

INSTALL 48" DROP MANHOLE #3  
 STA. 3+75.86  
 N=627907.87  
 E=1201568.88  
 RIM ELEV.=3767.80  
 INV. IN (W)=3752.15  
 INV. IN (N 8")=3752.15  
 INV. IN (N 8" DROP)=3760.04  
 INV. OUT (SE)=3752.00

ANODE SCHEDULE			
STATION & OFFSET	NUMBER	SIZE OF BAG	FITTING
2+08.00-C	6-17#		END OF CASING
3+70.00-C	6-17#		END OF CASING
2+08.00-C			TEST STATION
			END OF CASING


ALL ANODES SHALL BE ZINC

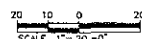
INSTALL 48" STANDARD MH #4  
 STA. 6+34.44  
 N=627,701.64  
 E=1,201,724.73  
 RIM=3771.77  
 INV. IN (NW)=3750.79  
 INV. CUT (E)=3750.69

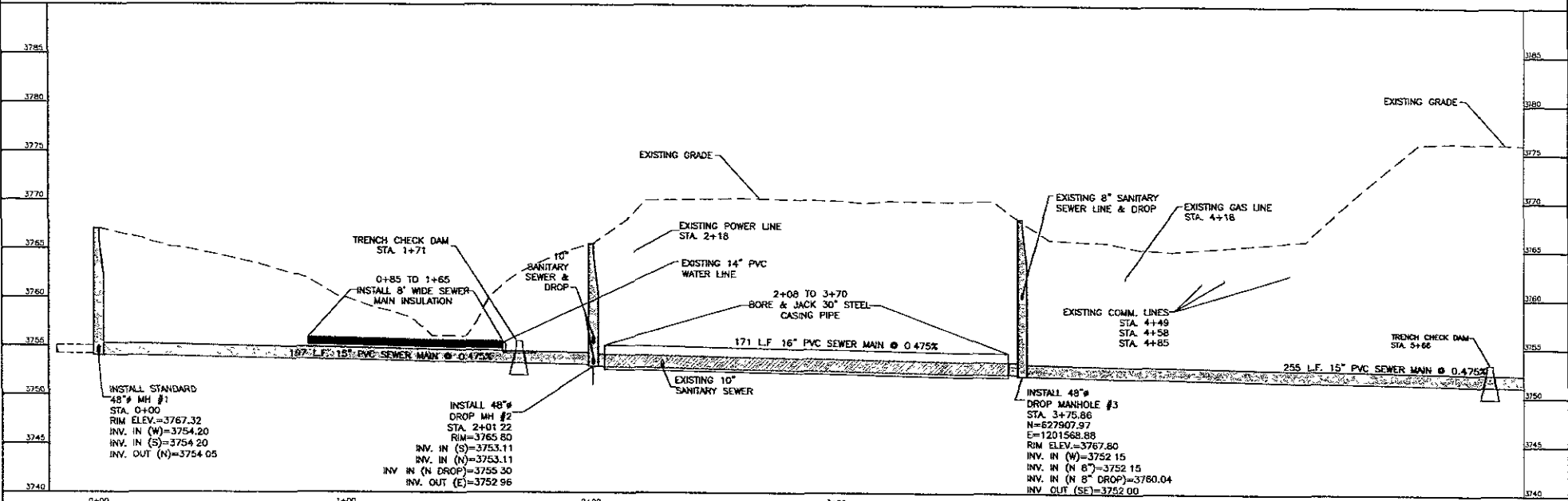
INSTALL 60" DROP MH #5  
 STA. 8+51.94  
 N=627,698.62  
 E=1,201,741.97  
 RIM=3772.06  
 INV. IN (W)=3750.63  
 INV. IN (S 10")=3750.63  
 INV. IN (S DROP-10")=3763.03  
 INV. OUT (E)=3750.48

SDDOT TEMPORARY EASEMENT (TYP)

<p>Designed By: DCW                  Check Date: 1/10/09                  Internal Job No.: 03090704                  Submitted By: STC/DJF                  Date: 11/20/06 17:54</p>	<p>Drawn By: DEIS                  Plot Date: 12/02/09                  Survey Date:</p>	<p>PROJECT: CATRON BOULEVARD RECONSTRUCTION                  UTILITY RELOCATION AND MODIFICATION</p>	<p>Sheet Title: SEWER PLAN                  STA 0+00 to 5+00</p>	<p>Sheet: 8 of 46</p>
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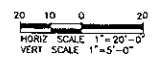
<p>Prepared By: TSP Inc.                  600 Kansas City St.                  Round City, MO 67571                  phone: (805) 343-6102                  fax: (805) 343-7159                  www.tspinc.com</p>	<p>Prepared For: Public Works Department                    Engineering Services</p>	<p>Scale: 1" = 20' - 0"</p>
---	--	-----------------------------





SEWER DEPTH TABULATION


12'-14' DEEP			6'-8' DEEP			16'-18' DEEP		
FROM	TO	LENGTH	FROM	TO	LENGTH	FROM	TO	LENGTH
0+00	0+18	18'	0+87	1+05	18'	4+97	5+06	9'
1+95	2+08	13'	1+57	1+64	7'	18'-20' DEEP		
3+96	4+70	74'	0'-6' DEEP			FROM	TO	LENGTH
10'-12' DEEP			FROM	TO	LENGTH	5+06	5+15	9'
0+18	0+59	41'	1+05	1+57	52'	20'-22' DEEP		
1+76	1+95	19'	14'-16' DEEP			FROM	TO	LENGTH
8'-10' DEEP			FROM	TO	LENGTH	5+15	5+24	9'
0+59	0+87	28'	3+70	3+96	26'			
1+64	1+76	12'	4+70	4+97	27'			



Prepared By: **TSP Inc.**  
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 Engineering Services

