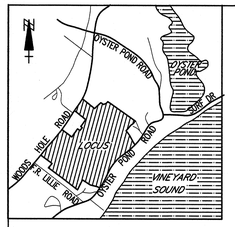
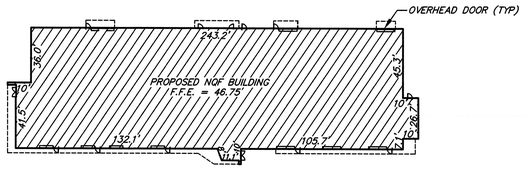
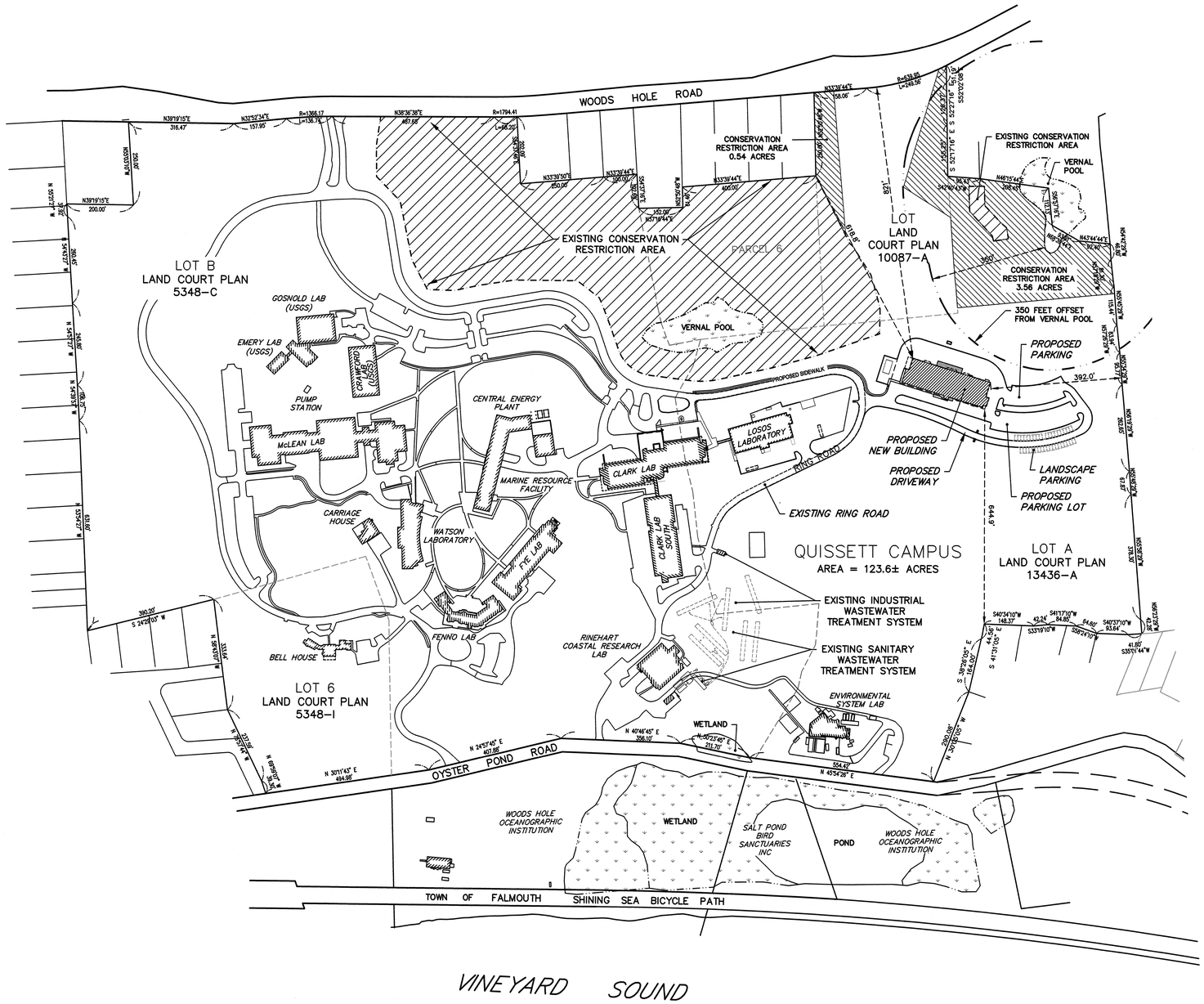


LOCUS MAP
NOT TO SCALE



PROPOSED NQF BUILDING
SCALE: 1" = 40'

MASS. COORDINATE SYSTEM - NAD83



NOTES

1. BUILDING NUMBER: 360 WOODS HOLE ROAD
2. ASSESSOR'S NUMBER: 50 04 000F 000, 50 04 000F 006
   50 06 009 000A, & 48 09 002 003
3. ZONING DISTRICT: PU & RA
4. FLOOD HAZARD ZONES: X
5. WIND EXPOSURE CATEGORY: C
6. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM-1988
7. REFERENCE: LAND COURT PLANS 5346, 13436, & 14258

SITE PLAN TABLE OF CONTENTS

COVER SHEET	SHEET C000
LAYOUT DESIGN	SHEET C001
EXISTING CONDITIONS PLAN	SHEET C002
GRADING AND DRAINAGE PLAN	SHEET C003
WASTEWATER DESIGN PLAN	SHEET C004
UTILITIES PLAN	SHEET C005
PLAN AND PROFILE	SHEET C006
CONSTRUCTION DETAILS	SHEET C007
CONSTRUCTION DETAILS	SHEET C008

GRAPHIC SCALE
150 75 0 150 450
(IN FEET)
1 inch = 150 ft.

DWG NO.: 88-6-89A JOB NO.: 219029

WOODS HOLE OCEANOGRAPHIC INSTITUTION
1930
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Landscape Architect

DSK Dewing Schmid Kearns
ARCHITECTS + PLANNERS
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978.371.7500
www.dskap.com

CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
3	10/9/19	ADD PARKING SPACES	LAC
2	9/30/19	ADD CON RESTRICTION AREA	LAC
1	9/10/19	ADD WALKWAY	LAC

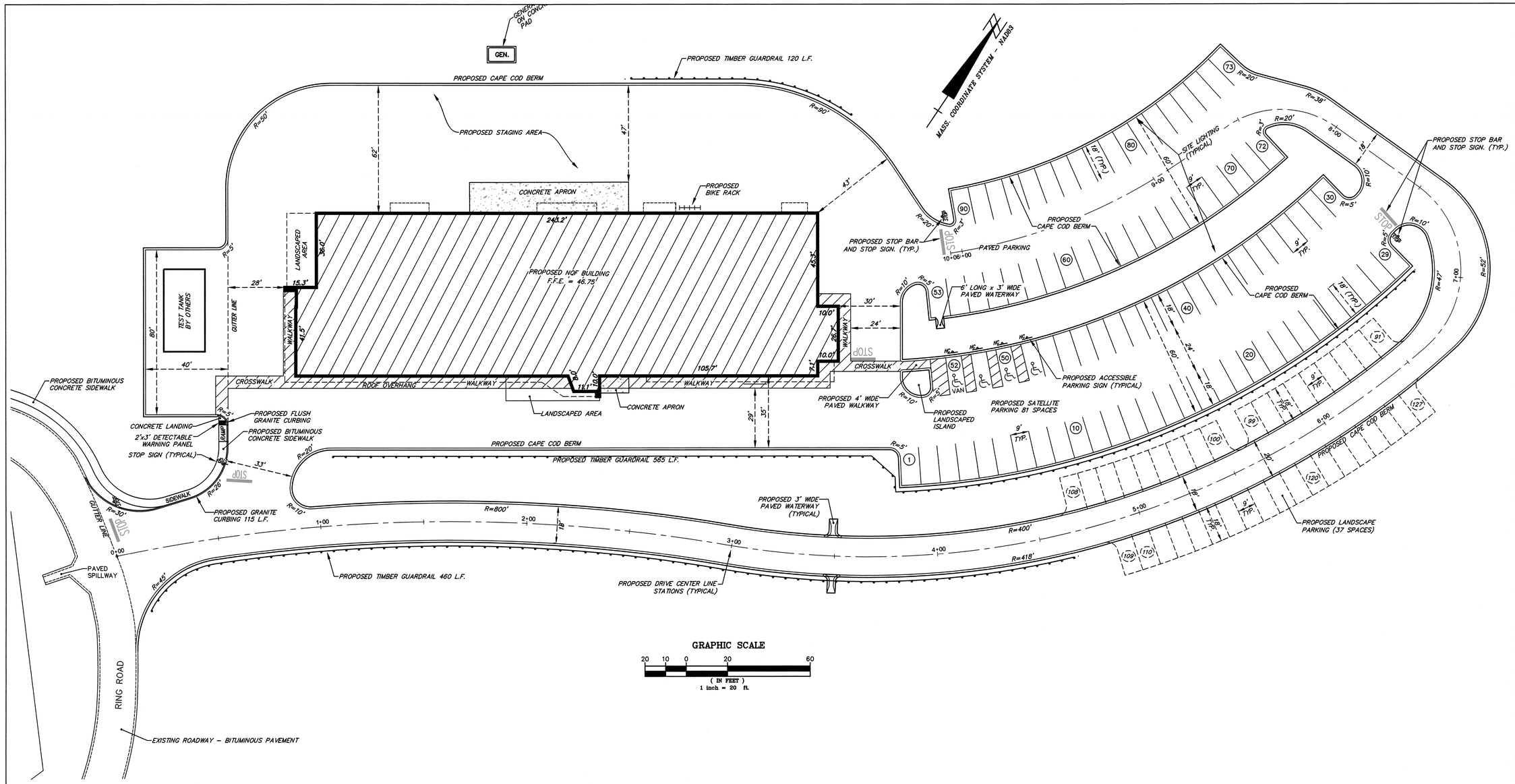
NO.	DATE	ISSUED TO	BY

TITLE
SITE PLAN
COVER SHEET

DATE 07/10/2019
SCALE 1" = 150'
JOB NO. 1747
DRAWN BY: LAC

C000

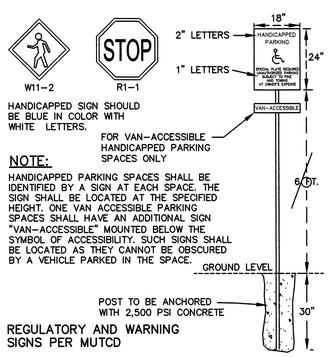
NOT FOR CONSTRUCTION



GRAPHIC SCALE

20 10 0 20 60

(IN FEET)
1 inch = 20 ft.



