FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT'L SHEETS
1	MONT.	187 C		1	34

Plans Completed, on Sec C, Aug. 6, 1927

INDEX OF SHEETS

STATE OF MONTANA
STATE HIGHWAY COMMISSION

PLAN AND PROFILE OF PROPOSED

FEDERAL AID PROJECT NO. 187. C

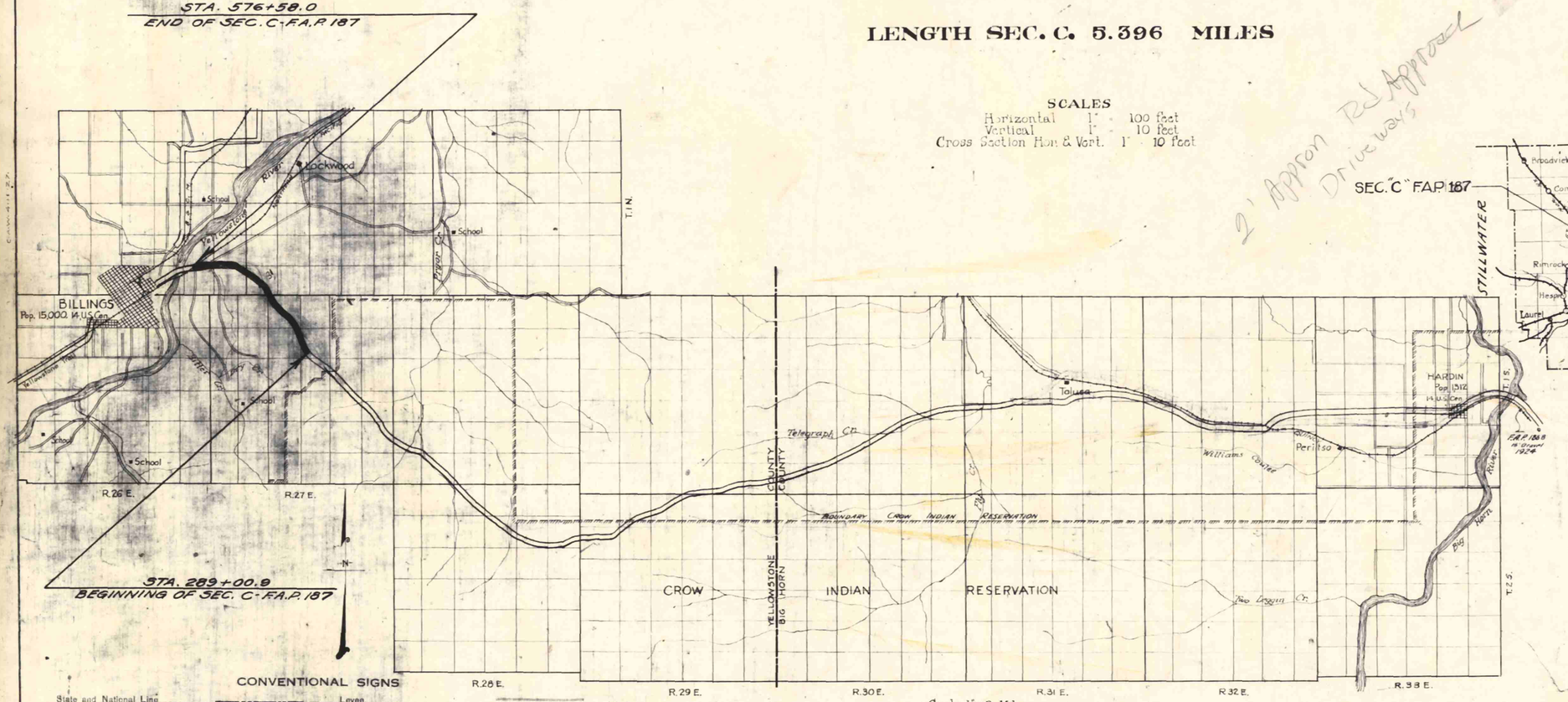
CUSTER BATTLEFIELD HIWAY
BILLINGS-HARDIN SECTION
YELLOWSTONE & BIG HORN COUNTIES

LENGTH SEC. C. 5.396 MILES

SCALES
Horizontal 1" = 100 feet
Vertical 1" = 10 feet
Cross Section Hor. & Vert. 1" = 10 feet

