

SITE DATA

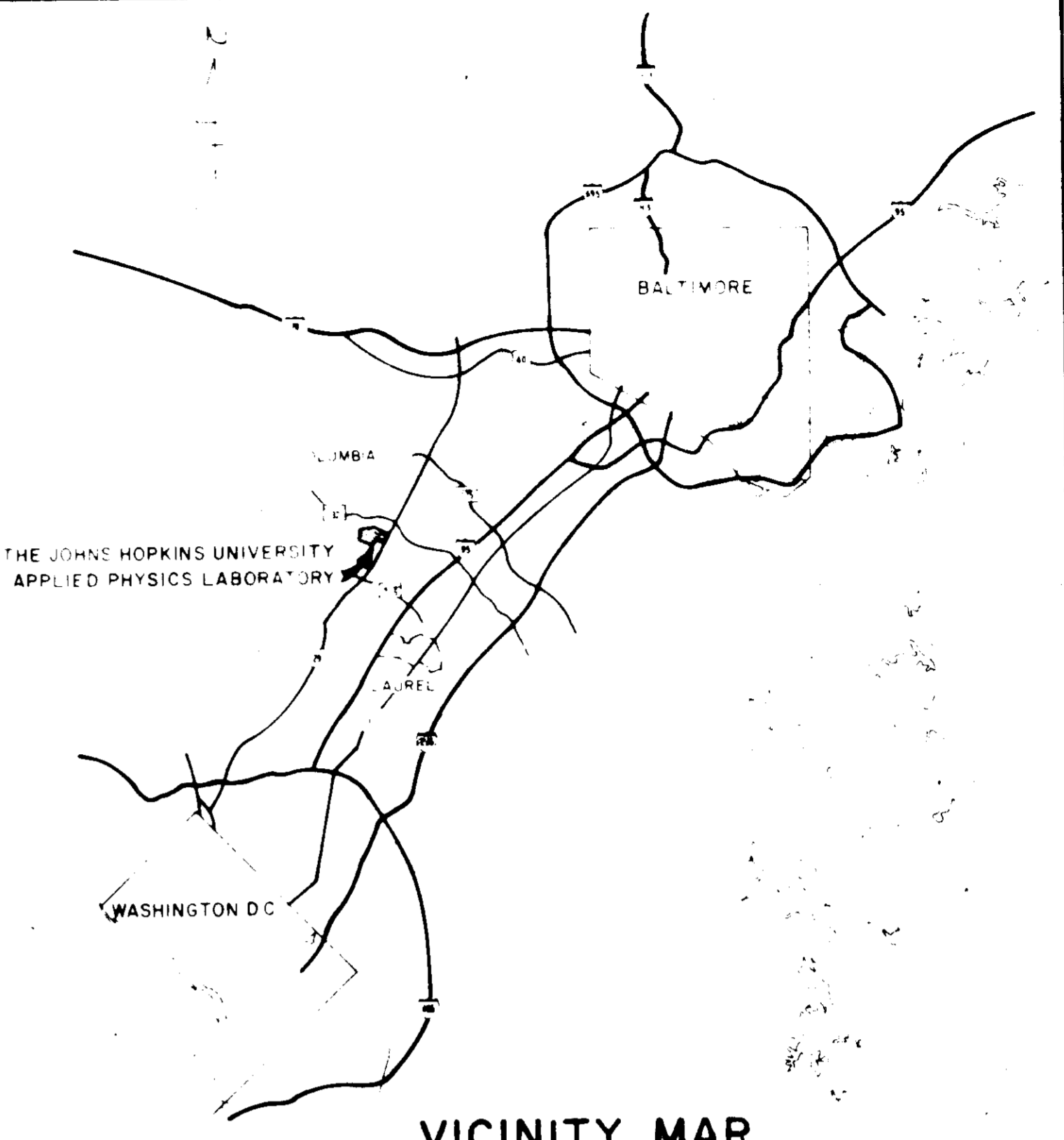
- ZONING - RURAL R
- SITE AREA - 0.29 ACRES
- ACREAGE OF ENTIRE PROPERTY - 366 ACRES
- TOTAL NUMBER OF EXISTING EMPLOYEES ON THE ENTIRE SITE - 3,225
- TOTAL NUMBER OF PARKING SPACES REQUIRED - 2,258
- TOTAL NUMBER OF PARKING SPACES PROVIDED - 2,600 *

EXISTING SPACES - 2,596
SPACES PROPOSED - 4
* TOTAL SPACES - 2,600

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
P123	11100 JOHNS HOPKINS ROAD

- GENERAL NOTES**
- ELEVATIONS SHOWN ARE BASED ON THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY (JHU/APL) DATUM. TO OBTAIN ELEVATIONS ON THE HOWARD COUNTY (U.S.G.S.) DATUM, SUBTRACT 0.94 FEET FROM THE JHU/APL DATUM.
 - TREES WITHIN THE CONSTRUCTION STRIP SHOWN ON THE DRAWINGS MAY BE TRIMMED. TREES SPECIFICALLY DESIGNATED TO BE REMOVED SHALL BE CUT, THE ROOTS EXCAVATED, AND ALL WOODY MATERIAL PLACED AT THE LOCATION DESIGNATED BY JHU/APL ON THE APL PROPERTY. OTHER TREES IN THE LINE OF WORK WILL BE RELOCATED OR REMOVED BY JHU/APL. THE CONTRACTOR WILL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT THE OPERATION OF EQUIPMENT. THE STORAGE OF EXCAVATED MATERIAL, OR THE TEMPORARY STORAGE OF PIPE OR OTHER CONSTRUCTION MATERIALS OUTSIDE THE DESIGNATED CONSTRUCTION STRIP, THE CONTRACTOR WILL PROTECT TREES 12 INCHES IN DIAMETER AND LARGER NOT DESIGNATED FOR REMOVAL IN CLOSE PROXIMITY TO THE CONSTRUCTION FROM DAMAGE.
 - ALL STONE AND PAVED ROAD AND PARKING SURFACES DISTURBED BY THE TRENCH EXCAVATION AND/OR THE OPERATION OF THE CONTRACTOR'S EQUIPMENT SHALL BE RESTORED IN ACCORDANCE WITH THE STANDARD DETAILS. "CUTTING AND REPAIRING OPENINGS IN EXISTING ROADWAYS".
 - SEDIMENT CONTROL MEASURES AND SPECIAL CONSTRUCTION REQUIREMENTS OF HOWARD COUNTY SOIL CONSERVATION SERVICE SHALL BE AS DEFINED IN THE SPECIFICATIONS AND/OR SHOWN ON THE DRAWINGS.
 - RESTORATION OF THE SURFACES DISTURBED BY CONSTRUCTION SHALL BE UNDERTAKEN WITHIN 30-DAYS OF COMPLETION OF CONSTRUCTION OPERATIONS IN A PARTICULAR AREA.
 - NOTIFY MR. ARTHUR STUCKI, PLANT ENGINEER, AT JHU/APL (953-5134) AT LEAST 5 WORKING DAYS PRIOR TO COMMENCING THE WORK. THE CONTRACTOR IS NOT PERMITTED TO OPERATE ANY VALVE ON THE JHU/APL WATER SYSTEM.
 - THE CONTRACTOR SHALL ARRANGE FOR THE SHUT DOWN OF THE EXISTING 12-INCH DIAMETER MAIN WITH JHU/APL PERSONNEL PRIOR TO EXCAVATING BEHIND THE BUTTRESS. THE CONTRACTOR SHALL NOT BE ENTITLED TO ANY EXTRA COMPENSATION SHOULD THE MAIN NOT BE SHUT DOWN WHEN REQUESTED. THE CONNECTION TO THE EXISTING 12" W SHALL BE MADE ON A SATURDAY DURING WHICH TIME THE EXISTING MAIN CAN BE SHUT DOWN FOR NO MORE THAN 8-HOURS. THE CONTRACTOR SHALL HAVE SUFFICIENT MATERIALS, EQUIPMENT, AND MANPOWER ON SITE TO COMPLETE THE CONNECTION WITHIN THE TIME SPECIFIED. THIS CONNECTION SHALL NOT BE MADE UNTIL AFTER THE COMPLETED WATER MAIN, BYPASS, AND BOOSTER PUMPING STATION HAVE BEEN CHLORINATED, TESTED, AND ACCEPTED.
 - THE CONTRACTOR SHALL REMOVE THE EXISTING 8-INCH MECHANICAL JOINT WATER LINE CONNECTING THE FIRE HYDRANT AT THE POND TO THE HYDRANT SOUTH OF THE KOSSIAKOFF BUILDING SERVICE ROAD. THE PIPE, FITTINGS, AND ONE HYDRANT ARE TO BE DELIVERED TO A SITE DESIGNATED BY JHU/APL. THE OTHER HYDRANT IS TO BE REBUILT AND INSTALLED ON THE NEW MAIN AS SHOWN ON THE PLANS.
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE AS SHOWN ON THE PLANS AND/OR STANDARD DETAILS.
 - STRAW BALE DIKE AND SILT FENCE ARE INTERCHANGEABLE.
 - APPROXIMATE LOCATIONS OF EXISTING PIPES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF JHU/APL AT THE CONTRACTOR'S EXPENSE.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL VERIFY THE ELEVATIONS OF THE EXISTING WATER MAINS AND STORM DRAINS BY TEST PITS PRIOR TO CONSTRUCTION OF THE WATER MAIN OR VAULTS.
 - ALL PIPE ELEVATIONS SHOWN, UNLESS NOTED OTHERWISE, ARE INVERT ELEVATIONS.
 - 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.
 - THE FINAL CONNECTION SHALL BE MADE AFTER NOTIFICATION BY JHU/APL AND THE HOWARD COUNTY BUREAU OF UTILITIES THAT ALL EXISTING WELLS ON THE JHU/APL SYSTEM HAVE BEEN PHYSICALLY DISCONNECTED.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, SEE THE STANDARD DETAILS APPENDED TO THE SPECIFICATIONS.



VICINITY MAP
Scale 1"=6 Miles

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS. HOWARD COUNTY HEALTH DEPARTMENT <i>[Signature]</i> 2-4-85 COUNTY HEALTH OFFICER DATE	APPLIED PHYSICS LABORATORY THE JOHNS HOPKINS UNIVERSITY 11100 JOHNS HOPKINS ROAD LAUREL, MARYLAND - 20707 APPROVED FOR THE UNIVERSITY BY: <i>[Signature]</i>
APPROVED, HOWARD COUNTY OFFICE OF PLANNING AND ZONING <i>[Signature]</i> 2-6-85 PLANNING DIRECTOR DATE	DATE: 10/21/85 TITLE: <i>[Signature]</i>
APPROVED, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION <i>[Signature]</i> 2-5-86 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE	SUBDIVISION NAME: J. H. U. APPLIED PHYSICS LAB. SECT./AREA: N/A LOT/PARCEL: 50 & 123 PLAT # OR L/F/BLOCK # ZONE: 234/304 16 R TAX ZONE MAP: 41 ELEC. DIST: 5TH CENSUS TR: 6051 WATER CODE: E 21 SEWER CODE: 6480000

INDEX

SHEET NO.	TITLE
1.	TITLE SHEET
2.	WATER MAIN PLAN AND PROFILE AND MISC. DETAILS
3.	BOOSTER P.S. AND BY-PASS VAULT STRUCTURE PLANS, SECTIONS AND DETAILS
4.	MISCELLANEOUS PROFILES AND DETAILS
5.	BOOSTER P.S. AND BY-PASS VAULT MECHANICAL PLANS, SECTIONS AND DETAILS
6.	BOOSTER P.S. ELECTRICAL PLANS, SECTIONS AND DETAILS.

THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY

HOWARD COUNTY, MARYLAND
ELECTION DISTRICT NO. 5

WATER CONNECTION

HOWARD COUNTY METER TO EXISTING 12 INCH JHU/APL DISTRIBUTION MAIN

SITE PLAN
Scale 1"=400'

[Signature]

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218

BY	NO	REVISION	DATE
		ADD COMPLETE ADDRESS	12/19/85

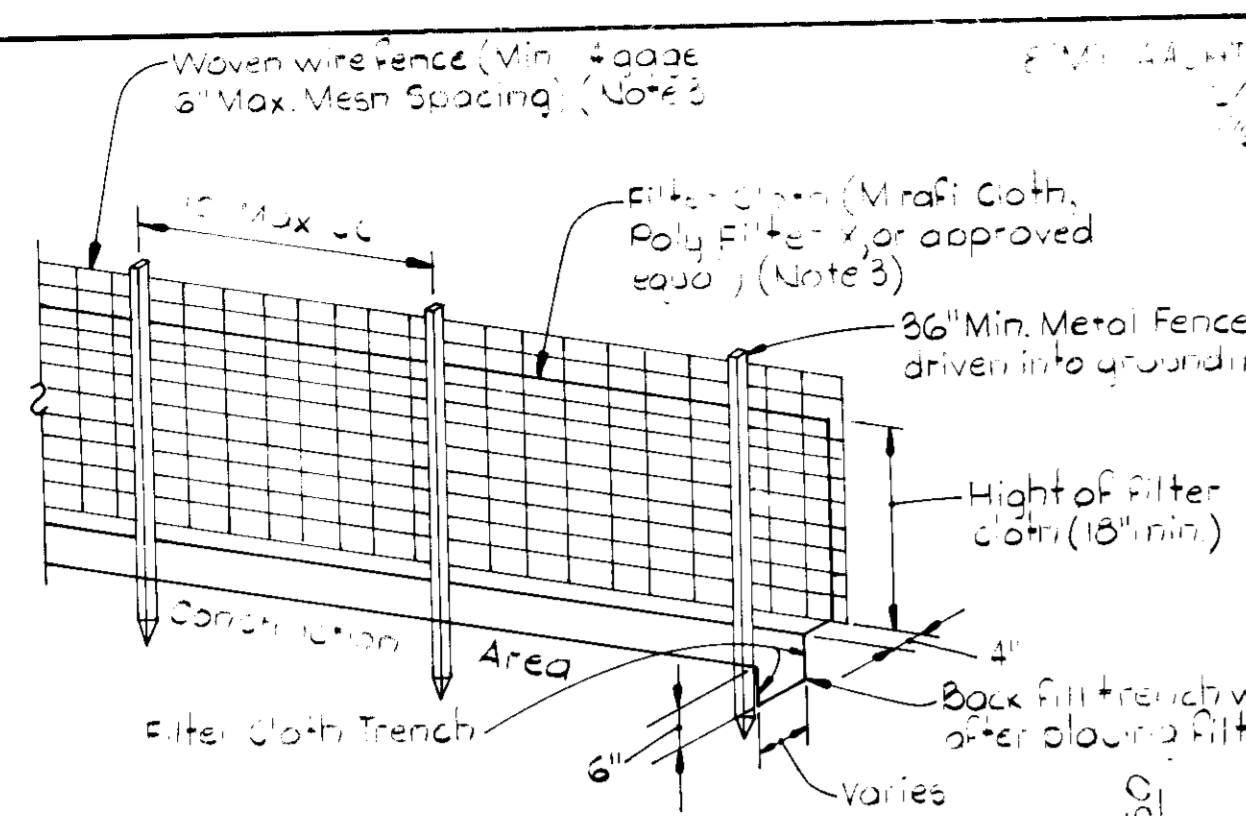
12-3-85

APPROVED: FOR PUBLIC SEWER AND PUBLIC WATER SYSTEMS - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 1-31-86
DIRECTOR DATE

