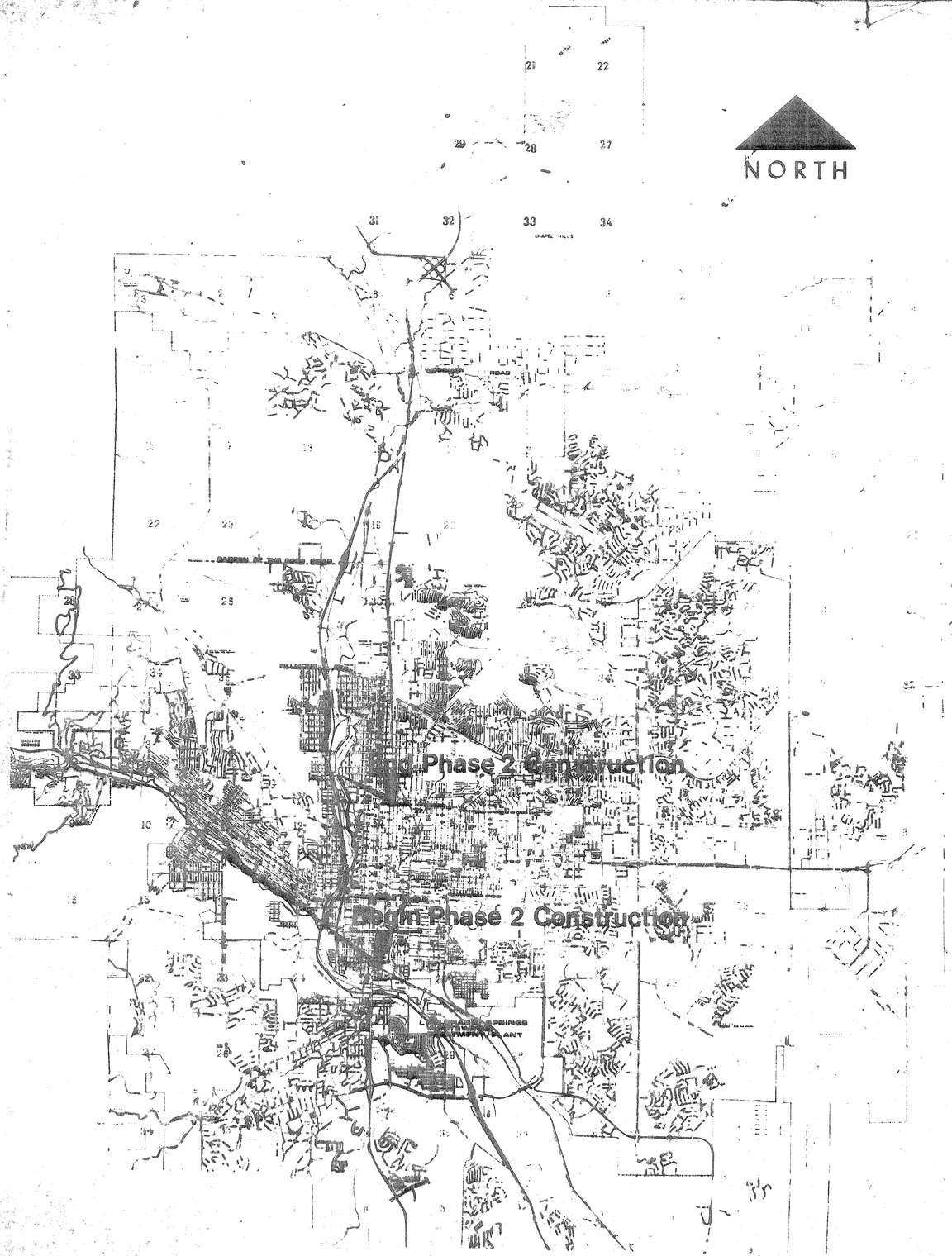


MONUMENT CREEK INTERCEPTOR SEWER PHASE 2

CIMARRON STREET TO CARAMILLO STREET

*78-81

FOR
CITY OF COLORADO SPRINGS
DEPARTMENT OF PUBLIC UTILITIES
WASTEWATER DIVISION

R. KEITH HOOK & ASSOC., INC.
ARCHITECTS-PLANNERS-ENGINEERS-SURVEYORS
2545 E. PLATTE PLACE
COLORADO SPRINGS, COLORADO

P-1660

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE II

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: PH-LV	Job No: 730423
Drawn By: dlb	File No: P-1660
Checked By: R. SAMS	Sheet No: 1
Reference: X-861, X-886	

APPROVED BY: _____
Wastewater Division

DATE: _____

"AS BUILT" INFORMATION 12-4-73 dlb

Benchmark: SP-13 Brass cap in northside sidewalk at Cimmaron St. approx. 325.6' N.E. of M.H. STA. 102+56 EL. = 5959.24 (U.S.G.S.)

SCALE 1"=40' HORZ.
1"=6' VERT.

I-25

FOUNTAIN CREEK

DEPARTMENT OF HIGHWAY

MONUMENT CREEK

EXISTING PHASE I MONUMENT CREEK INTERCEPTOR SEWER

PROPOSED MAJUCH OUTFALL SEWER

72" Nom. REINFORCED CONCRETE PIPE

24" POTABLE WATER LINE

100°47'32"

186°51'50"(A.B)
187°06'28"

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

327°27'10"

TYPE III M.H
M.H STA. 98+10
END PHASE I
BEGIN PHASE II
E. IN = 24.37 (42")
E. OUT = 24.27 (42")
E = 29.30 (24")

MH STA 98+09.80(A.B)
E. IN = 26.43 (42")
E. OUT = 26.33 (42")

436.84'(A.B)
440'-42" @ 0.67%

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

177°57'13"

178°09'35"(A.B)

179°27'43"

MH STA. 102+46.64 (A.B)
E. EL. = 29.21

TYPE III M.H
M.H STA. 102+56
E. = 29.32

436.29'(A.B)
430'-42" @ 0.67%

323.65'

PROPOSED CHECK DAM BY DEPT. OF PUBLIC WORKS

To SP-12

EXISTING 8" SANITARY SEWER

To SP-14

332.46'

13°31'31"
BRIDGE PIER

SP-13
5959.24

185°09'46"

100' CONCRETE ENCASEMENT (SEE DETAIL R.K.H NO 6612)

107.79'

CONCRETE ENCASEMENT 24" SANITARY SEWER (SEE DETAIL R.K.H NO. 6612)

CIMARRON STREET

SHALE & BOULDER NO. 4

FOUNTAIN

EXISTING 24" SAN. SEWER

178°47'52"
166°01'10"

165°53'40"(A.B)

TYPE III M.H
M.H STA. 106+56
E. IN = 32.29
E. OUT = 32.20

MH STA. 106+82.93 (A.B)
E. IN = 32.02
E. OUT = 31.93

496.73'(A.B)
500'-42" @ 0.68%

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

BROKEN & ABANDON STEEL SEWER PIPE

ROY L. & MARY E. GAMBLE

COSTILLA STREET

CIMARRON STREET BRIDGE

LOW STEEL EL. = 5967.60

TYPE III M.H
M.H STA. 98+10
RIM EL. = 44.20

MH STA 98+09.80(A.B)
RIM EL. = 31.81

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

TYPE III M.H
M.H STA. 102+56
RIM EL. = 44.60

MH STA 102+46.64 (A.B)
RIM EL. = 44.95

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

SEPTEMBER, 1973 EXISTING GROUND

APPROXIMATE LOCATION OF EXISTING 8" SANITARY SEWER.

SHALE BOULDER EL. = 36.00

24" SANITARY SEWER EXISTING EL. = 31.87

CONTRACTOR TO SUPPORT 24" SANITARY SEWER WITH DUCTILE CONSTRUCTION: CONCRETE ENCASE 5 MIN. PAST BOTH SIDES OF CONSTRUCTION TRENCH. (SEE DETAIL R.K.H NO. 6612)

SAND

SHALE

TYPE III M.H
M.H STA. 106+56
E. IN = 32.29
E. OUT = 32.20

MH STA. 106+82.93 (A.B)
E. IN = 32.02 (A.B)
E. OUT = 31.93

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

496.73'(A.B)
500'-42" @ 0.68%

436.84'(A.B)
440'-42" @ 0.67%

436.29'(A.B)
430'-42" @ 0.67%

EXISTING 72" @ 0.67%

E. IN = 26.37 (42")
E. OUT = 26.27 (42")
E = 29.30 (24")

E. IN = 26.43 (42") (A.B)
E. OUT = 26.33 (42")

E. = 29.32
E. = 29.21 (A.B)

100' CONCRETE ENCASEMENT (SEE DETAIL E.K.H NO. 6612)

98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE II

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H	Job No: 730423
Drawn By: JLP	File No: P-1660
Checked By: R.SAMS	Sheet No: 2
Reference: X-8611, X-8816	

APPROVED BY: _____
Wastewater Division
DATE: _____

MH STA 101+23 (A.B.) "AS BUILT" INFORMATION 12-4-78 JLP
Benchmark: SP-14 Railroad Spike center of D&R.G.W.RR bridge approx. 114.2'± N.E of M.H STA. 116+86 EL = 5965.87 (U.S.G.S.)

