

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
STATE REGULATORY PROGRAM OFFICE - MISSOURI
221 BOLIVAR STREET, SUITE 103
JEFFERSON CITY, MISSOURI 65101

REPLY TO
ATTENTION OF:

February 2, 2007

Missouri State Regulatory Office
(200501549)

Union Pacific Railroad Company
Attn: Dave Schuldt
1400 Douglas Street
Omaha, Nebraska 68179-0001

Dear Mr. Schuldt:

Permit No. 200501549 has been executed. One copy is enclosed for your records and one copy has been retained for our files.

Please note that in accordance with special condition "1" you must record the compensatory mitigation area, the compensatory mitigation plan and the conservation easement for this permit with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property. You must furnish a copy of the recorded instrument, with the recorder's stamp, to the Kansas City District within 2 months from the date of this permit.

Special condition "a" of the permit requires you to sign and return the enclosed "Compliance Certification" upon completion of the authorized work and any required mitigation.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig J. Litteken".

Craig J. Litteken
State Program Manager
Missouri State Regulatory Office

Enclosures

Copies Furnished:

Environmental Protection Agency,
Water Resources Protection Branch w/enclosures
U.S. Fish and Wildlife Service,
Columbia, Missouri w/enclosures
Missouri Department of Natural
Resources w/enclosures
Missouri Department of Conservation
w/enclosures

HDR Engineering, Inc.
Attn: Bill Sigler
8404 Indian Hills Drive
Omaha, NE 68114-4098
w/enclosures

HDR Engineering, Inc.
Attn: Tim Fobes
4435 Main Street, Suite 1000
Kansas City, MO 64111
w/enclosures

Terra Technologies
Attn: David Flick
8680 West 96th Street, Suite 100
Overland Park, KS 66212
w/enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee Union Pacific Railroad

Permit No. 200501549

Issuing Office U.S. Army Engineer District, Kansas City

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below, and with the plans and drawings attached hereto which are incorporated in and made a part of this permit.

Project Description: Construct a temporary sheet pile retaining wall and deposit a total of 1,570 cubic yards of fine gravel (chat) within the retaining wall in the Missouri River for the construction of a temporary turn-around. Deposit a total of 60,952 cubic yards of earthen material, 209 cubic yards of riprap and 274 cubic yards of concrete to permanently fill a total of 7.58 acres of wetlands (including 5.1 acres of scrub-shrub wetlands, 2.09 acres of forested wetlands, and 0.39 acres of emergent wetlands), and deposit a total of 3,023 cubic yards of earthen material and 147 cubic yards of fine gravel (chat) to temporarily fill a total of 0.21 acres of forested wetlands. Deposit a total of 935 cubic yards of earthen material, 98 cubic yards of riprap and 326 cubic yards of concrete in a total of 293 linear feet of stream on four unnamed tributaries of the Missouri River for culvert extensions. All work is for the construction of a new second main track on Union Pacific Railroad Company's Jefferson City Subdivision, and associated facilities including a universal crossover with work pads, and a set-out track to store damaged railcars. Note: The double track bridge over the Gasconade River and approach fill were previously authorized under Department of the Army (DA) permit number 200100253.

Permit Drawings: Location map, plan views, cross sections, Sheets 1 of 46 through 46 of 46, dated July 17, 2006

Project Location: In the Missouri River and adjacent wetlands, and in four unnamed tributaries of the Missouri River, from approximately 2.5 miles east of Gasconade Missouri at the Gasconade Junction located at railroad milepost 85.9 to approximately 1 mile east of Morrison, Missouri at the Morrison Junction located at railroad milepost 91.9, in Section 6, Township 45 north, Range 5 west, and in Sections 1, 12, 11, 2, 3 and 4, Township 45 north, Range 6 west, in Gasconade County, Missouri

(lat:38-41-11.6880 lon:91-31-15.5640)

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on 31 December 2009. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

See continuation sheets, pages 4 and 5, of this document.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

Section 404 of the Clean Water Act (33 U.S.C. 1344).

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

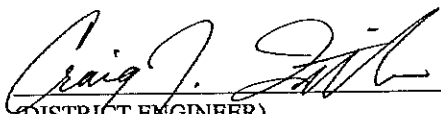


(PERMITTEE)

2-1-07

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



(DISTRICT ENGINEER)
MICHAEL A. ROSSI, COLONEL
BY: Craig J. Litteken
State Program Manager
Missouri State Regulatory Office

2/2/07

(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE)

(DATE)

Special Conditions:

- a. You must sign and return a "Compliance Certification" after you complete the authorized work and any required mitigation. Your signature will certify that you completed the work in accordance with this permit, including general and specific conditions, and that any required mitigation was completed in accordance with the permit conditions.
- b. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- c. If any part of the authorized work is performed by a contractor, before starting work you must discuss the terms and conditions of this permit with the contractor; and, you must give a copy of this entire permit to the contractor.
- d. You must use clean, uncontaminated materials for fill in order to minimize excessive turbidity by leaching of fines, as well as to preclude the entrance of deleterious and/or toxic materials into the waters of the United States by natural runoff or by leaching.
- e. You must dispose of excess concrete and wash water from concrete trucks and other concrete mixing equipment in a nonwetland area above the ordinary high water mark and at a location where the concrete and wash water cannot enter the water body or an adjacent wetland area.
- f. You must excavate, dredge and/or fill in the watercourse in a manner that will minimize increases in suspended solids and turbidity which may degrade water quality and damage aquatic life outside the immediate area of operation.
- g. You must immediately remove and properly dispose of all debris during every phase of the project in order to prevent the accumulation of unsightly, deleterious and/or toxic materials in or near the water body.
- h. You must not dispose of any construction debris or waste materials below the ordinary high water mark of any water body, in a wetland area, or at any location where the materials could be introduced into the water body or an adjacent wetland as a result of runoff, flooding, wind, or other natural forces.
- i. You must store all construction materials, equipment, and/or petroleum products, when not in use, above anticipated high water levels.
- j. You must restrict the clearing of timber and other vegetation to the absolute minimum required to accomplish the work. Clearing, grading and replanting should be planned and timed so that only the smallest area necessary is in a disturbed, unstable or unvegetated condition.

k. Upon completion of earthwork operations, you must seed, replant or otherwise protect from erosion all fills in the water or on shore, and other areas on shore disturbed during construction. If seeding does not successfully vegetate the disturbed areas by the end of the first growing season, you must implement alternate measures, such as placing riprap, slope terracing with untreated railroad ties, gabions or concrete blocks, or additional vegetative plantings, to protect the disturbed areas from further erosion. You must contact the Kansas City District, Regulatory Branch prior to beginning work on any additional erosion control measures so that a determination can be made whether further authorization is required.

l. You must take the actions required to record the compensatory mitigation area, the compensatory mitigation plan and the conservation easement for this permit with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property. You must furnish a copy of the recorded instrument, with the recorder's stamp, to the Kansas City District within 2 months from the date of this permit.

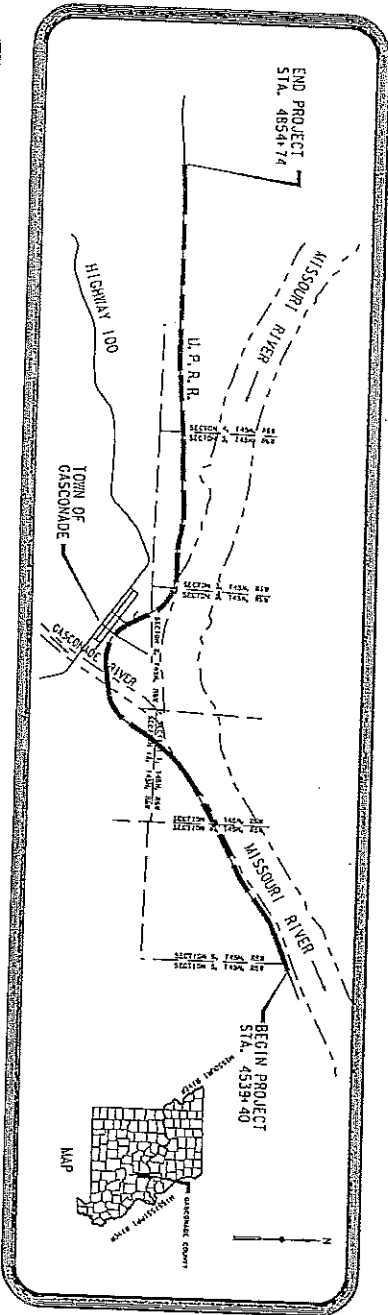
m. You must use only graded rock, quarry-run rock and/or clean concrete rubble for riprap. The material must be reasonably well graded, consisting of pieces varying in size from 20 pounds up to and including at least 150 pound pieces. Generally, the maximum weight of any piece should not be more than 500 pounds. Gravel and dirt should not exceed 15% of the total fill volume. If you use concrete rubble, you must break all large slabs to conform to the well graded requirement, and remove all exposed reinforcement rods, trash, asphalt, and other extraneous materials before you place the rubble in the water of the United States.

n. You must perform compensatory mitigation for the unavoidable impacts to 7.79 acres of wetlands (including 5.10 acres of scrub-shrub wetlands, 2.3 acres of forested wetlands, and 0.39 acres of emergent wetlands) and 293 linear feet of stream in accordance with the compensatory mitigation plan dated September 6, 2006 and the October 11, 2006 and November 28, 2006 addendums. The compensatory mitigation plan shall be implemented concurrently with project development. A survivorship rate of 75% for the forested wetland plantings and scrub-shrub wetland plantings and an 80% vegetative cover for the emergent wetland area shall be achieved by the end of the first growing season. You must replace any dead trees in the forested wetland and scrub-shrub wetland areas until the 75% survivorship rate has been achieved and you must reseed the emergent wetland area until the 80% vegetative cover rate has been achieved. An annual monitoring report shall also be supplied for the first five years upon completion of the plantings and seeding, and shall include the number and types of species planted, survivorship rates for the forested wetland and scrub-shrub wetland plantings, vegetative cover % for the emergent wetland, and shall be supplemented with pictures of the planted areas.

o. You must immediately remove all temporary fill from the Missouri River and adjacent wetlands (for the temporary turnarounds) in their entirety and restore the areas to preproject elevations and contours immediately upon completion of the work activities.



UNION PACIFIC RAILROAD



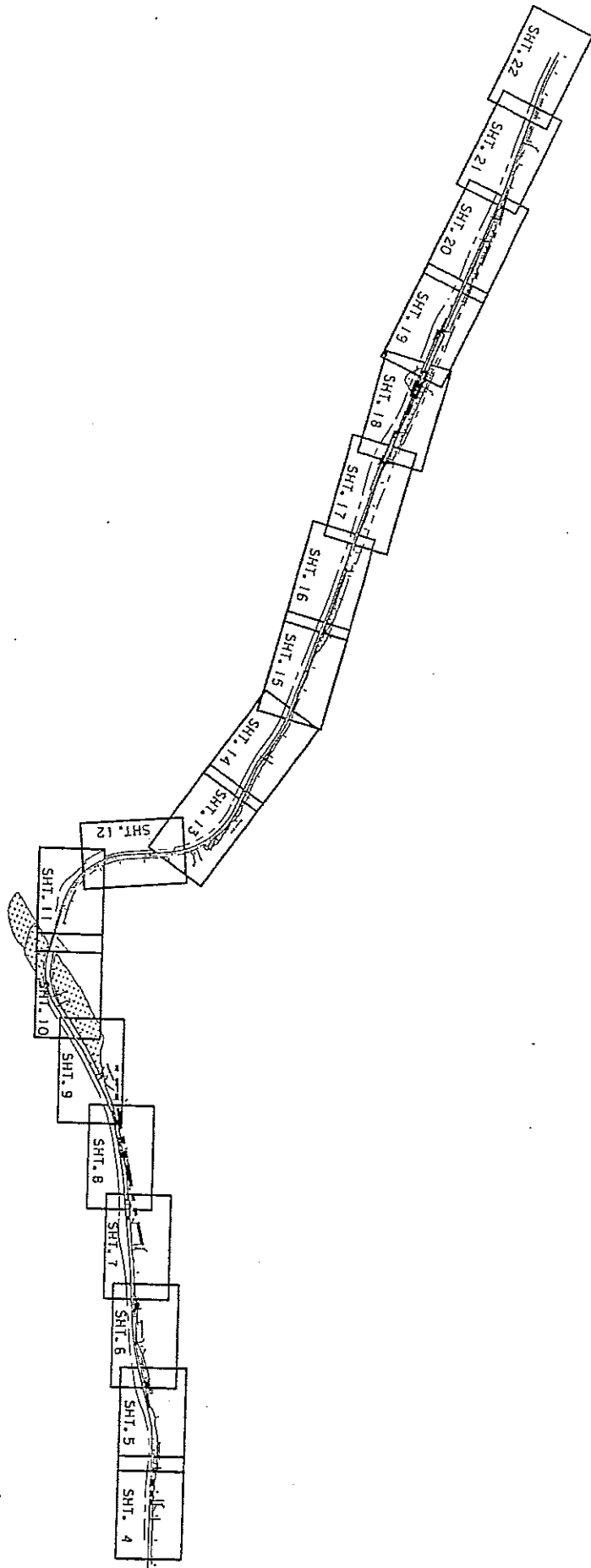
NEAR GASCONADE, MISSOURI
JEFFERSON CITY SUB. MP 85.9 TO 91.9
CONSTRUCT SECOND MAINLINE TRACK

INDEX TO DRAWINGS

SHEETS NO.	DESCRIPTION
1	COVER /SITE LOCATION
1	KEYMAP
1	TYPICAL TRACK SECTIONS
18	PROJECT PLAN SHEETS
15	CROSS SECTIONS
9	CULVERT DETAILS
1	SLOPE STABILIZATION DETAIL

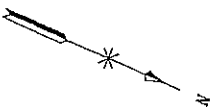


APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
 Sheet 1 of 46
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KEYMAP

NOT TO SCALE

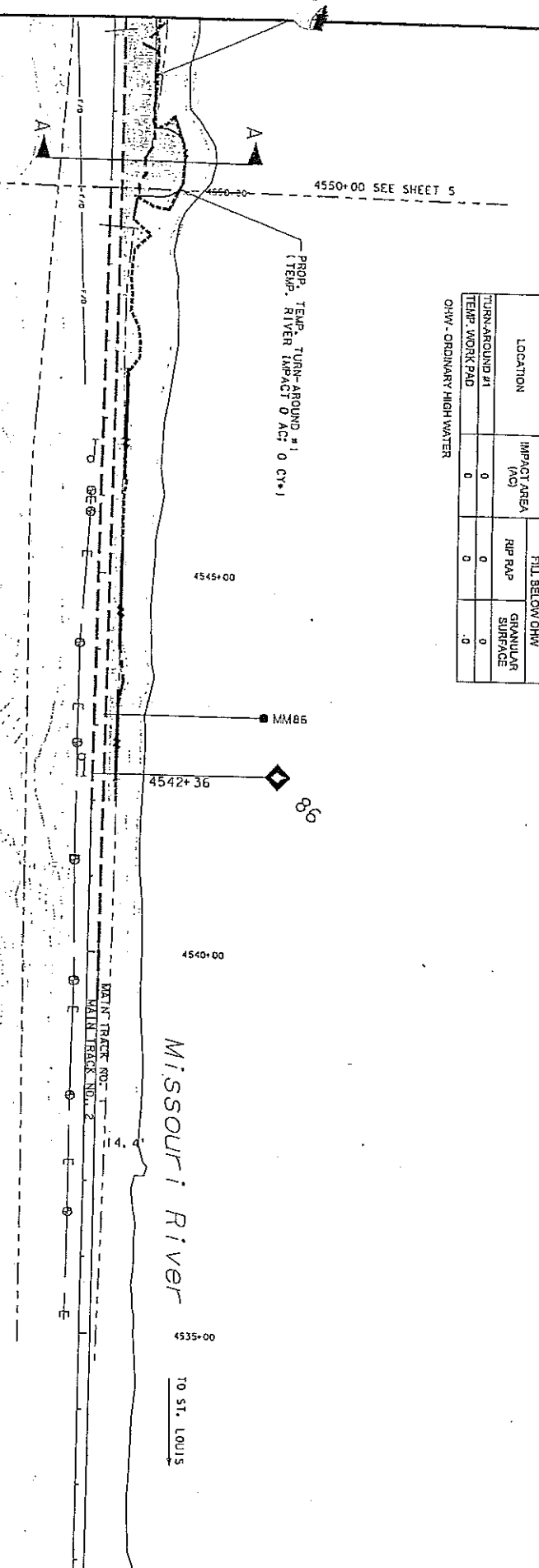


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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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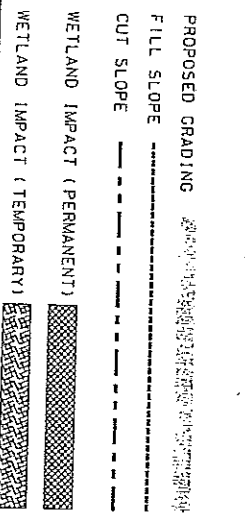
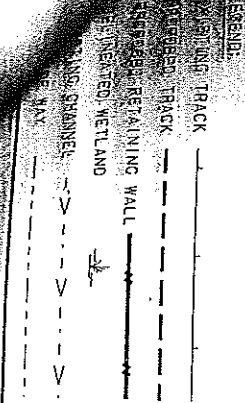
* TEMPORARY MISSOURI RIVER IMPACTS (C?)			
LOCATION	IMPACT AREA (AC)	FILL BELOW OHW	GRANULAR SURFACE
TURN-AROUND #1	0	0	0
TEMP. WORK PAD	0	0	0

OHW - ORDINARY HIGH WATER

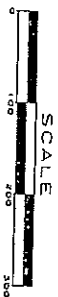
PROP. TEMP. TURN-AROUND #1
(TEMP. RIVER IMPACT 0 AC; 0 CY*1)



NOTES:
* TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOLE MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.



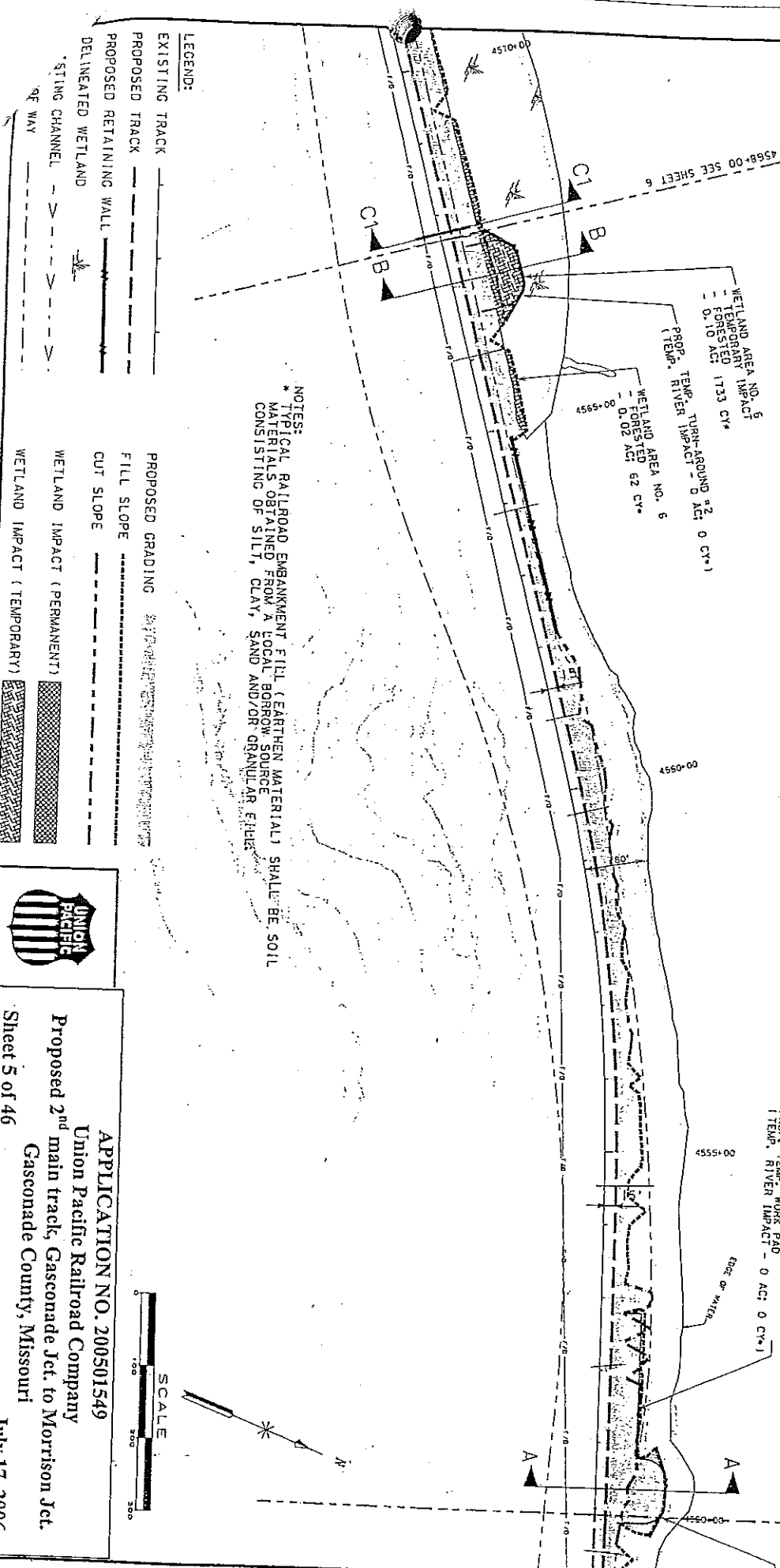
APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
 July 17, 2006



* TEMPORARY MISSOURI RIVER IMPACTS (CY)				
LOCATION	IMPACT AREA (AC)	FILL BELOW OHW		
		RIP RAP	GRANULAR SURFACE	
TEMP. WORK PAD	0	0	0	0
TURNAROUND #2	0	0	0	0

OHW - ORDINARY HIGH WATER

Missouri River



NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

- LEGEND:
- EXISTING TRACK
 - PROPOSED TRACK
 - PROPOSED RETAINING WALL
 - DELINEATED WETLAND
 - STING CHANNEL
 - OF WAY

- PROPOSED GRADING
- FILL SLOPE
- CUT SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)



APPLICATION NO. 200501549
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 Gasconade County, Missouri
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* TEMPORARY MISSOURI RIVER IMPACTS (CY)