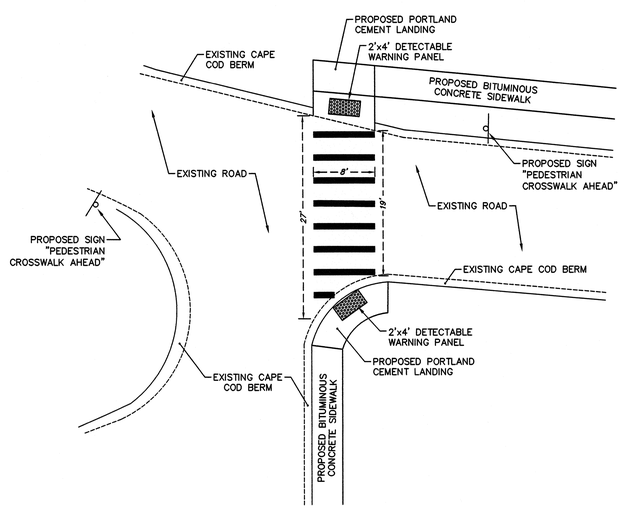
NOTE:

HANDICAPPED PARKING SPACES SHALL BE IDENTIFIED BY A SIGN AT EACH SPACE. THE SIGN SHALL BE LOCATED AT THE SPECIFIED HEIGHT. ONE VAN ACCESSIBLE PARKING SPACES SHALL HAVE AN ADDITIONAL SIGN "VAN-ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY. SUCH SIGNS SHALL BE LOCATED AS THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

REGULATORY AND WARNING SIGNS PER MUTCD

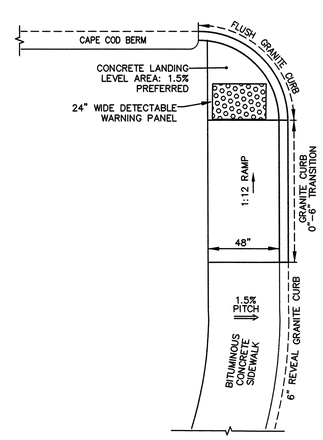
TYPICAL PARKING SIGNAGE DETAIL

SCALE: 1/2" = 1'



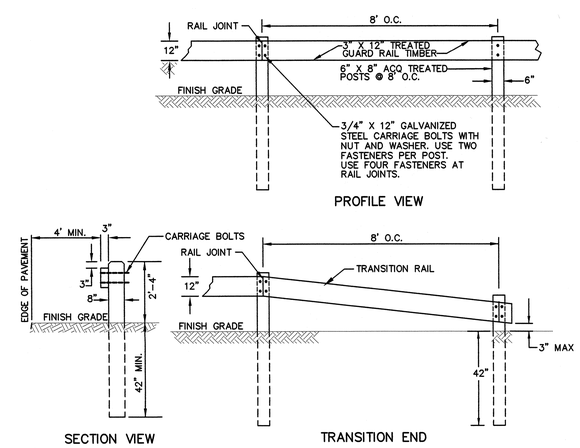
CROSSWALK MARKING PLAN DETAIL

NOT TO SCALE



TPYPICAL HANDICAP RAMP DETAIL

NOT TO SCALE



NOTES:

1. POSTS: 6"X8"X8'
2. RAILS: 3"X12"X16'
3. GALVANIZED NUTS & BOLTS 3/4"ø
4. POSTS TO BE SET 3'-6" INTO GROUND
5. POST ℄ SPACING TO BE 8'

GUARD RAIL DETAIL

NOT TO SCALE

DWG NO.: 88-6-89A JOB NO.: 219029

WOODS HOLE OCEANOGRAPHIC INSTITUTION
1930

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NEW QUISSETT FACILITY

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CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
3	10/9/19	ADD ADDITIONAL PARKING	LAC
2	9/10/19	ADD CROSSWALK/WALKWAY	LAC
1	7/16/19	DETECTABLE WARNING PANEL	LAC

NO.	DATE	ISSUED TO	BY

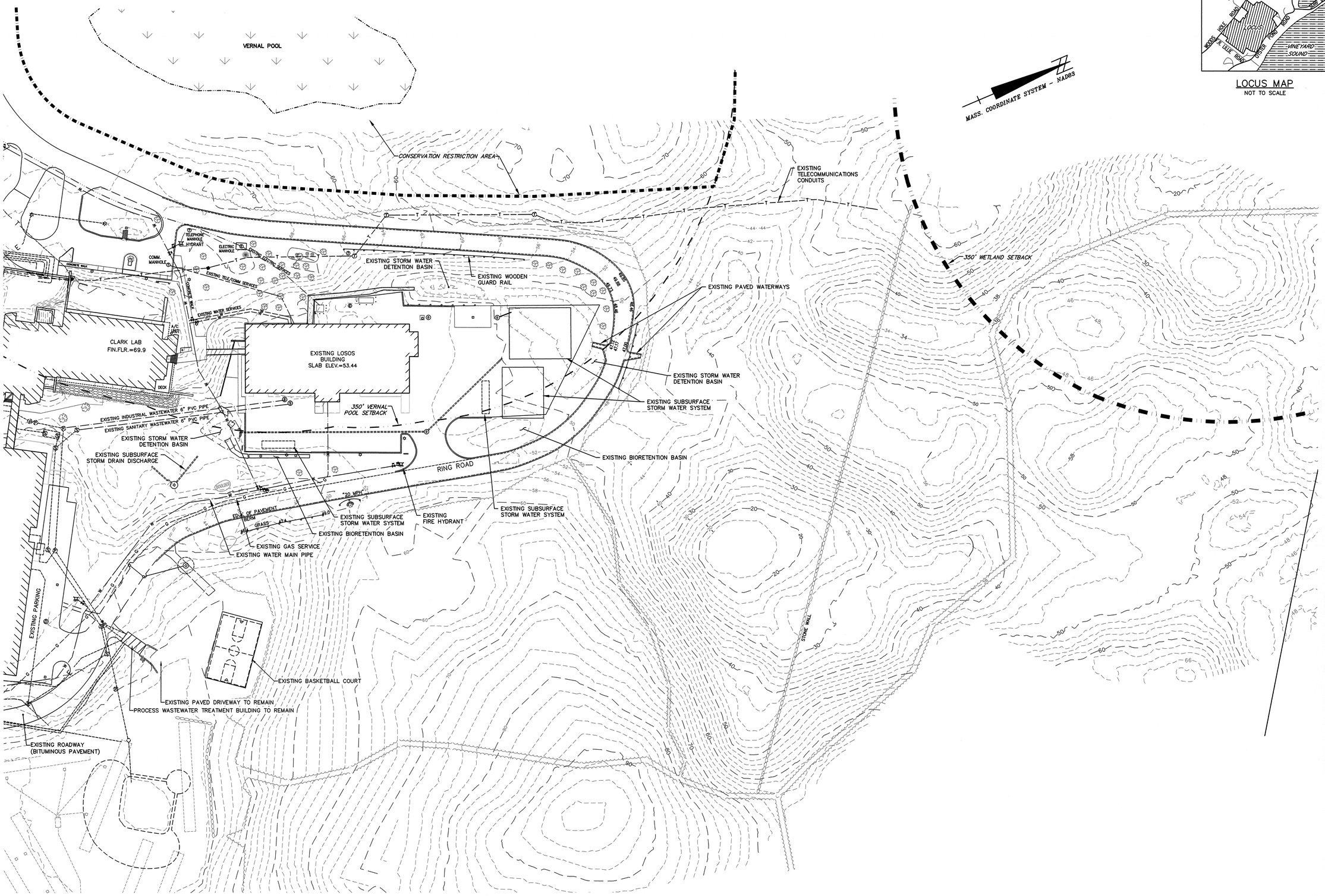
TITLE

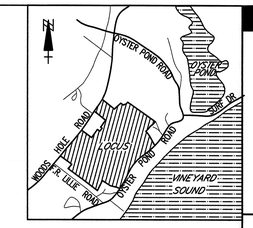
SITE PLAN
LAYOUT DESIGN

DATE 07/10/2019
SCALE 1" = 20'
JOB NO. 1747
DRAWN BY: LAC

C001

NOT FOR CONSTRUCTION





LOCUS MAP
NOT TO SCALE

GRAPHIC SCALE
40 20 0 40 120
(IN FEET)
1 inch = 40 ft.

NOTES

1. BUILDING NUMBER: 360 WOODS HOLE ROAD
2. ASSESSOR'S NUMBER: 50 04 000F 000, 50 04 000F 006 & 50 06 009 000A
3. ZONING DISTRICT: PU & RA
4. FLOOD HAZARD ZONES: ZONE X
5. WIND EXPOSURE CATEGORY: C
6. ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM-1988

DWG NO.: 88-6-89A JOB NO.: 219029

WOODS HOLE OCEANOGRAPHIC INSTITUTION
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CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
1	10/9/19	ADD EDGE OF CLEARING	LAC

