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

PAVING MODIFICATIONS IN CONNECTION WITH RUBBERIZATION OF RAILROAD CROSSINGS ON

~~MISSOURI PACIFIC CROSSING ON LINCOLN, WEST OF McLEAN BLVD.~~

~~ATCHISON TOPEKA AND SANTA FE CROSSING ON LINCOLN, EAST OF SANTA FE~~

~~BURLINGTON NORTHERN CROSSING ON LINCOLN AND MOSLEY~~

~~ATCHISON TOPEKA AND SANTA FE CROSSING ON HARRY, WEST OF K-15~~

~~ATCHISON TOPEKA AND SANTA FE CROSSING ON BROADWAY AND BAILEY~~

~~MISSOURI PACIFIC CROSSING ON HARRY, WEST OF McLEAN BLVD.~~

~~BURLINGTON NORTHERN CROSSING ON 29TH STREET NORTH, EAST OF MEAD~~

~~OKLAHOMA, KANSAS AND TEXAS CROSSING ON HARRY AND MEAD~~

BURLINGTON NORTHERN CROSSING ON OLIVER AND 17TH STREET NORTH

~~BURLINGTON NORTHERN CROSSING ON WOODLAWN AND 17TH STREET NORTH~~

~~MISSOURI PACIFIC CROSSING ON SENECA, NORTH OF DOUGLAS~~

~~MISSOURI PACIFIC CROSSING ON WESTDALE, NORTH OF ZOO BLVD.~~

PROJECT NO. 472-76-245-81588-000-000-001

APRIL, 1987

PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

GARY D. REPOCK
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6938
KANSAS
PROFESSIONAL ENGINEER

GENERAL NOTES

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. EXCEPT AT LOCATIONS WHERE THE PLANS SPECIFICALLY REQUIRE FULL DEPTH SAW CUTS, 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 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 ASPHALT PARKING LOT, WALK AND DRIVE REMOVED.

6. 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.

7. LIMITS OF EARTHWORK SHALL MATCH EXISTING GROUND ELEVATIONS AT THE RIGHT-OF-WAY LINE UNLESS OTHERWISE NOTED ON THE PLANS.

8. THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES AS DIRECTED BY THE ENGINEER AT THE PRICE BID FOR SAID ADJUSTMENTS. THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES OR WATER VALVE BOXES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

9. CONCRETE JOINTING PATTERNS AND DIMENSIONS ARE APPROXIMATE. ENGINEER SHALL FIELD ADJUST AS REQUIRED TO MATCH EXISTING AND ADJACENT CONDITIONS.

10. 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.

SPECIAL NOTES

[illegible] CONTRACTOR MATERIAL SUPPLIER SHALL FURNISH ALL MATERIALS AND FASTENERS NECESSARY TO PROPERLY INSTALL THE RUBBERIZED CROSSING, INCLUDING BOARDS 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.

Additional pieces of lumber or wood cap shims shall not be less than six (6) ft. in length except where necessary to furnish shorter pieces to match the rubberized crossing lengths. Shorter lengths of resilient plastic or wood cap board pieces shall not be less than three (3) feet. Shims or wood cap boards shall be installed such that when the abutting pavement is constructed, there will be smooth vertical surfaces formed at the junctures between the pavement and the cap board and the full depth of the pavement without any pavement covering being present 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.

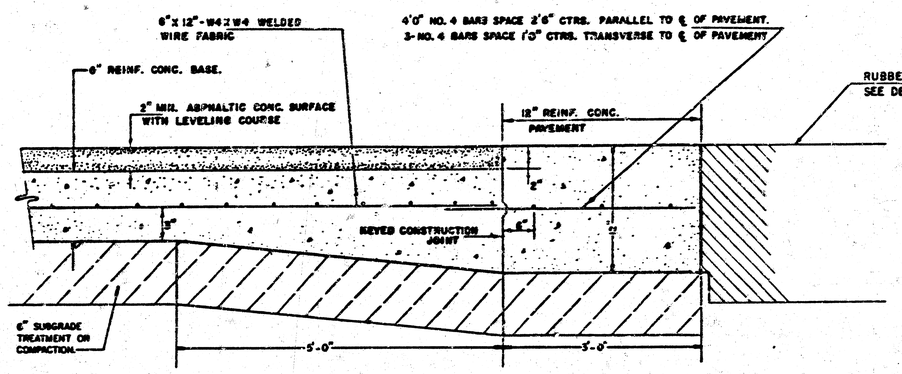
Locations of holes on wood tie shim cap board as shown on detail drawing will require installation of plywood blocks on the ends of railroad cross ties which are left "shim 4" - 3" for 6" - 6" ties and 4" - 6" for 9" - 6" ties from centerline of the track. Location of holes on wood tie shim cap board as shown on detail drawings will also require ends of railroad cross ties be cut off using ends of such ties are used when 4" - 3" for 6" - 6" ties and 4" - 6" for 9" - 6" ties from the centerline of the track.

