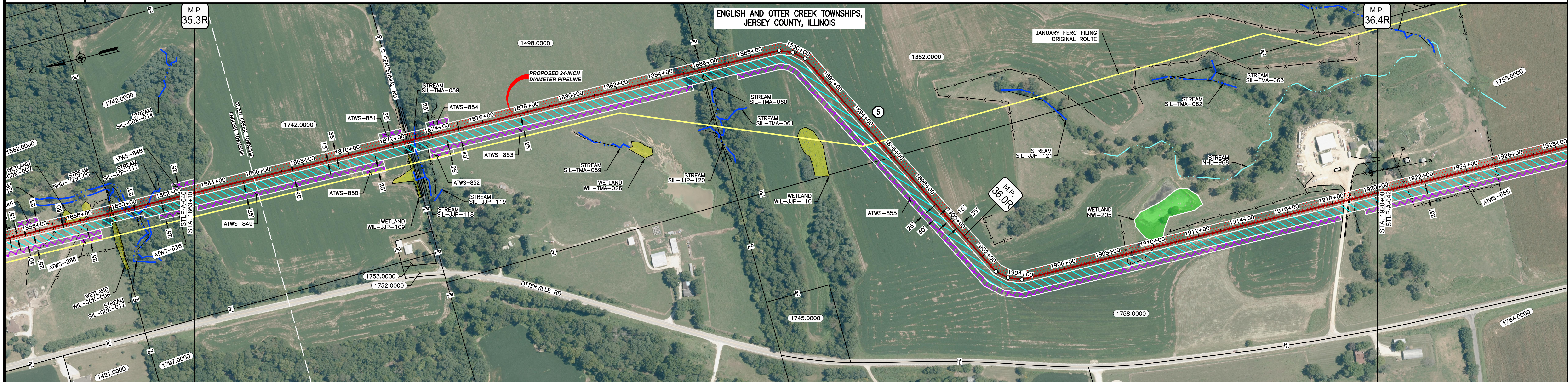


OWNERSHIP / FOOTAGE	1883+10	1742.0000	1498.0000	1382.0000	1758.0000	1920+00
	953'	1318'	1039'	2381'		
STATIONING	1883+10	1872+83	1885+80	1896+19	1904+08	1920+00
	186676 ENGLISH AND OTTER CREEK MUNICIPALITIES BOUNDARY	187247 OVERHEAD LINE 187243 CENTERLINE OF DITCH 187243 PROPERTY LINE 187243 EDGE OF GRAVEL 187243 EDGE OF GRAVEL 187243 CENTERLINE OF STREAM 187243 CENTERLINE OF DITCH 187243 FENCE	188545 CENTERLINE OF DITCH 188574 FENCE 188545 CENTERLINE OF DITCH	189608 E.L. < 2073539.1 LT 189608 E.L. < 2073535.52 RT 189646 E.L. < 2073539.1 LT	189619 PROPERTY LINE 190248 E.L. < 2073539.1 LT 190248 E.L. < 2073535.52 RT 190408 E.L. < 2073539.1 LT	190477 FENCE 191940 FENCE 191840 EDGE OF GRAVEL 191871 EDGE OF GRAVEL 191876 FENCE 191840 CENTERLINE OF DITCH 191940 OVERHEAD LINE



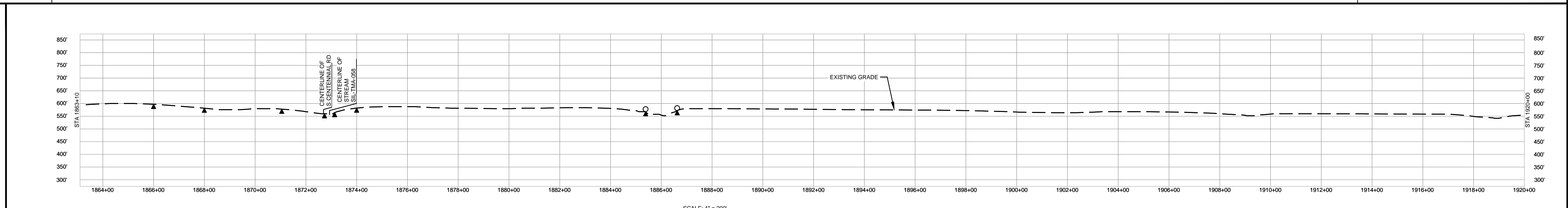
CLASS LOCATION/MAOP	CLASS I / 1440 PSIG																											
MATERIAL & COATING																												
DESIGN FACTOR	0.72				0.6				0.72																			
CONSTRUCTION METHOD	OPEN CUT				BORE				OPEN CUT (FLUMED)																			
PIPELINE COVER	5'																											
SOILS	119C3	279B	279C2	515C3	279C2	515C3	119D2	8D2	119D2	279B	119C2	279B	119C2	8D2	119C2	279B	16A	279B	119C3	279B	119C3	279B	515C3	279B	515C3	119D3	515C3	279B
LAND USE	AG				OL D F				AG				F				AG											

THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDE LINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

PERMANENT WATERBAR WITH COMPOST FILTER
SOOK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

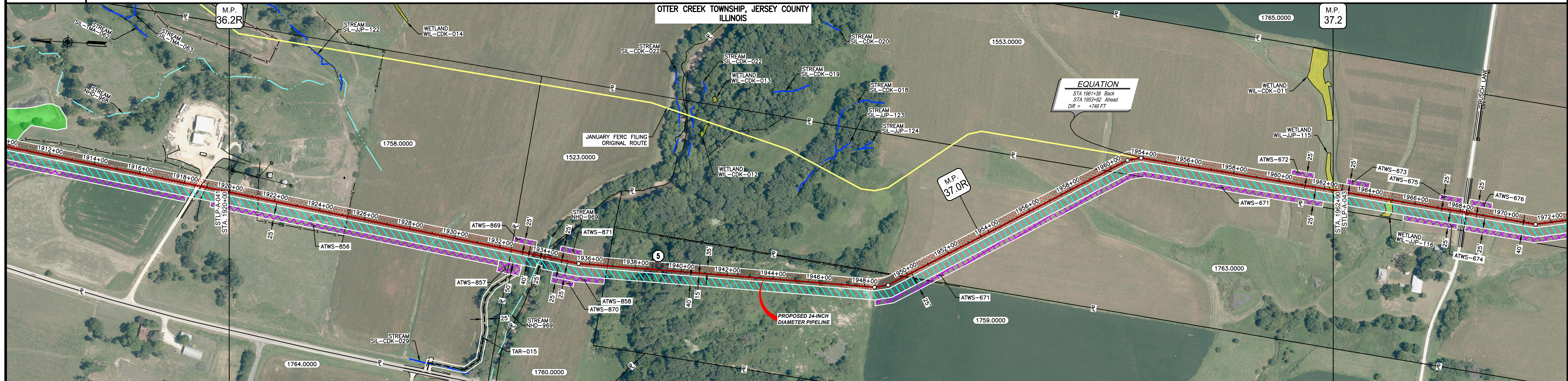
MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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 - PROPERTY LINES DEPICTED ON THIS PLAN ARE BASED ON GIS TAX MAP DATA.
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MATERIAL			REFERENCE DRAWINGS			REVISIONS				APPROVALS			PREPARED FOR		SPIRE STL PIPELINE PROJECT		
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN: 1" = 200'	Spire STL Pipeline	ALIGNMENT SHEET PROPOSED 24-INCH DIAMETER PIPELINE JERSEY COUNTY, ILLINOIS STA. 1863+10 TO STA. 1920+00		
1	5610'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	SCALE PROFILE H: 1" = 200'				
2	80'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED			2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	CHECKED BY	DATE	SCALE PROFILE V: 1" = 200'	PREPARED BY M M MOTT MACDONALD	SCALE: 1" = 200'		
											ENG. APPROVAL	DATE	CLIENT APPROVAL				
											DGG	04/2017	DATE				
											P.M. APPROVAL	DATE	DATE				
											JEW	04/2017					