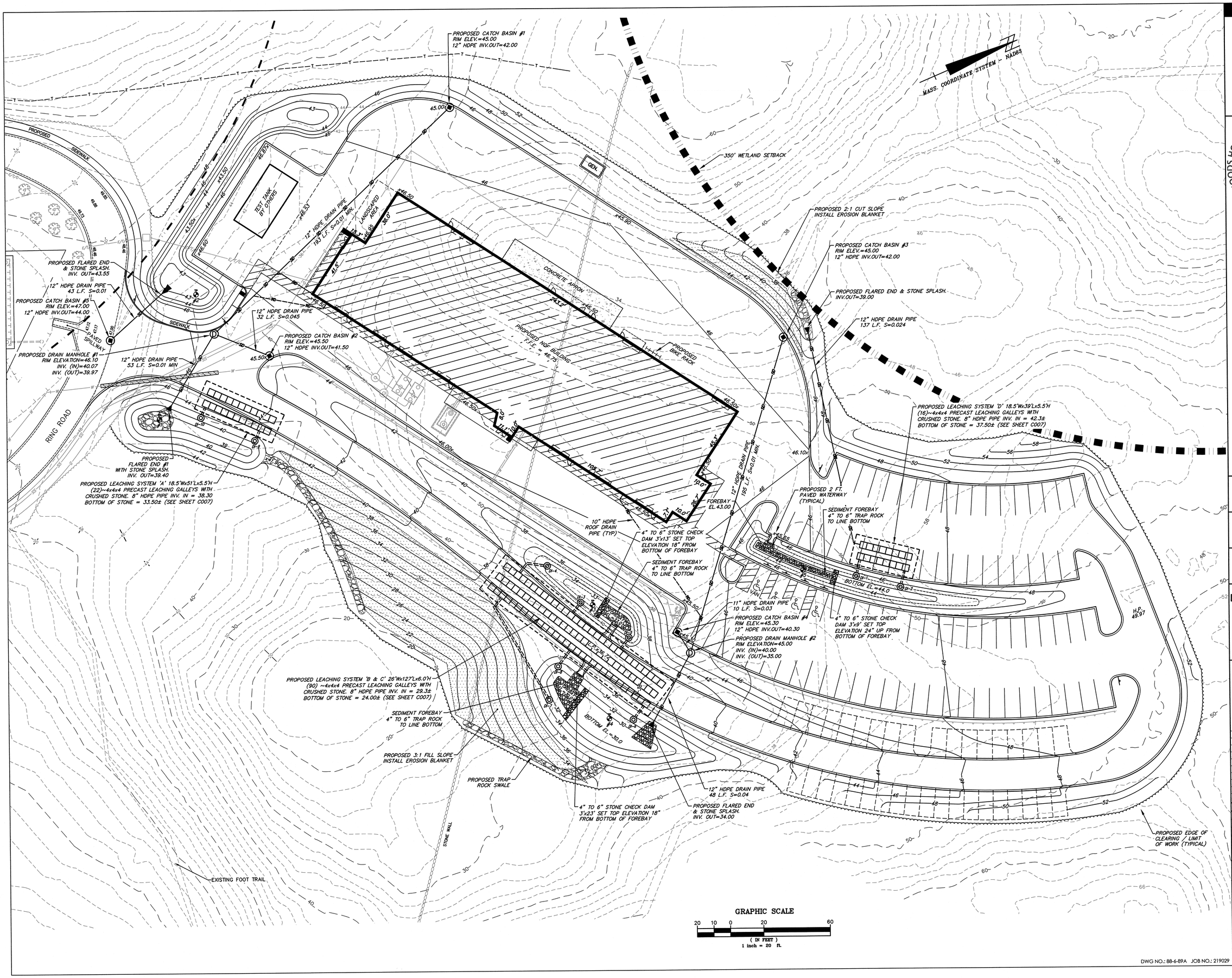
NO.	DATE	ISSUED TO	BY

TITLE
SITE PLAN
EXISTING CONDITIONS

DATE 07/10/2019
SCALE 1" = 40'
JOB NO. 1747
DRAWN BY: LAC

C002

NOT FOR CONSTRUCTION



DWG NO.: 88-6-89A JOB NO.: 219029

WOODS HOLE OCEANOGRAPHIC INSTITUTION
1930
86 Water Street
Woods Hole, MA 02543

QUISSETT CAMPUS SITEWORK

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www.dskap.com

CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
4	10/9/19	UPDATE UTILITIES, SIDEWALK	LAC
3	9/10/19	ADD ADDITIONAL PARKING	LAC
2	9/10/19	ADD CROSSWALK/WALKWAY	LAC
1	8/16/19	UPDATE RAIN GARDENS	LAC

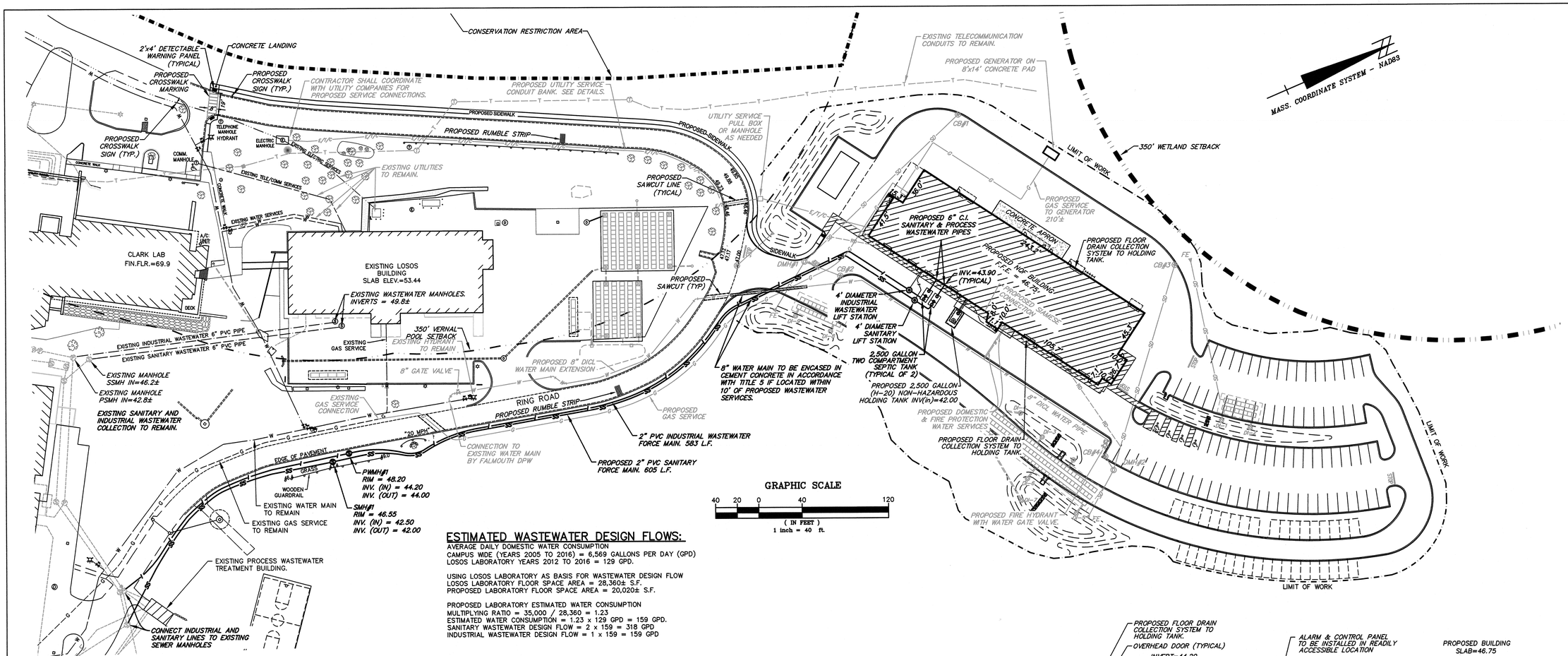
NO.	DATE	ISSUED TO	BY

TITLE
SITE PLAN GRADING & DRAINAGE

DATE 07/10/2019
SCALE 1" = 20'
JOB NO. 1747
DRAWN BY: RLR

C003

NOT FOR CONSTRUCTION

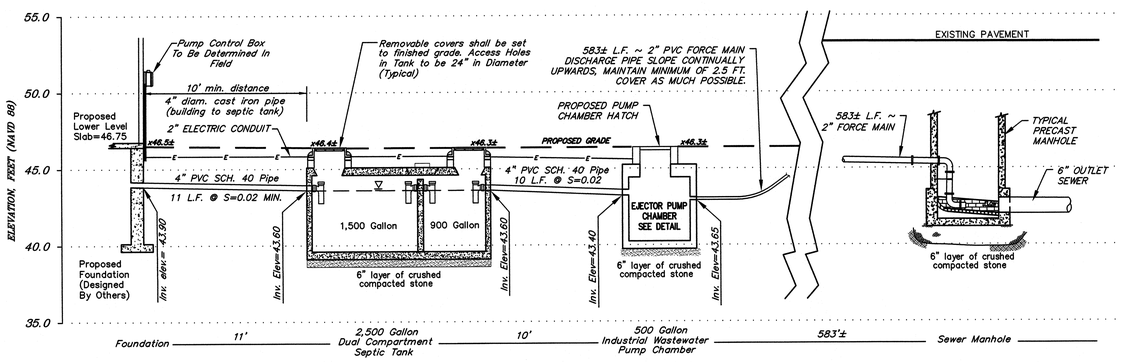


ESTIMATED WASTEWATER DESIGN FLOWS:

AVERAGE DAILY DOMESTIC WATER CONSUMPTION
CAMPUS WIDE (YEARS 2005 TO 2016) = 6,569 GALLONS PER DAY (GPD)
LOSOS LABORATORY YEARS 2012 TO 2016 = 129 GPD.

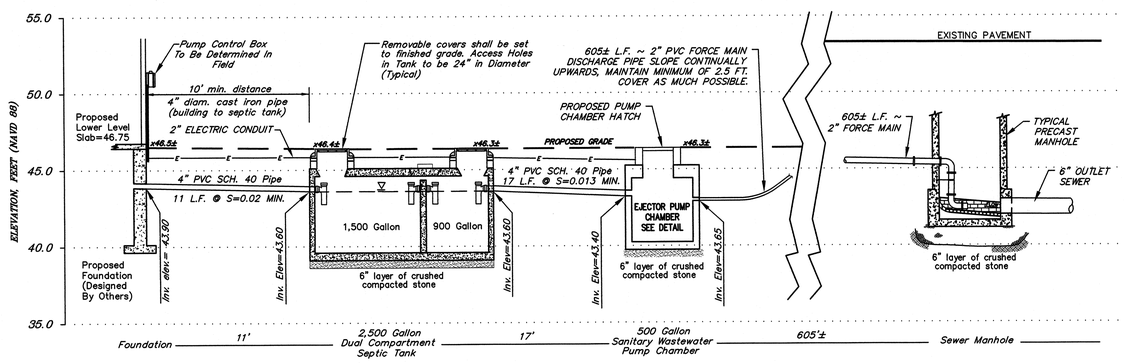
USING LOSOS LABORATORY AS BASIS FOR WASTEWATER DESIGN FLOW
LOSOS LABORATORY FLOOR SPACE AREA = 28,360± S.F.
PROPOSED LABORATORY FLOOR SPACE AREA = 20,020± S.F.