Scale: **AS SHOWN**

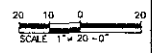
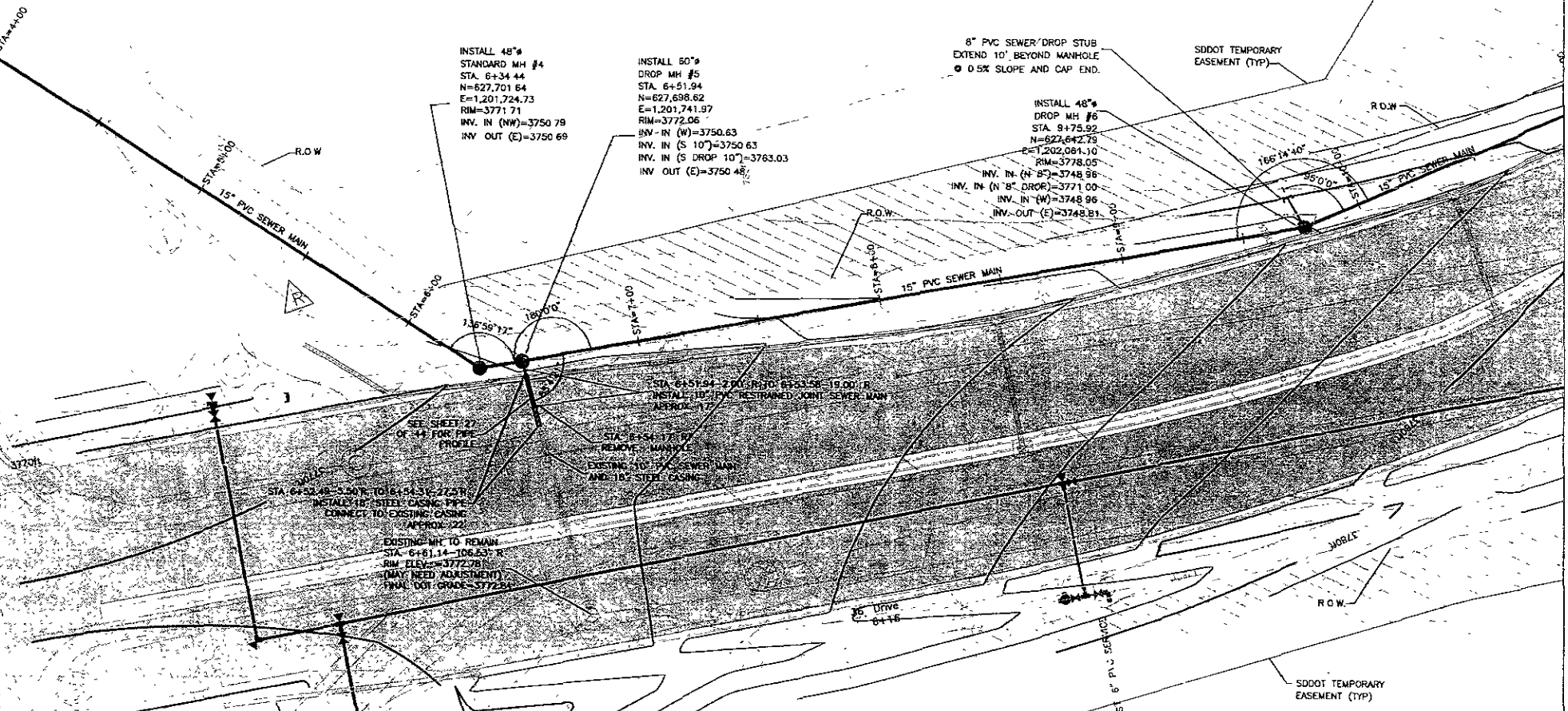
Designed By: <b>DCW</b>	Drawn By: <b>CHS</b>
Design Date: <b>11/8/09</b>	Plot Date: <b>12/22/09</b>
Internal Job No: <b>05090704</b>	Survey Date:
Surveyed By: <b>SD014</b>	
SD001 Project No: <b>NH 2014(17) SA</b>	

**CATRON BOULEVARD RECONSTRUCTION  
 UTILITY RELOCATION AND MODIFICATION**

Sheet Title: **SEWER PROFILE**  
 STA 0+00 to 5+00

Sheet: **9**  
 of **46**

SSW69-1010



Prepared By:



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Prepared For:



**Public Works Department**  
 Engineering Services

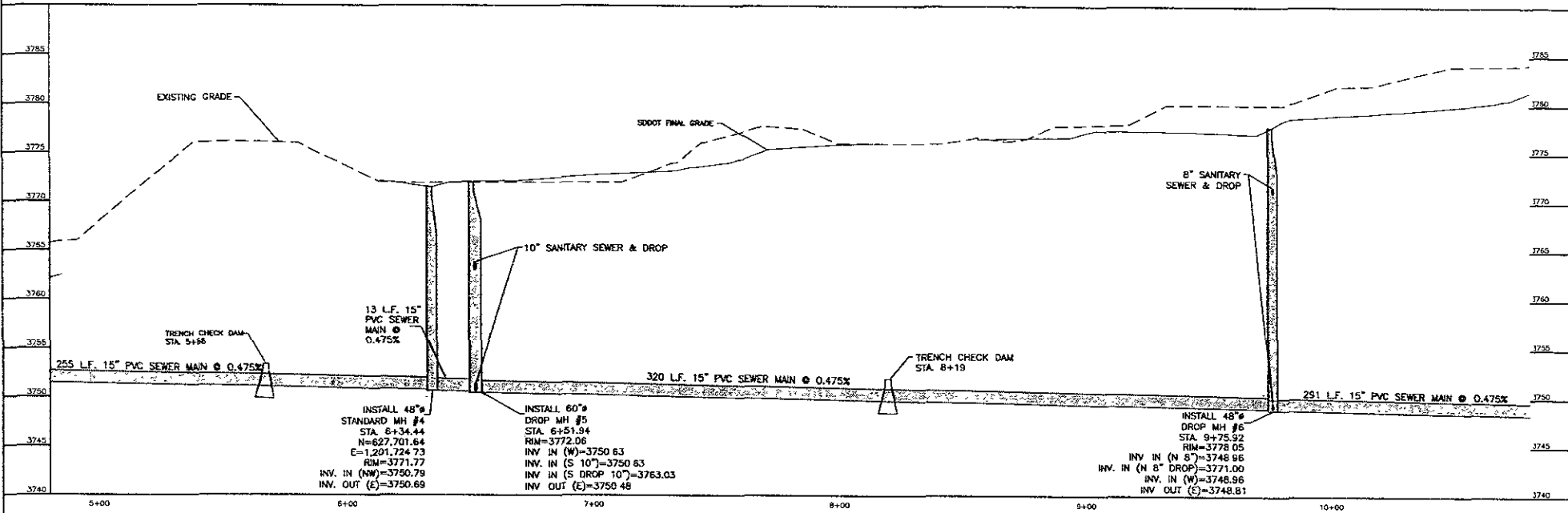
Scale: AS SHOWN

Designed By DCW	Checked By DWS
Design Date 1/10/09	Print Date 12/02/09
Internal Job No. 05990704	Survey Date
Reviewed By SDDOT	
SDDOT Project No. 14112010417154	