LOCATION	IMPACT AREA (AC)	FILL BELOW OHW RIP RAP	GRANULAR SURFACE
TURN-AROUND #3	0	0	0

LOCATION	IMPACT AREA (AC)	TEMPORARY FILL (CY)			WETLAND IMPACTS			PERMANENT FILL (CY)		
		TOTAL FILL IN WETLAND #5	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE
WETLAND #5	0.11	1437	1392	0	75	0.02	73	52	12	0
WETLAND #6	0.10	1733	1091	0	72	0.14	402	414	40	0
										8

MISSOURI River

4586+00 SEE SHEET 7

4585+00

4580+00

4575+00

4568+00 SEE SHEET 5

NOTES:
TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

PROP. TEMP. TURN-AROUND #3
TEMP. RIVER IMPACT - 0 AC; 0 CY*

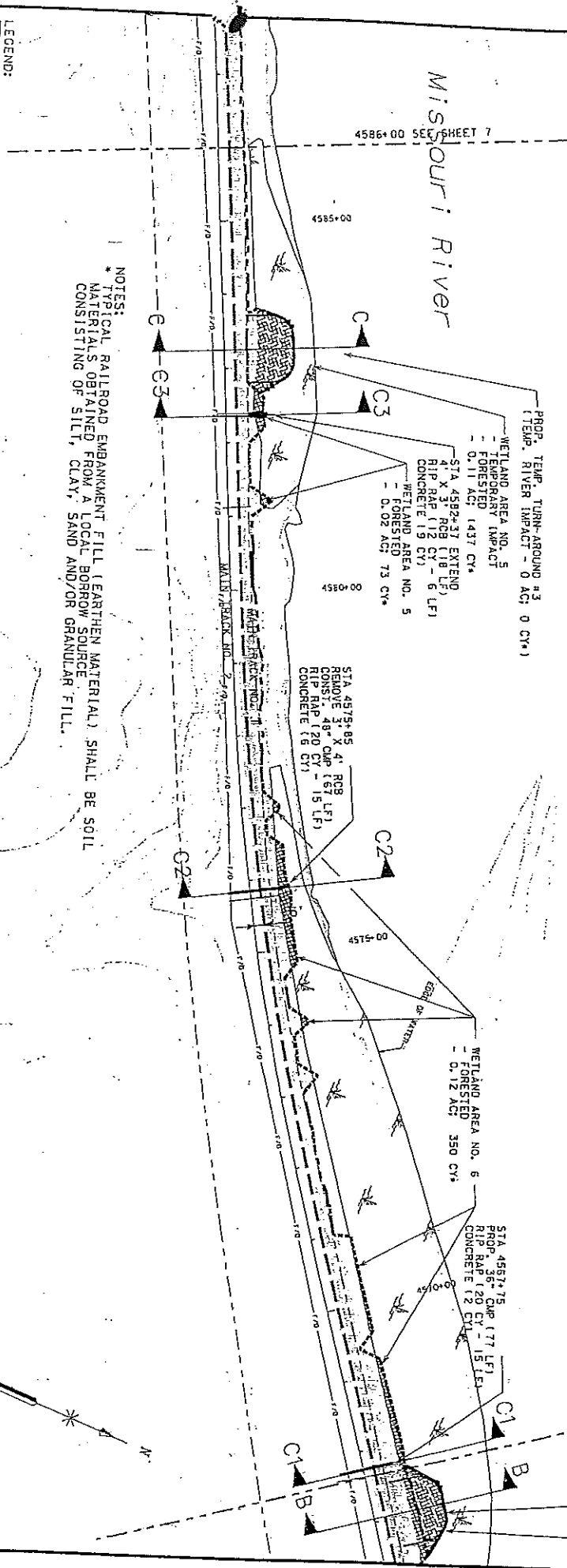
WETLAND AREA NO. 5
FORESTED
TEMPORARY IMPACT
- 0.11 AC; 1437 CY*

STA 4582+31 EXTEND
4' X 3' RCB (18 LF)
RIP RAP (12 CY)
CONCRETE (19 CY)
WETLAND AREA NO. 5
FORESTED
- 0.02 AC; 73 CY*

STA 4579+85
REMOVE 48" OHP (67 LF)
RIP RAP (20 CY)
CONCRETE (6 CY)

WETLAND AREA NO. 6
FORESTED
- 0.12 AC; 350 CY*

STA 4553+75
PROP. 36" OHP (77 LF)
RIP RAP (20 CY - 15 LF)
CONCRETE (2 CY)



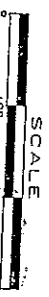
LEGEND:

- EXISTING TRACK
- PROPOSED TRACK
- PROPOSED RETAINING WALL
- RELIEVED WETLAND
- CUT SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)

- PROPOSED GRADING
- FILL SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)

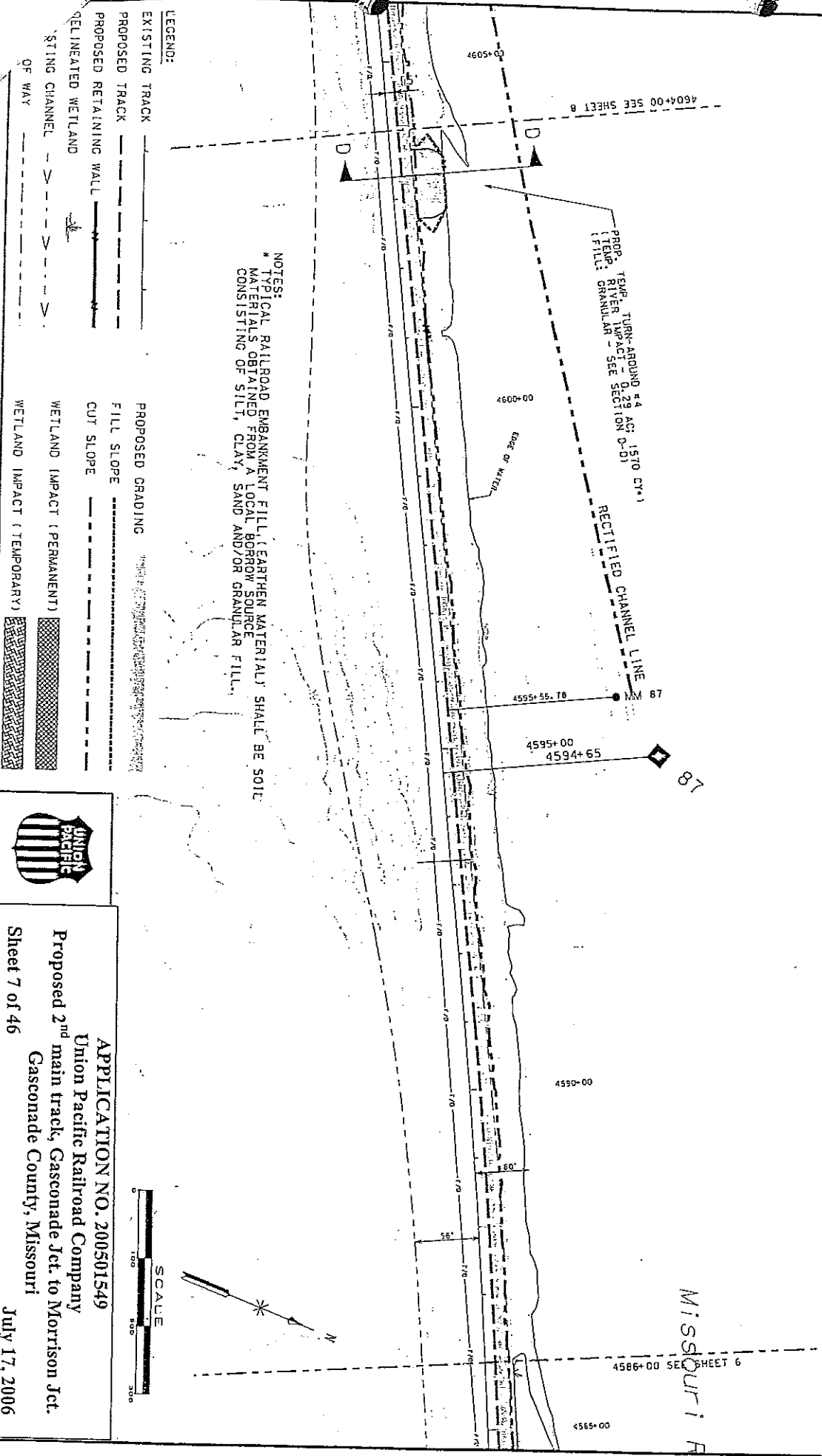


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Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
Gasconade County, Missouri
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* TEMPORARY MISSOURI RIVER IMPACTS (CM)			
LOCATION	IMPACT AREA (AC)	FILL BELOW OHW	GRANULAR SURFACE
TURNAROUND #4	0.28	1535	33

OHW - ORDINARY HIGH WATER



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4623+00 SEE SHEET 9

4626+00

4615+00

RECTIFIED CHANNEL LINE
MISSOURI RIVER

4605+00

4604+00 SEE SHEET 7

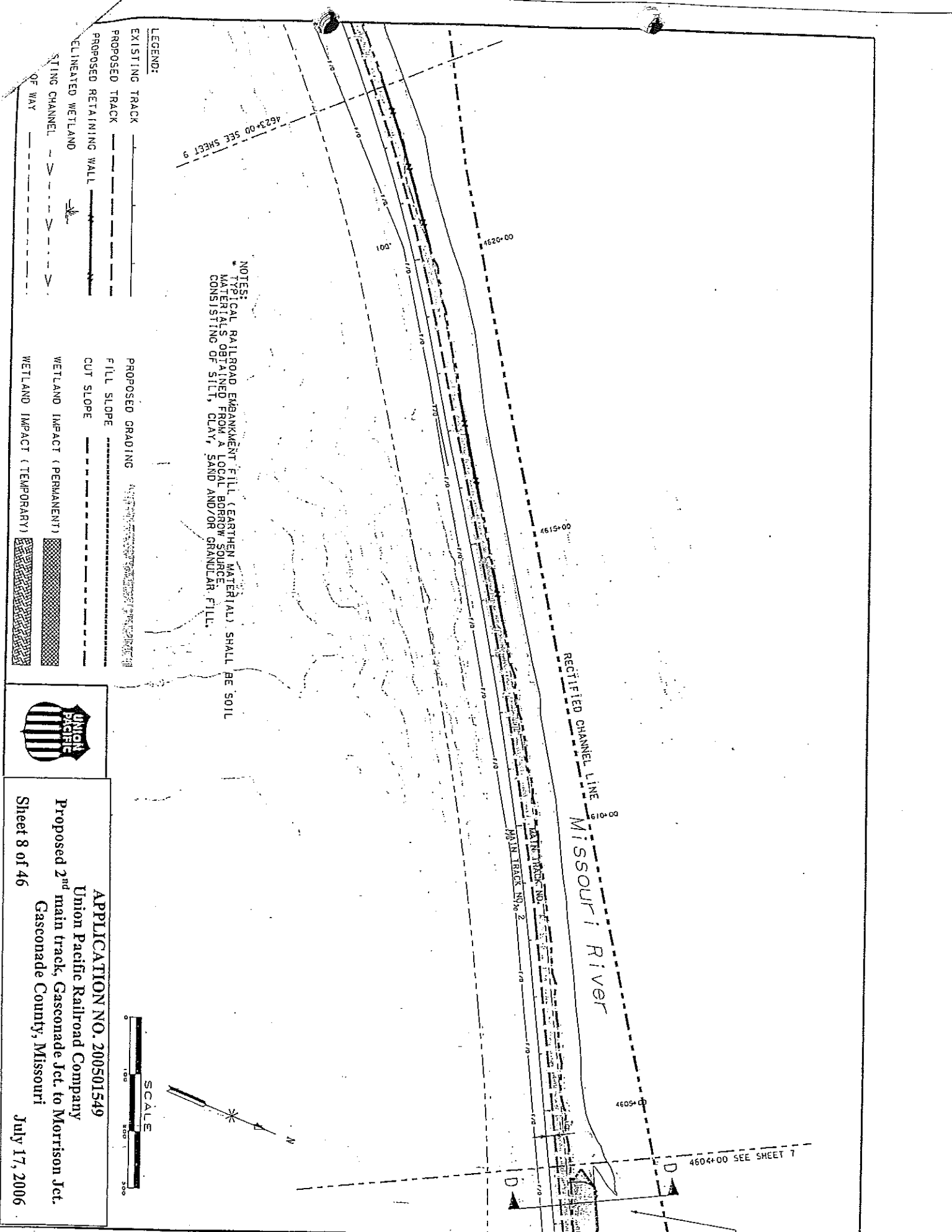
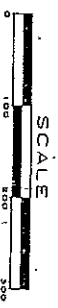
NOTES:
TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

LEGEND:
EXISTING TRACK
PROPOSED TRACK
PROPOSED RETAINING WALL
DECLINATED WETLAND
STING CHANNEL
OF WAY

PROPOSED GRADING
FILL SLOPE
CUT SLOPE
WETLAND IMPACT (PERMANENT)
WETLAND IMPACT (TEMPORARY)



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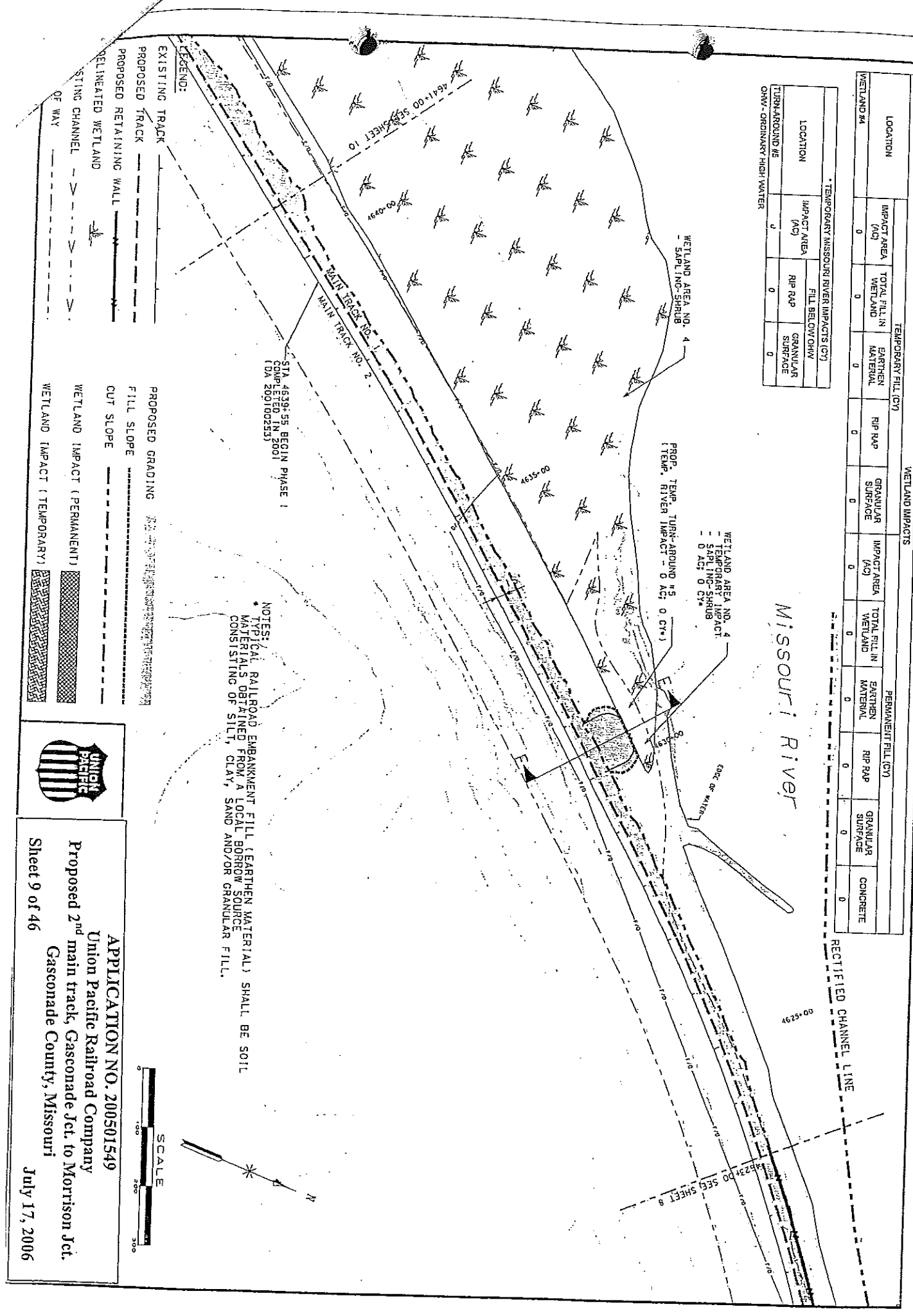
LOCATION	TEMPORARY FILL (CY)				WETLAND IMPACTS				PERMANENT FILL (CY)			
	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE	
WETLAND #4	0	0	0	0	0	0	0	0	0	0	0	

LOCATION	FILL BELOW/CHW		
	IMPACT AREA (AC)	RIP RAP	GRANULAR SURFACE
TURN-AROUND #5	0	0	0

* TEMPORARY MISSOURI RIVER IMPACTS (CY)
 OHW - ORDINARY HIGH WATER

WETLAND AREA NO. 4
 - SAPLING-SHRUB
 - TEMPORARY IMPACT
 - 0 AC; 0 CY*

PROP. TEMP. TURN-AROUND #5
 (TEMP. RIVER IMPACT - 0 AC; 0 CY*)



STA 4639+55 BEGIN PHASE I
 COMPLETED IN 2001
 (DA 200100253)

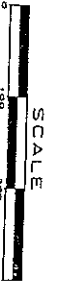
NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL
 MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE
 CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

LEGEND:

- EXISTING TRACK
- PROPOSED TRACK
- PROPOSED RETAINING WALL
- DELINEATED WETLAND
- EXISTING CHANNEL
- OF WAY
- PROPOSED GRADING
- FILL SLOPE
- CUT SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)



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Cascoade River

EXISTING ACCESS ROAD

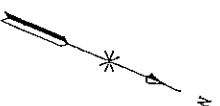
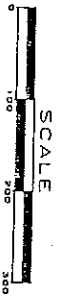
BRTDGE BR 22 - PHASE I
 COMPLETED IN 2001
 (DA 200102531)

WETLAND AREA NO. 1
 SHAL. INC. SHRUBS

NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

LEGEND:
 EXISTING TRACK
 PROPOSED TRACK
 PROPOSED RETAINING WALL
 DECLINEATED WETLAND
 SETTING CHANNEL
 OF WAY

PROPOSED GRADING
 FILL SLOPE
 CUT SLOPE
 WETLAND IMPACT (PERMANENT)
 WETLAND IMPACT (TEMPORARY)



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LEGEND:

EXISTING TRACK ———

PROPOSED TRACK ———

PROPOSED RETAINING WALL ———

LINEATED WETLAND ———

STING CHANNEL ———

OF WAY ———

PROPOSED GRADING ———

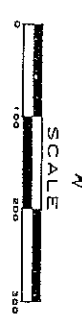
FILL SLOPE ———

CUT SLOPE ———

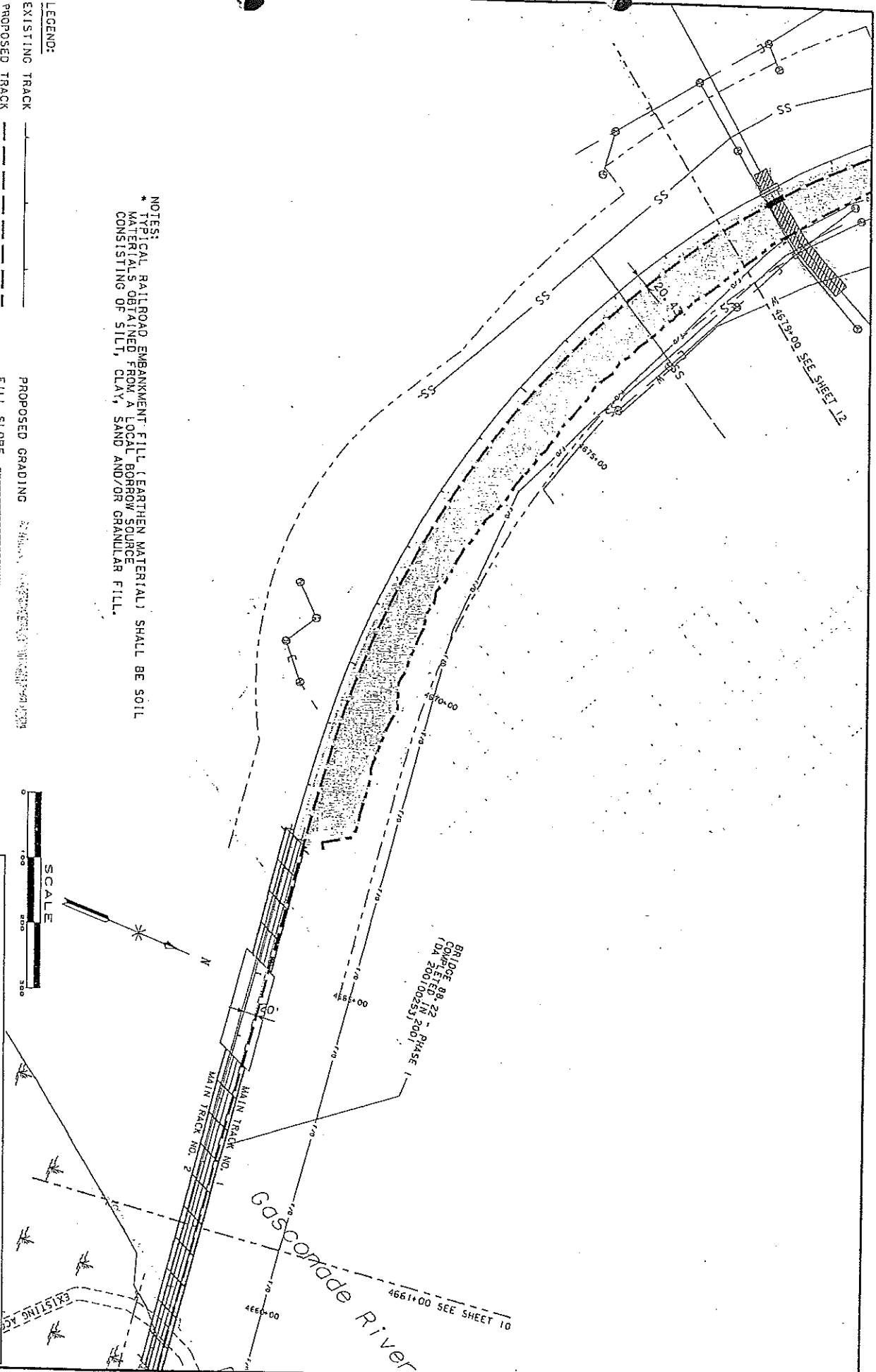
WETLAND IMPACT (PERMANENT) [Hatched Pattern]

WETLAND IMPACT (TEMPORARY) [Cross-hatched Pattern]

NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.



