STATE OF NEW JERSEY

HONORABLE PHILIP D. MURPHY, GOVERNOR
HONORABLE SHEILA Y. OLIVER, LIEUTENANT GOVERNOR

CAMPSITE ELECTRIC AND WATER SERVICE

BELLEPLAIN STATE FOREST
WOODBINE, CAPE MAY COUNTY, NJ

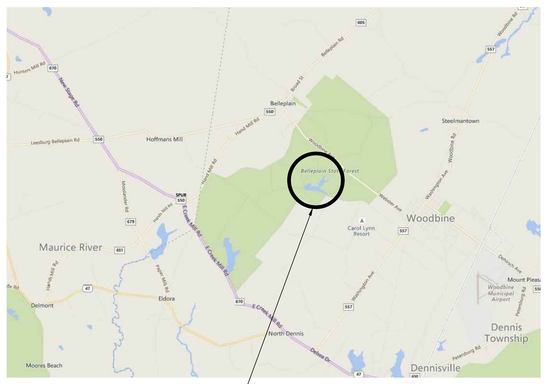
PROJECT NO. P1173-00

DEPARTMENT OF THE TREASURY
ELIZABETH MAHER MUOIO, STATE TREASURER

DEPARTMENT OF ENVIRONMENTAL PROTECTION
CATHERINE R. McCABE, ACTING COMMISSIONER

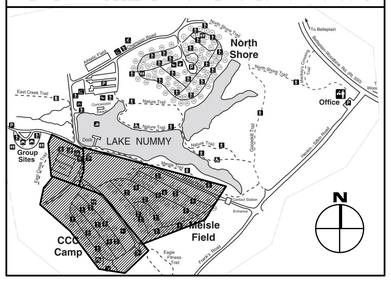
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
CHRISTOPHER CHIANESE, DIRECTOR

LOCATION MAP



KEY PLAN

KEYPLAN – BELLEPLAIN STATE FOREST CAMPGROUND



LIST OF DRAWINGS

NO.	DRAWING NAME
CS-1	COVER SHEET
SE-1	SOIL EROSION AND SEDIMENT CONTROL PLAN – CCC CAMP
SE-2	SOIL EROSION AND SEDIMENT CONTROL PLAN – MEISLE FIELD CAMP
SE-3	SOIL EROSION AND SEDIMENT CONTROL NOTES
SE-4	SOIL EROSION AND SEDIMENT CONTROL DETAILS
CW-0	PLUMBING GENERAL NOTES, ABBREVIATIONS, SCHEDULES, DETAILS, & SYMBOLS
CW-1.1	SITE DOMESTIC WATER REMOVAL PLANS: MEISLE FIELD CAMP
CW-1.2	SITE DOMESTIC WATER REMOVAL PLANS: CCC CAMP
CW-2.1	SITE DOMESTIC WATER NEW WORK PLANS: MEISLE FIELD
CW-2.2	SITE DOMESTIC WATER NEW WORK PLANS: CCC CAMP
CE-0	ELECTRICAL NOTES, SYMBOLS, LEGEND, SCHEDULES, RISER DIAGRAM, AND DETAILS
CE-1	ELECTRICAL NEW WORK PLAN: CCC CAMP

Consultant:

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ENGINEER
MICHAEL S. GILLAN, PE
NO. 24GE04470000
DATE 5/26/2020

Project Name
CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

Project Owner Name
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD. DENNIS TWP CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
TJB

Drawn By
TMH

Scale
NONE

Drawing Name
COVER SHEET

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
CS-1

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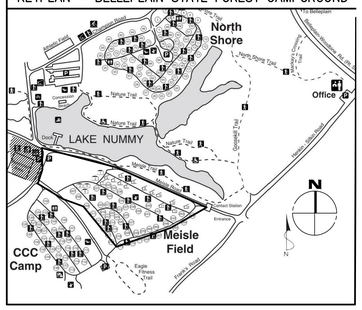
LAST SAVED: 2020.05.26 02:17 PM PLOTTED: 2020.05.26 09:48 AM PLOTTED BY: TML

KEYPLAN – BELLEPLAIN STATE FOREST CAMPGROUND



NOTES:

1. NO TREES SHALL BE REMOVED FOR THE INSTALLATION OF ELECTRIC AND WATER SERVICES TO INDIVIDUAL CAMPSITES.
2. STAGING AND STOCKPILING AREA TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION. THIS AREA SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE AND BE STABILIZED IN ACCORDANCE WITH DETAIL SHOWN ON SHEET SE-5.
3. STATE OPEN WATER LIMITS TAKEN FROM THE NUMMY LAKE DAM REHABILITATION PLANS.
4. FRESHWATER WETLANDS LIMITS TAKEN FROM NJ BUREAU OF GIS DIGITAL DATA DOWNLOADS.