**CATRON BOULEVARD RECONSTRUCTION  
 UTILITY RELOCATION AND MODIFICATION**

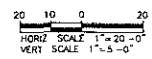
SDDOT Temporary Easement (TYP)

Sheet Title	Sheet No.
SEWER PLAN	10
STA 5+00 to 10+00	of
	46




**SEWER DEPTH TABULATION**

22'-24' DEEP			24'-26' DEEP		
FROM	TO	LENGTH	FROM	TO	LENGTH
5+24	6+06	82'	7+55	7+95	40'
7+94	8+83	89'			
6+81	7+55	74'	26'-28' DEEP		
			FROM	TO	LENGTH
20'-22' DEEP			7+95	9+03	108'
FROM	TO	LENGTH			
6+06	6+81	75'	28'-30' DEEP		
			FROM	TO	LENGTH
			9+03	9+91	88'



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Prepared For: Public Works Department  
  
Engineering Services

Title: AS SHOWN  
Designed By: DCW  
Design Date: 11/09  
Issued Job No: 03090706  
Checked By: SUCOT  
SUCOT Project No: 101-20156171-04

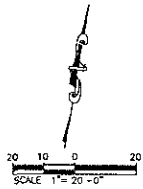
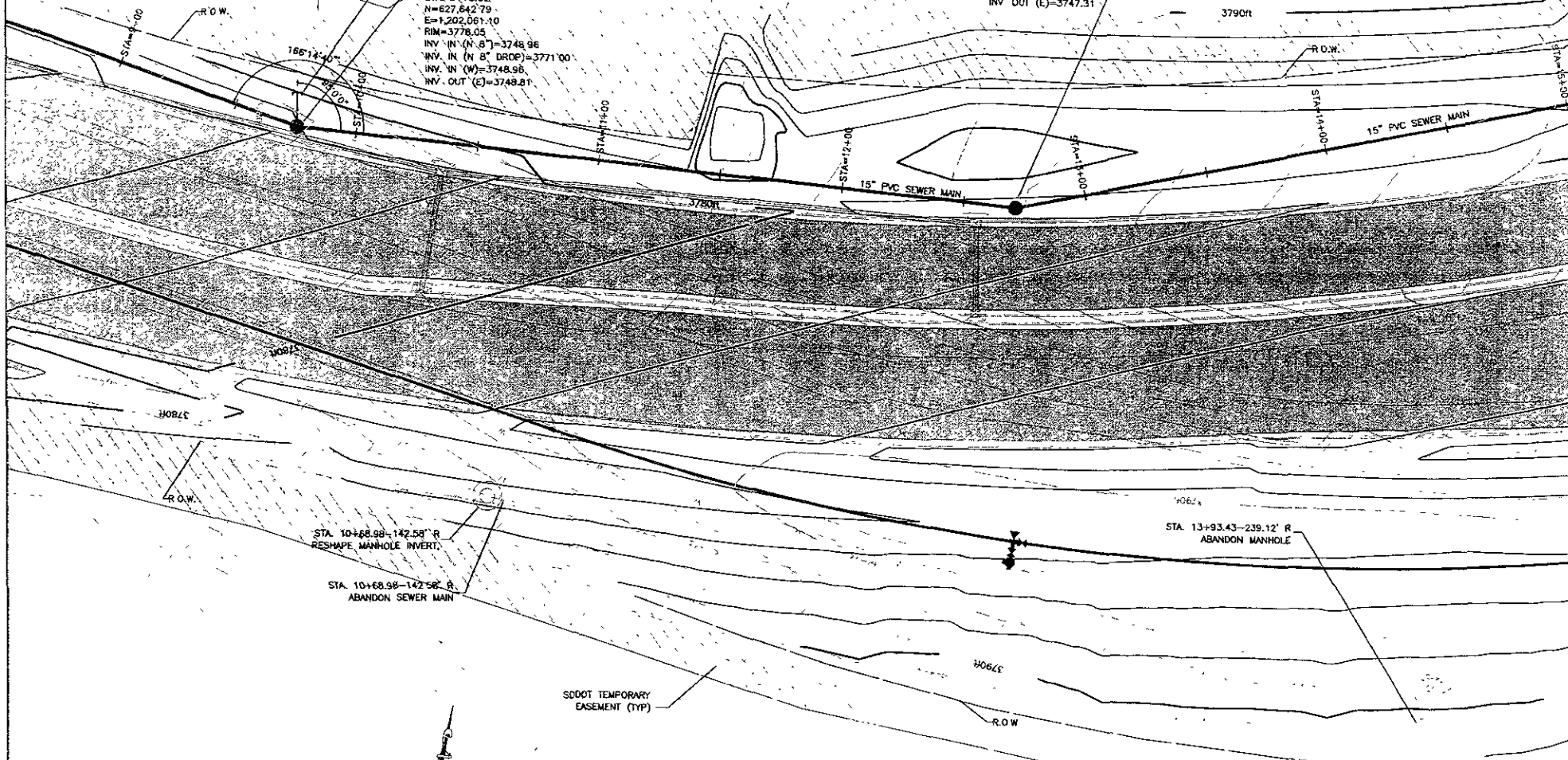
Drawn By: DNS  
Proj. Date: 12/03/09  
Survey Date:  
Sheet Title: CATRON BOULEVARD RECONSTRUCTION  
UTILITY RELOCATION AND MODIFICATION  
Sheet No: 11 of 48  
Sewer Profile: STA 5+00 to 10+00



SDDOT TEMPORARY EASEMENT (TYP)

