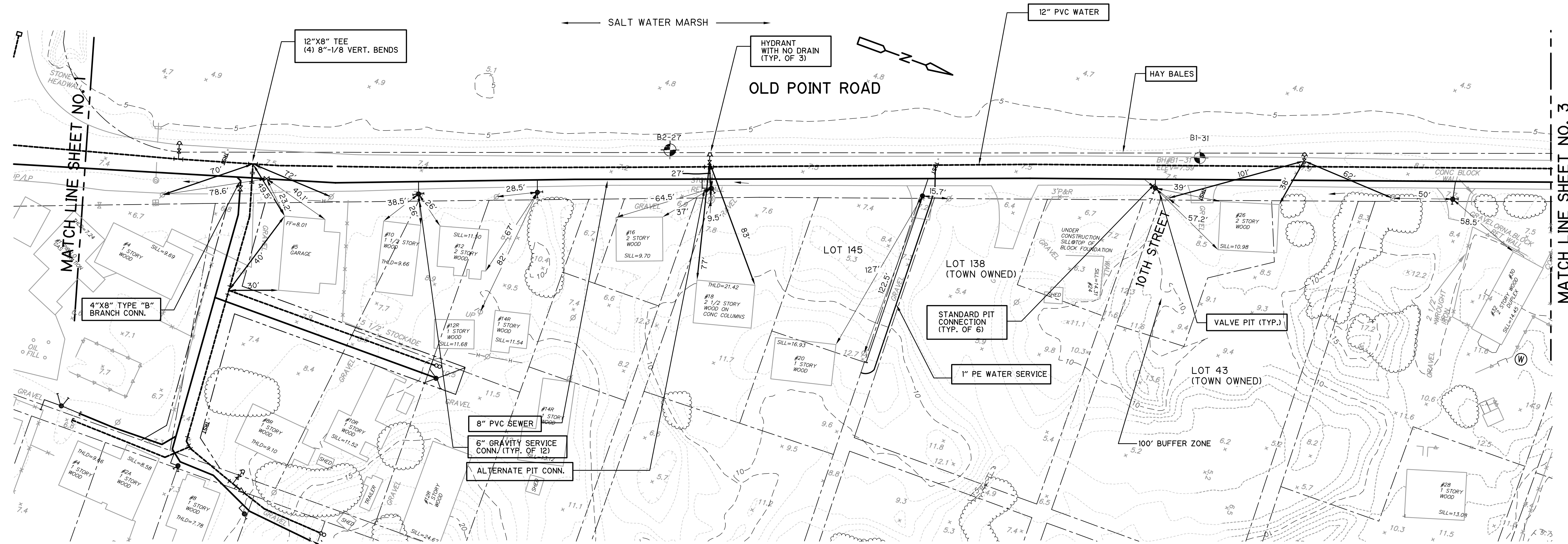


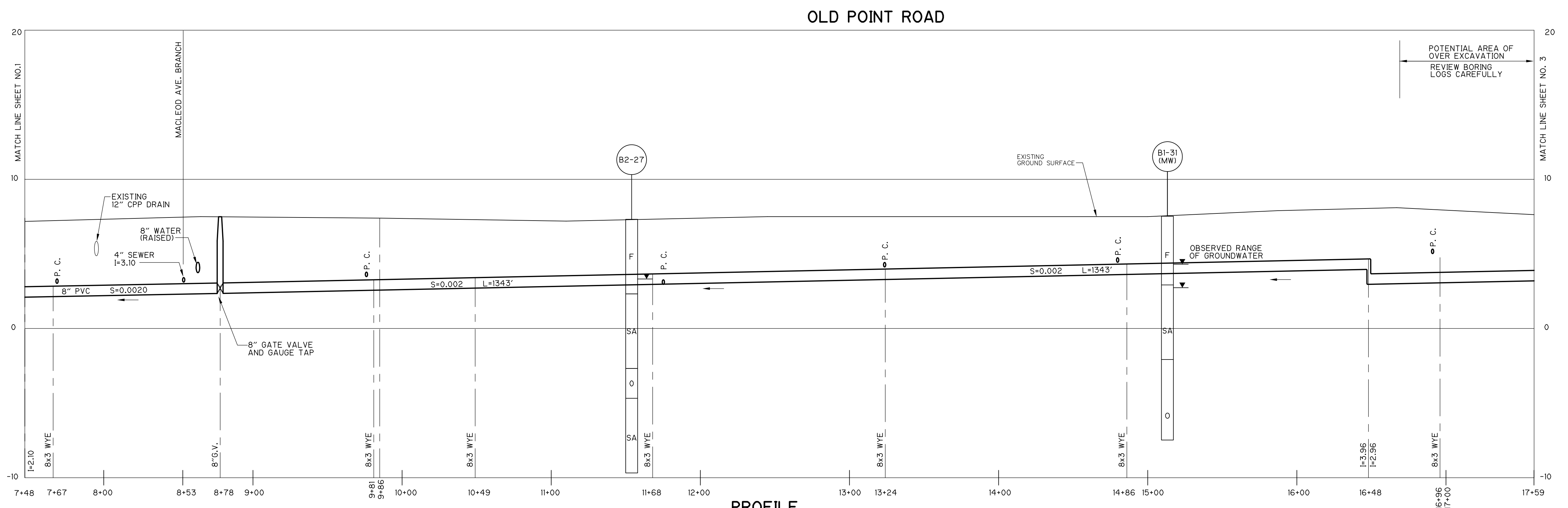


[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] Plotted by: PETRUKHINTM Time: 11/12/2007 3:28:12 PM  
 File name: P:\9451\30964\ASBULL\CONT3\CIVL\CSTPL001.DWG Xref's: [68000000, CBSPL002, LAYOUT, ]



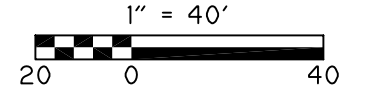
- NOTES:**
- WELL POINT DEWATERING SYSTEM ARE REQUIRED ON OLD POINT ROAD FROM STA. 9+70 TO STA. 11+70/ AND STA. 17+00 TO 17+59.
  - PROVIDE TEMPORARY WATER SERVICE FROM THE INTERSECTION WITH PLUM ISLAND BLVD. TO FINNEGAN WAY INCLUDING 200' INTO SIDE STREETS.

**PLAN**  
SCALE: 1"=40'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

**RECORD DRAWING**



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY:	T. MCGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

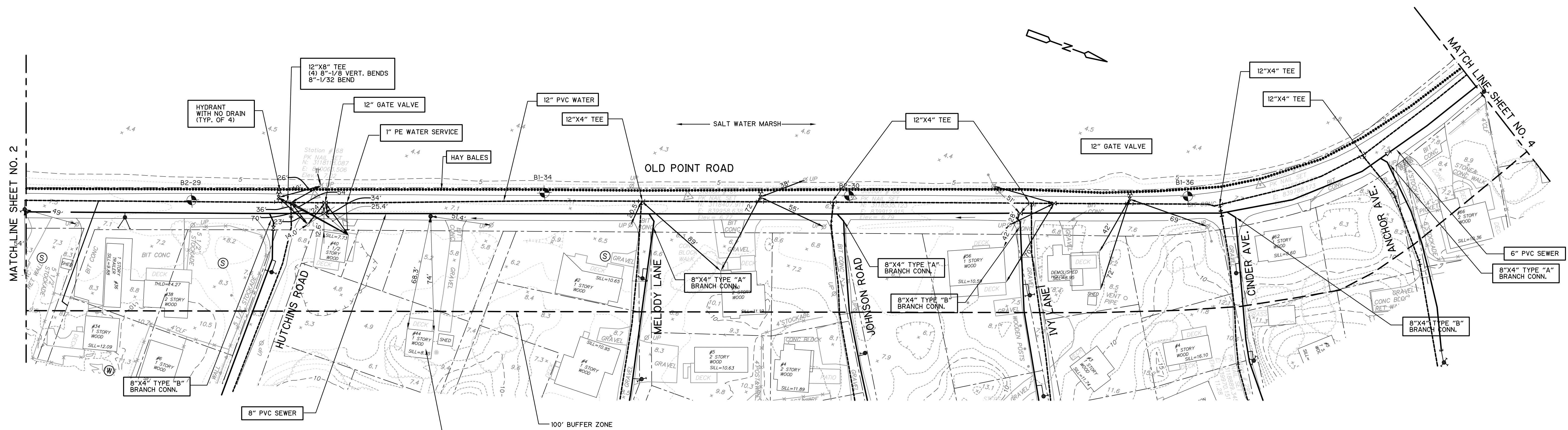


PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**OLD POINT ROAD**  
 SHEET NO.  
**2**

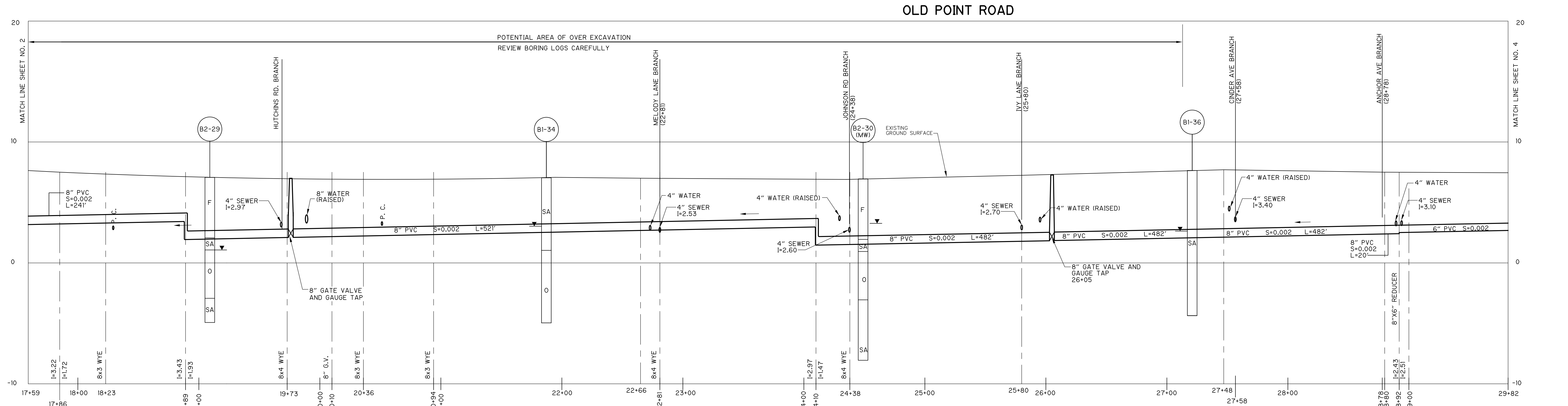
PROJECT NO.	CSTPL001
FILE NAME:	CSTPL001
SHEET NO.	2

[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN]   
 [PROJECT NO. 945162729]   
 [DATE: 10/27/2001]   
 [DESIGNED BY: T. McGOVERN]   
 [DRAWN BY: G. BELZAIRE]   
 [CHECKED BY: E. MARSTEINER]   
 [APPROVED BY: PAUL ROSS]   
 [DATE: OCTOBER 2001]



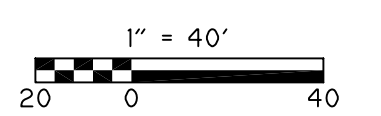
- NOTES:**
1. WELL POINT DEWATERING SYSTEM REQUIRED FROM STA. 17+59 TO 27+15 ON OLD POINT ROAD.
  2. PROVIDE TEMPORARY WATER SERVICE FOR HOMES ON OLD POINT ROAD FROM THE INTERSECTION AT PLUM BLVD. TO FINNEGAN WAY INCLUDING 200' INTO SIDE STREETS.

**PLAN**  
SCALE: 1"=40'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

**RECORD DRAWING**



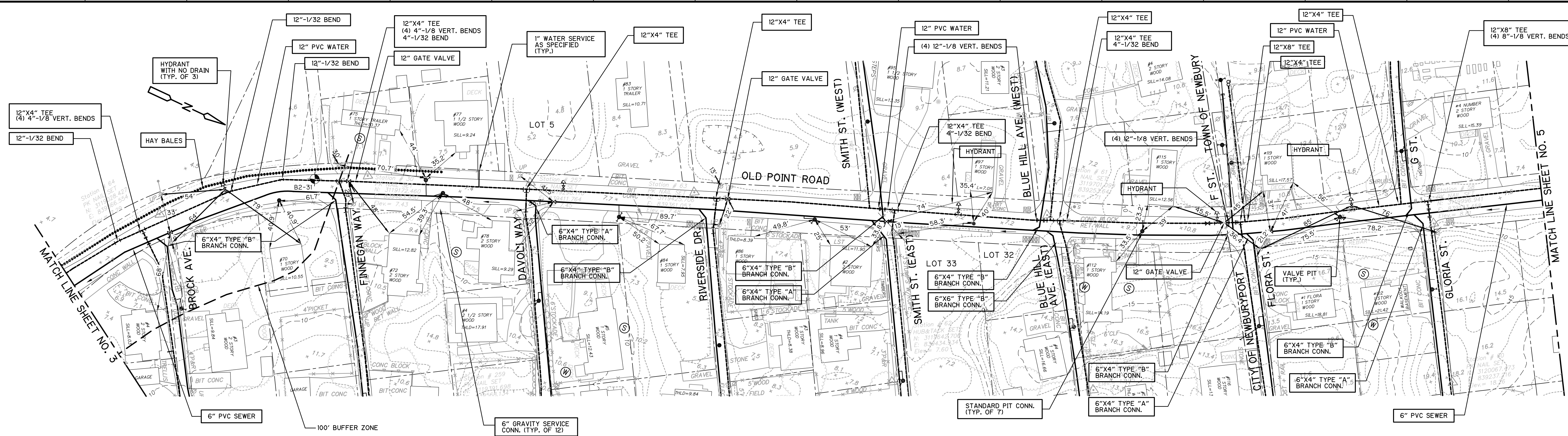
REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

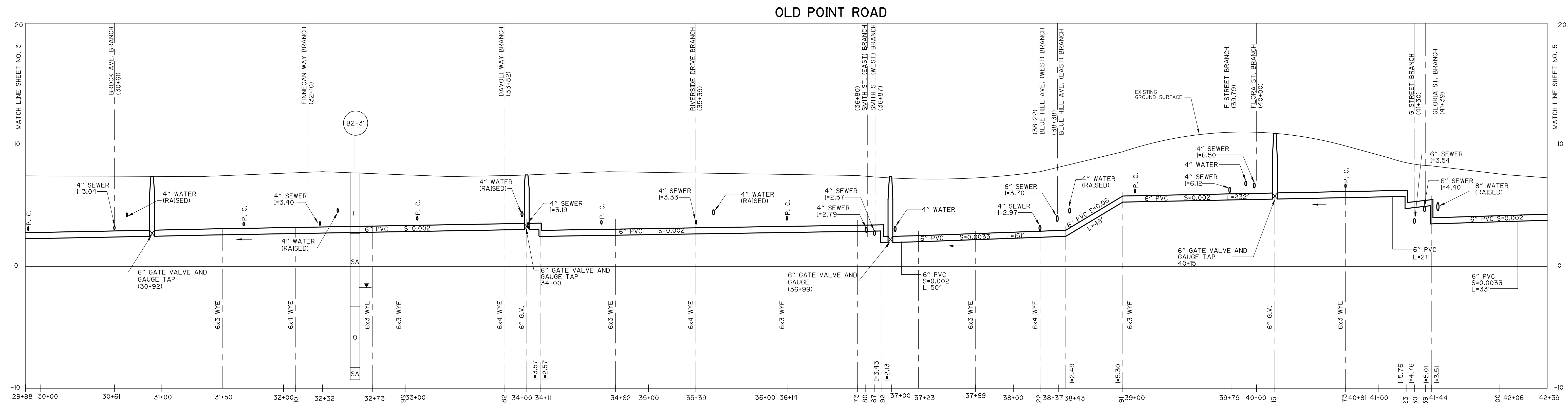
**CDM** Camp Dresser & McKee Inc.  
consulting  
engineering  
construction  
operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

PROJECT NO. 945162729  
 FILE NAME: CSTPL002  
**OLD POINT ROAD**  
 SHEET NO. **3**

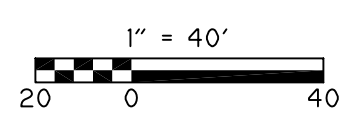


**PLAN**  
SCALE: 1"=40'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

RECORD DRAWING

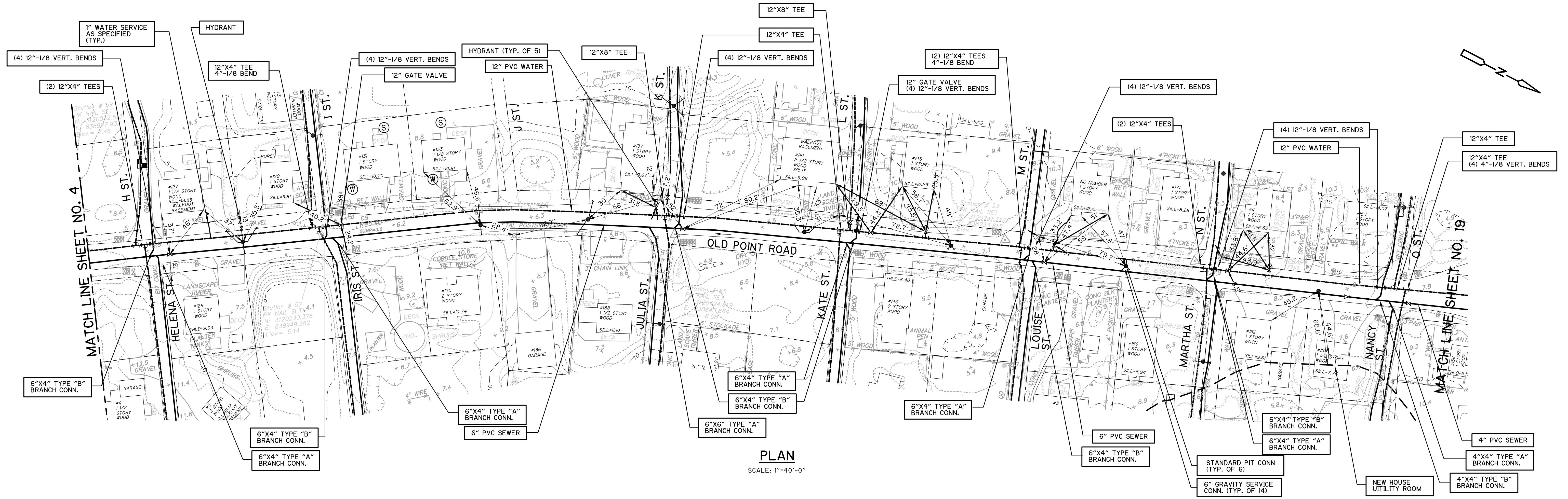


REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

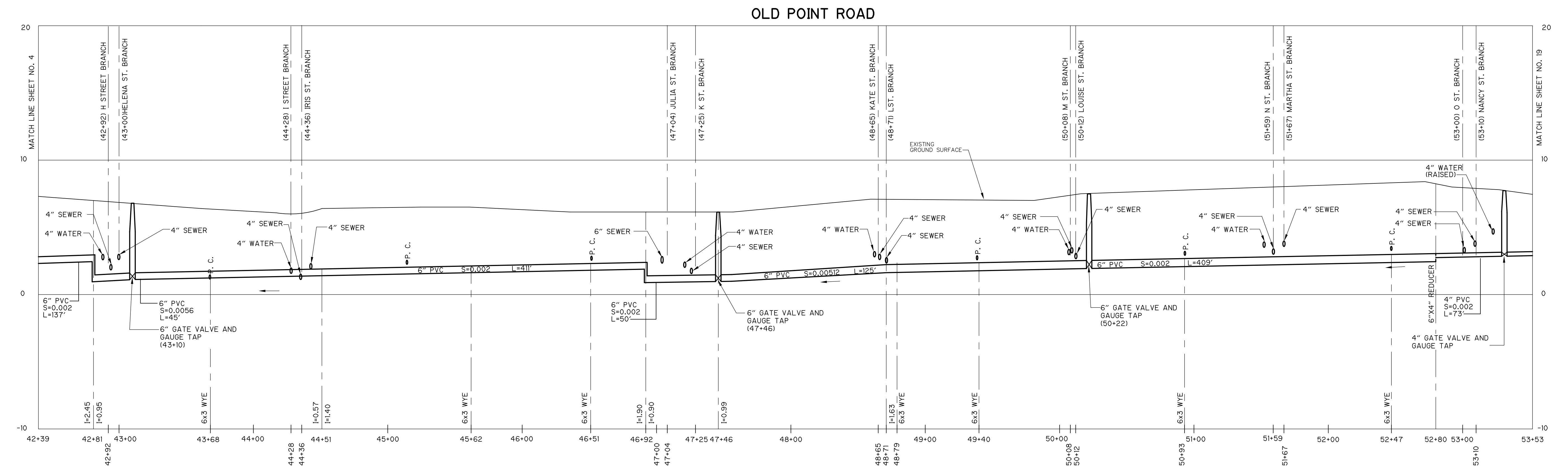
DESIGNED BY:	T. MCGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

CDM Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

PROJECT NO. FILE NAME: CSTPL003  
**OLD POINT ROAD**  
 SHEET NO. **4**

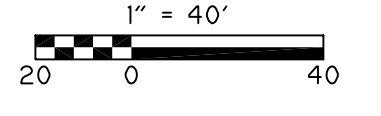


**PLAN**  
 SCALE: 1"=40'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

RECORD DRAWING



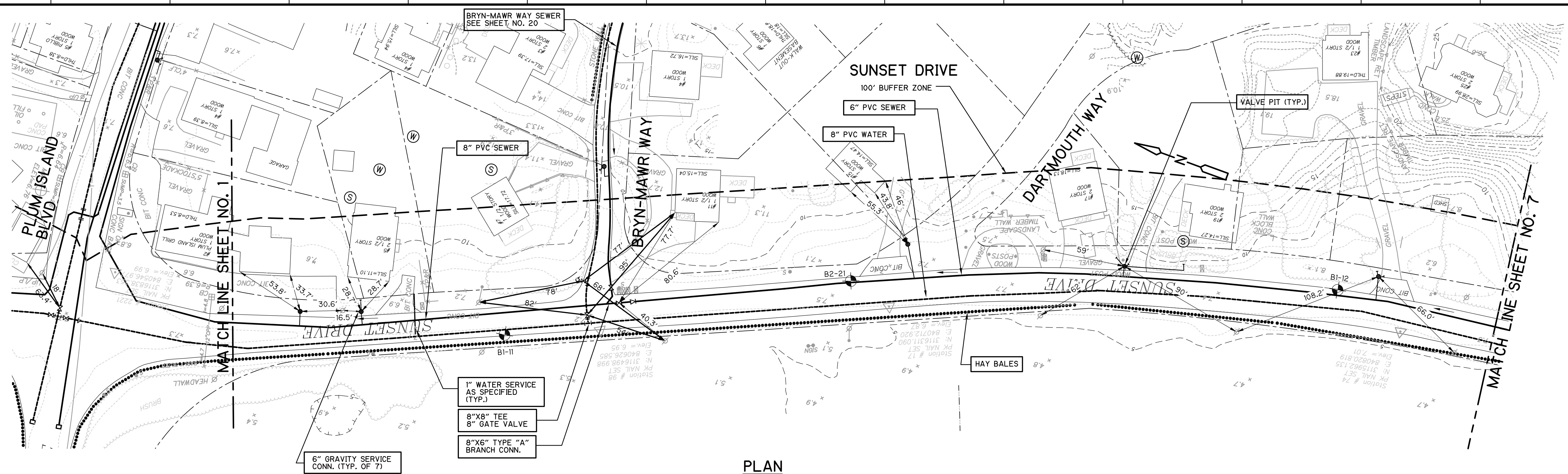
DESIGNED BY:	I. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting  
 engineering  
 construction  
 operation

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

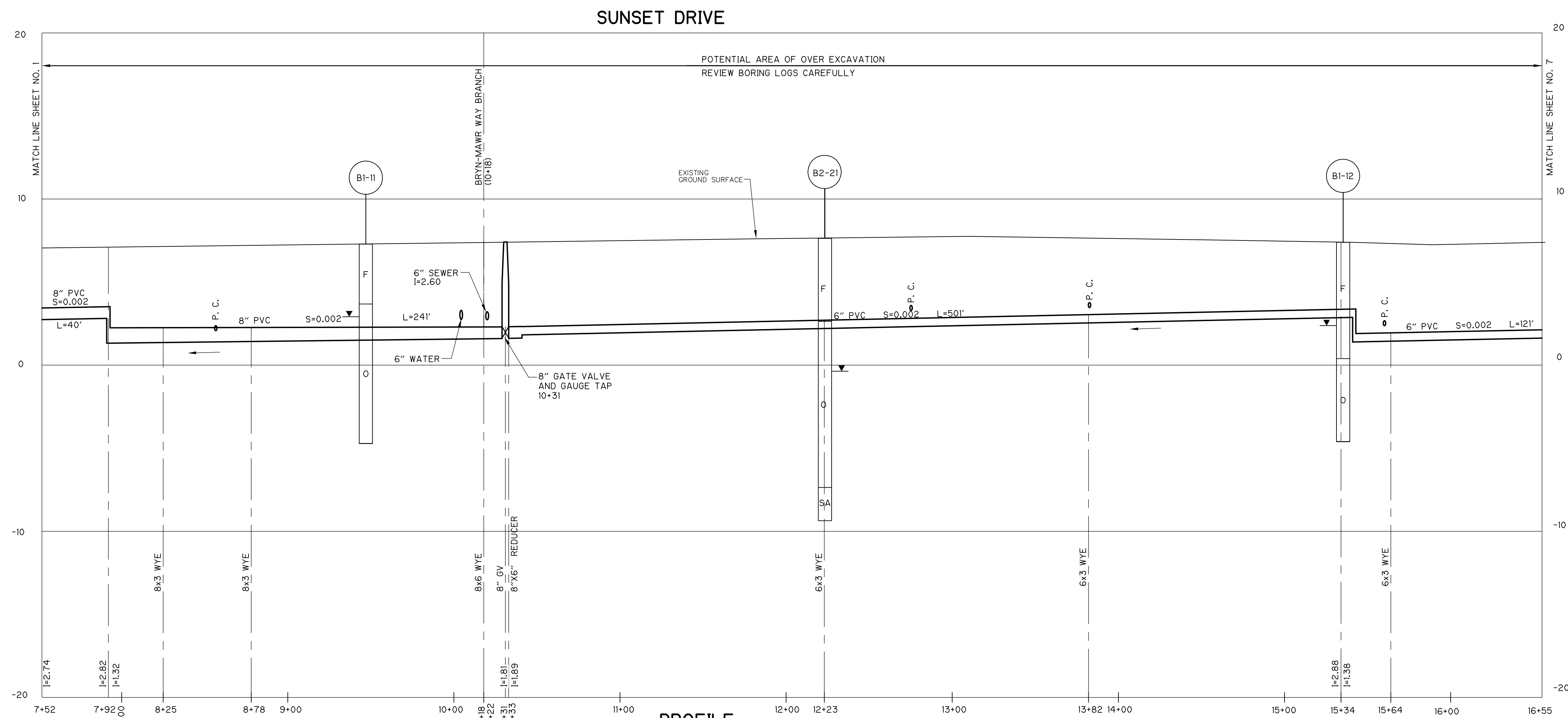
**OLD POINT ROAD**  
 SHEET NO.  
**5**

PROJECT NO.	FILE NAME:
SHEET NO.	



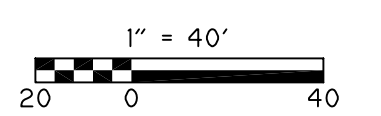
**PLAN**  
SCALE: 1"=40'-0"

- NOTES:**
1. WELL POINT DEWATERING SYSTEM REQUIRED ON SUNSET DRIVE.
  2. PROVIDE TEMPORARY WATER SERVICE FOR HOMES ON SUNSET DRIVE AND 200' INTO SIDE STREETS.



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
engineering  
construction  
operations

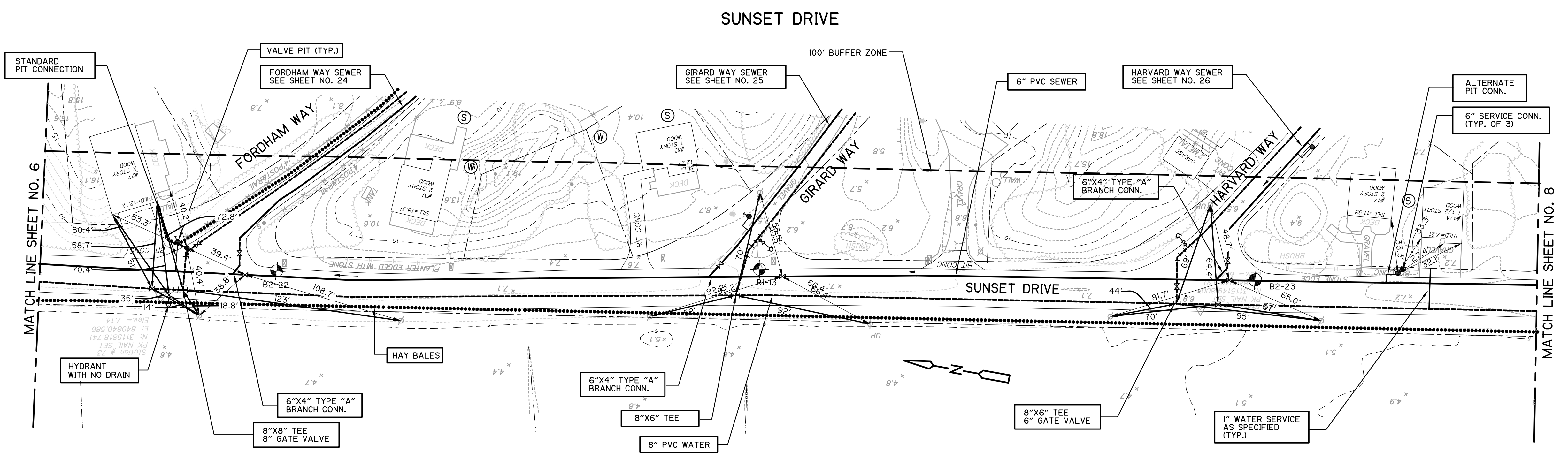
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2

**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**SUNSET DRIVE**

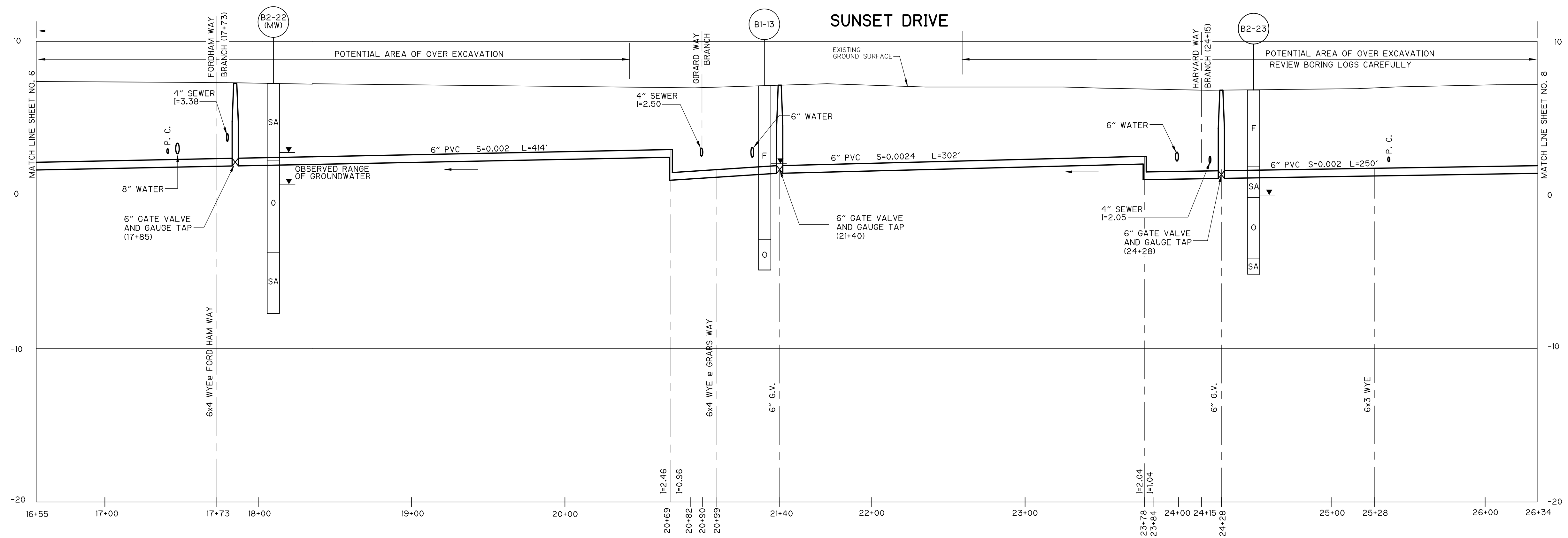
SHEET NO.  
**6**

[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] Plotted by: PETRUKHINTM Time: 11/12/2007 3:35:23 PM  
 File name: P:\9451\30964\ASBUILT\CONT3\CIVL\CSTPL006.DWG Xref's: [G:\000000, C:\P\002, ]



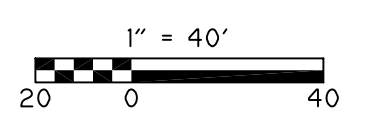
**PLAN**  
SCALE: 1"=40'-0"

- NOTES:**
1. WELL POINT DEWATERING SYSTEM REQUIRED FROM ON SUNSET DRIVE.
  2. PROVIDE TEMPORARY WATER SERVICE FOR HOMES ON SUNSET DRIVE AND 200' INTO SIDE STREETS.



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

RECORD DRAWING



DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

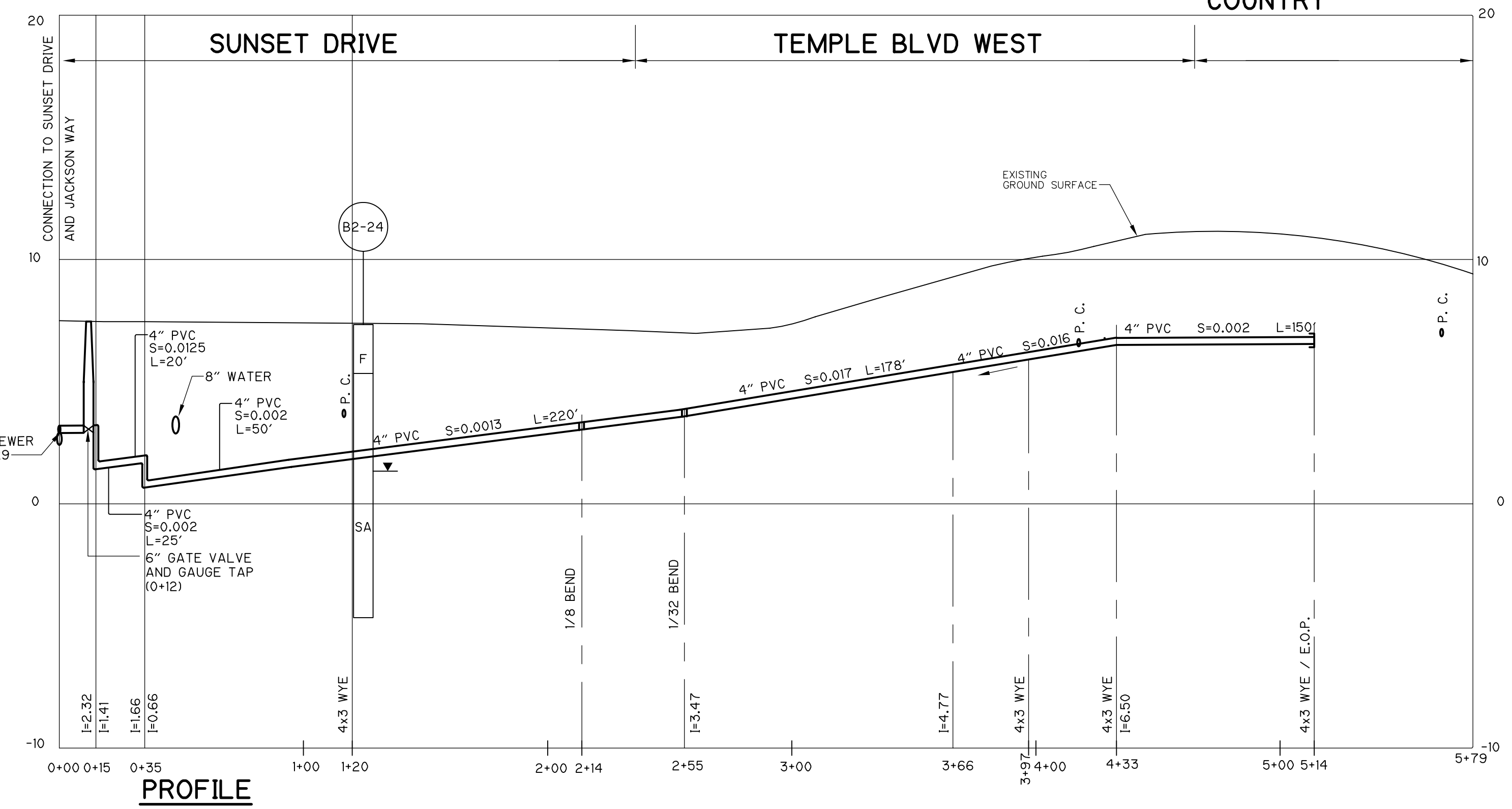
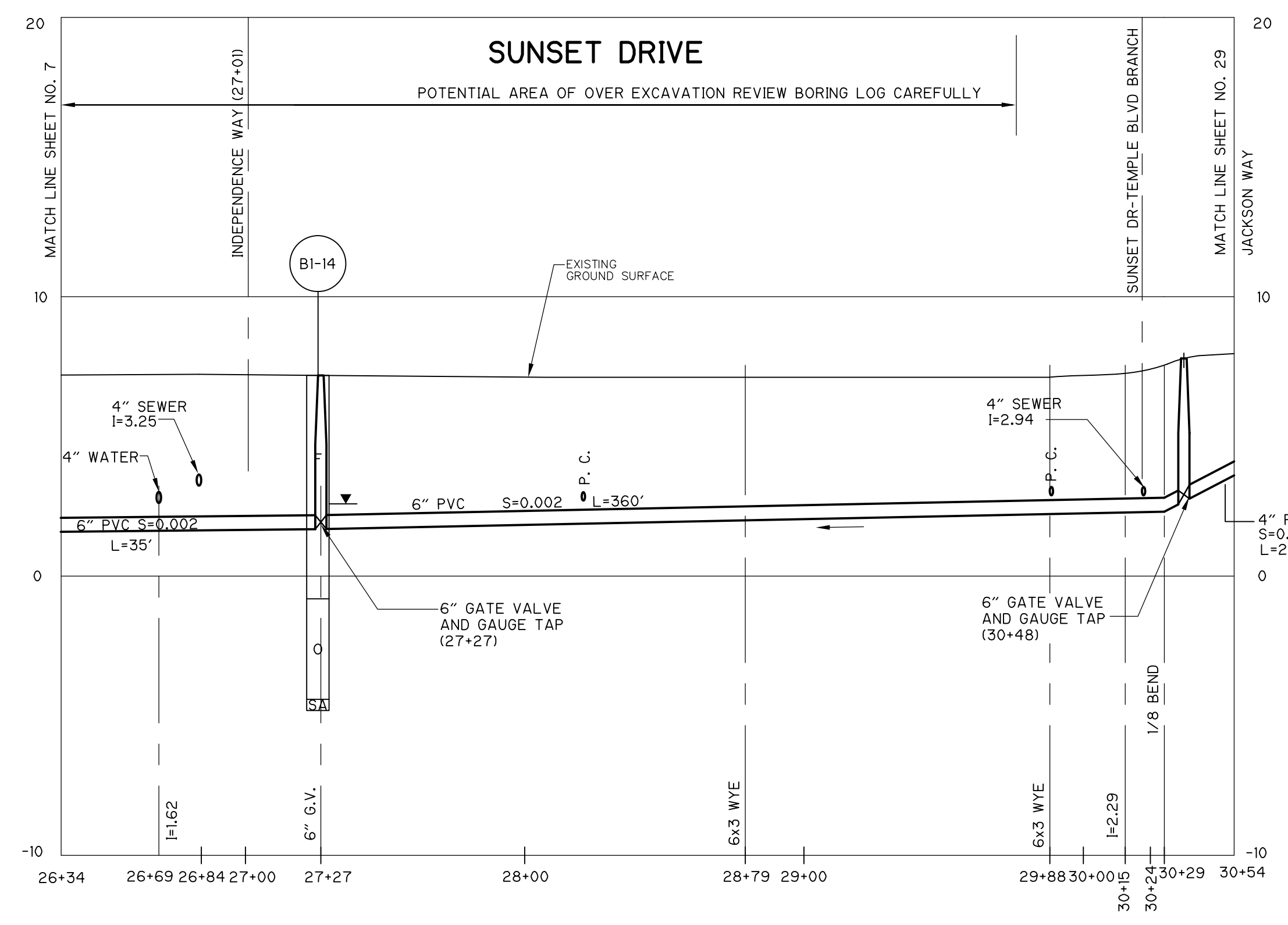
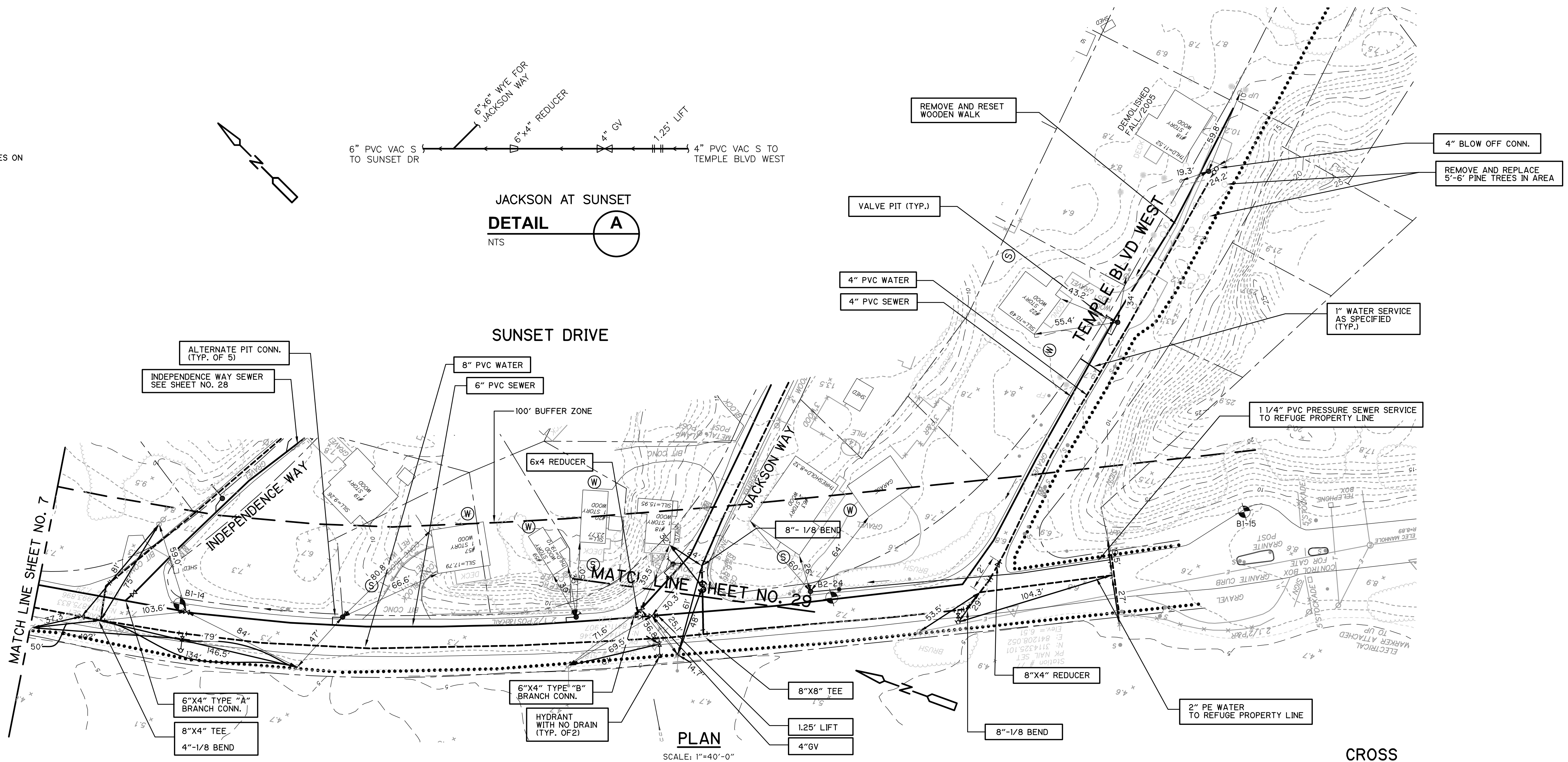
**CDM** Camp Dresser & McKee Inc.  
consulting engineering construction operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**SUNSET DRIVE**  
 SHEET NO. 7

PROJECT NO.	CSTPL006
FILE NAME:	CSTPL006
SHEET NO.	7

- NOTES:**
1. WELL POINT DEWATERING SYSTEM REQUIRED ON SUNSET DRIVE.
  2. PROVIDE TEMPORARY WATER SERVICE FOR HOMES ON SUNSET DRIVE AND 200' INTO SIDE STREETS.
  3. TEMPLE BLVD. WEST FROM STA. 2+30 TO 4+60 IS AN UNPAVED ROAD.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: T. MCGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

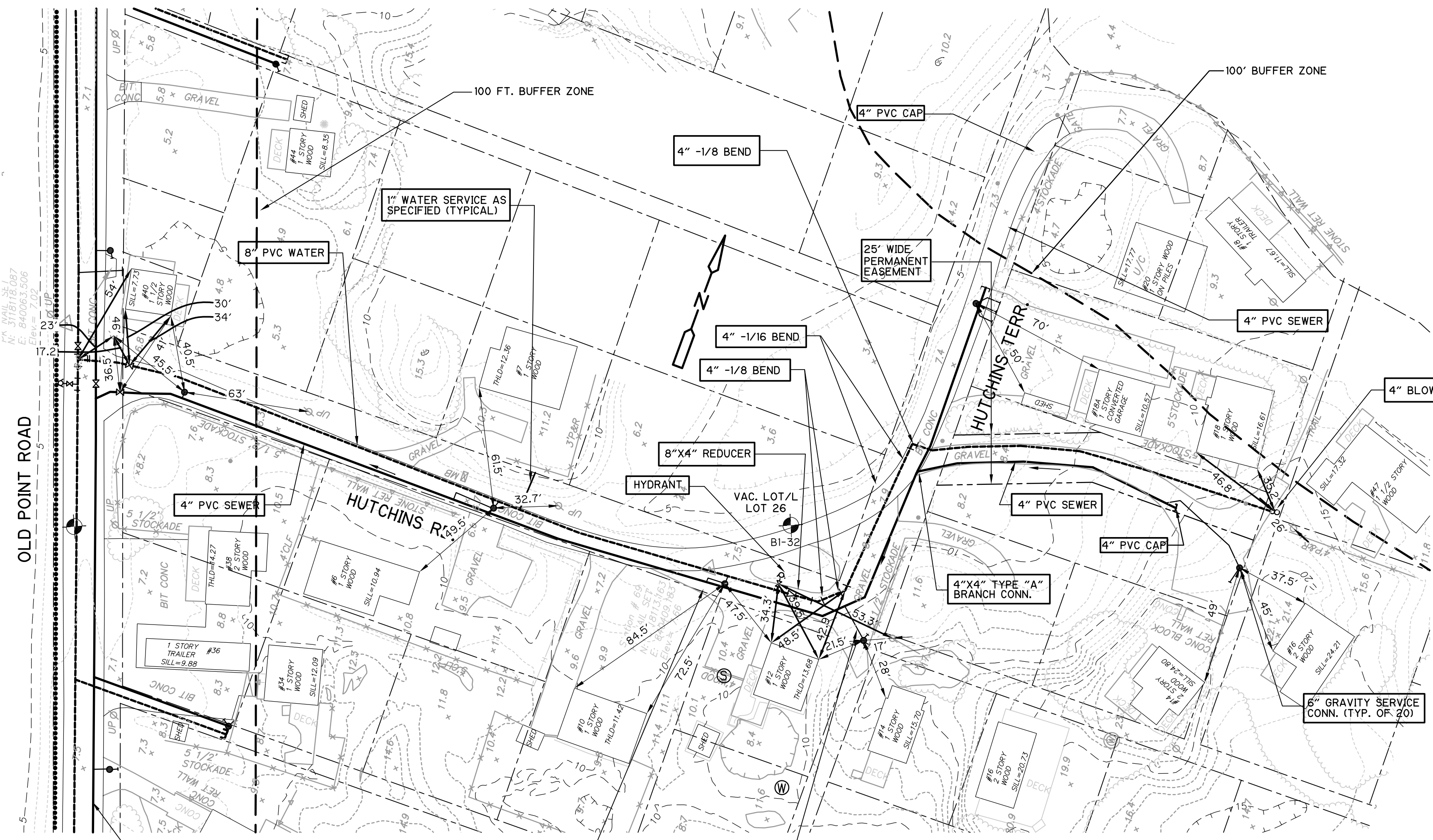
**CDM** Camp Dresser & McKee Inc.  
consulting  
engineers  
construction  
operation

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

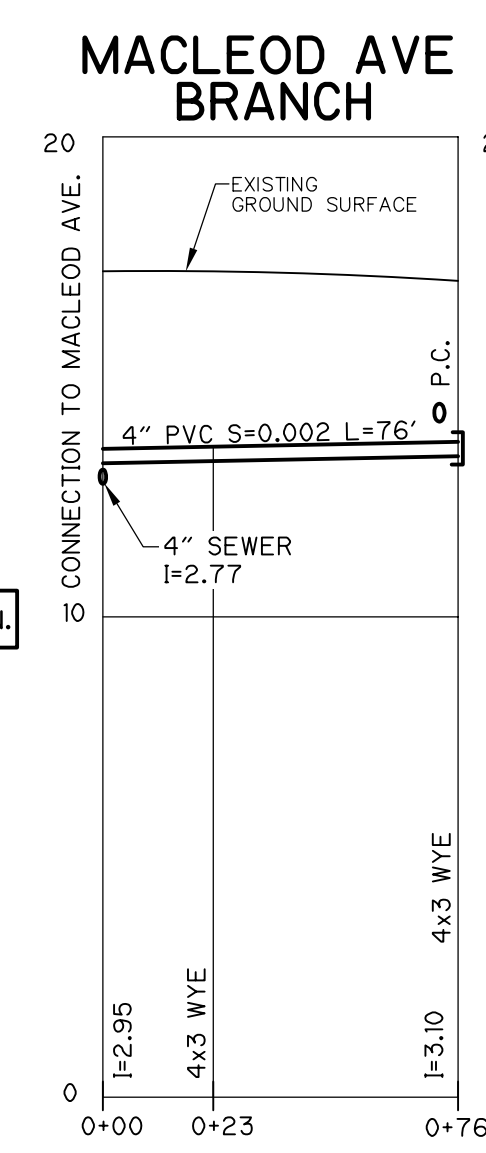
**SUNSET DRIVE  
 TEMPLE BOULEVARD WEST**  
 SHEET NO. **8**

PROJECT NO.	FILE NAME:
SHEET NO.	

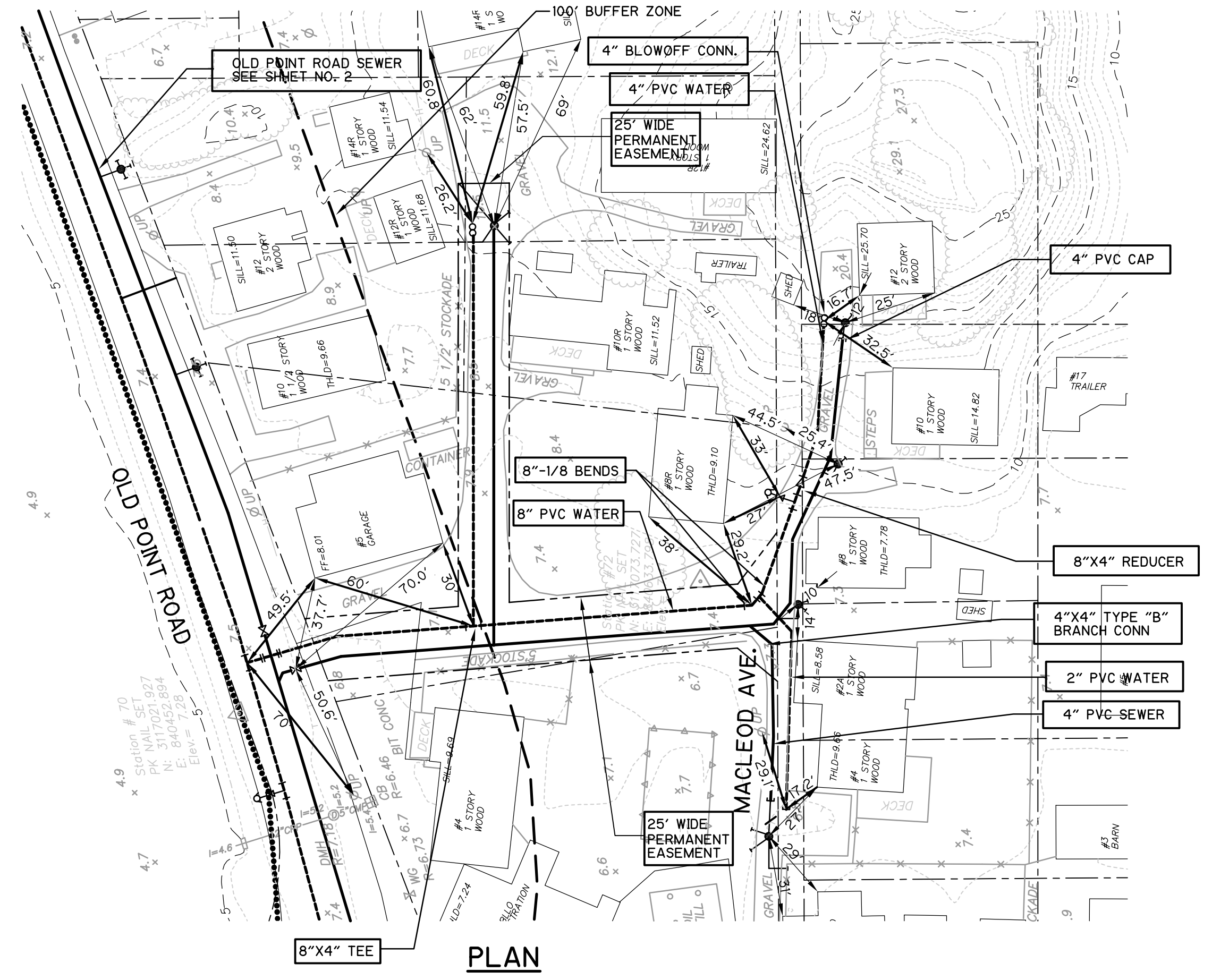




**PLAN**  
 SCALE: 1"=40'-0"

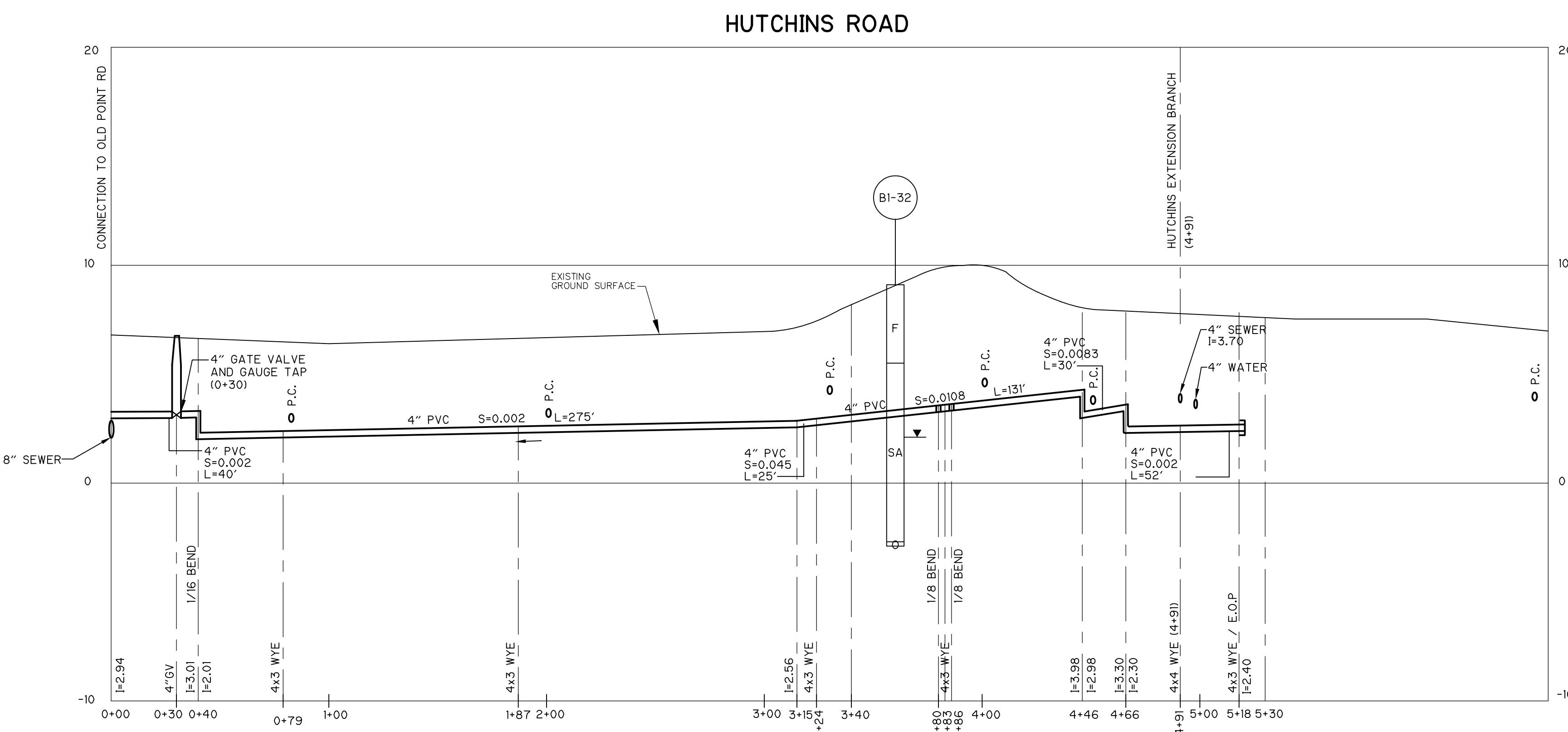


**MACLEOD AVE BRANCH**



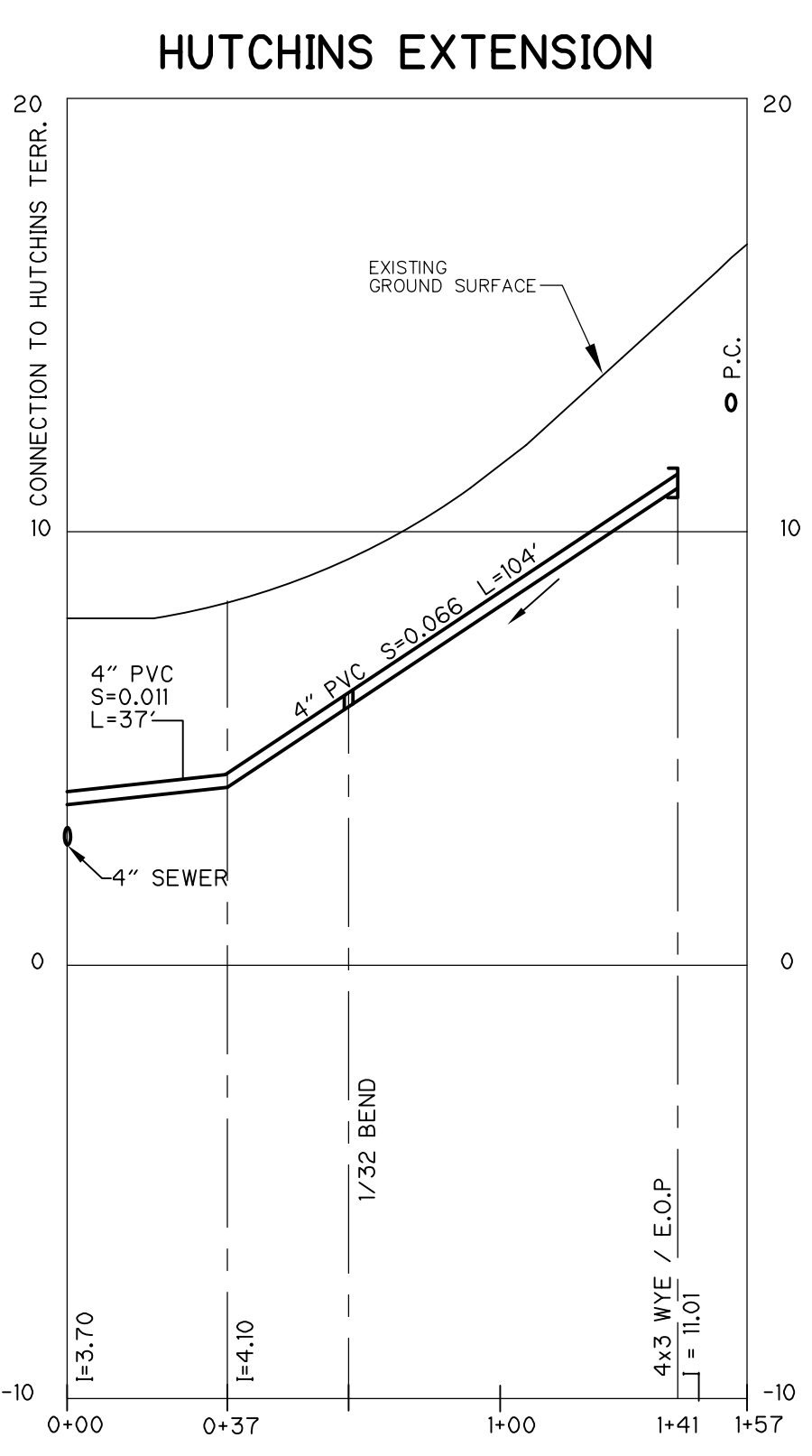
**PLAN**  
 SCALE: 1"=40'-0"

**NOTES:**  
 1. MACLEOD AVENUE AND MACLEOD AVENUE BRANCH IS AN UNPAVED ROAD.



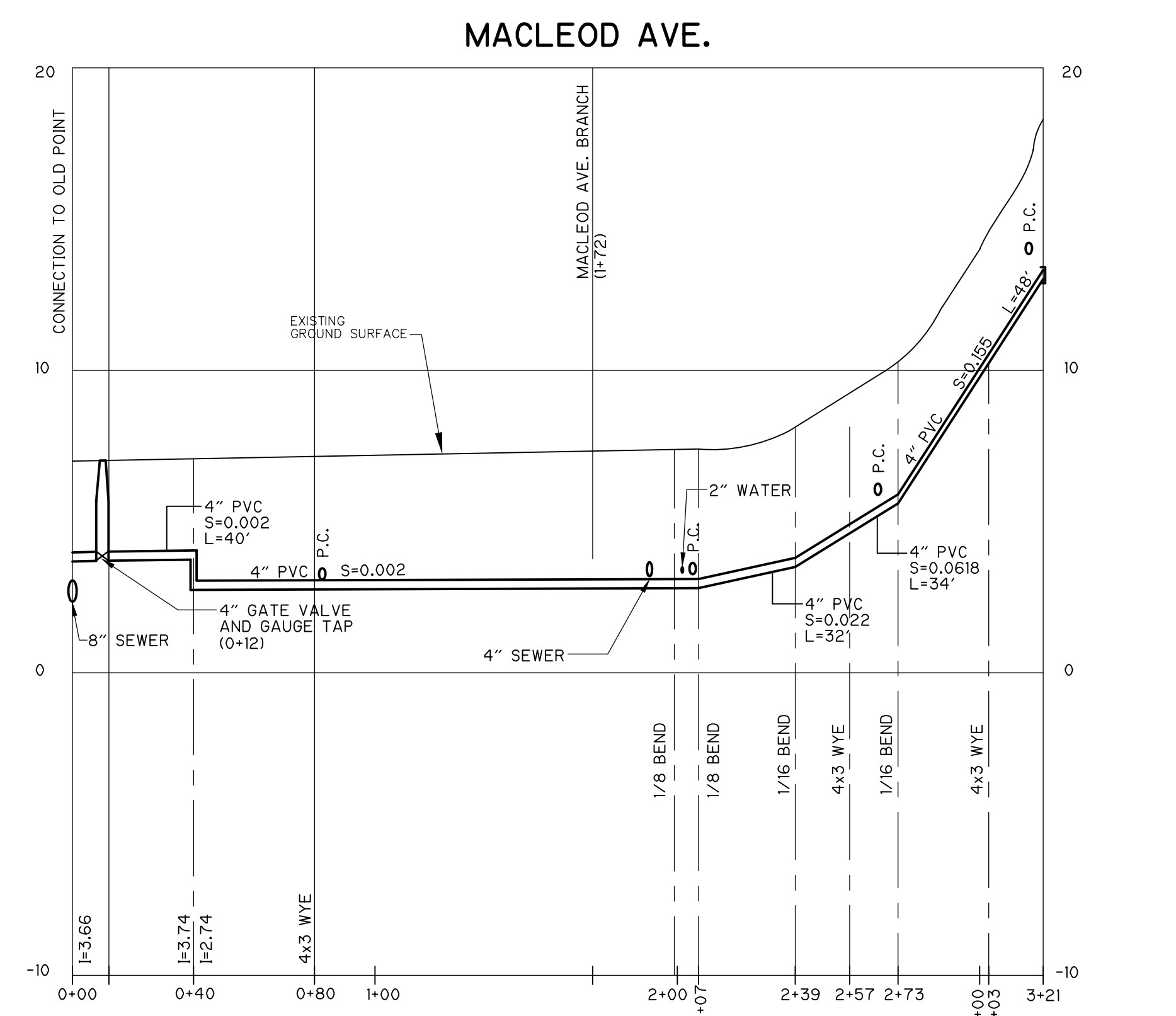
**HUTCHINS ROAD**

**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



**HUTCHINS EXTENSION**

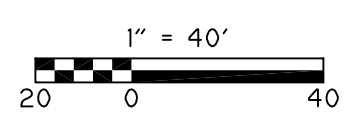
**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



**MACLEOD AVE.**

**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

**RECORD DRAWING**

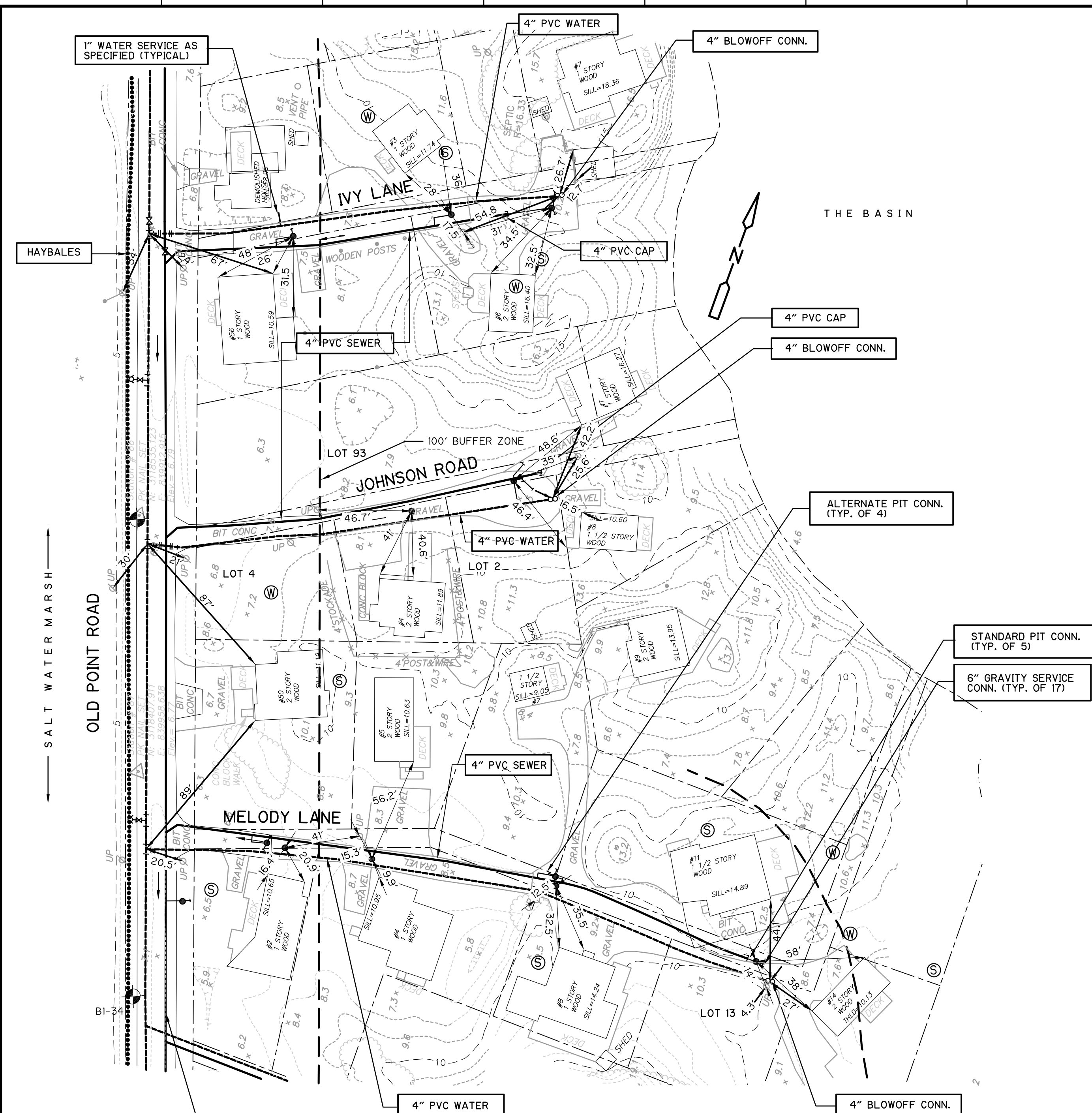


REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

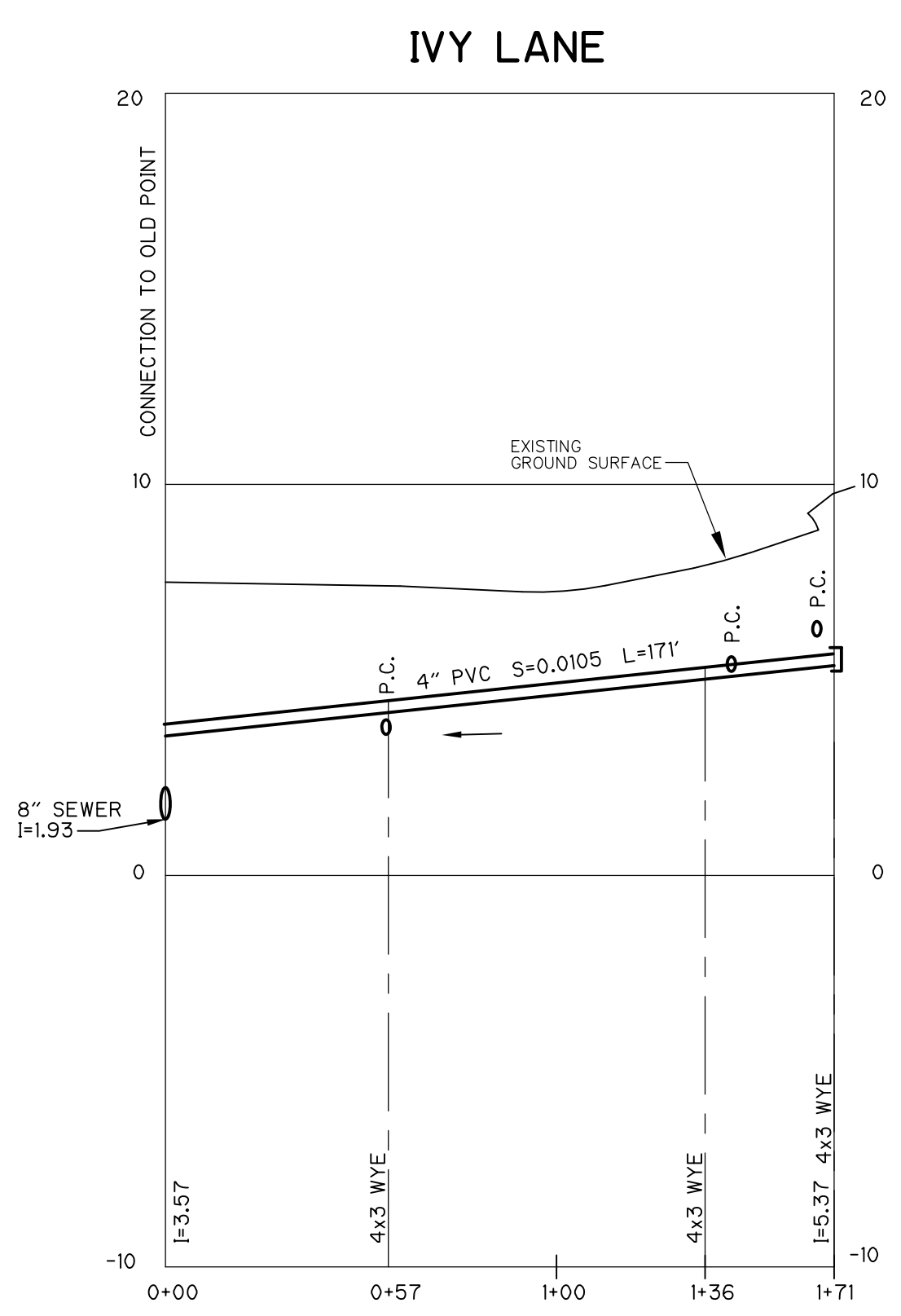
**CDM** Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**HUTCHINS ROAD, HUTCHINS TERRACE, AND MACLEOD AVENUE**  
 PROJECT NO. FILE NAME: CSTPL009  
 SHEET NO. **9**

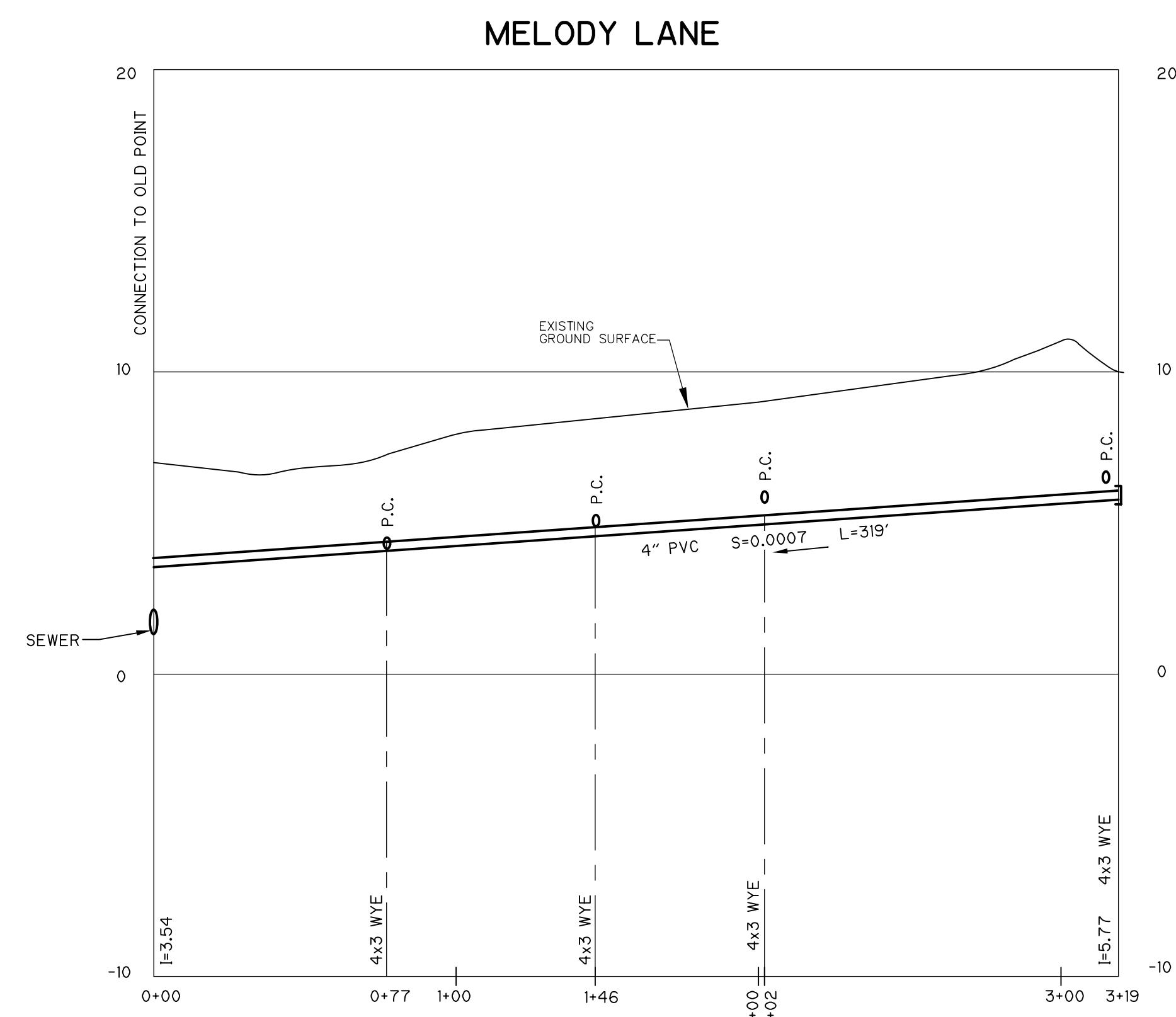


**PLAN**  
 SCALE: 1"=40'-0"

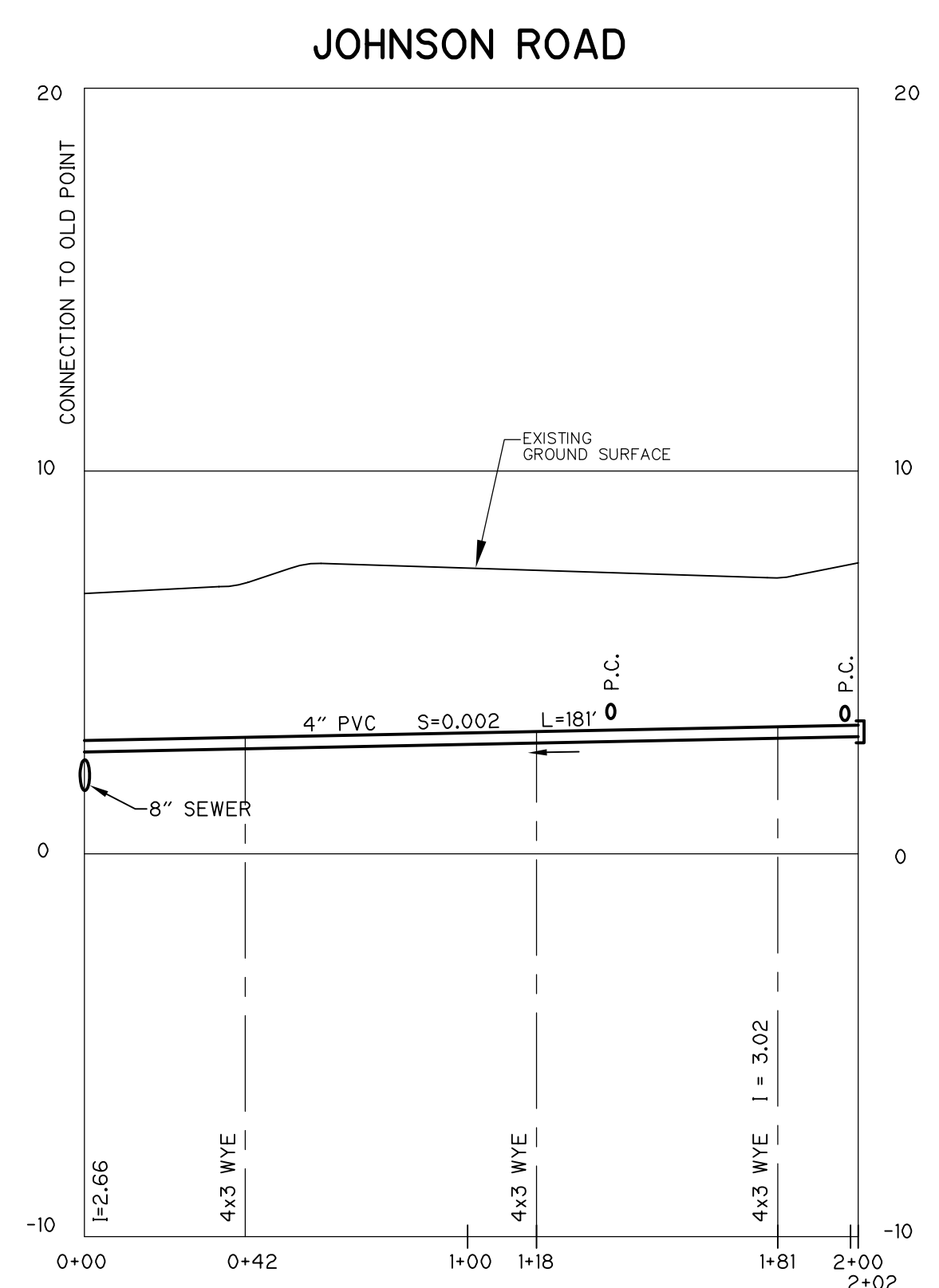
NOTES:  
 1. MELODY LANE, JOHNSON ROAD,  
 AND IVY LANE ARE UNPAVED ROADS.



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

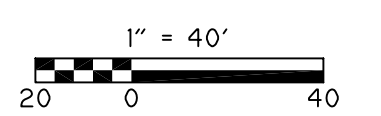


**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

**RECORD DRAWING**



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

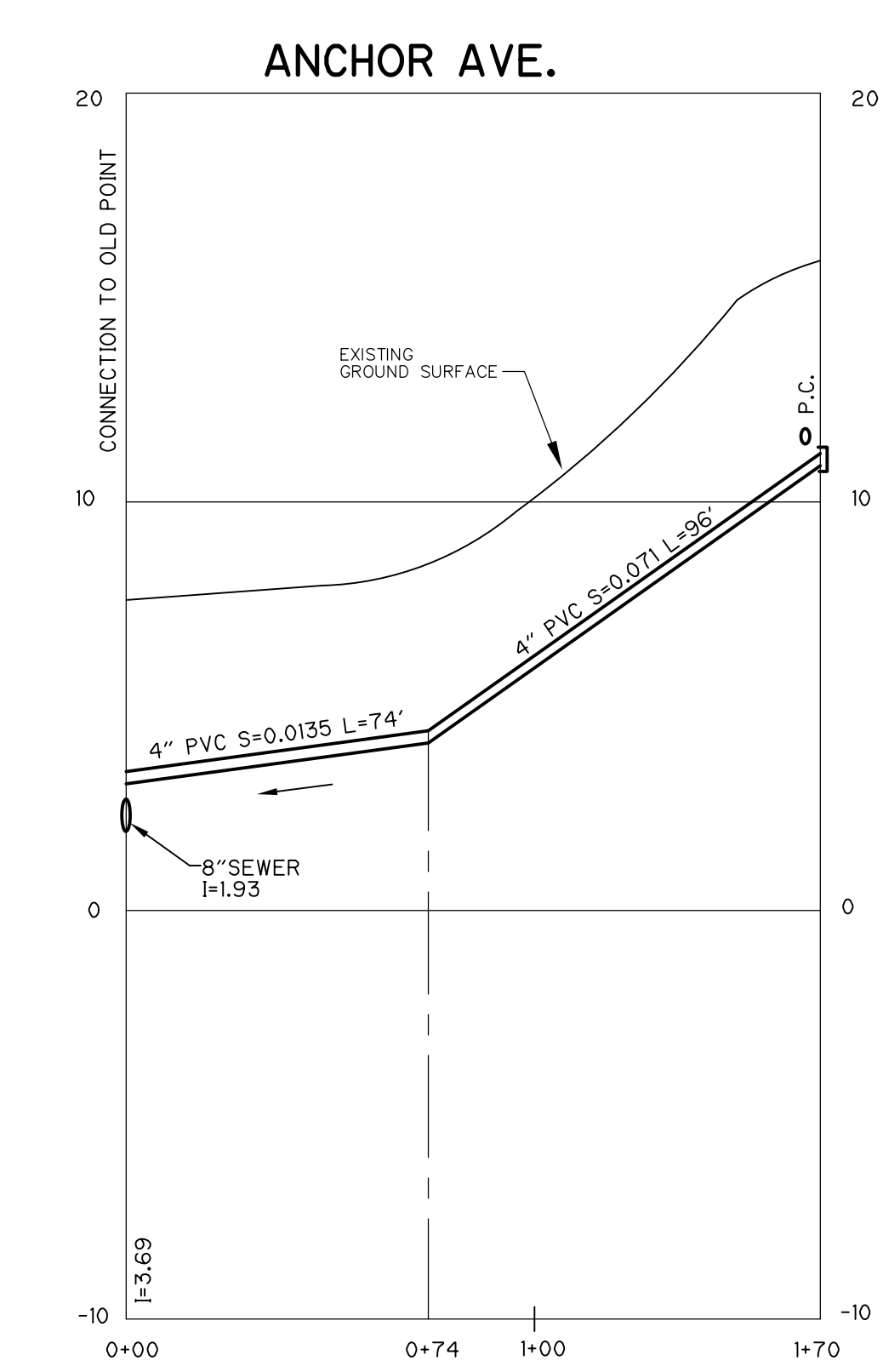
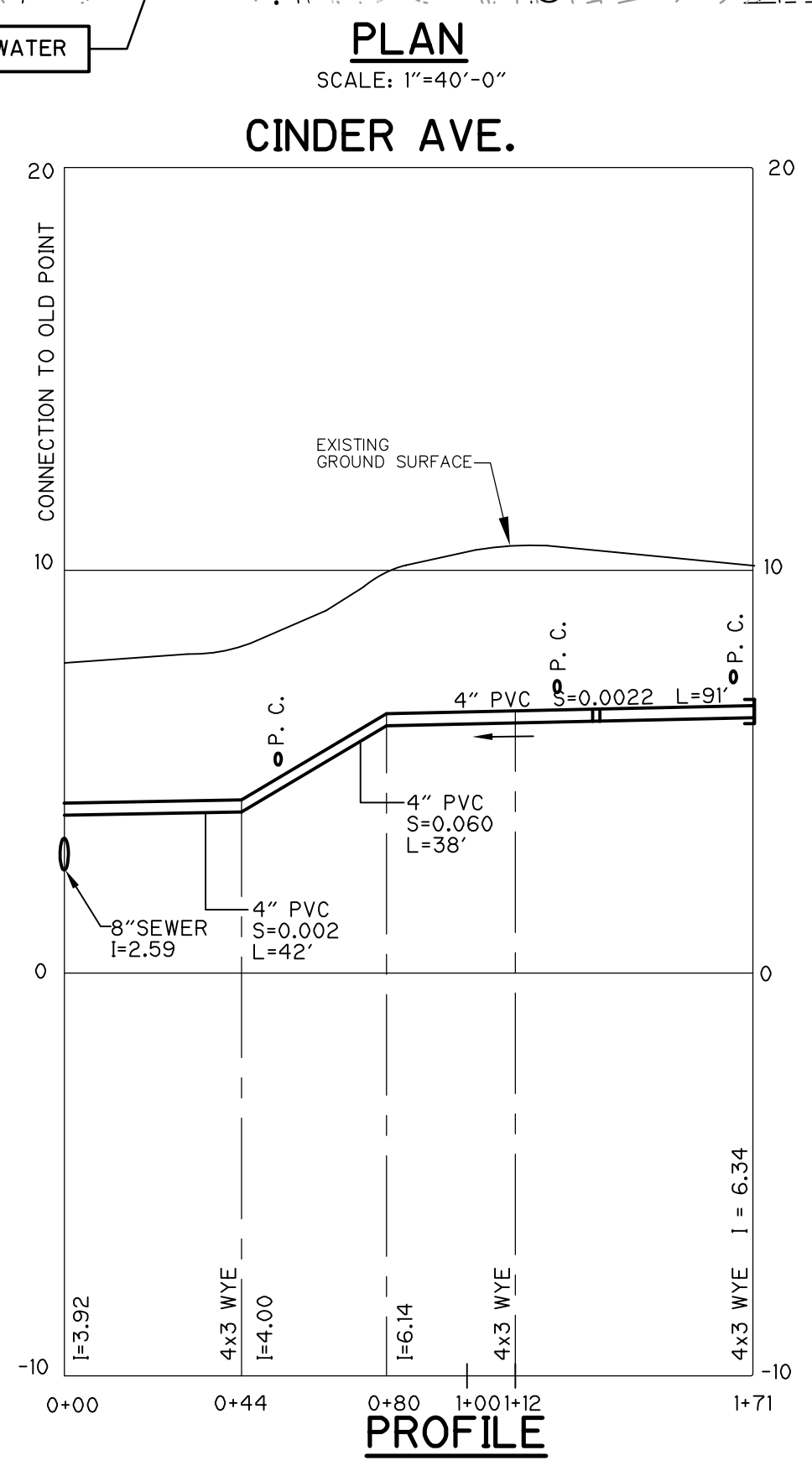
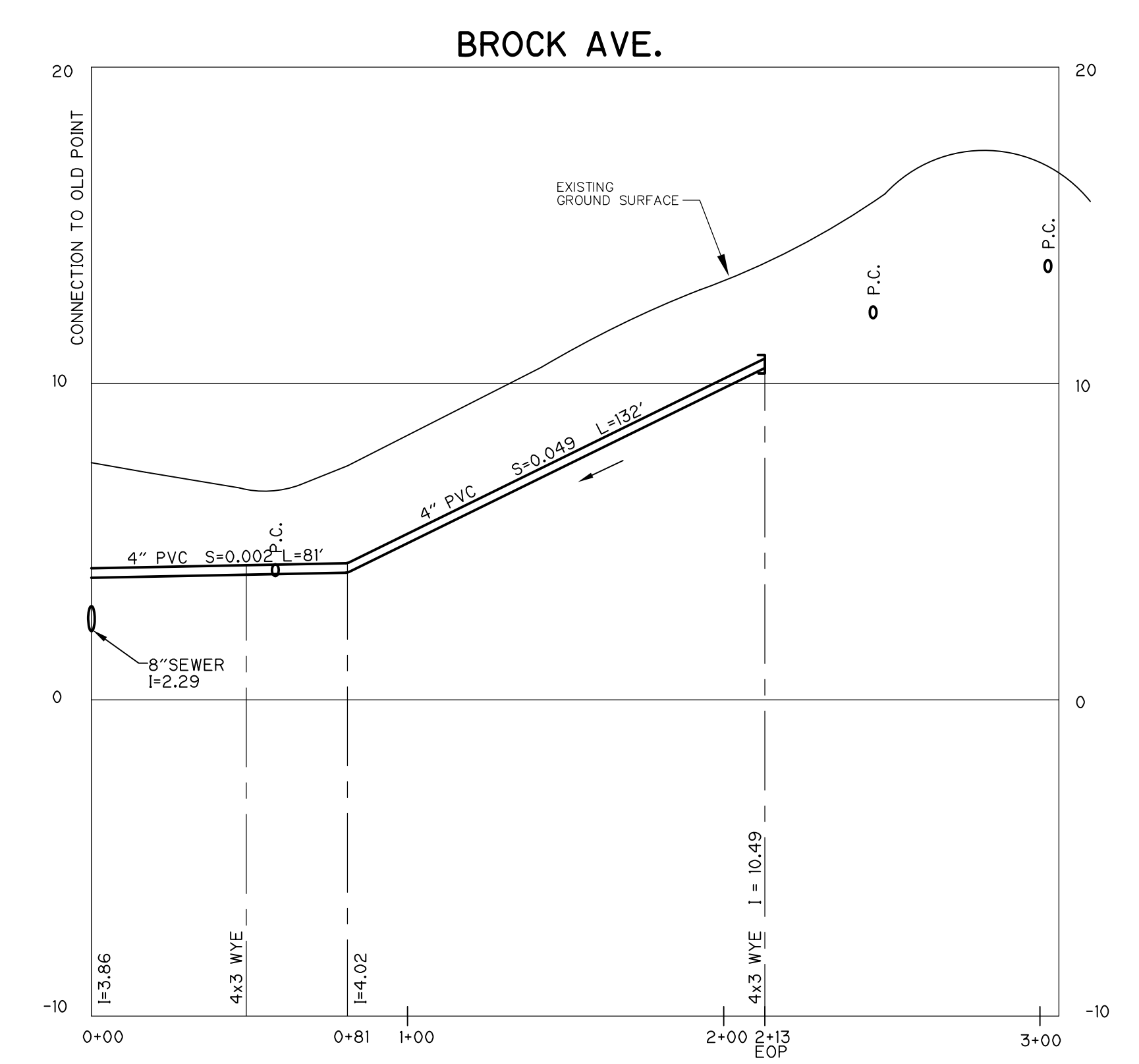
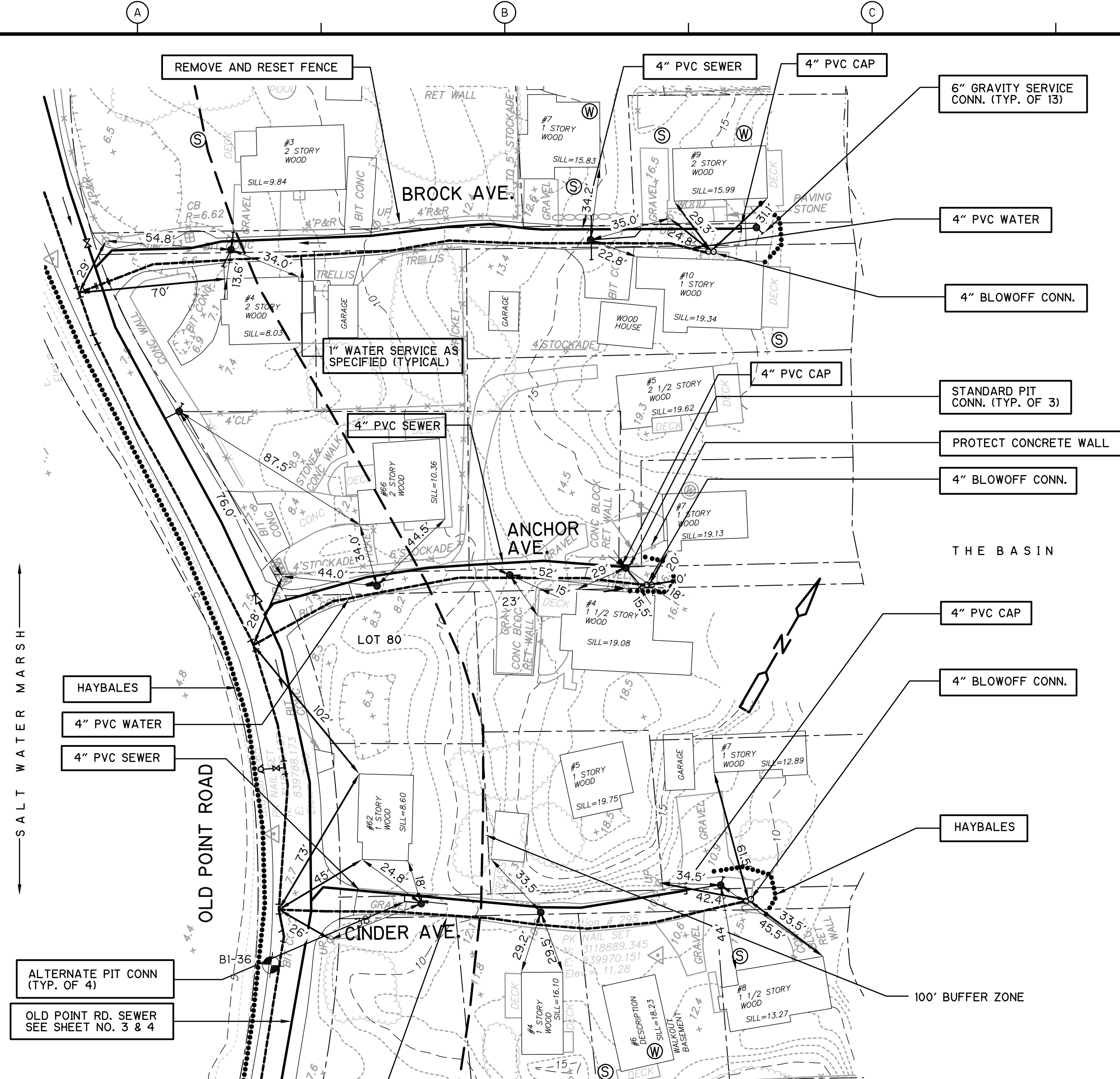
DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
 engineering  
 construction  
 operations

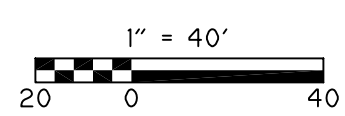
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

IVY LANE, JOHNSON ROAD,  
 AND MELODY LANE  
 SHEET NO. 10

[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] Plotted by: PETRUKHINTM Time: 11/12/2007 3:39:16 PM  
 File name: P:\9451\30964\ASBUILT\CONT3\CIVIL\CSTPL011.DWG Xref's: [GBD00000, CSDPL002, ]



NOTES:  
 1. ANCHOR AVENUE AND CINDER AVENUE ARE UNPAVED ROADS THAT SHALL BE PAVED AS SPECIFIED.



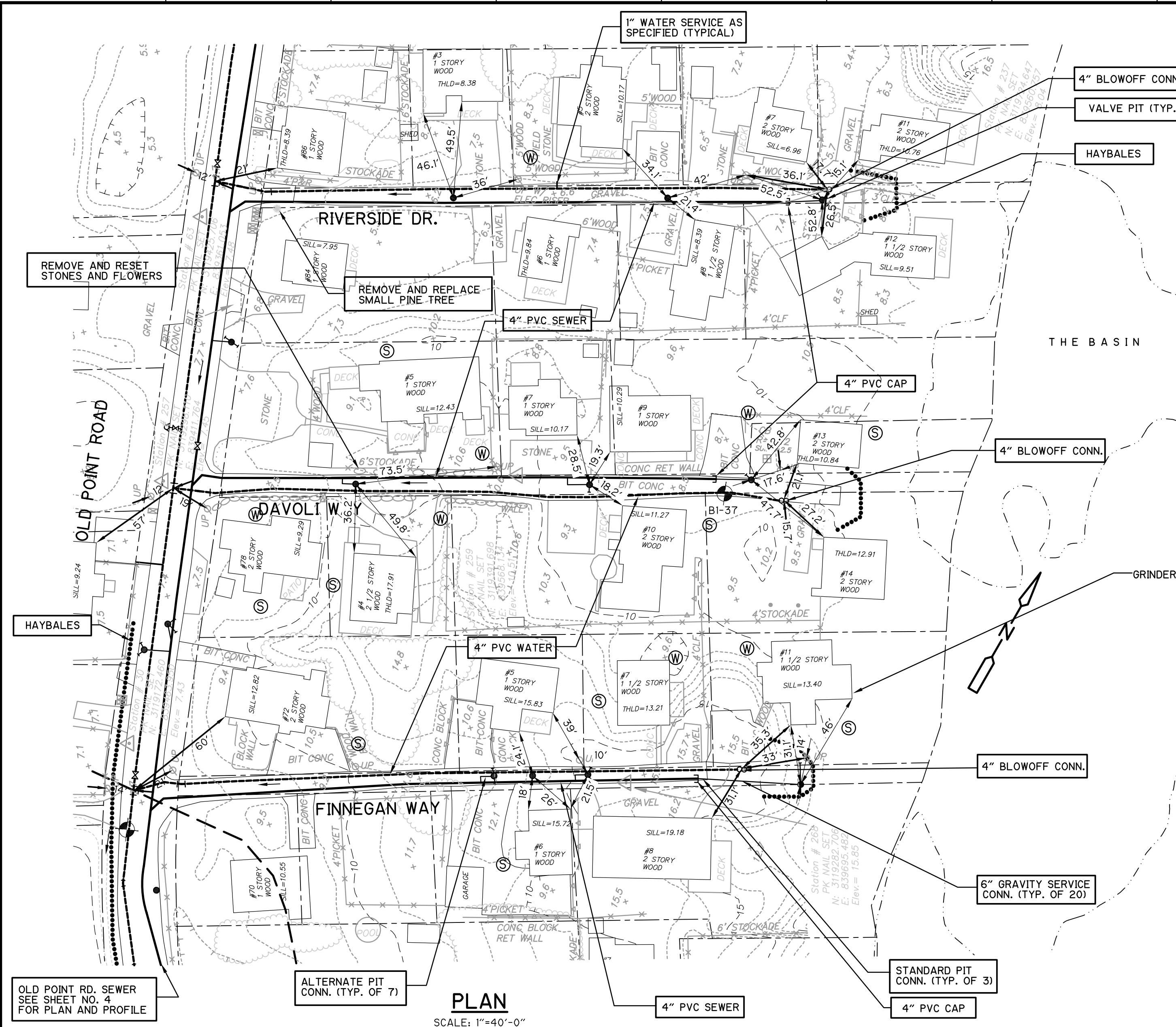
REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: T. MCGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001  
**CDM** Camp Dresser & McKee Inc.

