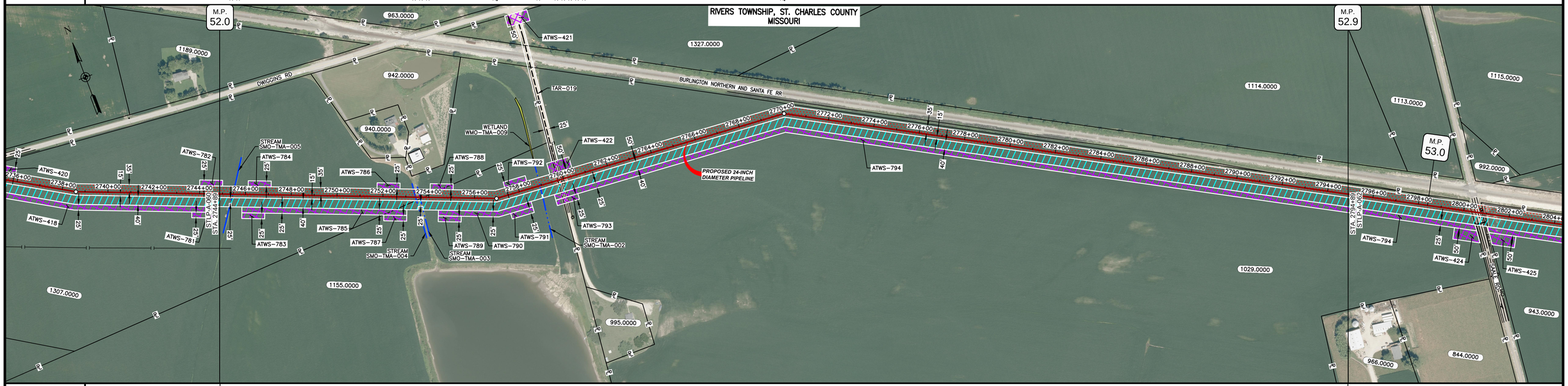
OWNERSHIP / FOOTAGE	2744+89	1307.0000 887'	2753+76	1155.0000 600'	2759+76	1029.0000 3513'	2794+89			
STATIONING	2745+43 CENTERLINE OF STREAM SMO-TMA-005 2745+46 CENTERLINE OF DITCH	2753+43 CENTERLINE OF STREAM SMO-TMA-004 2753+62 CENTERLINE OF STREAM SMO-TMA-003 2753+76 PROPERTY LINE	2756+56 P.I. = 17°21'15" LT	2759+63 CENTERLINE OF STREAM SMO-TMA-002	2759+75 EDGE OF GRAVEL 2759+76 PROPERTY LINE 2759+84 CENTERLINE OF FIELD ROAD 2759+92 EDGE OF GRAVEL 2759+97 OVERHEAD LINE	2770+04 P.I. = 24°37'18" RT				



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG									
MATERIAL & COATING	2744+89 — 5000' (1) — 2794+89									
DESIGN FACTOR	0.72									
CONSTRUCTION METHOD	OPEN CUT	OPEN CUT (FLUMED)	OPEN CUT	OPEN CUT (FLUMED)	OPEN CUT	OPEN CUT (FLUMED)	OPEN CUT			
PIPELINE COVER	7'									
SOILS	66059	66019	66059						66110	
LAND USE	AG		OL	AG		OL	AG			

PROFILE

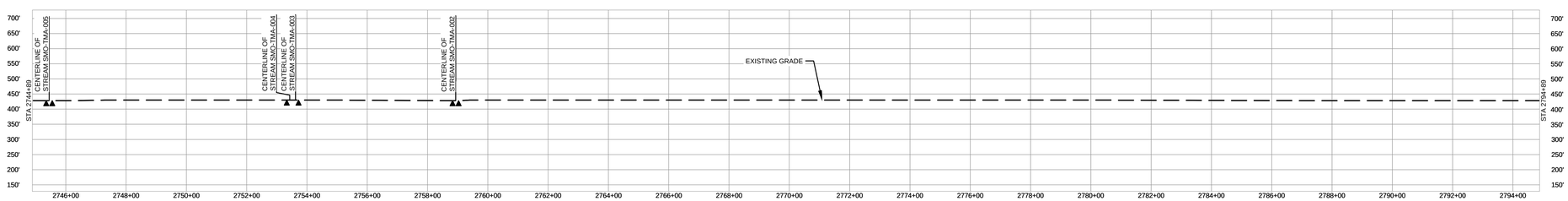
THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDELINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

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



SCALE: 1" = 200'

200 100 0 200

NOTES:
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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

TAG	QUANTITY	DESCRIPTION
1	5000'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	REVISIONS	DATE	DRAWN	CK	APPR
1	ISSUE FOR FERC	1/2017	GH	EB	DGG
2	AMENDMENT TO FERC	04/2017	DP	WH	DGG

APPROVALS	
DRAWN BY	DATE
DP	03/2017
CHECKED BY	DATE
RJP	03/2017
ENG. APPROVAL	DATE
D.G.G.	04/2017
P.M. APPROVAL	DATE
J.E.W.	04/2017