[Signature] 1-29-86
CHIEF, BUREAU OF ENGINEERING DATE

Sheet 1 of 6
SDP-86-106

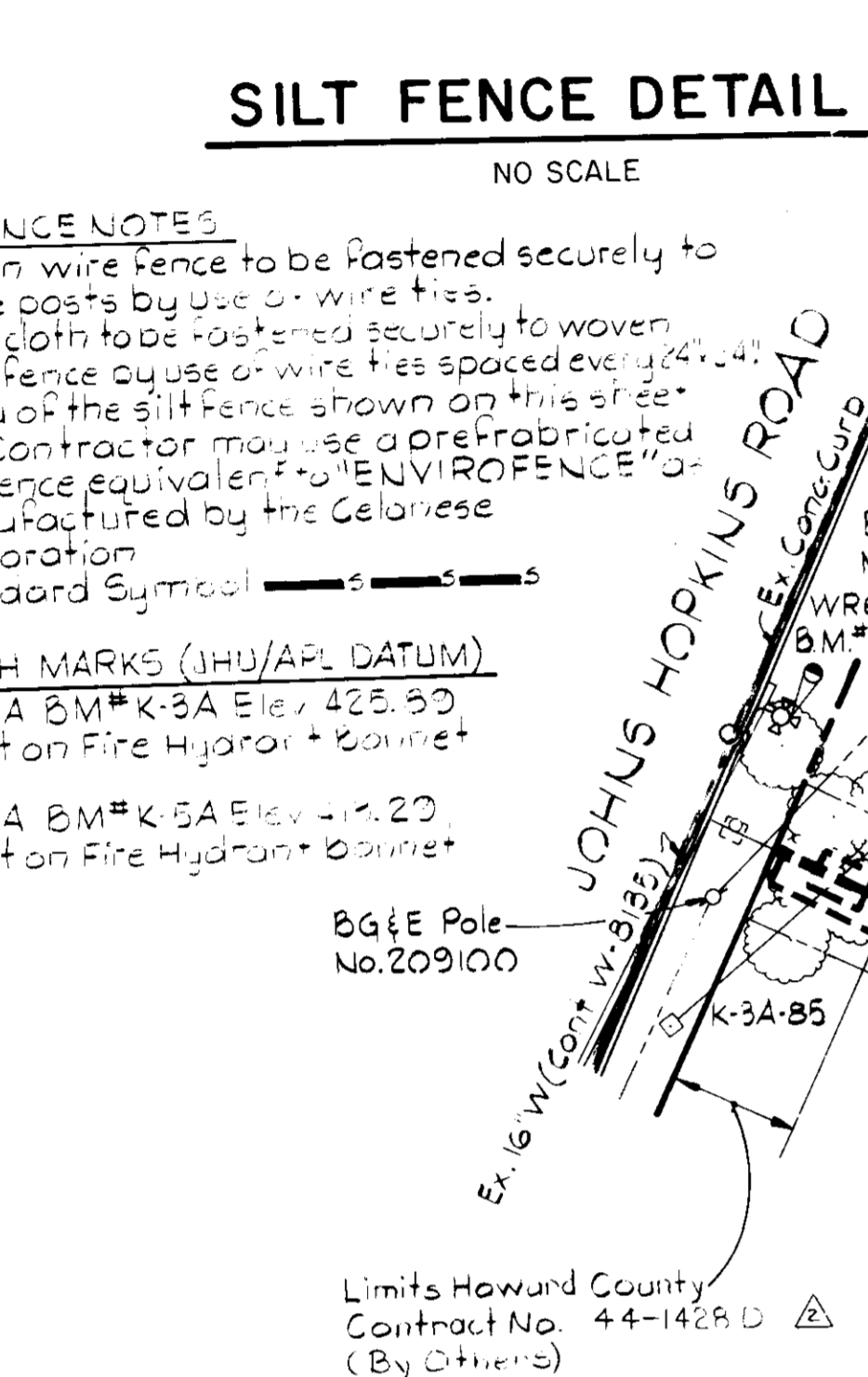
WO.80156



PARKING AREA DETAIL
NOT TO SCALE

SILT FENCE DETAIL
NO SCALE

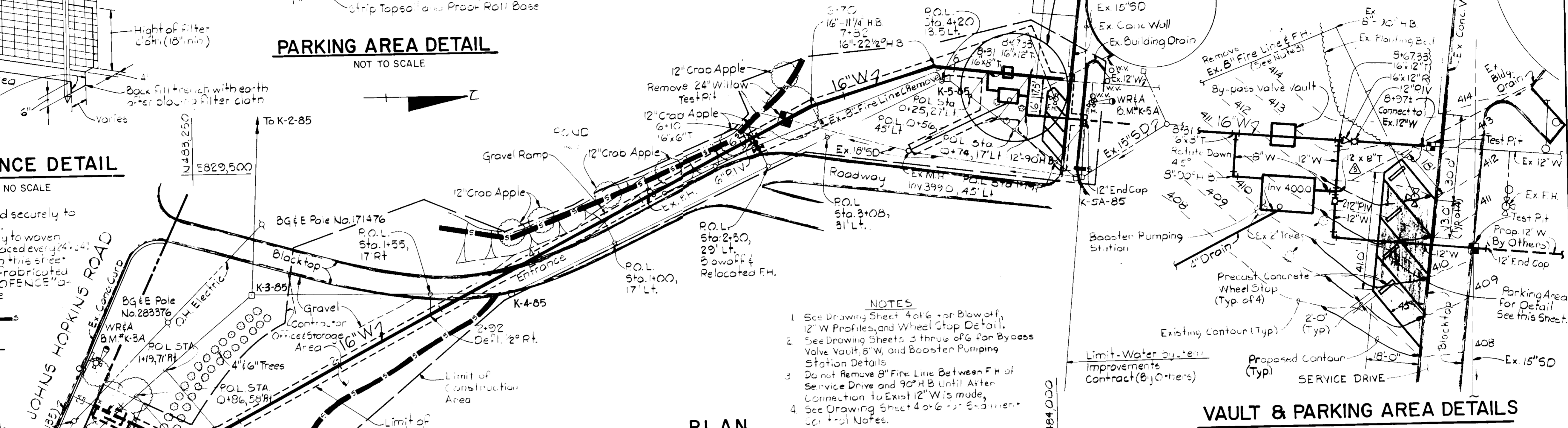
- SILT FENCE NOTES**
1. Woven wire fence to be fastened securely to fence posts by use of wire ties.
 2. Filter cloth to be fastened securely to woven wire fence by use of wire ties spaced every 24" (4').
 3. In lieu of the silt fence shown on this sheet, the Contractor may use a prefabricated silt fence equivalent to "ENVIROFENCE" or manufactured by the Celanese Corporation.
 4. Standard Symbol
- BENCH MARKS (JHU/APL DATUM)**
- WR#A BM#K-3A Elev. 425.50
 - "X" Cut on Fire Hydrant + 6" Outlet
 - WR#A BM#K-5A Elev. 420.20
 - "X" Cut on Fire Hydrant + 6" Outlet



NOTE

1. Saw Cut - Existing Pavement - Prior to Placing New Pavement - Required to Remove Strip of Pavement
2. Place Hot Liquid Asphalt (AE-5) Along Entire Face of Existing Pavement Prior to Placing New Pavement
3. Upon Completion of Paving, Excess Liquid Asphalt shall be Graded into the Joint Between Old and New Paving Surface to Prevent Excess Liquid Asphalt from Being Tracked by Traffic.

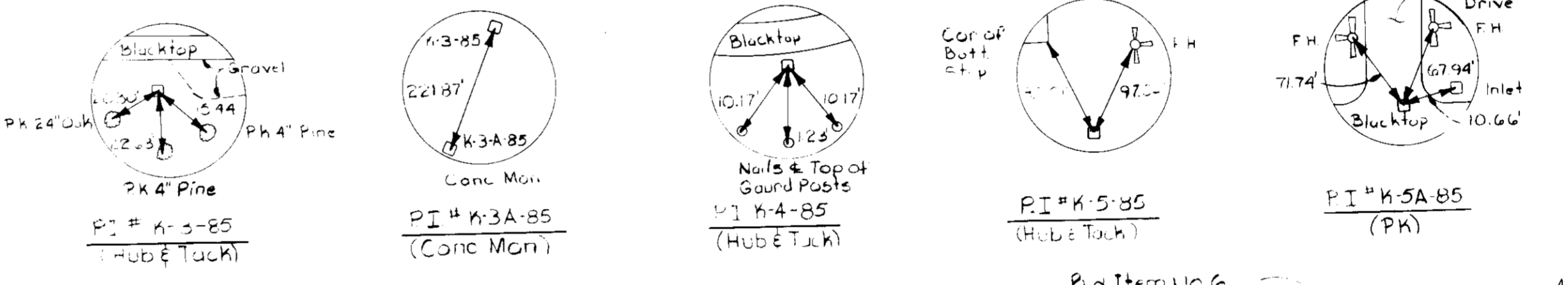
Test and Civil Note: Submit to 12" PIV prior to making connection to Ex. 12" W.



PLAN
SCALE: 1"=50'

VAULT & PARKING AREA DETAILS
SCALE: 1"=20'

- NOTES**
1. See Drawing Sheet 4 of 6 for Blowoff, 12" W Profiles, and Wheel Stop Detail.
 2. See Drawing Sheets 3 thru 6 for Bypass Valve Vault, 8" W, and Booster Pumping Station Details.
 3. Do not Remove 8" Fire Line Between F.H. of Service Drive and 90" H.B. Until After Connection to Exist 12" W is made.
 4. See Drawing Sheet 4 of 6 for 6" diameter Control Notes.



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

APPROVED: *Stephen L. Hubate* DATE: 12/28/86
HOWARD S.C.D.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

SIGNATURE: *James M. Hill* DATE: 1-28-86
U.S. SOIL CONSERVATION SERVICE

CERTIFICATION BY THE DEVELOPER

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 DEEMED NECESSARY.

SIGNATURE OF DEVELOPER: *James M. Hill* DATE: 1/28/86

RESPONSIBLE PERSONNEL CERTIFICATION

"I HEREBY CERTIFY THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE FROM A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT"

SIGNATURE OF DEVELOPER: *James M. Hill* DATE: 1/28/86

CERTIFICATION BY THE ENGINEER

"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"

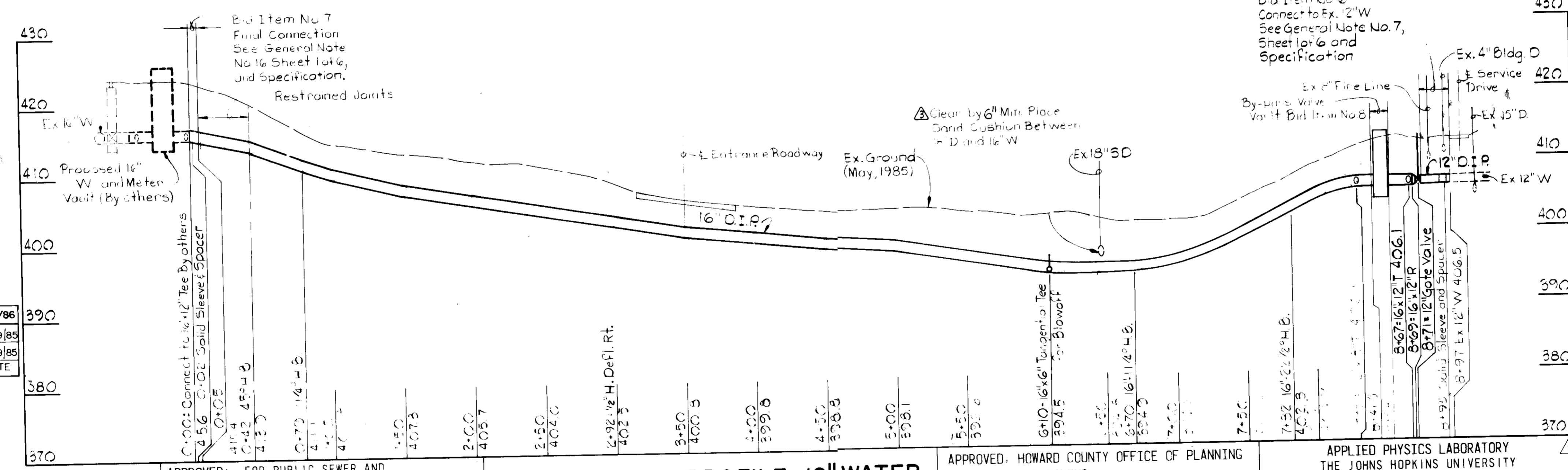
SIGNATURE OF ENGINEER: *Charles P. King* DATE: 1/28/86

THE JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY
HOWARD COUNTY, MARYLAND

WATER CONNECTION
HOWARD COUNTY METER TO EXISTING 12-INCH JHU/APL DISTRIBUTION MAIN

WATER MAIN PLAN AND PROFILE AND MISCELLANEOUS DETAILS

SCALE: AS SHOWN DATE: JULY, 1985 Sheet 2 of 6
ELECTION DISTRICT NO. 5



PROFILE 16" WATER
SCALE: HOR 1"=60' VERT 1"=10'

APPROVED
DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE: 12-3-85

BY	NO.	REVISION	DATE
JEL	1	CHANGE CLEARANCE & TREE SIZE	3/3/86
	2	ADD CONTRACT NO.	2/19/85
	3	ADD COMPLETE ADDRESS	2/19/85

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218

APPROVED FOR PUBLIC SEWER AND PUBLIC WATER SYSTEMS - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

James E. Neuman DATE: 1-27-86
DIRECTOR

James E. Neuman DATE: 1-27-86
CHIEF, BUREAU OF ENGINEERING

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

John A. Zepher DATE: 2-4-86
COUNTY HEALTH OFFICER

APPROVED, HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Thomas J. King DATE: 2-6-86
PLANNING DIRECTOR

James M. Hill DATE: 2-5-86
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

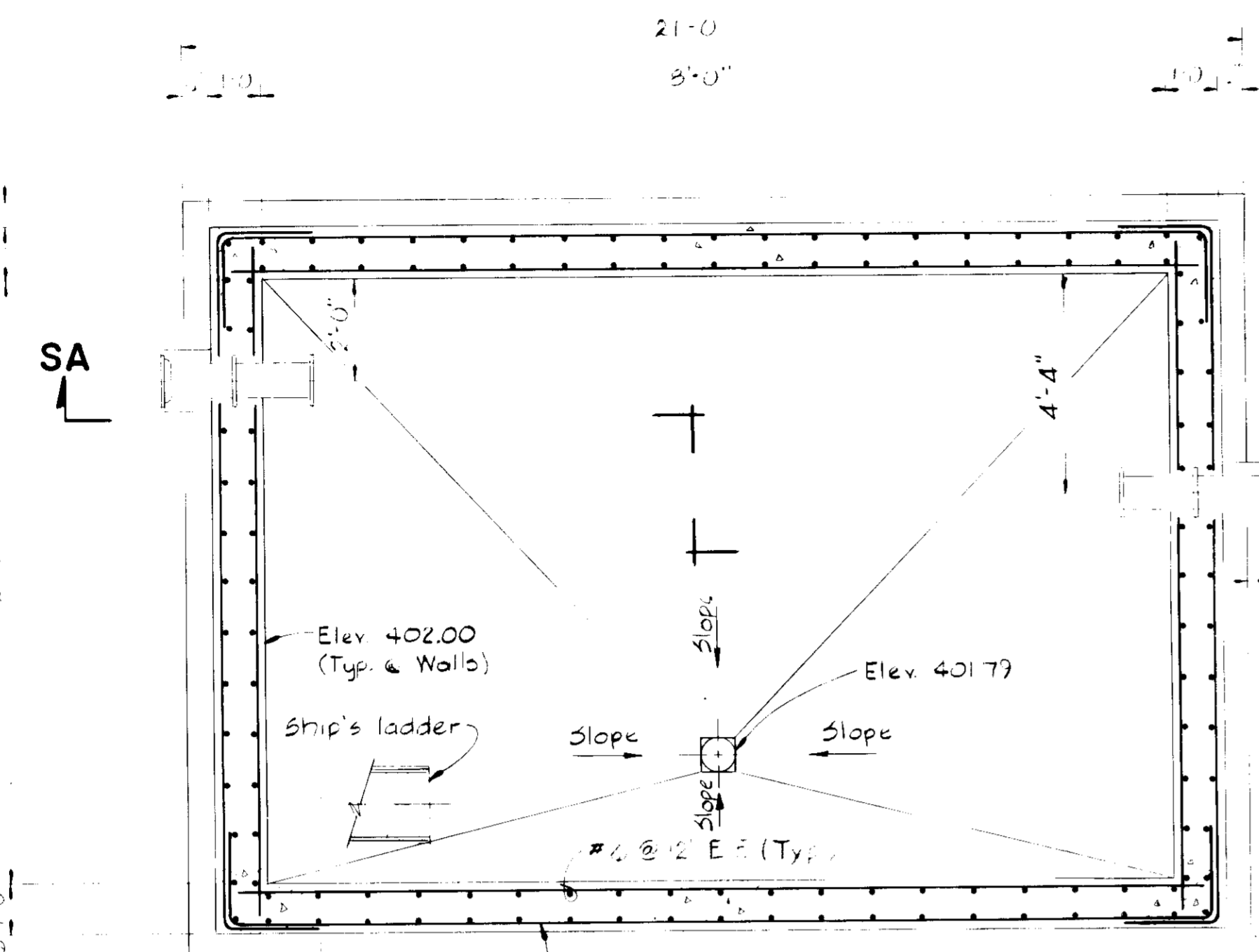
APPLIED PHYSICS LABORATORY
THE JOHNS HOPKINS UNIVERSITY
11100 JOHNS HOPKINS ROAD
LAUREL, MARYLAND 20707