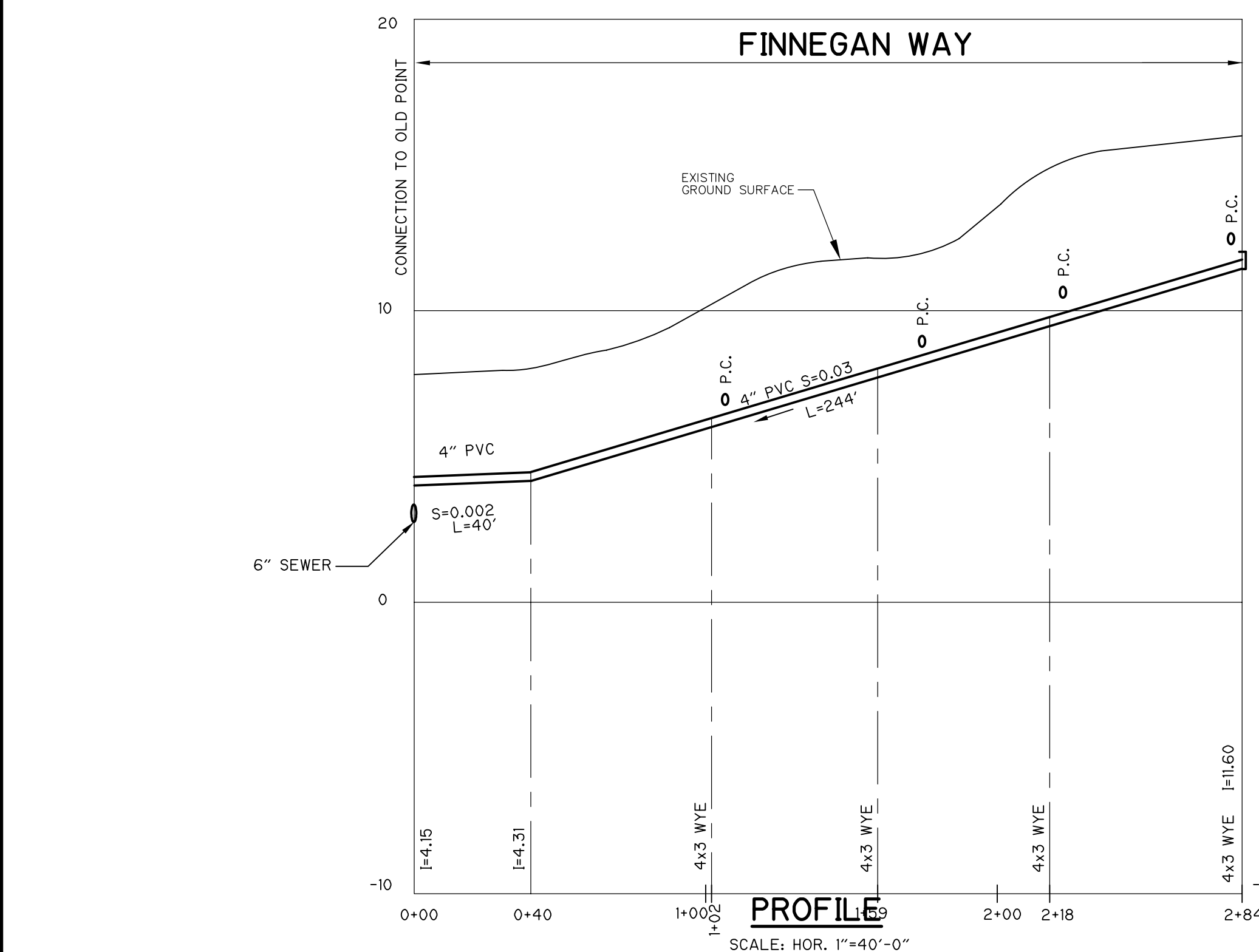
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**RECORD DRAWING**  
**BROCK AVENUE,  
 ANCHOR AVENUE, AND CINDER AVENUE**

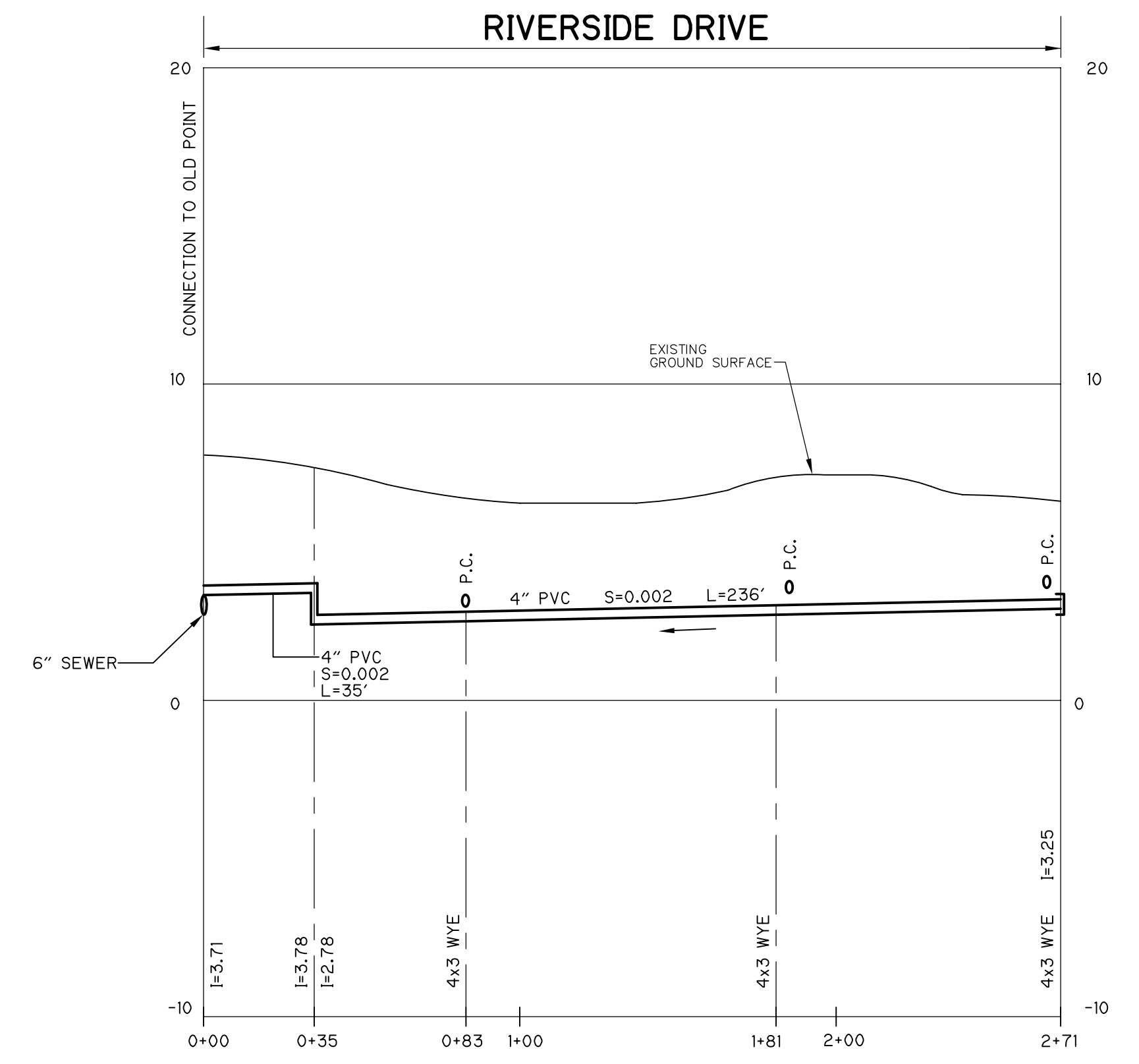
PROJECT NO. CSTPL011  
 FILE NAME: CSTPL011  
 SHEET NO. 11



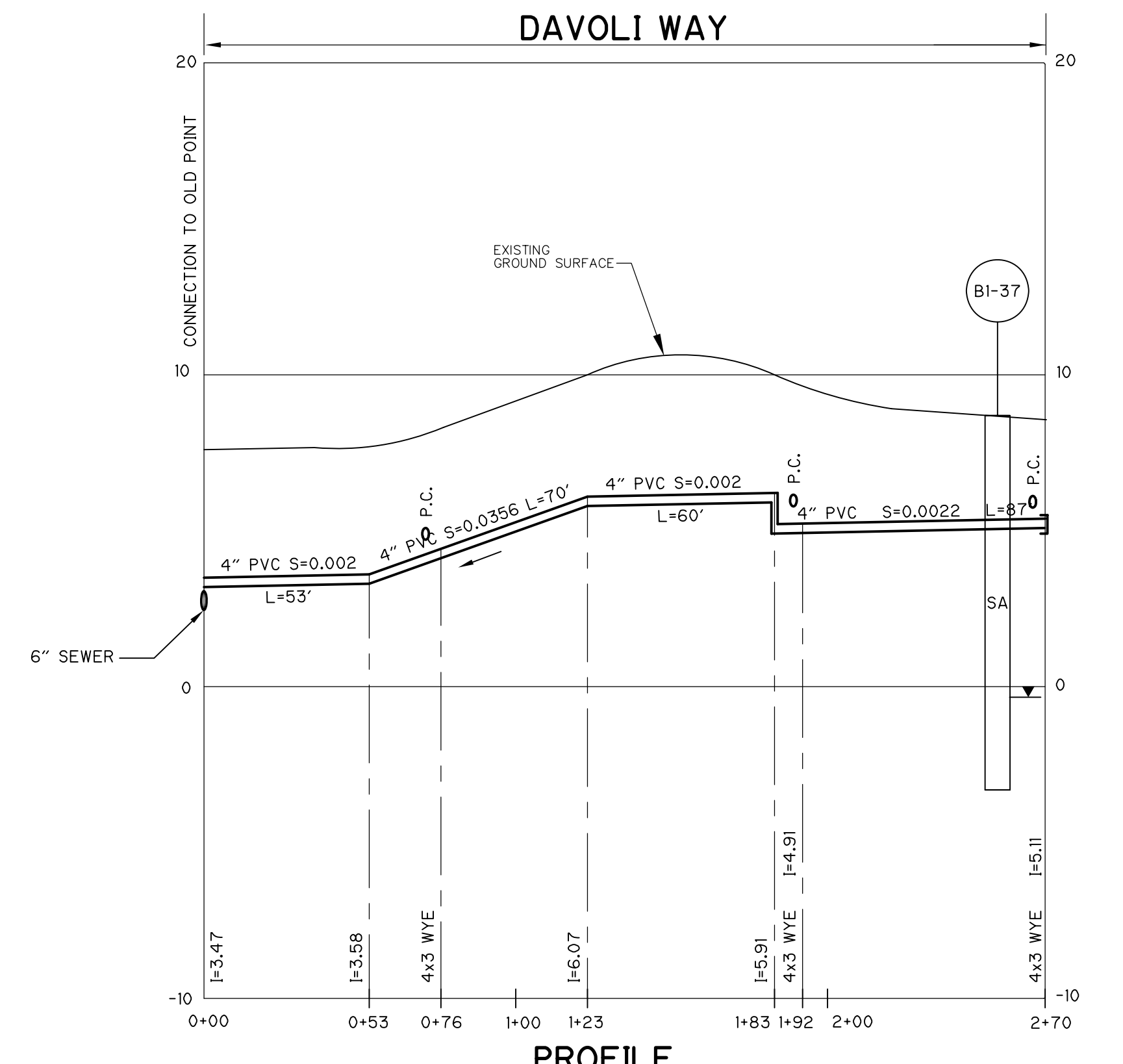
**PLAN**  
 SCALE: 1"=40'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

- NOTES:**
- RECLAIM DAVOLI WAY AND FINNEGAN WAY.
  - RIVERSIDE DRIVE IS AN UNPAVED ROAD.

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: T. MCGOVERN  
 DRAWN BY: G. BELZLAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.

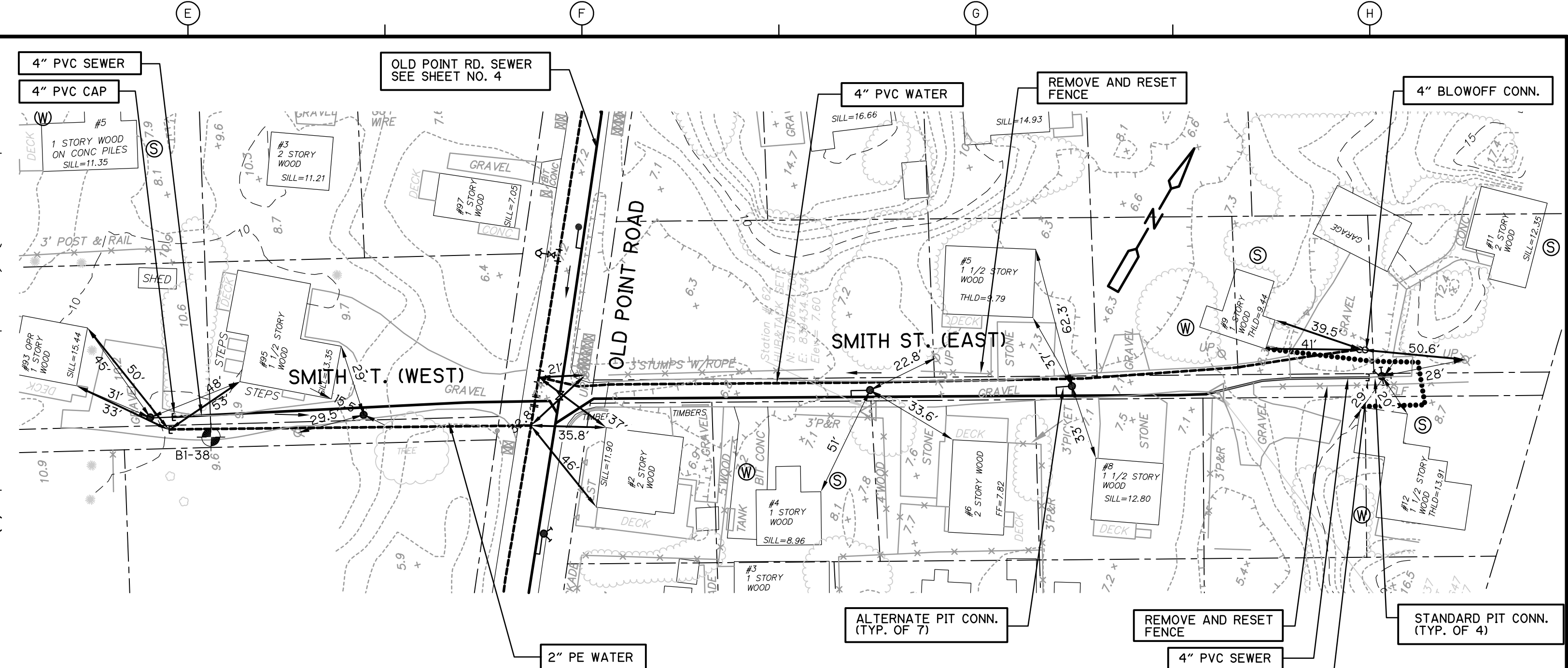
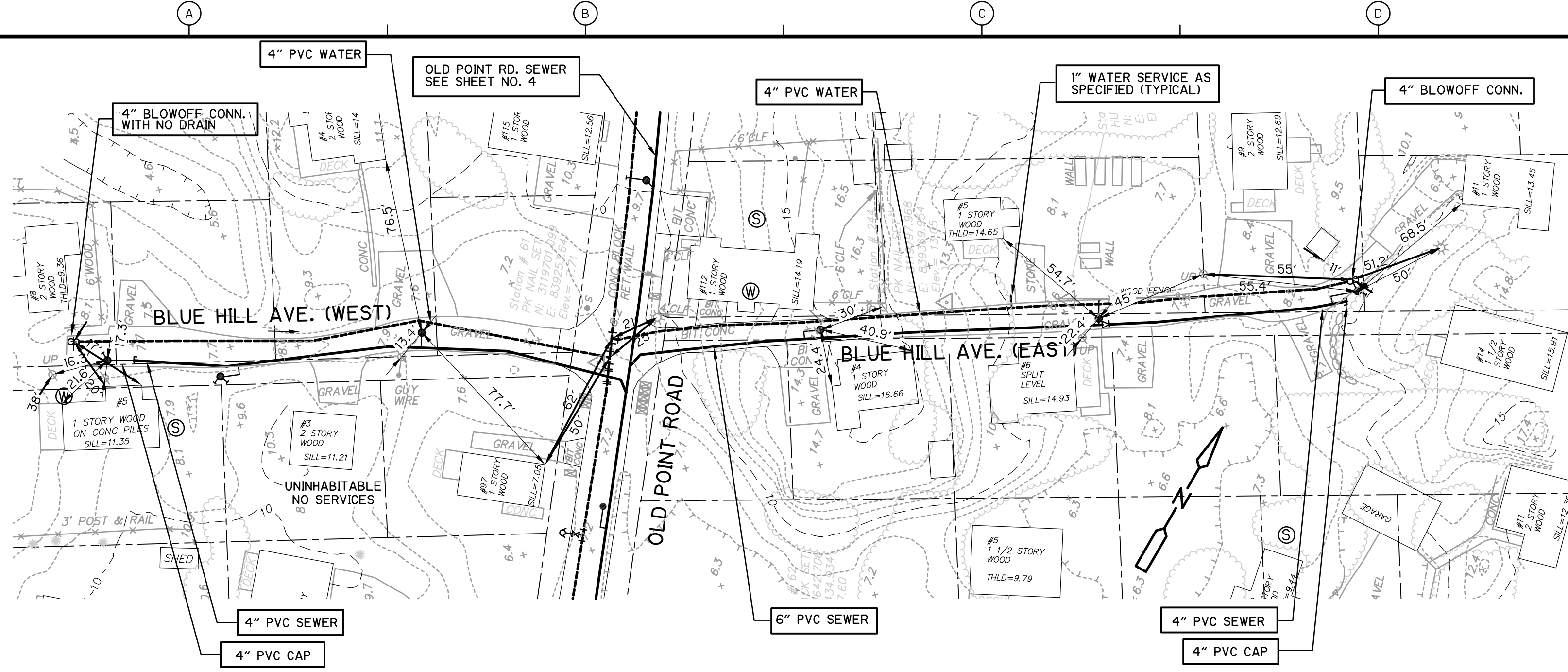
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2

**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

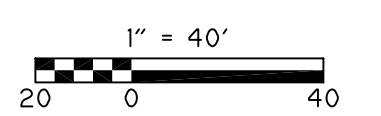
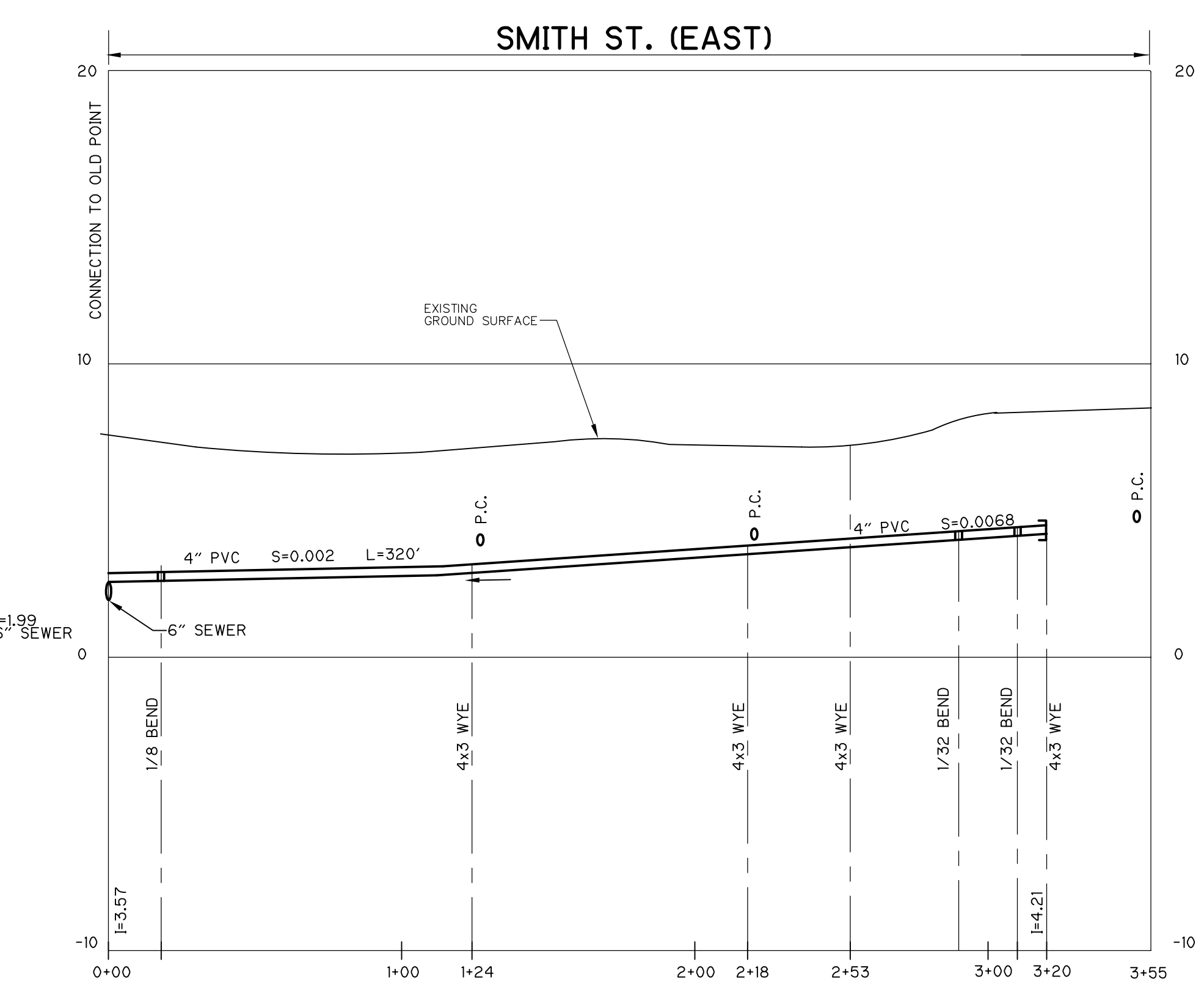
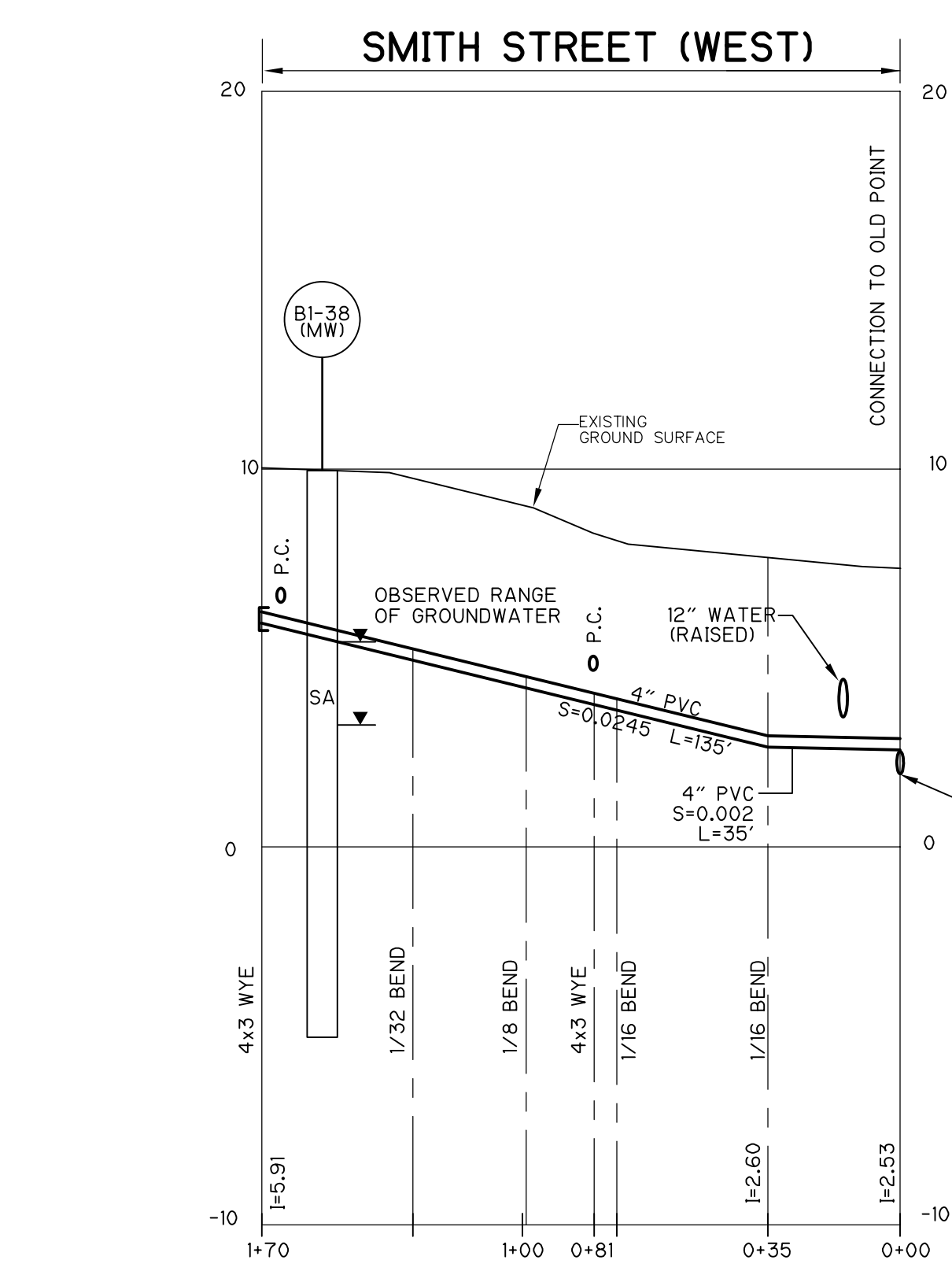
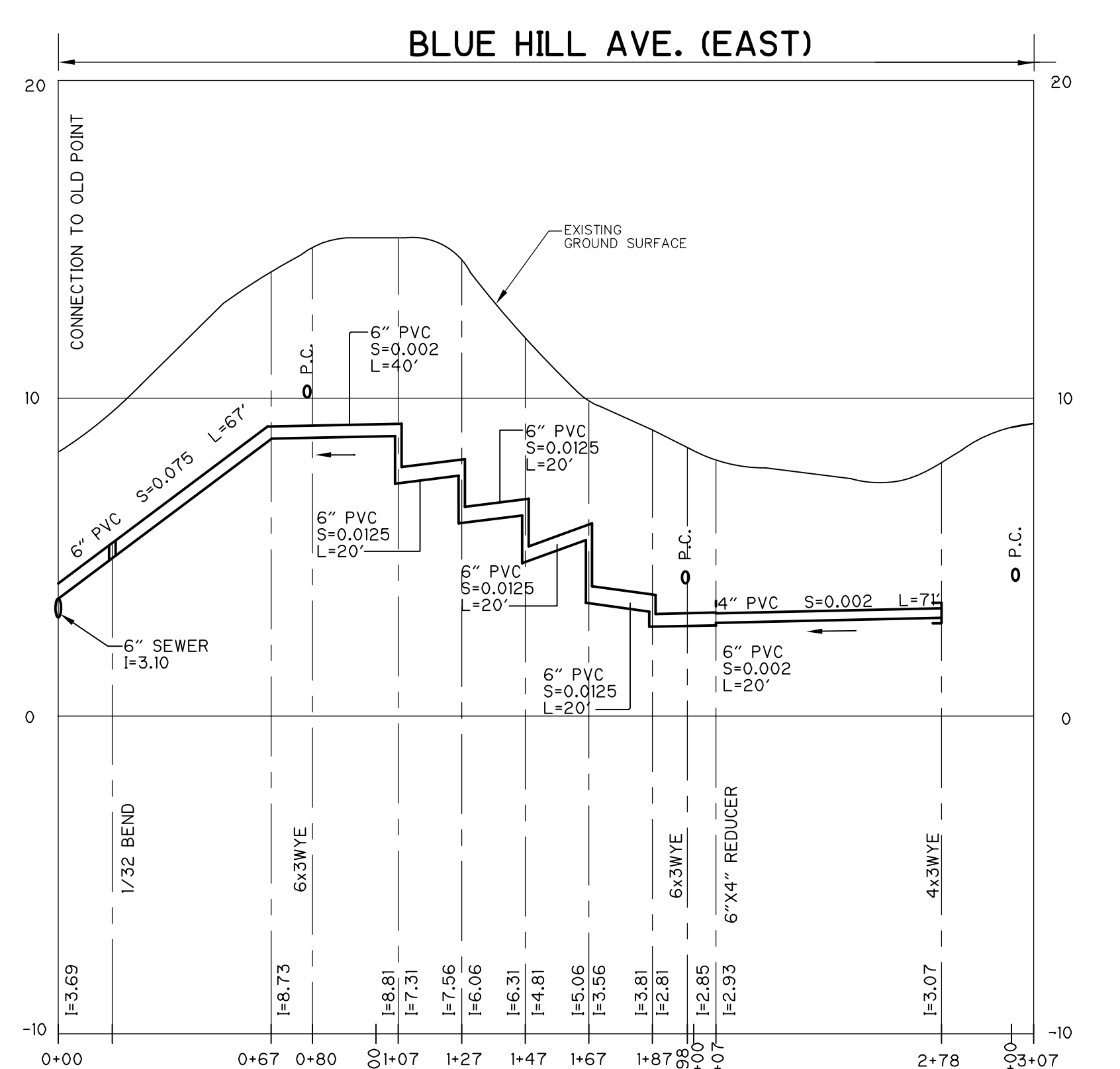
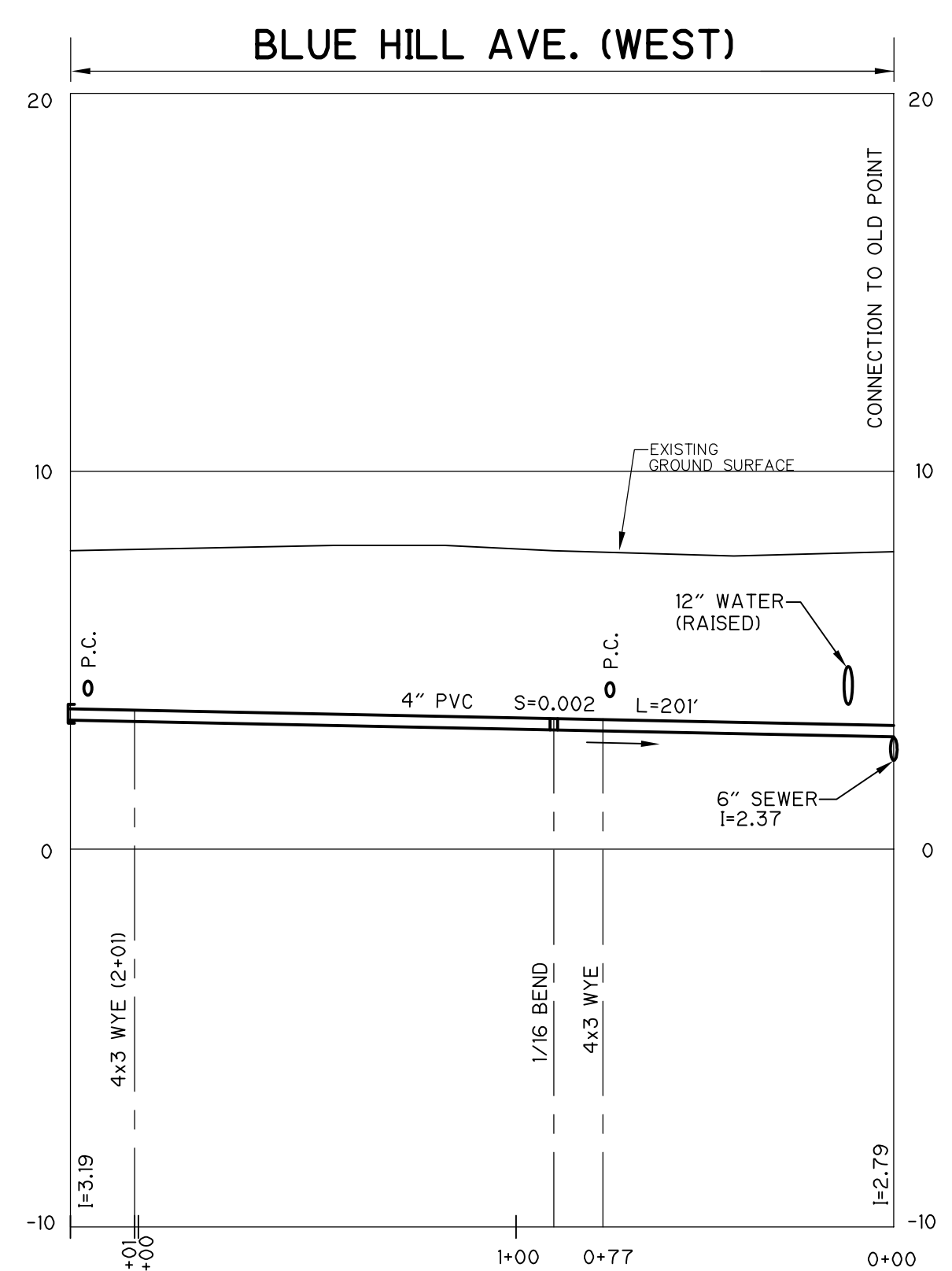
**RECORD DRAWING**

RIVERSIDE DRIVE,  
 DAVOLI WAY, AND FINNEGAN WAY

PROJECT NO. FILE NAME: CSDPL012
SHEET NO. 12



NOTES:  
1. BLUE HILL AVENUE (WEST), PORTIONS OF BLUE HILL AVENUE (EAST), SMITH STREET (EAST) AND SMITH STREET (WEST) ARE UNPAVED ROADS.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

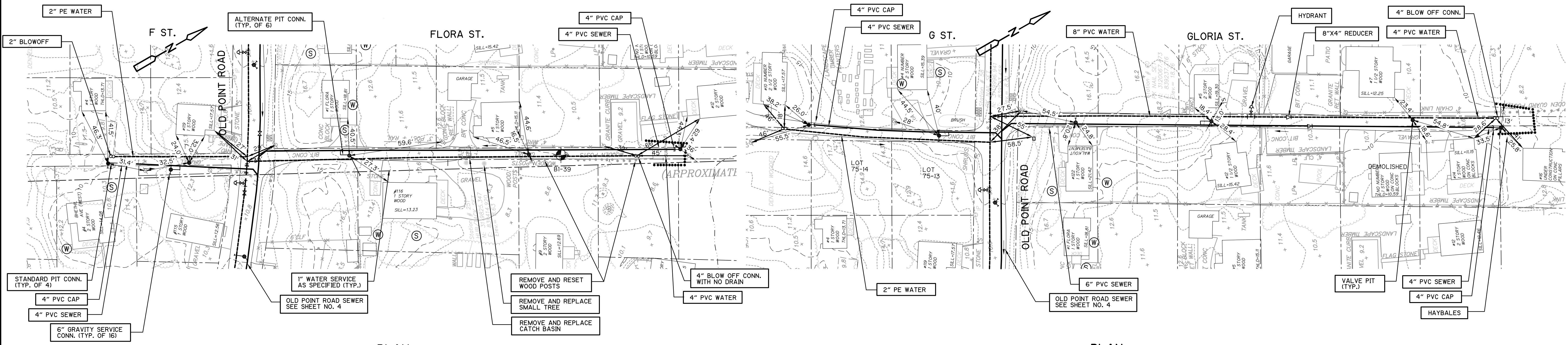
DESIGNED BY: T. McGOVERN  
DRAWN BY: G. BELZAIRE  
SHEET CHK'D BY: E. MARSTEINER  
CROSS CHK'D BY: RALPH SOUPPA  
APPROVED BY: PAUL ROSS  
DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting engineering construction operations

PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 2  
WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS

BLUE HILL AVENUE AND SMITH STREET  
RECORD DRAWING

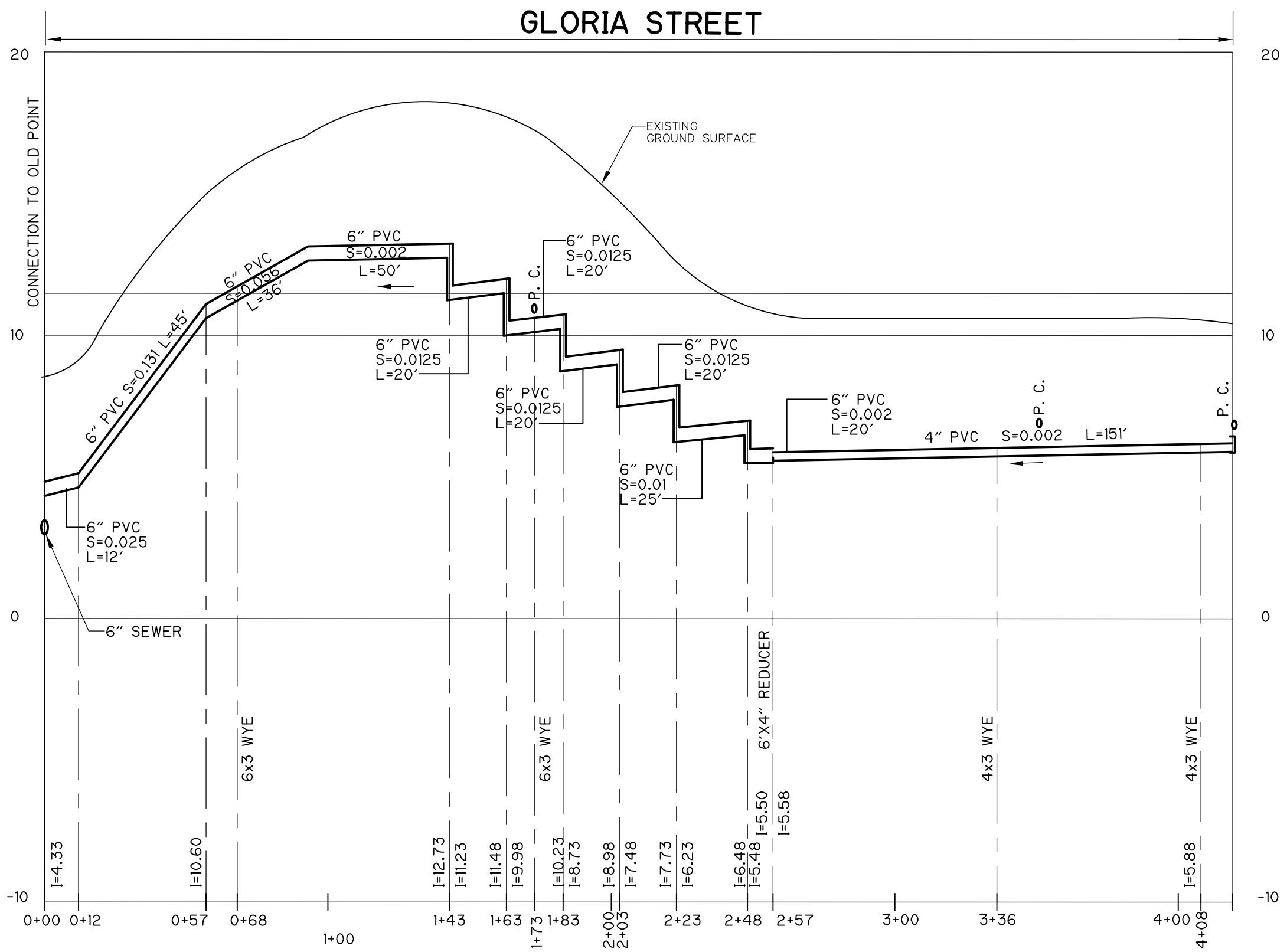
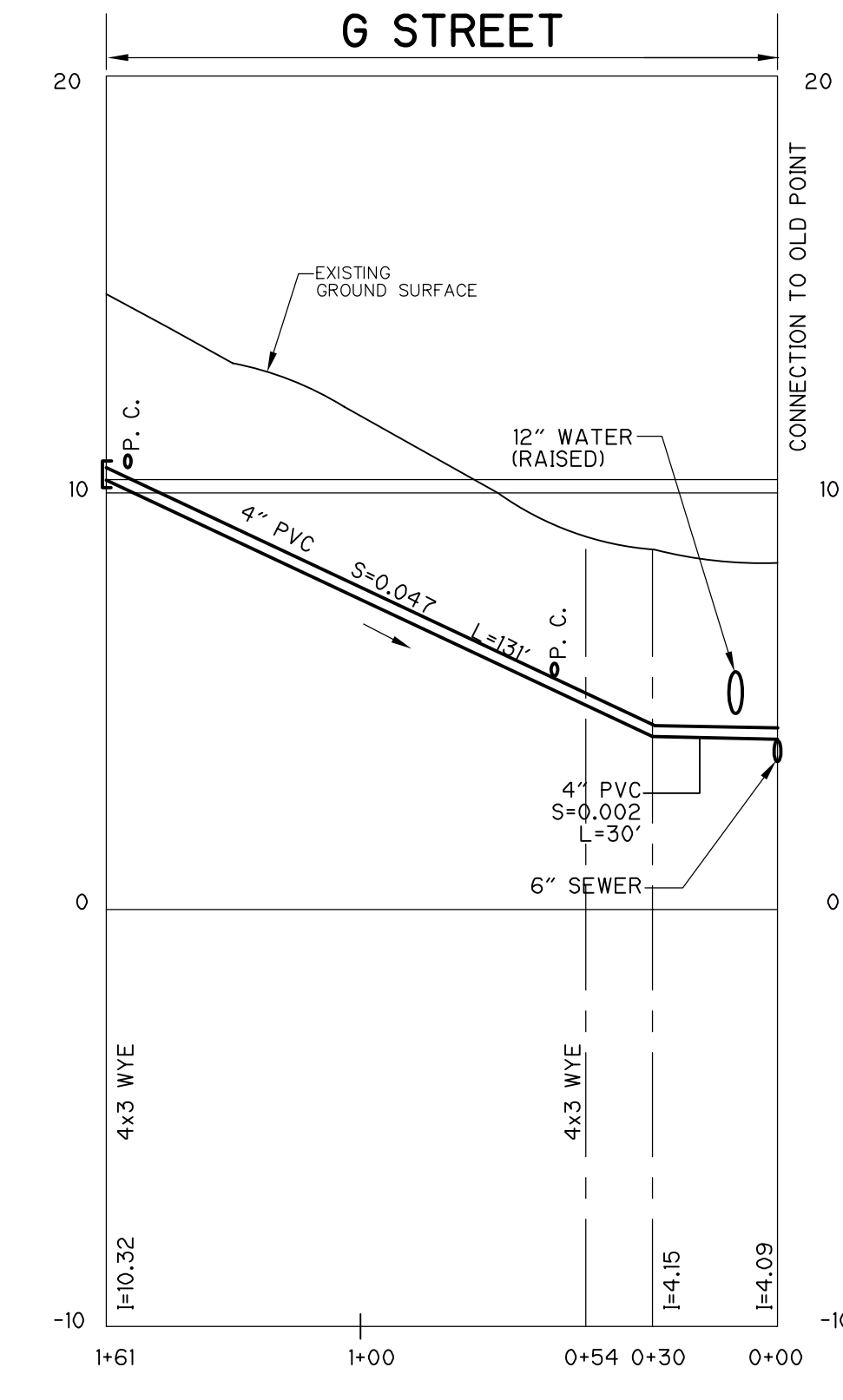
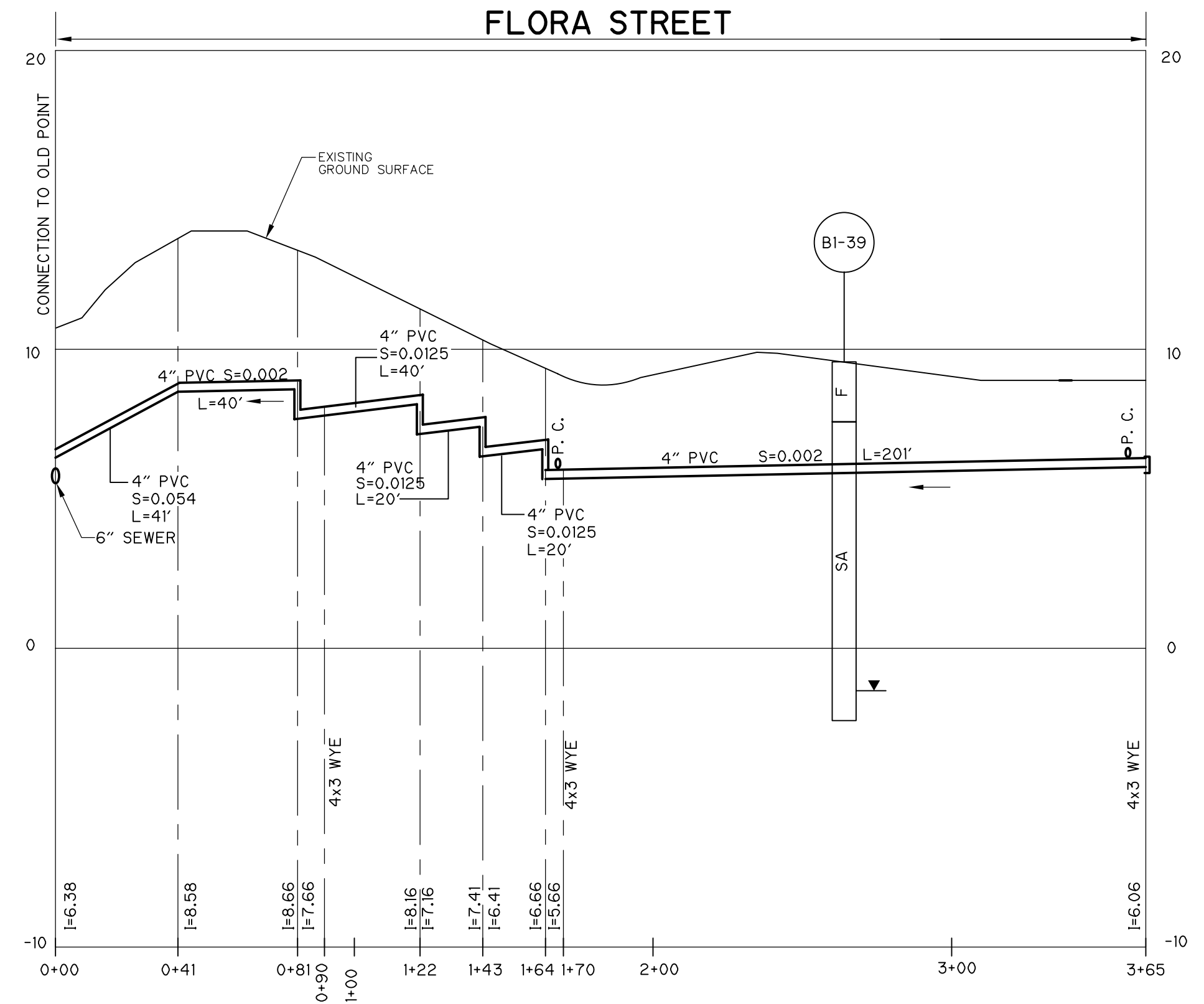
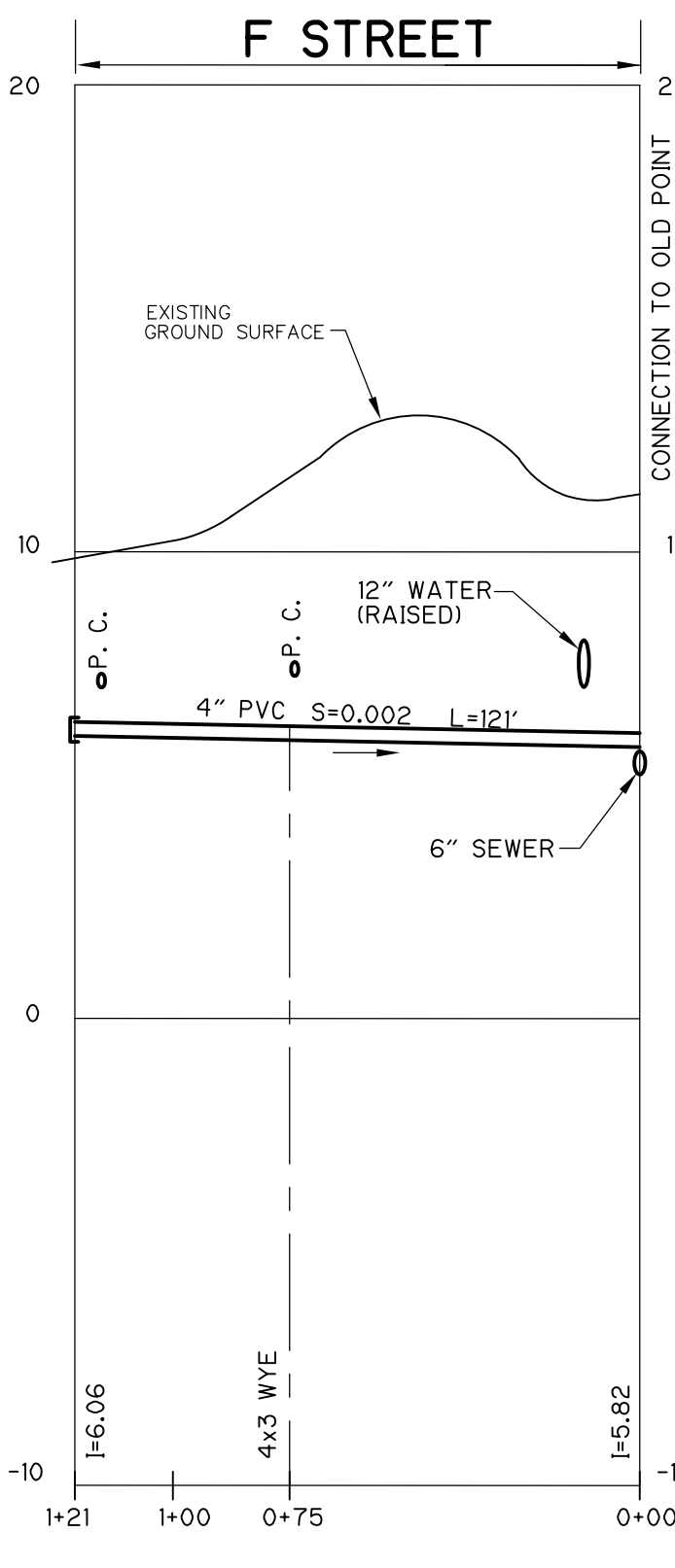
PROJECT NO. FILE NAME: CSTPL013  
SHEET NO. 13



PLAN  
 SCALE: 1"=40'-0"

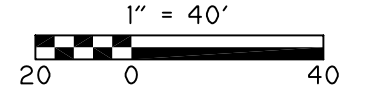
PLAN  
 SCALE: 1"=40'-0"

NOTES:  
 1. F STREET AND PORTIONS OF FLORA STREET ARE UNPAVED ROADS THAT SHALL BE PAVED.



PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

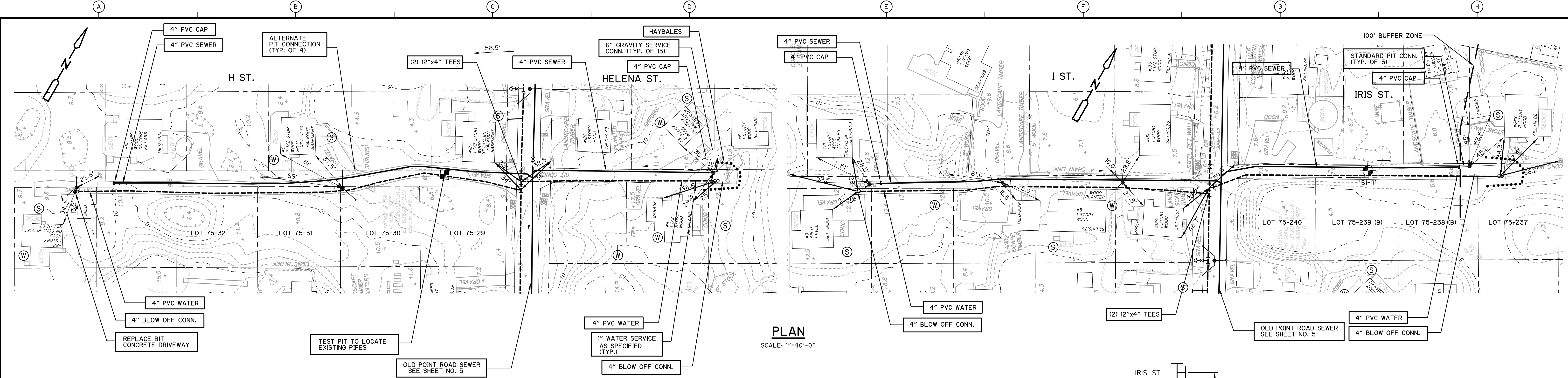
DESIGNED BY: T. MCGOVERN  
 DRAWN BY: G. BELIZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
 engineering  
 construction  
 operations

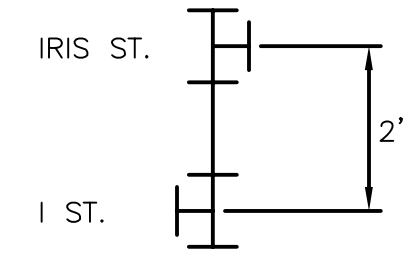
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**F STREET, FLORA STREET,  
 G STREET, AND GLORIA STREET**

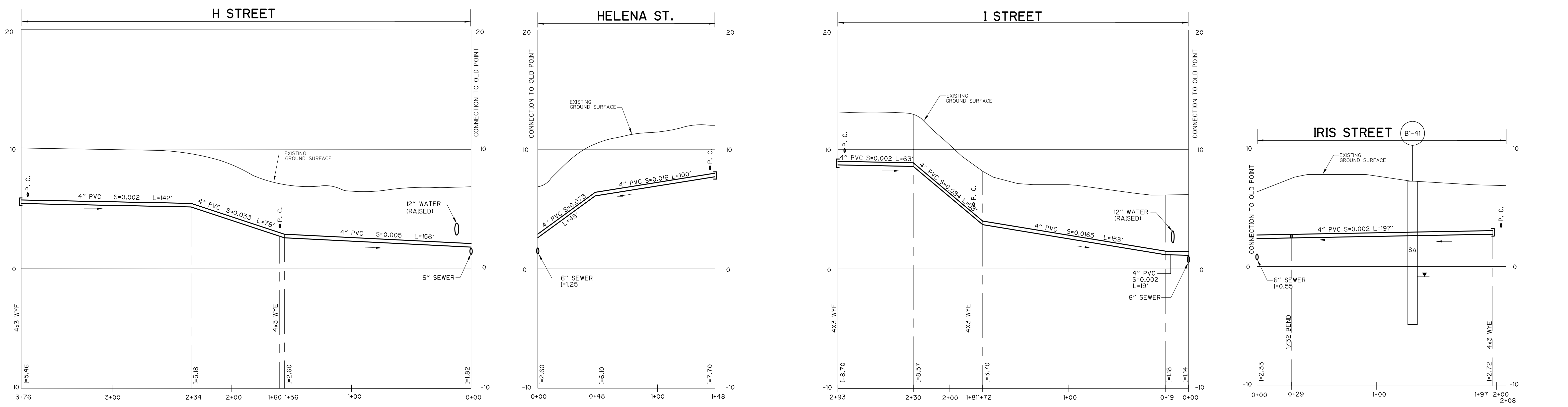
PROJECT NO. FILE NAME: CSTPL014
SHEET NO. <b>14</b>



PLAN  
SCALE: 1"=40'-0"

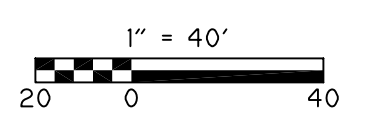


NOTES:  
1. H STREET IS AN UNPAVED ROAD THAT SHALL BE PAVED.



PROFILE  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

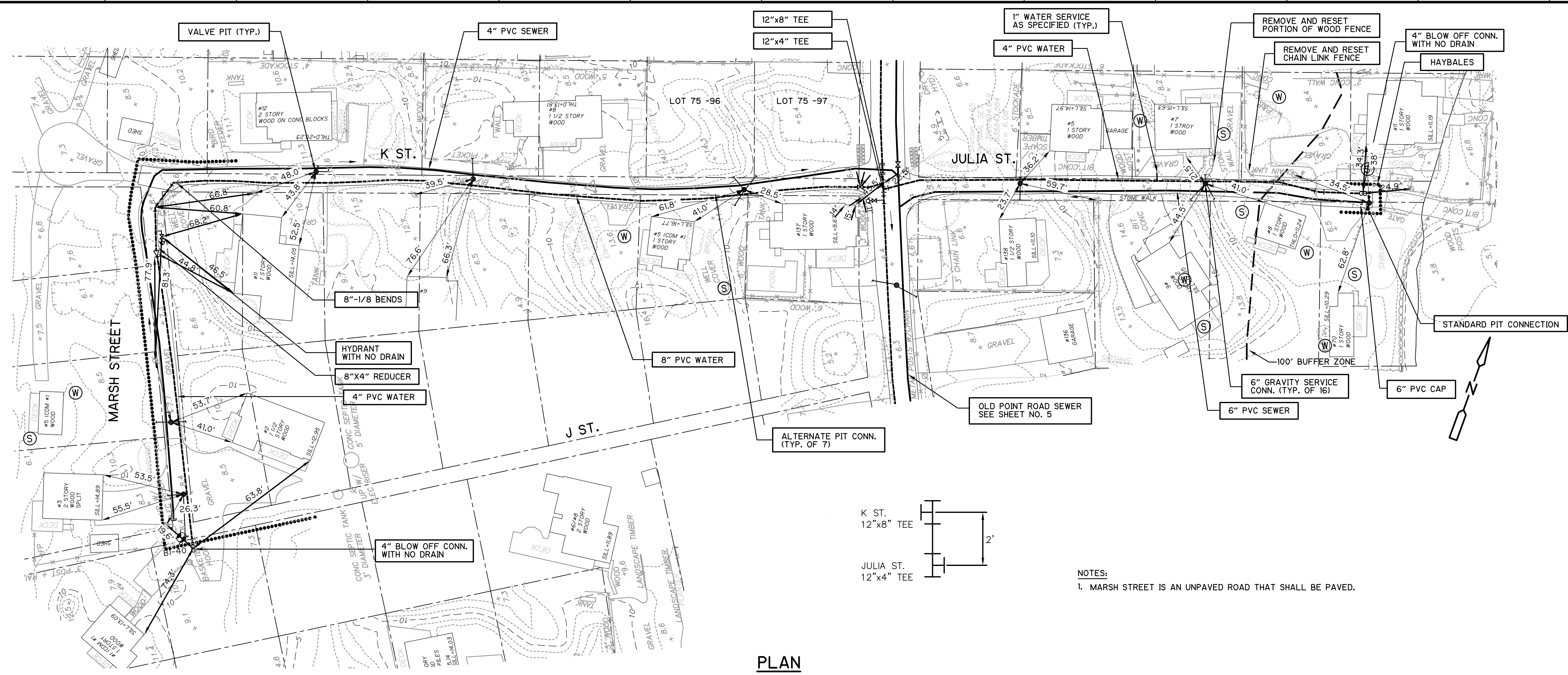
DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
engineers  
construction  
operation

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

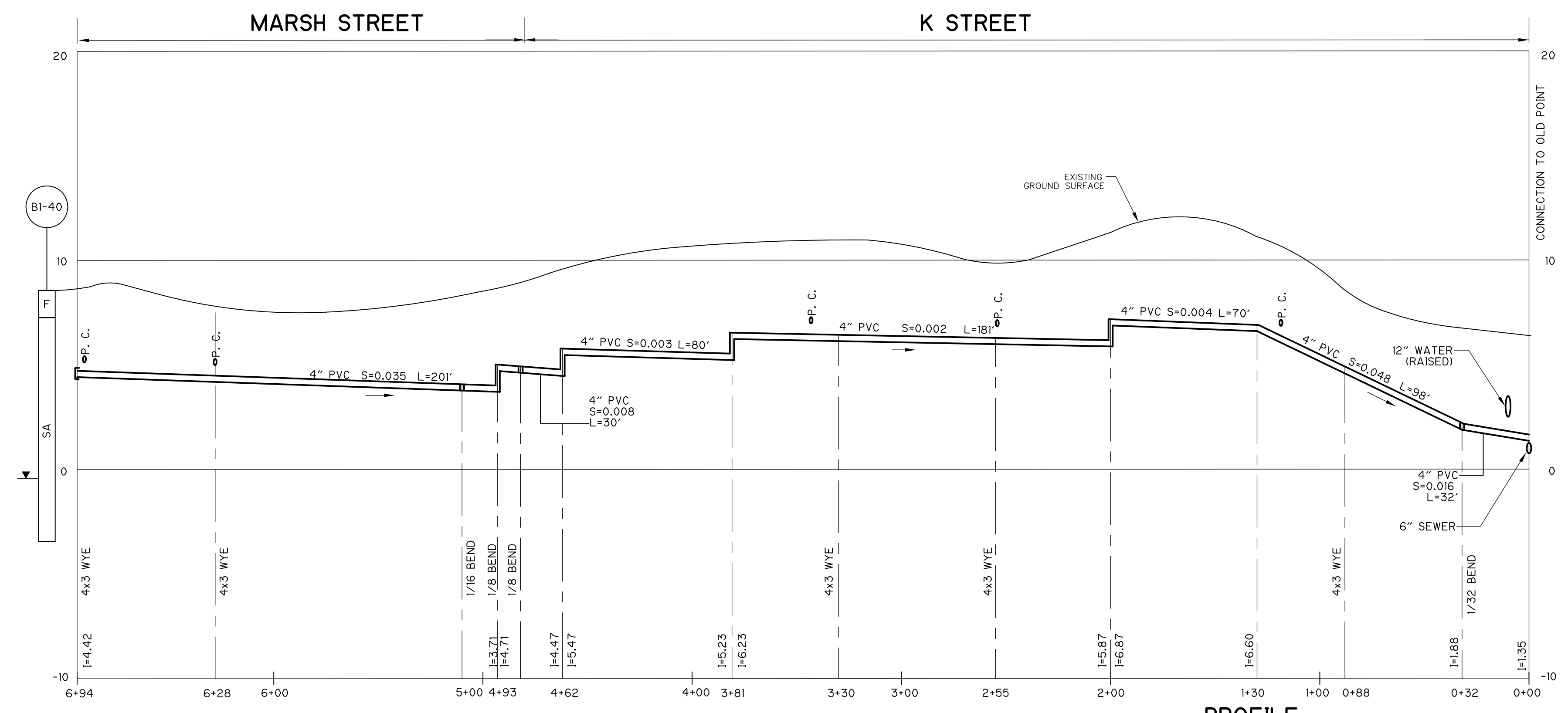
**H STREET, HELENA STREET,  
 I STREET, AND IRIS STREET**

PROJECT NO. FILE NAME: CSTPL015  
 SHEET NO. **15**

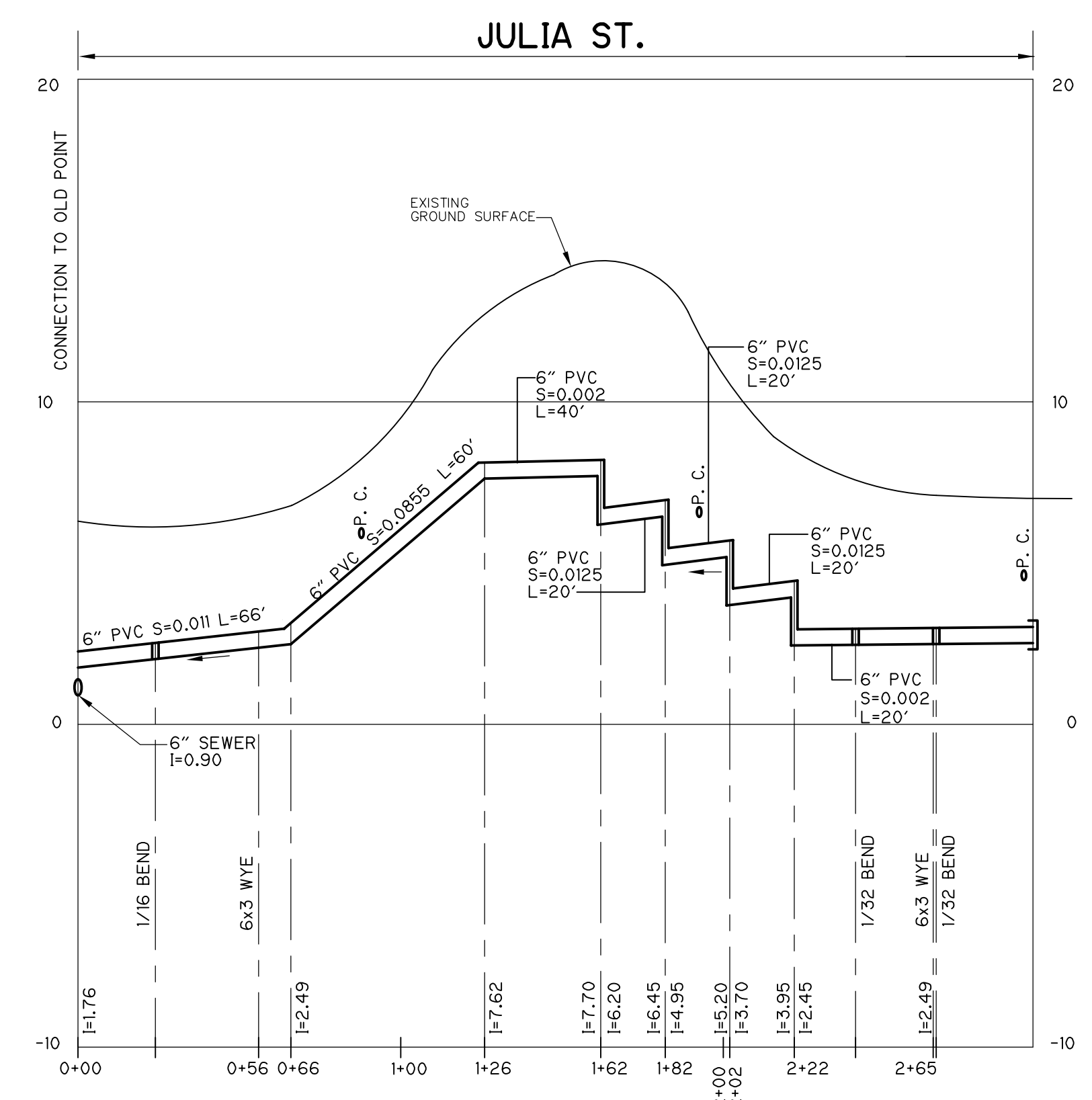


**PLAN**  
SCALE: 1"=40'-0"

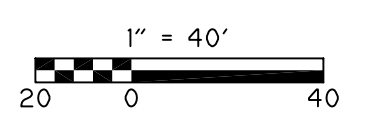
NOTES:  
1. MARSH STREET IS AN UNPAVED ROAD THAT SHALL BE PAVED.



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"



**RECORD DRAWING**



DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.

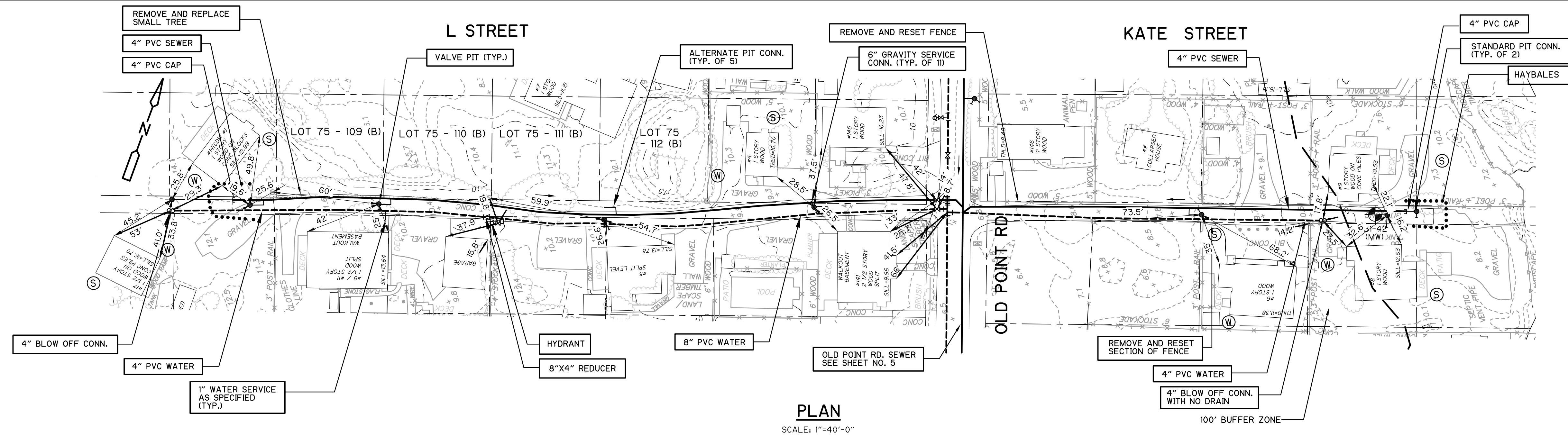
PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 2

**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**K STREET, JULIA STREET  
AND MARSH STREET**

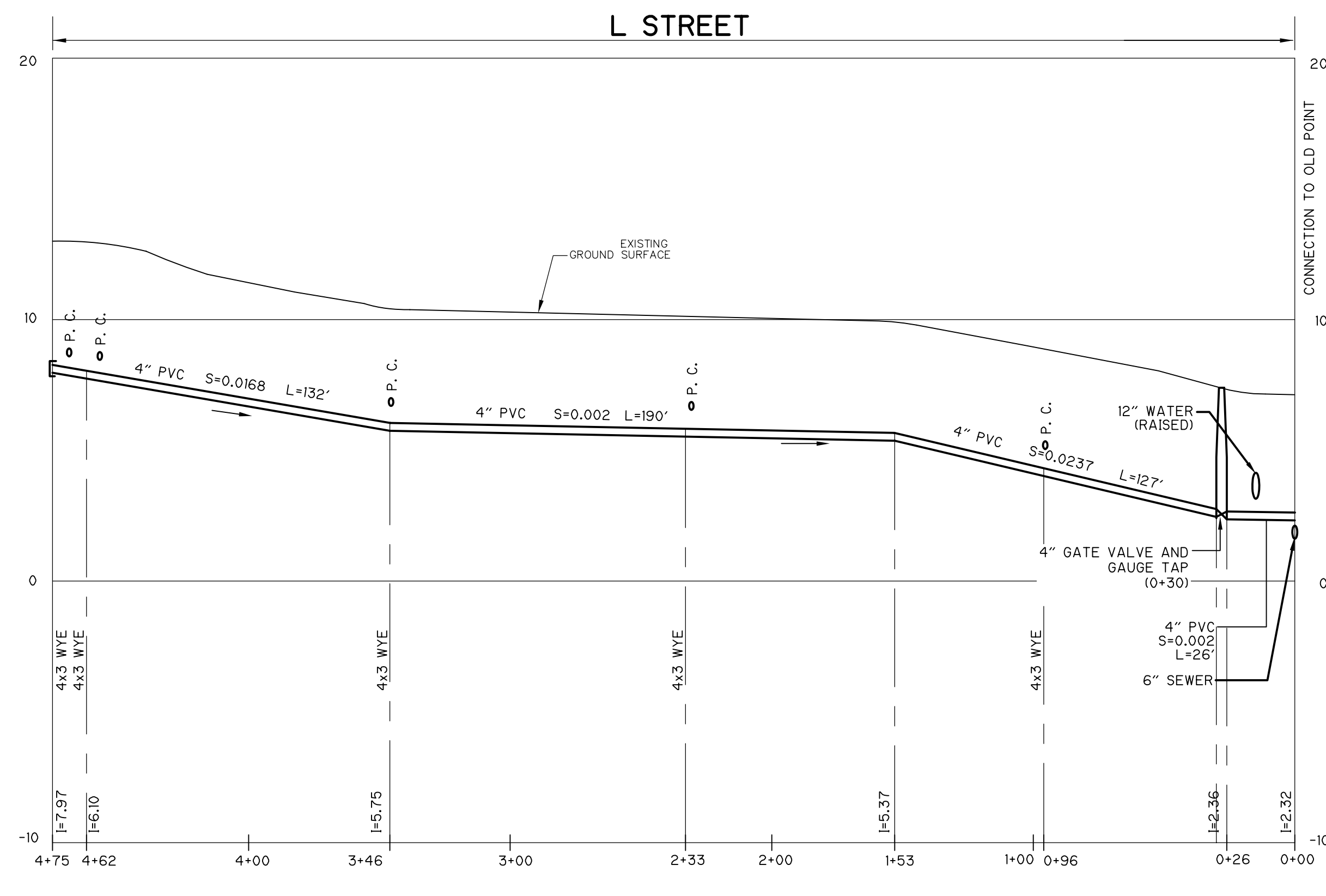
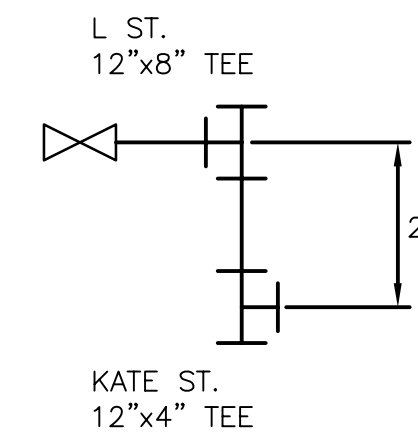
PROJECT NO.	CSTPL016
FILE NAME:	CSTPL016
SHEET NO.	16





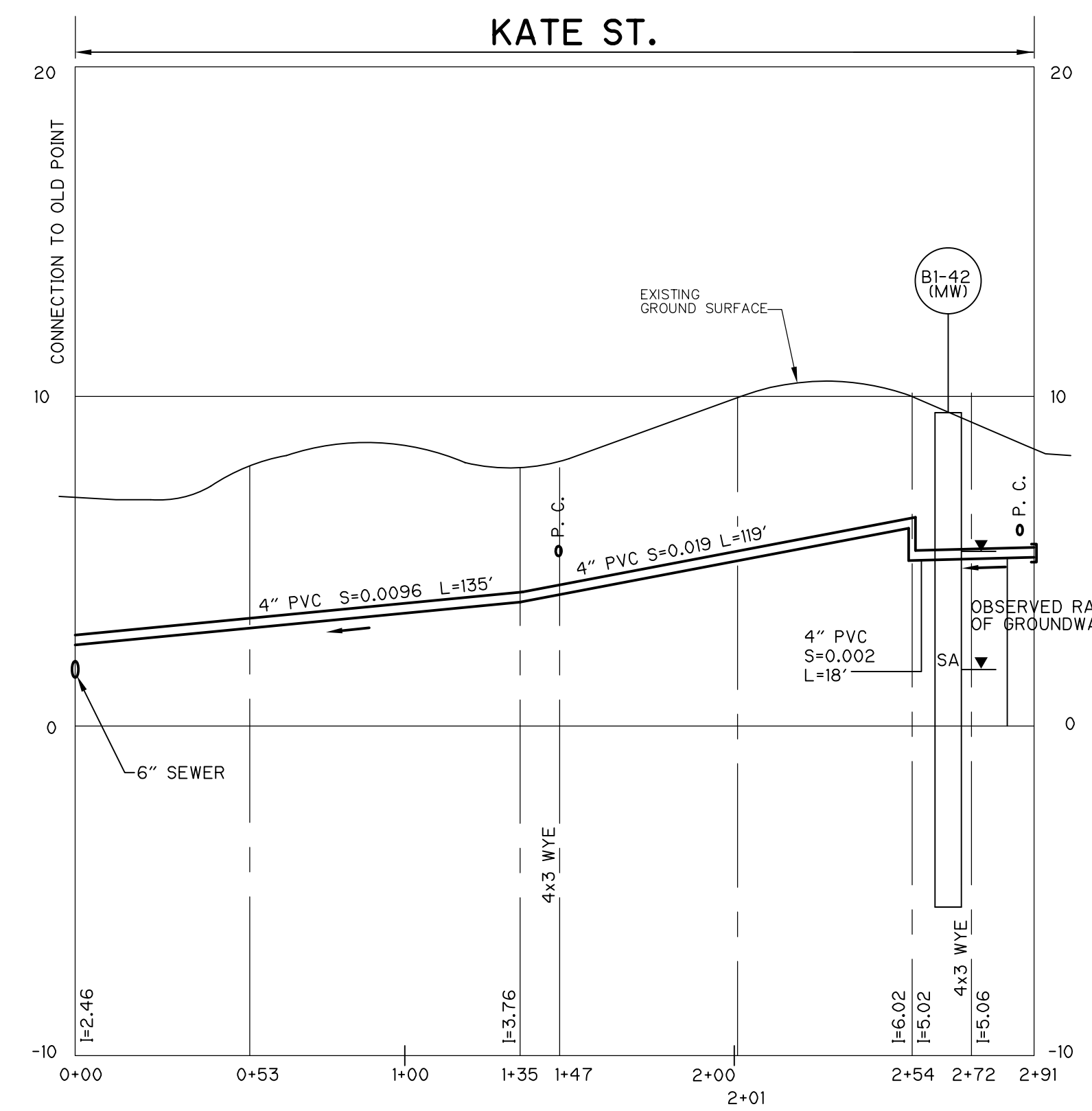
**PLAN**

SCALE: 1"=40'-0"

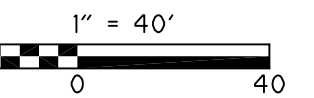


**PROFILE**

SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



RECORD DRAWING



DESIGNED BY:	T. MCGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2007

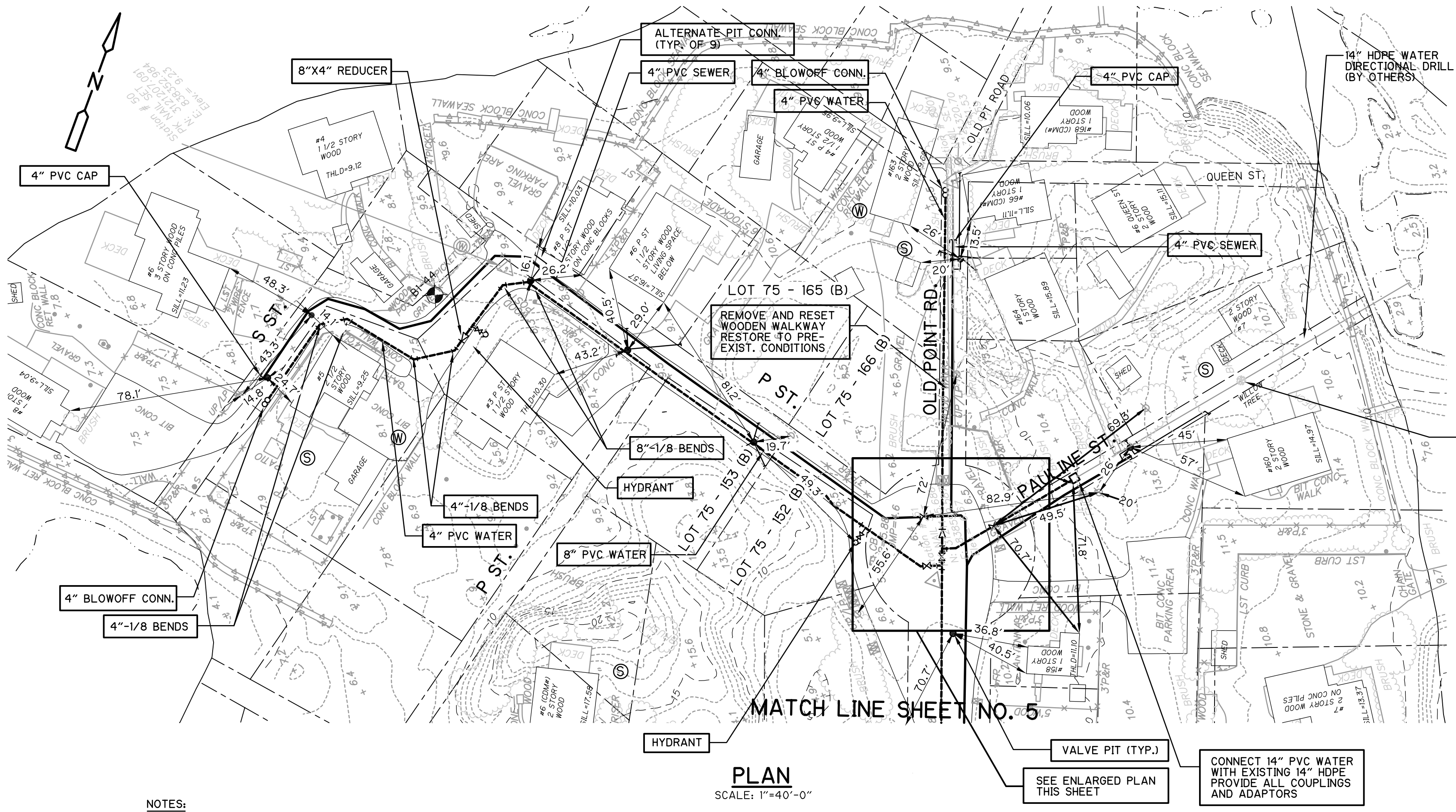
**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**L STREET AND KATE STREET**  
 SHEET NO. 17

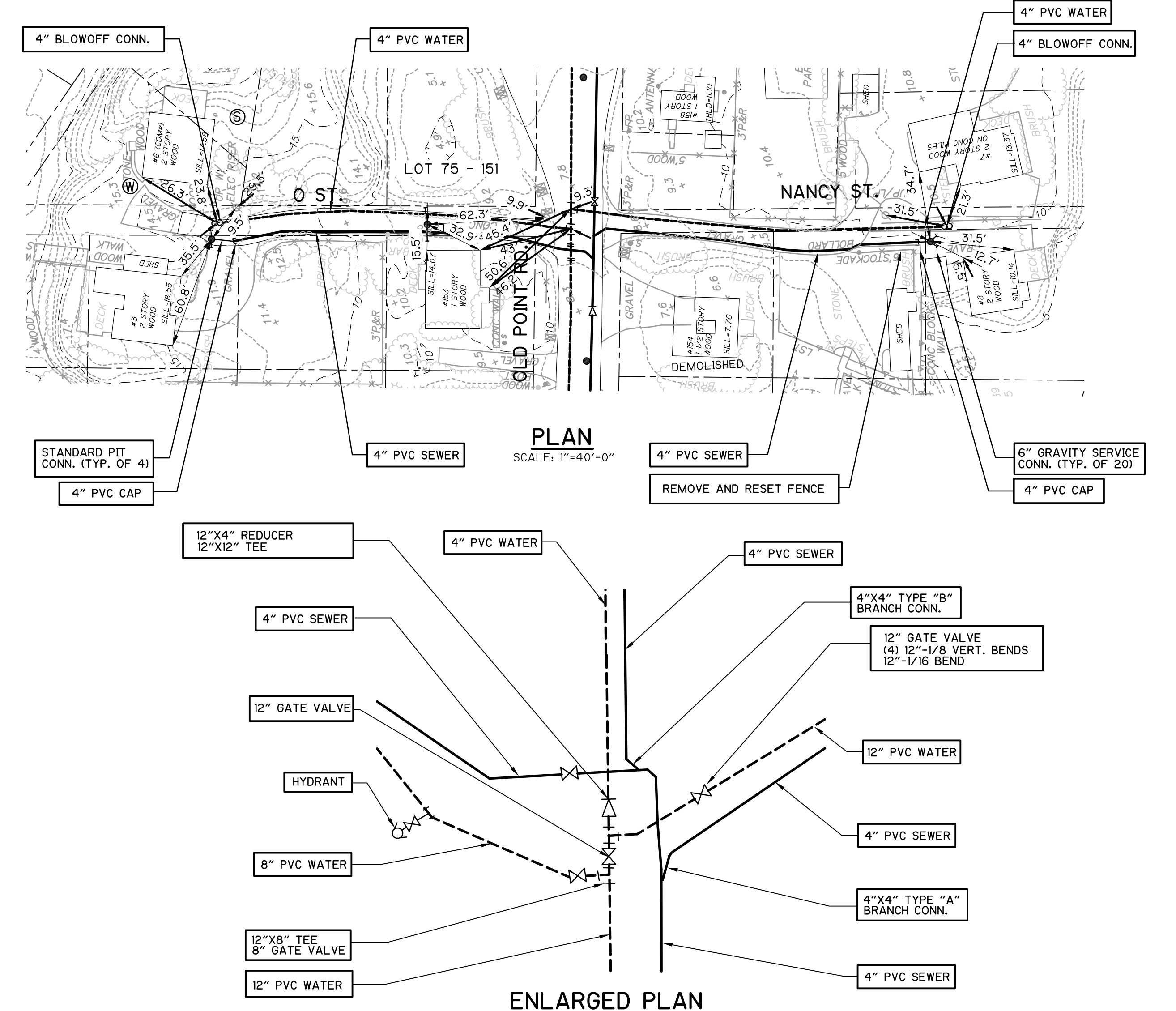
PROJECT NO.	9451-62743
FILE NAME:	CSTPL017
SHEET NO.	17





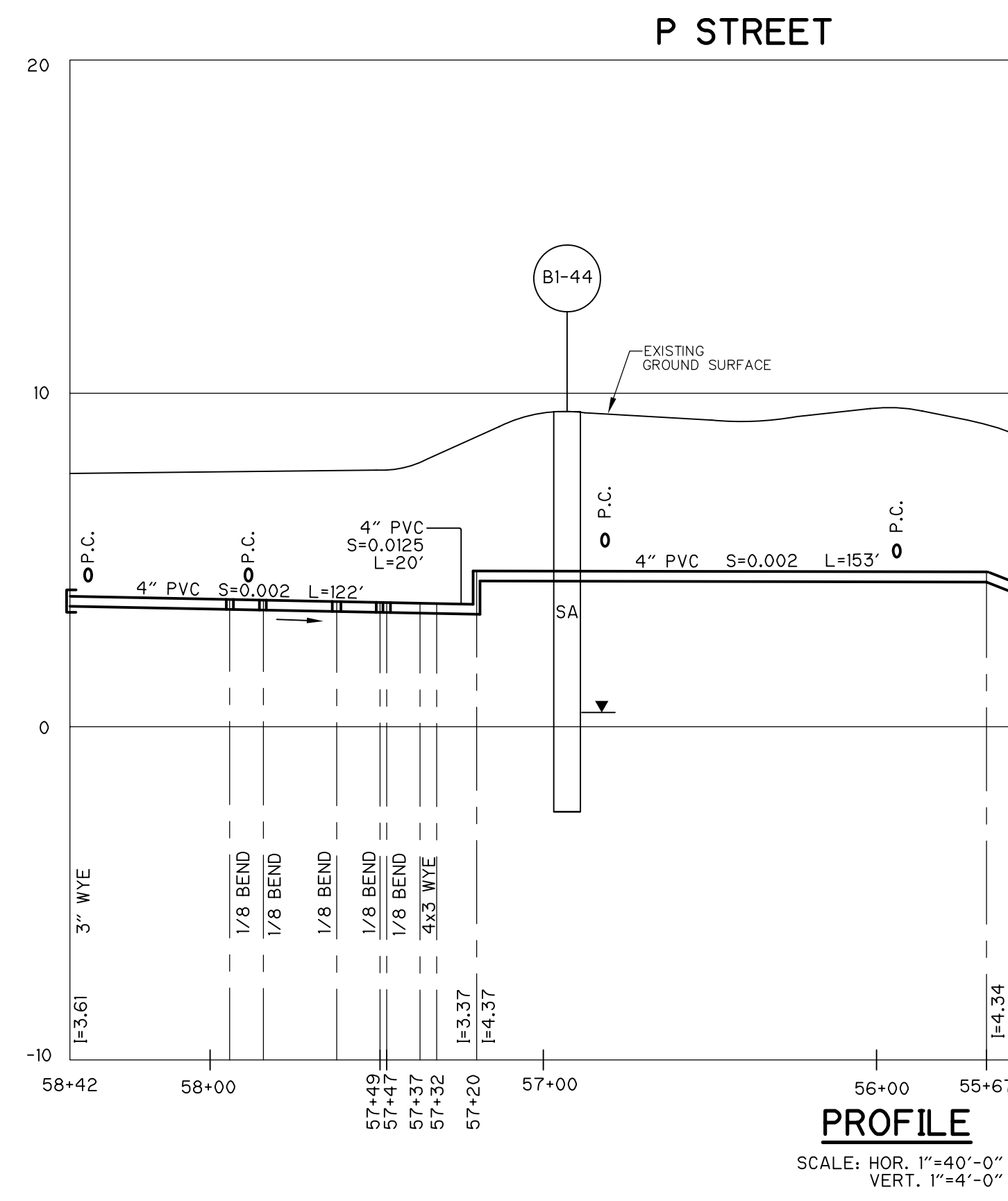
- NOTES:**
1. PAULINE STREET SHALL NOT BE PAVED. RETURN TO PRE-EXISTING CONDITIONS.
  2. NANCY STREET IS AN UNPAVED ROAD THAT SHALL BE PAVED.

**PLAN**  
SCALE: 1"=40'-0"

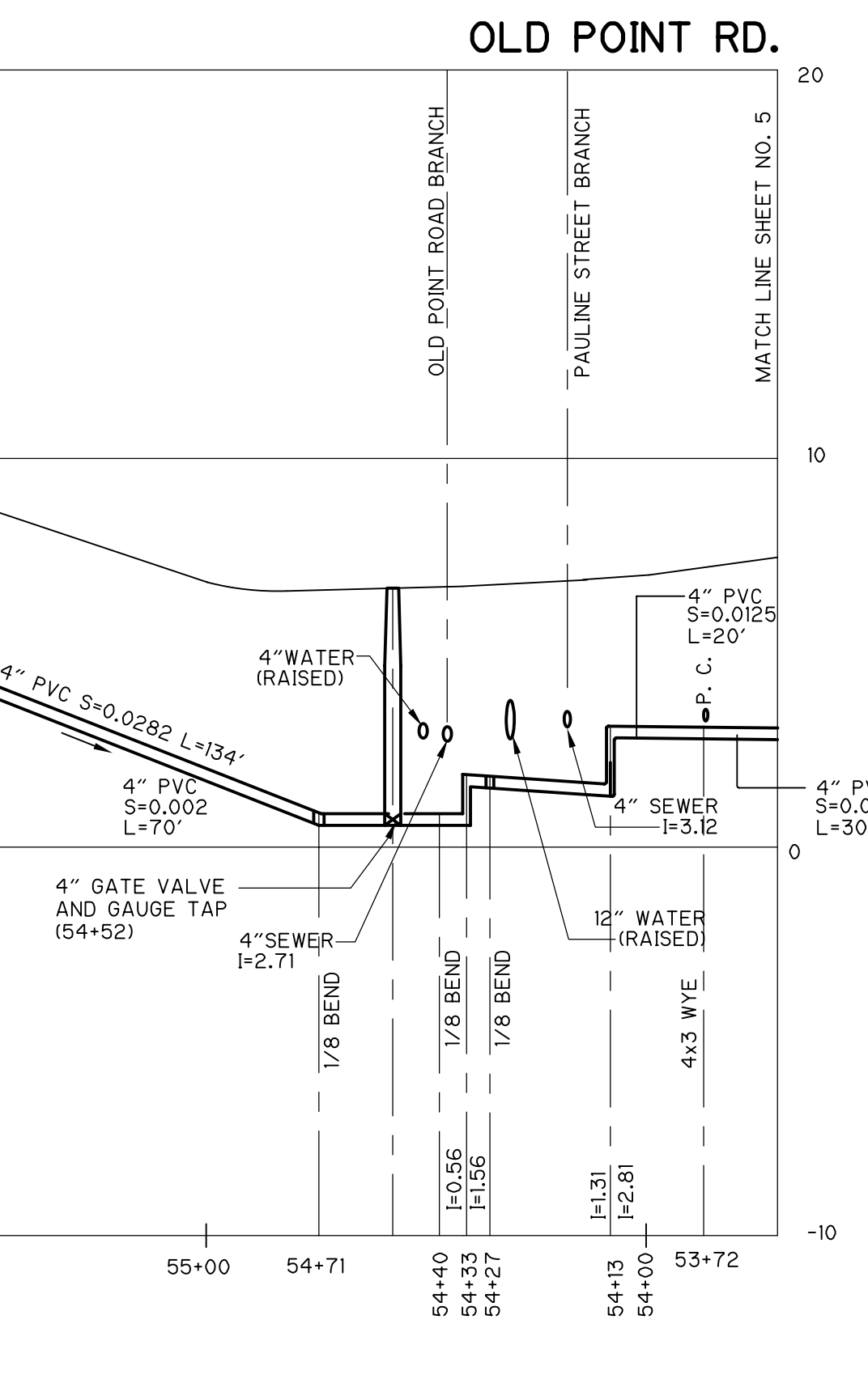


**PLAN**  
SCALE: 1"=40'-0"

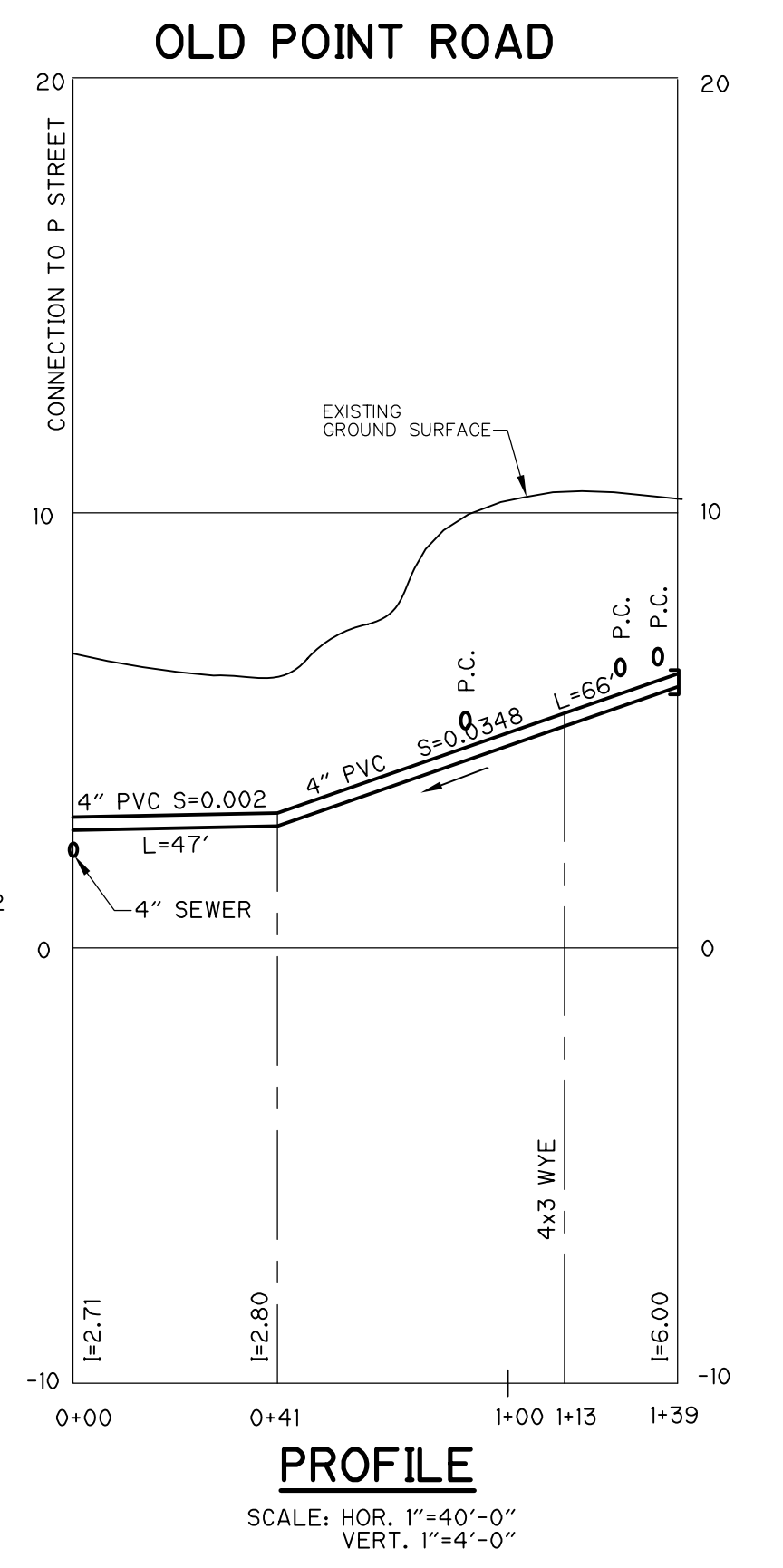
**ENLARGED PLAN**  
SCALE: 1"=20'-0"



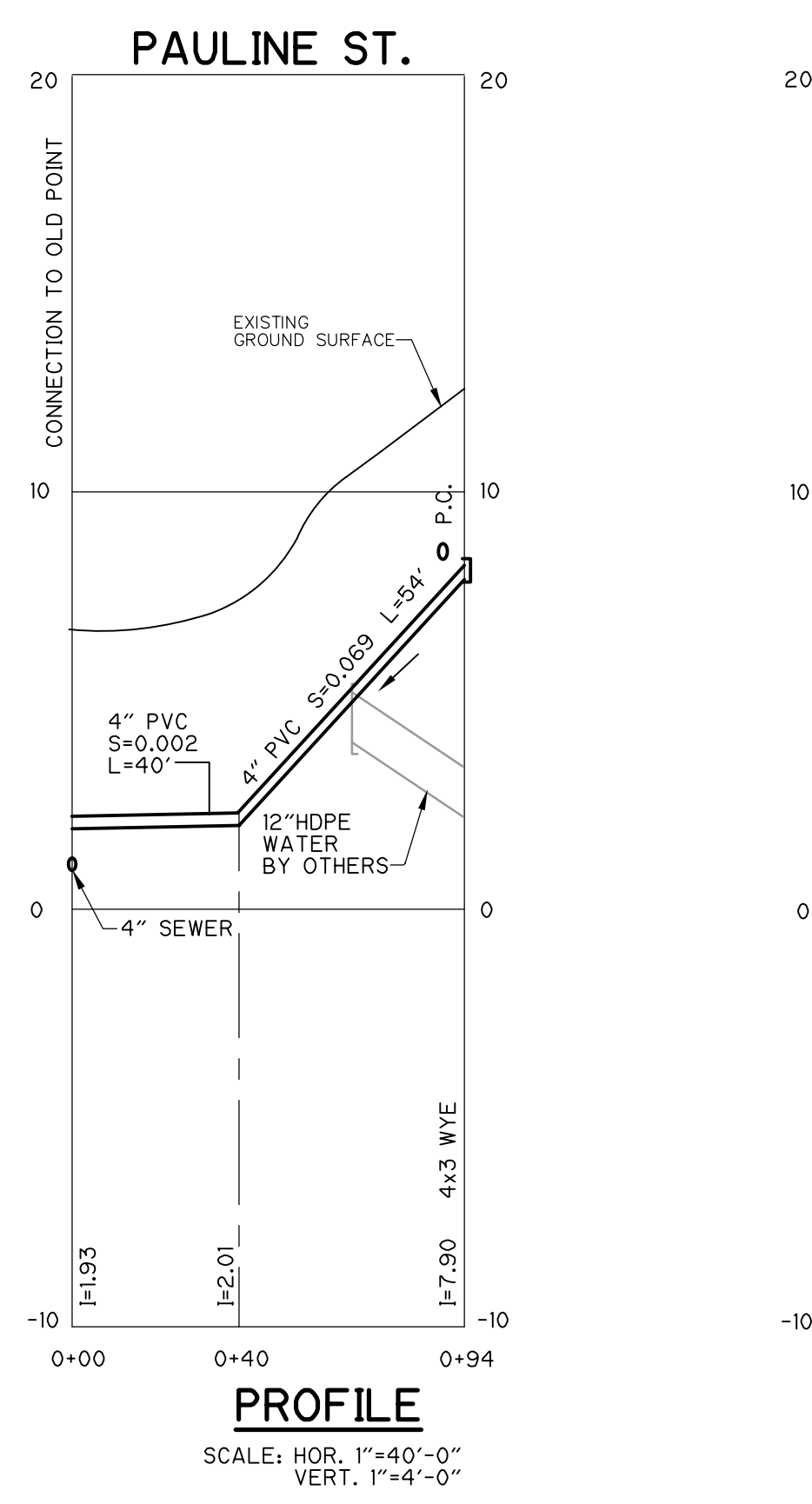
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"



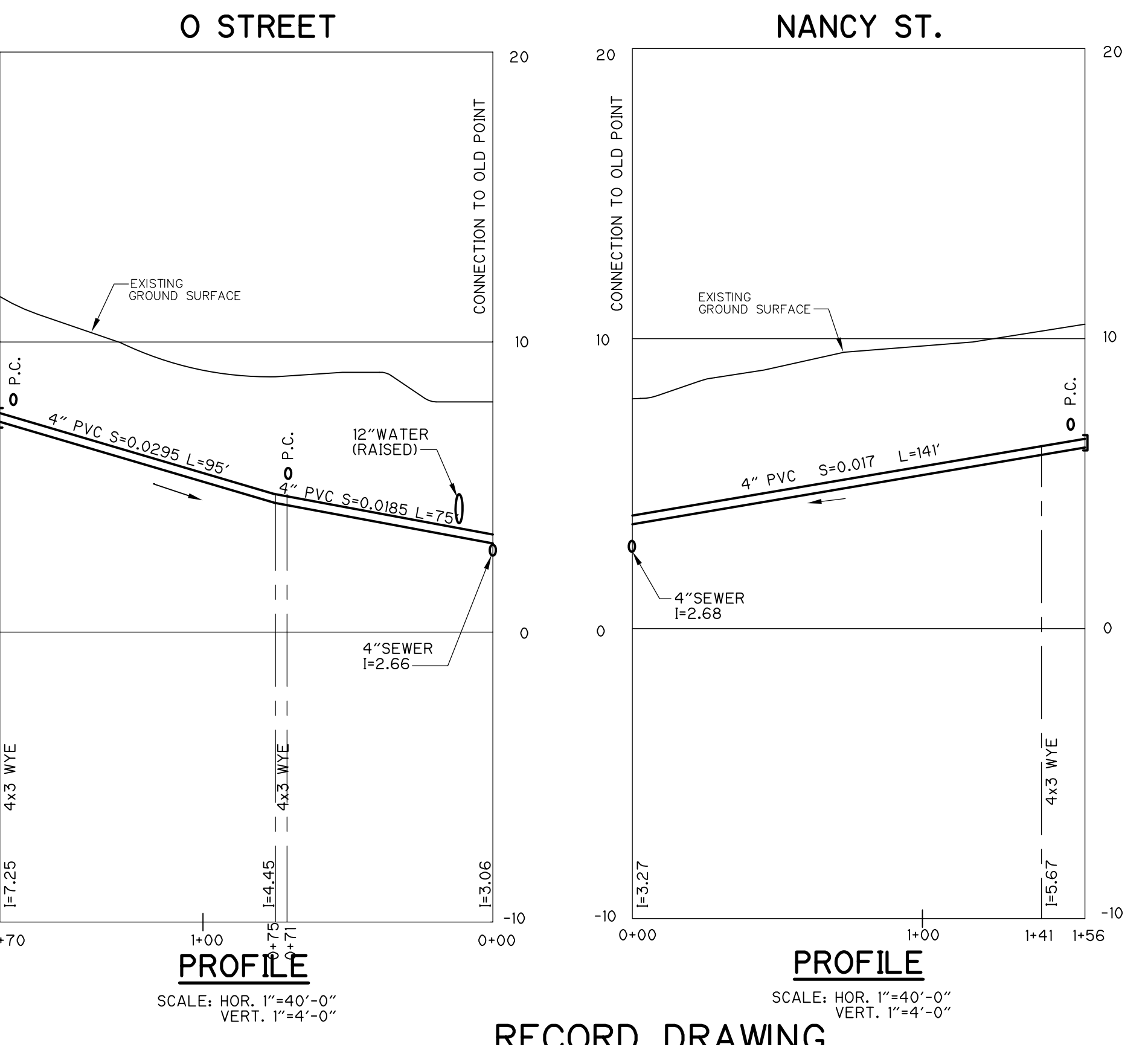
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

**RECORD DRAWING**

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

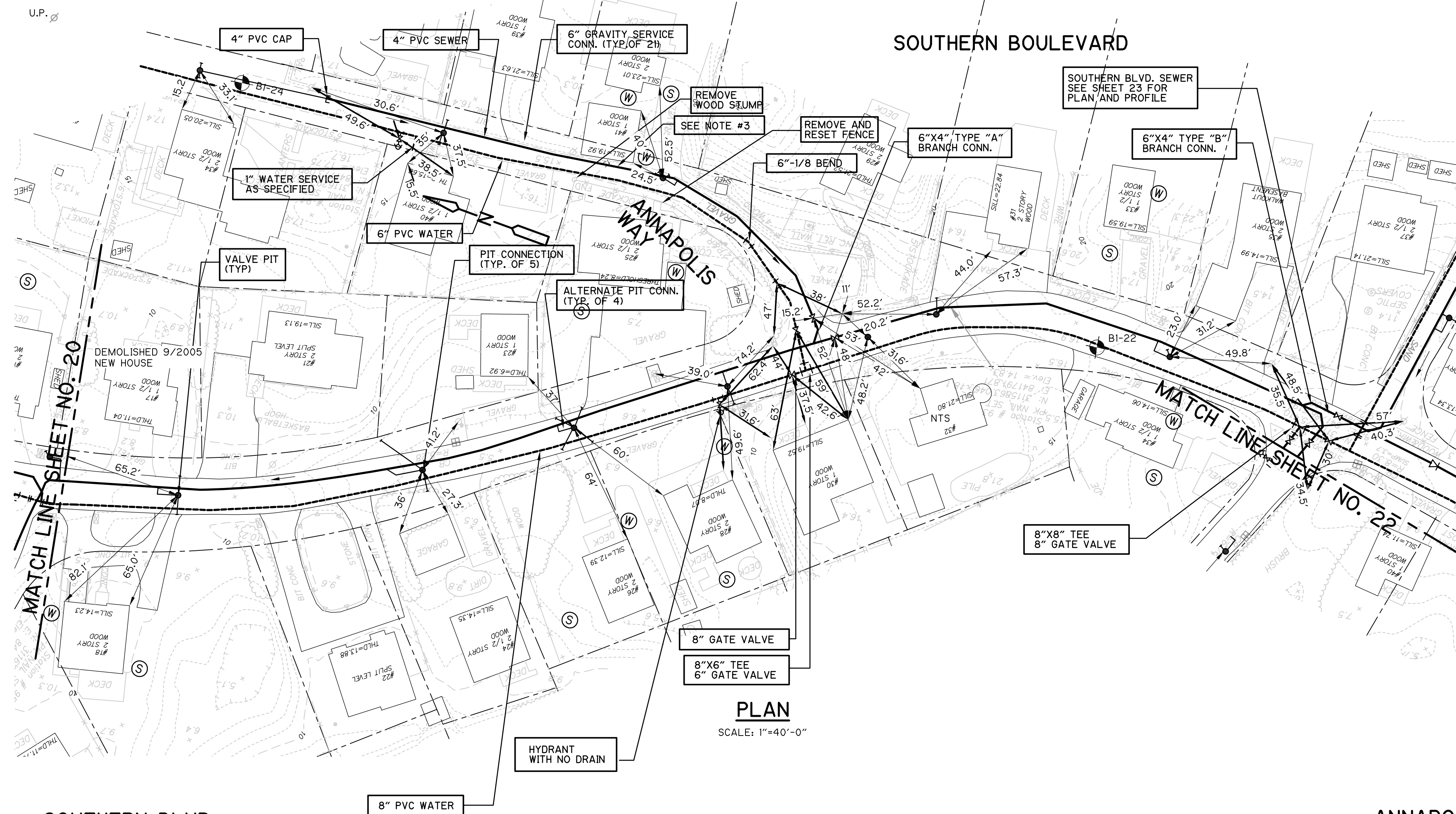
S STREET, P STREET, QUEEN STREET,  
 PAULINE STREET, O STREET,  
 NANCY STREET AND OLD POINT ROAD

PROJECT NO.	CSTPL019
FILE NAME:	CSTPL019
SHEET NO.	19

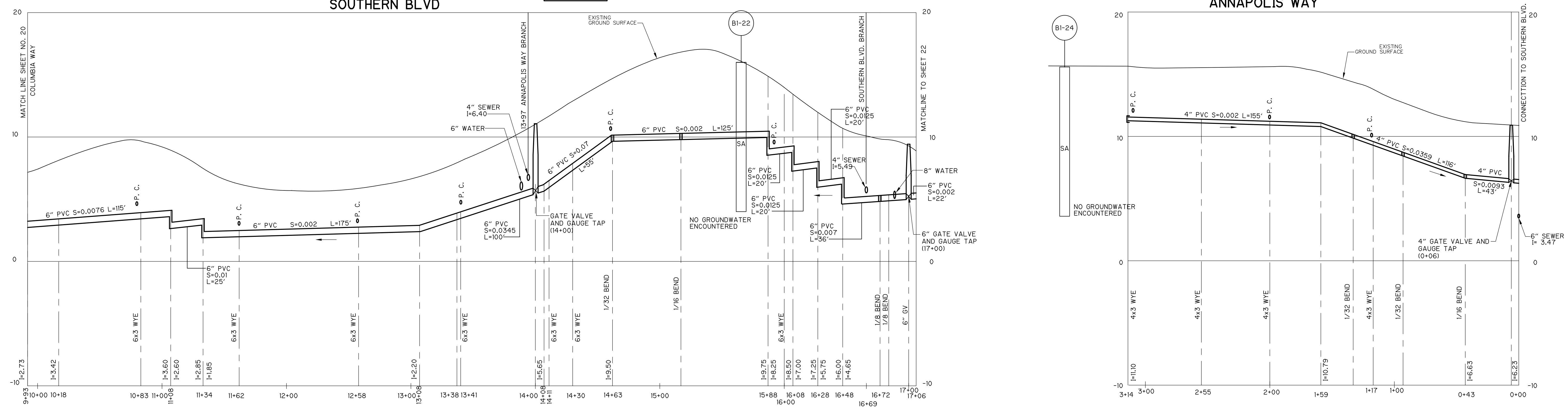


[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] Xref's: [c:\p000000\_cbsp0002.dwg] Plotted by: PETRUKHINTM Time: 11/13/2007 8:05:07 AM  
 File name: P:\9451\30964\ASBUIL\CONT3\CIVIL\CSTPL022.DWG

- NOTES:**
- ANNAPOLIS WAY IS AN UNPAVED ROAD.
  - SHIFT SEWER AND WATER PIPES AWAY FROM HOUSE #41 ANNAPOLIS WAY IF NECESSARY.

