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VERSION AVAILABLE

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SHEETS**

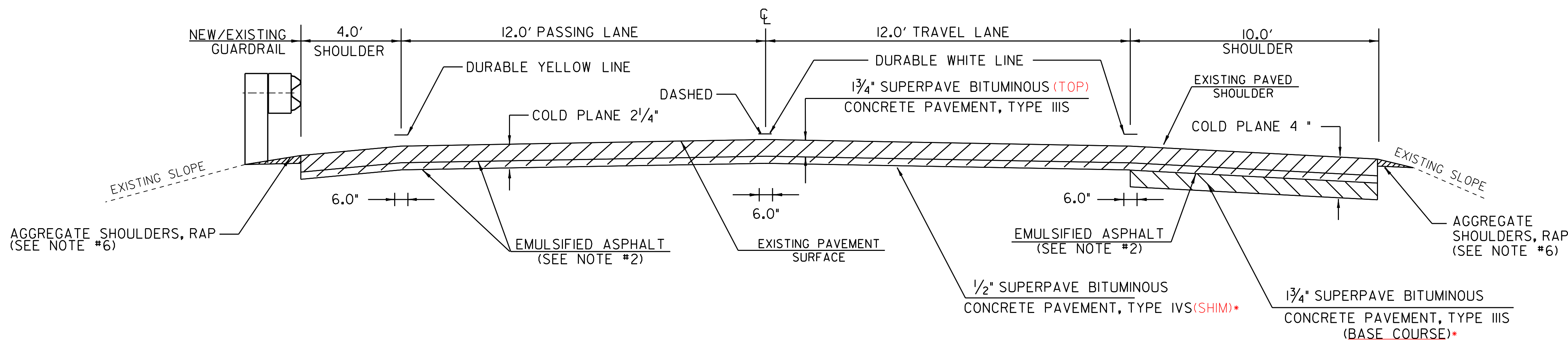
PROJECT NAME: SPRINGFIELD - WINDSOR
PROJECT NUMBER: IM 091-1(55)

FILE NAME: 06A194.dgn
PROJECT LEADER: LFW
DESIGNED BY: LFW
PLOT FILE: 06A194ind.i

PLOT DATE: 28-OCT-2011 4:01
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CHECKED BY: LFW
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GENERAL NOTES

1. THE PAVEMENT WEARING COURSE SHALL BE TYPE IIIS ON THE ROADWAY SURFACES AND TYPE IVS ON THE BRIDGE SURFACES, ITEM 490.30 AS SHOWN ON THE TYPICALS, UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. ALL LIQUID ASPHALT USED IN BITUMINOUS CONCRETE PAVEMENT SHALL BE PG 64-28. THE LEVELING COURSE SHALL BE TYPE IVS.
2. EMULSIFIED ASPHALT SHALL BE APPLIED ON ALL EXISTING PAVEMENT SURFACES, COLD PLANED SURFACES AND BETWEEN ALL COURSES OF PAVEMENT AT THE RATE OF 0.025 GAL/SY OR AS DIRECTED BY THE RESIDENT ENGINEER.
3. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = 1/4" ± (TOTAL THICKNESS EXCLUDING LEVELING COURSE).
4. COLD PLANING SHALL BE COMPLETED ACCORDING TO THE TYPICALS OR AS DENOTED OTHERWISE ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE PROJECT BEGIN/END AND AT ALL RAMP APPROACHES AS SHOWN ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER. ALL BUTT JOINTS SHALL BE SAW CUT, INCIDENTAL TO ITEM 210.10.
5. ESTIMATED QUANTITIES OF ITEM 608.25, ALL PURPOSE EXCAVATOR RENTAL, TYPE I AND 608.37, TRUCK RENTAL HAVE BEEN INCLUDED FOR THE PROVISION OF CONSTRUCTING GUARDRAIL FLARES. QUANTITIES OF EARTH BORROW AND AGGREGATE SHOULDERS, RAP HAVE ALSO BEEN INCLUDED FOR CONSTRUCTING AND RESHAPING THE MANUFACTURED TERMINAL SECTION FLARES WHICH SHALL BE CAPPED WITH AN ESTIMATED 3" DEPTH OF AGGREGATE SHOULDERS, RAP AS DIRECTED BY THE RESIDENT ENGINEER. THE QUANTITIES INCLUDED REFLECT 5 TONS OF AGGREGATE SHOULDERS, RAP AND 10 CUBIC YARDS OF EARTH BORROW FOR EACH GUARDRAIL TERMINAL.
6. ALL EDGES OF PAVEMENT, AND CURB AT GUARDRAIL SHALL BE BACKED UP FULL HEIGHT WITH COLD PLANE GRINDINGS AS DIRECTED BY THE RESIDENT ENGINEER AND WILL BE PAID FOR UNDER ITEM 402.13, AGGREGATE SHOULDERS, RAP.
7. ITEM 616.47, BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS WILL BE PAID ONLY WHERE SPECIFIED IN THE PLANS. ALL OTHER BITUMINOUS CONCRETE PAVEMENT WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR ITEM 490.30, SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.
8. COMPACTION, GRADING AND CLEAN UP FOR ITEM 402.13, AGGREGATE SHOULDERS, RAP AND ITEM 651.35, TOPSOIL IS TO BE INCLUDED IN THE CONTRACT UNIT PRICE OF EACH ITEM.
9. AREAS ADJACENT TO THE SHOULDER WHERE EXISTING GUARDRAIL IS BEING RETAINED THAT HAVE BUILT-UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 203.40, SHOULDER BERM REMOVAL. THE ESTIMATED QUANTITY INCLUDED WITH THIS PROJECT REPRESENTS 60% OF THE LENGTH OF RAIL BEING RETAINED.
10. AREAS ADJACENT TO THE SHOULDER THAT HAVE BUILT-UP EXCESS MATERIAL ARE TO BE GRADED IN ORDER TO ALLOW THE SHOULDER TO DRAIN AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 608.15, POWER GRADER RENTAL.
11. ALL DELINEATORS WITHIN THE PROJECT AREA ARE TO BE REPLACED AS DIRECTED BY THE RESIDENT ENGINEER. PAYMENT WILL BE MADE UNDER ITEM 676.10, DELINEATOR WITH STEEL POST.
12. AN ESTIMATED QUANTITY OF ITEM 619.17, YIELDING MARKER POSTS HAS BEEN INCLUDED TO DELINEATE CULVERT ENDS AND DROP INLETS LOCATED OUTSIDE OF THE PAVEMENT SURFACE OR AS DIRECTED BY THE RESIDENT ENGINEER.
13. THE CONTRACTOR SHALL MAINTAIN COLD PLANE AND PAVING DEPTHS THAT DO NOT REDUCE THE CLEARANCE HEIGHTS OF THE ROADWAY OR SHOULDERS UNDER THE OVERPASS BRIDGES (BR 29-4, BR 31 AND BR 32). THESE HEIGHTS SHALL BE RECORDED BY THE RESIDENT ENGINEER PRIOR TO THE START OF CONSTRUCTION AND SHALL BE REMEASURED AFTER PAVING OPERATIONS ARE COMPLETE. IF IT IS DETERMINED THAT A REDUCTION IN CLEAR HEIGHT HAS OCCURRED, THE CONTRACTOR SHALL RE-ESTABLISH THE ORIGINAL CLEAR HEIGHT AT NO ADDITIONAL EXPENSE TO THE STATE.
14. THE CLEANING OF CULVERT INLETS AND OUTLETS AND DITCH CLEANING THROUGHOUT THE PROJECT SHALL BE PERFORMED AS DIRECTED BY THE RESIDENT ENGINEER. ESTIMATED QUANTITIES OF ITEM 608.25 - ALL PURPOSE EXCAVATOR RENTAL, TYPE I, ITEM 608.37 - TRUCK RENTAL, ITEM 613.10 - STONE FILL, TYPE I, ITEM 649.31 - GEOTEXTILE UNDER STONE FILL AND ITEM 653.20 - TEMPORARY EROSION MATTING HAVE BEEN INCLUDED FOR THIS PURPOSE.
15. AN ESTIMATED QUANTITY OF ITEMS 604.415, REHAB DROP INLETS, CATCH BASINS OR MANHOLES, CLASS II AND 604.418, REHAB DROP INLETS, CATCH BASINS OR MANHOLES, CLASS III HAVE BEEN INCLUDED FOR USE AS DIRECTED BY THE RESIDENT ENGINEER.
16. ESTIMATED QUANTITIES OF ITEM 900.620, SPECIAL PROVISION (STEEL BEAM GUARDRAIL OFFSET BLOCK) AND 900.620, SPECIAL PROVISION (STEEL BEAM GUARDRAIL DELINEATOR) HAVE BEEN INCLUDED FOR USE AS DIRECTED BY THE RESIDENT ENGINEER.



MAINLINE TYPICAL SECTION

NB MM STATIONS 44.900 TO 57.414

NOTE: IF THE CONTRACTOR ELECTS TO COLD PLANE THE 10' SHOULDER PRIOR TO COLD PLANING THE ADJACENT TRAVEL LANE THE 1 3/4" BASE COURSE SHALL BE PAVED THE SAME WORKDAY.

IF THE CONTRACTOR CHOOSES TO COLD PLANE THE 4" DEPTH ON THE 10' SHOULDER IN TWO PASSES, PAYMENT FOR COLD PLANING WILL ONLY BE MADE FOR THE FIRST PASS.

**PROJECT PAVING LIMITS
(REFER TO COLD PLANE TRANSITION DETAILS ON SHEETS 4 AND 5)**

TOWN	BEGIN NB MM STA.	END NB MM STA.	LANE TYPICAL	WEARING DEPTH	PAVEMENT TYPE	NOTES
INTERSTATE 91 SPRINGFIELD	44.900	46.820	4.0-12.0-12.0-10.0	1 3/4"	IIIS	COLD PLANE 2 1/4", LEVEL AND OVERLAY 1 3/4" COLD PLANE 10' SHLD. 4", 1 3/4" BASE COURSE, LEVEL AND OVERLAY 1 3/4"
WEATHERSFIELD	46.820	53.444	4.0-12.0-12.0-10.0	1 3/4"	IIIS	COLD PLANE 2 1/4", LEVEL AND OVERLAY 1 3/4" COLD PLANE 10' SHLD. 4", 1 3/4" BASE COURSE, LEVEL AND OVERLAY 1 3/4"
WINDSOR	53.444	57.414	4.0-12.0-12.0-10.0	1 3/4"	IIIS	COLD PLANE 2 1/4", LEVEL AND OVERLAY 1 3/4" COLD PLANE 10' SHLD. 4", 1 3/4" BASE COURSE, LEVEL AND OVERLAY 1 3/4"
EXIT # 8 RAMPS						
	RAMP C		VARIES - SEE DETAILS	1 3/4"	IIIS	COLD PLANE 2 1/4", LEVEL AND OVERLAY 1 3/4"
	RAMP D		VARIES - SEE DETAILS	1 3/4"	IIIS	COLD PLANE 2 1/4", LEVEL AND OVERLAY 1 3/4"

SEEDING FORMULA - RURAL AREAS

% WT.	LBS./A.	NAME	PUR %	GERM %
37.5	22.5	CREEPING RED FESCUE	98	85
37.5	22.5	TALL FESCUE	95	90
5.0	3.0	RED TOP	95	90
15.0	9.0	BIRDSFOOT TREFOIL	98	85
5.0	3.0	ANNUAL RYEGRASS	95	85
100.0	60.0			

SEED MIXTURE: SHALL NOT HAVE WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE RESIDENT ENGINEER.

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.

HAY MULCH: TO BE PLACED ON THE EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.

TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER.

*TABLE OF MINOR/MAJOR FAILURES (AIR VOIDS)							
DATE PAVED	MM START	MM END	COURSE	LOCATION	AIR VOID(PF)	DESCRIPTION OF FAILURES	
5/14/08	44.920	47.160	BASE	10' RT SHOULDER	99.1	2 OUR OF 4 TESTS, THE %VFA @ N(DESIGN) IS HIGHER THAN HIGH LIMIT	
5/16/08	47.160	50.180	BASE	10' RT SHOULDER	96	TEST SW05A %VMA @ N(DESIGN) IS GREATER THAN HIGH LIMIT, %AV @ N(DESIGN) IS 5.2% LIMIT, TEST SW06A % VMA @ N(DESIGN) IS GREATER THAN HIGH LIMIT TEST SW07A %VMA @ N(DESIGN) IS GREATER THAN HIGH LIMIT	
5/28/08	55.020	57.420	BASE	10' RT SHOULDER	99.9	TEST SW20A % VFA @ N(DESIGN) IS LESS THAN LOWER LIMIT	
6/2/08	51.270 51.840	51.550 57.350	SHIM	EXIT 8 ON RAMP & 10' RT SHOULDER	91.2	TEST SW23L % VMA @ N(DESIGN) IS LESS THAN LOWER LIMIT TEST SW24L % VMA @ N(DESIGN) IS LESS THAN LOWER LIMIT % VFA @ N(DESIGN) IS GREATER THAN HIGH LIMIT % AV @ N(DESIGN) IS BELOW TOLERANCE LIMIT	
7/21/08	50.60	51.060	TOP	10' RT SHOULDER	96.3	TEST SW36T, THE % VMA @ N(DESIGN) BELOW LOWER LIMIT	
7/22/08	51.060	54.050	TOP	10' RT SHOULDER	96.3	COMBINED W/ 7/21/08 FAILING TEST.	
8/12/08	EXIT 8	EXIT 8	TOP	ON/OFF RAMPS	96.3	STATISTICAL VARIATION	
8/21/08	57.133	57.355	TOP	12' TRAVEL LANE	79.9	TEST SW79T %VMA @ N(DESIGN) IS LESS THAN LOWER LIMIT %VFA @ N(DESIGN) IS HIGHER THAN HIGH LIMIT %AV @ N(DESIGN) BELOW LOW LIMIT TOLERANCE	
8/21/08	57.067	57.353	TOP	4' LT SHOULDER & PASS LANE	79.9	TEST SW80T % VMA @ N(DESIGN) IS LESS THAN LOWER LIMIT	

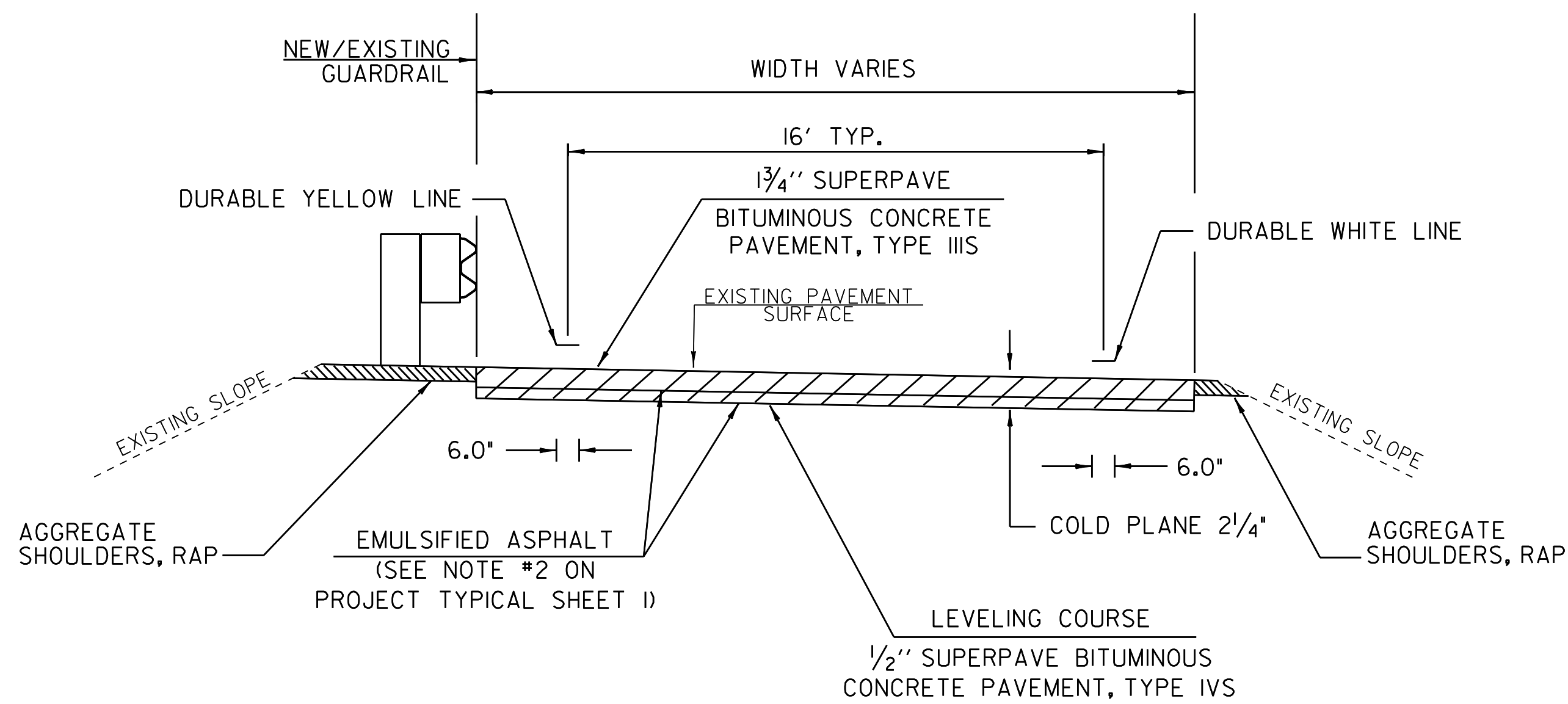
**PROJECT
TYPICAL
SHEET 1**

PROJECT NAME: SPRINGFIELD - WINDSOR
PROJECT NUMBER: IM 091-I(55)

FILE NAME: 06A194.dgn
PROJECT LEADER: LFW
DESIGNED BY: LFW
PLOT FILE: 06A194+yp1.i

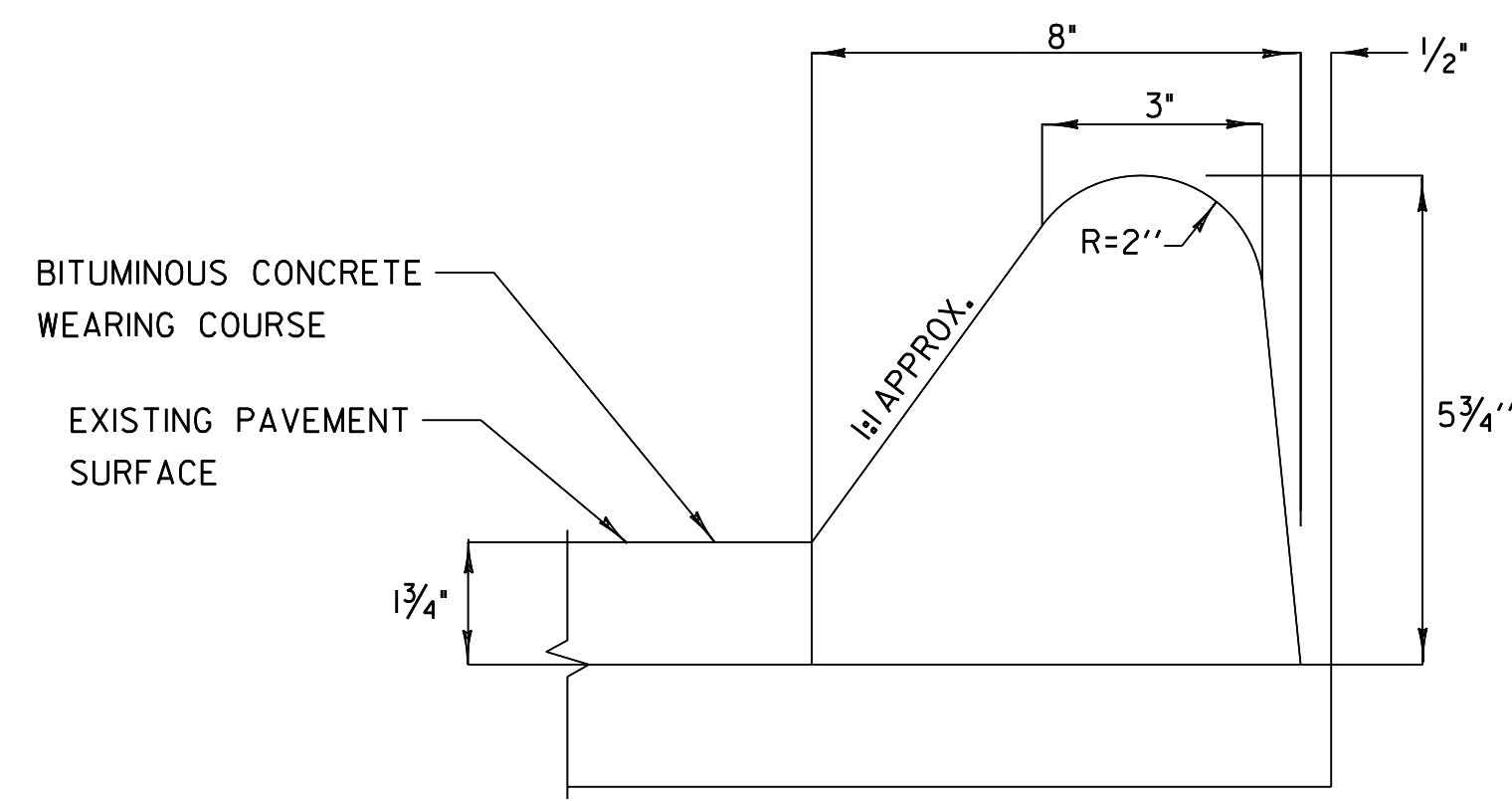
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SHEET 3 OF 36

NOT TO SCALE



RAMP PAVEMENT TYPICAL

EXIT 8 OFF RAMP C - SEE SHEET # 14
 EXIT 8 ON RAMP D - SEE SHEET # 14



DETAIL FOR BITUMINOUS CONCRETE CURB, TYPE A

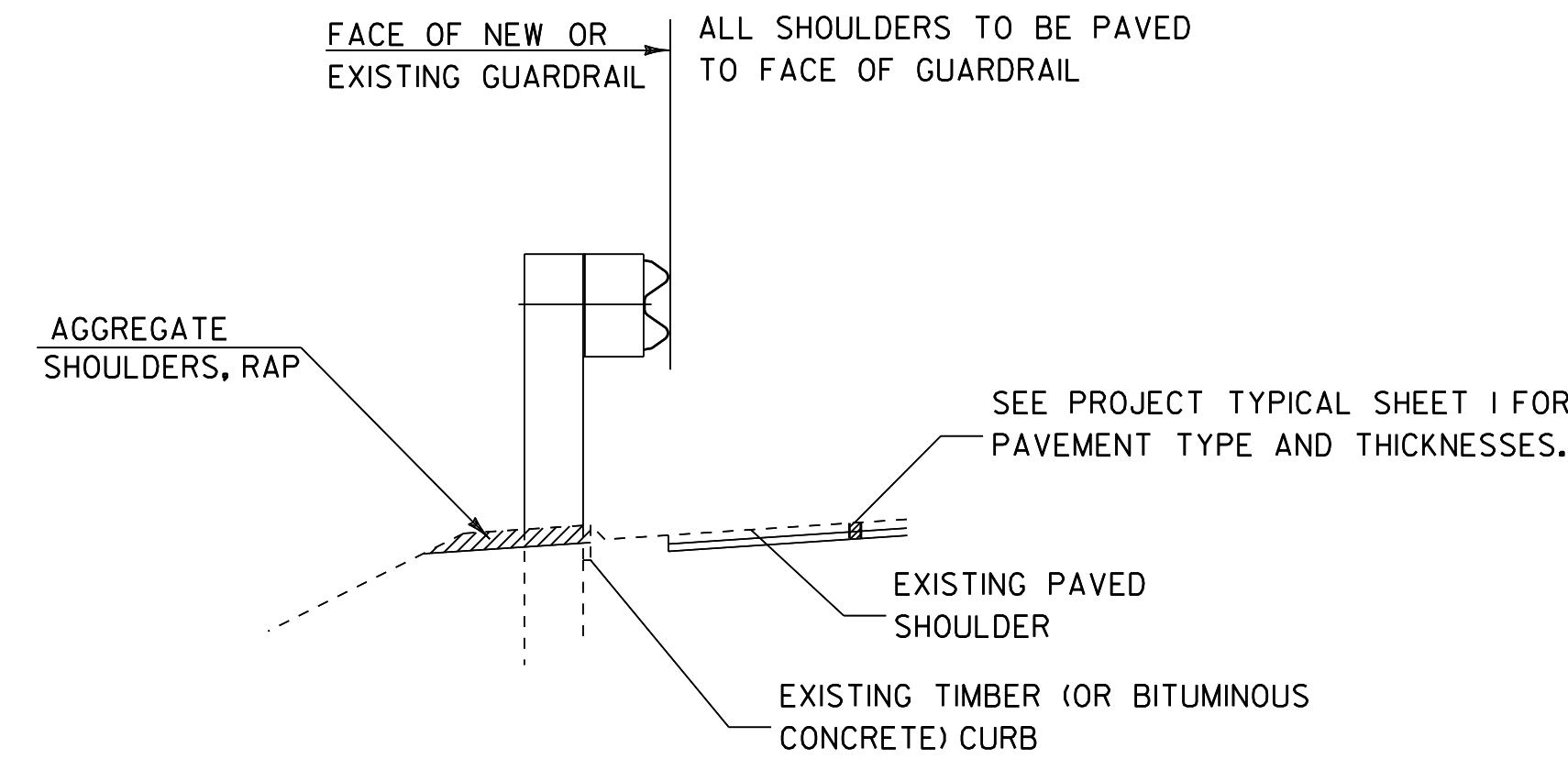
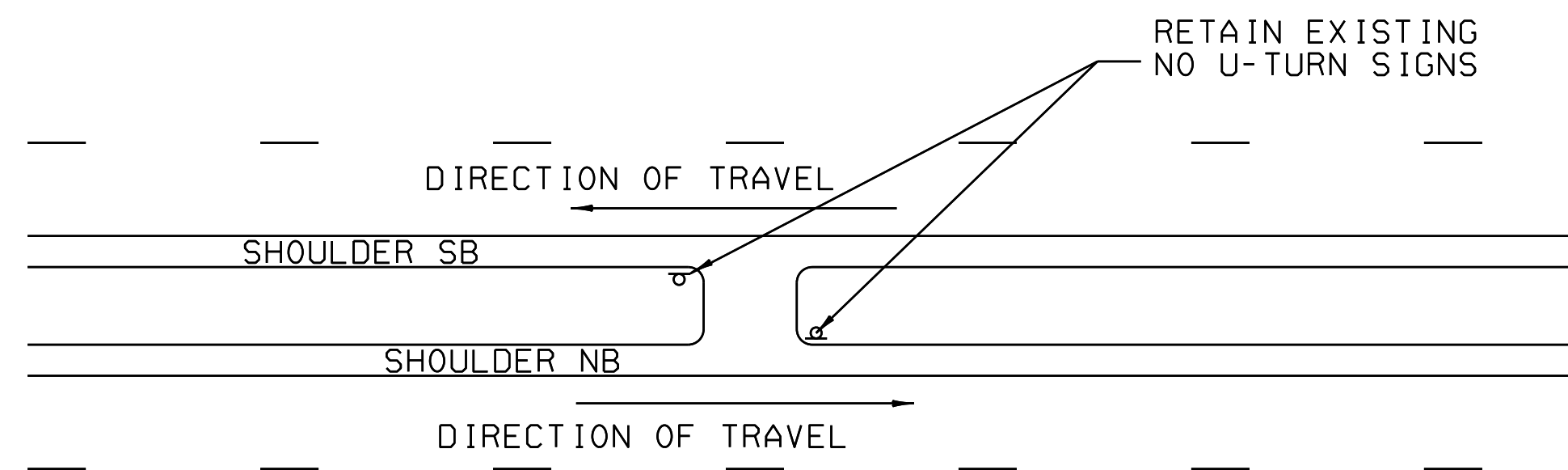
NOTE:

- 1. BITUMINOUS CONCRETE CURB, TYPE A, SHALL BE 1" BEHIND FACE OF GUARDRAIL. THE CONTRACTOR MAY SUBMIT ALERNATIVE CROSSECTIONS FOR CURB WORK.

U-TURN TYPICAL

NOTE: U-TURNS ARE NOT TO BE COLD PLANED OR PAVED. U-TURN LOCATIONS ARE PROVIDED FOR INFORMATION ONLY.

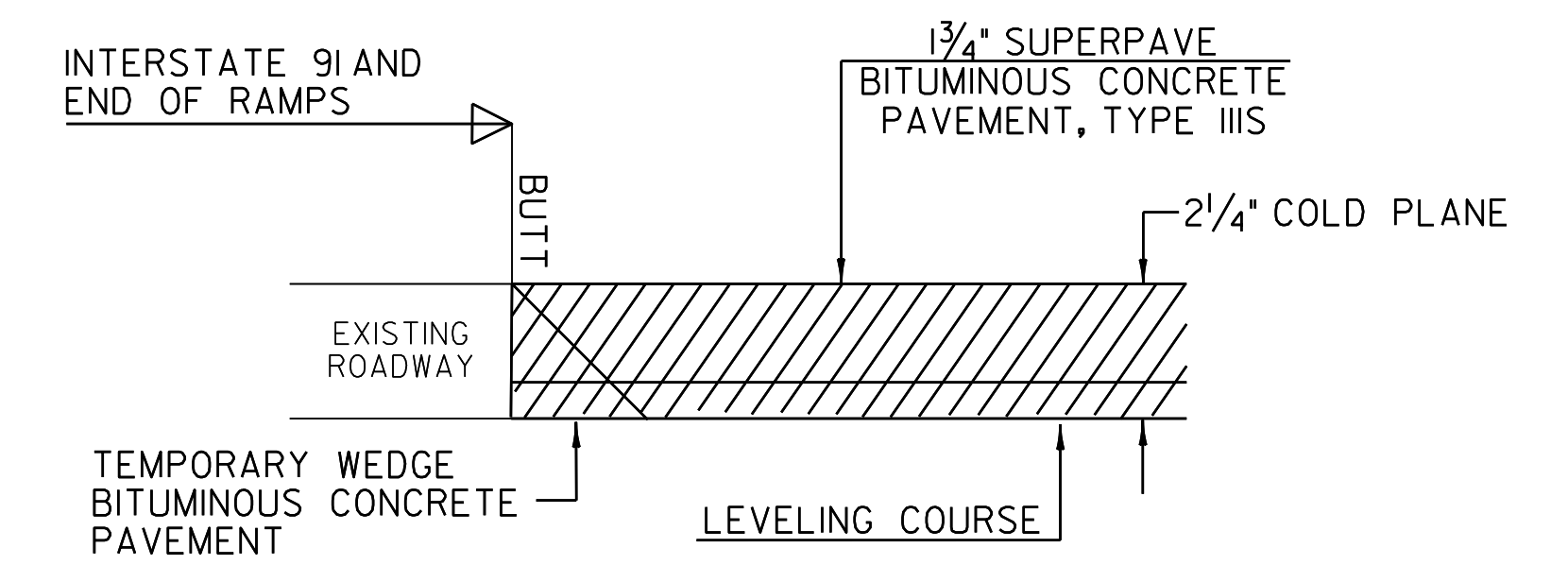
LOCATION
 SPRINGFIELD
 NB MM STA. 45.229
 WEATHERSFIELD
 NB MM STA. 48.200
 NB MM STA. 51.110
 NB MM STA. 52.051
 WINDSOR
 NB MM STA. 53.540
 NB MM STA. 53.645
 NB MM STA. 56.247



TYPICAL SECTION AT GUARDRAIL
 (EXISTING STEEL BEAM WITH CURBING)

NOTE:

- 1. ESTIMATED QUANTITIES OF BITUMINOUS CONCRETE CURB AND TREATED TIMBER CURB HAVE BEEN ADDED TO REPLACE DAMAGED OR MISSING CURB, AS DIRECTED BY THE RESIDENT ENGINEER. AN ESTIMATED QUANTITY OF EXISTING CURB REMOVAL HAS ALSO BEEN INCLUDED FOR THE PROVISION OF REMOVING DAMAGED TREATED TIMBER OR BITUMINOUS CURB, AS DIRECTED BY THE RESIDENT ENGINEER. SEE DETAIL FOR BITUMINOUS CURB ON THIS SHEET.
- 2. ALL GUARDRAIL SHALL BE STEEL BEAM GUARDRAIL WITH STEEL POSTS AND WOOD BLOCKOUTS (OR APPROVED ALTERNATIVE MATERIAL). NEW GUARDRAIL SHALL COMPLY WITH STANDARD G-1.