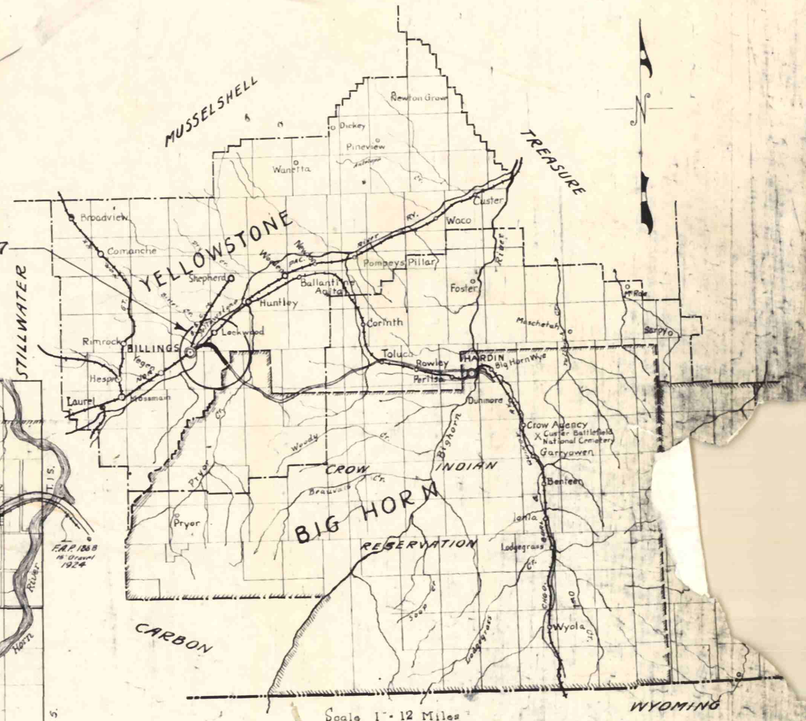
2" Apron R.J. Approach
Driveways

STA. 576+58.0
END OF SEC. C-F.A.P. 187



STA. 289+00.9
BEGINNING OF SEC. C-F.A.P. 187

Scale 1" = 2 Miles



YELLOWSTONE AND BIGHORN COUNTIES
F.A.P. 187

CONVENTIONAL SIGNS

- State and National Line
- County Line
- City, Village or Borough Line
- Township Line
- Section Line
- Reservation Line
- Fence Line
- Guard Rail
- Unfenced Property
- Right of Way Line
- " " " " Fenced
- Traveled Way
- Railroads
- Retaining Walls
- Base or Survey Line
- Levee
- Culverts
- Drop Inlet
- Trolley Pole
- Power Pole
- Telephone or Telegraph Pole
- Marsh
- Ditch
- Rip Rap
- Leaching Basin
- Bridge
- Proposed New Culvert (Profile)

RECOMMENDED FOR APPROVAL
[redacted]
DISTRICT ENGINEER, DISTRICT No. 1
BUREAU OF PUBLIC ROADS

APPROVED
STATE HIGHWAY COMMISSION OF MONTANA
[redacted]
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL
[redacted]
DEPUTY CHIEF ENGINEER
BUREAU OF PUBLIC ROADS

APPROVED
[redacted]
CHIEF ENGINEER
BUREAU OF PUBLIC ROADS

F. 187-C

SUMMARY

LENGTH - 5.396 - MILES

EMBANKMENT – Embankment as shown on Plans includes Shrinkage.

SHRINKAGE – A Shrinkage Factor is used on earth placed in embankment as follows,– less than 5,000 Cu.Yds. per mile, 20%. 5,000 to 10,000 per mile, 15%. 10,000 or over, per mile, 10%.

OVERHAUL – Freehaul allowance, 400 Feet.

GRADES – Grades as shown on Profile are Sub Grade – See Typical Section.

GUARD RAIL – Standard Guard Railing will be constructed on all dangerous curves or fills, or where designated by the Engineer.

PROJECTIONS – Where projections are shown on the plans, the relation of the Located or Staked Line to the projection to be checked in the Field.

GRADING

STATION FROM	STATION TO	EXCAVATION UNCLASSIFIED	EXCAVATION ROCK	EMBANKMENT PLUS SHRINKAGE	STATION YARDS OVERHAUL
289+00.9	294+00	5263		5263	
294+00	298+65	2038		2038	
298+65	309+00	3595		3595	2860
309+00	316+70	3793		3793	
316+70	328+65	3560		3560	
328+65	337+40	1377		1377	725
337+40	345+50	1777		1777	
345+50	350+70	2007		2007	
350+70	358+30	1648		1648	1015
358+30	366+00	1396		1396	190
366+00	372+10	759		759	
372+10	381+25	1362		1362	440
381+25	388+60	770		770	
388+60	397+30	1847		1847	935
392+30	401+00	492		492	
401+00	408+30	1189		1189	200
408+30	419+20	3275	495	3770	4230
419+20	425+50	922		922	250
425+50	431+55	935		935	
431+55	440+00	897		897	45
440+00	446+70	1006		1006	570
446+70	450+45	533		533	
450+45	454+90	717		717	15
454+90	460+70	575		575	80
460+70	465+40	1035		1035	
465+40	470+65	508		508	65
470+65	481+75	2559		2559	1700
481+75	489+00	1325		1325	1430
489+57	493+10	682		682	
493+10	500+00	924		924	430
500+00	508+60	688		688	155
508+60	517+85	614		614	390
517+85	535+45	2120		2120	2035
535+45	539+80	1404		1404	25
539+80	545+55	497		497	210
545+55	557+40	1295		1295	2740
557+40	562+05	120		120	
562+05	576+58	1166		1166	1320
TOTAL		56670	495	57165	22055