OWNERSHIP / FOOTAGE	1758.0000 1252'	1523.0000 149'	1760.0000 276'	1759.0000 1308'	1783.0000 992'	1553.0000 1059'
STATIONING	1920+00	1924+00	1934+00	1944+00	1954+00	1962+00



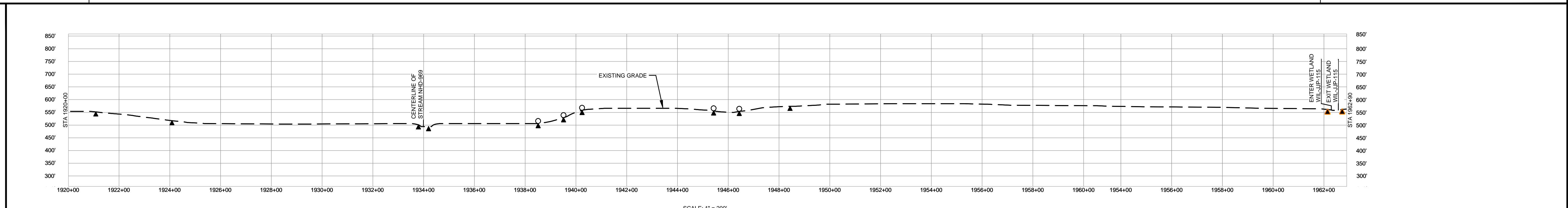
CLASS LOCATION/MAOP	CLASS I / 1440 PSIG														
MATERIAL & COATING	5036' (1)														
DESIGN FACTOR	0.72														
CONSTRUCTION METHOD	OPEN CUT			OPEN CUT (FLUMED)				OPEN CUT							
PIPELINE COVER	5'														
SOILS	278B	119D3	8D3	3634A	3333A	3634A	8G	280B	119D3	278B	515C2	515B2	515C2		
LAND USE	AG			F	AG	OL	F	OL	AG	OL	AG	OL	W	OL	AG

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PERMANENT WATERBAR WITH COMPOST FILTER
SOCK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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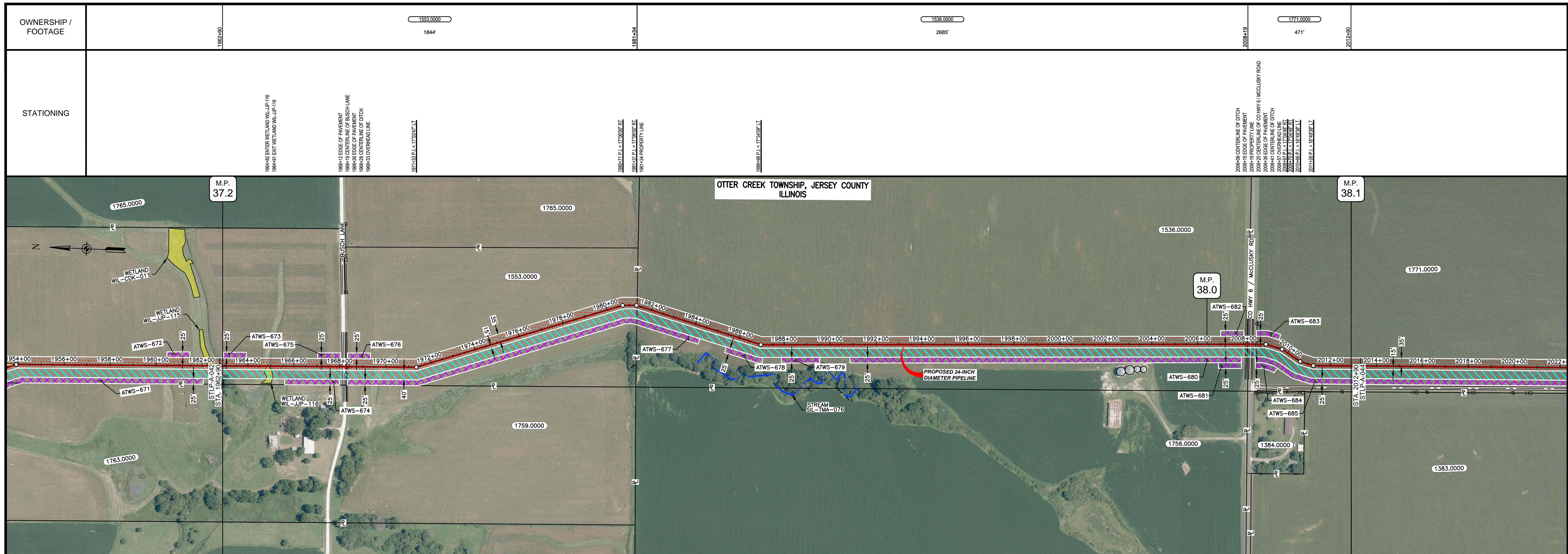
MATERIAL			REFERENCE DRAWINGS		REVISIONS				APPROVALS			PREPARED FOR		SPIRE STL PIPELINE PROJECT					
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN:	SCALE PROFILE H:	SCALE PROFILE V:	SCALE	DRAWING NO.	REVISION	
1	5036'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED	STLP-A-003	ACCESS ROAD SITE PLAN - TAR-015	1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	1" = 200'	1" = 200'	1" = 200'	1" = 200'	STLP-A-042	2	
					2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017							

M M
 MOTT MACDONALD

SCALE PLAN: 1" = 200'
 SCALE PROFILE H: 1" = 200'
 SCALE PROFILE V: 1" = 200'

