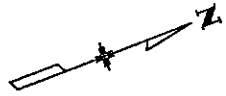


CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
CALL 3 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

LEGEND
SOIL RETENTION
BLANKET (PLASTIC)



STA. 205+75
BEGIN CDOT PROJECT
STU M240-081

STA. 218+00
MATCHLINE SHEET 2 OF 12

205+00 206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00 218+00

H.C.L. SH 83

LINE SA

SH 83 STA:
206+88.73
OFFSET 65.00 RT
EL=6824.00±

MATCH INTO EXISTING DITCH
GRADE TO DRAIN

SH 83 STA:
211+42.45
OFFSET 95.74 LT
EL=6834.45±

SH 83 STA:
212+86.65
OFFSET 75.85 LT
EL=6835.62

SH 83 STA:
212+88.70
OFFSET 101.02 R
EL=6827.00

CONSTRUCT 7' DITCH
(BOTTOM WIDTH)

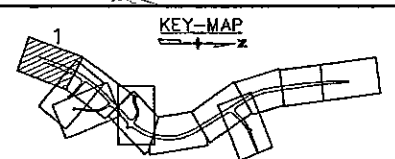
SH 83 STA:
216+86.77
OFFSET 130.73 RT
EL=6829.00


NOTES

1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
2. SEE INTERSECTION DETAILS FOR GRADING INFORMATION AT INTERSECTIONS, WHERE APPROPRIATE.
3. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
4. REQUIRE QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.

LINE SA NOTES

- SA1) SH 83 STA: 212+41.17 69.59'LT
REQ'D 18" RCES W/SAFETY END TREATMENT
(SEE PROFILE LINE SA)
- SA2) SH 83 STA: 213+45.00 13.82'LT
REQ'D 117.66LF OF 18" RCP W/
INLET TYPE R 5'
(SEE PROFILE LINE SA)
- SA3) SH 83 STA: 213+95.00 14.00'LT
REQ'D 43.63LF OF 18" RCP W/
INLET TYPE R 10'
(SEE PROFILE LINE SA)
- SA4) SH 83 STA: 215+45.00 14.00'LT
REQ'D 139.12LF OF 18" RCP W/
INLET TYPE R 15'
(SEE PROFILE LINE SA)
- SA5) SH 83 STA: 217+45.00 14.00'LT
REQ'D 184.50LF OF 18" RCP W/
INLET TYPE R 5'
(SEE PROFILE LINE SA)



Computer File Information		Index of Revisions		 URS 9960 Federal Drive, Suite 300 Colorado Springs, CO. 80921 (719) 531-0001 Fax (719) 531-0007 MSA	As Constructed	POWERS/SH 83 SH 83 DRAINAGE PLAN		Project No./Code
Creation Date: 2/26/03	Initials: JJM	(R)			No Revisions:	Designer: EDE	Structure Numbers	STU M240-081
Last Modification Date: 10/22/03	Initials: JJM	(R)		Revised:	Detailer: JJM		14464	
Full Path: \\21710831\CAD\Planshts\Drainage		(R)		Void:	SheetSubset: DRAINAGE	Subset Sheets: 1 of 12	Sheet Number 252	
Drawing File Name: shdr-plan		(R)						
Acad. Ver. LDD3	Scale: AS SHOWN	Units: Feet	(R)					

CALL UTILITY NOTIFICATION
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1-800-922-1987
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BEFORE YOU DIG, GRADE OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

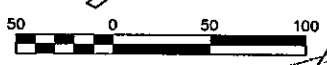
LEGEND

- SOIL RETENTION
- BLANKET (PLASTIC)
- BERM
- ARTICULATED CONCRETE BLOCKS (SEE DETAIL)
- RIPRAP W/ GEOTEXTILE (EROSION CONTROL) (CLASS A)(D₅₀ LISTED)
- FUTURE RIPRAP W/ GEOTEXTILE (EROSION CONTROL) (CLASS A)(D₅₀ LISTED)

N.I.C. NOT IN CONTRACT

NOTES

1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
2. SEE INTERSECTION DETAILS FOR GRADING INFORMATION AT INTERSECTIONS, WHERE APPROPRIATE.
3. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
4. CONSTRUCT WINGWALLS AS PER CDOT STANDARD SPECIFICATION M-601-20.
5. FUTURE RCBC AND WINGWALLS ARE SHOWN AS INFORMATION ONLY AND ARE NOT PART OF THIS PROJECT.
6. REQUIRED QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.



LINE SB NOTES

SB1) SH 83 STA: 222+61.37 79.48'LT
REQ'D 106.58LF OF 24" RCP W/
INLET TYPE C
(SEE PROFILE LINE SB)

SB2) SH 83 STA: 222+01.51 10.00'RT
REQ'D 154.65LF OF 24" RCP CLASS IV
W/ INLET TYPE B
(SEE PROFILE LINE SB)

LINE SC NOTES

SC1) RAMP E STA: 114+50.49 176.22'RT
REQ'D 5.00LF OF 24" RCP W/
INLET TYPE D (48"x80")
(SEE PROFILE LINE SC)

SC2) RAMP E STA: 114+42.60 176.41'RT
REQ'D 67.00LF OF 42" RCP W/
INLET TYPE D (48"x80")
(SEE PROFILE LINE SC)

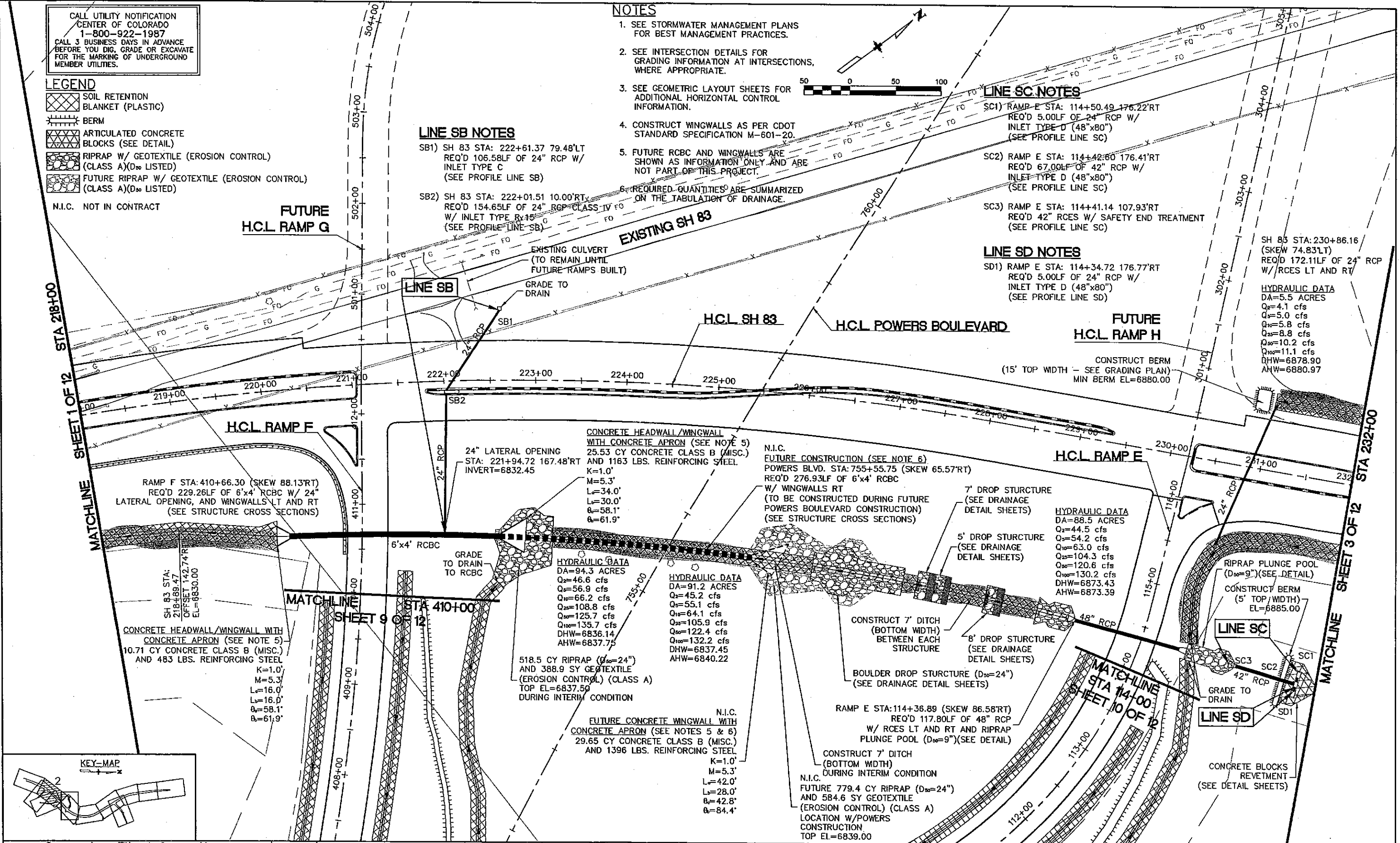
SC3) RAMP E STA: 114+41.14 107.93'RT
REQ'D 42" RCES W/ SAFETY END TREATMENT
(SEE PROFILE LINE SC)

LINE SD NOTES

SD1) RAMP E STA: 114+34.72 176.77'RT
REQ'D 5.00LF OF 24" RCP W/
INLET TYPE D (48"x80")
(SEE PROFILE LINE SD)

SH 83 STA: 230+86.16 /
(SKEW 74.83'LT)
REQ'D 172.11LF OF 24" RCP
W/ RCES LT AND RT

HYDRAULIC DATA
DA=5.5 ACRES
Q₂=4.1 cfs
Q₁₀=5.0 cfs
Q₂₅=5.8 cfs
Q₅₀=8.8 cfs
Q₁₀₀=10.2 cfs
Q₁₅₀=11.1 cfs
DHW=6878.90
AHW=6880.97



RAMP F STA: 410+66.30 (SKEW 88.13'RT)
REQ'D 229.26LF OF 6'x4' RCBC W/ 24"
LATERAL OPENING, AND WINGWALLS LT AND RT
(SEE STRUCTURE CROSS SECTIONS)

24" LATERAL OPENING
STA: 221+94.72 167.48'RT
INVERT=6832.45

CONCRETE HEADWALL/WINGWALL
WITH CONCRETE APRON (SEE NOTE 5)
25.53 CY CONCRETE CLASS B (MISC.)
AND 1163 LBS. REINFORCING STEEL

