

# PUBLIC NOTICE



**US Army Corps  
of Engineers  
Kansas City District**

**Permit No. NWK-2015-02203  
Issue Date: January 6, 2016  
Expiration Date: January 27, 2016**

**21-Day Notice**

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**JOINT PUBLIC NOTICE:** This public notice is issued jointly with the Kansas Department of Health and Environment. The Department of Health and Environment will use the comments to this notice in deciding whether to grant Section 401 water quality certification. Commenters are requested to furnish a copy of their comments to the Kansas Department of Health and Environment, Bureau of Water - - Watershed Management Section, 1000 SW Jackson Street, Suite 420, Topeka, Kansas 66612-1367.

**APPLICANT:** Kansas Department of Transportation (KDOT)  
Eisenhower State Office Bldg., 700 SW Harrison St.  
Topeka, KS 66603

**PROJECT LOCATION** (As shown on the attached drawings): The Corps' scope of analysis for this project is limited to the locations where fill activities are proposed within Waters of the United States (WoUS), specifically, at 5 wetland and 16 stream locations. The project is located in: Sections 1 & 12, Township 33 South, Range 23 East; Section 7, Township 33 South, Range 24 East; Sections 1, 12, & 13, Township 32 South, Range 23 East; Section 7, Township 32 South, Range 24 East; and Section 36, Township 31 South, Range 23 East; all in Cherokee County, Kansas.

[USGS Quads: KS - CHEROKEE & COLUMBUS-- Lat: 37.28075°, Lon: -94.83209°]

**AUTHORITY:** Section 404 of the Clean Water Act (33 USC 1344).

**ACTIVITY** (As shown on the attached drawings): **PROPOSED:** The placement of fill for expansion of an existing roadway with the stated purposes of installing shoulders for the safety of motorists and raising the profile elevation of the roadway to decrease closures due to flooding.

**WETLANDS/AQUATIC HABITAT:** It is estimated that approximately 0.95 acres of palustrine wetlands are present within the project area, of which, the project (as currently proposed) would result in the placement of fill within all 0.95 acres of those wetlands. Additionally, 16 stream locations are proposed to be impacted by the project. The majority of the locations involve the proposed replacement or extension of existing culverts, however, two locations involve the proposed relocation of streams. At one location, approximately 1632 linear feet of stream channel is proposed to be filled while an additional 671 linear feet of stream channel is proposed to be abandoned in place. At the other location, approximately 954 linear feet of stream channel is proposed to be filled while an additional 211 linear feet of stream channel is proposed to be abandoned in place.

**APPLICANT'S STATEMENT OF AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION FOR UNAVOIDABLE IMPACTS TO AQUATIC RESOURCES:**

The applicant states the following: "As this is existing highway reconstruction many of the impacts are unavoidable. This highway project was designed to keep the footprint at the minimum necessary to accomplish the purpose of the project and comply with the design criteria of the Federal Highway Administration. However, outside the clear zone, segments (0.20 ac.) of Brush Creek and the tributary to Little Cherry Creek that will be relocated will be left open to develop into wetlands. The trees and other vegetation in the riparian buffers of these stream segments will be left in place where possible.

The wetland impacts (0.21 ac.) are mostly in the roadside ditches and will be offset by the stream segments that will be left open to develop into wetlands. Six wetland pools, totaling 2.7 acres, will be created as Spring Peeper, *Pseudacris crucifer*, habitat adjacent to the two proposed stream channel segments."

The applicant has also stated that stream mitigation will be assessed using the Kansas Stream Mitigation Guidelines.

**ADDITIONAL INFORMATION:** Additional information about this application may be obtained by contacting Mr. Lucius Duerksen of the Kansas State Regulatory Office, 2710 NE Shady Creek Access Road, El Dorado, Kansas 67042, telephone: 316-322-8247 or by email at [lucius.j.duerksen@usace.army.mil](mailto:lucius.j.duerksen@usace.army.mil). All comments to this public notice should be directed to the above address.

**STATE AUTHORIZATION:** The applicant must also apply for a permit from the Kansas Department of Agriculture pursuant to Kansas Statutes Annotated 82a-301 to 305.

**CULTURAL RESOURCES:** Kansas City District will comply with the National Historic Preservation Act of 1966 and 36 CFR 800. We have checked the National Register of Historic Places and the Federal Register and no property listed in the Register or proposed for listing is located in the permit area. This is the extent of our knowledge about historic properties in the permit area at this time. However, we will evaluate input by the State Historic Preservation Officer, Tribal Historic Preservation Officers (or Tribe designated representative) and the public in response to this public notice, and we may conduct or require a reconnaissance survey of the permit area to check for unknown historic properties, if warranted.

**ENDANGERED SPECIES:** In compliance with the Endangered Species Act, a preliminary determination has been made that the described work will not affect species designated as threatened or endangered or adversely affect critical habitat. In order to complete our evaluation of this activity, comments are solicited from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

**FLOODPLAINS:** This activity is being reviewed in accordance with Executive Order 11988, Floodplain Management, which discourages direct or indirect support of floodplain development whenever there is a practicable alternative. By this public notice, comments are requested from individuals and agencies that believe the described work will adversely impact the floodplain.

**WATER QUALITY CERTIFICATION:** Section 401 of the Clean Water Act (33 USC 1341) requires that all discharges of dredged or fill material must be certified by the appropriate state agency as complying with applicable effluent limitations and water quality standards. This public notice serves as an application to the state in which the discharge site is located for certification of the discharge. The discharge must be certified before a Department of the Army permit can be issued. Certification, if issued, expresses the state's opinion that the discharge will not violate applicable water quality standards.

**PUBLIC INTEREST REVIEW:** The decision to issue a permit will be based on an evaluation of the probable impact including the cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, esthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency under authority of Section 404(b) of the Clean Water Act (33 USC 1344). The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

**COMMENTS:** This notice is provided to outline details of the above-described activity so this District may consider all pertinent comments prior to determining if issuance of a permit would be in the public interest. Any interested party is invited to submit to this office written facts or objections relative to the activity on or before the public notice expiration date. Comments both favorable and unfavorable will be accepted and made a part of the record and will receive full consideration in determining whether it would be in the public interest to issue the Department of the Army permit. Copies of all comments, including names and addresses of commenters, may be provided to the applicant. Comments should be mailed to the address shown on page 2 of this public notice.

**PUBLIC HEARING:** Any person may request, in writing, prior to the expiration date of this public notice, that a public hearing be held to consider this application. Such requests shall state, with particularity, the reasons for holding a public hearing.



STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	1	139

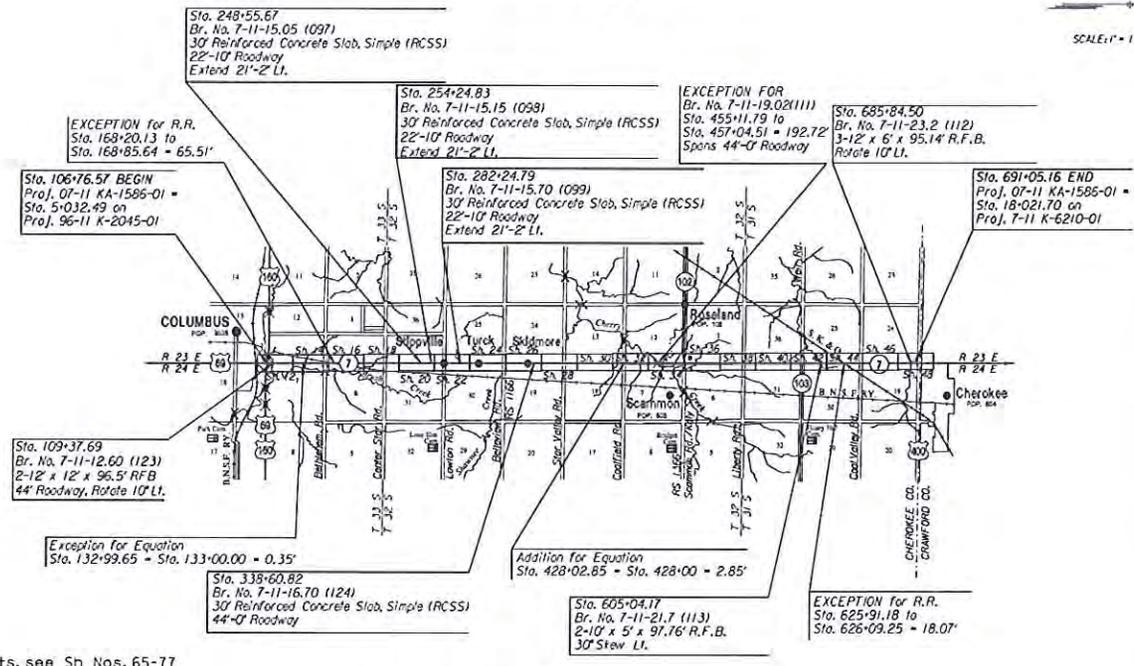
KOOT PROJ. NO. 7-11 KA-1586-01  
 FED. AID PROJ. NO. ACSTP-A158(601)

- GRADING & SURFACING (ASPHALT)
- BRIDGES
- FENCING
- SEEDING
- SIGNING & PAVEMENT MARKING

**INDEX OF SHEETS**

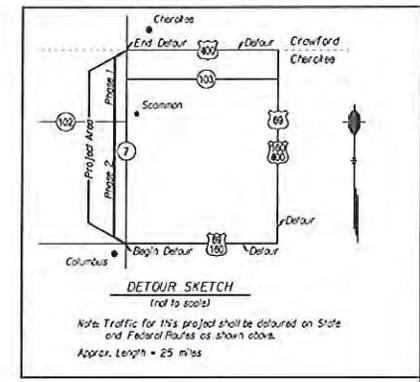
- 1 Title Sheet
- 2 - 39 Plan and Profile Sheets (Mainline)
- 40 - 54 Plan and Profile Sheets (Shoulder/Access Roads)
- 55 - 57 Channel Change Plan and Profile
- 58 - 67 Creek Typology Sections and Grading Plans
- 68 - 72 PCB Details
- 73 - 79 Existing Stream Cross Sections
- 80 - 139 DWR Cross Sections

STATE OF KANSAS  
 DEPARTMENT OF TRANSPORTATION  
 PLAN AND PROFILE OF PROPOSED  
**STATE HIGHWAY**  
 FEDERAL AID PROJECT  
 CHEROKEE COUNTY  
 K-7



**CONSTRUCTION SEQUENCING**

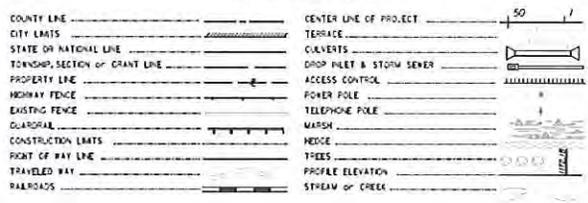
Project construction is to be split into two phases, with K-102 as the split for the phasing. The north section will be constructed first (Phase 1), with concurrent mile remediation in the southern section. The southern section will be constructed second (Phase 2). K-7 will be closed to through traffic during construction, see Detail Sketch below. See construction sequencing sheet.



**DESIGN DESIGNATION**

- AADT (2014) = 3,900
  - AADT (2034) = 5,000
  - DHV = 10%
  - D = 60%
  - T = 10.5%
  - V = 70 mph
  - C of A = Partial
  - Clear Zone = 30'
- Notes: For turning movements, see Sh Nos. 65-77

**CONVENTIONAL SIGNS**



CROSS LENGTH OF PROJECT	58,430.09 FT. (includes Equalizations)
EXCEPTIONS	276.30 FT.
NET LENGTH OF PROJECT	58,654.78 FT. 1.002 MILES
NET LENGTH OF BRIDGES	100.00 FT. 0.002 MILES
NET LENGTH OF ROAD	58,034.78 FT. 1.000 MILES



Approved \_\_\_\_\_ Date \_\_\_\_\_

State Transportation Engineer

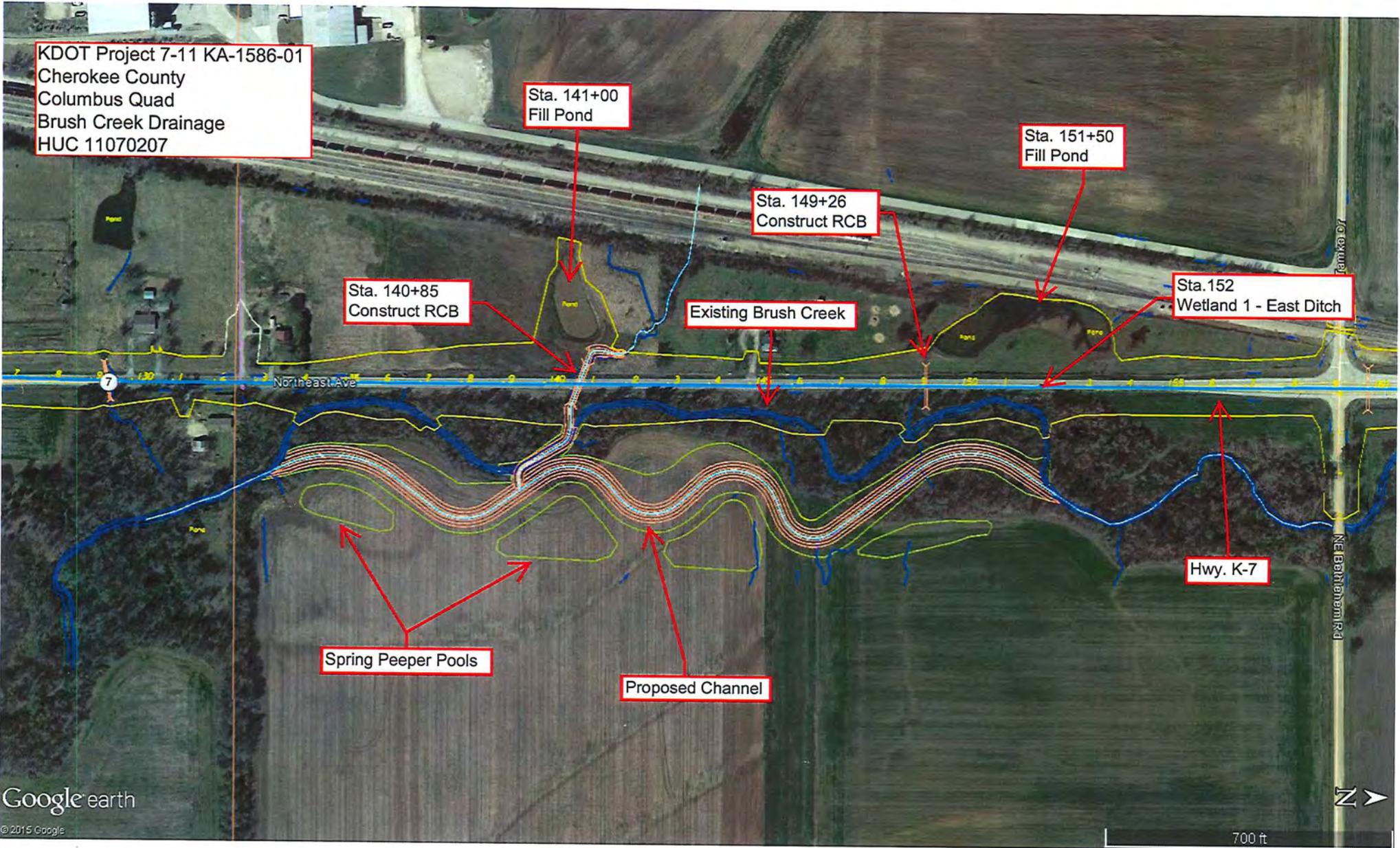
By: \_\_\_\_\_  
 Chief, Bureau of Road Design

KANSAS DEPARTMENT OF TRANSPORTATION

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 2 OF 35  
 DATED 06 JANUARY 2016