CLIENT APPROVAL: _____ DATE: _____
 PREPARED BY: _____ DATE: _____

SPIRE STL PIPELINE PROJECT
 ALIGNMENT SHEET
 PROPOSED 24-INCH DIAMETER PIPELINE
 JERSEY COUNTY, ILLINOIS
 STA. 1920+00 TO STA. 1962+90



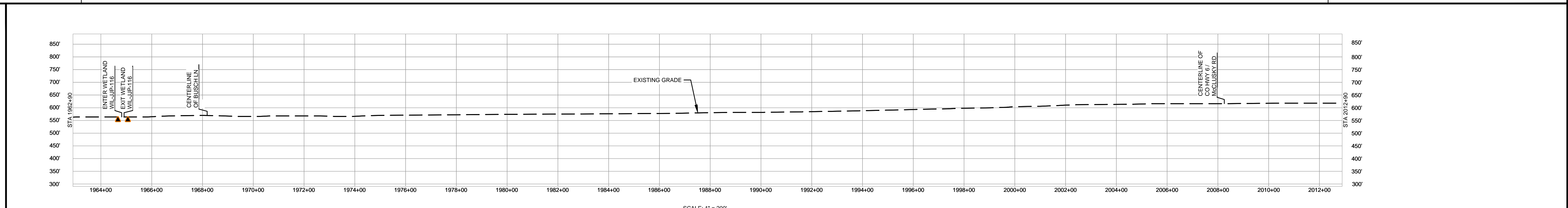
CLASS LOCATION/MAOP	CLASS 1 / 1440 PSIG												
MATERIAL & COATING	<table border="1"> <tr> <td>1962+00</td> <td>1967+79</td> <td>1968+99</td> <td>2007+46</td> <td>2008+66</td> <td>2012+90</td> </tr> <tr> <td>480'</td> <td>80'</td> <td>3927'</td> <td>80'</td> <td>424'</td> <td></td> </tr> </table>	1962+00	1967+79	1968+99	2007+46	2008+66	2012+90	480'	80'	3927'	80'	424'	
1962+00	1967+79	1968+99	2007+46	2008+66	2012+90								
480'	80'	3927'	80'	424'									
DESIGN FACTOR	0.72	0.6	0.72	0.6	0.72								
CONSTRUCTION METHOD	OPEN CUT	BORE	OPEN CUT	BORE	OPEN CUT								
PIPELINE COVER	5'												
SOILS	515C2 675B 515C2 675B 515C2 675B 515C2	675B	61A										
LAND USE	AG OL W OL AG OL AG D OL AG OL	AG	D OL	AG									

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PERMANENT WATERBAR WITH COMPOST FILTER
SOOK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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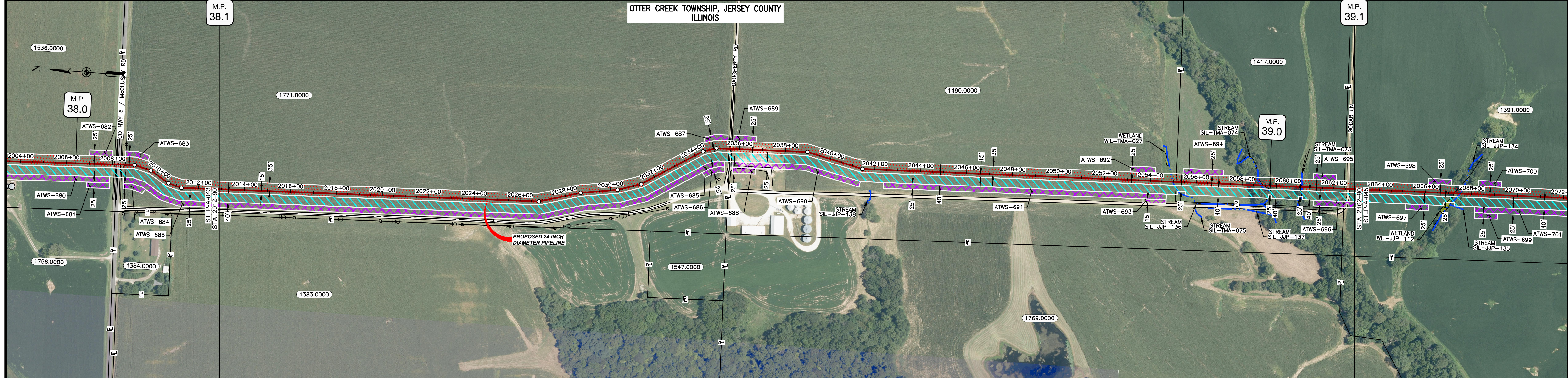
MATERIAL			REFERENCE DRAWINGS		REVISIONS				APPROVALS			PREPARED FOR		SPIRE STL PIPELINE PROJECT				
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN:	SCALE PROFILE H:	SCALE PROFILE V:	SCALE	DRAWING NO.	REVISION
1	4840'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	1" = 200'	1" = 200'	1" = 200'	1" = 200'	STL-P-A-043	2
2	160'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED			2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017						

Spire STL Pipeline

MOTT MACDONALD

CLIENT APPROVAL: _____ DATE: _____
 PREPARED BY: _____ DATE: _____

OWNERSHIP / FOOTAGE	2012+90	1771.0000 2270'	2035+90	1490.0000 1953'	2055+13	1417.0000 732'	2082+45	1391.0000 45'	2082+90
STATIONING			2032+98 E.L. < 13'56.52' L.L.	2032+98 E.L. < 13'56.52' L.L.	2032+98 E.L. < 13'56.52' L.L.	2032+98 E.L. < 13'56.52' L.L.	2032+98 E.L. < 13'56.52' L.L.	2032+98 E.L. < 13'56.52' L.L.	2032+98 E.L. < 13'56.52' L.L.



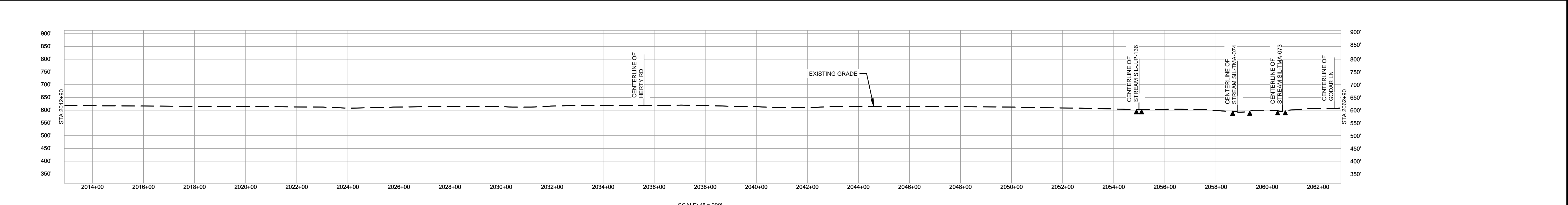
CLASS LOCATION/MAOP	CLASS 1 / 1440 PSIG																															
MATERIAL & COATING	<table border="1"> <tr> <td>2012+90</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> <td>2032+91</td> </tr> <tr> <td>2231'</td> <td>80'</td> <td>80'</td> <td>2689'</td> <td>80'</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										2012+90	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2231'	80'	80'	2689'	80'						
2012+90	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91	2032+91																						
2231'	80'	80'	2689'	80'																												
DESIGN FACTOR	0.72			0.6			0.72				0.6																					
CONSTRUCTION METHOD	OPEN CUT			BORE			OPEN CUT				BORE																					
PIPELINE COVER	5'																															
SOILS	61A	675B	279C2	675B	279C2	675B	279C2	119D3	279C2	279B	279C2	279B	279C2	119D3	279B																	
LAND USE		AG		OL			AG			F	AG	F	AG	F	OL AG																	

THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDELINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

PERMANENT WATERBAR WITH COMPOST FILTER
SOCK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

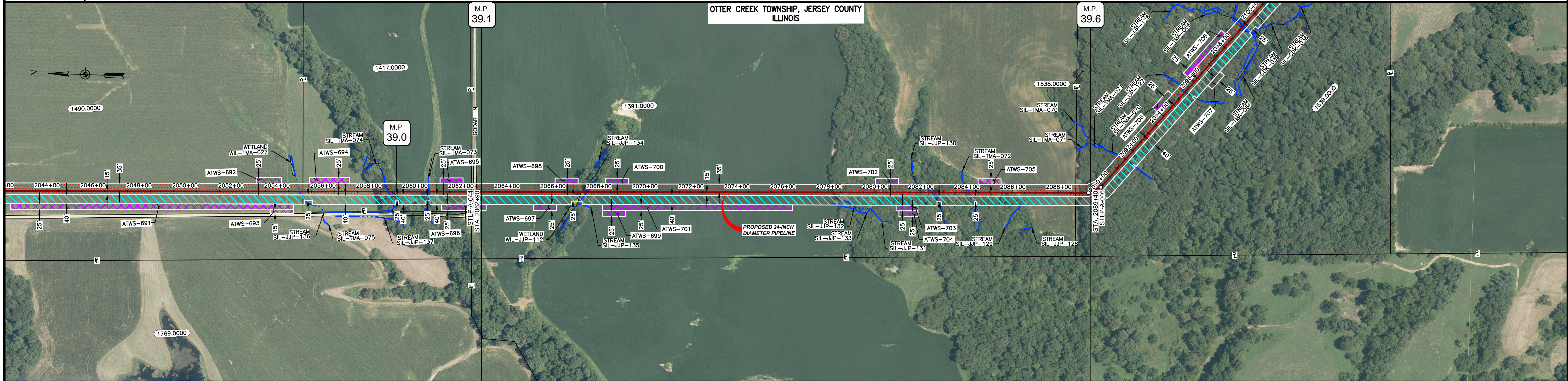
MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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MATERIAL		REFERENCE DRAWINGS		REVISIONS			APPROVALS		SCALE PLAN: 1" = 200'		PREPARED FOR		SPIRE STL PIPELINE PROJECT	
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PROFILE H: 1" = 200'	SCALE PROFILE V: 1" = 200'
1	4920'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017		
2	80'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED			2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017		
											CLIENT APPROVAL		PREPARED BY	
											DATE		MOTT MACDONALD	
											DATE		SCALE	
											DATE		DRAWING NO.	
											DATE		REVISION	
											DATE		2	

OWNERSHIP / FOOTAGE		2062+00	1391.0000 2584'	1538.0000 66'	2089+40
STATIONING					



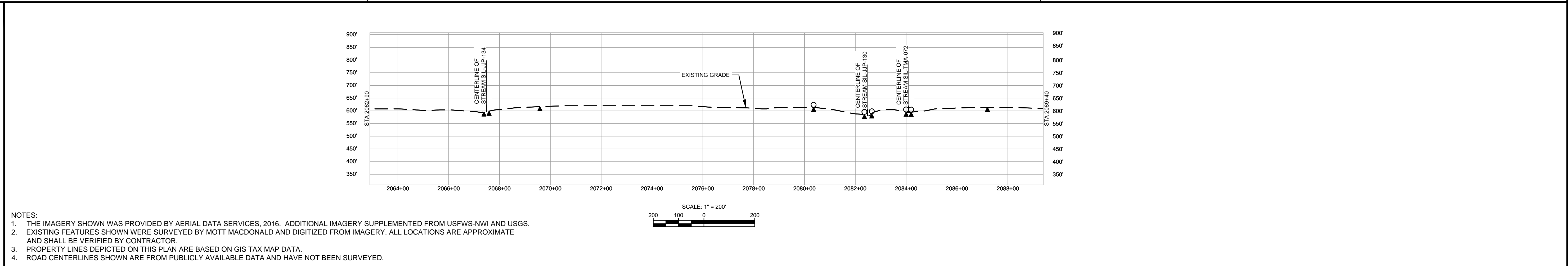
CLASS LOCATION/MAOP	CLASS 1 / 1440 PSIG										
MATERIAL & COATING	2650'										
DESIGN FACTOR	0.72										
CONSTRUCTION METHOD	OPEN CUT	OPEN CUT (FLUMED)	OPEN CUT	OPEN CUT (FLUMED)	OPEN CUT	OPEN CUT (FLUMED)	OPEN CUT	OPEN CUT (FLUMED)	OPEN CUT	OPEN CUT	
PIPELINE COVER	5'										
SOILS	279B	279C3	119D3	279C3	119D3	279B	119D2	279B	119D2	279B	280C
LAND USE		AG	F		AG		F			AG	F

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PERMANENT WATERBAR WITH COMPOST FILTER
SOOK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15 - 30%	200	200
>30%	100	100

