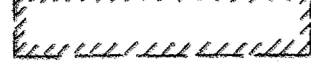
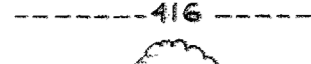

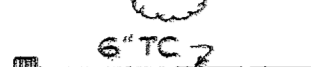


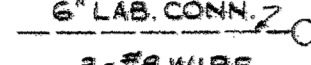


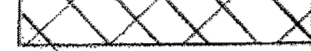

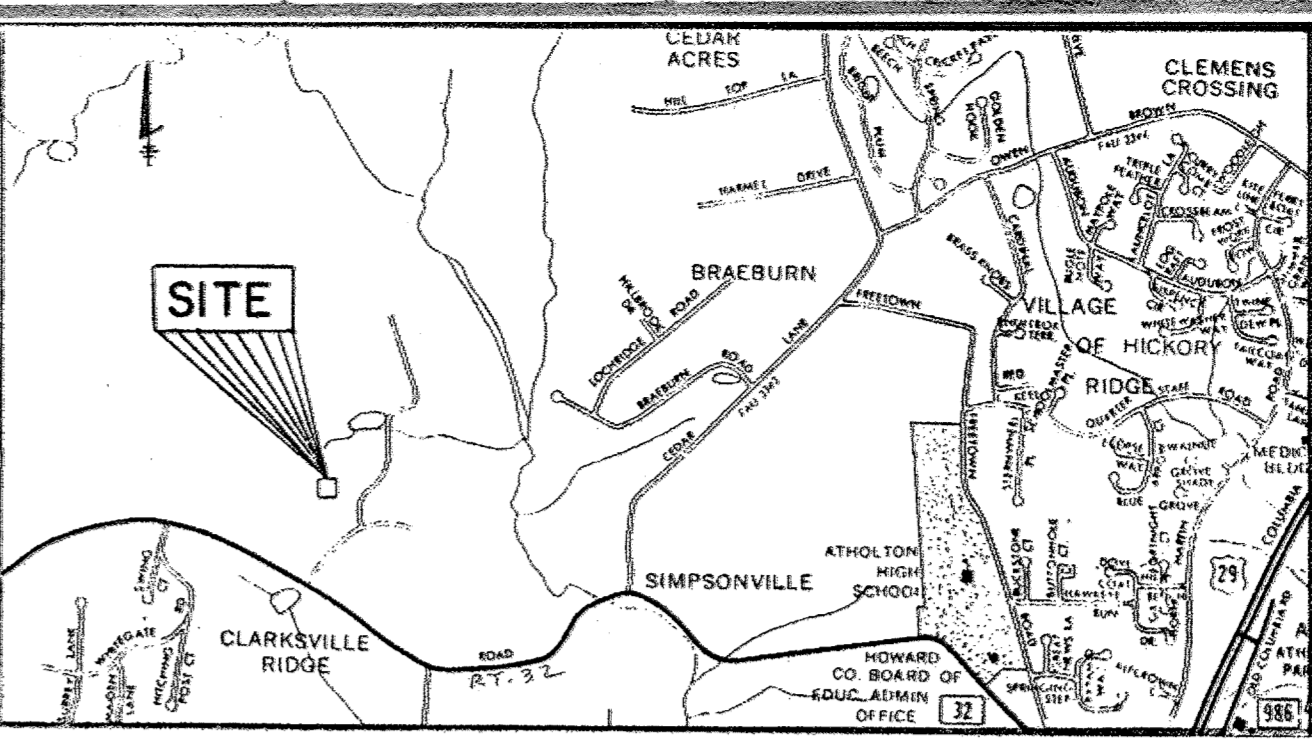
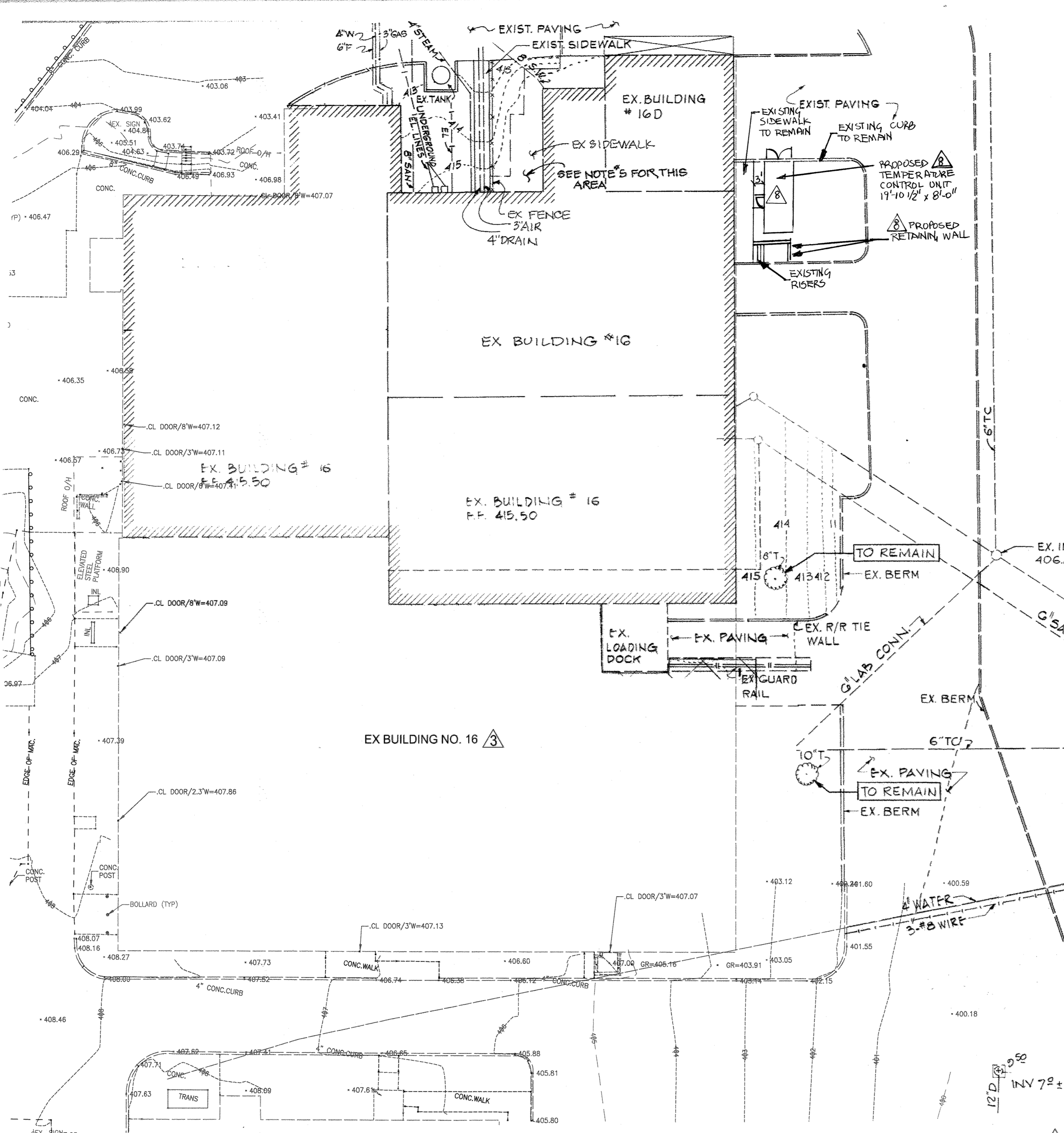


LEGEND

- EXIST. BUILDING 
- EXIST. CONTOUR 
- EXIST. SHRUB 
- EXIST. TREE 
- EXIST. STORM DRAIN 
- EXIST. WATER 
- EXIST. SANITARY SEWER 
- EXIST. LABORATORY CONNECTION 
- EXIST. UNDERGROUND WIRES 
- EXIST. GUARD RAIL 
- UNDERCUTTING AREA 



GENERAL NOTES

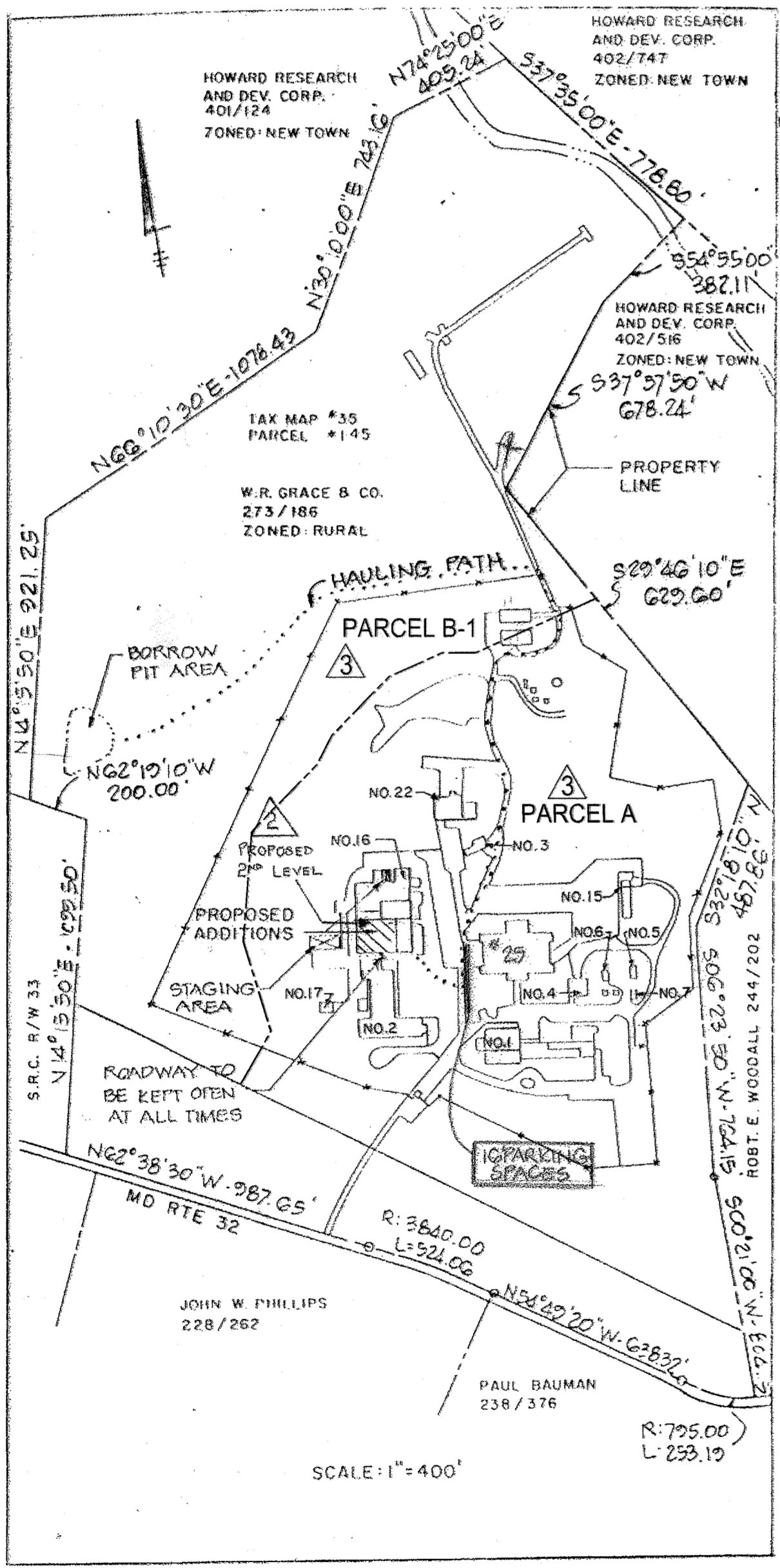
1. ALL TOPOGRAPHY SHOWN IS BASED ON INFORMATION FROM DRAWING NO. D71009 AS PROVIDED BY W.R. GRACE & CO.
2. ALL UTILITIES SHOWN ARE BASED UPON BEST AVAILABLE RECORDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES.
3. OWNER WILL REMOVE CERTAIN EXISTING TREES AND/OR SHRUBS AT HIS OPTION PRIOR TO START OF CONSTRUCTION. ALL REMAINING CLEARING AND GRUBBING WITHIN LIMITS OF WORK IS TO BE PERFORMED BY CONTRACTOR.
4. TREES AND/OR SHRUBS INDICATED "TO REMAIN" ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
5. EXISTING CHAIN LINK FENCE, STEEL STAIR, COOLING TOWER AND SUPPORT FRAME, AND GAS BOTTLES IN THIS AREA ARE TO BE RELOCATED BY OWNER PRIOR TO START OF CONSTRUCTION.
6. STORM WATER MANAGEMENT WAS DONE UNDER SDP-84-256

- REVISION NOTES: 8/25/2015**
1. ALL TOPOGRAPHY SHOWN IS BASED ON A FIELD SURVEY DATED JULY 17, 2015 BY MORRIS & RITCHIE ASSOCIATES. ALL UTILITIES SHOWN ARE BASED UPON BEST AVAILABLE RECORDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES.
 2. REVISIONS HAVE BEEN MADE TO THE PLANS TO SHOW THE INSTALLATION OF SKID MOUNTED CHEMICAL TANKS AND EQUIPMENT ON CONCRETE SLABS AROUND THE BUILDING AND SUPPORT COLUMNS FOR RAISED PROCESS PIPING RACKS.
 3. TANK BUILDING PERMIT NUMBER IS B50003373.
 4. EXISTING CONDITIONS AROUND BUILDING 16 HAVE BEEN UPDATED PER JULY 2015 FIELD SURVEY.

PURPOSE STATEMENT

THE PURPOSE OF REVISION 3 IS TO SHOW THE LOCATION OF SKID MOUNTED CHEMICAL TANKS AND EQUIPMENT LOCATED ON THE WEST SIDE OF BUILDING 16. THE CHEMICAL TANKS AND EQUIPMENT REST ON CONCRETE SLABS INDEPENDENT OF THE BUILDING SLABS. REVISION 3 ALSO INCLUDES ELEVATED PIPE RACKS RUNNING FROM BUILDING 16 TO BUILDING 17A. THE FOUNDATIONS FOR THE PIPE RACKS HAVE BEEN ADDED TO THE SDP.

APPROVED
 DIVISION OF LAND DEVELOPMENT &
 ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE **6-14-84**



SHEET INDEX

- SD-01 UNDERCUTTING & EXISTING CONDITIONS PLAN
- SD-02 DEMOLITION PLAN
- SD-03 LAYOUT & UTILITY PLAN
- SD-04 GRADING & SEDIMENT CONTROL PLAN
- SD-05 DETAILS & UTILITY PROFILE
- SD-06 DETAIL PAGE
- SD-07 FOUNDATION PLAN & NOTES
- SD-08 FOUNDATION SECTIONS
- SD-09 FOUNDATION SECTIONS & DETAILS

NOTE: NO ADDITIONAL PARKING IS REQUIRED FOR REVISION #2 SINCE NO ADDITIONAL EMPLOYEES WILL BE ADDED AND ADEQUATE PARKING CURRENTLY EXISTS ON-SITE. THE DEPARTMENT OF PLANNING AND ZONING DID NOT REVIEW PARKING CALCULATIONS WITH REVISION #2.

SITE ANALYSIS

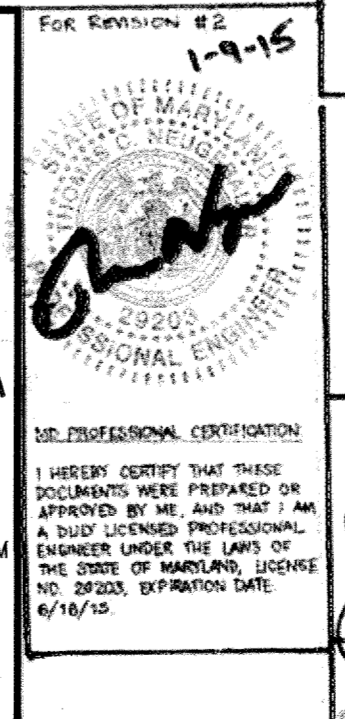
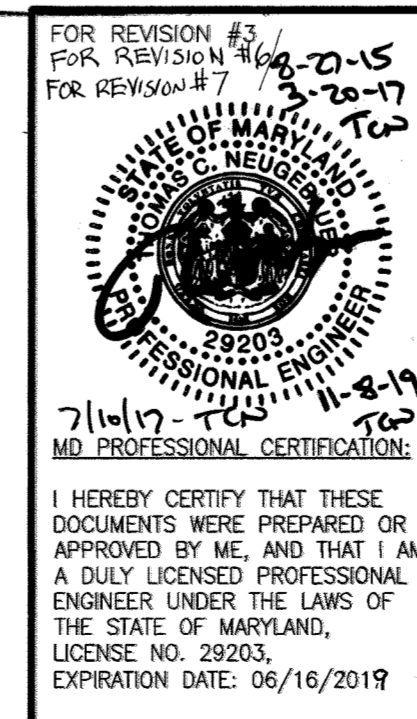
1. LOCATION: FIFTH ELECTION DISTRICT HOWARD CO. MARYLAND TAX MAP 35 PARCEL 145
2. PRESENT ZONING: RURAL PEC
3. FLOOR AREA: 20,500 SQ. FT. + 10,772 SF SECOND LEVEL = 31,272 SF
4. EMPLOYEES: 22
5. PARKING REQUIRED: (7 SPACES PER 10 EMPLOYEES) = 16 SPACES
6. PARKING PROVIDED: 26 SPACES (TO BE PROVIDED ON GRACE CAMPUS)
7. SITE DEVELOPMENT PLAN FOR NEW RESEARCH BUILDING #25
8. PROPOSED USE: RESEARCH BLDG.
9. TOTAL DISTURBED AREA: 1300 SF ±
10. SEE SHEET SD-4 FOR SEDIMENT CONTROL DESIGN.

