

WIENER & THALER
consulting structural engineers
newark, new jersey

KALLEN & LEMELSON
consulting mechanical & electrical engineers
new york, new york

JOHN KOZMA P.E.



NOTE: THIS SDP IS A REVISION TO PREVIOUSLY APPROVED SDP-78-86 (BLDG 9) AND REFLECTS MODIFICATIONS TO SITE IMPROVEMENTS AT BLDG #7

5-17-78

NOTE: THIS SDP IS A REVISION TO A PREVIOUSLY APPROVED SDP: TITLE NO: SDP 75-22 (BLDG 8)

FOR REVISION ONLY BUILDING #7

SDP-78-86

GENERAL NOTES

1. ALL TOP SURVEY INFORMATION OBTAINED FROM TOPOGRAPHIC SURVEY APPLIED THROUGH LABORATORY OF THE JOHNS HOPKINS UNIVERSITY, HOWARD COUNTY, MARYLAND, PREPARED BY BEN DYER ASSOCIATES INC., ENGINEERS, SURVEYORS & PLANNERS, SILVER SPRING, MARYLAND.
2. ZONING, "R", FOR THIS & ADJACENT PROPERTIES.
3. OCCUPANCY CLASSIFICATION: OFFICE-RESEARCH (BOCA BUSINESS).
4. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE HOWARD COUNTY BOARD CONSTRUCTION CODE AND SPECIFICATIONS.
5. PARKING: NO OCCUPANTS 2527 EXISTING PROPOSED REQ'D 2671 2115 1874 +24 ONE-WAY

6. WATER & SEWAGE SYSTEMS ARE PRIVATE

7. TOTAL AREA OF PROPERTY + 366.6 A.C. AREA OF PARCEL 123 + 27.98 A.C.

SITE DEVELOPMENT PLAN - LIST OF DWGS

- DWG 1 OVERALL PROPERTY OUTLINE
- DWG 2 SITE DEVELOPMENT PLAN, LOCATION MAP, ELEVATION
- DWG 3 SOIL CONSERVATION, GRADING & DRAINAGE
- DWG 4 ELECTRICAL ROOM IMPROVEMENTS
- DWG 5 BUILDING #7 ELECTRICAL ROOM IMPROVEMENTS

APPROVED FOR SYSTEMS DESIGNERS AND ROADS

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Richard E. ... 6-29-78

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
... 6-22-78

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Thomas ... 7-10-78

JAMES GOLDSTEIN & PARTNERS ARCHITECTS
225 MILLBURN AVE., MILLBURN, NEW JERSEY 07041
(201) 467-8840
CERT. NO. 1472-5

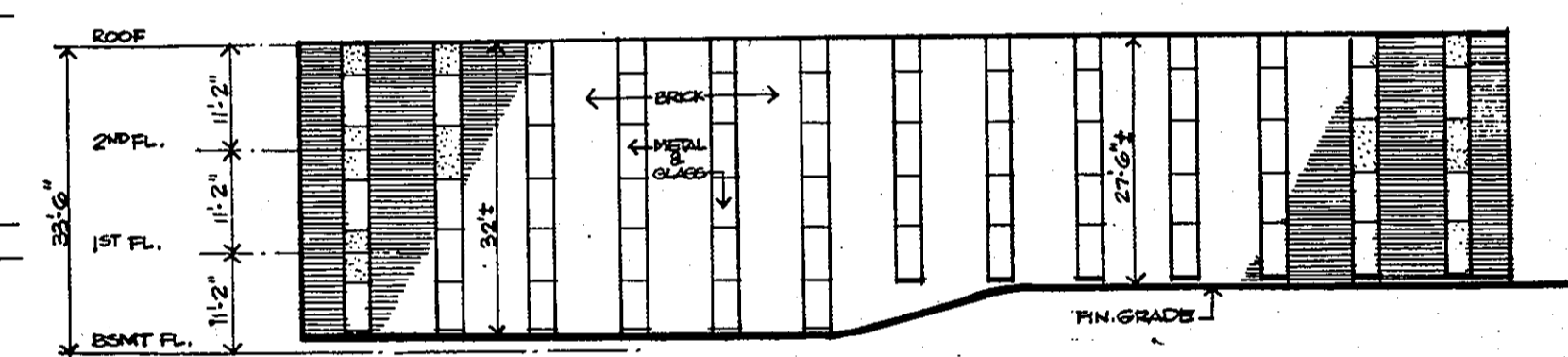
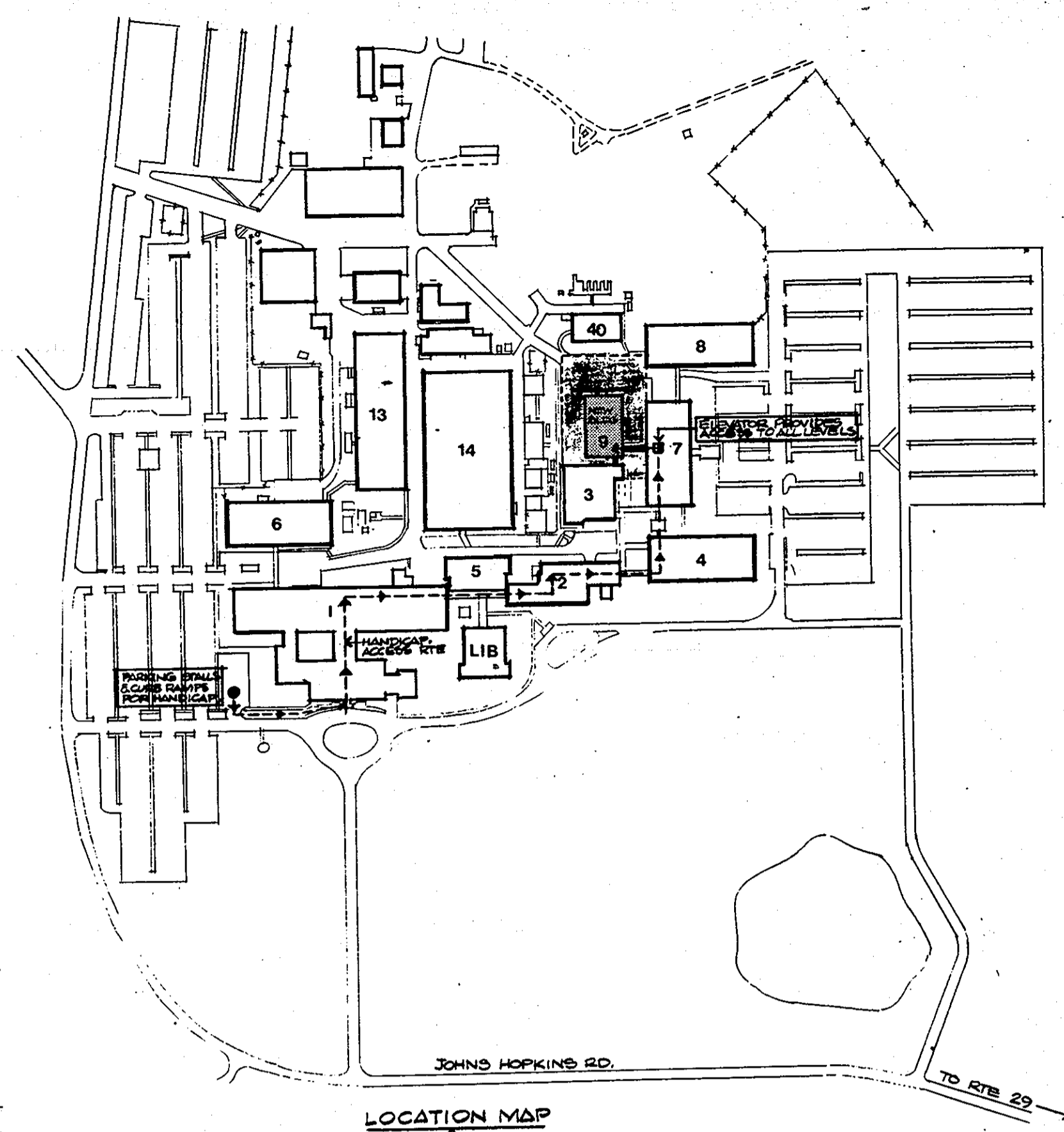
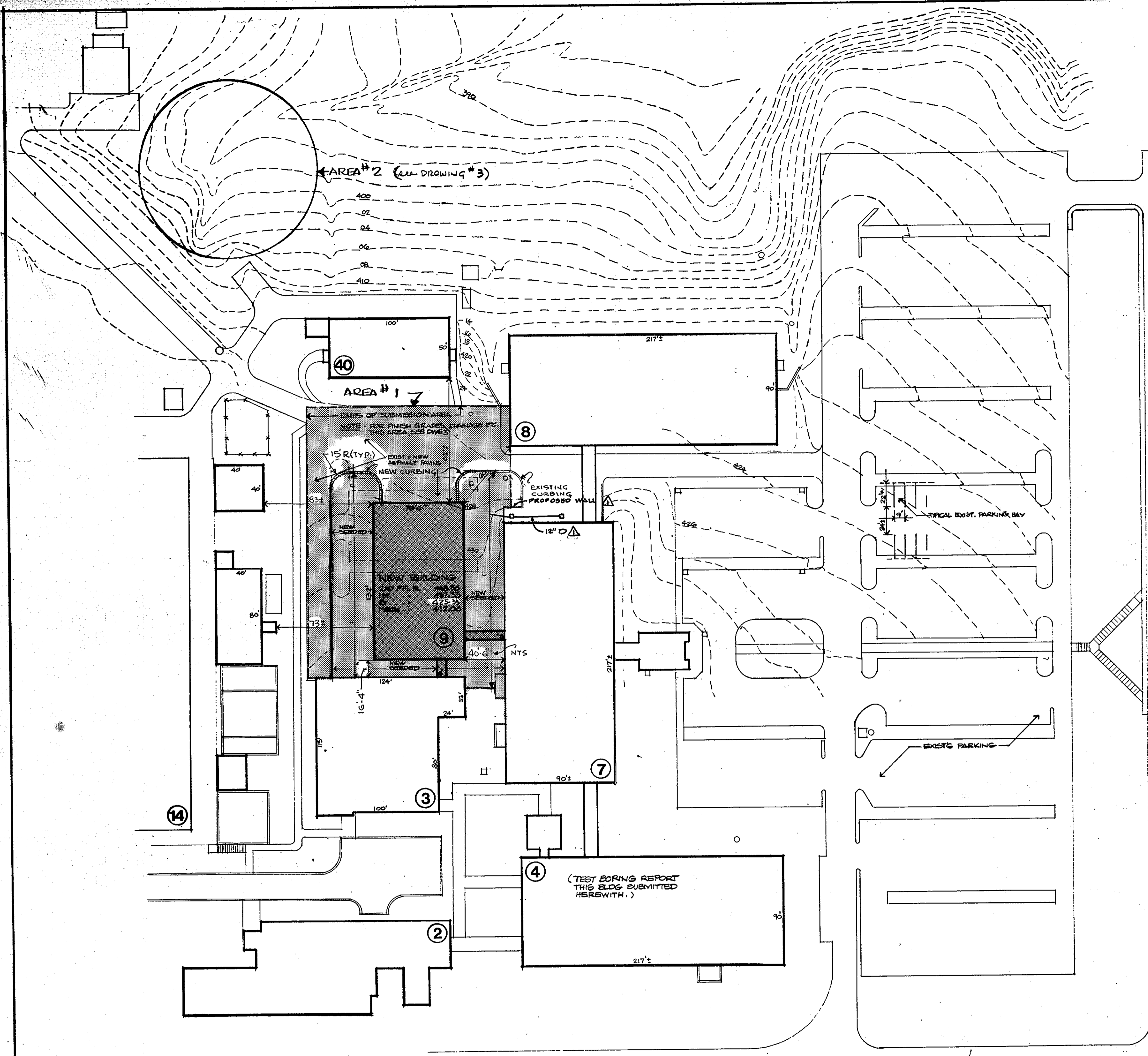
THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY
HOWARD COUNTY, LAUREL, MARYLAND
APPROVED FOR THE UNIVERSITY BY: *C. J. Smith*
DATE: 6/1/78 TITLE: B.U.S.I.N.E.S.S. A.G.R.