BRIDGE

STATION FROM	STATION TO	SPAN	LUMBER M.F.B.M.	TIMBER PILES 25'	REMARKS
489+00	489+57	3-19' Span	17.5	22	
TOTAL		57.0	17.5	22	

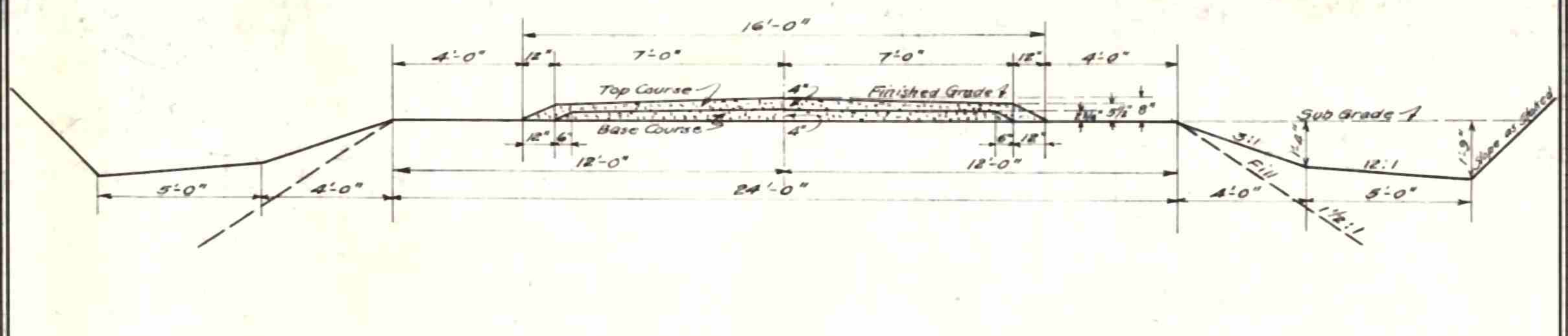
GUARD RAIL

STATION FROM	STATION TO	LINEAL FT. LEFT	LINEAL FT. RIGHT
289+00	289+50		50
289+00	290+30	130	
293+60	294+30	70	70
297+50	298+10	60	
304+24	305+74	150	
304+24	305+44		120
308+30	309+40	110	
308+30	309+30		100
313+20	315+00	180	
313+20	314+40		120
319+40	320+80	140	140
342+00	343+00	100	
348+20	350+90	270	
357+50	359+50		200
362+75	363+35		60
377+50	378+50	100	100
391+50	392+90	140	140
408+50	410+00	150	150
416+50	417+10	60	60
478+70	479+30		60
478+70	480+00	130	
488+80	489+00	20	20
533+60	537+00	340	
534+00	537+00		300
TOTAL		2150	1690

CULVERTS

STATION	LINEAL FEET OF PIPE 15"	18"	24"	30"	36"	48"	CU. YDS. CLASS B CONC. IN HDWLS.	SIZE OF CONCRETE BOXES	CU. YDS. CLASS A CONC.	LBS. REINF. STEEL	STD.	NOTES
294+10			66				1.88				M6	Drainage
305+33			60				1.88				"	"
308+90		64					1.26				"	"
314+24		58					1.26				"	"
320+01		60					1.26				"	"
325+00			34				1.88				"	"
333+00			30				1.88				"	"
336+49		40					1.26				"	"
346+00		30					1.26				"	"
352+25		28					1.26				"	"
358+89				72			3.36				"	" Double Pipe
363+13			46				1.88				"	"
365+20	20											Farm Ent. Left
365+30	30											Road App. Right
378+08		46					1.26				M6	Drainage
382+40	20											Farm Ent. Right
392+00			40				1.88				M6	Drainage
401+38		36					1.26				"	"
416+80					50		3.39				"	"
420+72		28					1.26				"	"
439+90	20											Farm Ent. Right
440+25	20											" " Left
444+60		28					1.26				M6	Drainage
450+88		30					1.26				"	"
454+75	20											Farm Ent. Right
456+10	20											" " Left
464+58				56			3.36				M6	Drainage - Double
467+75	20											Farm Ent. Left
470+66		32					1.26				M6	Drainage
479+40		50					1.26				"	"
497+05						28	5.42				"	Irrigation
512+90	20											Farm Ent. Left
513+25	20											School Left
513+00	20											Road Right
518+00	20											House Left
519+80	20											Farm Ent. Right
525+30	20											" " "
528+90	20											" " Left
532+75	20											" " "
533+25	20											" " Right
535+21								6'x10'x16' Rt. 6'x10'x15' Lt.	52.76	3021	C3	6'x10'x16' Conc. Box in Place
538+70	20											Farm Ent. Left
539+18								4'x4'x28'	24.03	1725	M8b	Irrigation - Siphon
539+18	52											Pipe under Irr. D, Rt. & Lt.
541+75	40											Road App. Left
546+47		28					1.26				M6	Irrigation
548+30	20											Farm Ent. Right
554+60	40											Road App. Right
555+00	20											Farm Ent. Left
555+00		46					1.26		4.46	358	M8b	Irrigation - Siphon
557+25	20											Farm Ent. Right
568+78		28					1.26				M6	Drainage
576+00		28					1.26				M6	"
TOTAL	562	660	276	128	50	28	48.23		81.25	5104		

