

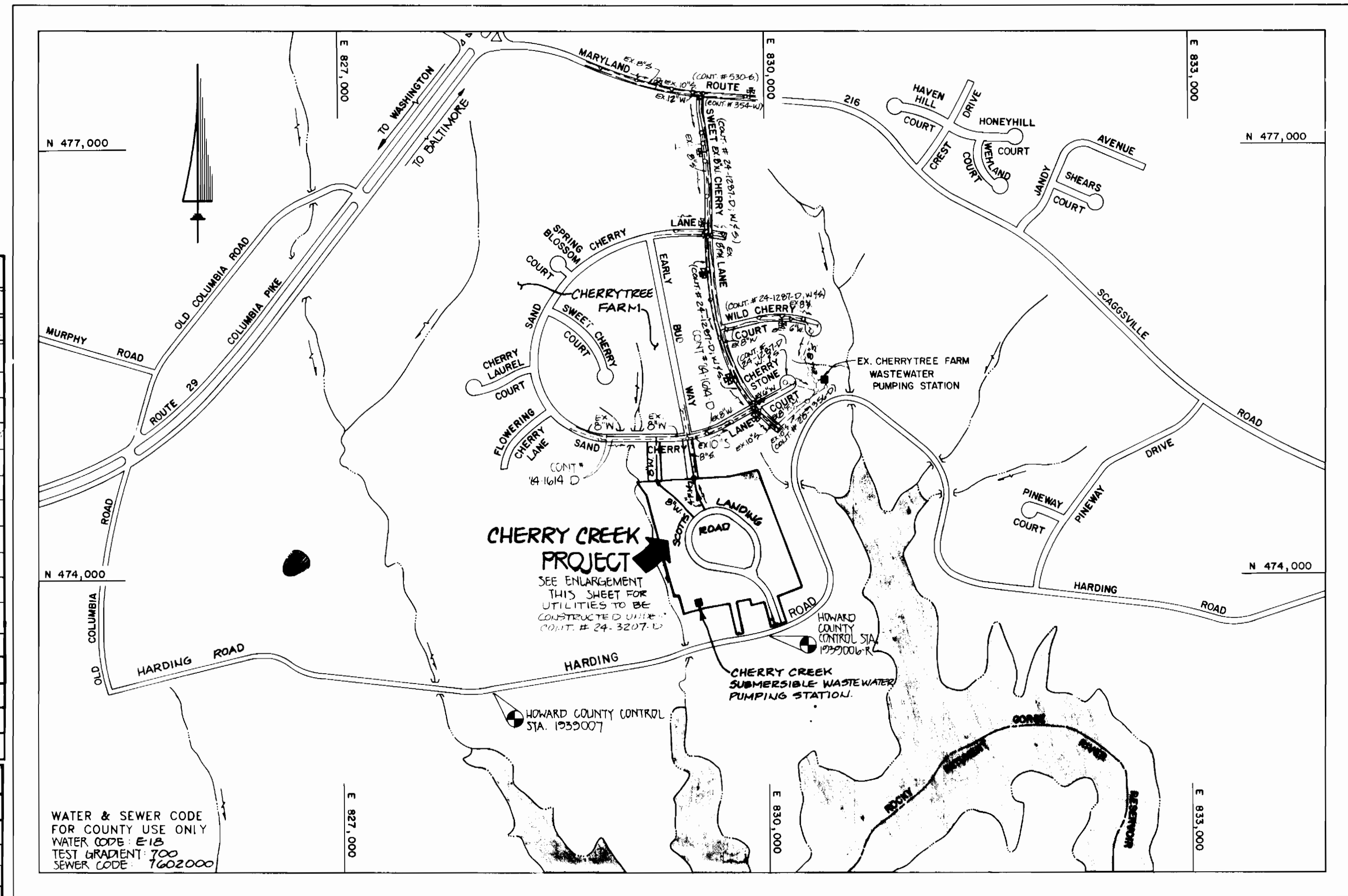
**GENERAL NOTES**

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGED INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM
- ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6"
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - C. & P. TELEPHONE COMPANY - 531-5533
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
  - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 859-9004
  - BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING - 298-9001
  - MISS UTILITY - 1-800-257-7777
  - COLONIAL PIPELINE CO. - 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR
- CONTRACTOR SHALL REMOVE TREE, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.2.
- WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CAN NOT BE SERVED.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLES, FRAMES AND COVERS STANDARD DETAIL G5.1.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS TO BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS. REFERENCE STD. DETAILS W.11.1 & W.2.13.
- CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.
- 4" FORCE MAIN SHALL BE D.I.P., CLASS 5A.

QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" SEWER	1270 LF	1192 LF	PVC	JOB
4" SEWER	714 LF	760 LF	PVC	JOB
MANHOLES	17 EACH	17 EA	PRECAST	AT
4" FORCE MAIN	1242 LF	1242 LF	DIP	AT
8" WATER	2705 LF	2195 LF	DIP	AT
6" WATER	125 LF	135 LF	DIP	AT
1" WHC	591 LF		W/COVER	
3/4" WHC	588 LF		W/COVER	
FIRE HYDRANT	5 EACH	5 EA	CAST IRON	
8" VALVE	8 EACH	8 EA	CAST IRON	
6" VALVE	5 EACH	5 EA	CAST IRON	
8" SEWER D.I.P.	374 LF	346 LF	DIP	
AIR RELEASE MANHOLES	1 EACH	1 EA	PRECAST	
8" SUBMERSIBLE PUMPING STATION	1 EACH	1 EA	PRECAST	

NAME OF UTILITY CONTRACTOR: \_\_\_\_\_  
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: \_\_\_\_\_

INDEX OF DRAWINGS	
No.	DESCRIPTION
1	TITLE SHEET VICINITY MAP
2	WATER, SEWER & FORCE MAIN : PLAN
3	WATER, SEWER & FORCE MAIN : PLAN
4	WATER, SEWER & FORCE MAIN : PROFILES
5	WATER, SEWER & FORCE MAIN : PROFILES
6	WATER, SEWER & FORCE MAIN : PROFILES
7	PUMPING STATION: SITE PLAN & DETAILS
8	PUMPING STATION: PLAN & DETAILS
9	PUMPING STATION: SECTIONAL VIEWS
10	PUMPING STATION: STRUCTURAL PLANS & DETAILS
11	PUMPING STATION: MISCELLANEOUS DETAILS
12	PUMPING STATION: ELECTRICAL PLANS & DETAILS
13	PUMPING STATION: ELECTRICAL & MISC. DETAILS



WATER & SEWER CODE FOR COUNTY USE ONLY  
 WATER CODE: E-13  
 TEST GRADIENT: 700  
 SEWER CODE: 7602000

TYPE OF BUILDING: RESIDENTIAL, DETACHED  
 NUMBER OF LOTS: 45 (35 BUILDABLE)  
 NO. OF WATER HOUSE CONNECTIONS: 35  
 NO. OF SEWER HOUSE CONNECTIONS: 35  
 DRAINAGE AREA: PATUXENT  
 TREATMENT PLANT: LITTLE PATUXENT WQMC

VICINITY MAP  
 SCALE: 1" = 600'

VIA THE CHERRYTREE FARM WASTEWATER PUMPING STATION

# CONTRACT NO. 24-3207-D

## CHERRY CREEK: LOTS 1-45

### SUBMERSIBLE WASTEWATER PUMPING STATION AND WATER AND SEWER MAIN EXTENSIONS

## HOWARD COUNTY, MARYLAND

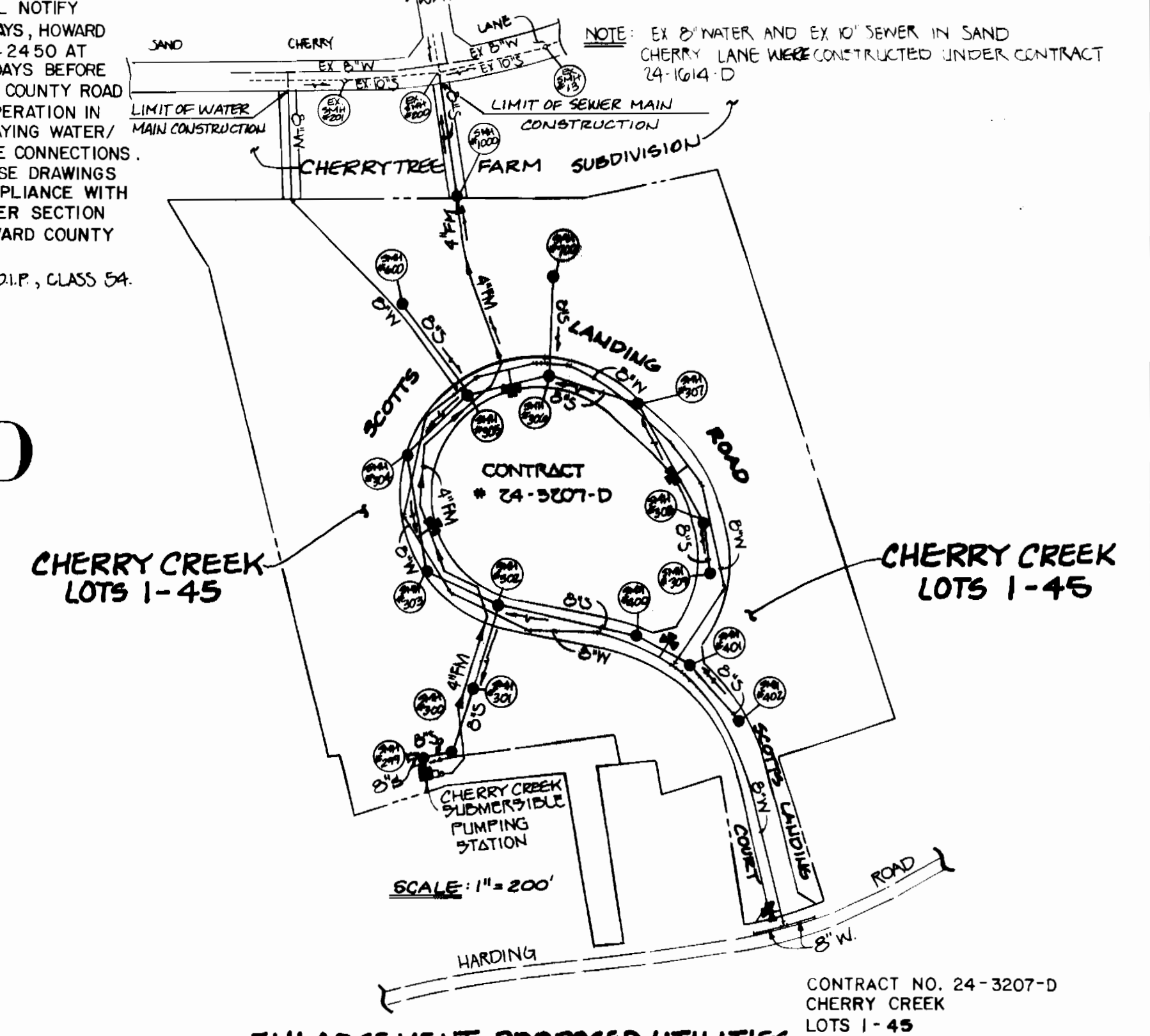
### DEPARTMENT OF PUBLIC WORKS

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: *John L. Robertson* 2/3/93  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN, F-92-122 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
 APPROVED: *James M. Nunn* 2/3/93  
 HOWARD SOIL CONSERVATION DISTRICT DATE

PLAN REFERENCE NUMBERS:  
 P 72-05  
 F 72-122



ENLARGEMENT: PROPOSED UTILITIES  
 CONTRACT NO. 24-3207-D  
 CHERRY CREEK LOTS 1-45  
 WATER AND SEWER EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Director of Public Works: *James M. Nunn* 2/3/93  
 Chief, Bureau of Engineering: *John L. Robertson* 2/3/93  
 Chief, Bureau of Utilities: *Robert J. Benner* 1-29-93  
 Chief, Land Development Division: *Michael J. ...* 2/3/93

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 9171 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21042  
 (301) 461-2855

#9757  
 Terrell A. Fisher

DES: MJM / PWK				
DRWN: SFH				
CHK: PWK				
DATE: MJM	REVISION	DATE	DATE	DATE
BY NO.				

600' SCALE MAP NO. 46  
 BLOCK NO. 11B16

**CHERRY CREEK**  
 LOTS 1-45  
 CONTRACT NO. 24-3207-D  
 SIXTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 1 OF 13

SEE SHEET 4 FOR PROFILES OF WATER & SEWER MAINS IN SCOTTS LANDING ROAD

SEE SHEET 5 FOR PROFILE OF 4" FORCE MAIN

SEE SHEET 6 FOR CRIMP CHART & TABULATION CHART OF 4" F.M. & 8" W.

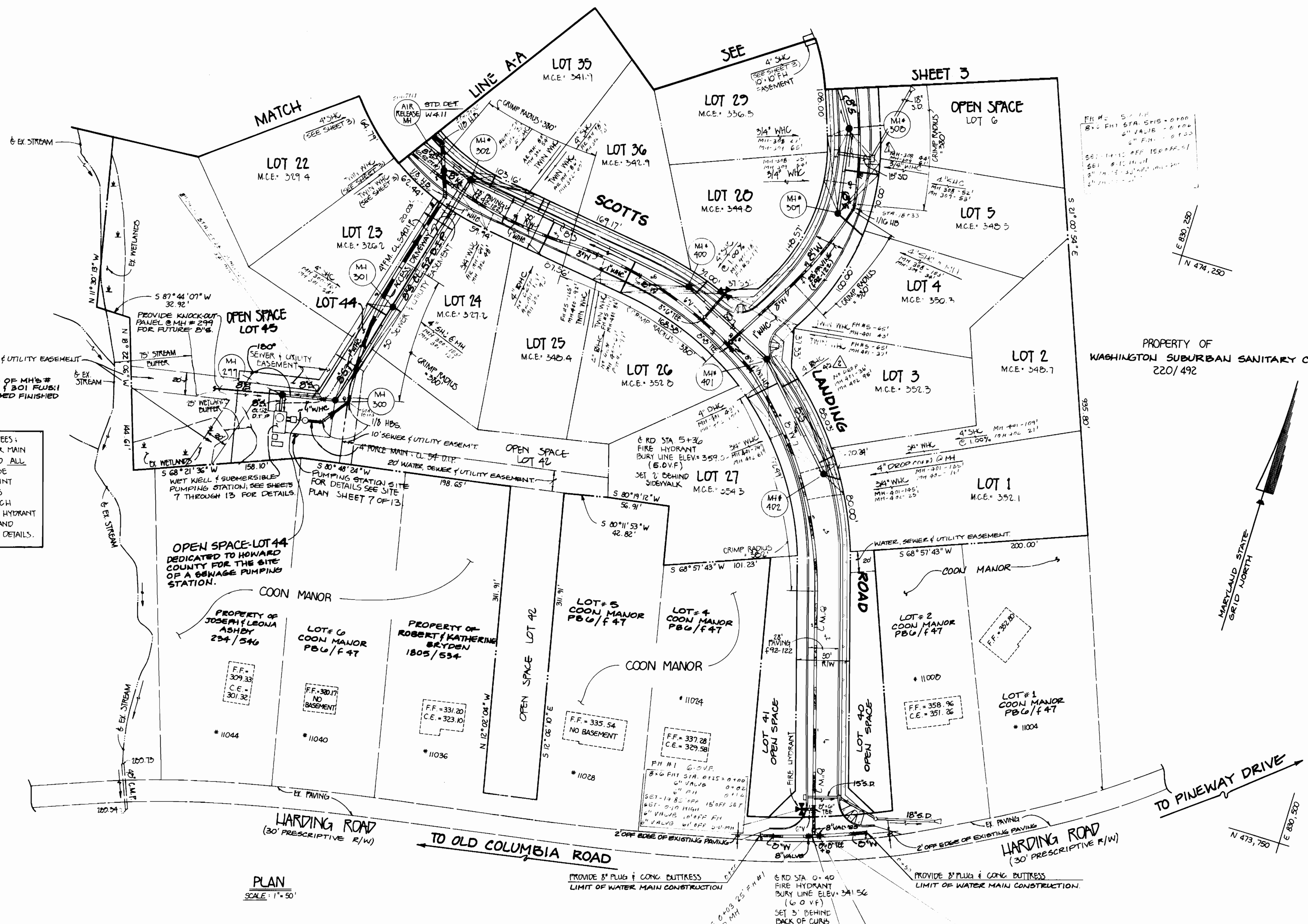
NOTE: SEE SHEET 7 OF 13 FOR DETAILS & DIMENSIONS OF THE CONCRETE BUTTRESSES AT THE HORIZONTAL BENDS OF THE 4" FORCE MAIN.

PROPERTY OF DAVID & JOY COON  
408 / 342

PROPERTY OF WASHINGTON SUBURBAN SANITARY COMMISSION  
220 / 492

NOTE: WITH THE EXCEPTION OF THE 8" & 6" FIRE HYDRANT TEES; ALL HORIZONTAL BENDS AND TEES ON THE 8" WATER MAIN WITHIN THE LIMITS OF SCOTTS LANDING ROAD AND ALL HORIZONTAL BENDS ON THE 4" FORCE MAIN SHALL BE CONSTRAINED THROUGH THE USE OF RESTRAINED JOINT PIPING. THE WATER MAIN AND FORCE MAIN PROFILES (SHEETS 4 & 5) INDICATE THE LIMITS WITHIN WHICH RESTRAINED JOINTS SHALL BE UTILIZED. THE FIRE HYDRANT TEES AND FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED IN ACCORDANCE WITH THE STANDARD DETAILS.

NOTE: SET RIMS OF M.H.'s # 299, 300 & 301 FLUSH W/ PROPOSED FINISHED GRADE.



DEPOTES EXISTING DWELLING

PLAN  
SCALE: 1" = 50'

PROPERTY OF WASHINGTON SUBURBAN SANITARY COMMISSION (ROCKY GORGE RESERVOIR)

CONTRACT NO. 24-3207-D  
CHERRY CREEK  
LOTS 1-45  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* DATE: 2/4/93  
 Chief, Bureau of Engineering: *[Signature]* DATE: 2/3/93  
 Chief, Bureau of Utilities: *[Signature]* DATE: 1-29-93  
 Chief, Land Development Division: *[Signature]* DATE: 2/3/93

FISHER, COLLINS, AND CARTER, INC. # 9757  
CONSULTING ENGINEERS AND LAND SURVEYORS  
9171 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
(301) 461-2855

*[Signature]*  
TERRELL A. FISHER

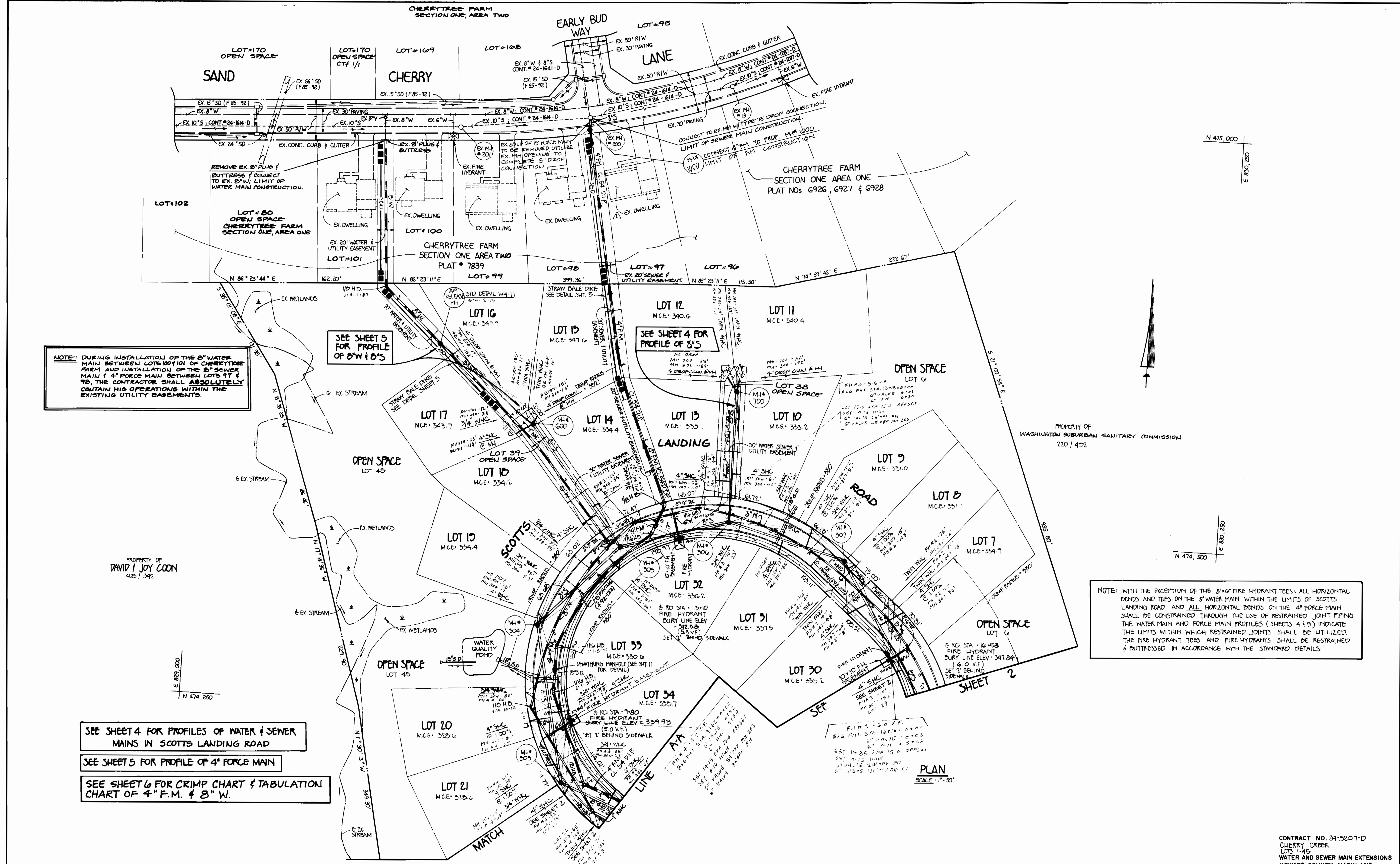
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DRN: SFH				
CHK: PWK				
DATE:				
BY:				
NO.:				
REVISION:				
DATE:				

WATER, SEWER AND FORCE MAINS  
PLAN

600 SCALE MAP NO. 46 BLOCK NO. 11 B. 16

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 13



NOTE: DURING INSTALLATION OF THE 8" WATER MAIN BETWEEN LOTS 100/101 OF CHERRYTREE FARM AND INSTALLATION OF THE 8" SEWER MAIN / 4" FORCE MAIN BETWEEN LOTS 97 & 98, THE CONTRACTOR SHALL ABSOLUTELY CONTAIN HIS OPERATIONS WITHIN THE EXISTING UTILITY BASEMENTS.

SEE SHEET 5 FOR PROFILE OF 8" W & S

SEE SHEET 4 FOR PROFILE OF 8" S

NOTE: WITH THE EXCEPTION OF THE 8" x 6" FIRE HYDRANT TEES, ALL HORIZONTAL BENDS AND TEES ON THE 8" WATER MAIN WITHIN THE LIMITS OF SCOTT'S LANDING ROAD AND ALL HORIZONTAL BENDS ON THE 4" FORCE MAIN SHALL BE CONSTRAINED THROUGH THE USE OF RESTRAINED JOINT PIPING. THE WATER MAIN AND FORCE MAIN PROFILES (SHEETS 4 & 5) INDICATE THE LIMITS WITHIN WHICH RESTRAINED JOINTS SHALL BE UTILIZED. THE FIRE HYDRANT TEES AND FIRE HYDRANTS SHALL BE RESTRAINED & BUTTRESSED IN ACCORDANCE WITH THE STANDARD DETAILS.

SEE SHEET 4 FOR PROFILES OF WATER & SEWER MAINS IN SCOTT'S LANDING ROAD

SEE SHEET 5 FOR PROFILE OF 4" FORCE MAIN

SEE SHEET 6 FOR CRIMP CHART & TABULATION CHART OF 4" F.M. & 8" W.