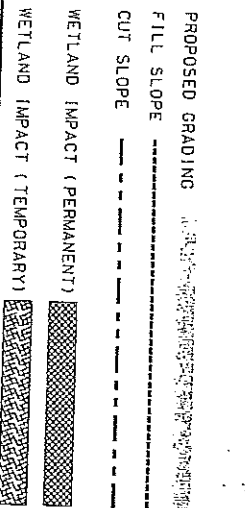
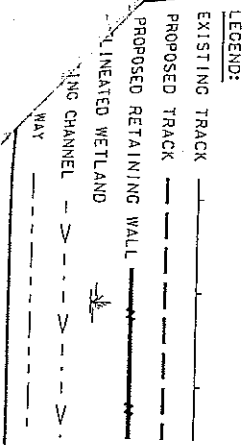
APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jet to Morrison Jet.
 Gasconade County, Missouri
 July 17, 2006
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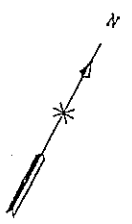
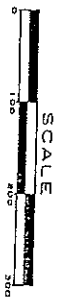
BRIDGE 88-22 - PHASE 1
 CONSTRUCTION
 (DA 200100553)

4629+00 SEE SHEET 12

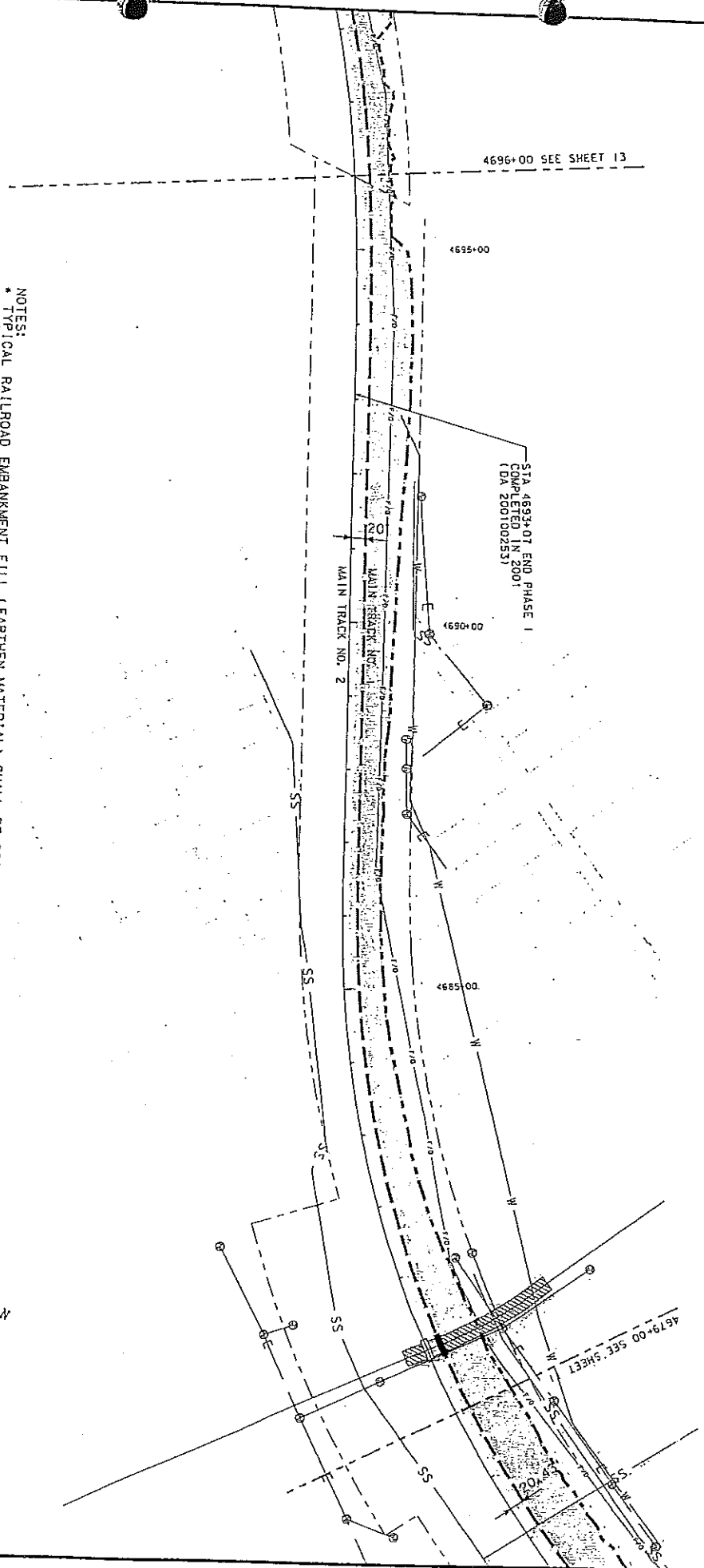
4661+00 SEE SHEET 10



NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

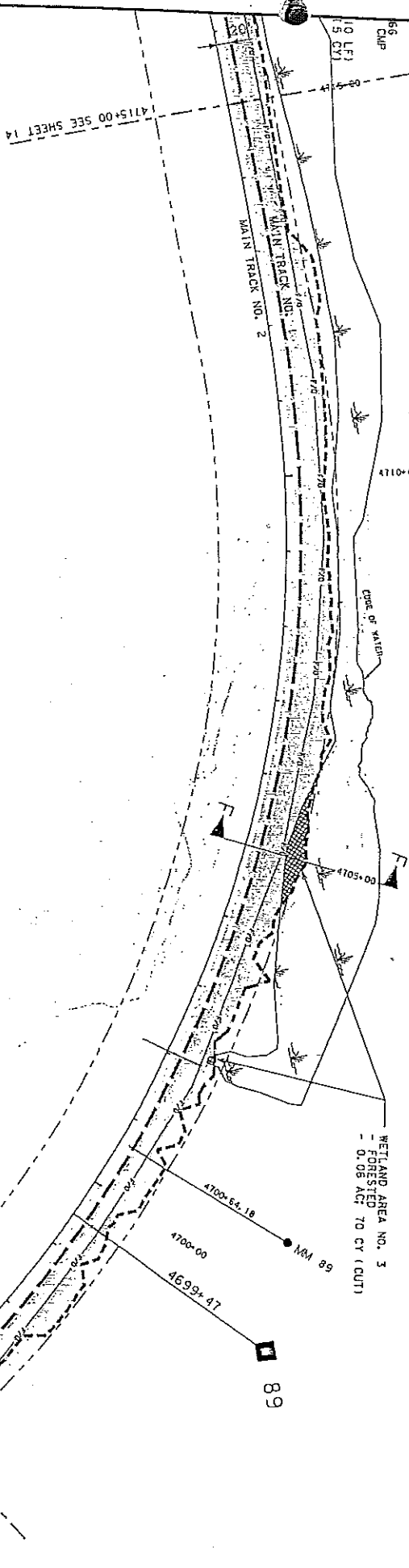


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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
 July 17, 2006



LOCATION	IMPACT AREA (AC)	TEMPORARY FILL (CY)				WETLAND IMPACTS				PERMANENT FILL (CY)		
		TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE	
WETLAND NO. 1	0	0	0	0	0	1.47	6320	6295	80	0	26	

MISSOURI RIVER



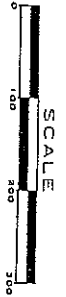
NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

LEGEND:

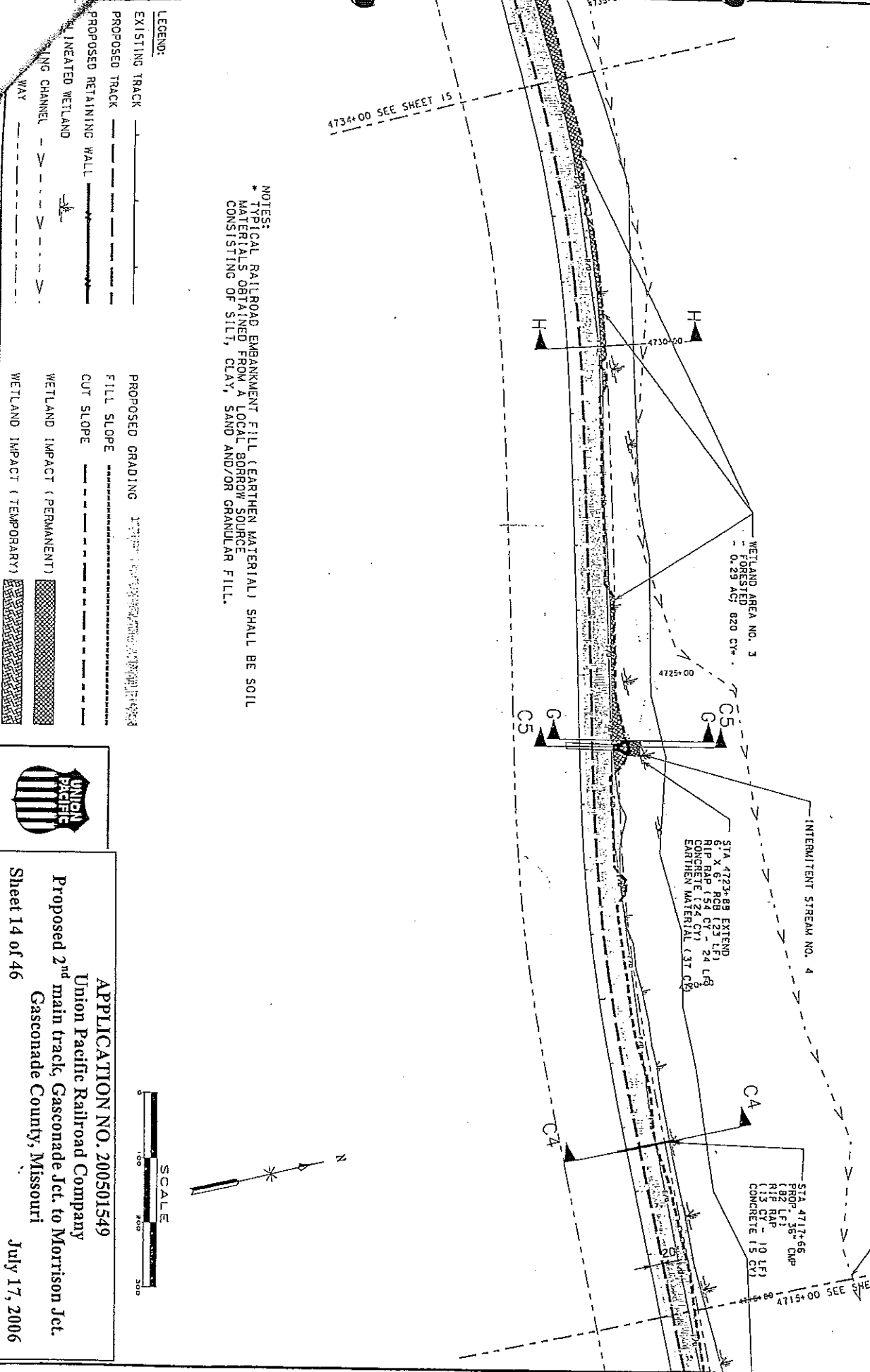
- EXISTING TRACK
- PROPOSED TRACK
- PROPOSED RETAINING WALL
- INDICATED WETLAND
- WETLAND CHANNEL
- EMPAVEMENT WAY
- PROPOSED GRADING
- FILL SLOPE
- CUT SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)



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 Union Pacific Railroad Company
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 Gasconade County, Missouri
 July 17, 2006



LOCATION	TEMPORARY FILL (CY)					PERMANENT FILL (CY)					
	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE
WETLAND #3	0	0	0	0	0	1.47	820	820	80	0	35
INTERMITTENT STREAM #4	0	0	0	0	0	0.02	118	37	54	0	24



NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

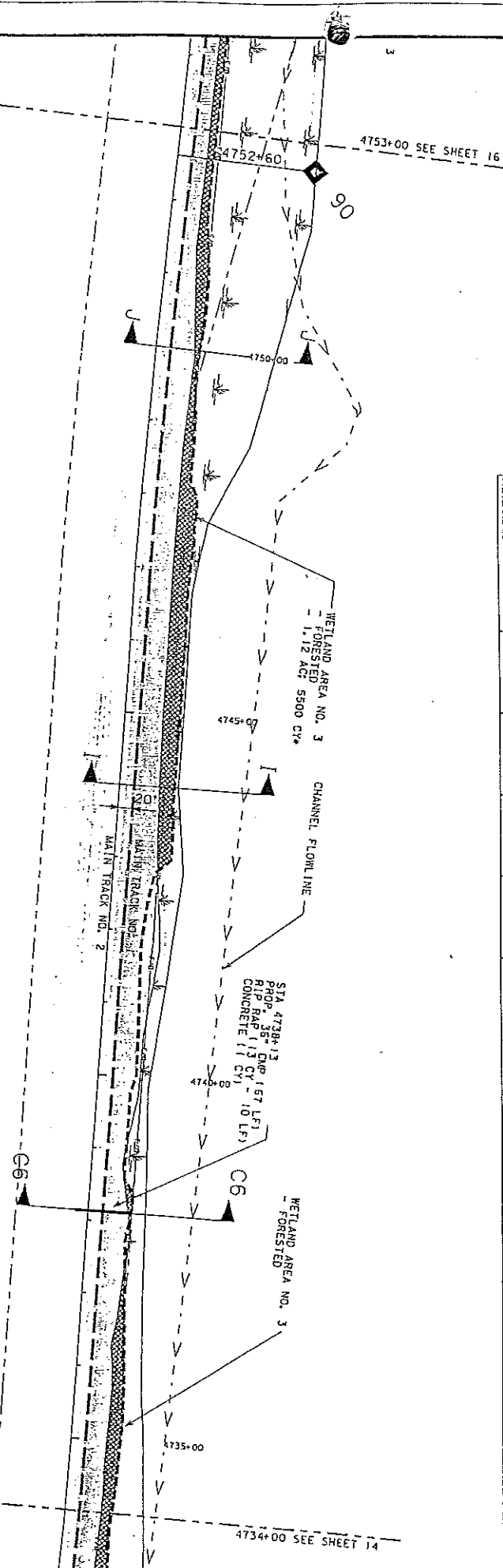
- LEGEND:
- EXISTING TRACK
 - PROPOSED TRACK
 - PROPOSED RETAINING WALL
 - LINEATED WETLAND
 - CHANNEL
 - WAY

- PROPOSED GRADING
- FILL SLOPE
- CUT SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)

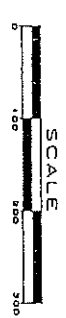
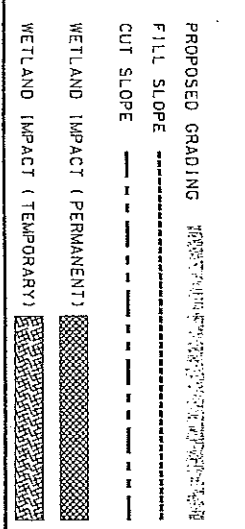
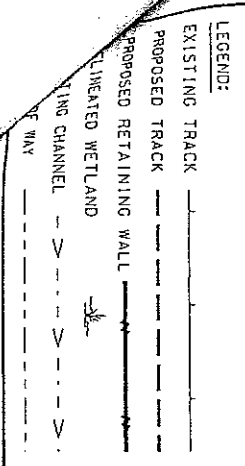


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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
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LOCATION	TEMPORARY FILL (CY)				PERMANENT FILL (CY)						
	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE
WETLAND #3	0	0	0	0	0	1.47	6320	6205	20	0	25

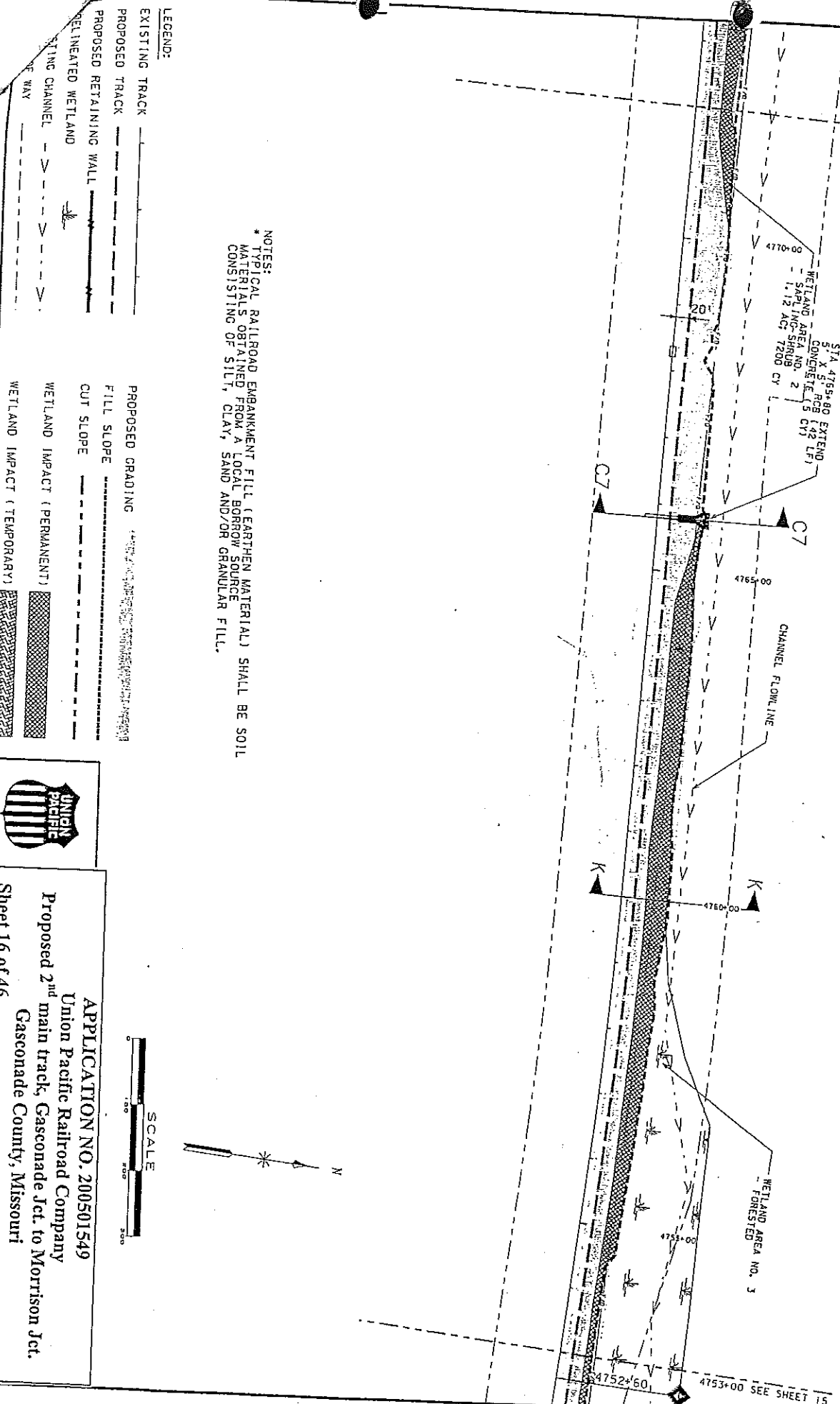


NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.



