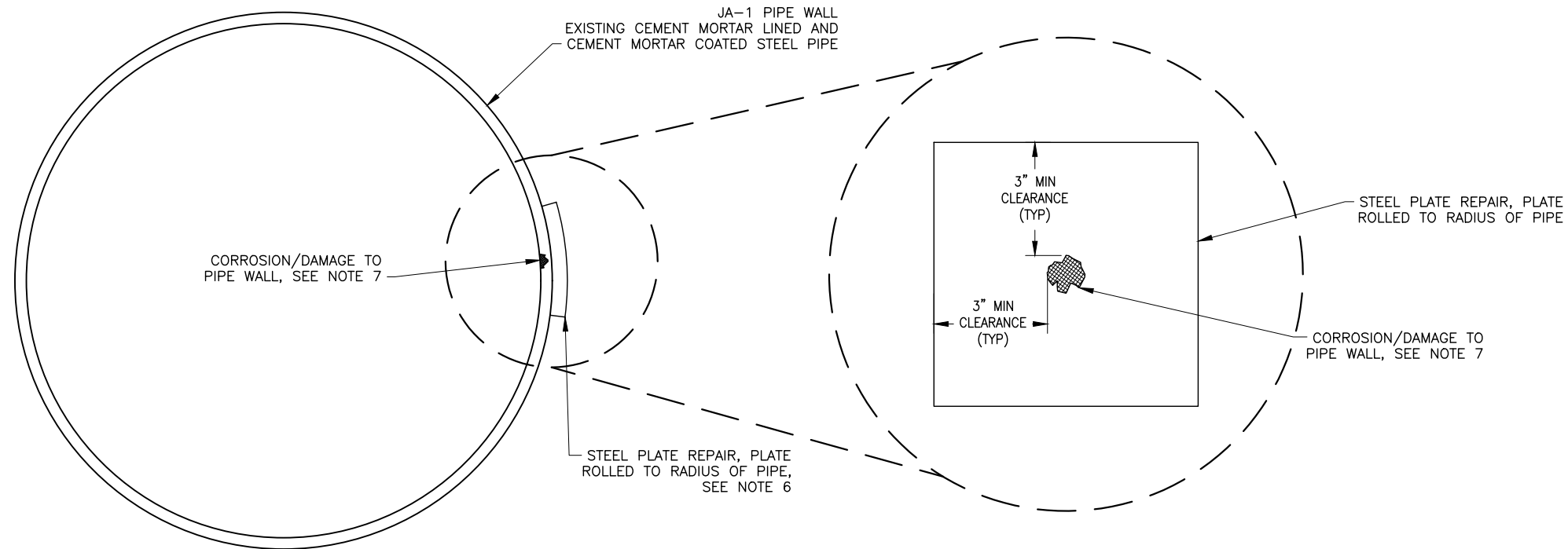
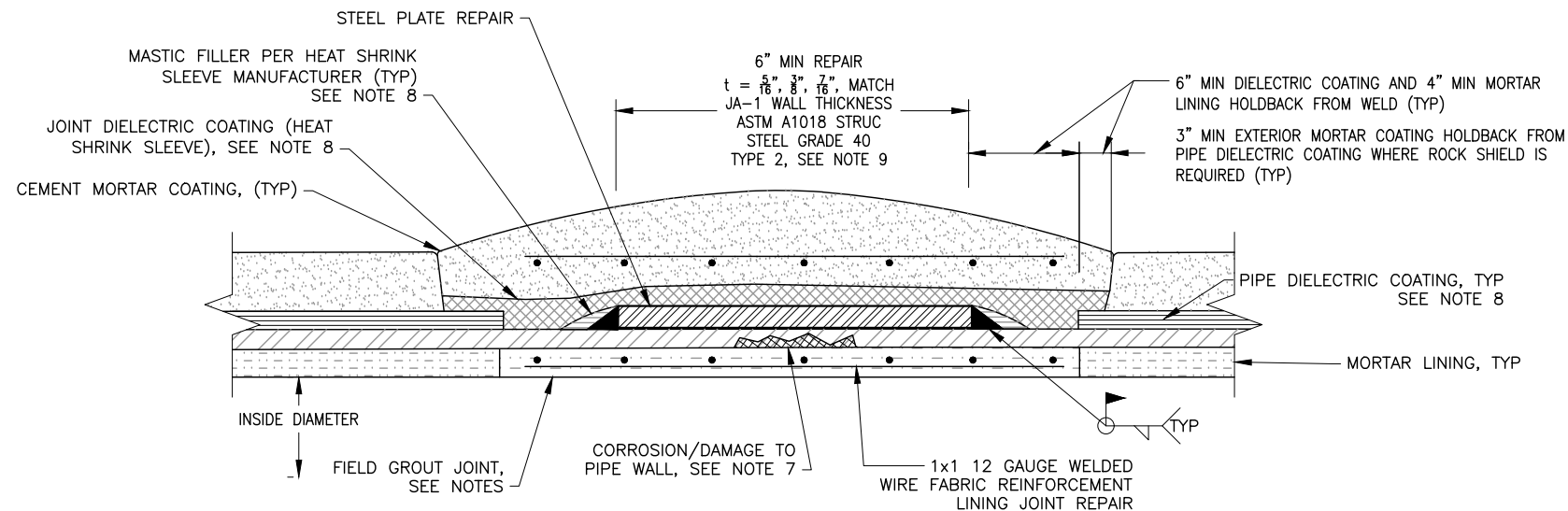




CROSS-SECTION VIEW



NOTES:

1. REMOVE EXISTING CEMENT MORTAR LINING TO A NEAT LINE, AND CLEAN AND PREPARE WALL PRIOR TO INSTALLING REPAIR.
2. UNLESS OTHERWISE NOTED, REPAIR WIDTH SHALL CONFORM TO THE DIMENSIONAL REQUIREMENTS GOVERNED BY CORROSION/DAMAGE TO PIPE WALL.
3. GROUT FOR JOINT LINING SHALL BE ONE PART CEMENT TO TWO PARTS SAND AND SUFFICIENT WATER FOR DRY-PACK CONSISTENCY.
4. ALL WELDS TO BE PERFORMED BY WELDERS QUALIFIED UNDER THE PROVISIONS OF ASME BPVC AND C200 FOR SHOP WELDS AND ANSI/AWS D1.1 AND C206 FOR FIELD WELDS. CONTRACTOR TO FURNISH ALL MATERIAL AND BEAR THE EXPENSE OF QUALIFYING WELDERS.
5. ALL WELDS ARE TO BE INSPECTED AND CERTIFIED BY A CERTIFIED WELDING INSPECTOR (CWI) AND PASS A MAGNETIC PARTICLE TEST.
6. STEEL WELD REPAIR SHALL BE APPLIED TO INTERIOR OR EXTERIOR (DEPICTED) AS REQUIRED BY ENGINEER.
7. COORDINATE WITH ENGINEER FOLLOWING UT TESTING TO CONFIRM EXTENT OF DEFECT/DAMAGE.
8. DIELECTRIC COATING IS NOT APPLICABLE TO JA-1 REPAIRS.
9. PLATE THICKNESS AND WELD SIZE TO MATCH EXISTING PIPE WALL. COORDINATE WITH ENGINEER REGARDING EXISTING JA-1 WALL THICKNESS BY REPAIR LOCATION.

STEEL PLATE REPAIR
NOT TO SCALE

C
2719

NO.	DATE	REV. BY	DESCRIPTION

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW
CHECKED C. NELSON
APPROVED C. NELSON

DESIGN
DESIGN R. EGBERT
DRAWN A. WHITE

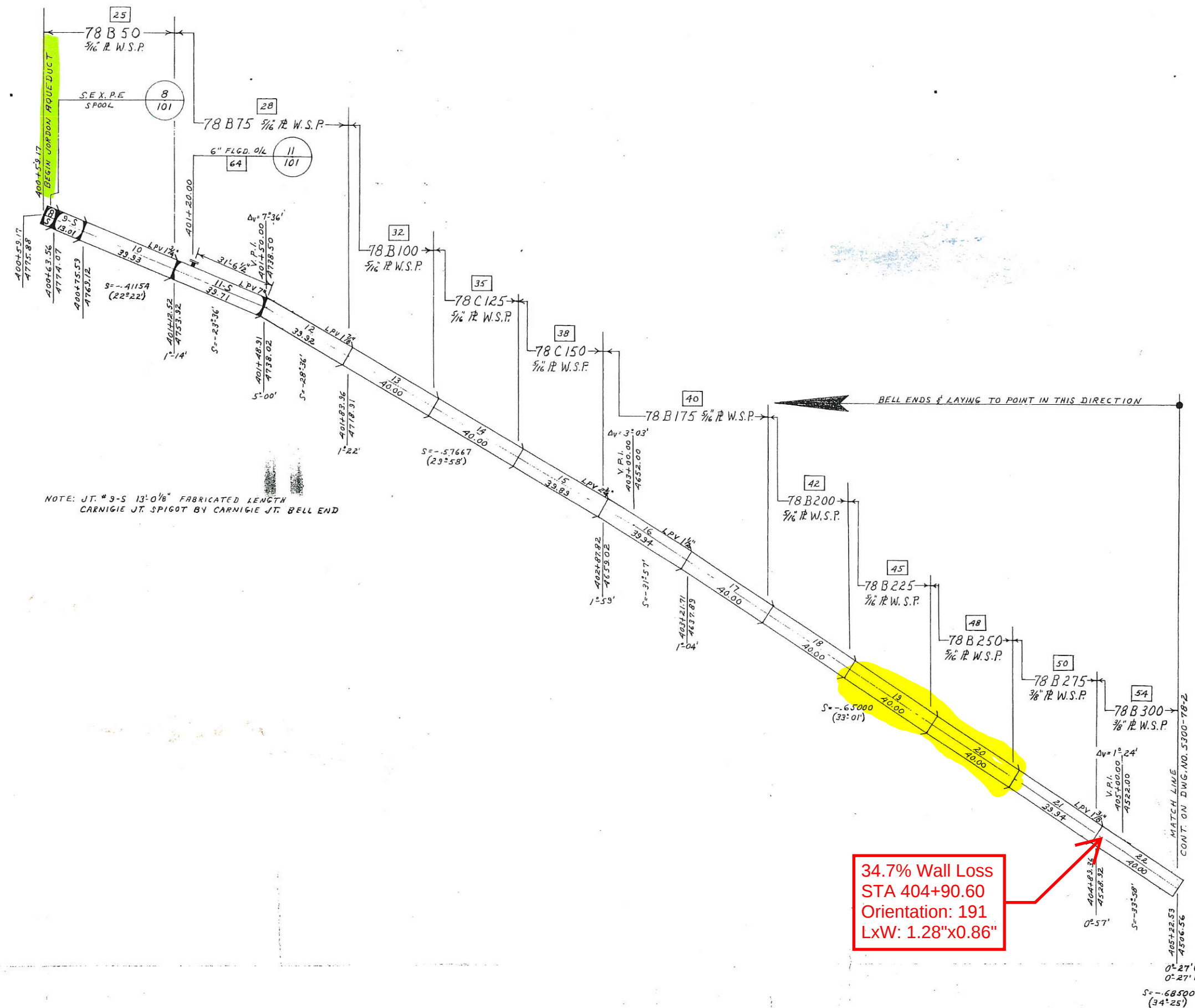
GENERAL CIVIL DETAILS
GENERAL CIVIL DETAILS - 1
DATE: OCTOBER 2025
PROJECT NUMBER: 010-20-03