Existing pavement shall be removed by the paving contractor. Pavement immediately adjacent to and within [illegible] (8) 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, curb or other types, be to neat lines formed either by saw cut or existing joint.

Ends of the rubberized crossing material shown on the plans to meet cases and to extend three (3) feet beyond each edges of the paved road traffic for each location. Wood planking shall be installed by the involved railroad company outside the limits of the rubberized installation for sidewalk, driveway and roadway 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 shall be permitted only when approved by the field engineer for anticipated track settlement.

Backfill of new pavement and rubberized crossing material shall be set to theoretical elevations at the point of juncture only when the railroad company uses approved mechanical equipment to compact railroad fill and ballast area to preclude track settlement. Railroad track and rubberized crossing material elevations or pavement elevations shall be adjusted to a grade of one-fourth (1/4) inch to one (1) inch to allow for track settlement when the railroad company does used methods for compaction of railroad fill and ballast or use of other compaction methods which did 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 of the engineer.

Transitional sections of the rubberized crossing material shall be spaced at least one tie space from each end such that the ends of the rubberized crossing will make closest compare to sidewalk or pavement and alignments where railroad crossings are skewed thirty (30) degrees or more to the street.



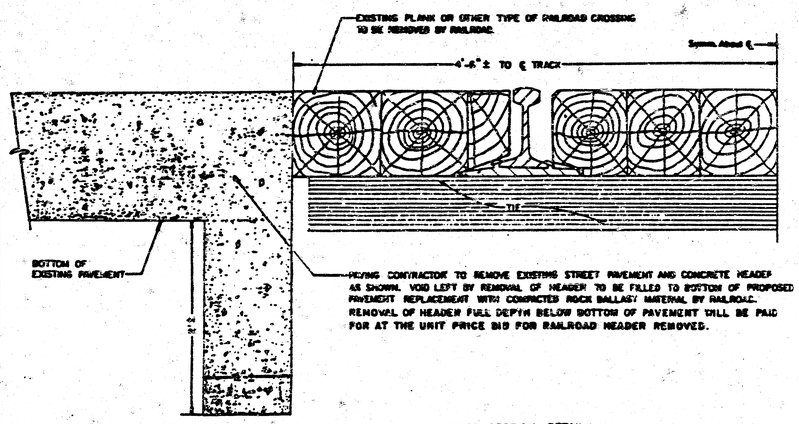
NOTE: COST OF EXTRA CONC. BASE THICKNESS AT RAILROAD CROSSING TO BE SUBSIDIARY TO PRICE BID PER SQ. YD. OF PAVEMENT.