LEGEND:

- LIMIT OF DISTURBANCE AND SILT FENCE
- FRESHWATER WETLANDS (SEE NOTE 3)
- STATE OPEN WATERS (SEE NOTE 3)
- FRESHWATER WETLANDS (SEE NOTE 4)
- 10FT X 10FT DIRECTIONAL BORE PIT

CCC CAMP
SOIL EROSION AND SEDIMENT CONTROL PLAN

1 / SE-1 SCALE: 1"=50'

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CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

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DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD.
DENNIS TWP
CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
BF

Drawn By
KDW

Scale
AS NOTED

Drawing Name
SOIL EROSION AND SEDIMENT CONTROL PLAN
CCC CAMP

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
SE-1

FILE PATH: O:\13K\13100\13195 - NJDPMC Belleplain State Forest\13195.001 RV Utility Improv\CADD\DWG\CCC Camp Final 03.27.2020\13195.001-SESC.dwg
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STATE OPEN WATERS (TYP.)

FRESHWATER WETLANDS (TYP.)

LIMIT OF DISTURBANCE AND SILT FENCE (TYP.)

FOR CONTINUATION, REFER TO PLAN 1/CW-2.2

FOR CONTINUATION, REFER TO PLAN 1/CW-2.1

FOR CONTINUATION, REFER TO PLAN 1/CW-2.2

FOR CONTINUATION, REFER TO PLAN 1/CW-2.1

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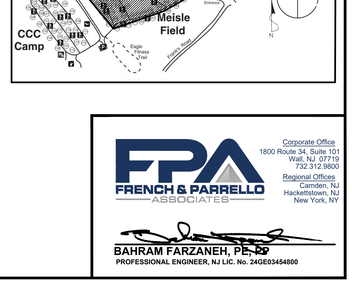
- STATE OPEN WATERS (SEE NOTE 3)
- FRESHWATER WETLANDS (SEE NOTE 4)
- 10FT X 10FT DIRECTIONAL BORE PIT

MEISLE FIELD CAMP
SOIL EROSION AND SEDIMENT CONTROL PLAN
1 / SE-2 SCALE: 1"=50'

KEYPLAN – BELLEPLAIN STATE FOREST CAMPGROUND



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CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

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DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD.
DENNIS TWP
CAPE MAY COUNTY, NEW JERSEY

Project Number: 2017-253
Project Date: 5/26/2020
Checked By: BF
Drawn By: KDW
Scale: AS NOTED

Drawing Name
SOIL EROSION AND SEDIMENT CONTROL PLAN
MEISLE FIELD CAMP

Revisions

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1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
SE-2

FILE PATH: O:\TAK\1319\1395 - NJDPMC Belleplain State Forest\1395.001 RV Utility Improv\CADD\DWG\CCC Camp Final 03.27.2020\1395.001-SESC.dwg
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SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL WORK MUST BE DONE IN ACCORDANCE WITH THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY", 7TH EDITION, JANUARY 2014, REVISED JULY 2017.
2. THE CAPE ATLANTIC CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY–EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
4. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE–CERTIFICATION. THE REVIEWED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
5. N.J.S.A. 4:24–39 et. Seq. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT–BY–LOT OR SECTION–BY–SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
6. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2½ TONS PER ACRE, ACCORDING TO STATE STANDARD FOR STABILIZATION WITH MULCH ONLY.
7. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (i.e. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.
8. A SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF PRELIMINARY GRADING.
9. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF ONE INCH TO TWO INCH (1"–2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
10. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT–OF–WAYS WILL BE REMOVED IMMEDIATELY. ALL PAVED RIGHT–OF–WAYS ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION. INSTALL CRUSHED STONE PAD(S) TO HELP REDUCE OFF–SITE TRACKING OF SEDIMENT".
11. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
12. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON–VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
13. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A pH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/SQ. FT. OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A pH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
14. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
15. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
16. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.
17. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
18. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
19. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF THE CONSTRUCTION OF THE PROJECT.