BUILDING-9 OVERALL PROPERTY OUTLINE
REV. TAYLOR TO 24
DATE: 5/15/78 SCALE: AS SHOWN | DWN: JCKD

SD 1 of 6

SCALE 1" = 500' DEED INFO: LIBER MWB 234, FOLIO 336 ELECTION DIST. NO. 5 TAX MAP 41 PARCEL NO. 123





NOTES

- SEEDING - PERMANENT BLUE GRASS & FESCUE ON ALL DISTURBED AREAS. 50#/ACRE OR EACH.
- SITE ANALYSIS:
 TOTAL AREAS OF SUBMISSION
 AREA #1 38,000 SQ FT ±
 AREA #2 30,400 " " " "
 AREA DISTURBED
 AREA #1 25,650 SQ FT ±
 AREA #2 30,400 " " " "
 AREA VEGETATED
 AREA #1 12,750 SQ FT ±
 AREA #2 30,400 " " " "
 AREA IMPERVIOUS (AREA #1)
 26,850 SQ FT ±
 AREA UNDISTURBED (AREA #1)
 15,200 SQ FT ±
- CONSTRUCTION SEQUENCE:

ITEM	COMPLETION DATE
A. GET GRADING PERMIT	JUNE 15
B. INFORM HOWARD CO. DEPT. OF INSPECTIONS & PERMITS. (902-2436) 72 HRS. PRIOR TO STARTING CONSTRUCTION	JUNE 20
C. 42" DRAIN PIPE	JUNE 29
D. PROTECTED INLETS	JULY 10
E. DAM	JULY 10
F. FILL	JULY 10
G. SEED	JULY 20

NOTE: THIS SDP IS A REVISION TO PREVIOUSLY APPROVED SDP 78-86 (BLDG 9) AND REFLECTS MODIFICATIONS TO SITE IMPROVEMENTS AT BLDG #7

This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District. Approved: *[Signature]* Date: 6-13-78

APPROVED: For Drainage Systems and Roads Storm
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Richard E. Froudenberg 6/29/78
 DIRECTOR DATE
[Signature] 6-29-78
 CHIEF OF ENGINEERING DATE

APPROVED: For private Water and Sewerage Systems Private
 HOWARD COUNTY HEALTH DEPARTMENT
[Signature] 6-22-78
 COUNTY HEALTH OFFICER DATE

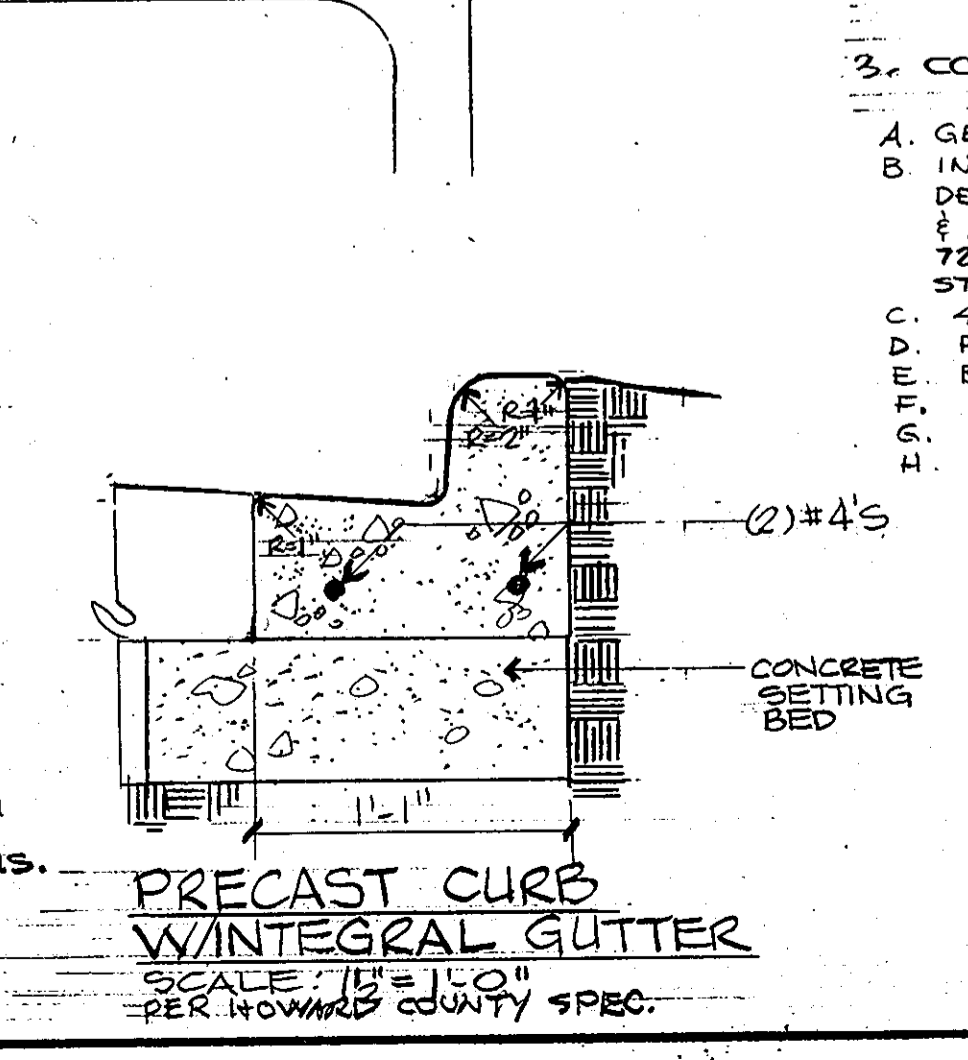
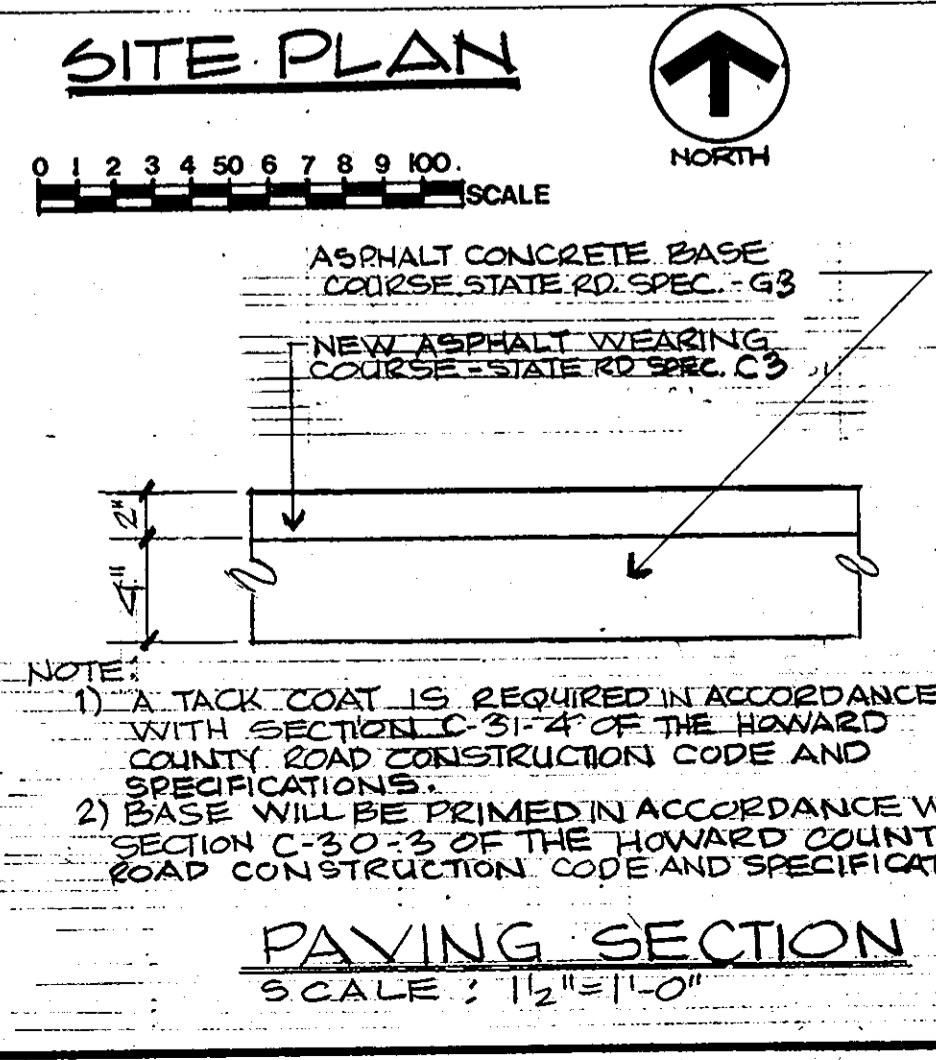
APPROVED: Howard County Office of Planning and Zoning
[Signature] 7-10-78
 PLANNING OFFICER DATE
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

SITE ANALYSIS:

- Area of Parcel: 127.58 AC (PARCEL 125)
- Present Zoning: (R)
- Floor space on each level of buildings* (SEE BELOW)
- Employees, tenants on site. (2677)
- Number of parking spaces required by Howard County Zoning Regulations (7CARS/10000 = .7X 2677) (OFFICE RESEARCH) (1874)
- Number of parking spaces provided on site. (2185)

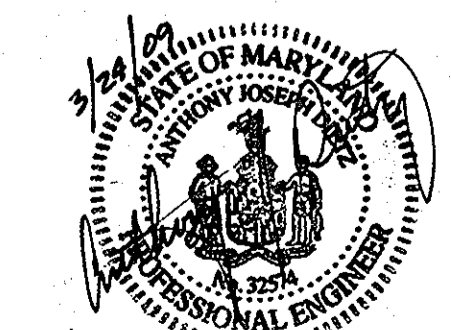
* FLOOR SPACE

2ND FL.	10,362 SF (GROSS)
1ST FL.	10,462 "
BASEMT.	10,412 "
MESH EXPT.	1,900 "
TOTAL	33,136 SF (GROSS)



NOTE:
 1) A TACK COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-4 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.
 2) BASE WILL BE PRIMED IN ACCORDANCE WITH SECTION C-30-3 OF THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

APPROVED
 DIVISION OF LAND DEVELOPMENT
 HOWARD COUNTY, MARYLAND
 DATE: 5-17-78



NOTE: THIS SDP IS A REVISION TO A PREVIOUSLY APPROVED SDP: FILE # SDP 75-22 (BLDG 8)

BUILDING-9
 SITE DEVELOPMENT PLAN
 LOCATION MAP, ELEVATION

REV: 11 APR 78 44
 DATE QUOTE SCALE: AS SHOWN DWN THE CRD.