PROPOSED LABORATORY ESTIMATED WATER CONSUMPTION
MULTIPLYING RATIO = 35,000 / 28,360 = 1.23
ESTIMATED WATER CONSUMPTION = 1.23 x 129 GPD = 159 GPD.
SANITARY WASTEWATER DESIGN FLOW = 2 x 159 = 318 GPD
INDUSTRIAL WASTEWATER DESIGN FLOW = 1 x 159 = 159 GPD



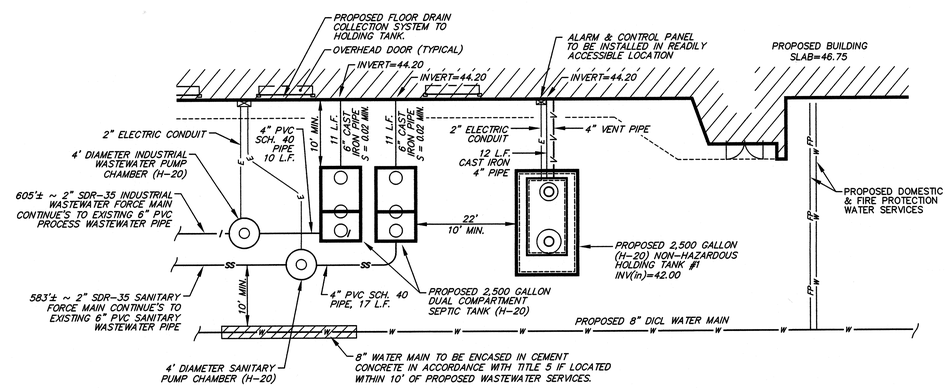
INDUSTRIAL WASTEWATER COLLECTION SYSTEM PROFILE

SCALE: 1/4" = 1'



SANITARY WASTEWATER COLLECTION SYSTEM PROFILE

SCALE: 1/4" = 1'



WASTEWATER COLLECTION SYSTEM DETAIL

SCALE: 1" = 10'

PUMP CALCULATIONS: INDUSTRIAL WASTEWATER

DESIGN FLOW =			300	GPD
REQUIRED DOSE VOLUME: (310 CMR 15.254 (1)(d))				
= 4 DOSES PER DAY = (300 GPD / 4 DOSES A DAY) =			75	GALLONS
TOTAL DYNAMIC HEAD:				
STATIC HEAD:				
PROPOSED SEWER MANHOLE INVERT ELEVATION, T inv = 44.2±				
PUMP CHAMBER PUMPS OFF ELEVATION, C bot =			38.10	
STATIC HEAD, Hs = (T inv – C bot) =			6.10	FT.
FRICTION LOSSES:				
MINOR LOSSES (FITTINGS) EQUIVALENT PIPE LENGTH:				
	NO.	EQ. LENGTH/FITTING		EQ. LENGTH
TEE	1	12	=	12 FT.
CHECK VALVE	1	14	=	14 FT.
ELBOW	10	5.5	=	55 FT.
GATE VALVE	1	1.25	=	1.25 FT.
SWEEP	10	3.5	=	35 FT.
EQUIVALENT LENGTH FROM FITTINGS, Lf =				117.3 FT.
DELIVERY PIPE (FORCE MAIN) LENGTH, L =				583 FT.
TOTAL EQUIVALENT LENGTH OF PIPE, Lt = L + Lf =				700.3 FT.
FRICTION TOTAL HEAD LOSS, Hf =				5.60 FT.
TOTAL DYNAMIC HEAD				13 FT.
PUMP REQUIREMENTS:				
FLOW (GPM) 25 GPM				
TDH (FEET) 20 FT.				
PUMP SELECTION:				
MYER GRINDER PUMP MODEL WHR5, 1/2 HP. OR APPROVED EQUAL (2" VERTICAL DISCHARGE), 2 PUMPS REQUIRED CONTRACTOR SHALL SUPPLY ENGINEER WITH PUMP CURVE AND SPECS. PRIOR TO INSTALLATION FOR APPROVAL.				

PUMP CALCULATIONS: SANITARY WASTEWATER

DESIGN FLOW =			300	GPD
REQUIRED DOSE VOLUME: (310 CMR 15.254 (1)(d))				
= 4 DOSES PER DAY = (300 GPD / 4 DOSES A DAY) =			75	GALLONS
TOTAL DYNAMIC HEAD:				
STATIC HEAD:				
PROPOSED SEWER MANHOLE INVERT ELEVATION, T inv = 42.5±				
PUMP CHAMBER PUMPS OFF ELEVATION, C bot =			38.10	
STATIC HEAD, Hs = (T inv – C bot) =			4.40	FT.
FRICTION LOSSES:				
MINOR LOSSES (FITTINGS) EQUIVALENT PIPE LENGTH:				
	NO.	EQ. LENGTH/FITTING		EQ. LENGTH
TEE	1	12	=	12 FT.
CHECK VALVE	1	14	=	14 FT.
ELBOW	10	5.5	=	55 FT.
GATE VALVE	1	1.25	=	1.25 FT.
SWEEP	10	3.5	=	35 FT.
EQUIVALENT LENGTH FROM FITTINGS, Lf =				117.3 FT.
DELIVERY PIPE (FORCE MAIN) LENGTH, L =				605 FT.
TOTAL EQUIVALENT LENGTH OF PIPE, Lt = L + Lf =				722.3 FT.
FRICTION TOTAL HEAD LOSS, Hf =				5.81 FT.
TOTAL DYNAMIC HEAD				11 FT.
PUMP REQUIREMENTS:				
FLOW (GPM) 25 GPM				
TDH (FEET) 20 FT.				
PUMP SELECTION:				
MYER GRINDER PUMP MODEL WHR5, 1/2 HP. OR APPROVED EQUAL (2" VERTICAL DISCHARGE), 2 PUMPS REQUIRED CONTRACTOR SHALL SUPPLY ENGINEER WITH PUMP CURVE AND SPECS. PRIOR TO INSTALLATION FOR APPROVAL.				

DWG NO.: 88-6-89A JOB NO.: 219029

WOODS HOLE OCEANOGRAPHIC INSTITUTION
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NEW QUISSETT FACILITY

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www.dskap.com

CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
3	10/9/19	UPDATE UTILITIES, GENERATOR	LAC
2	9/10/19	ADD CROSSWALK/WALKWAY	LAC
1	8/16/19	UPDATE RAIN GARDENS	LAC

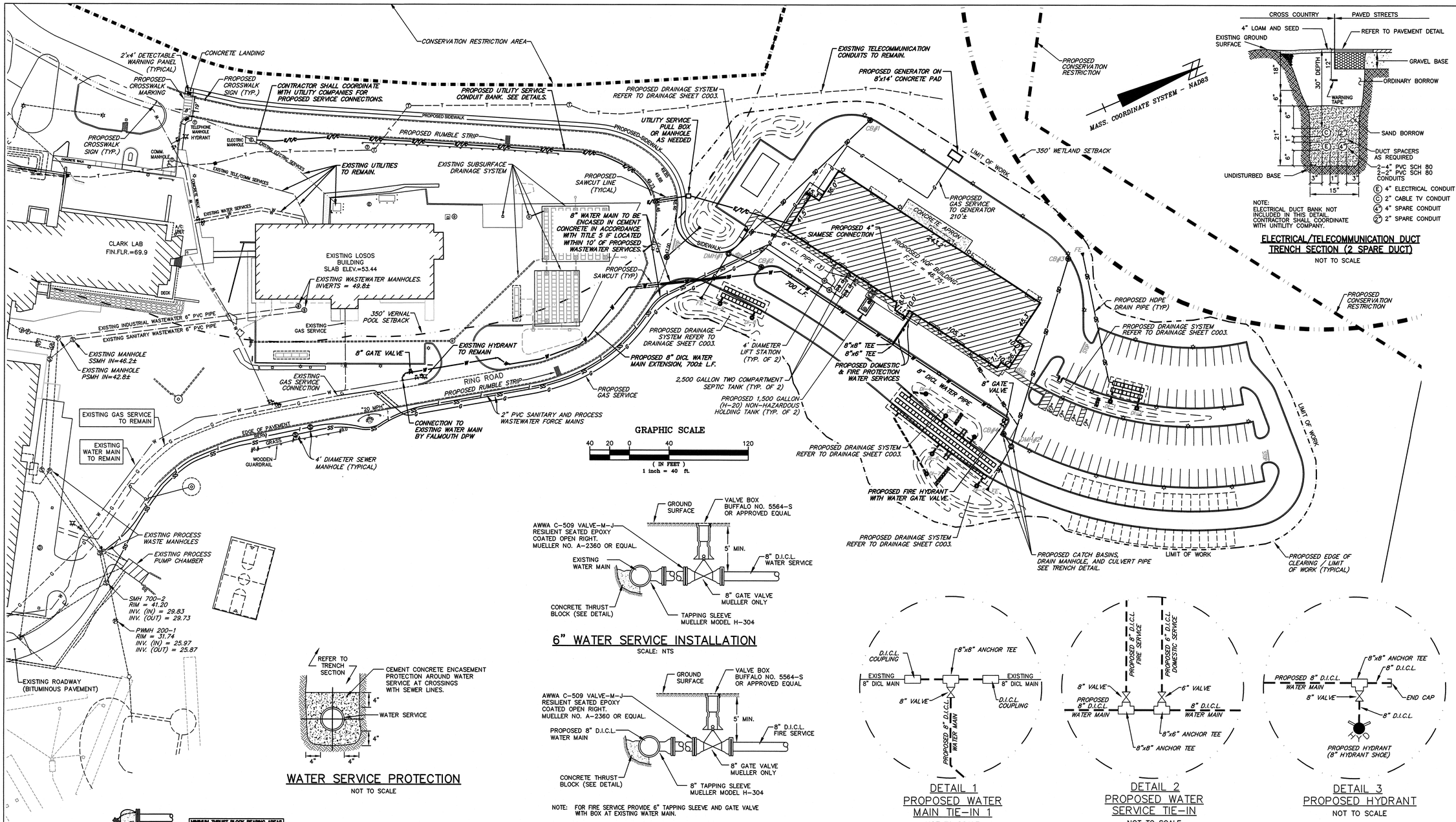
NO.	DATE	ISSUED TO	BY

TITLE
SITE PLAN
SANITARY & PROCESS WASTEWATER DESIGN

DATE 07/10/2019
SCALE 1" = 40'
JOB NO. 1747
DRAWN BY: LAC

C004

NOT FOR CONSTRUCTION



NOTE:
ELECTRICAL DUCT BANK NOT INCLUDED IN THIS DETAIL. CONTRACTOR SHALL COORDINATE WITH UNTILITY COMPANY.

ELECTRICAL/TELECOMMUNICATION DUCT TRENCH SECTION (2 SPARE DUCT)

NOT TO SCALE

6" WATER SERVICE INSTALLATION

SCALE: NTS

WATER SERVICE PROTECTION

NOT TO SCALE

NOTE: FOR FIRE SERVICE PROVIDE 6" TAPPING SLEEVE AND GATE VALVE WITH BOX AT EXISTING WATER MAIN.

FIRE SERVICE AND GATE VALVE INSTALLATION

SCALE: NTS

FIRE SERVICE NOTE

CONTRACTOR TO COORDINATE INSTALLATION OF FIRE LINE WITH SPRINKLER CONTRACTOR. FIRE LINE MUST MEET CURRENT STANDARDS AS REFERENCED IN THE NATIONAL FIRE PROTECTION AGENCY (N.F.P.A.)