CAPE ATLANTIC CONSERVATION DISTRICT
6260 OLD HARDING HIGHWAY
MAYS LANDING, NEW JERSEY 08330
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ACID SOILS NOTES

IN ORDER TO PROVIDE SUITABLE CONDITIONS FOR GROWTH AND VEGETATION AND TO PREVENT THE ACIDIFYING OF DRAINAGE WATER IN THOSE AREAS UNDERLAIN WITH ACID FORMATIONS WITH A ph BELOW 4.0 THE FOLLOWING REQUIREMENT SHALL BE MET:

1. LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID PRODUCING SOILS ARE ENCOUNTERED.
2. TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOILS.
3. STOCKPILES OF HIGH ACID PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
4. TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID PRODUCING SOIL.
5. HIGH ACID PRODUCING SOILS WITH A pH OF 4 OR LESS, OR CONTAINING IRON SULFIDE, (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACE OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A pH OF 5 OR MORE EXCEPT AS FOLLOWS:
   - A. AREAS WHERE TREES OR SHRUBS ARE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A pH OF 5 OR MORE.
   - B. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24" OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES AND OTHERS TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
6. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID–PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID–PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
7. NON–VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID–PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.
8. FOLLOWING BURIAL OR REMOVAL OF HIGH ACID–PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), **MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS** TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID–PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

SEEDING SCHEDULE (VEGETATIVE COVER)

1. TEMPORARY SEEDING SHALL CONSIST OF SPRING OATS APPLIED AT A RATE OF 2.0 LBS. PER 1,000 S.F. (OPTIMUM SEEDING DATES ARE BETWEEN FEBRUARY 1 THRU MAY 1) OR WINTER CEREAL RYE APPLIED AT A RATE OF 2.8 LBS. PER 1,000 S.F. (OPTIMUM SEEDING DATES ARE BETWEEN AUGUST 1 THRU DECEMBER 15). TEMPORARY SEEDING TO BE MAINTAINED UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH PERMANENT SEEDING. IF ANY SERIOUS EROSION PROBLEM OCCURS, THE ERODED AREAS SHALL BE REPAIRED AND STABILIZED WITH A MULCH AS INDICATED IN NOTE 5.
2. PERMANENT SOD SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL – OPTIMUM SEEDING DATES ARE BETWEEN APRIL 1 THRU SEPTEMBER 30:

HARD FESCUE	@4.00#/1000 S.F.
PERENNIAL RYEGRASS	@1.00#/1000 S.F.
KENTUCKY BLUEGRASS	@1.00#/1000 S.F.

PLEASE NOTE THAT OTHER SEED MIXTURES CAN BE USED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

PERMANENT SEEDING TO BE APPLIED BY CONVENTIONAL SEEDING AND/OR HYDROSEEDING, SLOPED AREAS TO BE COVERED WITH MULCH AS INDICATED IN NOTE 5.

3. FERTILIZER FOR THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER SHALL BE 10–10–10 APPLIED AT A RATE OF 11 LBS. PER 1,000 S.F. WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE–HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE–HALF APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING. LIMESTONE FOR PERMANENT & TEMPORARY SEEDING SHALL BE ESTABLISHED VIA SOIL TESTING.
4. IF SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY OR PERMANENT SEEDING, EXPOSED AREAS TO BE STABILIZED WITH MULCH AS INDICATED IN NOTE 5.
5. MULCHING FOR SEEDED AREAS:

   MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS REQUIREMENT.

   A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1½ TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH–BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER–BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO PRESENCE OF WEED SEED.

   APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND–SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTION 70 TO 90 POUNDS WITHIN EACH SECTION.

   ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COSTS.

   A.1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

   A.2. MULCH NETTING. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

   A.3. CRIMPER (MULCH ANCHORING COULTER TOOL) – A TRACTOR–DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH TO 3 TO 4 INCHES INTO THE SOIL, SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.

   A.4. LIQUID MULCH–BINDERS MAY BE USED TO ANCHOR SALT HAY OR STRAW MULCH:

   A.4.1. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CREST OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.

