

SHEET	DESCRIPTION	REF
12	EXISTING CONDITIONS & DEMOLITION PLAN	CD01
13	EQUIPMENT YARD SITE PLAN	C101
14	UTILITY SITE PLAN	C102
15	EQUIPMENT YARD STAKEOUT PLAN	C103
16	EQUIPMENT YARD GRADING PLAN	C104
17	EROSION & SEDIMENT CONTROL PLAN	C105
18	DUCTBANK A STATION 7+00 TO 13+22	C201
19	DUCTBANK B STATION 50+00 TO 57+00	C202
20	CHILLER PIPES PROFILE	C203
21	SITE DETAILS	C501
22	SITE DETAILS	C502
23	EQUIPMENT YARD ENCLOSURE DETAILS	C503
24	COMMUNICATIONS VAULT DETAILS	C504
25	HANDHOLE & DUCTBANK DETAILS	C505
26	OSP DUCTBANK SECTIONS	C506
27	SECURITY POLES & BASE DETAILS	C507
28	EROSION & SEDIMENT CONTROL NOTES	C508
29	STRUCTURAL GENERAL NOTES & ABBREVIATIONS	S001
30	STRUCTURAL SITE PLAN	SS100
31	STRUCTURAL SECTIONS & DETAILS	SS001

GENERAL NOTES

- All construction shall be performed in accordance with the latest standards and specifications of Howard County, plus MSHA standards and specifications if applicable or as specified.
- Approximate location of existing utilities are based solely on available records. Contractor shall verify the location of any utilities which may be impacted by the work. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractor's operation shall be repaired immediately at the contractor's expense.
- The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
- The contractor shall notify 'Miss Utility' at 1-800-257-7777 at least 48 hours prior to any excavation work being done, and shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 315-1800 at least five (5) working days prior to the start of work.
- Any damage caused by the Contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be repaired at the Contractors expense.
- Topo taken from mass grading per SDP 98-11(revised) dated April 9, 1998 by Daft McCune Walker, Inc.
- Existing public water and sewer contract number (34-3654-D) proposed public water contract No. (44-3702-D)
- The subsurface exploration and geotechnical engineering analysis for this project was made by Hillis Carnes, Inc. on January 1997.
- All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-99.
- Regional stormwater management and water quality are provided in a retention facility located on Parcel F; plans were approved per SDP 98-11.
- Forest Conservation requirements are provided per SDP 98-11 and F98-45.
- There are no wetlands, floodplain, stream, or known cemeteries on this site.
- Traffic Study by Lee Cunningham and Associates was previously approved for this use and square footage per F98-45. Date: December 1997.
- Operating existing valves, switches, services or start up of new services shall be coordinated with the owners representative.
- The building will be provided with a sprinkler system.
- An elevator is provided within the building.
- Trench compaction for storm drains within the road or street right of way limits shall be in accordance with Howard County Design Manual IV, Std. No. G-2.01.
- A portion of the Erosion and Sediment Control are provided per SDP 98-11. They are to be refurbished and maintained to their approved condition.
- Unless otherwise noted, dimensions from curb are measured at face of curb.
- Refer to architectural drawings for building dimensions.
- The Contractor shall coordinate the location of all water, sewer, and drain house connections with the mechanical drawings.
- The Contractor shall maintain 2.0 feet minimum cover over all utilities during construction.
- Unless otherwise noted, all utility connections shall be capped or plugged five feet from buildings.
- Electric, telephone, gas, cable, lighting, and retaining walls to be designed by other. Where those facilities are shown, they are for coordination purposes only.
- All Curb radii 5' unless otherwise noted.
- There are no known cemeteries or burial grounds on this site. However, upon discovery of any evidence of burial or graves, the developer will be subject to Section 16.1305 of the Howard County Subdivision and Land Develop Regulations.

SITE ANALYSIS DATA CHART

1. General Site Data

- Present Zoning: PEC
- Applicable DPZ File References: F 98-45, SDP 98-11, BA96-31, WF97-21, PB 190, VP 86-64, WF 91-93, ZB 802 & 767, FDP#1, SDP 88-197, SDP 89-88, and WF 98-12
- Proposed Use of Site or Structure(s): Office Building (THREE STORY)
- Proposed Water and Sewer Systems: X Public - Private
- Any Other Information Which May be Relevant: N/A

2. Area Tabulation

- Total Project Area: 13.429 Acres (Indicate by Section and Area As Shown on Final Plat or As Shown on Deed)
- Net Area of Site: 13.429 (Indicate by Section and Area As Shown on Final Plat)
- Area of This Plan Submission:
- Limit of Disturbed Area: 13.9
- Building Coverage of Site: 1.23 and 9.2 % of Gross Area (Proposed)
- Other Area:

3. Open Space Data

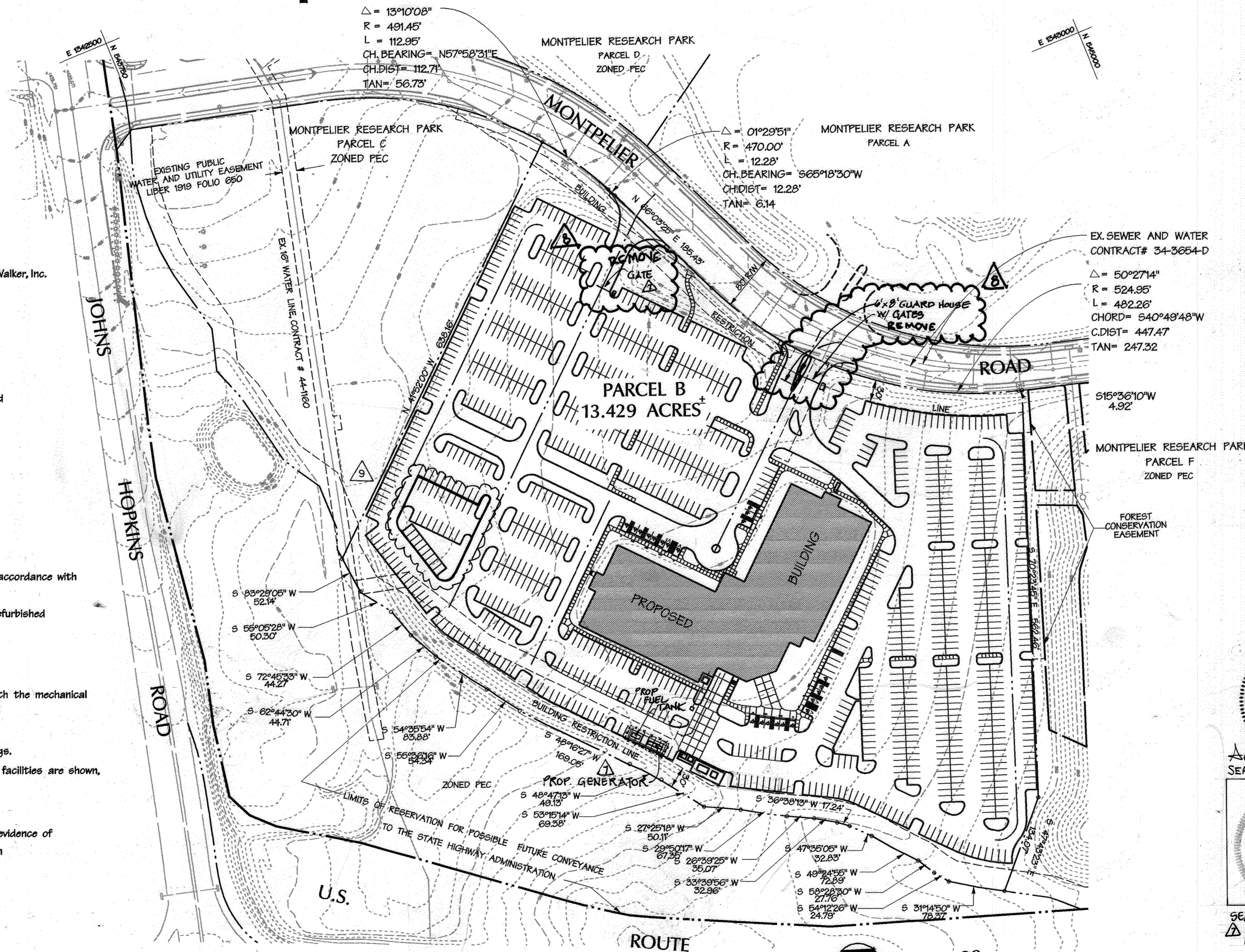
- Open Space on Site: 0 Acres 0 % of Gross Area (Proposed on This Submission or As Shown on the Final Plat)
- Area of Recreation Open Space Required by Subdivision and Land Development Regulations: 0 Acres 0 Acres Provided
- Other: N/A

4. Parking Space Data

- Floor Space on Each Level per Building(s) per Use:

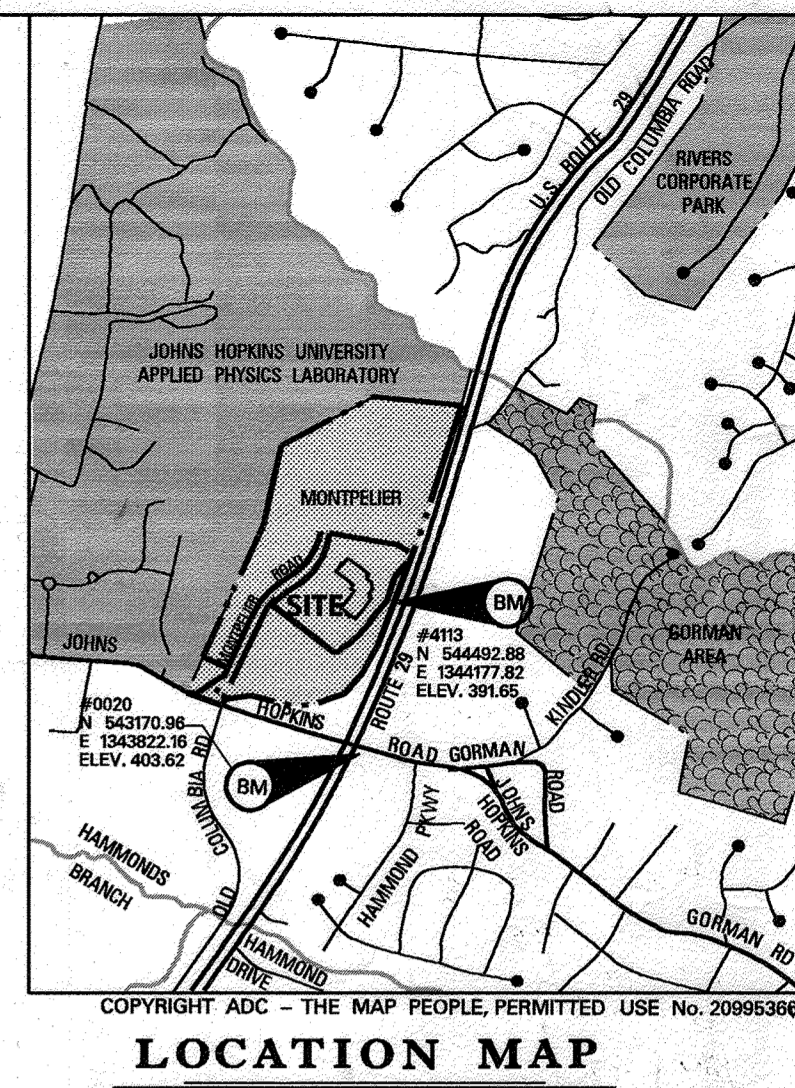
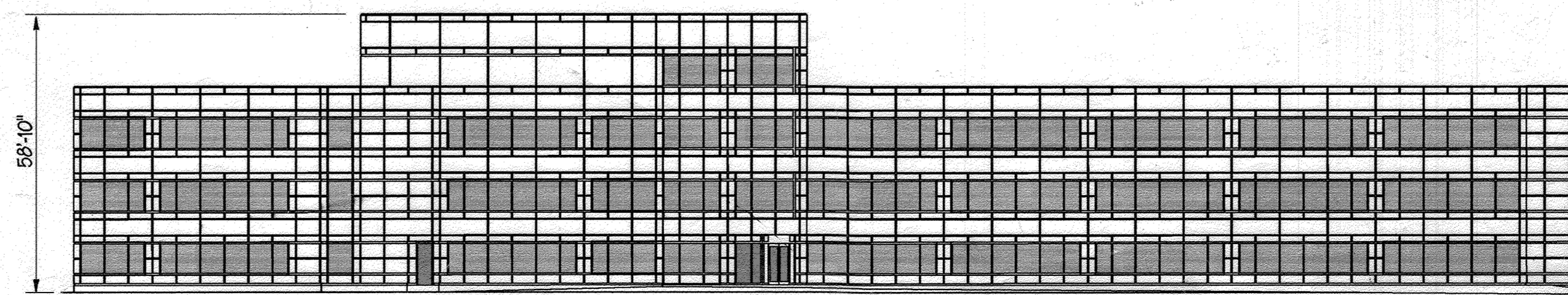
1ST- 53,600 SF
2ND- 61,700 SF
3RD- 62,600 SF
TOTAL: 177,900 SF
- Maximum Number of Employees, Tenants On-Site per Use: 553
- Number of Parking Spaces Required by Zoning Regulations and Criteria: 157,800 SF X 3.3 SP/1000=521 SPACES
- Total Number of Parking Spaces Provided On-Site: 994 472 22
- Number of Handicapped Parking Spaces Provided: 22

Site Development Plan for TRAMMELL CROW OFFICE BUILDING at Montpelier Research Park – Parcel B



Overall Property Outline

Scale: 1"=100'



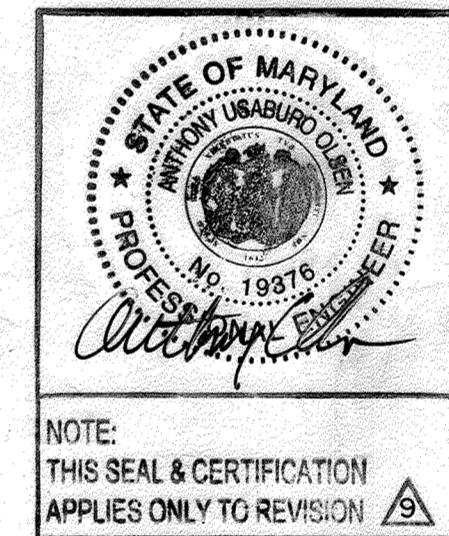
BENCHMARK

DESCRIPTION

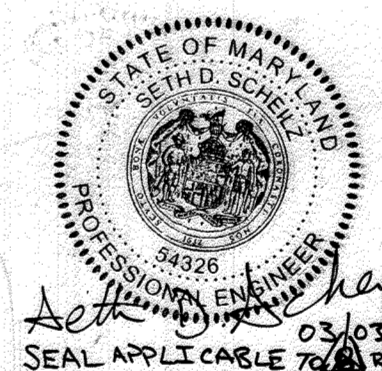
Coordinates and bearing shown are referred to the system of coordinates established in the Maryland Coordinate System as projected by Howard County Geodetic Control Stations: NAD 83. Elevations shown hereon are referred to the North American Vertical Datum-NVD 29 and are based on the following Howard County Survey Control Stations: (Translated meters to feet.)

DESIGNATION	NORTH (eFT)	EAST(eFT)	Elevation (eFT)
4113	544492.88	1344177.82	391.65
0020	543170.96	1343822.16	403.62

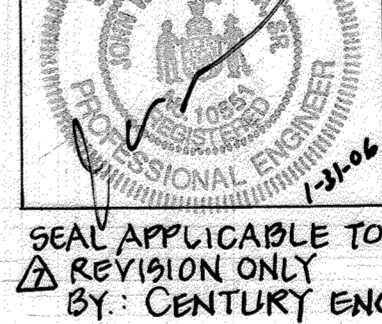
PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 19376
EXPIRATION DATE: SEPTEMBER 22, 2023



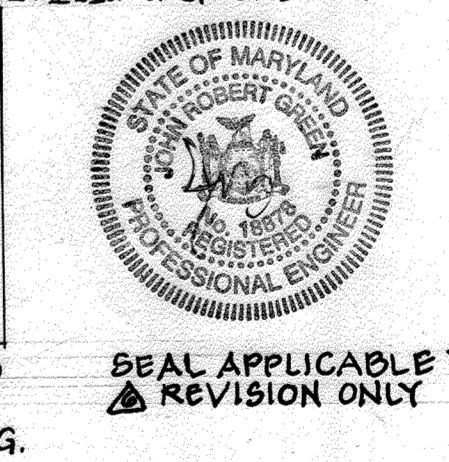
NOTE: THIS SEAL & CERTIFICATION APPLIES ONLY TO REVISION 3



SEAL APPLICABLE TO REVISION ONLY BY: BLACK + VEATCH



SEAL APPLICABLE TO REVISION ONLY BY: CENTURY ENG.



SEAL APPLICABLE TO REVISION ONLY

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 54326
EXPIRATION DATE: 05/12/21

Date	No.	Revision Description
11/22	9	EQUIPMENT YARD & MPB OSP DUCTS
03/03/20	8	GUARD HOUSE AND GATES REMOVED
11/27/09	3	APP GEN, FUEL TANK, FENCE, GUARD HOUSE, GATES & PARKING
9/14/08	2	REVISED PARKING SPACE DATA
11/2/08	1	REVISED PARKING SPACE DATA.

Trammell Crow Office Building

at Montpelier Research Park – Parcel B
OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
DEVELOPER: TRAMMELL CROW COMPANY
8030 Red Branch Road, Suite 200, Columbia, MD, 21045
6701 Democracy Blvd, Suite 410, Bethesda, MD, 20817

DMW

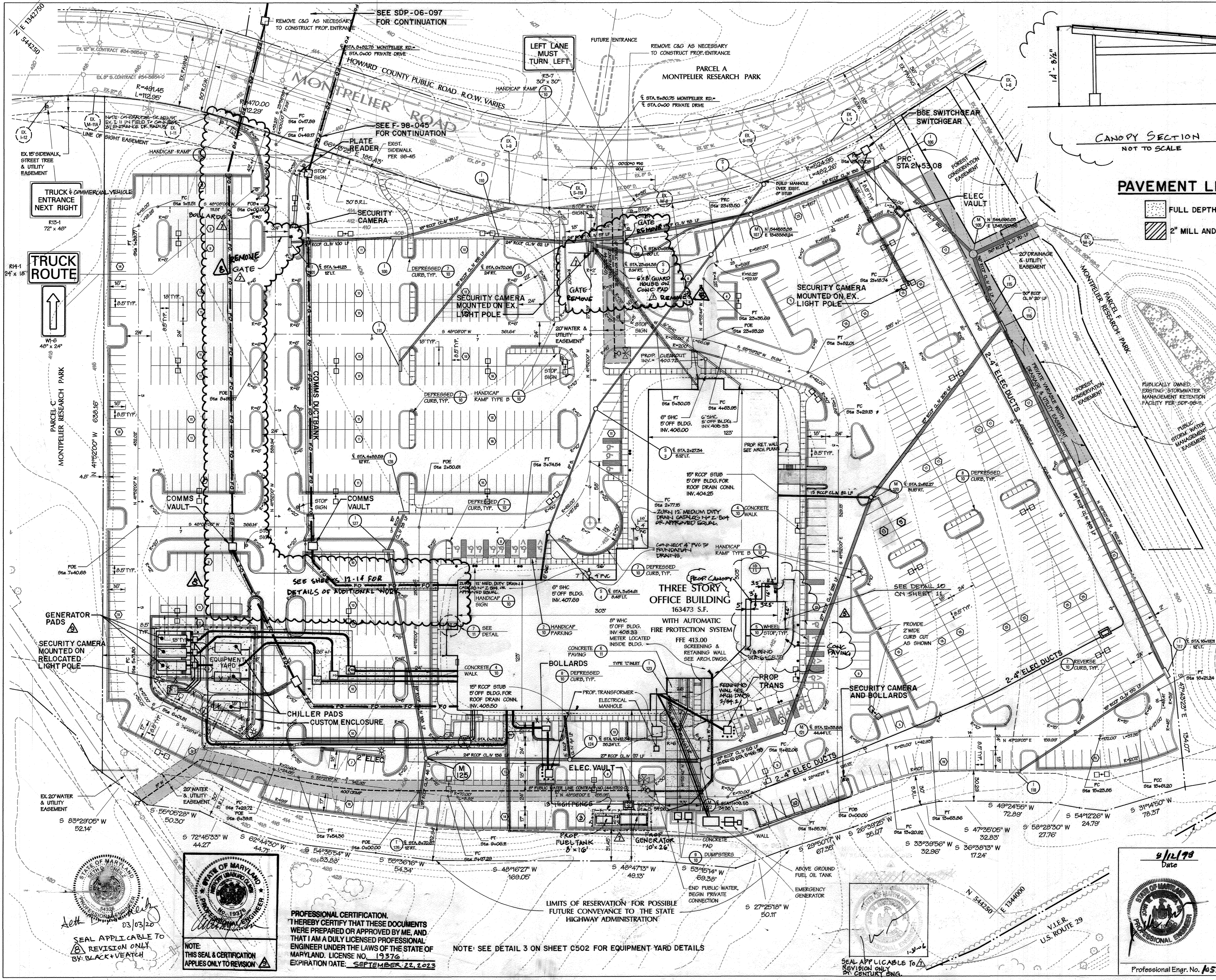
Daft · McCune · Walker, Inc.
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
410 286 3333
Fax 296 4705

SUBDIVISION NAME	SECTION AREA	LOT/PARCEL #
Montpelier Research Park	N/A	PARCEL B
TRACT # 17	PECS	41
WATER CODE	6440000	605102

COVER SHEET

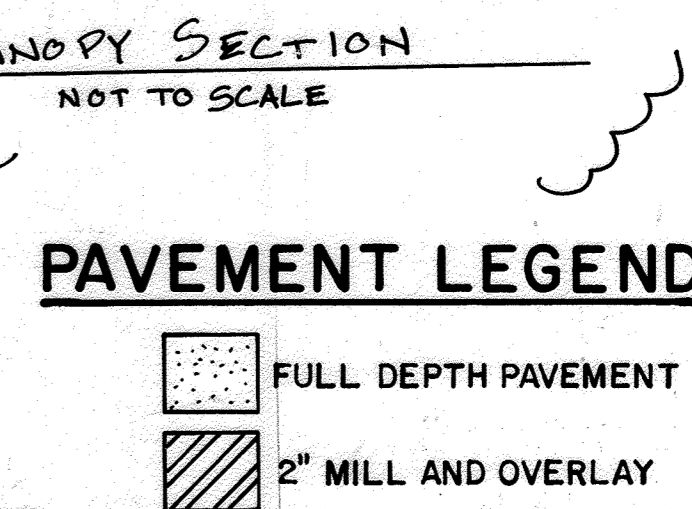
Drawn By: ADL	Scale: As Shown	Proj. No. 9471.T
Des. By: ZAL	Date: 7-28-98	1 of 31
Checked By:	Approved:	

Professional Engr. No. ASST



Legend

SYMBOL	DESCRIPTION
(---)	BUILDING RESTRICTION LINE
(P)	PARKING COUNT
(H)	VAN HANDICAPPED PARKING
(B)	HANDICAPPED PARKING
(---)	EXISTING 10' CONTOUR
(---)	EXISTING 2' CONTOURS
(---)	CONC. SIDEWALK EXPANSION JOINT
(---)	CONC. SIDEWALK CONTROL JOINT
(---)	REVERSE CURB & GUTTER
(---)	DEPRESSED CURB
(---)	STANDARD CURB & GUTTER
(S)	STOP SIGN
(M)	STORM DRAIN STRUCTURE LABEL
(---)	EXISTING SEWER
(---)	EXISTING STORM DRAIN
(---)	EXISTING WATER
(---)	PROPOSED STORM DRAIN
(---)	PROPOSED SEWER
(---)	PROPOSED WATER
(□)	LIGHT POLES



- ### NOTES:
1. ALL CURB RADI 5' UNLESS OTHERWISE NOTED.
 2. SEE PAVING PLAN, DETAIL 5, SHEET 9
 3. ALL PARKING SPACES 8.5'x18' UNLESS OTHERWISE NOTED.
 4. ALL EXTERIOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS SECTION 134.

STATE OF MARYLAND PROFESSIONAL ENGINEER

10/10/15

SEAL APPLICABLE TO REVISION ONLY

NORTH

11/22	9	MODIFY MB OSP DUCT BANK
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING		
[Signature]		02/2/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE
[Signature]		5/28/98
CHIEF, DIVISION OF LAND DEVELOPMENT		DATE
[Signature]		8/28/98
DIRECTOR		DATE
03-03-20	8	AND MB OSP DUCT BANK/GUARD HOUSE WARD
12-21-02	7	ADD GEL AND FUEL TANK AND FENCE
6-30-05	5	REVISED PATIO AREA & ADDED CANOPY
6/10/99	4	ADDED PATIO AREA
1-13-99	3	REMOVED GREASE TRAP, RELOCATED G/S, ADDED SEWER CLEANOUT, G/S, PER PLAN CONSTRUCTION - W/ VORWEGEN ON 11-23-98. ROAD SIGN R-131 WAS REBUILT.
11-3-90	1	REV. ENTRANCE - LOADING DOCK & UTILITIES PER ARCH PLANS

Trammell Crow Office Building

at Montpelier Research Park - Parcel B

OWNER: TRAMMELL CROW COMPANY
8030 Red Branch Road, Suite 410, Bethesda, MD, 20817

DEVELOPER: TRAMMELL CROW COMPANY
8030 Red Branch Road, Suite 410, Bethesda, MD, 20817

DMW Daft · McCune · Walker, Inc.

A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

200 East Pennsylvania Avenue
Towson, Maryland 21286
410 286 3833
Fax 286 4705

DISCUSSION NAME	SECTION AREA	LOTTAGE/FAC
Montpelier Research Park	N/A	PARCEL B
PLAN & LAYOUT	TAZ/ZONE MAP	DEVELOPER
10250	41	6061.02
DATE	FORM CODE	REVISION
E 21	6440000	

SITE PLAN

Drawn By:	FJZ	Scale:	1"=40'	Proj. No.:	9471.T
Design By:	ZAL	Date:	7-28-98		231 of 4
Checked By:		Approved:			

Professional Engr. No. 10551

PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 19376
EXPIRATION DATE: SEPTEMBER 23, 2023

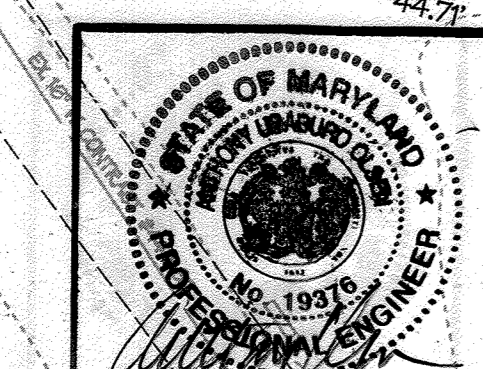
NOTE: SEE DETAIL 3 ON SHEET C502 FOR EQUIPMENT YARD DETAILS

STATE OF MARYLAND PROFESSIONAL ENGINEER

03/03/20

SEAL APPLICABLE TO REVISION ONLY BY: BLACK + VEATCH

NOTE: THIS SEAL & CERTIFICATION APPLIES ONLY TO REVISION



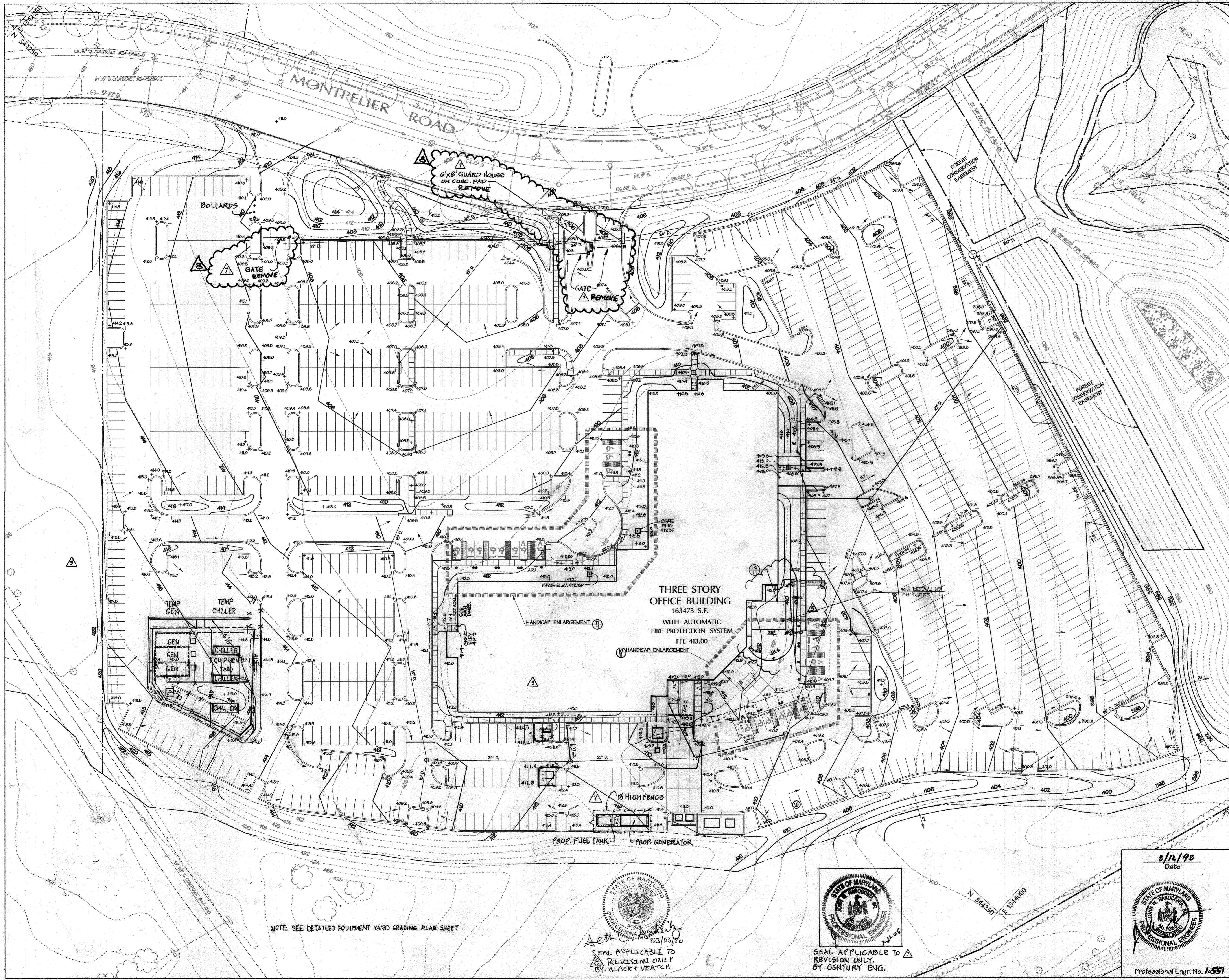
SEE SDP-06-097 FOR CONTINUATION

SEE F-98-045 FOR CONTINUATION

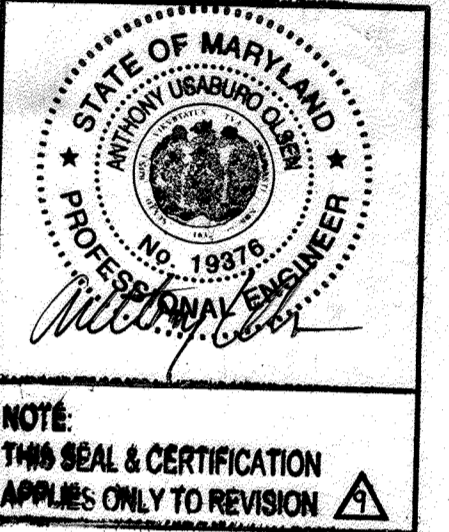
SEE SHEET 12-14 FOR DETAILS OF ADDITIONAL WORK

SEE DETAIL 10 ON SHEET 11

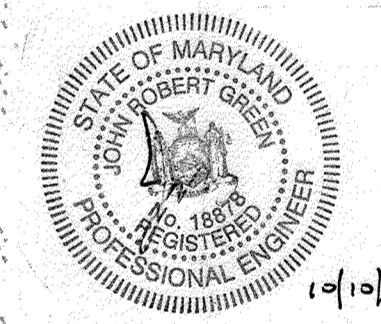
SEE DETAIL 3 ON SHEET C502 FOR EQUIPMENT YARD DETAILS



NOTE: SEE DETAILED EQUIPMENT YARD GRADING PLAN SHEET



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS
 WERE PREPARED OR APPROVED BY ME, AND
 THAT I AM A DULY LICENSED PROFESSIONAL
 ENGINEER UNDER THE LAWS OF THE STATE OF
 MARYLAND LICENSE NO. 13716
 EXPIRATION DATE: SEPTEMBER 22, 2013



SEAL APPLICABLE TO REVISION ONLY

11/22	9	ADD EQUIPMENT YARD	NORTH
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING			
<i>Howard County</i>		DATE	8/20/10
CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE	8/28/10
<i>Cindy Hamilton</i>		DATE	8/28/10
CHIEF, DIVISION OF LAND DEVELOPMENT		DATE	8/28/10
<i>David Smith</i>		DATE	8/28/10
DIRECTOR		DATE	8/28/10
03/03/10	0	GUARD HOUSE AND GATES REMOVED	
6/30/09	5	REVISED PATIO AREA; ADDED CANOPY	
6/16/09	4	ADDED PATIO AREA	
12-27-05	7	ADD GEN. & FUEL TANK & FENCE GUARD HOUSE & GATES	
11-3-06	1	REV. ENTRANCE LOADING DOCK UTILITIES & GRADING	
Date	No.	Revision Description	

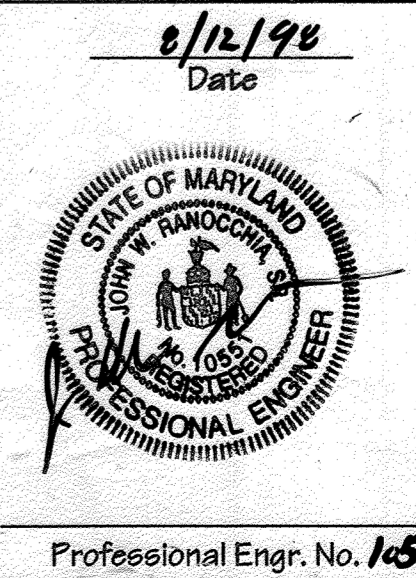
Tammell Crow Office Building
 at Montpelier Research Park - Parcel B
 OWNER
 HOPKINS ROAD LIMITED PARTNERSHIP TRAMMELL CROW COMPANY
 9050 Red Branch Road, Suite 200, Columbia, MD, 21045 6701 Democracy Blvd., Suite 410, Bethesda, MD, 20817

DMW
 Daft - McCune - Walker, Inc.
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 410 296 3333
 Fax 296 4705

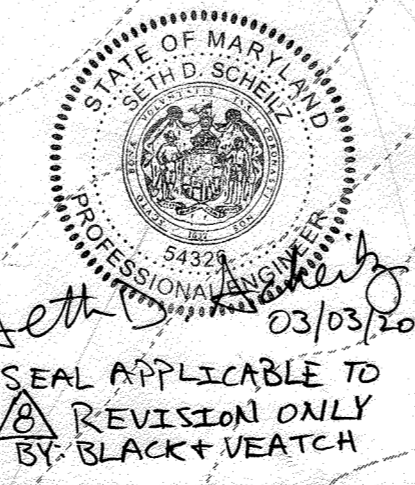
SUBDIVISION NAME	Montpelier Research Park	SECTION AREA	N/A	LOTPARCEL #	
PLAT OF LOTS	1322D	TAXING MAP	41	ELECT. DISTRICT	5th
WATER CODE	E 21	SEWER CODE	6440000	GENUS TRAC	60E102

GRADING PLAN

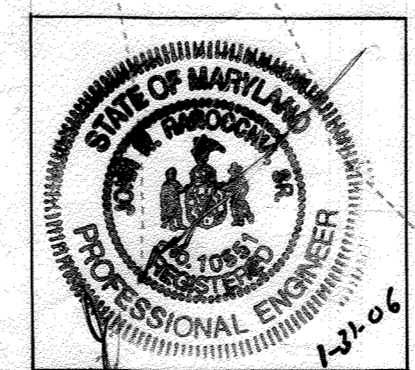
Drawn By:	ADLF/JZ	Scale:	1"=40'	Proj. No.:	94171.T
Des. By:	TPC	Date:	7-28-08		
Chk. By:		Approved:			3 of 14



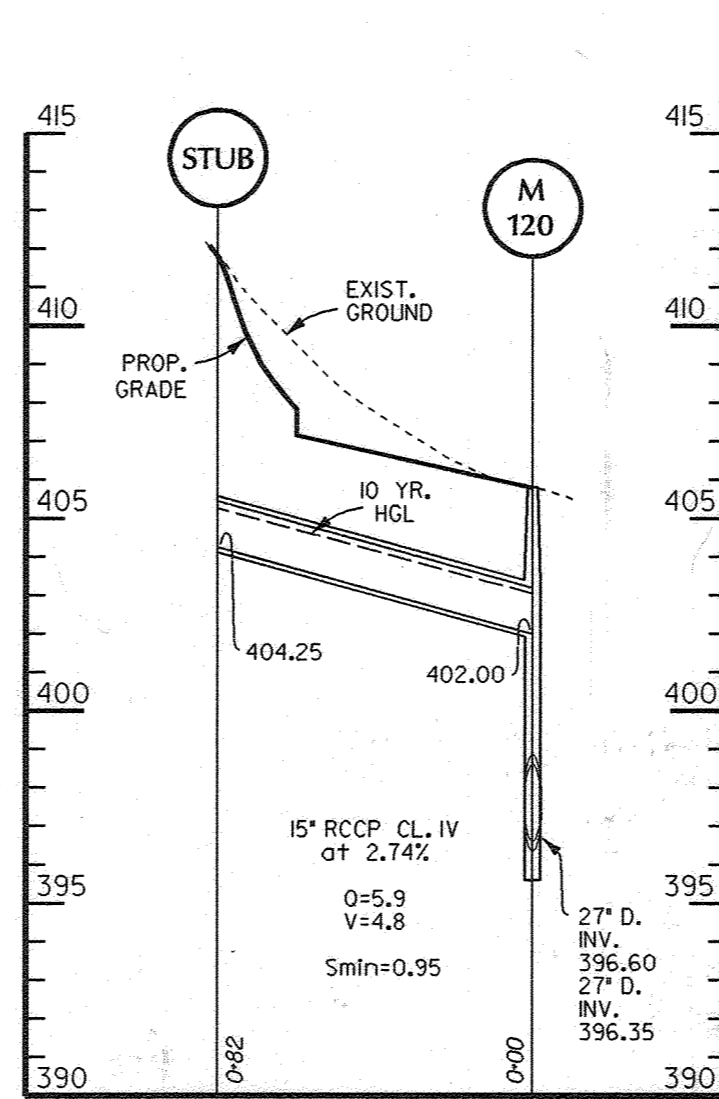
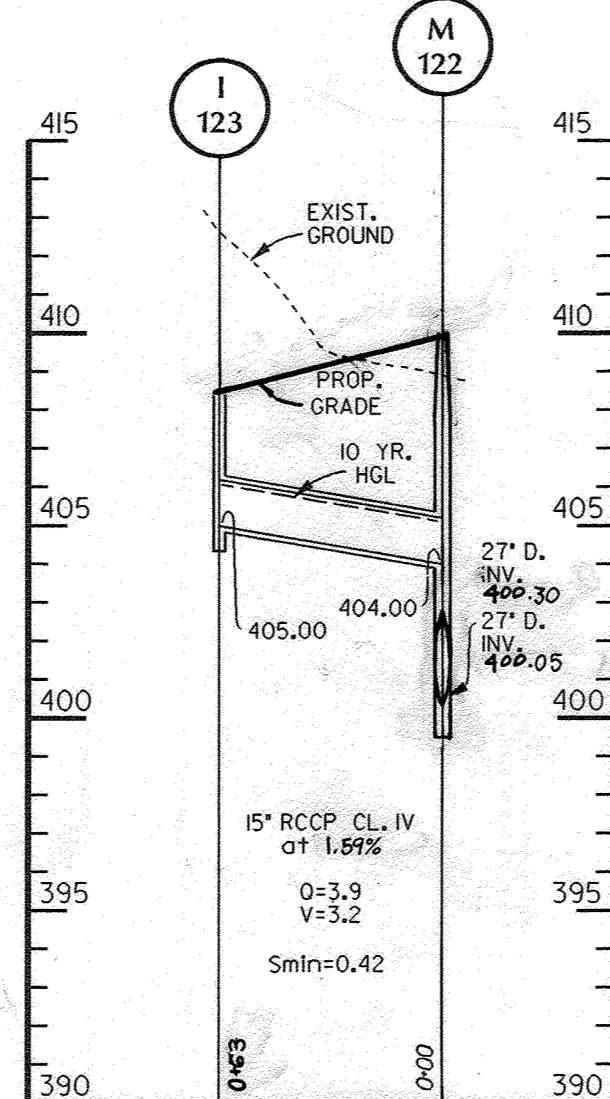
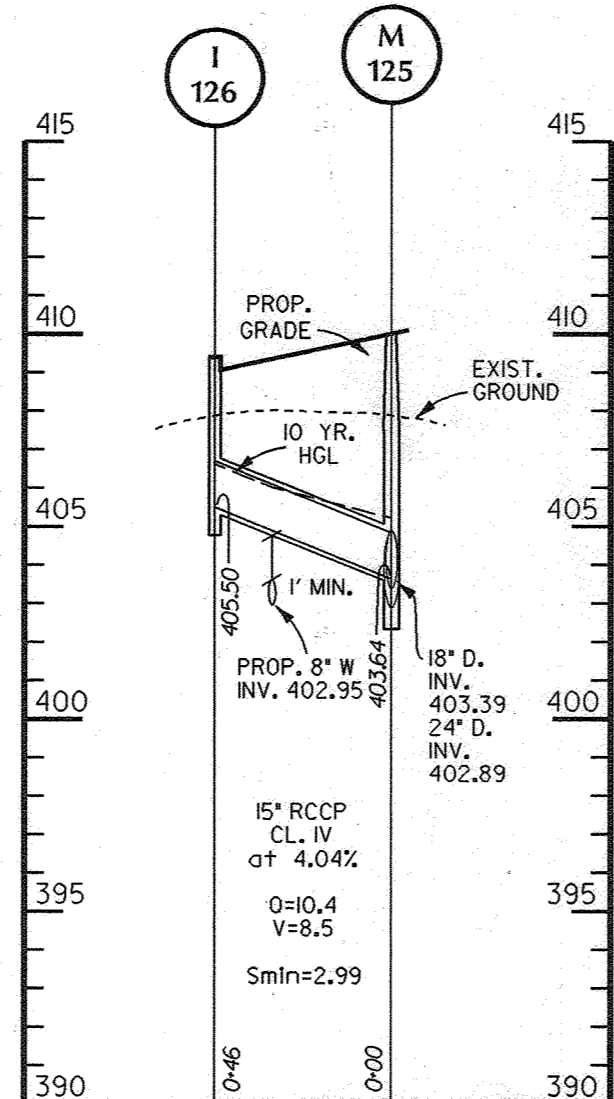
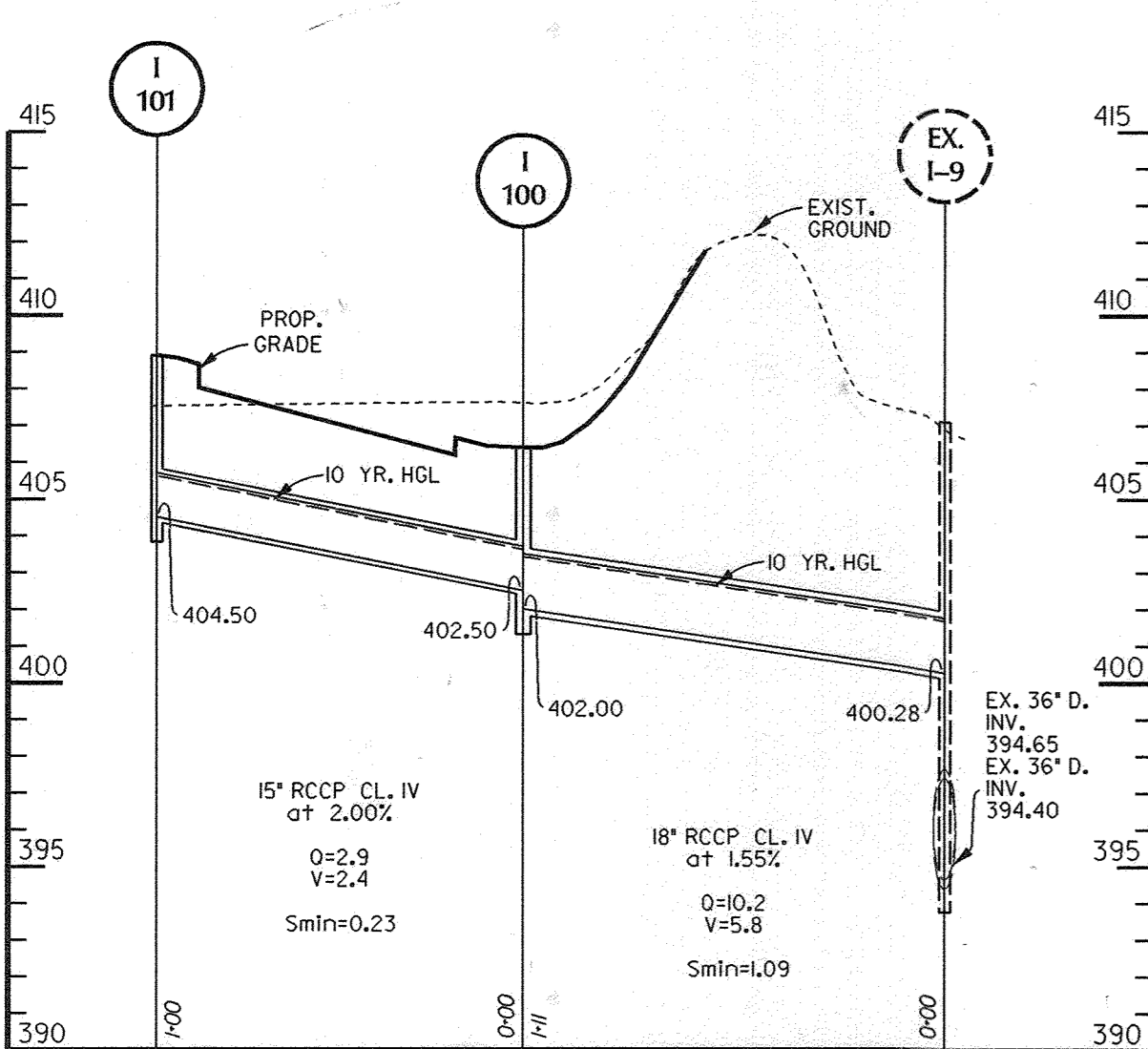
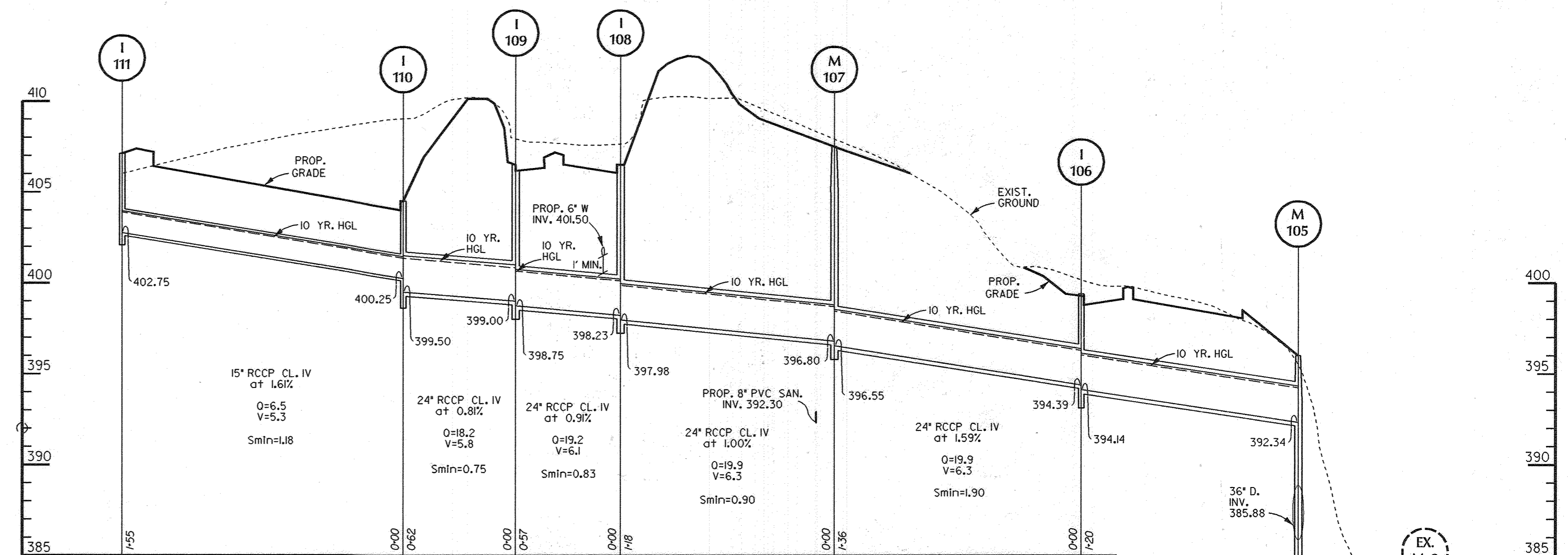
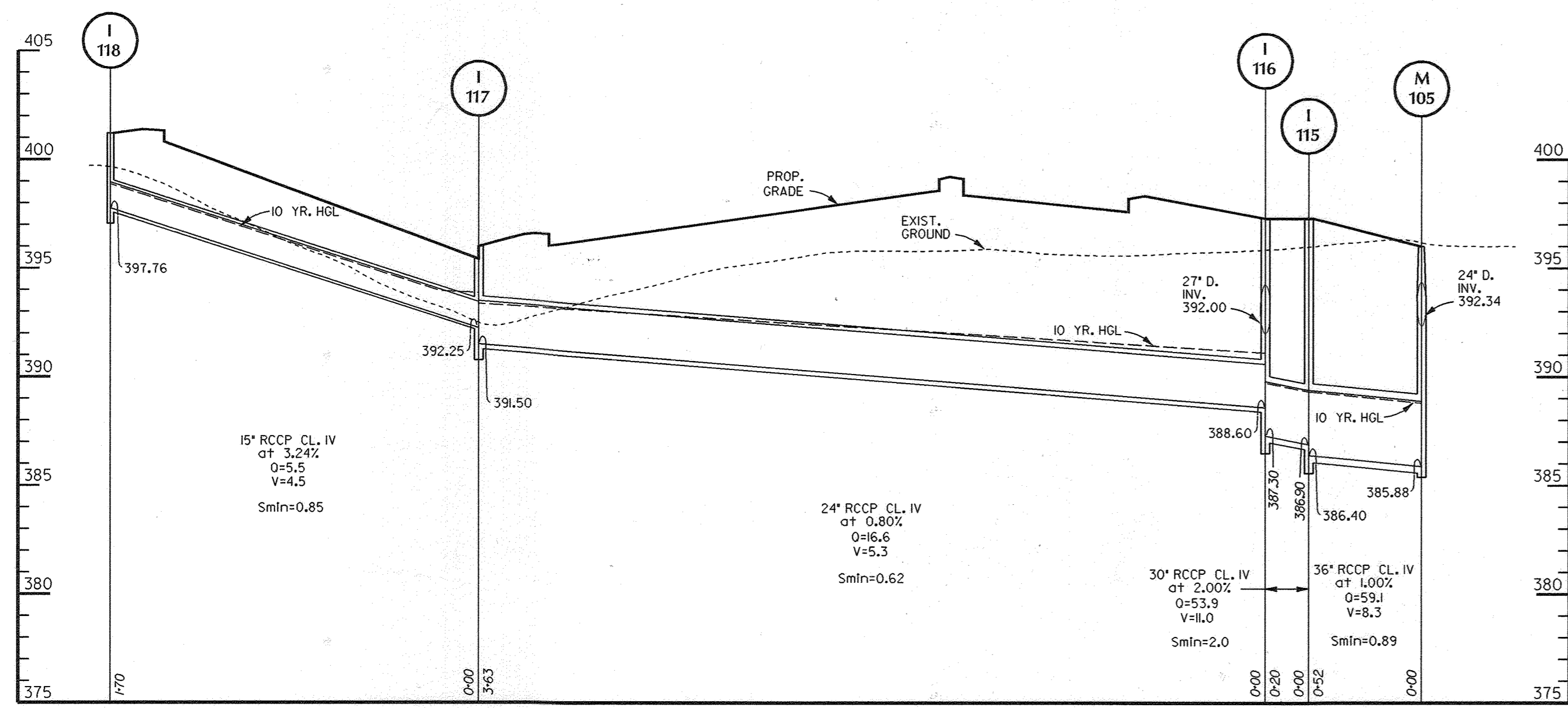
Professional Engr. No. 14551



SEAL APPLICABLE TO REVISION ONLY BY: BLACK VEATCH



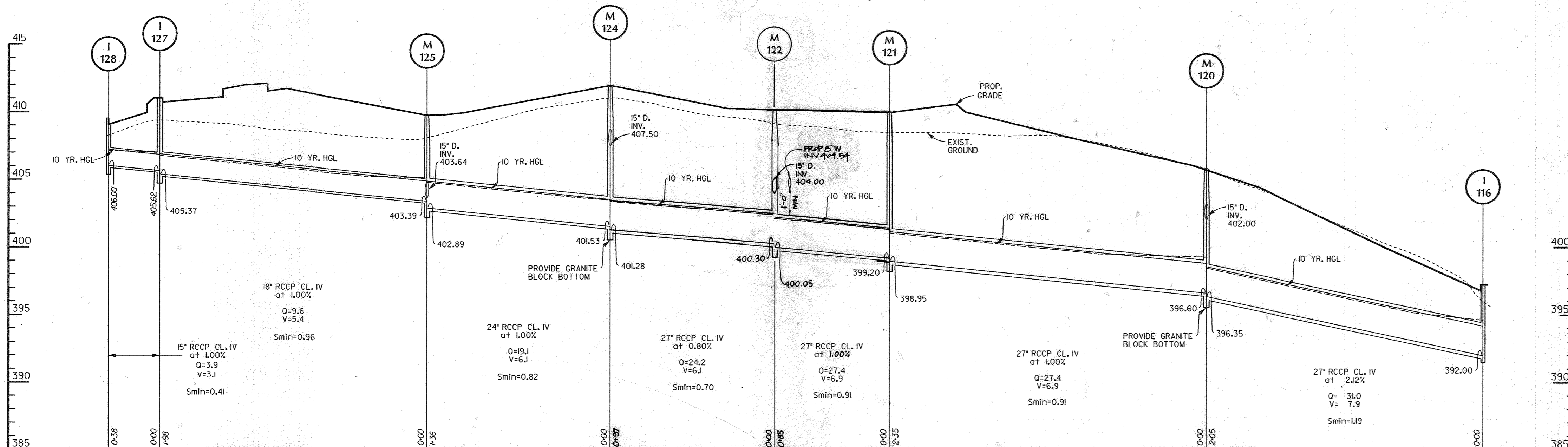
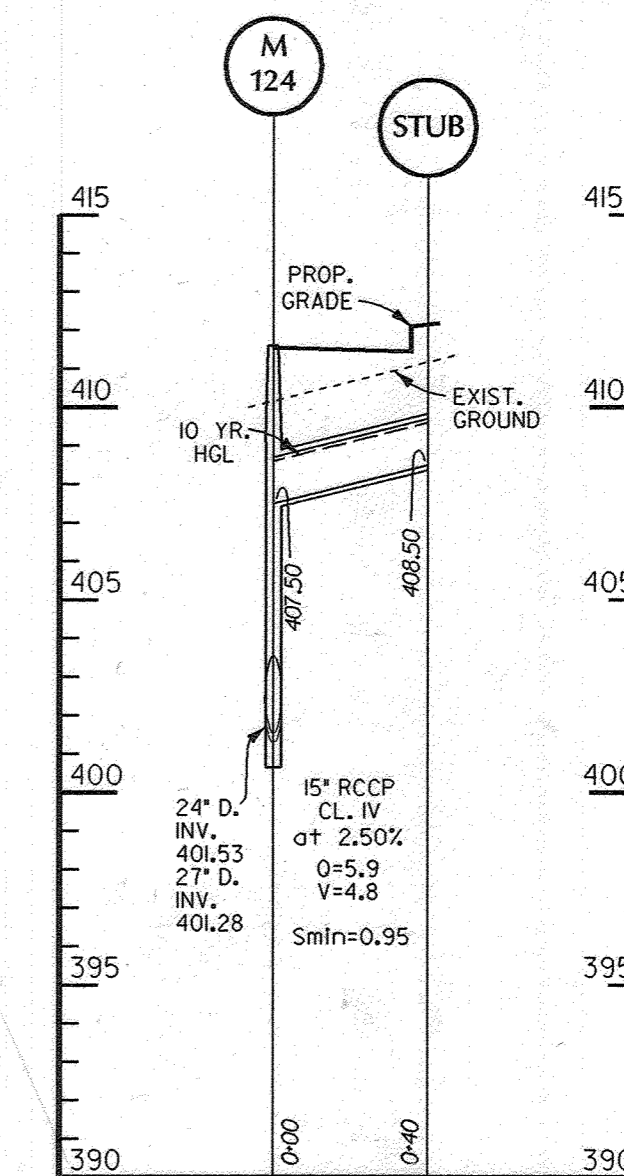
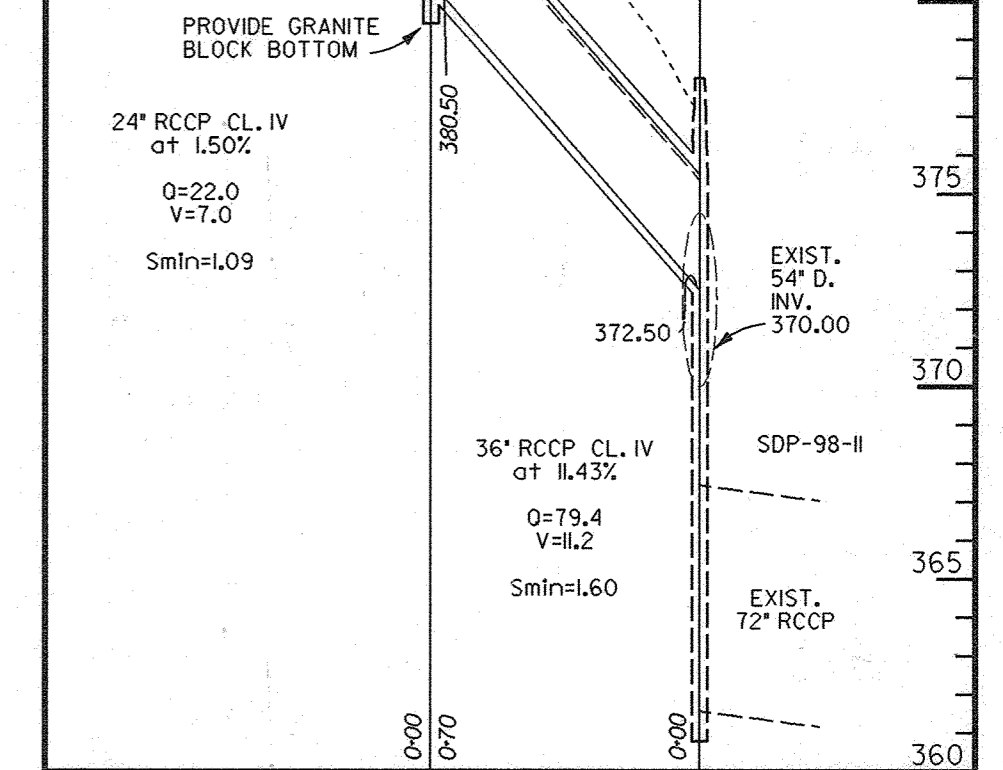
SEAL APPLICABLE TO REVISION ONLY BY: CENTURY ENG.



STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV. OUT	TOP ELEVATION		REMARKS
				UPPER	LOWER	
M-105	STD. MANHOLE DIA. 6'-0"	380.50	396.00			HO.CO. STD. G 5J3
M-106	A-10 INLET W= 3'-0"	394.39	394.14	399.90	399.40	HO.CO. STD. S.D.4.4I
M-107	STD. MANHOLE DIA. 4'-0"	396.80	396.55	407.50		HO.CO. STD. G 5J2
I-108	A-10 INLET W= 2'-6"	398.23	397.98	406.50	406.30	HO.CO. STD. S.D.4.4I
I-109	A-10 INLET W= 2'-6"	399.00	398.75	406.60	406.40	HO.CO. STD. S.D.4.4I
I-110	A-10 INLET W= 3'-0"	400.25	399.50	404.70	404.50	HO.CO. STD. S.D.4.4I
I-111	A-10 INLET W= 2'-6"		402.50	407.10		HO.CO. STD. S.D.4.4I
I-115	A-10 INLET W= 4'-6"	386.90	386.40	397.40	397.30	HO.CO. STD. S.D.4.4I
I-116	A-10 INLET W= 3'-6"	387.30	387.30	397.40	397.30	HO.CO. STD. S.D.4.4I
I-117	A-10 INLET W= 3'-6"	392.25	391.50	396.00		HO.CO. STD. S.D.4.4I
I-118	A-10 INLET W= 2'-6"		397.75	401.70	401.50	HO.CO. STD. S.D.4.4I
M-120	STD. MANHOLE DIA. 5'-0"	396.00	396.35	406.50		HO.CO. STD. G 5J3
M-121	STD. MANHOLE DIA. 5'-0"	399.20	398.95	410.10		HO.CO. STD. G 5J3
M-122	STD. MANHOLE DIA. 5'-0"	400.50	400.50	409.50		HO.CO. STD. G 5J3
M-124	STD. MANHOLE DIA. 5'-0"	401.28	401.28	410.70		HO.CO. STD. G 5J3
M-125	STD. MANHOLE DIA. 4'-0"	402.89	402.89	409.70		HO.CO. STD. G 5J2
I-127	A-10 INLET W= 2'-6"	424.52	405.37	410.70	410.60	HO.CO. STD. S.D.4.4I
I-128	A-10 INLET W= 2'-6"		406.00	410.00		HO.CO. STD. S.D.4.4I
I-123	TYPE 'C' INLET		405.00	408.60		HO.CO. STD. S.D.4.4J5
I-126	A-10 INLET W= 2'-6"		405.50	409.30		HO.CO. STD. S.D.4.4I
I-101	A-10 INLET W= 2'-6"		404.50	408.80		HO.CO. STD. S.D.4.4I
I-100	A-10 INLET W= 2'-6"	402.50	402.00	406.50	406.30	HO.CO. STD. S.D.4.4I
I-170	TYPE 'D' INLET		412.00	415.30		HO.CO. STD. S.D.4.4J1

Δ ALL INVERTS TO BE FULLY DEVELOPED.
* NON-DEVELOPED INVERT



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
[Signature] 8/27/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
[Signature] 8/25/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE
[Signature] 8/22/98
 DIRECTOR DATE

11-0-98 I REVISED S.D. AT LOADING DOCK AREA.
 Date No. Revision Description
Trammell Crow Office Building
 at Montpelier Research Park - Parcel B
 OWNER: TRAMMELL CROW COMPANY
 DEVELOPER: TRAMMELL CROW COMPANY
 9030 Red Branch Road, Suite 200, Columbia, MD, 21045
 6701 Democracy Blvd., Suite 410, Bethesda, MD, 20817

DMW
 Daft · McCune · Walker, Inc.
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 410 296 3333
 Fax 296 4705




PROFESSIONAL ENGINEER
 TITLE: STORM DRAIN PROFILES
 DATE: 8/12/98

Drw By: FJZ Scale: 1"=50' HORIZ. 1"=10' VERT. Proj. No. 94171.T
 Des By: ZAL Date: 7-28-98
 Chk By: Approved: 4 31 of 31

GENERAL NOTES FOR WATER AND SEWER

PART I

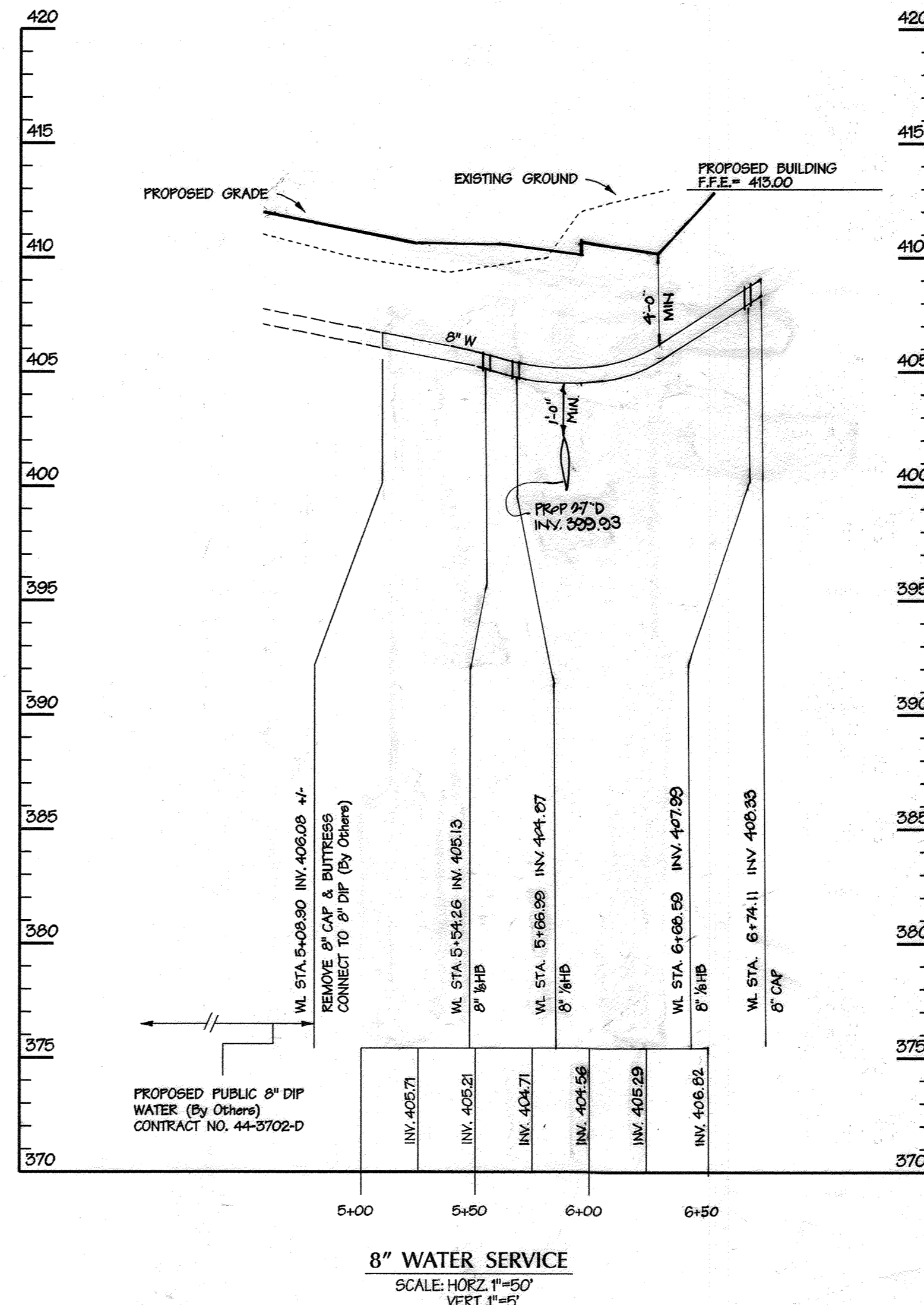
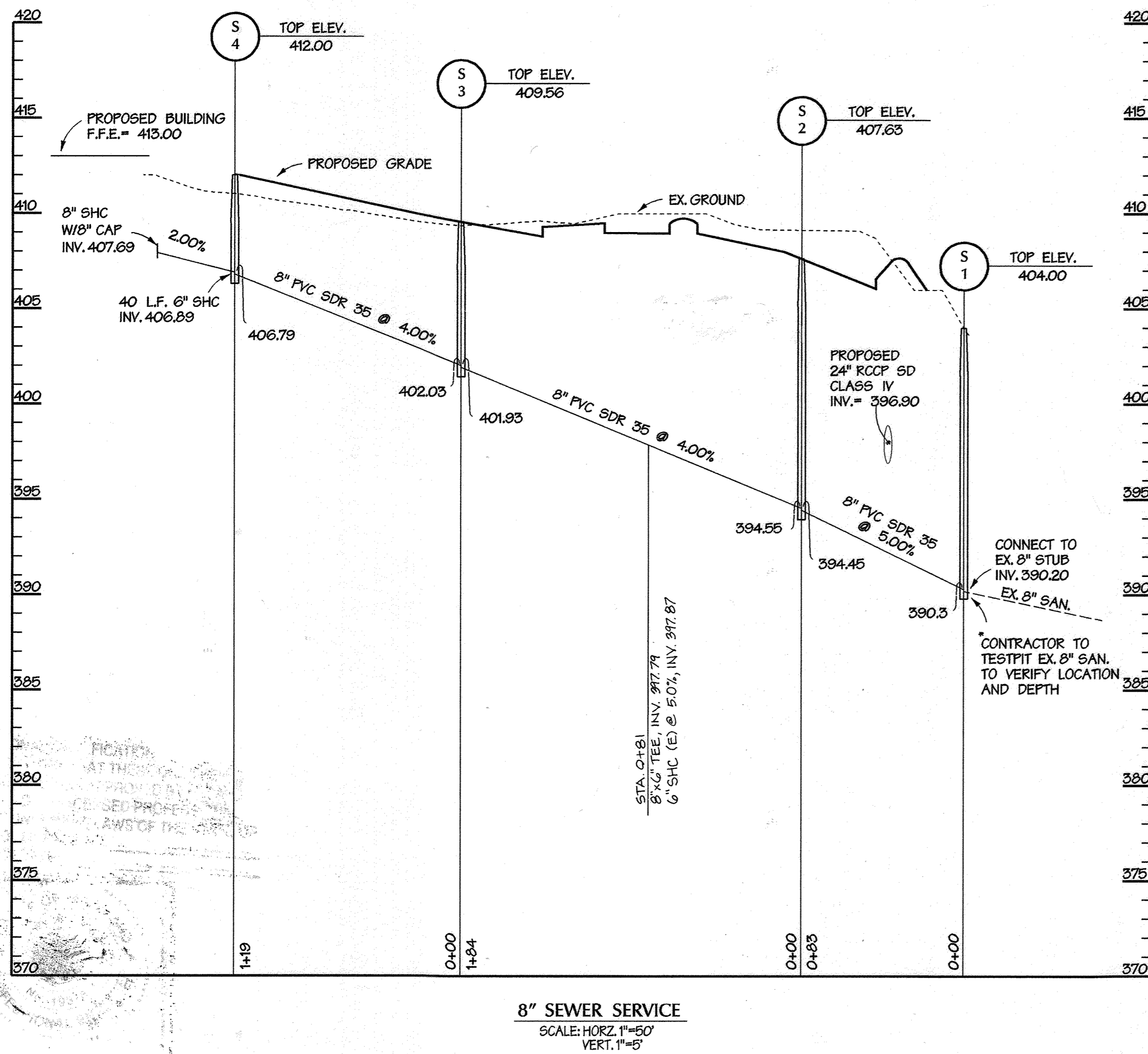
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES.
- 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. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- 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:
 - STATE HIGHWAY ADMINISTRATION - 410-531-5533
 - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES 410-561-2585
 - BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL - 410-234-5621
 - BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING - 410-298-9015
 - MISS UTILITY - 1-800-559-0100
 - COLONIAL PIPELINE CO. - 410-795-1350
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 410-992-2566
- 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 TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT 410-315-2450 AT LEAST FIVE (5) 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.

PART II - WATER

- 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 ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH A.M.W.A. SPECIFICATION C-65 DUCTILE IRON COMPACT FITTINGS, 3 INCH THROUGH 12 INCH FOR WATER AND OTHER LIQUIDS.
- ALL EXISTING VALVES TO BE CLOSED WHEN CONNECTION TO THE SYSTEM IS MADE.

PART III - SEWER

- ALL SEWER MAINS SHALL BE P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- 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 65.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.A.S." INDICATES THAT CELLAR CANNOT BE SERVED.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

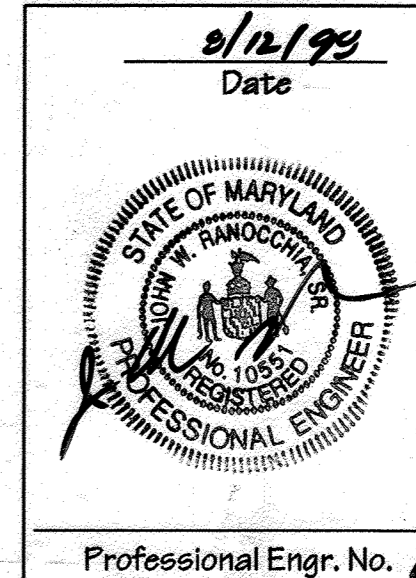
[Signature] 8/27/98
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 8/28/98
CHIEF DIVISION OF LAND DEVELOPMENT DATE

[Signature] 8/28/98
DIRECTOR DATE

1-15-18	2	RELOCATED 6" SHC
11-3-98	1	REVISED WATER PROFILE
Date	No.	Revision Description

Trammell Crow Office Building
at Montpelier Research Park - Parcel B
OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
DEVELOPER: TRAMMELL CROW COMPANY
9030 Rod Branch Road, Suite 200, Columbia, MD. 21045
6701 Democracy Blvd., Suite 410, Bethesda, MD. 20817



DMW
Daft - McCune - Walker, Inc.
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
410 286 3333
Fax 286 4705

DURATION NAME: Montpelier Research Park	SECTION AREA: N/A	LOT/PARCEL #
TRACT OR LIP: 12250	BOOK # 17	PARCEL #
WATER CODE: E 21	SEWER CODE: 6440000	GENES TRAC: 605102

TITLE: WATER AND SEWER PROFILES

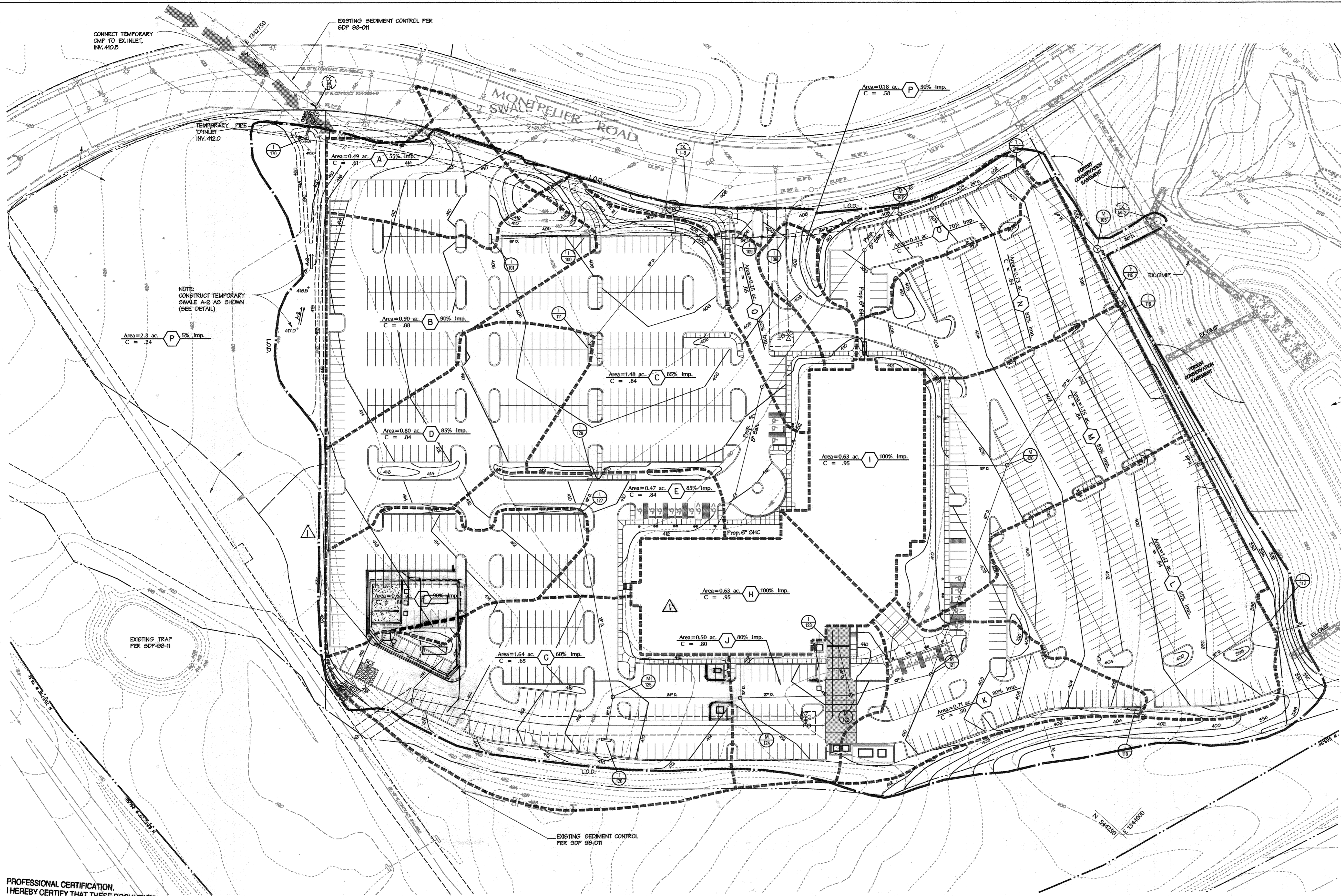
Des By: JMH
Scale: AS SHOWN
Proj. No.: 94171.T

Des By: JMH
Date: 7-28-98

Chk By: [Signature]
Approved: [Signature]

Professional Engr. No. 10531

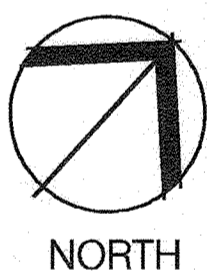
5 of 11



LEGEND

- ACRES (F) % Imp. (C)
- STORM DRAIN DRAINAGE AREA LIMIT
- EXISTING CONTOUR (210)
- PROPOSED CONTOUR (210)
- STABILIZED CONSTRUCTION ENTRANCE
- EXISTING SILT FENCE (SF)
- TEMPORARY SWALE (A-2)
- TEMPORARY CONTOUR (420)
- SEDIMENT CONTROL DRAINAGE AREA LIMIT
- LIMIT OF DISTURBANCE
- SPOT ELEVATION (406.0')

EXISTING SEDIMENT BASIN #2 PER SDP-98-11. (SEE SHEET 6 OF 11 AND SDP-98-11 FOR DETAILS NOT SHOWN)



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING	
<i>Chris Dammicus</i>	8/22/98
CHIEF DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Cindy Hamilton</i>	5/25/98
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>James Suter</i>	8/23/98
DIRECTOR	DATE

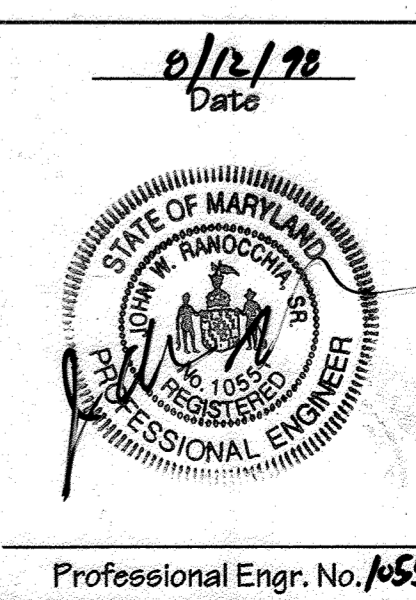
11/22	1	MB OSP DUCT BANK & ADD EQUIPMENT YARD
Date	No.	Revision Description

Trammell Crow Office Building
 at Montpelier Research Park - Parcel B
 OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 9050 Red Branch Road, Suite 200, Columbia, MD 21045
 DEVELOPER: TRAMMELL CROW COMPANY
 6701 Democracy Blvd., Suite 410, Bethesda, MD 20817

DMW
 Daft - McCune - Walker, Inc.
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue, Towson, Maryland 21286
 410 296 3383
 Fax 296 4705

SUBDIVISION NAME	SECTION AREA	LOT/FACETS #
Montpelier Research Park	N/A	PARCEL B
PLAT OR REF. TO PLAT	TAX MAP #	ELECT. DISTRICT
12220	17	5th
WATER CODE	OWNER CODE	
E 21	6440000	

TITLE: DRAINAGE AREA MAP SEDIMENT & EROSION CONTROL		
Dwn By: FJZ	Scale: 1"=50'	Proj. No: 94171.T
Des By: ZAL	Date: 7-28-98	6 31 14
Chk By:	Approved:	of 14



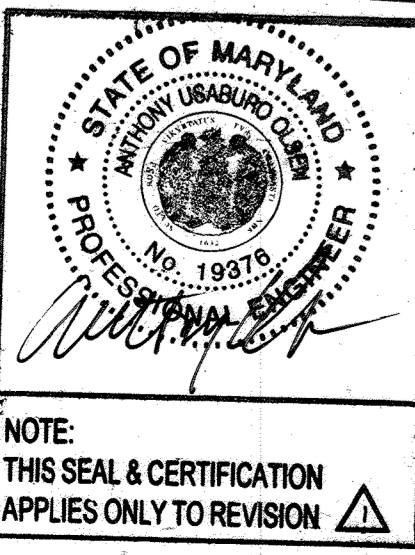
- NOTES:
- ADDITIONAL EROSION AND SEDIMENT CONTROLS ARE PROVIDED BY SDP-98-011.
 - SOILS WITHIN PROPERTY ARE ALL TYPE 'B'.

DEVELOPER'S CERTIFICATION:
 "I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
Daniel S. Hudson 8/16/98
 SIGNATURE OF DEVELOPER DATE
 DANIEL S. HUDSON, E.V.P. OF TC MONTPELIER DEVELOPMENT, INC.
 MANAGING MEMBER OF TC MONTPELIER DEVELOPMENT, INC., MANAGING MEMBER OF TC-MONTPELIER, L.L.C.

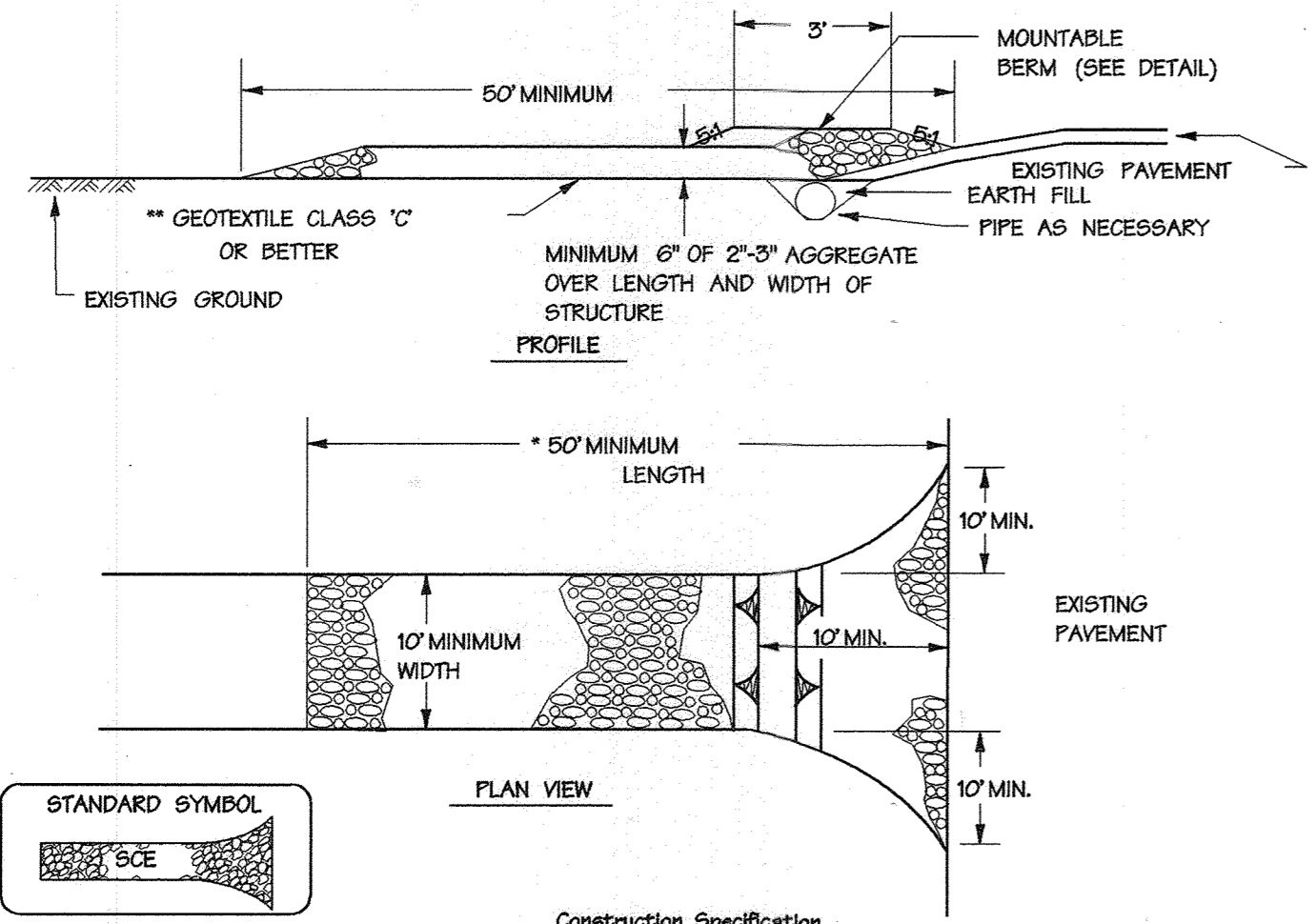
ENGINEER'S CERTIFICATION:
 "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
John W. Rauscher, Sr. 8/12/98
 SIGNATURE OF ENGINEER DATE
 JOHN W. RAUSCHER, SR.
 HOWARD S.C.D.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
Chris Sumner / cs 8/28/98
 U.S. NATURAL RESOURCE CONSERVATION SERVICE DATE
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
J.R. Robinson / jr 8/28/98
 HOWARD S.C.D. DATE

PROFESSIONAL CERTIFICATION.
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 19276
 EXPIRATION DATE SEPTEMBER 25, 2025



NOTE: THIS SEAL & CERTIFICATION APPLIES ONLY TO REVISION



- Construction Specification**
- Length - minimum of 50' (30' for single residence lot).
 - Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 - Geotextile fabric Class C (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.
 - Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
 - Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be elzed according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be elzed according to the amount of runoff to be conveyed. A 6" minimum will be required.
 - Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

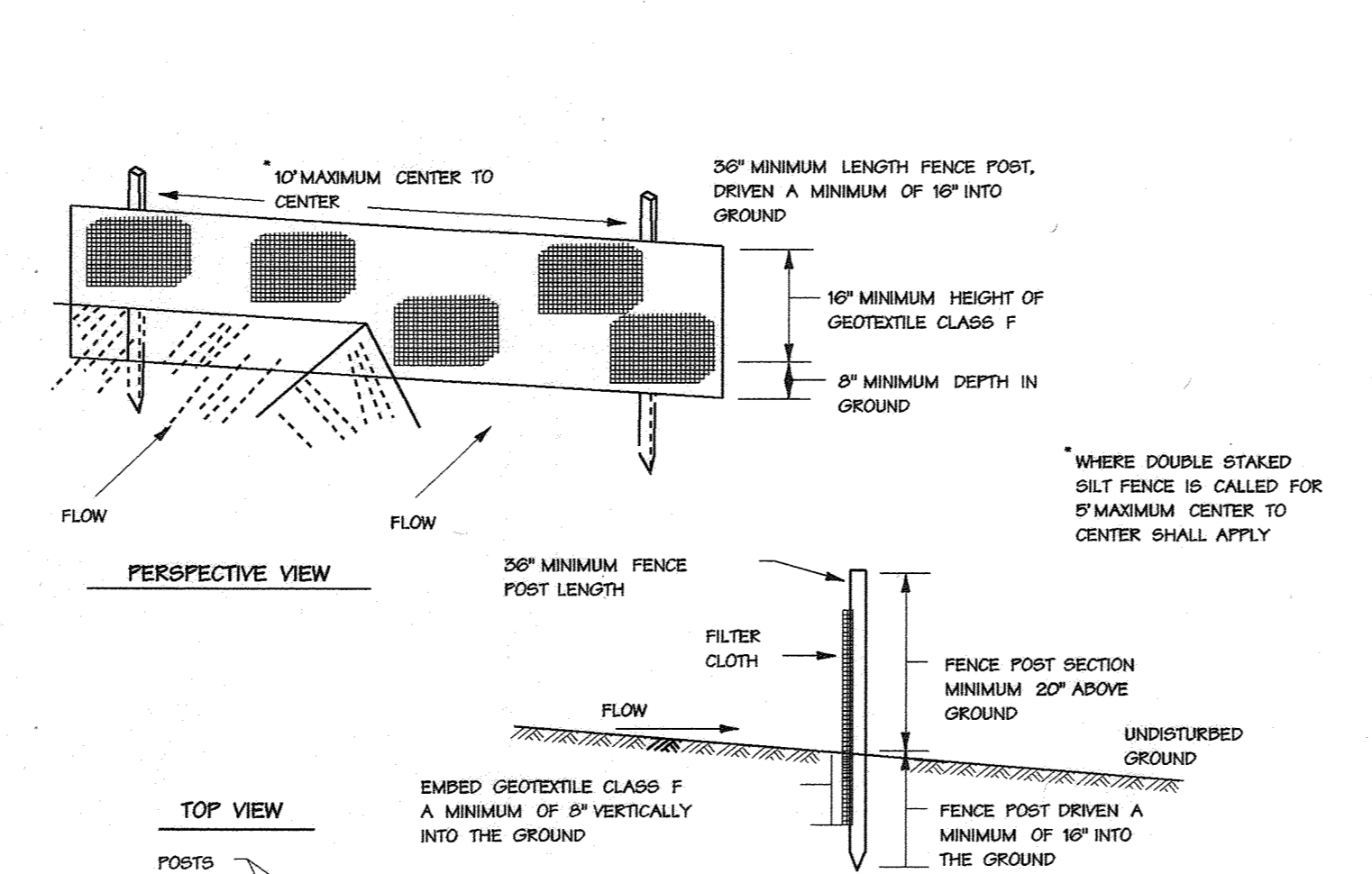
F - 17 - 3

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

WATER MANAGEMENT ADMINISTRATION
MARYLAND DEPARTMENT OF ENVIRONMENT

Stabilized Construction Entrance

NOT TO SCALE



- Construction Specifications**
- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 1/2" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 100 pound per linear foot.
 - Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in (min)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min)	Test: MSMT 509
Flow Rate	0.3 gal/ft/minute (max)	Test: MSTM 322
Filtering Efficiency	75% (min)	Test: MSMT 322
 - Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 - Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

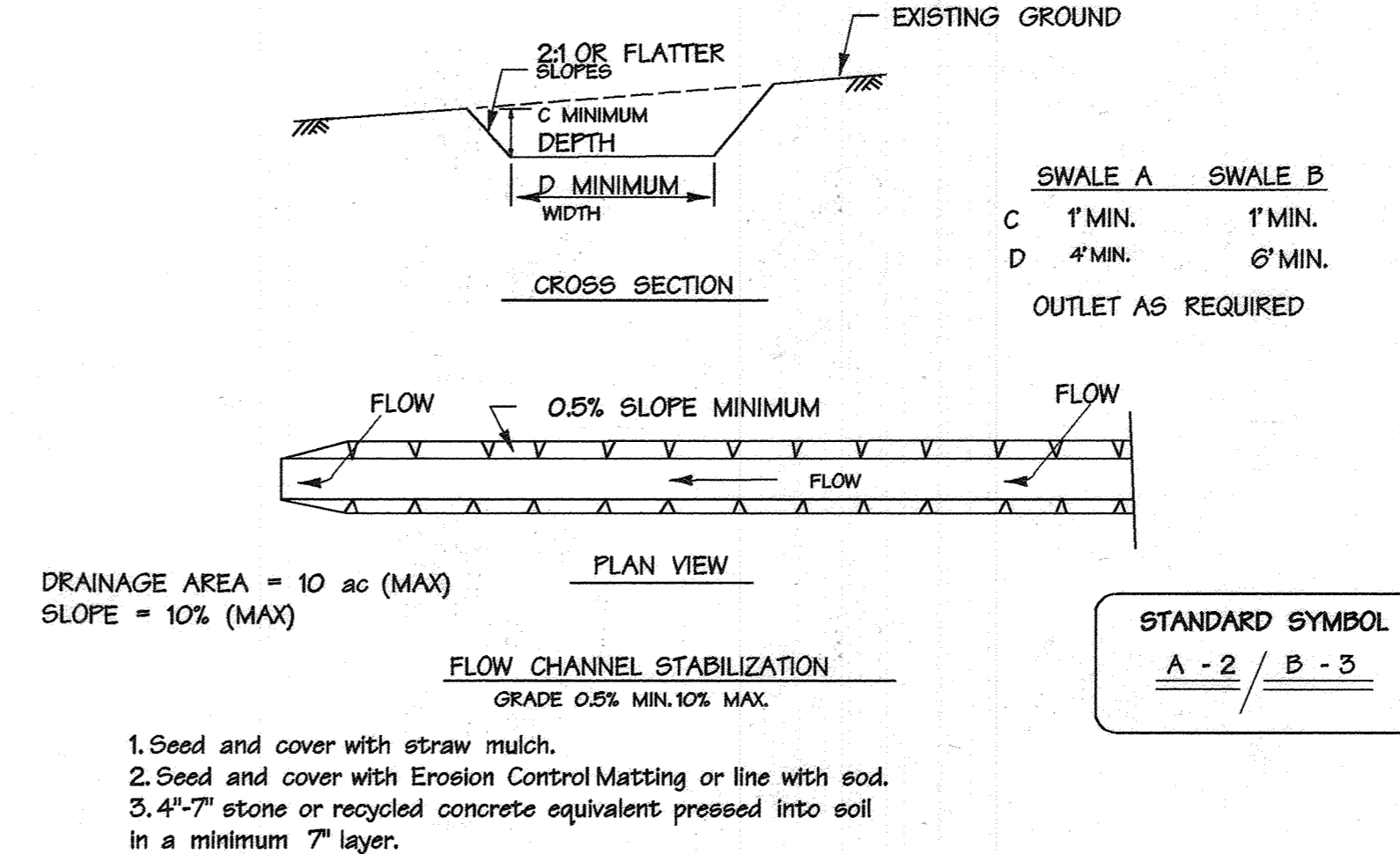
E - 15 - 3

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

WATER MANAGEMENT ADMINISTRATION
MARYLAND DEPARTMENT OF ENVIRONMENT

Silt Fence

NOT TO SCALE



- Construction Specifications**
- Seed and cover with straw mulch.
 - Seed and cover with Erosion Control Matting or line with sod.
 - 4"-7" stone or recycled concrete equivalent pressed into soil in a minimum 7" layer.
- All temporary swales shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
 - Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
 - Runoff diverted from an undisturbed area shall outlet directly into an undisturbed stabilized area at a non-erosive velocity.
 - All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the swale.
 - The swale shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
 - Fill, if necessary, shall be compacted by earth moving equipment.
 - All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.
 - Inspection and maintenance must be provided periodically and after each rain event.

A - 2 - 4

SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

WATER MANAGEMENT ADMINISTRATION
MARYLAND DEPARTMENT OF ENVIRONMENT

Temporary Swale

NOT TO SCALE

- Howard County Sediment Control General Notes**
- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF CONSTRUCTION.
 - ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERMETER SLOPES AND ALL SLOPES GREATER THAN 3:1
 - FOURTEEN DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE
 - ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE "HOWARD COUNTY DESIGN MANUAL," STORM DRAINAGE (S.D.P. 08-01).
 - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
 - ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL REMOVAL FOR THEIR RESUMAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 - SITE ANALYSIS:

TOTAL AREA OF SITE	13,492 ACRES
AREA DISTURBED	83.3 ACRES
AREA TO BE ROOFED OR PAVED	11.6 ACRES
AREA TO BE VEGETATIVELY STABILIZED	21 ACRES
TOTAL FILL	6,240 CUBIC YARDS
OFF-SITE WASTE/BORROW AREA LOCATION WASTE = NA	
 - ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 - ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
 - ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER SEDIMENT CONTROL STRUCTURES, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING OTHER BUILDING OR GRADING PERMITS SHALL NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose
To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.
- For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey, published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be mixture of contrasting textured subsoils and shall contain less than 5% by volume of clinders, stones, slags, coarse fragments, gravel sticks, roots, trash, and other materials larger than 1 1/2 inch in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

- For sites having disturbed areas under 5 acres:
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
 - For sites having disturbed areas over 5 acres:
 - On soil testing Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic contents of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
- Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- V. Topsoil Application**
- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ.FT.)
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (28 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE (14 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE FOR THE PERIOD MAY 1 THRU JULY 31 SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS/1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE SOD; OPTION (3) - SEED WITH 80 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GAL/PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 6 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS - APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.)

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (52 LBS/1000 SQ.FT.), FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 5 LBS PER ACRE OF WEEPING LOVEGRASS (07 LBS/1000 SQ.FT.), FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING - APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED WEEP FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 216 GAL/PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 6 FT. OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

Temporary and Permanent Seeding Notes

EXISTING BASIN #2 TABLE

NOTE: (SEE S.D.P. 08-11 FOR DETAILS NOT SHOWN)

BASIN NUMBER	2
EXISTING DRAINAGE AREA AC.	N/A
INTERIM DRAINAGE AREA AC.	N/A
PROPOSED DRAINAGE AREA AC.	30
STORAGE REQUIRED C.F.	WET 54,000 DRY 54,000 TOTAL 108,000
STORAGE PROVIDED C.F.	WET 199,009 DRY 303,196 TOTAL 502,205
EXISTING GROUND ELEV.	366.00
TOP EMBANKMENT ELEV.	376.00
RISER CREST ELEV.	371.50
WET STORAGE / OUTLET ELEV.	366.00
CLEANOUT ELEV.	361.00
BOTTOM ELEV.	366.00
Q INTO BASIN C.F.S. 10 yr. (10 YR CLOGGED)	129.70
Q OUT BASIN C.F.S. 10 yr. (10 YR CLOGGED)	25.24
BASIN DEPTH	WET 12.0 DRY 7.5 TOTAL 19.5
DESIGN HIGHWATER (10 YR. CLOGGED)	373.51
FREEDBOARD PROVIDED	2.49
BASIN SIDE SLOPES	3:1
BASIN DIAMETER	36"
RISER INSIDE DIMENSIONS	4' 0"
WET STORAGE ZONE ELEV.	366.00 - 366.00
DRY STORAGE ZONE ELEV.	366.00 - 371.50
BOTTOM DIMENSION	N/A
DIMENSION FROM CLEANOUT ELEV. TO RISER TOP	14.5'
START PERFORATIONS AT ELEV.	366

SEQUENCE OF CONSTRUCTION *

SEQUENCE	NUMBE OF DAYS
1. Obtain a grading permit	7
2. Install all sediment and erosion control devices and stabilize.	14
3. Construct storm drainage	30
4. Construct utilities	20
5. Fine grade, construct paving and structures	45
6. Stabilize all areas in accordance with the standards and specification	7
7. Upon approval of the sediment and erosion control inspector remove all erosion control measures and stabilize	7
8. Provide street trees and remaining landscaping	14

* NOTE: SITE HAS BEEN MASS GRADED PER S.D.P. 08-01.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 8/27/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 8/28/98
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 8/28/98
DIRECTOR

Tammell Crow Office Building
at Montpelier Research Park - Parcel B
OWNER: TRAMMELL CROW COMPANY
DEVELOPER: TRAMMELL CROW COMPANY
9030 Red Branch Road, Suite 200, Columbia, MD, 21045
410 296 3333
6701 Democracy Blvd., Suite 410, Bethesda, MD, 20817
296 4705

DMW
Daft · McCune · Walker, Inc.
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
410 296 3333
Fax 296 4705

SECTION NAME: Montpelier Research Park
FLAT OF LOT: BLOCK # 17, SHEET 41
WATER CODE: E 21
SECTION AREA: N/A
TAXING MAP: 41
ELECTRIFIED: 5th
PARCEL B
SUBDIVISION: 6051.02

TITLE: **SEDIMENT & EROSION CONTROL DETAIL SHEET**

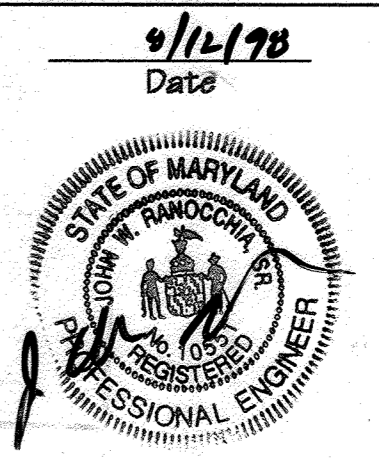
Prep By: ADL
Scale: AS SHOWN
Proj. No.: 94171.T
Des By: ZAL
Date: 7-28-98
7 31 14 of 21
Approved: [Signature]
Professional Engr. No. 10551

Topsoil Specifications

DEVELOPER'S CERTIFICATION:
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature] 8/6/98
DATE
SIGNATURE OF DEVELOPER
FRONT NAME BELOW SIGNATURE
DANIEL S. HUDSON, ENR, P.O. TC MONTPELIER DEVELOPMENT, INC., MANAGING MEMBER OF TC MONTPELIER DEVELOPMENT, L.L.C.

ENGINEER'S CERTIFICATION:
"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."
[Signature] 8/11/98
DATE
SIGNATURE OF ENGINEER
FRONT NAME BELOW SIGNATURE
John W. Ranocchia, Sr.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
[Signature] 8/29/98
DATE
U.S. NATURAL RESOURCE CONSERVATION SERVICE
HOWARD S.C.D.
[Signature] 8/29/98
DATE
HOWARD S.C.D.



**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATAGORY	LANDSCAPE TYPE	PERIMETERS LESS CREDIT	LANDSCAPE CALCULATIONS
Linear Feet of Roadway Frontage / Perimeter	Adjacent to Roadways 50 LF of Landscape Type 'D' (Non Res. Rear Loading) Edge 3 1800 LF of Landscape Type 'E' (Parking) Edges 1, 2 & 4	0 LF 630 LF	1 Shade Tree @ 60 LF = 1 Evergreen @ 10 LF = 0 Evergreen Trees 1 Shade Tree @ 40 LF = 1 Shrub @ 4 LF = 158 Shrubs
Credit for Existing Vegetation (Yes, No, Linear Feet)	NO	—	—
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	Yes, berms along Edges 1, 2 & 4 for 1170 LF. Screen Wall along Edge 3 for 60 LF.	—	—
Number of Plants Required	16 Shade trees 0 Evergreen trees 158 Shrubs	—	—
Number of Plants Provided	21 Shade Trees 23 Evergreen Trees 0 Shrubs*	—	—
Other Trees (2:1 substitution) Shrubs (10:1 Substitution)			

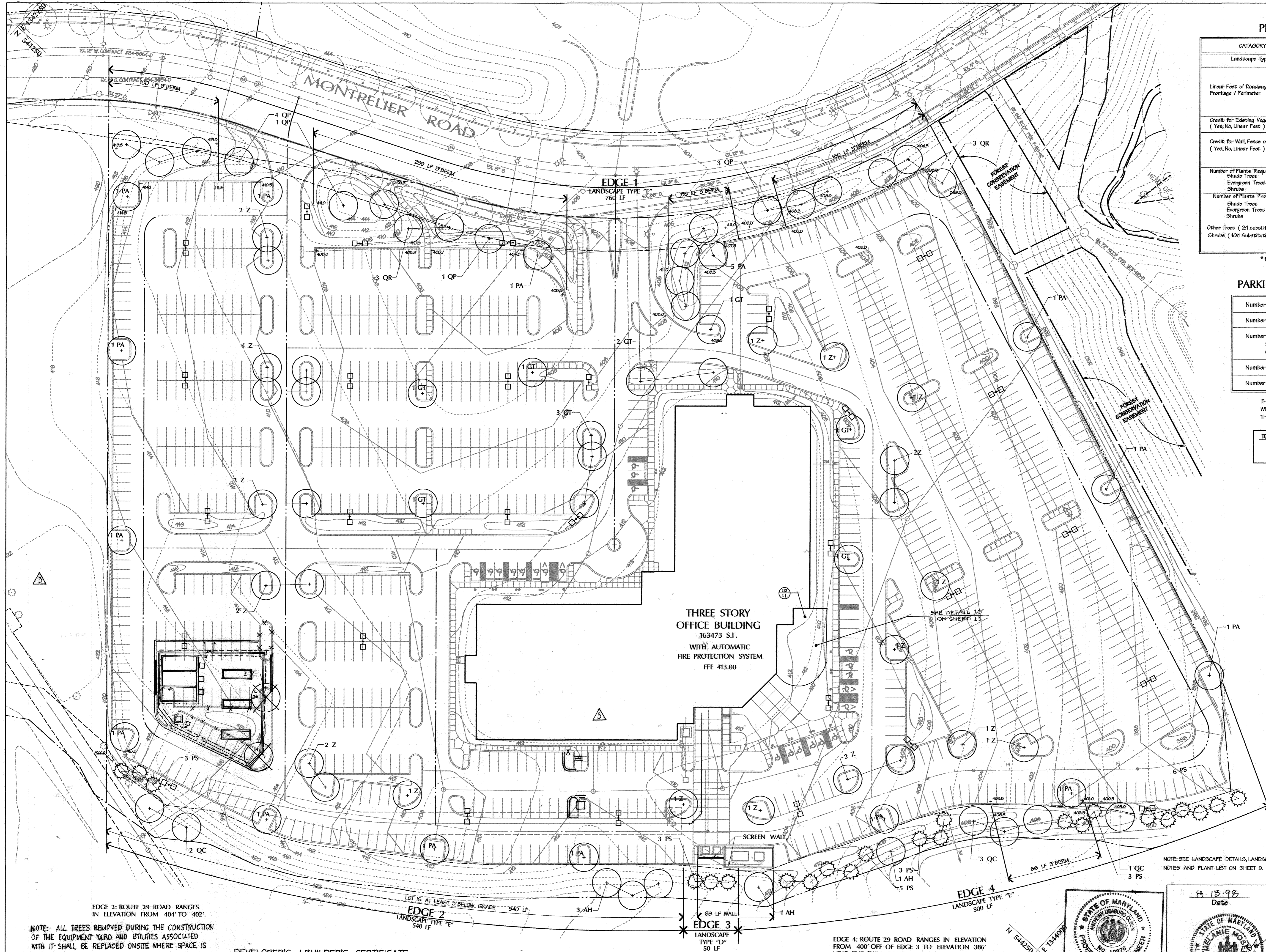
*16 Evergreen trees have been substituted for 158 shrubs.

**SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING**

Number of Parking Spaces	1056
Number of Trees required	@ 1/20 sp. = 53
Number of Trees Provided	53
Shade Trees Other Trees (2:1 substitution)	
Number of Islands Required @ 1/20 sp.	53
Number of Islands Provided	63

THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY LANDSCAPE MANUAL.

TOTAL PLANTING REQUIREMENT: 69 Shade Trees
0 Evergreens
158 Shrubs



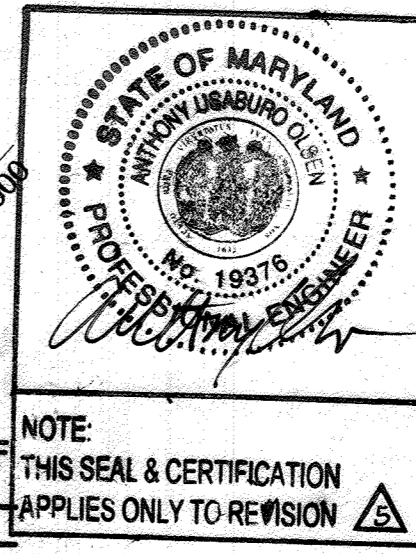
**THREE STORY
OFFICE BUILDING**
163473 S.F.
WITH AUTOMATIC
FIRE PROTECTION SYSTEM
FFE 413.00

EDGE 2: ROUTE 29 ROAD RANGES IN ELEVATION FROM 404' TO 402'.
NOTE: ALL TREES REMOVED DURING THE CONSTRUCTION OF THE EQUIPMENT YARD AND UTILITIES ASSOCIATED WITH IT SHALL BE REPLACED ONSITE WHERE SPACE IS AVAILABLE.

DEVELOPER'S / BUILDER'S CERTIFICATE
I/We certify that the landscaping shown on this plan will be done according to the plan, SECTION 16.124 of the Howard County Code and the Howard County Landscape Manual.
I/We further certify that upon completion a Certification of Landscape Installation, accompanied by an associated one-year guarantee of plant materials, will be submitted to the Department of Planning and Zoning.
DATE: 8/16/98
NAME: DANIEL S. HUDSON, EVP OF TC MONTPELLIER DEVELOPMENT, INC.
MEMBER OF TC MONTPELLIER DEVELOPMENT, LLC, MAINTENANCE MEMBER OF TC-MONTPELLIER, LLC.

The owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.

EDGE 4: ROUTE 29 ROAD RANGES IN ELEVATION FROM 400' OFF OF EDGE 3 TO ELEVATION 386' NEAR THE SWM POND.
PROFESSIONAL CERTIFICATION.
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 19376
EXPIRATION DATE: SEPTEMBER 22, 2023



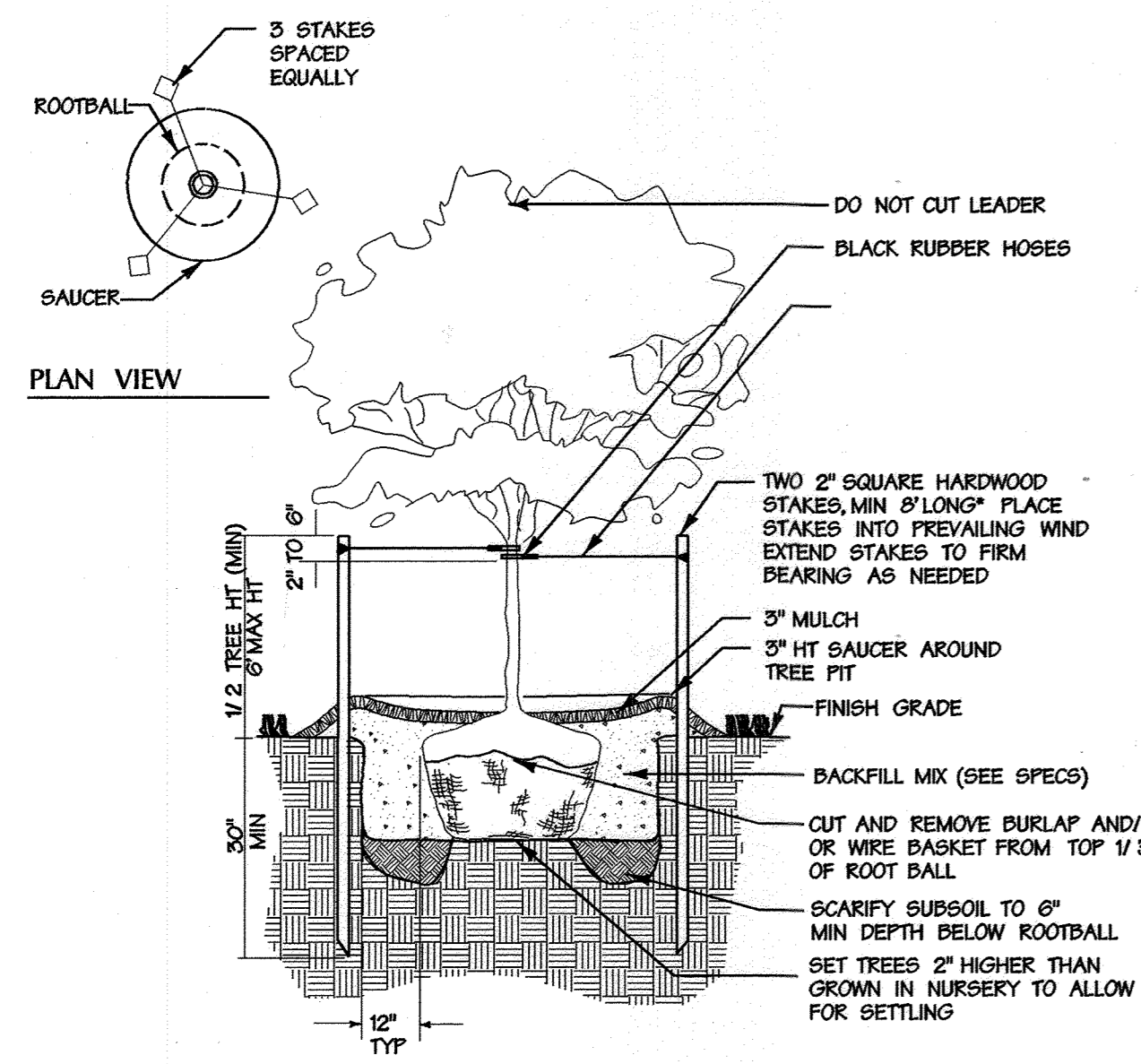
8-13-98
Date
Professional Engr. No.

7/22	9	MODIFY M8 OSP DUCT BANK	NORTH
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING			
[Signature]		8/21/98	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		8/25/98	DATE
[Signature]		8/28/98	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT			
[Signature]			
DIRECTOR			
11/22	5	ADD EQUIPMENT YARD	
6/10/99	4	ADDED PATIO AREA	
Date	No.	Revision Description	

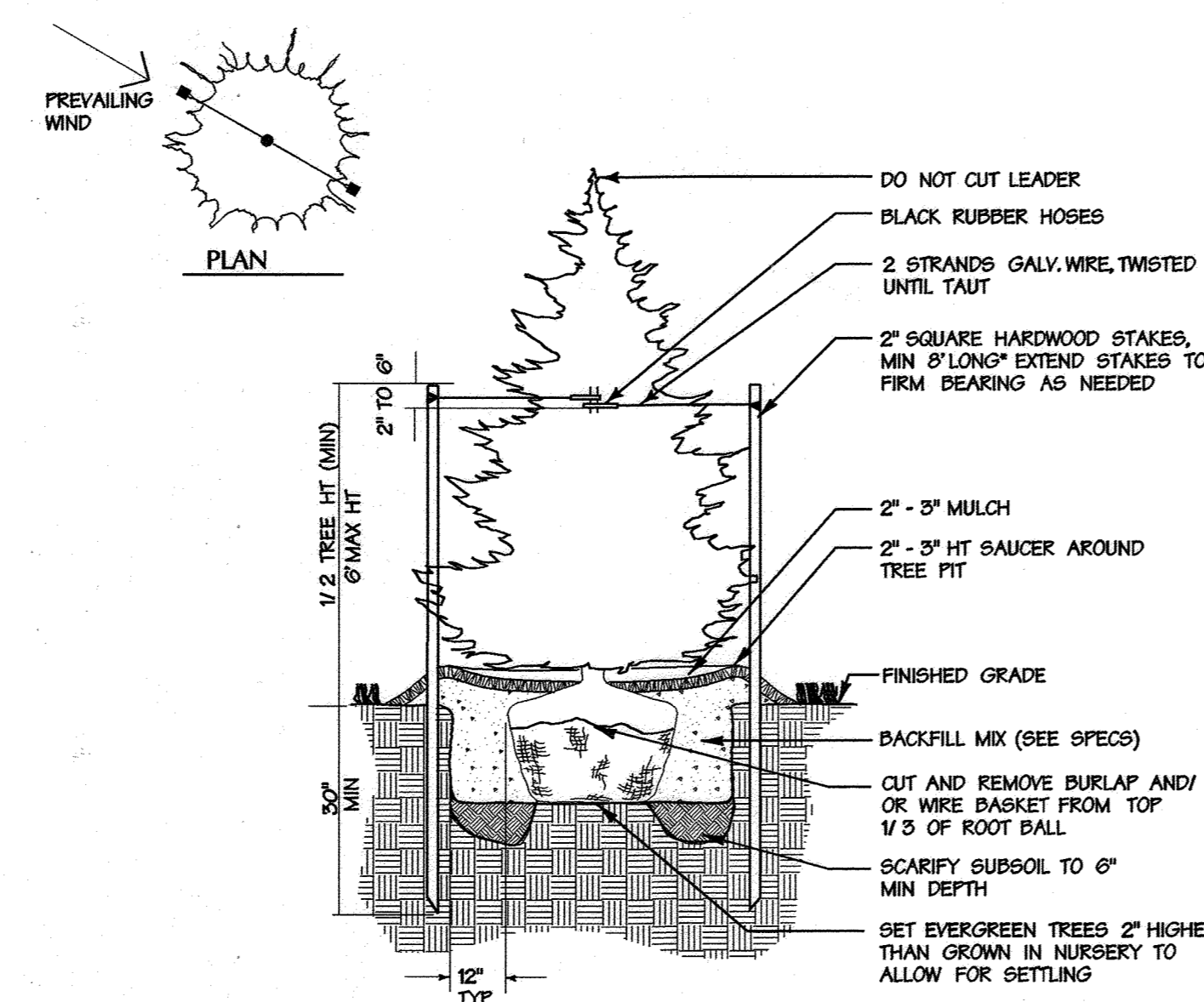
Trammell Crow Office Building
at Montpelier Research Park - Parcel B
OWNER: TRAMMELL CROW COMPANY
DEVELOPER: TRAMMELL CROW COMPANY
HOPKINS ROAD LIMITED PARTNERSHIP
9030 Red Branch Road, Suite 200, Columbia, MD, 21045
6701 Democracy Blvd, Suite 410, Bethesda, MD, 20817

DMW
Daft - McCune - Walker, Inc.
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
200 East Pennsylvania Avenue
Towson, Maryland 21286
410 286 3333
Fax: 286 4705

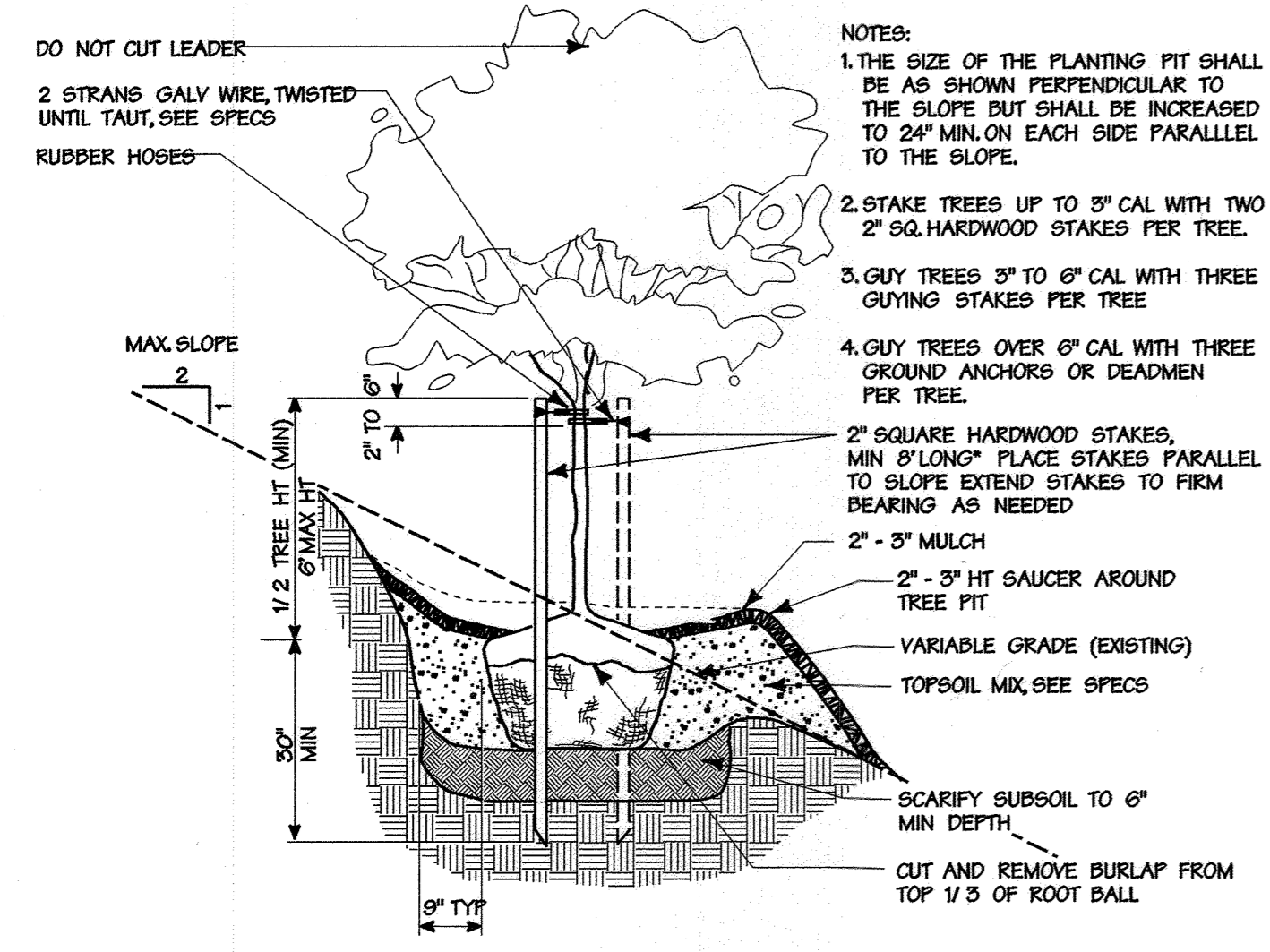
LANDSCAPE PLAN
Dwn By: ADL Scale: 1"=40' Proj. No. 94171.T
Des By: TPC Date: 7-28-98
Chk By: Approved: 8 31 14 of 31



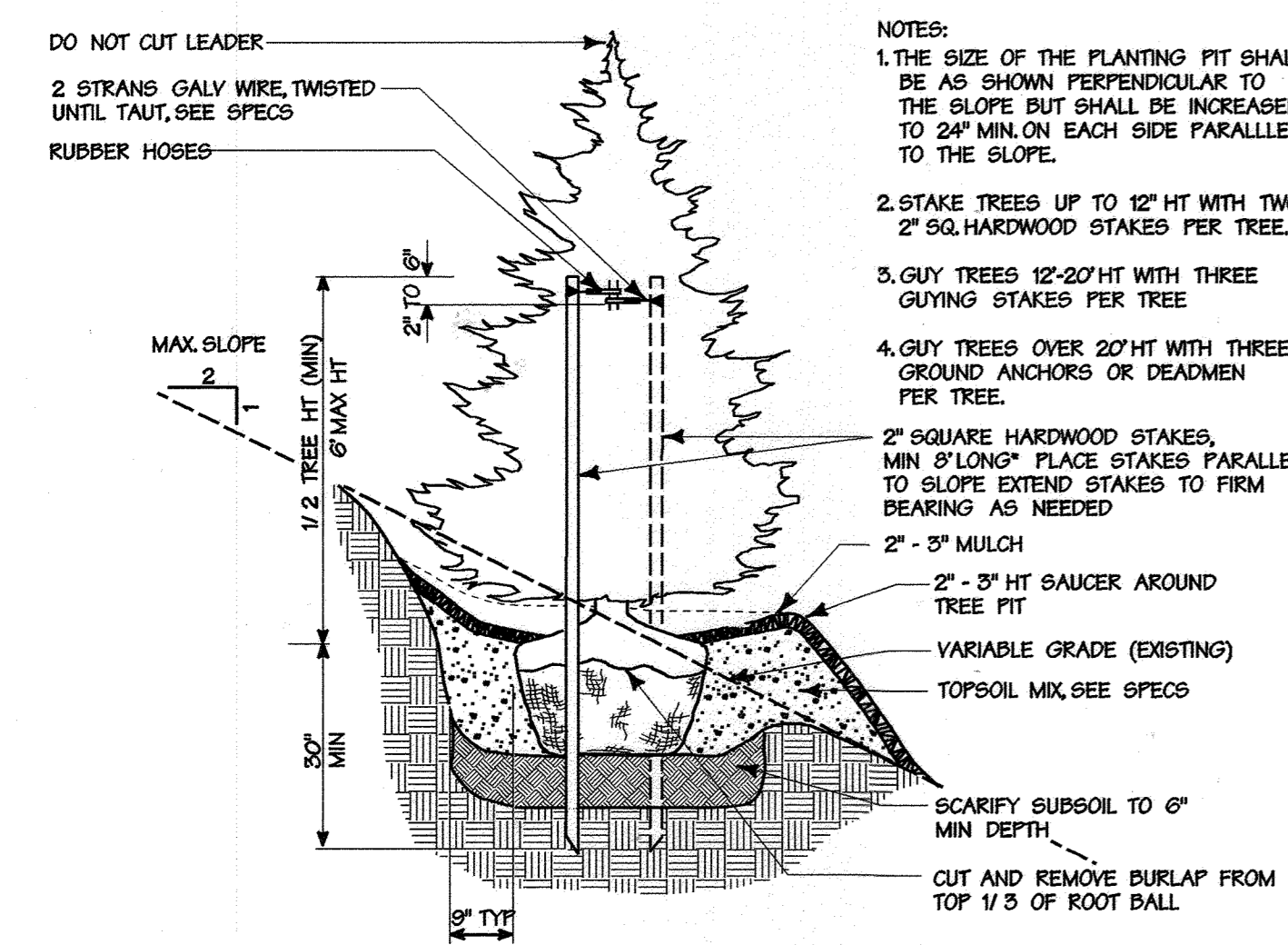
1 Less Than 3" Cal. Tree Planting
Not To Scale



4 Evergreen Tree Planting
Not To Scale



2 Tree Planting on Slope
Not To Scale



3 Evergreen Tree Planting on Slope
Not To Scale

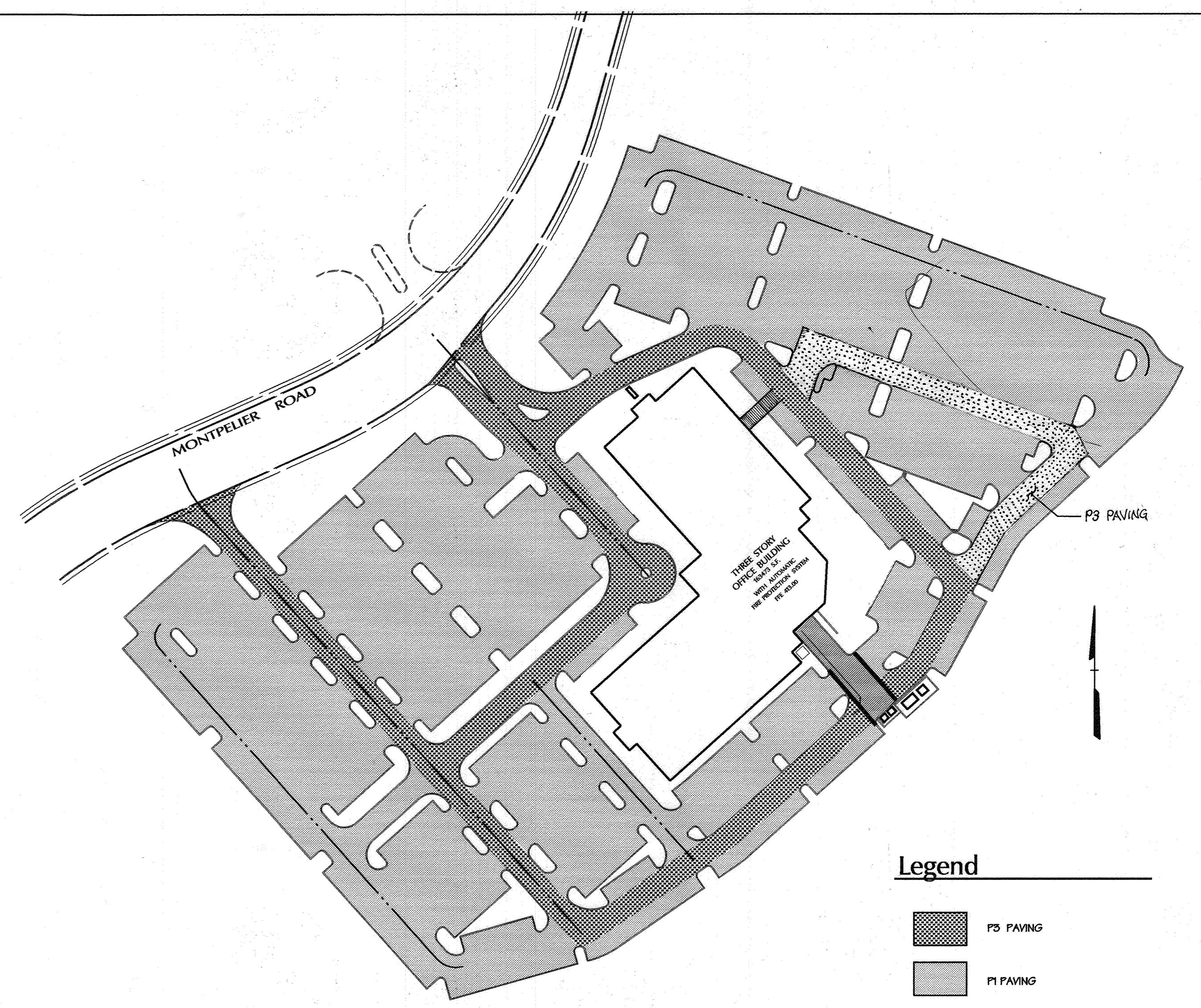
PLANT LIST

QTY	SYM	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
LARGE TREES				
5	AH	AESCLUS HIPPOCASTANUM 'BAUMANN'	2 1/2" - 3" CAL. 10-12 HT.	B & B FULL HEAD
11	GT	GLETSIA TRICANTHOS INERMIS 'SHADEMASTER'	2 1/2" - 3" CAL. 12-14 HT.	B & B FULL HEAD
19	PA	PLATANUS X ACERIFOLIA 'BLOODGOOD'	2 1/2" - 3" CAL. 12-14 HT.	B & B FULL HEAD
6	QC	QUERCUS COCCINEA 'SCARLET OAK'	2 1/2" - 3" CAL. 8-10 HT.	B & B FULL HEAD
9	QP	QUERCUS PHELLOS 'WILLOW OAK'	2 1/2" - 3" CAL. 10-12 HT.	B & B FULL HEAD
6	QR	QUERCUS RUBRA 'NORTHERN RED OAK'	2 1/2" - 3" CAL. 10-12 HT.	B & B FULL HEAD
28	Z	ZELKOVA SERRATA 'VILLAGE GREEN'	2 1/2" - 3" CAL. 10-12 HT.	B & B FULL HEAD
EVERGREEN TREES				
23	PS	FINUS STROBUS 'EASTERN WHITE PINE'	6'-8' HT.	B & B NATURAL

NOTE: FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER AGREEMENT IN THE AMOUNT OF \$26,820.00.