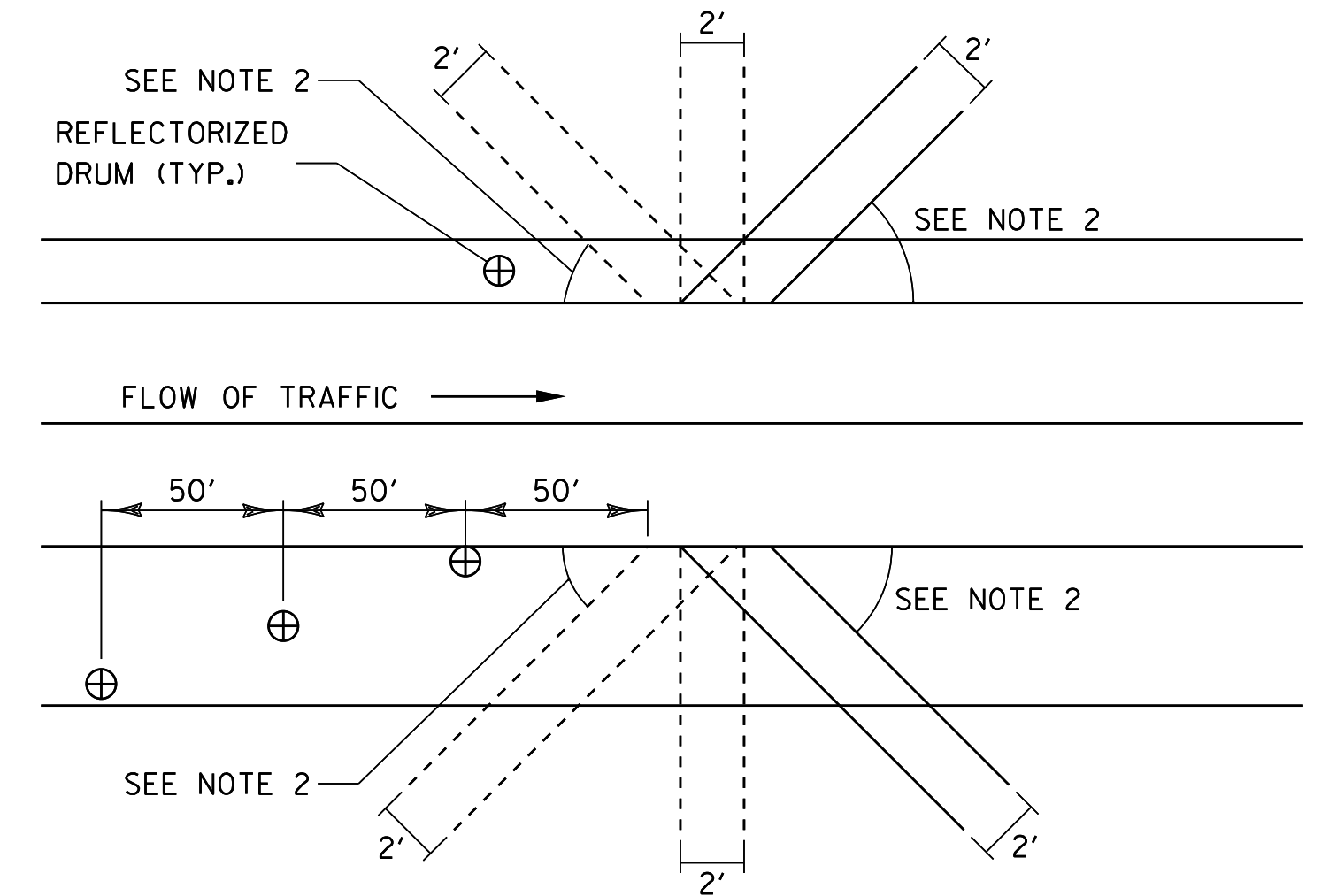


MAINLINER/RAMP BUTT JOINT DETAIL

LOCATION

NB MM STA. 44.900 - BEGIN COLD PLANING
 NB MM STA. 57.414 - END COLD PLANING

EXIT 8 NB OFF RAMP/VT. ROUTE 131 PAVEMENT MATCH
 EXIT 8 NB ON RAMP/VT. ROUTE 131 PAVEMENT MATCH



BLEEDER DETAIL

BLEEDER DETAIL NOTES:

- 1. BLEEDERS ARE TO BE CUT WHILE COLD PLANING, AT LOCATIONS SPECIFIED BY THE RESIDENT ENGINEER.
- 2. ANGLE BLEEDERS TO BEST ACCEPT WATER FLOW.
- 3. CUT ALL BLEEDERS TO THE DEPTH OF COLD PLANING AND GRADE TO DRAIN. PAYMENT INCIDENTAL TO ITEM 210.10.
- 4. BLEEDERS ARE TO BE FILLED DURING PAVING WITH ITEM 490.30 OR AS DESIGNATED BY THE RESIDENT ENGINEER.
- 5. REFLECTORIZED DRUMS MUST BE PLACED AS SHOWN TO WARN MOTORISTS OF THE GAP IN THE SHOULDER. PAYMENT INCIDENTAL TO ITEM 641.10.
- 6. BLEEDERS ARE NOT REQUIRED IF THE COLD PLANED AREAS ARE PAVED BACK THE SAME DAY.

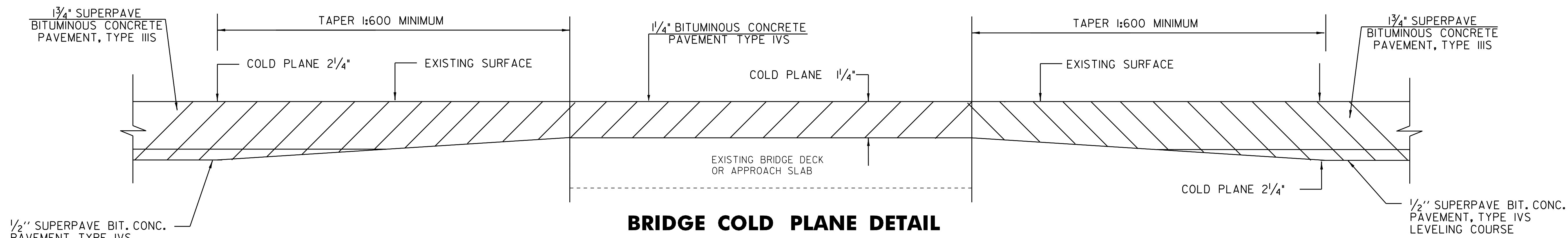
PROJECT TYPICAL SHEET 2

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 PROJECT NUMBER: IM 091-I(55)

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 DESIGNED BY: LFW
 PLOT FILE: 06A194+yp2.i

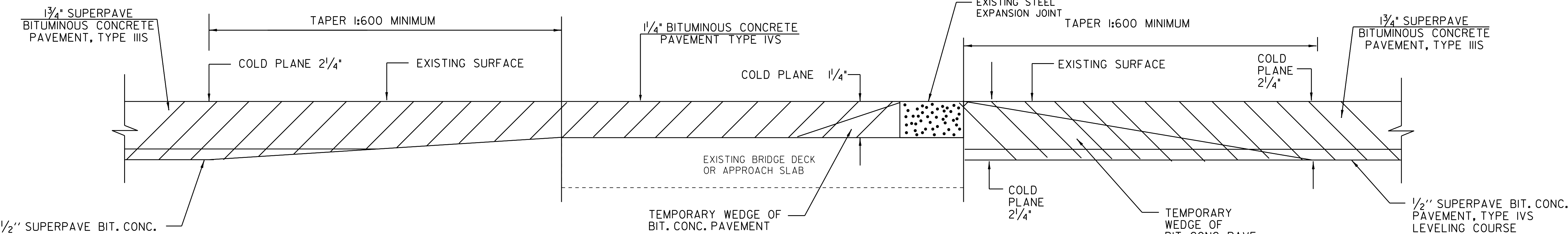
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 SHEET 4 OF 36

NOT TO SCALE



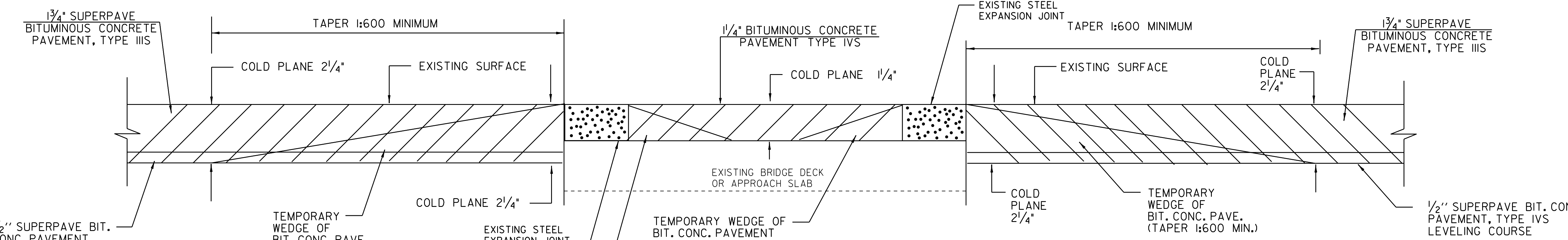
BRIDGE COLD PLANE DETAIL

LOCATION
 BRIDGE 29-N NB MM STA. 44.989
 (NO KNOWN MEMBRANE)



BRIDGE COLD PLANE DETAIL

LOCATION
 BRIDGE 30-N NB MM STA. 51.371
 (NO KNOWN MEMBRANE)
 BRIDGE 34-N NB MM STA. 57.395
 (MEMBRANE ON BRIDGE)



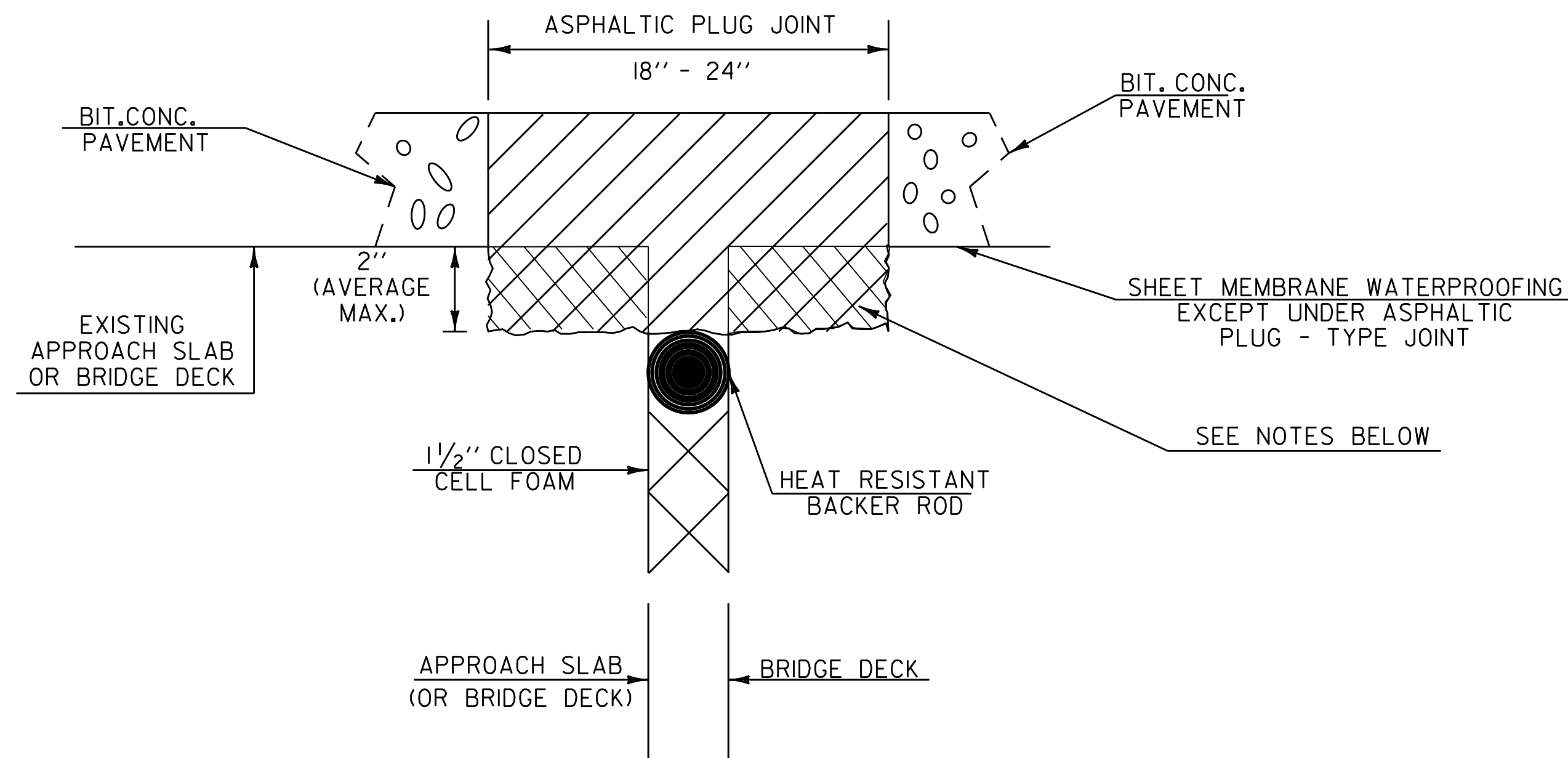
BRIDGE COLD PLANE DETAIL

LOCATION
 BRIDGE 33-N NB MM STA. 55.130
 (MEMBRANE ON BRIDGE)

- NOTES:
1. REFER TO SHEET 6 FOR ASPHALTIC PLUG JOINT LOCATIONS AND DETAILS.
 2. THE CONTACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A REGULAR BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.
 3. SPECIAL PRECAUTIONS MUST ALSO BE TAKEN DURING THE REMOVAL OF PAVEMENT FROM AREAS ADJACENT TO FINGER OR PLATE JOINTS.

NOT TO SCALE

BRIDGE COLD PLANE DETAIL SHEET	PROJECT NAME: SPRINGFIELD - WINDSOR	PLOT DATE: 28-OCT-2011 4:01
	PROJECT NUMBER: IM 091-1(55)	DRAWN BY: LFW
	FILE NAME: 06A194.dgn	DESIGNED BY: LFW
	DESIGNED BY: LFW	CHECKED BY: LFW
	PLOT FILE: 06A194+yp3.i	SHEET 5 OF 36



**ASPHALTIC PLUG - TYPE
JOINT DETAIL
REMOVAL OF UP TO
2" DETERIORATED CONCRETE**

NOTES:

- UPON ENCOUNTERING UP TO 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH THE ASPHALTIC PLUG JOINT MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER.
- REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10. THE ADDITIONAL PLUG JOINT MATERIAL BELOW THE DESIGN DEPTH TO REPLACE THE DETERIORATED CONCRETE WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10.
- THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.

ASPHALTIC PLUG JOINTS

BRIDGE/LOCATION	STA.	ELEV.	TYPE
29-N MM STA.	44.972,	38.5 FT	(APPR. SLAB JOINT)
29-N MM STA.	44.978,	52 FT	54.5
29-N MM STA.	45.000,	52 FT	53
29-N MM STA.	45.007,	38.5 FT	(APPR. SLAB JOINT)
30-N MM STA.	51.331,	38.5 FT	(APPR. SLAB JOINT)
30-N MM STA.	51.338,	44 FT	45
30-N MM STA.	51.398,	0 FT	(STEEL JOINT)
30-N MM STA.	51.387,	31.38 FT	(APPR. SLAB JOINT)
33-N MM STA.	55.058,	30.6 FT	(APPR. SLAB JOINT)
33-N MM STA.	55.062,	0 FT	(STEEL JOINT)
33-N MM STA.	55.186,	0 FT	(STEEL JOINT)
33-N MM STA.	55.191,	30.6 FT	(APPR. SLAB JOINT)
34-N MM STA.	57.363,	32 FT	(APPR. SLAB JOINT)
34-N MM STA.	57.368,	42 FT	32
34-N MM STA.	57.400,	0 FT	(STEEL JOINT)**
34-N MM STA.	57.405,	32 FT	(APPR. SLAB JOINT)

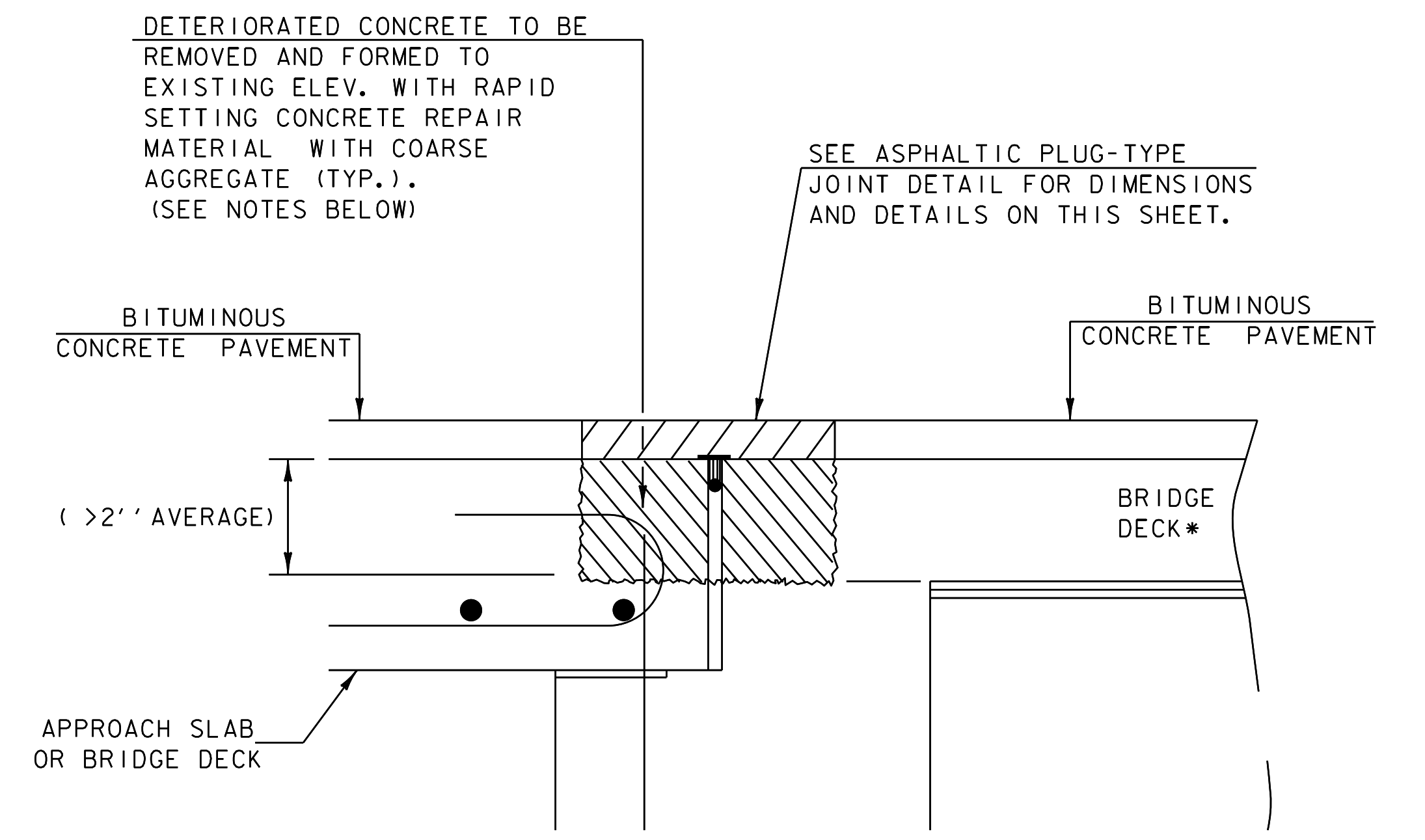
NOTES:

- THE JOINT SHALL BE LOCATED CENTRALLY OVER THE DECK EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
- THE JOINT SHALL BE EXCAVATED AS SHOWN ON THE PLANS BY USE OF SAWS AND PNEUMATIC HAMMER OR A HAMMER AND CHISEL.
- THE JOINT AREA SHALL BE BLAST CLEANED OF DEBRIS AND ASPHALT. THE JOINT AREA SHALL BE THOROUGHLY DRIED USING HOT COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
- SPALLED AND DEFECTIVE CONCRETE SHALL BE REPAIRED WITH AN APPROVED MATERIAL AS AGREED UPON BY THE RESIDENT ENGINEER.
- PROPERLY SIZED HEAT RESISTANT BACKER ROD SHALL BE PLACED IN THE MOVEMENT GAP ALLOWING FOR 1 INCH +/- OF BINDER ABOVE THE ROD.
- THE BINDER MATERIAL SHALL BE HEATED AND PLACED AS RECOMMENDED BY THE MANUFACTURER.
- PLACE 1/4 INCH THICK BY 8 INCH WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER.
 - A. THE STEEL PLATES MAY BE OMITTED WHERE THE APPROACH SLAB IS COVERED WITH A STONE BASE OR BITUMINOUS PAVEMENT AND VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
- THE BINDER MATERIAL AND AGGREGATE SHALL BE HEATED AND MIXED AS RECOMMENDED BY THE MANUFACTURER.
- THE INSTALLATION OF MATERIAL, COMPACTION, AND TOPCOATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- IMMEDIATELY AFTER TOPCOATING, AN ANTI-SKID MATERIAL SHALL BE CAST OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
- JOINT SHALL BE PROTECTED FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 125° F +/-.

WEATHER LIMITATIONS

BINDER MATERIAL SHALL BE APPLIED ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL:

- THE AMBIENT AIR TEMPERATURE IS AT LEAST 50° F AND RISING.
- THE ROAD SURFACE IS SUFFICIENTLY DRY.
- WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.



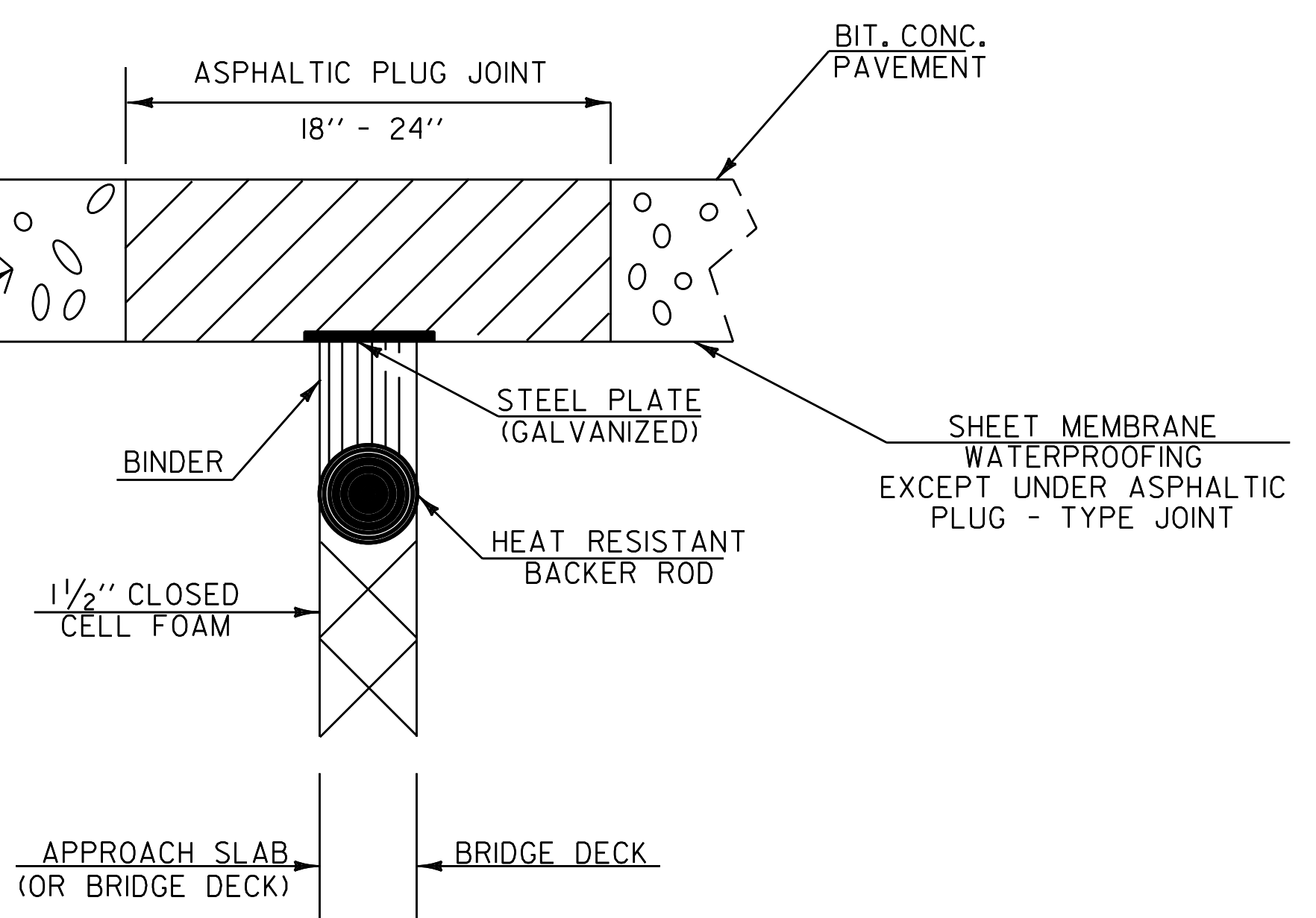
**ASPHALTIC PLUG - TYPE
JOINT DETAIL
REMOVAL OF >2"
DETERIORATED CONCRETE**

NOTES:

- UPON ENCOUNTERING GREATER THAN 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
- REMOVAL OF THE DETERIORATED CONCRETE WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 580.20 "RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE".
- THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.

*BRIDGE DECK REINFORCEMENT NOT SHOWN FOR CLARITY

NOT TO SCALE



**ASPHALTIC PLUG - TYPE
JOINT DETAIL**

BRIDGE JOINT DETAIL SHEET	PROJECT NAME: SPRINGFIELD - WINDSOR	PLOT DATE: 28-OCT-2011 4:01
	PROJECT NUMBER: IM 091-1(55)	DRAWN BY: LFW
	FILE NAME: 06A194.dgn	CHECKED BY: LFW
	DESIGNED BY: LFW	SHEET 6 OF 36

ITEM 646.426 - DURABLE 6" WHITE LINE, RECESSED
 NB MM STA. 44.900 TO 57.400 SOLID RT
 NB MM STA. 44.900 TO 57.400 DASHED CL

ITEM 646.436 - DURABLE 6" YELLOW LINE, RECESSED
 NB MM STA. 44.900 TO 57.400 SOLID LT

ITEM 621.76 - REPLACE GUARDRAIL POST ASSEMBLY
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

ITEM 621.77 - REPLACE GUARDRAIL BEAM UNIT
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

ITEM 621.80 - REMOVAL & DISP. OF GUARDRAIL
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

ITEM 646.622 - TEMPORARY 6" WHITE LINE, PAINT
 NB MM STA. 44.900 TO 57.400 SOLID RT
 NB MM STA. 44.900 TO 57.400 DASHED CL

ITEM 646.632 - TEMPORARY 6" YELLOW LINE, PAINT
 NB MM STA. 44.900 TO 57.400 SOLID LT

ITEM 621.50 - MANUFACTURED TERMINAL SECTION, FLARED
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

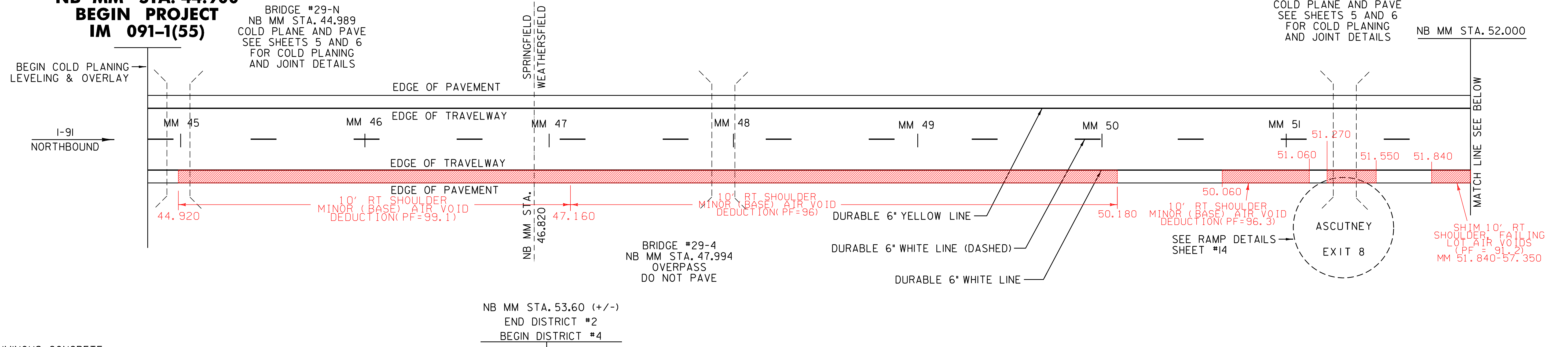
ITEM 621.70 - GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

621.60 - ANCHOR FOR STEEL BEAM RAIL
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

ITEM 621.20 - STEEL BEAM GUARDRAIL
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

ITEM 621.71 - GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II
 SEE ITEM DETAIL SHEETS FOR LOCATIONS

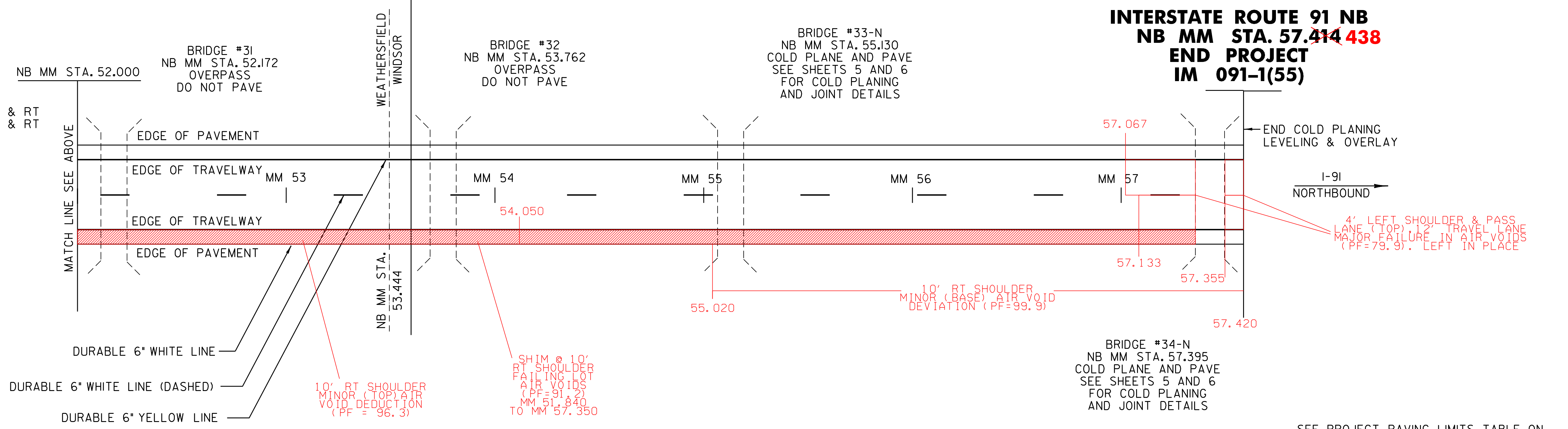
**INTERSTATE ROUTE 91 NB
 NB MM STA. 44.900
 BEGIN PROJECT
 IM 091-1(55)**



ITEM 616.47 - BITUMINOUS CONCRETE
 GUTTERS AND TRAFFIC ISLANDS
 NB MM STA. 48.851 RT
 NB MM STA. 55.297 RT

ITEM 604.412 - REHAB. DROP INLETS, CATCH
 BASINS OR MANHOLES, CLASS I

NB MM STA. 46.217 RT	NB MM STA. 52.708 LT & RT
NB MM STA. 46.235 LT	NB MM STA. 52.765 LT & RT
NB MM STA. 46.249 RT	NB MM STA. 53.101 LT
NB MM STA. 46.264 LT	NB MM STA. 53.866 RT
NB MM STA. 46.477 RT	NB MM STA. 53.922 RT
NB MM STA. 47.777 RT	NB MM STA. 54.900 RT
NB MM STA. 47.843 RT	NB MM STA. 54.948 RT
NB MM STA. 47.895 RT	NB MM STA. 55.010 RT
NB MM STA. 47.922 RT	NB MM STA. 55.058 RT
NB MM STA. 48.636 RT	NB MM STA. 56.388 RT
NB MM STA. 48.683 RT	NB MM STA. 56.692 RT
NB MM STA. 48.726 RT	NB MM STA. 56.739 RT
NB MM STA. 48.768 RT	NB MM STA. 57.315 RT
NB MM STA. 51.050 RT	NB MM STA. 57.364 RT
NB MM STA. 51.389 RT	NB MM STA. 51.335 RT
NB MM STA. 51.943 RT	NB MM STA. 57.364 LT



**INTERSTATE ROUTE 91 NB
 NB MM STA. 57.414 438
 END PROJECT
 IM 091-1(55)**

NOT TO SCALE

SEE PROJECT PAVING LIMITS TABLE ON
 PROJECT TYPICAL SHEET I FOR ROADWAY
 DIMENSIONS.