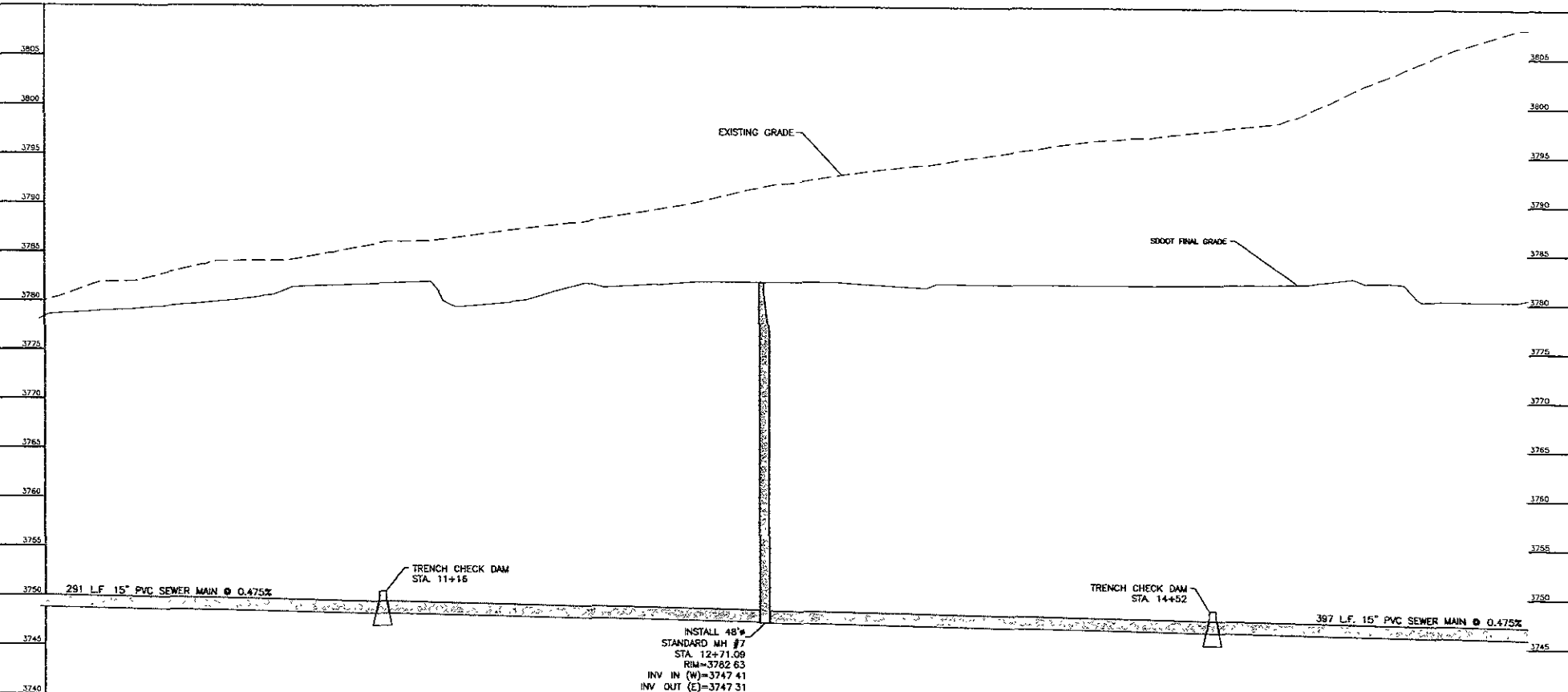
8" PVC SEWER DROP STUB EXTEND 10' BEYOND MANHOLE AND CAP END

INSTALL 48" DROP MH #6  
 STA. 9+75.92  
 N=627,842.79  
 E=1,202,061.10  
 RIM=3778.05  
 INV. IN (N 8")=3748.98  
 INV. IN (N 8" DROP)=3771.00  
 INV. IN (W)=3748.98  
 INV. OUT (E)=3748.81

INSTALL 48" STANDARD MH #7  
 STA. 12+71.09  
 N=627,882.51  
 E=1,202,356.61  
 RIM=3782.63  
 INV. IN (W)=3747.41  
 INV. OUT (E)=3747.31



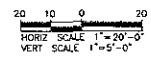
Prepared By:  TSP Inc. 600 Kansas City St. Rapid City, SD 57701 phone: (605) 343-6102 fax: (605) 343-7159 www.teamtsp.com	Prepared For: Public Works Department  Engineering Services	Scale: AS SHOWN		Sheet Title: CATRON BOULEVARD RECONSTRUCTION UTILITY RELOCATION AND MODIFICATION	Sheet No: 12 of 46
		Designed By: DCW 11/09 Design Date: 03/07/04 Estimated By: SDDOT	Drawn By: DNE 10/02/09 Plot Date: 03/07/04 Survey Date: 03/07/04		



INSTALL 48" STANDARD MH #7  
 STA. 12+71.09  
 RIM=3782.63  
 INV. IN (W)=3747.41  
 INV. OUT (E)=3747.31

SEWER DEPTH TABULATION

30'-32' DEEP			34'-36' DEEP		
FROM	TO	LENGTH	FROM	TO	LENGTH
9+91	10+67	76'	12+22	18+13	391'
32'-34' DEEP					
FROM	TO	LENGTH			
10+67	12+22	155'			



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Prepared For: **Public Works Department**