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

CLIENT APPROVAL

DATE

PREPARED FOR

Spire STL Pipeline

PREPARED BY

MOTT MACDONALD

SPIRE STL PIPELINE PROJECT

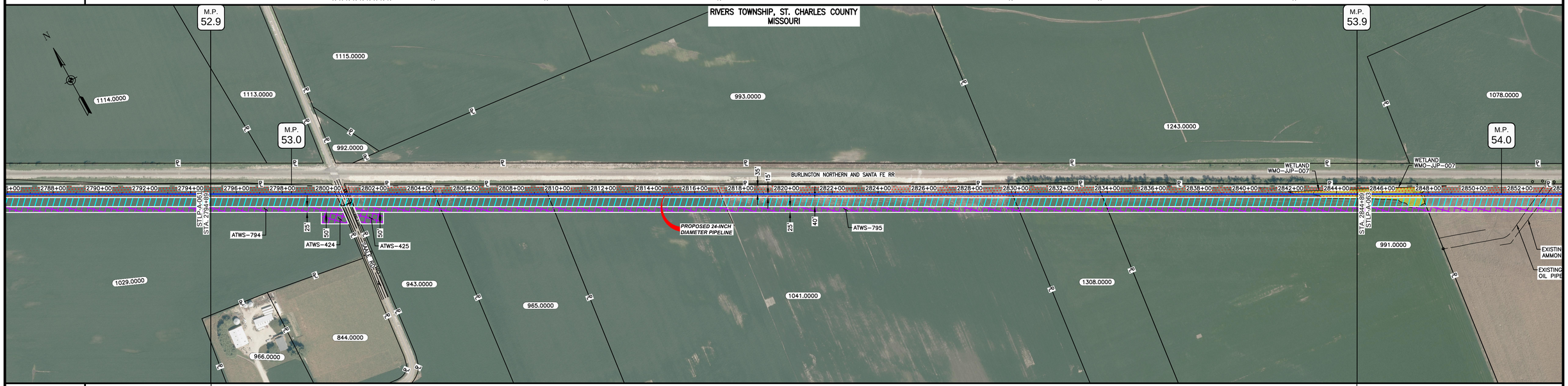
ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. CHARLES COUNTY, MISSOURI
STA. 2744+89 TO STA. 2794+89

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-061	2

OWNERSHIP / FOOTAGE	1029.0000	SAALE ROAD	943.0000	965.0000	1041.0000	1308.0000	991.0000
	545'	55'	376'	493'	2028'	388'	1115'

STATIONING: 2794+89; 2800+34; 2800+51; 2800+69; 2804+65; 2809+58; 2817+13; 2829+86; 2833+74; 2844+89

2800+34 CENTERLINE OF DITCH
2800+34 PROPERTY LINE
2800+51 EDGE OF PAVEMENT
2800+51 CENTERLINE OF SAALE ROAD
2800+69 EDGE OF PAVEMENT
2800+81 OVERHEAD LINE
2800+83 OVERHEAD LINE
2800+89 PROPERTY LINE
2800+96 CENTERLINE OF DITCH
2804+65 PROPERTY LINE
2809+58 PROPERTY LINE
2817+13 CENTERLINE OF DITCH
2829+86 PROPERTY LINE
2833+74 PROPERTY LINE
2842+23 ENTER WETLAND WMO-JJP-007



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG

MATERIAL & COATING: 2794+89; 2800+25; 2801+05; 2844+89

	536' (1)	80' (2)	4384' (1)
DESIGN FACTOR	0.72	0.6	0.72
CONSTRUCTION METHOD	OPEN CUT	BORE	OPEN CUT
PIPELINE COVER	7'		
SOILS	66110		
LAND USE	AG	OL, D, OL	AG, W

PROFILE

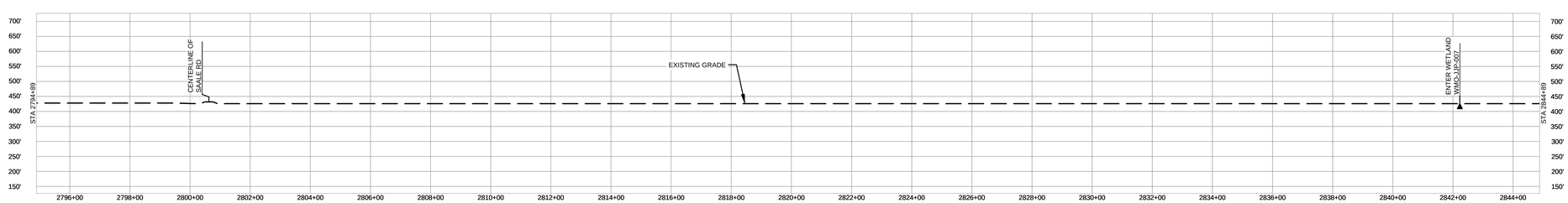
THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDELINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

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



SCALE: 1" = 200'
200 100 0 200

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4. ROAD CENTERLINES SHOWN ARE FROM PUBLICLY AVAILABLE DATA AND HAVE NOT BEEN SURVEYED.

MATERIAL

TAG	QUANTITY	DESCRIPTION
1	4920'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED
2	80'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	REVISIONS	DATE	DRAWN	CK	APPR
1	ISSUE FOR FERC	1/2017	GH	EB	DGG
2	AMENDMENT TO FERC	4/2017	DP	WH	DGG