   A.4.2. USE ONE OF THE FOLLOWING:

   A.4.2.1. ORGANIC AND VEGETABLE BASED BINDERS – NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.

   A.4.2.2. SYNTHETIC BINDERS – HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

   NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

   B. WOOD–FIBER OR PAPER–FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT A RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

   C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO–POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60–75 LBS/1,000 SQUARE FEET WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEED AREAS WHERE WEED–SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.

   APPLY THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.
6. IRRIGATION (WHERE FEASIBLE)

   IF SOIL MOISTURE IS DEFICIENT, AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF ¼ INCH TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

CONSTRUCTION SCHEDULE AND PROCEDURE FOR IMPLEMENTATION OF SOIL EROSION AND SEDIMENT CONTROL MEASURES

1. INSTALL CONSTRUCTION ENTRANCE PADS, SILT FENCE, AND ALL OTHER NECESSARY SOIL EROSION AND SEDIMENT CONTROL MEASURES. (2 WEEKS)
2. REMOVE EXISTING HYDRANTS AND WATER UTILITIES AS SHOWN ON THE PLUMBING REMOVAL PLANS. (2 WEEKS)
3. CLEAR SITE AS NECESSARY TO CONSTRUCT NEW WATER AND ELECTRICAL SERVICES. (1 WEEK)
4. CONSTRUCT NEW WATER AND ELECTRICAL UTILITIES TO EACH CAMP SITE. (10 WEEKS)
5. ESTABLISH PERMANENT VEGETATIVE COVER. (1 WEEK).
6. REMOVE ACCESS PROTECTION, AND SILT FENCE AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED. (1 WEEK)

STABILIZATION WITH MULCH

1. SITE PREPARATION
   - A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
   - B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
   - C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
   - D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE–STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

1. SITE PREPARATION
   - A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO–OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10–10–10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE–HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE–HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
   - B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING–TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
   - C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID–PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

2. PROTECTIVE MATERIALS
   - A. UN–ROTTED SMALL–GRAIN STRAW, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, ie. THE SOIL CAN NOT BE BELOW THE MULCH.
   - B. ASPHALT EMULSION IS RECOMMENDED AT THE RATE OF 600 TO 1,200 GALLONS PER ACRE. THIS IS SUITABLE FOR A LIMITED PERIOD OF TIME WHERE TRAVEL BY PEOPLE, ANIMALS OR MACHINES IS NOT A PROBLEM.
   - C. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
   - D. WOOD–FIBER OR PAPER–FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYROSEEDER.
   - E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.
   - F. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
   - G. GRAVEL, CRUSHED STONE, OR SAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM–C–33) IS RECOMMENDED.

3. MULCH ANCHORING – SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES.
   - A. PEG AND TWINE – DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS–CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
   - B. MULCH NETTING – STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG.
   - C. CRIMPER MULCH ANCHORING COULTER TOOL – A TRACTOR–DAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SURFACE. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT IS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE ON THE CONTOUR.
   - D. LIQUID MULCH –BINDERS
     1. APPLICATION SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
     2. USE ONE OF THE FOLLOWING:

A. ORGANIC AND VEGETABLE BASED BINDER – NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER.

B. SYNTHETIC BINDERS – HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

DUST CONTROL

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR DUST CONTROL:

1. MULCHES – SEE "STABILIZATION WITH MULCH" NOTES
2. VEGETATIVE COVER – SEE "SEEDING SCHEDULE (VEGETATIVE COVER)" NOTES
3. SPRAY ON ADHESIVES ON MINERAL SOILS (NOT EFFECTIVE ON MUCH SOILS), KEEP TRAFFIC OFF THESE AREAS.

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1,200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) SPRAY OR DRY SPREAD	APPLY ACCORDING TO MFG'S INSTRUCTIONS.		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1,200

4. TILLAGE – TO ROUGHEN SURACE AND BLING CLODS TO THE SURACE. THIS IS A TEMPORARY EMERGENCY MEASURE THAT SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL–TYPE PLOWS SPACED ABOUT 12 INCHES APART AND SPRING–TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
5. SPRINKLING – SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
6. BARRIERS – SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
7. CALCIUM CHLORIDE – SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.
8. STONE – COVER SUFACE WITH STONE OR COARSE GRAVEL.