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

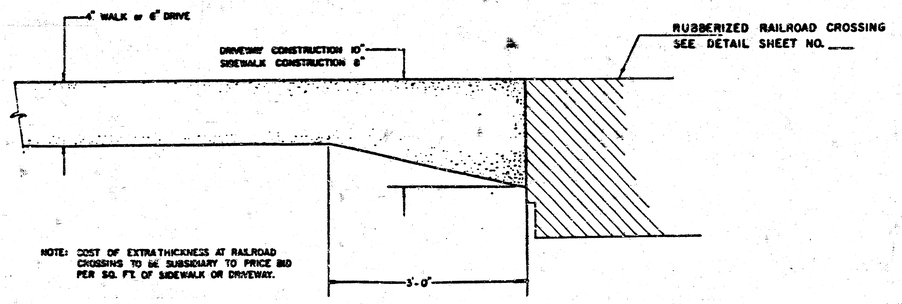
NO SCALE



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

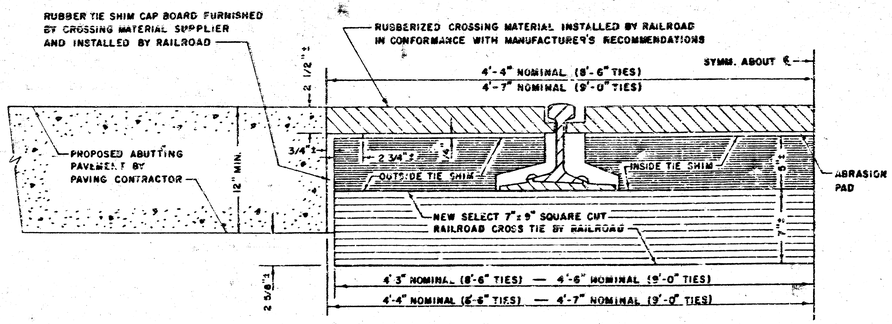
NEW SIDEWALK AND DRIVEWAY CONSTRUCTION
ABUTTING RUBBERIZED RAILROAD CROSSING

NO SCALE

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

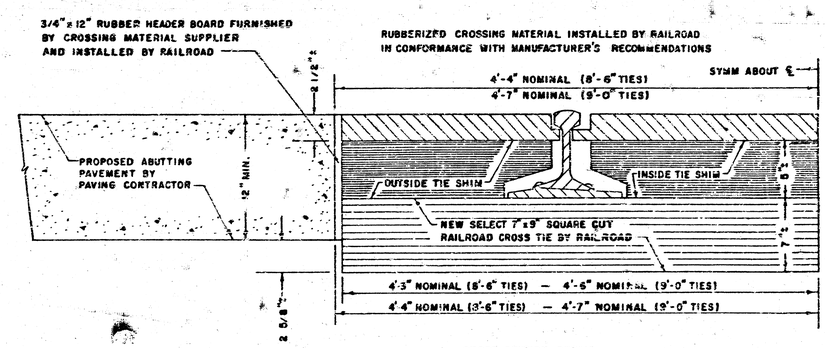
8" PAVEMENT
(2" ASPH. CONC. SURFACE WITH 6" REINF. CONC. BASE)



CROSS-SECTION DETAIL

RUBBER PADS WITH WOOD TIE SHIMS

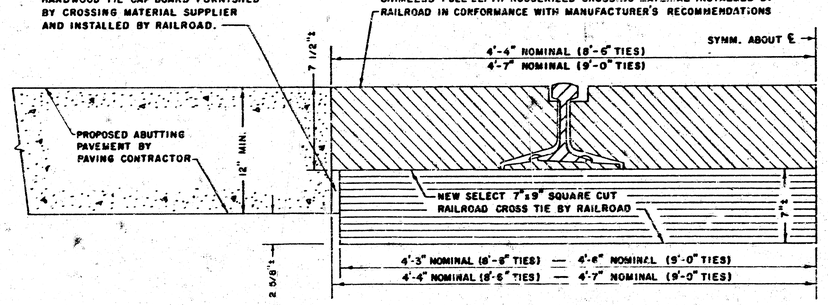
NO SCALE



CROSS-SECTION DETAIL

RUBBER PADS WITH WOOD TIE SHIMS (ALTERNATE)