SD of G
 DRAWING NUMBER

DEED INFO: LIBER MW8234 FOLIO 338
 ELECTION DIST. NO. 5
 TAX MAP 41 PARCEL NO. 123

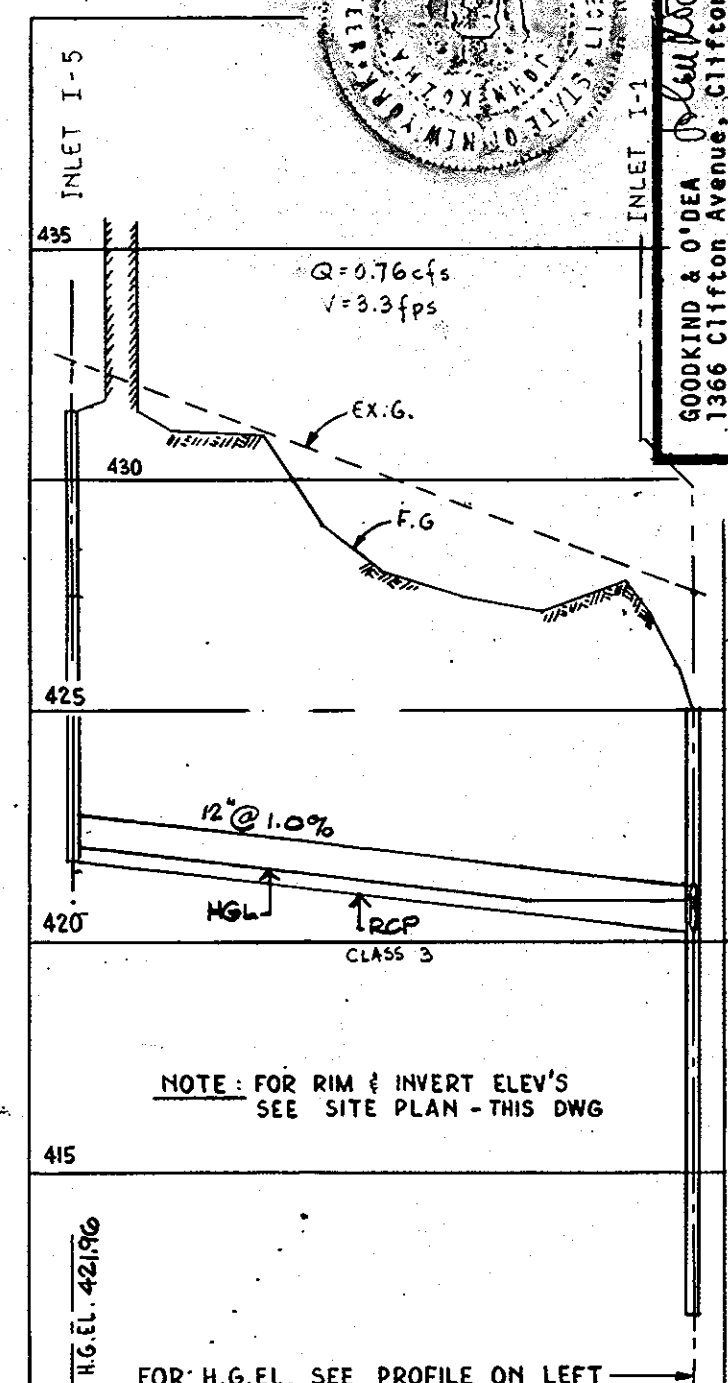
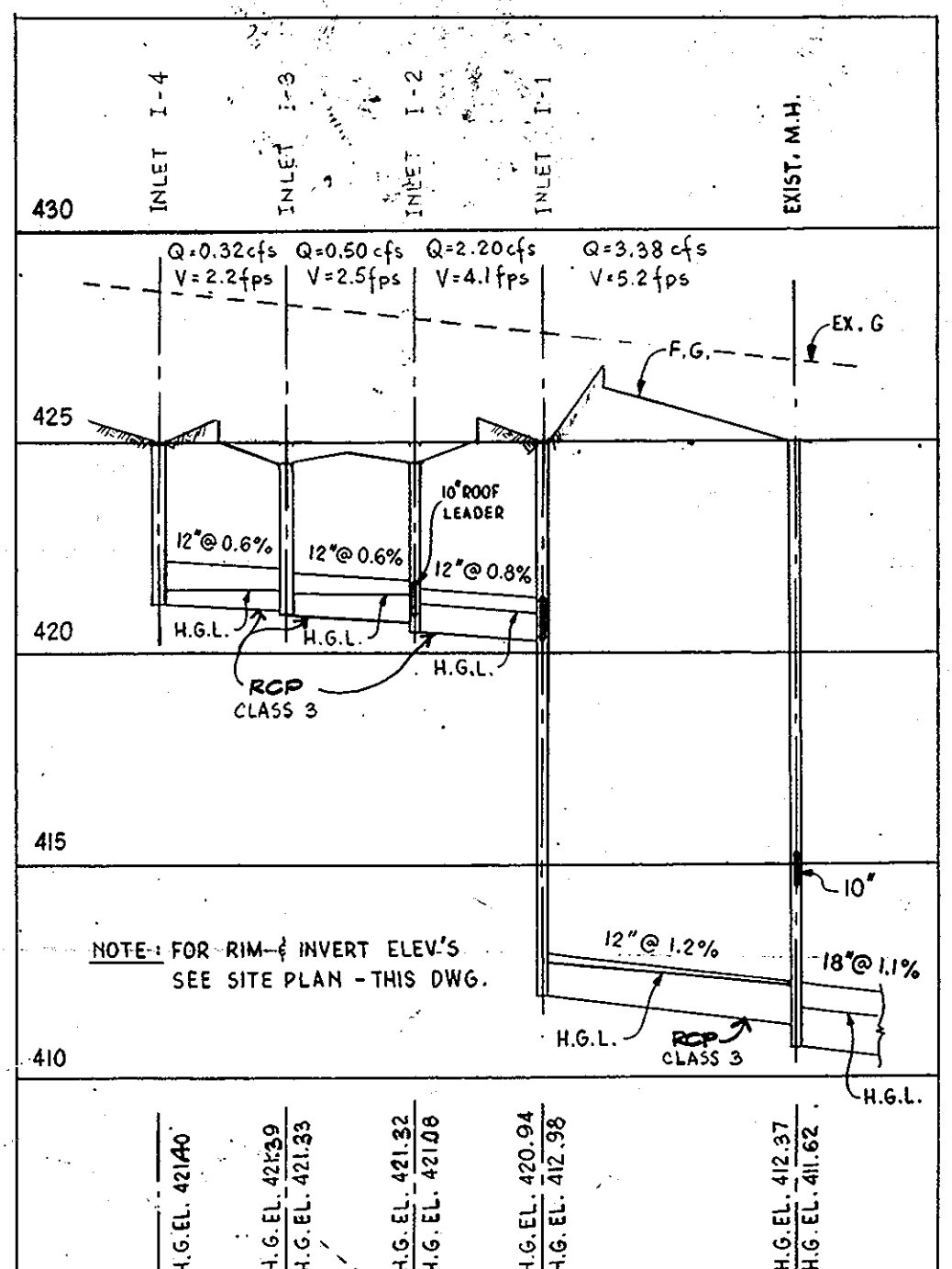
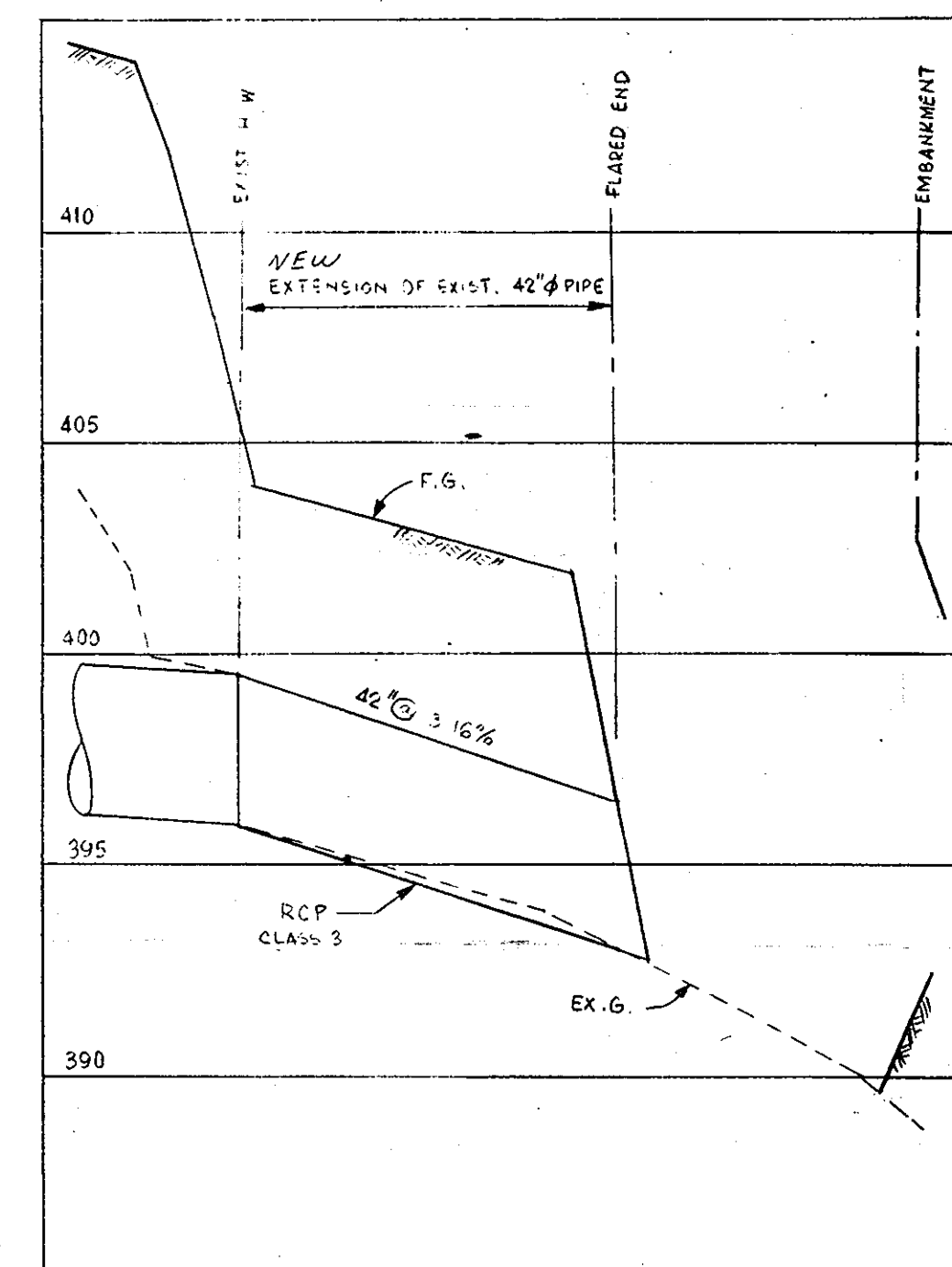
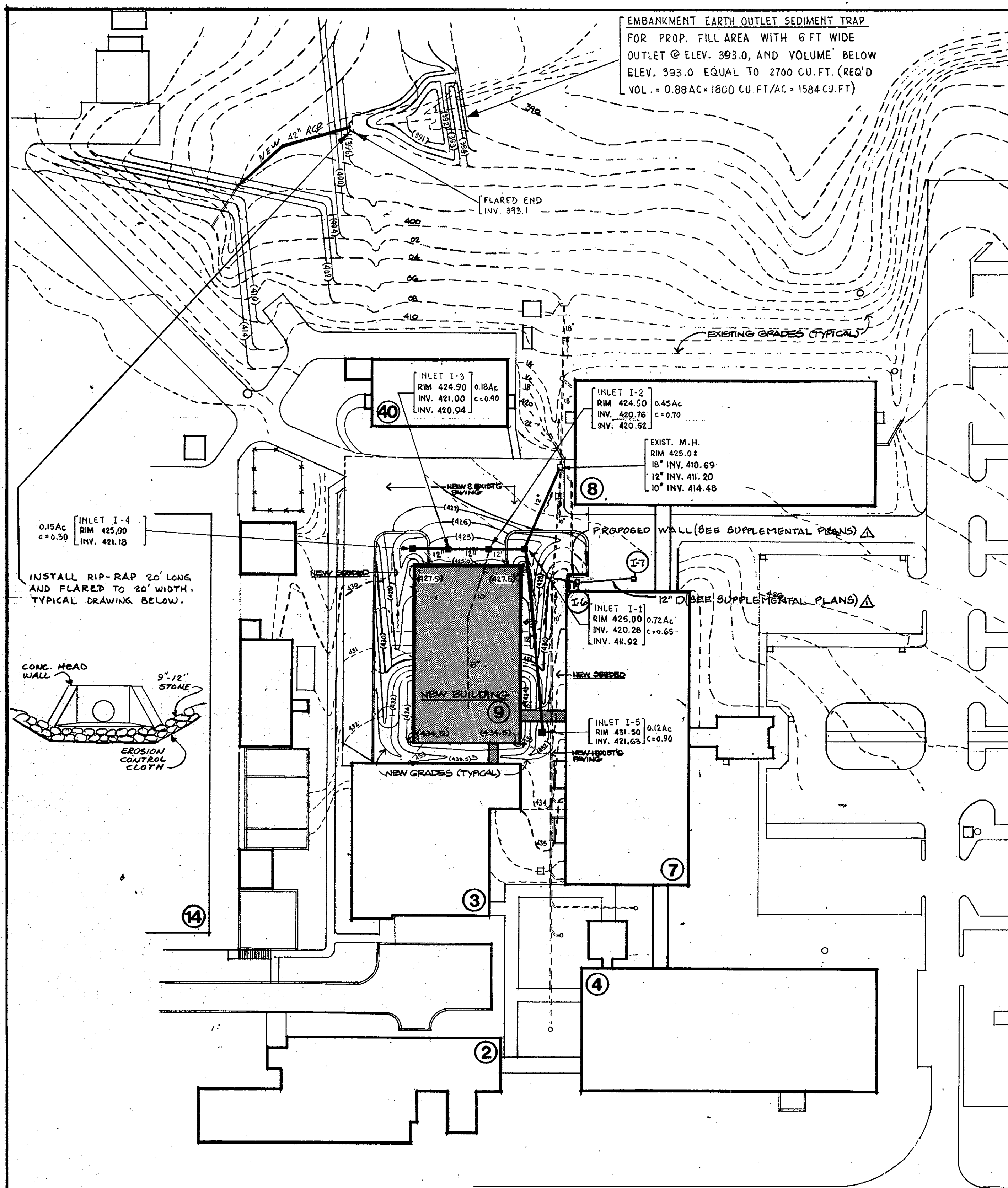
THE JOHNS HOPKINS UNIVERSITY
 APPLIED PHYSICS LABORATORY
 HOWARD COUNTY, MARYLAND
 JOHN HOPKINS ROAD, 20310
 APPROVED FOR THE UNIVERSITY BY: *[Signature]*
 DATE: 6/17/78 TITLE: BUSINESS MSR.

JOHN KOZMA P.E.
 600 KING & GENE
 1366 CITRUS AVENUE
 CIVIL ENGINEERING

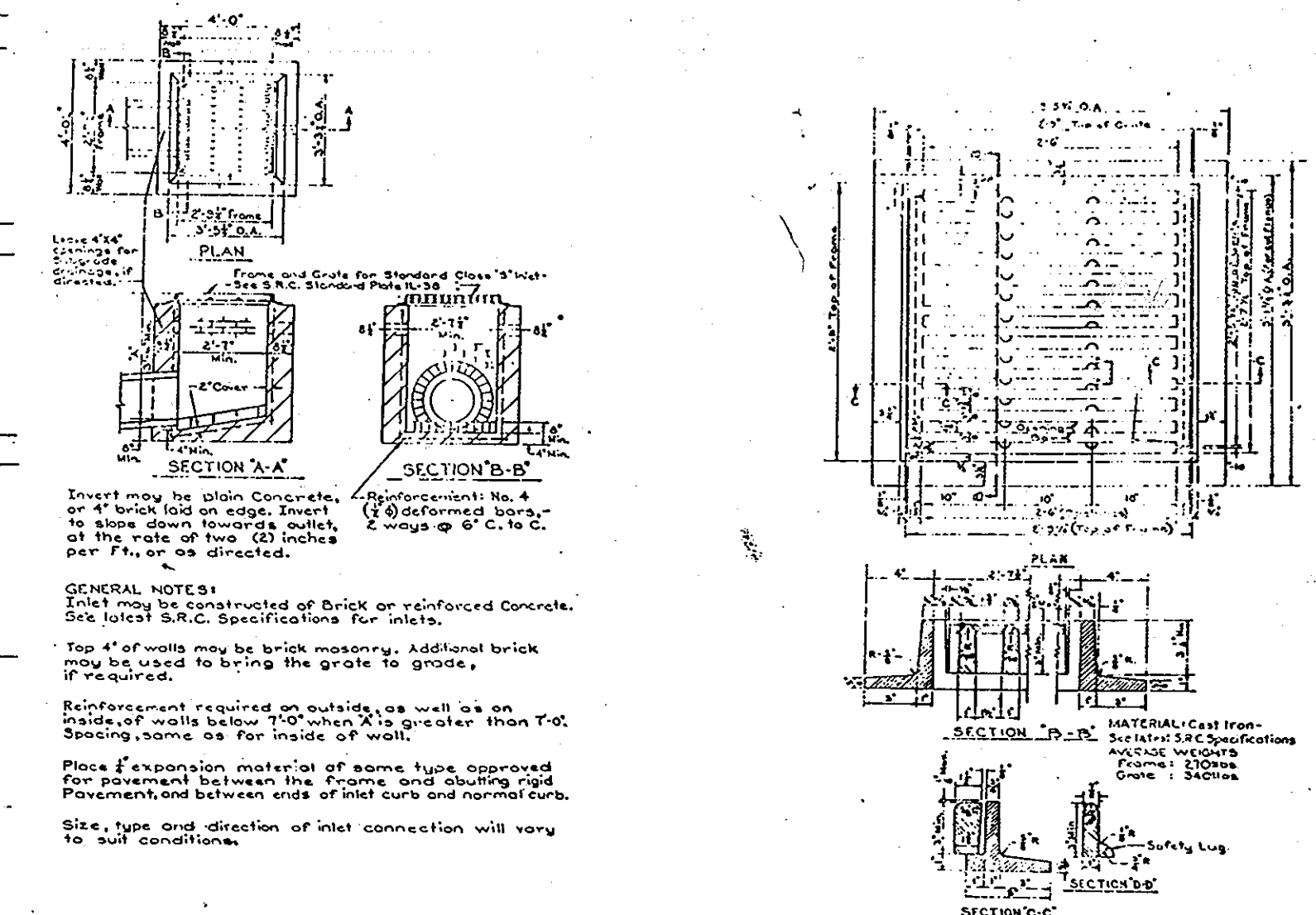
JAMES GOLDSTEIN & PARTNERS ARCHITECTS
 225 MILLBURN AVE., MILLBURN, NEW JERSEY 07041
 201-467-8840
 CONSULTING MECHANICAL & ELECTRICAL ENGINEERS
 NEW YORK, NEW YORK