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
P 145	7379 MD. RTE. 32 7500 GRACE DRIVE

OTHER PLANNING AND ZONING CASES RELATED TO W.R. GRACE & CO., ARE: CASE NO. 168 C, CASE NO. VP-81-86, CASE NO. VP-82-31 E, CASE NO. 82-92, CASE NO. 83-50 E, AND CASE NO. 83-54 E.

REVISION #2 BY: MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 14260 PARK CENTER DRIVE
 LAUREL, MD 20707
 (410) 782-9792 / (301) 776-1690
 FAX: (410) 782-7585
 MRA@A.COM



SUBDIVISION NAME	SECT./AREA	LOT/PARCEL #			
W.R. GRACE		P 145			
PLAT #	BLOCK #	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR.
273/186	22	RURAL	35	5TH	6053.01
WATER CODE	SEWER CODE				
N/A	N/A				
APPROVED: FOR STORM DRAINAGE SYSTEMS AND ROADS.					
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS					
DIRECTOR		DATE			
<i>[Signature]</i>		6-20-84			
CHIEF, BUREAU OF ENGINEERING		DATE			
<i>[Signature]</i>		6-24-84			
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS					
HOWARD COUNTY HEALTH DEPARTMENT					
PLANNING DIRECTOR		DATE			
<i>[Signature]</i>		7-9-84			
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING					
PLANNING DIRECTOR		DATE			
<i>[Signature]</i>		7-10-84			
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION					

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 9-4-15
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

[Signature] 9-11-15
 CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] 9-11-15
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

HITNEY CONSULTING ENGINEERS
 Suite 311 Green Spring Station
 2360 West Joppa Road
 Lutherville, Maryland 21093
 301-296-4200

OWNER:
 W.R. GRACE & CO.
 7379 ROUTE 32
 COLUMBIA, MD. 21044

REVISED SITE DEVELOPMENT PLAN

NO.	DATE	DESCRIPTION
1	11-4-2019	ADDED REACTOR TEMPERATURE CONTROL UNIT (TCU) EAST OF BLDG. 16
2	7-10-17	REMOVED MONOPILE CONCRETE PAD AND CABLE AND GAS CONNECTION
3	2/24/17	ADDED MONOPILE, CONCRETE PAD, AND CABLE AND GAS CONNECTION
4	8/27/15	SEE 8/25/15 REVISION NOTES
5	1/9/15	ADDED 2 ND LEVEL TO BUILDING 16

SEAL

[Signature]
 4/2/84

FIRM
 WBCM

DESIGNED
 JFD

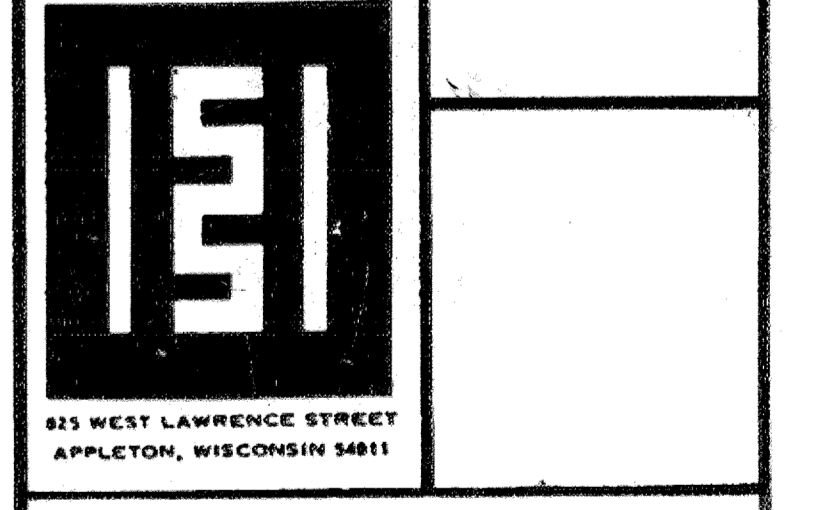
DRAWN
 GG

CHECKED
 PEC

mark beck associates inc.
 architects . interior designers
 planners . space planning

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SAUTER | SEABORNE | PAYNTER | DUSZAK ARCHITECTS, LTD.



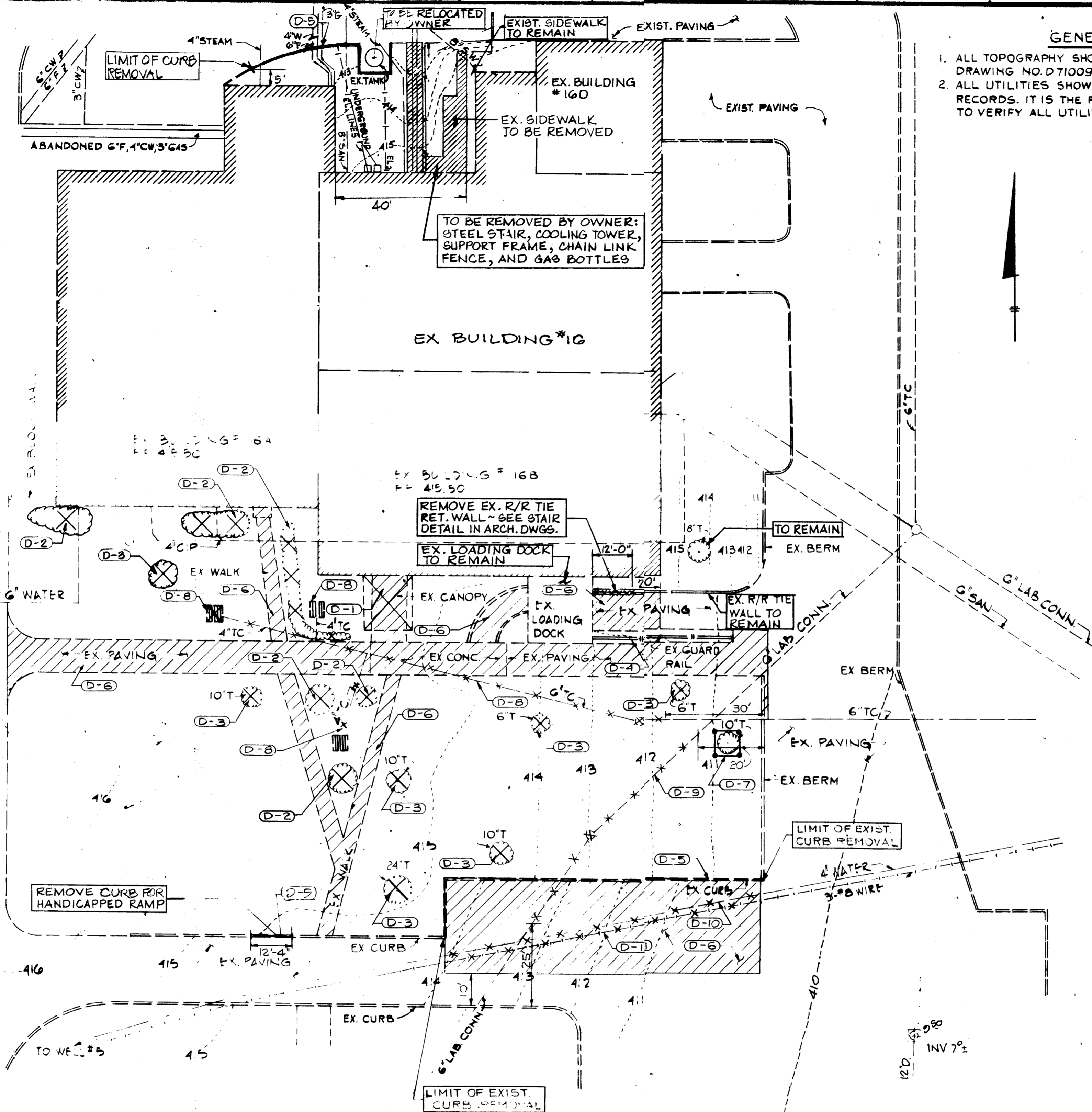
W.R. GRACE & CO.
 WASHINGTON RESEARCH CTR.
 COLUMBIA, MARYLAND
 5th Election District
 Parcel 145 Tax Map 35
BUILDING NO. 16-E ADDITION

UNDERCUTTING AND EXISTING CONDITIONS PLAN

JOB NO. 8406
 SCALE: 1"=20'
 DATE 5/30/84
 DRAWING SD-1
 1 OF 9
 SDP-84-255

LEGEND

- EXIST. BUILDING
- EXIST. CONTOUR
- EXIST. SHRUB
- EXIST. TREE
- EXIST. STORM DRAIN
- EXIST. WATER
- EXIST. SANITARY SEWER
- EXIST. LABORATORY CONNECTION
- EXIST. UNDERGROUND WIRES
- EXIST. GUARD RAIL
- PAVEMENT REMOVAL
- TREE REMOVAL



GENERAL NOTES

1. ALL TOPOGRAPHY SHOWN IS BASED ON INFORMATION FROM DRAWING NO. D71009 AS PROVIDED BY W.R. GRACE & CO.
2. ALL UTILITIES SHOWN ARE BASED UPON BEST AVAILABLE RECORDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES.



DEMOLITION NOTES

- D-1 REMOVE EXISTING CANOPY, SIDEWALK, SUPPORT POSTS & FDNS.
- D-2 REMOVE EXISTING SHRUBS.
- D-3 REMOVE EXISTING TREE.
- D-4 REMOVE EXISTING GUARD RAIL & SUPPORTS.
- D-5 REMOVE EXISTING CURB.
- D-6 REMOVE EXISTING PAVING.
- D-7 INSTALL TREE PROTECTION.
- D-8 REMOVE EXISTING STORM DRAIN & APPURTENANCES.
- D-9 REMOVE EXISTING LAB. CONNECTION.
- D-10 REMOVE EXISTING WATER MAIN.
- D-11 REMOVE EXISTING ELECTRIC WIRES.

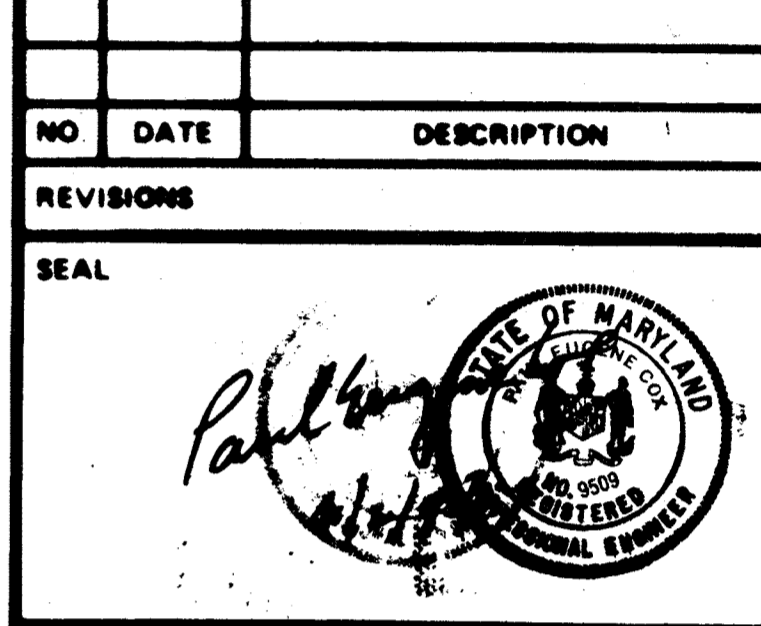
APPROVED
BUREAU OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 6-14-84
[Signature]

SUBDIVISION NAME W.R. GRACE		SECT./AREA	LOT/PARCEL # P 145
PLAT # 273/186	BLOCK # 22	ZONE RURAL	TAX/ZONE MAP 35
ELEC. DIST. 5TH		CENSUS TR. 6053.01	
WATER CODE N/A		SEWER CODE N/A	
APPROVED: FOR STORM DRAINAGE SYSTEMS AND ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS DIRECTOR <i>[Signature]</i> DATE 6-26-84 CHIEF, BUREAU OF ENGINEERING <i>[Signature]</i> DATE 6-26-84			
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT COUNTY HEALTH OFFICER <i>[Signature]</i> DATE 7-9-84			
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING PLANNING DIRECTOR <i>[Signature]</i> DATE 7-10-84 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION <i>[Signature]</i> DATE 7-10-84			

WHITNEY CONSULTING ENGINEERS
BAILEY
MOX
MAGNANI
 Suite 311 Green Spring Station
 2360 West Joppa Road
 Lutherville, Maryland 21093
 301-296-4200

OWNER:
W.R. GRACE & CO.
 7379 ROUTE 32
 COLUMBIA, MD. 21044

NO.	DATE	DESCRIPTION



mb
 FIRM WBCM
 DESIGNED PD
 DRAWN GG
 CHECKED PEC

mark beck associates inc.
 architects . interior designers
 planners . space planning

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SAUTER | SEABORNE PAYNTER | DUSZAK ARCHITECTS, LTD.

W.R. GRACE & CO.
WASHINGTON RESEARCH CTR.
 COLUMBIA, MARYLAND
 Building No. 16-E ADDITION

DEMOLITION PLAN

JOB NO. 8406 DRAWING
 SCALE: 1" = 20'
 DATE 5/30/84 2 of 9 **SD-2**
 SDP-84-255

LEGEND

	EXISTING	PROPOSED
BUILDING	[Hatched Box]	[Solid Box]
BERM	[Dashed Line]	[Solid Line]
BLOCK WALL	[Double Line]	[Single Line]
CURB	[Single Line]	NEW CURB [Dashed Line]
TREE	6" T. [Circle]	
STORM DRAIN	8" C.M.P. [Line]	6" D. [Line]
WATER	4" WATER [Line]	NEW 4" WATER [Line]
WIRE	3" #8 WIRE [Line]	[Line]
SANITARY SEWER	6" SAN. [Line]	[Line]
LAB. CONNECTION	6" LAB. CONN. [Line]	NEW 6" LAB. CONN. [Line]
CONCRETE SIDEWALK	[Hatched Area]	[Hatched Area]
BITUMINOUS PAVING	[Hatched Area]	[Hatched Area]

UTILITY SCHEDULE				
NO	TYPE	INV IN	INV OUT	TOP ELEV.
I-1	INLET SEE DETAIL 4 DWG SD-5	413.20	413.00	415.00
CO-1	HOW. CO. STD DETAIL 6 3.21	409.30	409.23	411.20
CO-2	HOW. CO. STD DETAIL 6 3.21	409.90	409.89	411.20
CO-3	HOW. CO. STD DETAIL 6 3.21	411.41	410.49	413.80
CO-4	HOW. CO. STD DETAIL 6 3.21	408.13	408.03	411.20

REVISION NOTES: 8/25/2015

- ALL TOPOGRAPHY SHOWN IS BASED ON A FIELD SURVEY DATED JULY 11, 2015 BY MORRIS & RITCHEE ASSOCIATES.
- ALL UTILITIES SHOWN ARE BASED UPON BEST AVAILABLE RECORDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL UTILITIES.
- REVISIONS HAVE BEEN MADE TO THE PLANS TO SHOW THE INSTALLATION OF SKID MOUNTED CHEMICAL TANKS AND EQUIPMENT ON CONCRETE SLABS INDEPENDENT OF THE BUILDING SLAB. REVISION 3 ALSO INCLUDES ELEVATED PIPE RACKS RUNNING FROM BUILDING 16 TO BUILDING 17A. THE FOUNDATIONS FOR THE PIPE RACKS HAVE BEEN ADDED TO THE SDP.
- TANK BUILDING PERMIT NUMBER IS B15003375.
- EXISTING CONDITIONS AROUND BUILDING 16 HAVE BEEN UPDATED PER JULY 2015 FIELD SURVEY.

PURPOSE STATEMENT

THE PURPOSE OF REVISION 3 IS TO SHOW THE LOCATION OF SKID MOUNTED CHEMICAL TANKS AND EQUIPMENT LOCATED ON THE WEST SIDE OF BUILDING 16. THE CHEMICAL TANKS AND EQUIPMENT REST ON CONCRETE SLABS INDEPENDENT OF THE BUILDING SLAB. REVISION 3 ALSO INCLUDES ELEVATED PIPE RACKS RUNNING FROM BUILDING 16 TO BUILDING 17A. THE FOUNDATIONS FOR THE PIPE RACKS HAVE BEEN ADDED TO THE SDP.

NOTE: SEE SHEETS 7 AND 8 FOR MONOPOLE LAYOUT AND UTILITY PLAN AND DETAILS.

ALL ITEMS SHOWN HERE ARE TANKS AND SKID-MOUNTED EQUIPMENT SET ON CONCRETE SLABS ON GRADE. DETAILS & SPECS. BY OTHERS, UNDER BUILDING PERMIT B15003375.

(PROPYLENE DAY TANK)

PROCESS PIPING RACKS ELEVATED 415 FEET ABOVE PAVED SURFACE. SEE PLANS, BY OTHERS.

PROVIDE 3 BOLLARDS 6' APART CENTER BOLLARD REMOVABLE ACROSS ACCESS ROAD.