ITEM 620.75 - SNOW BARRIER - GALVANIZED

BRIDGE #29-4 (OVERPASS) (TWO 62 FOOT SECTIONS ON EACH SIDE OF BR #29-4 OVER THE NB & SB LANES) (248 FEET TOTAL)
 BRIDGE #31 (OVERPASS) (TWO 66 FOOT SECTIONS ON EACH SIDE OF BR #31 OVER THE NB & SB LANES) (264 FEET TOTAL)
 BRIDGE #32 (OVERPASS) (TWO 82 FOOT SECTIONS ON EACH SIDE OF BR #32 OVER THE NB & SB LANES) (328 FEET TOTAL)

ITEM 676.10 - DELINEATOR WITH STEEL POST

REFER TO STANDARDS E-197, E-198,
 AND E-199 FOR PLACEMENT GUIDELINES
 (SEE ITEM DETAIL SHEETS FOR LOCATIONS)

**PAVING
 PROJECT
 LAYOUT
 SHEET**

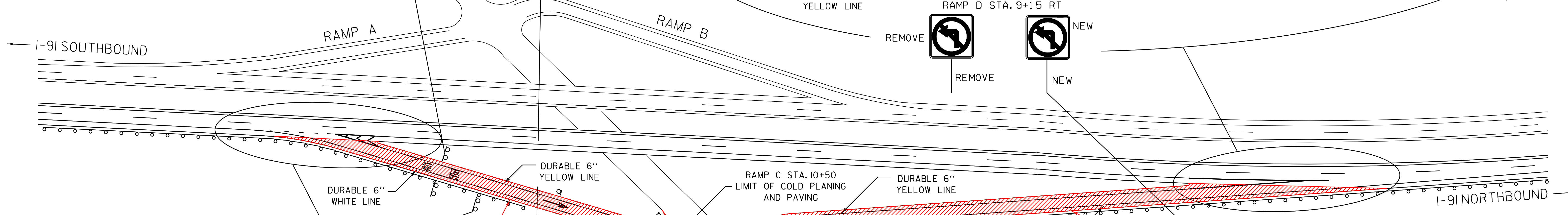
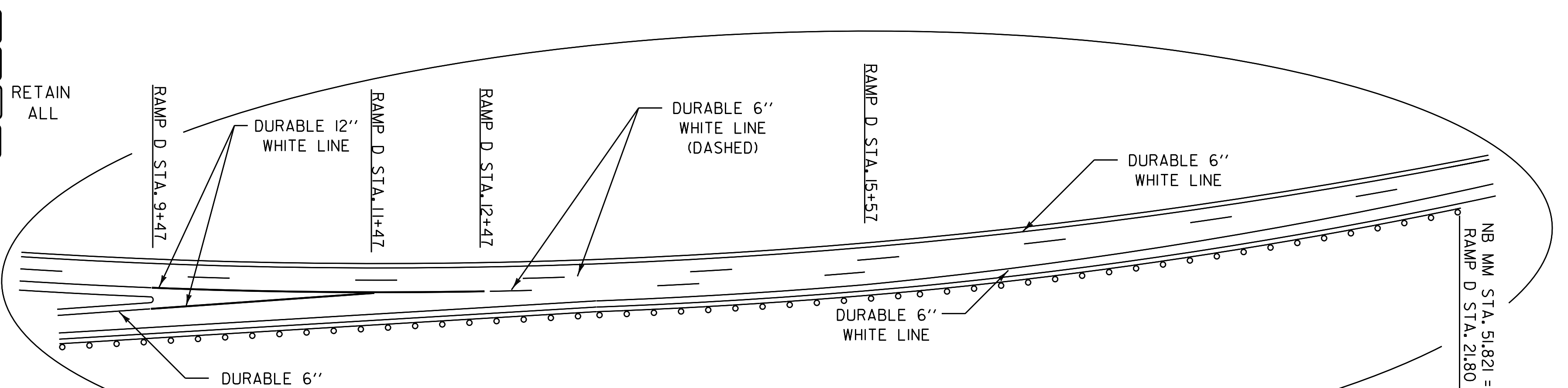
PROJECT NAME: SPRINGFIELD - WINDSOR
 PROJECT NUMBER: IM 091-1(55)

FILE NAME: 06A194.dgn
 PROJECT LEADER: LFW
 DESIGNED BY: LFW
 PLOT FILE: 06A194pls.i

PLOT DATE: 28-OCT-2011 4:01
 DRAWN BY: LFW
 CHECKED BY: LFW
 SHEET 13 OF 36

ITEM 646.426 - DURABLE 6" WHITE LINE, RECESSED AND
 ITEM 646.622 - TEMPORARY 6" WHITE LINE, PAINT
 RAMP C STA. 0+00 TO 2+40 DOTTED LT
 RAMP C STA. 0+00 TO 10+50 SOLID RT
 RAMP D STA. 0+00 TO 9+47 SOLID RT
 RAMP D STA. 12+47 TO 15+57 DASHED LT (8 DASHES)
 ITEM 646.436 - DURABLE 6" YELLOW LINE, RECESSED AND
 ITEM 646.632 - TEMPORARY 6" YELLOW LINE, PAINT
 RAMP C STA. 3+65 TO 10+50 SOLID LT
 RAMP D STA. 0+00 TO 9+47 SOLID LT
 ITEM 646.466 - DURABLE 12" WHITE LINE, RECESSED AND
 ITEM 646.662 - TEMPORARY 12" WHITE LINE, PAINT
 RAMP C STA. 2+40 TO 3+65 SOLID LT
 (WITH DIAGONALS)
 RAMP D STA. 9+47 TO 12+47 SOLID LT

← LUDLOW 19
 ASCUTNEY 1 →
 WINDSOR 5 →
 CLAREMONT N.H. 5 →
 SERVICES →
 LODGING 1 →
 HOSPITAL 7 →
 CAMPING 2 →



RETAIN ALL
 WEST TO EAST
 VERMONT 131 5 VERMONT 131
 ← → →
 RETAIN

REMOVE WRONG WAY
 NEW WRONG WAY
 REMOVE
 NEW
 RAMP C STA. 8+49 RT & LT

REMOVE TURN SIGNAL REQUIRED BEFORE CHANGING LANES
 NEW TURN SIGNAL REQUIRED BEFORE CHANGING LANES
 REMOVE PROHIBITED PEDESTRIANS STOPPING FOR MOTORCYCLES, ANIMALS, BICYCLES, FARM MACHINERY, SNOW VEHICLES
 NEW PROHIBITED PEDESTRIANS STOPPING FOR MOTORCYCLES, ANIMALS, BICYCLES, FARM MACHINERY, SNOW VEHICLES
 RAMP D STA. 1+00 RT

REMOVE STOP
 REMOVE DO NOT ENTER
 NEW STOP
 NEW DO NOT ENTER
 REMOVE ONE WAY
 REMOVE ONE WAY
 NEW ONE WAY
 NEW ONE WAY
 RAMP C STA. 9+50 LT
 RAMP C STA. 10+18 RT

ITEM 621.20 - STEEL BEAM GUARDRAIL, GALVANIZED
 RAMP C STA. 7+04 TO 7+09 RT (25')
 ITEM 621.50 - MANUFACTURED TERMINAL SECTION, FLARED
 RAMP D STA. 2+22 TO 2+29 RT
 ITEM 621.60 - ANCHOR FOR STEEL BEAM RAIL
 RAMP C STA. 7+09 RT
 ITEM 621.80 - REMOVAL & DISPOSAL OF GUARDRAIL
 RAMP C STA. 7+04 TO 7+09 RT (25')
 RAMP D STA. 2+22 TO 2+29 RT (37.5')
 ITEM 616.47 - BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS
 RAMP D STA. 9+05 TO 9+47 LT
 ITEM 676.10 - DELINEATOR WITH STEEL POST
 REFER TO STANDARDS E-197, E-198, AND E-199 FOR PLACEMENT GUIDELINES
 (SEE ITEM DETAIL SHEETS FOR LOCATIONS)

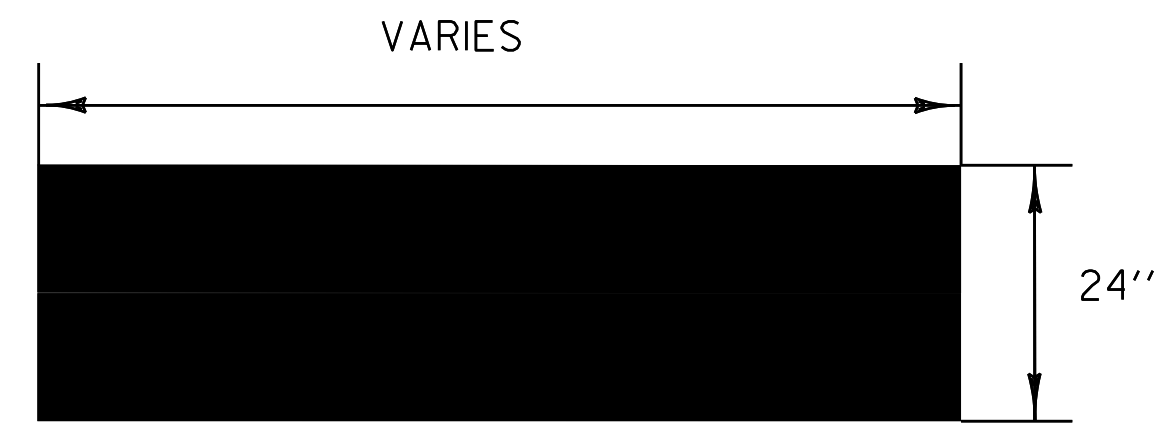
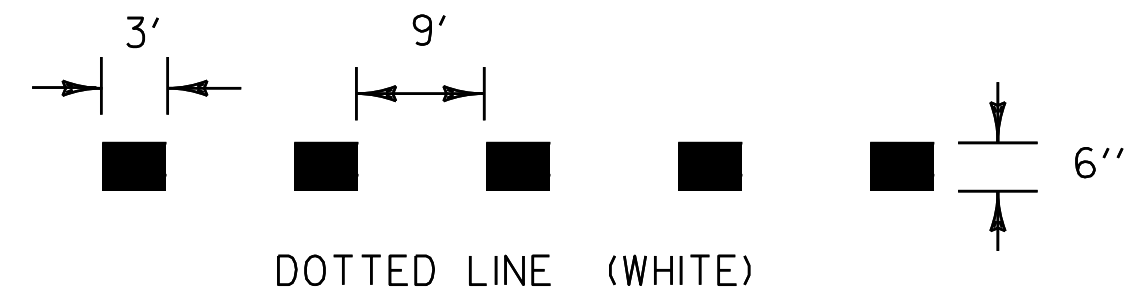
ITEM 675.50 - REMOVING SIGNS
 15 AS SHOWN
 ITEM 646.482 - DURABLE 24" STOP BAR, THERMOPLASTIC AND
 ITEM 646.682 - TEMPORARY 24" STOP BAR, PAINT
 RAMP C STA. 10+44 CL
 ITEM 646.492 - DURABLE LETTER OR SYMBOL, THERMOPLASTIC AND
 ITEM 646.692 - TEMPORARY LETTER OR SYMBOL, PAINT
 RAMP C STA. 5+69 CL (STOP)
 RAMP C STA. 5+85 CL (AHEAD)
 RAMP C STA. 8+49 CL (WRONG WAY ARROW)
 RAMP C STA. 10+40 LT (STOP)
 RAMP C STA. 10+40 RT (STOP)

SEE SHEET 15
 FOR PAVEMENT
 MARKING DETAILS

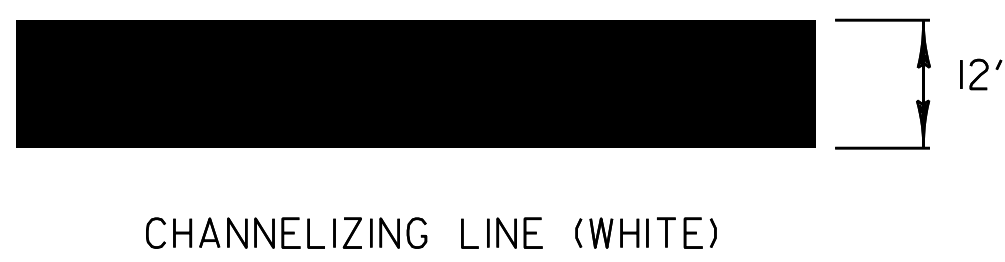
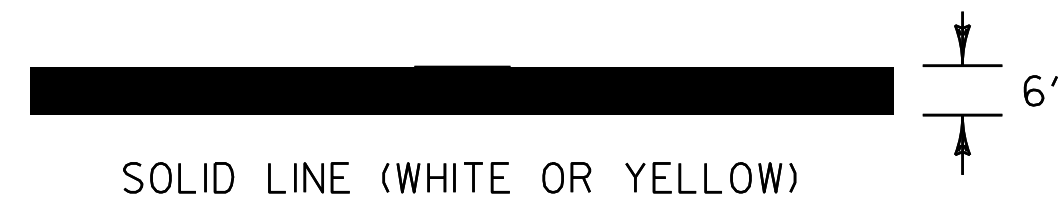
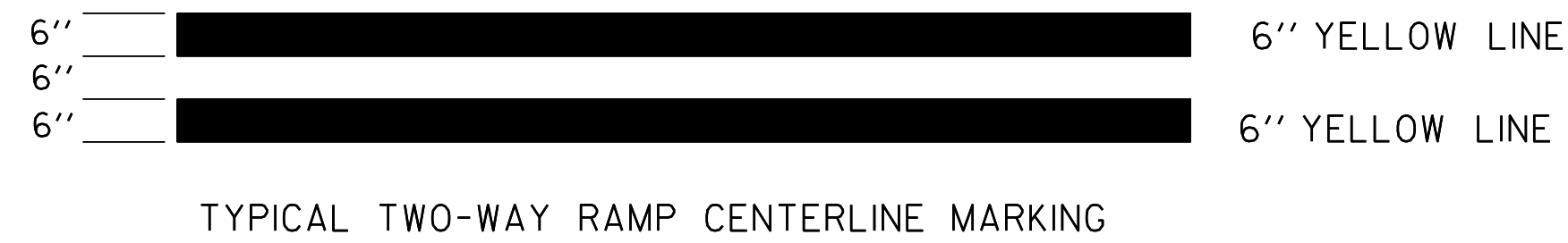
I-91 INTERCHANGE #8 ASCUTNEY/WINDSOR NOT TO SCALE

**RAMP
 DETAIL
 SHEET**

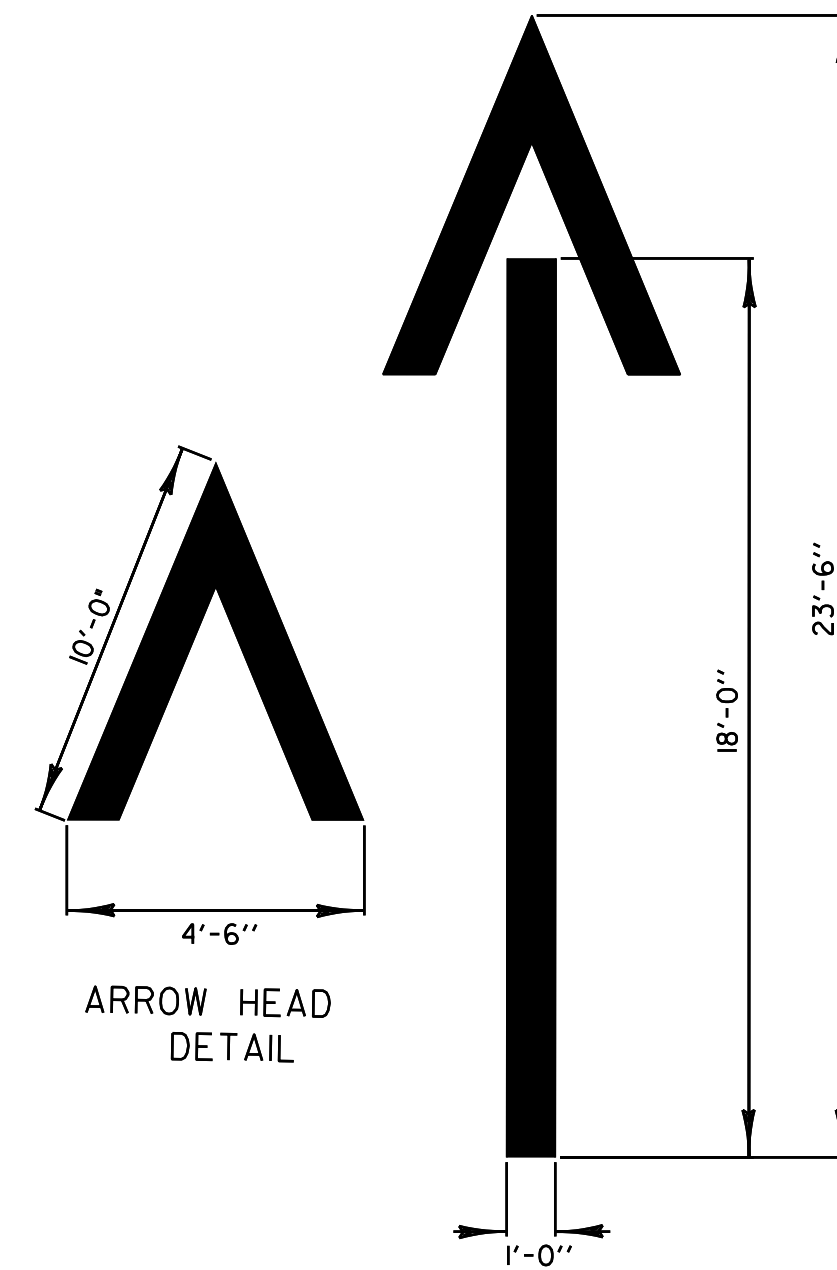
PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO. : IM 091-I(55)
DESIGN FILE NAME: 06A194.dgn IPARM FILE NAME: 06A194rds.i	PLOT DATE: 28-OCT-2011 14:00
SURVEYED BY: N/A SQUAD LEADER: LEW	SURVEY DATE: N/A DRAWN BY: LEW
	SHEET: 14 OF 36



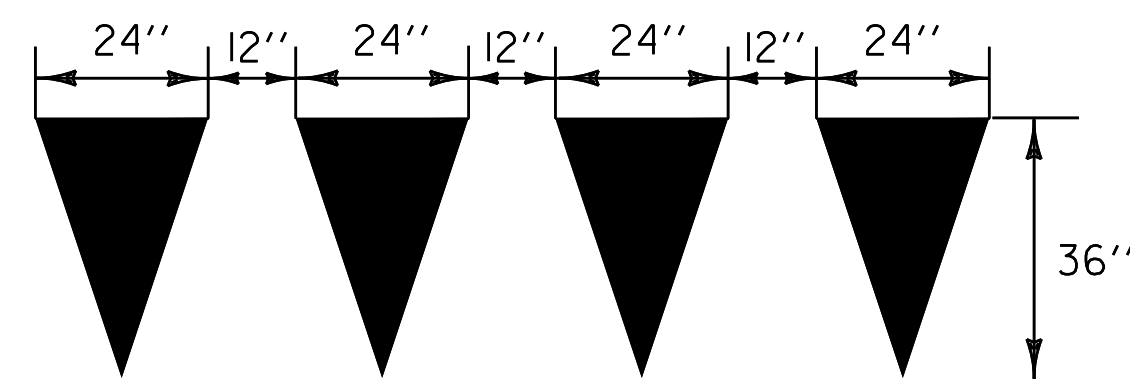
STOP BAR DETAIL



PAVEMENT MARKING LINE DETAILS

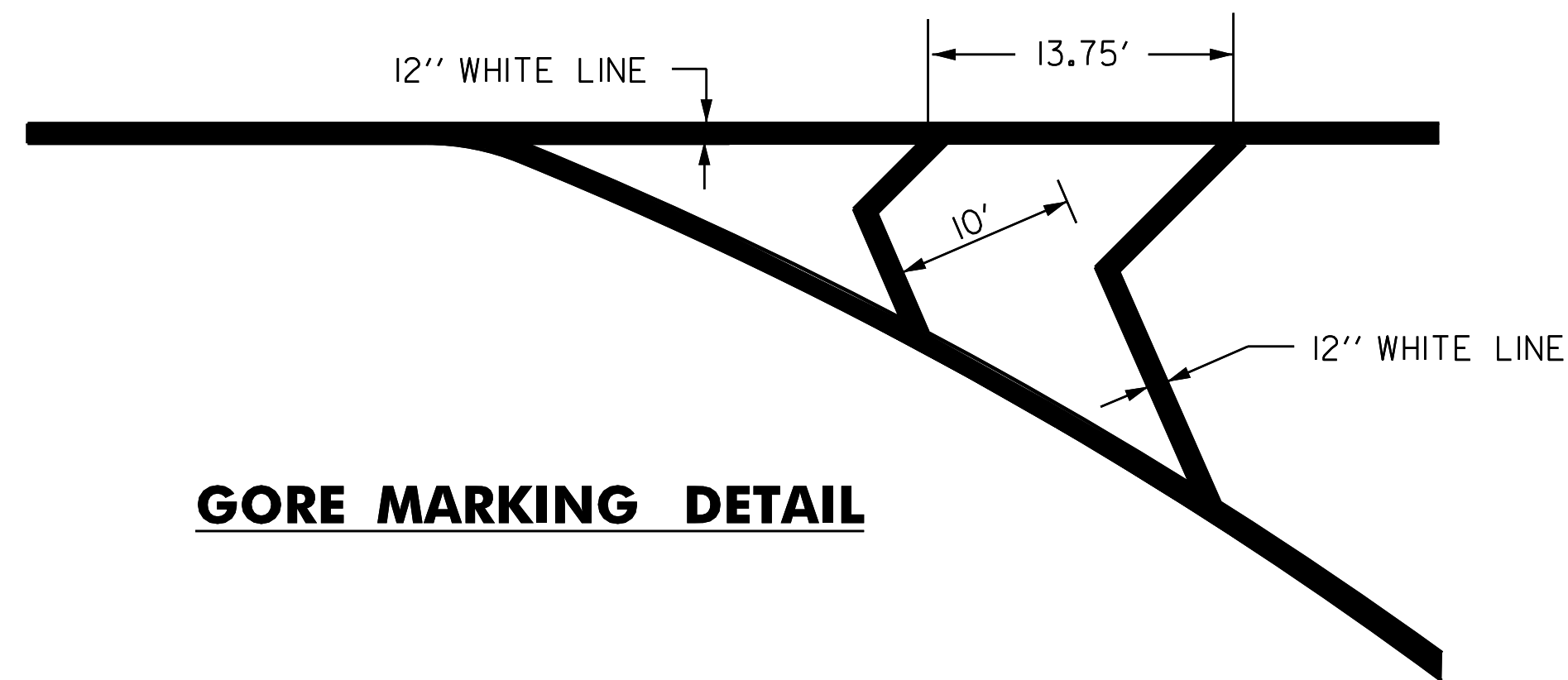


WRONG-WAY ARROW DETAILS



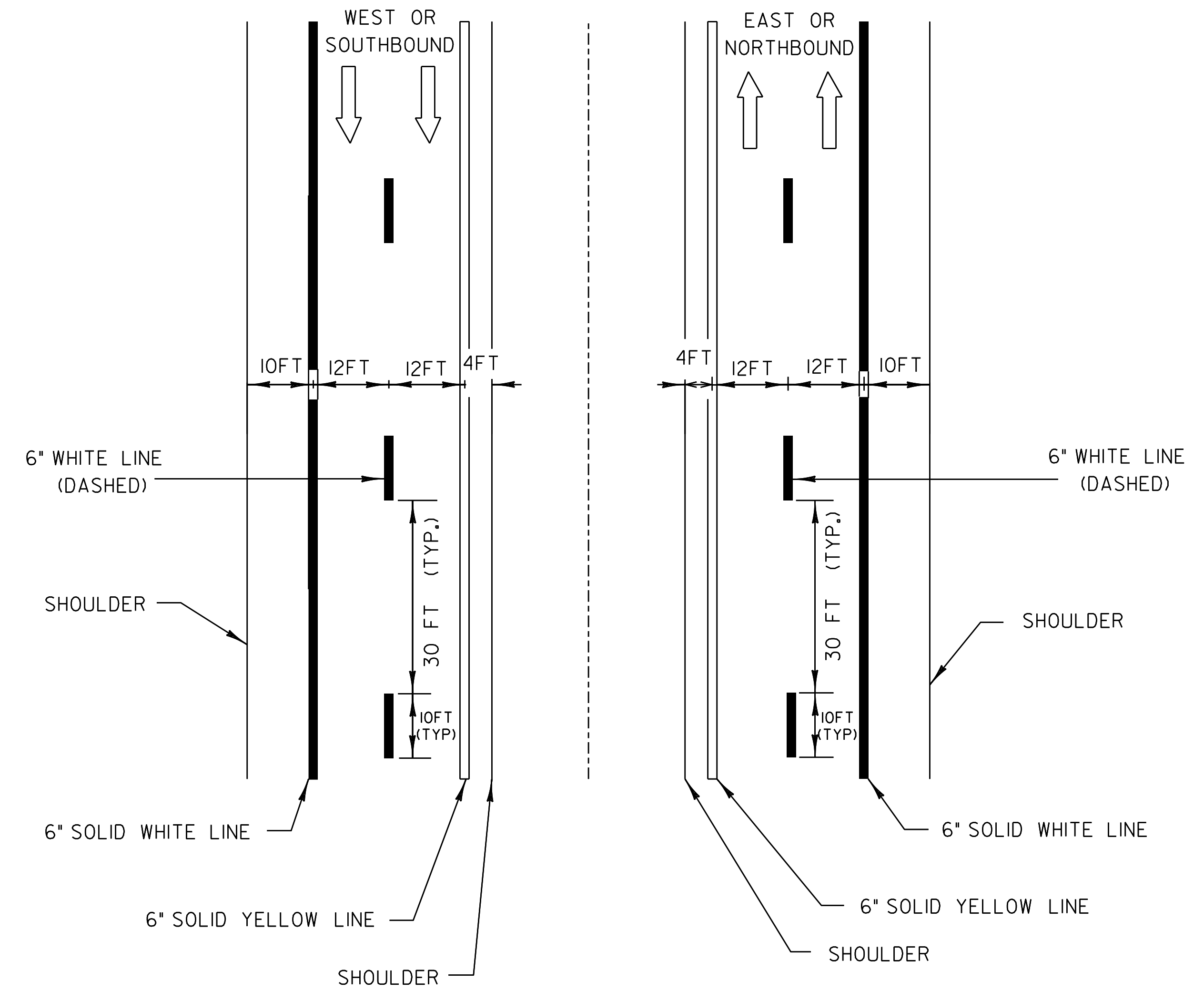
YIELD LINE DETAILS

TO BE INSTALLED ONLY AT THE DIRECTION OF THE RESIDENT ENGINEER TO BE PAID AS ONE LETTER OR SYMBOL PER TRIANGLE



GORE MARKING DETAIL

NOT TO SCALE



TYPICAL MAINLINE MARKING PLAN

LEGEND

- 6" WHITE LINES
- 6" YELLOW LINES
- DIRECTION OF TRAFFIC FLOW

NOT TO SCALE

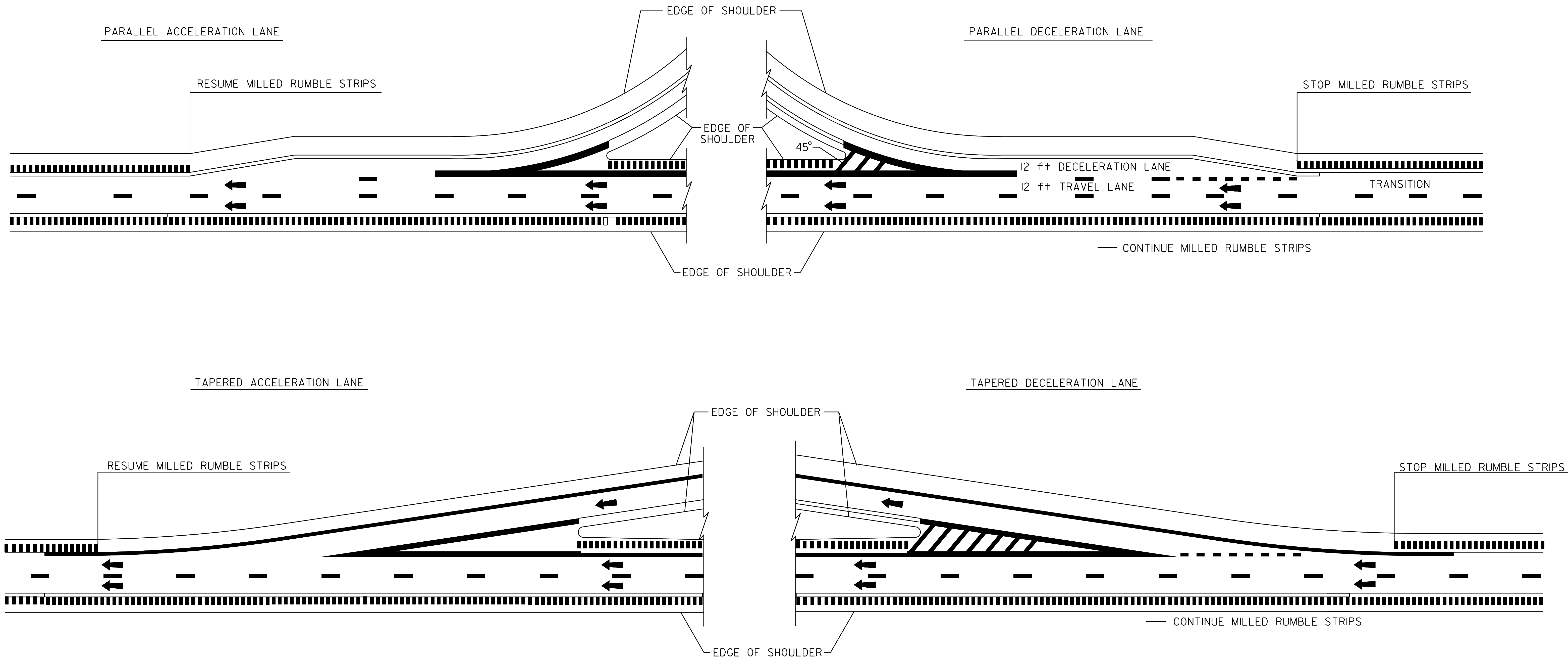
PAVEMENT MARKING DETAIL SHEET

PROJECT NAME: SPRINGFIELD - WINDSOR
PROJECT NUMBER: IM 091-1(55)

FILE NAME: 06A194.dgn
PROJECT LEADER: LFW
DESIGNED BY: LFW
PLOT FILE: 06A194pmds.i

PLOT DATE: 28-OCT-2011 4:01
DRAWN BY: LFW
CHECKED BY: LFW
SHEET 15 OF 36

TYPICAL MILLING AT INTERCHANGES & REST AREAS



LEGEND

- DIRECTION OF TRAFFIC FLOW
- MILLED RUMBLE STRIPS

NOTE:

1. THIS TYPICAL MAY BE MODIFIED AT THE DISCRETION OF THE RESIDENT ENGINEER IF ACTUAL FIELD CONDITIONS NECESSITATE SUCH ACTIONS.