PLAN SCALE: 1" = 50'

CONTRACT NO. 24-3207-D  
CHERRY CREEK  
LOTS 1-45  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. Clark* 2/4/93  
DIRECTOR OF PUBLIC WORKS DATE

*Robert A. Fisher* 1/29/93  
CHIEF, BUREAU OF UTILITIES DATE

*William S. Ryan* 2/29/93  
CHIEF, BUREAU OF ENGINEERING DATE

*John A. Fisher* 1/29/93  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC. # 9757

CONSULTING ENGINEERS AND LAND SURVEYORS  
9171 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
(301) 461-2855

*Terrell A. Fisher*  
TERRELL A. FISHER

DES: MJM					
DRN: SFH					
CHK: PWK					
DATE: 6/20/93	BY: MJM	REVISION: REVISE 4" FM BETWEEN EX. HOUSES	DATE: 6/20/93		
	NO.	REVISION	DATE		

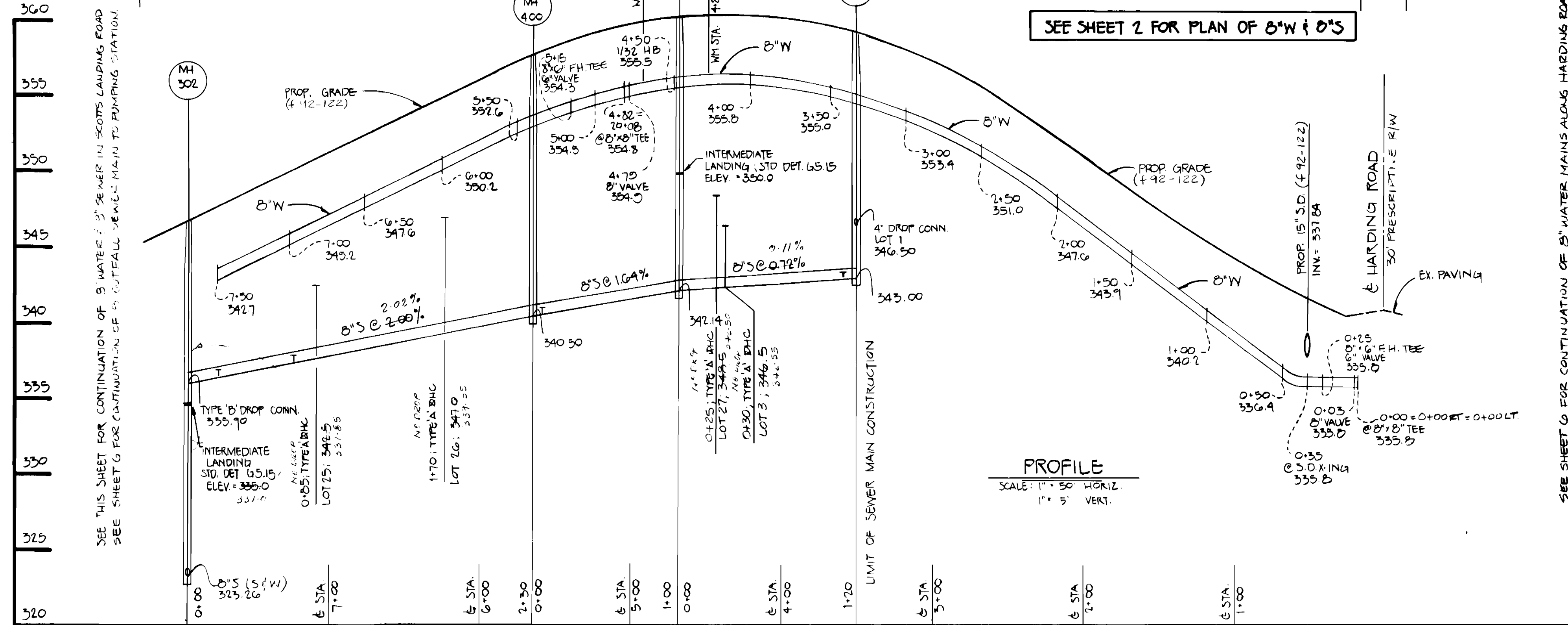
WATER, SEWER AND FORCE MAINS  
PLAN

600' SCALE MAP NO. 46 BLOCK NO. 11 B 16

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 5 OF 13

OPEN SPACE- LOT 44  
PUMPING STATION ACCESS DRIVEWAY



SEE SHEET 2 FOR PLAN OF 8" W & 8" S

SEE SHEET 3 FOR PLAN OF 4" W & 8" S

NOTE: SET RIM OF MH #700 FLUSH W/ PROPOSED FINISHED GRADE.

SEE SHEET 6 FOR CONTINUATION OF 8" WATER MAINS ALONG HARDING ROAD

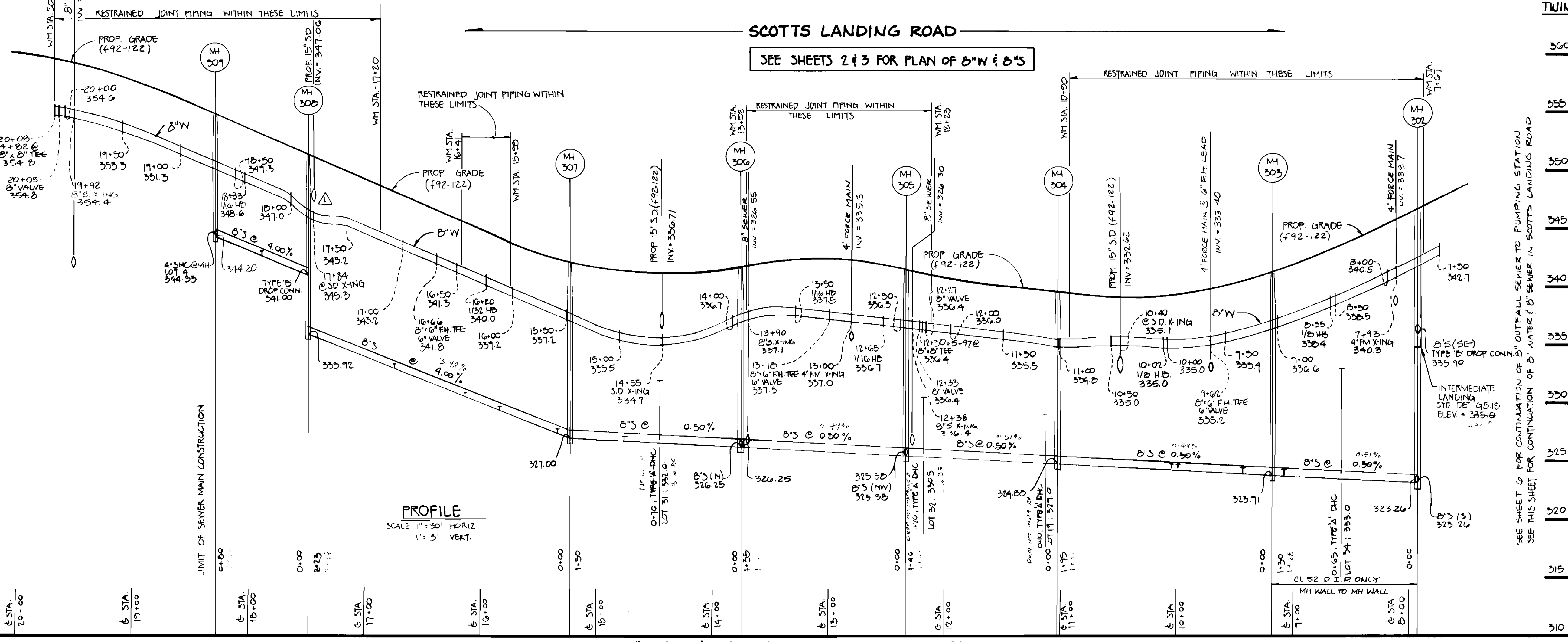
SEE THIS SHEET FOR CONTINUATION OF WATER & SEWER MAINS IN SCOTTS LANDING ROAD

8" WATER & 8" SEWER: SCOTTS LANDING ROAD

ACCESS DRIVEWAY TO LOTS 11 & 12  
TWIN 1" WHC & 8" S

SCOTTS LANDING ROAD

SEE SHEETS 2 & 3 FOR PLAN OF 8" W & 8" S



SEE THIS SHEET FOR CONTINUATION OF 8" WATER IN SCOTTS LANDING ROAD

SEE SHEET 6 FOR CONTINUATION OF 8" WATER MAINS ALONG HARDING ROAD

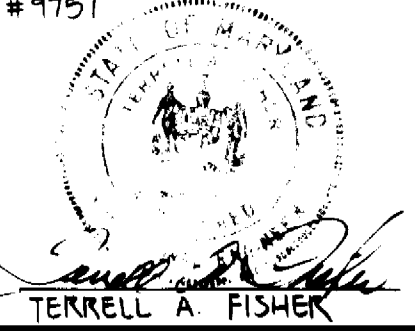
SEE THIS SHEET FOR CONTINUATION OF 8" WATER & 8" SEWER IN SCOTTS LANDING ROAD

8" WATER & 8" SEWER: SCOTTS LANDING ROAD

CONTRACT NO. 24-3207-D  
CHERRY CREEK  
LOTS 1-45  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
7171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043



DES: MM			
DRN: MM			
CHK: PWK			
DATE:	BY	NO.	REVISION
			REVISE WM PROFILE / ADD SD X-ING

WATER AND SEWER MAINS  
PROFILES

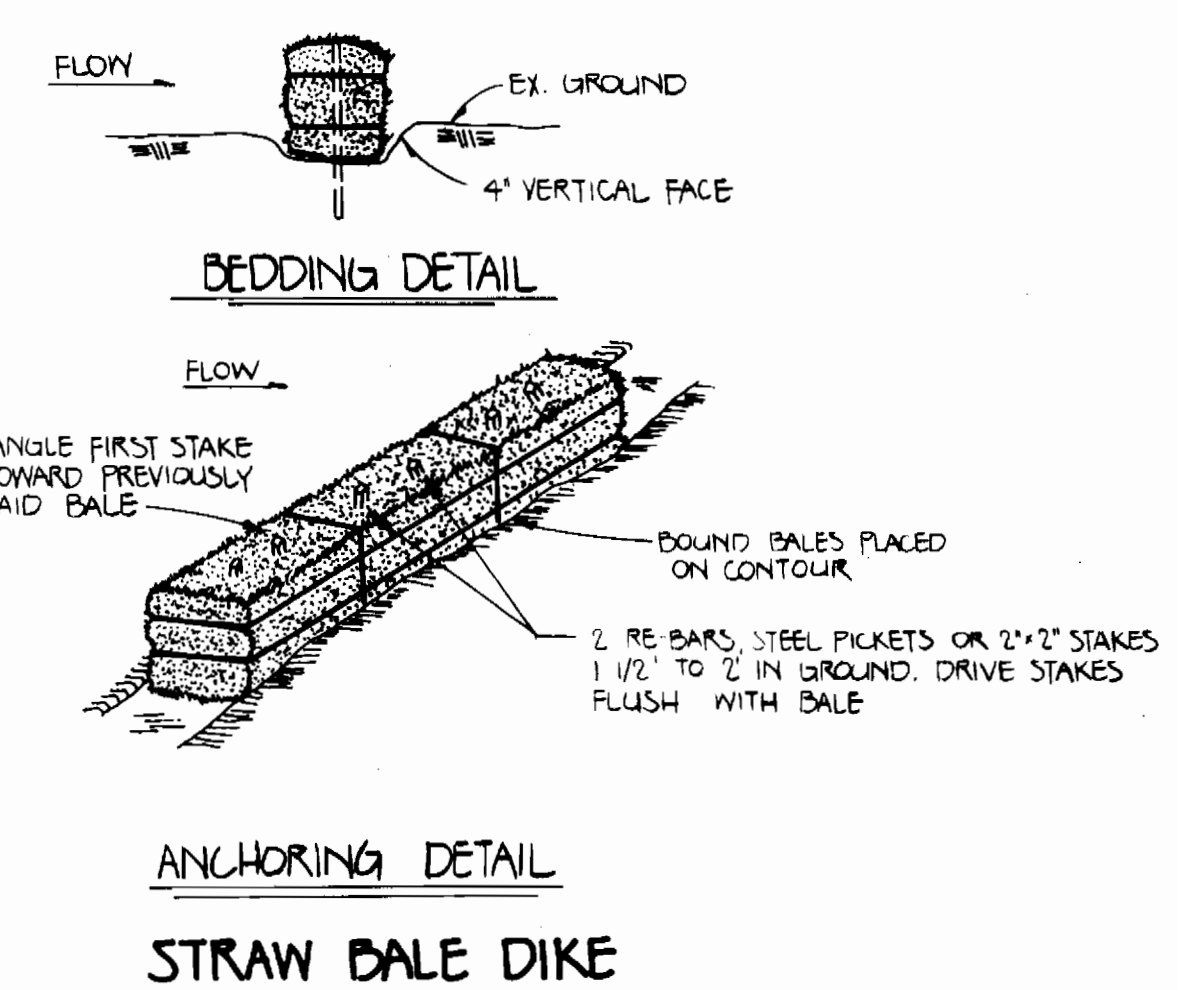
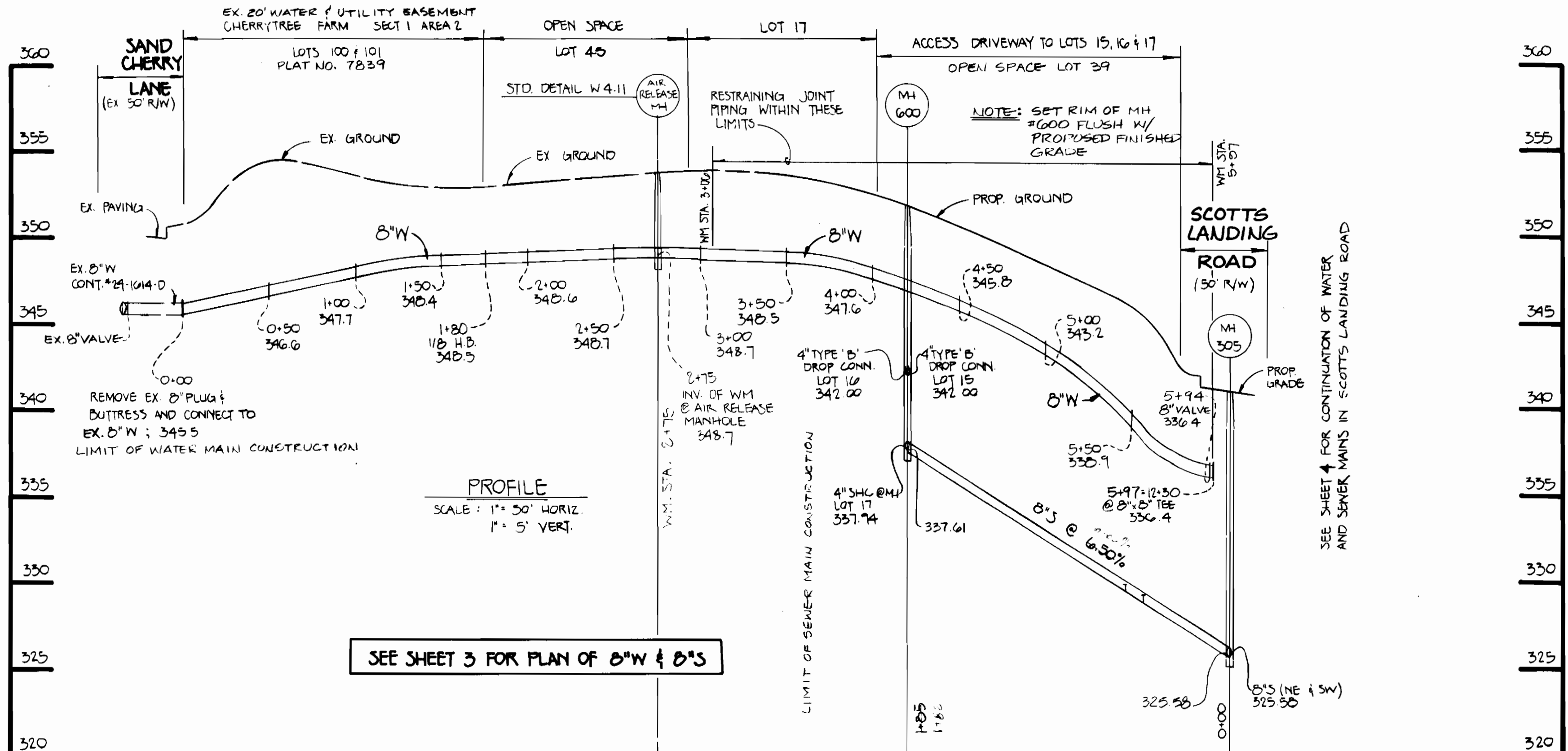
CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 4 OF 13

2/4/93  
1-29-93  
2/3/93

600' SCALE MAP NO. 46 BLOCK NOS. 11 & 16

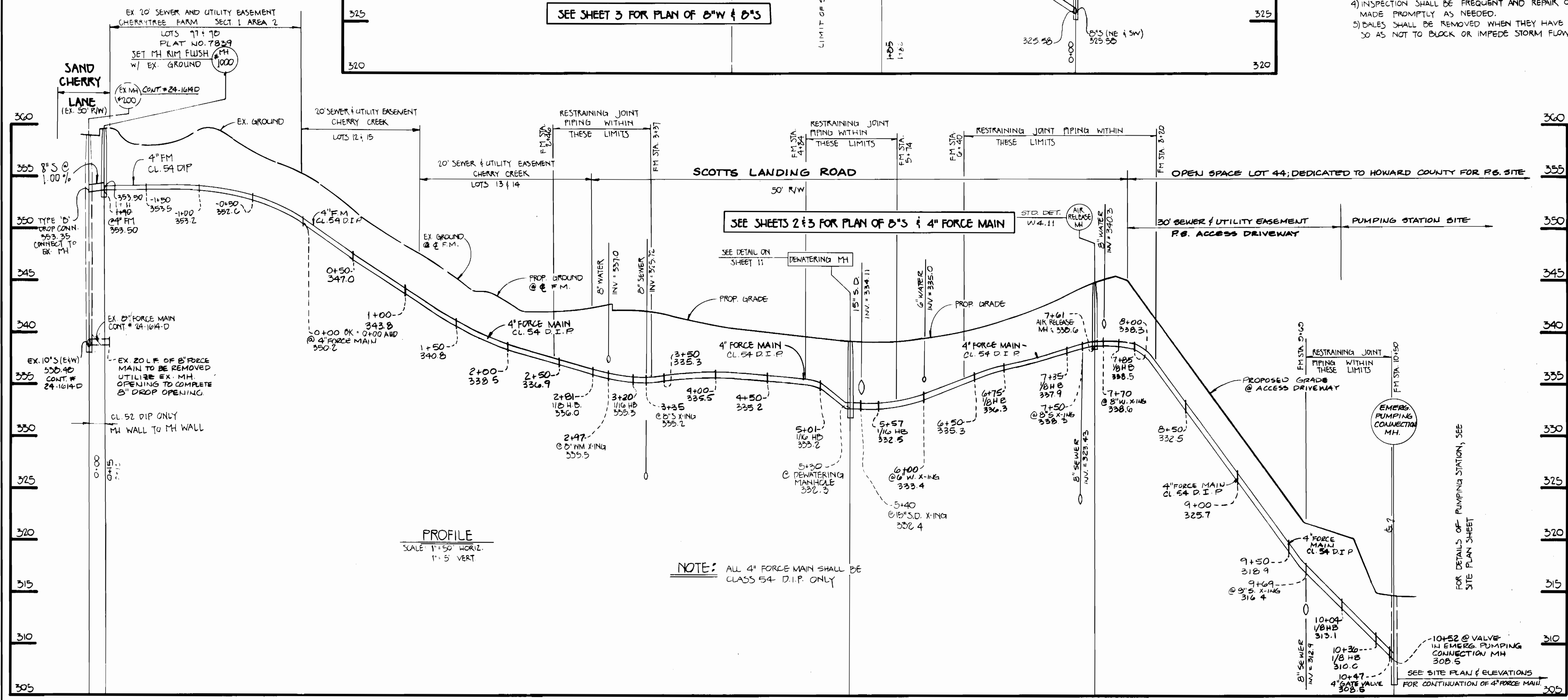
**NOTE:** DURING INSTALLATION OF THE 8" WATER MAIN BETWEEN LOTS 100 & 101 OF CHERRY TREE FARM AND INSTALLATION OF THE 8" SEWER MAIN & 4" FORCE MAIN BETWEEN LOTS 17 & 18, THE CONTRACTOR SHALL ABSOLUTELY CONTAIN HIS OPERATIONS WITHIN THE EXISTING UTILITY EASEMENT.



- 1) BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- 2) EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
- 3) BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- 4) INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 5) BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

**NOTE:** SET RIM OF MH # 1000 FLUSH W/ EXISTING GROUND.

SEE SHEET 3 FOR PLAN OF 8" W & 8" S



SEE SHEETS 2 & 3 FOR PLAN OF 8" S & 4" FORCE MAIN

**NOTE:** ALL 4" FORCE MAIN SHALL BE CLASS 54 D.I.P. ONLY

FOR DETAILS OF PUMPING STATION, SEE SITE PLAN SHEET

SEE SITE PLAN & ELEVATIONS FOR CONTINUATION OF 4" FORCE MAIN

CONTRACT NO. 24-3207-D  
CHERRY CREEK  
LOTS 1-45  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: *James M. ...* 1-4-93  
Chief, Bureau of Engineering: *...* 2-3-93  
Chief, Bureau of Utilities: *...* 1-29-93  
Chief, Land Development Division: *...*

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
1171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043  
TERRILL A. FISHER

DES: MM					
DRN: MM					
CHK: PWK					
DATE:	BY:	NO.	REVISION	DATE	

WATER, SEWER AND FORCE MAINS  
PROFILES  
600' SCALE MAP NO. 40 BLOCK NOS. 11 & 16

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 5 OF 13

**S.H.C. INVERTS & PROPERTY LINE**

STATION	LOT	ELEVATION
MH 300 TO MH 301		
0+05 LT	25	321.05
0+10 RT	24	322.97
MH 302 TO MH 303		
0+05 RT	34 (DHC)	323.94
1+10 LT	22	324.17
MH 303 TO MH 304		
0+15 LT	21 (DHC)	324.30
0+20 LT	20 (DHC)	324.15
0+25 RT	33	325.01
MH 304 TO MH 305		
0+10 LT	19 (DHC)	324.78
1+10 RT	32 (DHC)	320.98
MH 306 TO MH 307		
0+10 RT	31 (DHC)	332.40
1+00 LT	9 (DHC)	327.18
MH 307 TO MH 308		
0+10 LT	8 (DHC)	327.67
0+20 RT	30	330.11
0+30 LT	7 (DHC)	331.12
1+50 RT	25	331.35
MH 308 TO MH 309		
0+40 LT	5	343.43
0+50 RT	4	345.17
MH 302 TO MH 400		
0+10 LT	35	336.77
0+20 LT	36	337.77
0+25 RT	29 (DHC)	343.80
1+10 RT	28 (DHC)	347.66

MH 400 TO MH 401	MH 401 TO MH 402	MH 306 TO MH 600	MH 306 TO MH 700
0+07 LT	20 (DHC)	340.74	
0+25 RT	27 (DHC)	347.16	
0+30 LT	3 (DHC)	346.06	
1+07 LT	2 (DHC)	343.26	
0+10 RT	1 (DHC)	346.84	
0+50 LT	10	329.40	
0+60 RT	14	327.85	
0+60 LT	17	328.42	
0+60 RT	16 (DHC)	342.36	
0+60 RT	15 (DHC)	342.24	
0+50 LT	13	328.32	
0+60 RT	10	328.42	
0+60 LT	12 (DHC)	335.40	
0+60 RT	11 (DHC)	335.30	

**MANHOLE TABULATION CHART**

NO.	& RD. STATION	DISTANCE	SLOPE	RIM ELEV.
299				314.22
300				316.32
301				330.36
302	7+75	8' RT	-4.85%	346.23
303	9+18	20' LT	-3.36%	341.32
304	11+02	21' LT	+1.50%	339.96
305	12+35	2' RT	+1.42%	341.45
306	13+75	5' RT	-1.18%	341.25
307	15+12	10' LT	+2.26%	342.65
308	17+47	5' RT	+4.37%	351.35
309	18+25	4' RT	+4.37%	354.78
400	5+65	10' RT	-4.28%	357.16
401	4+68	10' RT	-1.00%	359.84
402	3+50	10' RT	+2.70%	358.93
600	USE IN COMMON: OPEN SPACE	LOT 39		351.52
700	USE IN COMMON: OPEN SPACE	LOT 38		344.40
1000	IN EXISTING SEWER UTILITY EASEMENT			359.45

SET MH RIM FLUSH W/ PROPOSED FINISHED GRADE

SCOTT'S LANDING ROAD

SET MH RIMS FLUSH W/ PROP FINISHED GRADE

SET MH RIM FLUSH W/ EX GROUND

**WATER MAIN TABULATION CHART**

& RD. STATION	APPURTENANCE	DISTANCE
0+12	8" V VALVE	1' LT
0+15	8" V VALVE	7' LT
0+40	8" x 6" FH TEE	7' LT
4+69	1/32" HB	8' LT
4+99	8" V VALVE	8' LT
5+02	8" x 8" TEE	8' LT
5+36	8" x 6" FH TEE	7' LT
8+69	1/8" HB	13' LT
9+72	8" x 6" FH TEE	8' LT
10+10	1/8" HB	21' LT
12+21	8" V VALVE	6' LT
12+24	8" V VALVE	6' LT
12+27	8" V VALVE	6' LT
12+60	1/16" HB	13' LT
13+10	8" x 6" FH TEE	9' LT
13+40	1/16" HB	12' LT
16+05	1/32" HB	6' LT
16+53	8" x 6" FH TEE	3' LT
18+18	1/16" HB	9' LT
19+88	8" V VALVE	5' LT