N.I.C.
FUTURE CONSTRUCTION (SEE NOTE 6)
POWERS BLVD. STA: 755+55.75 (SKEW 65.57'RT)
REQ'D 276.93LF OF 6'x4' RCBC
W/ WINGWALLS RT
(TO BE CONSTRUCTED DURING FUTURE
POWERS BOULEVARD CONSTRUCTION)
(SEE STRUCTURE CROSS SECTIONS)

HYDRAULIC DATA
DA=88.5 ACRES
Q₂=44.5 cfs
Q₁₀=54.2 cfs
Q₂₅=63.0 cfs
Q₅₀=104.3 cfs
Q₁₀₀=120.6 cfs
Q₁₅₀=130.2 cfs
DHW=6873.43
AHW=6873.39

HYDRAULIC DATA
DA=94.3 ACRES
Q₂=46.6 cfs
Q₁₀=56.9 cfs
Q₂₅=66.2 cfs
Q₅₀=108.8 cfs
Q₁₀₀=125.7 cfs
Q₁₅₀=135.7 cfs
DHW=6836.14
AHW=6837.75

HYDRAULIC DATA
DA=91.2 ACRES
Q₂=45.2 cfs
Q₁₀=55.1 cfs
Q₂₅=64.1 cfs
Q₅₀=105.9 cfs
Q₁₀₀=122.4 cfs
Q₁₅₀=132.2 cfs
DHW=6837.45
AHW=6840.22

CONCRETE HEADWALL/WINGWALL WITH
CONCRETE APRON (SEE NOTE 5)
10.71 CY CONCRETE CLASS B (MISC.)
AND 483 LBS. REINFORCING STEEL

K=1.0'
M=5.3'
L₁=16.0'
L₂=16.0'
O₁=58.1'
O₂=61.9'

518.5 CY RIPRAP (D₅₀=24")
AND 388.9 SY GEOTEXTILE
(EROSION CONTROL) (CLASS A)
TOP EL=6837.50
DURING INTERIM CONDITION

N.I.C.
FUTURE CONCRETE WINGWALL WITH
CONCRETE APRON (SEE NOTES 5 & 6)
29.65 CY CONCRETE CLASS B (MISC.)
AND 1396 LBS. REINFORCING STEEL

K=1.0'
M=5.3'
L=42.0'
L₁=28.0'
O=42.8'
O₁=84.4'

CONSTRUCT 7' DITCH
(BOTTOM WIDTH)
BETWEEN EACH
STRUCTURE

BOULDER DROP STRUCTURE (D₅₀=24")
(SEE DRAINAGE DETAIL SHEETS)

RAMP E STA: 114+36.89 (SKEW 86.58'RT)
REQ'D 117.80LF OF 48" RCP
W/ RCES LT AND RT AND RIPRAP
PLUNGE POOL (D₅₀=9") (SEE DETAIL)

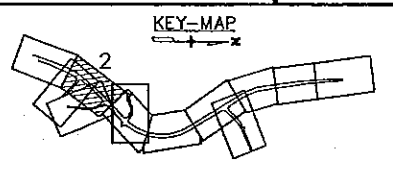
CONSTRUCT 7' DITCH
(BOTTOM WIDTH)
DURING INTERIM CONDITION

N.I.C.
FUTURE 779.4 CY RIPRAP (D₅₀=24")
AND 584.6 SY GEOTEXTILE
(EROSION CONTROL) (CLASS A)
LOCATION W/ POWERS
CONSTRUCTION
TOP EL=6839.00

RIPRAP PLUNGE POOL
(D₅₀=9") (SEE DETAIL)

CONSTRUCT BERM
(5' TOP WIDTH)
EL=6885.00

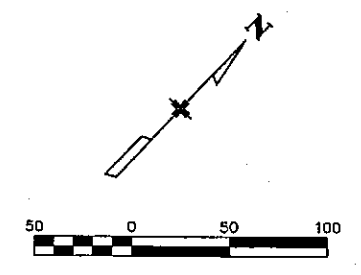
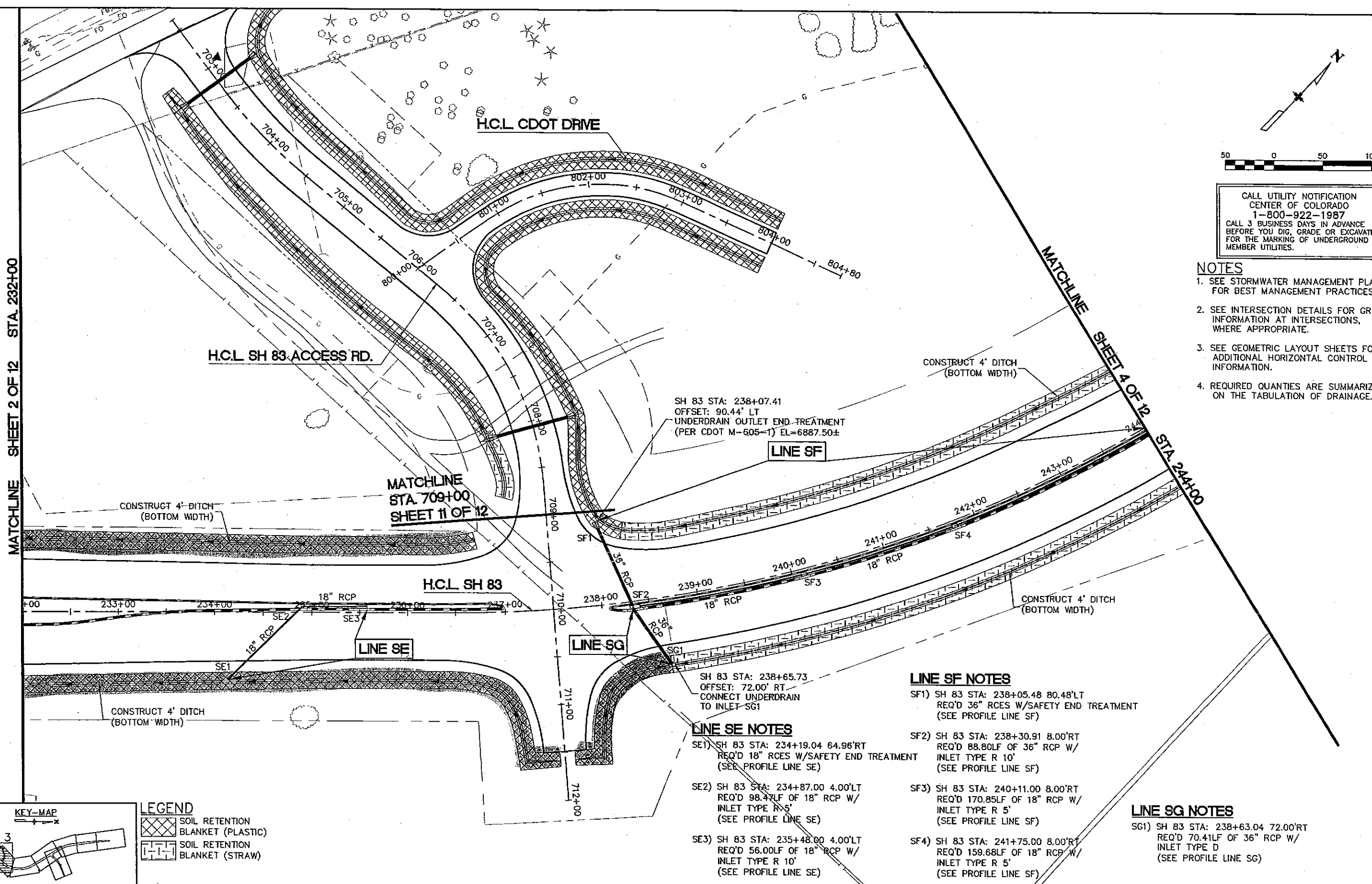
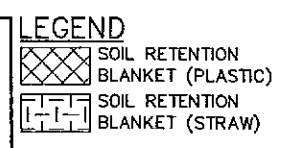
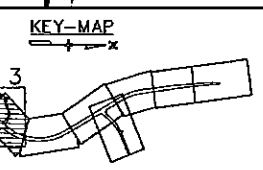
CONCRETE BLOCKS
REVETMENT
(SEE DETAIL SHEETS)



Computer File Information		Index of Revisions			URS 9960 Federal Drive, Suite 300 Colorado Springs, CO. 80921 (719) 531-0001 Fax (719) 531-0007	As Constructed	POWERS/SH 83		Project No./Code
Creation Date:	2/26/03	Initials:	JJM				SH 83		
Last Modification Date:	10/22/03	Initials:	JJM	DEPARTMENT OF TRANSPORTATION		No Revisions:	DRAINAGE PLAN		14464
Full Path:	\21710831\CAD\Planshts\Drainage			Region 2		Revised:	Designer: EDE	Structure Numbers:	
Drawing File Name:	shdr-plan			MSA		Void:	Detailer: JJM	Subset Sheets:	2 of 12
Acad. Ver. LDD3	Scale: AS SHOWN	Units: Feet					SheetSubset: DRAINAGE		

MATCHLINE SHEET 2 OF 12 STA. 232+00

MATCHLINE SHEET 4 OF 12 STA. 244+00



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MEMBER UTILITIES.

- NOTES**
1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
 2. SEE INTERSECTION DETAILS FOR GRADING INFORMATION AT INTERSECTIONS, WHERE APPROPRIATE.
 3. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
 4. REQUIRED QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.