NOT TO SCALE

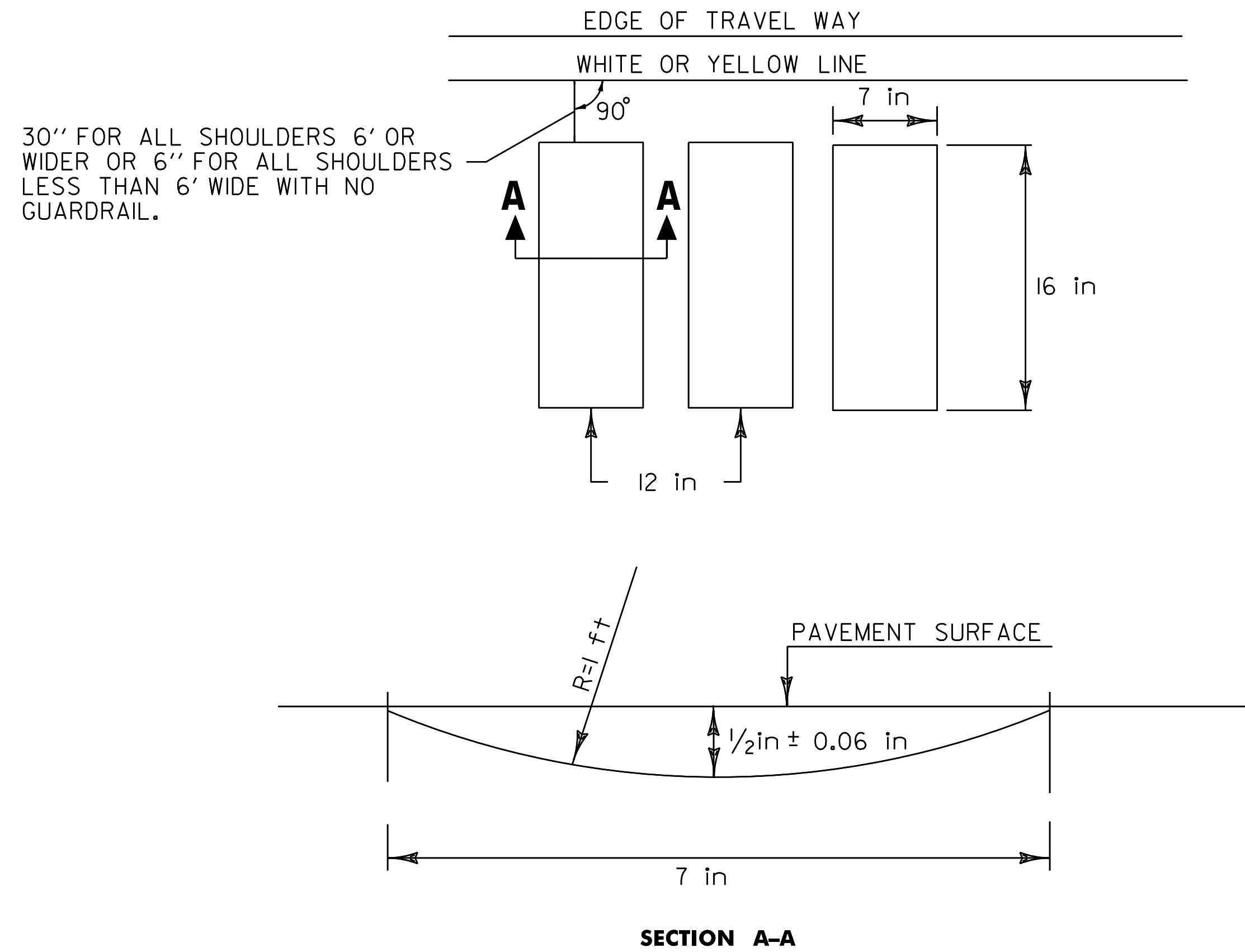
**MILLED RUMBLE STRIP
DETAIL
SHEET #1**

PROJECT NAME: SPRINGFIELD - WINDSOR
PROJECT NUMBER: IM 091-1(55)

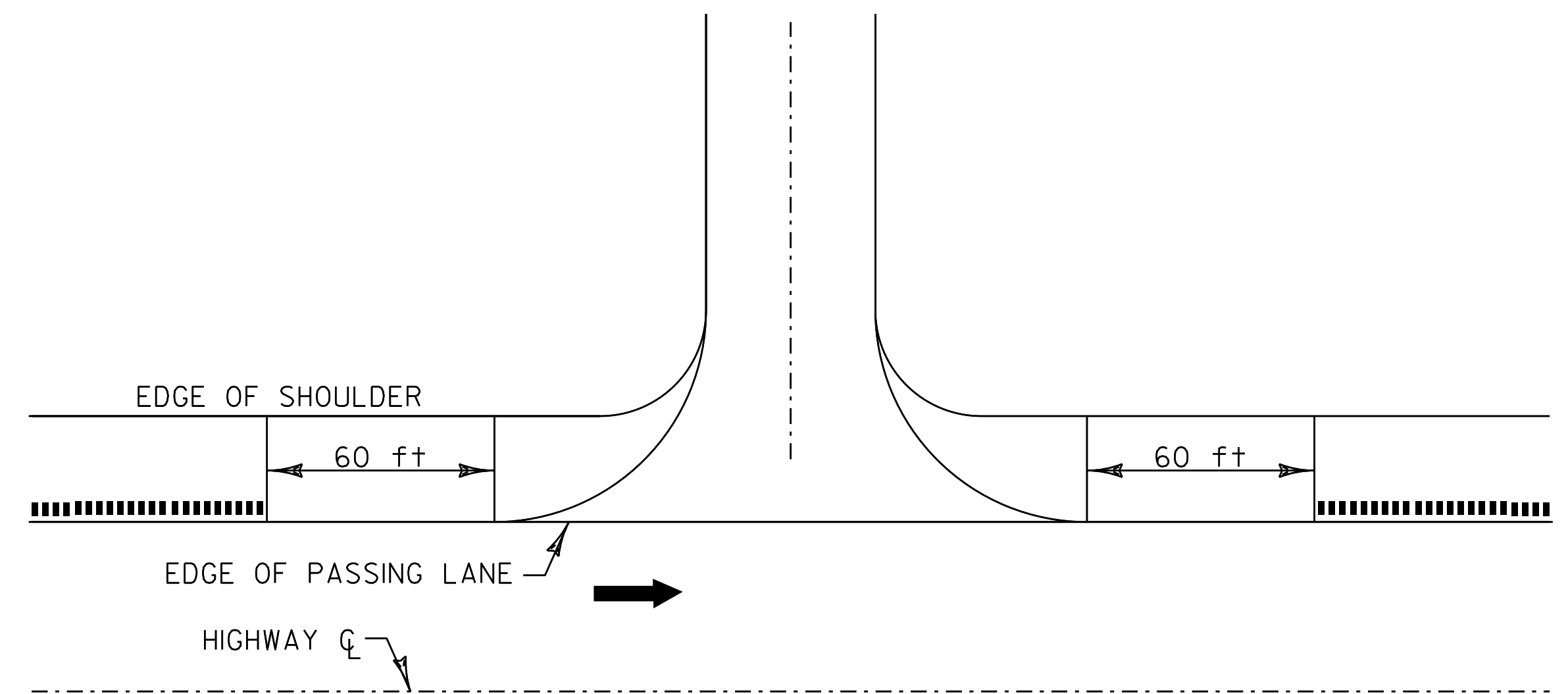
FILE NAME: 06A194.dgn
PROJECT LEADER: LFW
DESIGNED BY: LFW
PLOT FILE: 06A194rsl.i

PLOT DATE: 28-OCT-2011 4:01
DRAWN BY: LFW
CHECKED BY: LFW
SHEET 16 OF 36

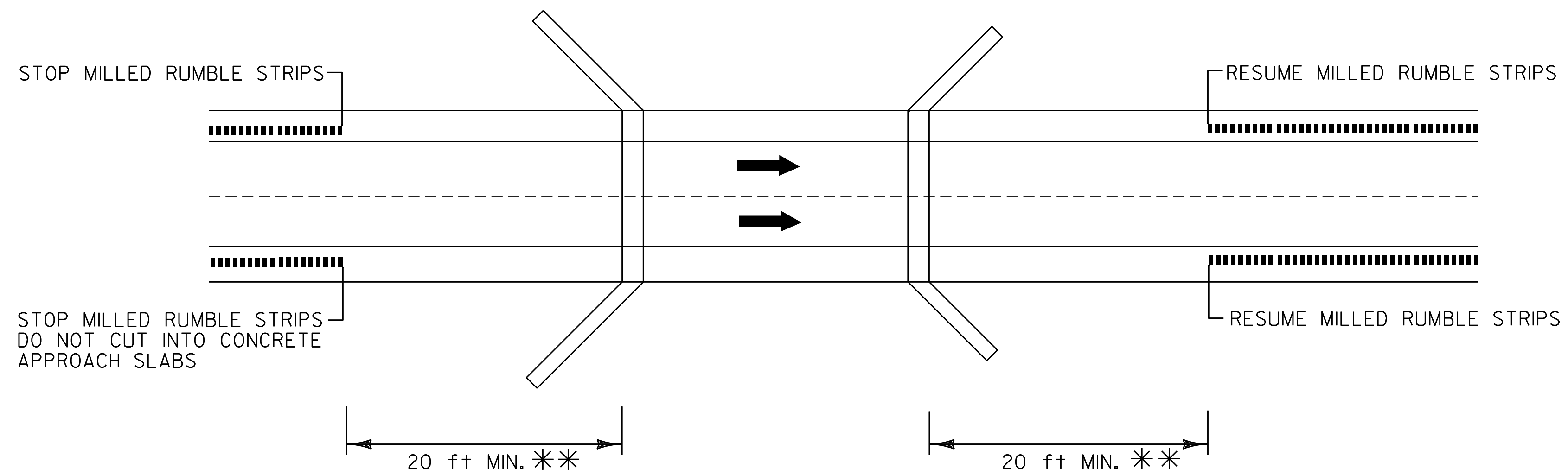
TYPICAL MILLING DETAIL



U-TURN DETAIL



BRIDGE DETAIL



** BRIDGE RAIL WILL DETERMINE MINIMUM DISTANCE IN SOME CASES.

LEGEND

- DIRECTION OF TRAFFIC FLOW
- MILLED RUMBLE STRIPS

NOT TO SCALE

**MILLED RUMBLE
STRIP
DETAIL
SHEET #2**

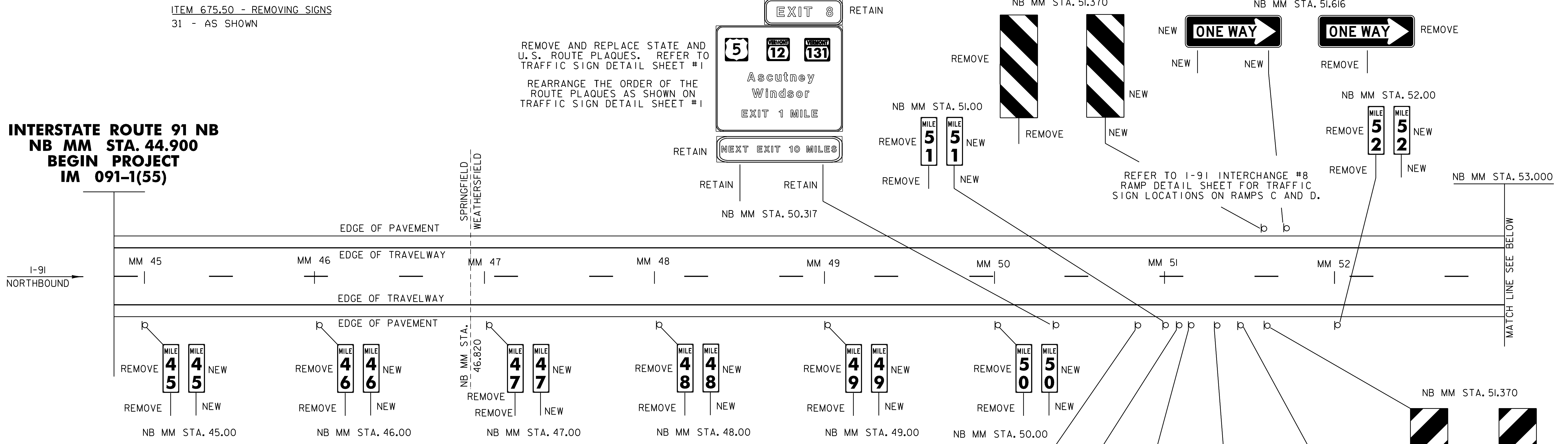
PROJECT NAME: SPRINGFIELD - WINDSOR
PROJECT NUMBER: IM 091-1(55)

FILE NAME: 06A194.dgn
PROJECT LEADER: LFW
DESIGNED BY: LFW
PLOT FILE: 06A194rs2.i

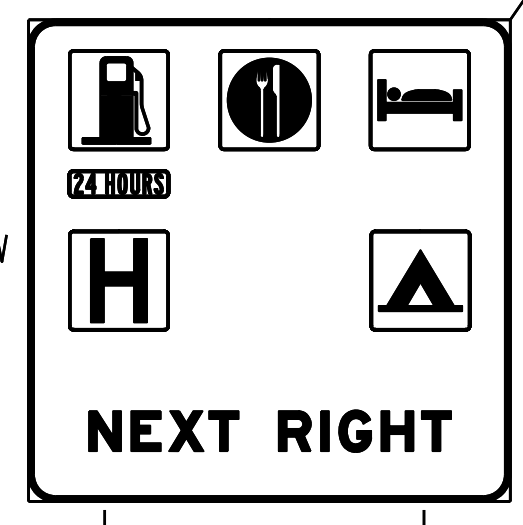
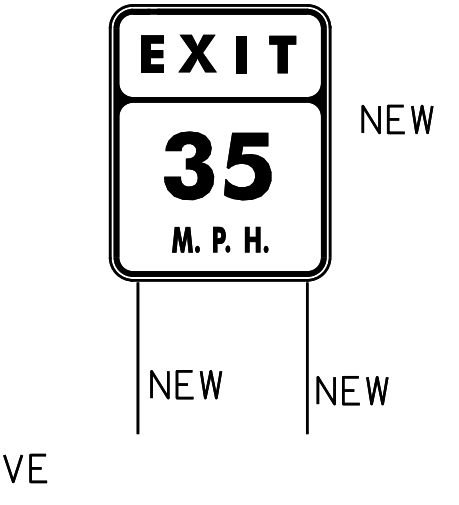
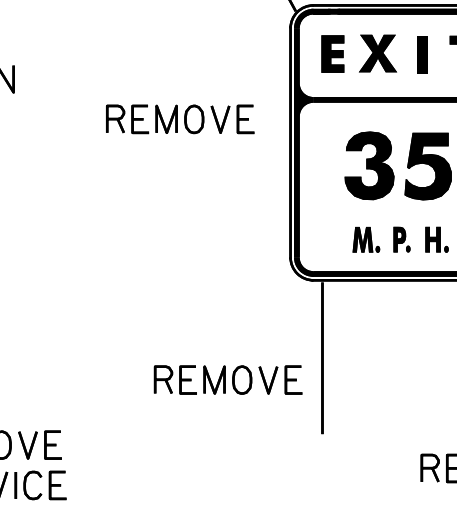
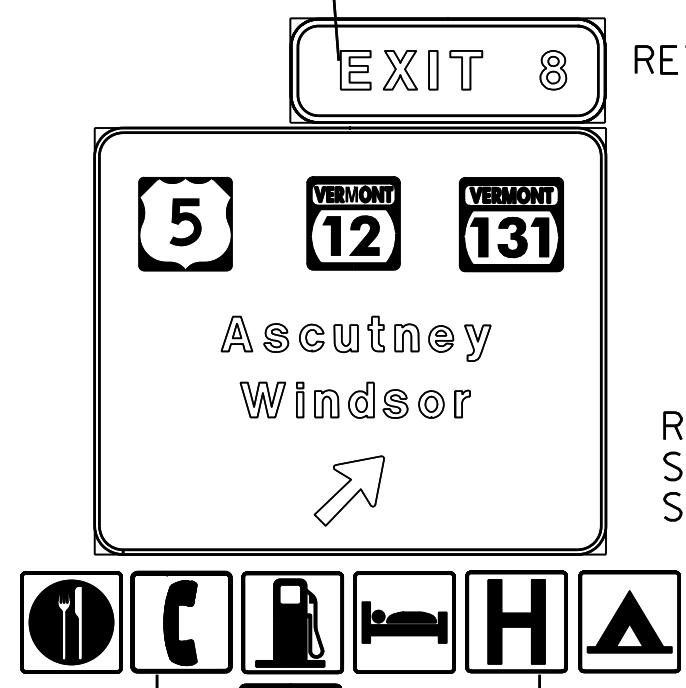
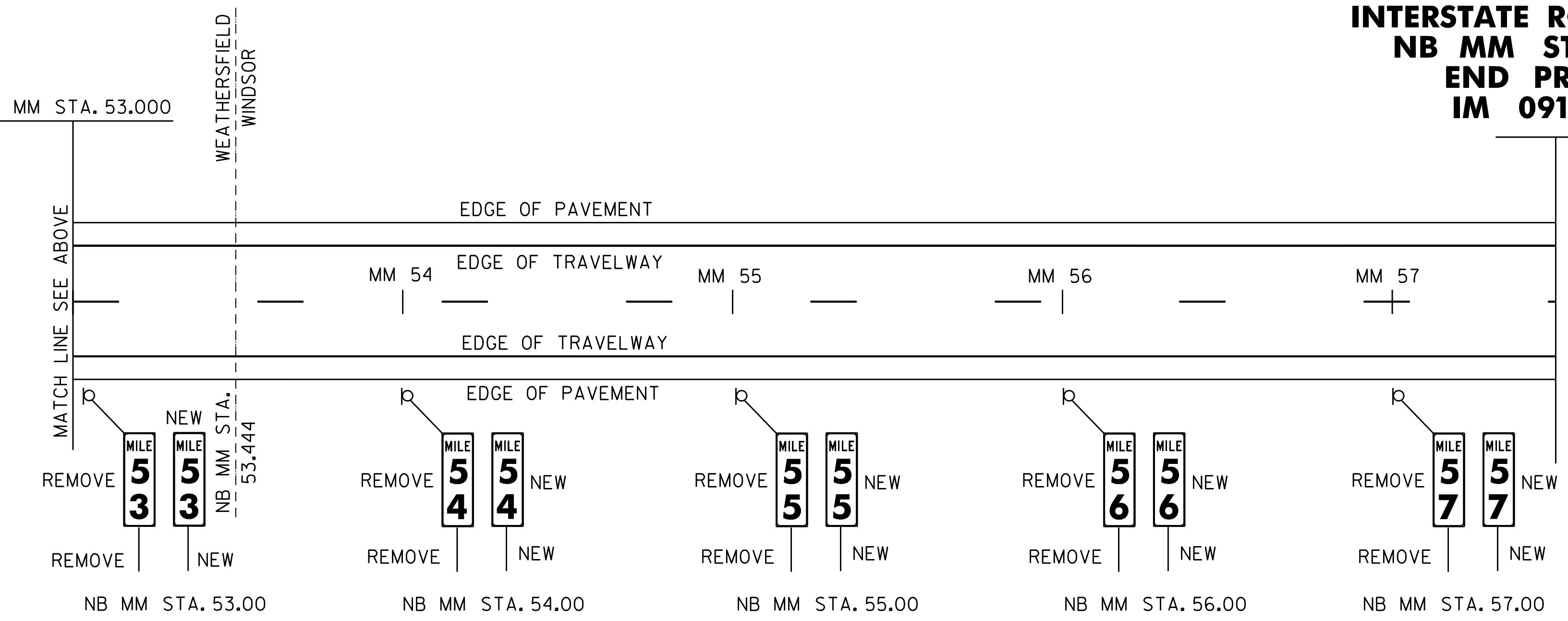
PLOT DATE: 28-OCT-2011 4:01
DRAWN BY: LFW
CHECKED BY: LFW
SHEET 17 OF 36

**INTERSTATE ROUTE 91 NB
NB MM STA. 44.900
BEGIN PROJECT
IM 091-1(55)**

REMOVE AND REPLACE STATE AND U.S. ROUTE PLAQUES. REFER TO TRAFFIC SIGN DETAIL SHEET #1
REARRANGE THE ORDER OF THE ROUTE PLAQUES AS SHOWN ON TRAFFIC SIGN DETAIL SHEET #1



**INTERSTATE ROUTE 91 NB
NB MM STA. 57.414
END PROJECT
IM 091-1(55)**



NB MM STA. 50.900
DETAIL LOCATED ON TRAFFIC SIGN DETAIL SHEET #3

REMOVE AND REPLACE STATE AND U.S. ROUTE PLAQUES. REFER TO TRAFFIC SIGN DETAIL SHEET #1
REARRANGE THE ORDER OF THE ROUTE PLAQUES AS SHOWN ON TRAFFIC SIGN DETAIL SHEET #1

NORTHBOUND SIGNS

TRAFFIC SIGN LAYOUT SHEET #1

PROJECT NAME: SPRINGFIELD - WINDSOR	
PROJECT NUMBER: IM 091-1(55)	
FILE NAME: 06A194.dgn	PLOT DATE: 28-OCT-2011 4:01
PROJECT LEADER: LFW	DRAWN BY: LFW
DESIGNED BY: LFW	CHECKED BY: LFW
PLOT FILE: 06A194+sl1.i	SHEET 18 OF 36

NOT TO SCALE

ITEM 675.50 - REMOVING SIGNS
12 - AS SHOWN

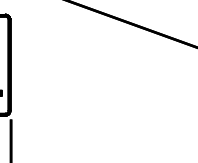
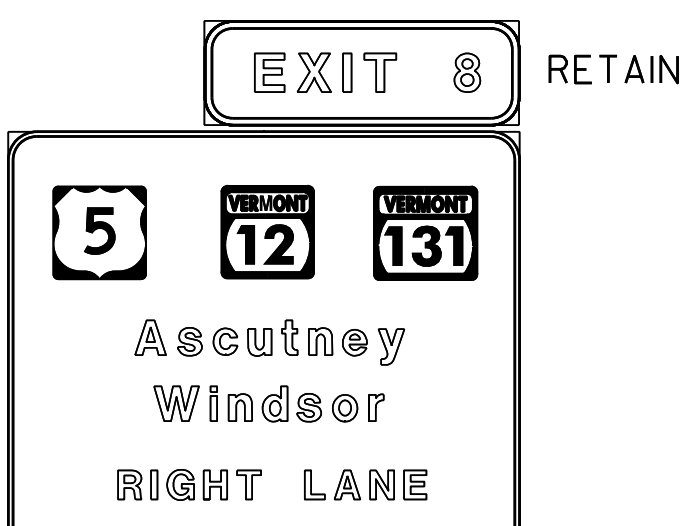
SB MM STA. 51.800

REMOVE AND REPLACE STATE AND
U.S. ROUTE PLAQUES. REFER TO
TRAFFIC SIGN DETAIL SHEET #2

REARRANGE THE ORDER OF THE
ROUTE PLAQUES AS SHOWN ON
TRAFFIC SIGN DETAIL SHEET #2

THINNING AND TRIMMING FOR THIS
SIGN IS INCLUDED ON SHEET 12.

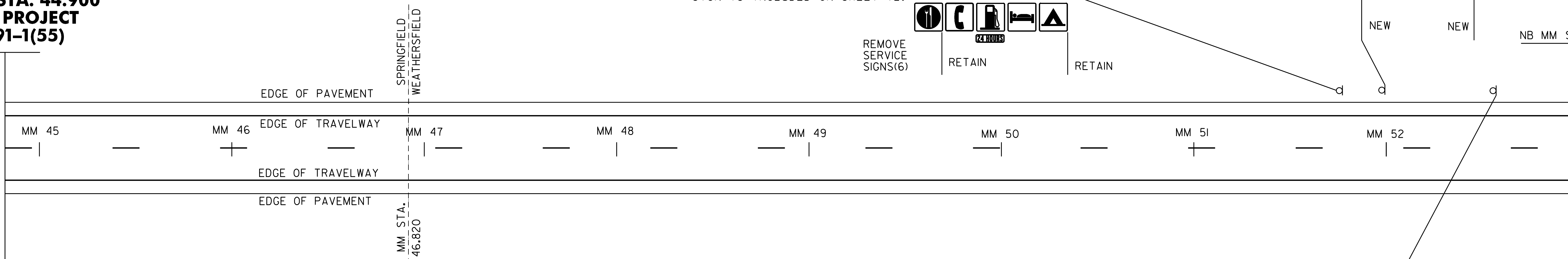
REMOVE
SERVICE
SIGNS(6)



DETAIL LOCATED ON
TRAFFIC SIGN DETAIL
SHEET #3

INTERSTATE ROUTE 91 NB
NB MM STA. 44.900
BEGIN PROJECT
IM 091-1(55)

I-91
SOUTHBOUND



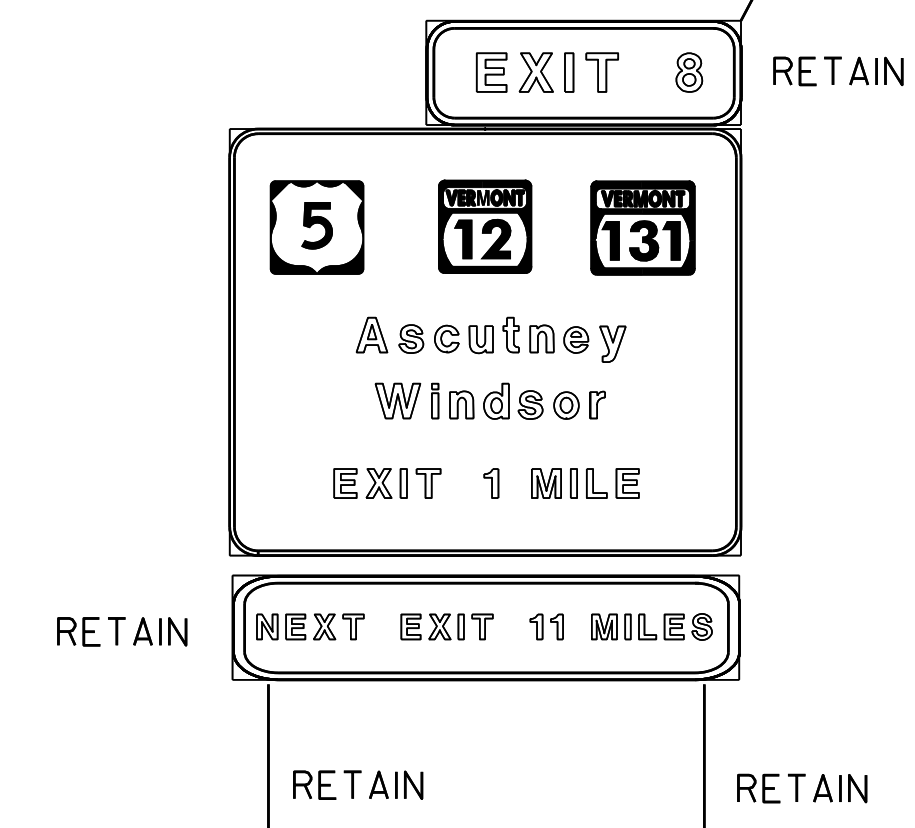
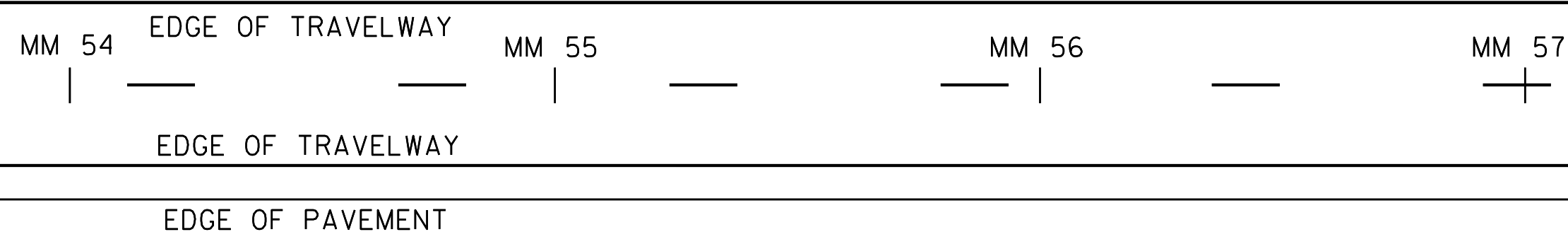
INTERSTATE ROUTE 91 NB
NB MM STA. 57.414
END PROJECT
IM 091-1(55)

