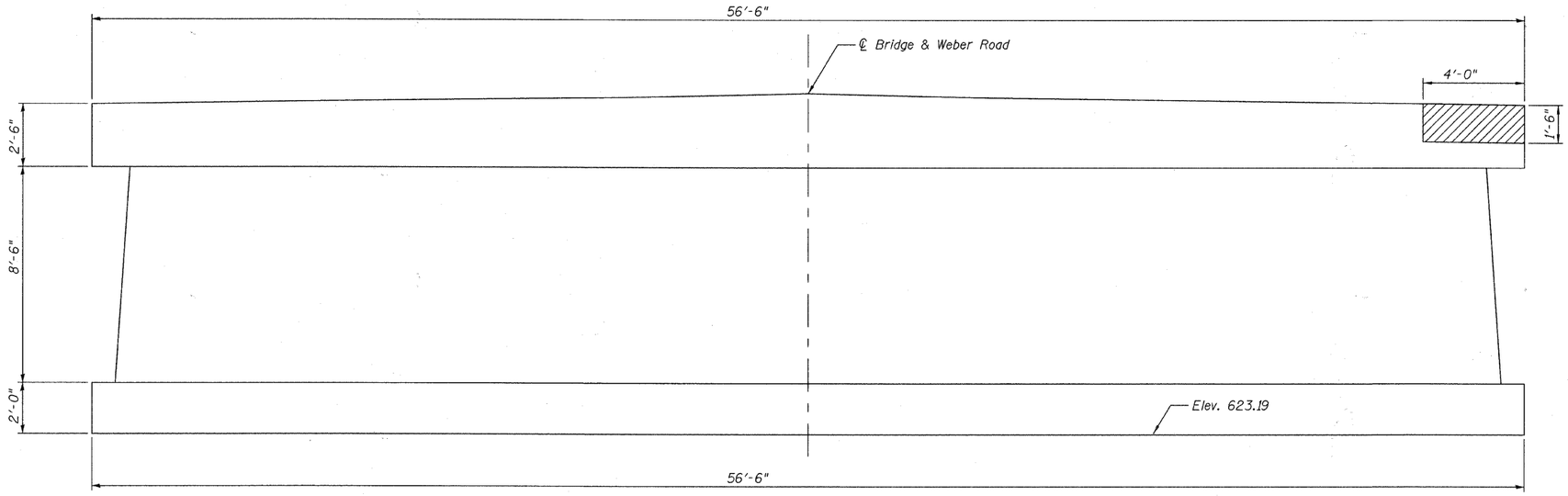
BILL OF MATERIAL - PIER 1

ITEM	UNIT	QTY
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	7.5

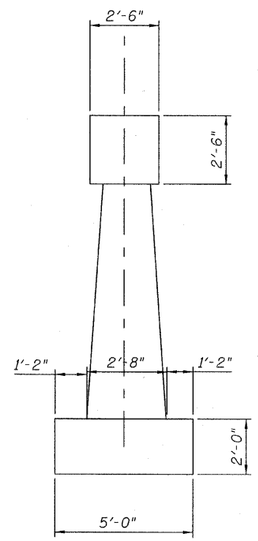
URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

SHEET NO. S-14	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	20
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

