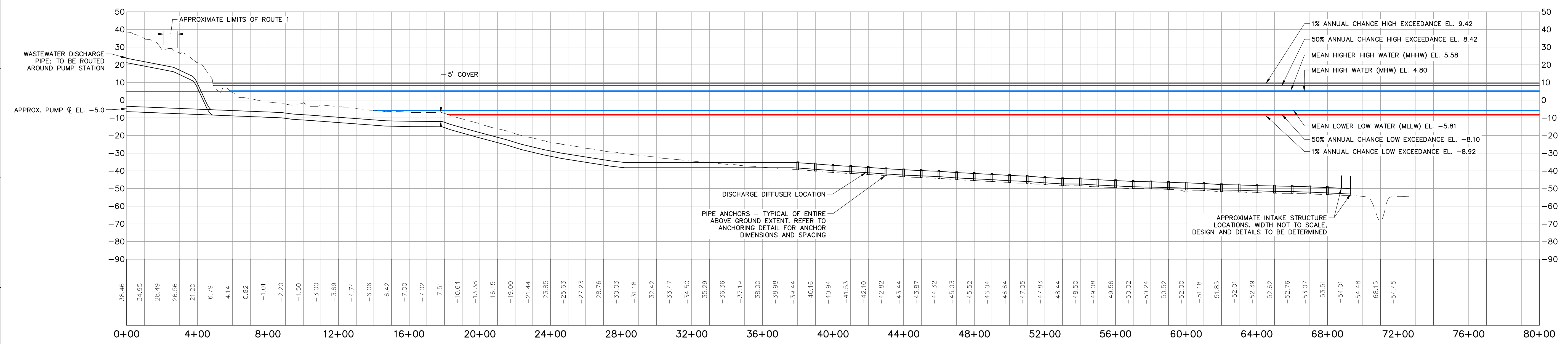


**PLAN**  
SCALE: 1" = 300'



**PROFILE STA. 0+00 TO STA. 80+00**  
HORIZONTAL SCALE: 1" = 300'  
VERTICAL SCALE: 1" = 30'

- PLAN REFERENCES:**
- BOUNDARY & TOPOGRAPHIC SURVEY DATED 4-2-2018 BY GOOD DEEDS INC., 109 MAIN STREET, BELFAST, ME 04915, (207) 338-5743
  - 2 FOOT LIDAR CONTOURS OBTAINED FROM THE MAINE OFFICE OF GIS. <https://www.maine.gov/mgis/>
  - BATHYMETRY DATA PROVIDED BY NORMANDEAU ASSOCIATES, ENVIRONMENTAL CONSULTANTS IN OCTOBER 2018.
  - LITTORAL ZONE & TOWN LINE IS BASED ON A PLAN BY GARTLEY & DORSKY ENGINEERING SURVEYING, 59 UNION STREET, UNIT 1, P.O. BOX 1031 CAMDEN, ME 04843-1031, DATED NOVEMBER 14, 2018 AND REVISED FEBRUARY 22, 2019.
  - VERTICAL DATUM IS REFERENCED TO NAVD88 (FEET).

- NOTES:**
- PROPOSED FEATURES ARE APPROXIMATE IN LOCATION AND SCALE.
  - PIPE ALIGNMENT IS SETBACK GREATER THAN 25 FEET FROM TIE LINES.
  - ANCHORING LOCATIONS ARE SCHEMATIC ONLY. REFER TO ANCHORING DETAILS FOR ANCHOR DIMENSIONS AND SPACING.
  - SINGLE PIPE ROUTE SHOWN FOR CLARITY; SYSTEM CONSISTS OF TWO NOMINAL 30" INTAKE PIPES AND ONE NOMINAL 36" DISCHARGE PIPE.

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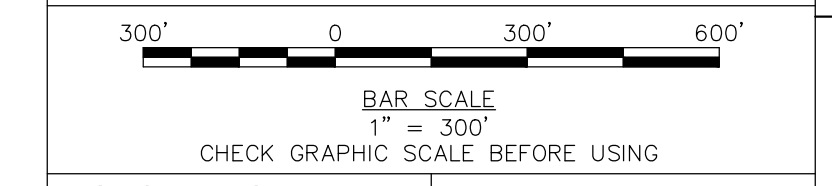
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	ISSUED FOR PERMIT - DRAFT	05-02-19
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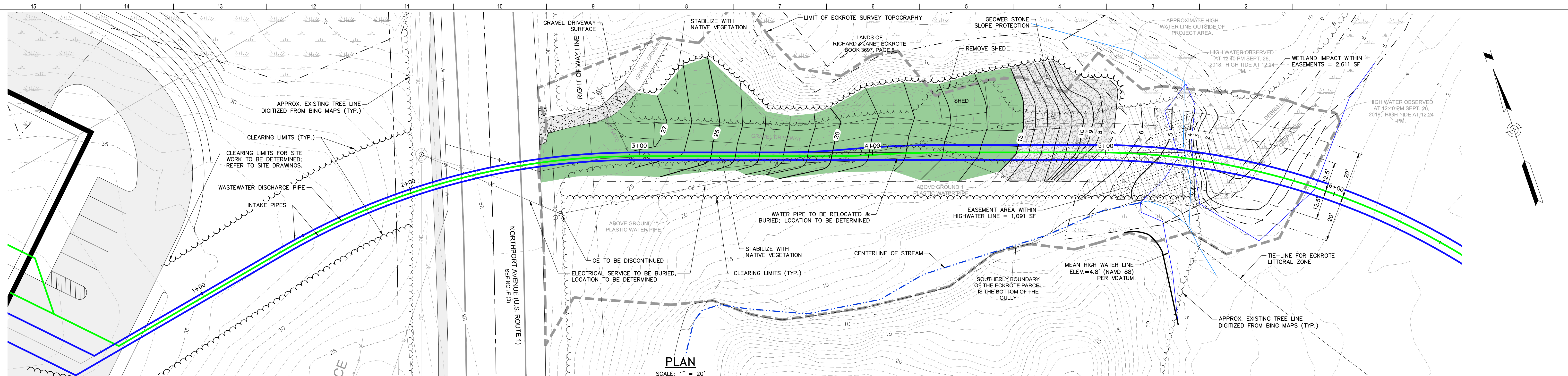
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**NORDIC AQUAFARMS**  
BELFAST, MAINE

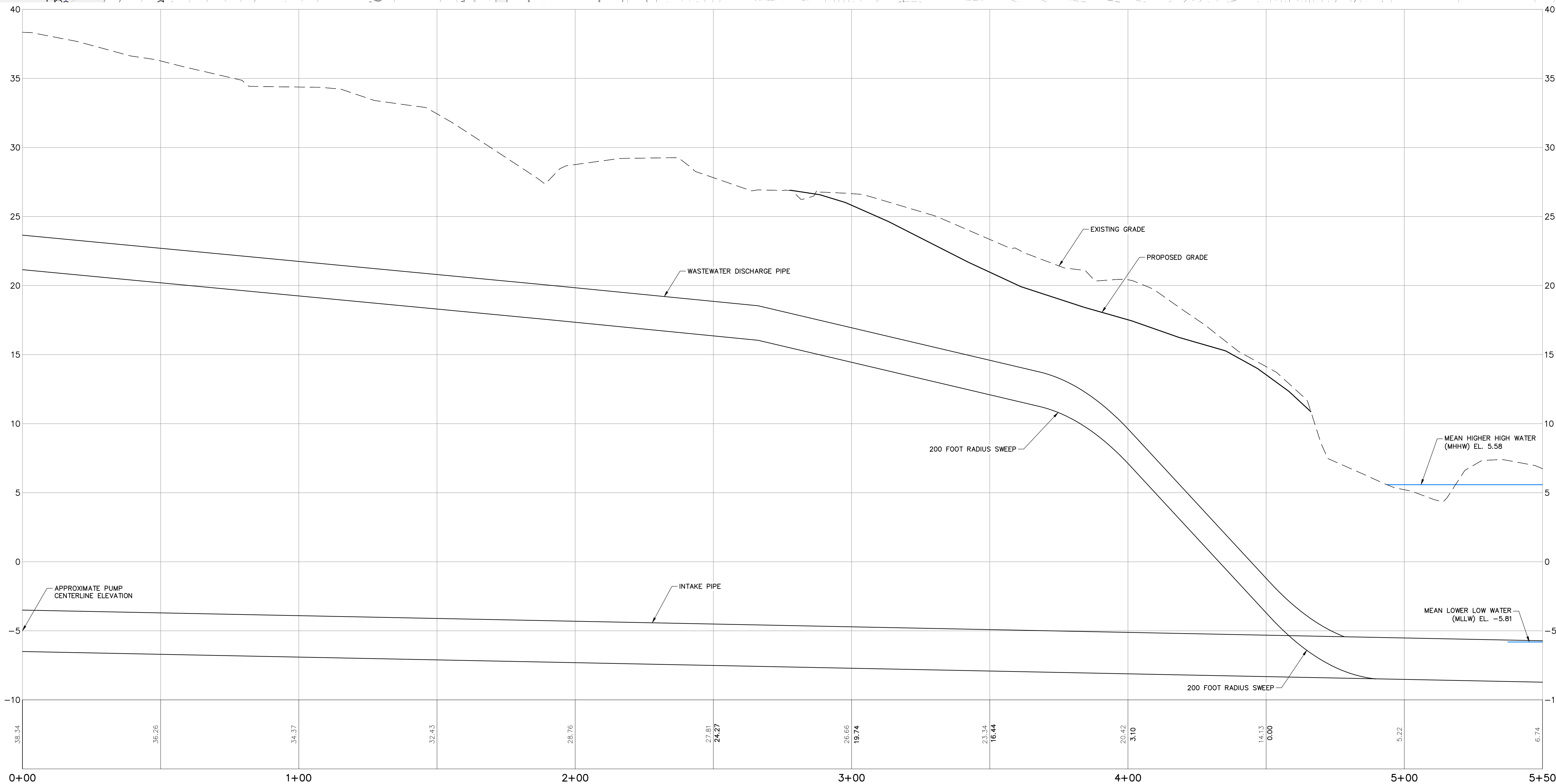
**INTAKE/DISCHARGE PIPING  
PLAN & PROFILE**



PROJECT MANAGER:	PROJECT NO: 18076
JOB CAPTAIN:	<b>CS101</b>



**PLAN**  
SCALE: 1" = 20'



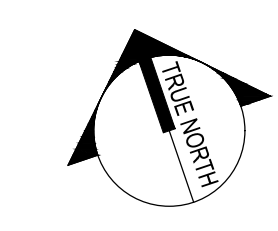
**PROFILE STA. 0+00 TO STA. 5+50**

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 4'

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<b>05-02-19</b>		
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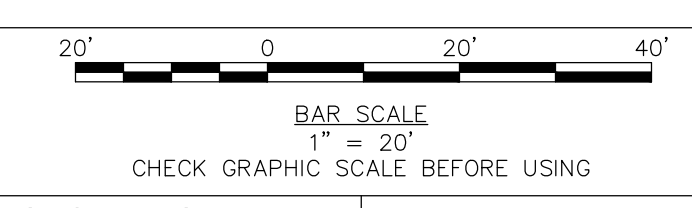


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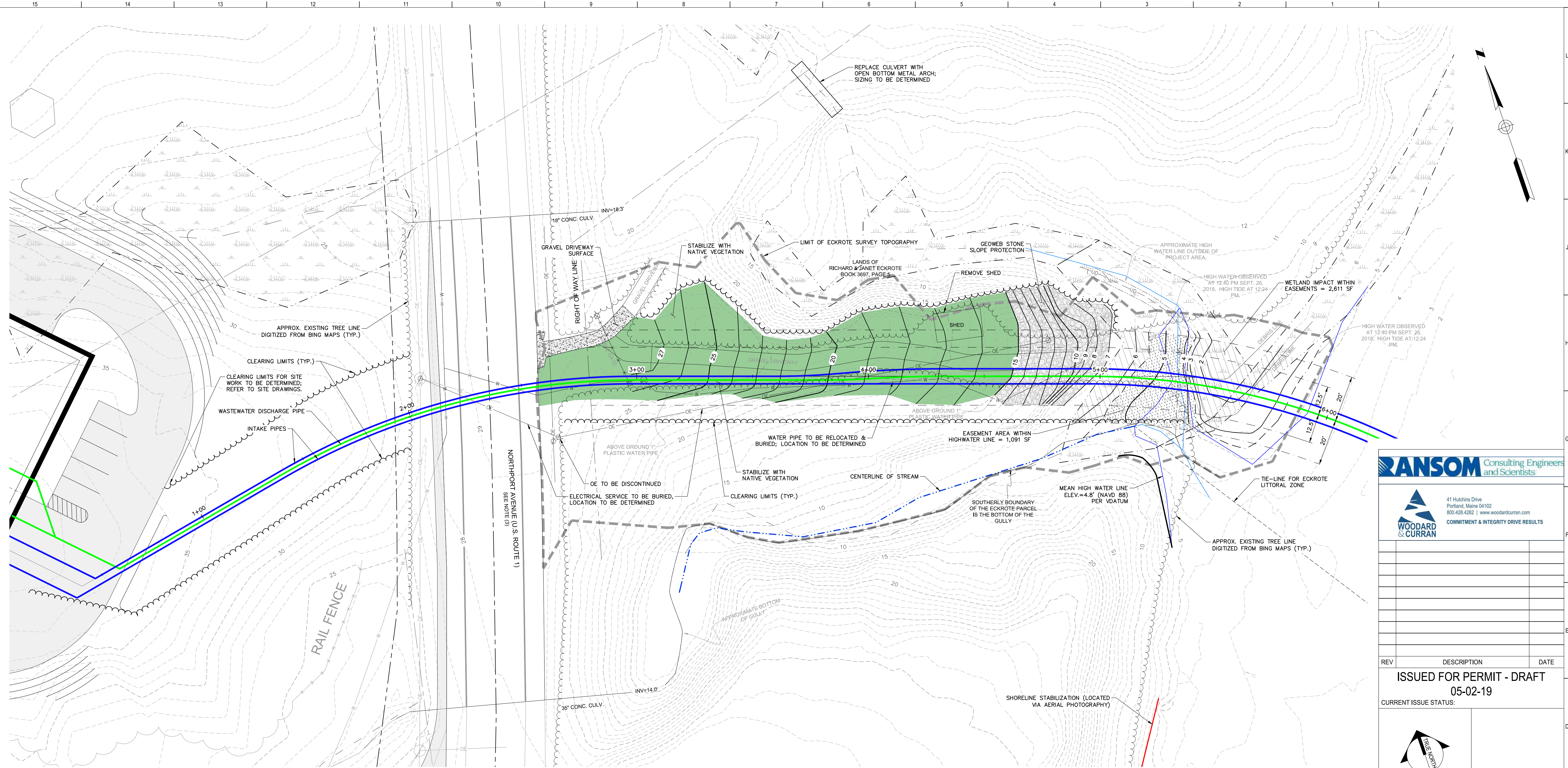
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**NORDIC AQUAFARMS**  
BELFAST, MAINE