DETAIL 1
PROPOSED WATER MAIN TIE-IN 1

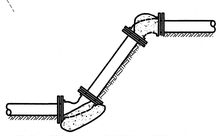
NOT TO SCALE

DETAIL 2
PROPOSED WATER SERVICE TIE-IN

NOT TO SCALE

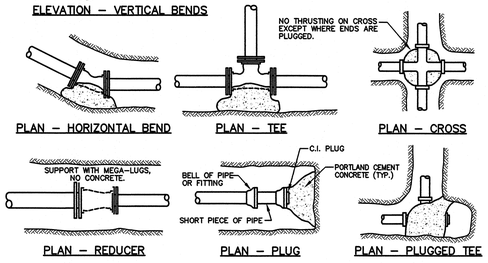
DETAIL 3
PROPOSED HYDRANT

NOT TO SCALE



ELEVATION – VERTICAL BENDS

MINIMUM THRUST BLOCK BEARING AREAS IN SQUARE FEET				
PIPE SIZE	90°	45°	22½°	TEES
6"	3	2	2	2
8"	4	3	2	3
10"	6	4	3	4
12"	8	5	3	6
14"	12	7	4	8
16"	16	10	6	12



ANCHORAGE NOTES:

1. CONCRETE SHALL BE 2000 PSI MINIMUM AT 28 DAYS.
2. THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED EARTH.
3. ALL FITTINGS (EXCEPT AS INDICATED) SHALL BE SUPPORTED AND ANCHORED IN CONCRETE AND WITH "MEGALUG JOINT RESTRAINTS" OR APPROVED EQUAL.
4. FOR FIRE HYDRANT THRUSTING SEE HYDRANT CONNECTION DETAIL.
5. POURED CONCRETE SHALL BE KEPT 6" CLEAR OF MECHANICAL JOINTS TO ALLOW FOR FUTURE REPAIR OR REMOVAL.
6. RETAINER GLANDS REQUIRED ON ALL BENDS.
7. CLOW F-1058 OR EQUAL RETAINER GLANDS USED WITH D.I.C.L. PIPE ONLY.

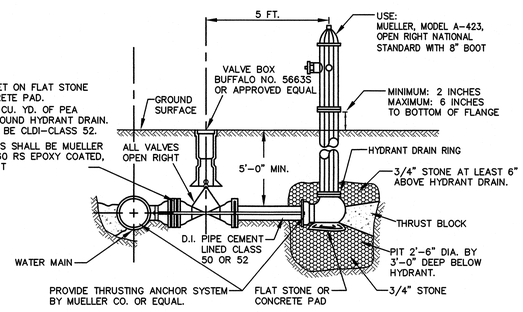
ANCHORAGE DETAILS

NOT TO SCALE

NOTES:

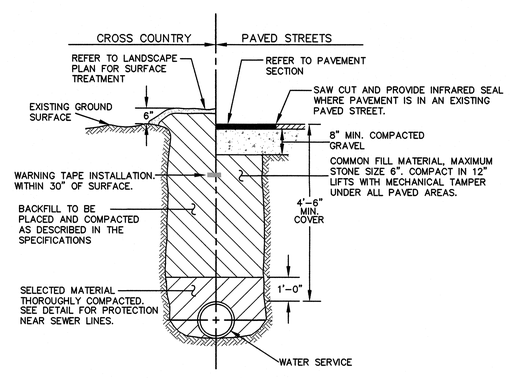
1. HYDRANT SET ON FLAT STONE OR CONCRETE PAD.
2. PLACE 1/2 CU. YD. OF PEA STONE AROUND HYDRANT DRAIN.
3. PIPE SHALL BE CLDI-CLASS 52.

ALL VALVES SHALL BE MUELLER TYPE A2360 RS EPOXY COATED, OPEN RIGHT



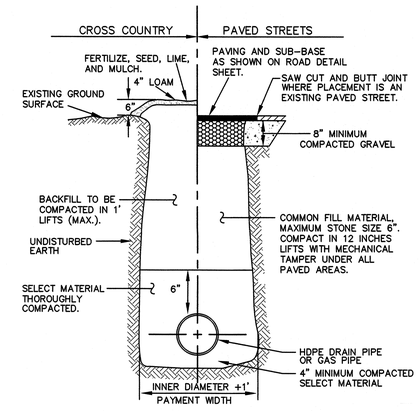
HYDRANT CONNECTION

NOT TO SCALE



WATER SERVICES TRENCH SECTION

NOT TO SCALE



DRAIN AND GAS PIPE TRENCH SECTION

SCALE: 1/2" = 1'

DWG NO.: 88-6-89A JOB NO.: 219029

WOODS HOLE OCEANOGRAPHIC INSTITUTION
1930
86 Water Street
Woods Hole, MA 02543

NEW QUISSETT FACILITY

COMMONWEALTH OF MASSACHUSETTS
MICHAEL J. McGRATH No. 39815
REGISTERED PROFESSIONAL ENGINEER

Holmes and McGrath Inc.
205 Worcester Court, Suite A-4
Falmouth, MA 02540
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Civil Engineer & Land Surveyor

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617-658-9008
Structural & MEP Engineers

Stephen Stimson Associates
288 Norfolk Street
Cambridge, MA 02139
617-876-8960
Landscape Architect

DSK Dewing Schmid Kearns ARCHITECTS + PLANNERS
Suite 200B
30 Monument Square
Concord, MA 01742
978.371.7500
www.dskap.com

CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
3	10/9/19	UPDATE UTILITIES, PARKING	LAC
2	9/10/19	ADD CROSSWALK/WALKWAY	LAC
1	8/16/19	UPDATE RAIN GARDENS	LAC

NO.	DATE	ISSUED TO	BY

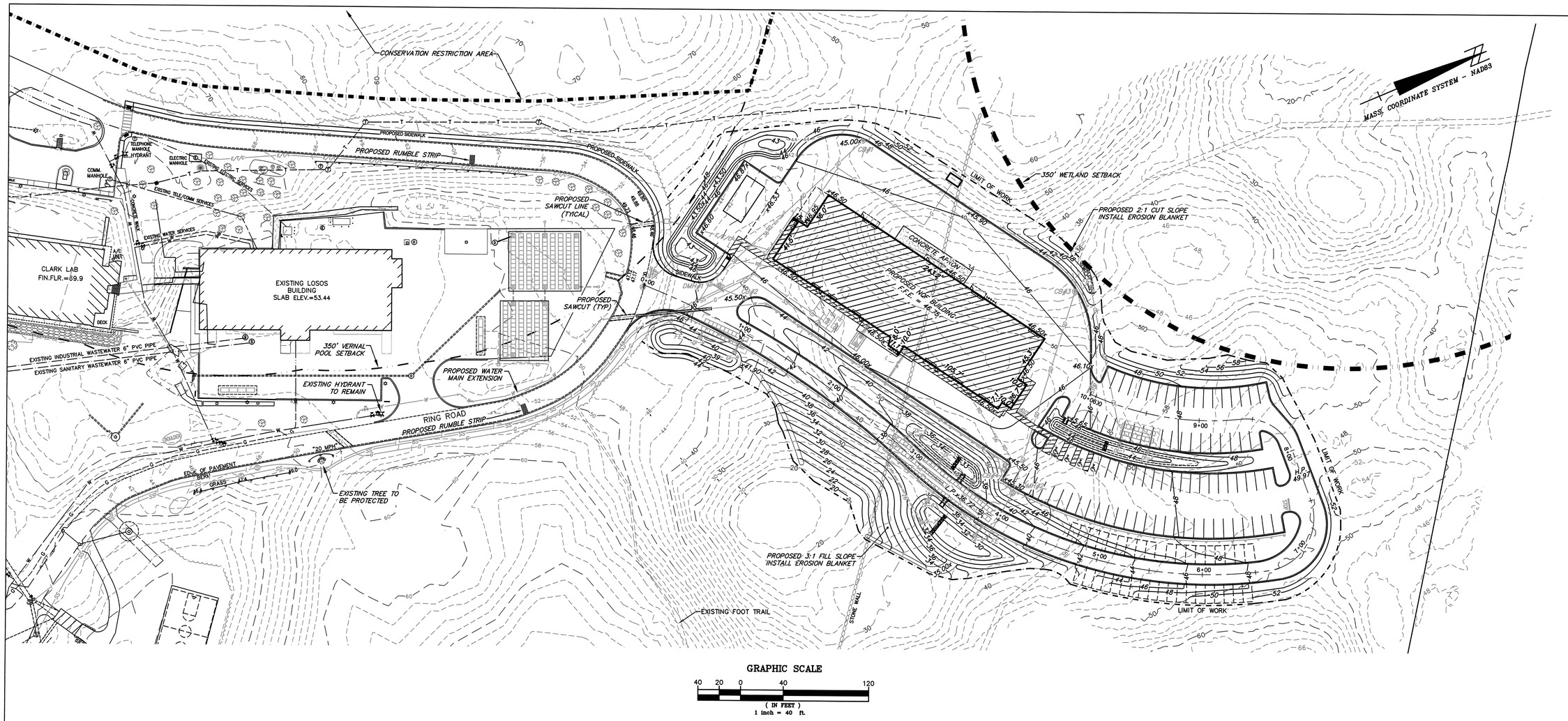
TITLE

SITE PLAN
UTILITIES DESIGN

DATE	07/10/2019
SCALE	1" = 40'
JOB NO.	1747
DRAWN BY:	LAC

C005

NOT FOR CONSTRUCTION



GRAPHIC SCALE

40 20 0 40 120

(IN FEET)
1 inch = 40 ft.