CONNECT PROP. 8" DIP W TO EXISTING 12" W WITH TAPPING SLEEVE AND VALVE.

ISOCTANE TANK

PR. 8" DIP W

PR. 6" DIP W

PR. FIRE HYDRANT

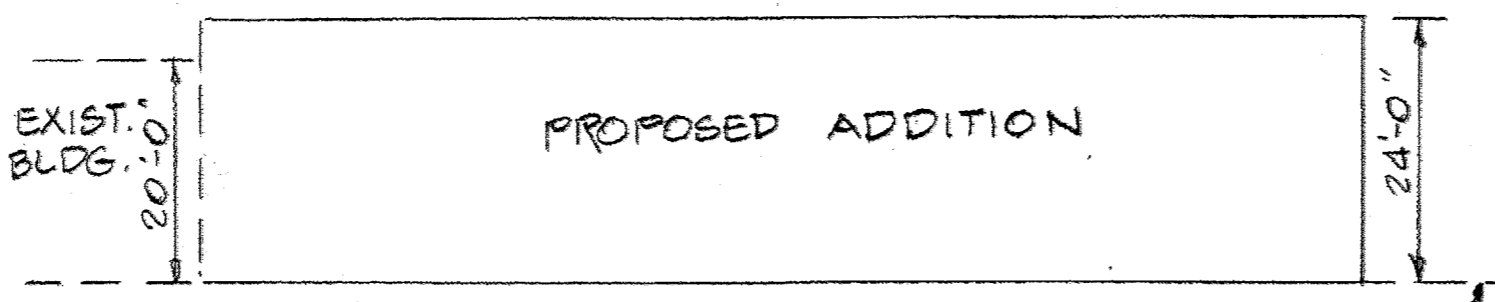
SITE ANALYSIS

- LOCATION: FIFTH ELECTION DISTRICT HOWARD CO. MARYLAND
 - TAX MAP 35 PARCEL 145
 - PRESENT ZONING: RURAL PFC
 - FLOOR AREA: 20,500 SQ. FT. + 10,772 SF SECOND LEVEL = 31,272 SF
 - EMPLOYEES: 22
 - PARKING REQUIRED: (7 SPACES PER 10 EMPLOYEES) = 16 SPACES
 - PARKING PROVIDED: 23 SPACES (TO BE PROVIDED ON GRACE CAMPUS)
 - SITE DEVELOPMENT PLAN FOR NEW RESEARCH BUILDING #25 TO INCLUDE 1 HANDICAPPED SPACE
 - PROPOSED USE: RESEARCH BLDG.
 - TOTAL DISTURBED AREA: 1300 SF ±
- OTHER PLANNING AND ZONING CASES RELATED TO W.R. GRACE & CO., ARE: CASE NO. 168C, CASE NO. VP-81-86, CASE NO. VP-82-31E, CASE NO. 82-92, CASE NO. 83-50E, AND CASE NO. 83-54E

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 6-14-84

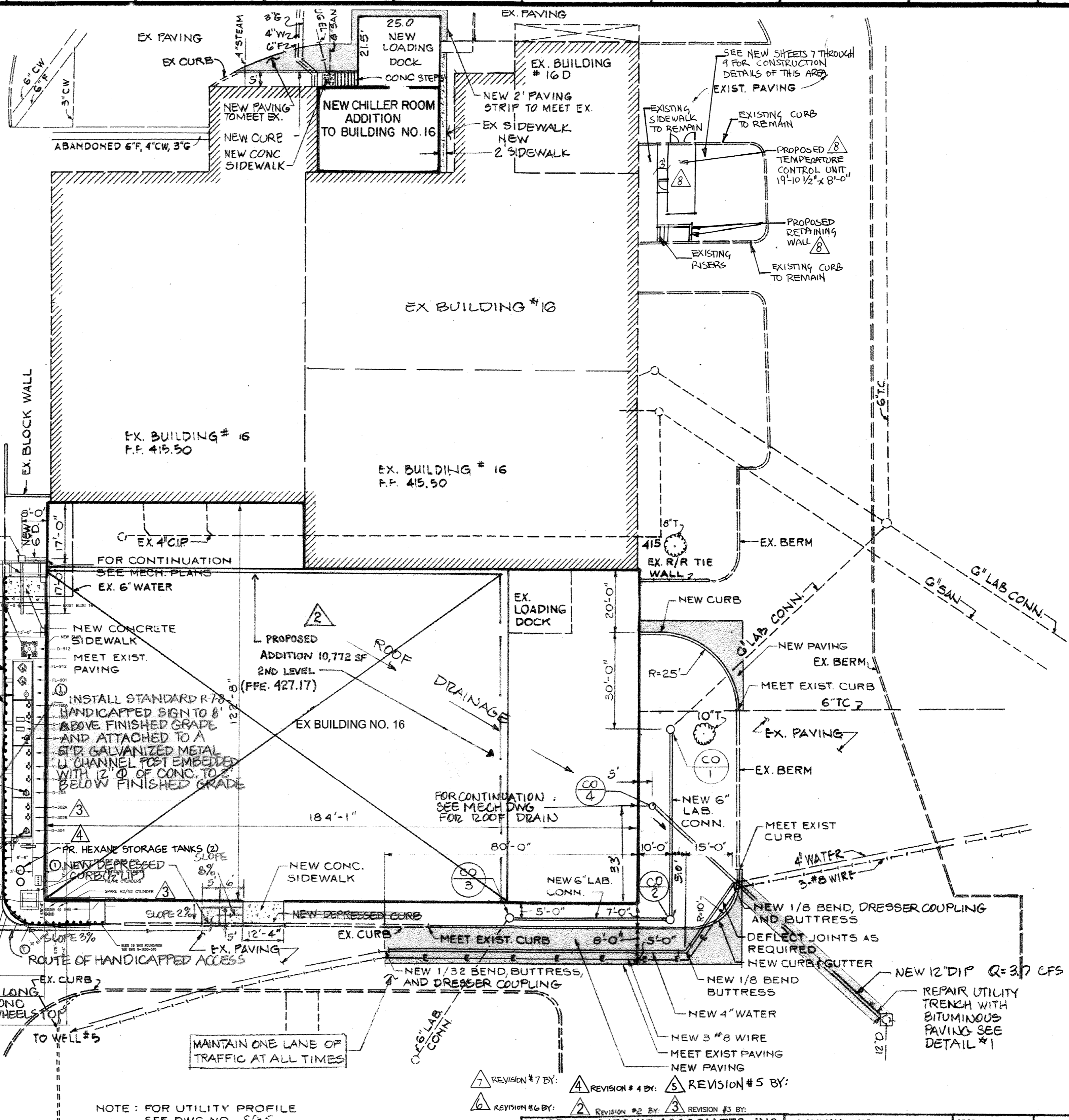
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division [Signature] 9-4-15
 Chief, Division of Land Development [Signature] 9-11-15
 Director, Department of Planning and Zoning [Signature] 9-11-15



BUILDING ADDITION PROFILE (NOT TO SCALE)

NO.	DATE	DESCRIPTION
1	11-5-2019	ADDED REACTOR TEMPERATURE CONTROL UNIT (TCU) EAST OF BLDG 16



REVISION #7 BY: [Signature]
 REVISION #6 BY: [Signature]
 REVISION #5 BY: [Signature]
 REVISION #4 BY: [Signature]
 REVISION #3 BY: [Signature]

MORRIS & RITCHEE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
 14280 PARK CENTER DRIVE
 LAUREL, MD 20707
 (410) 792-9792 / (301) 776-1690
 FAX: (410) 792-7885
 MRA@MRA.COM

FOR REVISION #3 FOR REVISION #5 7-27-15
 FOR REVISION #4 6/29/16
 FOR REVISION #2 6/29/16
 FOR REVISION #1 7/10/17

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. 29203, EXPIRATION DATE: 06/16/2019, P.E.C. REVISION # 7 7/10/17

SUBDIVISION NAME		SECT./AREA	LOT/PARCEL #
W.R. GRACE			P 145
PLAT #	BLOCK #	TAX/ZONE MAP	ELEC. DIST.
273/186	22	35	5TH
FLOOR AREA	TOTAL AREA	CENSUS TR.	
20,500	31,272	6053.01	
WATER CODE		SEWER CODE	
N/A		N/A	
APPROVED: FOR STORM DRAINAGE SYSTEMS AND ROADS.			
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS			
DIRECTOR		DATE	
[Signature]		6-26-14	
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS			
HOWARD COUNTY HEALTH DEPARTMENT			
COUNTY HEALTH OFFICER		DATE	
[Signature]		7-9-84	
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING			
PLANNING DIRECTOR			
[Signature]		DATE	
[Signature]		7-10-84	
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING			
PLANNING DIRECTOR			
[Signature]		DATE	
[Signature]		7-10-84	

WHITNEY CONSULTING ENGINEERS
BAILEY Suite 311 Green Spring Station
 2360 West Joppo Road
 Lutherville, Maryland 21093
BOX
MAGNANI 301-296-4200

OWNER:
W.R. GRACE & CO.
 7379 ROUTE 32
 COLUMBIA, MD. 21044

REVISED SITE DEVELOPMENT PLAN

NO.	DATE	DESCRIPTION
1	7-10-17	REMOVED MONOPOLE, CONCRETE PAD, AND CABLE AND GAS CONNECTION
2	2/24/17	ADDED MONOPOLE, CONCRETE PAD, AND CABLE AND GAS CONNECTION
3	12-6-16	ADDED BOLLARDS, GUARD RAIL, FENCING PER HOE DED. SHEET 6
4	6/29/16	ADDED FIRE HYDRANT AND CHEMICAL STORAGE TANKS
5	8/27/15	SEE 8/25/15 REVISION NOTES
6	1/9/15	ADDED 2" LEVEL TO BUILDING 16
7	7/30/14	HANDICAPPED PARKING

REVISIONS

SEAL
 [Professional Engineer Seal]

FIRM: WBCM
 DESIGNED: PD
 DRAWN: GG
 CHECKED: PEC

mark beck associates inc.
 architects . interior designers
 planners . space planning

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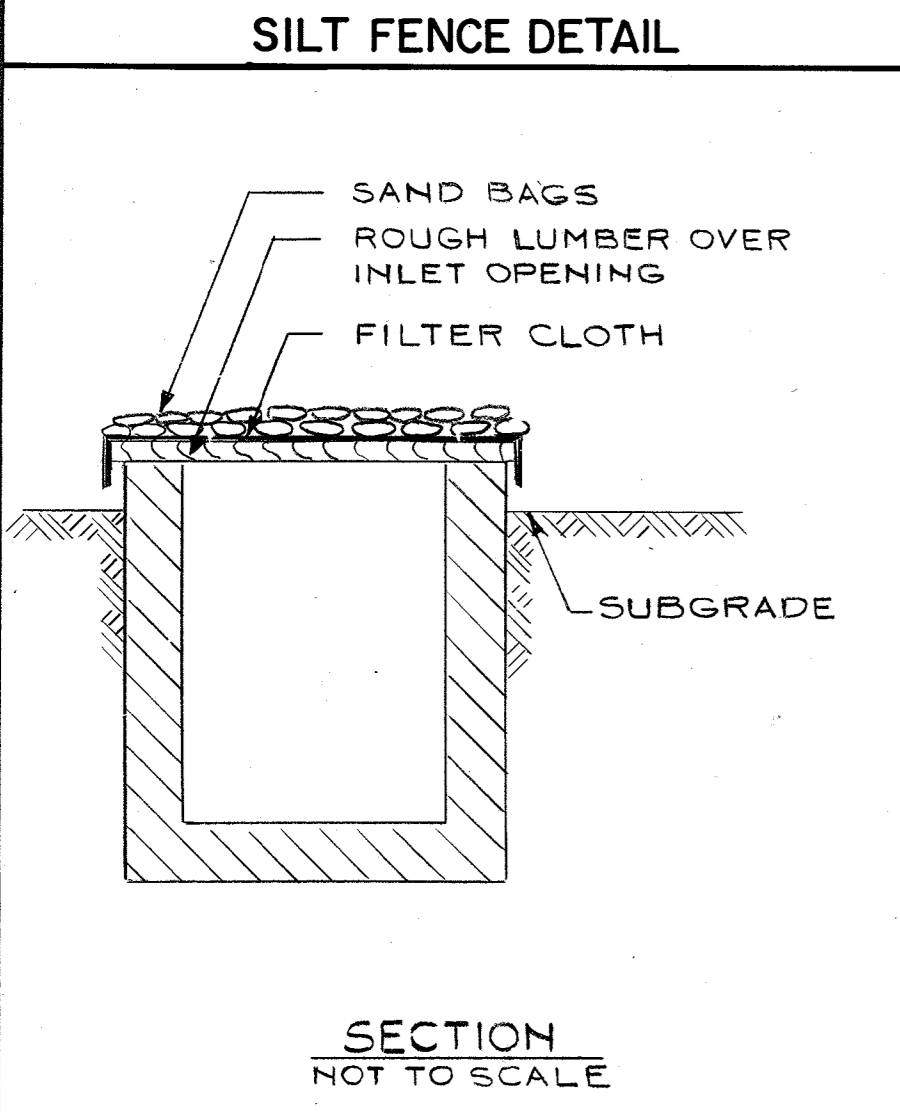
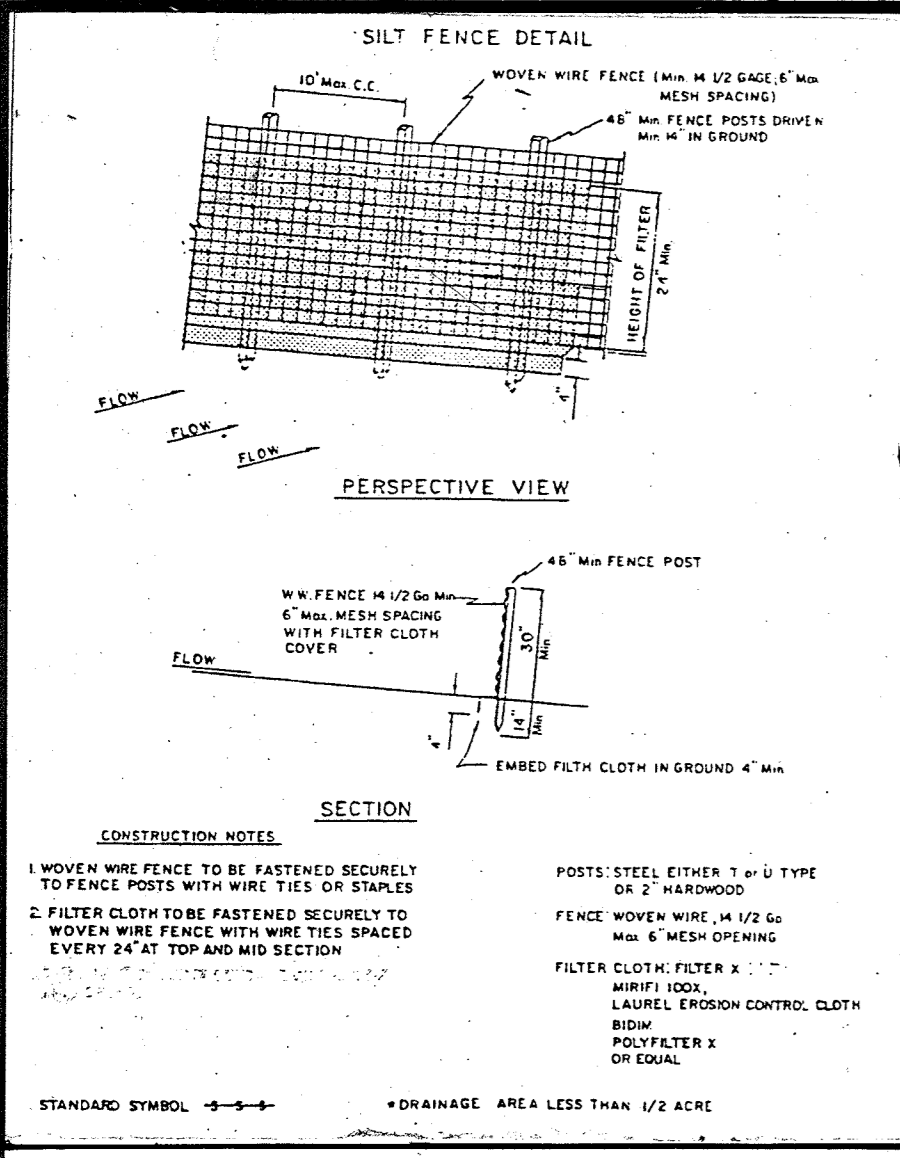
SAUTER | SEABORNE | PAYNTER | DUSZAK
 ARCHITECTS, LTD.