GENERAL PLANTING NOTES

- Plant material substitutions subject to approval of the landscape architect.
- Plant material shall be tagged at the source by the landscape architect unless this requirement is specifically waived.
- Locations of all plant material shall be staked for approval by landscape architect.
- All shrubs and groundcover areas shall be planted in continuous prepared planting beds mulched with composted hardwood mulch as detailed and specified except where noted on plans.
- Maintain positive drainage at planting beds (minimum 2% slope).
- Contractor shall verify accuracy of base information and existing conditions in field. Bid shall be based on actual site conditions. No extra payment shall be made for work arising from site conditions differing from those indicated on drawings and specifications.
- All areas within contract limits disturbed during or prior to construction not designated to receive plantings and mulch shall be fine graded and seeded in accordance with planting plan and specifications.
- The contractor shall notify Miss Utility a minimum of three working days prior to planting and construction.
- Damage to existing conditions and utilities shall be repaired at the expense of the contractor.
- All plant material shall be nursery grown and shall conform to American Nurseryman Association standards.



5 Paving Plan
Not To Scale

Legend

- P3 PAVING
- P1 PAVING
- CONCRETE PAVING
- CONCRETE TURN DOWN SEE DETAIL 2 ON 11 SHEET

NOTE: SEE SHEET 11 FOR PAVING SECTIONS.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

Howard County 8/27/98
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Linda Hamilton 8/28/98
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Joseph S. Smith 8/28/98
 DIRECTOR DATE

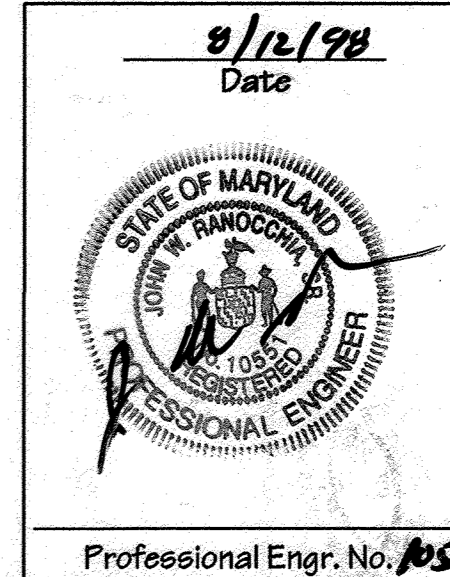
11-3-98 1 REVISED PARKING
 Date No. Revision Description

Tammell Crow Office Building
 at Montpelier Research Park - Parcel B
 DEVELOPER
 HOPKINS ROAD LIMITED PARTNERSHIP TRAMMELL CROW COMPANY
 9030 Red Branch Road, Suite 200, Columbia, MD. 21045 6701 Democracy Blvd., Suite 410, Bethesda, MD. 20817

DMW
 Daft - McCune - Walker, Inc.
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals

200 East Pennsylvania Avenue
 Towson, Maryland 21286
 410 296 8333
 Fax 296 4705

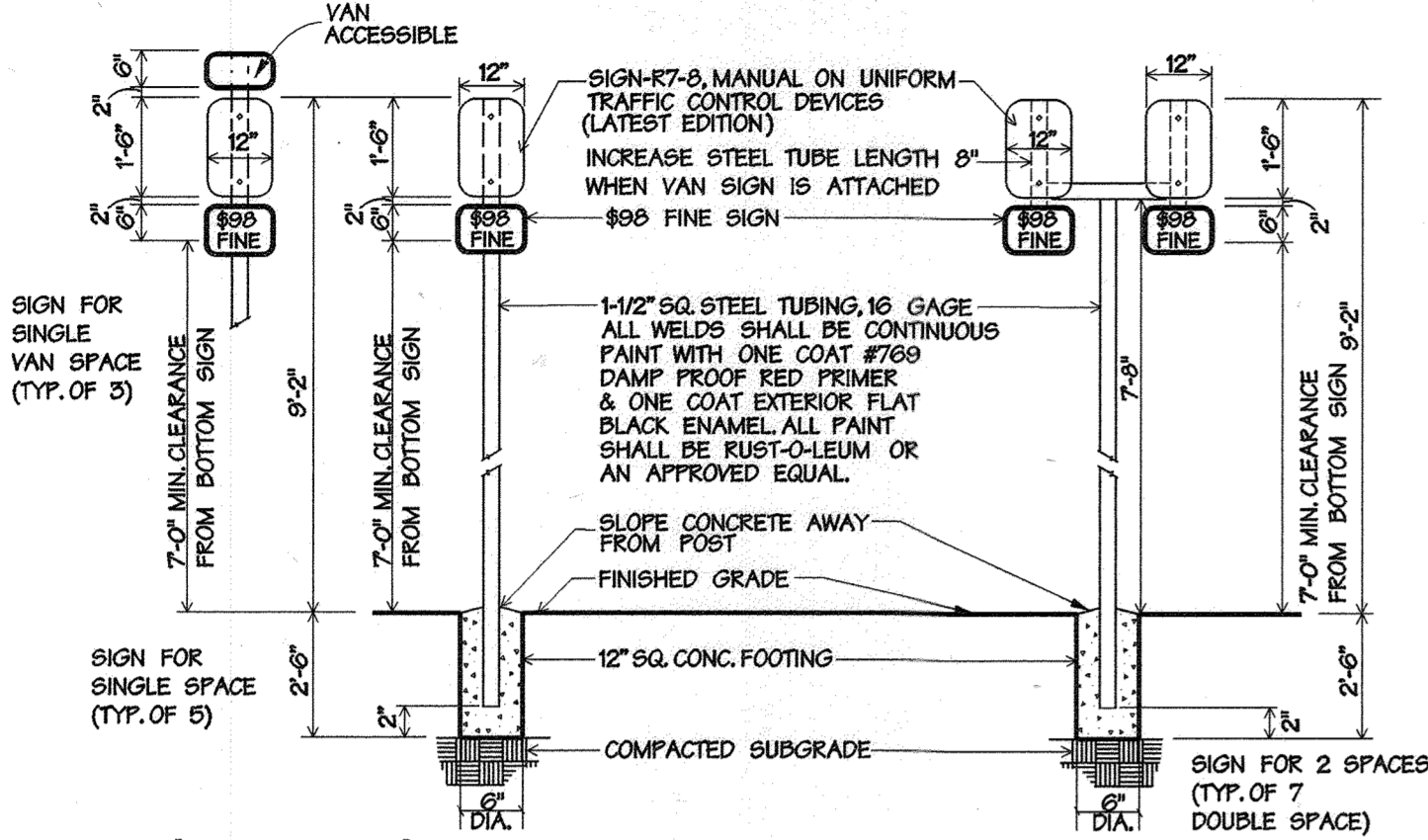
Subdivision Name: Montpelier Research Park SECTION AREA: N/A LOT/PARCEL #: PARCEL B
 TOWER OR LOT: 172500 BLOCK #: 17 SHEET: 41 TAYLOR MAP: 5th ELEV. POINTS: 5th GEN. ENG. TRAC.: 605102
 WATER CODE: E 21 DRAINER CODE: 6440000



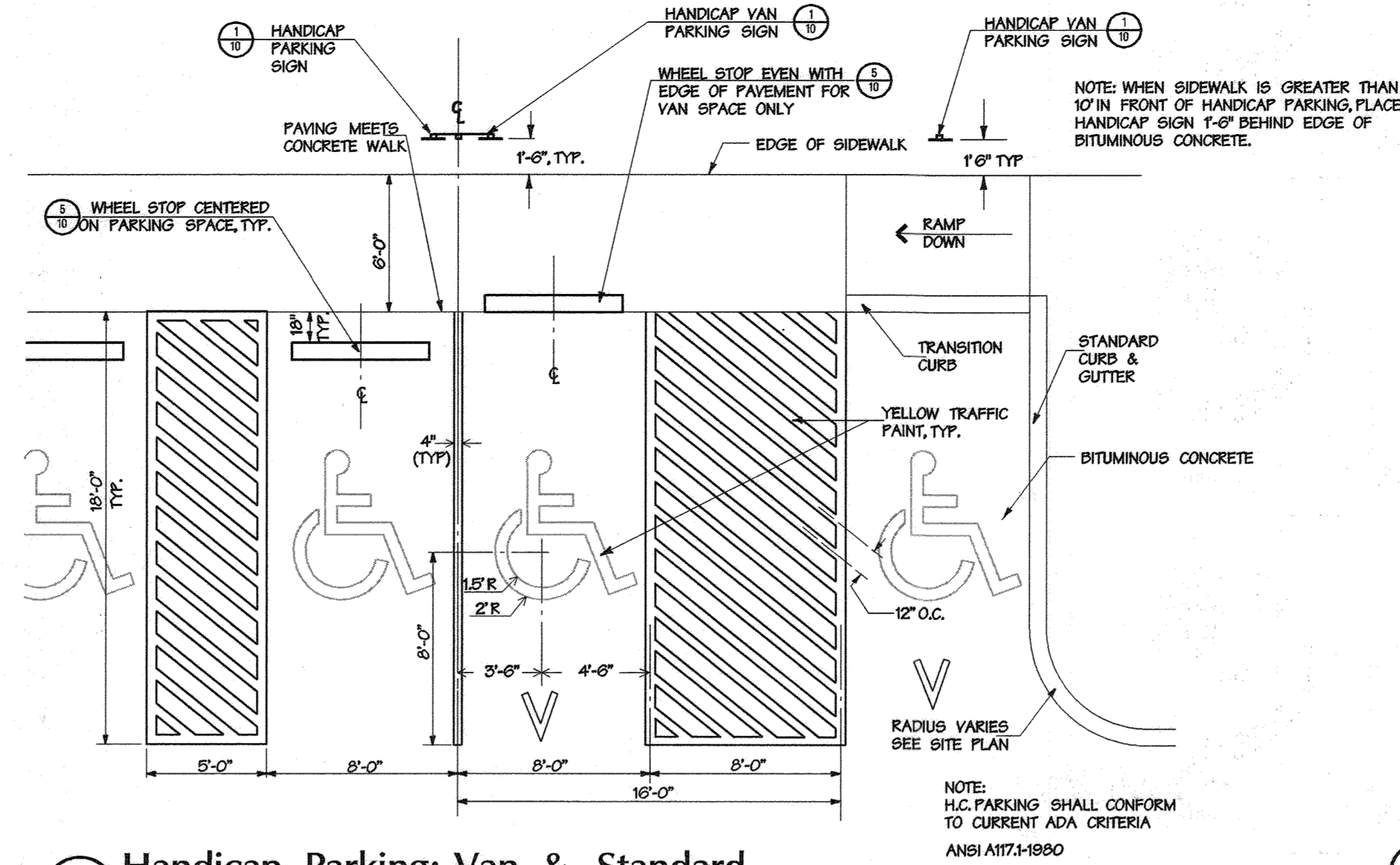
SITE DETAILS

Drn By: ADL Scale: N.T.S. Proj. No. 94171.T
 Des By: TPC Date: 7-28-98
 Chk By: Approved: 9 31/4 of 31

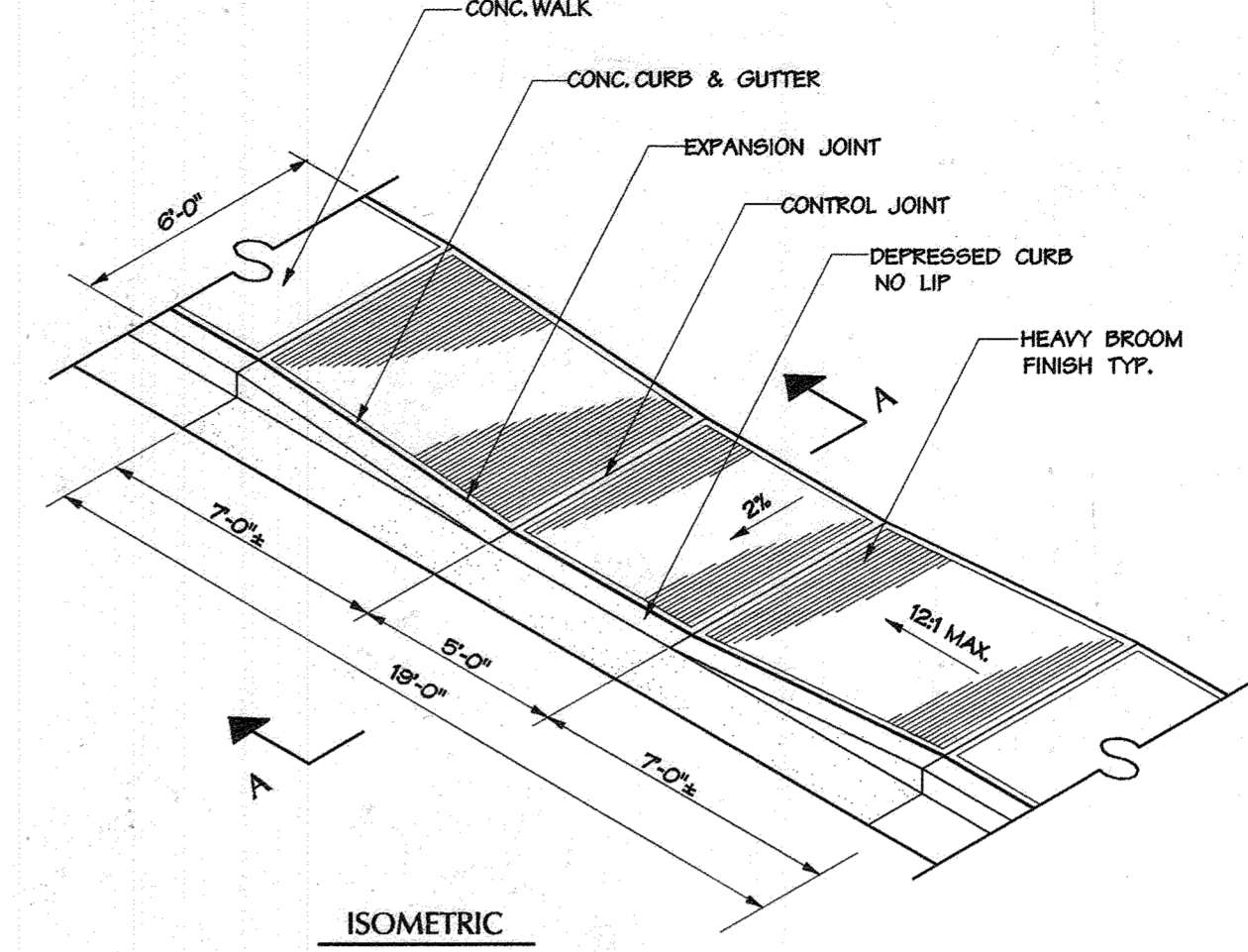
- NOTES**
1. DISTANCE FROM GROUND TO BOTTOM OF SIGN SHALL BE 7 FEET.
 2. SEE HANDICAPPED PARKING SPACE DETAIL THIS SHEET FOR LOCATION OF HANDICAPPED SIGN.
 3. SPACE MARKED 'Y' SHALL INCLUDE 'VAN SIGN' AS REQUIRED.
- SIGN COLORS**
 LETTERS AND BORDER - GREEN
 WHITE H.C. SYMBOLS ON BLUE BACKGROUND
 BACKGROUND - WHITE



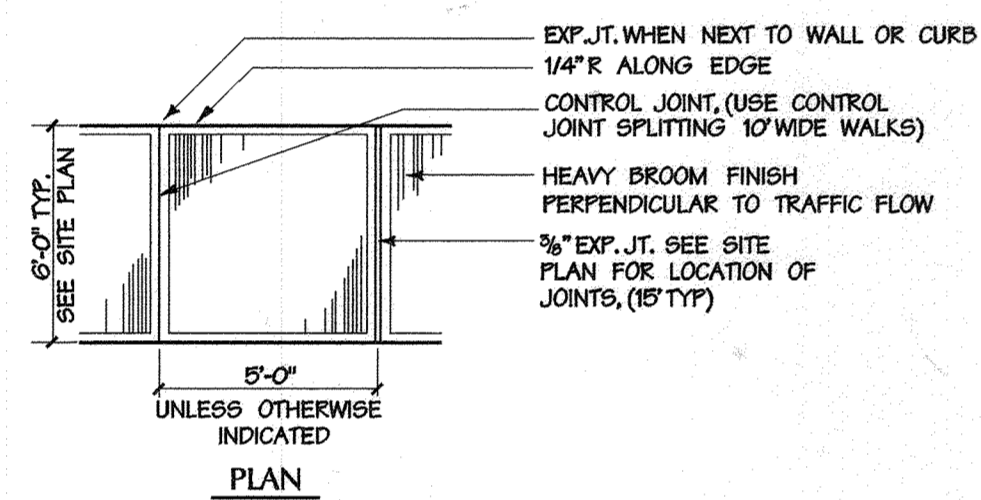
1 Handicap Parking Signs
 Not To Scale



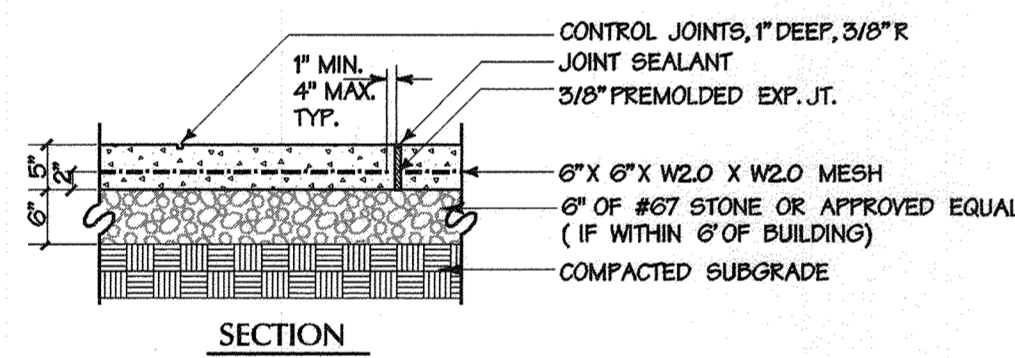
2 Handicap Parking: Van & Standard
 Not To Scale



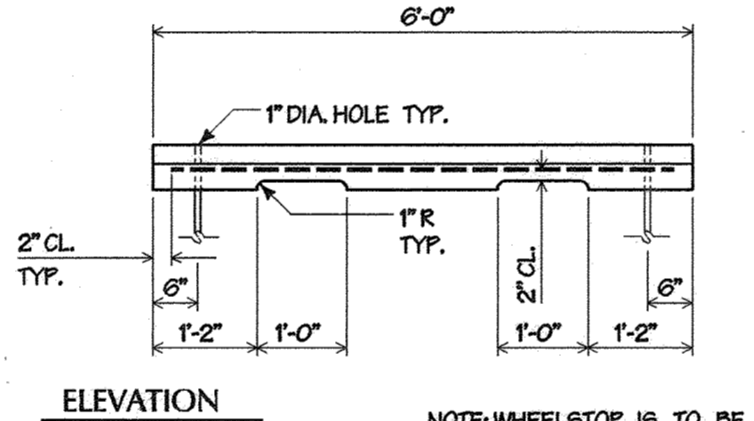
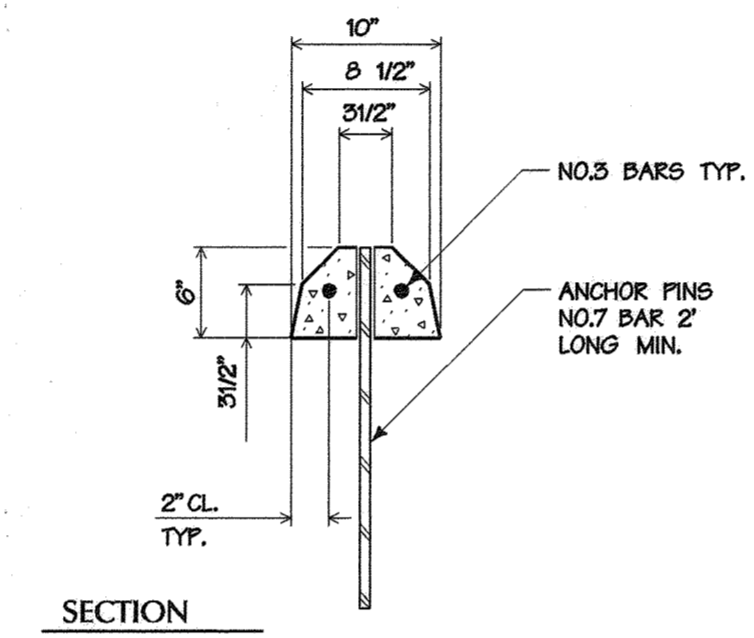
3 Handicap Ramp
 Not To Scale



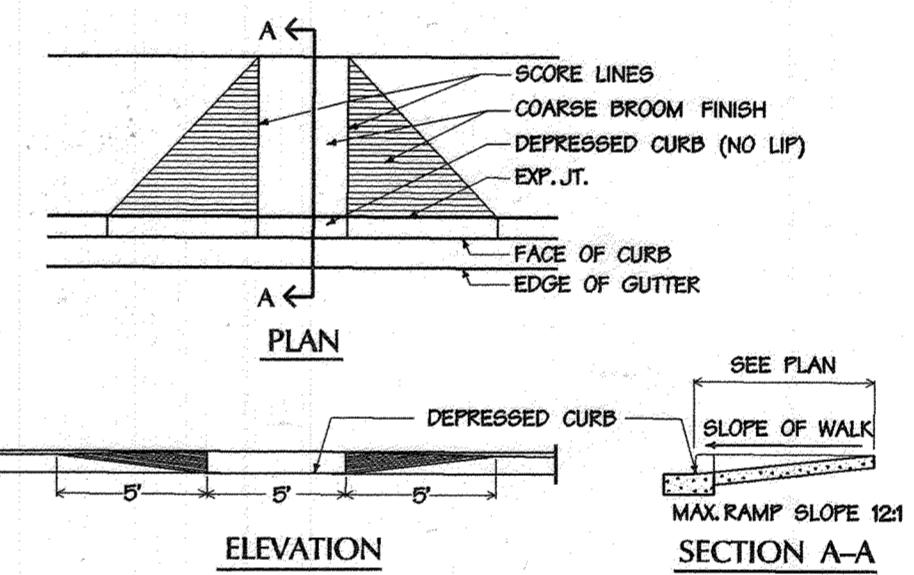
- NOTES:**
1. 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL IN EXPANSION JOINTS TO BE KEPT 1/4" BELOW SURFACE OF SIDEWALK.
 2. CONCRETE TO BE MIX NO. 2.
 3. WHEN SIDEWALK ADJUTS CURB, WALK SHALL BE 1/4" ABOVE CURB WITH 1/2" PREFORMED BITUMINOUS EXPANSION MATERIAL BETWEEN SIDEWALK AND CURB.
 4. CONCRETE WALK WITHIN 6' OF BUILDING SHALL HAVE 6' OF #67 STONE OR APPROVED EQUAL AS A BASE COURSE.



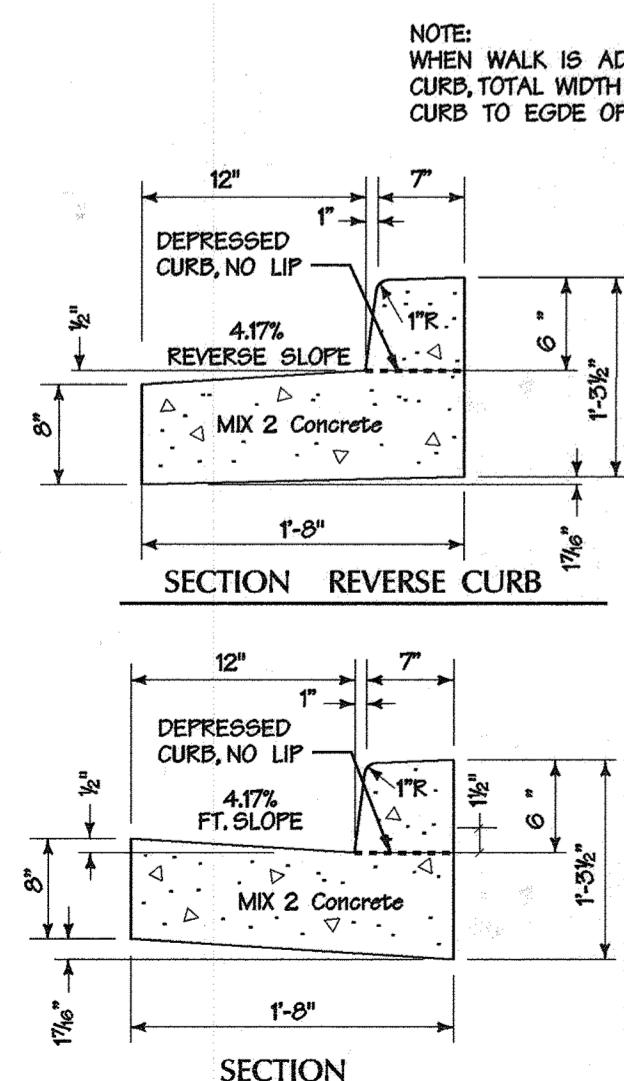
4 Concrete Walk
 Not To Scale



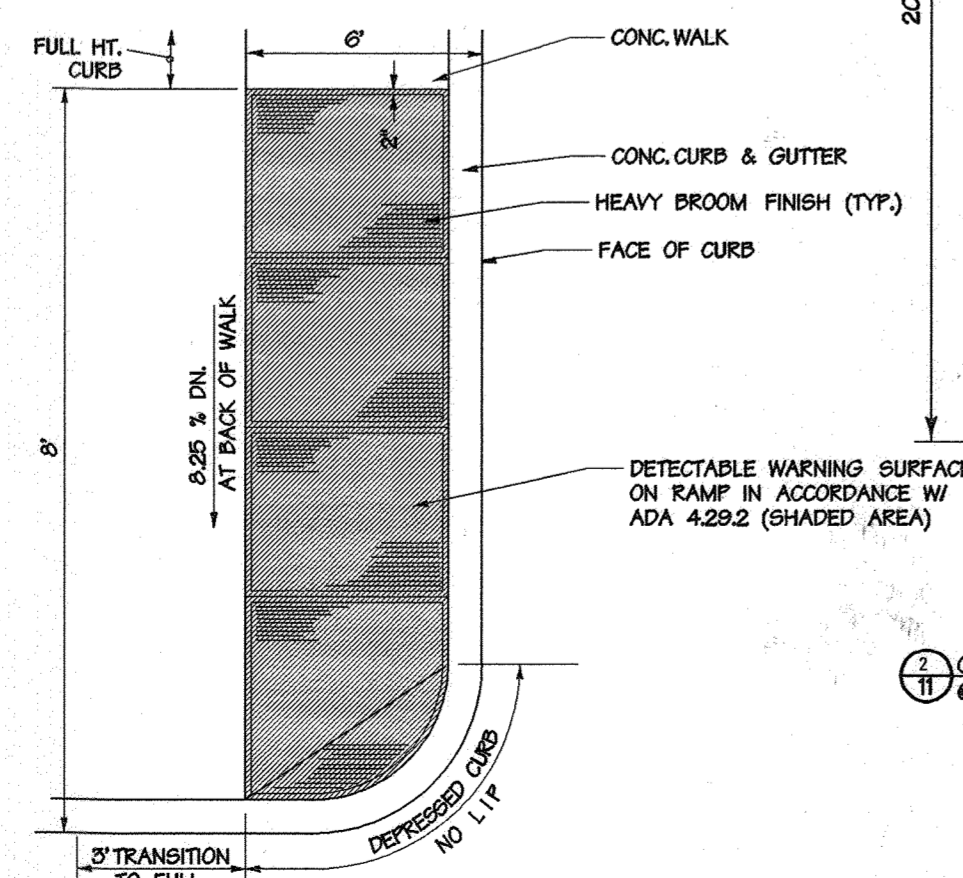
5 Precast Concrete Wheelstop
 Not To Scale



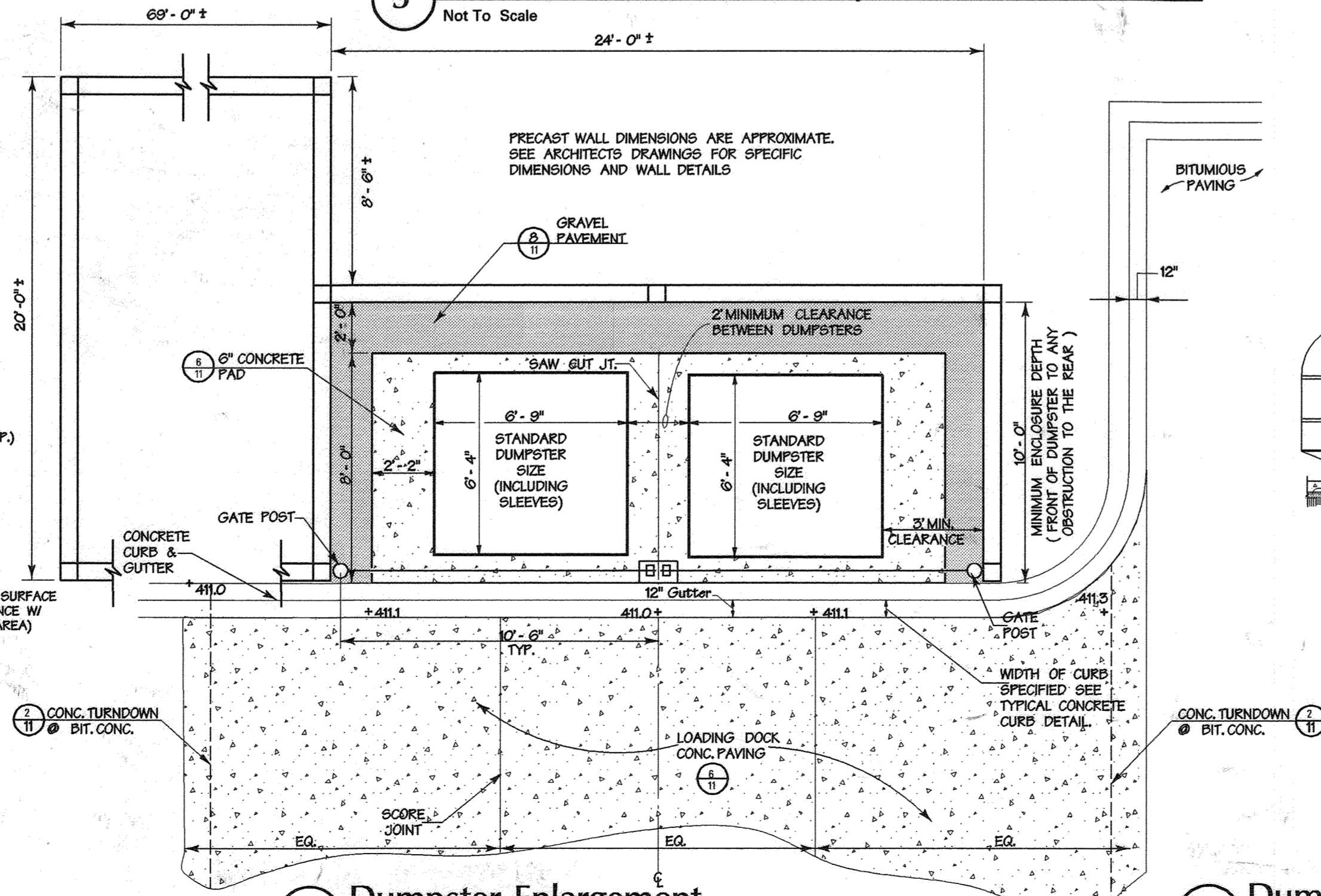
6 Handicap Ramp
 Not To Scale



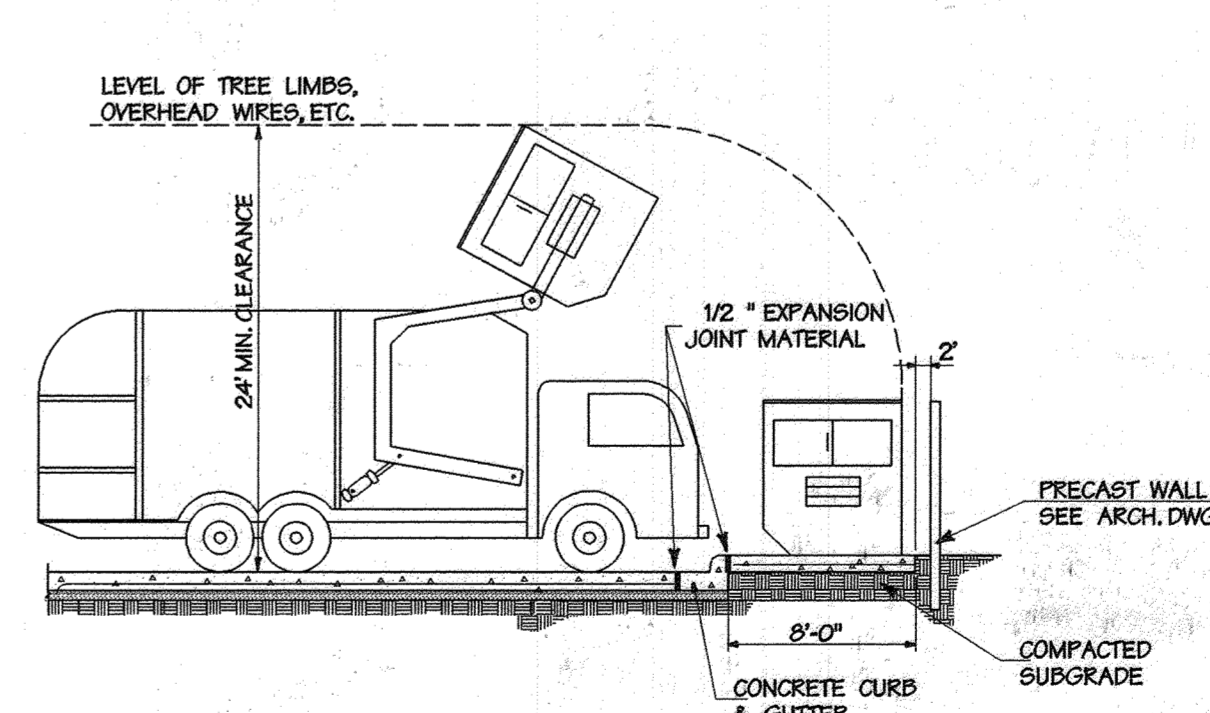
7 Concrete Curb, Typ.
 Not To Scale



8 Handicap Ramp
 Not To Scale



9 Dumpster Enlargement
 Not To Scale



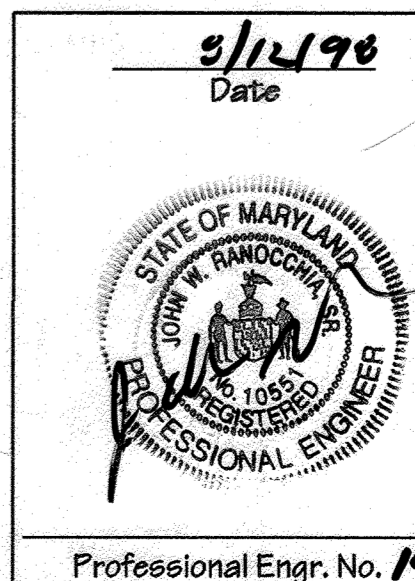
10 Dumpster Section
 Not To Scale

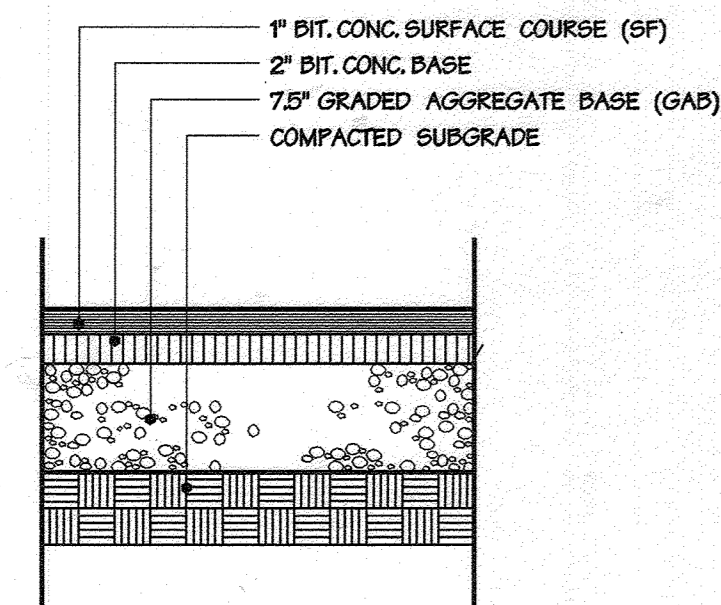
APPROVED:	HOWARD COUNTY DEPT. OF PLANNING & ZONING
<i>John J. Smith</i>	8/27/98
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Cindy Hamilton</i>	8/25/98
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
<i>John J. Smith</i>	8/28/98
DIRECTOR	DATE

Trammell Crow Office Building
 at Montpelier Research Park - Parcel B
 OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 DEVELOPER: TRAMMELL CROW COMPANY
 9030 Red Branch Road, Suite 200, Columbia, MD, 21045
 6701 Democracy Blvd., Suite 410, Bethesda, MD, 20817

DMW Daft · McCune · Walker, Inc.			
A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals		300 East Pennsylvania Avenue Towson, Maryland 21286 410 296 3333 Fax 296 4705	
SECTION NAME	SECTION AREA	LOI/PARCEL #	PARCEL #
Montpelier Research Park	N/A		
PLAT OR L.P.	BLOCK #	TAXING MAP	ELECT. DISTRICT
17	PEC	41	Eth
WATER CODE	SEWER CODE	GEN. CODE	GEN. TRACT
E 21	6440000		605102

SITE DETAILS			
Drn By:	ADL	Scale:	N.T.S.
Des By:	TPC	Date:	7-28-98
Chk By:		Approved:	
			10 of 21

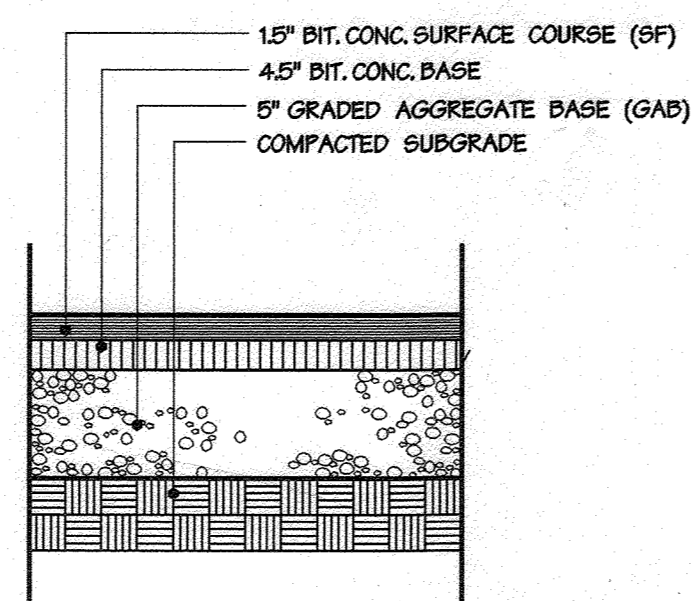




NOTE: STANDARD H₂O₂ SECTION FOR CBR RATIO OF 3, BASED ON GEOTECHNICAL REPORT BY HILLS-CARNES DATED JUNE 8, 1998.

1 P1 Paving

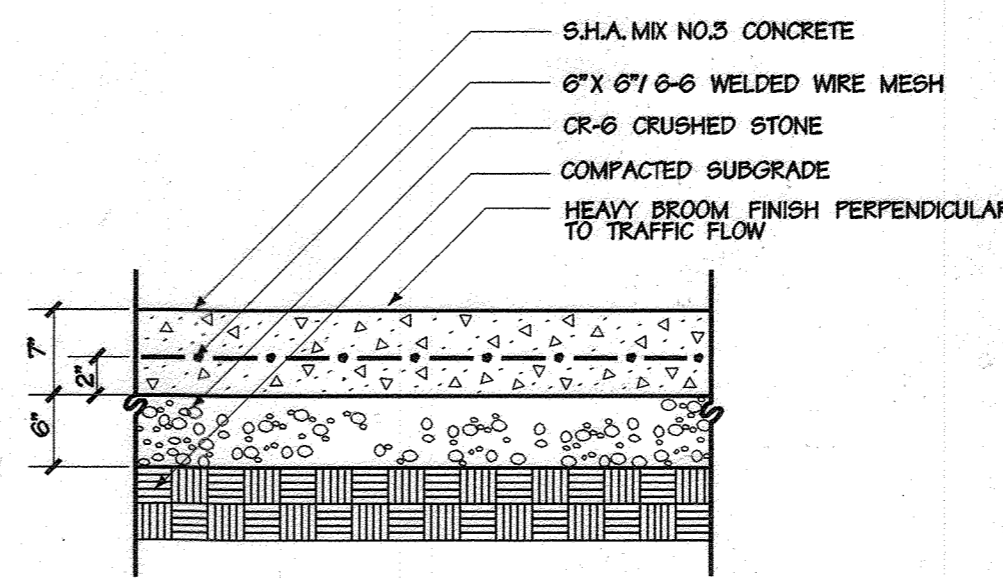
Not To Scale



NOTE: STANDARD H₂O₂ SECTION FOR CBR RATIO OF 3, BASED ON GEOTECHNICAL REPORT BY HILLS-CARNES DATED JUNE 8, 1998.

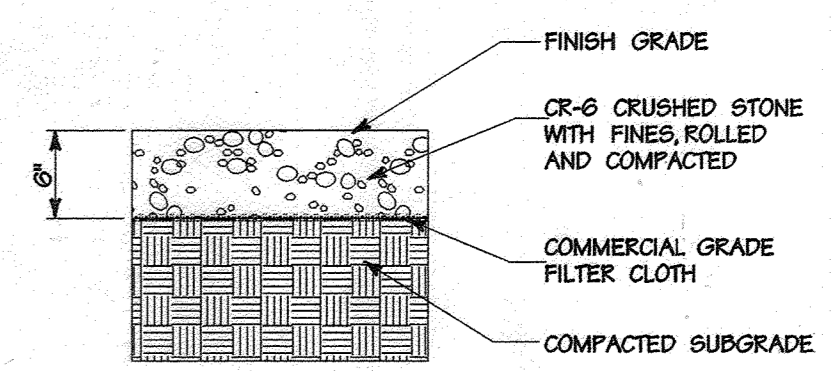
4 P3 Paving

Not To Scale



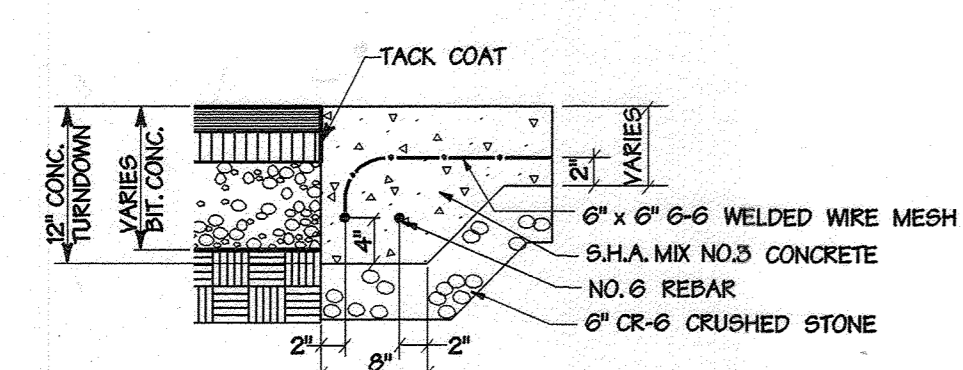
6 Loading Dock Concrete Paving and Pad

Not To Scale



8 Gravel Pavement

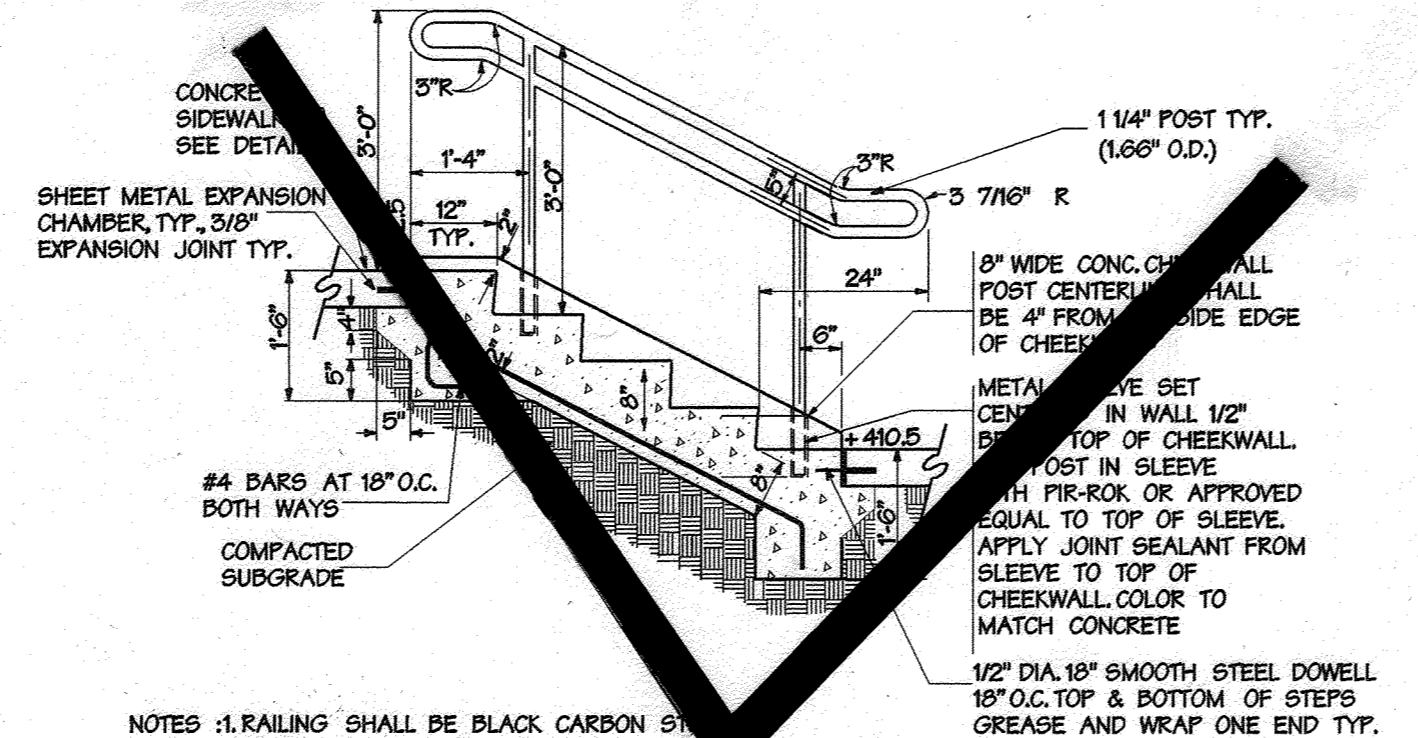
Not To Scale



CONCRETE TURNDOWN APPLIES WHERE LOADING DOCK CONCRETE PAVING MEETS BITUMINOUS PAVING ALONG LOADING DOCK.