TYPICAL SECTION



GRAVEL QUANTITIES

	TOP COURSE	BASE COURSE
AREA IN SQUARE FEET	4.5624	3.7709
CUBIC YARDS PER STATION	16.90	13.97
CUBIC YARDS PER MILE	892	738

POWER POLES TO BE MOVED

STATION	LOCATION
510+70	12' Right
512+00	13' Left
576+05	20' Left
TOTAL	3

SURFACING

STATION FROM	STATION TO	LENGTH IN FEET GROSS	LENGTH IN FEET NET	ADDITIONS AND DEDUCTIONS FROM	TO	+	–	FOR	TYPE OF SURFACING	CUBIC YARDS GRAVEL BASE COURSE	TOP COURSE	ROAD APPR., CURVE WIDN. & Bridge
289+00.9	576+58.0	28757.1	28435.9	322+24.5 351+25.5 489+00.0 514+19.2	322+44.8 351+33.1 489+57.0 516+55.5		20.3 7.6 57.0 236.3	Equation " Bridge Equation	16'-2 Course Feather Edge Gravel	3975	4804	100
TOTAL		28757.1	28435.9				321.2			3975	4804	100

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK NO. / BY / DATE

ORIGINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK NO. / BY / DATE

F-187-C


SEC. 15
SEC. 10
T. 1 S. R. 27 E.
SECTION "A"
P.I. 298+53.1
Δ-80°08'R.
D-22
T-219.0
L-364.2
R=260.9
Δ-110°-26'L
D-30
T-276.0
L-368.1
R=191.0
Δ-56°55'L.
D-12
T-258.8
L-474.3
R=477.5
Δ-60°08'R.
D-6
T-658.0
L-1152.2
E-204.8
R=955.0
P.I. 314+17.0
P.C. 319+19.5
P.T. 319+11.2
P.I. 320+82.0
N. 57°25' W.
Line as Staked
1/4 Sec. Line
Sta. 294+10 New 24" C.G. Pipe M-6 Drain
Sta. 305+33 New 24" C.G. Pipe M-6 Drain
187A - 289+58.0
P.I. 187C - 290+00.9
BEGINNING OF SEC. C, F.A.P. 187 = STA. 289+00.9
BEGINNING OF SEC. A, F.A.P. 187 = STA. 288+58.0
36"x 80' Pipe M-6 In Place
PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
NOTE BOOK
NO.
BY
DATE
Exc. Uncl. 5263 Cu.Yds.
Emb. + 5263 Cu.Yds.
Exc. Uncl. 2038 Cu.Yds.
Emb. + 2038 Cu.Yds.
Exc. Uncl. 3595 Cu.Yds.
Emb. + 3525 Cu.Yds.
O. H. 2860 Sta.Yds.
Exc. Uncl. 3793 Cu.Yds.
Emb. + 3793 Cu.Yds.
130' G.R. Left
50' G.R. Right
70' G.R. Right & Left
60' G.R. Left
150' G.R. Left
120' G.R. Right
110' G.R. Left
100' G.R. Right
180' Guard Rail Left
120' Guard Rail Right
B.M. #33
B.M. #34
PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M.S NOTED
STRUCTURE NOTATIONS CH'KD
289
290
295
300
305
310
315
320

F. 187-C

PLAN | SURVEYED | PLOTTED | TRACING CHECKED | ALIGNMENT CHECKED | R/W NOTED | RT. OF WAY CHECKED | NOTE BOOK | NO. | BY | DATE

PROFILE | SURVEYED | PLOTTED | PROFILE CHECKED | G.M. NOTED | STRUCTURE NOTATIONS CHKD. | NOTE BOOK | NO. | BY | DATE

1/4 Cor.