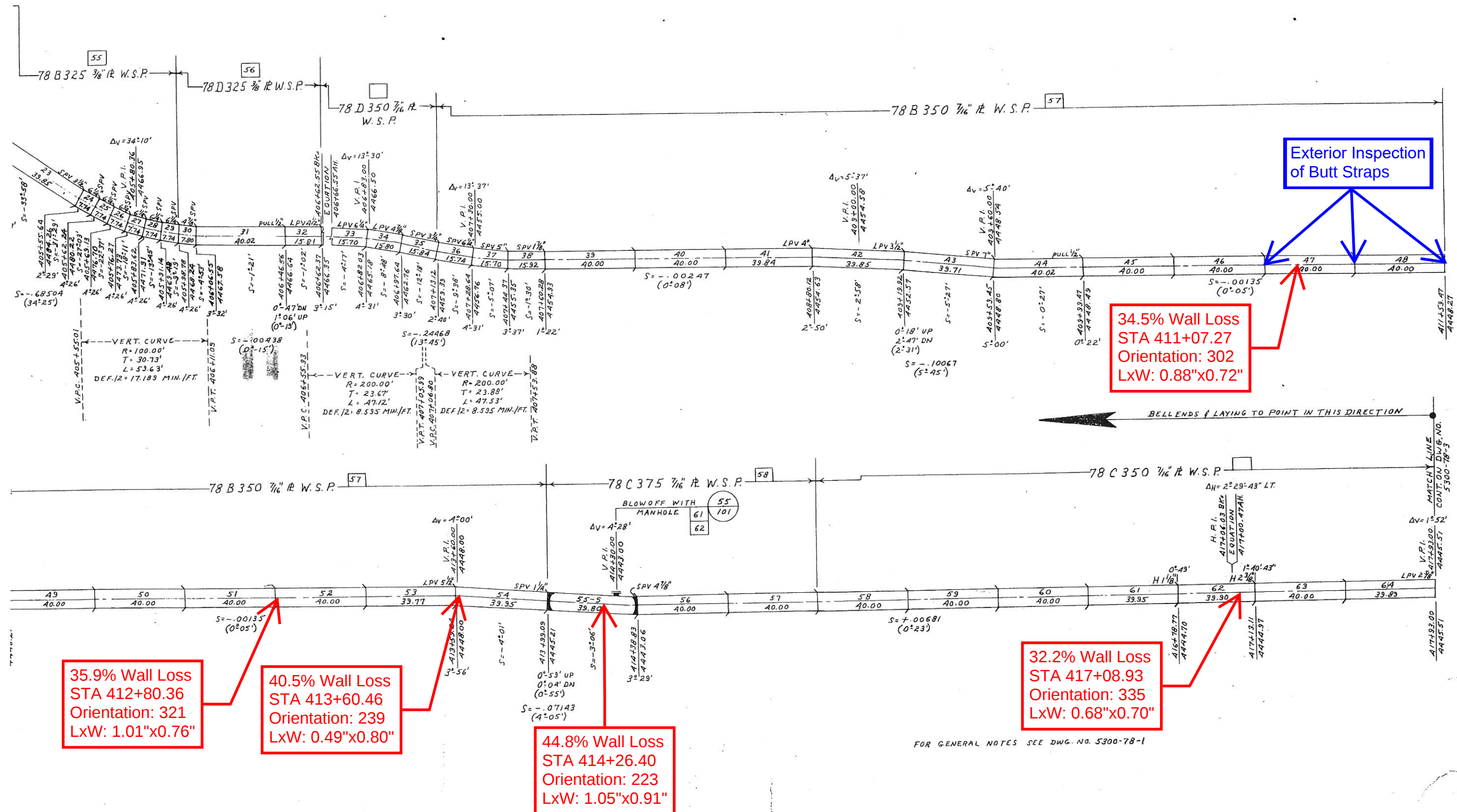
DRAWING NO.
GC-01

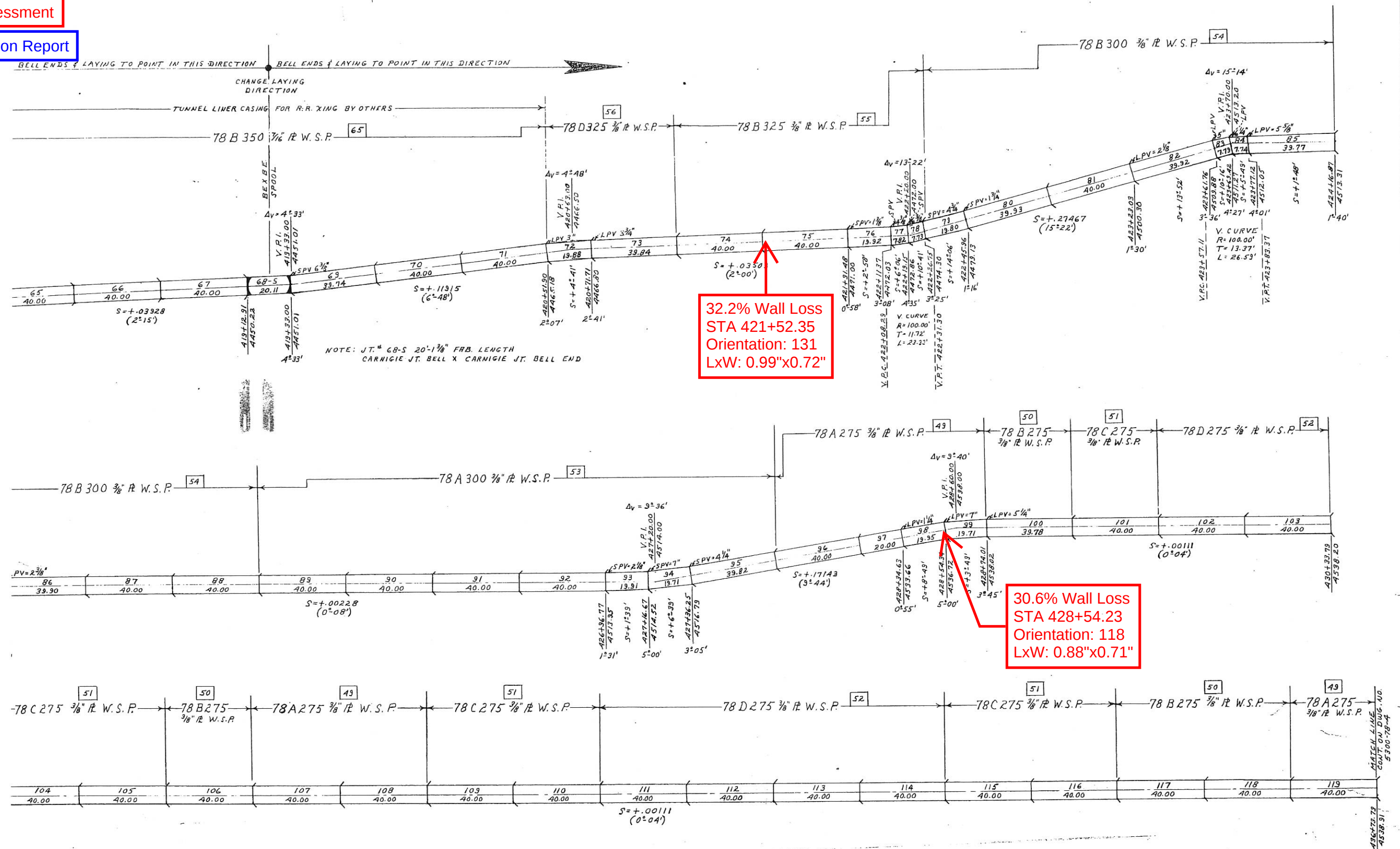
SHEET 1 OF 1

APPENDIX A

JA-1 SHOP DRAWINGS WITH ANNOTATIONS

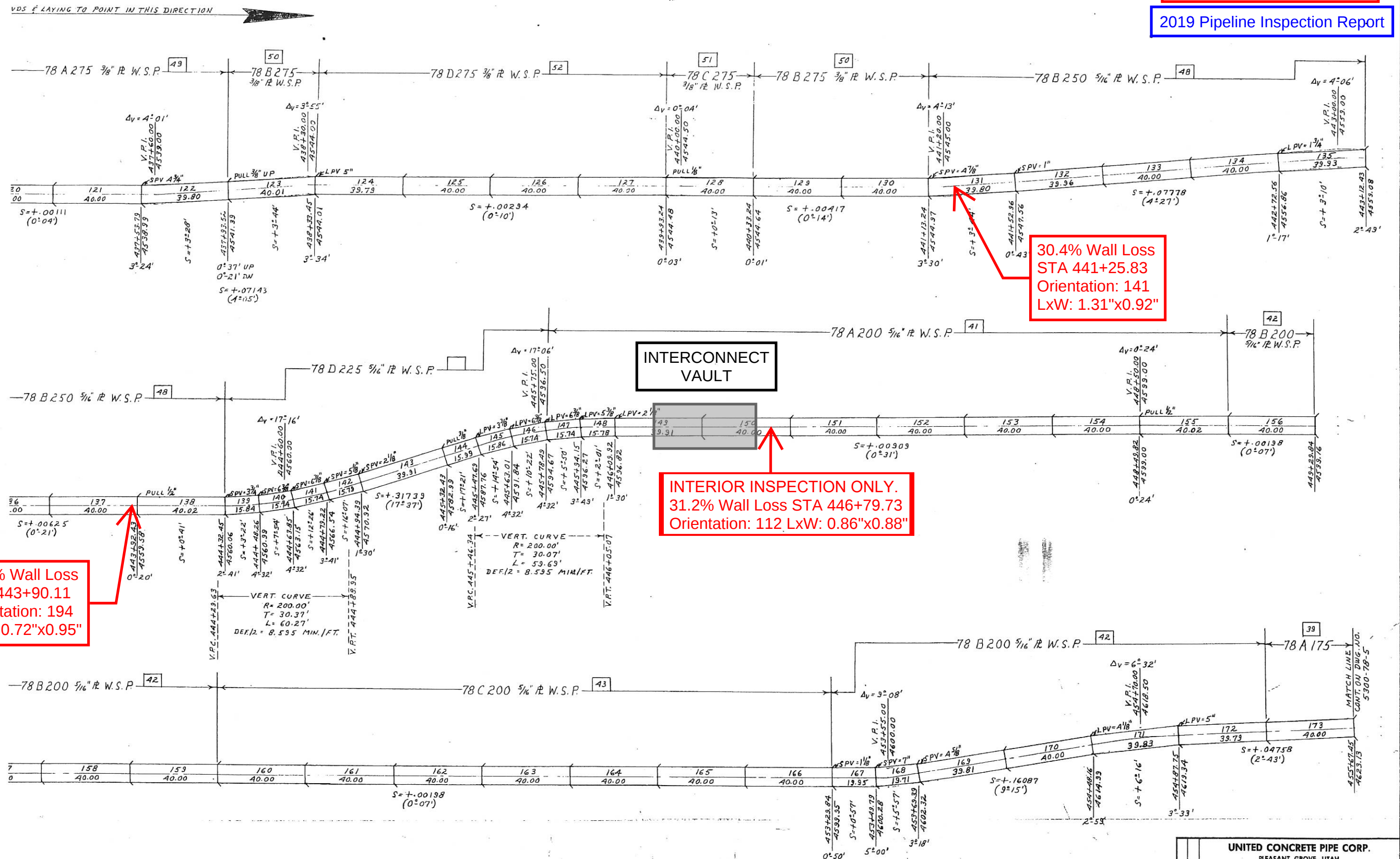






FOR GENERAL NOTES SEE DWG. NO. 5300-78-1

UNITED CONCRETE PIPE CORP.
PLEASANT GROVE, UTAH
U.S. BUREAU OF RECLAMATION
CENTRAL UTAH PROJECT
BONNEVILLE UNIT-UTAH
JORDAN AQUEDUCT
78" PIPE LINE LAYOUT
STA. 417+33.00 TO 436+73.73
JOINT NO. 65 TO 119