WIENER & THALER
 consulting structural engineers
 newark, new jersey

KALLEN & LEWIS
 consulting mechanical & electrical engineers
 new york, new york



PROFILES
 0 1 2 3 4 5 VERTICAL SCALE
 0 10 20 30 40 HORIZONTAL SCALE



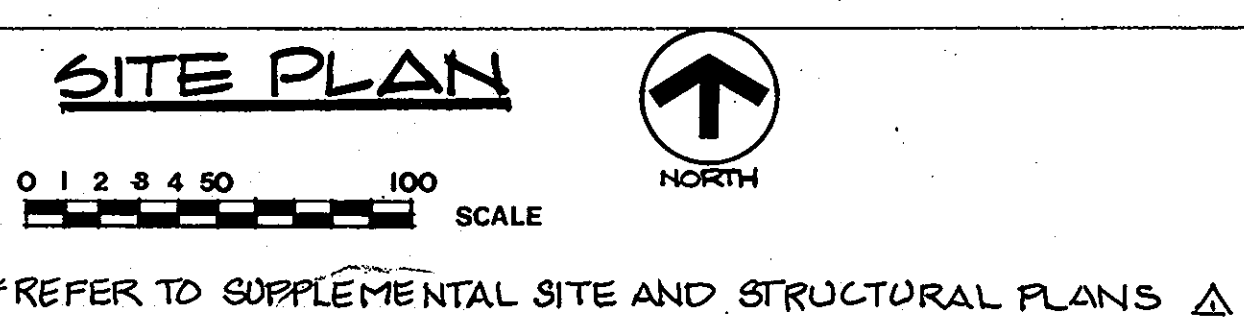
APPROVED: For Storm Drainage Systems and Roads
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Richard E. Freudenberg, DIRECTOR, 6/29/78
 W. P. ... CHIEF, BUREAU OF ... 6-29-78

APPROVED: For private Water and Sewerage Systems
 HOWARD COUNTY HEALTH DEPARTMENT
 ... COUNTY HEALTH OFFICER, 6-22-78

APPROVED: Howard County Office of Planning and Zoning
 ... PLANNING OFFICER, 7-10-78

STRUCTURE SCHEDULE

NO.	TYPE	INV. IN	INV. OUT	TOP EL.	REMARKS
I-1	CLASS "S"	420.28	411.92	425.00	SEE DETAIL FOR
I-2	DO	420.76	420.52	424.50	STORM INLET
I-3	DO	421.00	420.94	424.50	SEDIMENT TRAP
I-4	DO	N/A	425.00	425.00	TO BE INSTALLED
I-5	DO	N/A	421.63	431.50	AT ALL INLETS
I-6	TYPE 'S'	418.20	414.65	423.80	MODIFIED
I-7	TYPE 'S'	N/A	421.25	423.75	MODIFIED



NOTE: THIS SDP IS A REVISION TO PREVIOUSLY APPROVED SDP #78-86 (BLDG 9) AND REFLECTS MODIFICATIONS TO SITE IMPROVEMENTS AT BLDG #7

NOTE: THIS SDP IS A REVISION TO A PREVIOUSLY APPROVED SDP: FILE # SDP 15-22 (BLDG 8)

This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.
 Approved: ... Date: 6-13-78
 Howard S.C.D.

"I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District."
 Signature of Developer: ... Date: 5/1/78

"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 of Engineer: ... Date: 6-1-78

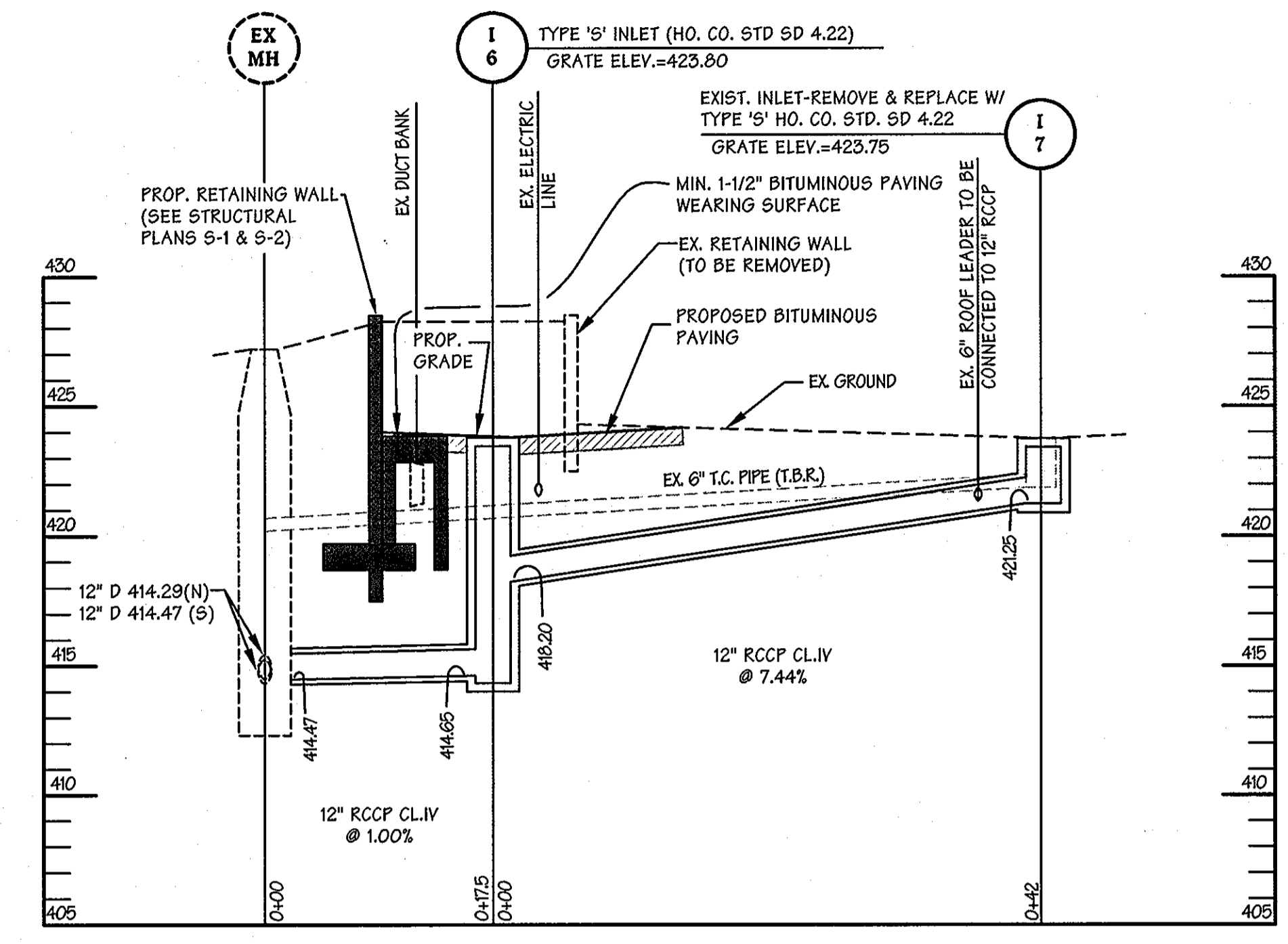
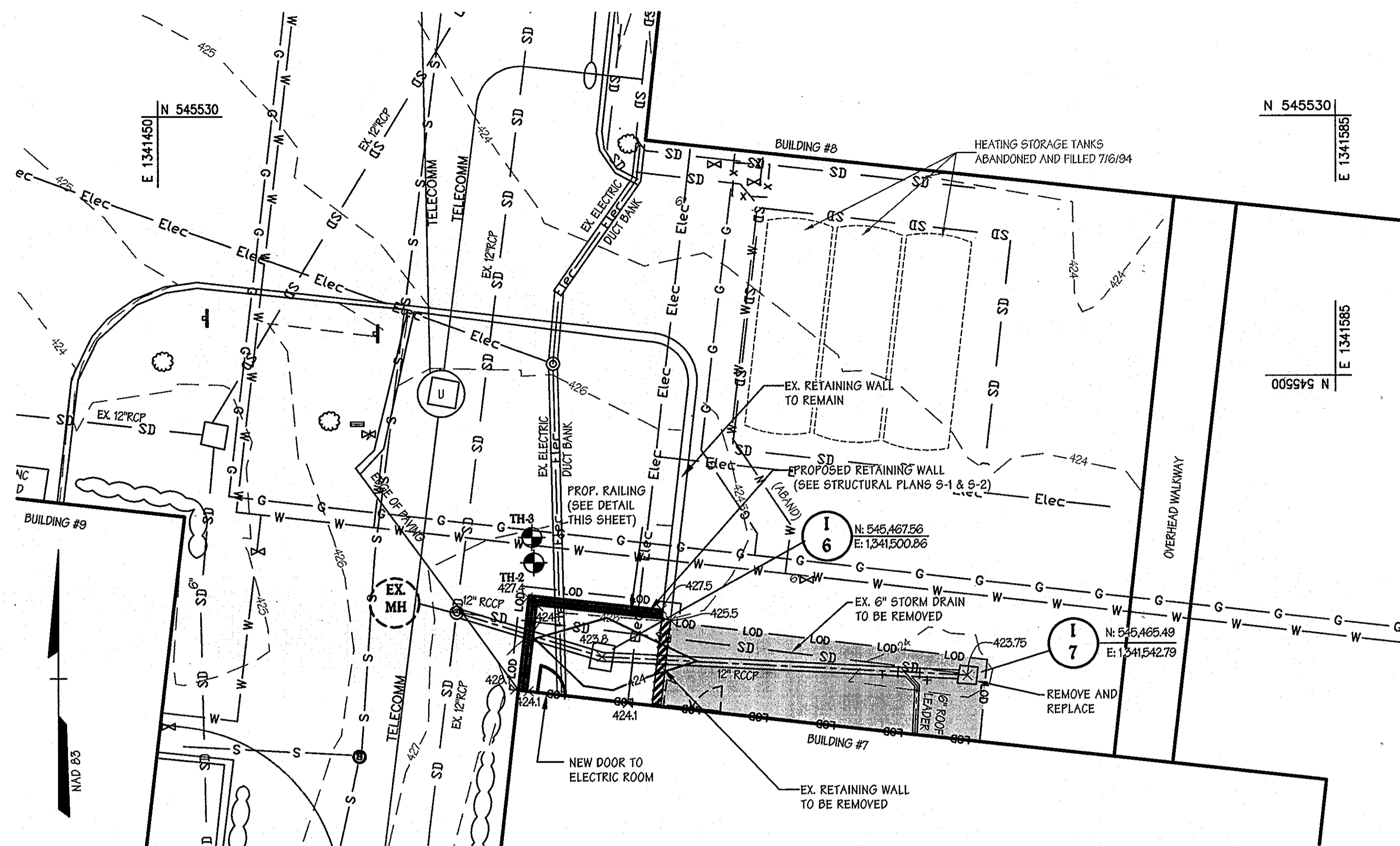
DEED INFO: LIBER MWB264 FOLIO 336 ELEC. DIST. NO. 5 TAX MAP 41 PARCEL NO. 123

THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY
 HOWARD COUNTY LAUREL, MARYLAND
 JOHN HOPKINS ROAD 22810
 APPROVED FOR THE UNIVERSITY BY: ... DATE: 6/1/78 TITLE: BUSINESS M&R

THIS DRAWING IS INCOMPLETE UNLESS USED WITH ALL OTHER CONTRACT DOCUMENTS.

BUILDING-9 SOIL CONSERVATION GRADING & DRAINAGE
 REV. 11/78 SCALE: AS NOTED DWG. NO. C10 25
 DATE: 5-17-78

SD 3 OF 6 DRAWING NUMBER

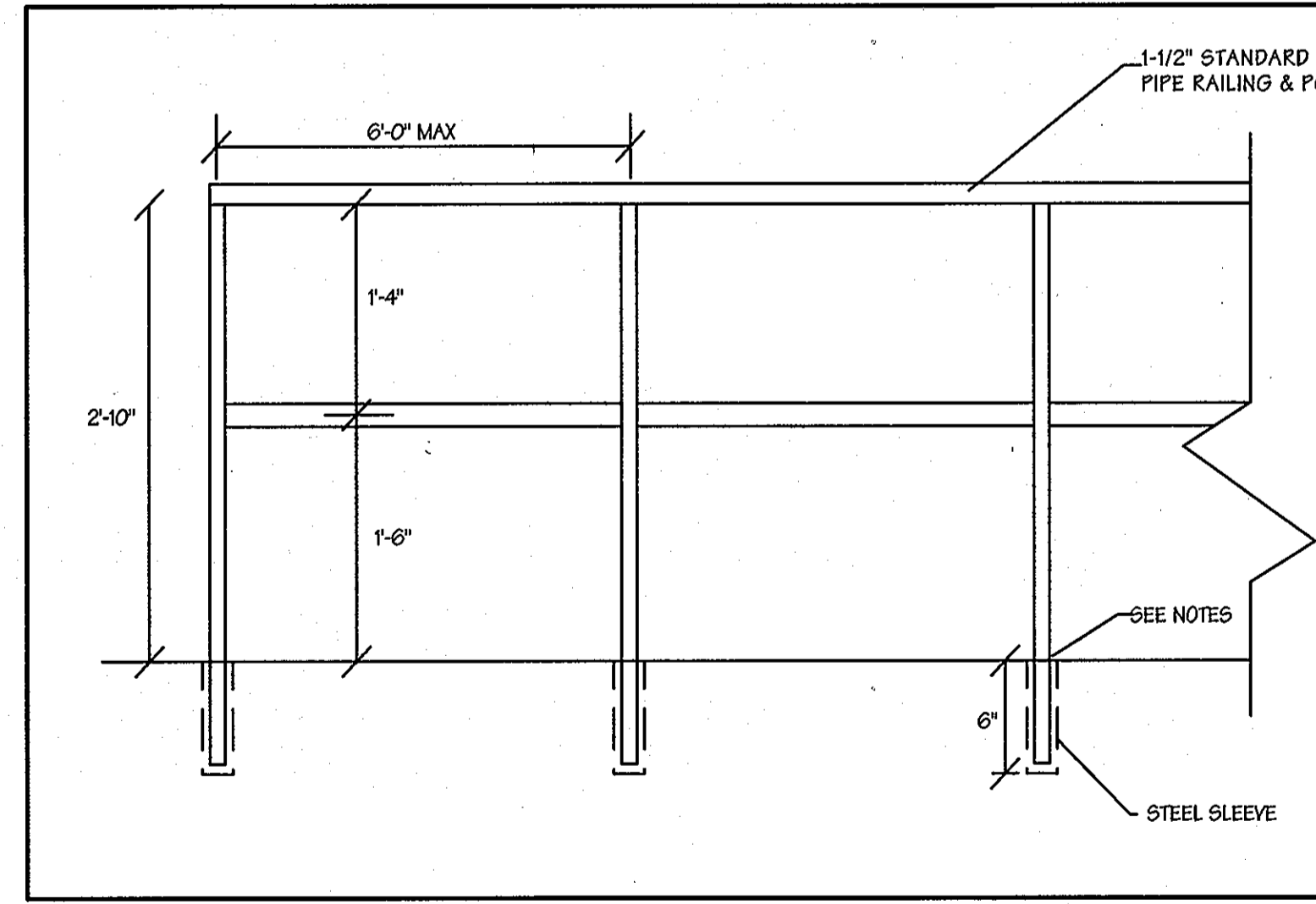


PROP. STORM DRAIN REVISION
PROFILE
SCALE: HORIZ. 1"=10'
VERT. 1"=5'