APPROVED FOR THE UNIVERSITY BY: *John A. Zepher*

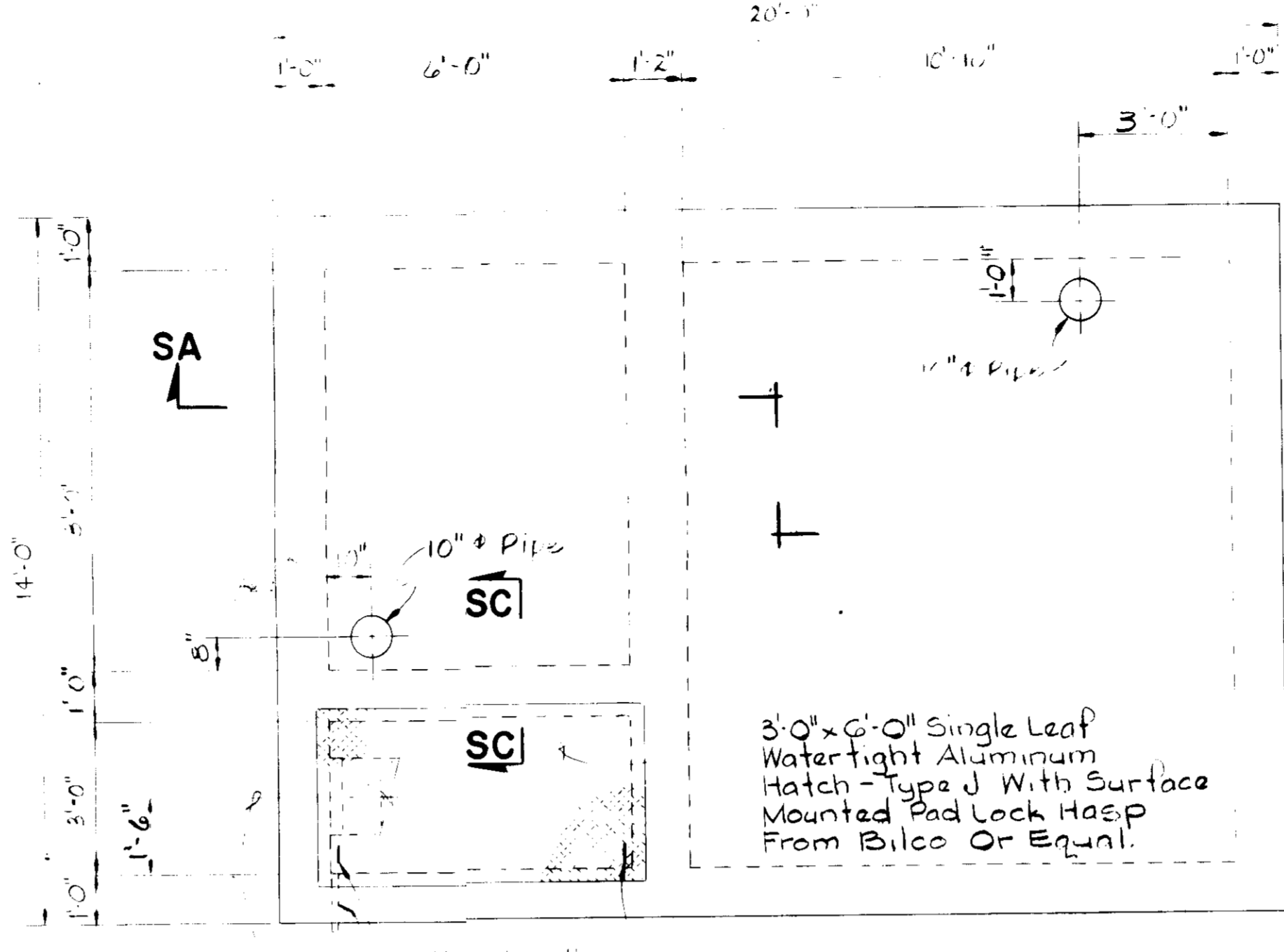
DATE: 2/25/85 TITLE: *Bureau of Engineering*

APPROVED FOR PUBLIC WATER AND PUBLIC SEWER SYSTEMS
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 24 86
 APPROVED FOR PUBLIC SEWER AND PUBLIC WATER SYSTEMS - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *[Signature]* DATE: 1-7-86
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 1-21-86

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 PLANNING DIRECTOR: *[Signature]* DATE: 26-86
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: *[Signature]* DATE: 25-86
 APPLIED PHYSICS LABORATORY THE JOHNS HOPKINS UNIVERSITY 11100 JOHNS HOPKINS ROAD LAUREL, MARYLAND 20707
 APPROVED FOR THE UNIVERSITY BY: *[Signature]* DATE: 10-25-85 TITLE: Business Manager

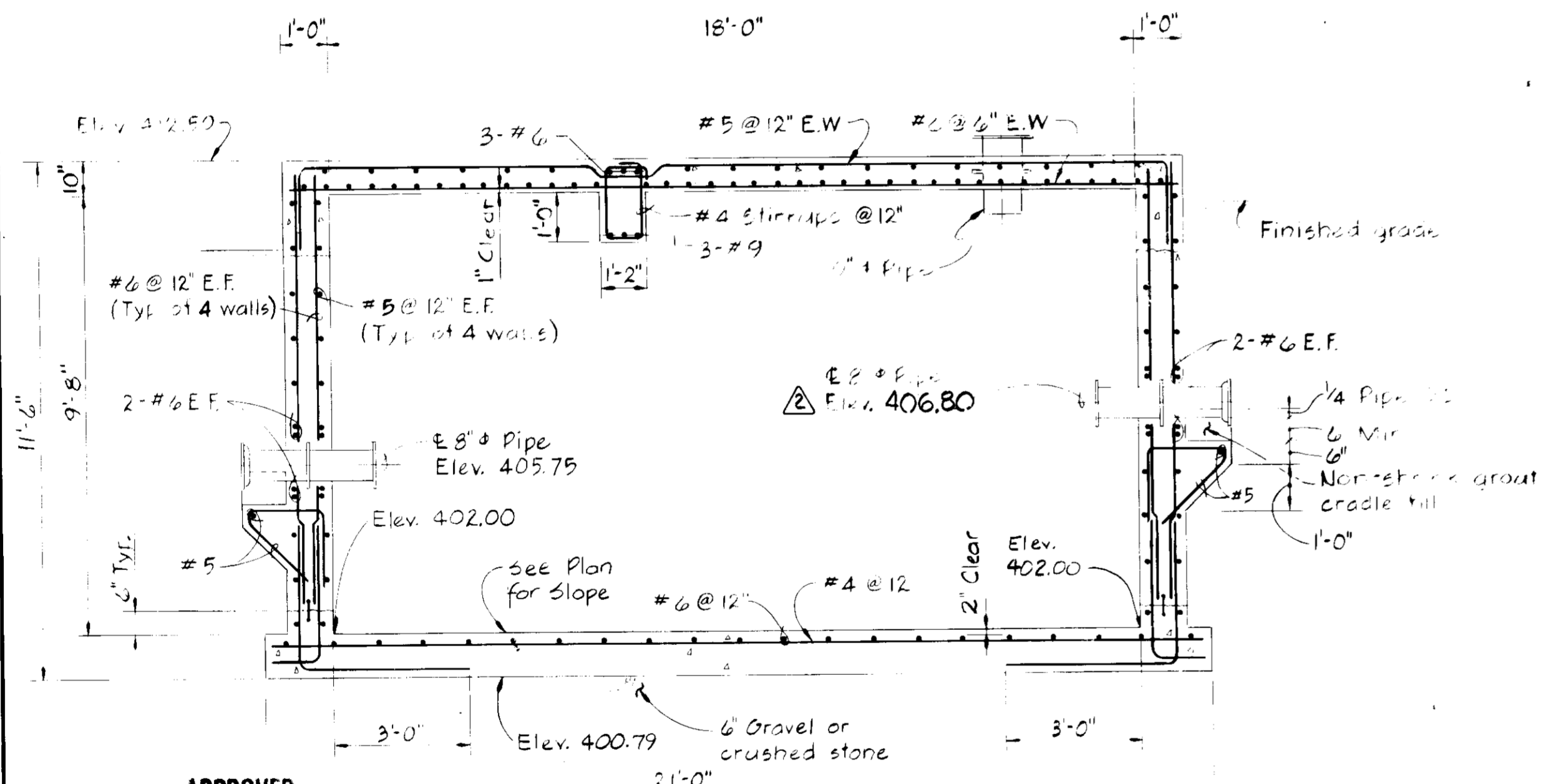


BOOSTER VAULT- LOWER PLAN
 SCALE: 3/8" = 1'-0"

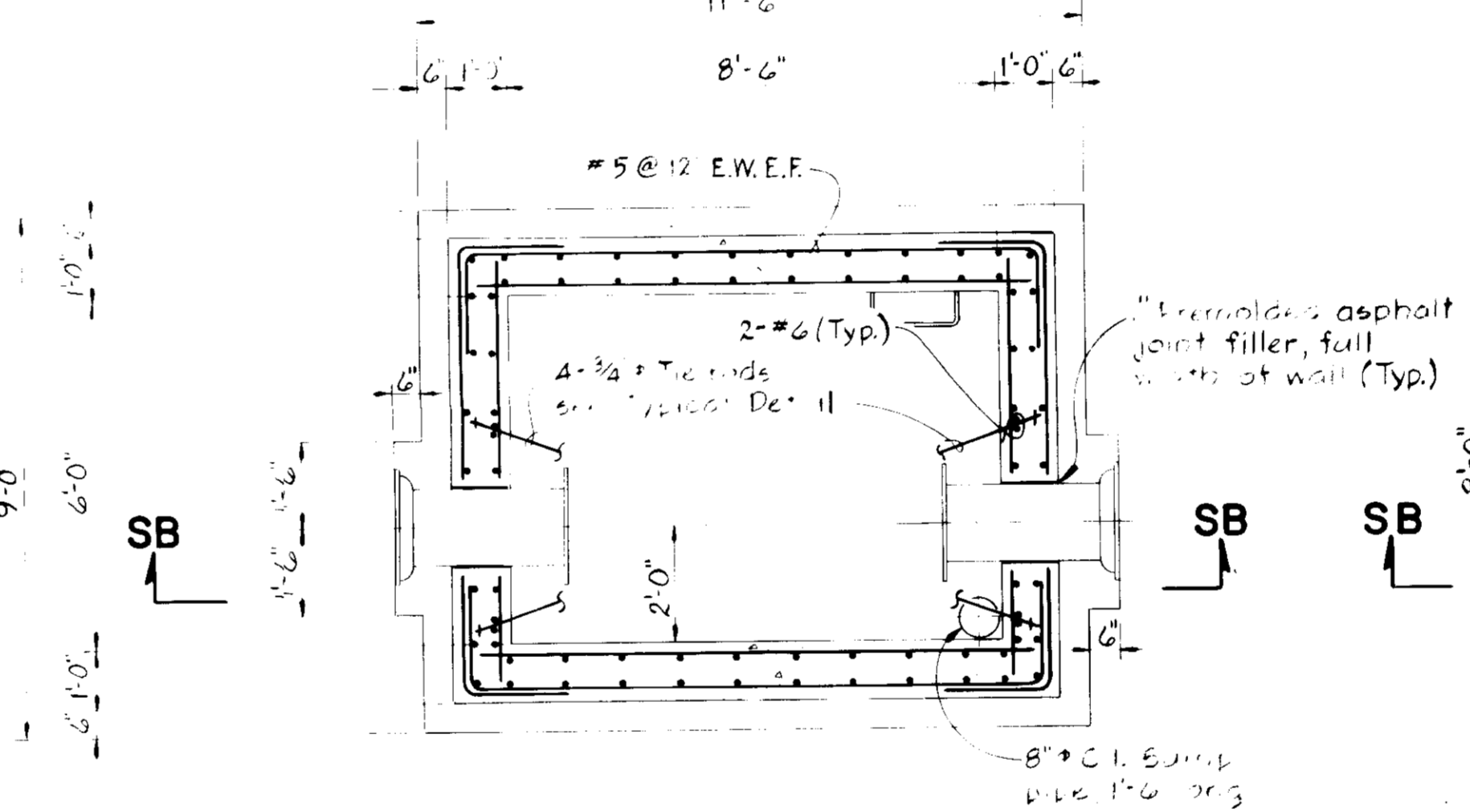


BOOSTER VAULT- TOP PLAN
 SCALE 3/8" = 1'-0"

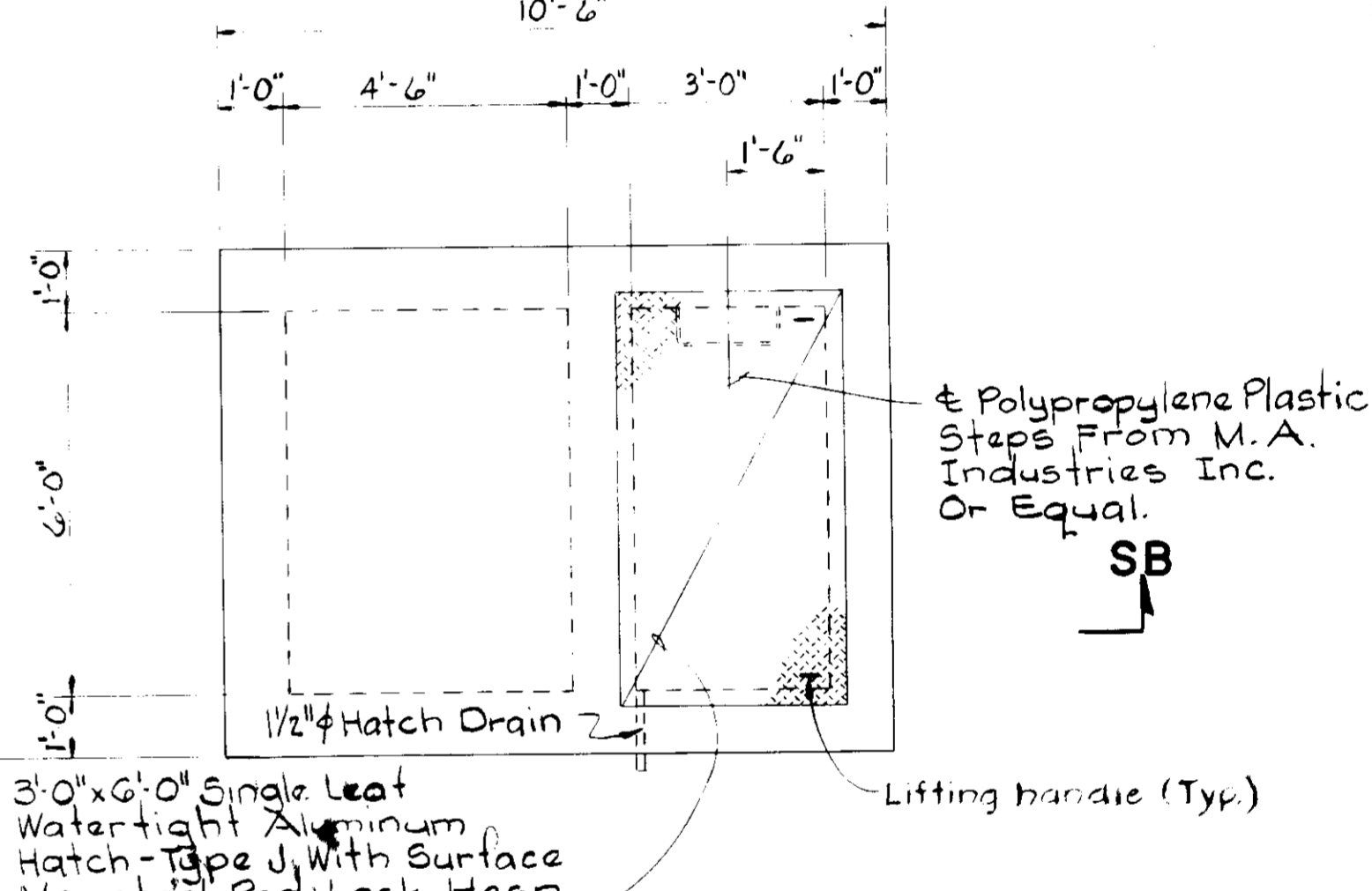
- GENERAL NOTES**
1. REINFORCED CONCRETE SHALL BE DETAILED AND CONSTRUCTED IN ACCORDANCE WITH THE CURRENT "ACI STANDARD BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (318-83).
 2. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI 315-80, MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES EXCEPT WHERE SHOWN OTHERWISE.
 3. ALL REINFORCEMENT SHALL CONFORM TO ASTM SPECIFICATION A615-82 GRADE 60 INCLUDING SUPPLEMENT S1.
 4. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28-DAYS.
 5. ALL SPLICES AND EMBEDMENTS FOR REINFORCING BARS NOT DIMENSIONED ON THE DRAWINGS SHALL BE DETAILED AS CLASS "C" SPLICES.
 6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, CONCRETE COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS:
 - a. CONCRETE SLABS ON EARTH OR GRAVEL 3 INCHES.
 - b. BEAMS, SLABS AND WALLS EXPOSED TO GROUND, WEATHER, OR PRESSURE LIQUIDS AFTER THE REMOVAL OF FORMS 2 INCHES.
 7. WATERSTOPS SHALL BE 3/8" THICK RUBBER X 9" WIDE OF THE 2-BULB TYPE.