Job No. 85-PG-5300. Cont. S.A. HEALY CO.
Dwn. No. 5300-78-2 Drawn By K.D.



FOR GENERAL NOTES SEE DWG. NO. 5300-78-1

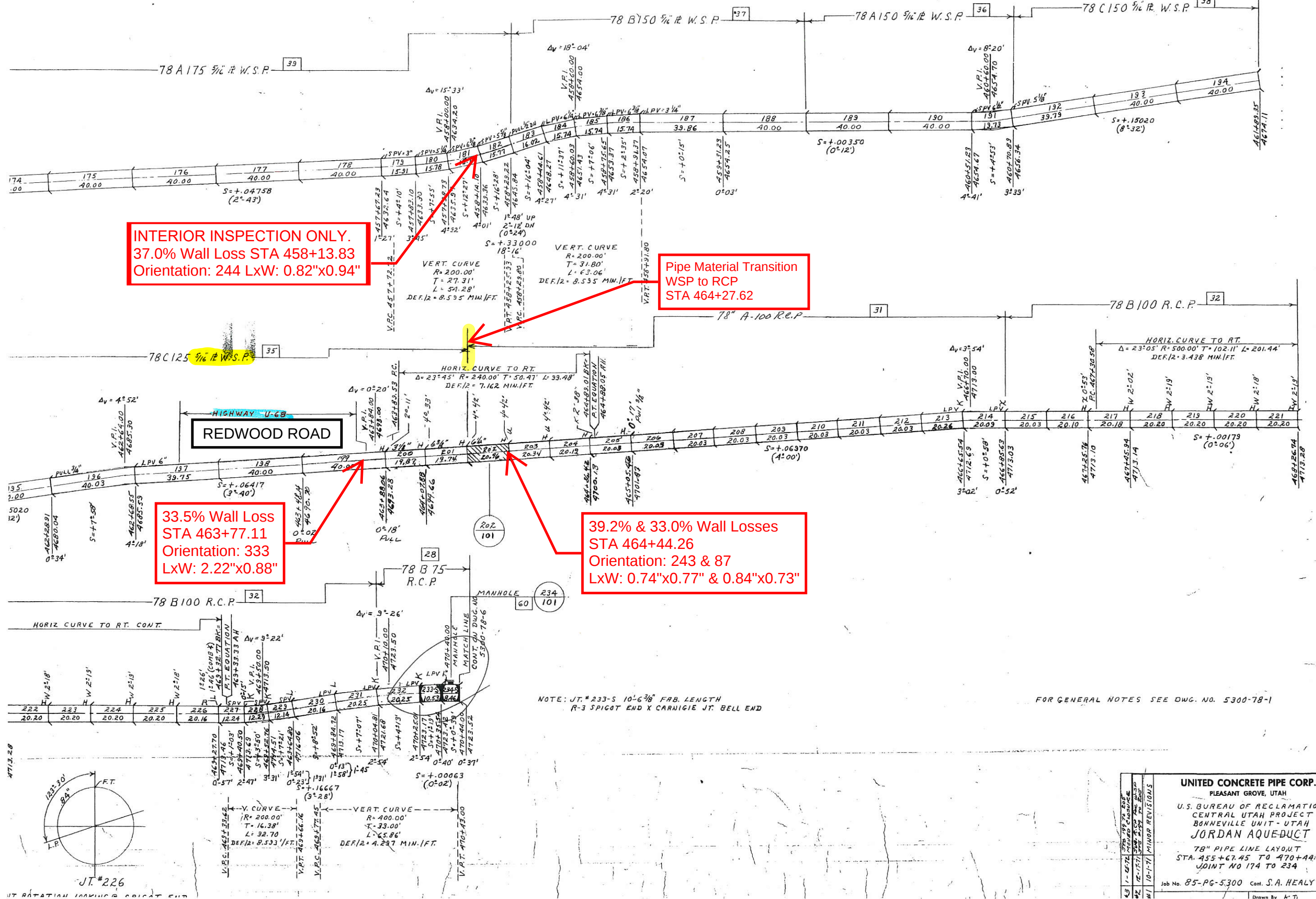
UNITED CONCRETE PIPE CORP.
PLEASANT GROVE, UTAHU.S. BUREAU OF RECLAMATION
CENTRAL UTAH PROJECT
BONNEVILLE UNIT-UTAH
JORDAN AQUEDUCT
78" PIPE LINE LAYOUT
STA. 436+73.73 TO 455+67.45
JOINT NO. 120 TO 173

Job No. 85-PG-5300 Cont. S.A. HEALY CO.

Dwg. No. 5300-78-4 Drawn By K.D.