8" NON-POTABLE WATER

DEPARTMENT OF HIGHWAY

DEPARTMENT OF HIGHWAY

DEPARTMENT OF HIGHWAY

OVERHEAD POWER LINE

D & R.G.W. RR

RIO GRANDE WESTERN R.R

DENVER &

SCALE: 1" = 40' HORZ.
1" = 8' VERT.

(A.B) MH STA. 118+77.68
R.IN = 40.11
R.OUT = 40.01

201°02'38"

324°50'13"

136'-42" @ 0.68%

214.02' (A.B)

TYPE III M.H
M.H STA. 118+82
R.E. IN = 40.62
R.E. OUT = 40.62

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

PROPOSED CHECK DAM BY DEPT. OF PUBLIC WORKS.

507.22' (A.B)
500'-42" @ 0.68%
Q = 32,693,320 G.P.D

CITY OF COLORADO SPRINGS

188° 29' 27"
251° 56' 10"

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

(A.B) MH STA. 116+83.66 BURIED

TYPE III M.H.
M.H STA. 116+86
R.E. IN = 39.19
R.E. OUT = 39.09

177° 52' 37"

484.00' (A.B)
500'-42" @ 0.68%

496.73' (A.B)
500'-42" @ 0.68%

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

TYPE III M.H
M.H STA. 111+86
R.E. = 36.69

MH STA 111+79.66 (A.B)
R.E. = 35.57

MONUMENT CREEK

SHALE POTHOLE NO. 7

TO SP-13

BOUNDARY LINE OF PARRISH'S ADDITION

BRIDGE PIER TYP.

177.38'

146° 12' 19"

64° 46' 46"

SHALE 6' BELOW GRADE

D & R.G.W.R.R BRIDGE

EXISTING 6" GAS ON BRIDGE

LOW BEAM EL. = 5961.30

SHALE POTHOLE NO. 7

TYPE III M.H
M.H STA. 111+86
RIM EL. = 42.48

MH STA 111+79.66 (A.B)
RIM EL. = 37.20

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

SEPTEMBER, 1979 EXISTING GROUND

APPROXIMATE SHALE EL. = 42.5

TYPE III M.H
M.H STA. 116+86
RIM EL. = 48.00

MH STA 116+63.66 (A.B)
BURIED

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

TYPE III M.H
M.H STA. 118+82
RIM EL. = 48.80

MH STA. 118+77.68 (A.B)
RIM EL. = 51.18

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

500'-42" @ 0.68%
496.73' (A.B)

E = 36.69 E = 35.57 (A.B)

500'-42" @ 0.68%
484.00' (A.B)

E. IN. = 39.19
E. OUT = 39.09

136'-42" @ 0.68%
214.02' (A.B)

507.22' (A.B)
500'-42" @ 0.68%

E. IN = 40.62
E. OUT = 40.62

R. IN = 40.11 (A.B)
R. OUT = 40.01

110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00 121+00 122+00

Benchmark: CC-1 Brass cap north edge sidewalk at N.W. corner Colo. Ave. bridge approx. 107.2'+/- N.W. of M.H STA. 123+82 EL.= 5976.29 (U.S.G.S.)
MH STA. 10+23(AB) = "AS BUILT" INFORMATION 12-13-78 dlb

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE II

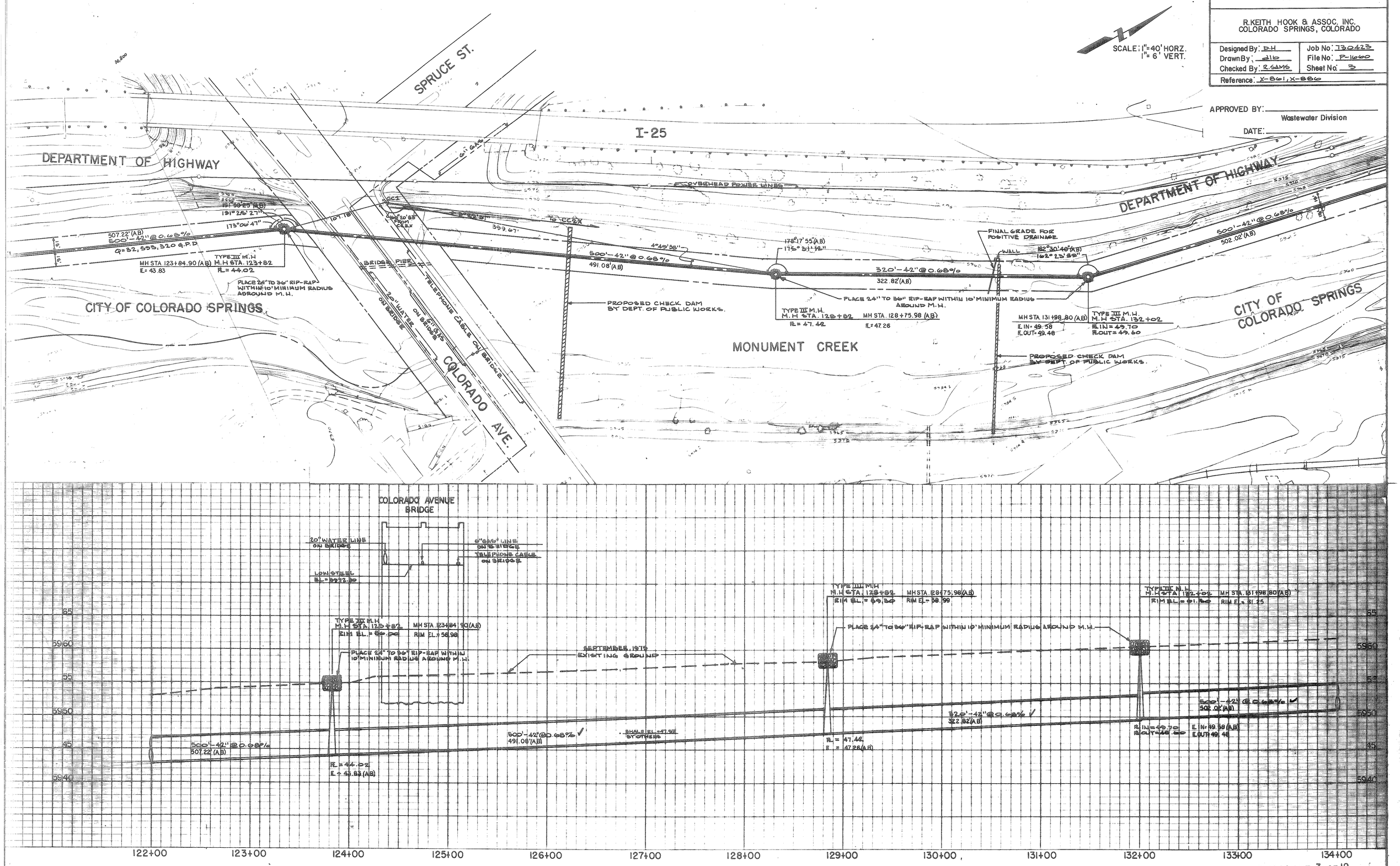
R.KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H	Job No: 730423
Drawn By: dlb	File No: P-1660
Checked By: R.SAMS	Sheet No: 3
Reference: X-861, X-886	

APPROVED BY: _____
Wastewater Division

DATE: _____

SCALE: 1" = 40' HORZ.
1" = 6' VERT.



Benckmark: CC2X Brass Cap in Concrete approx. 223.2'+/- S.E. of M.H. STA. 137+02 EL.=5977.11 (U.S.G.S.)

MH STA. 10+23(A.B)=AS BUILT" INFORMATION 12-18-78 JJB

SCALE: 1"=40' HORZ.
1"=6' VERT.