833 WEST LAWRENCE STREET
 APPLETON, WISCONSIN 54911

W.R. GRACE & CO.
 WASHINGTON RESEARCH CTR.
 COLUMBIA, MARYLAND
 5th Election District
 Parcel 145 Tax Map 35
 BUILDING NO. 16-E
 ADDITION

LAYOUT & UTILITY PLAN

JOB NO. 8406 DRAWING SD-3
 SCALE: 1" = 20'
 DATE 5/30/84 3 of 9
 SDP-84-255

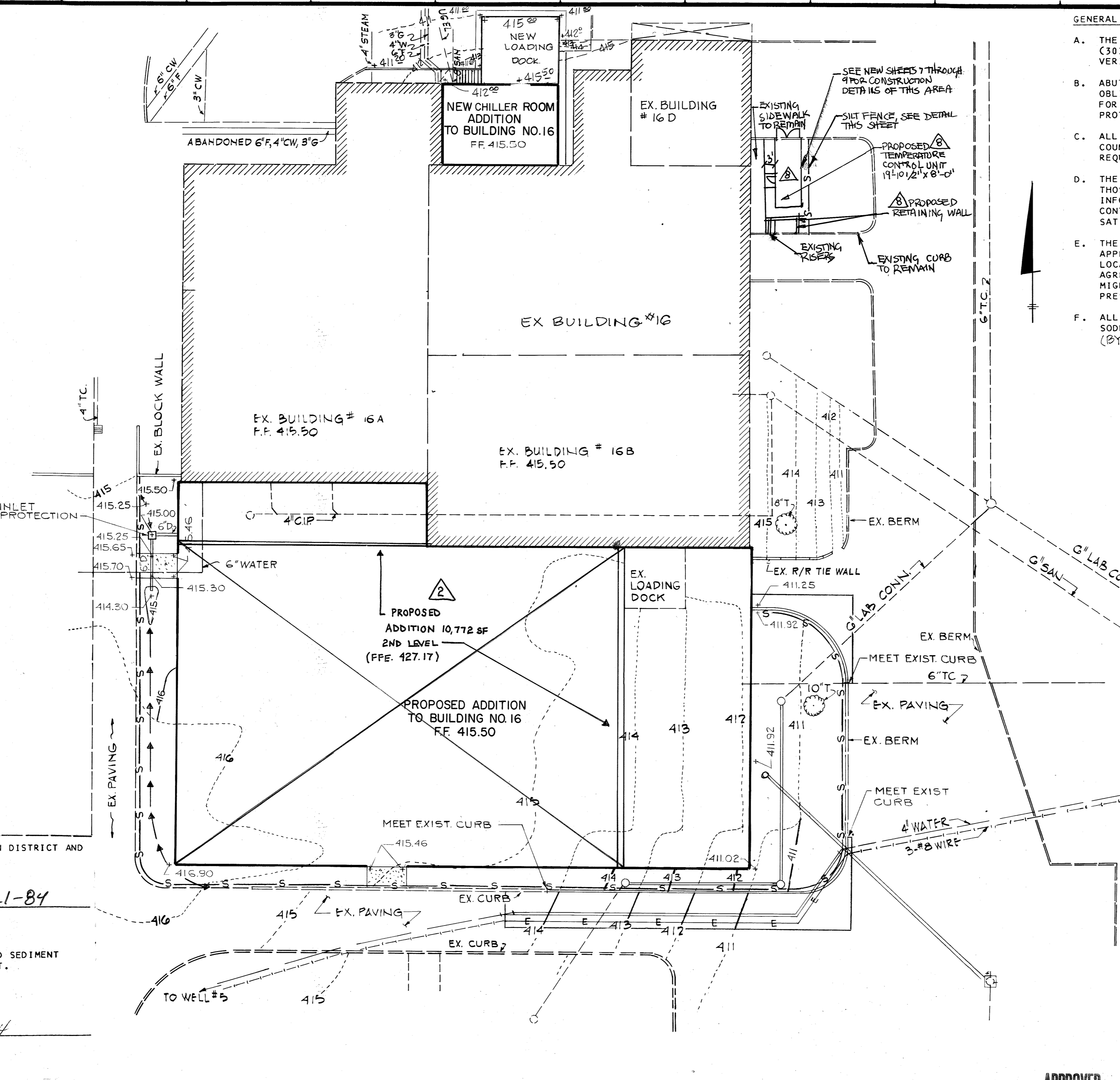


REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

James M. Hester
U.S. SOIL CONSERVATION SERVICE
DATE: 6-21-84

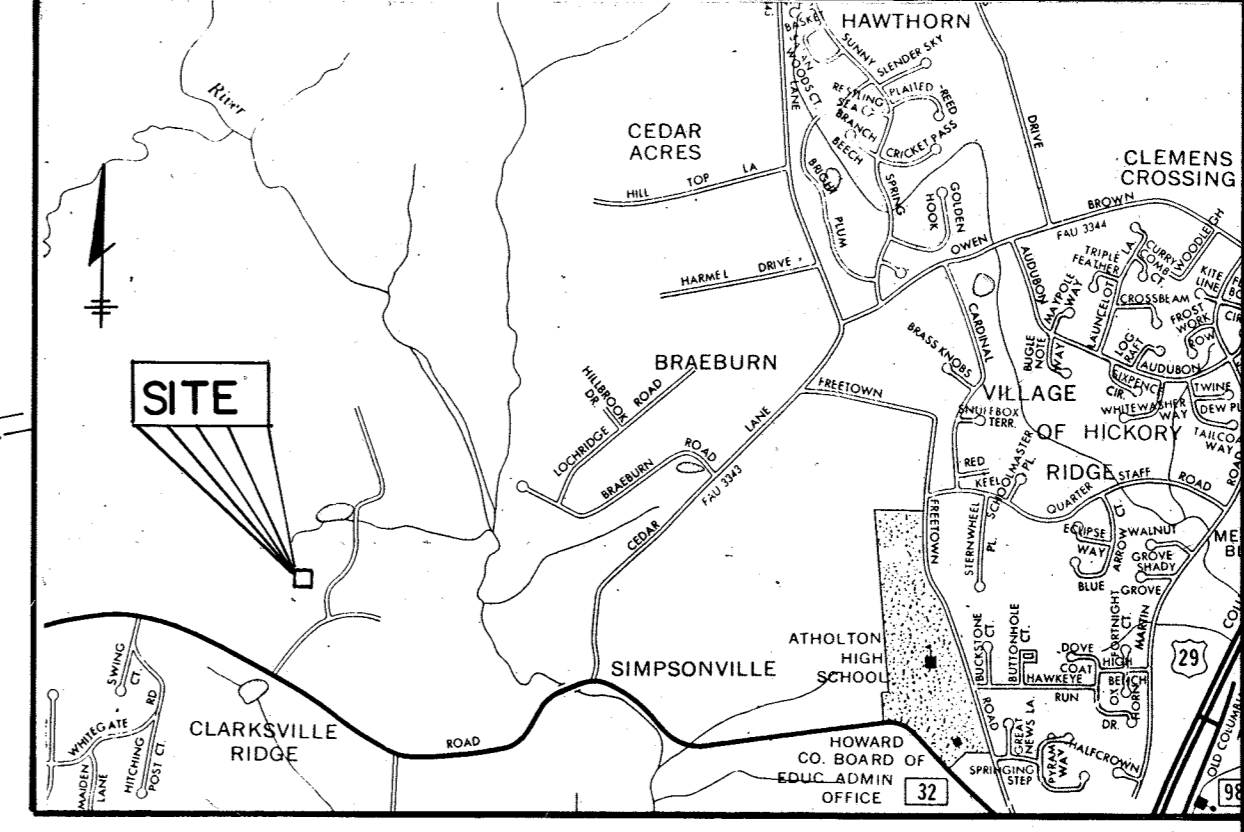
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:
Stephen L. Hulier
DISTRICT COORDINATOR
HOWARD SOIL CONSERVATION DISTRICT
DATE: 6/21/84



GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT TELEPHONE NO. (301) 599-0100 AT LEAST 72 HOURS PRIOR TO STARTING EXCAVATION TO VERIFY ALL LOCATIONS OF EXISTING UTILITIES.
- ABUTTING PROPERTIES TO BE PROTECTED FROM DAMAGE. REPAIRS ARE AN OBLIGATION OF THE CONTRACTOR. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO EXISTING VEGETATION AND ANY VIOLATIONS OF THE PROTECTED AREAS.
- ALL CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH HOWARD COUNTY, DEPARTMENT OF PUBLIC WORK STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
- THE INFORMATION SHOWN ON THESE PLANS IS FOR THE CONVENIENCE OF THOSE CONCERNED ONLY. THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION SHOWN IS NOT WARRANTED OR GUARANTEED. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS OWN SATISFACTION.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- ALL DISTURBED AREAS NOT STABILIZED WITH PAVING, BUILDING, SODDING OR MULCH IN PLANTING AREAS SHALL BE SEEDED AND MULCHED (BY THE OWNER)



SEQUENCE OF OPERATIONS FOR EROSION AND SEDIMENT CONTROL

NO.	DESCRIPTION	TIME FOR COMPLETION
1.	NOTIFY HOWARD COUNTY SEDIMENT CONTROL INSPECTOR TWO WORKING DAYS PRIOR TO BEGINNING ANY WORK.	
2.	BEGIN MINOR CLEARING OPERATIONS FOR CONSTRUCTION OF SEDIMENT CONTROL MEASURES.....	2 DAYS
3.	BEGIN MINOR GRADING AS REQUIRED FOR SEDIMENT CONTROL.....	3 DAYS
4.	INSTALL SILT FENCES.....	3 DAYS
4.	CLEAR & GRUB SITE, STRIP TOPSOIL, REMOVE DRAINS AND.....	3 DAYS
5.	GRADE SITE.....	3 DAYS
6.	INSTALL STORM DRAINS AND INLET PROTECTION.....	3 DAYS
7.	CONSTRUCTION.....	3 MONTHS
8.	SEED AND MULCH OR SOD ALL DISTURBED AREAS OUTSIDE BUILDING AND PAVING AREAS, UNLESS NOTED OTHERWISE ON THE PLANS.....	3 DAYS
9.	REMOVE ALL SEDIMENT CONTROL MEASURES PRIOR TO SUBSTANTIAL COMPLETION.....	1 WEEK
10.	ALL TIMES FOR COMPLETION ARE SUBJECT TO MODIFICATION.	

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Frank D. Braccione
SIGNATURE OF DEVELOPER
DATE: April 2, 1984

ENGINEER'S CERTIFICATE

I HEREBY 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.

Paul George Cap
SIGNATURE OF ENGINEER
DATE: April 2, 1984

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE: 6-14-84

FOR REVISION #2
11-8-84
1-9-85
MD 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. 93200, EXPIRATION DATE: 6/16/95

REVISION #2 BY:
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE
LAUREL, MD 20707
(410) 792-9792 / (301) 778-1690
FAX: (410) 792-7395
MRA@TA.COM

SUBDIVISION NAME W.R. GRACE	SECT./AREA -	LOT/PARCEL # P 145
PLAT # 273/16G	BLOCK # 22	ZONE R-2
TAX/ZONE MAP 35	ELEC. DIST. 5TH	CENSUS TR. 6053.01
WATER CODE N/A	SEWER CODE N/A	

APPROVED: FOR STORM DRAINAGE SYSTEMS AND ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
John F. Nummy
DIRECTOR
DATE: 6-26-84

APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT
James Z...
COUNTY HEALTH OFFICER
DATE: 7-9-84

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
James Z...
PLANNING DIRECTOR
DATE: 7-10-84

Paul George Cap
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
DATE: 7-10-84

WHITNEY MAILEY MOX MAGNANI CONSULTING ENGINEERS
Suite 311 Green Spring Station
2360 West Joppa Road
Lutherville, Maryland 21093
301-296-4200

OWNER:
W.R. GRACE & CO.
7379 ROUTE 32
COLUMBIA, MD 21044

NO.	DATE	DESCRIPTION
1	11-5-2019	ADDED REACTOR TEMPERATURE CONTROL UNIT (TCU) EAST OF BLDG 16
2	1/9/15	ADDED 2 ND LEVEL TO BUILDING 16
3	7/30/84	HANDICAPPED PARKING

REVISIONS

SEAL
Paul George Cap
4/2/84
STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER

mark beck associates inc.
architects . interior designers
planners . space planning

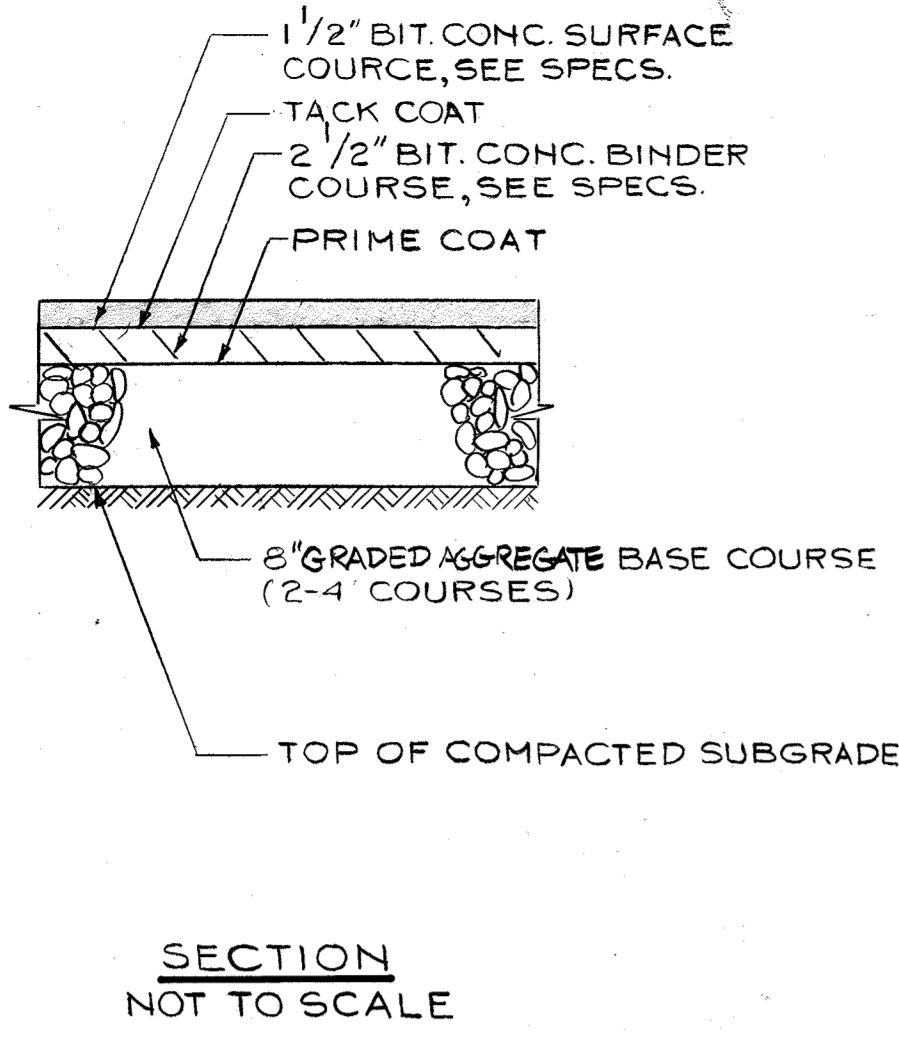
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SAUTER SEABORNE PAYNTER DUSZAK ARCHITECTS, LTD.