**ECKROTE EASEMENT  
PLAN & PROFILE**



PROJECT MANAGER:	PROJECT NO: 18076
JOB CAPTAIN:	<b>CS102</b>

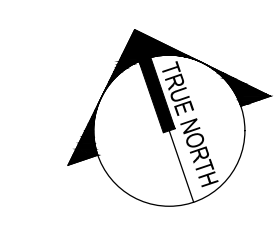


**PLAN**  
SCALE: 1" = 20'

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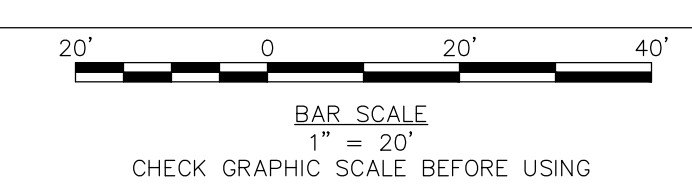
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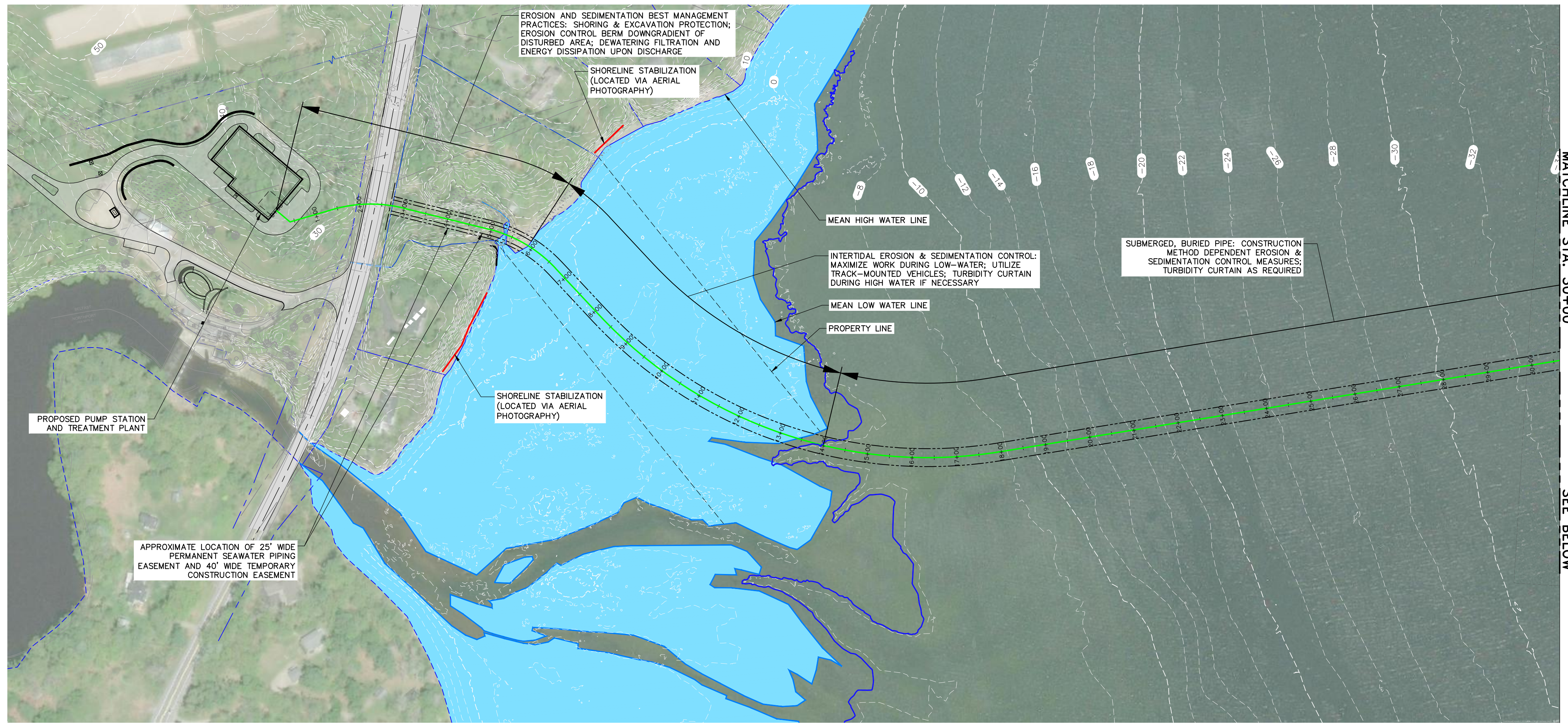
**NORDIC AQUAFARMS**

BELFAST, MAINE

**CULVERT REPLACEMENT PLAN**



PROJECT MANAGER:	PROJECT NO: 18076
JOB CAPTAIN:	<b>CS103</b>



**PLAN**  
SCALE: 1" = 150'

**PLAN REFERENCES:**

- BOUNDARY & TOPOGRAPHIC SURVEY DATED 4-2-2018 BY GOOD DEEDS INC., 109 MAIN STREET, BELFAST, ME 04915, (207) 338-5743
- 2 FOOT LIDAR CONTOURS OBTAINED FROM THE MAINE OFFICE OF GIS. <https://www.maine.gov/mgis/>
- BATHYMETRY DATA PROVIDED BY NORMANDEAU ASSOCIATES, ENVIRONMENTAL CONSULTANTS IN OCTOBER 2018.
- LITTORAL ZONE & INTERTIDAL ZONE SURVEY IS BASED ON A PLAN BY GARTLEY & DORSKY ENGINEERING SURVEYING, 59 UNION STREET, UNIT 1, P.O. BOX 1031 CAMDEN, ME 04843-1031, DATED NOVEMBER 14, 2018.
- VERTICAL DATUM IS REFERENCED TO NAVD88 (FEET).

**NOTES:**

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**NORDIC AQUAFARMS**

BELFAST, MAINE

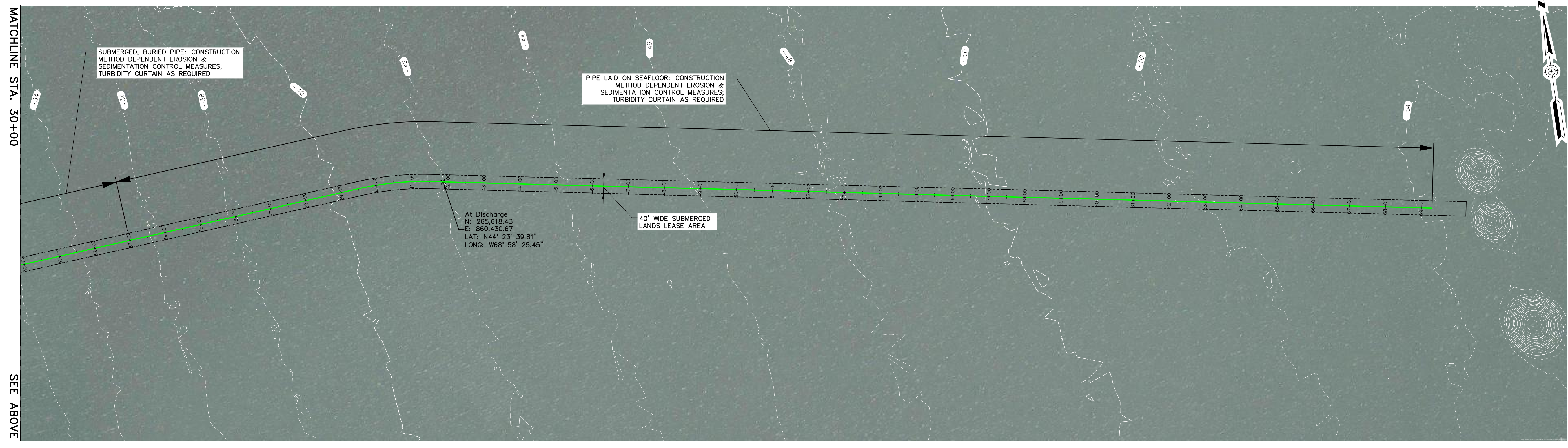
**EROSION CONTROL PLAN**

300' 0 300' 600'

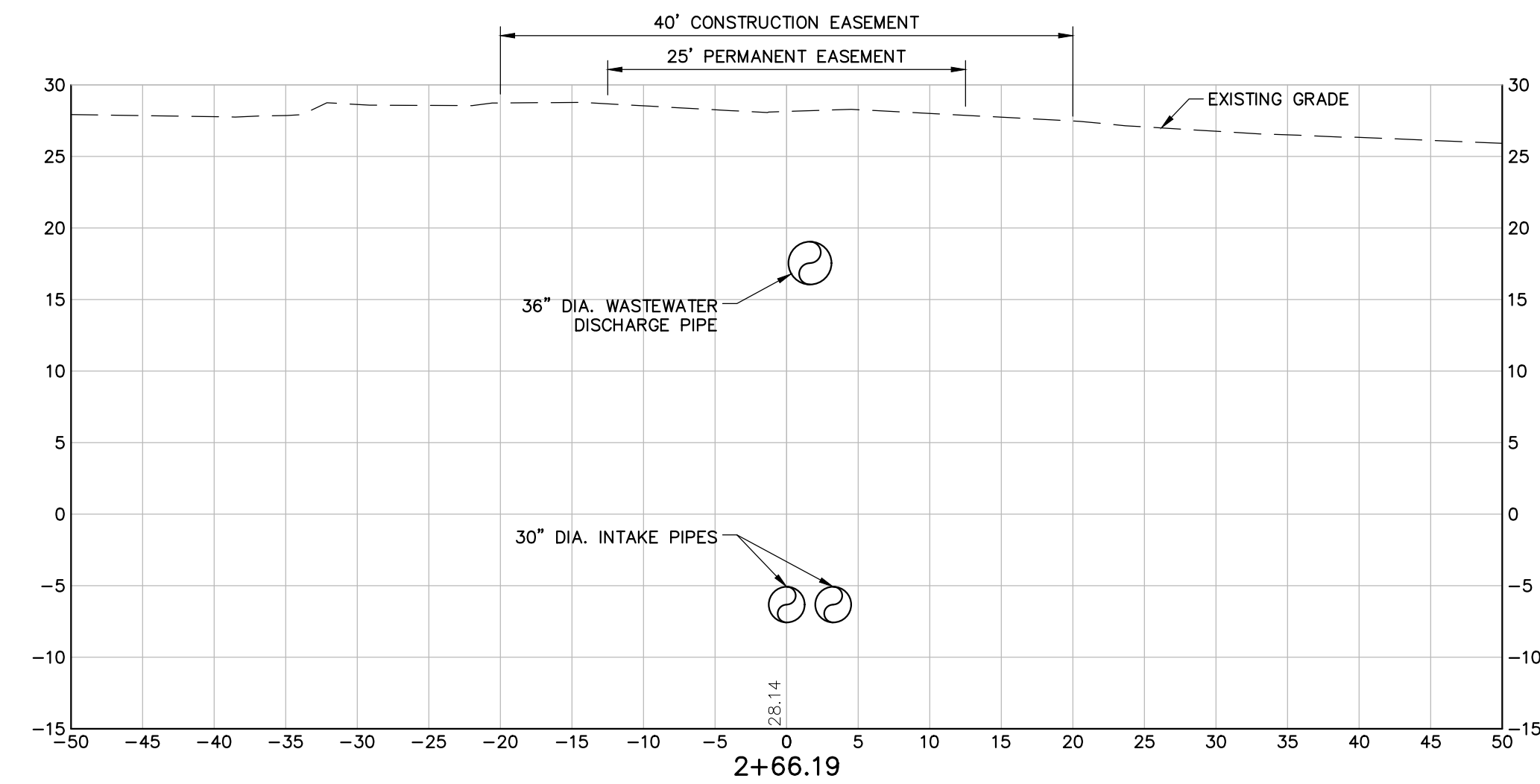
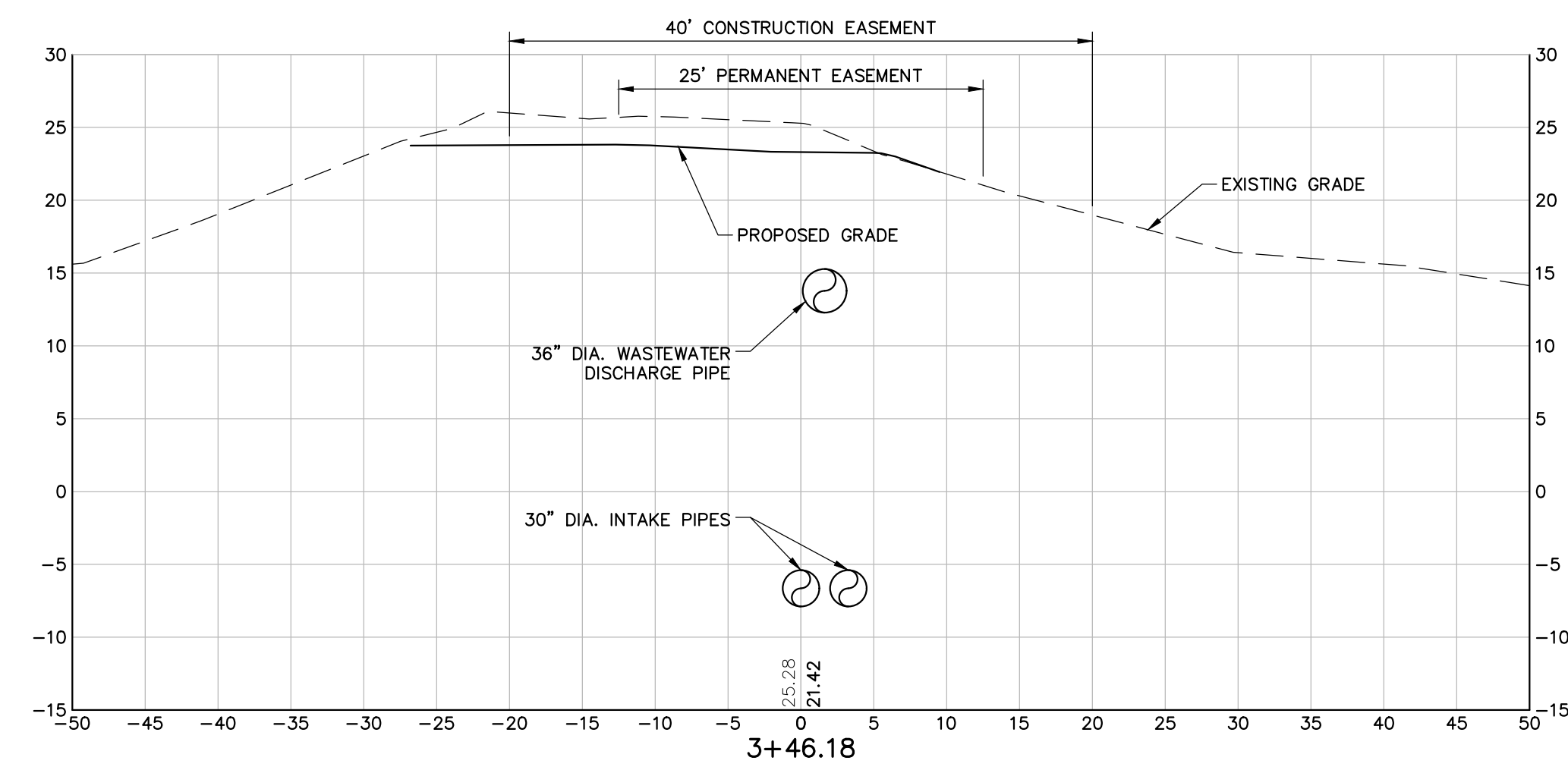
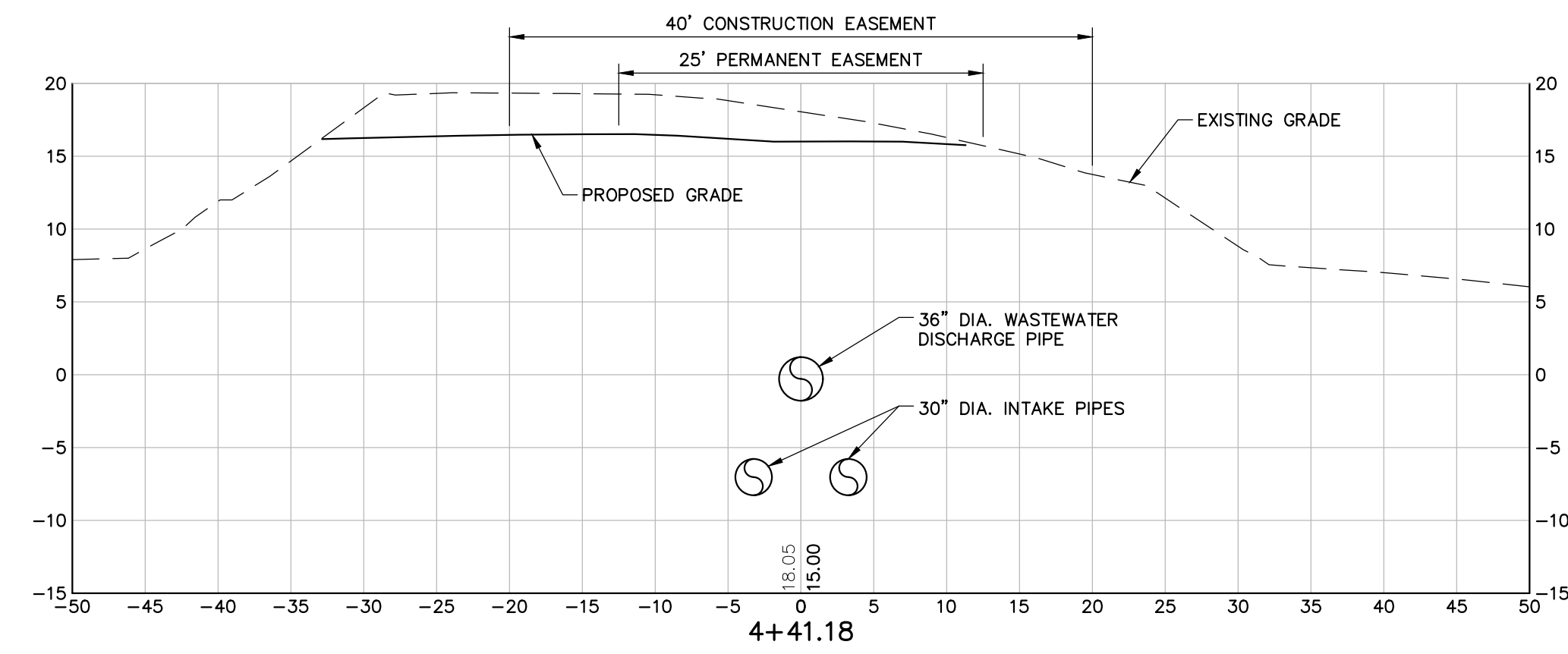
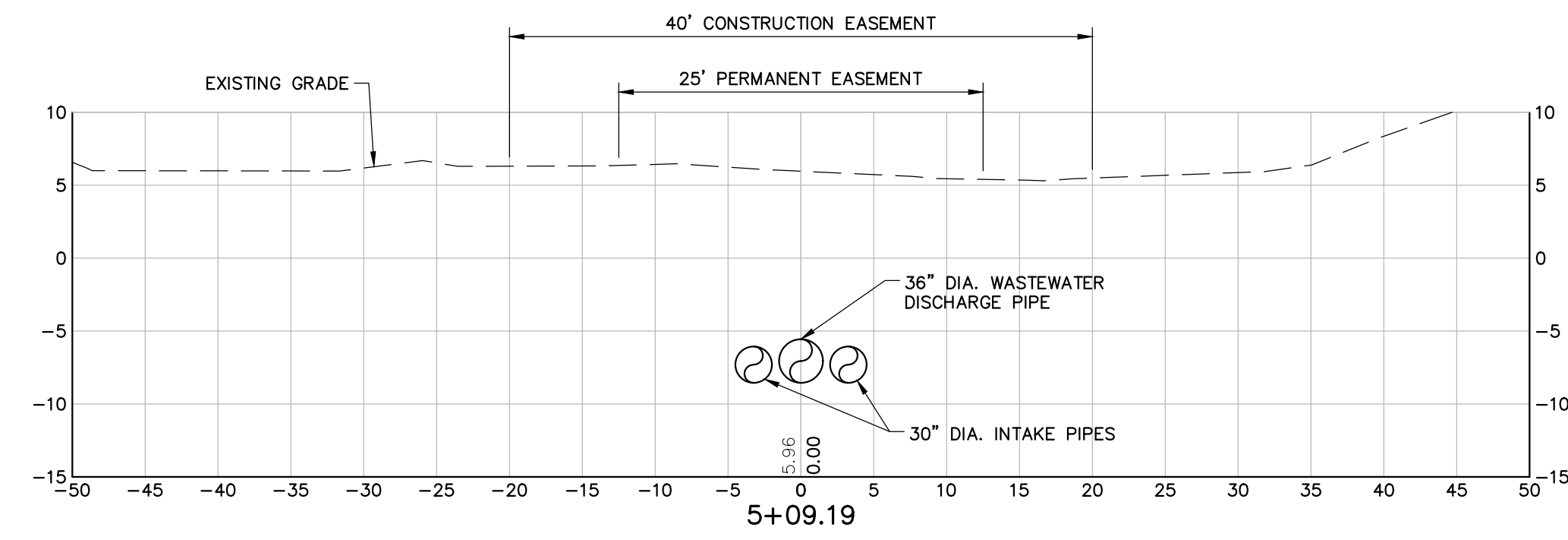
BAR SCALE  
1" = 300'  
CHECK GRAPHIC SCALE BEFORE USING