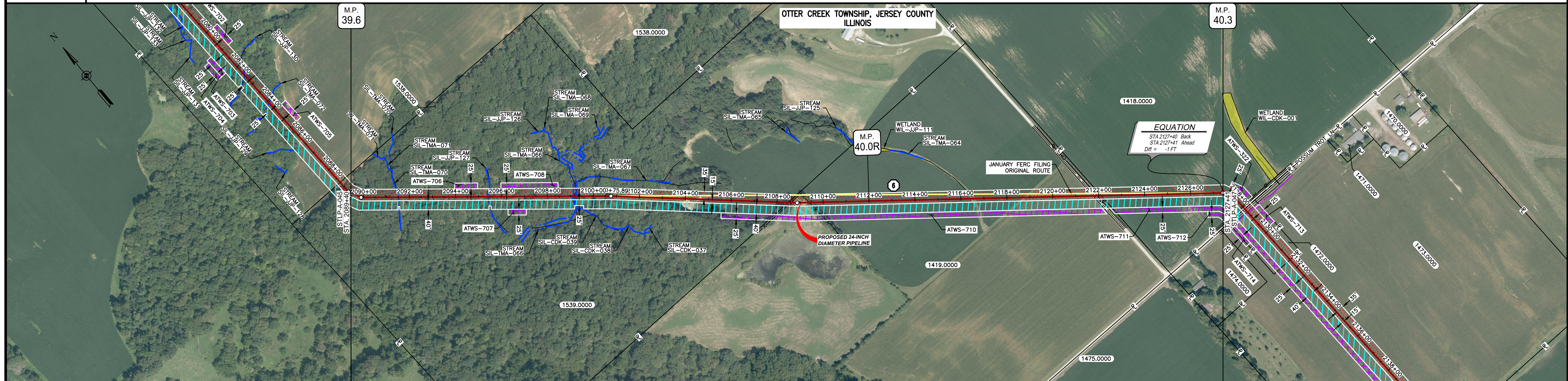
MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10 - 15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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MATERIAL			REFERENCE DRAWINGS		REVISIONS				APPROVALS			SPIRE STL PIPELINE PROJECT					
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN:	PREPARED FOR	SCALE PROFILE H:	SCALE PROFILE V:	
1	2650'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	1" = 200'	Spire STL Pipeline	1" = 200'	1" = 200'	
					2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017	CLIENT APPROVAL		PREPARED BY		
											DGG	04/2017			M MOTT MACDONALD		
											JEW	04/2017				SCALE	DRAWING NO.
													1" = 200'		STLP-A-045	2	

OWNERSHIP / FOOTAGE										
STATIONING	2089+40	1539.0000	1909'	2108+49	1419.0000	1363'	2122+12	1418.0000	529'	2127+41



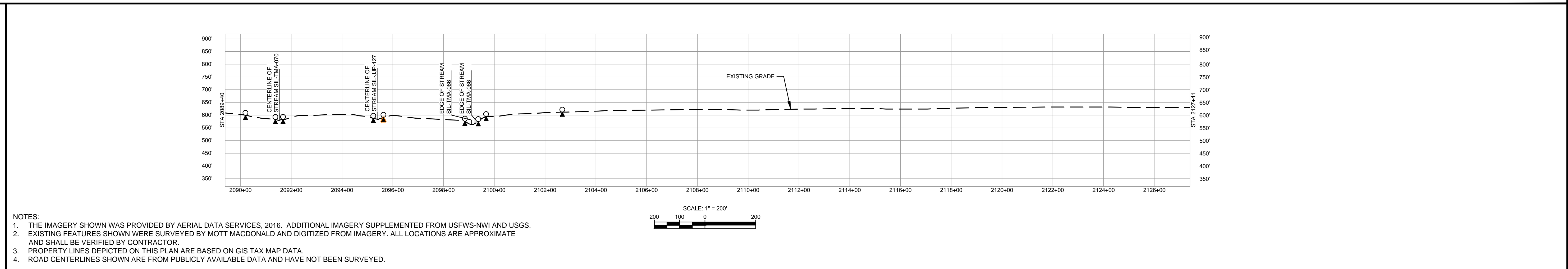
CLASS LOCATION/MAOP	CLASS 1 / 1440 PSIG																		
MATERIAL & COATING	3801' (1)																		
DESIGN FACTOR	0.72																		
CONSTRUCTION METHOD	OPEN CUT					OPEN CUT													
PIPELINE COVER	5'																		
SOILS	280C	8D2	280C	8D2	8F2	279B	278A	279C2	278A	61A	51A								
LAND USE		F		DW	F	AG	F	AG	F	AG	OL	AG	OL	AG	OL	D	OL	AG	51A

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PERMANENT WATERBAR WITH COMPOST FILTER
SOOK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15 - 30%	200	200
>30%	100	100

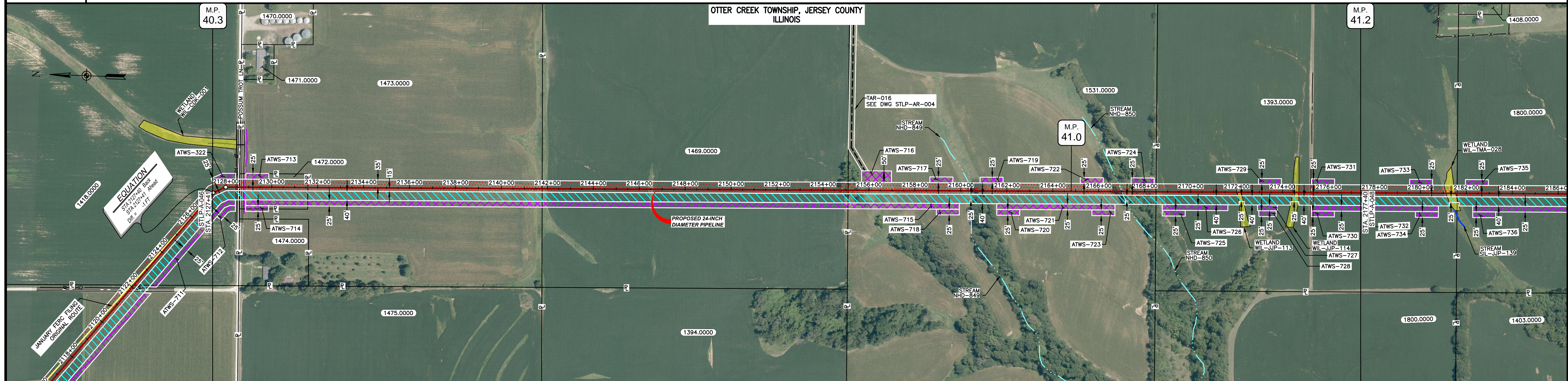
MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10 - 15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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MATERIAL			REFERENCE DRAWINGS		REVISIONS				APPROVALS			PREPARED FOR		SPIRE STL PIPELINE PROJECT					
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN:	SCALE PROFILE H:	SCALE PROFILE V:	PREPARED BY	SCALE	DRAWING NO.	REVISION
1	3801'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	1" = 200'	1" = 200'	1" = 200'	MOTT MACDONALD	1" = 200'	STLP-A-046	2
					2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017							

OWNERSHIP / FOOTAGE	1418.0000 122'	1472.0000 295'	1473.0000 1021'	1469.0000 1331'	1531.0000 1340'	1393.0000 891'
STATIONING	2127+41	2128+00	2131+87	2141+78	2155+09	2188+49