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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasonade Jct. to Morrison Jct.
 Gasonade County, Missouri
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LOCATION	IMPACT AREA (AC)	TEMPORARY FILL (CY)				WETLAND IMPACTS				PERMANENT FILL (CY)			
		TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE		
WETLAND #2	0	0	0	0	0	430	52210	62050	0	0	107		



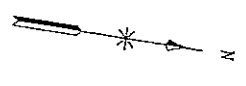
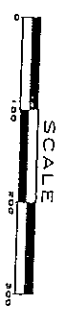
NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

LEGEND:
 EXISTING TRACK
 PROPOSED TRACK
 PROPOSED RETAINING WALL
 RELINEATED WETLAND
 CUTTING CHANNEL
 SIDEWAY

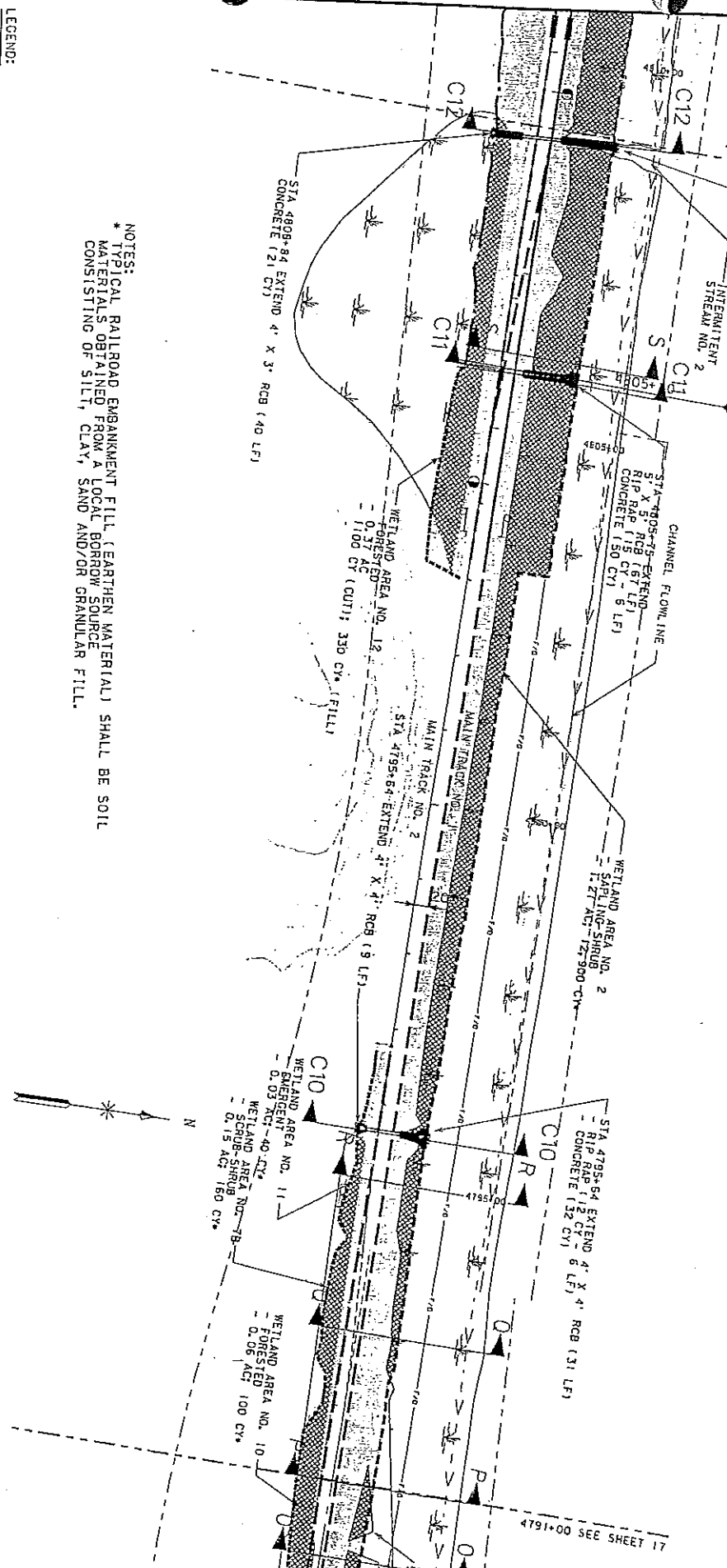
PROPOSED GRADING
 FILL SLOPE
 CUT SLOPE
 WETLAND IMPACT (PERMANENT)
 WETLAND IMPACT (TEMPORARY)



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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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LOCATION	IMPACT AREA (AC)	TEMPORARY FILL (CY)				WETLAND IMPACTS				PERMANENT FILL (CY)			
		TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE		
WETLAND #2	0	0	0	0	0	4.00	5210	5200	0	0	107		
WETLAND #7A & B	0	0	0	0	0	0.20	210	200	0	0	0		
WETLAND #10	0	0	0	0	0	0.08	100	100	0	0	10		
WETLAND #11	0	0	0	0	0	0.03	40	40	0	0	0		
WETLAND #12	0	0	0	0	0	0.37	300	308	0	0	0		
INTERMITTENT STREAM #2	0	0	0	0	0.02	499	450	9	0	0	21		



NOTES:
* TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

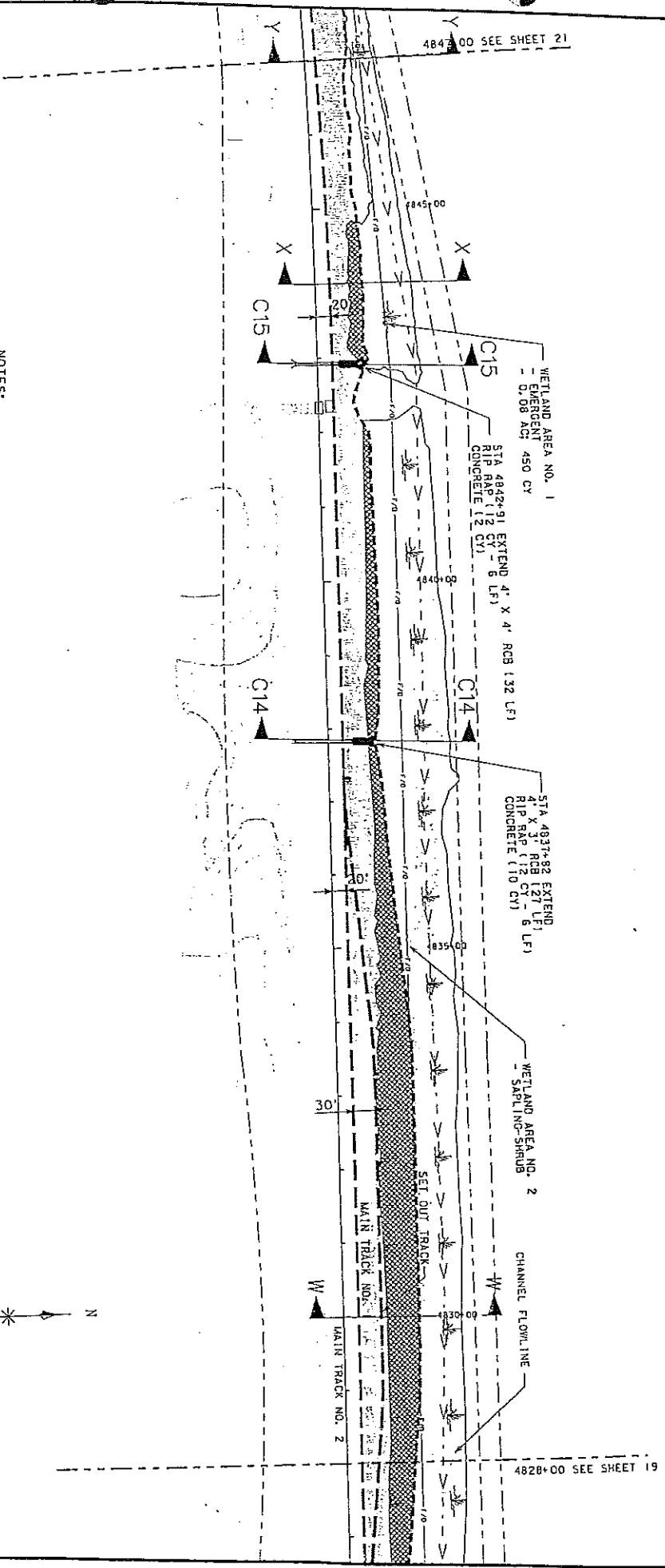
LEGEND:

EXISTING TRACK	PROPOSED TRACK	PROPOSED GRADING	WETLAND IMPACT (PERMANENT)
PROPOSED RETAINING WALL	FILL SLOPE	CUT SLOPE	WETLAND IMPACT (TEMPORARY)
DELINEATED WETLAND	WETLAND IMPACT (PERMANENT)	WETLAND IMPACT (TEMPORARY)	
OF WAY			



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LOCATION	TEMPORARY FILL (CY)					PERMANENT FILL (CY)					
	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE
WETLAND #1	0	0	0	0	0	0.10	400	470	12	0	2
WETLAND #2	0	0	0	0	0	4.00	52310	52000	65	0	107



NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

- LEGEND:
- EXISTING TRACK
 - PROPOSED TRACK
 - PROPOSED RETAINING WALL
 - DELINEATED WETLAND
 - EXISTING CHANNEL
 - OF WAY

- PROPOSED GRADING
- FILL SLOPE
- CUT SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)



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 Union Pacific Railroad Company
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LOCATION	WETLAND IMPACTS					PERMANENT FILL (CY)					
	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	IMPACT AREA (AC)	TOTAL FILL IN WETLAND	EARTHEN MATERIAL	RIP RAP	GRANULAR SURFACE	CONCRETE
WETLAND #1	0	0	0	0	0	0.10	400	478	12	0	2

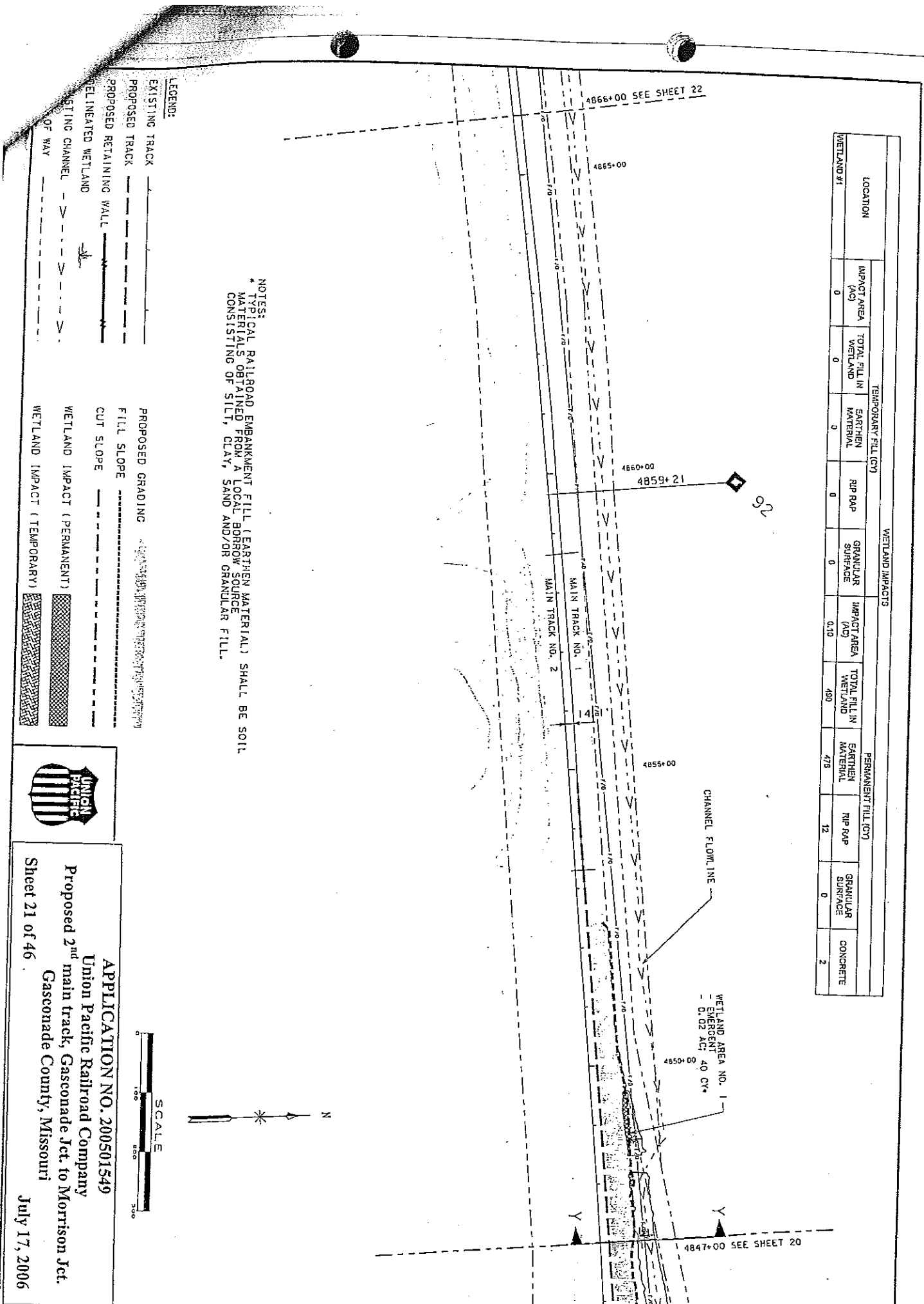
NOTES:
 * TYPICAL RAILROAD EMBANKMENT FILL (EARTHEN MATERIAL) SHALL BE SOIL MATERIALS OBTAINED FROM A LOCAL BORROW SOURCE CONSISTING OF SILT, CLAY, SAND AND/OR GRANULAR FILL.

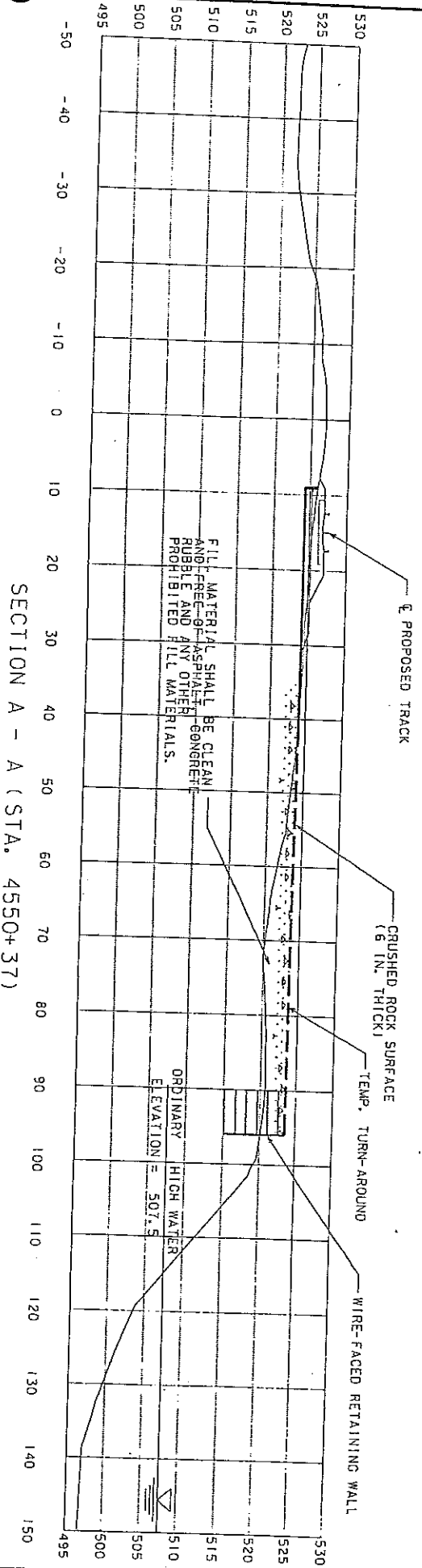
LEGEND:

- EXISTING TRACK
- PROPOSED TRACK
- PROPOSED RETAINING WALL
- EXISTING CHANNEL
- OF WAY
- PROPOSED GRADING
- FILL SLOPE
- CUT SLOPE
- WETLAND IMPACT (PERMANENT)
- WETLAND IMPACT (TEMPORARY)



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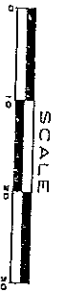


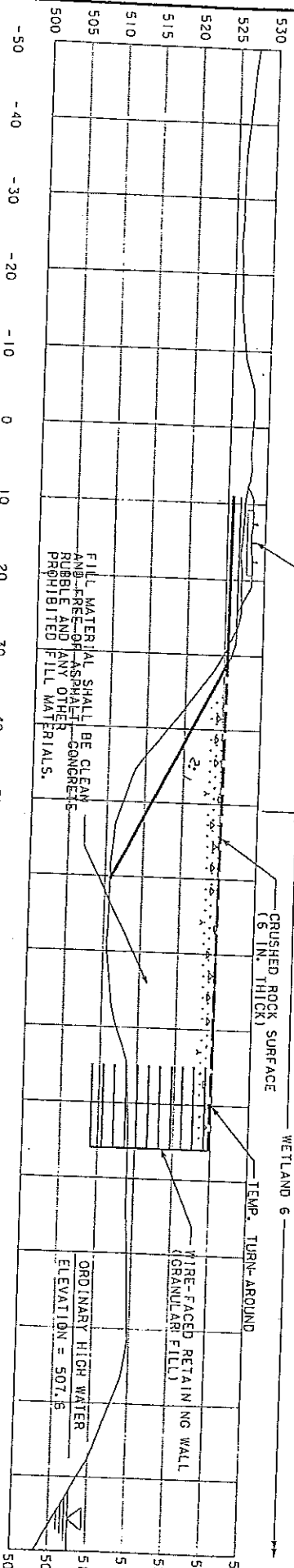


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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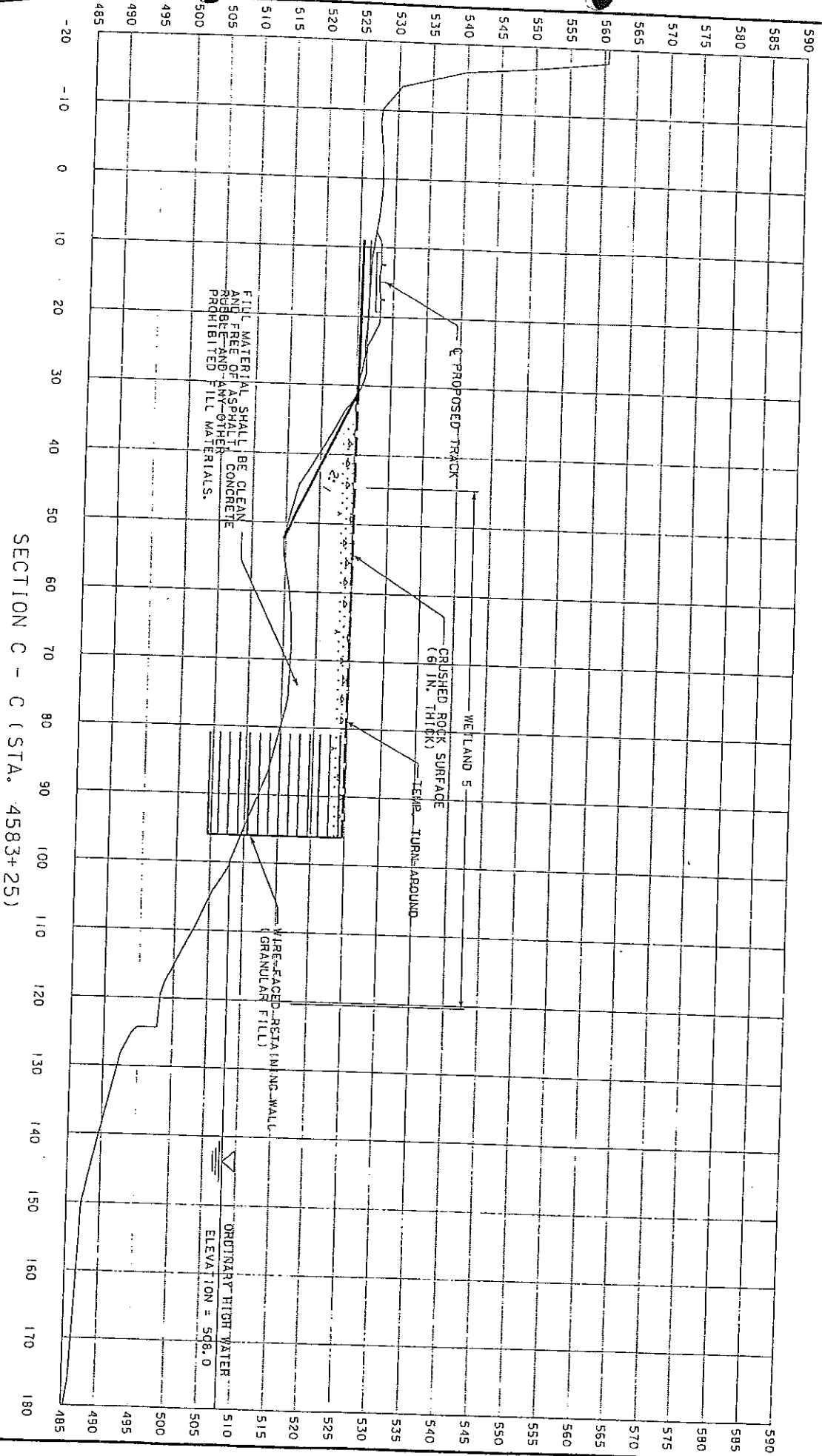


SECTION B - B (STA. 4567+05)

LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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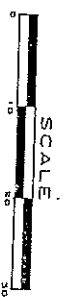
SECTION C - C (STA. 4583+25)

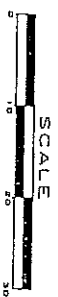
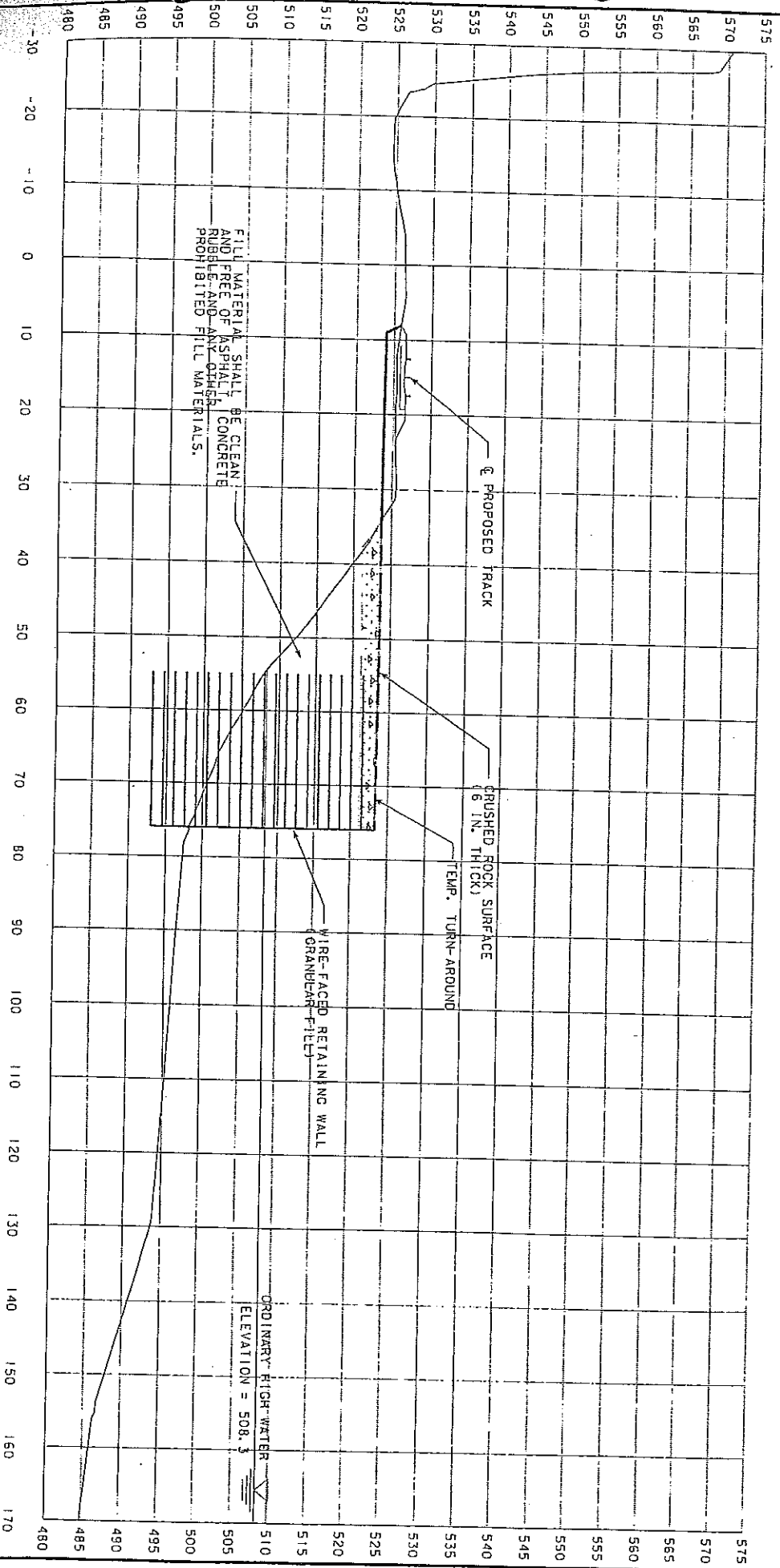
LEGEND:

- EXISTING GROUND
- DESIGN SUBGRADE (PERMANENT)
- DESIGN SUBGRADE (TEMPORARY)