SH 83 STA: 238+07.41
OFFSET: 90.44' LT
UNDERDRAIN OUTLET END TREATMENT
(PER CDOT M-605-1) EL=6887.50±

SH 83 STA: 238+65.73
OFFSET: 72.00' RT
CONNECT UNDERDRAIN
TO INLET SG1

LINE SE NOTES

SE1) SH 83 STA: 234+19.04 64.96'RT
REQ'D 18" RCES W/SAFETY END TREATMENT
(SEE PROFILE LINE SE)

SE2) SH 83 STA: 234+87.00 4.00'LT
REQ'D 98.47LF OF 18" RCP W/
INLET TYPE R 5'
(SEE PROFILE LINE SE)

SE3) SH 83 STA: 235+48.00 4.00'LT
REQ'D 56.00LF OF 18" RCP W/
INLET TYPE R 10'
(SEE PROFILE LINE SE)

LINE SF NOTES

SF1) SH 83 STA: 238+05.48 80.48'LT
REQ'D 36" RCES W/SAFETY END TREATMENT
(SEE PROFILE LINE SF)

SF2) SH 83 STA: 238+30.91 8.00'RT
REQ'D 88.80LF OF 36" RCP W/
INLET TYPE R 10'
(SEE PROFILE LINE SF)

SF3) SH 83 STA: 240+11.00 8.00'RT
REQ'D 170.85LF OF 18" RCP W/
INLET TYPE R 5'
(SEE PROFILE LINE SF)

SF4) SH 83 STA: 241+75.00 8.00'RT
REQ'D 159.68LF OF 18" RCP W/
INLET TYPE R 5'
(SEE PROFILE LINE SF)

LINE SG NOTES

SG1) SH 83 STA: 238+63.04 72.00'RT
REQ'D 70.41LF OF 36" RCP W/
INLET TYPE D
(SEE PROFILE LINE SG)

Computer File Information

Creation Date:	2/26/03	Initials:	JJM
Last Modification Date:	10/22/03	Initials:	JJM
Full Path:	\\21710831\CAD\Planshts\Drainage		
Drawing File Name:	shdr-plan		
Acad. Ver.	LDD3	Scale:	AS SHOWN
		Units:	Feet

Index of Revisions

(R-)			
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(R-)			
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Colorado Springs, CO. 80921
(719) 531-0001
Fax (719) 531-0007

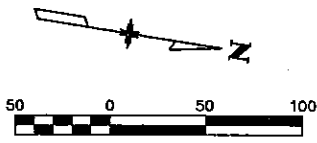
MSA

Region 2

As Constructed	POWERS/SH 83	
No Revisions:	SH 83	
Revised:	DRAINAGE PLAN	
Void:	Designer: EDE	Structure Numbers
	Detailer: JJM	
	SheetSubset: DRAINAGE	Subset Sheets: 3 of 12

Project No./Code	STU M240-081
	14464
Sheet Number	254

CALL UTILITY NOTIFICATION
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 CALL 3 BUSINESS DAYS IN ADVANCE
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 FOR THE MARKING OF UNDERGROUND
 MEMBER UTILITIES.



NOTES

1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
2. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
3. REQUIRED QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.

LINE SF NOTES

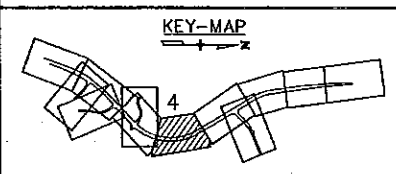
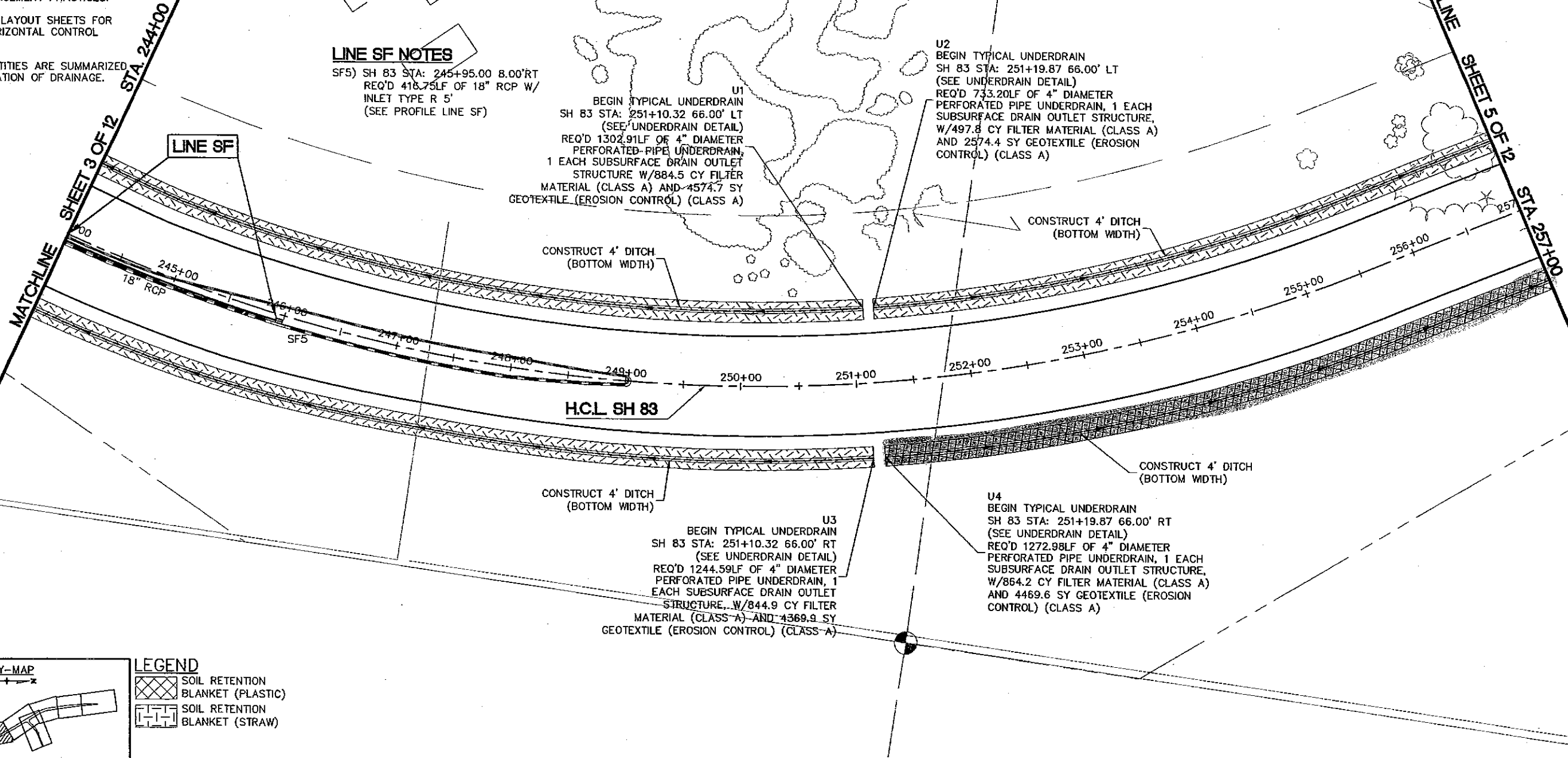
SF5) SH 83 STA: 245+95.00 8.00' RT
 REQ'D 416.75LF OF 18" RCP W/
 INLET TYPE R 5'
 (SEE PROFILE LINE SF)

U1
 BEGIN TYPICAL UNDERDRAIN
 SH 83 STA: 251+10.32 66.00' LT
 (SEE UNDERDRAIN DETAIL)
 REQ'D 1302.91LF OF 4" DIAMETER
 PERFORATED PIPE UNDERDRAIN,
 1 EACH SUBSURFACE DRAIN OUTLET
 STRUCTURE W/884.5 CY FILTER
 MATERIAL (CLASS A) AND 4574.7 SY
 GEOTEXTILE (EROSION CONTROL) (CLASS A)

U2
 BEGIN TYPICAL UNDERDRAIN
 SH 83 STA: 251+19.87 66.00' LT
 (SEE UNDERDRAIN DETAIL)
 REQ'D 733.20LF OF 4" DIAMETER
 PERFORATED PIPE UNDERDRAIN, 1 EACH
 SUBSURFACE DRAIN OUTLET STRUCTURE,
 W/497.8 CY FILTER MATERIAL (CLASS A)
 AND 2574.4 SY GEOTEXTILE (EROSION
 CONTROL) (CLASS A)

U3
 BEGIN TYPICAL UNDERDRAIN
 SH 83 STA: 251+10.32 66.00' RT
 (SEE UNDERDRAIN DETAIL)
 REQ'D 1244.59LF OF 4" DIAMETER
 PERFORATED PIPE UNDERDRAIN, 1
 EACH SUBSURFACE DRAIN OUTLET
 STRUCTURE, W/844.9 CY FILTER
 MATERIAL (CLASS A) AND 4369.9 SY
 GEOTEXTILE (EROSION CONTROL) (CLASS A)

U4
 BEGIN TYPICAL UNDERDRAIN
 SH 83 STA: 251+19.87 66.00' RT
 (SEE UNDERDRAIN DETAIL)
 REQ'D 1272.98LF OF 4" DIAMETER
 PERFORATED PIPE UNDERDRAIN, 1 EACH
 SUBSURFACE DRAIN OUTLET STRUCTURE,
 W/864.2 CY FILTER MATERIAL (CLASS A)
 AND 4469.6 SY GEOTEXTILE (EROSION
 CONTROL) (CLASS A)

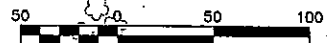


LEGEND

	SOIL RETENTION BLANKET (PLASTIC)
	SOIL RETENTION BLANKET (STRAW)

Computer File Information		Index of Revisions		<p>URS 9960 Federal Drive, Suite 300 Colorado Springs, CO. 80921 (719) 531-0001 Fax (719) 531-0007</p>	As Constructed		POWERS/SH 83 SH 83 DRAINAGE PLAN		Project No./Code		
Creation Date:	2/26/03	Initials:	JJM		No Revisions:		Designer:	EDE	Structure Numbers:		STU M240-081
Last Modification Date:	10/22/03	Initials:	JJM		Revised:		Detailer:	JJM	Sheet Subsets:		14464
Full Path:	\21710831\CAD\Planshts\Drainage				Void:		Sheet Subsets:	DRAINAGE	Subset Sheets:	4 of 12	Sheet Number 255
Drawing File Name:	shdr-plan										
Acad. Ver.	LDD3	Scale:	AS SHOWN	Units:	Feet						

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FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.