SCOTT'S LANDING ROAD

**WATER MAIN CRIMP CHART**

W.M. STATION	APPURTENANCE	RAD.
2+32	PC: BEGIN CRIMP	> 382'
4+51	PT: END CRIMP	
4+82	PC: BEGIN CRIMP	> 380'
6+59	PT: END CRIMP & BEGIN REVERSED CRIMP	> 380'
8+06	PT: END REVERSED CRIMP	
10+42	PC: BEGIN CRIMP	> 380'
12+65	PT: END CRIMP	
13+50	PC: BEGIN CRIMP	> 380'
15+52	PT: END CRIMP	
16+20	PC: BEGIN CRIMP	> 380'
18+33	PT: END CRIMP & PC: BEGIN CRIMP @ 1/16" HB	> 380'
19+23	PT: END CRIMP	

SCOTT'S LANDING ROAD

**FORCE MAIN TABULATION CHART**

& RD. STATION	APPURTENANCE	DISTANCE
0+04	1/8" HB	17' LT
8+18	AIR RELEASE MH	6' E
8+39	1/8" HB	19' RT
9+00	1/8" HB	2' RT
10+24	1/16" HB	8' RT
10+23	1/16" HB	9' RT
12+75	1/16" HB	7' RT
13+02	1/8" HB	21' LT

SCOTT'S LANDING ROAD

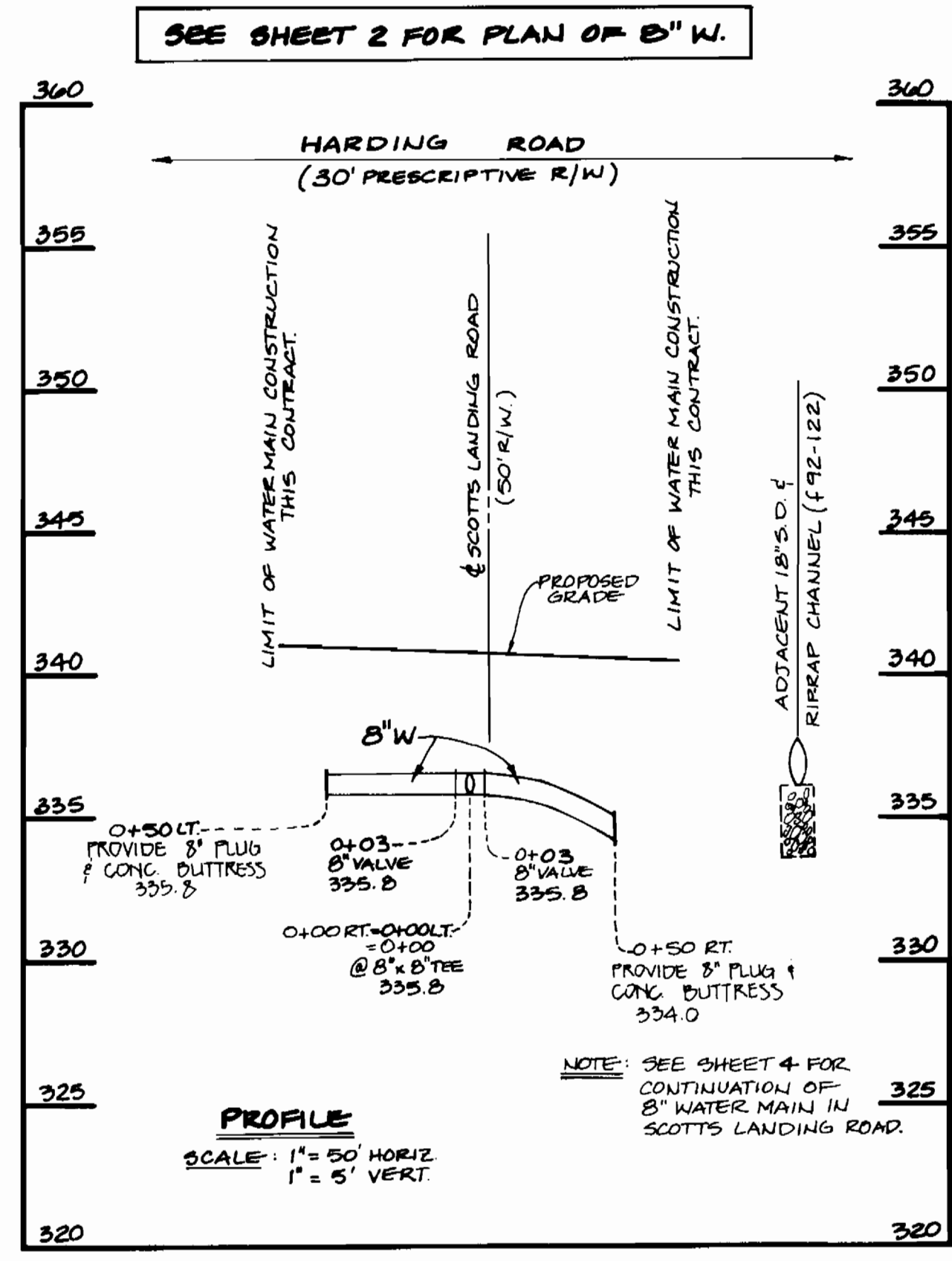
**FORCE MAIN CRIMP CHART**

F.M. STATION	APPURTENANCE	RAD.
0+07	PC: BEGIN CRIMP	> 382'
1+44	PT: END CRIMP	
3+20	PC: BEGIN CRIMP	> 380'
5+01	PT: END CRIMP	
8+58	PC: BEGIN CRIMP	> 380'
10+04	PT: END CRIMP	

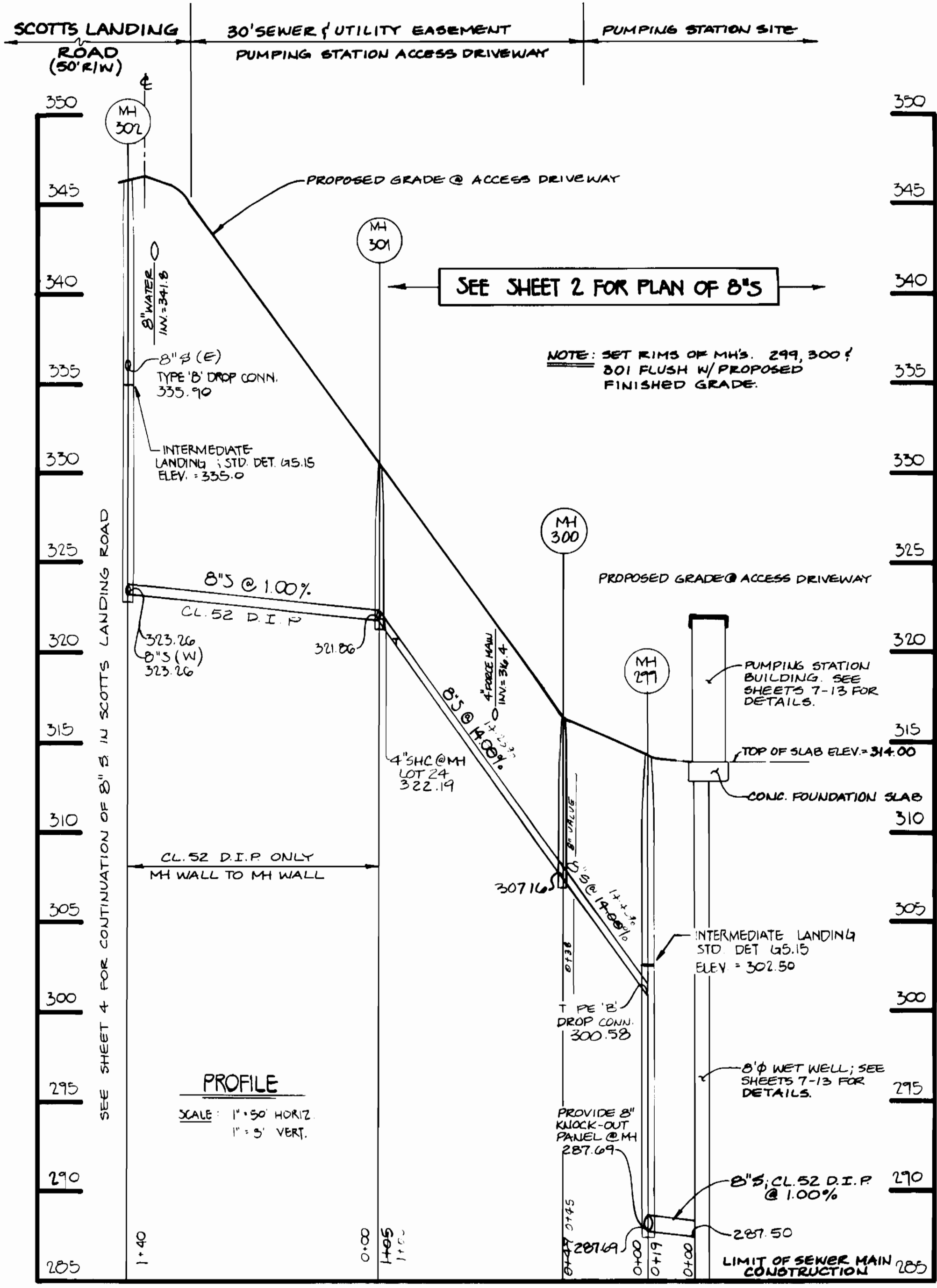
20' SEWER UTILITY EASEMENT (LOTS 12-15)

SCOTT'S LANDING ROAD

30' SEWER UTILITY EASEMENT (LOTS 23, 24, 37 & 42)



**8" W: HARDING ROAD**



**8" S: OUTFALL AT PUMPING STATION**

NOTE: SET RIMS OF MHS 299, 300 & 301 FLUSH W/ PROPOSED FINISHED GRADE.

SCALE: 1" = 50' HORIZ  
1" = 5' VERT.

CONTRACT NO. 24-3207-D  
CHERRY CREEK  
LOTS 1-45  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. ...* 2/2/93  
DIRECTOR OF PUBLIC WORKS DATE

*Robert W. ...* 1/29/93  
CHIEF, BUREAU OF UTILITIES DATE

*...* 2/2/93  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC. 9751

CONSULTING ENGINEERS AND LAND SURVEYORS  
7171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043

*...*  
TERRILL A. FISHER

DES: MM			
DRN: MM			
CHK: PWK			
DATE:	BY:	NO.	REVISION

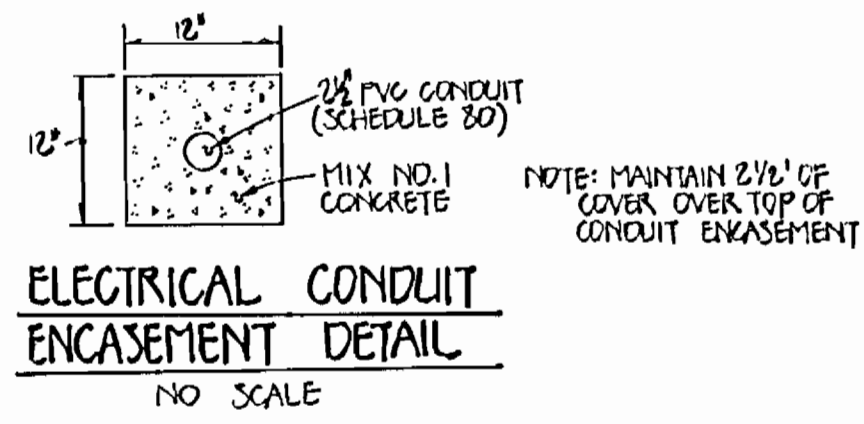
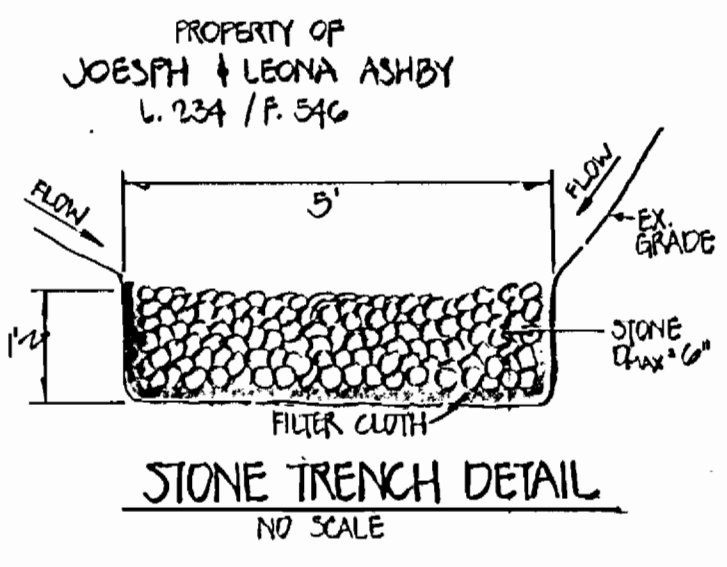
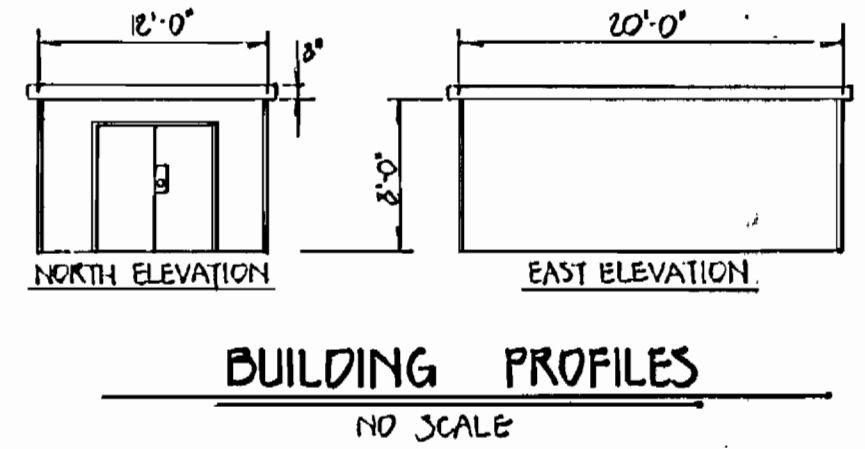
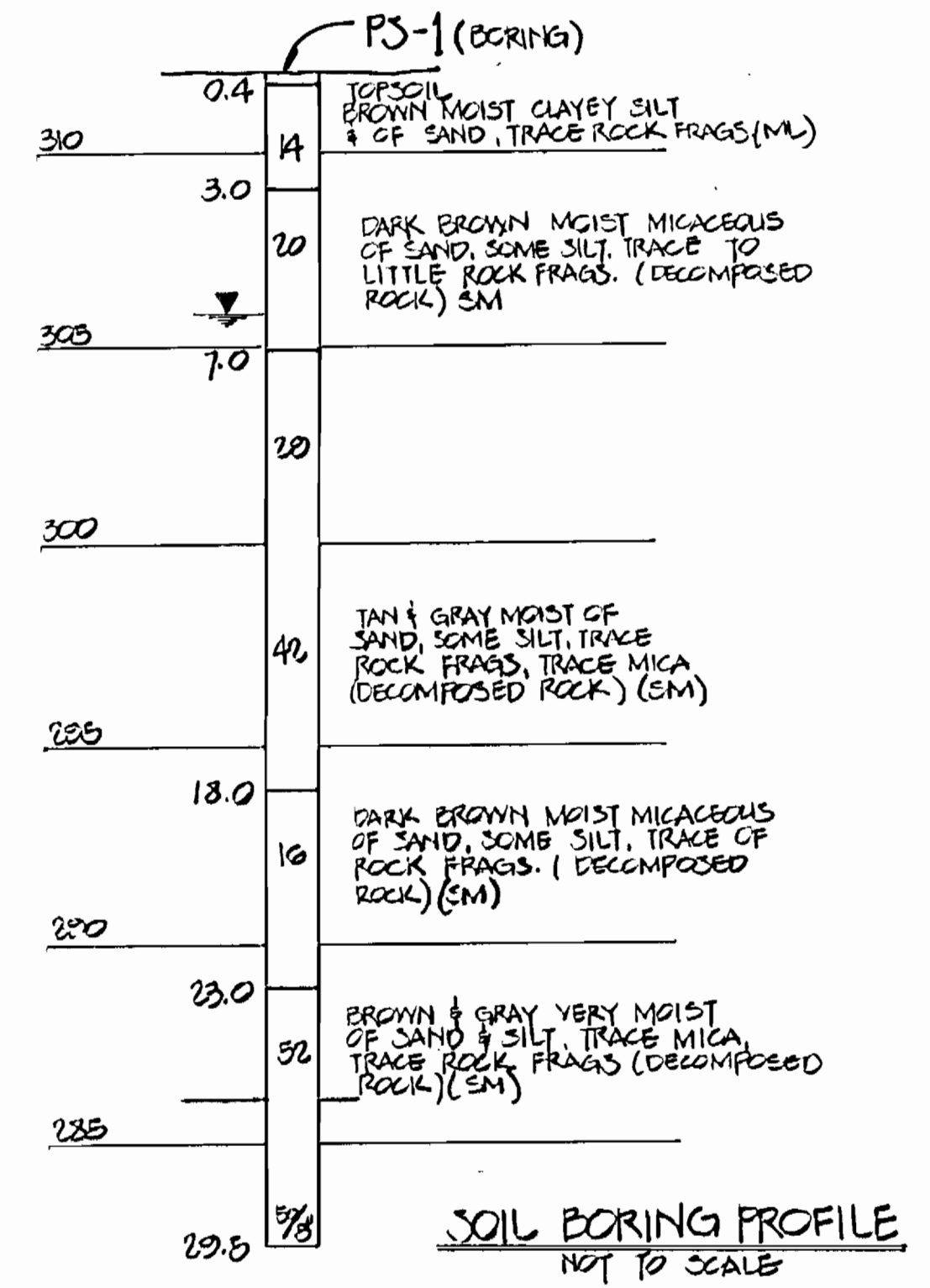
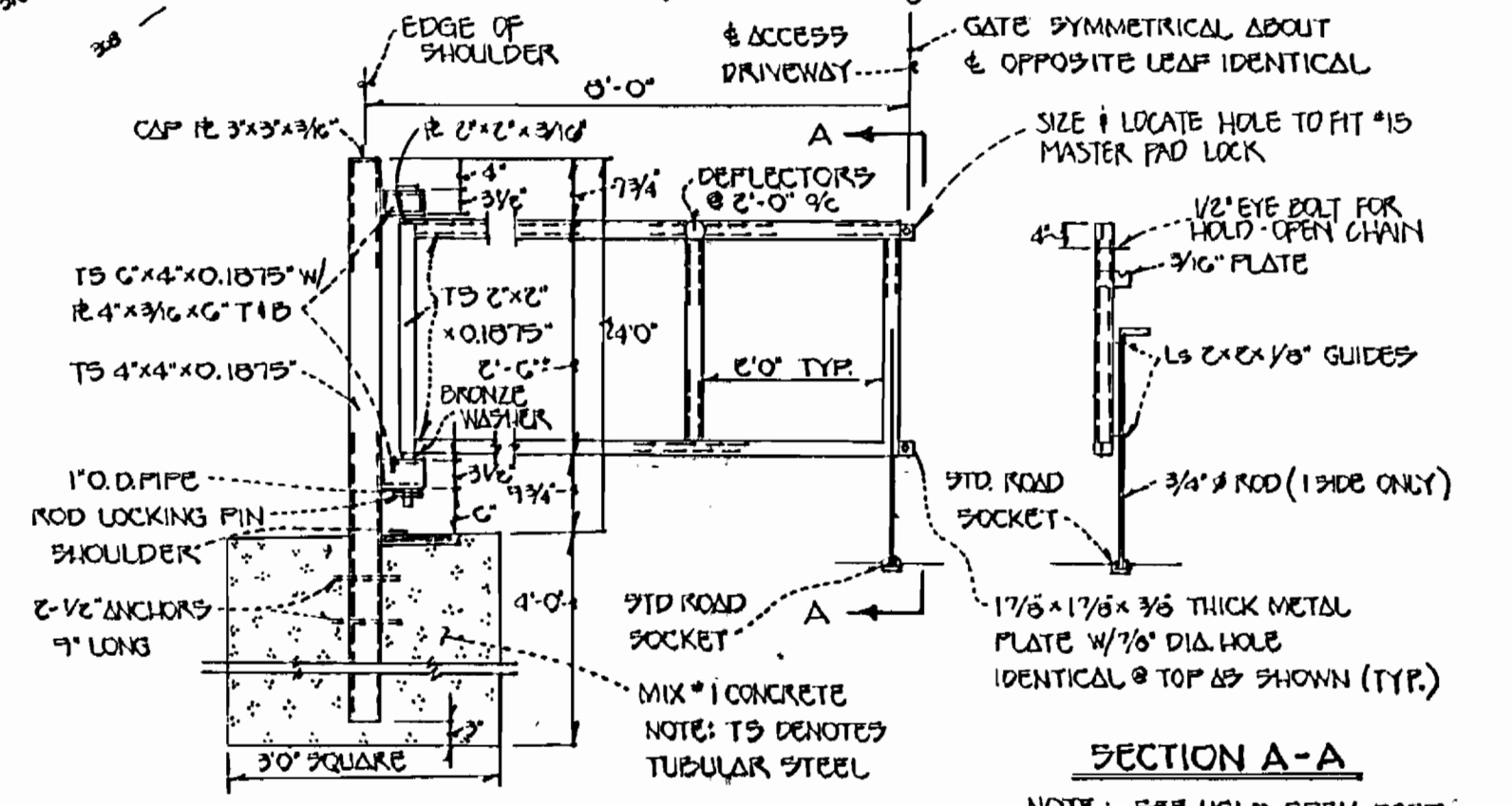
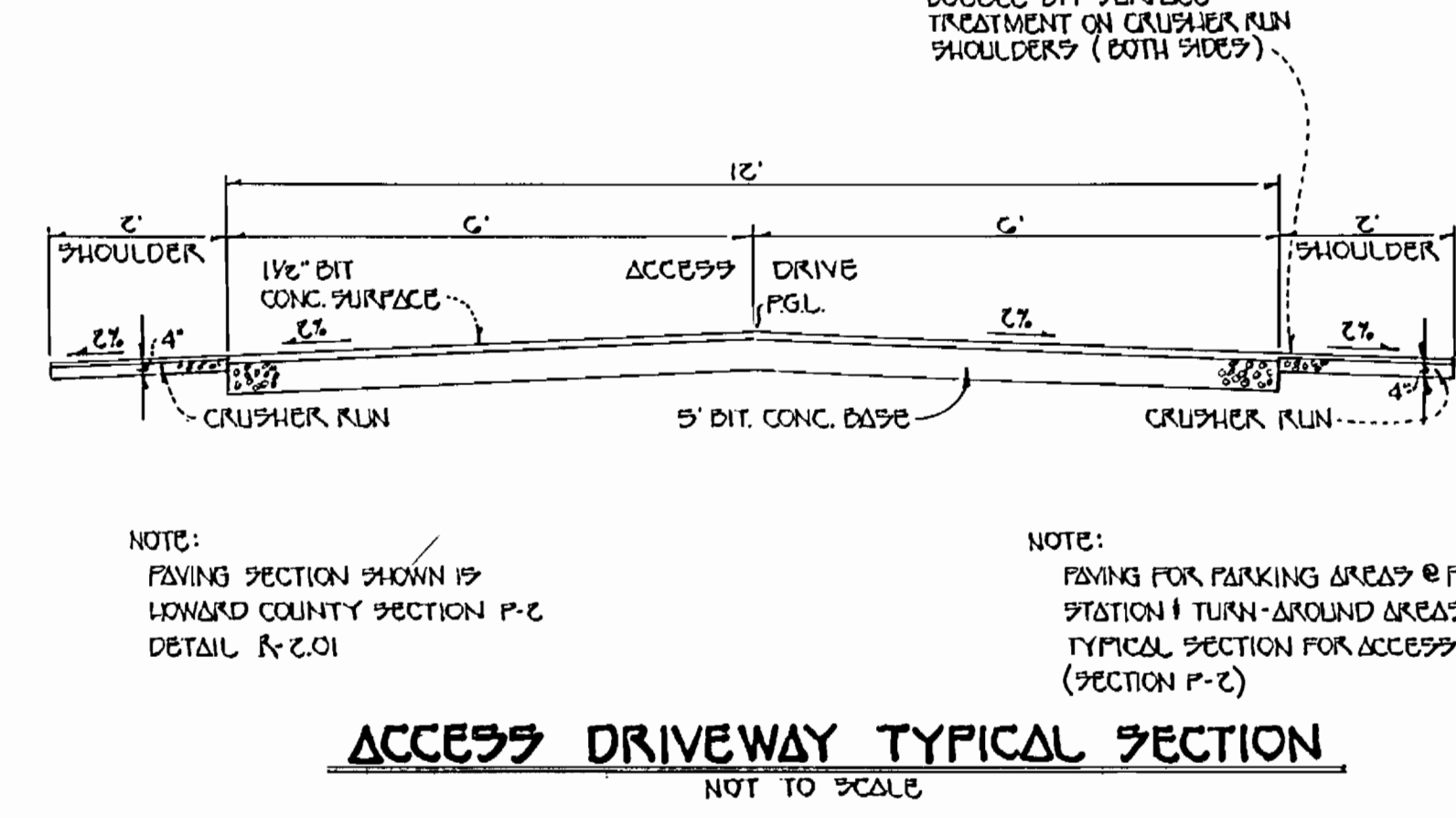
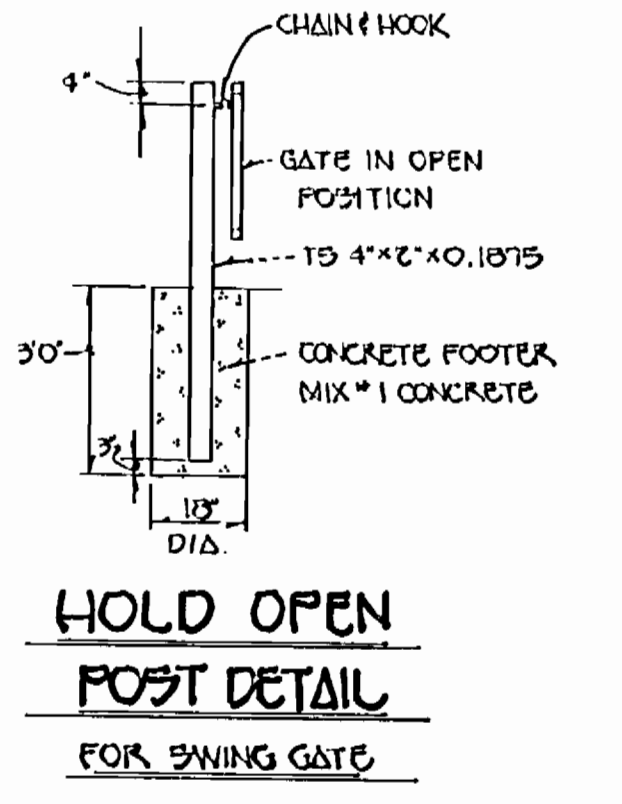
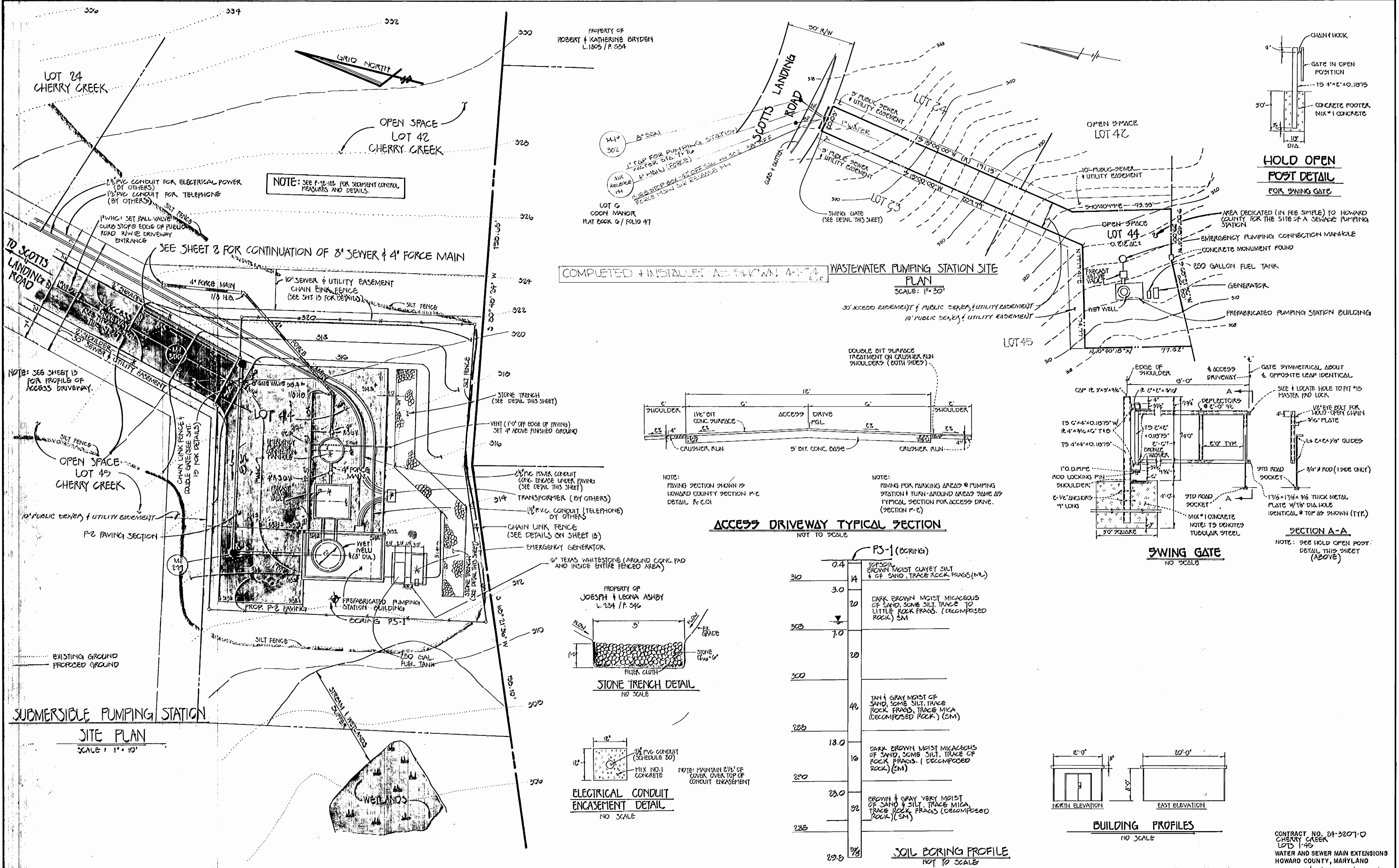
WATER AND SEWER MAINS  
PROFILES/CHARTS