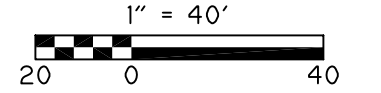


**PLAN**  
SCALE: 1"=40'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

**RECORD DRAWING**



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY:	T. McGOVERN	
DRAWN BY:	G. BELZAIRE	
SHEET CHK'D BY:	E. MARSTEINER	
CROSS CHK'D BY:	RALPH SOUPPA	
APPROVED BY:	PAUL ROSS	
DATE:	OCTOBER 2001	

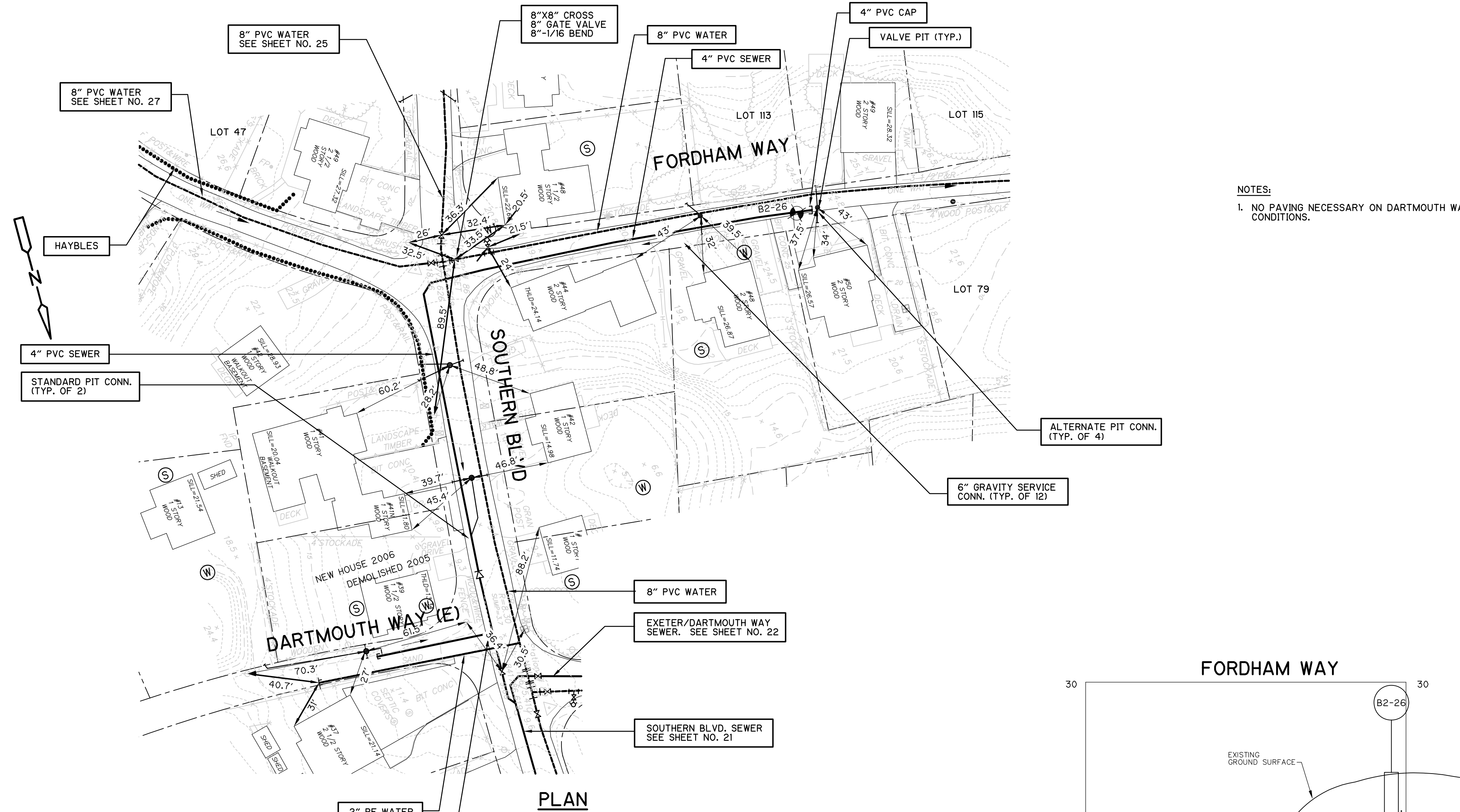
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**SOUTHERN BOULEVARD**  
**ANNAPOLIS WAY**  
 SHEET NO.  
**21**

PROJECT NO.	FILE NAME:
SHEET NO.	

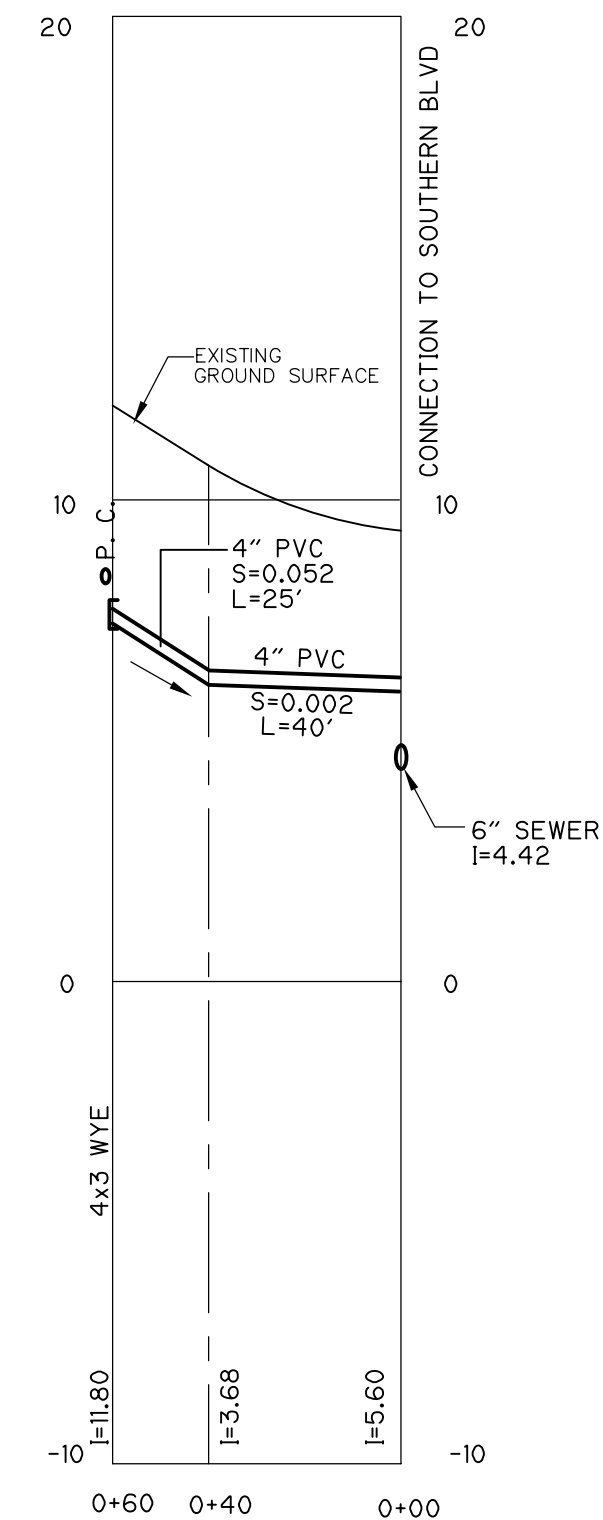


[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] Plotted by: PETRUKHINTM Time: 11/13/2007 8:15:06 AM  
 File name: P:\9451\30964\ASBUILT\CONTR3\CIVIL\CSTPL033.DWG Xref's: [LAYOUT, CBSPL002, ]



**NOTES:**  
 1. NO PAVING NECESSARY ON DARTMOUTH WAY (E). RETURN TO PRE-EXISTING CONDITIONS.

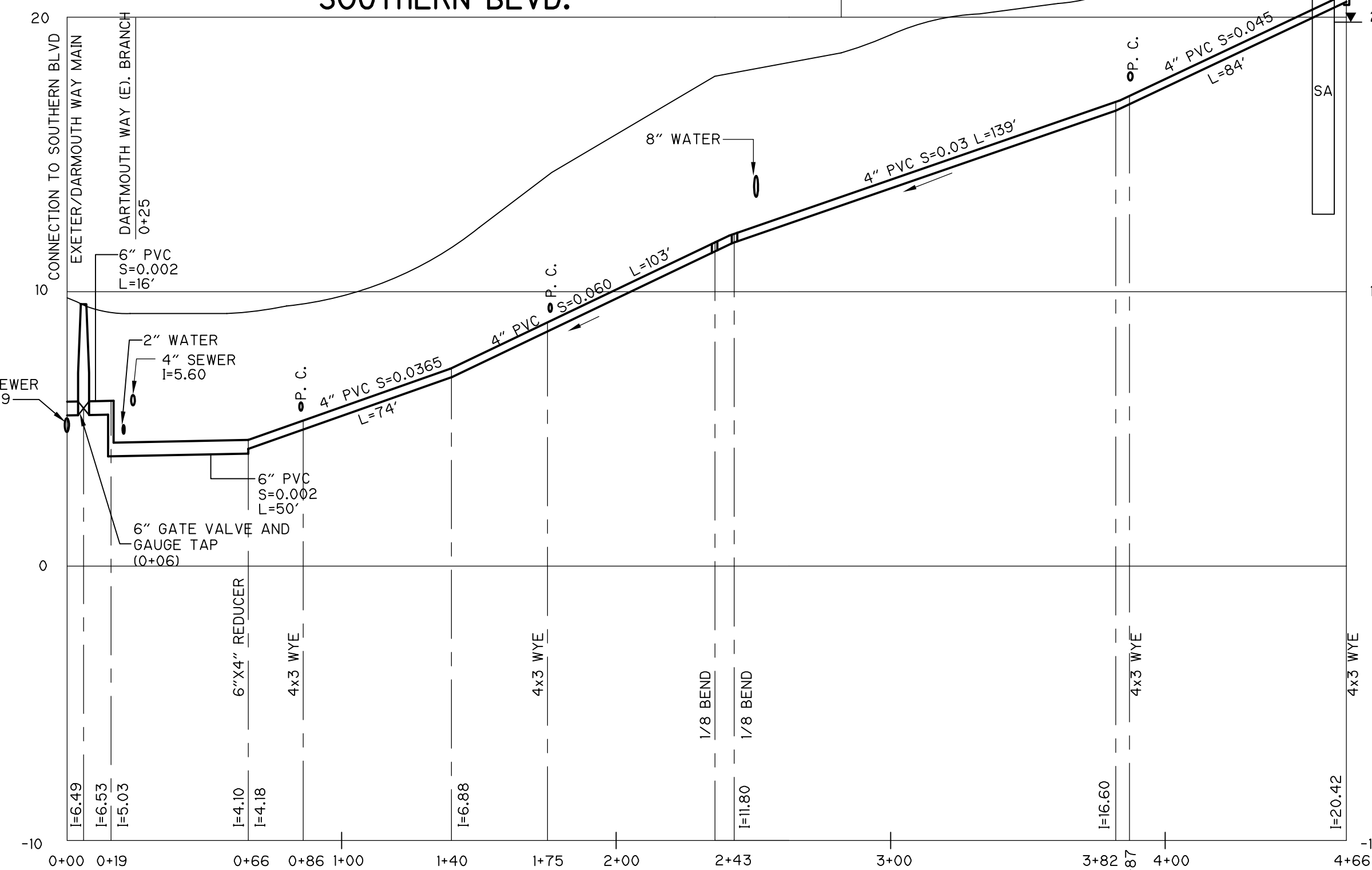
**DARTMOUTH WAY (E)**



**PLAN**

SCALE: 1"=40'-0"

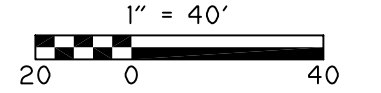
**SOUTHERN BLVD.**



**PROFILE**

SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

**RECORD DRAWING**



DESIGNED BY:	I. McGOVERN
DRAWN BY:	G. BELIZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	SEPT. 2001

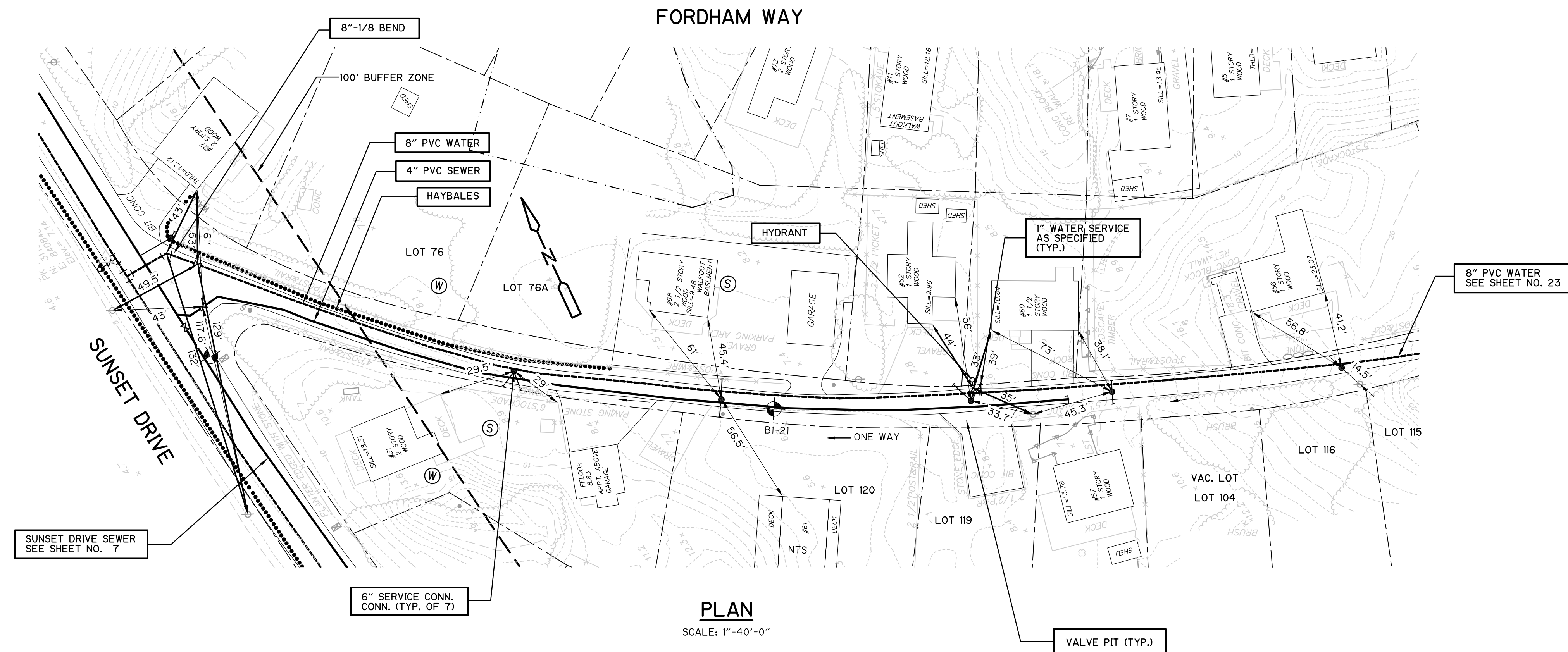
**CDM** Camp Dresser & McKee Inc.  
consulting  
engineering  
construction  
operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 3  
**OLD POINT ROAD & PLUM ISLAND SOUTH**

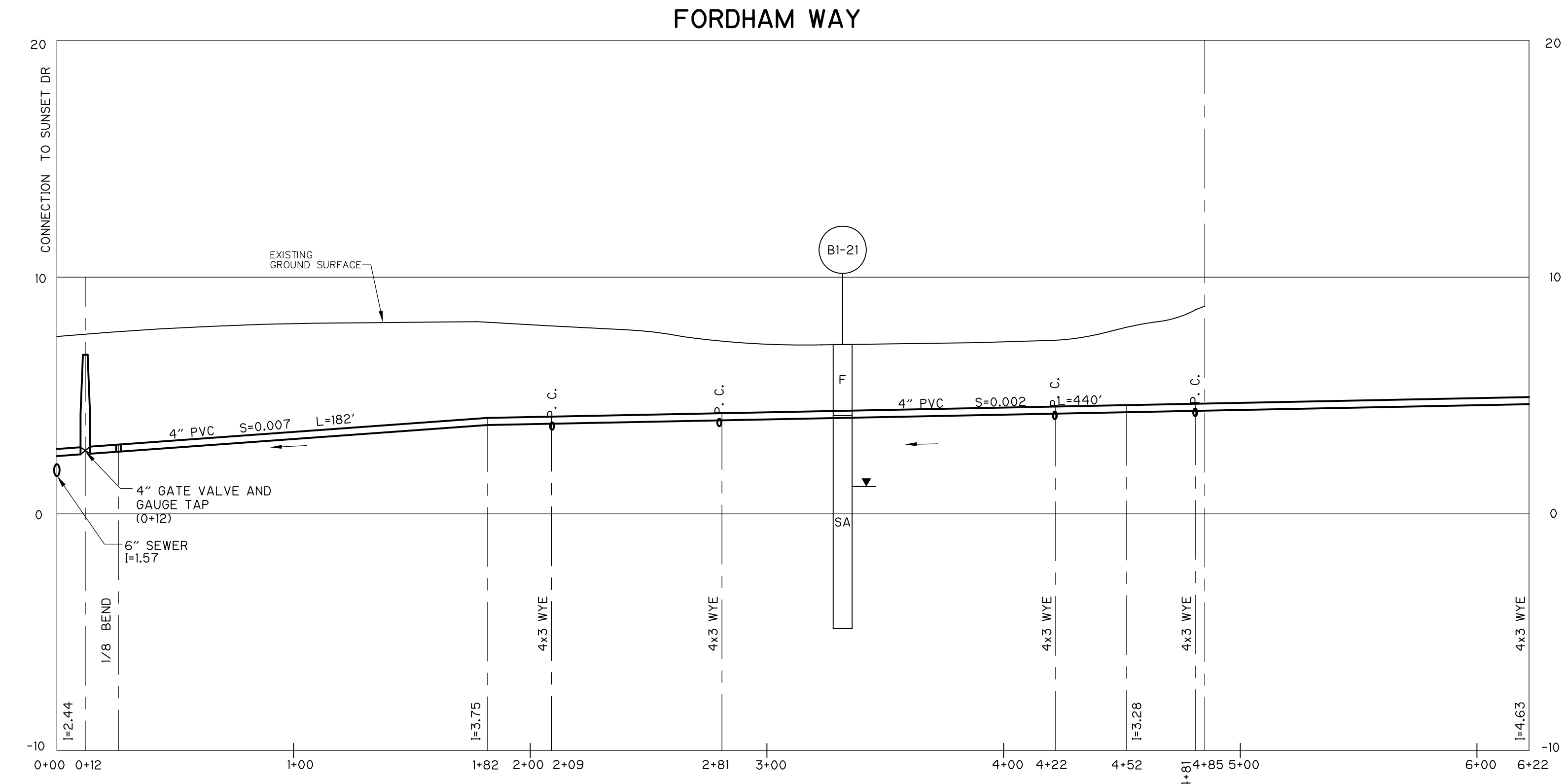
**FORDHAM WAY, SOUTHERN BOULEVARD  
 AND DARTMOUTH WAY (E)**

PROJECT NO.	9451-30964
FILE NAME:	CSTPL033
SHEET NO.	<b>23</b>

[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] File: P:\9451\30964\ASBUILT\CONT3\CSTPL025.DWG Xref's: [LAYOUT, CBSPL002, ] Plotted by: PETRUKHINTM Time: 11/13/2007 8:16:38 AM

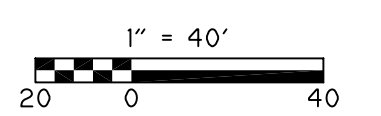


**PLAN**  
SCALE: 1"=40'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: I. McGOVERN  
 DRAWN BY: G. BELZLAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

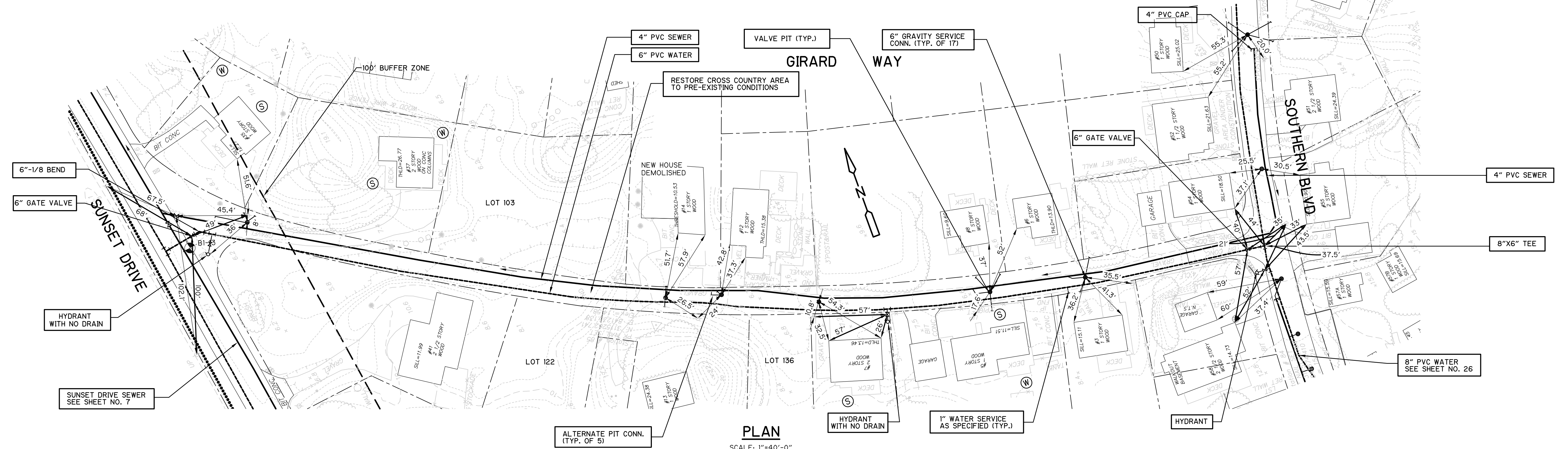


PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 3  
**OLD POINT ROAD & PLUM ISLAND SOUTH**

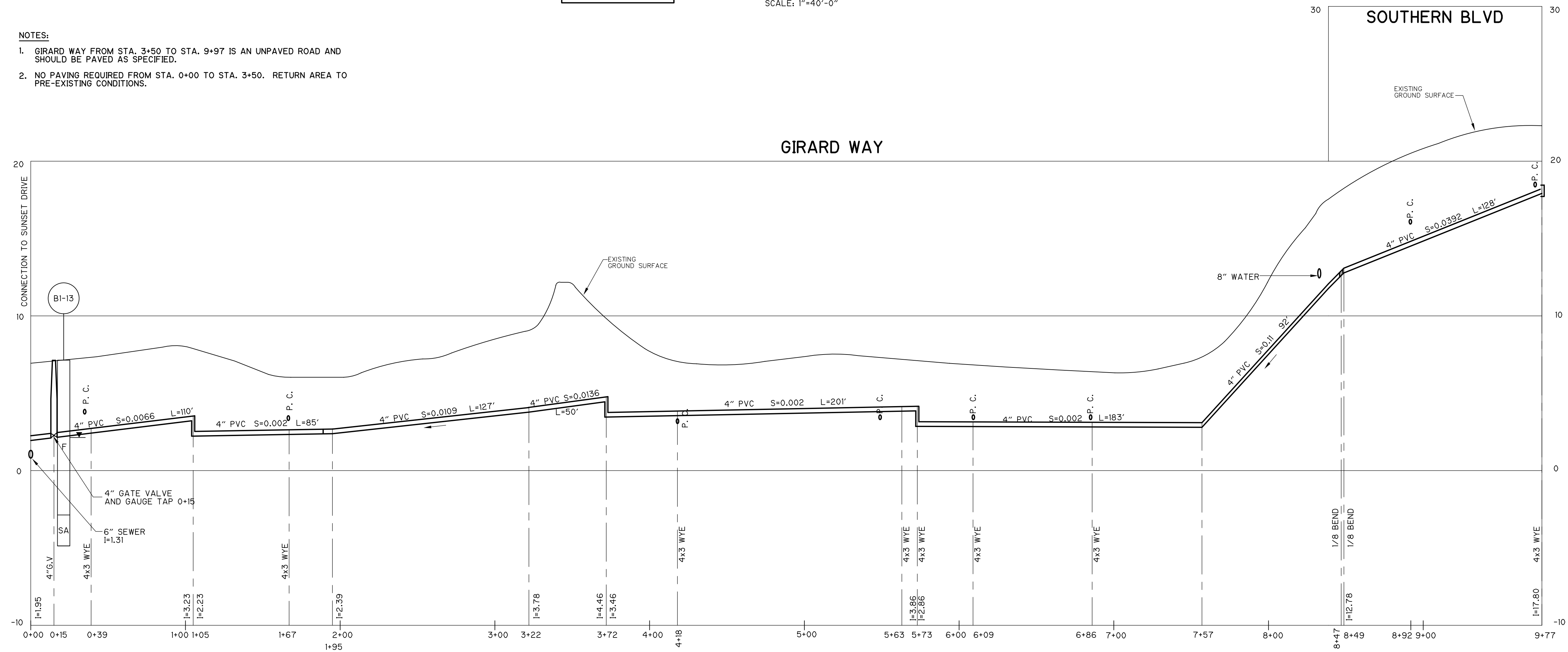
**FORDHAM WAY**  
 SHEET NO.  
**24**

PROJECT NO. 9451-30964  
 FILE NAME: CSTPL025  
 SHEET NO.  
**24**



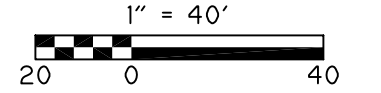


- NOTES:**
- GIRARD WAY FROM STA. 3+50 TO STA. 9+97 IS AN UNPAVED ROAD AND SHOULD BE PAVED AS SPECIFIED.
  - NO PAVING REQUIRED FROM STA. 0+00 TO STA. 3+50. RETURN AREA TO PRE-EXISTING CONDITIONS.



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

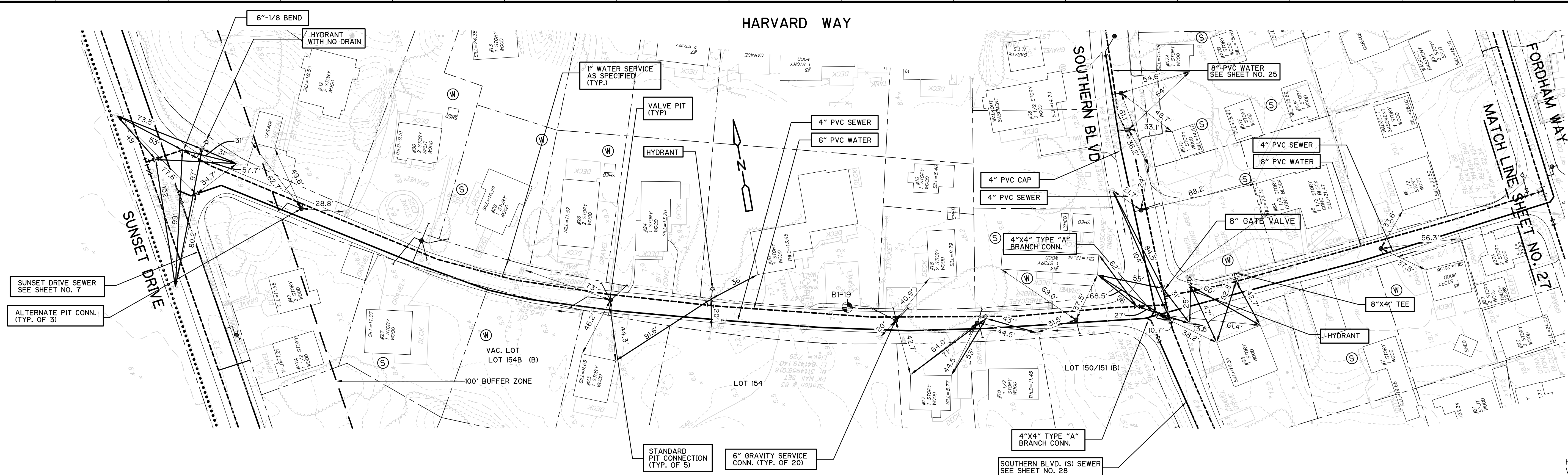
DESIGNED BY: T. MCGOVERN  
 DRAWN BY: G. BELIZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001



PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 3  
 OLD POINT ROAD & PLUM ISLAND SOUTH

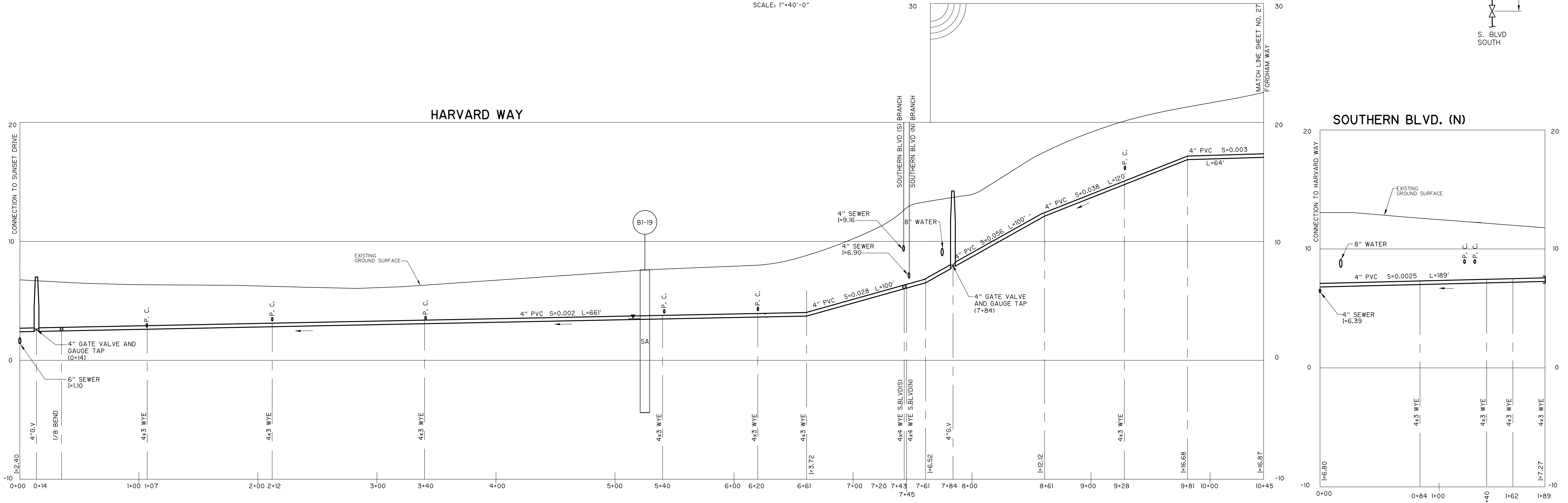
GIRARD WAY AND  
 SOUTHERN BOULEVARD  
 SHEET NO.  
 25

PROJECT NO. 9451-30964  
 FILE NAME: CSTPL026  
 SHEET NO.  
 25

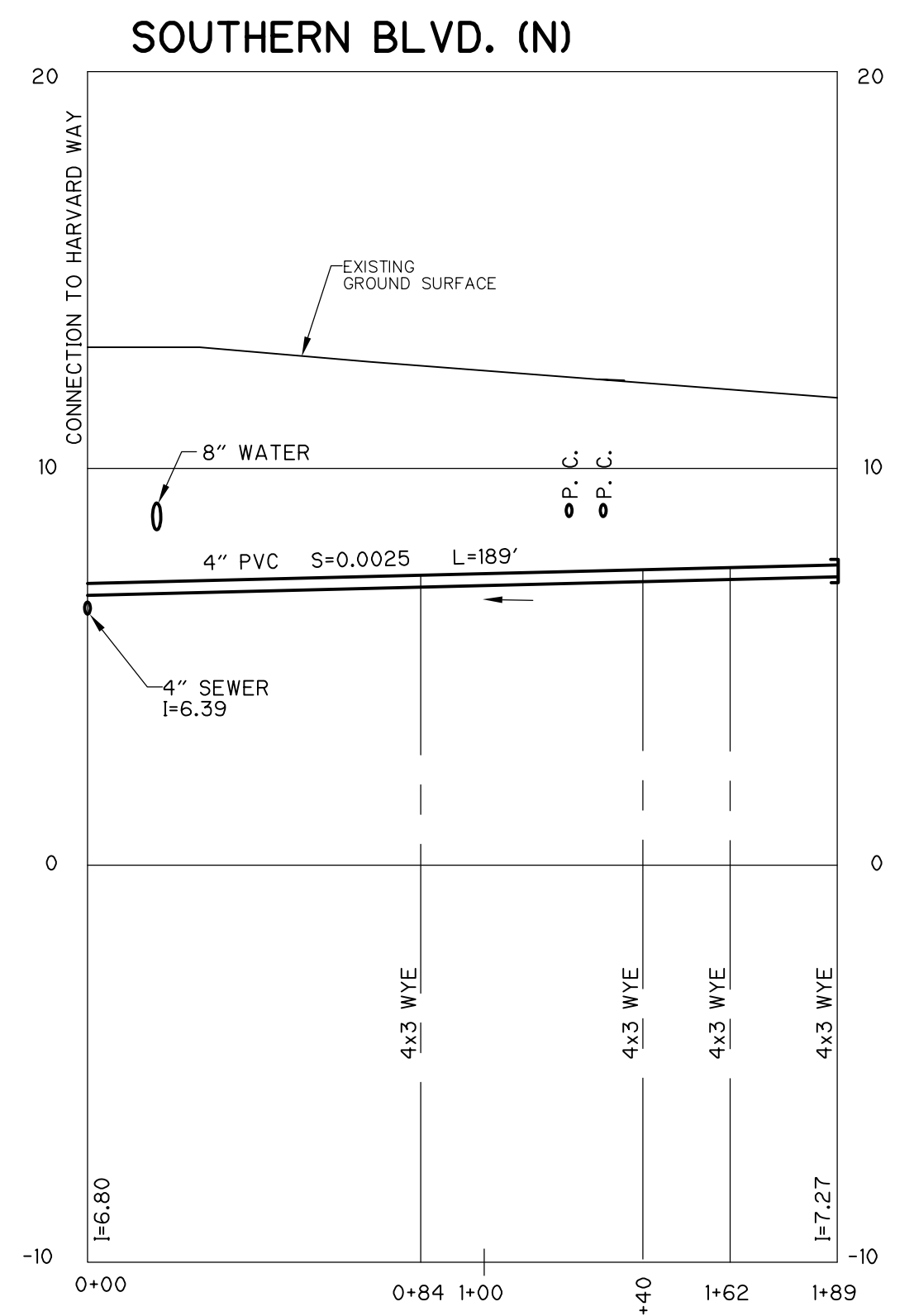


**PLAN**  
SCALE: 1"=40'-0"

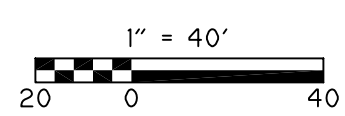
**HARVARD WAY**



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"



**RECORD DRAWING**



DESIGNED BY:	I. McGOVERN
DRAWN BY:	G. BELIZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.

PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 2

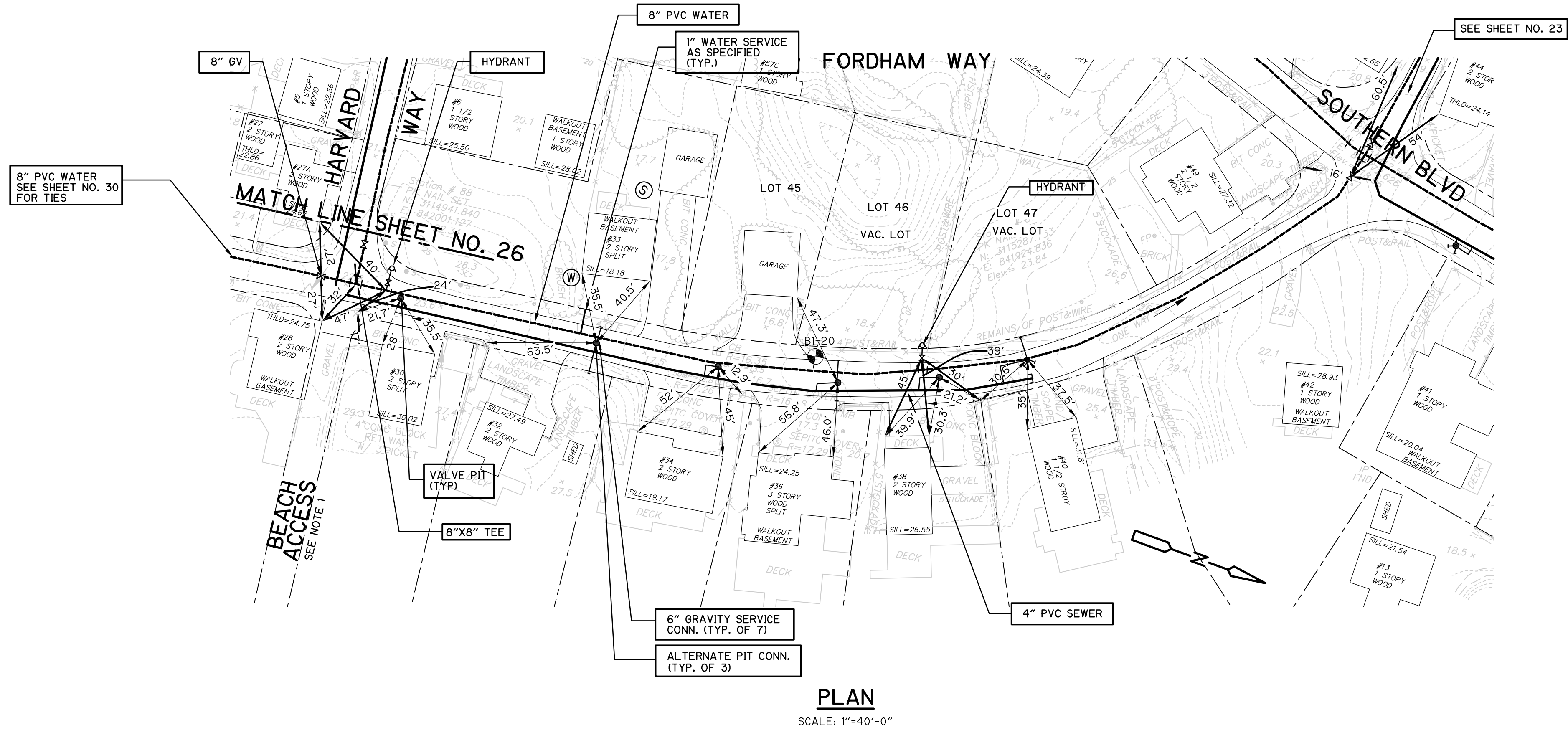
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**HARVARD WAY AND SOUTHERN BOULEVARD**

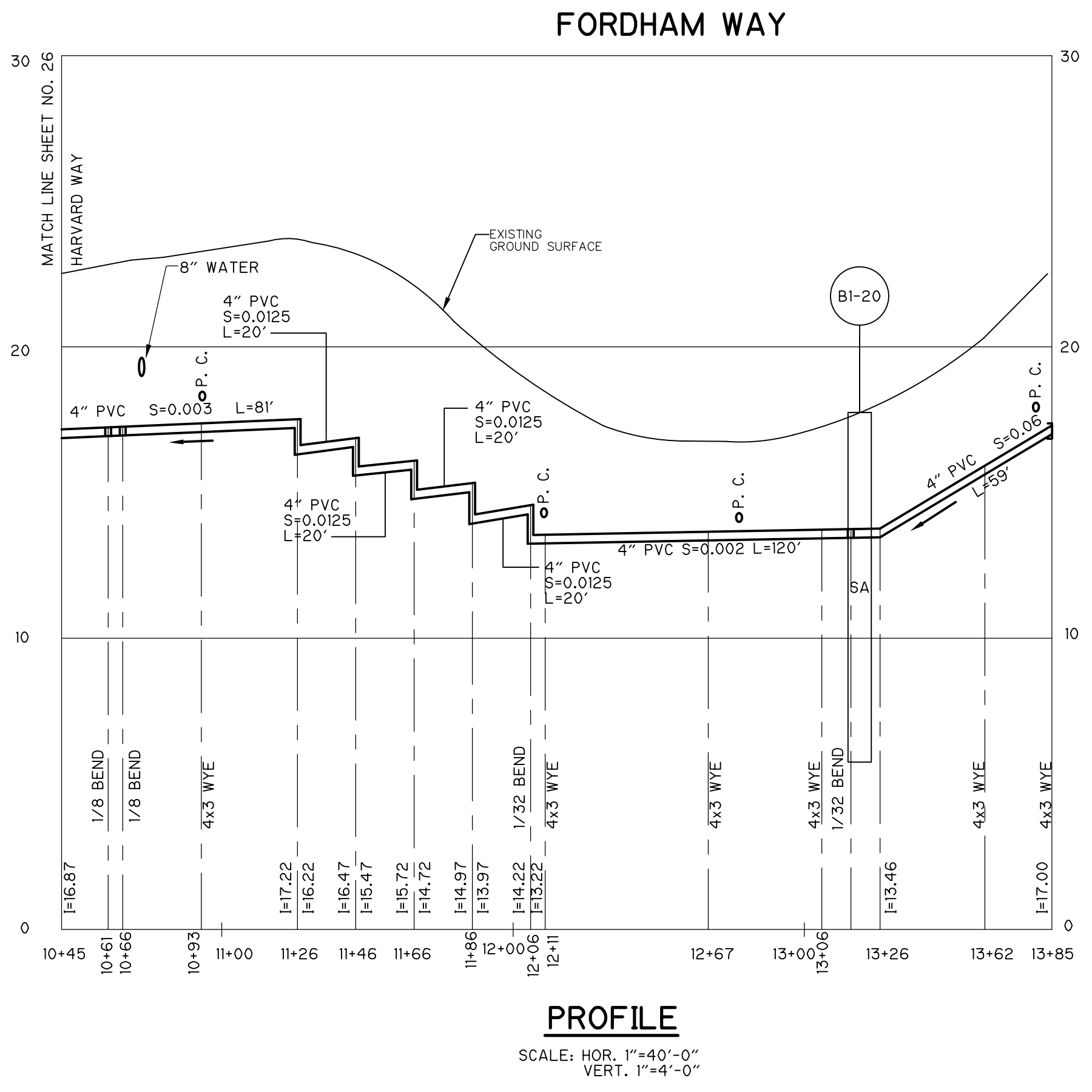
PROJECT NO. FILE NAME: CSTPL027

SHEET NO. 26

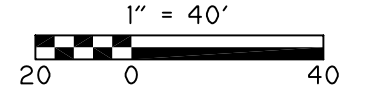
[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN]   
 File name: P:\9451\30964\ASBUILT\CONT3\CIVL\CSTPL028.DWG Xref's: [C:\Program Files\Autodesk\AutoCAD 2007\PLT\cstpl028.dwg]   
 Plotted by: PETRUKHINTM Time: 11/13/2007 8:56:26 AM



**NOTES:**  
 1. BEACH ACCESS FOR DISPOSAL OF EXCESS SAND. SEE SPECIFICATION SECTION 02221.



RECORD DRAWING



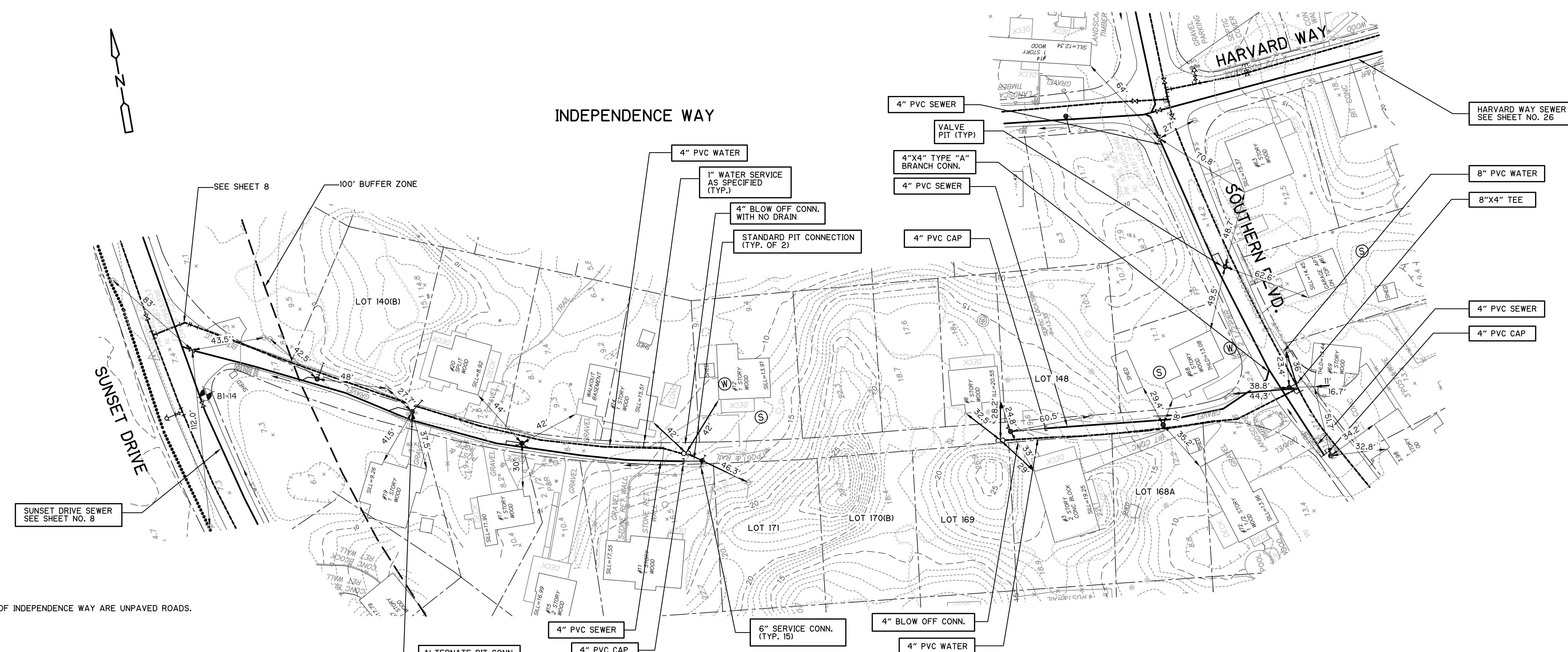
REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting engineering construction operations

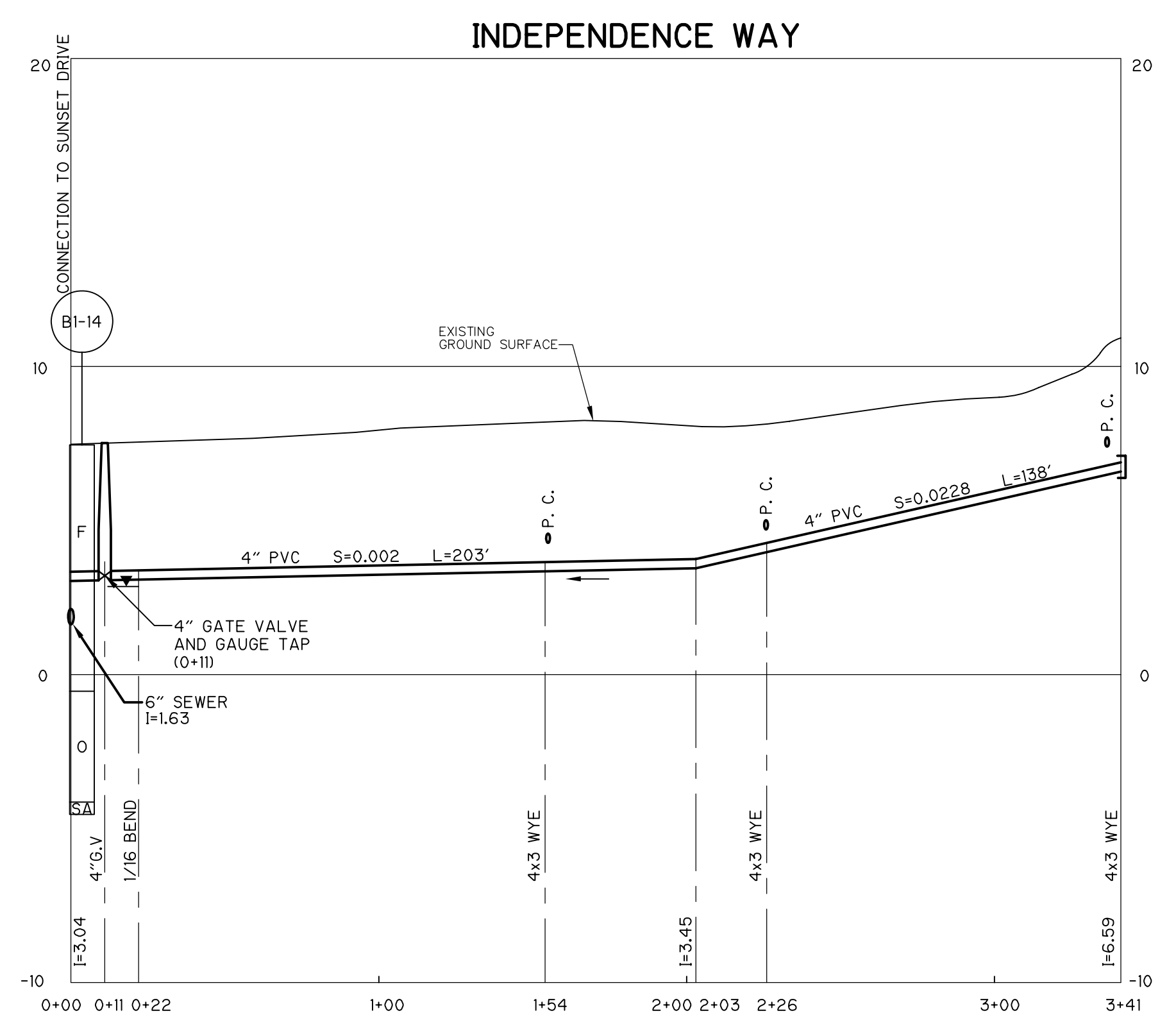
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

PROJECT NO. FILE NAME: CSTPL028  
**FORDHAM WAY**  
 SHEET NO. **27**

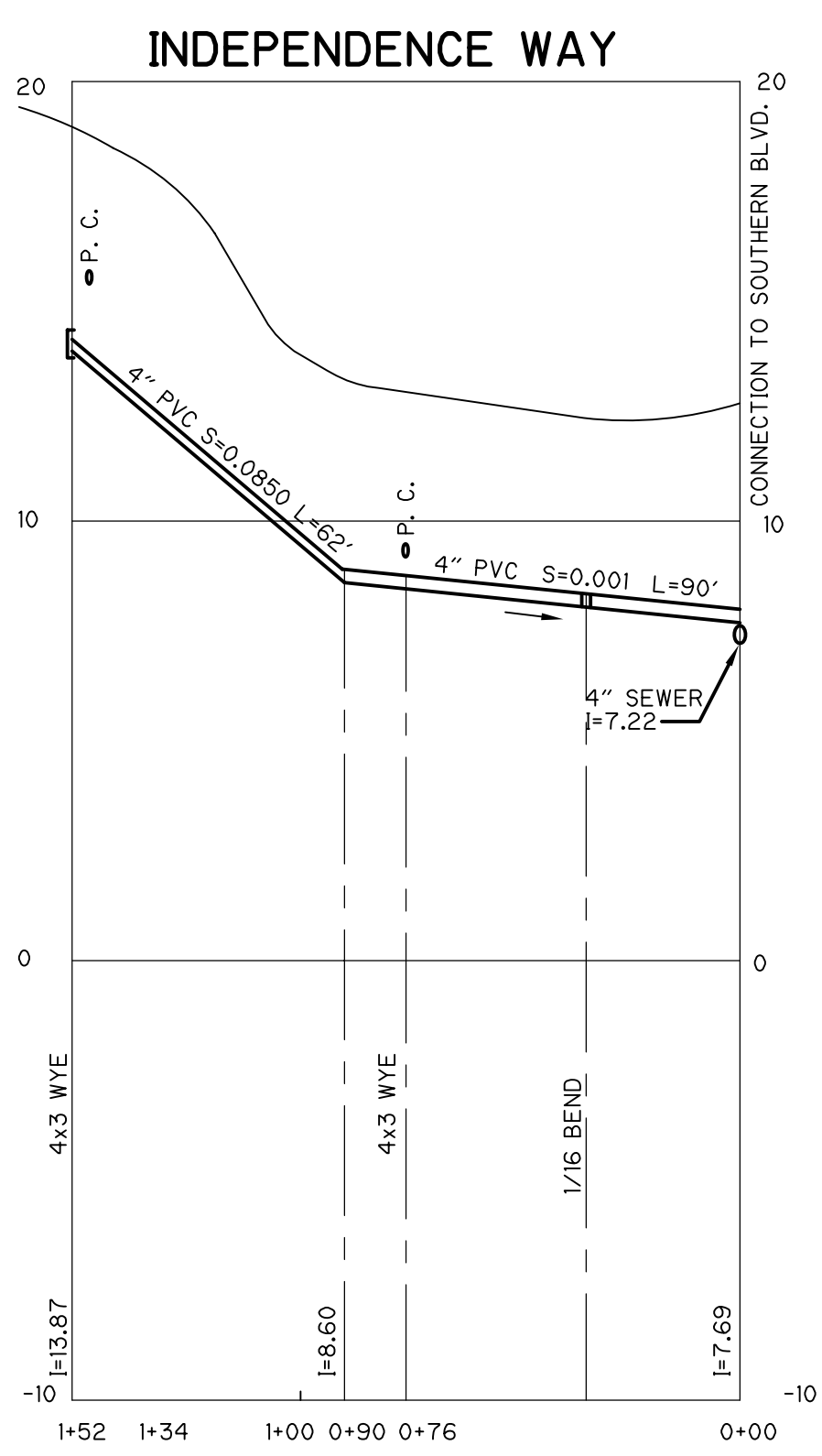


**NOTES:**  
 1. BOTH TRAVELLED SECTIONS OF INDEPENDENCE WAY ARE UNPAVED ROADS.

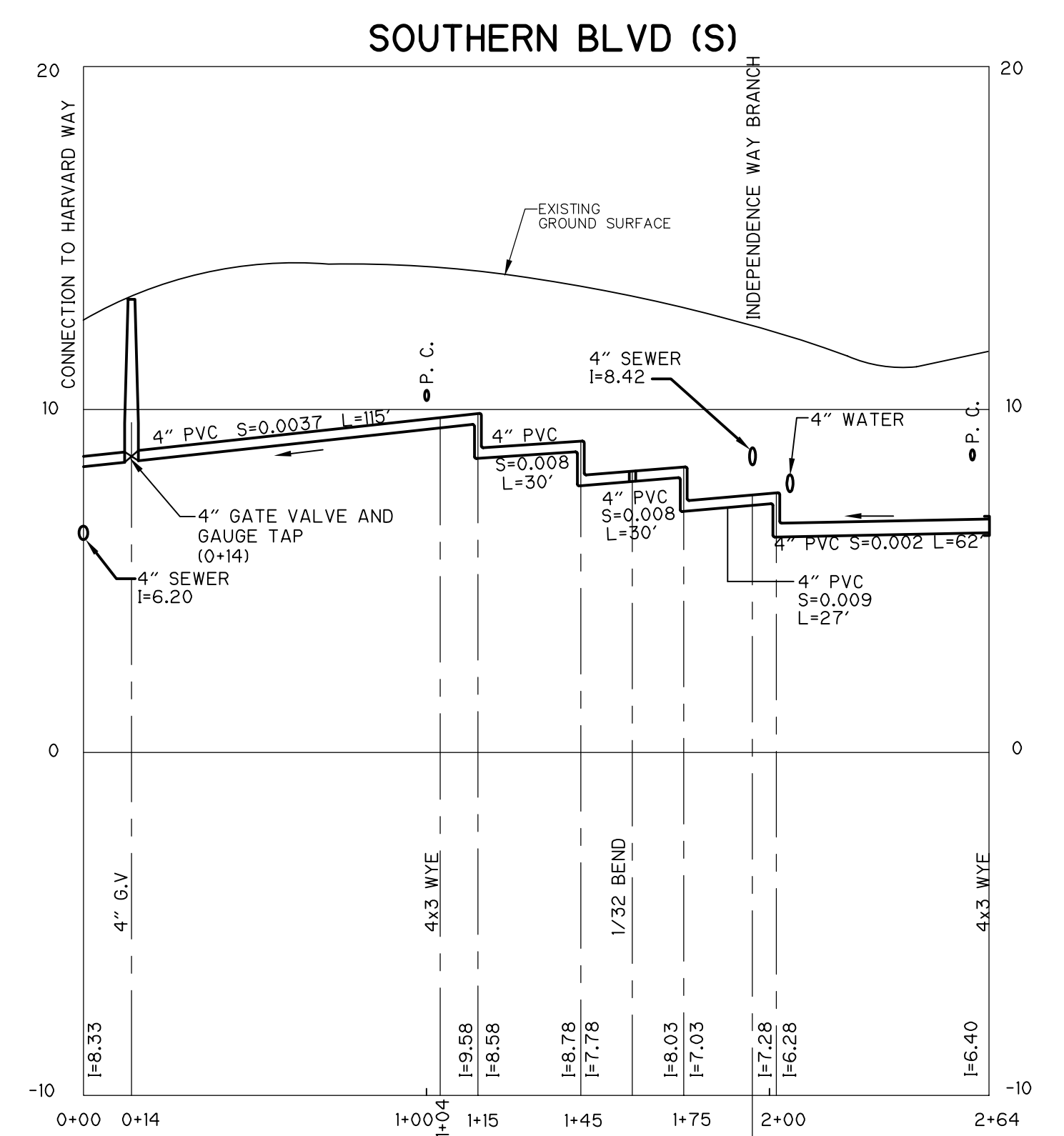
**PLAN**  
 SCALE: 1"=40'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

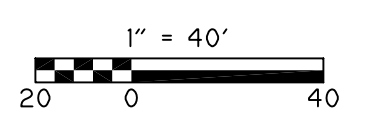


**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

**RECORD DRAWING**



DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

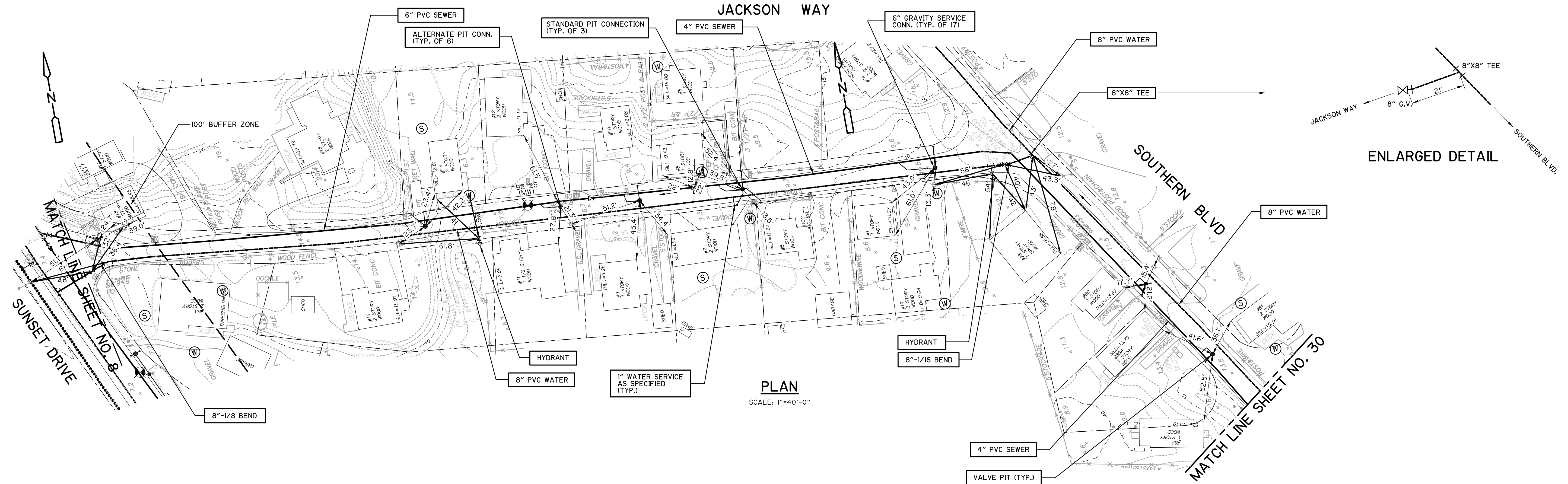
**CDM** Camp Dresser & McKee Inc.  
consulting  
engineering  
construction  
operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**INDEPENDENCE WAY  
 SOUTHERN BOULEVARD**

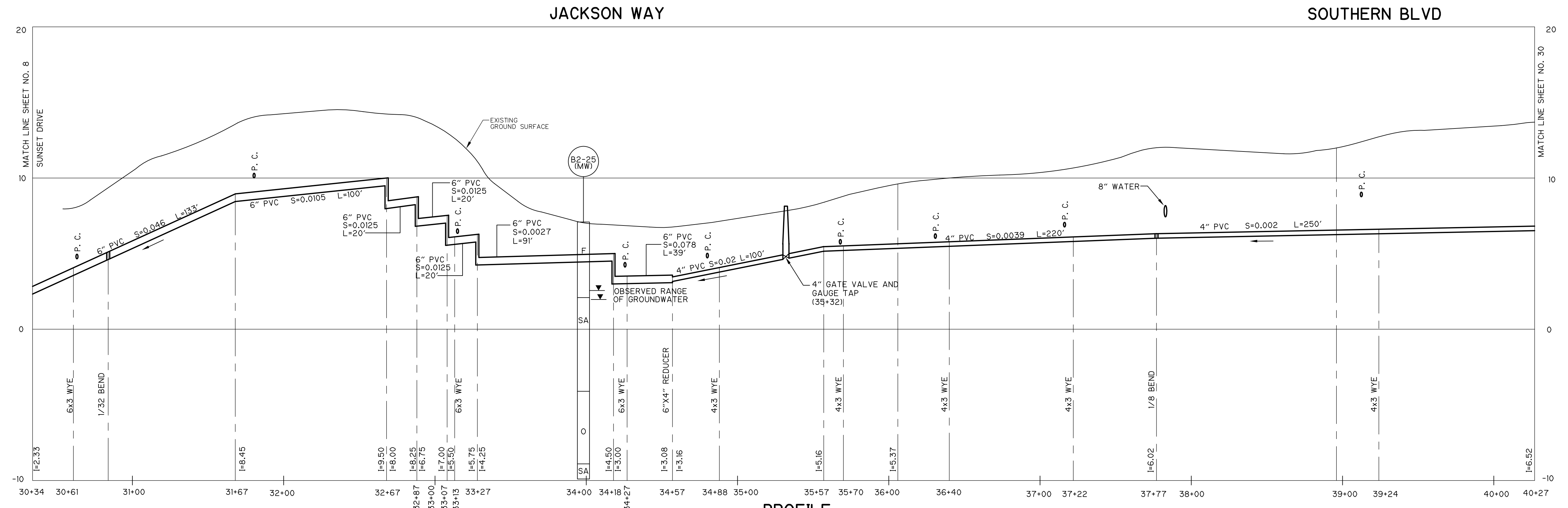
PROJECT NO.	CSTPL029
FILE NAME:	CSTPL029
SHEET NO.	28

[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] Plotted by: PETRUKHINTM Time: 11/13/2007 8:36:41 AM  
 File name: P:\9451\30964\ASBUIL\CONTR3\CSTPL030.DWG Xref's: [LAYOUT\_CBSPL002.]



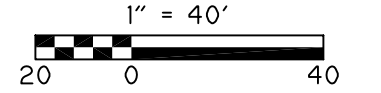
**PLAN**  
SCALE: 1"=40'-0"

ENLARGED DETAIL



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

RECORD DRAWING



DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	SEPT. 2001

**CDM** Camp Dresser & McKee Inc.

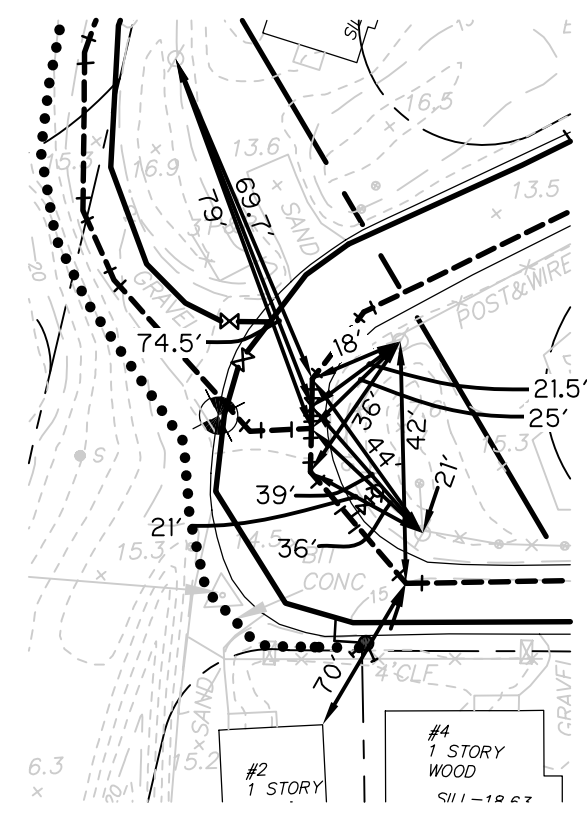
PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 3

OLD POINT ROAD & PLUM ISLAND SOUTH

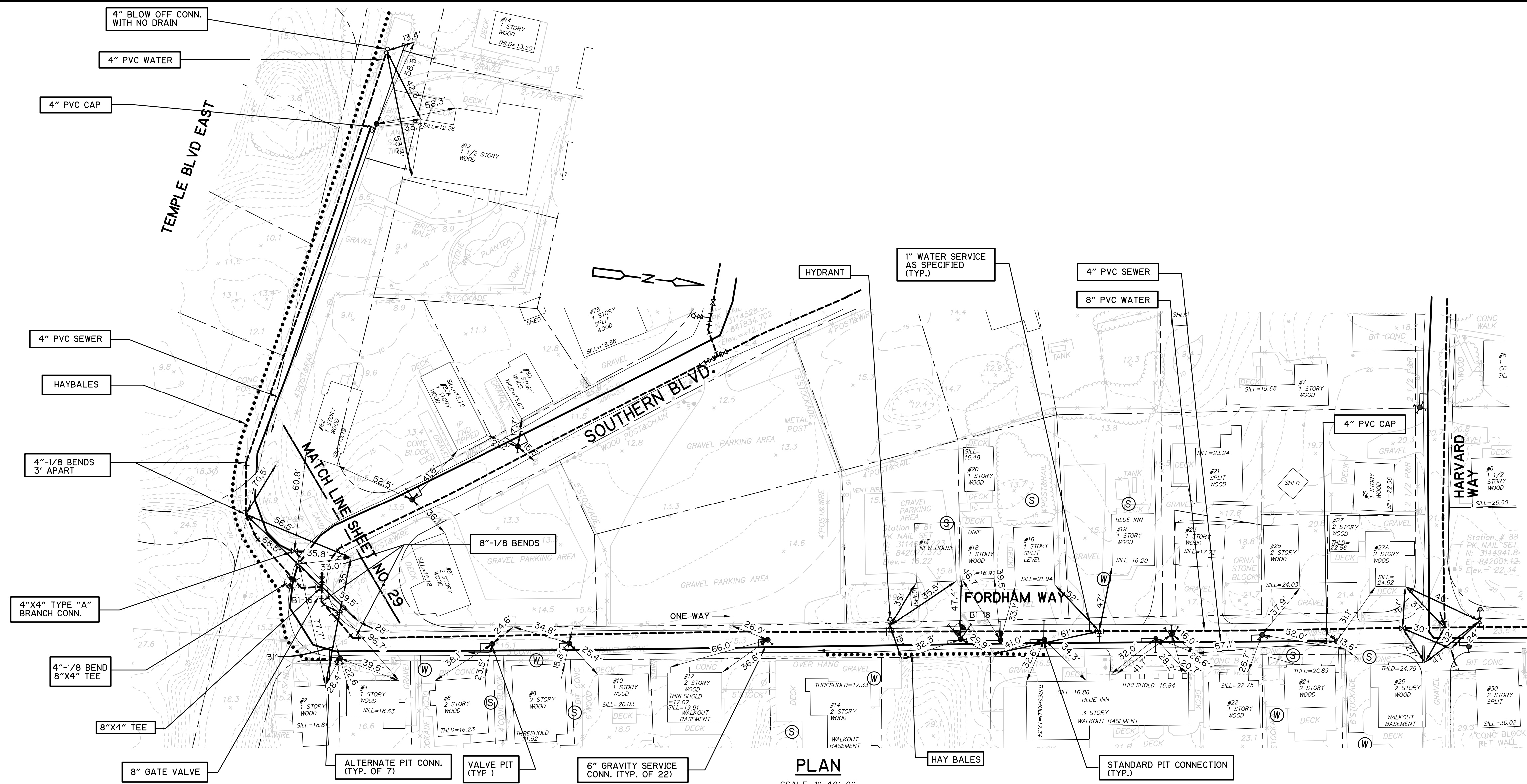
JACKSON WAY AND  
SOUTHERN BOULEVARD

PROJECT NO. 9451-30964  
FILE NAME: CSTPL030

SHEET NO.  
**29**

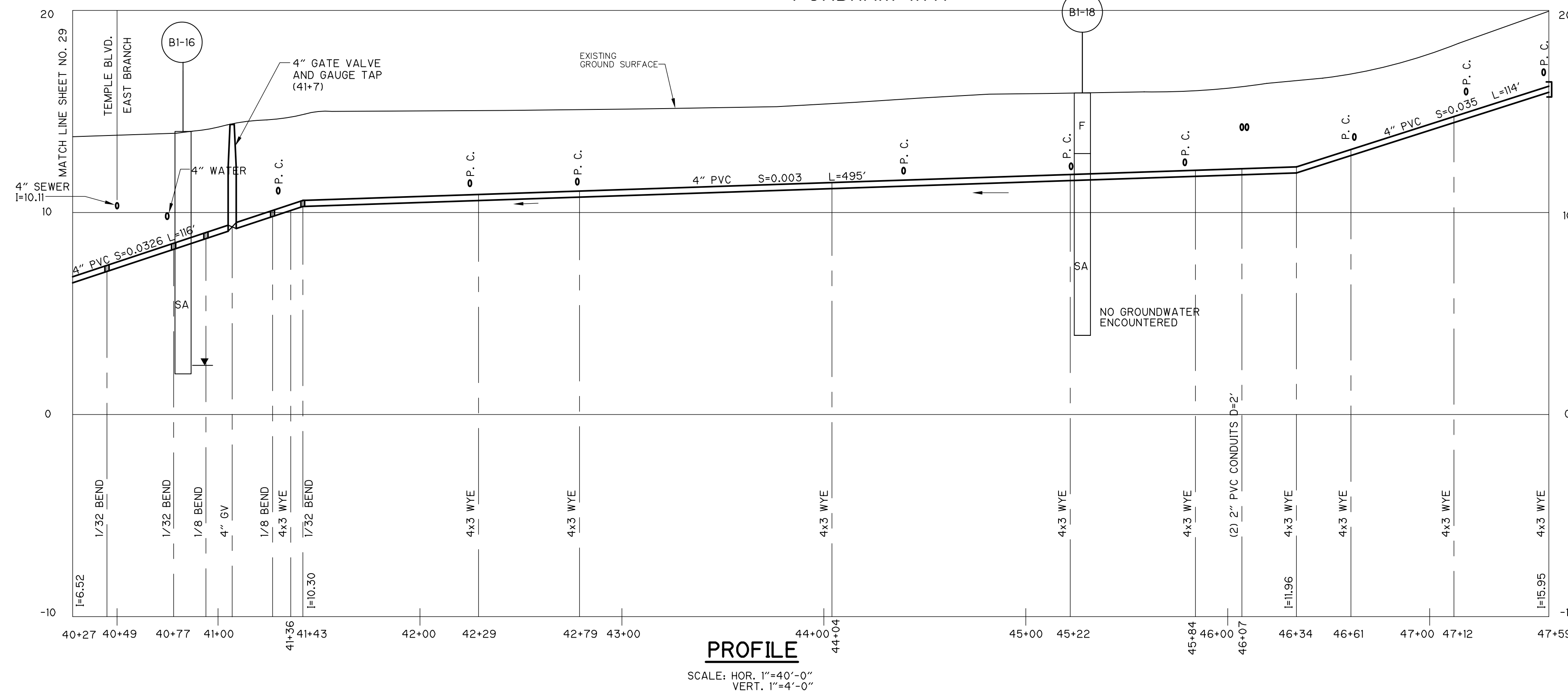


**PLAN**  
SCALE: 1"=40'-0"

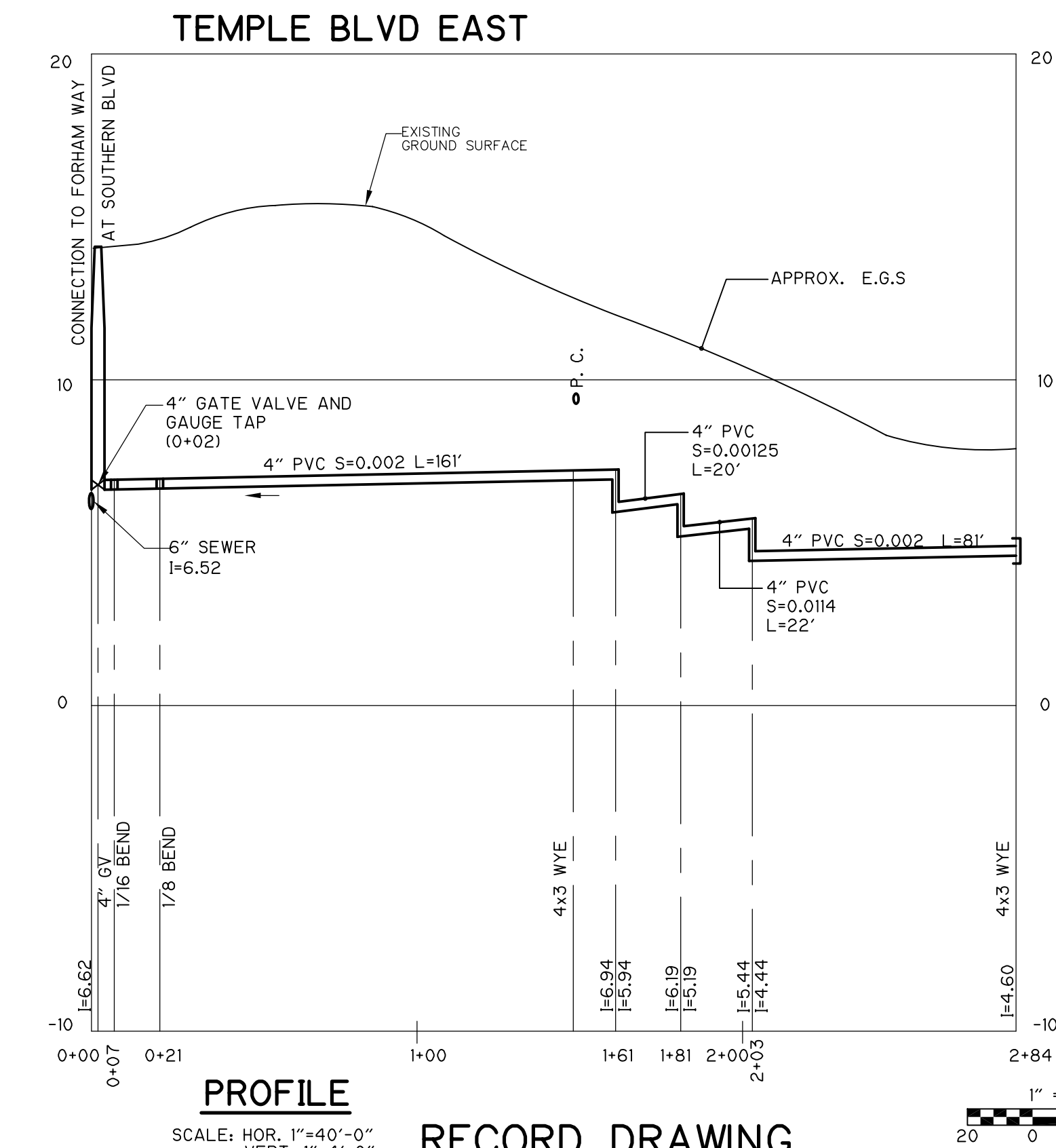


**PLAN**  
SCALE: 1"=40'-0"

**NOTES:**  
1. NO PAYMENT REQUIRED FOR TEMPLE BOULEVARD EAST.

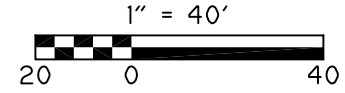


**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VERT. 1"=4'-0"

**RECORD DRAWING**



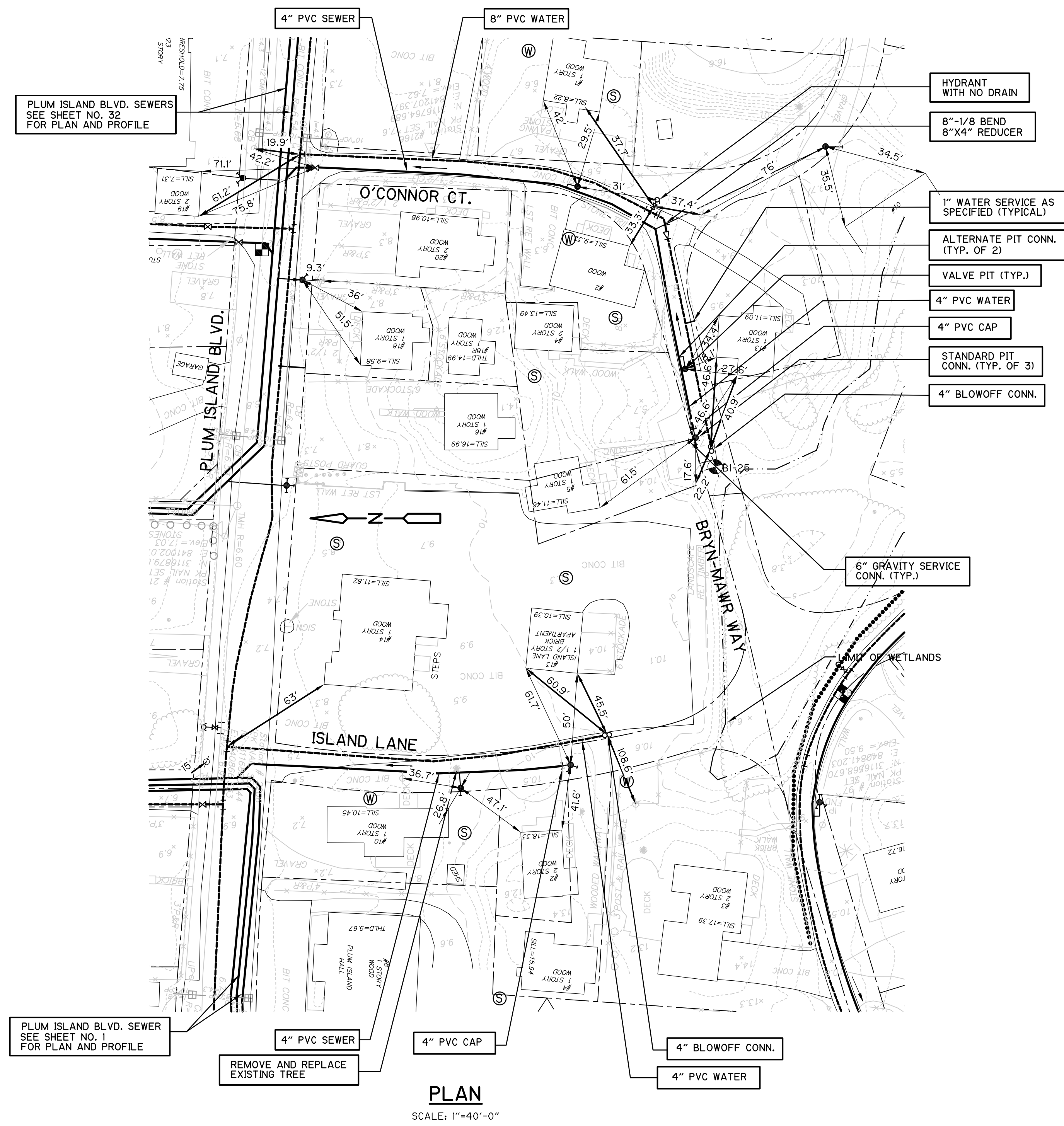
DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
engineering  
construction  
operations

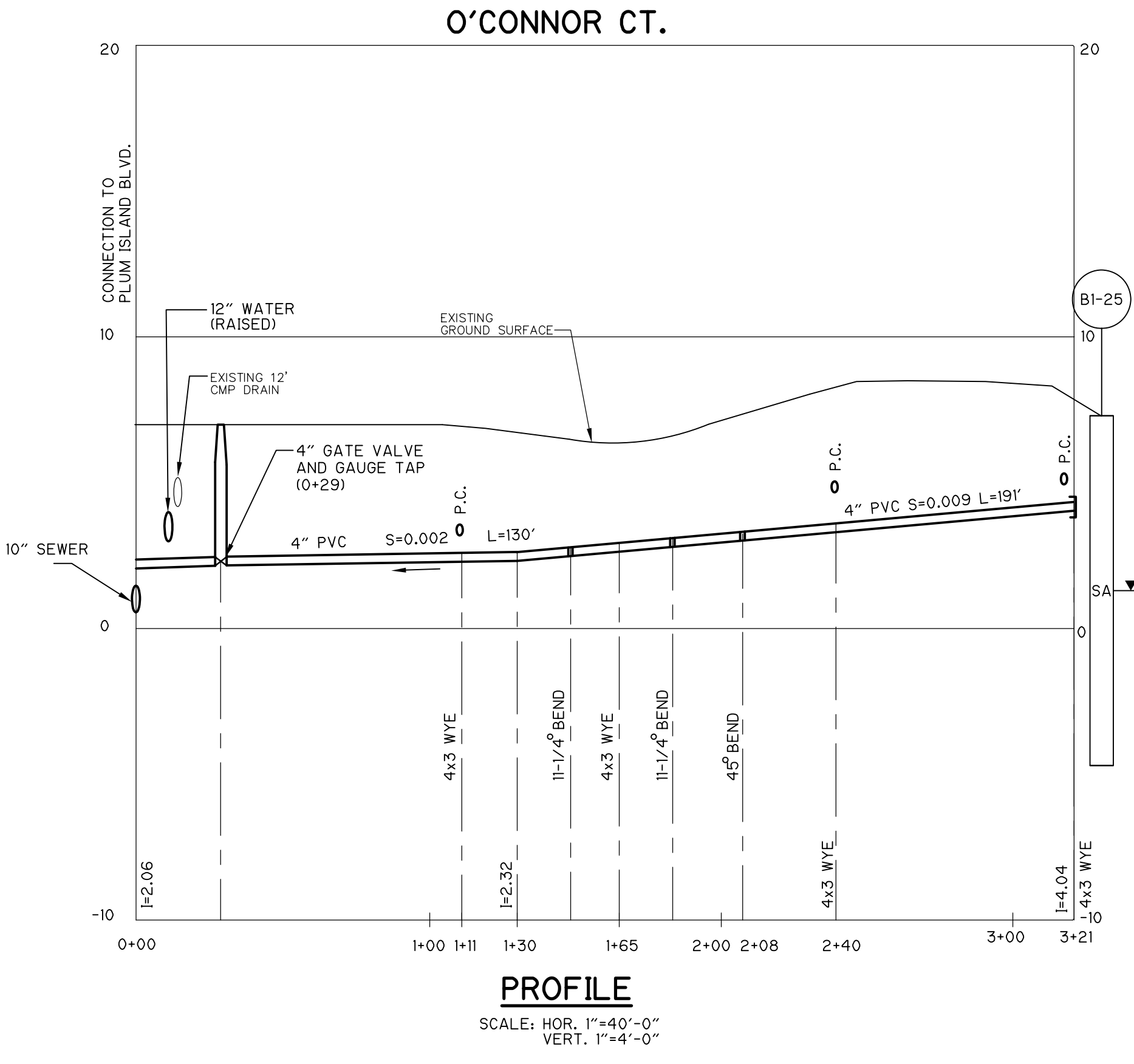
PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**TEMPLE BOULEVARD EAST  
AND FORDHAM WAY**

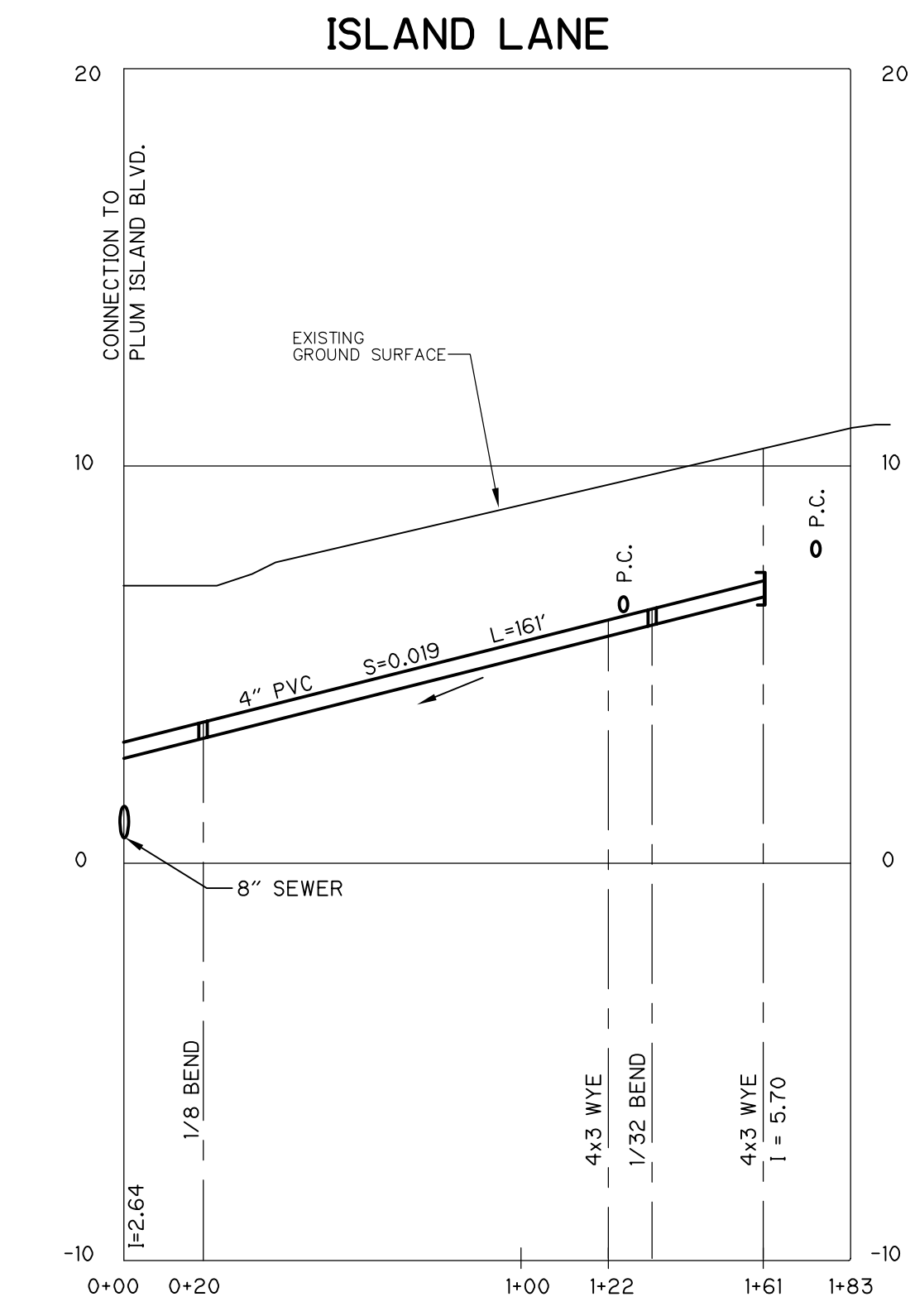
PROJECT NO.	CSTPL031
FILE NAME:	CSTPL031
SHEET NO.	30



**PLAN**  
 SCALE: 1"=40'-0"



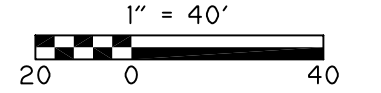
**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

**NOTES:**  
 1. ISLAND LANE IS AN UNPAVED ROAD.

RECORD DRAWING



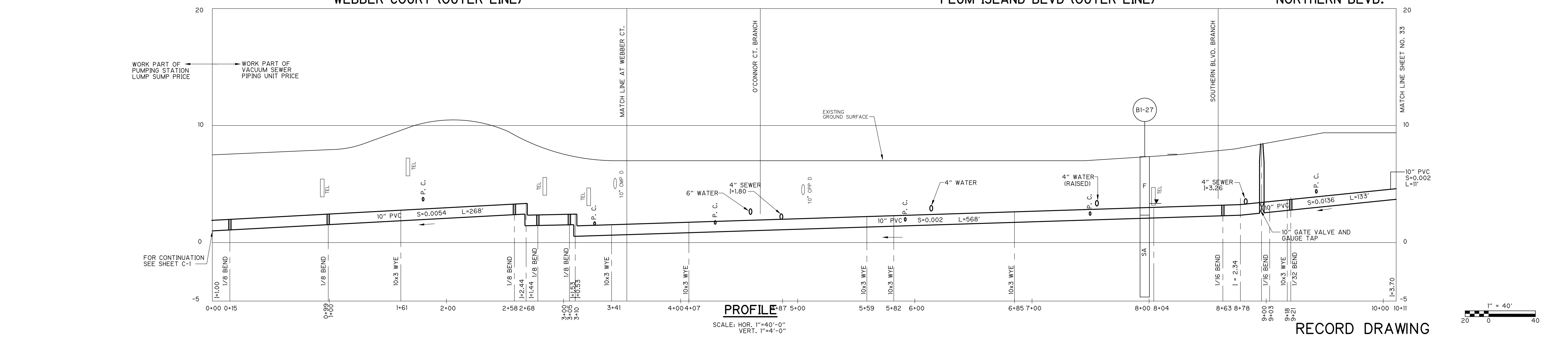
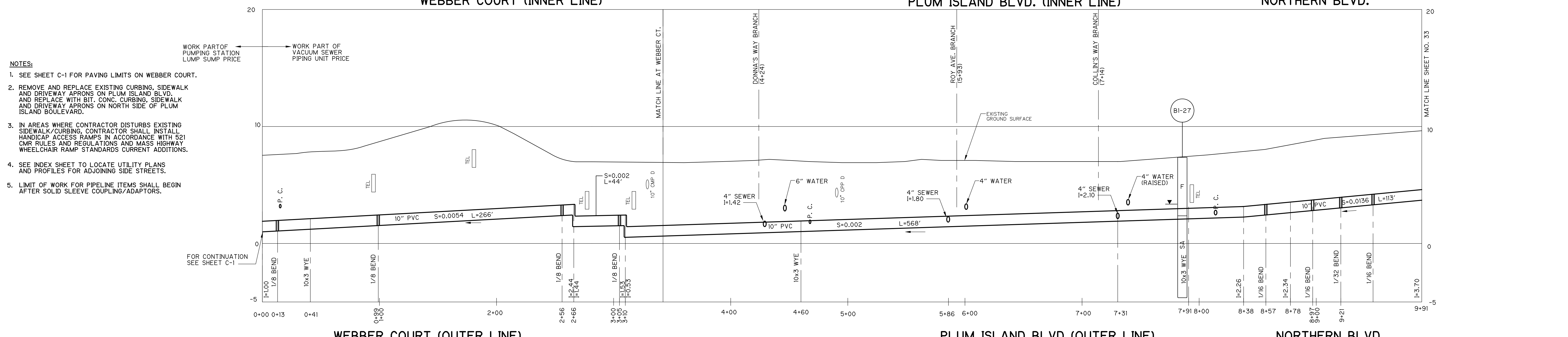
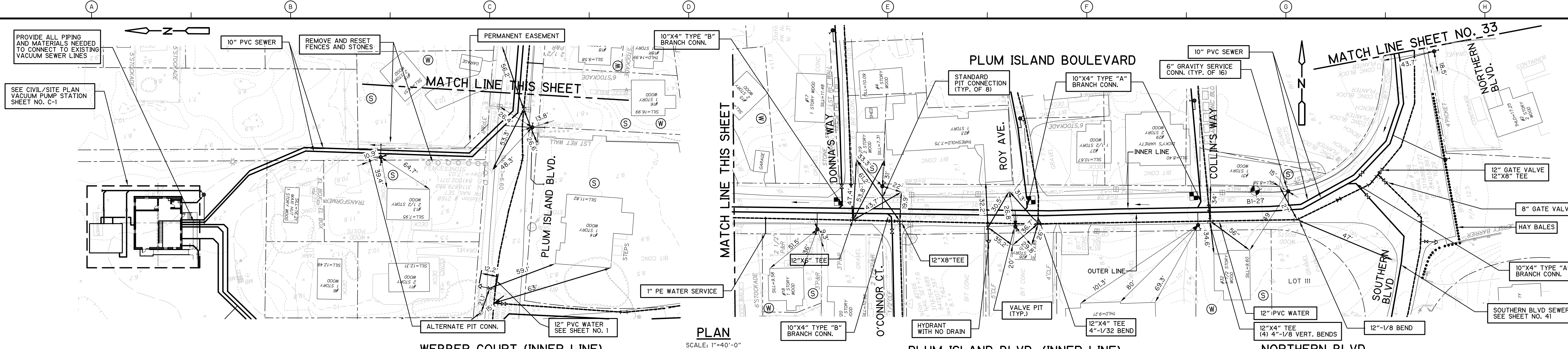
DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELIZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting  
 engineering  
 construction  
 operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**O'CONNOR COURT AND ISLAND LANE**

PROJECT NO.	CSTPL032
FILE NAME:	CSTPL032
SHEET NO.	31



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY:	T. MCGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

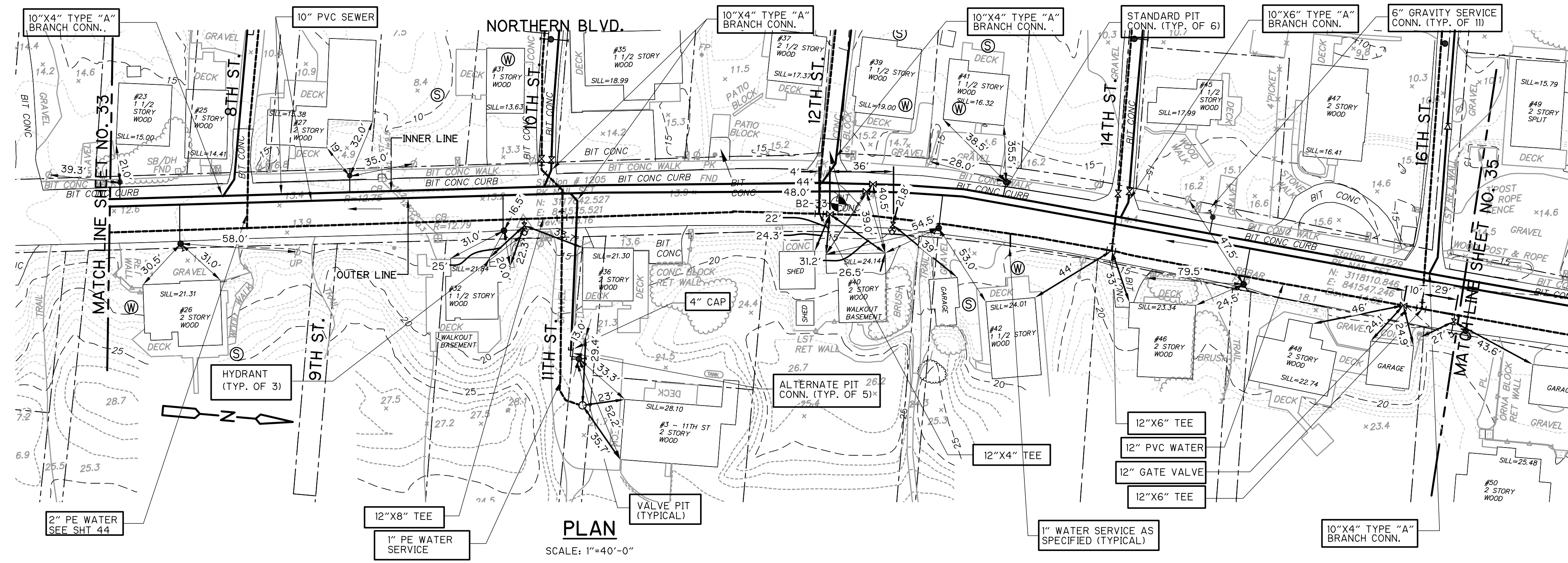
**CDM** Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**WEBBER COURT, PLUM ISLAND BOULEVARD  
 AND NORTHERN BOULEVARD**

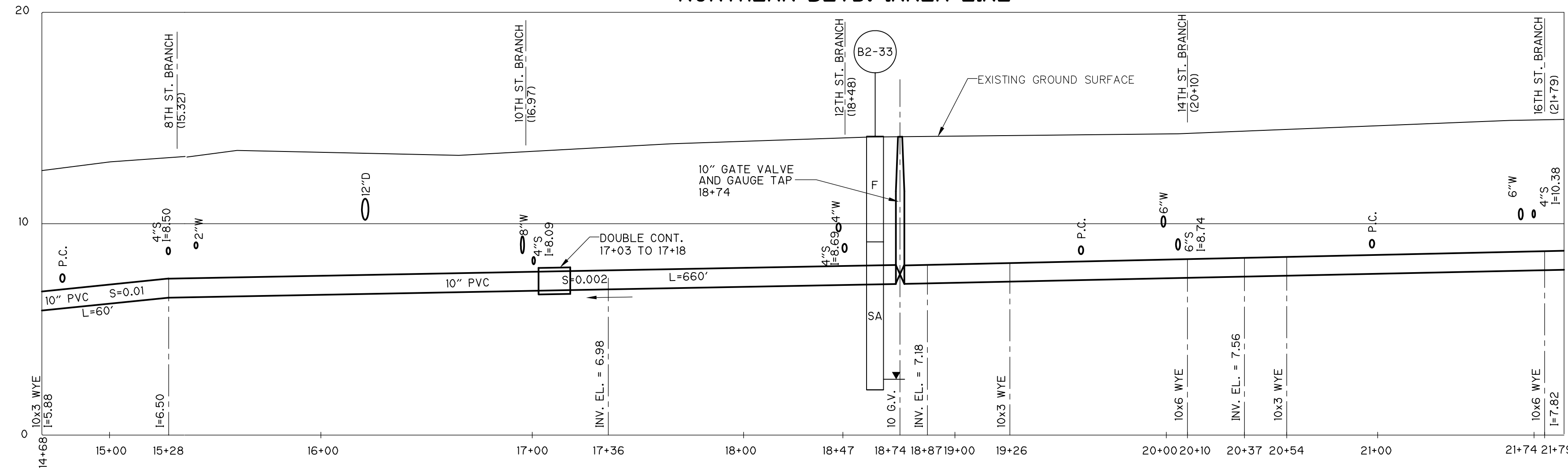
PROJECT NO.	CSTPL301
FILE NAME:	CSTPL301
SHEET NO.	32





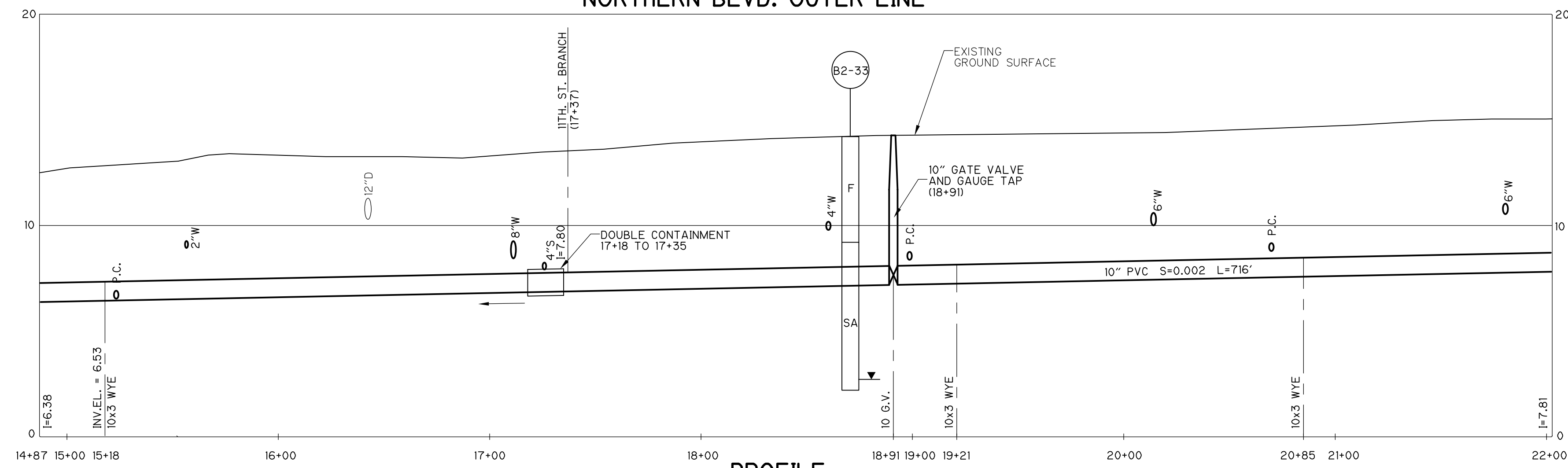


NORTHERN BLVD. INNER LINE

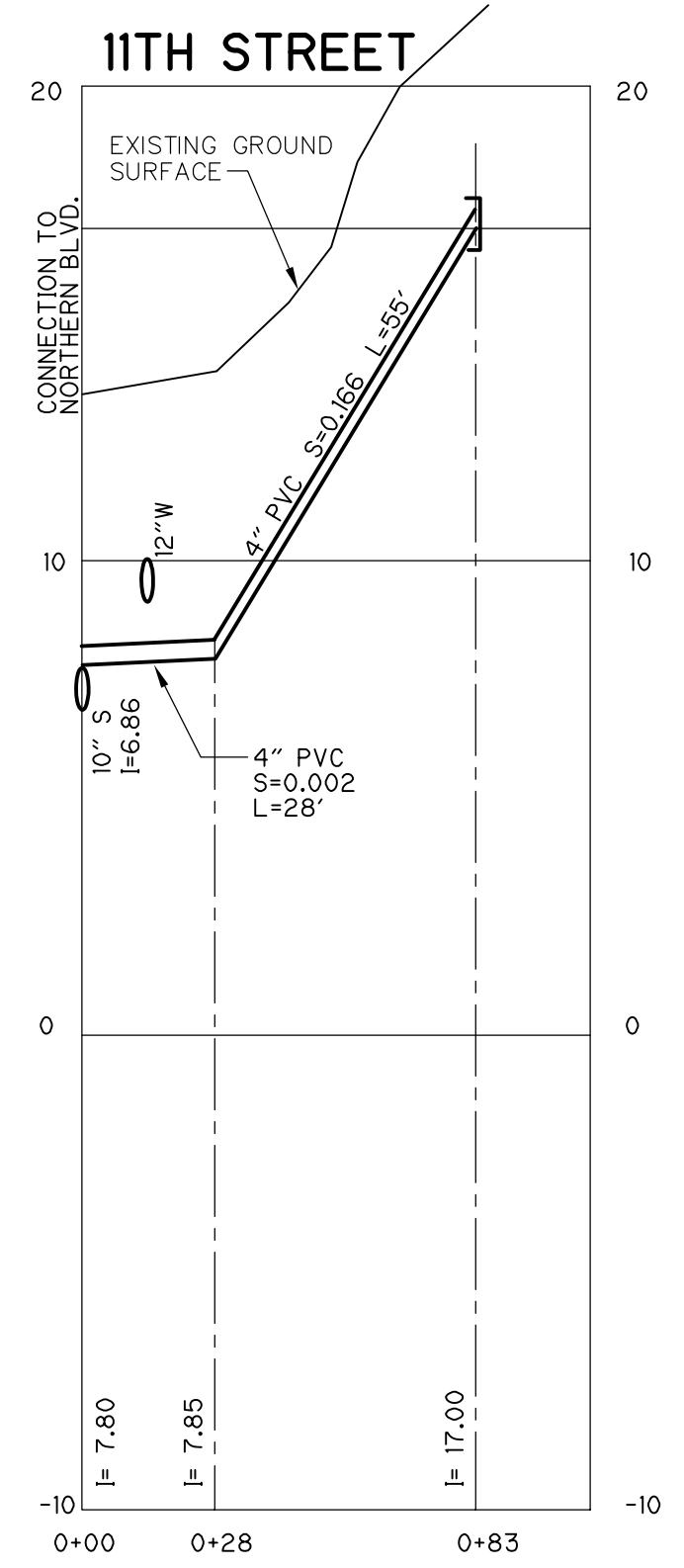


PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

NORTHERN BLVD. OUTER LINE

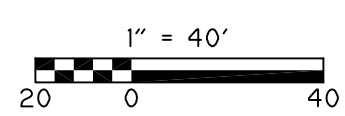


PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

- NOTES:
- REMOVE EXISTING CURBING, AND SIDEWALKS, AND DRIVEWAY APRONS ON NORTHERN BLVD. REPLACE WITH CONCRETE CURBING, SIDEWALKS, AND DRIVEWAY APRONS ON WEST SIDE OF NORTHERN BLVD.
  - IN AREAS WHERE CONTRACTOR DISTURBS EXISTING SIDEWALK/CURBING CONTRACTOR SHALL INSTALL HANDICAP ACCESS RAMPS IN ACCORDANCE WITH 521 CMR RULES AND REGULATIONS MASS. HIGHWAY WHEELCHAIR RAMP STANDARDS CURRENT ADDITIONS.
  - SEE INDEX SHEET TO LOCATE UTILITY PLANS AND PROFILES FOR ADJOINING STREETS.