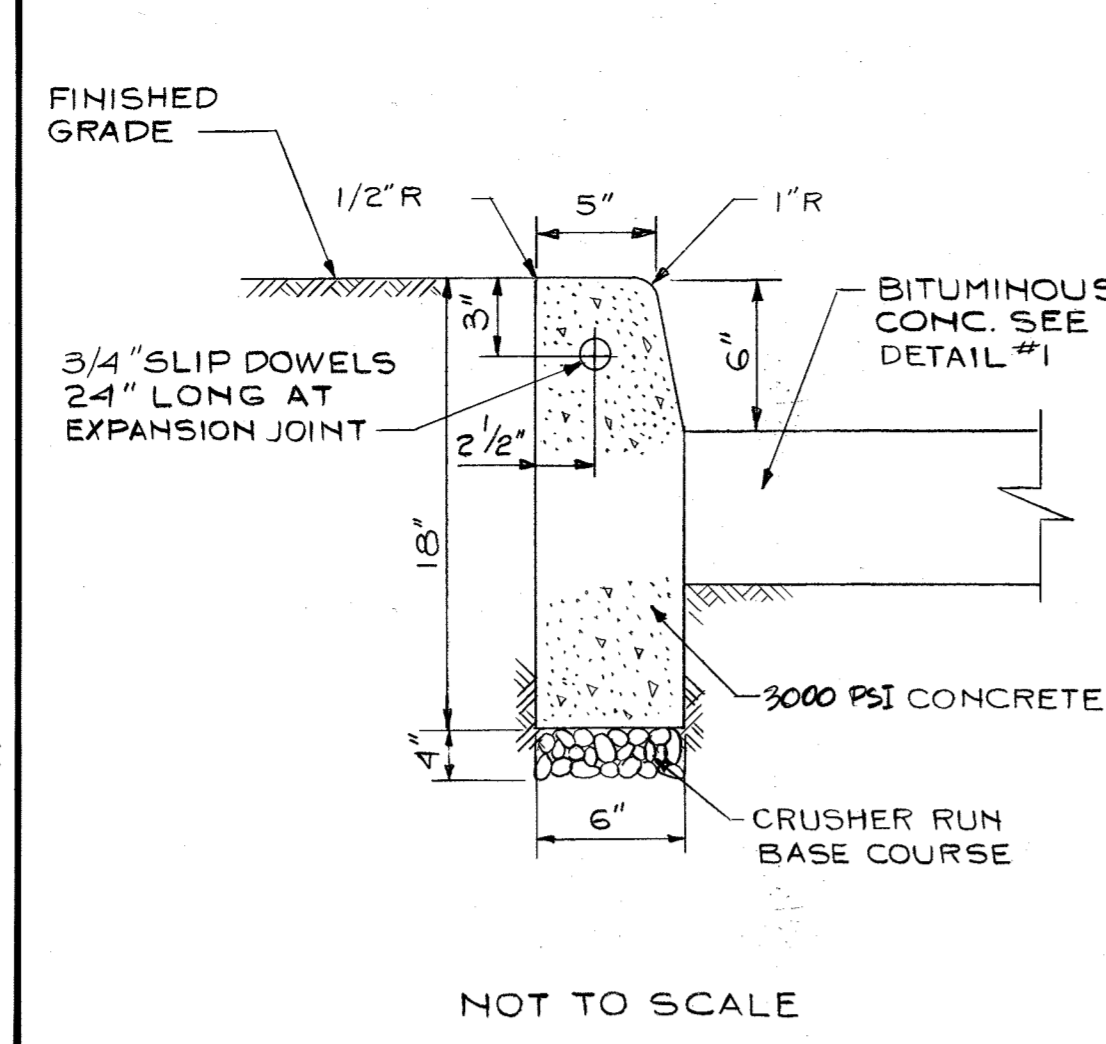
W.R. GRACE & CO.
WASHINGTON RESEARCH CTR.
COLUMBIA, MARYLAND
377 ELECTION DISTRICT
Parcel P-25 Tax Map 25
Lutherville, Md.
BUILDING NO. 16-E ADDITION

GRADING & SEDIMENT CONTROL PLAN

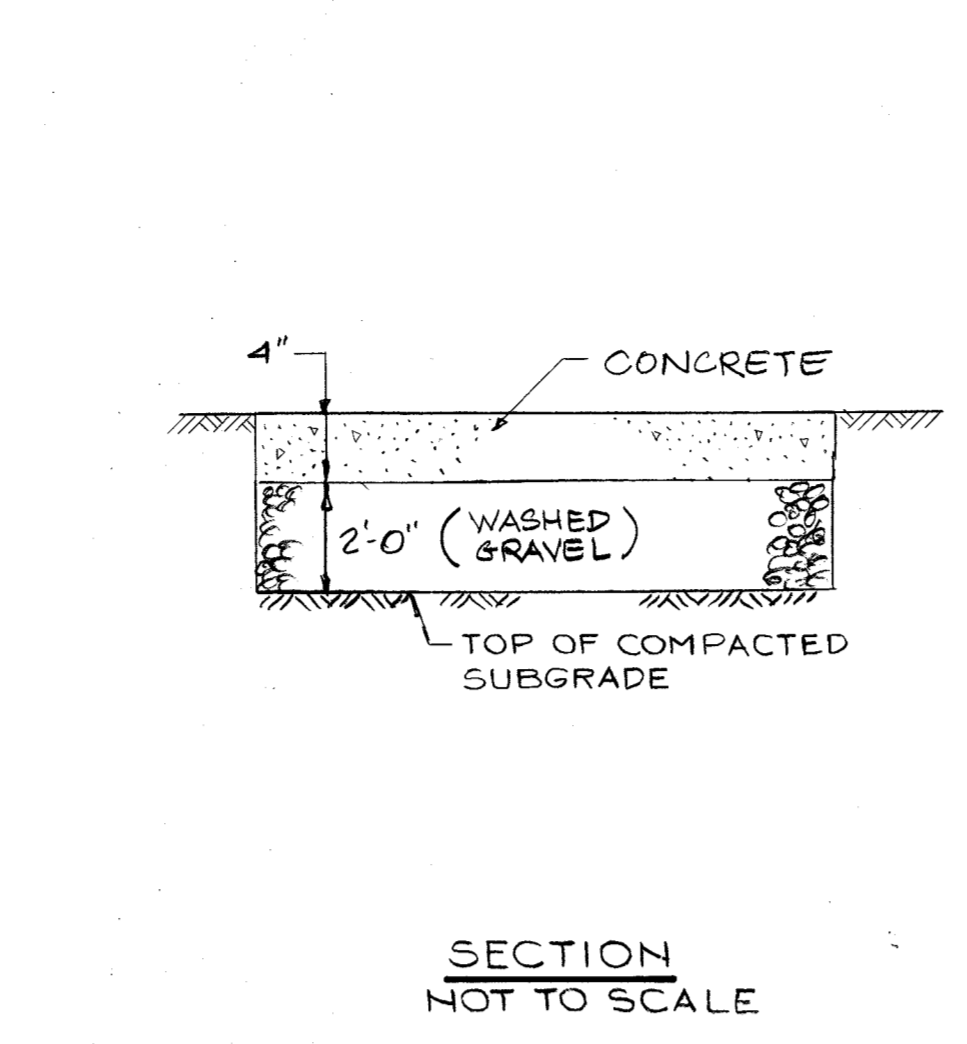
JOB NO: 8406 DRAWING: SD-4
SCALE: 1" = 20'
DATE: 5/30/84 4 OF 9
SDP-84-255