600' SCALE MAP NO. 46 BLOCK NOS. 11 & 16

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

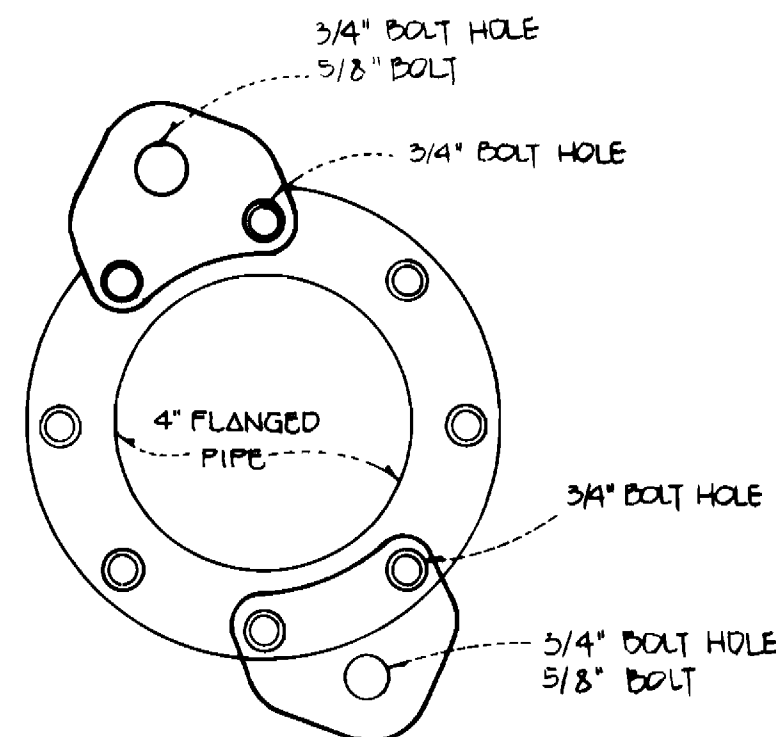
SCALE AS SHOWN

SHEET 6 OF 13

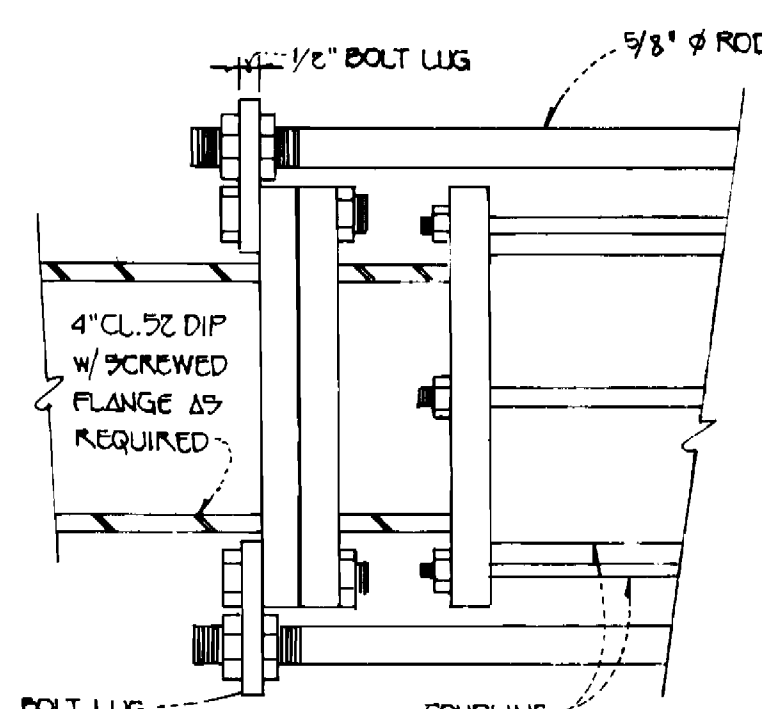


DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 2/4/92 Chief, Bureau of Engineering: <i>[Signature]</i> 2/3/92 Chief, Bureau of Utilities: <i>[Signature]</i> 1-29-92 Chief, Land Development Division: <i>[Signature]</i> 2/5/92		FISHER, COLLINS, AND CARTER, INC. CONSULTING ENGINEERS AND LAND SURVEYORS 2711 BALTIMORE NATIONAL PIKE, SUITE 100 ELLICOTT CITY, MARYLAND 21043 Terrell A. Fisher		DES: MJM DRN: MJM CHK: PWK DATE: _____ BY NO. _____ REVISION _____ DATE _____		SUBMERSIBLE PUMPING STATION: SITE PLAN & DETAILS 600' SCALE MAP NO. 46 BLOCK NO. _____		CHERRY CREEK LOTS 1-45 CONTRACT NO. 24-3207-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 7 OF 13	
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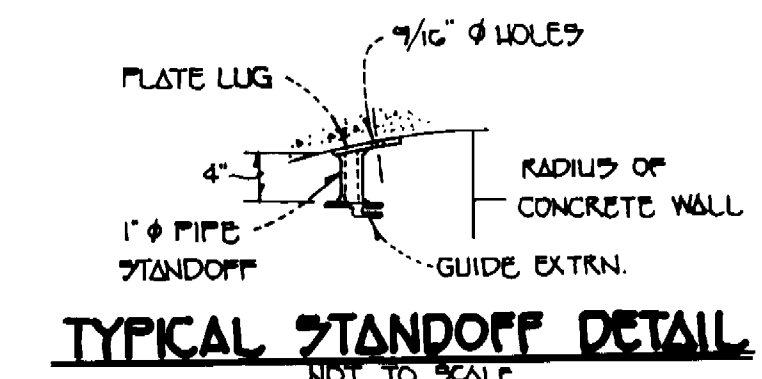
AS BUILT 1/20/06



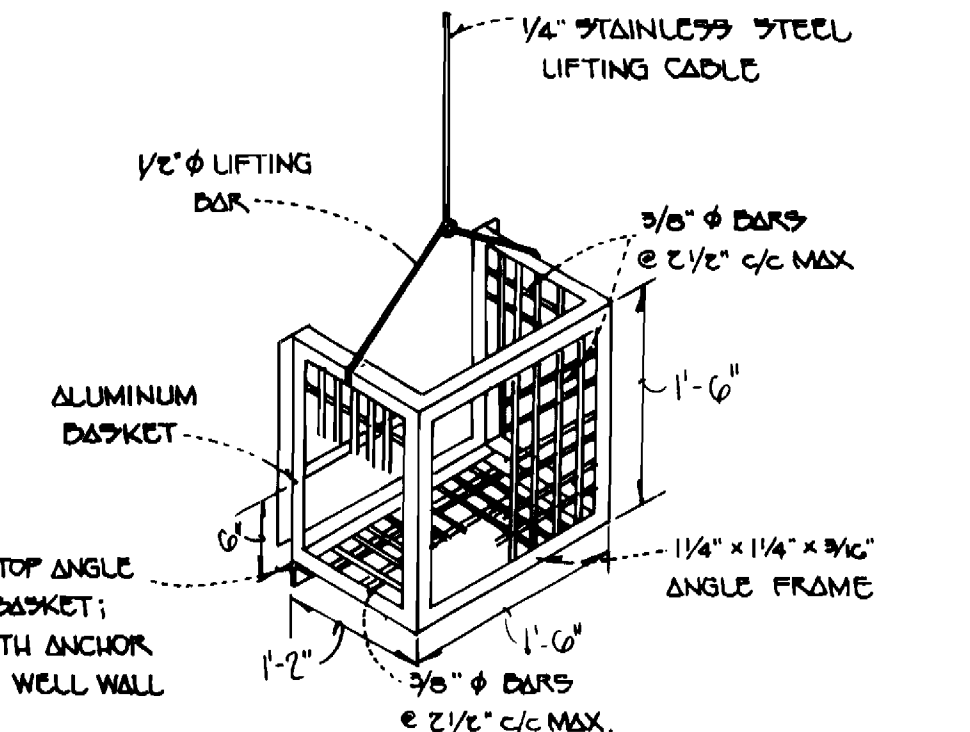
**BOLT LUG**  
NOT TO SCALE



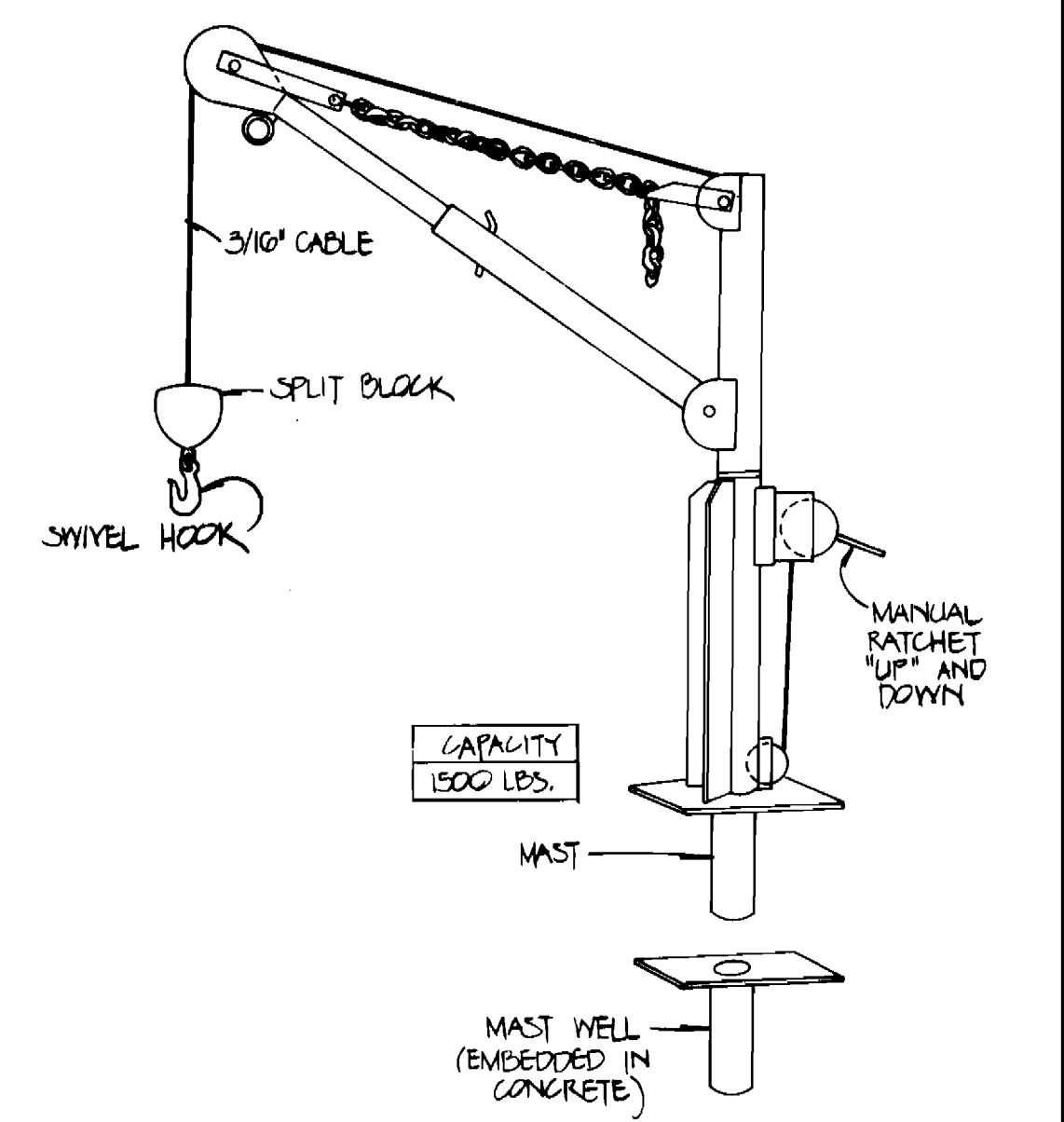
**BOLT LUG RESTRAINED COUPLING DETAIL**  
NOT TO SCALE



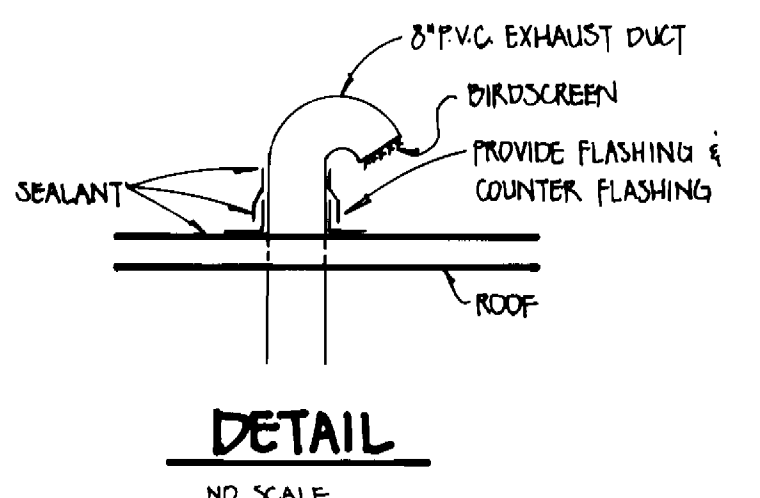
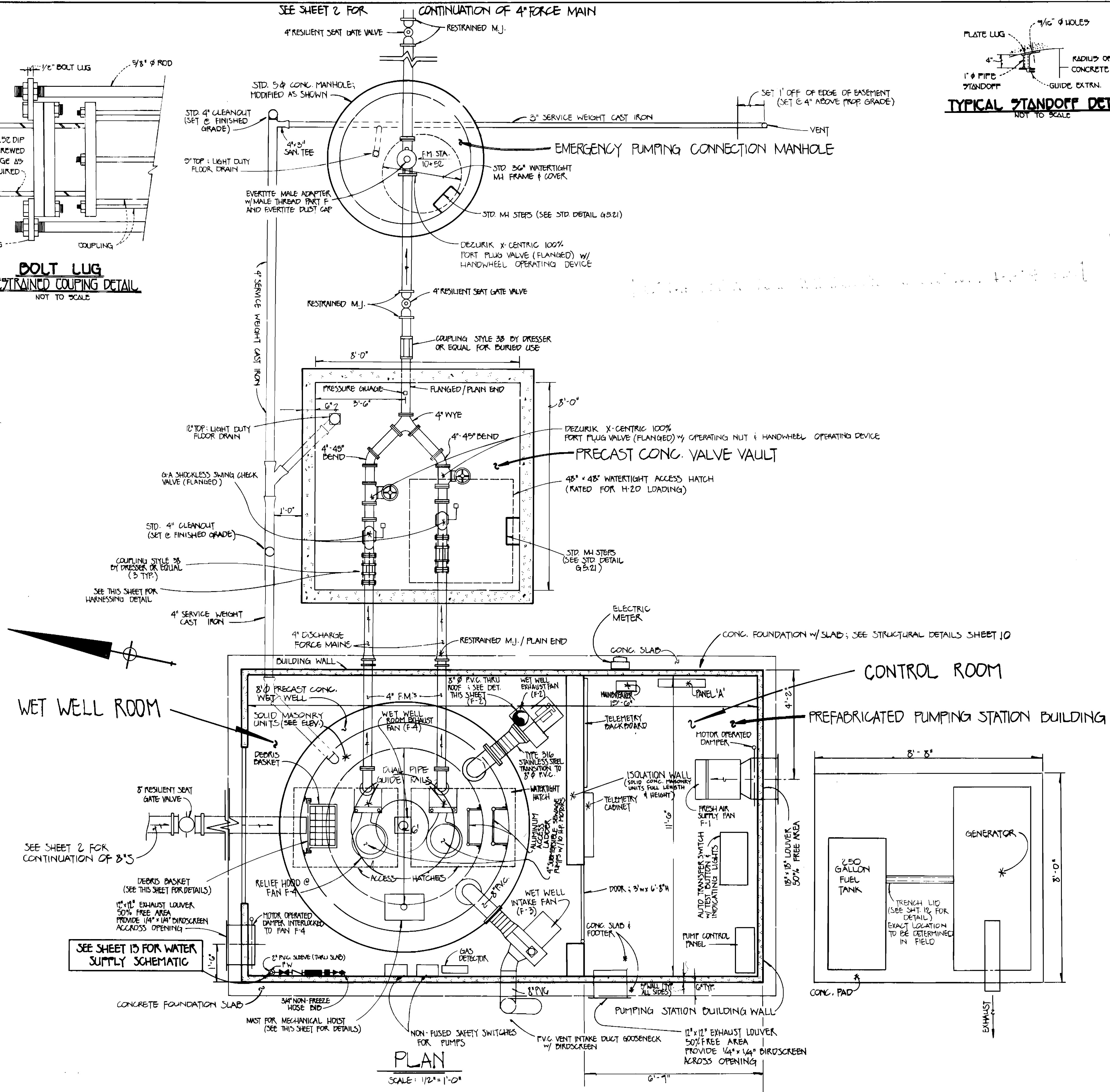
**TYPICAL STANDOFF DETAIL**  
NOT TO SCALE



**DEBRIS SCREENING BASKET DETAIL**  
NOT TO SCALE



**MECHANICAL HOIST DETAIL**  
NOT TO SCALE



**DETAIL**  
NO SCALE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. ...* 2/1/93  
DIRECTOR OF PUBLIC WORKS DATE

*Richard ...* 2/3/93  
CHIEF, BUREAU OF ENGINEERING DATE

*John ...* 2/3/93  
CHIEF, BUREAU OF UTILITIES DATE

*John ...* 2/3/93  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS

2071 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLCOTT CITY, MARYLAND 21043

TERRELL A. FISHER

DES: MM					
DRN: MM					
CHK: PNK					
DATE: M/J/M	BY: NO.	REVISION	DATE		
		REVISE LOCATION OF EQUIPMENT INSIDE P.S. BLDG. / ADD ISOLATION WALL / ADD FAN F-3	6/21/15		

SUBMERSIBLE PUMPING STATION:  
PLAN & DETAILS

600' SCALE MAP NO. 46 BLOCK NO.