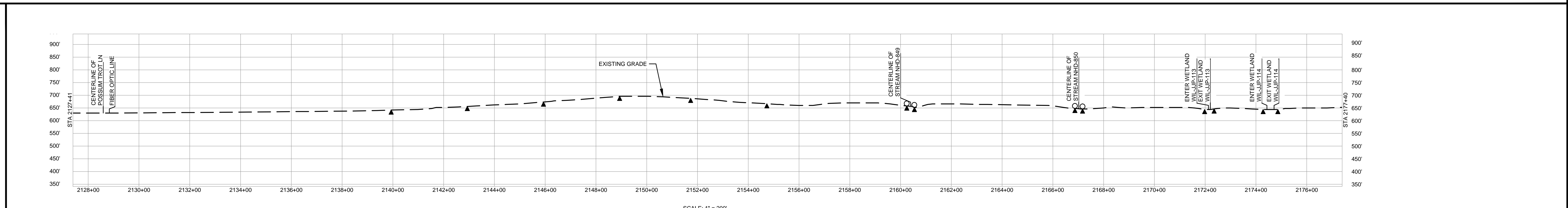
CLASS LOCATION/MAOP	CLASS 1 / 1440 PSIG																																					
MATERIAL & COATING	<table border="1"> <tr> <td>2127+41</td> <td>2128+00</td> <td>2129+00</td> <td colspan="9">4840'</td> <td>2177+40</td> </tr> <tr> <td>79'</td> <td>80'</td> <td></td> <td colspan="9">(1)</td> <td></td> </tr> </table>												2127+41	2128+00	2129+00	4840'									2177+40	79'	80'		(1)									
2127+41	2128+00	2129+00	4840'									2177+40																										
79'	80'		(1)																																			
DESIGN FACTOR	0.72		0.6		0.72																																	
CONSTRUCTION METHOD	OPEN CUT		BORE		OPEN CUT						OPEN CUT (FLUMED)		OPEN CUT																									
PIPELINE COVER	5'																																					
SOILS	51A		61A		51A		61A		675B		280D3		280B		280C2		280D3		280C2																			
LAND USE	AG		D		OL		AG		OL		AG		F		AG		F		AG																			

THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

PERMANENT WATERBAR WITH COMPOST FILTER
SOOK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



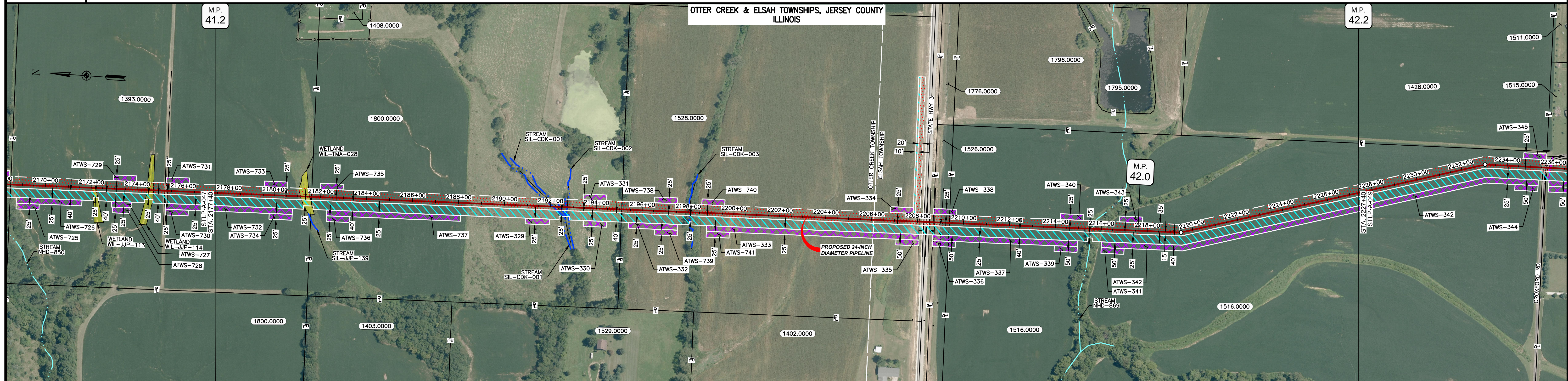
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 - PROPERTY LINES DEPICTED ON THIS PLAN ARE BASED ON GIS TAX MAP DATA.
 - ROAD CENTERLINES SHOWN ARE FROM PUBLICLY AVAILABLE DATA AND HAVE NOT BEEN SURVEYED.

MATERIAL			REFERENCE DRAWINGS		REVISIONS				APPROVALS		PREPARED FOR		SPIRE STL PIPELINE PROJECT		
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN:	SCALE PROFILE H:	SCALE PROFILE V:
1	4920'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED	STLP-AR-004	ACCESS ROAD SITE PLAN - TAR-016	1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	1" = 200'	1" = 200'	1" = 200'
2	80'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED			2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017			

CLIENT APPROVAL	DATE	PREPARED BY
DGG	04/2017	MOTT MACDONALD
P.M. APPROVAL	DATE	
JEV	04/2017	

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-047	2

OWNERSHIP / FOOTAGE	2177+40	1393.0000	420'	2181+60	1800.0000	1351'	2185+11	1528.0000	1326'	2208+37	STATE HWY 3	31'	1526.0000	70'	2208+88	1516.0000	1802'	2227+40	
STATIONING	<p>2181+43 ENTER WETLAND WIL-TMA-028 2181+45 EXIT WETLAND WIL-TMA-028 2181+60 PROPERTY LINE</p> <p>2182+11 EDGE OF STREAM SIL-CDK-001 2182+28 CENTERLINE OF FITCH 2182+42 EDGE OF STREAM SIL-CDK-001 2182+71 CENTERLINE OF STREAM SIL-CDK-002 2182+75 CENTERLINE OF FITCH</p> <p>2185+11 PROPERTY LINE</p> <p>2188+43 CENTERLINE OF STREAM SIL-CDK-003 2188+45 CENTERLINE OF FITCH</p> <p>2208+40 OTTER CREEK AND ELSAHTOWNSHIP BOUNDARY</p> <p>2208+47 CENTERLINE OF FITCH 2208+57 PROPERTY LINE 2208+41 CENTERLINE OF STATE HWY 3 2208+52 EDGE OF PAVEMENT 2208+73 CENTERLINE OF FITCH 2208+84 OVERHEAD LINE 2208+88 PROPERTY LINE</p> <p>2215+41 CENTERLINE OF STREAM WND-889 2215+41 CENTERLINE OF FITCH</p>																		