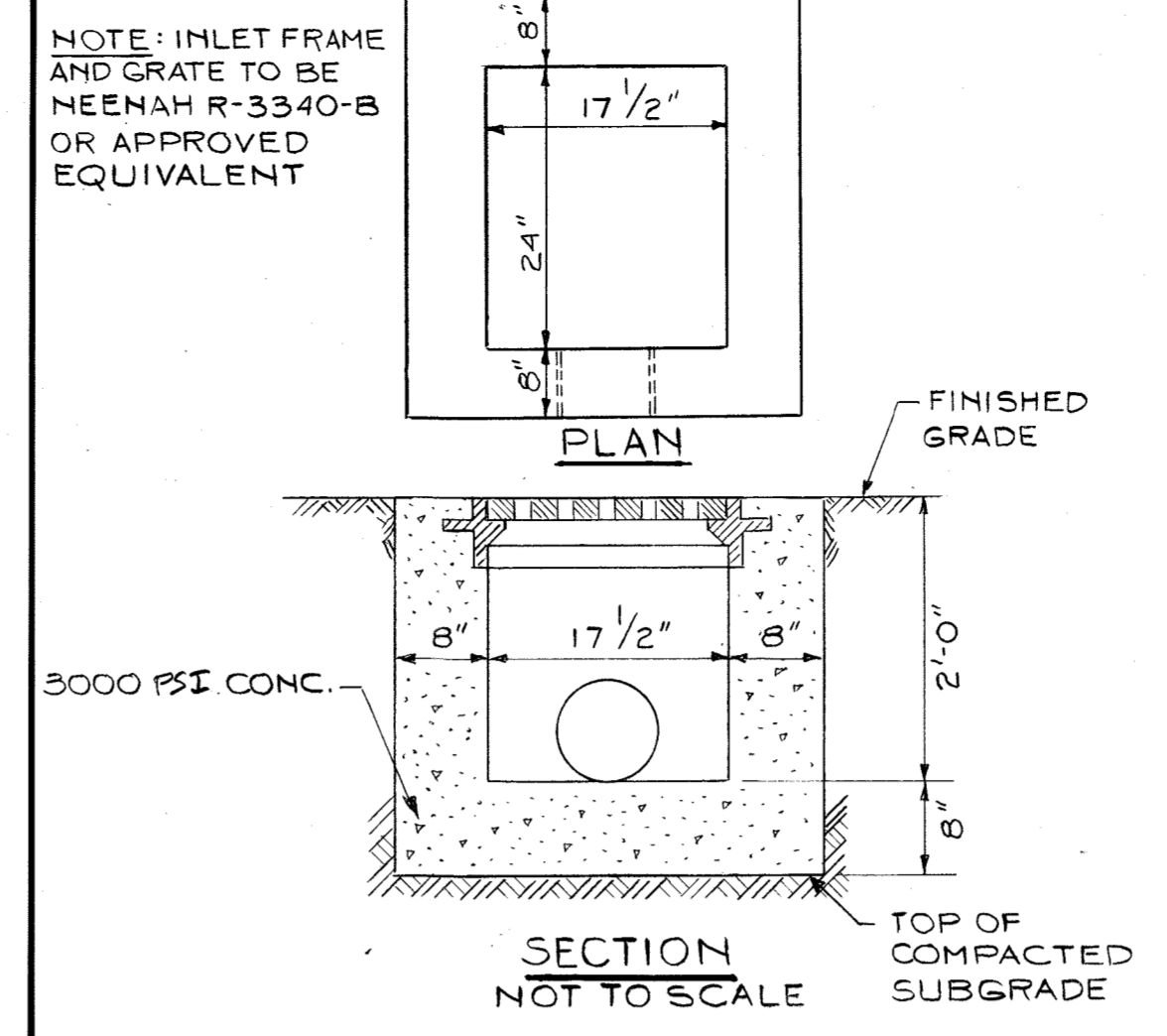
1 BIT. CONCRETE PAVING



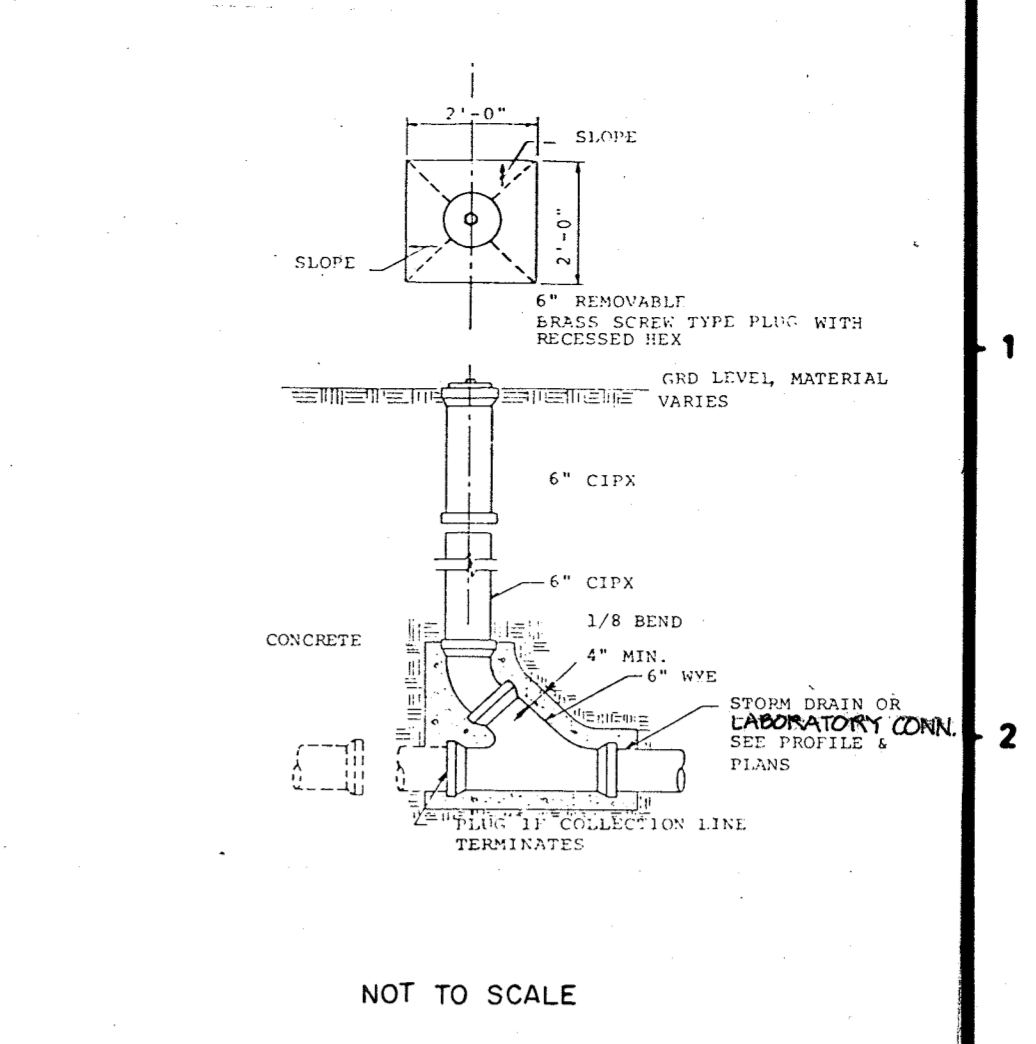
2 CONCRETE CURB DETAIL



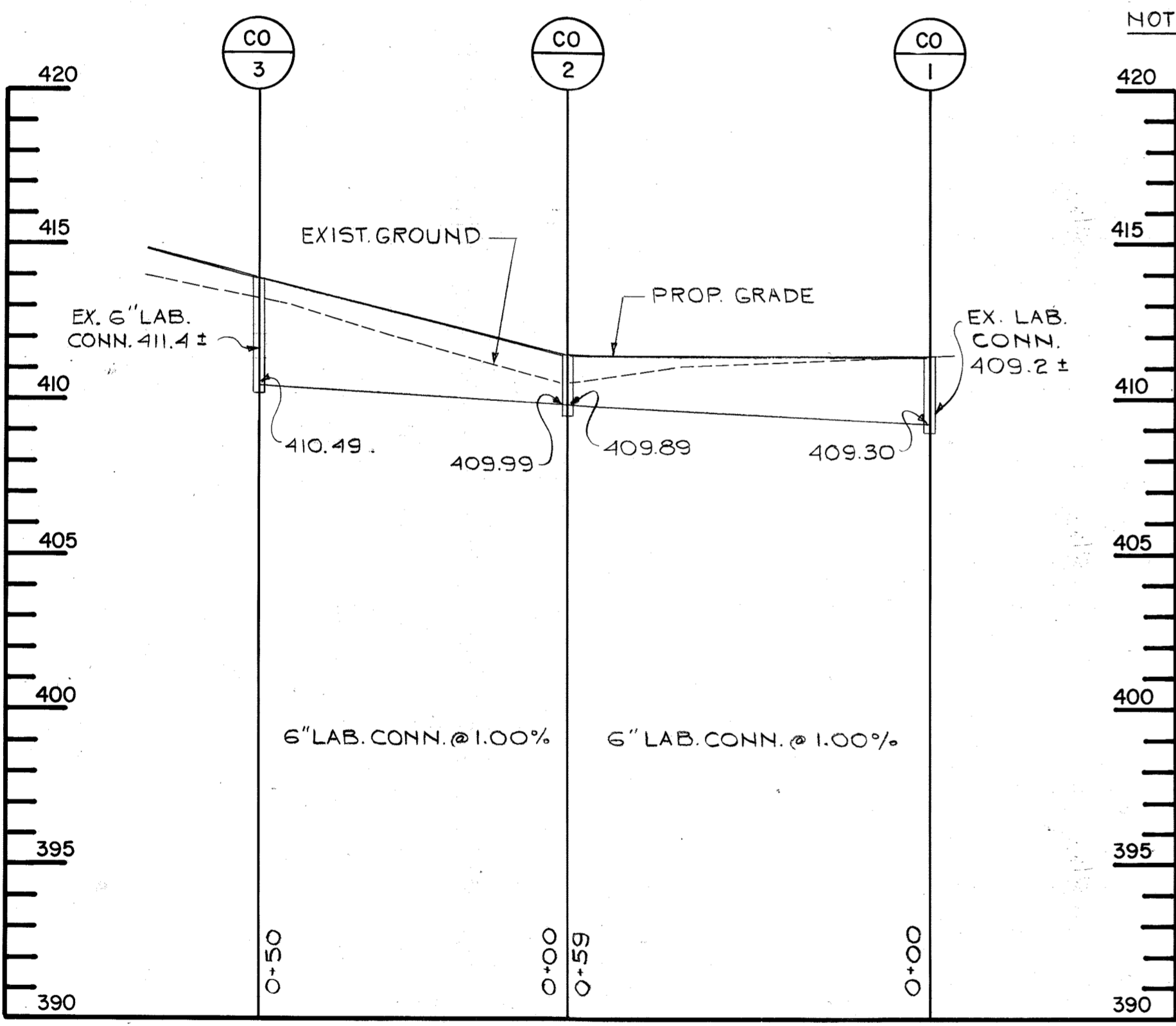
3 CONCRETE SIDEWALK DETAIL



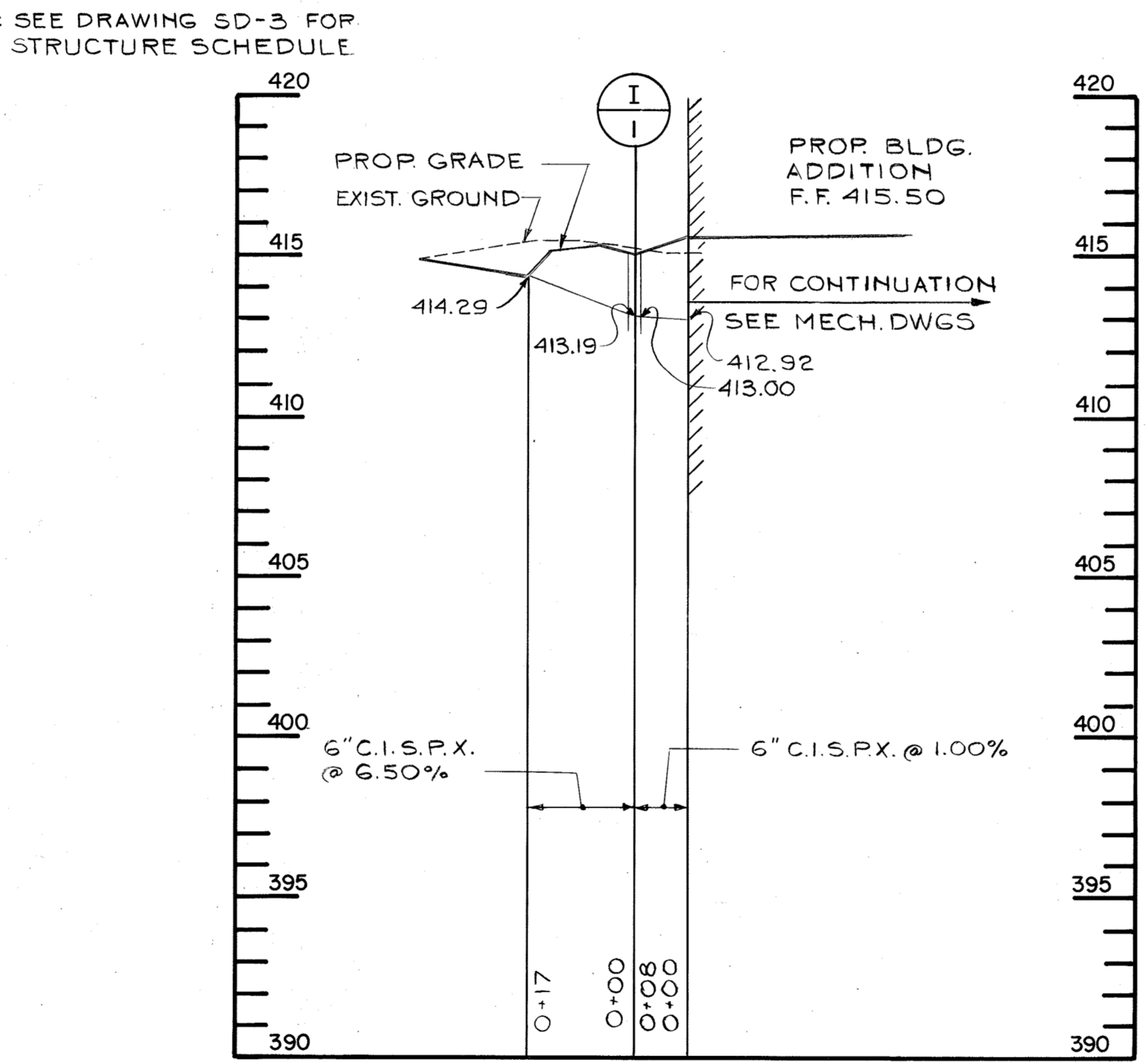
4 STORM DRAIN INLET DETAIL



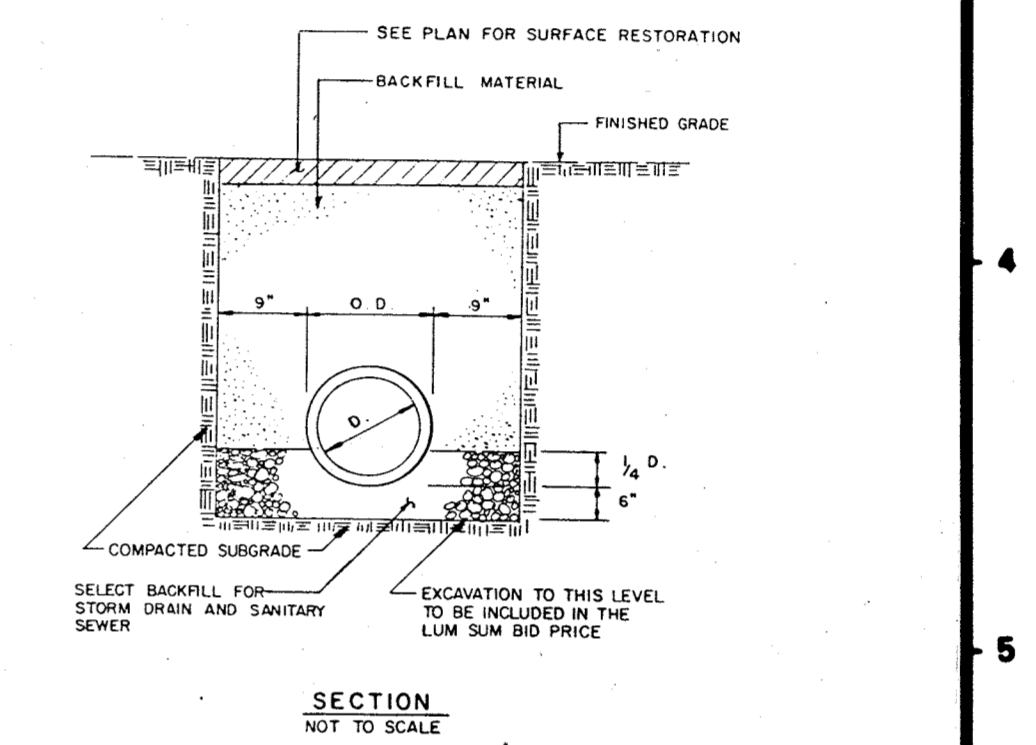
5 CLEANOUT DETAIL



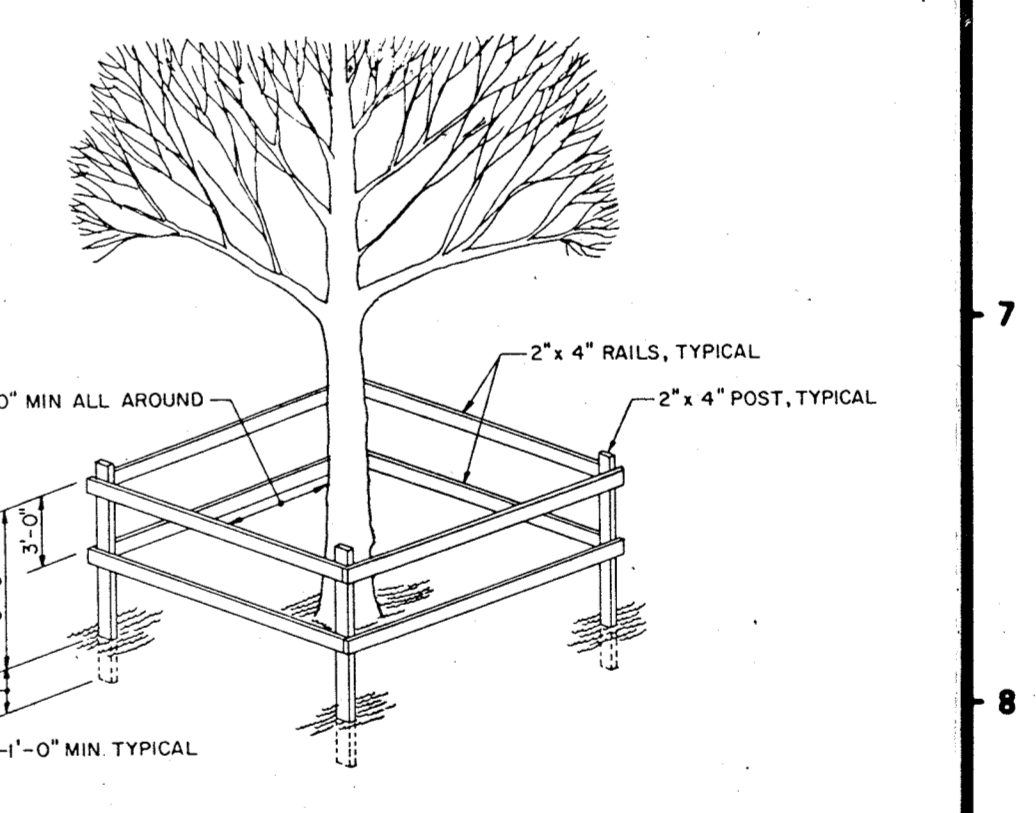
LAB. CONNECTION PROFILE
SCALE: HORZ.: 1" = 20'
VERT.: 1" = 4'



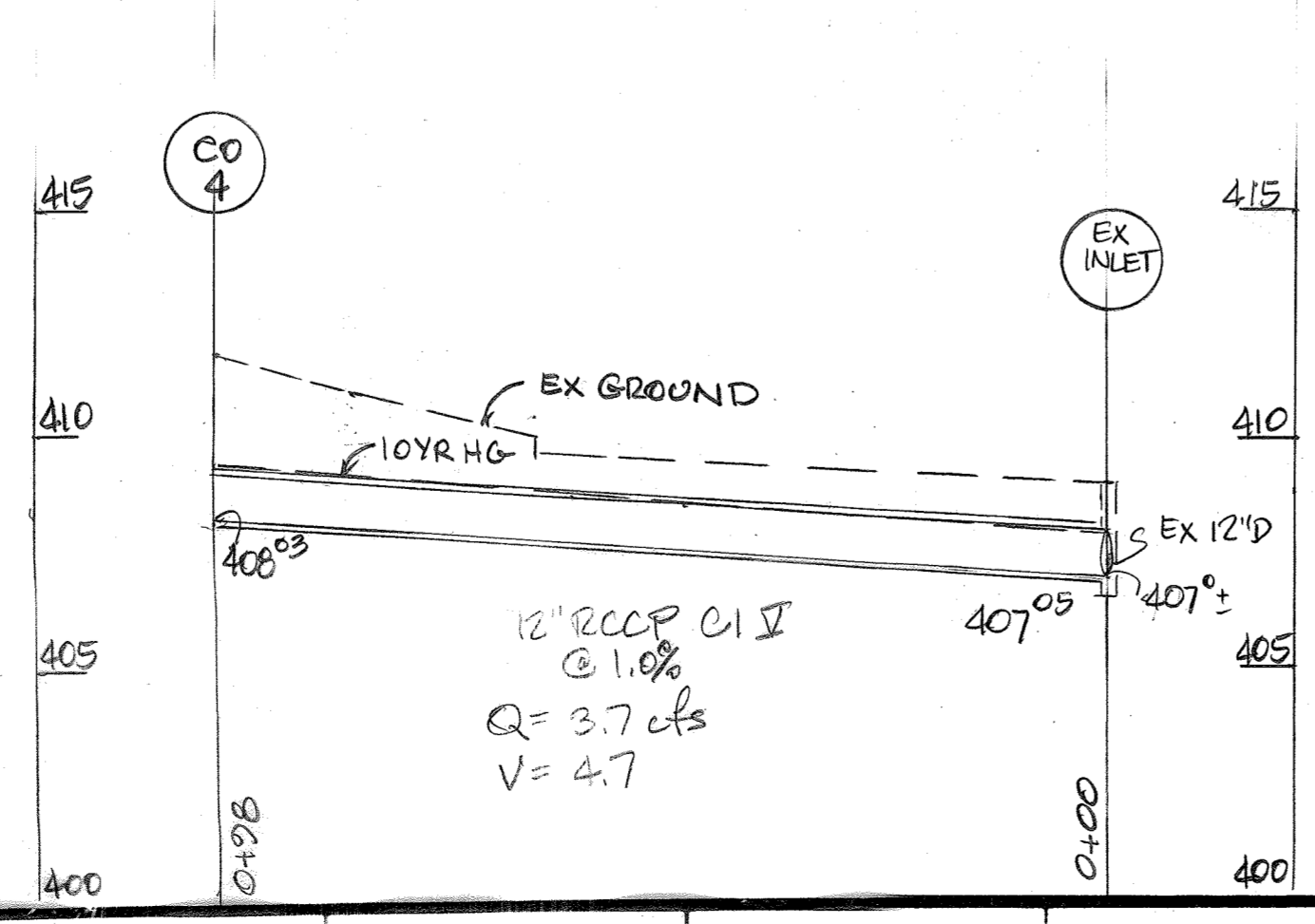
STORM DRAIN PROFILE
SCALE: HORZ.: 1" = 20'
VERT.: 1" = 4'



6 TRENCH DETAIL



7 TREE PROTECTION DETAIL



SUBDIVISION NAME W.R. GRACE		SECT./AREA	LOT/PARCEL # P 145
PLAT # 273/186	BLOCK # 22	TAX/ZONE MAP 35	ELEC. DIST. / CENSUS TR. 5TH / 6053.01
WATER CODE N/A		SEWER CODE N/A	
APPROVED: FOR STORM DRAINAGE SYSTEMS AND ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS DIRECTOR: <i>John F. Nemij</i> DATE: 6-26-84 CHIEF, BUREAU OF ENGINEERING: <i>John S. ...</i> DATE: 6-26-84			
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT COUNTY HEALTH OFFICER: <i>John ...</i> DATE: 7-9-84			
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING PLANNING DIRECTOR: <i>Thomas ...</i> DATE: 7-10-84 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: <i>John ...</i> DATE: 7-10-84			

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 6-14-84

WHITNEY CONSULTING ENGINEERS
BAILEY Suite 311 Green Spring Station
OX 2360 West Joppa Road
MAGNANI Lutherville, Maryland 21093
301-296-4200

OWNER:
W.R. GRACE & CO.
7379 ROUTE 32
COLUMBIA, MD. 21044

NO.	DATE	DESCRIPTION

SEAL
Paul ...
8/2/84
PROFESSIONAL ENGINEER

FIRM: WBCM
DESIGNED: PD
DRAWN: GG
CHECKED: PEC

mark beck associates inc.
architects . interior designers
planners . space planning