PROJECT MANAGER:	PROJECT NO: 18076
JOB CAPTAIN:	<b>CS104</b>

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**PLAN**  
SCALE: 1" = 150'



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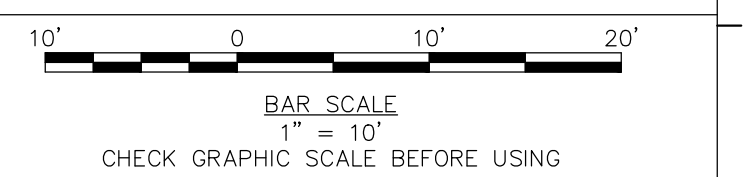
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**NORDIC AQUAFARMS**

BELFAST, MAINE

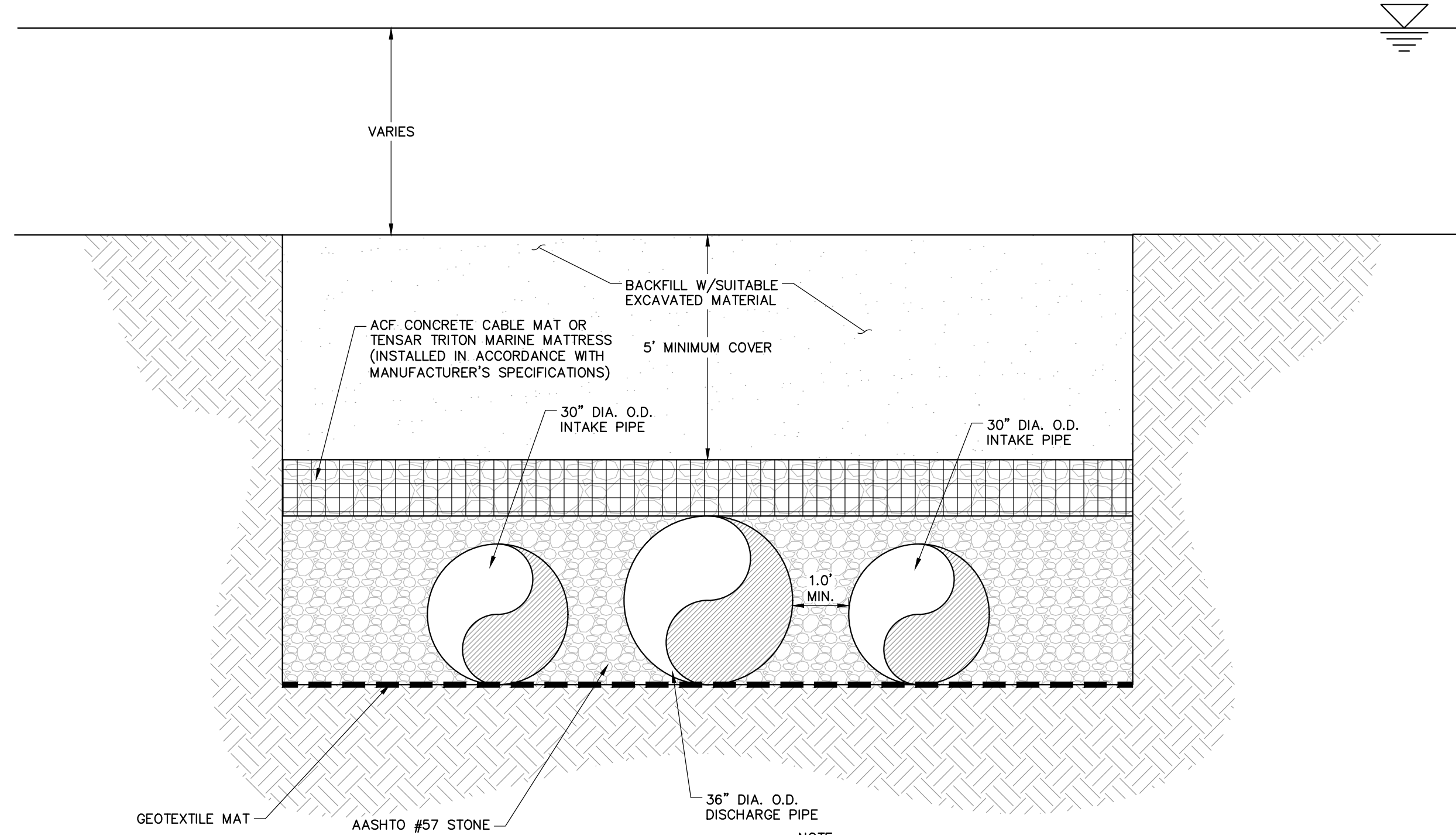
**CROSS SECTIONS**



PROJECT MANAGER: PROJECT NO: 18076

JOB CAPTAIN: **CS301**

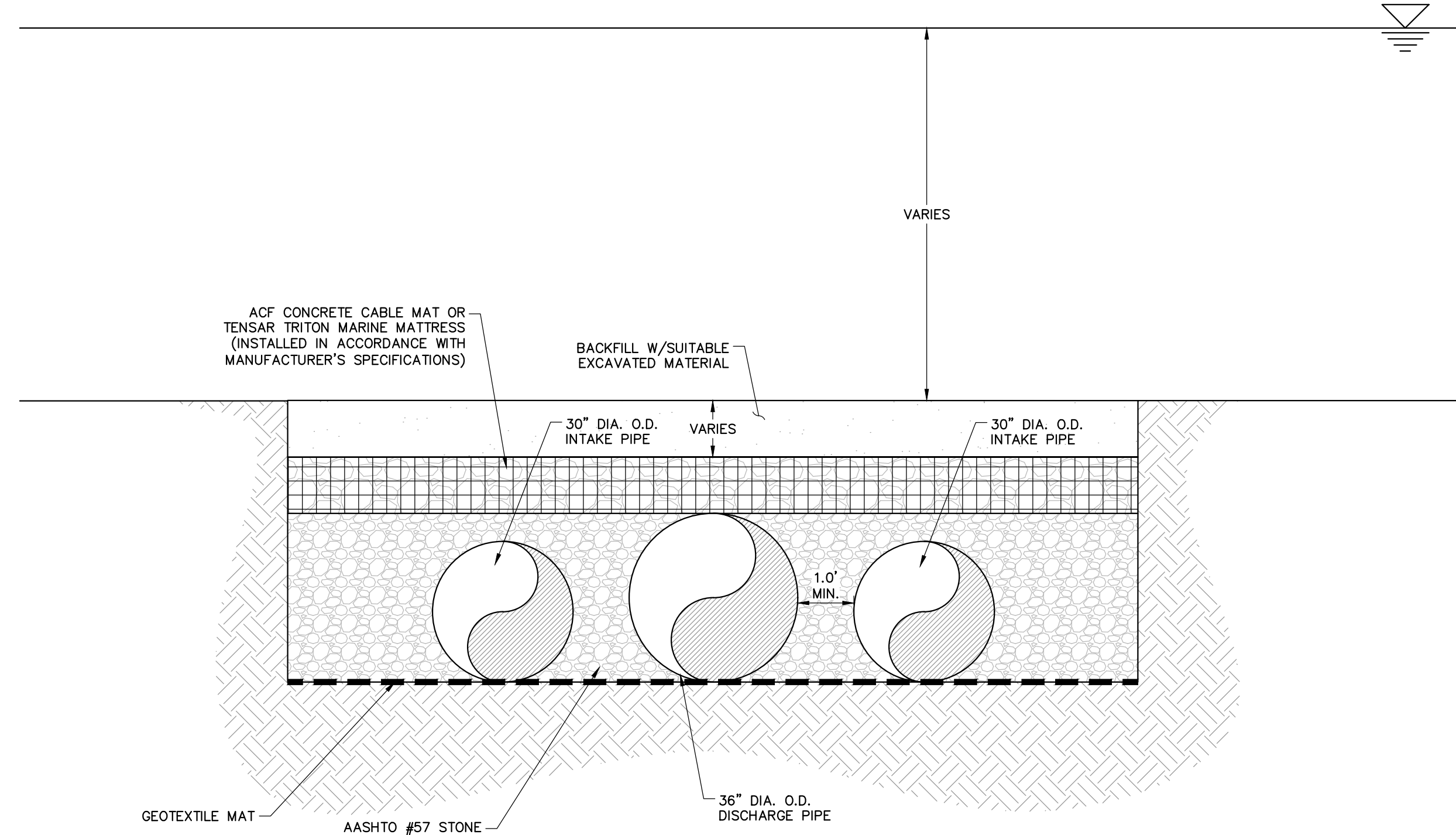
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**1**  
**INTERTIDAL & SURF ZONES (STATIONS 5+00 TO 32+00)**

CS503

NOT TO SCALE  
 CONCEPTUAL NOT FOR CONSTRUCTION

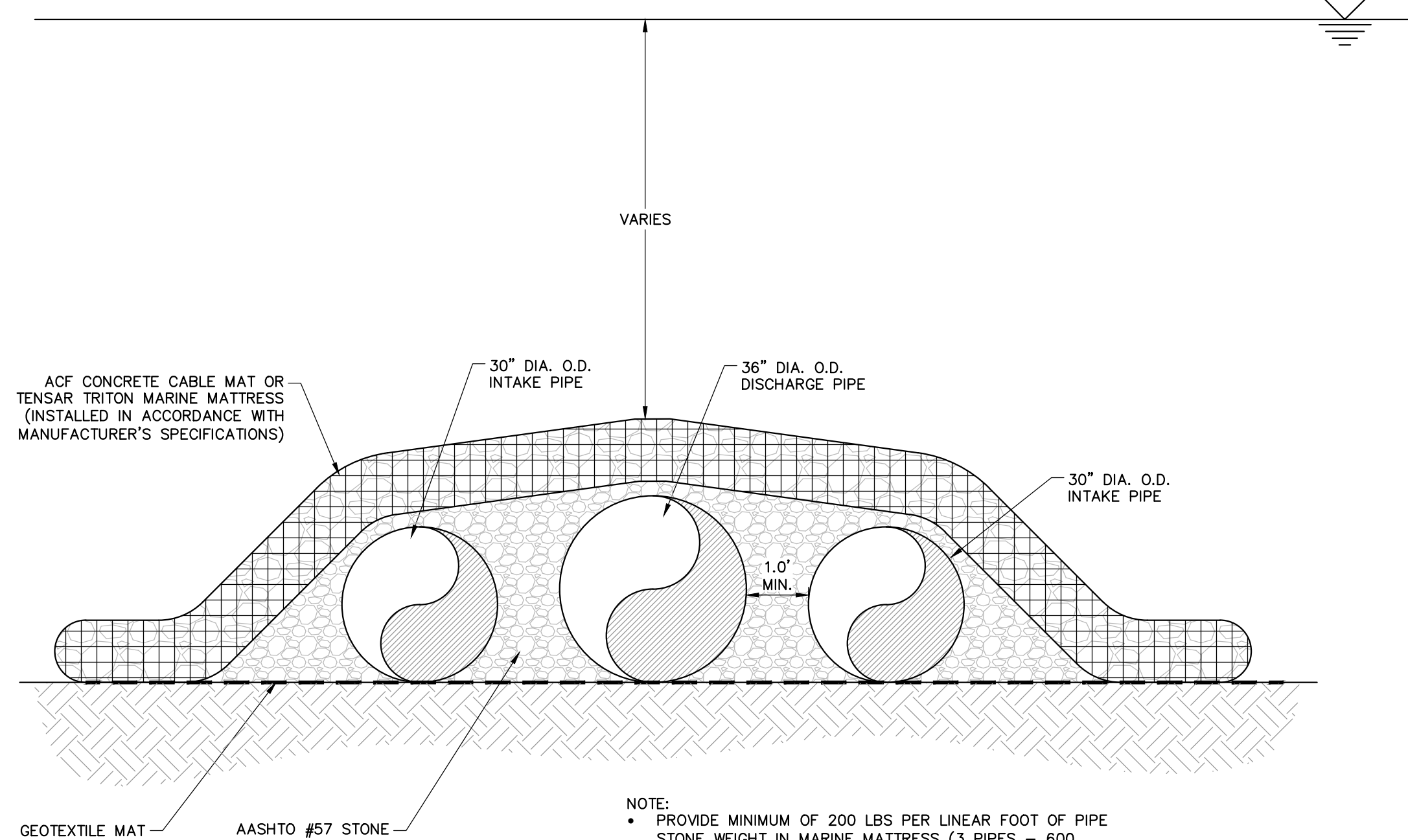


**2**  
**TRANSITION ZONE (STATIONS 32+00 TO 36+00)**

CS503

NOT TO SCALE  
 CONCEPTUAL NOT FOR CONSTRUCTION

- NOTE:
- PROVIDE MINIMUM 9000 LB CONCRETE COLLAR/WEIGHT WITHIN 10' OF EXPOSURE OF PIPES. PROVIDE ANCHORING USING CHAIN AND PILES OR HELICAL/MANTA RAY SYSTEM. SEE UNDERWATER ZONE (3 PIPE) DETAIL.
  - PROVIDE MINIMUM OF 200 LBS PER LINEAR FOOT OF PIPE STONE WEIGHT IN MARINE MATTRESS (3 PIPES - 600 LBS/LF)
  - PENDING PIPELINE INSTALLATION METHODS CONCRETE COLLARS AT 200 LBS PER LINEAR FOOT PER PIPE MAY BE REQUIRED IN TRENCHED AREAS. TYPICAL SPACING 10 FEET TO 20 FEET.