RECORD DRAWING

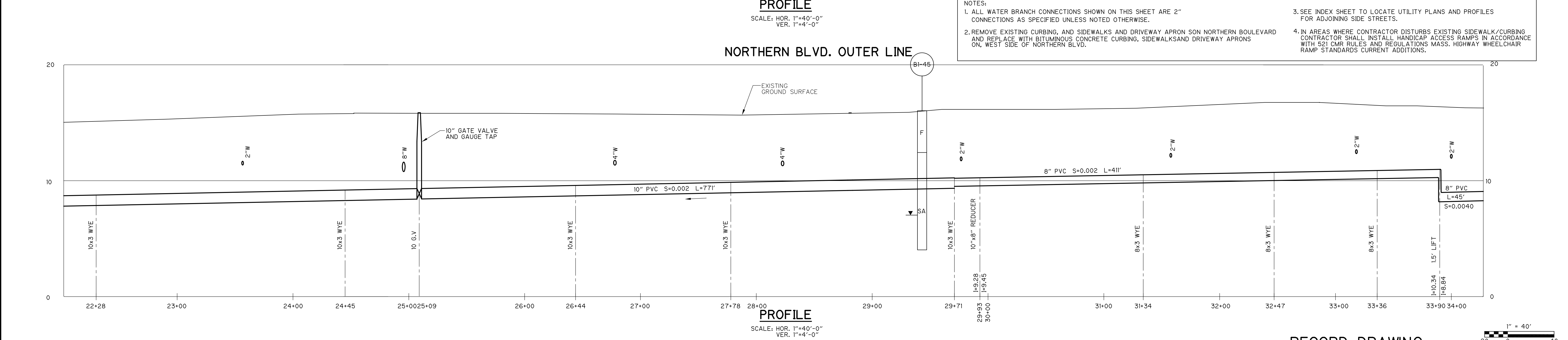
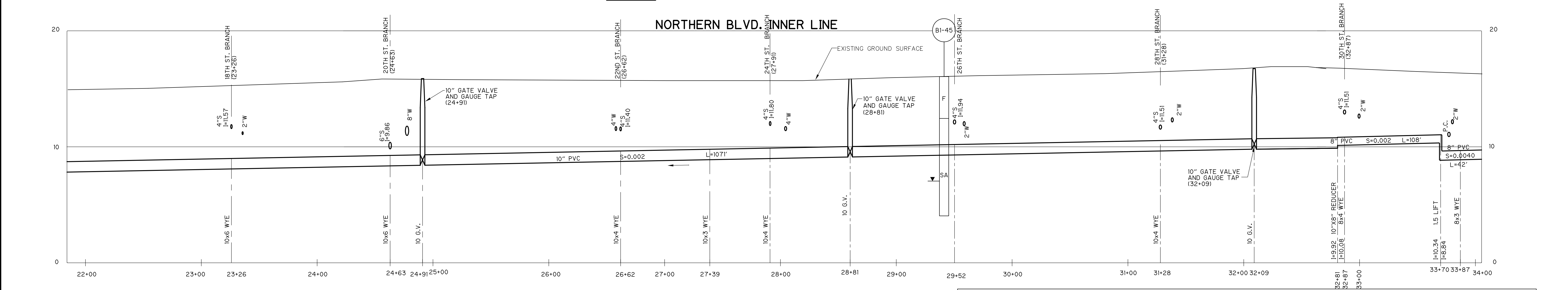
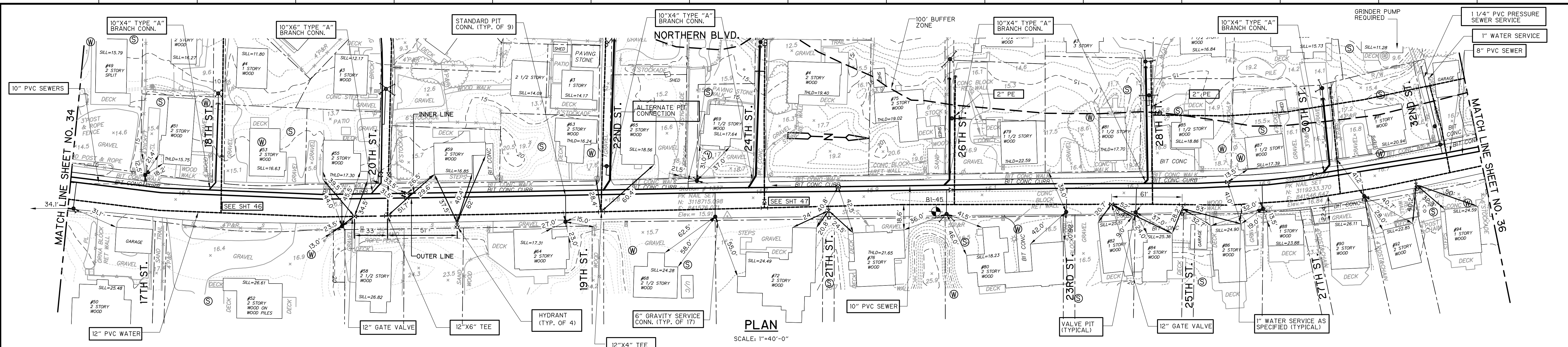
DESIGNED BY:	M. MULLARKEY
DRAWN BY:	B. GUILFORD
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting  
 engineering  
 construction  
 operations

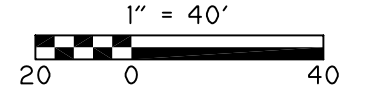
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**NORTHERN BOULEVARD  
 11TH STREET**

PROJECT NO.	CSTPL002
FILE NAME:	CSTPL002
SHEET NO.	<b>34</b>



- NOTES:**
1. ALL WATER BRANCH CONNECTIONS SHOWN ON THIS SHEET ARE 2" CONNECTIONS AS SPECIFIED UNLESS NOTED OTHERWISE.
  2. REMOVE EXISTING CURBING, AND SIDEWALKS AND DRIVEWAY APRON SON NORTHERN BOULEVARD AND REPLACE WITH BITUMINOUS CONCRETE CURBING, SIDEWALKS AND DRIVEWAY APRONS ON WEST SIDE OF NORTHERN BLVD.
  3. SEE INDEX SHEET TO LOCATE UTILITY PLANS AND PROFILES FOR ADJOINING SIDE STREETS.
  4. IN AREAS WHERE CONTRACTOR DISTURBS EXISTING SIDEWALK/CURBING CONTRACTOR SHALL INSTALL HANDICAP ACCESS RAMPS IN ACCORDANCE WITH 521 CMR RULES AND REGULATIONS MASS. HIGHWAY WHEELCHAIR RAMP STANDARDS CURRENT ADDITIONS.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: **M. MULLARKEY**  
 DRAWN BY: **B. GUILFORD**  
 SHEET CHK'D BY: **E. MARSTEINER**  
 CROSS CHK'D BY: **RALPH SOUPPA**  
 APPROVED BY: **PAUL ROSS**  
 DATE: **OCTOBER 2001**

**CDM** Camp Dresser & McKee Inc.  
consulting  
 engineering  
 construction  
 operations

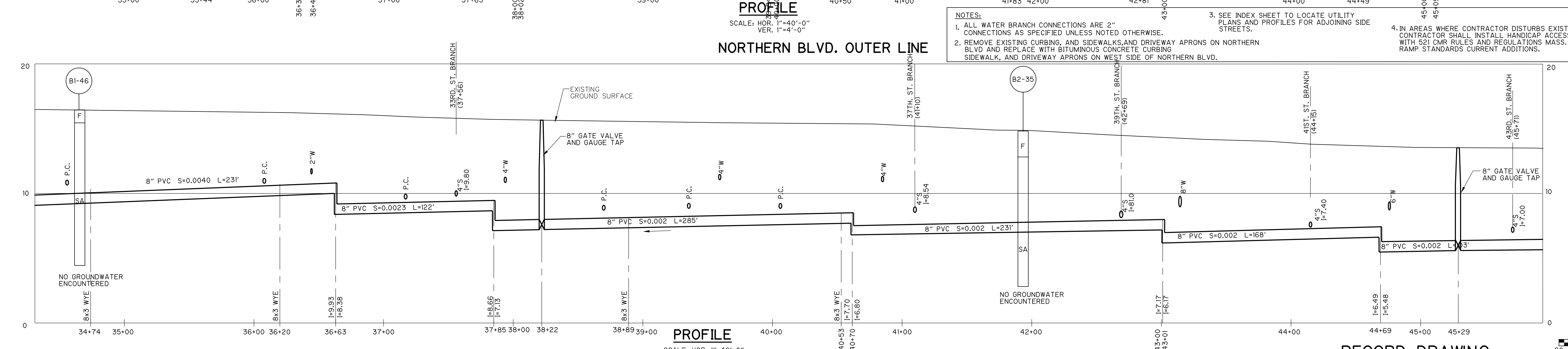
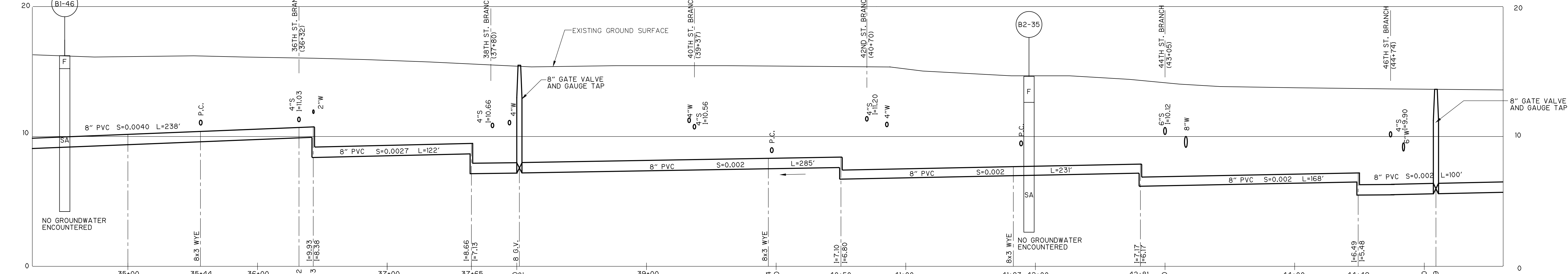
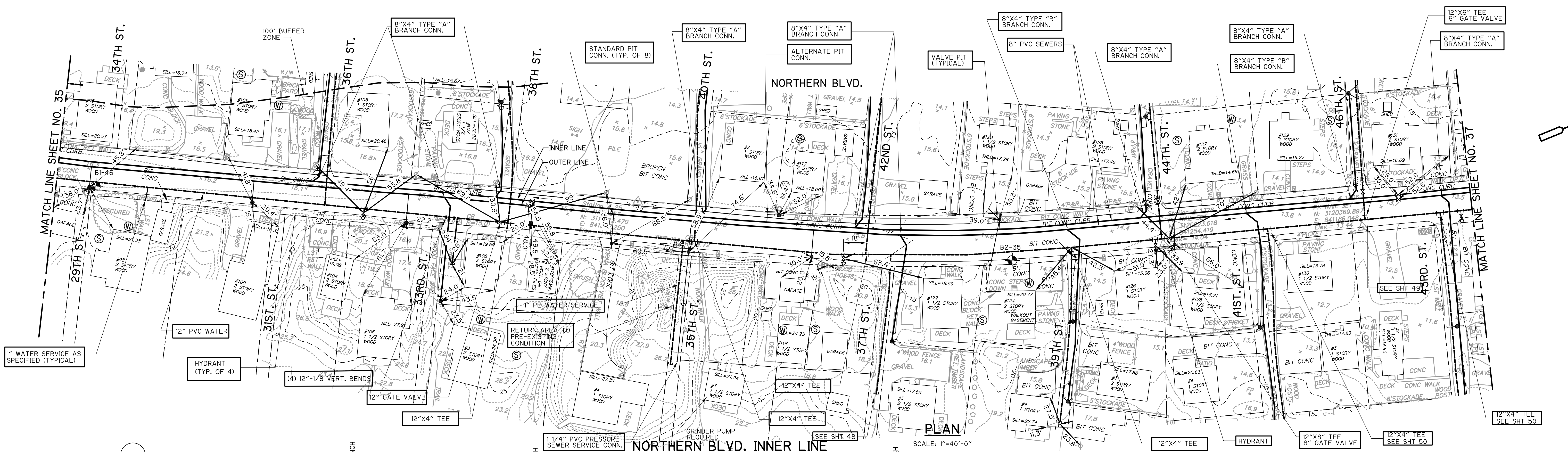
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**RECORD DRAWING**

**NORTHERN BOULEVARD**

PROJECT NO. \_\_\_\_\_  
 FILE NAME: CSTPL003

SHEET NO. **35**



**NOTES:**  
 1. ALL WATER BRANCH CONNECTIONS ARE 2" CONNECTIONS AS SPECIFIED UNLESS NOTED OTHERWISE.  
 2. REMOVE EXISTING CURBING, AND SIDEWALKS, AND DRIVEWAY APRONS ON NORTHERN BLVD AND REPLACE WITH BITUMINOUS CONCRETE CURBING SIDEWALK, AND DRIVEWAY APRONS ON WEST SIDE OF NORTHERN BLVD.  
 3. SEE INDEX SHEET TO LOCATE UTILITY PLANS AND PROFILES FOR ADJOINING SIDE STREETS.  
 4. IN AREAS WHERE CONTRACTOR DISTURBS EXISTING SIDEWALK/CURBING CONTRACTOR SHALL INSTALL HANDICAP ACCESS RAMPS IN ACCORDANCE WITH 521 CMR RULES AND REGULATIONS MASS. HIGHWAY WHEELCHAIR RAMP STANDARDS CURRENT ADDITIONS.

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

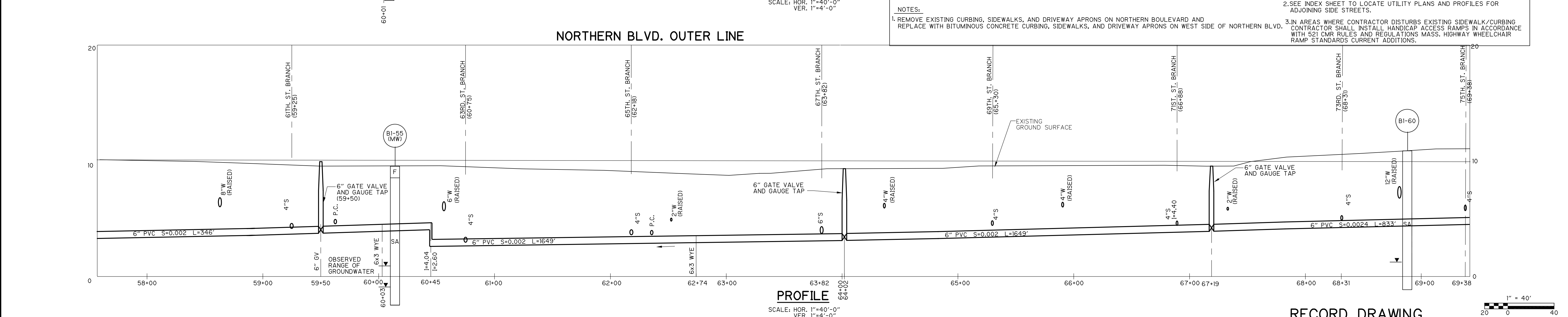
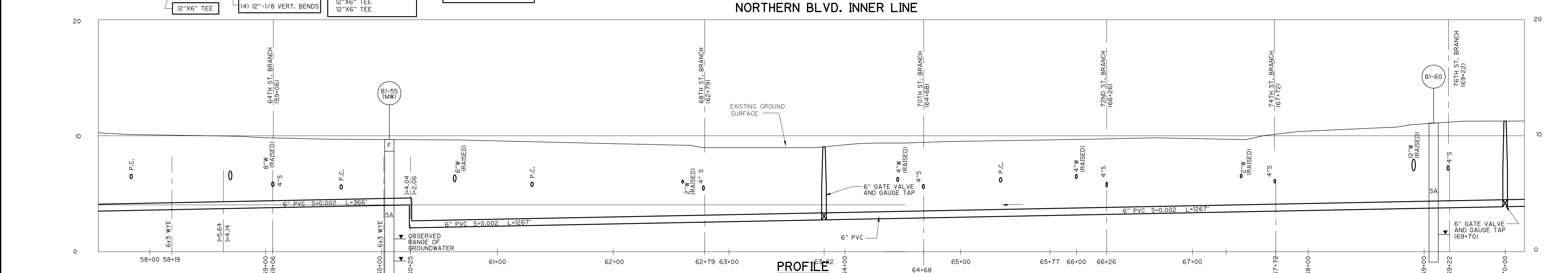
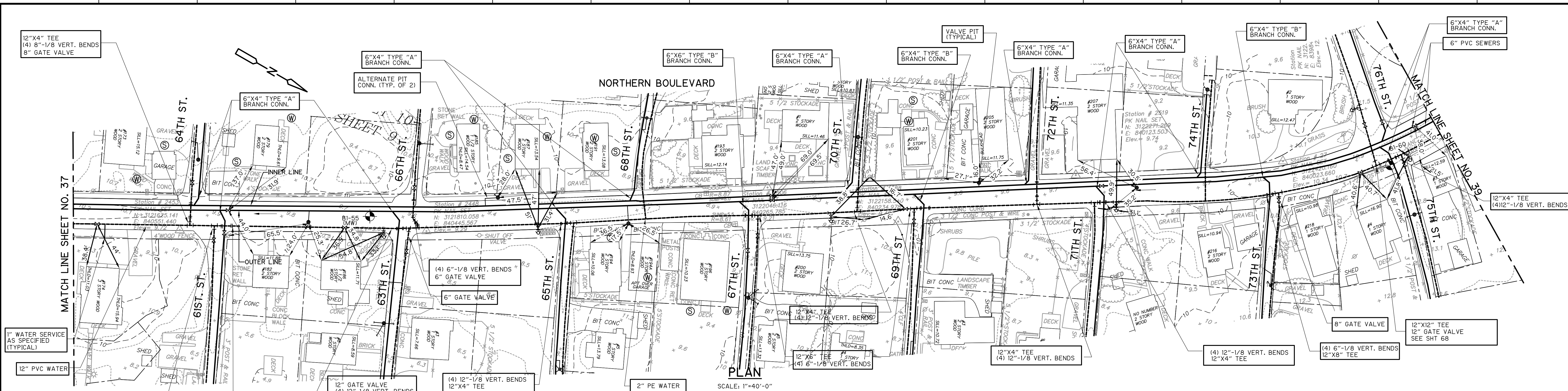
**CDM** Camp Dresser & McKee Inc.

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**NORTHERN BOULEVARD**  
 SHEET NO. 36

PROJECT NO.	FILE NAME:	CSTPL004
SHEET NO.	36	





**NOTES:**  
 1. REMOVE EXISTING CURBING, SIDEWALKS, AND DRIVEWAY APRONS ON NORTHERN BOULEVARD AND REPLACE WITH BITUMINOUS CONCRETE CURBING, SIDEWALKS, AND DRIVEWAY APRONS ON WEST SIDE OF NORTHERN BLVD.  
 2. SEE INDEX SHEET TO LOCATE UTILITY PLANS AND PROFILES FOR ADJOINING SIDE STREETS.  
 3. IN AREAS WHERE CONTRACTOR DISTURBS EXISTING SIDEWALK/CURBING CONTRACTOR SHALL INSTALL HANDICAP ACCESS RAMPS IN ACCORDANCE WITH 521 CMR RULES AND REGULATIONS MASS. HIGHWAY WHEELCHAIR RAMP STANDARDS CURRENT ADDITIONS.

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: **M. MULLARKEY**  
 DRAWN BY: **B. GUILFORD**  
 SHEET CHK'D BY: **E. MARSTEINER**  
 CROSS CHK'D BY: **RALPH SOUPPA**  
 APPROVED BY: **PAUL ROSS**  
 DATE: **OCTOBER 2001**

**CDM** Camp Dresser & McKee Inc.  
consulting  
engineered  
construction  
operation

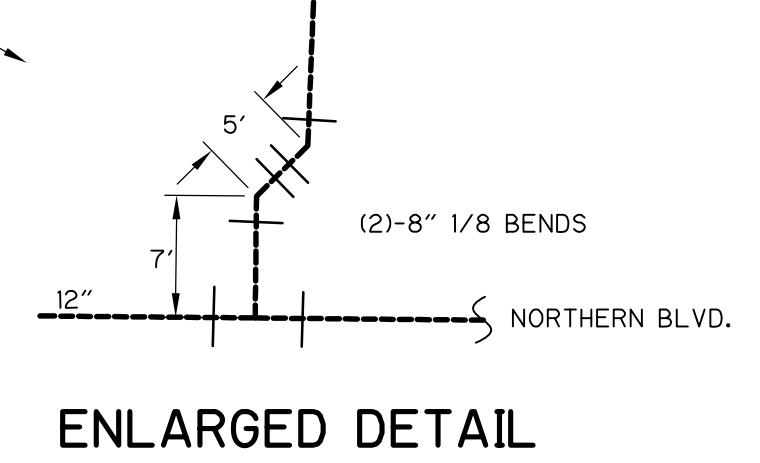
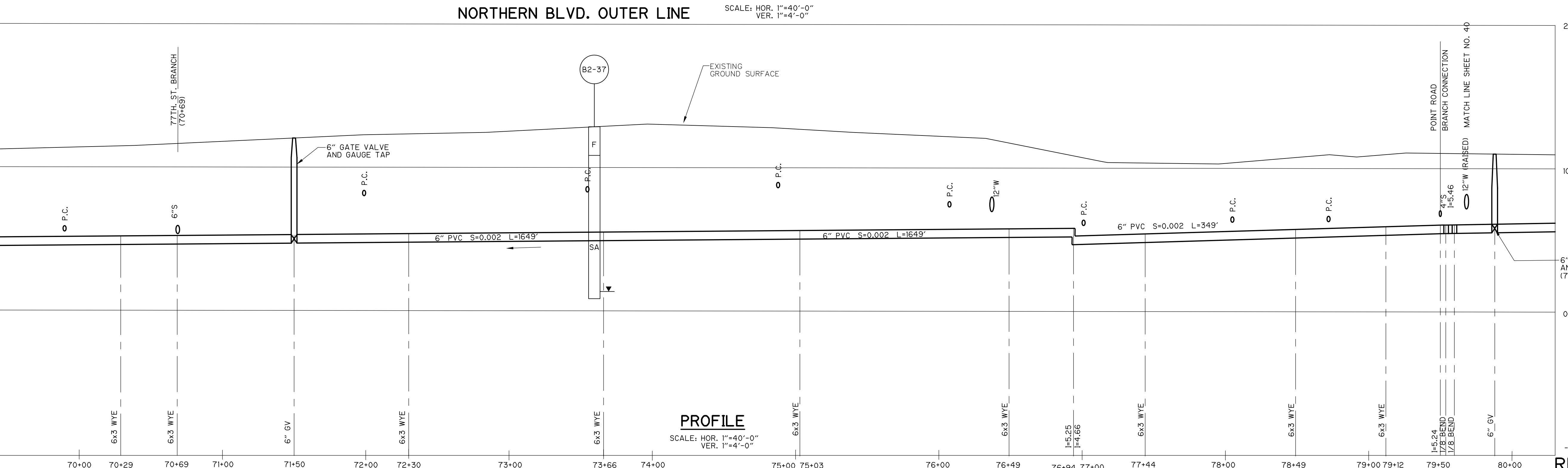
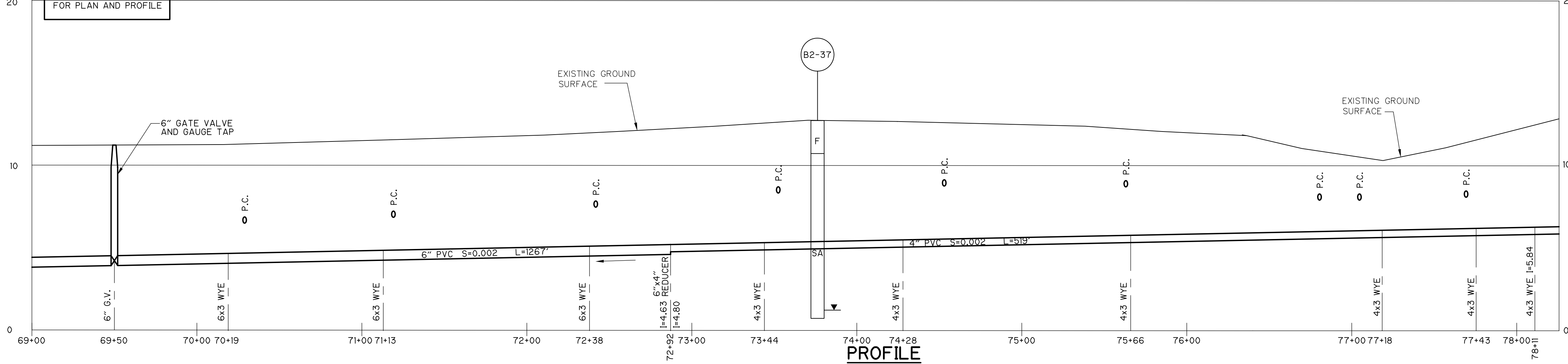
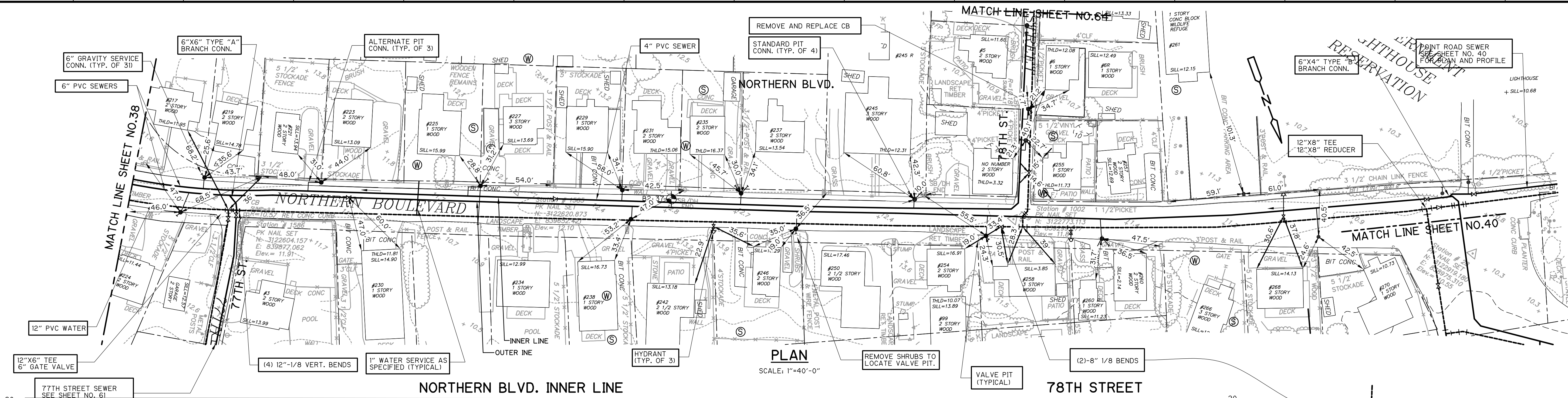
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**RECORD DRAWING**

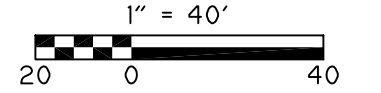
**NORTHERN BOULEVARD**

PROJECT NO. **9451-30964**  
 FILE NAME: **CSTPL006**

SHEET NO. **38**



- NOTES:
- REMOVE EXISTING CURBING, SIDEWALKS, AND DRIVEWAY APRONS ON NORTHERN BOULEVARD AND REPLACE WITH BITUMINOUS CONCRETE CURBING, SIDEWALKS, AND DRIVEWAY APRONS ON WEST SIDE OF NORTHERN BLVD.
  - IN AREAS WHERE CONTRACTOR DISTURBS EXISTING SIDEWALK/CURBING CONTRACTOR SHALL INSTALL HANDICAP ACCESS RAMPS IN ACCORDANCE WITH 521 CMR RULES AND REGULATIONS MASS. HIGHWAY WHEELCHAIR RAMP STANDARDS CURRENT ADDITIONS.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

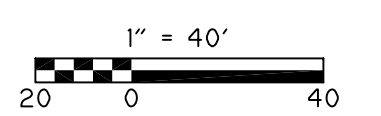
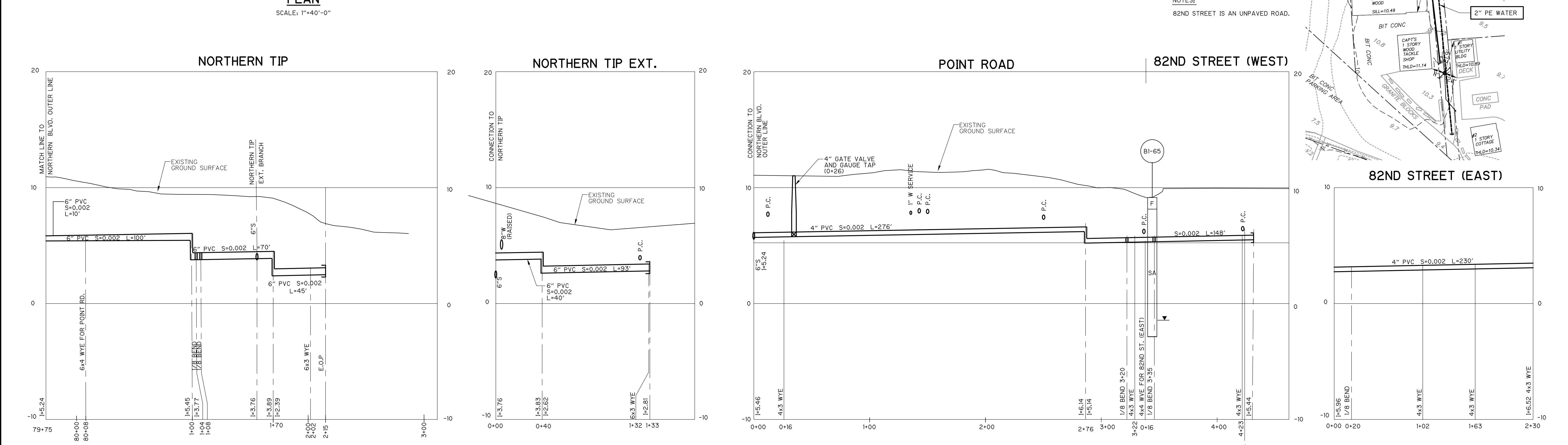
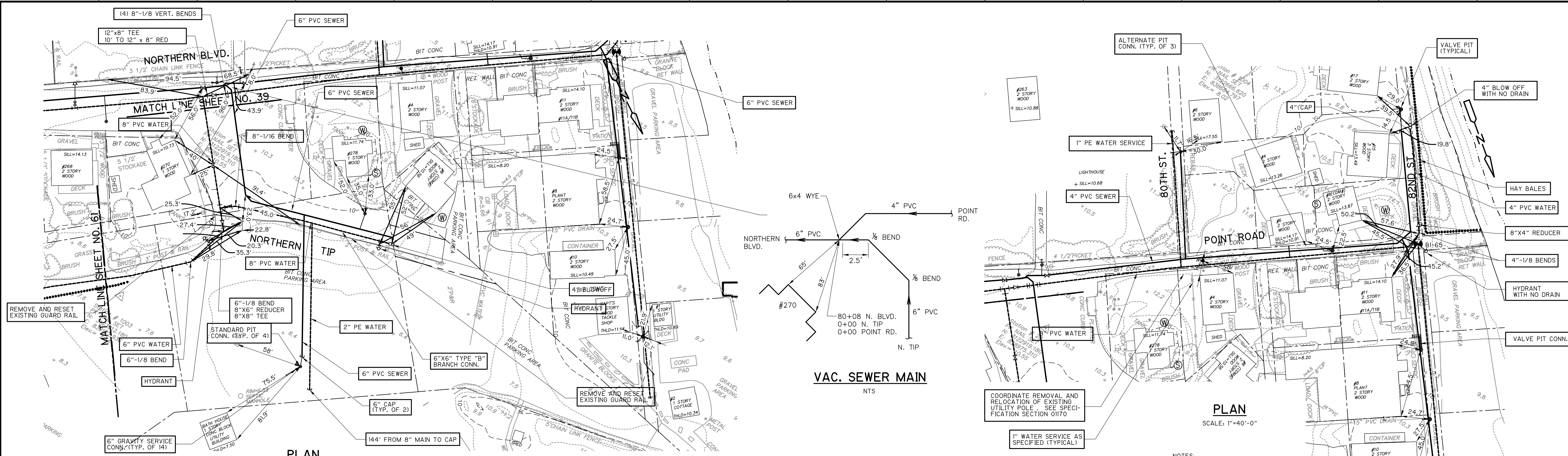
DESIGNED BY:	M. MULLARKEY
DRAWN BY:	B. GUILFORD
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**NORTHERN BOULEVARD**  
 SHEET NO. **39**

PROJECT NO.	CSTPL007
FILE NAME:	CSTPL007
SHEET NO.	39

[NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN] Plotted by: PETRUKHINTM Time: 11/13/2007 9:07:02 AM  
 File name: P:\9451\30964\ASBUILT\CONT4\CSTPL008.DWG Xref's: [G:\000000, C85P003, LAYOUT, ]



RECORD DRAWING

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

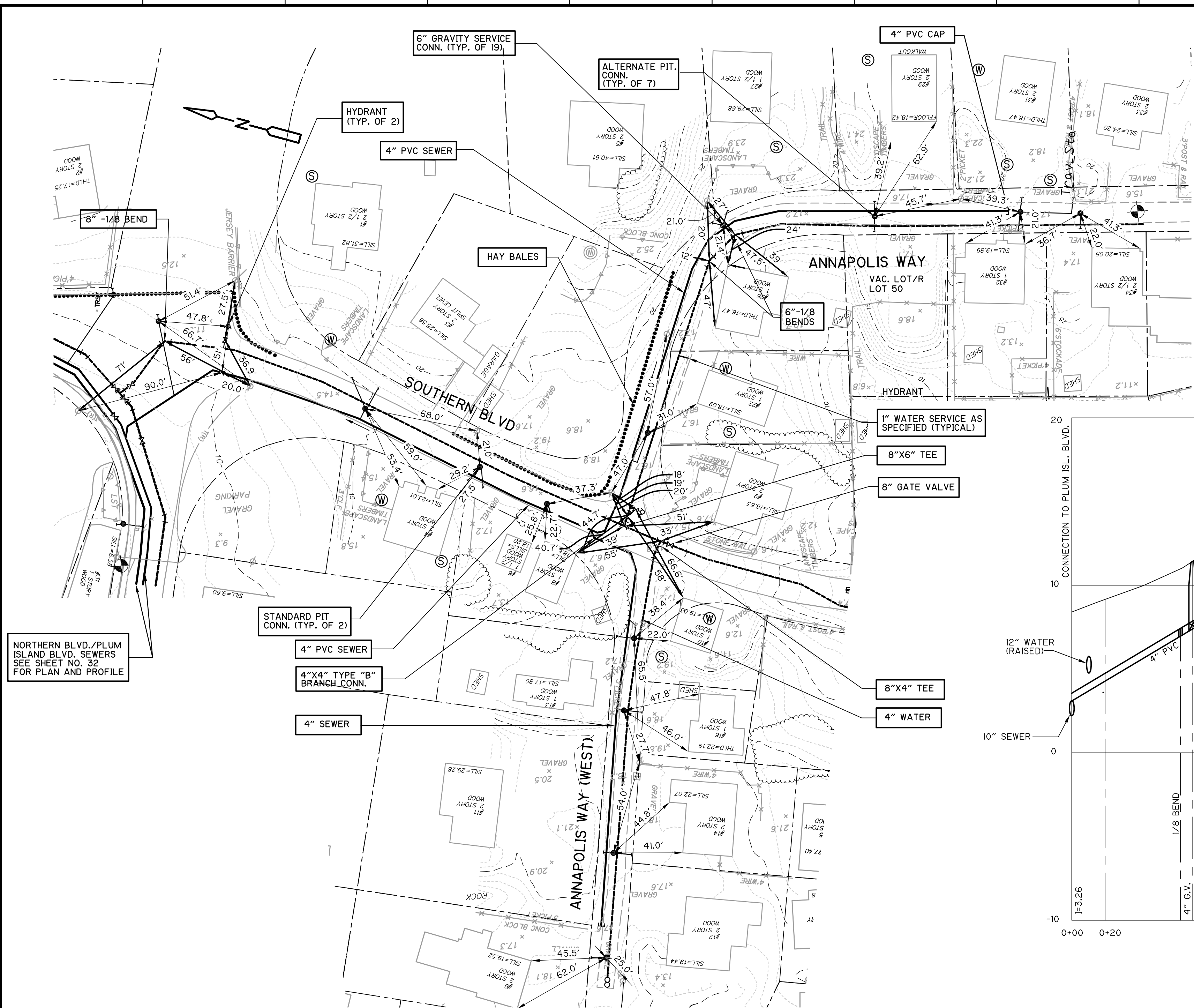
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

POINT ROAD  
 82ND STREET  
 SHEET NO. 40

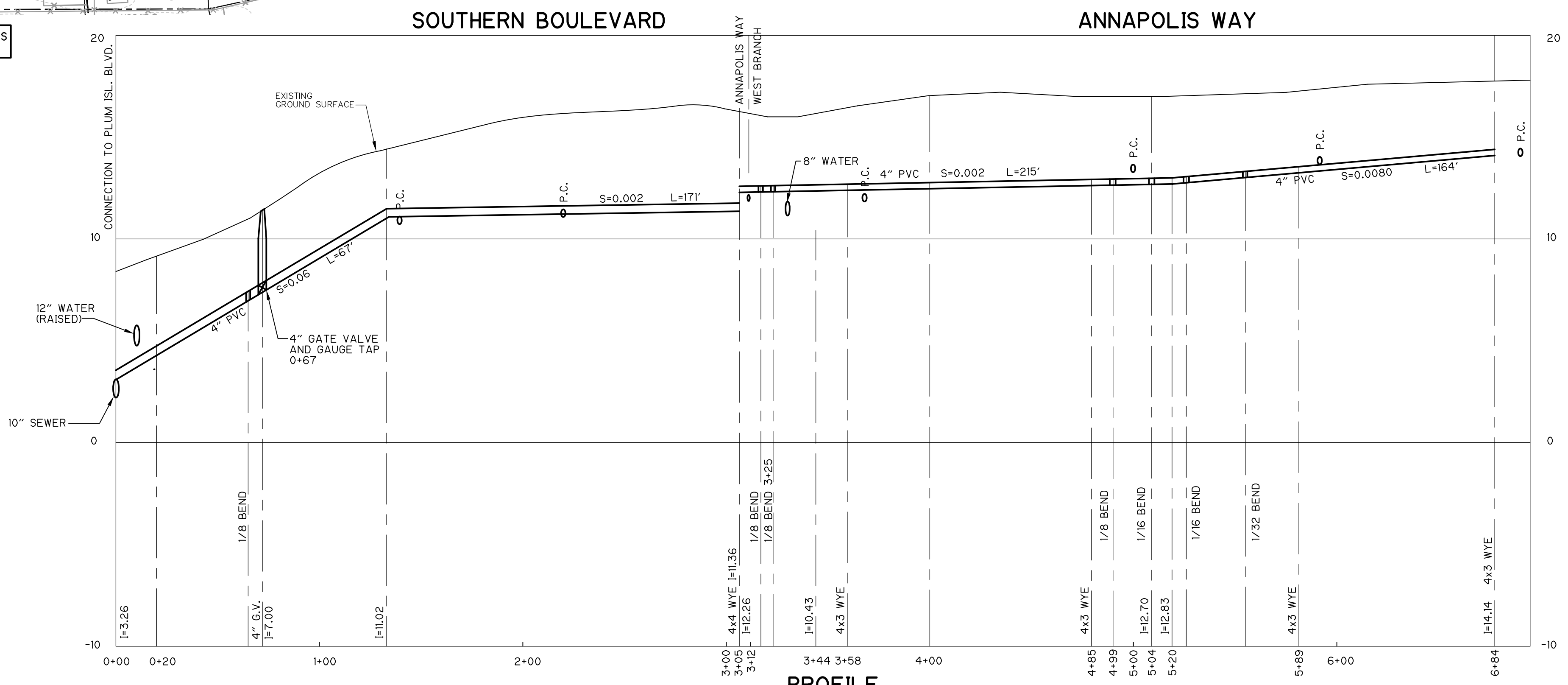
PROJECT NO. CSTPL008  
 FILE NAME: CSTPL008  
 SHEET NO. 40



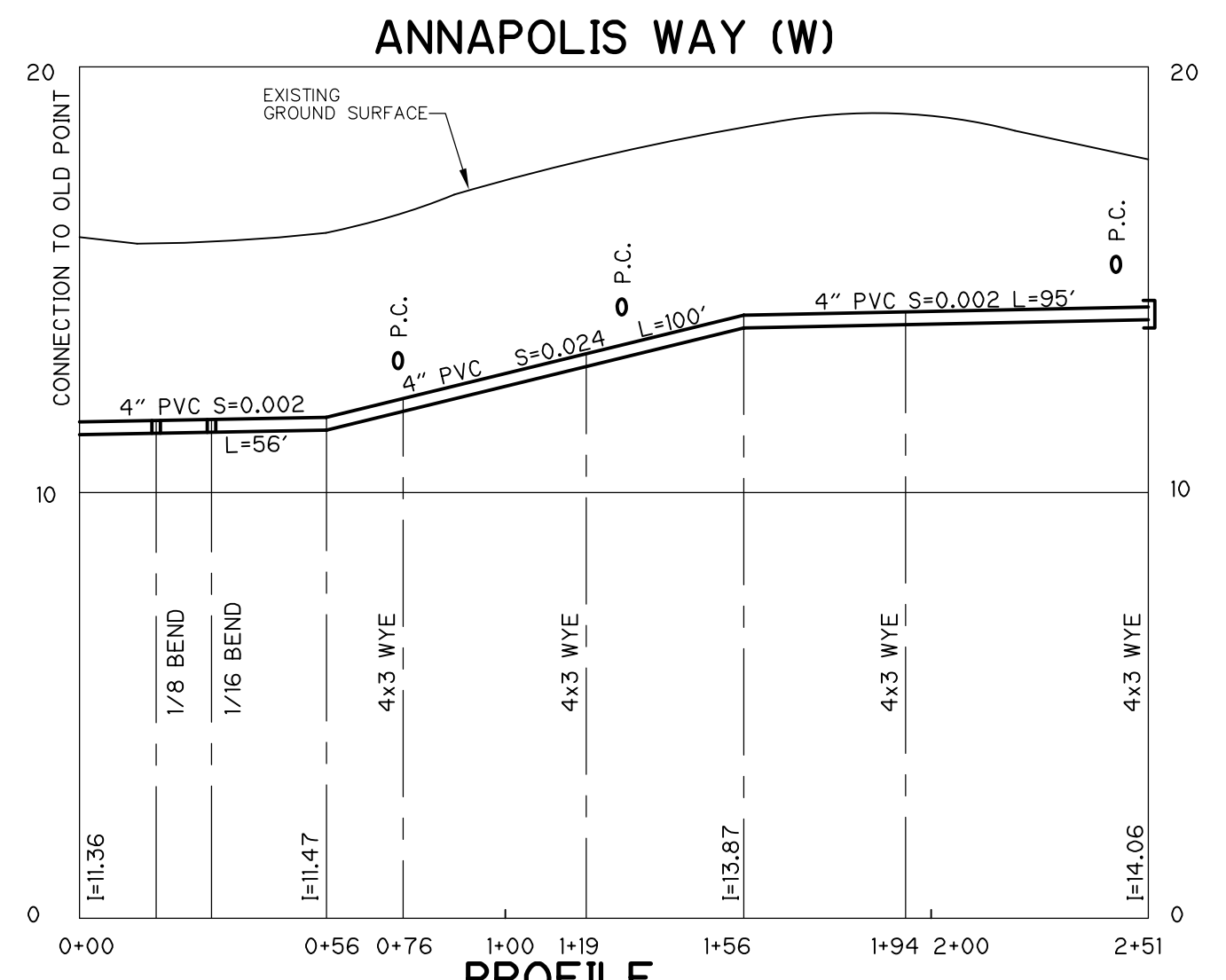


**PLAN**  
 SCALE: 1"=40'-0"

NOTES:  
 1. ANNAPOLIS WAY AND ANNAPOLIS WEST ARE UNPAVED ROADS.

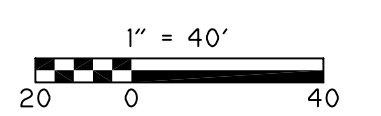


**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

RECORD DRAWING



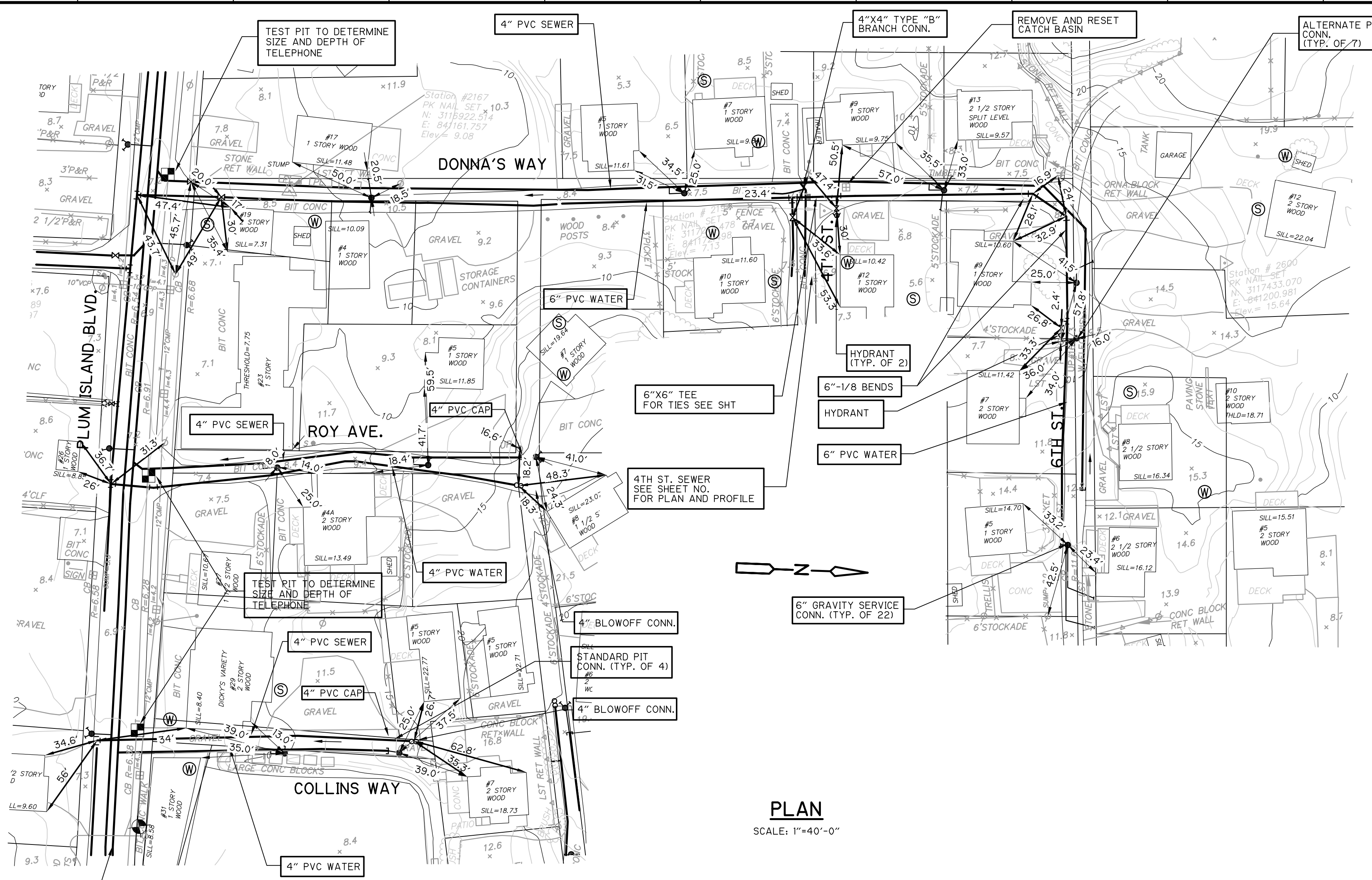
DESIGNED BY:	T. MCGOVERN
DRAWN BY:	G. BELZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	W. D. GREEN
APPROVED BY:	P. ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

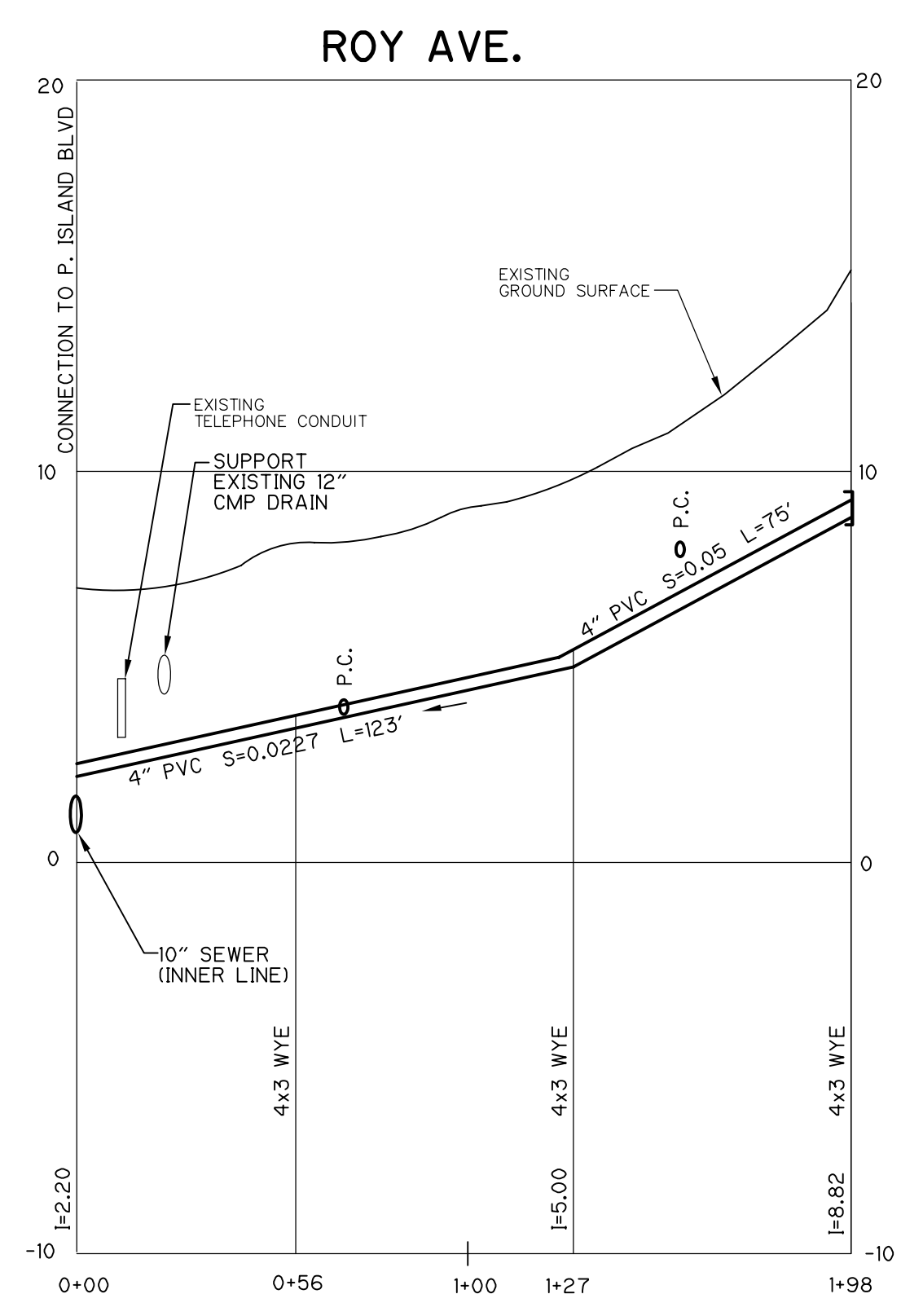
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**SOUTHERN BOULEVARD  
 ANNAPOLIS WAY**

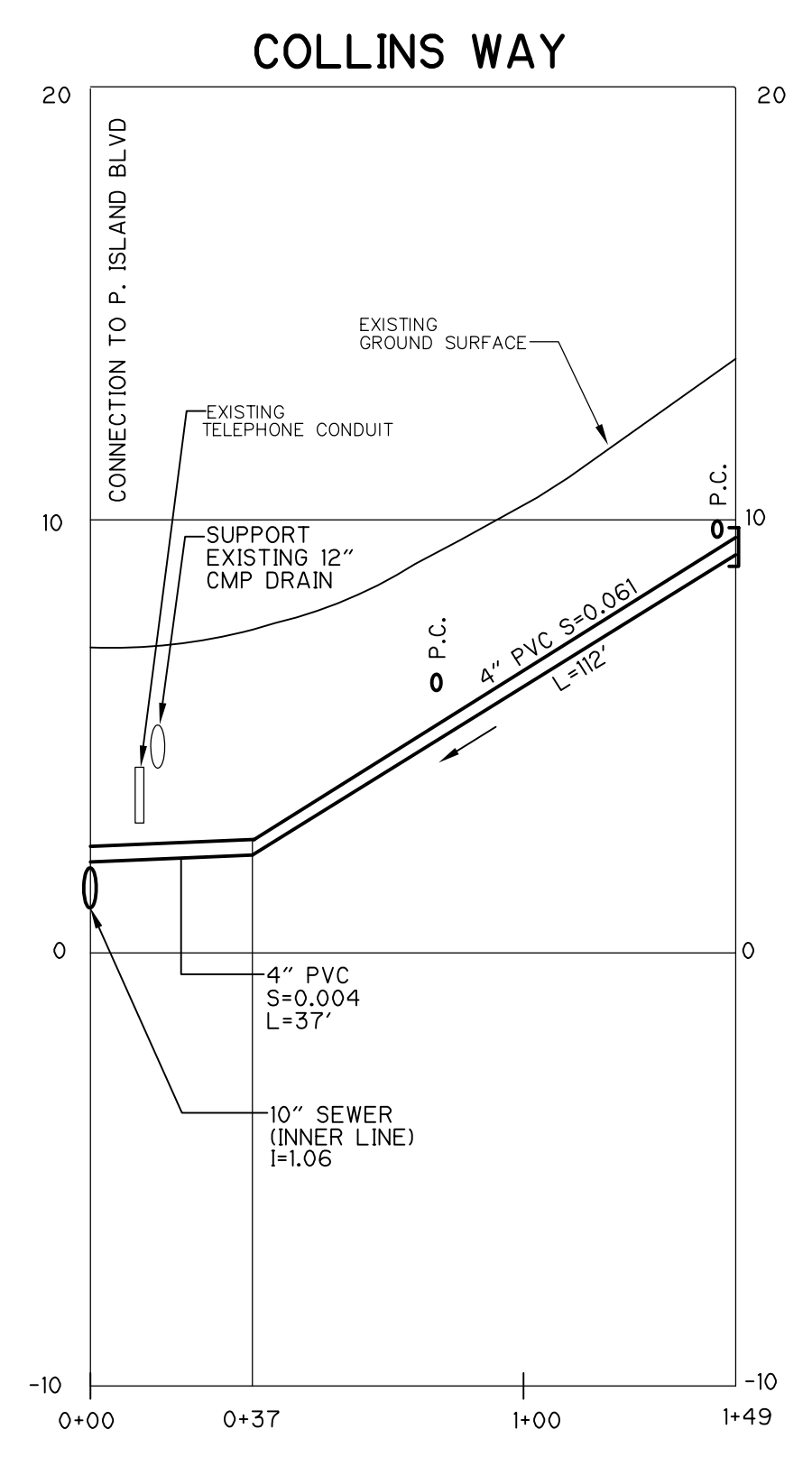
PROJECT NO.	CSTPL024
FILE NAME:	CSTPL024
SHEET NO.	41



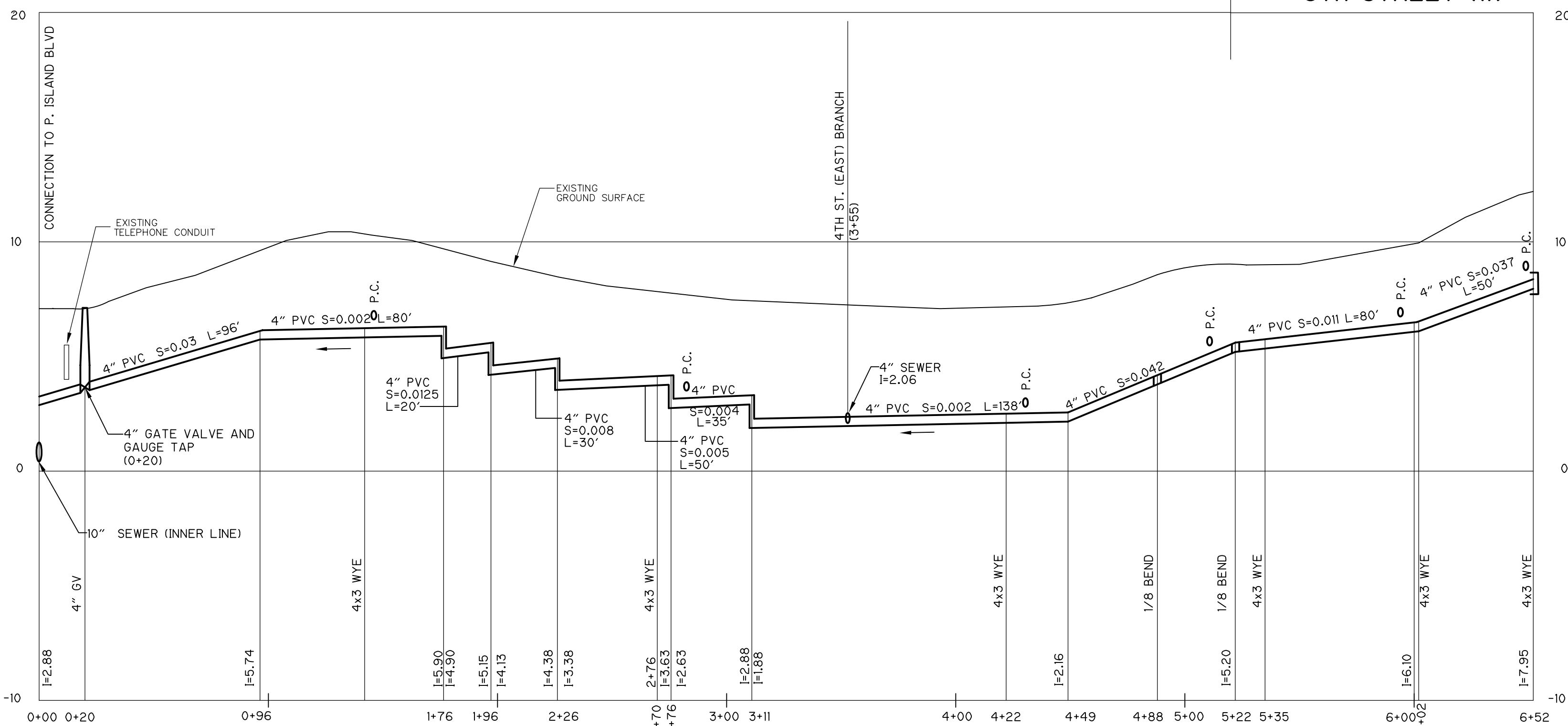
**PLAN**  
 SCALE: 1"=40'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

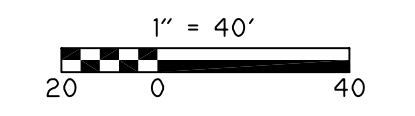


**DONNA'S WAY 6TH STREET (W)**



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VERT. 1"=4'-0"

NOTES:  
 1. COLLINS WAY IS AN UNPAVED ROAD.



**RECORD DRAWING**

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

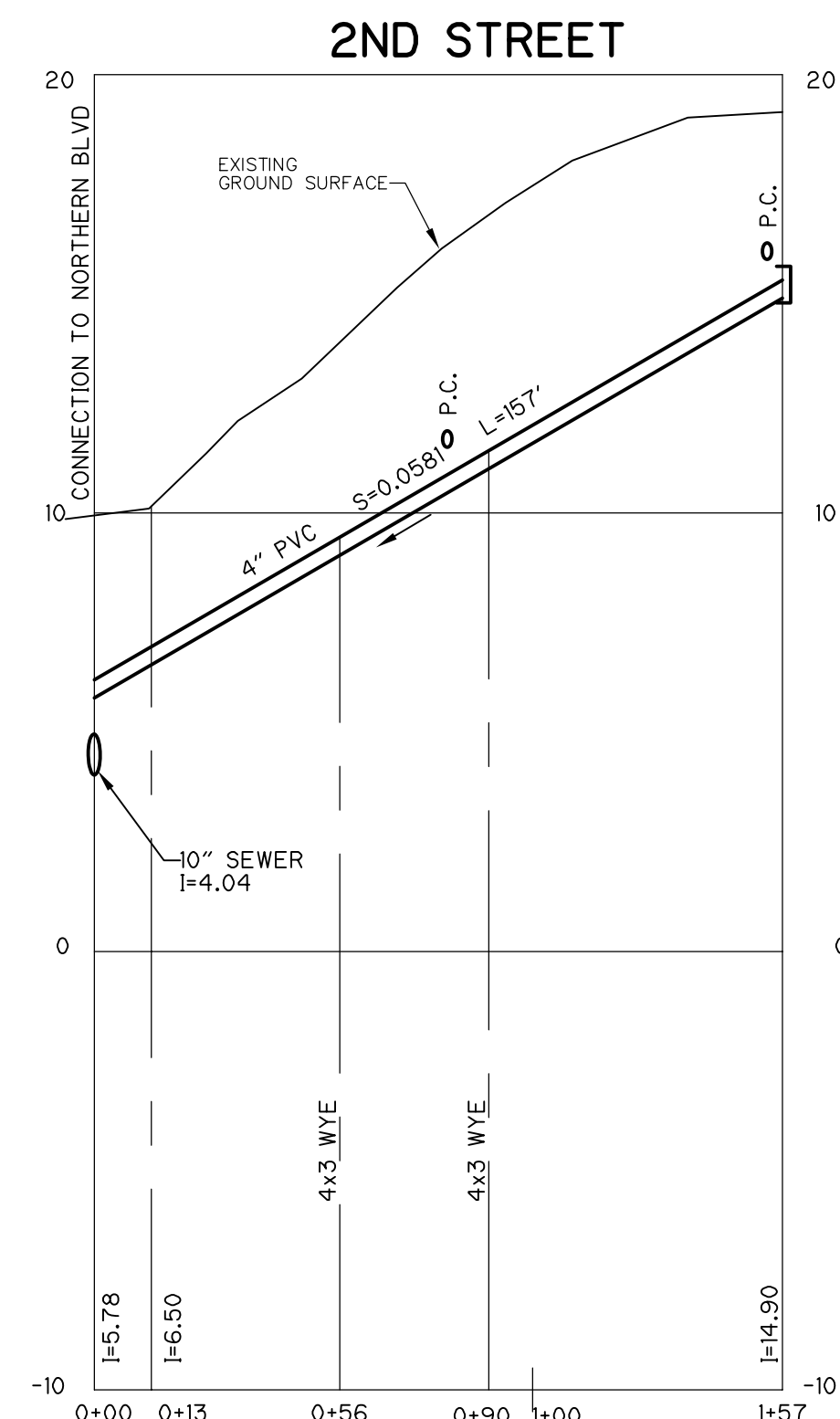
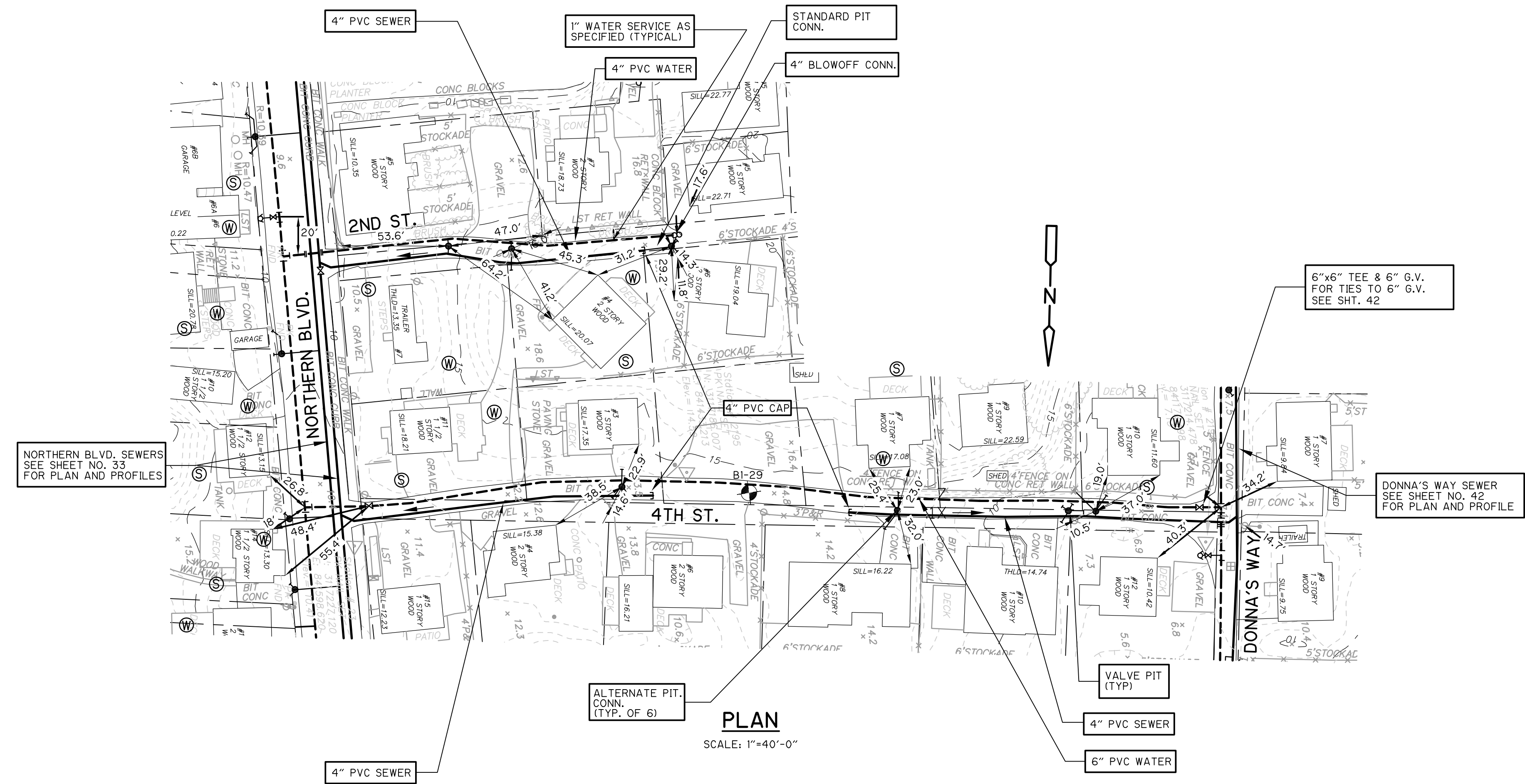
DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
 engineering  
 construction  
 operations

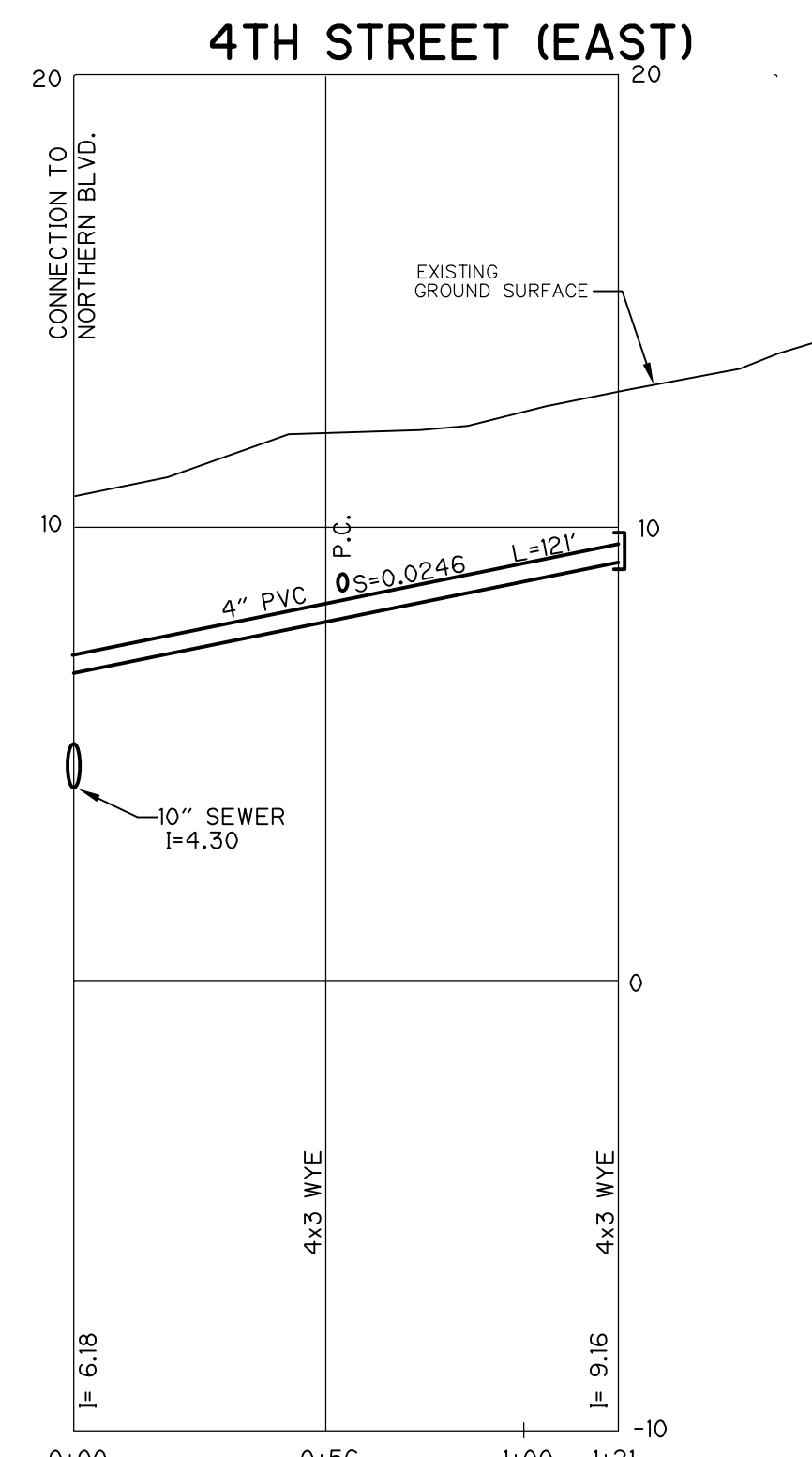
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**DONNA'S WAY, ROY AVENUE AND  
 COLLINS WAY AND 6TH STREET**

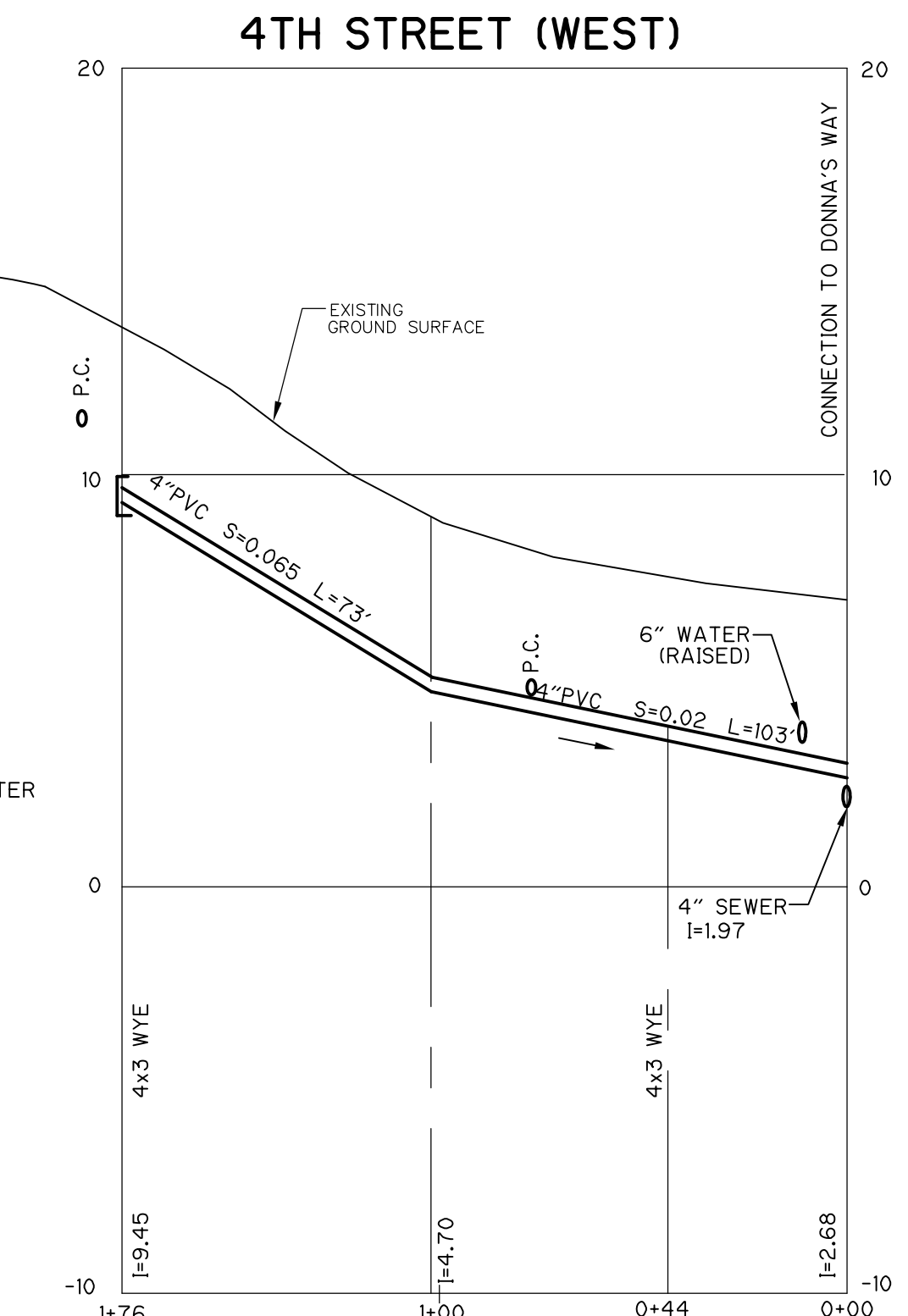
PROJECT NO. FILE NAME:	CSTPL309
SHEET NO.	42



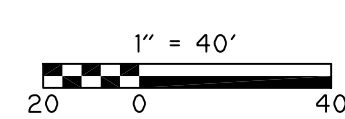
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



RECORD DRAWING

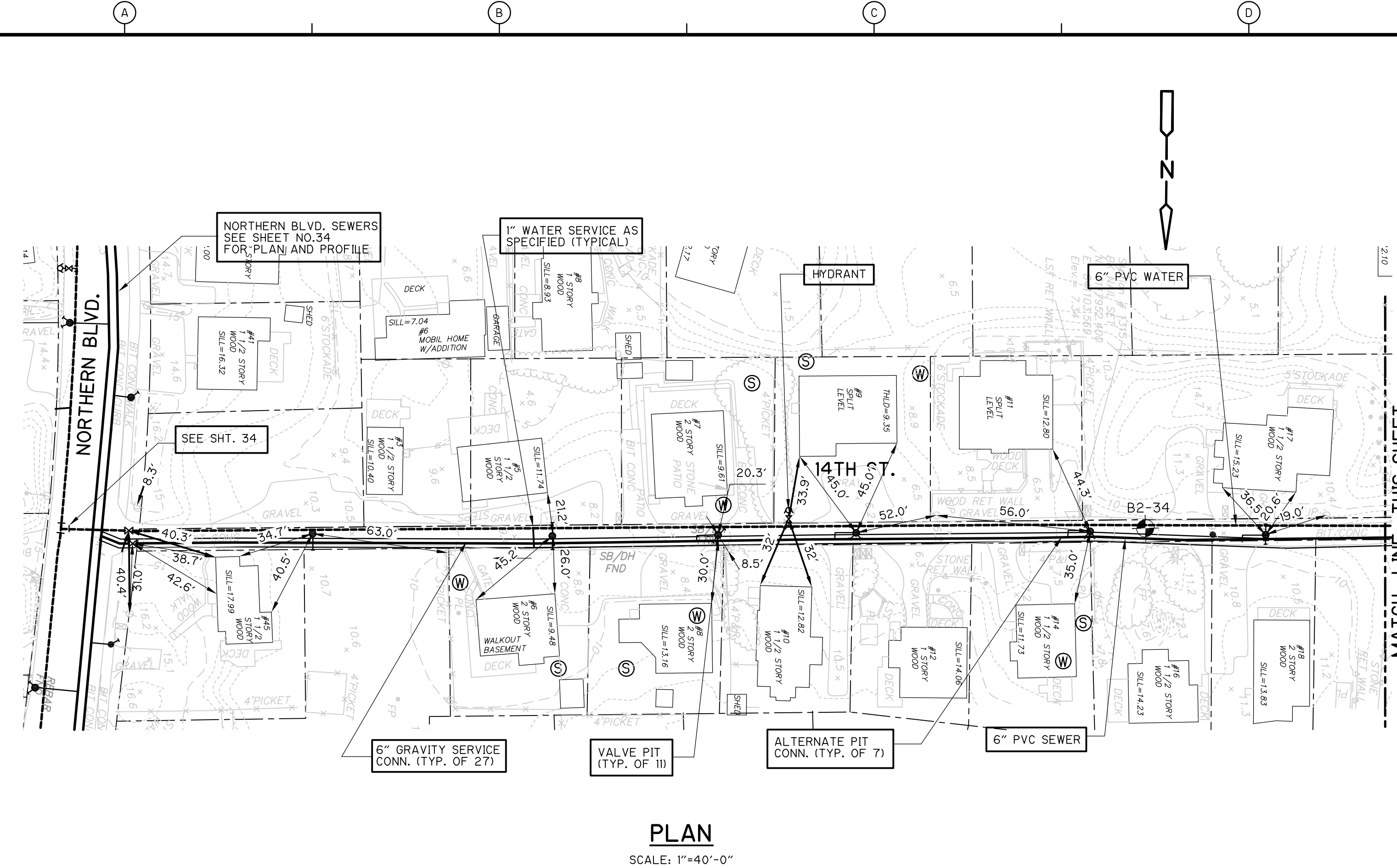
REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY:	T. McGOVERN
DRAWN BY:	G. BELIZAIRE
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

CDM Camp Dresser & McKee Inc.  
PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 2  
WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS

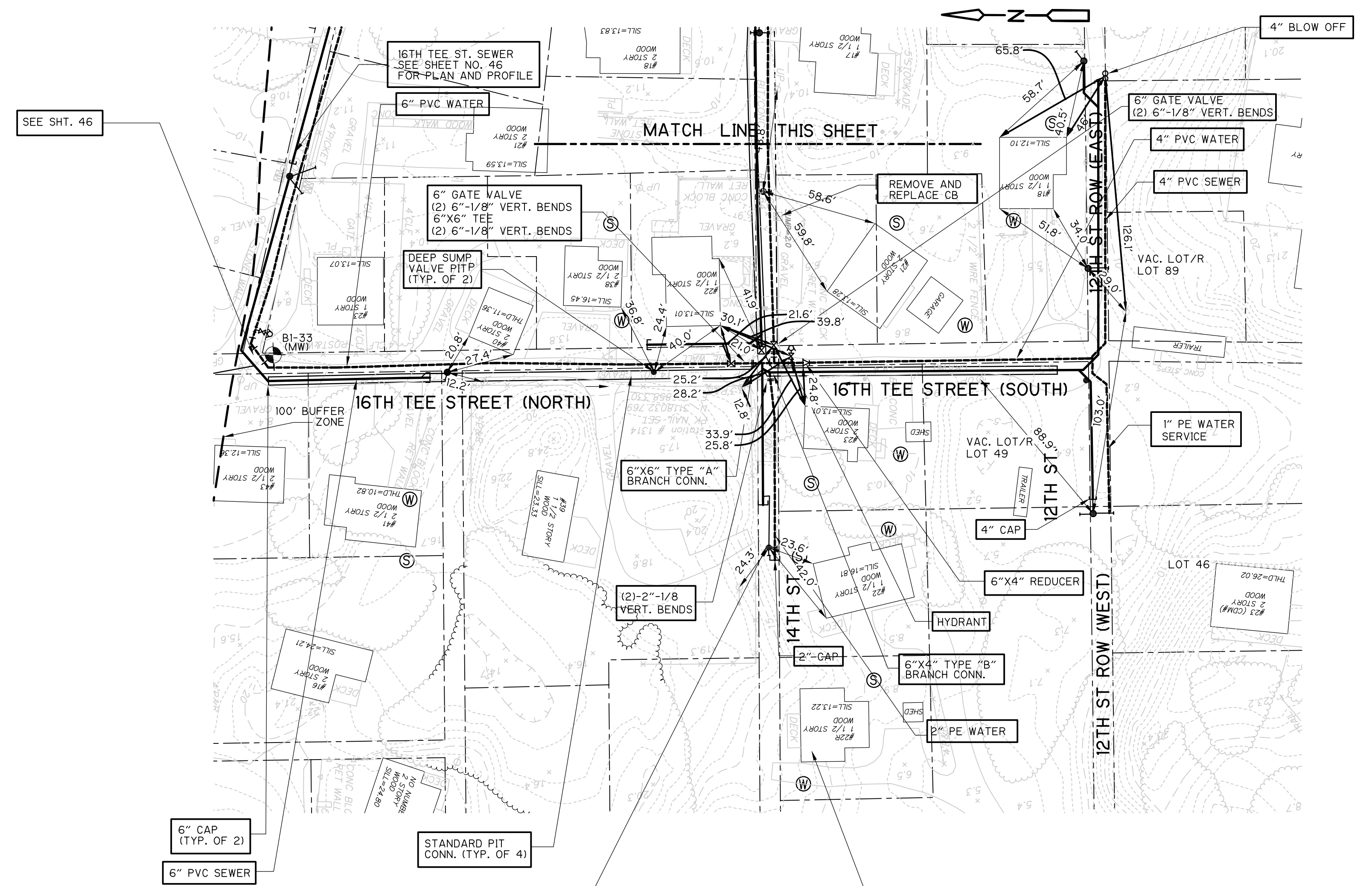
PROJECT NO. CSTPL310  
FILE NAME: CSTPL310  
SHEET NO. 43



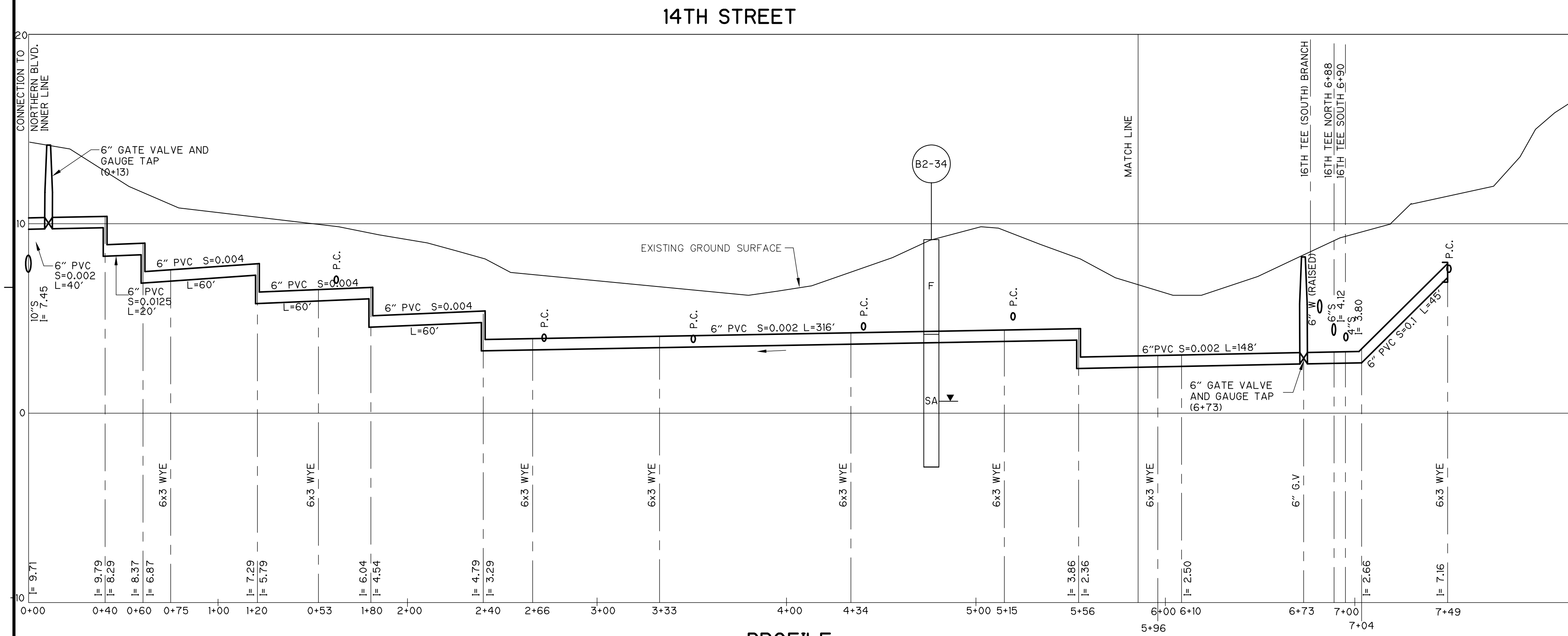


**PLAN**  
SCALE: 1"=40'-0"

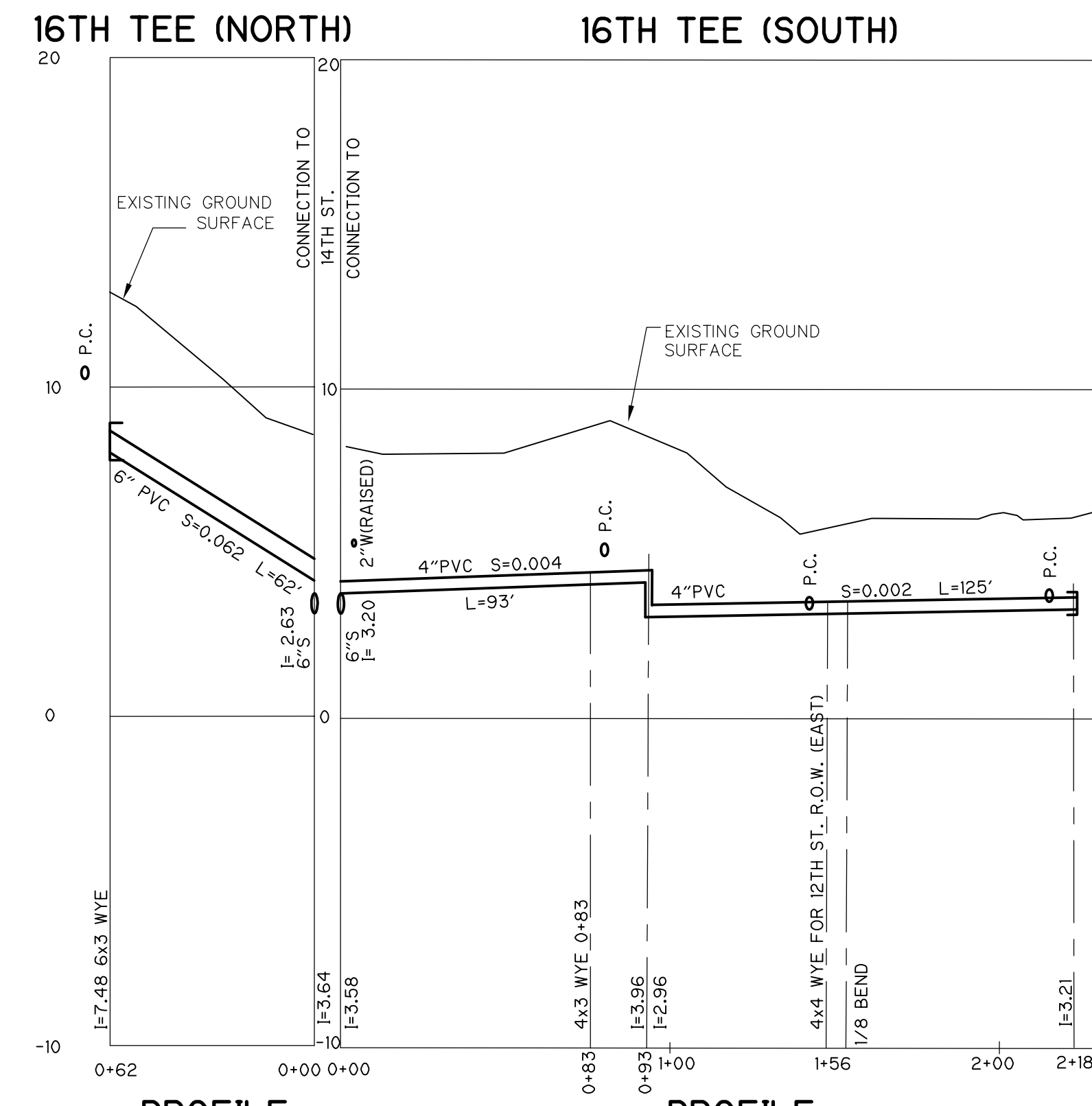
NOTES:  
1. 16TH TEE ST. IS AN UNPAVED ROAD.