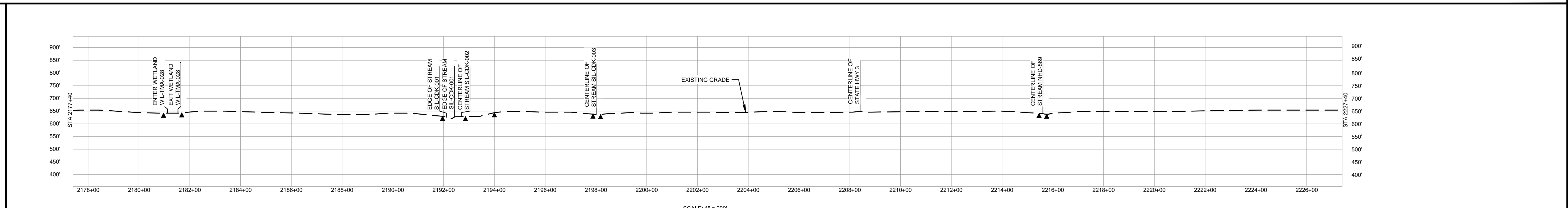
CLASS LOCATION/MAOP	CLASS 1 / 1440 PSIG																						
MATERIAL & COATING	2177+40	3061' (1)																	2208+01	80' (2)	2208+81	1859' (1)	2227+40
DESIGN FACTOR	0.72																						
CONSTRUCTION METHOD	OPEN CUT					OPEN CUT (FLUMED)		OPEN CUT		OPEN CUT (FLUMED)		OPEN CUT			BORE		OPEN CUT		OPEN CUT (FLUMED)		OPEN CUT		
PIPELINE COVER	5'																						
SOILS	280C2	279C2	280C2	279C2	280C2	279D3	279B	279C2	279B	279C2	279D3	279C2	279B	279C2	279B	279D2	279B	279C2	279B	278A	279C2	279B	
LAND USE	AG	W	AG	AG	F	AG	F	AG	F	AG	D	OL	D	AG	F	AG							

THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

PERMANENT WATERBAR WITH COMPOST FILTER
SOOK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

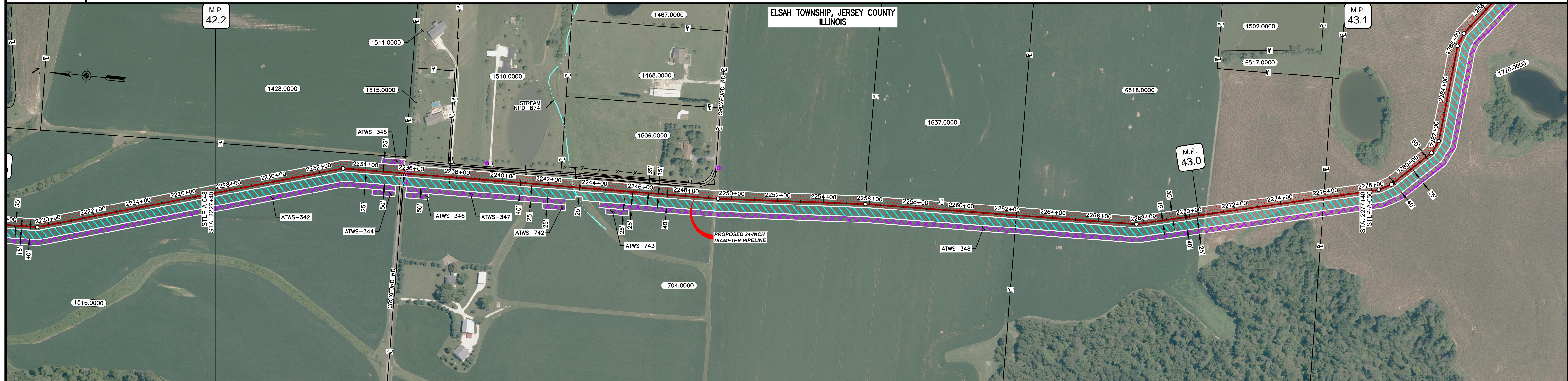
MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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 3. PROPERTY LINES DEPICTED ON THIS PLAN ARE BASED ON GIS TAX MAP DATA.
 4. ROAD CENTERLINES SHOWN ARE FROM PUBLICLY AVAILABLE DATA AND HAVE NOT BEEN SURVEYED.

MATERIAL			REFERENCE DRAWINGS			REVISIONS				APPROVALS				PREPARED FOR		SPIRE STL PIPELINE PROJECT		
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	CLIENT APPROVAL	DATE	SCALE PLAN: 1" = 200'	ALIGNMENT SHEET		
1	4920'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	DATE	DATE	SCALE PROFILE H: 1" = 200'	PROPOSED 24-INCH DIAMETER PIPELINE		
2	80'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED			2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017	DATE	DATE	SCALE PROFILE V: 1" = 200'	JERSEY COUNTY, ILLINOIS		
											ENG. APPROVAL	DATE	DATE	DATE		STA. 2177+40 TO STA. 2227+40		
											P.M. APPROVAL	DATE	DATE	DATE		SCALE	DRAWING NO.	REVISION
											JEV	04/2017			1" = 200'	STLP-A-048	2	

OWNERSHIP / FOOTAGE	2227+40	1516.0000 830'	2235+70	1704.0000 2672'	2292+42	6518.0000 1348'	2277+40	1720.0000 150'
STATIONING	<p>2235+42 P.L. < 15'28.652' RT</p> <p>2235+42 EDGE OF PAVEMENT</p> <p>2235+70 PROPERTY LINE</p> <p>2235+71 CENTERLINE OF GROVEFORD ROAD</p> <p>2235+88 WATER LINE</p> <p>2235+91 FIBER OPTIC LINE</p> <p>2235+70 OVERHEAD LINE</p> <p>2243+10 CENTERLINE OF STREAM NHD#874</p> <p>2245+41 P.L. < 2'33.021' LT</p> <p>2245+42 P.L. < 2'10.927' RT</p> <p>2262+42 PROPERTY LINE</p> <p>2262+46 P.L. < 12'18.991' LT</p> <p>2275+90 PROPERTY LINE</p>							



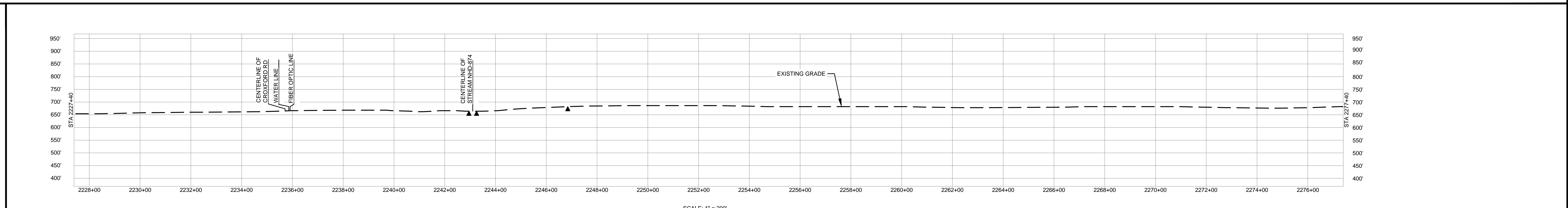
CLASS LOCATION/MAOP	CLASS 1 / 1440 PSIG														
MATERIAL & COATING	2227+40	2235+91	2238+11	2277+40											
DESIGN FACTOR	0.72		0.6		0.72										
CONSTRUCTION METHOD	OPEN CUT		BORE		OPEN CUT		OPEN CUT (FLUMED)		OPEN CUT						
PIPELINE COVER	5'														
SOILS	279B	61A	279B	279C2	477D3	279C2	477D3	279C2	279B	477C2	279B	278A	477B	477C2	477B
LAND USE	AG	OL	D	OL	AG	OL	AG	OL	AG	OL	AG	AG	AG	AG	AG