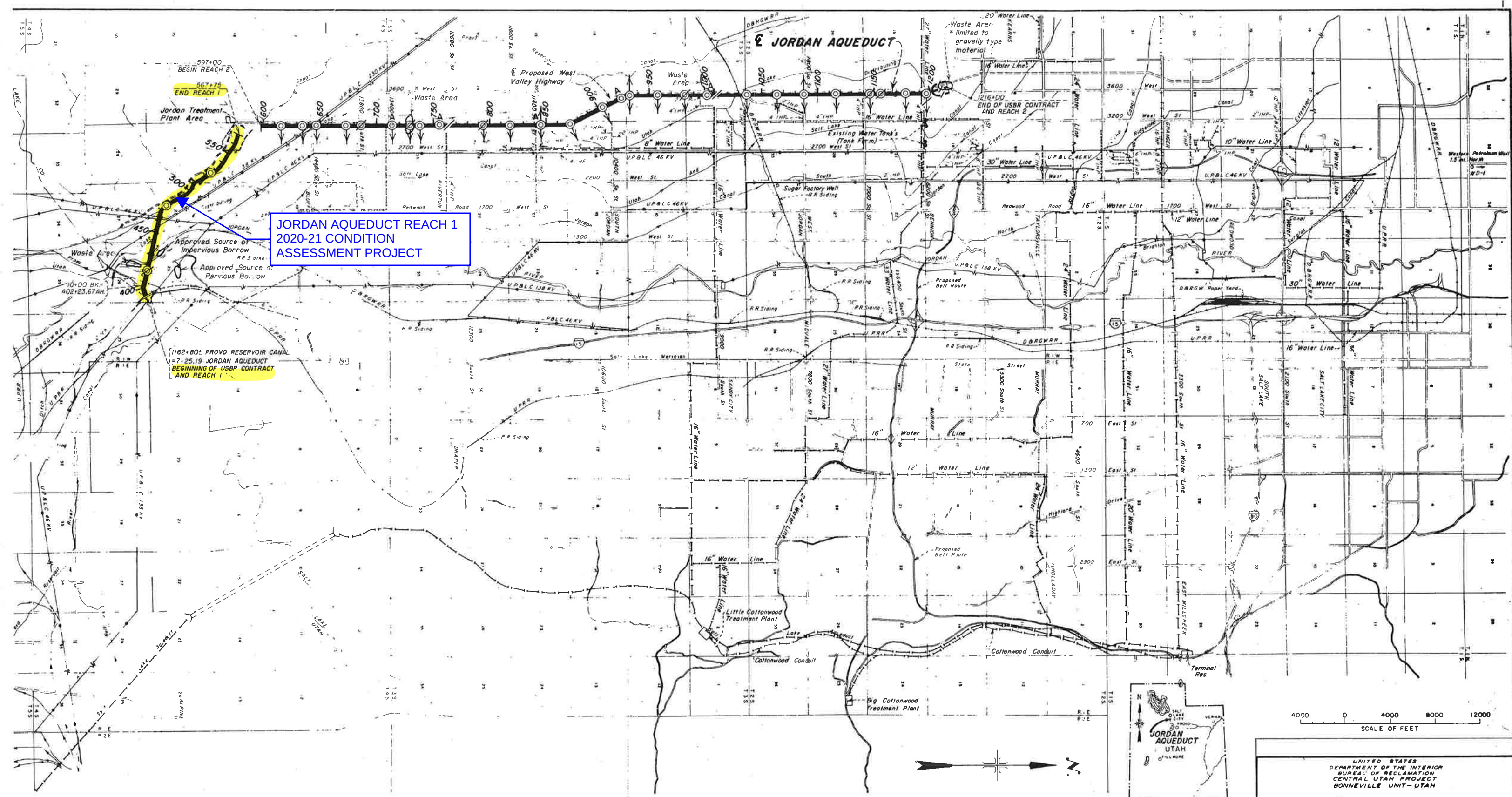
Date SEPT. 15, 1971

IDS & LAYING TO POINT IN THIS DIRECTION



APPENDIX B

JA-1 DESIGN DRAWINGS

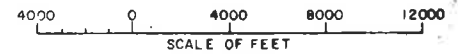
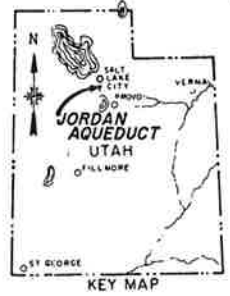


JORDAN AQUEDUCT REACH 1
2020-21 CONDITION
ASSESSMENT PROJECT

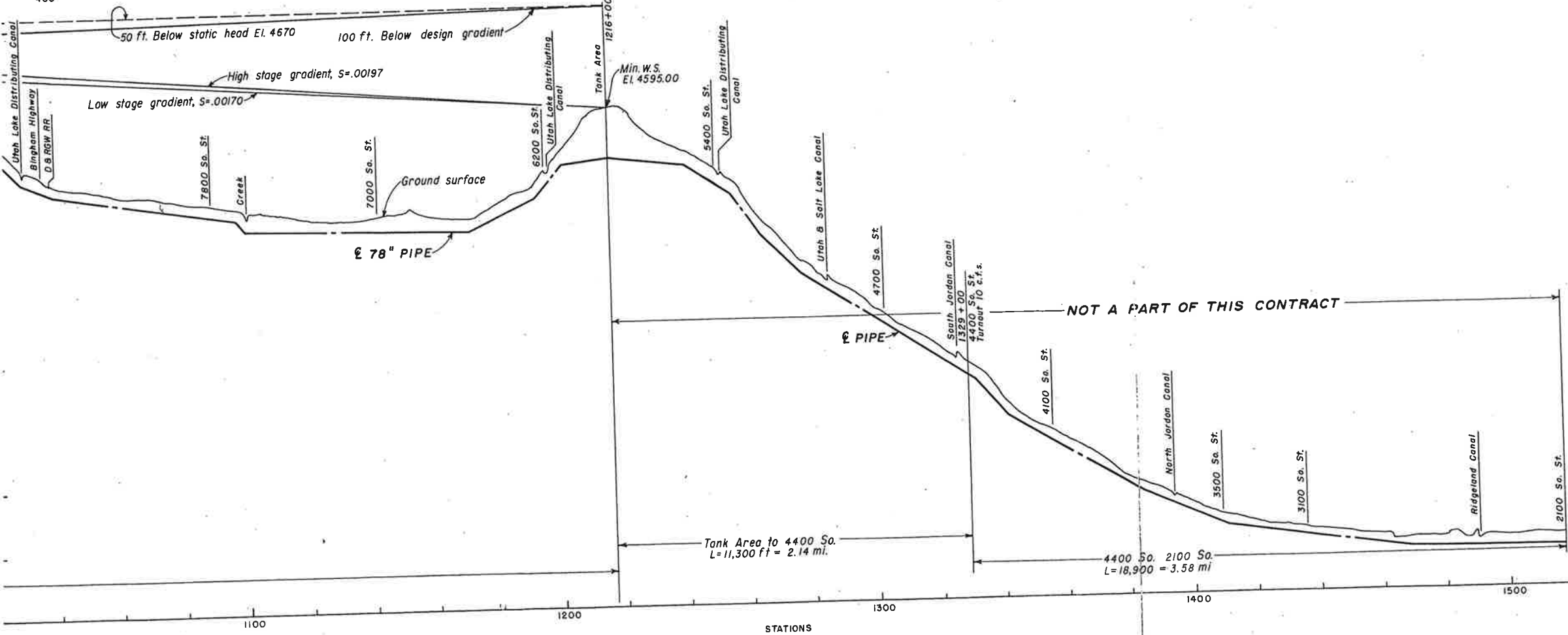
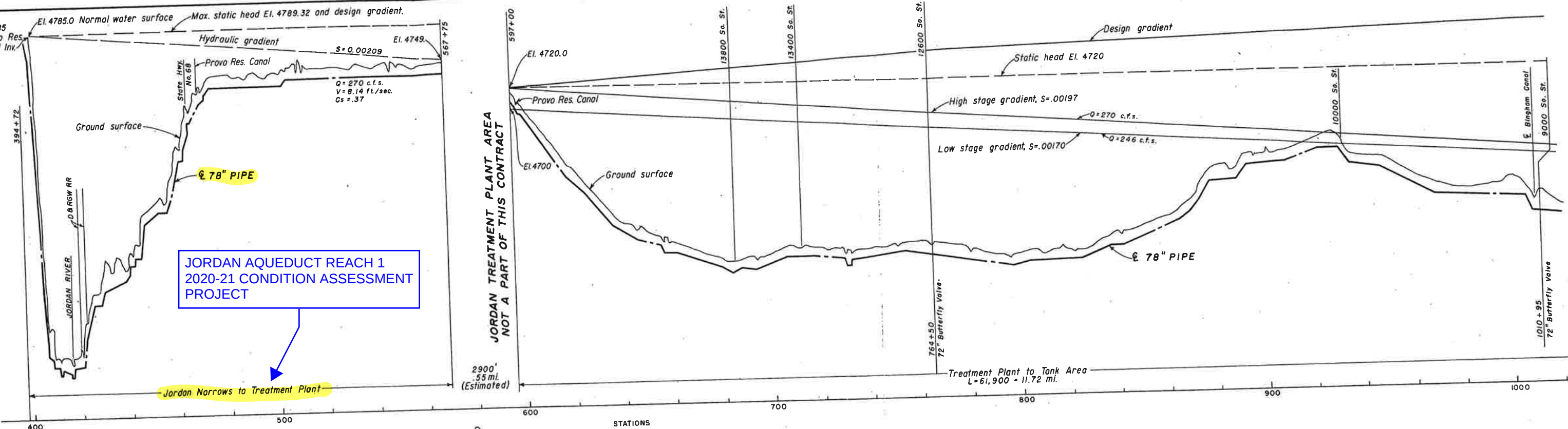
1162+80: PROVO RESERVOIR CANAL
= 7+25.19 JORDAN AQUEDUCT
BEGINNING OF USBR CONTRACT
AND REACH 1

Waste Area
limited to
gravelly type
material

NOTE
For symbol explanation, see 66-D-646.

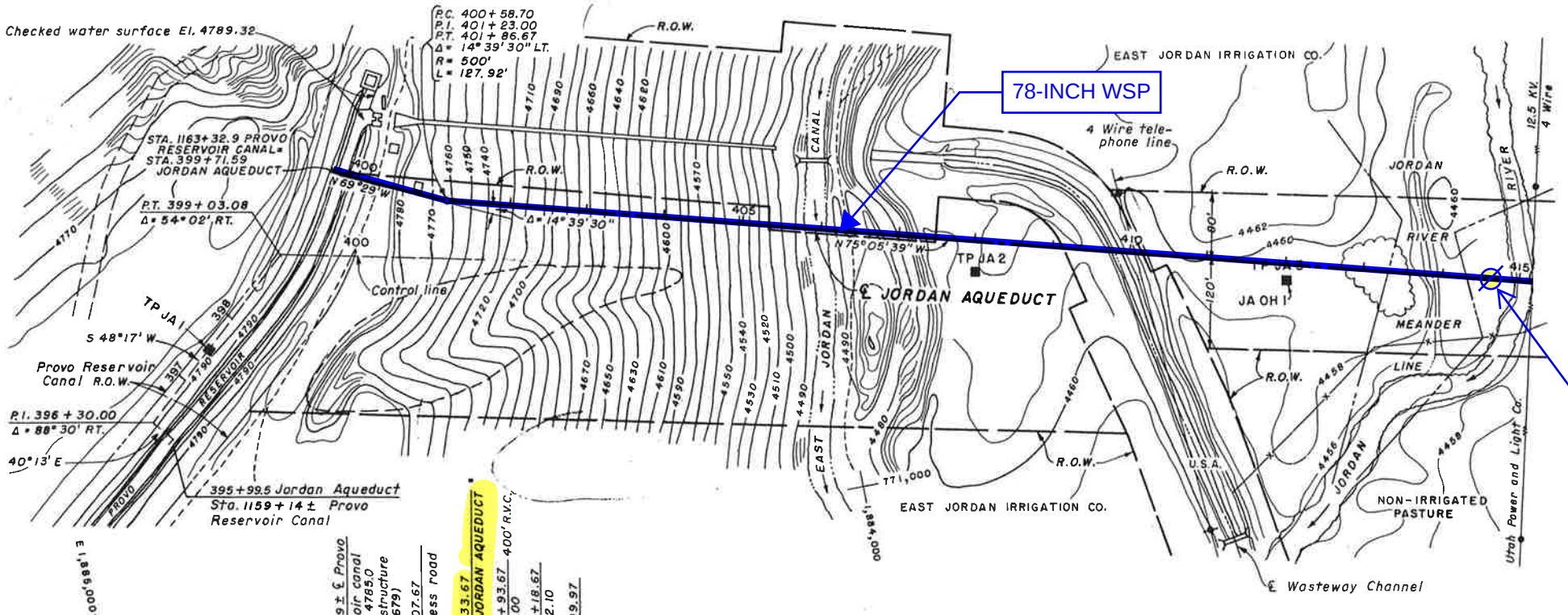


UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION CENTRAL UTAH PROJECT BONNEVILLE UNIT-UTAH	
JORDAN AQUEDUCT GENERAL MAP	
DRAWN L.A.B.	SUBMITTED <i>[Signature]</i>
TRACED G.A.R.	RECOMMENDED <i>[Signature]</i>
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>
DENVER, COLORADO, MARCH 24, 1971	
66-D-644	