LINE SH NOTES

- SH1) SH 83 STA: 268+30.17 93.52'LT
REQ'D 36" RCES W/SAFETY END TREATMENT
AND 22.2CY RIPRAP D₅₀=12"
(SEE PROFILE LINE SH)
- SH2) SH 83 STA: 269+66.03 127.25'LT
REQ'D 138.51LF OF 36" RCP CLASS IV
W/INLET TYPE D
(SEE PROFILE LINE SH)
- SH3) SH 83 STA: 269+67 53.25'LT
REQ'D 69.71LF OF 18" RCP CLASS IV
W/INLET TYPE C
(SEE PROFILE LINE SH)

LINE SJ NOTES

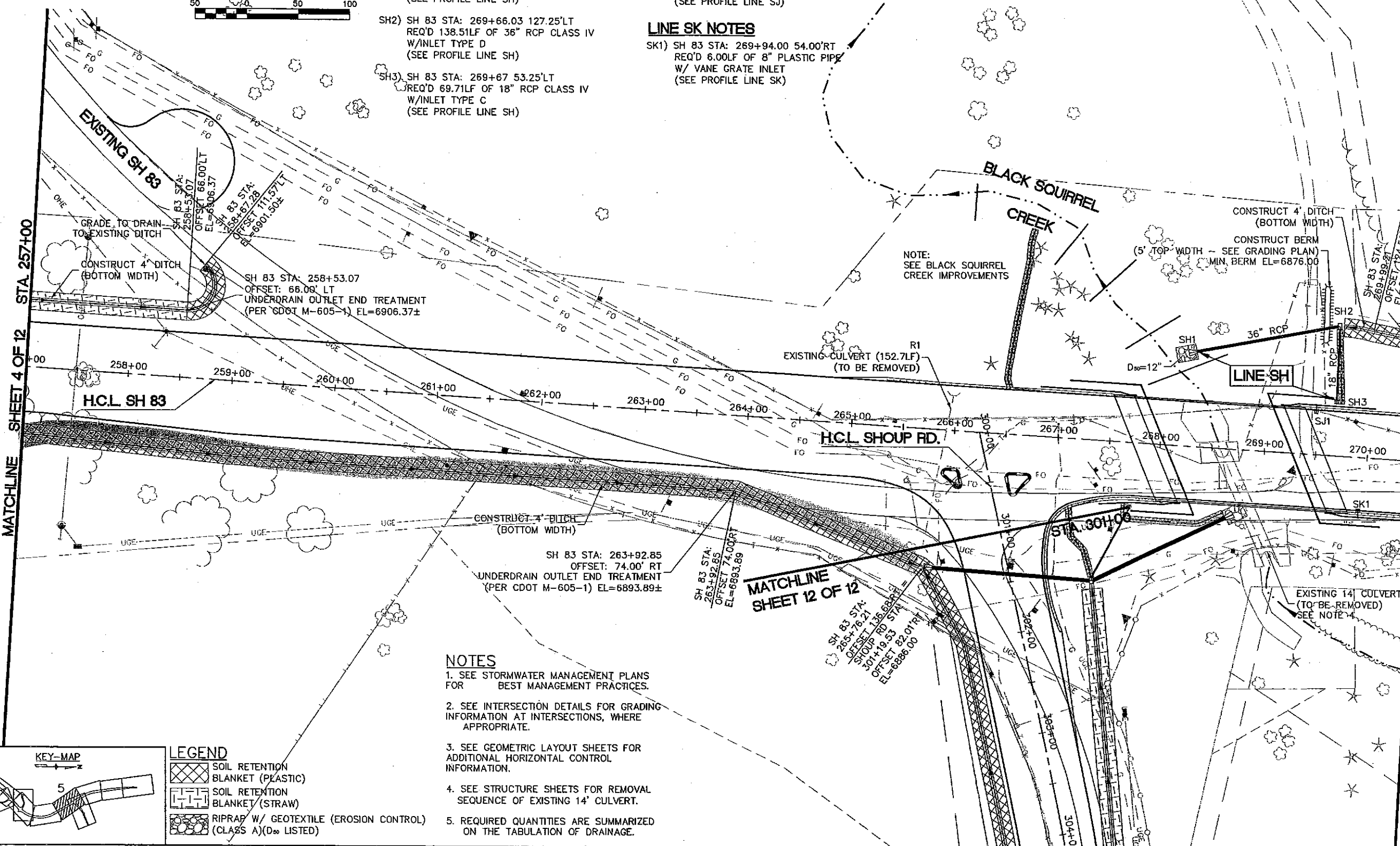
- SJ1) SH 83 STA: 269+48.00 44.00'RT
REQ'D 6.00LF OF 8" PLASTIC PIPE
W/ VANE GRATE INLET
(SEE PROFILE LINE SJ)

LINE SK NOTES

- SK1) SH 83 STA: 269+94.00 54.00'RT
REQ'D 6.00LF OF 8" PLASTIC PIPE
W/ VANE GRATE INLET
(SEE PROFILE LINE SK)

MATCHLINE SHEET 4 OF 12 STA 257+00

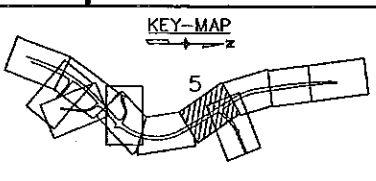
MATCHLINE SHEET 6 OF 12 STA 270+50



- NOTES**
1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
 2. SEE INTERSECTION DETAILS FOR GRADING INFORMATION AT INTERSECTIONS, WHERE APPROPRIATE.
 3. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
 4. SEE STRUCTURE SHEETS FOR REMOVAL SEQUENCE OF EXISTING 14' CULVERT.
 5. REQUIRED QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.

LEGEND

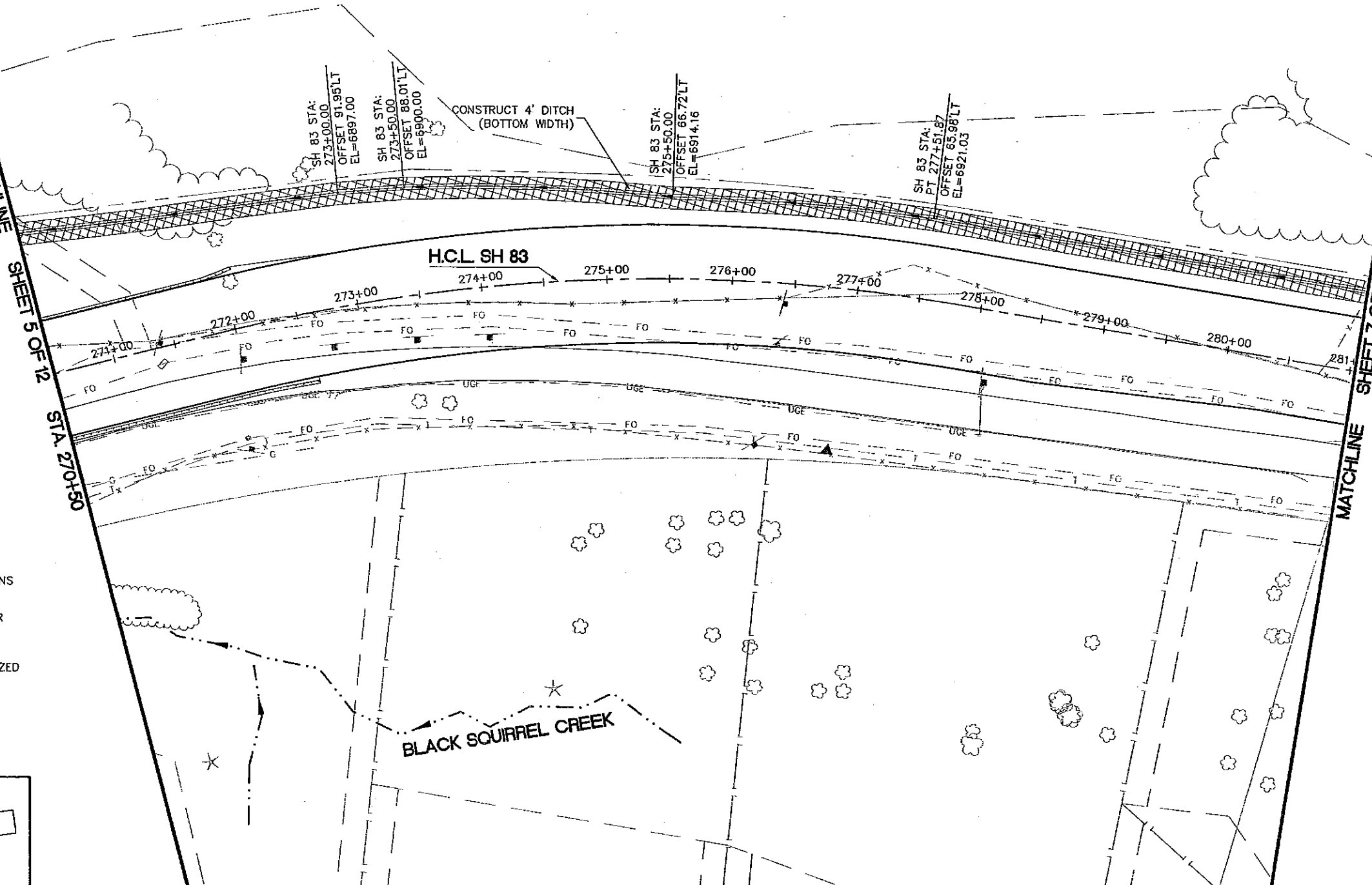
	SOIL RETENTION BLANKET (PLASTIC)
	SOIL RETENTION BLANKET (STRAW)
	RIPRAP W/ GEOTEXTILE (EROSION CONTROL) (CLASS A)(D ₅₀ LISTED)



Computer File Information		Index of Revisions		 Region 2	URS 9960 Federal Drive, Suite 300 Colorado Springs, CO. 80921 (719) 531-0001 Fax (719) 531-0007 MSA	As Constructed No Revisions: Revised: Void:	POWERS/SH 83 SH 83 DRAINAGE PLAN		Project No./Code
Creation Date:	2/26/03	Initials:	JJM				STU M240-081		
Last Modification Date:	10/22/03	Initials:	JJM				14464		
Full Path:	\21710831\CAD\Planshts\Drainage						Sheet Number		
Drawing File Name:	shdr-plan						256		
Acad. Ver.	LDD3	Scale:	AS SHOWN	Units:	Feet	Sheet Subsets:	DRAINAGE	Subset Sheets:	5 of 12

MATCHLINE SHEET 5 OF 12 STA. 270+50

MATCHLINE SHEET 7 OF 12 STA. 281+00

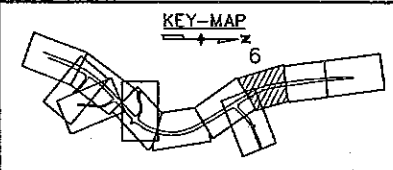


NOTES

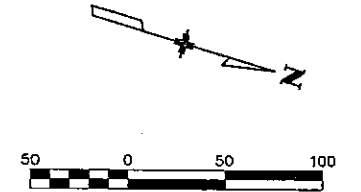
1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
2. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
3. REQUIRED QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.