LEGEND

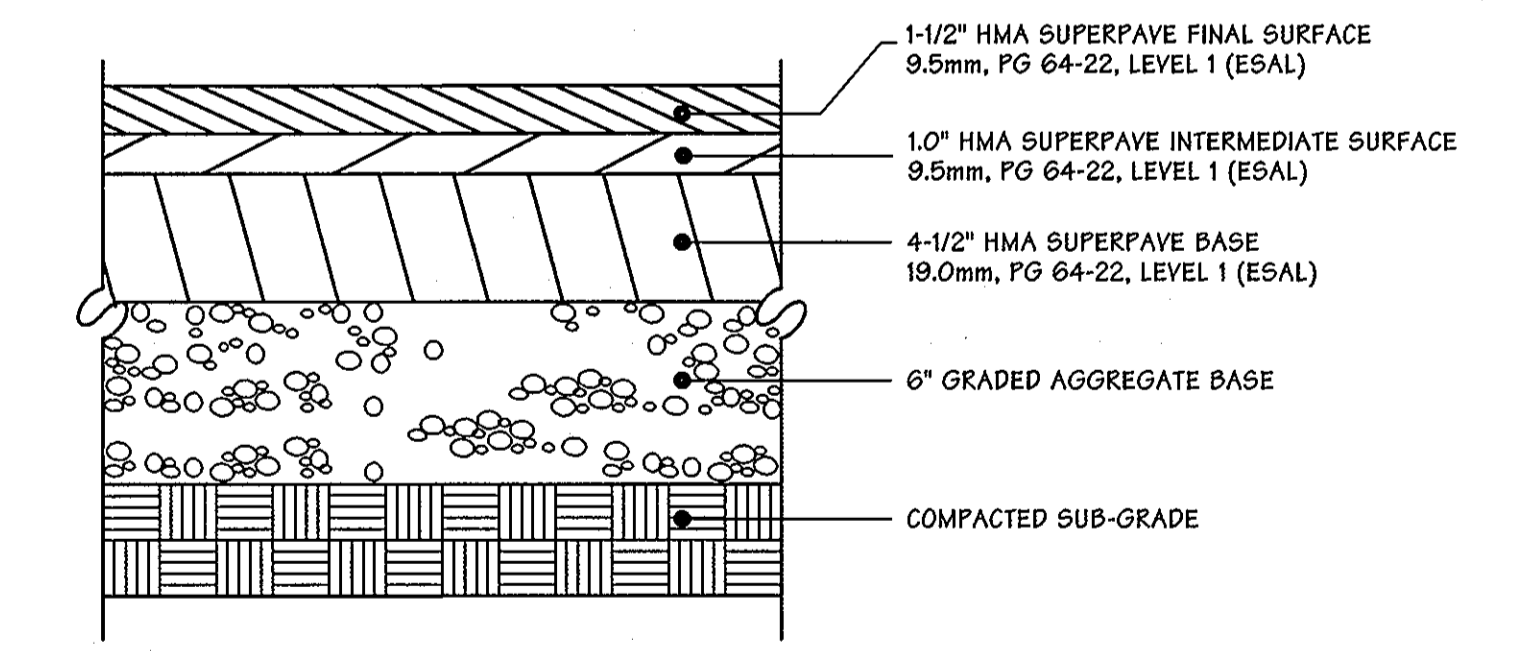
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN INLETS
- - - EXISTING WATER LINE
- - - EXISTING ELECTRIC LINE
- - - EXISTING GAS LINE
- ▭ EXISTING BUILDING
- - - EXISTING STORM DRAIN
- - - EXISTING PAVEMENT
- - - 500 EXISTING MINOR CONTOUR
- - - 498 EXISTING MAJOR CONTOUR
- - - LIMIT OF DISTURBANCE
- ▨ PAVEMENT REPLACEMENT (HEAVY DUTY PAVING)

PLAN
SCALE: 1"=10'



SAFETY RAILING DETAIL
Not To Scale

- NOTES:
- 1.) PAINTED RAILINGS SHALL BE FURNISHED
 - 2.) RAILING & POSTS TO BE HOT DIP GALVANIZED AFTER FABRICATION AND PAINTED WITH ONE COAT PRIMER AND ONE COAT ALKYL ENAMEL APPLIED PER MANUFACTURER'S INSTRUCTION.
 - 3.) RAILING SHALL BE ARC WELDED WITH ALL JOINTS GROUND SMOOTH AND FREE OF BURRS.
 - 4.) RAILING POSTS SHALL BE SET IN METAL SLEEVES, 6" DEEP AND FILLED WITH HOT POURED LEAD, SULFUR, OR AN EQUIVALENT EPOXY.



HOWARD COUNTY P.3 PAVING SECTION
Heavy Duty Bituminous Concrete Paving Section
Not To Scale

PROFESSIONAL CERTIFICATION

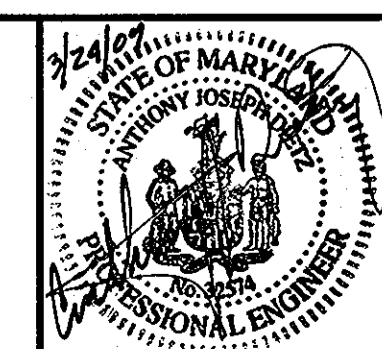
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND
LICENSE NUMBER: 32574 EXPIRATION DATE: 1/16/10

JHU/APL INTERNAL USE
THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chief, Development Engineering Division
Chief, Division of Land Development
Director, DEP.

4/16/09
4/2/09
4/2/09

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 Fax: 443.589.2401



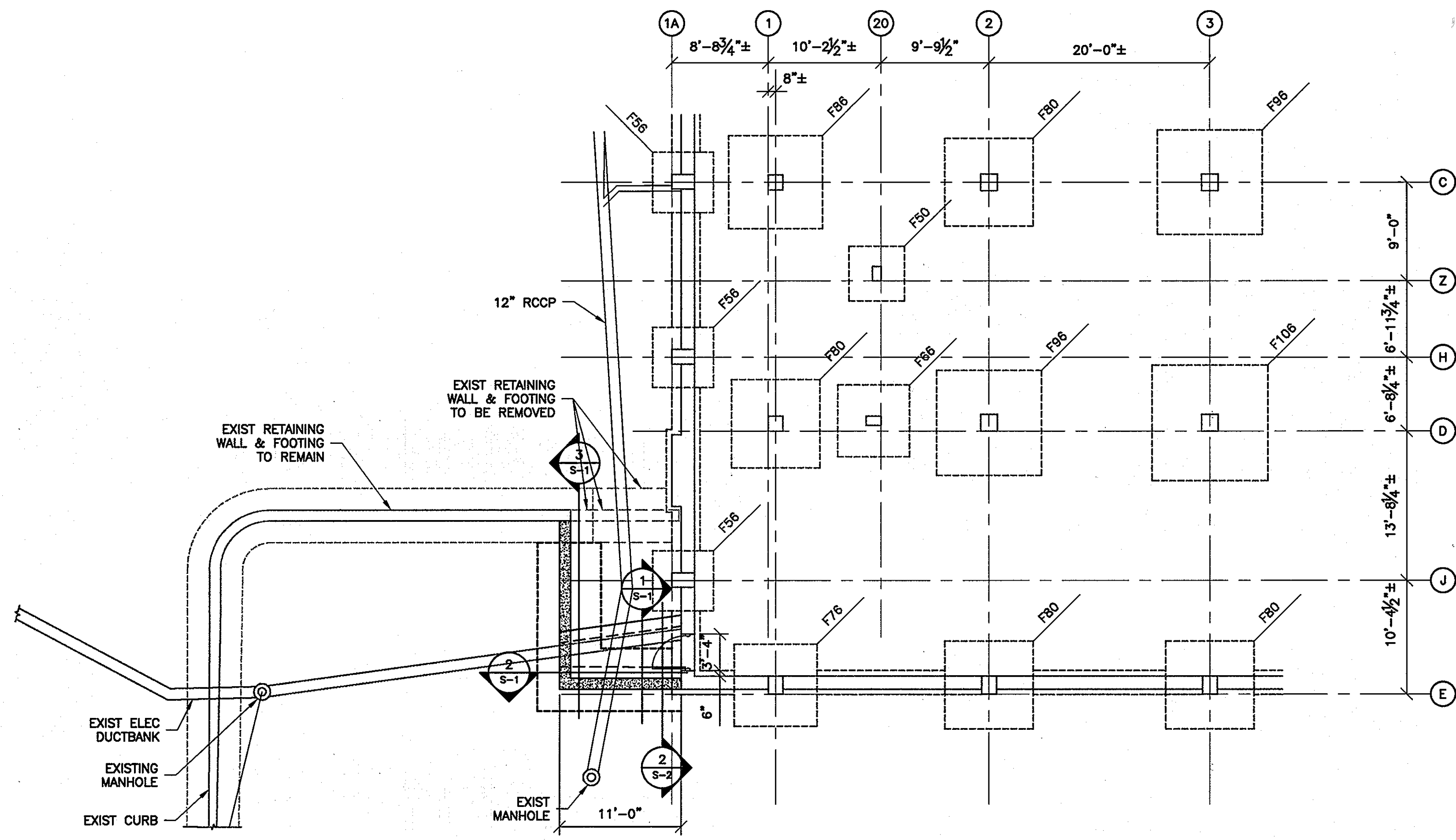
DESIGN BY:	C.E.I.	ADDED SHEETS 4, 5 & 6 OF 6; REVISED WALL & STORM DRAIN ON	3/24/09
A.J.D.	"	"	"
DRAWN BY:	"	NORTH SIDE BUILDING No. 7	"
R.D.T.	"	"	"
CHECKED BY:	"	"	"
A.J.D.	"	"	"
DATE:	"	"	"
03/24/2009	BY	NO.	REVISION
			DATE

THE JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD
LAUREL, MARYLAND 20723-6099
443-778-5134

**BUILDING #7
ELECTRICAL ROOM IMPROVEMENTS**
SITE IMPROVEMENTS
(SUPPLEMENT TO SDP-78-86)
TAX MAP: 41 GRID: 16 PARCEL: 123
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND
SHEET 4 OF 6

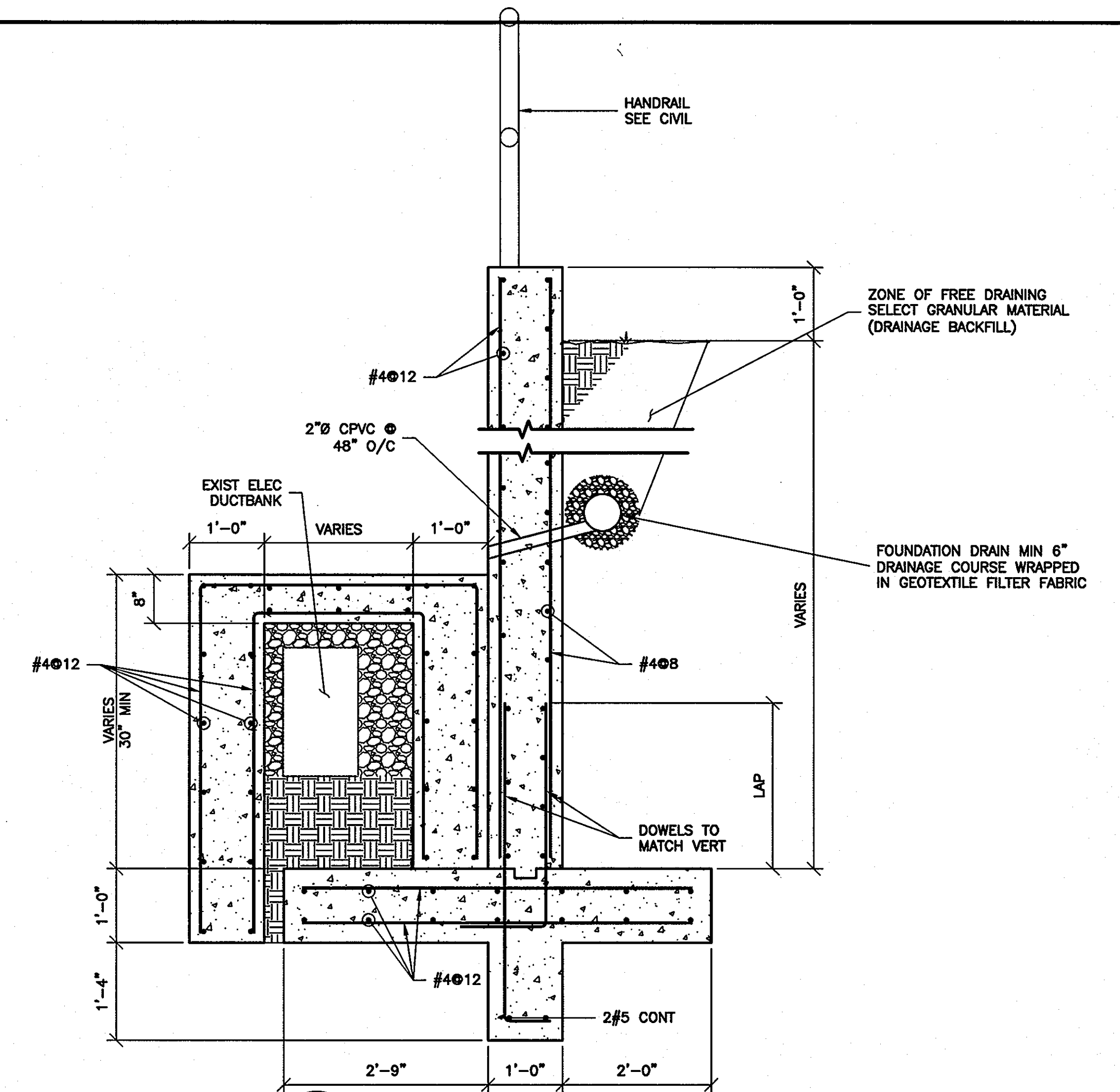
C.E.I. PROJECT NUMBER
22172.30
SCALE:
1"=10'

