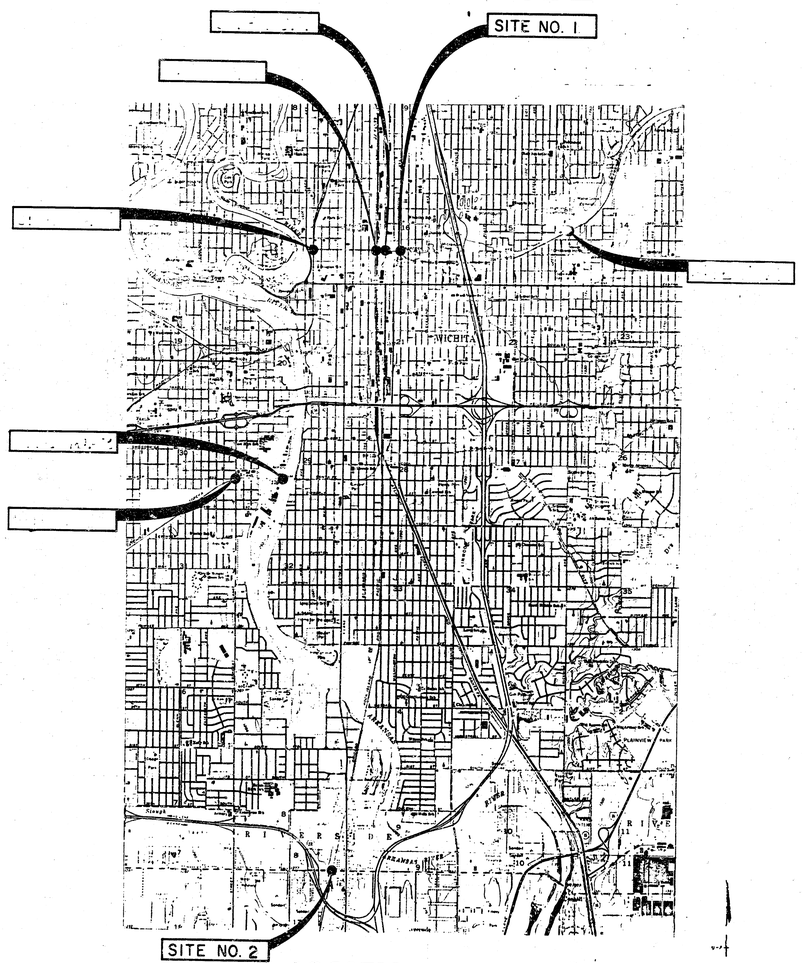
WICHITA, KANSAS

PAVEMENT REMOVAL AND RECONSTRUCTION IN CONNECTION WITH RUBBERIZED RAILROAD CROSSING INSTALLATION

1985 C.I.P. PHASE II

INDEX TO DRAWINGS

SHEET NO.	
2	GENERAL NOTES
3	8" CONC. PAVEMENT CROSSING DETAILS
4	8" ASPHALTIC PAVEMENT (CONC. BASE) CROSSING DETAILS
5	RUBBERIZED CROSSING INSTALLATION DETAILS
6	WASHINGTON AT MURDOCK PLAN
7	MacARTHUR WEST OF BROADWAY PLAN
8	RING AND COVER DETAIL
9	TYPE I INLET DETAIL
10	MANHOLE ADJUSTMENT DETAIL



LOCATION MAP

SCALE: 1" = 3000' (APPROX.)

SITE LOCATIONS

SITE 1: WASHINGTON AT MURDOCK (B. N. R.R.)
SITE 2: MacARTHUR WEST OF BROADWAY (UNION PAC. R.R.)

— EARTHWORK —

EXCAVATION, BORROW, IF ANY, AND COMPACTED FILL, EXCEPT THE COMPACTED FILL IN THE 6" IMMEDIATELY UNDER THE PAVEMENT, SHALL BE INCIDENTAL TO OTHER BID ITEMS OF WORK.

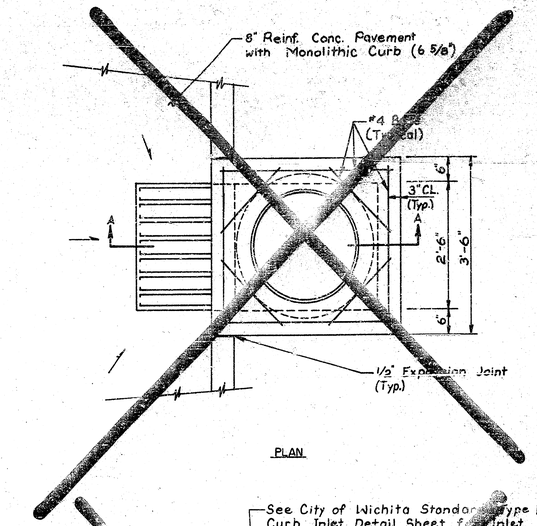
MIKE LINDEBAK, P.E.
CITY ENGINEER
CITY OF WICHITA, KANSAS

PROJECT NO. 472-76-245-81499-000-000-001
INDEX NO. 603225
APRIL 1989

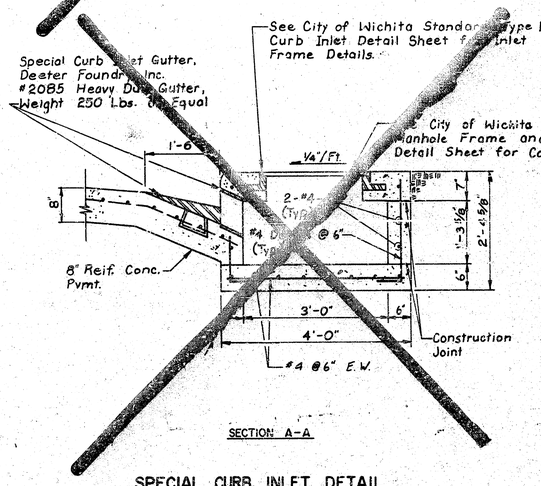
KENNETH E. KING LICENSED 6728 PROFESSIONAL ENGINEER KANSAS

WILSON & COMPANY ENGINEERS & ARCHITECTS
WICHITA - KANSAS

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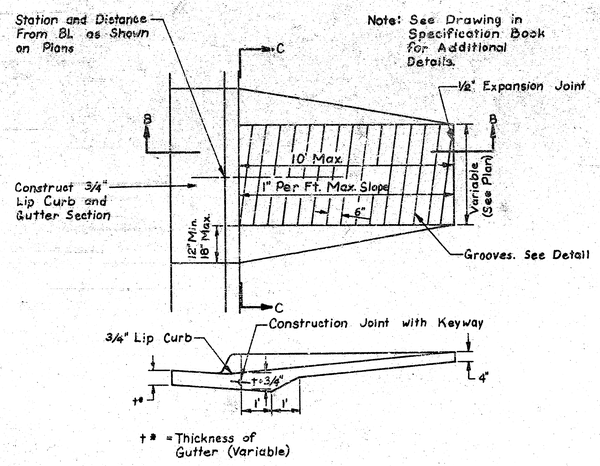
PLAN



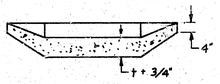
SECTION A-A

SPECIAL CURB INLET DETAIL

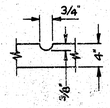
Scale: 3/4" = 1'-0"



SECTION B—B



SECTION C—C

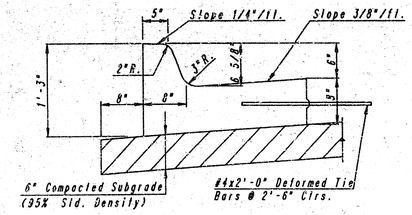


GROOVE DETAIL

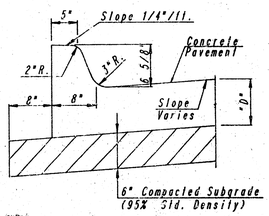
Note: This detail shows a typical installation. Some installations are non-typical (see plans). The cost of all work shall be included in the unit price bid for wheelchair ramp. Price shall include costs of compaction of subgrade and necessary area grading.

WHEELCHAIR RAMP DETAIL

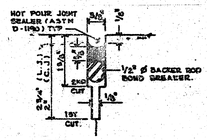
N.T.S.



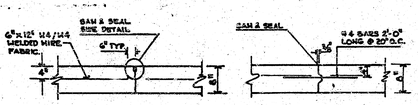
COMBINED CURB & GUTTER (6 5/8")



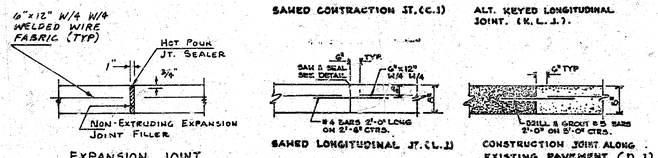
MONOLITHIC EDGE CURB (6 5/8")



DETAIL: SAW JOINTS

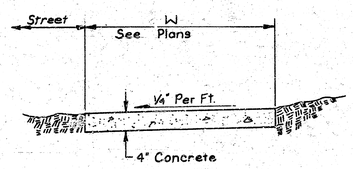


SAWED CONTRACTION JT. (C.J.) ALT. KEYED LONGITUDINAL JOINT. (K.L.J.)



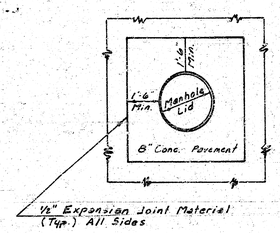
EXPANSION JOINT (E.J.) SAWED LONGITUDINAL JT. (L.J.) CONSTRUCTION JOINT ALONG EXISTING PAVEMENT (D.J.)

PAVEMENT JOINT DETAILS



STANDARD SIDEWALK DETAIL

N.T.S.