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Project Name
CAMPSITE ELECTRIC
AND WATER
SERVICE
BELLEPLAIN STATE
FOREST
DPMC NO. P1173-00

Project Owner Name
DIVISION OF
PROPERTY
MANAGEMENT AND
CONSTRUCTION

Project Location
1 HENKINSIFKIN RD.
DENNIS TWP
CAPE MAY COUNTY,
NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
BF

Drawn By
KDW

Scale
AS NOTES

Drawing Name
SOIL EROSION AND
SEDIMENT CONTROL
NOTES

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
SE-3

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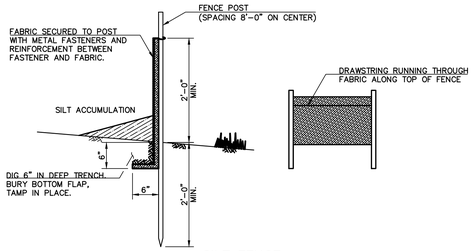
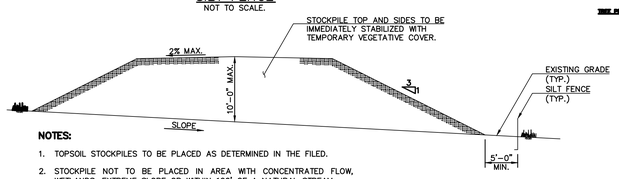


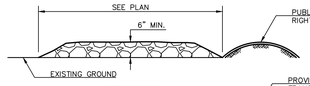
SILT FENCE
NOT TO SCALE.



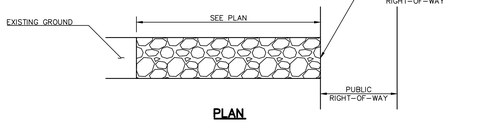
NOTES:

1. TOPSOIL STOCKPILES TO BE PLACED AS DETERMINED IN THE FILED.
2. STOCKPILE NOT TO BE PLACED IN AREA WITH CONCENTRATED FLOW, WETLANDS, EXTREME SLOPE OR WITHIN 100' OF A NATURAL STREAM.

TEMPORARY SOIL STOCKPILE
NOT TO SCALE.



PROFILE



PLAN

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COURSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FEET	100 FEET
2% TO 5%	100 FEET	200 FEET
> 5%	ENTIRE SURFACE STABILIZED WITH FABC BASE COURSE, AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY	

CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE ASTM C-33, SIZE NO. 2 (2½ TO 1½ IN.) OR 3 (2 TO 1 IN.). USE CLEAN CRUSHED ANGULAR STONES. CRUSHED CONCRETE OF SIMILAR SIZE MAY BE SUBSTITUTED BUT WILL REQUIRE MORE FREQUENT UPGRADING AND MAINTENANCE.

2. LENGTH – 50 FEET MINIMUM WHERE SOILS ARE COARSE GRAINED (SAND OR GRAVEL), OR 100 FEET MINIMUM WHERE SOILS ARE FINE GRAINED (CLAYS OR SILTS), EXCEPT WHERE THE TRAVEL LENGTH IS LESS THAN 50 OR 100 FEET RESPECTIVELY. THESE LENGTHS MAY BE INCREASED WHERE FIELD CONDITIONS DICTATE. STORMWATER FROM UP-SLOPE AREAS SHALL BE DIVERTED AWAY FROM THE STABILIZED PAD (SEE STANDARD FOR DIVERSIONS). WHERE DIVERSION IS NOT POSSIBLE, THE LENGTH OF THE STABILIZED PAD SHALL BE SHOWN AS IN TABLE ABOVE. WHERE THE SLOPE OF THE ACCESS ROAD EXCEEDS 5%, A STABILIZED BASE OF HOT MIX ASPHALT BASE COURSE SHALL BE INSTALLED. THE TYPE AND THICKNESS OF THE BASE COURSE AND USE OF A DENSE-GRADED AGGREGATE SUBBASE SHALL BE AS PRESCRIBED BY LOCAL MUNICIPAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

   AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE GRAVEL FILTER OR GEOTEXTILE SHALL BE INSTALLED BEFORE INSTALLING THE STABILIZED CONSTRUCTION ENTRANCE.