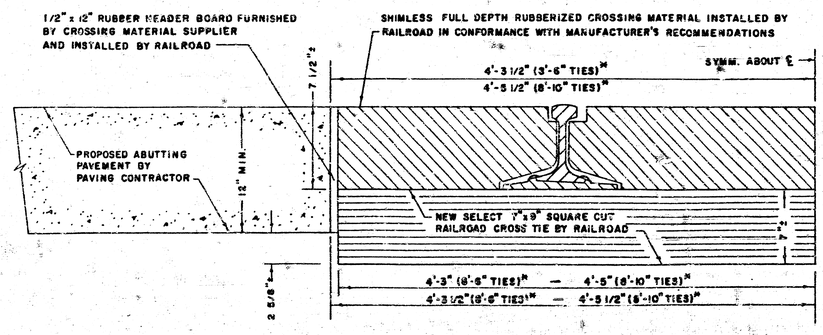
NO SCALE



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

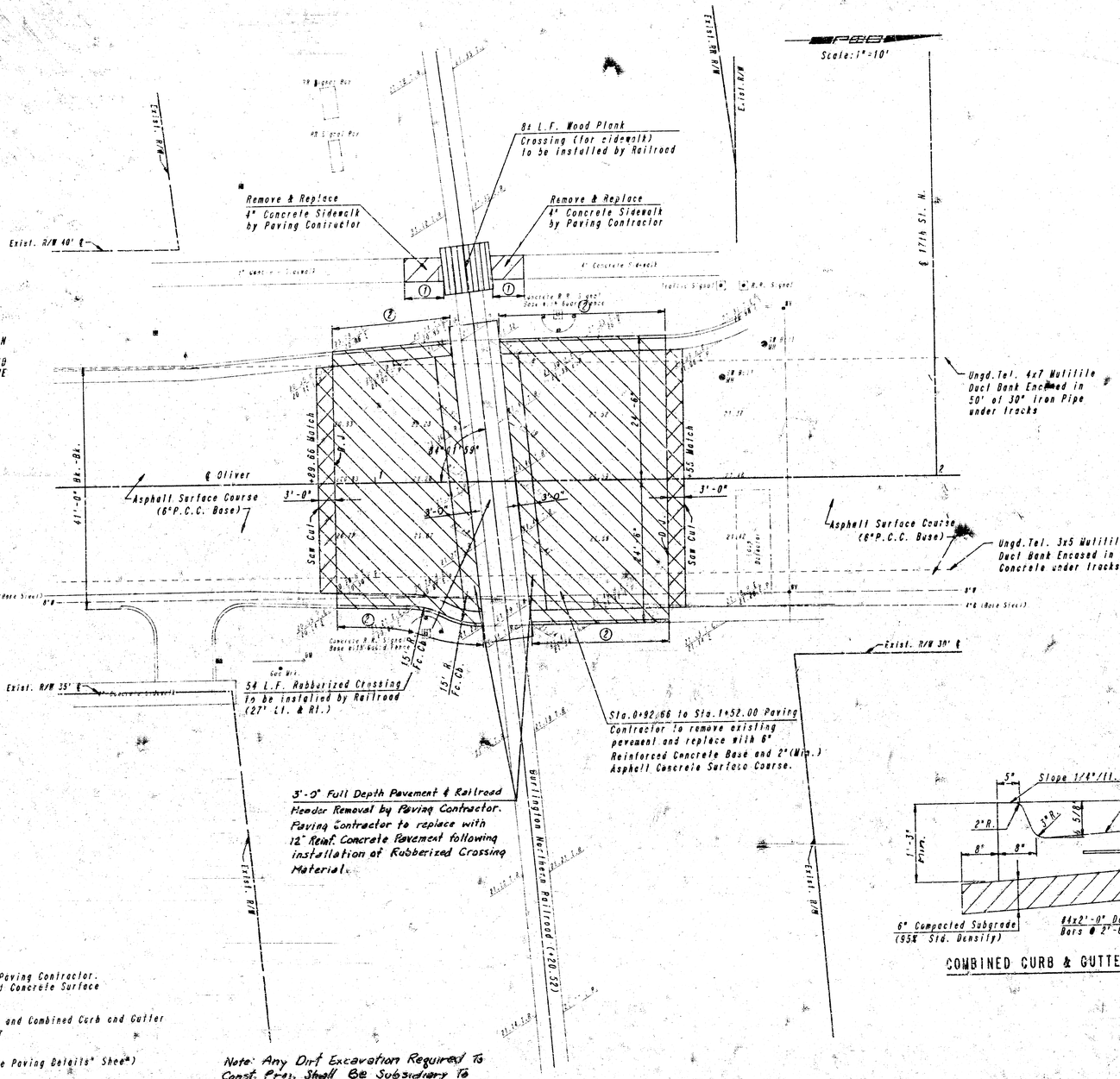
PROJECT	SHEET NO.	TOTAL SHEETS
472-76-245-81588-000-000-001	4	4

NOTES

① REMOVE AND REPLACE 4" CONCRETE SIDEWALK BY PAVING CONTRACTOR. REMOVE TO NEAREST EXISTING JOINT, BUT NOT MORE THAN 6'-0". IF MORE THAN 6'-0" TO NEAREST JOINT, SAW CUT AND REMOVE AND REPLACE TO LIMITS AS DIRECTED BY THE ENGINEER.