TYPICAL MANHOLE BLOCKOUT

(CONC. PAVEMENT)

NOTE: Conc. Pavement and Base to be reinforced with 6"x12" W4xW4 Welded Wire Fabric. The Fabric shall be placed such that the Wire on 6" spacing shall be parallel with the Longitudinal Joints.

1. PROJECT WILL BE CLOSED TO THROUGH TRAFFIC DURING THE TIMEFRAME THE RAILROAD COMPANY IS INSTALLING RUBBERIZED CROSSING MATERIAL. PROJECT MUST BE REOPENED TO THROUGH TRAFFIC IMMEDIATELY AFTER THE RAILROAD COMPANY HAS COMPLETED THEIR WORK INVOLVED WITH INSTALLATION OF THE RUBBER CROSSING MATERIAL UNLESS THE CITY ELECTS TO NOT REQUIRE SUCH THROUGH TRAFFIC TO BE MAINTAINED DURING THE NEXT PHASE OF CONSTRUCTION. DETOUR SIGNING AND CONSTRUCTION TRAFFIC CONTROL SIGNING DURING THE TIME THE RAILROAD COMPANY IS WORKING ON THE CROSSING WILL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS. CONSTRUCTION OF TEMPORARY PAVEMENT REQUIRED TO FACILITATE MAINTENANCE OF SUCH THROUGH TRAFFIC WILL ALSO BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.
2. UTILITY SERVICE LINES, POWER POLES, VALVE BOXES, METERS, ETCETERA, ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
3. A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF EXISTING SURFACE COURSES OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE COURSE OR PAVEMENT FOR WHICH PARTIAL REMOVAL OF THAT SURFACE OR PAVEMENT IS REQUIRED. SAWED JOINT TO FACILITATE REMOVAL WITHIN THREE (3) FEET OF EXISTING JOINTS WILL NOT BE PERMITTED AND FOR SUCH INSTANCES THE LIMITS OF REMOVAL SHALL EXTEND TO THE EXISTING JOINT. SUCH SAW CUTS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE REMOVAL OF THE SURFACE OR PAVEMENT.
4. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.
5. THE CITY OF WICHITA'S SEWER MAINTENANCE DIVISION OF THE DEPARTMENT OF WATER AND WATER POLLUTION CONTROL HAS TELEVISED SEWERS WITHIN THE LIMITS OF THE PROJECT AND HAVE FOUND NO DEFECTS REQUIRING REPAIR. THE DIVISION SHALL BE NOTIFIED AND AFFORDED THE OPPORTUNITY TO RETELEVISE SEWER LINES AFTER SUBGRADE WORK HAS BEEN COMPLETED AND PRIOR TO PAVEMENT CONSTRUCTION TO DETERMINE IF SUCH SEWER LINES HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATIONS. DAMAGED SEWER LINES WILL BE REPAIRED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE. TELEVISION LOGS ARE AVAILABLE FOR INSPECTION BY THE CONTRACTOR DURING NORMAL OFFICE HOURS AT THE SEWER MAINTENANCE DIVISION'S OFFICE AT CITY HALL.
6. REMOVAL OF EXISTING CONCRETE PARKING LOT PAVEMENTS, ASPHALT PARKING LOT PAVEMENTS, ASPHALT DRIVEWAY PAVEMENTS AND/OR ASPHALT SIDEWALK PAVEMENTS WILL BE PAID FOR AS SQUARE FEET OF WALK AND DRIVE REMOVED.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.
8. LIMITS OF EARTHWORK SHALL MATCH EXISTING GROUND ELEVATIONS AT THE RIGHT-OF-WAY LINE UNLESS OTHERWISE NOTED ON THE PLANS.
9. [illegible]
10. CONCRETE JOINTING PATTERNS AND DIMENSIONS ARE APPROXIMATE. ENGINEER SHALL FIELD ADJUST AS REQUIRED TO MATCH EXISTING AND ADJACENT CONDITIONS.
11. REPLACE ALL EXISTING ASPHALT FILLED MANHOLE LIDS IN AREAS TO BE PAVED WITH THE STANDARD CITY OF WICHITA MANHOLE FRAME AND COVER.
12. THE 6" SUBGRADE IMMEDIATELY UNDER NEW PAVEMENT OR COMBINED CURB AND GUTTER SHALL BE COMPACTED TO 95% STANDARD DENSITY. TO BE PAID AS CU. YD. OF "COMPACTED FILL (95% STD. DENSITY)."

CITY OF WICHITA PROJECT NO. 472-76-245-81499-000-000-001

WICHITA, KANSAS
RUBBERIZED RAILROAD CROSSING
GENERAL NOTES AND MISCELLANEOUS DETAILS

REVISION	DATE	BY

DESIGN: MEK/CDM | DRAWN: JMR

WILSON & COMPANY ENGINEERS & ARCHITECTS
WICHITA - KANSAS

DATE: OCT. 1986
FILE NO. 85-345
SHEET NO. 2 OF 10

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SPECIAL NOTES

[illegible] SHALL FURNISH ALL MATERIALS [illegible] A STANDARD SIZE [illegible] INSTALL THE RUBBERIZED CROSSING, OR ANYONE WORKING ON BEHALF OF THE [illegible] SHALL FURNISH ALL MATERIALS [illegible] TO COMPLETE THE INSTALLATION. ALL SUCH MATERIALS SUPPLIED BY THE [illegible] SHALL BE [illegible] THOSE USUALLY SUPPLIED BY THE RAILROAD COMPANY IN ACCORDANCE WITH THE SPECIFICATIONS OF THE MATERIAL SUPPLIER.

[illegible] SHALL BE CAP [illegible] SHALL NOT BE [illegible] THAN ONE INCH [illegible] TO PROVIDE [illegible] SHALL NOT BE [illegible] THAN ONE (1) FOOT [illegible] SHALL BE [illegible] [illegible] SHALL BE [illegible] [illegible] SHALL BE [illegible] [illegible] AT THE [illegible] SHALL BE [illegible] [illegible] SHALL BE [illegible] [illegible] SHALL BE [illegible] [illegible] TAMPPROOF SHALL BE INSTALLED BY THE PAVING CONTRACTOR ON ALL MATING SURFACES BETWEEN THE PAVEMENT AND THE RAILROAD CROSSING MATERIAL TO BREAK ANY BOND BETWEEN THE PAVEMENT AND THE RAILROAD CROSSING MATERIAL.

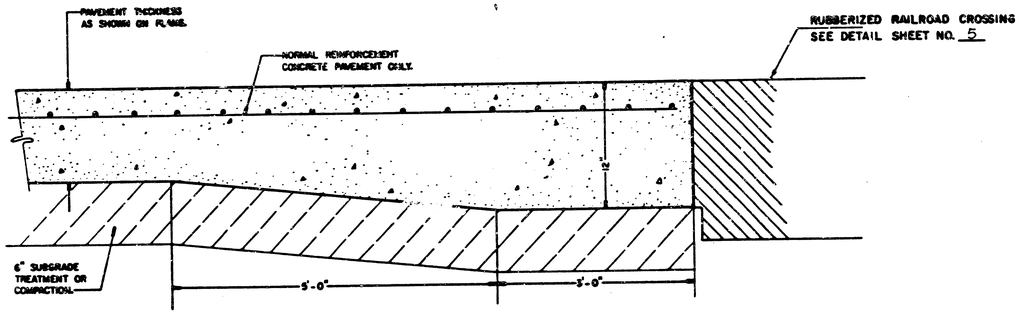
LOCATIONS OF [illegible] SHALL BE SHOWN AT [illegible] MARKING WITH A PERMANENT [illegible] ALIGNMENT OF RAILROAD TRACK TO THE NEAREST [illegible] FOOT. THESE [illegible] SHALL BE [illegible] FOR 0' - 6" TIES FROM 4' - 6" FOR 2' - 6" TIES FROM CENTERLINE OF THE TRACK. LOCATION OF RAILROAD [illegible] SHALL BE SHOWN ON DETAIL DRAWINGS WILL ALSO SHOWING NAME OF RAILROAD CARRIER. TIES TO BE CUT OFF SHALL CONSIST OF SUCH TIES AS ARE MORE THAN 4' - 3" FOR 0', - 0" TIES AND 4' - 6" FOR 0' - 6" TIES FROM THE CENTERLINE OF THE TRACK.

EXISTING PAVEMENT SHALL BE REMOVED BY THE PAVING CONTRACTOR [illegible] AND WITHIN THREE (3) FEET OF THE [illegible] PRIOR TO THE [illegible] OF THE RUBBERIZED CROSSING MATERIALS. PAVING CONTRACTOR SHALL COORDINATE THE PAVEMENT REMOVAL AT EACH CROSSING LOCATION WITH THE INVOLVED RAILROAD COMPANY. ALL EXPOSED JOINTS BETWEEN NEW CONSTRUCTION AND EXISTING PAVEMENT, WALK OR DRIVES SHALL BE TO NEAT LINES PARALLEL EITHER BY SAW CUT OR EXISTING JOINT.

[illegible] THE PLANS [illegible] AND [illegible] THE [illegible] AND [illegible] THE [illegible] AND SPECIFIED CLEARANCE FROM TOP OF RAIL. THE RAILROAD RESERVES THE RIGHT TO ADJUST ELEVATIONS AS SHOWN ON THE PLANS FOR EACH CROSSING LOCATION. VARIATIONS FROM THE TOP OF RAIL ELEVATIONS SHOWN WILL BE PERMITTED ONLY WHEN APPROVED BY THE FIELD ENGINEER FOR ANTICIPATED TRACK SETTLEMENT.