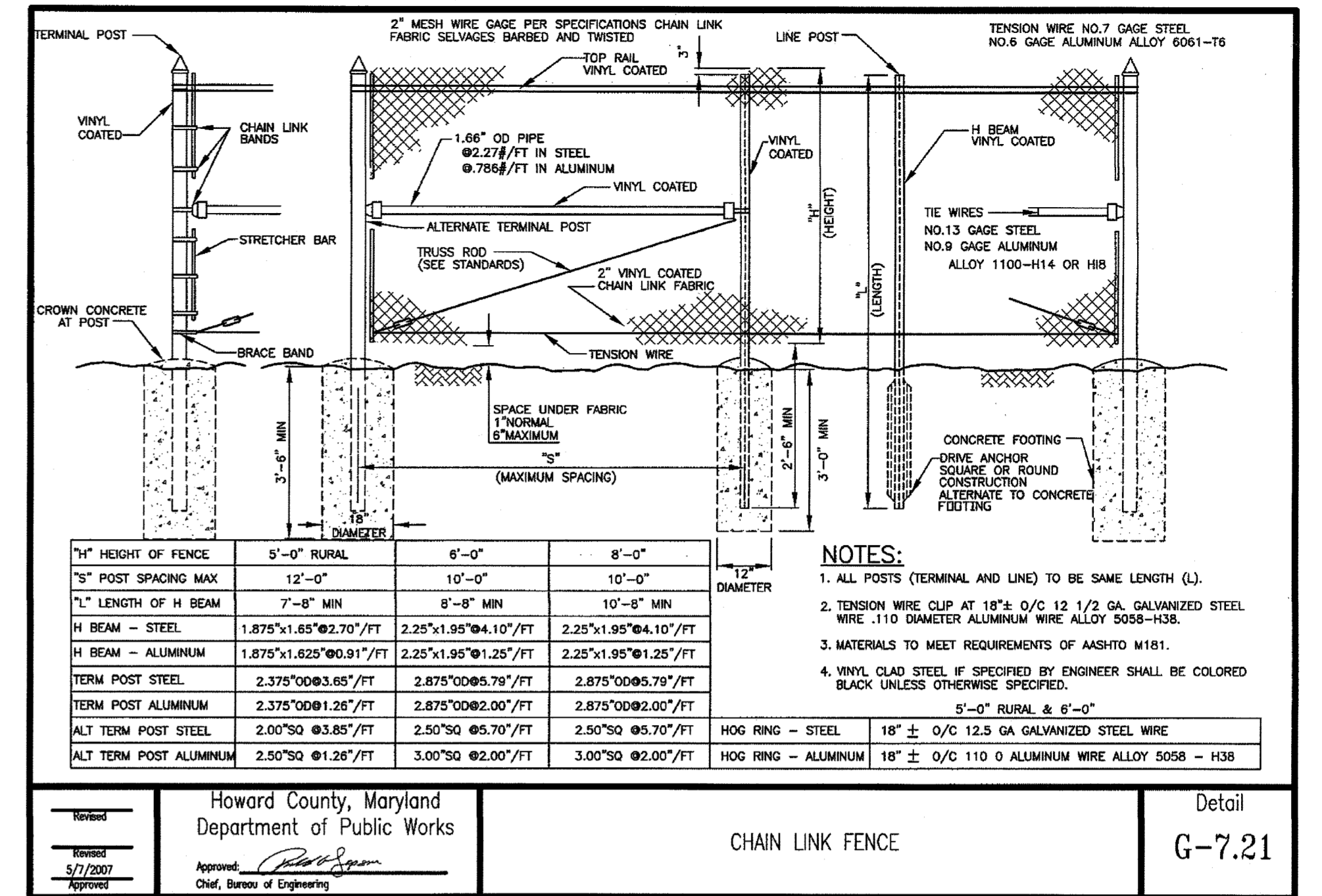
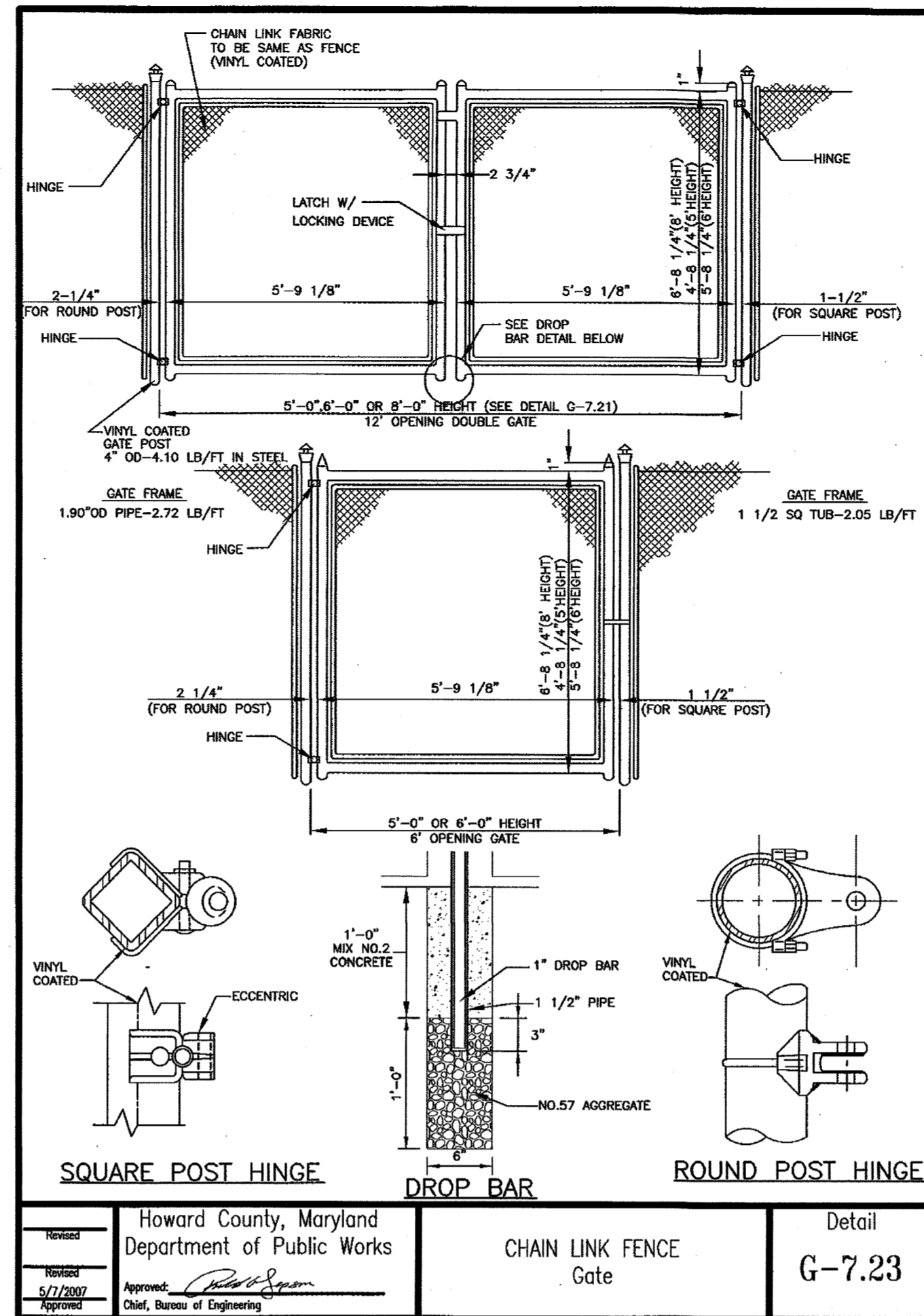
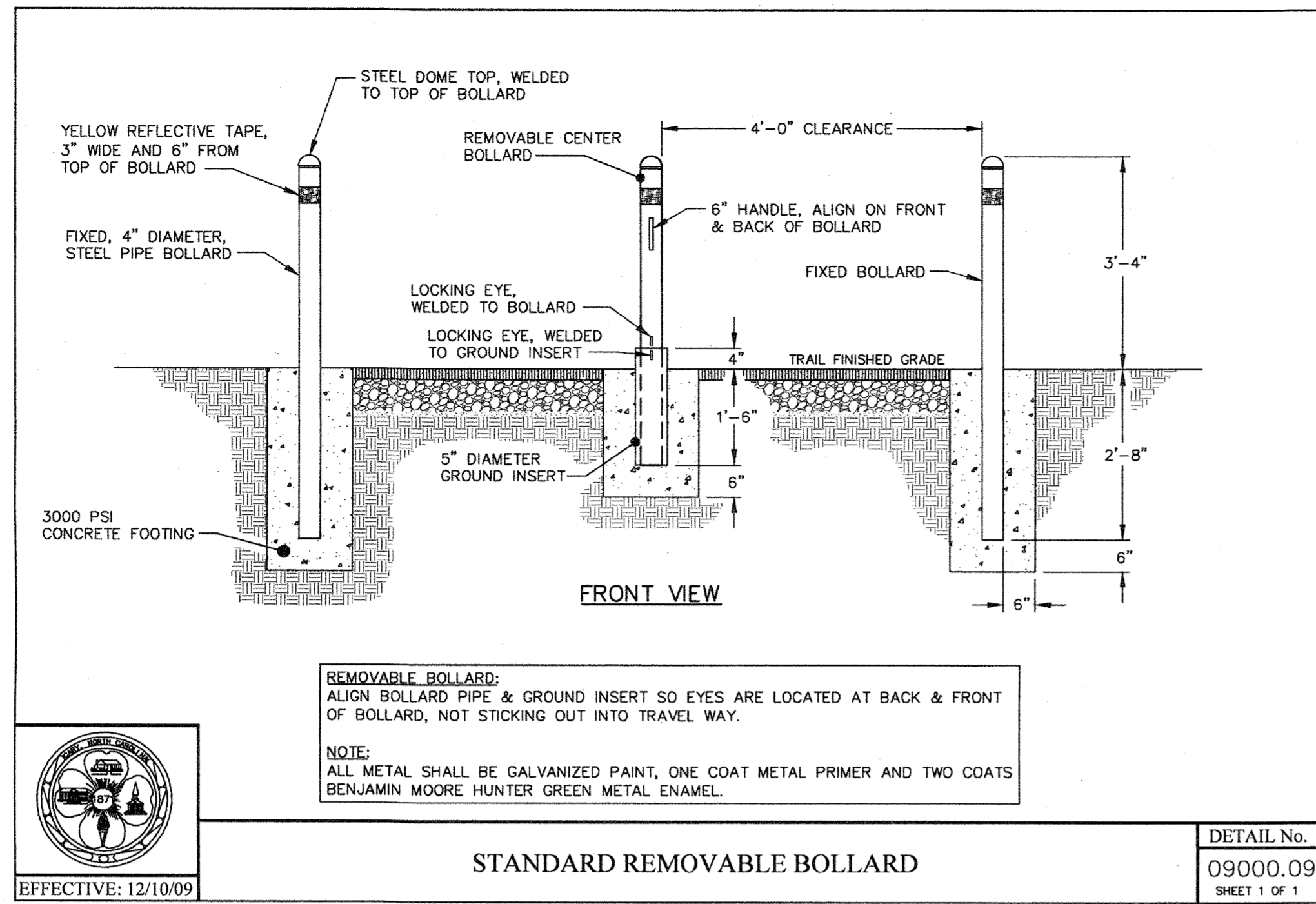
SAUTER | SEABORNE
PAYNTER | DUSZAK
ARCHITECTS . LTD.

823 WEST LAWRENCE STREET
APPLETON, WISCONSIN 54911

W.R. GRACE & CO.
WASHINGTON RESEARCH CTR.
COLUMBIA, MARYLAND
5th Election District
Borel Map 35
BUILDING NO. 16-E
ADDITION

DETAILS & UTILITY PROFILE

JOB NO. 8406 DRAWING
SCALE: AS SHOWN SD-5
DATE 5/30/84 5 OF 9



F:\PROJ\2009\09-01\PLANS\LDG\REDLINE MARKUP\Plan Sets\Redline\2009-13-Regin\Detail Sheet 6.dwg, 12/5/2016 10:37:20 AM, unibehel, 1:1, Copyright 2016 Morris & Ritchie Associates, Inc.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

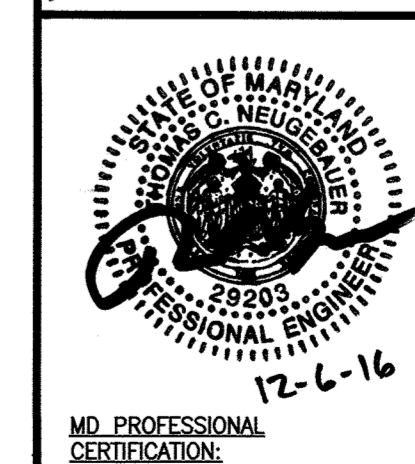
Chad Edelman 12-8-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION

Karl Schenk 12-13-16
CHIEF, DIVISION OF LAND DEVELOPMENT

William J. Miller 12-17-16
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

ADDRESS CHART	
LOT/PARCEL #	STREET ADDRESS
145	7500 GRACE DRIVE COLUMBIA, MD 21044

OWNER:
W.R. GRACE & CO.
7500 GRACE DRIVE
COLUMBIA, MD 21044
410-531-4000
ATTN: NIZAM USTA



DATE	REVISIONS	JOB NO.:	SCALE:
11/8/16	ADDED BOLLARDS, GUARD RAIL, FENCING	12039.11	NTS
	PER HOCO DED, ADDED NEW SHEET 6		DATE: 12/6/16
			DRAWN BY: MAM
			DESIGN BY: MAM
			REVIEW BY: TM
			SHEET: 6 OF 9

SHEET: SD-6



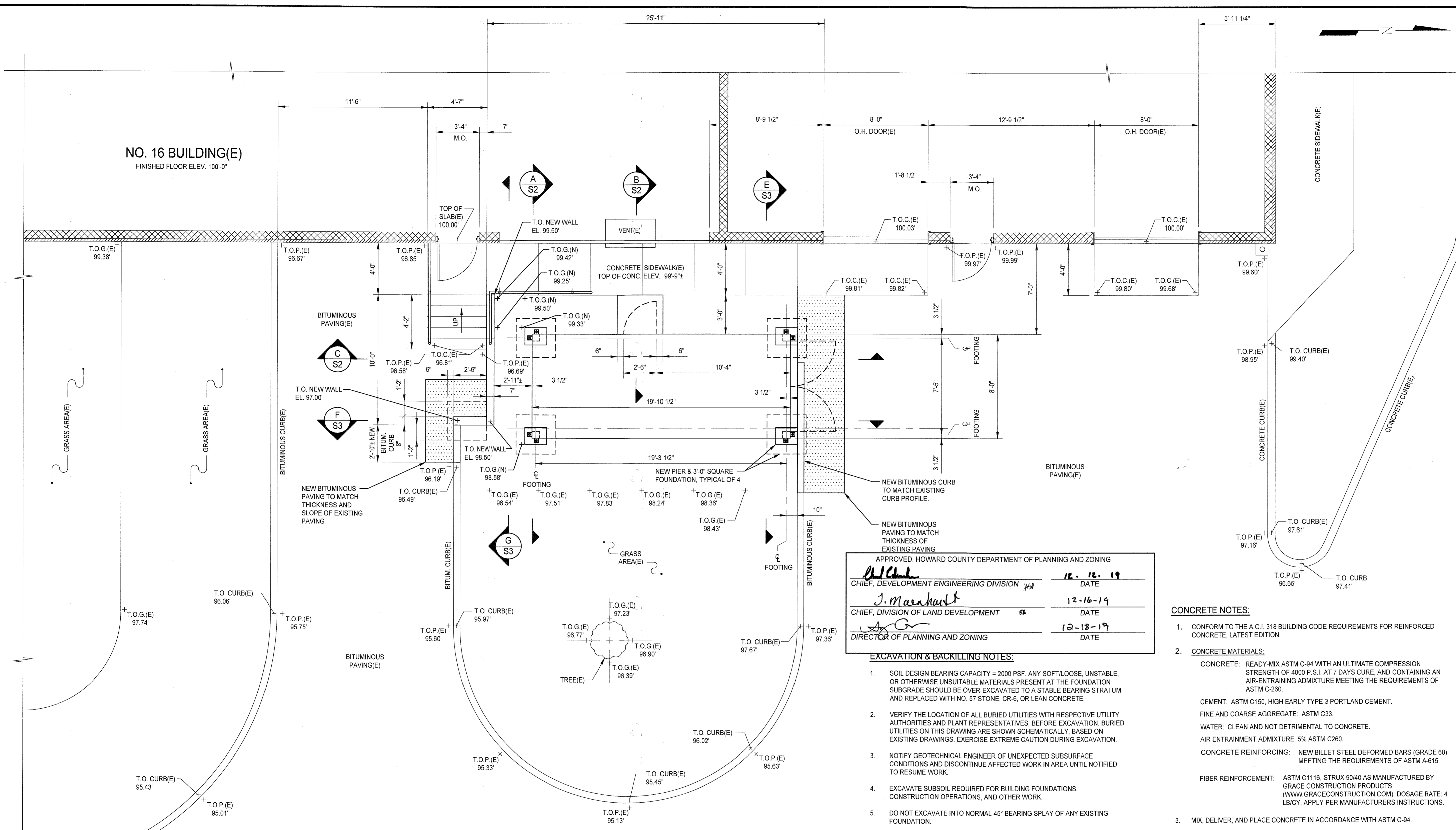
MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
14280 PARK CENTER DRIVE
LAUREL, MD 20707
(410) 792-9792 / (301) 776-1690
FAX: (410) 792-7395
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MRAGTA.COM

W.R. GRACE & CO.
WASHINGTON RESEARCH CENTER

DETAIL PAGE

LIBER 0273 ~ FOLIO 186 ~ PARCEL 145
ZONED: PEC ~ TAX MAP: 35 ~ GRID: 22
5TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

NO. 16 BUILDING(E)
FINISHED FLOOR ELEV. 100'-0"



FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

LEGEND

- BD(E) EXISTING PIPE BOLLARD
- [Pattern] NEW BITUMINOUS PAVING
- [Pattern] EXISTING BUILDING EXTERIOR MASONRY WALL
- + T.O.P.(E) EXISTING TOP OF PAVING SPOT ELEVATION
- + T.O.G.(E) EXISTING TOP OF GRADE SPOT ELEVATION
- + T.O.C.(E) EXISTING TOP OF CONCRETE SPOT ELEVATION

GENERAL NOTES:

1. NEITHER PROFESSIONAL ACTIVITIES OF JAVAN ENGINEERING (JAVAN), NOR PRESENCE OF ITS EMPLOYEES AND SUB CONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. JAVAN AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PRECAUTIONS. CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE SAFETY.
2. CHECK AND FIELD VERIFY ALL DIMENSIONS PRIOR TO BEGINNING WORK. NOTIFY JAVAN IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCIES ON DRAWINGS OR ANY INTERFERENCES IN FIELD.
3. NOTIFY JAVAN OF ANY DEVIATIONS INTENDED TO BE TAKEN FROM THE CONTRACT DOCUMENTS.
4. CONTRACTOR IS RESPONSIBLE FOR DESIGN, FABRICATION, AND INSTALLATION OF ANY REQUIRED SHORING OR BRACING OF EXISTING ITEMS.
5. COMPLY WITH ALL SAFETY PROCEDURES.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
[Signature] 12-16-19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
[Signature] 12-16-19
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 12-18-19
 DIRECTOR OF PLANNING AND ZONING

EXCAVATION & BACKFILLING NOTES:

1. SOIL DESIGN BEARING CAPACITY = 2000 PSF. ANY SOFT/LOOSE, UNSTABLE, OR OTHERWISE UNSUITABLE MATERIALS PRESENT AT THE FOUNDATION SUBGRADE SHOULD BE OVER-EXCAVATED TO A STABLE BEARING STRATUM AND REPLACED WITH NO. 57 STONE, CR-6, OR LEAN CONCRETE.
2. VERIFY THE LOCATION OF ALL BURIED UTILITIES WITH RESPECTIVE UTILITY AUTHORITIES AND PLANT REPRESENTATIVES. BEFORE EXCAVATION BURIED UTILITIES ON THIS DRAWING ARE SHOWN SCHEMATICALLY, BASED ON EXISTING DRAWINGS. EXERCISE EXTREME CAUTION DURING EXCAVATION.
3. NOTIFY GEOTECHNICAL ENGINEER OF UNEXPECTED SUBSURFACE CONDITIONS AND DISCONTINUE AFFECTED WORK IN AREA UNTIL NOTIFIED TO RESUME WORK.
4. EXCAVATE SUBSOIL REQUIRED FOR BUILDING FOUNDATIONS, CONSTRUCTION OPERATIONS, AND OTHER WORK.
5. DO NOT EXCAVATE INTO NORMAL 45° BEARING SPLAY OF ANY EXISTING FOUNDATION.
6. STOCKPILE SUBSOIL IN AREA DESIGNATED ON SITE. EXCESS SUBSOIL NOT BEING REUSED SHALL BE STOCKPILED ON-SITE IN AREA DESIGNATED BY W.R. GRACE.
7. CONTRACTOR IS RESPONSIBLE FOR DESIGN, FABRICATION, AND INSTALLATION OF ANY REQUIRED SHORING OR BRACING OF EXISTING STRUCTURES.
8. PLACE AND COMPACT FILL MATERIALS IN CONTINUOUS LAYERS NOT EXCEEDING 8 INCH LOOSE DEPTH TO A COMPACTION EFFORT OF 95 PERCENT OF THE MAXIMUM DENSITY DEFINED BY THE STANDARD PROCTOR (ASTM D-698). MAINTAIN OPTIMUM MOISTURE CONTENT OF BACK FILL MATERIALS TO ATTAIN REQUIRED COMPACTION DENSITY.
9. SLOPE GRADE AWAY FROM BUILDING UNLESS NOTED OTHERWISE.
10. REPAIR BITUMINOUS PAVEMENT TO MATCH EXISTING CONDITIONS AT INTERFERENCE BETWEEN NEW AND OLD CONSTRUCTION. ALL NEW BITUMINOUS PAVEMENT SHALL CONFORM TO OWNER'S STANDARDS AND MUNICIPAL STANDARDS. SEAL JOINT BETWEEN NEW PAVEMENT AND CONCRETE AND EXISTING PAVEMENT WITH A BITUMINOUS SEALANT.