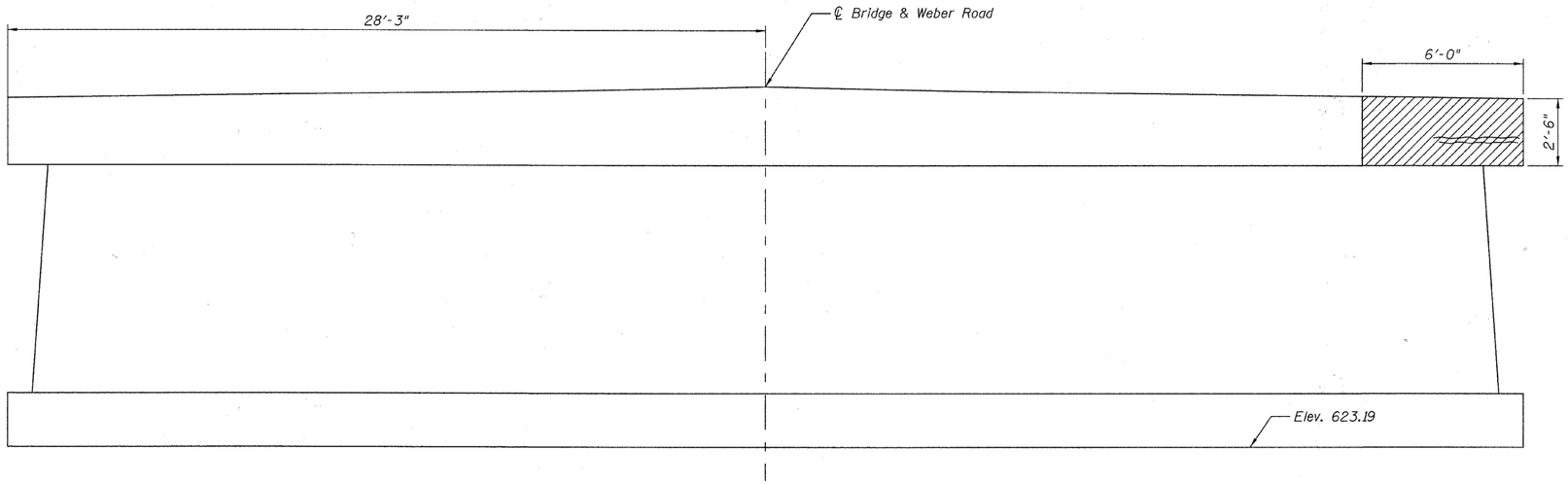
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



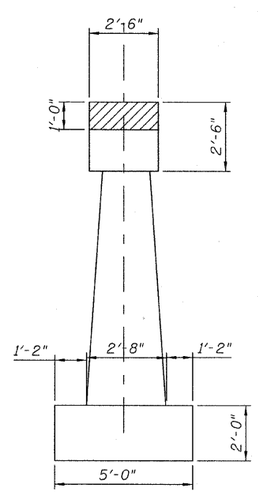
NORTH FACE
(Looking South)



EAST FACE
(Looking West)



SOUTH FACE
(Looking North)



WEST FACE
(Looking East)

LEGEND

Concrete Delamination

BILL OF MATERIAL - PIER 2

ITEM	UNIT	QTY
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.	23.5

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

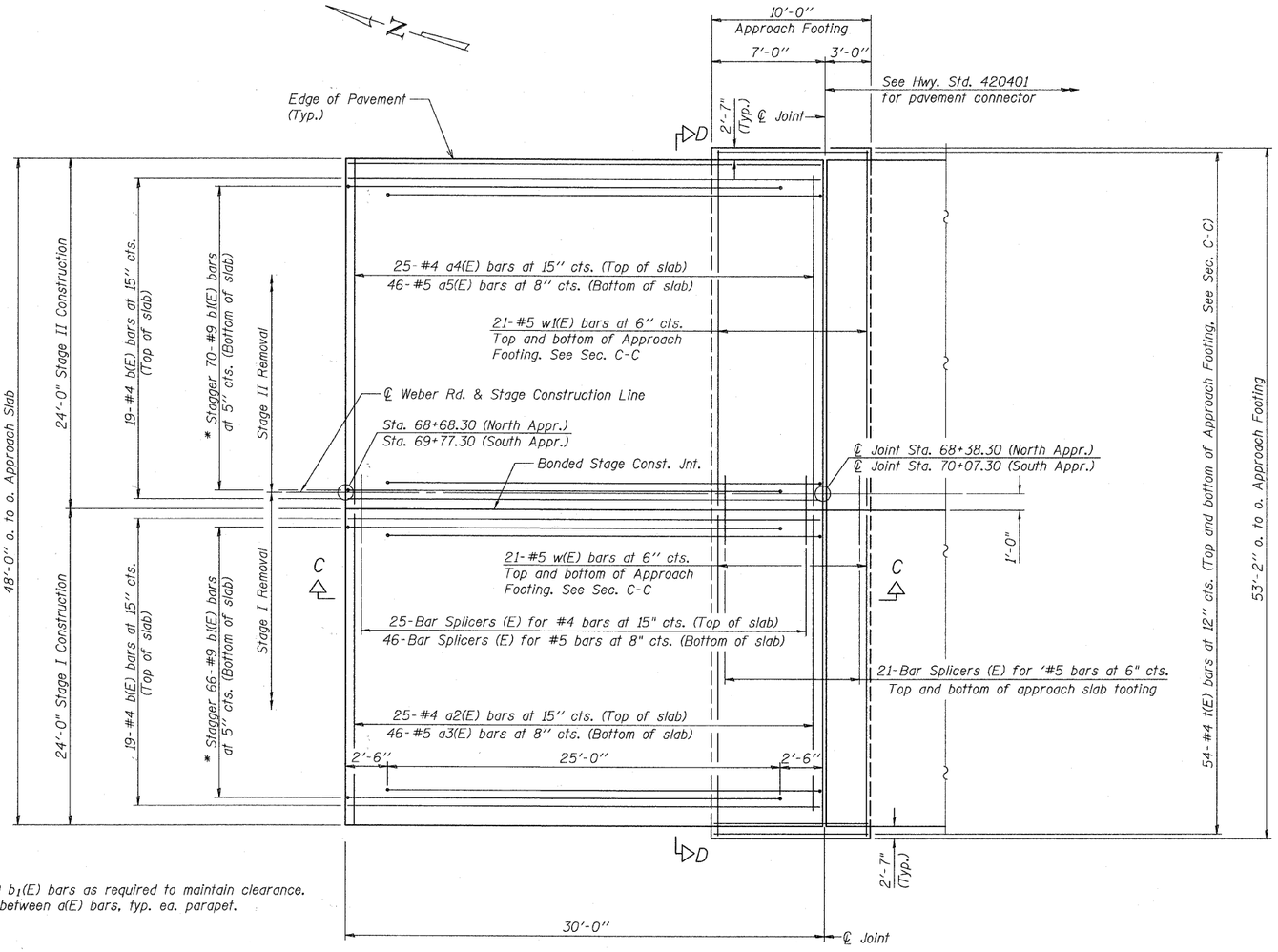
URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