SECTION SA
 SCALE: 3/8" = 1'-0"

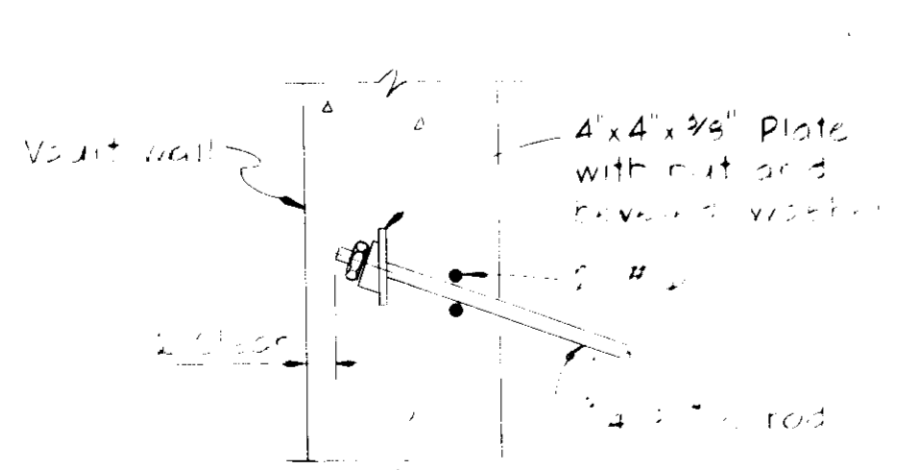


BY-PASS VAULT-LOWER PLAN
 SCALE: 3/8" = 1'-0"

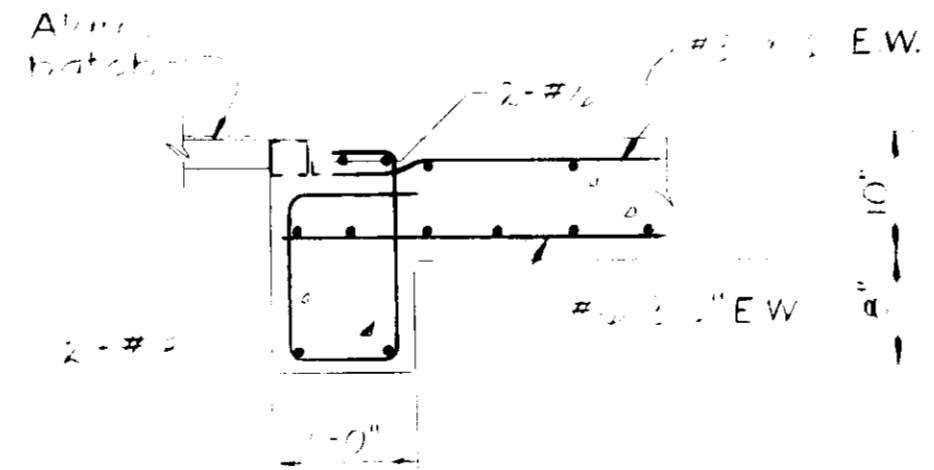


BY-PASS VAULT-TOP PLAN
 SCALE: 3/8" = 1'-0"

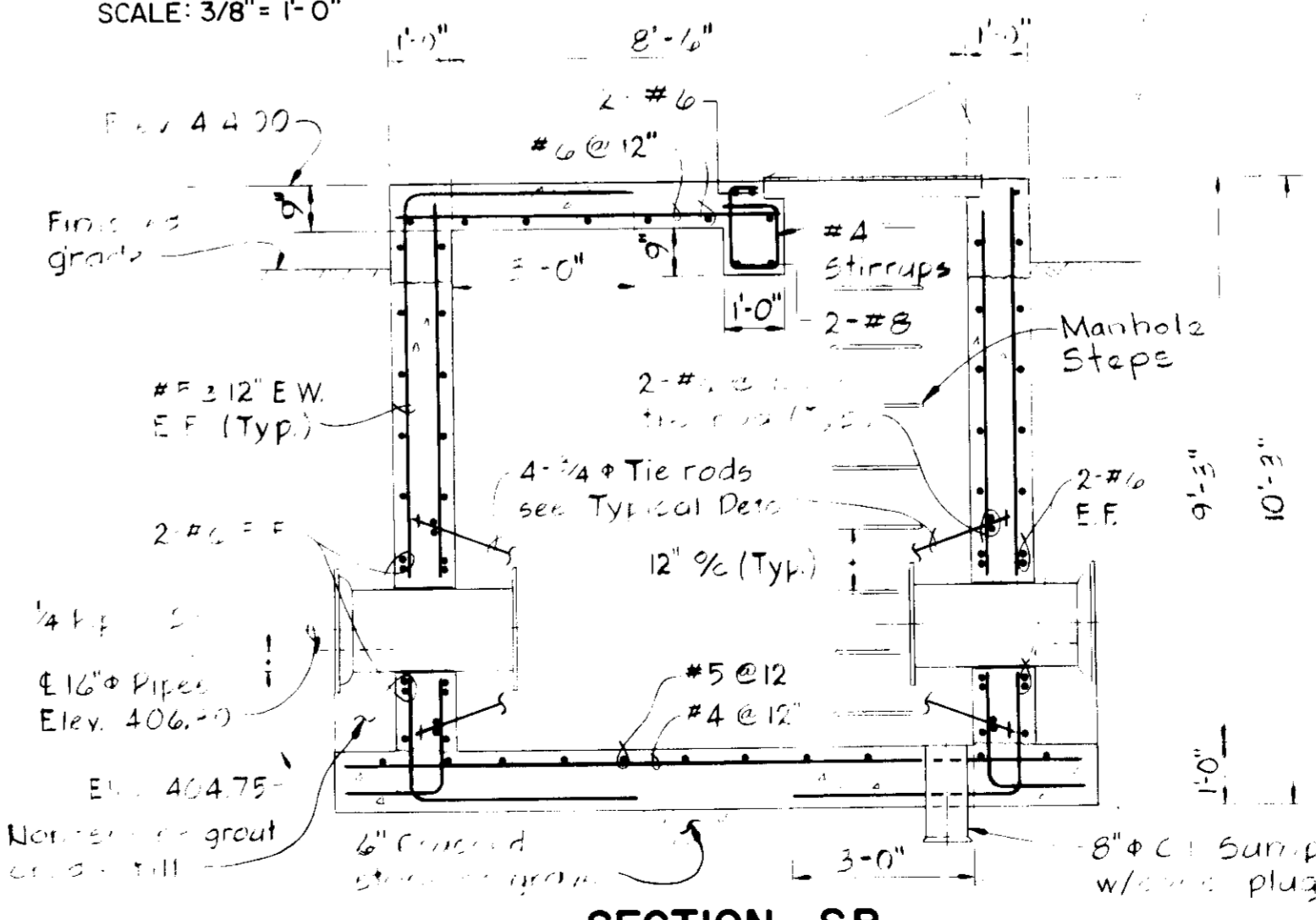
APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE 12-3-85



TYPICAL TIE ROD DETAIL
 SCALE: 1" = 1'-0"



SECTION SC
 SCALE: 3/4" = 1'-0"



SECTION SB
 SCALE: 3/8" = 1'-0"

THE JOHNS HOPKINS UNIVERSITY
 APPLIED PHYSICS LABORATORY
 HOWARD COUNTY, MARYLAND
 WATER CONNECTION
 HOWARD COUNTY METER TO EXISTING 12-INCH JHU/APL DISTRIBUTION MAIN
 BOOSTER P.S. AND BY-PASS VAULT
 STRUCTURE PLANS, SECTIONS, AND DETAILS
 SCALE: AS SHOWN DATE: JULY, 1985
 ELECTION DISTRICT NO. 5 SHEET 3 OF 6
SDP-86-106

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 2315 SAINT PAUL STREET
 BALTIMORE, MARYLAND 21218

J.E.L.	CHANGE & PIPE ELEV.	3/3/86
BY	ADD COMPLETE ADDRESS	12/19/85
NO	REVISION	DATE

APPROVED FOR
PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS,
HOWARD COUNTY HEALTH DEPARTMENT

James P. ... 2-4-86
COUNTY HEALTH OFFICER DATE

APPROVED FOR PUBLIC SEWER AND
PUBLIC WATER SYSTEMS - HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS

John F. ... 1-31-86
DIRECTOR DATE

William S. ... 1-22-86
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING
AND ZONING

Thomas H. ... 2-6-86
PLANNING DIRECTOR DATE

William ... 2-5-86
CHIEF, DIVISION OF LAND DEVELOPMENT
AND ZONING ADMINISTRATION DATE

APPLIED PHYSICS LABORATORY
THE JOHNS HOPKINS UNIVERSITY
11100 JOHNS HOPKINS ROAD
LAUREL, MARYLAND 20707

APPROVED FOR THE UNIVERSITY BY: *Cy ...*

DATE: 10/23/85 TITLE: *Business Man...*

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

APPROVED: *Stephen K. ...* DATE: 1/29/86
HOWARD S.C.D.

REVIEWED FOR HOWARD S.C.D. AND MEETS
TECHNICAL REQUIREMENTS.

SIGNATURE: *James ...* DATE: 1-25-86
U.S. SOIL CONSERVATION SERVICE

CERTIFICATION BY THE DEVELOPER

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CON-
STRUCTION WILL BE DONE ACCORDING TO THIS PLAN
OF DEVELOPMENT AND PLAN FOR EROSION AND SED-
IMENT CONTROL AND I ALSO AUTHORIZE PERIODIC
ON-SITE INSPECTION BY THE HOWARD SOIL CONSER-
VATION DISTRICT OR OTHER AUTHORIZED AGENTS,
AS DEEMED NECESSARY."

Cy ... 10/23/85
SIGNATURE OF DEVELOPER DATE

RESPONSIBLE PERSONNEL CERTIFICATION

"I HEREBY CERTIFY THAT ANY RESPONSIBLE
PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT
WILL HAVE A CERTIFICATE OF ATTENDANCE FROM A
DEPARTMENT OF NATURAL RESOURCES APPROVED
TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT
AND EROSION BEFORE BEGINNING THE PROJECT."

Cy ... 10/23/85
SIGNATURE OF DEVELOPER DATE

CERTIFICATION BY THE ENGINEER

"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 PRE-
PARED IN ACCORDANCE WITH THE REQUIREMENTS OF
THE HOWARD SOIL CONSERVATION DISTRICT"

Charles P. ... 11/1/85
SIGNATURE OF ENGINEER DATE

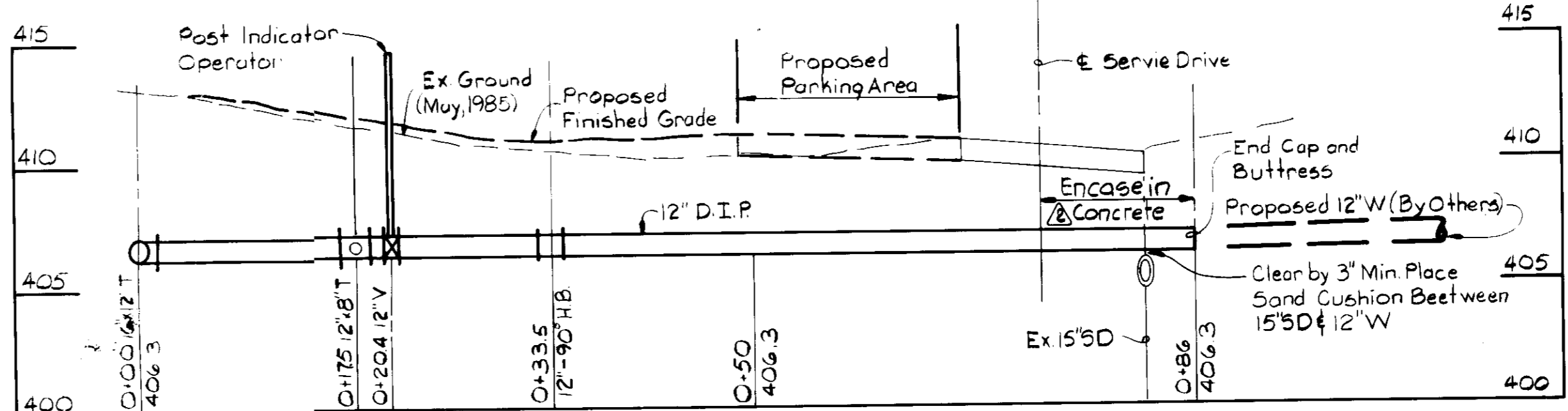
APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 12-3-85

THE JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY
HOWARD COUNTY, MARYLAND
WATER CONNECTION
HOWARD COUNTY METER TO EXISTING 12-INCH
JHU/APL DISTRIBUTION MAIN

