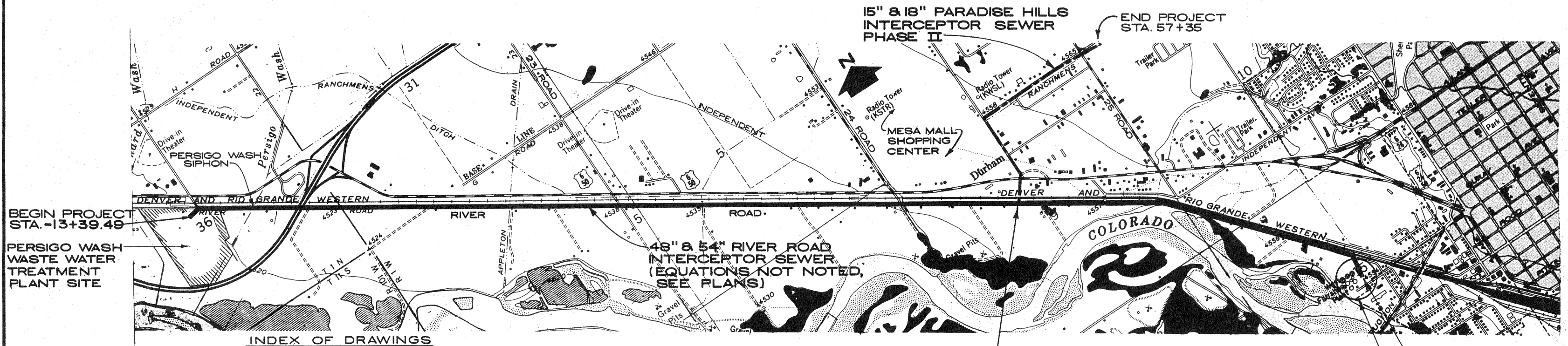


GRAND JUNCTION / MESA COUNTY RIVER ROAD INTERCEPTOR SEWER AND PARADISE HILLS INTERCEPTOR SEWER-PHASE II 1980 EPA PROJECT NO. CO 80337.

RECEIVED
APR 28 1980
WATER QUALITY
CONTROL DIVISION



RIVER ROAD INTERCEPTOR SEWER

SHT. NO.	TITLE
1.	TITLE SHEET-LOCATION MAP
2.	LOCATION PLAN & OVERALL PROFILE
3.	PLAN & PROFILE STA. -13+39.49 TO 1+00
4.	PLAN & PROFILE STA. 1+00 TO 17+50
5.	PLAN & PROFILE STA. 17+50 TO 35+00
6.	PLAN & PROFILE STA. 35+00 TO 52+00
7.	PLAN & PROFILE STA. 52+00 TO 69+00
8.	PLAN & PROFILE STA. 69+00 TO 86+00
9.	PLAN & PROFILE STA. 86+00 TO 103+00
10.	PLAN & PROFILE STA. 103+00 TO 120+00
11.	PLAN & PROFILE STA. 120+00 TO 137+00
12.	PLAN & PROFILE STA. 137+00 TO 154+00
13.	PLAN & PROFILE STA. 154+00 TO 171+00
14.	PLAN & PROFILE STA. 171+00 TO 188+50
15.	PLAN & PROFILE STA. 188+50 TO 205+00
16.	PLAN & PROFILE STA. 205+00 TO 222+50
17.	PLAN & PROFILE STA. 222+50 TO 239+50
18.	PLAN & PROFILE STA. 239+50 TO 254+75
19.	PLAN & PROFILE STA. 254+75 TO 259+27.60
20.	SIPHON INLET & OUTLET STRUCTURES-PLANS & SECTIONS
21.	SIPHON INLET & OUTLET STRUCTURES-REINFORCEMENT DETAILS
22.	SIPHON PLAN & PROFILE - PERSIGO WASH - STA. 2+63
23.	SIPHON PLAN & PROFILE - STA. 60+92 & 218+02

**PARADISE HILLS
INTERCEPTOR SEWER PHASE II**

SHT. NO.	TITLE
24.	DETAILS: INLET HEADWALL STA. 218+02, DITCH CROSSING STA. 255+25, PLANT DIVERSION BOX STA. 3+39.49
25.	PLAN & PROFILE STA. 0+10 TO 9+00
26.	PLAN & PROFILE STA. 9+00 TO 22+00
27.	PLAN & PROFILE STA. 22+00 TO 33+00
28.	PLAN & PROFILE STA. 33+00 TO 46+00
29.	PLAN & PROFILE STA. 46+00 TO 57+35
30.	MISCELLANEOUS PROJECT DETAILS

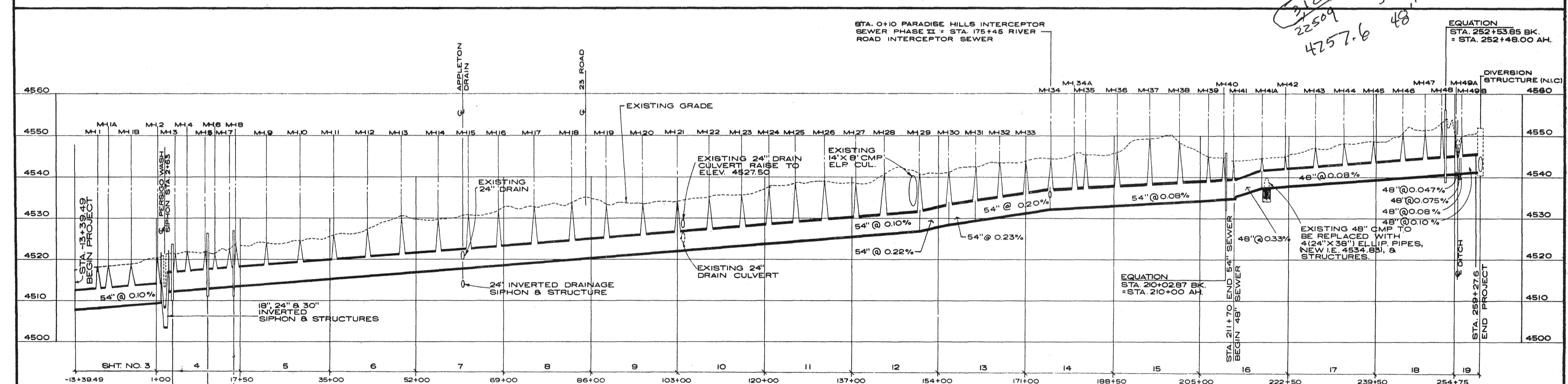
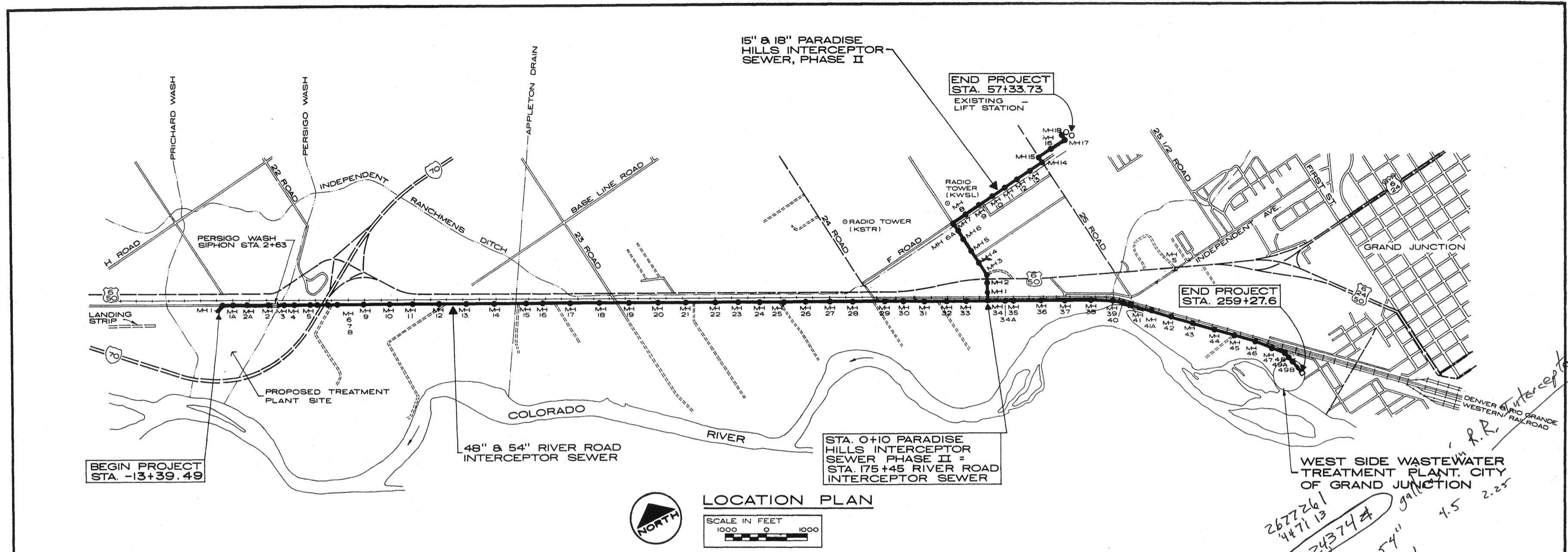
STA. 0+10 PARADISE HILLS INTERCEPTOR SEWER PHASE II = STA. 175+45 RIVER ROAD INTERCEPTOR SEWER (EQUATIONS NOT NOTED SEE PLANS)

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.

**HDR
HENNINGSON, DURHAM & RICHARDSON
ENGINEERS · PLANNERS · CONSULTANTS
GRAND JUNCTION & DENVER COLO.**

REVISED 1-2-80
REVISED 8-21-79
FILED WITH THE CITY OF GRAND JUNCTION AND MESA COUNTY, COLORADO AUGUST 24, 1977 DATE
APPROVED: *James E. Peterson* MARCH 19, 1980 DATE
CITY OF GRAND JUNCTION AND MESA COUNTY
SUBMITTED: *John A. Thurman* AUGUST 24, 1977 DATE
HENNINGSON, DURHAM & RICHARDSON





Handwritten notes and calculations:

- 2677261
- 447113
- 3124374 #
- 22509
- 4257.6
- 54" 48"
- 1.5
- 2.25

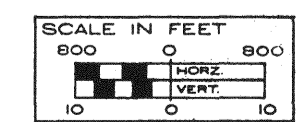
EQUATION
STA. 4+13.57 BK.
= STA. 3+96.17 AH.

EQUATION
STA. 11+04.63 BK.
= STA. 11+08.27 AH.

EQUATION
STA. 15+61.63 BK.
= STA. 15+66.11 AH.

COLORADO DEPARTMENT OF HEALTH
Water Quality Control Division
In accordance with the Water Quality Control Act, this design for *River Road Interceptor Sewer* has been reviewed.
Date *5/20/79* Reviewer *Daniel [Signature]*
Letter: Yes No Date *5/20/79*

RIVER ROAD INTERCEPTOR SEWER PROFILE



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.



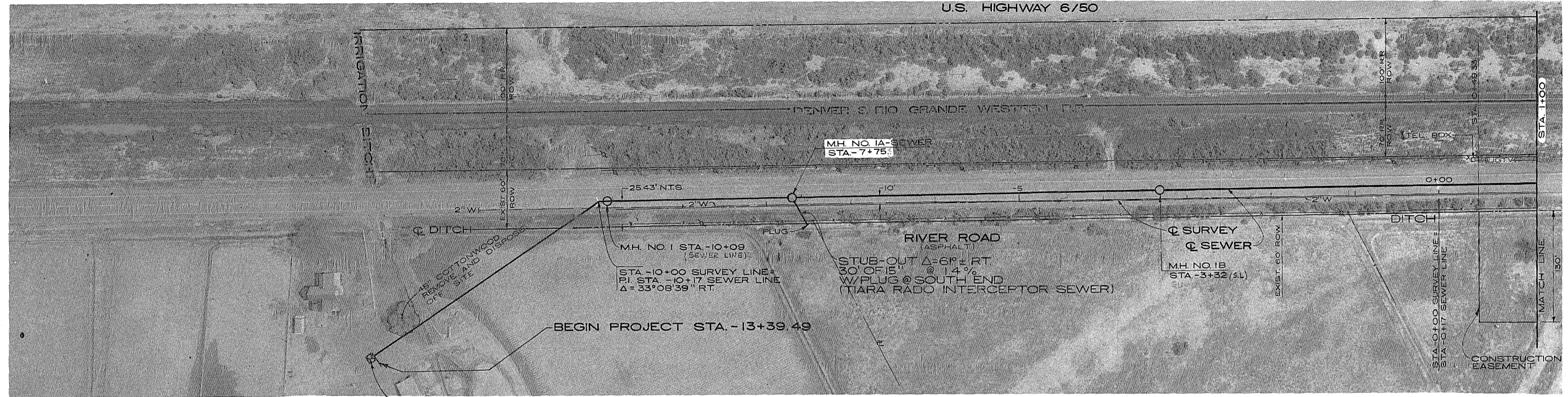
GRAND JUNCTION / MESA COUNTY
RIVER ROAD INTERCEPTOR SEWER
LOCATION PLAN & PROFILE

HINNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERS - PLANNERS - CONSULTANTS
DENVER, COLORADO

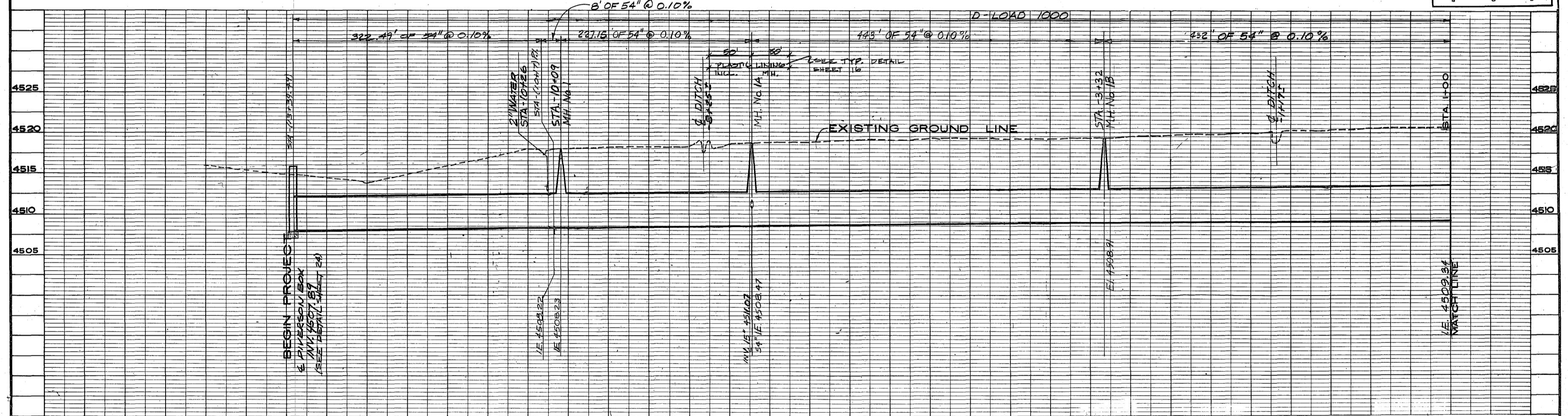
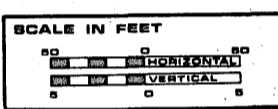
DATE	DESCRIPTION	BY	APPROVED
12-79	REVISED ALIGNMT PH. SEW.	FK	RVS
1-8-79	GENERAL	FK	RVS

JOB NO. 734-410
DESIGNED BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]
DATE: AUGUST 1979

SHEET 2 OF 30



PLANT DIVERSION BOX
SEE SHEET 24

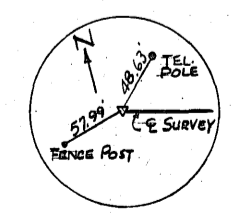


LEGEND

- | | | | |
|--|-----------------------------------|--|-----------------------------------|
| | SOIL BORING | | EXISTING GAS LINE |
| | MANHOLE & SEWER LINE P.I. STATION | | WESTERN SLOPE GAS |
| | SURVEY LINE P.I. STATION | | EXISTING SEWER LINE |
| | BENCH MARK | | EXISTING CULVERT OR DRAIN PIPE |
| | EXISTING POWER POLE | | PROPERTY PIN |
| | UNDER GROUND TELEVISION CABLE | | EXISTING WATER METER OR VALVE |
| | EXISTING WATER LINE | | EXISTING MAILBOX OR TELEPHONE BOX |
| | | | EXISTING STOP SIGN OR SIGN |
| | | | EXISTING FENCE |
| | | | PROPERTY LINE |
| | | | EXISTING SEWER FOR FIRE MAIL |

GENERAL NOTES

- CONTRACTOR SHALL REPLACE ALL SURVEY MONUMENTS (BRASS CAPS, ETC.) DISTURBED BY CONSTRUCTION OF THE PIPELINE. ALL WORK TO BE UNDER SUPERVISION OF A REGISTERED LAND SURVEYOR.
- SEWER PIPE SHALL BE PROVIDED WITH A FLEXIBLE JOINT AT EACH END OF CONCRETE ENCASUREMENTS.
- ALL EXISTING PAVEMENT REMOVED FOR CONSTRUCTION OF THE SEWER SHALL BE DISPOSED OF BY THE CONTRACTOR.



GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
INTERCEPTOR SEWER**

PLAN & PROFILE
STA. -13+39.49 TO STA. +1+00

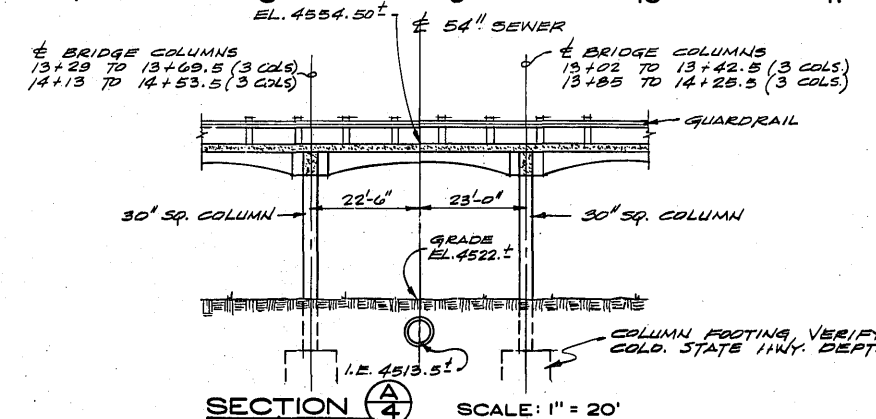
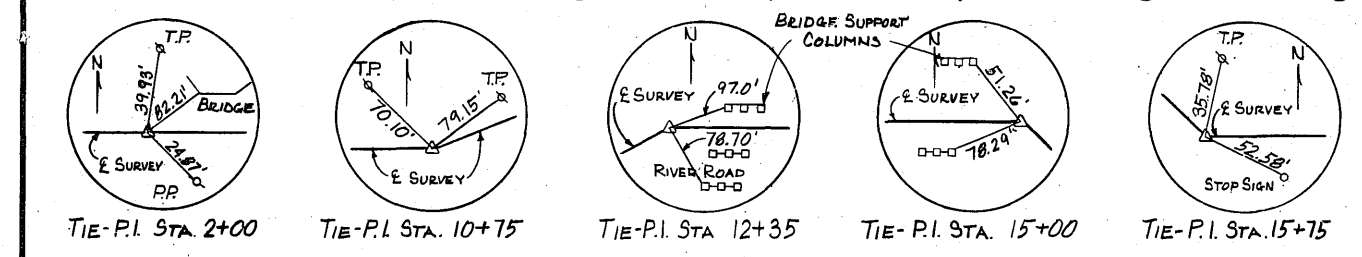
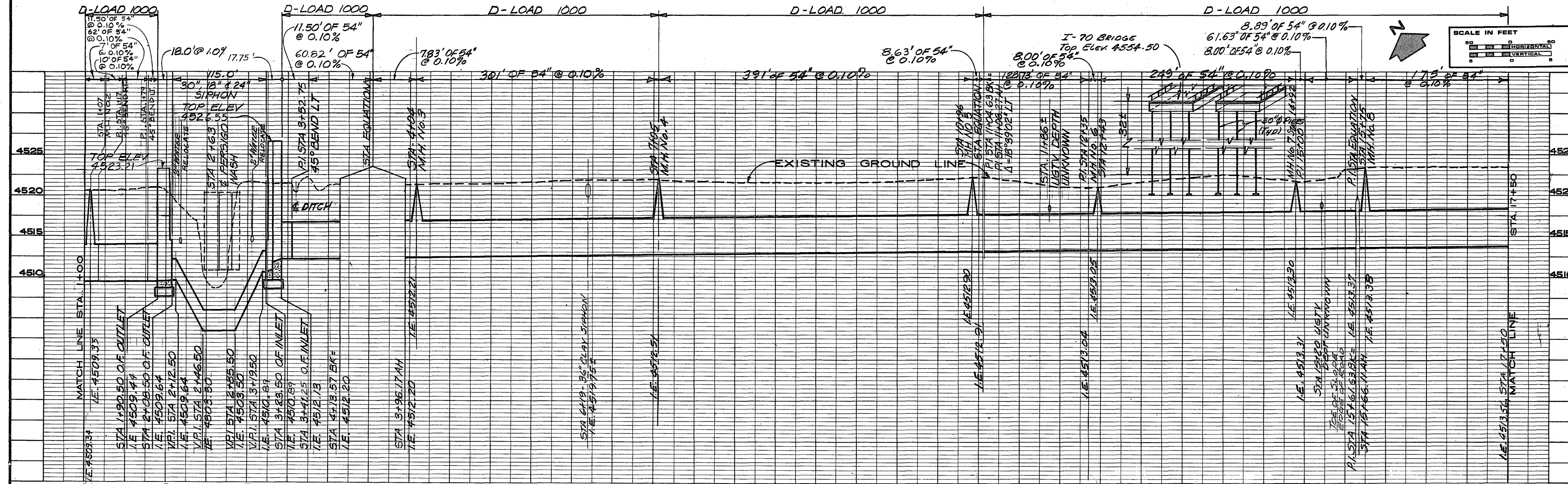
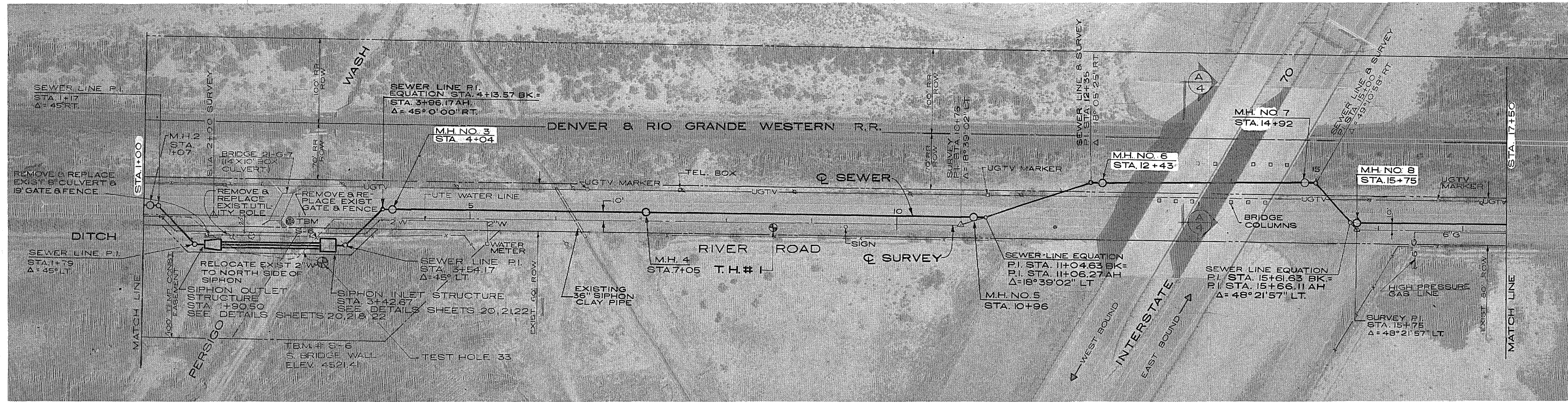
HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING · ARCHITECTURE · PLANNING
GRAND JUNCTION & DENVER, COLORADO

DESIGNED BY	CHECKED BY	DATE	SHEET
J. HORST	D. HENNINGSON	AUGUST 1972	3 of 30

**THIS DRAWING HAS BEEN
REDUCED TO ONE-HALF
THE ORIGINAL SIZE.**

NO.	DATE	DESCRIPTION	MADE	APPROV.
1	8-79	GENERAL	FK	RVS
REVISIONS				

KUCERA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado Lakeland, Florida
Atlanta, Georgia



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.