PIER 2 REPAIRS & DETAILS
STRUCTURE NO. 099-3322

SHEET NO. S-15	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	21
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

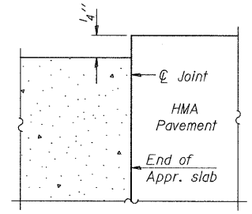
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet S-17 for Sections C-C & D-D.
a(E) and a_1(E) bar spacings measured along ℄ Rdwy.



* Tilt #9 b_1(E) bars as required to maintain clearance.
** Space between a(E) bars, typ. ea. parapet.

PLAN
(South Approach Shown - North Approach Opposite Hand)



FLEXIBLE PAVEMENT

DETAIL A

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

MINIMUM BAR LAP
#4 bar = 2'-0"
#5 bar = 2'-6"

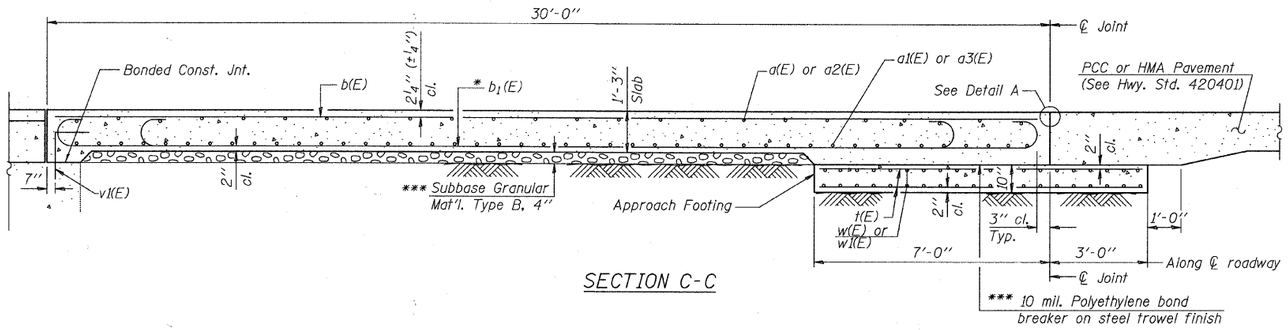
URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

(Sheet 1 of 2)