2 Concrete Turndown @ Bit. Conc.

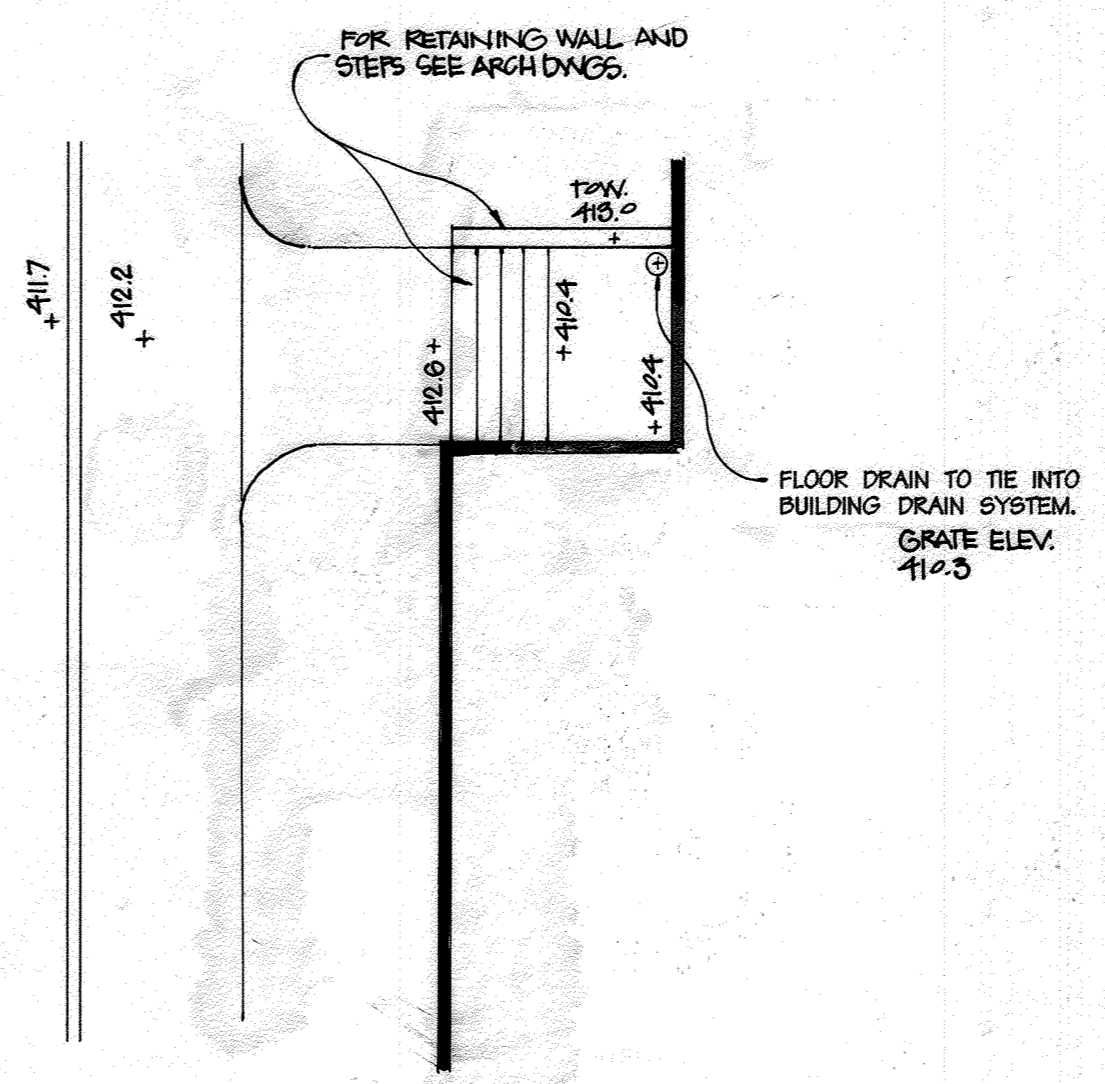
Not To Scale



NOTES: 1. RAILING SHALL BE BLACK CARBON STEEL TUBING, ASTM-A53, TYPE S, GRADE A, SCHEDULE 40, NPS SIZE DESIGNATION. 2. ALL WELDS SHALL BE FULL SECTION GROUND SMOOTH. 3. MIDRAIL SPACING: 2'-6\"/>

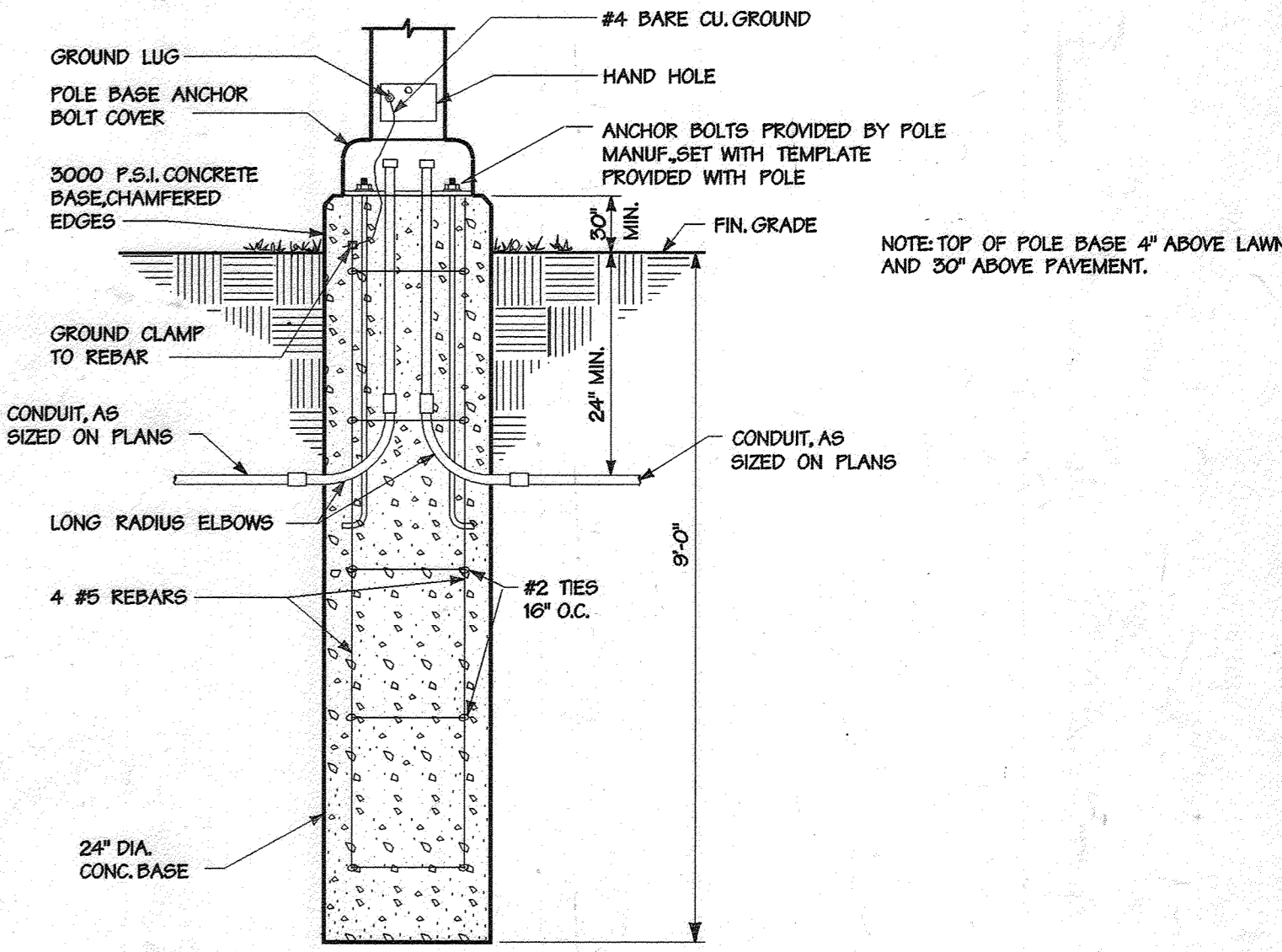
5 Concrete Steps

Not To Scale



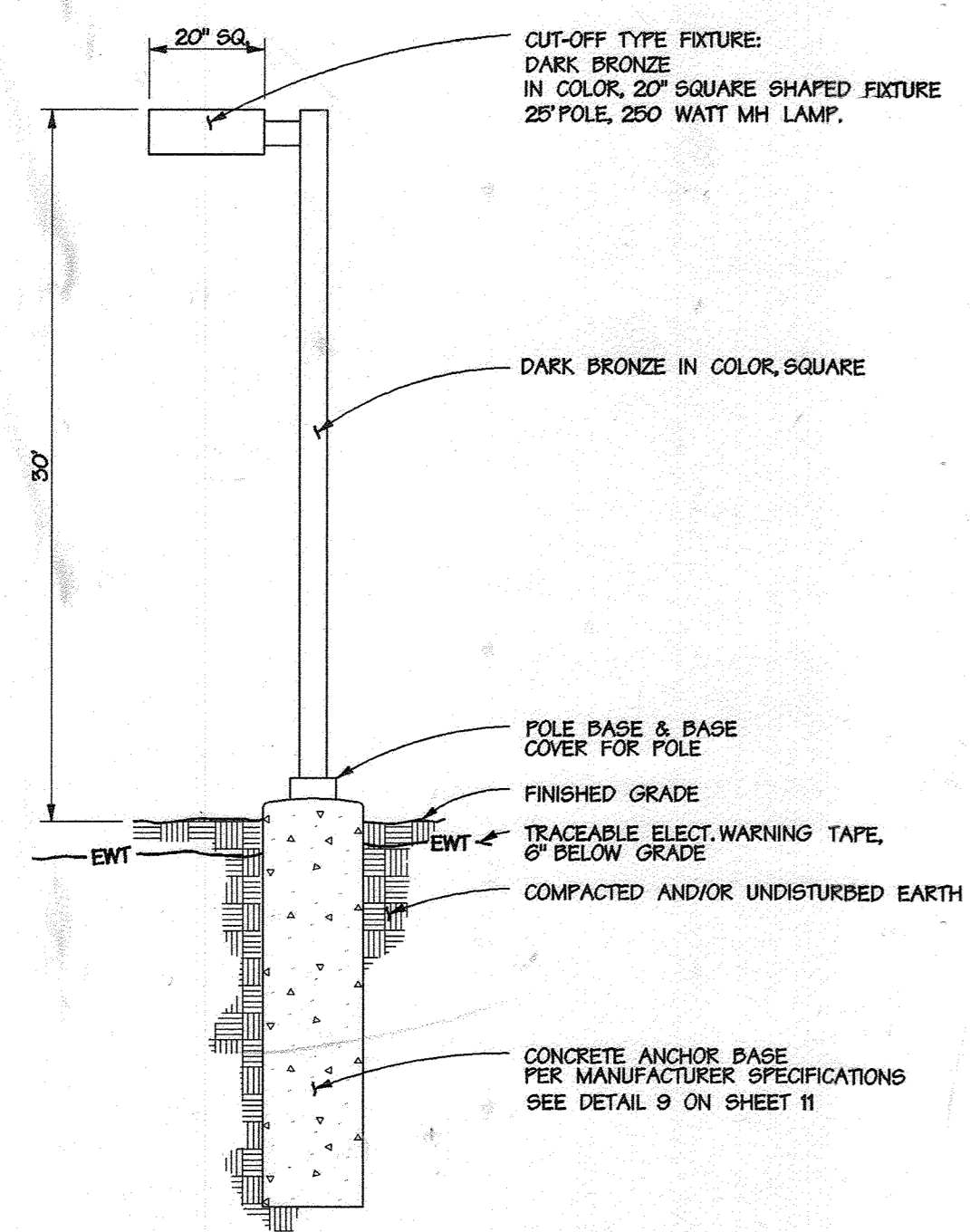
7 Side Entrance Enlargement

Not To Scale



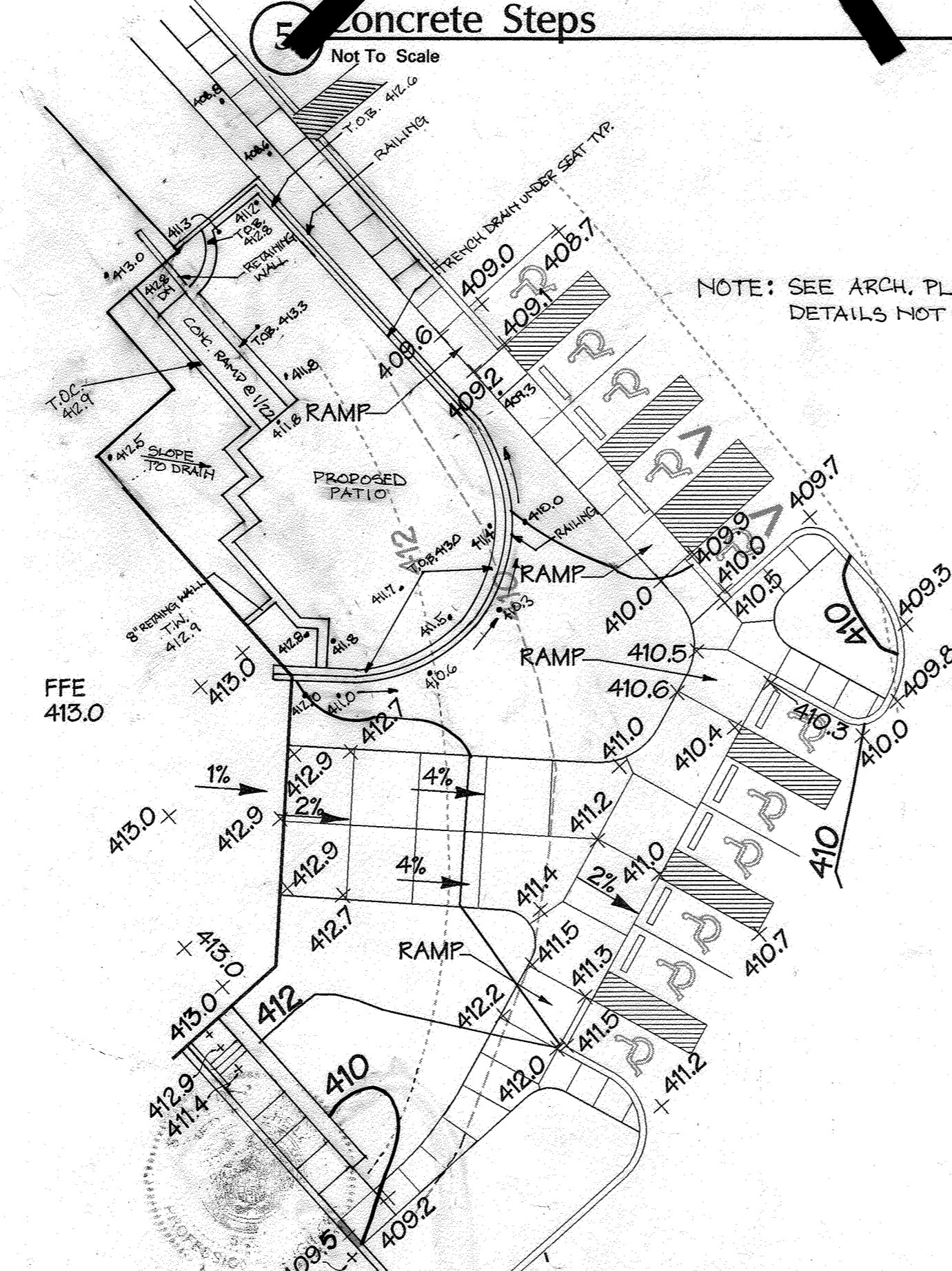
9 Parking Lot Lighting Fixture Pole Base Detail

Not To Scale



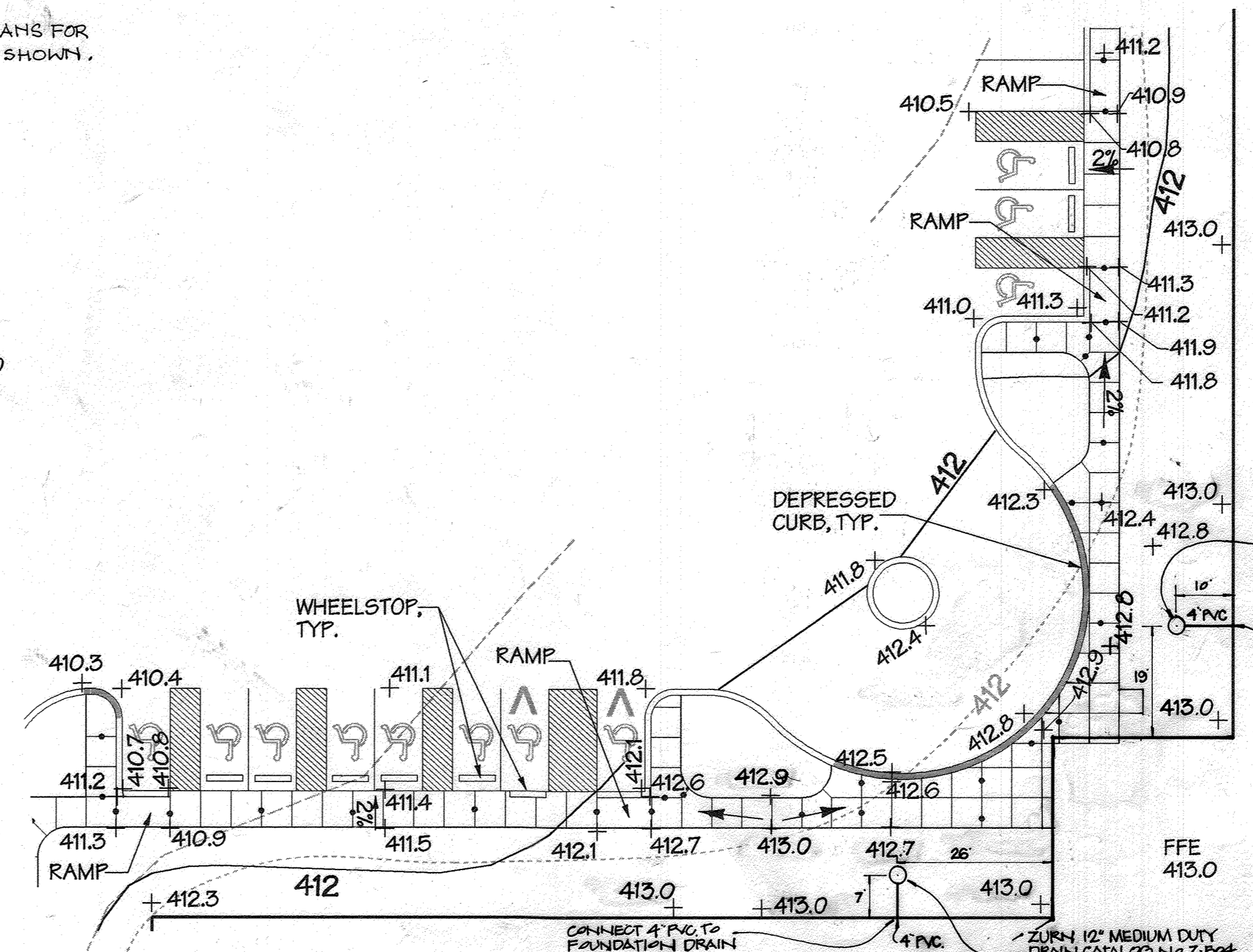
3 Sharp Cutoff Area Light

Not To Scale



10 Handicap Entrance and Patio Enlargement

Scale 1\"/>



11 Handicap Entrance Enlargement

Scale 1\"/>

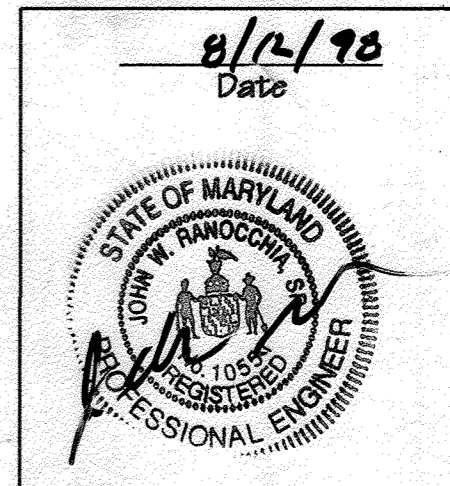
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

DATE	8/27/98
DATE	8/28/98
DATE	8/28/98

Date	No.	Revision Description
6/16/99	4	ADDED PATIO AREA
11-8-98	1	REVISED DETAILS

Trammell Crow Office Building
 at Montpelier Research Park - Parcel B
 OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 DEVELOPER: TRAMMELL-CROW COMPANY
 9090 Rod Branch Road, Suite 200, Columbia, MD, 21045
 6701 Democracy Blvd., Suite 410, Bethesda, MD, 20817

DMW
 Daft · McCune · Walker, Inc.
 A Team of Land Planners, Landscape Architects, Engineers, Surveyors & Environmental Professionals
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 410 296 3333
 Fax 296 4703

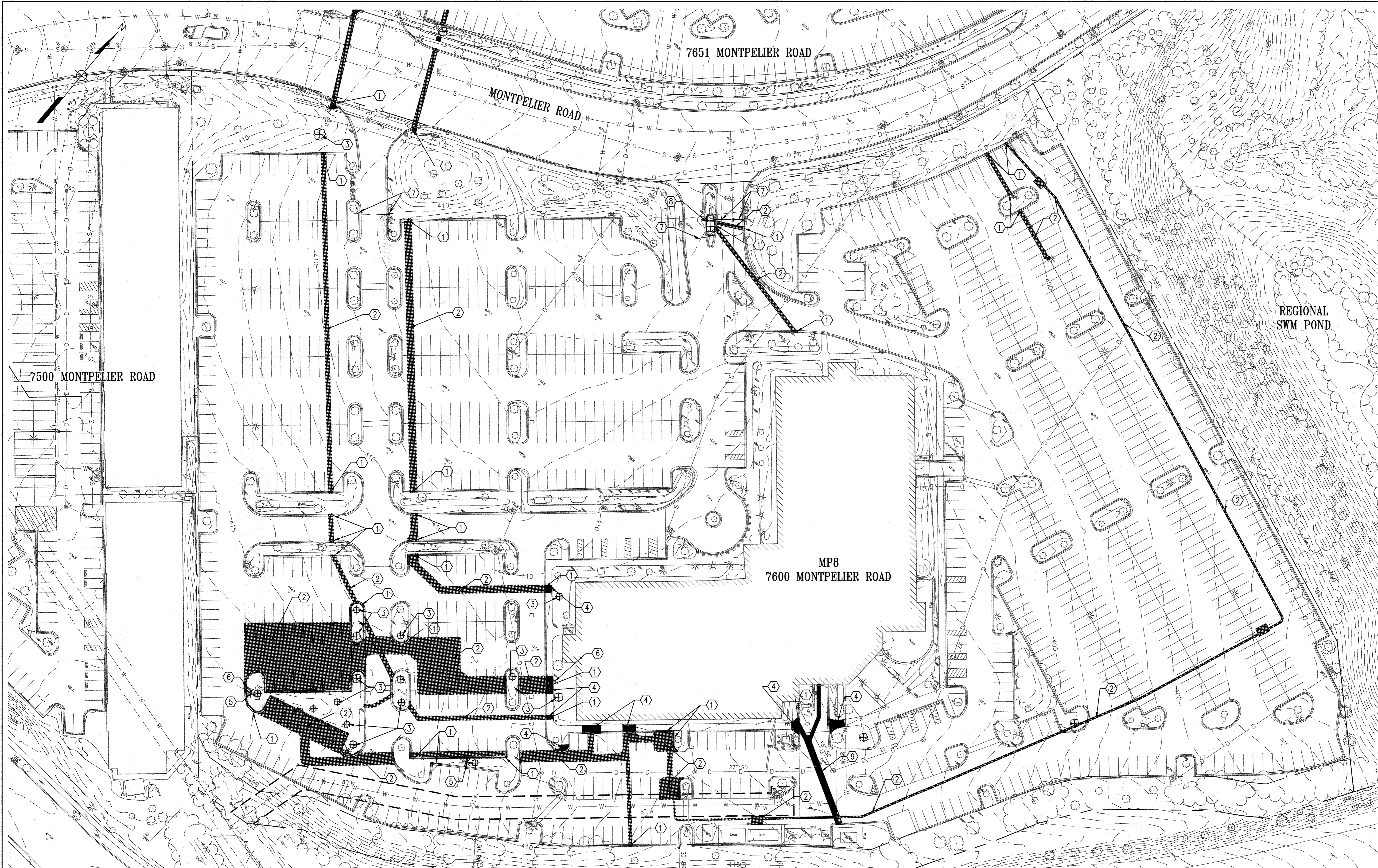


DISPOSITION NAME	SECTION AREA	LOT/PARCEL #
Montpelier Research Park	N/A	PARCEL B
PLANNING DISTRICT	TRAVELER MAP	ELECT. DISTRICT
17	41	ESH
WATER CODE	OWNER CODE	PARCEL TRACT
E 21	6440000	6051.02

SITE DETAILS

Drn By:	ADL	Scale:	N.T.S.	Proj. No.:	94171.T
Des By:	TPC	Date:	7-28-98		
Chk By:		Approved:			11 of 11

Professional Engr. No. 10551



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

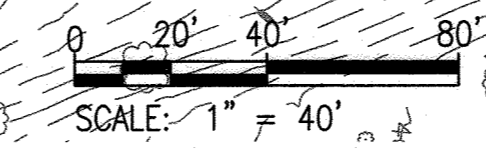
Jim Escher 9/18/23
DIRECTOR DATE

Paul J. ... 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

- SHEET KEYNOTES:**
- ① SAWCUT & REMOVE EXISTING CURB & GUTTER.
 - ② SAWCUT & REMOVE EXISTING ASPHALT PAVEMENT
 - ③ REMOVE EXISTING TREE. REMOVE STUMP.
 - ④ SAWCUT & REMOVE EXISTING SIDEWALK.
 - ⑤ REMOVE STREETLIGHT AND BASE. STORE STREETLIGHT TO BE REINSTALLED.
 - ⑥ REMOVE SIGN AND STORE TO BE REINSTALLED.
 - ⑦ REMOVE SECURITY GATES & RETURN TO OWNER.
 - ⑧ REMOVE SECURITY BOOTH 7 RETURN TO OWNER.
 - ⑨ SAWCUT & REMOVE EXISTING CONCRETE PAVEMENT.

- GENERAL SHEET NOTES:**
- 1. FOR ARCHITECTURAL DRAWINGS & DETAILS SEE A SERIES DRAWINGS.
 - 2. FOR STRUCTURAL DRAWINGS & DETAILS SEE S SERIES DRAWINGS.
 - 3. FOR SITE PLAN SEE SHEET C102.
- LEGEND:**
- CONCRETE OR ASPHALT REMOVAL
 - CURB & GUTTER REMOVAL
 - TREE REMOVAL



KEY PLAN

PROJECT NORTH

SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6009

Whitman, Requardt & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

APL ARCHITECTURAL ENGINEERING DESIGNER **WRA**

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20817

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

EXISTING CONDITIONS & DEMOLITION PLAN

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

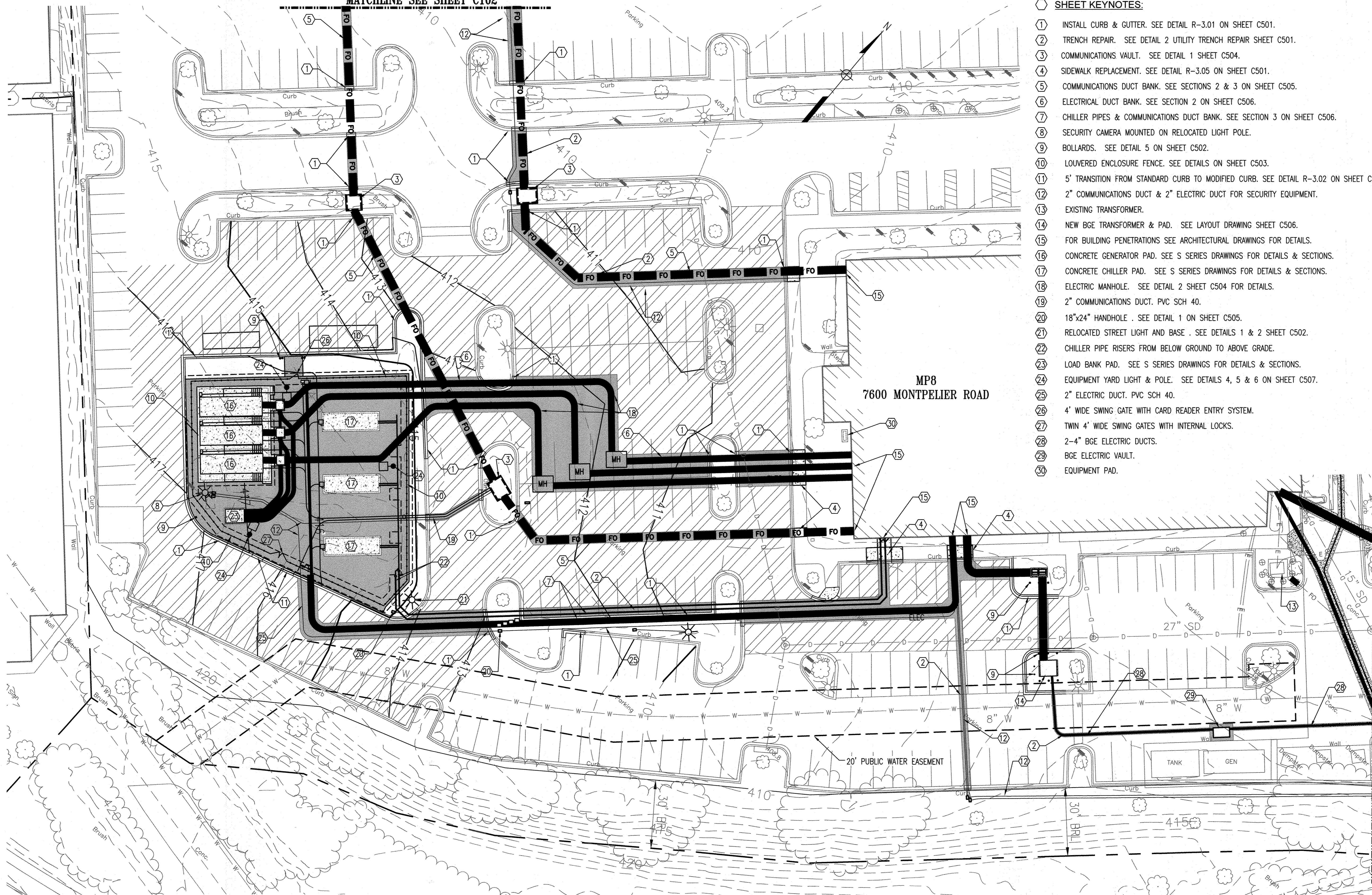
DESIGNED BY: JTD DRAWING NUMBER: CD101

CHECKED BY: AUO

CODE REVIEW:

SHEET 12 OF 31

MATCHLINE SEE SHEET C102



MP8
7600 MONTEPELLIER ROAD

SHEET KEYNOTES:

- 1. INSTALL CURB & GUTTER. SEE DETAIL R-3.01 ON SHEET C501.
- 2. TRENCH REPAIR. SEE DETAIL 2 UTILITY TRENCH REPAIR SHEET C501.
- 3. COMMUNICATIONS VAULT. SEE DETAIL 1 SHEET C504.
- 4. SIDEWALK REPLACEMENT. SEE DETAIL R-3.05 ON SHEET C501.
- 5. COMMUNICATIONS DUCT BANK. SEE SECTIONS 2 & 3 ON SHEET C505.
- 6. ELECTRICAL DUCT BANK. SEE SECTION 2 ON SHEET C506.
- 7. CHILLER PIPES & COMMUNICATIONS DUCT BANK. SEE SECTION 3 ON SHEET C506.
- 8. SECURITY CAMERA MOUNTED ON RELOCATED LIGHT POLE.
- 9. BOLLARDS. SEE DETAIL 5 ON SHEET C502.
- 10. LOUVERED ENCLOSURE FENCE. SEE DETAILS ON SHEET C503.
- 11. 5' TRANSITION FROM STANDARD CURB TO MODIFIED CURB. SEE DETAIL R-3.02 ON SHEET C502.
- 12. 2" COMMUNICATIONS DUCT & 2" ELECTRIC DUCT FOR SECURITY EQUIPMENT.
- 13. EXISTING TRANSFORMER.
- 14. NEW BGE TRANSFORMER & PAD. SEE LAYOUT DRAWING SHEET C506.
- 15. FOR BUILDING PENETRATIONS SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
- 16. CONCRETE GENERATOR PAD. SEE S SERIES DRAWINGS FOR DETAILS & SECTIONS.
- 17. CONCRETE CHILLER PAD. SEE S SERIES DRAWINGS FOR DETAILS & SECTIONS.
- 18. ELECTRIC MANHOLE. SEE DETAIL 2 SHEET C504 FOR DETAILS.
- 19. 2" COMMUNICATIONS DUCT. PVC SCH 40.
- 20. 18"x24" HANDHOLE. SEE DETAIL 1 ON SHEET C505.
- 21. RELOCATED STREET LIGHT AND BASE. SEE DETAILS 1 & 2 SHEET C502.
- 22. CHILLER PIPE RISERS FROM BELOW GROUND TO ABOVE GRADE.
- 23. LOAD BANK PAD. SEE S SERIES DRAWINGS FOR DETAILS & SECTIONS.
- 24. EQUIPMENT YARD LIGHT & POLE. SEE DETAILS 4, 5 & 6 ON SHEET C507.
- 25. 2" ELECTRIC DUCT. PVC SCH 40.
- 26. 4' WIDE SWING GATE WITH CARD READER ENTRY SYSTEM.
- 27. TWIN 4' WIDE SWING GATES WITH INTERNAL LOCKS.
- 28. 2-4" BGE ELECTRIC DUCTS.
- 29. BGE ELECTRIC VAULT.
- 30. EQUIPMENT PAD.

KEY PLAN

PROJECT NORTH

SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS
APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD, LAUREL, MD 20723-8089

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW
OFFICE BUILDING
AT MONTEPELLIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED
SITE DEVELOPMENT PLAN

EQUIPMENT YARD
SITE PLAN

FOR OVERALL UTILITY LAYOUT SEE SHEET 2 OF 30

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD	DRAWING NUMBER:
CHECKED BY: AUO	C101
CODE REVIEW:	

SHEET 13 OF 31
SDP-98-137

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Linda Eason 9/18/23
DIRECTOR DATE

Paul Johnson 9-11-23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

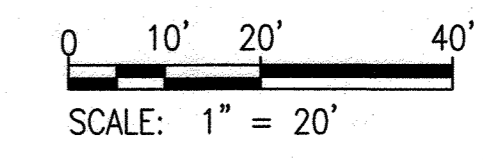
bc 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

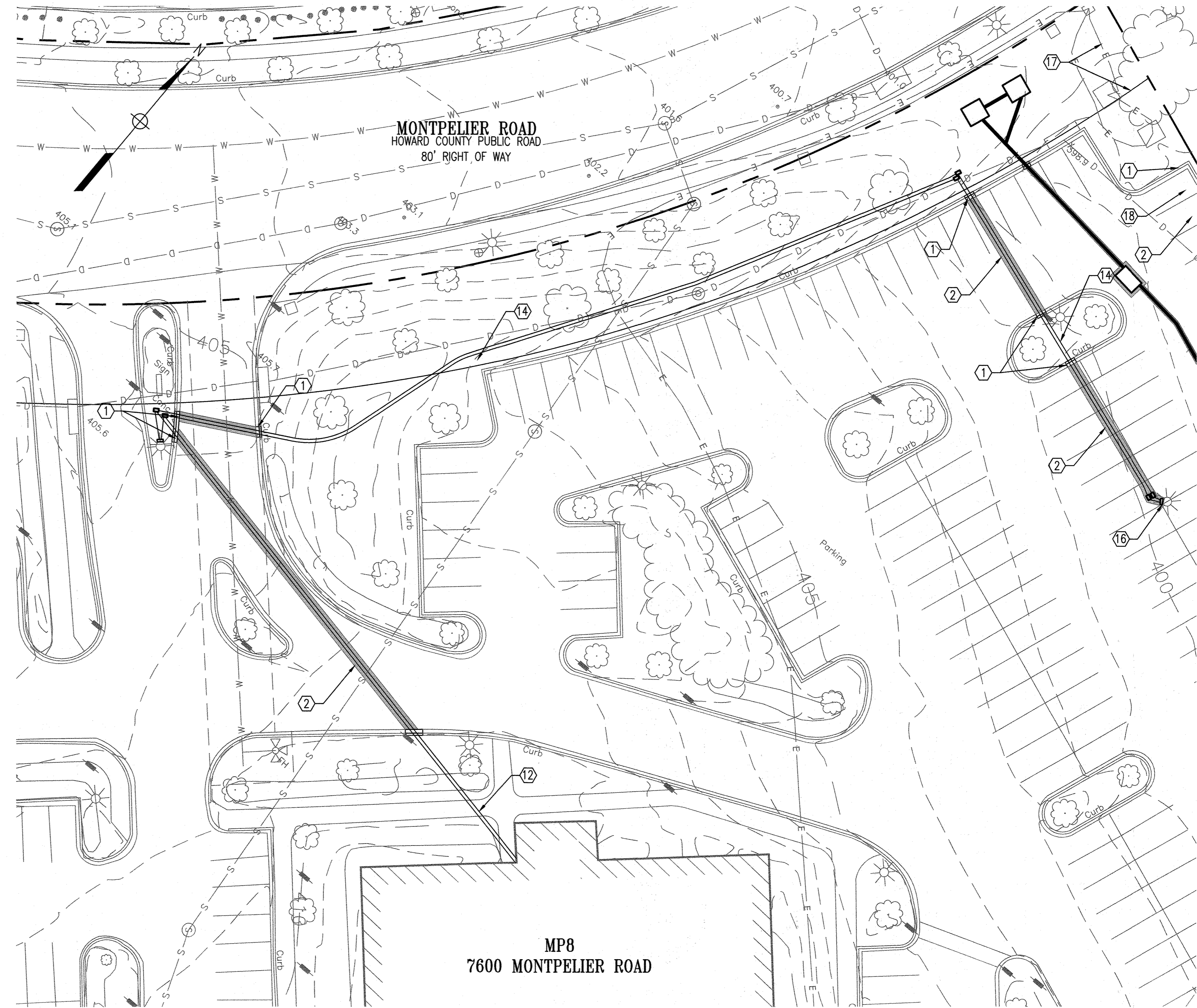
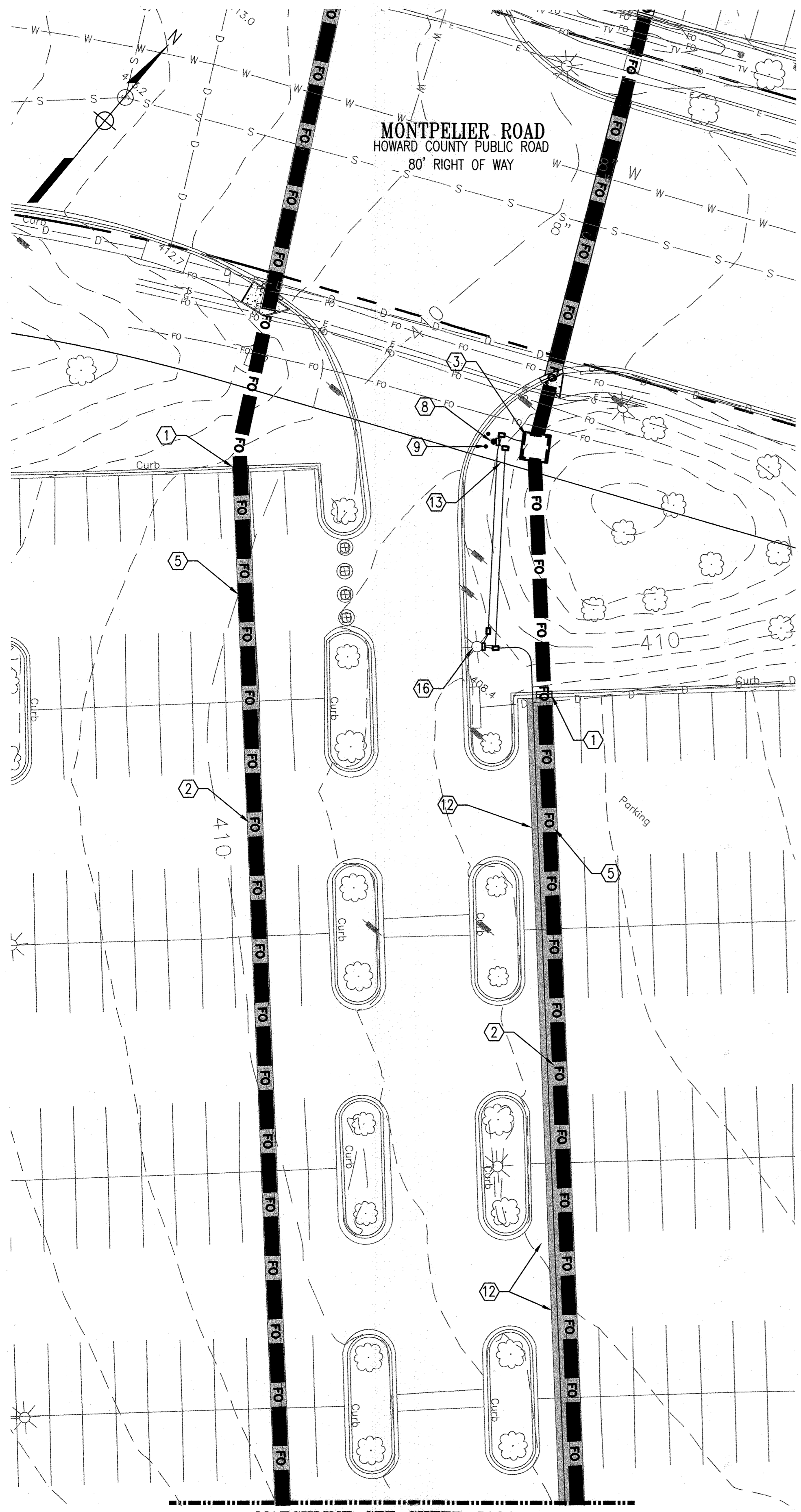
LEGEND:

- CONCRETE PAVEMENT OR PAD.
- FULL DEPTH ASPHALT PAVEMENT OR REPAIR.
- 2" MILL AND OVERLAY

GENERAL SHEET NOTES:

- FOR STRUCTURAL DRAWINGS & DETAILS SEE S SERIES DRAWINGS.
- FOR SITE DEMOLITION PLAN SEE SHEET CD101.
- REMOVE AND REPLACE CURB AND GUTTER TO MATCH ORIGINAL LOCATION AND ELEVATIONS.





**MP8
7600 MONTPELIER ROAD
SECURITY CAMERA DUCT PATH PLAN**

GENERAL SHEET NOTES:

1. FOR STRUCTURAL DRAWINGS & DETAILS SEE S SERIES DRAWINGS.
2. FOR SITE DEMOLITION PLAN SEE SHEET CD101.
3. REMOVE AND REPLACE CURB AND GUTTER TO MATCH ORIGINAL LOCATION AND ELEVATIONS.

SHEET KEYNOTES:

- ① INSTALL CURB & GUTTER. SEE DETAIL R-3.01 ON SHEET C502.
- ② TRENCH REPAIR. SEE DETAIL 2 UTILITY TRENCH REPAIR SHEET C502.
- ③ COMMUNICATIONS VAULT. SEE DETAIL 1 SHEET C504.
- ④ SIDEWALK REPLACEMENT. SEE DETAIL R-3.05 ON SHEET C502.
- ⑤ COMMUNICATIONS DUCT BANK. SEE SECTION 1 ON SHEET C505.
- ⑧ LICENSE PLATE READER MOUNTED ON POST. SEE DETAIL 3 ON SHEET C507.
- ⑨ BOLLARDS. SEE DETAIL 1 ON SHEET C502.
- ⑫ 2" ELECTRIC DUCT FOR SECURITY EQUIPMENT.
- ⑬ OPTIONAL SECURITY & ELECTRIC DUCTS TO BE INSTALLED IF EXISTING DUCTS ARE NOT AVAILABLE.
- ⑭ 2" ELECTRIC DUCT & 2" COMMUNICATIONS DUCT FOR SECURITY EQUIPMENT.
- ⑮ 12" x 18" HANDHOLE
- ⑯ FUTURE SECURITY CAMERA TO BE MOUNTED TO EXISTING LIGHT POLE.
- ⑰ NEW BGE SWITCH GEAR.
- ⑱ 2-4" BGE ELECTRIC DUCT BANK.

LEGEND:

- CONCRETE PAVEMENT OR PAD.
- ASPHALT PAVEMENT OR REPAIR.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

James Eiseberg 9/18/23
DIRECTOR DATE

Paul J. ... 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

KEY PLAN

PROJECT NORTH

SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS
APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD, LAUREL, MD 20723-6009

APL ARCHITECTURAL ENGINEERING DESIGNER

WRP Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW
OFFICE BUILDING
AT MONTPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED
SITE DEVELOPMENT PLAN

UTILITY SITE PLAN

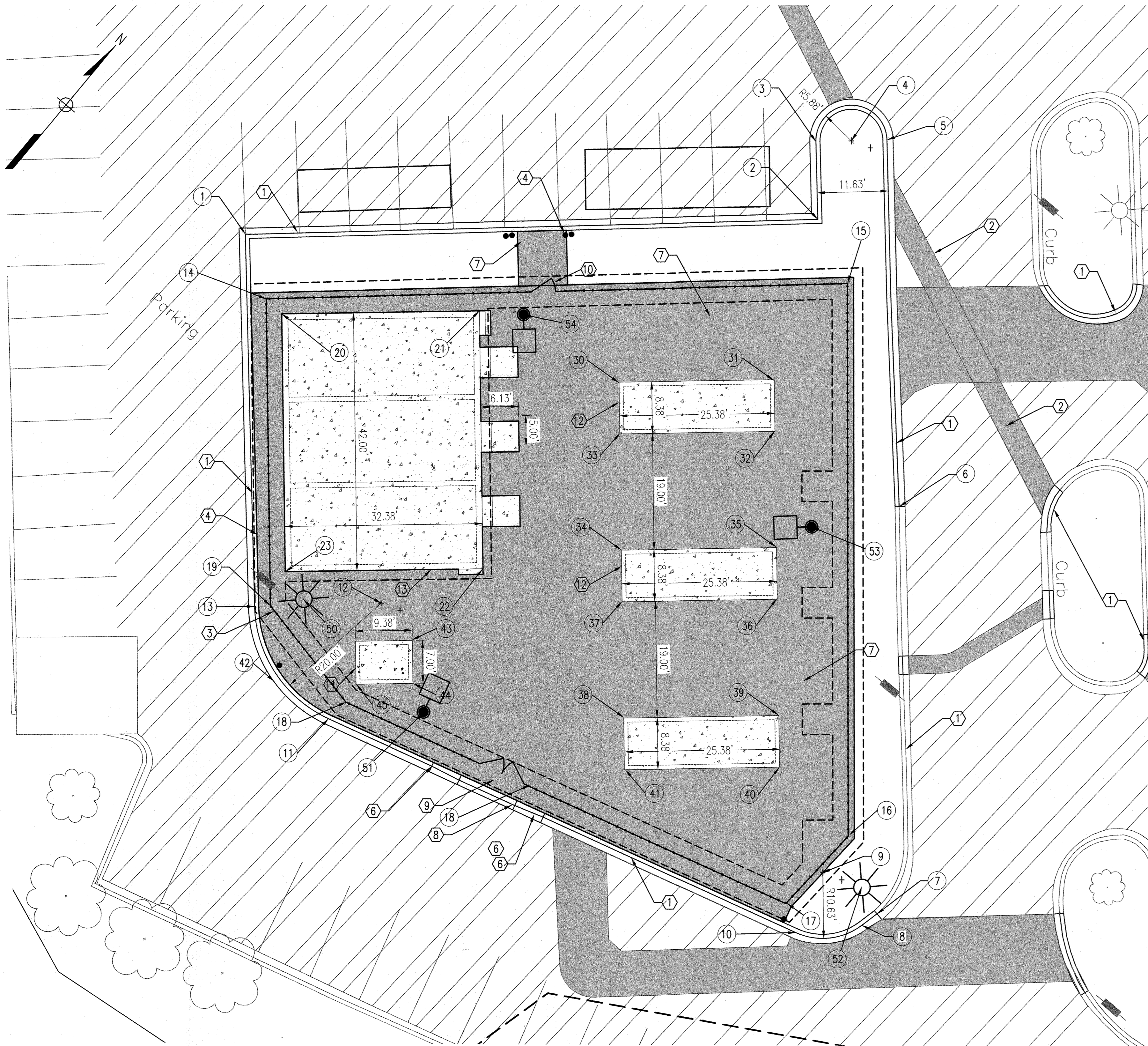
REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER:
C102

CHECKED BY: AUO

CODE REVIEW:

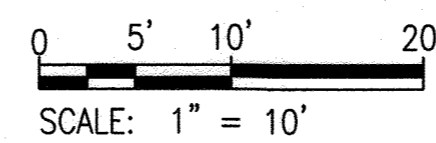
SHEET 14 OF 31



LEGEND:

- CONCRETE PAVEMENT OR PAD.
- ASPHALT PAVEMENT OR REPAIR.

EQUIPMENT YARD STAKEOUT PLAN



GENERAL SHEET NOTES:

1. FOR ARCHITECTURAL DRAWINGS & DETAILS SEE A SERIES DRAWINGS.
2. FOR STRUCTURAL DRAWINGS & DETAILS SEE S SERIES DRAWINGS.
3. FOR ELECTRICAL DRAWINGS & DETAILS SEE E SERIES DRAWINGS.
4. FOR MECHANICAL DRAWINGS & DETAILS SEE M SERIES DRAWINGS.
5. FOR CHILLER PLANS AND DETAILS SEE M SERIES PLANS.
6. FOR GENERATOR PLANS AND DETAILS SEE E SERIES PLANS.
7. FOR SITE DEMOLITION PLAN SEE SHEET CD101.

SHEET KEYNOTES:

- ① INSTALL CURB & GUTTER. SEE DETAIL R-3.01 ON SHEET C502.
- ② TRENCH REPAIR. SEE DETAIL 2 UTILITY TRENCH REPAIR SHEET C502.
- ③ SECURITY CAMERA MOUNTED ON EXISTING LIGHT POST. SEE DETAIL 1-3 ON SHEET C509.
- ④ BOLLARDS. SEE DETAIL 1 ON SHEET C502.
- ⑤ LOUVERED FENCE ENCLOSURE FENCE. SEE DETAILS ON SHEET C502.
- ⑥ 5' TRANSITION FROM STANDARD CURB TO MODIFIED CURB. SEE DETAIL R-3.02 ON SHEET C502.
- ⑦ P-2 PAVEMENT. SEE SECTION ON SHEET C502.
- ⑧ MODIFIED CURB & GUTTER. SEE DETAIL R-3.01 ON SHEET C502.
- ⑨ TWIN 4 FOOT LOUVERED SWING GATES. SEE DETAILS ON SHEET C503.
- ⑩ SINGLE 4 FOOT LOUVERED FENCE SWING GATE. SEE DETAILS ON SHEET C503.
- ⑪ LOAD BANK BASE. SEE STRUCTURAL DETAILS S SERIES DRAWINGS.
- ⑫ CHILLER BASE. SEE STRUCTURAL DETAILS S SERIES DRAWINGS.
- ⑬ GENERATOR BASE. SEE STRUCTURAL DETAILS S-SERIES DRAWINGS.

Ⓝ SITE STAKEOUT POINT NUMBER

EQUIPMENT YARD COORDINATE TABLE

POINT #	DESCRIPTION	NORTHING	EASTING
1	CORNER FACE OF CURB	543921.342	1343217.012
2	CORNER FACE OF CURB	543983.428	1343286.969
3	PC FACE OF CURB	543992.876	1343278.583
4	RADIUS POINT	543996.741	1343282.938
5	PT FACE OF CURB	544000.605	1343287.292
6	TIE INTO EX CURB	543956.245	1343327.352
7	TIE INTO EX CURB	543903.210	1343367.340
8	PC FACE OF CURB	543900.361	1343365.996
9	RADIUS POINT	543902.608	1343356.252
10	PT FACE OF CURB	543892.329	1343359.113
11	PC FACE OF CURB	543869.823	1343278.253
12	RADIUS POINT	543889.736	1343272.711
13	PT FACE OF CURB	543876.013	1343257.253
14	CORNER OF FENCE	543915.513	1343226.388
15	CORNER OF FENCE	543978.572	1343297.441
16	CORNER OF FENCE	543909.880	1343355.591
17	CORNER OF FENCE	543894.899	1343354.854
18	CORNER OF FENCE	543873.715	1343278.748
19	CORNER OF FENCE	543877.751	1343259.159
20	CORNER OF GENERATOR PAD	543915.285	1343229.896
21	CORNER OF GENERATOR PAD	543936.477	1343254.316
22	CORNER OF GENERATOR PAD	543904.756	1343281.841
23	CORNER OF GENERATOR PAD	543883.564	1343257.424
30	CORNER OF CHILLER PAD	543942.305	1343279.227
31	CORNER OF CHILLER PAD	543958.910	1343298.361
32	CORNER OF CHILLER PAD	543952.553	1343303.877
33	CORNER OF CHILLER PAD	543935.949	1343284.744
34	CORNER OF CHILLER PAD	543921.643	1343297.159
35	CORNER OF CHILLER PAD	543938.247	1343316.292
36	CORNER OF CHILLER PAD	543931.890	1343321.809
37	CORNER OF CHILLER PAD	543915.286	1343302.674
38	CORNER OF CHILLER PAD	543900.980	1343315.090
39	CORNER OF CHILLER PAD	543917.584	1343334.223
40	CORNER OF CHILLER PAD	543911.227	1343339.740
41	CORNER OF CHILLER PAD	543894.623	1343320.607
42	CORNER OF LOAD BANK PAD	543882.300	1343273.499
43	CORNER OF LOAD BANK PAD	543888.418	1343280.548
44	CORNER OF LOAD BANK PAD	543883.131	1343285.136
45	CORNER OF LOAD BANK PAD	543877.013	1343278.087
50	CENTER OF LIGHT POST	543882.101	1343262.654
51	CENTER OF LIGHT POST	543880.679	1343289.469
52	CENTER OF LIGHT POST	543904.934	1343362.695
53	CENTER OF LIGHT POST	543944.509	1343318.502
54	CENTER OF LIGHT POST	543940.665	1343260.223

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Linda Esberg 9/18/23
DIRECTOR DATE

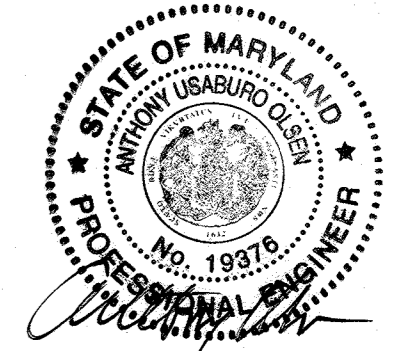
Paul J. ... 9/11/23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/14/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

KEY PLAN



SEAL



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
11100 JOHN HOPKINS ROAD LAUREL, MD 20723-6009

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners
ARCHITECTURAL ENGINEERING DESIGNER

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

EQUIPMENT YARD STAKEOUT PLAN

REVISION LOG

#	DESCRIPTION	DATE
1	NEW SHEET	11/22

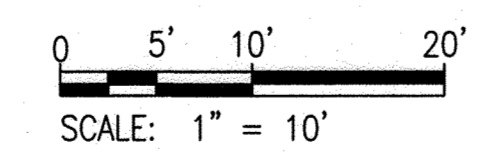
DESIGNED BY: JTD DRAWING NUMBER: C103
CHECKED BY: AUO
CODE REVIEW:

SHEET 15 OF 31

SDP-98-137



EQUIPMENT YARD GRADING PLAN



GENERAL SHEET NOTES:

1. FOR ARCHITECTURAL DRAWINGS & DETAILS SEE A SERIES DRAWINGS.
2. FOR STRUCTURAL DRAWINGS & DETAILS SEE S SERIES DRAWINGS.
3. FOR ELECTRICAL DRAWINGS & DETAILS SEE E SERIES DRAWINGS.
4. FOR MECHANICAL DRAWINGS & DETAILS SEE M SERIES DRAWINGS.
5. FOR CHILLER PLANS AND DETAILS SEE C SERIES PLANS.
6. FOR GENERATOR PLANS AND DETAILS SEE G SERIES PLANS.
7. FOR SITE DEMOLITION PLAN SEE SHEET CD101.
8. NEW CURB & GUTTER TO MATCH EXISTING PAVEMENT ELEVATIONS.

LEGEND:

- CONCRETE PAVEMENT OR PAD.
- ASPHALT PAVEMENT OR REPAIR.
- MILL & OVERLAY EXISTING PAVEMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Jim Eschberg 9/18/23
DIRECTOR DATE

Paul Stein 9-1-23
CHIEF DEVELOPMENT ENGINEERING DIVISION DATE

Paul Stein 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

KEY PLAN

PROJECT NORTH

SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND, THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-8009

APL

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

WRA
ARCHITECTURAL/ENGINEERING DESIGNER

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTPELIER RESEARCH PARK - PARCEL B

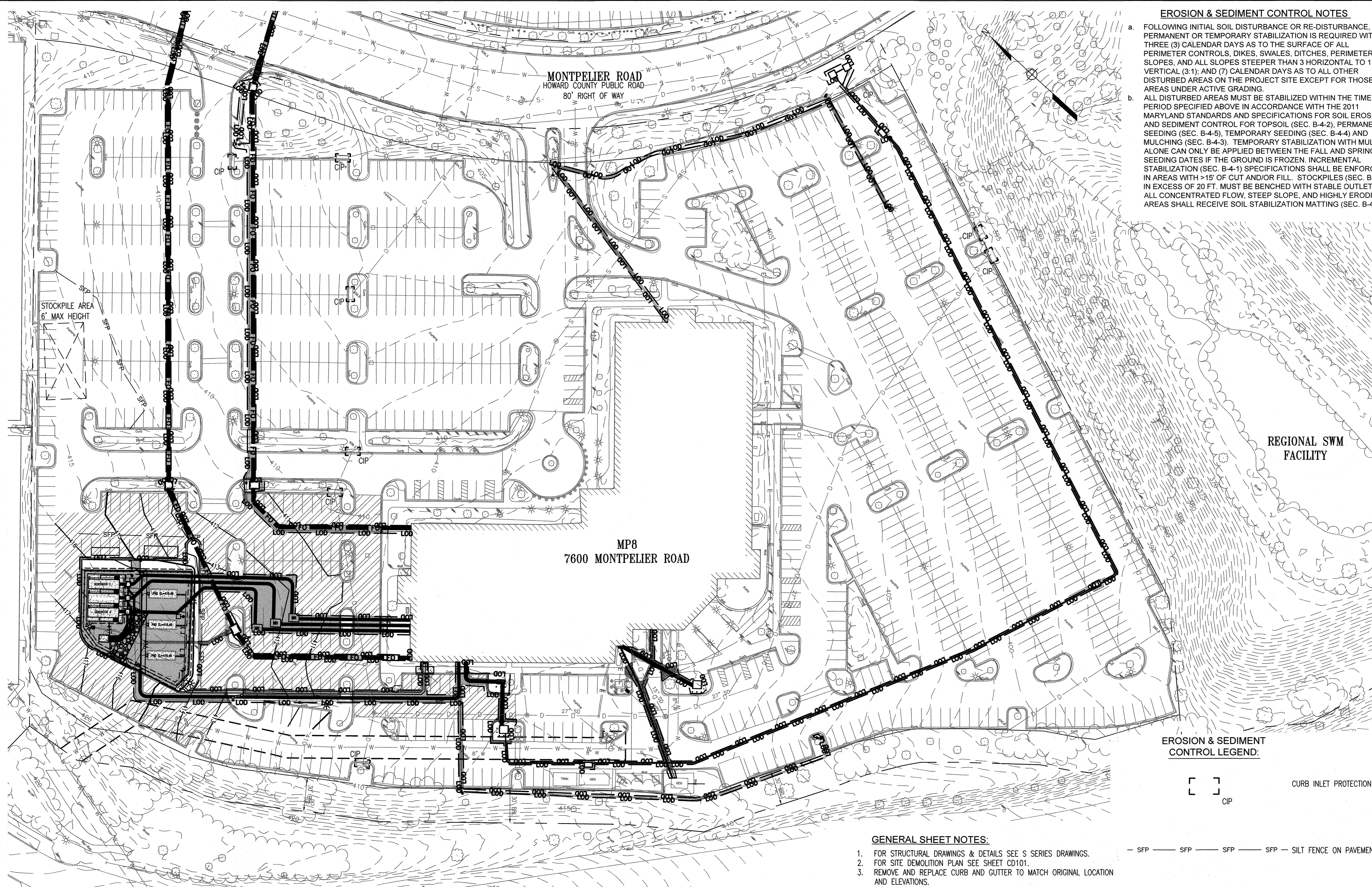
AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

EQUIPMENT YARD GRADING PLAN

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER:
CHECKED BY: AUO C104
CODE REVIEW:



EROSION & SEDIMENT CONTROL NOTES

- a. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- b. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).

KEY PLAN

PROJECT NORTH

SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS
APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD, LAUREL, MD 20723-6009

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW
OFFICE BUILDING
AT MONTEPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED
SITE DEVELOPMENT PLAN

EROSION & SEDIMENT CONTROL PLAN

REVISION LOG

#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD
CHECKED BY: AUO
CODE REVIEW:

DRAWING NUMBER:
C105

SHEET 17 OF 31

EROSION & SEDIMENT CONTROL LEGEND:

- CIP CURB INLET PROTECTION
- SFP SILT FENCE ON PAVEMENT
- LOD LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE

GENERAL SHEET NOTES:

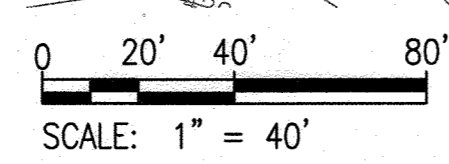
1. FOR STRUCTURAL DRAWINGS & DETAILS SEE S SERIES DRAWINGS.
2. FOR SITE DEMOLITION PLAN SEE SHEET CD101.
3. REMOVE AND REPLACE CURB AND GUTTER TO MATCH ORIGINAL LOCATION AND ELEVATIONS.

NOTES:
ALL UTILITY TRENCHES SHALL BE LIMITED TO 100 FEET PER DAY AND ALL TRENCHES SHALL BE STABILIZED WITHIN 24 HOURS OF OPENING. SPOILS FROM TRENCHES SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH.

LOD FOR THIS WORK IS 37,771 SF (0.87 ACRES)

LEGEND:

- CONCRETE PAVEMENT OR PAD.
- ASPHALT PAVEMENT OR REPAIR.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Lynda Esobry 9/18/23
DIRECTOR DATE

Basil Shaw 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

[Signature] 28 JUL 2023
OWNER/DEVELOPER SIGNATURE DATE

NICHOLAS CASWELL ASST. GROUP SUP.
PRINT NAME & TITLE

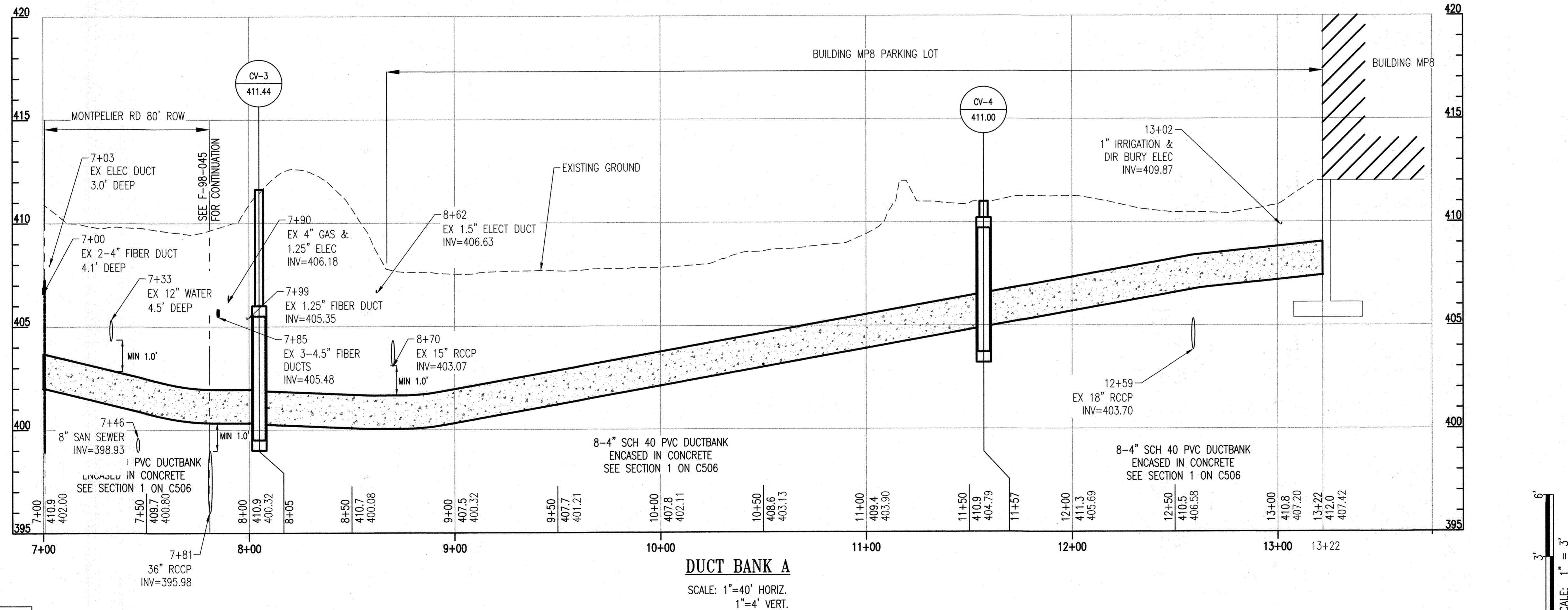
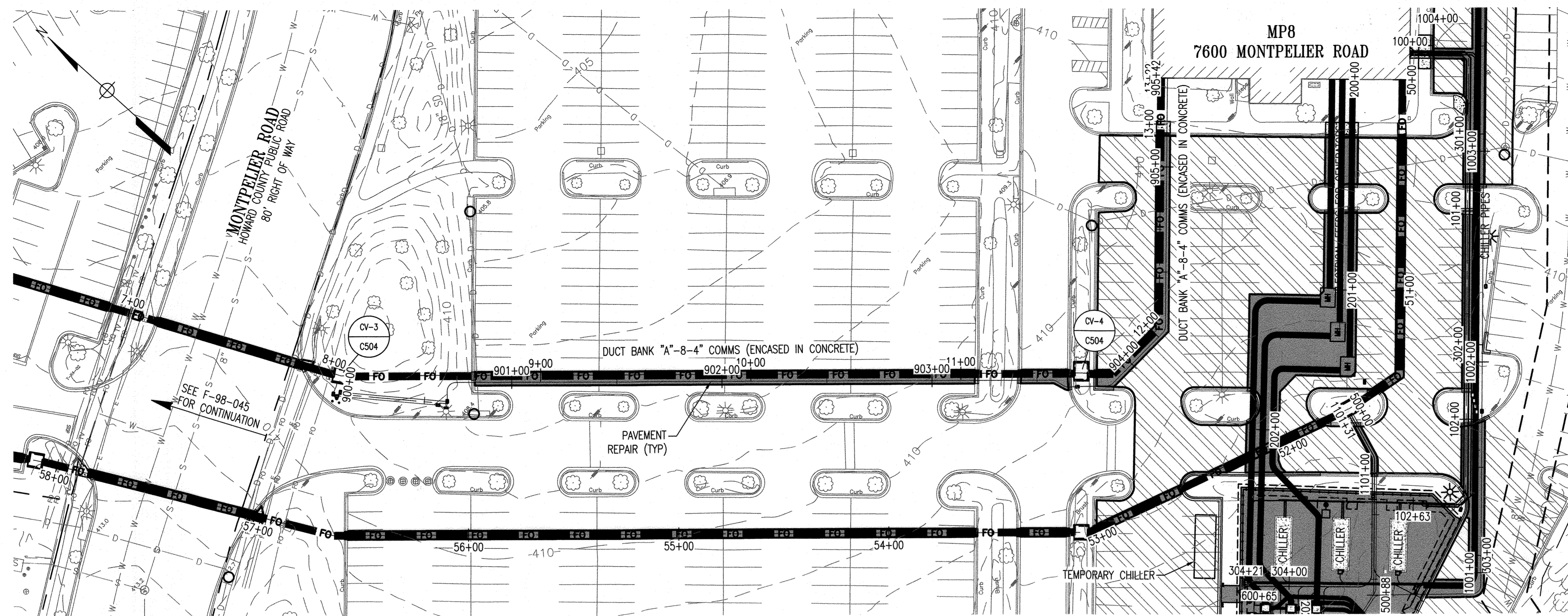
I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Anthony H. Olsen 7/19/2023
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) DATE

Anthony H. Olsen
PRINTED NAME

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

[Signature] 08/23/23
HOWARD SOIL CONSERVATION DISTRICT DATE

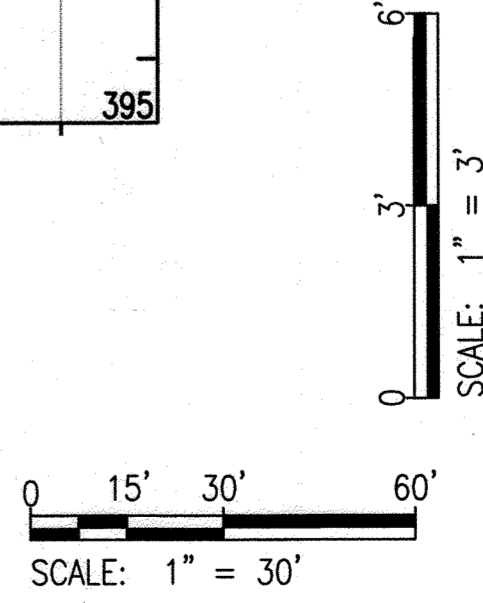


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Jude Esteban 9/18/23
DIRECTOR DATE

Raul P. ... 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



KEY PLAN

PROJECT NORTH

SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS
APPLIED PHYSICS LABORATORY
11100 JOHN HOPKINS ROAD, LAUREL, MD 20723-6089

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers, Architects, Environmental Planners

ARCHITECTURAL ENGINEERING DESIGNER

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW
OFFICE BUILDING
AT MONPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED
SITE DEVELOPMENT PLAN

DUCT BANK A
STATION 7+00 TO 13+22

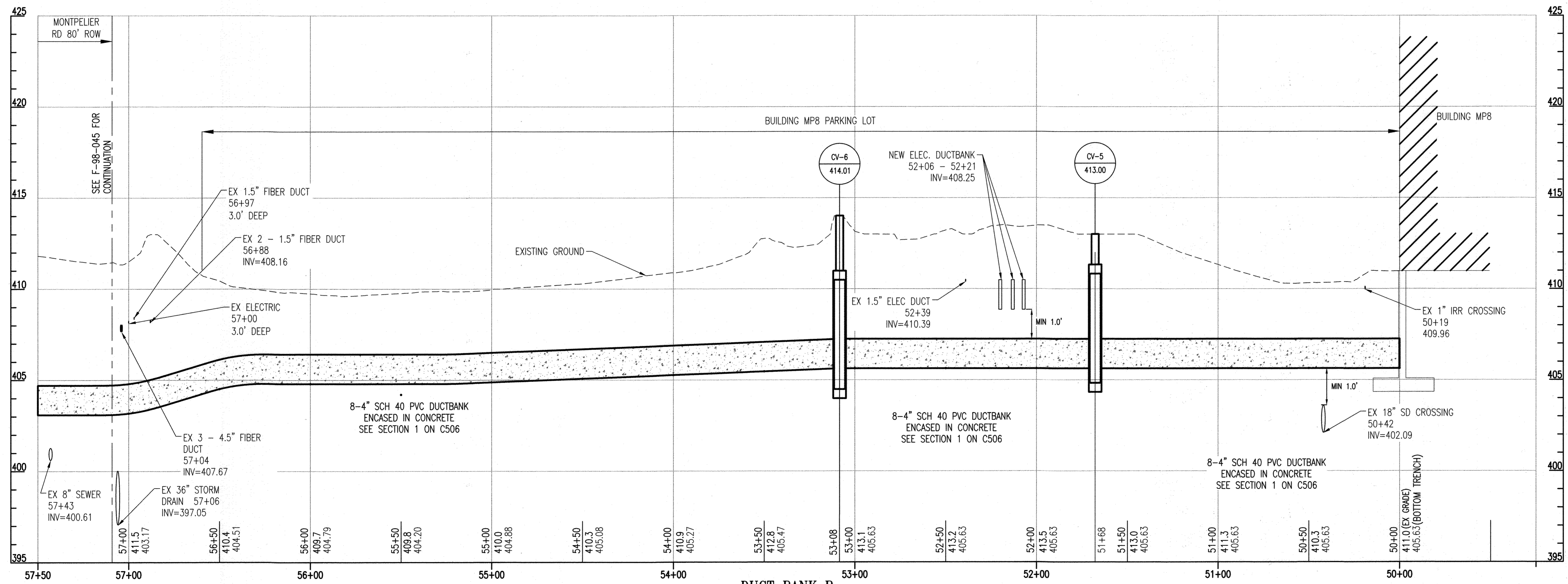
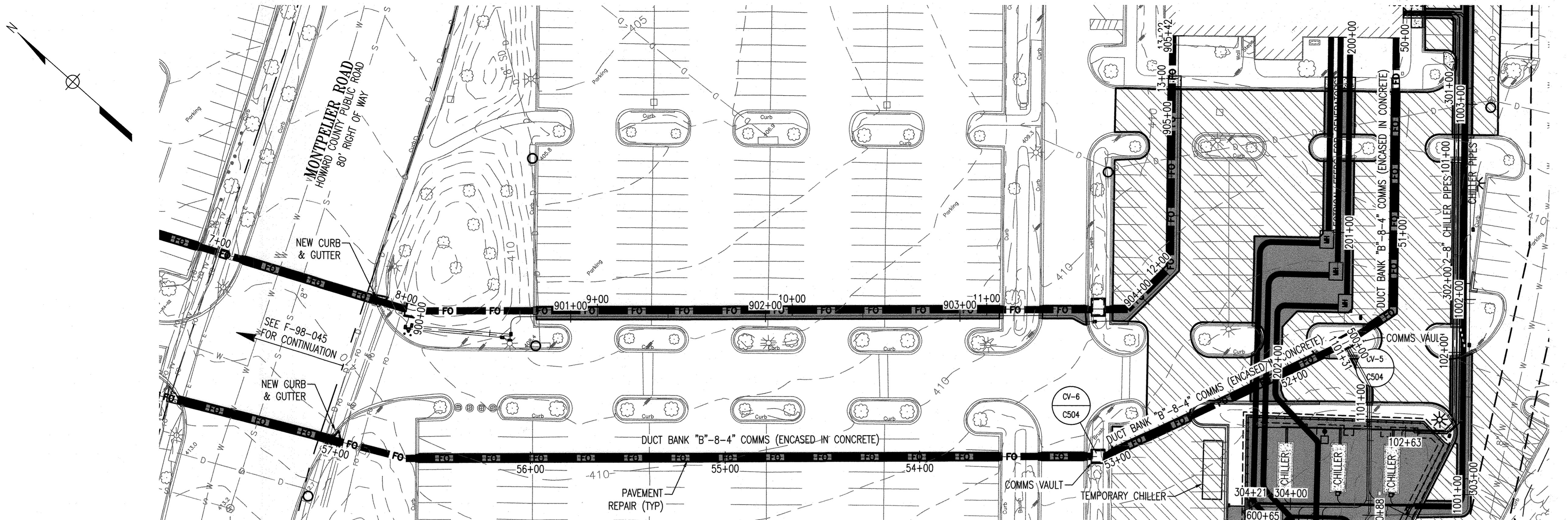
REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER:
C201

CHECKED BY: AUJ

CODE REVIEW:

SHEET 18 OF 31
SDP-98-137



DUCT BANK B
SCALE: 1"=40' HORIZ.
1"=4' VERT.