"AS BUILT"
MONUMENT CREEK
INTERCEPTOR SEWER
PHASE II

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H	Job No: 730423
Drawn By: JJB	File No: P-1660
Checked By: R. SAMS	Sheet No: 4
Reference: X-861, X-886	

APPROVED BY: _____
Wastewater Division
DATE: _____

DEPARTMENT OF HIGHWAY

OVERHEAD POWER LINES

CITY OF COLORADO SPRINGS

MONUMENT CREEK

500'-42" @0.68%
502.02'(A.B)

315°27'12"

210°43'15"(A.B)
210°53'49"

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

MH STA. 137+00.82 (A.B)
TYPE III M.H
M.H STA. 137+02
R.IN=53.29
R.OUT=53.19
R.IN=53.20
R.OUT=55.10

305.97'(A.B)
205'-42" @0.68%

20% CONCRETE ENCASEMENT (SEE DETAIL B&W M.P. 66-12)

PROPOSED CHECK DAM BY DEPT. OF PUBLIC WORKS.

223.15'

To CC3

2°48'06"

541.16'

326°38'15"
FROM CC3

CC 2X
5977.11

320°43'16"

134°49'50"(A.B)
134°40'55"

MH STA 142+07.70(A.B)
R.IN=56.63
R.OUT=56.53

TYPE III M.H
M.H STA. 142+10
R.IN=56.70
R.OUT=56.60

TYPE III M.H
M.H STA. 139+10
R.IN=54.71
R.OUT=54.61

MH STA. 139+06.79 (A.B)
R.IN=54.70
R.OUT=54.60

300'-42" @0.68%
300.91'(A.B)

168°18'40"
168°00'45"(A.B)

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

BRIDGE PIER

BRIDGE PIER

BIJOU ST.

CITY OF COLORADO SPRINGS

TYPE III M.H
M.H 146+10
R.IN=58.69
R.OUT=58.59

MH STA. 145+15.01(A.B)
R.IN=58.64
R.OUT=58.54

198°28'10"(A.B)
197°20'09"

226°41'51"

225'-42" @0.68%

224.51'(A.B)

300'-42" @0.68%
307.31'(A.B)

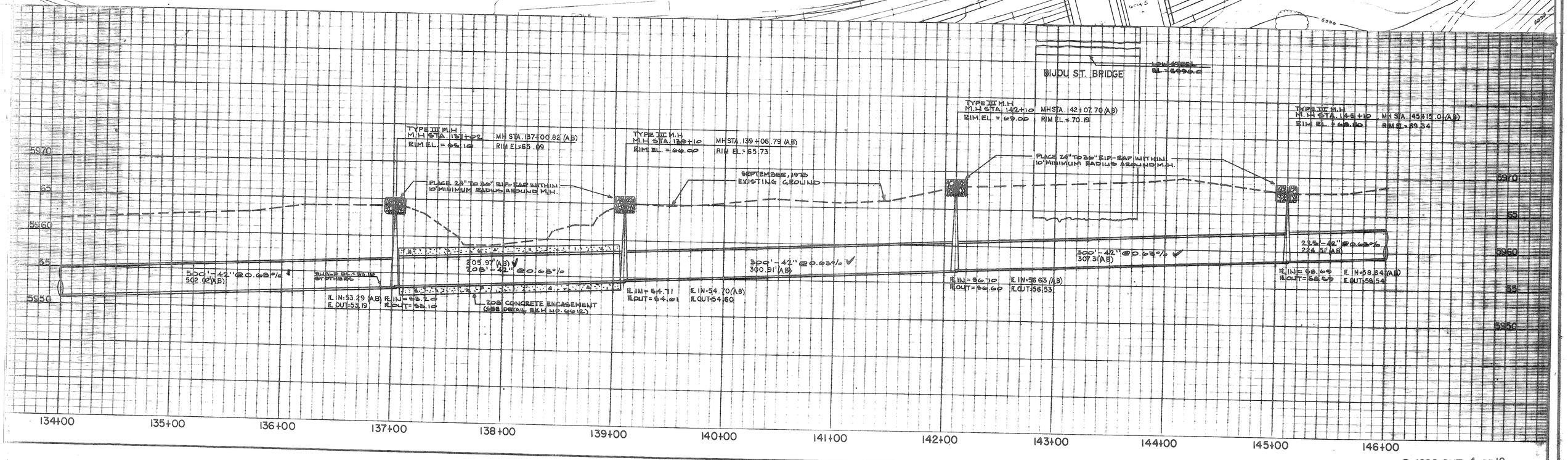
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

145°41'04"

DENVER & RIO GRANDE WESTERN RAILROAD CO.

CC3
5986.82

To CC2X



"AS BUILT" MONUMENT CREEK INTERCEPTOR SEWER PHASE II

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H	Job No: 730423
Drawn By: dlb	File No: P-1660
Checked By: R. SAMS	Sheet No: 5
Reference: X-861, X-862, X-886	

APPROVED BY: _____
Wastewater Division
DATE: _____

Benchmark: CC-3 Brass Cap in concrete approx. 120.81'+/- S.E. of M.H. STA. 147+35 EL. = 5986.82 (U.S.G.S.)

MH STA. 101+23 (A/B) "AS BUILT" INFORMATION 12.M.78 JHD

SCALE: 1" = 40' HORZ.
1" = 8' VERT.

CITY OF COLORADO SPRINGS

MONUMENT CREEK

MONUMENT VALLEY PARK

DENVER & RIO GRANDE WESTERN RAILROAD CO.

APPROXIMATE RAILROAD RIGHT OF WAY LINES

OVERHEAD POWER LINES

PROPOSED CHECK DAM BY DEPT. OF PUBLIC WORKS

TELEPHONE CABLE ON RAILROAD BRIDGE PIERS

MH STA. 147+39.52 (A/B)
R. IN = 60.08
R. OUT = 59.98

TYPE III M.H
M.H STA. 147+35
R. IN = 60.24
R. OUT = 60.11

220°09'45" (A/B)
220° 25'35"

325'-21/8"@

325'-42" @ 0.63%
224.51' (A/B)

145°47'04"

CC 3
5986.82

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

320'-42" @ 0.63%
319.26 (A/B)

TYPE III M.H
M.H STA. 150+55
R. IN = 62.32
R. OUT = 62.22

MH STA. 150+57.78 (A/B)
R. IN = 62.24 R. OUT = 62.14

159°30'54"

158°45'40" (A/B)

500'-42" @ 0.63%
500.62' (A/B)

MH STA. 155+58.40 (A/B)
R. IN = 65.39
R. OUT = 65.29

TYPE III M.H
M.H STA. 155+55
R. IN = 65.57
R. OUT = 65.47

163°41'30" (A/B) 163°38'21"

PROPOSED CHECK DAM BY DEPT. OF PUBLIC WORKS.

CC 38
5972.9

EXISTING CONCRETE DAM

MH STA. 157+97.86 (A/B)
R. IN = 67.20
R. OUT = 67.09

M.H STA. 157+95
R. IN = 67.19
R. OUT = 67.08

164°24'10" (A/B)

177°35'24"

240'-42" @ 0.63%
239.46' (A/B)

163°41'30" (A/B)

300.29' (A/B)

30" SEWER

OVERHEAD POWER LINES

D.R.G.W.R.R. BRIDGE

TELEPHONE CABLE ON BRIDGE

LOW STEEL EL. = 5988.5

TYPE III M.H
M.H STA. 147+35
RIM EL. = 70.00

MH STA. 147+39.52 (A/B)
RIM EL. = 71.64

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

275'-42" @ 0.63% ✓
224.51' (A/B)

R. IN = 60.24
R. OUT = 60.11

R. IN = 60.08' (A/B)
R. OUT = 59.98

320'-42" @ 0.62% ✓
319.26' (A/B)

TYPE III M.H
M.H STA. 150+55
RIM EL. = 74.60

MH STA. 150+57.78 (A/B)
RIM EL. = 75.10

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

R. IN = 62.32
R. OUT = 62.22

R. IN = 62.24 (A/B)
R. OUT = 62.14

SEPTEMBER, 1913 EXISTING GROUND

SHALE EL. = 68.25 RAY OTHERS

500'-42" @ 0.63% ✓
500.62' (A/B)

TYPE III M.H
M.H STA. 155+55
RIM EL. = 77.40

MH STA. 155+58.40 (A/B)
RIM EL. = 76.80

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

R. IN = 66.57
R. OUT = 66.47

R. IN = 65.39 A/B
R. OUT = 65.29

240'-42" @ 0.63% ✓
239.46 (A/B)

M.H STA. 157+97.86 (A/B)
RIM EL. = 78.73

M.H STA. 157+95
RIM EL. = 78.60

EXISTING CONCRETE DAM APPROXIMATE LOCATION

300.29' (A/B)
320'-42" @ 0.63%

R. IN = 67.19
R. OUT = 67.08

R. IN = 67.20 (A/B)
R. OUT = 67.09

5990
75
5970
65
5960

146+00 147+00 148+00 149+00 150+00 151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE II

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H	Job No: 730423
Drawn By: ELB	File No: P-1660
Checked By: R.SAMS	Sheet No: 6
Reference: X-862, X-880	

APPROVED BY: _____
Wastewater Division

DATE: _____

Benchmark: CC&4 Brass cap in concrete approx. 126.2'+/- S.E. of M.H. STA. 160+98 EL. = 5992.31 (U.S.G.S.)