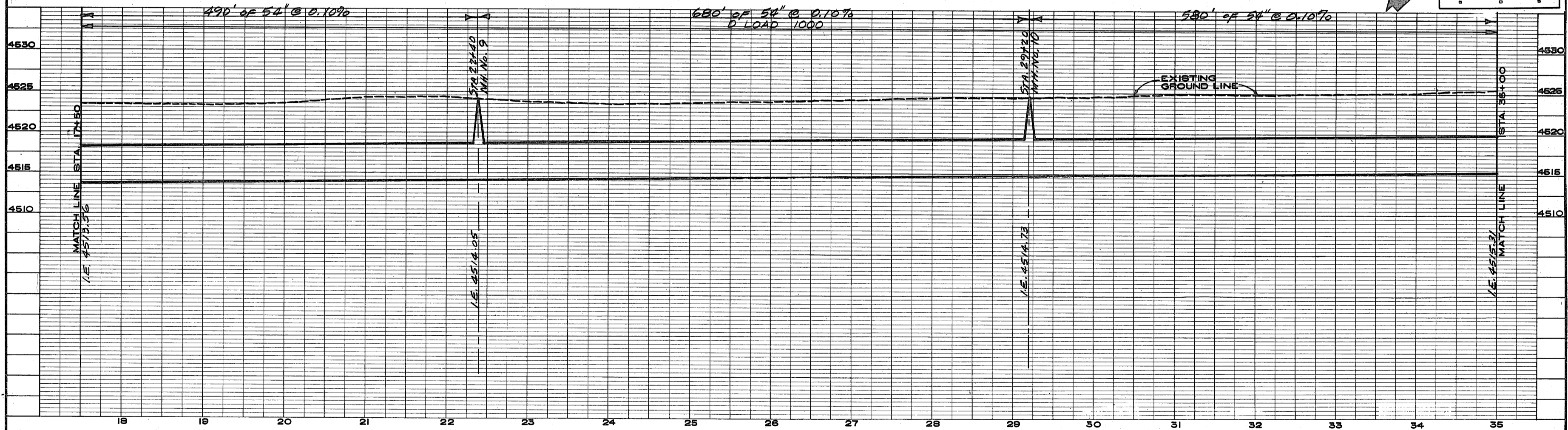
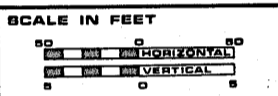
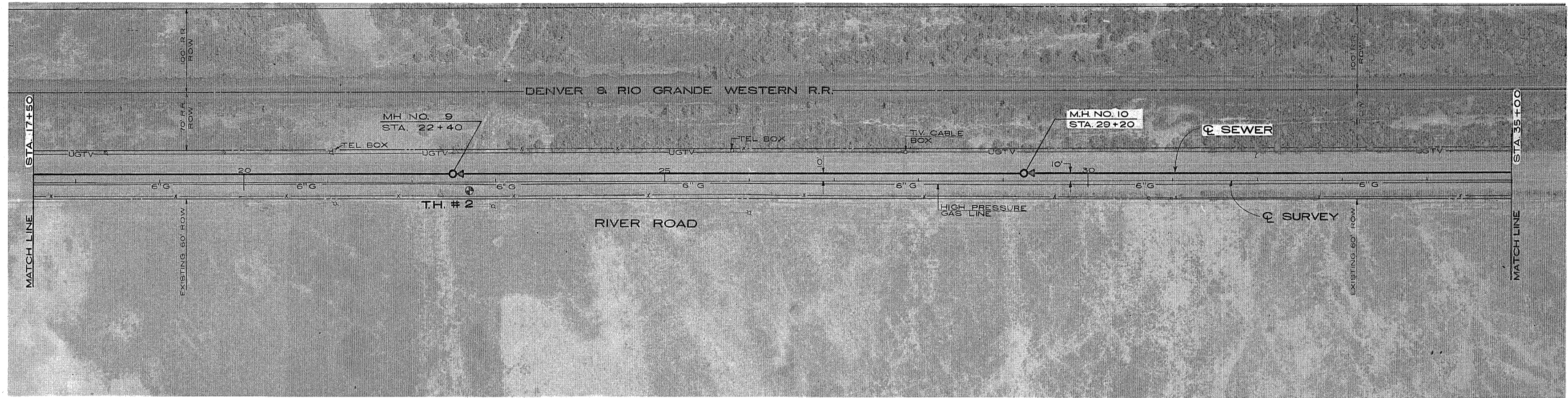


GRAND JUNCTION / MESA COUNTY
RIVER ROAD INTERCEPTOR SEWER
 PLAN & PROFILE
 STA. 1+00 TO STA. 17+50

KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

HENNINGSON, DURHAM & RICHARDSON, INC. ENGINEERING - ARCHITECTURE - PLANNING GRAND JUNCTION & DENVER, COLORADO		JOB NO. 734410		SHEET 4 OF 30	
DESIGNED BY: J. HORST	CHECKED BY: HENRICHSEN	DATE: AUGUST, 1972	APPROVED BY: HENRICHSEN	DATE: AUGUST, 1972	

NO.	DATE	DESCRIPTION	BY	CHKD.	APPROV.
1		GENERAL	FK	RVB	
2		REVISIONS			



KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

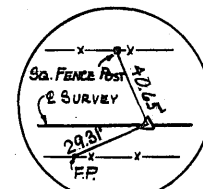
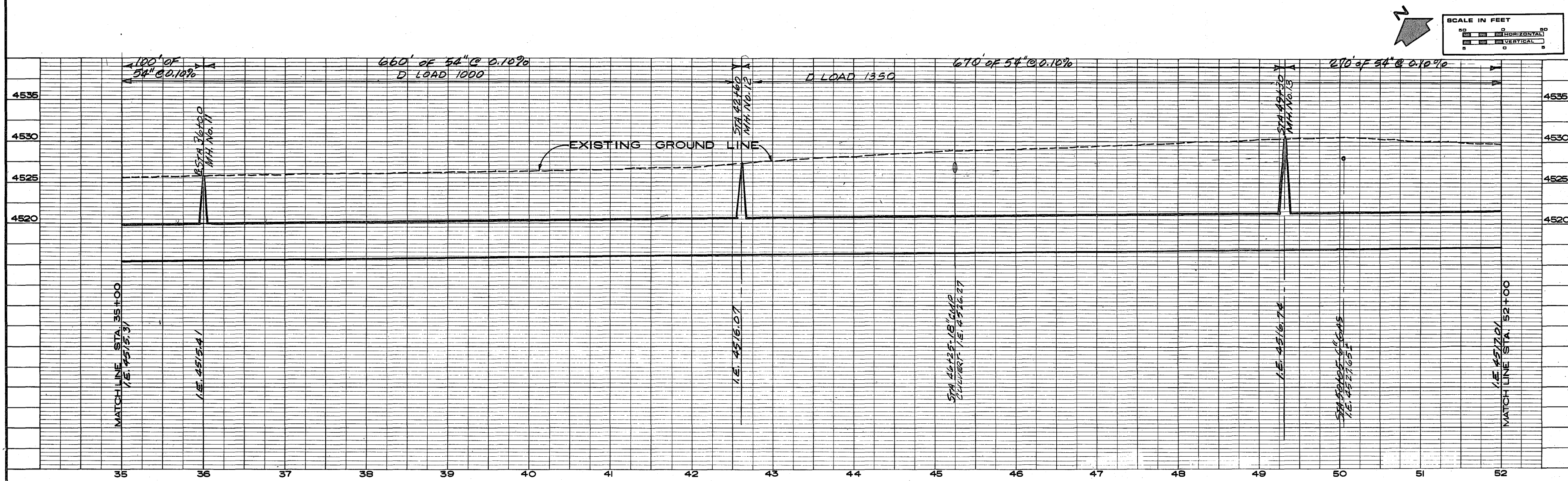
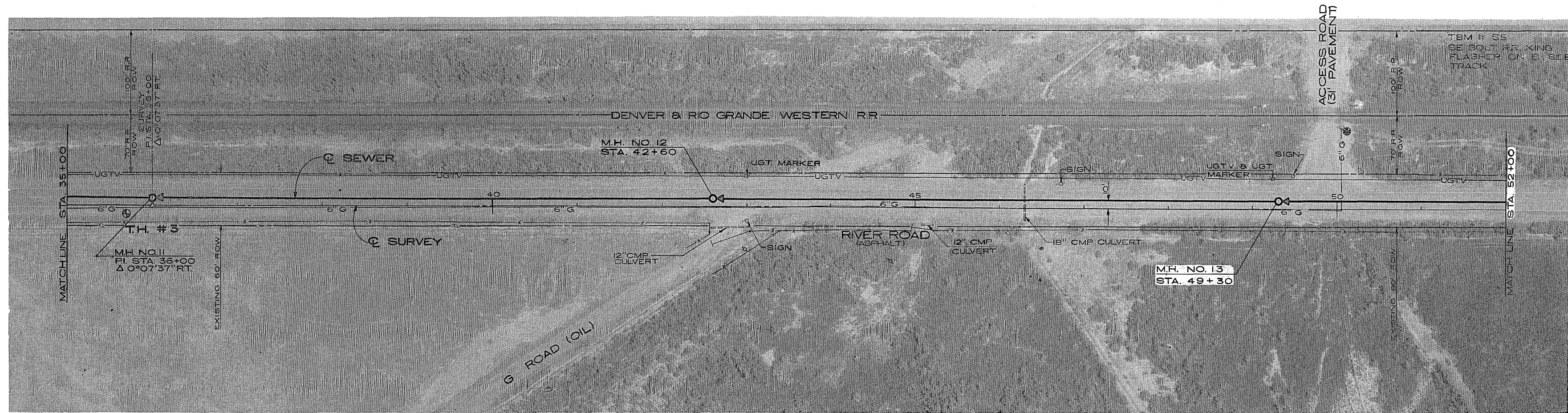
THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.



GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
 INTERCEPTOR SEWER**
 PLAN & PROFILE
 STA. 17+50 TO STA. 35+00

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO
 JOB 734410
 DESIGNER: J. HORST
 CHECKED: K. HENRICHSEN
 APPROVED: W. BREEDER
 DATE: AUGUST 1977

NO.	DATE	DESCRIPTION	MADE	APPROV.
1				
2				
1	8-79	GENERAL	FK	RVS



TIE P.I. STA. 36+00

KUCERA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado Lakeland, Florida
Atlanta, Georgia

THIS DRAWING HAS BEEN
REDUCED TO ONE-HALF
THE ORIGINAL SIZE.



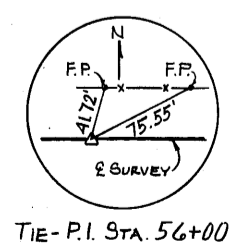
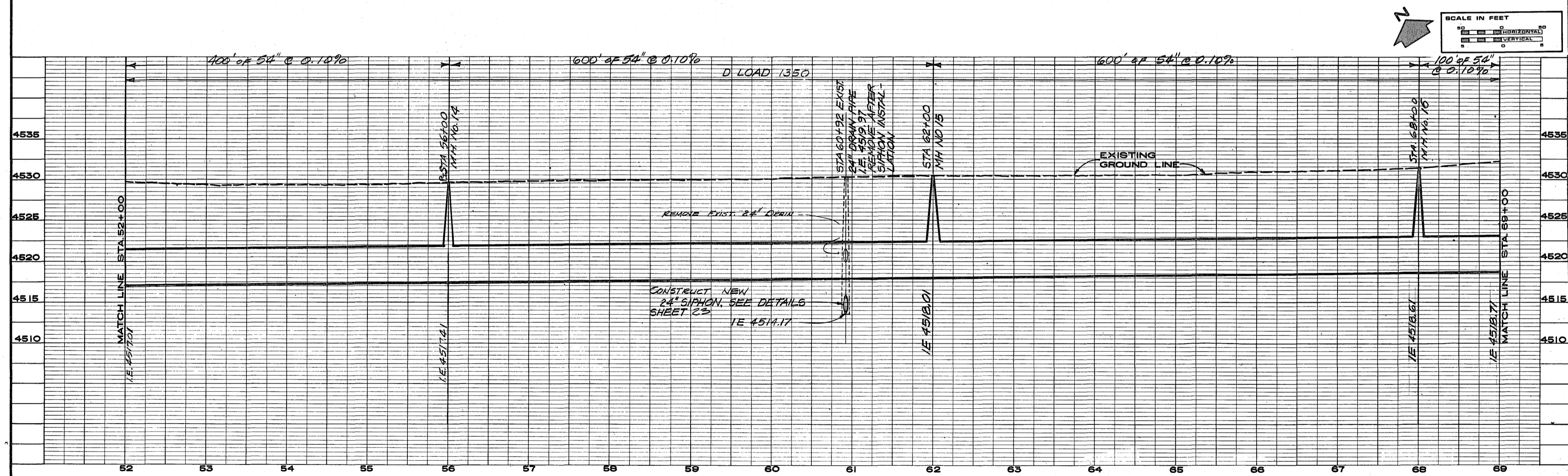
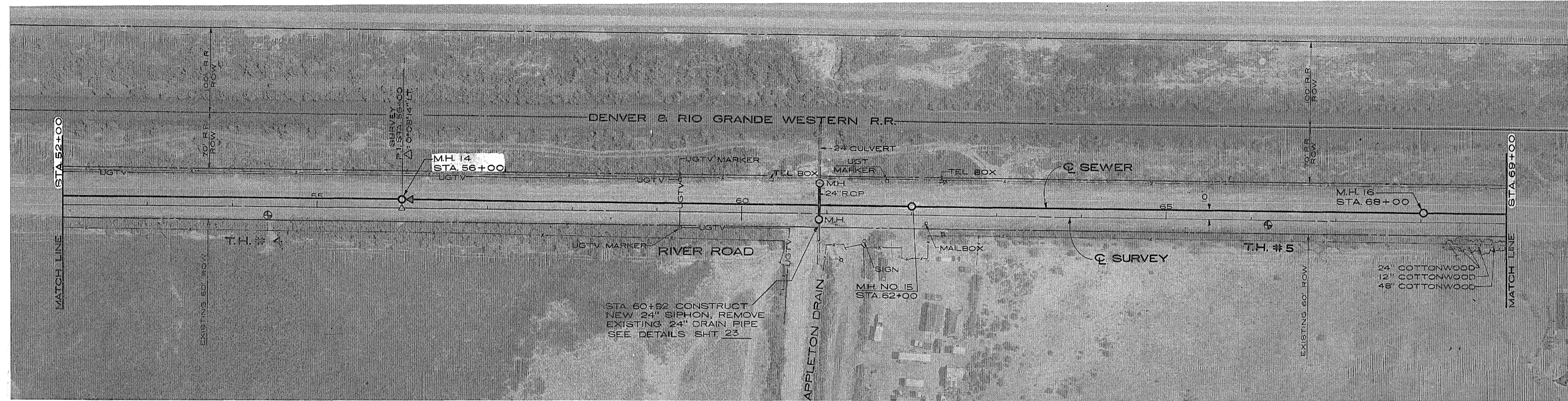
GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
INTERCEPTOR SEWER**

PLAN & PROFILE
STA. 35+00 TO STA. 52+00

HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING - ARCHITECTURE - PLANNING
GRAND JUNCTION & DENVER, COLORADO

NO.	DESCRIPTION	DATE	BY	CHKD.	APPV.
1	GENERAL		FK	RVS	
2	REVISIONS		MADE	APPROV	

JOB NO. 734410
DESIGNED BY J. HORST
CHECKED BY HENNINGSON
APPROVED BY BERKMAN
DATE AUGUST, 1977



GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
 INTERCEPTOR SEWER**
 PLAN & PROFILE
 STA. 52+00 TO STA. 69+00

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

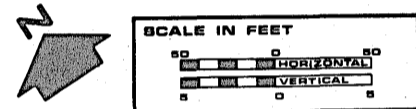
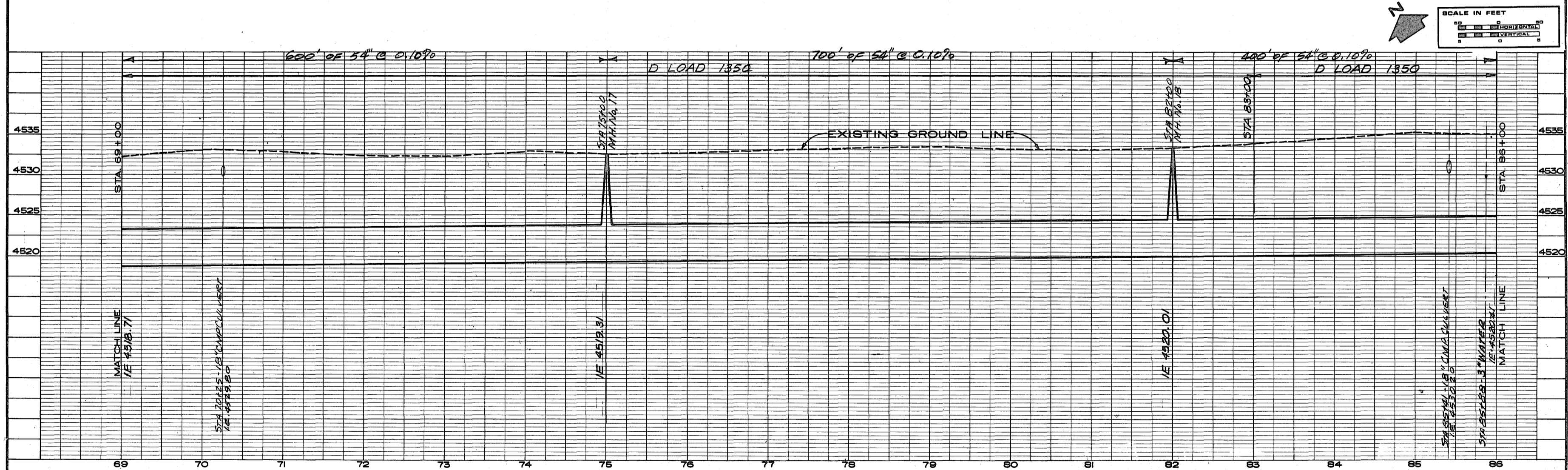
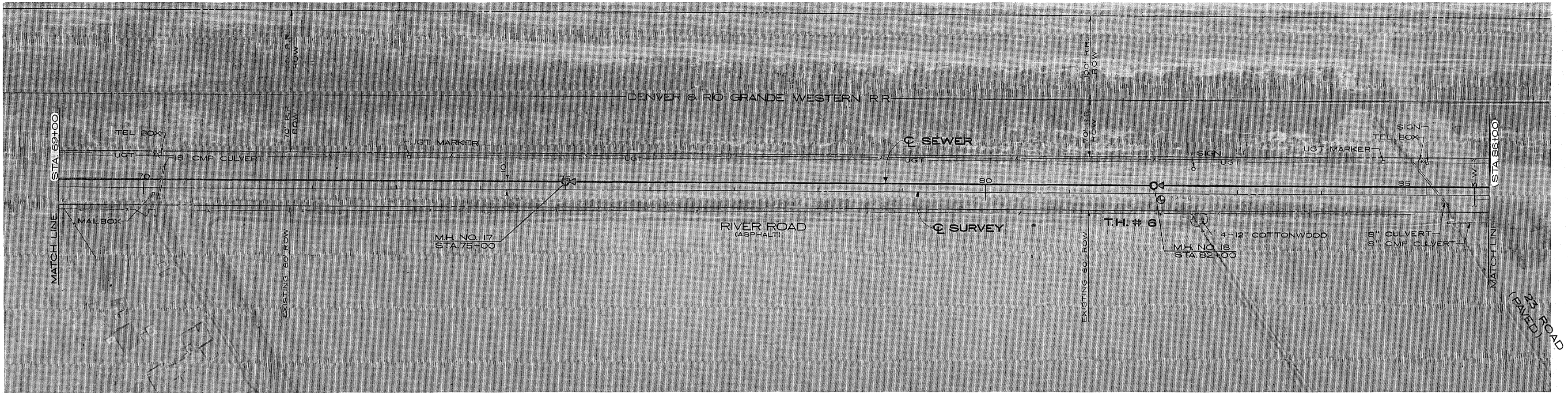
DESIGNED BY: J. HORST
 CHECKED BY: K. HENRICHSEN
 APPROVED BY: M. BREDA
 DATE: AUGUST 1977

7 OF 30

THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.

KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

NO.	DATE	DESCRIPTION	MADE	APPROV.
1				
2	10-79	GENERAL	FK	RVS



KUCERA AND ASSOCIATES, INC. 7000 Reynolds Road, Mentor, Ohio Denver, Colorado Lakeland, Florida Atlanta, Georgia		THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.			
1	8-79	GENERAL	FK	RVS	
2			MADE	APPROV	
DATE		DESCRIPTION			
		REVISIONS			

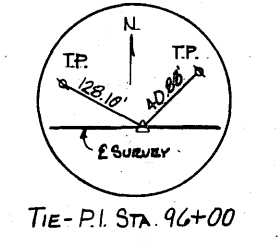
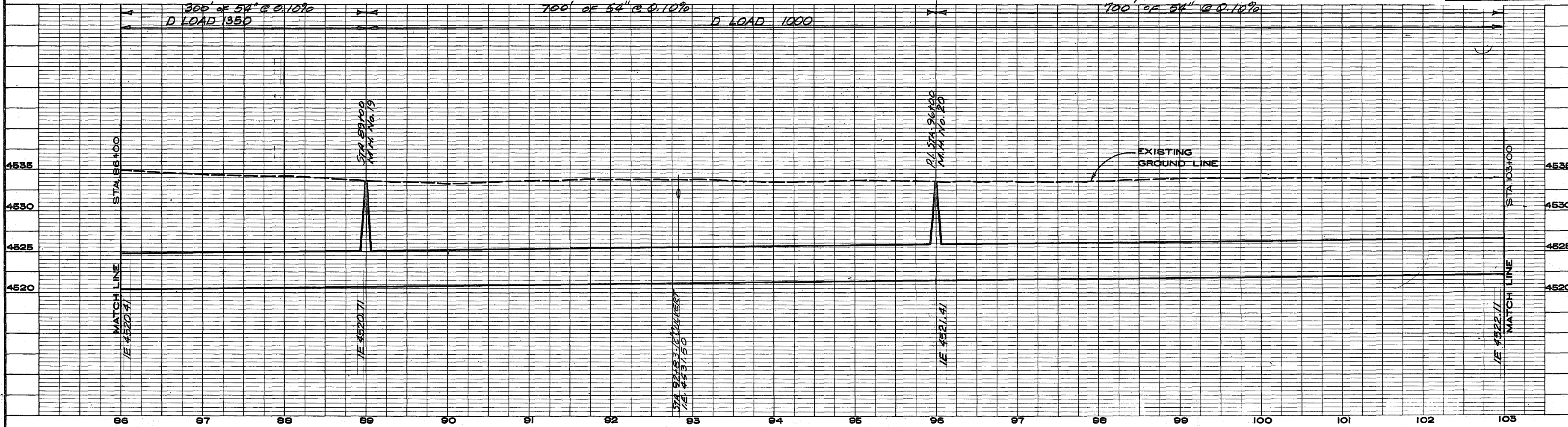
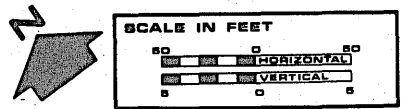
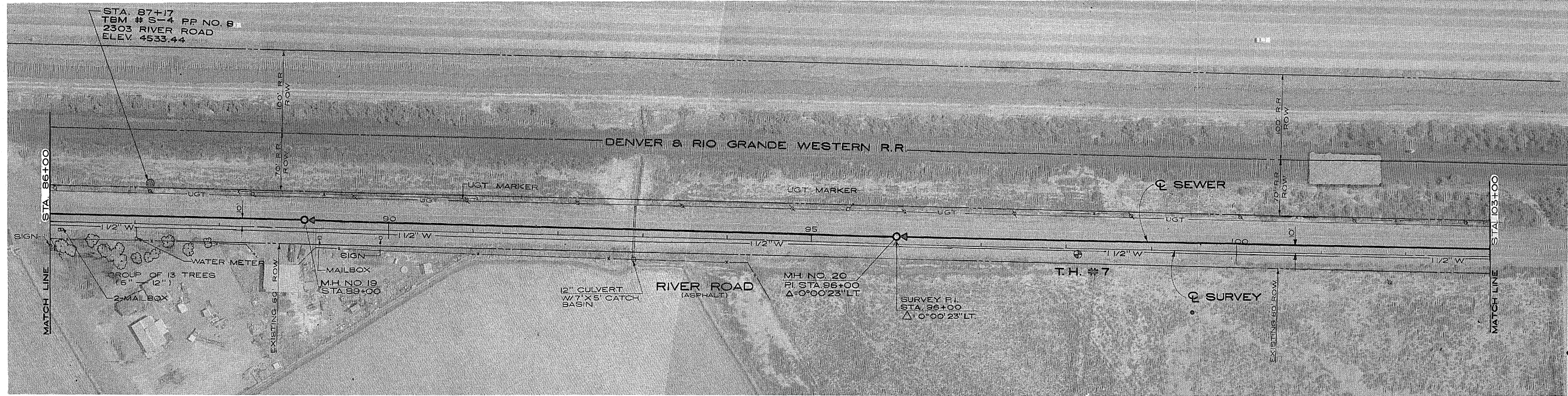
GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
 INTERCEPTOR SEWER**

PLAN & PROFILE
STA. 69+00 TO STA. 86+00

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
 DESIGNER: J. HORST
 CHECKED: K. HENRICHSEN
 APPROVED: K. BREEDER
 DATE: AUGUST, 1977

SHEET **8** OF **30**



KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.



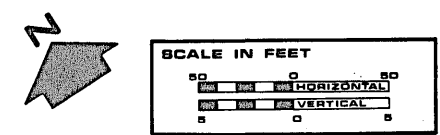
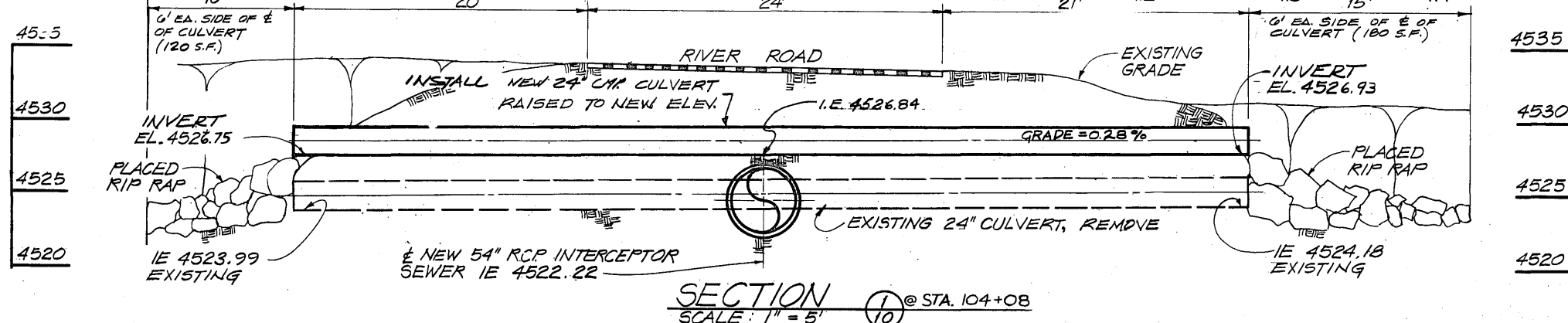
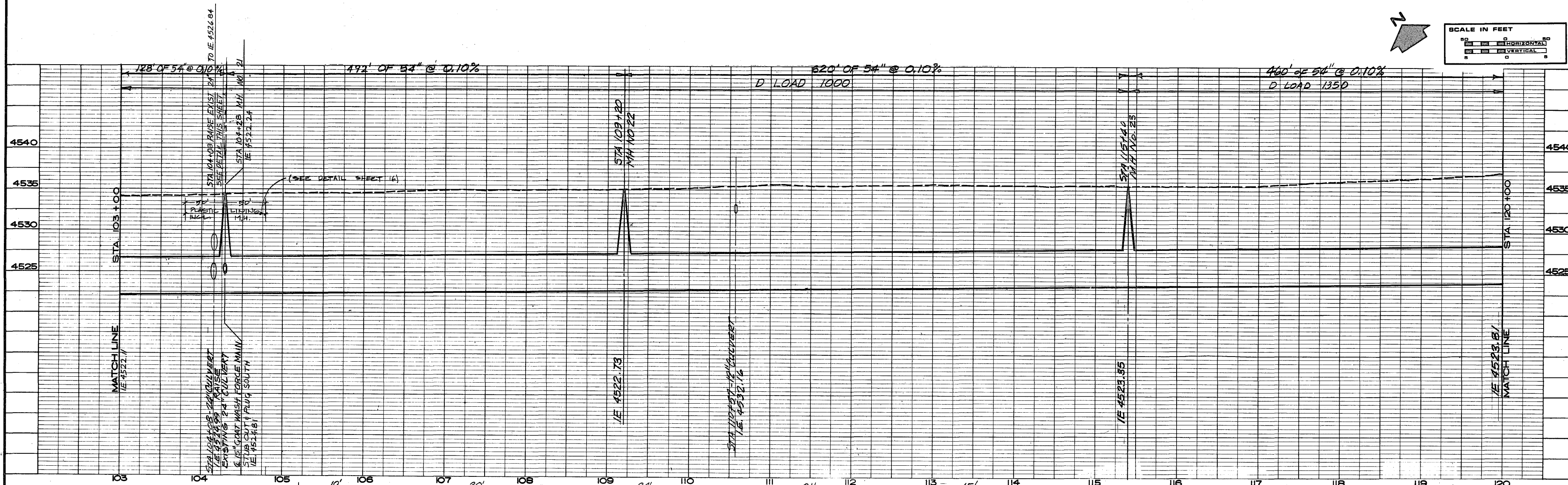
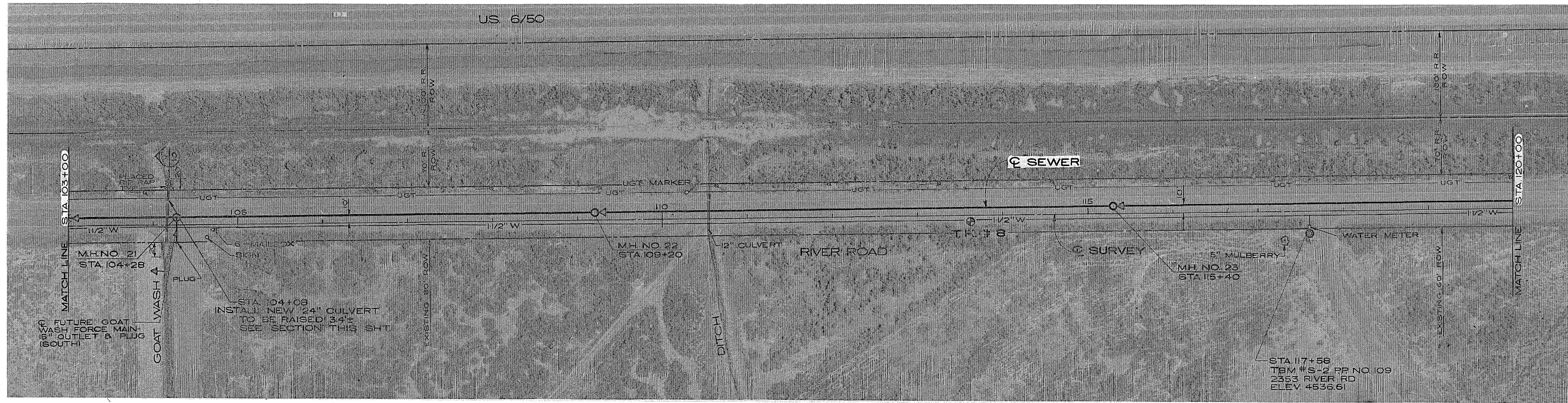
GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
 INTERCEPTOR SEWER**
 PLAN & PROFILE
 STA. 86+00 TO STA. 103+00