SURFACE OF NEW PAVEMENT AND RUBBERIZED CROSSING MATERIAL SHALL BE FIT TO [illegible] AT THEIR POINT OF JUNCTURE ONLY WHEN THE RAILROAD COMPANY USES APPROVED MECHANICAL EQUIPMENT TO COMPACT RAILROAD FILL AND BALLAST SUCH TO PRECLUDE TRACK SETTLEMENT. RAILROAD TRACK AND RUBBERIZED CROSSING MATERIAL ELEVATIONS OR PAVEMENT ELEVATIONS SHALL BE ADJUSTED IN A RANGE OF ONE-FOURTH (1/4) INCH TO ONE (1) INCH TO ALLOW FOR TRACK SETTLEMENT WHEN THE RAILROAD COMPANY USES HAND METHODS FOR COMPACTION OF RAILROAD FILL AND BALLAST OR USE OF OTHER COMPACTION METHODS WHICH MAY NOT PRECLUDE TRACK SETTLEMENT. THE EXACT ELEVATION DIFFERENTIAL BETWEEN CROSSING MATERIAL AND PAVEMENT SHALL BE DETERMINED BY THE RAILROAD BASED ON THEIR EXPERIENCE FOR TRACK SETTLEMENT WITH CONCURRENCE BY THE ENGINEER.

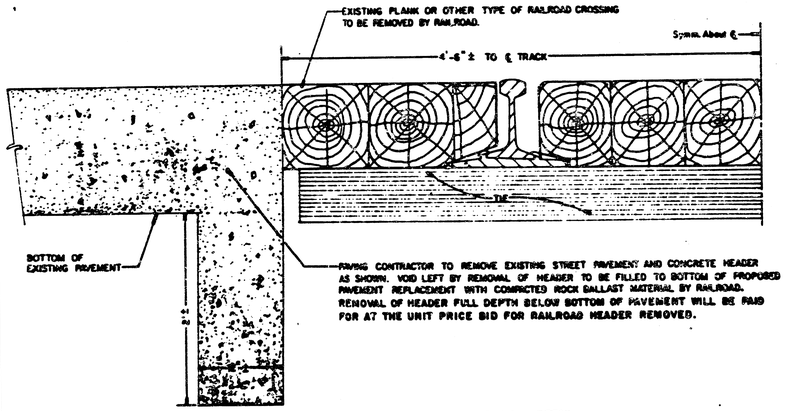
INDIVIDUAL SECTIONS OF THE RUBBERIZED CROSSING MATERIAL SHALL BE OFFSET AT LEAST ONE TIE SPACE FROM EACH OTHER SUCH THAT THE ENDS OF THE RUBBERIZED CROSSING WILL MORE CLOSELY CONFORM TO SIDEWALK OR PAVEMENT CURB ALIGNMENTS WHERE RAILROAD CROSSINGS ARE SKEWED THIRTY (30) DEGREES OR MORE TO THE STREET.



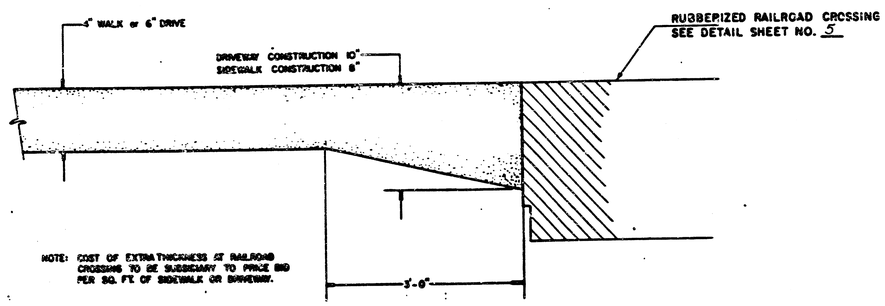
NOTE: COST OF EXTRA THICKNESS AT RAILROAD CROSSING TO BE SUBSIDIARY TO PRICE BID PER SQ. YD. OF PAVEMENT.

NOTE: ONE THICKNESS OF TAR PAPER SHALL BE INSTALLED BY PAVING CONTRACTOR ON ALL MATING SURFACES BETWEEN PAVEMENT AND RAILROAD CROSSING MATERIAL TO BREAK ANY BOND BETWEEN PAVEMENT AND RAILROAD CROSSING MATERIAL.

CROSS-SECTION DETAIL
NEW PAVEMENT CONSTRUCTION
ABUTTING RUBBERIZED RAILROAD CROSSING
NO SCALE



CROSS-SECTION DETAIL
PAVEMENT REMOVAL ABUTTING TRACKS
TO FACILITATE INSTALLATION OF
RUBBERIZED CROSSING
NO SCALE



NOTE: COST OF EXTRA THICKNESS AT RAILROAD CROSSING TO BE SUBSIDIARY TO PRICE BID PER SQ. FT. OF SIDEWALK OR DRIVEWAY.

NOTE: ONE THICKNESS OF TAR PAPER SHALL BE INSTALLED BY PAVING CONTRACTOR ON ALL MATING SURFACES BETWEEN SIDEWALK OR DRIVEWAY CONSTRUCTION AND RAILROAD CROSSING MATERIAL TO BREAK ANY BOND BETWEEN THE SIDEWALK OR DRIVEWAY PAVEMENT AND RAILROAD CROSSING MATERIAL.

CROSS-SECTION DETAIL
NEW SIDEWALK AND DRIVEWAY CONSTRUCTION
ABUTTING RUBBERIZED RAILROAD CROSSING
NO SCALE

CITY OF WICHITA, KANSAS

STANDARDS FOR PAVING MODIFICATION IN CONNECTION WITH RUBBERIZED RAILROAD CROSSING INSTALLATION AT LOCATIONS WHERE ALL EXISTING ABUTTING PAVEMENT IS REMOVED AND RECONSTRUCTED

8" REINFORCED CONCRETE PAVEMENT

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SPECIAL NOTES

RUBBERIZED CROSSING MATERIAL SUPPLIER SHALL FURNISH ALL MATERIALS AND FASTENERS NECESSARY TO PROPERLY INSTALL THE RUBBERIZED CROSSING, INCLUDING RUBBER OR WOOD TIE SHIM CAP BOARD, AND ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE INSTALLATION. ALL SUCH MATERIALS SUPPLIED BY THE RUBBERIZED CROSSING MANUFACTURER SHALL BE INSTALLED BY THE INVOLVED RAILROAD COMPANY IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MATERIAL SUPPLIER.

INDIVIDUAL PIECES OF RUBBER OR WOOD CAP BOARDS SHALL NOT BE LESS THAN SIX (6) FEET LONG EXCEPT WHERE NECESSARY TO FURNISH SHORTER PIECES TO MATCH THE RUBBERIZED CROSSING LENGTH. SHORTER LENGTHS OF INDIVIDUAL RUBBER OR WOOD CAP BOARD PIECES SHALL NOT BE LESS THAN THREE (3) FEET. RUBBER OR WOOD CAPBOARDS SHALL BE INSTALLED SUCH THAT WHEN THE ABUTTING PAVEMENT IS CONSTRUCTED, THERE WILL BE SMOOTH VERTICAL SURFACES FORMED AT THE JUNCTURE BETWEEN THE PAVEMENT AND THE CAP BOARD FOR THE FULL DEPTH OF THE PAVEMENT WITHOUT ANY PAVEMENT COMING INTO DIRECT CONTACT WITH THE RAILROAD CROSS TIES. ONE THICKNESS OF TARPAPER SHALL BE INSTALLED BY THE PAVING CONTRACTOR ON ALL MATING SURFACES BETWEEN THE PAVEMENT AND THE RAILROAD CROSSING MATERIAL TO BREAK ANY BOND BETWEEN THE PAVEMENT AND THE RAILROAD CROSSING MATERIAL.

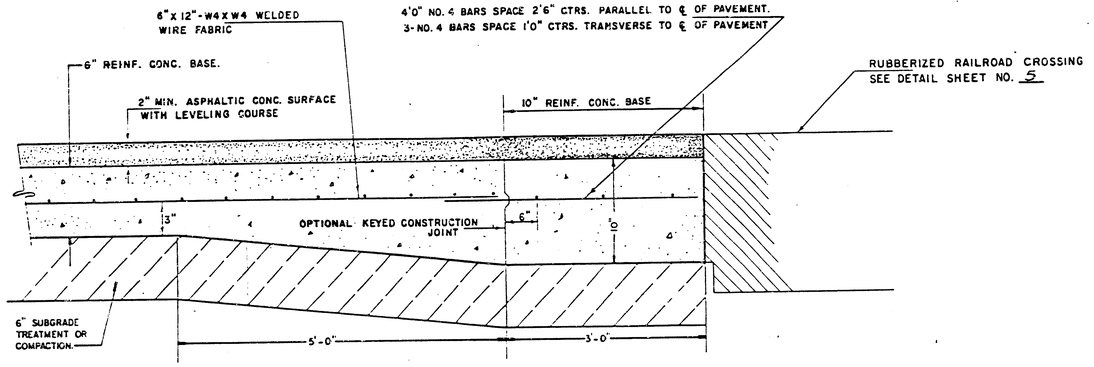
LOCATION OF RUBBER OR WOOD TIE SHIM CAP BOARD AS SHOWN ON DETAIL DRAWING WILL REQUIRE INSTALLATION OF REDWOOD SHIMS ON THE ENDS OF RAILROAD CROSS TIES WHICH ARE LESS THAN 4' -3" FOR 8' - 6" TIES AND 4' - 6" FOR 9' - 0" TIES FROM CENTERLINE OF THE TRACK. LOCATION OF RUBBER OR WOOD TIE SHIM CAP BOARD AS SHOWN ON DETAIL DRAWINGS WILL ALSO REQUIRE ENDS OF RAILROAD CROSS TIES BE CUT OFF WHERE ENDS OF SUCH TIES ARE MORE THAN 4' - 3" FOR 8' - 6" TIES AND 4' - 6" FOR 9' - 0" TIES FROM THE CENTERLINE OF THE TRACK.