M.H. STA 160+23(A.B.)="AS BUILT" INFORMATION 12-28-78

W.S. 5990.2

SCALE: 1"=40' HORZ.
1"= 6' VERT.

MONUMENT VALLEY PARK
CITY OF COLORADO SPRINGS

MONUMENT CREEK

TYPE III M.H.
M.H STA. 160+98
FL IN= 69.18
FL OUT=69.08

M.H STA. 160+98.15 (A.B)
FL IN= 69.18
FL OUT=69.08

PLACE 24"TO36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

300'-42" @0.63%
300.29 (A.B.)

15'

187.3'

185.16'

TOS 5985

211°41'26"
368°39'30"

5992.31

165°37'10"
165°38'30" (A.B.)

250'-42" @0.63%

340°06'45"

250.13 (A.B.)

30" SEWER

TYPE III M.H
M.H STA. 163+45
FL IN= 70.85
FL OUT=70.76

M.H STA. 163+48.28 (A.B.)
FL IN= 70.75
FL OUT= 70.65

166°36'42"
166°30'25" (A.B.)

219'-42" @0.63%

216.56' (A.B.)

TYPE III M.H
M.H STA. 165+64
FL IN= 72.33
FL OUT= 72.23

M.H STA. 165+64.84 (A.B.)
FL IN= 72.32
FL OUT=72.22

PLACE 24"TO36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

195°07'48"
195°26'50" (A.B.)

200'-42" @0.63%

201.62' (A.B.)

TYPE III M.H
M.H STA. 167+64
FL IN= 73.69
FL OUT= 73.59

M.H STA. 167+66.46 (A.B.)
FL IN= 73.70
FL OUT=73.60

195°17'46"
195°10'43" (A.B.)

400'-42" @0.63%

402.13' (A.B.)

30" SEWER

MONUMENT VALLEY PARK
CITY OF COLORADO SPRINGS

TYPE III M.H
M.H STA. 160+98
RIM EL.= 81.50

M.H STA. 160+98.15 (A.B)
RIM EL.=81.62

PLACE 24"TO36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H

300'-42" @0.63% ✓
300.29' (A.B.)

TYPE III M.H
M.H STA. 163+45
RIM EL.= 82.40

M.H STA 163+48.28 (A.B.)
RIM EL.= 82.98

SEPTEMBER, 1978
EXISTING GROUND

250'-42" @0.63% ✓
250.13' (A.B.)

219'-42" @0.63% ✓
216.56' (A.B.)

TYPE III M.H
M.H STA. 165+64
RIM EL.= 84.20

M.H STA 165+68.84 (A.B.)
RIM EL.= 84.36

PLACE 24"TO36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H

200'-42" @0.63% ✓
201.62' (A.B.)

TYPE III M.H
M.H STA. 167+64
RIM EL.= 84.00

M.H STA. 167+66.46 (A.B.)
RIM EL.= 85.41

400'-42" @0.63% ✓
402.13' (A.B.)

E. IN= 70.85
E. OUT= 70.76

E. IN= 70.75 (A.B.)
E. OUT=70.65

E. IN= 72.33
E. OUT= 72.23

E. IN= 72.32 (A.B.)
E. OUT=72.22

E. IN= 73.69
E. OUT= 73.59

E. IN= 73.70 (A.B.)
E. OUT=73.60

5990
85
5980
75
5970

158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00 171+00

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE II

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H	Job No: 730423
Drawn By: dlb	File No: P-1660
Checked By: R.SAMS	Sheet No: 7
Reference: X-861, X-886	

APPROVED BY: _____
Wastewater Division
DATE: _____

11/16/77 GRADES REVISED DBH

Benchmark: CC-5 Brass Cap North edge of bridge at Mesa Road & Cache La Poudre, approx. 111.8' N.W. of M.H. STA. 178+64 EL.= 6011.74 (U.S.G.S.)
M.H. STATION 25(A.B.) = "AS BUILT" INFORMATION 12-28-76

SCALE: 1"=40' HORZ.
1"= 6' VERT.

MONUMENT VALLEY PARK
CITY OF COLORADO SPRINGS
MONUMENT CREEK
MESA ROAD
CACHE LA POUDRE
TENNIS COURTS
POOL
3" WATER
PROPOSED CHECK DAM BY DEPT. OF PUBLIC WORKS
TYPE III M.H M.H STA. 171+64 R.IN = 76.31 R.OUT = 76.21
M.H STA. 171+68.59 (A.B.) R. IN = 76.28 R. OUT = 76.18
TYPE III M.H M.H STA. 173+64 R. = 77.57
M.H STA. 173+65.77 (A.B.) R. = 77.61
TYPE III M.H M.H STA. 178+64 R. = 79.07
M.H STA. 178+66.04 (A.B.) R. = 79.28
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H
172°6'38" (A.B.)
172°12'01"
211°21'31" 211°20'20" (A.B.)
202°34'07"
386°2'10"
111.86'
277.24' TO M.H 183+06
197.18' (A.B.)
402.13' (A.B.)
500.27' (A.B.)
438.10' (A.B.)
400'-42" @ 0.63%
200'-42" @ 0.63%
500'-42" @ 0.63%
438'-42" @ 0.63%
FINAL GRADE FOR POSITIVE DRAINAGE
143°43'45"
169°46'49" (A.B.)
1965'0"16"
To CC4
6" GAS LINE ON BRIDGE
TELEPHONE CABLE ON BRIDGE
LOW STEEL EL. = 6007.1
SHAFT BOTHOLE NO. 11
16" WATER LOOPLINE
20" WATER HIGHLINE
30" SEWER

CACHE LA POUDRE BRIDGE
EXISTING GROUND SEPTEMBER, 1975
TOP OF 42" PIPE EL. = 5940.6
LOAM, DARK, DRY
SATURATED DARK LOAM
SHALE
SHALE EL. = 80.6 BY OTHERS
LOCATION OF 16" WATER LINE
R. IN = 76.31
R. OUT = 76.21
R. IN = 76.28 (A.B.)
R. OUT = 76.18
E = 77.57
R. = 77.61 (A.B.)
E = 79.07
R. = 79.28 (A.B.)
171+00 172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00 180+00 181+00 182+00 183+00

"AS BUILT"
MONUMENT CREEK INTERCEPTOR SEWER PHASE II

R. KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO

Designed By: D.H	Job No: 730423
Drawn By: JLB	File No: P-1660
Checked By: R.KAMS	Sheet No: 8
Reference: X-862, X-886	

APPROVED BY: _____
Wastewater Division

DATE: _____

11/16/77 GRADES REVISED HSM

Benchmark: CC-5 Brass Cap north edge of bridge at Mesa Road & Cache La Poudre approx. 277.2'+- S.W. of M.H STA. 188+02
EL.= 6011.74 (U.S.G.S.)
M.H STA. 193+03.63 = "AS BUILT" INFORMATION 12-28-78

SCALE: 1" = 40' HORZ.
1" = 6' VERT.

CITY OF COLORADO SPRINGS

COLORADO COLLEGE

MONUMENT CREEK

M.H STA. 183+06.14 (A.B.)
I.E. = 80.48

TYPE III M.H
M.H. STA. 183 + 02
I.E. = 80.38

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

20" WATER LINE

T.C.C.E.

179°24'48"
179°08'58" (A.B.)

438' - 42" @ 0.63 %
439.10' (A.B.)

500' - 42" @ 0.63 %
498.39' (A.B.)

TYPE III M.H
M.H. STA. 188 + 02
I.E. = 85.23

M.H STA. 188+03.53 (A.B.)
I.E. = 85.13

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

193°37'44" 193°30'00" (A.B.)

500' - 42" @ 0.63 %
500.10' (A.B.)