Sec. Line 735'to Cor.

Sta 320+19.5

Sta 320+81.0

Sta 322+28.5

Sta 322+44.8

Δ 48°-46' Lt.
T. 162.5
L. 305.0
R=334.1
S=50

320

325

330

335

340

345

350

New 18"-60' Pipe M-6 Drain

New 24"-34' Pipe M-6 Drain

New 24"-30' Pipe M-6 Drain

New 18"-48' Pipe M-6 Drain

New 18"-30' Pipe M-6 Drain

EQUATION

Sta 322+81 = Sta 323+00

N. 37°-03' W.

Sta 341+52.5

Sta 344+60.0

Sta 345+28.5

DEY CREEK

Sta 2 Slope 1

Sta 2 Slope 1

Ends 25' Slope 1

N. 61°-25' E.

Δ 38°-18' E.
T. 509.5
L. 970.6
R=1932.5
S=110'

SEC. 9
SEC. 10

T. 1 S. R. 27 E.

Sec 9
T. 1 S. R. 27 E.

Exc. Uncl. 3560 C.Y. Emb. 3560 C.Y.

Exc. Uncl. 1377 C.Y. Emb. 1377 C.Y.
O.H. 725 Sta Yds.

Exc. Uncl. 1777 C.Y. Emb. 1777 C.Y.

Exc. Uncl. 2007 C.Y. Emb. 2007 C.Y.

Short Station
EQUATION
322+24.5
322+44.8
-20.3

140' G.P. Right
140' G.P. Left

200' V.C.

-3.0%

-3.8%

-5.0%

-2.0%

-0.2%

-2.2%

-0.8%

100' G.P. Left

270' G.P. Left

Sta 323+01 New 18"-60' Pipe M-6 Drain

Sta 325+00 New 24"-34' Pipe M-6 Drain

BM #35 Sta 321+60 Rim Elev 1399.16

BM #36 Sta 329+50 Top Rail Fence at R/W Elev. 1362.53

Sta 333+00 New 24"-30' Pipe M-6 Drain

Sta 336+49 New 18"-48' Pipe M-6 Drain

Sta 341+52.5

Sta 343+00 New 18"-30' Pipe M-6 Drain

BM #38 Sta 345+10 Top Rail Fence at R/W Elev. 1298.58

3390 3380 3370 3360 3350 3340 3330 3320 3310 3300 3290 3280 3270

320 325 330 335 340 345 350

F. 187-C

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

PLAN | SURVEYED | PLOTTED | NOTE BOOK | NO | DATE | BY | ALIGNMENT CHECKED | RE. OR WAY CHECKED

PROFILE | SURVEYED | PLOTTED | NOTE BOOK | NO | DATE | BY | GRADES CHECKED | MATERIAL CHECKED | STRUCTURE NOTATNS.CHKD.

SEC. 9

EQUATION 351+25.5 = 351+33.1

← SEC. LINE - 1073.7'± Cor.

Sta 352+25 New 18"RCP Pipe Mc. Drain

N. 87° 45' E.

350 355 360 365 370 375 380

DRY CREEK

OLD CHANNEL

Top of Bank

Sta 358+89 New 18"RCP Pipe Mc. Drain

Δ=42°30'L
D=5
T=445.7
L=850
R=1146.0
S=45°

MP2

Sta 363+13 New 18"RCP Pipe Mc. Drain

Sta 363+20 New 15"RCP Pipe

PT. 365+98.3

N. 40° 45' W.

Drain

Pl. 361+94.0

Sta 363+30 New 15"RCP Pipe

Sta 378+08 New 18"RCP Pipe Mc. Drain

SEC. 4
T. 15. R. 27 E.

Exc Unc 1648 CY. Embl 1648 CY.
OH. 1015 Sta Yds.

Exc Unc 1396 CY. Embl 1396 CY.
OH. 190 Sta Yds.

Exc Unc 769 CY. Embl 769 CY.

Exc Unc 1362 CY. Embl 1362 CY.
OH. 440 Sta Yds.

0.50%

300' V.C.

-2.27%

327888

200' V.C.

0.58%

327508

500' V.C.

3.70%

200' G.R. Rt.

100' G.R. Rt. & Lt.

200' V.C.

0.2%

Short Station
EQUATION
← 351+25.5
351+33.1 →
- 76

Sta 352+25 New 18"RCP Pipe Mc. Drain

BM #90 Sta 356+00 Hub Under Fence on Rt. Elev. 3225.14

Sta 358+89 New 18"RCP Pipe Mc. Drain

Sta 363+13 New 18"RCP Pipe Mc. Drain

BM #91 Sta 366+40 Nail in Fence Post Elev. 3233.59

BM #92 Sta 377+00 Spike in Fence Post Elev. 3242.65

Sta 378+08 New 18"RCP Pipe Mc. Drain

3290 80 70 60 50 40 30 20 3210

3250 40 30 20 10 3220

350 355 360 365 370 375 380

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.