APPROVALS

	DATE
DRAWN BY: DP	03/2017
CHECKED BY: RJP	03/2017
ENG. APPROVAL: D.G.G.	04/2017
P.M. APPROVAL: J.E.W.	04/2017

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

CLIENT APPROVAL

DATE

PREPARED FOR

Spire STL Pipeline

PREPARED BY

MOTT MACDONALD

SPIRE STL PIPELINE PROJECT

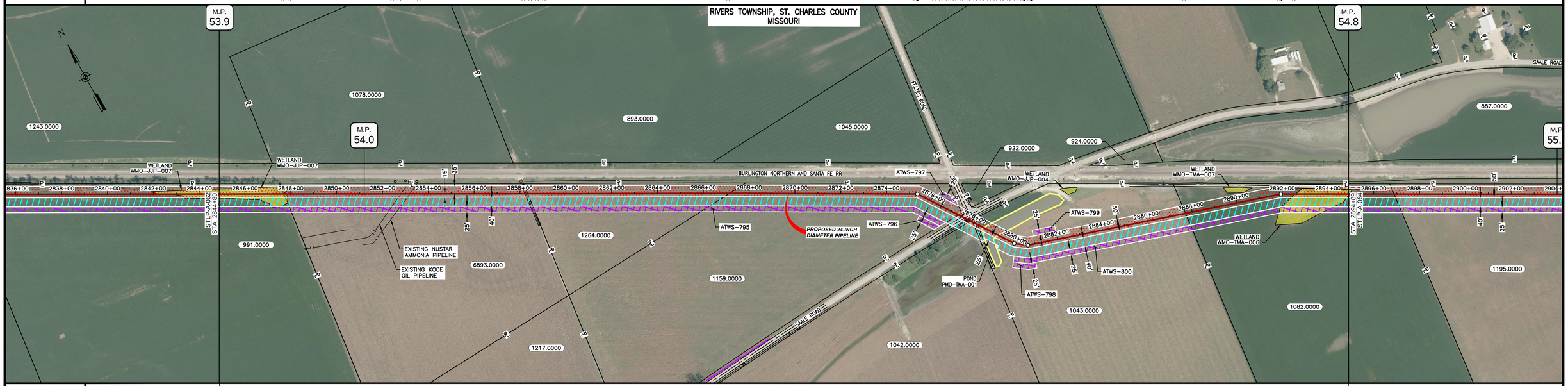
ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. CHARLES COUNTY, MISSOURI
STA. 2794+89 TO STA. 2844+89

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-062	2

OWNERSHIP / FOOTAGE	2844+89	991.0000 281'	2847+70	6893.0000 1064'	2858+34	1264.0000 881'	2867+15	1159.0000 1021'	2877+36	SAALE RD 59'	2877+95	1042.0000 10'	2878+05	1043.0000 966'	2887+71	1082.0000 718'	2894+89

STATIONING

2847+70 PROPERTY LINE
2847+79 EXIT WETLAND WMO-JJP-007
2852+00 EXISTING EXPLORER PIPELINE (NOT SURVEYED)
2852+40 CENTERLINE OF KOCE OIL PIPELINE
2853+20 CENTERLINE OF NUSTAR AMONIA PIPELINE
2858+21 CENTERLINE OF DIRT ROAD
2858+27 CENTERLINE OF FIELD ROAD
2858+32 CENTERLINE OF DIRT ROAD
2858+34 PROPERTY LINE
2867+15 PROPERTY LINE
2875+34 P.I. = 26°48'10" RT
2877+36 PROPERTY LINE
2877+53 EDGE OF PAVEMENT
2877+61 GUY WIRE
2877+67 CENTERLINE OF SAALE ROAD
2877+73 EDGE OF PAVEMENT
2877+93 OVERHEAD LINE
2877+96 PROPERTY LINE
2878+00 PROPERTY LINE
2878+04 EDGE OF GRAVEL
2878+16 CENTERLINE OF GRAVEL ROAD
2878+20 EDGE OF GRAVEL
2879+00 EXIT WETLAND WMO-TMA-001
2879+51 EXIT POND PMO-TMA-002
2880+00 P.I. = 18°23'01" L
2880+69 P.I. = 18°52'29" L
2887+71 PROPERTY LINE
2891+25 P.I. = 11°19'14" RT
2892+58 ENTER WETLAND WMO-TMA-006



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG

MATERIAL & COATING

2844+89 — 2877+28 — 2878+08 — 2894+89

	3239' (1)	80' (2)	1681' (1)
DESIGN FACTOR	0.72	0.6	0.72
CONSTRUCTION METHOD	OPEN CUT	BORE	OPEN CUT (FLUMED) / OPEN CUT
PIPELINE COVER	7'		
SOILS	66110 / 66019		66110 / 66019
LAND USE	W / AG	OL D AG OW	AG / W

PROFILE

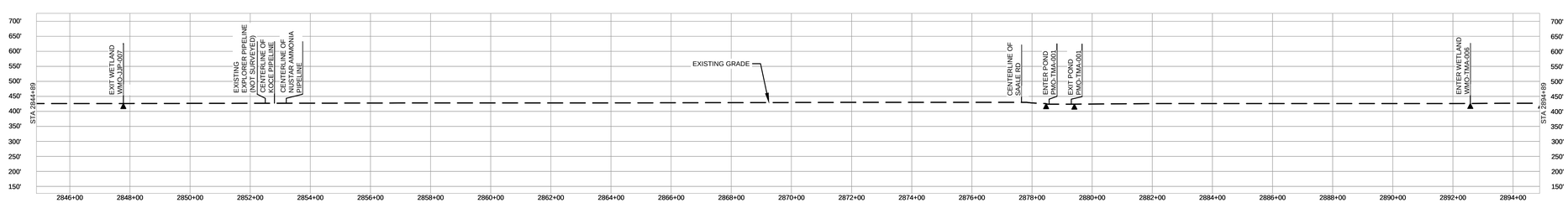
THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDELINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

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



SCALE: 1" = 200'

200 100 0 200

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MATERIAL

TAG	QUANTITY	DESCRIPTION
1	4920'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED
2	80'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	REVISIONS	DATE	DRAWN	CK	APPR
1	ISSUE FOR FERC	1/2017	GH	EB	DGG
2	AMENDMENT TO FERC	04/2017	DP	WH	DGG