TYPE III M.H
M.H. STA. 193 + 02
I.E. = 90.09

M.H STA. 193+03.63 (A.B.)
I.E. = 90.09

PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.

179°57'12"
179°38'05" (A.B.)

495' - 42" @ 0.63 %
496.6' (A.B.)

30" SEWER

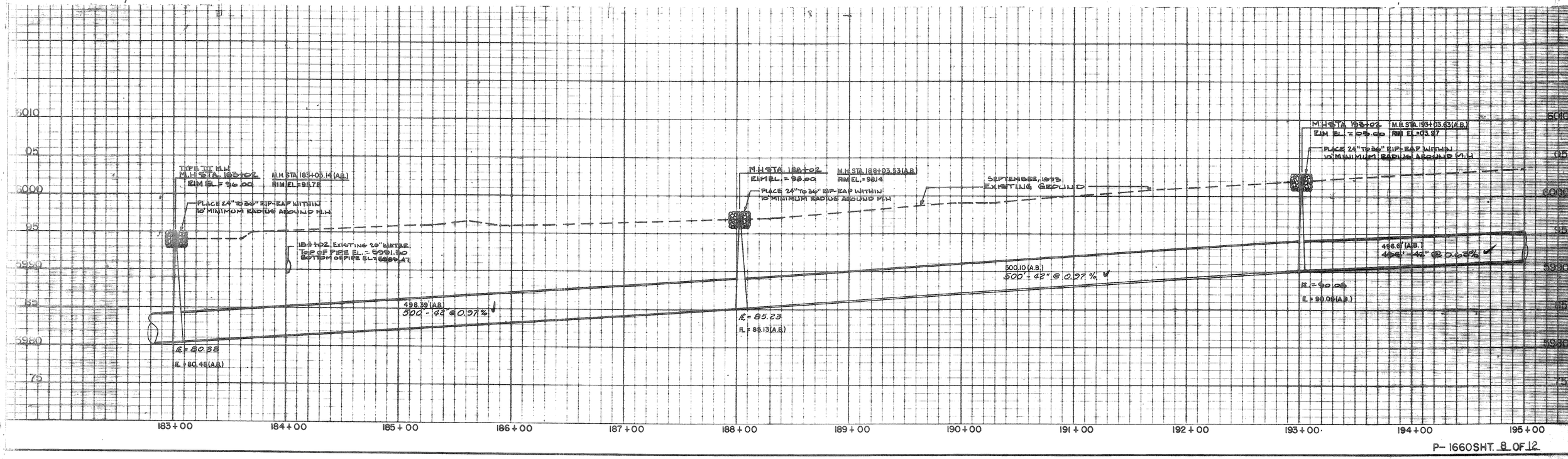
16" WATER LOW LINE

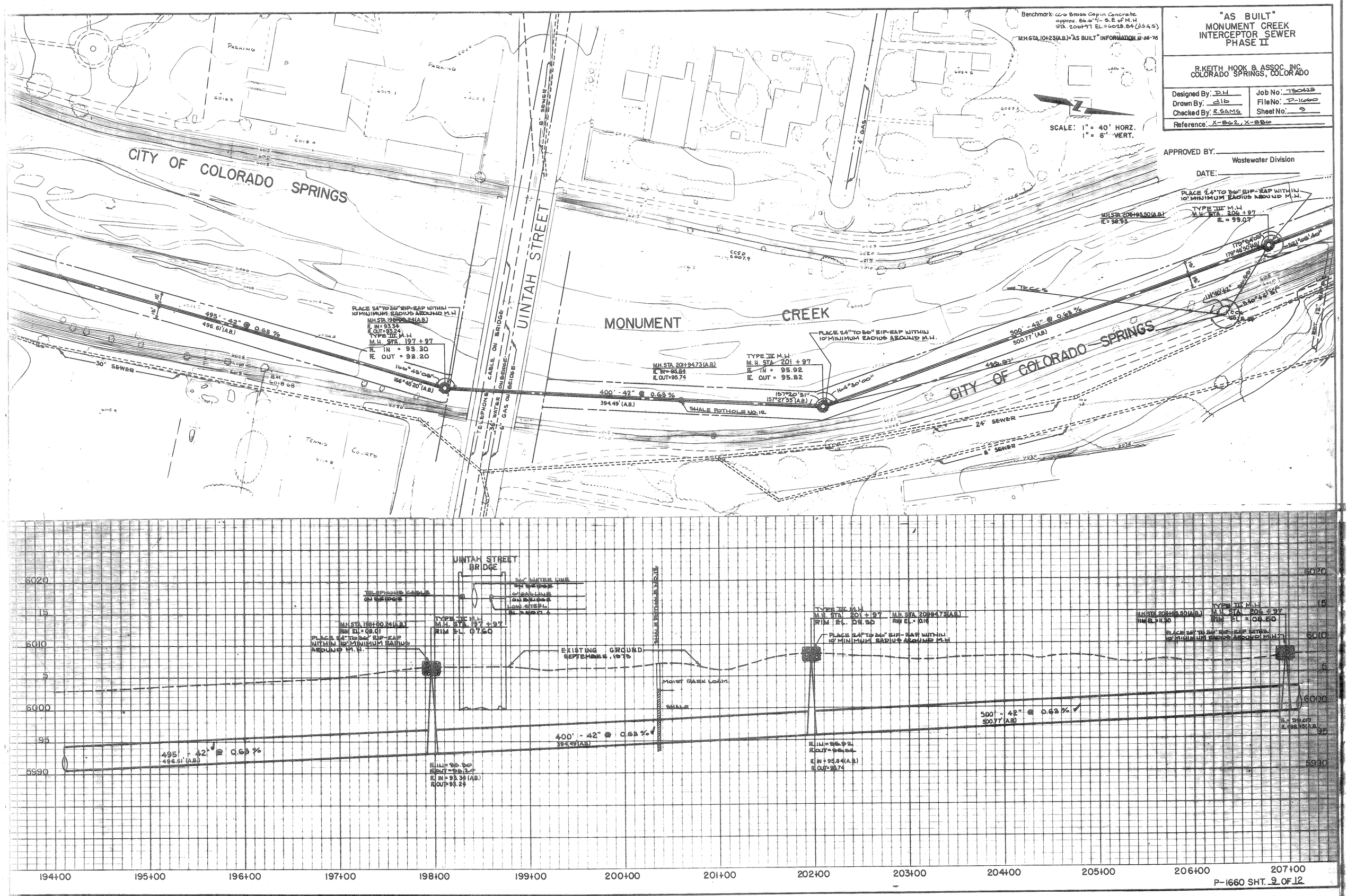
30" WATER HIGH LINE

8" WATER NON POTABLE

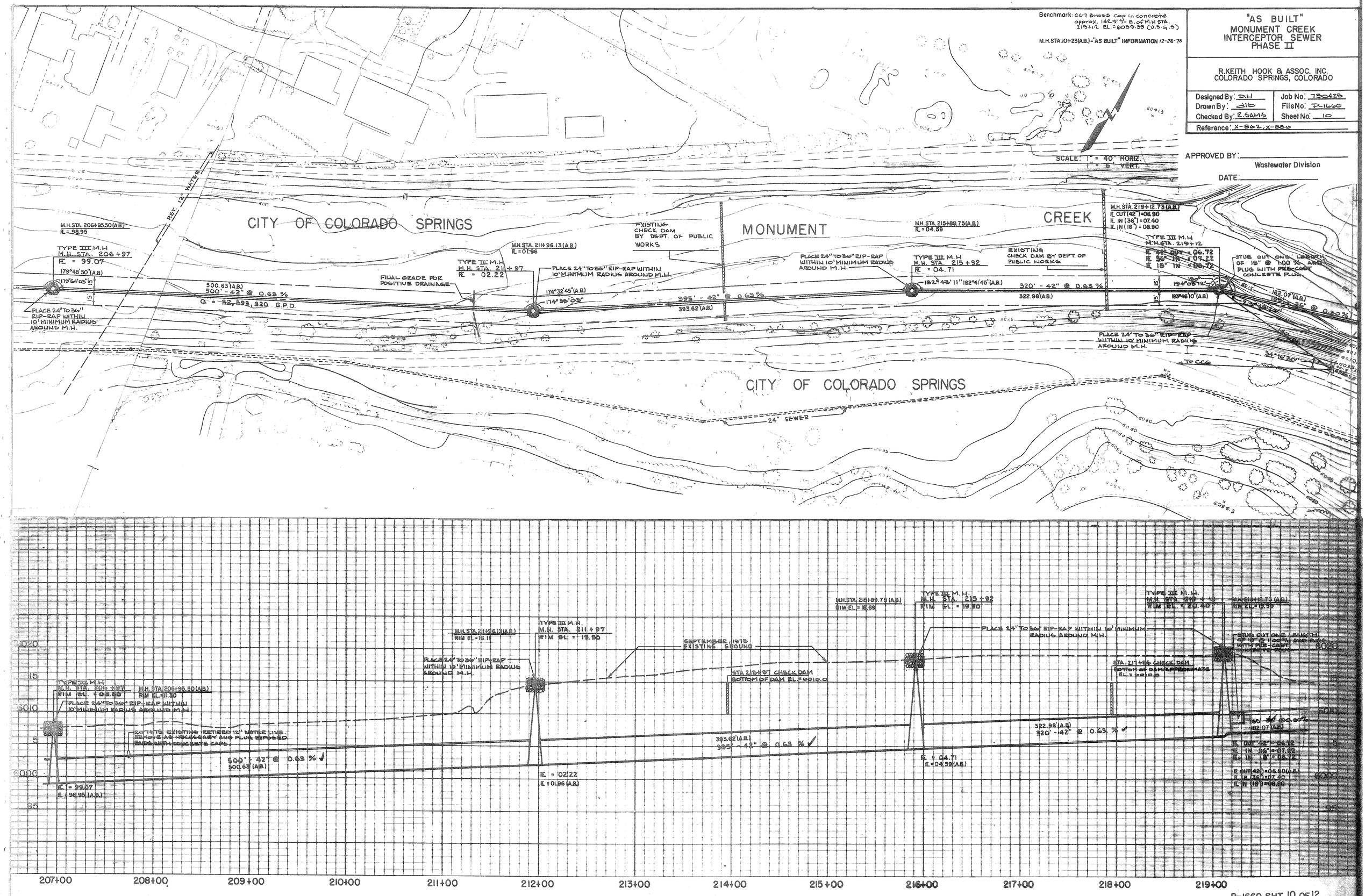
30" SEWER

BALL STOP

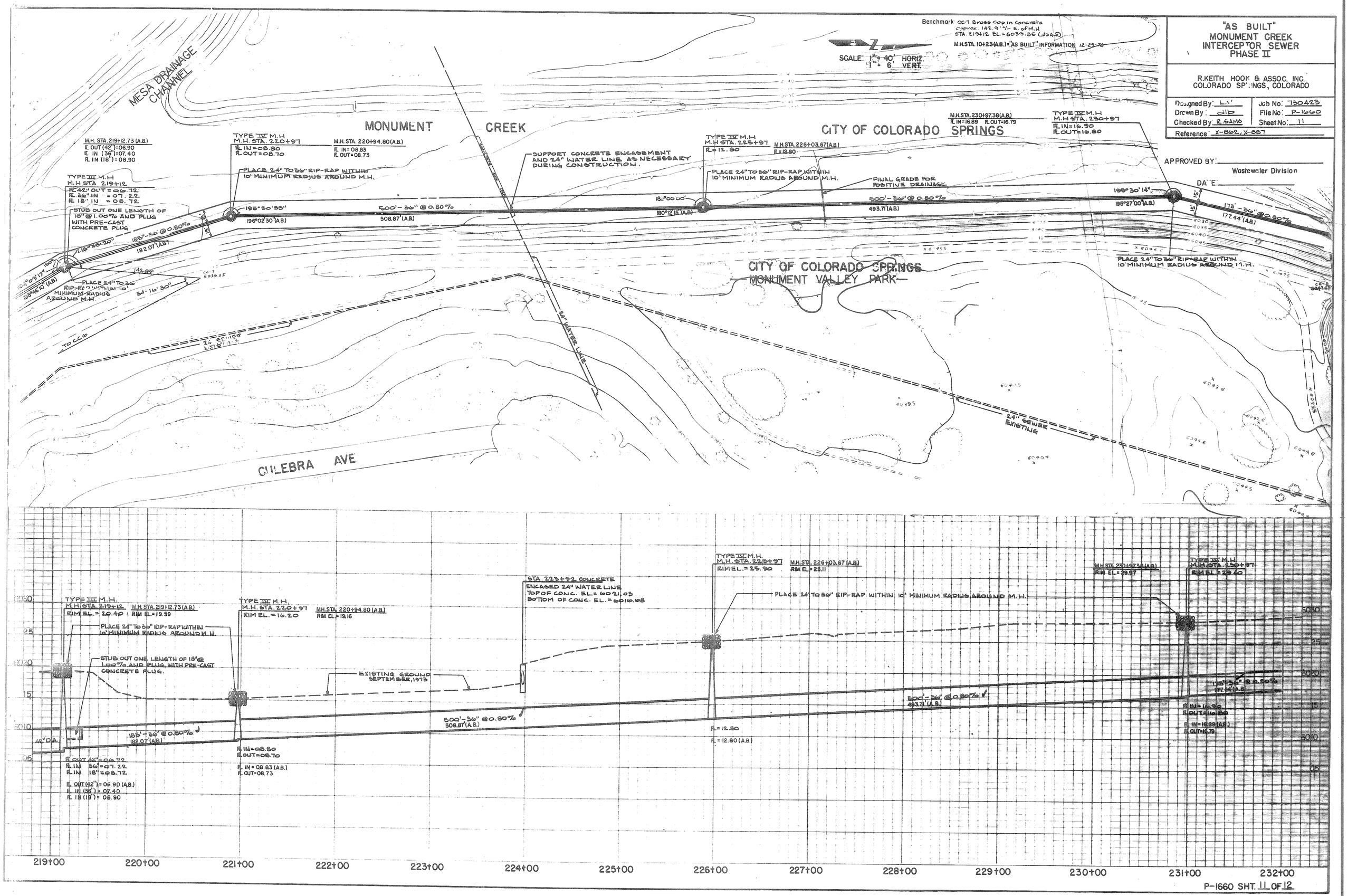




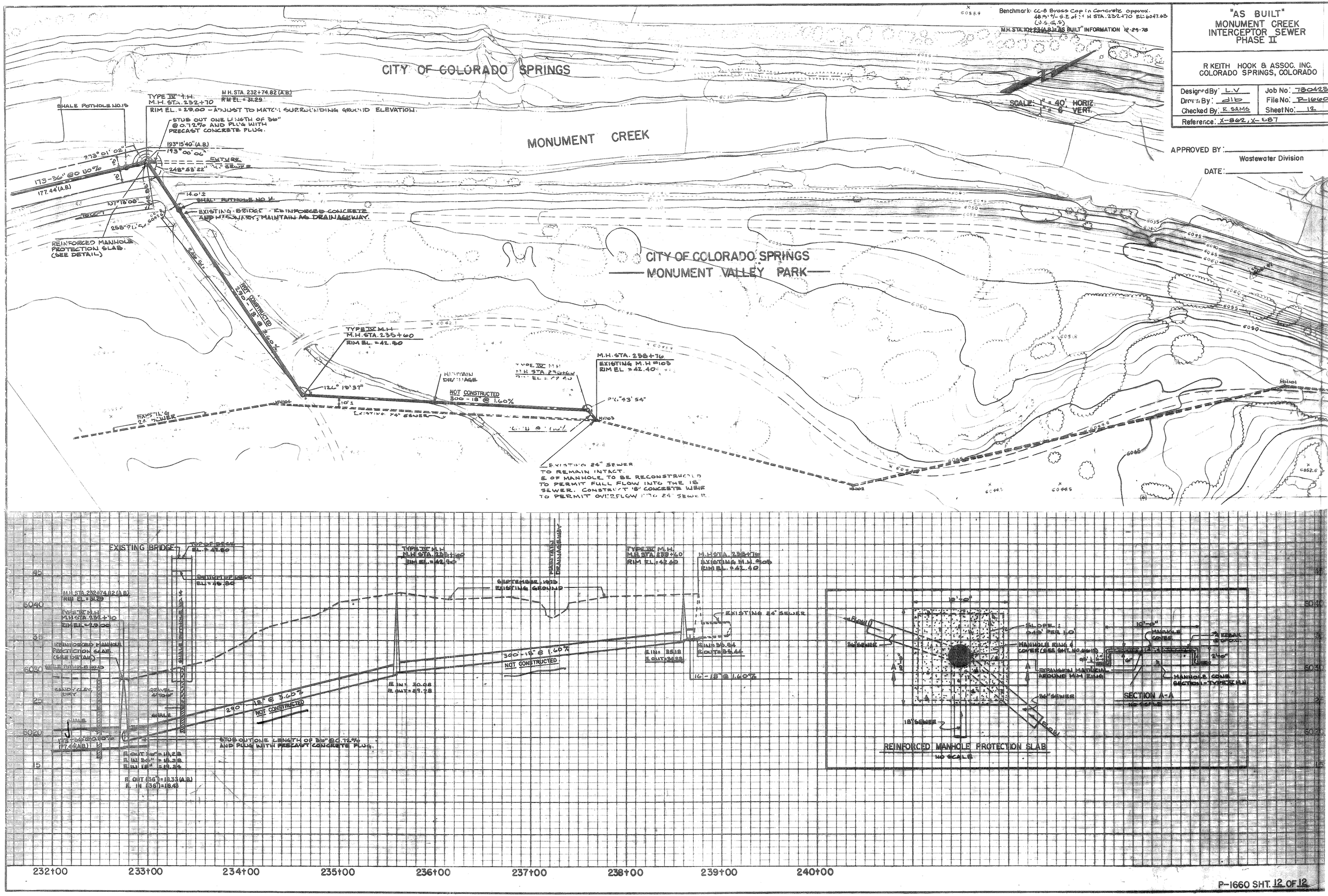
"AS BUILT"
MONUMENT CREEK
INTERCEPTOR SEWER
PHASE II
R.KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO
Designed By: D.H
Drawn By: dlb
Checked By: R.SAMS
Job No: 730423
File No: P-1660
Sheet No: 9
Reference: X-862, X-886
APPROVED BY:
Wastewater Division
DATE:
SCALE: 1" = 40' HORZ.
1" = 6' VERT.
Benchmark: CC-6 Brass Cap in Concrete approx. 86.6' +/- S.E of M.H STA. 206+97 EL.=6028.84 (J.S.G.S)
M.H.STA. 10+23(A.B.)="AS BUILT" INFORMATION 12-28-76
CITY OF COLORADO SPRINGS
UINTAH STREET
MONUMENT CREEK
PARKING
TENNIS COURTS
30" SEWER
24" SEWER
8" SEWER
4" GAS
TELEPHONE CABLE ON BRIDGE
36" WATER ON BRIDGE
6" GAS ON BRIDGE
495' - 42" @ 0.63 %
496.61'(A.B.)
400' - 42" @ 0.63 %
394.49'(A.B.)
500' - 42" @ 0.63 %
500.77'(A.B.)
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
M.H.STA. 198+00.24(A.B.)
FL IN=93.34
FL OUT=93.24
TYPE III M.H
M.H. STA. 197 + 97
FL IN = 93.30
FL OUT = 93.20
166°43'08"
166°45'20"(A.B.)
M.H.STA. 201+94.73(A.B.)
FL IN=95.84
FL OUT=95.74
TYPE III M.H
M.H. STA. 201 + 97
FL IN = 95.92
FL OUT = 95.82
157°20'31"
157°27'55"(A.B.)
164°30'00"
SHALE POTHOLE NO. 12
M.H.STA. 206+95.50(A.B.)
FL = 98.95
TYPE III M.H
M.H. STA. 206 + 97
FL = 99.07
179°48'50"(A.B.)
121°08'40"
114°40'42"
TO CCS
UINTAH STREET BRIDGE
TELEPHONE CABLE ON BRIDGE
36" WATER LINE ON BRIDGE
6" GAS LINE ON BRIDGE
LOW STEEL
M.H.STA. 198+00.24(A.B.)
RIM EL.= 08.01