Engineering Services

Scale: AS SHOWN

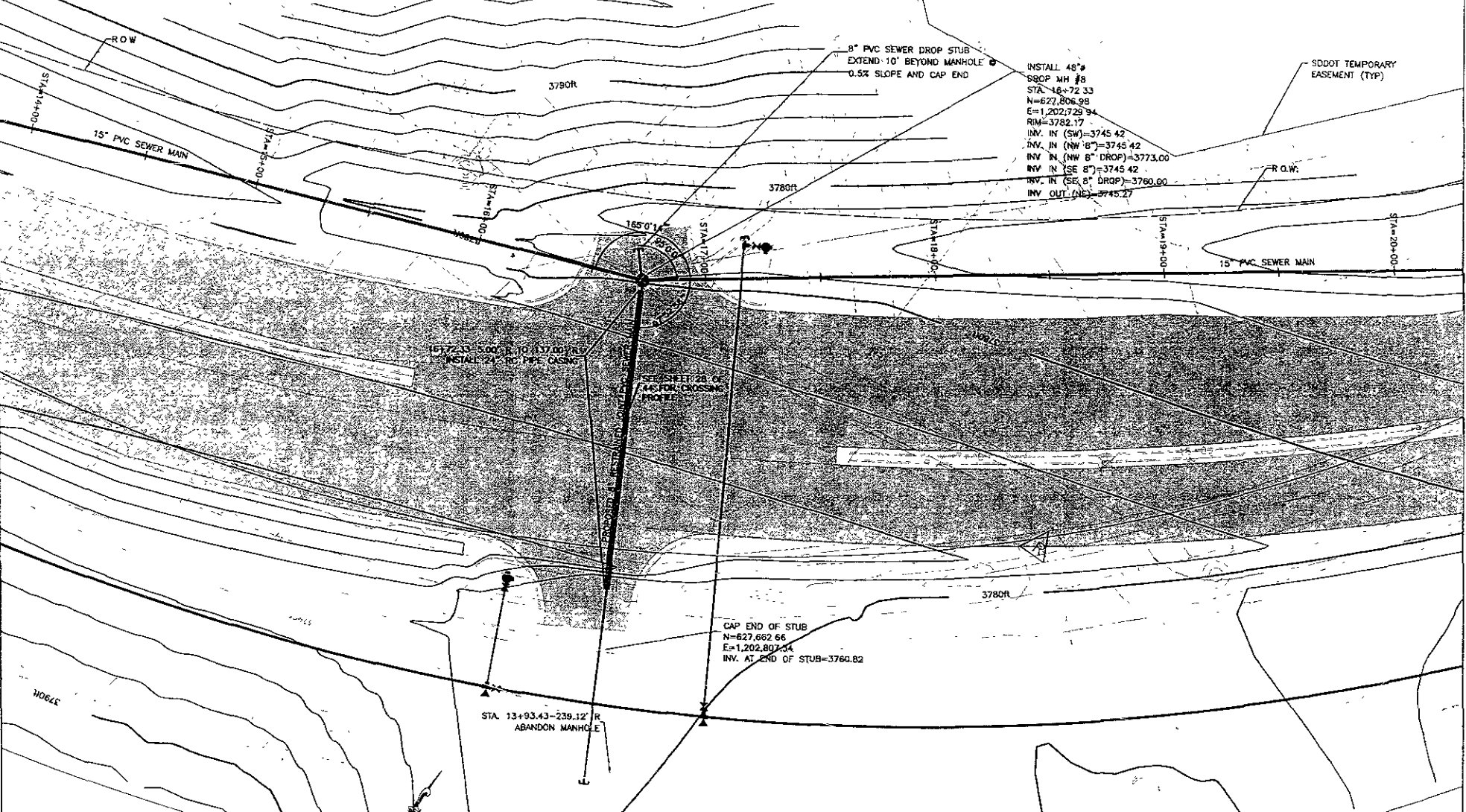
Designed By: DCW	Drawn By: EAS
Design Date: 11/09	Print Date: 12/22/09
Internal Job No: 030807234	Survey Date:
Checked By: SDDGT	
SDDGT Project No: N/A 2016 (17) 04	

**CATRON BOULEVARD RECONSTRUCTION  
 UTILITY RELOCATION AND MODIFICATION**

Sheet Title: **SEWER PROFILE**  
 STA 10+00 to 15+00

SSWB9-1919

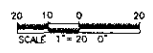
Sheet No: **13**  
 of **46**





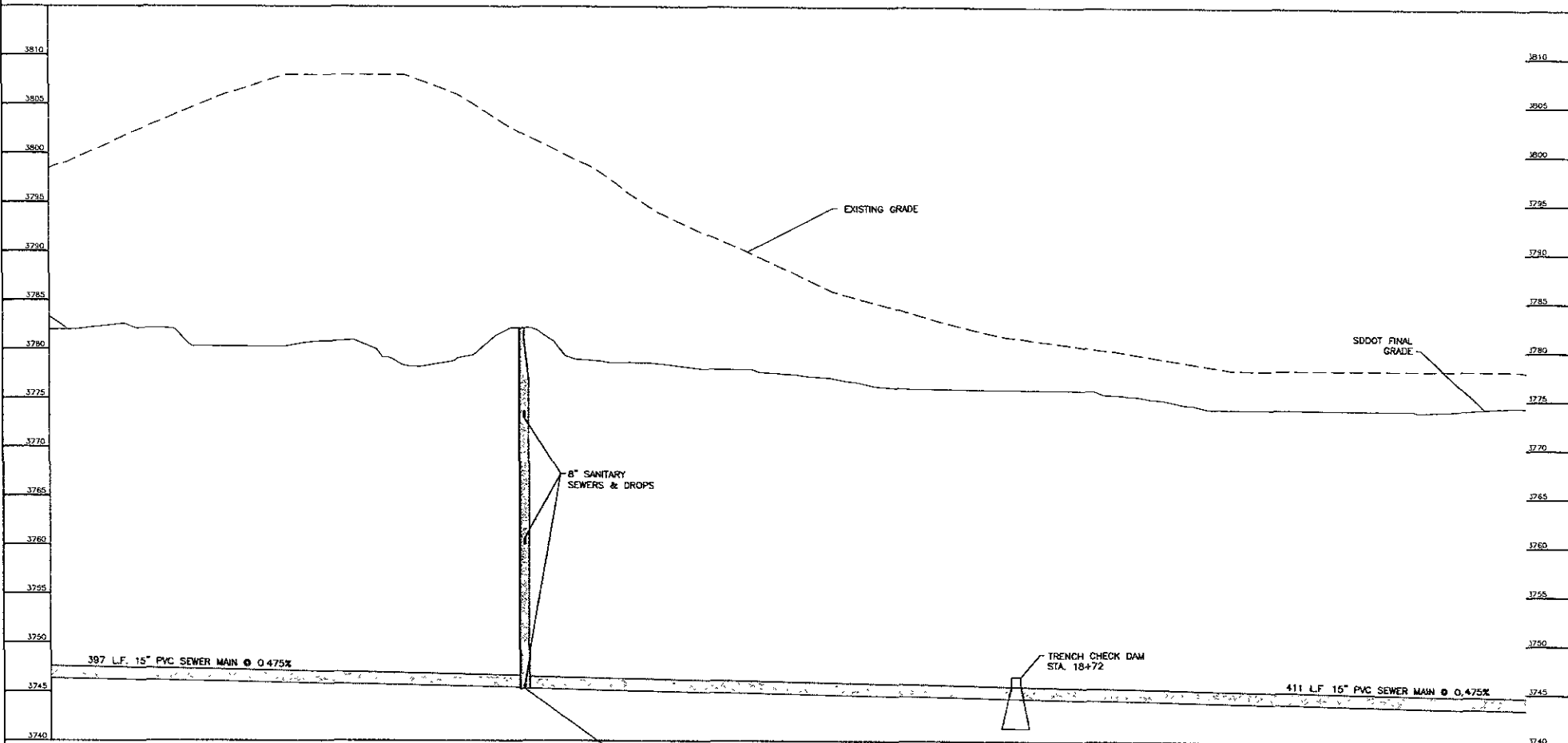
INSTALL 48" SBOP MH #8  
 STA 14+72.33  
 N=627,806.98  
 E=1,202,729.34  
 RIM=3782.17  
 INV. IN (SW)=3745.42  
 INV. IN (NW "B")=3745.42  
 INV. IN (NW "B" DROP)=3773.00  
 INV. IN (SE "B")=3745.42  
 INV. IN (SE "B" DROP)=3760.00  
 INV. OUT (NE)=3745.27