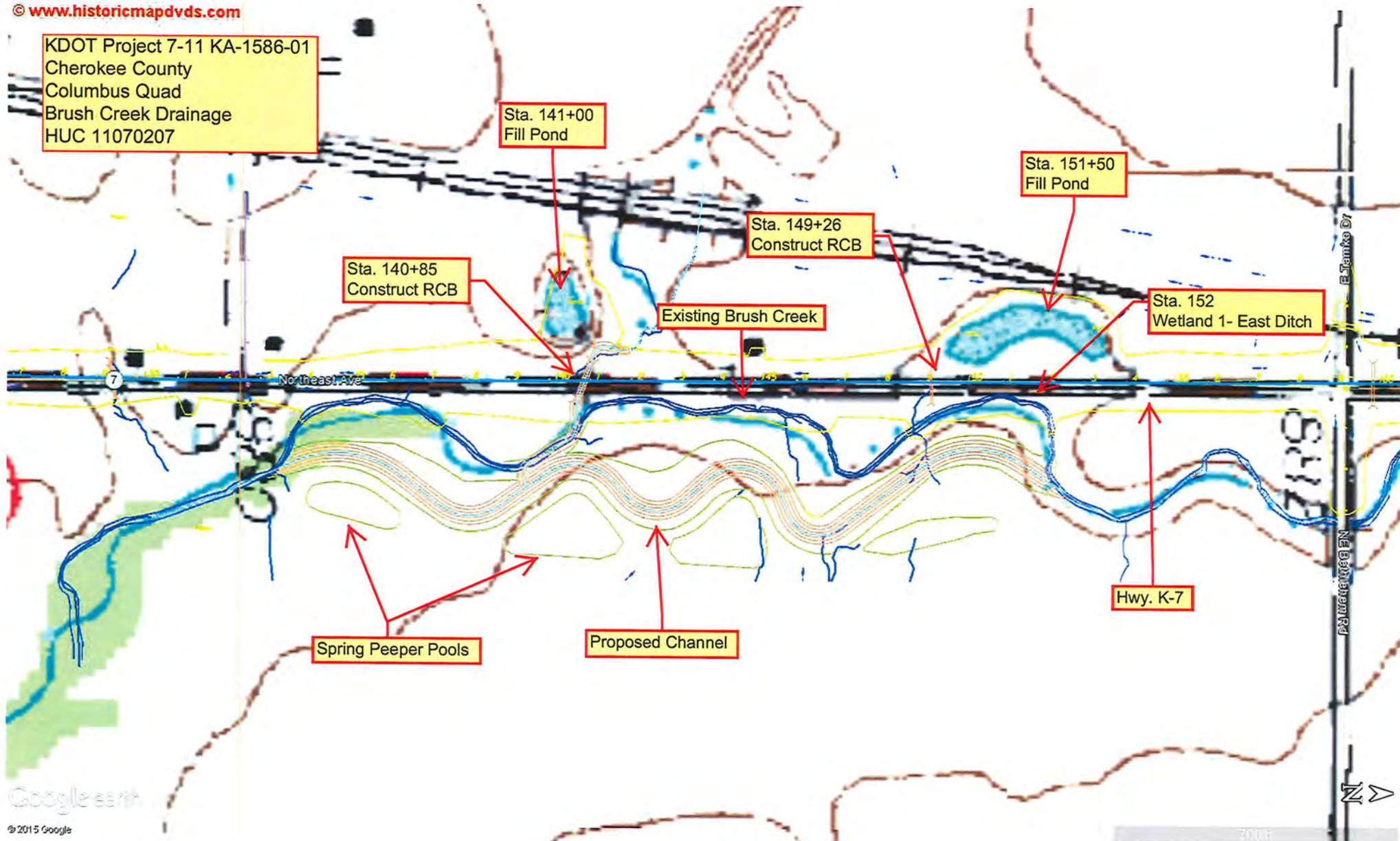
DATE	BY
2010	R.J. Sweeney (EDDIT)
2005	J.D. Schomberg (EDDIT)
2005	M. Winkler (R.D.)
2005	K. Corbair (Roadway / G. Mauer (EDDIT))

Plotted by: amehcher  
 Date: 11/18/2015  
 File: c:\broad\blowman\chero\mtdms\1617\Nat158601nd-01.dgn



APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 3 OF 35  
 DATED 06 JANUARY 2016

KDOT Project 7-11 KA-1586-01  
Cherokee County  
Columbus Quad  
Brush Creek Drainage  
HUC 11070207



STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1506-01	2015	62	138

PLANT MATERIAL *		
ITEM ID NO.	QUANTITY EA.	DESCRIPTION TREES
443		BUR OAK
443		SHELLBARK HICKORY
574		PIN OAK
2219		SANDBAR WILLOW
132		BITTERNUT HICKORY

**KSMG:**  
**AI - Adverse Impact**  
**ISC - In-Stream Credit**  
**RBC - Riparian Buffer Credit**

**AI-3 & ISC-2**  
 Replace perched RCB with embedded RFB

**AI-1**  
 Channel Fill (Red)

**AI-4**  
 Channel Fill (Red)

**AI-2**  
 Channel Left Open (Pink)

**AI-2**  
 Channel Left Open (Pink)

**RBC-1**  
 Buffer

**ISC-1**  
 Proposed Channel

**RBC-2**  
 Buffer

**ISC-3**  
 Proposed Channel

Contractor to clear a 20' wide access point to minimize disturbance to existing timber or as directed by the Engineer. Report with trees from approved list after completion of Channel work.

**LEGEND**

- In this cross-hatched area, do not disturb existing timber or stream banks, to promote environmental mitigation.
- Native Grass Plantings for Riparian Buffer
- Tree & Native Grass Plantings for Riparian Buffer  
2 Rows Bur Oak and Shellbark Hickory equal # of each at 10' to 12' spacing
- Vegetated Riparian Terrace (VRT)  
Willows (planted as shown on detail - 2'/'1' spacing) and 1 Row of Pin Oak at 10'-12' spacing on edge of VRT near buffer
- Pool Bottoms - Emergent Wetland Seed Mix
- Slopes to Pool Bottoms - Emergent Wetland Seed Mix  
With 1 Row of Pin Oak and Bitternut Hickory equal # of each at 10' to 12' spacing

**General Note:** See Construction Sequencing (Sheet Nos. XXX) for staging requirements. Minimize disturbance to existing timber. Areas outside construction limits but within limits of proposed right-of-way should be seeded to the mix specified in the permanent seeding plan.

Mitigation Pools are to be cut to a maximum depth of 3'. Mitigation Pools shall be seeded with an emergent wetland seed mix as specified in the permanent seeding plans.

Ⓞ Construct all lines to existing stream lost.

KANSAS DEPARTMENT OF TRANSPORTATION  
 BRUSH CREEK PLANTING PLAN  
 STA. 0+00 TO STA. 18+23.22

DATE	BY	REVISIONS

Plotted by: amehent  
 Date: 11/18/2015  
 File: c:\bmod\_ib\vw\recher\m\m31617\va156801mp-06.dgn



STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	63	79

**KSMG:**  
**AI - Adverse Impact**  
**ISC - In-Stream Credit**  
**RBC - Riparian Buffer Credit**

**AI-4**  
**Channel Fill (Red)**

**AI-5**  
**Channel Left Open (Pink)**

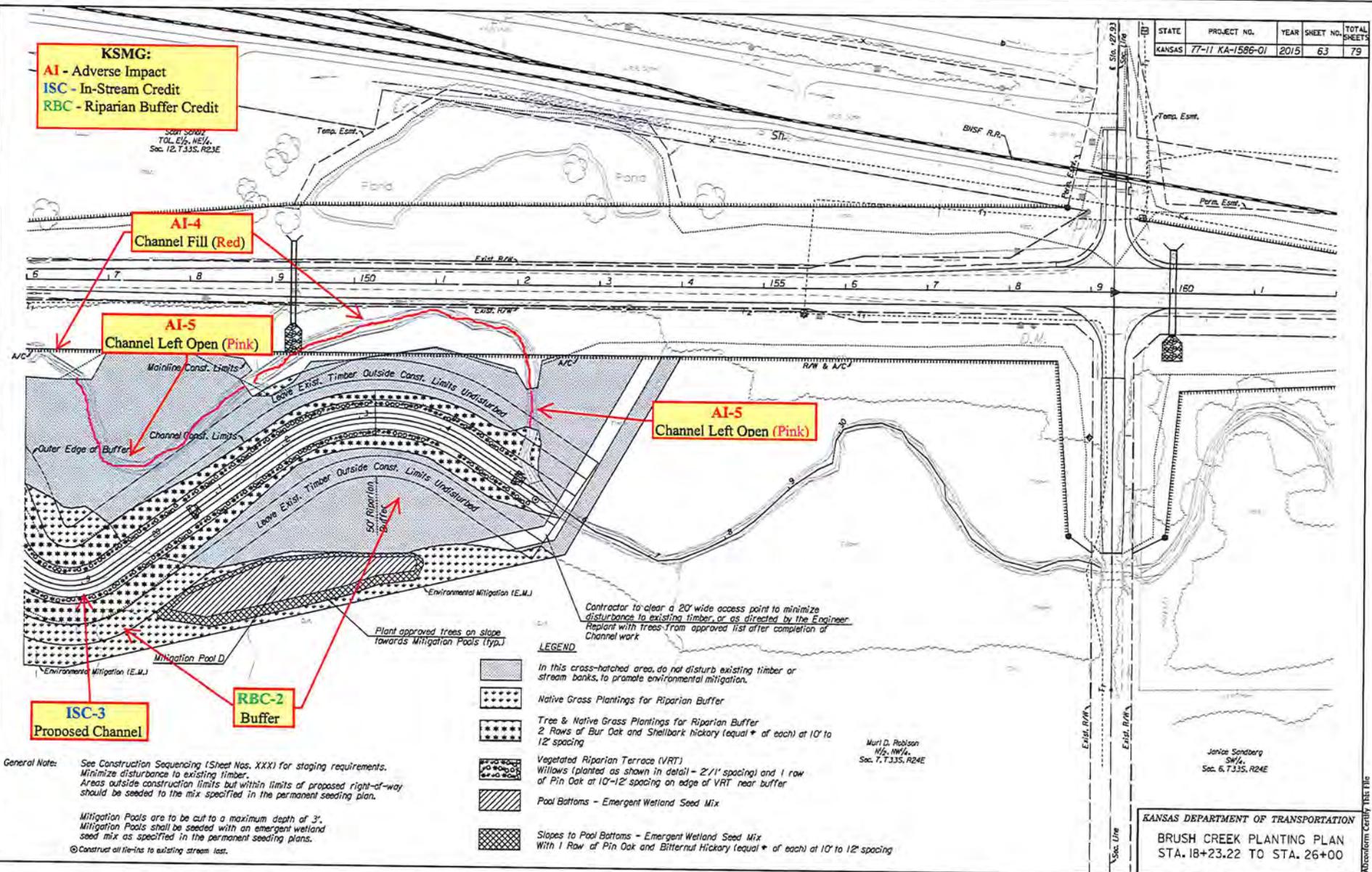
**AI-5**  
**Channel Left Open (Pink)**

**ISC-3**  
**Proposed Channel**

**RBC-2**  
**Buffer**

DATE	BY	REFERENCES WITH REVISIONS CHECKED

Plotted by: dhurt  
 Date: 10/27/2015  
 File: c:\bmod\_bj\pwworking\mms31617\ca158601\mg-01.dgn



KANSAS DEPARTMENT OF TRANSPORTATION  
 BRUSH CREEK PLANTING PLAN  
 STA. 18+23.22 TO STA. 26+00

KDOT Project 7-11 KA-1586-01  
Cherokee County  
Cherokee Quad  
Little Cherry Creek Drainage  
HUC 11070207

Sta. 457 - 459  
Wetland 2 - West Ditch

Sta. 462+23.00  
Construct RCB

Sta. 465  
Wetland 3 - West Ditch

No existing  
culvert across  
road

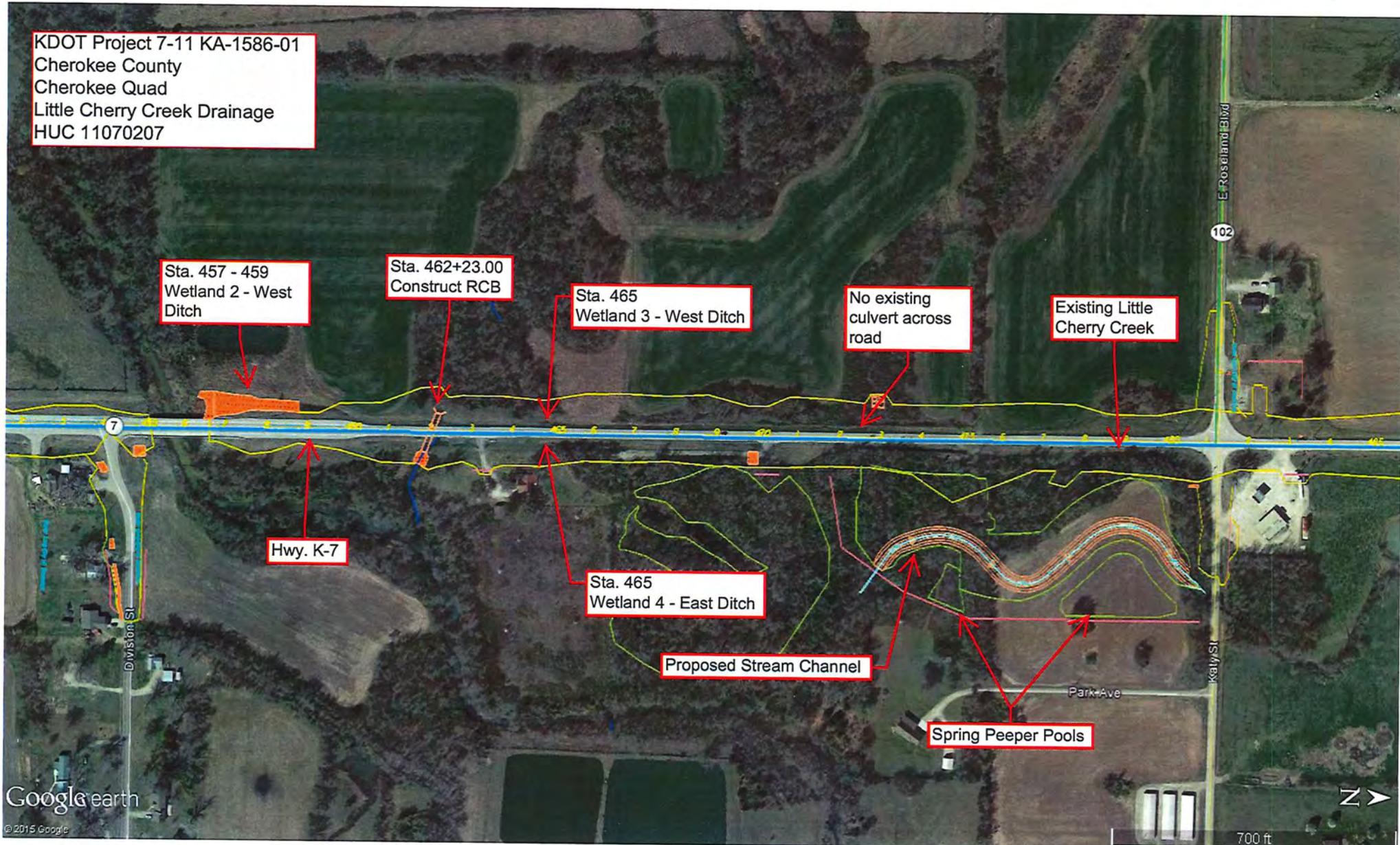
Existing Little  
Cherry Creek

Hwy. K-7

Sta. 465  
Wetland 4 - East Ditch

Proposed Stream Channel

Spring Peeper Pools



APPLICATION NO. NWK-2015-02203  
KANSAS DEPT. OF TRANSPORTATION  
ROAD WIDENING PROJECT  
CHEROKEE COUNTY, KANSAS  
SHEET 7 OF 35  
DATED 06 JANUARY 2016

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KDOT Project 7-11 KA-1586-01  
Cherokee County  
Cherokee Quad  
Little Cherry Creek Drainage  
HUC 11070207

Sta. 457 - 459  
Wetland 2 - West Ditch

Sta. 462+23.00  
Construct RCB

Sta. 465  
Wetland 3 - West Ditch

No existing  
culvert across  
road

Existing Little  
Cherry Creek

Hwy. K-7

Sta. 465  
Wetland 4 - East Ditch

Proposed Stream Channel

Spring Peeper Pools

102

102

E Roseland Blvd

Park Ave

Rally St

Google earth

© 2015 Google



700 ft

APPLICATION NO. NWK-2015-02203  
KANSAS DEPT. OF TRANSPORTATION  
ROAD WIDENING PROJECT  
CHEROKEE COUNTY, KANSAS  
SHEET 8 OF 35  
DATED 06 JANUARY 2016

PLANT MATERIAL *		
ITEM ID NO.	QUANTITY EA.	DESCRIPTION TREES
		BUR OAK
		SHELLBARK HICKORY
		PIN OAK
		SANDBAR WILLOW
		BITTERNUT HICKORY