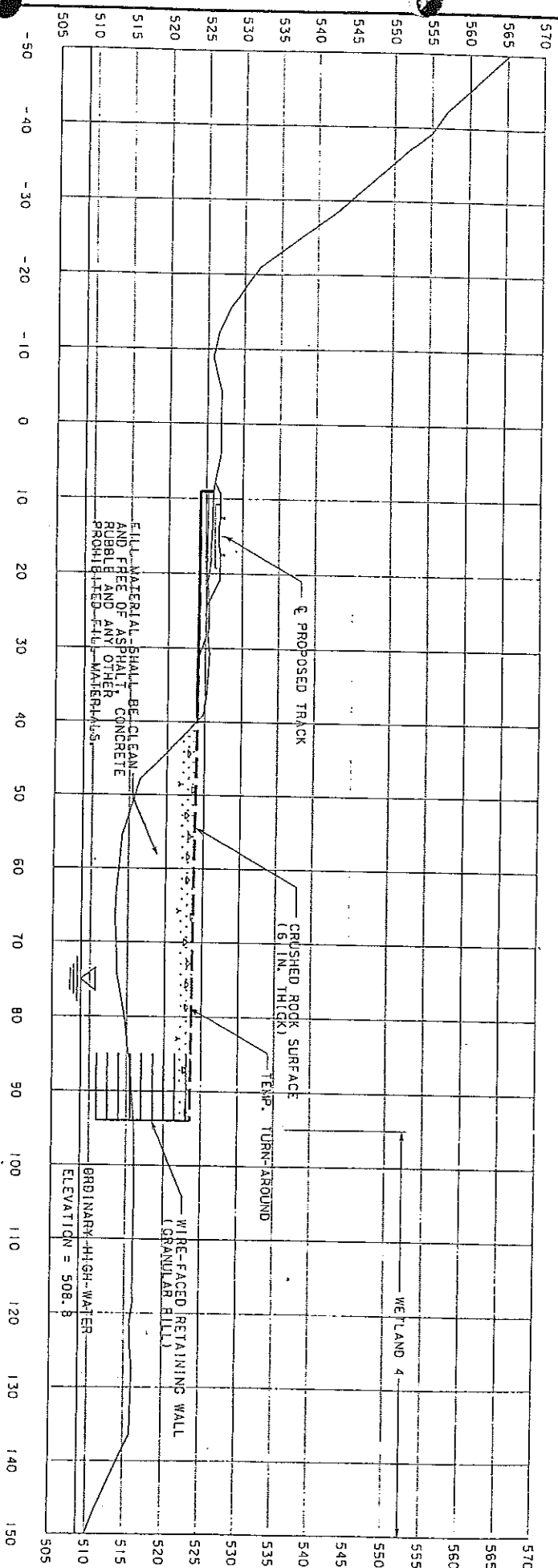
APPLICATION NO. 200501549
 Union Pacific Railroad Company
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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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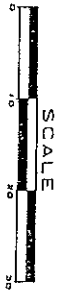
SECTION E - E (STA. 4630+45)

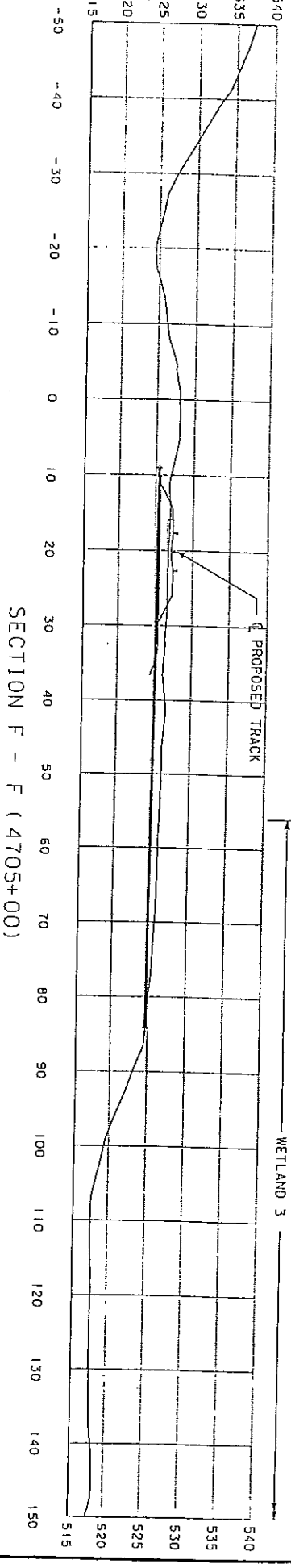
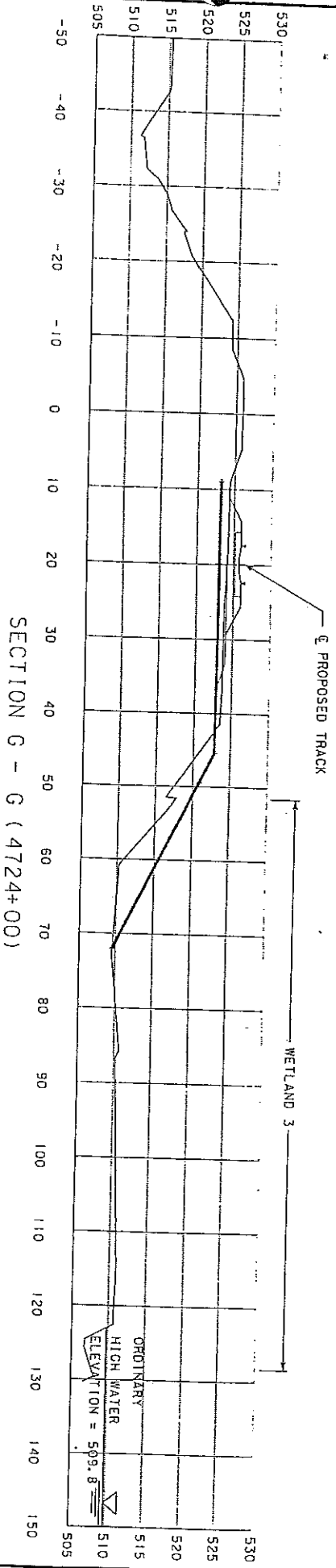


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



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 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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LEGEND:

EXISTING GROUND

DESIGN SUBGRADE (PERMANENT)

DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549

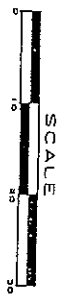
Union Pacific Railroad Company

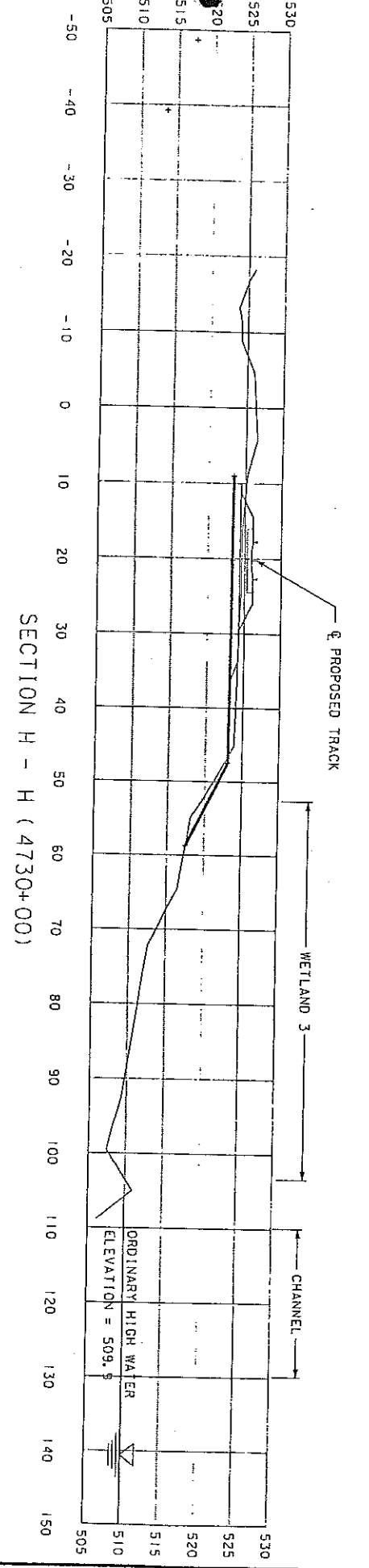
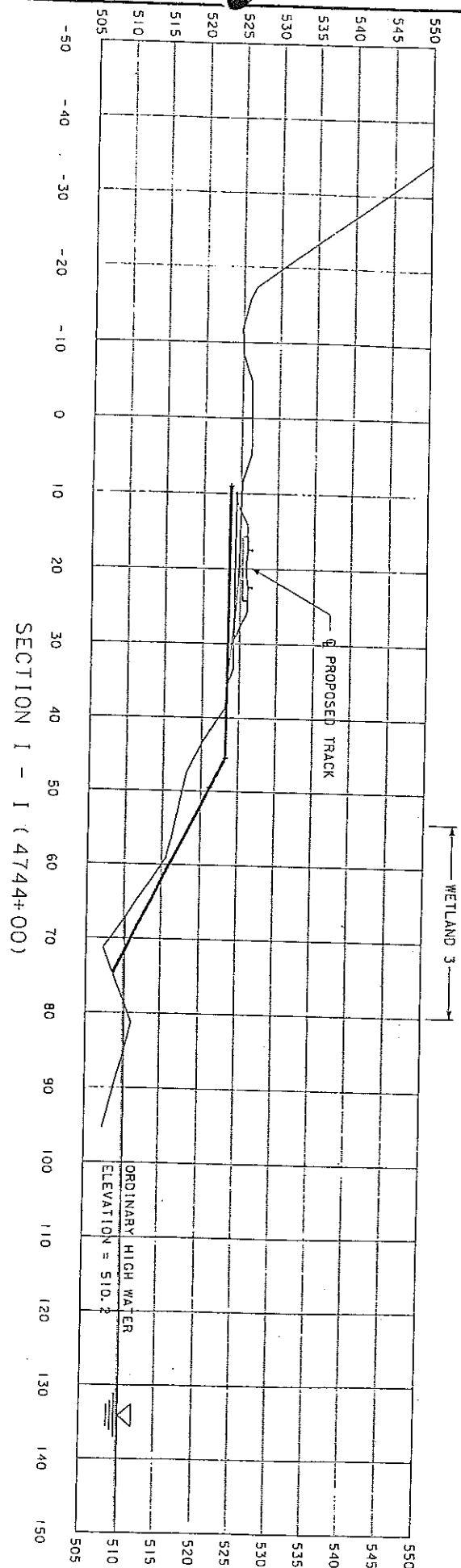
Proposed 2nd main track, Gasconade Jct. to Morrison Jct.

Gasconade County, Missouri

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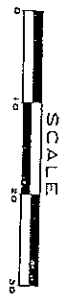


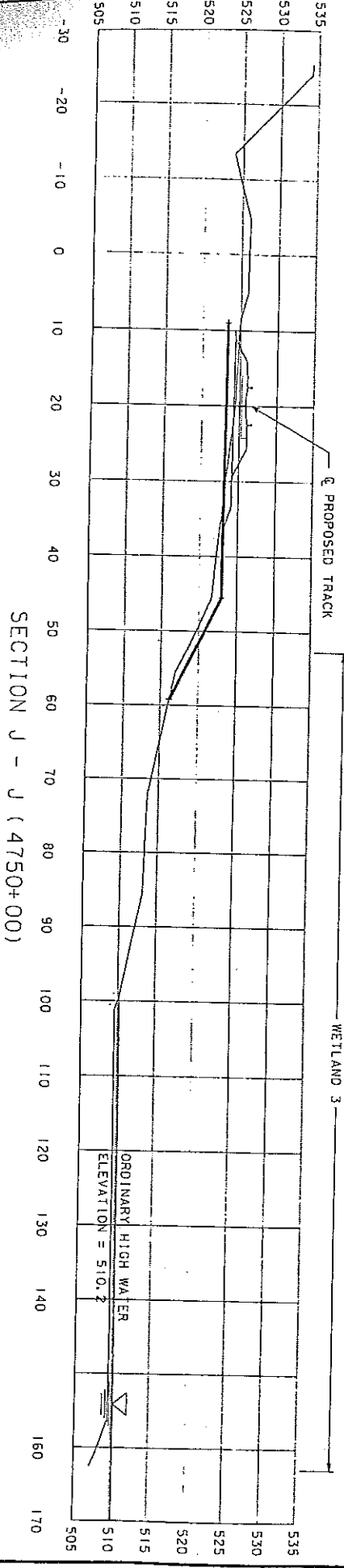
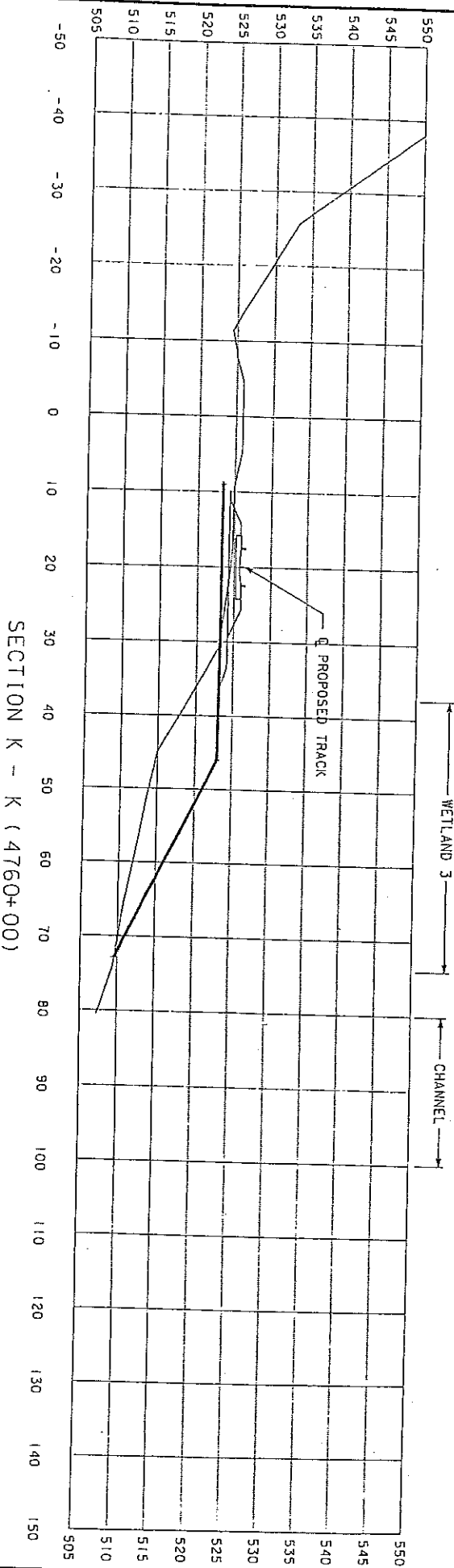


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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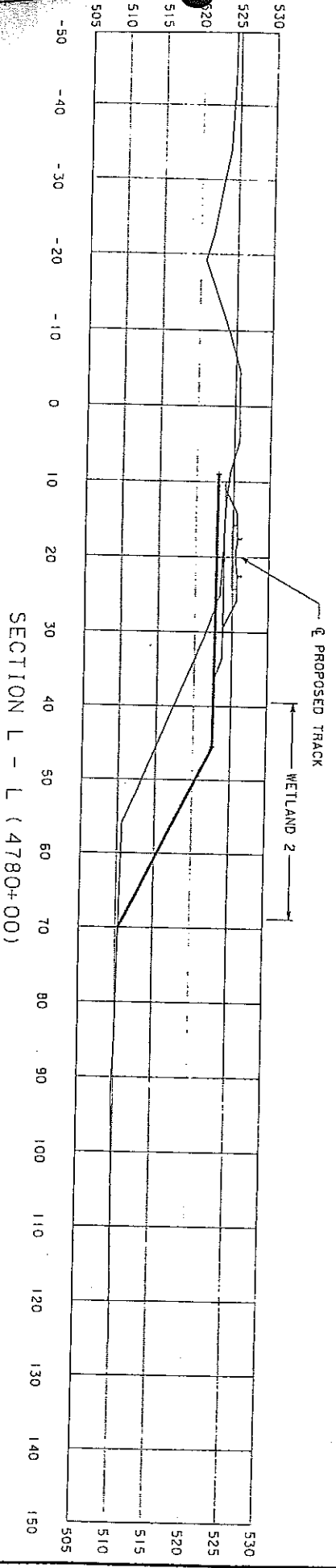
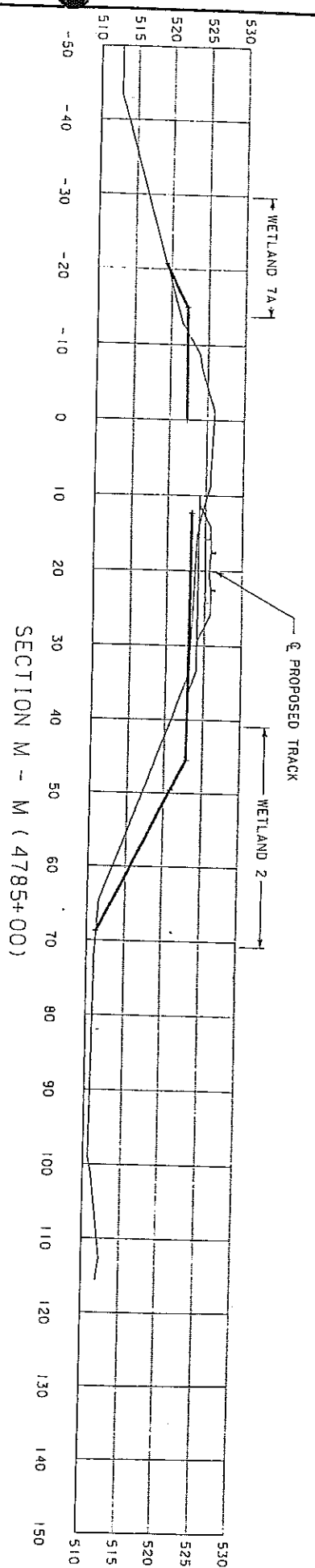


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)





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 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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LEGEND:

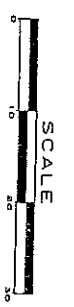
EXISTING GROUND 

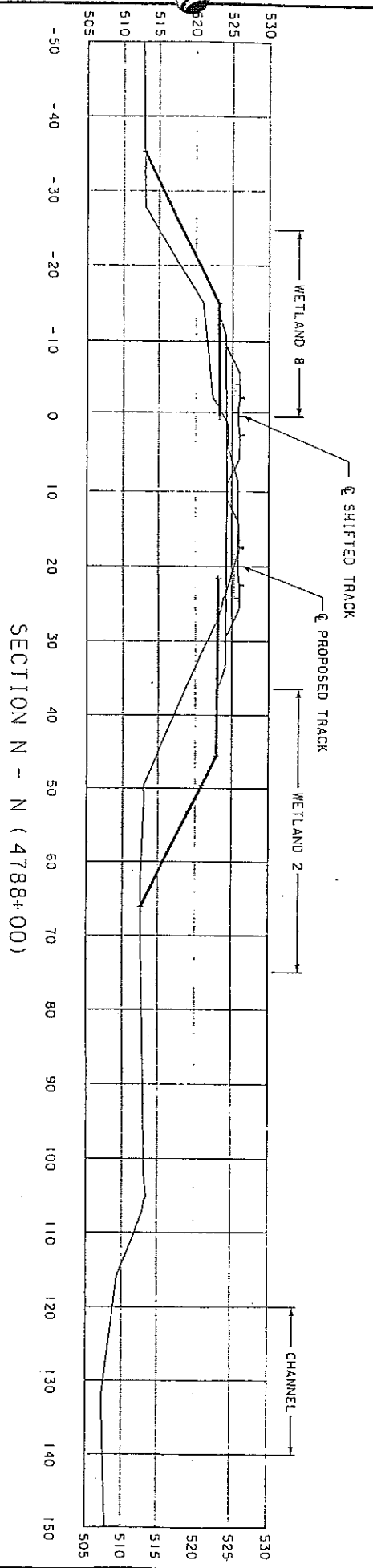
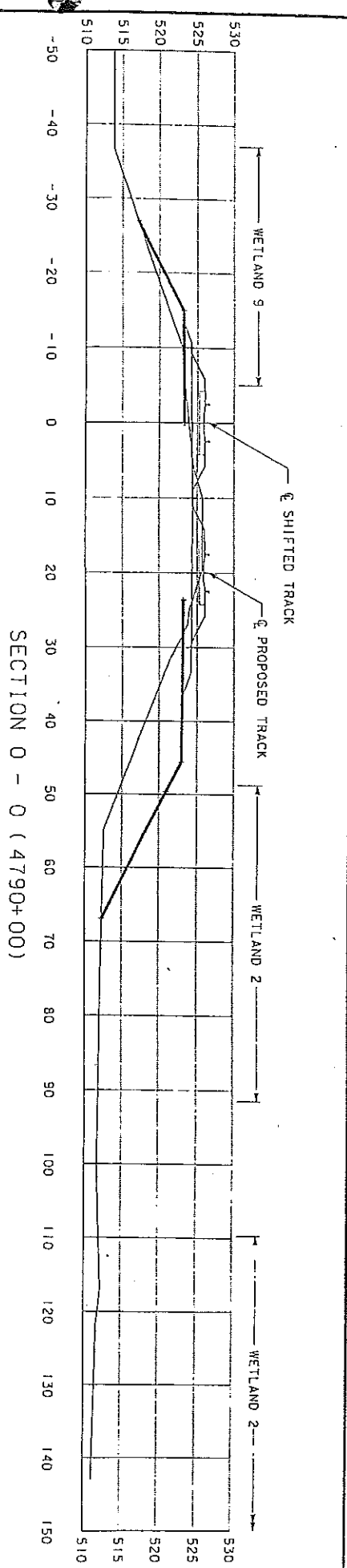
DESIGN SUBGRADE (PERMANENT) 

DESIGN SUBGRADE (TEMPORARY) 



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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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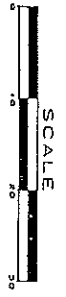