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
 DESIGNED: J. HORST
 CHECKED: K. HENNINGSON
 APPROVED: M. BREDA
 DATE: APRIL 1977

SHEET 9 of 30

NO.	DATE	DESCRIPTION	MADE	APPROVED
1		GENERAL	FK	RVS
2		REVISIONS		

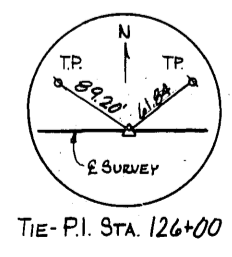
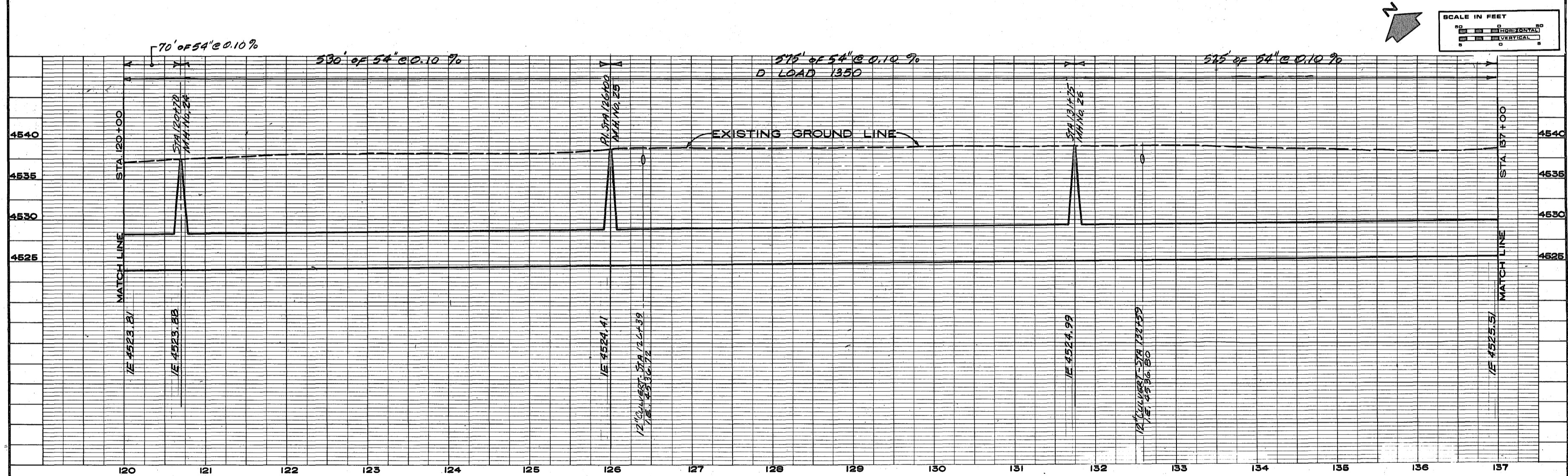
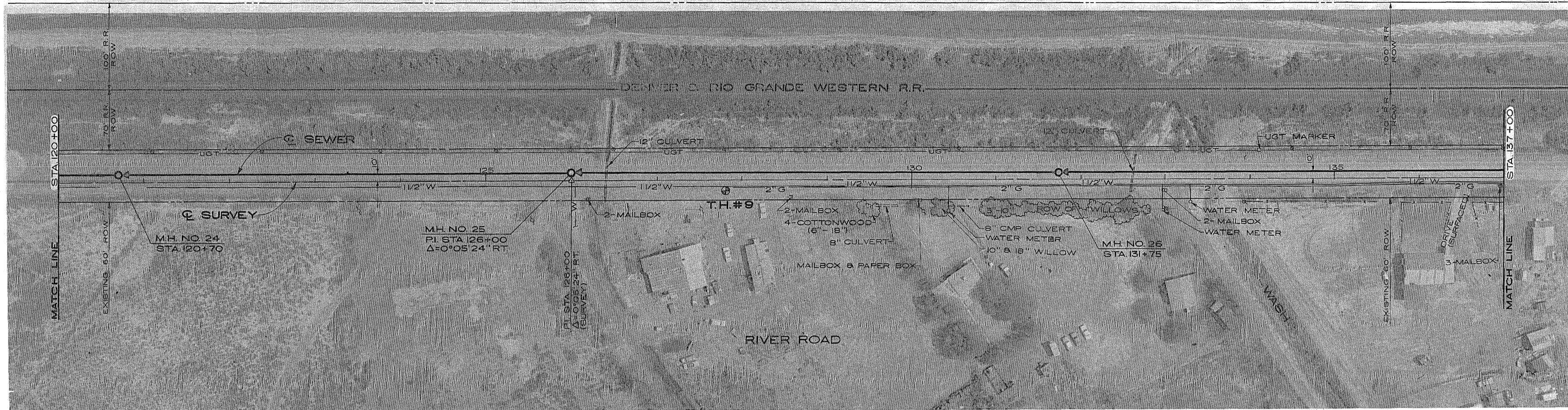


KUCERA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado Lakeland, Florida
Atlanta, Georgia



GRAND JUNCTION / MESA COUNTY
RIVER ROAD INTERCEPTOR SEWER
PLAN & PROFILE
STA. 103+00 TO STA. 120+00
HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING - ARCHITECTURE - PLANNING
GRAND JUNCTION & DENVER, COLORADO
JOB: 734410
DESIGNED: A.J. HORST
CHECKED: E. HENSCHEN
APPROVED: W. BEGAR
DATE: AUGUST, 1977
SHEET: 10 OF 30

NO.	DATE	DESCRIPTION	MADE	APPROV
1		GENERAL	FK	RVS
2		REVISIONS		



KUCERA AND ASSOCIATES, INC.
 7009 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.

NO.	DATE	DESCRIPTION	MADE	APPROV.
1		GENERAL	FK	RVS

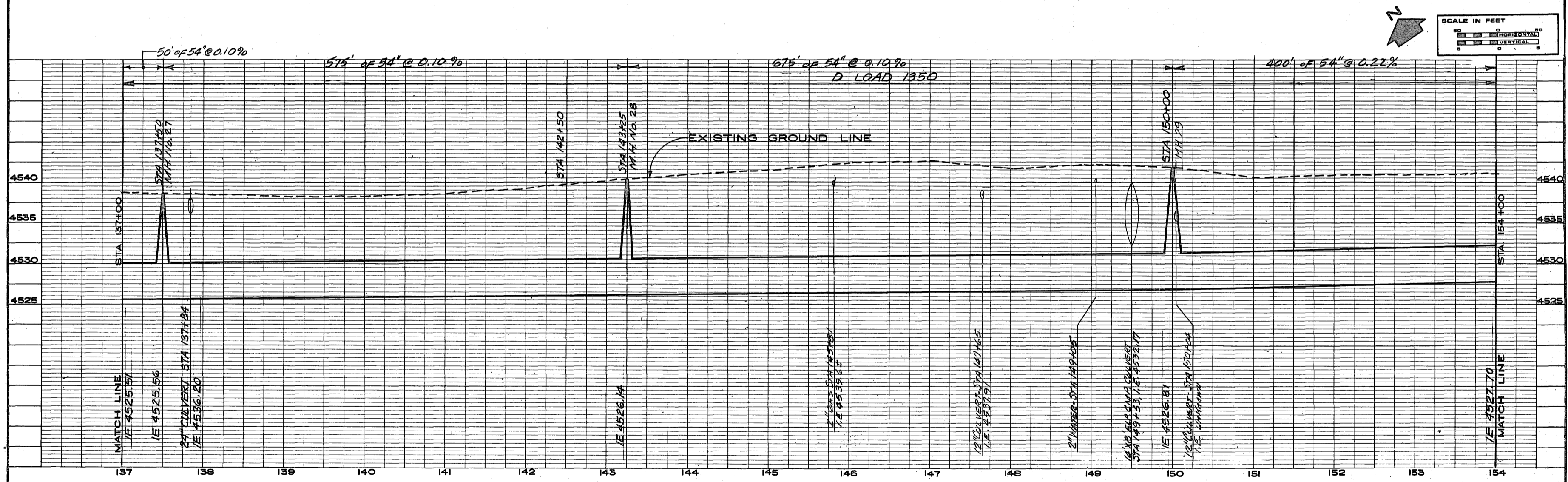
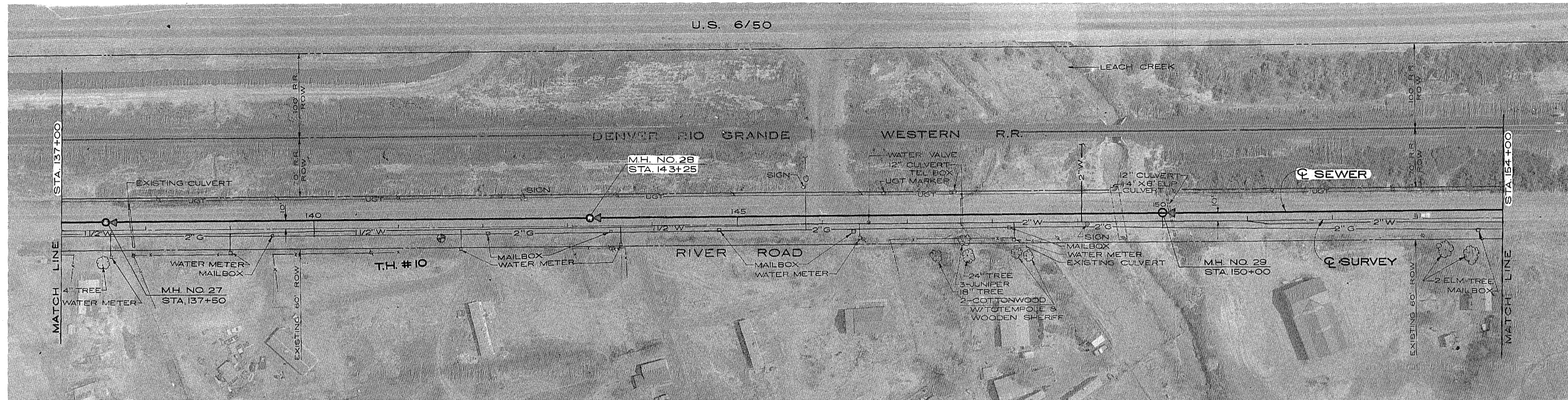


GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
 INTERCEPTOR SEWER**
 PLAN & PROFILE
 STA. 120+00 TO STA. 137+00

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
 DESIGNER: J. HOBBS
 CHECKED: J. HENRICHSEN
 APPROVED: J. HENRICHSEN
 DATE: AUGUST, 1977

SHEET 11 OF 30



KUCERA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado Lakeland, Florida
Atlanta, Georgia

THIS DRAWING HAS BEEN
REDUCED TO ONE-HALF
THE ORIGINAL SIZE.

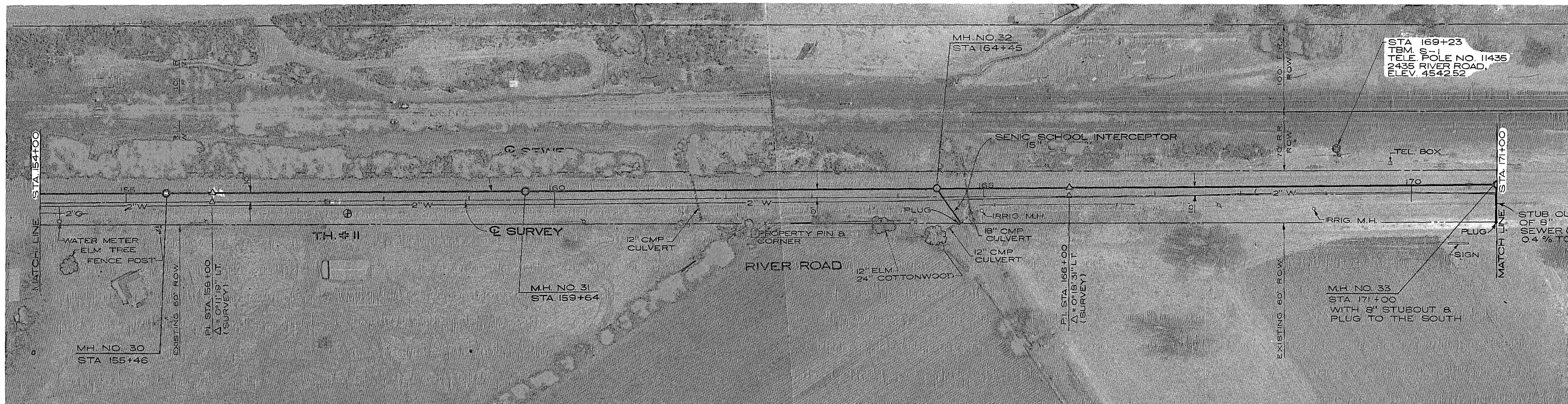
1				
2				
3	8-79	GENERAL	FK	RVS
4	DATE	DESCRIPTION	MADE	APPROV
5		REVISIONS		

GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
INTERCEPTOR SEWER**

PLAN & PROFILE
STA. 137+00 TO STA. 154+00

HINNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING - ARCHITECTURE - PLANNING
GRAND JUNCTION - DENVER, COLORADO

JOB DESIGNED: J. HORST CHECKED: K. HENNRICHSEN SHEET
APPROVED: K. BRIDGES DATE: AUGUST 1977 12 OF 30



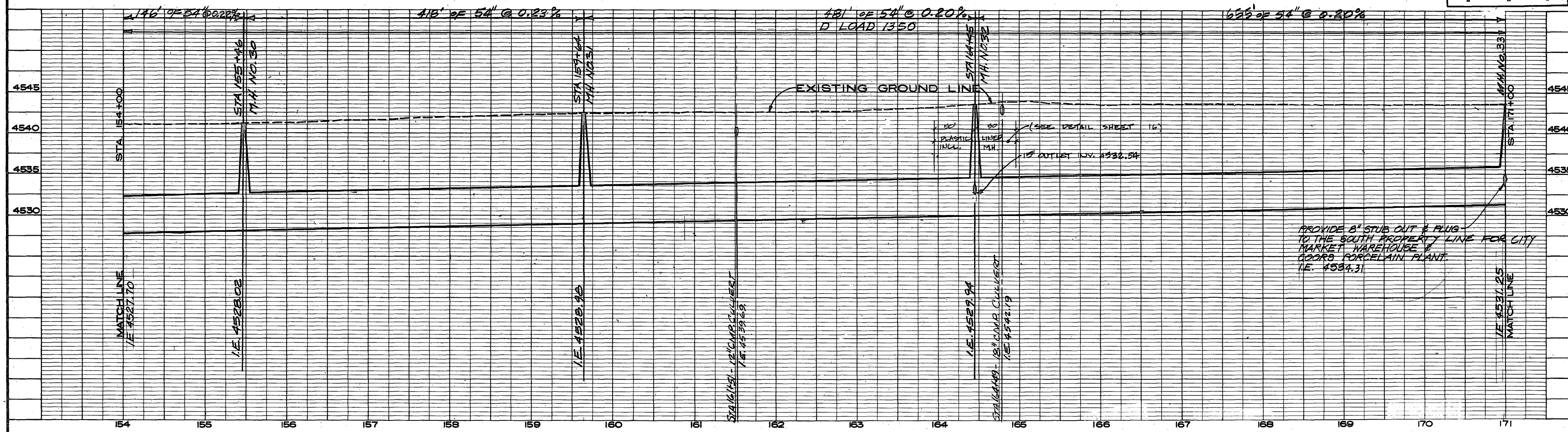
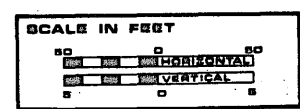
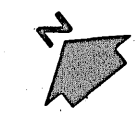
STA 169+23
TBM S-1
TELE POLE NO. 11435
2435 RIVER ROAD,
LEV. 4542.52

MH. NO. 30
STA 155+46

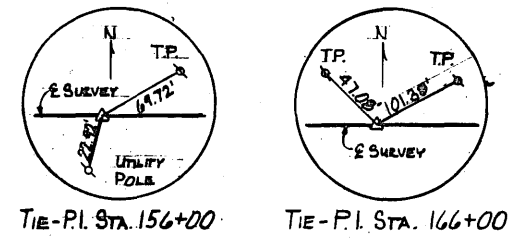
M.H. NO. 31
STA 159+64

MH. NO. 32
STA 164+45

M.H. NO. 33
STA 171+00
WITH 8" STUBOUT &
PLUG TO THE SOUTH



PROVIDE 8" STUB OUT & PLUG
TO THE SOUTH PROPERTY LINE FOR CITY
MARKET WAREHOUSE &
22200 PORCELAIN PLANT,
I.E. 4537.31



KUCERA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado
Atlanta, Georgia

THIS DRAWING HAS BEEN
REDUCED TO ONE-HALF
THE ORIGINAL SIZE.

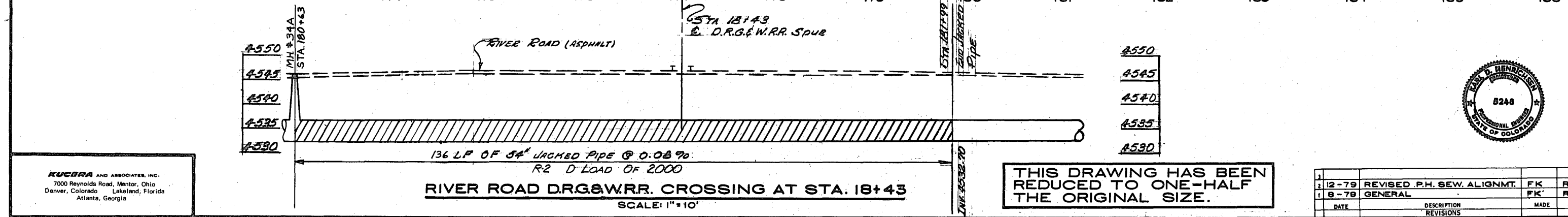
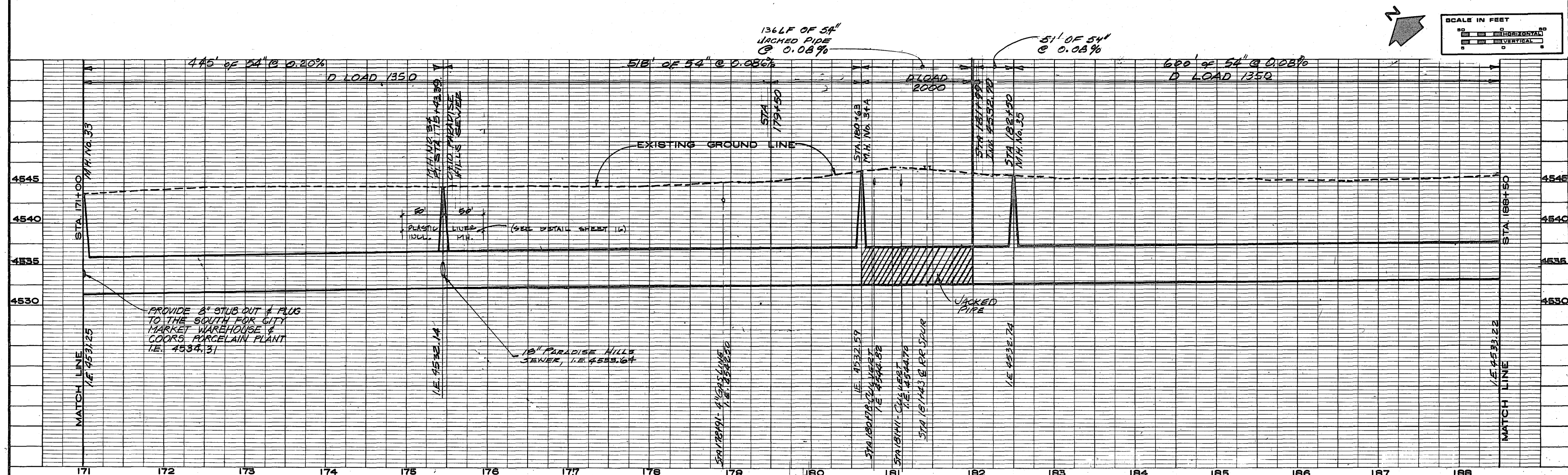
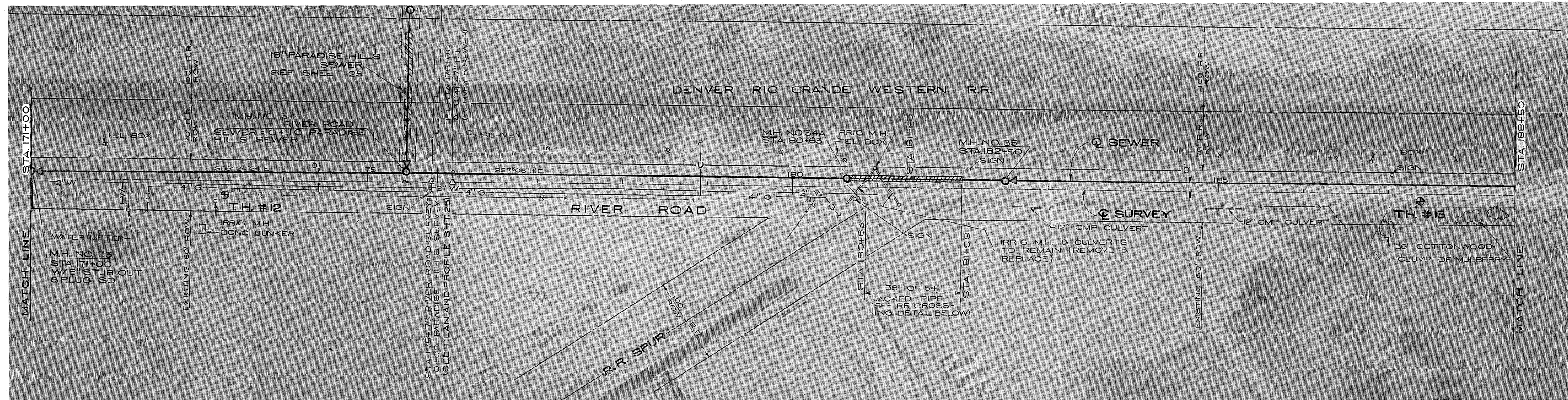


GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
INTERCEPTOR SEWER**

PLAN & PROFILE
STA. 154+00 TO STA. 171+00

HINNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING - ARCHITECTURE - PLANNING
GRAND JUNCTION & DENVER, COLORADO
JOB 734410
DESIGNED BY J. HOBST
CHECKED BY M. HENNINGSON
APPROVED BY M. HENNINGSON
DATE AUGUST, 1977

NO.	DATE	DESCRIPTION	MADE	APPROVED
1		GENERAL	FK	RVS
2				



GRAND JUNCTION / MESA COUNTY
RIVER ROAD INTERCEPTOR SEWER
 PLAN & PROFILE
 STA 171+00 TO STA 188+50

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING · ARCHITECTURE · PLANNING
 GRAND JUNCTION & DENVER, COLORADO

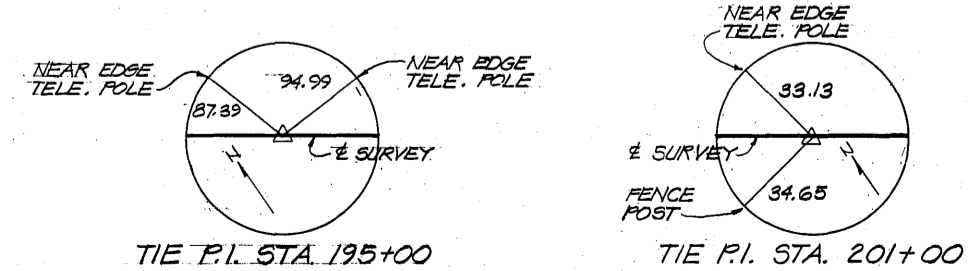
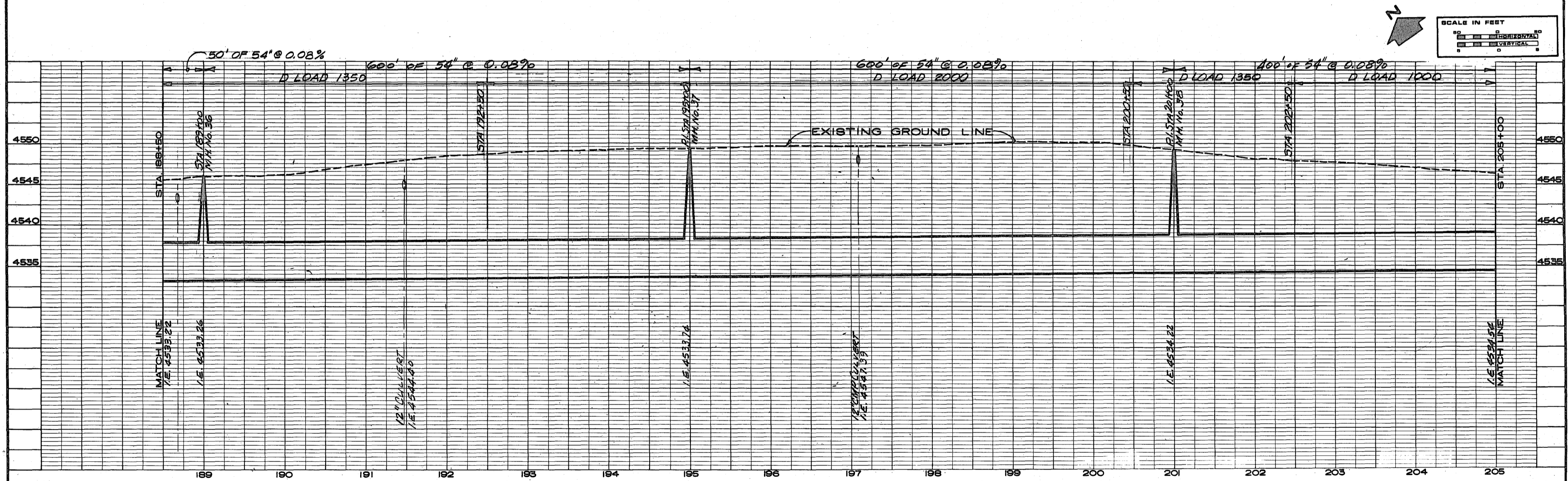
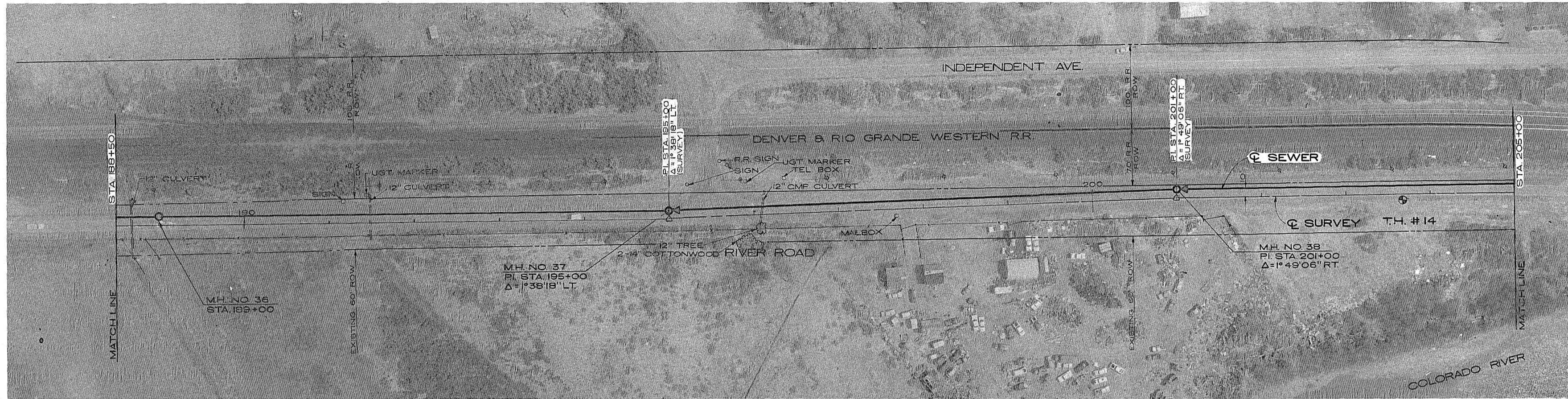
JOB: 734410
 DESIGNED: J. HORST
 CHECKED: K. HENNINGSON
 APPROVED: J. HENNINGSON
 DATE: APRIL 1977

SHEET 14 OF 30

KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado
 Lakeland, Florida
 Atlanta, Georgia

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.