LEGEND

SOIL RETENTION BLANKET (PLASTIC)

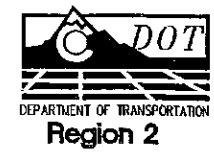


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CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



Computer File Information	
Creation Date:	2/26/03 Initials: JJM
Last Modification Date:	10/22/03 Initials: JJM
Full Path:	\\21710831\CAD\Planshts\Drainage
Drawing File Name:	shdr-plan
Acad. Ver.	LDD3 Scale: AS SHOWN Units: Feet

Index of Revisions	
(R-)	
(R-)	
(R-)	
(R-)	



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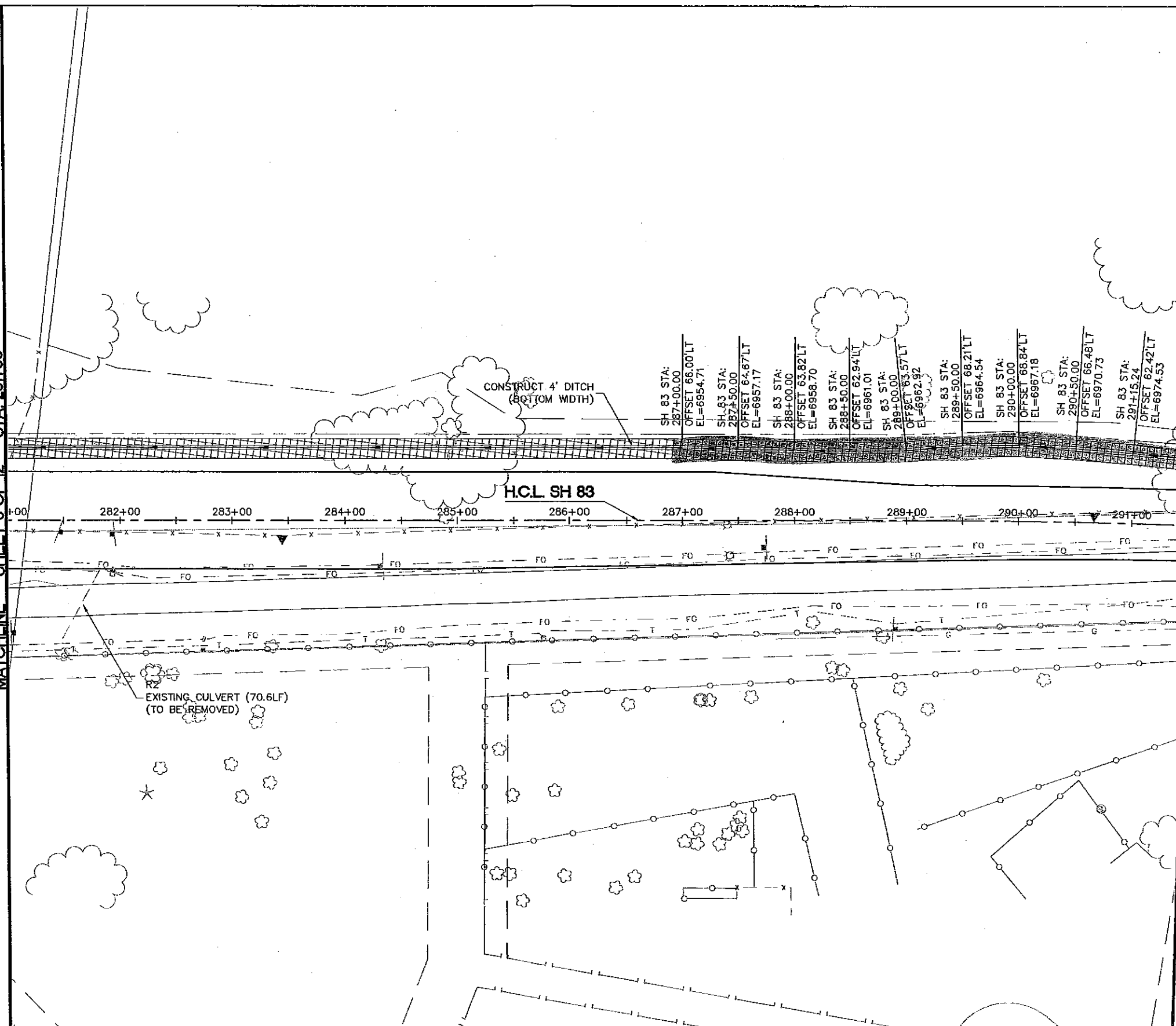
As Constructed
No Revisions:
Revised:
Void:

POWERS/SH 83 SH 83 DRAINAGE PLAN	
Designer:	EDE
Detailer:	JJM
Structure Numbers:	
SheetSubset:	DRAINAGE
Subset Sheets:	6 of 12

Project No./Code	
STU M240-081	
14464	
Sheet Number	257

MATCHLINE SHEET 6 OF 12 STA. 281+00

MATCHLINE SHEET 8 OF 12 STA. 291+50



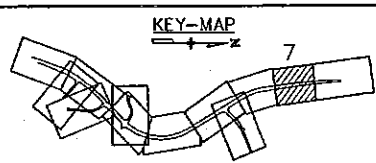
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NOTES

1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
2. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
3. REQUIRED QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.

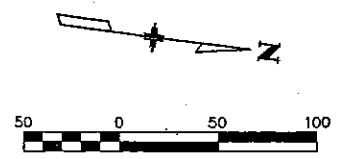
LEGEND

SOIL RETENTION BLANKET (PLASTIC)



EXISTING CULVERT (70.6LF)
(TO BE REMOVED)

CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
CALL 3 BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.



Computer File Information	
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Last Modification Date:	10/22/03 Initials: JJM
Full Path:	\\21710831\CAD\Planshts\Drainage
Drawing File Name:	shdr-plan
Acad. Ver. LDD3	Scale: AS SHOWN Units: Feet

Index of Revisions	
(R-)	
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(R-)	
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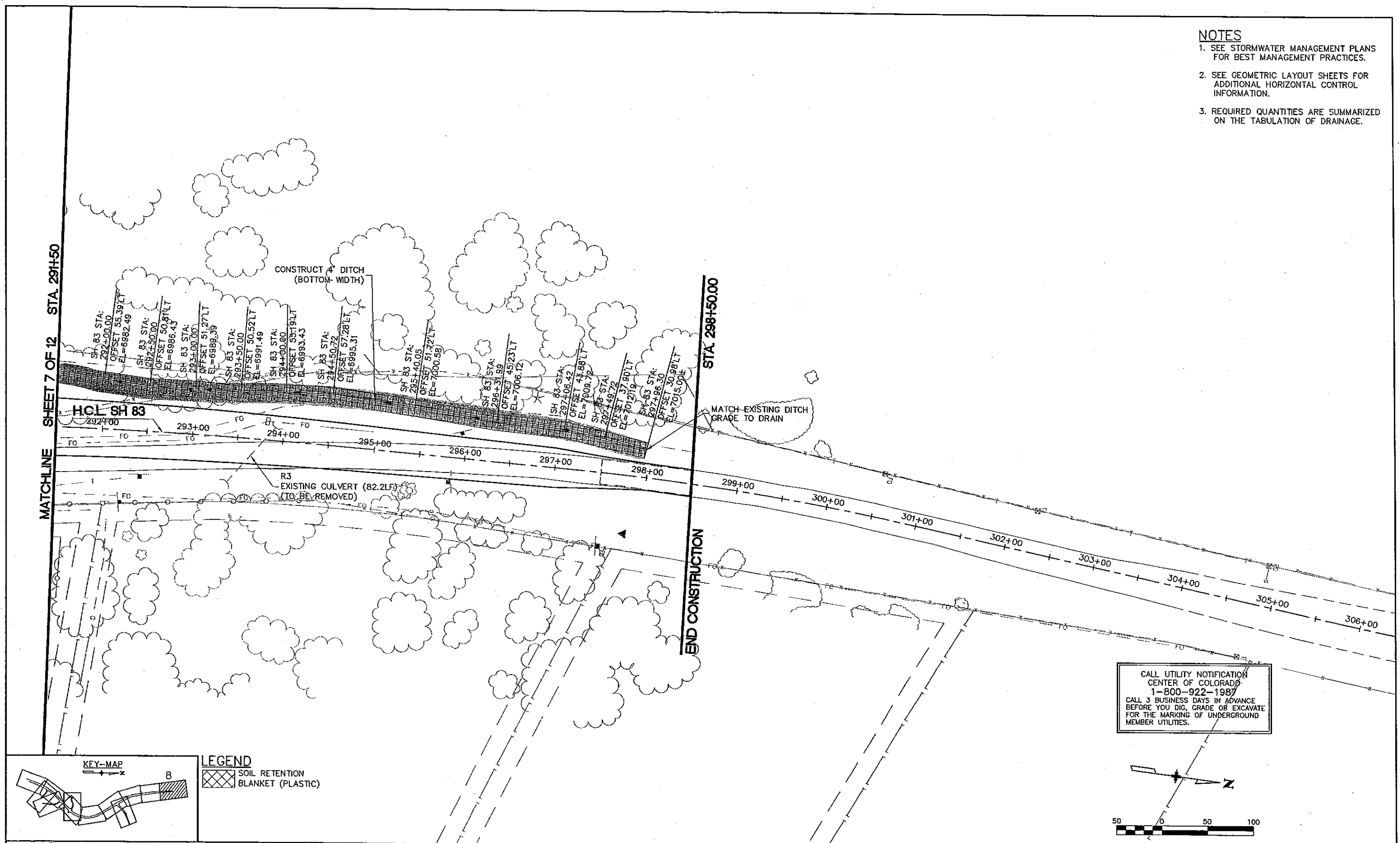
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As Constructed
No Revisions:
Revised:
Void:

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Designer:	EDE
Detailer:	JJM
SheetSubset:	DRAINAGE
Structure Numbers	
Subset Sheets:	7 of 12

Project No./Code	STU M240-081
	14464
Sheet Number	258

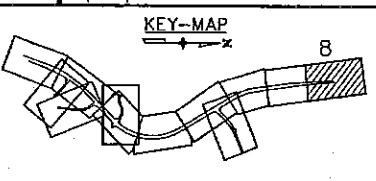
- NOTES**
1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
 2. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
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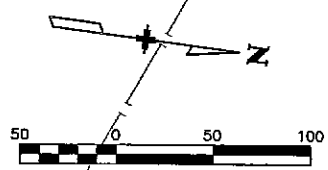
MATCHLINE SHEET 7 OF 12 STA. 291+50

END CONSTRUCTION STA. 298+50.00

CALL UTILITY NOTIFICATION CENTER OF COLORADO
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CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



LEGEND
 SOIL RETENTION BLANKET (PLASTIC)



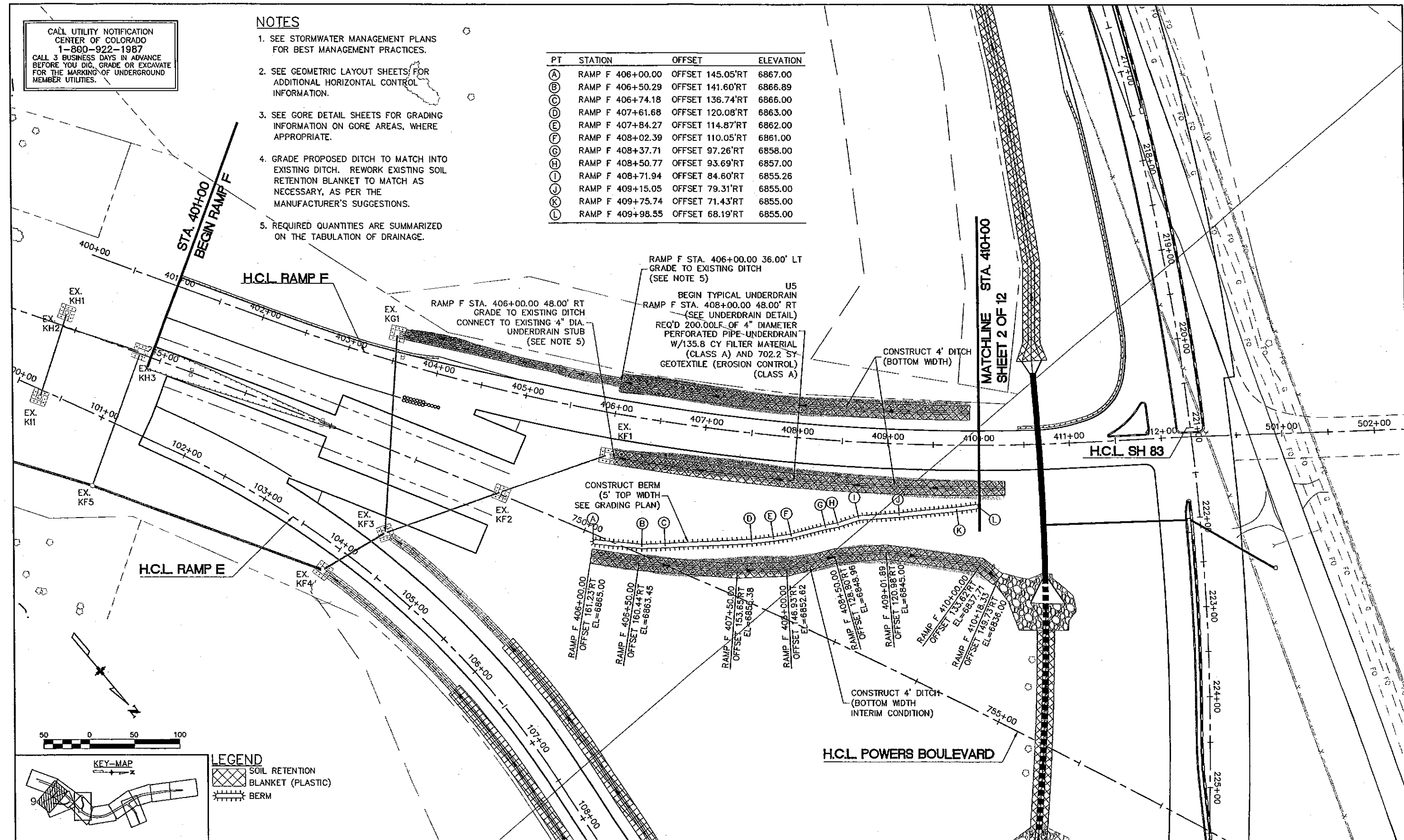
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(R-)																													
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CALL UTILITY NOTIFICATION
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 MEMBER UTILITIES.

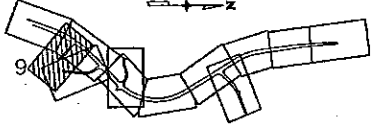
NOTES

1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
2. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
3. SEE GORE DETAIL SHEETS FOR GRADING INFORMATION ON GORE AREAS, WHERE APPROPRIATE.
4. GRADE PROPOSED DITCH TO MATCH INTO EXISTING DITCH. REWORK EXISTING SOIL RETENTION BLANKET TO MATCH AS NECESSARY, AS PER THE MANUFACTURER'S SUGGESTIONS.
5. REQUIRED QUANTITIES ARE SUMMARIZED ON THE TABULATION OF DRAINAGE.

PT	STATION	OFFSET	ELEVATION
(A)	RAMP F 406+00.00	OFFSET 145.05'RT	6867.00
(B)	RAMP F 406+50.29	OFFSET 141.60'RT	6866.89
(C)	RAMP F 406+74.18	OFFSET 136.74'RT	6866.00
(D)	RAMP F 407+61.68	OFFSET 120.08'RT	6863.00
(E)	RAMP F 407+84.27	OFFSET 114.87'RT	6862.00
(F)	RAMP F 408+02.39	OFFSET 110.05'RT	6861.00
(G)	RAMP F 408+37.71	OFFSET 97.26'RT	6858.00
(H)	RAMP F 408+50.77	OFFSET 93.69'RT	6857.00
(J)	RAMP F 408+71.94	OFFSET 84.60'RT	6855.26
(K)	RAMP F 409+15.05	OFFSET 79.31'RT	6855.00
(L)	RAMP F 409+75.74	OFFSET 71.43'RT	6855.00
(L)	RAMP F 409+98.55	OFFSET 68.19'RT	6855.00



KEY-MAP

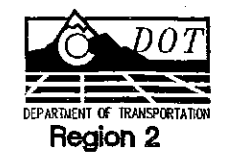


LEGEND

- SOIL RETENTION BLANKET (PLASTIC)
- BERM

Computer File Information	
Creation Date:	2/26/03 Initials: JJM
Last Modification Date:	10/22/03 Initials: JJM
Full Path:	\\21710831\CAD\Planshts\Drainage
Drawing File Name:	shdr-plan
Acad. Ver.	LDD3 Scale: AS SHOWN Units: Feet

Index of Revisions	
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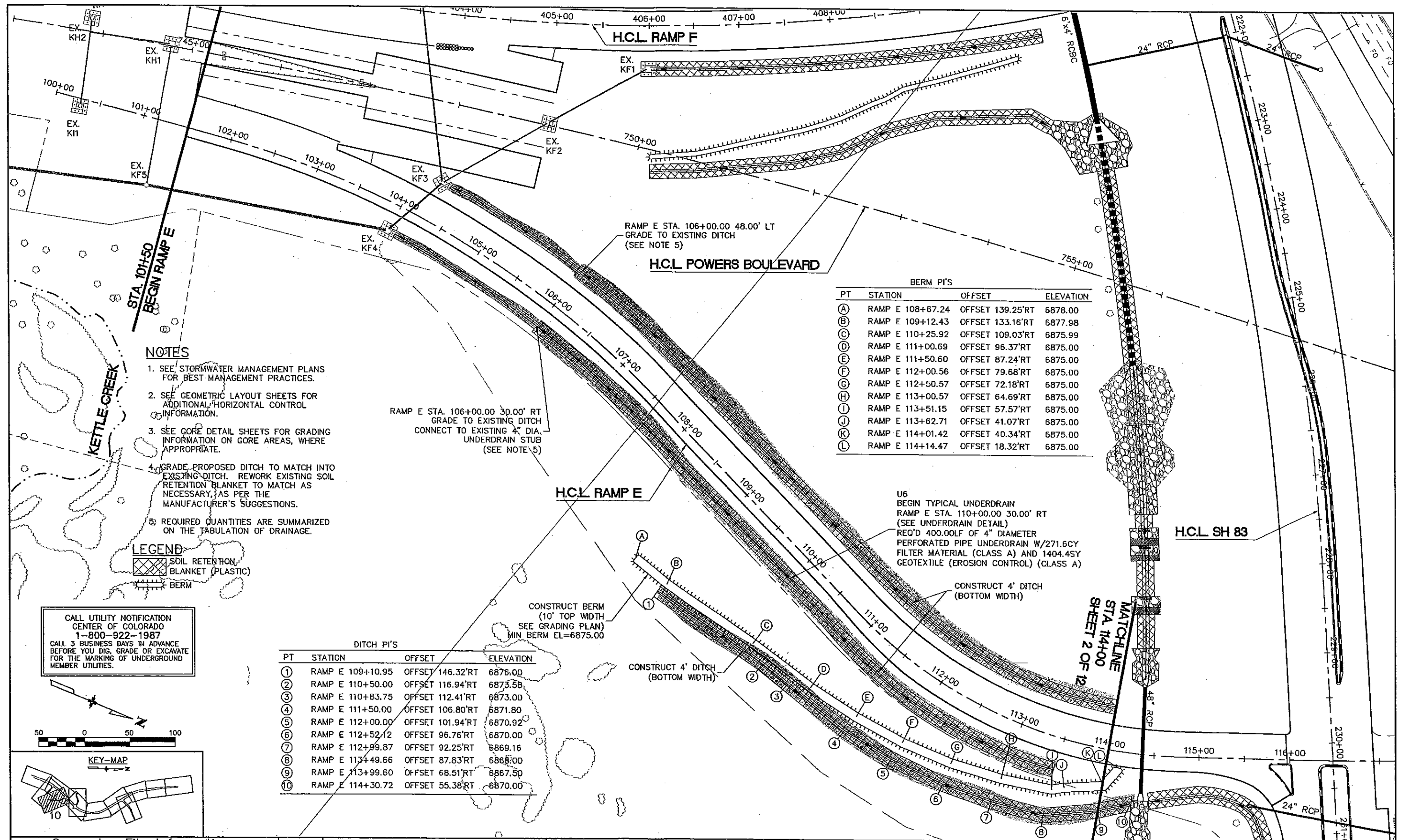