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
TYPE III M.H
M.H. STA. 197 + 97
RIM EL. 07.60
EXISTING GROUND SEPTEMBER, 1973
SHALE POTHOLE NO. 12
MOIST PARK LOAM
SHALE
TYPE III M.H
M.H. STA. 201 + 97
RIM EL. 09.50
M.H.STA. 201+94.73(A.B.)
RIM EL.= 0.16
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H
M.H.STA. 206+95.50(A.B.)
RIM EL.= 11.30
TYPE III M.H
M.H. STA. 206 + 97
RIM EL = 08.80
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
495' - 42" @ 0.63 %
496.61'(A.B.)
400' - 42" @ 0.63 %
394.49'(A.B.)
500' - 42" @ 0.63 %
500.77'(A.B.)
FL IN=93.30
FL OUT=93.20
FL IN=93.34(A.B.)
FL OUT=93.24
FL IN=95.92
FL OUT=95.82
FL IN=95.84(A.B.)
FL OUT=95.74
FL=99.07
FL=98.95(A.B.)
6020
15
6010
5
6000
95
5990
194+00
195+00
196+00
197+00
198+00
199+00
200+00
201+00
202+00
203+00
204+00
205+00
206+00
207+00
P-1660 SHT. 9 OF 12



Benchmark: CC7 Brass Cap in concrete approx. 142.9'+/- E. of M.H. STA. 219+12 EL.=6039.35 (U.S.G.S)
M.H.STA.10+23(A.B.)="AS BUILT" INFORMATION 12-28-78
"AS BUILT"
MONUMENT CREEK
INTERCEPTOR SEWER
PHASE II
R.KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO
Designed By: D.H
Drawn By: dlb
Checked By: R.SAMS
Job No: 730423
File No: P-1660
Sheet No: 10
Reference: X-862, X-886
APPROVED BY:
Wastewater Division
DATE:
SCALE: 1" = 40' HORIZ.
1" = 6' VERT.
CITY OF COLORADO SPRINGS
MONUMENT
CREEK
CITY OF COLORADO SPRINGS
24" SEWER
RET. 12" WATER
M.H. STA. 206+95.50(A.B.)
FL = 98.95
TYPE III M.H
M.H. STA. 206+97
FL = 99.07
179°48'50"(A.B)
179°54'03"
500.63'(A.B.)
500' - 42" @ 0.63 %
Q = 32,593,320 G.P.D.
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
FINAL GRADE FOR POSITIVE DRAINAGE
M.H. STA. 211+96.13(A.B.)
FL = 01.96
TYPE III M.H
M.H. STA. 211+97
FL = 02.22
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
174°32'45"(A.B.)
174°35'03"
EXISTING CHECK DAM BY DEPT. OF PUBLIC WORKS
395' - 42" @ 0.63 %