DATE	DESCRIPTION	MADE	APPROV
12-79	REVISED P.H. SEW. ALIGNMT.	FK	RVS
8-79	GENERAL	FK	RVS



KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado
 Lakeland, Florida
 Atlanta, Georgia

THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.

NO.	DATE	DESCRIPTION	MADE	APPROVED
1	8-79	GENERAL	FK	RVS

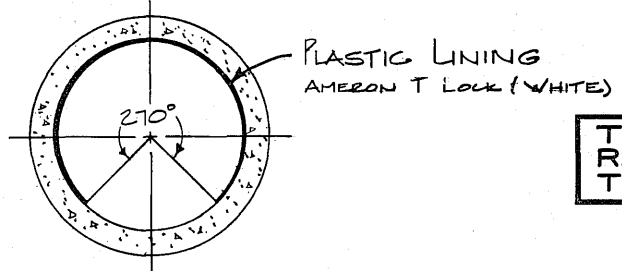
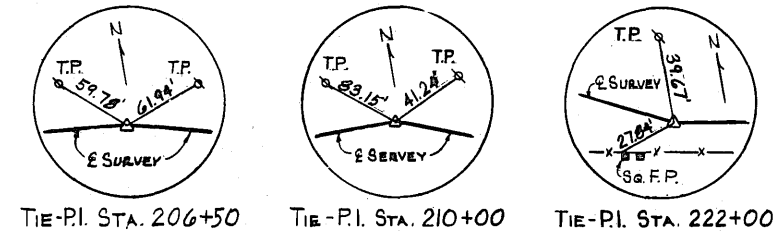
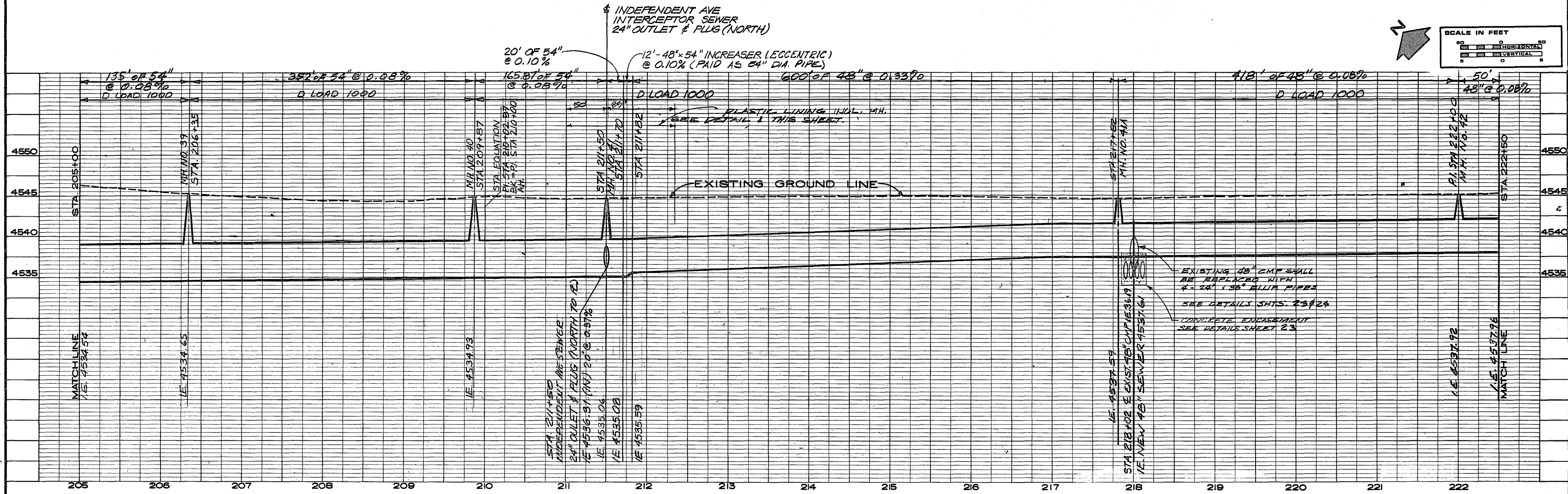
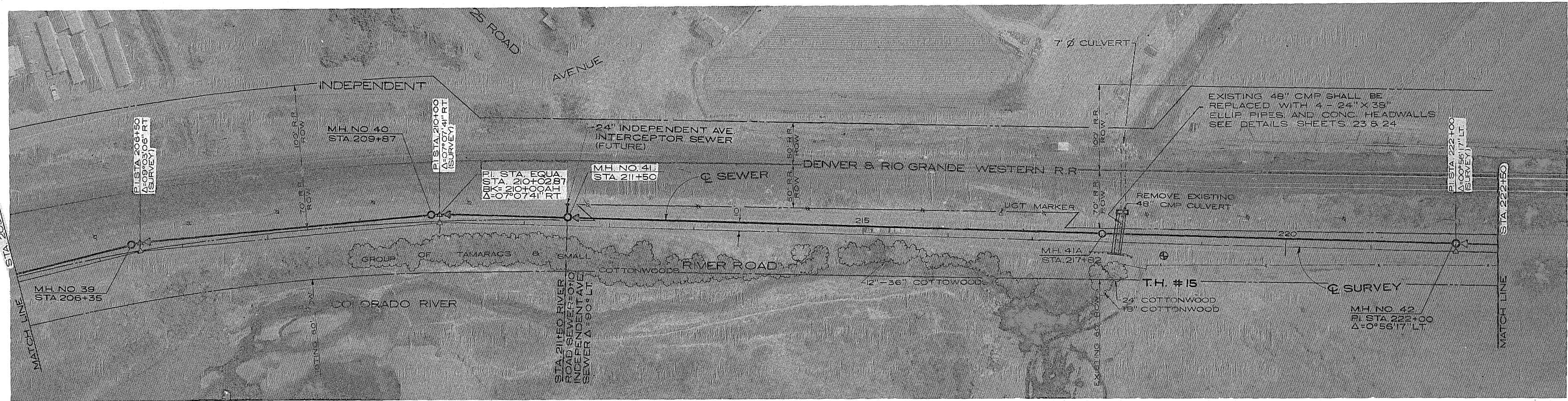


GRAND JUNCTION / MESA COUNTY
RIVER ROAD INTERCEPTOR SEWER
 PLAN & PROFILE
 STA. 188+50 TO STA. 205+00

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
 DESIGNER: A. HORST
 CHECKED: K. HENNINGSON
 APPROVED: R. BRIDGES
 DATE: AUGUST 1979

SHEET 15 OF 30



THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.



GRAND JUNCTION / MESA COUNTY
RIVER ROAD INTERCEPTOR SEWER
 PLAN & PROFILE
 STA. 205+00 TO STA. 222+50

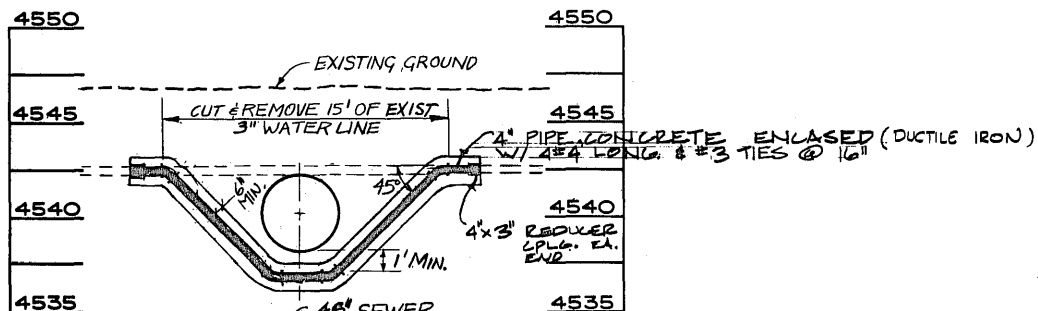
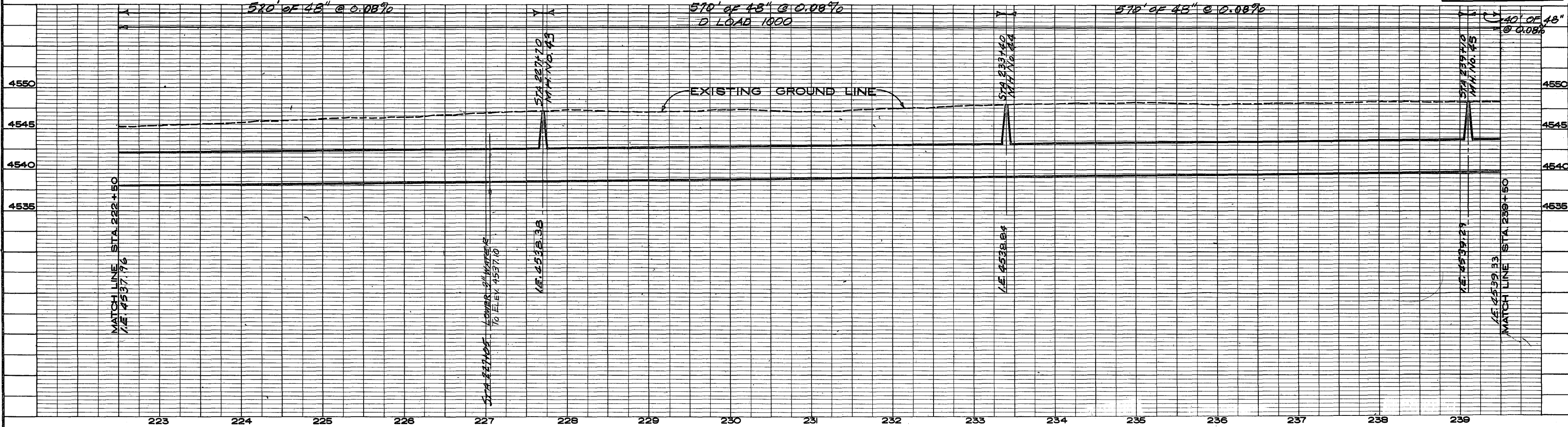
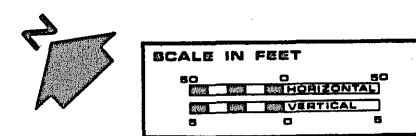
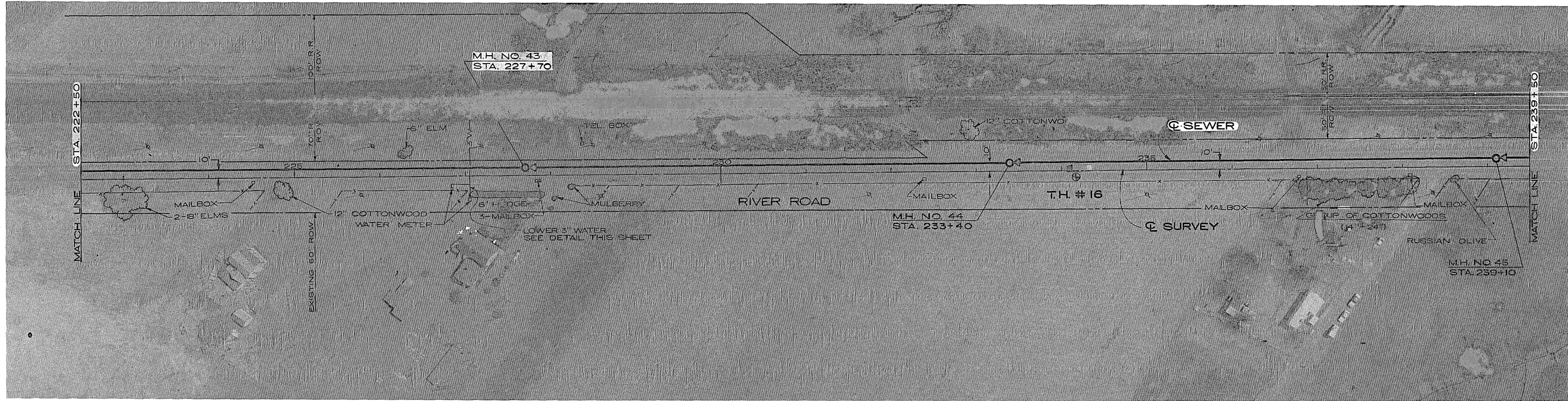
KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

NO.	DATE	DESCRIPTION	MADE	APPROV.
1				
2				

HINNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
 DESIGNER: J. HOBST
 CHECKED: K. HENRICHSON
 APPROVED: M. REEDER
 DATE: AUGUST, 1977

SHEET 16 OF 30



PROFILE-LOWERED 3" WATER LINE STA 227 + 05 ±
SCALE: 1" = 5'-0"

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.

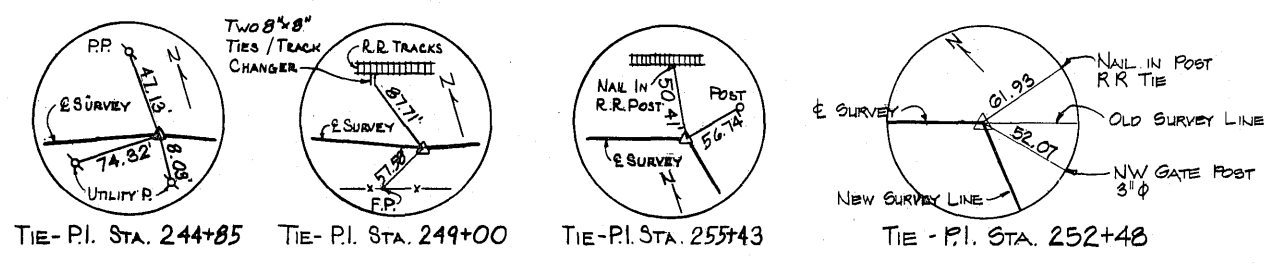
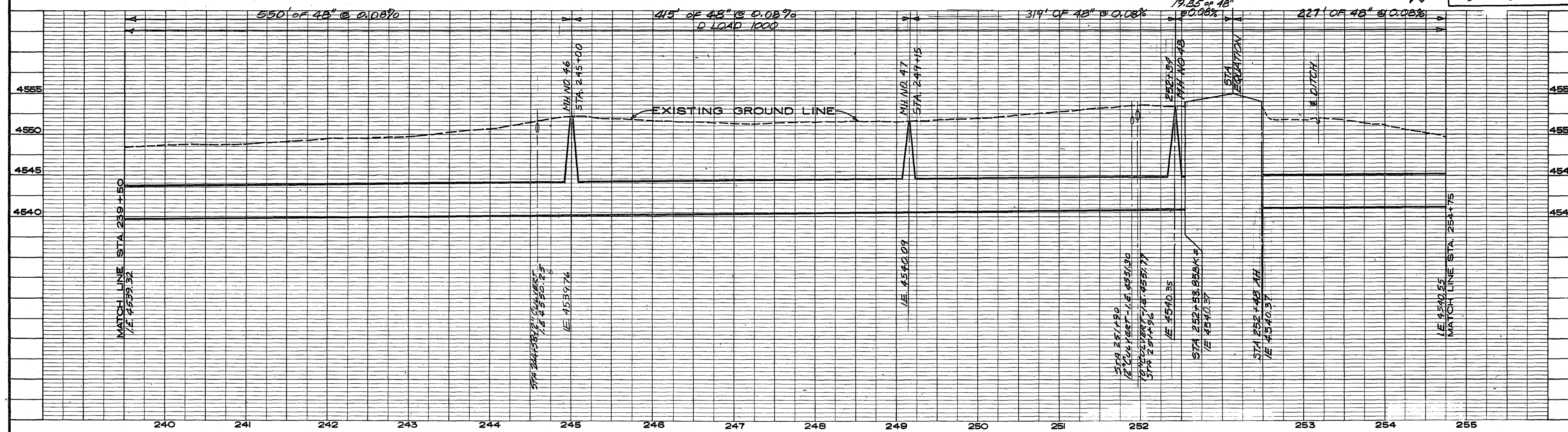
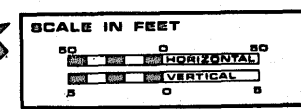
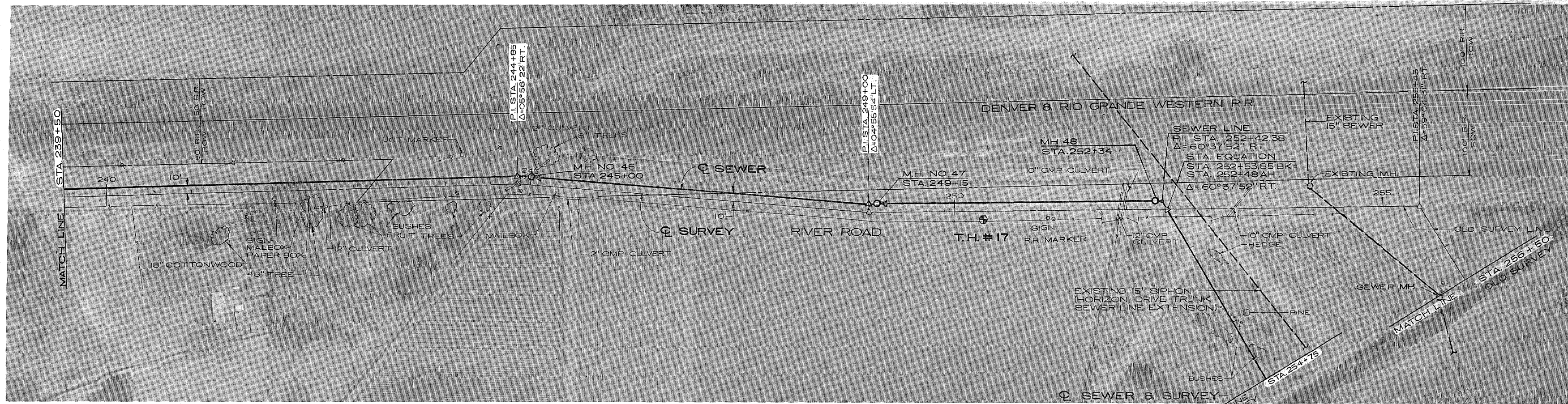


GRAND JUNCTION / MESA COUNTY
RIVER ROAD
INTERCEPTOR SEWER
PLAN & PROFILE
STA. 222 + 50 TO STA. 239 + 50

HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING - ARCHITECTURE - PLANNING
GRAND JUNCTION & DENVER, COLORADO
JOB: 734410
DESIGNED: J. HORST
CHECKED: M. HENNINGSON
APPROVED: M. BREDA
DATE: APRIL 1977
SHEET 17 OF 30

KUCERA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado Lakeland, Florida
Atlanta, Georgia

NO.	DATE	DESCRIPTION	REVISIONS	FK	RVB	MADE	APPROV
1							
2							



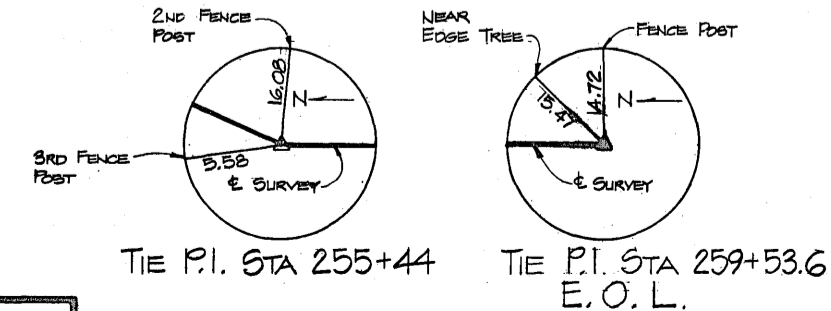
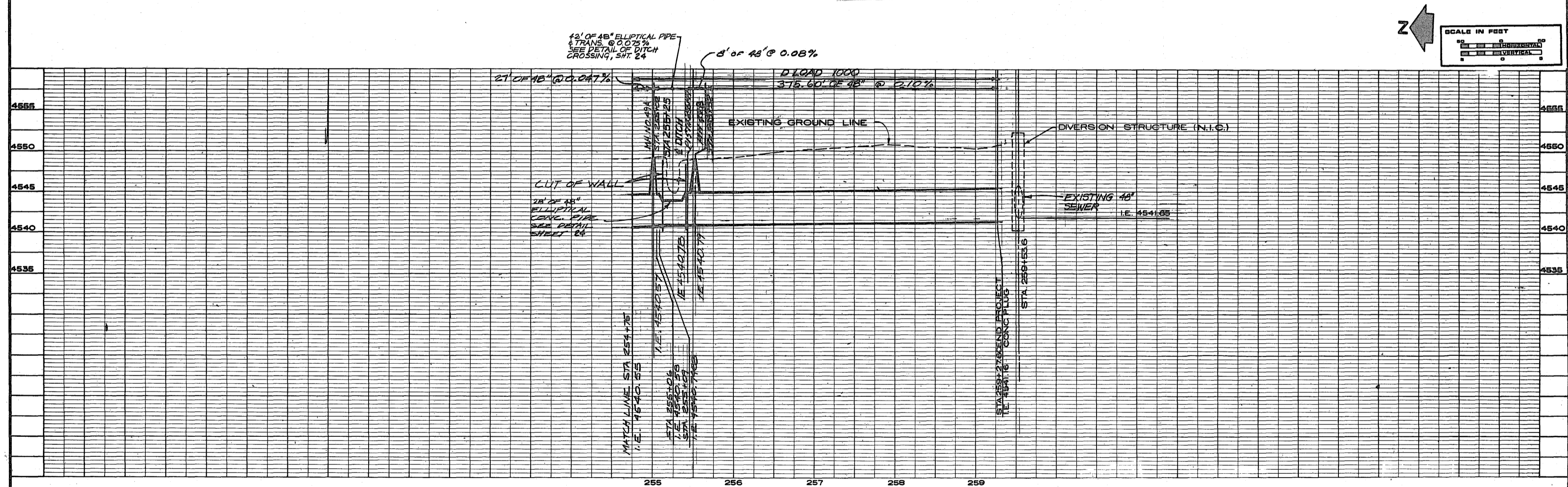
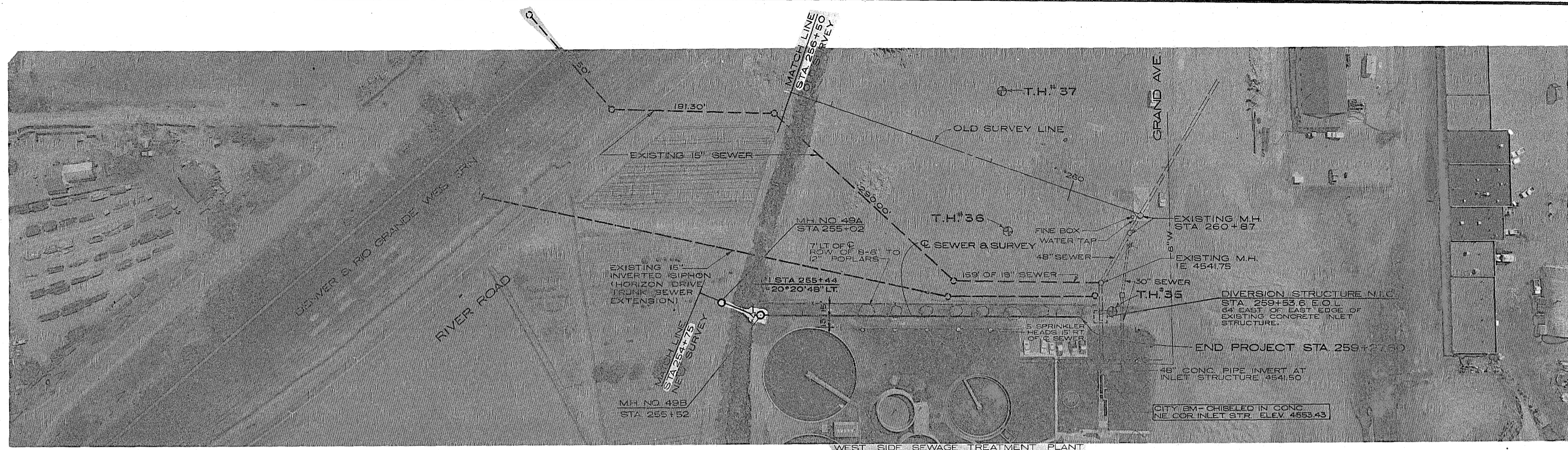
GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
 INTERCEPTOR SEWER**
 PLAN & PROFILE
 STA. 239+50 TO STA. 254+75

KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

**THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.**

NO.	DATE	DESCRIPTION	MADE	APPROV.
1		GENERAL	FK	RVS

HINNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO
 JOB: 734410
 DESIGNER: J. HOBST
 CHECKED: K. HENNINGSON
 APPROVED: M. BREAR
 DATE: AUGUST 1977
 SHEET: 18 of 30



RUSBA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado Lakeland, Florida
Atlanta, Georgia

THIS DRAWING HAS BEEN
REDUCED TO ONE-HALF
THE ORIGINAL SIZE.