SDP-78-086

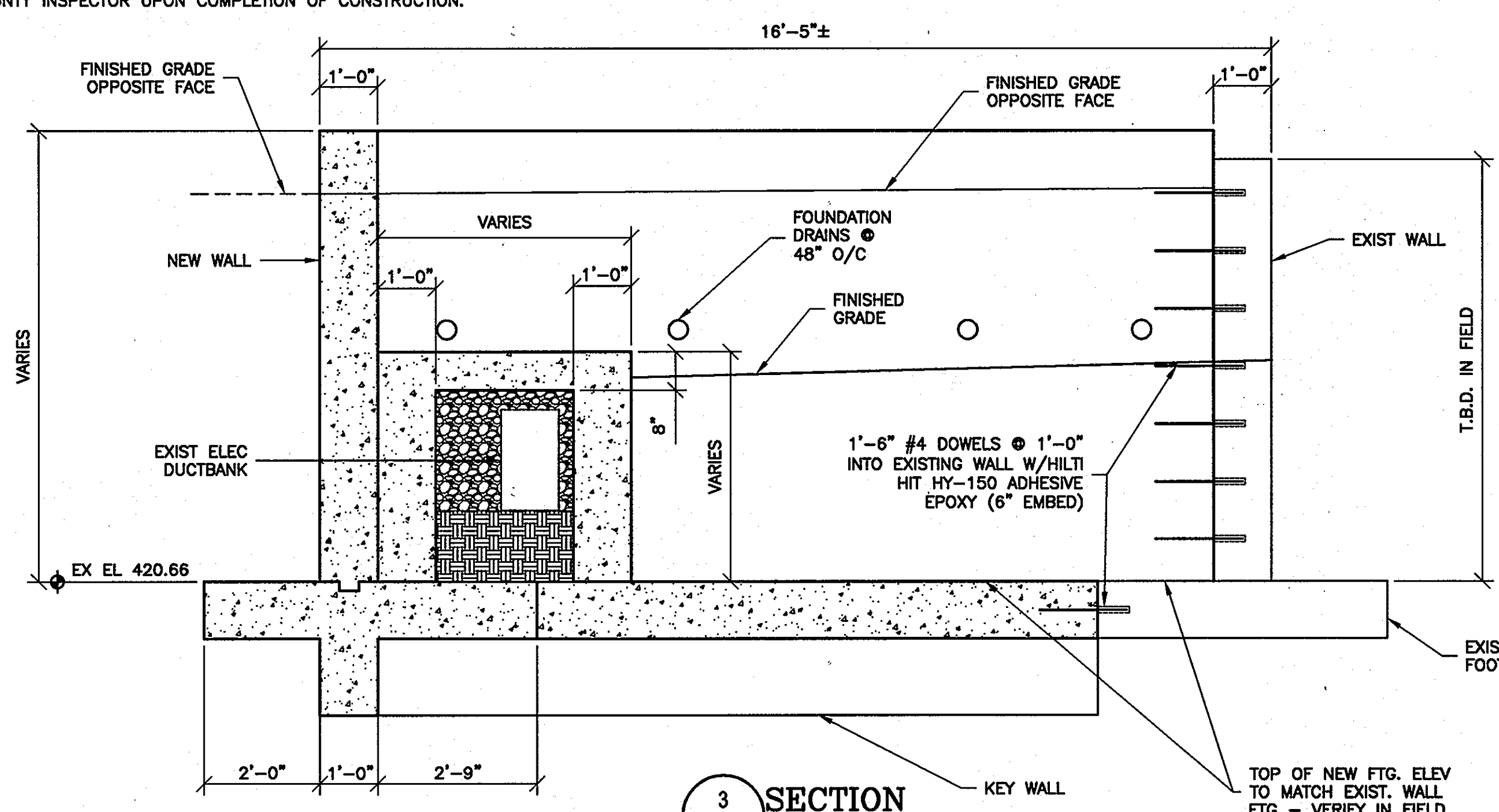


PARTIAL FLOOR PLAN
SCALE: 1/8"=1'-0"

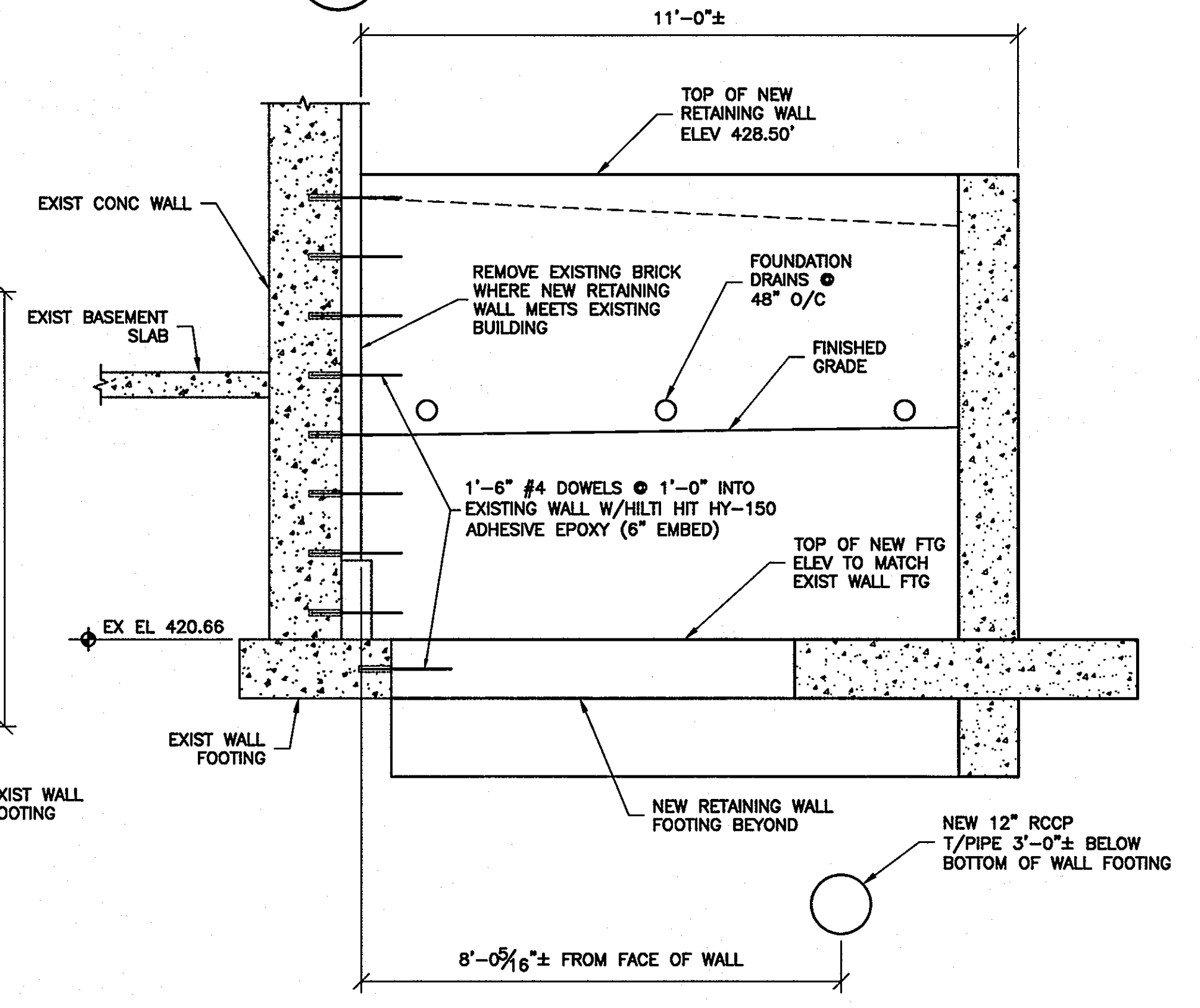
- NOTES:**
1. RETAINING WALLS SHALL ONLY BE CONSTRUCTED UNDER THE OBSERVATION OF A REGISTERED PROFESSIONAL ENGINEER AND A (NICET, WACEL OR EQUIV) CERTIFIED SOILS TECHNICIAN.
 2. THE REQUIRED BEARING PRESSURE BENEATH THE FOOTING OF THE WALL SHALL BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING DOCUMENTATION SHALL BE PROVIDED TO THE HOWARD COUNTY INSPECTOR PRIOR TO THE START OF CONSTRUCTION. THE REQUIRED TEST PROCEDURE SHALL BE THE DYNAMIC CONE PENETROMETER TEST ASTM STP-399.
 3. THE SUITABILITY OF FILL MATERIAL SHALL BE CONFIRMED BY THE ONSITE SOILS TECHNICIAN. EACH EIGHT (8) INCH LIFT SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTER DENSITY AND THE TESTING REPORT SHALL BE MADE AVAILABLE TO THE HOWARD COUNTY INSPECTOR UPON COMPLETION OF CONSTRUCTION.



1 TYPICAL RETAINING WALL
S-1 3/4"=1'-0"



3 SECTION
S-1 1/2"=1'-0"



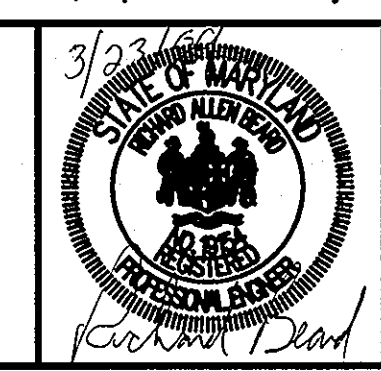
2 NEW RETAINING WALL ELEVATION
S-1 1/2"=1'-0"

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. 19154, Expiration Date May 31, 2009

JHU/APL INTERNAL USE
THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director, DEP.

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 Gilroy Road, Hunt Valley, MD 21031
Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY: GWS	CEI	ADDED SHEETS 4,5,6 OF G; REVISED WALL & STORM DRAIN ON NORTH SIDE BUILDING No.7	3/24/09
DRAWN BY: DF	"	"	"
CHECKED BY: RAB	"	"	"
DATE: 03/24/09	BY	NO.	REVISION

THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY
11100 JOHNS HOPKINS ROAD
LAUREL, MARYLAND 20723-6099
443-778-5134

BUILDING #7 ELECTRICAL ROOM IMPROVEMENTS
SITE IMPROVEMENTS (SUPPLEMENT TO SDP-78-86)
TAX MAP: 41 GRID: 16 PARCEL: 123
ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND
SHEET 5 OF 6

C.E.I. PROJECT NUMBER 22172.30
SCALE: AS NOTED

SDP-78-086

DESIGN CRITERIA

1. THE DESIGN OF THE STRUCTURE IS IN ACCORDANCE WITH IBC 2006.
2. DESIGN LIVE LOADS:
SURCHARGE LOAD 240 PSF
HANDRAIL LOAD PER CODE

LIVE LOAD REDUCTION HAS BEEN TAKEN AS PERMITTED.

MISCELLANEOUS

1. CONTRACTOR SHALL VERIFY CONDITIONS IN THE FIELD AND IMMEDIATELY NOTIFY ENGINEER OF ANY CONDITIONS NOT AS SHOWN. CONTRACTOR SHALL TAKE FIELD MEASUREMENTS AS REQUIRED.
2. CONTRACTOR SHALL COORDINATE DETAILING, FABRICATION AND ERECTION WITH ALL RELATED TRADES PRIOR TO SUBMITTING SHOP DRAWINGS FOR APPROVAL. ALL SHOP DRAWINGS USED FOR WORK SHALL BEAR THE STAMP OF THE ENGINEER. NO SHOP DRAWINGS SHALL BE USED WHICH ARE MARKED "REVISE AND RESUBMIT", "REJECTED", "RETURNED FOR CORRECTION", OR WORDS TO THAT EFFECT.
3. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH MECHANICAL, ELECTRICAL, AND PLUMBING REQUIREMENTS. DISCREPANCIES AND/OR INTERFERENCES SHALL BE REPORTED TO THE ENGINEER.
4. NO OPENINGS SHALL BE MADE IN ANY STRUCTURAL MEMBER UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS OR UPON WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
5. THE DESIGN LIVE LOADS SHALL NOT BE EXCEEDED DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SHORING AND/OR BRACING DURING CONSTRUCTION TO ACCOUNT FOR ALL LOADING, INCLUDING BUT NOT LIMITED TO GRAVITY, EARTHQUAKE, EARTH AND CONSTRUCTION LOADING. BRACING MEMBERS SHOWN ARE THOSE REQUIRED FOR THE FINISHED STRUCTURE AND MAY NOT BE ADEQUATE FOR CONSTRUCTION LOADS.

DEMOLITION NOTES

1. REMOVE EXISTING CONSTRUCTION AS SHOWN ON PLANS. SEE SECTIONS AND DETAILS FOR EXTENT OF STRUCTURE TO BE REMOVED.
2. IF FIELD CONDITIONS DIFFER FROM THOSE SHOWN ON DRAWINGS, NOTIFY STRUCTURAL ENGINEER BEFORE PROCEEDING WITH DEMOLITION.
3. SAW CUT EDGES OF NEW OPENINGS AND ALONG EDGES OF CONCRETE MEMBERS TO REMAIN. DO NOT CUT BEYOND BOUNDARIES OF INTENDED OPENINGS OR DEMOLITION LINES. USE CORE DRILLING TECHNIQUES AT CORNERS.

EXISTING CONSTRUCTION

1. ALL DIMENSIONS AND ELEVATIONS OF EXISTING STRUCTURES SHOWN ON THE DRAWINGS ARE OBTAINED FROM AVAILABLE SOURCES, AND ARE NOT GUARANTEED TO BE TRUE AND EXACT. THE CONTRACTOR SHALL VERIFY THESE DIMENSIONS AND ELEVATIONS BY ACTUAL FIELD MEASUREMENTS PRIOR TO FABRICATION OF ANY MATERIALS AFFECTED AND PRIOR TO START OF WORK. REPORT ANY DISCREPANCIES TO THE ENGINEER.