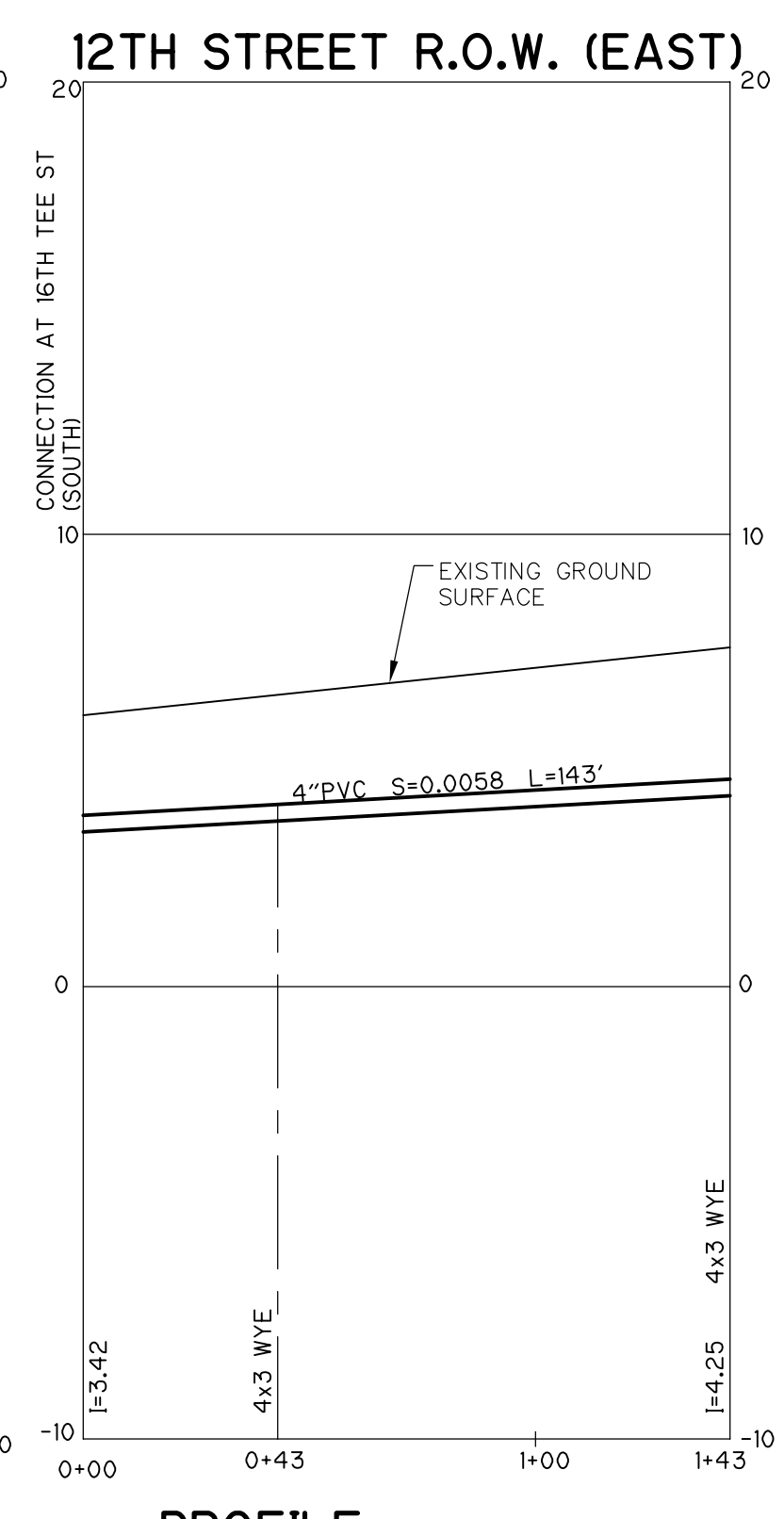
**PLAN**  
SCALE: 1"=40'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: **M. MULLARKEY**  
 DRAWN BY: **B. GUILFORD**  
 SHEET CHK'D BY: **E. MARSTEINER**  
 CROSS CHK'D BY: **RALPH SOUPPA**  
 APPROVED BY: **PAUL ROSS**  
 DATE: **OCTOBER 2001**

**CDM** Camp Dresser & McKee Inc.

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2

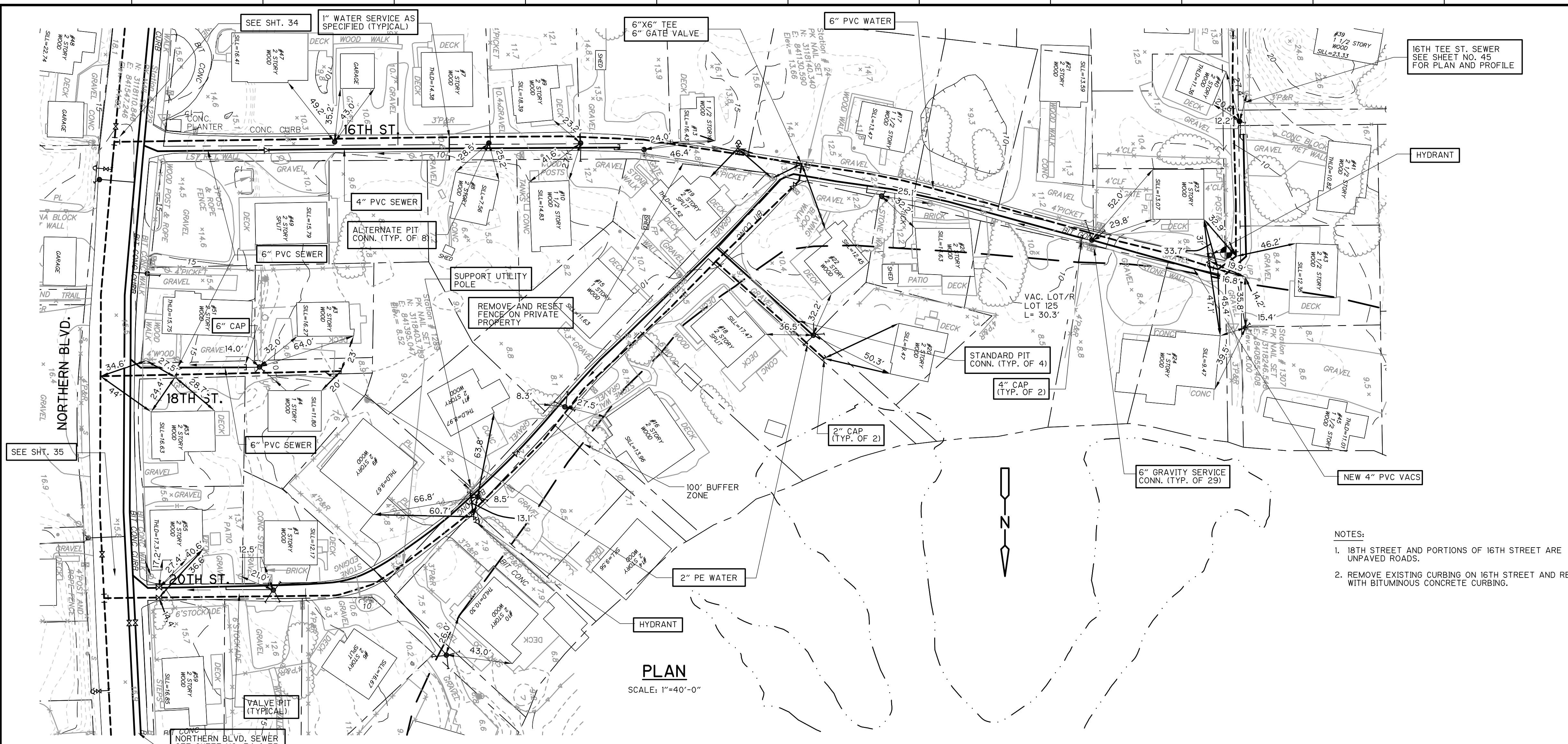
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**14TH STREET  
 16TH TEE STREET**

**RECORD DRAWING**

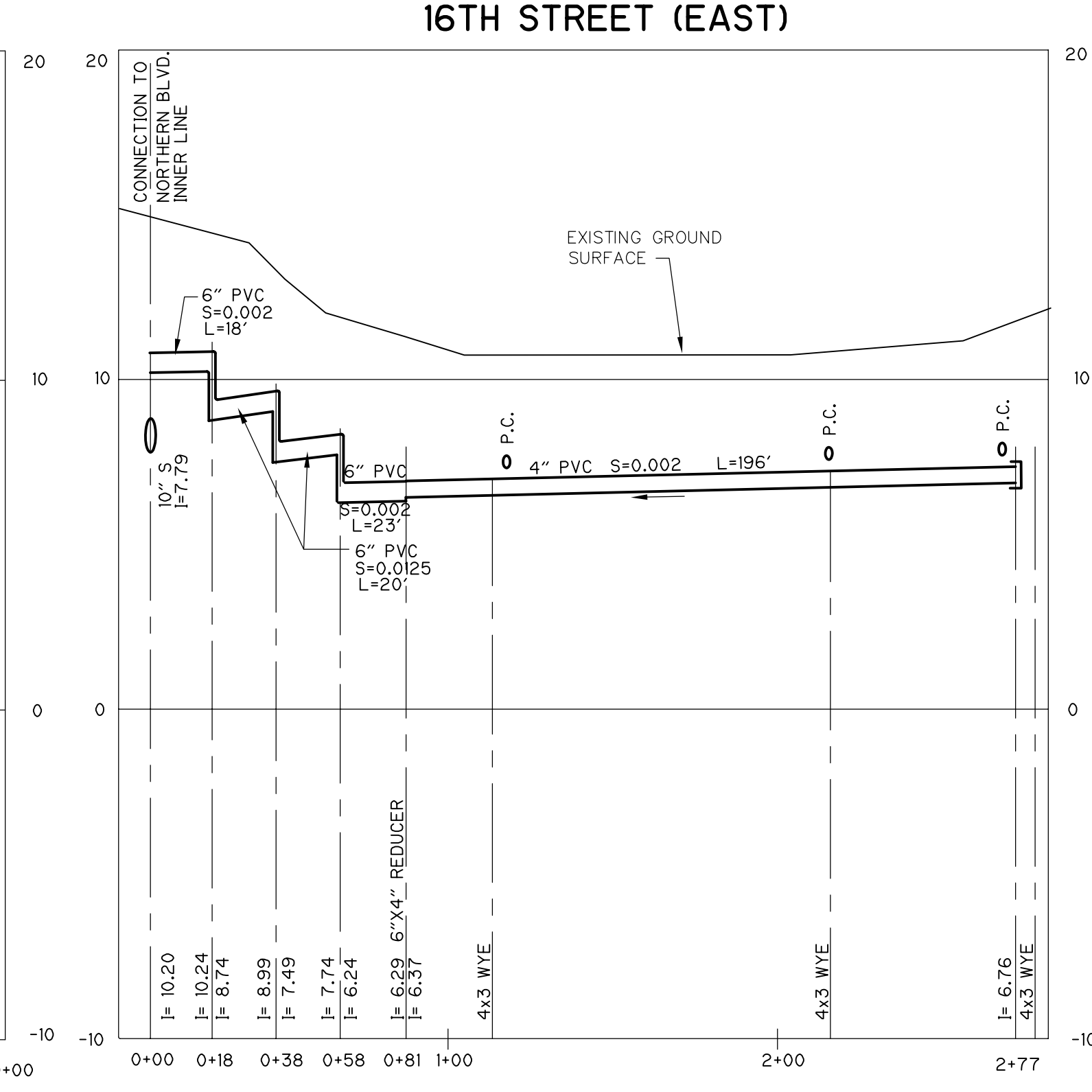
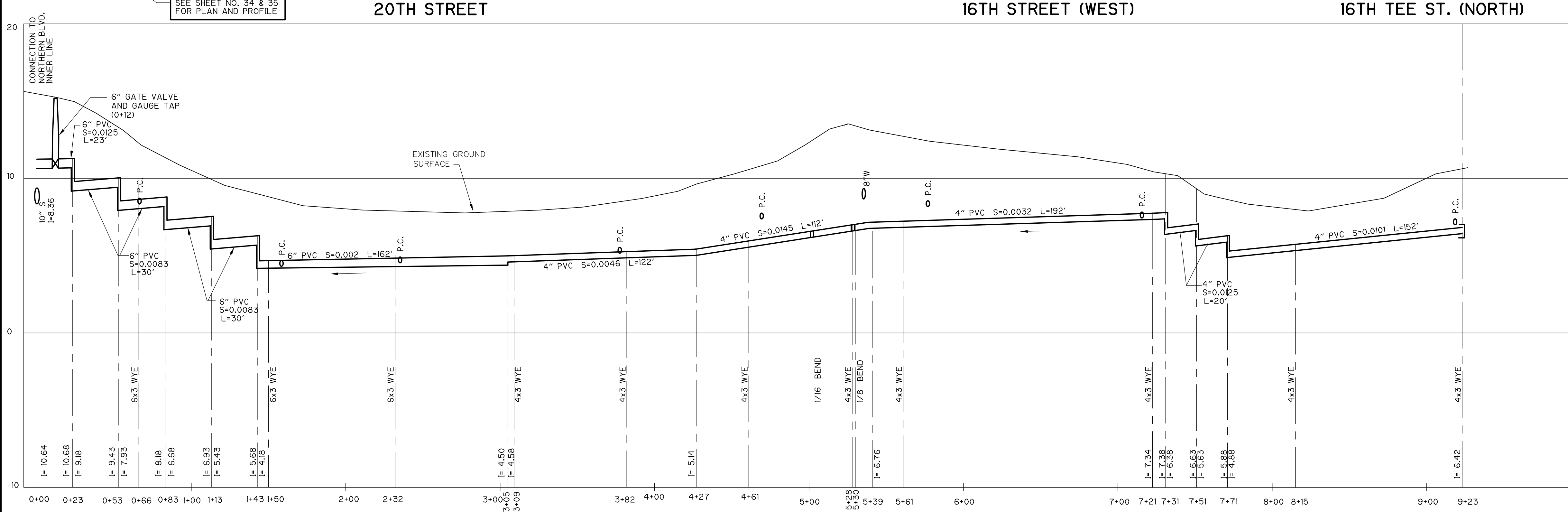
SHEET NO.  
**45**

PROJECT NO. FILE NAME:	CSTPL012
SHEET NO.	45



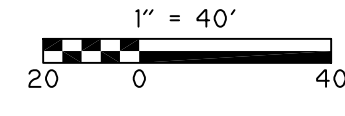
- NOTES:
- 18TH STREET AND PORTIONS OF 16TH STREET ARE UNPAVED ROADS.
  - REMOVE EXISTING CURBING ON 16TH STREET AND REPLACE WITH BITUMINOUS CONCRETE CURBING.

**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

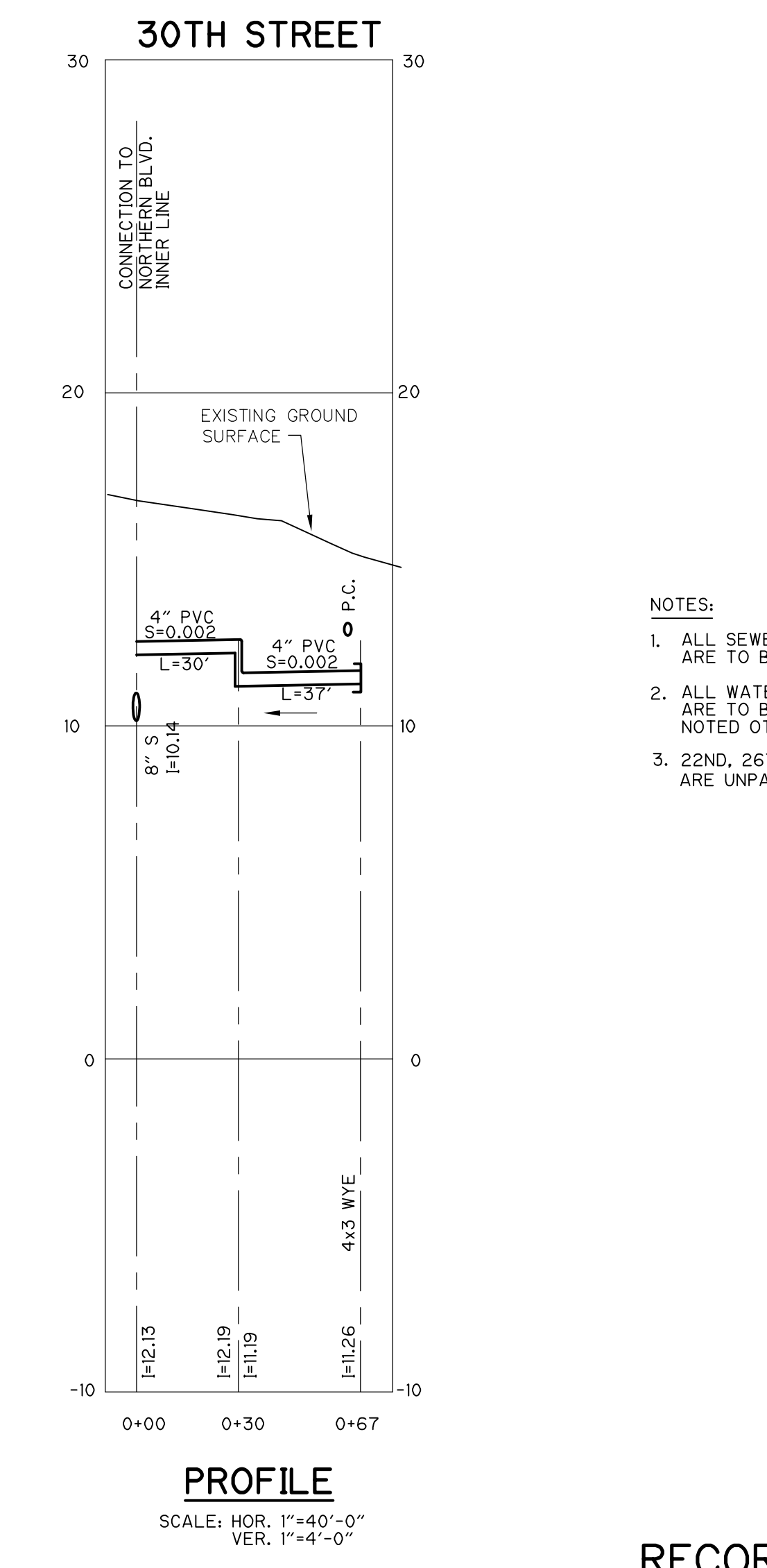
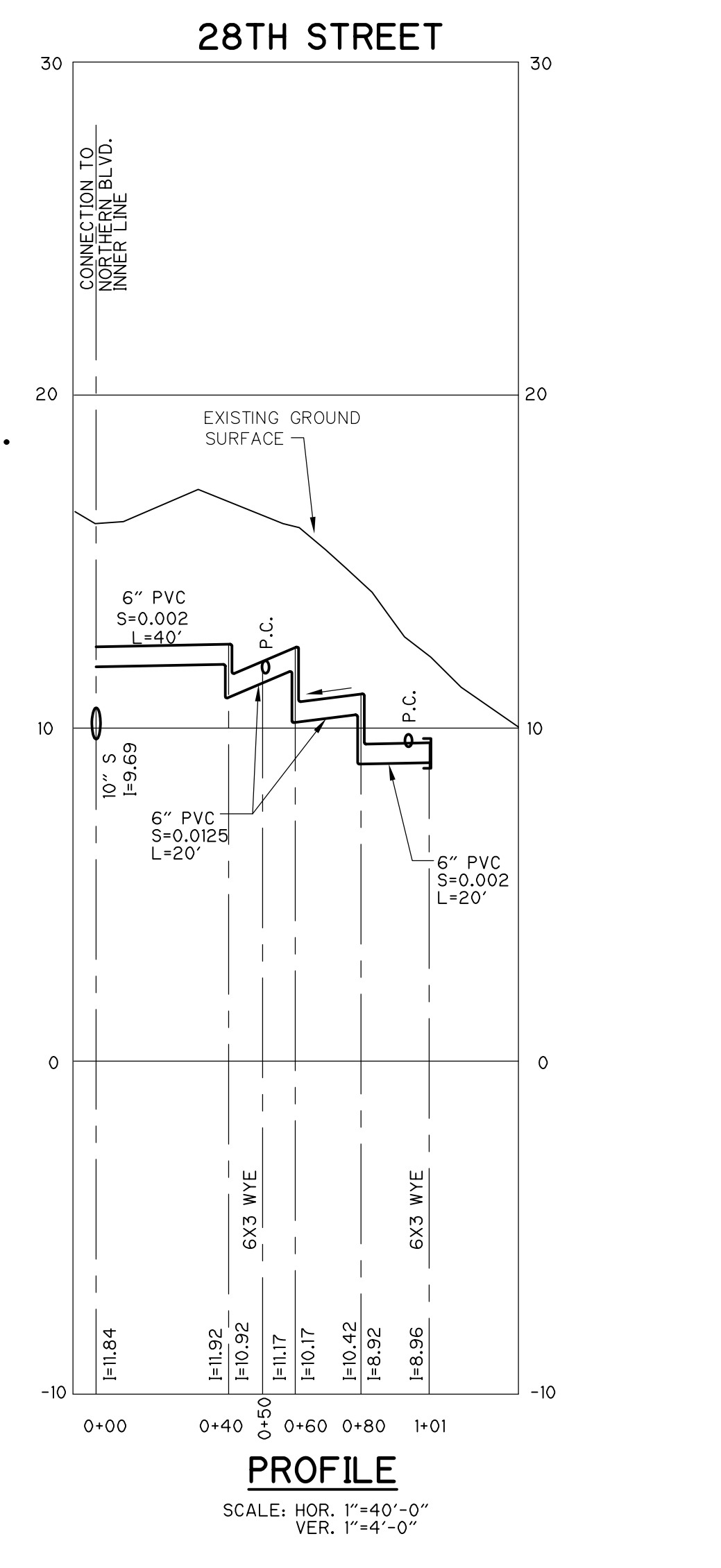
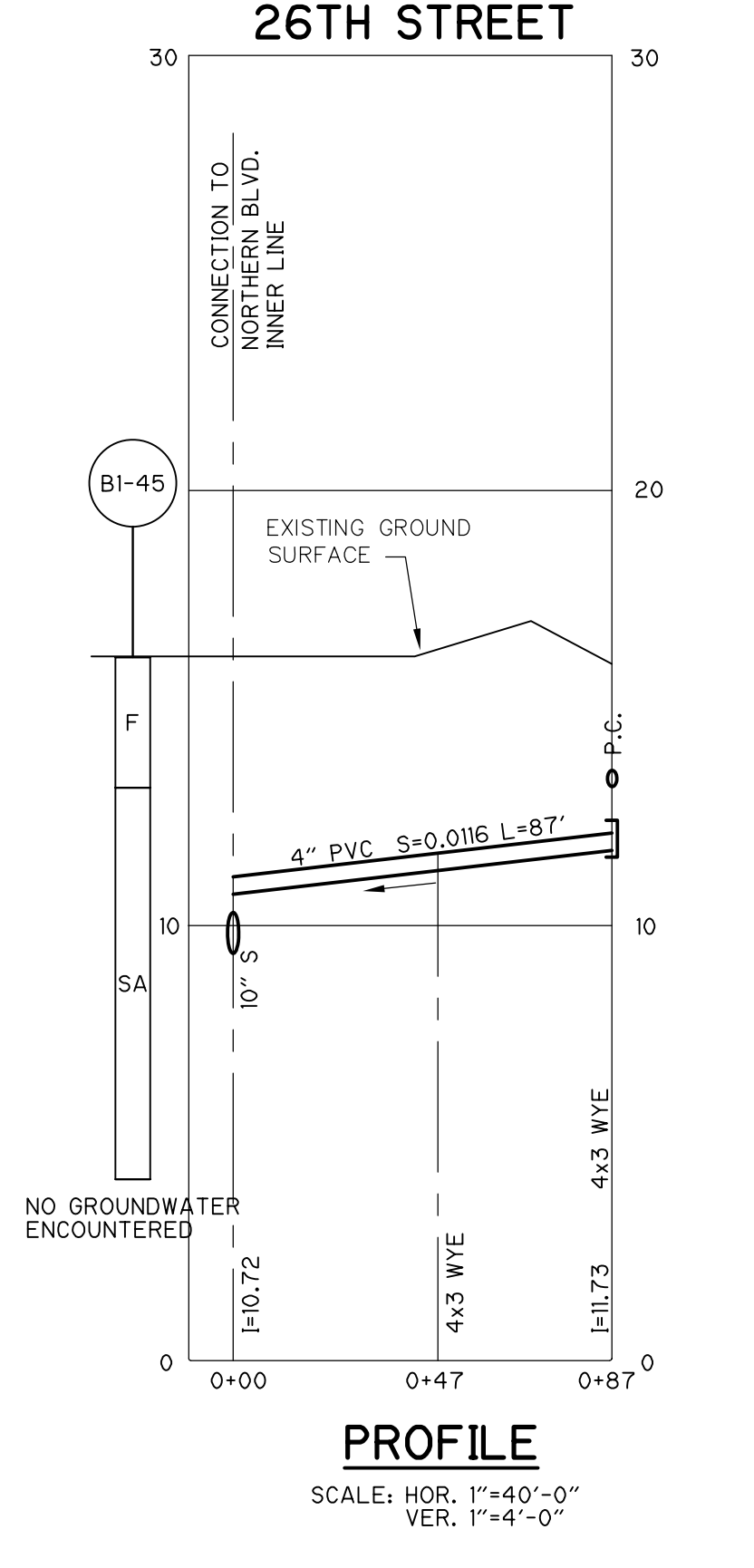
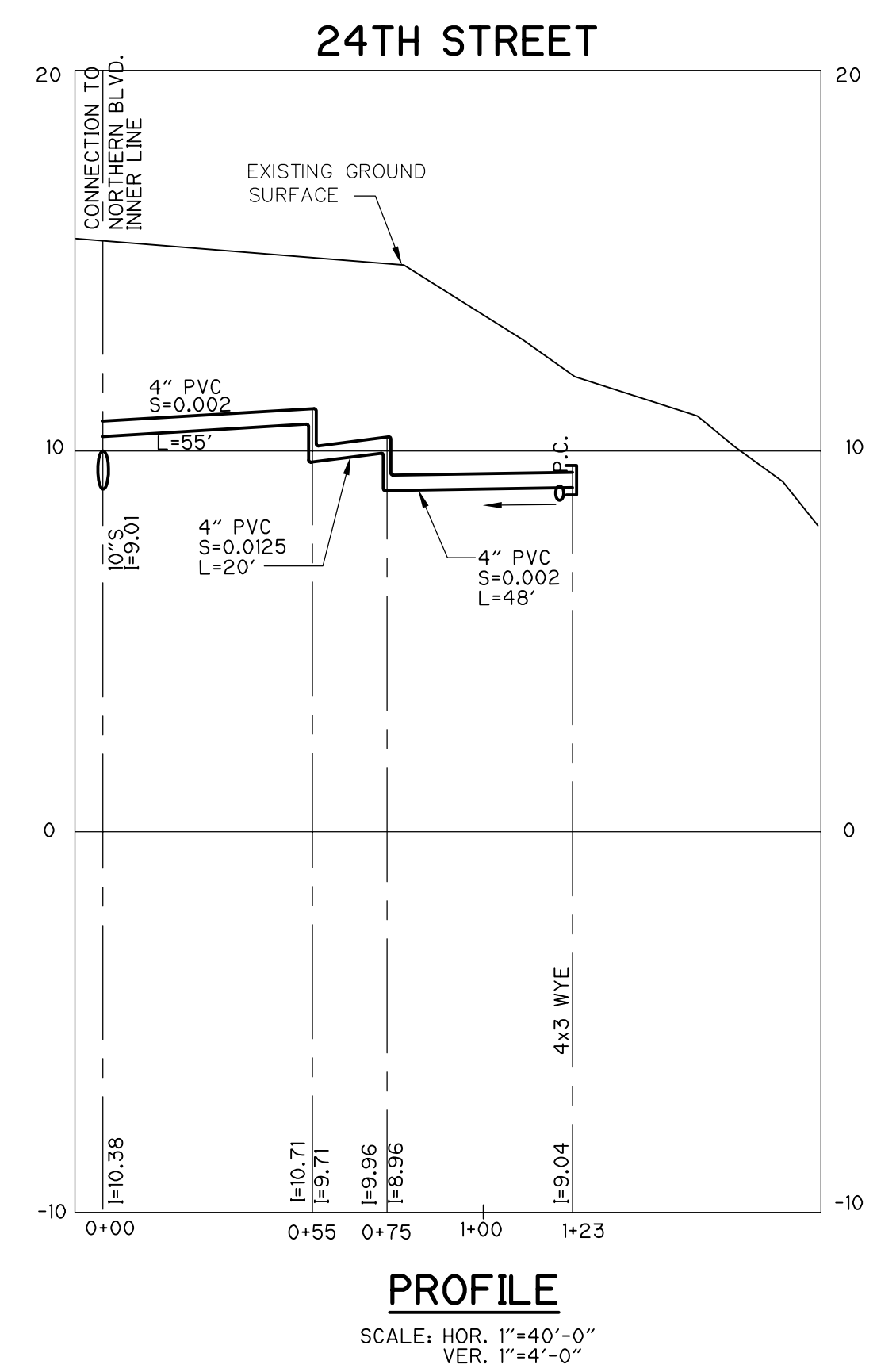
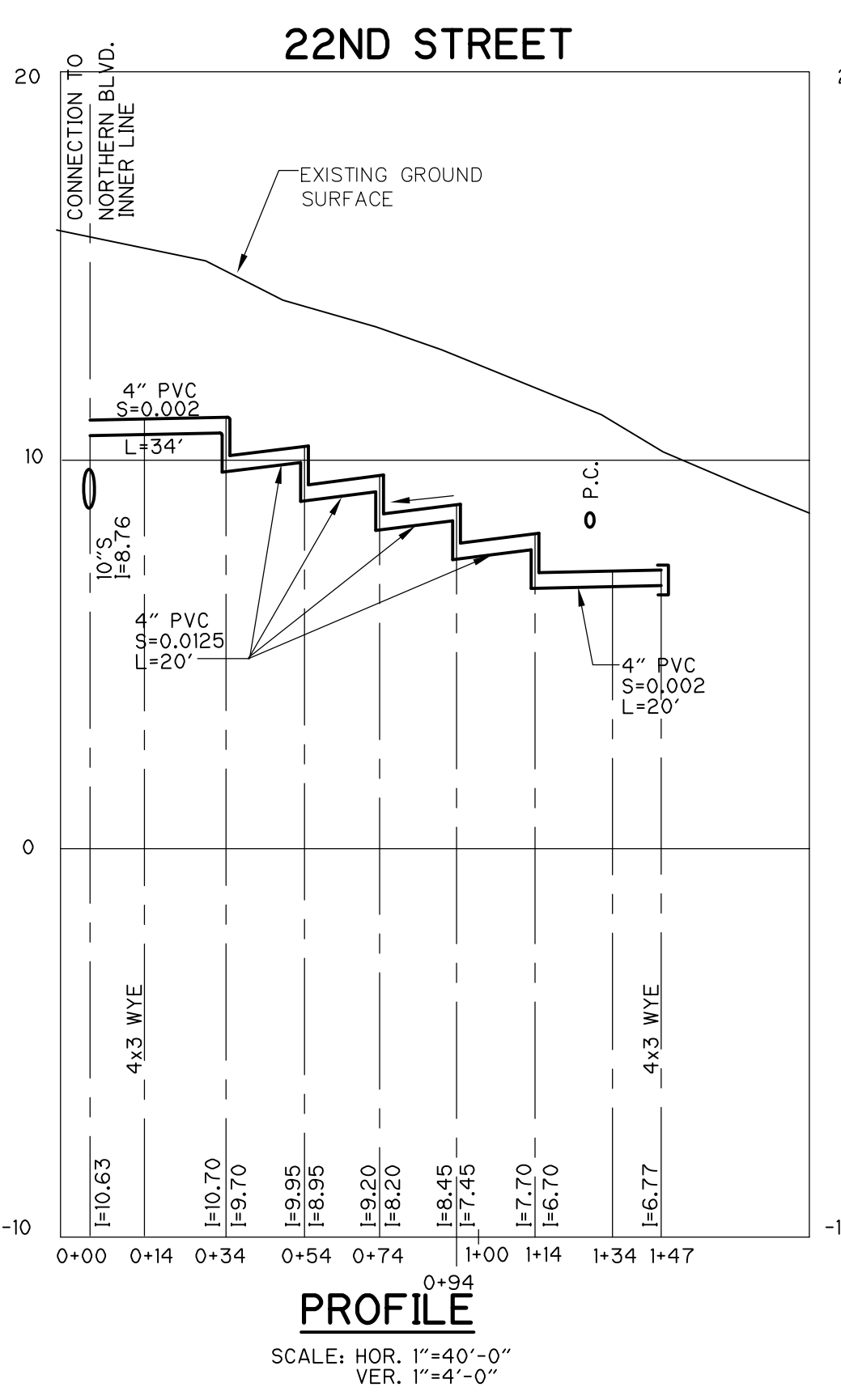
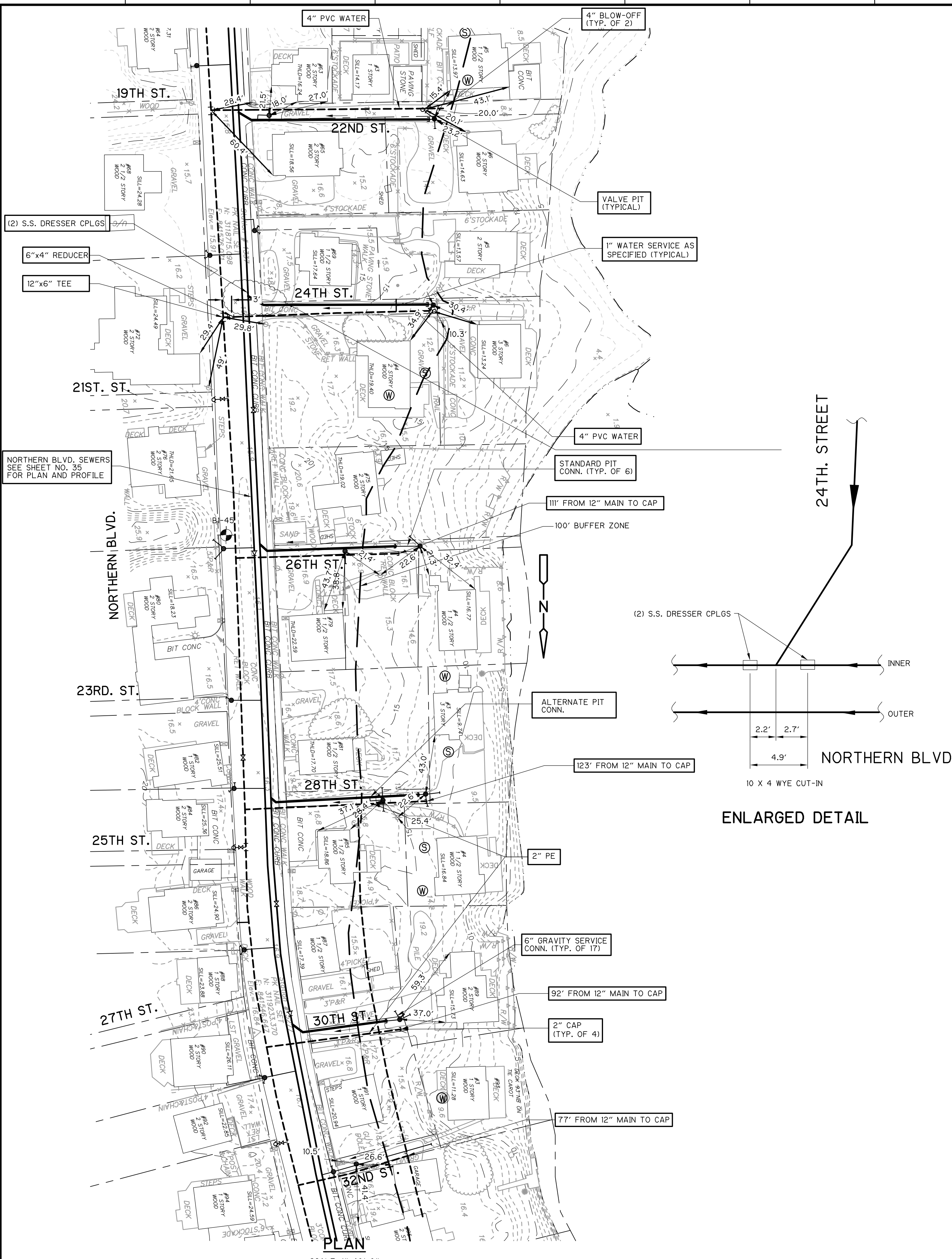
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operation

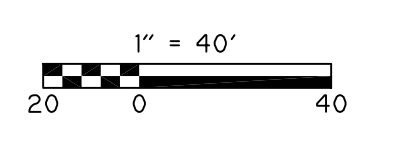
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

16TH STREET, 18TH STREET  
 18TH STREET AND 20TH STREET

PROJECT NO. CSTPL013  
 FILE NAME: CSTPL013  
 SHEET NO. 46



- NOTES:**
- ALL SEWER BRANCHES SHOWN ON THIS SHEET ARE TO BE 4" PVC UNLESS OTHERWISE NOTED.
  - ALL WATER BRANCHES SHOWN ON THIS SHEET ARE TO BE 2" PE WATER AS SPECIFIED UNLESS NOTED OTHERWISE.
  - 22ND, 26TH, 28TH, 30TH, AND 32ND STREETS ARE UNPAVED ROADS.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

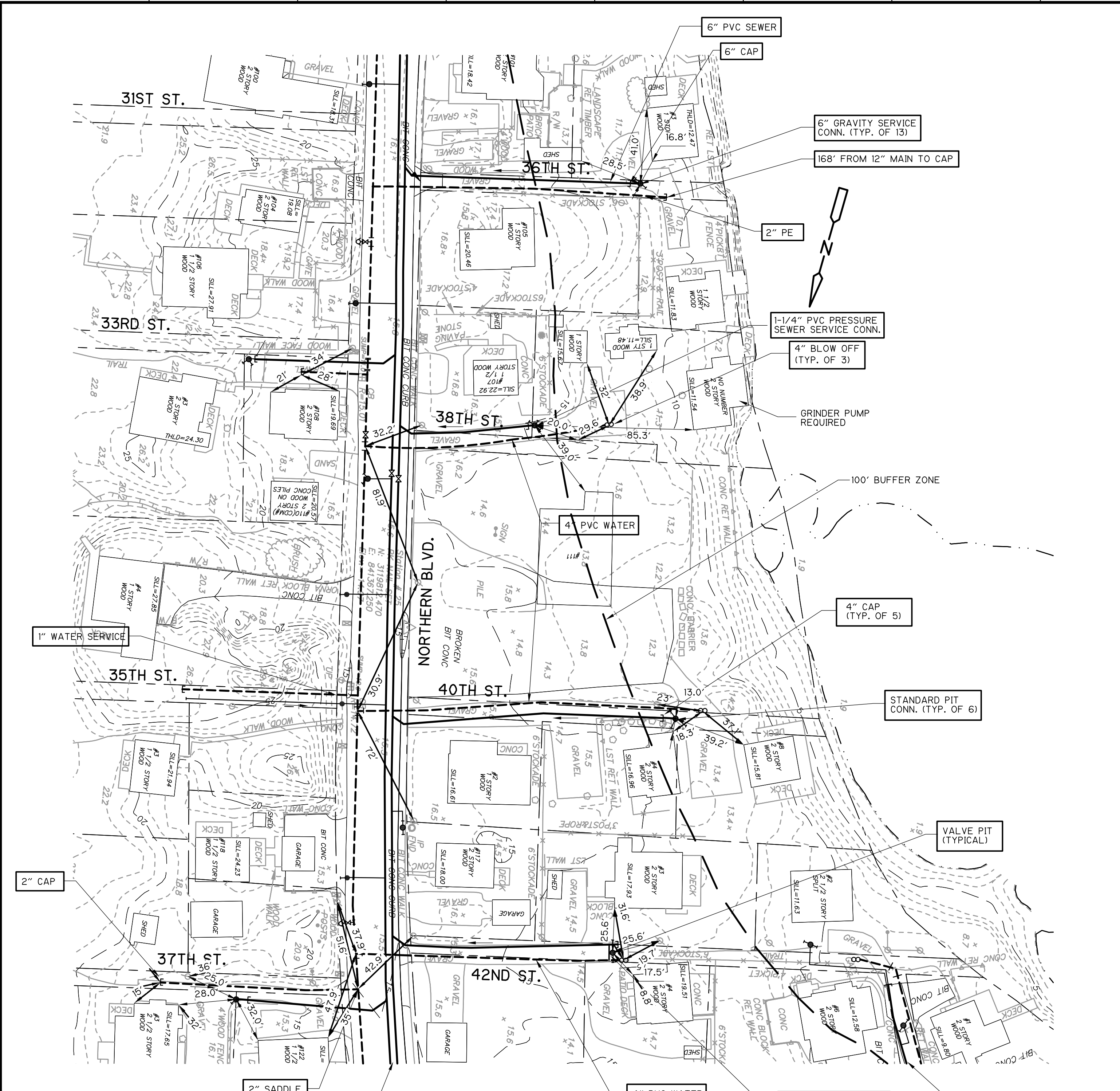
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

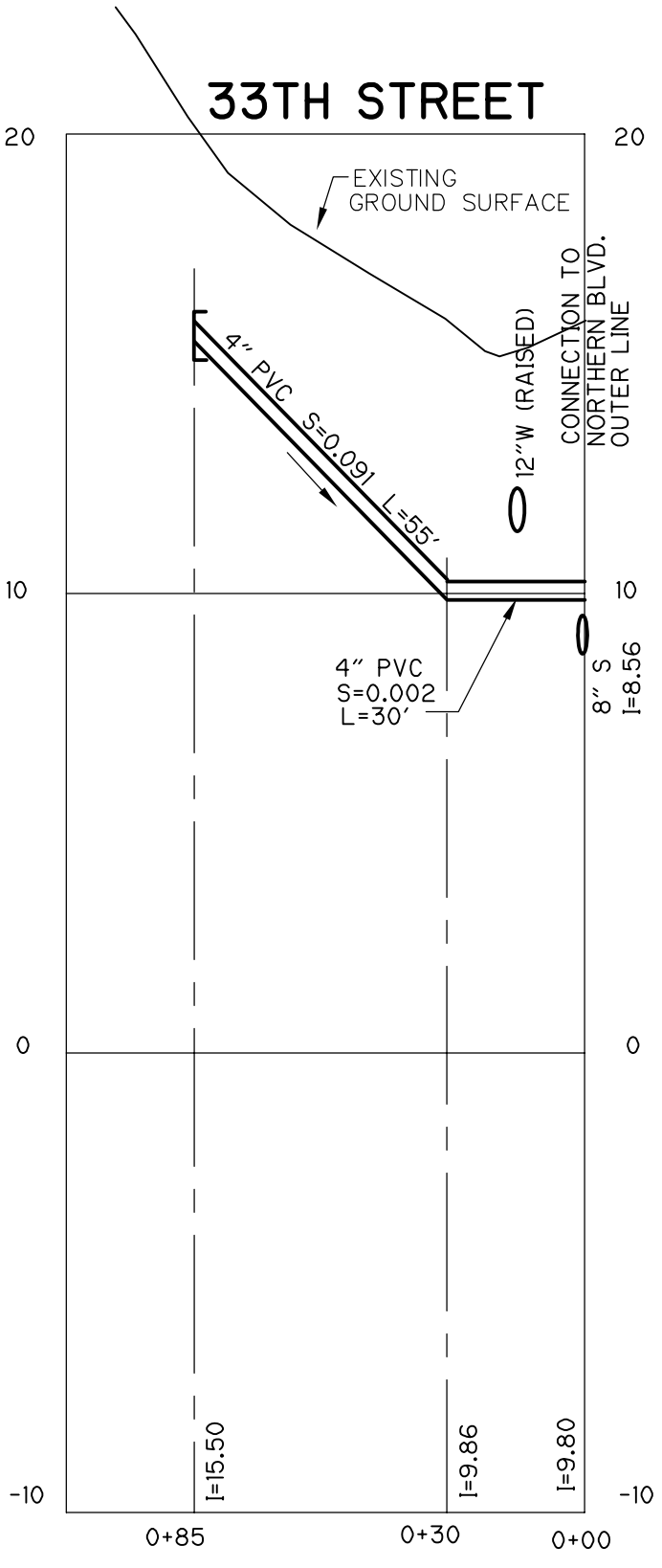
**RECORD DRAWING**  
 22ND STREET, 24TH STREET, 26TH STREET  
 28TH STREET AND 30TH STREET

PROJECT NO. FILE NAME:	CASTPL014
SHEET NO.	47

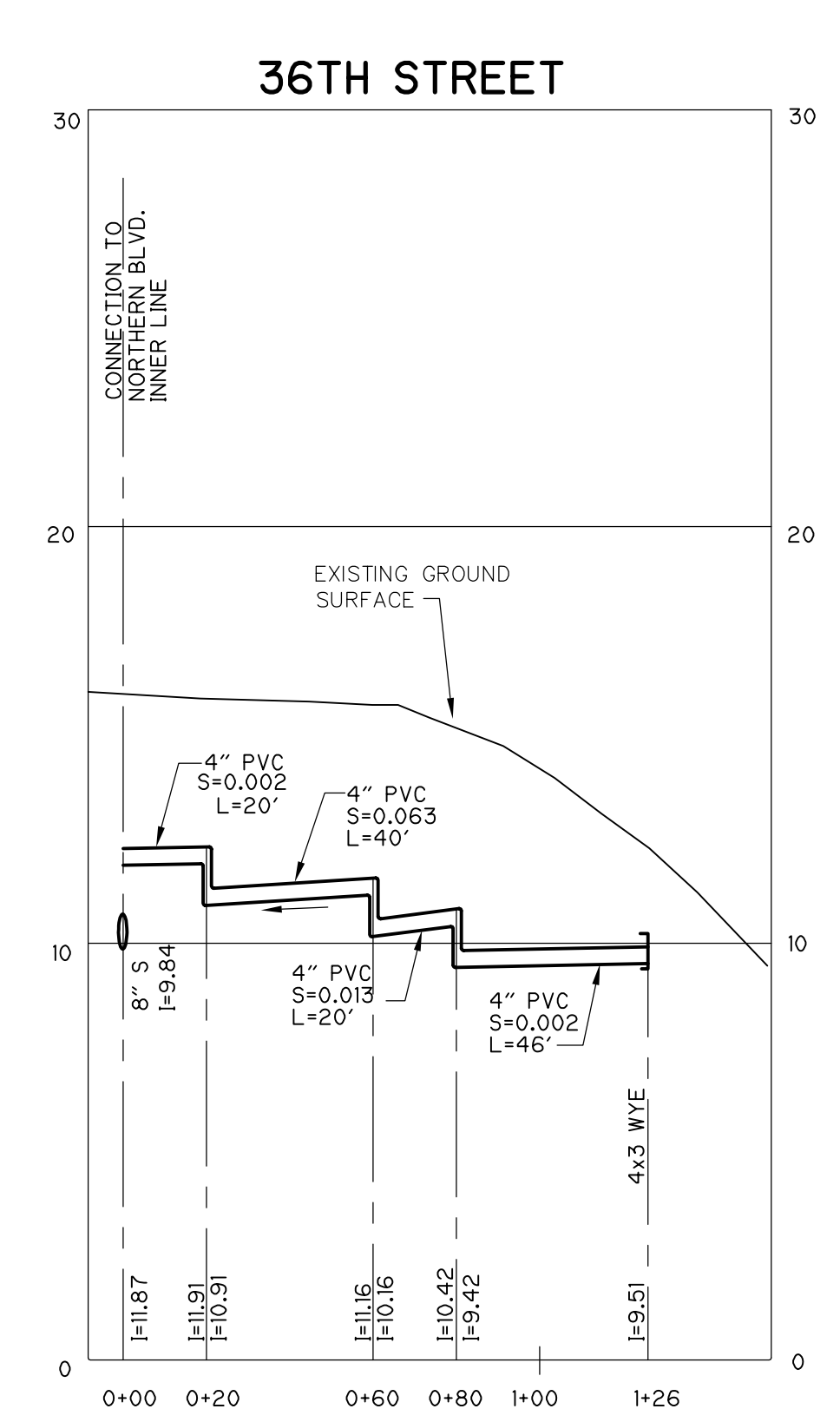


**PLAN**  
SCALE: 1"=40'-0"

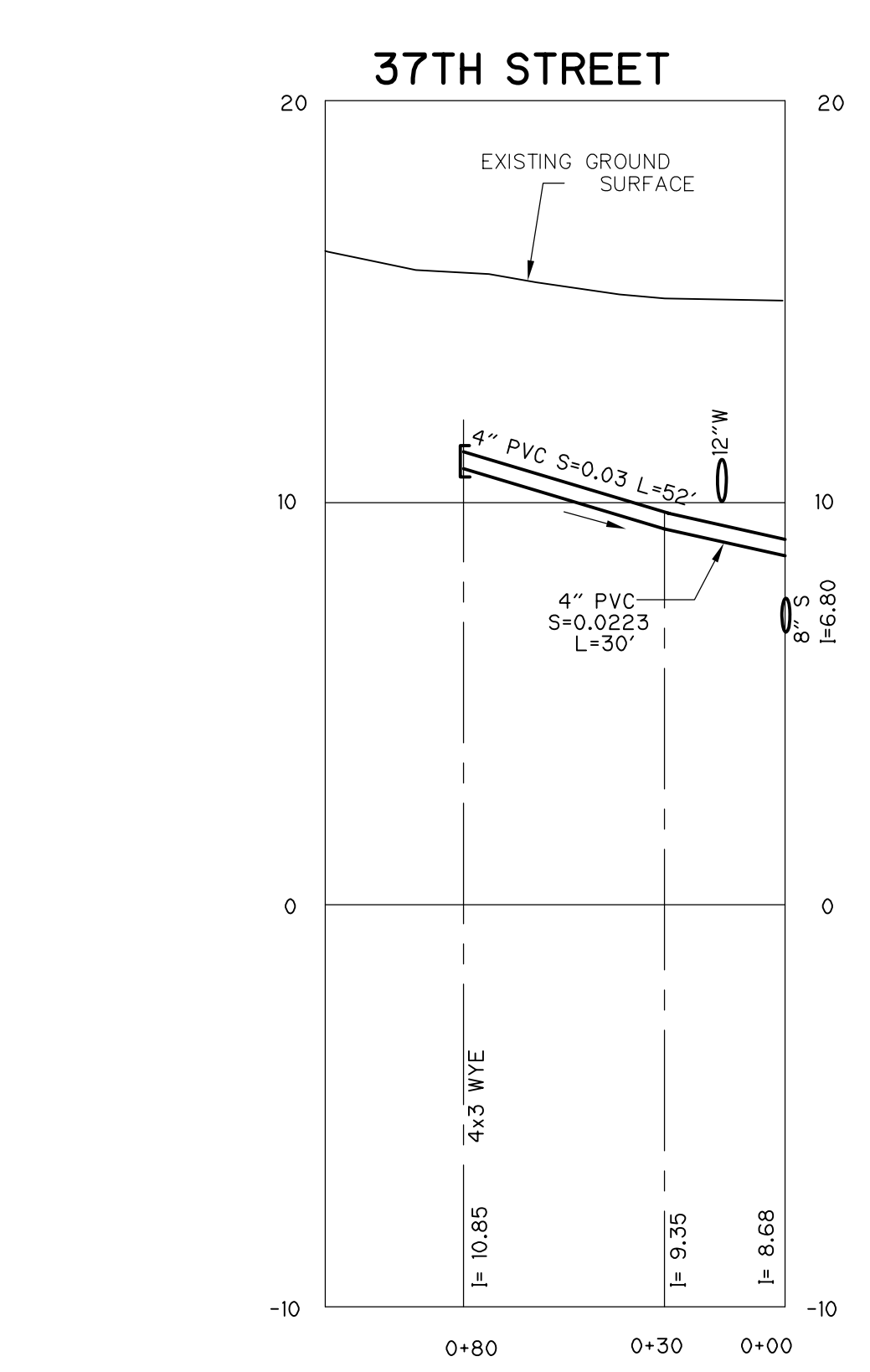
- NOTES:
1. ALL SEWER BRANCHES SHOWN ON THIS SHEET ARE TO BE 4" PVC UNLESS NOTED OTHERWISE.
  2. ALL WATER BRANCHES SHOWN ON THIS SHEET ARE TO BE 2" PE WATER SERVICES AS SPECIFIED UNLESS NOTED OTHERWISE.
  3. 33RD, 36TH, 37TH, 38TH, 40TH, AND 42ND STREETS ARE UNPAVED ROADS.



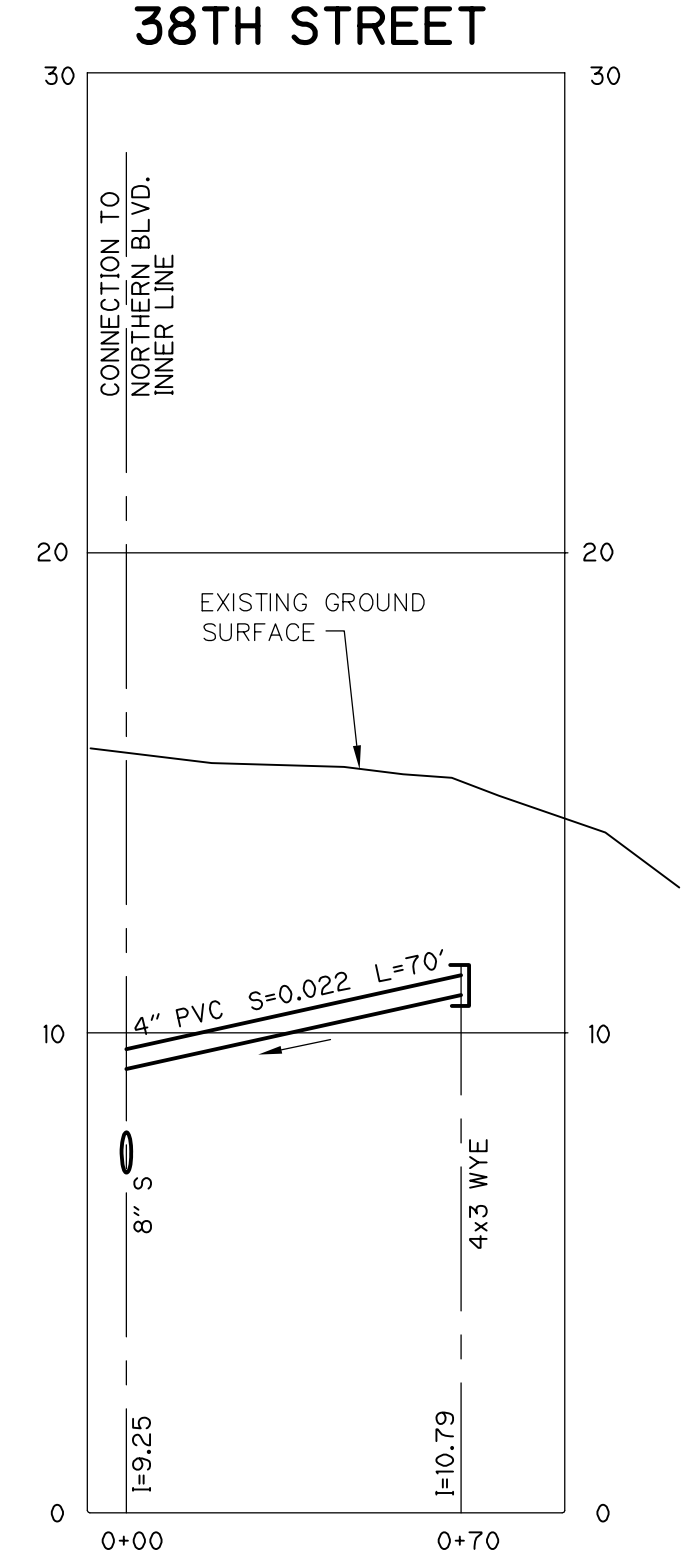
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



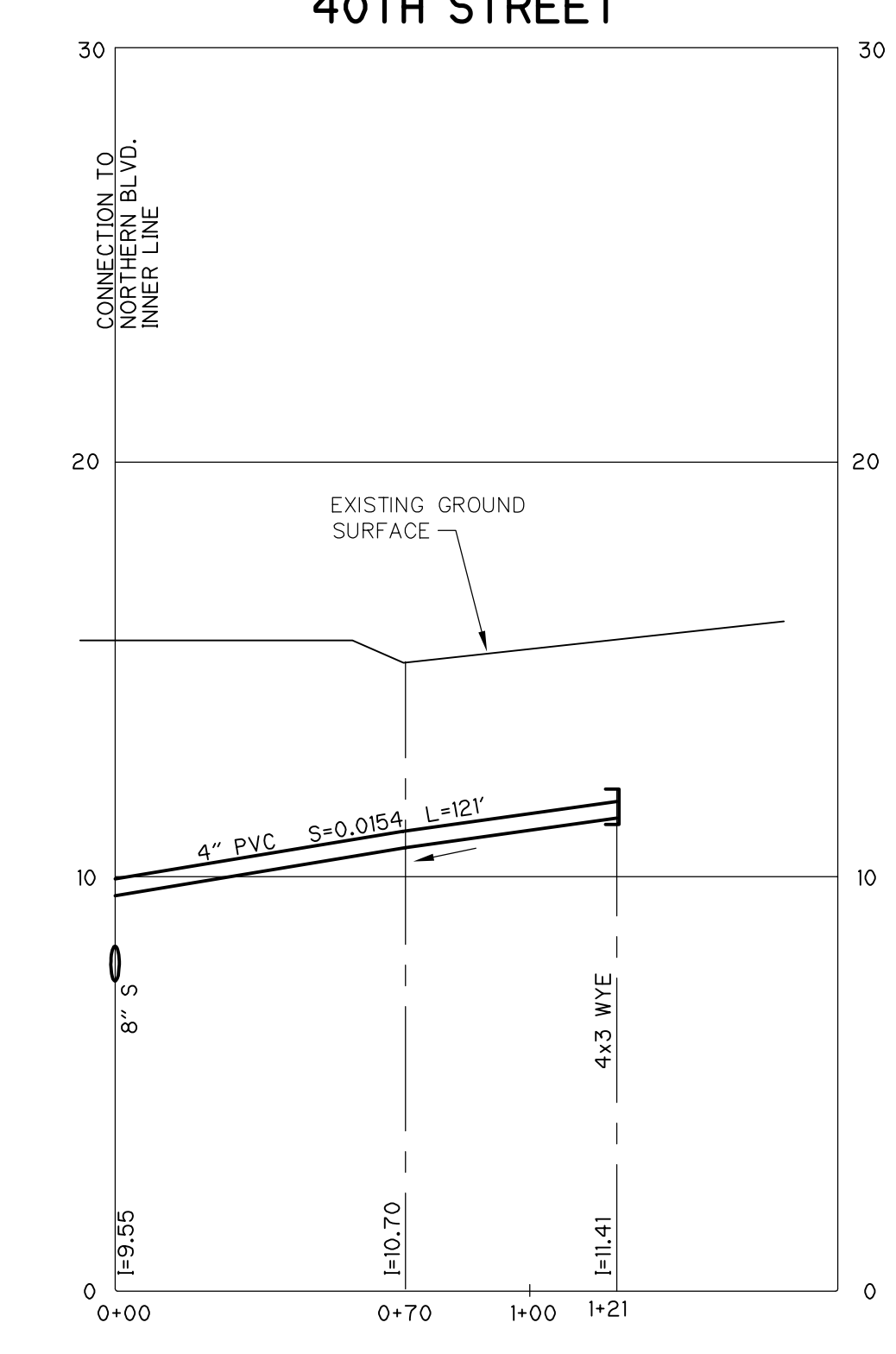
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



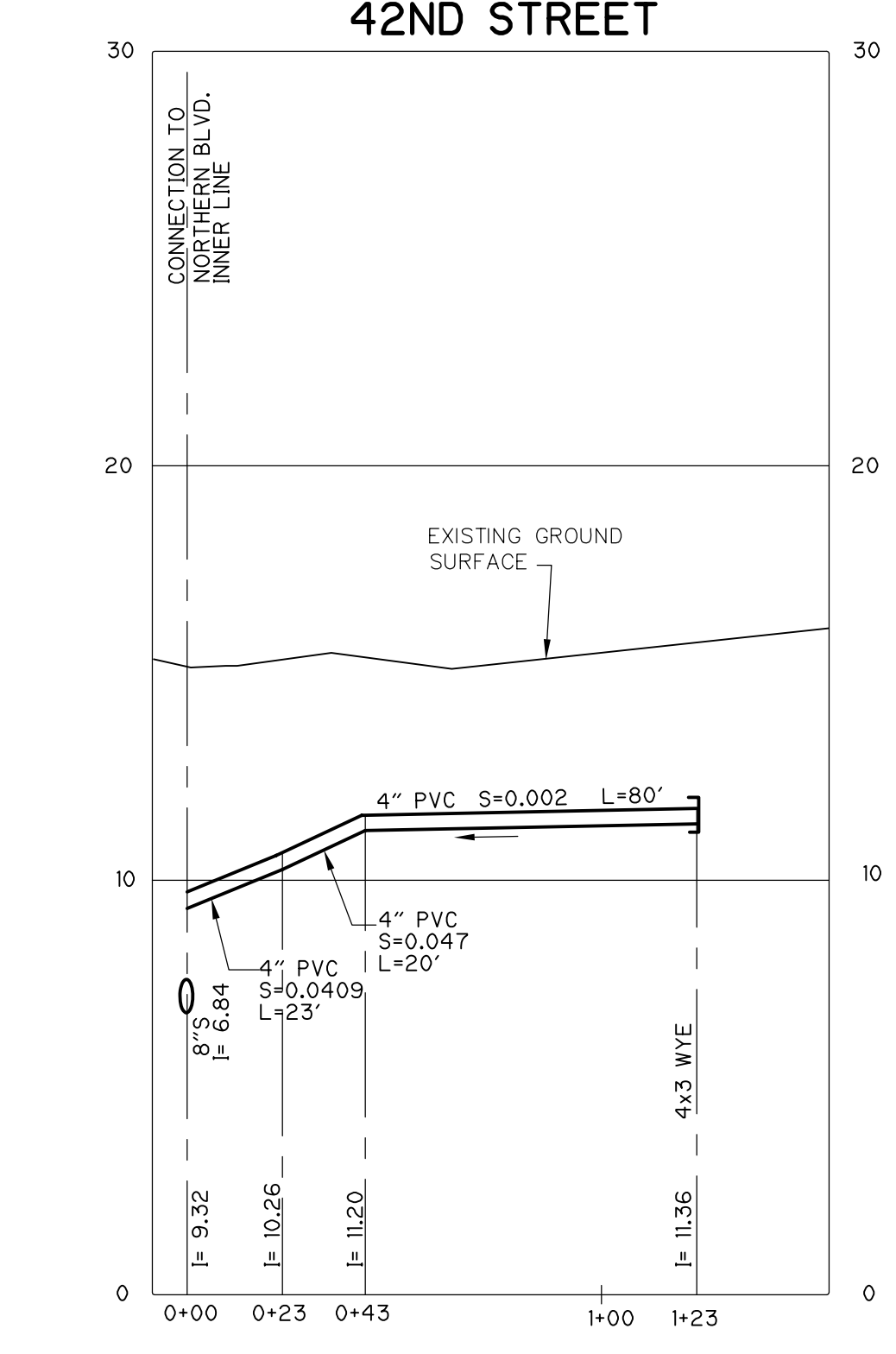
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



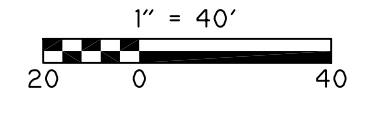
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



RECORD DRAWING

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

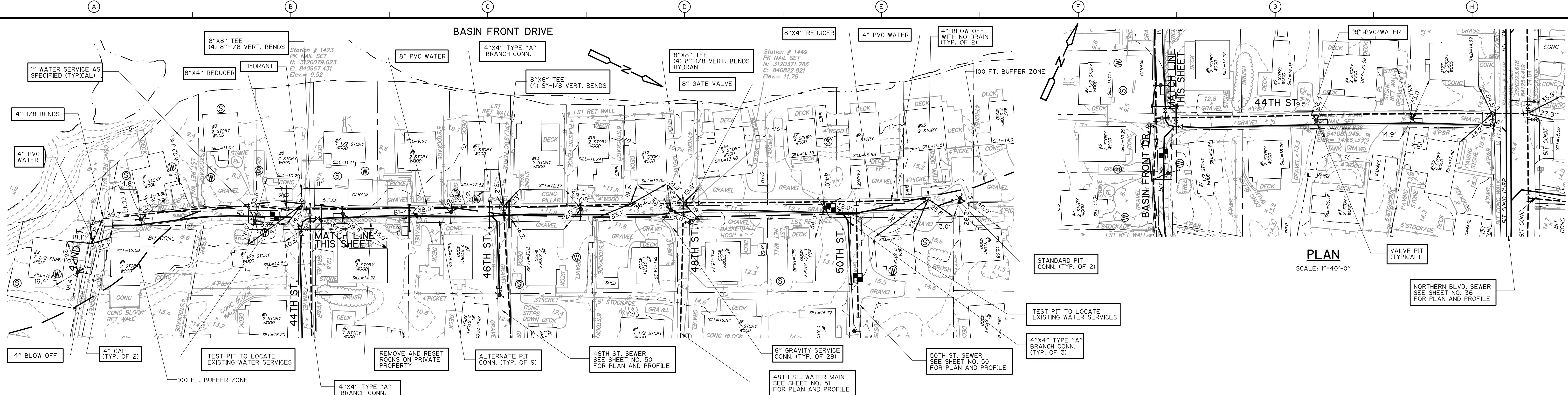
**CDM** Camp Dresser & McKee Inc.

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

33RD STREET, 36TH STREET, 37TH STREET  
 38TH STREET, 40TH STREET AND 42ND STREET

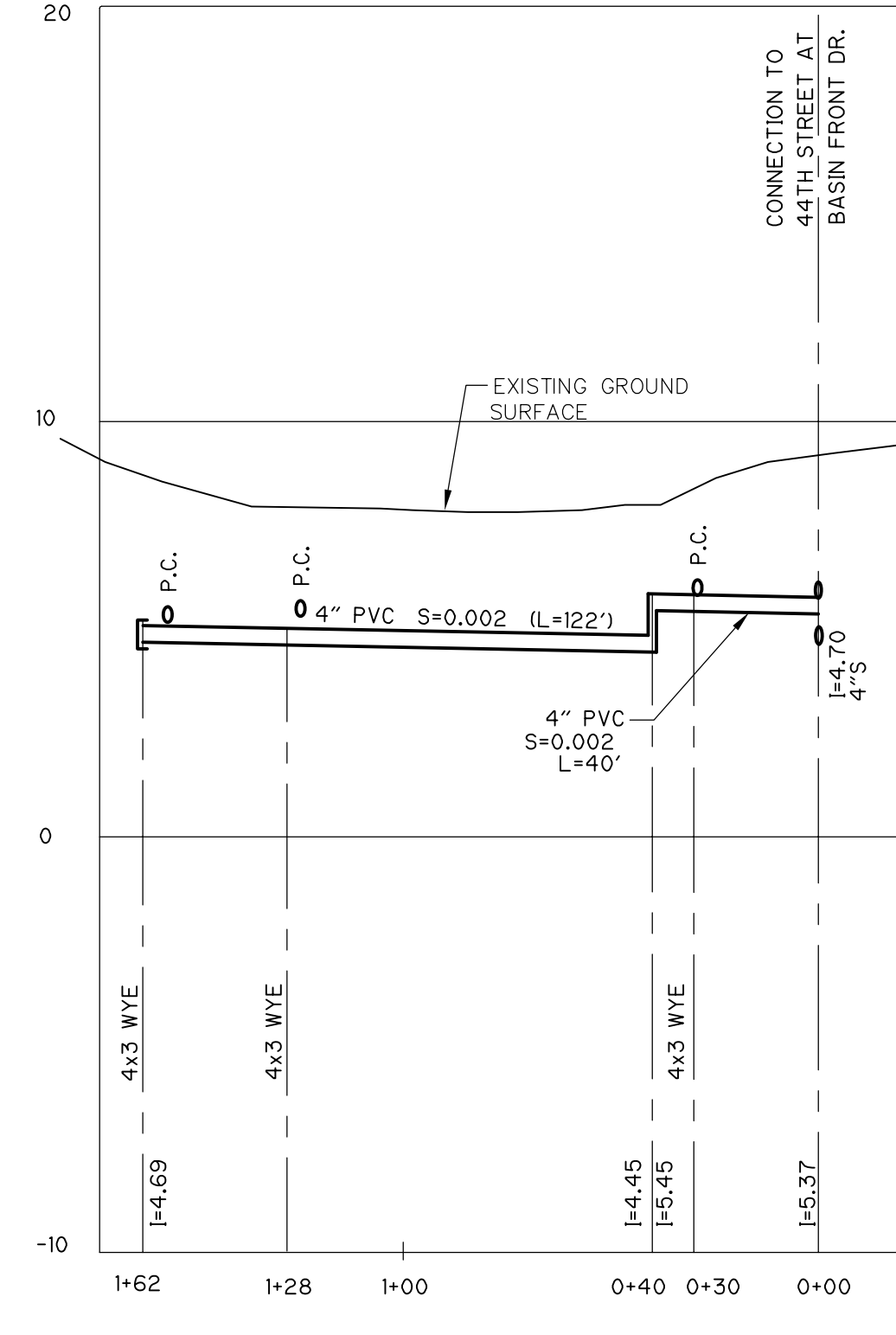
PROJECT NO. CSTPL015  
 SHEET NO. 48



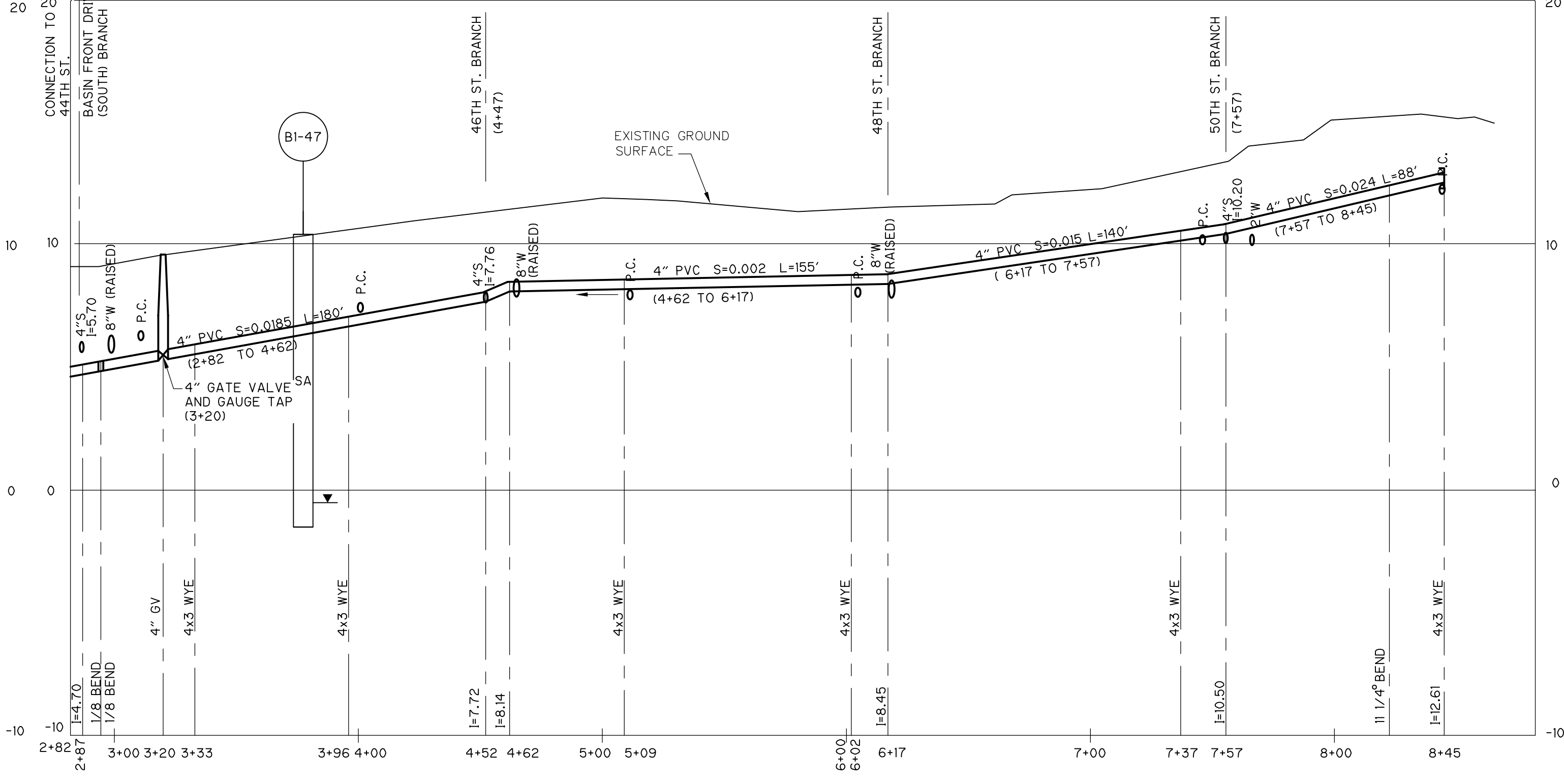


**PLAN**  
SCALE: 1"=40'-0"

**BASIN FRONT DR. (SOUTH)**

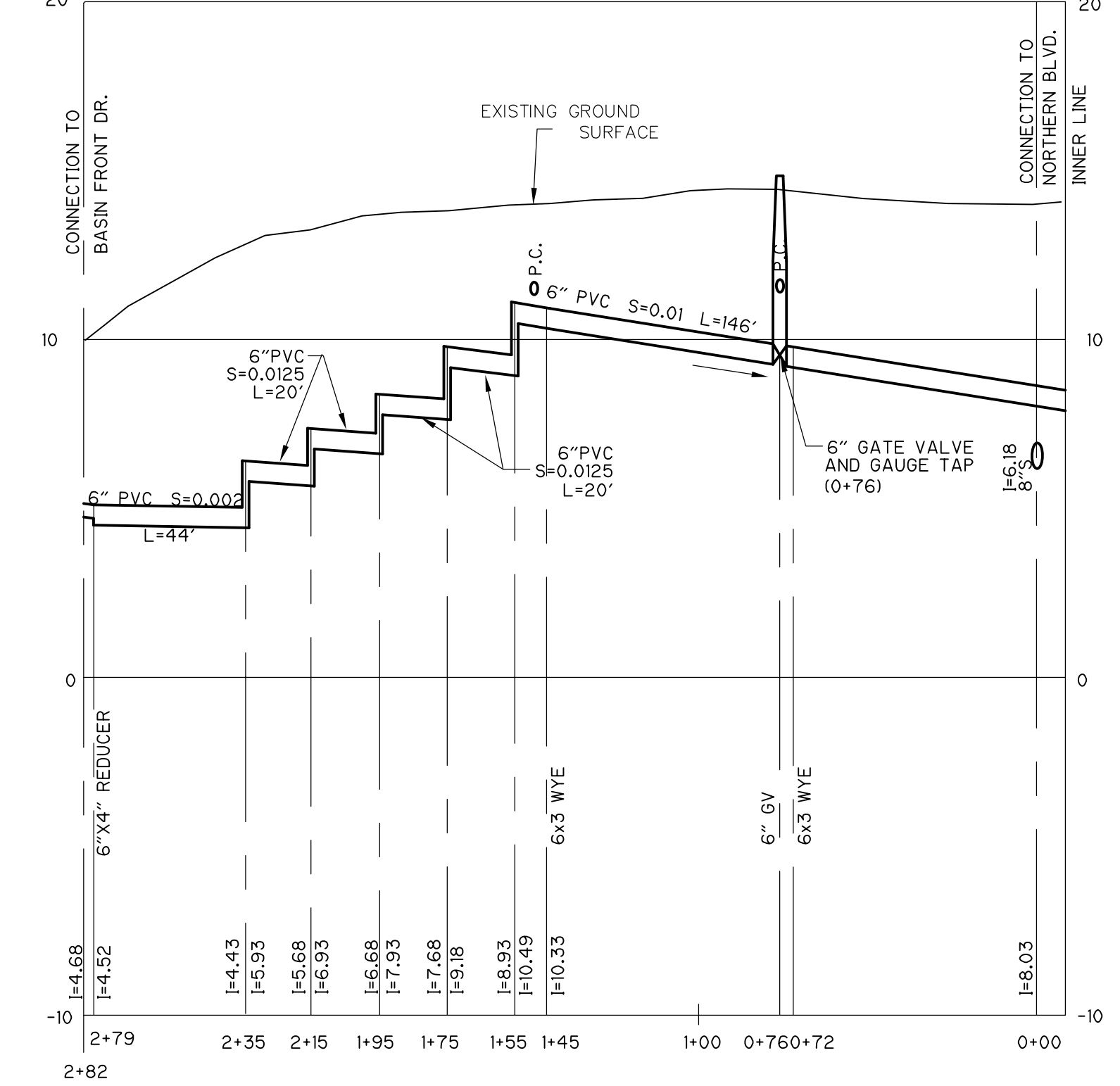


**BASIN FRONT DRIVE (NORTH)**



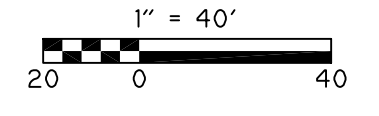
**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

**44TH STREET**



NOTES:  
 1. ALL SEWERS SHOWN ON THIS SHEET ARE TO BE 4" PVC AS SPECIFIED UNLESS OTHERWISE NOTED.  
 2. 44TH STREET, BASIN FRONT DRIVE, AND BASIN FRONT DRIVE (SOUTH) ARE UNPAVED ROADS.

RECORD DRAWING

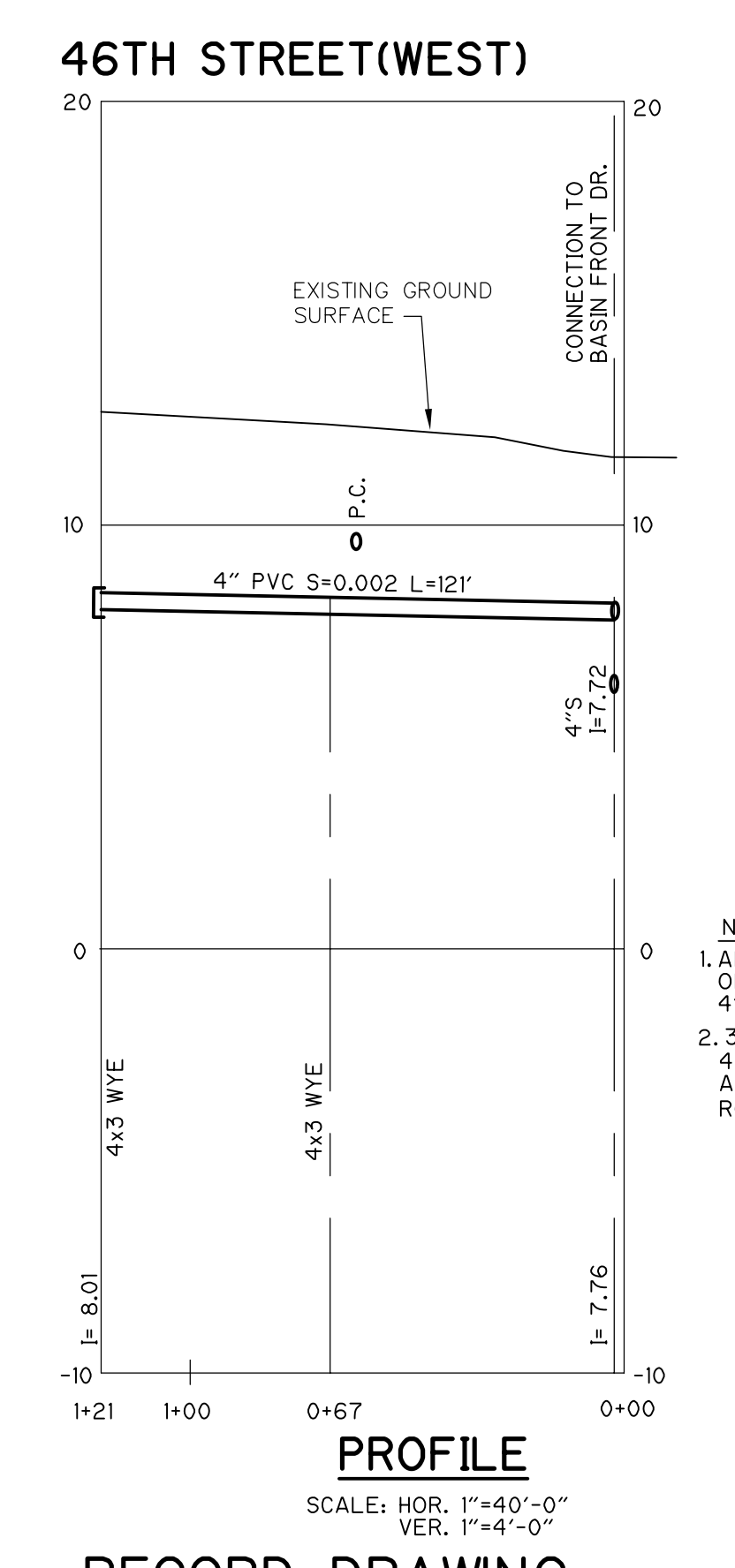
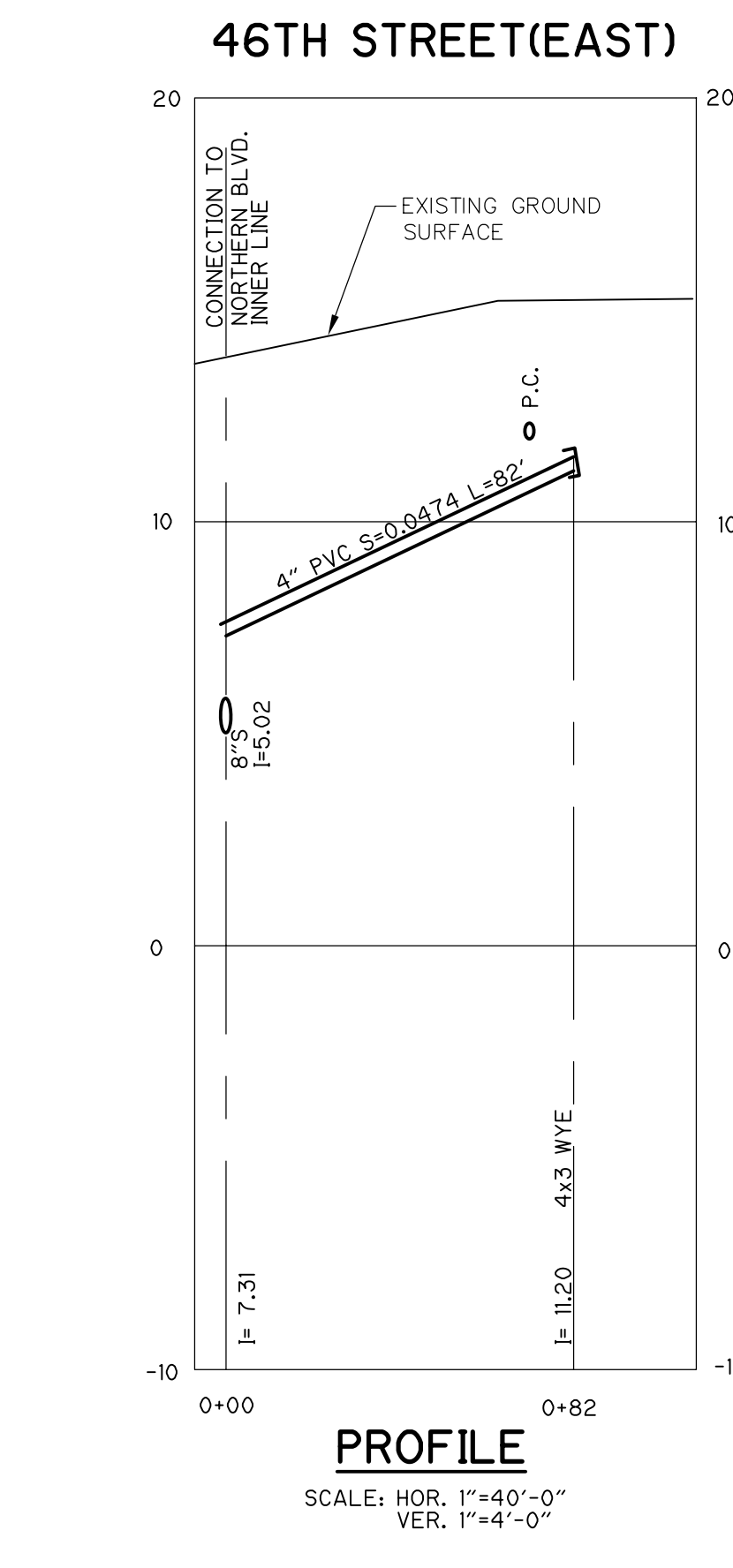
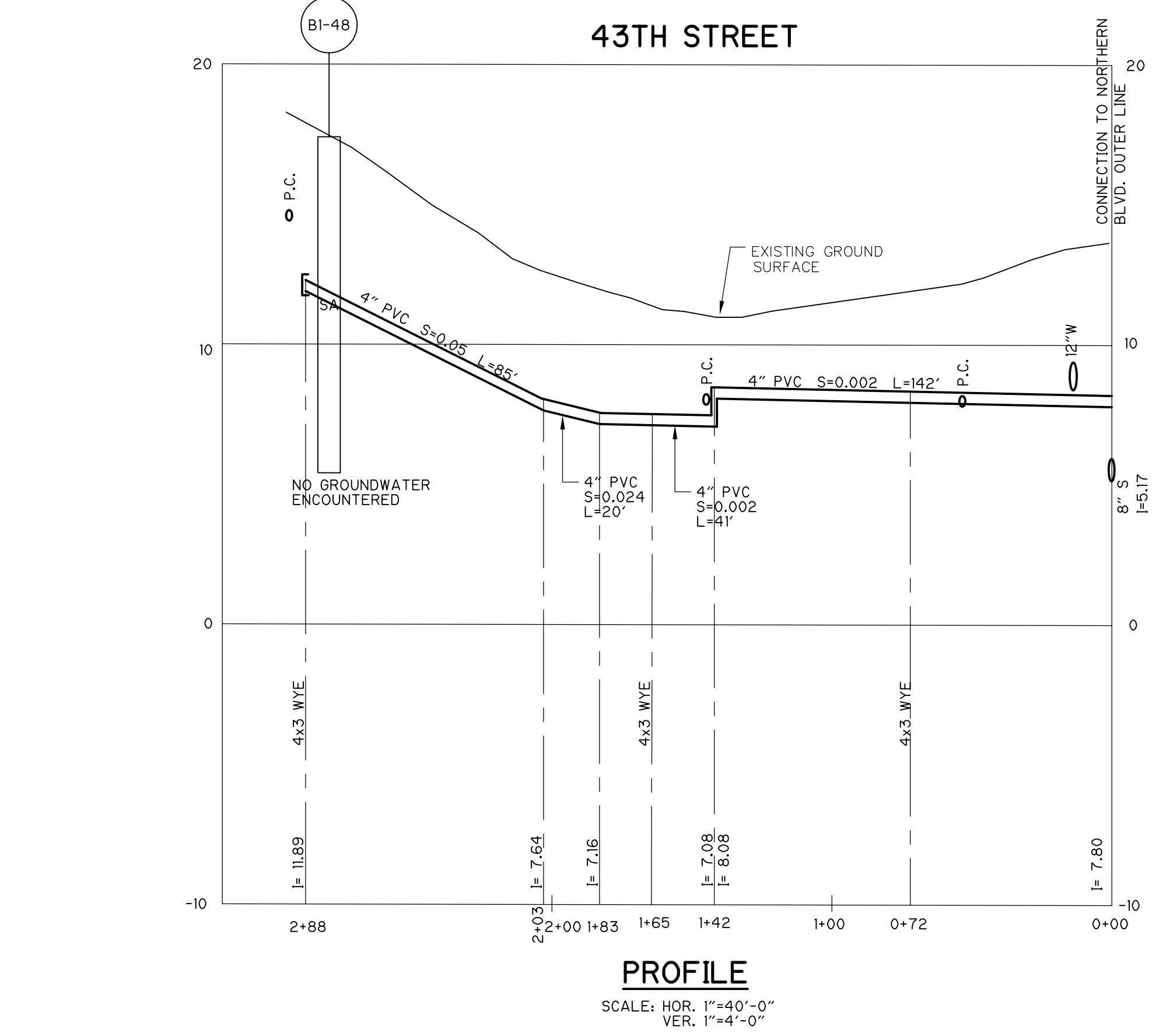
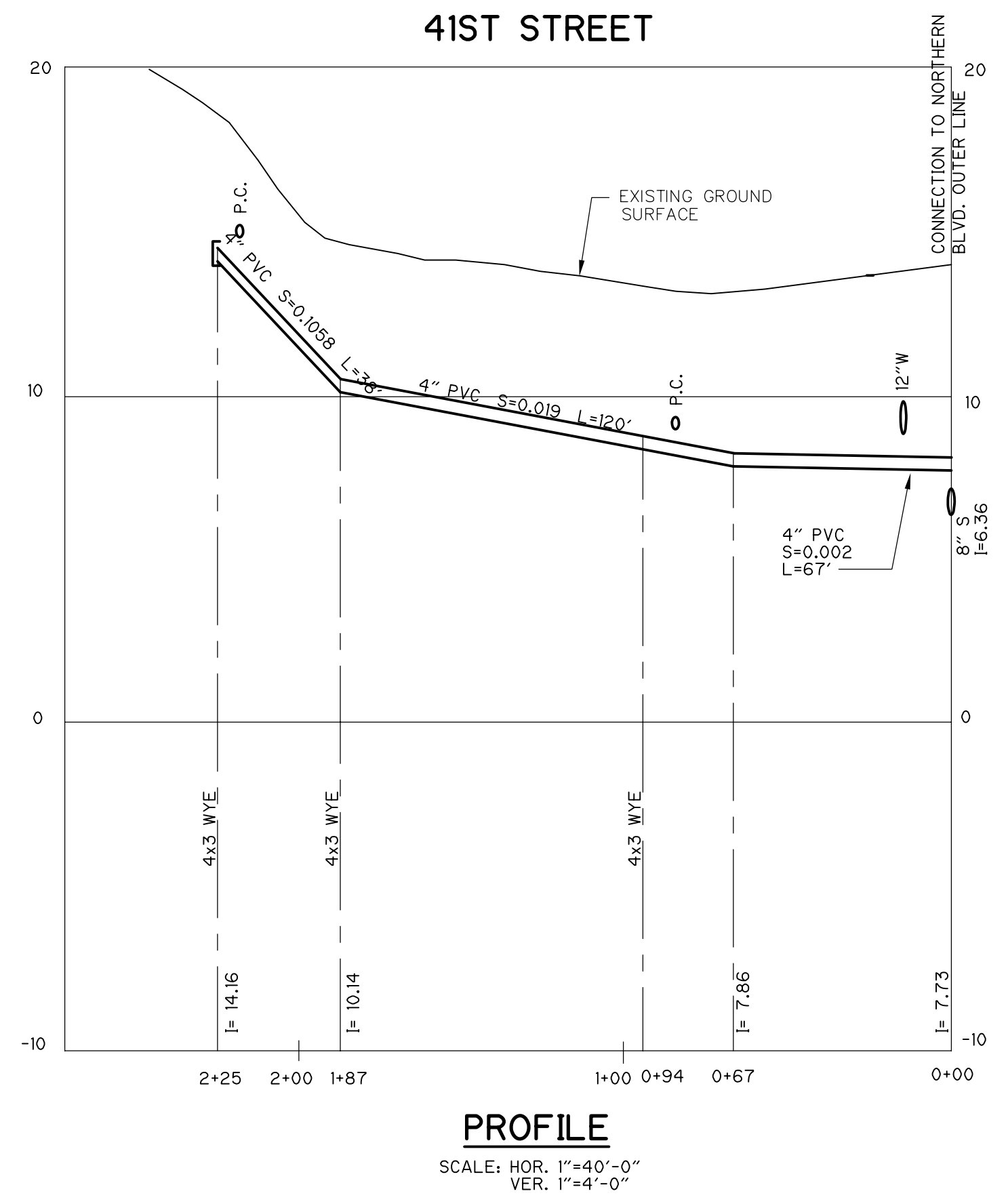
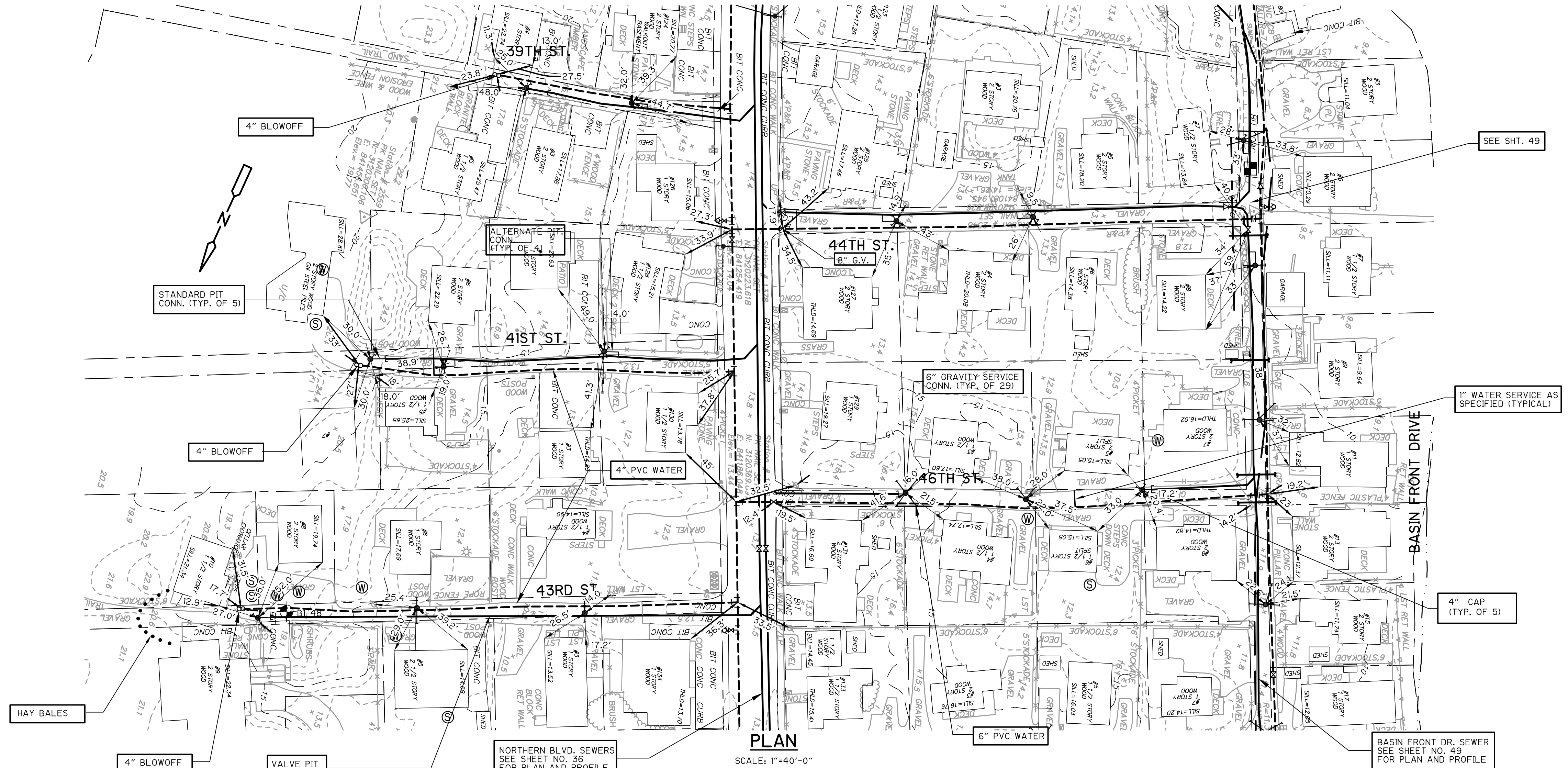
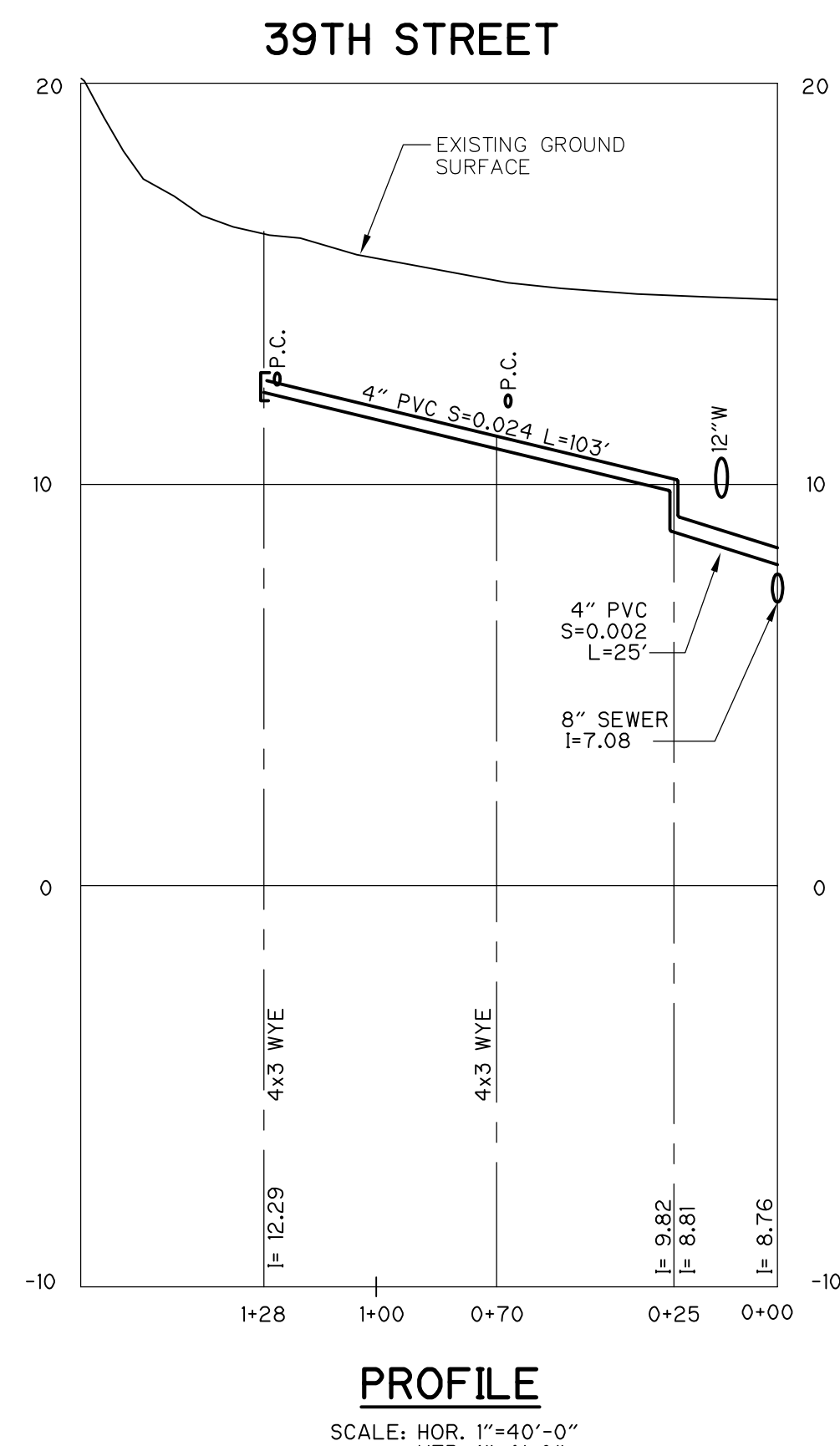


DESIGNED BY: M. MULLARKEY	DRWN: JWK
DRAWN BY: B. GUILFORD	CHKD: JWK
SHEET CHK'D BY: E. MARSTEINER	DATE: 7/07
CROSS CHK'D BY: RALPH SOUPPA	REV. NO.: 1
APPROVED BY: PAUL ROSS	REMARKS: REVISED FOR RECORD
DATE: OCTOBER 2001	

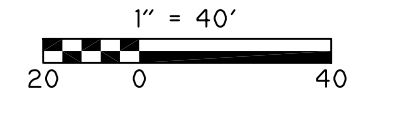
**CDM** Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
 WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS

44TH STREET  
 BASIN FRONT DRIVE

PROJECT NO. 945130964  
 FILE NAME: CSTPL016  
 SHEET NO. 49



NOTES:  
 1. ALL SEWER BRANCHES SHOWN ON THIS SHEET SHALL BE 4\"/>



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

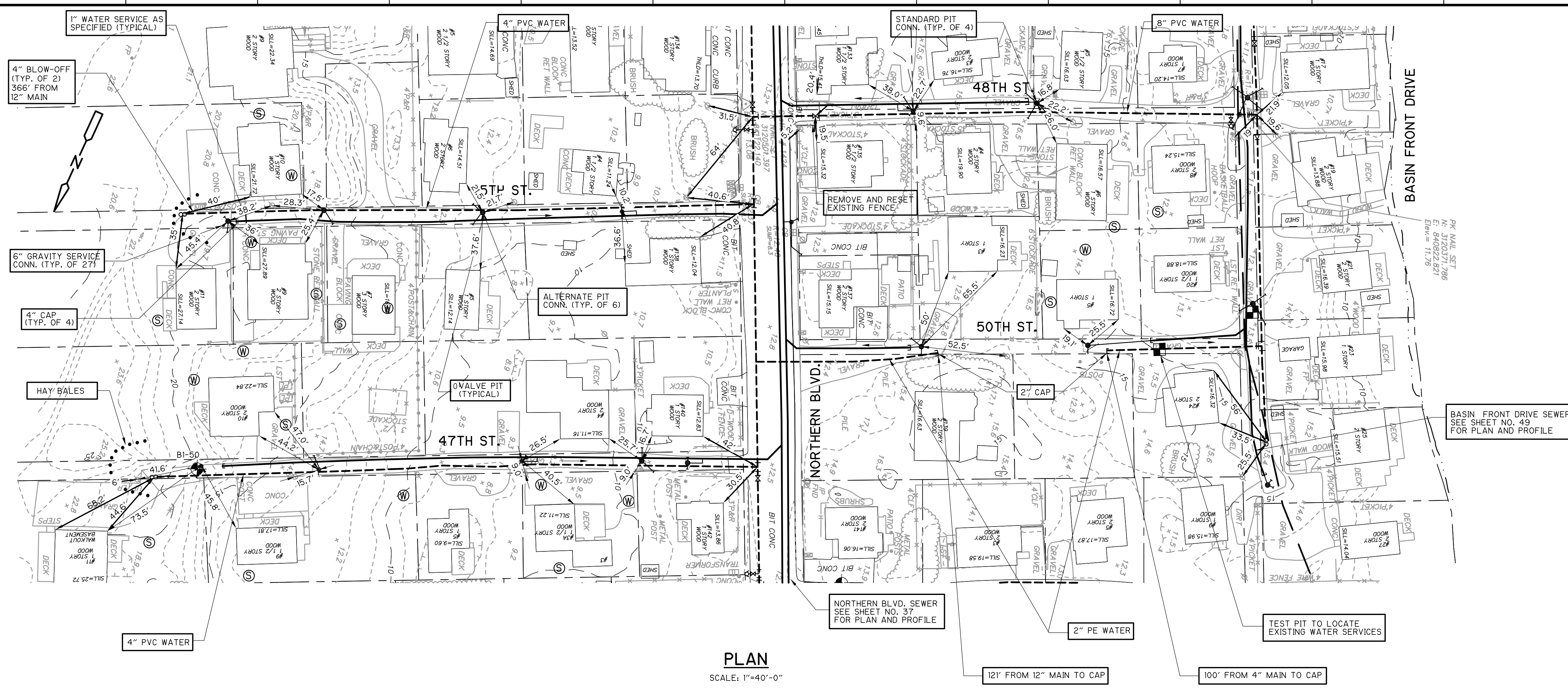
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting engineering construction operation

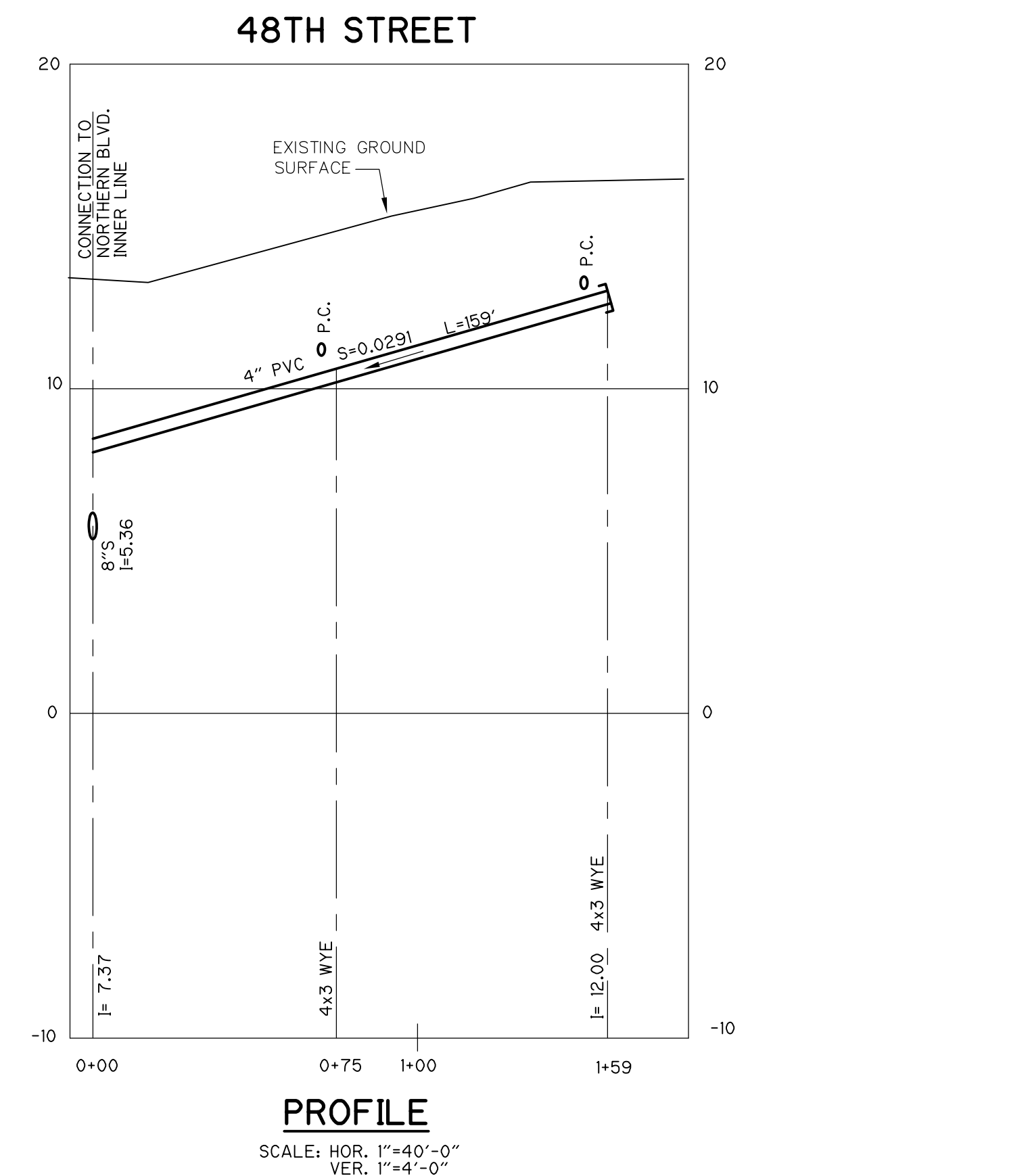
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**41ST STREET  
 43RD STREET  
 46TH STREET**

PROJECT NO. \_\_\_\_\_  
 FILE NAME: CSTPL017  
 SHEET NO.  
**50**

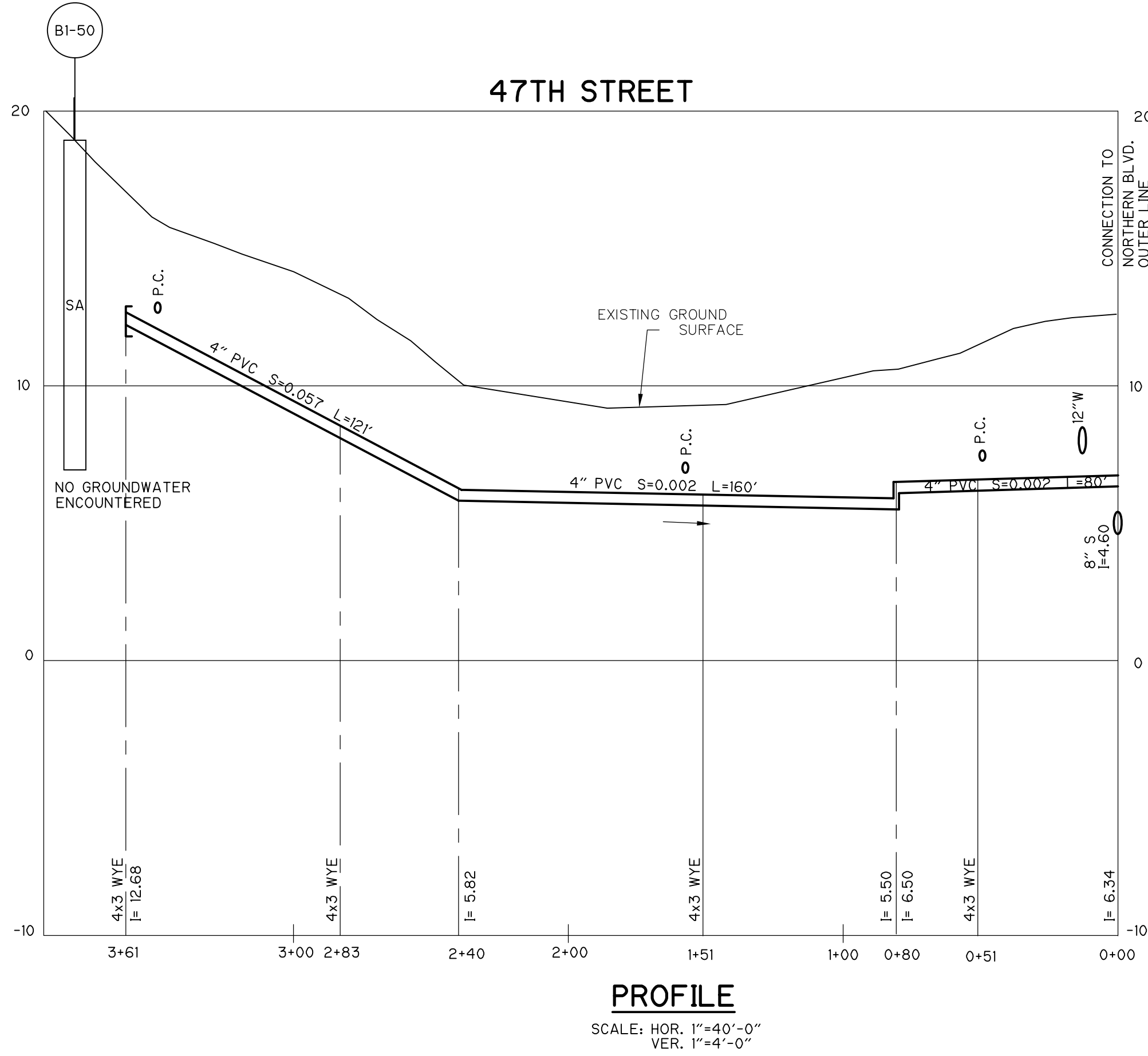


**PLAN**  
SCALE: 1"=40'-0"

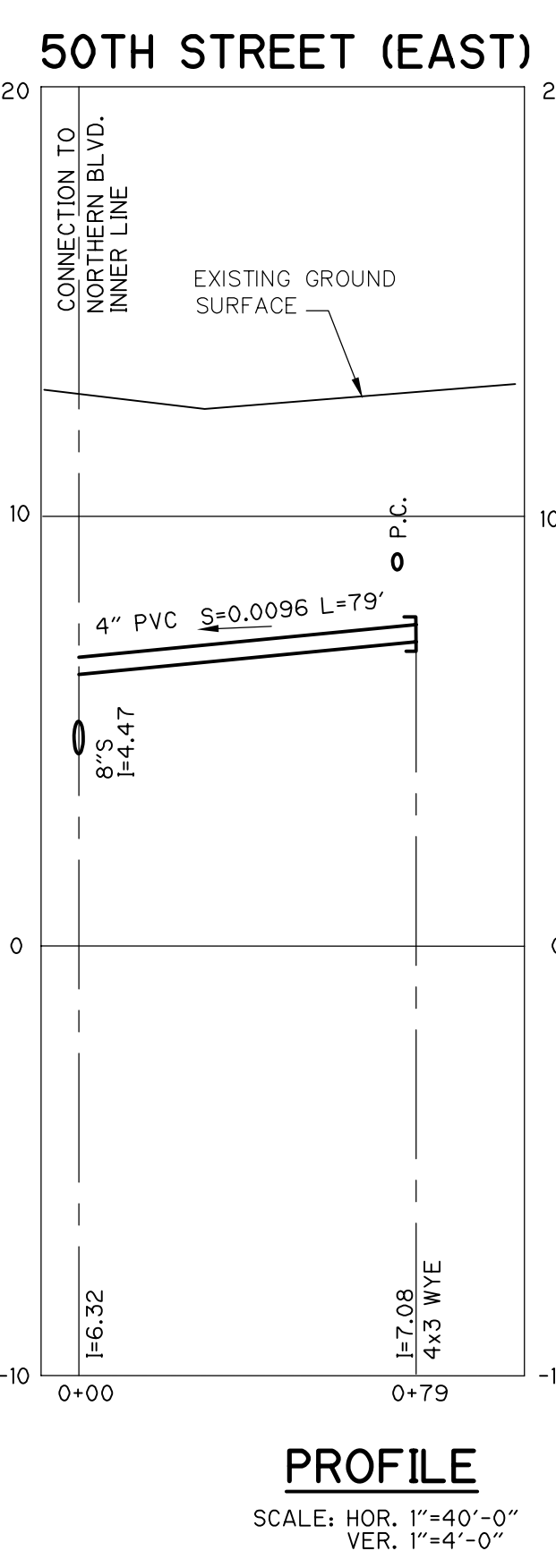


**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

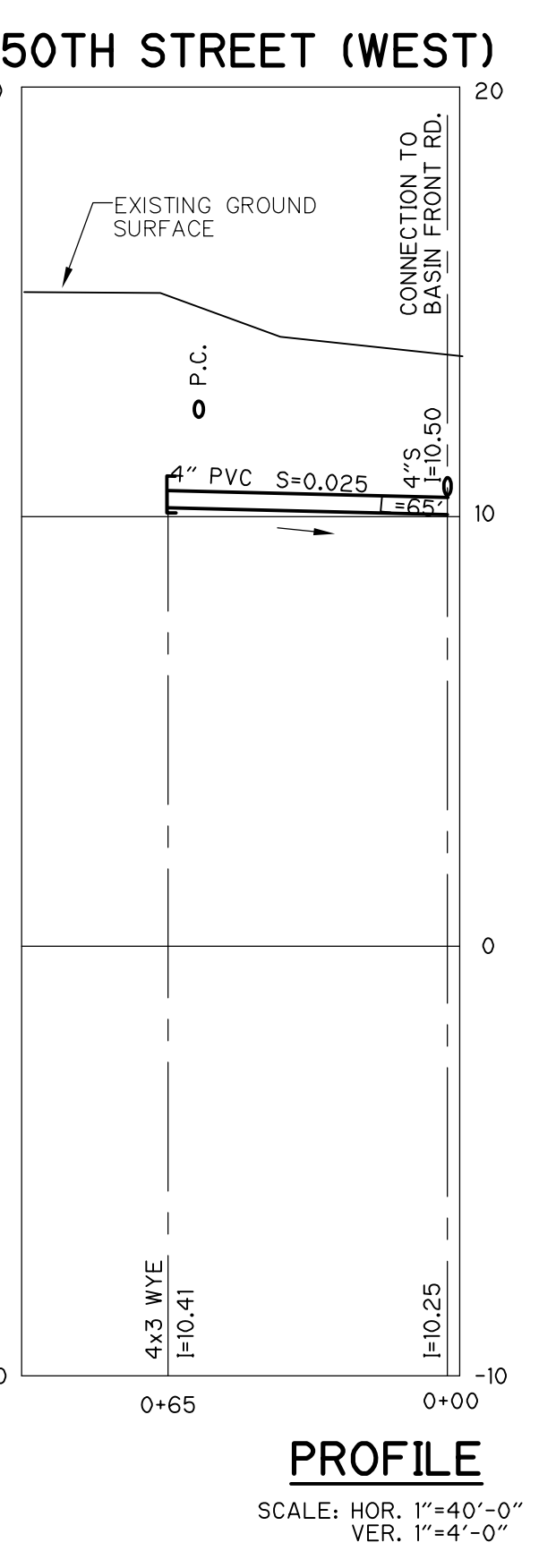
- NOTE:**
1. ALL SEWER BRANCHES SHOWN ON THIS SHEET ARE TO BE 4" PVC AS SPECIFIED.
  2. 45TH, 47TH, 48TH, AND 50TH STREETS ARE UNPAVED ROADS.