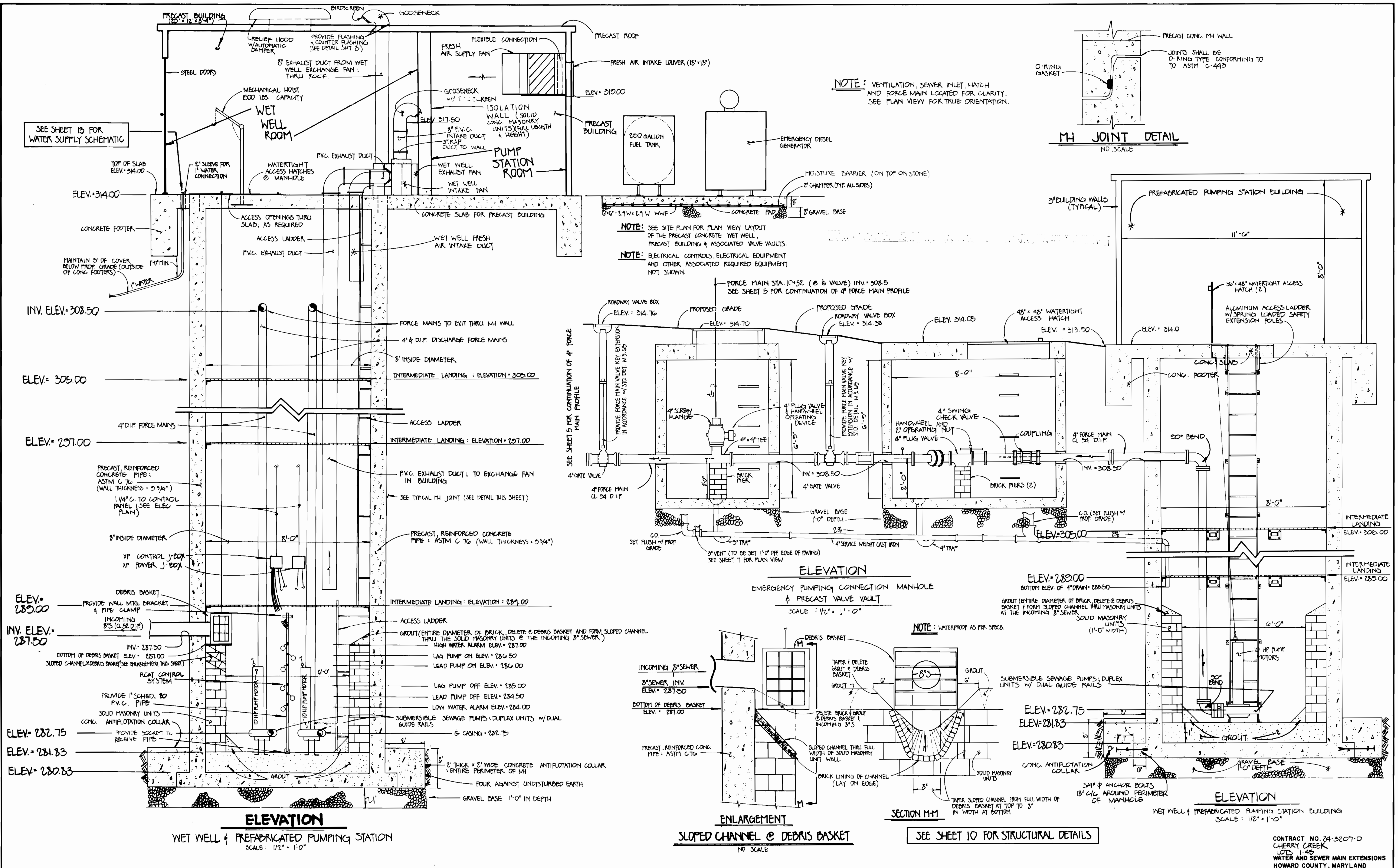
CHERRY CREEK  
LOTS 1-45

CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 8 OF 13





DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

2/4/93  
DIRECTOR OF PUBLIC WORKS

1-29-93  
CHIEF, BUREAU OF UTILITIES

2/24/93  
CHIEF, BUREAU OF ENGINEERING

2/6/93  
CHIEF, LAND DEVELOPMENT DIVISION

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
2171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043

TERRELL A. FISHER

DES:	DRN:	CHK:	DATE:	BY:	NO.:	REVISION:	DATE:
MM	MM	FWK					

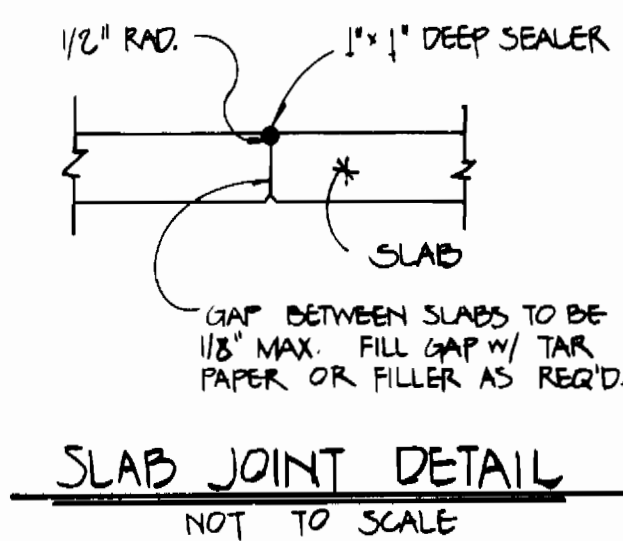
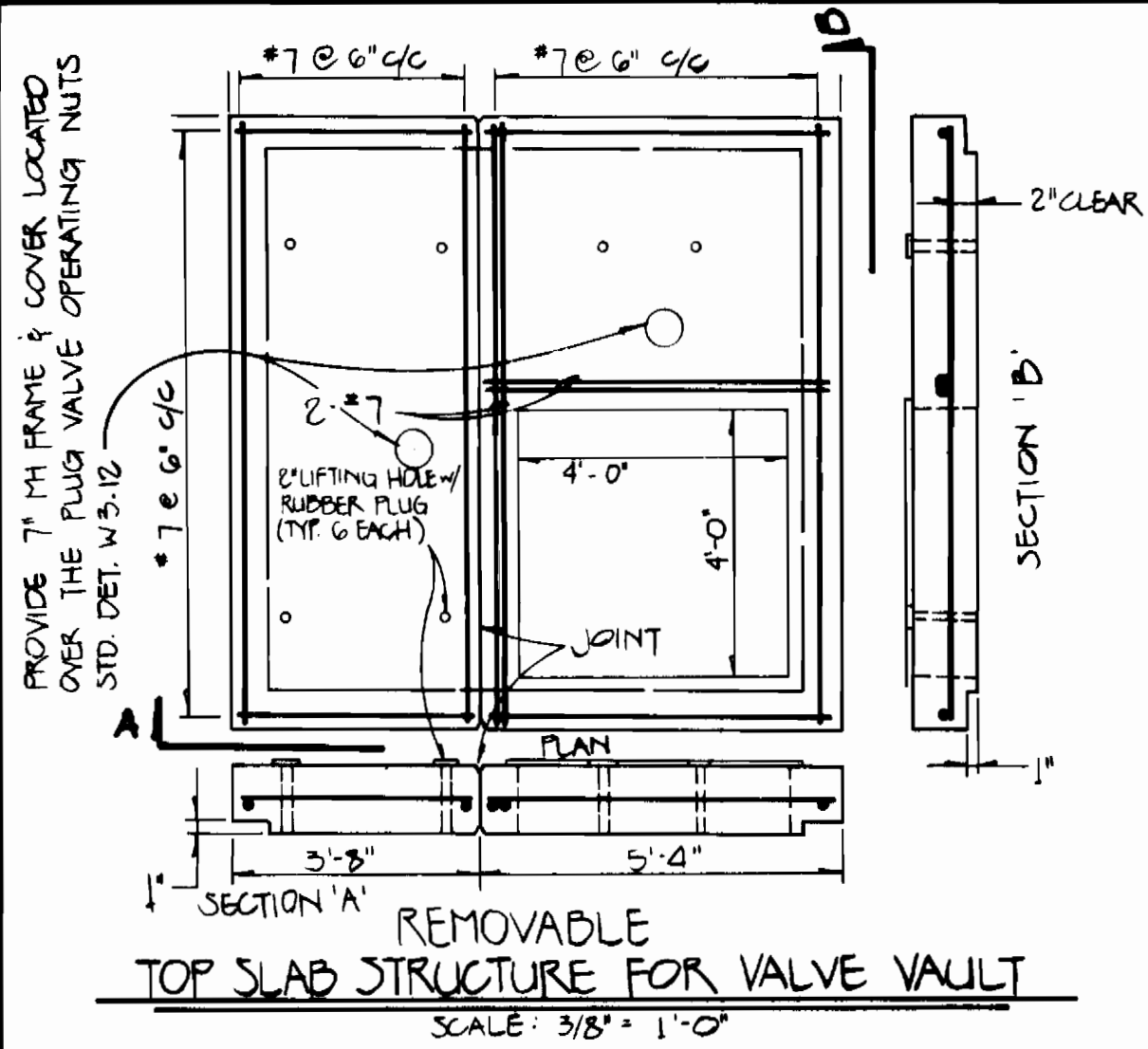
SUBMERSIBLE PUMPING STATION:  
SECTIONAL VIEWS

600' SCALE MAP NO. 46 BLOCK NO.

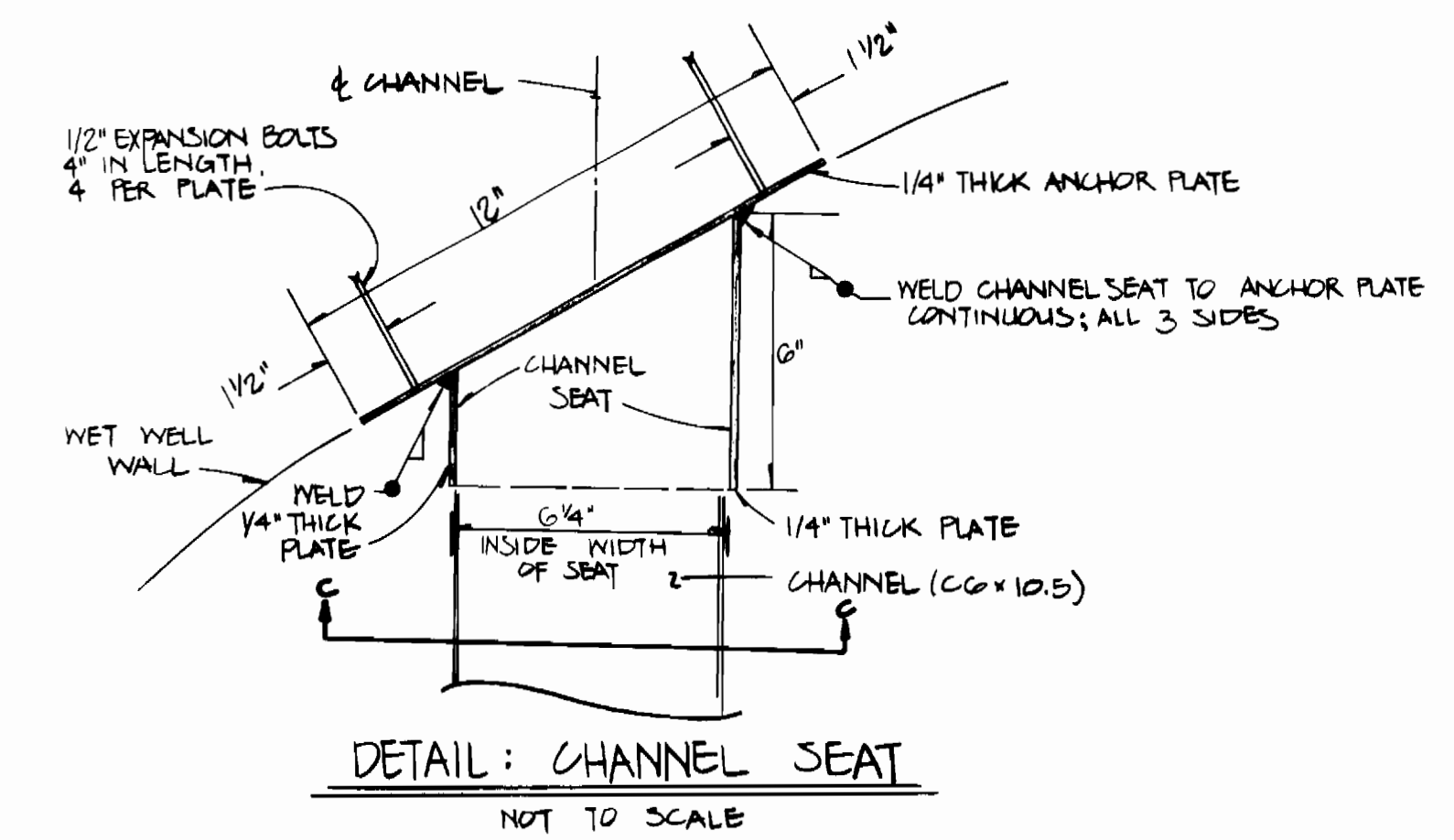
CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

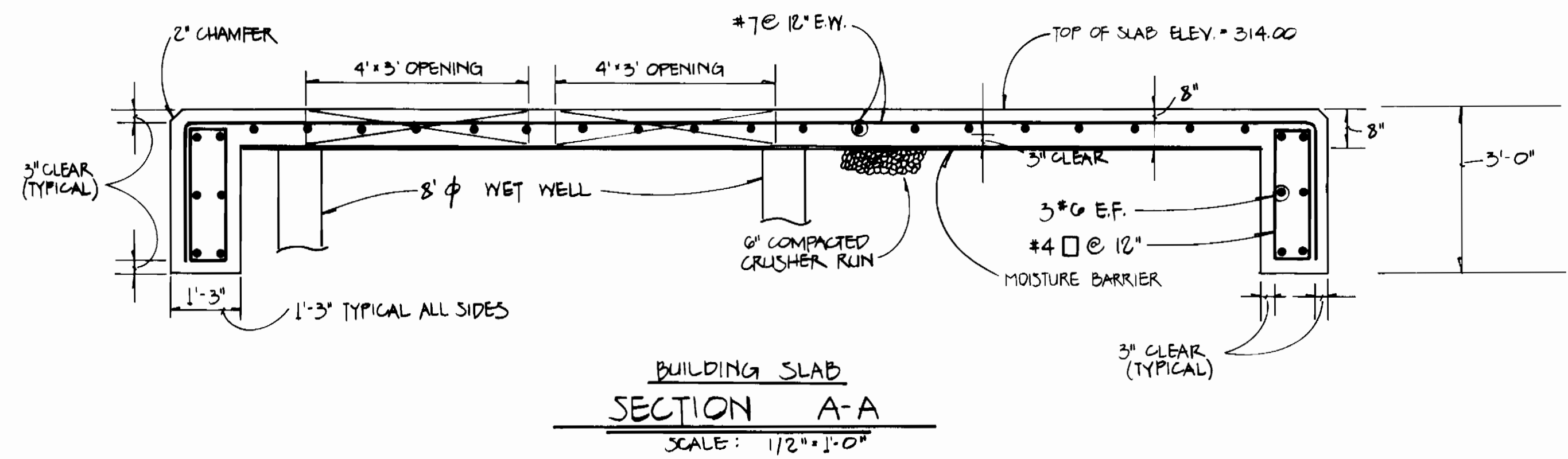
SHEET 7 OF 13



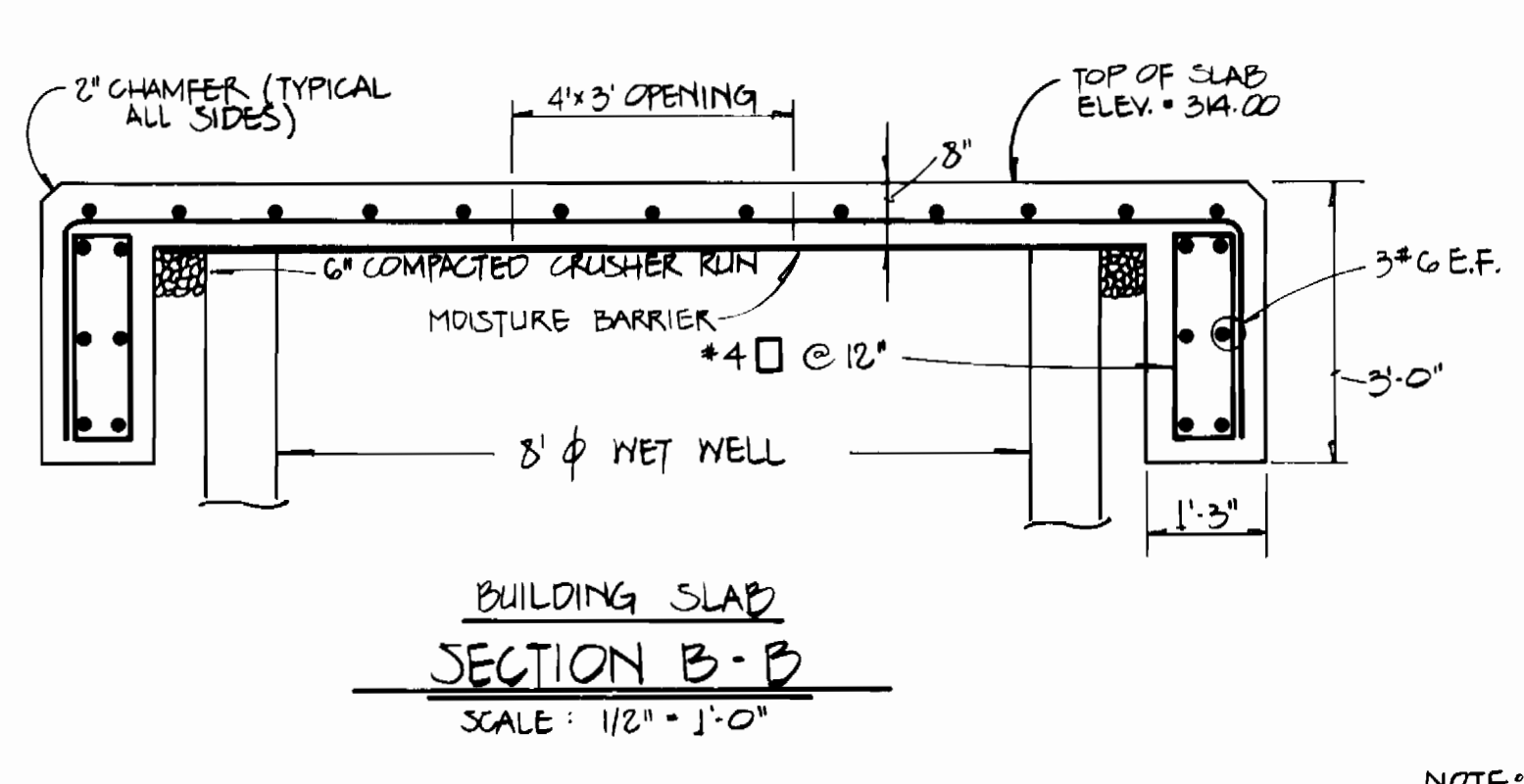
SLAB JOINT DETAIL  
NOT TO SCALE



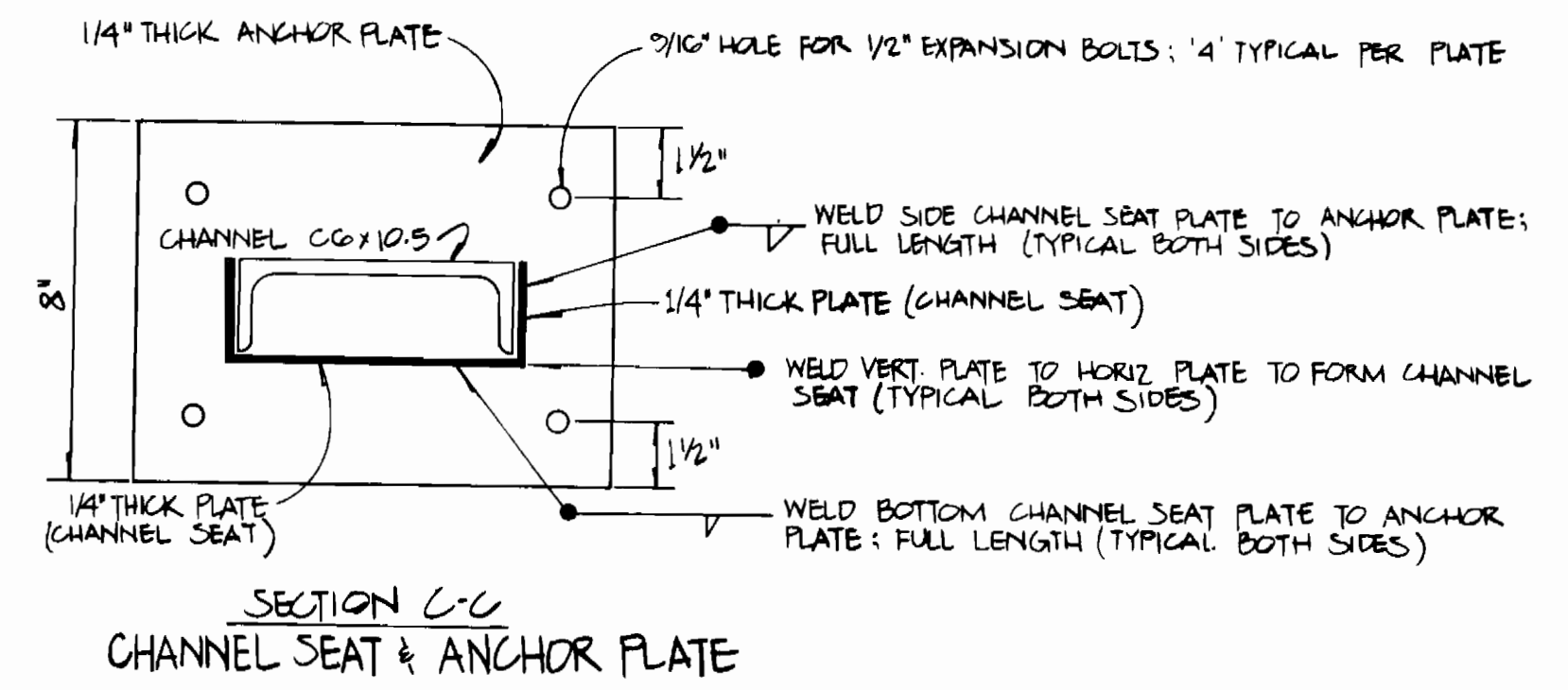
DETAIL: CHANNEL SEAT  
NOT TO SCALE



BUILDING SLAB  
SECTION A-A  
SCALE: 1/2" = 1'-0"

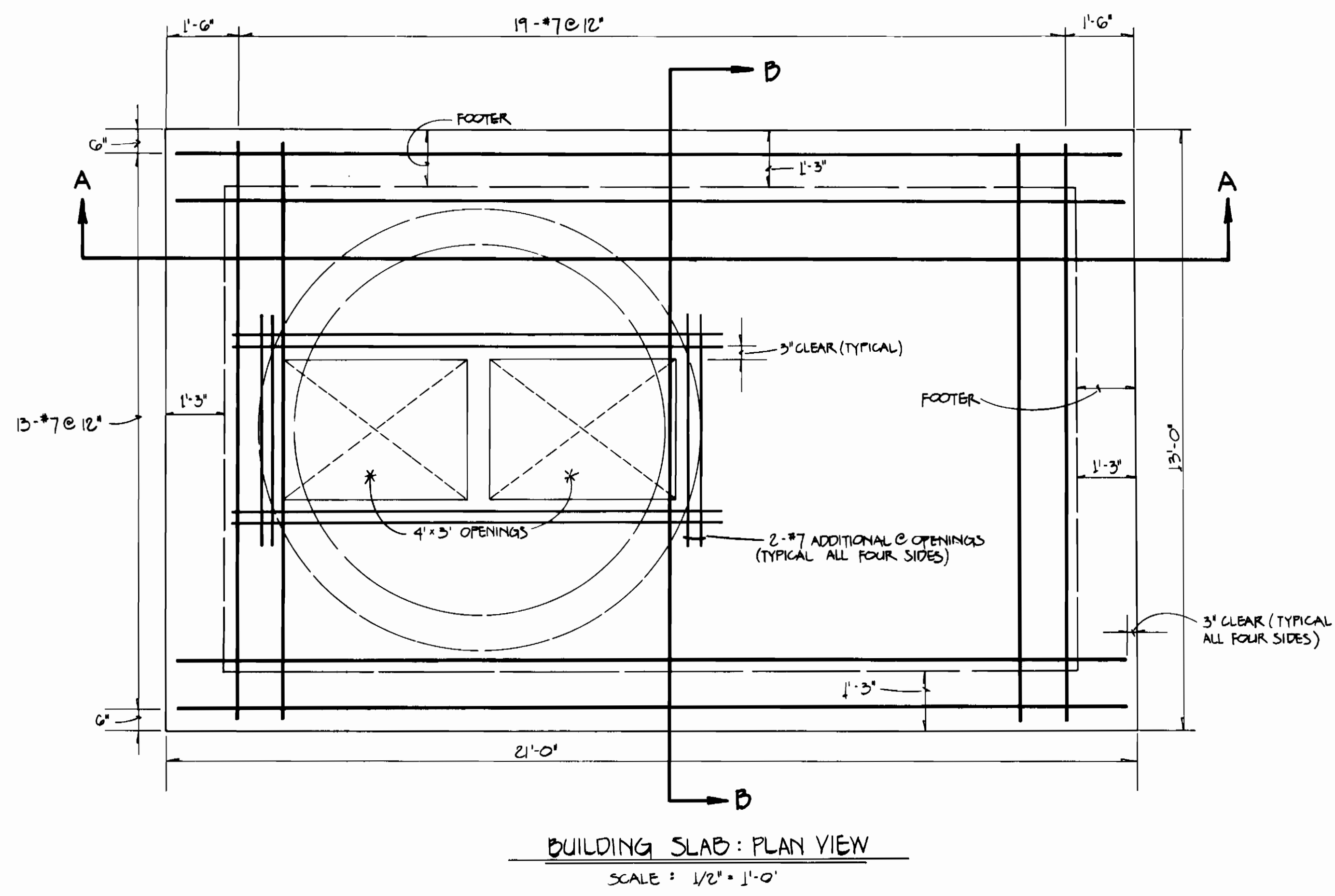


BUILDING SLAB  
SECTION B-B  
SCALE: 1/2" = 1'-0"