APPROVALS

	DATE
DRAWN BY: DP	03/2017
CHECKED BY: RJP	03/2017
ENG. APPROVAL: D.G.G.	04/2017
P.M. APPROVAL: J.E.W.	04/2017

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

CLIENT APPROVAL

DATE

PREPARED FOR

Spire STL Pipeline

PREPARED BY

MOTT MACDONALD

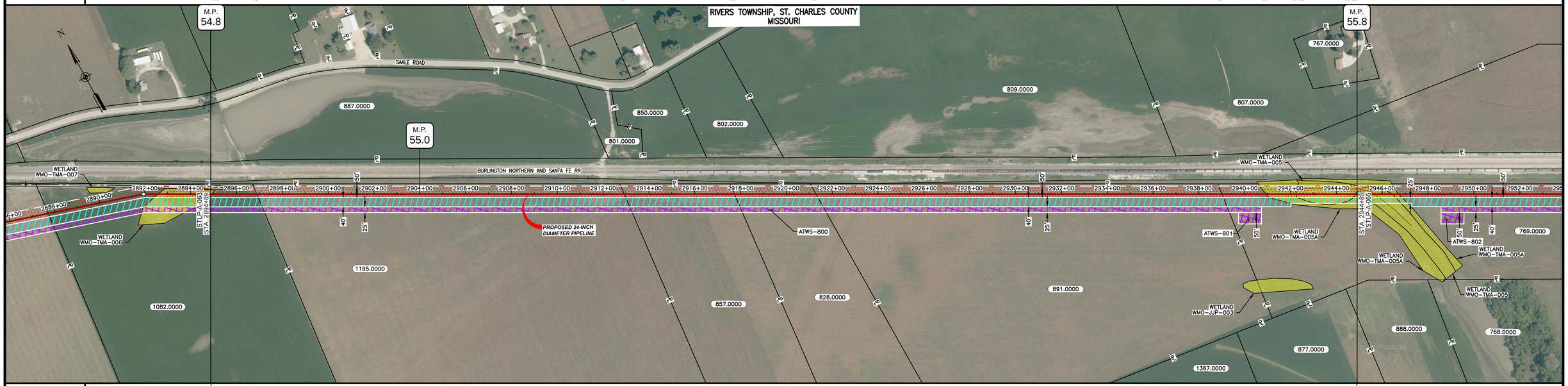
SPIRE STL PIPELINE PROJECT

ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. CHARLES COUNTY, MISSOURI
STA. 2844+89 TO STA. 2894+89

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-063	2

OWNERSHIP / FOOTAGE	2894+89	1082.0000 / 200'	2896+89	1195.0000 / 1603'	2912+92	857.0000 / 481'	2917+73	828.0000 / 356'	2921+29	891.0000 / 1772'	2939+01	769.0000 / 588'	2944+89

STATIONING
2894+89 EXIT WETLAND WMO-TMA-006
2896+89 PROPERTY LINE
2912+92 PROPERTY LINE
2917+73 PROPERTY LINE
2921+29 PROPERTY LINE
2939+01 PROPERTY LINE
2940+94 ENTER WETLAND WMO-TMA-005A
2942+24 EXIT WETLAND WMO-TMA-005
2942+24 ENTER WETLAND WMO-TMA-005A
2944+84 EXIT WETLAND WMO-TMA-005
2944+84 ENTER WETLAND WMO-TMA-005A
2944+89



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG
MATERIAL & COATING	5000' (1)
DESIGN FACTOR	0.72
CONSTRUCTION METHOD	OPEN CUT
PIPELINE COVER	7'
SOILS	66019 / 66110 / 13598 / 66110
LAND USE	W / AG / W

PROFILE

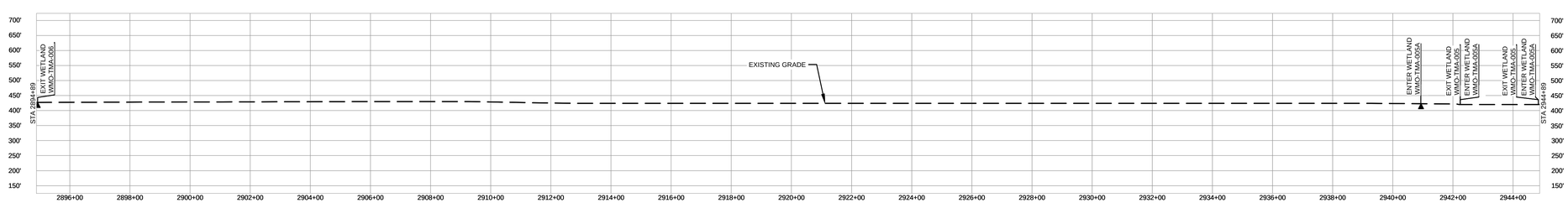
THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDELINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

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



SCALE: 1" = 200'

200 100 0 200

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4. ROAD CENTERLINES SHOWN ARE FROM PUBLICLY AVAILABLE DATA AND HAVE NOT BEEN SURVEYED.

MATERIAL

TAG	QUANTITY	DESCRIPTION
1	5000'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

NO.	REVISIONS	DATE	DRAWN	CK	APPR
1	ISSUE FOR FERC	01/2017	GH	EB	DGG
2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG

APPROVALS	
DRAWN BY	DATE
DP	03/2017
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ENG. APPROVAL	DATE
DGG	04/2017
P.M. APPROVAL	DATE
JEW	04/2017

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

CLIENT APPROVAL

DATE

PREPARED FOR

Spire STL Pipeline

PREPARED BY

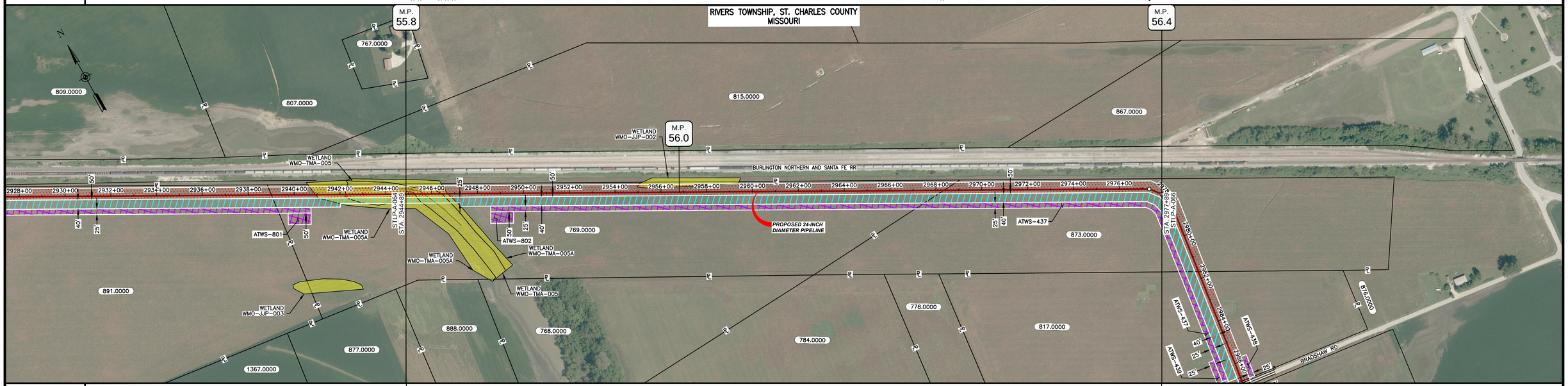
MOTT MACDONALD

SPIRE STL PIPELINE PROJECT

ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. CHARLES COUNTY, MISSOURI
STA. 2894+89 TO STA. 2944+89