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

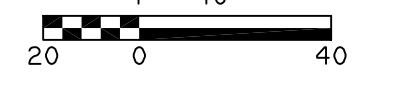


**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"



**PROFILE**  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

**RECORD DRAWING**



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

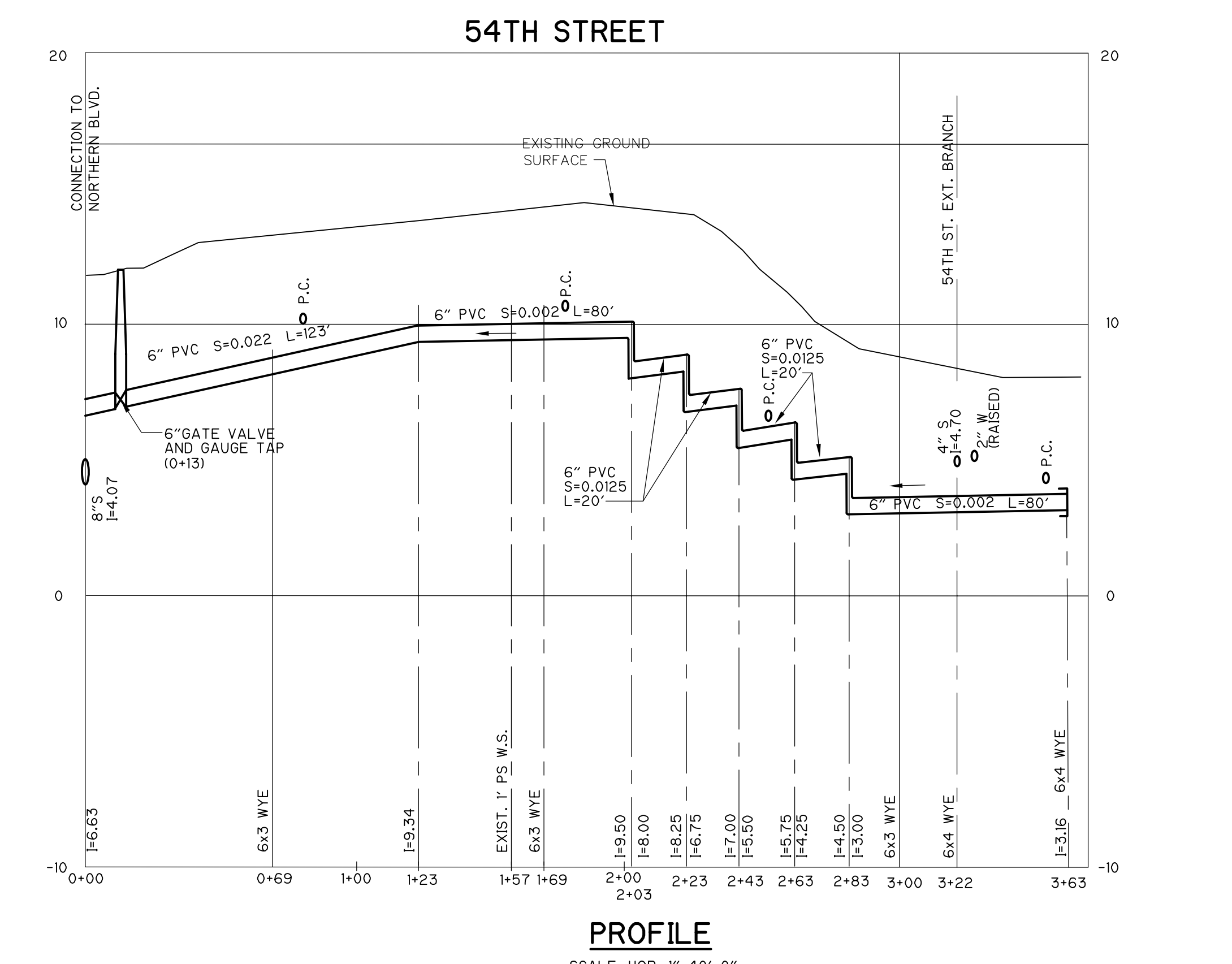
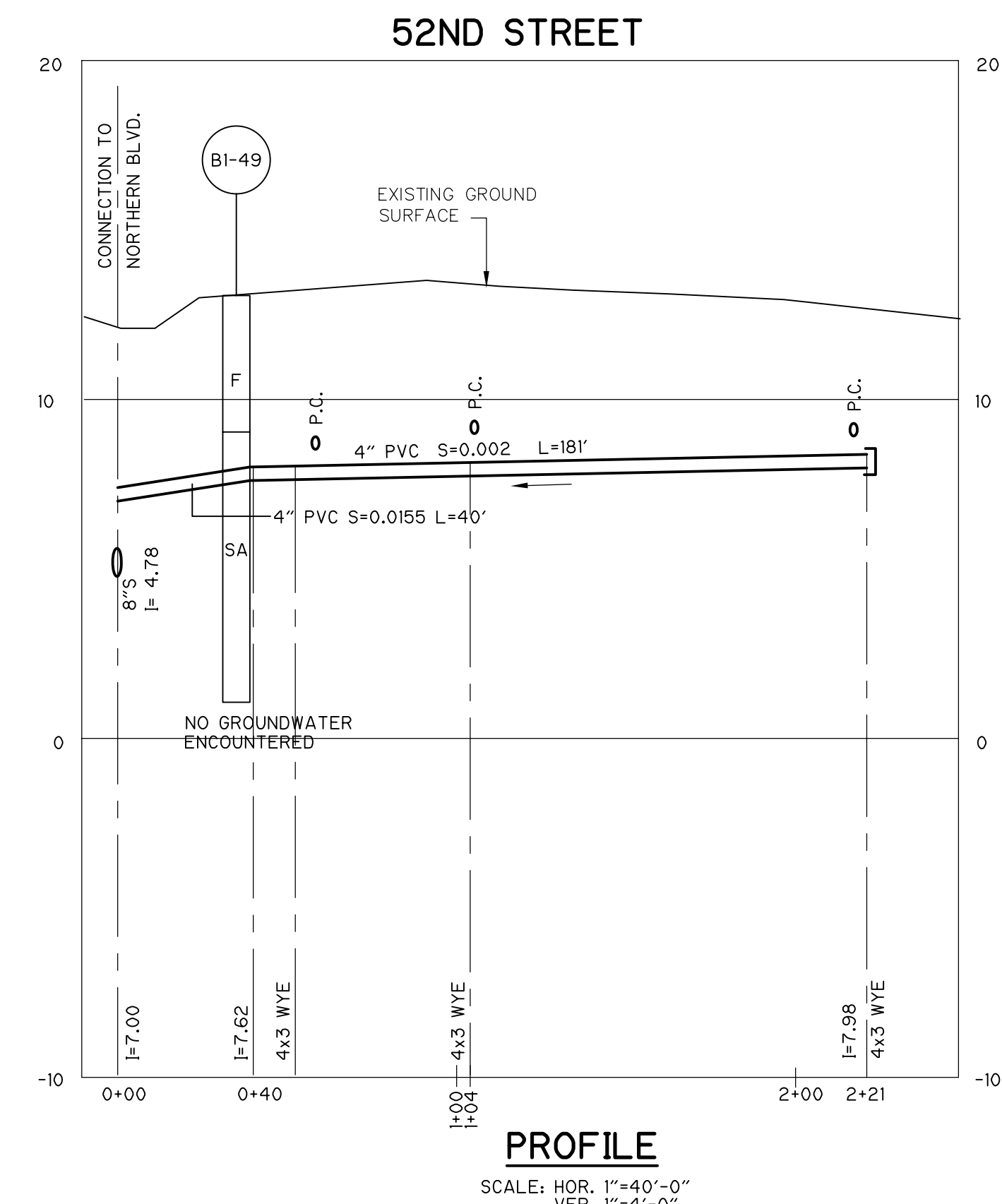
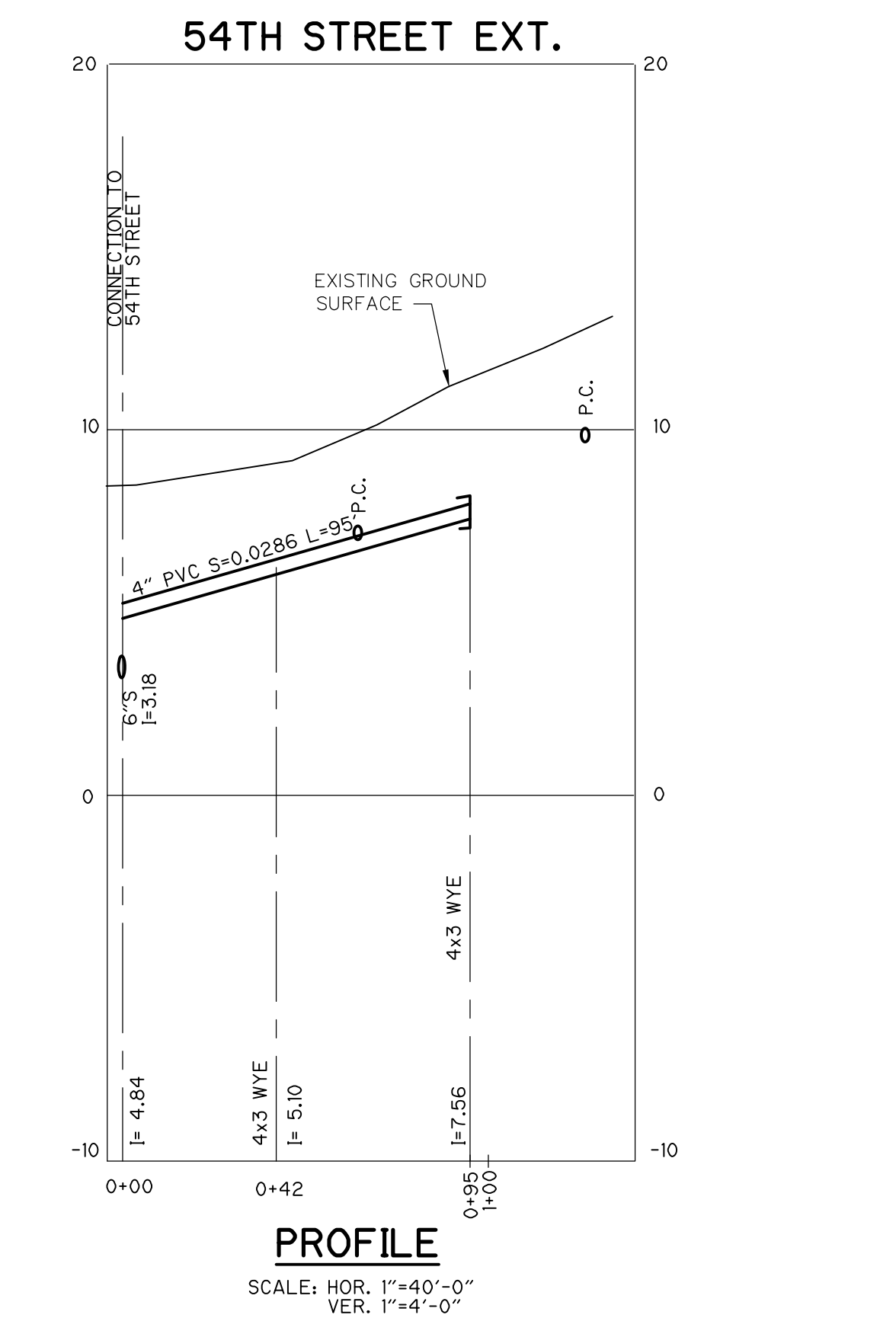
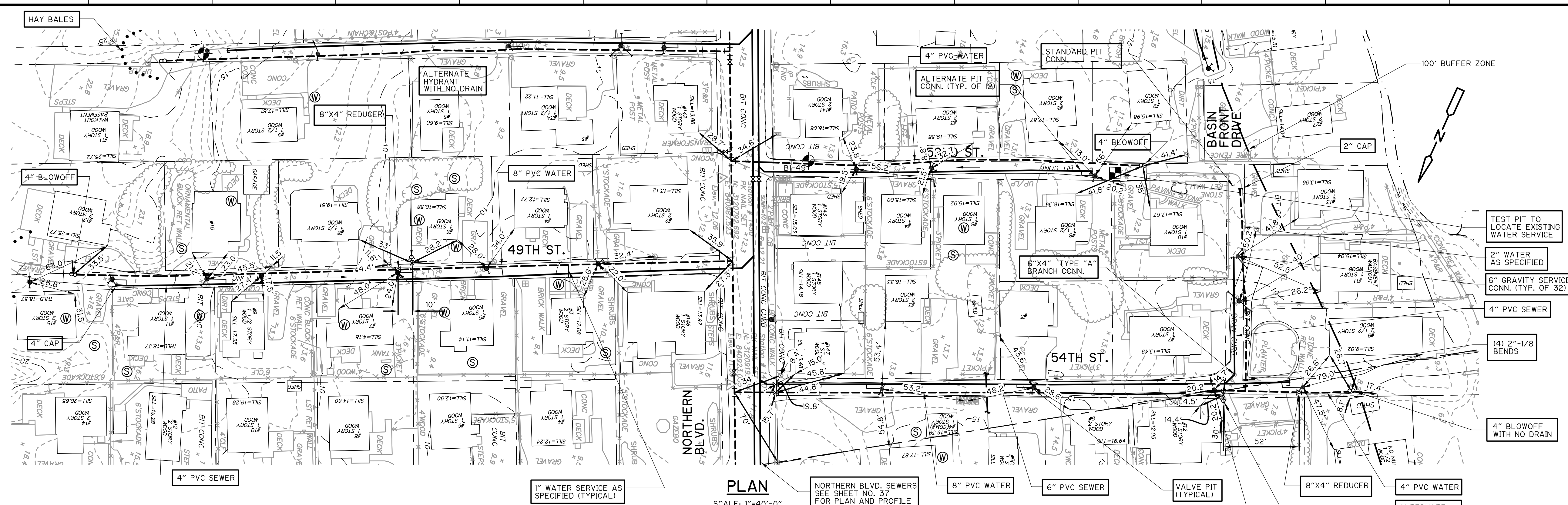
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting engineering & construction operations

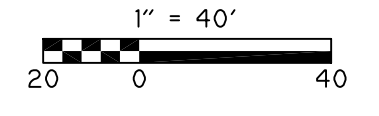
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

45TH STREET  
 47TH STREET  
 48TH STREET  
 50TH STREET

PROJECT NO. CSTPL018  
 SHEET NO. 51



NOTE:  
 1. PROVIDE TEMPORARY WATER SERVICE ON ALL OF 54TH ST. AND 54TH ST. EXT.



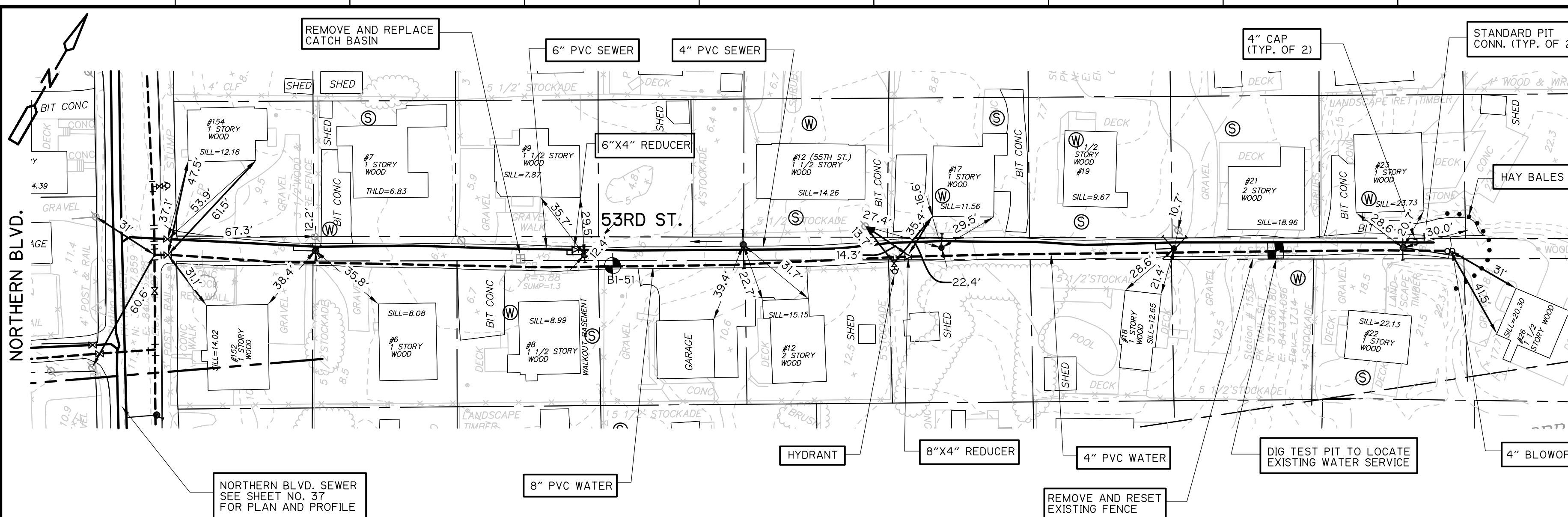
RECORD DRAWING

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

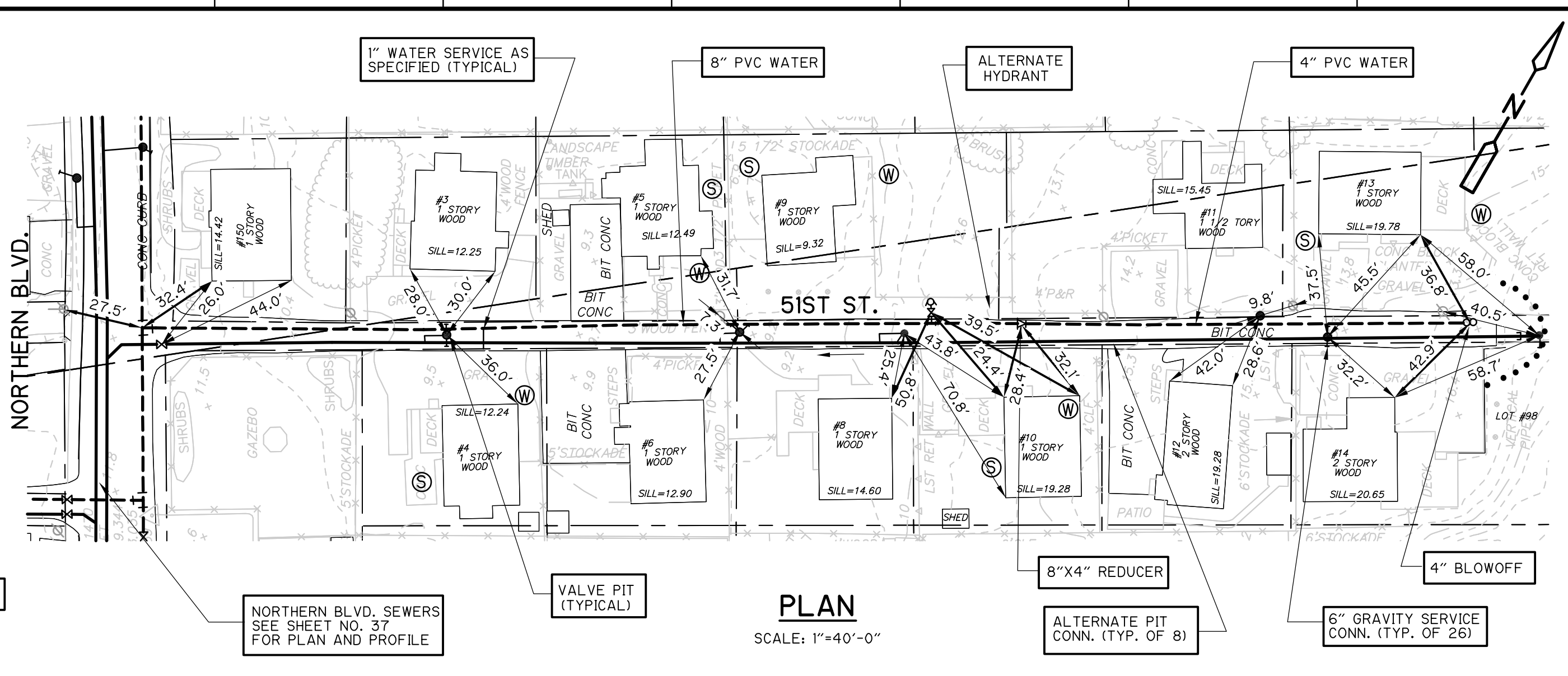
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

CDM Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
 WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS

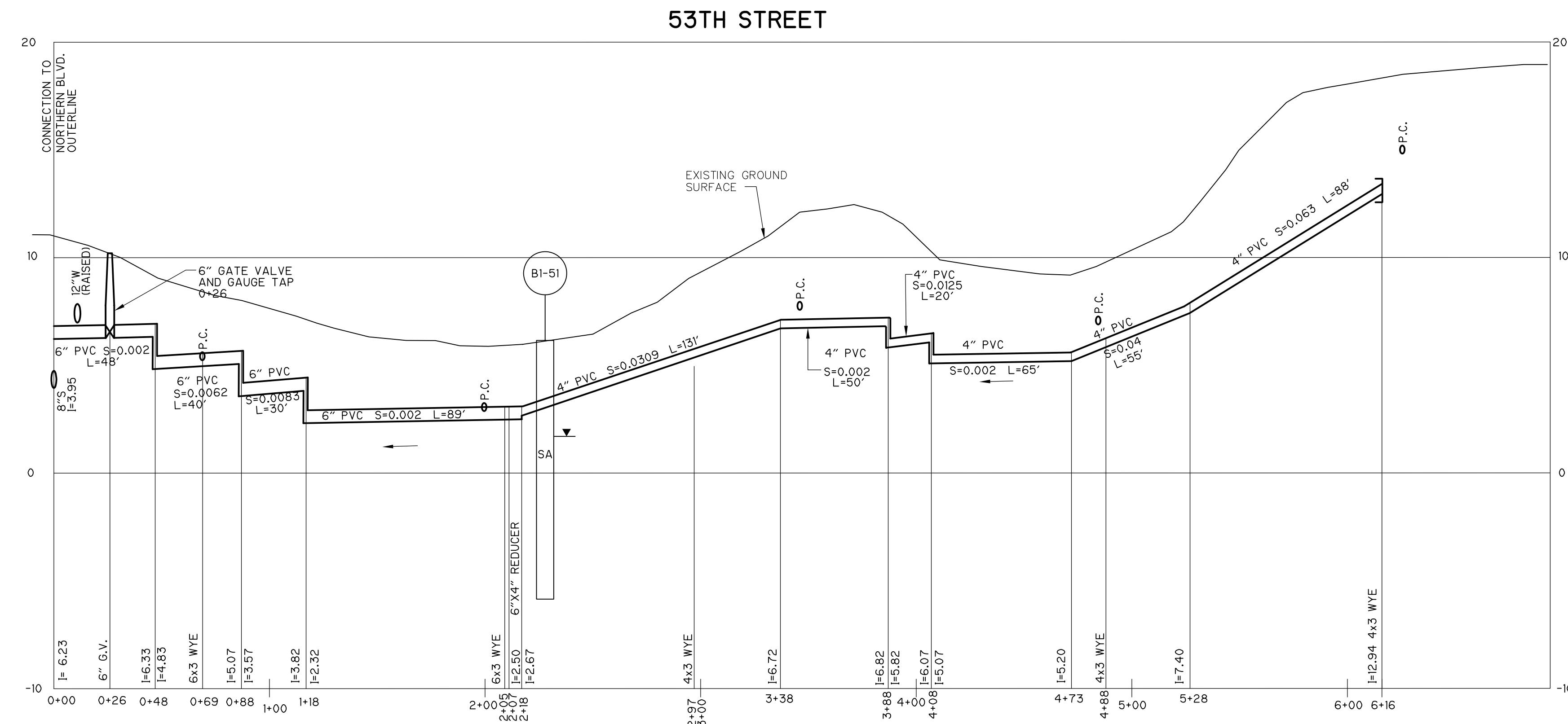
49TH STREET  
 52ND STREET  
 54TH STREET  
 PROJECT NO. FILE NAME: CSTPL019  
 SHEET NO. 52



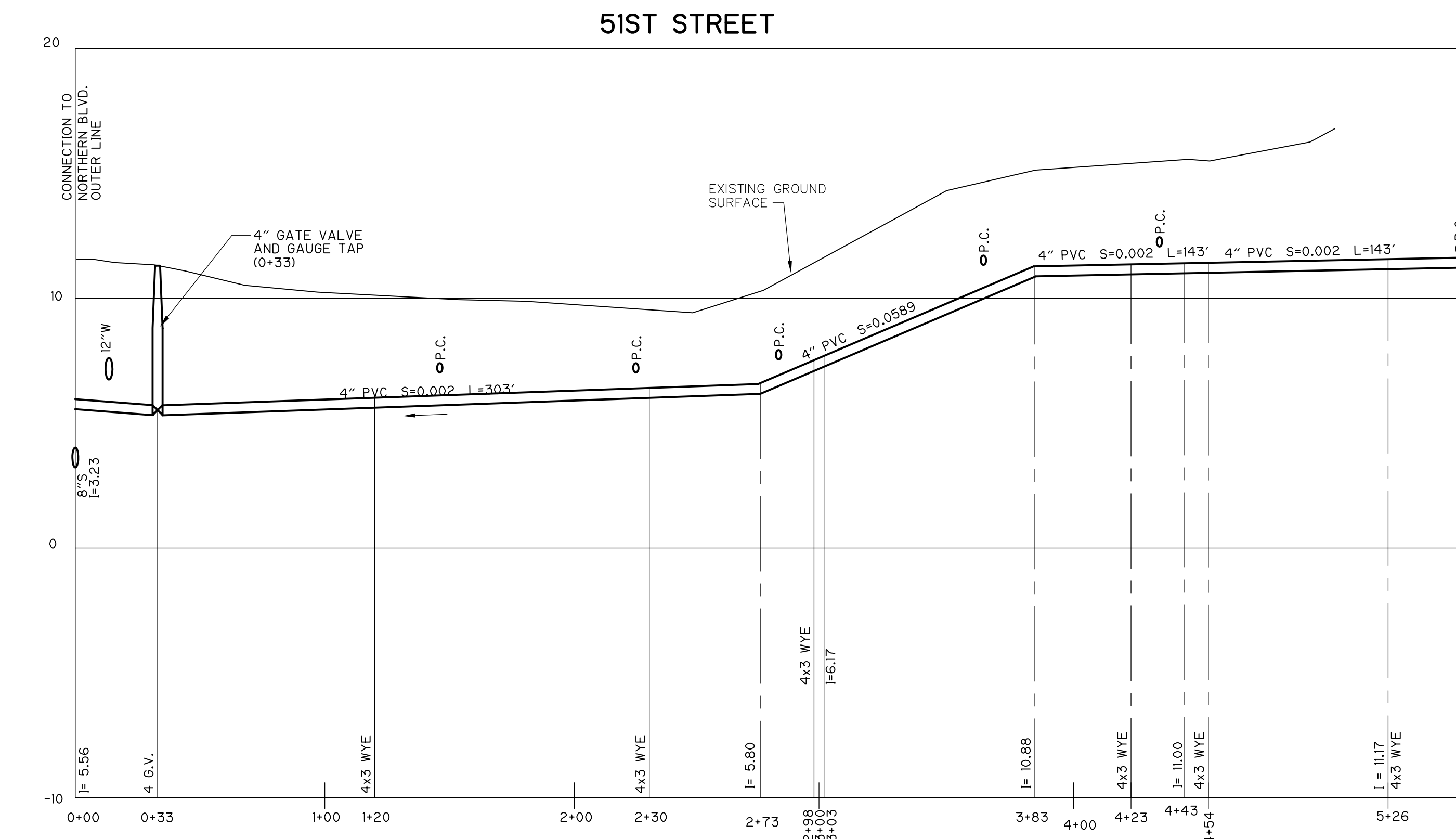
**PLAN**  
 SCALE: 1"=40'-0"



**PLAN**  
 SCALE: 1"=40'-0"

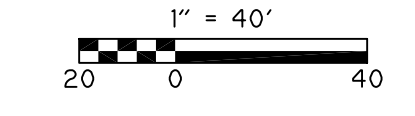


**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

**RECORD DRAWING**



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

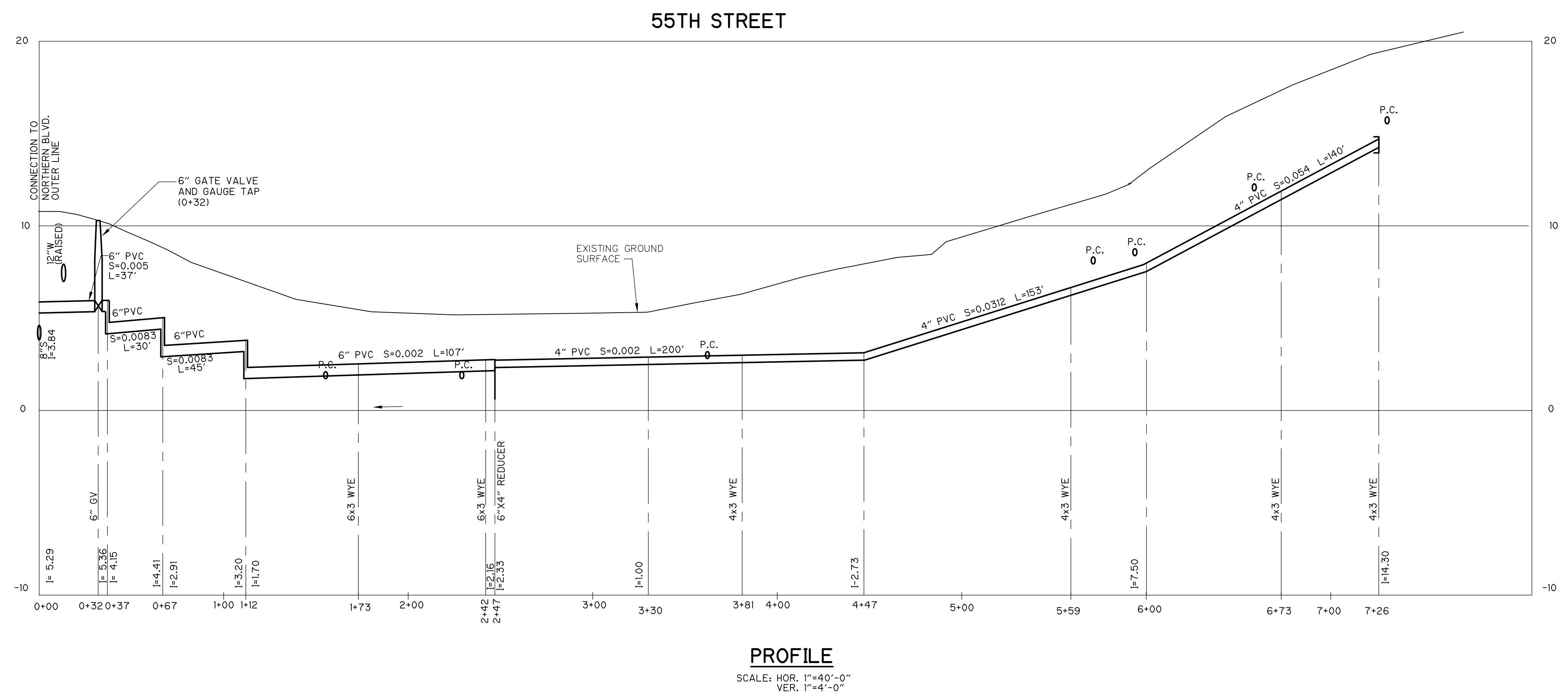
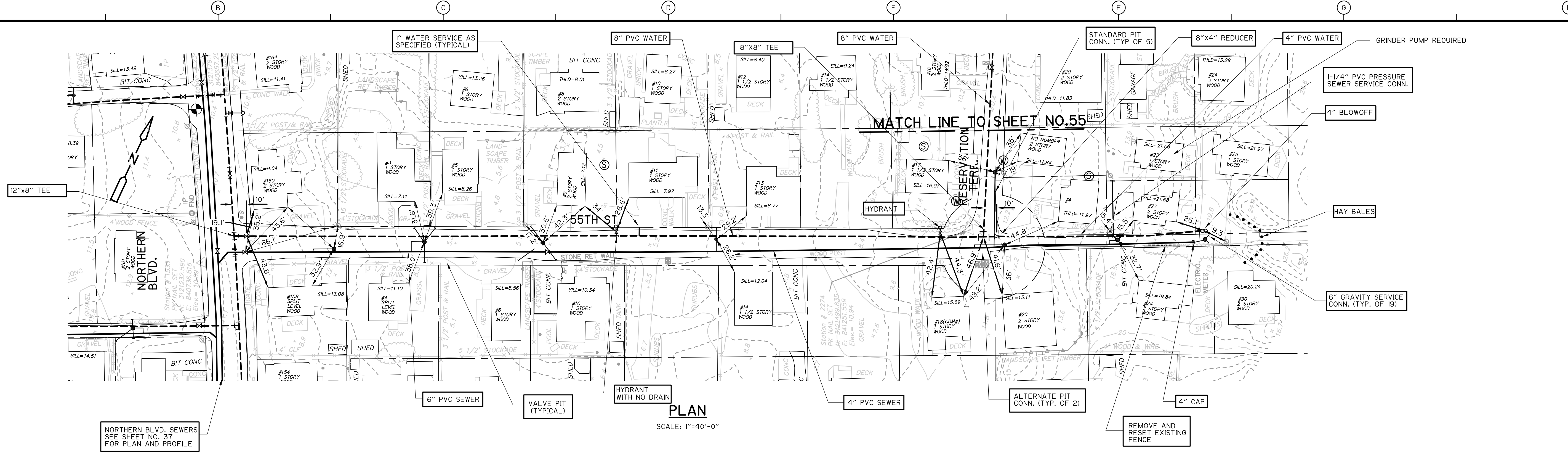
**CDM** Camp Dresser & McKee Inc.  
 consulting engineering & construction operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

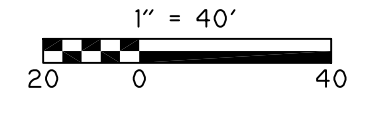
**51ST STREET  
 53RD STREET**

PROJECT NO. CSTPL020  
 FILE NAME: CSTPL020  
 SHEET NO. **53**

File name: P:\9451\30964\ASBUILT\CONT4\CSTPL021.DWG Xref's: [GBD00000, C85PL003, LAYOUT, ] Plotted by: PETRUKHINTM Time: 11/13/2007 9:22:09 AM  
 [NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN]



RECORD DRAWING

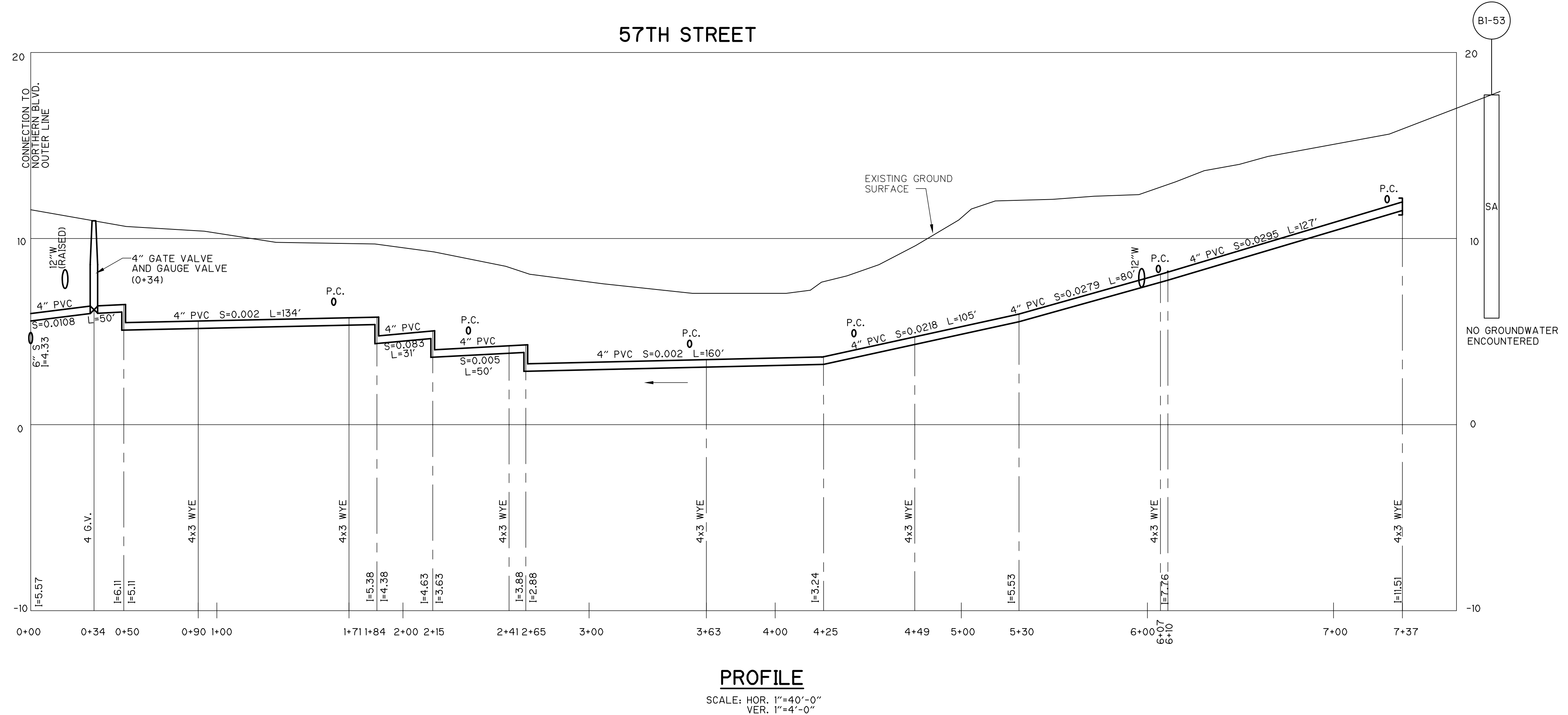
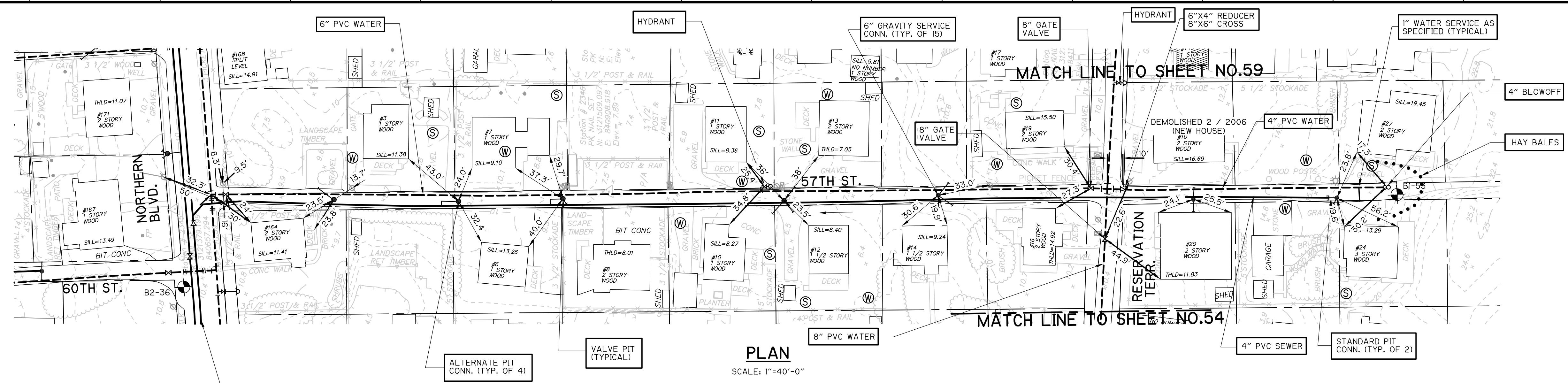


REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

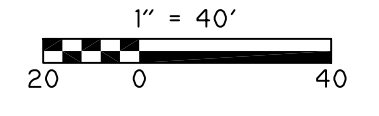
PROJECT NO. CSTPL021  
 FILE NAME: CSTPL021  
**55TH STREET**  
 SHEET NO. **54**



57TH STREET

PROFILE  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

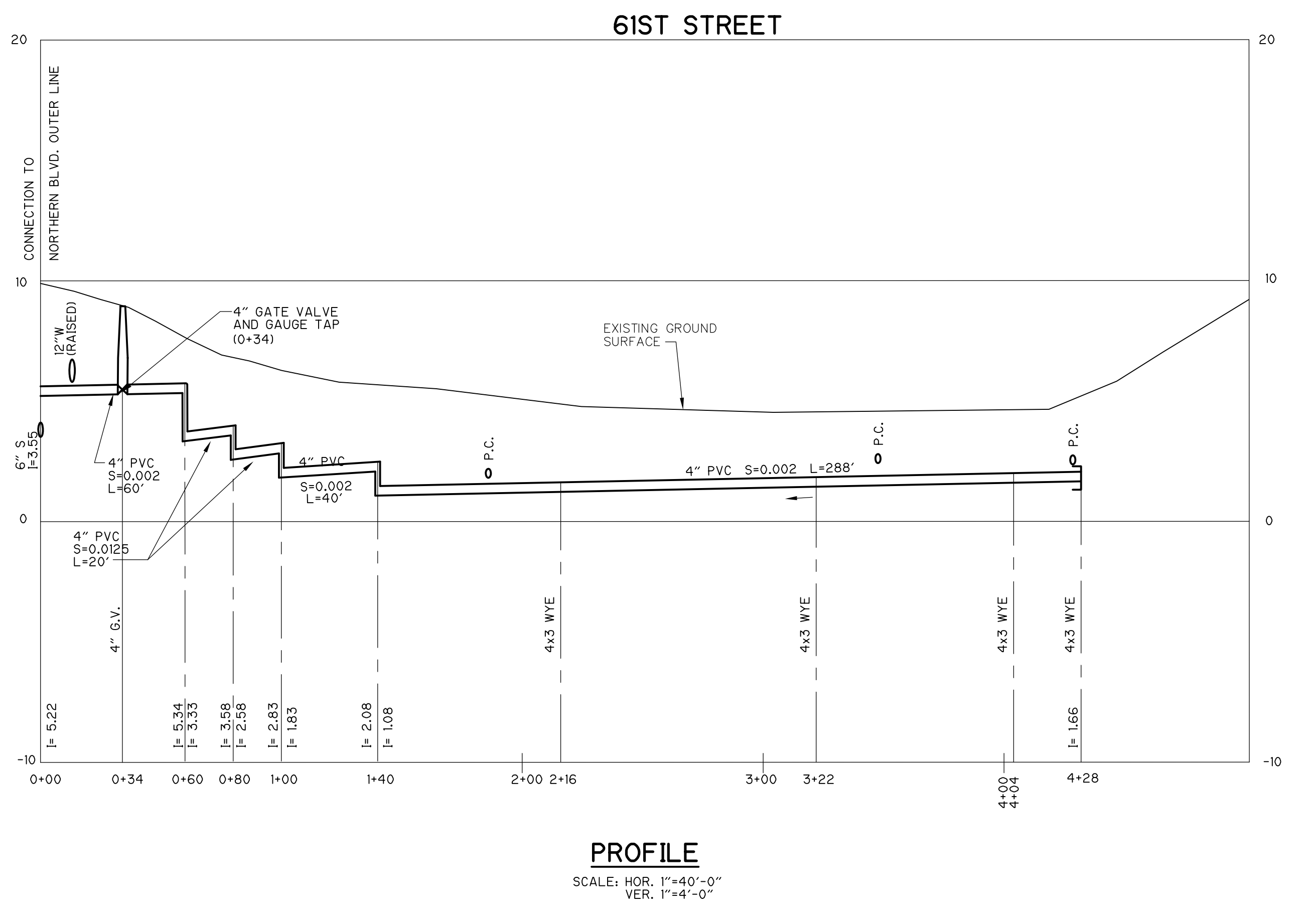
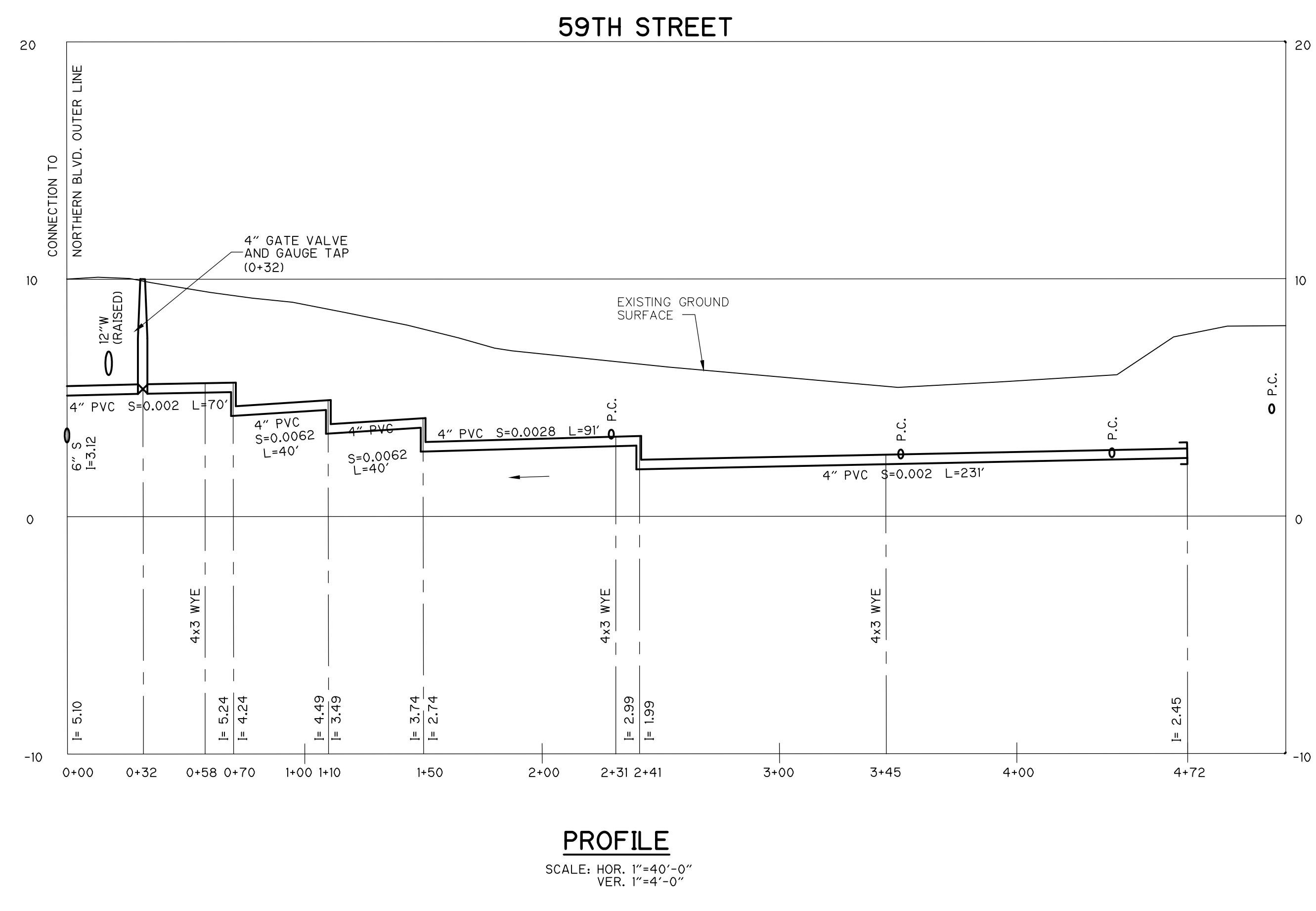
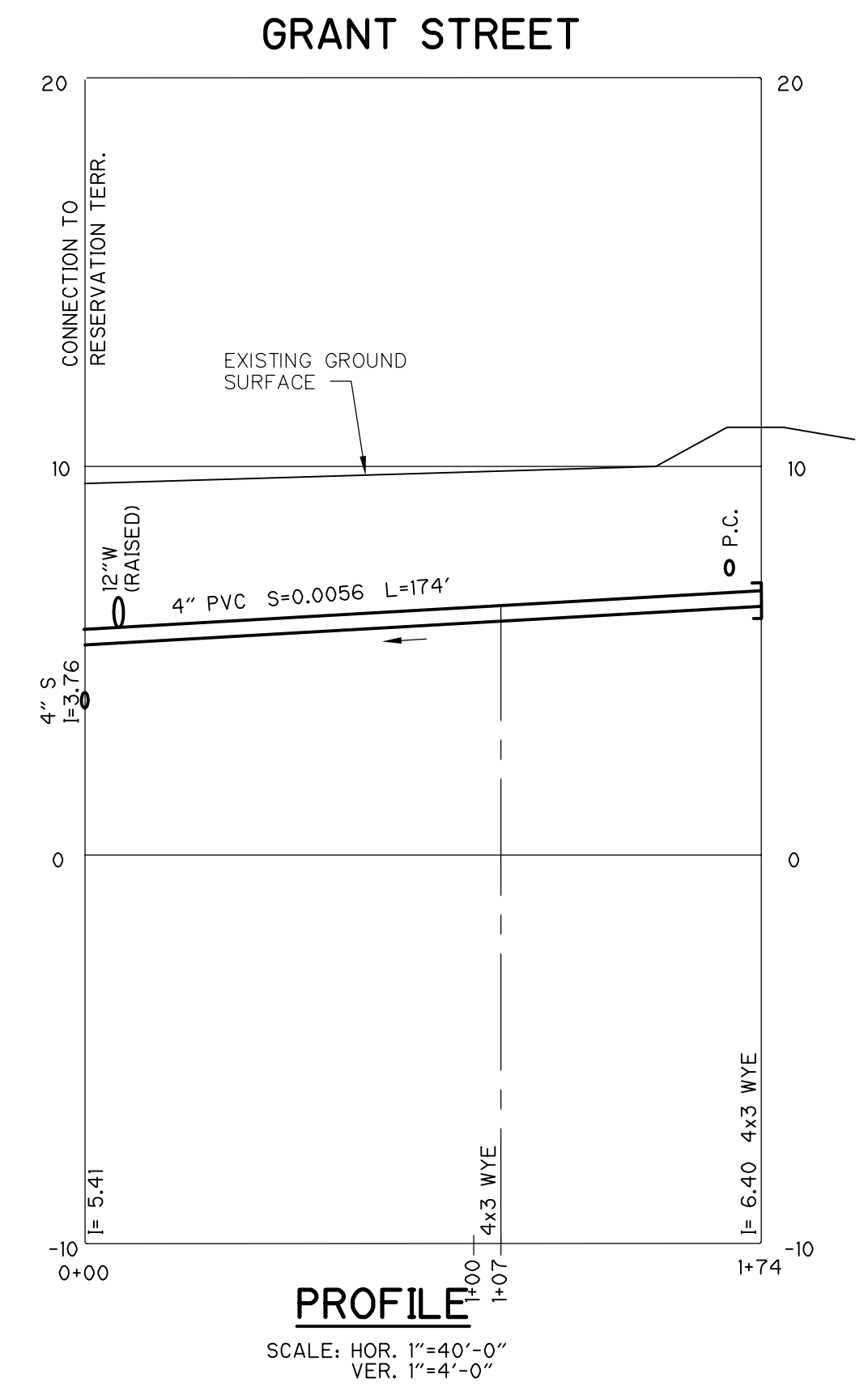
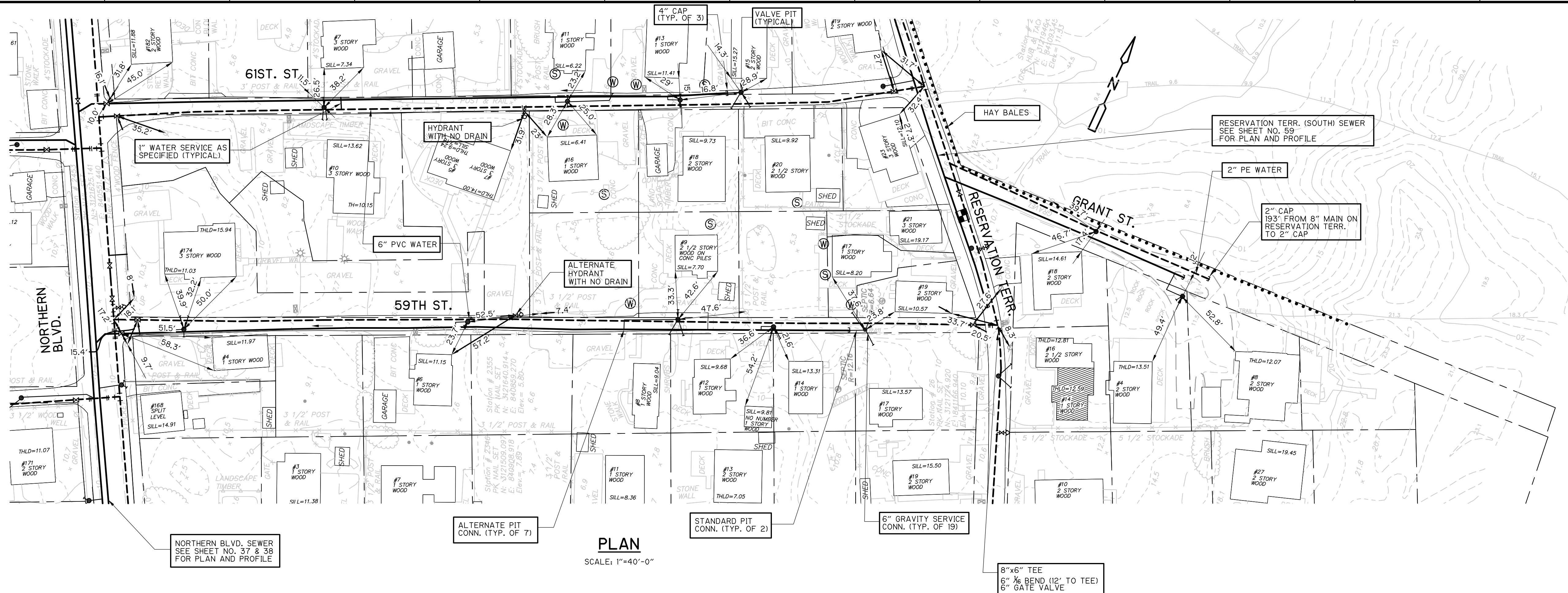
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
engineering  
construction  
operations

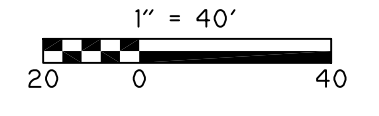
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

57TH STREET  
 SHEET NO.  
**55**

PROJECT NO. CSTPL022  
 FILE NAME: CSTPL022  
 SHEET NO.  
**55**



- NOTES:  
 1. ALL SEWER BRANCHES SHOWN ON THIS SHEET ARE TO BE 4" PVC AS SPECIFIED.  
 2. NO PAVING REQUIRED ON GRANT STREET.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

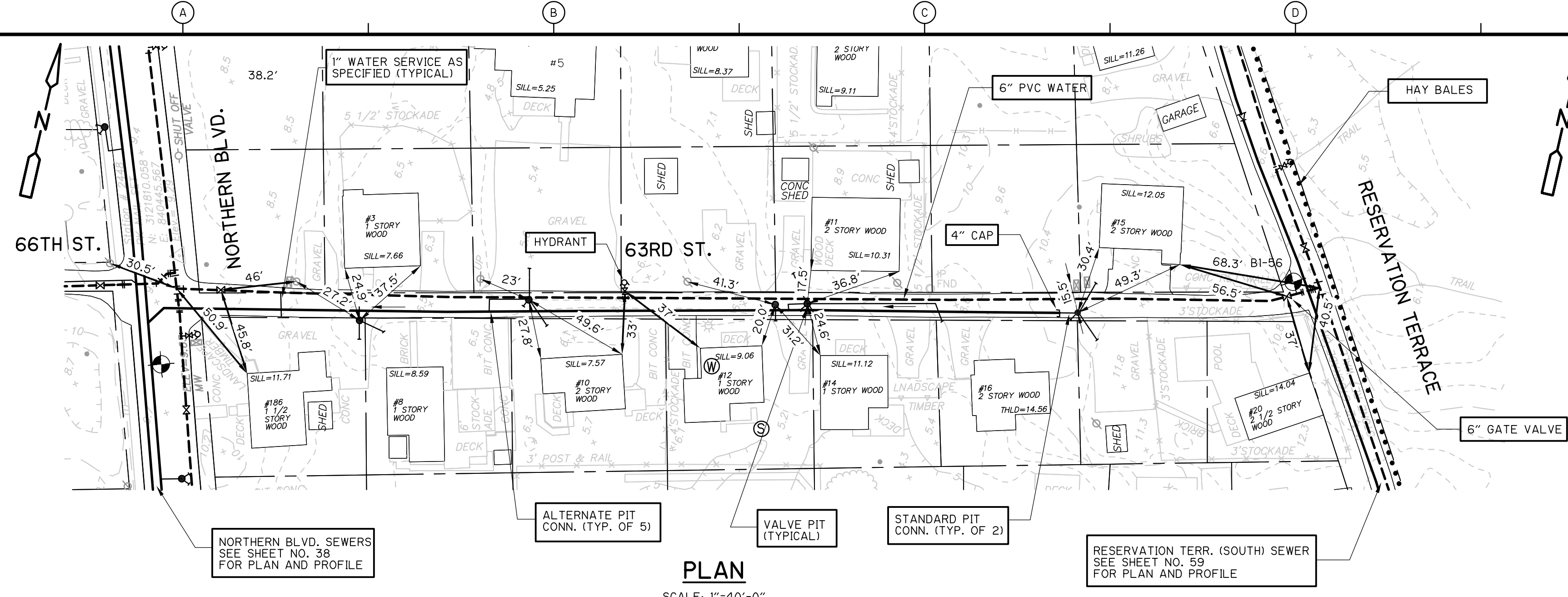
**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

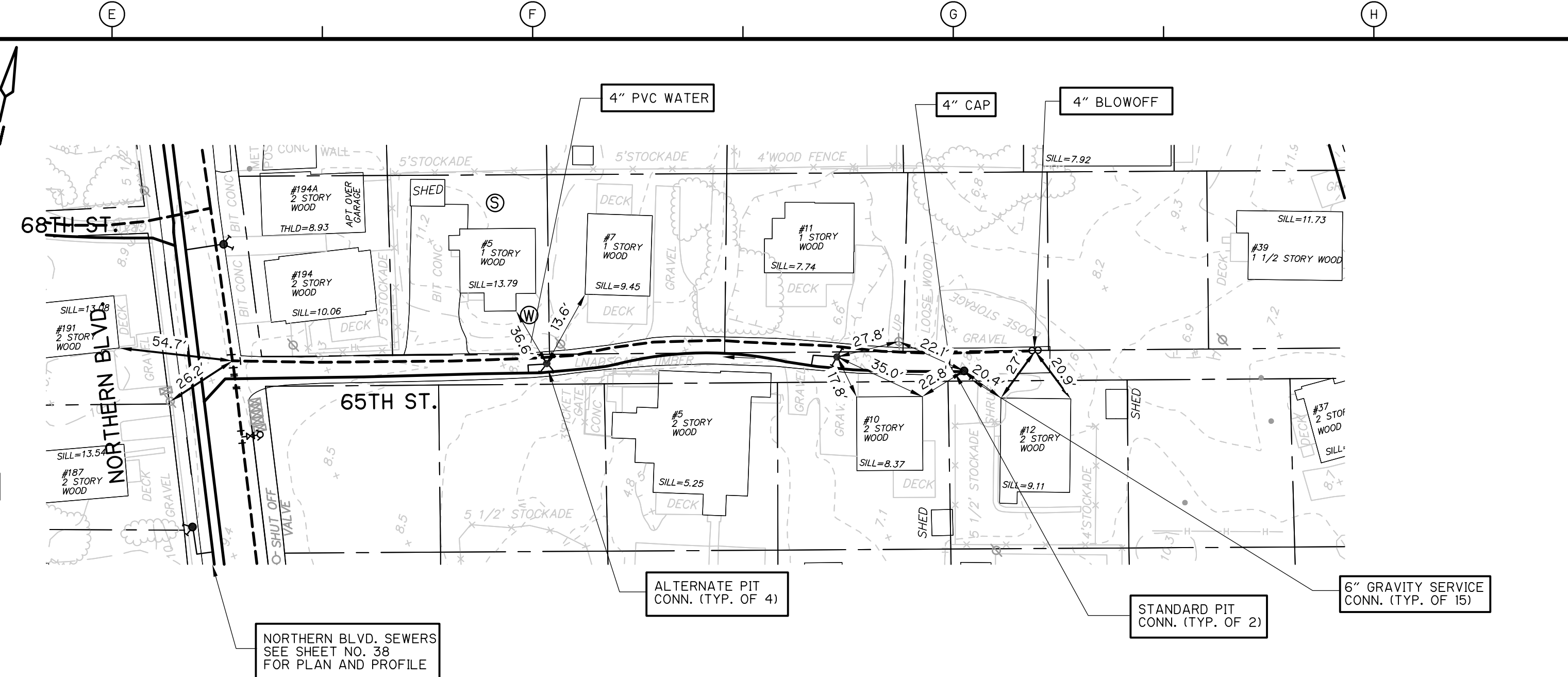
**RECORD DRAWING**  
 59TH STREET  
 61ST STREET  
 GRANT STREET

PROJECT NO. CSTPL024  
 FILE NAME:  
 SHEET NO. **56**



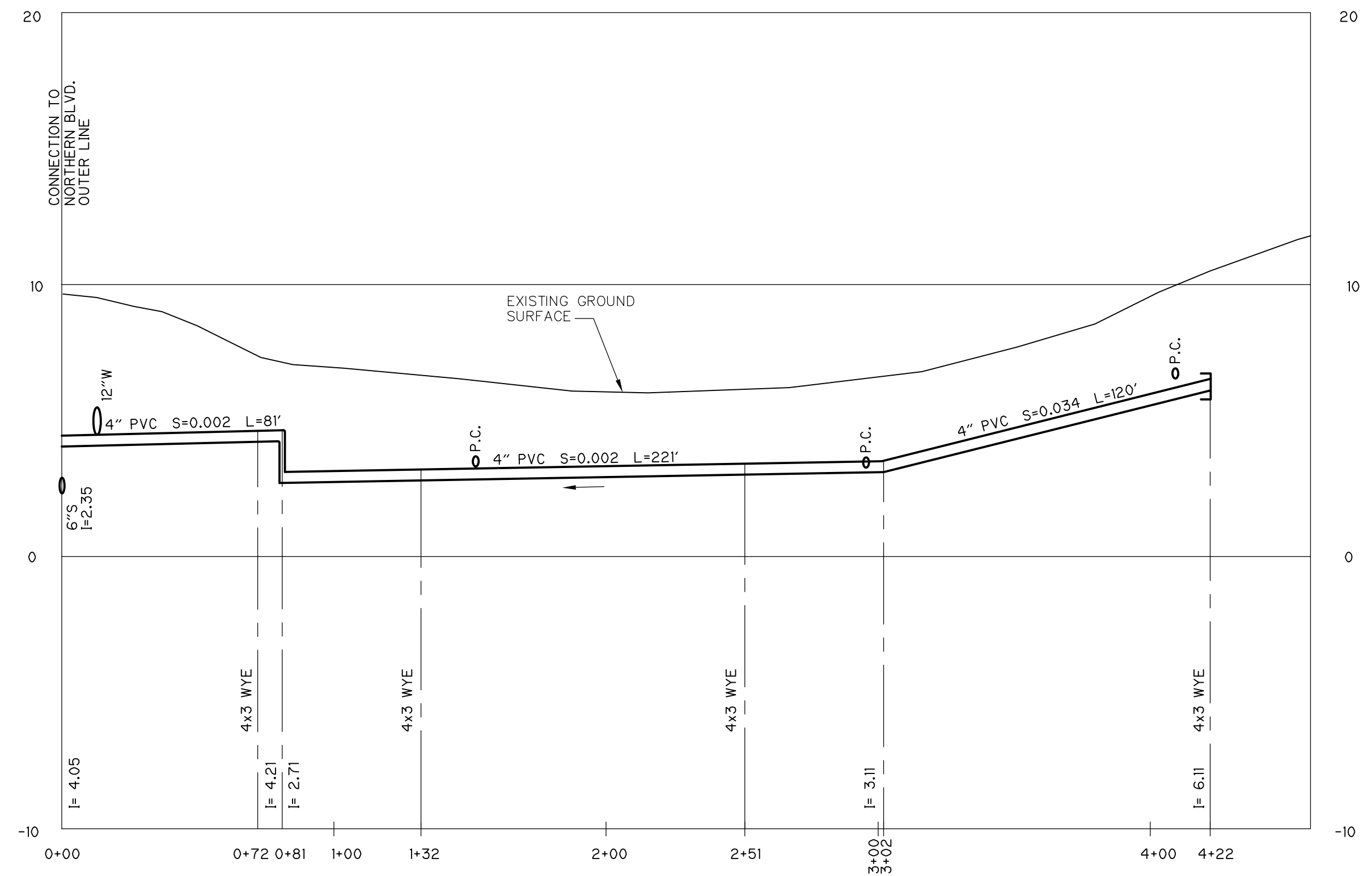


**PLAN**  
 SCALE: 1"=40'-0"



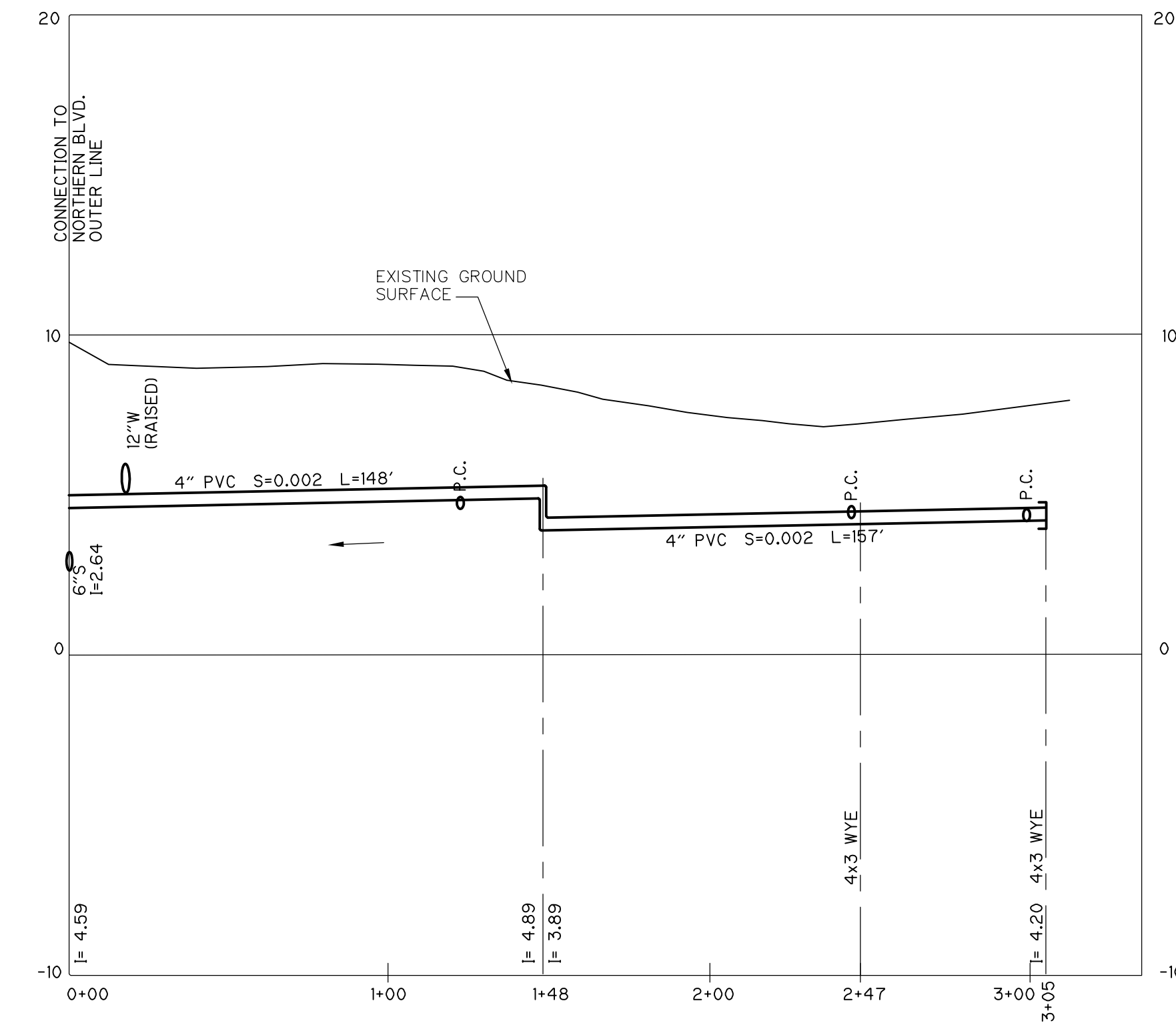
**PLAN**  
 SCALE: 1"=40'-0"

**63RD STREET**



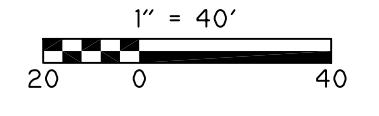
**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

**65TH STREET**



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

NOTES:  
 1. ALL SEWER BRANCHES SHOWN ON THIS SHEET ARE TO BE 4" PVC AS SPECIFIED.



**RECORD DRAWING**

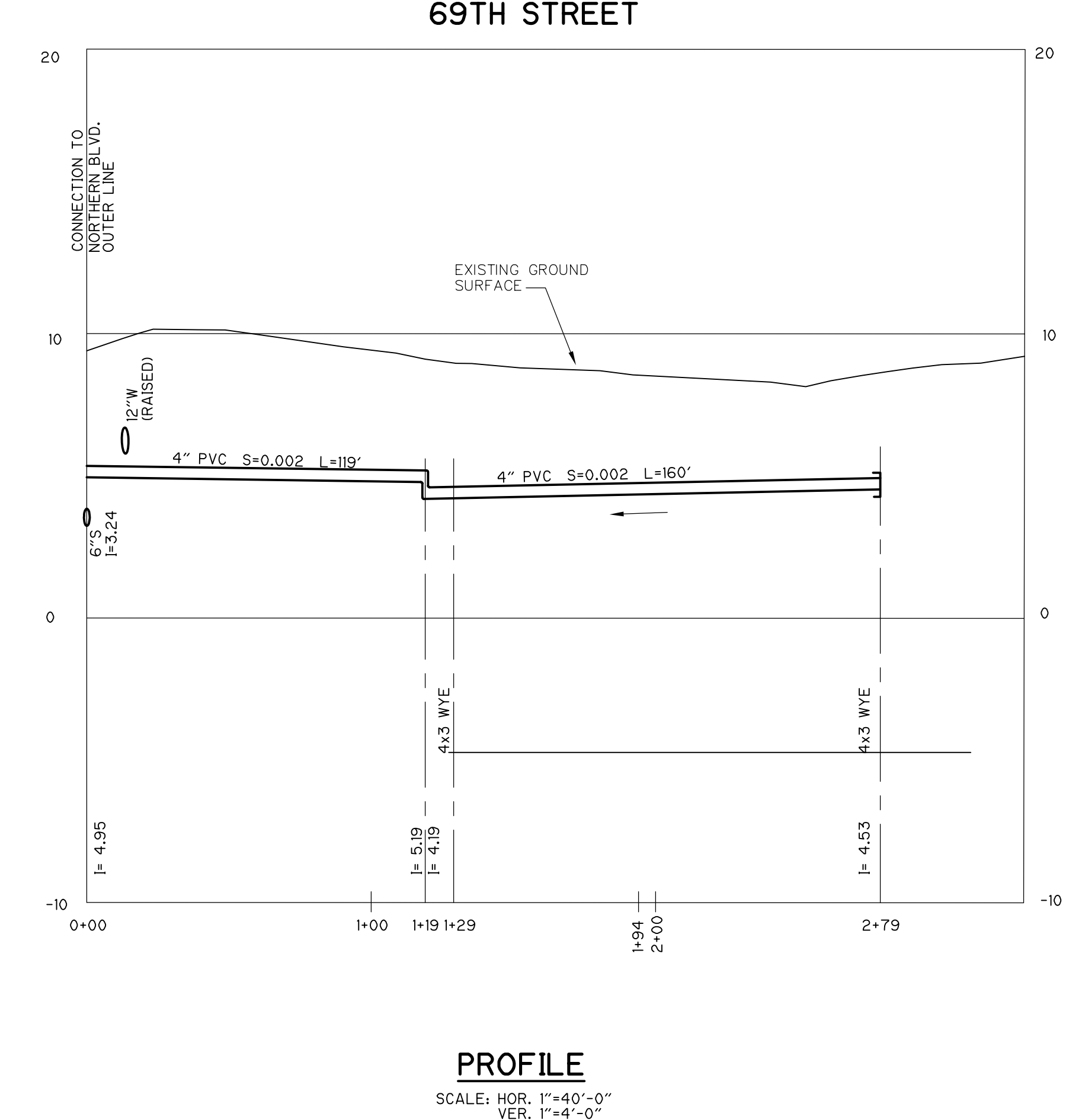
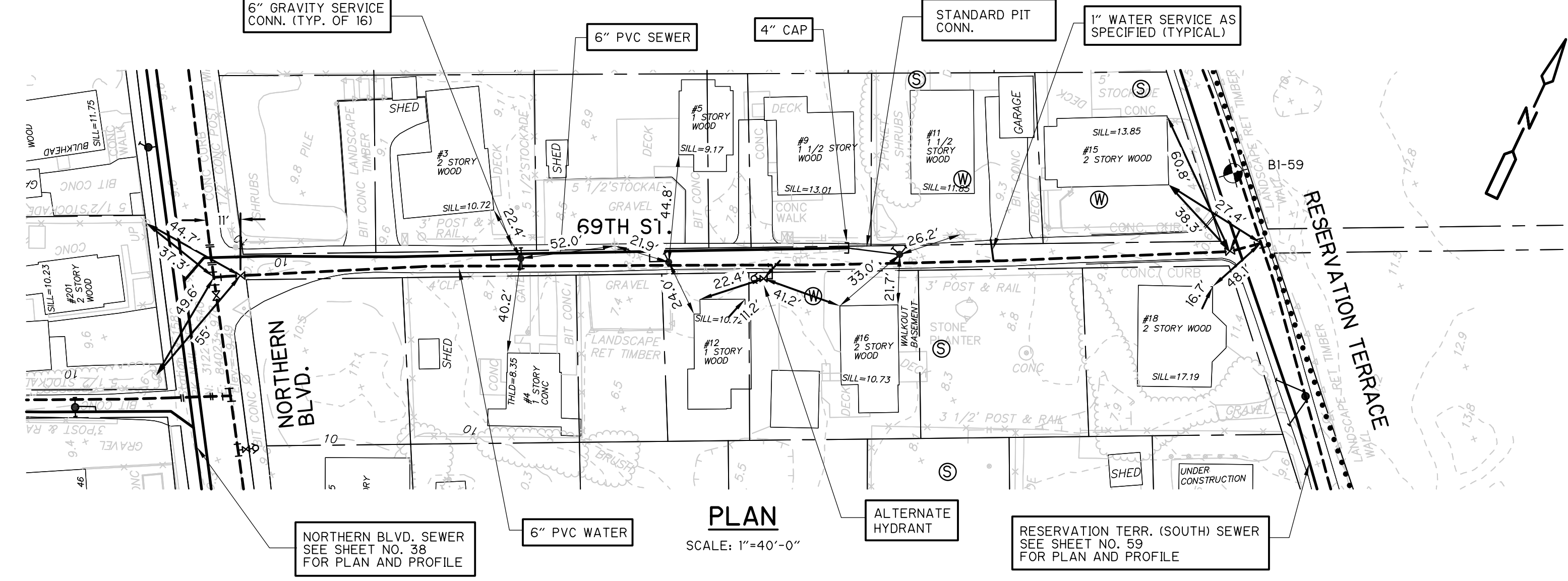
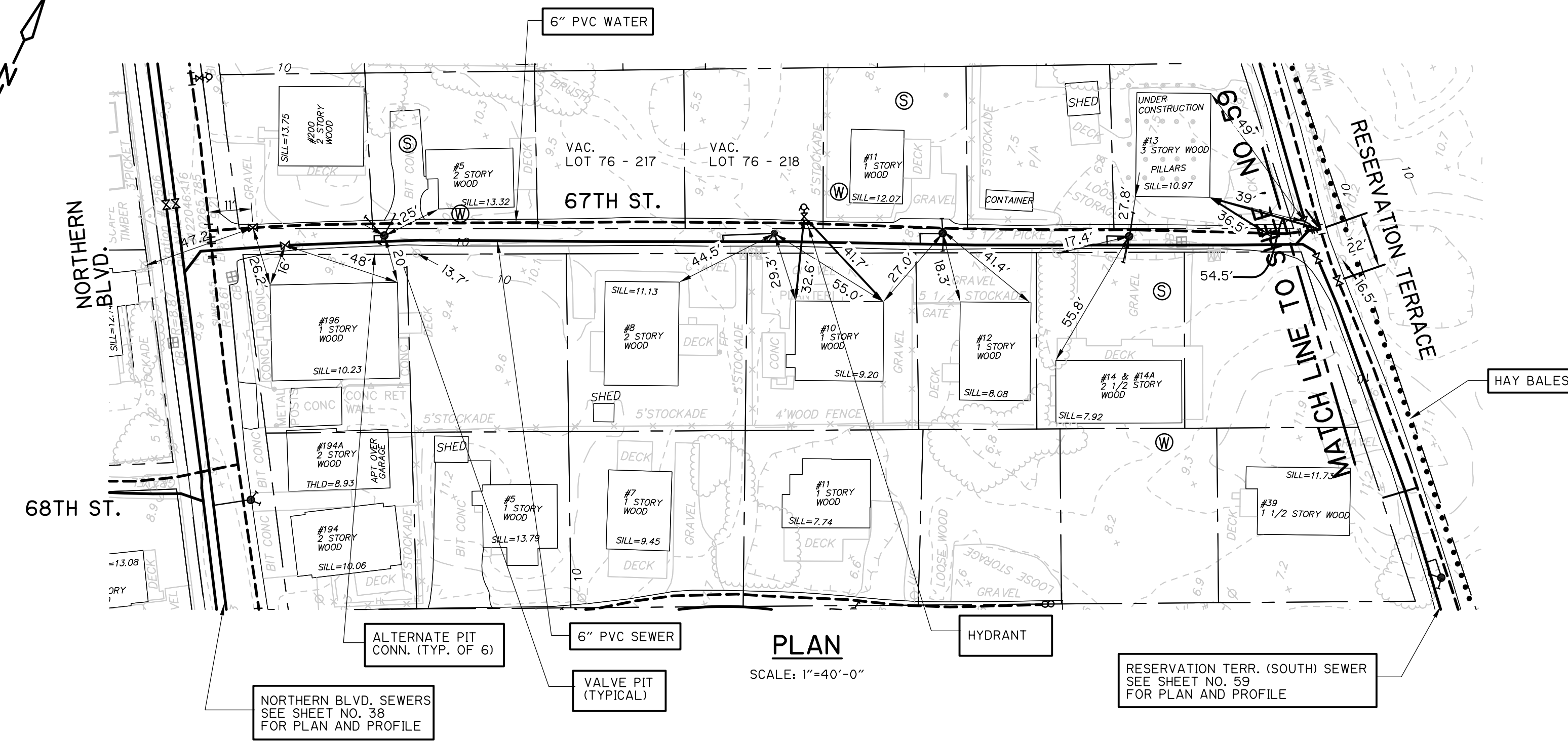
DESIGNED BY:	M. MULLARKEY
DRAWN BY:	B. GUILFORD
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

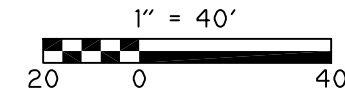
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**63RD STREET  
 65TH STREET**

PROJECT NO.	CSTPL025
FILE NAME:	CSTPL025
SHEET NO.	<b>57</b>



RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

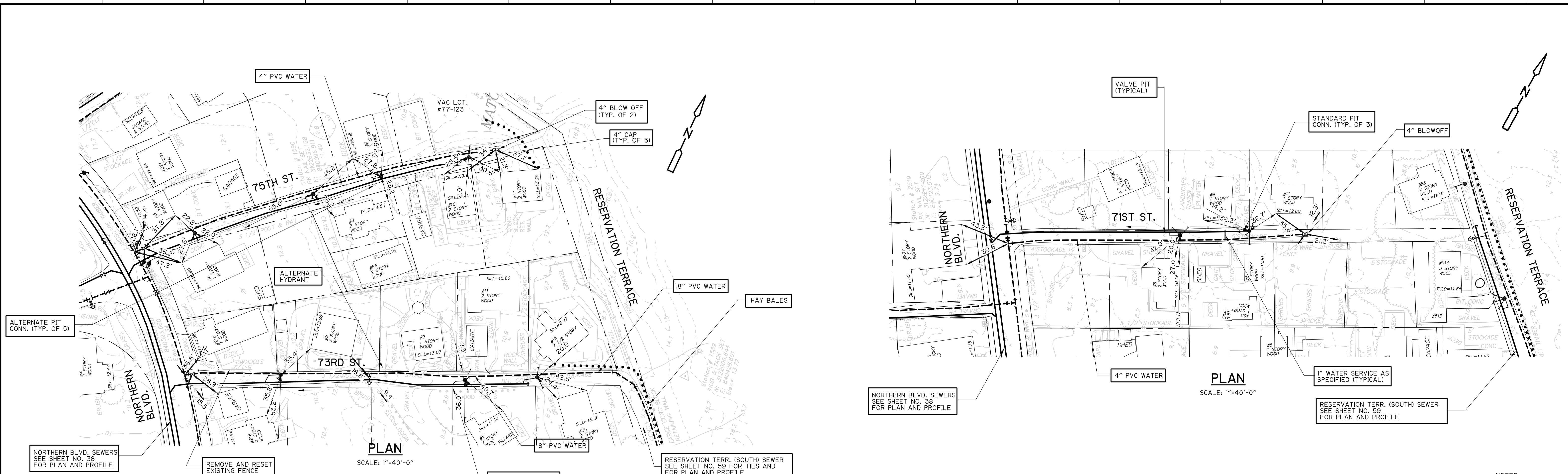
**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

67TH STREET  
 69TH STREET  
**58**

PROJECT NO. CSTPL026  
 FILE NAME: CSTPL026  
 SHEET NO. 58





**PLAN**  
SCALE: 1"=40'-0"

NORTHERN BLVD. SEWERS SEE SHEET NO. 38 FOR PLAN AND PROFILE

REMOVE AND RESET EXISTING FENCE

ALTERNATE PIT CONN. (TYP. OF 5)

4" PVC WATER

4" BLOW OFF (TYP. OF 2)

4" CAP (TYP. OF 3)

8" PVC WATER

HAY BALES

RESERVATION TERR. (SOUTH SEWER) SEE SHEET NO. 59 FOR PLAN AND PROFILE

6" GRAVITY SERVICE CONN. (TYP. OF 19)

4" BLOWOFF

STANDARD PIT CONN. (TYP. OF 3)

VALVE PIT (TYPICAL)

71ST ST.

73RD ST.

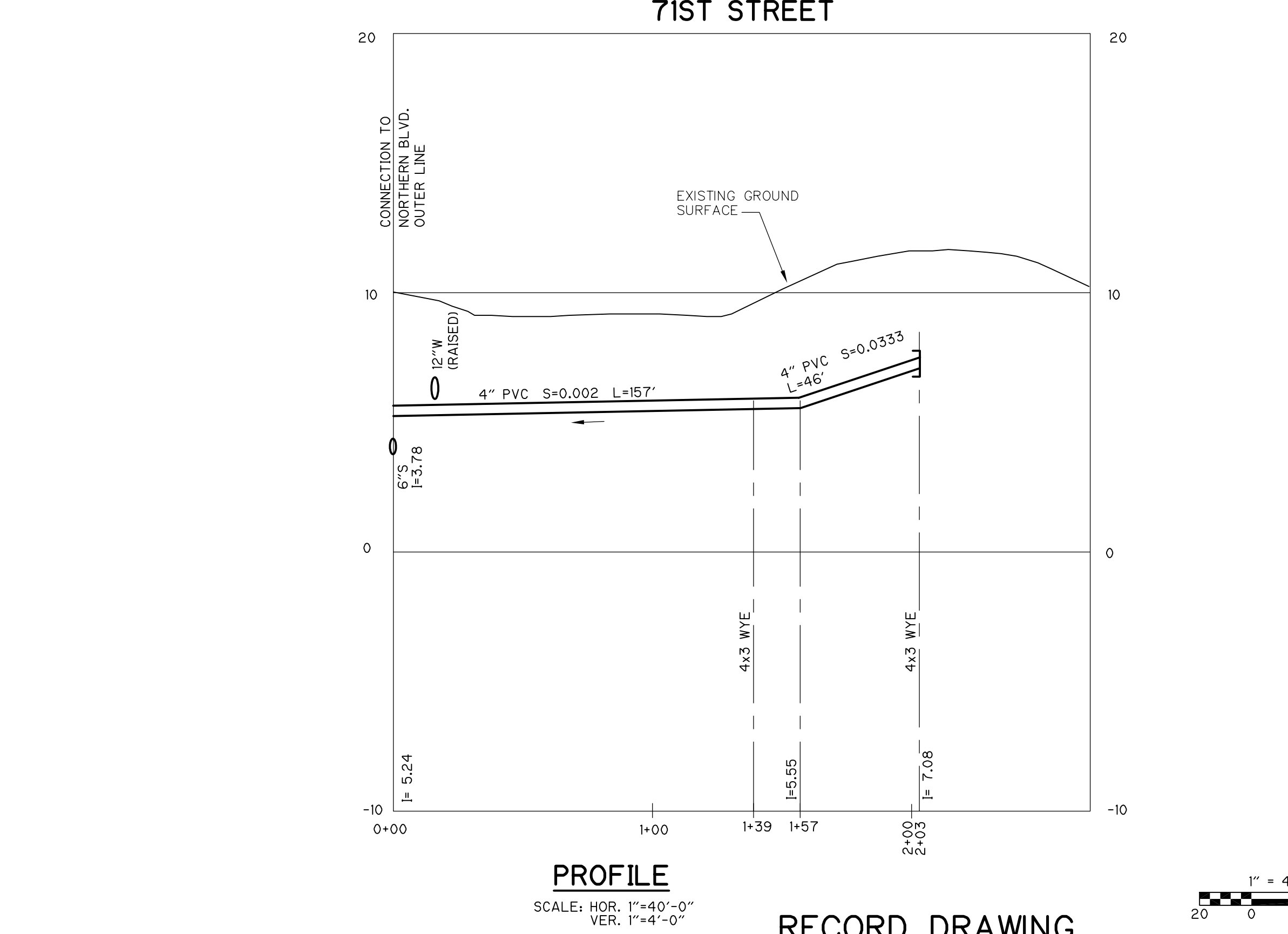
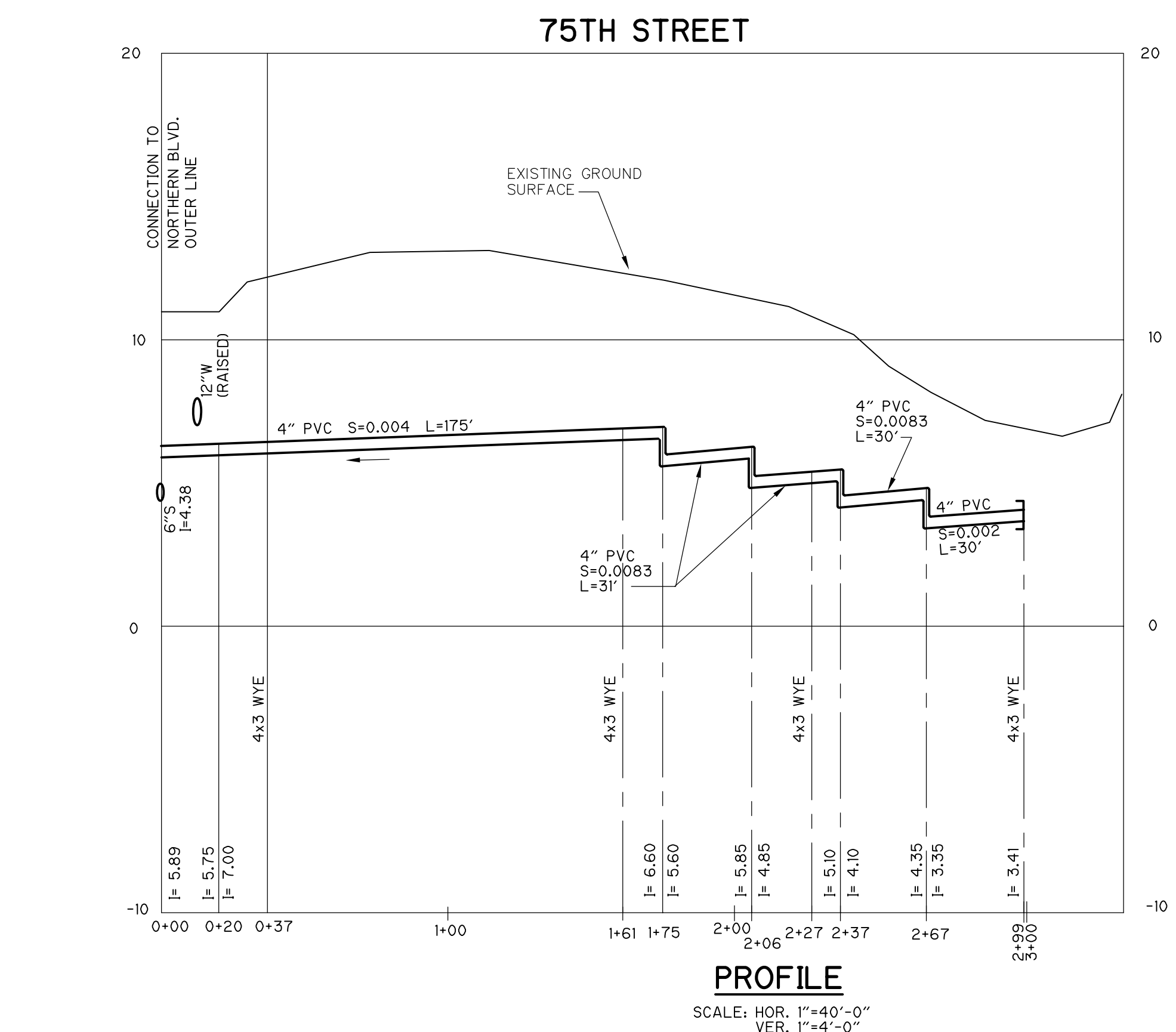
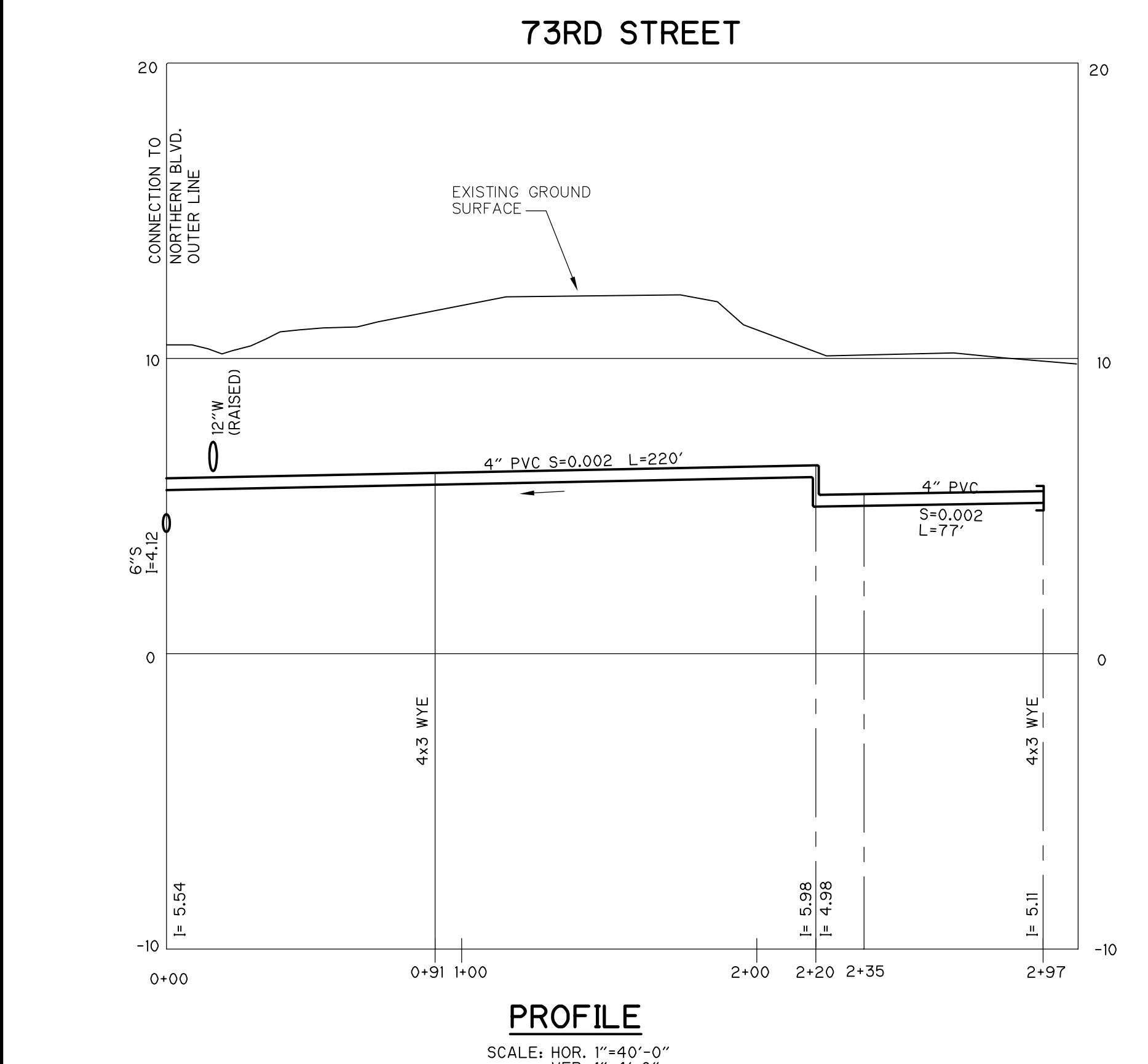
75TH ST.

RESERVATION TERRACE

RESERVATION TERR. (SOUTH SEWER) SEE SHEET NO. 59 FOR PLAN AND PROFILE

1" WATER SERVICE AS SPECIFIED (TYPICAL)

NOTES:  
1. ALL SEWER BRANCHES SHOWN ON THIS SHEET ARE TO BE 4" PVC AS SPECIFIED.