VERTICAL GRAPHIC SCALE

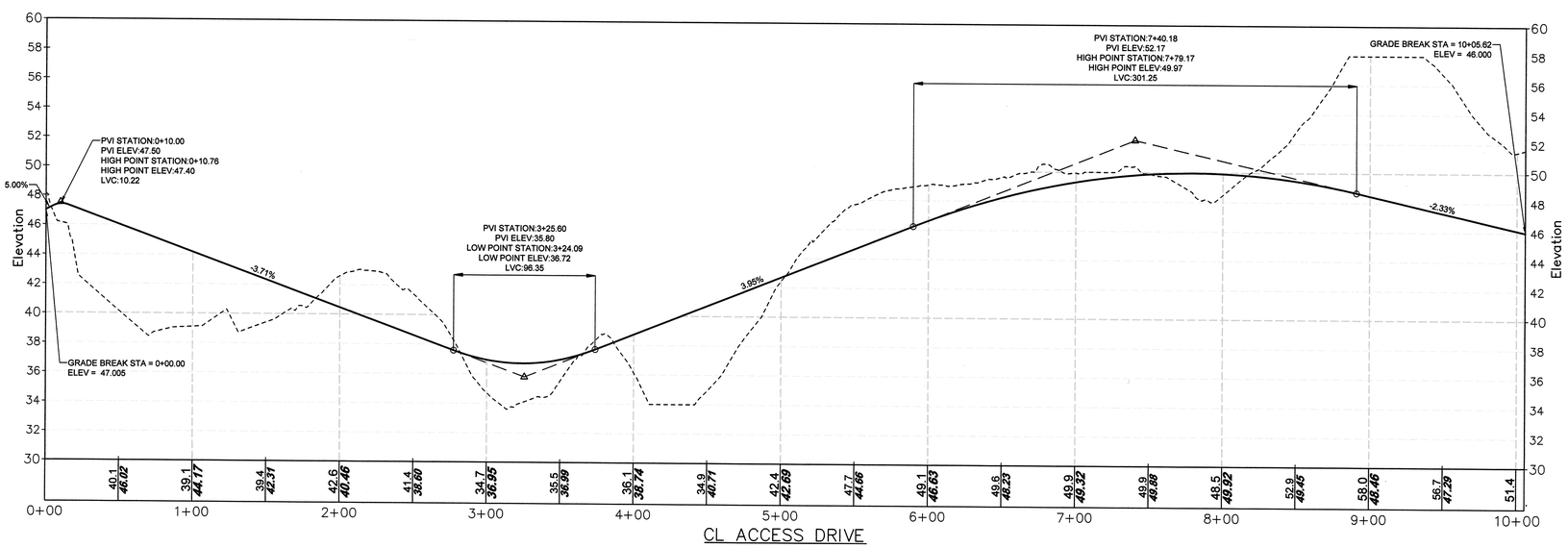
4 2 0 4 12

(IN FEET)
1 inch = 4 ft.

PLAN & HORIZONTAL GRAPHIC SCALE

40 20 0 40 120

(IN FEET)
1 inch = 40 ft.



CL ACCESS DRIVE
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 4'

WOODS HOLE OCEANOGRAPHIC INSTITUTION
1930
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Woods Hole, MA 02543

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CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
3	10/9/19	ADD SIDEWALK, PARKING	LAC
2	9/10/19	ADD CROSSWALK/WALKWAY	LAC
1	8/16/19	UPDATE RAIN GARDENS	LAC

NO.	DATE	ISSUED TO	BY

TITLE

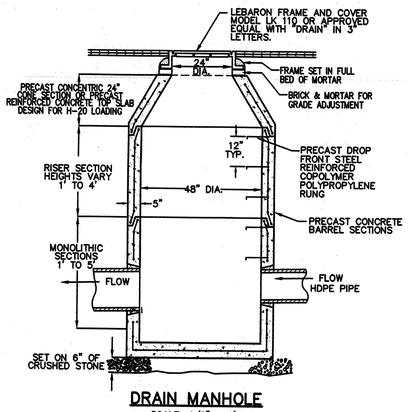
SITE PLAN
NQF ACCESS DRIVEWAY
PLAN AND PROFILE

DATE 07/10/2019
SCALE 1" = 40'
JOB NO. 1747
DRAWN BY: LAC

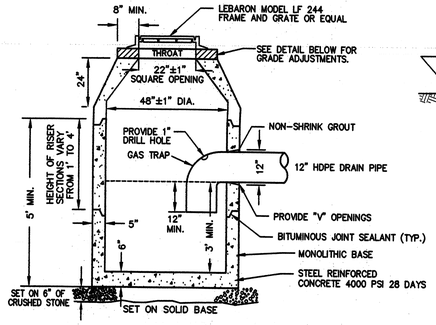
C006

NOT FOR CONSTRUCTION

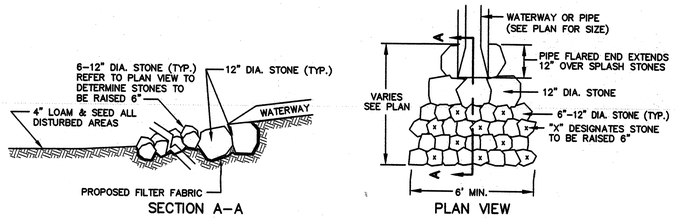
DWG NO.: 88-6-89A JOB NO.: 219029



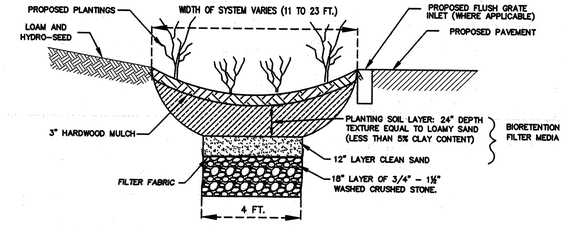
DRAIN MANHOLE
SCALE: 1/2" = 1'



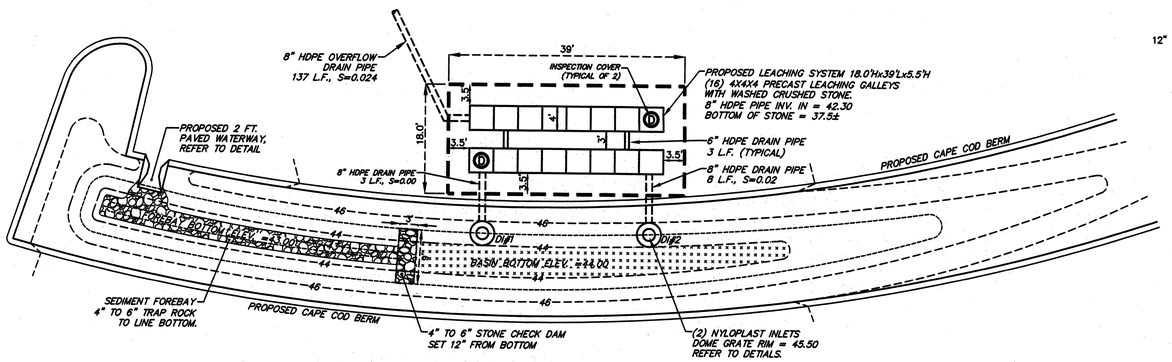
TYPICAL SOLID CATCH BASIN
SCALE: 1/2" = 1'



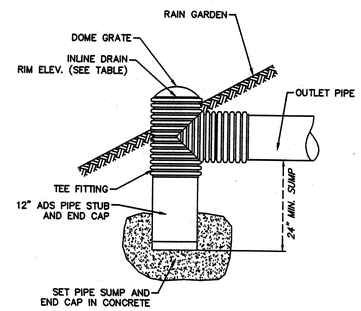
TYPICAL STONE SPLASH PAD
SCALE: 1/4" = 1'



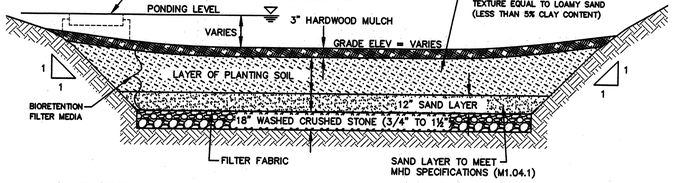
BIORETENTION SYSTEM – TYPICAL CROSS SECTION
NOT TO SCALE



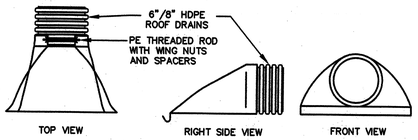
TYPICAL DRAINAGE SYSTEM 'D' PLAN DETAIL
SCALE: 1" = 10'



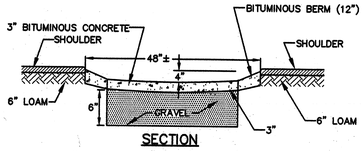
NYLOPLAST DRAIN INLET TYPICAL DETAIL
NOT TO SCALE

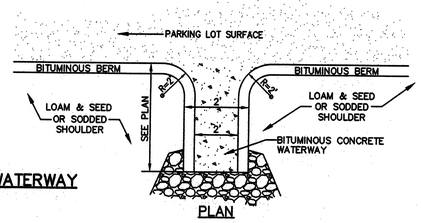


BIORETENTION SYSTEM – TYPICAL LONGITUDINAL SECTION
NOT TO SCALE

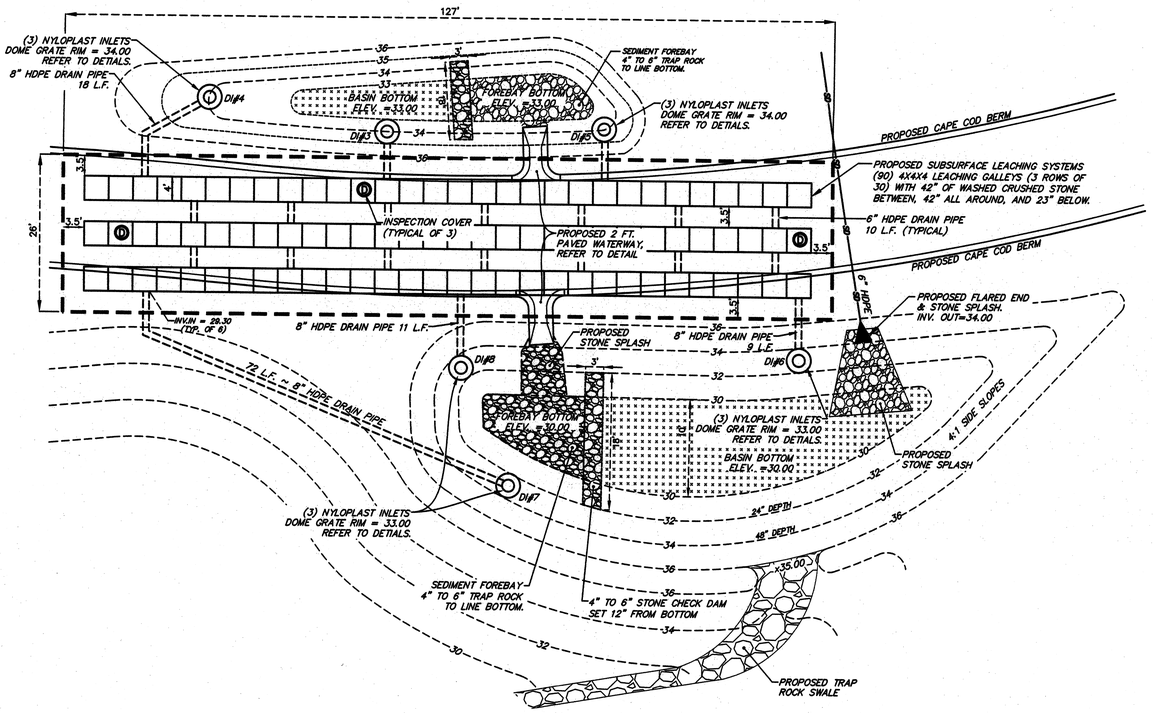


FLARED END OUTLET FITTING DETAIL
NOT TO SCALE

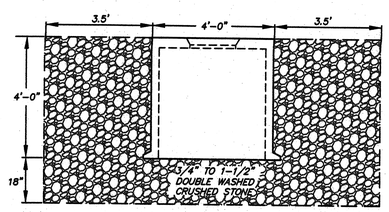




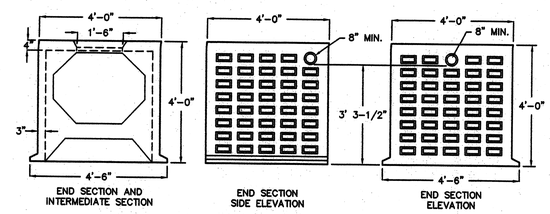
BITUMINOUS CONCRETE WATERWAY
NOT TO SCALE