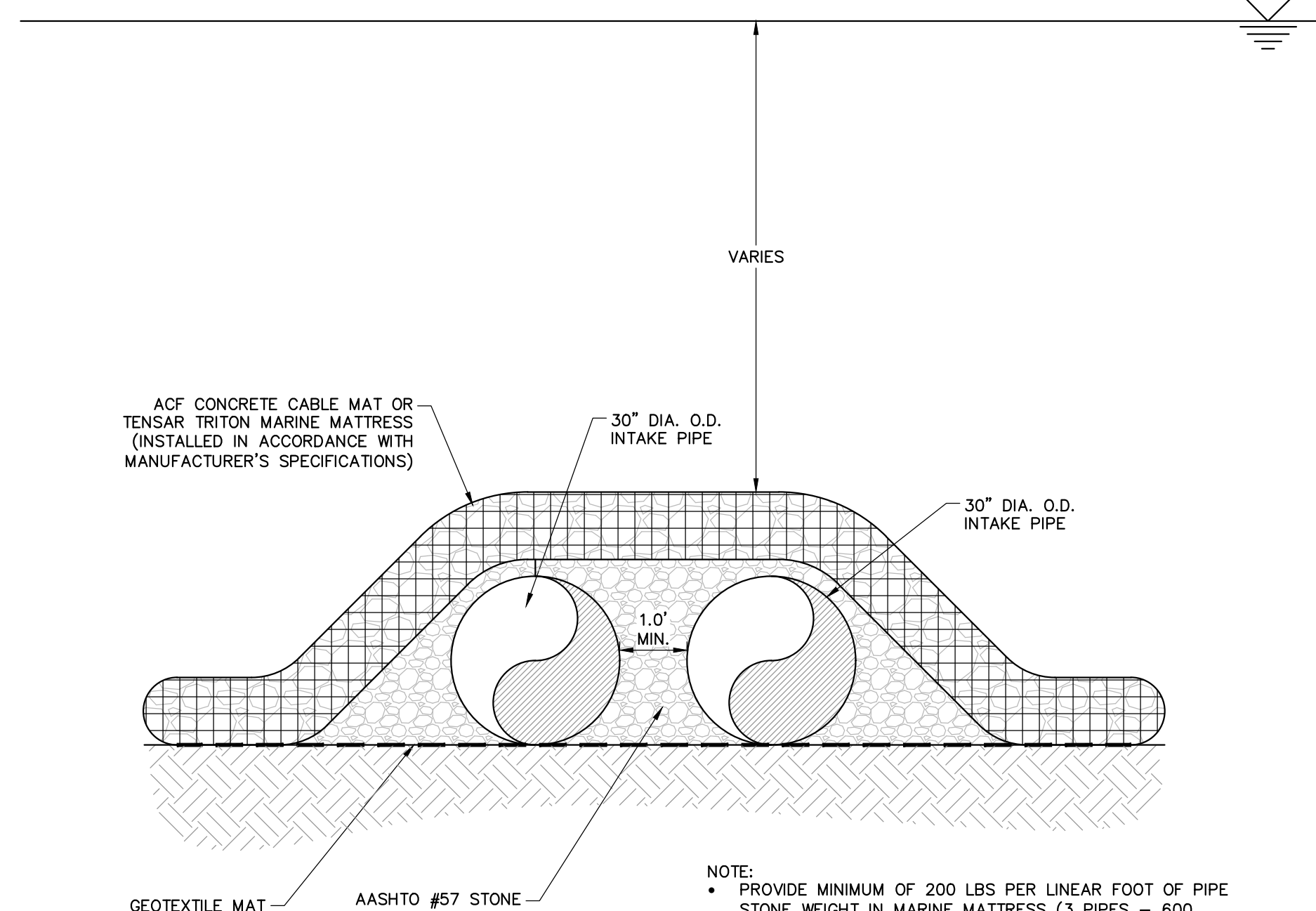


**3**  
**UNDERWATER ZONE (3 PIPE)**

CS501

NOT TO SCALE  
 CONCEPTUAL NOT FOR CONSTRUCTION

- NOTE:
- PROVIDE MINIMUM OF 200 LBS PER LINEAR FOOT OF PIPE STONE WEIGHT IN MARINE MATTRESS (3 PIPES - 600 LBS/LF)
  - MATTRESS MUST BE LONG ENOUGH TO FULLY COVER PIPES AND PROVIDE MINIMUM OF 5 FEET CONTACT WITH SEABED.



**4**  
**UNDERWATER ZONE (2 PIPE)**

CS501

NOT TO SCALE  
 CONCEPTUAL NOT FOR CONSTRUCTION

- NOTE:
- PROVIDE MINIMUM OF 200 LBS PER LINEAR FOOT OF PIPE STONE WEIGHT IN MARINE MATTRESS (3 PIPES - 600 LBS/LF)
  - MATTRESS MUST BE LONG ENOUGH TO FULLY COVER PIPES AND PROVIDE MINIMUM OF 5 FEET CONTACT WITH SEABED.

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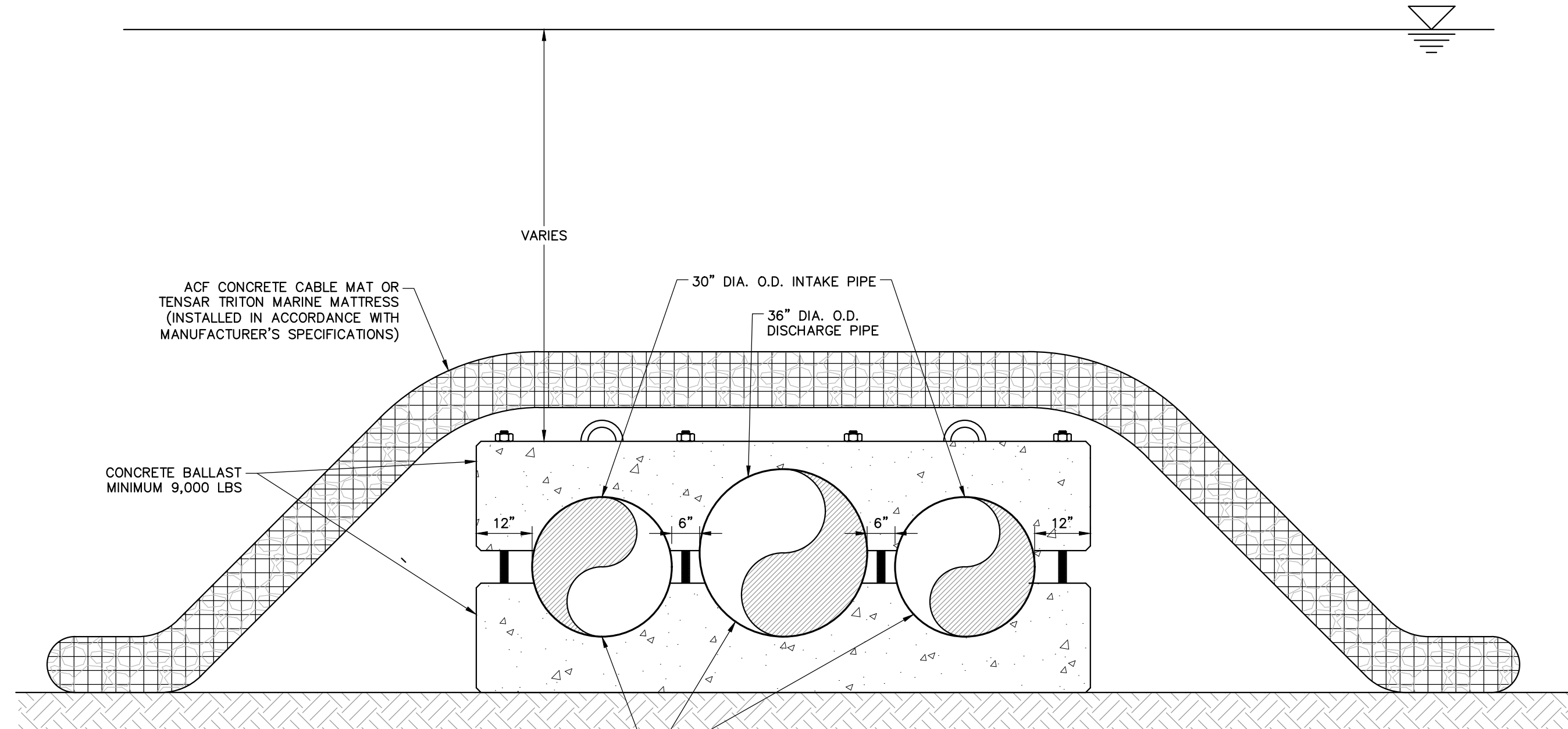
BELFAST, MAINE

**CIVIL DETAILS - 1**

PROJECT MANAGER: PROJECT NO: 18076

JOB CAPTAIN: **CS501**

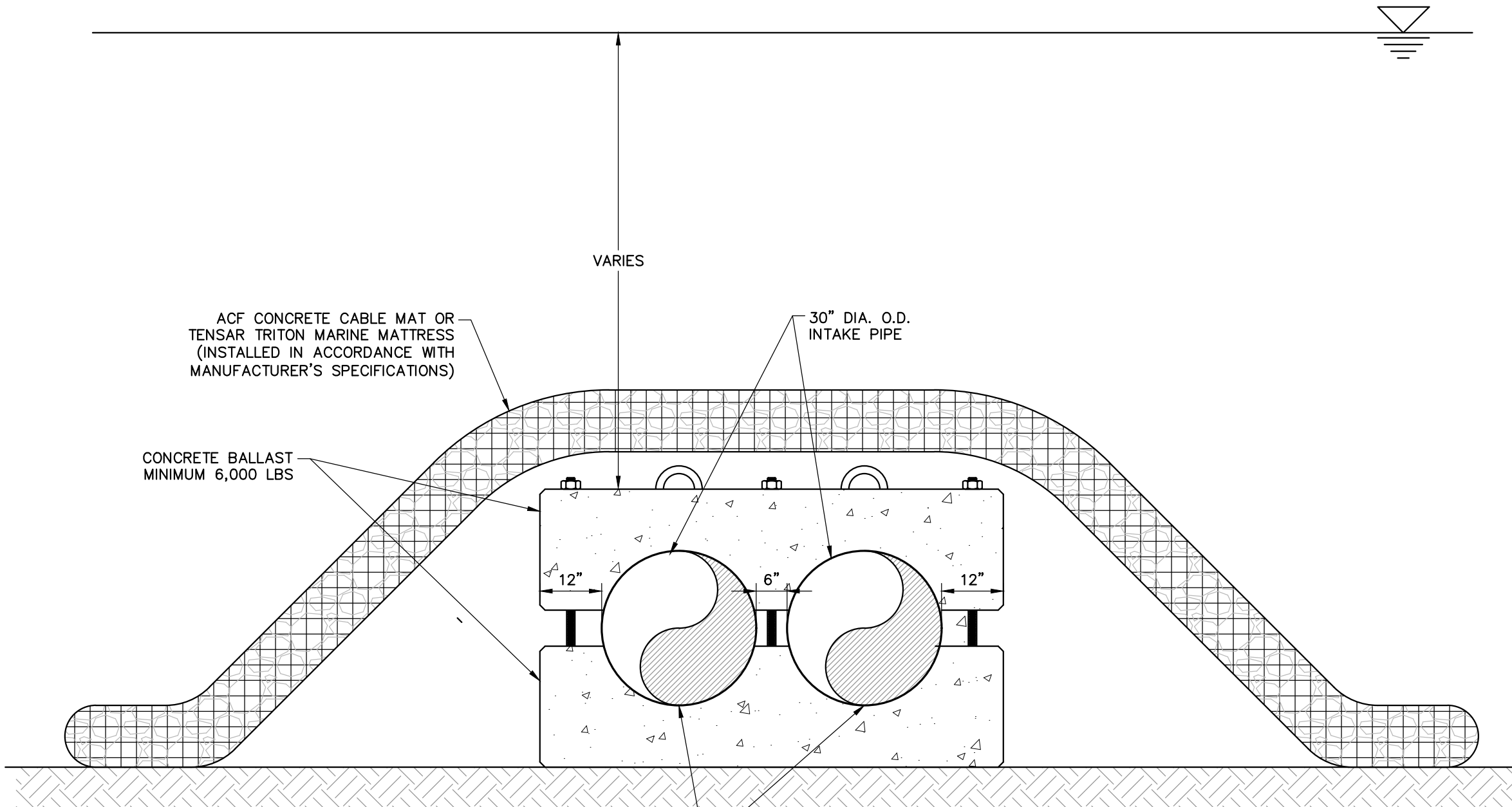
NOT FOR CONSTRUCTION



PROVIDE 1/4 ELASTOMER PAD  
COMMERCIAL GRADE NEOPRENE  
RUBBER 1000 PSI TENSILE STRENGTH

- NOTE:
- PROVIDE MINIMUM OF 200 LBS PER LINEAR FOOT OF PIPE CONCRETE WEIGHT
  - 3 PIPES = 9000 LBS SPACED 15' ON CENTER
  - PROVIDE MINIMUM OF 200 LBS PER LINEAR FOOT OF PIPE STONE WEIGHT IN MARINE MATTRESS (3 PIPES = 600 LBS/LF)
  - MATTRESS MUST BE LONG ENOUGH TO FULLY COVER PIPES AND PROVIDE MINIMUM OF 5 FEET CONTACT WITH SEABED.

1 UNDERWATER ZONE (3 PIPE) - ALT 2  
NOT TO SCALE  
CONCEPTUAL NOT FOR CONSTRUCTION



PROVIDE 1/4 ELASTOMER PAD  
COMMERCIAL GRADE NEOPRENE  
RUBBER 1000 PSI TENSILE STRENGTH

- NOTE:
- PROVIDE MINIMUM OF 200 LBS PER LINEAR FOOT OF PIPE CONCRETE WEIGHT
  - 2 PIPES = 6000 LBS SPACED 15' ON CENTER
  - PROVIDE MINIMUM OF 200 LBS PER LINEAR FOOT OF PIPE STONE WEIGHT IN MARINE MATTRESS (3 PIPES = 600 LBS/LF)
  - MATTRESS MUST BE LONG ENOUGH TO FULLY COVER PIPES AND PROVIDE MINIMUM OF 5 FEET CONTACT WITH SEABED.