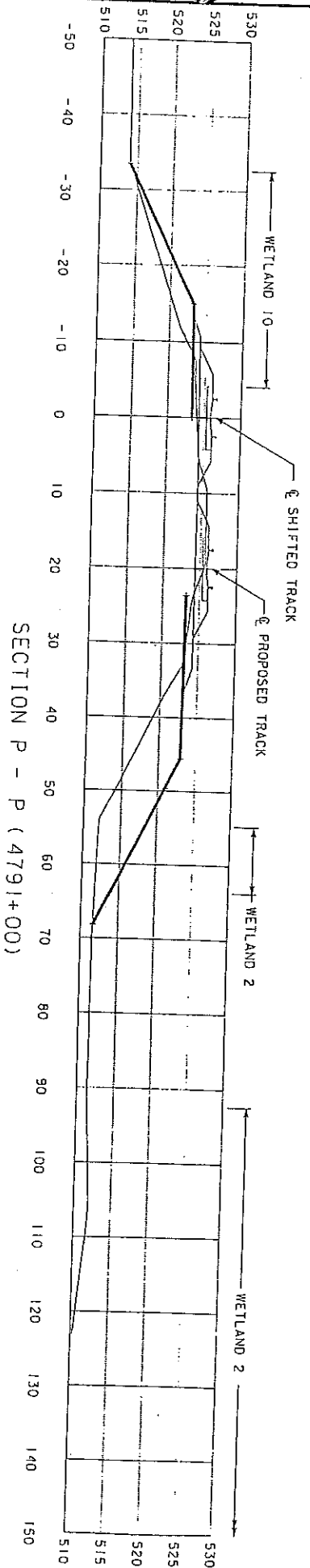
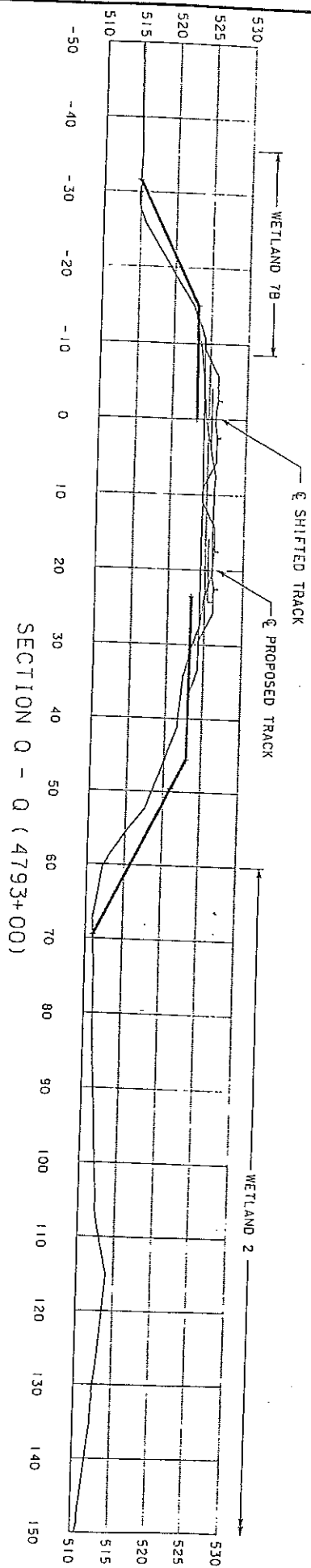


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



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 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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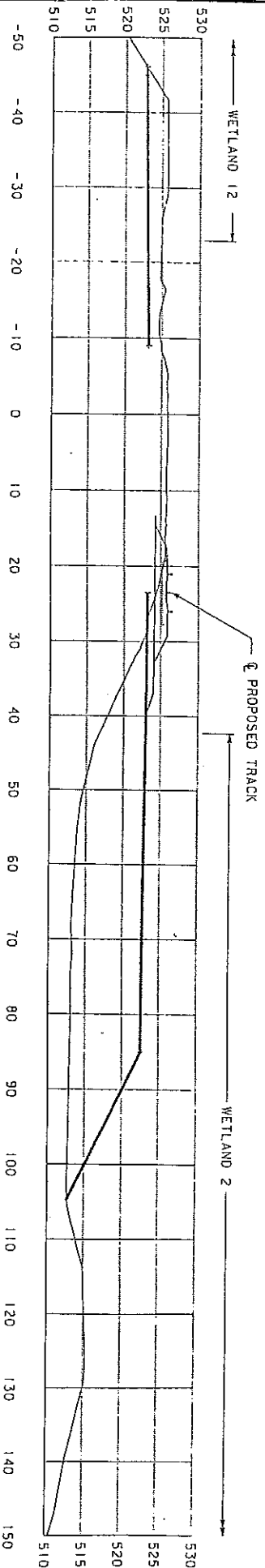


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)

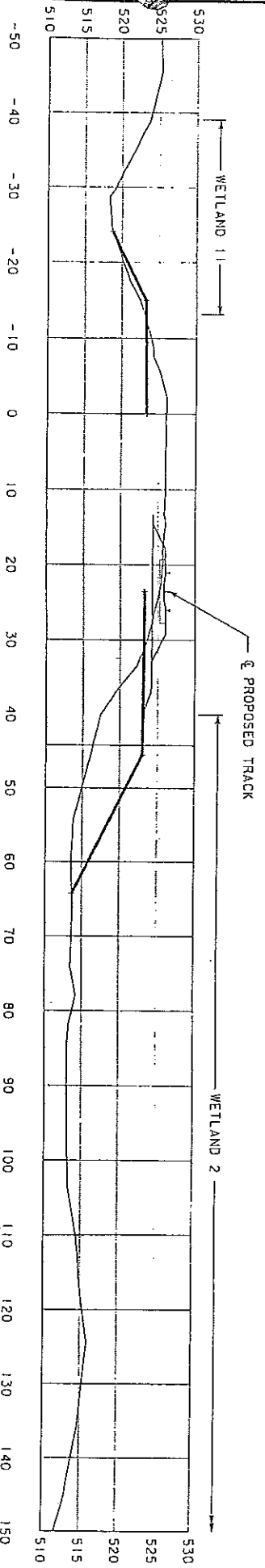


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 July 17, 2006





SECTION S - S (4806+00)

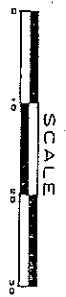


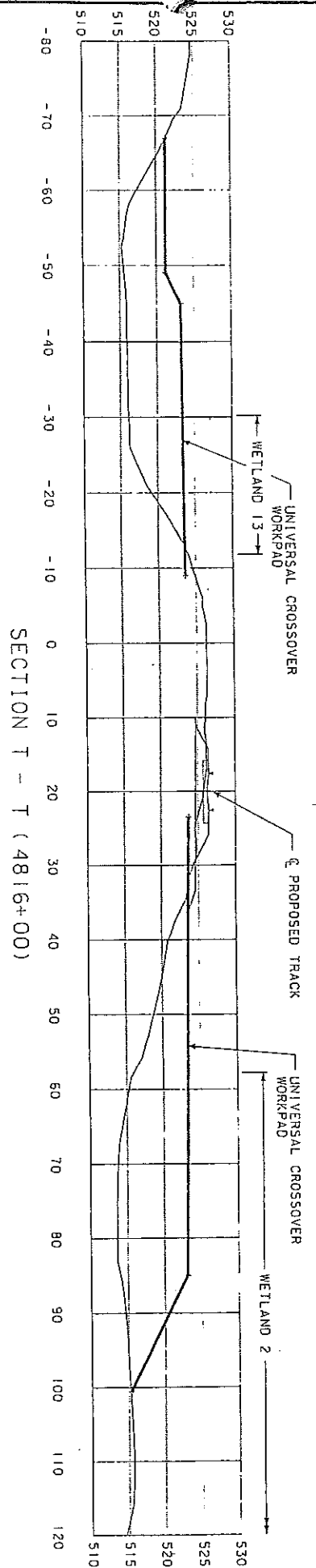
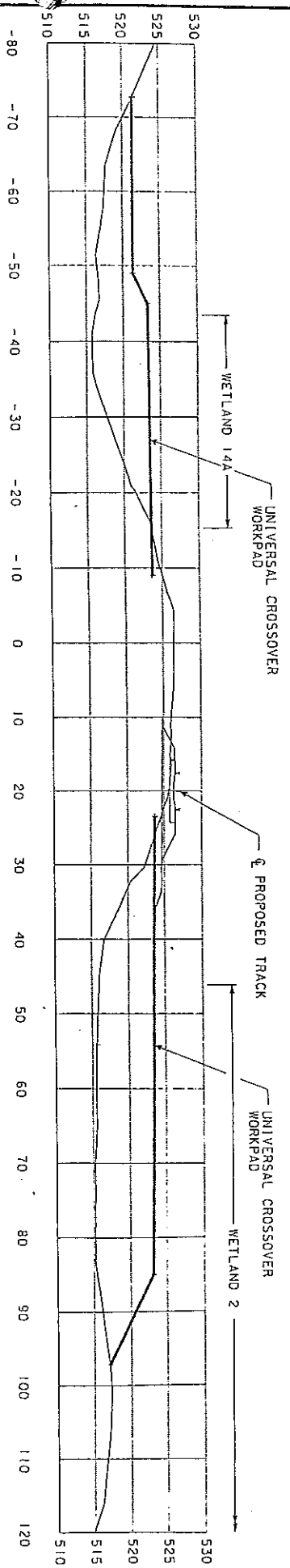
SECTION R - R (4795+00)

LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
 Sheet 33 of 46
 July 17, 2006

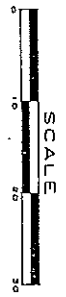


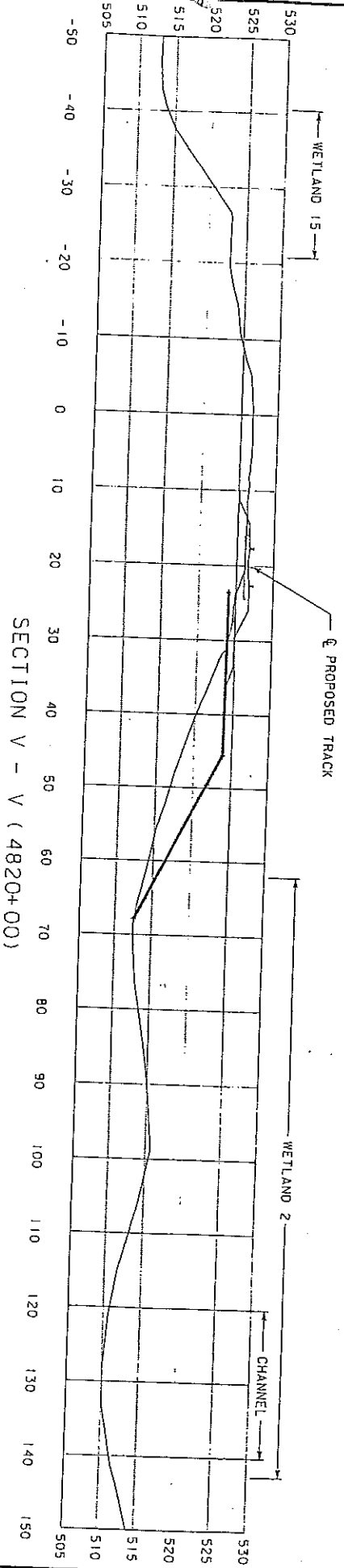
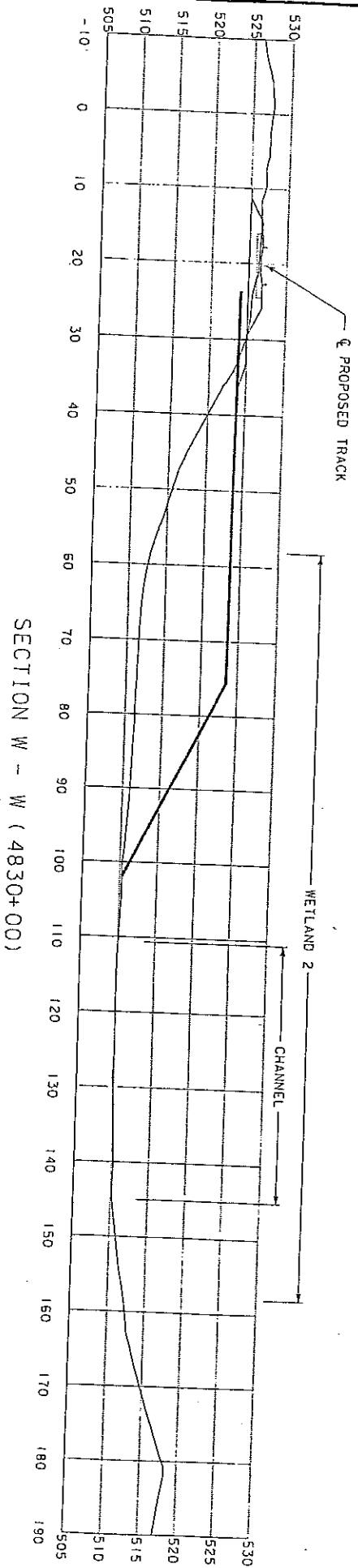


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



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 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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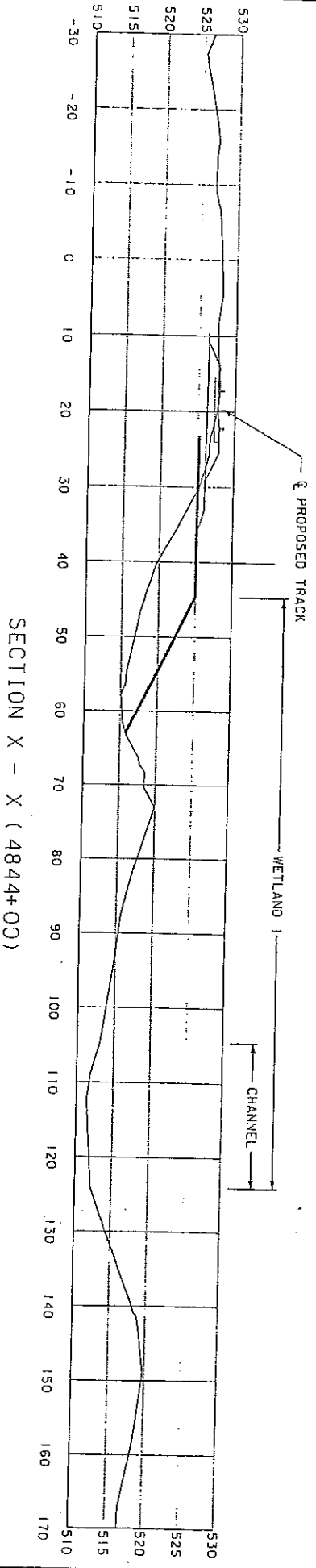
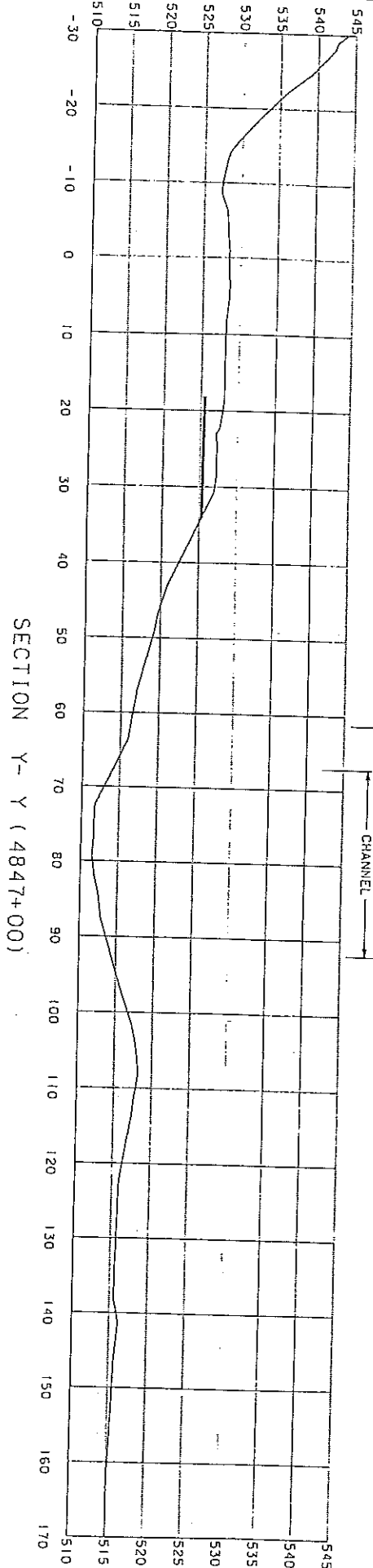
LEGEND:

EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
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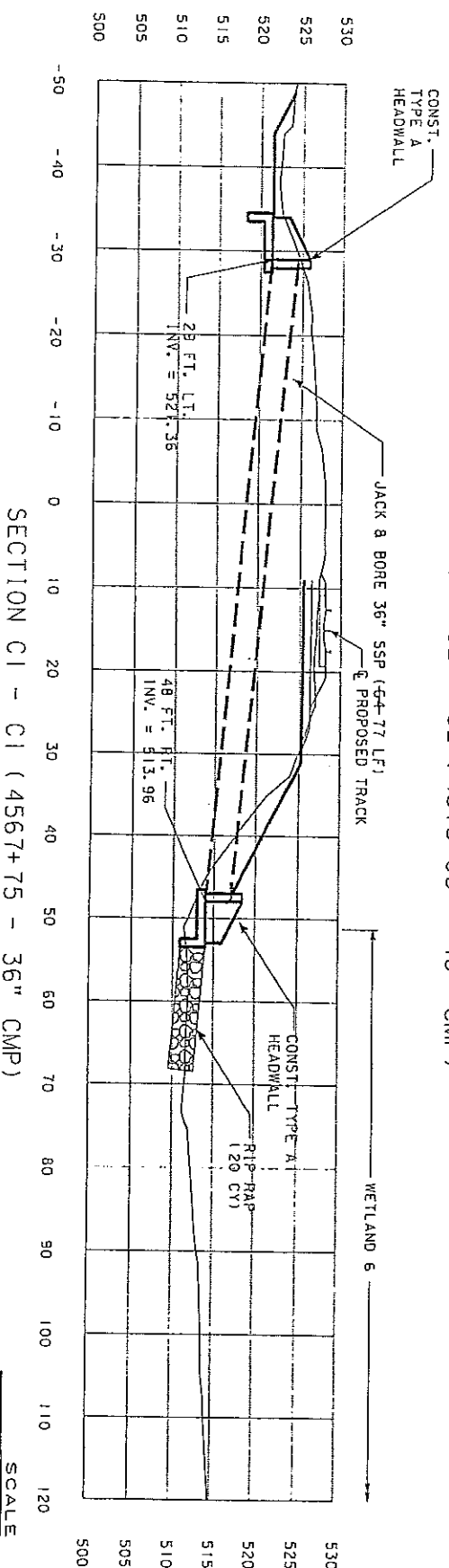
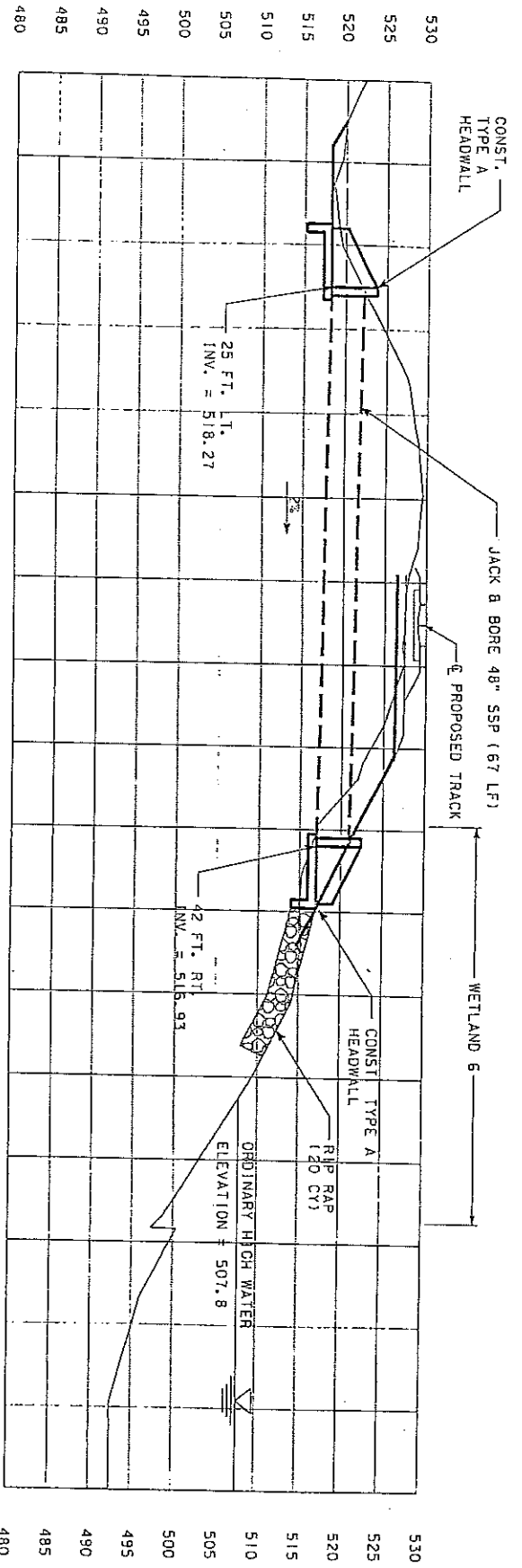


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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 July 17, 2006





LEGEND:

EXISTING GROUND

DESIGN SUBGRADE (PERMANENT)

DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549

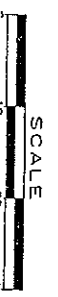
Union Pacific Railroad Company

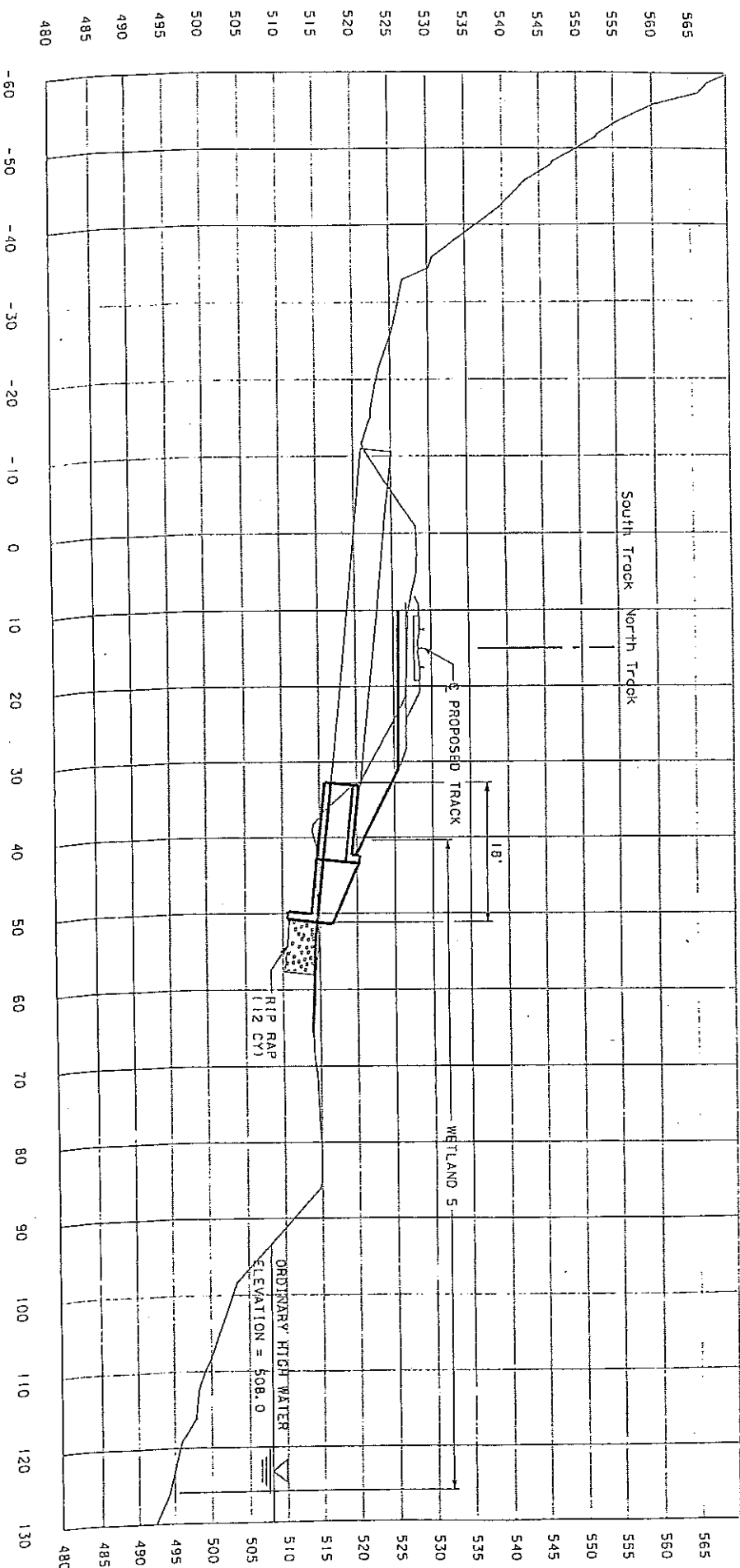
Proposed 2nd main track, Gasconade Jct. to Morrison Jct.