F-187-C

PLAN | SURVEYED | PLOTTED | NOTE BOOK | NO. | ALIGNMENT CHECKED | RT. OF WAY CHECKED | BY | DATE

PROFILE | SURVEYED | PLOTTED | NOTE BOOK | NO. | GRADE CHECKED | R.W.S. NOTED | STRUCTURE NOTATNS CHKD | BY | DATE

DRY CREEK

Center Sec. 4

380 385 390 395 400 405 410

Sta. 382+40.0

Sta. 382+84

Sta. 382+40 New 24x40 Pipe M6

Sta. 400+30 New 18x36" Pipe M6

1114.2 to 14 Cr. Farm Lane

Sta. 382+40 New 15'x20' Pipe

N 40° 45' W

SEC. 4
T. 15. R. 27 E.

Excav Uncl 770 Cu. Yds. Embt 770 Cu. Yds.

Excav Uncl 1847 Cu. Yds. Embt 1847 Cu. Yds.
O.H. 935 Sta. Yds.

Exc. Uncl. 492 C.Y. Embt 492 C.Y.

Excav Uncl. 1189 Cu. Yds. Embt 1189 Cu. Yds.
O.H. 200 Sta. Yds.

3260 3222.0 3208.50 3214.50 3194.66

-6.10% -2.27% 2.67% -2.67% -4.28%

300' V.C. 300' V.C. 300' V.C.

Guard Rail 140' R&L

Guard Rail 100' R&L

Sta. 382+40 New 24x40 Pipe M6 Dry Creek

Sta. 400+30 New 18x36" Pipe M6 Dry Creek

B.M. #42 Spike in fence post Sta. 387+83 Elev. 3209.84

B.M. #43 Spike in fence post Sta. 387+43 Elev. 3209.41

B.M. #44 Spike in fence post Sta. 409+20 Elev. 3194.66

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD
KRUTTSCHNITT & ESSER CO., NEW YORK.

E. 187-C

187-C 7 34

PLAN	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	ALIGNMENT CHECKED	
NO.	R/T OF WAY CHECKED	

PROFILE	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK	GRADES CHECKED	
NO.	MASS CHECKED	
	STRUCTURE NOTATNS CHKD	

1 mi 12.2 mi

21.5' wide
30 for 22' top

OLD CHANNEL

DRY CREEK

SEC. 4 SEC. 31 SEC. 5

New 16'-0" Type H-6 Drainage P.I. 387+58.5

New 36'-0" Type H-6 Drainage P.I. 421+22

P.I. 434+00.0

P.I. 426+75.5

A: 21°00' L
D: 4
T: 265.5
L: 525.0
R = 1432.5
S = 10'

A: 35°10' R
D: 5
T: 363.2
L: 703.3
R = 1146.0
S = 95'

N 61°45' W

N 22°35' W

P.C. 430+36.8

P.T. 437+48.1

Sta 439+00 New 15x20 Pipe

Farm Entr.

CHANNEL CHANGE

Dyke | Channel Change | Dyke

Channel Change

N 10°45' W

Levee

Coulee

Wood Bridge 2 Span 5' Clear

T. 1 S. R. 27 E.
T. 1 N. R. 27 E.

410 415 420 425 430 435 440

Exc. Undl. 3275 C.Y.
Rock 495 C.Y.
O.H. 4230 Stn. Yds.

Embk 3770 C.Y.

Exc. Undl. 922 C.Y.
O.H. 250 Stn. Yds.

Embk 922 C.Y.

Exc. Undl. 936 C.Y.

Embk 935 C.Y.

Exc. Undl. 837 C.Y.
O.H. 45 Stn. Yds.

Embk 837 C.Y.

3170
40
30
20
10
3100

1.00%
400' V.C.
2.07%
400' V.C.
0.35%
400' V.C.
2.95%

60° 60' K.
R & L

New 36'-0" Type H-6 Drainage P.C. 421+22

New 16'-0" Type H-6 Drainage P.C. 387+58.5

P.I. 426+20.0

P.I. 437+48.1

BM #45
Square on fire hydrant 30 ft. S. of N. end of E. curb of Shaker

BM #46
Square on fire hydrant 30 ft. S. of N. end of E. curb of Shaker

F-187-C

PLATE 1—PLAN-PROFILE C. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO., NEW YORK.