CAP END OF STUB  
 N=627,692.66  
 E=1,202,807.44  
 INV. AT END OF STUB=3760.82

STA. 13+93.43-239.12' R  
 ABANDON MANHOLE



Prepared By  TSP, Inc. 600 Kansas City St. Rapid City, SD 57701 phone (605) 343-6102 fax (605) 343-7159 www.teamsp.com	Prepared For Public Works Department  Engineering Services	Scale AS SHOWN	Drawn By DCM Check Date 1/10/09 Internal Job No. 03090701 Submitted By SDC01 SDC01 Project No. RH 2016(17) 84	Sheet Title CATRON BOULEVARD RECONSTRUCTION UTILITY RELOCATION AND MODIFICATION	Sheet No. STA 15+00 to 20+00 of 46
		Dispatched By DNS Print Date 12/02/09			



**SEWER DEPTH TABULATION**

32'-34" DEEP		LENGTH
FROM	TO	
16+13	18+08	195'
30'-32" DEEP		LENGTH
FROM	TO	
18+08	21+18	311'

INSTALL 48" Ø  
 DROP MH #8  
 STA. 16+72.33  
 RIM=3782.17  
 INV. IN (SW)=3745.42  
 INV. IN (NW 8")=3745.42  
 INV. IN (NW 8" DROP)=3773.00  
 INV. IN (SE 8")=3745.42  
 INV. IN (SE 8" DROP)=3760.00  
 INV. OUT (NE)=3745.27

20 10 0 20  
 HORIZ SCALE 1"=20'-0"  
 VERT SCALE 1"=5'-0"


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Prepared For



Public Works Department  
 Engineering Services

AS SHOWN	
Designed By DCW	Drawn By DNS
Design Date 11/08	Print Date 12/02/09
Internal Job No (200907)ds	Survey Date
Reviewed By SDDOT	
SDDOT Project No. N94 20156(17)64	

**CATRON BOULEVARD RECONSTRUCTION  
 UTILITY RELOCATION AND MODIFICATION**

SSV028-1818

Sheet	Total
15	of 46

SEWER PROFILE  
 STA 15+00 to 20+00



8" PVC SEWER DROP STUB, EXTEND 10'  
BEYOND MANHOLE @ 0.5% SLOPE AND CAP  
END

INSTALL 48"Ø  
STANDARD MH #9  
STA. 20+86.99  
N=628,051.30  
E=1,203,084.98  
RIM=3774.76  
INV. IN (SW)=3743.32  
INV. OUT (NE)=3743.22

INSTALL 48"Ø  
DROP MH #10  
STA. 24+98.65  
N=628,392.55  
E=1,203,295.21  
RIM=3768.15  
INV. IN (S)=3741.28  
INV. IN (W 8")=3741.28  
INV. IN (W 8" DROP)=3752.00  
INV. OUT (N)=3741.13

SDDOT TEMPORARY  
EASEMENT (TYP)

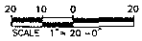
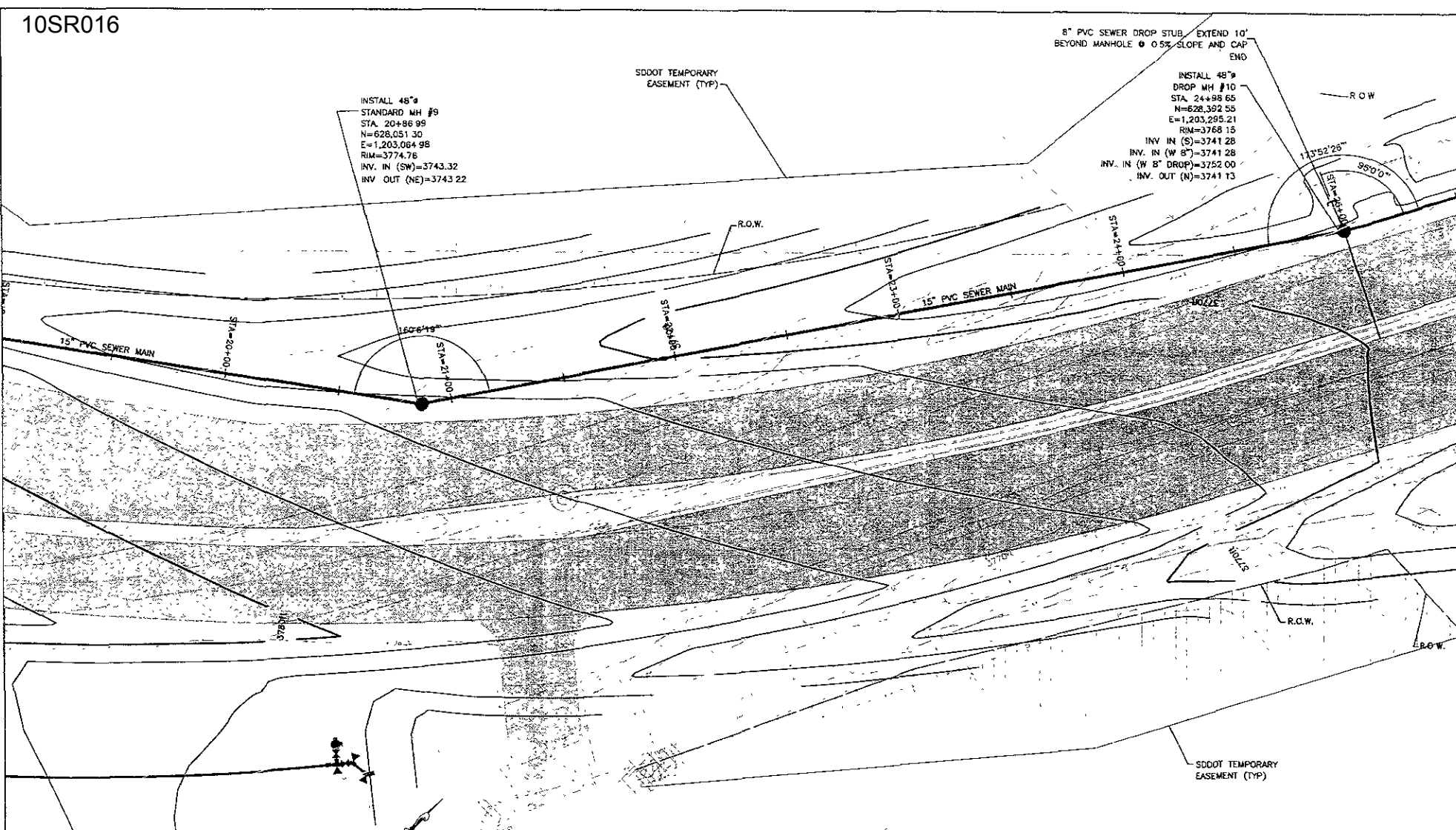
R.O.W.