2 UNDERWATER ZONE (2 PIPE) - ALT 1  
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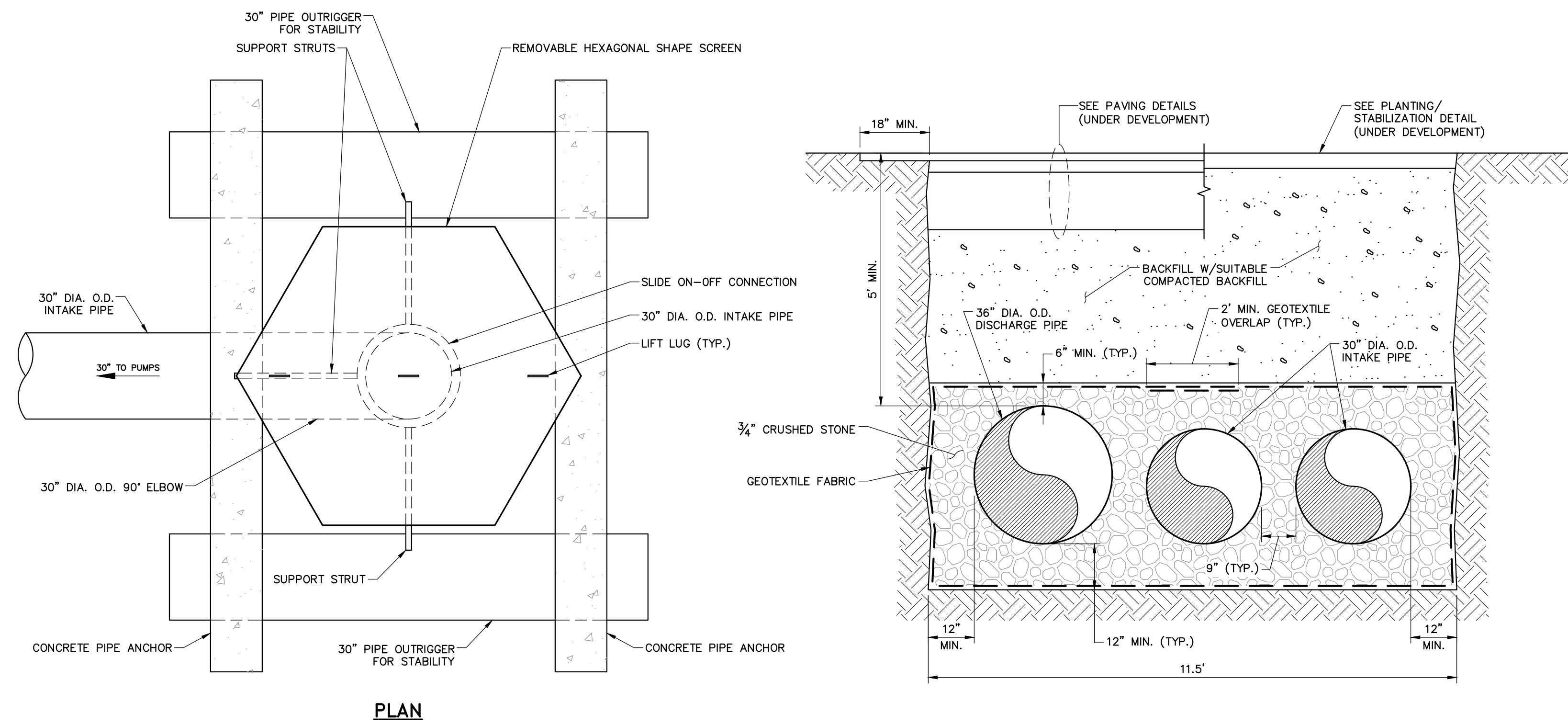
BELFAST, MAINE

CIVIL DETAILS - 2

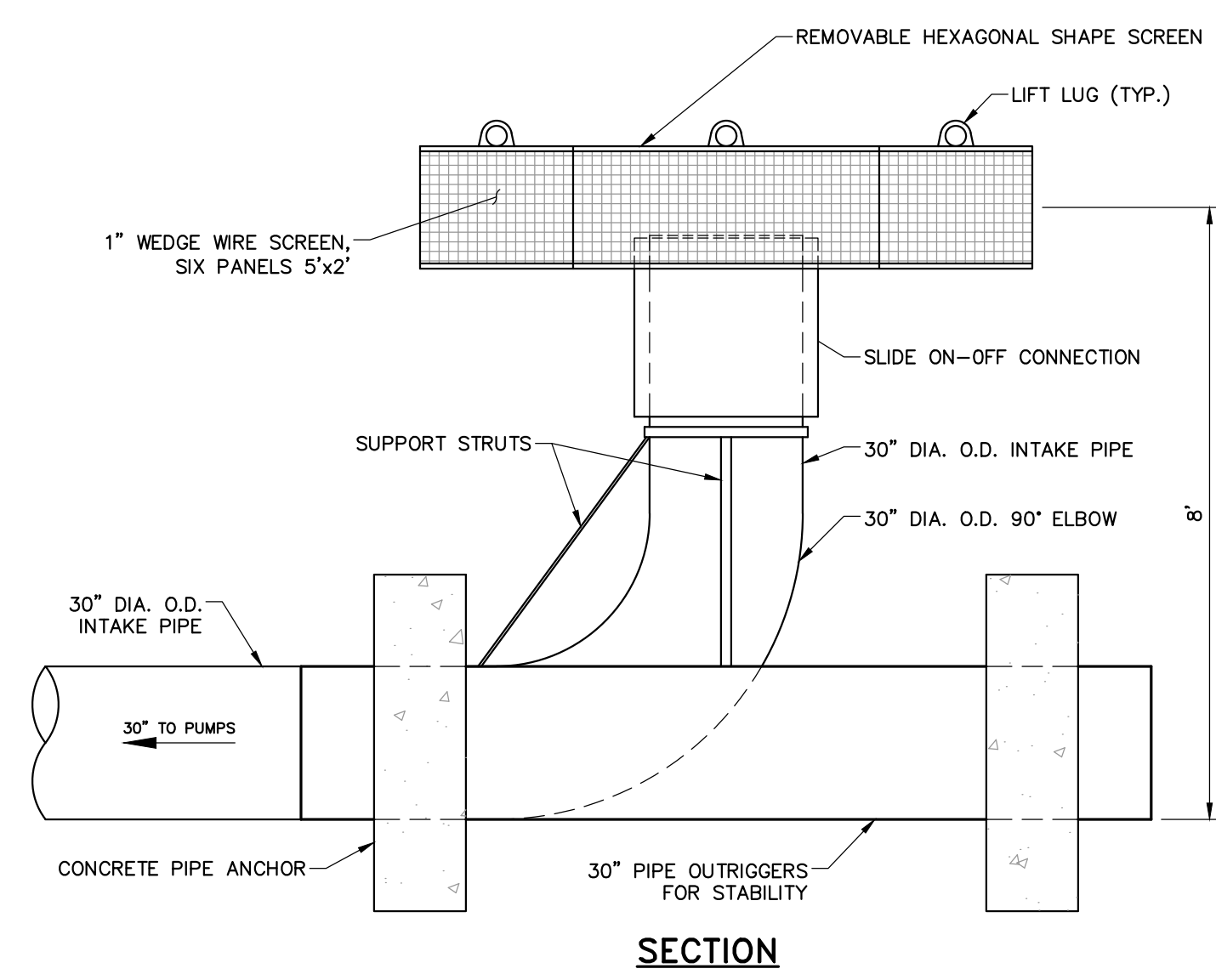
PROJECT MANAGER: PROJECT NO: 18076

JOB CAPTAIN: **CS502**

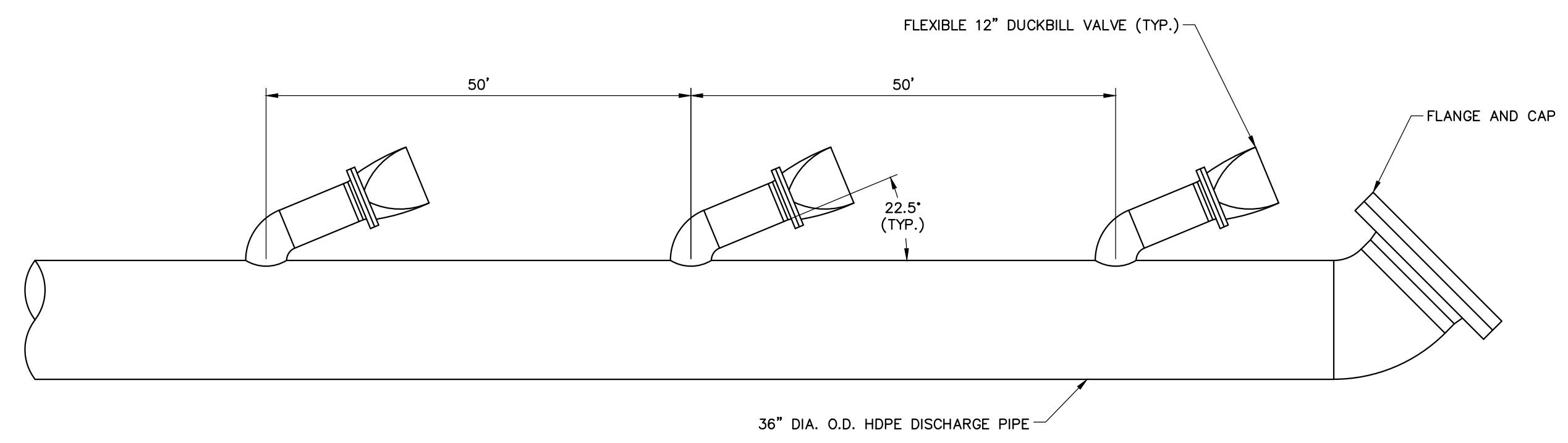
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**5 BURIED 3-PIPE TRENCH DETAIL (LAND)**  
SCALE: 1" = 2'