RECAPITULATION OF QUANTITIES		
QUANTITY EA.	TOTAL	UNIT
Furnishing and Planting Plant Material	Lump Sum	L.S.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1585-01	2015	67	79

**KSMG:**  
**AI - Adverse Impact**  
**ISC - In-Stream Credit**  
**RBC - Riparian Buffer Credit**

**AI-6**  
**Channel Fill (Red)**

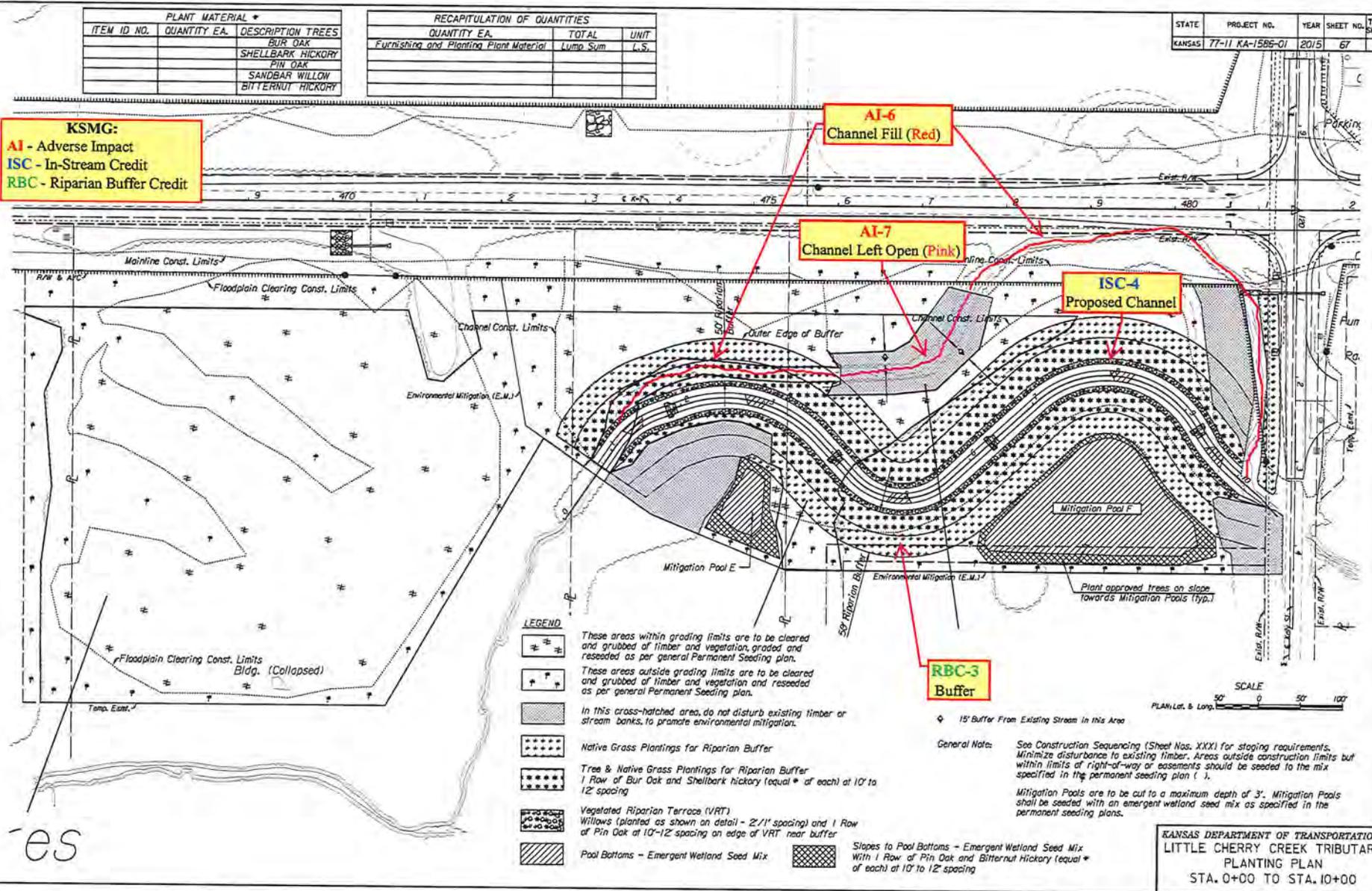
**AI-7**  
**Channel Left Open (Pink)**

**ISC-4**  
**Proposed Channel**

**RBC-3**  
**Buffer**

DATE	BY

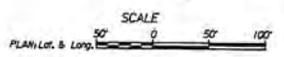
Plotted by: dhur  
 Date: 10/27/2015  
 File: c:\broad\_b\p\work\dm\dm31617\ka158501\img-13.dgn



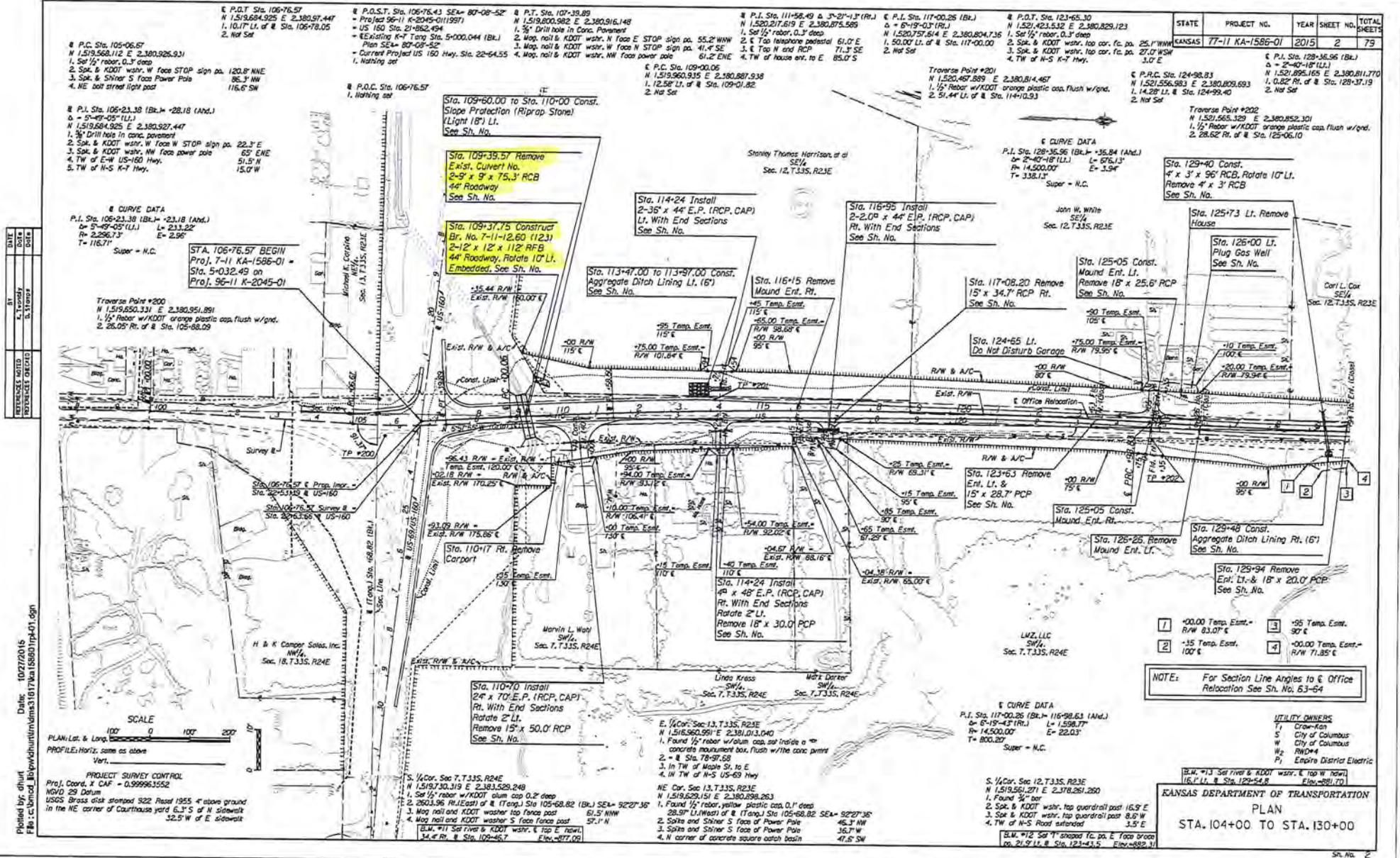
- LEGEND**
- These areas within grading limits are to be cleared and grubbed of timber and vegetation, graded and reseeded as per general Permanent Seeding plan.
  - These areas outside grading limits are to be cleared and grubbed of timber and vegetation and reseeded as per general Permanent Seeding plan.
  - In this cross-hatched area, do not disturb existing timber or stream banks, to promote environmental mitigation.
  - Native Grass Plantings for Riparian Buffer
  - Tree & Native Grass Plantings for Riparian Buffer  
1 Row of Bur Oak and Shellbark hickory (equal # of each) at 10' to 12' spacing
  - Vegetated Riparian Terrace (VRT)  
Willows (planted as shown on detail) - 2'/1' spacing and 1 Row of Pin Oak at 10'-12' spacing on edge of VRT near buffer
  - Pool Bottoms - Emergent Wetland Seed Mix
  - Slopes to Pool Bottoms - Emergent Wetland Seed Mix  
With 1 Row of Pin Oak and Bitternut Hickory (equal # of each) at 10' to 12' spacing

General Note: See Construction Sequencing (Sheet Nos. XXX) for staging requirements. Minimize disturbance to existing timber. Areas outside construction limits but within limits of right-of-way or easements should be seeded to the mix specified in the permanent seeding plan ( ).

Mitigation Pools are to be cut to a maximum depth of 3'. Mitigation Pools shall be seeded with an emergent wetland seed mix as specified in the permanent seeding plans.



KANSAS DEPARTMENT OF TRANSPORTATION  
 LITTLE CHERRY CREEK TRIBUTARY  
 PLANTING PLAN  
 STA. 0+00 TO STA. 10+00



APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 10 OF 35  
 DATED 06 JANUARY 2016

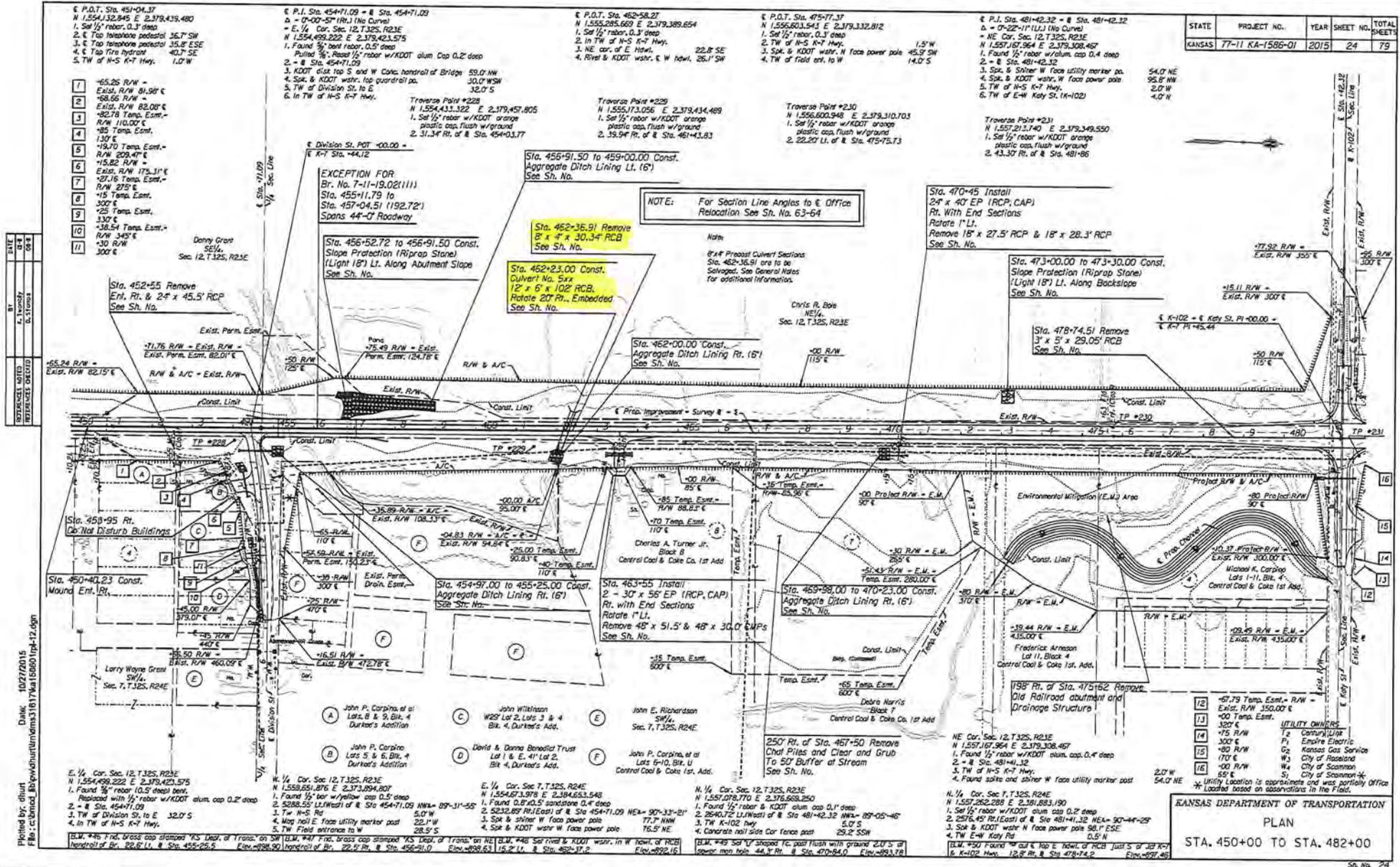








STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	24	79



Plotted by: dhunt  
 Date: 10/27/2015  
 File: c:\mrdm\16171ka158601\1p-12.dgn

KANSAS DEPARTMENT OF TRANSPORTATION  
 PLAN  
 STA. 450+00 TO STA. 482+00  
 SHEET NO. 24

APPLICATION NO. NWK-15-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 15 OF 35  
 DATED 06 JANUARY 2016

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-1 KA-1586-01	2015	26	79

€ P.O.T. Sta. 486+99.35  
 N 1,557,724.315 E 2,379,280.873  
 1. Set 1/2" rebar, 0.3' deep  
 2. Spk. & KDOT wsh. top brace to pa. 51.3' SE  
 3. Spk. & KDOT wsh. top to fo. pa. 54.4' E  
 4. In TW of N-S K-T Hwy.