CONCRETE NOTES:

1. CONFORM TO THE A.C.I. 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, LATEST EDITION.
2. CONCRETE MATERIALS:
 CONCRETE: READY-MIX ASTM C-94 WITH AN ULTIMATE COMPRESSION STRENGTH OF 4000 P.S.I. AT 7 DAYS CURE, AND CONTAINING AN AIR-ENTRAINING ADMIXTURE MEETING THE REQUIREMENTS OF ASTM C-260.
 CEMENT: ASTM C150, HIGH EARLY TYPE 3 PORTLAND CEMENT.
 FINE AND COARSE AGGREGATE: ASTM C33.
 WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE.
 AIR ENTRAINMENT ADMIXTURE: 5% ASTM C260.
 CONCRETE REINFORCING: NEW BILLET STEEL DEFORMED BARS (GRADE 60) MEETING THE REQUIREMENTS OF ASTM A-615.
 FIBER REINFORCEMENT: ASTM C1116, STRUX 90/40 AS MANUFACTURED BY GRACE CONSTRUCTION PRODUCTS (WWW.GRACECONSTRUCTION.COM), DOSAGE RATE: 4 LB/CY. APPLY PER MANUFACTURERS INSTRUCTIONS.
3. MIX, DELIVER, AND PLACE CONCRETE IN ACCORDANCE WITH ASTM C-94.
4. COORDINATE WORK OF OTHERS IN SETTING ANCHOR BOLTS, AND OTHER INSERTS. SECURE ALL REINFORCING, ANCHOR BOLTS, AND OTHER INSERTS IN PLACE PRIOR TO POURING CONCRETE.
5. MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
6. DETAIL, FABRICATE, AND PLACE CONCRETE REINFORCING STEEL PER THE A.C.I. 315 MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (LATEST EDITION).
7. CHAMFER ALL EXPOSED CORNERS OF CONCRETE WITH A 3/4" X 45° CHAMFER, UNLESS OTHERWISE NOTED.



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. 38732, EXPIRATION DATE: 05-28-2020

SMALL SCALE PILOT PLANT REACTOR TEMP CONTROL UNIT FOUNDATION PLAN & NOTES

W. R. GRACE & CO.
BUILDING NO. 16-E

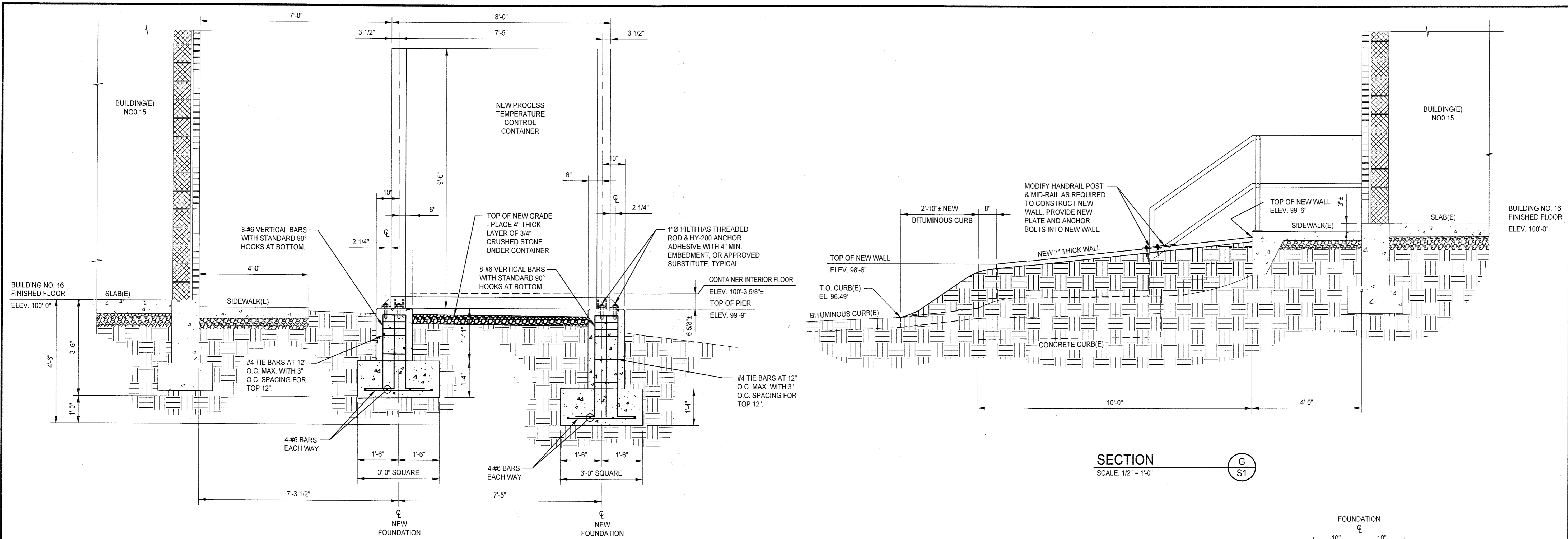
Javan ENGINEERING
 Ft Washington, PA (215) 654-7890
 Glen Burnie, MD (410) 590-1585

PROJECT NUMBER: E1-18-11352
 JE DRAWING NUMBER: S1

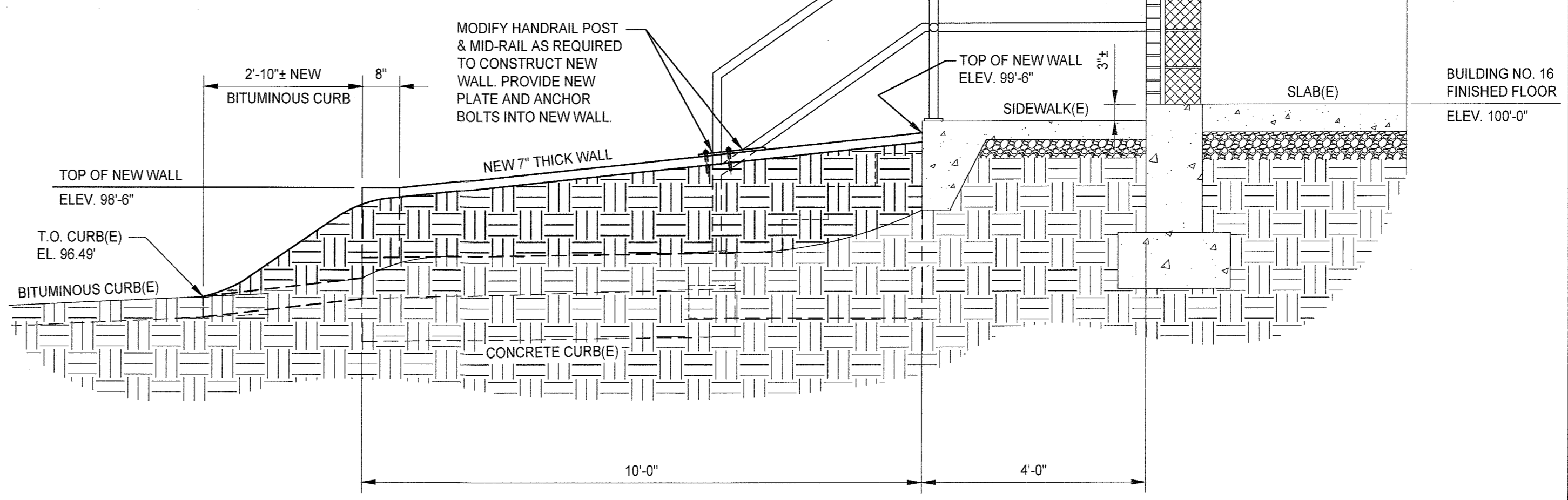
DATE	BY	DESCRIPTION OF REVISION	REV
11-5-2019	MRA INC.	ADDED REACTOR TEMPERATURE CONTROL UNIT (TCU) EAST OF BLDG 16	8
2/25/19	ML	RE-ISSUED FOR CONSTRUCTION	1
2/5/19	ML	ISSUED FOR CONSTRUCTION	0

DRAWN BY	LAST UPDATE OF DRAWING	ORIGINAL DATE	SHEET No.
W.R. GRACE ENGR.	1/26/2019	1/26/2019	7 OF 9

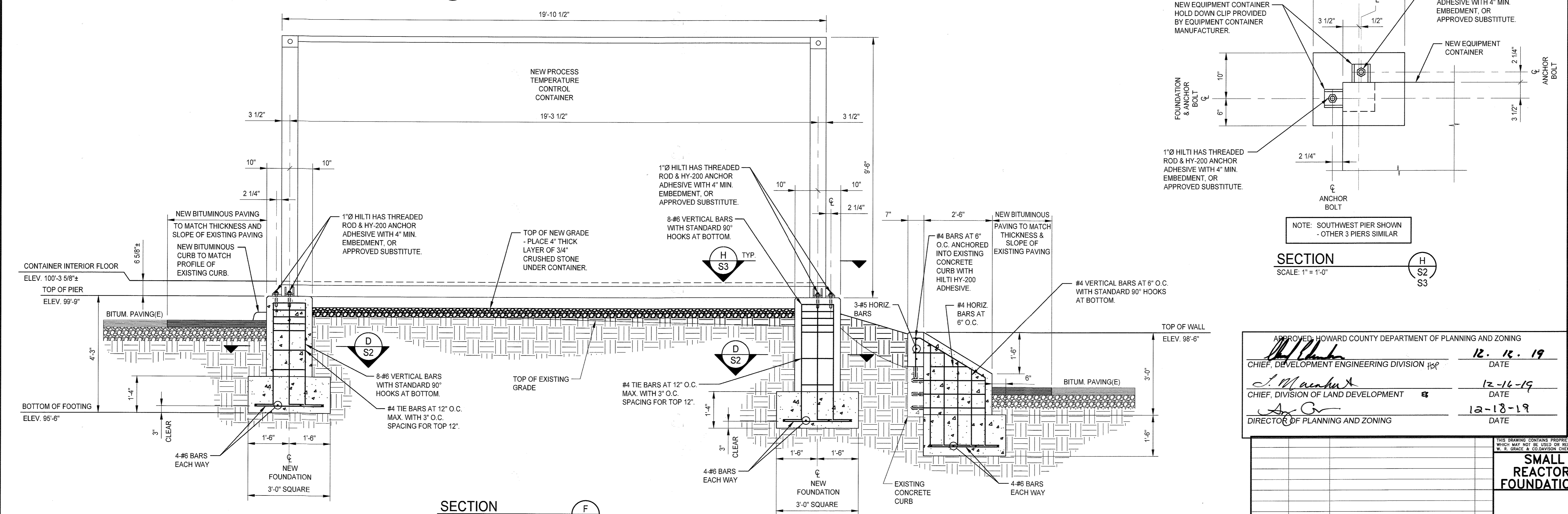
THIS DRAWING CONTAINS PROPRIETARY INFORMATION BELONGING TO W. R. GRACE DAVISON CHEMICAL DIVISION WHICH MAY NOT BE USED OR REPRODUCED WITHOUT PERMISSION. THE DRAWING REMAINS THE PROPERTY OF W. R. GRACE & CO. DAVISON CHEMICAL DIVISION AND IS TO BE RETURNED ON DEMAND.



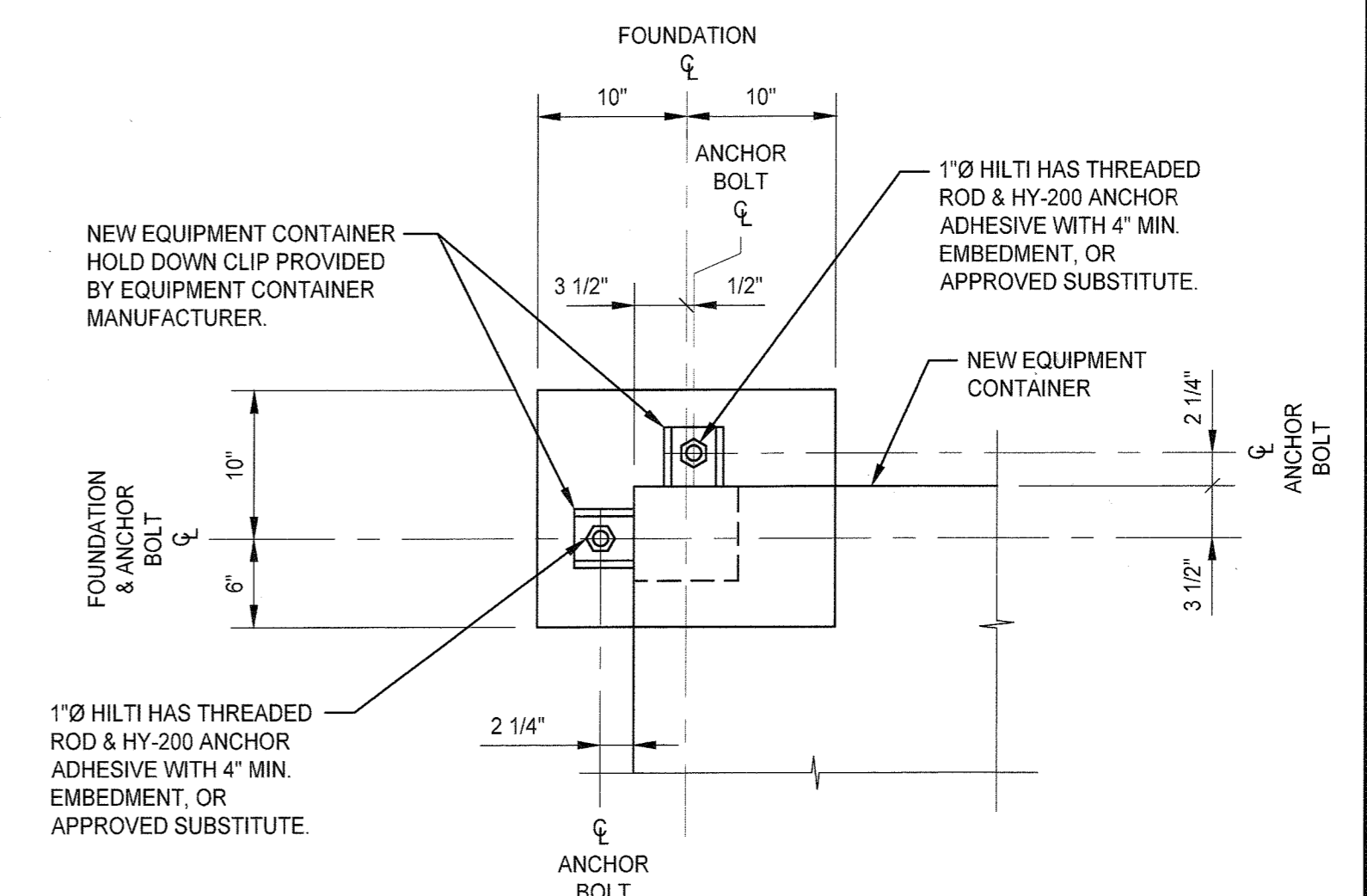
SECTION E S1



SECTION G S1



SECTION F S1



SECTION H S2 S3

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 12.18.19
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 12-16-19
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

[Signature] 12-18-19
 DIRECTOR OF PLANNING AND ZONING DATE

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 38732
 ROBERT J. PRICE, PE
 11/26/19

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. 38732, EXPIRATION DATE: 05-26-2020

SMALL SCALE PILOT PLANT REACTOR TEMP CONTROL UNIT FOUNDATION SECTIONS & DETAILS

W. R. GRACE & CO. - BUILDING DIVISION CHEMICAL DIVISION No. 16-E

Javan ENGINEERING *[Logo]*

Ft Washington, PA (215) 654-7890
 Glen Burnie, MD (410) 590-1585

PROJECT NUMBER: E18-18-11352
 JE DRAWING NUMBER: S3

11-5-2019	MRA INC.	ADDED REACTOR TEMPERATURE CONTROL UNIT (TCU) EAST OF BLDG 16	0
2/5/19	ML	ISSUED FOR CONSTRUCTION	0
		DESCRIPTION OF REVISION	REV

DRAWN BY: ML	LAST UPDATE OF DRAWING: 1/28/2019	ORIGINAL DATE OF DRAWING: 11/6/2016	SHEET No. 9 OF 9
VENDOR PROJECT ENGR. NUMBER: 18110147	DRAWING SCALE: AS NOTED	DRAWING NUMBER: SD-09	SHEET 9 OF 9
VENDOR PROJECT MGR. NO. 03030404K	PROJECT NUMBER	PROJECT LOCATION: GRACE DAVISON COLUMBIA 7500 GRACE DRIVE COLUMBIA, MD 21044	REV 8
W.R. GRACE ENGR. J. ZHANG			