NO.	DATE	DESCRIPTION	FK	RVS
1		GENERAL		
2		REVISIONS		



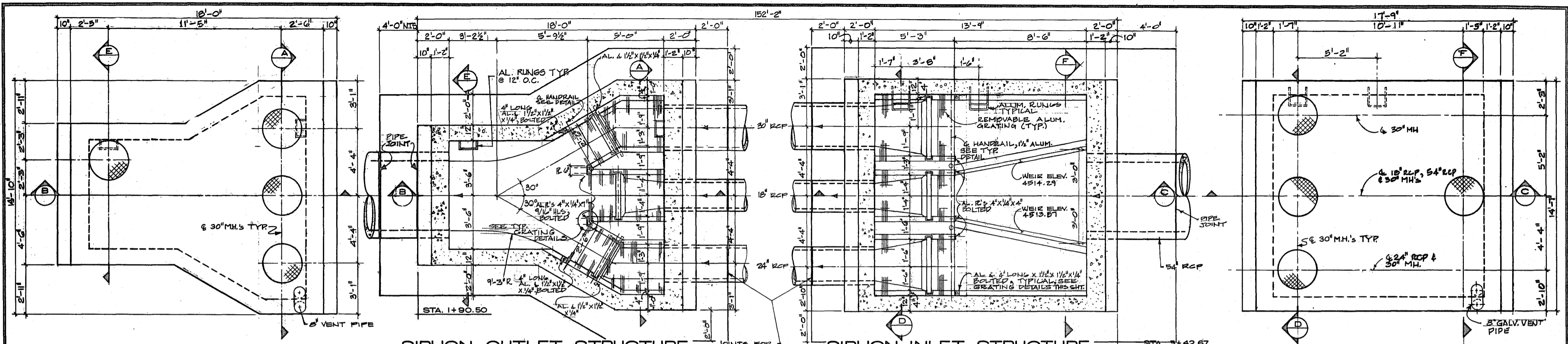
GRAND JUNCTION/ MESA COUNTY
**RIVER ROAD
INTERCEPTOR SEWER**

PLAN & PROFILE
STA. 254+75 TO STA. 259+27.60

HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING - ARCHITECTURE - PLANNING
GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
DESIGNED: J. HORAT
CHECKED: H. HENDRICHSEN
APPROVED: L. REEDER
DATE: AUGUST 1977

DIRECTOR: A. TACITO

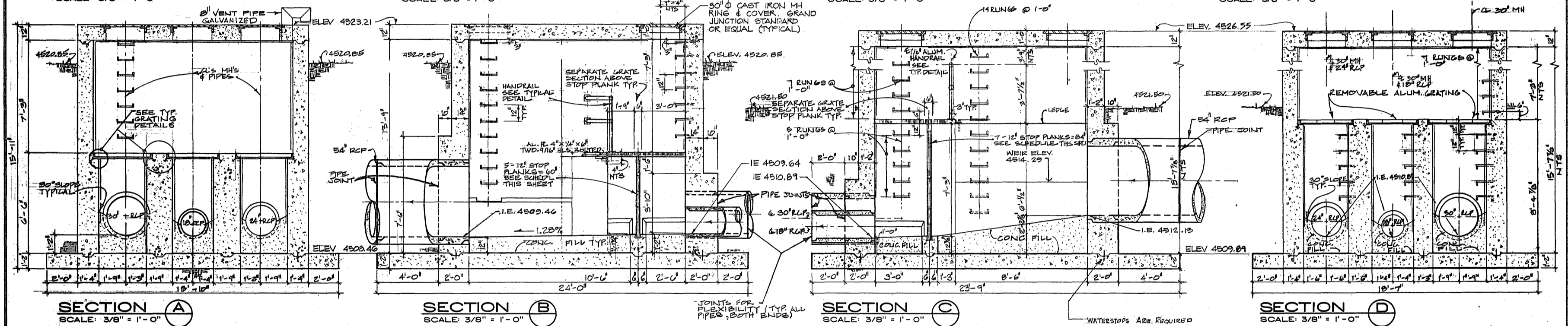


ROOF PLAN
SCALE: 3/8" = 1'-0"

**SIPHON OUTLET STRUCTURE
FOUNDATION & FLOOR PLAN**
SCALE: 3/8" = 1'-0"

**SIPHON INLET STRUCTURE
FOUNDATION & FLOOR PLAN**
SCALE: 3/8" = 1'-0"

ROOF PLAN
SCALE: 3/8" = 1'-0"

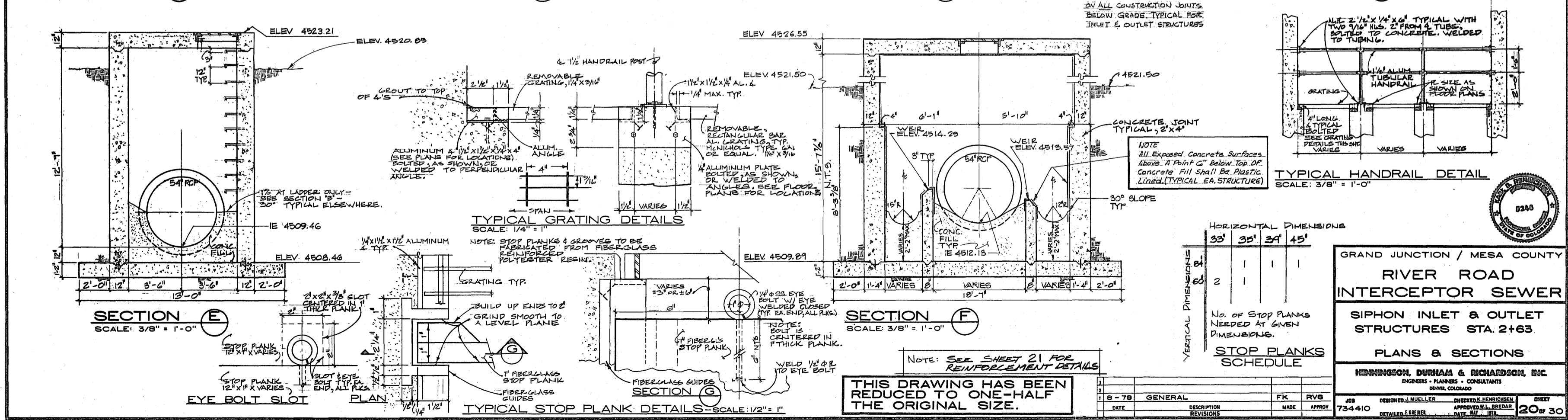


SECTION A
SCALE: 3/8" = 1'-0"

SECTION B
SCALE: 3/8" = 1'-0"

SECTION C
SCALE: 3/8" = 1'-0"

SECTION D
SCALE: 3/8" = 1'-0"



TYPICAL HANDRAIL DETAIL
SCALE: 3/8" = 1'-0"

TYPICAL GRATING DETAILS
SCALE: 1/4" = 1"

TYPICAL STOP PLANK DETAILS - SCALE: 1/2" = 1"

NOTE: All Exposed Concrete Surfaces Above a Point 'C' Below Top of Concrete Fill Shall be Plastic Lined (TYPICAL EA. STRUCTURE)

NOTE: SEE SHEET 21 FOR REINFORCEMENT DETAILS

STOP PLANKS SCHEDULE

HORIZONTAL DIMENSIONS			
33'	35'	39'	45'
84	2	1	1
60	2	1	1

No. of Stop Planks Needed at Given Dimensions.

GRAND JUNCTION / MESA COUNTY

RIVER ROAD INTERCEPTOR SEWER

SIPHON INLET & OUTLET STRUCTURES STA. 2+63

PLANS & SECTIONS

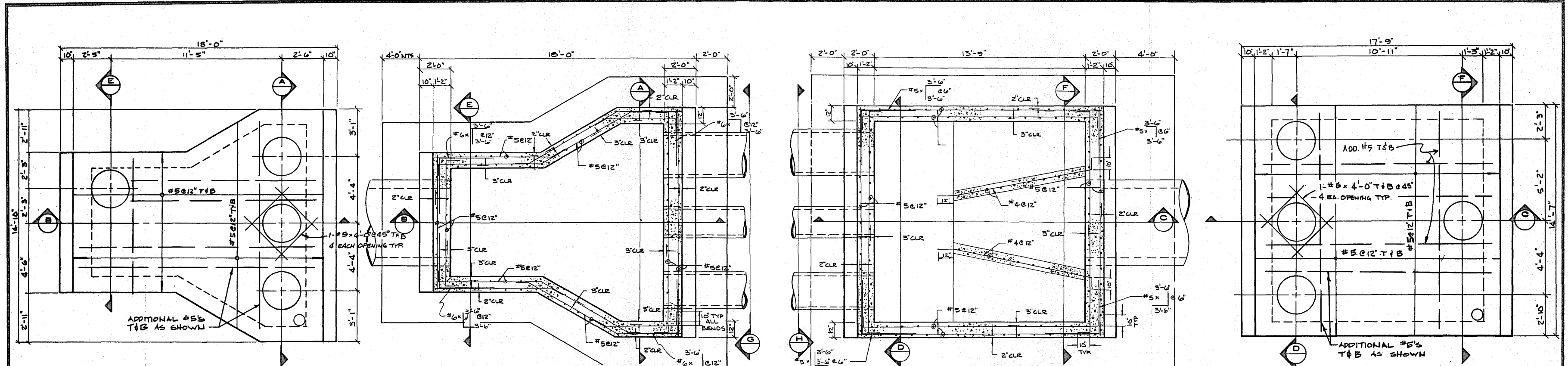
HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERS - PLANNERS & CONSULTANTS
DENVER, COLORADO

DESIGNED BY: J. MUELLER
APPROVED BY: D. BECKER
DATE: 7/3/41

DRAWN BY: J. KRUEGER
CHECKED BY: M. HENNINGSON
DATE: 8/1/41

20 of 30



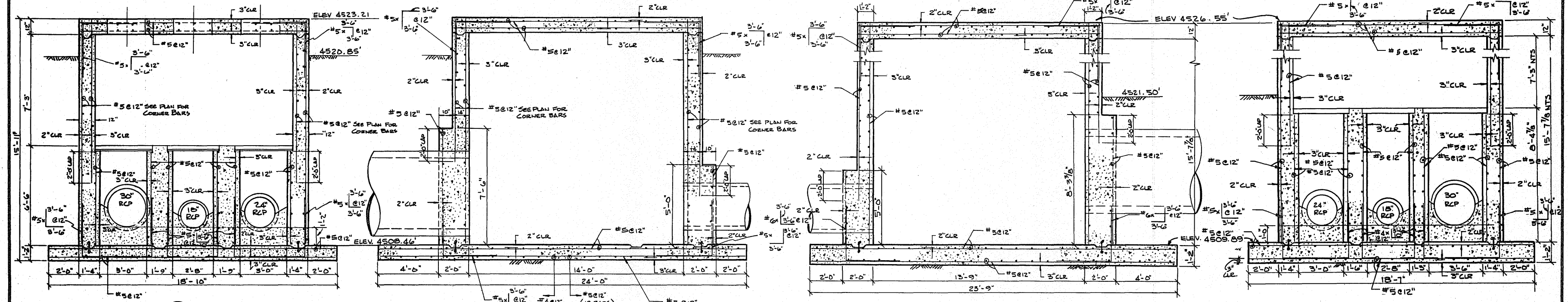


ROOF PLAN
SCALE 3/8"=1'-0"

**SIPHON OUTLET STRUCTURE
FOUNDATION & FLOOR PLAN**
SCALE 3/8"=1'-0"

**SIPHON INLET STRUCTURE
FOUNDATION & FLOOR PLAN**
SCALE 3/8"=1'-0"

ROOF PLAN
SCALE 3/8"=1'-0"

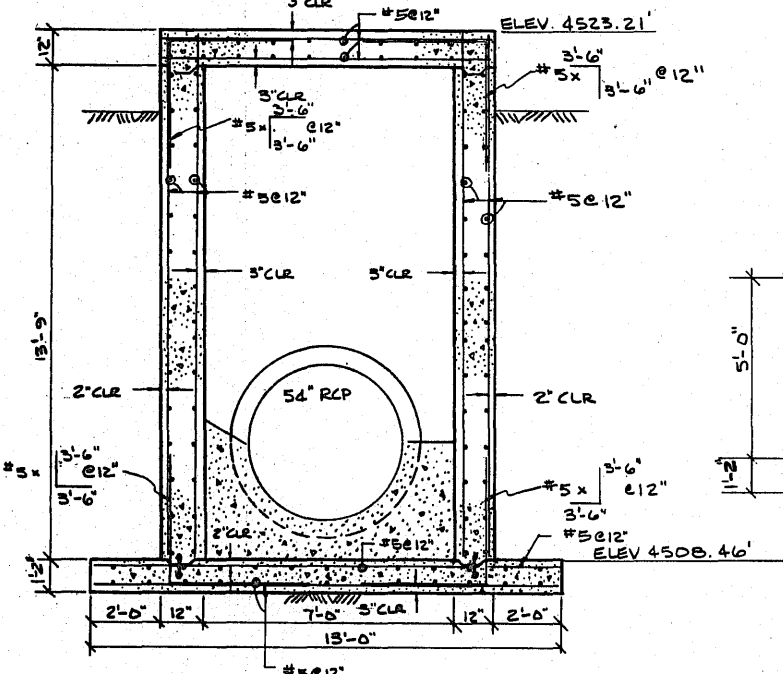


SECTION A
SCALE 3/8"=1'-0"

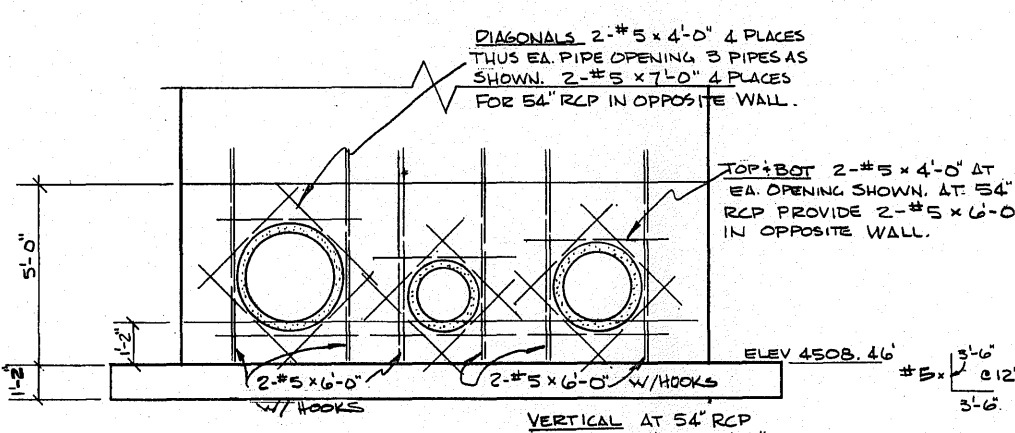
SECTION B
SCALE 3/8"=1'-0"

SECTION C
SCALE 3/8"=1'-0"

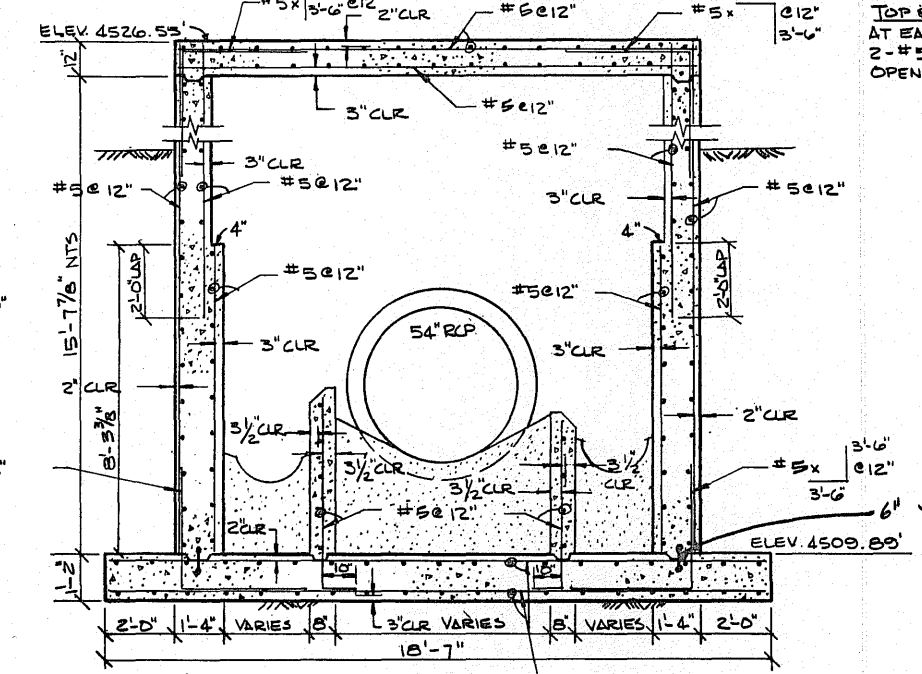
SECTION D
SCALE 3/8"=1'-0"



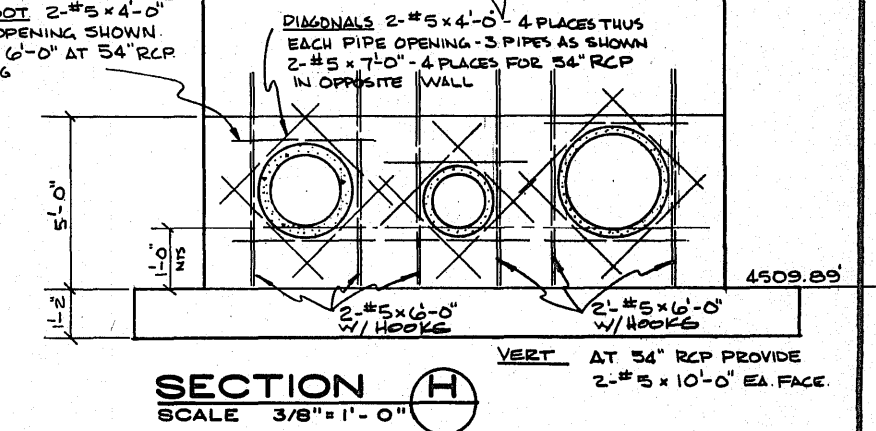
SECTION E
SCALE 3/8"=1'-0"



SECTION G
SCALE 3/8"=1'-0"



SECTION F
SCALE 3/8"=1'-0"



SECTION H
SCALE 3/8"=1'-0"

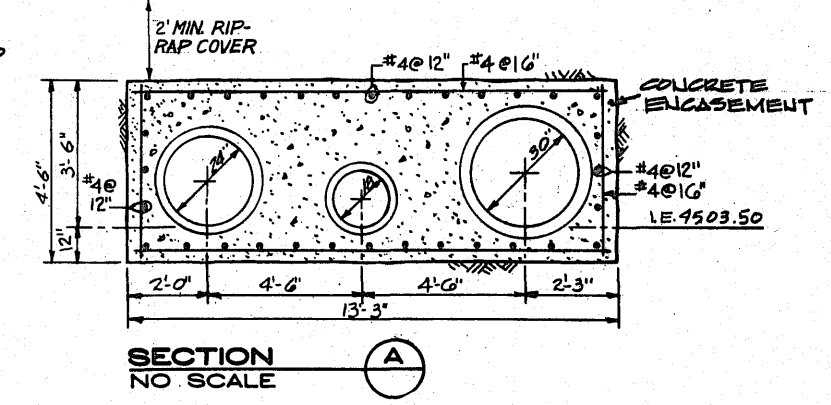
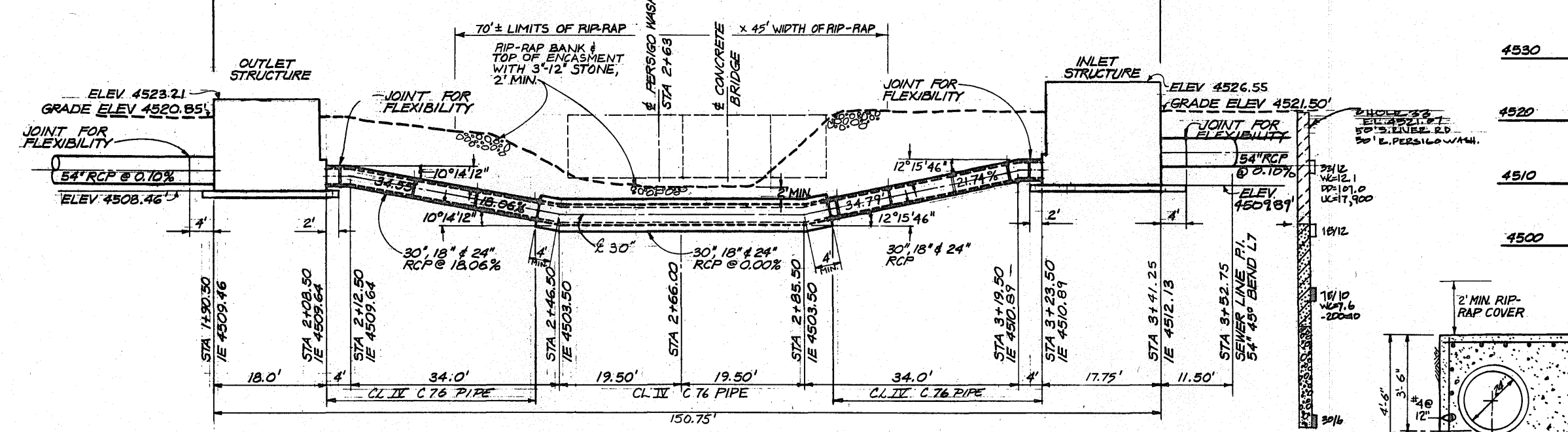
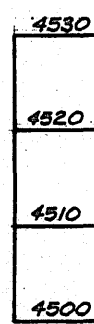
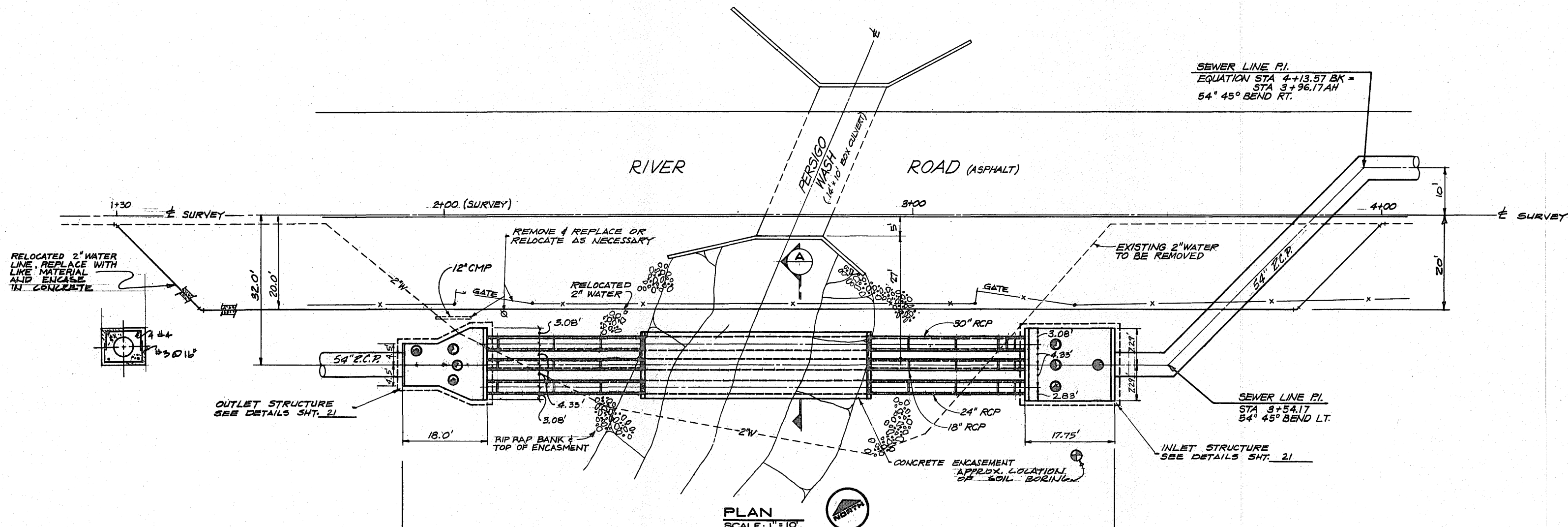
THIS DRAWING HAS BEEN
REDUCED TO ONE-HALF
THE ORIGINAL SIZE.



GRAND JUNCTION / MESA COUNTY
**RIVER ROAD
INTERCEPTOR SEWER**
SIPHON INLET & OUTLET
STRUCTURES STA 2+63
REINFORCEMENT DETAILS

HENNINGSON, DUNHAM & RICHARDSON, INC.
ENGINEERS • PLANNERS • CONSULTANTS
DENVER, COLORADO

NO.	DATE	DESCRIPTION	DESIGNED	CHECKED	APPROVED	DATE	SHEET
1	9-79	GENERAL	FK	RVD			21 of 30
2		REVISIONS					



PROFILE OF SIPHON AT PERSIGO WASH STATION 2+63
SCALE: 1" = 10'

GENERAL NOTES
 1. ANY EXCESSIVELY SOFT OR LOOSE POCKETS OF SOIL FOUND WITHIN THE EXCAVATION SHOULD BE REMOVED & REPLACED AND COMPACTED.
 2. SEE SPECIFICATIONS FOR LEGEND ON SOIL BORING AND FOUNDATION SOIL MATERIAL.