393.62'(A.B.)
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
M.H. STA. 215+89.75(A.B.)
FL = 04.59
TYPE III M.H
M.H. STA. 215+92
FL = 04.71
182°43'11" 182°41'45"(A.B.)
EXISTING CHECK DAM BY DEPT. OF PUBLIC WORKS.
320' - 42" @ 0.63 %
322.98'(A.B.)
M.H. STA. 219+12.73(A.B.)
FL OUT(42") = 06.90
FL IN (36") = 07.40
FL IN (18") = 08.90
TYPE III M.H
M.H. STA. 219+12
FL 42" OUT = 06.72
FL 36" IN = 07.22
FL 18" IN = 08.72
STUB OUT ONE LENGTH OF 18" @ 1.00 % AND PLUG WITH PRE-CAST CONCRETE PLUG.
194°05'12"
193°46'10"(A.B.)
182.07'(A.B.)
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
TO CC6
34°16'30"
M.H. STA. 211+96.13(A.B.)
RIM EL. = 15.11
TYPE III M.H.
M.H. STA. 211+97
RIM EL. = 19.50
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
SEPTEMBER, 1975 EXISTING GROUND
STA 213+97 CHECK DAM BOTTOM OF DAM EL. = 6010.0
M.H. STA. 215+89.75(A.B.)
RIM EL. = 18.69
TYPE III M.H.
M.H. STA. 215+92
RIM EL. = 19.50
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
STA. 217+96 CHECK DAM BOTTOM OF DAM APPROXIMATE EL. = 6010.0
TYPE III M.H.
M.H. STA. 219+12
RIM EL. = 20.40
M.H. 219+12.73(A.B.)
RIM EL. = 19.59
STUB OUT ONE LENGTH OF 18" @ 1.00 % AND PLUG WITH PRE-CAST CONCRETE PLUG.
TYPE III M.H
M.H. STA. 206+97
RIM EL. = 08.50
M.H. STA. 206+95.50(A.B.)
RIM EL. = 11.30
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
207+75 EXISTING RETIRED 12" WATER LINE. REMOVE AS NECESSARY AND PLUG EXPOSED ENDS WITH CONCRETE CAPS.
500' - 42" @ 0.63 % ✓
500.63'(A.B.)
FL = 99.07
FL = 98.95 (A.B.)
FL = 02.22
FL = 01.96 (A.B.)
393.62'(A.B.)
395' - 42" @ 0.63 % ✓
FL = 04.71
FL = 04.59 (A.B.)
322.98'(A.B.)
320' - 42" @ 0.63 % ✓
182.07'(A.B.)
FL OUT 42" = 06.72
FL IN 36" = 07.22
FL IN 18" = 08.72
FL OUT(42") = 06.90(A.B.)
FL IN (36") = 07.40
FL IN (18") = 08.90
6020
6010
6000
95
207+00
208+00
209+00
210+00
211+00
212+00
213+00
214+00
215+00
216+00
217+00
218+00
219+00