I-91
SOUTHBOUND

NB MM STA. 53.000

MATCH LINE SEE ABOVE

WEATHERSFIELD
WINDSOR
NB MM STA.
53.444



SB MM STA. 52.662

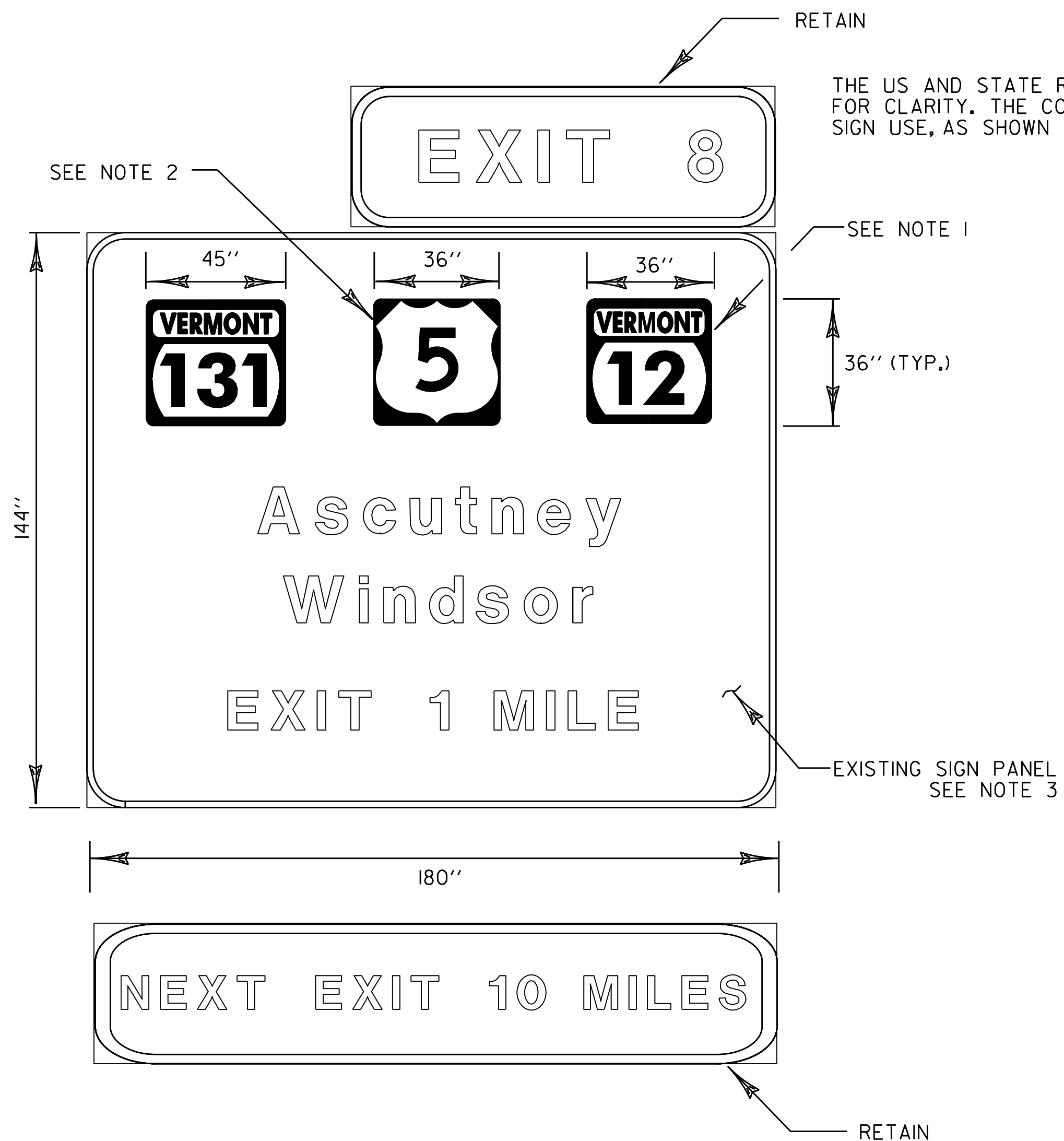
REMOVE AND REPLACE STATE AND
U.S. ROUTE PLAQUES. REFER TO
TRAFFIC SIGN DETAIL SHEET #2

REARRANGE THE ORDER OF THE
ROUTE PLAQUES AS SHOWN ON
TRAFFIC SIGN DETAIL SHEET #2

SOUTHBOUND SIGNS

NOT TO SCALE

TRAFFIC SIGN LAYOUT SHEET #2	PROJECT NAME: SPRINGFIELD - WINDSOR	
	PROJECT NUMBER: IM 091-1(55)	
	FILE NAME: 06A194.dgn	PLOT DATE: 28-OCT-2011 4:01
	PROJECT LEADER: LFW	DRAWN BY: LFW
DESIGNED BY: LFW	CHECKED BY: LFW	
PLOT FILE: 06A194+sl2.i		SHEET 19 OF 36



COLOR STATE ROUTE SIGNS:
 WHITE BORDER & BACKGROUND (REFLECTORIZED)
 GREEN LEGEND & TEXT (REFLECTORIZED)

COLOR U.S. ROUTE SIGNS:
 WHITE BORDER & BACKGROUND (REFLECTORIZED)
 BLACK LEGEND & TEXT (REFLECTORIZED)

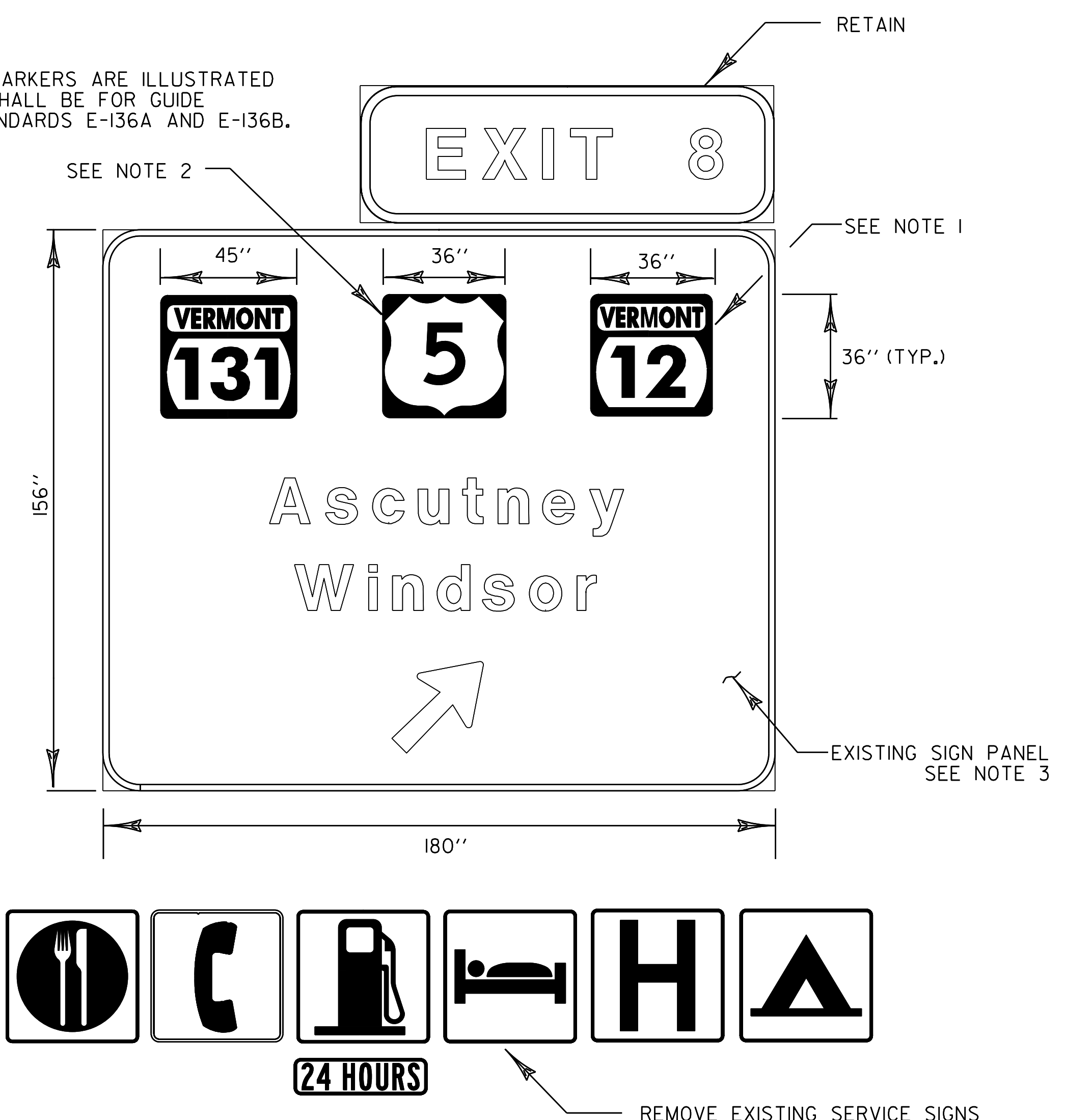
MATERIAL:
 0.060" FLAT SHEET ALUMINUM

SIGN - INTERSTATE 91
 NORTHBOUND:
 MM STA. 50.317 RT

- NOTES:
1. REMOVE THE EXISTING STATE ROUTE MARKER PLAQUE AND REPLACE WITH NEW STATE ROUTE MARKER PLAQUE AS DIRECTED BY THE RESIDENT ENGINEER. THE NEW STATE ROUTE MARKER OVERLAY PANELS SHALL BE FABRICATED OUT OF 0.060" THICK FLAT SHEET ALUMINUM. ALL NEW STATE ROUTE MARKER OVERLAY PANELS SHALL HAVE A CONTRASTING WHITE BORDER AS SHOWN ON VAOT STANDARD E-136B STATE ROUTE MARKER FOR GUIDE SIGN USE.
 2. REMOVE THE EXISTING U.S. ROUTE MARKER PLAQUE AND REPLACE WITH NEW U.S. ROUTE MARKER PLAQUE AS DIRECTED BY THE RESIDENT ENGINEER. THE NEW U.S. ROUTE MARKER OVERLAY PANELS SHALL BE FABRICATED OUT OF 0.060" THICK FLAT SHEET ALUMINUM. ALL NEW U.S. ROUTE MARKER OVERLAY PANELS SHALL BE AS SHOWN ON VAOT STANDARD E-136A, U.S. ROUTE MARKER FOR GUIDE SIGN USE.
 3. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE EXISTING OVERHEAD SIGN PANEL PRIOR TO THE FABRICATION OF OVERLAY PANEL.
 4. PAYMENT FOR REMOVING THE EXISTING STATE AND U.S. HIGHWAY PLAQUES SHALL BE MADE UNDER ITEM 675.50, REMOVING SIGNS.

RETAIN

THE US AND STATE ROUTE MARKERS ARE ILLUSTRATED FOR CLARITY. THE COLORS SHALL BE FOR GUIDE SIGN USE, AS SHOWN ON STANDARDS E-136A AND E-136B.

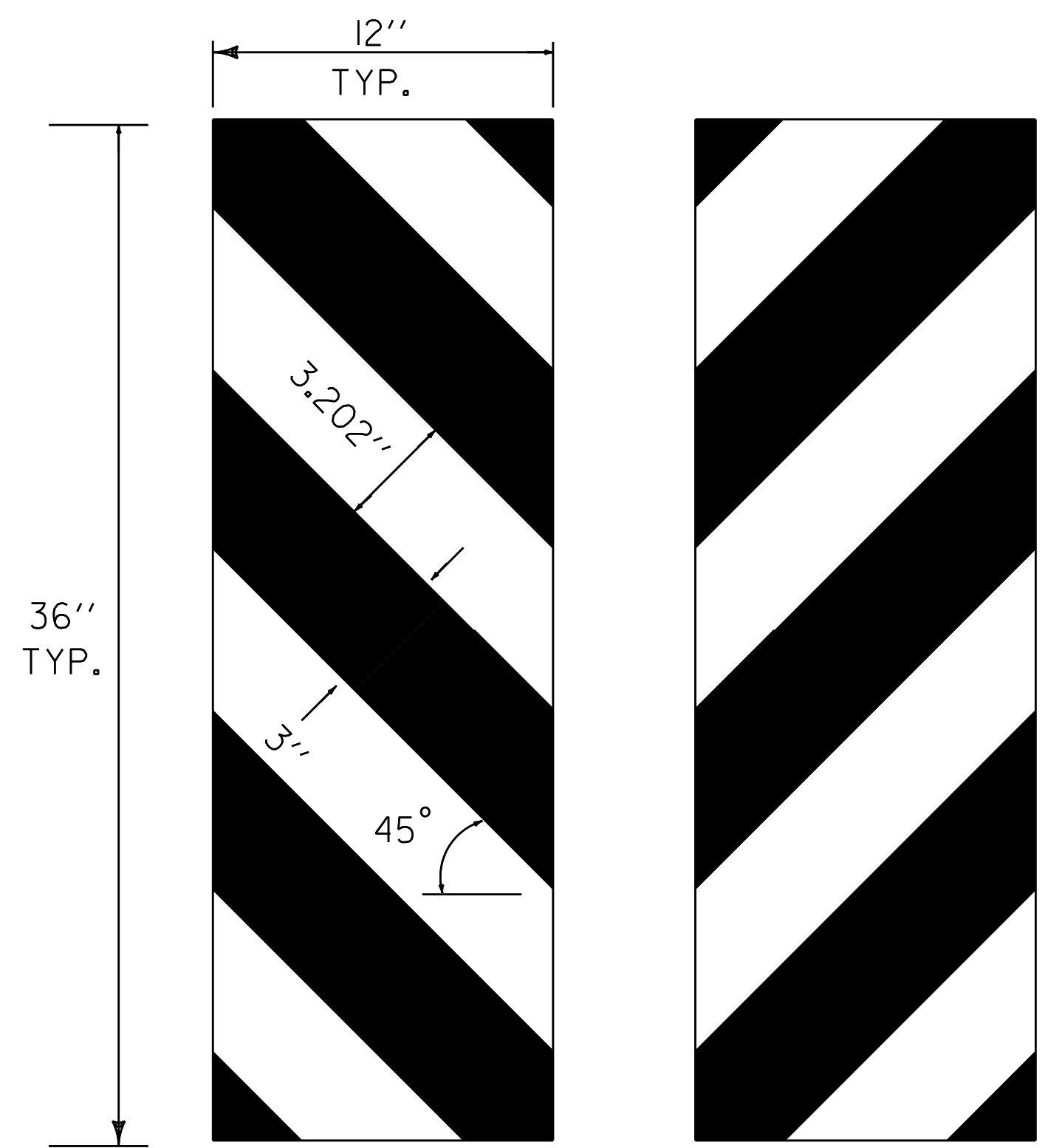


COLOR STATE ROUTE SIGNS:
 WHITE BORDER & BACKGROUND (REFLECTORIZED)
 GREEN LEGEND & TEXT (REFLECTORIZED)

COLOR U.S. ROUTE SIGNS:
 WHITE BORDER & BACKGROUND (REFLECTORIZED)
 BLACK LEGEND & TEXT (REFLECTORIZED)

MATERIAL:
 0.060" FLAT SHEET ALUMINUM

SIGN - INTERSTATE 91
 NORTHBOUND:
 MM STA. 51.185 RT



OM-3L

OM-3R

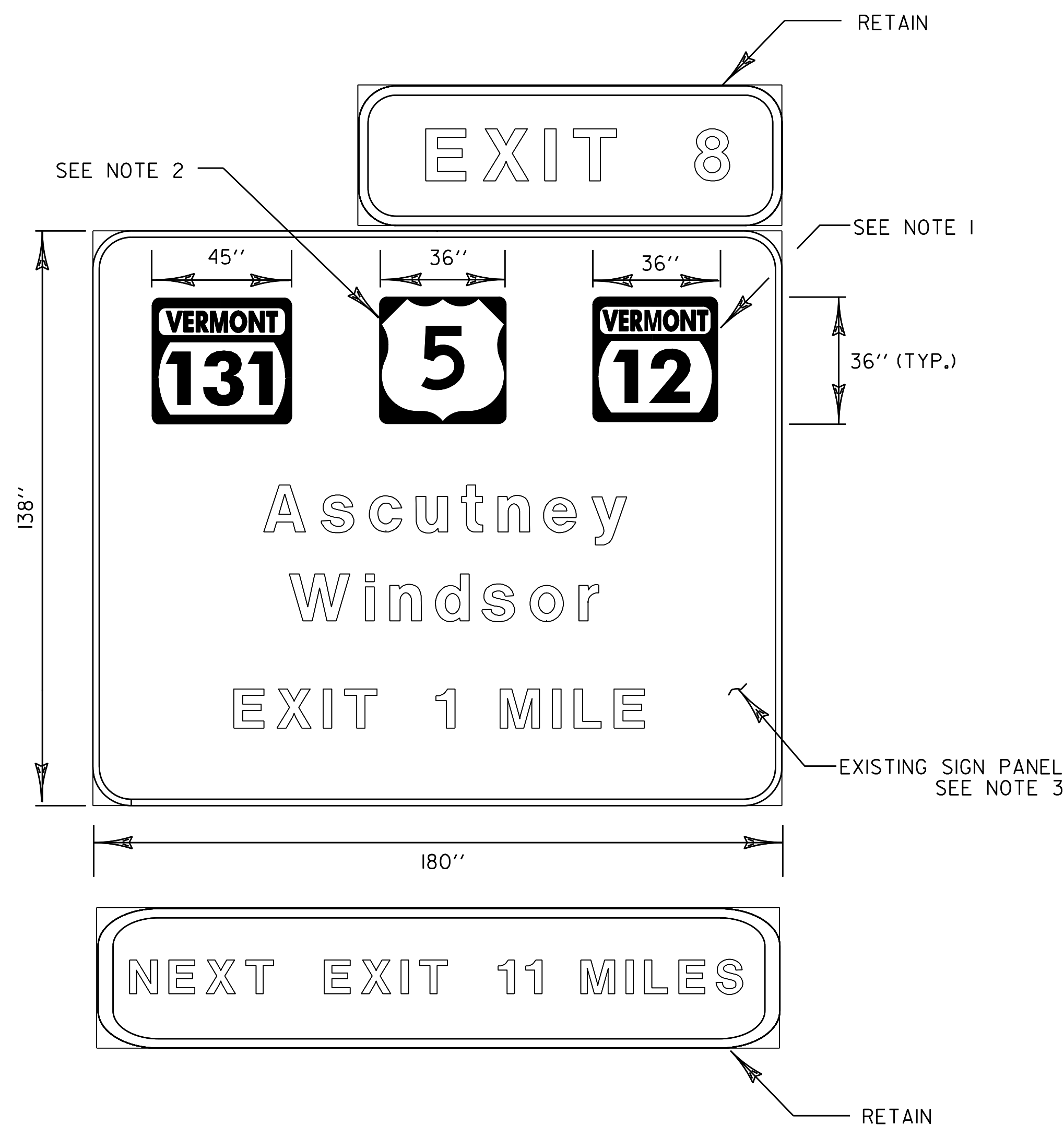
COLOR: BLACK SYMBOL
 YELLOW BACKGROUND (REFLECTORIZED)

SIGN-INTERSTATE 91
 NORTHBOUND:
 MM STA. 51.370 RT AND LT

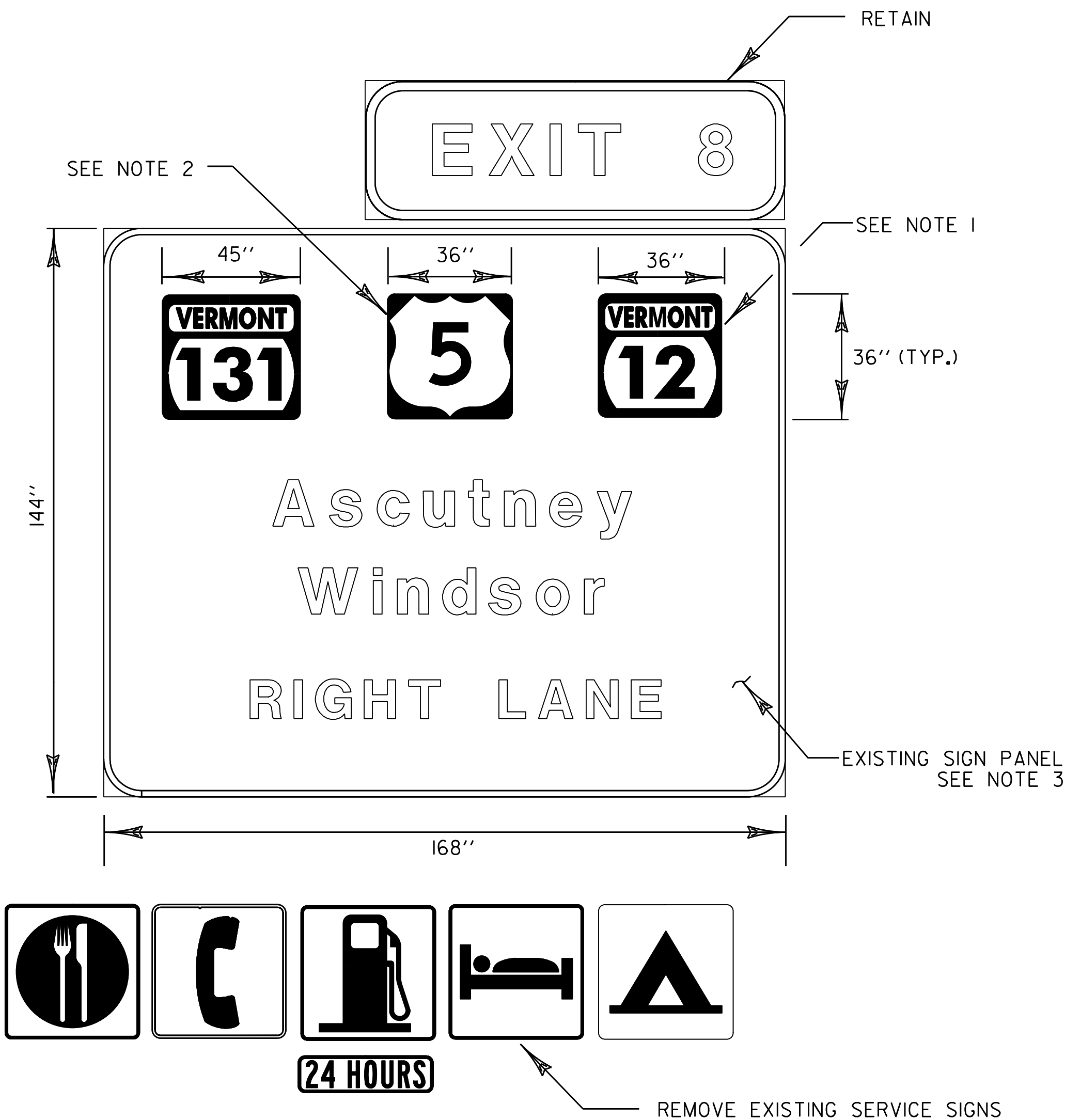
NOT TO SCALE

**TRAFFIC
 SIGN
 DETAIL
 SHEET #1**

PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO. : IM 091-(155)
DESIGN FILE NAME: <u>06A194.dgn</u> IPARM FILE NAME: <u>06A194+sd1.i</u> SURVEYED BY: <u>N/A</u> SQUAD LEADER: <u>LEW</u>	PLOT DATE: <u>28-OCT-2011 14:02</u> SURVEY DATE: <u>N/A</u> DRAWN BY: <u>LEW</u> SHEET: 24 OF 36



THE US AND STATE ROUTE MARKERS ARE ILLUSTRATED FOR CLARITY. THE COLORS SHALL BE FOR GUIDE SIGN USE, AS SHOWN ON STANDARDS E-136A AND E-136B.



COLOR STATE ROUTE SIGNS:
WHITE BORDER & BACKGROUND (REFLECTORIZED)
GREEN LEGEND & TEXT (REFLECTORIZED)

COLOR U.S. ROUTE SIGNS:
WHITE BORDER & BACKGROUND (REFLECTORIZED)
BLACK LEGEND & TEXT (REFLECTORIZED)

MATERIAL:
0.060" FLAT SHEET ALUMINUM

SIGN - INTERSTATE 91
SOUTHBOUND:
MM STA. 52.662 RT

COLOR STATE ROUTE SIGNS:
WHITE BORDER & BACKGROUND (REFLECTORIZED)
GREEN LEGEND & TEXT (REFLECTORIZED)

COLOR U.S. ROUTE SIGNS:
WHITE BORDER & BACKGROUND (REFLECTORIZED)
BLACK LEGEND & TEXT (REFLECTORIZED)

MATERIAL:
0.060" FLAT SHEET ALUMINUM

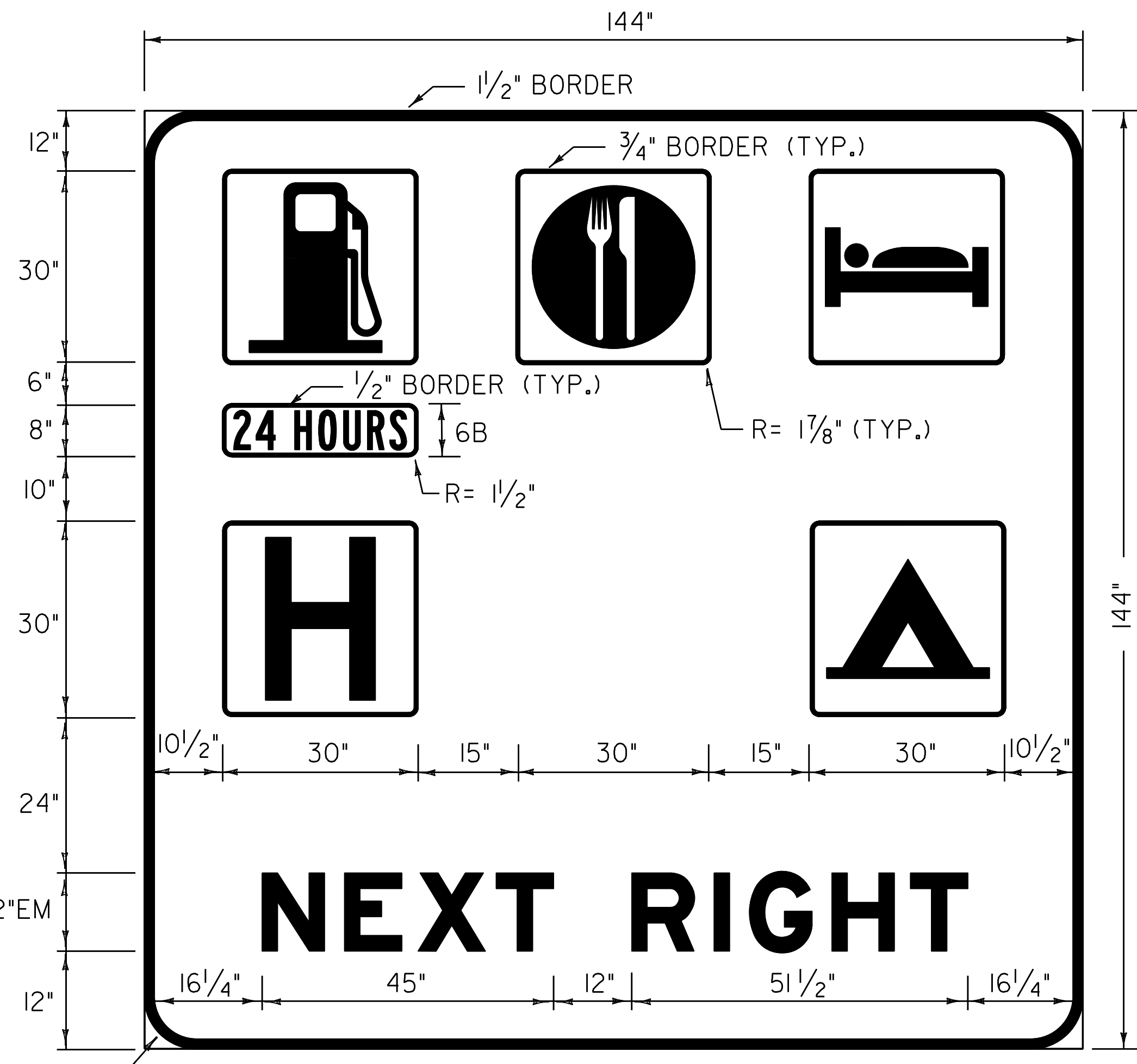
SIGN - INTERSTATE 91
SOUTHBOUND:
MM STA. 51.800 RT

NOTES:

1. REMOVE THE EXISTING STATE ROUTE MARKER PLAQUE AND REPLACE WITH NEW STATE ROUTE MARKER PLAQUE AS DIRECTED BY THE RESIDENT ENGINEER. THE NEW STATE ROUTE MARKER OVERLAY PANELS SHALL BE FABRICATED OUT OF 0.060" THICK FLAT SHEET ALUMINUM. ALL NEW STATE ROUTE MARKER OVERLAY PANELS SHALL HAVE A CONTRASTING WHITE BORDER AS SHOWN ON VAOT STANDARD E-136B STATE ROUTE MARKER FOR GUIDE SIGN USE.
2. REMOVE THE EXISTING U.S. ROUTE MARKER PLAQUE AND REPLACE WITH NEW U.S. ROUTE MARKER PLAQUE AS DIRECTED BY THE RESIDENT ENGINEER. THE NEW U.S. ROUTE MARKER OVERLAY PANELS SHALL BE FABRICATED OUT OF 0.060" THICK FLAT SHEET ALUMINUM. ALL NEW U.S. ROUTE MARKER OVERLAY PANELS SHALL BE AS SHOWN ON VAOT STANDARD E-136A, U.S. ROUTE MARKER FOR GUIDE SIGN USE.
3. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE EXISTING OVERHEAD SIGN PANEL PRIOR TO THE FABRICATION OF OVERLAY PANEL.
4. PAYMENT FOR REMOVING THE EXISTING STATE AND U.S. HIGHWAY PLAQUES SHALL BE MADE UNDER ITEM 675.50, REMOVING SIGNS.