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 099-3322

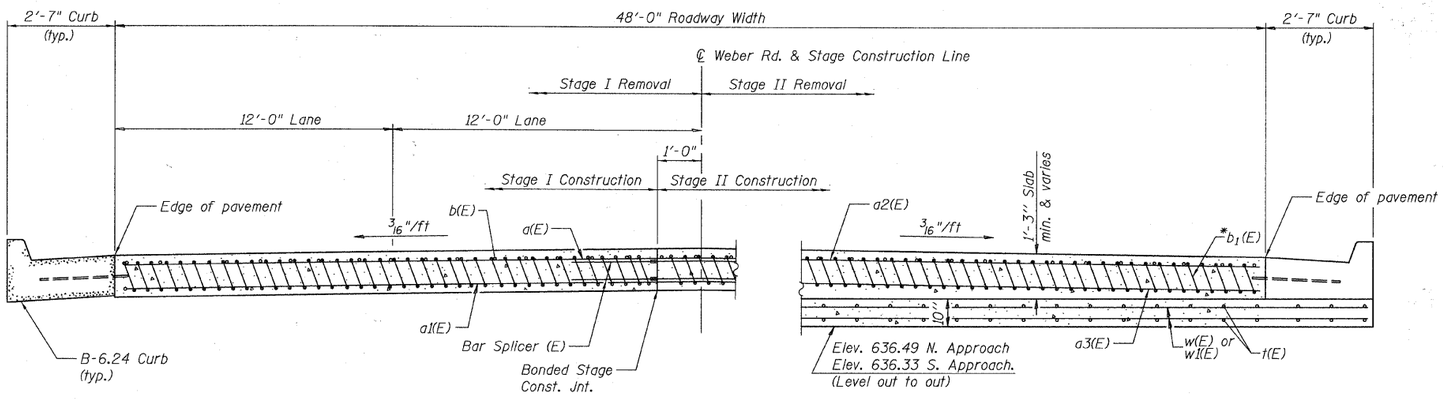
SHEET NO. S-16	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	22
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION C-C

Notes:
See sheet S-17 for Detail A.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v1(E) bar details, see sheet S-12.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet S-18.
Cost of excavation for approach footing included with Concrete Structures.



NEAR ABUTMENT

AT APPROACH FOOTING

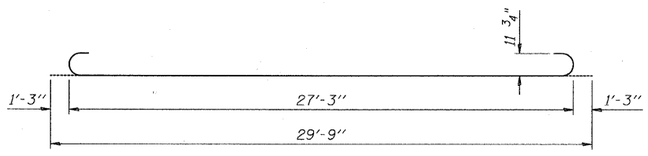
SECTION D-D
(See Plan for dimensions not shown)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	50	#4	24'-8"	——
a3(E)	92	#5	24'-8"	——
a4(E)	50	#4	22'-8"	——
a5(E)	92	#5	22'-8"	——
b(E)	92	#4	29'-8"	——
b1(E)	272	#9	29'-9"	⊂⊃
t(E)	240	#4	9'-8"	——
w(E)	84	#5	28'-3"	——
w1(E)	84	#5	30'-3"	——
Protective Coat			Sq. Yd.	320
Concrete Superstructure			Cu. Yd.	139.1
Concrete Structures			Cu. Yd.	32.9
Bridge Deck Grooving			Sq. Yd.	320
Reinforcement Bars, Epoxy Coated			Pound	42,140
Bar Splicers			Each	226

* Tilt #9 $b_1(E)$ bars as required to maintain clearance.

*** Cost included with Concrete Superstructure.



BAR $b_1(E)$

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

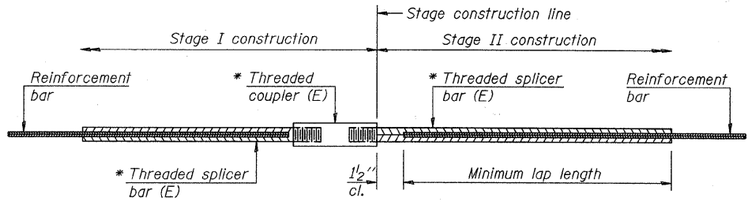
URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

(Sheet 2 of 2)

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 099-3322

SHEET NO. S-17	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	23
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

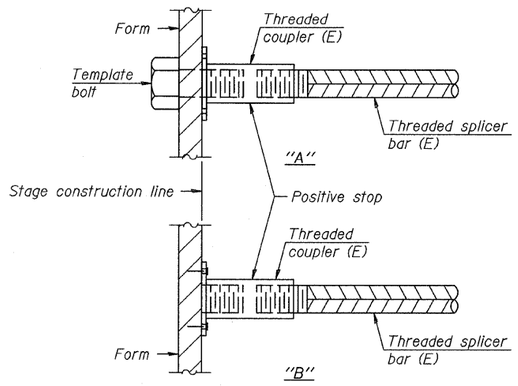
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