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-064	2

OWNERSHIP / FOOTAGE	2944+89 — 769.0000 — 2346' — 2968+35 — 873.0000 — 954' — 2977+89
STATIONING	2945+24 EXIT WETLAND WMO-TMA-005A; 2945+24 ENTER WETLAND WMO-TMA-005; 2946+42 EXIT WETLAND WMO-TMA-005; 2946+42 ENTER WETLAND WMO-TMA-005A; 2946+71 EXIT WETLAND WMO-TMA-005A; 2968+35 PROPERTY LINE; 2977+31 P.I. = 22°54'38" RT



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG
MATERIAL & COATING	2944+89 — 3300' (1) — 2977+89
DESIGN FACTOR	0.72
CONSTRUCTION METHOD	OPEN CUT
PIPELINE COVER	7'
SOILS	66110 — 13598 — 66019
LAND USE	W — AG

PROFILE

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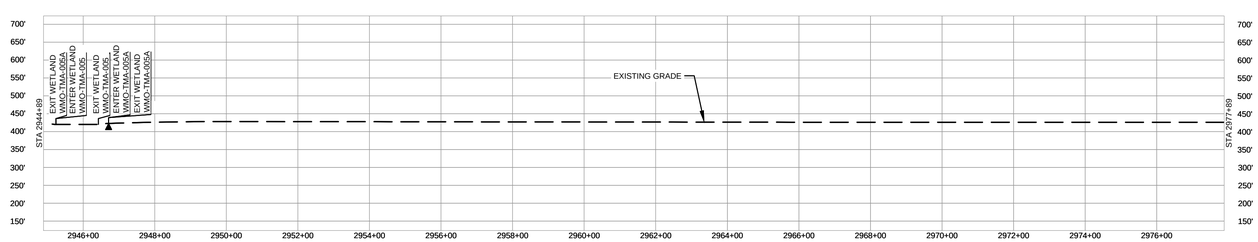
PERMANENT WATERBAR WITH COMPOST FILTER SOCK AT WATERBAR DISCHARGE

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

TAG	QUANTITY	DESCRIPTION
1	3300'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE

REVISIONS

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2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG

APPROVALS	
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ENG. APPROVAL	DATE
DGG	04/2017
P.M. APPROVAL	DATE
JEW	04/2017

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

CLIENT APPROVAL

DATE

PREPARED FOR

Spire STL Pipeline

PREPARED BY

MOTT MACDONALD

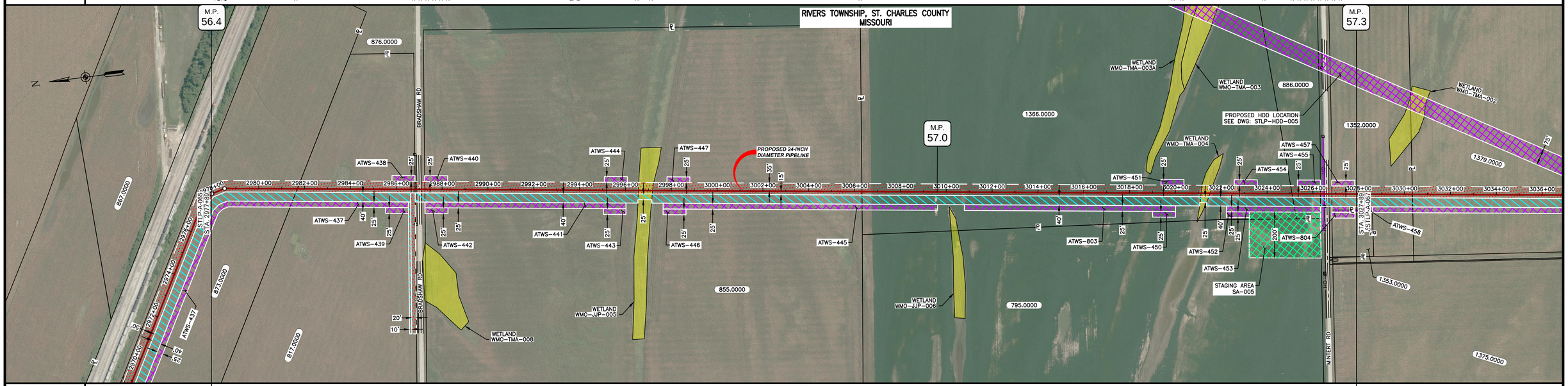
SPIRE STL PIPELINE PROJECT

ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. CHARLES COUNTY, MISSOURI
STA. 2944+89 TO STA. 2977+89

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-065	2

OWNERSHIP / FOOTAGE	2977+89	873.0000 380'	2981+69	817.0000 513'	2986+82	BRADSHAW RD 43'	2987+25	855.0000 1907'	3006+32	1366.0000 1877'	3025+09	886.0000 124'	3026+33	MINTERT RD 50'	3026+83	1352.0000 106'	3027+89