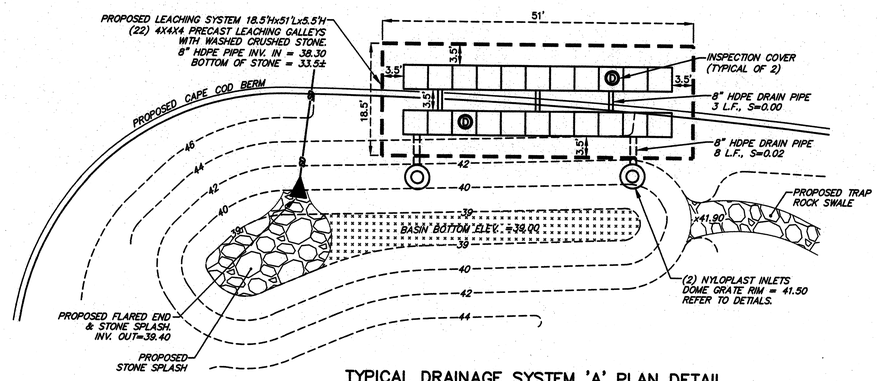
TYPICAL DRAINAGE SYSTEM 'B & C' PLAN DETAIL
SCALE: 1" = 10'



CONCRETE GALLEY CROSS SECTION
SCALE: 1/2" = 1'



TYPICAL PRECAST REINFORCED CONCRETE LEACHING GALLEY
SCALE: 1/2" = 1'



TYPICAL DRAINAGE SYSTEM 'A' PLAN DETAIL
SCALE: 1" = 10'

DWG NO.: 88-6-89A JOB NO.: 219029

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CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
2	9/10/19	UPDATE DETAILS	LAC
1	8/16/19	UPDATE LEACHING SYSTEM	LAC

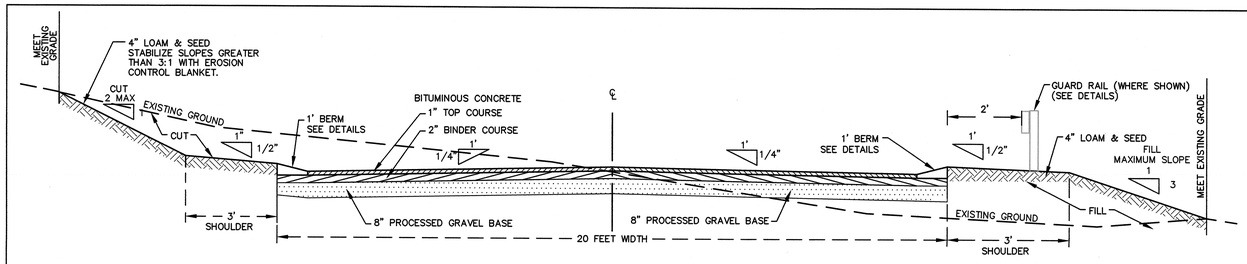
NO.	DATE	ISSUED TO	BY

TITLE
SITE PLAN CONSTRUCTION DETAILS

DATE 07/10/2019
SCALE AS SHOWN
JOB NO. 1747
DRAWN BY: LAC

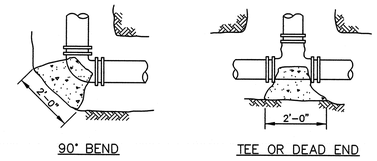
C007

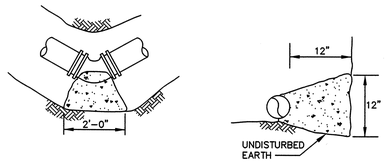
NOT FOR CONSTRUCTION



DRIVEWAY CROSS SECTION

NOT TO SCALE





NOTES:
1. THRUST BLOCKS AT ALL CHANGES IN DIRECTION OF FORCEMAIN.
2. CONCRETE SHALL BE 2,500# BEARING ON UNDISTURBED EARTH.
3. CONCRETE SHALL NOT RUN INTO PIPE JOINTS.
4. ALL BLOCKS SHALL BE MIN. 1'-0" HIGH (2 SQ. FT. BEARING AREA).

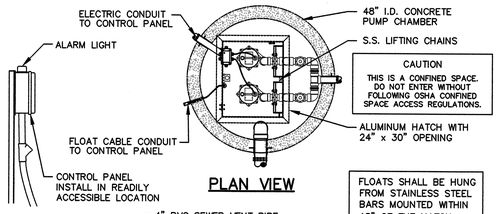
CONCRETE THRUST BLOCKS

NOT TO SCALE

PUMP CHAMBER INVERTS & REQUIREMENTS

	500 GALLON PUMP CHAMBER SANITARY WASTEWATER	500 GALLON PUMP CHAMBER INDUSTRIAL WASTEWATER
INLET INVERT	43.40	43.40
OUTLET INVERT	43.65	43.65
START LAG AND ALARM	40.83	40.83
START LEAD	40.33	40.33
ALL PUMPS OFF	39.10	39.10
BOTTOM OF TANK	38.10	38.10
GPM	25	25
TDH (IN FEET)	20	20

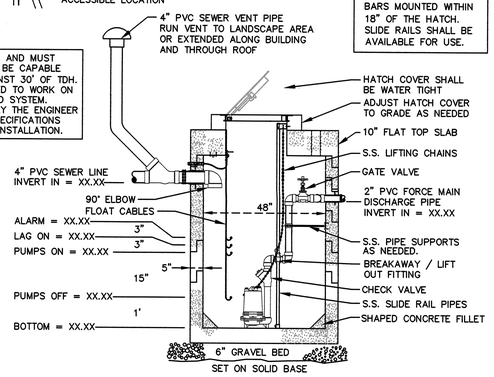
ALTERNATING PUMPS REQUIRED IN EACH PUMP CHAMBER. CONTRACTOR SHALL PROVIDE PUMP SPECIFICATIONS TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.



PLAN VIEW

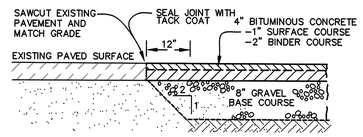
FLOATS SHALL BE HUNG FROM STAINLESS STEEL BARS MOUNTED WITHIN 18" OF THE HATCH. SLIDE RAILS SHALL BE AVAILABLE FOR USE.

TWO PUMPS ARE REQUIRED AND MUST ALTERNATE. PUMPS SHALL BE CAPABLE OF PUMPING 25 GPM AGAINST 30' OF TDH. PUMPS SHALL BE INSTALLED TO WORK ON A TIME-DOSED CONTROLLED SYSTEM. CONTRACTOR SHALL SUPPLY THE ENGINEER WITH PUMP CURVE AND SPECIFICATIONS FOR APPROVAL PRIOR TO INSTALLATION.



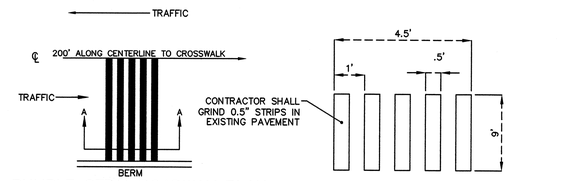
TYPICAL WASTEWATER EJECTOR PUMP CHAMBER DETAIL

NOT TO SCALE



SAWCUT/PAVEMENT MATCHING DETAIL

SCALE: 1" = 1'

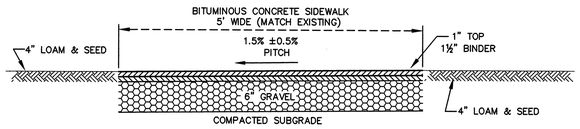


RUMBLE STRIP ROADWAY PLAN

NOT TO SCALE

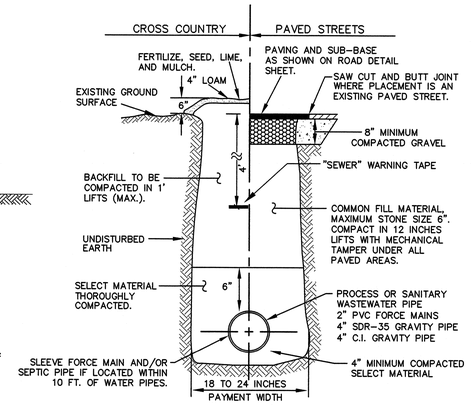
RUMBLE STRIP DETAIL A

NOT TO SCALE



BITUMINOUS SIDEWALK DETAIL

SCALE: 1/2" = 1'



WASTEWATER TRENCH SECTION

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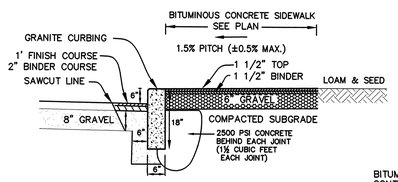
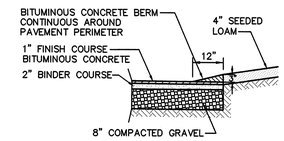


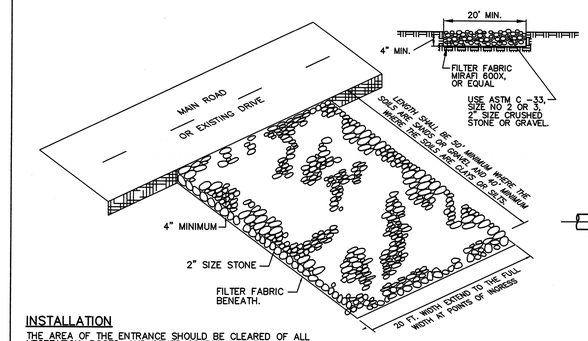
GRANITE CURBING/SIDEWALK DETAIL

SCALE 1/2" = 1'"



PAVEMENT/BERM DETAIL

SCALE: 1/2" = 1'



INSTALLATION

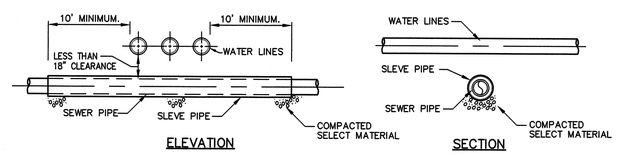
THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS, AS NOTED.