EXISTING PAVEMENT SHALL BE REMOVED BY THE PAVING CONTRACTOR. PAVEMENT IMMEDIATELY ADJACENT TO AND WITHIN THREE (3) FEET OF THE CROSSING SHALL BE REMOVED PRIOR TO THE INSTALLATION OF NEW RAILROAD CROSSING MATERIALS. PAVING CONTRACTOR SHALL COORDINATE THE PAVEMENT REMOVAL AT EACH CROSSING LOCATION WITH THE INVOLVED RAILROAD COMPANY. ALL EXPOSED JOINTS BETWEEN NEW CONSTRUCTION AND EXISTING PAVEMENT, WALK OR DRIVES SHALL BE TO NEAT LINES FORMED EITHER BY SAW CUT OR EXISTING JOINT.

LENGTHS OF RUBBERIZED CROSSING MATERIAL SHOWN ON THE PLANS IN MOST CASES ARE TO EXTEND THREE (3) FEET BEYOND BOTH SIDES OF THE PAVED MAIN TRAFFICWAY FOR EACH LOCATION. WOOD PLANKING SHALL BE INSTALLED BY THE INVOLVED RAILROAD COMPANY OUTSIDE THE LIMITS OF THE RUBBERIZED INSTALLATION FOR SIDEWALK, DRIVEWAY AND SHOULDER CROSSINGS WHERE NECESSARY. THE INVOLVED RAILROAD COMPANIES SHALL ADJUST THEIR RAILS TO ELEVATIONS AS SHOWN ON THE PLANS FOR EACH CROSSING LOCATION. VARIATIONS FROM THE TOP OF RAIL ELEVATIONS SHOWN WILL BE PERMITTED ONLY WHEN APPROVED BY THE FIELD ENGINEER FOR ANTICIPATED TRACK SETTLEMENT.

SURFACE OF NEW PAVEMENT AND RUBBERIZED CROSSING MATERIAL SHALL BE SET TO IDENTICAL ELEVATIONS AT THEIR POINT OF JUNCTURE ONLY WHEN THE RAILROAD COMPANY USES APPROVED MECHANICAL EQUIPMENT TO COMPACT RAILROAD FILL AND BALLAST SUCH TO PRECLUDE TRACK SETTLEMENT. RAILROAD TRACK AND RUBBERIZED CROSSING MATERIAL ELEVATIONS OR PAVEMENT ELEVATIONS SHALL BE ADJUSTED IN A RANGE OF ONE-FOURTH (1/4) INCH TO ONE (1) INCH TO ALLOW FOR TRACK SETTLEMENT WHEN THE RAILROAD COMPANY USES HAND METHODS FOR COMPACTION OF RAILROAD FILL AND BALLAST OR USE OF OTHER COMPACTION METHODS WHICH MAY NOT PRECLUDE TRACK SETTLEMENT. THE EXACT ELEVATION DIFFERENTIAL BETWEEN CROSSING MATERIAL AND PAVEMENT SHALL BE DETERMINED BY THE RAILROAD BASED ON THEIR EXPERIENCE FOR TRACK SETTLEMENT WITH CONCURRENCE BY THE ENGINEER.

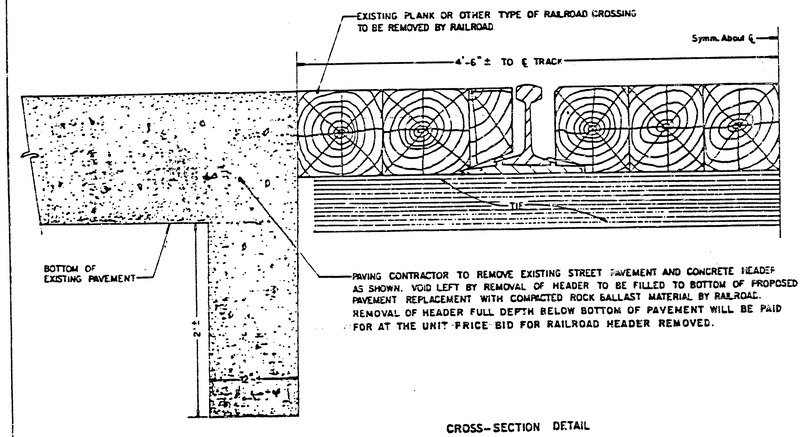
INDIVIDUAL SECTIONS OF THE RUBBERIZED CROSSING MATERIAL SHALL BE OFFSET AT LEAST ONE TIE SPACE FROM EACH OTHER SUCH THAT THE ENDS OF THE RUBBERIZED CROSSING WILL MORE CLOSELY CONFORM TO SIDEWALK OR PAVEMENT CURB ALIGNMENTS WHERE RAILROAD CROSSINGS ARE SKEWED THIRTY (30) DEGREES OR MORE TO THE STREET.



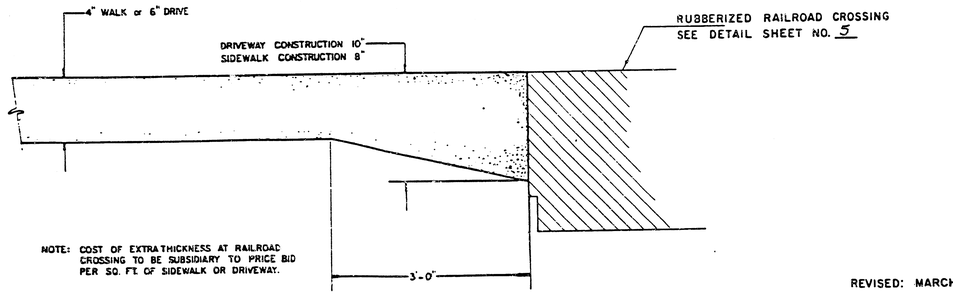
NOTE: COST OF EXTRA CONC. BASE THICKNESS AT RAILROAD CROSSING TO BE SUBSIDIARY TO PRICE BID PER SQ. YD. OF PAVEMENT.

NOTE: ONE THICKNESS OF TAR PAPER SHALL BE INSTALLED BY PAVING CONTRACTOR ON ALL MATING SURFACES BETWEEN PAVEMENT AND RAILROAD CROSSING MATERIAL TO BREAK ANY BOND BETWEEN PAVEMENT AND RAILROAD CROSSING MATERIAL.

CROSS-SECTION DETAIL
NEW PAVEMENT CONSTRUCTION
ABUTTING RUBBERIZED RAILROAD CROSSING
NO SCALE



CROSS-SECTION DETAIL
PAVEMENT REMOVAL ABUTTING TRACKS
TO FACILITATE INSTALLATION OF
RUBBERIZED CROSSING
NO SCALE



NOTE: COST OF EXTRA THICKNESS AT RAILROAD CROSSING TO BE SUBSIDIARY TO PRICE BID PER SQ. FT. OF SIDEWALK OR DRIVEWAY.

NOTE: ONE THICKNESS OF TAR PAPER SHALL BE INSTALLED BY PAVING CONTRACTOR ON ALL MATING SURFACES BETWEEN SIDEWALK OR DRIVEWAY CONSTRUCTION AND RAILROAD CROSSING MATERIAL TO BREAK ANY BOND BETWEEN THE SIDEWALK OR DRIVEWAY PAVEMENT AND RAILROAD CROSSING MATERIAL.

CROSS-SECTION DETAIL
NEW SIDEWALK AND DRIVEWAY CONSTRUCTION
ABUTTING RUBBERIZED RAILROAD CROSSING
NO SCALE

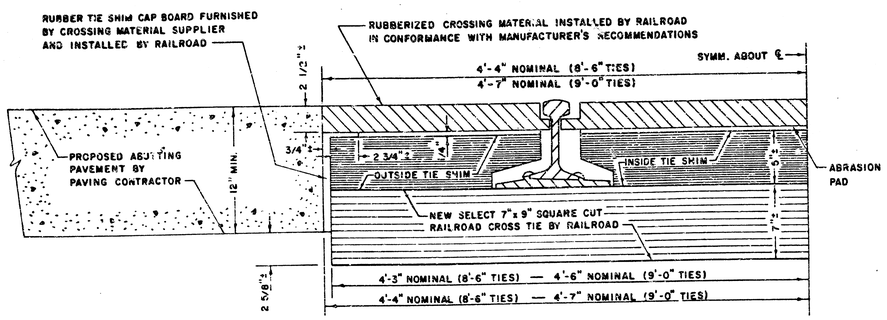
REVISED: MARCH 1988

CITY OF WICHITA, KANSAS

STANDARDS FOR PAVING MODIFICATION IN CONNECTION WITH RUBBERIZED RAILROAD CROSSING INSTALLATION AT LOCATIONS WHERE ALL EXISTING ABUTTING PAVEMENT IS REMOVED AND RECONSTRUCTED

8" PAVEMENT
(2" ASPH. CONC. SURFACE WITH 6" REINF. CONC. BASE)

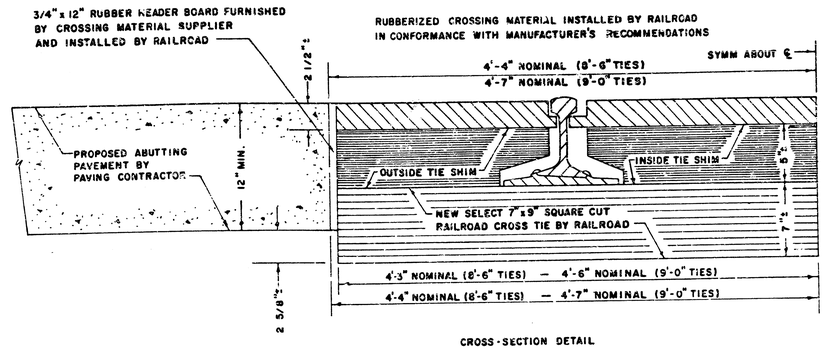
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CROSS-SECTION DETAIL