Gasconade County, Missouri

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July 17, 2006



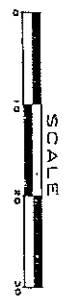


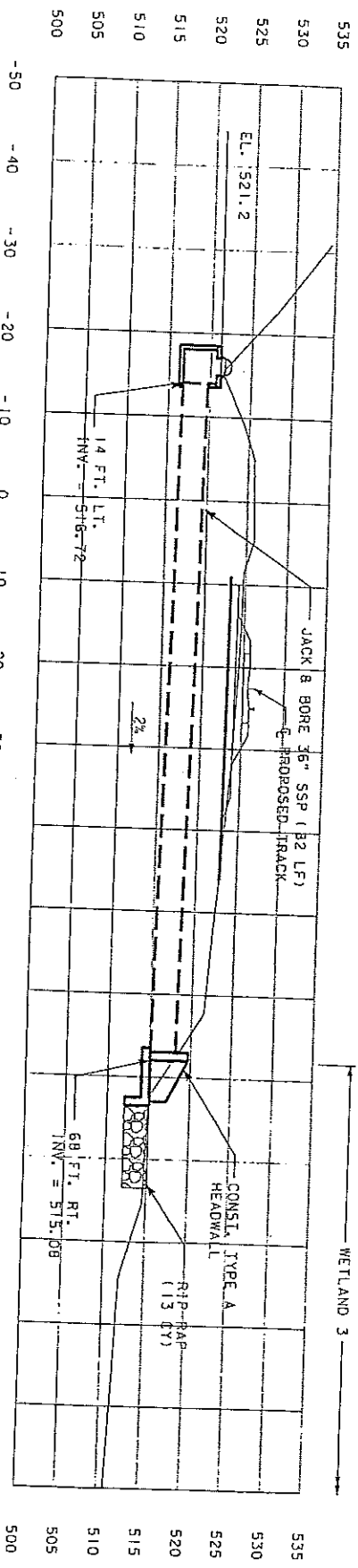
SECTION C3 - C3 (4582+37 - 4' X 3' RCB)

LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
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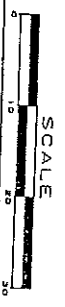


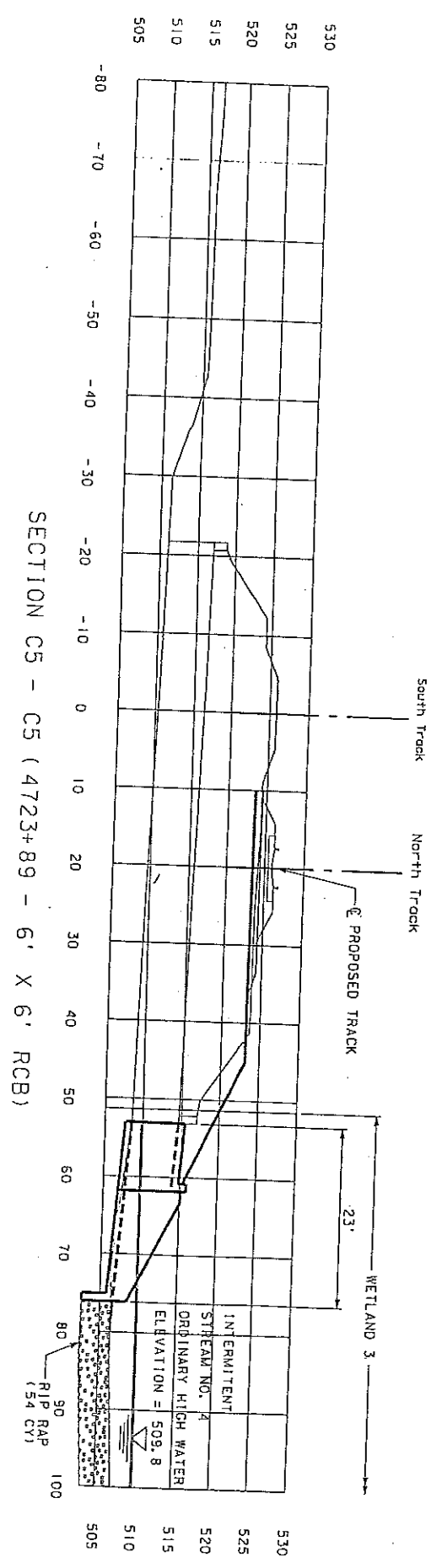
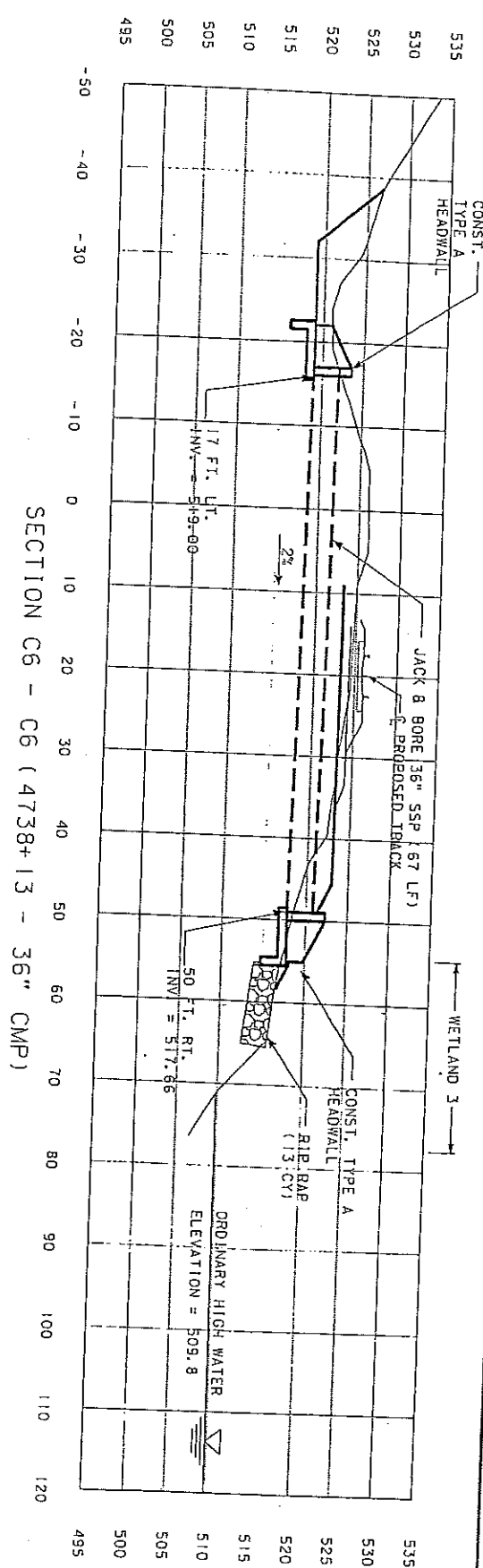
SECTION C4 - C4 (4717+66 - 36" CMP)

- LEGEND:**
- EXISTING GROUND
 - DESIGN SUBGRADE (PERMANENT)
 - DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
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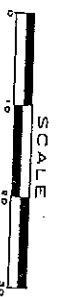


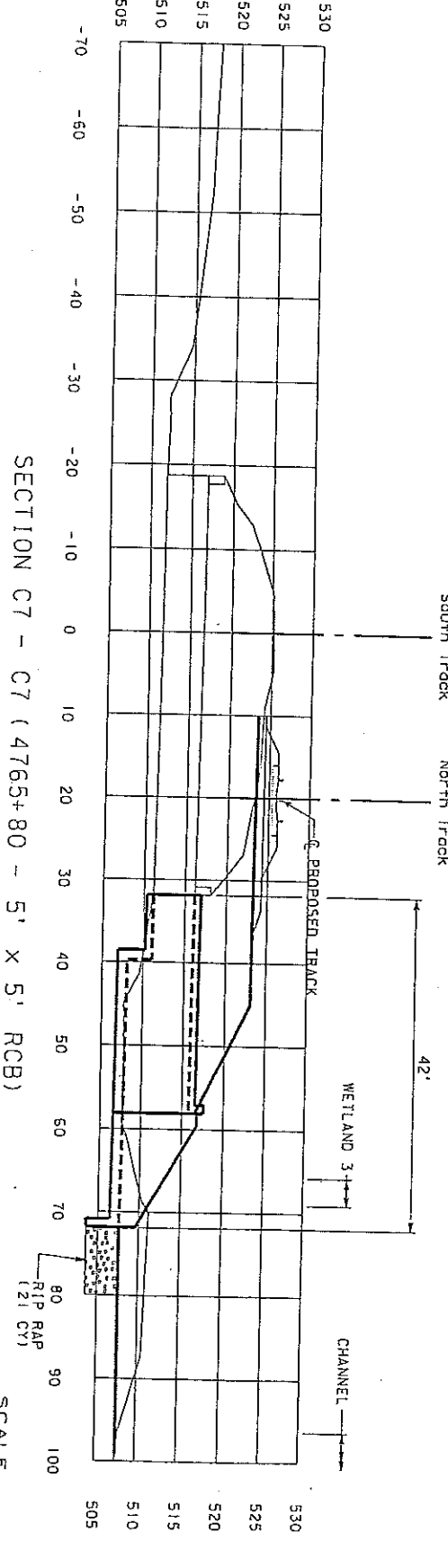
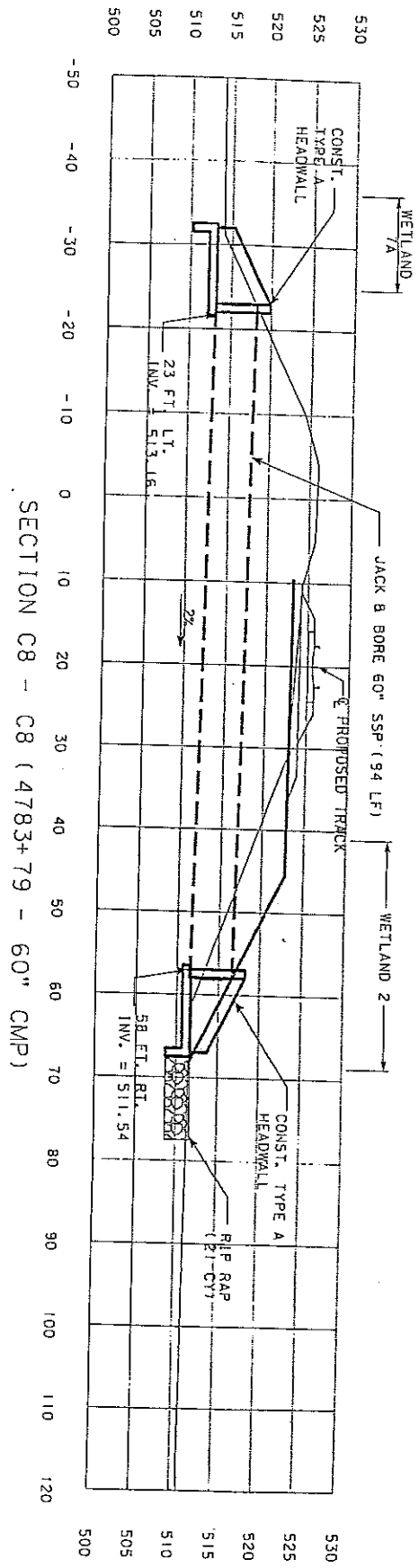


LEGEND:
 _____ EXISTING GROUND
 _____ DESIGN SUBGRADE (PERMANENT)
 - - - - - DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
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 July 17, 2006





LEGEND:

EXISTING GROUND

DESIGN SUBGRADE (PERMANENT)

DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549

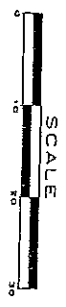
Union Pacific Railroad Company

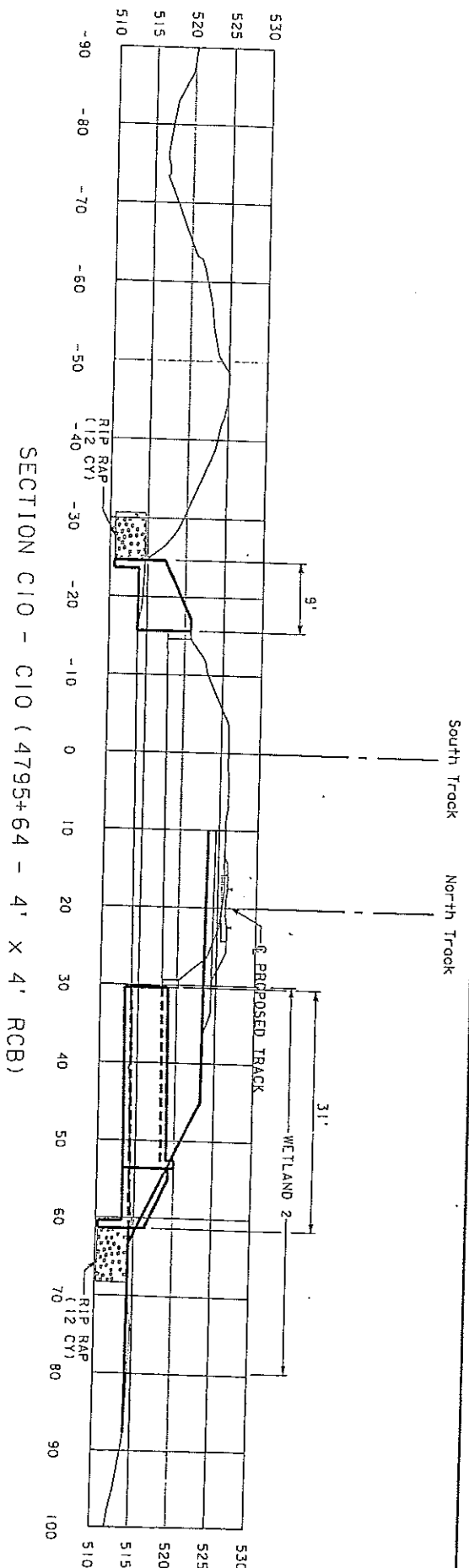
Proposed 2nd main track, Gasconade Jct. to Morrison Jct.

Gasconade County, Missouri

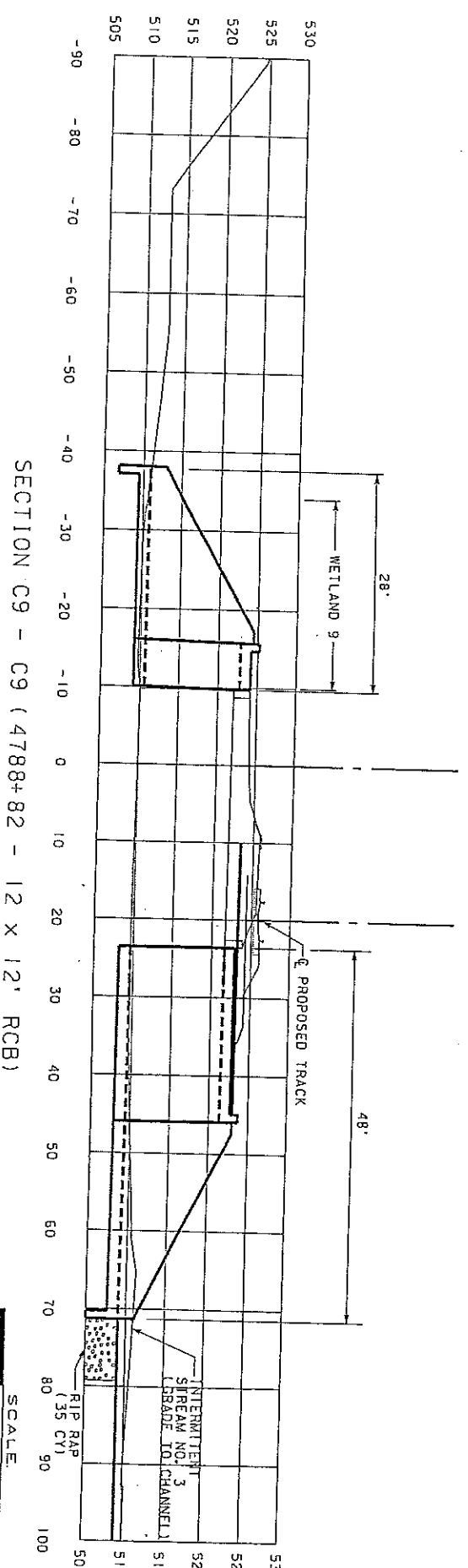
Sheet 41 of 46

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SECTION C10 - C10 (4795+64 - 4' X 4' RCB)

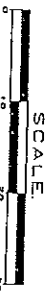


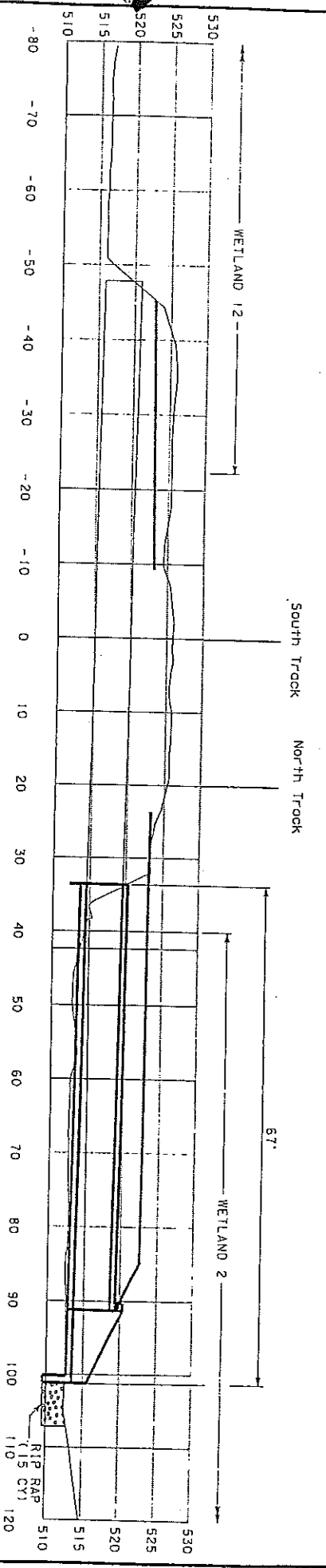
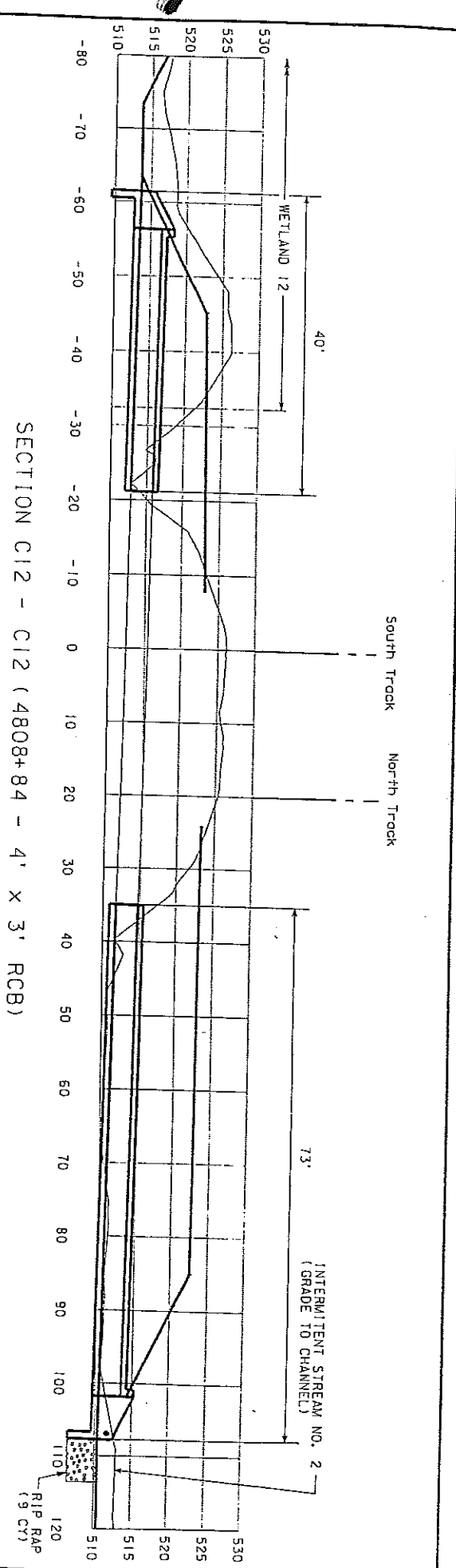
SECTION C9 - C9 (4788+82 - 12 X 12' RCB)