STATIONING
2977+89 P.I. = 22°24'36" RT
2978+24 P.I. = 22°25'39" RT
2981+68 PROPERTY LINE
2986+62 PROPERTY LINE
2986+64 OVERHEAD LINE
2986+80 EDGE OF PAVEMENT
2986+80 CENTERLINE OF BRADSHAW ROAD
2987+03 EDGE OF PAVEMENT
2987+25 PROPERTY LINE
MP 56.7 ENBRIDGE PIPELINE (NOT SURVEYED)
2996+57 ENTER WETLAND WMO-JP-005
2997+19 EXIT WETLAND WMO-JP-005
3006+32 PROPERTY LINE
3021+12 ENTER WETLAND WMO-TMA-004
3021+51 EXIT WETLAND WMO-TMA-004
3025+09 PROPERTY LINE
3026+33 PROPERTY LINE
3026+47 TELEPHONE LINE
3026+48 FIBER OPTIC LINE
3026+51 OVERHEAD LINE
3026+51 EDGE OF PAVEMENT
3026+60 CENTERLINE OF MINTERT ROAD
3026+63 EDGE OF PAVEMENT
3026+83 PROPERTY LINE



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG

MATERIAL & COATING

2977+89 – 2986+66	2986+66 – 2987+46	2987+46 – 3026+25	3026+25 – 3027+05	3027+05 – 3027+89
877' (1)	80' (2)	3879' (1)	80' (2)	84' (1)
0.72	0.6	0.72	0.6	0.72
OPEN CUT	BORE	OPEN CUT	BORE	OPEN CUT

PIPELINE COVER: 7'

SOILS	LAND USE
66019	AG
36023	D
66019	AG
36023	
66059	
66019	W
66059	AG
66019	
66059	
66019	
66059	
66059	
66019	
66059	
66059	
66019	W
66059	AG
66019	D
66059	AG

PROFILE

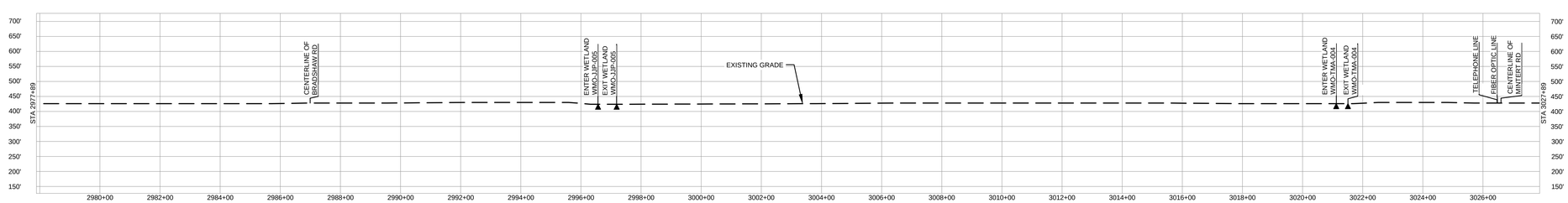
THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDELINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

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



SCALE: 1" = 200'

200 100 0 200

NOTES:
1. THE IMAGERY SHOWN WAS PROVIDED BY AERIAL DATA SERVICES, 2016. ADDITIONAL IMAGERY SUPPLEMENTED FROM USFWS-NWI AND USGS.
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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

TAG	QUANTITY	DESCRIPTION
1	4840'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED
2	160'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE
STLP-HDD-005	HDD PROFILE OVERVIEW - MISSOURI RIVER MAINLINE

REVISIONS

NO.	REVISIONS	DATE	DRAWN	CK	APPR
1	ISSUE FOR FERC	1/2017	GH	EB	DGG
2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG

APPROVALS

DRAWN BY	DATE
DP	04/2017
CHECKED BY	DATE
RJP	04/2017
ENG. APPROVAL	DATE
P.M. APPROVAL	DATE

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

CLIENT APPROVAL

DATE

PREPARED FOR

Spire STL Pipeline

PREPARED BY

MOTT MACDONALD

SPIRE STL PIPELINE PROJECT

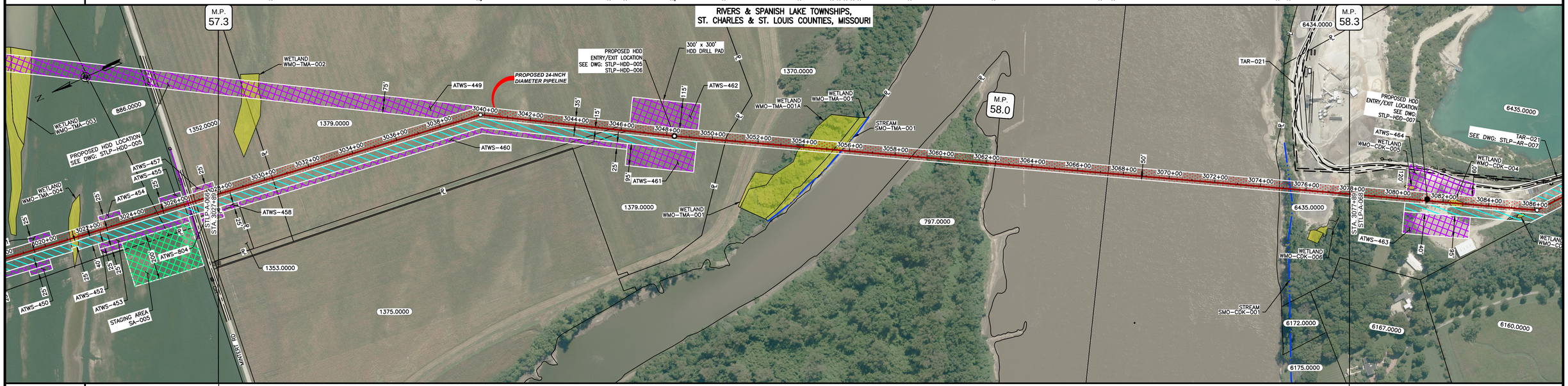
ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. CHARLES COUNTY, MISSOURI
STA. 2977+89 TO STA. 3027+89

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-066	2

OWNERSHIP / FOOTAGE	3027+89	1352.0000 245'	3030+34	1379.0000 2024'	3050+58	1370.0000 507'	3055+65	MISSOURI RIVER 308'	3058+73	797.0000 366'	3062+39	MISSOURI RIVER 1244'	3074+83	6435.0000 306'	3077+89