Traverse Point #232  
 N 1,557,814.463 E 2,379,345.617  
 1. Set 1/2" rebar w/KDOT orange plastic cap, flush w/ground  
 2. 69.13' Pt. of # Sta. 487+86.18

€ P.O.T. Sta. 491+05.82  
 N 1,558,130.286 E 2,379,260.737  
 1. Nothing set

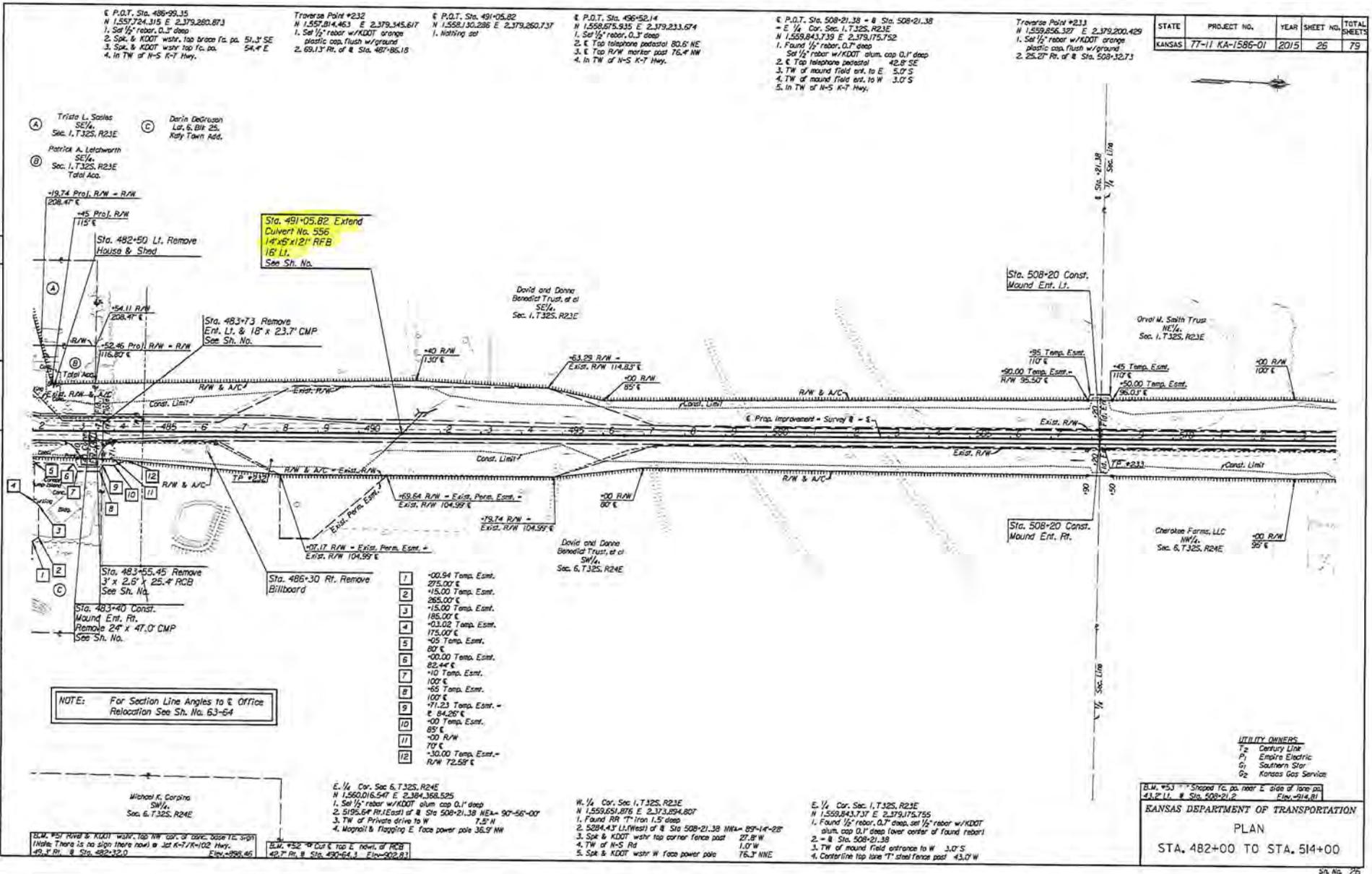
€ P.O.T. Sta. 496+52.14  
 N 1,558,675.935 E 2,379,233.674  
 1. Set 1/2" rebar, 0.3' deep  
 2. € Top telephone pedestal 80.6' NE  
 3. € Top R/W marker post 75.4' NW  
 4. In TW of N-S K-T Hwy.

€ P.O.T. Sta. 508+21.38 - # Sta. 508+21.38  
 - E 1/4 Cor. Sec. 1, T.32S, R.21E  
 N 1,559,843.739 E 2,379,175.752  
 1. Found 1/2" rebar, 0.3' deep  
 Set 1/2" rebar w/KDOT alum. cap 0.1' deep  
 2. € Top telephone pedestal 42.8' SE  
 3. TW of mound field ent. to E 5.0' S  
 4. TW of mound field ent. to W 3.0' S  
 5. In TW of N-S K-T Hwy.

Traverse Point #233  
 N 1,559,856.337 E 2,379,200.429  
 1. Set 1/2" rebar w/KDOT orange plastic cap, flush w/ground  
 2. 25.27' Pt. of # Sta. 508+32.73

DATE	BY
10/27/2015	A. Traversy
	B. Starnes

Plotted by: dhunt  
 Date: 10/27/2015  
 File: c:\broadm\mtdms1817\ka15860\tp1-13.dgn



NOTE: For Section Line Angles to € Office Relocation See Sh. No. 63-64

1	+00.94 Temp. Easmt. 275.00' €
2	+15.00 Temp. Easmt. 265.00' €
3	+15.00 Temp. Easmt. 185.00' €
4	+03.02 Temp. Easmt. 175.00' €
5	+05 Temp. Easmt. 80' €
6	+00.00 Temp. Easmt. 82.44' €
7	+10 Temp. Easmt. 100' €
8	+65 Temp. Easmt. 100' €
9	+71.23 Temp. Easmt. € 84.26' €
10	+00 Temp. Easmt. 85' €
11	+00 R/W 70' €
12	+30.00 Temp. Easmt. R/W 72.58' €

Michael K. Corpio  
 SW/4  
 Sec. 6, T.32S, R.24E

E. 1/4 Cor. Sec. 6, T.32S, R.24E  
 N 1,560,016.547 E 2,384,368.525  
 1. Set 1/2" rebar w/KDOT alum. cap 0.1' deep  
 2. 5152.64' Pt. (East) of # Sta. 508+21.38 NEA= 90°-56'-00"  
 3. TW of Private drive to W 7.5' N  
 4. Magnolia & Flagging E. face power pole 36.9' NW

W. 1/4 Cor. Sec. 1, T.32S, R.21E  
 N 1,559,651.876 E 2,373,894.807  
 1. Found RR T-iron 1.5' deep  
 2. 5084.43' Lt. (West) of # Sta. 508+21.38 INWA= 89°-14'-28"  
 3. Spk. & KDOT wsh. top corner fence post 27.8' W  
 4. TW of N-S Rd 1.0' W  
 5. Spk. & KDOT wsh. top face power pole 76.3' NNE

E. 1/4 Cor. Sec. 1, T.32S, R.21E  
 N 1,559,843.737 E 2,379,175.755  
 1. Found 1/2" rebar, 0.3' deep, set 1/2" rebar w/KDOT alum. cap 0.1' deep, lower center of mound rebar  
 2. - # Sta. 508+21.38  
 3. TW of mound field entrance to W 3.0' S  
 4. Centerline top line T-steeled fence post 43.0' W

UTILITY OWNERS  
 T2 Century Line  
 P1 Empire Electric  
 G1 Southern Star  
 G2 Kansas Gas Service

Sta. #53 Shaped to pa. near E. side of lane pa.  
 43.2' Lt. # Sta. 508+21.2 Flow=914.81

KANSAS DEPARTMENT OF TRANSPORTATION  
 PLAN  
 STA. 482+00 TO STA. 514+00

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 16 OF 35  
 DATED 06 JANUARY 2016

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	28	79

DATE	BY	REVISIONS
04-08-14	A. Brandy	D. Stovall
04-08-14		

Plotted by: dhunt  
 Date: 10/27/2015  
 File: c:\nrmad\_b\pwworking\mtdms31817\Ka158601\tp-14.dgn

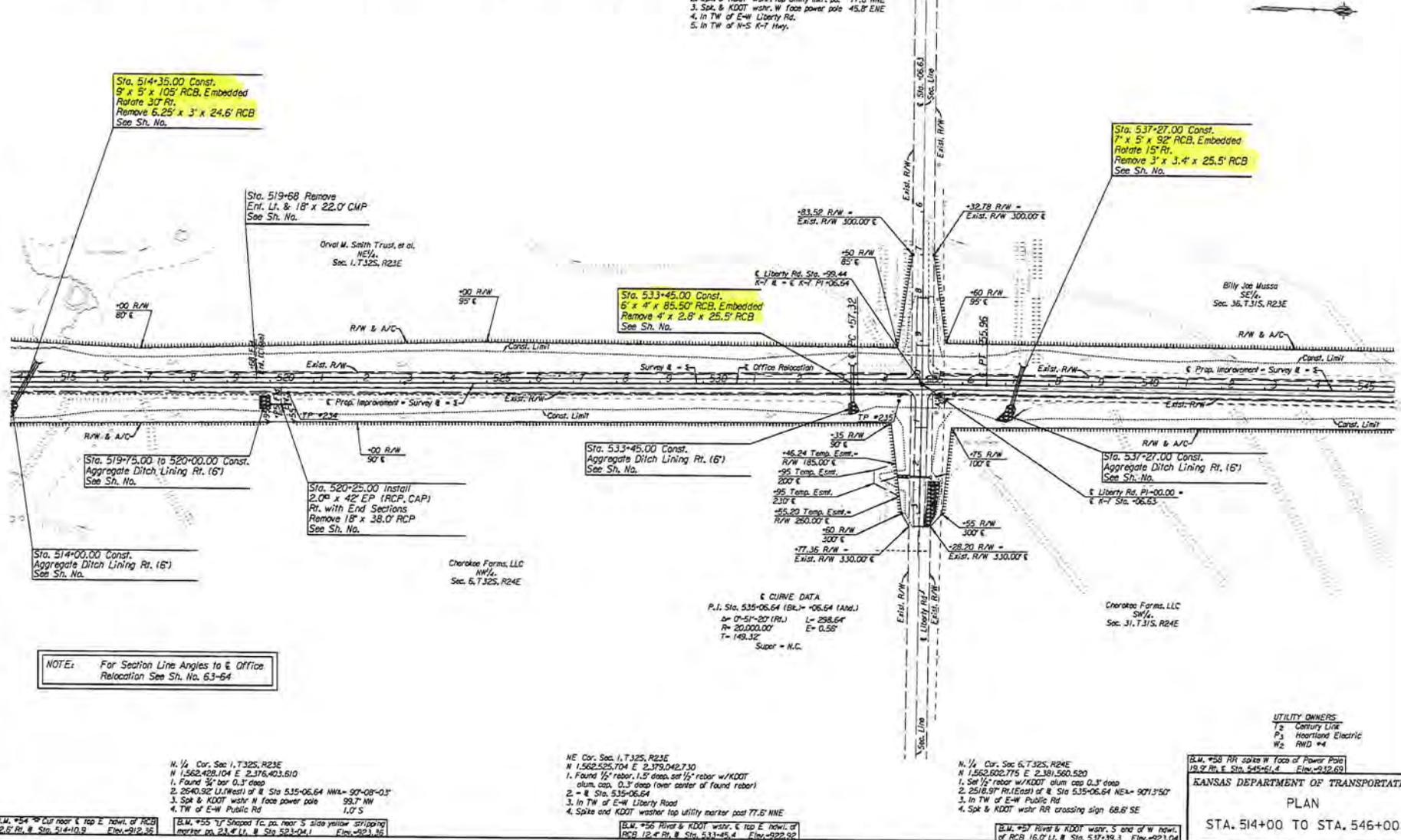
Traverse Point #234  
 N 1,561,063.575 E 2,375,139.379  
 1. Set 1/2" rebar w/KDOT orange plastic cap, flush w/ground  
 2. 2x10' Rt. of # Sta. 520+41.52  
 P.O.T. Sta. 521+10.60  
 N 1,561,131.131 E 2,379,101.579  
 1. Set 1/2" rebar, 0.3' deep  
 2. TW of N-S K-7 Hwy, 1.0' W  
 3. E Top Yellow striping post 24" WSW  
 4. N.O.P.A.

P.C. Sta. 533+57.32  
 N 1,562,474.062 E 2,379,050.127  
 1. = # Sta. 533+57.32  
 2. Top Sol

Traverse Point #235  
 N 1,562,474.062 E 2,379,084.369  
 1. Set 1/2" rebar w/KDOT orange plastic cap, flush w/ground  
 2. 39.03' Rt. of # Sta. 534+53.00

P.I. Sta. 535+06.64 (BL) = +06.64 (And.) Δ = 0'-51"-20" (Rt.)  
 = # P.I. Sta. 535+06.64 Δ = 0'-51"-20" (Rt.) (No Curve)  
 = NE Cor. Sta. 1,7325, R23E  
 N 1,562,525.704 E 2,379,042.730  
 1. Found 1/2" rebar 1.5' deep  
 Set 1/2" rebar w/KDOT alum. cap 0.3' deep  
 2. Spk & KDOT wstr. top utility mtr. po. 77.8' NNE  
 3. Spk & KDOT wstr. w face power pole 45.8' ENE  
 4. In TW of E-W Liberty Rd.  
 5. In TW of N-S K-7 Hwy.

P.T. Sta. 536+55.96  
 N 1,562,674.948 E 2,379,037.561  
 1. = # Sta. 536+55.97  
 2. Top Sol



NOTE: For Section Line Angles to E Office Relocation See Sh. No. 63-64

BLM #54 40' cur floor & top E. hawl. of RCB  
 12.0' Rt. # Sta. 514+10.9 Flow=212.35

BLM #55 17' Shaded Tc. po. near S side yellow striping marker po. 23.4' Lt. # Sta. 521+24.1 Flow=223.35

NE Cor. Sta. 1,7325, R23E  
 N 1,562,525.704 E 2,379,042.730  
 1. Found 1/2" rebar, 1.5' deep, set 1/2" rebar w/KDOT alum. cap, 0.3' deep (over center of found rebar)  
 2. = # Sta. 535+06.64  
 3. In TW of E-W Liberty Rd  
 4. Spk and KDOT wstr. top utility marker post 77.8' NNE

BLM #56 River & KDOT wstr. & top E. hawl. of RCB 16.0' Rt. # Sta. 533+45.4 Flow=222.92

N 1/4 Cor. Sec. 6, T.32S, R24E  
 N 1,562,602.775 E 2,381,560.520  
 1. Set 1/2" rebar w/KDOT alum cap 0.3' deep  
 2. 25x18.9" Rt. (East of # Sta. 535+06.64 NE) = 9013'50"  
 3. In TW of E-W Public Rd  
 4. Spk & KDOT wstr RR crossing sign 68.6' SE

BLM #58 RR spk w face of Power Pole  
 19.9' Rt. # Sta. 545+61.4 Flow=932.62

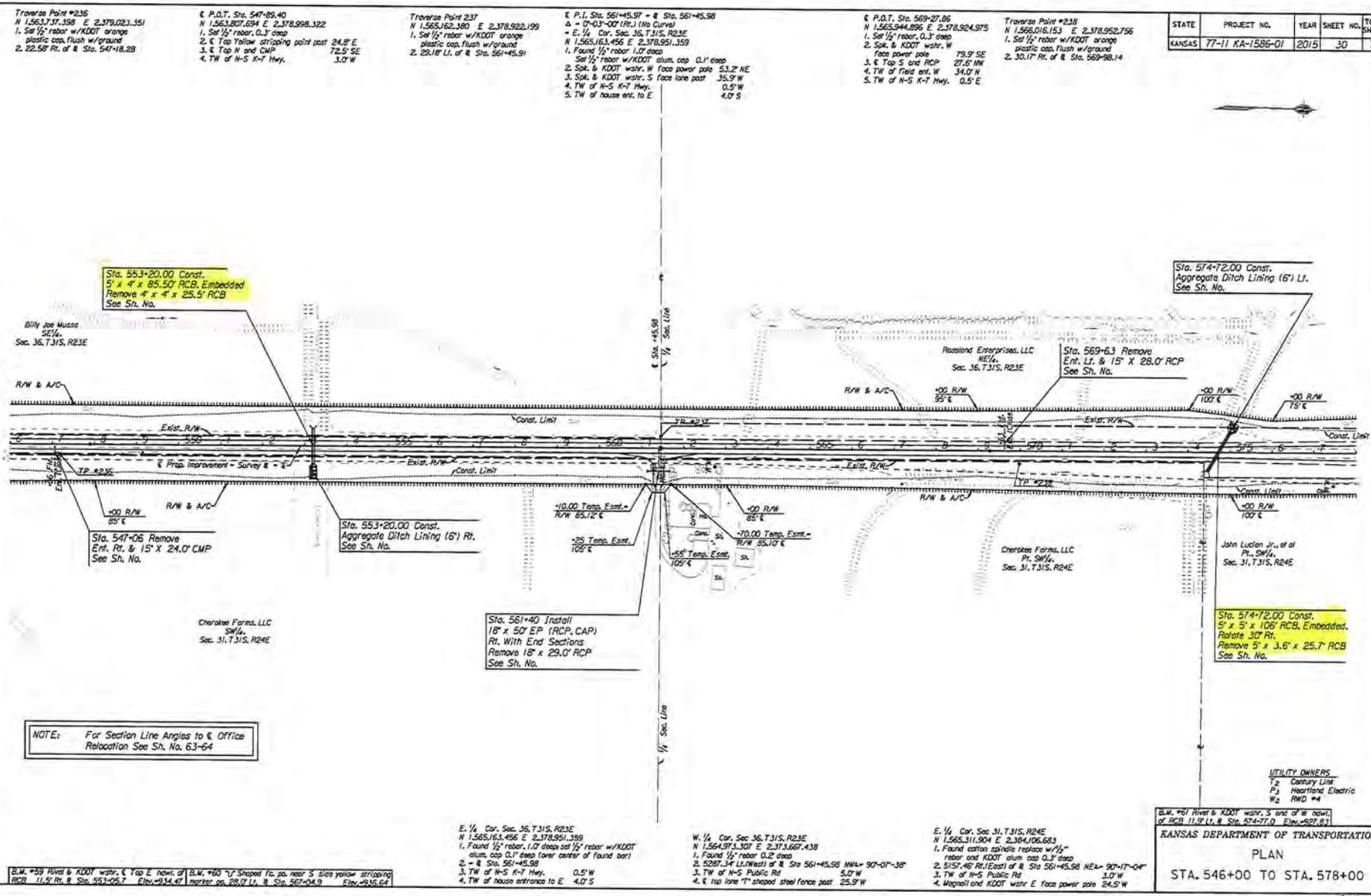
KANSAS DEPARTMENT OF TRANSPORTATION  
 PLAN  
 STA. 514+00 TO STA. 546+00  
 Sh. No. 28

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 17 OF 35  
 DATED 06 JANUARY 2016

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	30	79

DATE	BY
01-14-16	W. J. ...
01-14-16	D. ...