R.O.W.

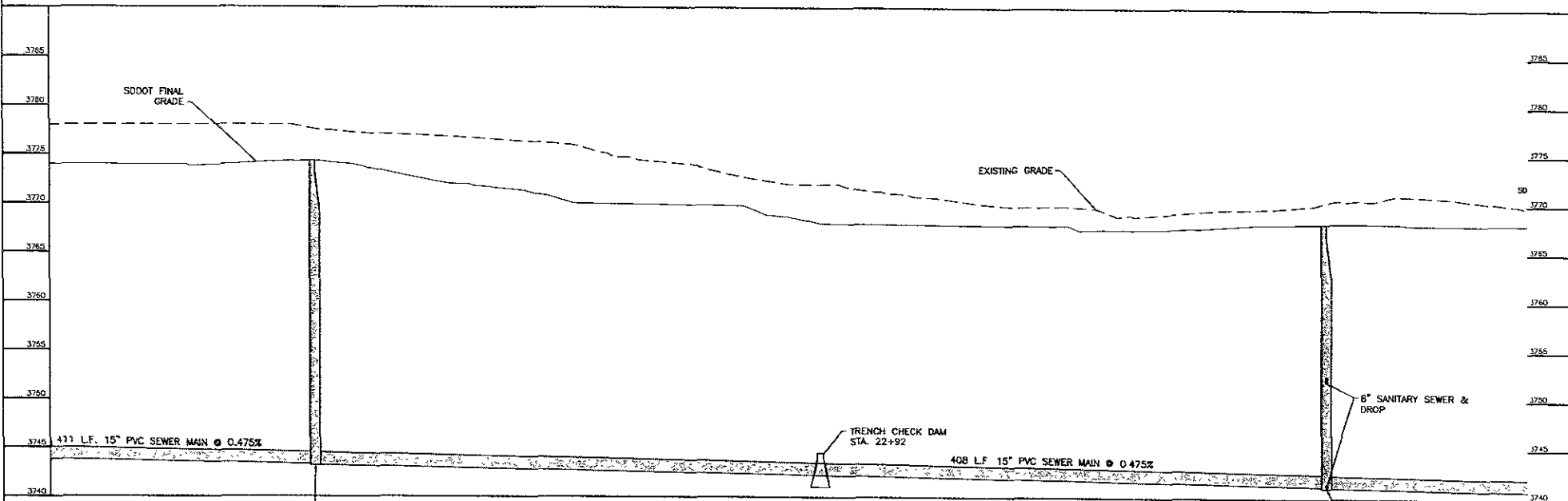
R.O.W.

R.O.W.

SDDOT TEMPORARY  
EASEMENT (TYP)



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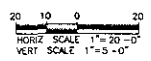


INSTALL 48"Ø  
STANDARD MH #9  
STA. 20+86.55  
RIM=3774.76  
INV IN (SW)=3743.32  
INV OUT (NE)=3743.22

SEWER DEPTH TABULATION

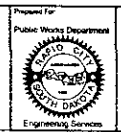
28'-30" DEEP	FROM	TO	LENGTH
	21+19	21+81	62'
26'-28" DEEP	FROM	TO	LENGTH
	21+81	22+87	106'
24'-26" DEEP	FROM	TO	LENGTH
	22+87	27+66	479'

INSTALL 48"Ø  
DROP MH #10  
STA. 24+98.65  
RIM=3768.69  
INV IN (S)=3741.28  
INV IN (W Ø)=3741.28  
INV IN (W Ø" DROP)=3752.00  
INV OUT (N)=3741.13



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Scale:	AS SHOWN
Designed By:	DCW
Drawn By:	EMS
Check Date:	11/05
Print Date:	12/02/09
Internal Job No.:	02006724
Surveyed By:	SDDOT
Survey Date:	
SDDOT Project No.:	NH 2016(17) 54

CATRON BOULEVARD RECONSTRUCTION  
UTILITY RELOCATION AND MODIFICATION

Sheet Title:	SEWER PROFILE	Sheet:	17
Stationing:	STA 20+00 to 25+00	of	46

SDDOT TEMPORARY EASEMENT (TYP)

8" PVC SEWER DROP STUB EXTEND 10' BEYOND MANHOLE @ 0.5% SLOPE AND CAP END

INSTALL 84" STANDARD MH #11  
 STA. 28+24.09  
 N=628,680.22  
 E=1,203,447.39  
 RIM=3764.69  
 INV. IN (W 8")=3739.60  
 INV. IN (W 8" DROP)=3753.00  
 INV. IN (S)=3739.60  
 INV. OUT (E)=3739.45  
 SEE DETAIL SHEET 38 OF 44

8" PVC SEWER DROP STUB EXTEND 10' BEYOND MANHOLE @ 0.5% SLOPE AND CAP END.