NOT TO SCALE

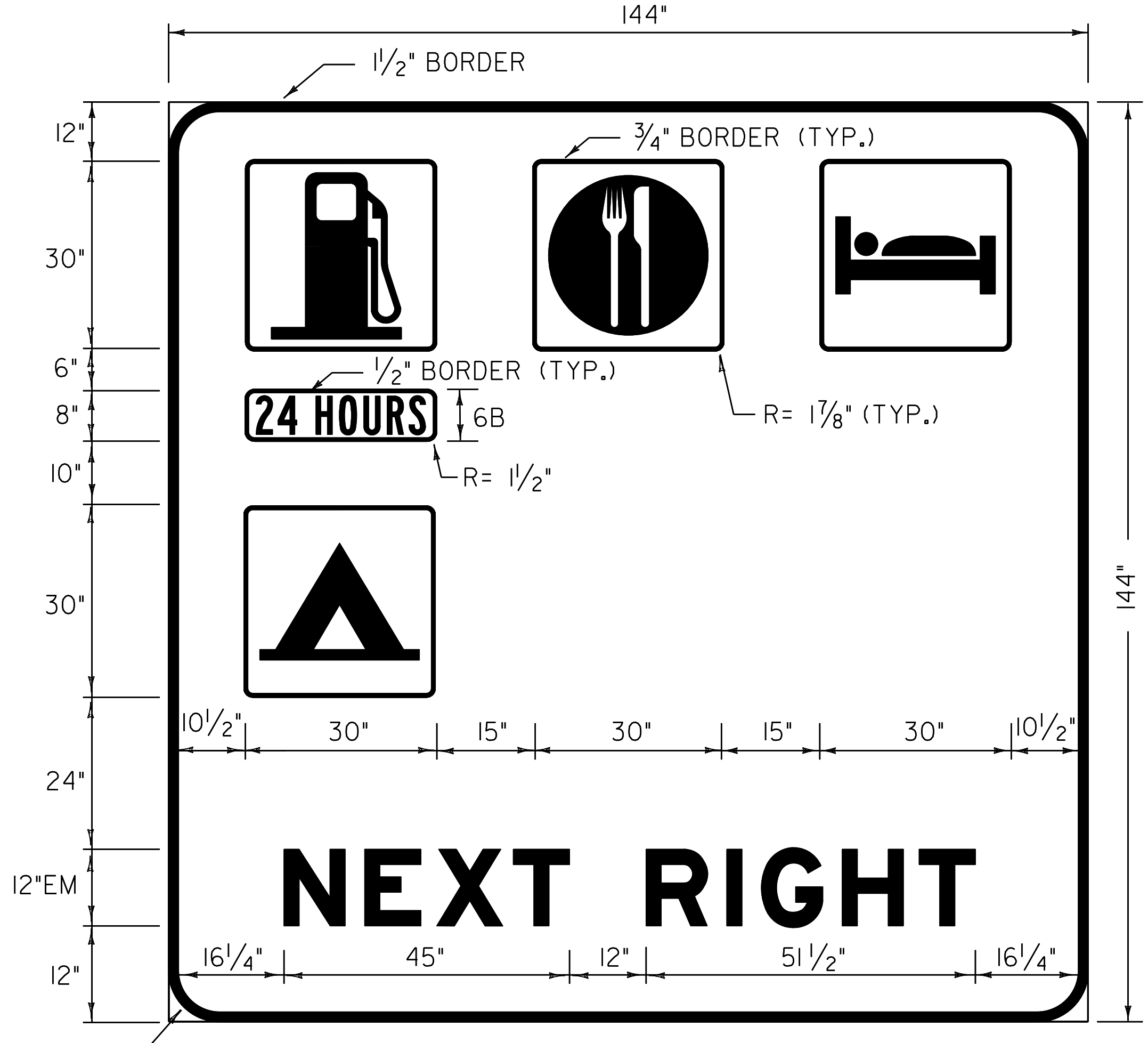
TRAFFIC SIGN DETAIL SHEET #2	PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO. : IM 091-(155)
	DESIGN FILE NAME: <u>06A194.dgn</u> IPARM FILE NAME: <u>06A194+sd2.i</u> SURVEYED BY: <u>N/A</u> SQUAD LEADER: <u>LFW</u>	PLOT DATE: <u>28-OCT-2011 14:02</u> SURVEY DATE: <u>N/A</u> DRAWN BY: <u>LFW</u> SHEET: 25 OF 36



COLOR: WHITE BORDER, TEXT & SYMBOL (REFLECTORIZED)
 BLUE BACKGROUND (REFLECTORIZED)

MATERIAL: PER VAOT STANDARD E-130

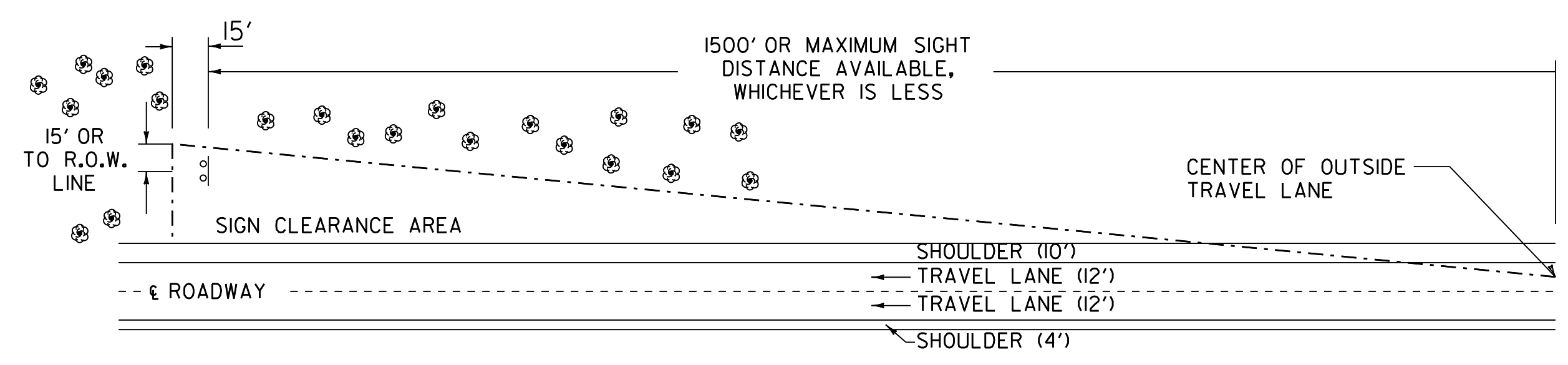
SIGN-INTERSTATE 91
 NORTHBOUND:
 MM STA. 50.900 RT



COLOR: WHITE BORDER, TEXT & SYMBOL (REFLECTORIZED)
 BLUE BACKGROUND (REFLECTORIZED)

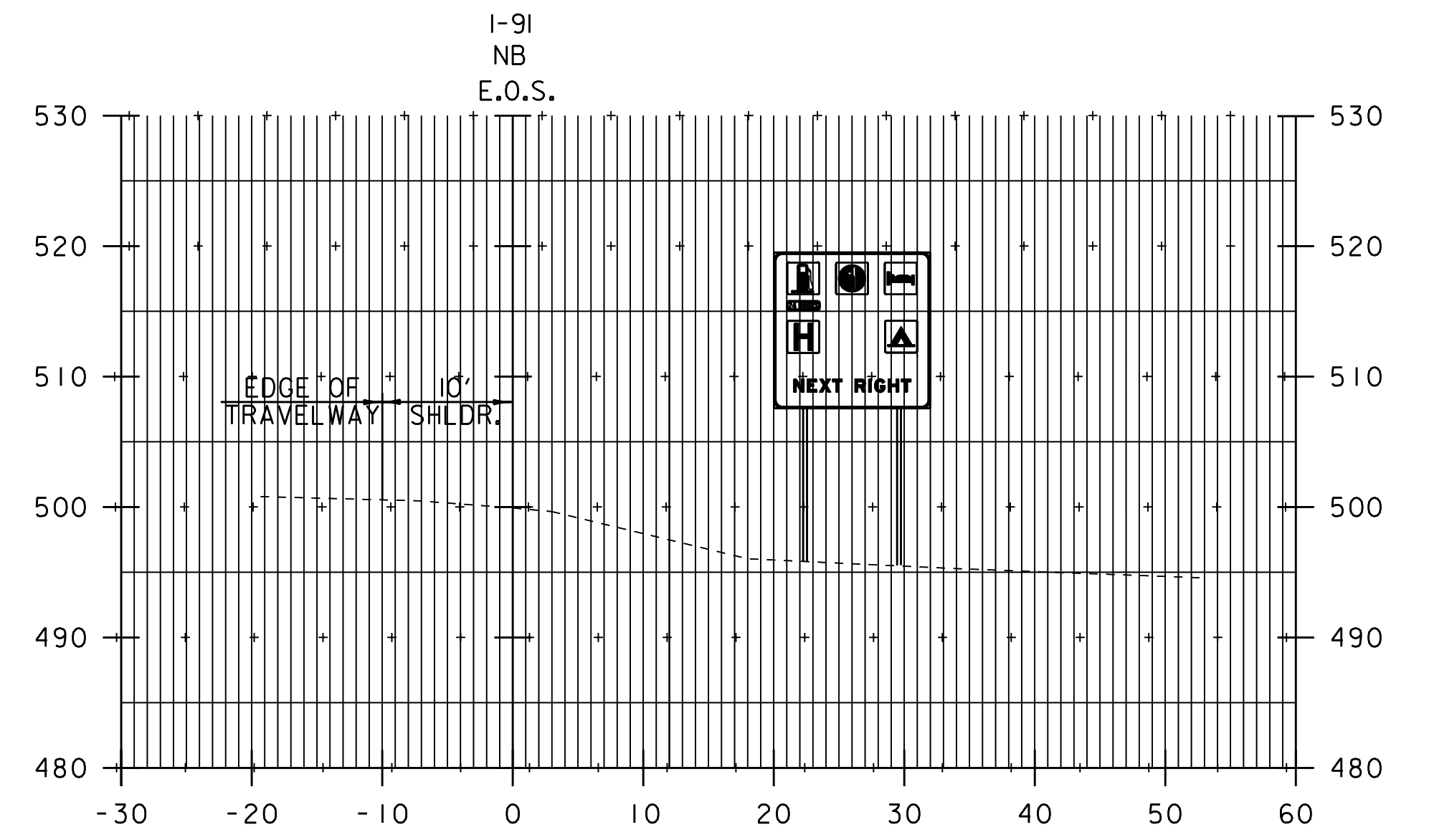
MATERIAL: PER VAOT STANDARD E-130

SIGN-INTERSTATE 91
 SOUTHBOUND:
 MM STA. 51.990 RT

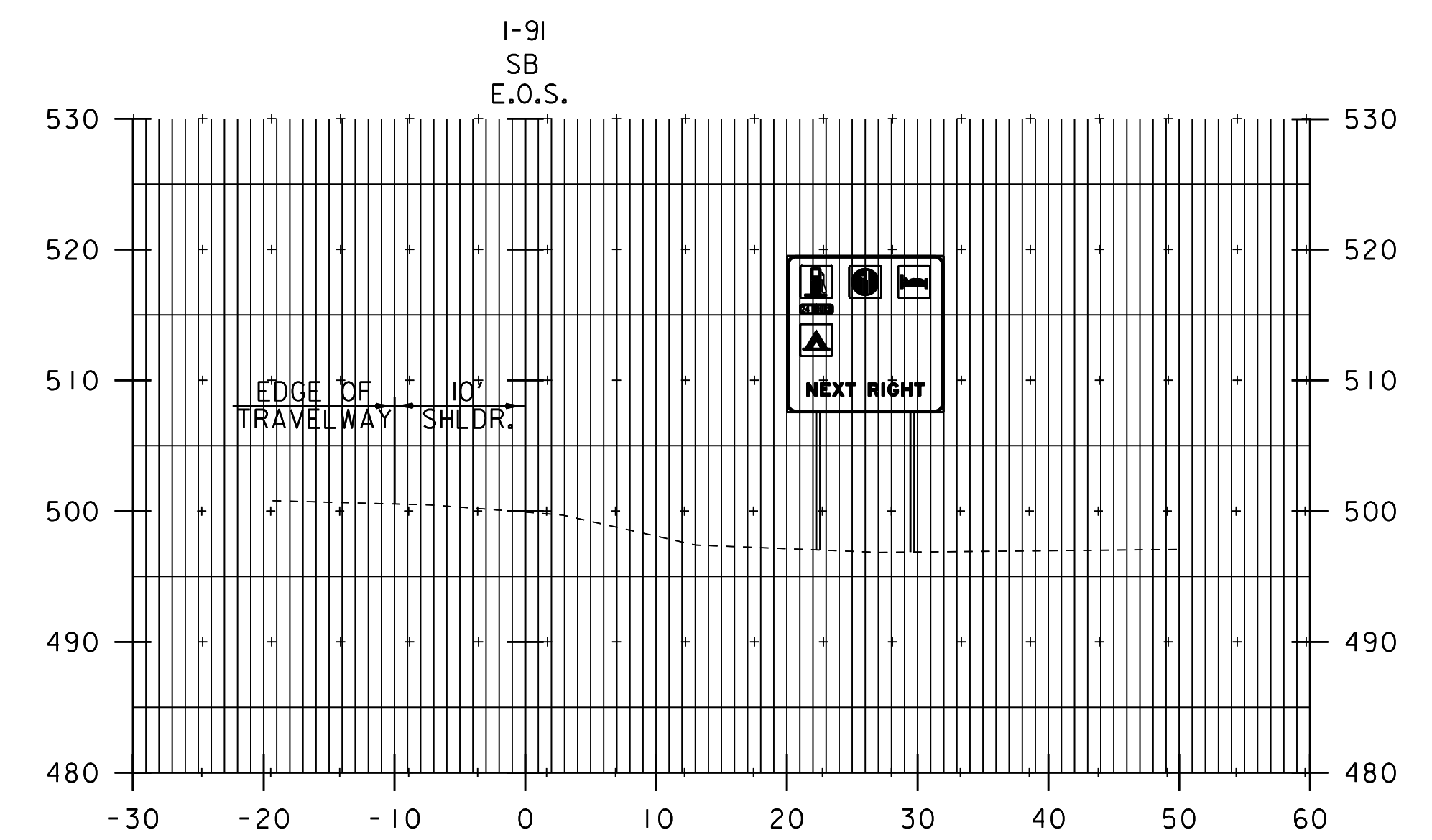


THE CONTRACTOR SHALL REMOVE ALL WOODY STEMMED GROWTH INCLUDING BRUSH, SAPLINGS, TREE LIMBS GROWING WITHIN OR PROJECTING INTO THE CLEARANCE AREA AND DOWN TO GROUND LEVEL OR AT LEAST 10 FT. BELOW THE BOTTOM OF THE SIGN, WHICH EVER IS LESS. PAYMENT WILL BE FOR THINNING AND TRIMMING FOR SIGNS, ITEM 201.31 AND PAID FOR PER EACH. NO CHEMICALS (POISONS OR DEFOLIANTS) ALLOWED.

THINNING AND TRIMMING FOR SIGNS DETAIL (INTERSTATE)



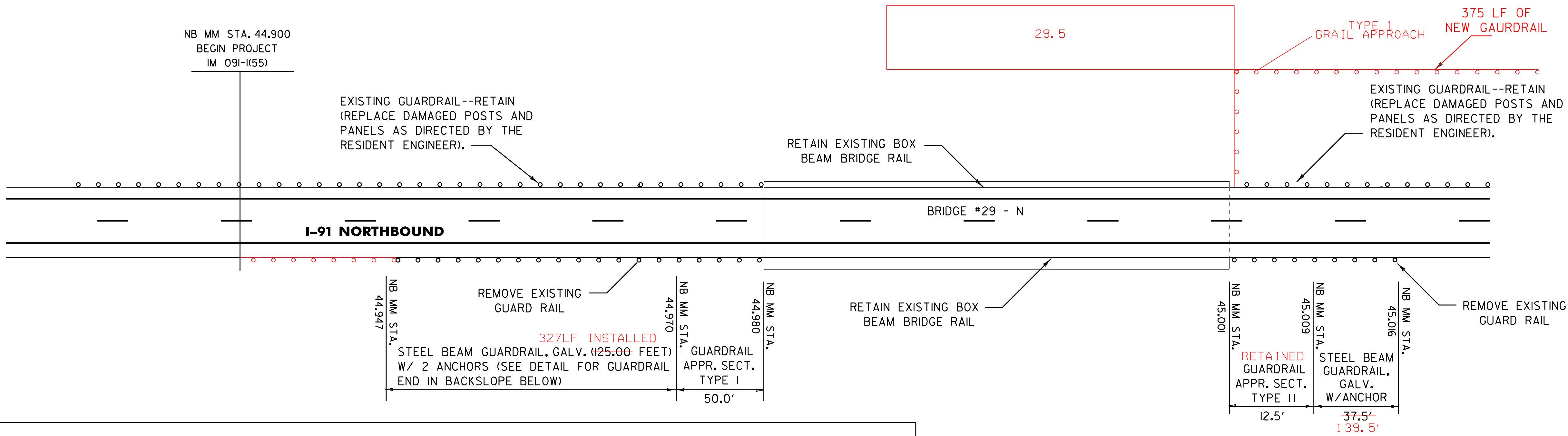
I-91
 NB
 E.O.S.
 I-91 NORTHBOUND
 MM STA. 50.900 RT
 LEFT POST = 22.6'
 RIGHT POST = 23.0'
 W8x18 W-SHAPE STEEL



I-91
 SB
 E.O.S.
 I-91 SOUTHBOUND
 MM STA. 51.990 RT
 LEFT POST = 22.1'
 RIGHT POST = 22.2'
 W8x18 W-SHAPE STEEL

NOT TO SCALE

TRAFFIC SIGN DETAIL SHEET #3	PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO.: IM 091-I(55)
	DESIGN FILE NAME: 06A194.dgn	PLOT DATE: 28-OCT-2011 14:00
	IPARM FILE NAME: 06A194+sd3.i	SURVEY DATE: N/A
	SURVEYED BY: N/A	DRAWN BY: LFW
	SQUAD LEADER: LFW	SHEET: 26 OF 36



621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 NB MM STA. 44.947 TO 44.970 RT (125')
 NB MM STA. 45.009 TO 45.016 RT (37.5')

621.60 ANCHOR FOR STEEL BEAM RAIL
 NB MM STA. 44.947 RT(2)
 NB MM STA. 45.016 RT

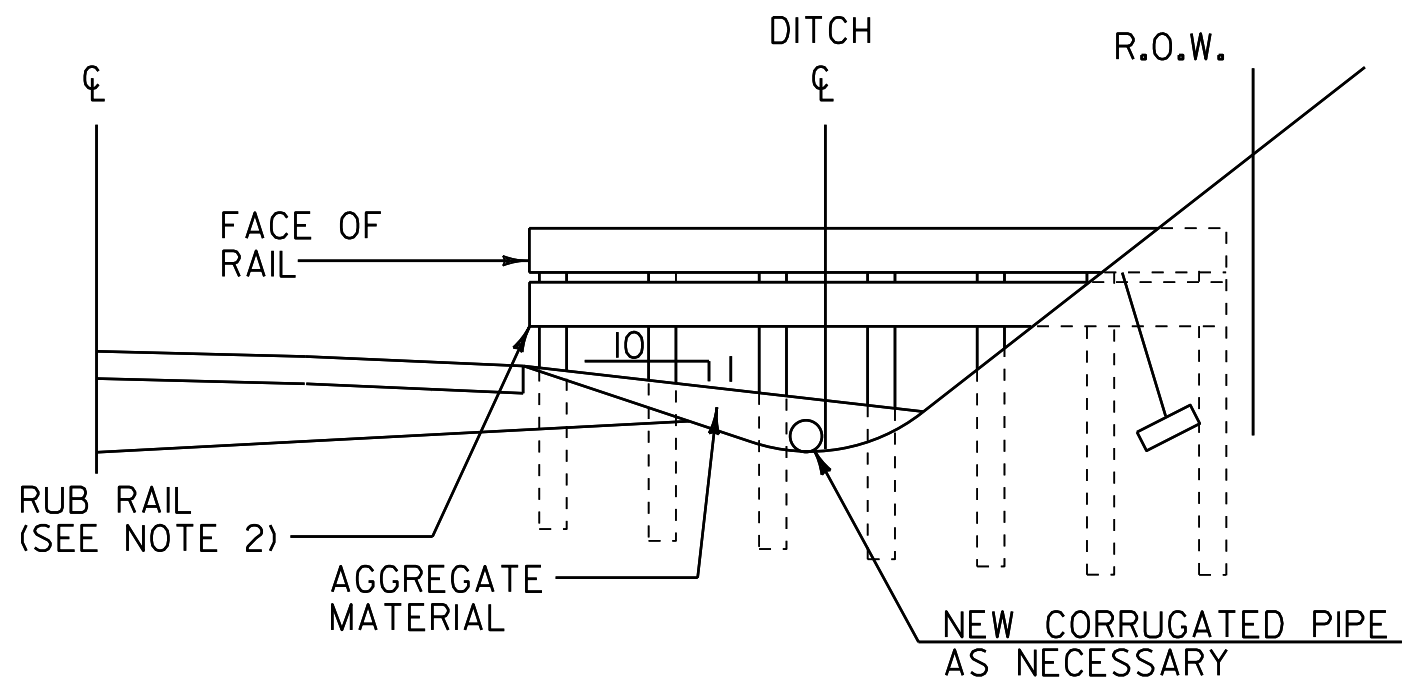
621.80 REMOVAL & DISPOSAL OF GUARDRAIL
 NB MM STA. 44.950 TO 44.980 RT (160')
 NB MM STA. 45.001 TO 45.016 RT (50')

621.70 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I
 (REFER TO DETAILS ON SHEETS 34 AND 35)
 NB MM STA. 44.970 TO 44.980 RT

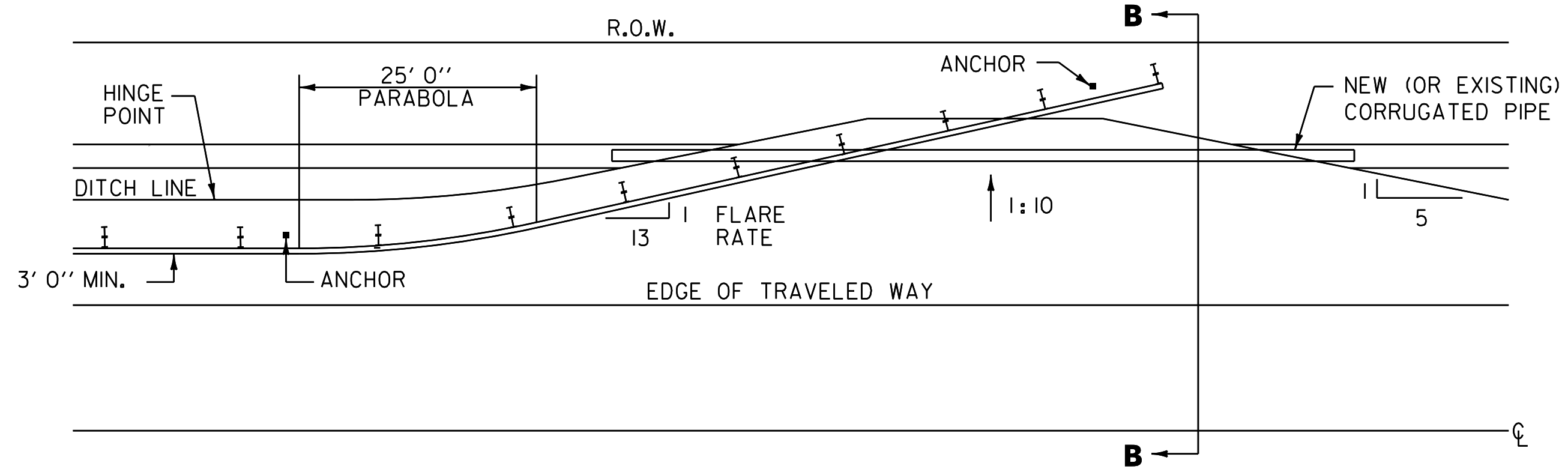
621.71 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II
 (REFER TO DETAILS ON SHEETS 34 AND 35)
 NB MM STA. 45.001 TO 45.009 RT

601.0915 CPEP (18'')
 NB MM STA. 44.947 RT (20')

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.



SECTION B-B



DETAIL FOR BURIED GUARDRAIL ENDS INTO BACKSLOPES

NOT TO SCALE

NOTES:

1. PRIMARY RAIL SHALL REMAIN AT A CONSTANT HEIGHT (LEVEL) RELATIVE TO THE HEIGHT OF RAIL AT THE EDGE OF SHOULDER.
2. ADDITION OF RUB RAIL IS REQUIRED WHEN OPENING BENEATH PRIMARY RAIL EXCEEDS 18 INCHES. RUB RAIL EXTENDS FROM THE EDGE OF SHOULDER TO THE BACK SLOPE.

TYPE 1 SB
 TYPE 2 0 NB
 0

**BRIDGE #29 - N
 I-91 NB MM STA. 44.989**

NOT TO SCALE

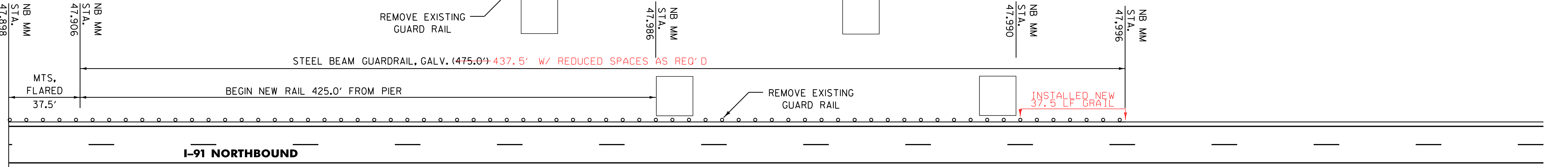
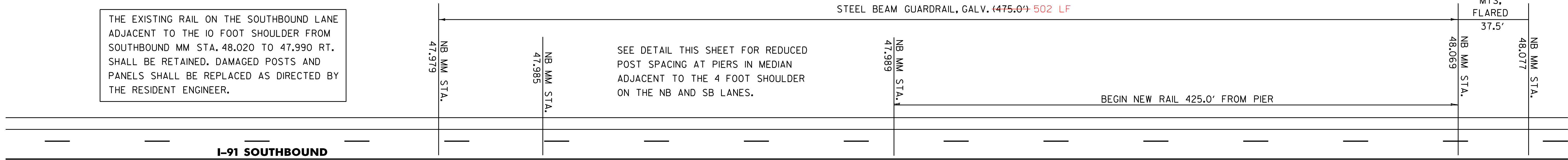
**GUARDRAIL
 AT BRIDGE
 DETAIL
 SHEET #1**

PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO. : IM 091-I(55)
DESIGN FILE NAME: 06A194.dgn IPARM FILE NAME: 06A194brLi SURVEYED BY: N/A SQUAD LEADER: LFW	PLOT DATE: 28-OCT-2011 4:02 SURVEY DATE: N/A DRAWN BY: LFW SHEET: 27 OF 36

THE EXISTING RAIL ON THE SOUTHBOUND LANE ADJACENT TO THE 10 FOOT SHOULDER FROM SOUTHBOUND MM STA. 48.020 TO 47.990 RT. SHALL BE RETAINED. DAMAGED POSTS AND PANELS SHALL BE REPLACED AS DIRECTED BY THE RESIDENT ENGINEER.

SEE DETAIL THIS SHEET FOR REDUCED POST SPACING AT PIERS IN MEDIAN ADJACENT TO THE 4 FOOT SHOULDER ON THE NB AND SB LANES.

STEEL BEAM GUARDRAIL, GALV. (475.0') 502 LF

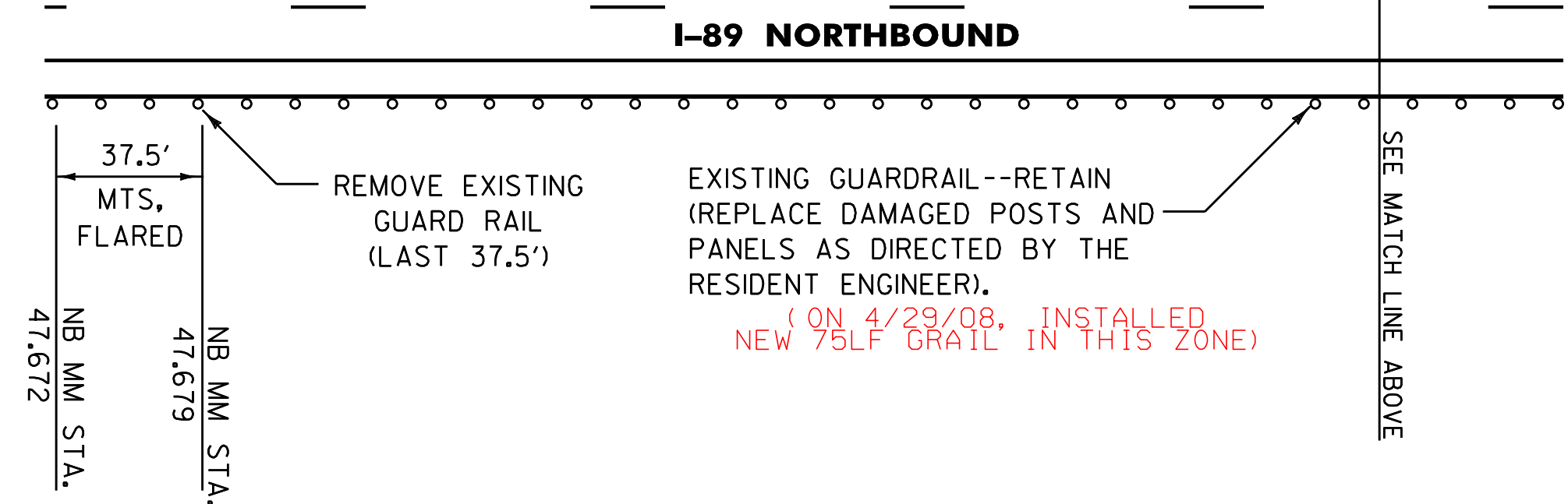


621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 NB MM STA. 47.906 TO 47.996 LT (475')
 NB MM STA. 47.979 TO 48.069 LT (ON SB LANE) (475')
 NB MM STA. 47.991 TO 48.001 RT (50')

621.60 ANCHOR FOR STEEL BEAM RAIL
 NB MM STA. 47.979 LT (ON SB LANE)
 NB MM STA. 47.996 LT
 NB MM STA. 48.001 RT

621.50 MANUFACTURED TERMINAL SECTION, FLARED
 NB MM STA. 47.672 TO 47.679 RT
 NB MM STA. 47.898 TO 47.906 LT
 NB MM STA. 48.069 TO 48.077 LT (ON SB LANE)

621.80 REMOVAL & DISPOSAL OF GUARDRAIL
 NB MM STA. 47.672 TO 47.679 RT (37.5')
 NB MM STA. 47.964 TO 47.997 LT (175')
 NB MM STA. 47.985 TO 48.006 LT (ON SB LANE) (112.5')
 NB MM STA. 47.991 TO 47.997 RT (25')



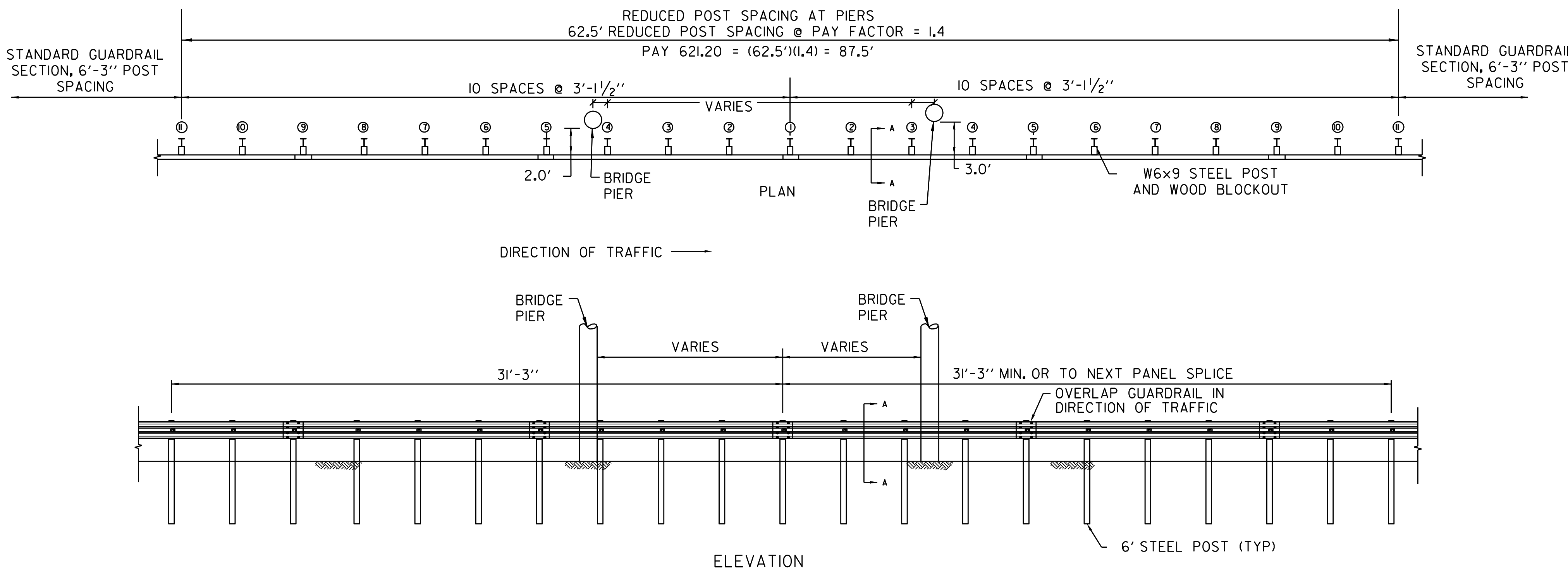
THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

BRIDGE #29 - 4 I-91 NB MM STA. 47.994

GUARDRAIL AT BRIDGE DETAIL SHEET #2

PROJECT: SPRINGFIELD - WINDSOR
 DESIGN FILE NAME: 06A194.dgn
 IPARM FILE NAME: 06A194br2.i
 SURVEYED BY: N/A
 SQUAD LEADER: LEW

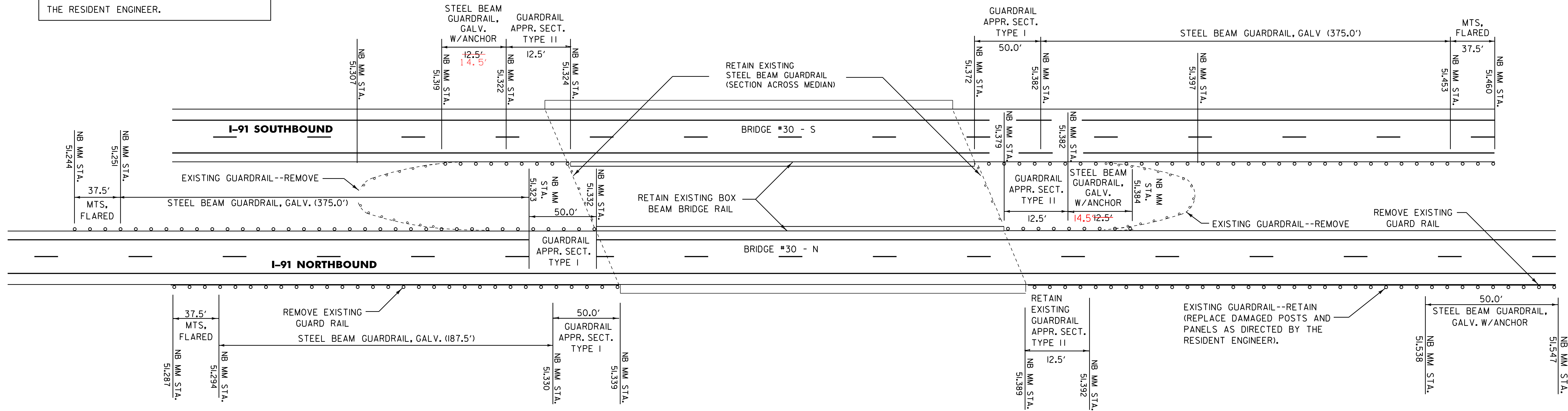
PROJECT NO.: IM 091-(155)
 PLOT DATE: 28-OCT-2011 14:00
 SURVEY DATE: N/A
 DRAWN BY: LEW
 SHEET: 28 OF 36



NON-YIELDING OBJECT APPROACH DETAIL

NOT TO SCALE

THE EXISTING RAIL ON THE SOUTHBOUND LANE ADJACENT TO THE 10 FOOT SHOULDER FROM SOUTHBOUND MM STA. 51.445 TO 51.309 RT. SHALL BE RETAINED. DAMAGED POSTS AND PANELS SHALL BE REPLACED AS DIRECTED BY THE RESIDENT ENGINEER.