**6 INTAKE STRUCTURE DETAIL**  
SCALE: NOT TO SCALE



**7 DISCHARGE DIFFUSER DETAIL**  
SCALE: NOT TO SCALE

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**NORDIC AQUAFARMS**

BELFAST, MAINE

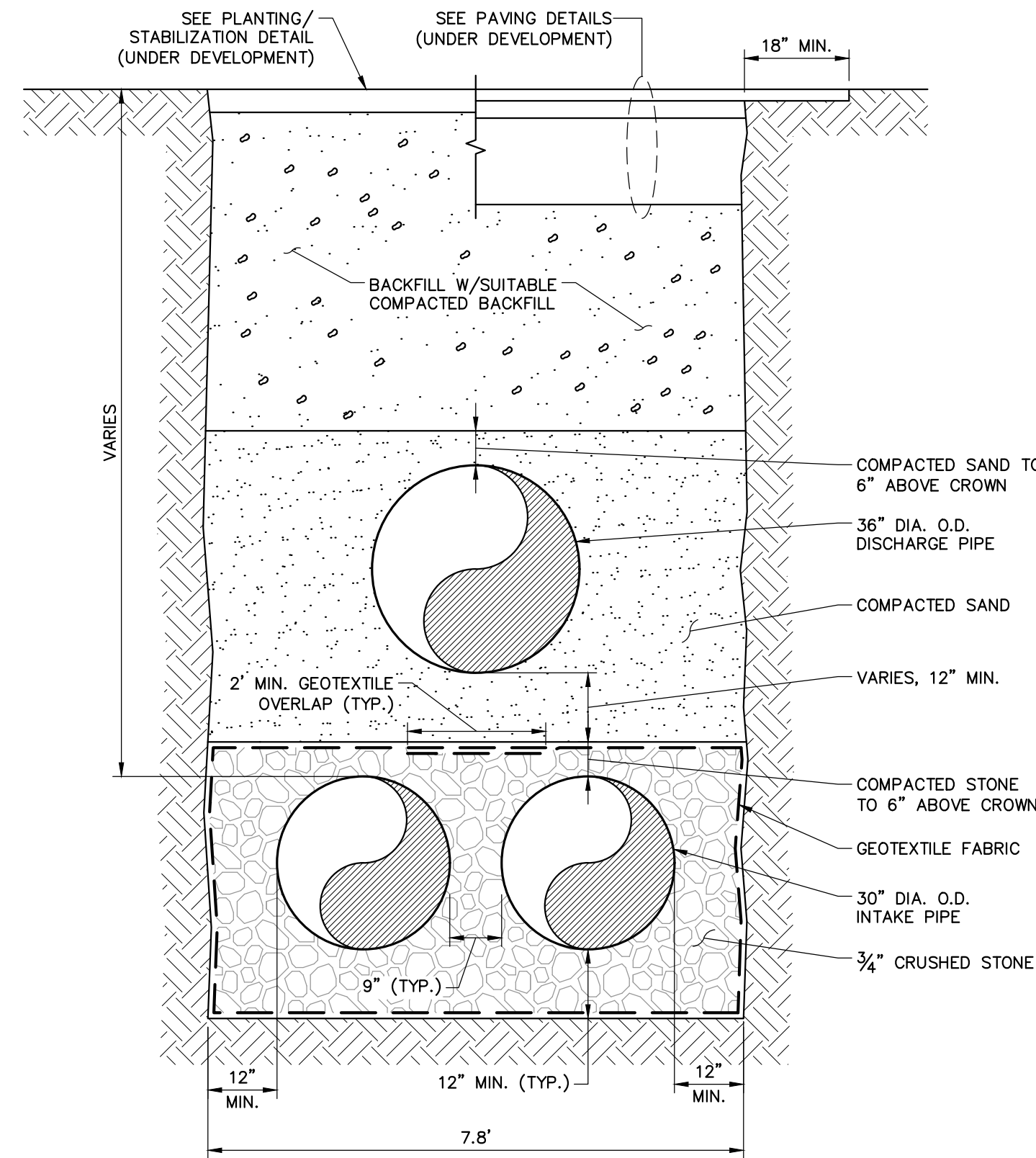
**CIVIL DETAILS - 3**

PROJECT MANAGER: PROJECT NO: 18076

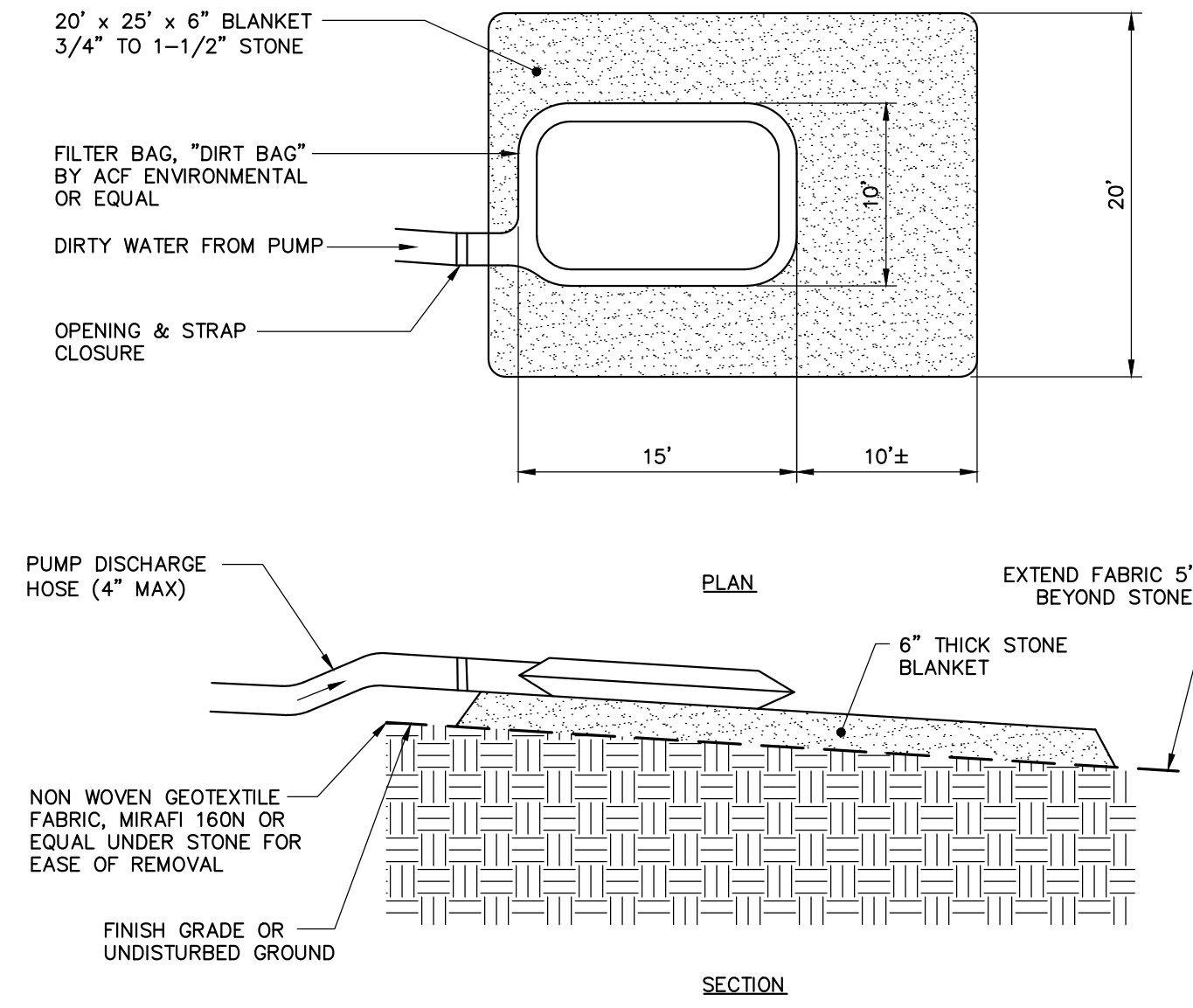
JOB CAPTAIN: **CS503**

NOT FOR CONSTRUCTION





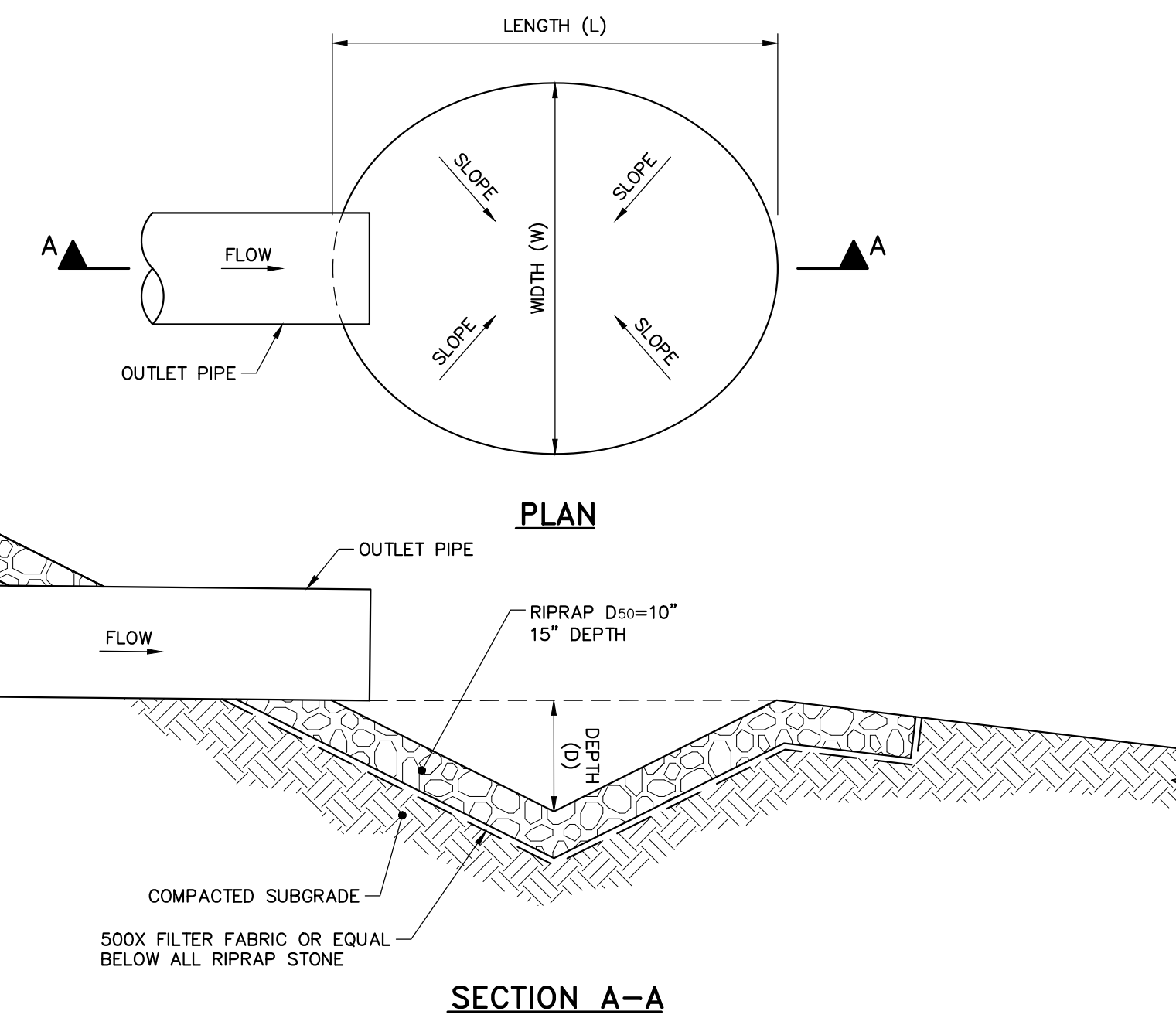
**8 BURIED 3-PIPE TRENCH DETAIL (LAND)**  
SCALE: 1" = 2'



**DEWATERING NOTES**

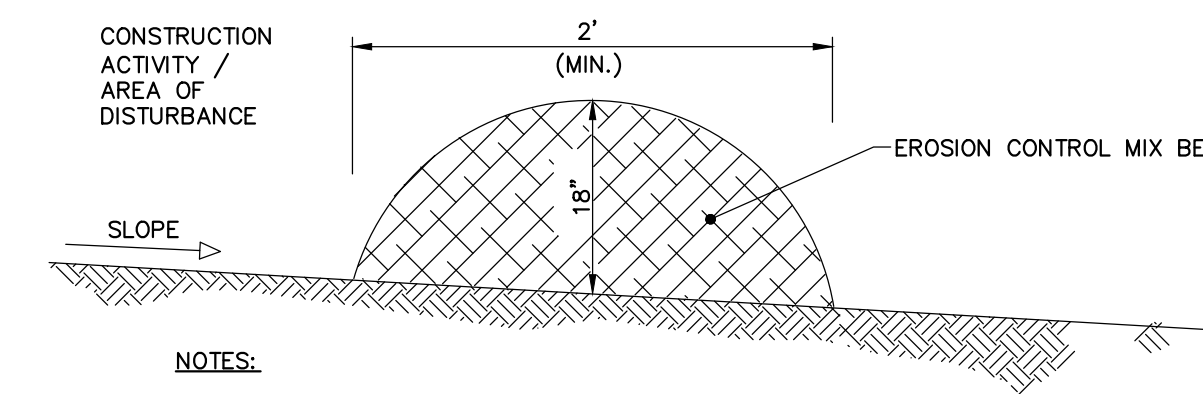
1. LOCATE DISCHARGE SITE ON FLAT UPLAND AREAS AS FAR AWAY AS POSSIBLE FROM STREAMS, WETLANDS, OTHER RESOURCES AND POINTS OF CONCENTRATED FLOW.
2. DISCHARGE NOT PERMITTED WITHIN 200' OF A STREAM OR 100' OF A WETLAND.
3. DOWNGRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, I.E. FOREST FLOOR OR COARSE GRAVEL/STONE.
4. NEVER DISCHARGE TO AREAS THAT ARE BARE OR NEWLY VEGETATED.
5. DIRT BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER, I.E., FOR COARSE PARTICLES A WOVEN MATERIAL; FOR SILTS/CLAYS A NON-WOVEN MATERIAL.
6. DO NOT OVER PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
7. CHANNELS DUG FOR DISCHARGING WATER FROM THE EXCAVATED AREA NEED TO BE STABLE. IF FLOW VELOCITIES CAUSE EROSION WITHIN THE CHANNEL THEN A DITCH LINING SHOULD BE USED.
8. BUCKETED WATER SHOULD BE DISCHARGED IN A STABLE MANNER TO THE SEDIMENT REMOVAL AREA. A SPLASH PAD OF RIPRAP UNDERLAIN WITH GEOTEXTILE MAY BE NECESSARY TO PREVENT SCOURING OF SOIL.
9. DEWATERING IN PERIODS OF INTENSE, HEAVY RAIN, WHEN THE INFILTRATIVE CAPACITY OF THE SOIL IS EXCEEDED, SHOULD BE AVOIDED.
10. INSTALL DIVERSION DITCHES OR BERMS TO MINIMIZE THE AMOUNT OF CLEAN STORMWATER RUNOFF ALLOWED INTO THE EXCAVATED AREA.
11. DURING THE ACTIVE DEWATERING PROCESS, INSPECTION OF THE DEWATERING FACILITY SHOULD BE REVIEWED FREQUENTLY. SPECIAL ATTENTION SHOULD BE PAID TO THE BUFFER AREA FOR ANY SIGN OF EROSION AND CONCENTRATION OF FLOW THAT MAY COMPROMISE THE BUFFER AREA. OBSERVE WHERE POSSIBLE THE VISUAL QUALITY OF THE EFFLUENT AND DETERMINE IF ADDITIONAL TREATMENT CAN BE PROVIDED.
12. EROSION CONTROL REQUIRED AROUND DEWATERING DISCHARGE SEDIMENT CONTROL DEVICE.

**9 DEWATERING DISCHARGE SEDIMENT CONTROL DEVICE**  
SCALE: NOT TO SCALE



PIPE SIZE	REQUIRED				PROVIDED			
	(L)	(W)	(D)	SLOPE	(L)	(W)	(D)	SLOPE
36"	12'	6'	3'	2:1	28'	22'	3'	3:1
30"	10'	5'	2.5'	2:1	24'	18'	2.5'	3:1

**10 RIPRAP PLUNGE POOL**  
SCALE: NOT TO SCALE



**NOTES:**

**Erosion Control Mix Berms**

Erosion control mix can be manufactured on or off the project site. It must consist primarily of organic material and may include: shredded bark, stump grindings, composted bark, or acceptable manufactured products. Wood and bark chips, ground construction debris or reprocessed wood products will not be acceptable as the organic component of the mix.

**Composition**

Erosion control mix shall contain a well-graded mixture of particle sizes and may contain rocks less than 4" in diameter. Erosion control mix must be free of refuse, physical contaminants, and material toxic to plant growth. The mix composition shall meet the following standards:

- The organic matter content shall be between 80 and 100% dry weight basis.
- Particle size by weight shall be 100% passing a 6" screen and a minimum of 70%, maximum of 85%, passing a 0.75" screen.
- The organic portion needs to be fibrous and elongated.
- Large portions of silts, clays or fine sands are not acceptable in the mix.
- Soluble salts content shall be < 4.0 mmhos/cm.
- The pH should fall between 5.0 and 8.0.

**11 SEDIMENT BARRIER – EROSION CONTROL MIX BERM**  
SCALE: NOT TO SCALE

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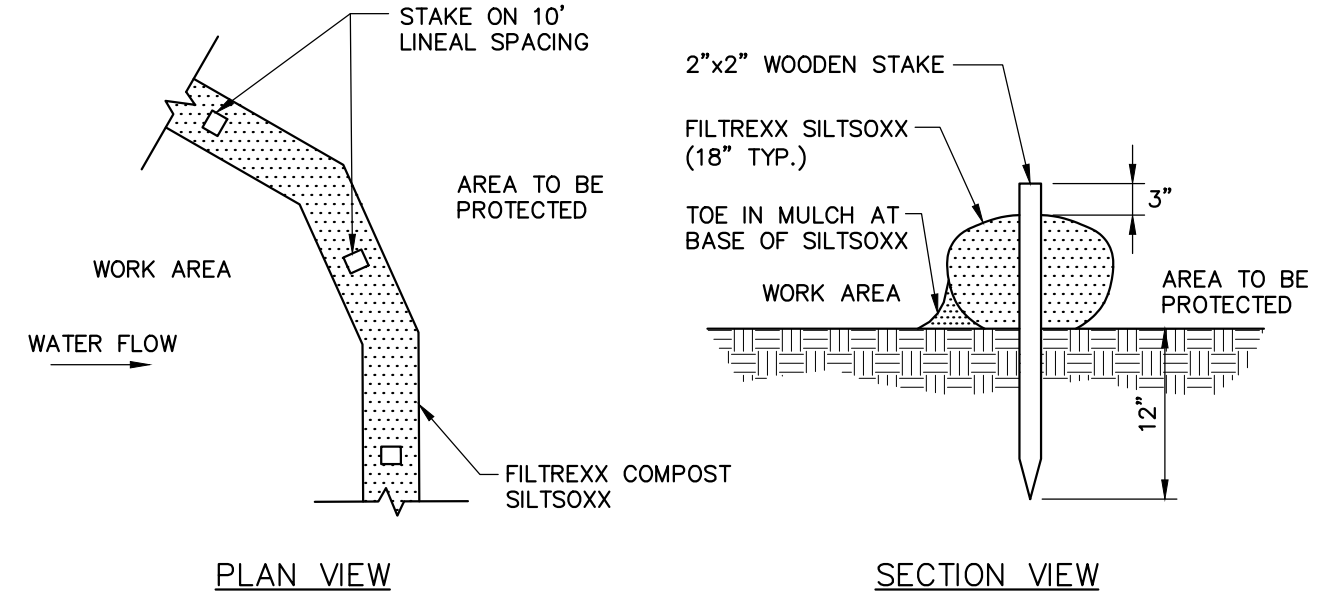
**NORDIC AQUAFARMS**

BELFAST, MAINE

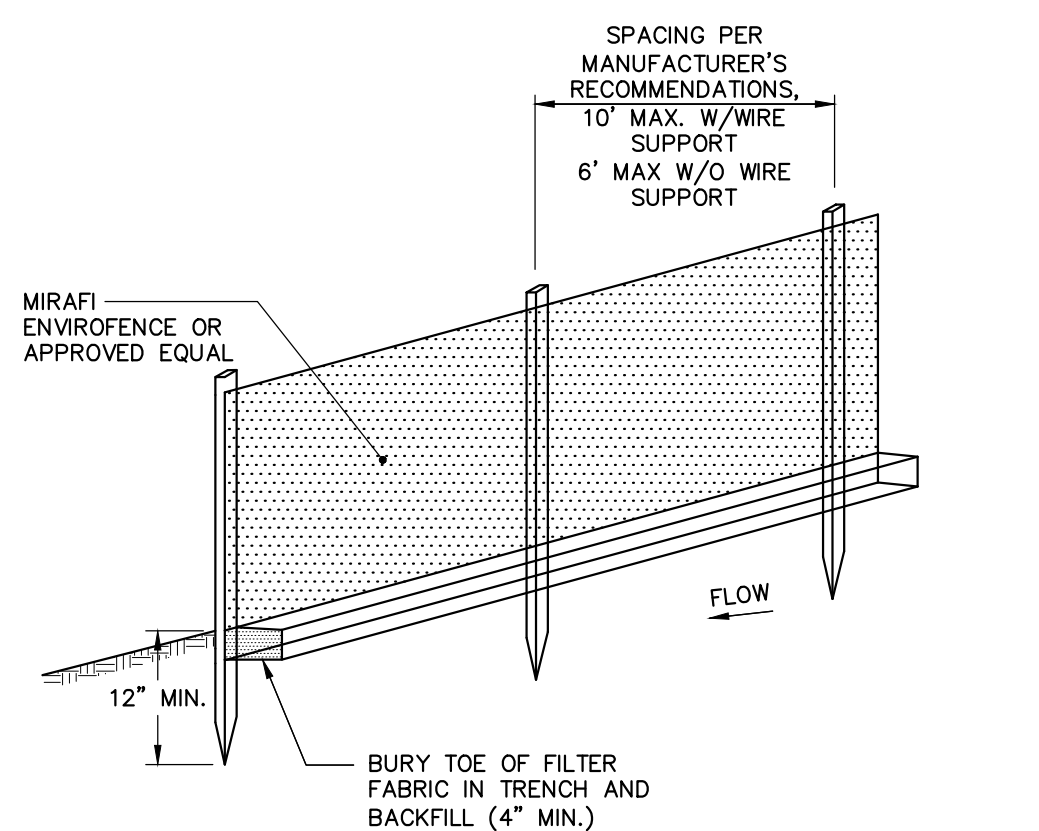
CIVIL DETAILS - 4

PROJECT MANAGER: PROJECT NO: 18076

JOB CAPTAIN: **CS504**



**12 SILTATION BARRIER - SILTSSOXX**  
SCALE: NOT TO SCALE



**NOTES:**

- INSTALL FABRIC ON UPHILL SIDE OF SUPPORT POSTS
- INSTALL SILT FENCE ACROSS SLOPES
- SILT FENCE SHALL NOT BE USED IN DRAINAGE WAYS

**MAINTENANCE:** INSPECT FOR TEARS IN THE FABRIC OR DAMAGE TO SUPPORTS. REPAIR AS NECESSARY. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES A DEPTH OF SIX-INCHES OR LESS.

**REMOVAL:** WHEN UPSLOPE AREAS ARE STABILIZED, THE STRUCTURE AND ANY ACCUMULATED SEDIMENT WILL BE REMOVED.

**13 SILTATION BARRIER - SILTATION FENCE DETAIL**  
SCALE: NOT TO SCALE

**EROSION AND SEDIMENT CONTROL NOTES**

**Temporary Erosion Control**

Contractor shall prepare and submit a soil erosion and water pollution control plan to engineer in accordance with section 656.

Measure	Dates For Use	Timing, Activity, and Location
Sedimentation Barrier	ALL	Before soil disturbance, install downhill of areas to be disturbed and around material stockpiles.
Up-slope Diversion	ALL	Before soil disturbance, install uphill of areas to be disturbed and around material stockpiles.
Catch Basin Protection	ALL	Before soil or pavement disturbance, install ACF Environmental, Inc. High Flow Siltsock, Siltsover Inlet Filter, or equal, installed per manufacturer's requirements.
Dust Control	ALL	During dry weather, apply water and calcium chloride to control dust.
Temporary Seeding	April 15 to Oct. 1	Soil stockpiles that are not covered and disturbed areas that will not be disturbed again within 14 days. If gross growth provides less than 95% soil coverage by Nov. 1, apply mulch and anchor with erosion control blanket.
Mulch	April 15 to Sept. 15	On all areas of exposed soil apply 100-150 lbs (2.5 bales) per 1,000 sq ft. by mechanical blower.
Winter Mulch	Sept. 16 to Oct. 31	On all areas of exposed soil apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. by mechanical blower. Erosion control blanket may be used as a substitute for winter mulch.
	Nov. 1 to April 14	On all areas of exposed soil, apply 150 to 170 lbs. mulch (4 bales) per 1,000 sq. ft. and anchor with netting at the end of each working day. Erosion control blanket may be used as a substitute for winter mulch.
Inspections	Until site is permanently stabilized	Inspect the erosion and sedimentation control measures daily, and maintain and repair as necessary.