FOUNDATIONS

1. THE FOUNDATION DESIGN IS BASED ON AN ASSUMED SOIL BEARING PRESSURE OF 2 KSF.
2. ALL EXISTING FILL MATERIALS, CONSISTING OF GRAVEL, BRICK FRAGMENTS, CONCRETE CHIPS, WOOD CHIPS, AND DEMOLITION DEBRIS SHALL BE REMOVED IN THE REGIONS OF ALL FOUNDATIONS AND UNDER AREAS OF SLAB ON GRADE.
3. SHALLOW FOUNDATIONS SHALL BE CONTINUOUS FOOTINGS TO BEAR ON CONTROLLED STRUCTURAL FILL, HAVING A MINIMUM SAFE BEARING CAPACITY OF 2 KSF.
4. THE TESTING AND INSPECTION AGENCY SHALL VERIFY SOIL BEARING CAPACITY AT EACH FOOTING PRIOR TO INSTALLATION OF FOOTING. NOTIFY ENGINEER OF ANY VARIATION FROM ANTICIPATED BEARING CAPACITY FOR APPROPRIATE REDESIGN OR LOWERING OF FOOTING.
5. THE BOTTOMS OF ALL EXTERIOR FOOTINGS SHALL BE 2'-6" MINIMUM BELOW FINISHED GRADE UNLESS ROCK OF SPECIFIED BEARING CAPACITY IS ENCOUNTERED AT A HIGHER ELEVATION, IN WHICH CASE FOOTING MAY BE RAISED IF APPROVED BY THE ENGINEER. FOR INTERIOR FOOTINGS EXPOSED TO FREEZING DURING CONSTRUCTION, LOWER BOTTOMS OF FOOTINGS BELOW FROST DEPTH FROM CONSTRUCTION GRADE OR PROVIDE HEAT AND CONTINUOUS PROTECTION FOR GROUND SURROUNDING FOOTINGS.
6. EDGES OF FOOTINGS SHALL NOT BE PLACED AT A GREATER THAN 1 (VERTICAL) TO 2 (HORIZONTAL) SLOPE WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION, WITHOUT UNDERPINNING, SHORING OR BRACING.
7. ALL ADJACENT FOOTINGS THAT ABUT SHALL BE SEPARATED BY A PAPER JOINT TO PREVENT BOND.
8. BACKFILLING AGAINST WALLS SHALL NOT BE DONE UNTIL CONCRETE AND/OR MASONRY HAS BEEN CURED TO ATTAIN SUFFICIENT STRENGTH (7 DAYS MINIMUM) AND WALLS ARE PROPERLY SHORED AND/OR BRACED. BACKFILLING AGAINST BASEMENT WALLS SHALL NOT BE DONE UNTIL THE FLOOR SLABS AT TOP AND BOTTOM OF WALLS HAVE BEEN PLACED AND HAVE CURED. BACKFILL FOUNDATION WALLS WITH EARTH ON BOTH SIDES OF THE WALL BY ALTERNATELY PLACING BACKFILL ON EACH SIDE SO THAT HEIGHT OF BACKFILL DOES NOT DIFFER BY MORE THAN 1'-6" FROM OTHER SIDE.
9. THE CONTRACTOR SHALL SAFEGUARD AND PROTECT ALL EXCAVATIONS, AND ADJACENT STRUCTURES, PAVEMENTS, AND UTILITIES. ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL SHORING, BRACING, AND Dewatering REQUIRED TO PROPERLY CONSTRUCT THE FOUNDATIONS AND TO PROTECT ADJACENT STRUCTURES, PAVEMENTS AND UTILITIES. DO NOT REMOVE SHORING IF IT WILL CAUSE SETTLEMENT OR DAMAGE TO EXISTING OR NEW STRUCTURES, PAVEMENT, AND/OR UTILITIES.
10. MAXIMUM LENGTH OF FOUNDATION WALL OR GRADE BEAM PLACED IN ONE OPERATION SHALL NOT EXCEED 60 FEET.
11. THE CONTRACTOR SHALL REFER TO THE CIVIL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL LOCATIONS OF TRENCHES, PITS, CONDUITS, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.

CONCRETE

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 318 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. CONCRETE DESIGN MIXES SHALL BE NORMAL WEIGHT WITH A 3,000 PSI, 28-DAY COMPRESSIVE STRENGTH. ALL CONCRETE SHALL CONTAIN A WATER-REDUCING ADMIXTURE. CALCIUM CHLORIDE IS PROHIBITED.
3. NO CONCRETE SHALL BE PLACED UNTIL CONCRETE DESIGN MIXES HAVE BEEN SUBMITTED FOR EACH CLASS OF CONCRETE NOTED ABOVE AND HAVE BEEN APPROVED BY THE ENGINEER. CONCRETE USED IN THE STRUCTURE SHALL CONFORM TO THE APPROVED DESIGN MIX. THE USE OF ANY ADDITIVES NOT IN THE APPROVED DESIGN MIX IS PROHIBITED.
4. REPRESENTATIVE TEST CYLINDERS WILL BE TAKEN FROM THE CONCRETE PLACED EACH DAY.
5. REINFORCING STEEL SHALL BE DEFORMED BARS OF NEW DILLET STEEL CONFORMING TO ASTM A615, GRADE 60.
6. ALL HOOKS SHALL BE STANDARD HOOKS, UNLESS OTHERWISE NOTED.
7. CONCRETE COVER OVER REINFORCING UNLESS OTHERWISE SHOWN, SHALL BE 1" FOR INTERIOR FACE OF WALLS NOT EXPOSED TO EARTH, 2" FOR EXTERIOR FACE OF WALLS, 3" FOR FOOTINGS AND OTHER STRUCTURAL CONCRETE DEPOSITED AGAINST GROUND, 2" FOR CONCRETE PERMANENTLY EXPOSED TO EARTH OR WEATHER.
8. ALL STRUCTURAL MEMBERS SHALL BE POURED FOR THEIR FULL DEPTHS IN ONE OPERATION. NO HORIZONTAL JOINTS SHALL BE PLACED IN WALLS EXCEPT AS SHOWN ON THE DRAWINGS WITHOUT APPROVAL OF THE ENGINEER.
9. CONSTRUCTION JOINTS SHALL BE LOCATED IN THE MIDDLE THIRD OF SPAN, WITH REINFORCING CONTINUOUS THROUGH THE JOINT. KEY AND ROUGHEN JOINT TO EXPOSE AGGREGATE AND REMOVE LATTICE PRIOR TO NEXT POUR. LOCATE CONSTRUCTION JOINTS IN SLABS-ON-GRADE AT CONTROL JOINT LOCATIONS. CONTRACTOR SHALL SUBMIT DRAWING INDICATING CONSTRUCTION JOINT LOCATIONS FOR APPROVAL. SEE TYPICAL DETAIL FOR ADDITIONAL INFORMATION.
10. NO CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN SUBGRADE.
11. FOR ADDITIONAL CONCRETE WORK NOT SHOWN ON STRUCTURAL DRAWINGS, SEE CIVIL (SITE WORK), MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
12. PROVIDE BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH CRSI MANUAL OF STANDARD PRACTICE AND PROJECT SPECIFICATIONS.

STRUCTURAL TESTS AND SPECIAL INSPECTIONS

1. AN APPROVED INDEPENDENT TESTING AND INSPECTION AGENCY SHALL INSPECT, MONITOR AND/OR TEST THE FOLLOWING: THE TESTING AND INSPECTION AGENCY WILL BE PAID BY THE OWNER. REPORTS OF INSPECTIONS SHALL BE SUBMITTED TO THE ARCHITECT AND BUILDING OFFICIAL.
 - A. SOILS
 - a. SITE PREPARATION, INCLUDING PROOFROLLING SUBGRADE.
 - b. FILL AND/OR BACKFILL PLACEMENT AND COMPACTION, INCLUDING TESTING OF IN-PLACE DENSITY.
 - c. VERIFICATION OF SOIL BEARING CAPACITY FOR FOOTINGS AND FOUNDATIONS.
 - B. CONCRETE CONSTRUCTION
 - a. MONITOR, INSPECT AND TEST IN ACCORDANCE WITH TABLE 1704.4 OF IBC.
 - b. INSPECT REINFORCING STEEL PLACEMENT.
 - c. SAMPLING AND TESTING OF CONCRETE MATERIALS.
 - d. INSPECTION OF CONCRETE PLACEMENT.
 - e. VERIFICATION OF CURING TEMPERATURES AND CURING METHODS.

SUBMITTALS

SUBMIT THE FOLLOWING:

1. EARTHWORK
 - A. SUBMIT LABORATORY TESTS FROM QUALIFIED SOILS TESTING LABORATORY FOR SOIL CLASSIFICATION AND MOISTURE-DENSITY RELATIONSHIP FOR PROPOSED ON-SITE AND/OR BORROW MATERIAL TO BE USED AS FILL/BACKFILL.
2. CAST-IN-PLACE CONCRETE
 - A. CONCRETE DESIGN MIXES WITH SUPPORTING TEST DATA.
 - B. SHOP DRAWINGS-FABRICATION AND PLACING DRAWINGS FOR REINFORCING STEEL AND SUPPORTS FOR REINFORCING.
 - C. PRODUCT DATA FOR ADMIXTURES, REINFORCING ACCESSORIES, AND CONCRETE ACCESSORIES.
 - D. MATERIAL TEST REPORTS FOR AGGREGATES.
 - E. MATERIAL CERTIFICATES FOR CEMENTITIOUS MATERIALS, ADMIXTURES, CURING COMPOUNDS, BONDING AGENTS AND ADHESIVES, JOINT FILLERS, VAPOR RETARDERS AND REPAIR MATERIALS.
 - F. MILL TEST REPORTS FOR REINFORCING STEEL.

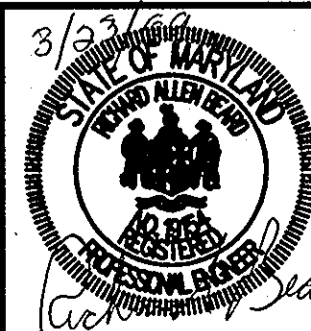
JHU/APL INTERNAL USE

THIS DATA SHALL NOT BE DISCLOSED TO A THIRD PARTY AND SHALL NOT BE DUPLICATED, USED, OR DISCLOSED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN TO EVALUATE THIS RFP OR, IN THE CASE OF A CONTRACT AWARD, TO PERFORM THE WORK REQUIRED HEREUNDER, WITHOUT THE EXPRESS WRITTEN CONSENT OF JHU/APL.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 4/16/09
 Chief, Development Engineering Division
[Signature] 4/21/09
 Chief, Division of Land Development
[Signature] 4/21/09
 Director, DEP

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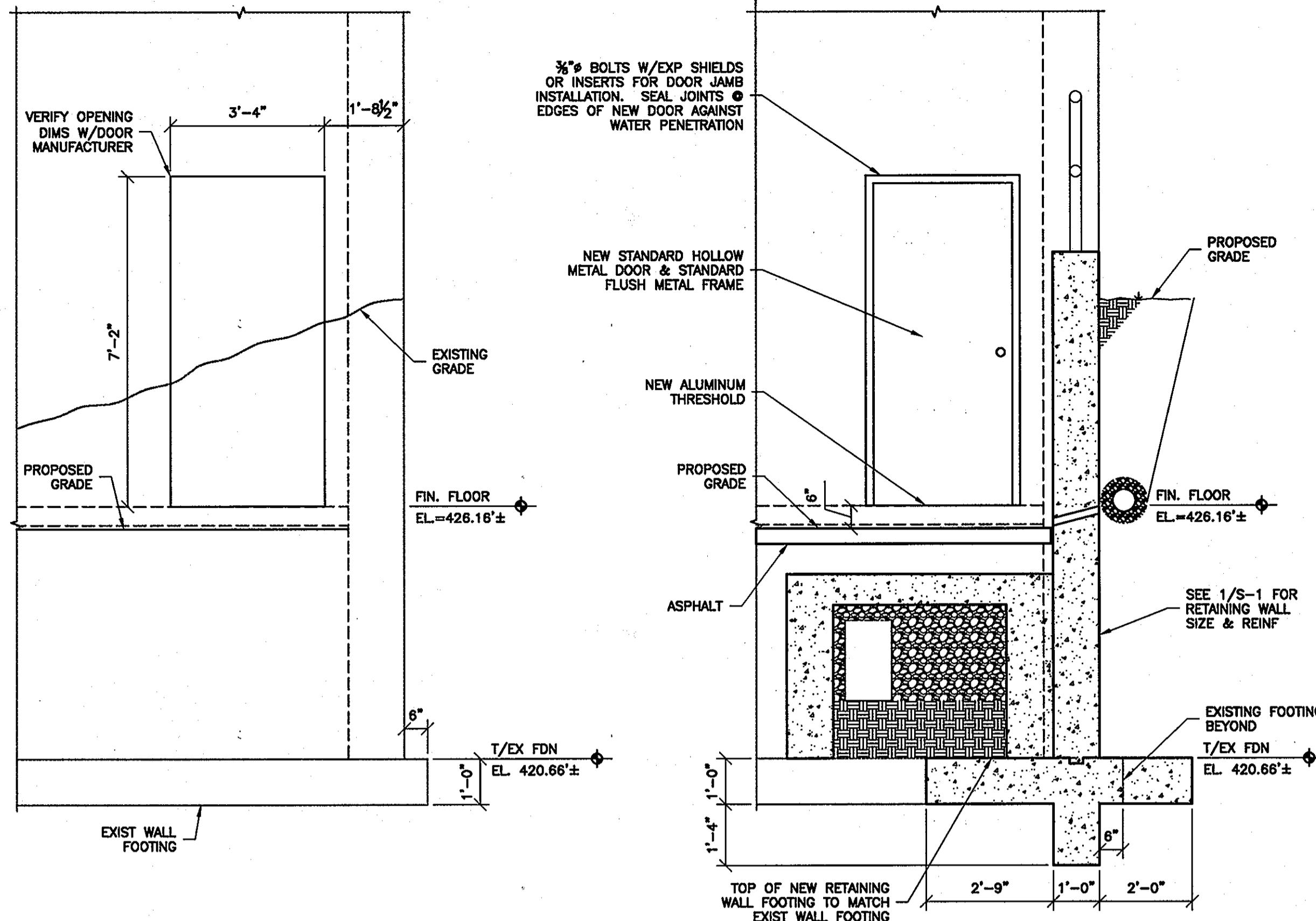