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No Revisions:	
Revised:	
Void:	

POWERS/SH 83 RAMP F DRAINAGE PLAN	
Designer:	EDE
Detailer:	JJM
Sheet/Subset:	DRAINAGE
Subset Sheets:	9 of 12

Project No./Code	
STU M240-081	14464
Sheet Number	260



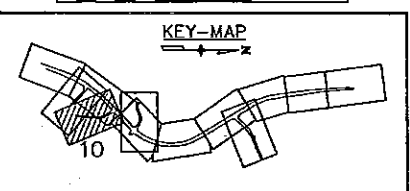
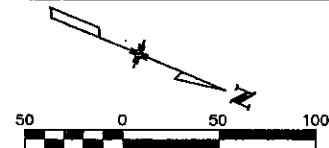
NOTES

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LEGEND

- SOIL RETENTION BLANKET (PLASTIC)
- BERM

CALL UTILITY NOTIFICATION CENTER OF COLORADO
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RAMP E STA. 106+00.00 30.00' RT
GRADE TO EXISTING DITCH
CONNECT TO EXISTING 4" DIA.
UNDERDRAIN STUB
(SEE NOTE 5)

RAMP E STA. 106+00.00 48.00' LT
GRADE TO EXISTING DITCH
(SEE NOTE 5)

PT	STATION	OFFSET	ELEVATION
(A)	RAMP E 108+67.24	OFFSET 139.25'RT	6878.00
(B)	RAMP E 109+12.43	OFFSET 133.16'RT	6877.98
(C)	RAMP E 110+25.92	OFFSET 109.03'RT	6875.99
(D)	RAMP E 111+00.69	OFFSET 96.37'RT	6875.00
(E)	RAMP E 111+50.60	OFFSET 87.24'RT	6875.00
(F)	RAMP E 112+00.56	OFFSET 79.68'RT	6875.00
(G)	RAMP E 112+50.57	OFFSET 72.18'RT	6875.00
(H)	RAMP E 113+00.57	OFFSET 64.69'RT	6875.00
(I)	RAMP E 113+51.15	OFFSET 57.57'RT	6875.00
(J)	RAMP E 113+62.71	OFFSET 41.07'RT	6875.00
(K)	RAMP E 114+01.42	OFFSET 40.34'RT	6875.00
(L)	RAMP E 114+14.47	OFFSET 18.32'RT	6875.00

PT	STATION	OFFSET	ELEVATION
(1)	RAMP E 109+10.95	OFFSET 146.32'RT	6876.00
(2)	RAMP E 110+50.00	OFFSET 116.94'RT	6873.58
(3)	RAMP E 110+83.75	OFFSET 112.41'RT	6873.00
(4)	RAMP E 111+50.00	OFFSET 106.80'RT	6871.80
(5)	RAMP E 112+00.00	OFFSET 101.94'RT	6870.92
(6)	RAMP E 112+52.12	OFFSET 96.76'RT	6870.00
(7)	RAMP E 112+99.87	OFFSET 92.25'RT	6869.16
(8)	RAMP E 113+49.66	OFFSET 87.83'RT	6868.00
(9)	RAMP E 113+99.60	OFFSET 68.51'RT	6867.50
(10)	RAMP E 114+30.72	OFFSET 55.38'RT	6870.00

U6
BEGIN TYPICAL UNDERDRAIN
RAMP E STA. 110+00.00 30.00' RT
(SEE UNDERDRAIN DETAIL)
REQ'D 400.00LF OF 4" DIAMETER
PERFORATED PIPE UNDERDRAIN W/271.6CY
FILTER MATERIAL (CLASS A) AND 1404.45Y
GEOTEXTILE (EROSION CONTROL) (CLASS A)

CONSTRUCT 4' DITCH
(BOTTOM WIDTH)

CONSTRUCT BERM
(10' TOP WIDTH
SEE GRADING PLAN)
MIN BERM EL=6875.00

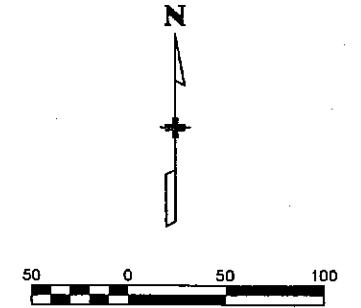
CONSTRUCT 4' DITCH
(BOTTOM WIDTH)

MATCHLINE
STA 114+00
SHEET 2 OF 12

Computer File Information		Index of Revisions		 Region 2	URS 9960 Federal Drive, Suite 300 Colorado Springs, CO. 80921 (719) 531-0001 Fax (719) 531-0007 MSA	As Constructed		POWERS/SH 83 RAMP E DRAINAGE PLAN		Project No./Code																													
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Sheet Subset:	DRAINAGE																																						
Subset Sheets:	10 of 12																																						
Last Modification Date:	10/22/03	Initials:	JJM																																				
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Drawing File Name:	shdr-plan																																						
Acad. Ver.	LDD3	Scale:	AS SHOWN	Units:	Feet																																		

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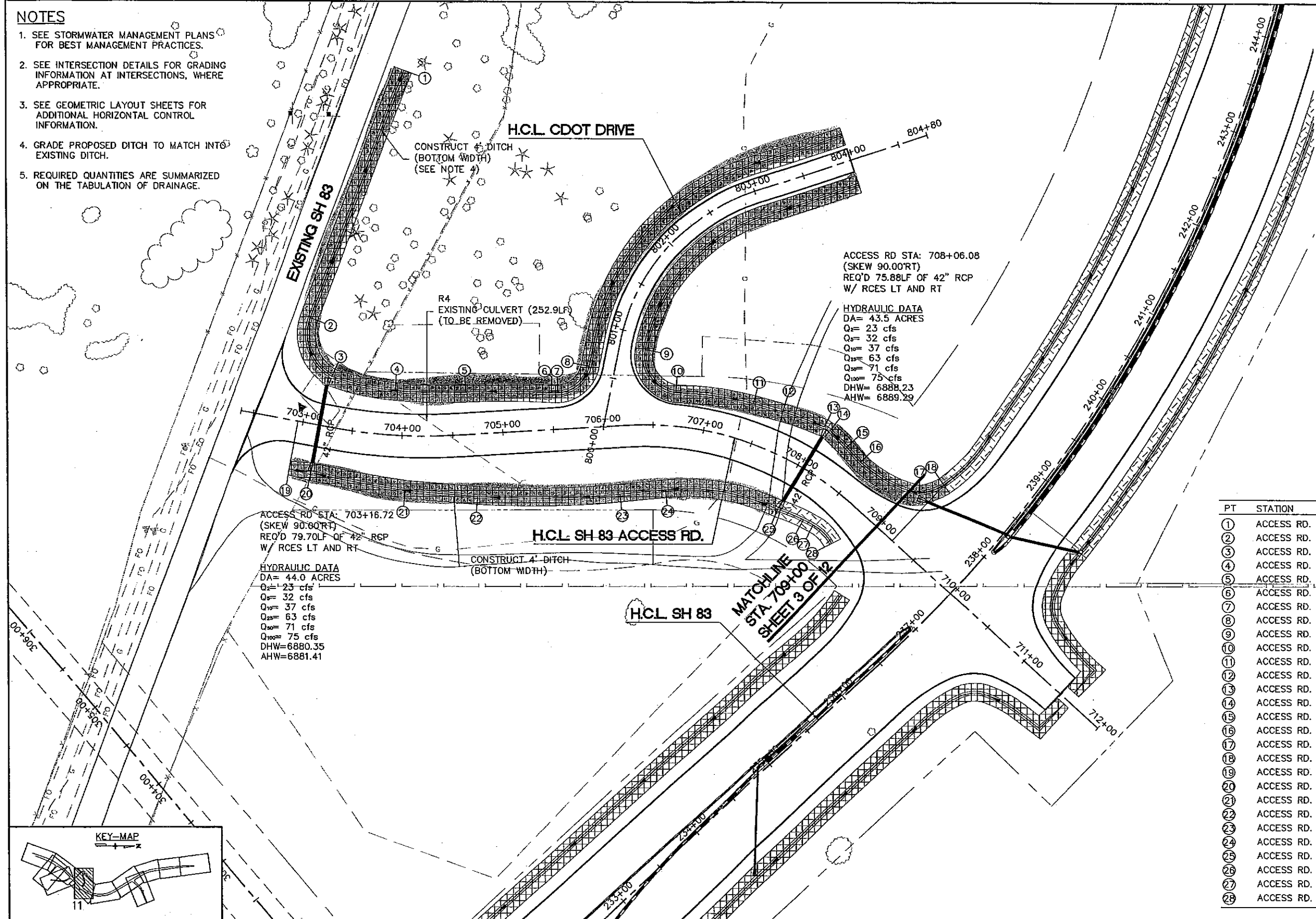
1. SEE STORMWATER MANAGEMENT PLANS FOR BEST MANAGEMENT PRACTICES.
2. SEE INTERSECTION DETAILS FOR GRADING INFORMATION AT INTERSECTIONS, WHERE APPROPRIATE.
3. SEE GEOMETRIC LAYOUT SHEETS FOR ADDITIONAL HORIZONTAL CONTROL INFORMATION.
4. GRADE PROPOSED DITCH TO MATCH INTO EXISTING DITCH.
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CALL UTILITY NOTIFICATION
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LEGEND

	SOIL RETENTION BLANKET (PLASTIC)
	SOIL RETENTION BLANKET (STRAW)