MISCELLANEOUS PROFILES AND DETAILS

SCALE: AS SHOWN DATE: JULY, 1985
ELECTION DISTRICT NO 5 Sheet 4 of 6

SDP-86-106

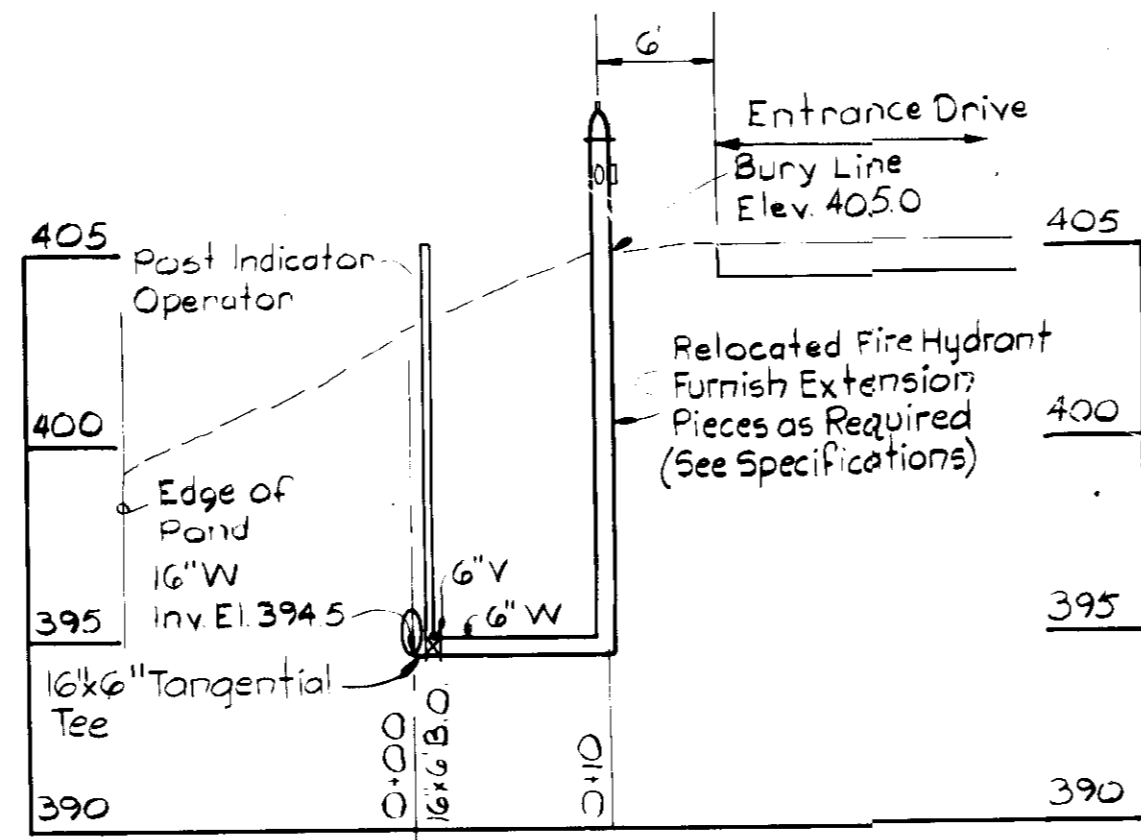


PROFILE 12" WATER
SCALE: HOR. 1"=10'
VERT. 1"=5'

- SEQUENCE OF CONSTRUCTION
1. NOTIFY THE HOWARD SOIL CONSERVATION DISTRICT AND THE HOWARD COUNTY BUREAU OF LICENSES, INSPECTIONS AND PERMITS 48 HOURS BEFORE ANY WORK BEGINS.
 2. INSTALL SILT FENCE.
 3. CONSTRUCT WATER MAIN.
 4. STRIP TOPSOIL FROM BOOSTER PUMPING STATION AND PARKING AREA SITE.
 5. CONSTRUCT BOOSTER PUMPING STATION, BY-PASS VAULT, AND PAVING.
 6. PERMANENTLY SEED AND STABILIZE NON-PAVED AREAS.
 7. REMOVE SEDIMENT CONTROL DEVICES.

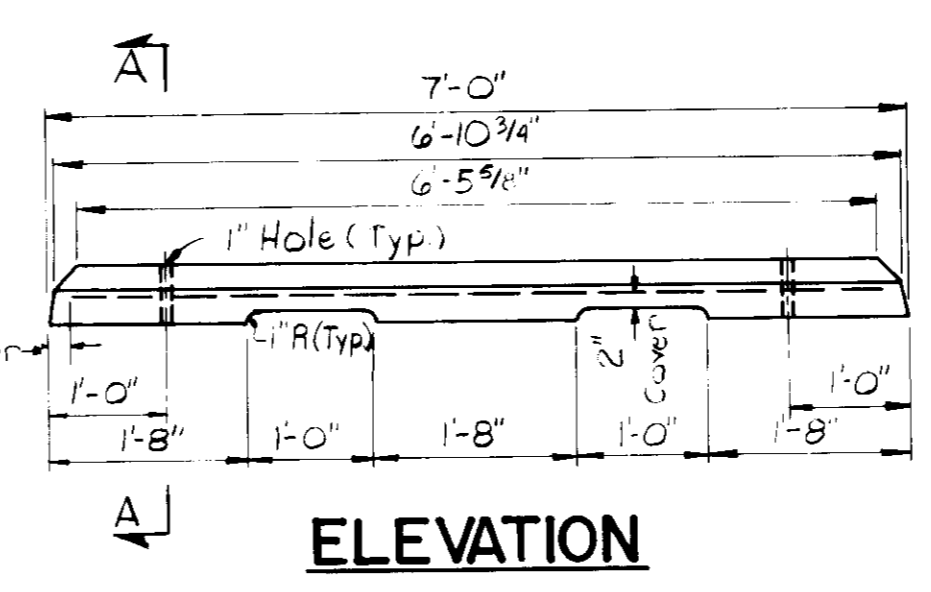
CONSTRUCTION SEQUENCE

OPERATION	TIME SCHEDULE
1. SEDIMENT CONTROL INSTALLATION.	----- MARCH, 1986.
2. WATER MAIN INSTALLATION.	----- MARCH TO MAY, 1986.
3. VAULT AND PAVING CONSTRUCTION.	----- MARCH TO JUNE, 1986.
4. PERMANENT SEEDING AND REMOVAL OF SEDIMENT CONTROL.	----- JUNE, 1986.

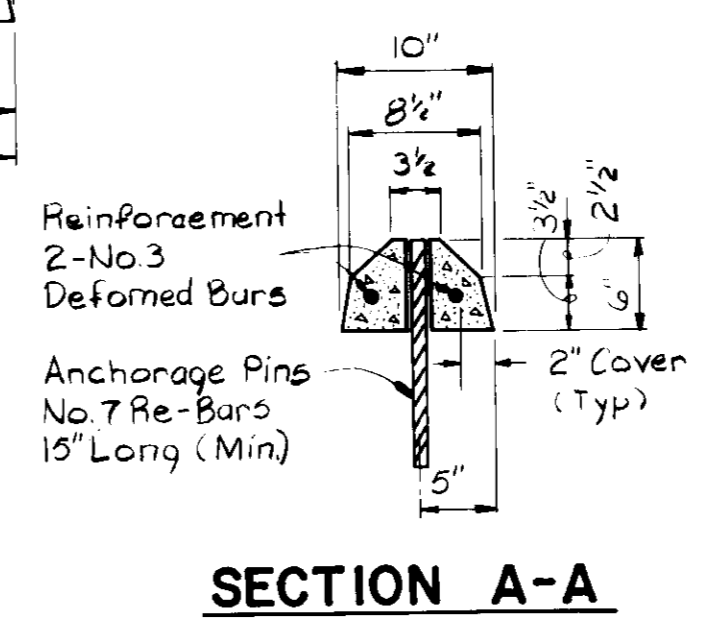


PROFILE BLOWOFF & RELOCATED
FIRE HYDRANT
SCALE: HOR. 1"=10'
VERT. 1"=5'

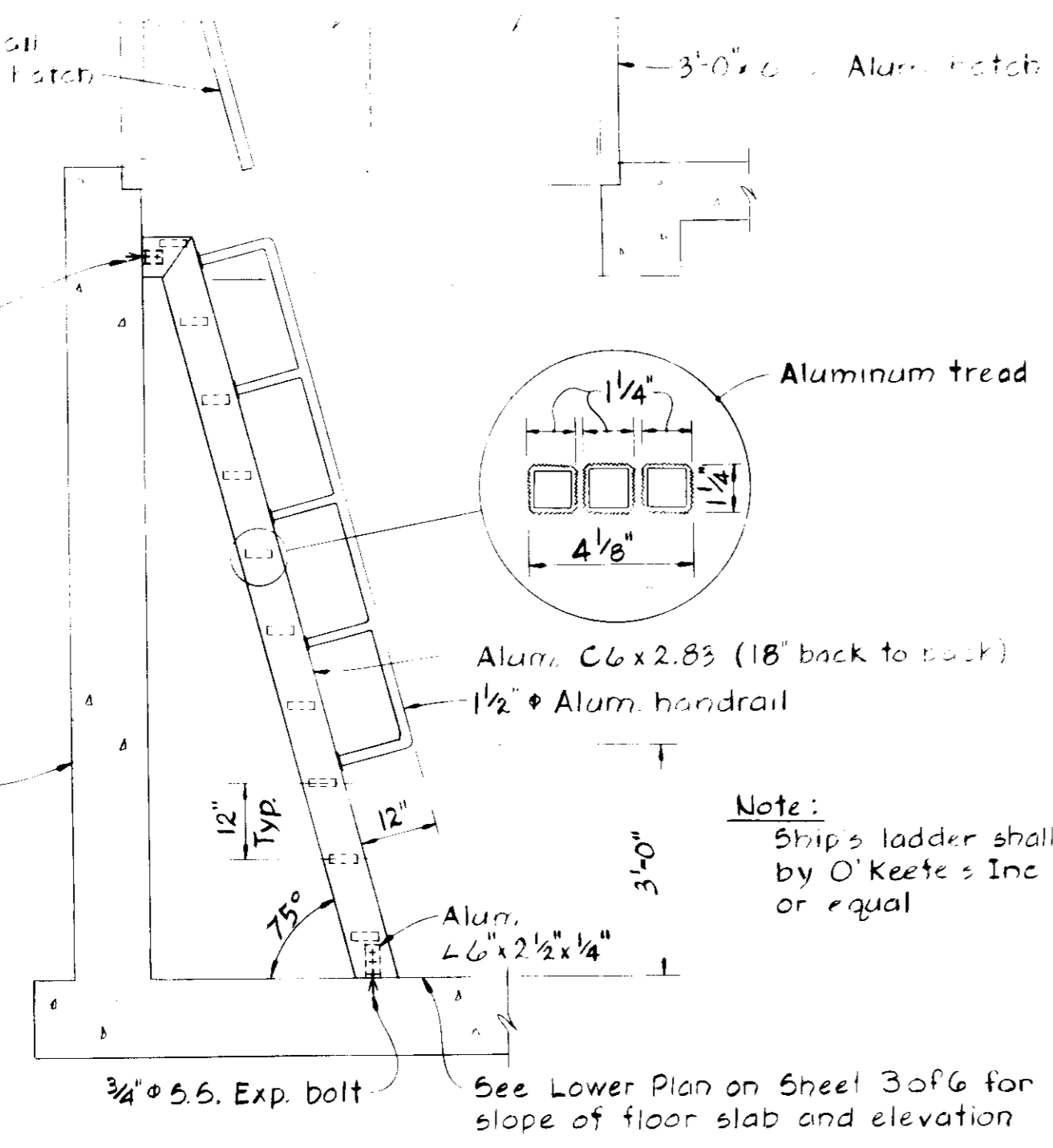
- SEDIMENT CONTROL NOTES
1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (992-2437).
 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. I, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
 5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
 7. SITE ANALYSIS:
TOTAL AREA OF SITE 366 . . ACRES.
AREA DISTURBED 0.40 . . ACRES.
AREA TO BE ROOFED OR PAVED 0.03 . . ACRES.
AREA TO BE VEGETATIVELY STABILIZED 0.37 . . ACRES.
TOTAL CUT 130 CU. YDS.
TOTAL FILL 50 CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION ON SITE. SEE PLANS.
 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPM SEDIMENT CONTROL INSPECTOR.
 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.



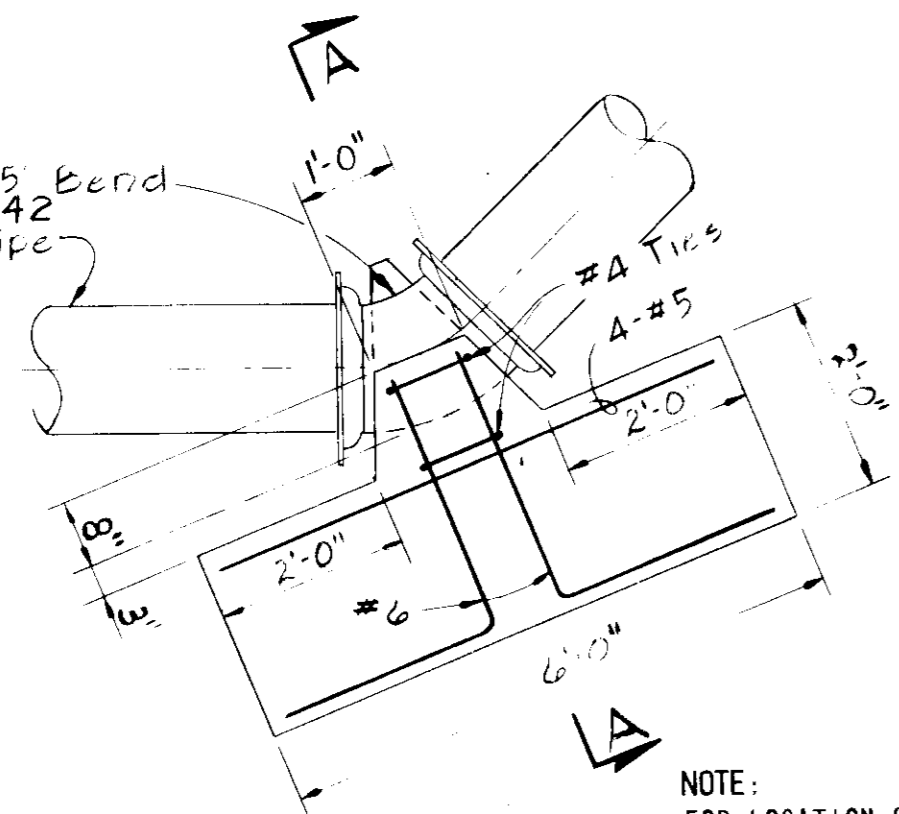
PRECAST CONCRETE
WHEEL STOP
SCALE: NONE



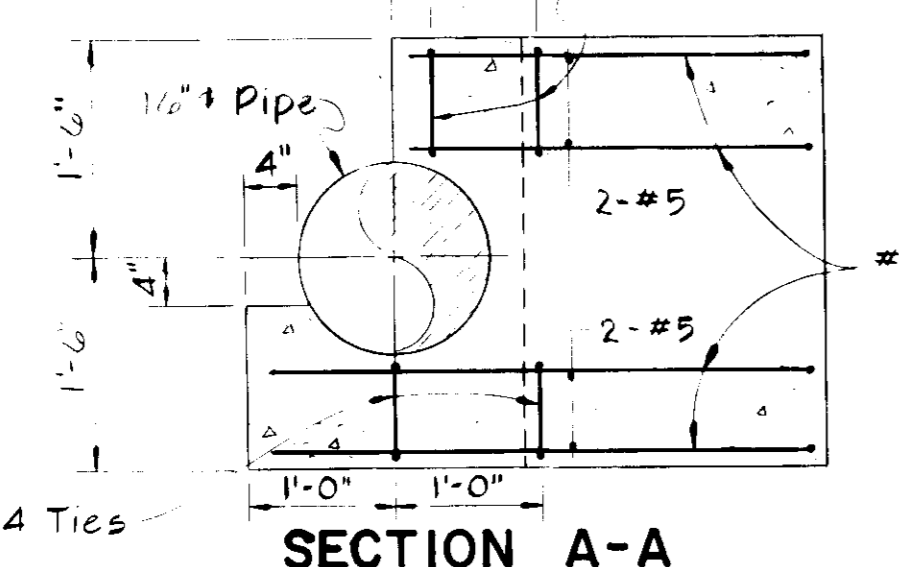
SECTION A-A



SHIPS LADDER DETAIL
SCALE 1/2"=1'-0"