Plotted by: dhunt  
 Date: 10/27/2015  
 File: c:\broad\_bop\dwg\mms1617\ka158601rpt-16.dgn



NOTE: For Section Line Angles to Office Relocation See Sh. No. 63-64

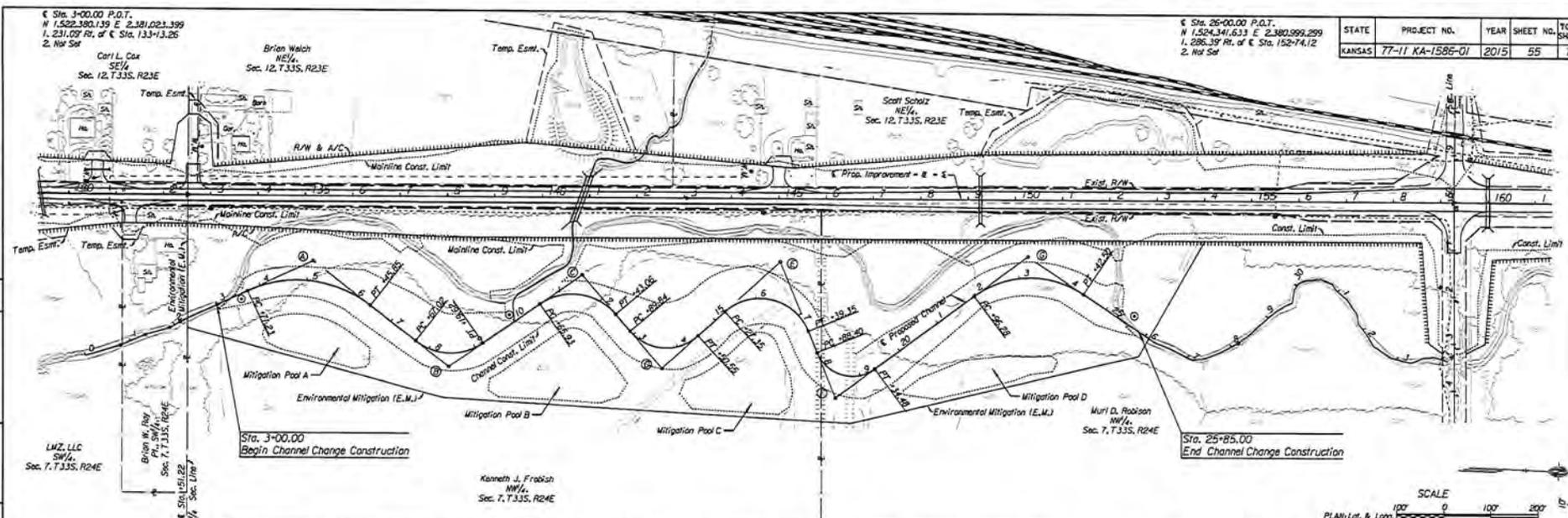
UTILITY OWNERS  
 1. Century Link  
 2. Heartland Electric  
 3. RWD #4  
 B.M. #61 River & KDOT wstr. S end of W. bank of RCB 11.9' Lt. & Sta. 574+77.0 Elev. 927.81

KANSAS DEPARTMENT OF TRANSPORTATION  
 PLAN  
 STA. 546+00 TO STA. 578+00

Sh. No. 30

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 18 OF 35  
 DATED 06 JANUARY 2016

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	55	79



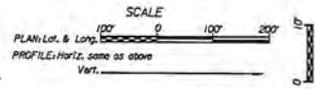
DATE	BY	W. WINDHAM
REFERENCES NOTED	REFERENCES CHECKED	

CURVE	P.I. STATION	K-T & STA.	OFFSET	NORTHING	EASTING	RADIUS	TANGENT	LENGTH
A	Sta. 5+24.25 (T.B.) = Sta. 4+92.83 (ANG.)	7.35-16.59	136.57' R	17,522.579.48	2,380.920.67	250' TL	153.02' TL	274.62' TL
B	Sta. 8+55.58 (T.B.) = Sta. 8+11.08 (ANG.)	1.28-12.46	155.62' R	17,522.874.03	12,380.132.23	120' TL	88.56' TL	132.59' TL
C	Sta. 11+75.07 (T.B.) = Sta. 11+13.92 (ANG.)	14+08.74	163.17' R	17,523.148.24	2,380.924.32	120' TL	79.14' TL	177.13' TL
D	Sta. 13+33.53 (T.B.) = Sta. 13+46.86 (ANG.)	14+25.62	367.20' R	17,523.523.99	2,380.115.19	100' TL	103.89' TL	162.70' TL
E	Sta. 16+85.68 (T.B.) = Sta. 15+81.02 (ANG.)	14+02.97	132.89' R	17,523.564.90	2,380.877.13	110' TL	126.33' TL	211.99' TL
F	Sta. 19+81.99 (T.B.) = Sta. 18+19.33 (ANG.)	14+09.16	420.37' R	17,523.632.63	2,380.860.60	80' TL	103.55' TL	145.68' TL
G	Sta. 23+17.72 (T.B.) = Sta. 23+01.06 (ANG.)	15+26.19	179.35' R	17,523.622.03	2,380.849.44	200' TL	141.44' TL	176.72' TL

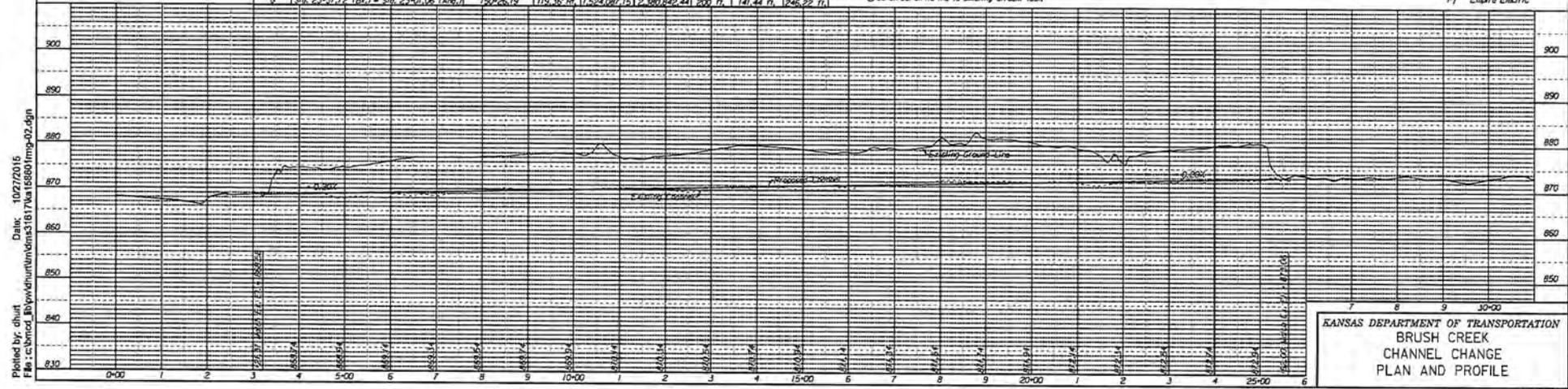
General Note: Clear and grub only within construction limits or as needed to complete vegetated buffer areas. Existing timber outside of construction limits is to remain undisturbed as directed by the Engineer. See Sh. Nos. XXX for construction sequencing and Sh. Nos. XXX for channel buffer and riparian details.

See Sh. Nos. XXX for Grading Details.  
 See Sh. No. XXX for Typical Section.  
 See Sh. No. XXX for Riffles & Pools Details & Riparian Details.

⊙ Construct all tie-ins to existing stream last.



UTILITY OWNERS
T1 Crown-Kan
F4 Century Link
W2 PWD
P1 Empire Electric



KANSAS DEPARTMENT OF TRANSPORTATION  
 BRUSH CREEK  
 CHANNEL CHANGE  
 PLAN AND PROFILE

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 19 OF 35  
 DATED 06 JANUARY 2016

E P.O.T. Sta. 10+00.00  
 N 1,521,008.758 E 2,381,030.122  
 1,263.25' Rt. of C Sta. 139+41.09  
 2. Not Set

E P.T. Sta. 14+94.94  
 N 1,521,246.647 E 2,380,681.253  
 1,75.70' Lt. of C Sta. 141+92.91  
 2. Not Set

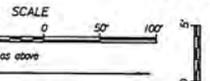
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	56	79

General Note: Clear and grub only within construction limits. Existing timber outside of construction limits is to remain undisturbed as directed by the Engineer. See Sh. Nos. XXX for construction sequencing and channel buffer and riparian details. See Sh. No. XXX for RFB Construction Layout, Typical Section and Channel Details. See Sh. Nos. XXX for Structure 140+85 Cross Sections.

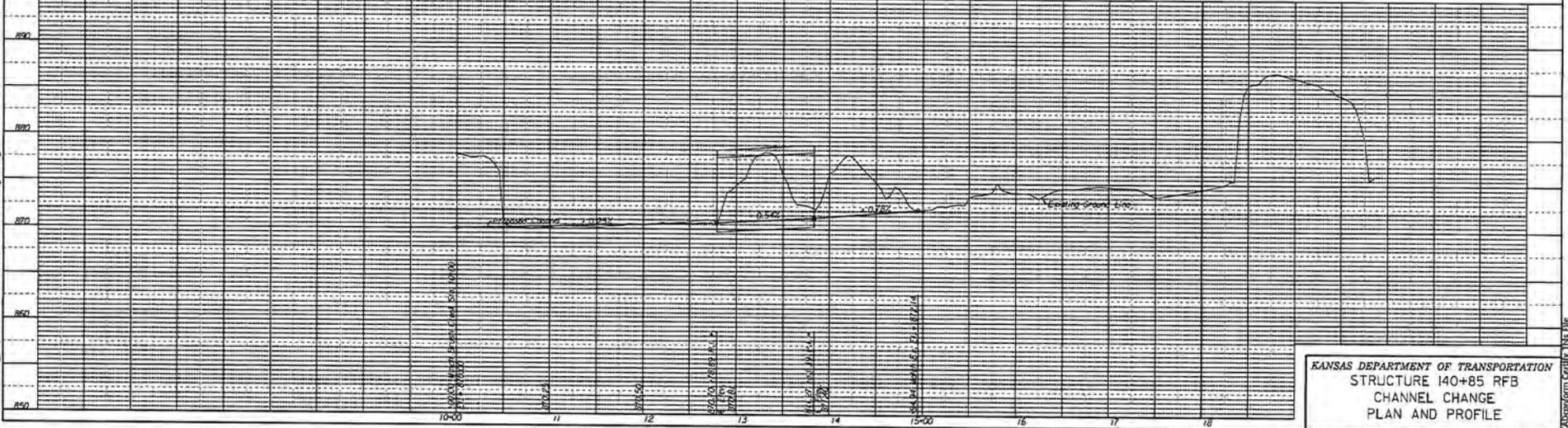
DATE	BY	REVISIONS
	W. BOWMAN	

Kenneth J. Frabish  
 S/S, NW/4  
 Sec. 7, T.33S, R.24E

Sta. 10+00 - Sta. 10+00 on  
 Brush Creek Channel Change  
 Begin Structure 140+85 Channel Change Const.  
 See Sh. Nos.



CURVE	P.I. STATION	K-7 & STA.	OFFSET	NORTHING	EASTING	RADIUS	TANGENT	LENGTH
A	Sta. 10+51.35 (TBL) = Sta. 10+47.37 (ANG.)	139+36.74	212.06' RR	1,521,002.438	2,380,979.175	30' FT.	18.74' FT.	33.50' FT.
B	Sta. 11+87.19 (TBL) = Sta. 11+85.53 (ANG.)	140+97.25	140.01' RR	1,521,119.844	2,380,502.284	30' FT.	12.33' FT.	23.39' FT.
C	Sta. 12+50.41 (TBL) = Sta. 12+50.05 (ANG.)	140+65.54	107.45' RR	1,521,126.894	2,380,653.478	30' FT.	4.40' FT.	6.99' FT.
D	Sta. 12+68.51 (TBL) = Sta. 12+68.15 (ANG.)	140+63.50	59.07' RR	1,521,122.900	2,380,621.156	30' FT.	3.98' FT.	11.80' FT.
E	Sta. 14+18.48 (TBL) = Sta. 14+15.81 (ANG.)	141+14.85	82.00' LT	1,521,168.195	2,380,678.127	15' FT.	10.50' FT.	18.33' FT.
F	Sta. 14+52.74 (TBL) = Sta. 14+49.67 (ANG.)	141+41.78	82.00' LT	1,521,195.410	2,380,677.037	30' FT.	6.44' FT.	12.81' FT.
G	Sta. 14+82.02 (TBL) = Sta. 14+81.37 (ANG.)	141+79.85	72.01' LT	1,521,211.746	2,380,665.497	30' FT.	13.57' FT.	26.49' FT.

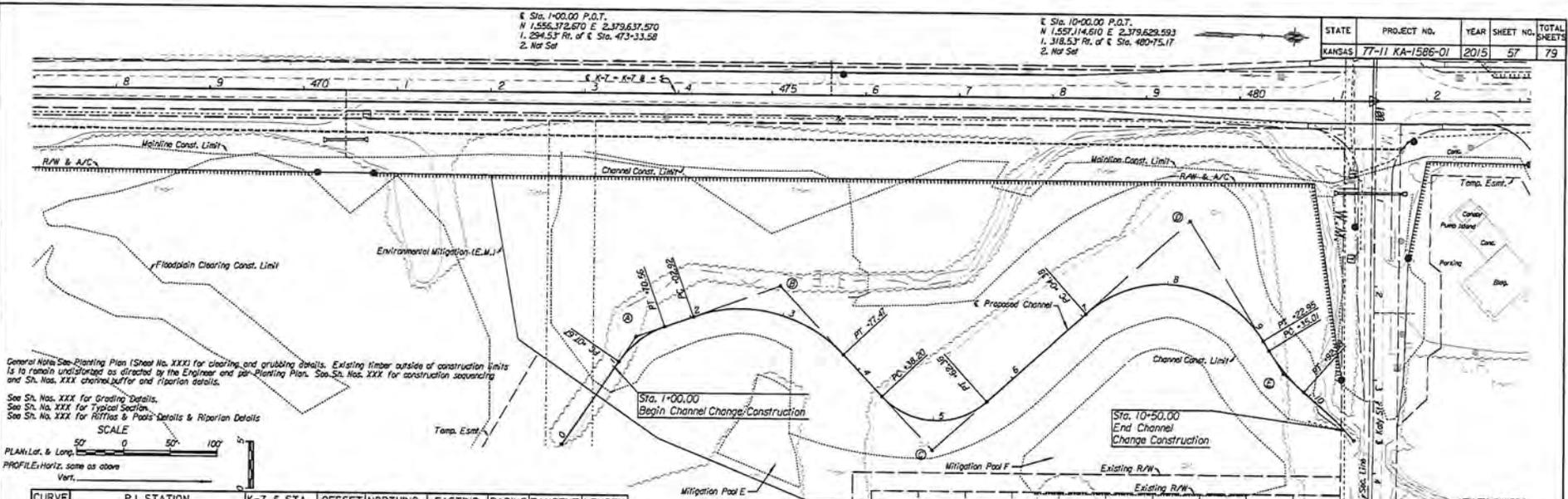


KANSAS DEPARTMENT OF TRANSPORTATION  
 STRUCTURE 140+85 RFB  
 CHANNEL CHANGE  
 PLAN AND PROFILE

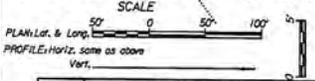
E Sta. 1+00.00 P.O.T.  
 N 1,556,372.670 E 2,379,637.570  
 1. 294.53° Rt. of E Sta. 473+33.58  
 2. Not Set