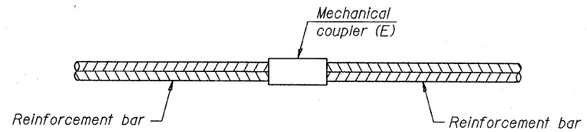
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Wearing Surface	#4	110	4
Approach Slab, Top	#4	50	4
Approach Slab, Bot.	#5	92	4
Approach Slab, Ftg.	#5	84	4
Abutment Bk. Walls	#5	8	4



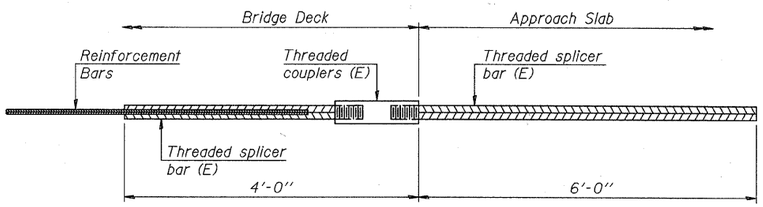
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



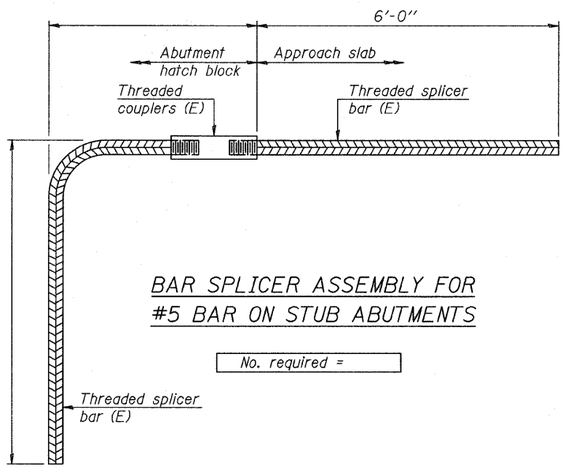
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

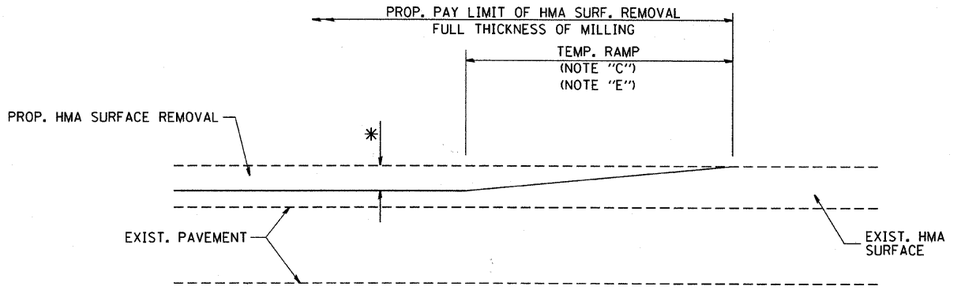
Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 099-3322

DESIGNED	L. LAWS
CHECKED	J.P.B.
DRAWN	L. LAWS
CHECKED	J.P.B.

URS
100 South Wacker Drive, Suite 500
Chicago, IL 60606
Tel: 312.939.1000
Fax: 312.939.4198

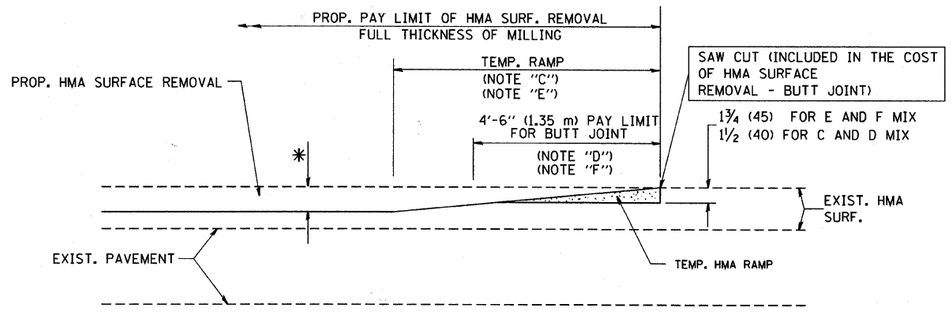
SHEET NO. S-18	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
18 SHEETS	0856	08-00050-00-BR	WILL	26	24
			CONTRACT NO. 63576		
	FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