ALWAYS THINK SAFETY	
UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION CENTRAL UTAH PROJECT BONNEVILLE UNIT-UTAH	
JORDAN AQUEDUCT HYDRAULIC PROFILE	
DESIGNED <i>P. J. Jones</i>	SUBMITTED <i>F. R. Bishop</i>
DRAWN <i>H. S. Bishop</i>	RECOMMENDED <i>H. S. Bishop</i>
CHECKED <i>P. J. Jones</i>	APPROVED <i>P. J. Jones</i> CHIEF, HYDRAULIC STRUCTURES BRANCH
DENVER, COLORADO, FEBRUARY 9, 1971	
66-D-645	

Checked water surface El. 4789.32



- ### EXPLANATION
- JA OH Observation hole for waterlevel measurements (power auger)
 - TP JA Test Pit
 - AH JA Auger Hole
 - DH Drill Hole
 - ✱ * Refusal or difficult excavation. See log for remarks.
 - Qibaf Quaternary Lake Bonneville Terrace and Alluvial Fans. Silt, sand, gravel and cobbles, hard, rounded, unconsolidated to slightly cemented. Continuous from Sta. 572+55 to end of alignment.
 - From Sta. 397+50 to 474+08 Gravelly, silty sand containing variable amounts of cobbles and boulders. Isolated areas of Lake Bonneville bottom silt and clay will be encountered.
 - W.L. Water Level and date measured. Not encircled on date of excavation where not indicated. Also see Ground Water Fluctuation Charts available at the Project Office, and the paragraph referring to "Subsurface Investigations."
 - Pictures referred to in test pit logs are available for examination at the Project Office.

- ### EXPLANATION
- BUTTERFLY VALVE
 - MANHOLE
 - MANHOLE WITH AIR VALVE
 - MANHOLE WITH AIR VALVE AND TURNOUT
 - BLOWOFF WITH MANHOLE
 - TURNOUT WITH BLOWOFF AND MANHOLE
 - TURNOUT WITH MANHOLE
 - DOUBLE TURNOUT WITH MANHOLE
 - TERMINAL STRUCTURE

BO with MH symbol is missing

NOTE:
Well Locations (not plotted on Plan + Profile Dwg.)
#4 6300'± right of approx. Sta. 760
#1 10400'± right of approx. Sta. 757
#13 10200'± right of approx. Sta. 1133
No log was prepared for JA OH 1.

GEOLOGY APPROVED BY *M. J. Logan* DATE 1-5-71
CHIEF, GEOLOGY AND GEOTECHNOLOGY BRANCH REV. 5-21-71

HYDRAULIC PROPERTIES

STATIONS	PIPE	A	V	Q	Cs	S
400+33.67 to 567+75	78"	33.18	8.14	270	0.37	.00209

GENERAL NOTES

Location stationing is based on horizontal measurements of all distances and on true length of curves. Stations, elevations, and radii refer to ϕ of pipe. Stations and grades may be adjusted if required to meet field conditions relative to laying lengths of pipe and minimum backfill requirements.

Pipe classes are shown on the profiles as 78A50, etc.; 78 denotes internal diameter in inches; A, B, C and D denotes 5, 10, 15 and 20 feet of cover; 50, 75, etc. denote design gradient pressure head in feet.

R.V.C. indicates radius of vertical curve.

For pipe trench section, see Dwg. 40-D-6036 and 6185. Backfill pipe trench to natural ground, except as noted.

Backfill over the pipe at all cross drainage channels shall be composed of natural streambed material.

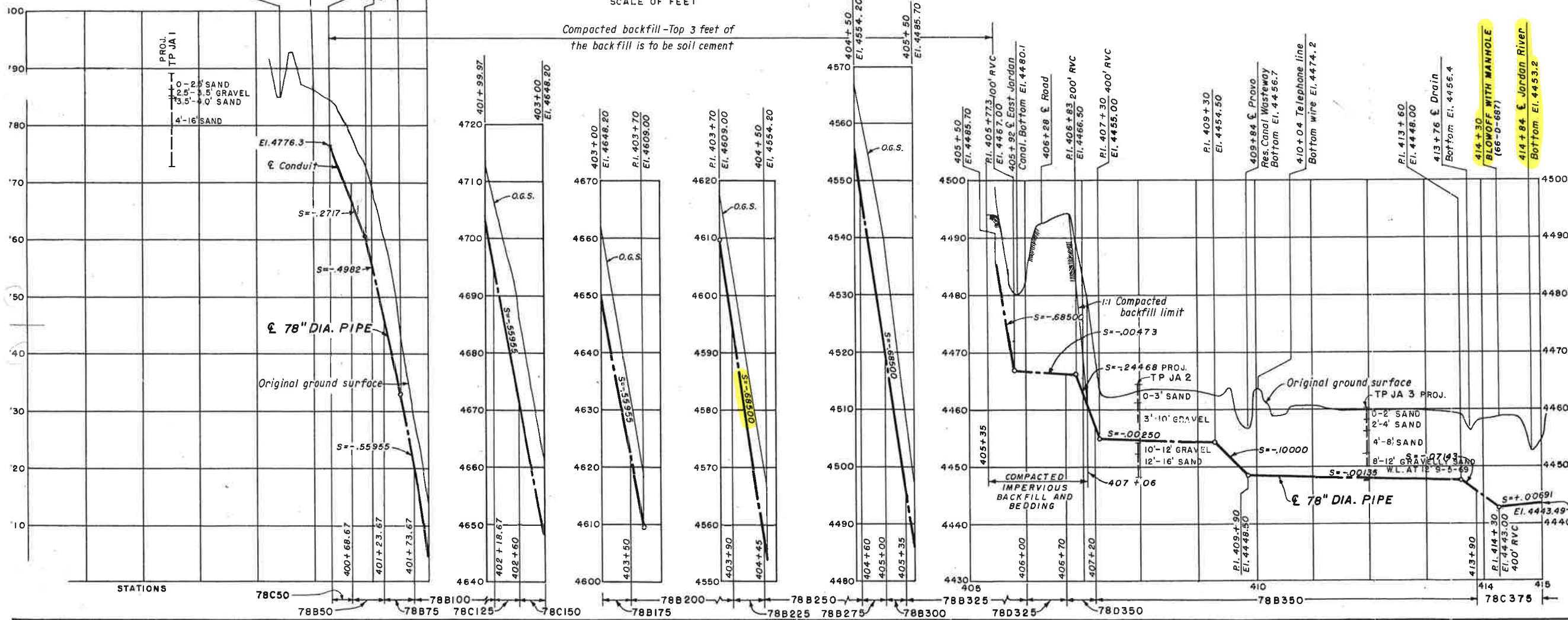
Pipe bends as shown on Dwg. 66-D-701 may be used as an alternative method of providing deflections for horizontal and vertical curves.

Floors shall be sloped $\frac{1}{4}$ " per foot to the sumps in structures containing sumps.

Trench backfill from Sta. 597+00 to Sta. 1216+00 is to be compacted. Where aqueduct is in agricultural land, replace topsoil and leave top 12 inches loose. Current cropping pattern and land use may be different from that shown on profiles.

NOTE

This drawing traced from field drawing 66-418-3154.



5-19-71
D

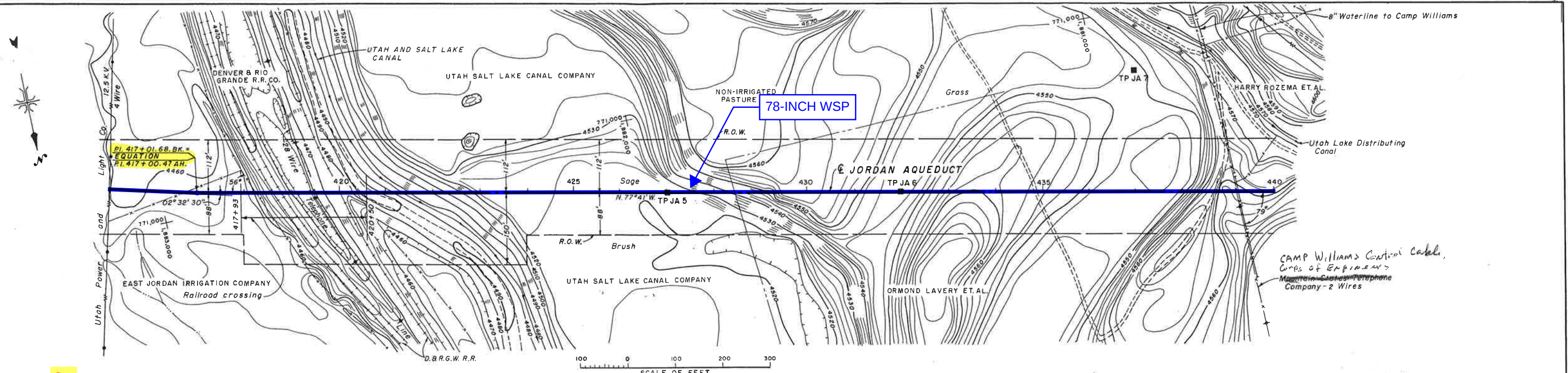
DELETED WASTE AREA

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL UTAH PROJECT
BONNEVILLE UNIT-UTAH
JORDAN AQUEDUCT
STATION 400+33.67 TO STATION 415+00
PLAN AND PROFILE