PLAN
NOTE BOOK NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE
SEC. 31
T. 1 N. R. 27 E.
440
Sta 440+25
New 15"x20' Pipe
Gate
445
New 18"x28' Pipe
M-6 Drainage
N 26°35' W
450
New 18"x 30' Pipe
M-6 Drainage
455
P.C. 455+39.2
Farm Road
Sta 454+75
New 15"x20' Pipe
Gate
Center Sec. 31
Sta 456+10
New 15"x20' Pipe
City limits 456+96.0
DRY CREEK
460
Δ - 37°17' L
D - 3°30'
T - 552.3
L - 1065.2
R = 1637.1
S = 120'
P.I. 460+91.5
New Double 30"x28' Pipe
M-6 Drainage
465
P.T. 466+04.4
Farm Ent.
Irrigation
Sta 467+75
New 15"x20' Pipe
N 63°52' W
470
Channel Change
COULEE
Mileage 71.15
J-lane
PROFILE
NOTE BOOK NO.
SURVEYED
PLOTTED
GRADES CHECKED
B. M.S NOTED
STRUCTURE NOTAT'NS CH'KD.
Exc. Uncl. 1006 Cu. Yds.
Emb. + 1006 Cu. Yds.
O.H. 570 Sta. Yds.
Exc. Uncl. 533 Cu. Yds.
Emb. + 533 Cu. Yds.
Exc. Uncl. 717 Cu. Yds.
Emb. + 717 Cu. Yds.
O.H. 15 Sta. Yds.
Exc. Uncl. 575 Cu. Yds.
Emb. + 575 Cu. Yds.
O.H. 80 Sta. Yds.
Exc. Uncl. 1035 Cu. Yds.
Emb. + 1035 Cu. Yds.
Exc. Uncl. 508 Cu. Yds.
Emb. + 508 Cu. Yds.
O.H. 65 Sta. Yds.
3109.00
400' V.C.
-0.55%
3103.50
600' V.C.
-2.354%
3067.02
200' V.C.
-0.305%
+50
Sta 444+60
New 18"x28' Pipe M-6 Drainage
Sta 450+88
New 18"x30' Pipe M-6 Drainage
B.M. #47 Spike in Fence Post
32' Left Sta 453+22
Elevation 3098.14
Sta 464+58
New Double 30"x28' Pipe
M-6 Drainage
20
10
3100
90
80
70
60
3050
440
445
450
455
460
465
470

F-187-C

ADDITIONAL R/W ACQUIRED THROUGH LAND DONATION FROM LOCKWOOD SCHOOL DISTRICT NO. 26. R/W IS ON LEFT STATIONS BETWEEN ~510+00 AND ~530+00. SEE QCD DOC NO: 3963223 RECORDED 3/11/2021 WITH COS 904 AMENDED ATTACHED TO QCD FOR R/W LIMITS.

187-C 10 34

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
R/T OF WAY CHECKED
BY
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
GRADES CHECKED
B. M.S NOTED
NO.
STRUCTURE NOTES NOTED
BY
DATE

500 505 510 515 520 525 530

SEC. 25 36

LOCKWOOD School

Δ: 25° 42' L
T: 326.8
L: 642.3
R: 143.5
S: 110'

Sta 512+90 Mon 13+20 Pipe
Sta 513+20 Mon 13+20 Pipe
514+19.2 516+55.5
Sta 516+00 Mon 13+20 Pipe
Sta 529+30 Mon 13+20 Pipe

N63°32'W
Rt. 507+76.7
To Move
25°42'
Approx. 2650' Rt. to Sec. Cor.
Irr. Ditch
Approx 1/4 Cor.
N89°34'W
Power Line - 28 from ℄
Irrigation Ditch
Rt 513+43.5
Sta 515+00 Mon 13+20 Pipe
Sta 515+80 Mon 13+20 Pipe
Sta 525+30 Mon 13+20 Pipe
EQUATION
County Road
Les Kercher
345 ~~460~~ S
Church

SEC. 36 25
T. 1N. R. 26E.

Exc. Unc. 688 C.Y. O.H. 155 Stn. Yds
Emb. 688 C.Y.
Exc. Unc. 614 C.Y. O.H. 330 Stn. Yds
Emb. 614 C.Y.
Exc. Unc. 2120 C.Y. O.H. 2035

3021.55
-1.22%
260' VC
3019.09
Short Station
EQUATION
514+19.2
514+55.5
-35.9
2995.42
-0.99%
-0.60%
200' VC
2991.82

3030 20 10 3000 90 80 2970

BM #51
Set in Power Pole
South Side Rt 120
from Jerome Cut

PLATE 1 – PLAN-PROFILE O. P. W. & R. C. STANDARD
KEUFFEL & ESSER CO. NEW YORK.

F-187-C

187-C H 34

PLAN | SURVEYED | PLOTTED | NOTE BOOK | GRADES CHECKED | ALIGNMENT CHECKED | R.R. OF WAY CHECKED | NO. | STRUCTURE NOTATIONS CHKD. | BY | DATE

530 535 540 545 550 555 560

Sta. 532+75 New 13'-20" Pipe

Shack

Box Culvert Ctr.