RUBBER PADS WITH WOOD TIE SHIMS

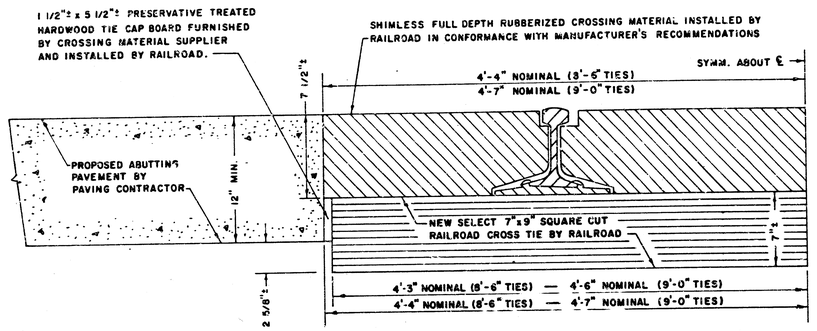
NO SCALE



CROSS-SECTION DETAIL

RUBBER PADS WITH WOOD TIE SHIMS (ALTERNATE)

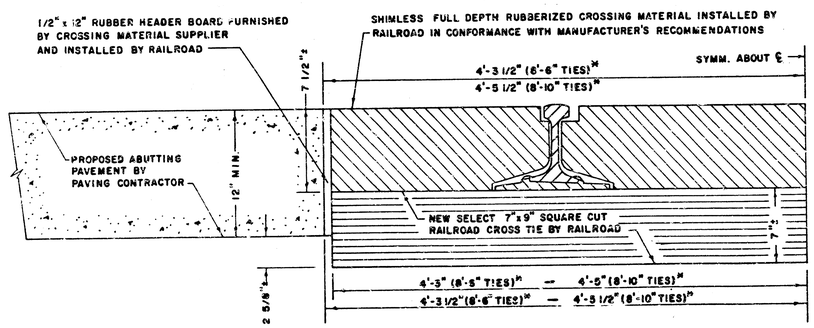
NO SCALE



CROSS-SECTION DETAIL

FULL DEPTH RUBBER PADS (ALTERNATE)

NO SCALE



* - TIES TO BE CUT AND FRAMED IN FACTORY OR IN FIELD.

CROSS-SECTION DETAIL

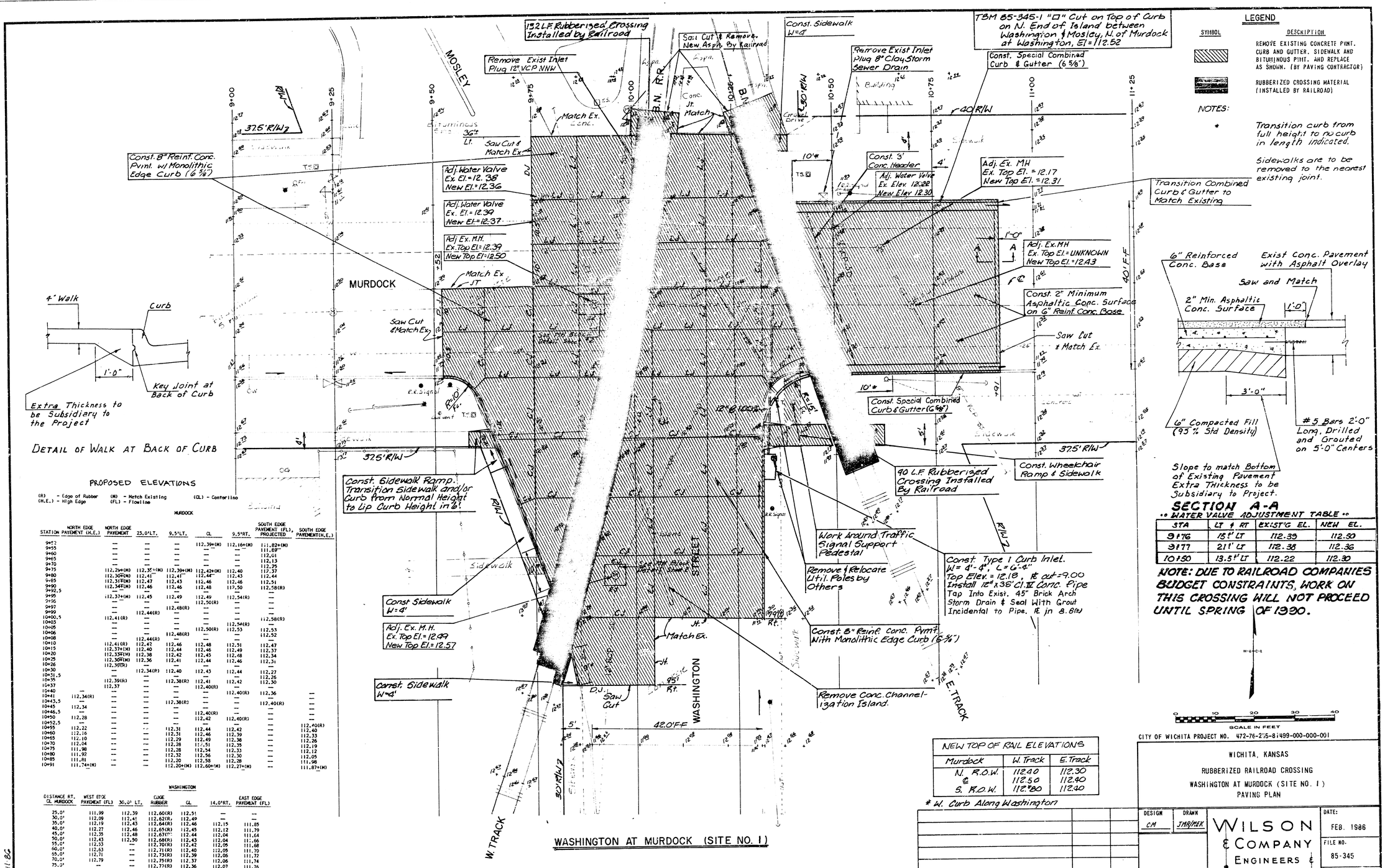
FULL DEPTH RUBBER PADS

NO SCALE

NOTE: SEE SPECIAL NOTES ON PAVING MODIFICATION OR PAVING APPROACH DETAIL SHEET FOR ADDITIONAL APPLICABLE REQUIREMENTS PERTAINING TO WORK SHOWN ON THIS SHEET.

CITY OF WITCHITA, KANSAS
STANDARDS FOR:
RUBBERIZED RAILROAD CROSSING INSTALLATION DETAILS

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LEGEND

SYMBOL	DESCRIPTION
	REMOVE EXISTING CONCRETE PVMT. CURB AND GUTTER. SIDEWALK AND BITUMINOUS PVMT. AND REPLACE AS SHOWN. (BY PAVING CONTRACTOR)
	RUBBERIZED CROSSING MATERIAL (INSTALLED BY RAILROAD)

NOTES:

* Transition curb from full height to no curb in length indicated.

Sidewalks are to be removed to the nearest existing joint.

PROPOSED ELEVATIONS

(E) - Edge of Rubber (H.E.) - High Edge (M) - Match Existing (FL) - Flowline (CL) - Centerline

MURDOCK

STATION	NORTH EDGE PAVEMENT (H.E.)	NORTH EDGE PAVEMENT	23.0' LT.	9.5' LT.	CL	9.5' RT.	SOUTH EDGE PAVEMENT (FL), PROJECTED	SOUTH EDGE PAVEMENT (H.E.)
9+12	—	—	—	—	112.39+(M)	112.16+(M)	111.82+(M)	
9+55		—	—	—	—	—	111.69"	
9+60		—	—	—	—	—	112.01	
9+65		—	—	—	—	—	112.13	
9+70		—	—	—	—	—	112.25	
9+75		112.29+(M)	112.37+(M)	112.39+(M)	112.42+(M)	112.40	112.37	
9+80		112.30+(M)	112.41	112.41	112.44	112.43	112.44	
9+85		112.31+(M)	112.47	112.43	112.46	112.46	112.51	
9+90		112.34+(M)	112.46	112.46	112.48	112.50	112.58(R)	
9+92.5		—	—	—	—	—	—	
9+95		112.37+(M)	112.45	112.49	112.49	112.54(R)	—	
9+96		—	—	—	112.50(R)	—	—	
9+97		—	—	112.48(R)	—	—	—	
9+99		—	112.44(R)	—	—	—	—	
10+00.5		112.41(R)	—	—	—	—	112.58(R)	
10+03		—	—	—	—	112.54(R)	—	
10+05		—	—	—	112.50(R)	112.53	112.53	
10+06		—	—	112.48(R)	—	—	112.52	
10+08		—	112.44(R)	—	—	—	—	
10+10		112.41(R)	112.42	112.46	112.48	112.51	112.47	
10+15		112.37+(M)	112.40	112.44	112.46	112.49	112.37	
10+20		112.35+(M)	112.38	112.42	112.45	112.48	112.34	
10+25		112.36+(M)	112.36	112.41	112.44	112.46	112.31	
10+26		112.39(R)	—	—	—	—	—	
10+30		—	112.34(R)	112.40	112.43	112.44	112.27	
10+31.5		—	—	—	—	—	112.26	
10+35		112.39(R)	—	112.38(R)	112.41	112.42	112.30	
10+37	—	112.37	—	—	112.40(R)	—	—	
10+40	—	—	—	—	—	112.40(R)	112.36	—
10+41	112.34(R)	—	—	—	—	—	—	—
10+43.5	—	—	—	112.38(R)	—	—	112.40(R)	—
10+45	112.34	—	—	—	—	—	—	—
10+46.5	—	—	—	—	112.40(R)	—	—	—
10+50	112.28	—	—	—	112.42	112.40(R)	—	—
10+52.5	—	—	—	—	—	—	—	112.40(R)
10+55	112.22	—	—	112.31	112.44	112.42	—	112.40
10+60	112.16	—	—	112.31	112.46	112.39	—	112.33
10+65	112.10	—	—	112.29	112.49	112.38	—	112.26
10+70	112.04	—	—	112.28	111.51	112.35	—	112.19
10+75	111.98	—	—	112.28	112.54	112.33	—	112.12
10+80	111.92	—	—	112.32	112.56	112.30	—	112.05
10+85	111.81	—	—	112.20	112.58	112.28	—	111.98
10+91	111.74+(M)	—	—	112.20+(M)	112.60+(M)	112.27+(M)	—	111.87+(M)