0 15' 30' 60'
SCALE: 1" = 30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Lynda Easton 9/18/23
 DIRECTOR DATE
Paul Slem 9.1.23
 CHIEF DEVELOPMENT ENGINEERING DIVISION DATE
Paul Slem 9/18/23
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

KEY PLAN

 PROJECT NORTH

SEAL

 PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
 11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6009
APL ARCHITECTURAL ENGINEERING DESIGNER
WRX Whitman, Reardon & Associates, LLP
 Est. 1915
 Engineers - Architects - Environmental Planners

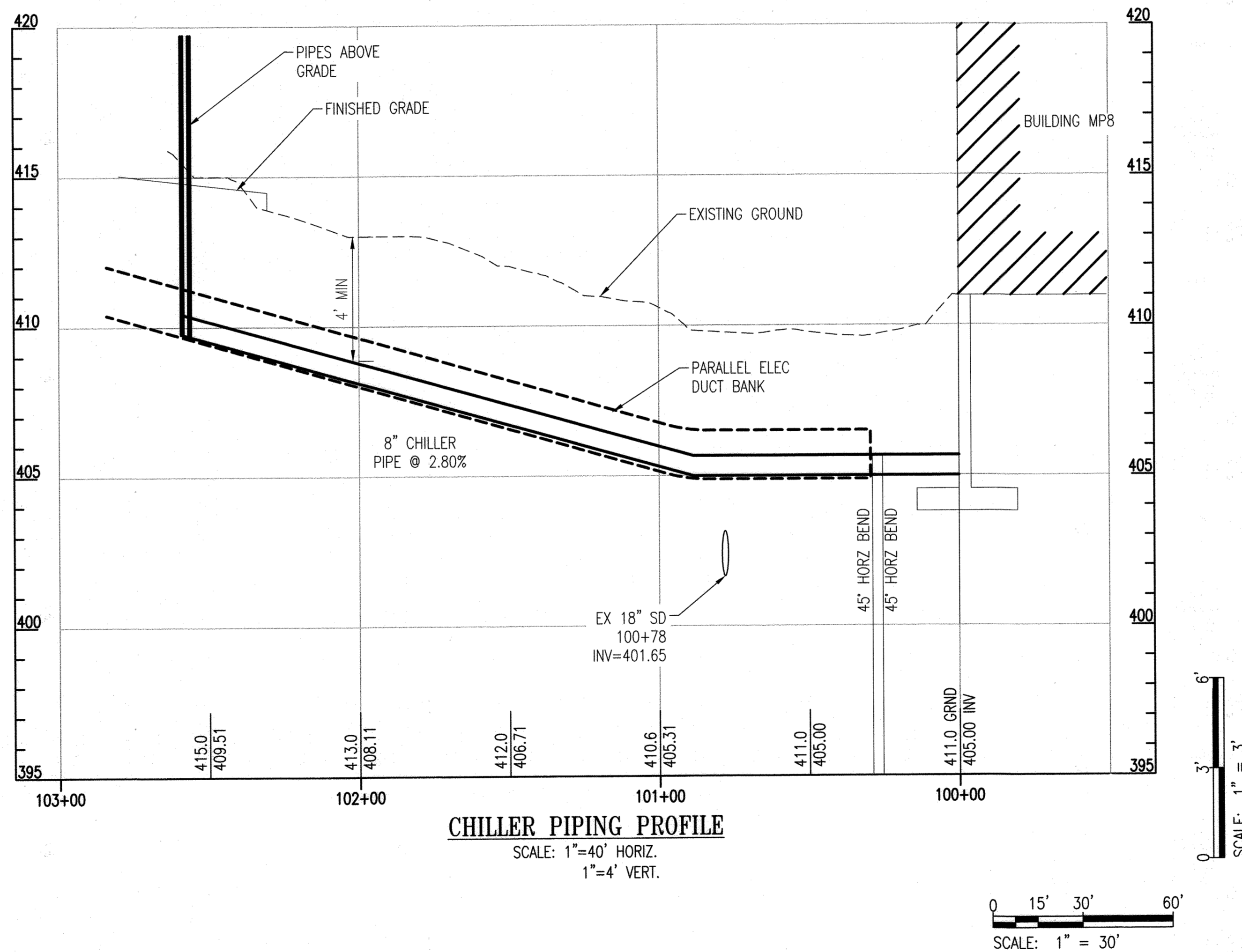
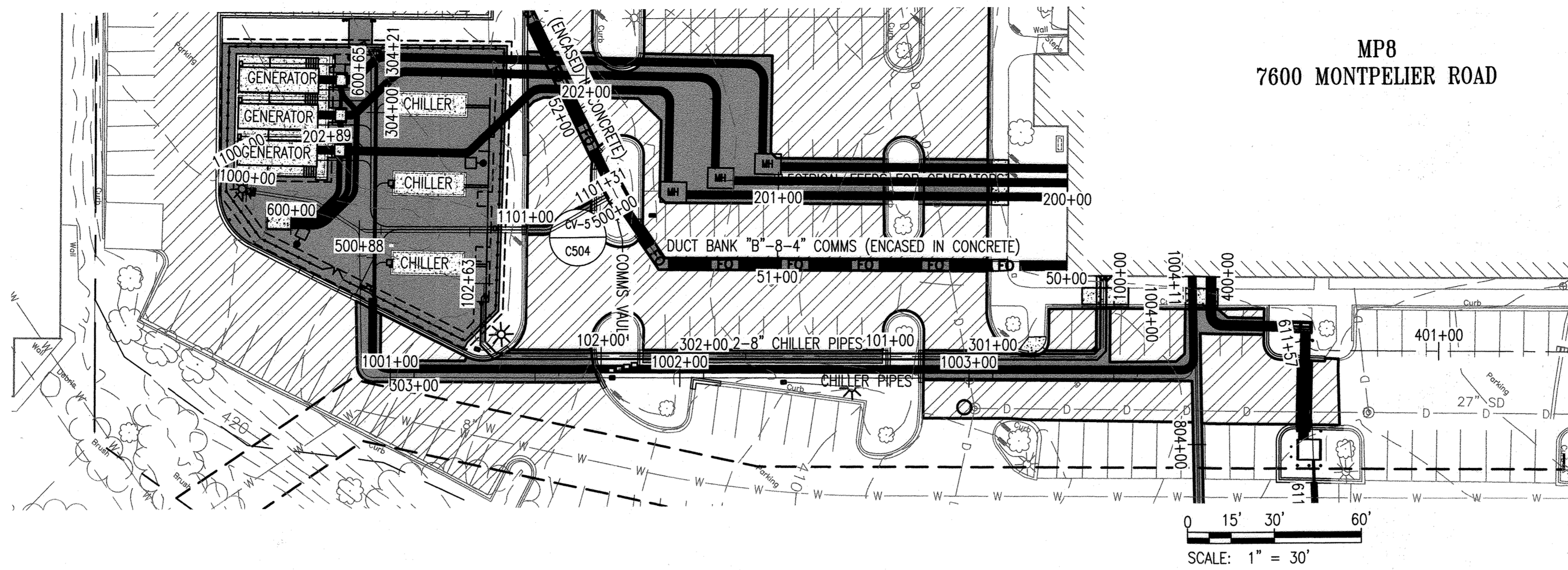
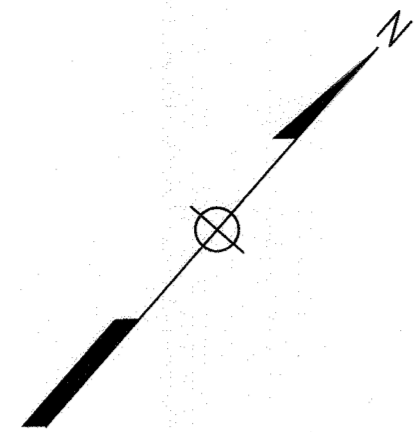
OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 9030 RED BRANCH ROAD SUITE 200 COLUMBIA, MD 21045
 DEVELOPER: TRAMMELL CROW COMPANY
 6701 DEMOCRACY BLVD SUITE 410 BETHESDA, MD 20317
 PROJECT: TRAMMELL CROW OFFICE BUILDING
 AT MONTEPELIER RESEARCH PARK - PARCEL B
 AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC GRID 17 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

DUCT BANK B
STATION 50+00 TO 57+00

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER: C202
 CHECKED BY: AUC
 CODE REVIEW:
 SHEET 19 OF 31
 SDP-98-137



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 9/18/23
DIRECTOR DATE

[Signature] 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

KEY PLAN

PROJECT NORTH

SEAL

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND, THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 13376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6089

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

ARCHITECTURAL ENGINEERING DESIGNER

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

CHILLER PIPES PROFILE

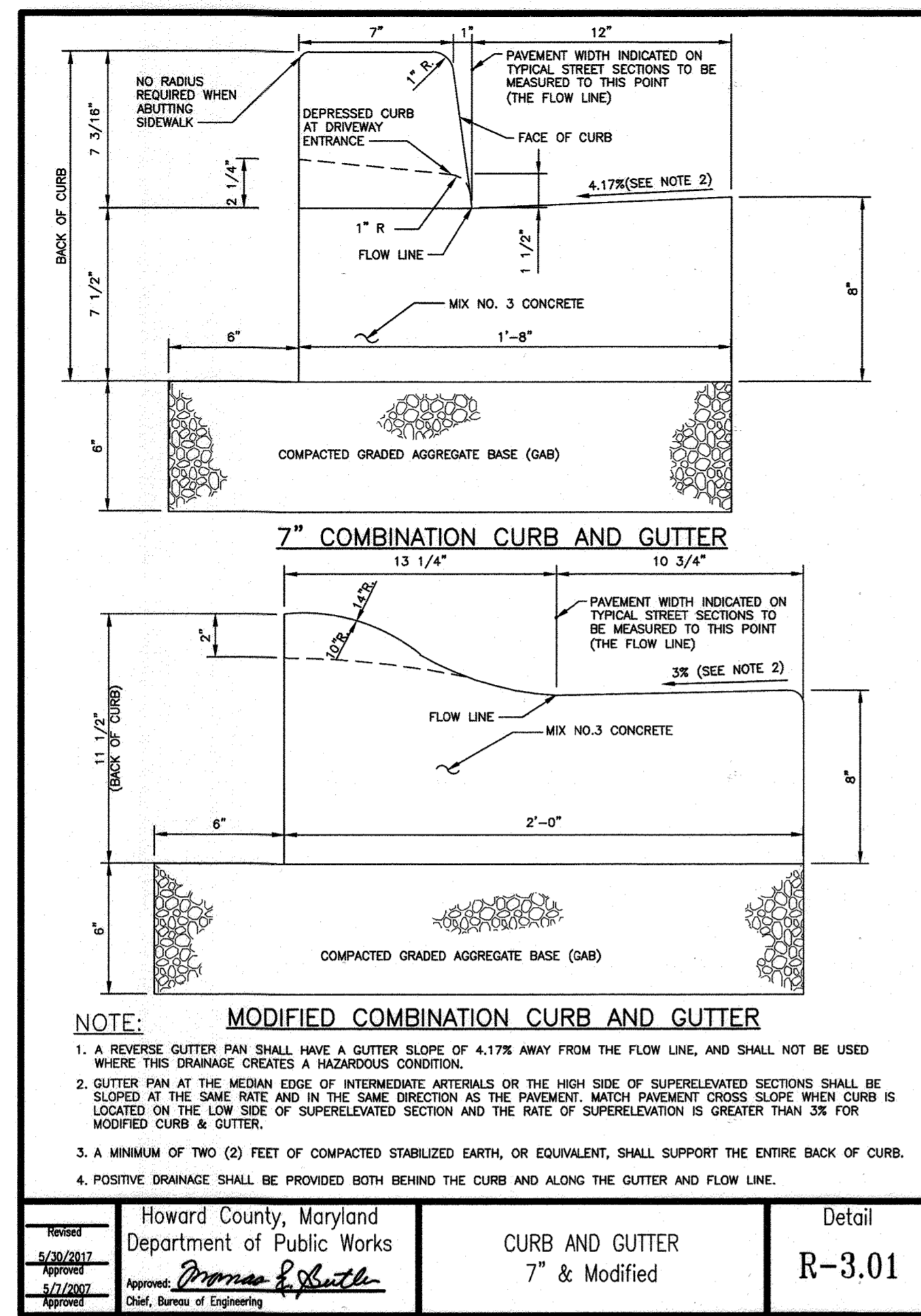
REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER: C203

CHECKED BY: AUO

CODE REVIEW:

SHEET 20 OF 31



Revised 5/20/2017 Approved 5/17/2007	Howard County, Maryland Department of Public Works Approved: <i>Thomas & Smith</i> Chief, Bureau of Engineering	CURB AND GUTTER 7" & Modified	Detail R-3.01
---	--	----------------------------------	------------------

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	3 TO <5		5 TO <7		≥ 7			
			MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB	MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB	MIN. SUPERPAVE ASPHALT MIX WITH GAB	SUPERPAVE ASPHALT MIX WITH CONSTANT GAB		
P-1	PARKING BAYS: RESIDENTIAL AND NON-RESIDENTIAL PARKING DRIVE ASILES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 2 HEAVY TRUCKS PER DAY	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE (NA) SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5	1.5	1.5		
			2.0	2.0	2.0	3.5	3.0	2.5		
			GRADED AGGREGATE BASE (GAB)							
			SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL) GRADED AGGREGATE BASE (GAB)							
P-2	PARKING DRIVE ASILES: RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SACS: NON-RESIDENTIAL MINOR COLLECTORS: RESIDENTIAL	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL) GRADED AGGREGATE BASE (GAB)	1.5	1.5	1.5	1.5	1.5	1.5		
			2.0	2.0	2.0	3.5	2.0	2.0		
			GRADED AGGREGATE BASE (GAB)							
			SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL) GRADED AGGREGATE BASE (GAB)							
P-3	RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY LOCAL ROADS: ACCESS PLACE, ACCESS STREET CUL-DE-SACS: NON-RESIDENTIAL MINOR COLLECTORS: RESIDENTIAL	SUPERPAVE ASPHALT MIX FINAL SURFACE 9.5 MM PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 9.5 MM, PG 64-22S, LEVEL 1 (ESAL) SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 1 (ESAL) GRADED AGGREGATE BASE (GAB)	1.5	1.5	1.5	1.5	1.5	1.5		
			1.0	1.0	1.0	1.0	1.0	1.0		
			3.0	3.0	3.0	4.5	3.0	2.0		
			GRADED AGGREGATE BASE (GAB)							
P-4	MINOR COLLECTORS: NON-RESIDENTIAL MAJOR COLLECTORS	SUPERPAVE ASPHALT MIX FINAL SURFACE 12.5 MM, PG 64-22S, LEVEL 2 (LOW ESAL) SUPERPAVE ASPHALT MIX INTERMEDIATE SURFACE 12.5 MM, PG 64-22S, LEVEL 2 (LOW ESAL) SUPERPAVE ASPHALT MIX BASE 19.0 MM, PG 64-22S, LEVEL 2 (LOW ESAL) GRADED AGGREGATE BASE (GAB)	2.0	2.0	2.0	2.0	2.0	2.0		
			2.0	2.0	2.0	2.0	2.0	2.0		
			4.0	4.0	3.0	6.0	5.0	3.0		
			GRADED AGGREGATE BASE (GAB)							

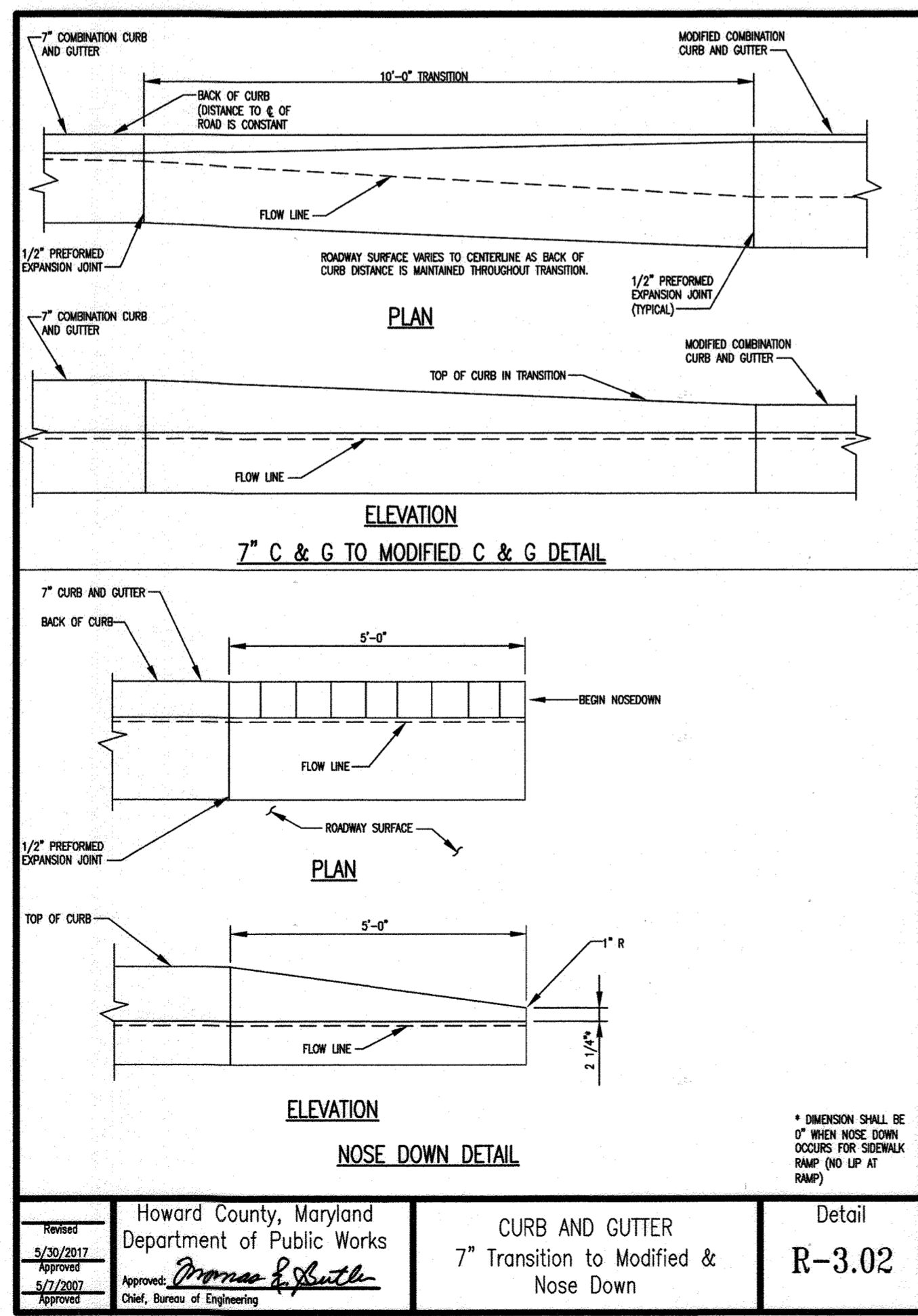
NOTES

- HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARBAGE TRUCKS.
- SUPERPAVE ASPHALT MIX LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 19.0 MM BASE (2.0" MIN. TO 4.0" MAX.), 12.5 MM SURFACE (1.5" MIN. TO 3.0" MAX.), AND 9.5 MM SURFACE (1.0" MIN. TO 2.0" MAX.).
- GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 6" MAX. COMPACTED THICKNESS LAYERS.
- THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE, AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.
- IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE AUXILIARY LANES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.
- THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

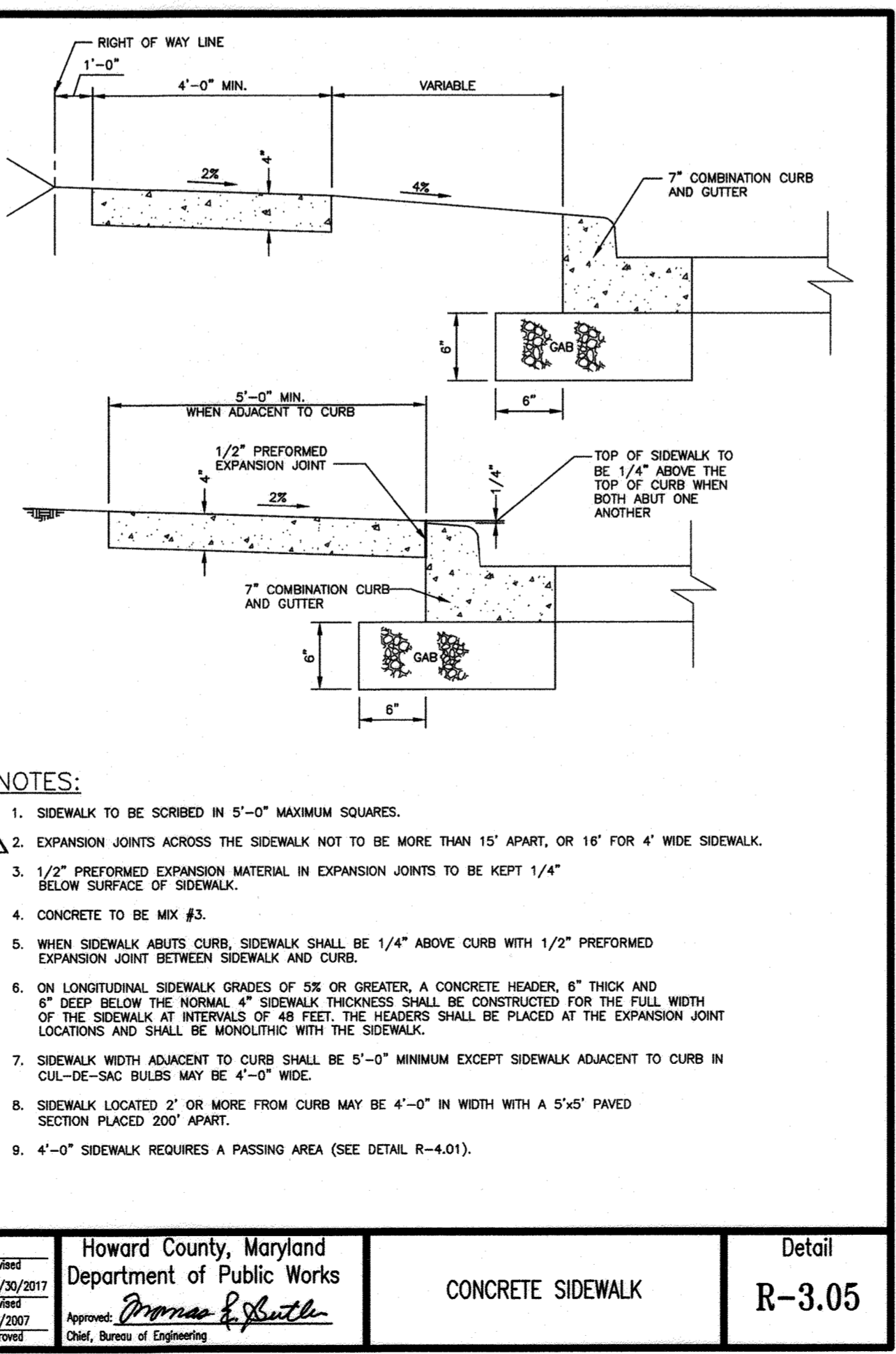
Howard County, Maryland
Department of Public Works
Approved: *Thomas & Smith*
Chief, Bureau of Engineering

PAVING SECTIONS
P-1 to P-4

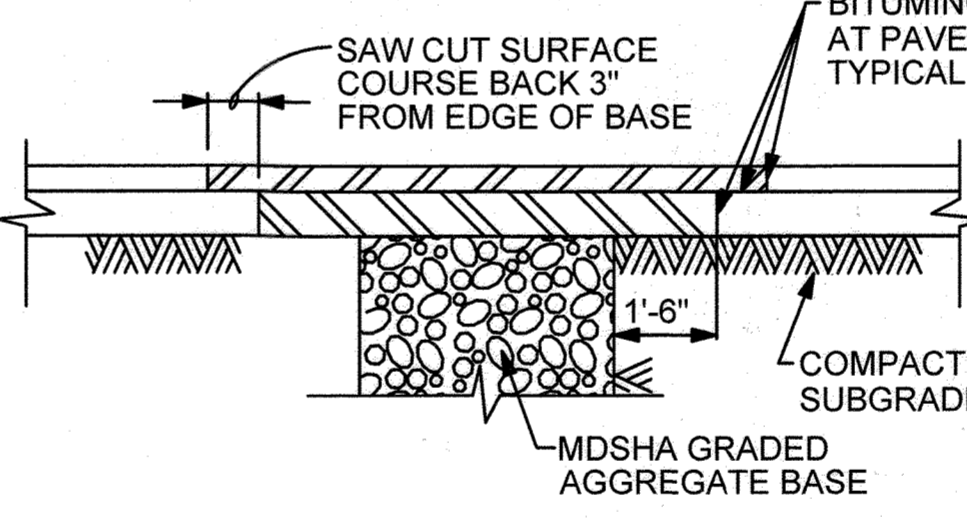
Detail
R-2.01



Revised 5/20/2017 Approved 5/17/2007	Howard County, Maryland Department of Public Works Approved: <i>Thomas & Smith</i> Chief, Bureau of Engineering	CURB AND GUTTER 7" Transition to Modified & Nose Down	Detail R-3.02
---	--	--	------------------



Revised 5/20/2017 Approved 5/17/2007	Howard County, Maryland Department of Public Works Approved: <i>Thomas & Smith</i> Chief, Bureau of Engineering	CONCRETE SIDEWALK	Detail R-3.05
---	--	-------------------	------------------



- NOTES:**
- BITUMINOUS PAVEMENT SHALL BE PROVIDED IN ACCORDANCE WITH SPECIFICATIONS.
 - PROVIDE A MINIMUM PAVEMENT SECTION CONSISTING OF TOP 2" LAYER OF MDSHA SUPERPAVE 9.5 MM PG 64-22 LEVEL 1 AND BASE 3" LAYER OF MDSHA SUPERPAVE 19.0 MM PG 64-22 LEVEL 1.
 - IF EXISTING PAVEMENT SECTION IS FOUND TO BE THICKER THAN LAYERS SPECIFIED ABOVE, PAVEMENT SECTION THICKNESS SHALL BE INCREASED ACCORDINGLY TO MATCH THE EXISTING SECTION.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Jane Esibey 9/18/23
DIRECTOR DATE

Paul J. ... 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

KEY PLAN

PROJECT NORTH

SEAL

STATE OF MARYLAND
PROFESSIONAL ENGINEER
No. 19979
EXPIRES 12/31/2025

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-8009

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

SITE DETAILS

REVISION LOG

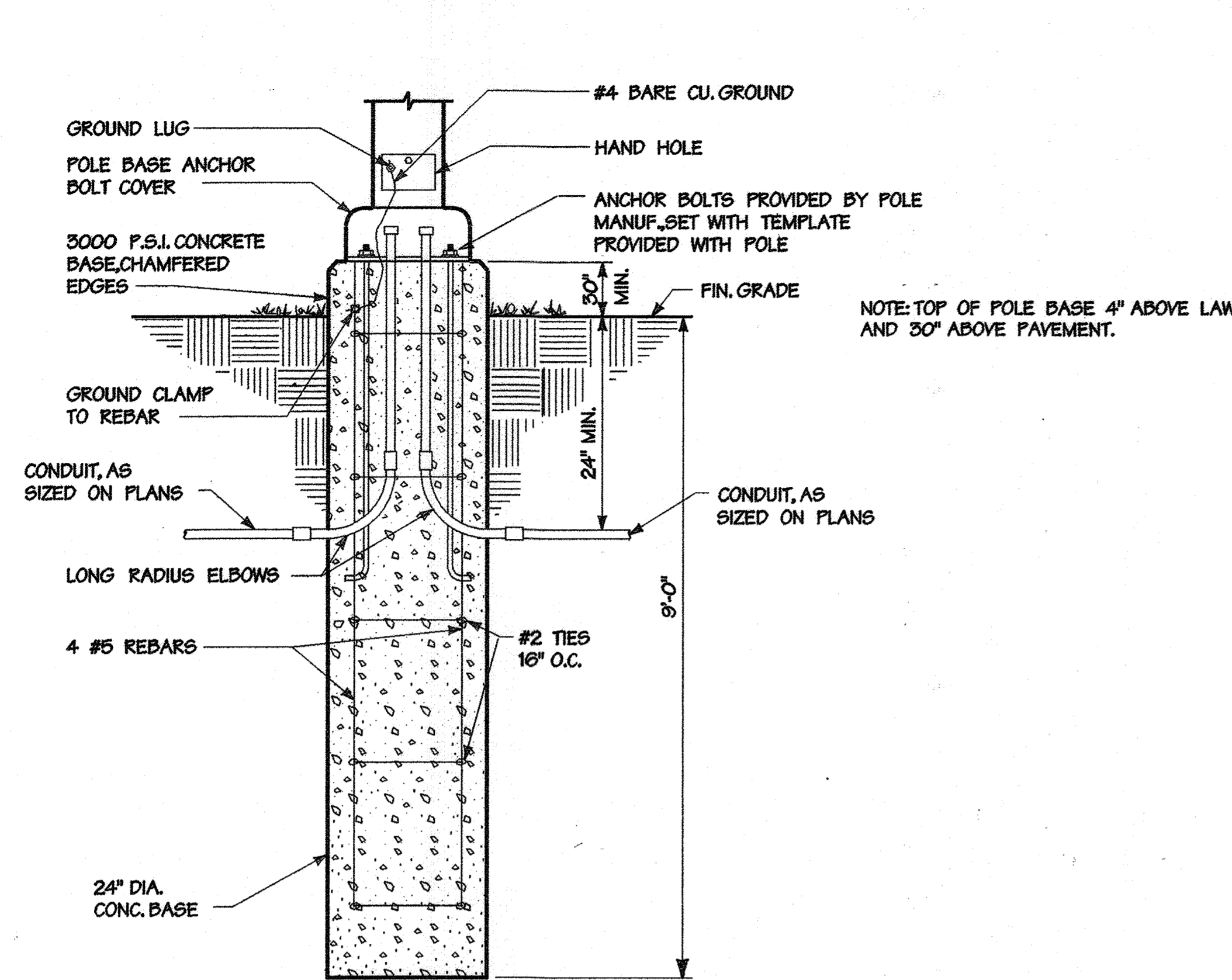
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER:
C501

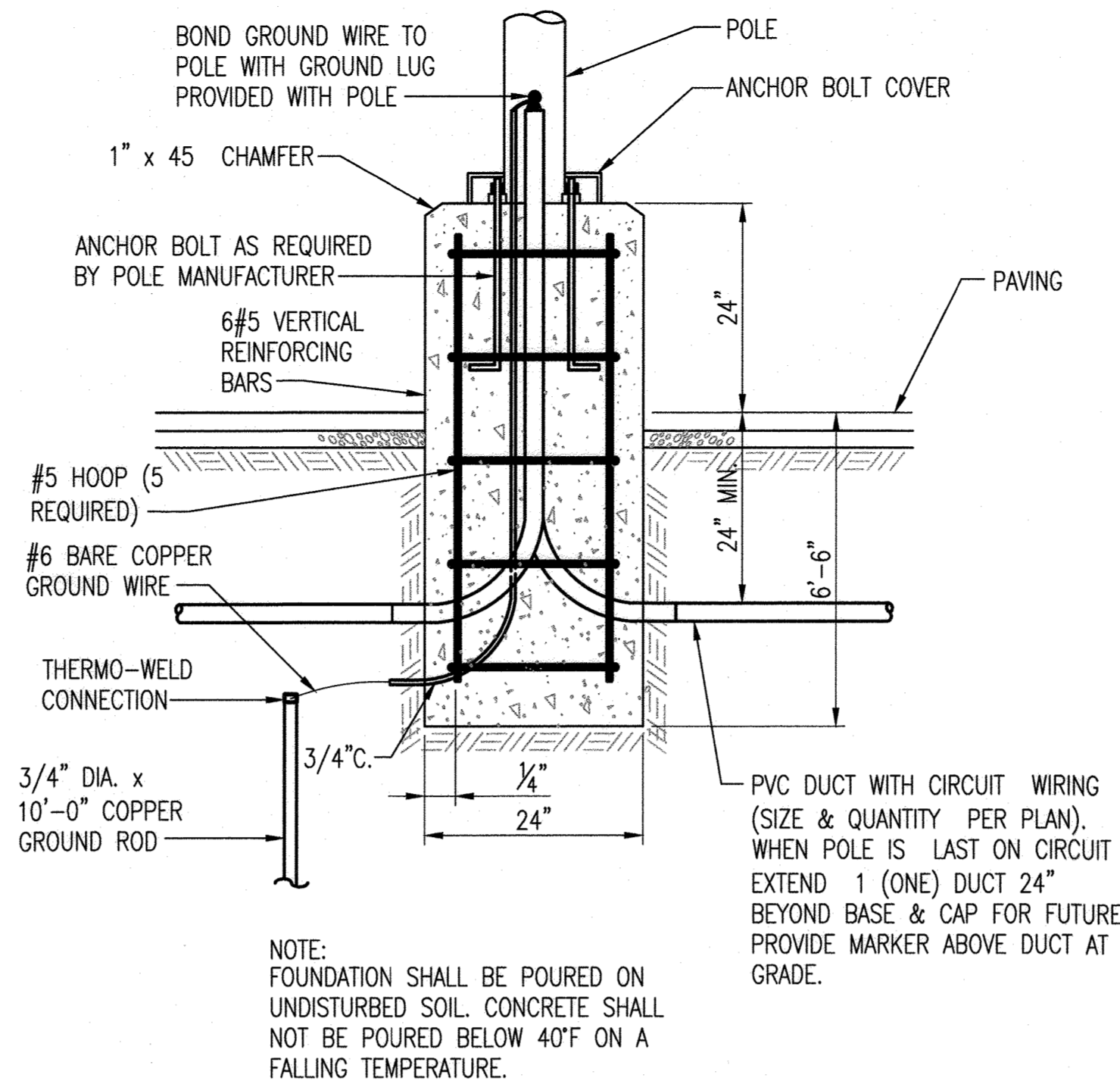
CHECKED BY: AUO

CODE REVIEW:

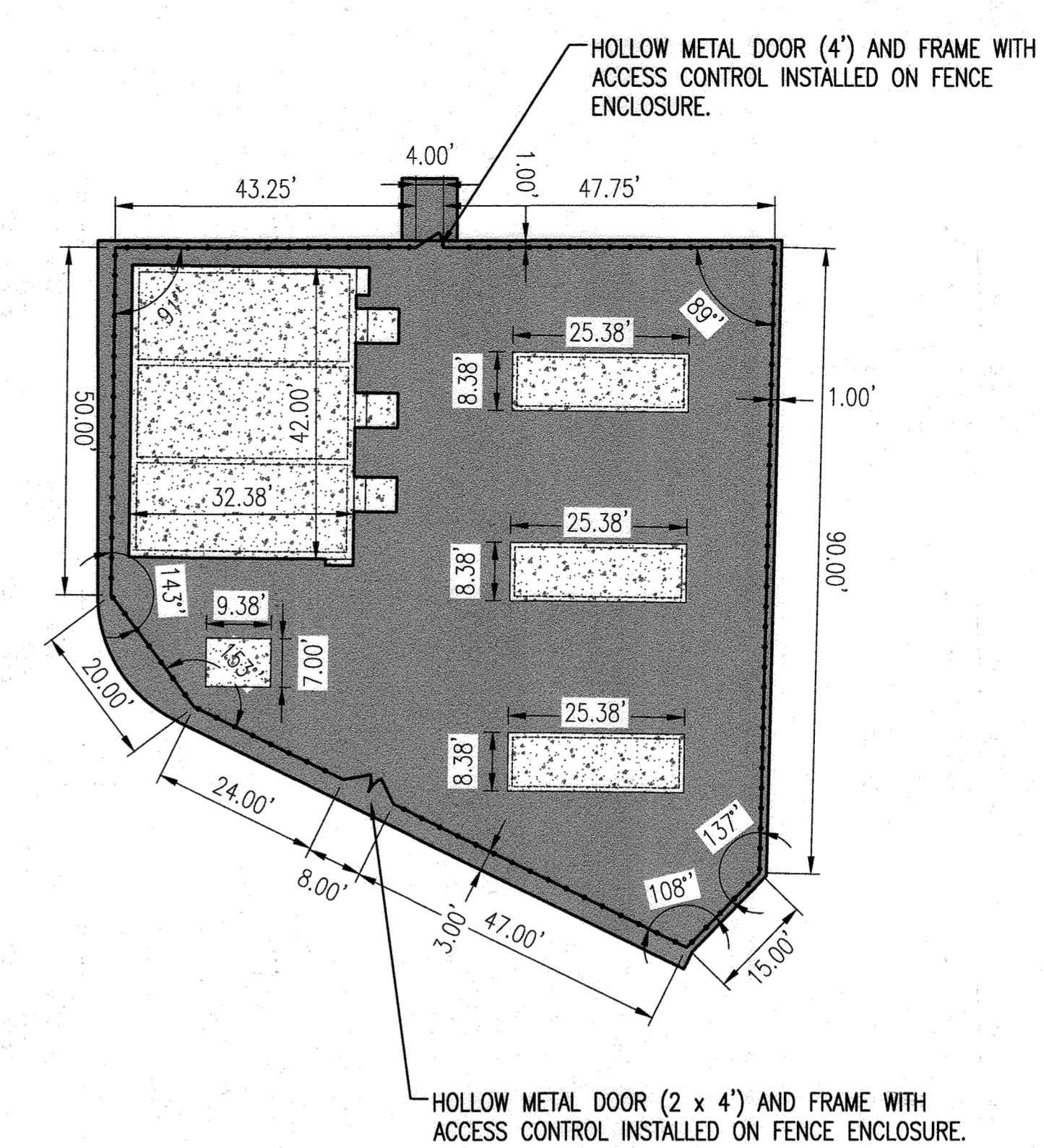
SHEET 21 OF 31



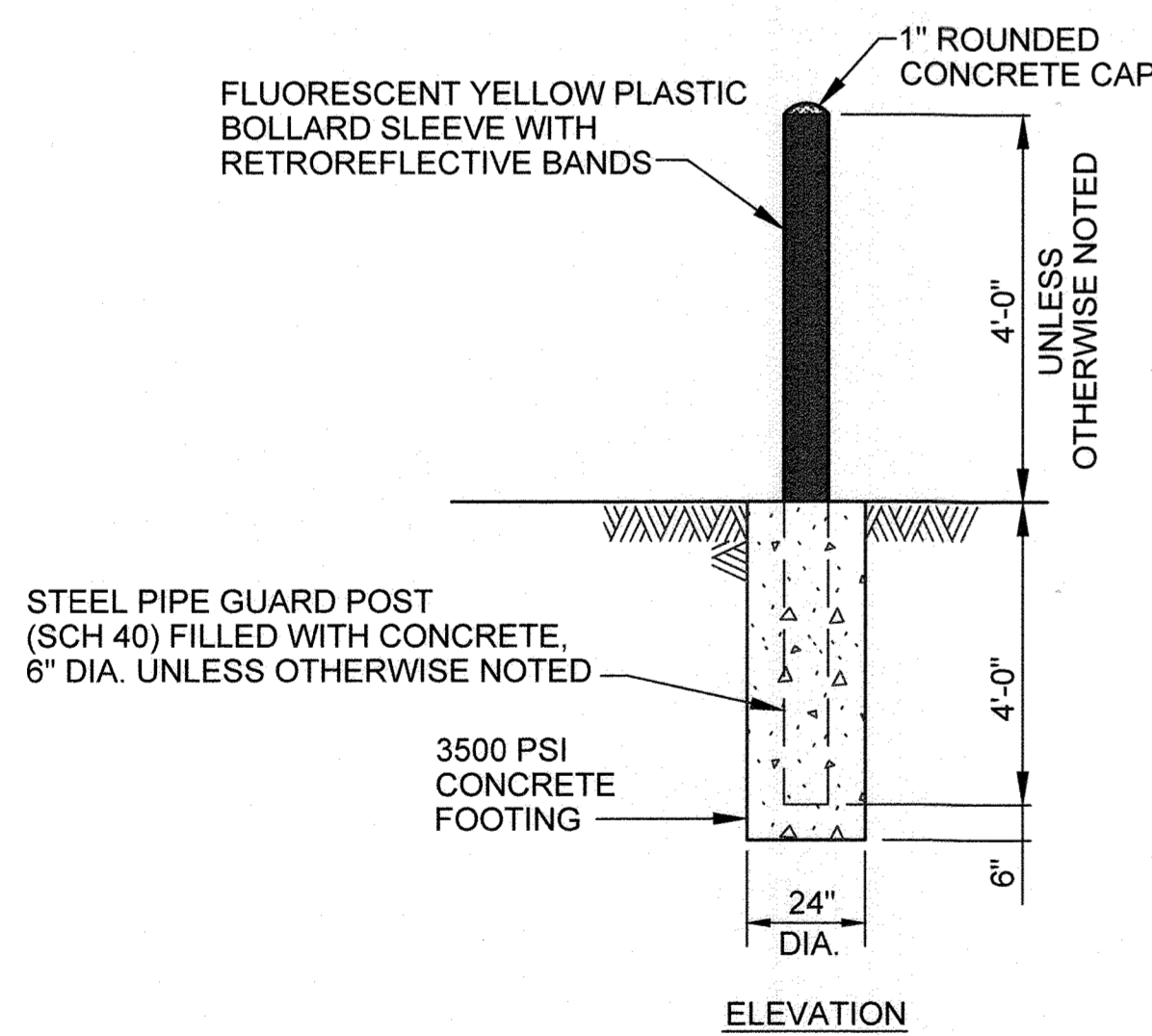
1 PARKING LOT LIGHTING FIXTURE POLE BASE DETAIL
NOT TO SCALE



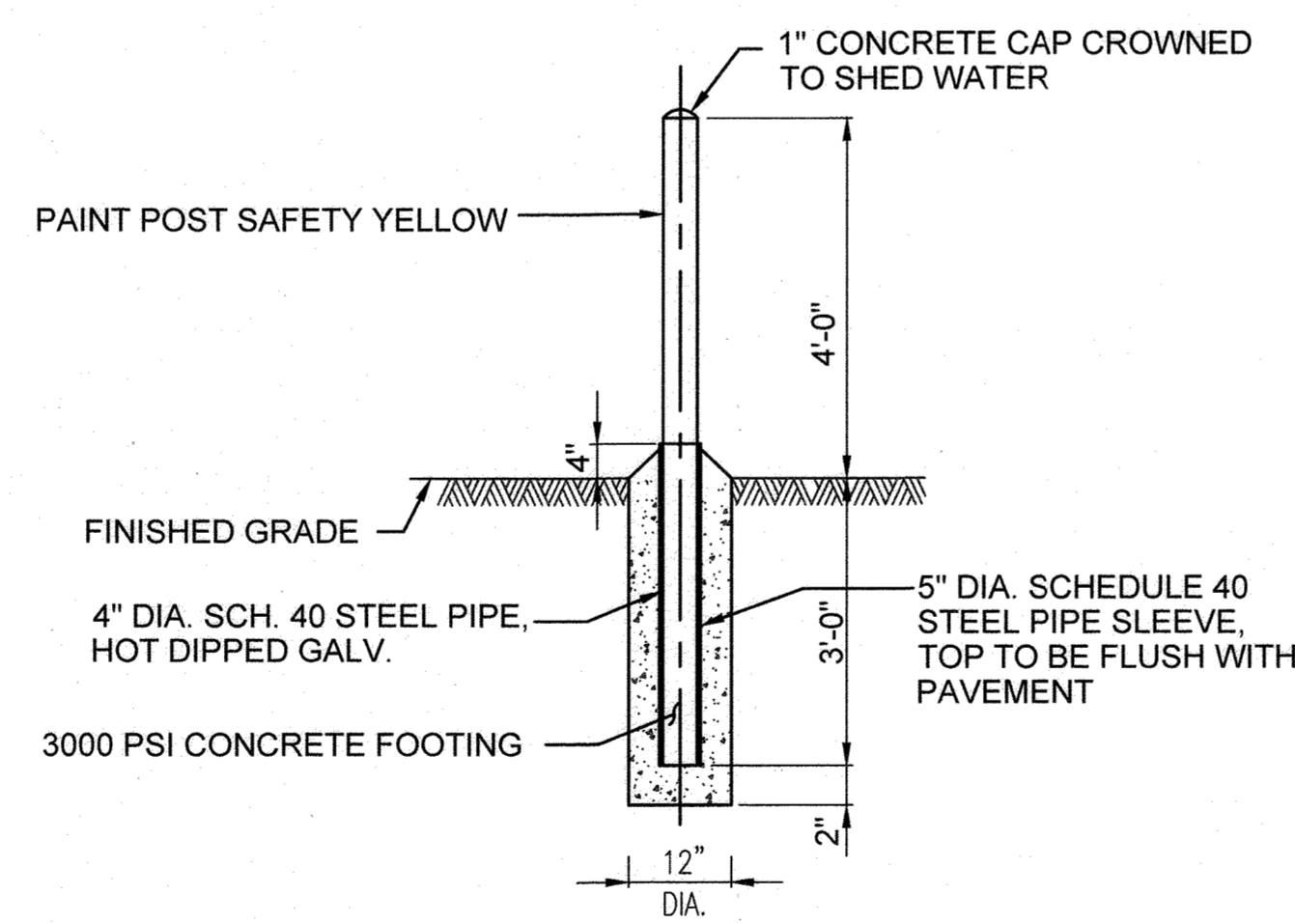
2 AREA LIGHTS FIXTURE POLE BASE DETAIL INSIDE THE EQUIPMENT YARD
NOT TO SCALE



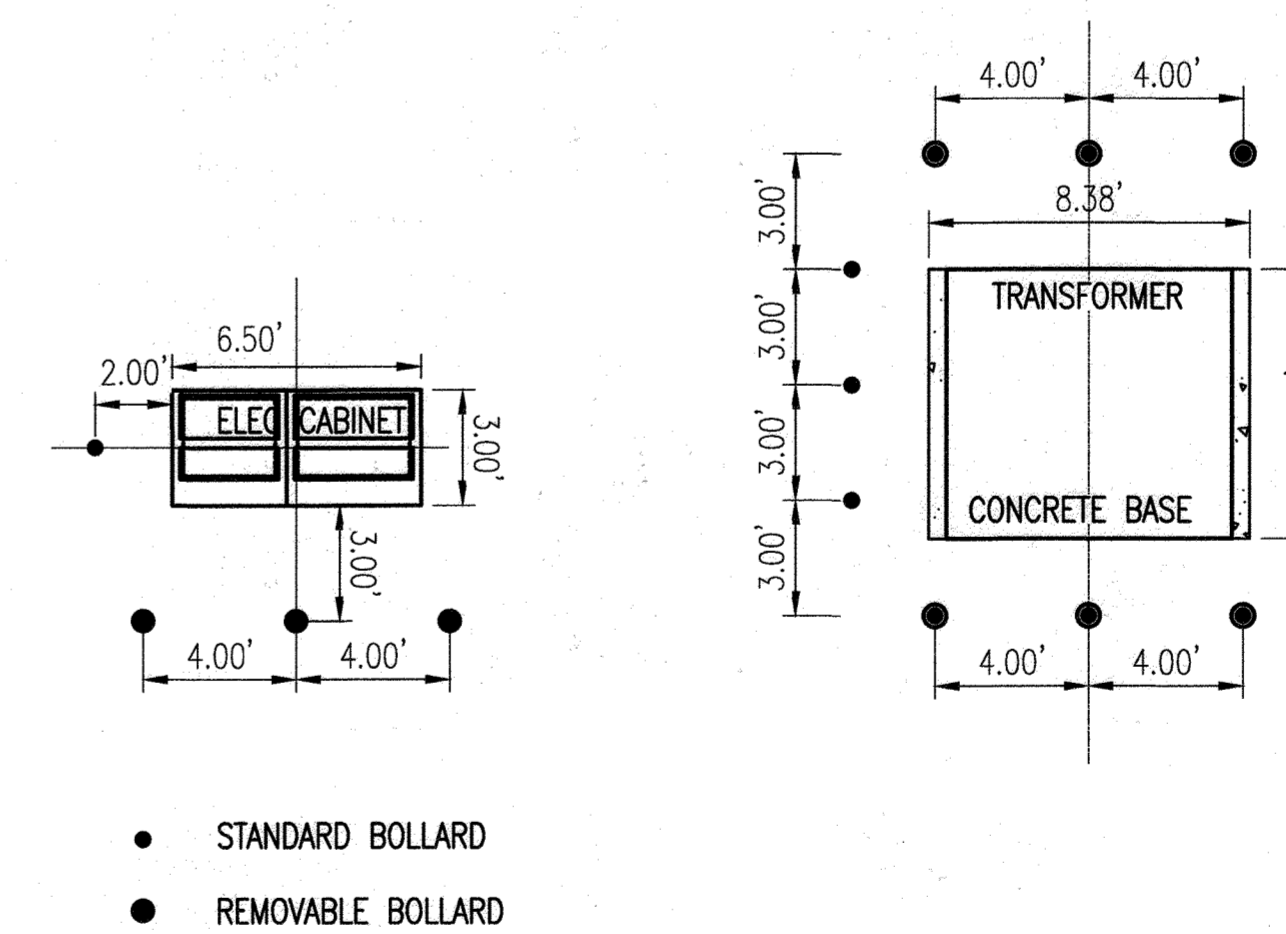
3 EQUIPMENT YARD ENCLOSURE LAYOUT PLAN
SCALE: 1" = 20'



4 STANDARD BOLLARD DETAIL
NOT TO SCALE



5 REMOVABLE PIPE BOLLARD DETAIL
NOT TO SCALE



6 TRANSFORMER/CABINET BOLLARD LAYOUT
SCALE: 1" = 5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director: *[Signature]* 9/18/23
 Chief, Development Engineering Division: *[Signature]* 9.1.23
 Chief, Division of Land Development: *[Signature]* 9/18/23

KEY PLAN
 PROJECT NORTH

SEAL
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
 11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6089
Whitman, Requardt & Associates, LLP
 Environmental Planners
 Est. 1915

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 9030 RED BRANCH ROAD
 SUITE 200
 COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
 6701 DEMOCRACY BLVD
 SUITE 410
 BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
 AT MONTPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
 GRID 17 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

SITE DETAILS

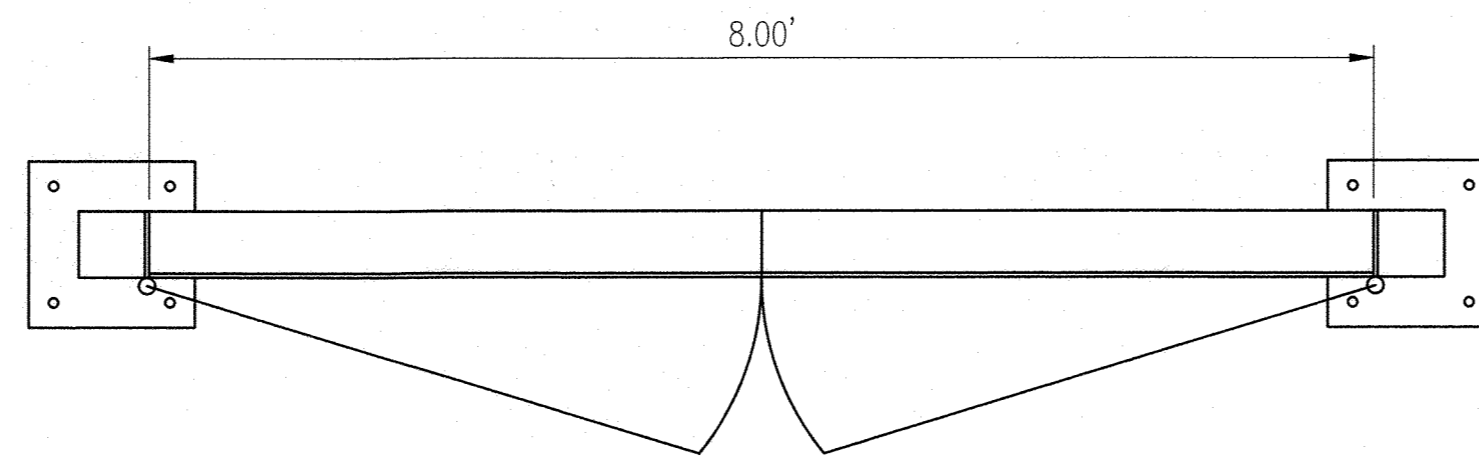
REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD
 CHECKED BY: AUO
 CODE REVIEW:

DRAWING NUMBER:
 C502

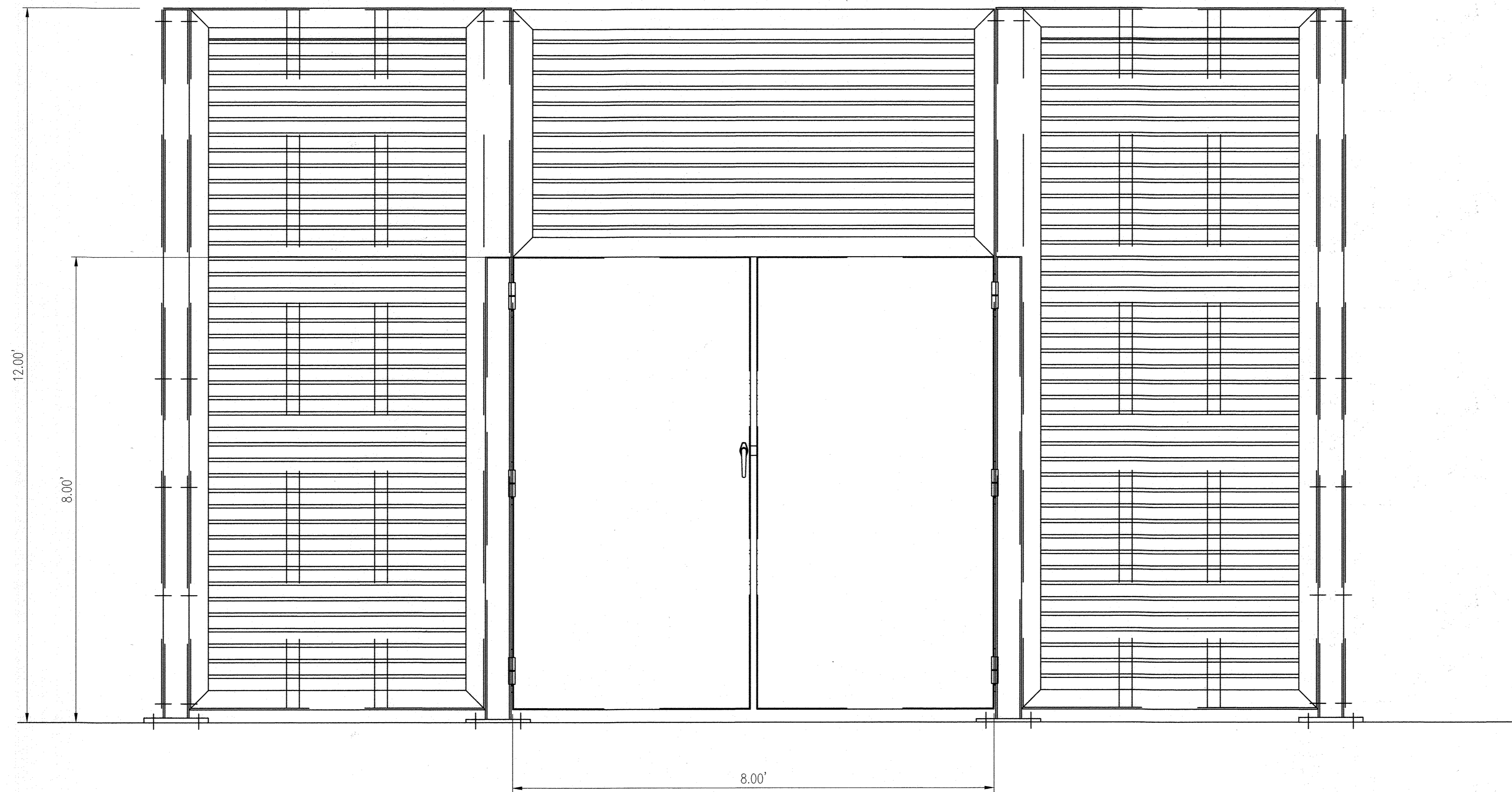
SHEET 22 OF 31

SDP-98-137



PLAN VIEW

1 EQUIPMENT YARD ENCLOSURE DOOR
NOT TO SCALE



ELEVATION VIEW

2 EQUIPMENT YARD ENCLOSURE DOOR & FENCE
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Lynda Eschery 9/18/23
DIRECTOR DATE

Paul R. ... 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

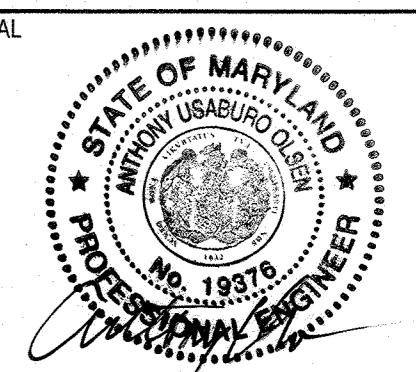
NOTES:

- THE DETAILS ON THIS SHEET ARE BASED ON PALMSHIELD INDUSTRIAL LOUVERS MECHANICAL EQUIPMENT SCREENING. A SUBSTITUTION FOR THIS SYSTEM SHALL BE ALLOWED BUT MUST BE APPROVED BY THE OWNER OR THEIR REPRESENTATIVE. EQUIPMENT SCREENING SHALL BE A DELEGATED DESIGN BY THE MANUFACTURER MUST BE APPROVED BY THE ARCHITECT PRIOR TO FABRICATION AND INSTALLATION.
- EQUIPMENT SCREEN SYSTEM MUST BE PREPARED TO ACCESS HOLLOW METAL DOORS AND FRAMES AS SCHEDULED.