DRAWN: E.M.J. SUBMITTED: *F. Ritz*
TRADED: J.S.M.J.R. RECOMMENDED: *W. B. Smith*
CHECKED: *W. B. Smith* APPROVED: *W. B. Smith*
DENVER, COLORADO NOVEMBER 4, 1970 SHEET 1 OF 31

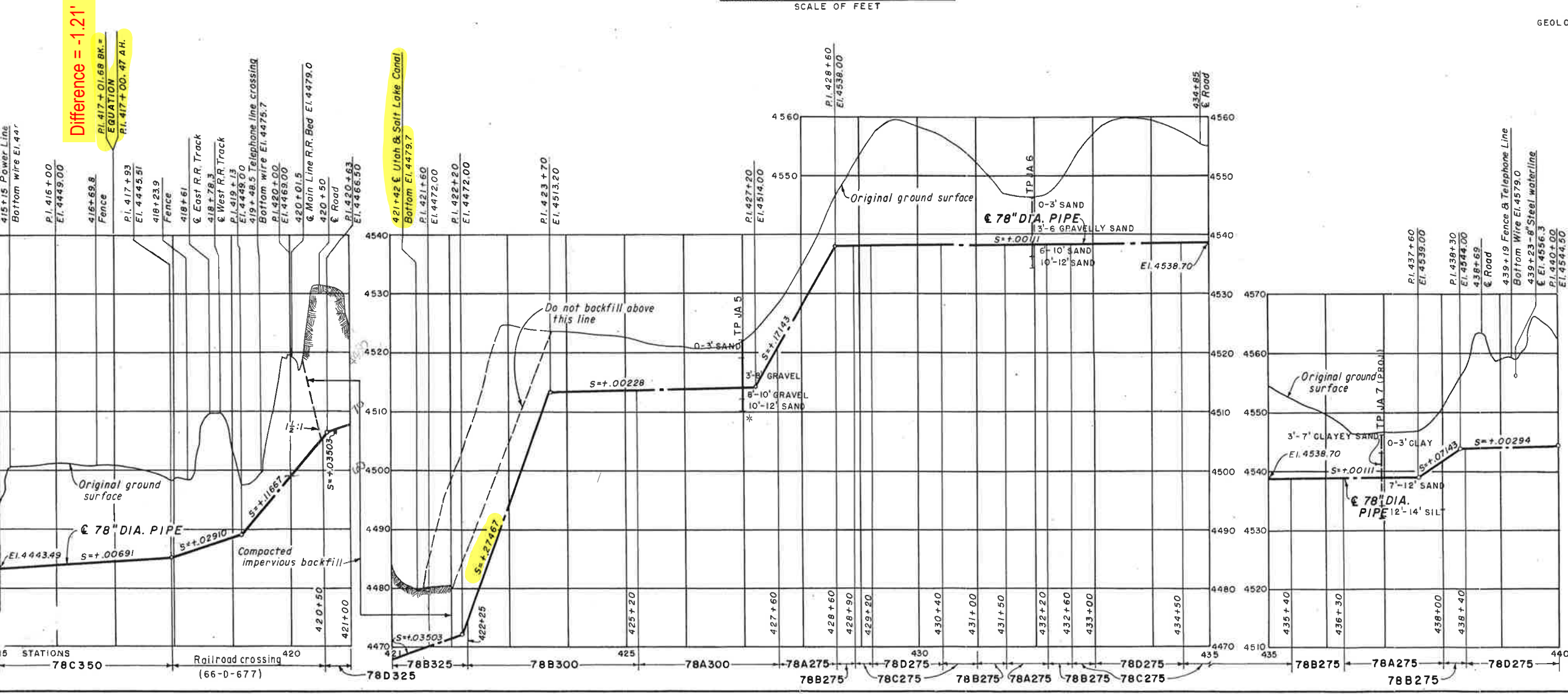
66-D-646A



GEOLOGY APPROVED BY *M. J. Logan* DATE 1-5-71
CHIEF, GEOLOGY AND GEOTECHNOLOGY BRANCH

HYDRAULIC PROPERTIES

PIPE	A	V	Q	C _s	S
78"	33.18	8.14	270	0.37	.00209



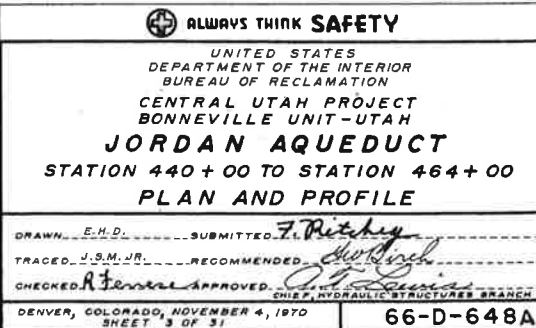
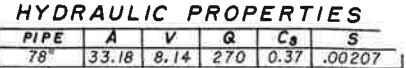
NOTE
This drawing traced from field drawing 66-418-3155.