② PAVING CONTRACTOR TO REMOVE AND REPLACE COMBINED CURB AND GUTTER. MATCH CURB AS SHOWN AND TRANSITION TO NO CURB HEIGHT AT EDGE OF RUBBER. TRANSITIONS SHALL BE PAID FOR AS COMBINED CURB AND GUTTER (6 5/8"). PROPOSED COMBINED CURB AND GUTTER SHALL BE TIED TO THE 5" REINFORCED CONCRETE BASE WITH #4X2'-0" BARS @ 2'-6" CTRS. SEE CURB & GUTTER DETAIL ON THIS SHEET.

PROPOSED 5" CONCRETE BASE SHALL BE REINFORCED WITH 6X12-W1XW4 WELDED WIRE FABRIC. NO CONTRACTION JOINTS ARE REQUIRED. LONGITUDINAL CONSTRUCTION JOINTS SHALL BE TIED JOINTS WITH #4X2'-0" DEFORMED TIE BARS @ 2'-6" CTRS. AND SHALL BE LOCATED IN THE FIELD AS APPROVED BY THE ENGINEER.



PROPOSED PAVEMENT ELEVATIONS

STATION	WEST EDGE OF PAVEMENT	℄	EAST EDGE OF PAVEMENT
0+89.66	220.24(W)	220.74(W)	220.09(W)
0+92.66	220.33	220.83	220.20
0+85	220.48	220.90	220.31
1+00	220.73	221.02	220.54
1+05	220.97	221.10	220.78
1+10	221.16	221.18	221.00
1+13.86	221.24(R)	———	———
1+15	———	221.23	221.15
1+16.16	———	221.24(R)	———
1+18.46	———	———	221.24(R)
1+20	———	———	———
1+22.58	221.30(R)	———	———
1+24.88	———	221.30(R)	———
1+25	221.30	221.30	———
1+27.18	———	———	221.30(R)
1+30	221.30	221.36	221.31
1+35	221.39	221.49	221.32
1+40	221.25	221.47	221.32
1+45	221.20	221.50	221.31
1+50	221.15	221.51	221.29
1+54	221.12	221.51	221.28
1+55	221.08(W)	221.50(W)	221.25(W)

EXISTING TOP OF RAIL ELEVATIONS

LOCATION	NORTH RAIL	SOUTH RAIL
314.50' Lt.	221.03	220.90
289.10' Lt.	221.67	220.95
264.30' Lt.	221.09	221.00
240.20' Lt.	221.10	221.00
214.20' Lt.	221.16	221.05
190.00' Lt.	221.17	221.06
165.00' Lt.	221.23	221.10
141.20' Lt.	221.19	221.08
117.60' Lt.	221.22	221.14
94.30' Lt.	221.23	221.14
69.80' Lt.	221.21	221.13
45.40' Lt.	221.19	221.09
14.50' Lt.	221.36	221.22
10.00' Lt.	221.41	221.30
℄ Oliver	221.40	221.30
10.00' Rt.	221.40	221.27
24.50' Rt.	221.34	221.19
43.70' Rt.	221.35	221.12
67.30' Rt.	221.35	221.18
91.10' Rt.	221.43	221.21
115.10' Rt.	221.41	221.22
138.40' Rt.	221.43	221.23
162.50' Rt.	221.37	221.23
186.80' Rt.	221.32	221.17
211.60' Rt.	221.29	221.15
236.30' Rt.	221.26	221.14
261.20' Rt.	221.23	221.12
285.60' Rt.	221.20	221.11
310.70' Rt.	221.13	221.06
335.30' Rt.	221.14	221.04

PROPOSED TOP OF RAIL ELEVATIONS

West Edge of Pavement (22' Lt.)
- North Rail = 221.25
- South Rail = 221.29

℄
- North Rail = 221.25
- South Rail = 221.29

East Edge of Pavement (22' Rt.)
- North Rail = 221.25
- South Rail = 221.29

LEGEND

- Asphalt Surface Removed by Paving Contractor. Construct 2" Minimum Asphalt Concrete Surface Course by Paving Contractor
- Pavement, Concrete Sidewalk and Combined Curb and Gutter Removal by Paving Contractor
- D.J. — Doweled Joint (See "Concrete Paving Details" Sheet)

COMBINED CURB & GUTTER (6 5/8")

Elevations are based on City of Wichita Paving Project No. C14-52 (Oliver) & Project No. C17-10 (17th Street)

BURLINGTON NORTHERN AT OLIVER & 17TH STREET NORTH
PLAN

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	PDF	Checked by	GDS
Drawn by	JCP	Date MAR. 1987	Job No. 86586