"AS BUILT"
MONUMENT CREEK
INTERCEPTOR SEWER
PHASE II
R.KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO
Designed By: L.V.
Drawn By: dlb
Checked By: R.SAMS
Job No: 730423
File No: P-1660
Sheet No: 11
Reference: X-862, X-887
APPROVED BY:
Wastewater Division
DATE:
Benchmark CC-7 Brass Cap in Concrete
Approx. 142.9' +/- E. of M.H.
STA. 219+12 EL.=6039.36 (USGS)
M.H.STA. 10+23(A.B.)="AS BUILT" INFORMATION 12-29-78
SCALE: 1" = 40' HORIZ.
1" = 6' VERT.
MESA DRAINAGE CHANNEL
MONUMENT CREEK
CITY OF COLORADO SPRINGS
CITY OF COLORADO SPRINGS
MONUMENT VALLEY PARK
CULEBRA AVE
M.H. STA. 219+12.73 (A.B.)
FL OUT (42")=06.90
FL IN (36")=07.40
FL IN (18")=08.90
TYPE IV M.H
M.H STA. 219+12
FL 42" OUT = 06.72
FL 36" IN = 07.22
FL 18" IN = 08.72
STUB OUT ONE LENGTH OF 18" @ 1.00% AND PLUG WITH PRE-CAST CONCRETE PLUG
TYPE IV M.H
M.H. STA. 220+97
FL IN=08.80
FL OUT=08.70
M.H. STA. 220+94.80 (A.B.)
FL IN=08.83
FL OUT=08.73
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
195°50'55"
196°02'30" (A.B.)
500'-36" @ 0.80%
508.87' (A.B.)
SUPPORT CONCRETE ENCASEMENT AND 24" WATER LINE AS NECESSARY DURING CONSTRUCTION.
TYPE IV M.H
M.H STA. 225+97
FL=12.80
M.H.STA. 226+03.67 (A.B.)
FL=12.80
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
180°00'00"
180°12'15" (A.B.)
FINAL GRADE FOR POSITIVE DRAINAGE
500'-36" @ 0.80%
493.71' (A.B.)
M.H.STA. 230+97.38 (A.B.)
FL IN=16.89 FL OUT=16.79
TYPE IV M.H
M.H STA. 230+97
FL IN=16.90
FL OUT=16.80
195°30'14"
195°27'00" (A.B.)
178'-36" @ 0.80%
177.44' (A.B.)
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
185'-36" @ 0.80%
182.07' (A.B.)
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
34°16'30"
TO CC6
24" SEWER EXISTING
24" WATER LINE
24" SEWER EXISTING
TYPE III M.H.
M.H. STA. 219+12
RIM EL.=20.40
M.H. STA. 219+12.73 (A.B.)
RIM EL.=19.59
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
STUB OUT ONE LENGTH OF 18" @ 1.00% AND PLUG WITH PRE-CAST CONCRETE PLUG.
42" DIA.
FL OUT 42"=06.72
FL IN 36"=07.22
FL IN 18"=08.72
FL OUT (42")=06.90 (A.B.)
FL IN (36")=07.40
FL IN (18")=08.90
TYPE IV M.H.
M.H. STA. 220+97
RIM EL.=16.20
M.H. STA. 220+94.80 (A.B.)
RIM EL.=19.16
EXISTING GROUND SEPTEMBER, 1973
FL IN=08.80
FL OUT=08.70
FL IN=08.83 (A.B.)
FL OUT=08.73
STA. 223+92 CONCRETE ENCASED 24" WATER LINE
TOP OF CONC. EL.=6021.03
BOTTOM OF CONC. EL.=6016.68
TYPE IV M.H.
M.H. STA. 225+97
RIM EL.=25.90
M.H. STA. 226+03.67 (A.B.)
RIM EL.=25.11
PLACE 24" TO 36" RIP-RAP WITHIN 10' MINIMUM RADIUS AROUND M.H.
FL=12.80
FL=12.80 (A.B.)
M.H. STA. 230+97.38 (A.B.)
RIM EL.=29.97
TYPE IV M.H
M.H. STA. 230+97
RIM EL.=29.40
FL IN=16.90
FL OUT=16.80
FL IN=16.89 (A.B.)
FL OUT=16.79
185'-36" @ 0.80%
182.07' (A.B.)
500'-36" @ 0.80%
508.87' (A.B.)
500'-36" @ 0.80%
493.71' (A.B.)
178'-36" @ 0.80%
177.44' (A.B.)
219+00
220+00
221+00
222+00
223+00
224+00
225+00
226+00
227+00
228+00
229+00
230+00
231+00
232+00



Benchmark: CC-8 Brass Cap in Concrete approx. 48.9'+/- S.E of M.H STA. 232+70 EL: 6047.63 (U.S.G.S)
M.H. STA. 10+23 (A.B.) = "AS BUILT" INFORMATION 12-29-78
"AS BUILT"
MONUMENT CREEK
INTERCEPTOR SEWER
PHASE II
R KEITH HOOK & ASSOC. INC.
COLORADO SPRINGS, COLORADO
Designed By: L.V
Drawn By: dlb
Checked By: R. SAMS
Job No: 730423
File No: P-1660
Sheet No: 12
Reference: X-862, X-887
APPROVED BY:
Wastewater Division
DATE:
SCALE: 1" = 40' HORIZ. 1" = 6' VERT.
CITY OF COLORADO SPRINGS
MONUMENT CREEK
CITY OF COLORADO SPRINGS
MONUMENT VALLEY PARK
SHALE POTHOLE NO. 13
TYPE IV M.H.
M.H. STA. 232+70
RIM EL. = 29.00 - ADJUST TO MATCH SURROUNDING GROUND ELEVATION.
M.H. STA. 232+74.82 (A.B.)
RIM EL. = 31.29
STUB OUT ONE LENGTH OF 36" @ 0.72% AND PLUG WITH PRECAST CONCRETE PLUG.
193°15'40" (A.B.)
193°00'06"
FUTURE
248°53'22"
173-36" @ 0.80%
177.44' (A.B.)
SHALE POTHOLE NO. 14
EXISTING BRIDGE - REINFORCED CONCRETE AND MISONARY, MAINTAIN AS DRAINAGEWAY.
REINFORCED MANHOLE PROTECTION SLAB. (SEE DETAIL)
NOT CONSTRUCTED
290'-18" @ 3.60%
TYPE IV M.H.
M.H. STA. 235+60
RIM EL. = 42.50
M.H. STA. 238+76
EXISTING M.H. #103
RIM EL. = 42.40
MAINTAIN DRAINAGE
NOT CONSTRUCTED
300'-18" @ 1.60%
EXISTING 24" SEWER
EXISTING 24" SEWER TO REMAIN INTACT. ℄ OF MANHOLE TO BE RECONSTRUCTED TO PERMIT FULL FLOW INTO THE 18" SEWER. CONSTRUCT 18" CONCRETE WEIR TO PERMIT OVERFLOW INTO 24" SEWER.
EXISTING BRIDGE
TOP OF DECK EL. = 47.80
BOTTOM OF DECK EL. = 45.80
SEPTEMBER, 1973 EXISTING GROUND
EXISTING 24" SEWER
300'-18" @ 1.60%
NOT CONSTRUCTED
16'-18" @ 1.60%
290'-18" @ 3.60%
NOT CONSTRUCTED
STUB OUT ONE LENGTH OF 36" @ 0.72% AND PLUG WITH PRECAST CONCRETE PLUG.
R. OUT (36") = 18.33 (A.B.)
R. IN (36") = 18.43
REINFORCED MANHOLE PROTECTION SLAB
NO SCALE
SECTION A-A
NO SCALE
MANHOLE CONE SECTION - TYPE IV M.H.
232+00
233+00
234+00
235+00
236+00
237+00
238+00
239+00
240+00