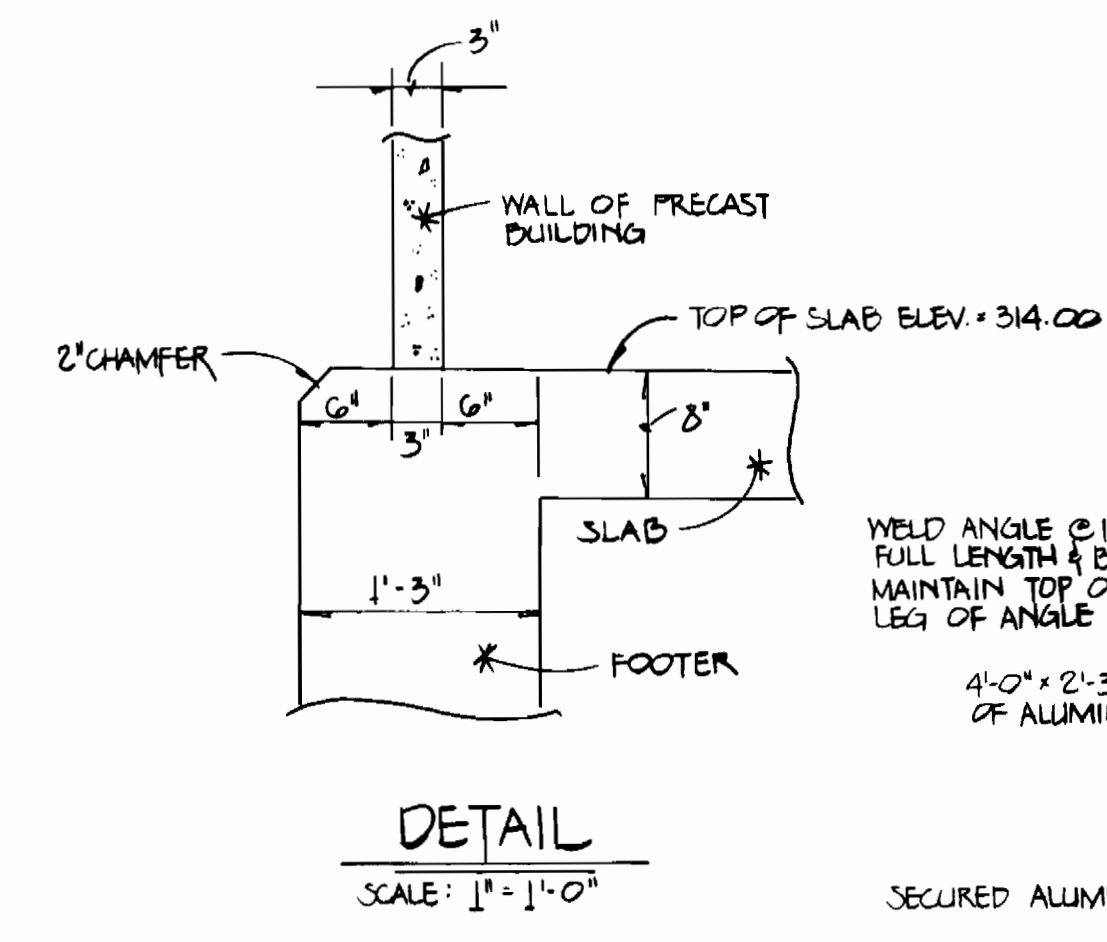


SECTION C-C  
CHANNEL SEAT & ANCHOR PLATE

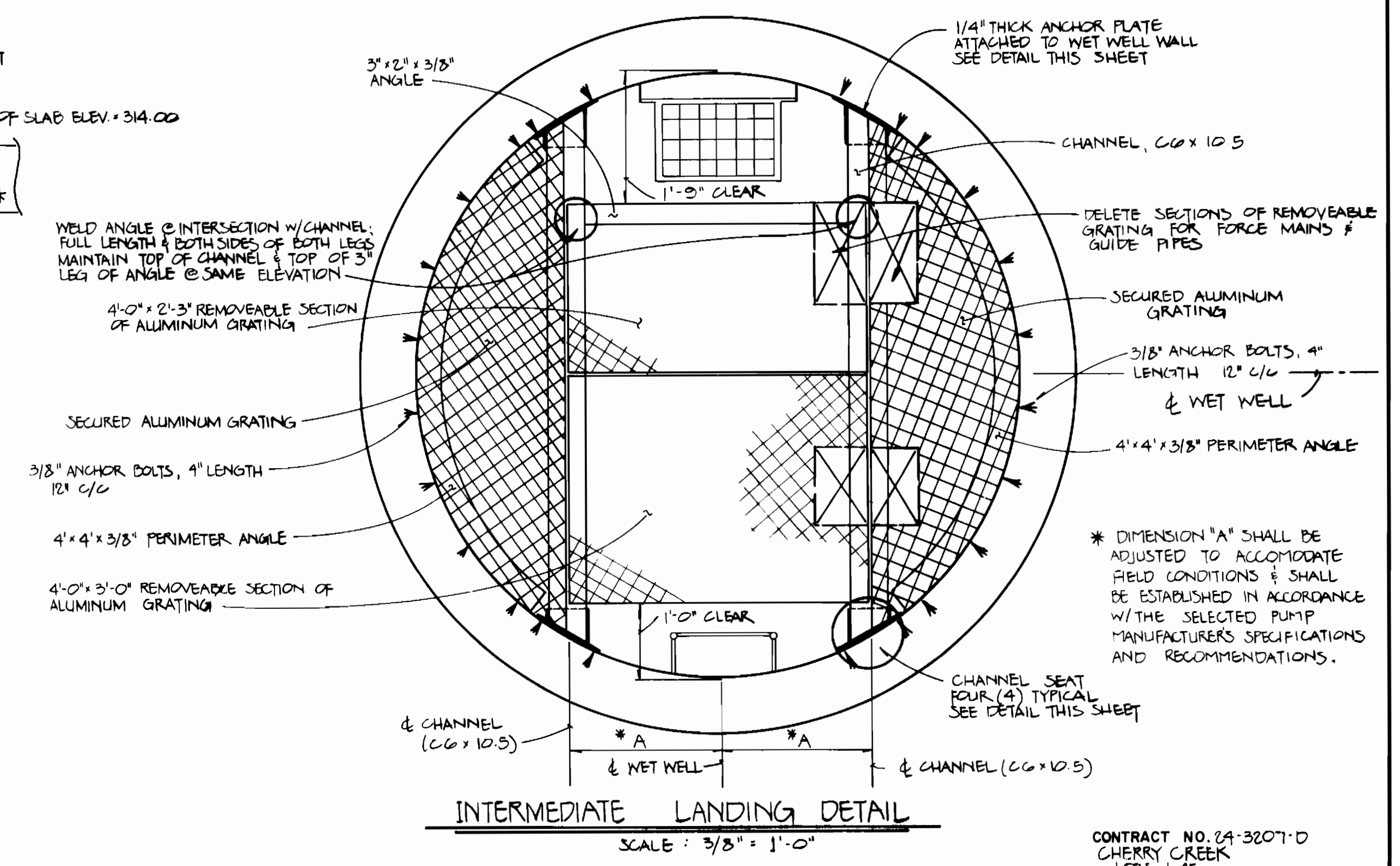
NOTE: THE CONTRACTOR SHALL PROVIDE ADDITIONAL "NOTCHED-OUT" SECTIONS OF ALUMINUM GRATING AS REQUIRED TO PROVIDE ADEQUATE CLEARANCE FOR VENTILATION DUCTS, FLOAT LEADS, ETC. FOR SIMPLICITY, NOT ALL "NOTCH-OUTS" ARE SHOWN.



BUILDING SLAB: PLAN VIEW  
SCALE: 1/2" = 1'-0"



DETAIL  
SCALE: 1" = 1'-0"



INTERMEDIATE LANDING DETAIL  
SCALE: 3/8" = 1'-0"

CONTRACT NO. 24-3207-D  
CHERRY CREEK  
LOTS 1-45  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
2/4/93  
2/2/93

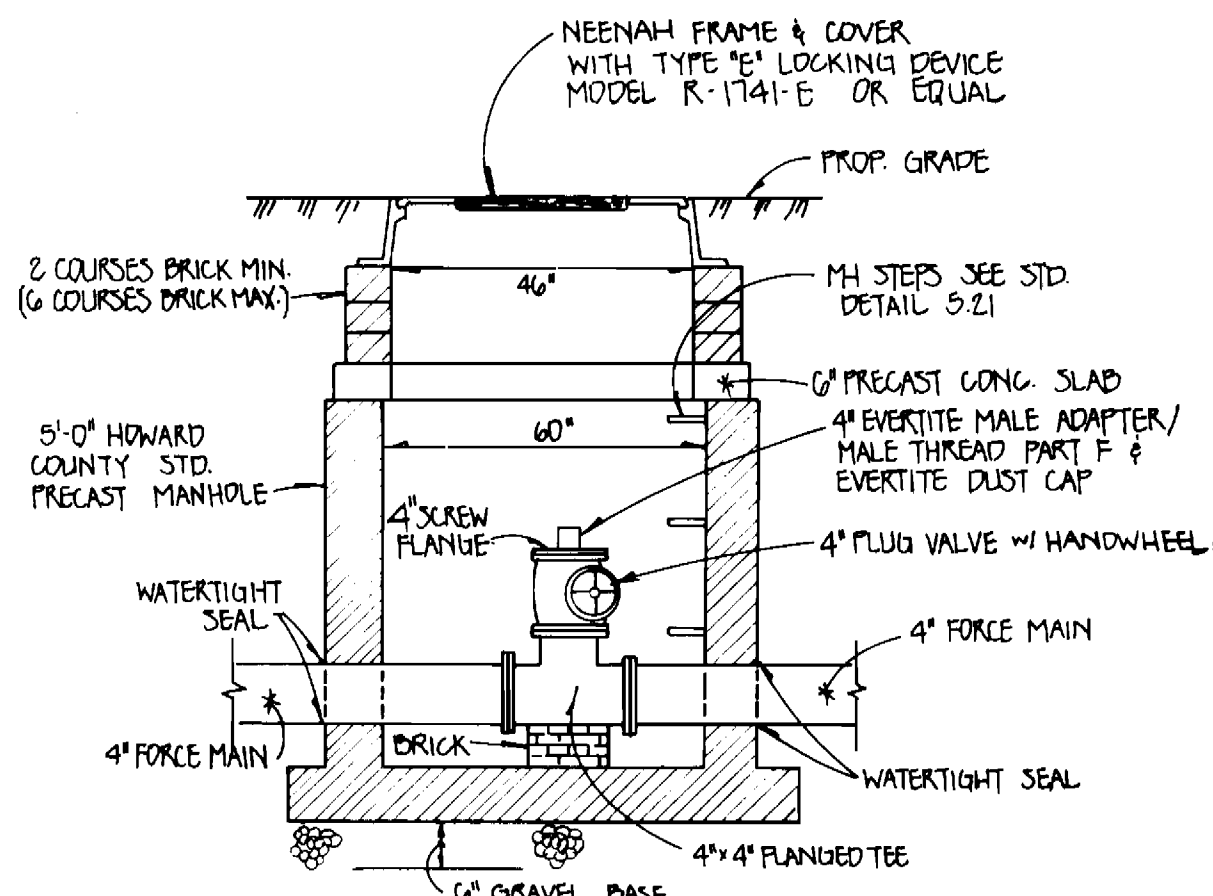
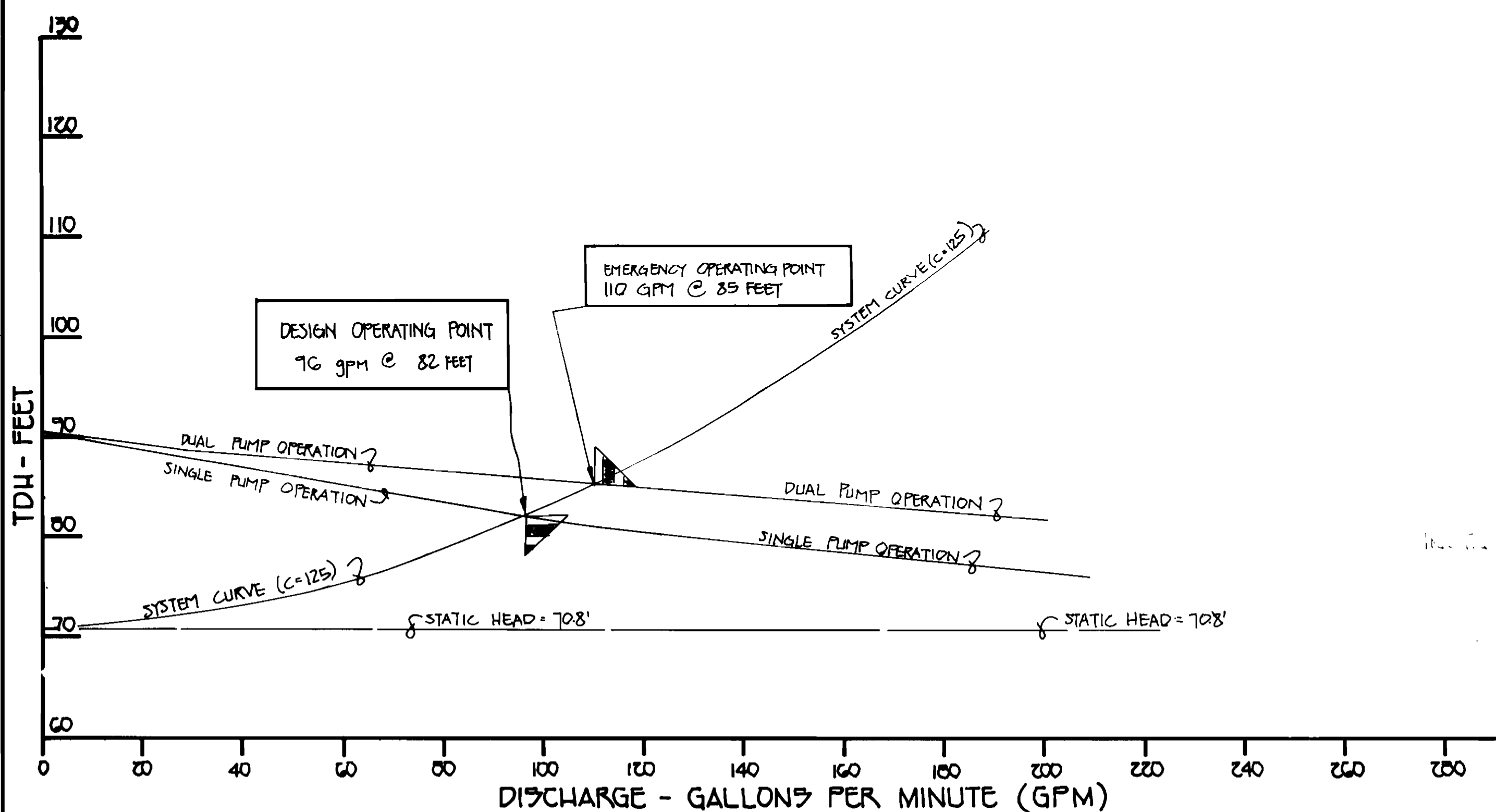
FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
2171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043

DES: MM					
DRN: MM					
CHK: PWK					
DATE:	BY	NO.	REVISION	DATE	

SUBMERSIBLE PUMPING STATION:  
STRUCTURAL PLAN/ DETAILS  
600' SCALE MAP NO. 46 BLOCK NO.

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

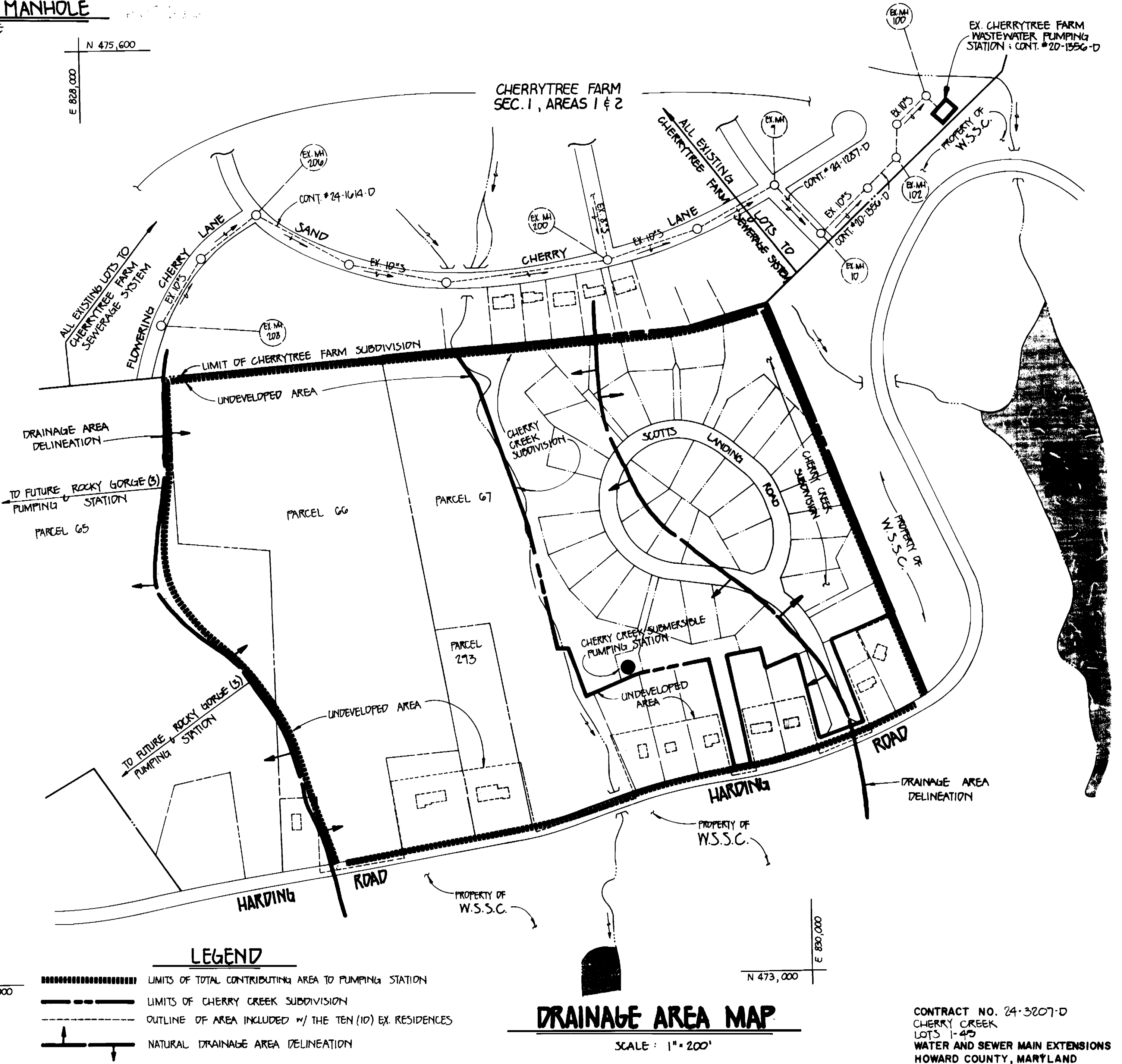
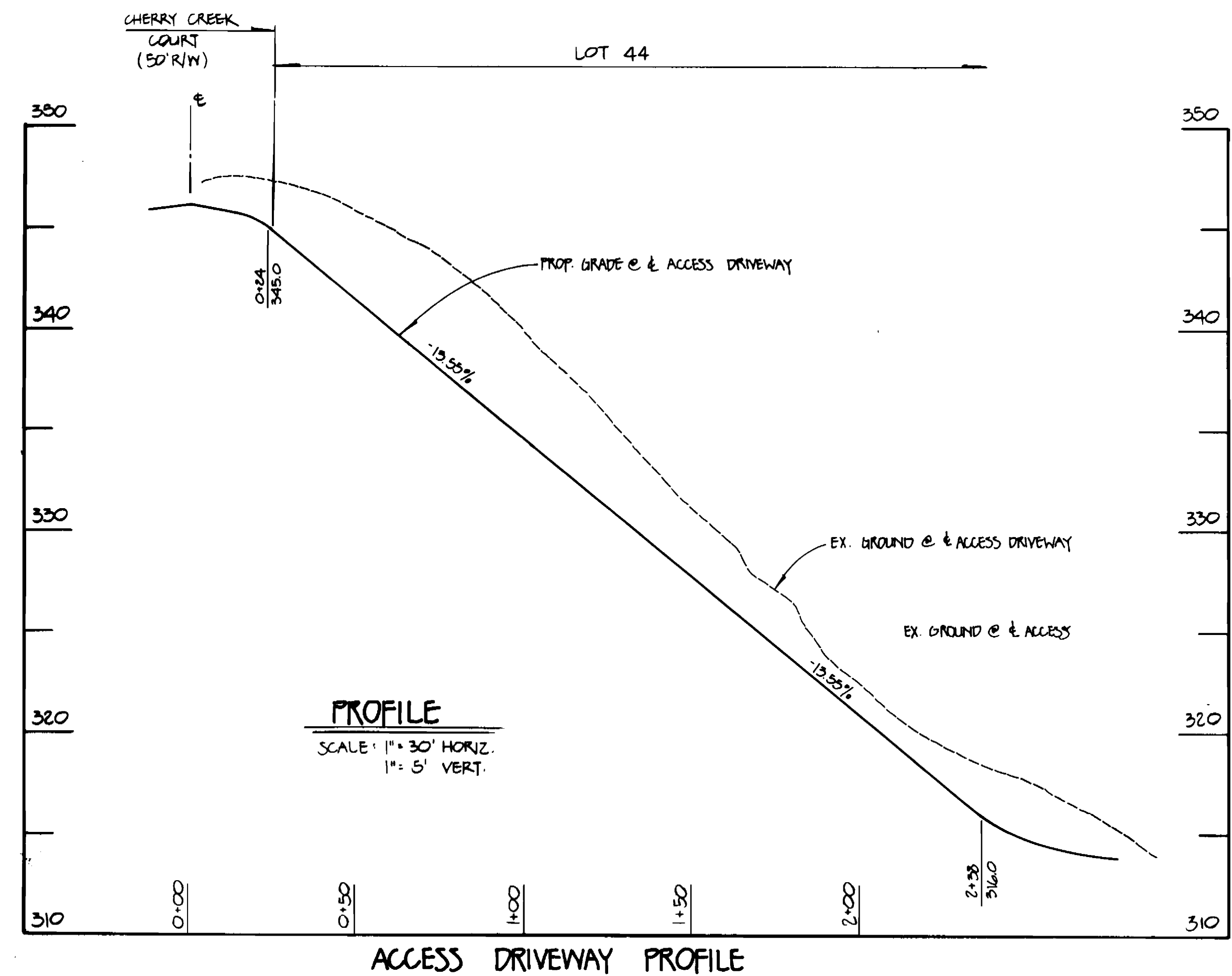
SCALE AS SHOWN  
SHEET 10 OF 13



DRAINAGE AREA #	ZONING	ULTIMATE POPULATION	AVERAGE DOMESTIC FLOW	PEAK DOMESTIC FLOW	NON-DOMESTIC FLOW	INFILTRATION	TOTAL FLOW	DESIGN FLOW
CHERRY CREEK SUBDIVISION	R-20	122.5 PERSONS	8,820 gpd	35,280 gpd	0	4,700 gpd	40,180 gpd	0.040 wpm or 28 gpm
TEN (10) EXISTING DWELLINGS ALONG HARDING ROAD	R-20	35 PERSONS	2,520 gpd	10,080 gpd	0	1,400 gpd	11,480 gpd	0.011 wpm or 8 gpm
UNDEVELOPED ACRES: 32 ACRES	R-20	110.4 PERSONS	15,707 gpd	54,836 gpd	0	7,616 gpd	62,492 gpd	0.062 wpm or 43 gpm
TOTALS	ALL AREAS R-20	268.3 PERSONS	27,047 gpd	100,196 gpd	0	13,716 gpd	114,112 gpd	0.114 wpm or 77 gpm

DESIGN FLOW: 77 GALLONS PER MINUTE  
= 0.114 MGD

\* NOTE: SEE DRAINAGE AREA MAP THIS SHEET FOR DELINEATION OF CONTRIBUTING AREAS.