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



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

BUTTRESS DETAILS



Charles P. ...
WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218

J.E.L.	ADD ENCASEMENT	3/3/86
BY	ADD COMPLETE ADDRESS	12/19/85
NO	REVISION	DATE

APPROVED FOR
PUBLIC WATER AND PUBLIC SEWER SYSTEMS
HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER DATE

APPROVED FOR PUBLIC SEWER AND
PUBLIC WATER SYSTEMS - HOWARD COUNTY
DEPARTMENT OF PUBLIC WORKS

Director DATE

CHIEF, BUREAU OF ENGINEERING DATE

APPROVED, HOWARD COUNTY OFFICE OF PLANNING
AND ZONING DATE

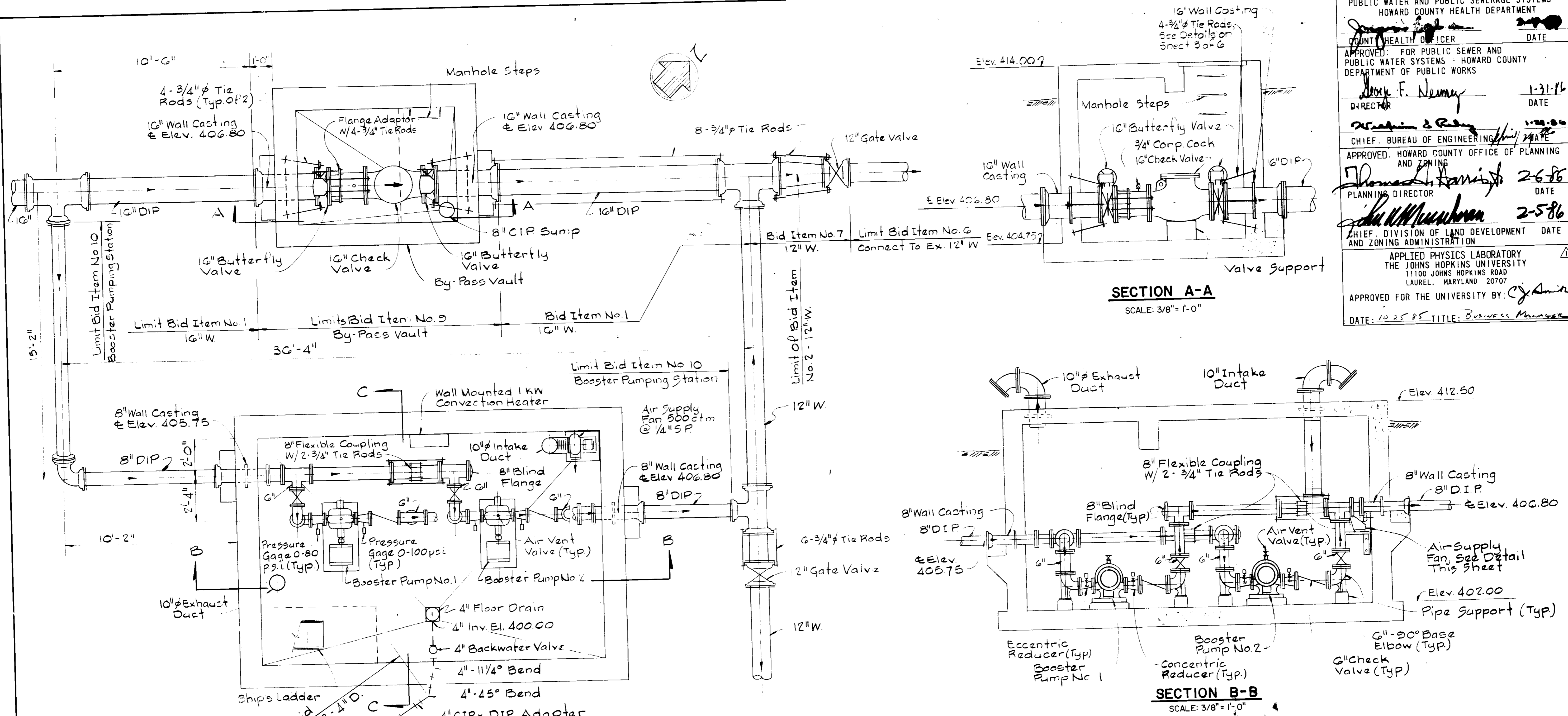
PLANNING DIRECTOR DATE

CHIEF, DIVISION OF LAND DEVELOPMENT
AND ZONING ADMINISTRATION DATE

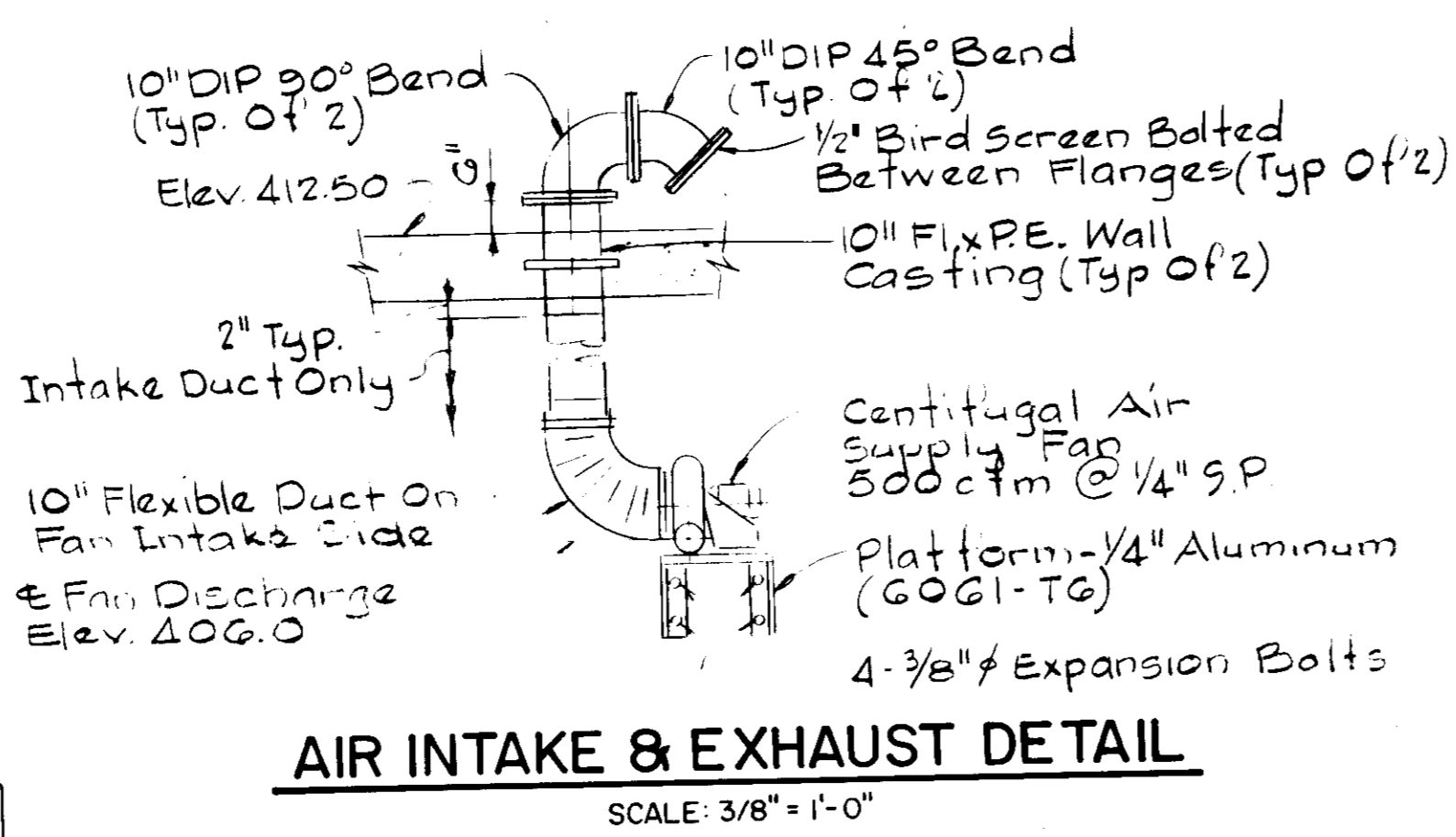
APPLIED PHYSICS LABORATORY
THE JOHNS HOPKINS UNIVERSITY
11100 JOHNS HOPKINS ROAD
LAUREL, MARYLAND 20707

APPROVED FOR THE UNIVERSITY BY: DATE

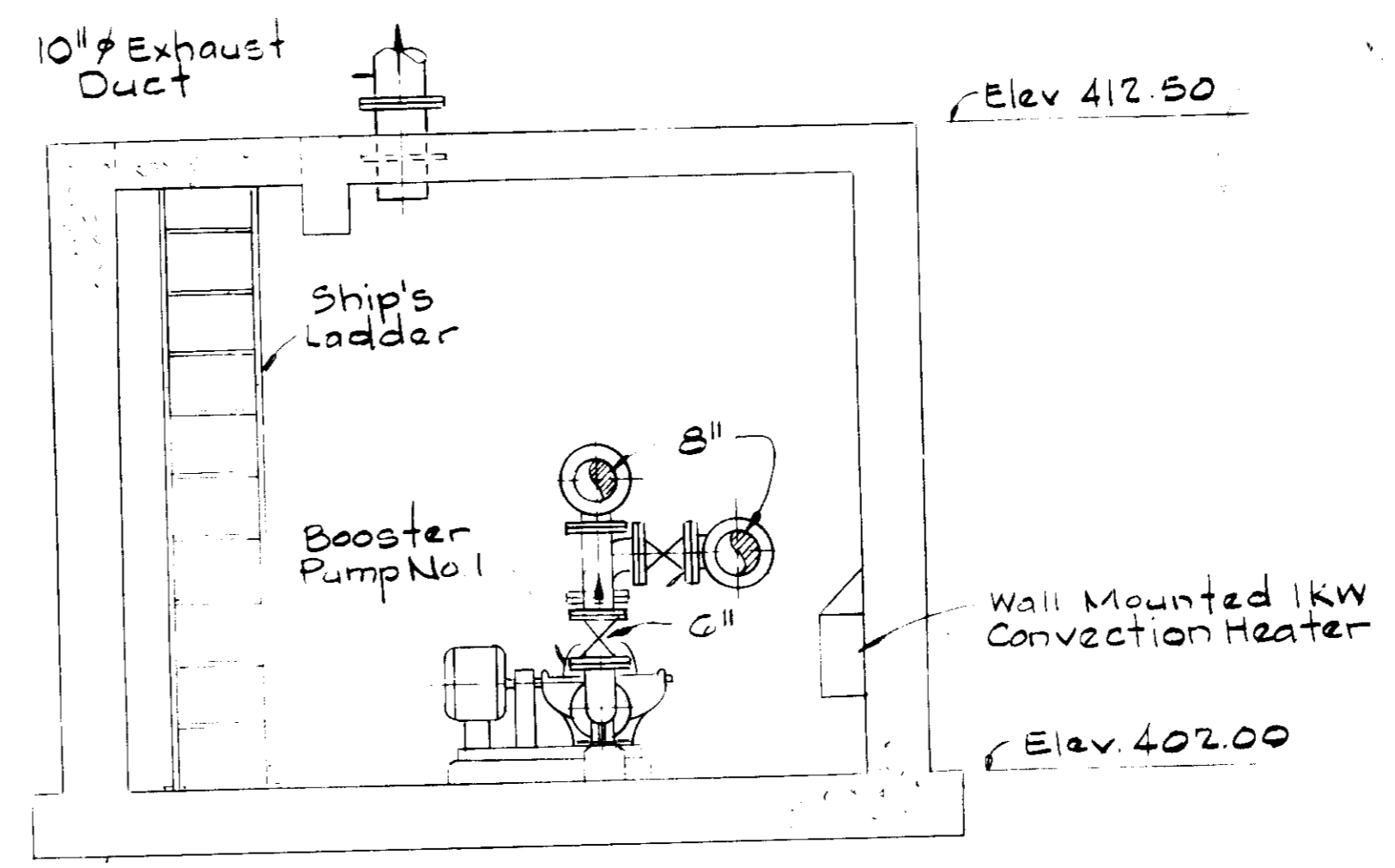
DATE: 10-25-85 TITLE: Business Manager



BOOSTER P.S. AND BY-PASS VAULT PLAN ELEV. 402.0
SCALE: 3/8" = 1'-0"



AIR INTAKE & EXHAUST DETAIL
SCALE: 3/8" = 1'-0"



SECTION C-C
SCALE: 3/8" = 1'-0"

- NOTES:**
- All Fittings shall be Buttress In Accordance With the Standard Details.
 - For Continuation of Pipe Lines, See Sheet 2 of 6.

APPROVED
DIVISION OF LAND DEVELOPMENT &
ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 12-3-85



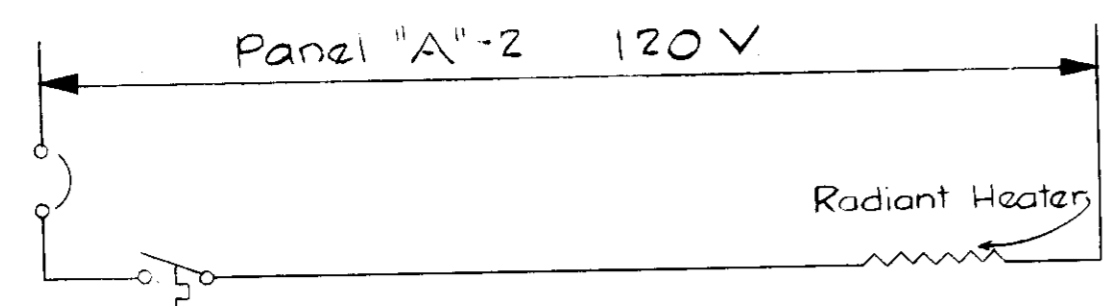
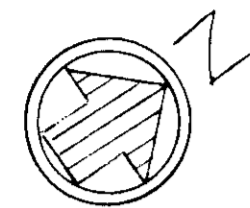
Whitman, Requardt and Associates
ENGINEERS
2315 SAINT PAUL STREET
BALTIMORE, MARYLAND 21218

BY	NO	ADD COMPLETE ADDRESS REVISION	DATE
			12/9/85

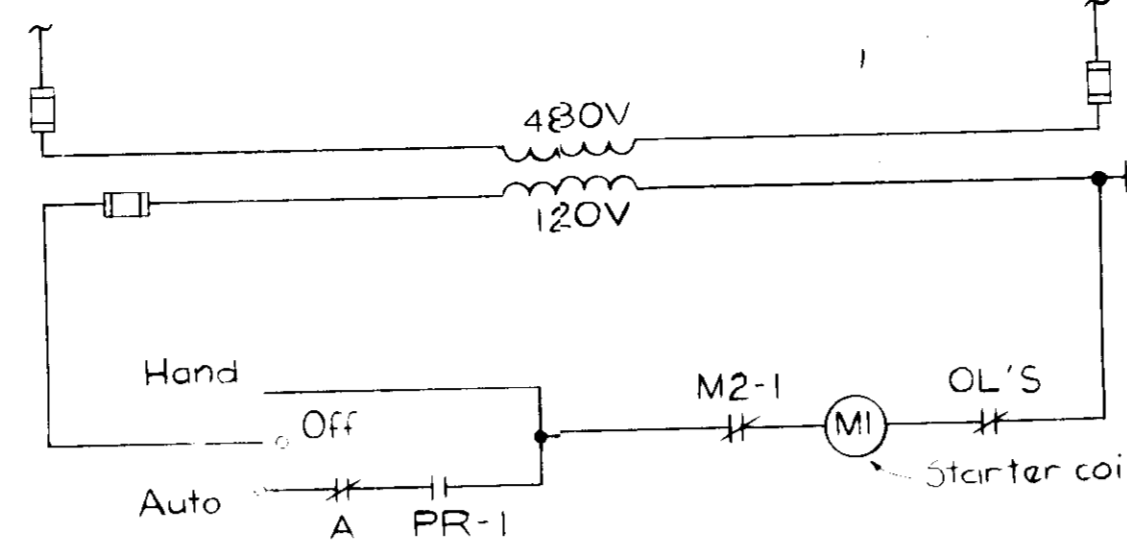
THE JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY
HOWARD COUNTY, MARYLAND
WATER CONNECTION
HOWARD COUNTY METER TO EXISTING 12-INCH
JHU/APL DISTRIBUTION MAIN