DESIGN BY:	CEI	ADDED SHEETS 4, 5, 6 OF 6; REVISED WALL & STORM DRAIN	3/24/09
DRAWN BY:	DF	ON NORTH SIDE BUILDING No. 7	"
CHECKED BY:	RAB		
DATE:	03/24/09		
BY	NO.	REVISION	DATE

**THE JOHNS HOPKINS UNIVERSITY
 APPLIED PHYSICS LABORATORY**
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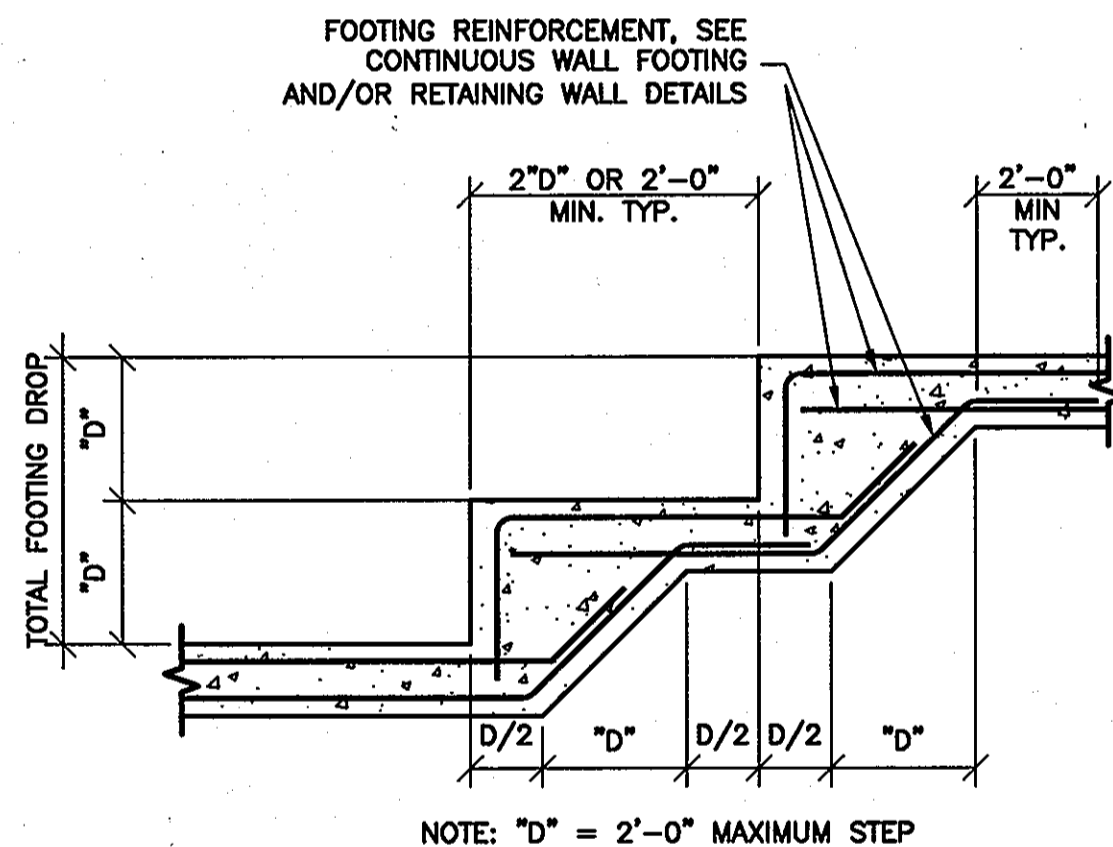
**BUILDING #7
 ELECTRICAL ROOM IMPROVEMENTS
 SITE IMPROVEMENTS
 (SUPPLEMENT TO SDP-78-86)**
 TAX MAP: 41 GRID: 16 PARCEL: 123
 ELECTION DISTRICT 5-05 HOWARD COUNTY, MARYLAND
 SHEET 6 OF 6

C.E.I. PROJECT NUMBER 22172.30
 SCALE: AS NOTED

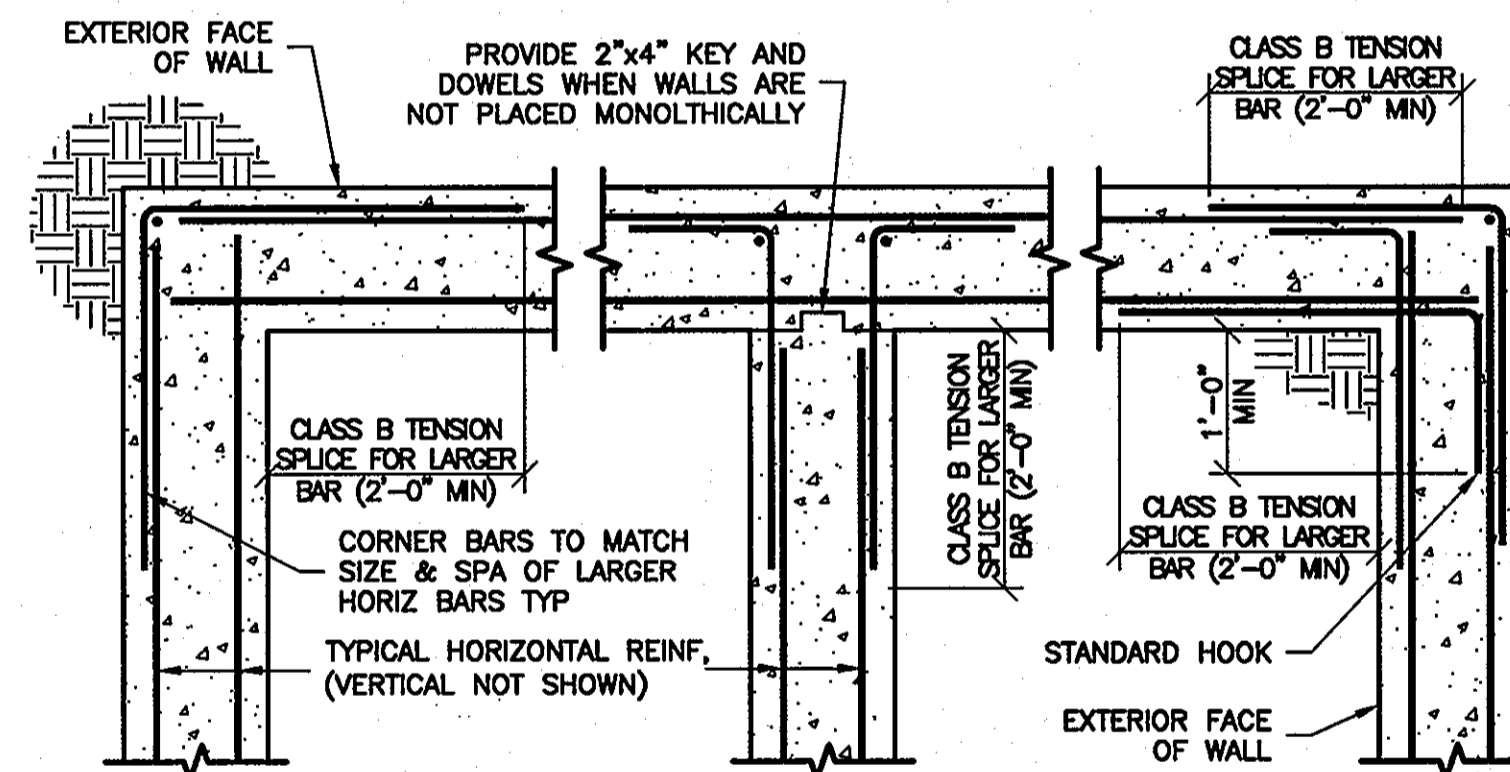


1 DEMO ELEVATION
 S-2 1/2"=1'-0"

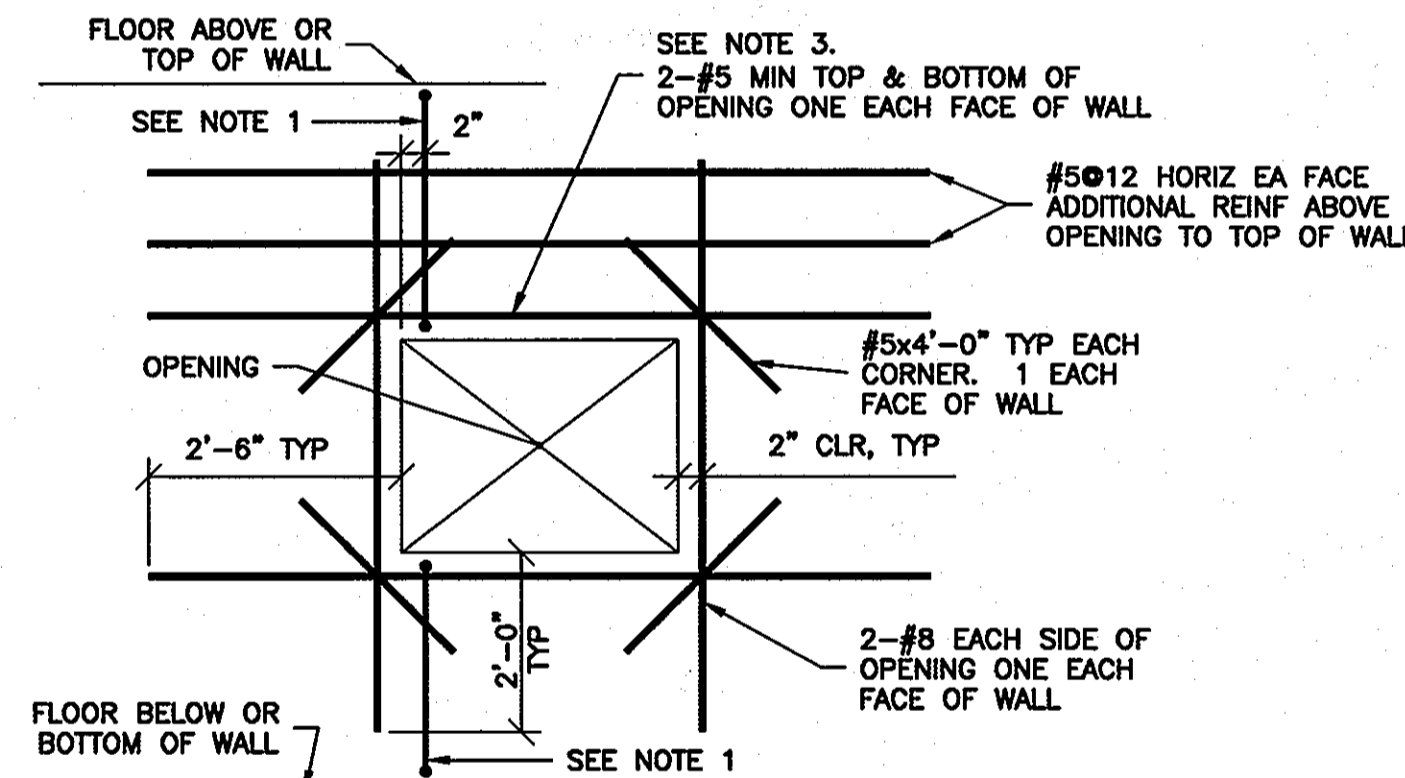
2 NEW ELEVATION
 S-2 1/2"=1'-0"



TYPICAL FOOTING STEP

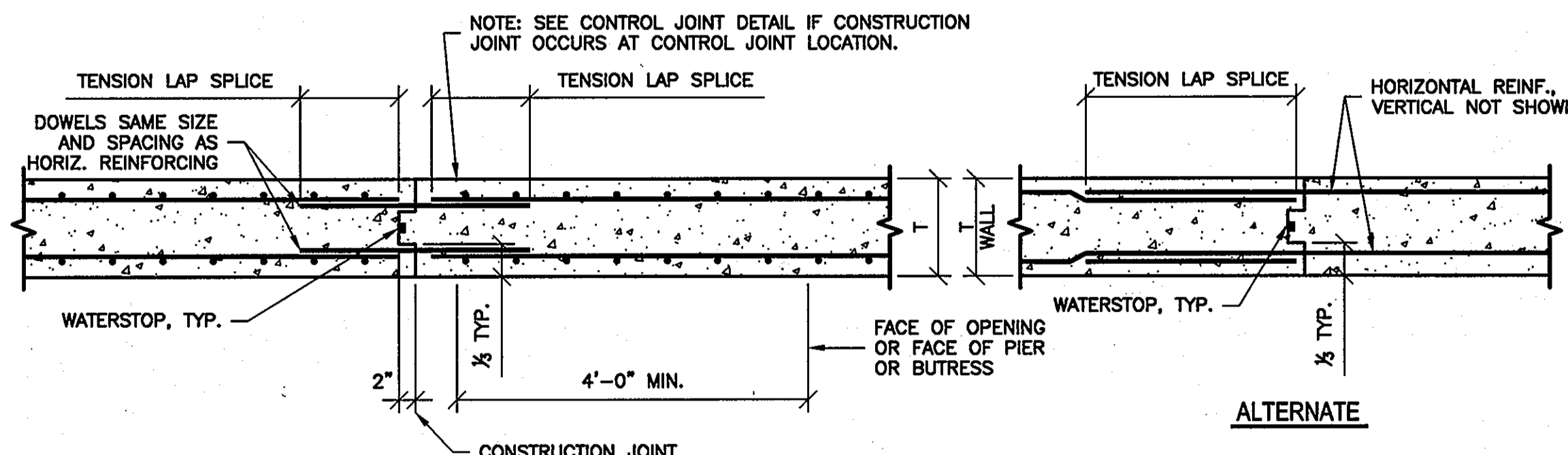


TYPICAL CONCRETE WALL BAR BENDING DETAIL



OPENING IN CONCRETE WALL

- NOTES:
 1. WHERE EDGE OF OPENING IS 2'-6" OR LESS FROM TOP OR BOTTOM OF WALL PROVIDE #5@12 EI.
 2. PROVIDE HORIZONTAL REINFORCEMENT OF EQUIVALENT AREA AS BARS INTERRUPTED BY THE OPENING. PLACE EQUIVALENT AREA BARS IN MAX OF 2 LAYERS (1/2 BARS ABOVE AND BELOW OPENING)



TYPICAL VERTICAL CONSTRUCTION JOINT IN WALL

SDP-78-086