ACCESS RD STA: 703+16.72
(SKEW 90.00RT)
REQ'D 79.70LF OF 42" RCP
W/ RCES LT AND RT

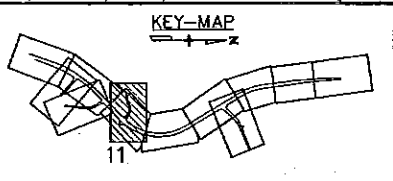
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DA= 44.0 ACRES
Q₂= 23 cfs
Q₅= 32 cfs
Q₁₀= 37 cfs
Q₂₅= 63 cfs
Q₅₀= 71 cfs
Q₁₀₀= 75 cfs
DHW= 6880.35
AHW= 6881.41

ACCESS RD STA: 708+06.08
(SKEW 90.00RT)
REQ'D 75.88LF OF 42" RCP
W/ RCES LT AND RT

HYDRAULIC DATA
DA= 43.5 ACRES
Q₂= 23 cfs
Q₅= 32 cfs
Q₁₀= 37 cfs
Q₂₅= 63 cfs
Q₅₀= 71 cfs
Q₁₀₀= 75 cfs
DHW= 6888.23
AHW= 6889.29

DITCH P.I'S

PT	STATION	OFFSET	ELEVATION
1	ACCESS RD. 703+57.93	OFFSET 365.86'LT	6873.37±
2	ACCESS RD. 702+88.54	OFFSET 105.23'LT	6874.86
3	ACCESS RD. 703+19.97	OFFSET 50.90'LT	6875.19
4	ACCESS RD. 703+90.80	OFFSET 45.27'LT	6878.97
5	ACCESS RD. 704+65.60	OFFSET 42.94'LT	6882.82
6	ACCESS RD. 705+50.22	OFFSET 37.37'LT	6887.09
7	ACCESS RD. 705+56.69	OFFSET 36.80'LT	6887.28
8	ACCESS RD. 705+89.70	OFFSET 62.00'LT	6888.70
9	ACCESS RD. 706+42.58	OFFSET 76.05'LT	6890.35
10	ACCESS RD. 706+69.56	OFFSET 33.87'LT	6888.58
11	ACCESS RD. 707+39.28	OFFSET 39.06'LT	6886.00
12	ACCESS RD. 707+65.12	OFFSET 41.65'LT	6885.00
13	ACCESS RD. 708+03.27	OFFSET 46.64'LT	6883.54
14	ACCESS RD. 708+09.03	OFFSET 46.39'LT	6883.54
15	ACCESS RD. 708+29.21	OFFSET 41.79'LT	6884.84
16	ACCESS RD. 708+46.85	OFFSET 38.18'LT	6886.00
17	ACCESS RD. 709+08.46	OFFSET 53.69'LT	6887.60
18	ACCESS RD. 709+21.18	OFFSET 76.89'LT	6889.26
19	ACCESS RD. 702+94.80	OFFSET 49.20'RT	6876.00
20	ACCESS RD. 703+16.72	OFFSET 48.80'RT	6875.66
21	ACCESS RD. 704+04.69	OFFSET 55.27'RT	6877.00
22	ACCESS RD. 704+70.62	OFFSET 63.09'RT	6878.00
23	ACCESS RD. 706+12.33	OFFSET 68.87'RT	6880.18
24	ACCESS RD. 706+76.25	OFFSET 64.78'RT	6880.99
25	ACCESS RD. 708+06.08	OFFSET 48.86'RT	6883.08
26	ACCESS RD. 708+37.66	OFFSET 43.50'RT	6884.63
27	ACCESS RD. 708+50.19	OFFSET 41.53'RT	6885.14
28	ACCESS RD. 708+78.96	OFFSET 43.15'RT	6886.00



Computer File Information

Creation Date:	2/26/03	Initials:	JJM
Last Modification Date:	10/22/03	Initials:	JJM
Full Path:	\\21710831\CAD\Planshts\Drainage		
Drawing File Name:	shdr-plan		
Acad. Ver.	LDD2	Scale:	AS SHOWN
Units:	Feet		

Index of Revisions

Rev	Description

As Constructed

No Revisions:	
Revised:	
Void:	

**POWERS/SH 83
SH 83 ACCESS ROAD
DRAINAGE PLAN**

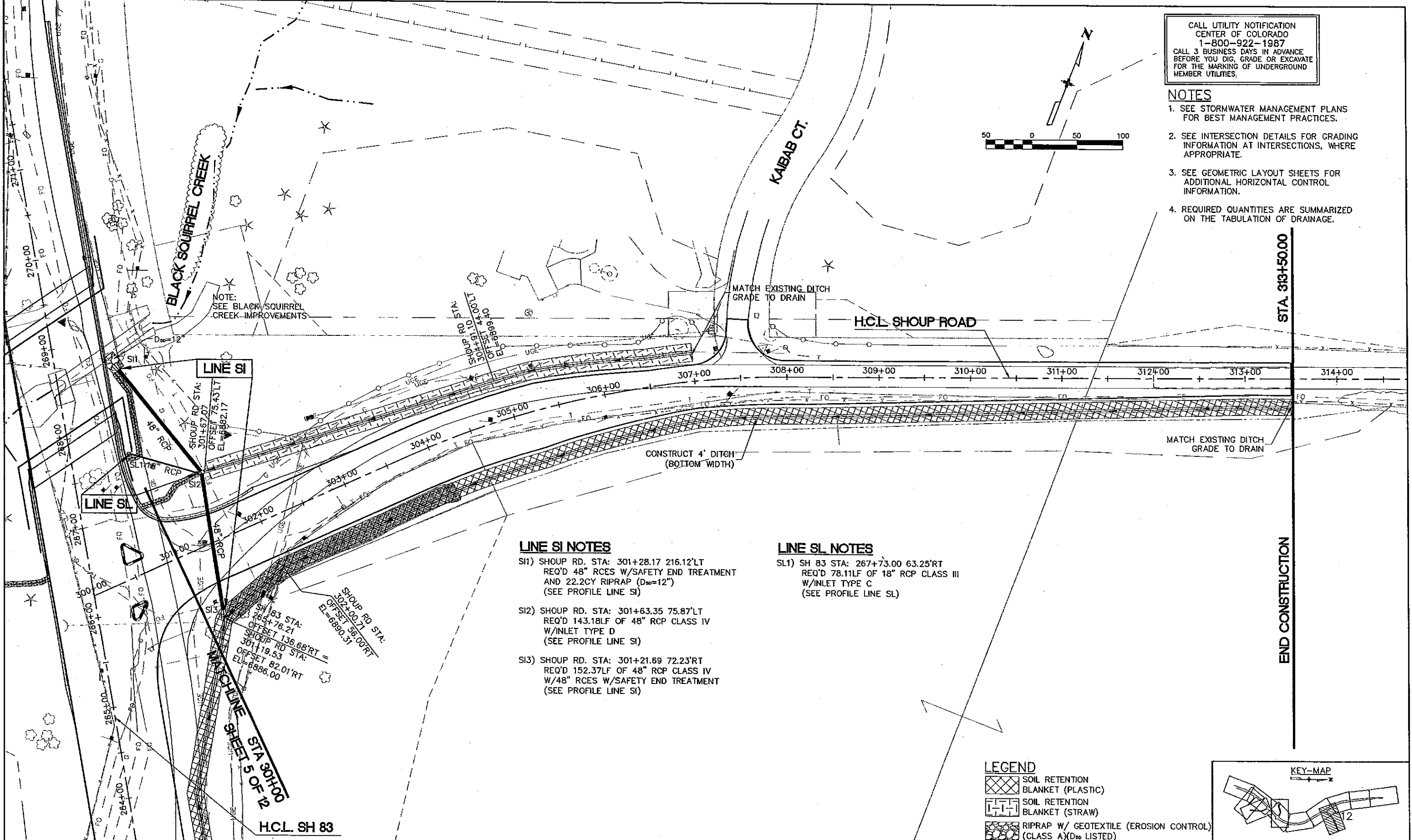
Designer:	EDE	Structure Numbers:	
Detailer:	JJM		
SheetSubSet:	DRAINAGE	SubSet Sheets:	11 of 12

Project No./Code

STU M240-081
14464
Sheet Number 262

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 FOR THE MARKING OF UNDERGROUND
 MEMBER UTILITIES.

- NOTES**
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 - SEE INTERSECTION DETAILS FOR GRADING INFORMATION AT INTERSECTIONS, WHERE APPROPRIATE.
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LINE SI NOTES

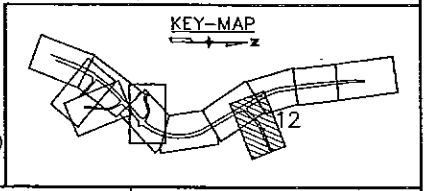
- SI1) SHOUP RD. STA: 301+28.17 216.12'LT
 REQ'D 48" RCES W/SAFETY END TREATMENT
 AND 22.2CY RIPRAP (D_{max}=12")
 (SEE PROFILE LINE SI)
- SI2) SHOUP RD. STA: 301+63.35 75.87'LT
 REQ'D 143.18LF OF 48" RCP CLASS IV
 W/INLET TYPE D
 (SEE PROFILE LINE SI)
- SI3) SHOUP RD. STA: 301+21.69 72.23'RT
 REQ'D 152.37LF OF 48" RCP CLASS IV
 W/48" RCES W/SAFETY END TREATMENT
 (SEE PROFILE LINE SI)

LINE SL NOTES

- SL1) SH 83 STA: 267+73.00 63.25'RT
 REQ'D 78.11LF OF 18" RCP CLASS III
 W/INLET TYPE C
 (SEE PROFILE LINE SL)

LEGEND

- [Cross-hatched symbol] SOIL RETENTION BLANKET (PLASTIC)
- [Dashed symbol] SOIL RETENTION BLANKET (STRAW)
- [Stippled symbol] RIPRAP W/ GEOTEXTILE (EROSION CONTROL) (CLASS A)(D_{max} LISTED)



Computer File Information

Creation Date:	2/26/03	Initials:	JJM
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Full Path:	\\21710831\CAD\Planshts\Drainage		
Drawing File Name:	shdr-plan		
Acad. Ver.	LDD3	Scale:	AS SHOWN
		Units:	Feet

Index of Revisions

(R-)		
(R-)		
(R-)		
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No Revisions:	
Revised:	
Void:	

**POWERS/SH 83
 SHOUP ROAD
 DRAINAGE PLAN**

Designer:	EDE	Structure	
Detailer:	JJM	Numbers	
Sheet/Subset:	DRAINAGE	Subset Sheets:	12 of 12

Project No./Code

STU M240-081
14464
Sheet Number 263