WASHINGTON

DISTANCE RT. OF MURDOCK	WEST EDGE PAVEMENT (FL)	30.0' LT.	EDGE RUBBER	CL	14.0' RT.	EAST EDGE PAVEMENT (FL)
25.0'	111.99	112.39	112.60(R)	112.51	—	—
30.0'	112.09	112.41	112.62(R)	112.49	—	—
35.0'	112.19	112.43	112.64(R)	112.46	112.15	111.85
40.0'	112.27	112.46	112.65(R)	112.45	112.12	111.79
45.0'	112.35	112.48	112.67(R)	112.44	112.04	111.64
50.0'	112.43	112.50	112.68(R)	112.43	112.04	111.66
55.0'	112.53	—	112.70(R)	112.42	112.05	111.68
60.0'	112.63	—	112.71(R)	112.40	112.05	111.70
65.0'	112.71	—	112.73(R)	112.39	112.05	111.72
70.0'	112.79	—	112.75(R)	112.37	112.06	111.74
75.0'	—	—	112.77(R)	112.36	112.07	111.76
79.0'	—	—	112.78(R)	112.36+(M)	112.08+(M)	111.77+(M)
85.0'	—	—	112.80(R)	—	—	—
90.0'	112.56	—	—	—	—	—
99.0'	112.27+(M)	—	—	112.17+(M)	—	—

SECTION A-A

** WATER VALVE ADJUSTMENT TABLE **

STA	LT & RT	EXIST'G EL.	NEW EL.
9+76	15' LT	112.39	112.50
9+77	21' LT	112.38	112.36
10+50	13.5' LT	112.22	112.30

NOTE: DUE TO RAILROAD COMPANIES BUDGET CONSTRAINTS, WORK ON THIS CROSSING WILL NOT PROCEED UNTIL SPRING OF 1990.

NEW TOP OF RAIL ELEVATIONS

Murdock	W. Track	E. Track
N. R.O.W.	112.40	112.30
&	112.50	112.40
S. R.O.W.	112.80	112.40

* W. Curb Along Washington

REVISION	DATE	BY

CITY OF WICHITA PROJECT NO. 472-76-2'5-81499-000-000-001

WICHITA, KANSAS

RUBBERIZED RAILROAD CROSSING

WASHINGTON AT MURDOCK (SITE NO. 1)

PAVING PLAN

WASHINGTON AT MURDOCK (SITE NO. 1)

DESIGN	DRAWN	DATE:
CM	JMH/MEK	FEB. 1986

WILSON & COMPANY ENGINEERS & ARCHITECTS
WICHITA - KANSAS

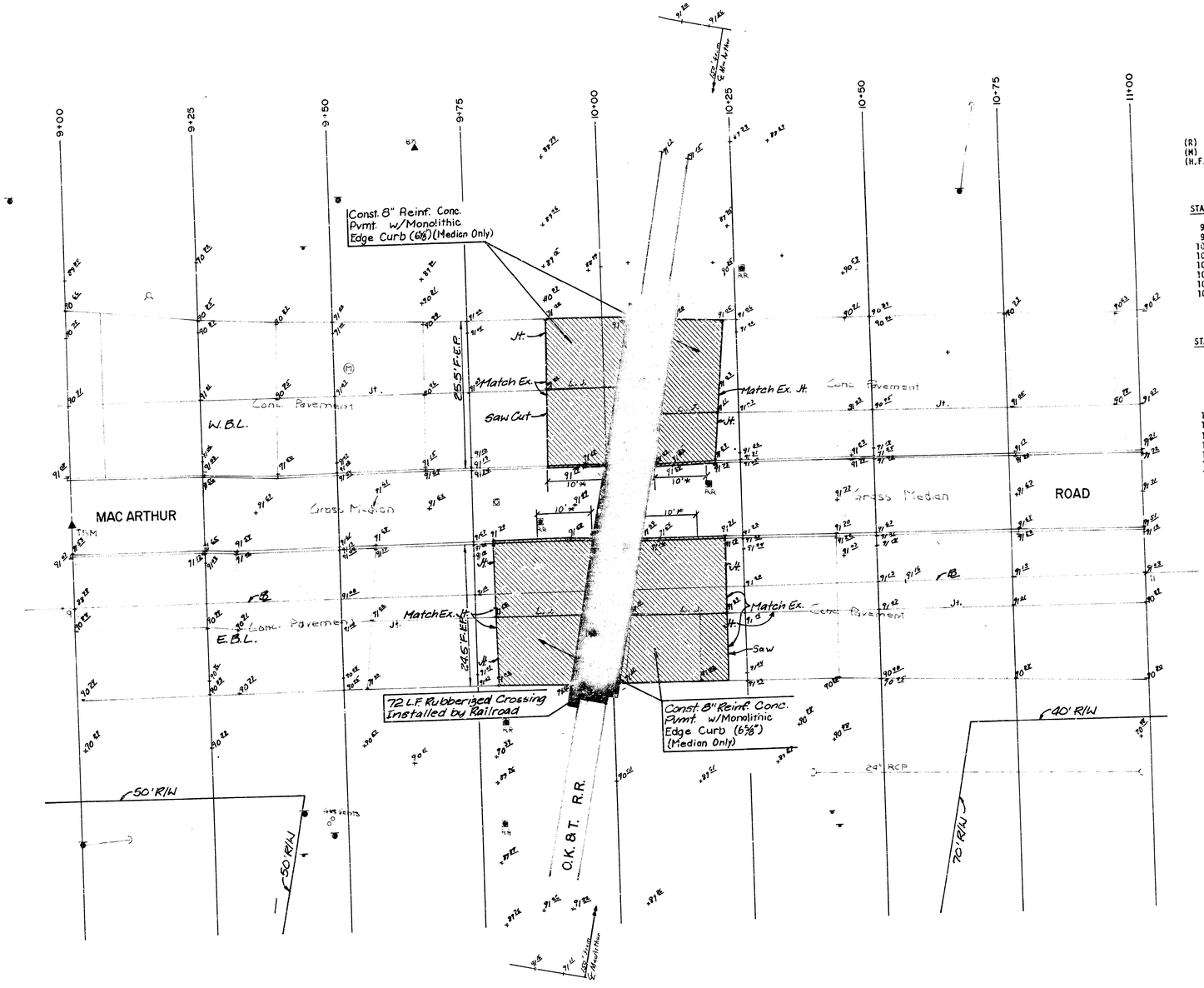
FILE NO. 85-345

SHEET NO. 6 OF 10

2-11-86

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TBM REBAR - Sta. 9+00 Rebar set in Ground at Approx. Middle of Grass Median 15' Lt. of ℄, El. = 91.09



LEGEND

SYMBOL	DESCRIPTION
	REMOVE EXISTING CONCRETE PVMT. CURB AND GUTTER, SIDEWALK AND BITUMINOUS PVMT. AND REPLACE AS SHOWN. (BY PAVING CONTRACTOR)
	RUBBERIZED CROSSING MATERIAL (INSTALLED BY RAILROAD)

NOTE:

* Transition curb from full height to no curb in 10'.

PROPOSED ELEVATIONS

(R) - Edge of Rubber (CL) - Centerline
(M) - Match Existing (FL) - Flowline
(H.F.) - High Edge

WEST BOUND LANES

STATION	NORTH EDGE PAVEMENT	CL	SOUTH EDGE PAVEMENT (FL)
9+89	91.00±(M)	91.00±(M)	91.18±(M)
9+95	91.05	91.09	91.19
10+00	91.14	91.17	91.20(R)
10+05	91.20(R)	--	--
10+09	--	--	91.20(R)
10+14	91.20(R)	91.17	91.21
10+20	91.10	91.12	91.23±(M)
10+23	91.05±(M)	--	--

EAST BOUND LANES

STATION	NORTH EDGE PAVEMENT (FL)	CL	SOUTH EDGE PAVEMENT
9+79	91.20±(M)	91.12±(M)	91.06±(M)
9+85	91.20	91.15	91.12
9+90	91.20	91.18	91.18
9+92	91.20	91.19	91.20(R)
9+95	91.20	91.20(R)	--
9+97	91.20(R)	--	--
10+01	--	--	91.20(R)
10+04	--	91.20(R)	91.17
10+06	91.20(R)	91.19	91.16
10+10	91.19	91.16	91.12
10+15	91.19	91.13	91.08
10+20	91.18	91.10	91.04
10+22	91.18±(M)	91.09±(M)	91.02±(M)

NOTE: Only a full thickness Rubberized Crossing material may be used for this Crossing.