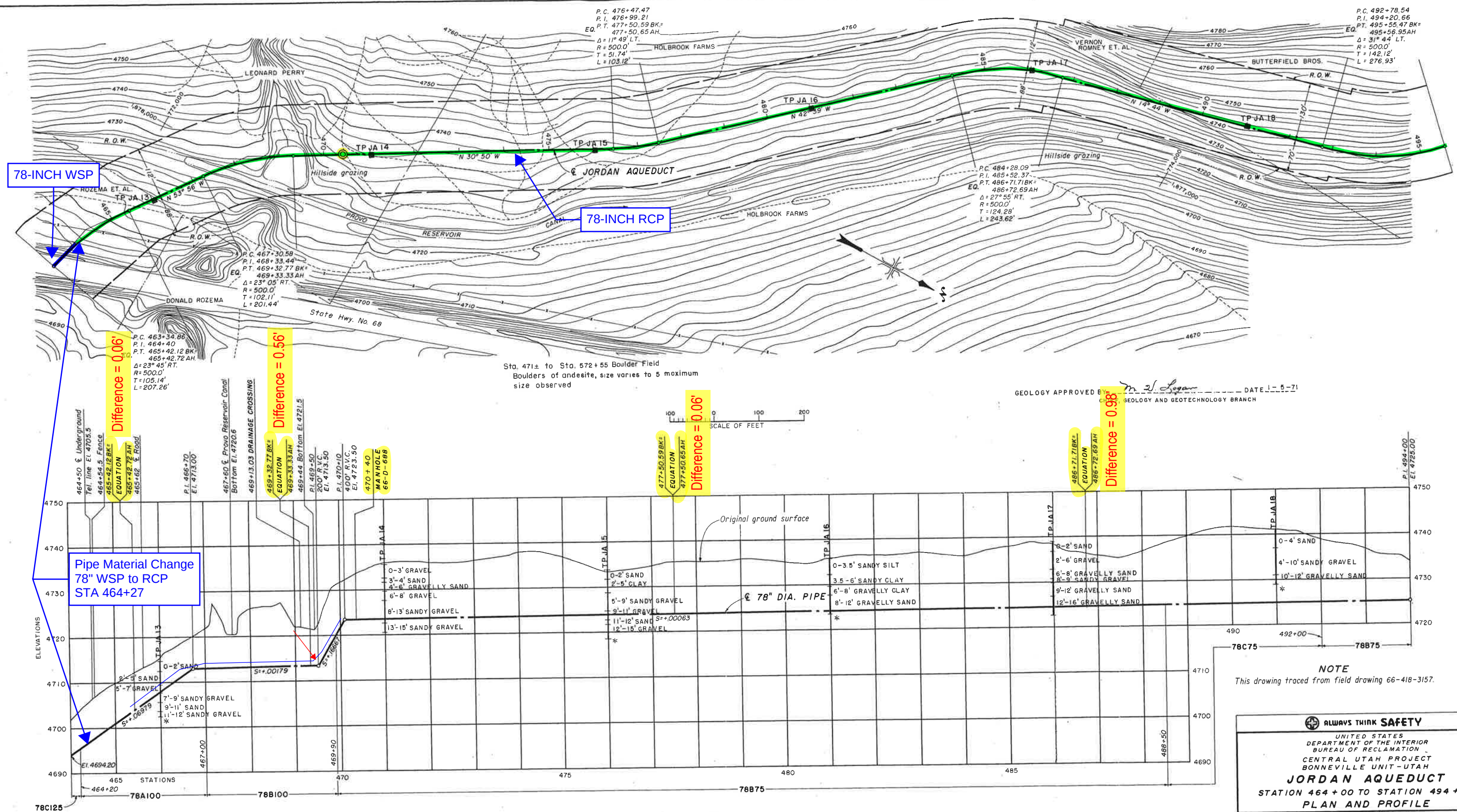
ALWAYS THINK SAFETY

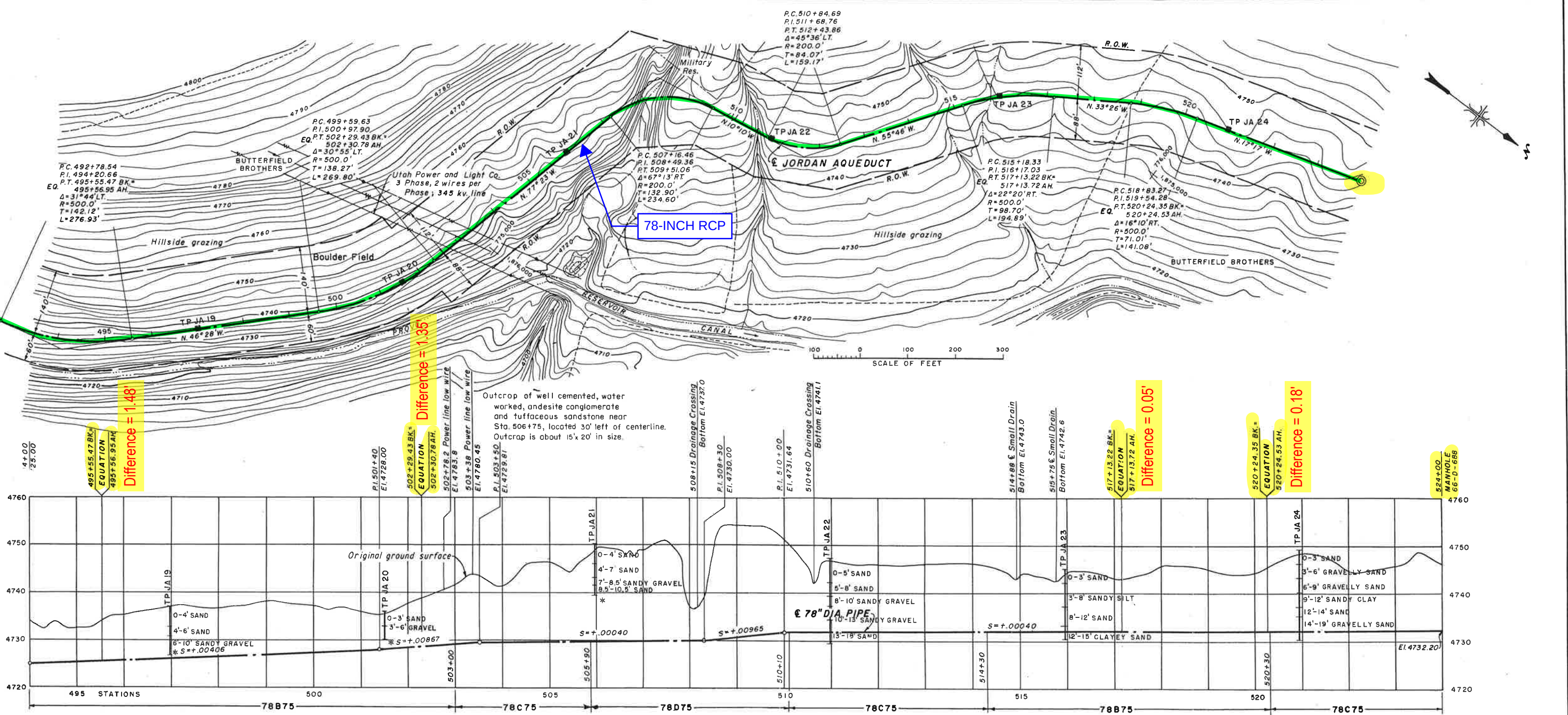
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL UTAH PROJECT
BONNEVILLE UNIT-UTAH
JORDAN AQUEDUCT
STATION 415+00 TO STATION 440+00
PLAN AND PROFILE

DRAWN *E.H.O.* SUBMITTED *F. R. R. R.*
TRADED *H.M.O.* RECOMMENDED *F. R. R. R.*
CHECKED *E. H. O.* APPROVED *F. R. R. R.*
DENVER COLORADO NOVEMBER 4, 1970
SHEET 2 OF 31

66-D-647A







HYDRAULIC PROPERTIES

PIPE	A	V	Q	C _s	S
78"	33.18	8.14	270	0.37	.00209

GEOLOGY APPROVED BY *M. J. Logan* DATE 1-5-71
CHIEF, GEOLOGY AND GEOTECHNOLOGY BRANCH REV. 5-21-71

NOTE
This drawing traced from field drawing 66-418-3158

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL UTAH PROJECT
BONNEVILLE UNIT-UTAH
JORDAN AQUEDUCT
STATION 494+00 TO STATION 524+00
PLAN AND PROFILE

DRAWN: E.H.D. SUBMITTED: *F. Ritchey*

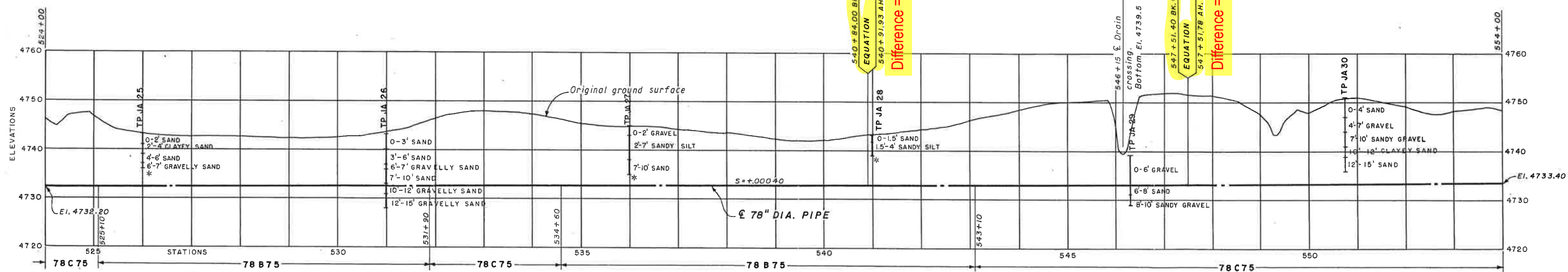
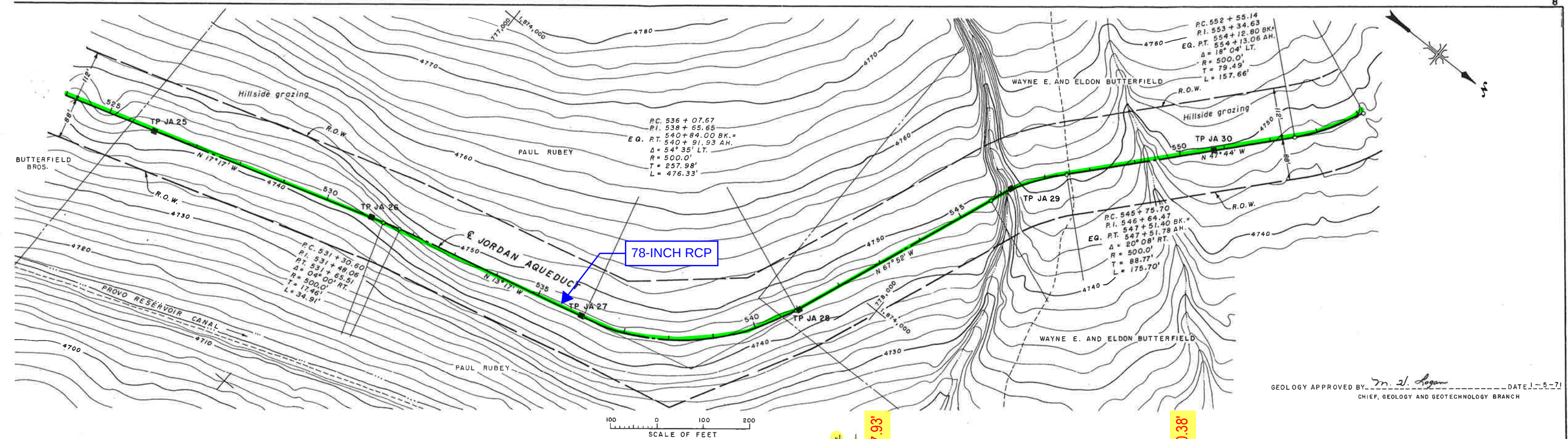
TRACED: H.M.C. RECOMMENDED: *W. B. Smith*

CHECKED: *R. L. Jones* APPROVED: *M. J. Logan*
CHIEF, HYDRAULIC STRUCTURES BRANCH

DENVER, COLORADO, NOVEMBER 4, 1970
SHEET 5 OF 31

66-D-650A

5-19-71
DELETED WASTE AREA



HYDRAULIC PROPERTIES

PIPE	A	V	Q	C _s	S
78"	33.18	8.14	270	0.37	.00209

NOTE

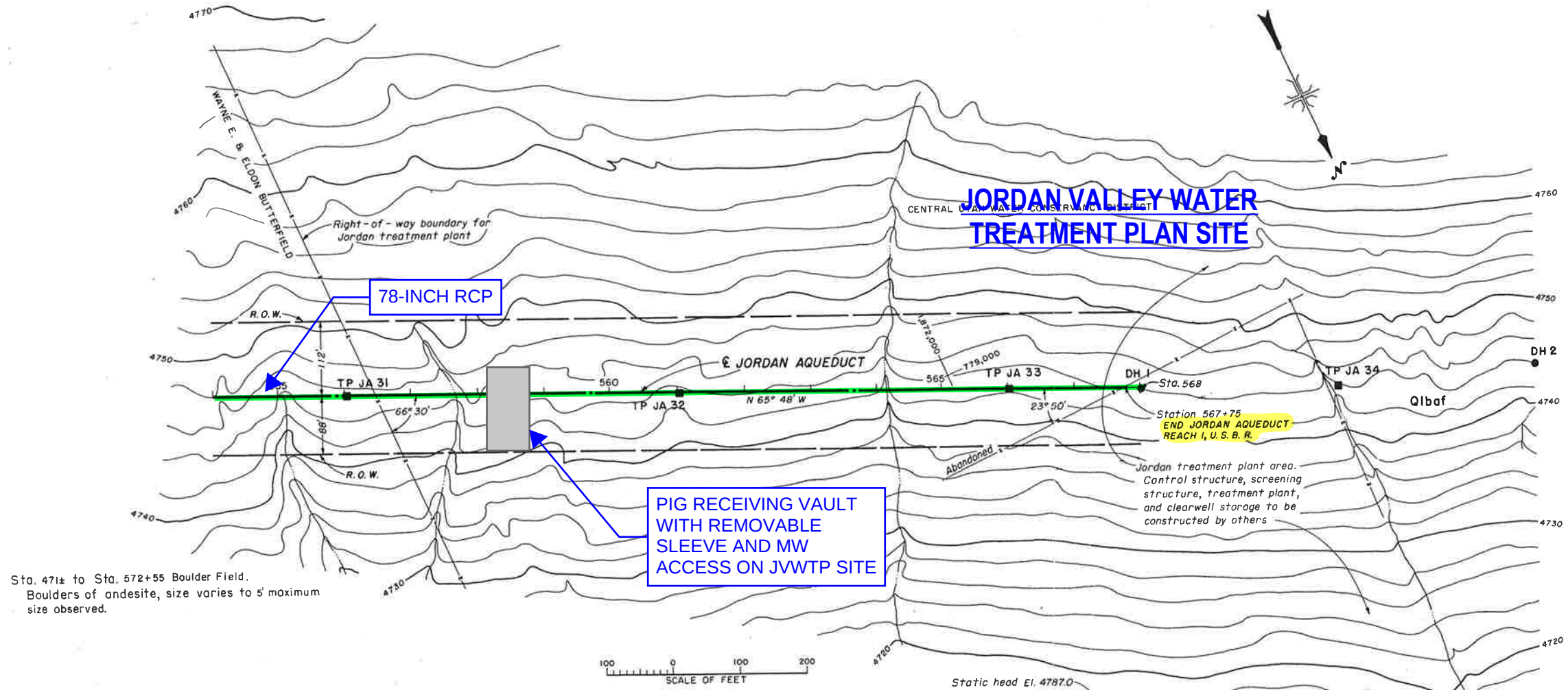
This drawing traced from field drawing 66-418-3159.