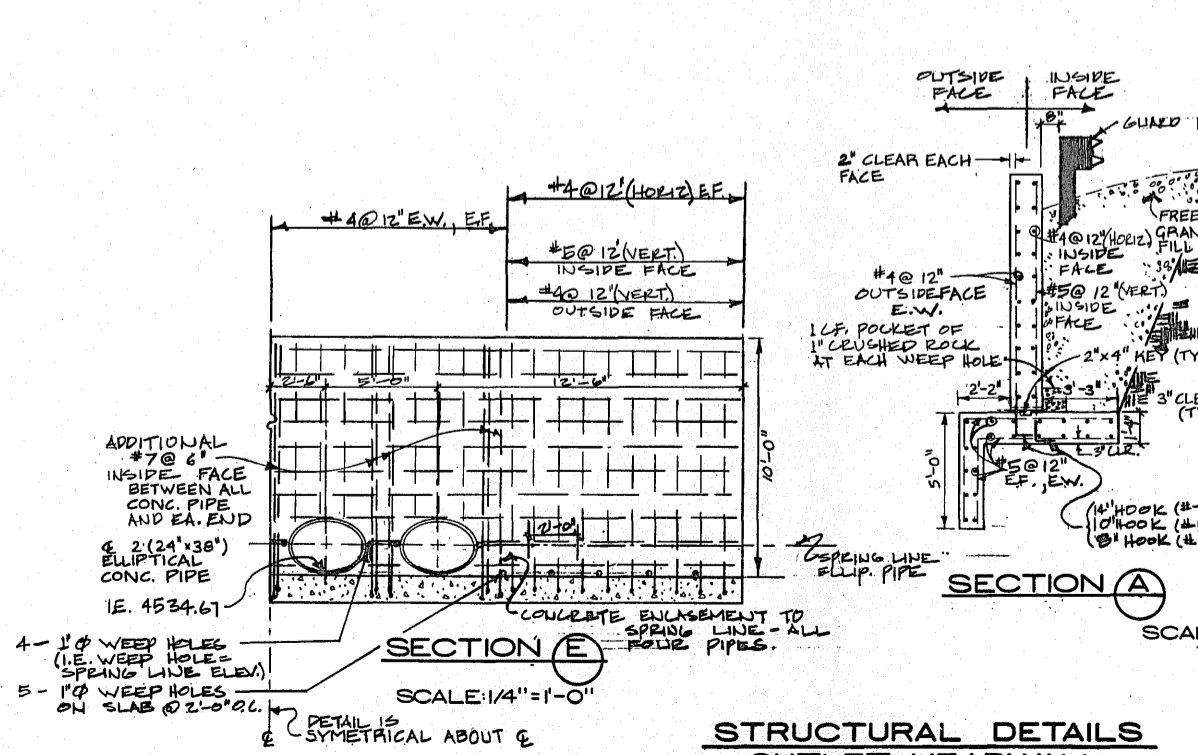
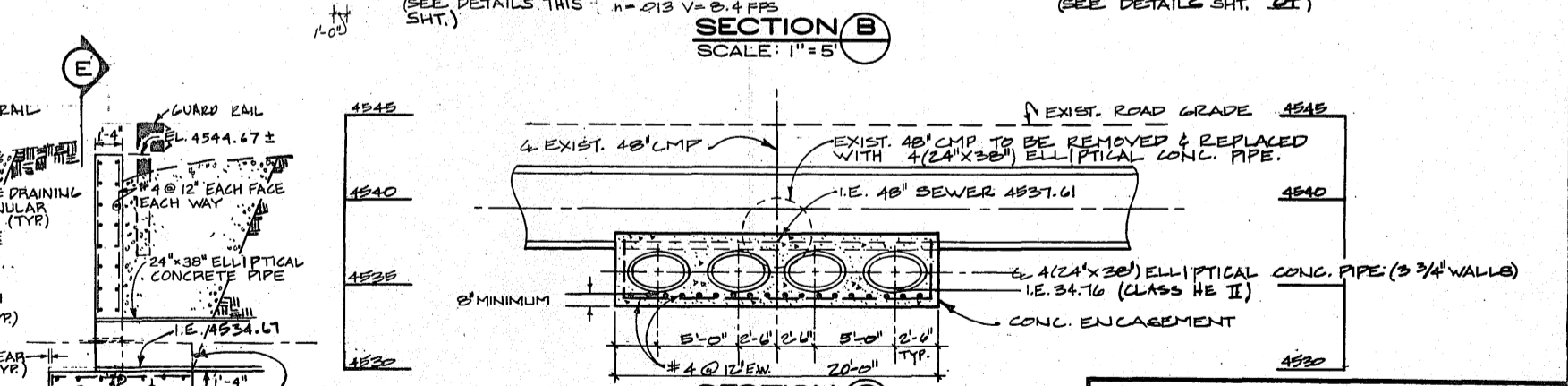
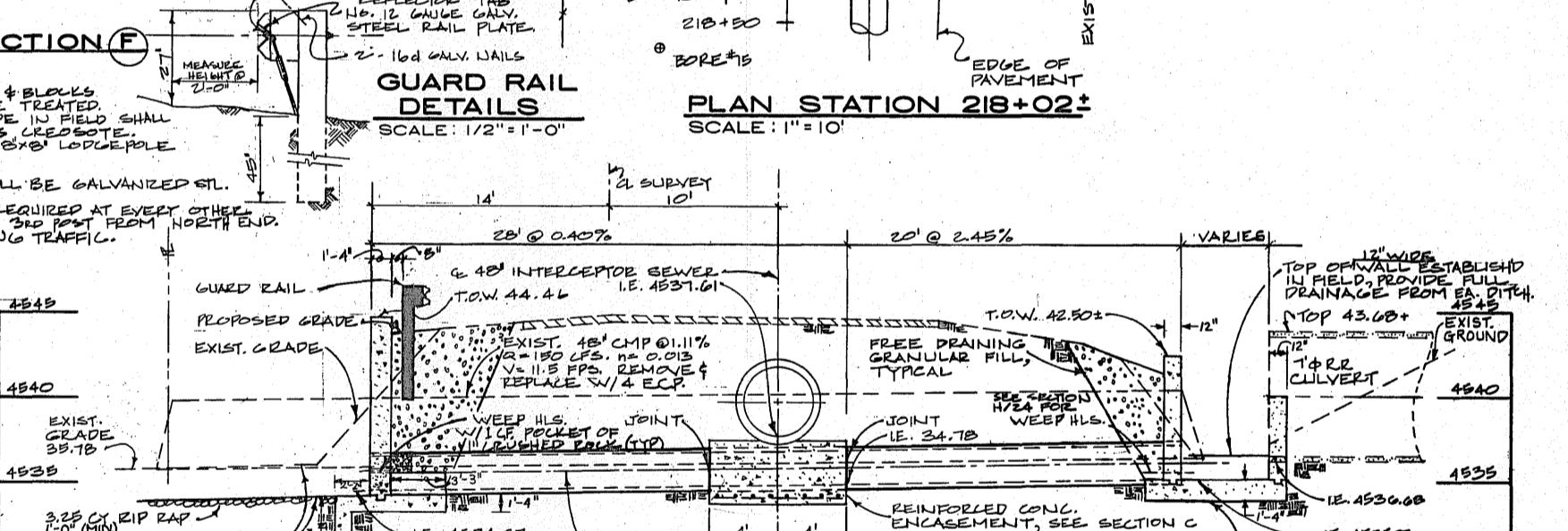
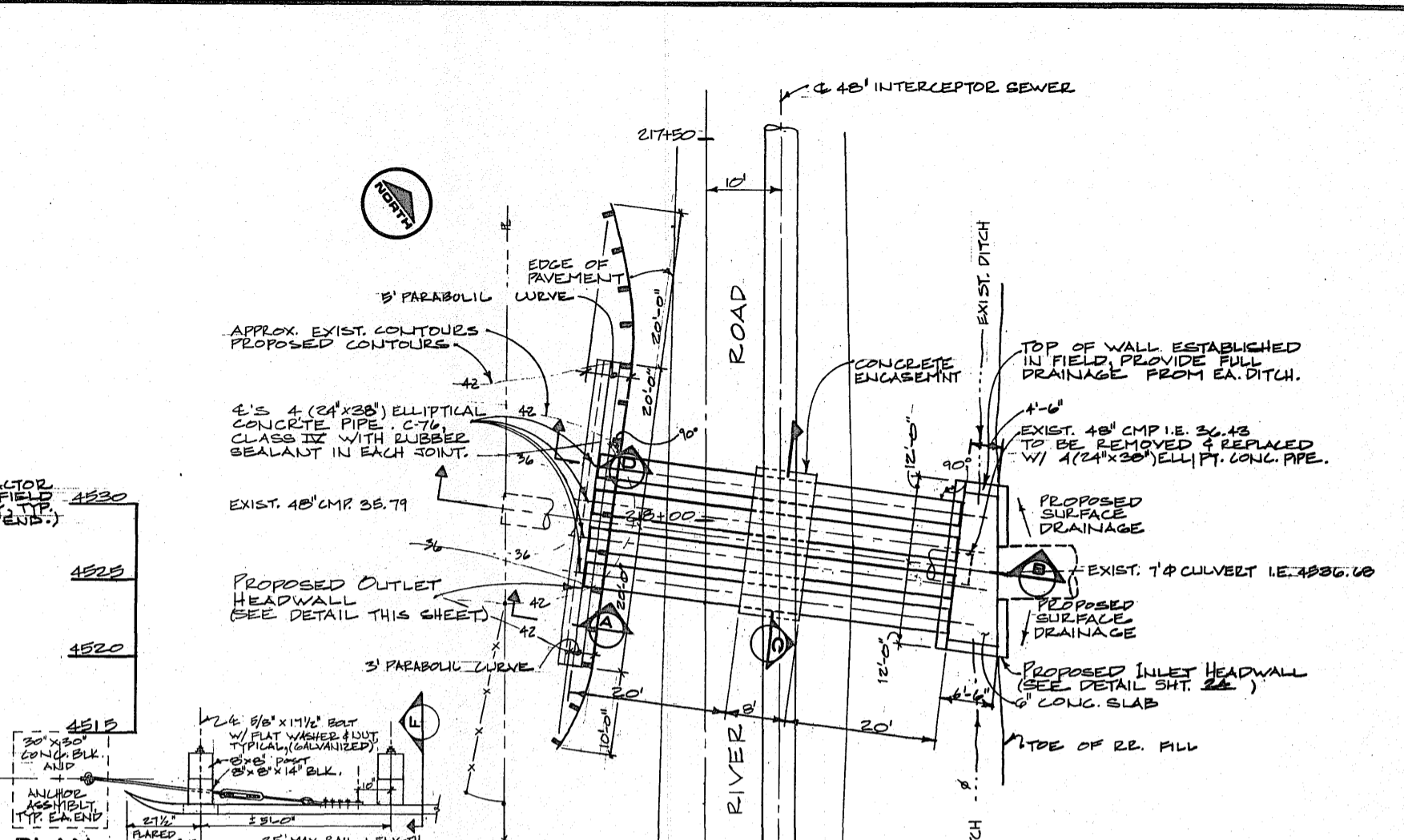
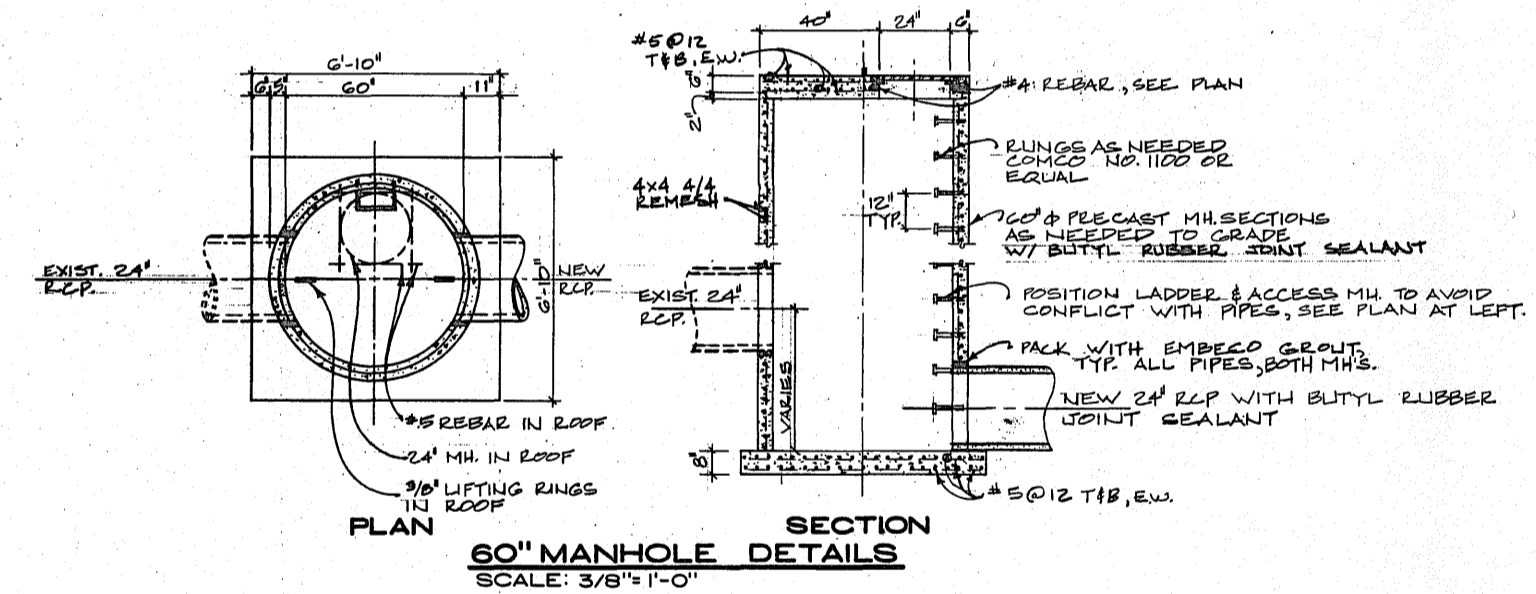
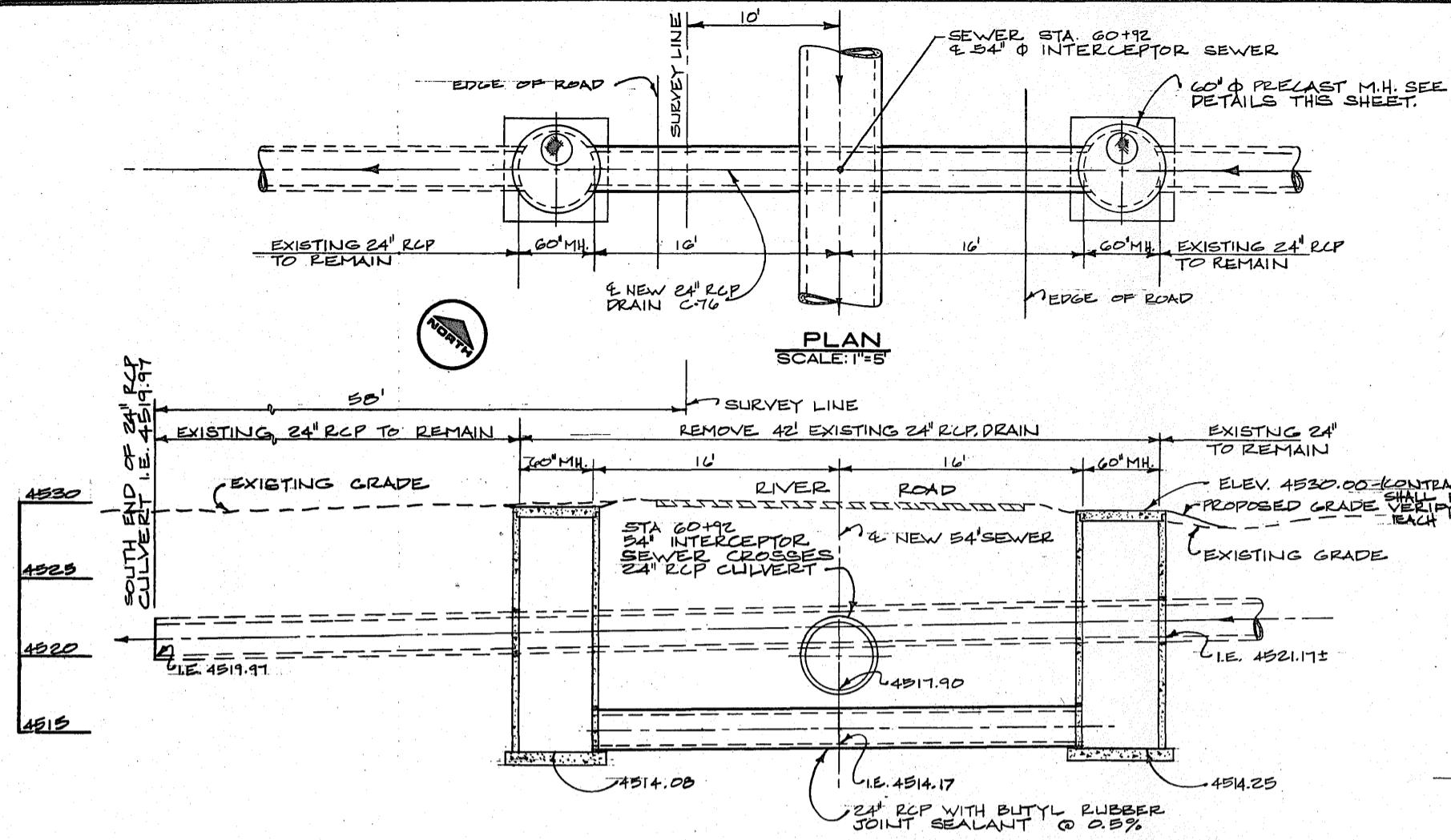
THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.

GRAND JUNCTION / MESA COUNTY
 RIVER ROAD
 INTERCEPTOR SEWER
 SIPHON PLAN & PROFILE
 PERSIGO WASH
 STA. 2+63

EDWARDS, DURHAM & EDWARDS, INC.
 ENGINEERS - PLANNERS - CONSULTANTS
 DENVER, COLORADO

734410
 22 of 30

NO.	DATE	DESCRIPTION	BY	CHK	APPV
1		GENERAL			



GUARD RAIL NOTES:

1. TIMBER FOR POSTS & BLOCKS SHALL BE PRESERVE TREATED. HOLES & CUTS MADE IN FIELD SHALL RECEIVE 2" COATS OF RED SPOTS. TIMBER SHALL BE 6"x6" LOGS PER PINE OF EQUAL.
2. ALL HARDWARE SHALL BE GALVANIZED STL.
3. REFLECTOR TABS REQUIRED AT EVERY OTHER POST STARTING W/ 3RD POST FROM NORTH END. (6) REF. BEG., FACING TRAFFIC.

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.



NO.	DATE	DESCRIPTION	MADE	APPROV.
1	9-79	GENERAL	FK	RVS

GRAND JUNCTION / MESA COUNTY

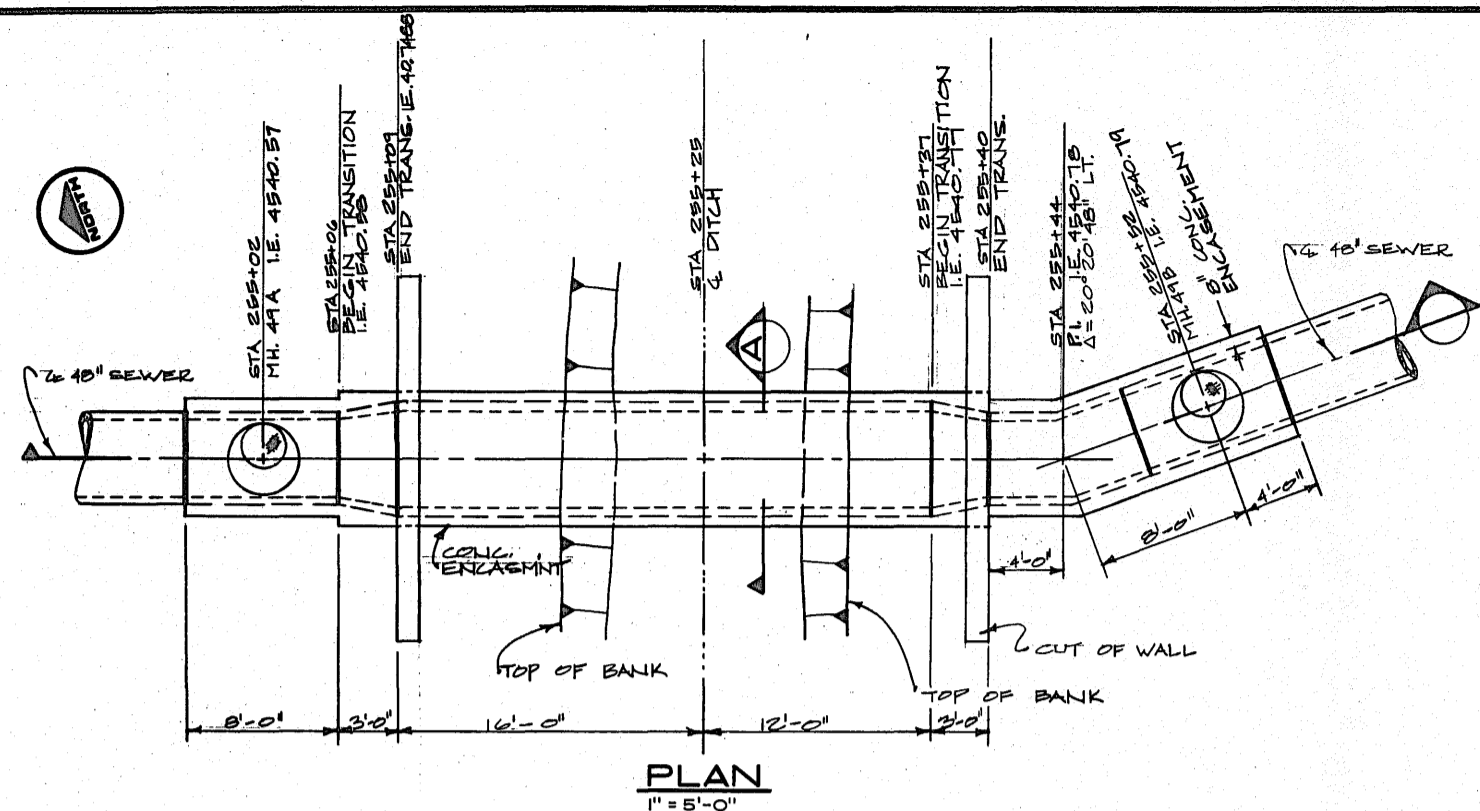
RIVER ROAD INTERCEPTOR SEWER

SIPHON PLAN & PROFILE
STA. 60+92
STA. 218+02.2

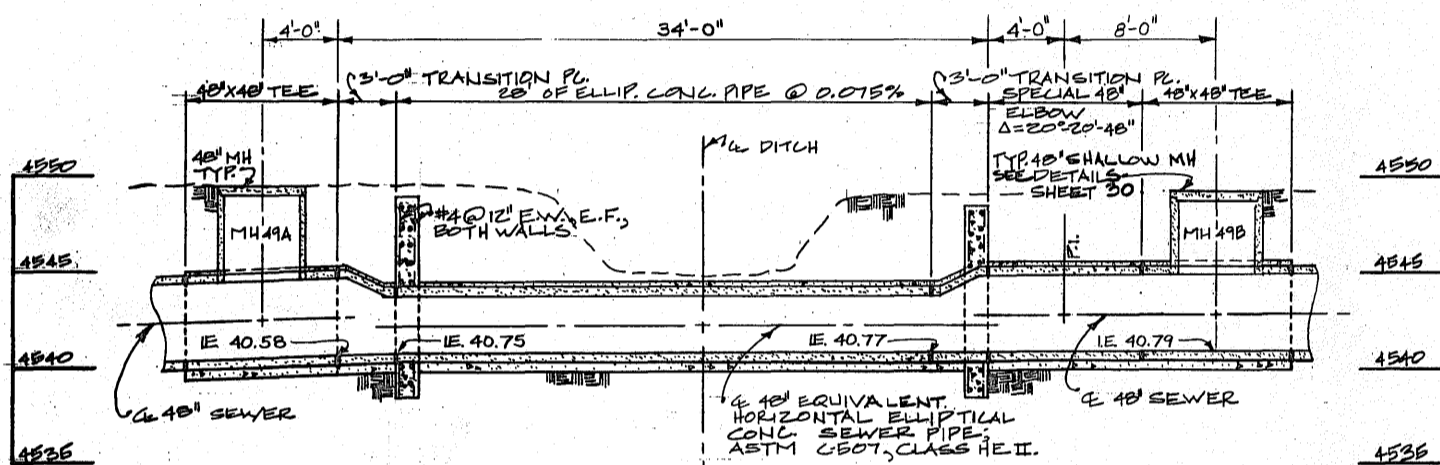
HENNINGSON DURHAM & RICHARDSON, INC.
ENGINEERS - PLANNERS - CONSULTANTS
DENVER, COLORADO

JOB NO. 734410
DESIGNED BY: S. STREIB
CHECKED BY: HENNINGSON
APPROVED BY: HENNINGSON
DATE: FEBRUARY, 1979

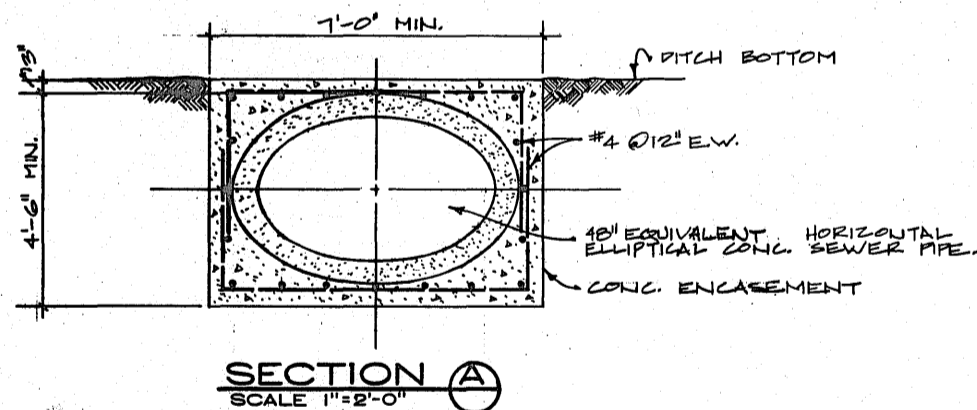
SHEET 23 OF 30



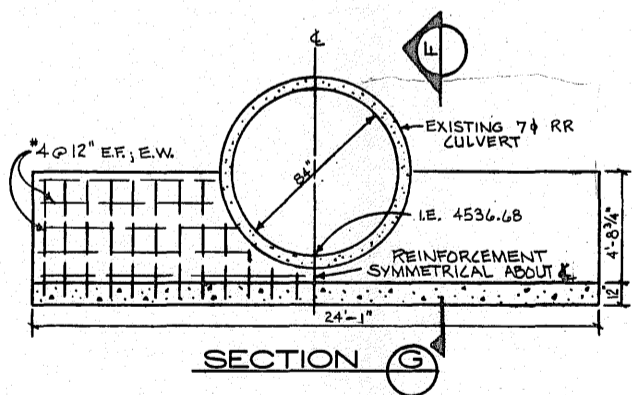
PLAN
1" = 5'-0"



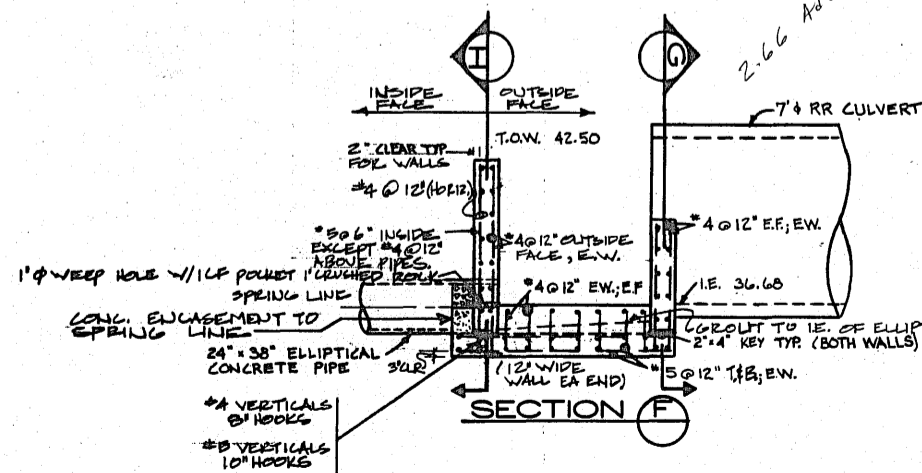
PROFILE OF DITCH CROSSING DETAIL FOR STATION 255+25
SCALE 1" = 5'-0"



SECTION A
SCALE 1" = 2'-0"