10' Shower to Garage in Fabric Area 6'-0" Dia. Conc. Box 63 Ft. Lt. Drainage

Sta 538+00 New 18"x20' Pipe. New 18"x 26" Pipe Rt. & Lt.

Sta 538+00 15'-6" Galvm. C.M. in place. Remove.

SEC. 36 SEC. 35

Sta 541+75 New 18"x40' Pipe

1'-1" Galvm. C.M. in place. Remove.

N 88°-41' W

Sta 533+25 New 15'-20" Pipe

Irrigation Ditch

Sta 539+18 New 44'x 28" Conc. Box Culvert M&D 11°19'

SEC. 25 SEC. 26

P.I. 541+75.8 Δ - 0°53'12"

T. 1 N. R. 26 E.

Irrigation

Sta 546+47 New 18"x 28" Pipe M&D 11°19'

Sta 545+20 New 15'-20" Pipe

Sta 535+50 New 15'-90" Pipe

Sta 535+00 New 18"x 26" Pipe M&D 11°19'

Sta 535+00 New 15'-18" Pipe

Sta 557+25 New 15'-20" Pipe

Hardin

Emb't 2120 C.Y. | Exc. Uncl. 1404 C.Y. | Emb't 1404 C.Y. | Exc. Uncl. 497 C.Y. | Emb't 497 C.Y. | Exc. Uncl. 1295 C.Y. | Emb't 1295 C.Y. | Exc. Uncl. 120 C.Y.

Sta. Yds. | 0.H. 25 Yds. | 0.H. 210 Yds. | 0.H. 2740 Yds. | 0.H. 310 Yds.

300 L.F. 6d. Rail Rt.

340 L.F. 6d. Rail Lt.

100 | 100 | 100 | 100

2981.82 | 2984.47 | 2984.92 | 2977.92

200' V.C. | -1.69% | 300' V.C. | +0.31% | 200' V.S. | -0.70% | 100' V.C. | +2.02%

3200 | 90 | 80 | 70 | 60 | 2950

Sta. 535+75 New 15'-20" Pipe Set in Box Culvert Concrete Box 63'-0" Long 6'-0" Wide 6'-0" High Reinforced Concrete Culvert Complete

Sta. 539+18 New 44'x 28" Conc. Box Culvert M&D 11°19'

Sta. 546+47 New 18"x 28" Pipe M&D 11°19'

Sta. 535+00 New 18"x 26" Pipe Set in Box Culvert Concrete M&D 11°19'

B.M. #52 Spike in Power Pole Sta. 532+25.25 Elev. 2950.85

B.M. #53 Spike in Power Pole Sta. 537+75.78 Elev. 2956.53

B.M. #54 Spike in Power Pole Sta. 555+33.50 Elev. 2956.14

530 535 540 545 550 555 560

PROFILE | SURVEYED | PLOTTED | NOTE BOOK | GRADES CHECKED | ALIGNMENT CHECKED | NO. | STRUCTURE NOTATIONS CHKD. | BY | DATE

PLATE I—PLAN-PROFILE O. P. R. & R. C. STANDARD

KEUFFEL & ESSER CO., NEW YORK.

F 187-C

1876 12 Sht.

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
ALIGNMENT CHECKED
RT. OF WAY CHECKED
BY
DATE

560 565 SEC. 35 570 575

New 18"ø 20' Pipe M-6 Drainage

Culvert

New 18"ø 20' Pipe M-6 Drainage

STA. 576+58.0
END OF SEC. C-F.A.P. 187

Pole To Move

N 88°41' W

¼ Cor.

568+83.2

SEC. 26
T. 1 N. R. 26 E.

SEATTLE

Billings

NORTHERN PACIFIC RY.

ST. PAUL

Lockwood

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
GRADES CHECKED
B.M.'S NOTED
STRUCTURE NOTATIONS CHKD.
BY
DATE

Exc. Unc. N66 Cu. Yds.
Emb. + N66 Cu. Yds.
C.Y. 1320 Sta. Yds.

Emb. + 120 Cu. Yds.

2980
70
60
2950

+10 296+38

-3.0% Gr.

-1.27%

B.M. #55 Survey Nail
on Head Station Marker
Elevation 2959.73

Sta 566+20
New 18"ø 20' Pipe M-6 Drainage

Sta 576+20
New 18"ø 20' Pipe M-6 Drainage

Sta 576+58.0
END of Sec C-F.A.P. 187

560 565 570 575

F-187-C

PLATE I—PLAN-PROFILE O. P. R. & R. E. STANDARD
KEUFFEL & ESSER CO. NEW YORK