BOOSTER P.S. AND BY-PASS VAULT
MECHANICAL PLANS, SECTIONS, AND DETAILS
SCALE: AS SHOWN DATE: JULY, 1985
ELECTION DISTRICT NO. 5 Sheet 5 of 6

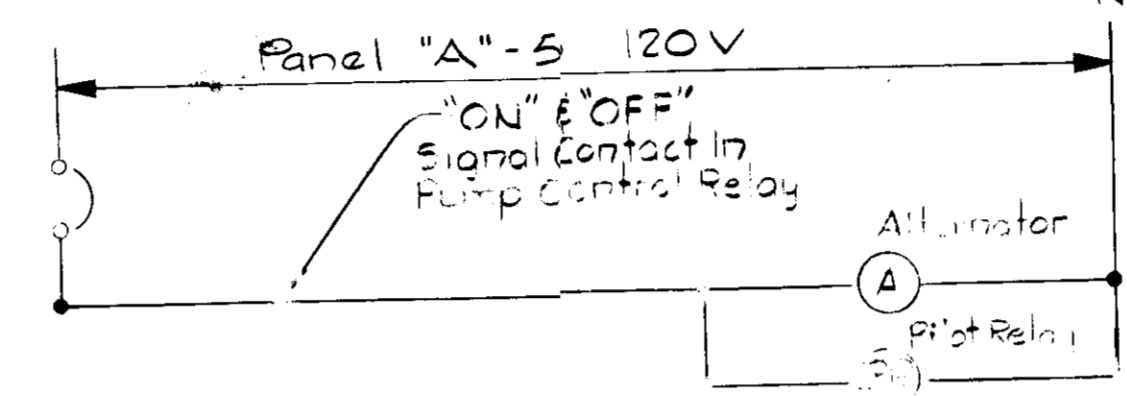
SDP-86-106



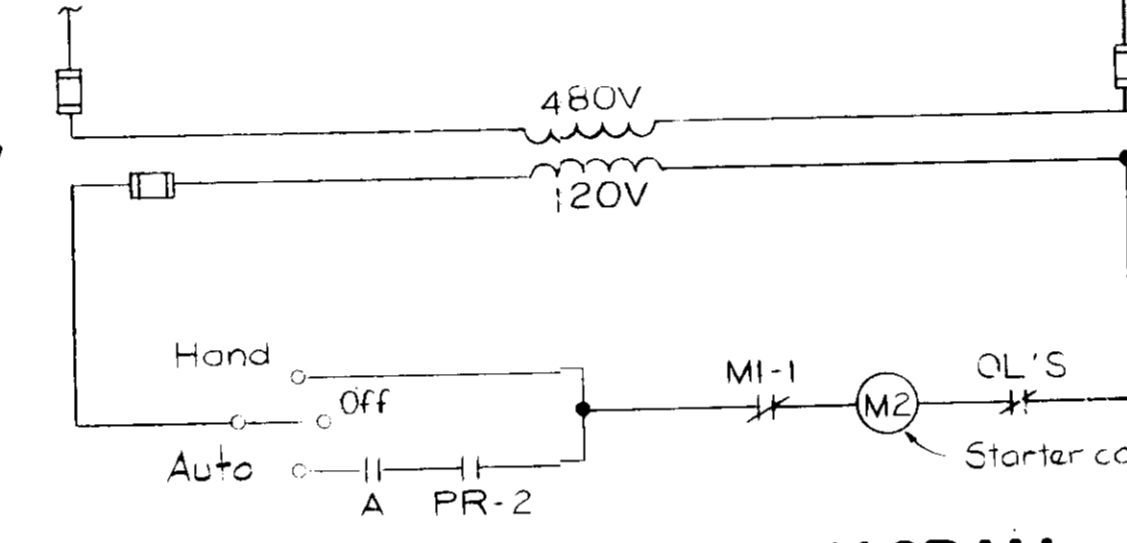
HEATER CONTROL



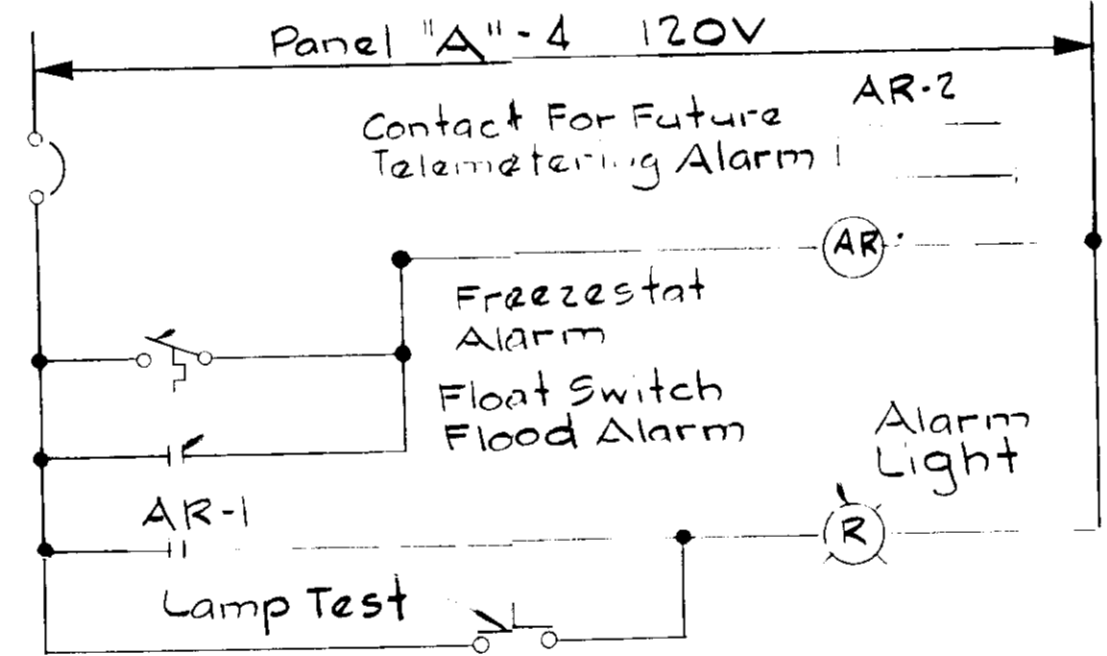
PUMP NO.1 CONTROL DIAGRAM



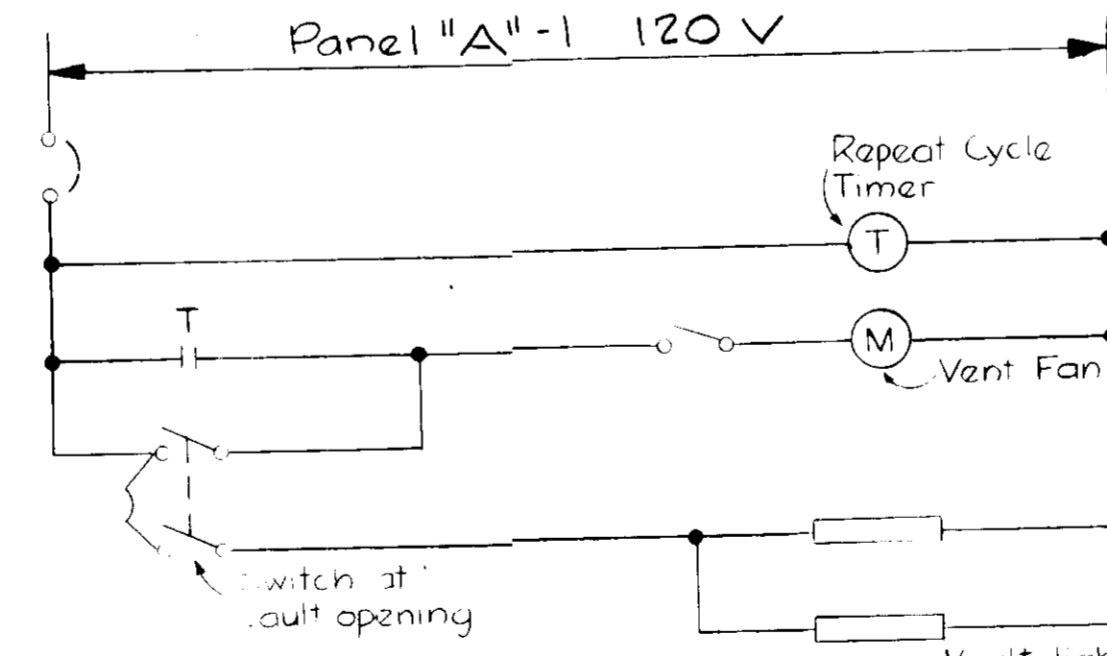
PUMP CONTROL



PUMP NO.2 CONTROL DIAGRAM



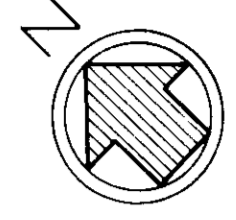
ALARM INDICATOR



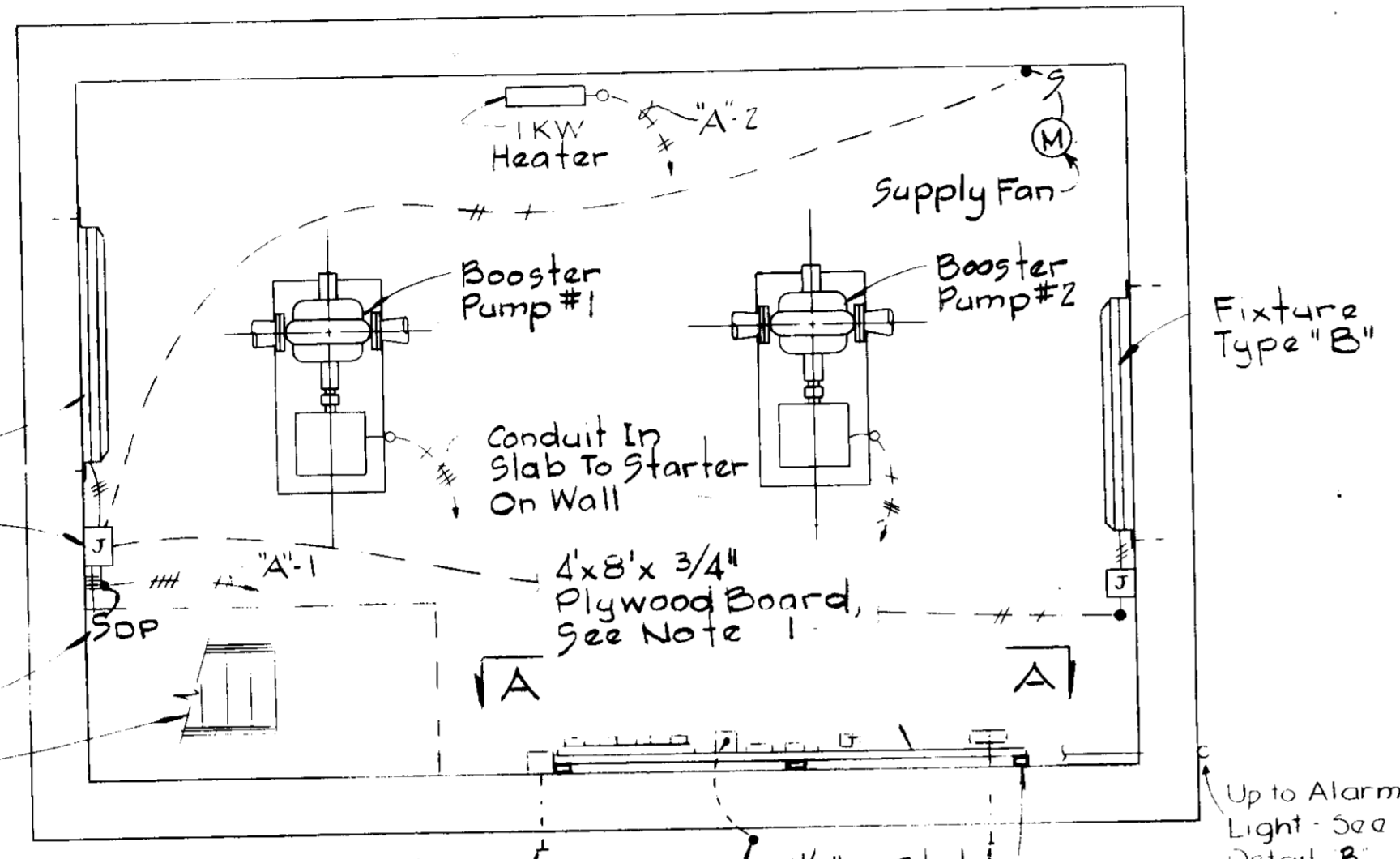
LIGHTING & VENT FAN CONTROL

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 PLANNING DIRECTOR: *Thomas J. Harris* DATE: 2-6-86
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: *Shirley M. Murrain* DATE: 2-5-86
 APPLIED PHYSICS LABORATORY THE JOHNS HOPKINS UNIVERSITY 11100 JOHNS HOPKINS ROAD LAUREL, MARYLAND 20707
 APPROVED FOR THE UNIVERSITY BY: *C. J. Smith*
 DATE: 12/2/85 TITLE: *Booster Pumps*

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: *[Signature]* DATE: *[Blank]*
 APPROVED FOR PUBLIC SEWER AND PUBLIC WATER SYSTEMS - HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: *Wayne F. Nemy* DATE: 1-31-86
 CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: *[Blank]*

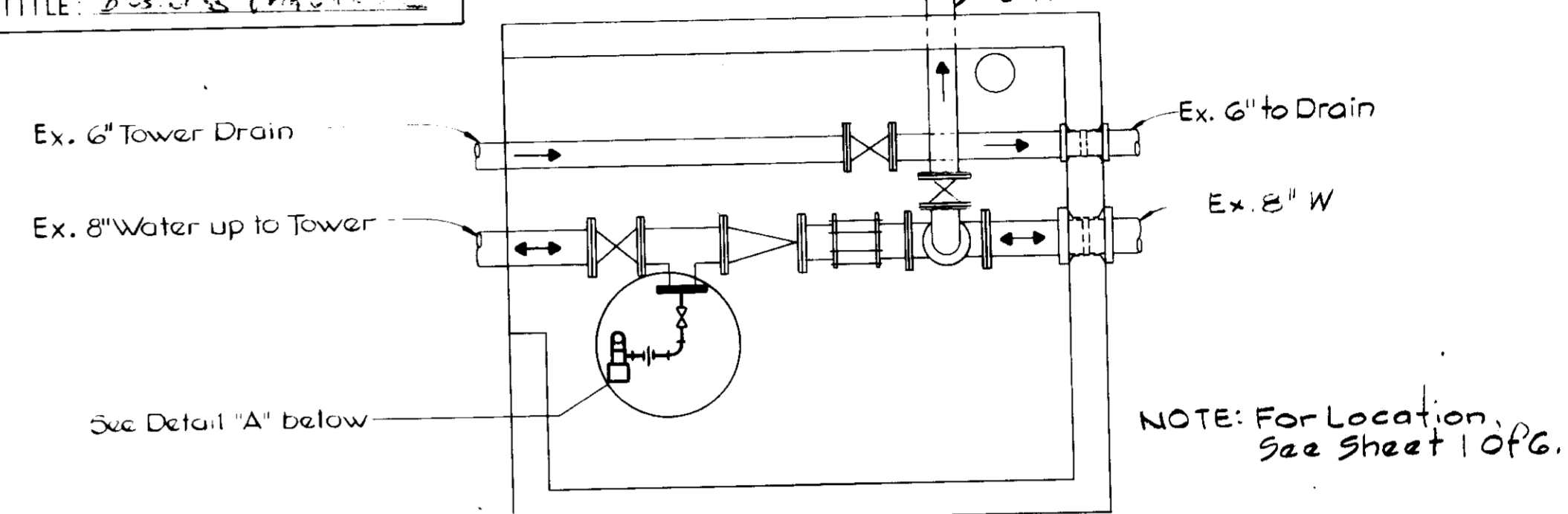


Fixture Type "B" Mounting Height 7'-0" Above Finished Floor (Typ), See Detail "C".
 Junction Box (Typ)
 Double Pole Switch Mount On Vert Face Of Opening In Top Slab By Ladder
 Ship's Ladder