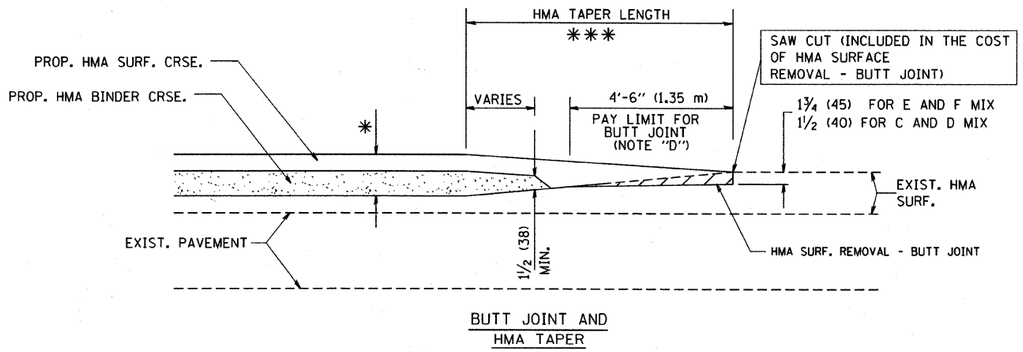


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

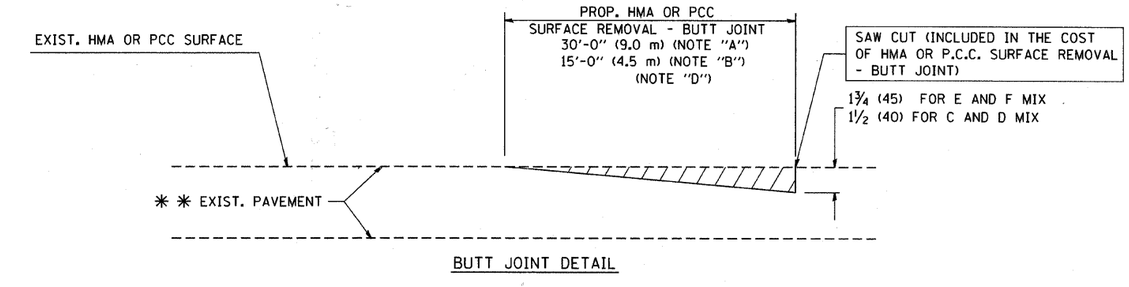
OPTION 2

TYPICAL TEMPORARY RAMP

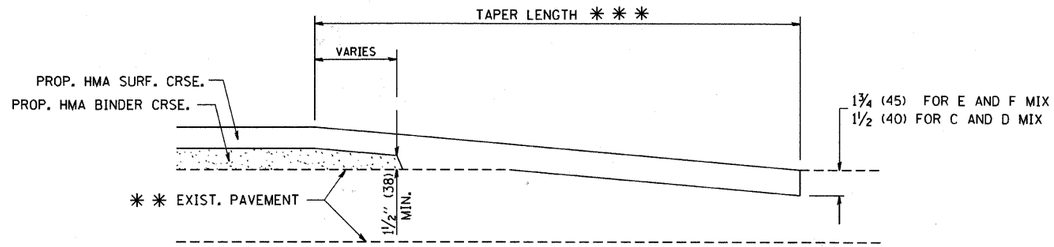


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

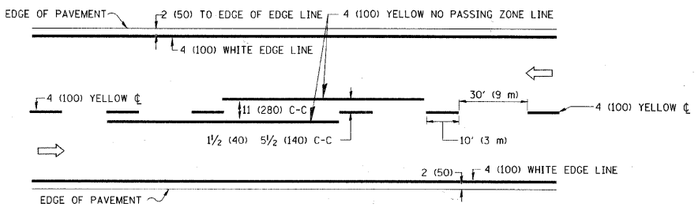
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglionobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