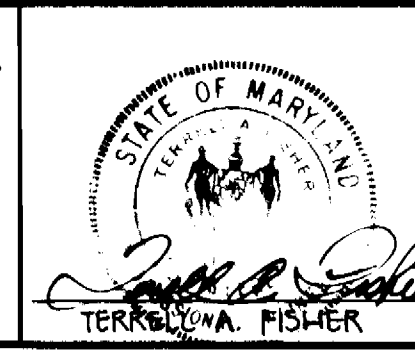
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. Law* 2/4/93  
DIRECTOR OF PUBLIC WORKS DATE

*Robert J. Dunne* 1-29-93  
CHIEF, BUREAU OF UTILITIES DATE

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
7171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043

*Terrell A. Fisher* 2/24/93  
CHIEF, LAND DEVELOPMENT DIVISION DATE



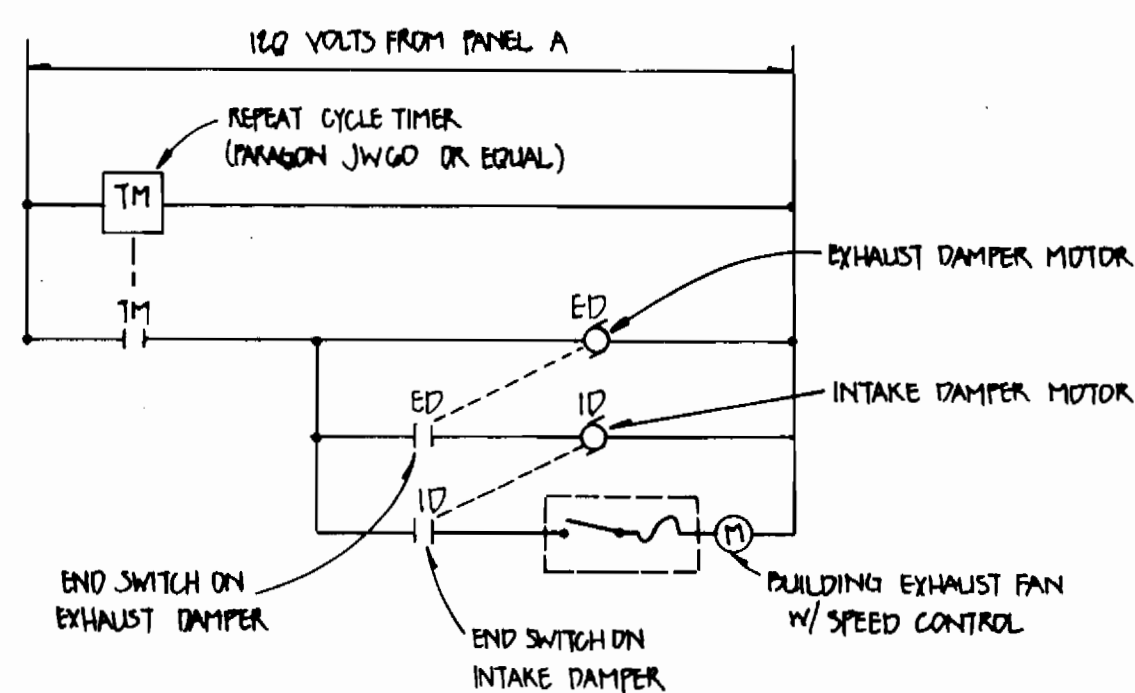
DES: MM			
DRN: SH			
CHK: PWK			
DATE:	REVISE	SYSTEM CURVE, PUMP CURVE, STATIC HEAD	6/24/93
BY:	NO.	REVISION	DATE

SUBMERSIBLE PUMPING STATION:  
MISCELLANEOUS DETAILS

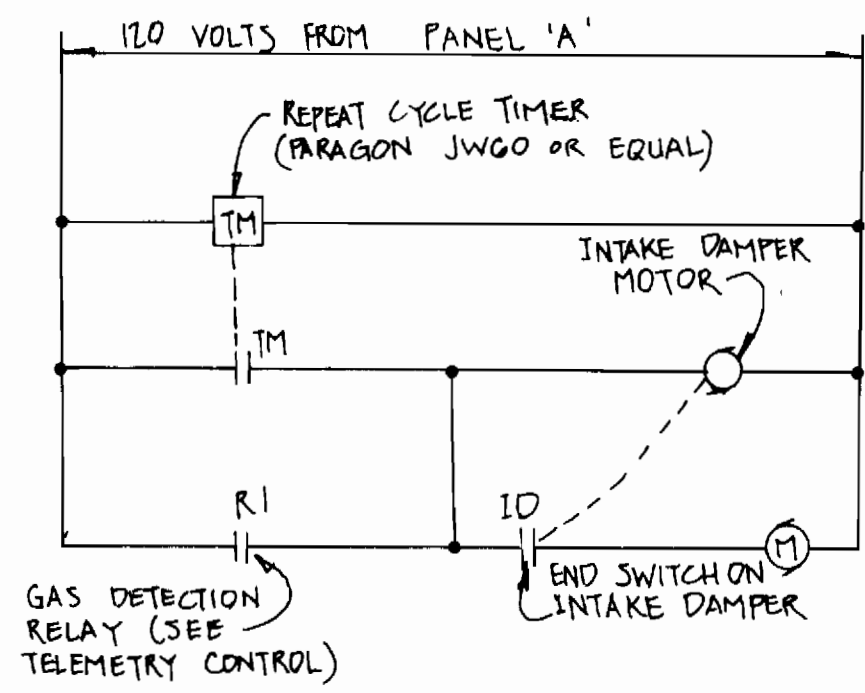
600' SCALE MAP NO. 46 BLOCK NO.

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

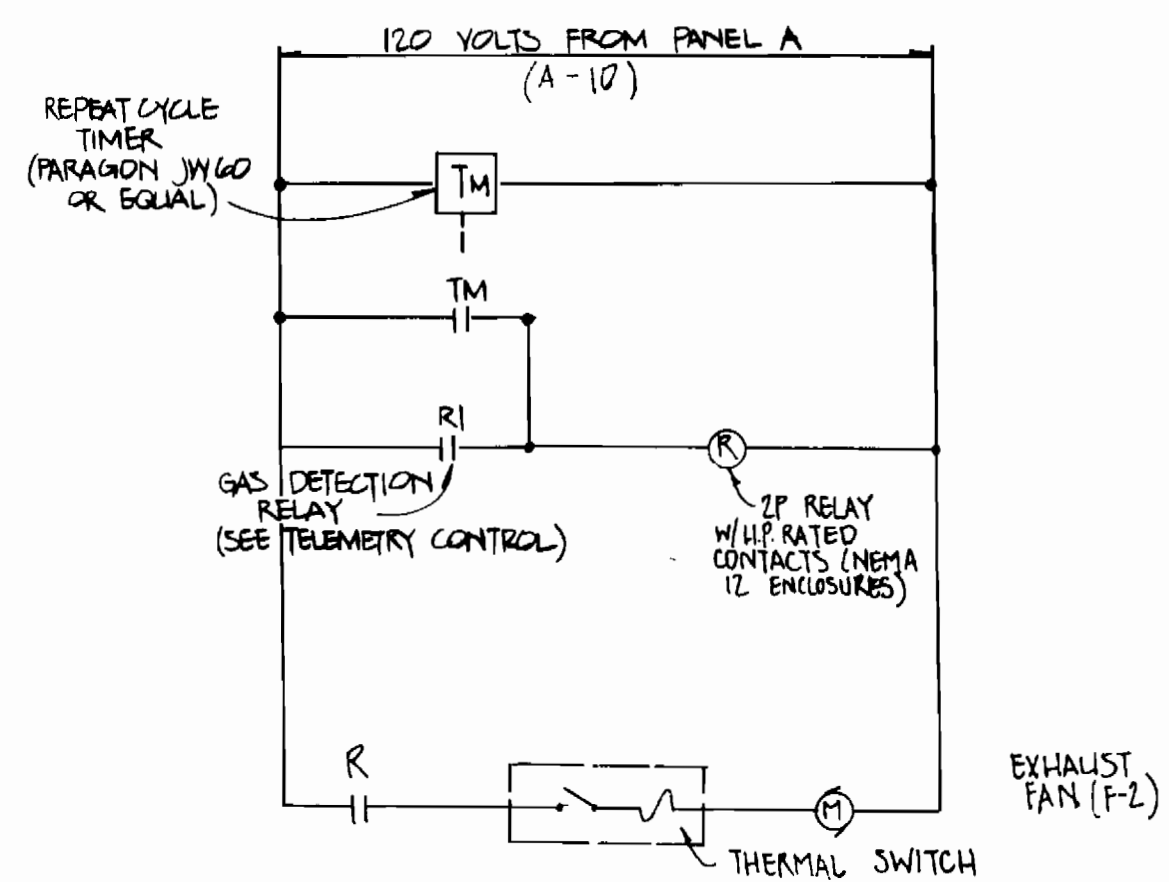
SCALE AS SHOWN  
SHEET 11 OF 13



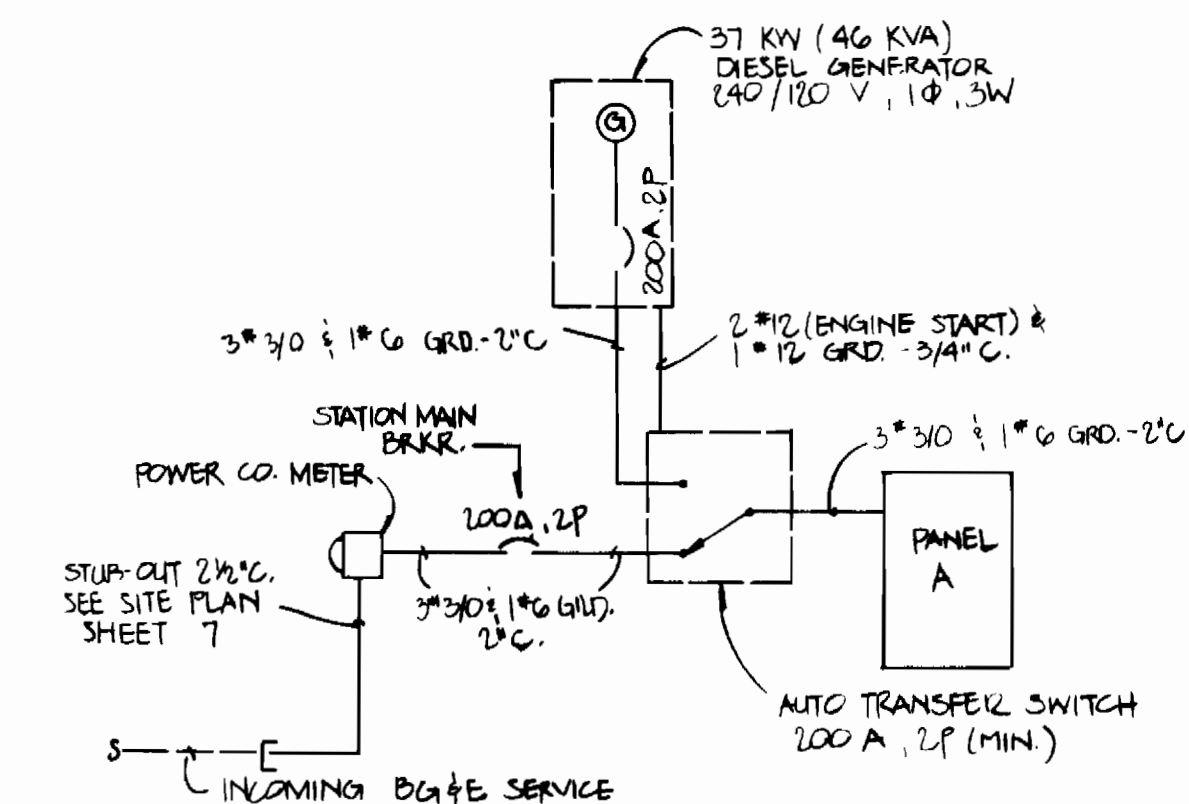
**CONTROL ROOM VENTILATION FAN CONTROL**  
(FAN F-1)



**WET WELL ROOM VENTILATION FAN CONTROL**  
(FAN F-4)

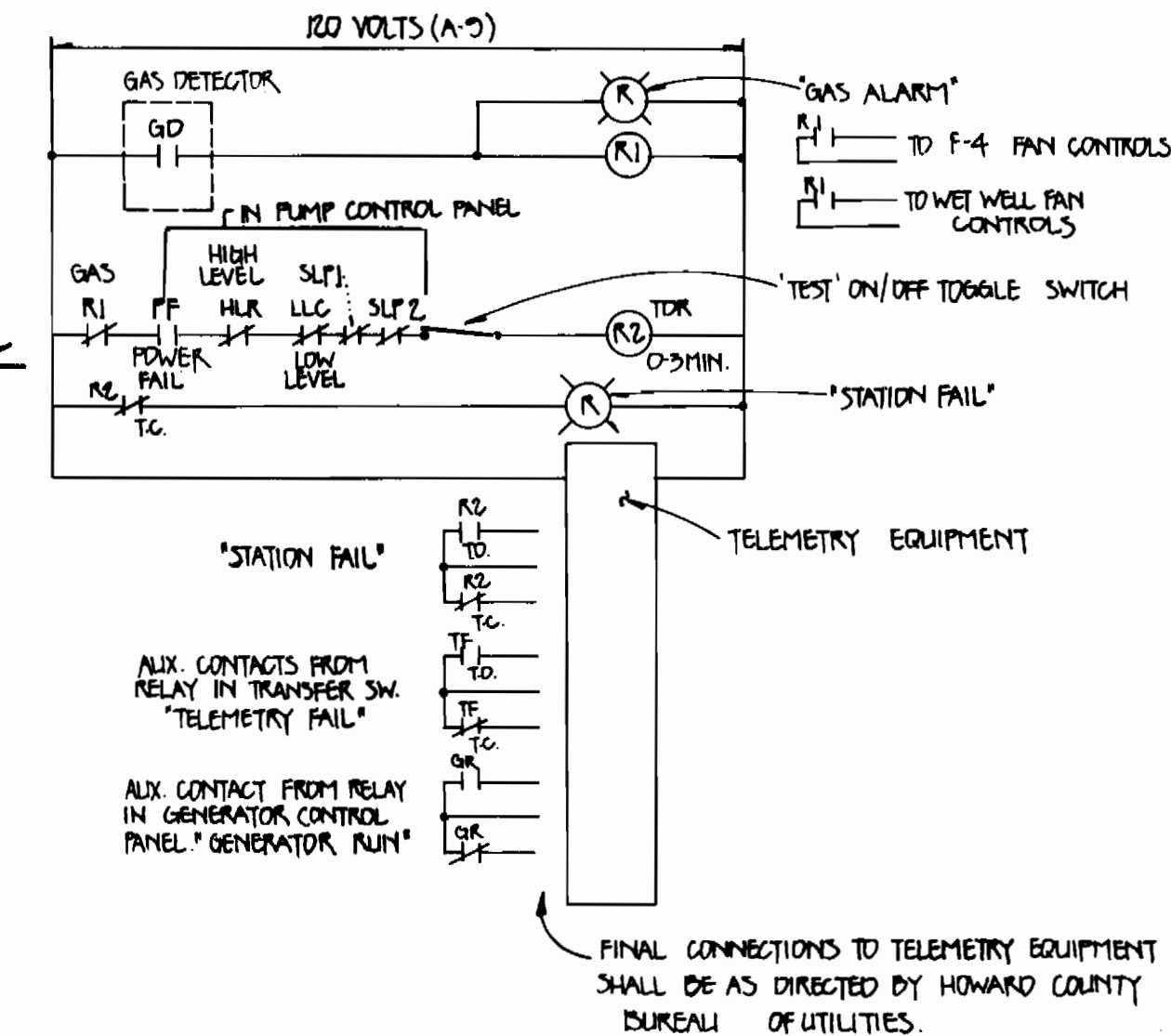


**WET WELL EXHAUST FAN/WET WELL INTAKE FAN CONTROL**  
(FANS F-2 & F-3)



**ONE-LINE DIAGRAM**

NOTE: PROVIDE SERVICE GRADE IN ACCORDANCE W/ NEC.



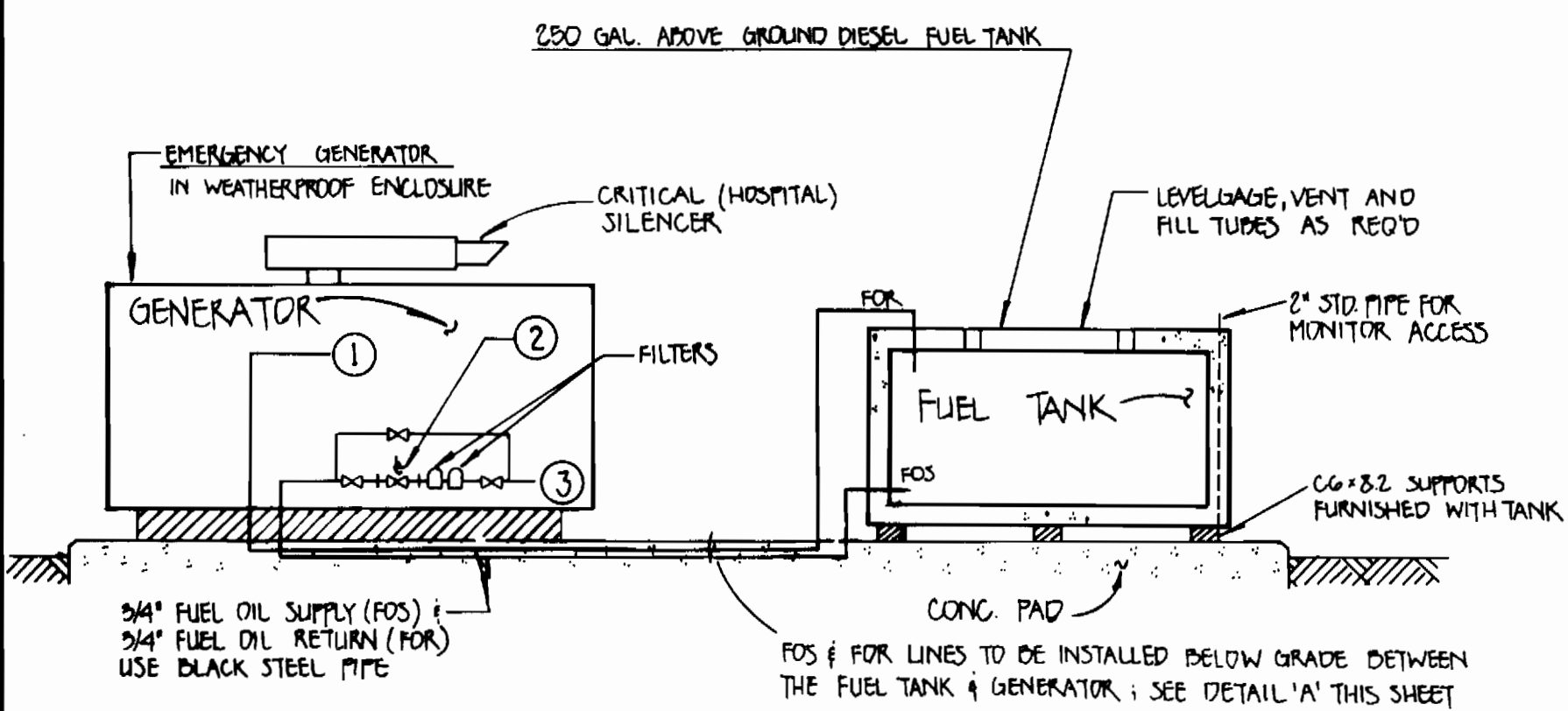
**TELEMETRY CONTROL**

EXHAUST AND RETURN AIR FAN SCHEDULE								
NO.	SERVICE	CFM	FAN RPM	S.P. (IN W.G.)	TYPE/DRIVE	ELECTRICAL HP-V/PH/Hz	NOTES	MANUFACTURER & MODEL NO.
F-1	CONTROL ROOM	160	1670	0.375	IL/DD	1/4-120/1/60	1,2,3	GREENHECK SF-117
F-2/F-3	WETWELL	900	1471	0.25	US/DD	1/4-120/1/60	1,4,5,6	GREENHECK SW-10

TYPES/DRIVE:  
 IL - IN-LINE CENTRIFUGAL  
 US - UTILITY SET  
 DD - DELT DRIVE  
 DV - DIRECT DRIVE  
 RV - ROOF VENTILATOR

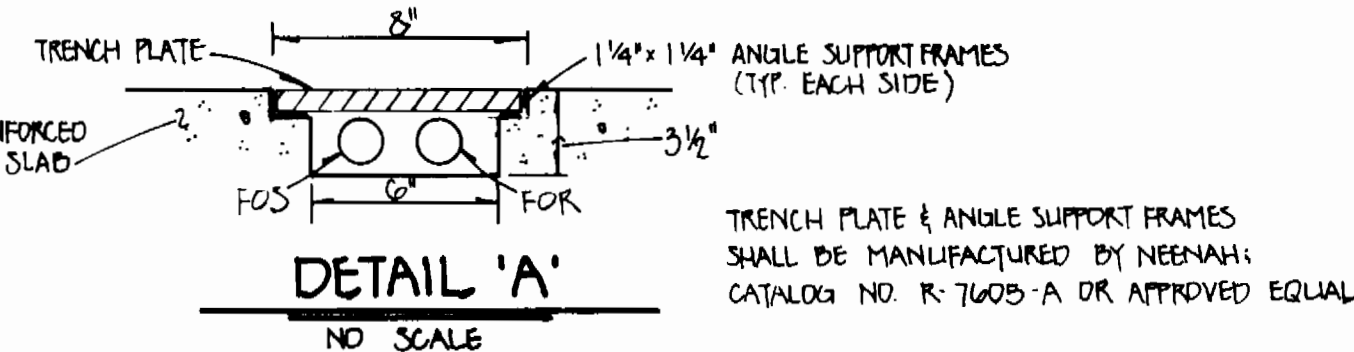
NOTES:  
 1. BIRD SCREEN  
 2. LOUVER  
 3. MOTORIZED DAMPER  
 4. SPARK PROOF HOUSING  
 5. CORK PROTECT COAT  
 6. EXPLOSION PROOF

F-4	WETWELL VAULT	225	1235	0.375	RV,DD	1/2-120/1/60	1,2,3,6	GREENHECK G-10-C
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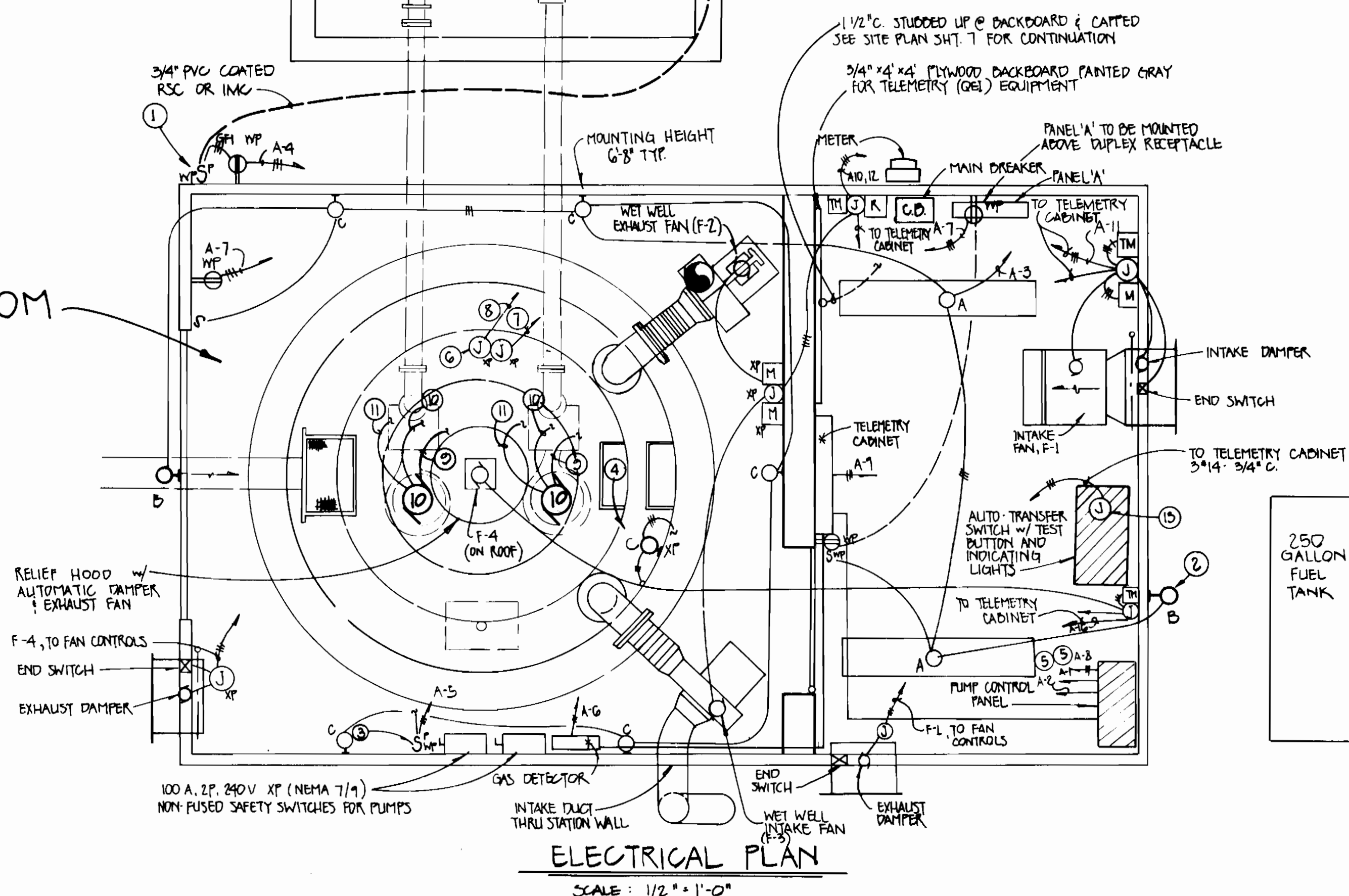
**GENERATOR AND FUEL TANK CONNECTIONS**  
NO SCALE

- FOR ENGINE CONNECTION, USE FLEX CONNECTION.
- THE SOLENOID VALVE (NORMALLY CLOSED) SHALL OPEN WHEN ENGINE IS ENERGIZED.
- FOS ENGINE CONNECTION, USE FLEX CONNECTION.
- FOS & FOR LINES ARE SHOWN SCHEMATICALLY ONLY.