MAC ARTHUR, WEST OF BROADWAY (SITE NO. 2)

NEW TOP OF RAIL ELEVATIONS	
	Track 1
N. Edge of Pavement	91.18
℄	91.20
S. Edge of Pavement	91.22

SCALE IN FEET 0 10 20 30 40

CITY OF WICHITA PROJECT NO. 472-76-24E-81499-000-000-001

WICHITA, KANSAS
RUBBERIZED RAILROAD CROSSING
MACARTHUR, WEST OF BROADWAY (SITE NO 2)
PAVING PLAN

REVISION	DATE	BY

DESIGN	DRAWN
JMD/CM	MEK/JMK

WILSON & COMPANY ENGINEERS & ARCHITECTS
WICHITA - KANSAS

DATE: FEB. 1986
FILE NO. 85-345
SHEET NO. 7 OF 10

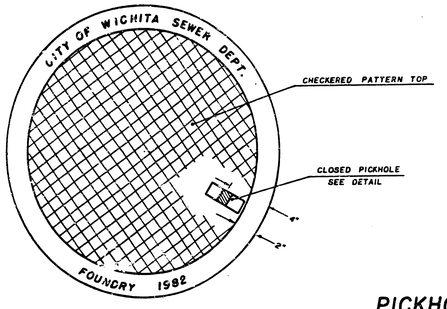
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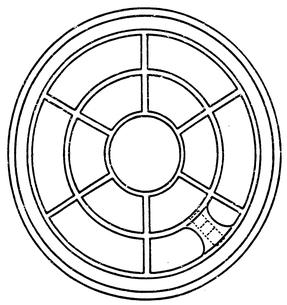
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN
BY
City of Wichita, Kansas

MANHOLE COVER
Weight: 160 Lbs.

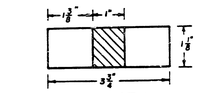


TOP VIEW

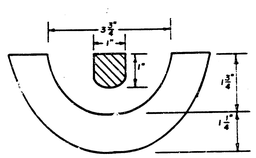


BOTTOM VIEW

PICKHOLE DETAIL

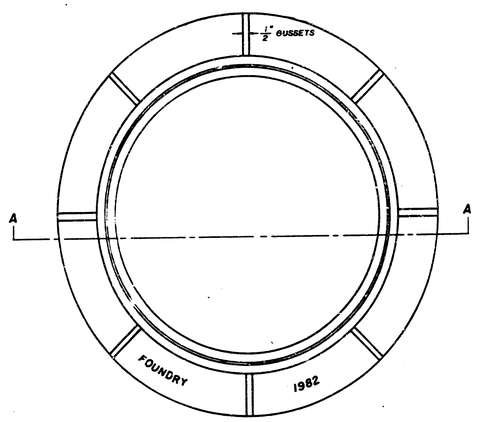


TOP VIEW

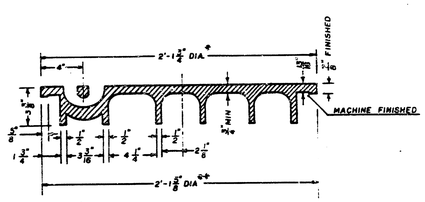


SECTION VIEW

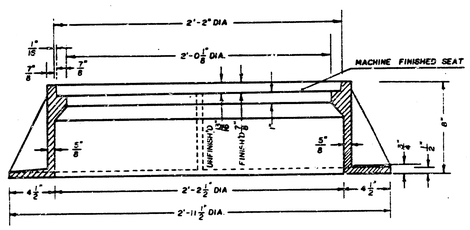
MANHOLE FRAME
Weight: 240 Lbs.



TOP VIEW



SECTION VIEW



SECTION A-A

* OUTSIDE DIA. TOP OF COVER
** OUTSIDE DIA. BOTTOM OF COVER

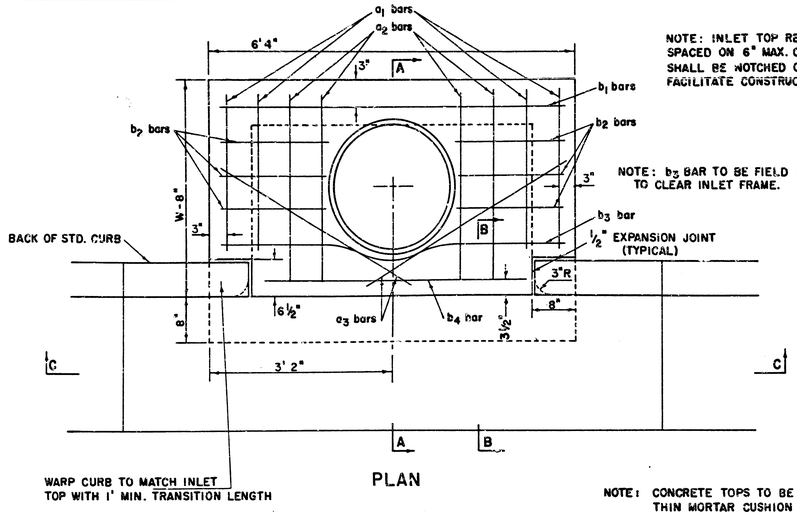
GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.
3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

   THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
5. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

JNL DEC. 1981

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PLAN

NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

NOTE: b_3 BAR TO BE FIELD BENT TO CLEAR INLET FRAME.

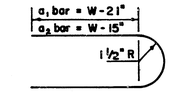
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

STEEL SCHEDULE

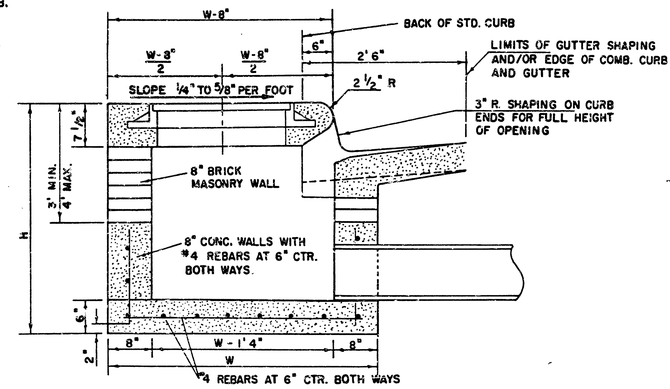
BAR		a_1	a_2	a_3	b_1 W=4'4"	b_1 W=5'4"	b_1 W=6'4"	b_1 W=7'4"	b_1 W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER		4	4	2	1	3	5	7	9	6	1	1	
SIZE		#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W=4'4"	5'7"	6'7"	4'0"	6'1"	-	-	-	-	1'9"	6'2"	4'8"	60±
	W=5'4"	7'7"	8'7"	5'0"	-	6'1"	-	-	-	1'9"	6'2"	4'8"	81±
	W=6'4"	9'7"	10'7"	6'0"	-	-	6'1"	-	-	1'9"	6'2"	4'8"	101±
	W=7'4"	11'7"	12'7"	7'0"	-	-	-	6'1"	-	1'9"	6'2"	4'8"	121±
	W=8'4"	13'7"	14'7"	8'0"	-	-	-	-	6'1"	1'9"	6'2"	4'8"	141±

NOTE: a_3 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER.

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	3'8" 6'4" 7 1/2"	21" & SMALLER	0.38±
5' 4"	4'8" 6'4" 7 1/2"	24" & 30"	0.51±
6' 4"	5'8" 6'4" 7 1/2"	36" & 42"	0.64±
7' 4"	6'8" 6'4" 7 1/2"	48" & 54"	0.77±
8' 4"	7'8" 6'4" 7 1/2"	60" & 66"	0.90±



BENDING DIAGRAM

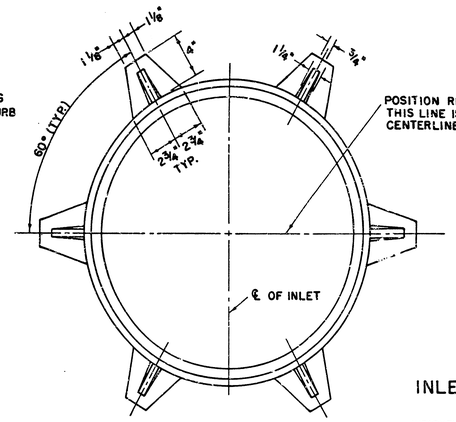


SECTION A-A

NOTE CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'4" AND H = 7'0" OR LESS.

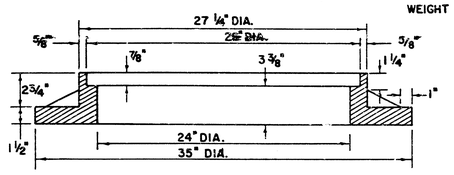
INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.