E Sta. 10+00.00 P.O.T.  
 N 1,557,114.610 E 2,379,629.593  
 1. 318.53° Rt. of E Sta. 480+75.17  
 2. Not Set

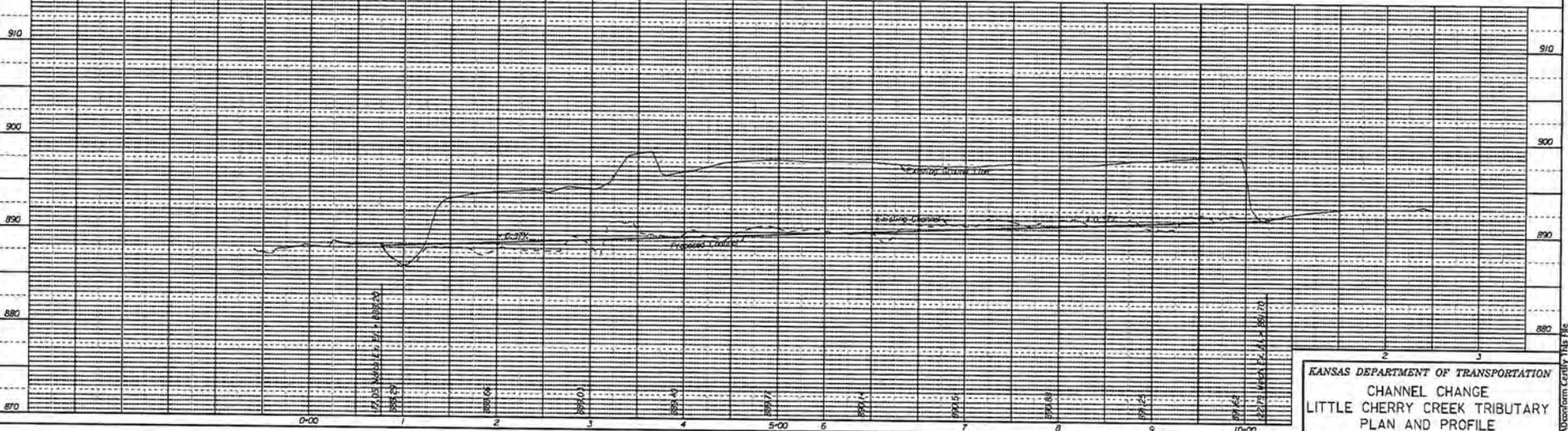
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	57	79



General Note: See Planting Plan (Sheet No. XXX) for clearing and grubbing details. Existing timber outside of construction limits is to remain undisturbed as directed by the Engineer and per Planting Plan. See Sh. Nos. XXX for construction sequencing and Sh. Nos. XXX channel buffer and riparian details.  
 See Sh. Nos. XXX for Grading Details.  
 See Sh. Nos. XXX for Typical Section.  
 See Sh. No. XXX for Utilities & Poles Details & Riparian Details



CURVE	P.I. STATION	K-7 E STA.	OFFSET	NORTHING	EASTING	RADIUS	TANGENT	LENGTH
A	Sta. 1+40.20 (TB) = Sta. 1+38.03 (ANG.)	47+156.12	262.29	1,556,383.810	2,379,603.393	100	32.58	162.95
B	Sta. 3+01.50 (TB) = Sta. 2+78.81 (ANG.)	47+210.14	206.07	1,556,545.255	2,379,541.631	120	93.66	174.54
C	Sta. 5+16.71 (TB) = Sta. 4+83.85 (ANG.)	47+72.58	379.90	1,556,716.015	2,379,708.252	80	78.51	124.16
D	Sta. 8+31.84 (TB) = Sta. 7+01.49 (ANG.)	47+41.61	132.47	1,556,979.140	2,379,449.140	125	149.46	218.57
E	Sta. 9+64.20 (TB) = Sta. 9+63.79 (ANG.)	47+41.09	264.49	1,557,095.57	2,379,667.742	100	28.19	57.91



KANSAS DEPARTMENT OF TRANSPORTATION  
 CHANNEL CHANGE  
 LITTLE CHERRY CREEK TRIBUTARY  
 PLAN AND PROFILE

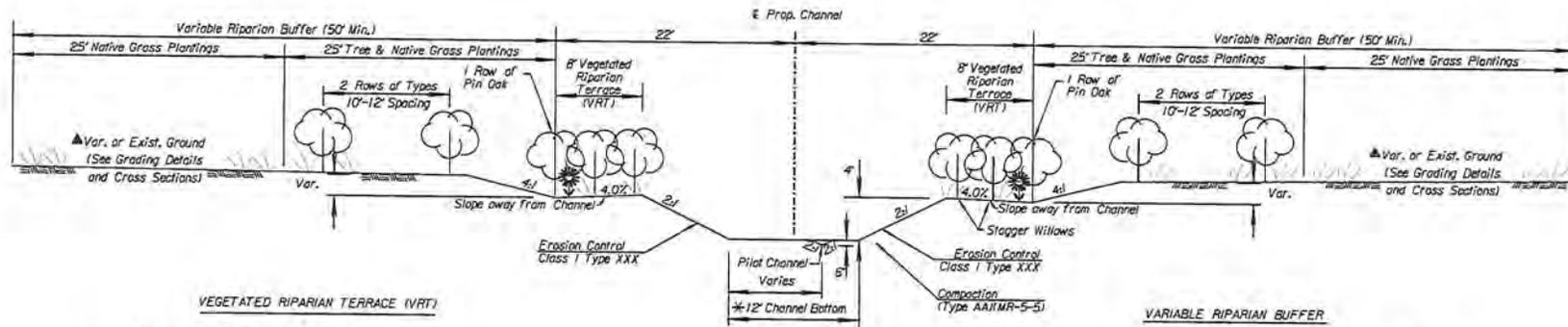
Plotted by: dhurt  
 Date: 10/27/2015  
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APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 21 OF 35  
 DATED 06 JANUARY 2016

CABconform Certify This File  
 Sh. No. 57

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	58	79

BRUSH CREEK PROPOSED CHANNEL TYPICAL SECTION



VEGETATED RIPARIAN TERRACE (VRT)

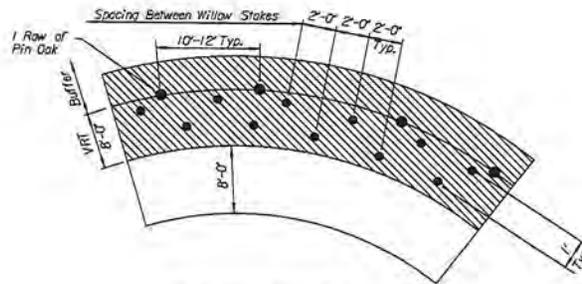
Notes: Approved trees available for planting include:  
Pin Oak  
Sandbar Willow

See Sh. No. XXX for Summary of Quantities  
See Sh. No. XXX for Brush Creek Planting Plan

VARIABLE RIPARIAN BUFFER

Notes: Approved trees available for planting include:  
Bur Oak  
Shellbark Hickory

See Sh. No. XXX for Summary of Quantities  
See Sh. No. XXX for Brush Creek Planting Plan



VRT PLANTING DETAIL (PLAN VIEW)

- \* See Sh. Nos. XXX for Pools and Riffles Details and Cross Sections
- ▲ See Sh. Nos. XXX for Grading Details and Cross Sections

KANSAS DEPARTMENT OF TRANSPORTATION  
BRUSH CREEK TYPICAL SECTION &  
RIPARIAN DETAILS

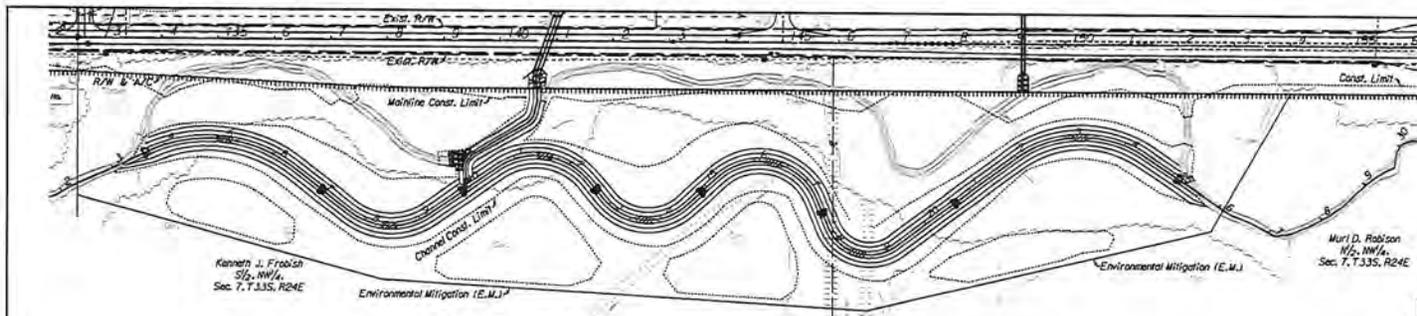
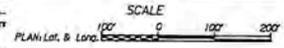
CADcenterm Certify This File

DATE	BY	REVISIONS NOTED	REFERENCES DELETED

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Date: 10/27/2015

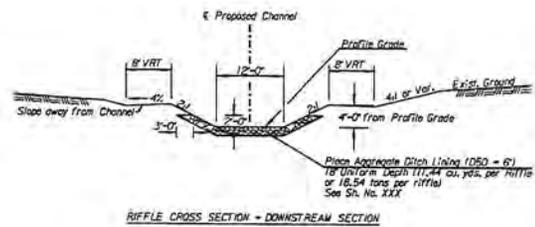
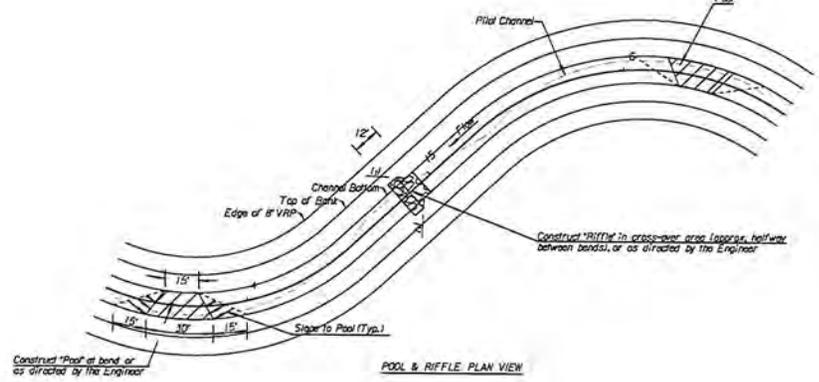
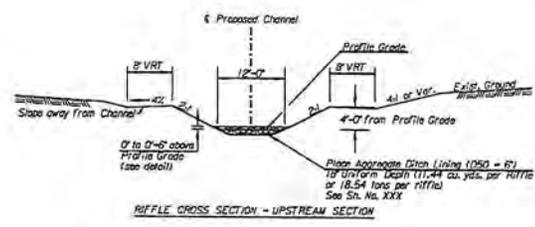
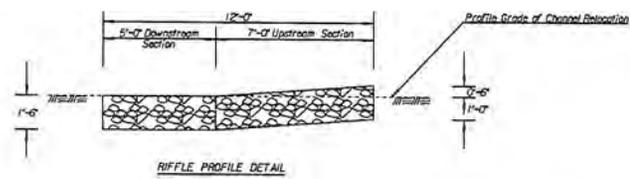
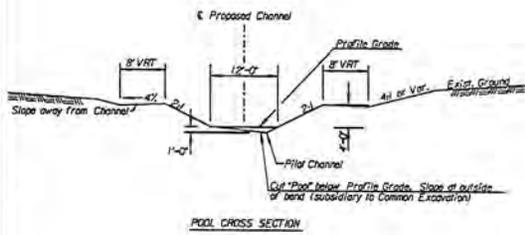
CADcenterm Certify This File

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	61	79



LOCATIONS OF POOLS & RIFFLES - BRUSH CREEK		
TYPE	± STATION	SEE SHEET NO.
Riffle	171.23	
Pool	5-08.54	
Riffle	7-06.43	
Pool	8-43.33	
Riffle	9-52.77	
Pool	11-54.50	
Riffle	12-56.45	
Pool	13-13.30	
Riffle	14-08.95	
Pool	16-33.35	
Riffle	17-43.67	
Pool	18-51.64	
Riffle	20-55.38	
Pool	23-19.39	
Riffle	25-20.00	

DATE	
BY	
REFERENCES NOTED	
REFERENCES CHECKED	



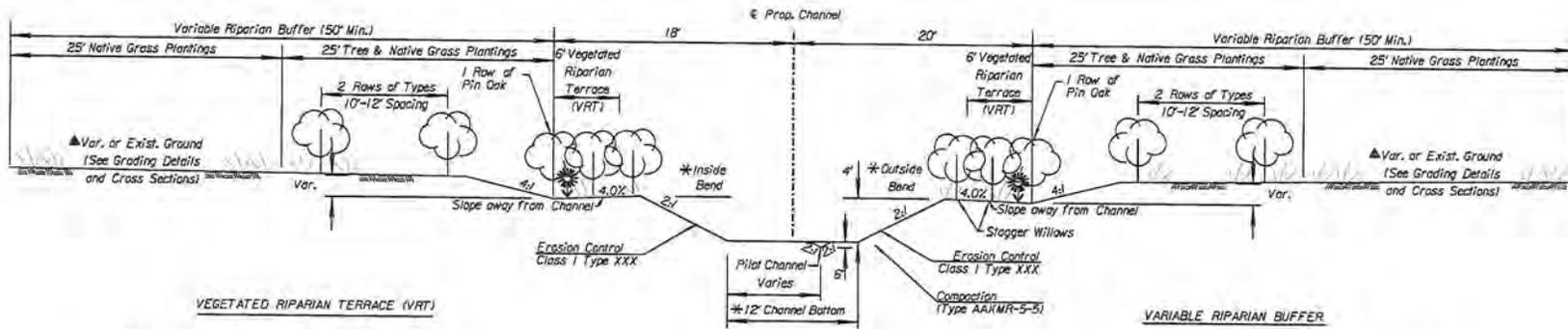
KANSAS DEPARTMENT OF TRANSPORTATION  
BRUSH CREEK  
RIFFLES & POOLS DETAILS

Plotted by: dhunt  
File: c:\broad\_bay\dwg\hunts\mtdms31617\va158601img-05.dgn  
Date: 10/27/2015

APPLICATION NO. NWK-2015-02203  
KANSAS DEPT. OF TRANSPORTATION  
ROAD WIDENING PROJECT  
CHEROKEE COUNTY, KANSAS  
SHEET 23 OF 35  
DATED 06 JANUARY 2016

PROPOSED CHANNEL TYPICAL SECTION

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1585-01	2015	64	79



VEGETATED RIPARIAN TERRACE (VRT)

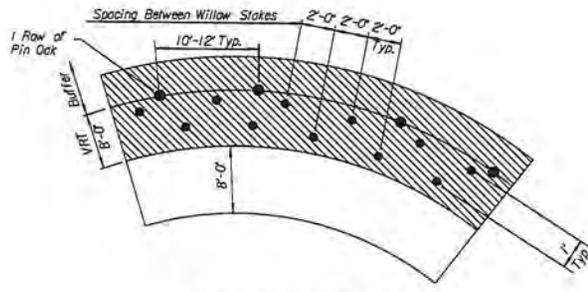
Notes: Approved trees available for planting include:  
Pin Oak  
Sandbar Willow

See Sh. No. XXX For Summary of Quantities  
See Sh. No. XXX For Brush Creek Planting Plan

VARIABLE RIPARIAN BUFFER

Notes: Approved trees available for planting include:  
Bur Oak  
Shelbark Hickory

See Sh. No. XXX For Summary of Quantities  
See Sh. No. XXX For Brush Creek Planting Plan



VRT PLANTING DETAIL (PLAN VIEW)

- \* See Sh. Nos. XXX for Pools and Riffles Details and Cross Sections
- ▲ See Sh. Nos. XXX for Grading Details and Cross Sections
- ⊙ See Sh. No. XXX for Riffles and Pools Details