MAINTENANCE

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAYS THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE, OR ADDITIONAL LENGTH, AS CONDITIONS DEMAND, AND REPAIR, AND / OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.

CONSTRUCTION ENTRANCE PROTECTION

NOT TO SCALE



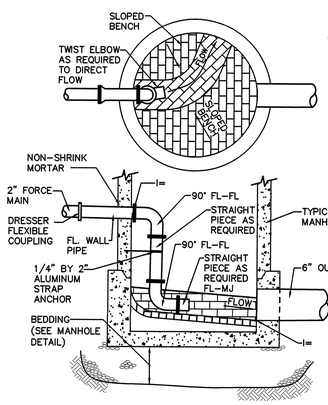
ELEVATION

SECTION

NOTES:
1- SEWER PIPES SHALL BE SLEVED WHENEVER A WATER PIPE AND SEWER PIPE CROSSING EXIST WITH A CLEARANCE OF LESS THAN 18 INCHES.
2- THE SEWER PIPES SHALL BE SLEVED WHENEVER THE SEWER LINES CROSSES OVER THE WATER LINE REGARDLESS OF PIPES CLEARANCE.
3- THIS DETAIL SHALL BE USED WHEN NO OTHER OPTION FOR RELOCATION OF EITHER THE SEWER OR WATER MAIN IS AVAILABLE.

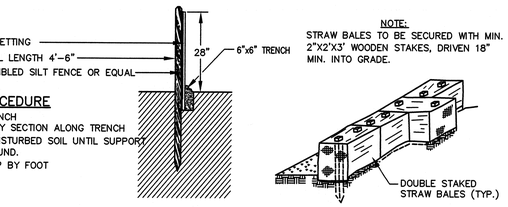
SEWER PIPE/FORCE MAIN SLEEVE DETAIL

NOT TO SCALE



FORCE MAIN MANHOLE CONNECTION

NOT TO SCALE



NOTE:
STRAW BALES TO BE SECURED WITH MIN. 2"X2"X3' WOODEN STAKES, DRIVEN 18" MIN. INTO GRADE.

INSTALLATION PROCEDURE

1. EXCAVATE 6" x 6" TRENCH
2. UNROLL ECONOFENCE BY SECTION ALONG TRENCH
3. DRIVE POSTS INTO UNDISTURBED SOIL UNTIL SUPPORT NETTING TOUCHES GROUND.
4. BACKFILL TRENCH TAMP BY FOOT

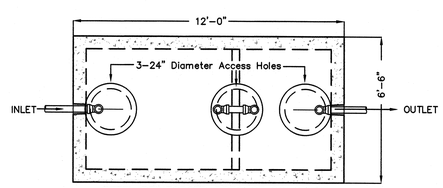
SILT FENCE & STRAW BALE DETAIL

NOT TO SCALE

EROSION AND SEDIMENTATION CONTROL PLAN:

The Erosion and Sedimentation Control Plan includes the following:

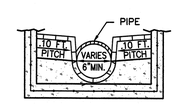
1. The Installer shall examine the work area and site conditions under which this work is to be performed prior to installation of sedimentation and erosion control.
2. The Contractor is responsible for establishing and maintaining the limit of work and sedimentation controls throughout the duration of the work and prior to performing any clearing and excavation activities on the site.
3. The Contractor shall provide adequate protection to the existing stormwater system on the site as indicated on the construction drawings.
4. The Contractor shall protect existing catch basin with the use of silt-bags at the inlet of the structures. The Contractor may remove such protection once the disturbed areas have been stabilized and no signs of erosion and sedimentation exist in the direction to the protected catch basins.
5. The Contractor shall construct a "Stone Tracking Pad" at entrances to and from access roads. All construction site vehicles exiting the work site shall use the "Stone Tracking Pad" to avoid tracking sediment off-site. The contractor shall remove all sediments spilled, dropped, washed or tracked onto roadways.
6. The Contractor shall stabilize all graded and/or disturbed areas by installing loam and seeding at the earliest time possible to prevent erosion and sedimentation.
7. The Contractor shall implement supplemental drainage and erosion control measures (such as temporary swales, stone checks, seeding or mulching) as may be necessary during the course of the construction based on changes of stormwater runoff patterns.
8. After every rainstorm during construction the Contractor shall examine the conditions of all the erosion and sedimentation controls and perform any required repairs or replacements.
9. The Contractor shall maintain 200 linear feet of silt fence on site in the event erosion occurs. If erosion occurs during construction the Contractor shall take steps to control the erosion and mitigate the damaged areas.
10. The Contractor shall remove all land clearing waste material (brush, stumps, wood, leaves, chips, etc.) during construction from site and properly transport to an approved disposal site. The Contractor shall not mix land clearing waste material with other construction activities waste material.
11. All excavated areas rendering a slope equal or greater than 3 horizontal to 1 vertical (3:1) shall be stabilized with the installation of erosion control matting.
12. Stripped topsoil from areas to be graded shall be stockpiled at locations approved by the project engineer and shall not cause damage to the sedimentation and erosion controls.
13. The Contractor shall implement measures to control dust levels by means such as water trucks during construction until all disturbed areas are stabilized.
14. Stabilization for paved areas shall be achieved by installing the gravel base immediately after the rough grading and sub-base compaction is complete.
15. The Contractor shall avoid smearing the bottom levels of the excavation and the exposed excavation face walls for subsurface leaching systems and bio-filtration systems. The contractor shall scarify any areas where smearing occurs to provide adequate filtration through the soils.
16. The Contractor shall avoid using dirty or silty crushed stone for the construction of the subsurface leaching systems. Instead, the Contractor shall use double washed crushed stone for these components.
17. All protective measures (silt sacs, haybale dams) installed in the vicinity of construction of the site protecting existing stormwater systems shall be removed once the disturbed areas are stabilized



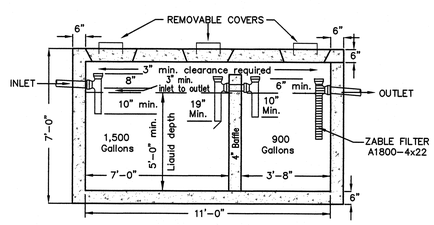
STEEL REINFORCED PRECAST CONCRETE

PLAN VIEW

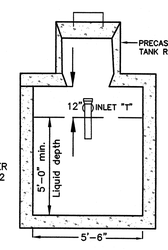
ALL ACCESS MANHOLE COVERS FOR SEPTIC TANK, DISTRIBUTION BOX, AND LEACHING STRUCTURE SET MORE THAN 6" BELOW FINISHED GRADE, SHALL BE RAISED TO WITHIN 6" OF FINISHED GRADE WITH RISERS.



FORMED INVERT DETAIL



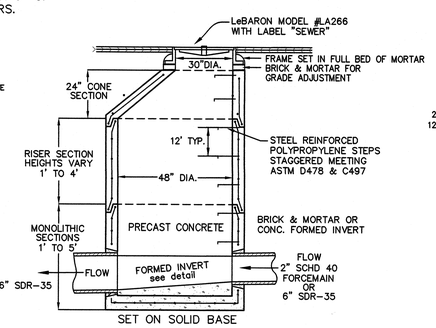
CROSS-SECTION



END-SECTION

TYPICAL 2,500 GALLON TWO COMPARTMENT SEPTIC TANK

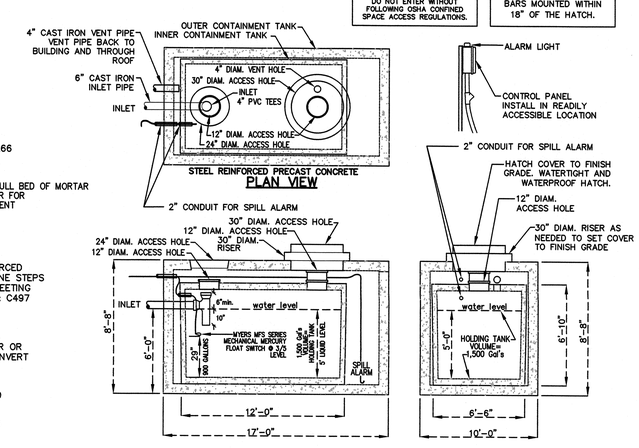
(H-20 LOADING)
NOT TO SCALE



TYPICAL SECTION

TYPICAL SEWER MANHOLE

NOT TO SCALE



CAUTION
THIS IS A CONFINED SPACE. DO NOT ENTER WITHOUT FOLLOWING OSHA CONFINED SPACE ACCESS REGULATIONS.

FLOATS SHALL BE HUNG FROM STAINLESS STEEL BARS MOUNTED WITHIN 18" OF THE HATCH.

2,500 GALLON DUAL CONTAINMENT INDUSTRIAL WASTEWATER HOLDING TANK (H-20 LOADING)

NOT TO SCALE

DWG NO.: 88-6-89A JOB NO.: 219029

WOODS HOLE OCEANOGRAPHIC INSTITUTION
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617-876-8960
Landscape Architect

DSK Dewing Schmid Kearns ARCHITECTS + PLANNERS
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30 Monument Square
Concord, MA 01742
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www.dskap.com

CAPE COD COMMISSION REVIEW SET

NO.	DATE	REVISION	BY
2	10/9/19	ADD SEWER MANHOLE	LAC
1	9/10/19	UPDATE DETAILS	LAC

NO.	DATE	ISSUED TO	BY

TITLE
SITE PLAN CONSTRUCTION DETAILS

DATE 07/10/2019
SCALE AS SHOWN
JOB NO. 1747
DRAWN BY: LAC

C008

NOT FOR CONSTRUCTION