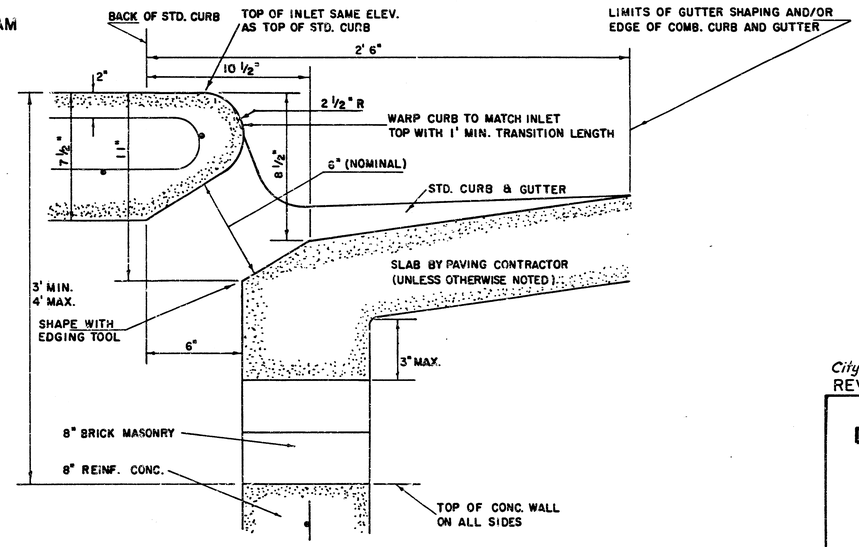
INLET FRAME

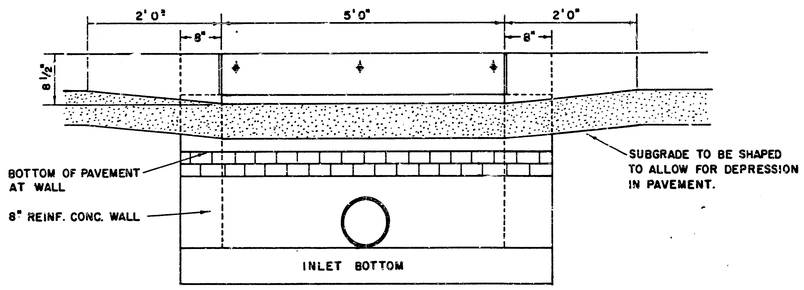
WEIGHT = 180 LBS.



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

SECTION B-B





SECTION C-C

City of Wichita Project No. 472-76-245-81499-000-000-001
REVISED 12-21-1984

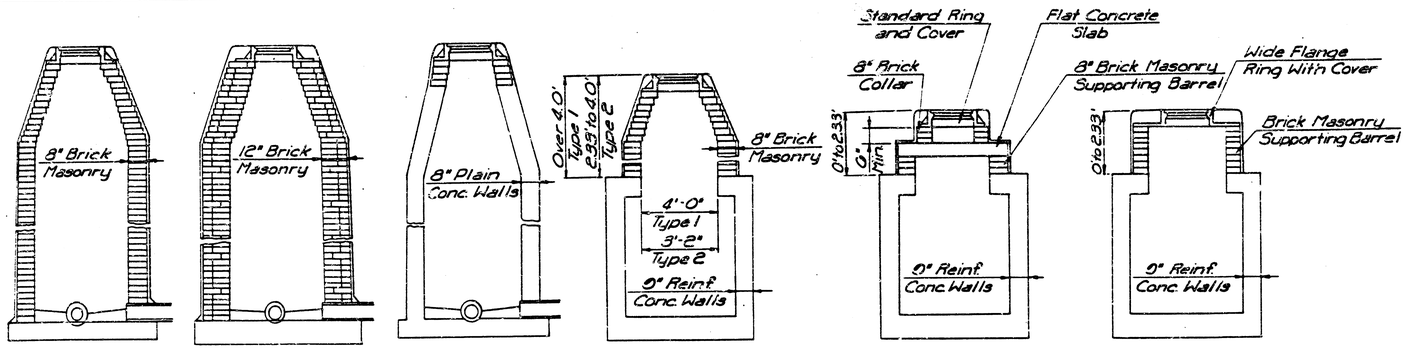
DETAIL STANDARD TYPE I CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" × 5'0"

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TYPE A
Single Wall Brick Masonry

TYPE B
Double Wall Brick Masonry

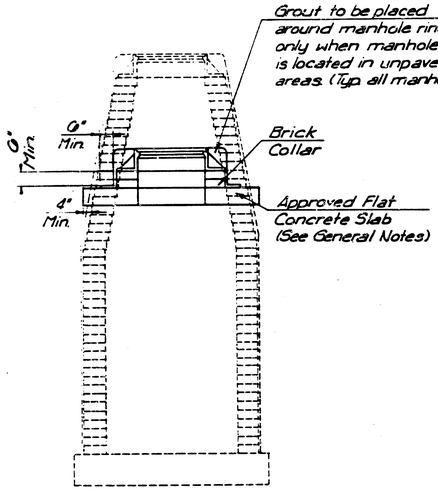
TYPE C & D
Cast in Place
(Type D is plastic lined & has brick draw)

TYPE 1 & 2
Reinforced Concrete

TYPE 3
Reinforced Concrete

TYPE 4
Reinforced Concrete
~~(Wide Flange Ring)~~

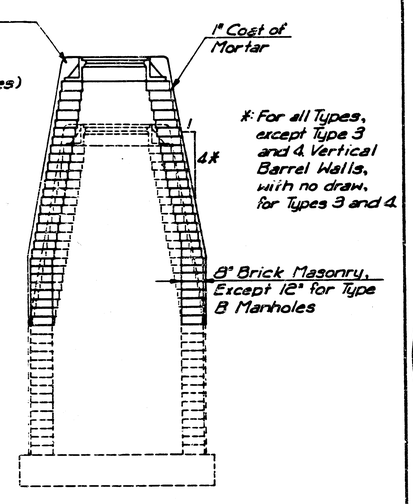
DEFINITION SKETCHES - CITY OF WICHITA STANDARD MANHOLES



DOWNWARD ADJUSTMENT
(GREATER THAN 12")
All Types

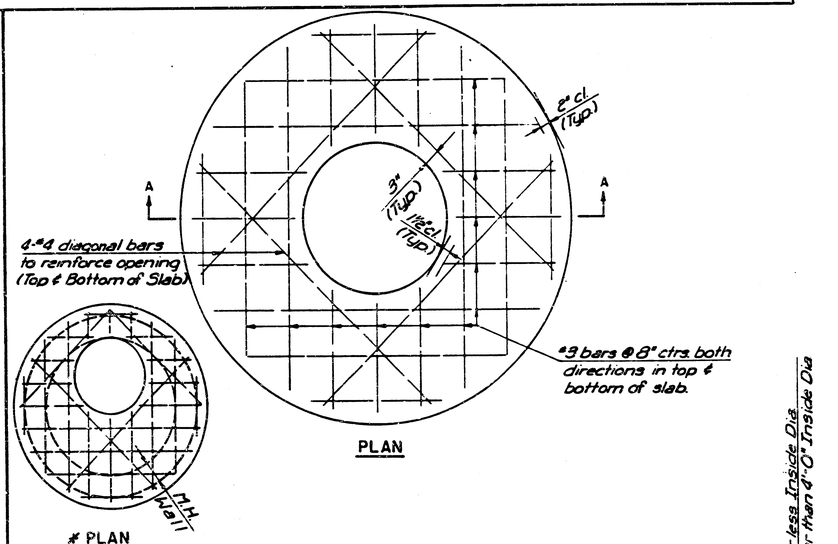
THE APPROPRIATE PORTIONS OF THE DRAW AND BARREL OF TYPE A, B, C, D, 1 AND 2 MANHOLES SHALL BE REMOVED. A FLAT CONCRETE SLAB SHALL BE PLACED AND THE RING AND COVER RESET. ALL WORK AND MATERIALS SHALL CONFORM TO THE DETAILS SHOWN AND THE GENERAL NOTES.

COURSES OF BRICK BARREL SUPPORTING THE WIDE FLANGE RING FOR TYPE 4 MANHOLES AND FLAT CONCRETE SLAB FOR TYPE 3 MANHOLES SHALL BE REMOVED AS NECESSARY PRIOR TO RESETTING THE WIDE FLANGE RING OR FLAT CONCRETE SLAB AND RING. ALL WORK AND MATERIALS SHALL CONFORM TO THE DETAILS SHOWN AND THE GENERAL NOTES.



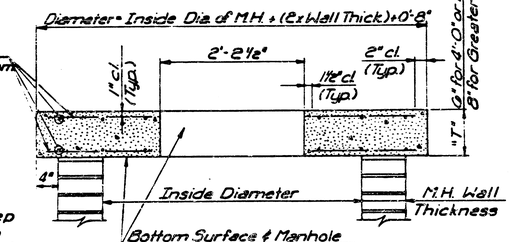
UPWARD ADJUSTMENT
(GREATER THAN 12")
All Types

THE ENTIRE DRAW OF TYPES A, B, C, D, 1 AND 2 MANHOLES SHALL BE REMOVED, THE MANHOLE BARREL RAISED THE APPROPRIATE AMOUNT, A NEW DRAW CONSTRUCTED, AND THE RING AND COVER RESET. THE UPPER PORTION OF TYPE 3 MANHOLES SHALL BE REMOVED TO THE BOTTOM OF THE FLAT CONCRETE SLAB, THE BRICK MASONRY BARREL SUPPORTING THE SLAB SHALL BE RAISED THE APPROPRIATE AMOUNT, AND THE SLAB AND RING AND COVER RESET. THE WIDE FLANGE RING AND COVER OF TYPE 4 MANHOLES SHALL BE REMOVED, THE BRICK MASONRY BARREL SUPPORTING THE RING SHALL BE RAISED THE APPROPRIATE AMOUNT AND THE RING AND COVER RESET. ALL WORK REQUIRED FOR A GREATER THAN TWELVE INCH (12") UPWARD ADJUSTMENT OF ANY MANHOLE SHALL BE ACCOMPLISHED WITH BRICK MASONRY IN ACCORDANCE WITH THE DETAILS SHOWN AND THE GENERAL NOTES.



PLAN

* PLAN
ALTERNATE OPENING LOCATION



SECTION A-A

*: To be used only if necessary to keep ring and cover from conflicting with curb or combined curb and gutter. Flat concrete slab shall be rotated on existing manhole to position ring and cover in pavement or behind curb.

FLAT CONCRETE SLAB DETAILS

Project No. 472-76-245-81499-000-000-001

MANHOLE ADJUSTMENT DETAILS

CITY OF WICHITA, KANSAS (10)
M. E. LINDEBAK — CITY ENGINEER

Designed by		Checked by	
Drawn by		Date	JOB No.

Sheet No. 10 of 10.

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