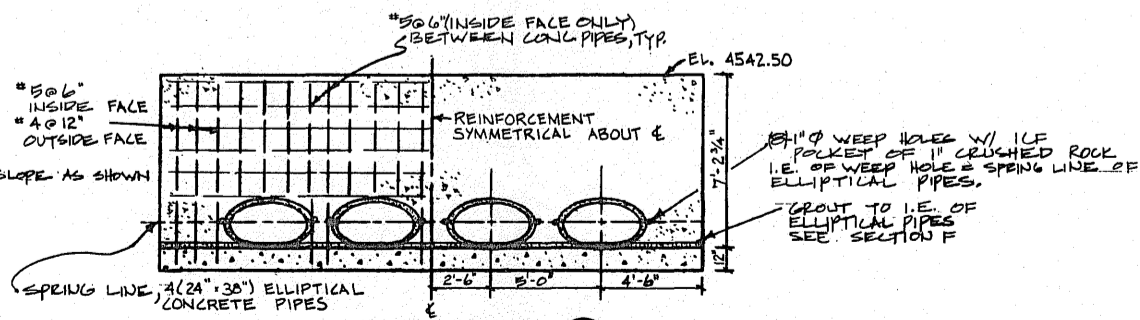
SECTION G



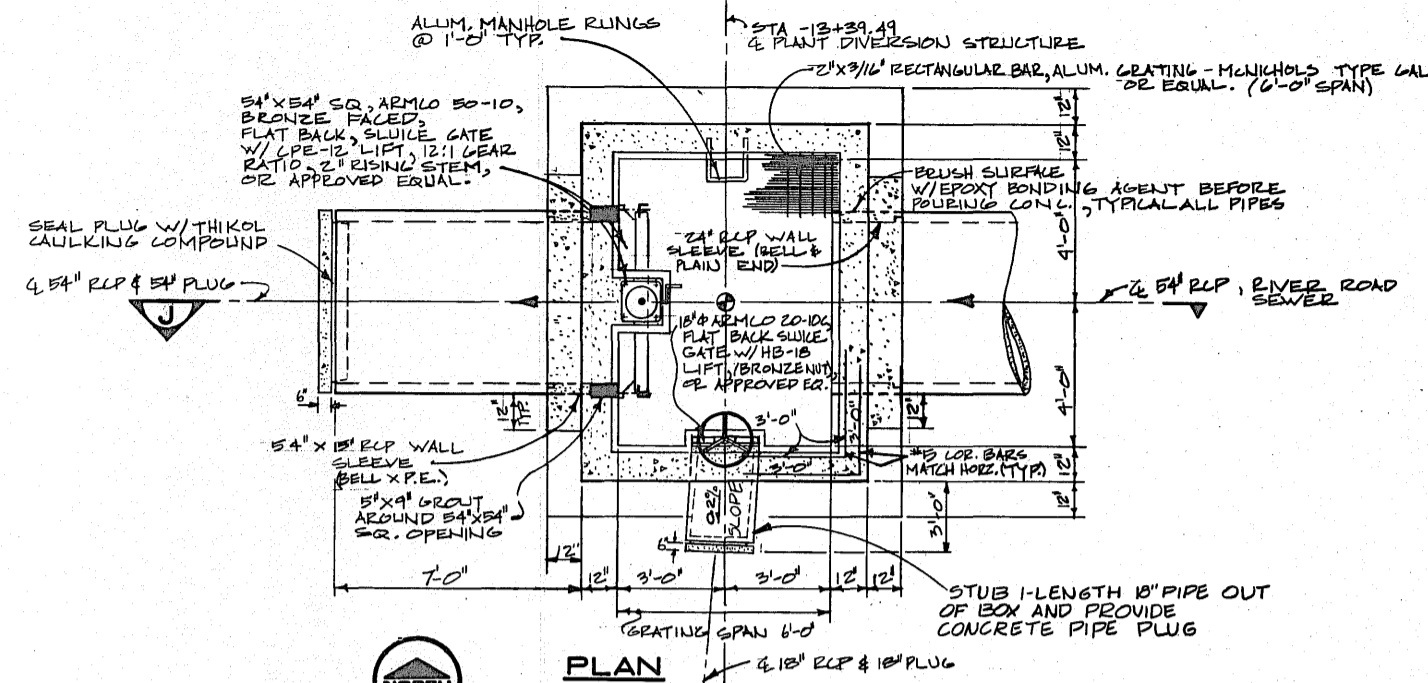
INLET HEADWALL STRUCTURAL DETAILS

STATION 218+02

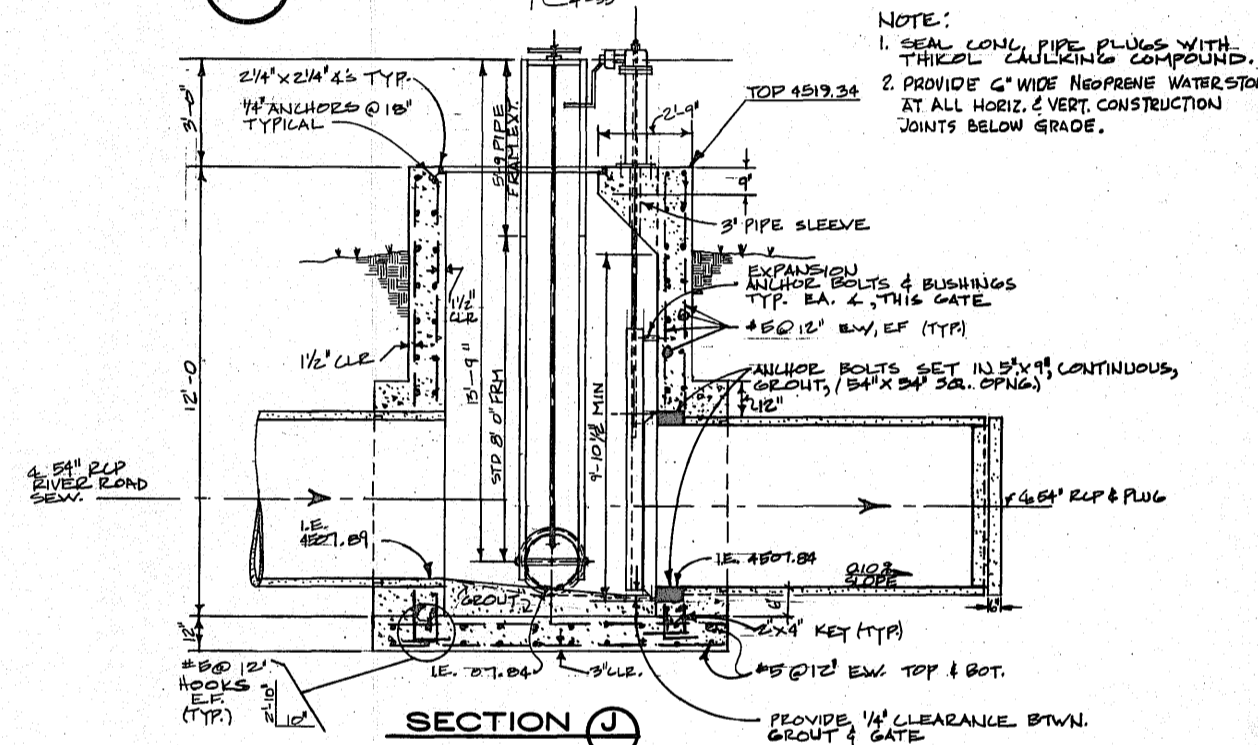
SCALE: 1/4" = 1'-0"



SECTION H



PLAN



SECTION J

54" SLEEVE REINFORCEMENT 18" STUB REINFMNT.

PLANT DIVERSION BOX DETAILS
NO SCALE

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.



GRAND JUNCTION / MESA COUNTY
RIVER ROAD INTERCEPTOR SEWER
DETAILS
INLET HEADWALL (218+02)
DITCH CROSSING (255+25)
PLANT DIVERSION BOX (13+39.49)

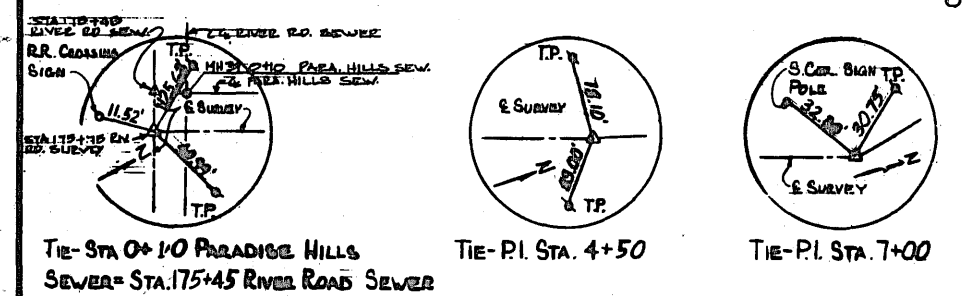
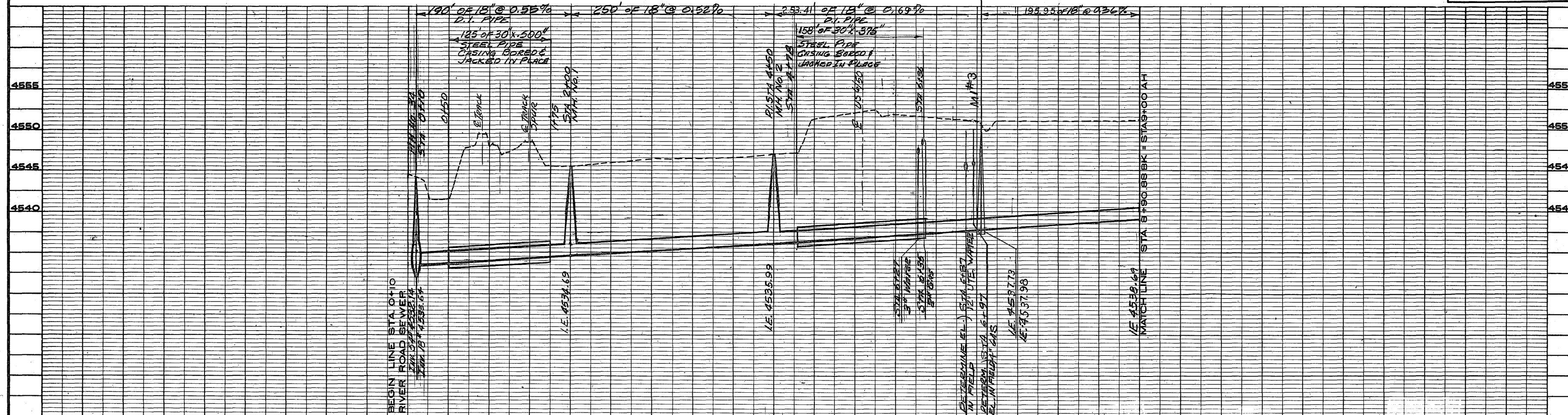
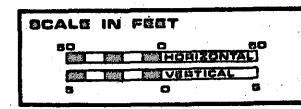
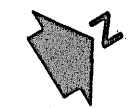
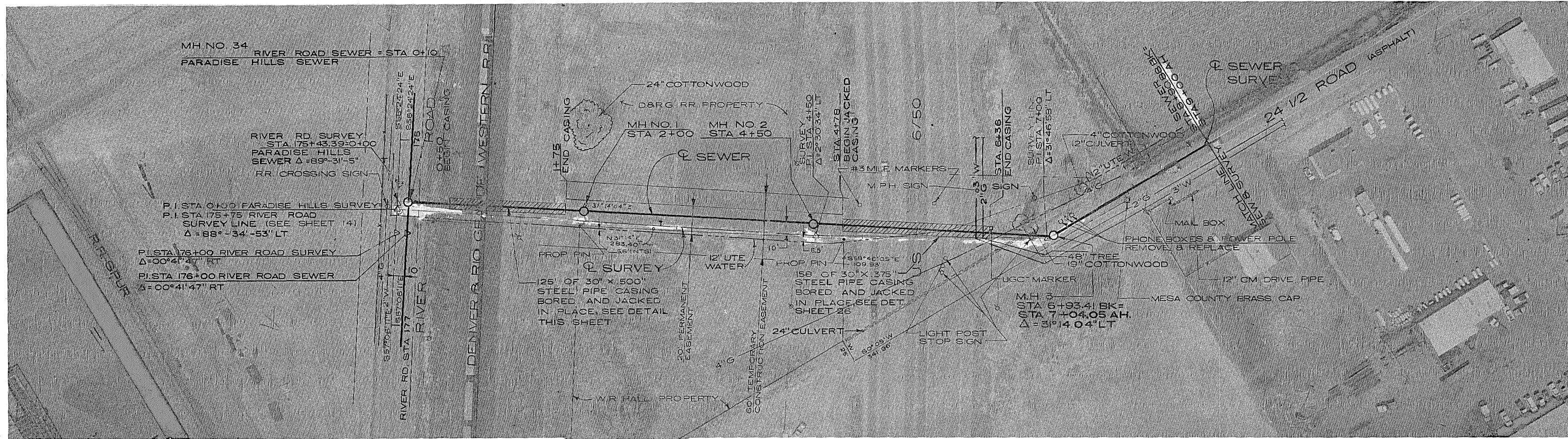
HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERS • PLANNERS • CONSULTANTS
DENVER, COLORADO

NO.	DATE	DESCRIPTION	BY	CHKD.	APPV.
1	8-78	GENERAL	FK	RVB	
2					
3					

DESIGNED: J. STUBBS
CHECKED: J. STUBBS
DATE: 10-1-78

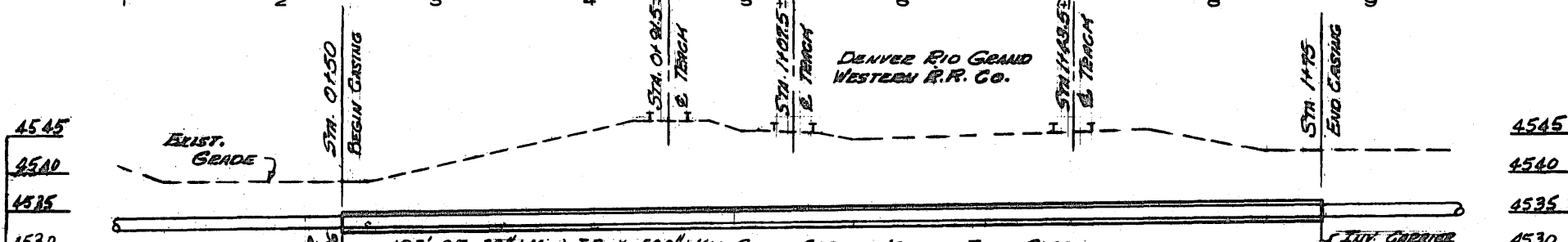
APPROVED: J. STUBBS
DATE: 10-1-78

734410
734410
24 of 30



KUBERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado
 Lakeland, Florida
 Atlanta, Georgia

**THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.**



PARADISE HILLS DRG&WRR.CO. CROSSING AT STA. 1+10
 SCALE: 1"=10'

NO.	DATE	DESCRIPTION	MADE	APPROV.
1	3-80	REVISED ALIGNM'T 0+00-7+4785 FK	RVG	RVG
2	8-79	GENERAL	FK	RVG

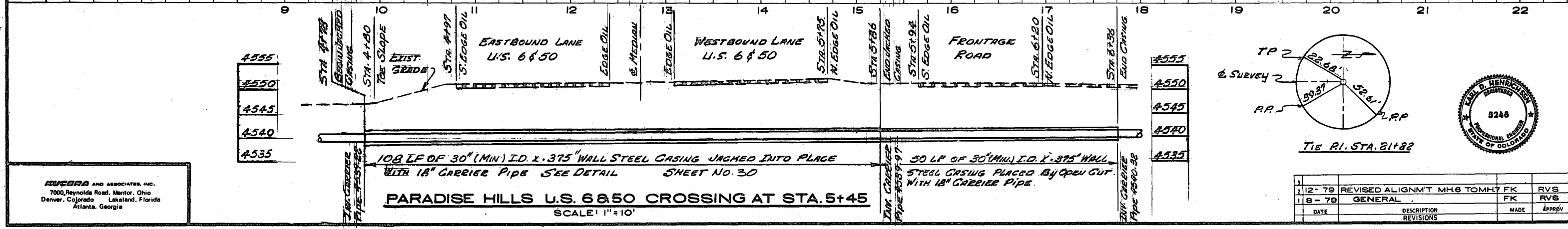
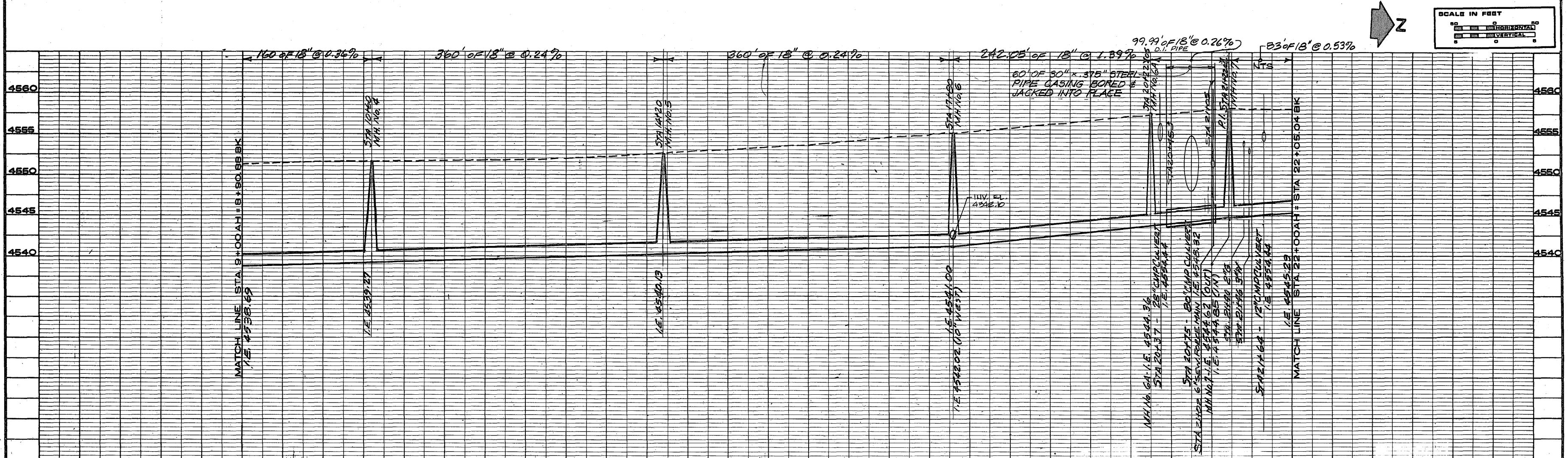
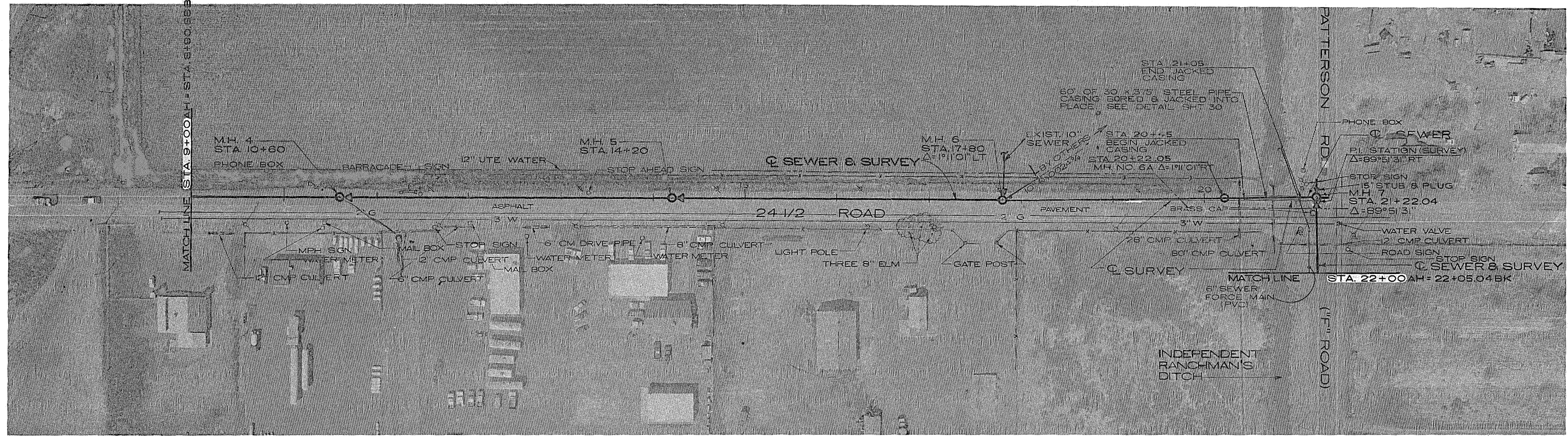
GRAND JUNCTION / MESA COUNTY
**PARADISE HILLS
 INTERCEPTOR SEWER
 PHASE II**

**PLAN & PROFILE
 STA. 0+10 TO STA. 9+00**

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

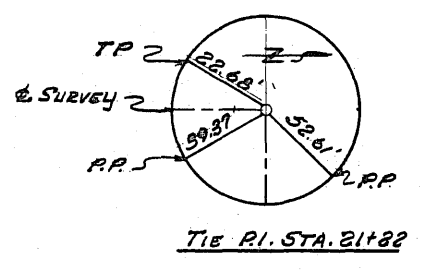
JOB: 734410
 DESIGNER: J. ROBERT
 CHECKED: J. ROBERT
 APPROVED: [Signature]
 DATE: AUGUST 1981

25 of 30



REBER and associates, inc.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

PARADISE HILLS U.S. 6 & 50 CROSSING AT STA. 5+45
 SCALE: 1"=10'



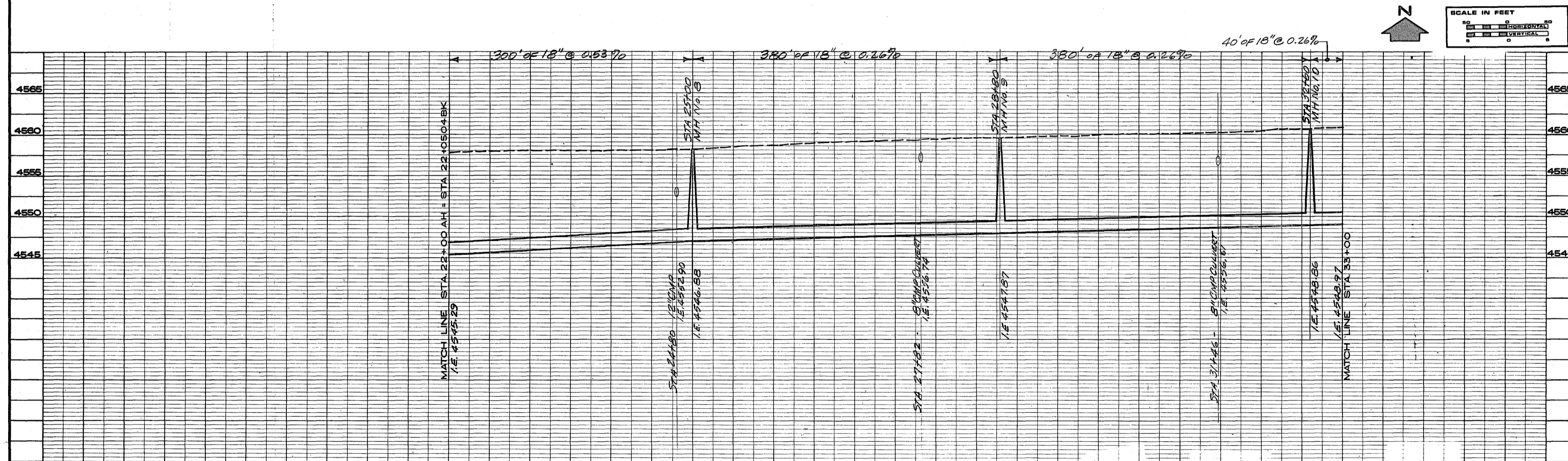
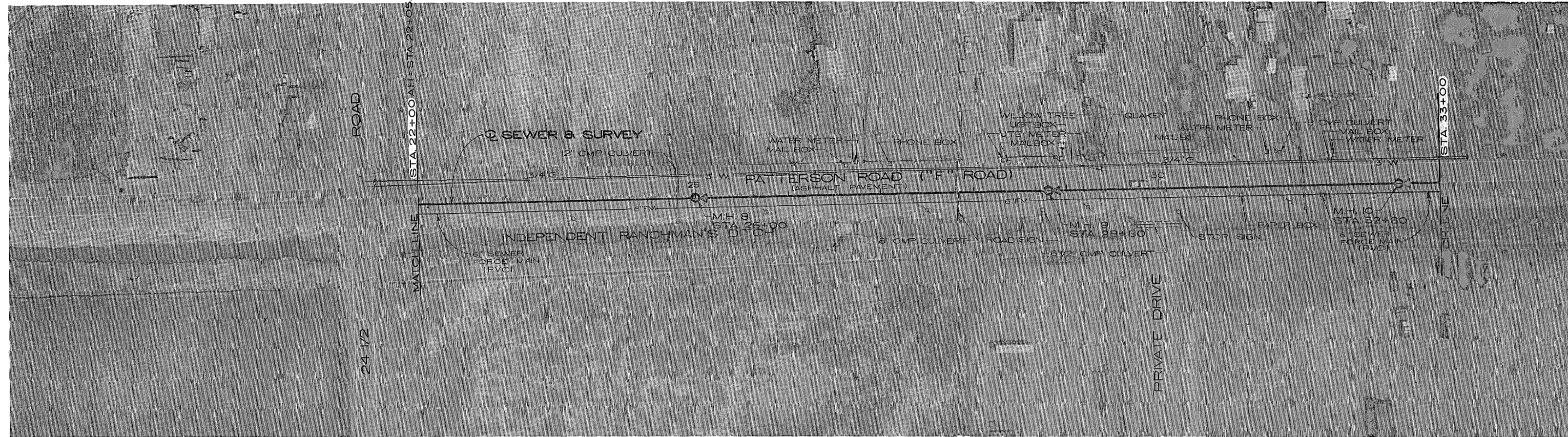
GRAND JUNCTION / MESA COUNTY
PARADISE HILLS INTERCEPTOR SEWER PHASE II
 PLAN & PROFILE
 STA. 9+00 TO STA. 22+00

HINNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
 DESIGNED: J. ROBERT
 CHECKED: J. ROBERT
 APPROVED: J. ROBERT
 DATE: AUGUST 1987

SHEET: 26 OF 30

NO.	DATE	DESCRIPTION	BY	CHKD.
1	12-79	REVISED ALIGNMENT MHS TO MTH FK	RVS	RVS
2	8-79	GENERAL	FK	RVS
3		MADE	FK	RVS
4		REVISIONS	FK	RVS



KUCERA AND ASSOCIATES, INC.
7000 Reynolds Road, Mentor, Ohio
Denver, Colorado
Atlanta, Georgia

PARADISE HILLS INDEPENDENT RANCHMENS DITCH CROSSING AT STA. 20+75
SCALE: 1" = 10'