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

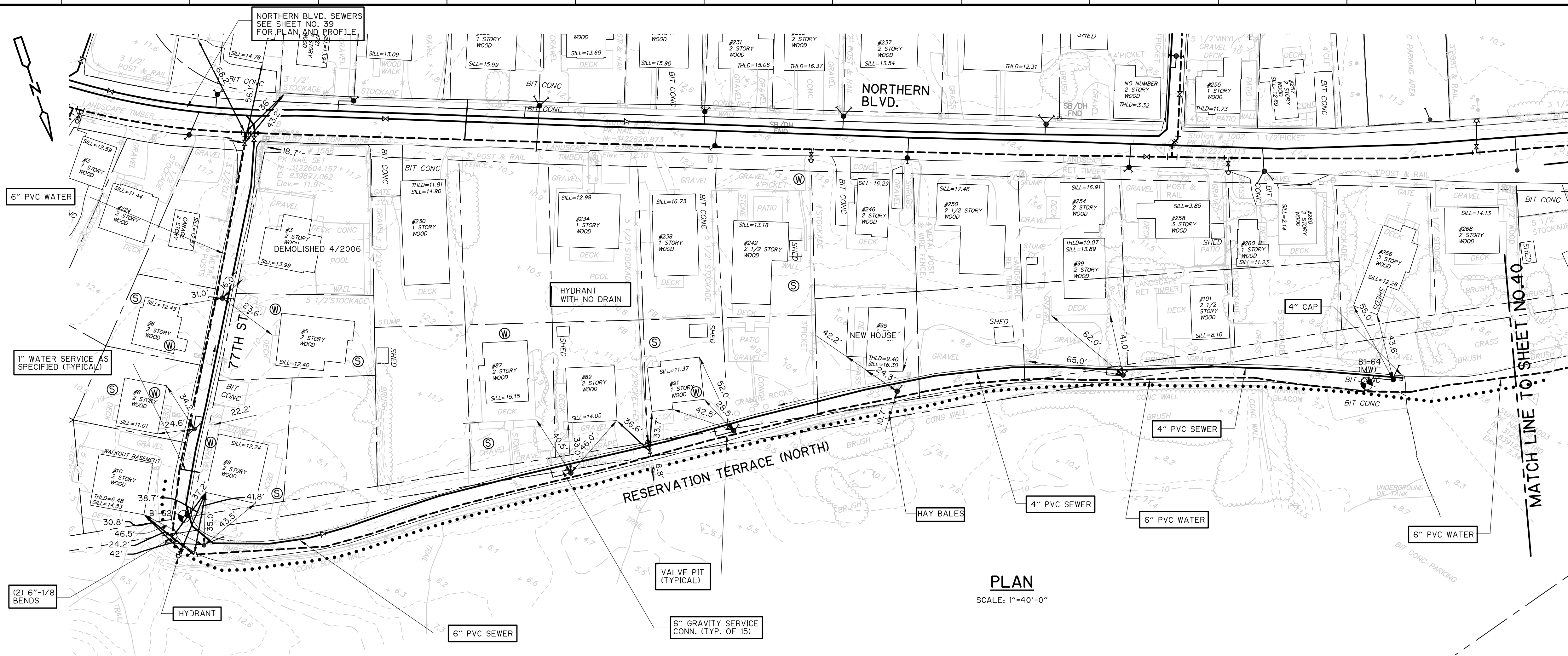
DESIGNED BY: M. MULLARKEY  
DRAWN BY: B. GUILFORD  
SHEET CHK'D BY: E. MARSTEINER  
CROSS CHK'D BY: RALPH SOUPPA  
APPROVED BY: PAUL ROSS  
DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
engineering  
construction  
operations

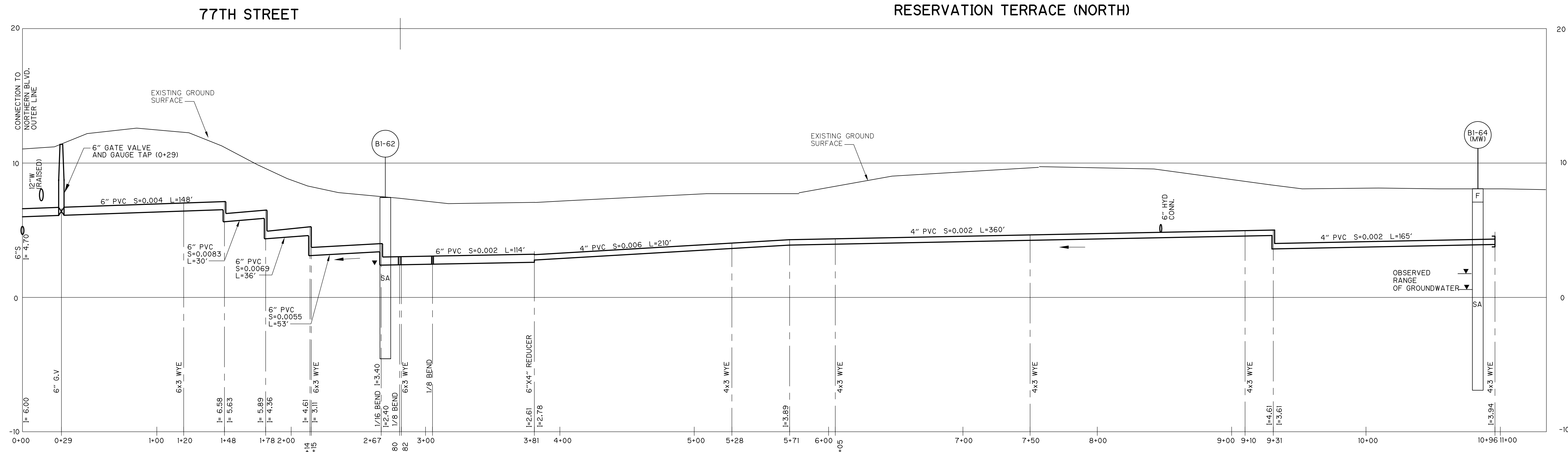
PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**71ST STREET  
73RD STREET  
75TH STREET**

PROJECT NO. CSTPL027  
FILE NAME: CSTPL027  
SHEET NO. 60

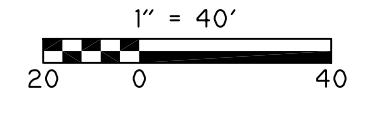


**PLAN**  
 SCALE: 1"=40'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

RECORD DRAWING



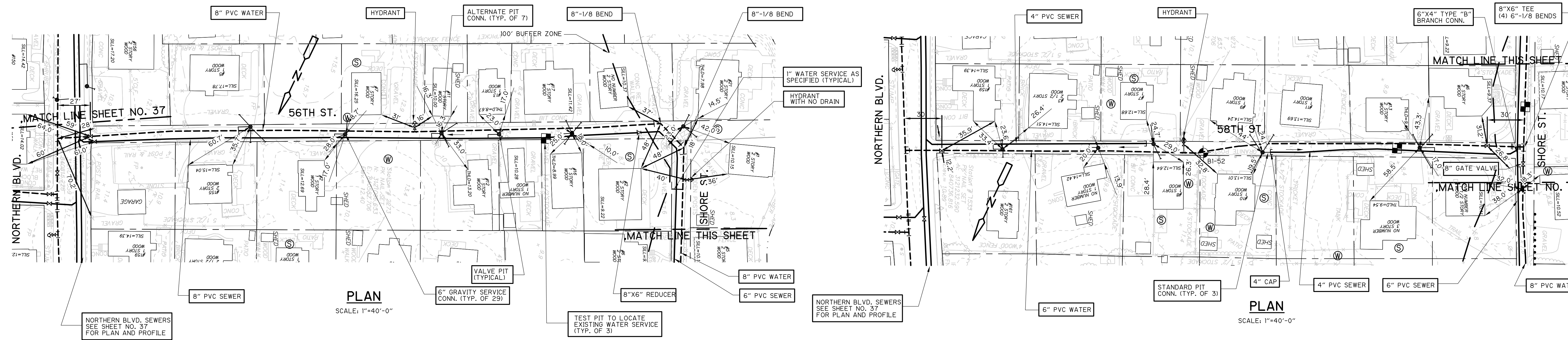
DESIGNED BY:	M. MULLARKEY
DRAWN BY:	B. GUILFORD
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting  
 engineering  
 construction  
 operation

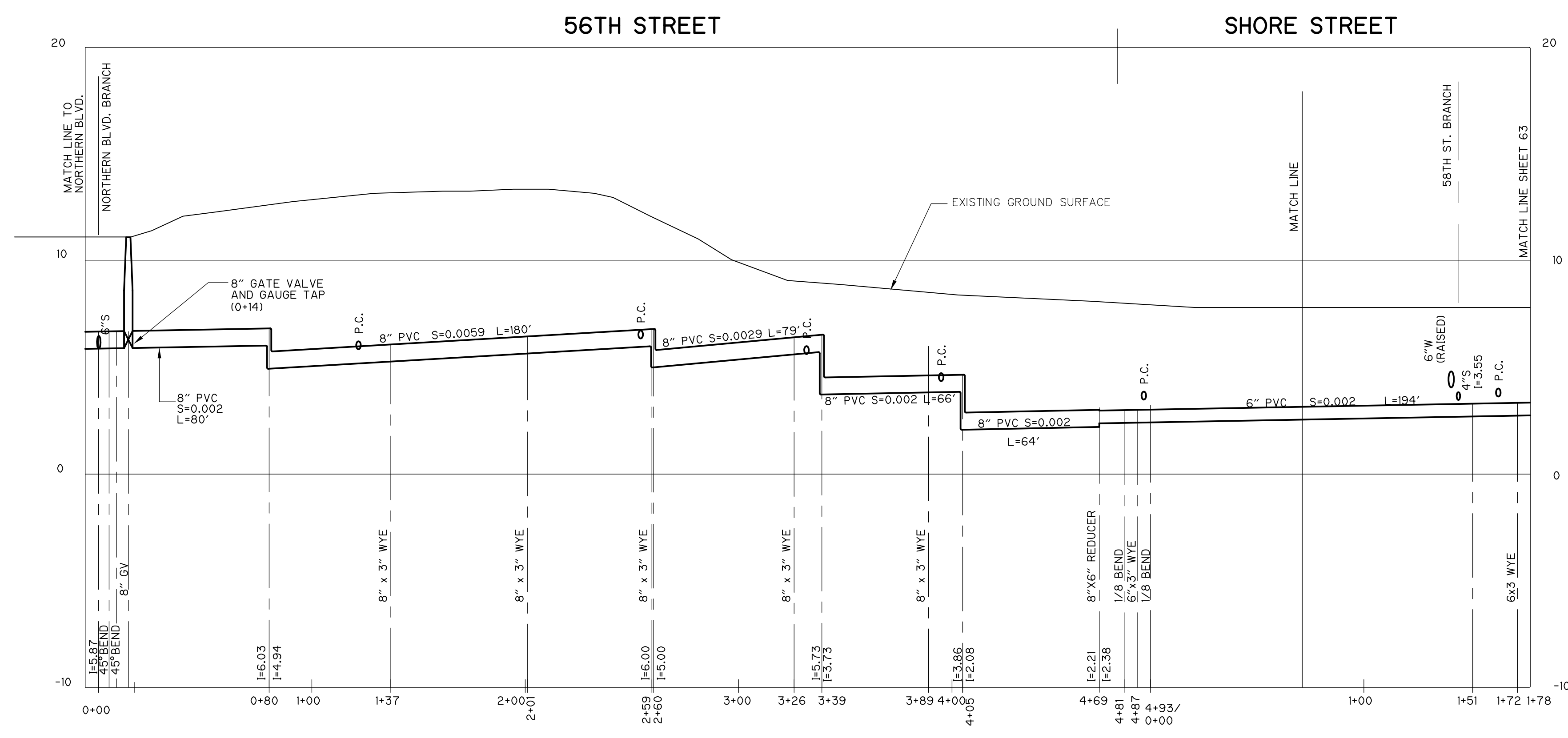
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**77TH STREET  
 RESERVATION TERRACE (NORTH)**

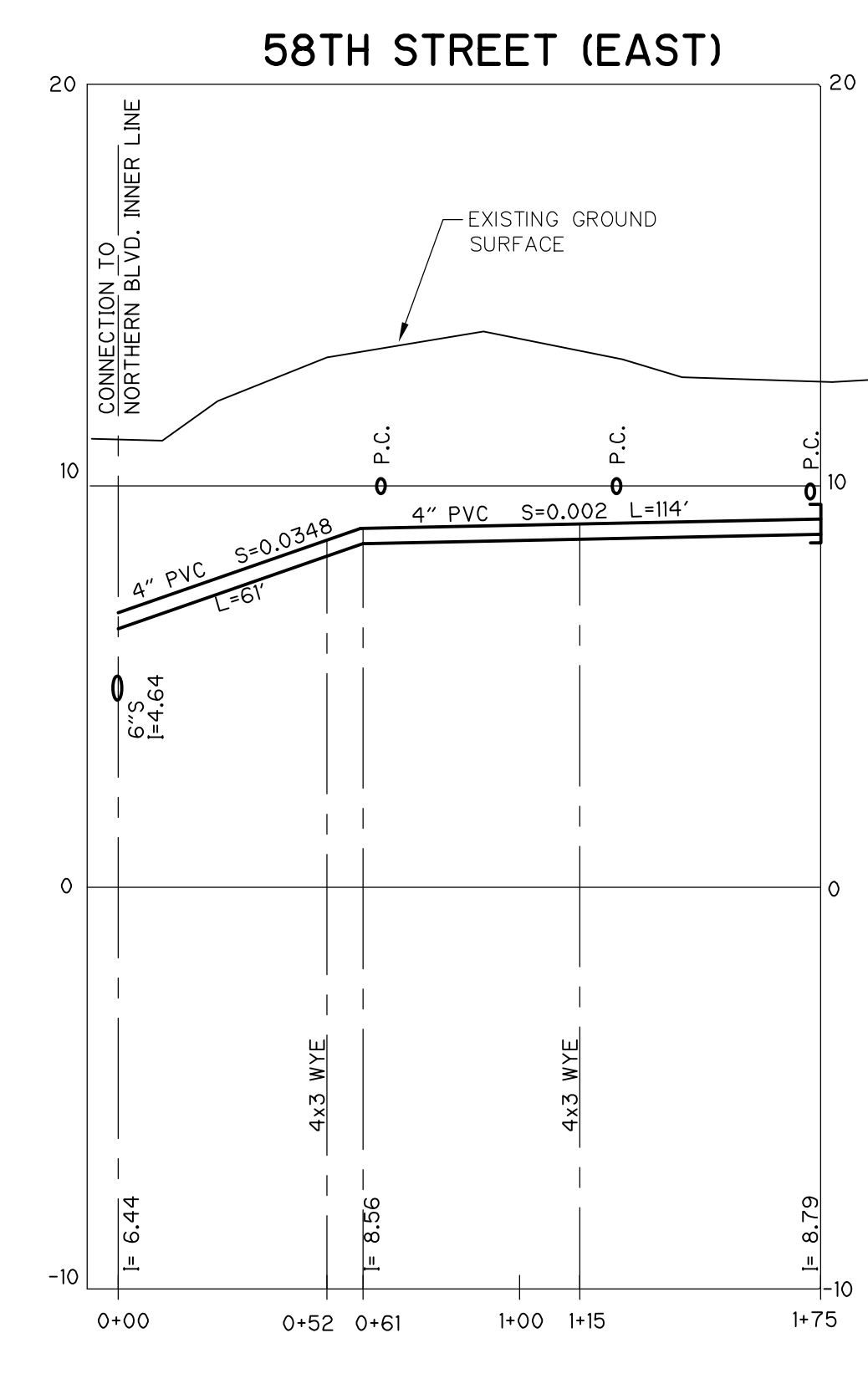
PROJECT NO.	CSTPL028
FILE NAME:	CSTPL028
SHEET NO.	61



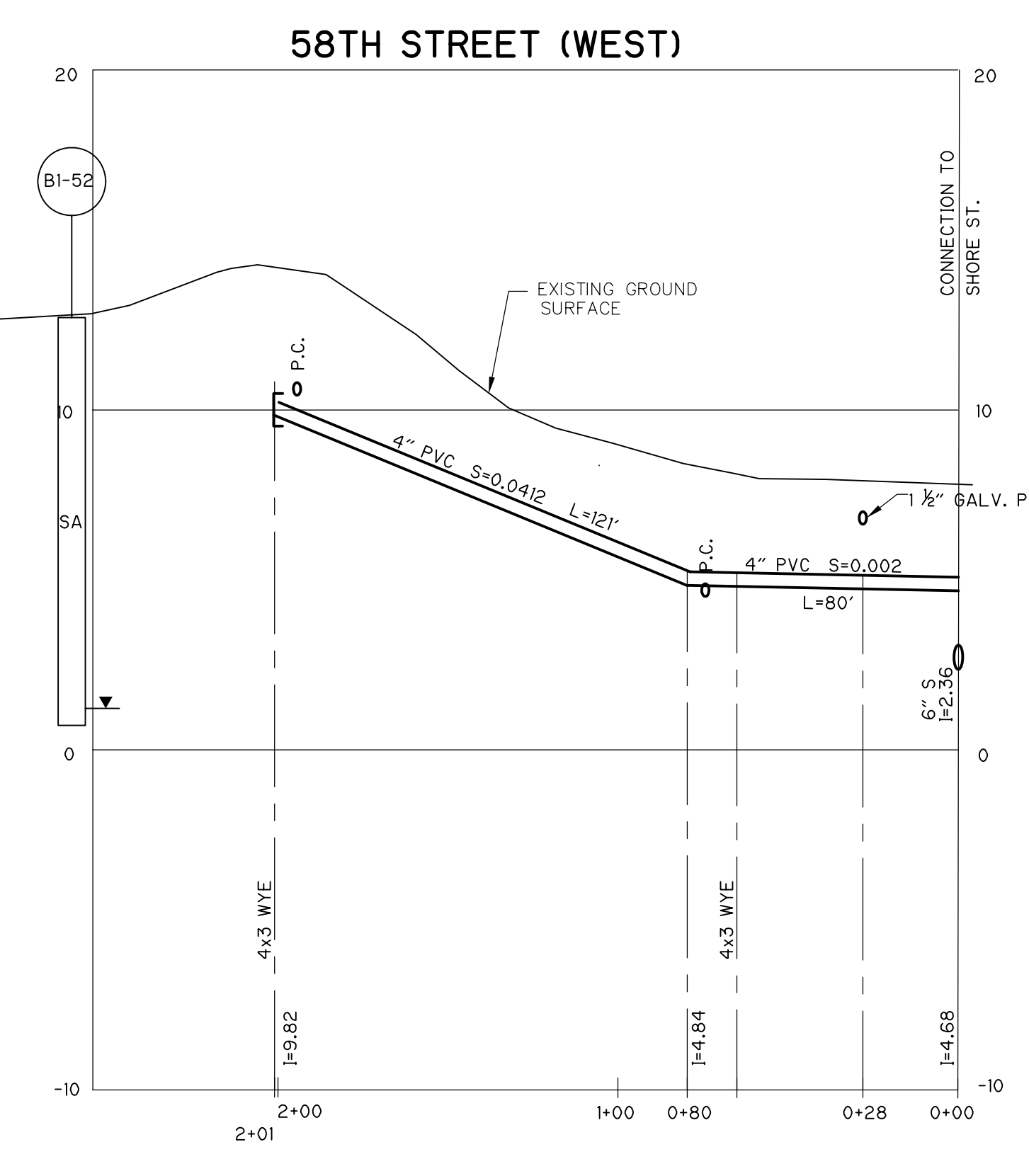
- NOTES:  
 1. WELL POINT DEWATERING SYSTEM REQUIRED ON 56TH STREET ON SHORE STREET FROM STA. 52+50 TO STA. 55+50.  
 2. PROVIDE TEMPORARY WATER SERVICE TO HOMES ON 56TH AND SHORE STREET FROM STA. 49+83 TO STA. 55+50 AND ON ALL OF 58TH STREET.



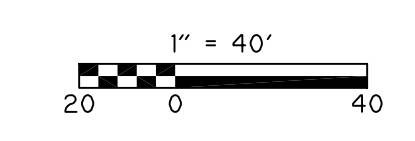
**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



RECORD DRAWING

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

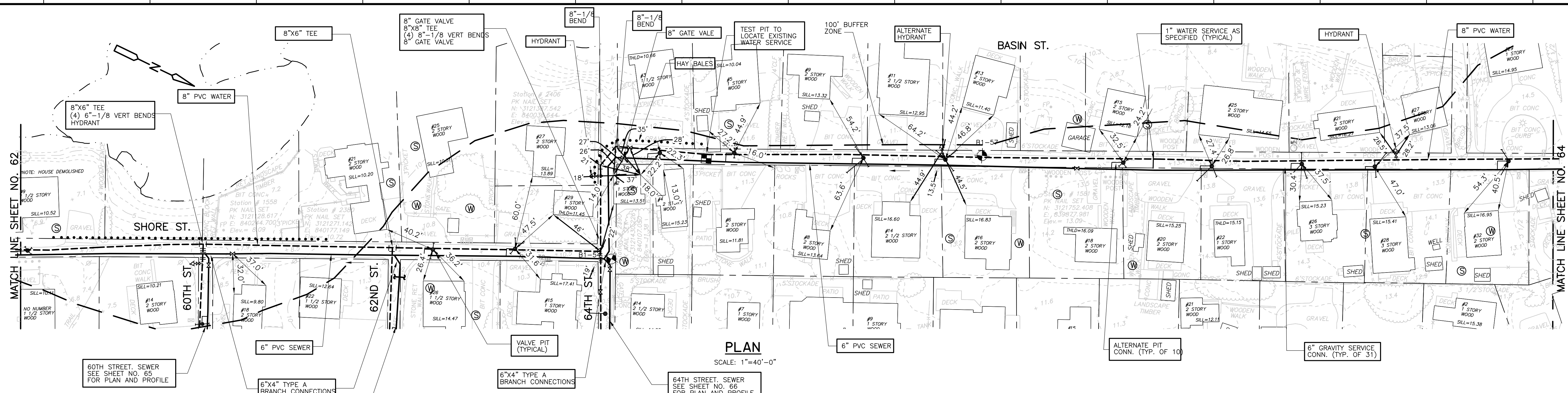
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
engineered  
construction  
operation

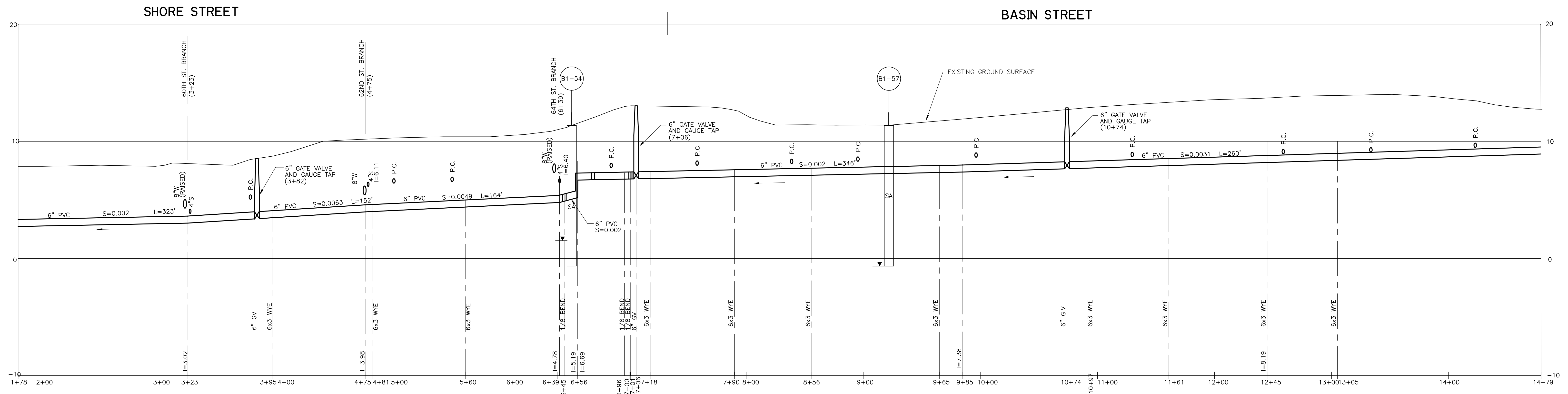
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**56TH STREET  
 SHORE STREET  
 58TH STREET**

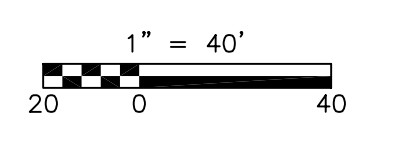
PROJECT NO. FILE NAME: CSTPL029
SHEET NO. <b>62</b>



PLAN  
 SCALE: 1"=40'-0"



PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"



RECORD DRAWING

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

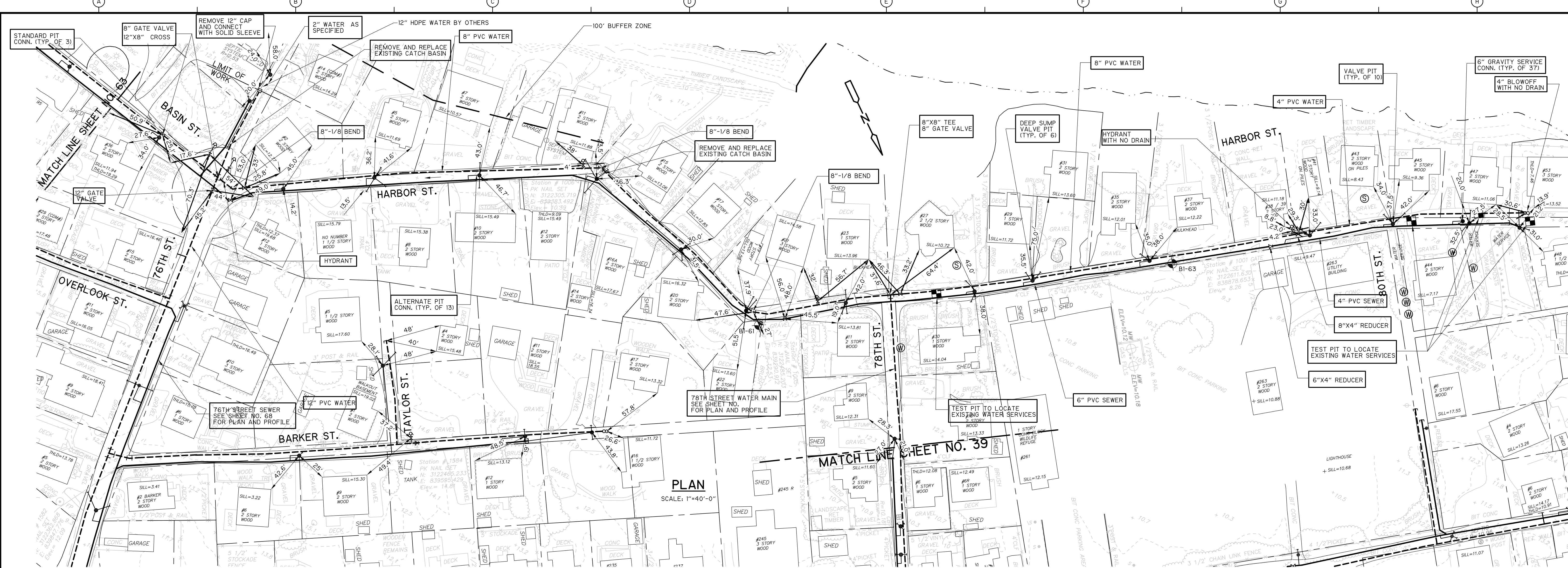
**CDM** Camp Dresser & McKee Inc.  
consulting  
 engineering  
 construction  
 operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

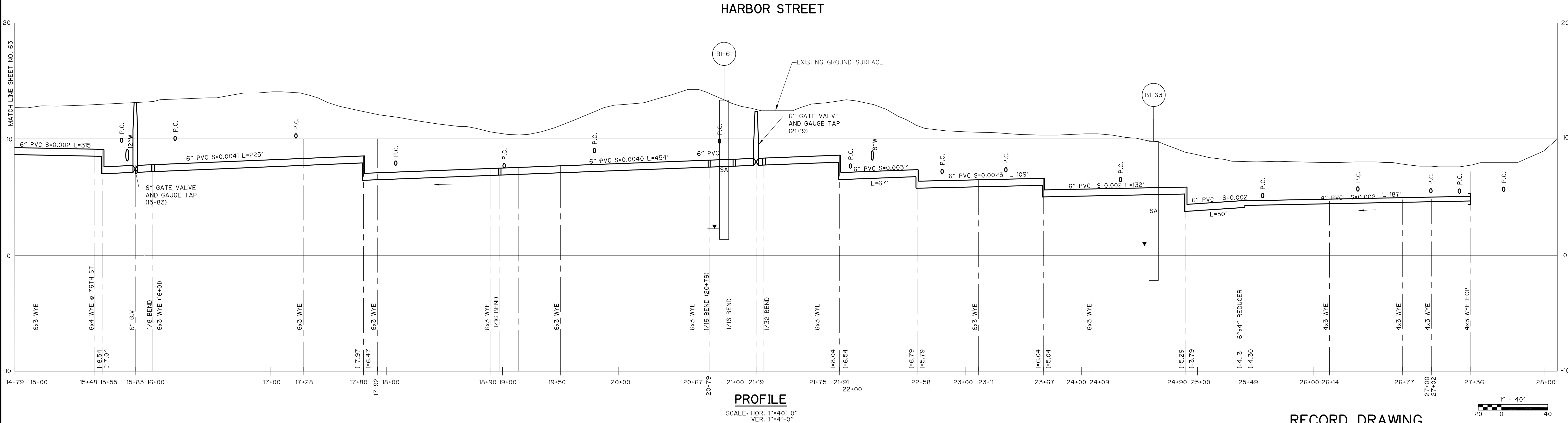
**SHORE STREET  
 64TH STREET  
 BASIN STREET**

PROJECT NO. FILE NAME:	CSTPL030
SHEET NO.	63

File name: P:\9451\30964\ASBUILT\CONT4\CIVL\CSTPL031.DWG Xref's: [c:\p000000\_cbsp0003\_] Plotted by: PETRUKHINTM Time: 11/13/2007 9:31:19 AM [NEWBURYPORT, MA - PRELIMINARY SEWER AND WATER MAIN DESIGN]

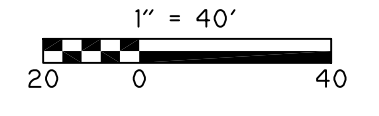


PLAN  
SCALE: 1"=40'-0"



PROFILE  
SCALE: HOR. 1"=40'-0"  
VER. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

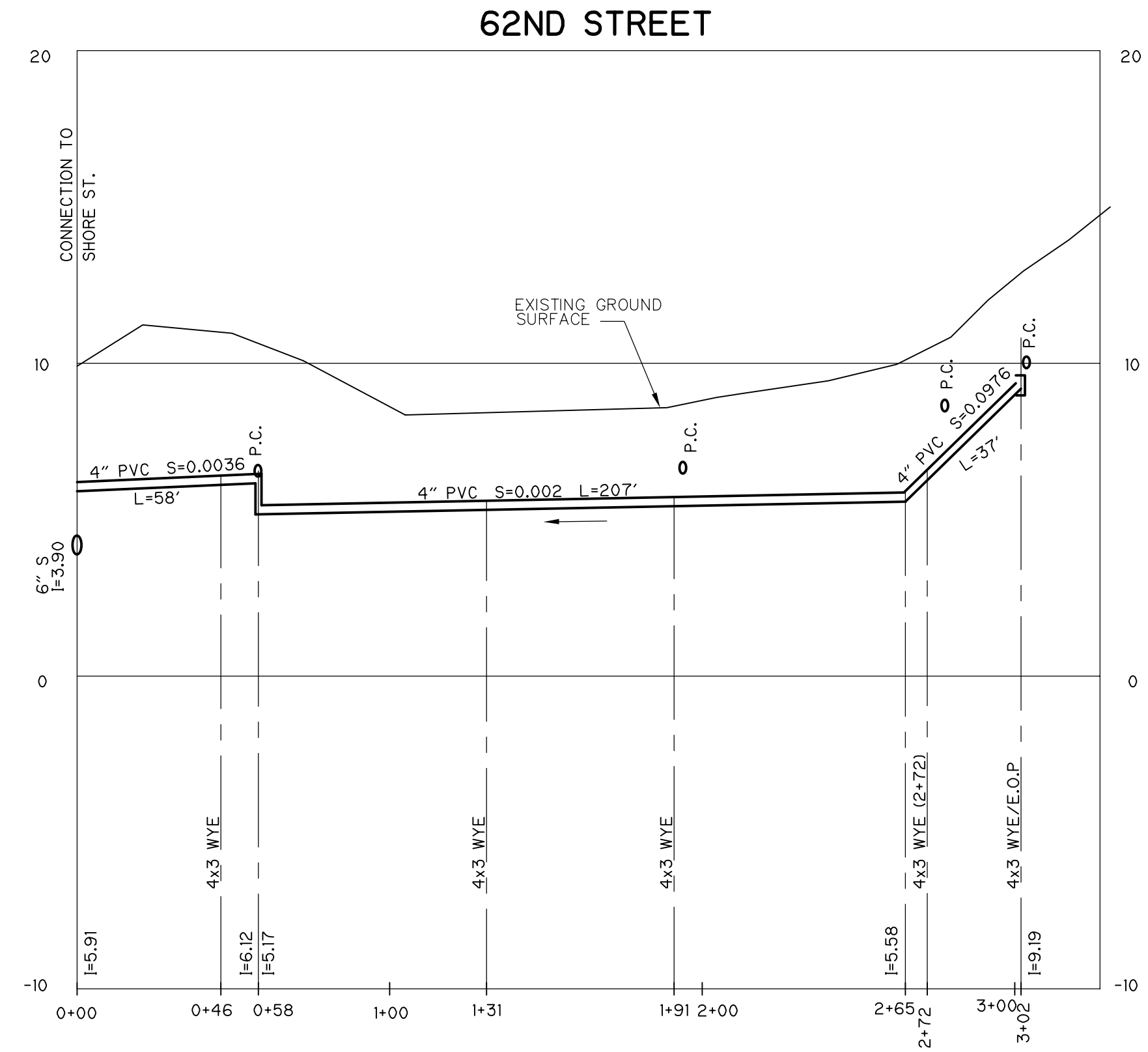
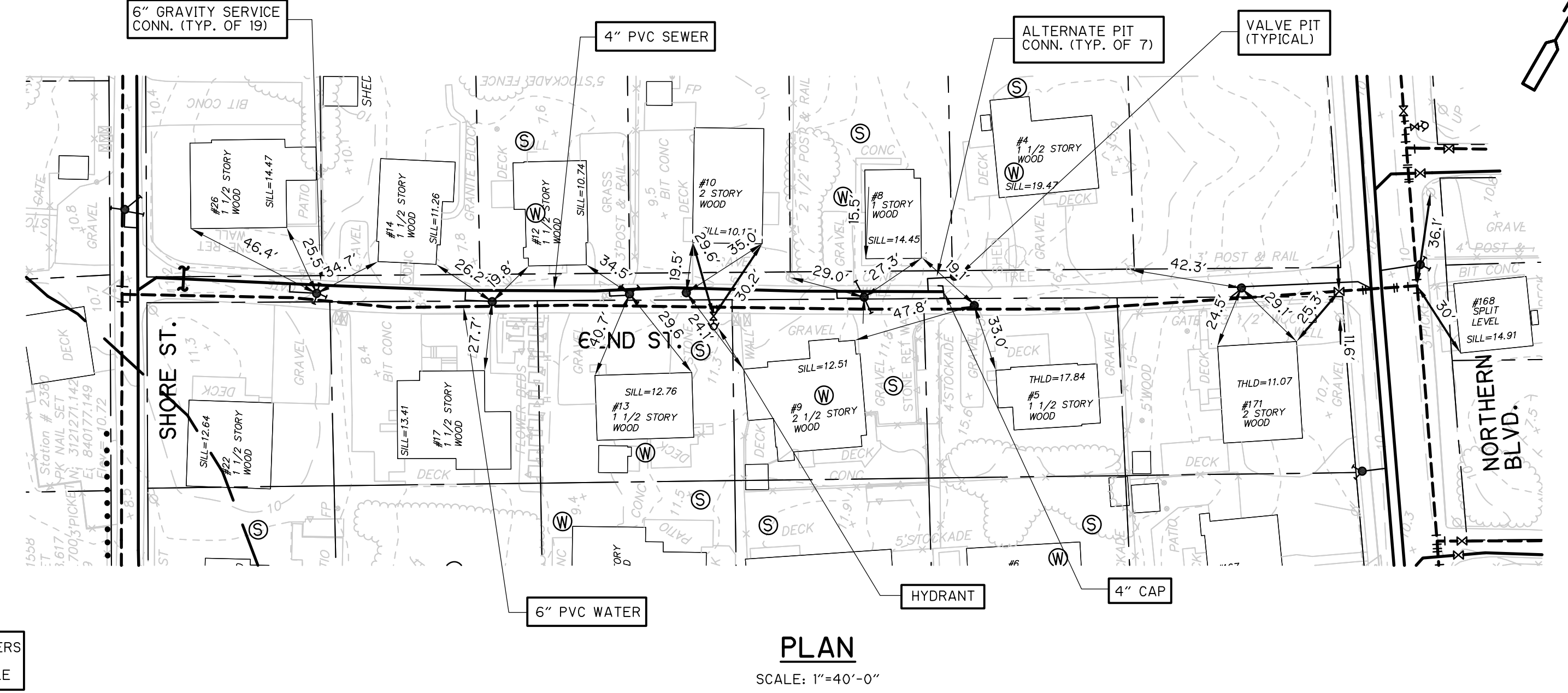
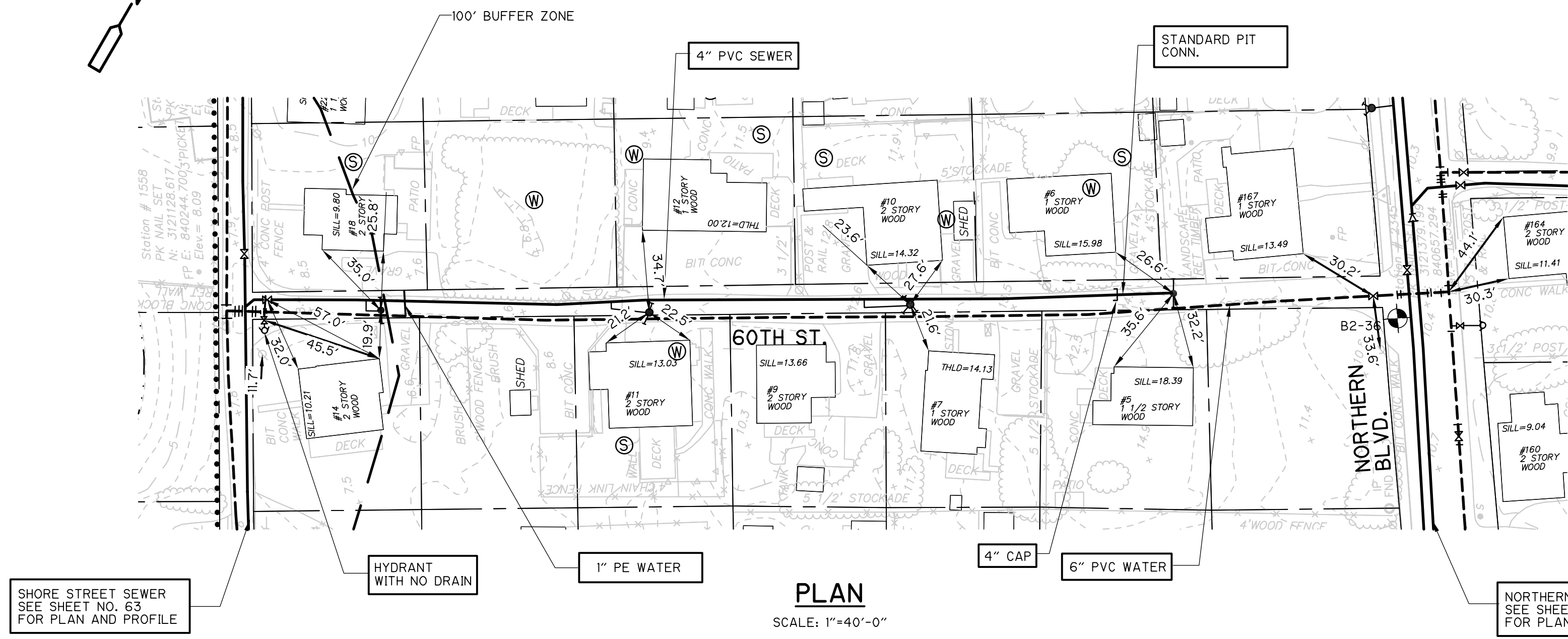
**CDM** Camp Dresser & McKee Inc.

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**BASIN STREET  
 HARBOR STREET**

PROJECT NO. FILE NAME:	CSTPL031
SHEET NO.	64

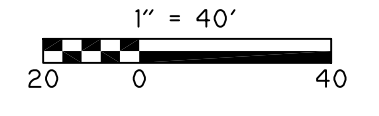




**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

**PROFILE**  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

RECORD DRAWING



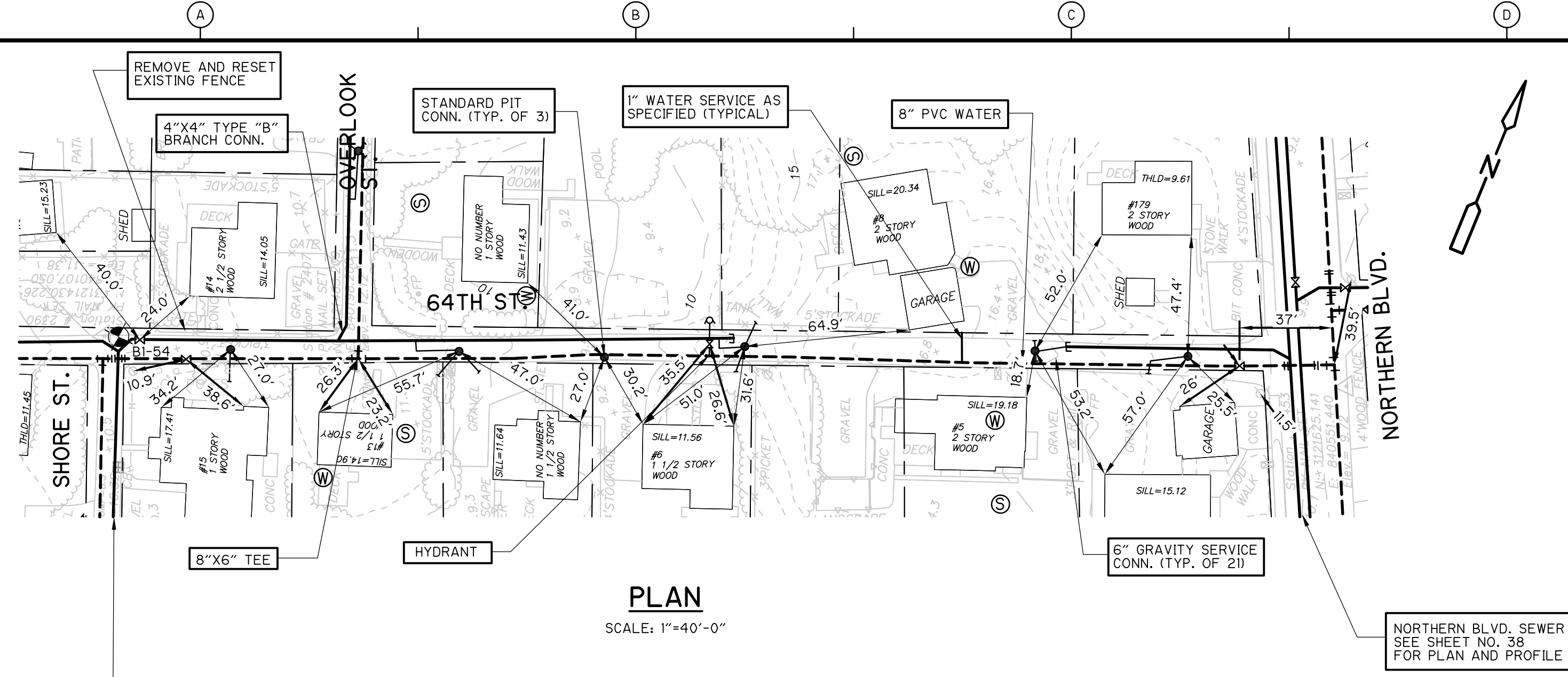
DESIGNED BY:	M. MULLARKEY
DRAWN BY:	B. GUILFORD
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting  
 engineering  
 construction  
 operations

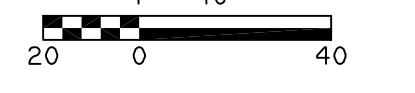
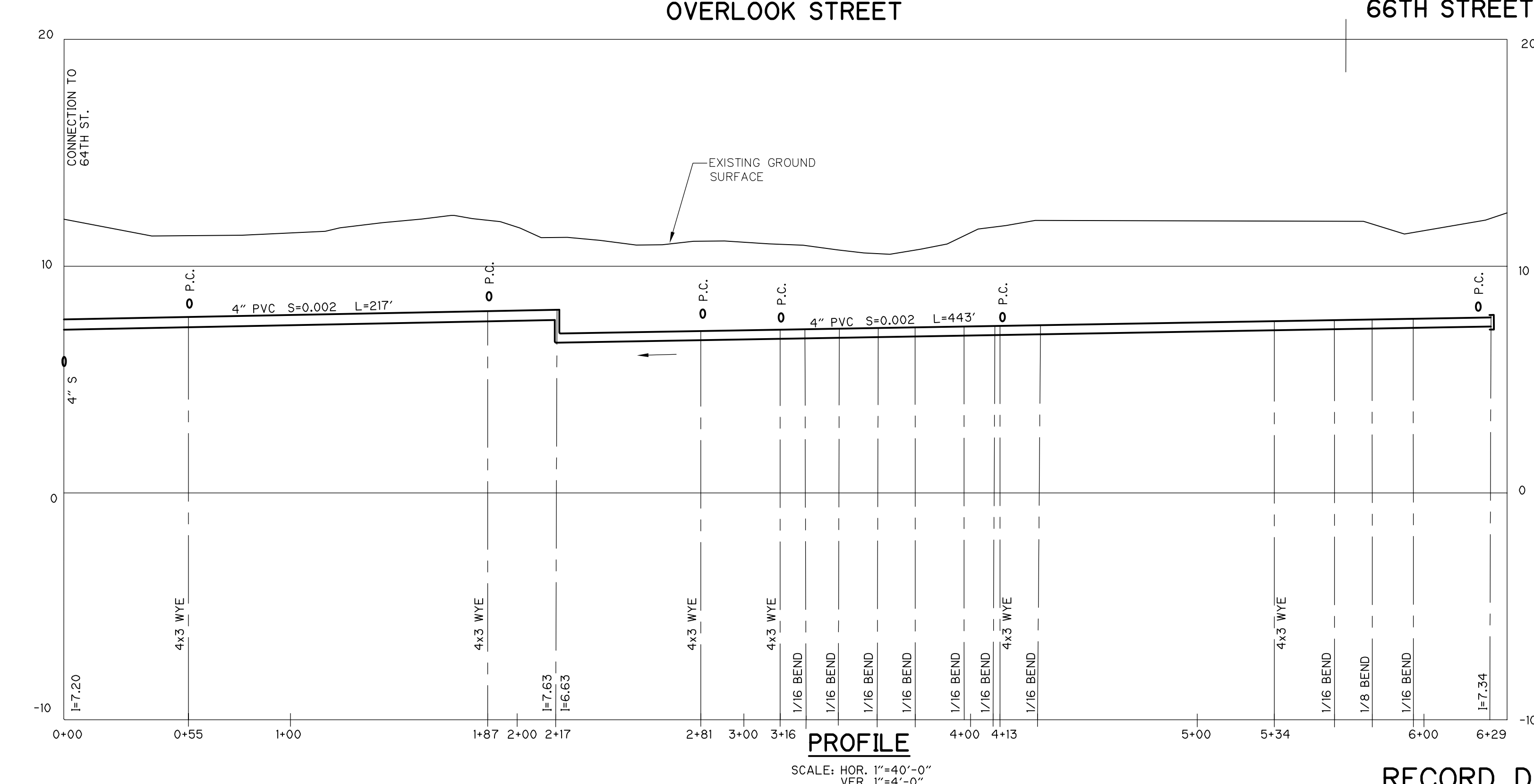
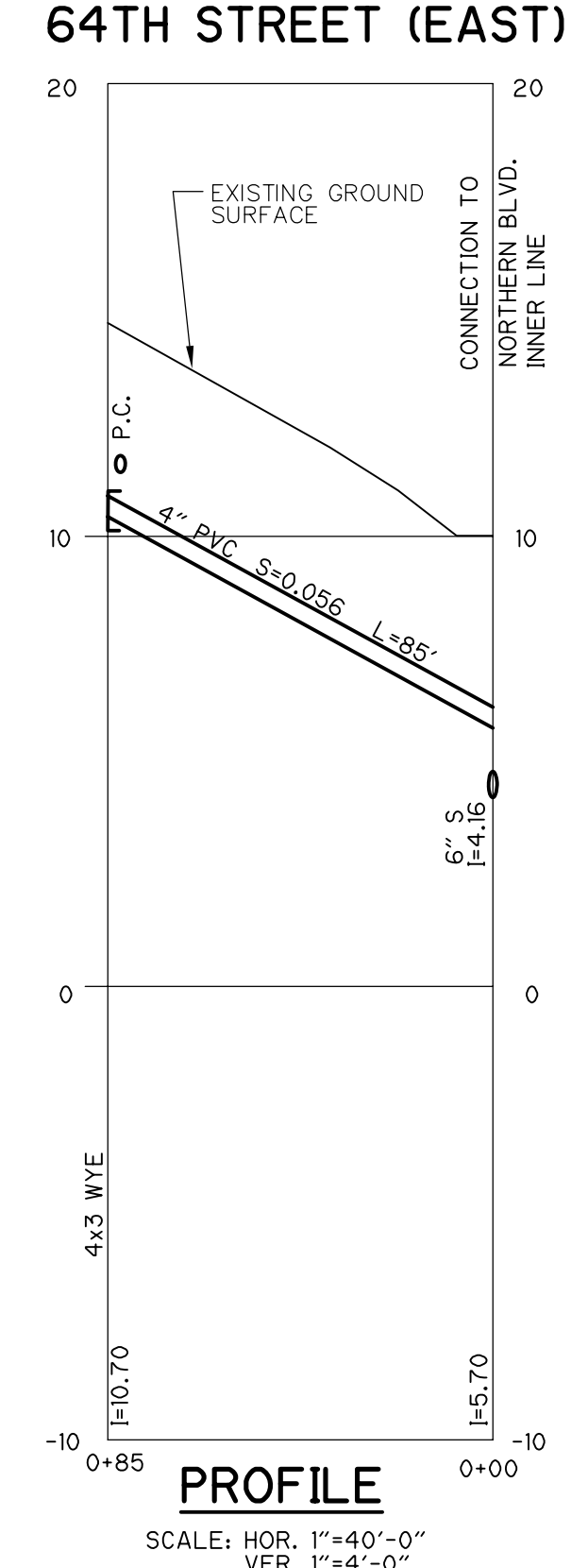
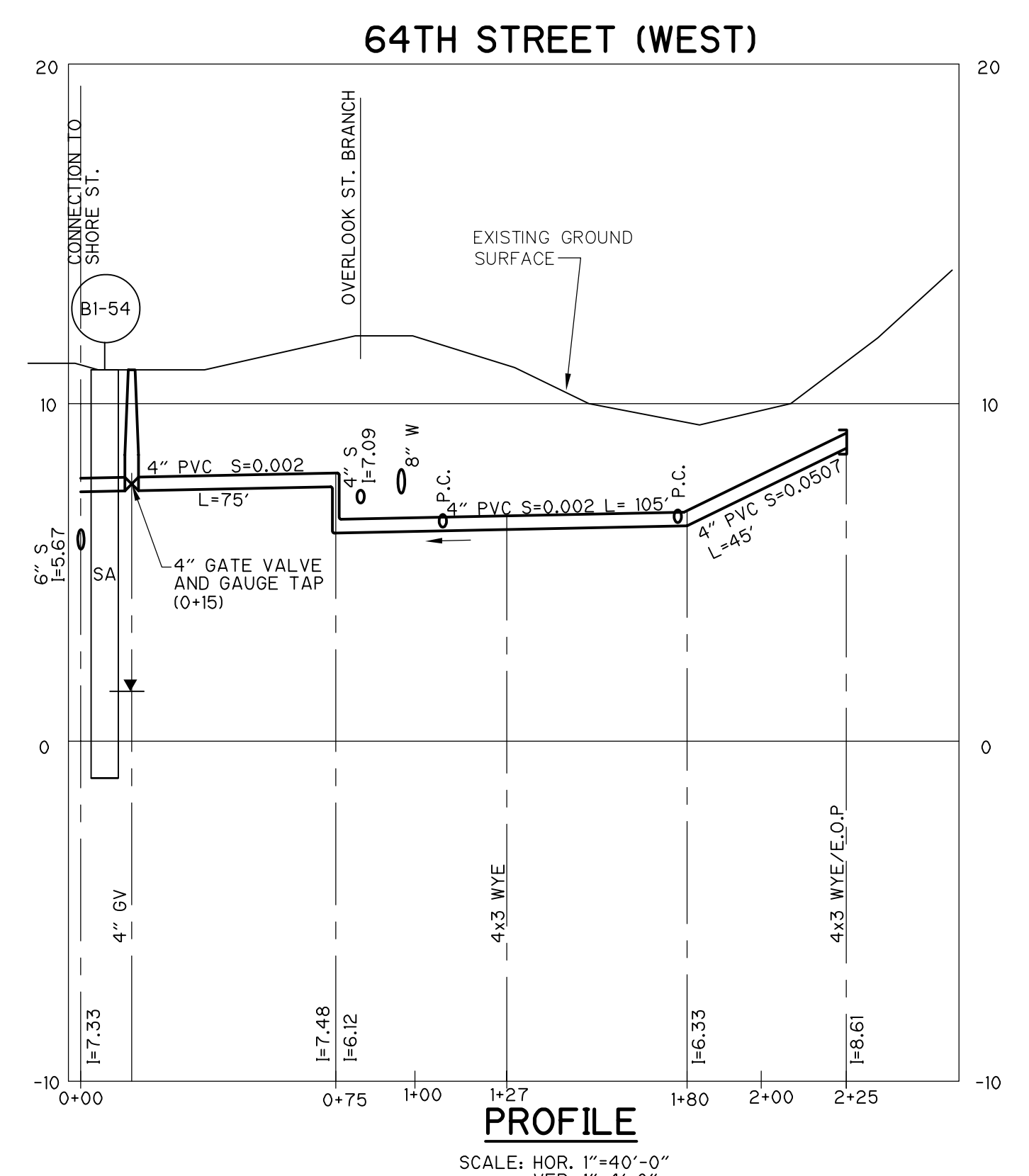
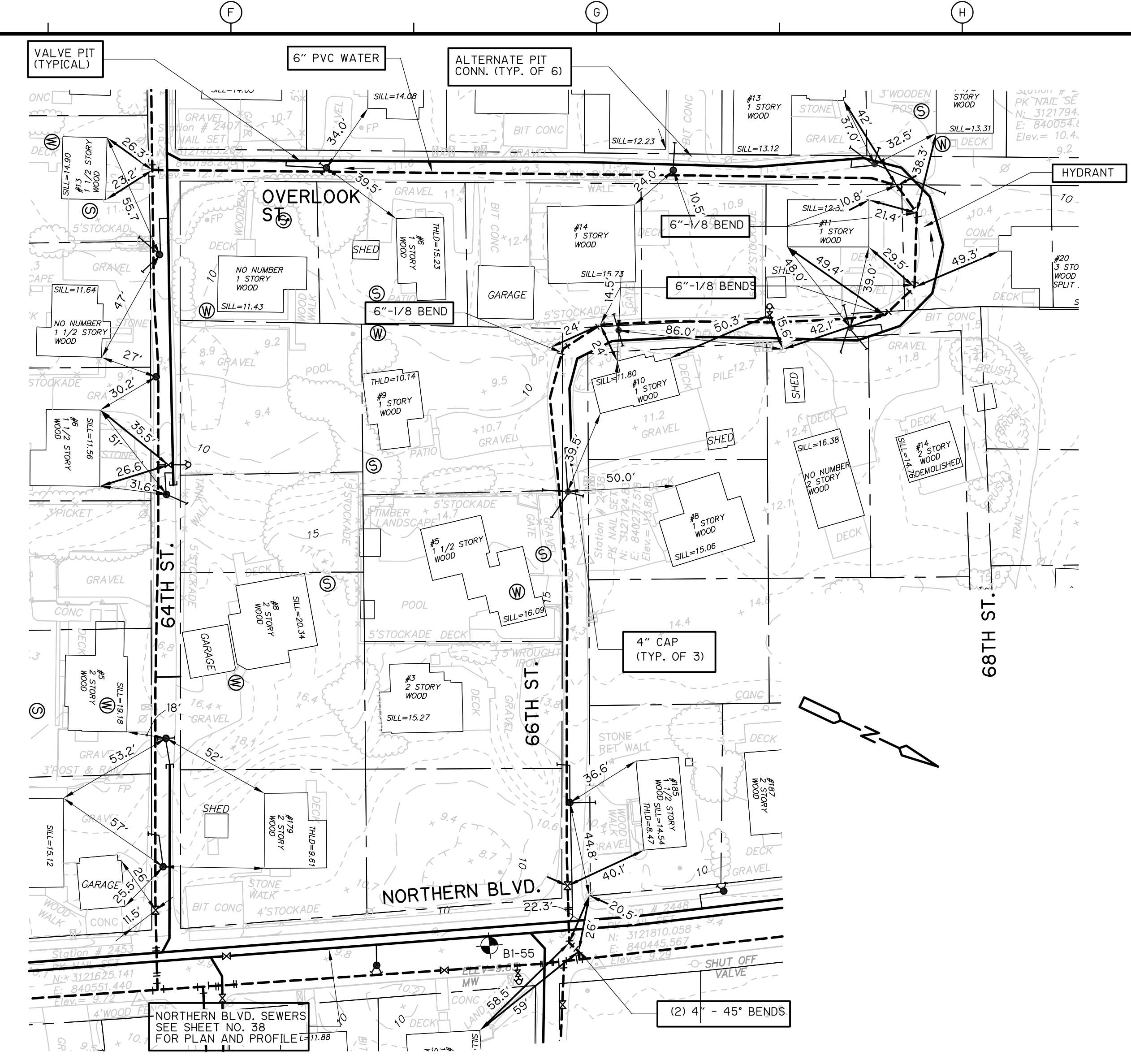
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

60TH STREET  
 62ND STREET  
 SHEET NO.  
**65**

PROJECT NO.	CSTPL032
FILE NAME:	CSTPL032
SHEET NO.	65



**NOTES:**  
1. ALL SEWER BRANCHES SHOWN ON THIS SHEET SHALL BE 4" PVC AS SPECIFIED.



DESIGNED BY:	M. MULLARKEY
DRAWN BY:	B. GUILFORD
SHEET CHK'D BY:	E. MARSTEINER
CROSS CHK'D BY:	RALPH SOUPPA
APPROVED BY:	PAUL ROSS
DATE:	OCTOBER 2001

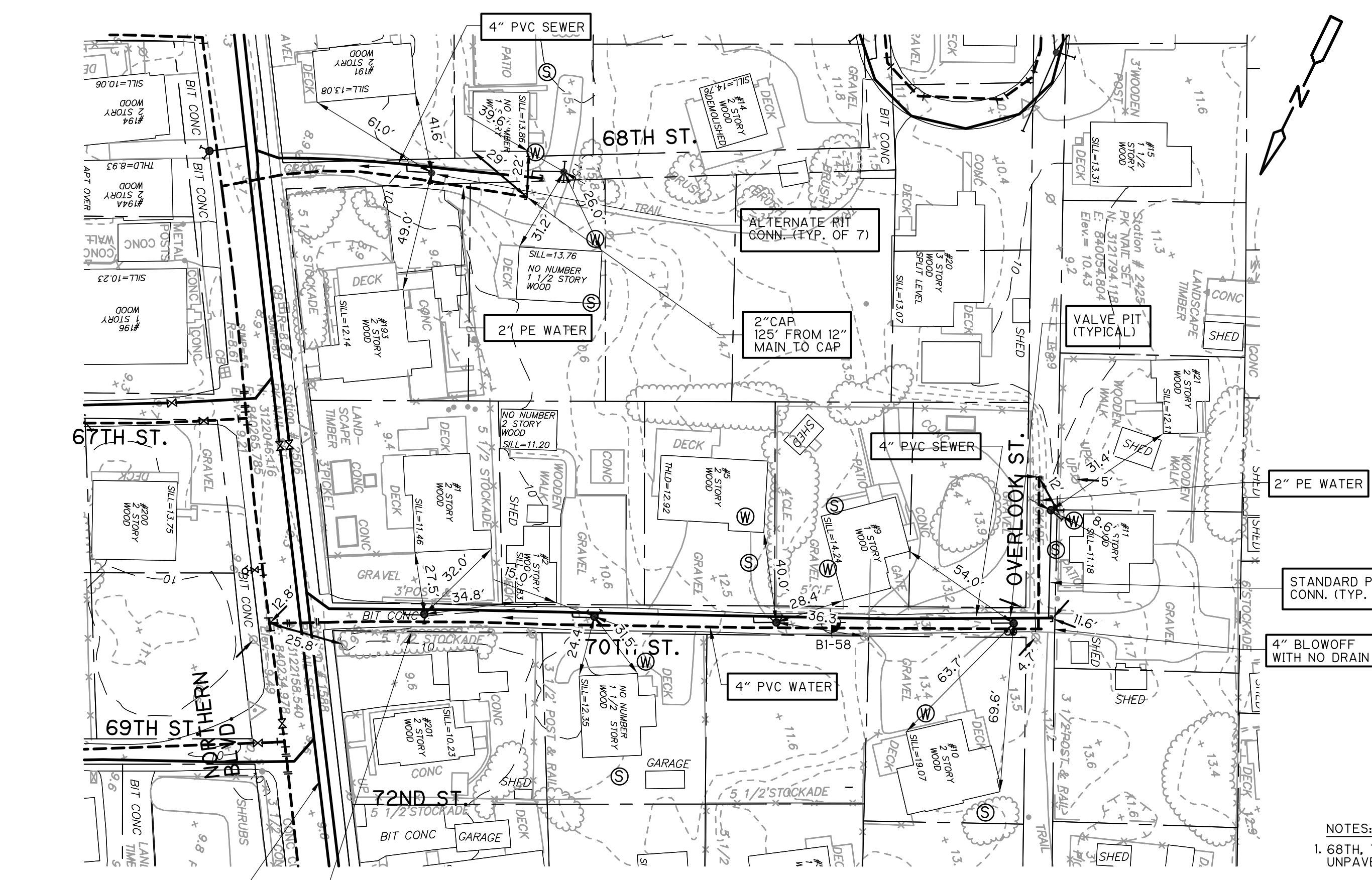
**CDM** Camp Dresser & McKee Inc.

PLUM ISLAND UTILITY SERVICES  
CONTRACT NO. 2

**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

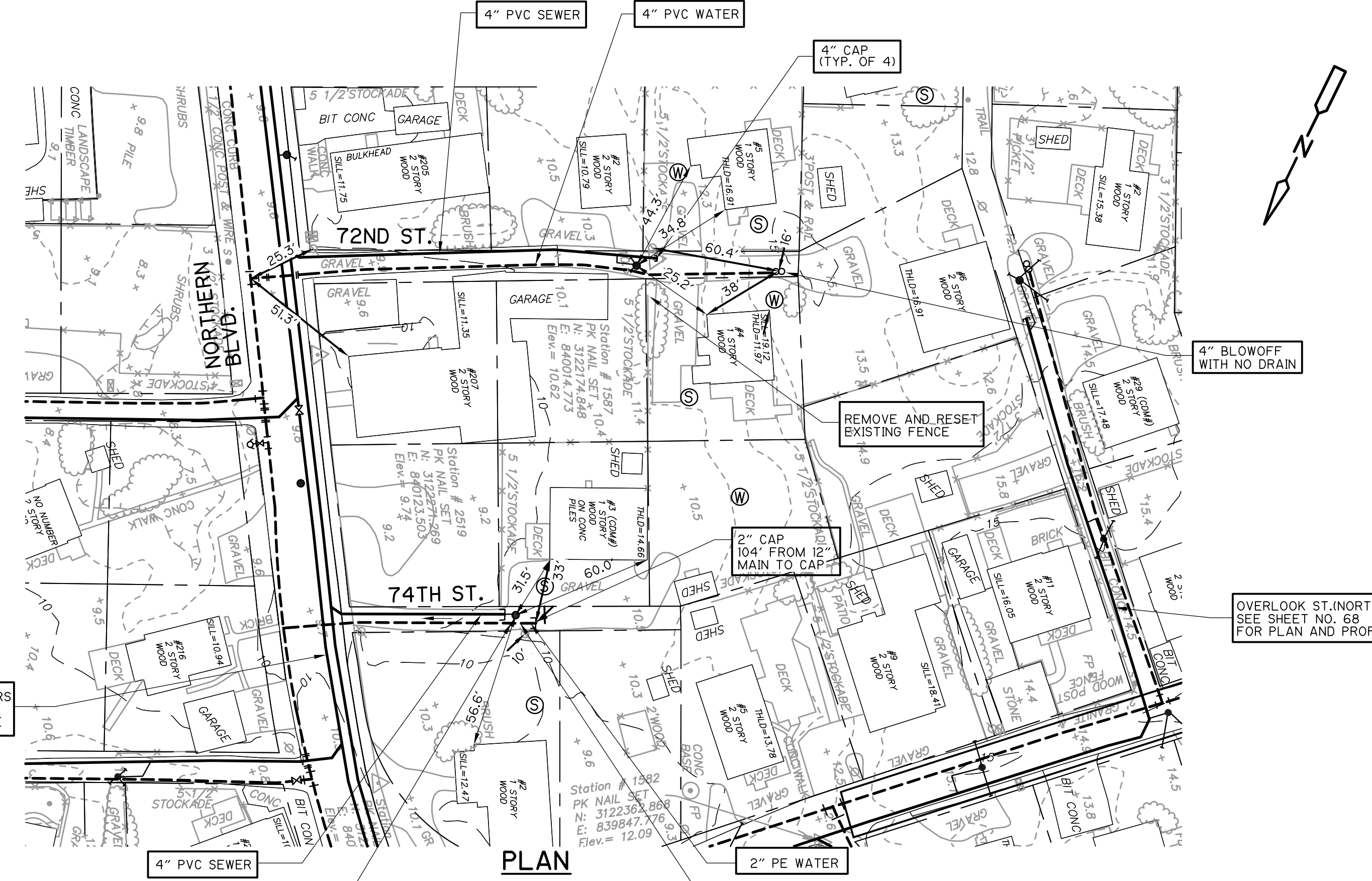
**64TH STREET  
OVERLOOK STREET  
66TH STREET**

PROJECT NO.	FILE NAME:	SHEET NO.
	CASTPL033	66



PLAN  
 SCALE: 1"=40'-0"

NOTES:  
 1. 68TH, 72ND AND 74TH STREETS ARE UNPAVED ROADS THAT SHALL BE PAVED.



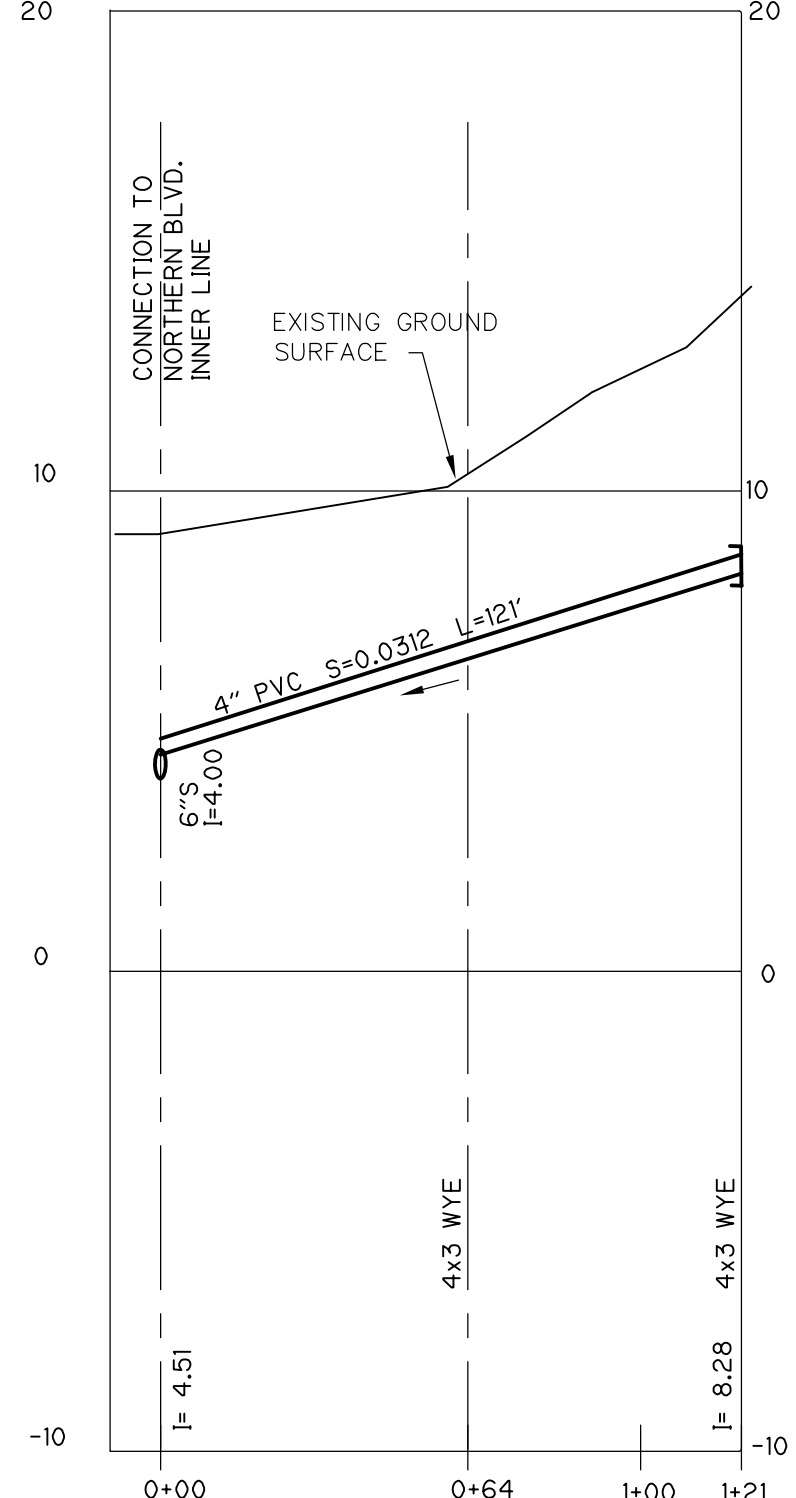
PLAN  
 SCALE: 1"=40'-0"

NORTHERN BLVD. SEWERS SEE SHEET NO. 36 FOR PLAN AND PROFILE  
 REMOVE AND RESET EXISTING FENCE

NORTHERN BLVD. SEWERS SEE SHEET NO. 38 FOR PLAN AND PROFILE

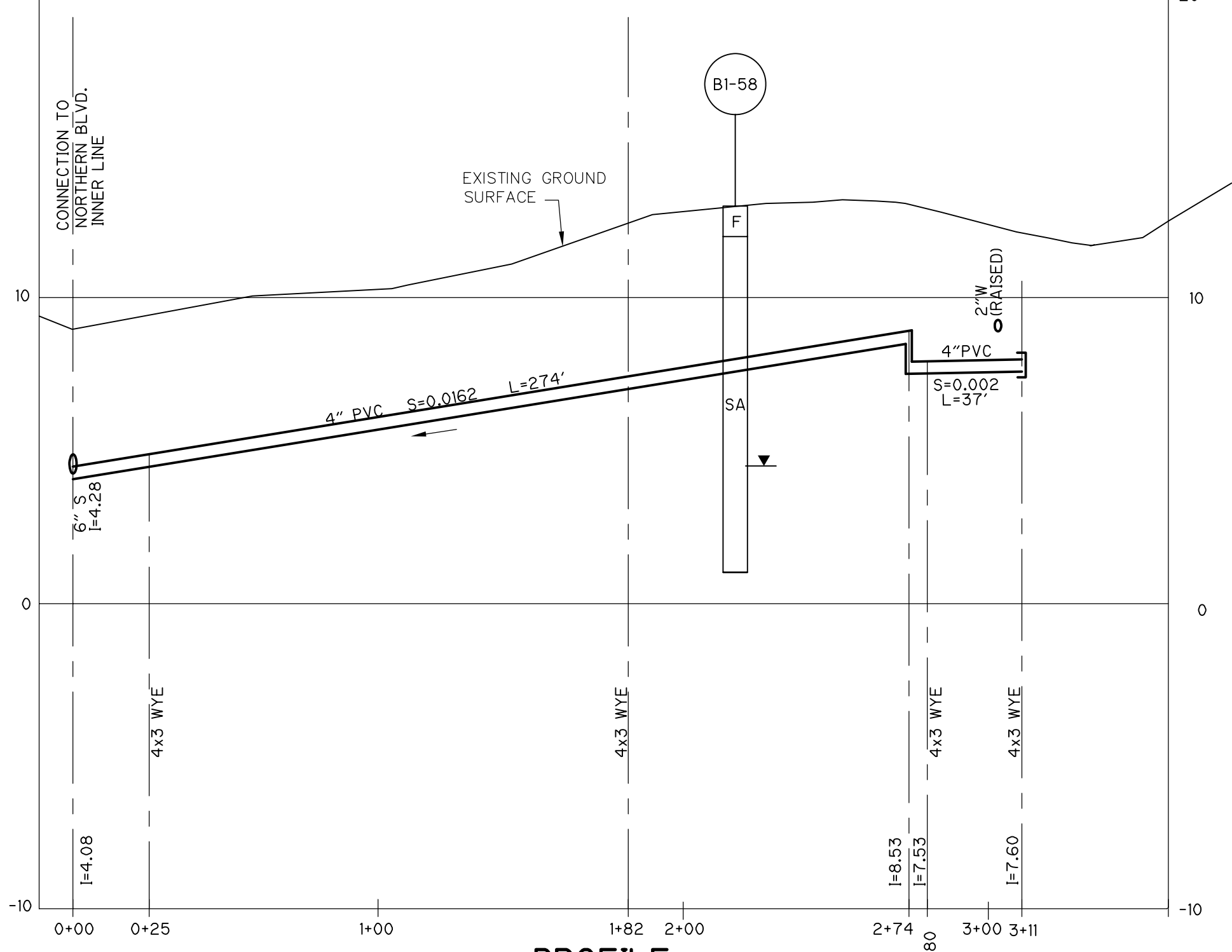
OVERLOOK ST. (NORTH) SEWER. SEE SHEET NO. 68 FOR PLAN AND PROFILE

68TH STREET



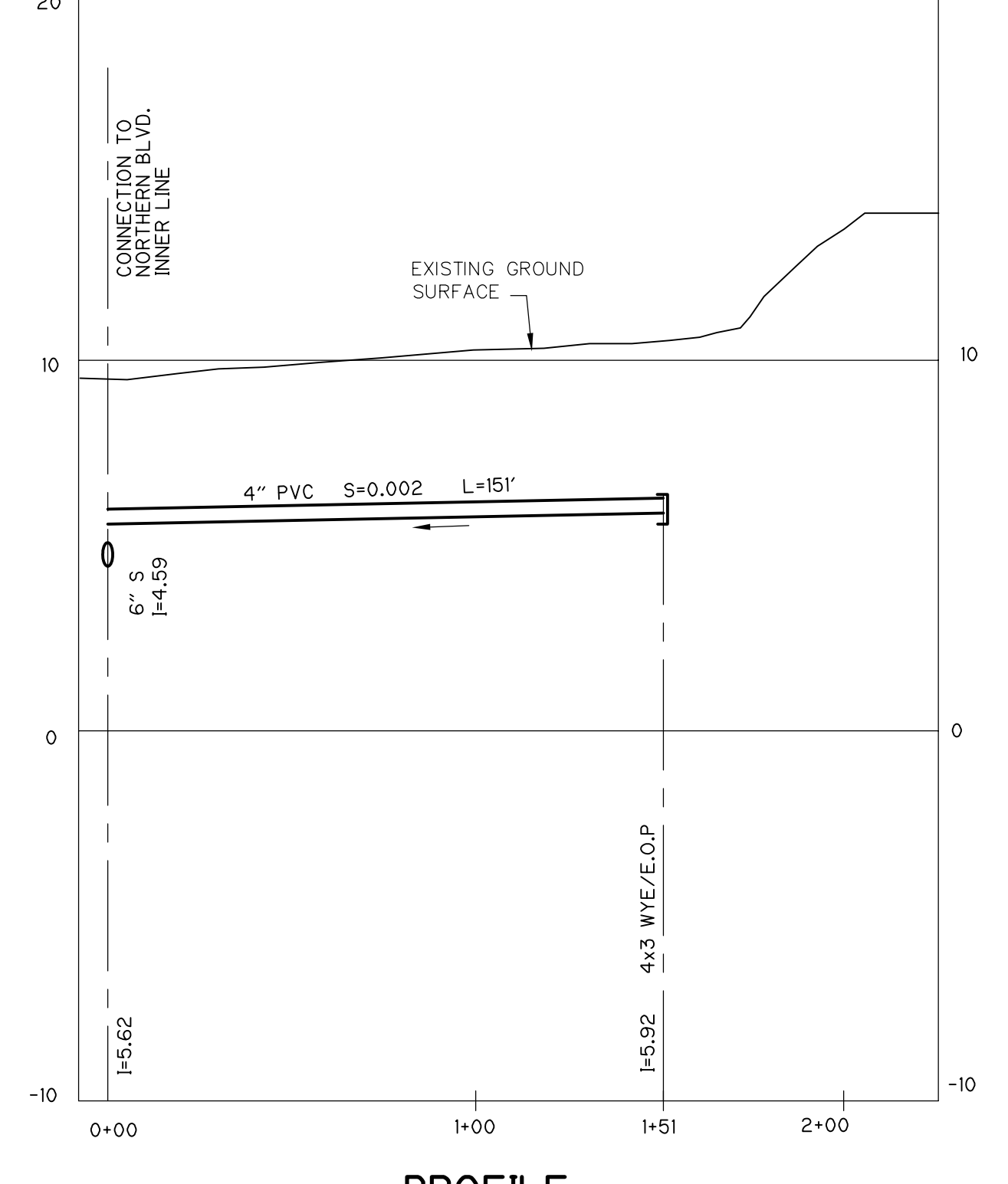
PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

70TH STREET



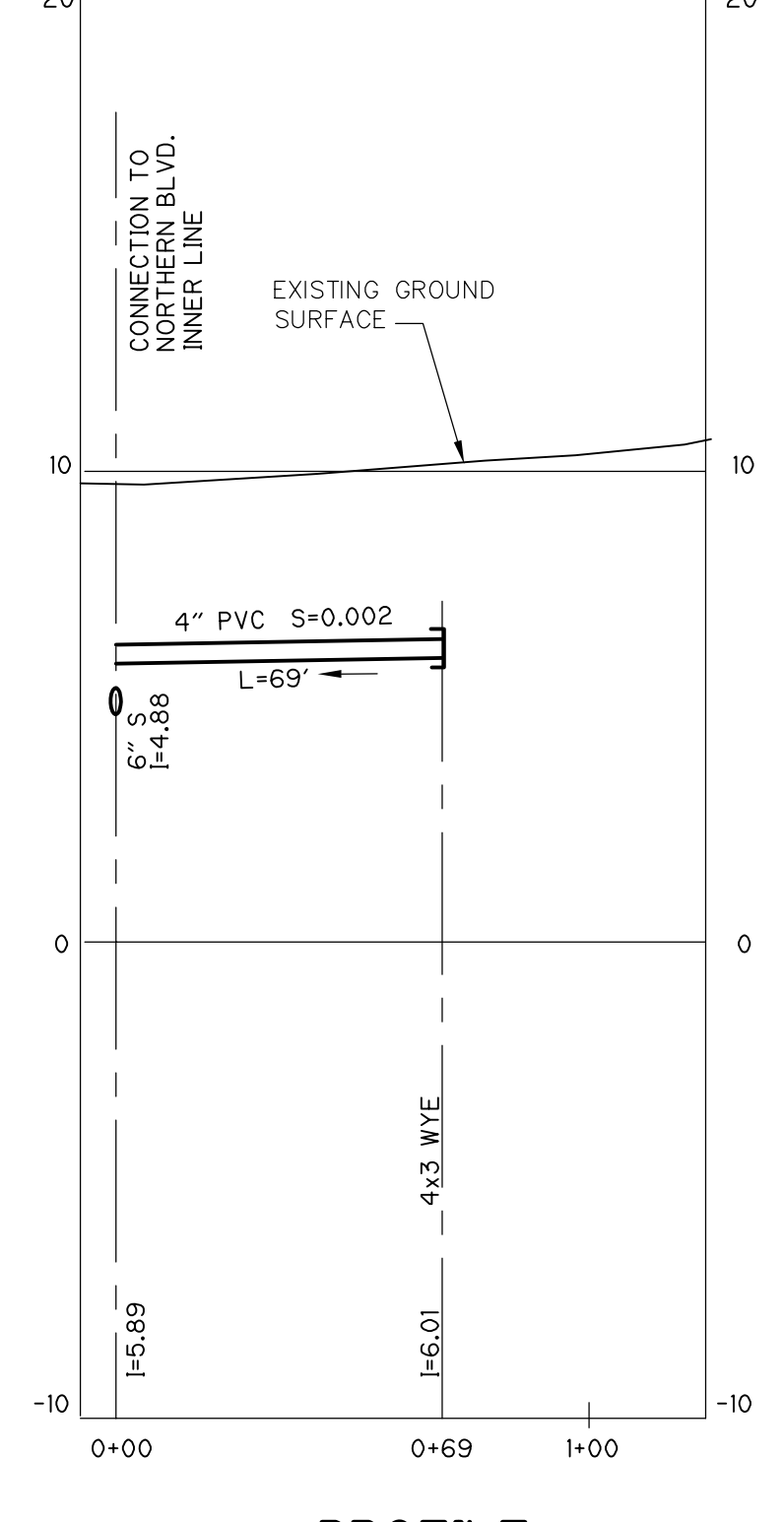
PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

72ND STREET



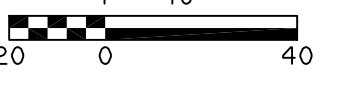
PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

74TH STREET



PROFILE  
 SCALE: HOR. 1"=40'-0"  
 VER. 1"=4'-0"

RECORD DRAWING



REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

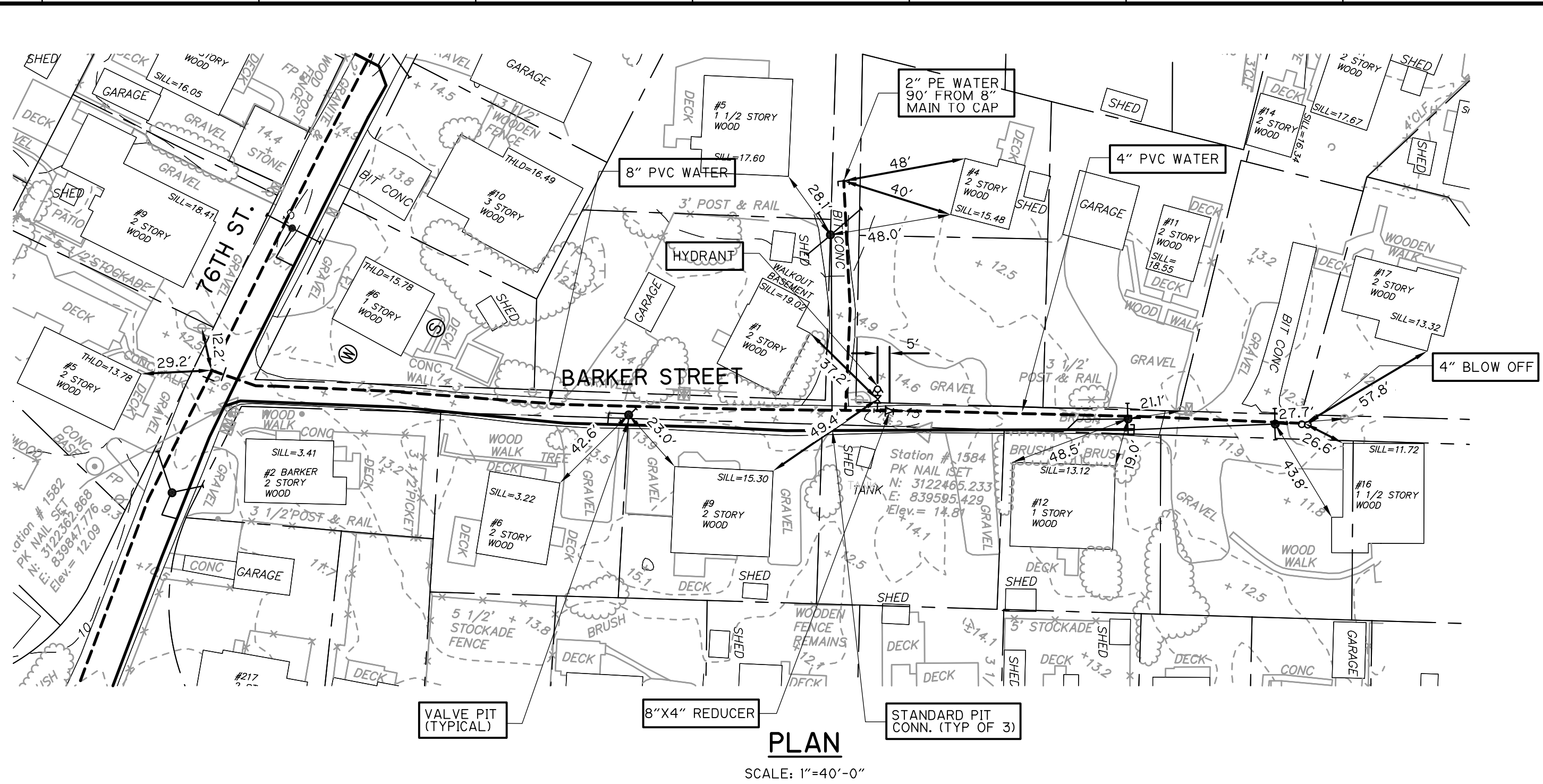
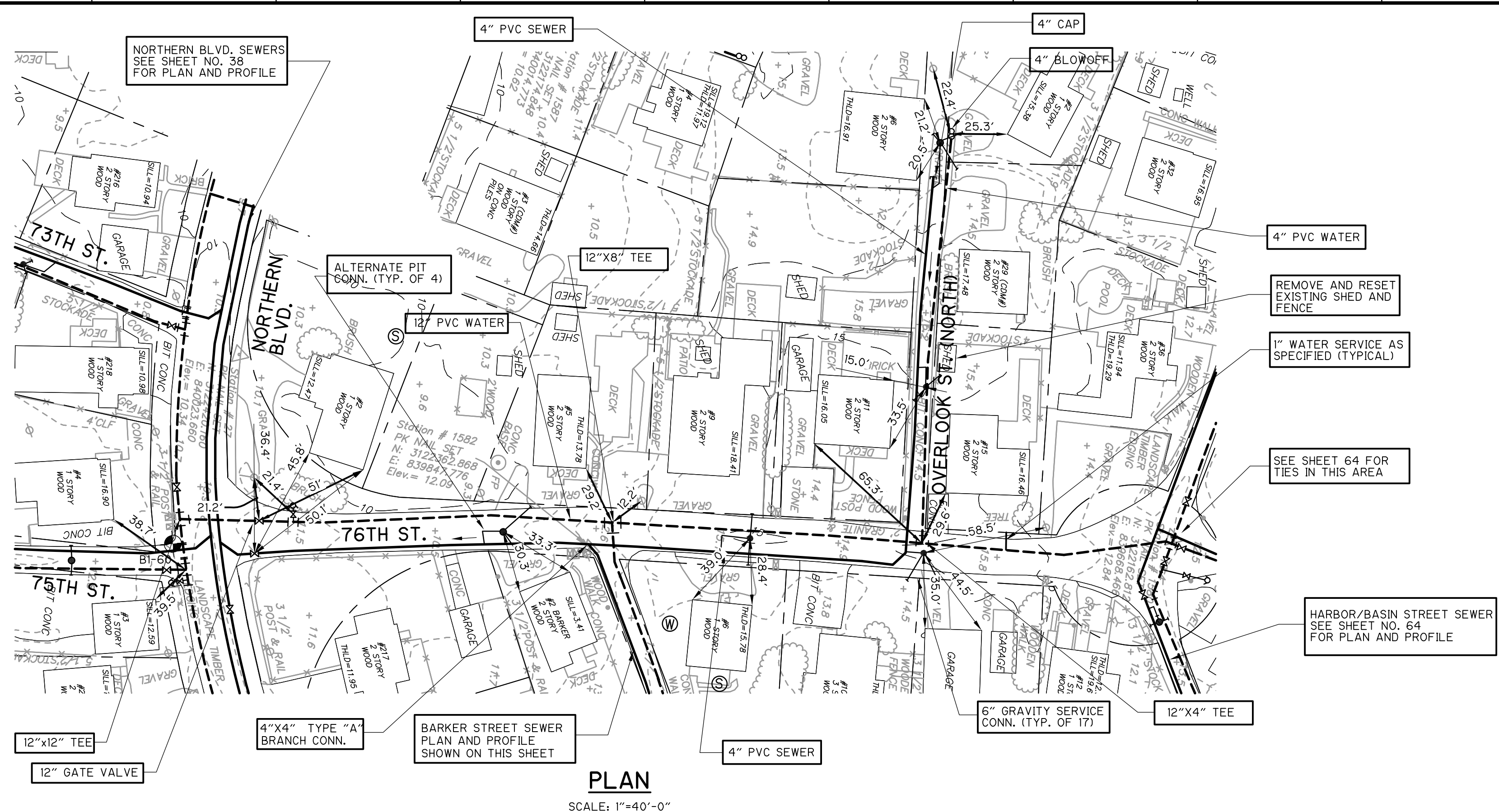
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

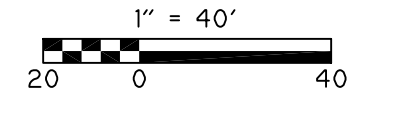
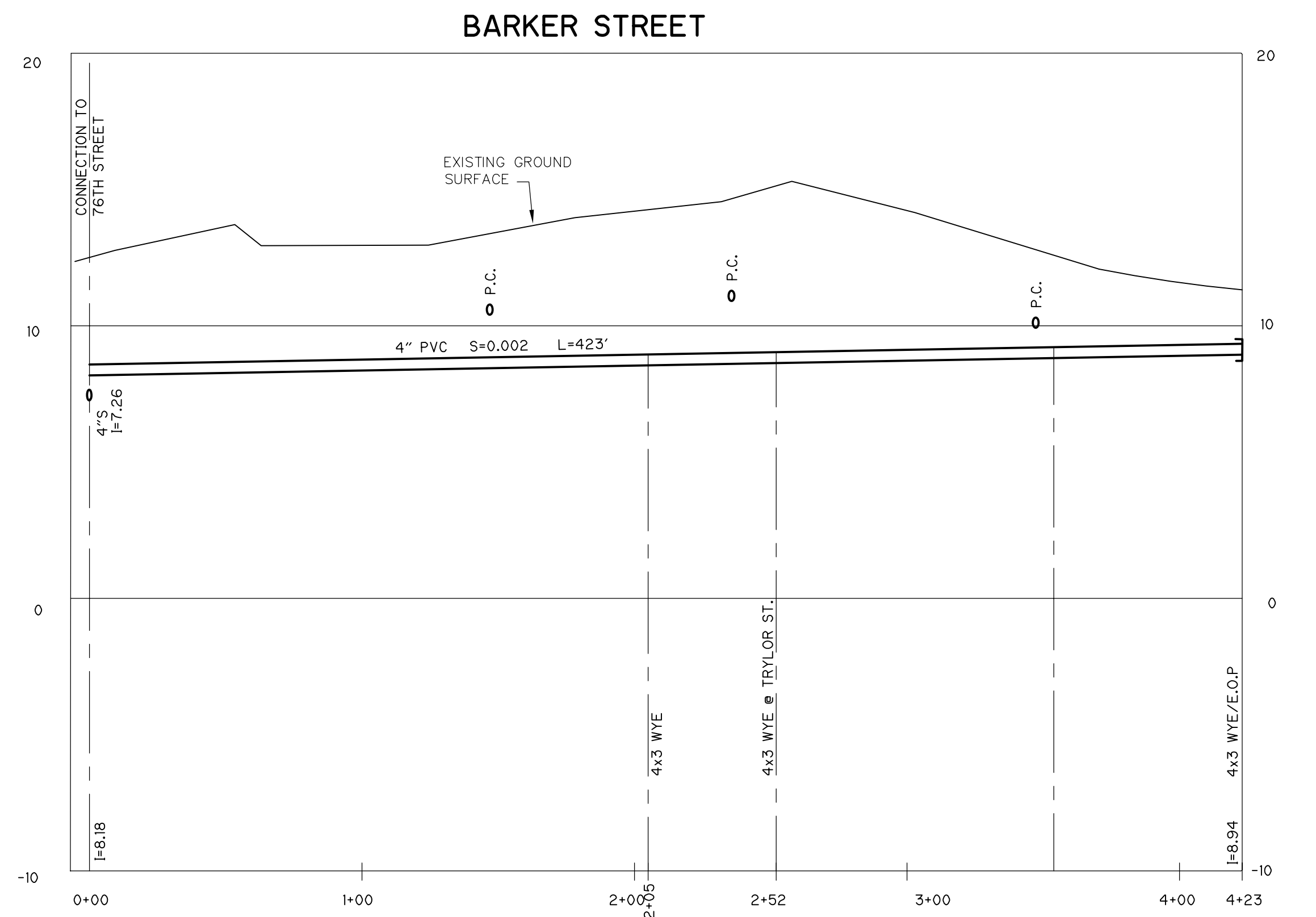
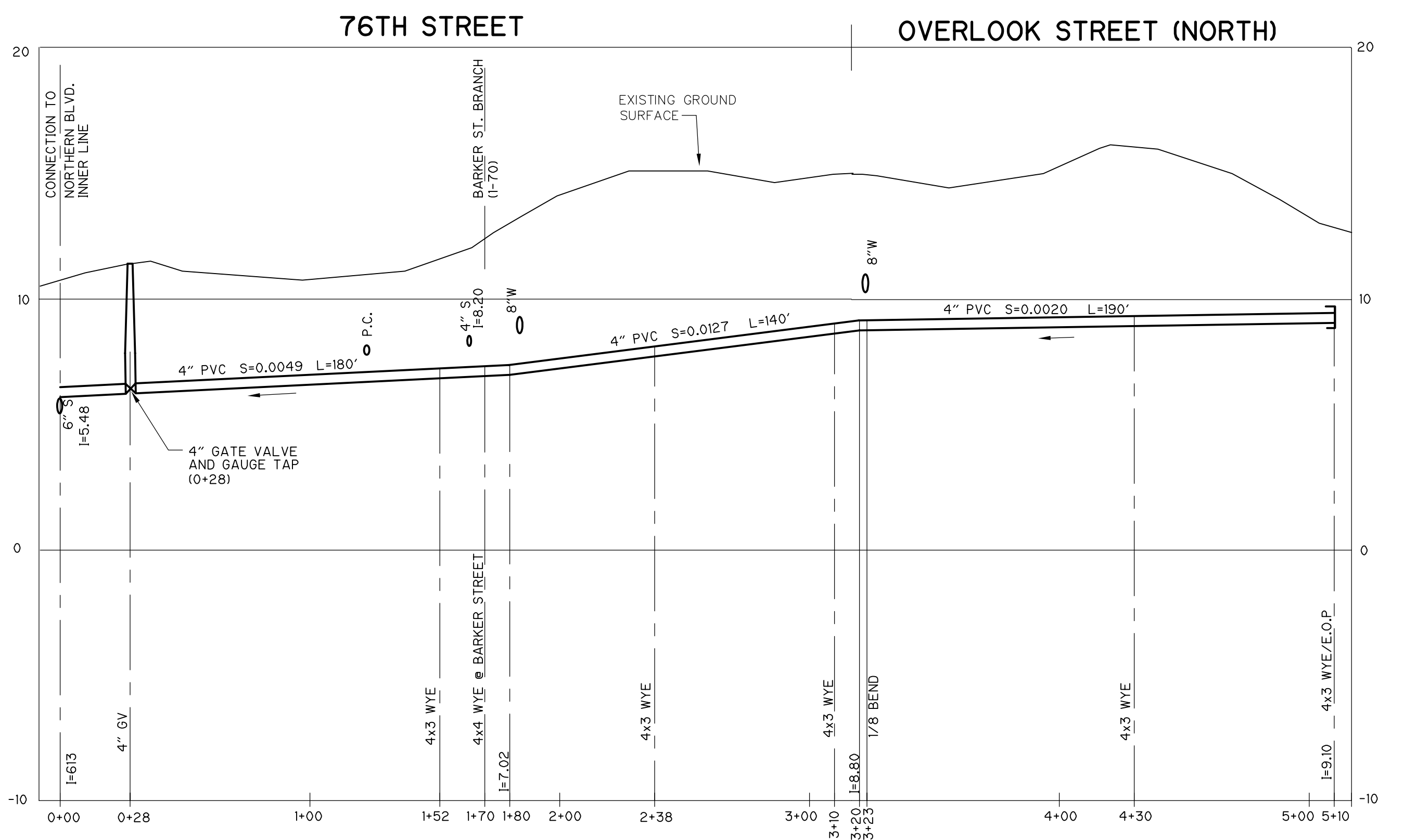
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
 WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS

68TH STREET  
 70TH STREET  
 72ND STREET  
 74TH STREET

PROJECT NO.	CSTPL034
FILE NAME:	CSTPL034
SHEET NO.	67



NOTES:  
 1. OVERLOOK STREET (NORTH) FROM STA. 4+20 TO END OF TRAVELLED WAY.



**RECORD DRAWING**

REV. NO.	DATE	DRWN	CHKD	REMARKS
1	7/07	SV	JWK	REVISED FOR RECORD

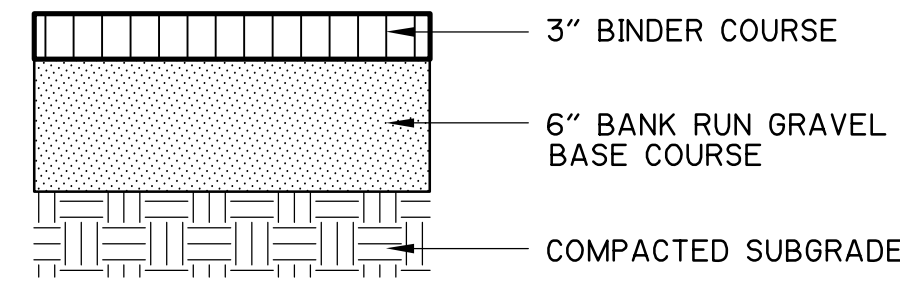
DESIGNED BY: M. MULLARKEY  
 DRAWN BY: B. GUILFORD  
 SHEET CHK'D BY: E. MARSTEINER  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
consulting  
 engineering  
 construction  
 operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

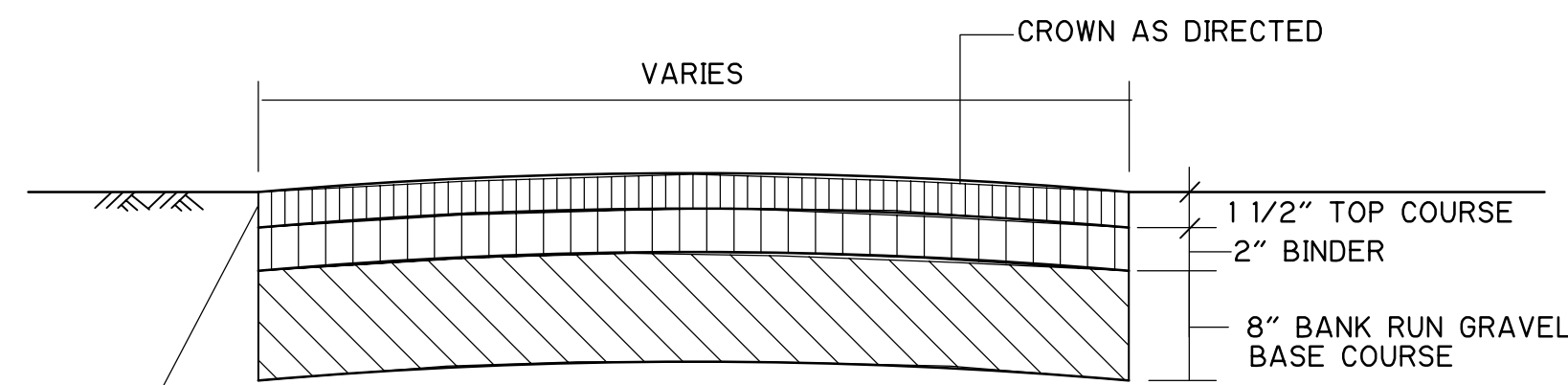
**76TH STREET  
 OVERLOOK STREET  
 BARKER STREET**

PROJECT NO. CSTPL035  
 FILE NAME:  
 SHEET NO. **68**



**BITUMINOUS CONCRETE  
SIDEWALK/WALKWAY DETAIL**

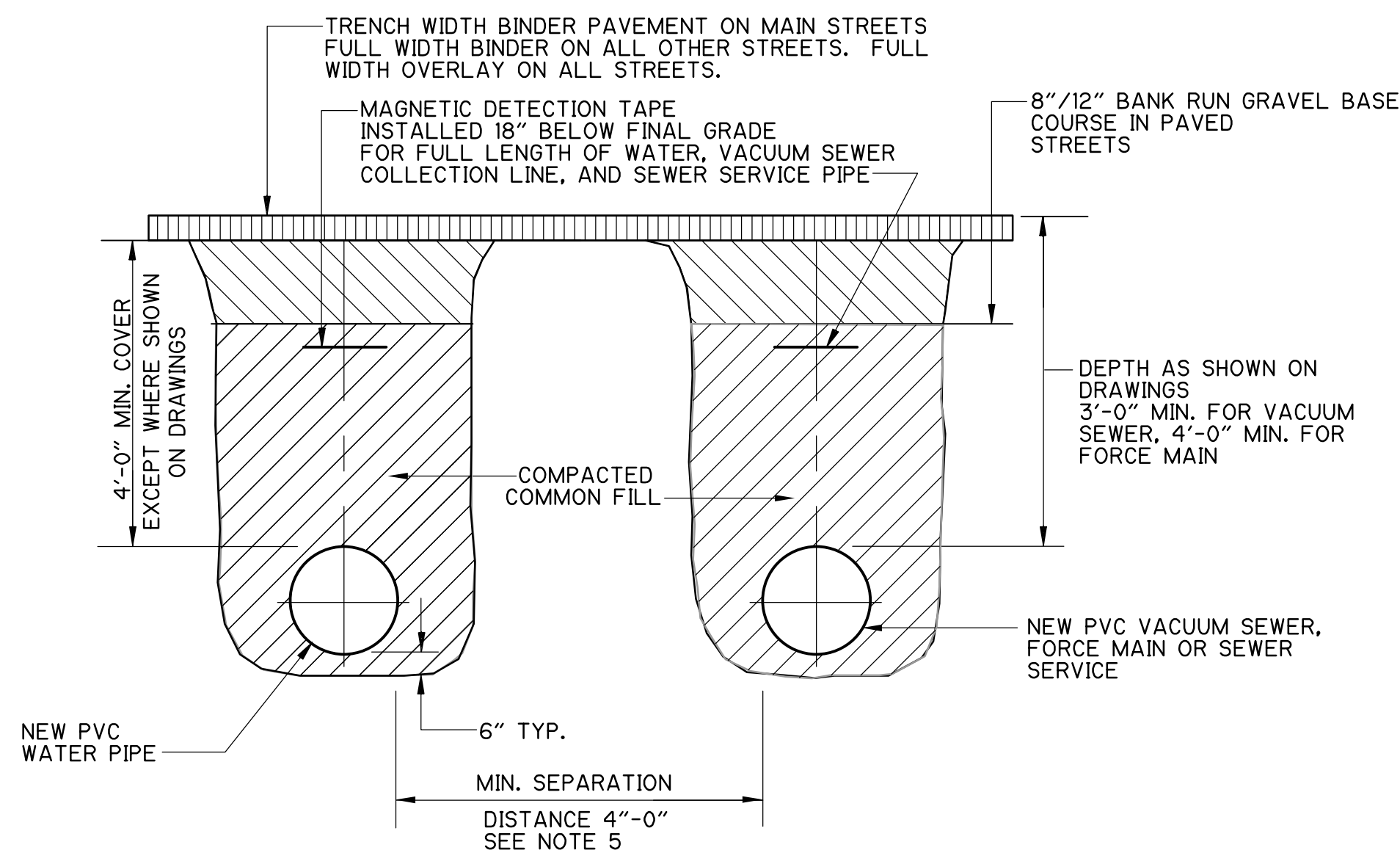
NOT TO SCALE



REMOVE AND DISPOSE OF EXIST. MATERIAL TO ALLOW EDGE OF NEW ROAD TO MATCH EXISTING GRADE

**NEW PAVED ROADWAYS**

NTS

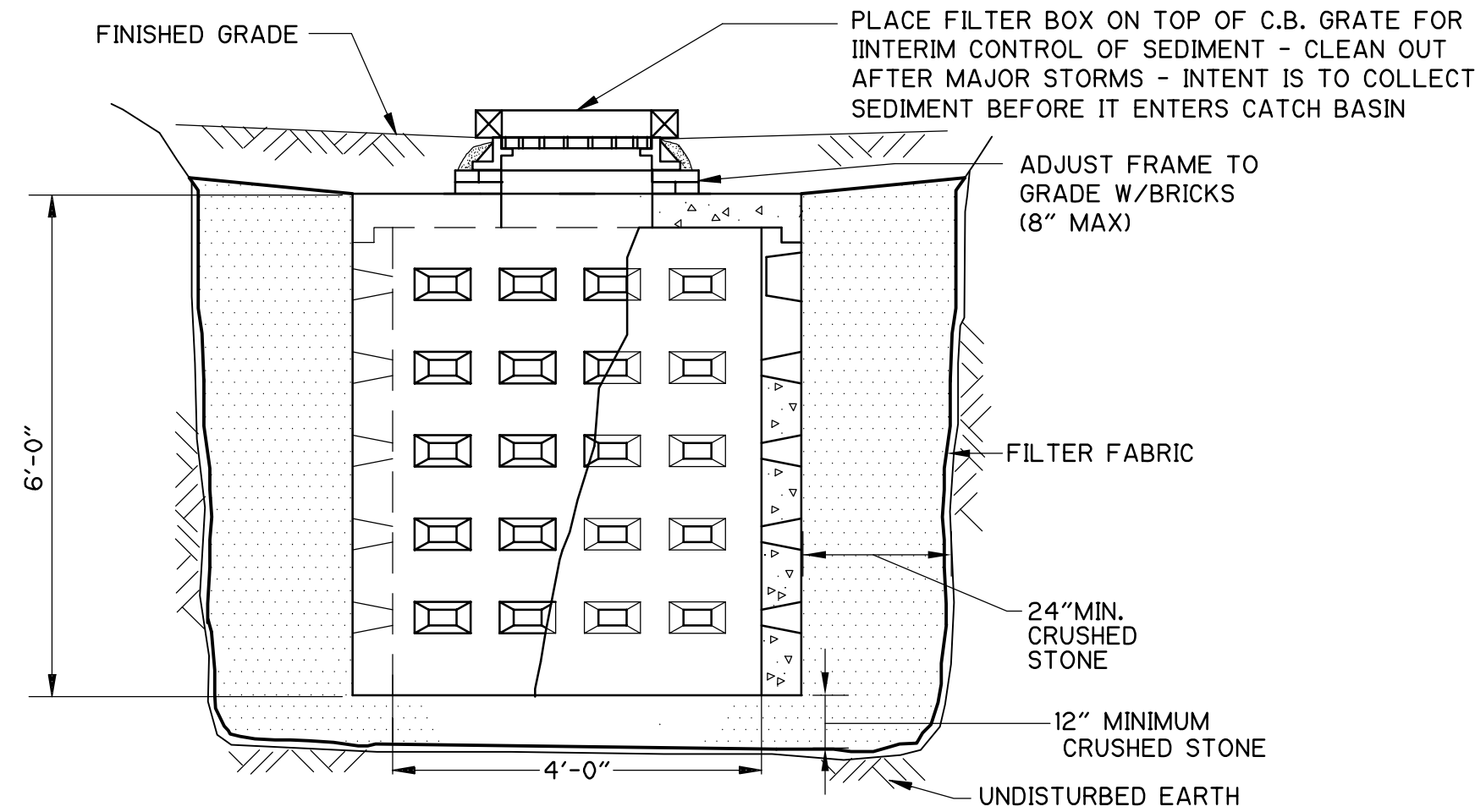


**TRENCH DETAIL**

NTS

NOTES:

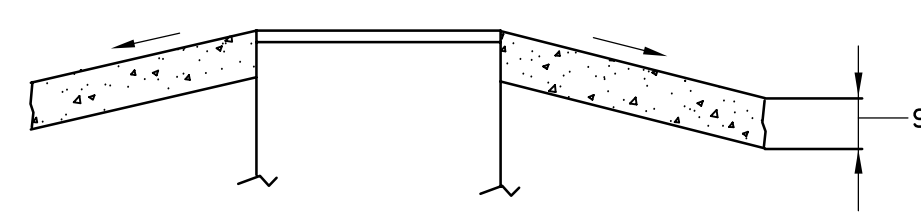
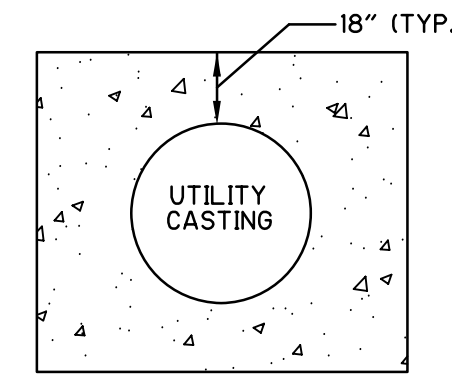
1. TEMPORARY TRENCH WIDTH PAVEMENT ONLY WHERE DIRECTED.
2. 18" HORIZONTAL SEPARATION FOR SEWER PIPES IN COMMON TRENCH.
3. WATER AND SEWER PIPES MUST BE CONSTRUCTED IN SEPARATE TRENCHES.
4. WHERE WATER & SEWER MAINS CROSS, SEWER MUST PASS BENEATH WATER MAIN.
5. WHERE LESS THAN 10' SEPARATION, WATER MUST BE ABOVE SEWER.