ALWAYS THINK SAFETY

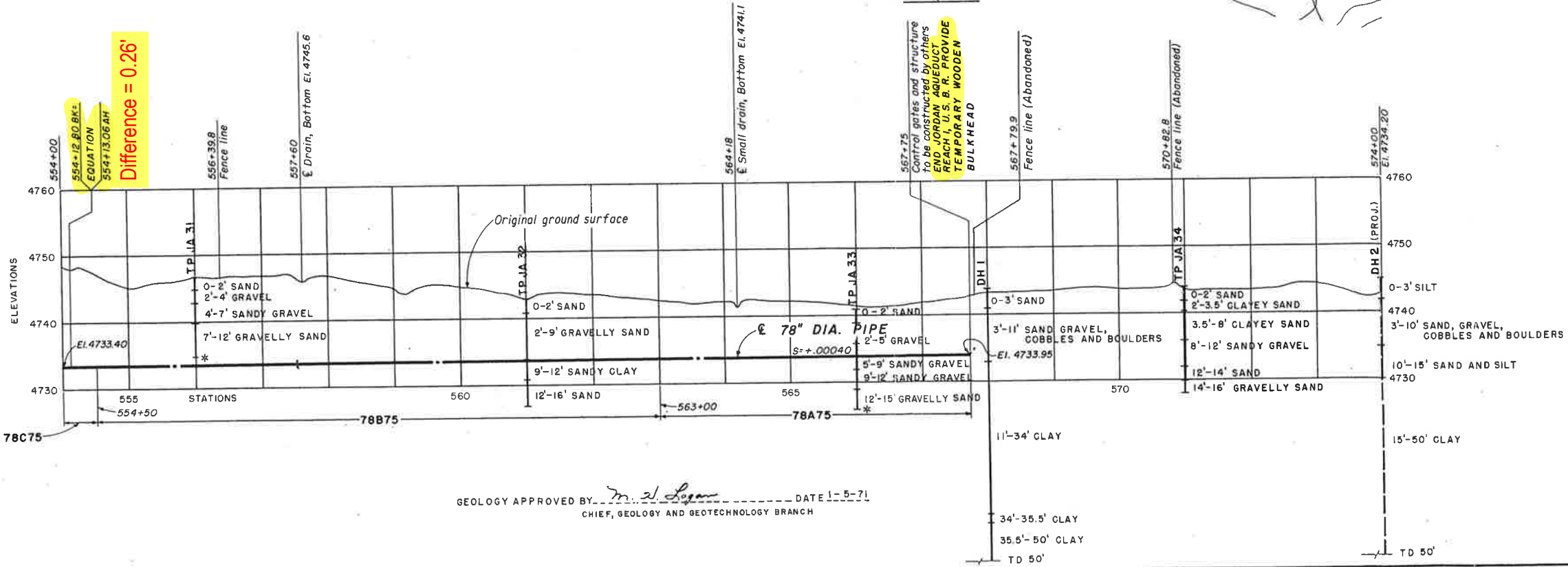
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL UTAH PROJECT
BONNEVILLE UNIT-UTAH
JORDAN AQUEDUCT
STATION 524 + 00 TO STATION 554 + 00
PLAN AND PROFILE

DRAWN: E.H.D. SUBMITTED: *F. Ritchey*
TRACED: J.S.M. JR. RECOMMENDED: *W. B. Smith*
CHECKED: *R. E. ...* APPROVED: *W. B. Smith*
CHIEF, HYDRAULIC STRUCTURES BRANCH
DENVER, COLORADO NOVEMBER 4, 1970
SHEET 6 OF 31

66-D-651A



HYDRAULIC PROPERTIES					
PIPE	A	V	Q	Cs	S
78"	33.18	8.14	270	0.37	.00209



NOTE
This drawing traced from field drawing 66-418-3160.

5-19-71
0

EXTEND R.O.W. TO STA. 568
A7

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL UTAH PROJECT
BONNEVILLE UNIT-UTAH

JORDAN AQUEDUCT
STATION 554 + 00 TO STATION 567 + 75
PLAN AND PROFILE

DRAWN E.H.O. SUBMITTED F. Ritchey

TRACED P.E. RECOMMENDED J. Ritchey

CHECKED J. Ritchey APPROVED J. Ritchey

DENVER, COLORADO NOVEMBER 4, 1970
SHEET 7 OF 31

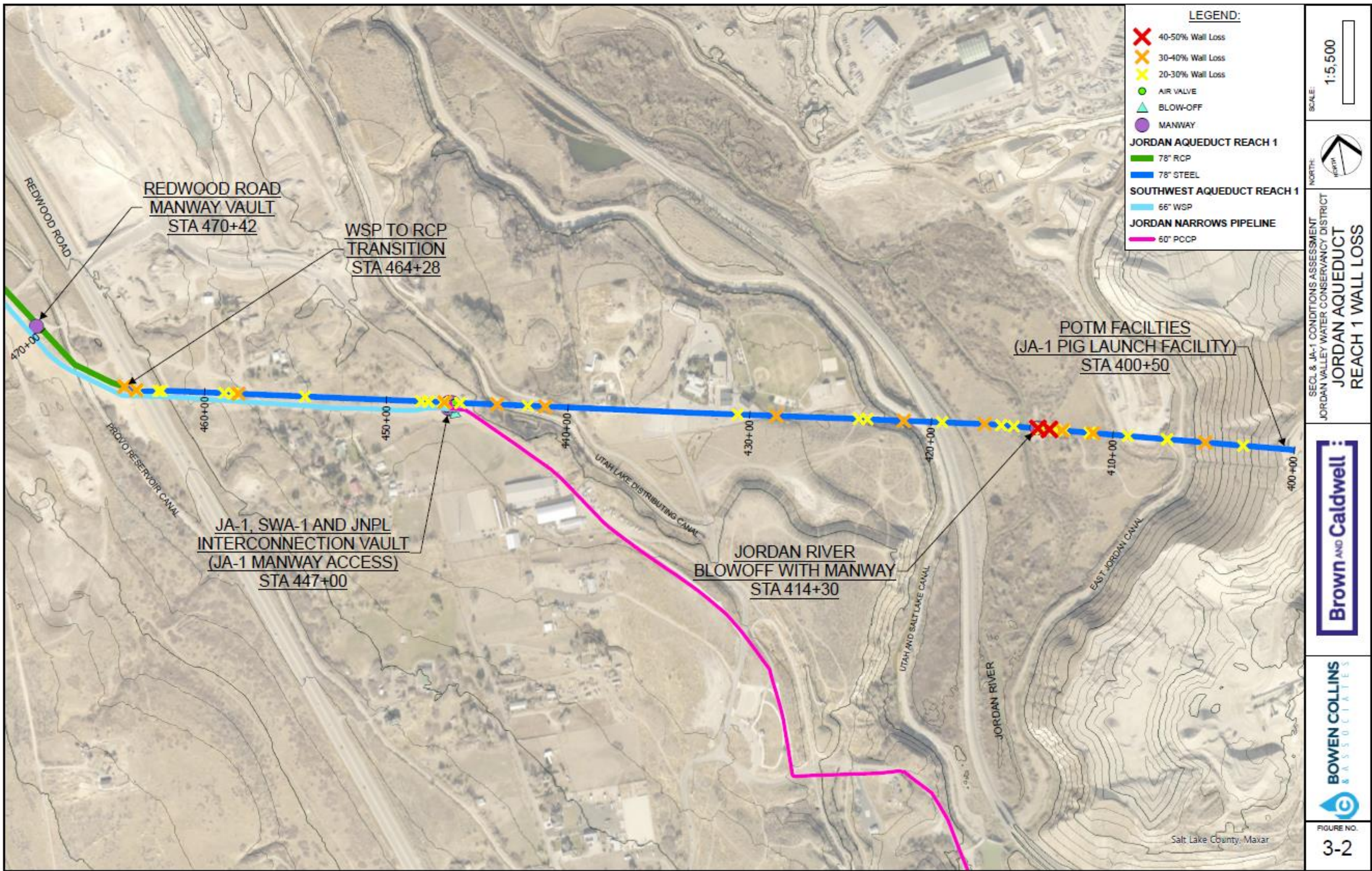
66-D-652 A

APPENDIX C

JA-1 Highest Wall Loss Locations

Top Fifteen Observed Wall Loss Defects

Station	Stick ID	Orientation (deg.)	Wall Loss Depth (%)	Area (sq.in.)	Original Wall Thickness (in.)	Approximate Elevation (feet)	Notes
404+90.60	21	191	34.7%	1.10	0.375	4525	Interior Inspection Only
411+07.27	46	302	34.5%	0.63	0.4375	4448	
412+80.36	51	321	35.9%	0.77	0.4375	4448	
413+60.46	53	239	40.5%	0.40	0.4375	4448	
414+26.40	54	223	44.8%	0.96	0.4375	4443	
417+08.93	61	335	32.2%	0.48	0.4375	4445	
421+52.35	74	131	31.4%	0.71	0.375	4469	
428+54.23	97	118	30.6%	0.62	0.375	4536	
441+25.83	130	141	30.4%	1.20	0.375	4545	
443+90.11	136	194	32.9%	0.68	0.3125	4559	
446+79.73	149M	112	31.2%	0.76	0.3125	4596	Interior Inspection Only
458+13.83	180	244	37.0%	0.75	0.3125	4639	Interior Inspection Only
463+77.11	198	333	33.5%	1.95	0.3125	4692	
464+44.26	202	243	39.2%	0.57	0.4375	4695	
464+44.26	202	87	33.0%	0.61	0.4375	4695	



APPENDIX D

JA-4 WORK AREA AND DRAWINGS