KANSAS DEPARTMENT OF TRANSPORTATION  
LITTLE CHERRY CREEK TRIBUTARY  
TYPICAL SECTION &  
RIPARIAN DETAILS

CADformat Certify This File

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DATE	
BY	
REVISIONS	
NO. DATE	
DESCRIPTION	

Plotted by: dhut Date: 10/27/2015  
File: c:\broad\_b\pwworking\dm\kms31817\ks158501\img-09.dwg



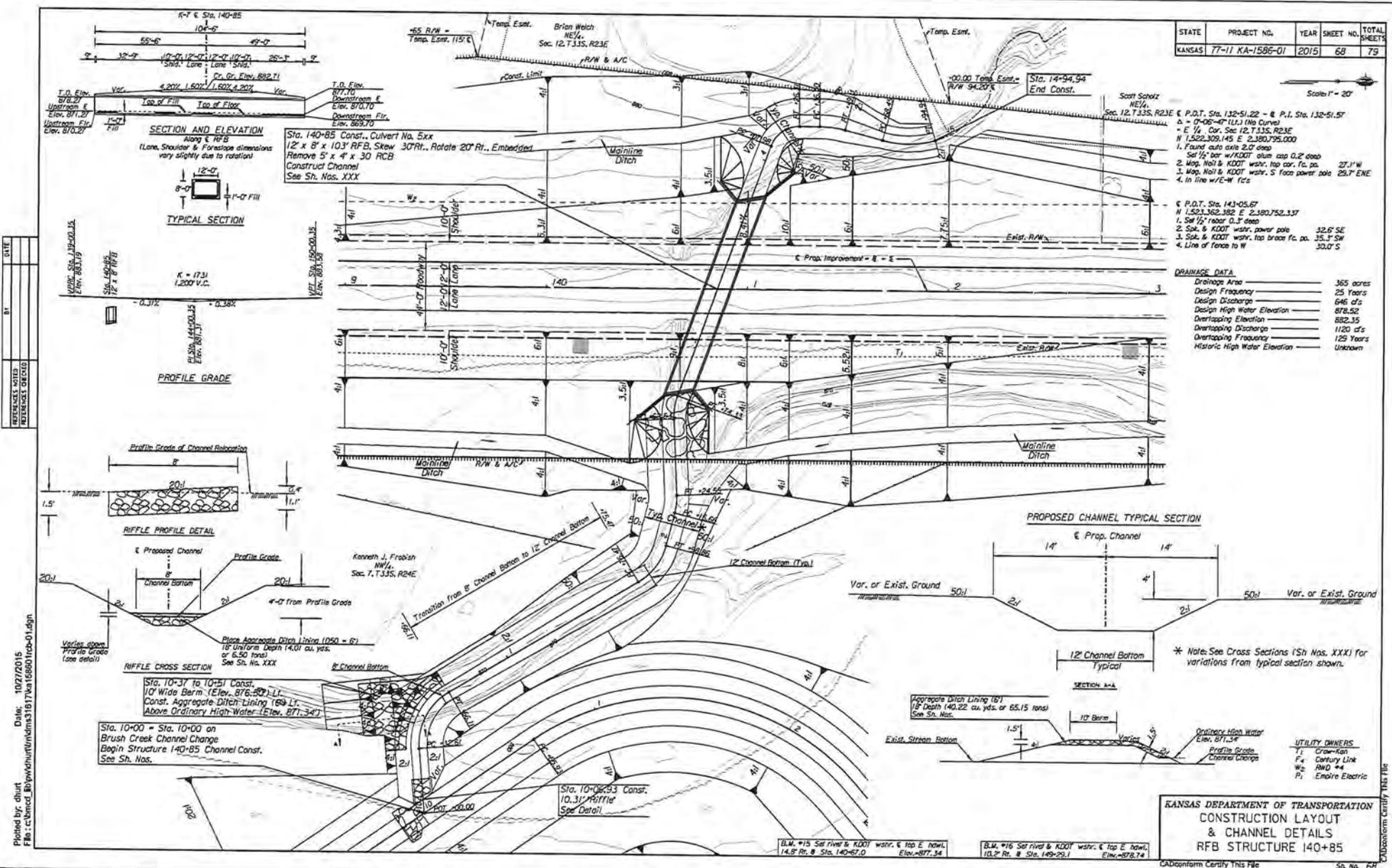
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	68	79

Scale 1" = 20'

- Scott Schatz  
NE/4  
Sec. 12, T.33S, R.23E
- Sta. 14-94.54  
End Const.
- € P.O.T. Sta. 132-51.22 - € P.I. Sta. 132-51.57  
Δ = 0-06-47 (1.1) (No Curve)  
- E 1/4 Cor. Sec. 12, T.33S, R.23E  
N 1,522,305.145 E 2,380,795.000  
1. Found auto axle 2.0' deep  
Set 1/2" bar w/ KDOT alum case 0.2' deep  
2. Map, Nail & KDOT water tap cor. to po. 27.1' W  
3. Map, Nail & KDOT water. S face power pole 29.7' ENE  
4. In line w/E-W fence
- € P.O.T. Sta. 143-05.67  
W 1,523,362.382 E 2,380,752.337  
1. Set 1/2" rebar 0.3' deep  
2. Spk. & KDOT water, power pole 32.6' SE  
3. Spk. & KDOT water, tap brace to po. 35.1' SW  
4. Line of fence to W 30.0' S

**DRAINAGE DATA**

Drainage Area	365 acres
Design Frequency	25 Years
Design Discharge	646 cfs
Design High Water Elevation	878.52
Overlapping Elevation	882.35
Overlapping Discharge	1120 cfs
Overlapping Frequency	125 Years
Historic High Water Elevation	Unknown



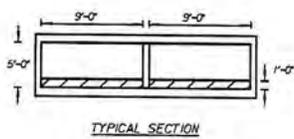
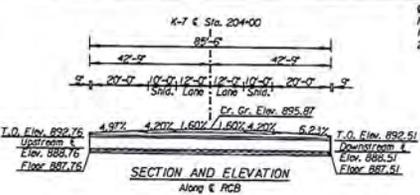
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 REFERENCES NOTED  
 REFERENCES CHECKED

**KANSAS DEPARTMENT OF TRANSPORTATION  
 CONSTRUCTION LAYOUT  
 & CHANNEL DETAILS  
 RFB STRUCTURE 140+85**

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 26 OF 35  
 DATED 06 JANUARY 2016

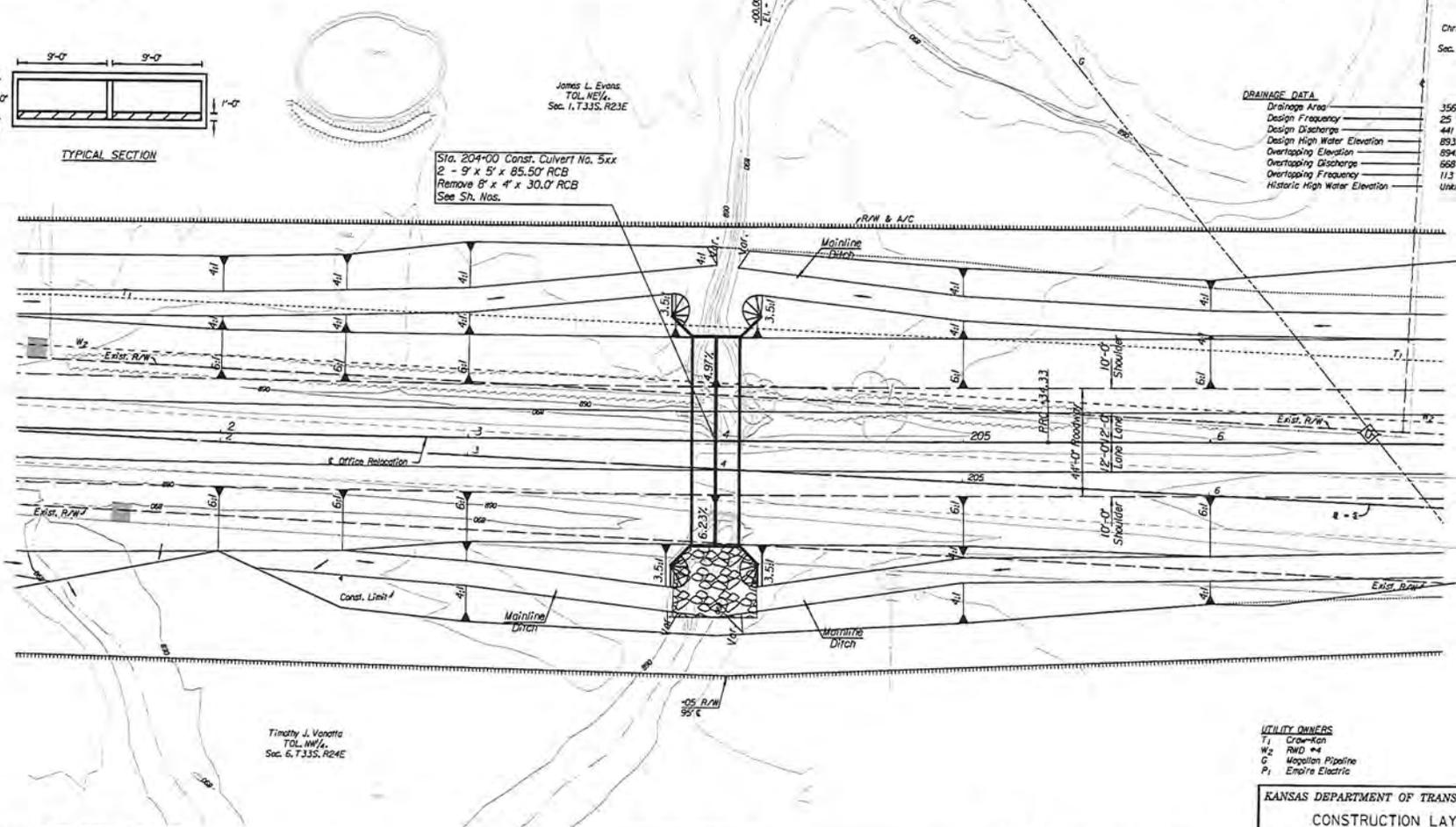
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BY	
REFERENCES W/OTD	
REFERENCES CHECKED	

Plotted by: dhuat Date: 10/27/2015  
 File: c:\broad\_b\pww\shuntum\dms31817\ka158601rcb-03.dgn



STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	69	79

P.I. Sta. 201+15.44 (Bk. +15.2) (And.)  
 G = 3" (18" x 114")  
 P.R.C. Sta. 205+34.33  
 N 1,528,749.487 E 2,380,557.854  
 N 1,528,168.372 E 2,380,543.525  
 1. 4.87° Lt. of # Sta. 201+15.43  
 2. Not Set  
 N 1,528,585.731 E 2,380,505.025  
 1. 18.08° Lt. of # Sta. 205+34.33  
 2. Not Set



Scale: 1" = 20'

Christina M. Main  
 NE/4,  
 Sec. 1, T.33S, R.23E

DRAINAGE DATA	
Drainage Area	356 acres
Design Frequency	25 Years
Design Discharge	441 cfs
Design High Water Elevation	893.06
Overlapping Elevation	894.61
Overlapping Discharge	668 cfs
Overlapping Frequency	113 Years
Historic High Water Elevation	Unknown

B.M. #19 Set 1" shaped 1c. on flush w/ground on W Top of car. 1c. on 28-3" Rt. # Sta. 186+21.2 Elev. = 893.40  
 B.M. #21 Found 1" out 1" top E. rd. 17-2" Rt. # Sta. 204+04.1 Elev. = 893.89  
 B.M. #22 Set 1" shaped 1c. post flush with ground 1.0" W of car. 1c. post 27-4" Rt. # Sta. 214+00.7 Elev. = 902.60

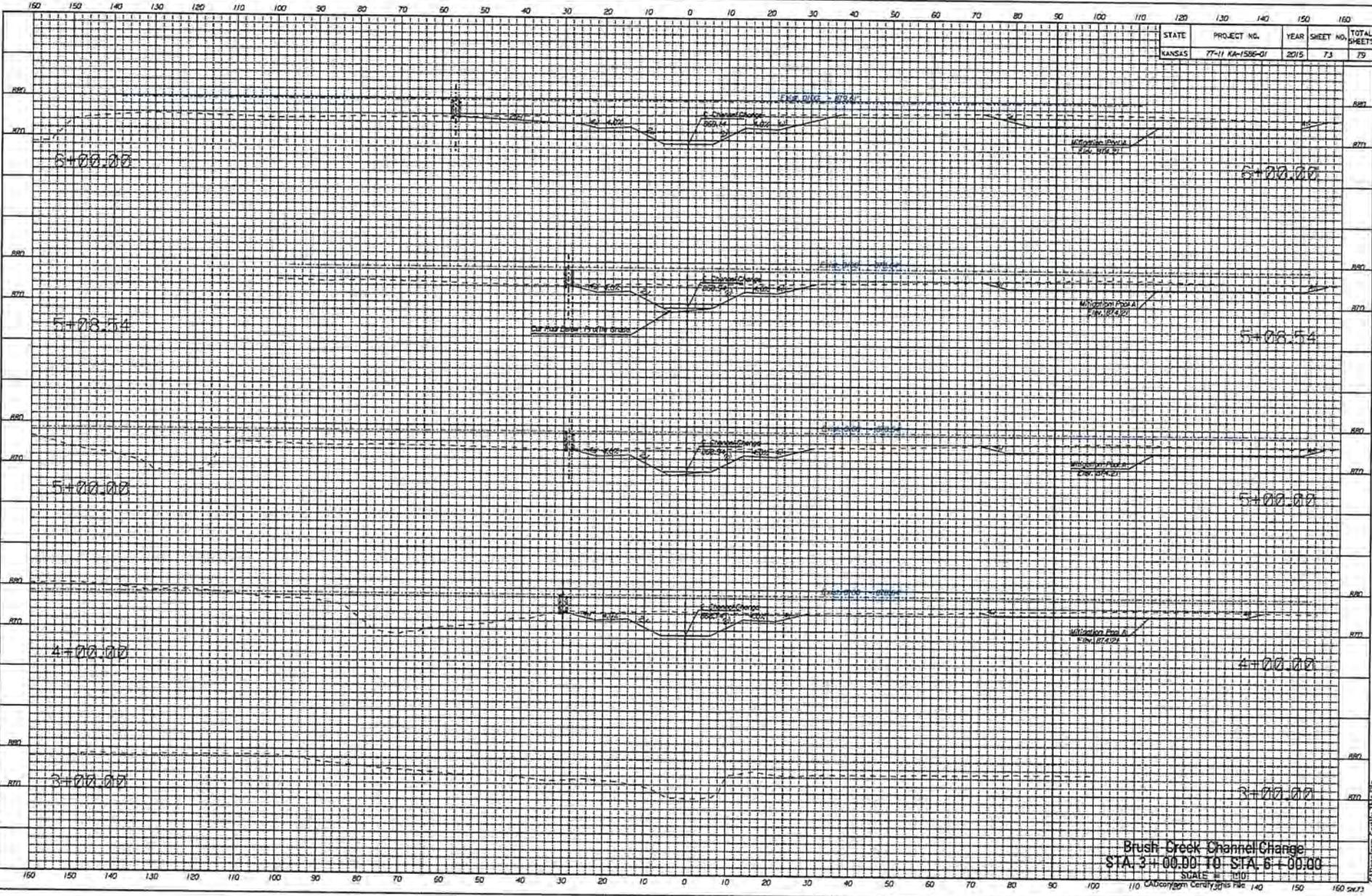
- UTILITY OWNERS
- T<sub>1</sub> Crown-Kan
  - W<sub>2</sub> RWD #4
  - G<sub>1</sub> Moplon Pipeline
  - P<sub>1</sub> Empire Electric

KANSAS DEPARTMENT OF TRANSPORTATION  
 CONSTRUCTION LAYOUT  
 RCB STRUCTURE 204+00

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 27 OF 35  
 DATED 06 JANUARY 2016



STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-01	2015	73	79

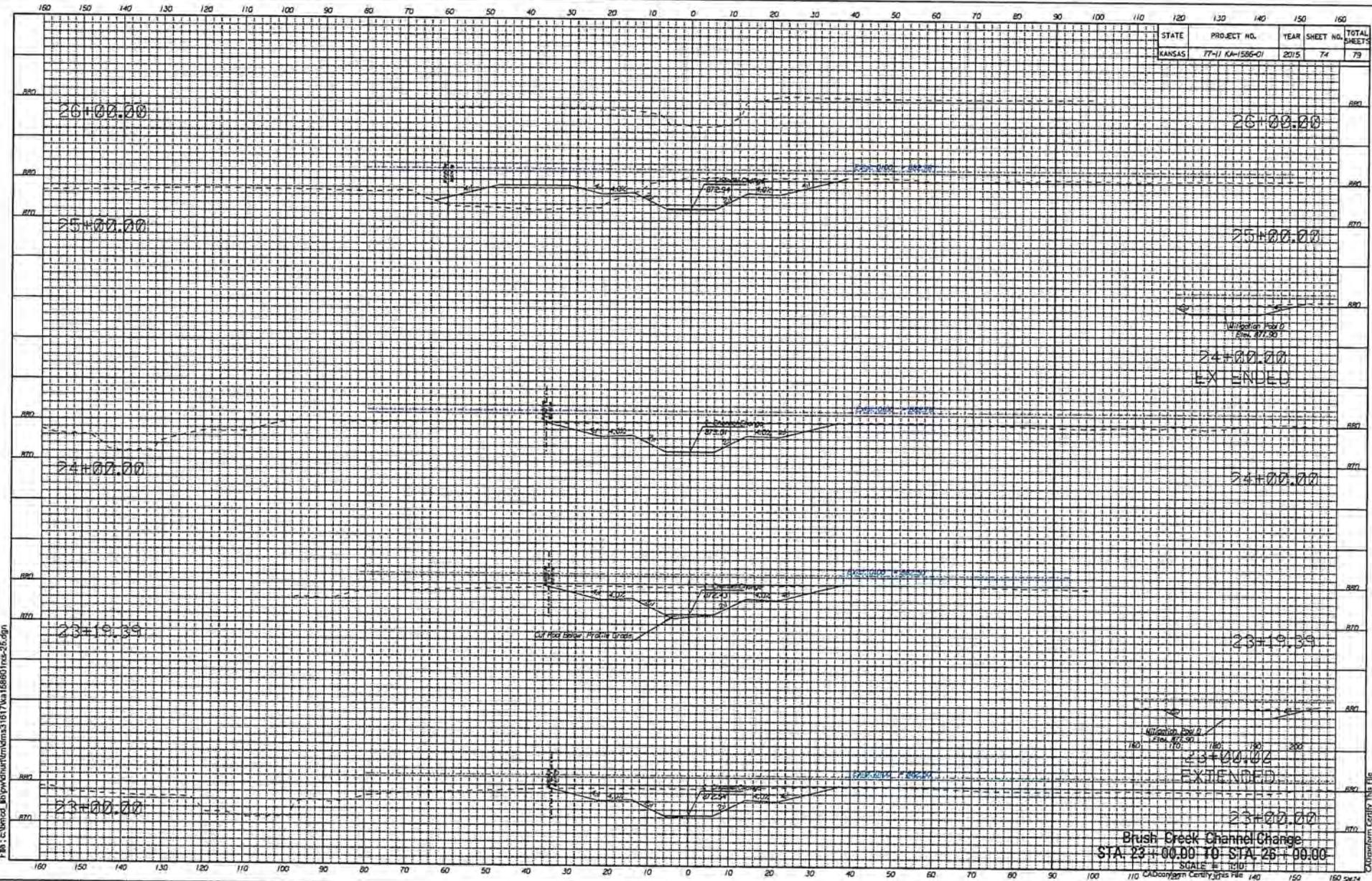


Plotted by: dhurt  
 Date: 10/27/2015  
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Cherokee County, MO

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 29 OF 35  
 DATED 06 JANUARY 2016

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	17-1 KU-1586-C1	2015	74	79



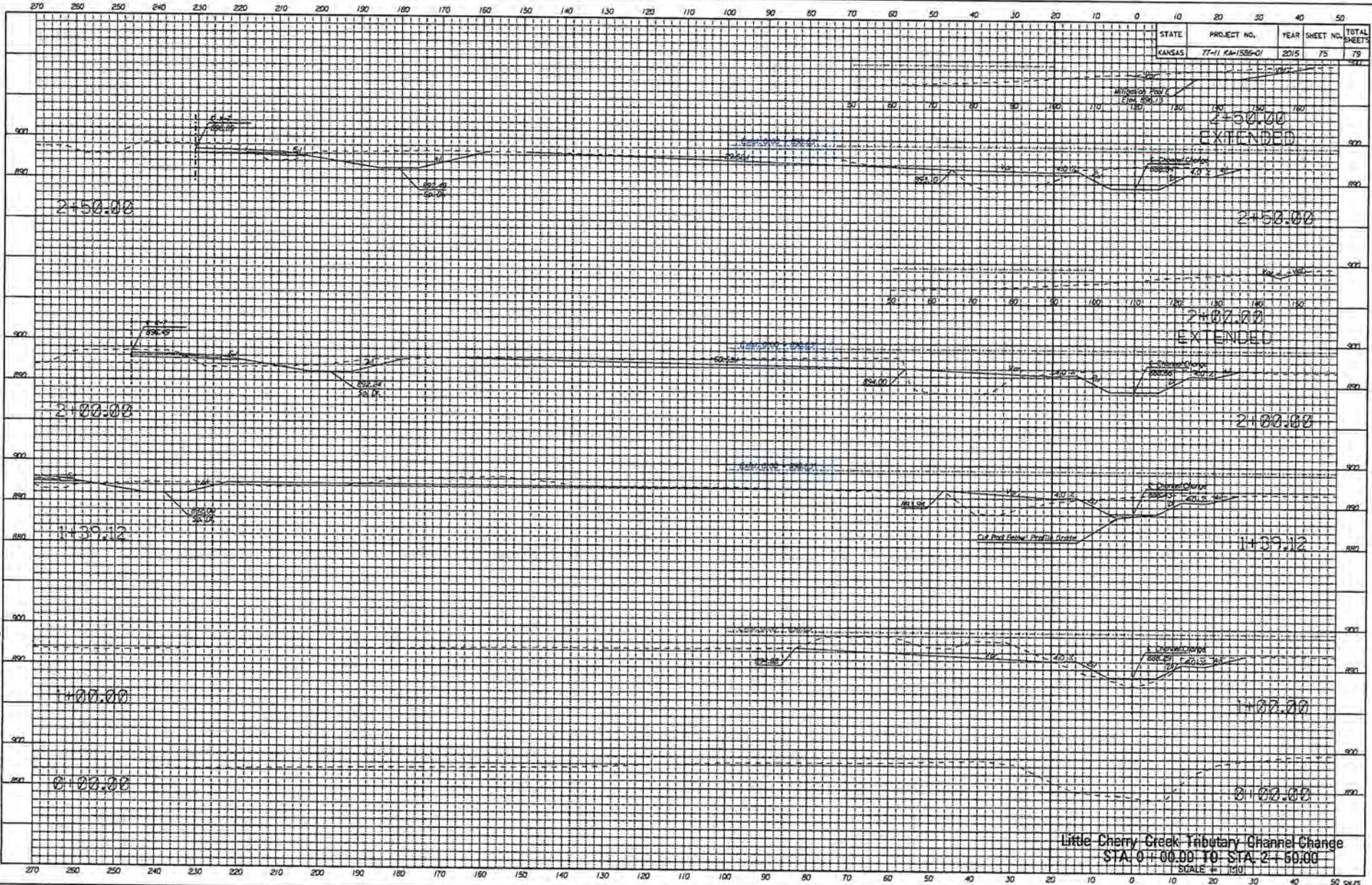
Plotted by: dhuat Date: 10/27/2015  
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Brush Creek Channel Change  
 STA. 23+00.00 TO STA. 25+00.00  
 SCALE: H. 1"=100'  
 V. 1"=20'

Customized Certify This File

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 30 OF 35  
 DATED 06 JANUARY 2016

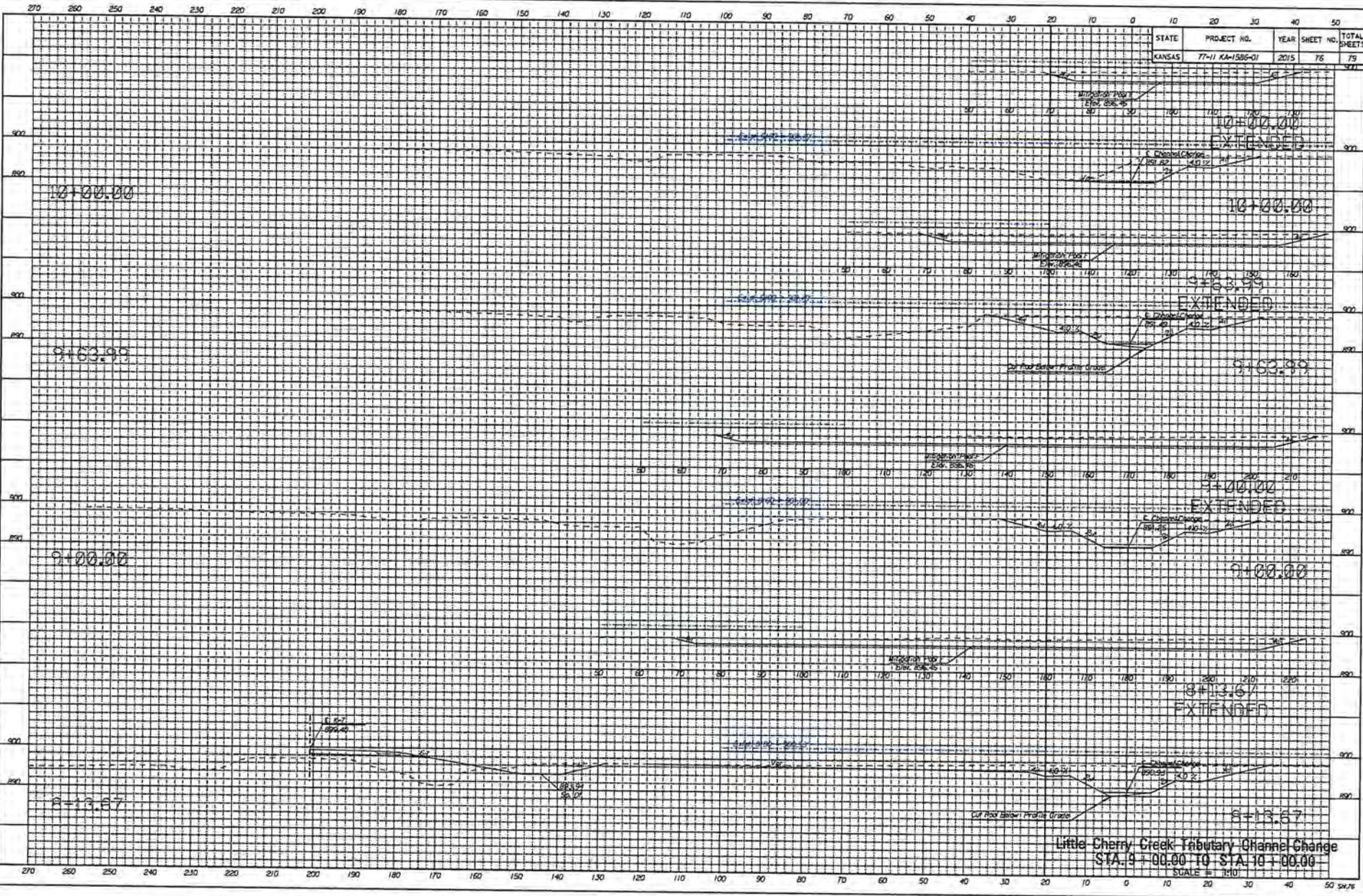
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1505-01	2015	75	79



Plotted by: churt  
 Date: 10/27/2015  
 File: c:\bmsd\_box\work\murfman31617\ka150501\cas-20a.dgn

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 31 OF 35  
 DATED 06 JANUARY 2016

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KM-1586-01	2015	76	75



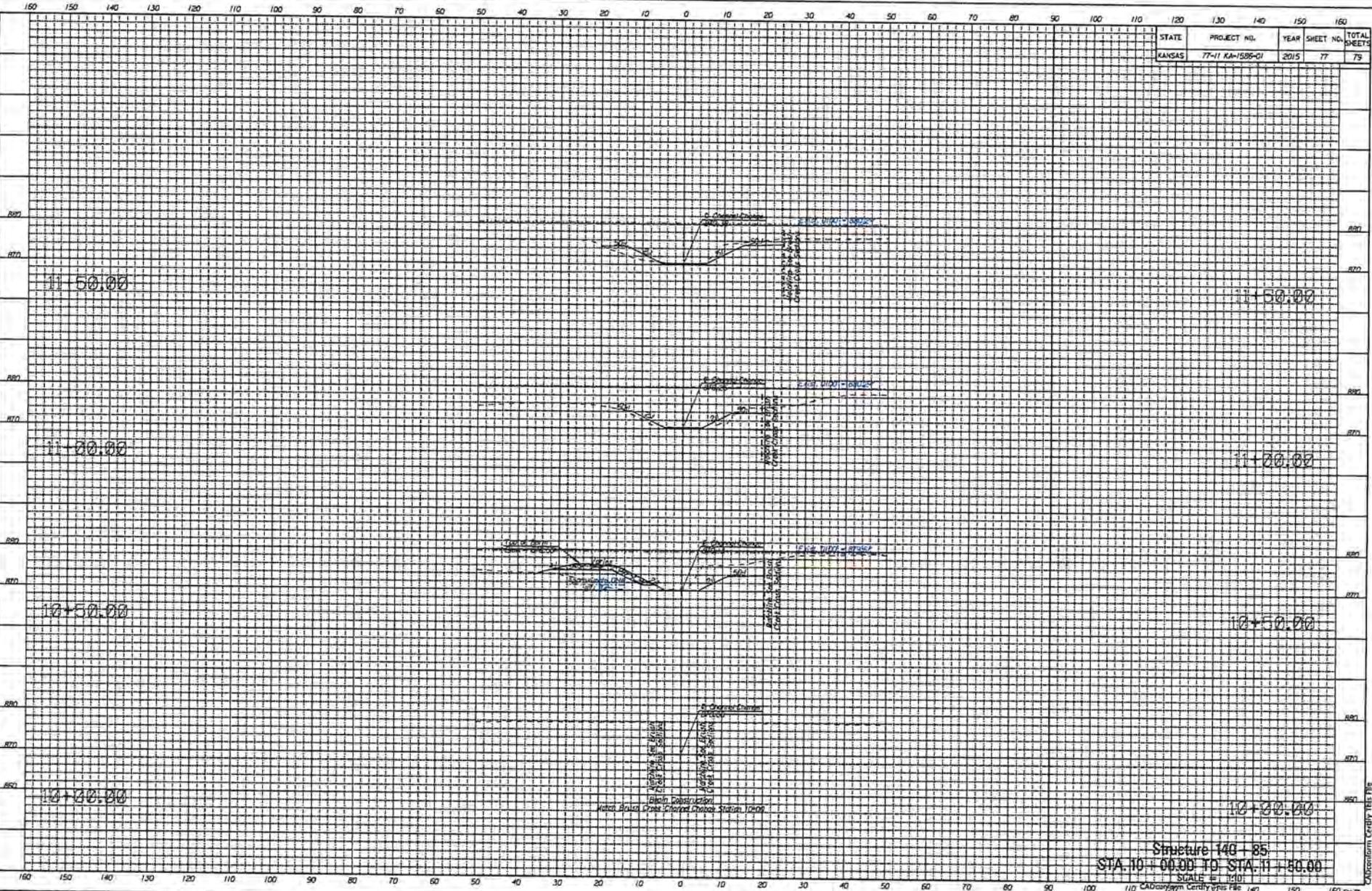
Plotted by: dhrut  
 Date: 10/27/2015  
 File: c:\atmod\_01\pwworkspace\kms1161\15156601.rws-25.dgn

Little Cherry Creek Tributary Channel Change  
 STA. 9 + 00.00 TO STA. 10 + 00.00  
 SCALE = 1"=10'

APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 32 OF 35  
 DATED 06 JANUARY 2016

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	77-11 KA-1586-C1	2015	77	75

Plotted by: dhut Date: 10/27/2015  
 File: c:\nmod\_b\p\work\h\un\kms1017\ka158601\res-27.dgn



APPLICATION NO. NWK-2015-02203  
 KANSAS DEPT. OF TRANSPORTATION  
 ROAD WIDENING PROJECT  
 CHEROKEE COUNTY, KANSAS  
 SHEET 33 OF 35  
 DATED 06 JANUARY 2016

Cherokeem County RES File