**PRECAST CONCRETE LEACHING CATCH BASIN**

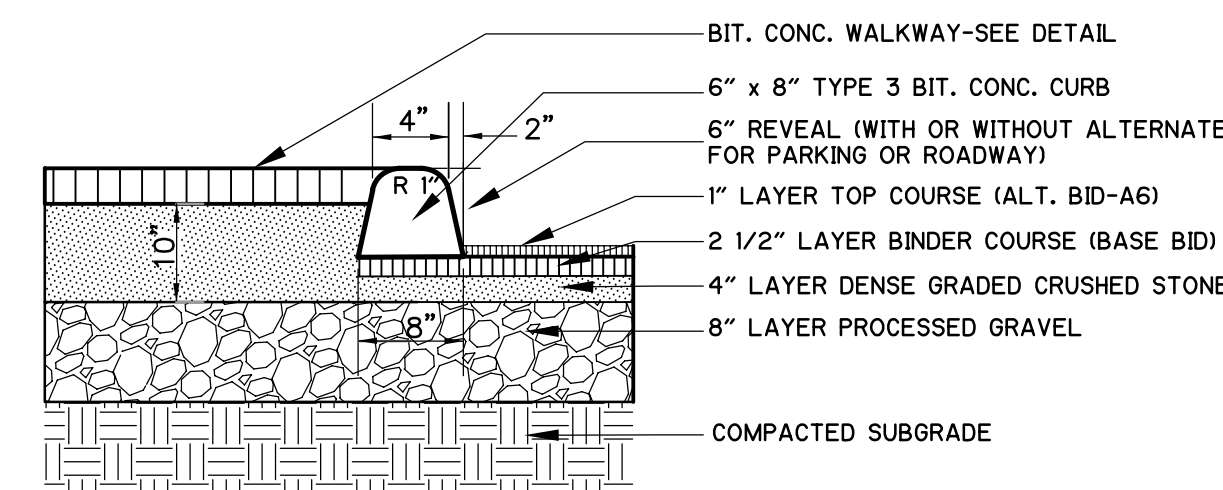
**DETAIL**

NTS



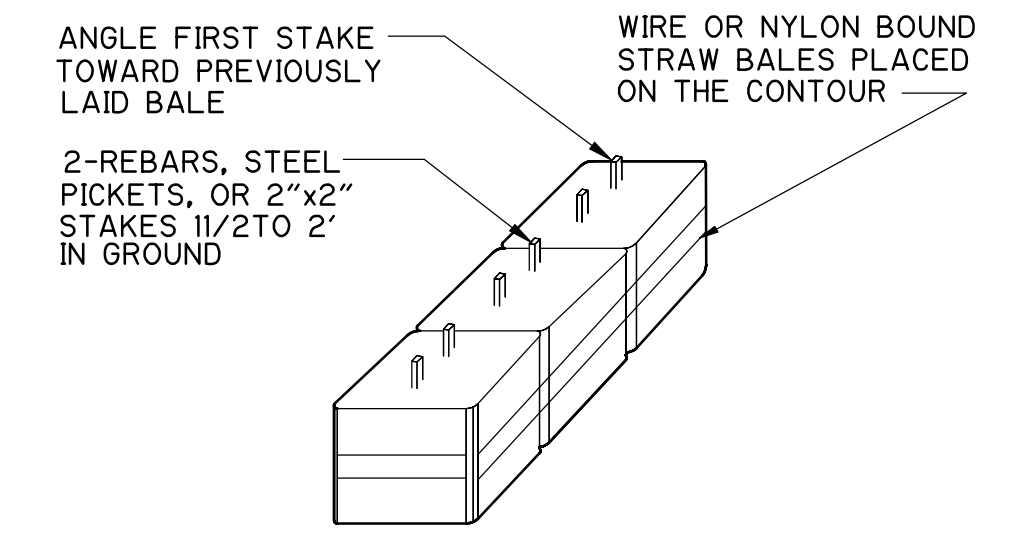
**CONCRETE APRON DETAIL  
FOR CASTINGS IN UNPAVED ROADS**

NTS



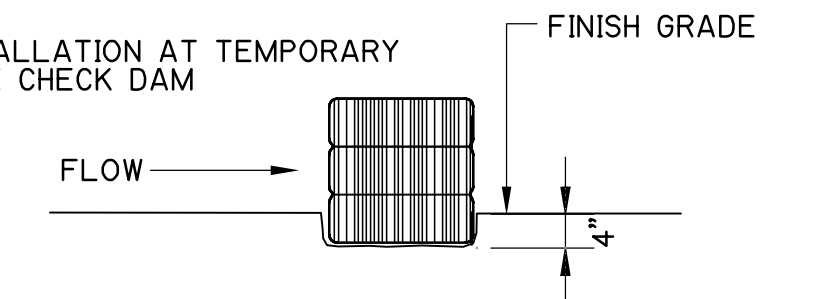
**BITUMINOUS CONCRETE CURB DETAIL**

NOT TO SCALE



NOTE:

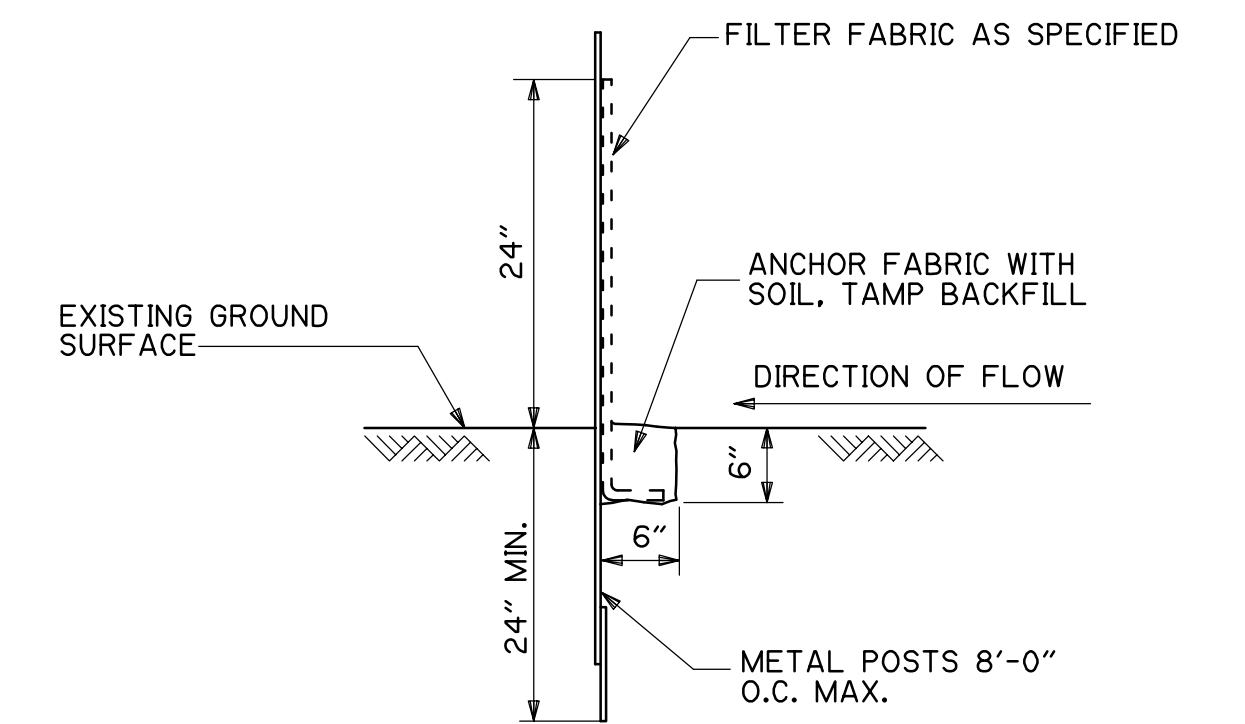
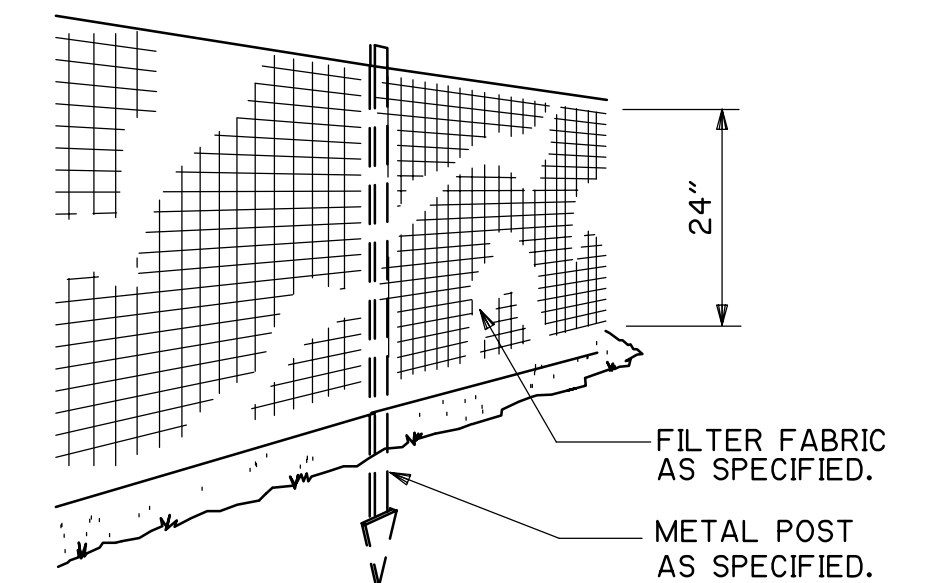
FOR INSTALLATION AT TEMPORARY HAY BALE CHECK DAM



**TEMPORARY HAY BALE DIVERSION BERM**

**DETAIL**

NOT TO SCALE



**SEDIMENT FENCE DETAIL**

NOT TO SCALE

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELIZAIRE  
 SHEET CHK'D BY: T. McGOVERN  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: JANUARY, 2002

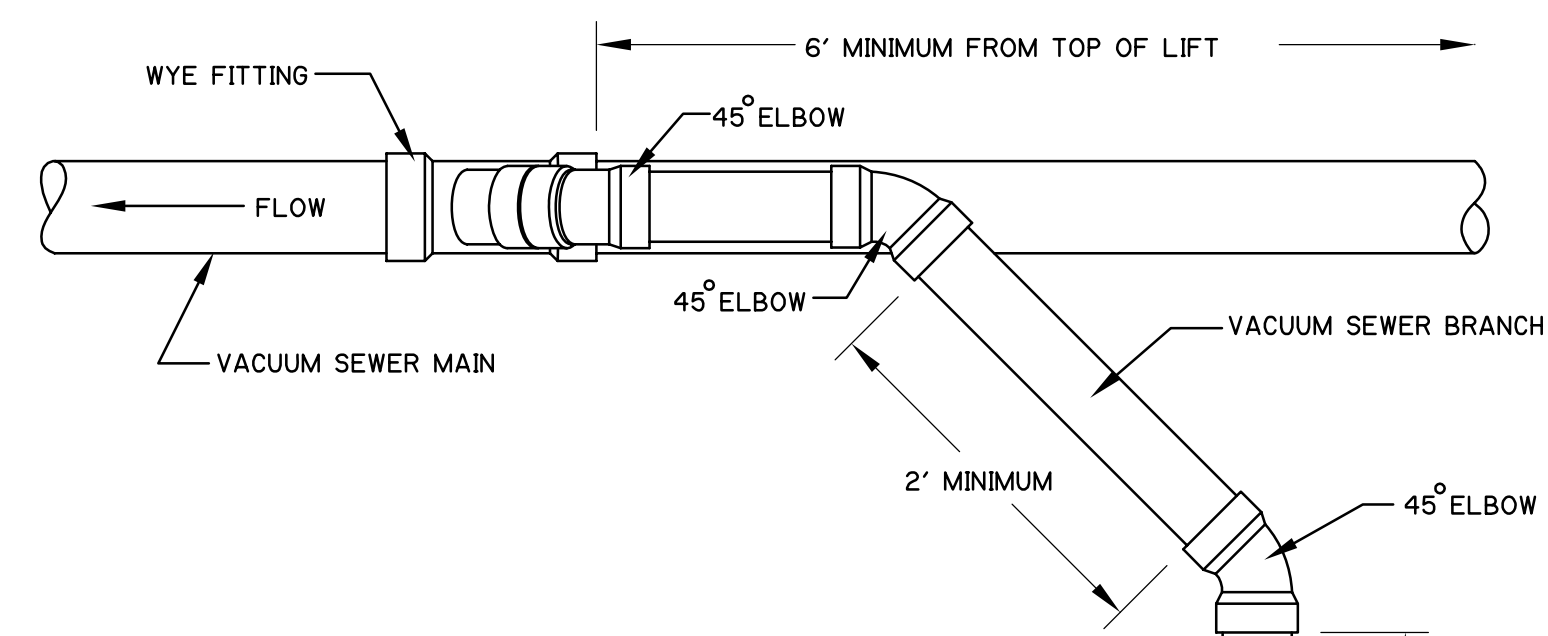


PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND  
 VACUUM SEWER SYSTEMS**

**MISCELLANEOUS DETAILS**

SHEET NO.  
**69**

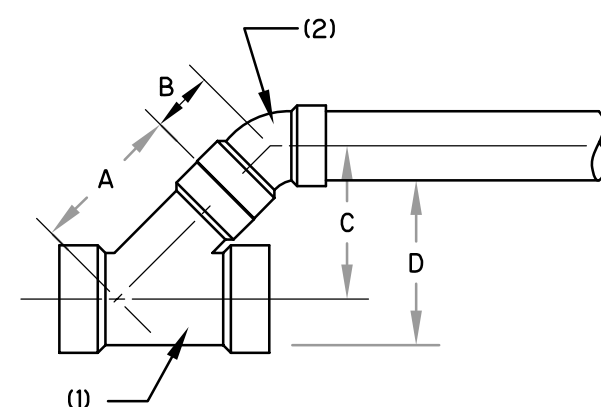
PROJECT NO. 9451-30964  
 FILE NAME: CSTD001  
 SHEET NO.  
**69**



**TYPE "A" VACUUM BRANCH TO MAIN CONNECTION**

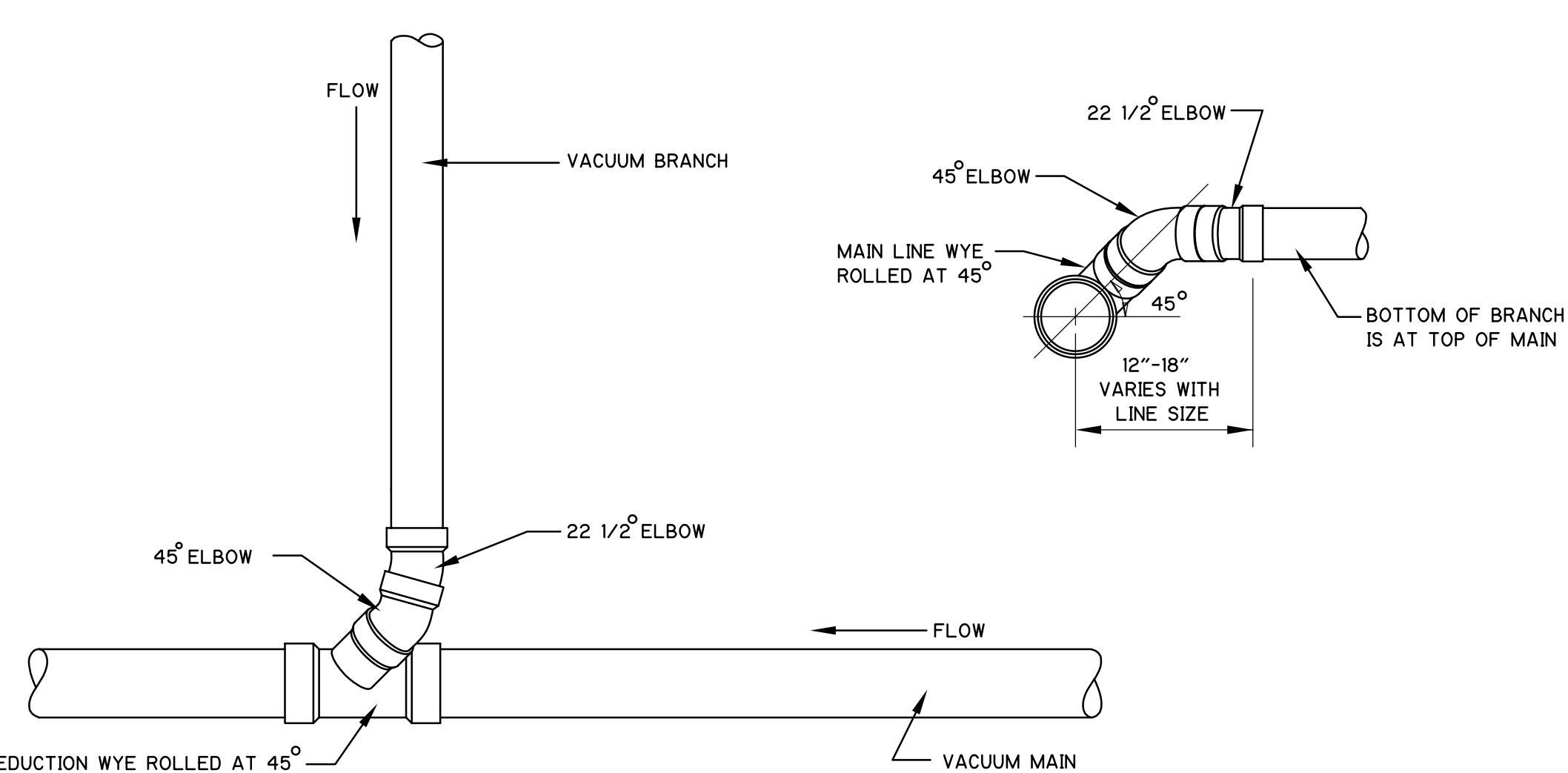
DIMENSIONS BASED ON SPEARS MANUFACTURING.

- (1) 45 DEG WYE, SOCKET x SOCKET x SOCKET
- (2) 45 DEG ELL, SOCKET x SOCKET



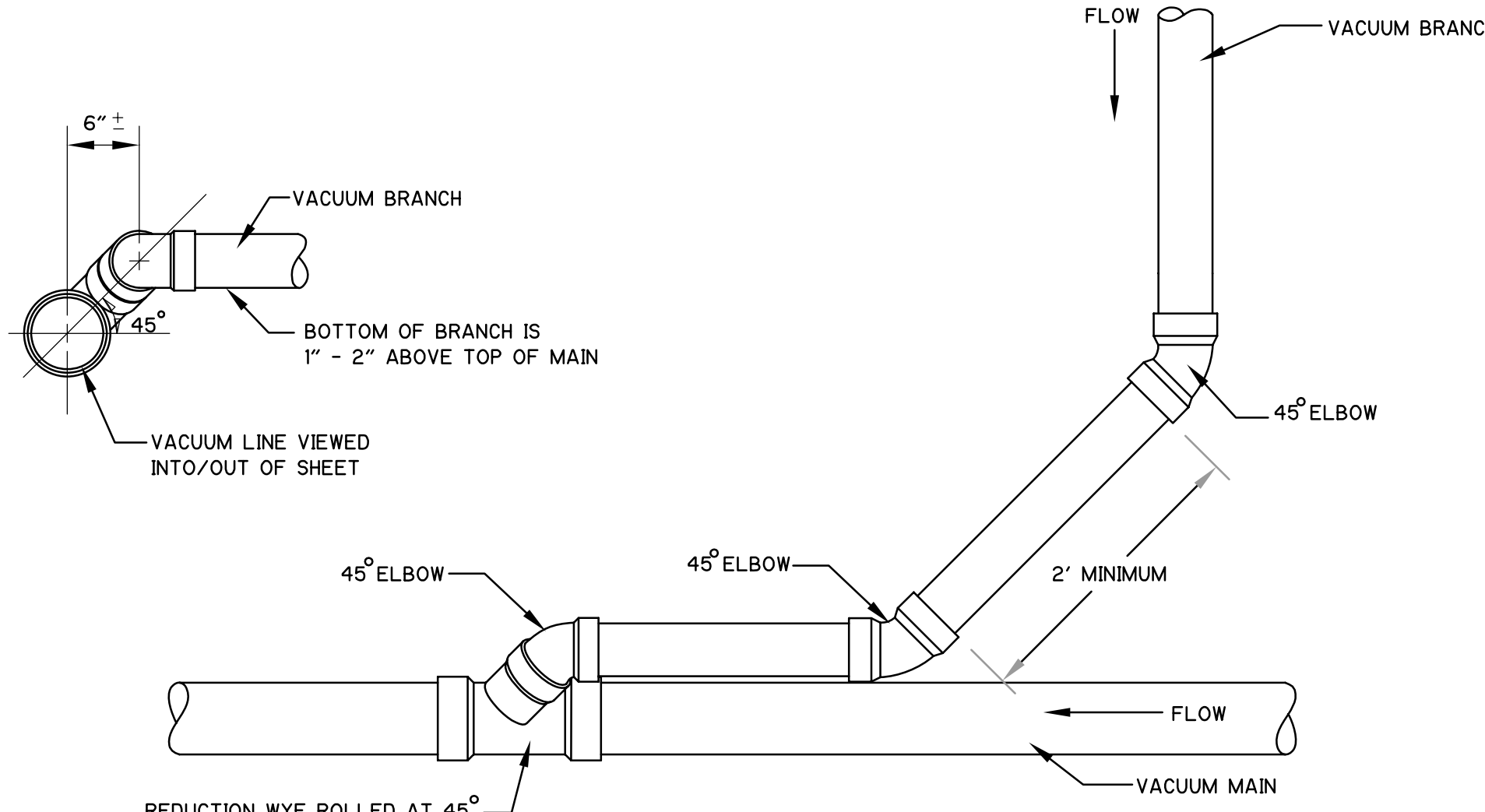
WYE SIZE	A	B	C	D- INVERT
4 x 4 x 4	8 3/4"	3 5/16"	8.53"	0.71'
4 x 4 x 3	9 1/4"	3 1/16"	8.70"	0.73'
6 x 6 x 6	12 1/8"	5 9/16"	12.5"	1.04'
6 x 6 x 4	10"	3 5/16"	9.41"	0.78'
6 x 6 x 3	10 1/2"	3 1/16"	9.59"	0.80'
8 x 8 x 8	18 3/4"	6 13/16"	18.07"	1.52'
8 x 8 x 6	16 1/4"	5 9/16"	15.42"	1.30'
8 x 8 x 4	14 1/4"	3 5/16"	12.42"	1.05'
8 x 8 x 3	13"	3 1/16"	11.36"	0.99'
10 x 10 x 10	22 3/8"	8 19/32"	21.90"	1.89'
10 x 10 x 8	20 1/4"	6 13/16"	19.13"	1.61'
10 x 10 x 6	17 3/4"	5 9/16"	16.46"	1.42'
10 x 10 x 4	15 3/4"	3 5/16"	13.48"	1.18'
10 x 10 x 3	14 3/4"	3 1/16"	12.33"	1.08'

**VACUUM BRANCH TO MAIN LINE CONNECTION**



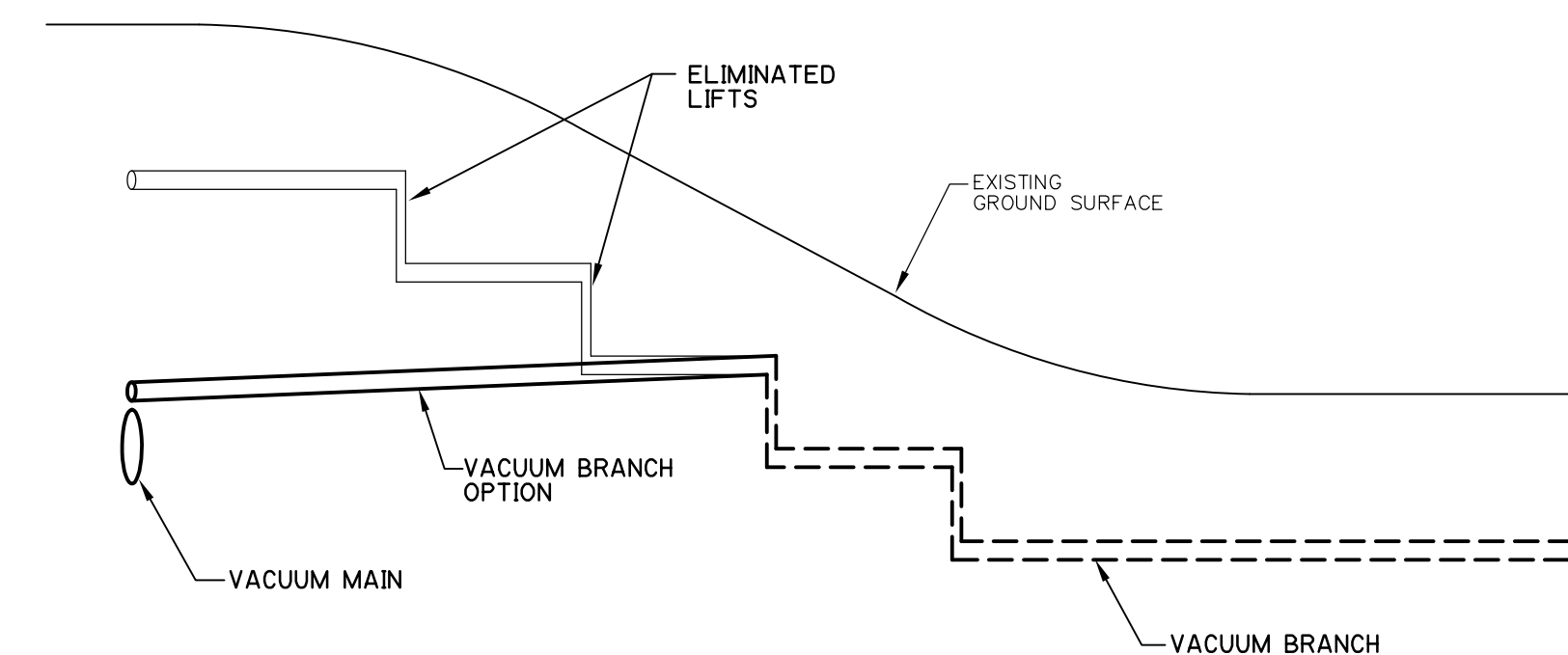
**ALTERNATE VACUUM BRANCH TO MAIN LINE CONNECTION**

NOTE: ALTERNATE BRANCH CONNECTION MAY ONLY BE USED IN AREAS OF CONFLICT WITH OTHER UTILITIES AND AS DIRECTED BY THE ENGINEER.



**TYPE "B" VACUUM BRANCH TO MAIN LINE CONNECTION**

**LINE CONNECTION DETAILS**



**OPTIONAL BRANCH CONNECTION DETAIL**

NTS

NOTE: WHERE VACUUM BRANCHES CONNECT TO VACUUM SEWER MAINS IN EXCESS OF INVERT TO INVERT DIMENSIONS SHOWN ON THIS SHEET, THE CONTRACTOR MAY ELIMINATE VERTICAL LIFTS WHERE POSSIBLE AND APPROVED BY ENGINEER, RESULTING IN DEEPER EXCAVATION. THE MINIMUM ALLOWABLE SLOPE FOR THE VACUUM BRANCH IS 0.2%.

**LIFTS:**

1. MINIMUM SLOPE BETWEEN LIFTS 0.20% OR 80% OF PIPE DIAMETER, WHICHEVER IS GREATER (FOR 3" AND 4").
2. MINIMUM SLOPE BETWEEN LIFTS 0.20% OR 40% OF PIPE DIAMETER, WHICHEVER IS GREATER (FOR 6" AND LARGER).
3. MINIMUM SPACING BETWEEN LIFTS - 20'-0"

**GENERAL NOTES:**

**VALVE PIT CONNECTIONS**

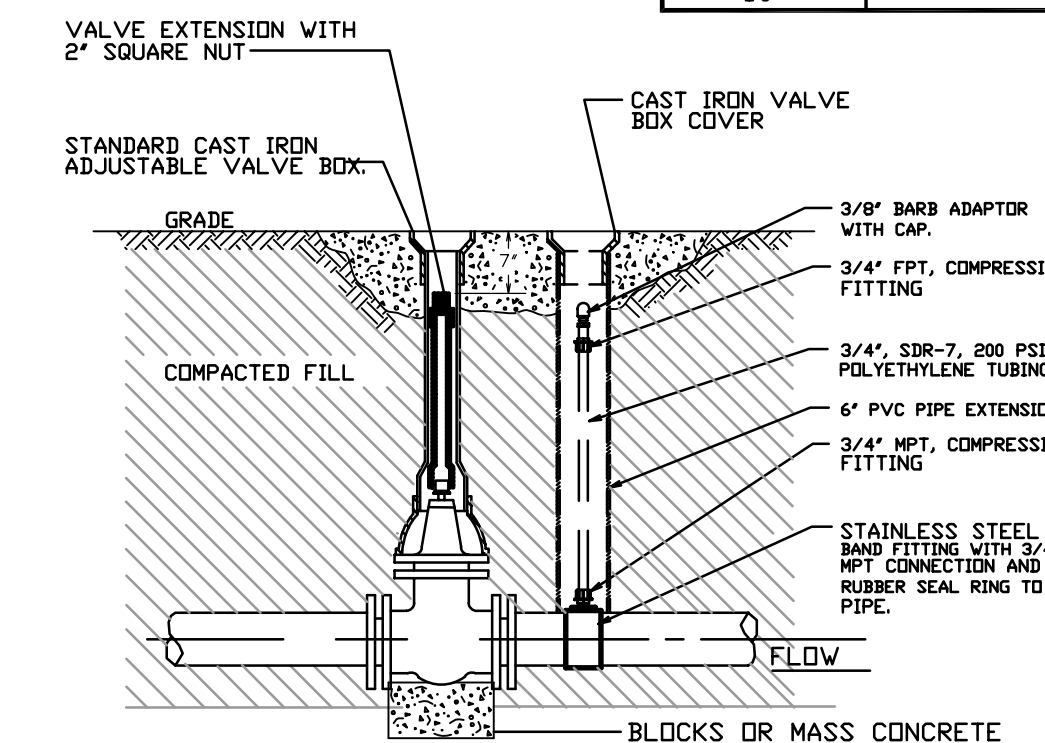
1. MINIMUM LENGTH OF PIPING FROM MAIN TO VALVE PIT - 5'-0"
2. SLOPE FROM VALVE PIT TO MAIN - 2' OR 0.20% FALL (WHICHEVER IS GREATER).
3. MINIMUM DISTANCE FROM VALVE PIT TO LIFT IN VALVE PIT CONNECTION LINE - 5'-0"
4. MINIMUM DISTANCE FROM LIFT IN VALVE PIT CONNECTION LINE TO VACUUM MAIN - 5'-0"

**BRANCH CONNECTION TO MAIN**

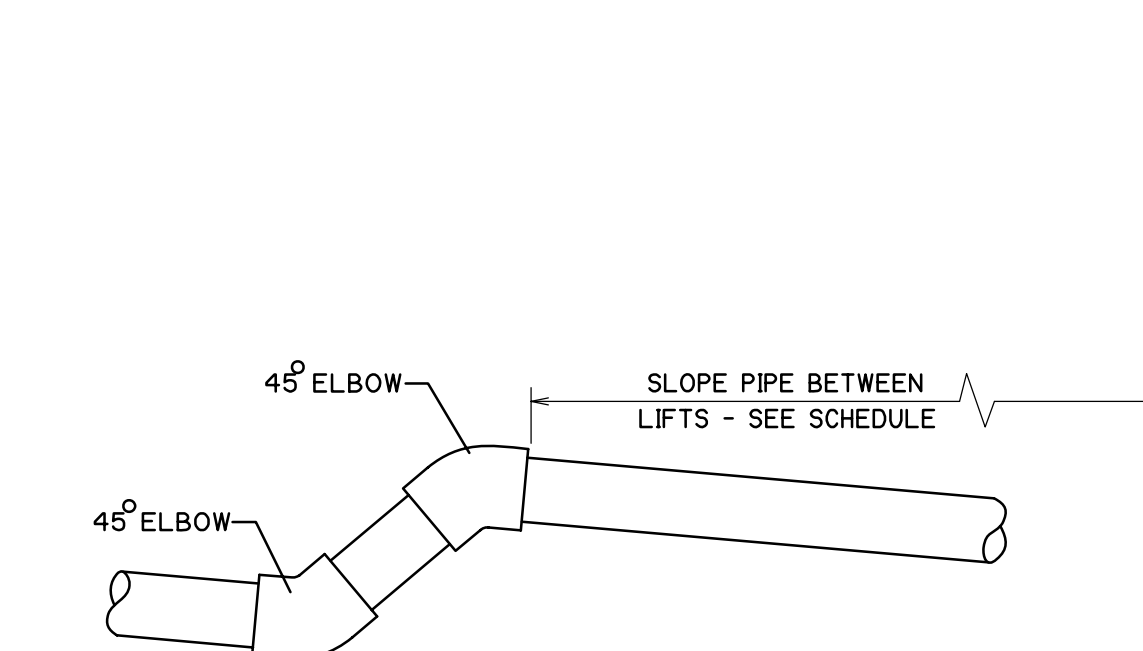
1. MINIMUM SPACING BETWEEN ANY TWO CONNECTIONS TO VACUUM MAIN - 5'-0"
2. MINIMUM DISTANCE FROM TOP OF LIFT TO ANY CONNECTION - 5'-0"
3. LONG TURN 90° PERMITTED AS PART OF CROSSOVER CONNECTION.

**DIVISION VALVE SUPPORT INFORMATION**

VALVE SIZE	SUPPORT SIZE
4"	1" THICK X 1.75' SQUARE
6"	1" THICK X 2.25' SQUARE
8"	1" THICK X 3.00' SQUARE
10"	1" THICK X 3.50' SQUARE



**DIVISION VALVE AND GAUGE TAP**



PIPE DIAMETER	MINIMUM FALL	0.2% OF DISTANCE
3"	0.20 FT	0.2x 100 FT ▲
4"	0.25 FT	0.2x 125 FT ▲
6"	0.25 FT	0.2x 125 FT ▲
8"	0.25 FT	0.2x 125 FT ▲
10"	0.25 FT	0.2x 125 FT ▲

USE WHICHEVER SLOPE IS GREATER BETWEEN LIFTS. ABOVE THIS LENGTH IN DISTANCE, THE 0.2% SLOPE IS GREATER. ANYTHING SHORTER THAN THIS DISTANCE SHOULD USE MINIMUM FALL INDICATED. WHEN NOT BETWEEN TWO LIFTS, USE 0.2% SLOPE.

**LIFT DETAIL AND SLOPE SCHEDULE SD-5**

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. McGOVERN  
 DRAWN BY: G. BELIZAIRE  
 SHEET CHK'D BY: T. McGOVERN  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: JANUARY, 2002

**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

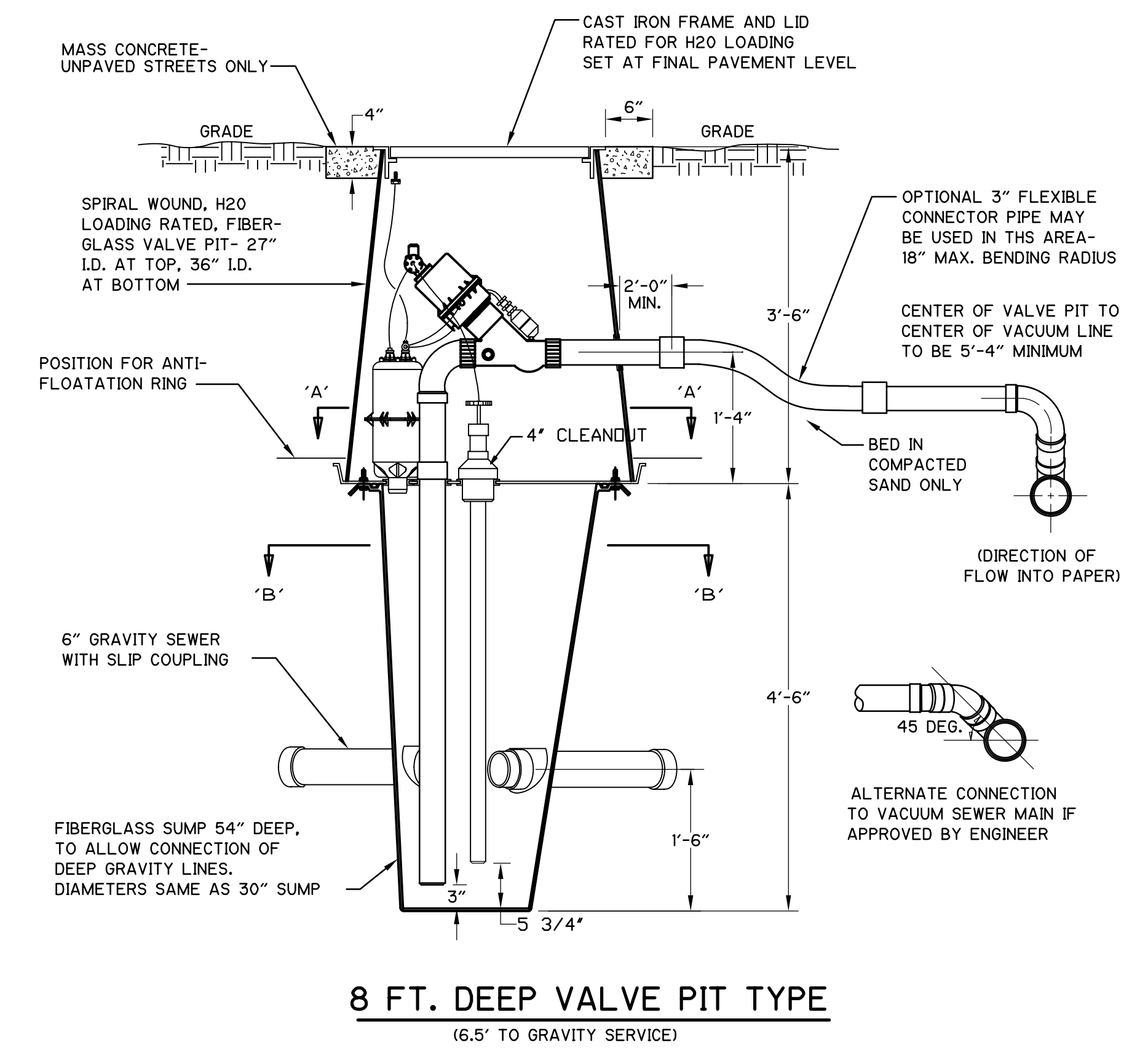
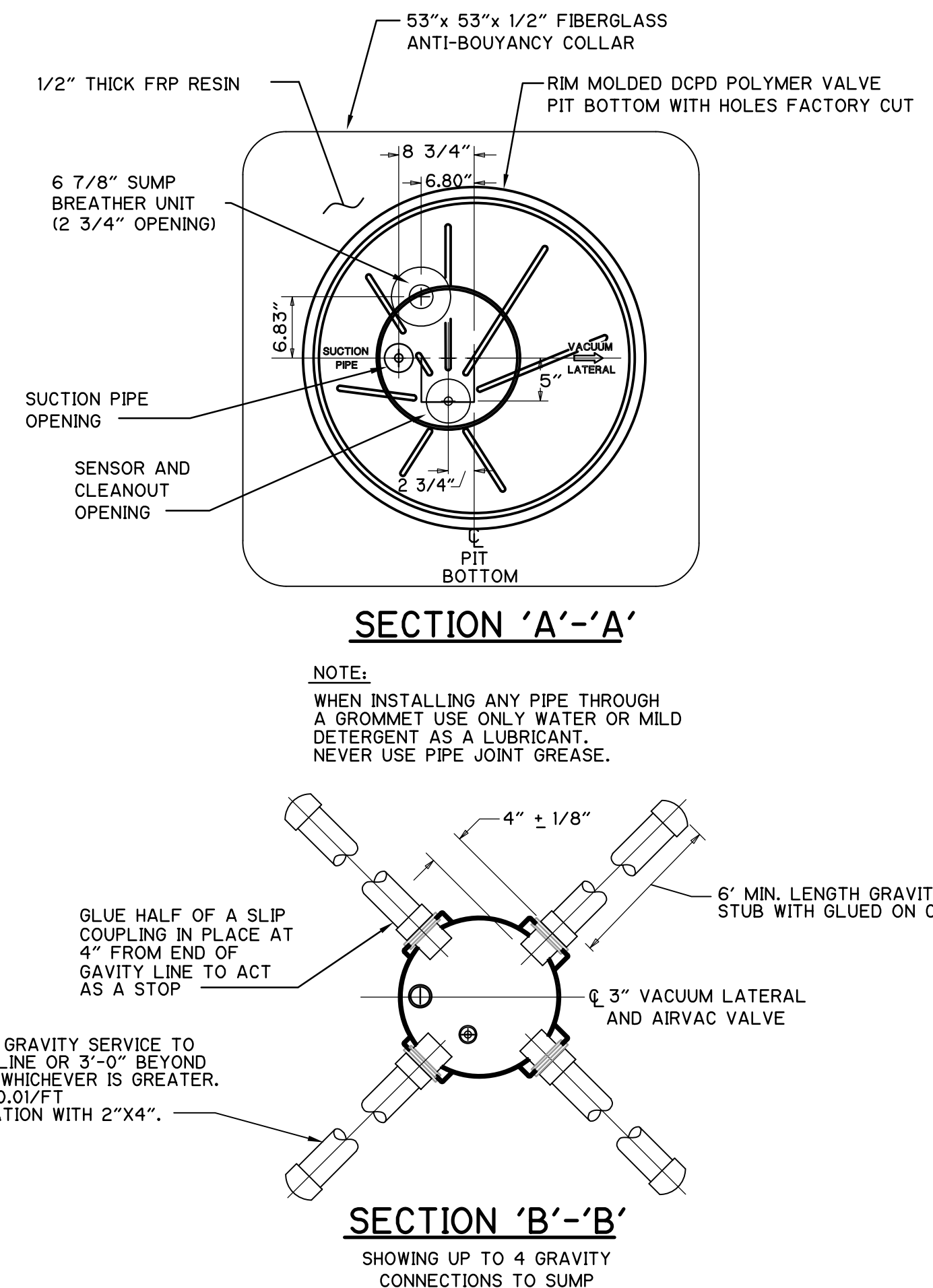
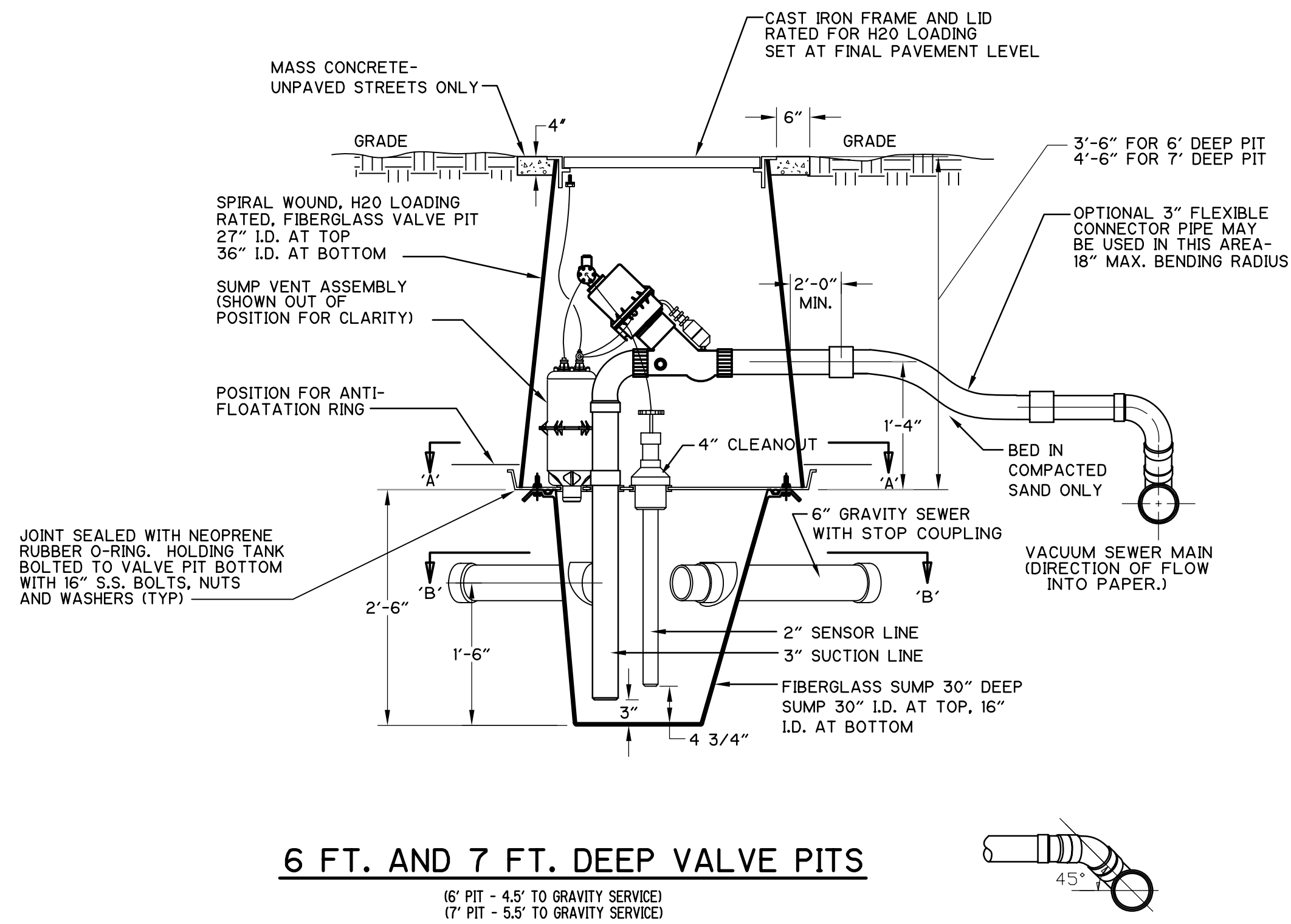
PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**SEWER DETAILS I  
 CONNECTION DETAILS**

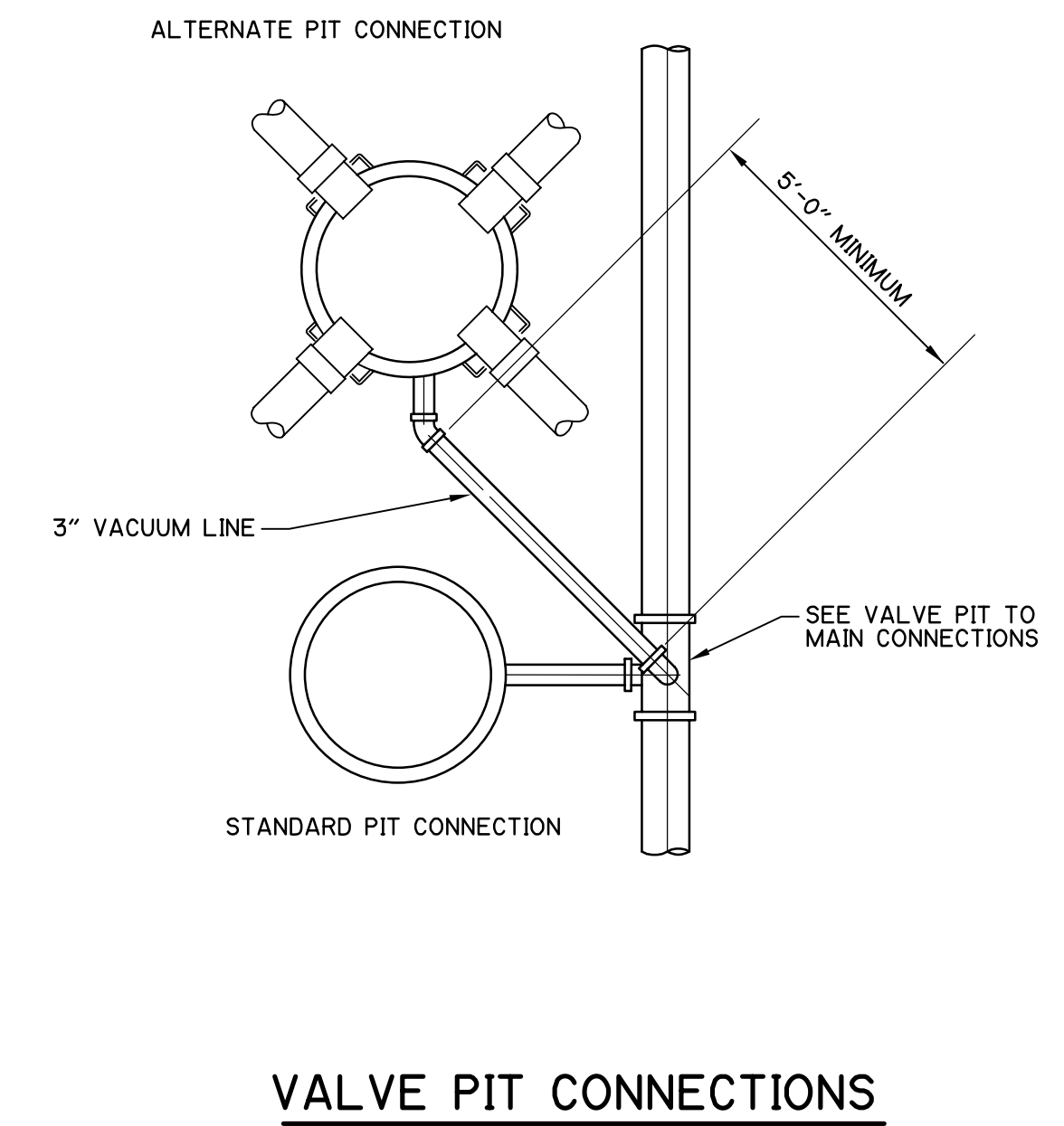
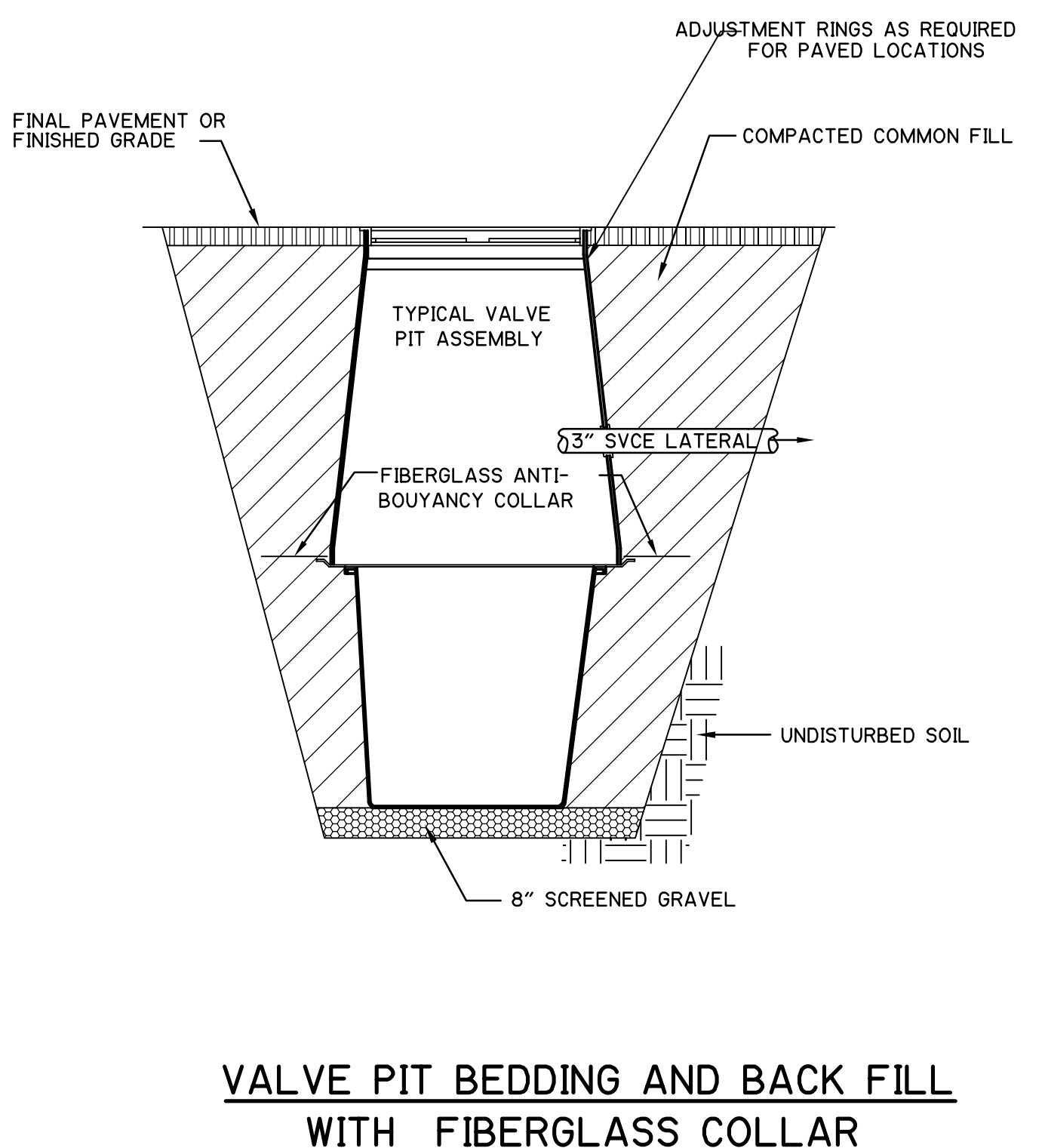
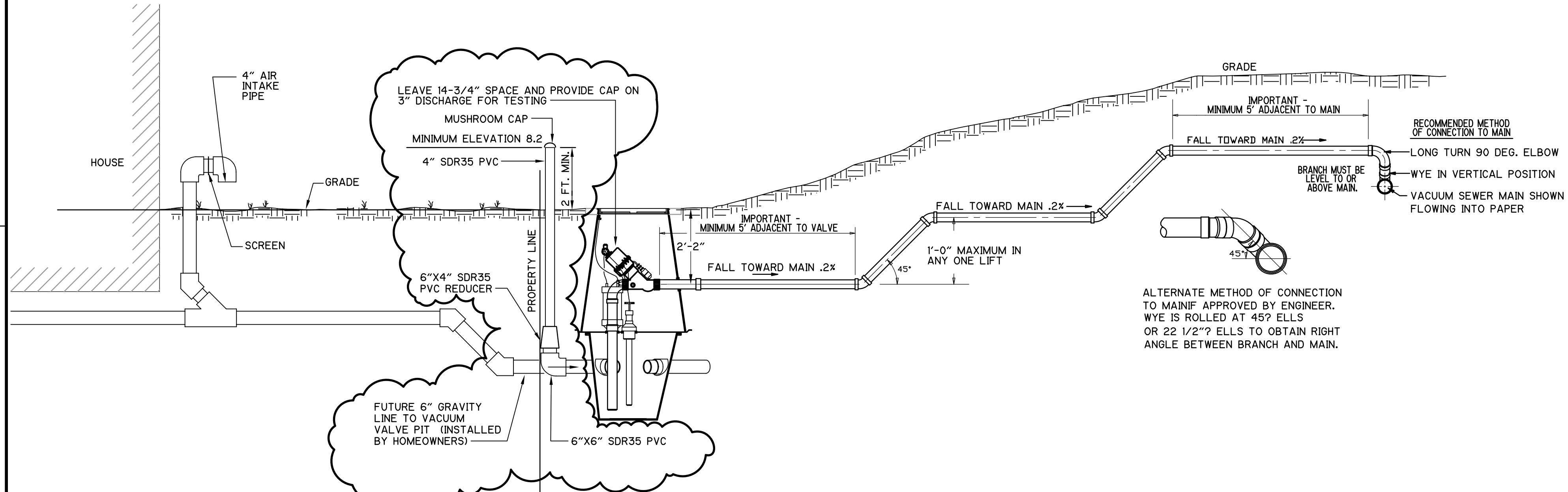
PROJECT NO. 9451-30964  
 FILE NAME: CSTD002

SHEET NO.

70



- NOTES:**
1. ALL GROMMETS FOR VALVE PIT AND SUMP SUPPLIED BY MFG.
  2. ALL HOLES IN VALVE PIT AND PIT BOTTOM ARE FACTORY CUT. ALL GRAVITY LINE CONNECTION OPENING IN THE SUMP ARE FIELD CUT.
  3. WHEN INSTALLING ANY PIPE THROUGH A GROMMET, USE ONLY WATER OR MILD DETERGENT AS A LUBRICANT. NEVER USE PIPE JOINT GREASE.



**LIFT DETAILS FOR 3" SERVICE LATERAL**

**NOTE:**  
 MAXIMUM RISE IN 3" SERVICE IS 2'-0" FOR 6' DEEP SUMP,  
 1'-0" FOR 7' DEEP SUMP AND NO RISE FOR 8' DEEP SUMP.  
 ADDITIONAL LIFT MAY BE PERMITTED ONLY BY APPROVAL  
 OF ENGINEER.

**VALVE PIT BEDDING AND BACK FILL WITH FIBERGLASS COLLAR**

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: T. McGOVERN	
DRAWN BY: R. DEARDON	
SHEET CHK'D BY: T. McGOVERN	
CROSS CHK'D BY: RALPH SOUPPA	
APPROVED BY: PAUL ROSS	
DATE: JANUARY, 2002	

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND VACUUM SEWER SYSTEMS**

**SEWER DETAILS II**

PROJECT NO. 9451-30964
FILE NAME: CSTD003
SHEET NO. 71

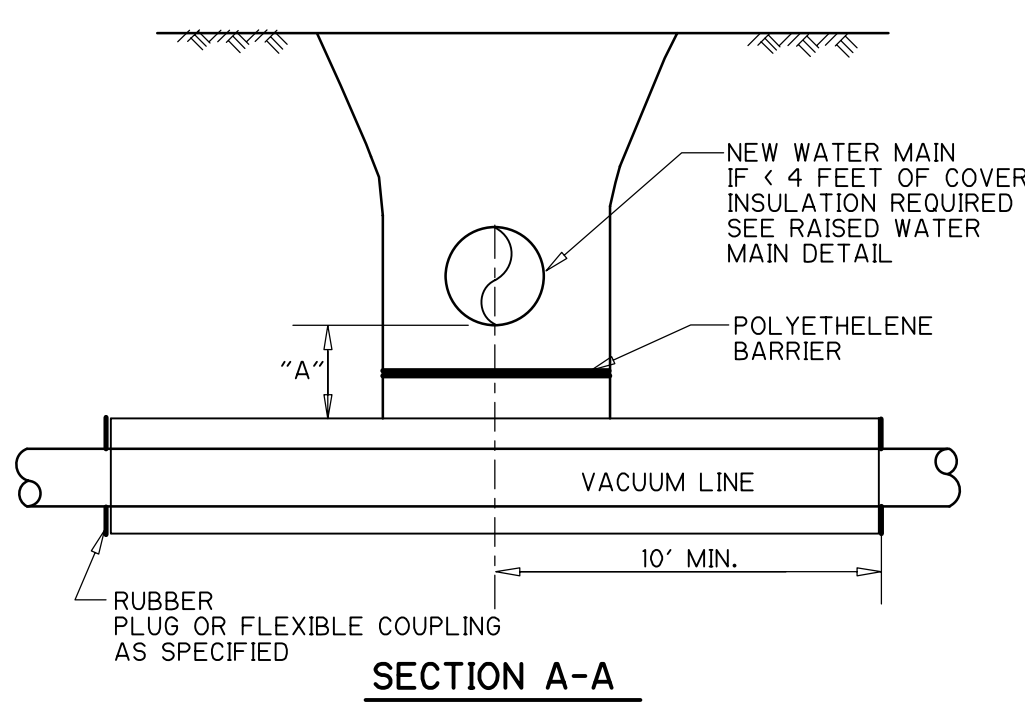
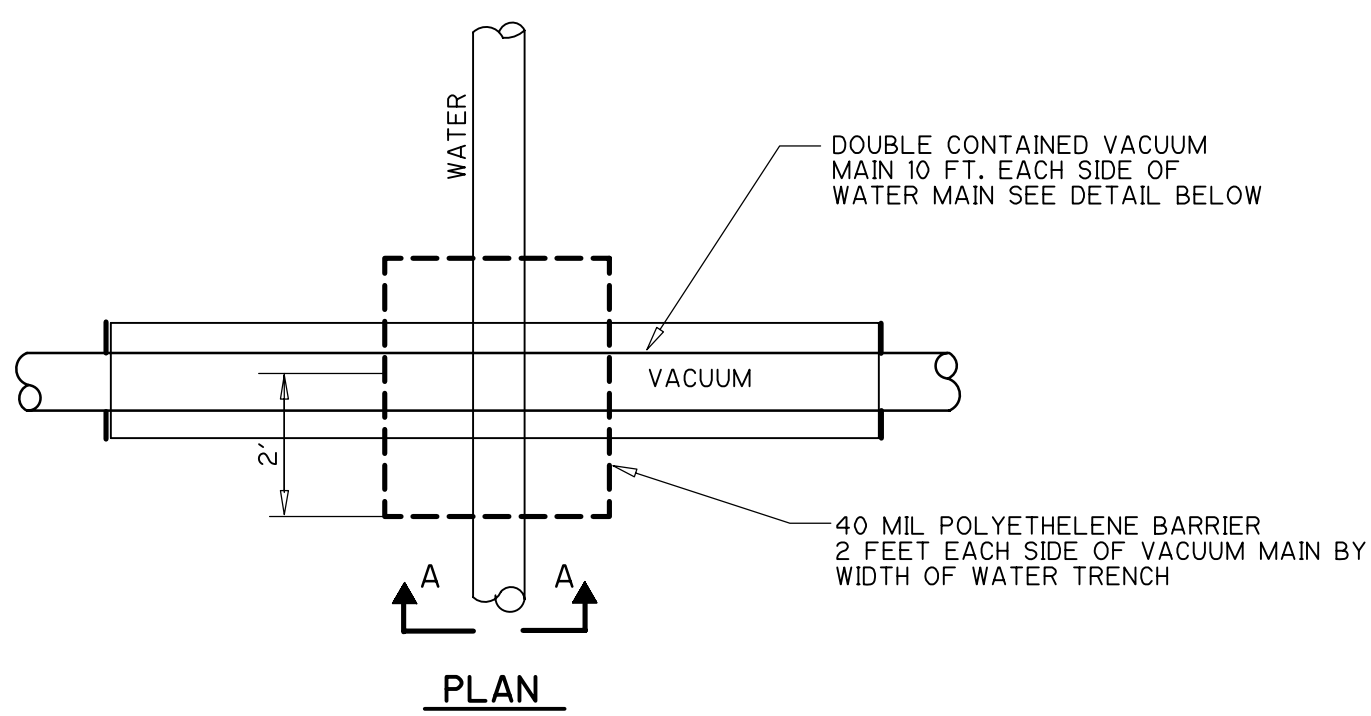
WATER MAIN AND SEWER FORCE MAIN RESTRAINED JOINT LENGTHS (FT.)				
FITTING	MIN. LENGTH TO BE RESTRAINED			
12"x6" TEE	11			
12"x8" TEE	31			
12"x12" TEE	60			
8"x6" TEE	23			
8"x8" TEE	40			
6"x4" TEE	11			
6"x6" TEE	30			
4"x4" TEE	16			
12"x4" REDUCER	66 (207*)			
12"x8" REDUCER	40 (162*)			
8"x4" REDUCER	40 (81*)			
8" X6" REDUCER	23 (31*)			
6"x4" REDUCER	23 (34*)			
4"	6"	8"	12"	
1/4-1/8 BENDS	6	8	9	13
1/16 BEND	3	4	5	6
VALVES, DEAD ENDS	32	43	55	76

\* IF THE LENGTH OF PIPE ON THE "SMALL DIMENSION" SIDE OF THE REDUCER EXCEEDS THE LENGTH OF PIPE WITHIN THE PARENTHESIS, THEN NO RESTRAINED JOINTS ARE NECESSARY FOR THE REDUCER.

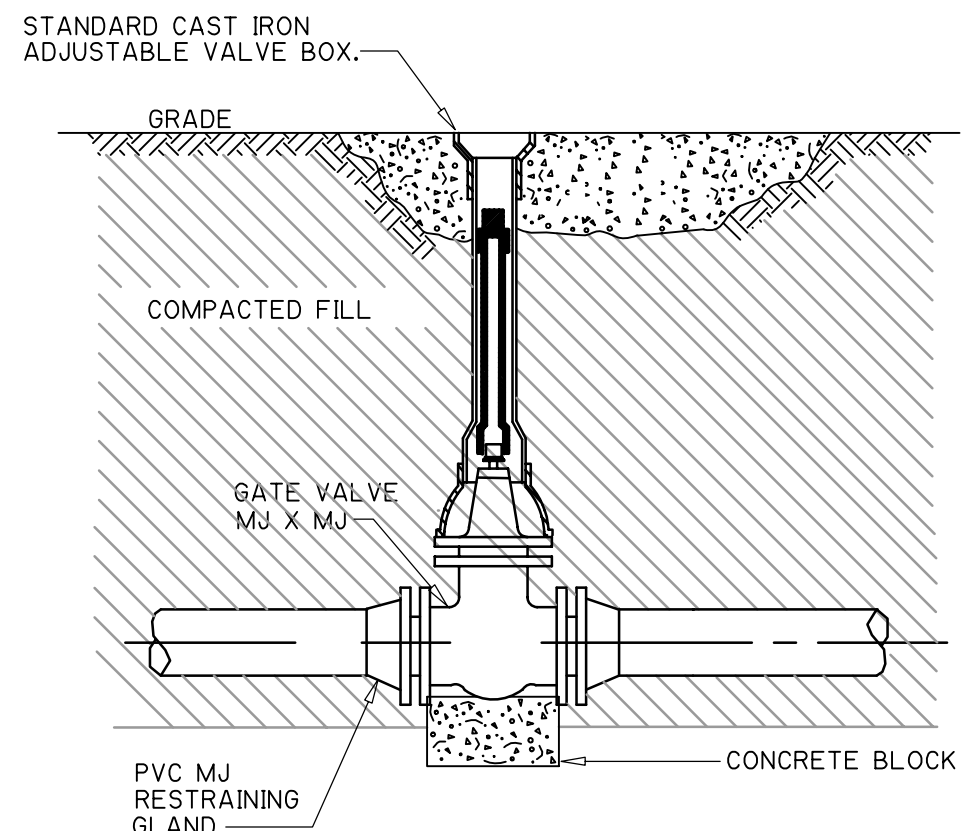
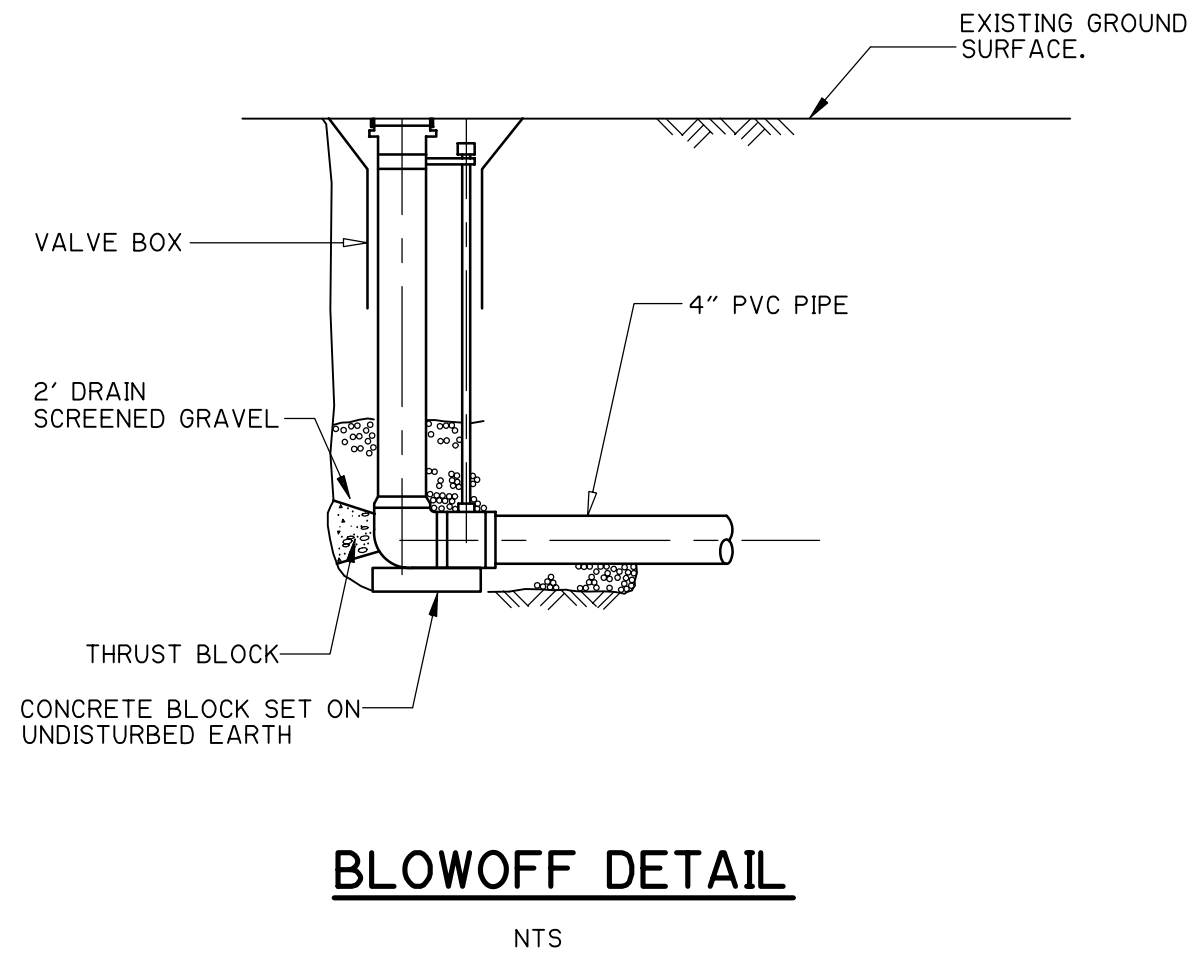
WATER/VACUUM SEPARATION REQUIREMENTS	
VERTICAL SEPARATION DISTANCE	REQUIREMENT
"A"	POLYETHYLENE BARRIER AND VACUUM CONTAINMENT
< 12"	
12" < "A" < 18"	VACUUM CONTAINMENT ONLY
≥ 18"	NO ADDITIONAL REQUIREMENTS

NOTE: "A" MINIMUM OF 6" REQUIRED

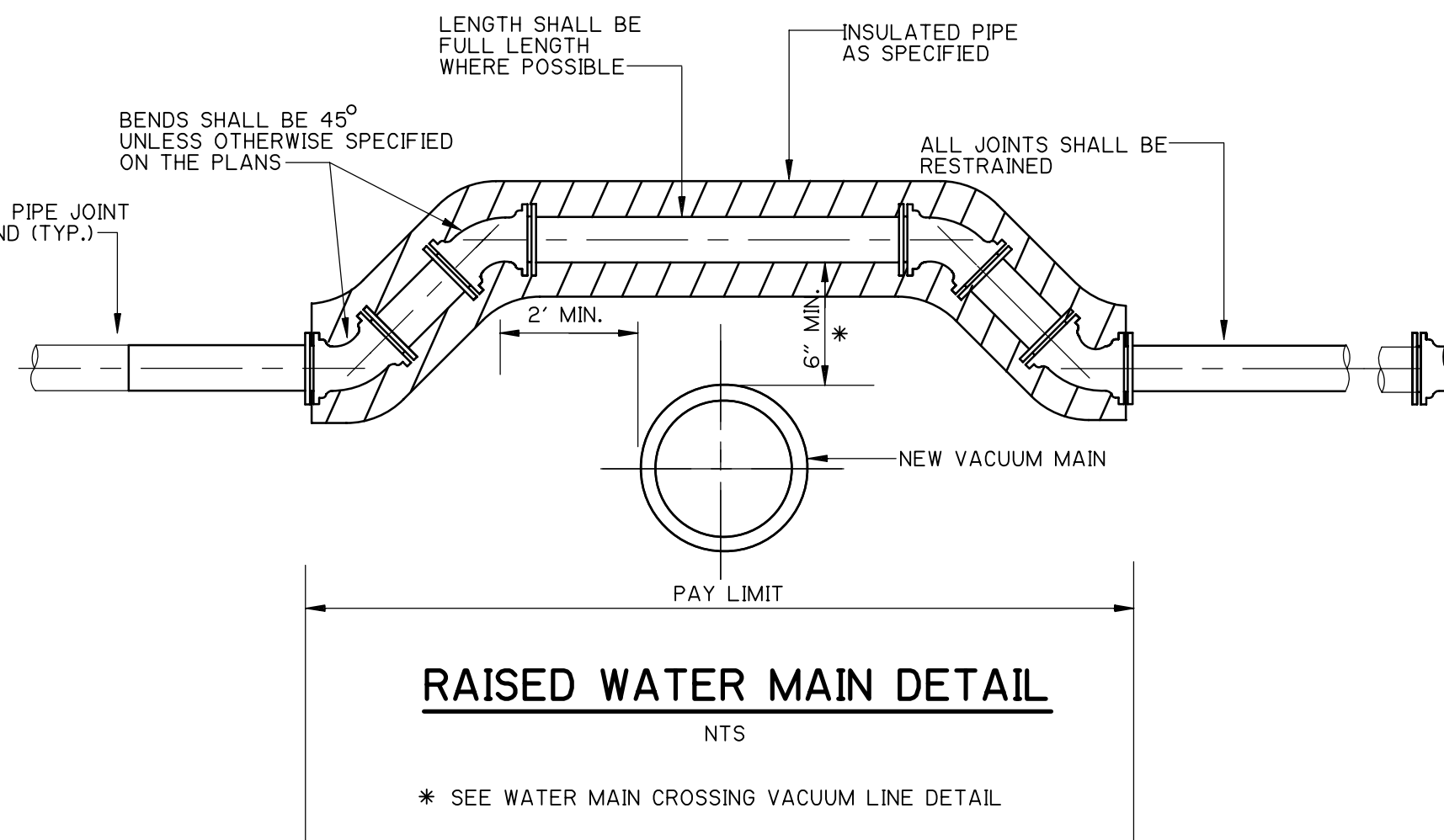
DOUBLE CONTAINMENT	
VACUUM MAIN SIZE	CONTAINMENT PIPE SIZE
4"	6"
6"	8"
8"	10"
10"	12"



WATER MAIN CROSSING VACUUM LINE  
NTS

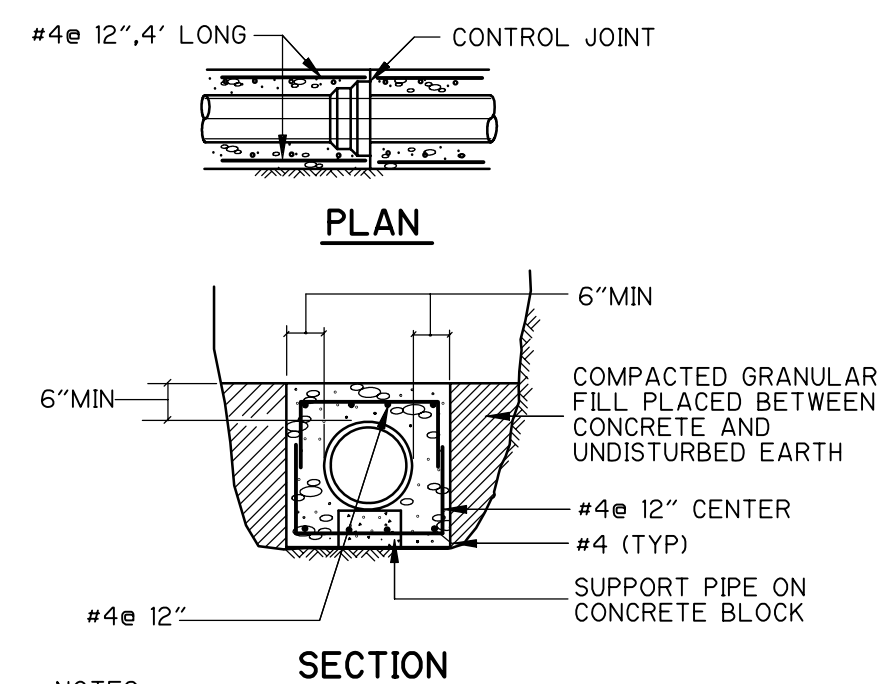


GATE VALVE AND INSTALLATION  
NTS

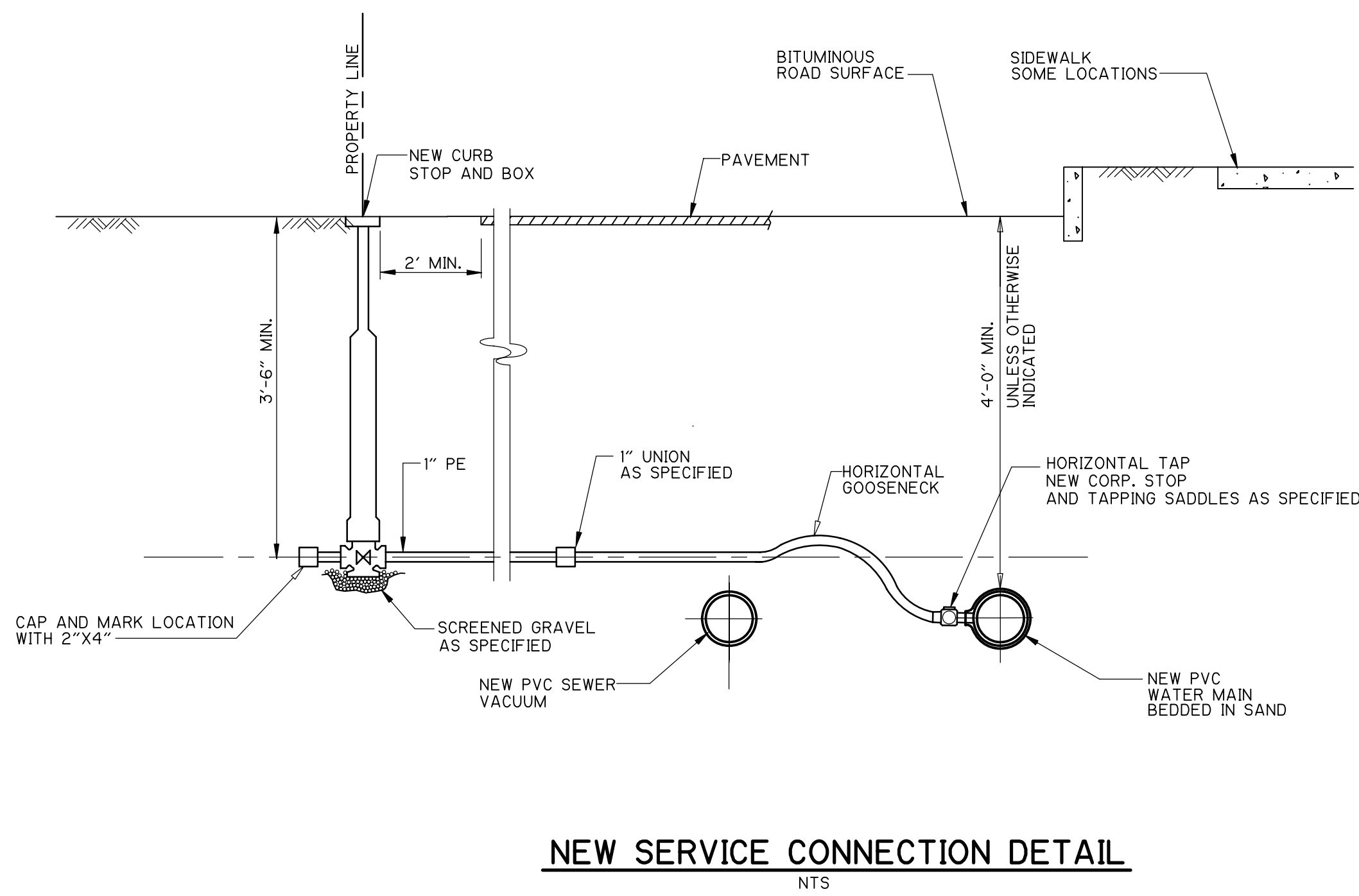


RAISED WATER MAIN DETAIL  
NTS

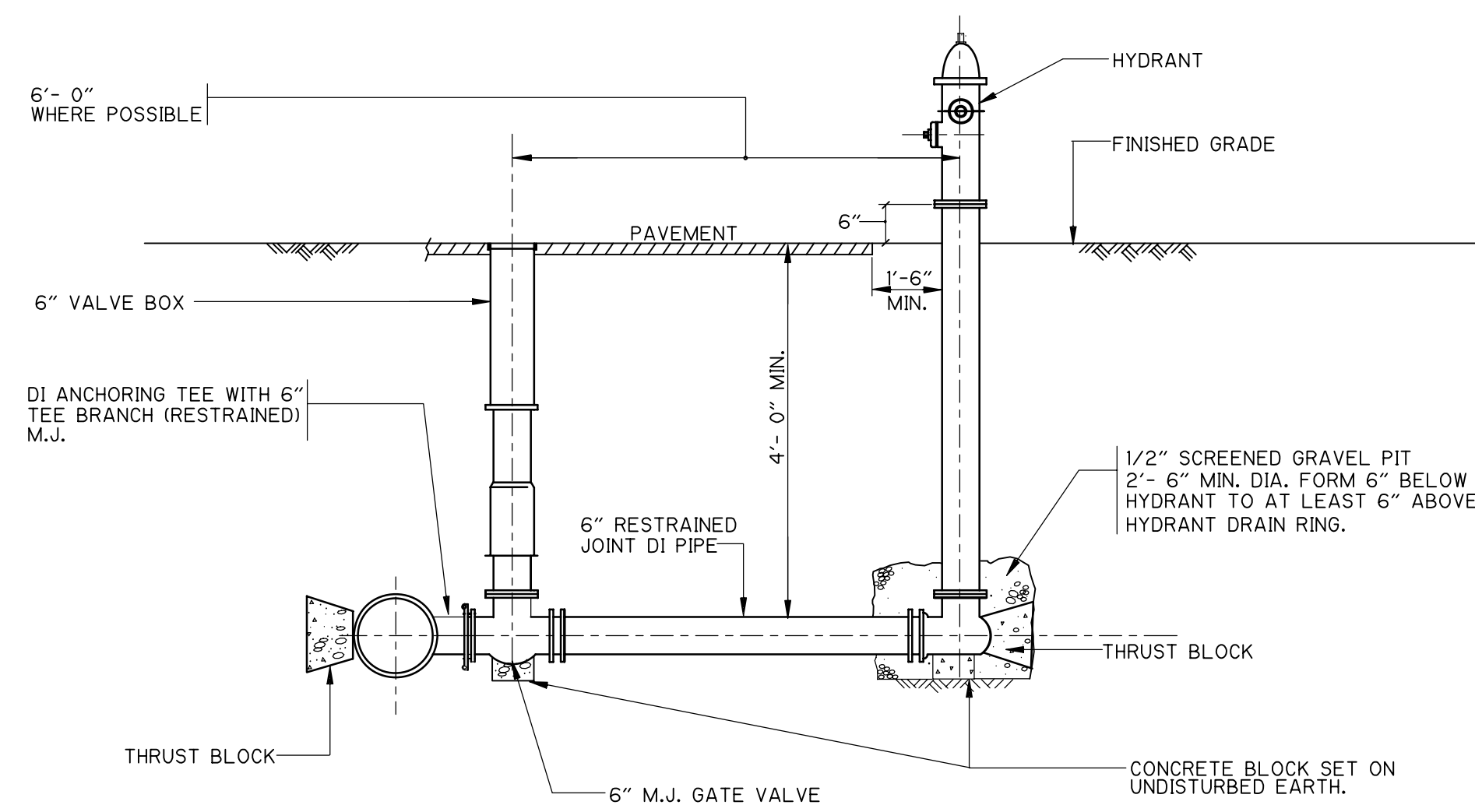
\* SEE WATER MAIN CROSSING VACUUM LINE DETAIL



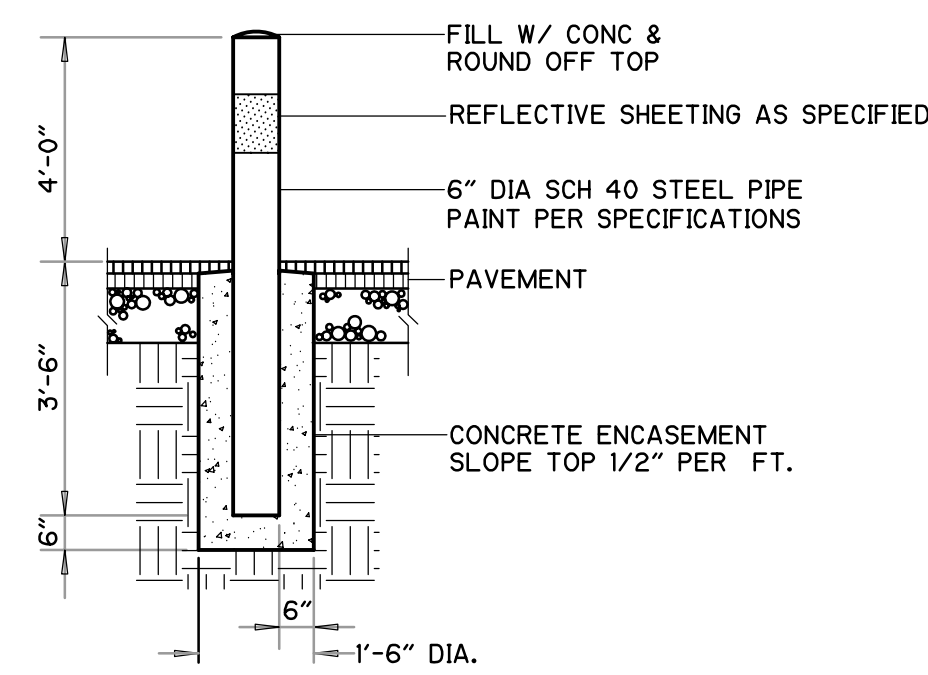
CONCRETE PIPE ENCASEMENT DETAIL  
NTS



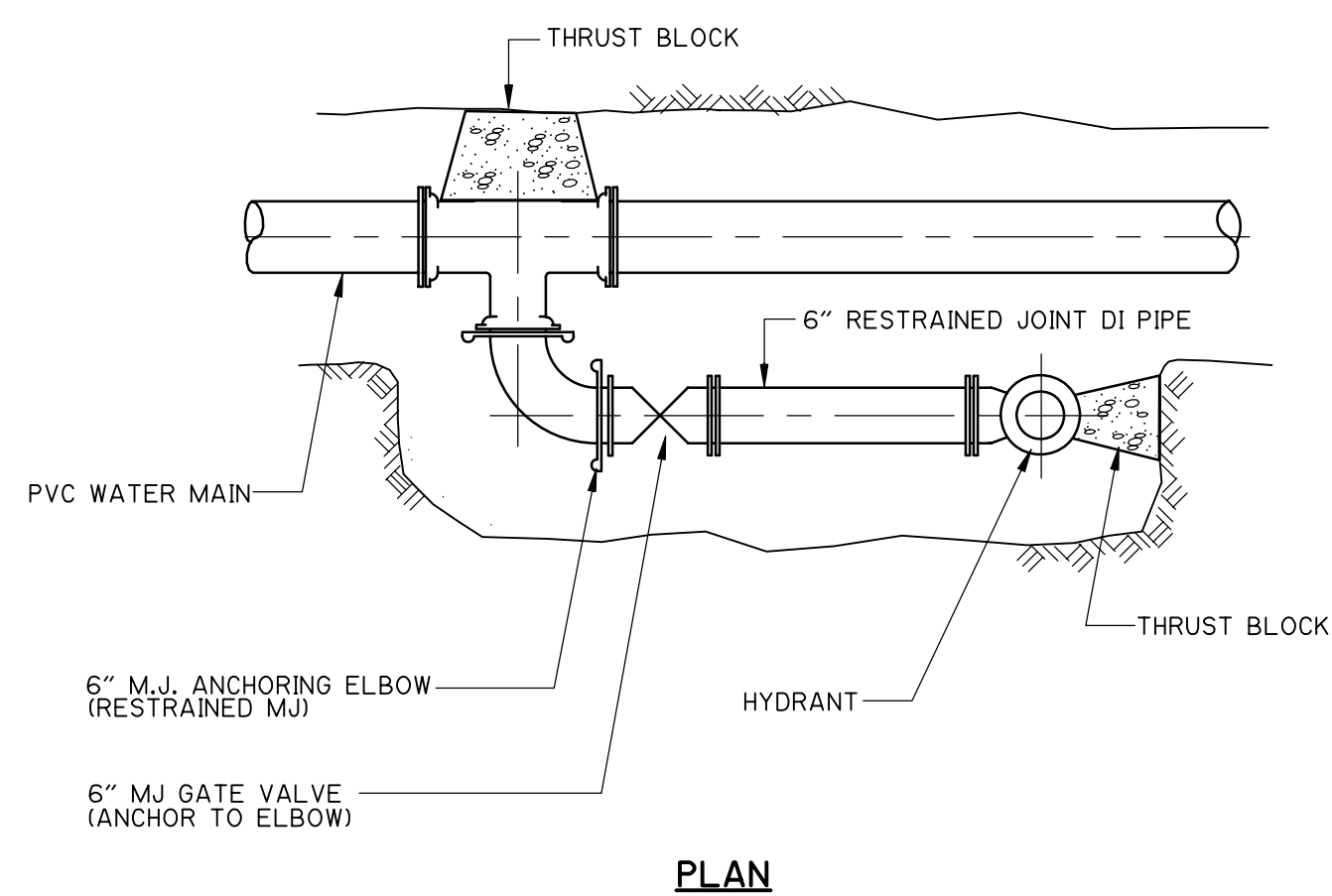
NEW SERVICE CONNECTION DETAIL  
NTS



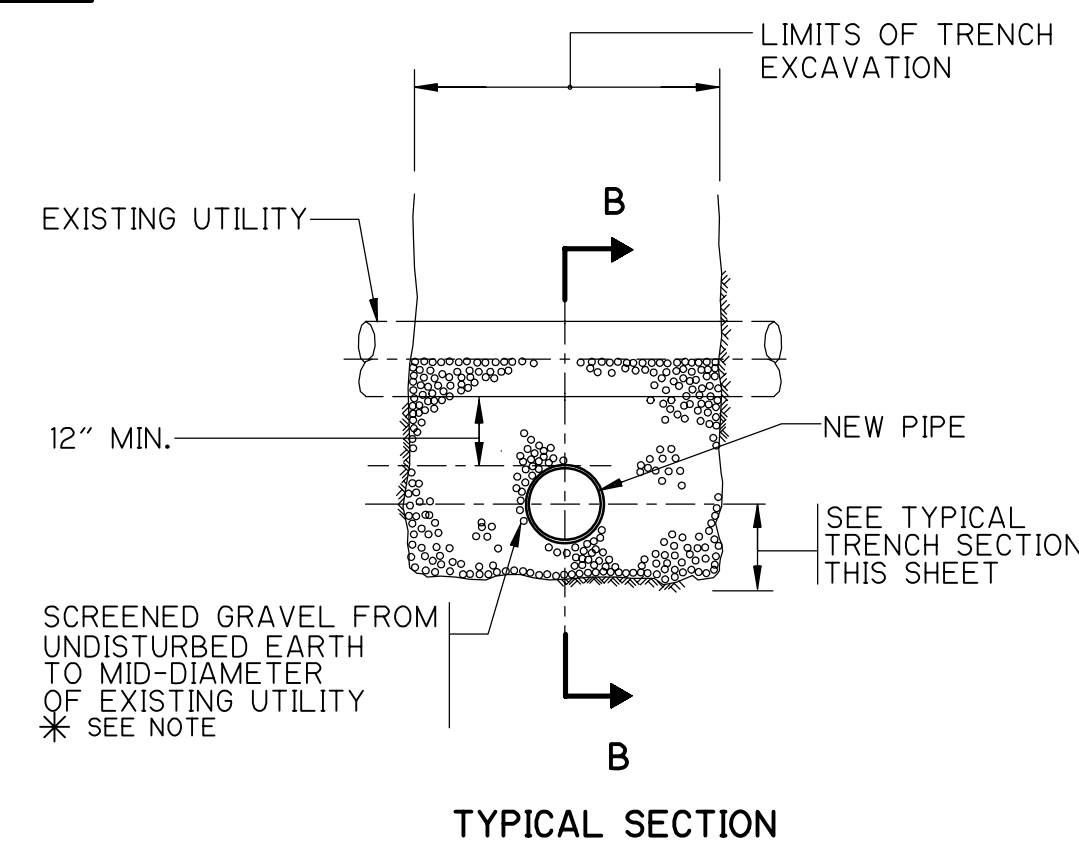
STANDARD CONNECTION  
(ALL JOINTS RESTRAINED)



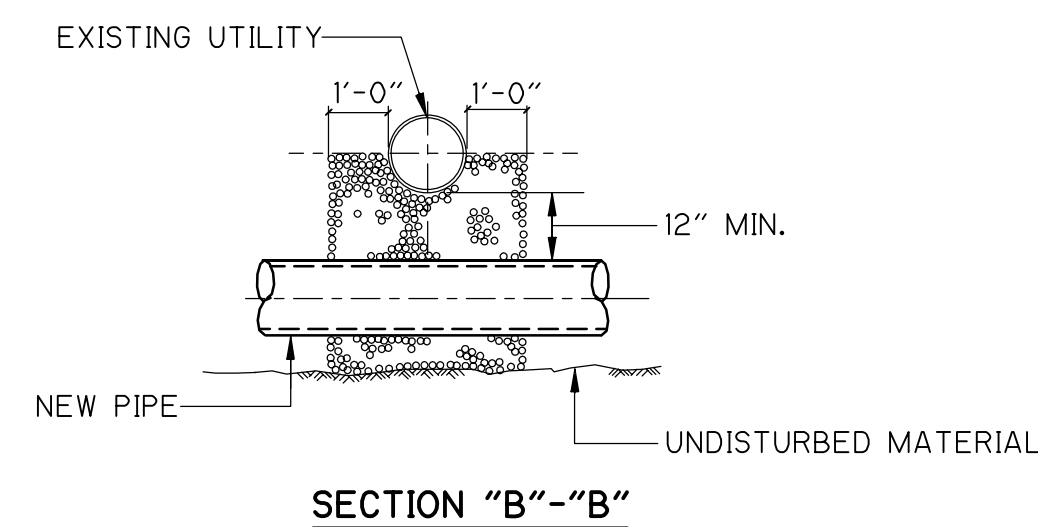
STEEL BOLLARD DETAIL  
NTS



PLAN

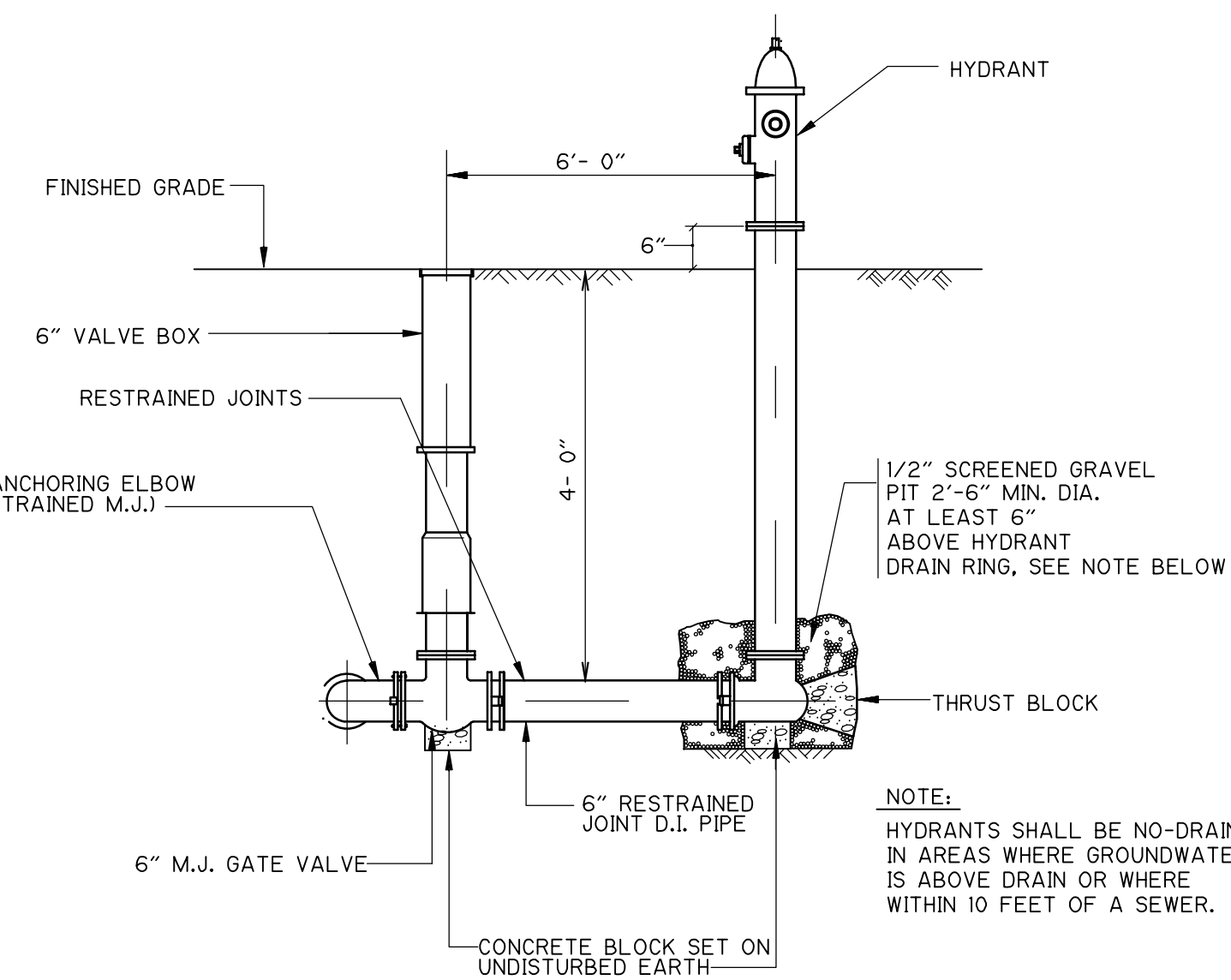


TYPICAL SECTION



SECTION "B"-B

UTILITIES CROSSING DETAIL  
NTS



ALTERNATE CONNECTION  
(ALL JOINTS RESTRAINED)

TYPICAL HYDRANT DETAILS  
NTS

DESIGNED BY: T. MCGOVERN  
 DRAWN BY: G. BELZAIRE  
 SHEET CHK'D BY: T. MCGOVERN  
 CROSS CHK'D BY: RALPH SOUPPA  
 APPROVED BY: PAUL ROSS  
 DATE: OCTOBER 2001

**CDM** Camp Dresser & McKee Inc.  
 consulting engineering construction operations

PLUM ISLAND UTILITY SERVICES  
 CONTRACT NO. 2  
**WATER DISTRIBUTION AND  
 VACUUM SEWER SYSTEMS**

WATER DETAILS

PROJECT NO. 9451-30964  
 FILE NAME: CSTD006

SHEET NO.

72