STATIONING

3030+34 PROPERTY LINE
3039+83 P.I. = 2374629' RT
3045+54 EDGE OF DIRT ROAD
3048+26 EDGE OF DIRT ROAD
3048+34 P.I. = 1+20'28" LT
3050+58 PROPERTY LINE
3053+89 ENTER WETLAND WMO-TMA-001A
3055+51 EXIT WETLAND WMO-TMA-001A
3055+51 ENTER WETLAND WMO-TMA-001
3055+67 EXIT WETLAND WMO-TMA-001
3055+67 CENTERLINE OF STREAM SMO-TMA-001
3058+72 PROPERTY LINE
3062+39 PROPERTY LINE
3067+33 RIVERS AND SPANISH LAKE
MAINTENANCE TOWNSHIP LINE
3067+33 ST. CHARLES AND ST. LOUIS COUNTIES LINE
3074+83 PROPERTY LINE
3075+32 CENTERLINE OF STREAM SMO-CDK-001



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG

MATERIAL & COATING

3027+89 — 3048+34 — 3077+89

	2045' (1)	2955' (2)
DESIGN FACTOR	0.72	0.5
CONSTRUCTION METHOD	OPEN CUT	HDD
PIPELINE COVER	7'	5'
SOILS	66059, 66019, 66059, 66019, 66059, 66019, 66059, 66012, 99001, 66126, 99001, 99001, 99000	
LAND USE	AG, F, W, OW, F, OW, D	

PROFILE

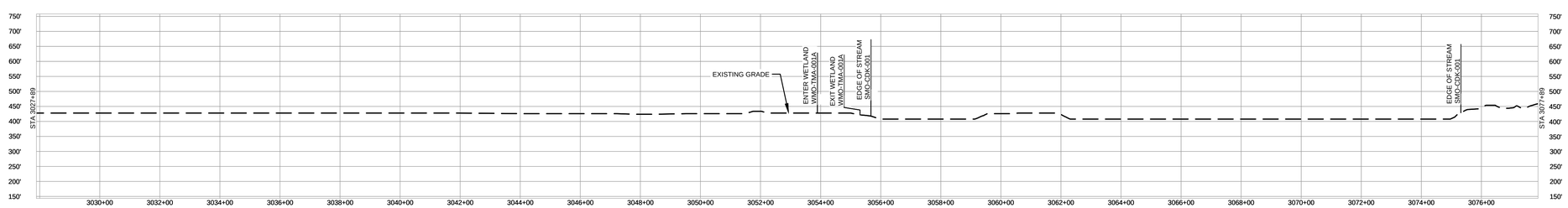
THE LOCATION OF TRENCH PLUGS AND WATERBARS ARE INTENDED TO BE USED AS A GUIDELINE ONLY. EXACT LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE CHIEF INSPECTOR.

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



SCALE: 1" = 200'
200 100 0 200

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MATERIAL

TAG	QUANTITY	DESCRIPTION
1	2045'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED
2	2955'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE
STLP-HDD-005	HDD PROFILE OVERVIEW - MISSOURI RIVER MAINLINE
STLP-HDD-006	HDD PROFILE OVERVIEW - MISSOURI RIVER MAINLINE
STLP-HDD-007	HDD PROFILE OVERVIEW - MISSOURI RIVER MAINLINE
STLP-AR-007	ACCESS ROAD DRAWING

REVISIONS

NO.	REVISIONS	DATE	DRAWN	CK	APPR
1	ISSUE FOR FERC	1/2017	GH	EB	DGG
2	AMENDMENT TO FERC	4/2017	DP	AK	DGG

APPROVALS

	DATE
DRAWN BY: DP	03/2017
CHECKED BY: RJP	03/2017
ENG. APPROVAL: D.G.G.	04/2017
P.M. APPROVAL: J.E.W.	04/2017

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

CLIENT APPROVAL

DATE

PREPARED FOR
Spire STL Pipeline

PREPARED BY
MOTT MACDONALD

SPIRE STL PIPELINE PROJECT

ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. CHARLES AND ST. LOUIS COUNTIES, MISSOURI
STA. 3027+89 TO STA. 3077+89

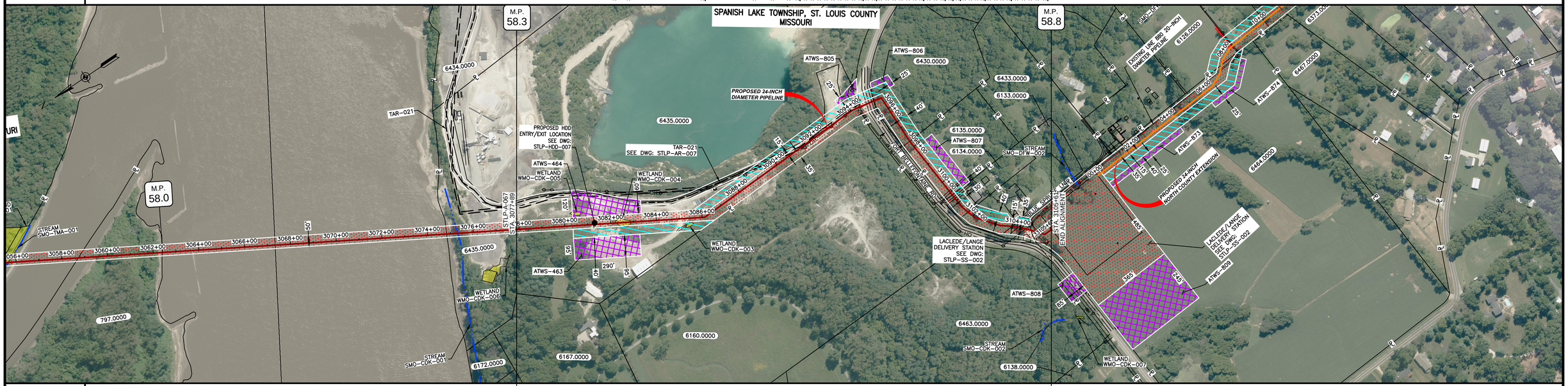
SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-067	2