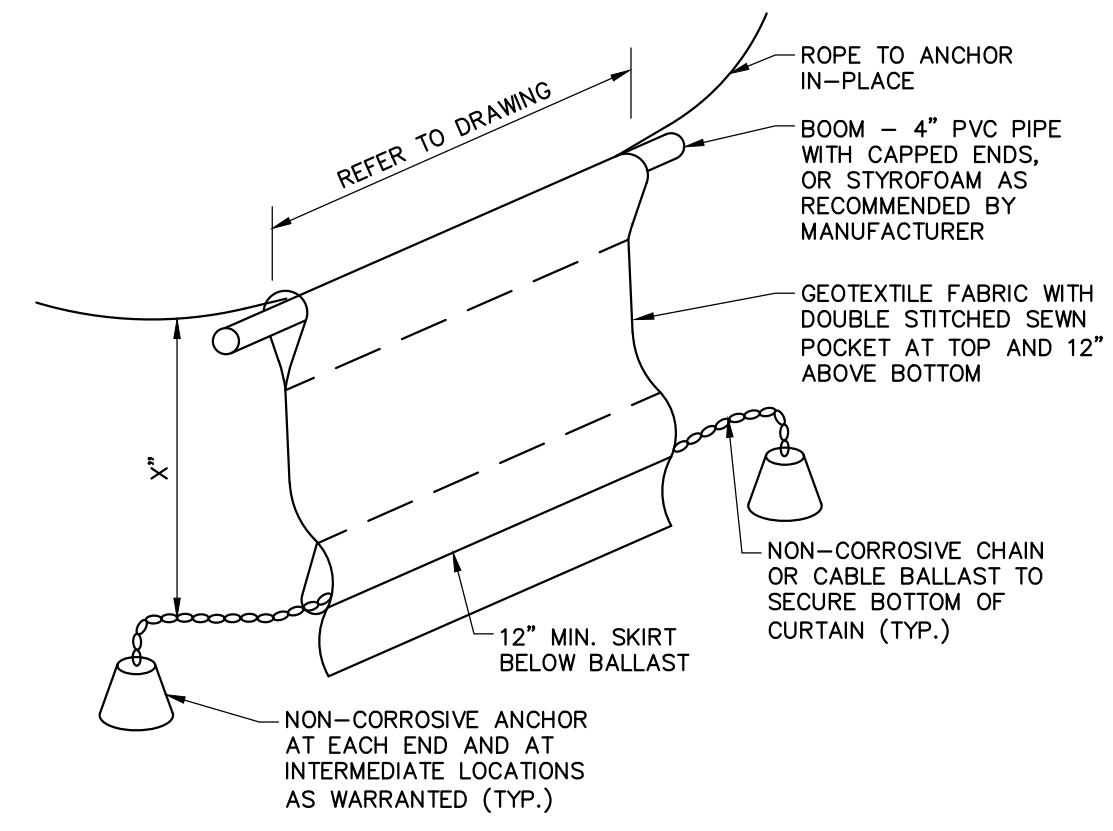
**Permanent Erosion Control:**

Measure	Dates For Use	Timing, Activity, and Location
Pavement - Base Course - Final Course	When no frost is in ground	Install only in areas shown on the plan, shortly after pavement base is brought to final grade. Install near completion of project.
Permanent Seeding	April 15 to Sept. 15	On final grade areas, within 7 days of grade preparation, prepare topsoil, followed by seed and mulch application.
Dormant Seeding	Sept. 16 to April 15	On final grade areas, with prepared topsoil. Apply seed at double the specified rate on bare soil, and follow with an application of winter mulch.
Ground Cover, Trees, Shrubs	April 15 to Nov. 1	Install with final landscaping.
Permanent Mulch	ALL	Install with final landscaping.

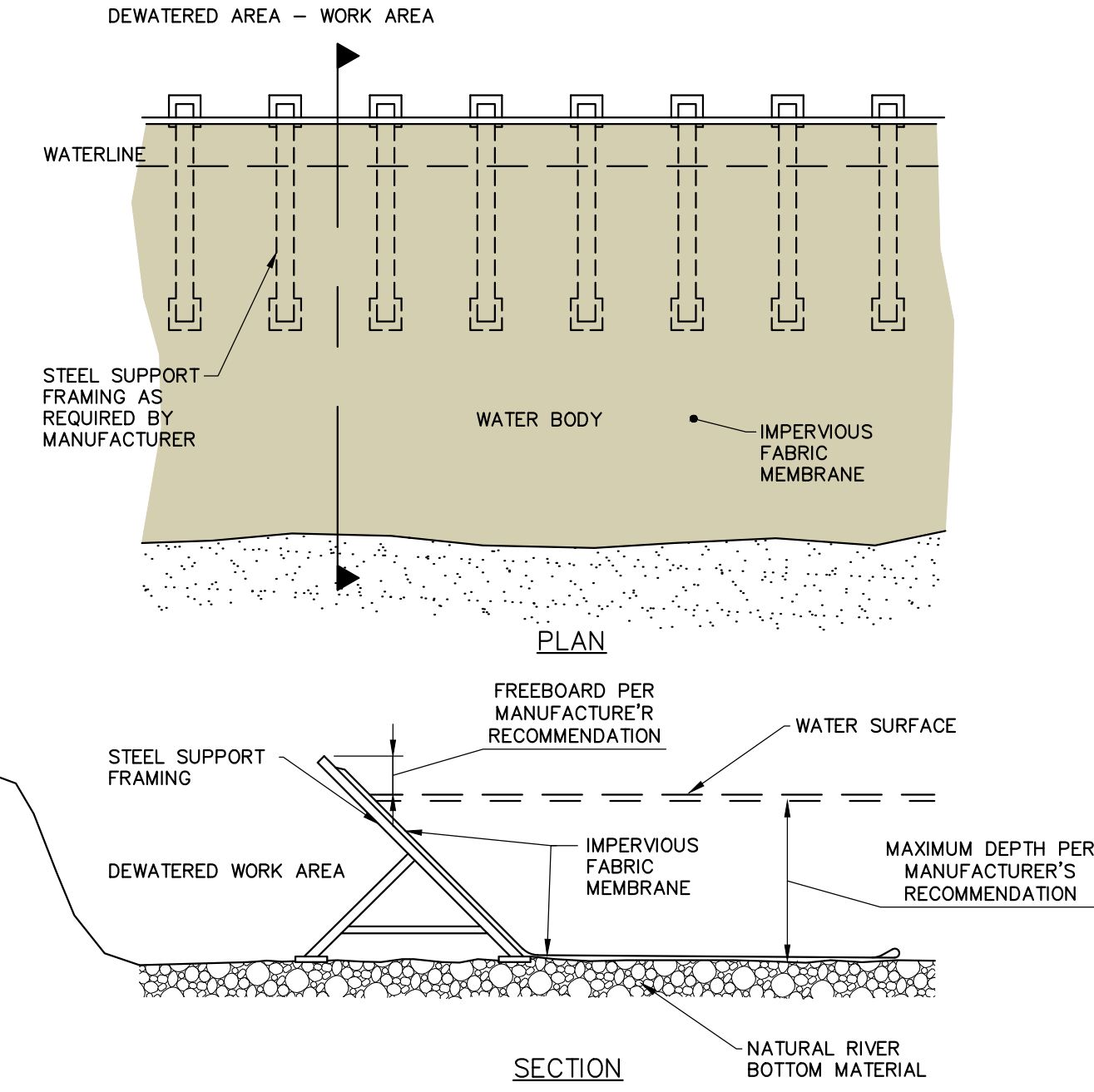
**Inspections:**

Regular inspections of all erosion and sedimentation controls shall be made at least weekly and prior to and following storm events. Minimum inspections shall be made as listed in the table below.

Inspected Item	Look For
Mulched Surfaces	Thin mulch or inadequate application. Wind movement.
Seeded Surfaces	Poor seed germination. Loss of mulch. Development of ruts/dents.
Sediment Barrier	Sediment build-up to one half the height of the barrier. Undermining of the barrier. Supporting stakes loose, toppled, or unmarked. Breaks in barrier.
Perimeter Diversion	Discharge is to stabilized area. Erosion or breaks in barrier. Supporting stakes loose, toppled or unmarked.
Catch Basin Protection	Sediment build-up and structure blockages. Slow flow/Ponding water. Breaks in fabric or voids in barrier.
Dewatering Filter	Breaks in fabric or supporting structure. Slow flow, indicating high sediment build-up.
Construction Entrance	Sedimentation of roadways. Off-site dust complaints.



**14 TURBIDITY CURTAIN**  
SCALE: NOT TO SCALE



**NOTE:** COFFERDAM DETAIL SHOWN FOR REFERENCE PURPOSES. CONTRACTOR SHALL PROVIDE DESIGN OF TEMPORARY COFFERDAMS, STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MAINE.

**15 TEMPORARY FRAME & FABRIC COFFERDAM DETAIL**  
SCALE: NOT TO SCALE  
TO BE INSTALLED AROUND WORK AREA IN ACCORDANCE WITH CONTRACTOR'S WORK PLAN

**EROSION AND SEDIMENTATION CONTROL NOTES**

TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, HYDRAULIC MULCH, HAY AND STRAW MULCH, EROSION CONTROL BLANKET, TURF REINFORCED MATTING, RIPRAP AND TEMPORARY SEEDING. TEMPORARY SEDIMENT CONTROL MEASURES INCLUDE THE USE OF SILT FENCE, EROSION CONTROL MIX BERMS, PLUNGE POOLS, CHECK DAMS, SEDIMENT TRAPS, CATCHBASIN SEDIMENT COLLECTION BAGS AND GEOTEXTILE FILTER BAGS. PERMANENT MEASURES INCLUDE THE USE OF RIPRAP AT EXPOSED STORMDRAIN AND CULVERT INLETS AND OUTLETS, ARMORED SWALES AND SLOPES AND PERMANENT VEGETATION.

- GENERAL**
- THE PROJECT SHALL CONFORM WITH THE STANDARDS OF THE NRPA PERMIT AND ACOE GENERAL PERMIT.
  - ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK PUBLISHED BY THE MAINE DEP UNLESS OTHERWISE NOTED IN THESE PLANS. [HTTP://MAINE.GOV/DEP/BLWQ/DOCS/STAND/ESCBMPZ/](http://MAINE.GOV/DEP/BLWQ/DOCS/STAND/ESCBMPZ/)
  - ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.
  - THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.
  - THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE SITE WHENEVER POSSIBLE WHILE ALLOWING PROPER SITE DEVELOPMENT.
  - CONSTRUCTION STAGING SHALL BE CONDUCTED IN A WAY TO MINIMIZE THE POTENTIAL FOR STORMWATER RUN-ON TO DISTURBED AREAS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:
    - FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS THAT 90% OF THE DISTURBED AREA IS COVERED WITH REASONABLY THICK UNIFORM STAND OF PERMANENT GRASS SPECIES, FREE FROM SIZABLE THIN OR BARE SPOTS.
    - FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THAT COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE OFF.
    - FOR MULCHED AREAS, PERMANENT STABILIZATION MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
    - FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE. STONE MUST BE SIZED APPROPRIATELY AND IN ACCORDANCE WITH SECTION E-6 OF THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
    - FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE ASPHALT BINDER COURSE.
    - FOR OPEN CHANNELS, LEVEL SPREADERS, ENGINEERED BUFFERS OR OTHER DESIGNED STORMWATER CONVEYANCE STRUCTURE, PERMANENT STABILIZATION MEANS THE CHANNELIZED AREA(S) IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH APPROVED RIPRAP, OR WITH OTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE SHALL BE NO EVIDENCE OF SLUMPING, UNDERCUTTING OR DOWNCUTTING OF THE DESIGNED CHANNEL.
  - IF THE AREA WILL REMAIN UNWORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, AND WILL NOT BE BUILT ON, THEN IMMEDIATELY PROVIDE PERMANENT STABILIZATION USING VEGETATION THROUGH PLANTING, SEEDING, SOD OR THROUGH THE USE OF PERMANENT MULCH OR RIPRAP. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS. AMEND AREAS OF DISTURBED, OVERLY-COMPACTED SUBSOIL WITH TOPSOIL OR COMPOST AND LIGHTLY TILL 2-3" OF SOIL AMENDMENTS INTO THE TOP 8" OF SOIL.
  - PROTECT ALL SEEDED AREAS WITH MULCH OR EROSION CONTROL BLANKET IN AREAS OF SHEET OR CONCENTRATED FLOWS. MULCH ALL AREAS SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. SCHEDULE SEEDING OR SODDING TO AVOID FAILURE DUE TO SUMMER DROUGHT AND FALL FROST. NEWLY SEEDER AREAS SHOULD BE PROTECTED FROM VEHICLE TRAFFIC, PEDESTRIAN TRAFFIC AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE OR SURFACE EROSION IS EVIDENT.
  - DITCH LININGS AND RIPRAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF THE CULVERT.
  - EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 3:1, IN THE BASE OF DITCHES AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (WETLANDS AND WATER RESOURCES). EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S150BN OR APPROVED EQUAL EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
  - THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURE UPON STABILIZATION OF PROJECT AREA & COST SHALL BE INCIDENTAL TO CONTRACT.

- WINTER CONDITIONS**
- WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 1. IF AREAS WITHIN THE CONSTRUCTION AREA ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15 THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS.

- GOOD HOUSEKEEPING AND POLLUTION PREVENTION**
- SPILL PREVENTION CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER RUNOFF AND APPROPRIATE SPILL PREVENTION, CONTAINMENT AND RESPONSE PLANNING AND IMPLEMENTATION.
  - DURING CONSTRUCTION, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUND OR SURFACE WATERS MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO INFILTRATION AREAS. AN "INFILTRATION AREA" IS ANY ARE OF THE SITE THAT BY DESIGN, OR AS A RESULTS OF SOIL AND TOPOGRAPHY, ACCUMULATES RUNOFF THAT INFILTRATES IN THE SOIL. DIKES, BERMS, SUMPS AND OTHER FORMS OF TEMPORARY SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
  - LOCATE ALL MATERIAL STOCKPILES WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
  - TAKE ALL REASONABLE MEASURES TO MINIMIZE DUST RESULTING FROM THE PROJECT. OIL MAY NOT BE USED FOR DUST CONTROL.
  - LOCATE ALL LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
  - TRENCH OR FOUNDATION DE-WATERING MUST BE SPREAD THROUGH SUFFICIENT NATURAL BUFFERS THAT HAVE CAPACITY TO INFILTRATE THE PUMPED WATER OR SHOULD BE PUMPED TO DESIGNED CONSTRUCTION DEWATERING DEVICES AS DESCRIBED IN THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK.
  - SEDIMENTS AND SOIL MATERIALS SHOULD BE SWEEPED FROM PAVED SURFACES AT THE END OF EACH WORKDAY OR PRIOR TO RAIN EVENTS, WHENEVER POSSIBLE.

- INSPECTION AND MAINTENANCE**
- A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROLS, INCLUDING THE STANDARDS IN THE MAINE CONSTRUCTION GENERAL PERMIT, THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK OR ANY MUNICIPAL REQUIREMENTS MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF ADDITIONAL BMPS OR MODIFICATIONS TO BMPS ARE NECESSARY, THE MODIFICATIONS MUST BE IMPLEMENTED WITH 7 CALENDAR DAYS OR PRIOR TO ANY PRECIPITATION EVENT. ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
  - AN INSPECTION AND MAINTENANCE LOG MUST BE KEPT BY THE CONTRACTOR, SUMMARIZING THE SCOPE OF THE INSPECTION, DATE, AND MAJOR OBSERVATIONS RELATING TO THE OPERATION OF EROSION AND SEDIMENT CONTROL BMPS, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE CONSTRUCTION AREA. THE INSPECTION LOG SHOULD BE DELIVERED TO THE PROPERTY OWNER OR RESPONSIBLE CONTRACTING ENTITY UPON COMPLETION OF THE PROJECT.