**DETAIL 'A'**  
NO SCALE

**WET WELL ROOM**



**ELECTRICAL PLAN**  
SCALE: 1/2" = 1'-0"

NOTE: SEE ONE LINE DIAGRAM FOR ADDITIONAL EQUIPMENT CONNECTIONS.  
NOTE: CIRCLED NUMBERS REFERENCE DRAWING NOTES ON SHEET 13.

NOTE: ALL ENCLOSURES FOR ELECTRICAL EQUIPMENT IN THE CONTROL ROOM SHALL BE NEMA 12.

CONTRACT NO. 24-3207-D  
CHERRY CREEK  
LOTS 1-45  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
2/4/92  
1-29-92

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
2171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043

DES: MM			
DRN: MM			
CHK: PWK			
DATE:	BY:	NO.	REVISION
6/21/93			REVISE ELECTRICAL PLAN - FAN SCHEDULE & FAN CONTROL PARAGONS

SUBMERSIBLE PUMPING STATION:  
ELECTRICAL PLAN/ DETAILS  
600' SCALE MAP NO. 46 BLOCK NO.

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 12 OF 13

**DRAWING NOTES**

1. PROVIDE WEATHERPROOF SWITCH AND PILOT LIGHT ASSEMBLY (DELL'S 230-92 COVER PLATE).
2. MOUNT WHERE DIRECTED.
3. PROVIDE PERMANENT LABEL: "WET WELL LIGHTS".
4. PROVIDE 3 TYPE C FIXTURES (ONE AT EACH LANDING). MOUNT 5 FT. ABOVE GRATING. LOCATE FIXTURES NEAR ACCESS LADDER, WHERE DIRECTED. PROVIDE XP SEAL ON CONDUIT LEAVING WET WELL (CLASS 1, DIV. 1). ALL CONDUIT WITHIN WET WELL SHALL BE RSC OR IMC.
5. 2 1/4" x 1 1/8" O.D. - 1" C TO PANEL A.
6. PROVIDE EXPLOSION PROOF J-BOXES (2), SIZE AS REQUIRED FOR POWER AND CONTROL CIRCUITS. MOUNT AT LOWER INTERMEDIATE LANDING, APPROX. 2 FT. ABOVE GRATING (ELEV. 29.00).
7. PUMP POWER CIRCUITS. 4 #4 1 1/8" O.D. - 1 1/4" C, PVC-COATED RSC TO PUMP CONTROL PANEL. PROVIDE SEALS AS REQUIRED.
8. CONTROL CIRCUITS (2 #10 FLOATS); 4 #14 TEMPSWCH; 4 #14 MOISTURE SEAL PROBES; AND 1 #14 GND-1/4" PVC-COATED RSC TO PUMP CONTROL PANEL. PROVIDE SEALS AS REQUIRED.
9. MOTOR POWER CORD. EXTEND TO POWER JUNCTION BOX.
10. MOTOR TEMP-SW.CORD. EXTEND TO CONTROL JUNCTION BOX.
11. MOTOR MOISTURE SEAL PROBE CORD. EXTEND TO CONTROL JUNCTION BOX.
12. PROVIDE CONCRETE GENERATOR PAD AS RECOMMENDED BY GENERATOR MFR.
13. CONNECT TO RELAY IN TRANSFER SWITCH (ALL POWER LOST) "TELEMETRY FAIL".

**ELECTRICAL LEGEND**

SYMBOL	DESCRIPTION
	LIGHTING FIXTURE - FLUORESCENT - TYPE AS INDICATED
	LIGHTING FIXTURE - WALL MOUNTED - TYPE AS INDICATED
	DUPLEX RECEPTACLE - 20A, 125V. - MOUNTING HEIGHT 18" UNLESS NOTED OTHERWISE
	GFI RECEPTACLE - 20A, 125V. - MOUNTING HEIGHT 18" UNLESS NOTED OTHERWISE
	JUNCTION BOX - SIZE PER NEC OR AS INDICATED
	ENCLOSED CIRCUIT BREAKER
	TIME SWITCH - TYPE AS INDICATED OR REQUIRED
	PANELBOARD - TYPE AS NOTED - MOUNTING HEIGHT 6'-6" TO TOP
	CONDUIT - IN OR ON CEILING OR WALLS
	CONDUIT - IN OR UNDER FLOOR/GROUND
	HOME RUN TO PANEL - NUMBER OF ARROWS INDICATE NUMBER OF CIRCUITS AND NUMBER OF CROSSLINES INDICATES NUMBER OF #12 CONDUCTORS - WHERE NO CROSSLINES APPEAR 2-12 CONDUCTORS ARE IMPLIED
	CONDUIT - TURNING UP OR DOWN AS REQUIRED
	CONDUIT - TERMINATED IN BUSHING
	MOTOR - HORSEPOWER AS NOTED
	GENERATOR - SIZE AND TYPE AS NOTED
	EXPLOSION PROOF
	WEATHERPROOF
	SWITCH - SINGLE POLE - MOUNTING HEIGHT 4'-0"
	SWITCH - WITH PILOT LIGHT, WEATHERPROOF - MOUNTING HEIGHT 4'-0"
	MANUAL MOTOR STARTER - MOUNTING HEIGHT 4'-0" - TYPE AND RATING AS REQUIRED
	ENCLOSED RELAY

**PANEL A**

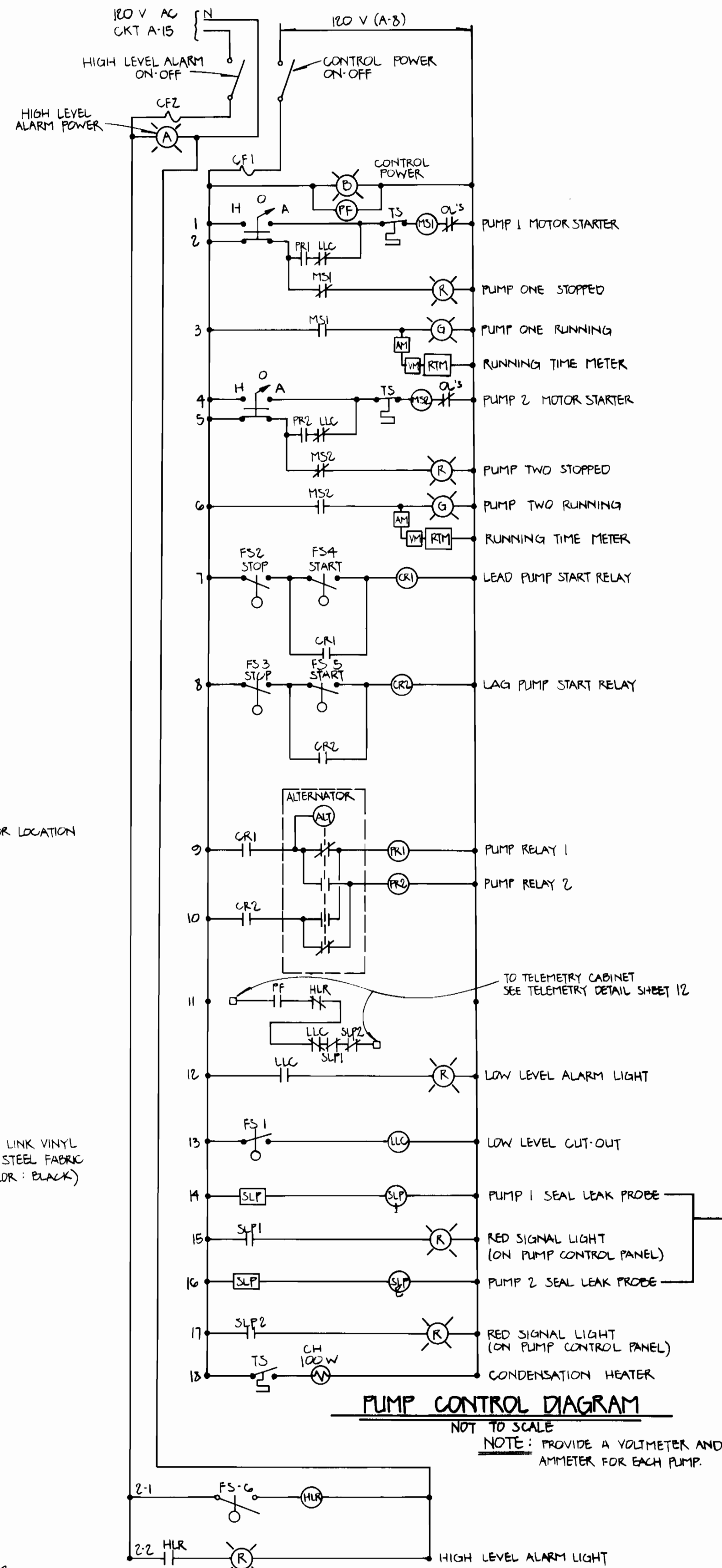
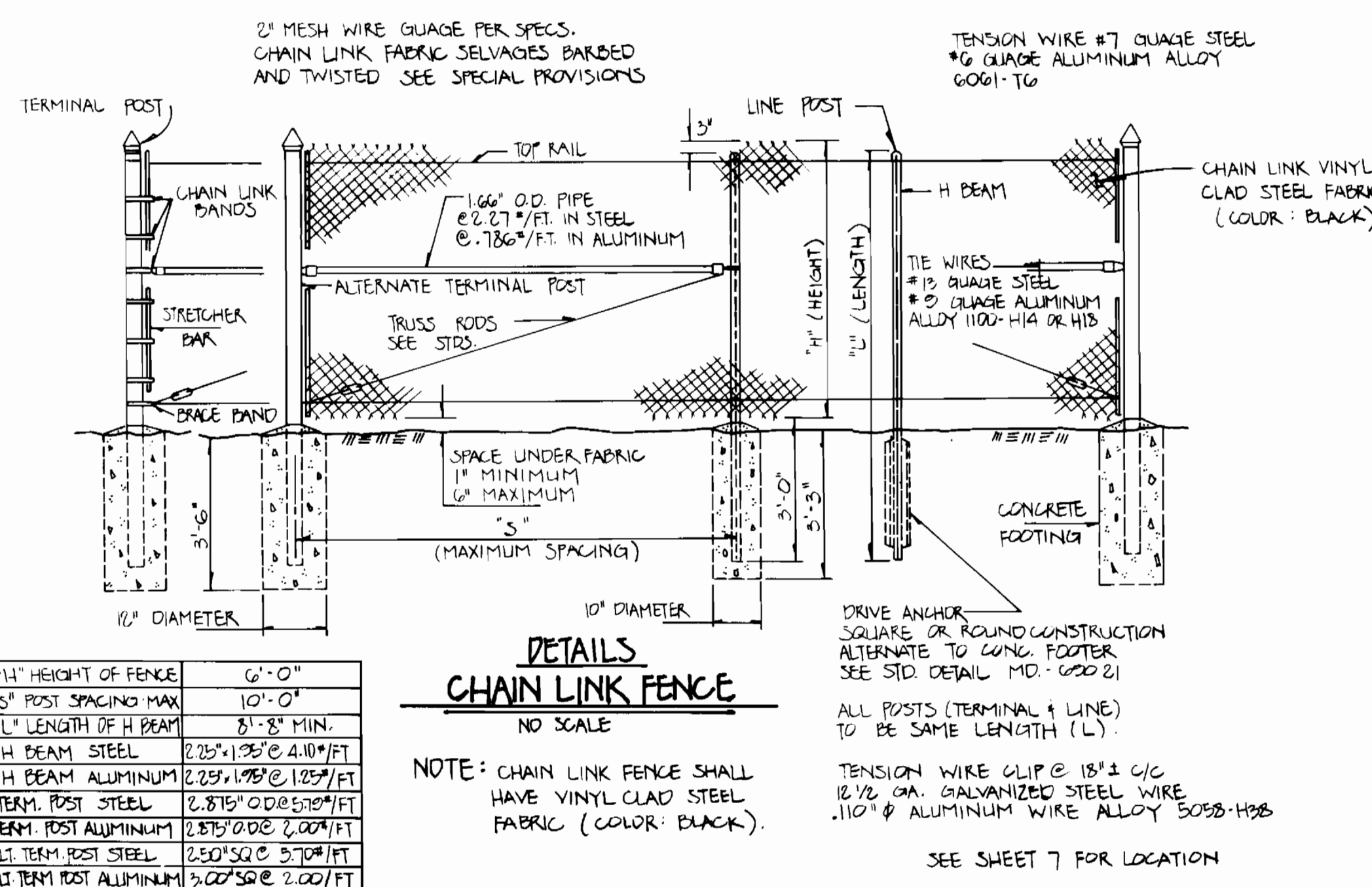
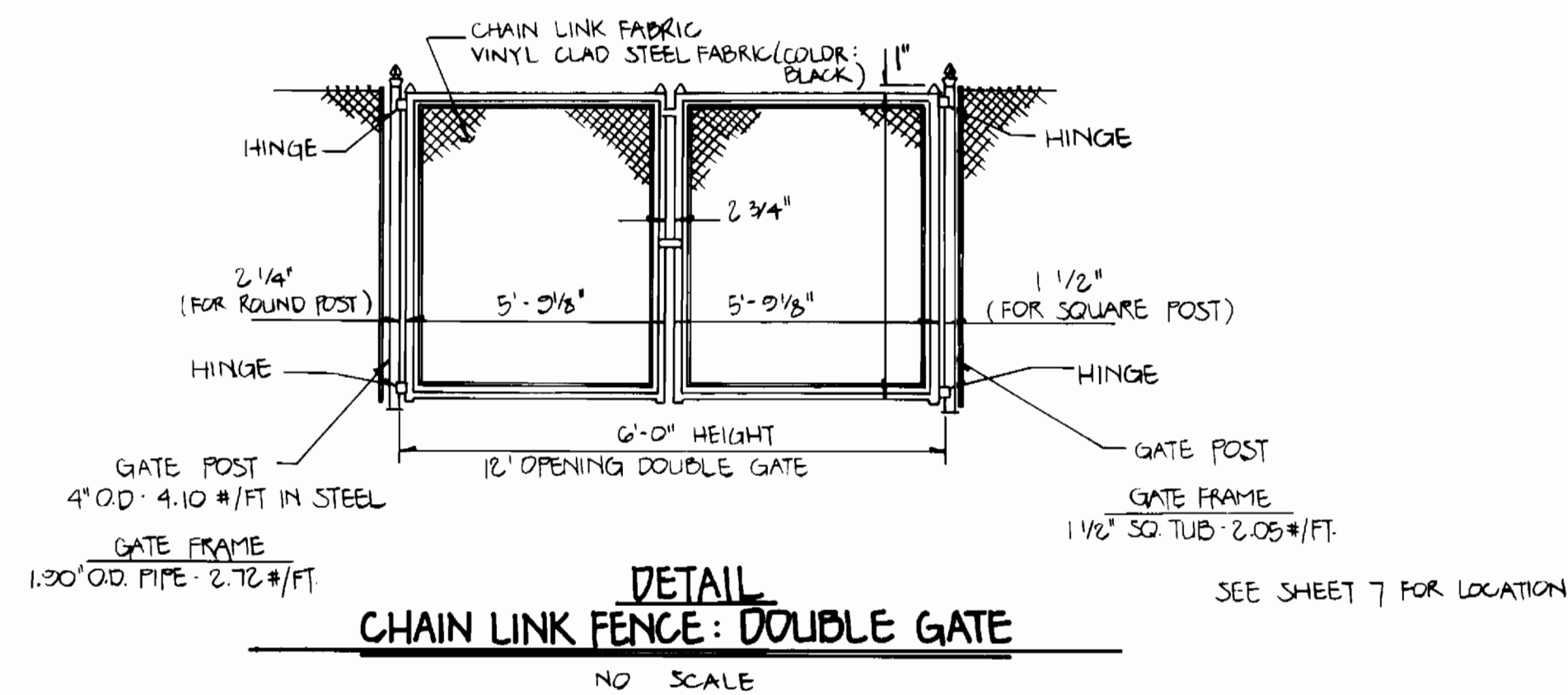
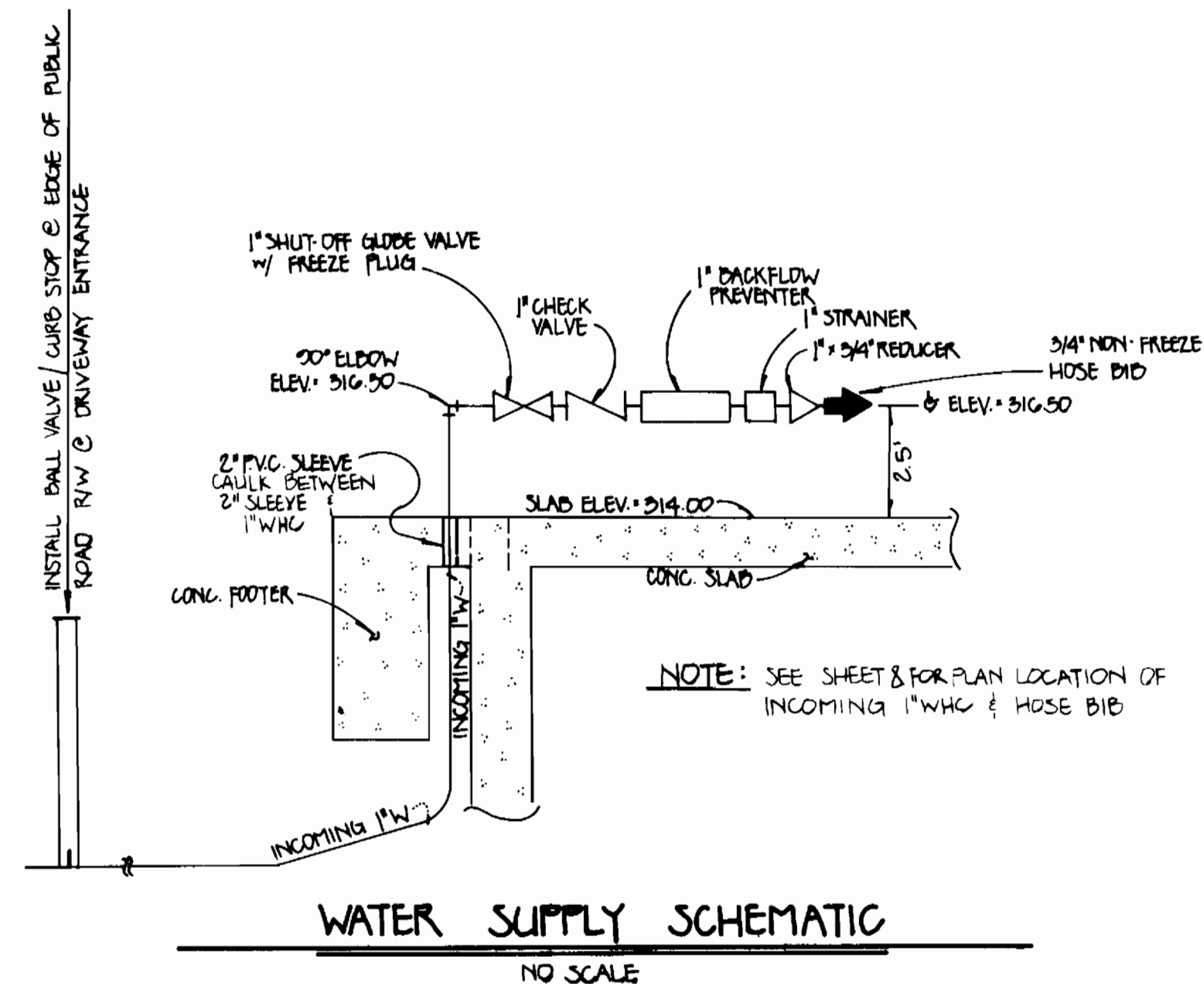
80/120 VOLTS, 1 PHASE, 3 WIRE, 22.5 A. MLO SURFACE MOUNTED

CKT	DESCRIPTION	BRKR	LOAD (KW)
1	PUMP 1	100A 2P	12.0
2	PUMP 2	100A 2P	12.0
3	STATION LGT	20A 1P	1.0
4	VAULT LGT & RECEPT	20A 1P	0.5
5	WET WELL LIGHTS	20A 1P	0.5
6	GAS DETECTOR	20A 1P	0.1
7	RECEPTACLES	20A 1P	0.6
8	PUMP CONTROL PANEL	20A 1P	0.1
9	TELEMETRY CABINET	20A 1P	0.1
10	WET WELL FAN (EXH, F-2)	20A 1P	0.7
11	CONTROL ROOM (F-1)	20A 1P	0.7
12	WET WELL FAN (SUPPLY, F-3)	20A 1P	0.7
13	JACKET WATER HEATER	20A 1P	1.5
14	BATTERY CHARGER	20A 1P	0.1
15	HIGH LEVEL ALARMS	20A 1P	0.1
16	WET WELL RM FAN (F-4)	20A 1P	0.5
17	SPARE	20A 1P	-
18	SPARE	20A 1P	-
19-24	SPARE AND BUS	-1P	-

TOTAL CONNECTED 36.2 KW

**LIGHTING FIXTURES**

TYPE	DESCRIPTION	MFR OR EQUAL
A	SURF. MTD ENCLOSED & GASKETED WRAPAROUND FLUOR. (PLASTIC) 2-40 CW LAMPS AND LOW TEMP. BALLAST. 120 VOLTS	HUBBELL EDL042R-5PDR-L1
B	VANDAL RESISTANT SECURITY LIGHT WITH ONE PIECE DIE-CAST HOUSING POLYCARBONATE DOOR/LENS ASSEMBLY, 70 WATT HPS LAMP AND PHOTOCONTROL. 120 VOLTS	HUBBELL PVL-00705-110-PBT-1
C	WALL MOUNTED EXPLOSION PROOF INCAND. WITH GLOBE GUARD AND 150 WATT LAMP. 120 VOLTS	HUBBELL HLE-8G02150



**PUMP CONTROL DIAGRAM LEGEND**

CF	CIRCUIT FUSE
OL	OVERLOAD
MS	MOTOR STARTER
PR	PUMP RELAY
LLC	LOW LEVEL CUTOUT
TS	TEMPERATURE SWITCH
CR	CONTROL RELAY
SLP	SEAL LEAK PROBE
FS	FLOAT SWITCH
H	HAND
O	OFF
A	AUTOMATIC
HLR	HIGH LEVEL RELAY
PF	POWER FAILURE
AM	AMMETER
VM	VOLTMETER

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

James M. ... 2/4/92  
DIRECTOR OF PUBLIC WORKS DATE

... 2/16/92  
CHIEF, BUREAU OF UTILITIES DATE

... 2/16/92  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC. #9757

CONSULTING ENGINEERS AND LAND SURVEYORS  
9171 BALTIMORE NATIONAL PIKE, SUITE 100  
ELLICOTT CITY, MARYLAND 21043

TERRELL A. FISHER

DES.	DRN.	CHK.	DATE	BY	NO.	REVISION	DATE
M.M.	L.A.	PWK.	11/11/91			REVISE PANEL 'A'	11/21/93

SUBMERSIBLE PUMPING STATION:  
ELECTRICAL & MISC. DETAILS

600' SCALE MAP NO. 46 BLOCK NO.

CHERRY CREEK  
LOTS 1-45  
CONTRACT NO. 24-3207-D  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 13 OF 13