OWNERSHIP / FOOTAGE	6435.0000	FORT BELLEFONTAINE RD	6430.0000	6135.0000	6134.0000	6133.0000	6433.0000	6464.0000
	1654'	66'	262'	300'	101'	206'	28'	155'

3077+89 — 3094+43 — 3095+09 — 3097+71 — 3100+71 — 3101+72 — 3103+78 — 3104+06 — 3105+61

STATIONING

3082+25 ENTER WETLAND WMO-CDK-004
3082+86 EXIT WETLAND WMO-CDK-004
3086+12 PI, < 32°14'44" LT
3089+87 OVERHEAD LINE
3092+81 OVERHEAD LINE
3093+49 OVERHEAD LINE
3094+06 PI, < 14°23'23" RT
3094+27 FENCE
3094+43 PROPERTY LINE
3094+61 OVERHEAD LINE
3094+75 EDGE OF PAVEMENT
3094+87 CENTERLINE OF FORT BELLEFONTAINE ROAD
3095+00 EDGE OF PAVEMENT
3095+11 CENTERLINE OF DITCH
3095+44 PI, < 80°00'04" RT
3097+71 PROPERTY LINE
3097+72 PI, < 4°17'07" LT
3100+41 EDGE OF GRAVEL
3100+56 EDGE OF GRAVEL
3100+67 OVERHEAD LINE
3100+80 PROPERTY LINE
3100+89 EDGE OF GRAVEL
3100+98 EDGE OF GRAVEL
3101+18 PI, < 14°15'26" LT
3101+42 FENCE
3101+45 EDGE OF GRAVEL
3102+28 PI, < 21°12'36" LT
3103+71 PI, < 41°51'14" LT
3103+72 PROPERTY LINE
3103+77 PROPERTY LINE
3103+95 PROPERTY LINE
3104+05 EDGE OF GRAVEL
3104+12 EDGE OF GRAVEL
3104+27 CENTERLINE OF BLUE SPRUCE LANE (PRIVATE)
3104+30 OVERHEAD LINE
3104+38 PI, < 4°17'07" LT
3104+48 EDGE OF GRAVEL
3104+65 CENTERLINE OF LGC PIPELINE
3104+66 CENTERLINE OF LACLEDE PIPELINE
3104+68 OVERHEAD LINE
3105+25 PI, < 54°16'46" LT



CLASS LOCATION/MAOP	CLASS I / 1440 PSIG

MATERIAL & COATING

3077+89 — 3081+35 — 3094+41 — 3095+21 — 3103+87 — 3104+67 — 3105+61

346'	1306'	80'	866'	80'	133'
2	1	2	1	2	1

DESIGN FACTOR	0.5	0.72	0.6	0.72	0.6	0.72
CONSTRUCTION METHOD	HDD	OPEN CUT	BORE	OPEN CUT		
PIPELINE COVER	5'					
SOILS	99000			60001		
LAND USE	D F D W D F D F D F D	F OL D F D F D F				

PROFILE

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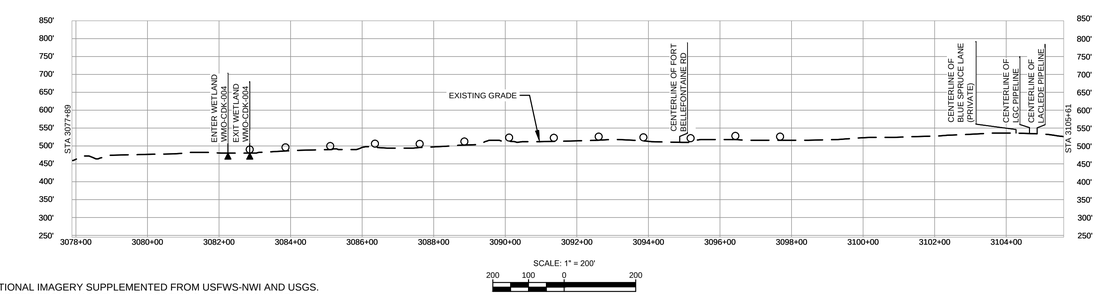
PERMANENT WATERBAR WITH COMPOST FILTER SOCK AT WATERBAR DISCHARGE

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



SCALE: 1" = 200'

200 100 0 200

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MATERIAL

TAG	QUANTITY	DESCRIPTION
1	2266'	PIPE, 24.000" OD X 0.375" WT, API-5L, X70, DSAW, FBE COATED
2	506'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED

REFERENCE DRAWINGS

DWG. NO.	TITLE
STLP-HDD-007	HDD PROFILE OVERVIEW - MISSOURI RIVER MAINLINE
STLP-AR-007	ACCESS ROAD SITE PLAN - TAR-021
STLP-SS-002	LACLEDE/LANGE DELIVERY STATION - SITE LAYOUT
STLP-M-200-0200	LACLEDE/LANGE DELIVERY STATION LAYOUT

REVISIONS

NO.	REVISIONS	DATE	DRAWN	CK	APPR
1	ISSUE FOR FERC	1/2017	GH	EB	DGG
2	AMENDMENT TO FERC	4/2017	DP	AK	DGG

APPROVALS

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DRAWN BY: DP	03/2017
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SCALE PLAN: 1" = 200'
SCALE PROFILE H: 1" = 200'
SCALE PROFILE V: 1" = 200'

CLIENT APPROVAL

DATE

PREPARED FOR

Spire STL Pipeline

PREPARED BY

MOTT MACDONALD

SPIRE STL PIPELINE PROJECT

ALIGNMENT SHEET
PROPOSED 24-INCH DIAMETER PIPELINE
ST. LOUIS COUNTY, MISSOURI
STA. 3077+89 TO STA. 3105+61

SCALE	DRAWING NO.	REVISION
1" = 200'	STLP-A-068	2