**RANSOM** Consulting Engineers and Scientists

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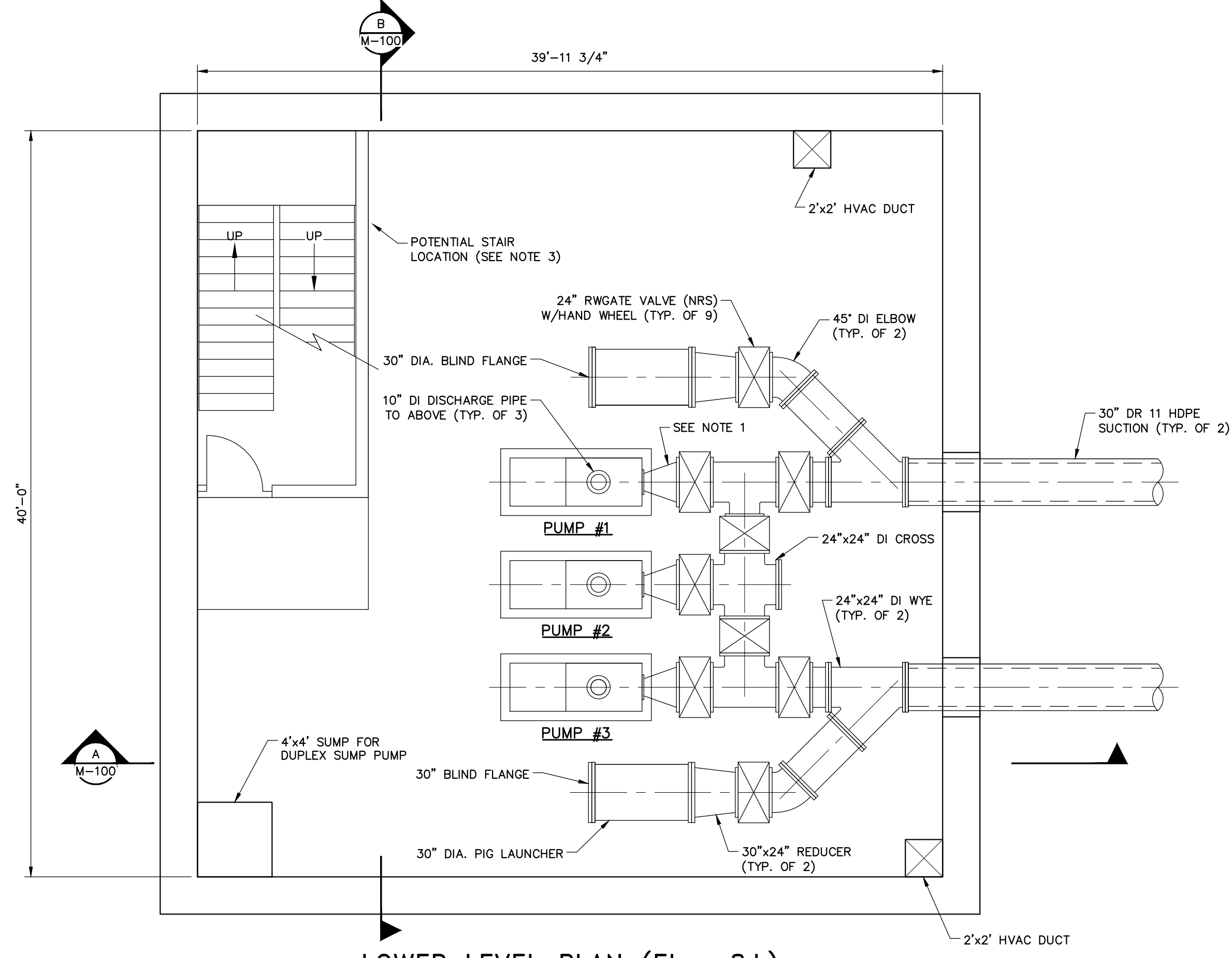
**NORDIC AQUAFARMS**

BELFAST, MAINE

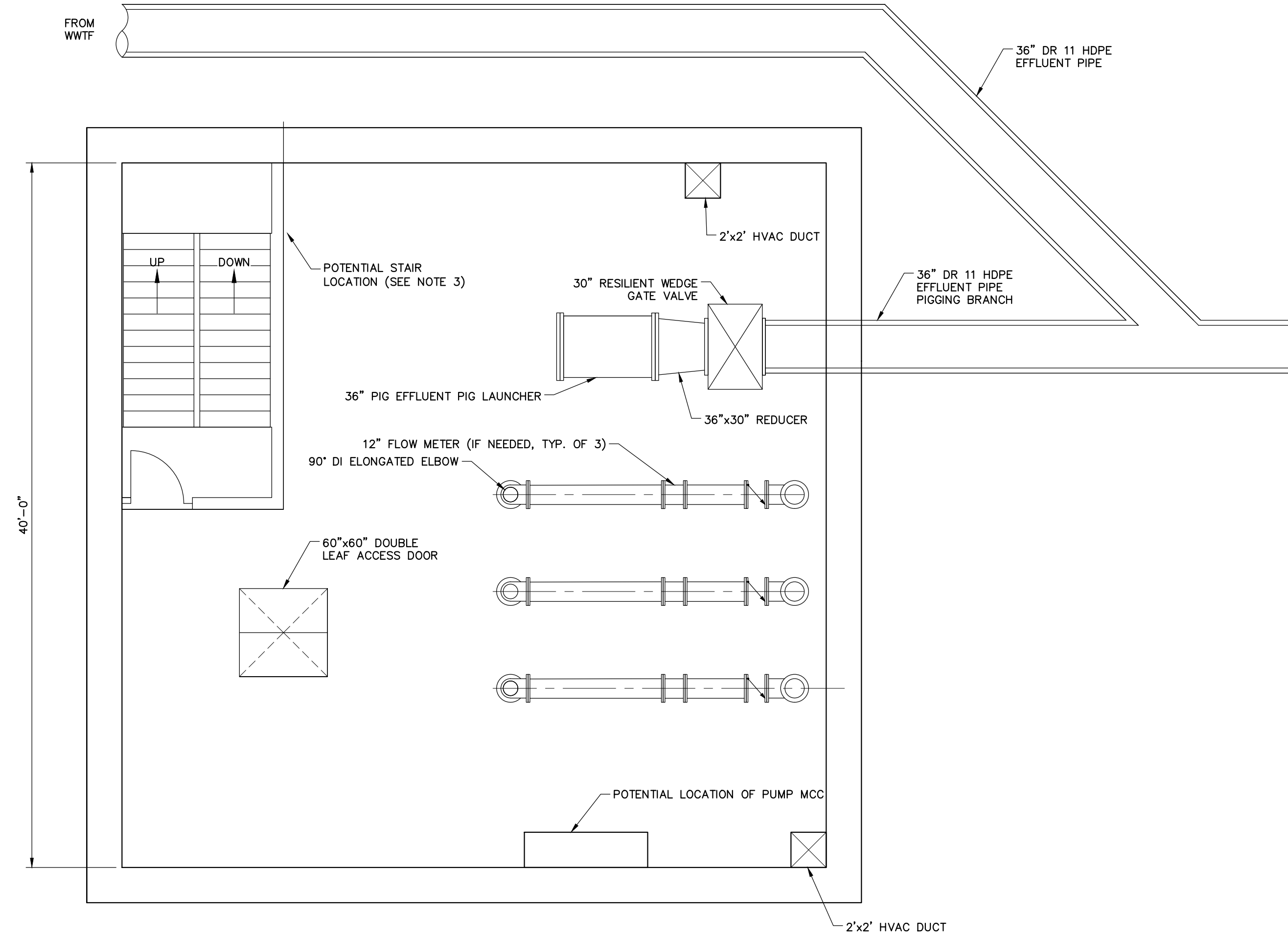
**CIVIL DETAILS - 5**

PROJECT MANAGER: PROJECT NO: 18076

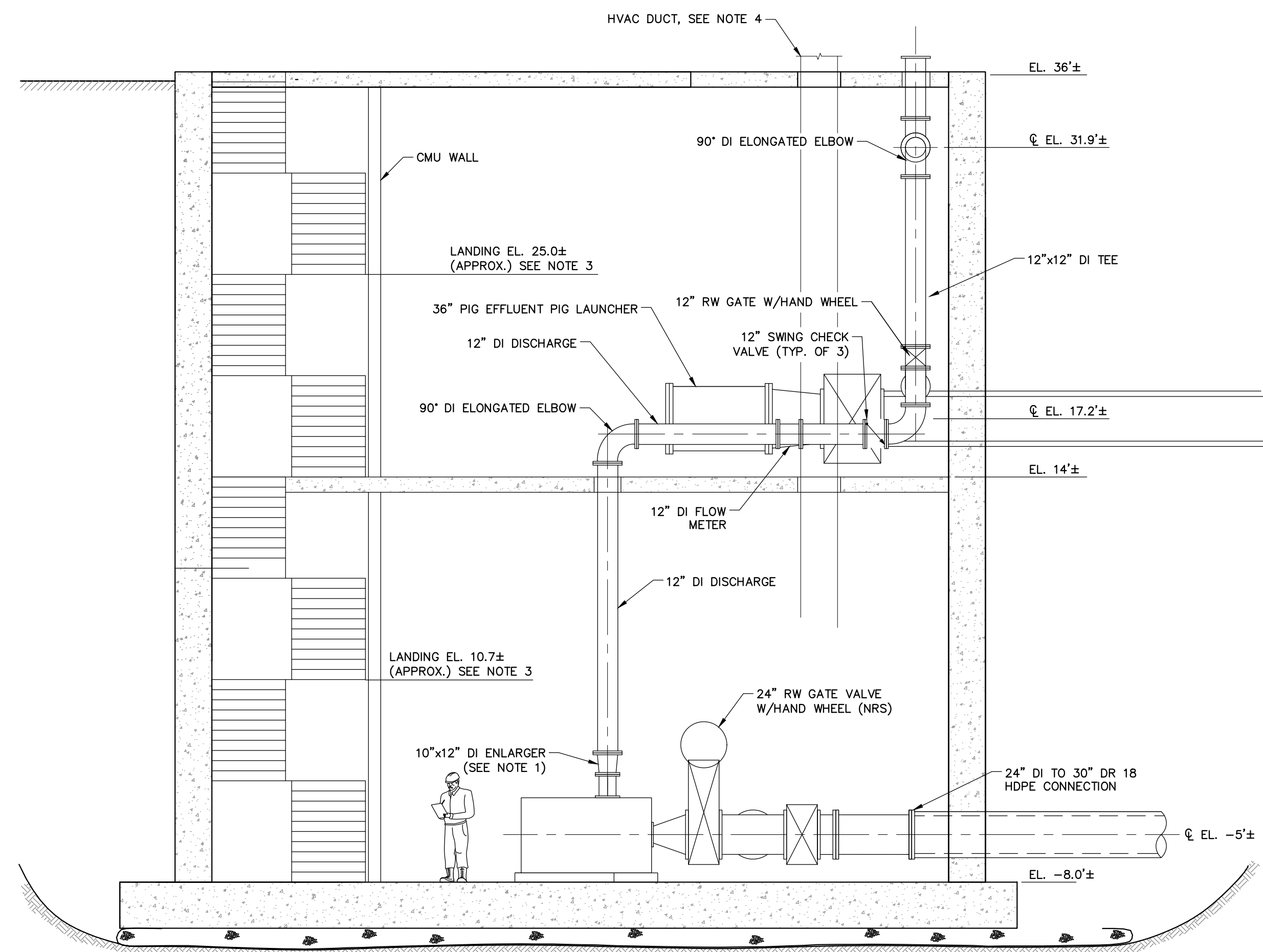
JOB CAPTAIN: **CS505**



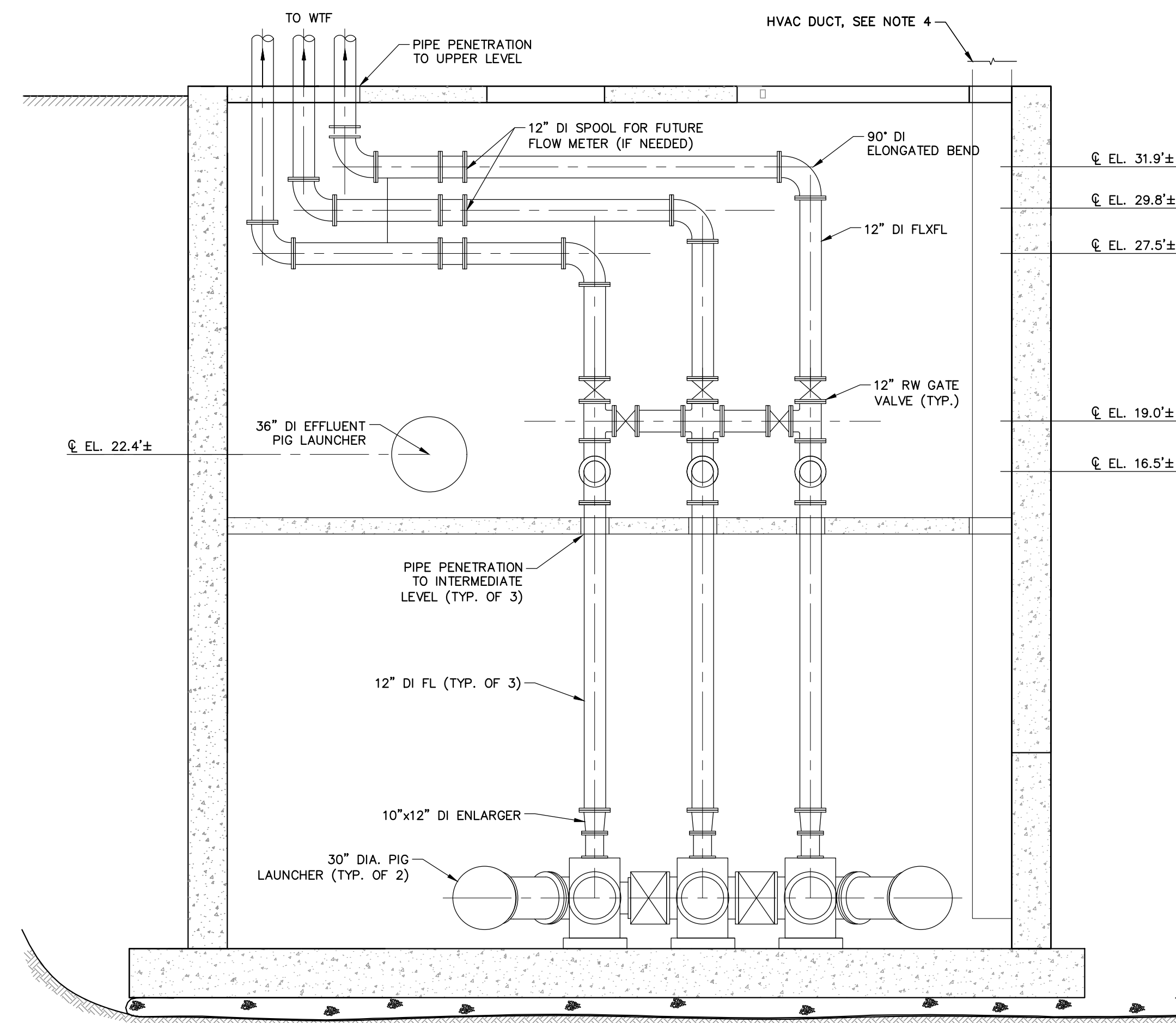
**LOWER LEVEL PLAN (EL. -8±)**  
SCALE: 3/16" = 1'-0"



**INTERMEDIATE LEVEL PLAN (EL. 14±)**  
SCALE: 3/16" = 1'-0"



**SECTION A**  
SCALE: 3/16" = 1'-0"



**SECTION B**  
SCALE: 3/16" = 1'-0"

**NOTES:**

- SUCTION AND DISCHARGE CONNECTIONS TO BE REVISED BASED ON FINAL PUMP SELECTION.
- PIG LAUNCHER NOT SHOWN FOR CLARITY.
- STAIR POSITION TO DEMONSTRATE SPACE REQUIRED FOR STAIRS, FINAL LOCATION, POSITION, FIRE SAFETY, EGRESS CODE BY SMRT.
- SIZE AND FINAL POSITION OF DUCT TO BE DETERMINED.
- VALVE ON THE EFFLUENT LINE TO BE LOCATED IN THE WWTF OR BURIED. FINAL LOCATION TO BE DETERMINED.

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BAR SCALE  
3/16" = 1'-0"  
CHECK GRAPHIC SCALE BEFORE USING