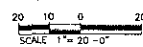
INSTALL 48" DROP MH #10  
 STA. 24+98.65  
 N=628,332.86  
 E=1,203,295.21  
 RIM=3768.15  
 INV. IN (S)=3741.28  
 INV. IN (W 8")=3741.28  
 INV. IN (W 8" DROP)=3752.00  
 INV. IN (W 8" DROP) (N)=3741.13  
 INV. OUT (N)=3741.13

28+30.00 (28+40) EXIST. AND EXIST. STREET CLOSURE

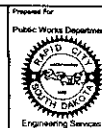
MH 27A

STA. 29+82.18 CONNECT TO EXISTING MANHOLE STUB

ANODE SCHEDULE		
STATION & OFFSET	NUMBER & SIZE OF BAG	FITTING
28+30.00-C	6-17#	END OF CASING
29+48.00-C	8-17#	END OF CASING
28+30.00-C	TEST STATION	END OF CASING
ALL ANODES SHALL BE ZINC		



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 Rapid City, SD 57701  
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 fax: (605) 343-7158  
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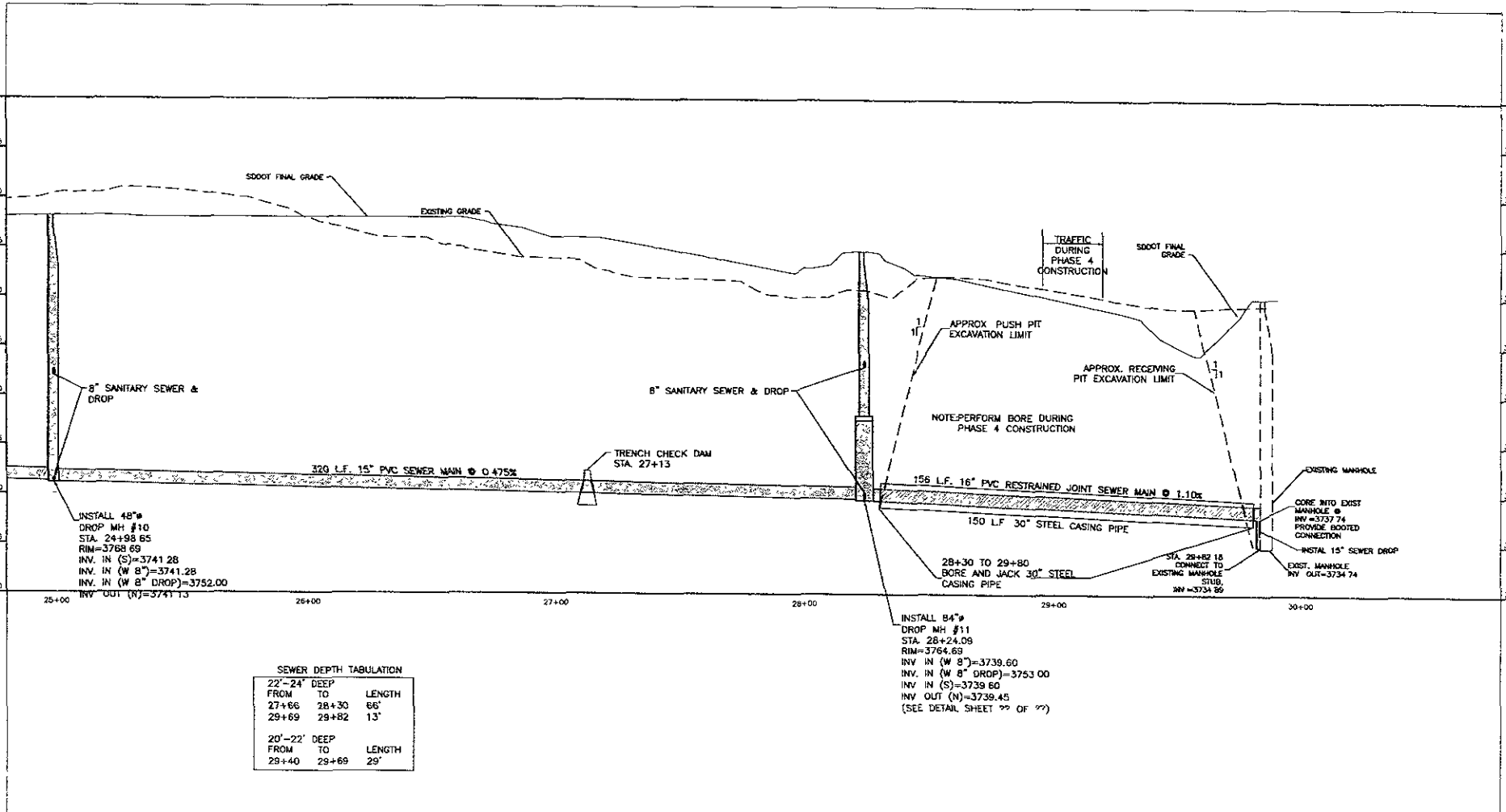


Project For: Public Works Department

Scale: AS SHOWN	
Designed By: JCK	Drawn By: DWS
Check Date: 11/20/09	Plot Date: 12/02/09
Revised Date No: 00590/04	
Surveyed By: SDCOT	Survey Date:
SDDOT Project No: NH 2016(17) B4	

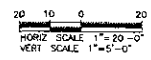
CATRON BOULEVARD RECONSTRUCTION  
 UTILITY RELOCATION AND MODIFICATION

SDW09-1819



SEWER DEPTH TABULATION

22'-24" DEEP	20'-22" DEEP
FROM TO LENGTH	FROM TO LENGTH
27+66 28+30 66'	28+40 29+69 29'
29+69 29+82 13'	



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Prepared For: Public Works Department  

 Engineering Services

Drawn By: DNS  
 Date: 11/09  
 Project No: 12620559  
 Survey Date:

CATRON BOULEVARD RECONSTRUCTION  
 UTILITY RELOCATION AND MODIFICATION

Sheet Title: SEWER PROFILE  
 STA 25+00 to EOP