621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 NB MM STA. 51.251 TO 51.323 LT (375')
 NB MM STA. 51.294 TO 51.330 RT (187.5')
 NB MM STA. 51.319 TO 51.322 LT (ON SB LANE) (12.5')
 NB MM STA. 51.382 TO 51.453 LT (ON SB LANE) (375')
 NB MM STA. 51.382 TO 51.384 LT (12.5')
 NB MM STA. 51.538 TO 51.547 RT (50')

621.50 MANUFACTURED TERMINAL SECTION, FLARED
 NB MM STA. 51.244 TO 51.251 LT
 NB MM STA. 51.287 TO 51.294 RT
 NB MM STA. 51.453 TO 51.460 LT (ON SB LANE)

621.60 ANCHOR FOR STEEL BEAM RAIL
 NB MM STA. 51.319 LT (ON SB LANE)
 NB MM STA. 51.384 LT
 NB MM STA. 51.547 RT

621.80 REMOVAL & DISPOSAL OF GUARDRAIL
 NB MM STA. 51.287 TO 51.339 RT (275')
 NB MM STA. 51.307 TO 51.332 LT (BULLNOSE) (262.5')
 NB MM STA. 51.372 TO 51.397 LT (BULLNOSE) (262.5')
 NB MM STA. 51.538 TO 51.547 RT (50')

621.70 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I
 (REFER TO DETAILS ON SHEETS 34 AND 35)
 NB MM STA. 51.323 TO 51.332 LT
 NB MM STA. 51.330 TO 51.339 RT
 NB MM STA. 51.372 TO 51.382 LT (ON SB LANE)

621.71 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II
 (REFER TO DETAILS ON SHEETS 34 AND 35)
 NB MM STA. 51.322 TO 51.324 LT (ON SB LANE)
 NB MM STA. 51.379 TO 51.382 LT

TYPE I I SB I NB I
 TYPE I I I I I

BRIDGE #30 - N I-91 NB MM STA. 51.371

NOT TO SCALE

**GUARDRAIL
 AT BRIDGE
 DETAIL
 SHEET #3**

PROJECT: SPRINGFIELD - WINDSOR

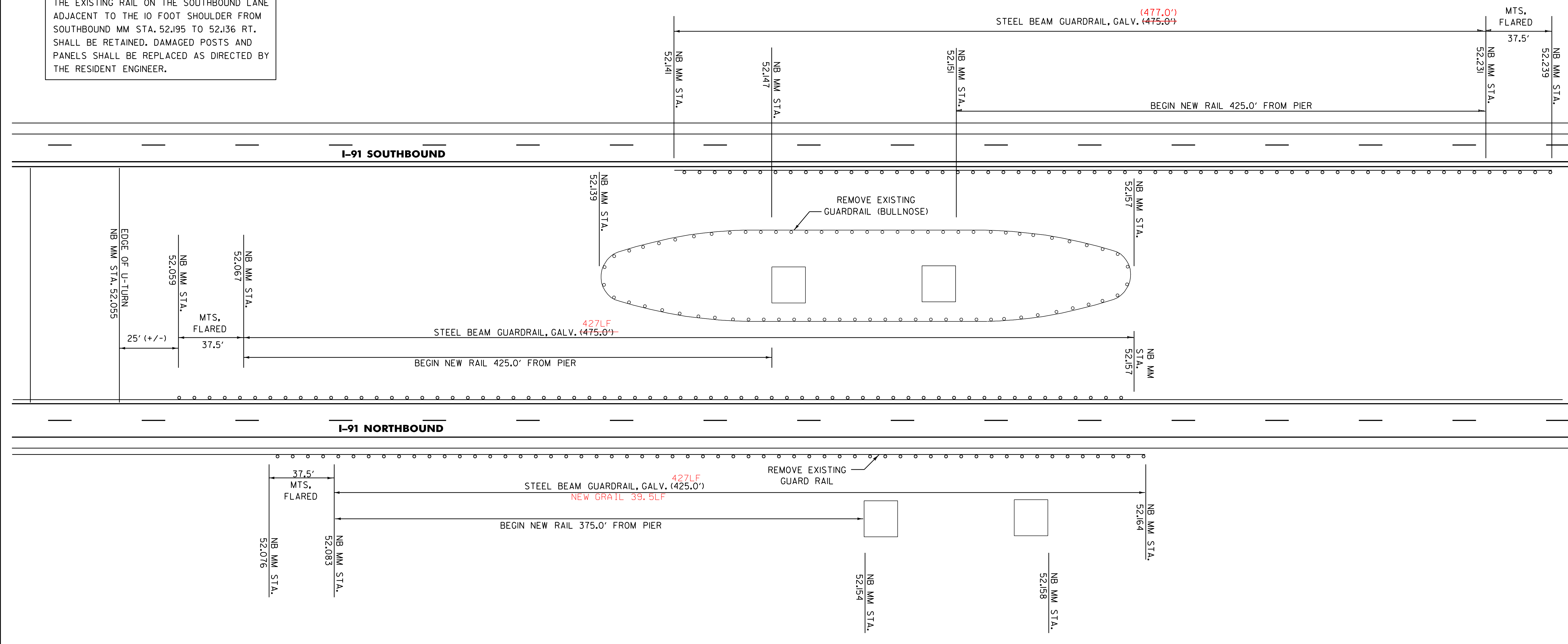
PROJECT NO.: IM 091-(155)

DESIGN FILE NAME: 06A194.dgn
 IPARM FILE NAME: 06A194br3.i
 SURVEYED BY: N/A
 SQUAD LEADER: LFW

PLOT DATE: 28-OCT-2011 14:00
 SURVEY DATE: N/A
 DRAWN BY: LFW
 SHEET: 29 OF 36

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

THE EXISTING RAIL ON THE SOUTHBOUND LANE ADJACENT TO THE 10 FOOT SHOULDER FROM SOUTHBOUND MM STA. 52.195 TO 52.136 RT. SHALL BE RETAINED. DAMAGED POSTS AND PANELS SHALL BE REPLACED AS DIRECTED BY THE RESIDENT ENGINEER.



- 621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 NB MM STA. 52.067 TO 52.157 LT (475')
 NB MM STA. 52.083 TO 52.164 RT (425')
 NB MM STA. 52.141 TO 52.231 LT (ON SB LANE) (475')
- 621.50 MANUFACTURED TERMINAL SECTION, FLARED
 NB MM STA. 52.059 TO 52.067 LT
 NB MM STA. 52.076 TO 52.083 RT
 NB MM STA. 52.231 TO 52.239 LT (ON SB LANE)
- 621.60 ANCHOR FOR STEEL BEAM RAIL
 NB MM STA. 52.141 LT (ON SB LANE)
 NB MM STA. 52.157 LT
 NB MM STA. 52.164 RT
- 621.80 REMOVAL & DISPOSAL OF GUARDRAIL
 NB MM STA. 52.137 TO 52.161 RT (125')
 NB MM STA. 52.139 TO 52.157 LT (BULLNOSE) (200')

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

BRIDGE #31 I-91 NB MM STA. 52.172

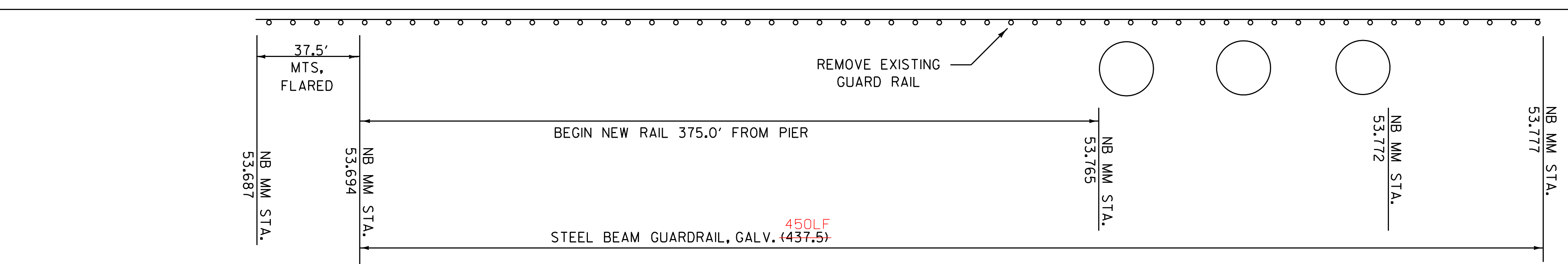
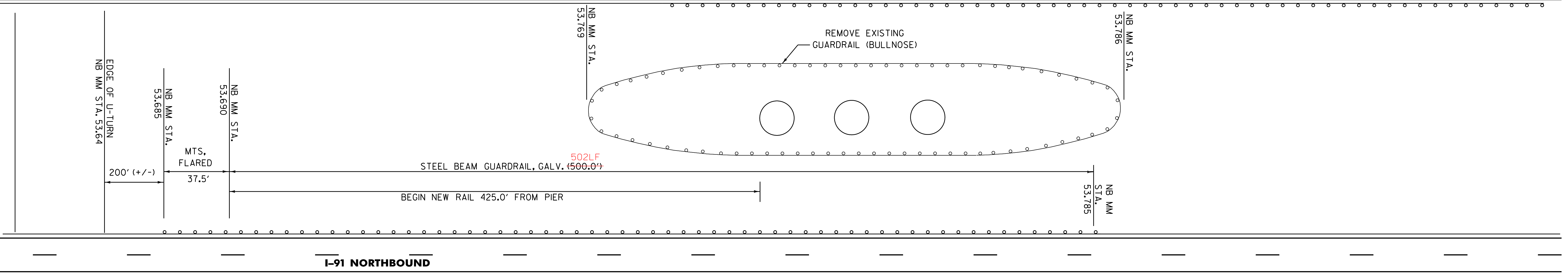
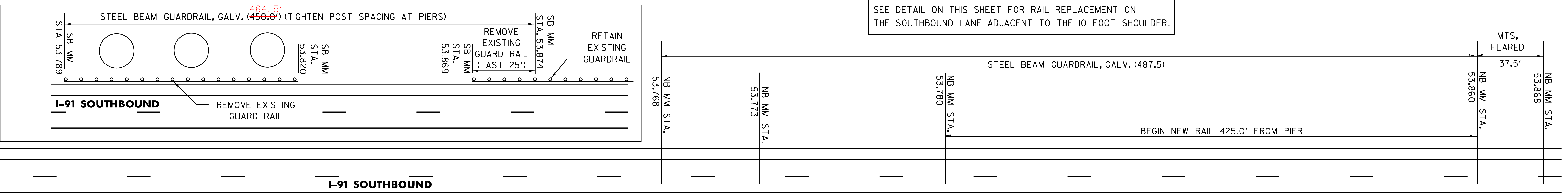
NOT TO SCALE

**GUARDRAIL
AT BRIDGE
DETAIL
SHEET #4**

PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO. : IM 091-I(55)
DESIGN FILE NAME: <u>06A194.dgn</u>	
IPARM FILE NAME: <u>06A194br4.i</u>	
SURVEYED BY: <u>N/A</u>	
SQUAD LEADER: <u>LFW</u>	
PLOT DATE: <u>28-OCT-2011 14:0</u>	
SURVEY DATE: <u>N/A</u>	
DRAWN BY: <u>LFW</u>	
SHEET: 30 OF 36	

DETAIL OF SOUTHBOUND GUARDRAIL TREATMENT AT THE 10 FOOT SHOULDER

SEE DETAIL ON THIS SHEET FOR RAIL REPLACEMENT ON THE SOUTHBOUND LANE ADJACENT TO THE 10 FOOT SHOULDER.



TIGHTEN POST SPACING AT PIERS ON RIGHT. REFER TO NON-YIELDING OBJECT APPROACH DETAIL ON GUARDRAIL AT BRIDGE DETAIL SHEET 2.

- 621.20 STEEL BEAM GUARDRAIL, GALVANIZED
- NB MM STA. 53.690 TO 53.785 LT (500')
- NB MM STA. 53.694 TO 53.777 RT (437.5')
- NB MM STA. 53.768 TO 53.860 LT (ON SB LANE) (487.5)
- SB MM STA. 53.874 TO 53.789 RT (ADJACENT TO THE 10' SHLD.) (450')

- 621.60 ANCHOR FOR STEEL BEAM RAIL
- NB MM STA. 53.768 LT (ON SB LANE)
- NB MM STA. 53.777 RT
- NB MM STA. 53.785 LT
- SB MM STA. 53.789 RT (ADJACENT TO THE 10' SHLD.)

- 621.50 MANUFACTURED TERMINAL SECTION, FLARED
- NB MM STA. 53.685 TO 53.690 LT
- NB MM STA. 53.687 TO 53.694 RT
- NB MM STA. 53.860 TO 53.868 LT (ON SB LANE)

- 621.80 REMOVAL & DISPOSAL OF GUARDRAIL
- NB MM STA. 53.748 TO 53.772 RT (125')
- NB MM STA. 53.769 TO 53.786 LT (BULLNOSE) (175')
- SB MM STA. 53.874 TO 53.869 RT (ADJACENT TO THE 10' SHLD.) (25')
- SB MM STA. 53.820 TO 53.789 RT (ADJACENT TO THE 10' SHLD.) (162.5')

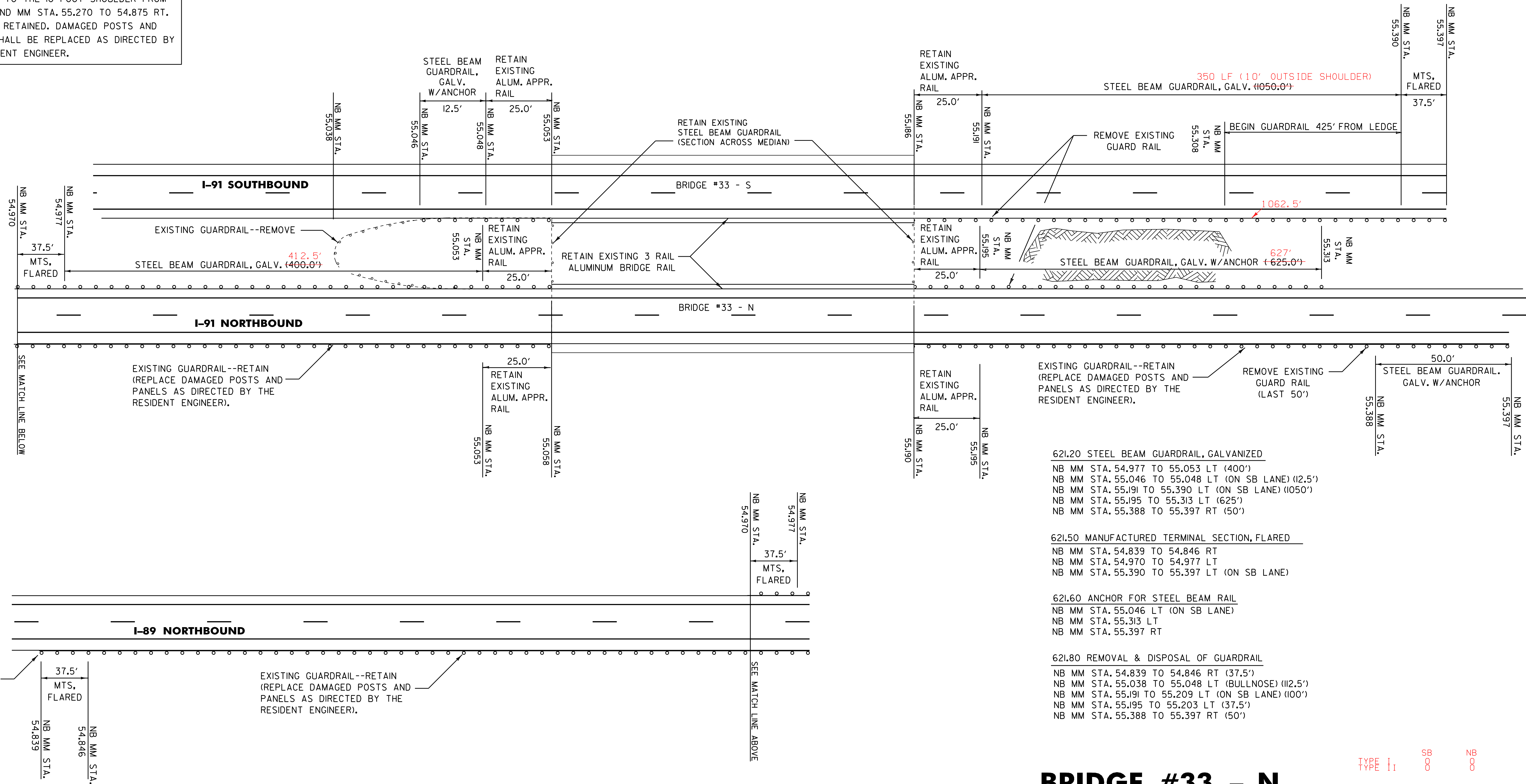
**BRIDGE #32
I-91 NB MM STA. 53.762**

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

NOT TO SCALE

GUARDRAIL AT BRIDGE DETAIL SHEET #5	PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO.: IM 091-I(55)
	DESIGN FILE NAME: <u>06A194.dgn</u>	PLOT DATE: <u>28-OCT-2011 14:00</u>
	IPARM FILE NAME: <u>06A194br5.i</u>	SURVEY DATE: <u>N/A</u>
	SURVEYED BY: <u>N/A</u>	DRAWN BY: <u>LFW</u>
	SQUAD LEADER: <u>LFW</u>	SHEET: 31 OF 36

THE EXISTING RAIL ON THE SOUTHBOUND LANE ADJACENT TO THE 10 FOOT SHOULDER FROM SOUTHBOUND MM STA. 55,270 TO 54,875 RT. SHALL BE RETAINED. DAMAGED POSTS AND PANELS SHALL BE REPLACED AS DIRECTED BY THE RESIDENT ENGINEER.



621.20 STEEL BEAM GUARDRAIL, GALVANIZED

- NB MM STA. 54.977 TO 55.053 LT (400')
- NB MM STA. 55.046 TO 55.048 LT (ON SB LANE) (12.5')
- NB MM STA. 55.191 TO 55.390 LT (ON SB LANE) (1050.0')
- NB MM STA. 55.195 TO 55.313 LT (625')
- NB MM STA. 55.388 TO 55.397 RT (50')

621.50 MANUFACTURED TERMINAL SECTION, FLARED

- NB MM STA. 54.839 TO 54.846 RT
- NB MM STA. 54.970 TO 54.977 LT
- NB MM STA. 55.390 TO 55.397 LT (ON SB LANE)

621.60 ANCHOR FOR STEEL BEAM RAIL

- NB MM STA. 55.046 LT (ON SB LANE)
- NB MM STA. 55.313 LT
- NB MM STA. 55.397 RT

621.80 REMOVAL & DISPOSAL OF GUARDRAIL

- NB MM STA. 54.839 TO 54.846 RT (37.5')
- NB MM STA. 55.038 TO 55.048 LT (BULLNOSE) (12.5')
- NB MM STA. 55.191 TO 55.209 LT (ON SB LANE) (100')
- NB MM STA. 55.195 TO 55.203 LT (37.5')
- NB MM STA. 55.388 TO 55.397 RT (50')

TYPE I
SB 0
NB 0

BRIDGE #33 - N I-91 NB MM STA. 55.130

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

THERE ARE 10 DROP INLETS ON BRIDGE #33-N AT THE CURB LINE (5 ON EACH SIDE). NO CHANGE OF ELEVATION IS REQUIRED UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.

NOT TO SCALE

**GUARDRAIL
AT BRIDGE
DETAIL
SHEET #6**

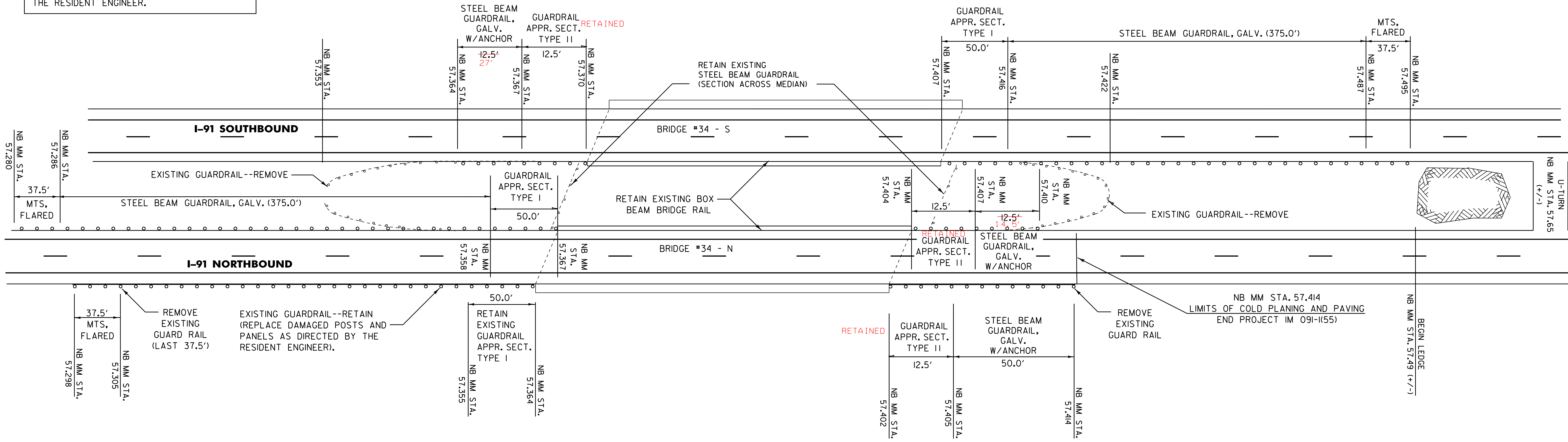
PROJECT: SPRINGFIELD - WINDSOR

PROJECT NO.: IM 091-(155)

DESIGN FILE NAME: 06A194.dgn
IPARM FILE NAME: 06A194br6.i
SURVEYED BY: N/A
SQUAD LEADER: LEW

PLOT DATE: 28-OCT-2011 14:00
SURVEY DATE: N/A
DRAWN BY: LEW
SHEET: 32 OF 36

THE EXISTING RAIL ON THE SOUTHBOUND LANE ADJACENT TO THE 10 FOOT SHOULDER FROM SOUTHBOUND MM STA. 57.440 TO 57.330 RT. SHALL BE RETAINED. DAMAGED POSTS AND PANELS SHALL BE REPLACED AS DIRECTED BY THE RESIDENT ENGINEER.



621.20 STEEL BEAM GUARDRAIL, GALVANIZED
 NB MM STA. 57.286 TO 57.358 LT (375')
 NB MM STA. 57.364 TO 57.367 LT (ON SB LANE) (12.5')
 NB MM STA. 57.405 TO 57.414 RT (50')
 NB MM STA. 57.407 TO 57.410 LT (12.5')
 NB MM STA. 57.416 TO 57.487 LT (ON SB LANE) (375')

621.50 MANUFACTURED TERMINAL SECTION, FLARED
 NB MM STA. 57.280 TO 57.286 LT
 NB MM STA. 57.298 TO 57.305 RT
 NB MM STA. 57.487 TO 57.495 LT (ON SB LANE)

621.60 ANCHOR FOR STEEL BEAM RAIL
 NB MM STA. 57.364 LT (ON SB LANE)
 NB MM STA. 57.410 LT
 NB MM STA. 57.414 RT

621.80 REMOVAL & DISPOSAL OF GUARDRAIL
 NB MM STA. 57.298 TO 57.305 RT (37.5')
 NB MM STA. 57.353 TO 57.370 LT (BULLNOSE) (175')
 NB MM STA. 57.404 TO 57.422 LT (BULLNOSE) (175')
 NB MM STA. 57.402 TO 57.414 RT (62.5')

621.70 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I
 (REFER TO DETAILS ON SHEETS 34 AND 35)
 NB MM STA. 57.358 TO 57.367 LT
 NB MM STA. 57.407 TO 57.416 LT (ON SB LANE)

621.71 GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II
 (REFER TO DETAILS ON SHEETS 34 AND 35)
 NB MM STA. 57.367 TO 57.370 LT (ON SB LANE)
 NB MM STA. 57.402 TO 57.405 RT
 NB MM STA. 57.404 TO 57.407 LT

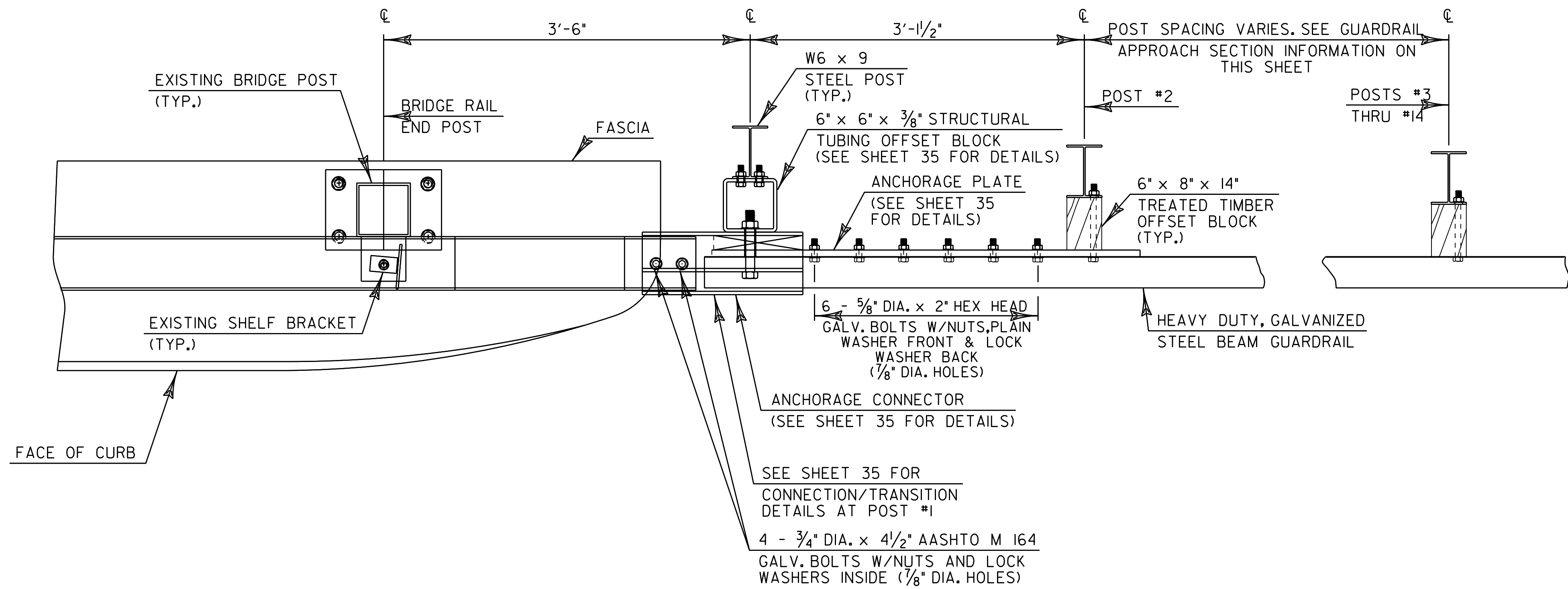
TYPE I I SB NB
 TYPE I I 2 I

THE CONTRACTOR SHALL WIDEN WITH EARTH BORROW ADJACENT TO THE 4.0' SHOULDER TO PROVIDE BACKING FOR THE NEW GUARDRAIL AND TO CONSTRUCT A FLARE FOR THE END TERMINAL. CONSTRUCTION OF THE WIDENING AND TERMINAL FLARE SHALL BE COMPLETED IN ACCORDANCE WITH STANDARD G-19.