KEY PLAN

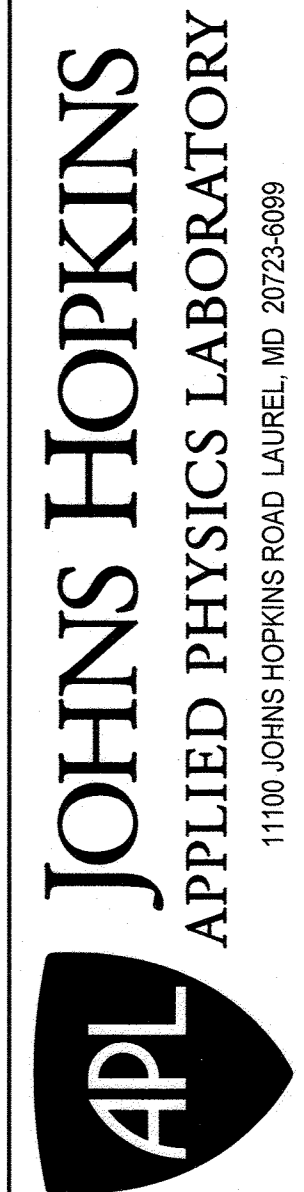


SEAL



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19378 EXPIRATION: 09/22/23



11100 JOHNS HOPKINS ROAD, LAUREL, MD 20723-6099
ARCHITECTURAL ENGINEERING DESIGNER



OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20317

PROJECT: TRAMMELL CROW
OFFICE BUILDING
AT MONTEPELIER RESEARCH PARK - PARCEL B

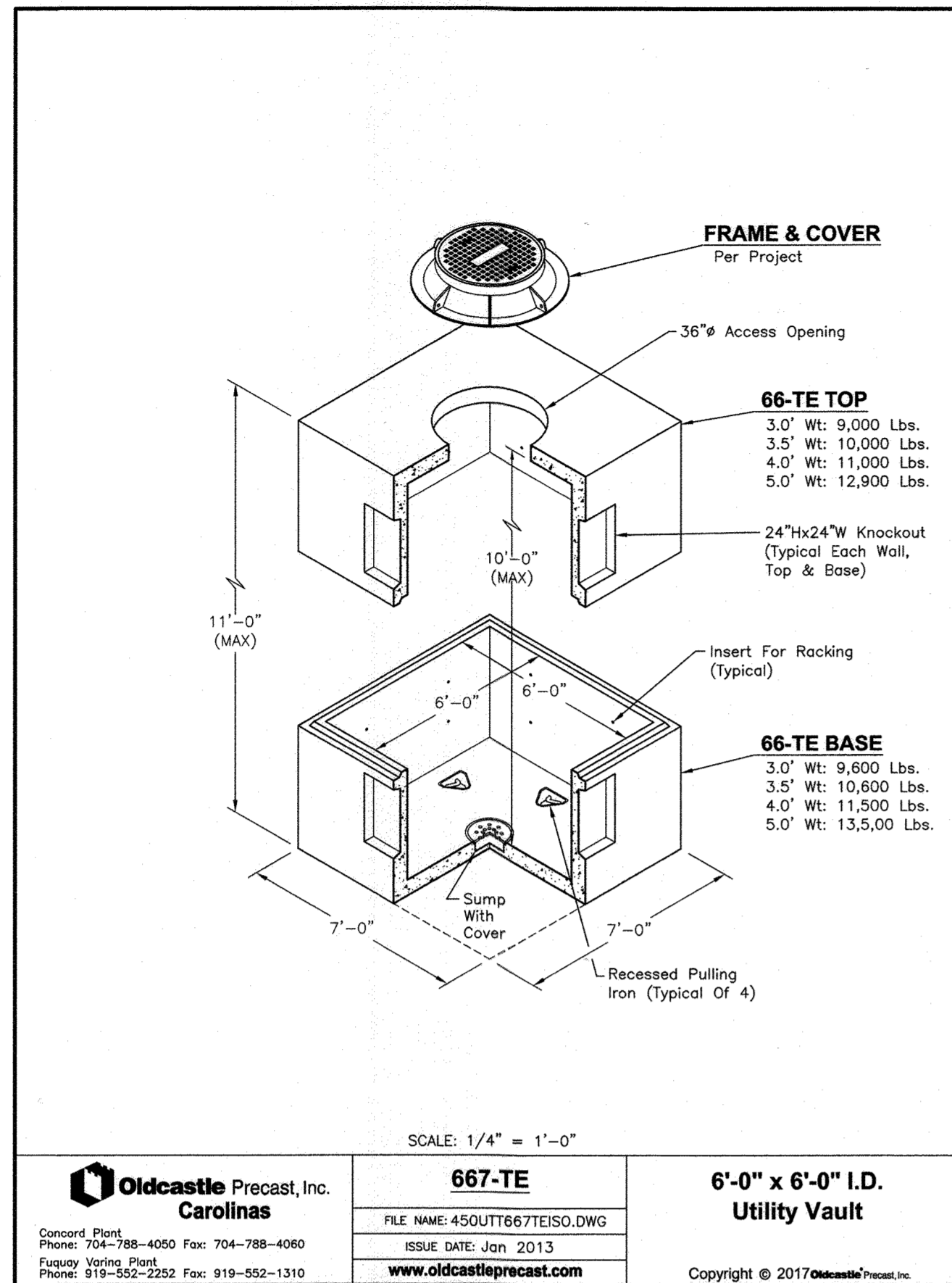
AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED
SITE DEVELOPMENT PLAN

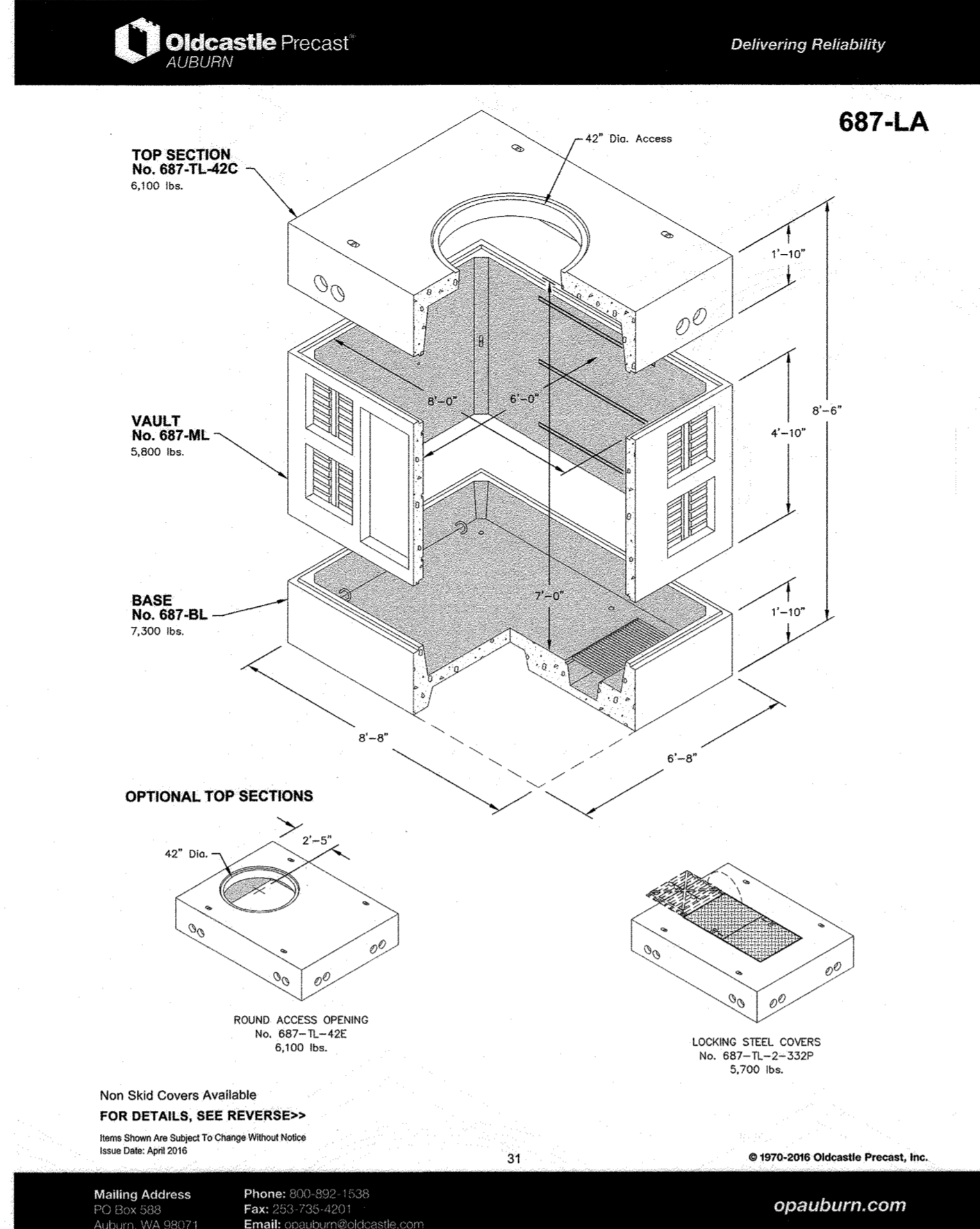
EQUIPMENT YARD
ENCLOSURE DETAILS

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

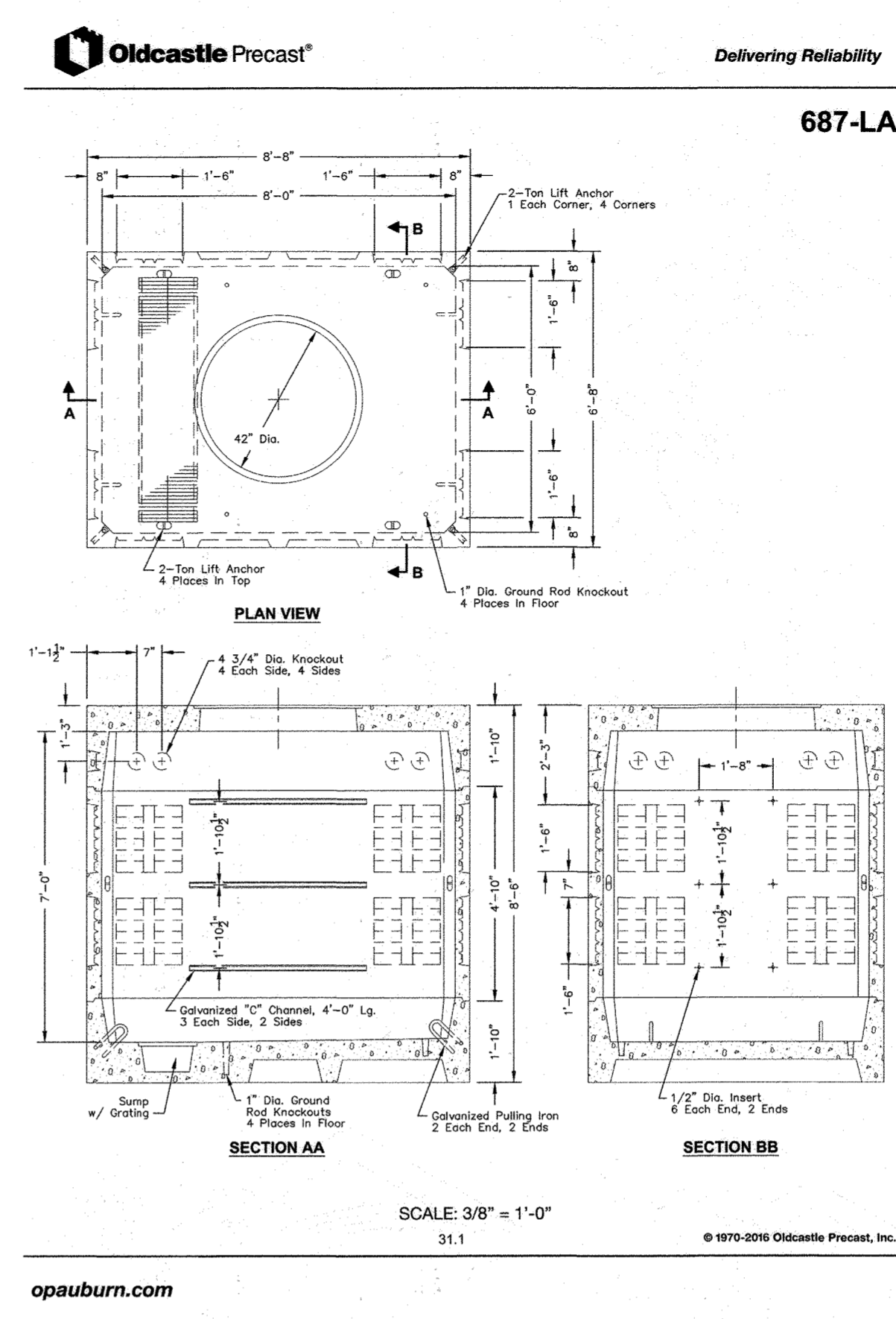
DESIGNED BY: JTD	DRAWING NUMBER:
CHECKED BY: AUO	C503
CODE REVIEW:	



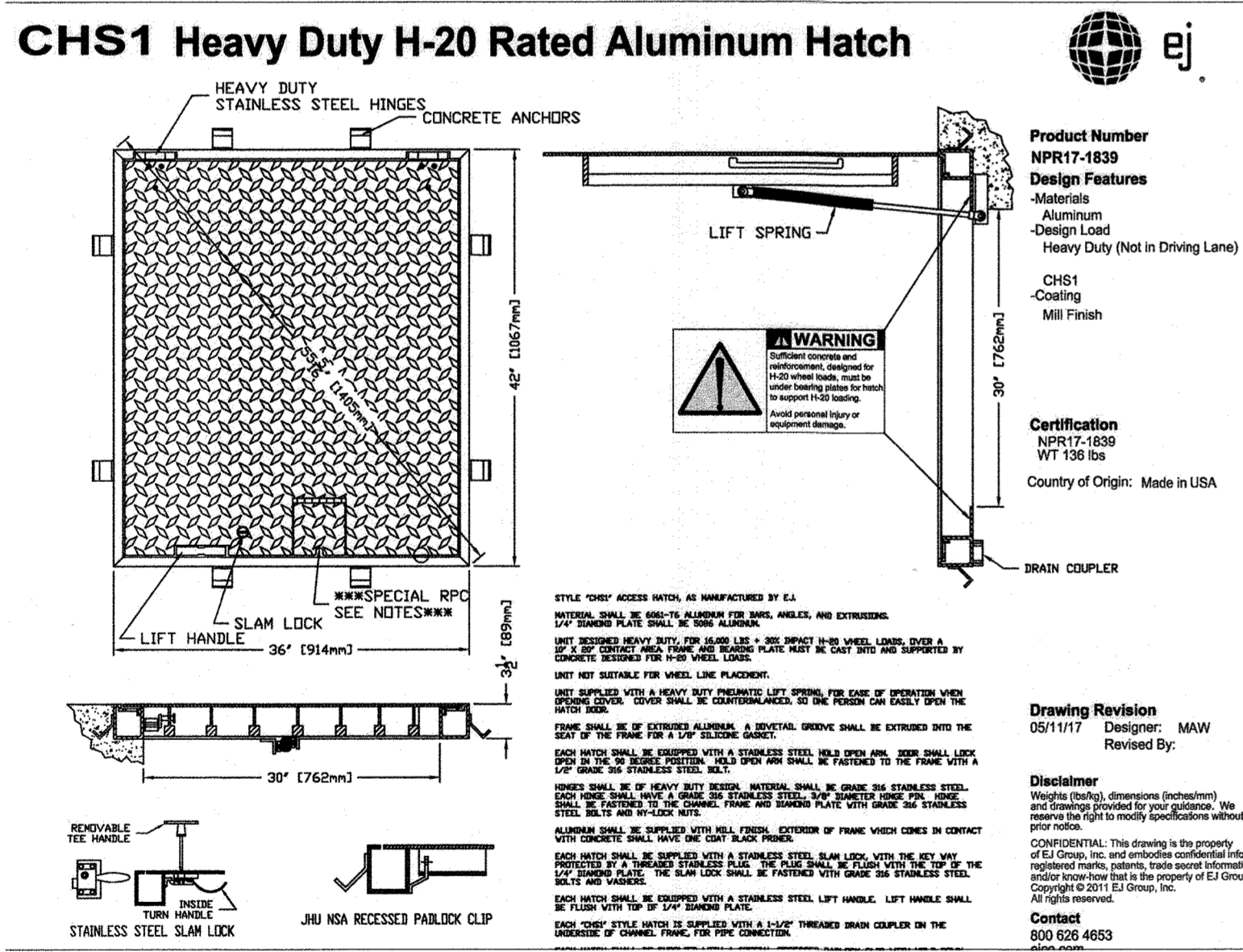
1 6' x 6' TELECOM VAULT



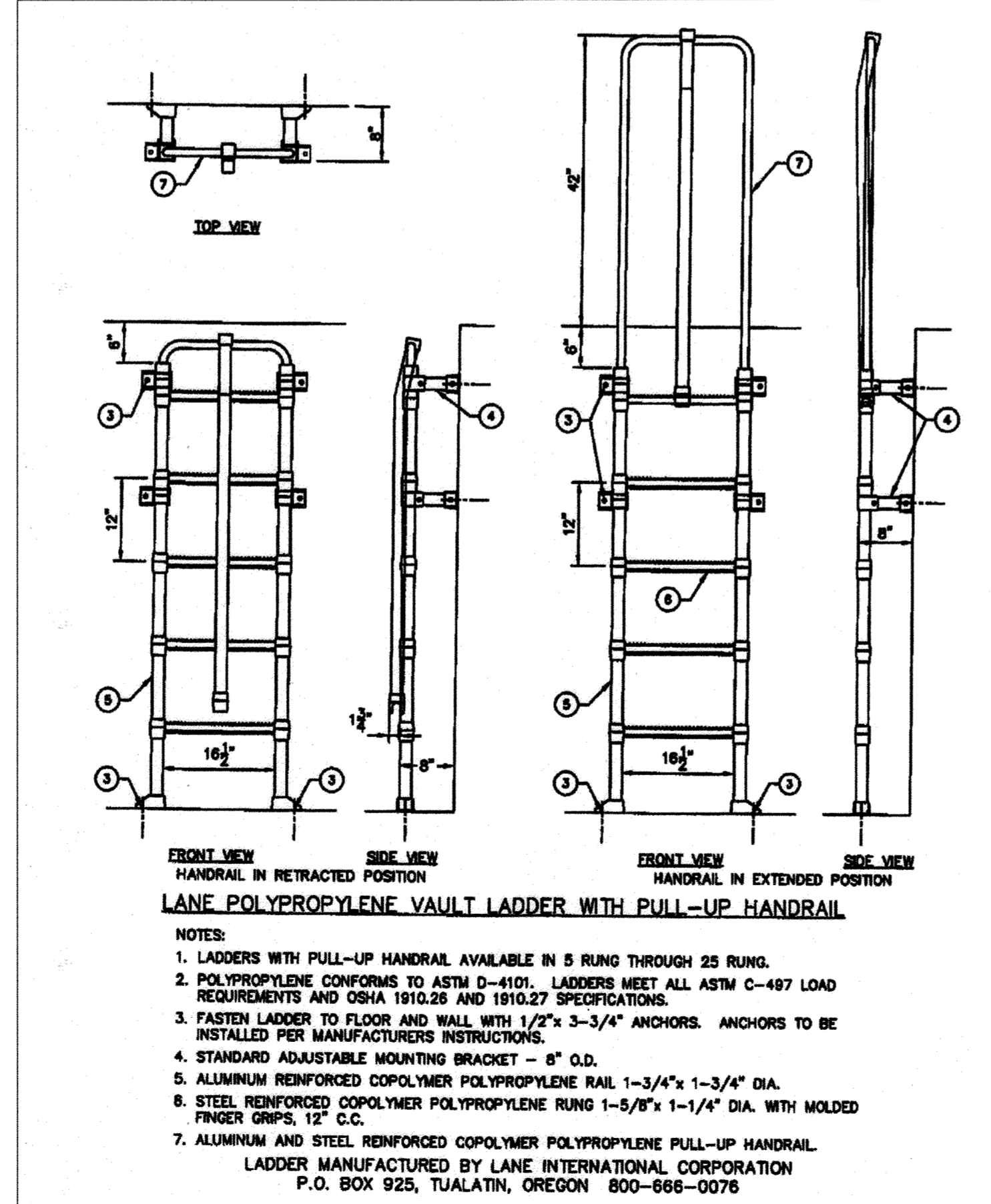
2 6' x 8' TELECOM & ELECTRICAL VAULT



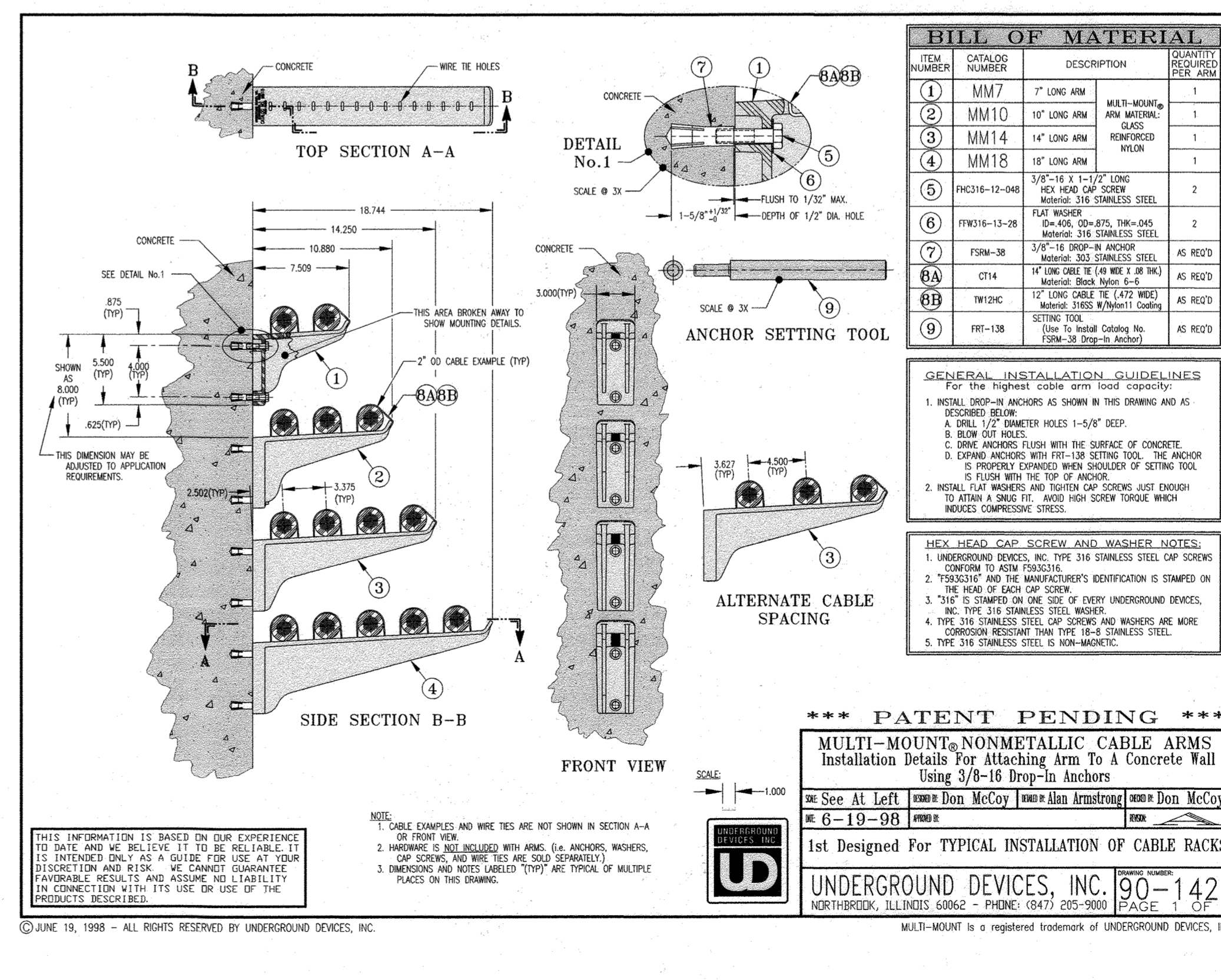
3 6' x 8' TELECOM & ELECTRICAL VAULT



4 HEAVY DUTY HATCH DETAIL



5 VAULT LADDER DETAIL



6 CABLE RACK DETAIL

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Donna Eschery 9/18/23
DIRECTOR DATE

Paul... 9.1.25
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

KEY PLAN

PROJECT NORTH

SEAL

STATE OF MARYLAND
MILITARY USABURY
PROFESSIONAL ENGINEER
No. 19376
EXPIRES 09/22/23

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD, LAUREL, MD 20723-6089

Whitman, Reardon & Associates, LLP
Environmental Planners
Est. 1915

APL ARCHITECTURAL ENGINEERING DESIGNER

WRA

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20817

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTEPIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

COMMUNICATIONS VAULT DETAILS

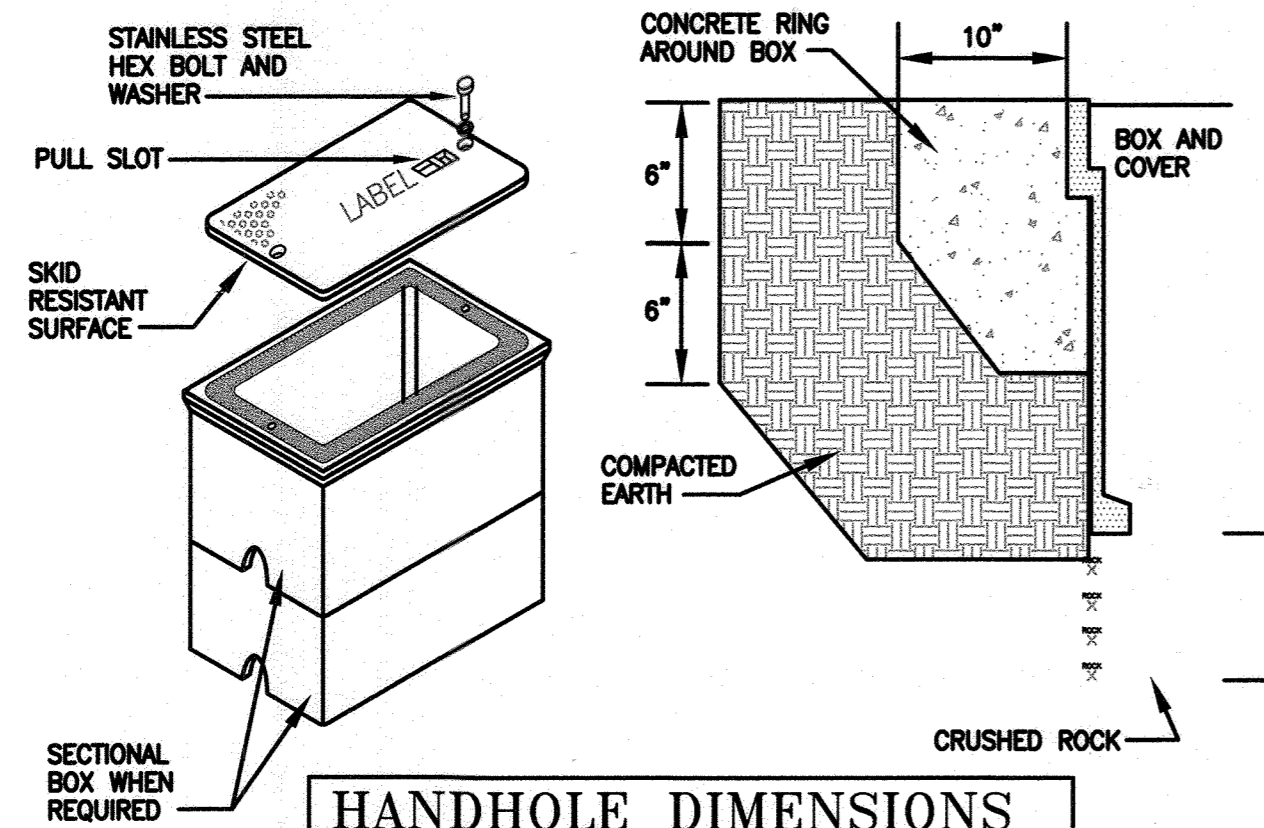
REVISION LOG

#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER: C504

CHECKED BY: AUO

CODE REVIEW:

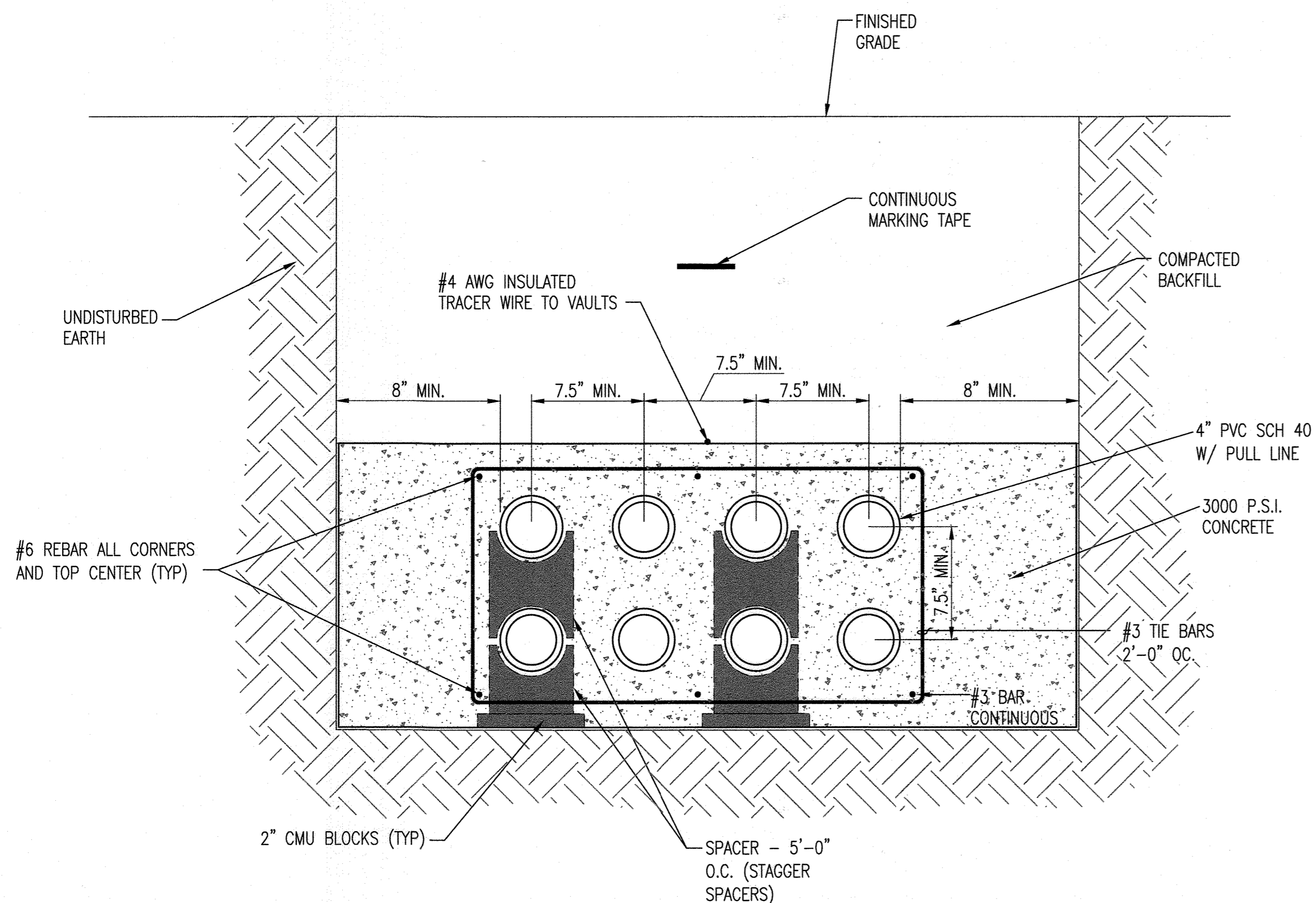


HANDHOLE DIMENSIONS	
TYPE	HANDHOLE SIZING
5	12" X 12" X 24" DEEP
6	12" X 18" X 24" DEEP
7	12" X 24" X 24" DEEP
8	24" X 36" X 24" DEEP
9	30" X 48" X 24" DEEP

HANDHOLE REQUIREMENTS

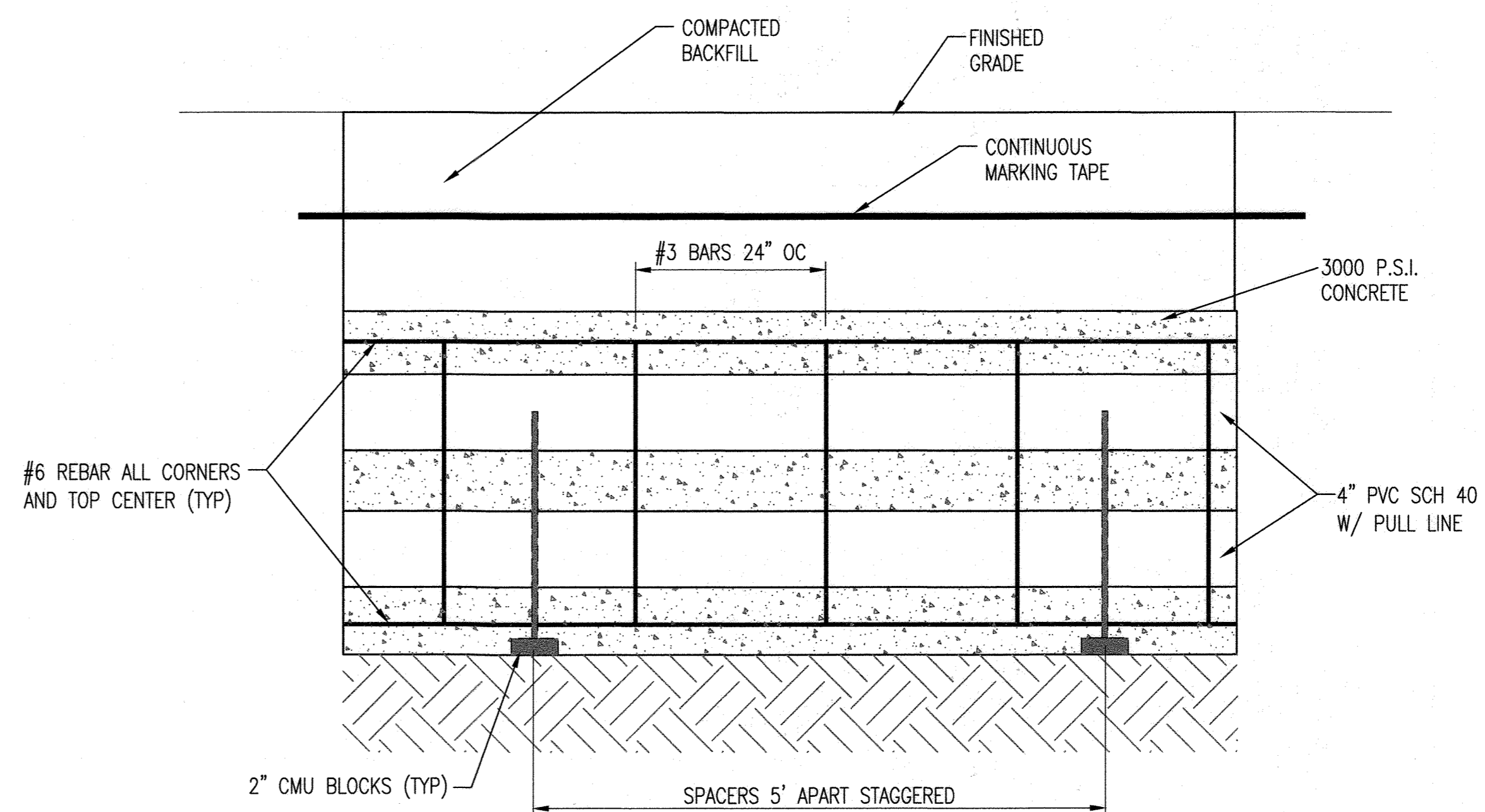
- HOUSING SHALL BE A POLYMER CONCRETE REINFORCED WITH A HEAVY WEAVE FIBERGLASS REINFORCING WITH COMPRESSIVE STRENGTH OF NO LESS THAN 10,000 PSI.
- COVER AND BOX SHALL WITHSTAND A SERVICE LOAD OF NO LESS THAN 15,000 LBS OVER A 10" x 10" AREA.
- PROVIDE STAINLESS STEEL BOLTS AND INSERTS.
- PROVIDE WITH (2) 2 1/2" MOUSEHOLES.
- PROVIDE LABEL "ELECTRICAL" FOR POWER HANDHOLES OR "TELEPHONE" FOR TELEPHONE HANDHOLES, OR AS INDICATED.

1 HANDHOLE DETAIL
NOT TO SCALE



2 CONCRETE ENCASED TELECOM DUCTBANK SECTION
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 9/18/23 DATE
 DIRECTOR
[Signature] 9.1.23 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 9/18/23 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT



3 CONCRETE ENCASED TELECOM DUCTBANK PROFILE VIEW
NOT TO SCALE

KEY PLAN
PROJECT NORTH

SEAL
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
 11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6099
Whitman, Reardon & Associates, LLP
 Est. 1915
 Architects - Environmental Planners
 ARCHITECTURAL ENGINEERING DESIGNER

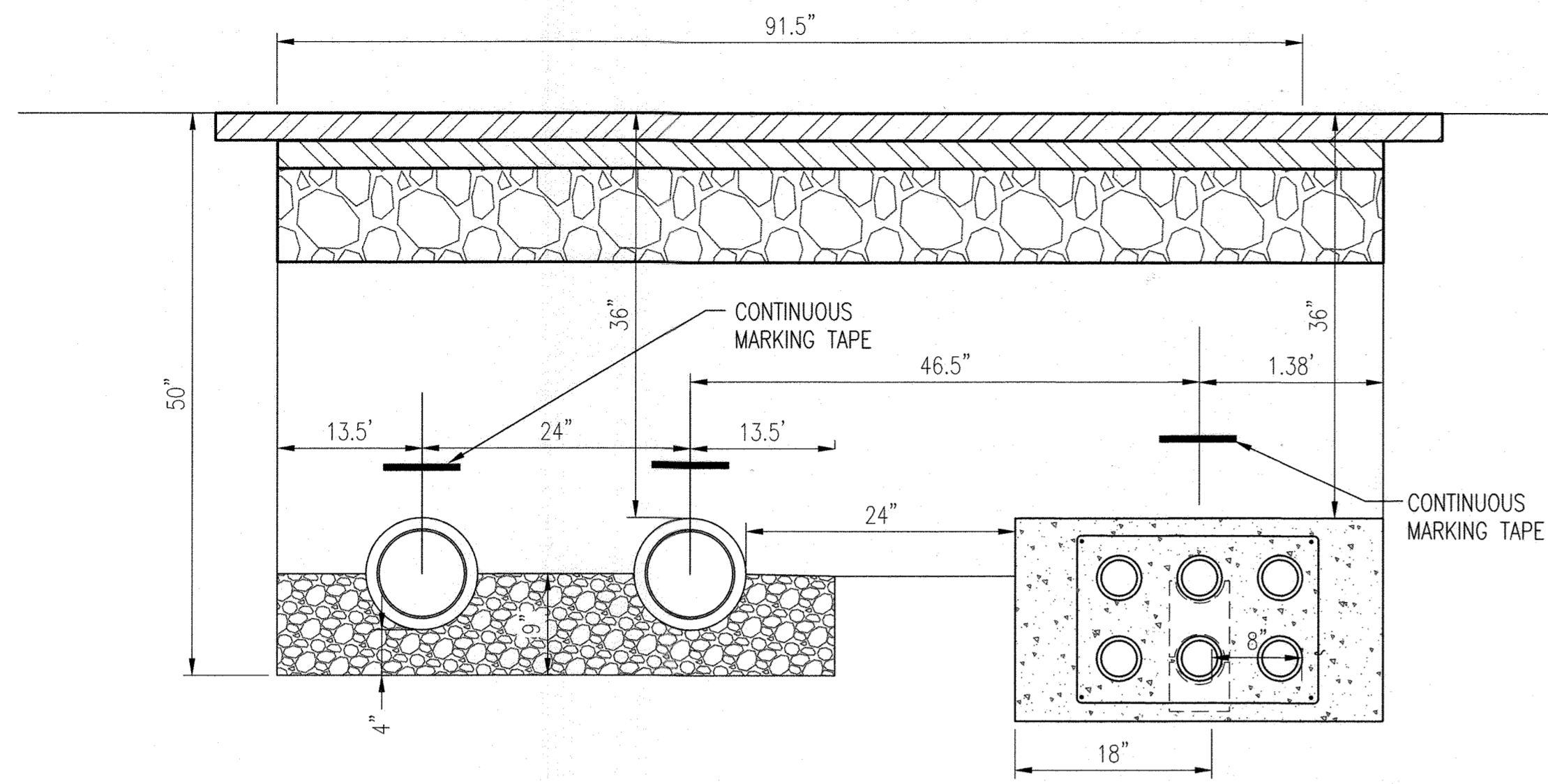
OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 9030 RED BRANCH ROAD
 SUITE 200
 COLUMBIA, MD 21045
 DEVELOPER: TRAMMELL CROW COMPANY
 6701 DEMOCRACY BLVD
 SUITE 410
 BETHESDA, MD 20317
 PROJECT: TRAMMELL CROW OFFICE BUILDING
 AT MONTELEJER RESEARCH PARK - PARCEL B
 AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
 GRID 17 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

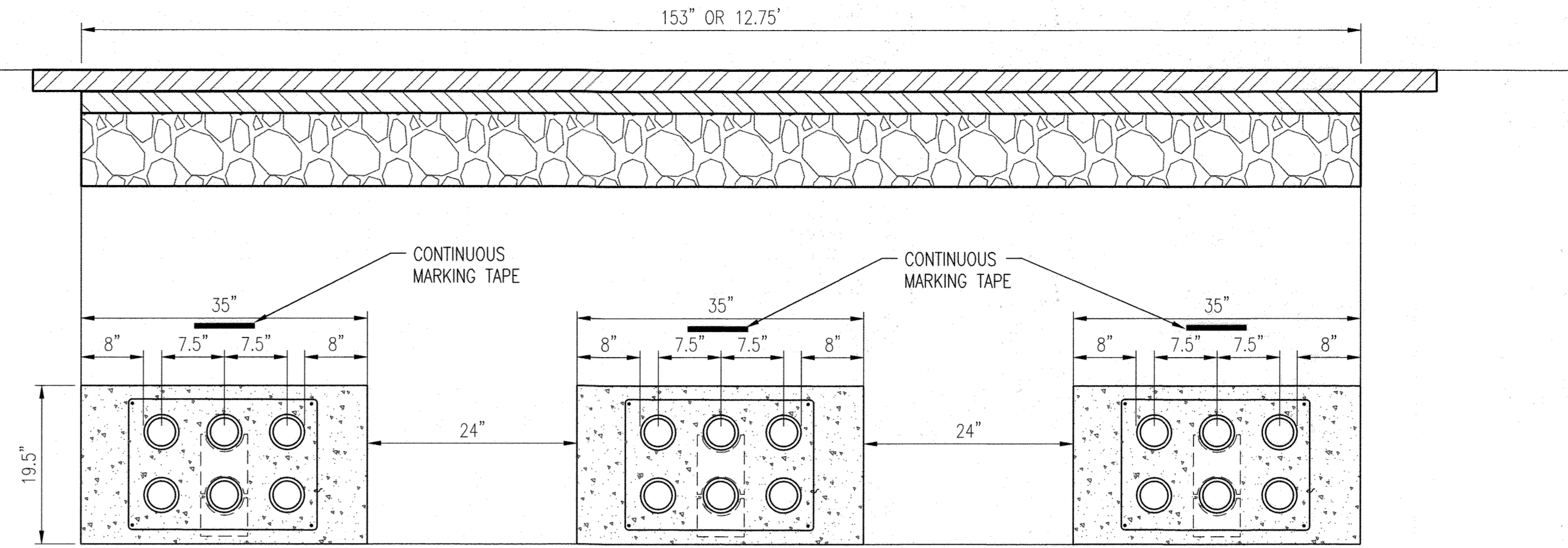
HANDHOLE & DUCTBANK DETAILS

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

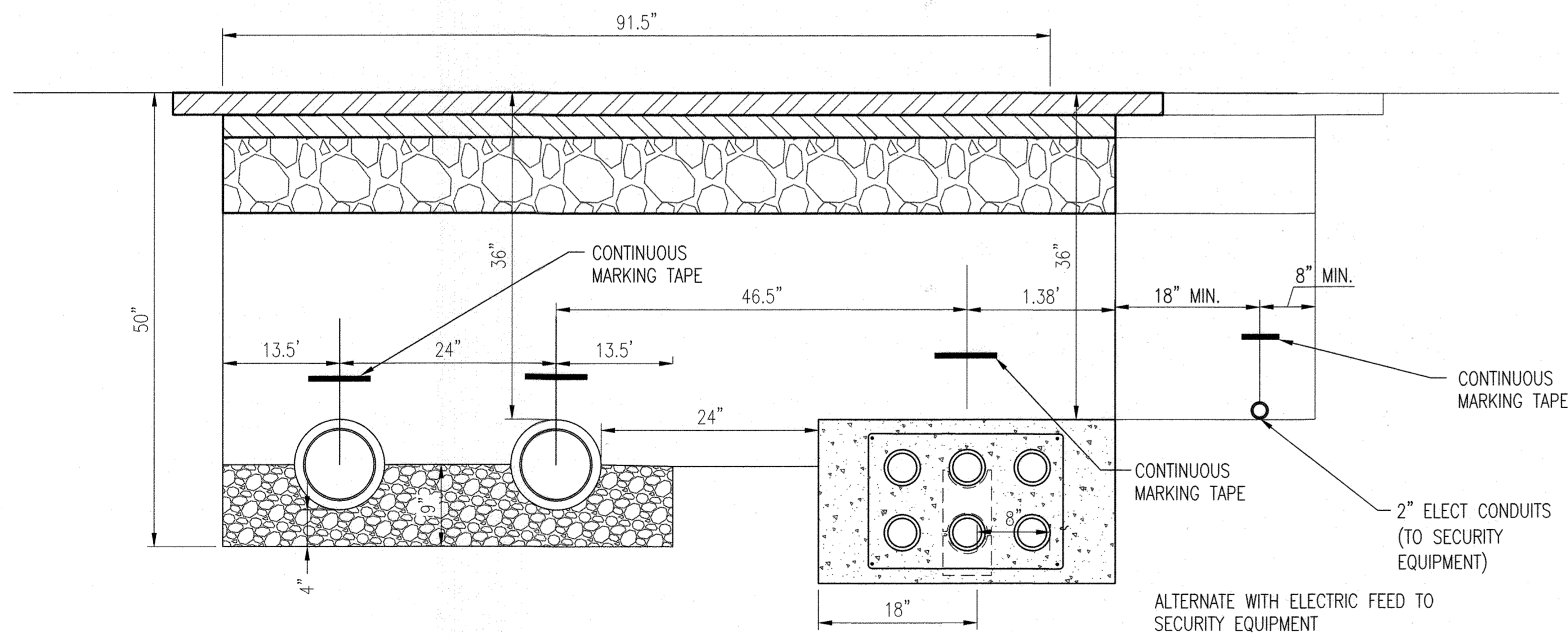
DESIGNED BY: JTD DRAWING NUMBER:
 CHECKED BY: AUO C505
 CODE REVIEW:
 SHEET 25 OF 31



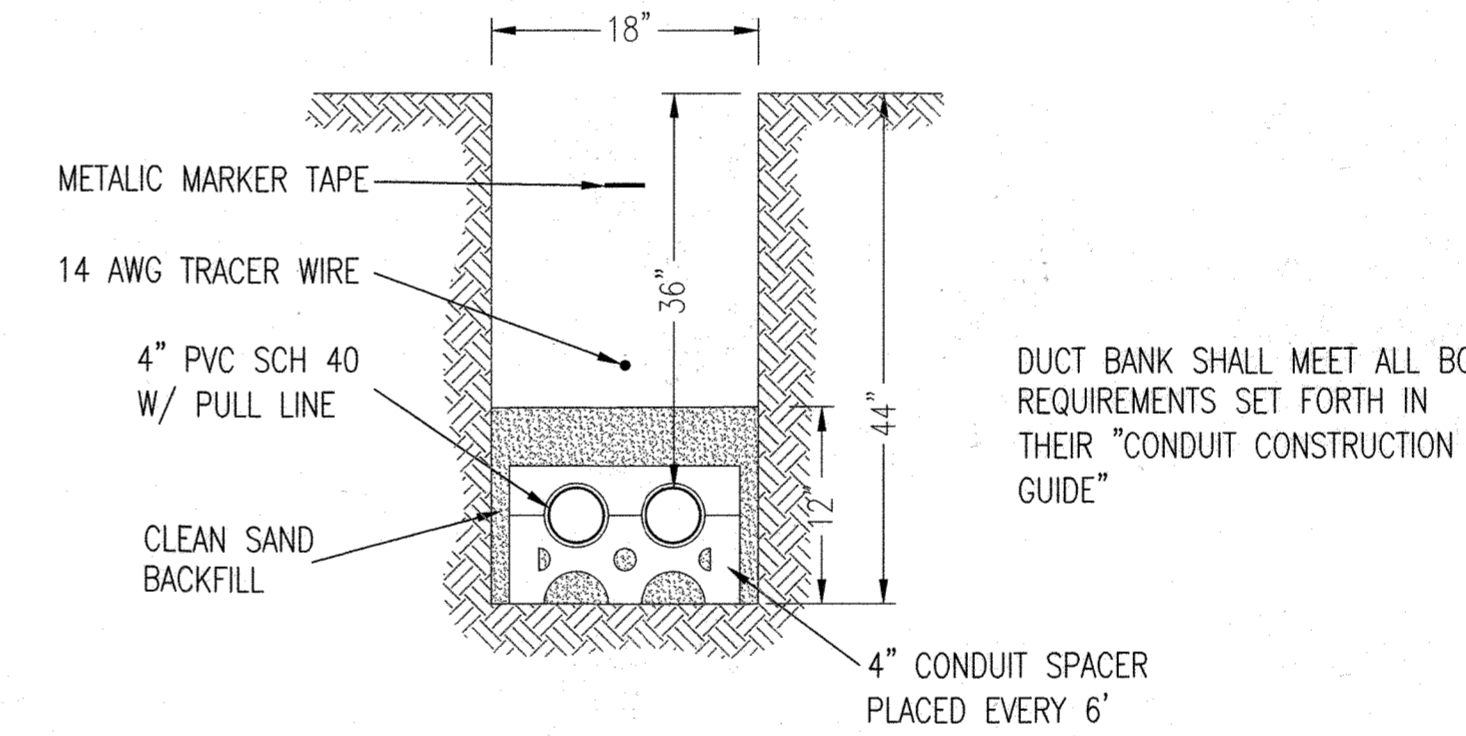
1 6 WAY CONCRETE ENCASED UNDERGROUND DUCTBANK (COMMS) WITH 2 - 8" CHILLER PIPES
NOT TO SCALE



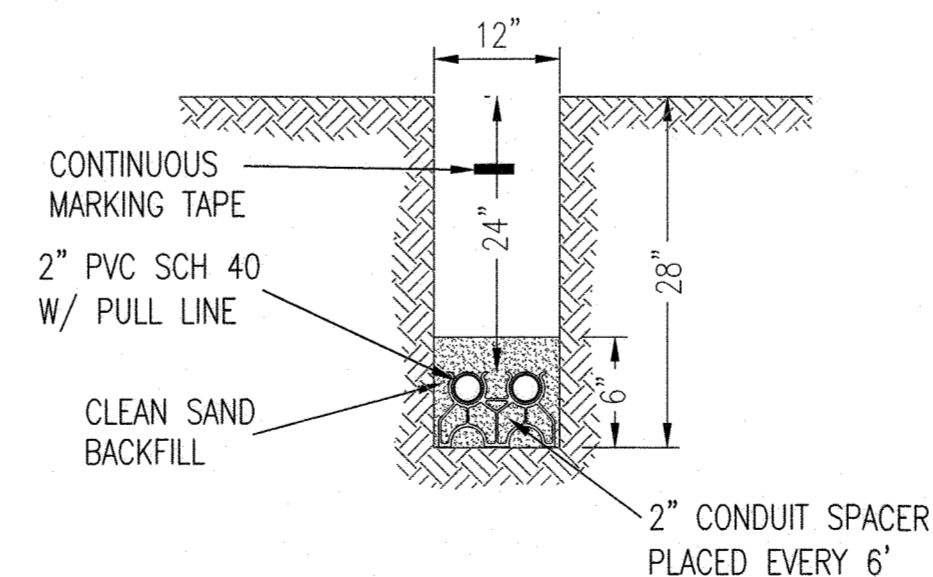
2 3 - 6 WAY CONCRETE ENCASED UNDERGROUND DUCTBANK (ELECTRIC)
NOT TO SCALE



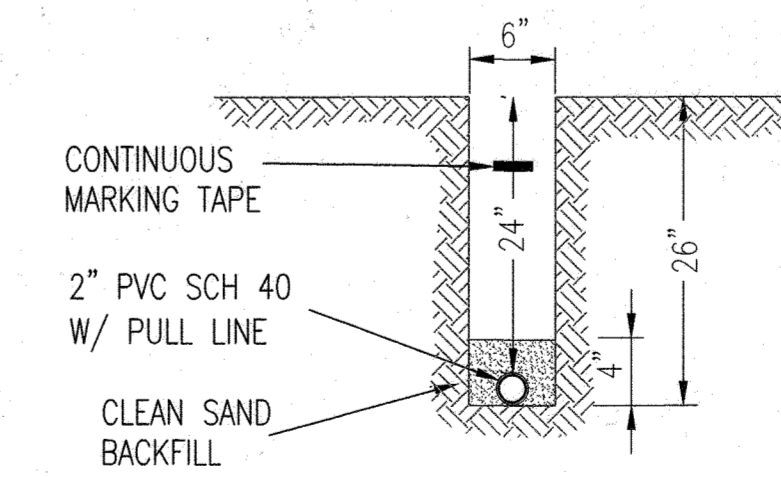
3 6 WAY CONCRETE ENCASED UNDERGROUND DUCTBANK (COMMS) WITH 2 - 8" CHILLER PIPES & ELECTRIC
NOT TO SCALE



4 2 WAY BGE UNDERGROUND DUCTBANK (ELECTRIC)
NOT TO SCALE



5 2" ELECTRIC AND COMMUNICATION UNDERGROUND DUCTBANK
NOT TO SCALE



6 2" ELECTRIC OR COMMUNICATION UNDERGROUND DUCT
NOT TO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
J. M. Esposito 9/18/23 DATE
 DIRECTOR
Paul Steu 9.1.23 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 9/18/23 DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT

KEY PLAN
 PROJECT NORTH
 SEAL
 STATE OF MARYLAND
 APPLIED PHYSICS LABORATORY
 PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
 11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6089
WRAP ARCHITECTURAL ENGINEERING DESIGNER
Whitman, Reardon & Associates, LLP Est. 1915
 Engineers - Architects - Environmental Planners

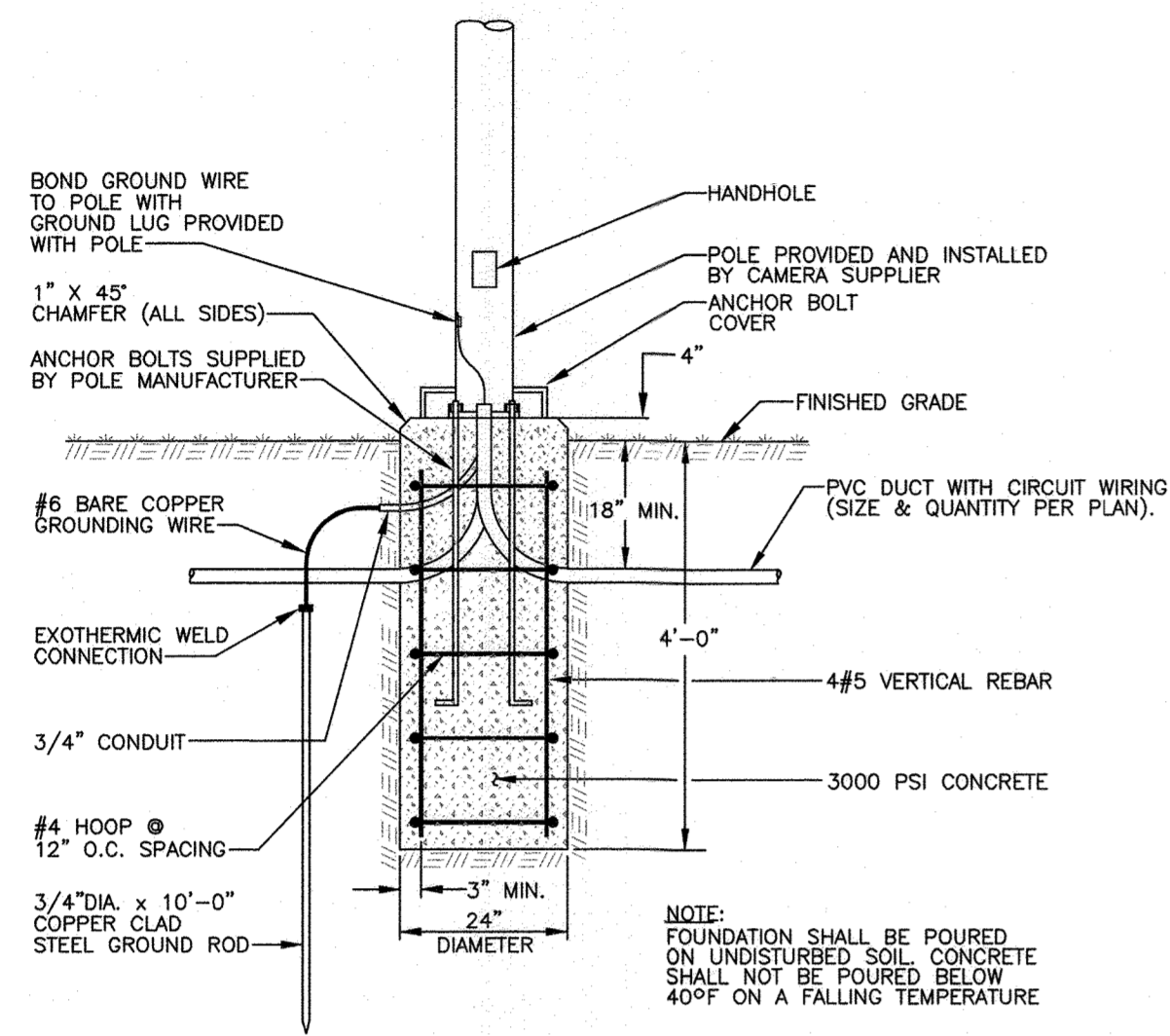
OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 9030 RED BRANCH ROAD SUITE 200 COLUMBIA, MD 21045
 DEVELOPER: TRAMMELL CROW COMPANY
 6701 DEMOCRACY BLVD SUITE 410 BETHESDA, MD 20817
 PROJECT: TRAMMELL CROW OFFICE BUILDING AT MONTPELIER RESEARCH PARK - PARCEL B
 AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC GRID 17 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

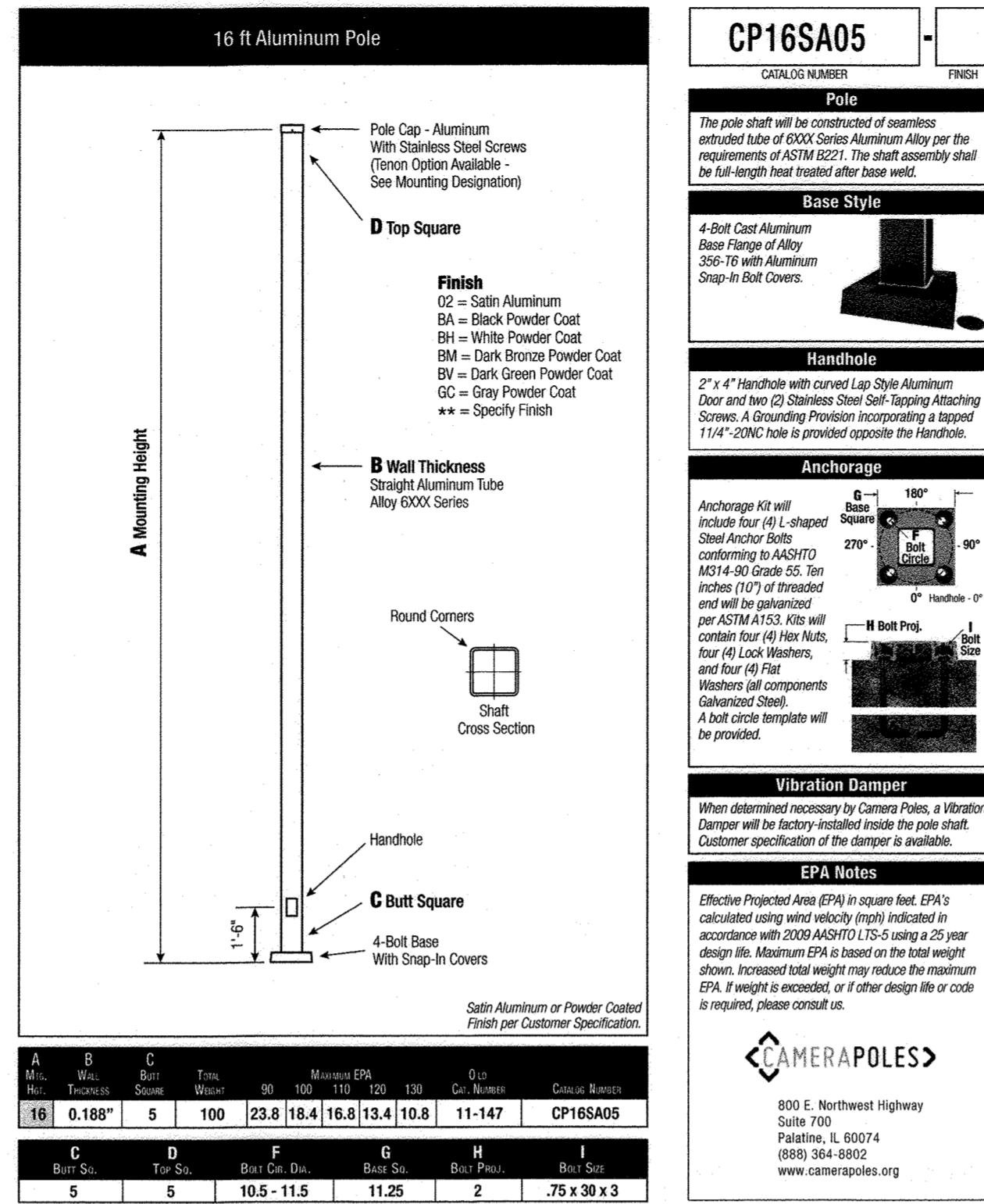
OSP DUCTBANK SECTIONS

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

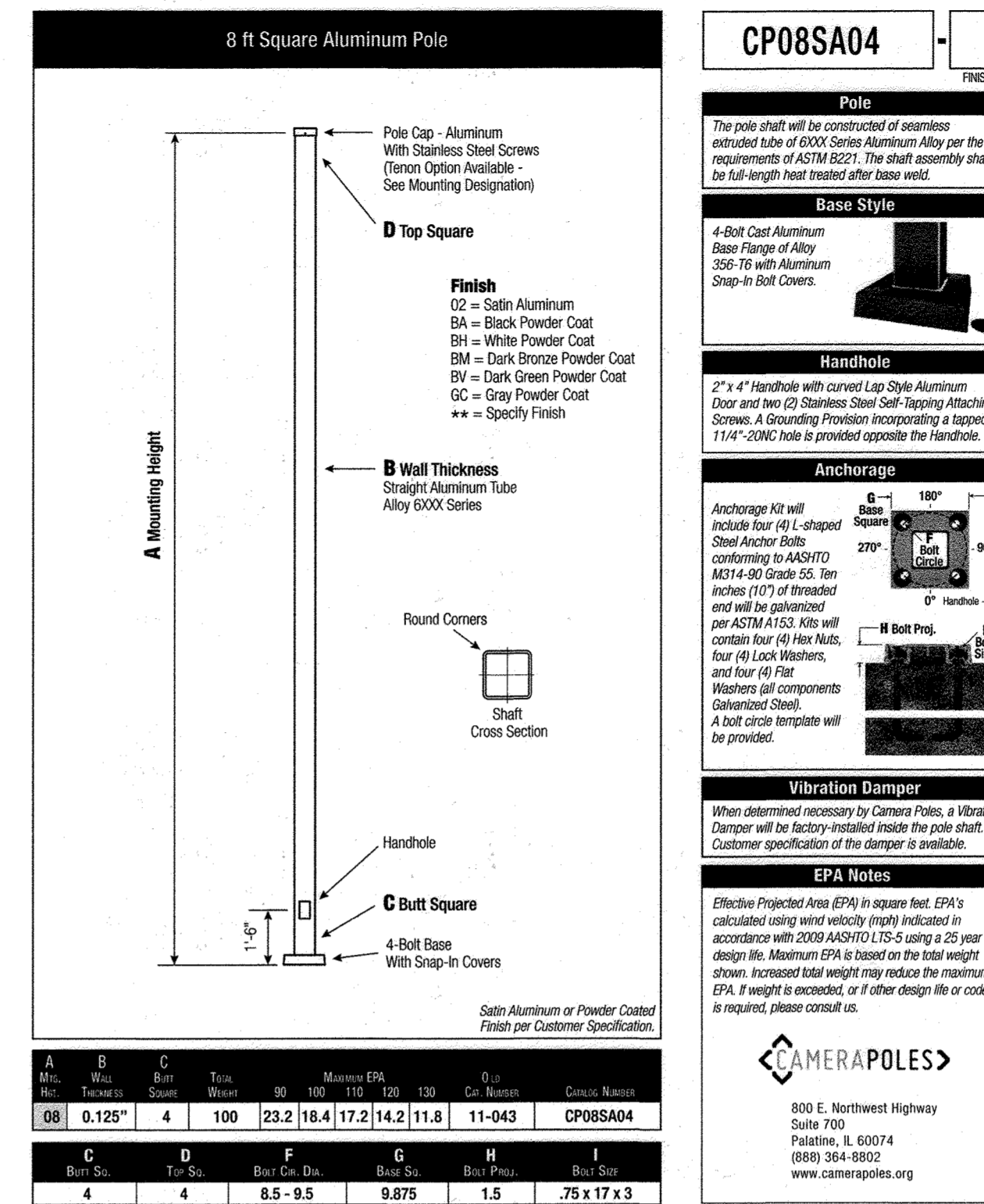
DESIGNED BY: JTD DRAWING NUMBER: C506
 CHECKED BY: AJO
 CODE REVIEW:



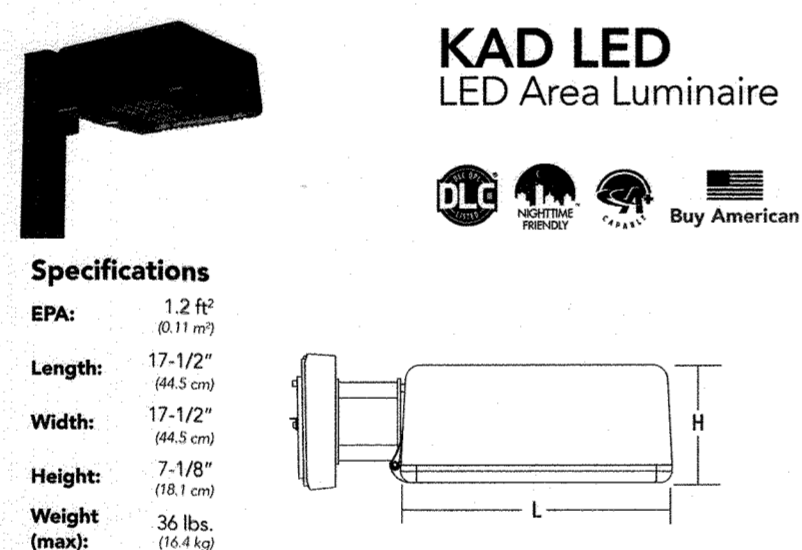
1 SECURITY POLE BASE DETAIL
NOT TO SCALE



2 SECURITY CAMERA POLE DETAIL
NOT TO SCALE



3 LICENSE PLATE READER POLE DETAIL
NOT TO SCALE



KAD LED Area Luminaire

Catalog Number: _____
Notes: _____
Type: _____

Buy American

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency.
- This luminaire is A+ Certified when ordered with DTL+ controls marked by a **shaded background**. DTL DLL equipped luminaires meet the A+ specification for luminaire to photometric interoperability.
- This luminaire is part of an A+ Certified solution for ROAM2 or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a **shaded background**.