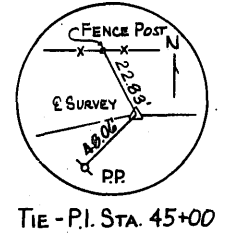
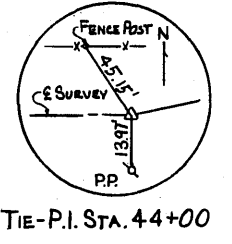
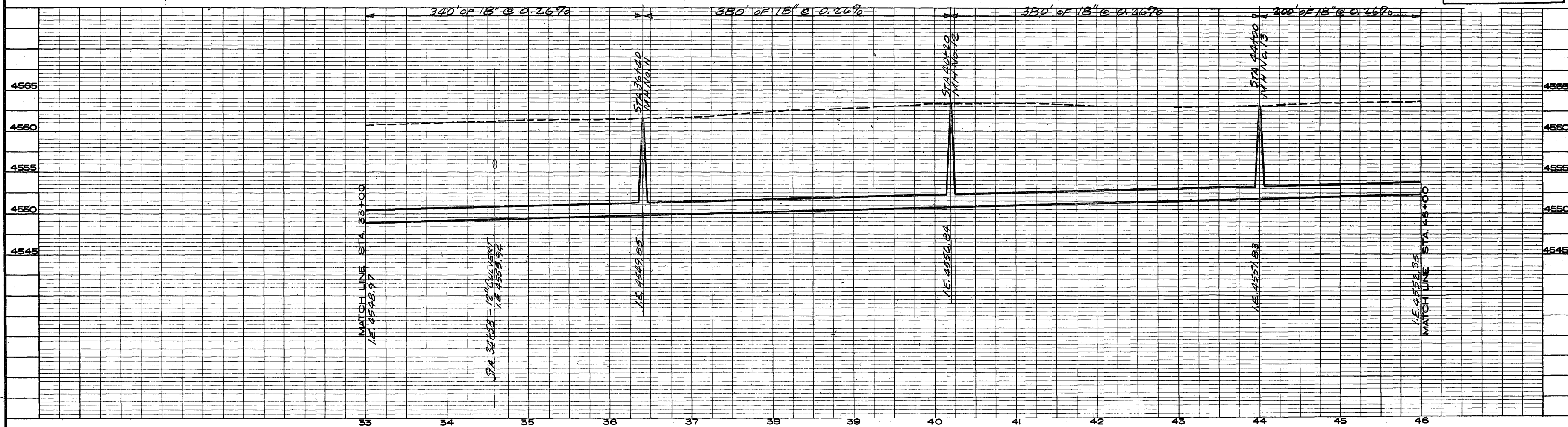
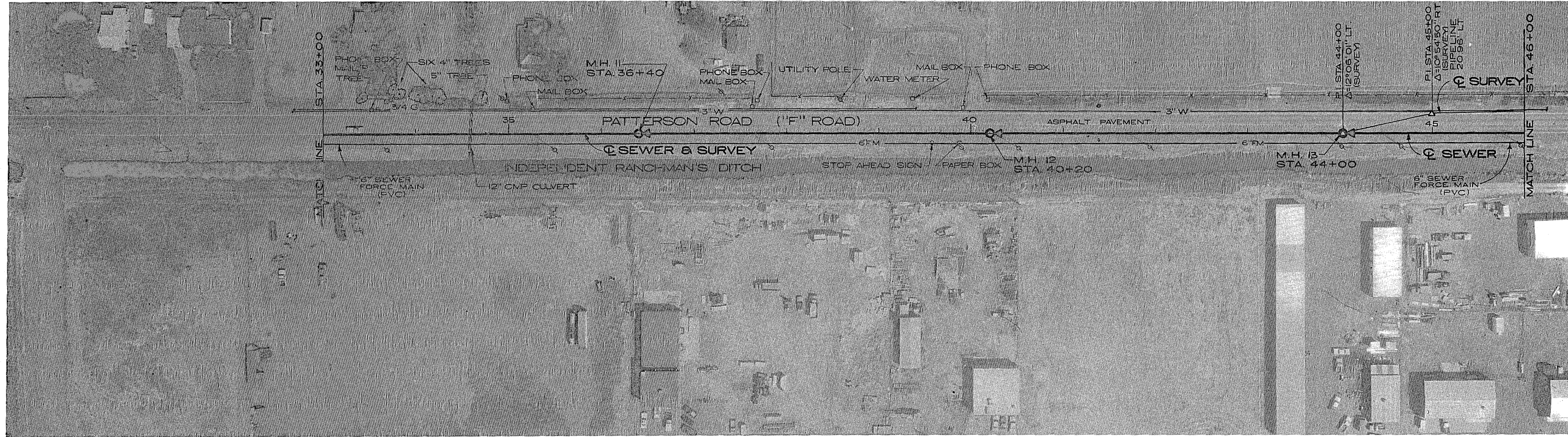
GRAND JUNCTION / MESA COUNTY
PARADISE HILLS INTERCEPTOR SEWER PHASE II
PLAN & PROFILE
STA. 22+00 TO STA. 33+00

HENNINGSON, DURHAM & RICHARDSON, INC.
ENGINEERING - ARCHITECTURE - PLANNING
GRAND JUNCTION & DENVER, COLORADO

JOB: 734410
DESIGNED: J. ROBERT
CHECKED: J. ROBERT
APPROVED: J. HENNINGSON
DATE: AUGUST 1977

NO.	DATE	DESCRIPTION	MADE	APPROV.
1	12-79	ADDED EQ STA 22+05.04 BK	FK	RVS
2	8-79	GENERAL	FK	RVS

734410
27 of 30



KUCERA AND ASSOCIATES, INC.
 7800 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.

NO.	DATE	DESCRIPTION	MADE	APPROVED
1	12-79	ADDED 6" SEW FORCE MAIN	FK	RVS
1	8-79	GENERAL	FK	RVS

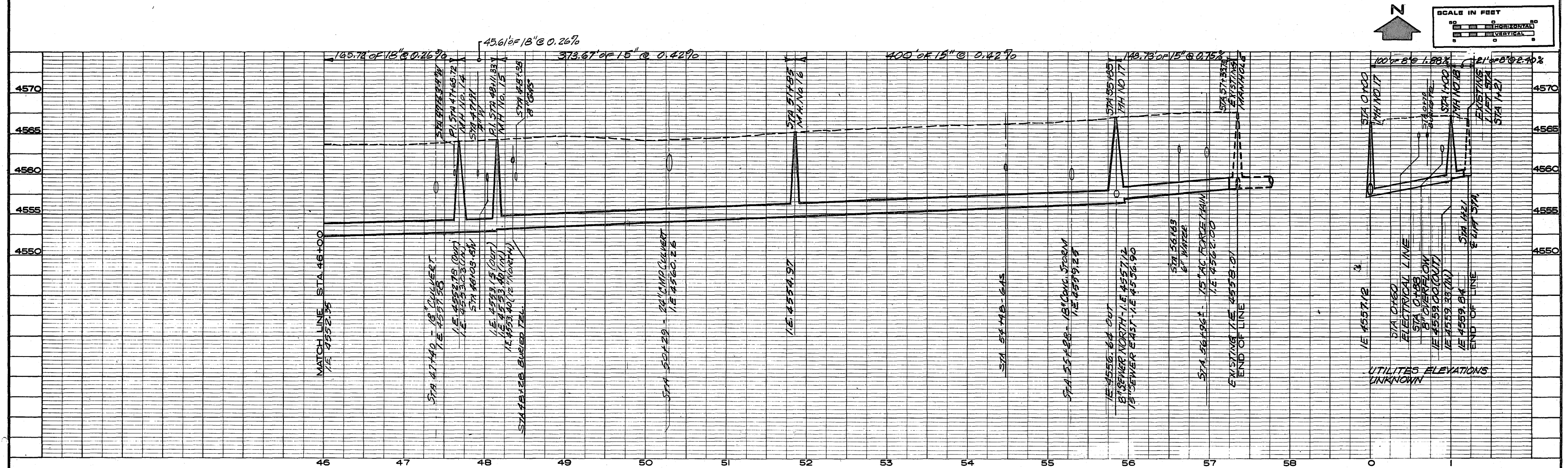
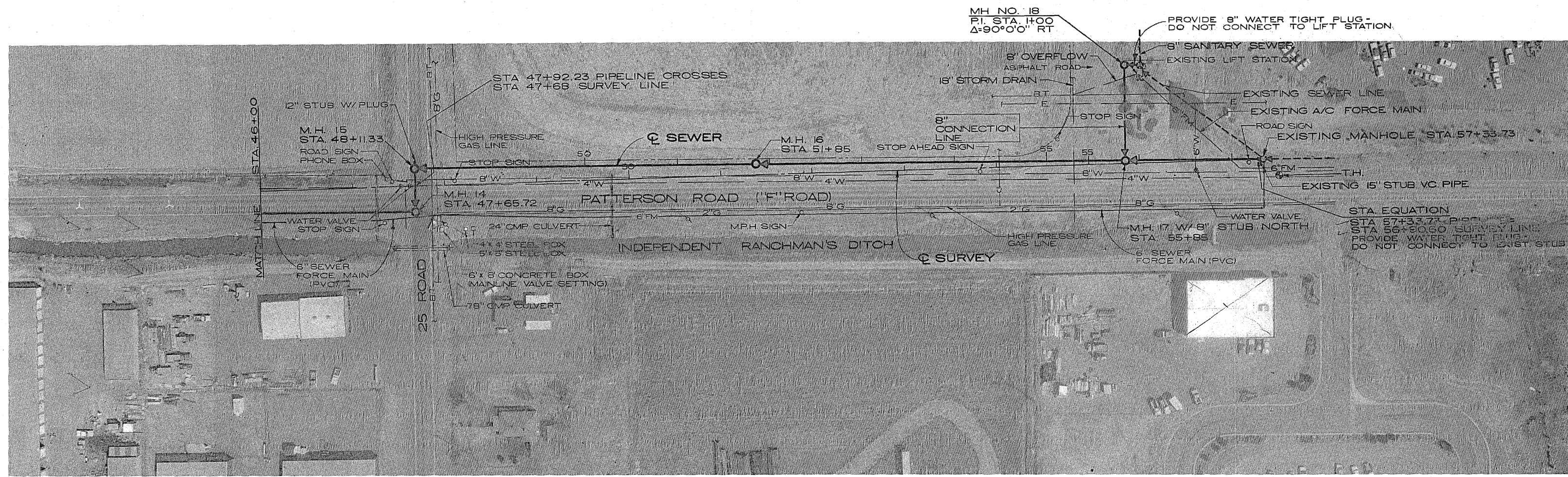


GRAND JUNCTION / MESA COUNTY
**PARADISE HILLS
 INTERCEPTOR SEWER
 PHASE II**

PLAN & PROFILE
 STA. 33+00 TO STA. 46+00

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

JOB: 734410 DRAWN: B. HOLMAN CHECKED: J. BOST DATE: AUGUST 1977 SHEET: 28 OF 30



KUCERA AND ASSOCIATES, INC.
 7000 Reynolds Road, Mentor, Ohio
 Denver, Colorado Lakeland, Florida
 Atlanta, Georgia

THIS DRAWING HAS BEEN
 REDUCED TO ONE-HALF
 THE ORIGINAL SIZE.



GRAND JUNCTION / MESA COUNTY
**PARADISE HILLS
 INTERCEPTOR SEWER
 PHASE II**

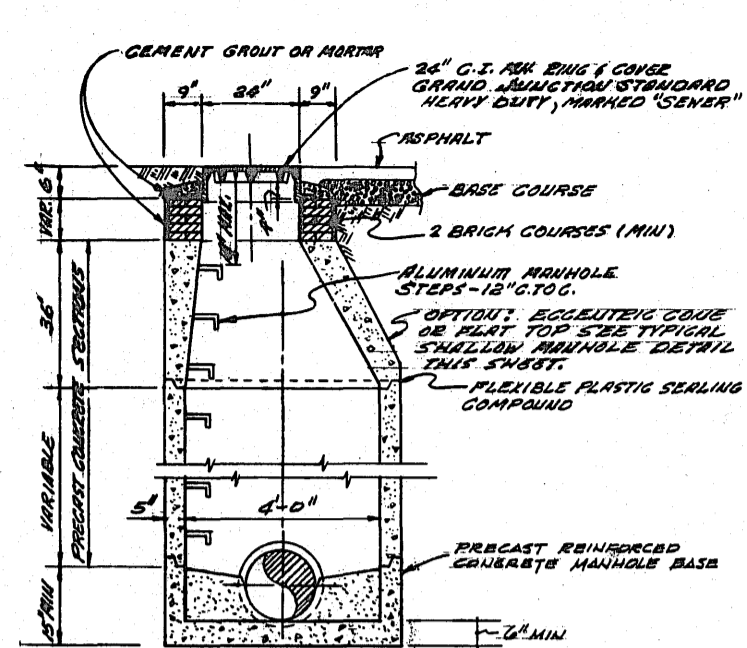
PLAN & PROFILE
 STA. 46+00 TO STA. 57+35

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERING - ARCHITECTURE - PLANNING
 GRAND JUNCTION & DENVER, COLORADO

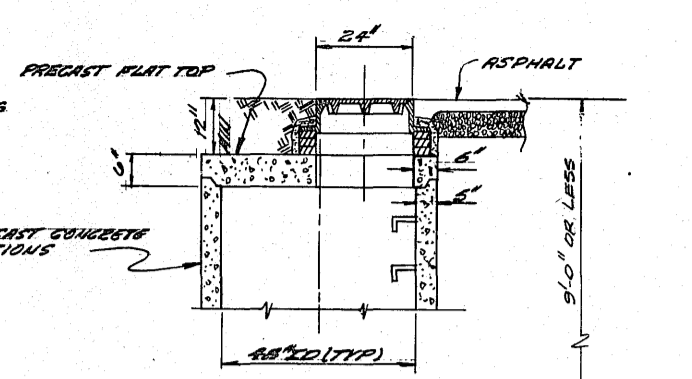
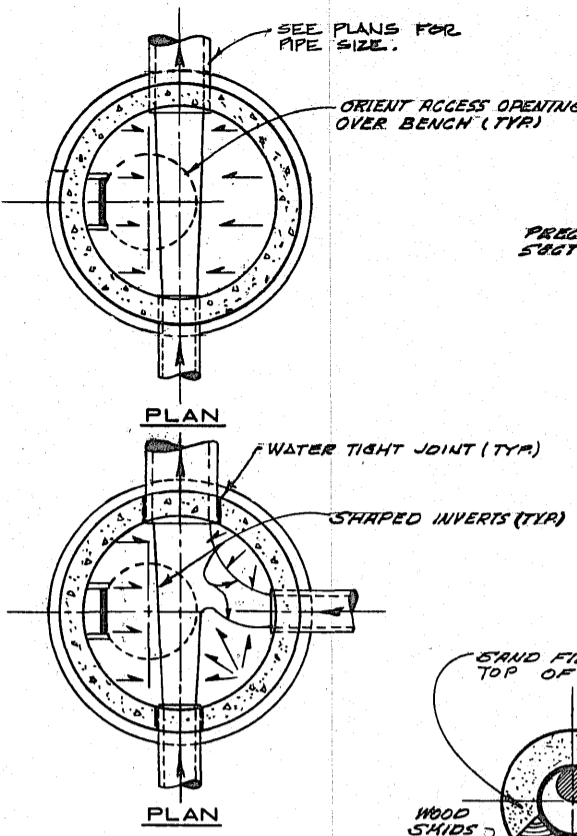
DESIGNED BY	JOHN ROBERT	CHECKED BY	J. ROBERT
APPROVED BY	[Signature]	DATE	AUGUST 1977

734410 DETAILED & NULMAN

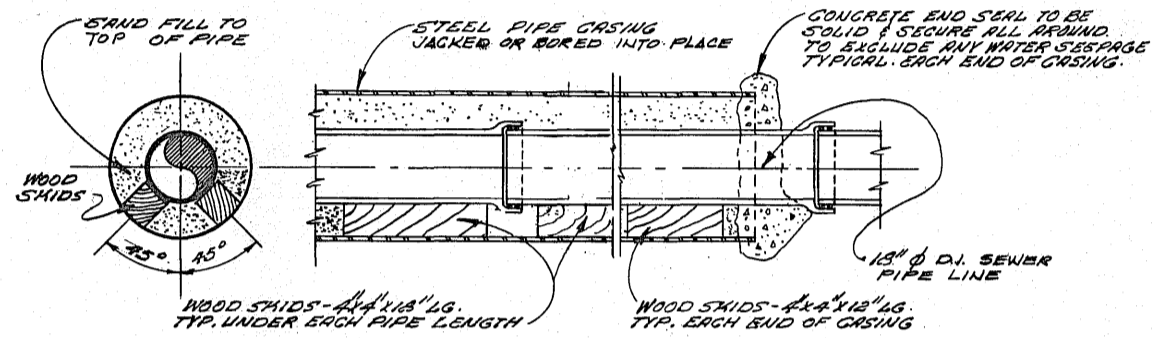
NO.	DATE	DESCRIPTION	MADE	APPROV.
12-79		ADDED 6" SEW. FORCE MAIN	FK	RVS
1-8-79		GENERAL	FK	RVS



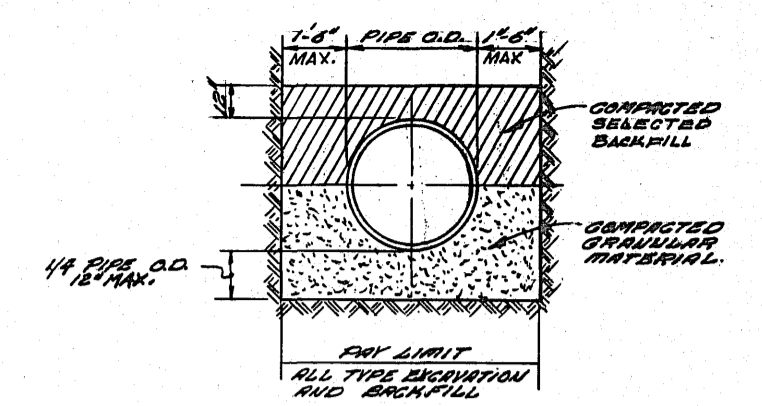
SECTION
TYPICAL MANHOLE DETAIL
PARADISE HILLS INTERCEPTOR SEWER
 NO SCALE



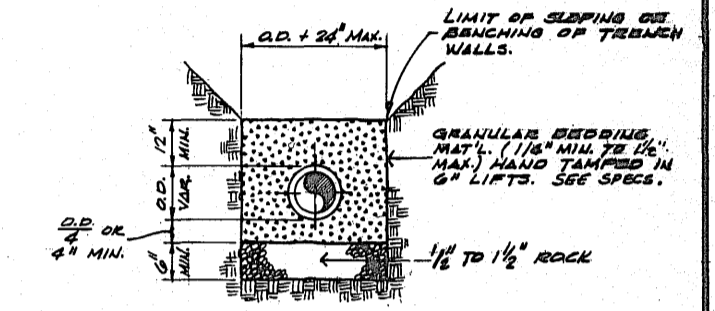
SECTION
TYPICAL SHALLOW MANHOLE
 SCALE: 1/2"=1'-0"



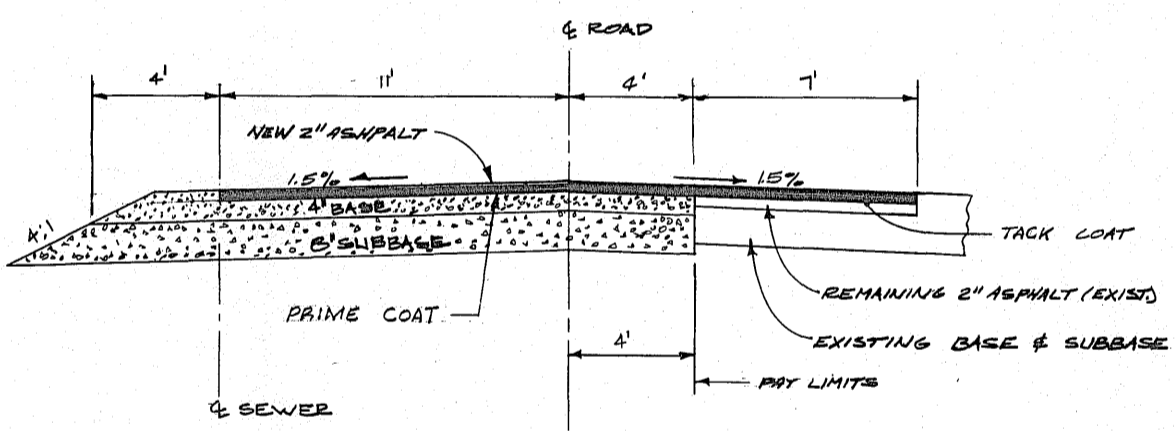
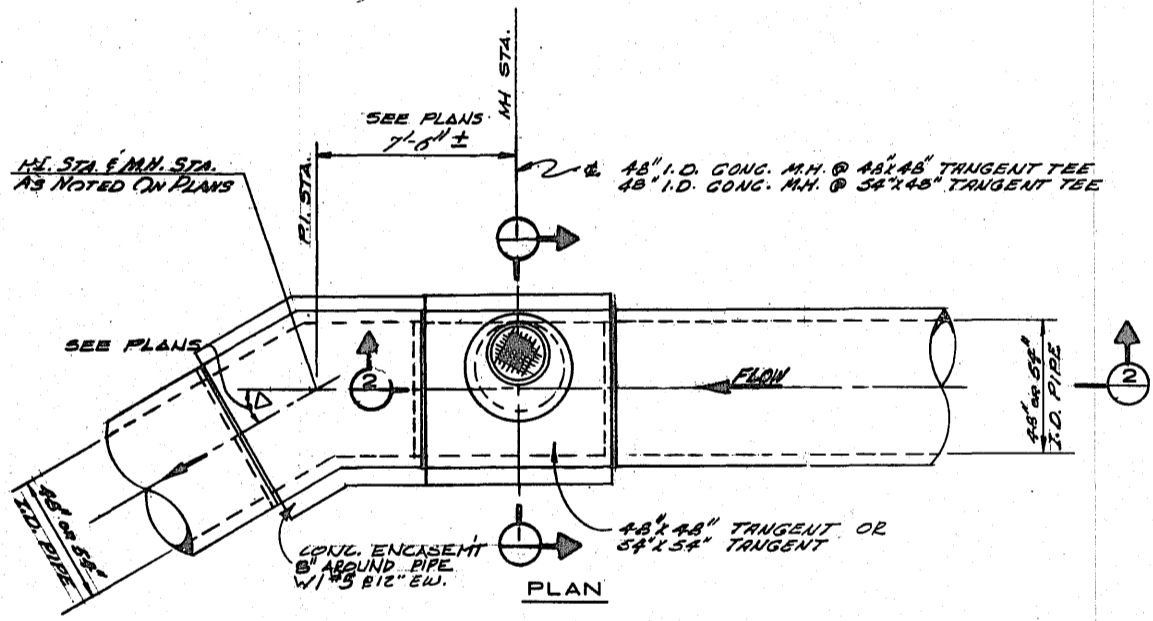
TYPICAL PIPE JACKING DETAILS
PARADISE HILLS INTERCEPTOR SEWER - PHASE II
 NO SCALE



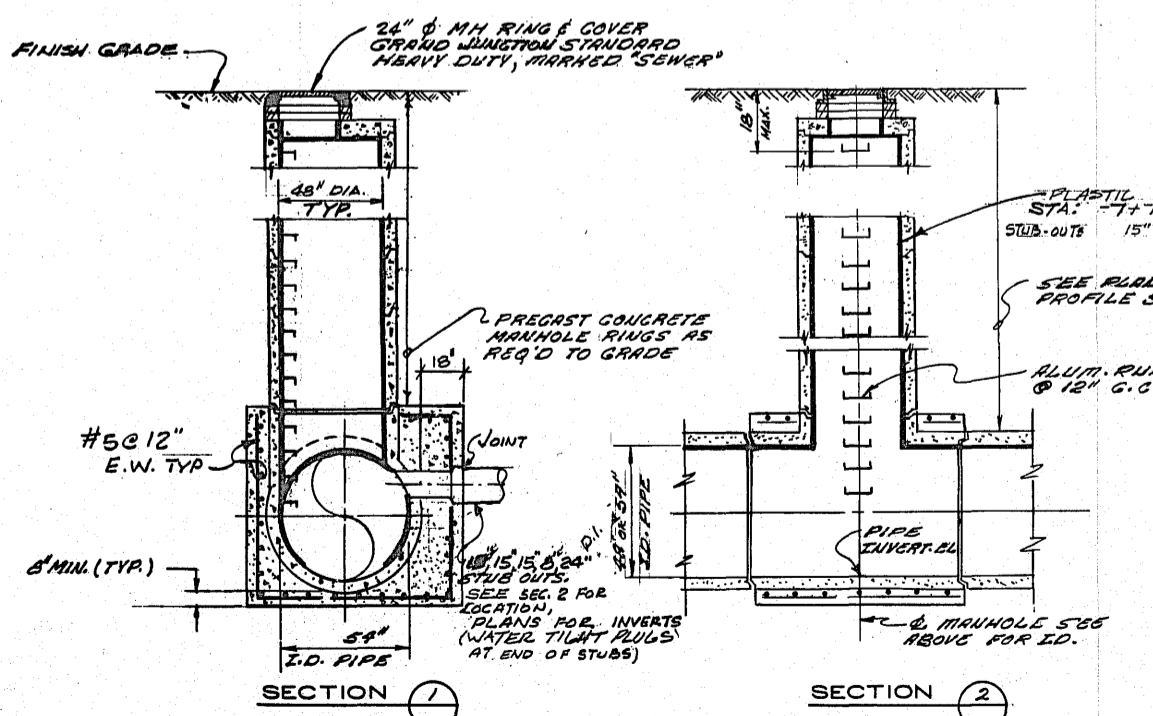
CLASS "B" PIPE BEDDING
& TRENCH DETAILS
 NO SCALE



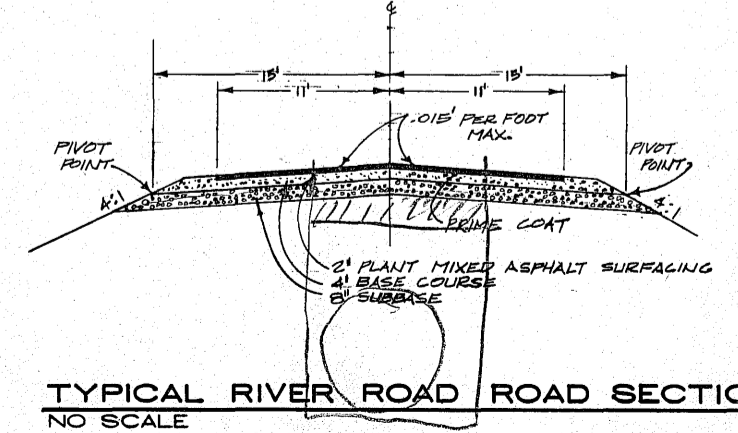
TRENCH & BEDDING
REQUIREMENTS
FOR UNSTABLE
SUBGRADE CONDITIONS
 NO SCALE



PAVEMENT & ROAD BASE REPLACEMENT
PARADISE HILLS INTERCEPTOR
 SCALES: 1"=25'-0" (HOR.), 1/4"=2'-0" (VERT.)

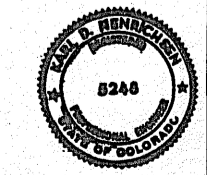


SECTION 1
TYPICAL MANHOLE DETAIL
RIVER ROAD INTERCEPTOR SEWER
 NO SCALE
 NOTE: ECCENTRIC MH CONES WITH 24\"/>



TYPICAL RIVER ROAD ROAD SECTION
 NO SCALE
 NOTE: ENTIRE ROAD SECTION SHALL BE REPLACED WHERE DISTURBED BY CONSTRUCTION OF SEWER. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING PAVEMENT.

THIS DRAWING HAS BEEN REDUCED TO ONE-HALF THE ORIGINAL SIZE.



GRAND JUNCTION / MESA COUNTY
RIVER ROAD & PARADISE HILLS
PHASE II
INTERCEPTOR SEWERS

MISCELLANEOUS
 PROJECT DETAILS

HENNINGSON, DURHAM & RICHARDSON, INC.
 ENGINEERS - PLANNERS - CONSULTANTS
 DENVER, COLORADO

JOB NO. 734410
 DESIGNED BY: HORST
 CHECKED BY: HORST
 APPROVED BY: HENNINGSON
 DATE: AUGUST

DATE: _____
 DESCRIPTION: _____
 REVISIONS: _____

DATE: _____
 MADE BY: _____
 APPROVED BY: _____

734410
 DETAILED BY: MUELLER
 DATE: AUGUST
 SHEET 30 OF 30