NOT TO SCALE

**BRIDGE #34 - N
 I-91 NB MM STA. 57.395**

GUARDRAIL AT BRIDGE DETAIL SHEET #7	PROJECT: SPRINGFIELD - WINDSOR	PROJECT NO. : IM 091-I(55)
	DESIGN FILE NAME: <u>06A194.dgn</u> IPARM FILE NAME: <u>06A194br7.i</u>	PLOT DATE: <u>28-OCT-2011 14:00</u>
	SURVEYED BY: <u>N/A</u> SQUAD LEADER: <u>LEW</u>	SURVEY DATE: <u>N/A</u> DRAWN BY: <u>LEW</u> SHEET: 33 OF 36

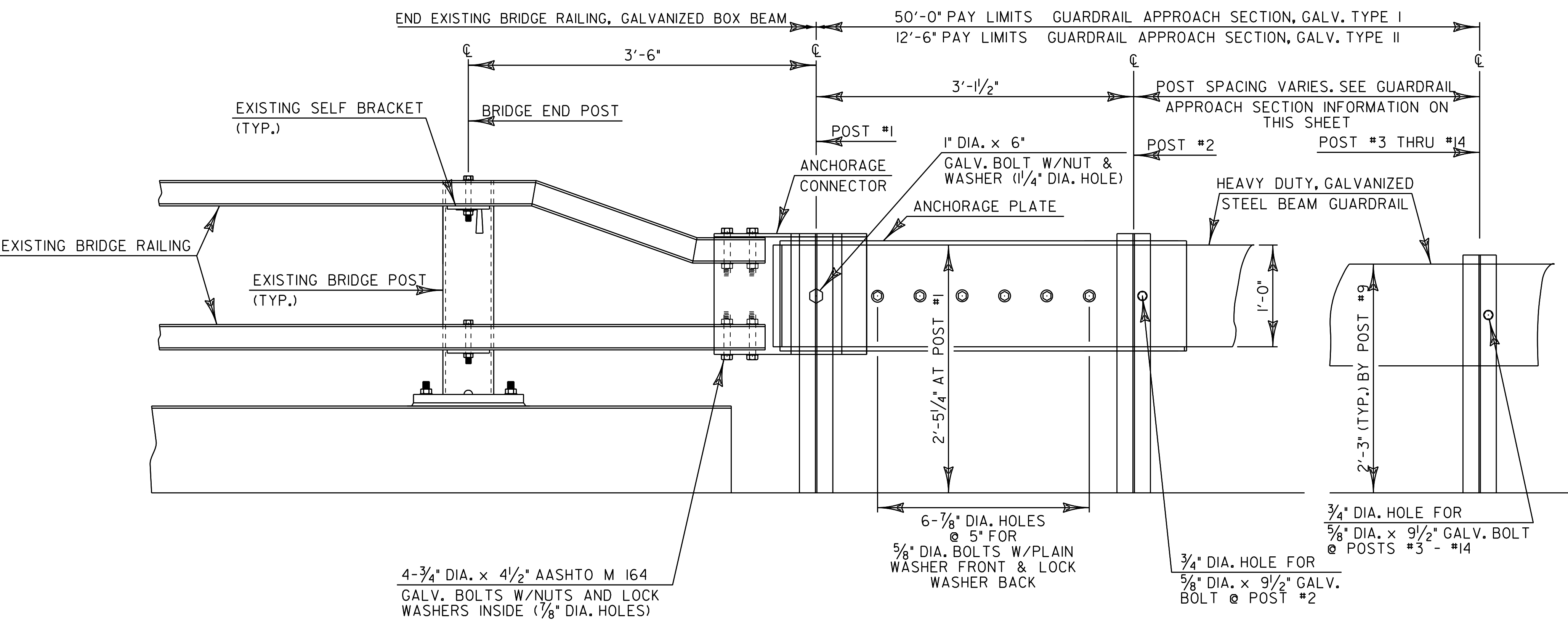


PLAN

GUARDRAIL APPROACH SECTION, GALVANIZED TYPE I

POST NO.	SPACING
1	3'-1 1/2"
2	3'-1 1/2"
3	3'-1 1/2"
4	3'-1 1/2"
5	3'-1 1/2"
6	3'-1 1/2"
7	3'-1 1/2"
8	3'-1 1/2"
9	3'-1 1/2"
10	4'-2"
11	4'-2"
12	4'-2"
13	6'-3"
14	6'-3"

50'-0" PAY LIMIT GUARDRAIL APPROACH SECTION, TYPE I



ELEVATION GUARDRAIL APPROACH SECTION DETAIL

GUARDRAIL APPROACH SECTION, GALVANIZED TYPE II

POST NO.	SPACING
1	3'-1 1/2"
2	4'-8 1/4"
3	4'-8 1/4"
4	4'-8 1/4"

12'-6" PAY LIMIT GUARDRAIL APPROACH SECTION, TYPE II

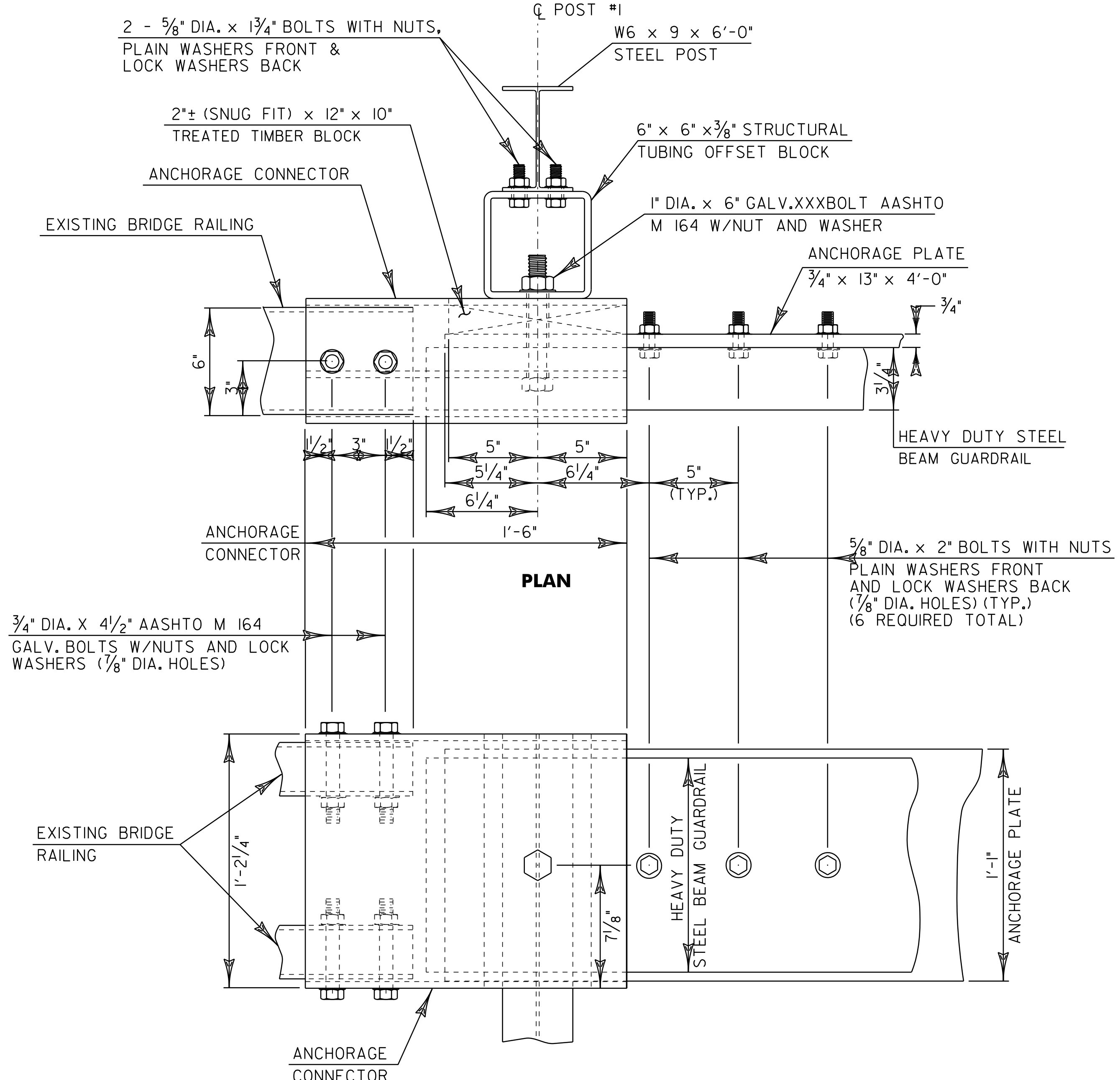
NOT TO SCALE

GUARDRAIL APPROACH SECTION DETAIL SHEET #1

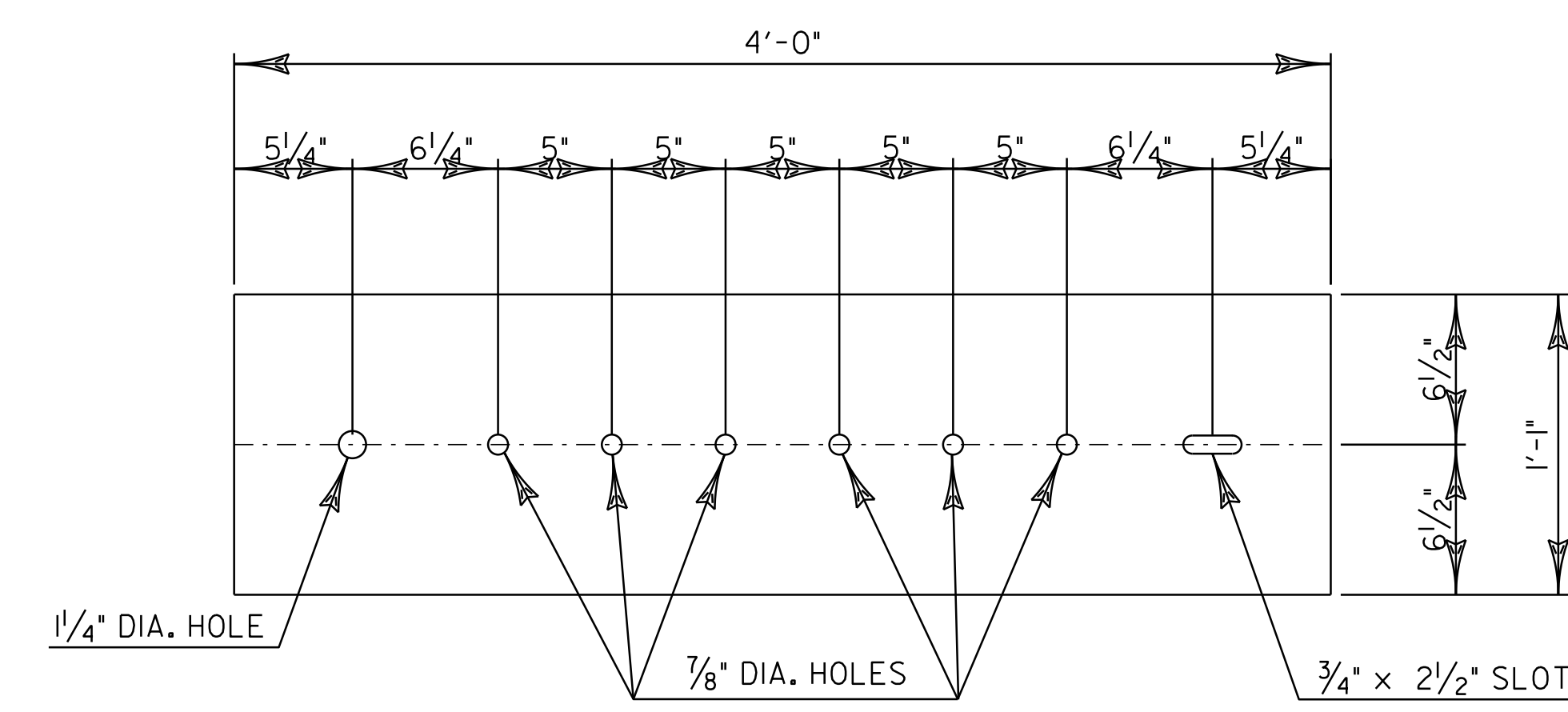
PROJECT NAME: SPRINGFIELD - WINDSOR
PROJECT NUMBER: IM 091-1(55)

FILE NAME: 06A194.dgn
PROJECT LEADER: LFW
DESIGNED BY: LFW
IPARM FILE: 06A194gr1.i

PLOT DATE: 28-OCT-2011 14:00
DRAWN BY: LFW
CHECKED BY: LFW
SHEET 34 OF 36



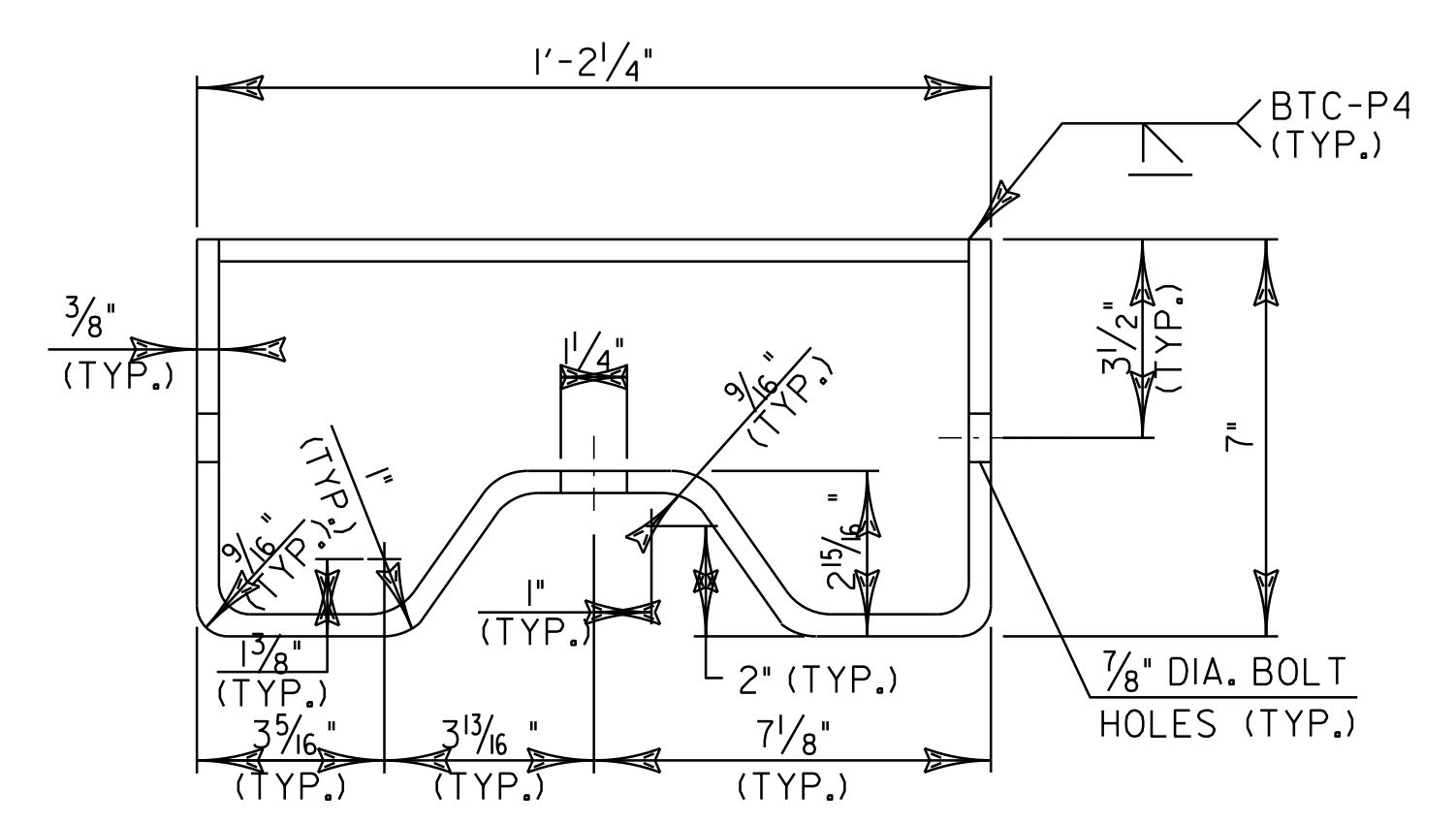
CONNECTION DETAILS AT POST #1



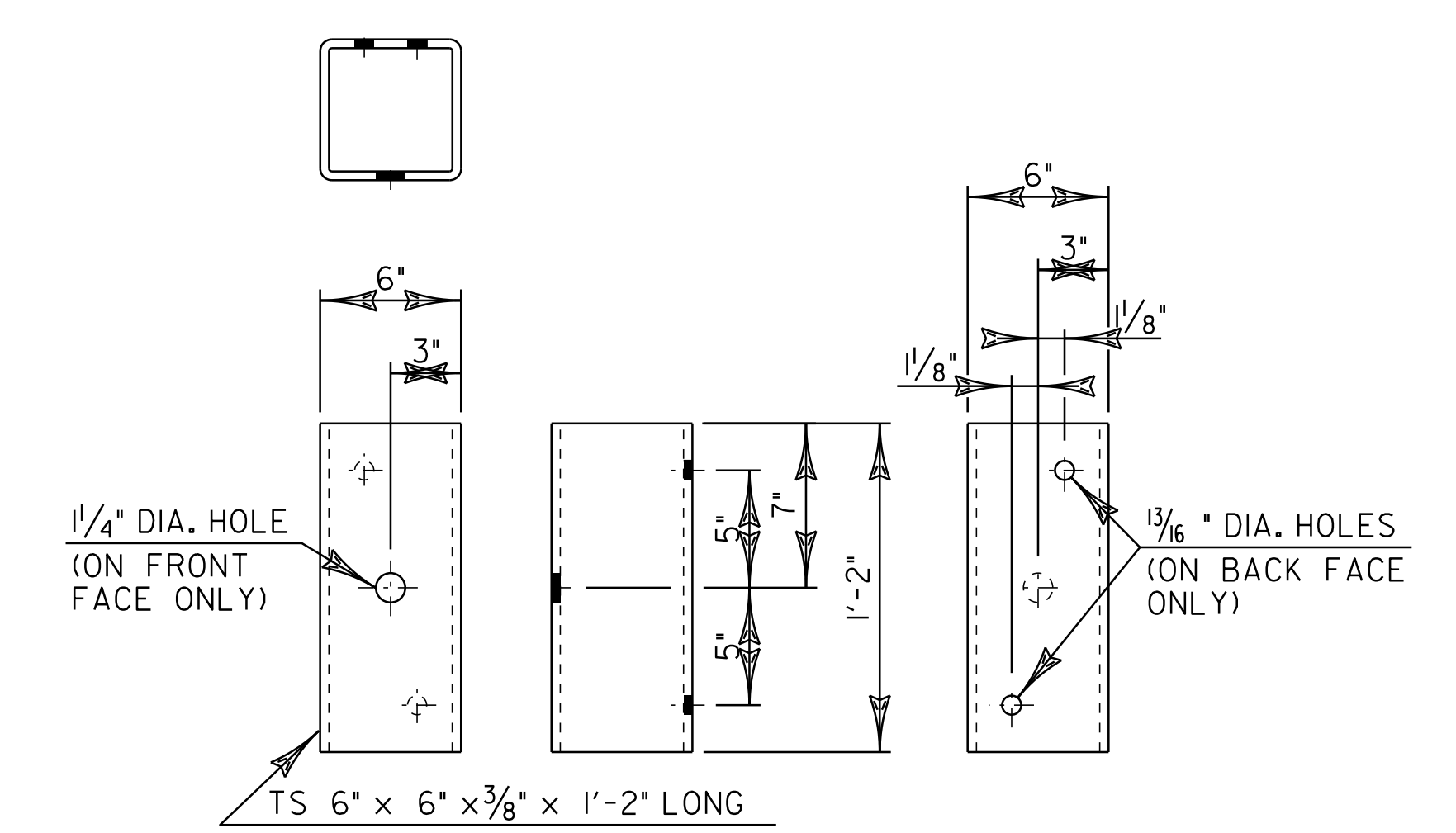
ANCHORAGE PLATE DETAIL

NOTES

1. REFER TO STANDARD G-1 FOR ADDITIONAL RAIL DETAILS.
2. ALL POSTS FOR HEAVY DUTY STEEL BEAM GUARDRAIL SHALL BE STEEL IN ACCORDANCE WITH SECTION 728 "GUARDRAIL, GUIDE POSTS AND BARRIERS" UNLESS OTHERWISE SPECIFIED IN THE CONTRACT.
3. APPROACH RAIL SPLICES SHALL LAP IN DIRECTION OF TRAFFIC FLOW.
4. ANCHORAGE CONNECTOR AND ANCHORAGE PLATE SHALL BE AASHTO M 270, GRADE 250 GALVANIZED TO AASHTO M III AFTER FABRICATION.
5. ALL BOLTS, NUTS AND WASHERS SHALL BE AASHTO M 164 GALVANIZED TO AASHTO M 232 AFTER FABRICATION.
6. STRUCTURAL TUBING OFFSET BLOCK SHALL BE AASHTO M 183 GALVANIZED TO AASHTO M III AFTER FABRICATION.
7. APPROACH RAILING SHALL BE HEAVY DUTY STEEL BEAM FOR 50'-0" FROM THE Q OF POST #1 FOR TYPE I AND 12'-6" FROM THE Q OF POST #1 FOR TYPE II.
8. ALLOWABLE DIMENSIONAL TOLERANCE FOR BENT SECTIONS IS $\pm 1/16"$.
9. THE UNIT PRICES BID FOR EITHER TYPE OF GUARDRAIL APPROACH SECTION, GALVANIZED SHALL INCLUDE ANCHORAGE CONNECTOR, ANCHORAGE PLATE, HEAVY DUTY STEEL BEAM GUARDRAIL, POSTS, OFFSET BLOCKS, BLOCKING, BOLTS, AND ALL NECESSARY HARDWARE.

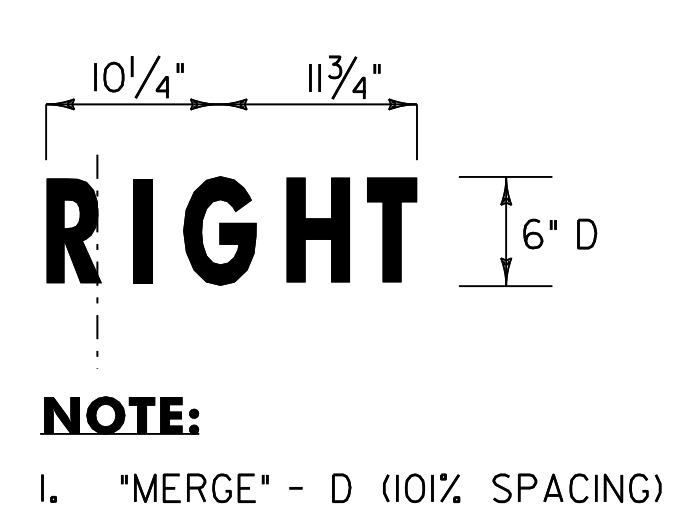
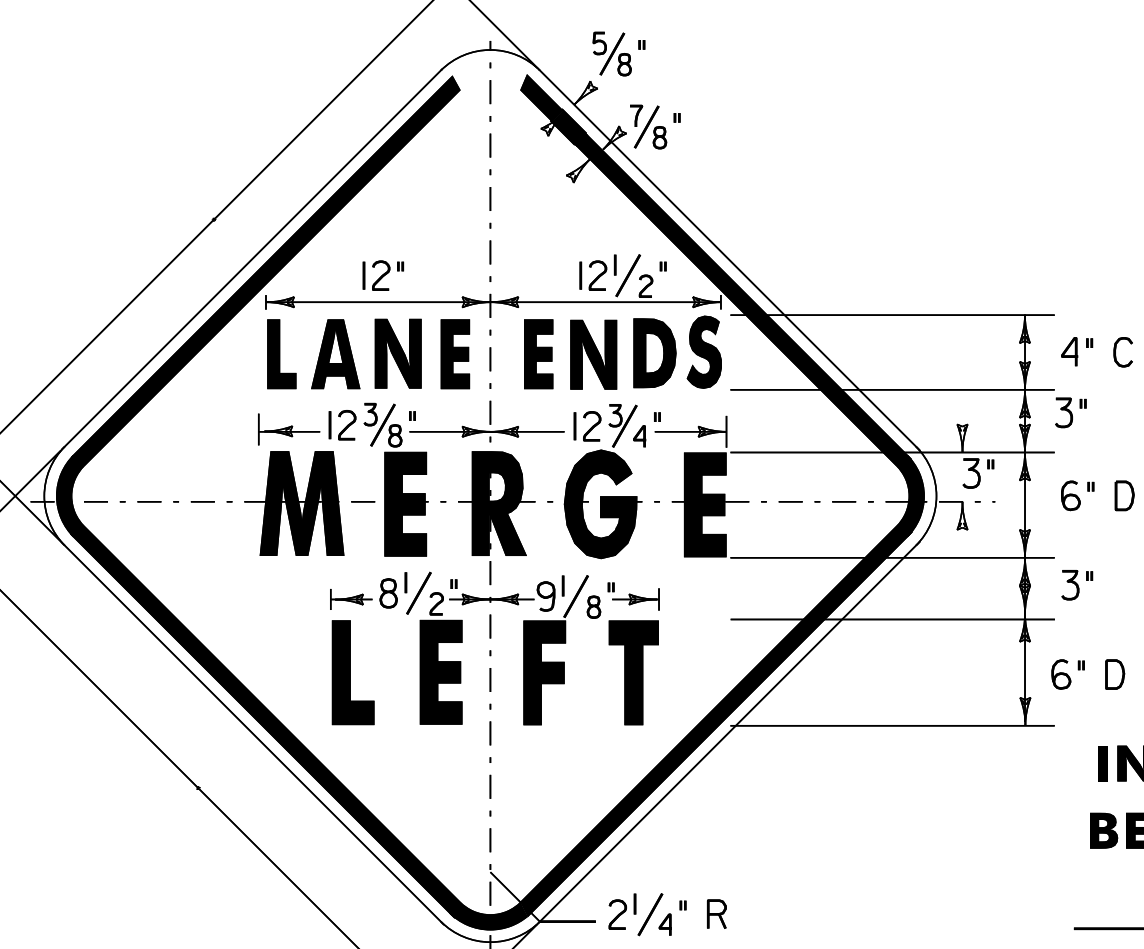


ANCHORAGE CONNECTOR DETAIL
(SEE NOTE 8)



STRUCTURAL TUBING OFFSET BLOCK DETAILS
(OCCURS AT POST #1 WHEN USING APPROACH RAIL UTILIZING STEEL POSTS)

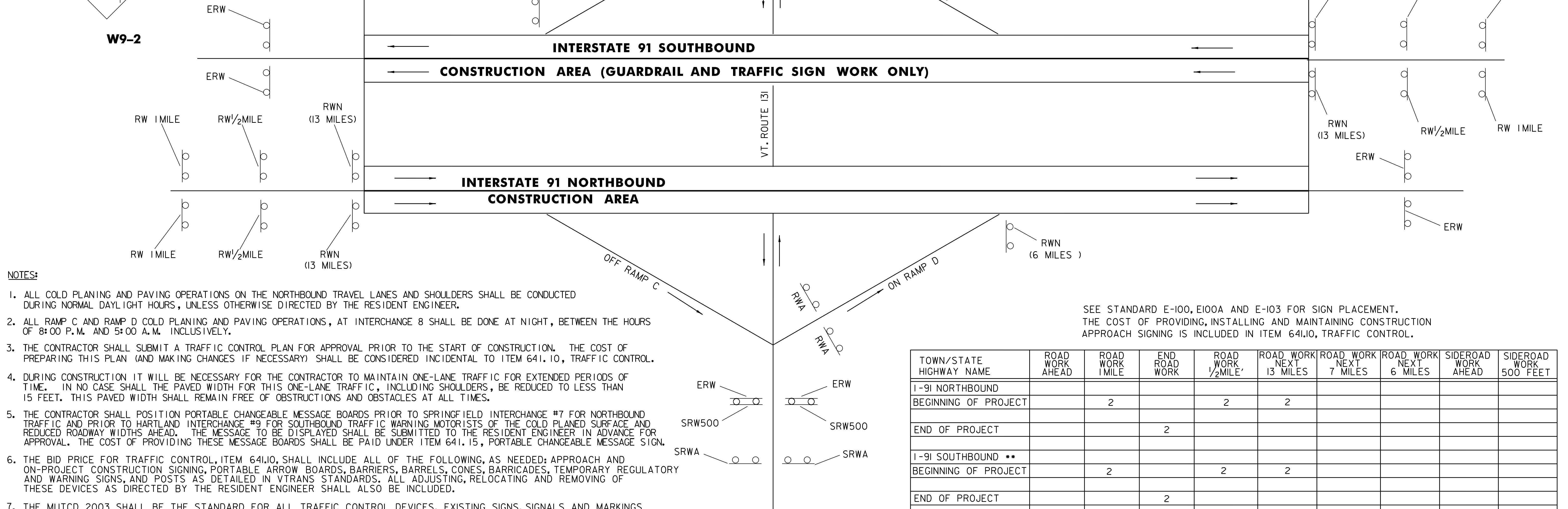
NOT TO SCALE GUARDRAIL APPROACH SECTION DETAIL SHEET #2	PROJECT NAME: SPRINGFIELD - WINDSOR	
	PROJECT NUMBER: IM 091-1(55)	
	FILE NAME: 06A194.dgn PROJECT LEADER: LFW DESIGNED BY: LFW IPARM FILE: 06A194qr2.i	PLOT DATE: 28-OCT-2011 4:00 DRAWN BY: LFW CHECKED BY: LFW SHEET 35 OF 36



NOTE:
1. "MERGE" - D (10 1/2" SPACING)

**INTERSTATE 91 NORTHBOUND
BEGIN PROJECT IM 091-1(55)
NB MM STA. 44.900**

**INTERSTATE 91 NORTHBOUND
END PROJECT IM 091-1(55)
NB MM STA. 57.414-438**



- NOTES:**
- ALL COLD PLANING AND PAVING OPERATIONS ON THE NORTHBOUND TRAVEL LANES AND SHOULDERS SHALL BE CONDUCTED DURING NORMAL DAYLIGHT HOURS, UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER.
 - ALL RAMP C AND RAMP D COLD PLANING AND PAVING OPERATIONS, AT INTERCHANGE 8 SHALL BE DONE AT NIGHT, BETWEEN THE HOURS OF 8:00 P.M. AND 5:00 A.M. INCLUSIVELY.
 - THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
 - DURING CONSTRUCTION IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAINTAIN ONE-LANE TRAFFIC FOR EXTENDED PERIODS OF TIME. IN NO CASE SHALL THE PAVED WIDTH FOR THIS ONE-LANE TRAFFIC, INCLUDING SHOULDERS, BE REDUCED TO LESS THAN 15 FEET. THIS PAVED WIDTH SHALL REMAIN FREE OF OBSTRUCTIONS AND OBSTACLES AT ALL TIMES.
 - THE CONTRACTOR SHALL POSITION PORTABLE CHANGEABLE MESSAGE BOARDS PRIOR TO SPRINGFIELD INTERCHANGE #7 FOR NORTHBOUND TRAFFIC AND PRIOR TO HARTLAND INTERCHANGE #9 FOR SOUTHBOUND TRAFFIC WARNING MOTORISTS OF THE COLD PLANNED SURFACE AND REDUCED ROADWAY WIDTHS AHEAD. THE MESSAGE TO BE DISPLAYED SHALL BE SUBMITTED TO THE RESIDENT ENGINEER IN ADVANCE FOR APPROVAL. THE COST OF PROVIDING THESE MESSAGE BOARDS SHALL BE PAID UNDER ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.
 - THE BID PRICE FOR TRAFFIC CONTROL, ITEM 641.10, SHALL INCLUDE ALL OF THE FOLLOWING, AS NEEDED: APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER SHALL ALSO BE INCLUDED.
 - THE MUTCD 2003 SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS, SIGNALS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC DEVICES ARE ERECTED OR PLACED, OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED, THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.
 - NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS. TRAFFIC CONTROL DEVICES SHALL BE SPACED ACCORDING TO THE 2003 MUTCD AND/OR VTRANS STANDARDS.
 - THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH STANDARD E-103. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, TRAFFIC CONTROL.
 - ADDITIONAL CONSTRUCTION SIGNING MAY BE REQUIRED ON THE RAMPS AT INTERCHANGE #8 AS DIRECTED BY THE RESIDENT ENGINEER.
 - ON VTRANS STANDARD E-103, SIGN W4-2 MAY BE REPLACED WITH W9-2:

SEE STANDARD E-100, E100A AND E-103 FOR SIGN PLACEMENT.
THE COST OF PROVIDING, INSTALLING AND MAINTAINING CONSTRUCTION
APPROACH SIGNING IS INCLUDED IN ITEM 641.10, TRAFFIC CONTROL.

TOWN/STATE HIGHWAY NAME	ROAD WORK AHEAD	ROAD WORK 1 MILE	END ROAD WORK	ROAD WORK 1/2 MILE	ROAD WORK NEXT 13 MILES	ROAD WORK NEXT 7 MILES	ROAD WORK NEXT 6 MILES	SIDEROAD WORK AHEAD	SIDEROAD WORK 500 FEET
1-91 NORTHBOUND									
BEGINNING OF PROJECT		2		2	2				
END OF PROJECT			2						
1-91 SOUTHBOUND **									
BEGINNING OF PROJECT		2		2	2				
END OF PROJECT			2						
RAMP A **	2					1			
RAMP D	2						1		
VT. ROUTE 131			4					4	4
TOTAL	4	4	8	4	4	1	1	4	4

** THE I-91 SOUTHBOUND TRAVEL LANE AND ON RAMP A CONSTRUCTION SIGNS SHALL BE COVERED WHEN NO CONSTRUCTION ACTIVITY IS OCCURRING ADJACENT TO THE SOUTHBOUND TRAVEL LANES, OR AS DIRECTED BY THE RESIDENT ENGINEER.

- LEGEND**
- RW 1 MILE = ROAD WORK 1 MILE
 - RW 1/2 MILE = ROAD WORK 1/2 MILE
 - RWA = ROAD WORK AHEAD
 - RWN = ROAD WORK NEXT XX MILES
 - ERW = END ROAD WORK
 - SRWA = SIDE ROAD WORK AHEAD
 - SRW500 = SIDE ROAD WORK 500 FEET
 - = TRAFFIC FLOW ARROW



**CONSTRUCTION
APPROACH
SIGNING
SHEET**

PROJECT NAME: SPRINGFIELD - WINDSOR	PLOT DATE: 28-OCT-2011 4:02
PROJECT NUMBER: IM 091-1(55)	DRAWN BY: LFW
FILE NAME: 06A194.dgn	CHECKED BY: LFW
PROJECT LEADER: LFW	DESIGNED BY: LFW
DESIGNED BY: LFW	SHEET 36 OF 36
PLOT FILE: 06A194cas.1	