To learn more about A+, visit www.acuitybrands.com/apl.

2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately. Link to Roams: Link to DTL DLL

EXAMPLE: KAD LED 40C 1000 40K R5 MVOLT SPD04 DDBX0

Series	LED	Drive current	CCT	Distribution	Voltage	Mounting	Shipping included	Shipping separately
KADLED	20K 30 LEDs	530 mA	30K	300K	R2	MVOLT 277V	SPUMBAK... Square pole universal mounting adapter*	04 4' arm DAD12P Degree arm (right)
	30K 30 LEDs	700 mA	40K	400K	R3	Type II 120V 347V	SPUMBAK... Square pole universal mounting adapter*	06 6' arm DAD12P Degree arm (right)
	40C 40 LEDs	1000 mA	50K	500K	R4	Type IV 208V 480V	SPUMBAK... Square pole universal mounting adapter*	09 9' arm DAD12WB Degree arm (wall)
	60C 60 LEDs	1500 mA	60K	600K	R5	Type V 240V	SPUMBAK... Square pole universal mounting adapter*	12 12' arm KMA Mast arm (wall)

Shipping separately:

- DDBX0 Dark bronze
- DDBX1 Black
- DDBX2 Natural aluminum
- DDBX3 White
- DDBX4 Textured dark bronze
- DDBX5 Textured black
- DDBX6 Textured natural aluminum
- DDBX7 Textured white

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

David Eisenberg 9/18/23
DIRECTOR DATE

Paul Shum 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Paul Shum 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

4 EQUIPMENT YARD LIGHT HEAD
NOT TO SCALE



FEATURES & SPECIFICATIONS

INTENDED USE — These specifications are for USA standards only. Square Straight Steel is a general purpose light pole for up to 39-foot mounting heights. This pole provides a robust yet cost effective option for mounting area lights and floodlights.

CONSTRUCTION — Pole shaft is of uniform dimension and wall thickness and is made of a weldable, grade, hot-rolled, commercial-quality steel tubing with a minimum yield of 55 KSI (17-gauge, 0.107"), or 50 KSI (7-gauge, 0.179"). Shaft ends are galvanized with full length longitudinal flange frequency electrocoat on both ends. Uniformly spaced in construction with flat sides, small corner radii and excellent torsional qualities. Available shaft widths are 4", 5" and 6".

Pole Top: Options include tension top, drilled for side mount fixture, tension with drilling (includes extra hardware) and open top. Side drilled and open top poles include a removable top cap.

Handle: A reinforced handle with grinding provision is provided at 18" from the base on side A. Positioning the handle lower may not be possible and requires engineering review; consult Tech Support/Outdoor for further information. Every handle includes a cover and cover attachment hardware. The handle has a nominal dimension of 2.5" x 4".

Base Cover: A durable ABS plastic two-piece full face cover, finished to match the pole, is provided with each pole assembly. Additional base cover options are available upon request.

Anchor Base/Bolt: Anchor base is fabricated from steel that meets ASTM A36 standards and can be altered to match existing foundations; consult factory for modifications. Anchor bolts are manufactured to ASTM F1554 Standard grade SS, (5) KSI minimum yield strength and tensile strength of 75-95 KSI. Top threaded portion (nominal 12") is hot-dipped galvanized per ASTM A-153.

WARNING — All structural fasteners are high-strength galvanized carbon steel. All non-structural fasteners are galvanized or zinc-plated carbon steel or stainless steel.

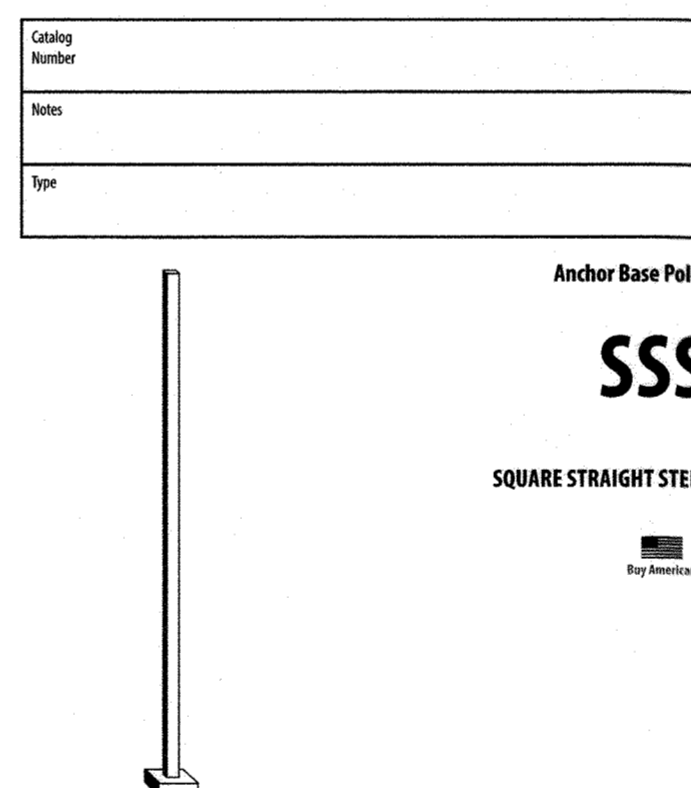
FINISH — Extra durable painted finish is coated with TPO (Triglycidyl isocyanurate) Polyester powder that meets SA and SB classifications of ASTM D3359. Powder-coat finishes include Dark Bronze, White, Black, and Natural Aluminum colors. Architectural Colors and Special Finishes are available by quote and include, but are not limited to: Paint over Hot-dipped Galvanized, RAL Colors, Custom Colors and Extended Warranty Finishes.

BUY AMERICAN — Product with the BAA option is assembled in the USA and meets the Buy American (in government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com for more information.

INSTALLATION — Do not erect poles without having fixtures installed. Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claims for incorrect anchorage placement due to failure to use Lithonia Lighting factory templates. If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage. Lithonia Lighting is not responsible for the foundation design.

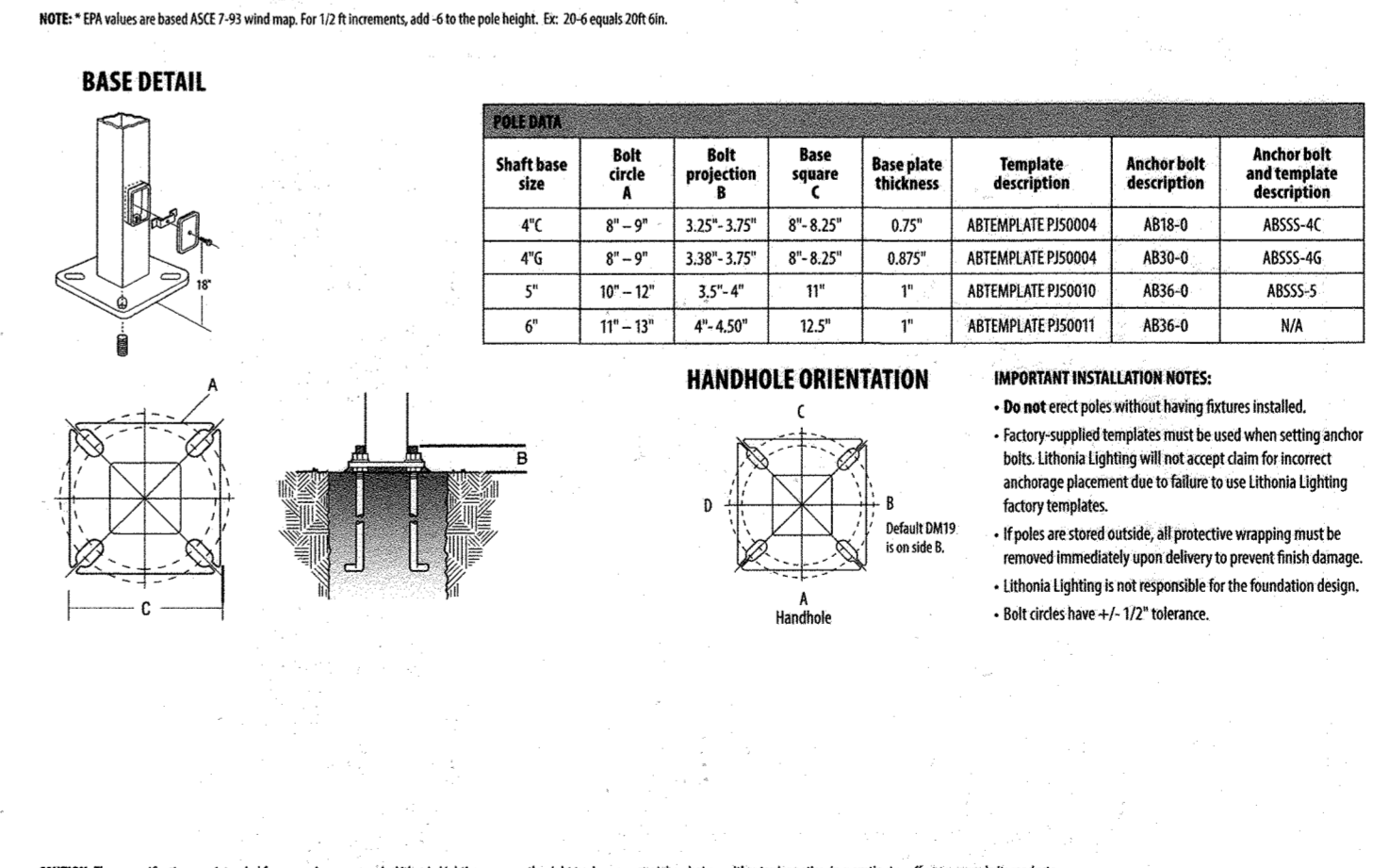
WARRANTY — 1-year limited warranty. This is the only warranty provided and no other statements in this specification shall create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.



SSS Square Straight Steel Poles

Catalog Number	Nominal Shaft Length (ft.)	Pole Shaft Size (in. x in.)	Wall thickness (in.)	Gauge	EPA (ft²) with 1.3 gust			Bolt circle (in.)	Bolt size (in. x in. x in.)	Approximate ship weight (lbs.)			
					40 MPH	50 MPH	100 MPH						
SSS 10 4C	10	4.0 x 10.0	0.120"	11	30.6	765	23.8	595	169	473	8-9	3/4 x 18 x 3	75
SSS 12 4C	12	4.0 x 12.0	0.120"	11	24.4	610	18.8	470	168	370	8-9	3/4 x 18 x 3	90
SSS 14 4C	14	4.0 x 14.0	0.120"	11	19.9	498	15.3	378	117	291	8-9	3/4 x 18 x 3	100
SSS 16 4C	16	4.0 x 16.0	0.120"	11	15.9	398	11.8	295	83	219	8-9	3/4 x 18 x 3	110
SSS 18 4C	18	4.0 x 18.0	0.120"	11	12.6	315	9.2	230	67	168	8-9	3/4 x 18 x 3	125
SSS 20 4C	20	4.0 x 20.0	0.120"	11	9.6	240	6.7	167	45	150	8-9	3/4 x 18 x 3	140
SSS 20 6C	20	6.0 x 20.0	0.120"	7	14	306	11	275	8	206	8-9	3/4 x 18 x 3	158
SSS 20 5C	20	5.0 x 20.0	0.120"	11	17.7	443	12.7	343	9.4	235	10-12	1 x 36 x 4	165
SSS 20 5S	20	5.0 x 20.0	0.120"	7	26.1	703	21.4	535	16.2	405	10-12	1 x 36 x 4	265
SSS 24 4C	25	4.0 x 25.0	0.120"	11	4.3	109	2.6	100	7	58	8-9	3/4 x 18 x 3	170
SSS 24 6C	25	6.0 x 25.0	0.120"	7	10.8	270	7.7	188	5.4	135	8-9	3/4 x 18 x 3	245
SSS 25 4C	25	5.0 x 25.0	0.120"	11	9.8	245	6.3	157	3.7	150	10-12	1 x 36 x 4	225
SSS 25 5C	25	5.0 x 25.0	0.120"	7	18.5	483	13.3	333	9.5	238	10-12	1 x 36 x 4	360
SSS 30 4C	30	4.0 x 30.0	0.120"	7	6.7	168	4.4	110	2.6	65	8-9	3/4 x 18 x 3	295
SSS 30 5C	30	5.0 x 30.0	0.120"	11	4.7	100	2	50	—	—	10-12	1 x 36 x 4	265
SSS 30 5S	30	5.0 x 30.0	0.120"	7	16.7	447	6.7	167	3.9	100	10-12	1 x 36 x 4	380
SSS 30 6C	30	6.0 x 30.0	0.120"	7	19	475	13.2	330	9	225	11-13	1 x 36 x 4	530
SSS 35 5C	35	5.0 x 35.0	0.120"	7	5.9	150	2.5	100	—	—	10-12	1 x 36 x 4	440
SSS 35 6C	35	6.0 x 35.0	0.120"	7	12.4	310	7.6	190	4.2	105	11-13	1 x 36 x 4	540
SSS 39 6C	39	6.0 x 39.0	0.120"	7	7.2	180	3	75	—	—	11-13	1 x 36 x 4	605

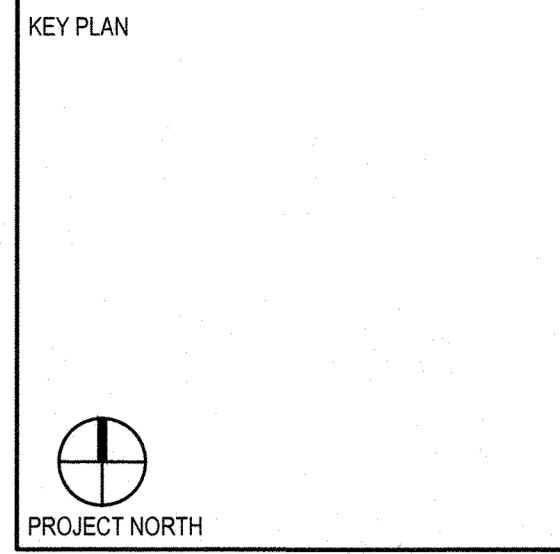


CAUTION: These specifications are intended for general purposes only. Lithonia Lighting reserves the right to change material or design, without prior notice, in a continuing effort to upgrade its products.

LITHONIA LIGHTING

OUTDOOR: One Lithonia Way, Conyers, GA 30012 Phone: 800-705-SERV (7378) www.lithonia.com ©1994-2022 Acuity Brands Lighting, Inc. All rights reserved. Rev. 04/04/22

5 EQUIPMENT YARD LIGHT POLE DETAIL
NOT TO SCALE



SEAL

STATE OF MARYLAND
PROFESSIONAL ENGINEER
No. 19376
EXPIRES: 09/22/23

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND, THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS
APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD, LAUREL, MD 20723-8009

ARCHITECTURAL ENGINEERING DESIGNER

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20817

PROJECT: TRAMMELL CROW
OFFICE BUILDING
AT MONTEPIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

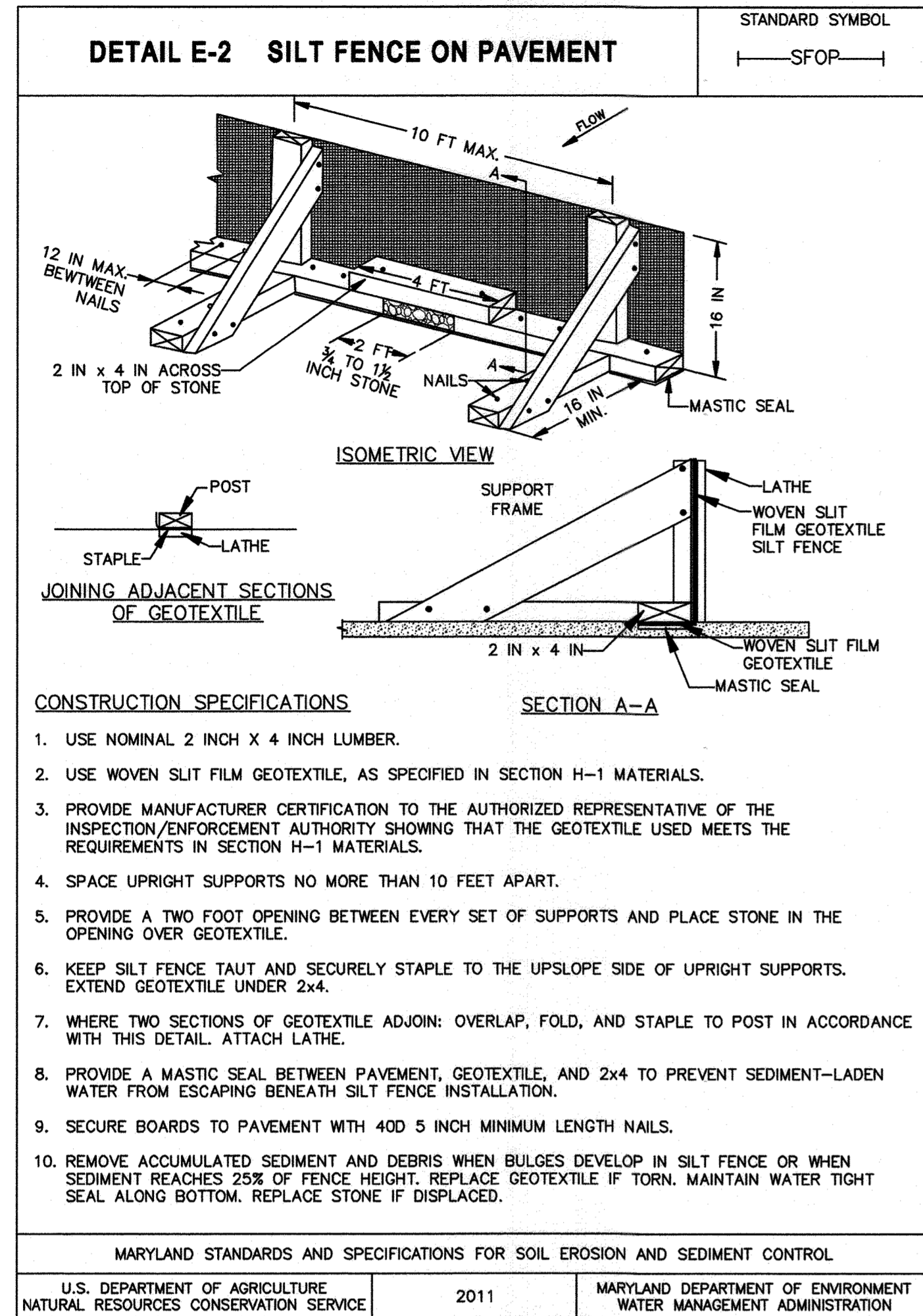
TITLE: REVISED
SITE DEVELOPMENT PLAN

SECURITY POLES
& BASE DETAILS

REVISION LOG

#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER: C507
CHECKED BY: AUO
CODE REVIEW:



SEQUENCE OF CONSTRUCTION

- NOTIFY THE SEDIMENT CONTROL INSPECTION OFFICE 24 HOURS PRIOR TO CONSTRUCTION.
- HOLD PRE-CONSTRUCTION MEETING ON SITE WITH SEDIMENT CONTROL INSPECTOR. (1 DAY)
- CONTRACTOR TO INSTALL SEDIMENT CONTROL MEASURES AS SPECIFIED ON PLANS AND AGREED TO WITH SEDIMENT CONTROL INSPECTOR. UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR, CONTRACTOR CAN COMMENCE WORK. (1 WEEK)
- CLEAR AND GRUB ANY AREAS NECESSARY FOR INSTALLATION OF OSP DUCT BANK. INSTALL DUCT BANK AND STABILIZE AS SOON AS TRENCH IS CLOSED. UTILIZE SAME DAY STABILIZATION (WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR) FOR SMALLER DUCT INSTALLATIONS. (4 WEEKS)
- REMOVED PAVEMENT, CONCRETE, STONE OVER 2" AND CONTAMINATED SOILS SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED AT A PROPERLY PERMITTED FACILITY.
- NO SOIL SHALL BE STOCKPILED WITHIN THE MONTPELIER ROAD RIGHT OF WAY. ALL SPOILS FROM THE ROADWAY SHALL BE STORED ON ADJACENT SITES. (3 DAYS)
- SEDIMENT CONTROL MEASURES FOR UTILITY TRENCHING CAN BE REMOVED INCREMENTALLY AS AREAS ARE STABILIZED. SEDIMENT CONTROL INSPECTOR SHALL APPROVE EACH AREA PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES. (6 WEEKS)
- STABILIZE, SEED & MULCH OR PAVE ALL DISTURBED AREAS. WHEN ALL DISTURBED AREAS ARE PROPERLY STABILIZED HAVE SEDIMENT CONTROL INSPECTOR APPROVE THE REMOVAL OF ALL SEDIMENT CONTROL MEASURES. (1 WEEK)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 9/18/23 DATE
DIRECTOR

[Signature] 9.1.23 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 9/18/23 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

Definition

The application of seed and mulch to establish vegetative cover.

Purpose

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

Criteria

A. Seeding

1. Specifications

- All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
- Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
- Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
- Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

2. Application

- Dry Seeding:** This includes use of conventional drop or broadcast spreaders.
 - Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.
- Drill or Cultipacker Seeding:** Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
 - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
- Hydroseeding:** Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).
 - If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P205 (phosphorous), 200 pounds per acre; K20 (potassium), 200 pounds per acre.
 - Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
 - Mix seed and fertilizer on site and seed immediately and without interruption.
 - When hydroseeding do not incorporate seed into the soil.

B. Mulching

1. Mulch Materials (in order of preference)

- Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in areas where on species of grass is desired.
- Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
 - WCFM, including dye, must contain no germination or growth inhibiting factors.
 - WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
 - WCFM material must not contain elements or compounds at concentration levels that will be phytotoxic.
 - WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

2. Application

- Apply mulch to all seeded areas immediately after seeding.
- When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.
- Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

3. Anchoring

- Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:
 - A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.
 - Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petrosel, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.
 - Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

- For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
- When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Hardiness Zone (from Figure B.3): 6b		Seed Mixture (from Table B.1):		Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths			
	Annual Ryegrass	40	3/1-5/15	1/2"	436 lb/ac (10lb/1000sf)	2 tons/ac (90 lb/1000sf)	
	Foxtail Millet	30	8/1-10/15	1/2"			

B-4-5 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

A. Seed Mixtures

1. General Use

- Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
- Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
- For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
- For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

2. Turfgrass Mixtures

- Areas where turfgrass may be desired include lawns, parks, playground, and commercial sites which will receive a medium to high level of maintenance.
- Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
 - Kentucky Bluegrass: Full Sun Mixture:** For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Kentucky Bluegrass/Perennial Ryegrass: Full Sun Mixture:** For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
 - Tall Fescue/Kentucky Bluegrass: Full Sun Mixture:** For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes: Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue: Shade Mixture:** For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet. Notes: Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

c. Ideal Times of Seeding for Turf Grass Mixtures

- | | |
|---|--|
| Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a) | |
| Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b) | |
| Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b) | |

- Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
- If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

Permanent Seeding Summary

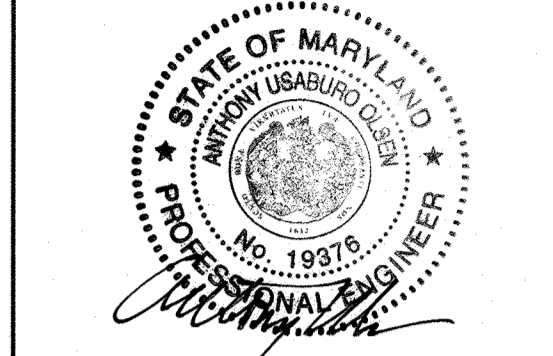
Hardiness Zone (from Figure B.3): 2a		Seed Mixture (from Table B.1): 11		Fertilizer Rate (10-20-20)			Lime Rate
Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	
Creeping Red Fescue	30	3/1-10/15	1/2"	45 lb/ac (1.0lb/1000sf)	90 lb/ac (2lb/1000sf)	90 lb/ac (2lb/1000sf)	2 tons/ac (90 lb/1000sf)
Chewings Fescue	30	3/1-10/15	1/2"				
Kentucky Bluegrass	15	3/1-10/15	1/2"				

KEY PLAN



PROJECT NORTH

SEAL



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 19376 EXPIRATION: 09/22/23

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6069

Whitman, Reardon & Associates, LLP
Engineers - Architects - Environmental Planners Est. 1915

ARCHITECTURAL ENGINEERING DESIGNER

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD SUITE 200 COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD SUITE 410 BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

EROSION & SEDIMENT CONTROL NOTES & DETAILS

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JTD DRAWING NUMBER: C508

CHECKED BY: AUO

CODE REVIEW:

SHEET 28 OF 31

SDP-98-137

GENERAL STRUCTURAL NOTES

GENERAL

- FIELD VERIFY DIMENSIONS, LOCATIONS AND ELEVATIONS SHOWN ON DRAWINGS FOR EXISTING STRUCTURES. BRING DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK.
- EXISTING BUILDING FRAMING SHOWN IS BASED ON AN ELLIWOOD + MACHADO, LLC STRUCTURAL ANALYSIS LETTER PROVIDED BY JHUI/APL AND BASED ON FIELD OBSERVATIONS.
- IT IS ASSUMED THE EXISTING SLAB CAN SUPPORT THE INTENDED FIRST FLOOR SLAB LIVE LOAD PER DIRECTION FROM JHUI/APL.
- COORDINATE ACTIVITIES WITH THE OWNER.
- NOT ALL OPENINGS IN THE STRUCTURAL WORK ARE SHOWN. REVIEW DRAWINGS FROM OTHER DISCIPLINES AND COORDINATE OPENINGS AND EMBEDDED ITEMS SUCH AS SLEEVES, ANCHORS, CONDUITS, ETC. INCORPORATED INTO THE STRUCTURAL WORK.
- THE SPECIAL INSPECTION PROGRAM AND SPECIAL INSPECTOR WILL BE PROCURED AND FUNDED BY THE CONTRACTOR. COORDINATE APPLICABLE ACTIVITIES AND SCHEDULE WITH THE OWNER, SPECIAL INSPECTOR, AND THE STATEMENT OF SPECIAL INSPECTIONS INCLUDED IN THE SPECIFICATIONS.
- THE DRAWINGS SHOW THE FINAL CONDITION OF THE STRUCTURES. PROVIDE MEANS TO STABILIZE THE STRUCTURES DURING TEMPORARY CONDITIONS.
- THE SIZES AND LOCATIONS OF EQUIPMENT PADS AND PEDESTALS, AS WELL AS EQUIPMENT-RELATED FLOOR AND WALL OPENINGS, ARE DEPENDENT ON THE ACTUAL EQUIPMENT PROVIDED. VERIFY AND COORDINATE SUCH ITEMS. DO NOT ALTER DIMENSIONS ON THESE DRAWINGS WITHOUT APPROVAL OF THE ENGINEER. STRUCTURAL DRAWINGS MAY NOT SHOW ALL EQUIPMENT PADS AND OTHER EQUIPMENT SUPPORTS REQUIRED. REFER TO DRAWINGS BY OTHER DISCIPLINES.
- SCALES NOTED ON THE DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DO NOT OBTAIN DIMENSIONAL INFORMATION FROM DIRECT SCALING OF THE DRAWINGS.
- COORDINATE DEMOLITION ACTIVITIES WITH EXISTING FIELD CONDITIONS.
- REPAIRS TO ELEMENTS WHICH ARE TO REMAIN AND THAT HAVE BEEN DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATIONS MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- USE QUALIFIED, EXPERIENCED PERSONNEL FOR DEMOLITION AND REMOVAL.
- PERFORM DEMOLITION AND REMOVAL OPERATIONS IN A CAREFUL AND ORDERLY MANNER TO PREVENT HAZARDS TO PERSONS, DAMAGE TO PROPERTY, AND THE SPREADING OF DUST AND DEBRIS.
- REMOVE DEMOLISHED MATERIALS FROM THE SITE IN ACCORDANCE WITH APPLICABLE LAWS, CODES, AND REGULATIONS.
- PRIOR TO CORE DRILLING THROUGH EXISTING CONCRETE, PROVIDE GROUND PENETRATING RADAR AND IDENTIFY LOCATIONS OF EXISTING REINFORCING. DO NOT CORE THROUGH EXISTING REINFORCING WITHOUT APPROVAL BY THE OWNER.

SHALLOW FOUNDATIONS AND SLABS-ON-GROUND

- DESIGN OF SHALLOW FOUNDATIONS AND SLABS-ON-GROUND IS IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT BY FROHLING & ROBERTSON, INC. DATED SEPTEMBER 9, 2022.
- SHALLOW FOUNDATIONS, SUCH AS SLAB TURNDOWNS AND STRIP FOOTINGS MUST BEAR UPON UNDISTURBED SOIL OR COMPACTED ENGINEERED FILL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 3000 PSF. OBTAIN THE SERVICES OF A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF MARYLAND WHO IS RESPONSIBLE FOR VERIFICATION OF THE SPECIFIED MINIMUM ALLOWABLE BEARING CAPACITY AT EACH FOOTING.
- SHALLOW FOUNDATION ELEVATIONS SHOWN ON THE DRAWINGS ARE MINIMUM EXCAVATION DEPTHS. EXCAVATE FURTHER AS REQUIRED TO REMOVE UNSATISFACTORY SOILS TO A LAYER WITH THE MINIMUM SPECIFIED ALLOWABLE BEARING CAPACITY. WHERE REQUIRED, PROVIDE COMPACTED ENGINEERED FILL TO ACHIEVE THE REQUIRED SUBGRADE ELEVATIONS. NOTIFY THE ENGINEER OF ANY CONDITIONS THAT REQUIRE CHANGES IN FOUNDATION ELEVATIONS.
- PLACE SHALLOW FOUNDATIONS ON THE SAME DAY THAT THE BEARING SURFACE IS INSPECTED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER. ANY BEARING SURFACE NOT PLACED ON THE SAME DAY OF INITIAL INSPECTION MUST BE RE-INSPECTED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER ON THE DAY CONCRETE IS PLACED.
- KEEP EXCAVATIONS DRY.
- REMOVE UNSATISFACTORY SOILS BELOW SLABS-ON-GROUND TO A COMPETENT SOIL STRATUM AND REPLACE WITH COMPACTED ENGINEERED FILL.
- MINIMUM DEPTH BELOW GRADE FOR BOTTOM OF FOUNDATIONS FOR FROST PROTECTION IS 30 INCHES.
- PROVIDE A 6" LAYER OF DRAINAGE COURSE AND A 15-MIL VAPOR RETARDER BENEATH INTERIOR SLABS-ON-GROUND. SUBGRADE FOR SLABS-ON-GROUND MUST BE INSPECTED AND APPROVED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER BEFORE PLACING ANY CONCRETE OR POROUS FILL.
- REFER TO OTHER DISCIPLINES' DRAWINGS FOR WORK INCORPORATED IN, OR COORDINATED WITH, FOUNDATION AND SLAB-ON-GROUND WORK.
- PROVIDE SUPPORT OF EXCAVATIONS REQUIRED TO COMPLETE THE WORK SHOWN ON THE DRAWINGS. SUPPORT OF EXCAVATION SYSTEMS MUST BE DESIGNED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER.

CONCRETE

- PROVIDE NORMAL-WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4,500 PSI, UNLESS OTHERWISE NOTED.
- PROVIDE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3,500 PSI FOR DUCTBANK AND OTHER ITEMS AS INDICATED.
- DETAIL AND CONSTRUCT REINFORCED CONCRETE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE", AND AS SPECIFIED HEREIN.
- DETAIL REINFORCING STEEL IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" AND ACI SP-98, "ACI DETAILING MANUAL."
- PROVIDE REINFORCING STEEL CONFORMING TO ASTM A615, GRADE 60, DEFORMED BARS.
- PROVIDE WELDED WIRE REINFORCEMENT CONFORMING TO ASTM A1064. LAP ENDS ONE MESH SPACING PLUS 2 INCHES.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS:
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, FILL, POROUS FILL, OPEN-GRADED COARSE AGGREGATE, CAPILLARY WATER BARRIER: 3"
B. CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH: EARTH OR FILL: 2"
C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH: EARTH OR FILL: 1-1/2"
- SUBMIT REINFORCING STEEL DETAILS AND JOINT LAYOUT (SHOP DRAWINGS) AND RECEIVE APPROVAL FROM THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH FABRICATION.
- CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS NOTED OTHERWISE.
- DETAIL ALL SPLICES AND STANDARD HOOKS FOR REINFORCING BARS NOT DIMENSIONED ON THE DRAWINGS AS TABULATED ON S-002.
- PROVIDE JOINTS ONLY AS DETAILED ON THE DRAWINGS AND ON APPROVED SHOP DRAWINGS. DO NOT PROVIDE ADDITIONAL JOINTS NOR OMT ANY JOINTS EXCEPT BY WRITTEN AUTHORIZATION FROM THE OWNER'S REPRESENTATIVE. APPROVED ADDITIONAL JOINTS MUST NOT RESULT IN ADDITIONAL EXPENSE TO THE OWNER.
- CONTROL JOINTS SHOWN ON PLANS INDICATE REQUIRED LOCATIONS OF CRACK CONTROL IN THE SLAB-ON-GROUND. A CONTROL JOINT MAY BE EITHER A CONSTRUCTION JOINT OR CONTRACTION JOINT.
- PROVIDE CONSTRUCTION JOINT INTERFACE CLEAN AND FREE OF LAITANCE. WHERE INDICATED ON THE DRAWINGS, INTENTIONALLY ROUGHEN CONSTRUCTION JOINTS TO A FULL AMPLITUDE OF 1/4 INCH. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, CONSTRUCTION JOINTS MUST BE PREWETTED AND STANDING WATER REMOVED.
- SIZE AND LOCATE ANCHOR BOLTS AND EQUIPMENT PADS OR PEDESTALS TO SUIT EQUIPMENT FURNISHED.
- COLD WEATHER PLACEMENT OF CONCRETE MUST BE IN ACCORDANCE WITH ACI 306R, ACI 306.1, AND THE SPECIFICATIONS.
- HOT WEATHER PLACEMENT OF CONCRETE MUST BE IN ACCORDANCE WITH ACI 305R, ACI 305.1, AND THE SPECIFICATIONS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Lynne Eisberg 9/18/23
DIRECTOR DATE

Paul J. ... 9.1.23
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

... 9/18/23
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

STRUCTURAL STEEL

- FABRICATE AND ERECT STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), "STEEL CONSTRUCTION MANUAL - 14TH EDITION".
- SUBMIT ERECTION PLANS AND SHOP DETAILS AND RECEIVE APPROVAL FROM THE ENGINEER BEFORE PROCEEDING WITH FABRICATION.
- PROVIDE STRUCTURAL STEEL WIDE-FLANGE SHAPES CONFORMING TO ASTM A992, HSS MEMBERS CONFORMING TO ASTM A500 GRADE C, PIPE CONFORMING TO ASTM A53 GRADE B, AND ALL OTHER MEMBERS CONFORMING TO ASTM A36 UNLESS OTHERWISE NOTED.
- HOT-DIP GALVANIZED ANCHOR RODS CONFORMING TO ASTM F1554, GRADE 55 WITH SUPPLEMENTARY REQUIREMENT S-1 AND NUTS CONFORMING TO ASTM A563, GRADE DH (HEAVY HEX). PROVIDE DOUBLE NUTS SPUN TIGHT AGAINST WASHER AT ANCHOR ROD END EMBEDDED IN CONCRETE.
- MILL BOTTOM OF ALL COLUMNS AND FINISH TOP OF ALL BASE PLATES IN ACCORDANCE WITH AISC SPECIFICATIONS. WELD BASE PLATES TO BOTTOM OF COLUMNS.
- HOT-DIP GALVANIZE STEEL AND CONNECTIONS PER ASTM A123 AND A153, OR PROVIDE A COATING SYSTEM PER THE SPECIFICATIONS. WHERE NO COATING SYSTEM OR GALVANIZATION IS SPECIFIED, PROVIDE A SHOP PRIMER COATING.
- REPAIR DAMAGE TO GALVANIZED COATINGS USING ASTM A780 ZINC-RICH PAINT FOR GALVANIZING DAMAGED BY HANDLING, TRANSPORTING, CUTTING, WELDING, OR BOLTING. DO NOT HEAT SURFACES TO WHICH REPAIR PAINT HAS BEEN APPLIED. COATING THICKNESS OF ZINC-RICH PAINT MUST BE 50% GREATER THAN THE SURROUNDING GALVANIZED COATING THICKNESS, BUT NOT TO EXCEED 4.0 MILS.
- EMBRITTLMENT MITIGATION BY THERMAL TREATMENT OF HOT-DIP GALVANIZED STEEL MEMBERS WITH COLD BEND RADIi OF LESS THAN THREE TIMES THE MEMBER THICKNESS MUST BE PERFORMED BY SUBCRITICAL ANNEALING IN ACCORDANCE WITH ASTM A143, PRIOR TO GALVANIZATION. THERMALLY TREAT ALL HSS SQUARE AND RECTANGULAR SECTIONS. SUBMIT PROPOSED THERMAL TREATMENT PROCEDURE TO THE ENGINEER FOR APPROVAL PRIOR TO TREATMENT.
- PROVIDE A CONTINUOUS SEAL WELDED CAP PLATE FOR HSS MEMBERS, UNLESS NOTED OTHERWISE. CAP PLATE THICKNESS TO MATCH HSS WALL THICKNESS.
- FIELD MODIFICATION OF THE STRUCTURAL STEEL IS NOT PERMITTED WITHOUT APPROVAL FROM THE ENGINEER.
- WELD IN COMPLIANCE WITH AMERICAN WELDING SOCIETY, AWS D1.1, "STRUCTURAL WELDING CODE".

ADHESIVE ANCHORS

- THE ADHESIVE ANCHOR SYSTEM USED FOR POST INSTALLED ANCHORAGE TO CONCRETE MUST CONFORM TO THE REQUIREMENTS OF THE MOST RECENTLY PUBLISHED ACI 308.4, "ACCEPTANCE CRITERIA FOR QUALIFICATION OF POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE AND COMMENTARY". EACH ADHESIVE ANCHOR SYSTEM MUST SATISFY THE STRENGTH REQUIREMENTS FOR ITS USE. BULK MIXED ADHESIVES ARE NOT PERMITTED. ADHESIVE ANCHORAGE DESIGN IS IN ACCORDANCE WITH ACI 318-14. ADHESIVE ANCHORS IN CONCRETE MUST BE QUALIFIED FOR USE IN CRACKED CONCRETE IN ACCORDANCE WITH ACI 355.4. PROVIDE THE FOLLOWING ANCHOR SYSTEMS, OR APPROVED EQUALS:
A. ANCHORAGE TO CONCRETE
a. HILTI RE-500 WITH HILTI HIT-Z-R ROD OR HAS-R THREADED ROD.
- PROVIDE TYPE 304 STAINLESS STEEL ANCHORS FOR EXTERIOR USE AND ZINC-COATED ANCHORS FOR INTERIOR USE.
- CONCRETE AT THE TIME OF ADHESIVE ANCHOR INSTALLATION MUST HAVE A MINIMUM AGE OF 21 DAYS.
- INSTALL ADHESIVE ANCHORS WITH A MINIMUM EDGE DISTANCE OF 4 INCHES TO ANY FREE EDGE OF CONCRETE, OR EDGE DISTANCE INDICATED ON DRAWINGS, WHICHEVER IS GREATER.
- INSTALL ADHESIVE ANCHORS WITH TRAINED QUALIFIED PERSONNEL, IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
- PROVIDE THOROUGHLY CLEANED ANCHOR HOLES PRIOR TO ADHESIVE INJECTION, AS REQUIRED BY THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS. PROTECT DRILLED AND CLEANED ANCHOR HOLES FROM CONTAMINATION UNTIL THE ADHESIVE IS INSTALLED.
- PROVIDE ANCHORS CLEAN, OIL-FREE, AND FREE OF LOOSE RUST, PAINT, OR OTHER COATINGS.
- PROVIDE INSTALLED ADHESIVE ANCHORS SECURELY FIXED IN-PLACE TO PREVENT DISPLACEMENT WHILE THE ADHESIVE CURES.
- ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE OWNER'S REPRESENTATIVE MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
- PERSONNEL INSTALLING HORIZONTAL OR OVERHEAD ADHESIVE ANCHORS MUST BE QUALIFIED PER THE SPECIFICATIONS.
- DO NOT DAMAGE EXISTING REINFORCING STEEL IN THE CONCRETE DURING ANCHOR INSTALLATION, UNLESS OTHERWISE NOTED ON THE DRAWINGS. PRIOR TO ANCHOR INSTALLATION, DETERMINE LOCATION OF EXISTING REINFORCING STEEL BY NON-DESTRUCTIVE MEANS AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS BETWEEN REINFORCING STEEL AND ANCHOR LOCATION PRIOR TO FABRICATION OF MATERIALS.
- DESIGN BASIS FOR ADHESIVE ANCHORS IS INDICATED ABOVE. SUBSTITUTIONS WILL BE CONSIDERED, BUT PRODUCT MUST MEET OR EXCEED ALL CRITERIA OF THE SPECIFIED ANCHOR. SUBSTITUTION REQUESTS MUST BE APPROVED IN WRITING BY THE OWNER'S REPRESENTATIVE PRIOR TO USE. PROVIDE PRODUCT DATA AND CALCULATIONS DEMONSTRATING THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURES AND INSTALLATION TEMPERATURE.

SLOTTED CHANNEL FRAMING:

- PROVIDE SLOTTED CHANNEL FRAMING COMPLYING WITH THE METAL FRAMING MANUFACTURERS ASSOCIATION MFMA-4 MADE FROM STEEL CONFORMING TO ASTM A853 GRADE 33. SLOTTED CHANNELS MUST BE 1 5/8" WIDE WITH A DEPTH AND CONFIGURATION AS INDICATED. FITTINGS AND HARDWARE MUST BE MADE FROM STEEL CONFORMING TO ASTM A36, A575, A576 OR A834, AND MUST BE COMPATIBLE WITH THE FRAMING MEMBERS. MAKE CONNECTIONS BETWEEN SLOTTED CHANNEL MEMBERS AND PRODUCTS AND CONNECTIONS TO OTHER MEMBERS AND PRODUCTS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. PROVIDE FRAMING AND HARDWARE WITH EITHER AN ELECTROPLATED ZINC TYPE III S03 COATING IN ACCORDANCE WITH ASTM B633 OR A PREGALVANIZED ZINC COATING IN ACCORDANCE WITH ASTM A853 FOR INTERIOR USE. PROVIDE A HOT-DIPPED GALVANIZED COATING FOR EXTERIOR USE.
- SLOTTED CHANNEL FRAMING PART NUMBERS INDICATED ARE UNISTRUT, BY ATKORE INTERNATIONAL, INC. APPROVED EQUAL PRODUCTS MAY BE USED INSTEAD. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. PROVIDE CALCULATIONS AND PRODUCT DATA DEMONSTRATING, TO THE SATISFACTION OF THE STRUCTURAL ENGINEER OF RECORD, THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT.
- PROVIDE MINIMUM 1/2" DIAMETER BOLTS AND CHANNEL NUTS FOR CONNECTING SLOTTED CHANNEL FRAMING COMPONENTS, UNLESS OTHERWISE NOTED. TORQUE BOLTS TO THE MINIMUM RECOMMENDED VALUE INDICATED BY THE MANUFACTURER.

PIPE SUPPORTS:

- REFER TO MECHANICAL DRAWINGS FOR PIPE INFORMATION. REFER TO STRUCTURAL DRAWINGS FOR PIPE SUPPORT LOCATIONS AND PIPE SUPPORT DETAILS.
- SPACING OF PIPE SUPPORTS MUST NOT EXCEED THE LENGTHS INDICATED ON THE MECHANICAL AND STRUCTURAL DRAWINGS. THE ACTUAL LENGTH BETWEEN SUPPORTS MUST ALSO NOT EXCEED THE SPACING REQUIRED BY THE APPLICABLE MECHANICAL OR ELECTRICAL CODES.
- SUPPORT DETAILS SHOWN ARE STRUCTURALLY ADEQUATE FOR THE NUMBER AND SIZES OF THE PIPE SHOWN AND THE SUPPORT SPACINGS INDICATED. VARIATIONS TO THE DETAILS OR LOCATIONS OF SUPPORTS REQUIRE APPROVAL FROM THE OWNER.
- COORDINATE FINAL LOCATION OF SUPPORTS WITH MECHANICAL DRAWINGS; MAXIMUM ALLOWABLE DISTANCE BETWEEN SUPPORTS; AND EXISTING CONSTRUCTION.

PATCHING AND EPOXY COATING

- REPAIR ROUGHENED CONCRETE SURFACES FROM DEMOLITION WORK WITH TWO-COMPONENT, POLYMER MODIFIED, CEMENTITIOUS, TROWEL-GRADE MORTAR WITH CORROSION INHIBITOR IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. REPAIR SURFACES MUST BE FLUSHED WITH ADJACENT EXISTING CONCRETE SURFACES.
A. PROVIDE MINIMUM CONCRETE COVER AS INDICATED FOR EXISTING REINFORCING STEEL TO REMAIN.
B. REPAIR MORTAR: SIKATOP 122 PLUS OR APPROVED EQUAL.
- AFTER CORE-DRILLING OR SAWCUTTING (AS APPLICABLE) AND BEFORE INSTALLING THE UTILITY OR EQUIPMENT THROUGH THE PENETRATION, COAT EXPOSED CONCRETE AND EXPOSED STEEL WITH SOLVENT-FREE, TWO-COMPONENT, PROTECTIVE, EPOXY COATING.
- AFTER CUTTING OR REMOVAL OF BOLTS, APPLY EPOXY RESIN COATING TO EXPOSED CUT EXISTING ANCHOR BOLTS, OR ANCHOR BOLT SET-INS ON CONCRETE SURFACES. CUT ANCHOR BOLTS FLUSHED WITH CONCRETE SURFACE UNLESS OTHERWISE NOTED.
- EPOXY COATING: A HIGH BUILD, PROTECTIVE, SOLVENT-FREE COLORED EPOXY COATING.
A. SIKAGARD 82 OR APPROVED EQUAL.
B. COLOR SHALL APPROXIMATE THE FINISH COLOR OF THE EXISTING SURFACE TO BE COATED.
C. DRY FILM THICKNESS: 30 MILS MINIMUM.

SUPPLEMENTAL FRAMING AND SUPPORTS FOR OVERHEAD UTILITIES

- INTERIOR OVERHEAD UTILITIES MUST BE SUPPORTED FROM THE BUILDING'S STRUCTURAL STEEL FRAMING. DO NOT ANCHOR OR SUPPORT DIRECTLY FROM COMPOSITE METAL DECK FLOORING SYSTEM.
- PROVIDE AND DESIGN SUPPLEMENTAL FRAMING AND SUPPORTS FOR INTERIOR OVERHEAD UTILITIES IN THE FIRST FLOOR DATA CENTER. IT IS ASSUMED THAT THE SECOND FLOOR FRAMING CAN SUPPORT AN UNIFORMLY DISTRIBUTED LOAD OF 15 PSF FOR HANGING OVERHEAD UTILITIES.

DELEGATED DESIGN

- RESPONSIBILITY FOR THE FOLLOWING ENGINEERED SYSTEMS AND COMPONENTS IS DELEGATED TO A QUALIFIED PROFESSIONAL ENGINEER, SELECTED AND HIRED BY THE CONTRACTOR. THESE SYSTEMS AND COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO:
A. TEMPORARY SUPPORT OF EXCAVATION, STRUCTURES, AND UNDERGROUND UTILITIES.
B. GENERATOR PLATFORMS AND STAIRS.
C. SCREEN FENCE.
D. SUPPLEMENTAL FRAMING AND SUPPORTS FOR OVERHEAD UTILITIES.
- DELEGATED ENGINEERED SYSTEMS AND COMPONENTS MUST SATISFY 2018 IBC LOAD COMBINATIONS.
- COORDINATE WITH THE CONTRACT DOCUMENTS FOR PROFESSIONAL LICENSURE AND SEALING REQUIREMENTS, DESIGN CRITERIA, DETAILS OF THE SYSTEMS AND COMPONENTS, SUBMITTAL REQUIREMENTS, AND CALCULATION REQUIREMENTS.

DESIGN LOADS AND CRITERIA

ALL LOADS INDICATED BELOW ARE UNFACTORED AND ONLY APPLY TO WORK INDICATED HEREIN UNLESS OTHERWISE NOTED. THE LOADS INDICATED BELOW DO NOT APPLY TO THE EXISTING BUILDING.

- RISK CATEGORY: II
- DEAD LOADS:
A. STRUCTURES: ACTUAL WEIGHT OF SOIL: 125 PCF FOR DEAD LOAD
B. RAISED ACCESS FLOOR: 12 PSF
C. 8"Ø SCHEDULE 40 STEEL PIPE, WATER, & INSULATION: 55 PLF
D. 6"Ø SCHEDULE 40 STEEL PIPE, WATER, & INSULATION: 35 PLF
E. 4"Ø TYPE L COPPER PIPE, WATER, & INSULATION: 13 PLF
F. 2"Ø TYPE L COPPER PIPE, WATER, & INSULATION: 5 PLF
G. BASIS OF DESIGN GENERATOR (NET): 53,000 LB
H. BASIS OF DESIGN CHILLER: 19,000 LB
I. BASIS OF DESIGN DOCKING STATION: 750 LB
J. BASIS OF DESIGN LOAD BANK: 8,400 LB
K. BASIS OF DESIGN GENERATOR CONTROL TRANSFORMER: 260 LB
- LIVE LOADS:
A. EXTERIOR GENERATOR PAD: 250 PSF
- SNOW LOAD:
A. GROUND SNOW LOAD (PG): 25 PSF
B. EXPOSURE FACTOR (CE): 1.0
C. THERMAL FACTOR (CT): 1.0
D. SNOW LOAD IMPORTANCE FACTOR (IS): 1.0
- WIND LOAD:
A. ULTIMATE WIND SPEED (VULT): 115 MPH
B. NOMINAL WIND SPEED (VNSD): 89 MPH
C. EXPOSURE CATEGORY: B
D. SCREEN FENCE OPENNESS (RATIO OF SOLID OVER GROSS AREA): 0.60
- SEISMIC LOAD:
A. SEISMIC IMPORTANCE FACTOR (IE): 1.0
B. MAXIMUM EARTHQUAKE SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS: SS=0.135G
C. MAXIMUM EARTHQUAKE SPECTRAL RESPONSE ACCELERATION AT ONE-SECOND: S1=0.043G
D. SITE CLASSIFICATION: D
E. SITE SEISMIC COEFFICIENT: FA=1.6; FV=2.4
F. SPECTRAL RESPONSE COEFFICIENTS: SDS = 0.144; SD1 = 0.063
G. SEISMIC DESIGN CATEGORY: B

CODES AND STANDARDS

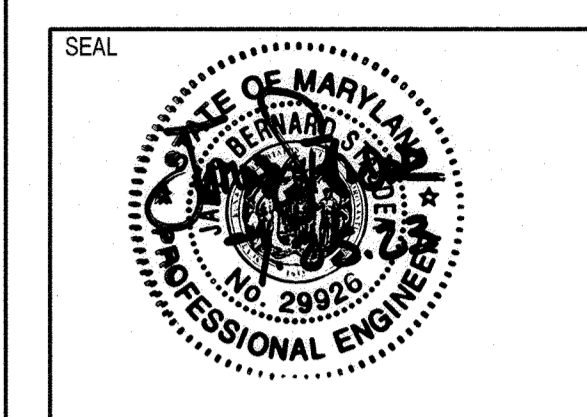
- INTERNATIONAL BUILDING CODE IBC (2018), INCLUDING THE MODIFICATIONS MADE BY LOCAL JURISDICTION
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION AISC-360 (2016) "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
- AMERICAN CONCRETE INSTITUTE ACI-318 (2014), "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
- AMERICAN SOCIETY OF CIVIL ENGINEERS ASCE 7 (2015), "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"
- INTERNATIONAL CONCRETE REPAIR INSITUTE ICRI 301.2R (2013), "SELECTING AND SPECIFYING CONCRETE SURFACE PREPARATION FOR SEALERS, COATINGS, POLYMER OVERLAYS, AND CONCRETE REPAIR."

STRUCTURAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ADDL	ADDITIONAL
AGGR	AGGREGATE
ACI	AMERICAN CONCRETE INSTITUTE
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASWG	AMERICAN STEEL WIRE GAUGE
AWG	AMERICAN WIRE GAUGE
AWIS	AMERICAN WELDING SOCIETY
APPROX	APPROXIMATE
BOT	BOTTOM
BOS	BOTTOM OF STEEL
CLR	CLEAR
CIP	CAST-IN-PLACE
COL	COLUMN
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUE, CONTINUOUS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CSI	CONSTRUCTION SPECIFICATION INSTITUTE
CEI	CEILING
CTRL JT	CONTROL JOINT
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
DEMO	DEMOLITION/DEMOLISH
DIA	DIAMETER
DIAG	DIAGONAL, DIAGRAM
DWG	DRAWING
EA	EACH
EL	ELEVATION
EQ	EQUAL
EXIST	EXISTING
EXP	EXPANSION
FNDN	FOUNDATION
FIN GR	FINISH GRADE
FT	FOOT/FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZE/GALVANIZED
HORIZ	HORIZONTAL
IBC	INTERNATIONAL BUILDING CODE
ICRI	INTERNATIONAL CONCRETE REPAIR INSTITUTE
INV	INVERT
JT	JOINT
LH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MATL	MATERIAL
MAX	MAXIMUM
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
NTS	NOT TO SCALE
NUM	NUMERAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
PART	PARTIAL
PERP	PERPENDICULAR
QA/QC	QUALITY ASSURANCE QUALITY CONTROL
REBAR	REINFORCING STEEL BAR
REC	RECESSED
REF	REFERENCE
REINF	REINFORCER/REINFORCEMENT/REINFORCING
REIN	REINFORCEMENT
REMO	REMOVABLE
REQD	REQUIRED
REV	REVISION
RFI	REQUEST FOR INFORMATION
RO	ROUGH OPENING
SCHED	SCHEDULE
SDI	STEEL DECK INSTITUTE
SECT	SECTION
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD(S)
STD	STANDARD
STIFF	STIFFENER
STRUCT	STRUCTURAL
SYMM	SYMMETRICAL
TEMP	TEMPORARY
THRU	THROUGH
TO	TOP OF
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
WP	WORKING POINT
WWF	WELDED WIRE FABRIC

KEY PLAN

PROJECT NORTH



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 29926 EXPIRATION: 1/11/2024

JOHNS HOPKINS
APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD LAUREL, MD 20723-6069
ARCHITECTURAL/ENGINEERING DESIGNER

Whitman, Reardon & Associates, LLP
Est. 1915
Engineers - Architects - Environmental Planners

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
9030 RED BRANCH ROAD
SUITE 200
COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
6701 DEMOCRACY BLVD
SUITE 410
BETHESDA, MD 20817

PROJECT: TRAMMELL CROW OFFICE BUILDING
AT MONTPELLIER RESEARCH PARK - PARCEL B

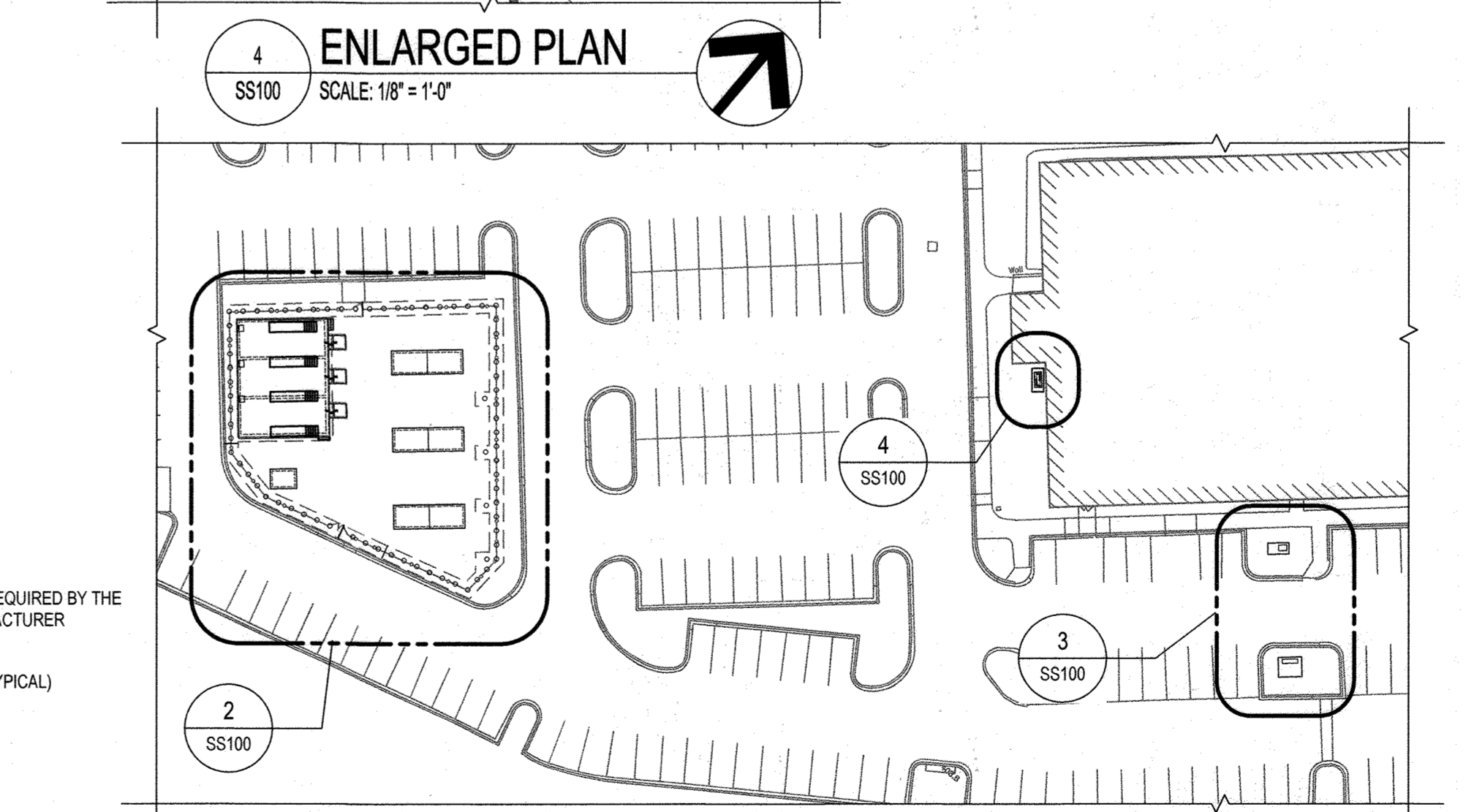
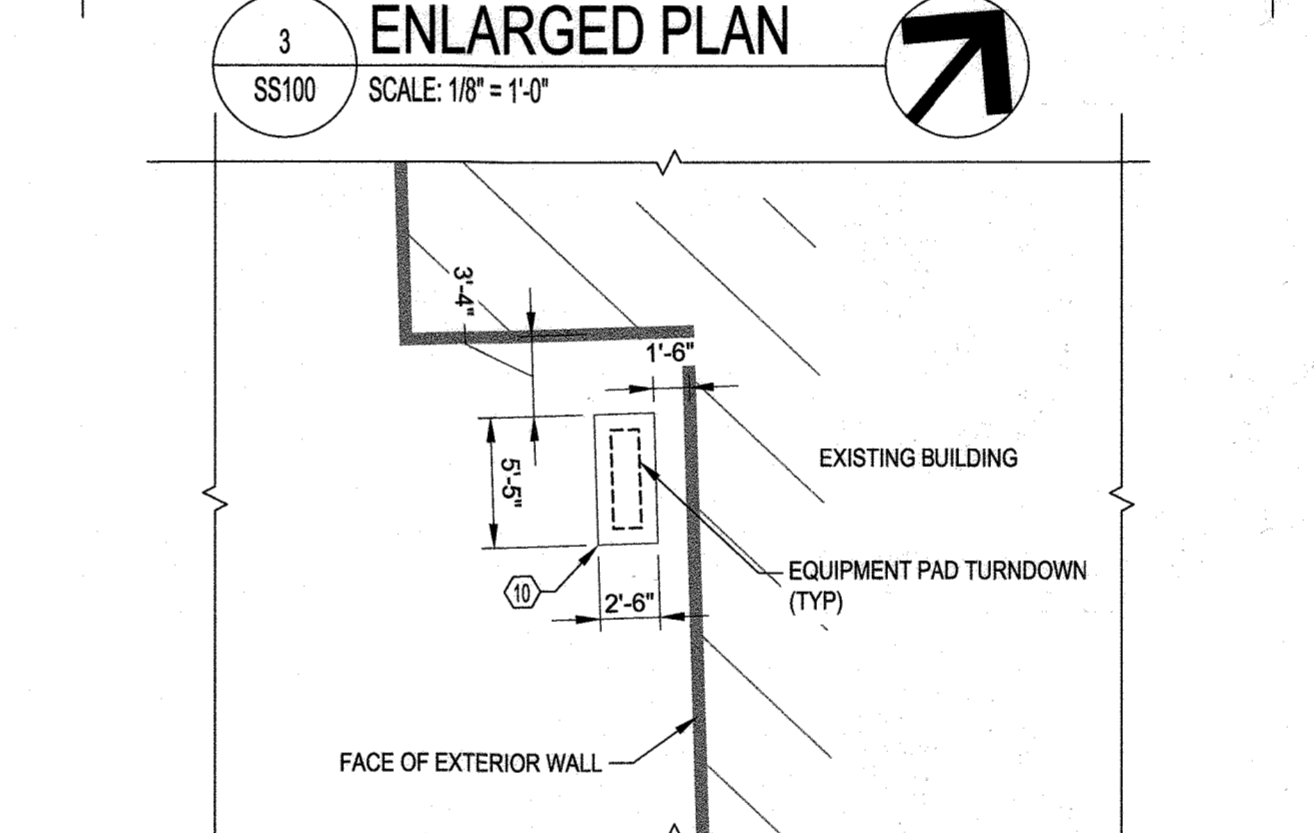
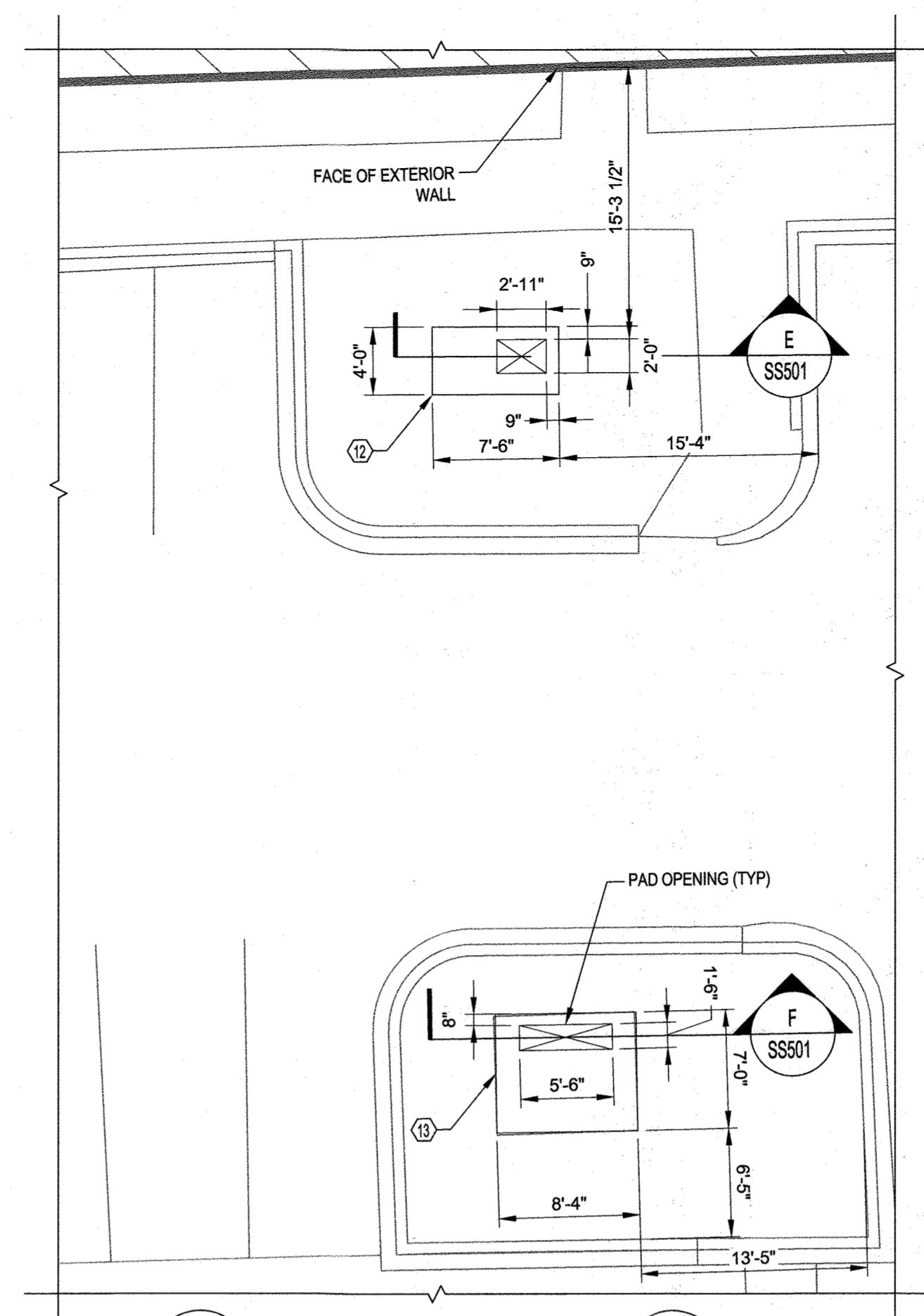
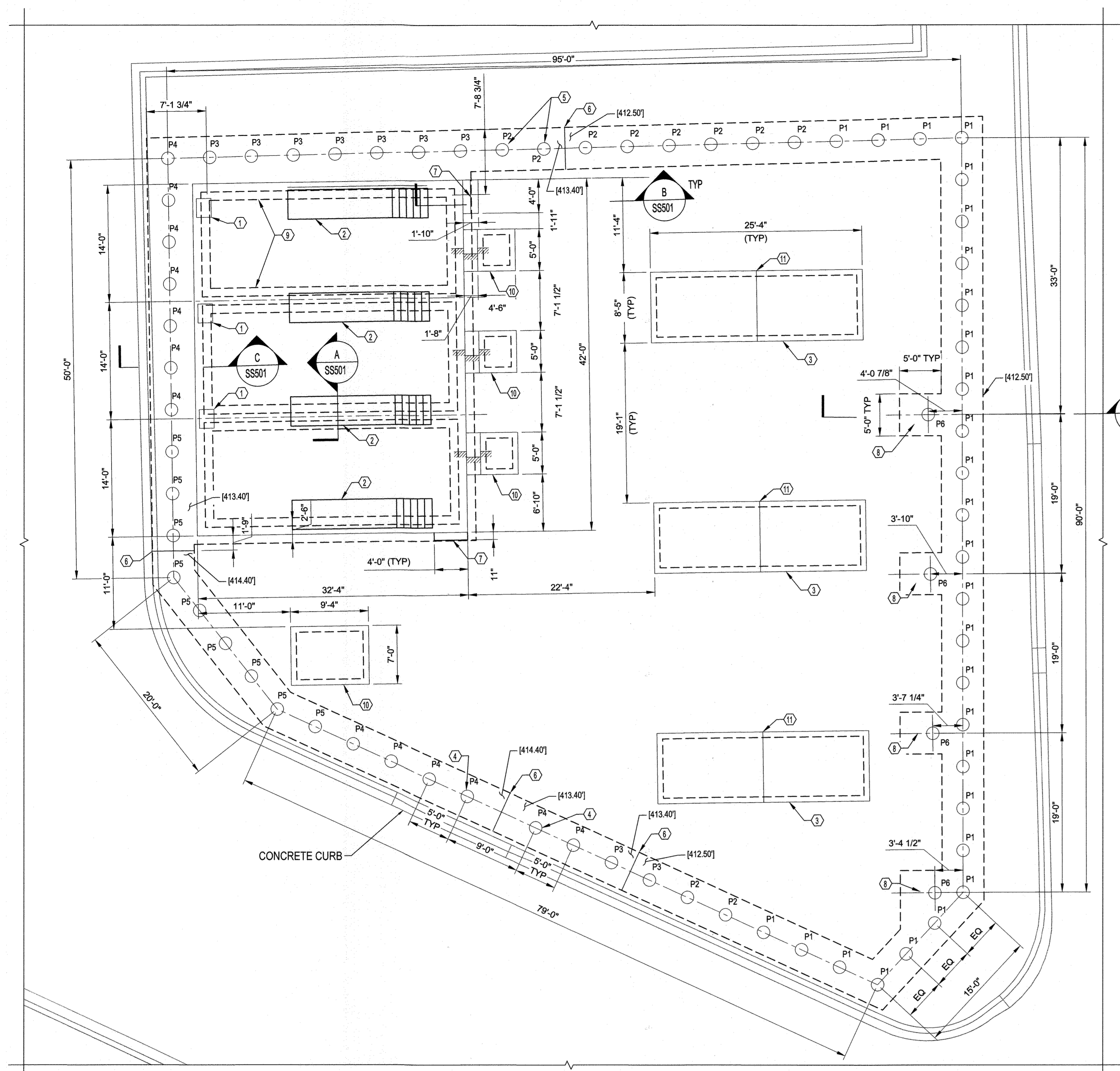
AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
GRID 17 5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISSED SITE DEVELOPMENT PLAN

STRUCTURAL GENERAL NOTES AND ABBREVIATIONS

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JL DRAWING NUMBER: S001
CHECKED BY: MRD
CODE REVIEW: ...



GENERAL SHEET NOTES:

- REFER TO CIVIL DRAWINGS FOR ADDITIONAL COORDINATION WITH SITE UTILITIES.
- REFER TO DRAWING C103 FOR EQUIPMENT YARD STAKEOUT PLAN.
- REFER TO DRAWING C104 FOR EQUIPMENT YARD GRADING PLAN AND TOP OF CONCRETE EQUIPMENT PAD ELEVATIONS.

SHEET KEYNOTES:

- 1'-8" X 2'-3" EQUIPMENT PAD ON TOP OF SLAB (SIMILAR TO INTERIOR EQUIPMENT PAD DETAIL ON S-002).
- PROVIDE HOT-DIPPED GALVANIZED FINISHED, METAL PLATFORM, RAILING AND STAIR. COORDINATE PLATFORM GEOMETRY AND ELEVATION WITH THE GENERATOR.
- CHILLER EQUIPMENT PAD. TOP OF CONCRETE ELEVATION 416.48'
- SCREEN FENCE POST FOR TWO 4'-0" WIDE GATE.
- SCREEN FENCE POST FOR MAN DOOR.
- STEP STRIP FOUNDATION TO ELEVATION INDICATED.
- CONCRETE STAIRS WITH 3'-0" WIDE ABRASIVE NOSING.
- PIPE SUPPORT PEDESTAL.
- EDGE OF STRIP FOOTING BELOW SLAB, TYPICAL.
- EXTERIOR EQUIPMENT SUPPORT PAD.
- PROVIDE DOWEL CONTRACTION JOINT AT MID POINT OF EQUIPMENT PAD, INCLUDING THE TURNDOWN SLAB.
- ELECTRICAL CABINET PAD.
- TRANSFORMER PAD.

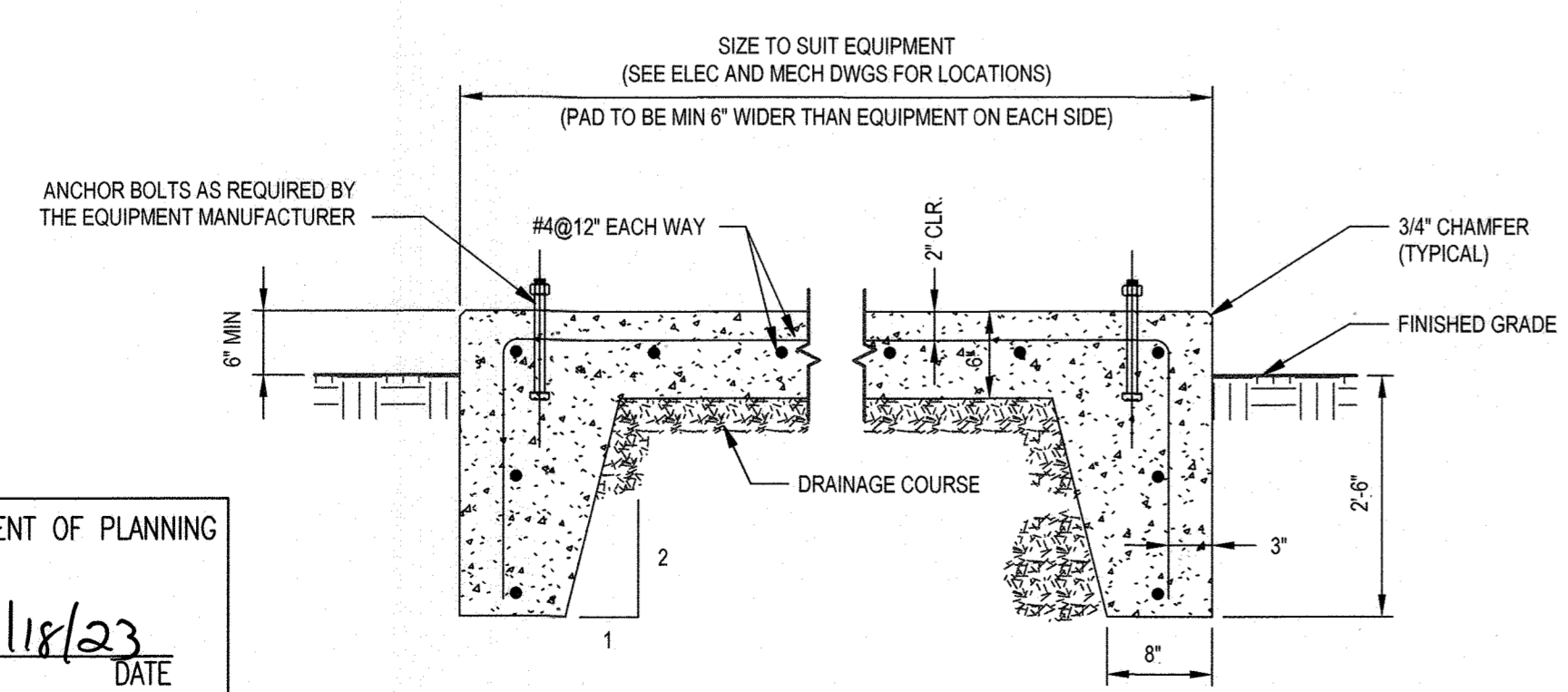
[414.30] BOTTOM OF FOOTING ELEVATION.

P1 18" DIAMETER CONCRETE PIER FOR 12'-0" SCREEN FENCE

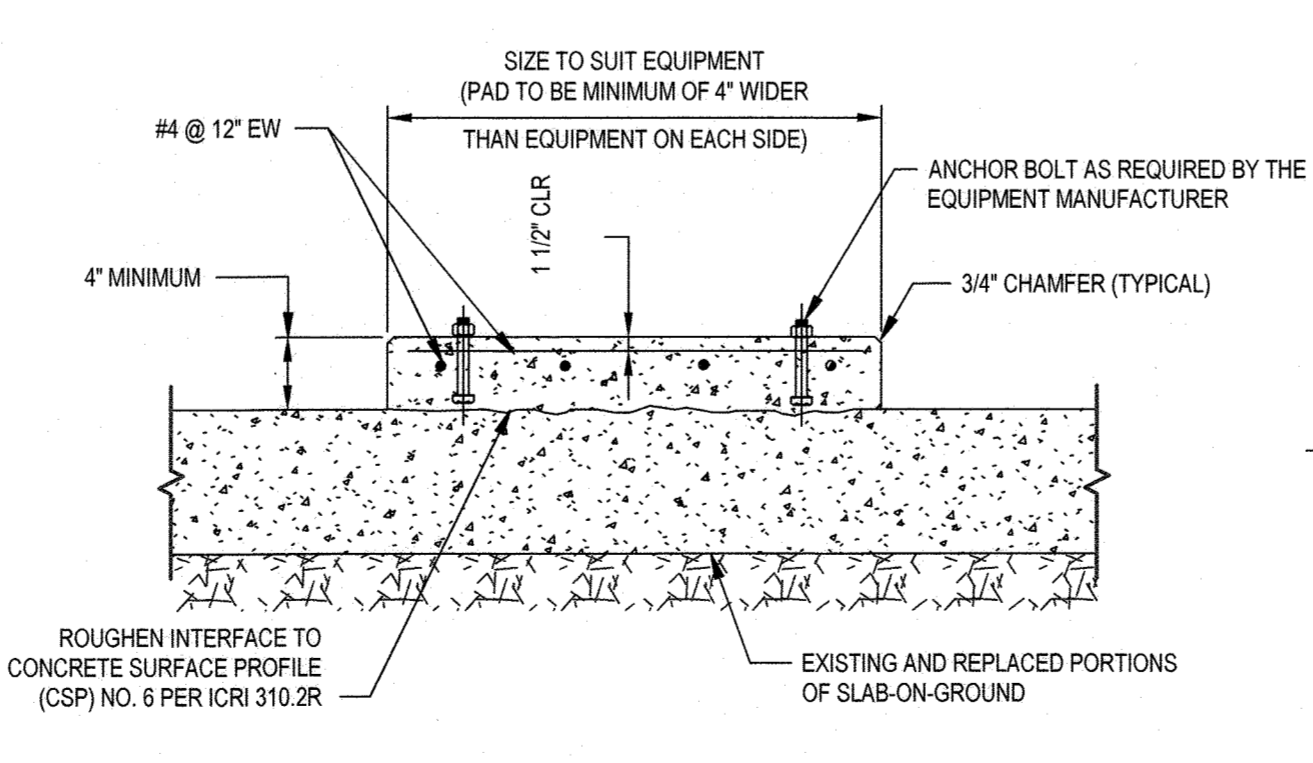
SCREEN FENCE PIER SCHEDULE

PIER NO	TOP OF PIER ELEVATION
P1	416.00'
P2	416.50'
P3	417.00'
P4	417.50'
P5	418.00'
P6	416.48'

2 ENLARGED PLAN
SS100 SCALE: 1/8" = 1'-0"



TYPICAL EXTERIOR EQUIPMENT SUPPORT PAD



TYPICAL INTERIOR EQUIPMENT SUPPORT PAD

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 Director: *Linda Escobar* 9/18/23
 Chief Development Engineering Division: *Paul J. ...* 9.1.23
 Chief, Division of Land Development: *...* 9/18/23

NOTE: FOR PADS LONGER THAN 15', PROVIDE CONTROL JOINT AT CENTER OF PAD.

KEY PLAN
PROJECT NORTH

SEAL
 STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 LICENSE NO. 29926 EXPIRATION: 1/11/2024

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
 11100, JOHNS HOPKINS ROAD LAUREL, MD 20723-6089
Whitman, Reardon & Associates, LLP
 Environmental Planners
 Est. 1915

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 9030 RED BRANCH ROAD SUITE 200 COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
 6701 DEMOCRACY BLVD SUITE 410 BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
 AT MONTPELIER RESEARCH PARK - PARCEL B

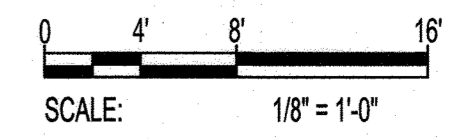
AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
 GRID 17 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PLAT # 13230 CENSUS TRACT 6051.02

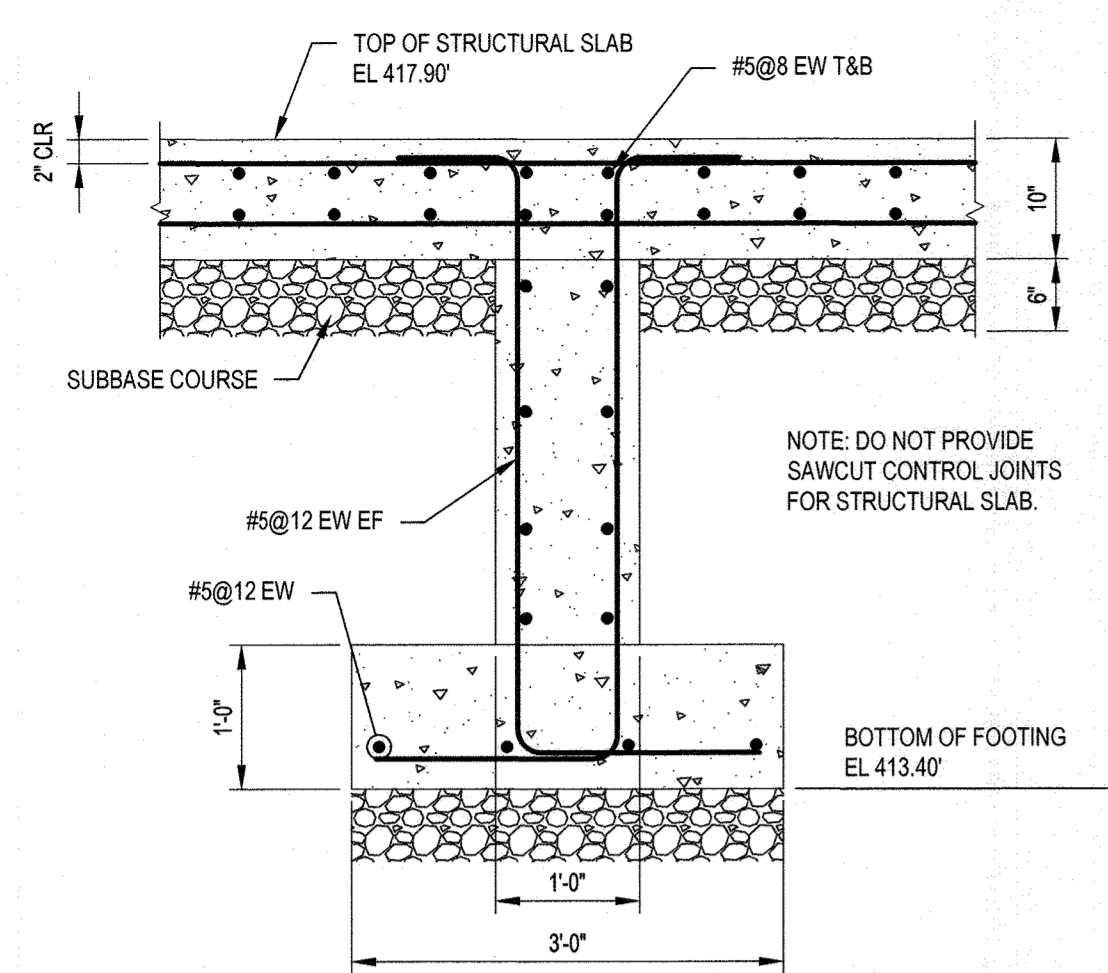
TITLE: REVISED SITE DEVELOPMENT PLAN

STRUCTURAL SITE PLAN

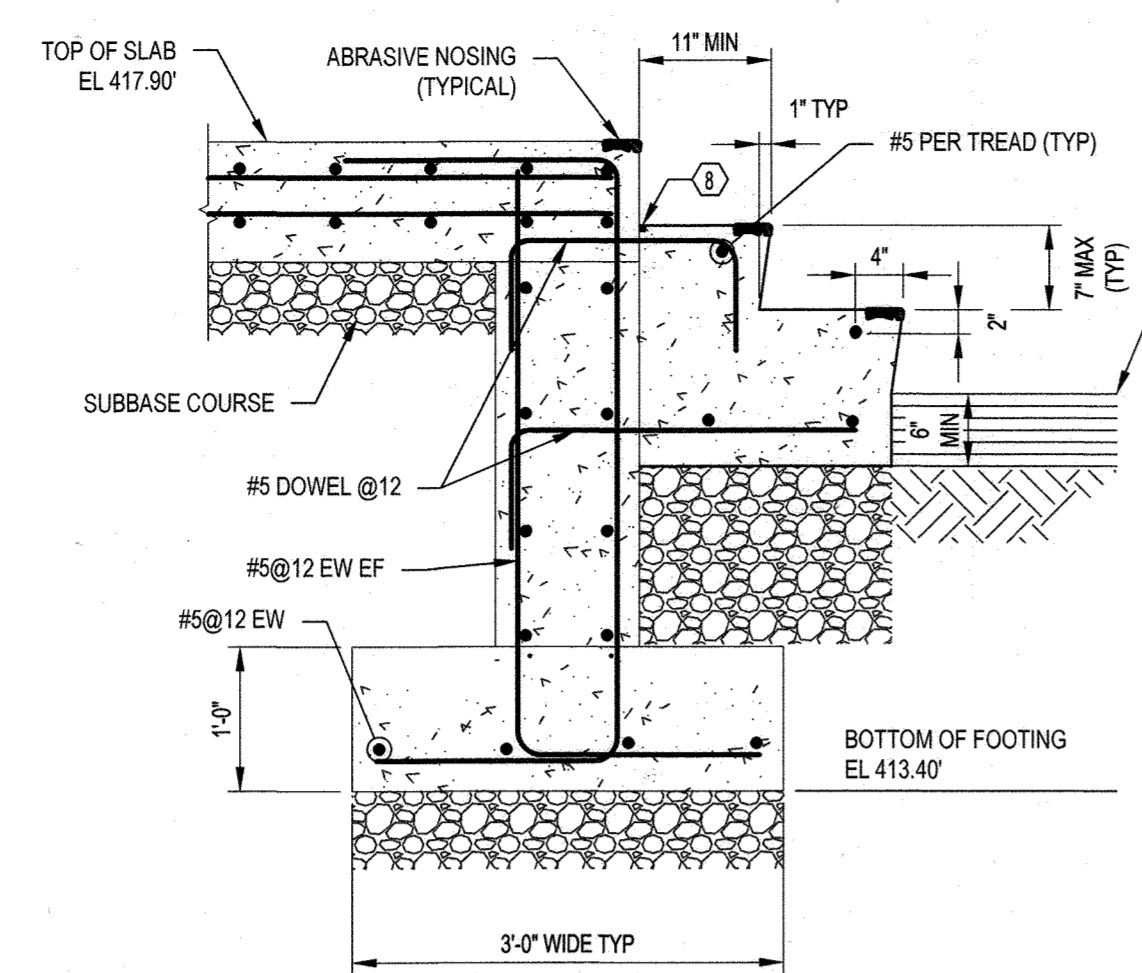
REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JL
 CHECKED BY: MRD
 CODE REVIEW: ...
 DRAWING NUMBER: SS100
 SHEET 30 OF 31

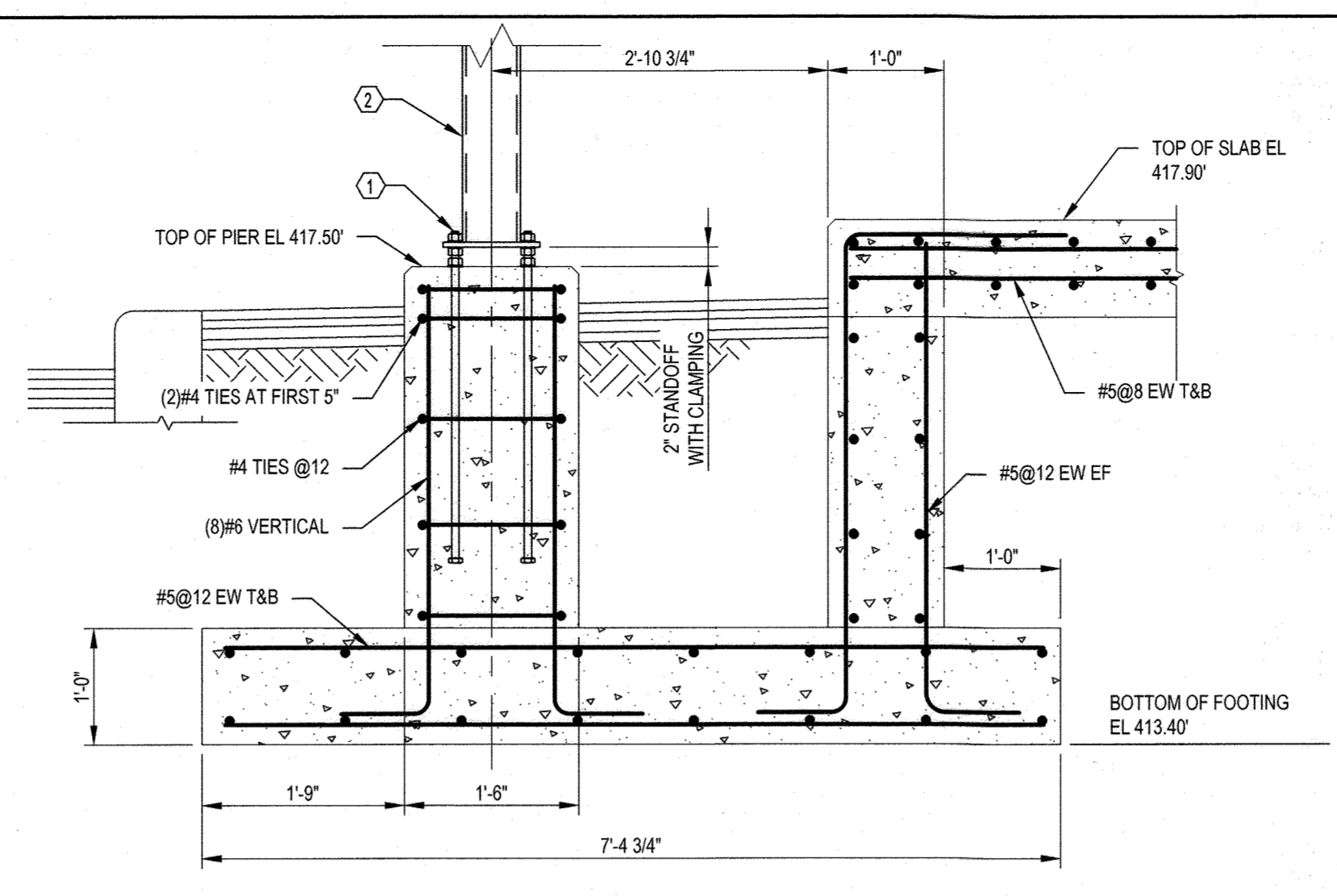




A SECTION
SS501 SCALE: 3/4" = 1'-0"
REF: SS100



B SECTION
SS501 SCALE: 3/4" = 1'-0"
REF: SS100



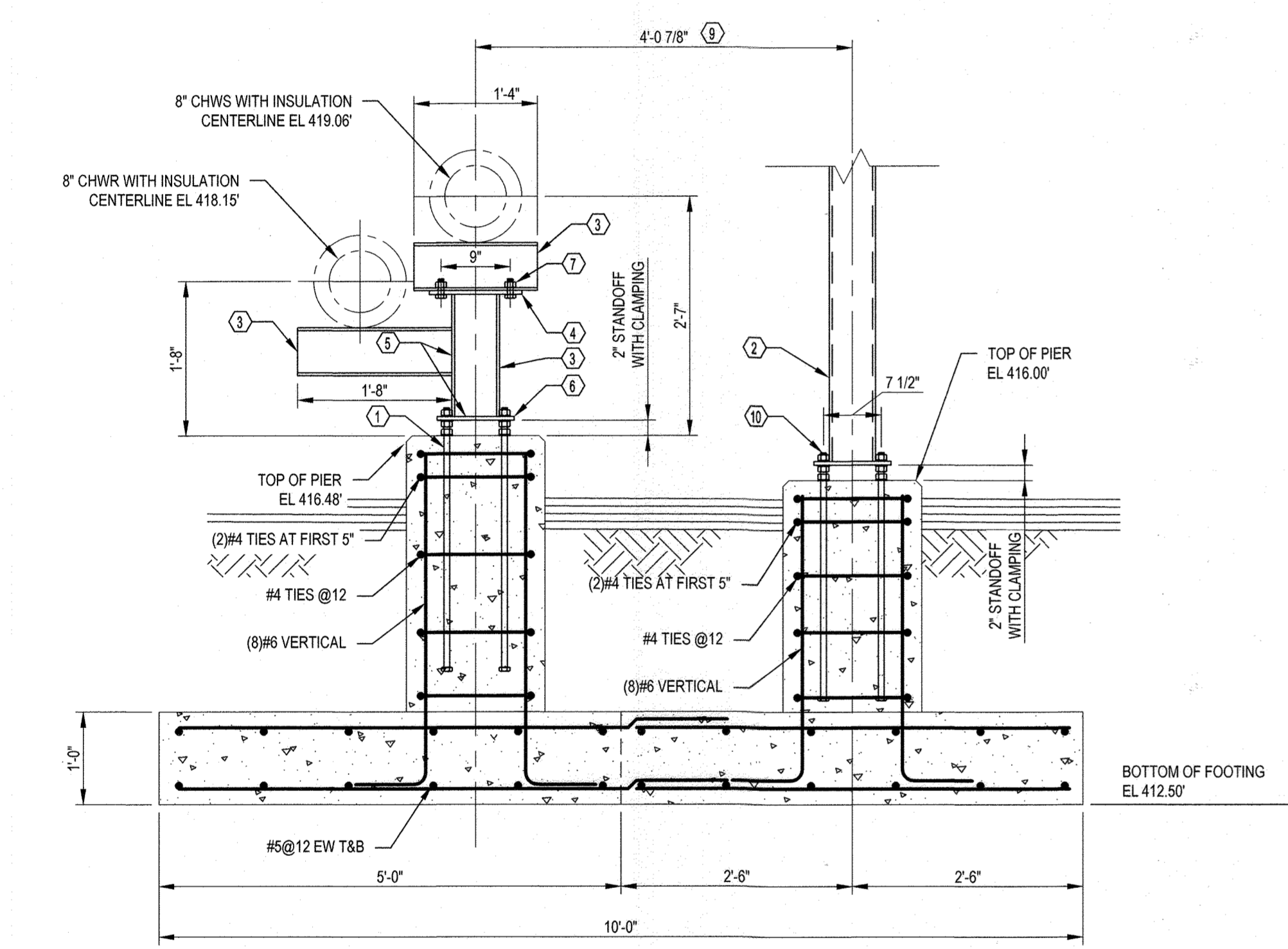
C SECTION
SS501 SCALE: 3/4" = 1'-0"
REF: SS100

GENERAL SHEET NOTES:

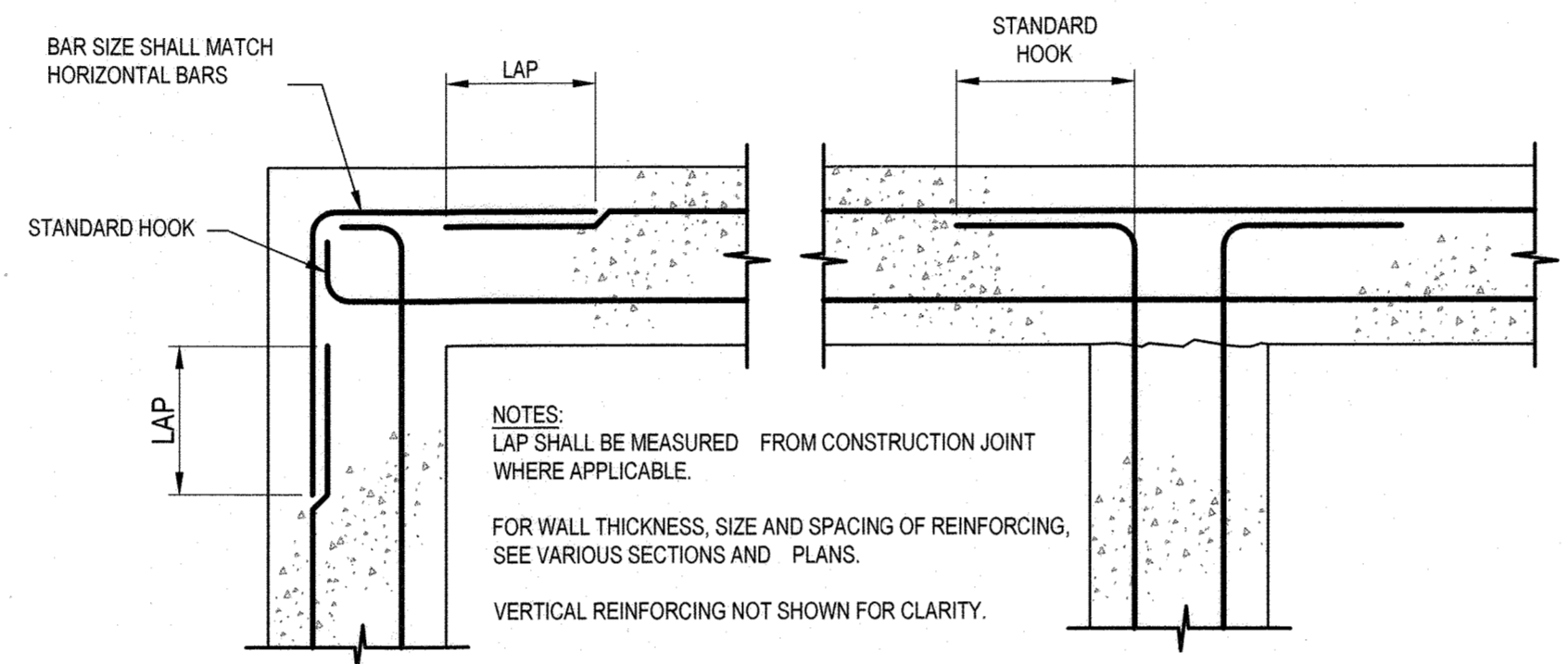
1. REFER TO DRAWING S-001 FOR GENERAL STRUCTURAL NOTES AND DRAWING S-002, S-003 AND THIS SHEET FOR TYPICAL DETAILS.

SHEET KEYNOTES:

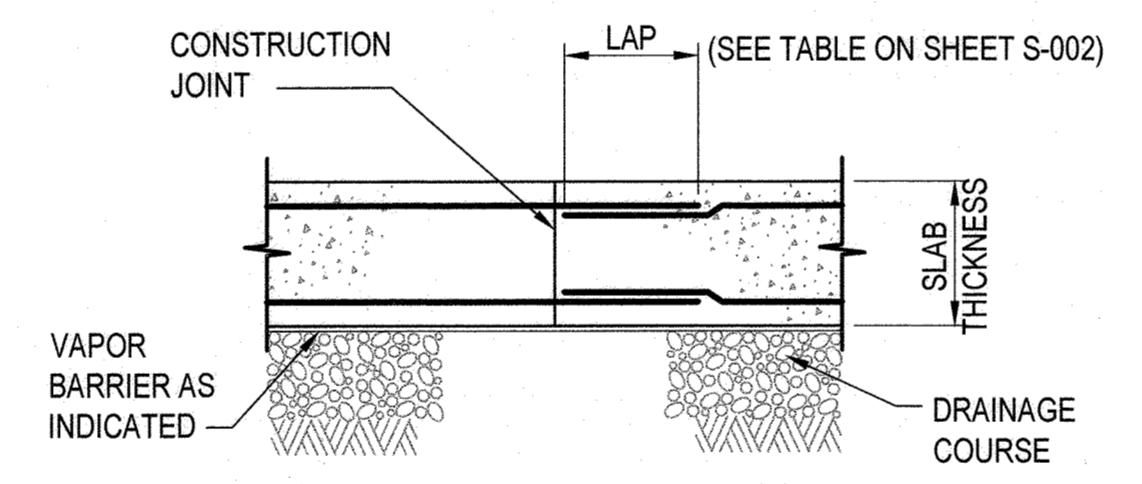
1. (4) 3/4" DIAMETER, GRADE 55, ANCHOR RODS WITH 2'-6" EMBEDMENT. ANCHOR RODS AT 7'-12" GAUGE CENTER ON POST. PROVIDE 1/4" THICK, 2" DIAMETER OR SQUARE PLATE WASHER AT TOP AND BOTTOM OF BASE PLATE. FILL ANNULAR SPACE BETWEEN BASE PLATE AND ANCHOR ROD WITH TROWEL GRADE EPOXY WITH A MINIMUM COMPRESSIVE STRENGTH OF 15,000 PSI AT 7 DAYS.
2. 12 FEET HIGH SCREEN FENCE POST AND BASE PLATE BY SCREEN FENCE MANUFACTURER. PROVIDE 1-5/16" DIAMETER HOLE FOR 3/4" DIAMETER ANCHOR ROD WITH MINIMUM 1-1/4" EDGE DISTANCE.
3. W6X20.
4. PLATE 1/2" x 6" x 1'-0". WELD BASE PLATE TO W6X20 COLUMN WITH 1/4" FILLET WELD, ALL AROUND.
5. WELD W6X20 BEAM TO W6X20 COLUMN, AND W6X20 COLUMN TO BASE PLATE, WITH 1/4" FILLET WELD, ALL AROUND.
6. BASE PLATE 12"x 10" x 0'-10" WITH 1-5/16" DIAMETER HOLES FOR 3/4" DIAMETER ANCHOR RODS. ANCHOR RODS AT 7'-12" GAUGE.
7. 3/4" DIAMETER, HIGH STRENGTH BOLTS, AT 4" GAUGE.
8. PROVIDE 1/2"x1/2" GROOVE AND FILL WITH SEALANT ON BOND BREAKER ON THE TOP AND SIDES OF CONSTRUCTION JOINT.
9. DIMENSION BETWEEN CENTERLINE OF SCREEN FENCE AND CENTERLINE OF CHWS VARIES. COORDINATE DIMENSION WITH MECHANICAL PIPING LAYOUT.
10. (4) 3/4" DIAMETER, GRADE 55, ANCHOR RODS WITH 2'-4" EMBEDMENT. REFER TO KEYNOTE 1 FOR ADDITIONAL REQUIREMENTS.



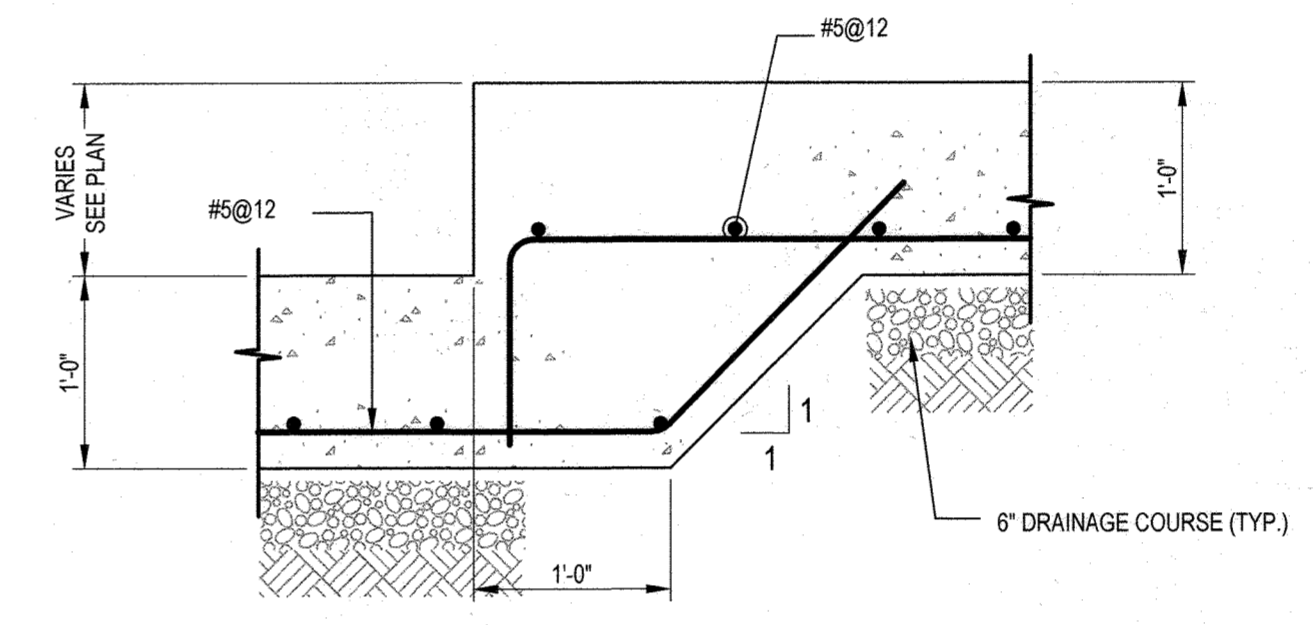
D SECTION
SS501 SCALE: 3/4" = 1'-0"
REF: SS100



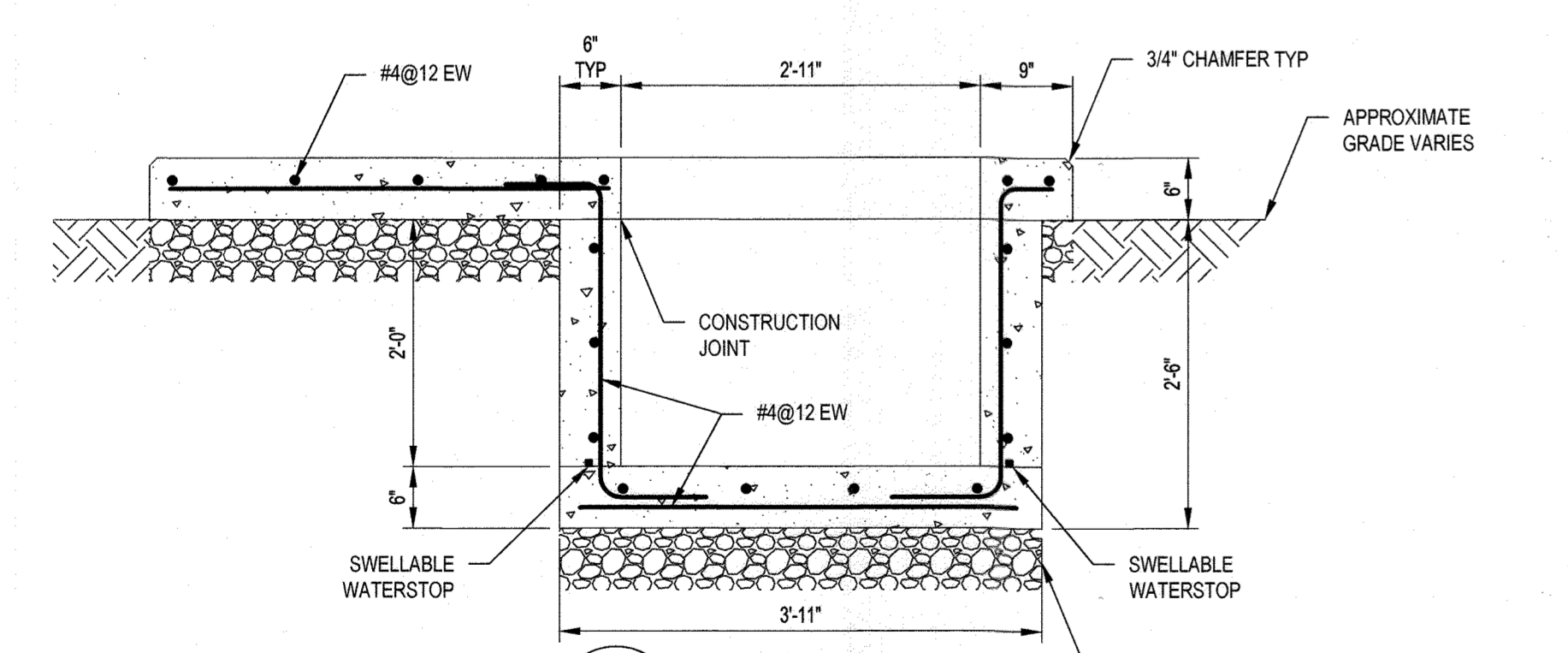
REINFORCING DETAILS AT WALL INTERSECTIONS
NO SCALE



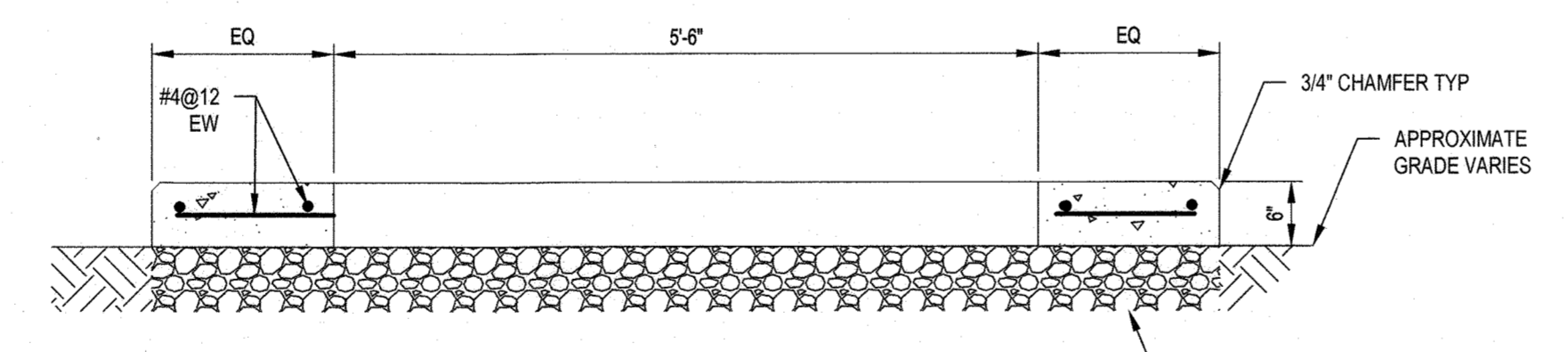
HORIZONTAL CONSTRUCTION JOINT
NO SCALE



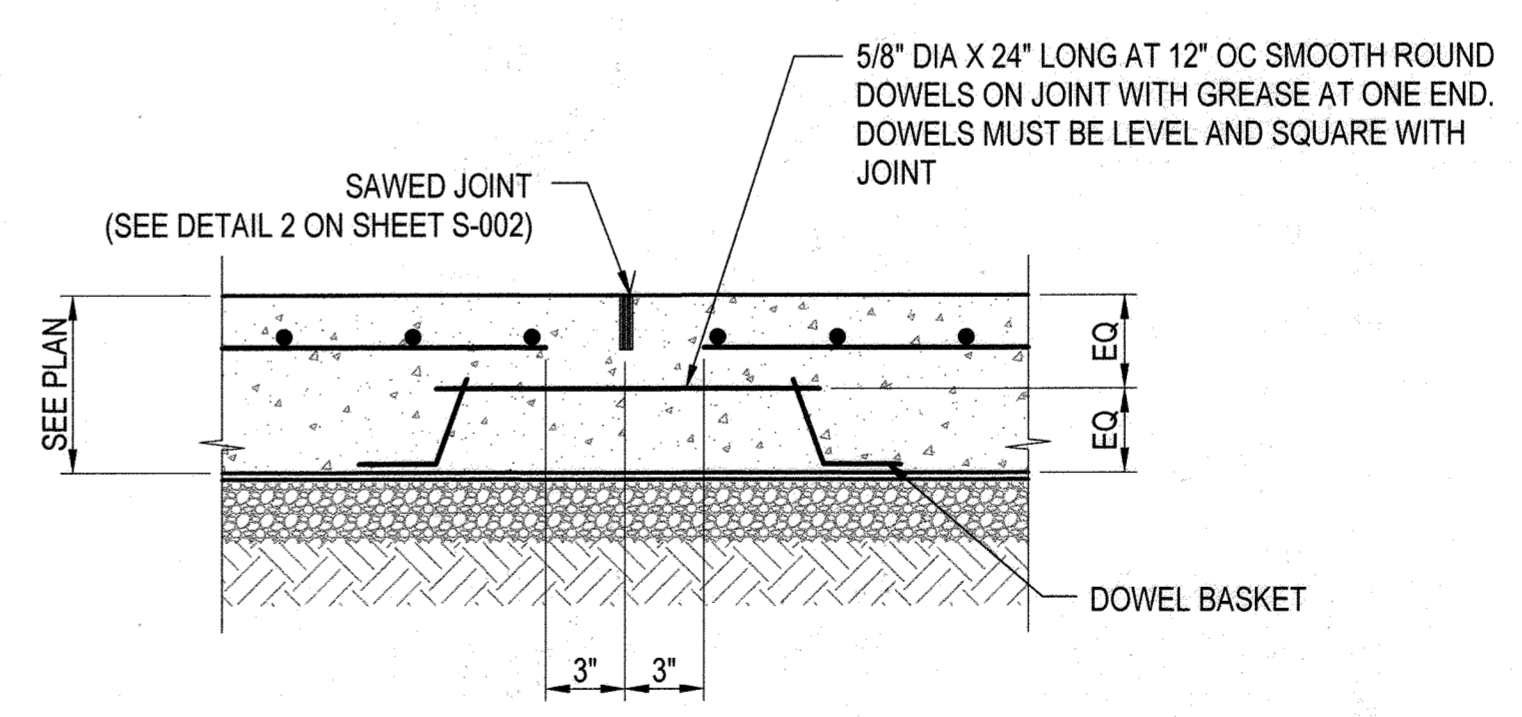
TYPICAL STEP FOOTING DETAIL
NO SCALE



E SECTION
SS501 SCALE: 3/4" = 1'-0"
REF: SS100



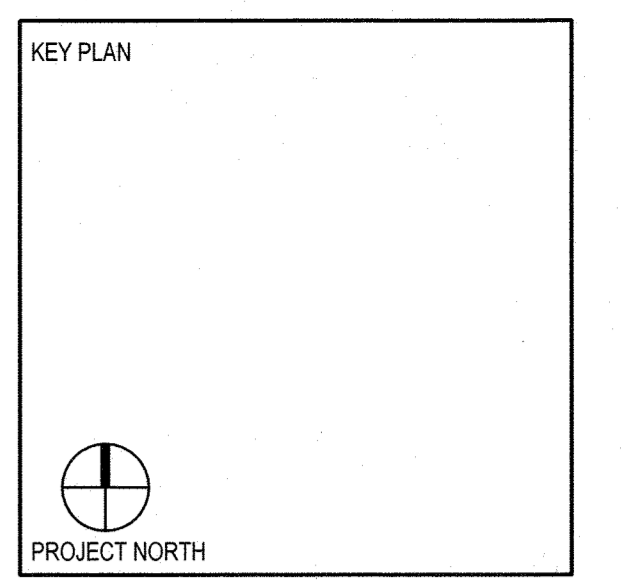
F SECTION
SS501 SCALE: 3/4" = 1'-0"
REF: SS100



TYPICAL SLAB-ON-GROUND DOWEL CONTRACTION JOINT
NO SCALE

- NOTE:
1. DOWELS AND DOWEL BASKET ASSEMBLY SHALL BE EPOXY COATED.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
James Esposito 9/18/23
 DIRECTOR DATE
Paul J. ... 9.1.23
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT 9/18/23
 DATE



STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 LICENSE NO. 29926
 EXPIRATION: 1/11/2024

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND, THAT I AM A DULY LICENSED PROFESSIONAL ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

JOHNS HOPKINS APPLIED PHYSICS LABORATORY
 11100 JOHN HOPKINS ROAD LAUREL, MD 20723-6089
Whitman, Reardon & Associates, LLP
 Est. 1915
 Environmental Planners

OWNER: HOPKINS ROAD LIMITED PARTNERSHIP
 9030 RED BRANCH ROAD
 SUITE 200
 COLUMBIA, MD 21045

DEVELOPER: TRAMMELL CROW COMPANY
 6701 DEMOCRACY BLVD
 SUITE 410
 BETHESDA, MD 20317

PROJECT: TRAMMELL CROW OFFICE BUILDING
 AT MONTEPELIER RESEARCH PARK - PARCEL B

AREA: TAX MAP 41 PARCEL B PAR A ZONING PEC
 GRID 17 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 PLAT # 13230 CENSUS TRACT 6051.02

TITLE: REVISED SITE DEVELOPMENT PLAN

STRUCTURAL SECTIONS AND DETAILS

REVISION LOG		
#	DESCRIPTION	DATE
1	NEW SHEET	11/22

DESIGNED BY: JL
 CHECKED BY: MRD
 CODE REVIEW: ...
 DRAWING NUMBER: SS501