- LEGEND:
- EXISTING GROUND
 - DESIGN SUBGRADE (PERMANENT)
 - DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
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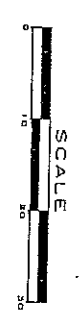


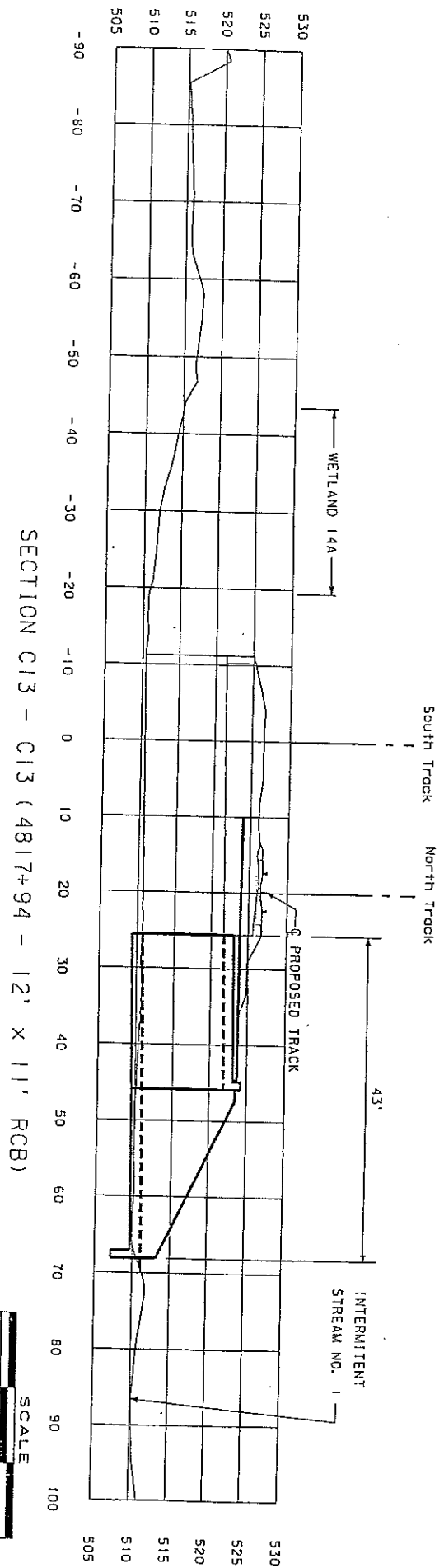
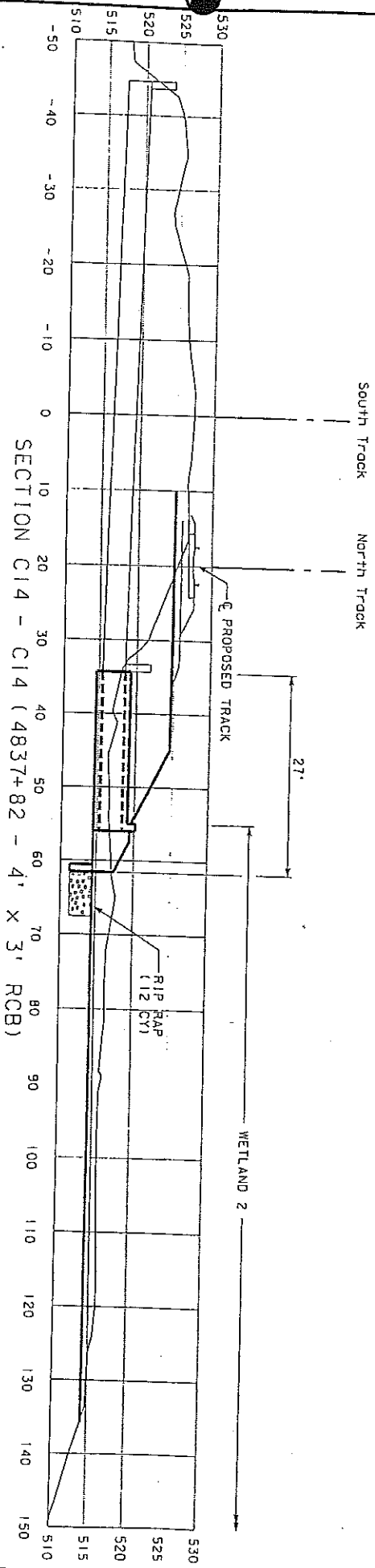


- LEGEND:
- EXISTING GROUND
 - DESIGN SUBGRADE (PERMANENT)
 - DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
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 July 17, 2006

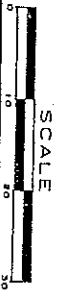


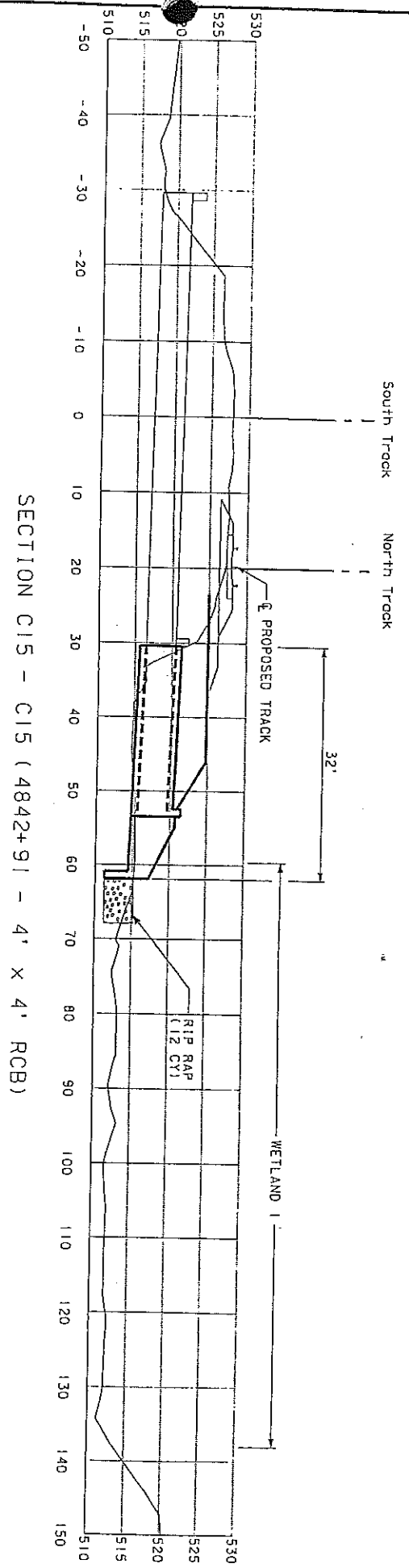
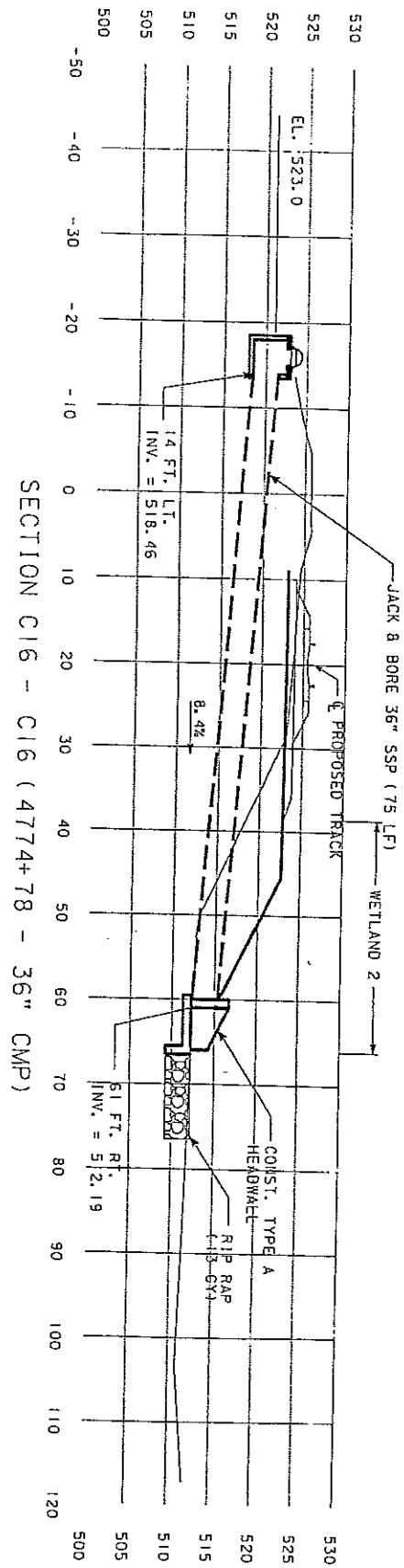


LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549
 Union Pacific Railroad Company
 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
 Sheet 44 of 46
 July 17, 2006



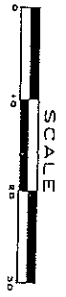


LEGEND:

EXISTING GROUND

DESIGN SUBGRADE (PERMANENT)

DESIGN SUBGRADE (TEMPORARY)



APPLICATION NO. 200501549

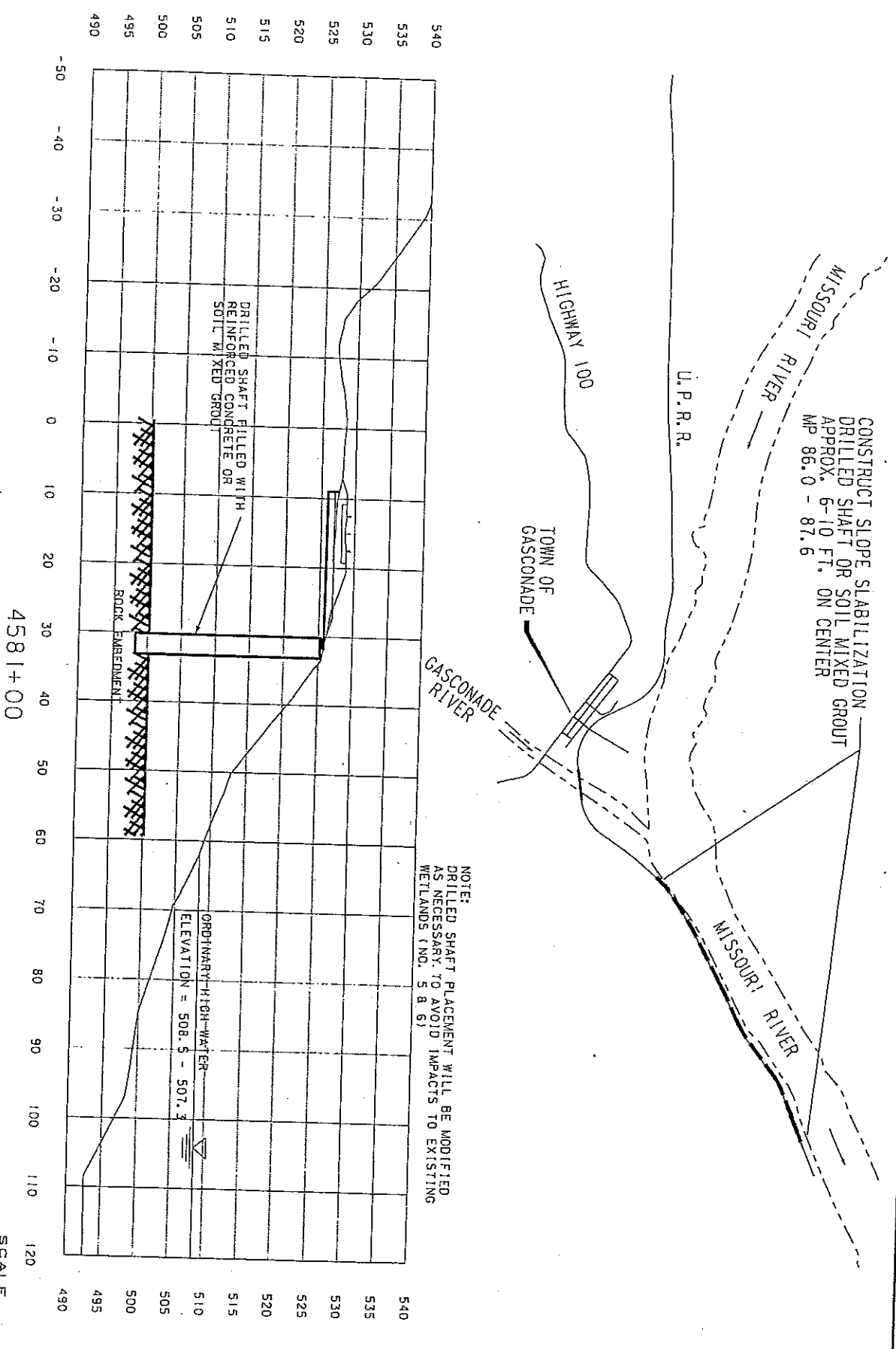
Union Pacific Railroad Company

Proposed 2nd main track, Gasconade Jct to Morrison Jct.

Gasconade County, Missouri

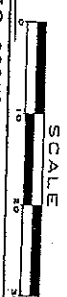
Sheet 45 of 46

July 17, 2006



NOTE:
 DRILLED SHAFT PLACEMENT WILL BE MODIFIED
 AS NECESSARY TO AVOID IMPACTS TO EXISTING
 WETLANDS (NO. 5 & 6)

LEGEND:
 EXISTING GROUND
 DESIGN SUBGRADE (PERMANENT)
 DESIGN SUBGRADE (TEMPORARY)



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 Proposed 2nd main track, Gasconade Jct. to Morrison Jct.
 Gasconade County, Missouri
 July 17, 2006

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DNR received fee 1-22-07
JC

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Marc Blunt, Governor • Doyle Childers, Director

www.dnr.mo.gov

January 4, 2007

Union Pacific Railroad Company
1416 Dodge Street, Room 1030
Omaha, NE 68179-0001

Gasconade County
PN05-01549/CEK002387

Dear Sir or Madam:

The Missouri Department of Natural Resources' Water Protection Program has reviewed Public Notice Permit No. PN05-01549/CEK002387 in which the applicant seeks authorization to deposit a total of 16,000 cubic yards of Class II riprap and 90 cubic yards of fine gravel (chat) in the Missouri River for the construction of five temporary turn-arounds. Deposit a total of 72,239 cubic yards of earthen material, 117 cubic yards of riprap, and 279 cubic yards of concrete to permanently fill a total of 7.79 acres of wetlands (including 5.10 acres of scrub-shrub wetlands, 2.3 acres of forested wetlands, and 0.39 acre of emergent wetlands), and deposit a total of 6,770 cubic yards of earthen material, 400 cubic yards of riprap and 180 cubic yards of fine gravel (chat) to temporarily fill a total of 0.45 acre of wetlands (including 0.41 acre of forested wetlands and 0.04 acre of scrub-shrub wetlands). Deposit a total of approximately 800 cubic yards of earthen material to fill approximately 375 linear feet of an unnamed tributary of the Missouri River located within wetland area No. 1 and relocate the stream channel approximately 10 feet north of the existing stream channel. Deposit a total of 935 cubic yards of earthen material, 98 cubic yards of riprap, and 326 cubic yards of concrete in a total of 293 linear feet of stream on four unnamed tributaries of the Missouri River for culvert extensions. The proposed work activities are for the construction of a new second main track on Union Pacific Railroad Company's Jefferson City Subdivision, and associated facilities including a universal crossover with work pads, and a setout track to store damaged railcars. The double track bridge over the Gasconade River and approach fill were previously authorized under Department of the Army (DA) permit number 200100253. The existing track within the project area is the last remaining section of single mainline track along Union Pacific Railroad Company's rail line corridor between St. Louis, Missouri, and Kansas City, Missouri.

The project is located in Section 6, Township 45 north, Range 5 west, and in Sections 1, 12, 11, 2, 3 and 4, Township 45 north, Range 6 west in Gasconade County, Missouri.

This office certifies that the proposed project will not cause the general or the numeric criteria to neither be exceeded nor impair beneficial uses established in the Water Quality Standards, 10 CSR 20-7.031, provided the following conditions are met:

- 1. Mitigation for stream and wetland impacts shall consist of 0.73 acre of stream mitigation and 15.39 acres of wetland mitigation as specified in the mitigation plan prepared by Terra

Union Pacific Railroad Company (PN05-01549/CEK002387)

Page 2

January 4, 2007

Technologies and dated October 18, 2006. The mitigation area must be protected by a permanent conservation restriction. The conservation restriction covering this tract must reserve the area for aquatic habitat/wetland protection and wildlife purposes exclusively, and must be filed and recorded as a conservation easement on the property in perpetuity. The conservation easement shall cover the riparian corridor, stream channels and wetlands. Documentation shall be provided to the Missouri Department of Natural Resources, Water Protection Program, NPDES Permits and Engineering Section, ATTN: Mr. Alan Moreau, P.O. Box 176, Jefferson City, MO 65102-0176; and to the Army Corps of Engineers, Kansas City District, Missouri State Regulatory Office, ATTN: Mr. Kenny Pointer, 221 Bolivar Street, Suite #103, Jefferson City, MO 65101.

2. Petroleum products spilled into any waterbody or on the banks where the material may enter waters of the state shall be immediately cleaned up and disposed of properly. Any such spills of petroleum shall be reported as soon as possible to the Missouri Department of Natural Resources' 24-hour Environmental Emergency Response number at (573) 634-2436.
3. Clearing of vegetation/trees shall be the minimum necessary to accomplish the activity.
4. Only clean, nonpolluting fill shall be used.
5. The following materials are not suitable for bank stabilization and shall not be used:
 - a. Earthen fill, gravel, broken concrete where the majority of material is less than 12 inches in diameter, and fragmented asphalt, since these materials are usually not substantial enough to withstand erosive flows;
 - b. Concrete with exposed rebar;
 - c. Tires, vehicles or vehicle bodies, construction or demolition debris are solid waste and are excluded from placement in the waters of the state; and
 - d. Liquid concrete, including grouted riprap, if not placed as part of an engineered structure.

Recycled concrete may be used provided that it is clean material broken into appropriately sized pieces (greater than 12 inches) of riprap with no protruding rebar.

6. Any land disturbance activities disturbing one or more acres of total area for the entire project requires a storm water permit for land disturbance activities. Note that this is one acre of area disturbed for the total project.
7. The riparian area, banks, etc. shall be restored to a stable condition to protect water quality as soon as possible. Seeding/planting of native vegetation, mulching and needed fertilization shall be within three days of final contouring, or as soon as possible as seasonal timing permits. On-site inspections of these areas shall be conducted by the permittee as necessary to ensure successful revegetation and stabilization, and to ensure that erosion and deposition of soil in waters of the state are not occurring from this project.

Union Pacific Railroad Company (PN05-01549/CEK002387)
Page 3
January 4, 2007

- 8. Care shall be taken to keep machinery out of the waterway as much as possible. Fuel, oil and other petroleum products, equipment and any solid waste shall not be stored below the ordinary high water mark at any time or in the adjacent floodway beyond normal working hours. All precautions shall be taken to avoid the release of wastes or fuel to streams and other adjacent waterbodies as a result of this operation.
- 9. Work shall be conducted during low soil moisture/low flow conditions whenever possible.
- 10. Concrete rinsate shall not be placed on-site in any manner that allows runoff into the waterway.

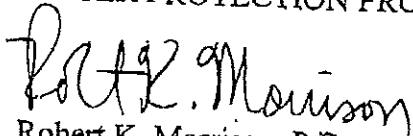
Pursuant to Chapter 644.052.9, RSMo, commonly referred to as the Missouri Clean Water Law, this 401 Water Quality Certification shall be valid only upon payment of a fee of seventy-five dollars (\$75.00). The enclosed invoice contains the necessary information on how to submit your fee. Payment must be received within ten (10) days of receipt of this certification. Upon receipt of the fee, a copy of the certification will be mailed to the applicable office of the Corps to inform them the certification is now in effect and final.

If you were affected by this decision, you may appeal to have the matter heard by the administrative hearing commission. To appeal, you must file a petition with the administrative hearing commission within thirty (30) days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission.

Water Quality Standards must be met during any operations authorized by these permits. If you have any questions, please contact Mr. Moreau at (573) 522-2553, e-mail at alan.moreau@dnr.mo.gov, or at above referenced address.

Sincerely,

WATER PROTECTION PROGRAM



Robert K. Morrison, P.E.
Water Pollution Control Branch Chief

RKM:amp

Enclosure

- c: Mr. David L. Flick, Terra Technologies
- Mr. Kenny Pointer, Army Corps of Engineers, Kansas City District, MO State Reg. Office
- DNR - SLRO



NOTES: UPLAND BUFFERS WILL BE
 IDENTIFIED AS SUCH AND NOT
 ENCUMBERED BY CONSERVATION
 EASEMENT
 MITIGATION BOUNDARY TO BE
 MARKED WITH STEEL POSTS

NOTE: EXISTING 0.10 ACRE OF WETLAND AND 0.25 ACRE OF
 RIPARIAN CORRIDOR CREATION IS EXCLUDED FROM 15.12
 ACRE MITIGATION CALCULATION

UPLAND BUFFER
 (PRAIRIE GRASS)
 31.03 ACRES

RIPARIAN CORRIDOR
 ENHANCEMENT
 0.25 ACRE

RIPARIAN CORRIDOR
 CREATION
 0.73 ACRE

PERSISTENT EMERGENT
 WETLAND CREATION
 0.59 ACRE

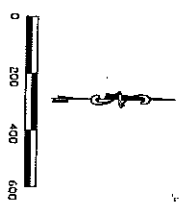
BROAD-LEAVED SCRUB SHRUB &
 FORESTED WETLAND CREATION
 14.80 ACRES

EXISTING EMERGENT
 WETLAND
 0.03 ACRE

EXISTING EMERGENT
 WETLAND
 0.07 ACRE

LEGEND

- 1 N 87°00'00"E 47' E 3018000.00
- 2 N 87°00'00"E 47' E 3018000.00
- 3 N 87°00'00"E 47' E 3018000.00
- 4 N 87°00'00"E 47' E 3018000.00
- 5 N 87°00'00"E 47' E 3018000.00
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- 18 N 87°00'00"E 47' E 3018000.00
- 19 N 87°00'00"E 47' E 3018000.00



DATE	BY	APPENDIX A: CONTROL POINTS LIMITS
07/27/09	TERRA TECHNOLOGIES	404 Permit #200501549
		Union Pacific



Terra Technologies
 8680 W 96th St, Suite 100
 Overland Park, Kansas
 66212
 Tel 913.355.5500 Fax 913.355.5295