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PERMANENT WATERBAR WITH COMPOST FILTER
SOCK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100

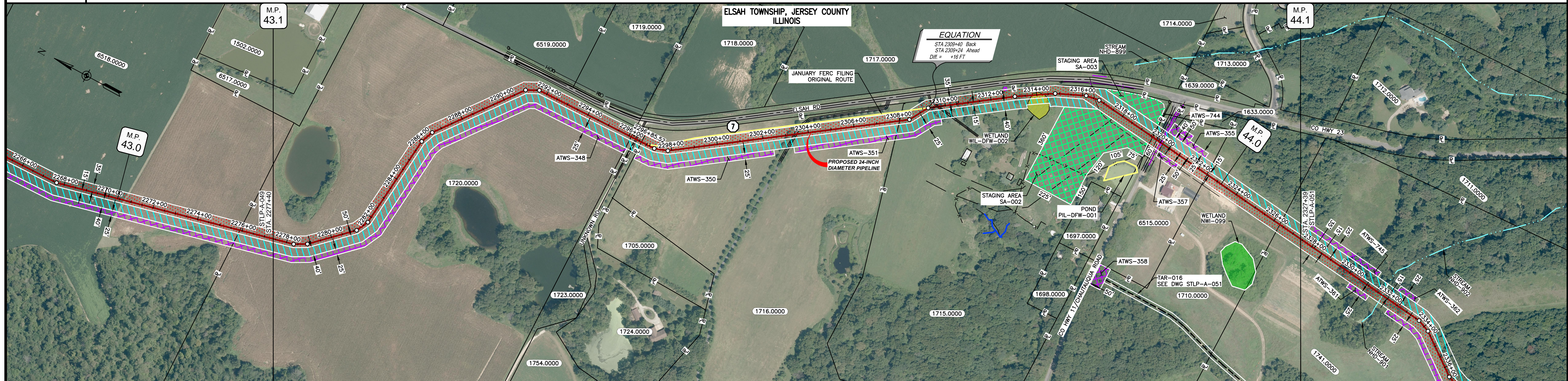


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MATERIAL		REFERENCE DRAWINGS		REVISIONS				APPROVALS		PREPARED FOR		SPIRE STL PIPELINE PROJECT			
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN: 1" = 200'	PREPARED BY M M MOTT MACDONALD	ALIGNMENT SHEET PROPOSED 24-INCH DIAMETER PIPELINE JERSEY COUNTY, ILLINOIS STA. 2227+40 TO STA. 2277+40
1	4920'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	SCALE PROFILE H: 1" = 200'		
2	80'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED			2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017	SCALE PROFILE V: 1" = 200'	PREPARED BY	REVISION
											ENG. APPROVAL	DATE	CLIENT APPROVAL		
											DGG	04/2017	DATE		
											P.M. APPROVAL	DATE			
											JEW	04/2017			

OWNERSHIP / FOOTAGE	2277+40	1720.0000	1871'	1723.0000	20'	1724.0000	30'	1716.0000	1140'	1715.0000	1173'	8515.0000	287'	1710.0000	385'	1741.0000	109'	2327+39							
STATIONING	2277+40	2282+00	2284+00	2286+00	2288+00	2290+00	2292+00	2294+00	2296+00	2298+00	2300+00	2302+00	2304+00	2306+00	2308+00	2310+00	2312+00	2314+00	2316+00	2318+00	2320+00	2322+00	2324+00	2326+00	2327+39



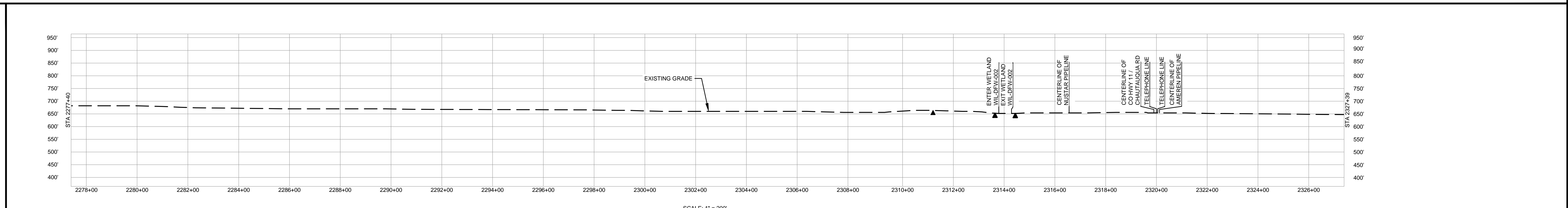
CLASS LOCATION/MAOP	CLASS I / 1440 PSIG																												
MATERIAL & COATING	2277+40	2286+86	2296+76	2289	2318+49	2320+28	2327+39																						
DESIGN FACTOR	0.72													0.6	0.72														
CONSTRUCTION METHOD	OPEN CUT													BORE	OPEN CUT														
PIPELINE COVER	5'																												
SOILS	477B													477C2	477B	79C2	79B	79C2	79B	79C2									
LAND USE	AG													D	AG	D	AG	OL	F	OL	F	OL	F	OL	W	OL	D	F	AG

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PERMANENT WATERBAR WITH COMPOST FILTER
SOAK AT WATERBAR DISCHARGE
PERMANENT TRENCH PLUG

ILLINOIS		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
5-15%	300	300
15-30%	200	200
>30%	100	100

MISSOURI		
SLOPE	SLOPE BREAKER SPACING (FT)	TRENCH PLUG SPACING (FT)
<5%	125	---
5-10%	100	300
10-15%	75	300
15-20%	75	200
20-30%	50	200
30-35%	50	100
>35%	25	100



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MATERIAL			REFERENCE DRAWINGS			REVISIONS				APPROVALS			PREPARED FOR		SPIRE STL PIPELINE PROJECT				
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	SCALE PLAN:	SCALE PROFILE H:	SCALE PROFILE V:	SCALE	DRAWING NO.	REVISION	
1	4865'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED			1	ISSUE FOR FERC	01/2017	GH	EB	DGG	DP	03/2017	1" = 200'	11" = 200'	11" = 200'	1" = 200'	STLP-A-050	2	
2	160'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED			2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	RJP	03/2017							