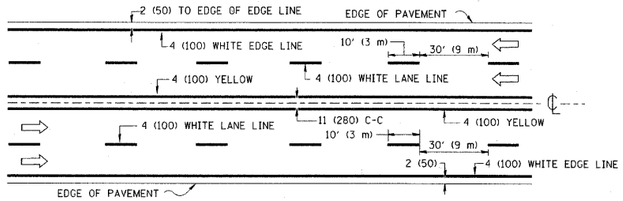
BUTT JOINT AND HMA TAPER DETAILS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

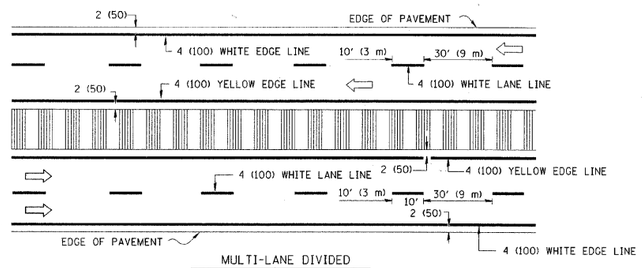
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	25
	BD400-05 BD32	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



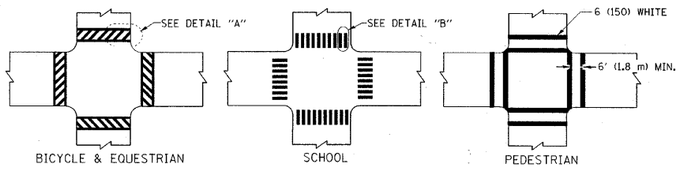
MULTI-LANE UNDIVIDED

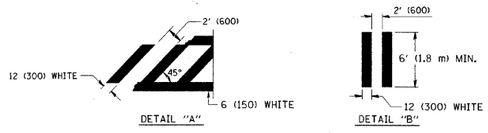


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

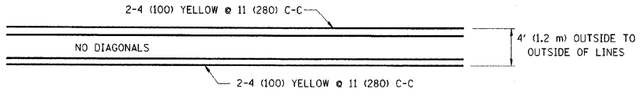
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

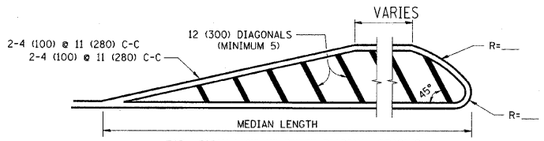




TYPICAL CROSSWALK MARKING



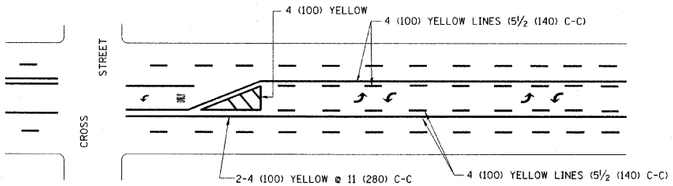
4' (1.2 m) WIDE MEDIANS ONLY



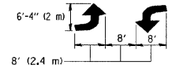
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

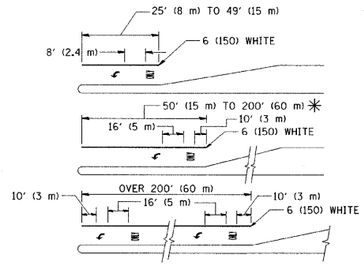


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

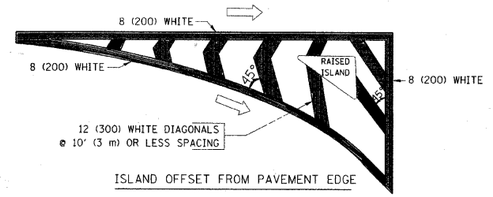


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m²) **ONLY** AREA = 20.8 SQ. FT. (1.9 m²)

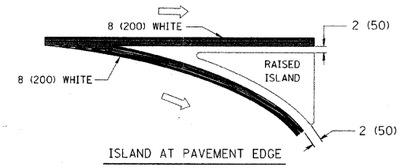
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⌀ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⌀ 6 (150) 12 (300) ⌀ 45° 12 (300) ⌀ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⌀ 4 (100) WITH 12 (300) DIAGONALS ⌀ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⌀ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) ⌀ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = c:\pw_work\pwidot\drivakosgn\d0108315\tc13.dgn	USER NAME = drivakosgn	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0856	08-00050-00-BR	WILL	26	26
	TC-13	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		