BOOSTER PUMP VAULT PLAN

Scale: 3/8"=1'-0"

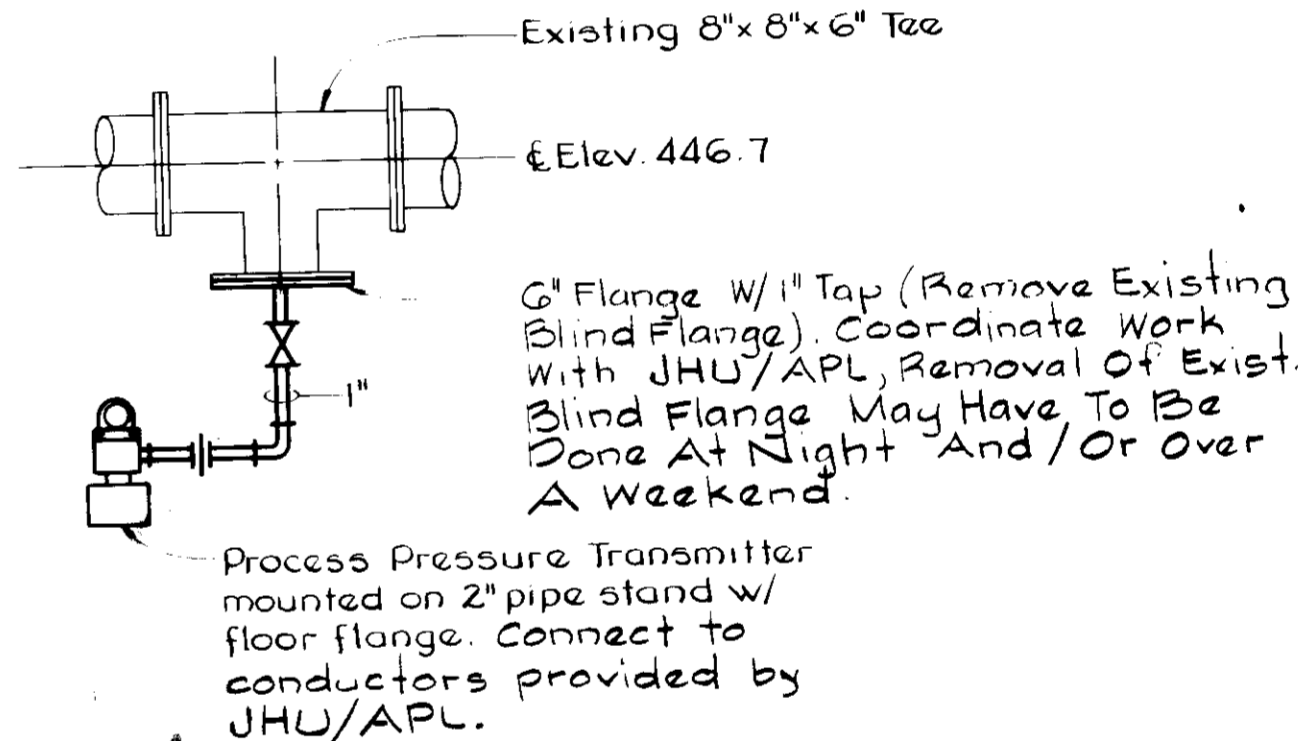


PLAN-VALVE PIT, WATER TOWER NO. 1

Scale: 3/8"=1'-0"

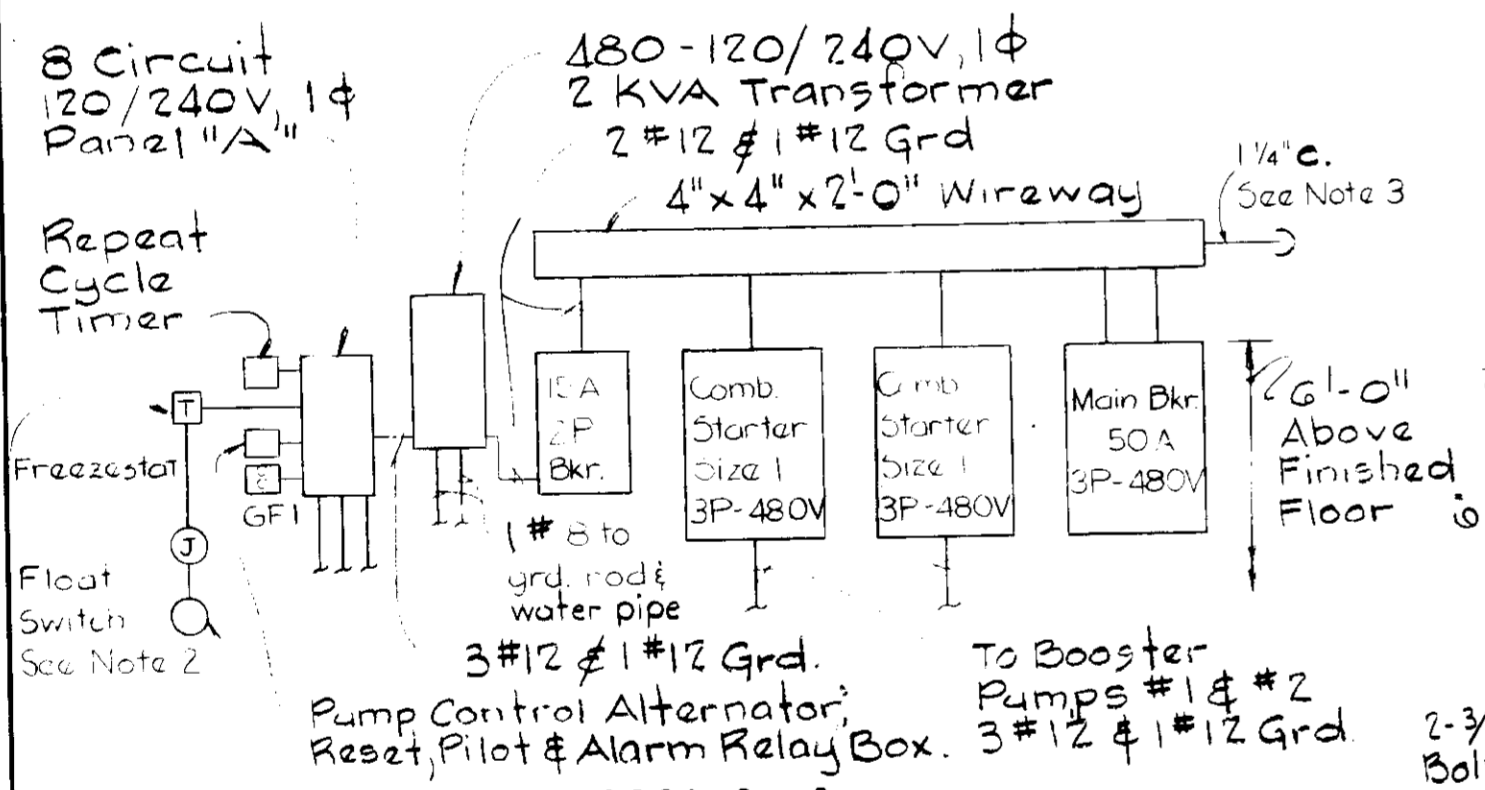
NOTES

1. Plywood shall be weatherproof type & painted black both sides prior to installation.
2. Install float switch from wall bracket so that switch will alarm when 1" of water is on floor.
3. Stub out conduits for power & signal 6 inches beyond Booster Pump Vault wall & cap off. Power & signal cables to be installed by Owner into main breaker & signal cabinets. Contractor to make all connections after cables are installed.

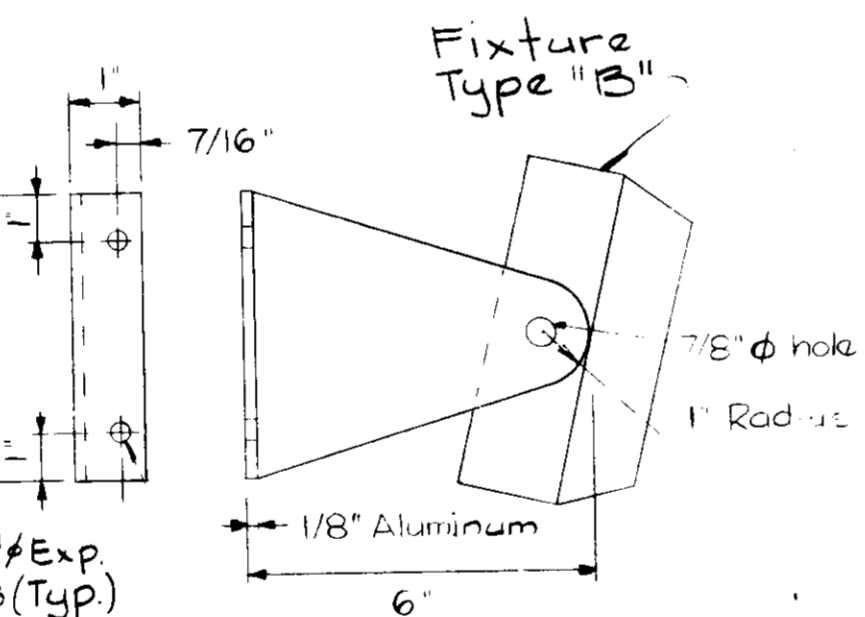


DETAIL "A"

Scale: 3/4"=1'-0"

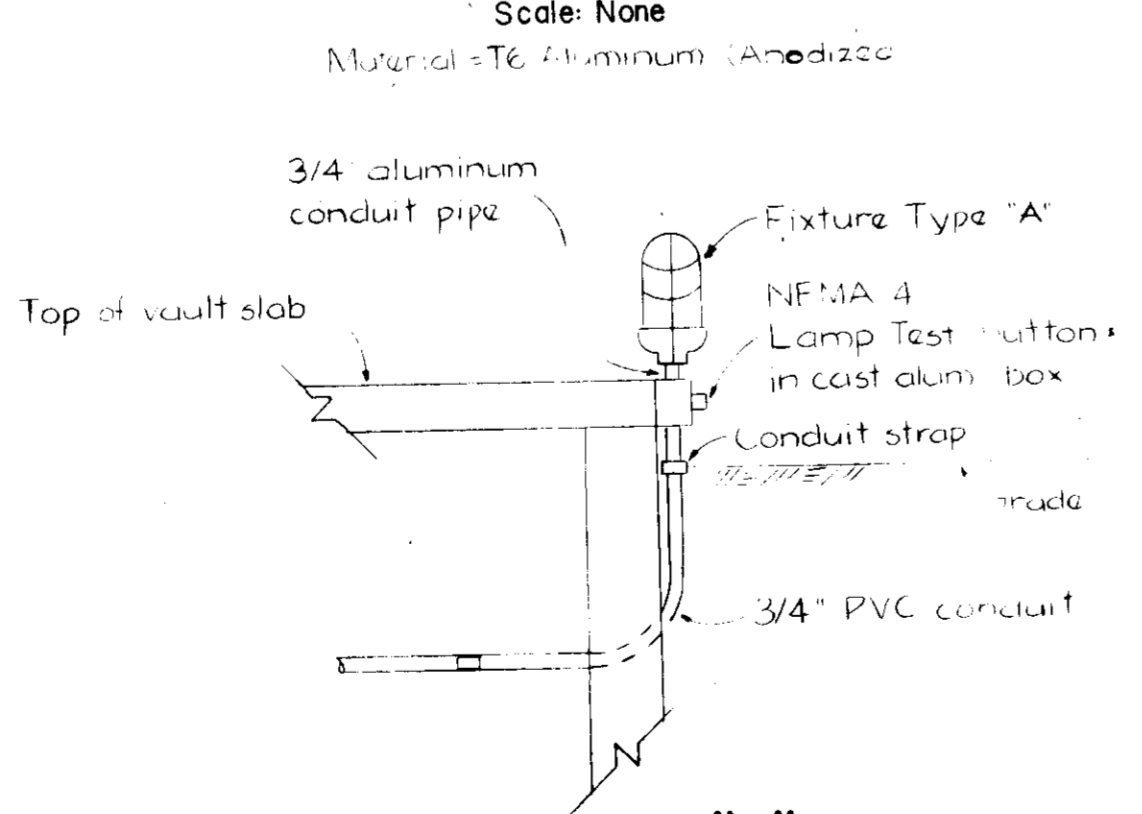


SECTION A-A



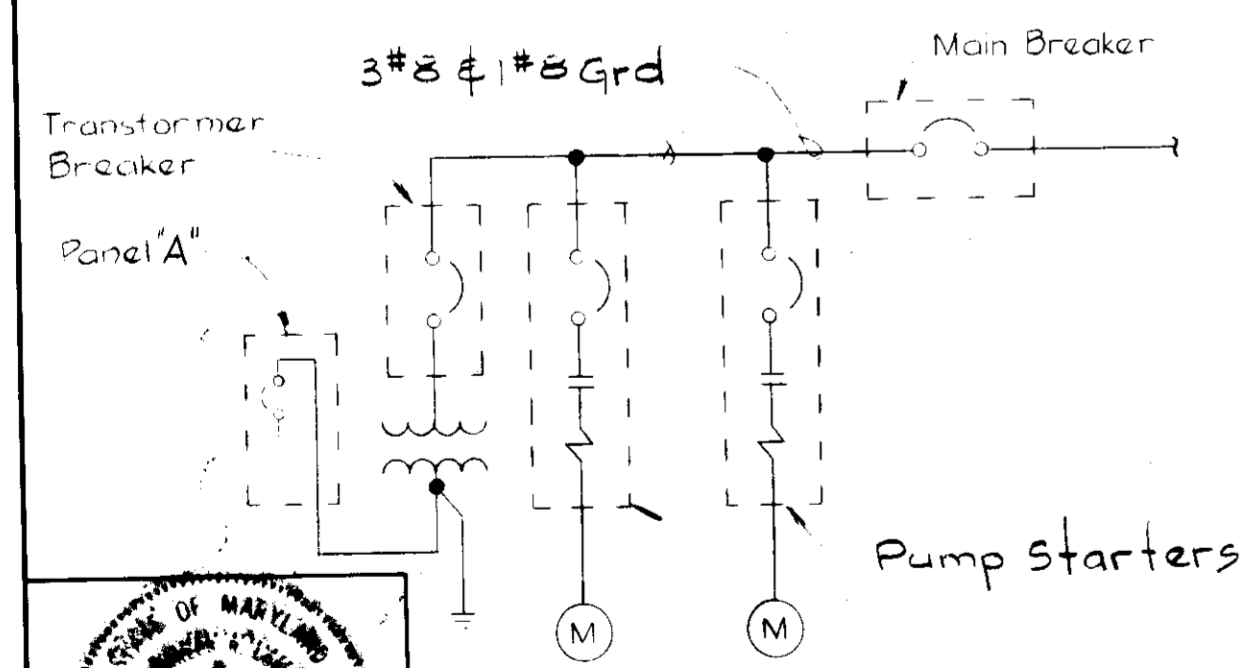
DETAIL "C"

Scale: None



DETAIL "B"

SCALE: NONE



ONE LINE DIAGRAM

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS
 2315 SAINT PAUL STREET BALTIMORE, MARYLAND 21218

BY	NO	ADD COMPLETE ADDRESS	12.19.85
		REVISION	DATE

W.O.80156

APPROVED
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
 HOWARD COUNTY, MARYLAND
 DATE: 12-3-85

THE JOHNS HOPKINS UNIVERSITY
 APPLIED PHYSICS LABORATORY
 HOWARD COUNTY, MARYLAND
 WATER CONNECTION
 HOWARD COUNTY METER TO EXISTING 12-INCH JHU/APL DISTRIBUTION MAIN

BOOSTER P.S.
 ELECTRICAL PLANS, SECTIONS, AND DETAILS
 SCALE: AS SHOWN DATE: JULY, 1985
 SHEET 6 OF 6

SDP-86-106