   WHERE A STABILIZED CONSTRUCTION ENTRANCE EXIT TRAVERSES BETWEEN TWO BUILDINGS, IT SHALL BE STONED THE ENTIRE LENGTH OF THE RIGHT-OF-WAY. MOUNTABLE STONE BERMS PLACED ACROSS THE WIDTH OF THE EXIT MAY ALSO BE REQUIRED AT THE TRANSITION POINT BETWEEN PAVED AND NON-PAVED AREAS TO TRAP SEDIMENTS WHICH ARE CARRIED BY STORMWATER FLOWING ALONG THE CURBLINE.

3. THICKNESS – NOT LESS THAN 6 INCHES.

4. WIDTH – NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

5. TIRE WASHING – IF SPACE IS LIMITED, VEHICLE TIRES MAY BE WASHED WITH CLEAN WATER BEFORE ENTERING A PAVED AREA. A WASH STATION MUST BE LOCATED SUCH THAT WATER WILL NOT FLOW ONTO PAVED ROADWAYS OR INTO UNPROTECTED STORM DRAINAGE SYSTEMS.

   WHEN THE CONSTRUCTION ACCESS EXITS ONTO A MAJOR ROADWAY, A PAVED TRANSITION AREA MAY BE INSTALLED BETWEEN THE MAJOR ROADWAY AND THE STONED ENTRANCE TO PREVENT LOOSE STONES FROM BEING TRANSPORTED OUT ONTO THE ROADWAY BY THE HEAVY EQUIPMENT ENTERING OR LEAVING THE SITE.

6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THIS MAY 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 ROADWAYS (PRIVATE OR PUBLIC) OR OTHER IMPERVIOUS SURFACES MUST BE REMOVED IMMEDIATELY.

   WHERE ACCUMULATION OF DUST/SEDIMENT IS INADEQUATELY CLEANED OR REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER WILL BE REQUIRED TO CLEAN PAVED OR IMPERVIOUS SURFACES. ALL OTHER ACCESS POINTS WHICH ARE NOT STABILIZED SHALL BE BLOCKED OFF.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE.

ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR)

1. MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5 FEET ABOVE GROUND ON THE UPHILL SIDE OF THE TREE) IN INCHES.
2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET.

DBH x 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.

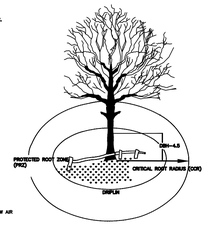
DBH x 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES.

ISOMETRIC

SECTION

TREE PROTECTION–TILE AND GRAVEL WILL ALLOW AIR CIRCULATION TO ROOT ZONE UNDER A FILL.

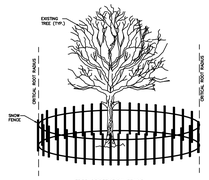
TREE PROTECTION IN FILL AREAS



ROOT PROTECTION DURING CONSTRUCTION GUIDE

A RETAINING WALL PROTECTS A TREE FROM A LOWERED GRADE

TREE PROTECTION IN CUT AREAS

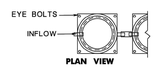


TREE PROTECTION FENCE

NOTES:

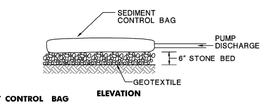
1. TREE PROTECTION SHALL BE PROVIDED FOR ANY AND ALL TREES TO BE PRESERVED DURING AND AFTER CONSTRUCTION AND IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. THE CONTRACTOR SHALL TAKE WHATEVER ADDITIONAL MEASURES NECESSARY TO PROTECT EXISTING TREES TO REMAIN AGAINST UNNECESSARY CUTTING, BREAKING OR BRUISING OF ROOTS, BURNING AND BRUISING OF BARK, SMOTHERING OF TREES AND STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIAL WITHIN DRIP LINE, EXCESS FOOT OR VEHICLE TRAFFIC OR PARKING OF VEHICLES WITHIN DRIP LINE.
2. A FOUR FOOT HIGH SNOW FENCE SHALL BE PLACED BEYOND THE CRITICAL ROOT RADIUS OF TREES DESIGNATED TO BE PRESERVED. TREE ROOT SYSTEMS COMMONLY EXTEND WELL BEYOND THE DRIP LINE. INDIVIDUAL TREES TO BE PRESERVED SHALL BE COMPLETELY ENCIRCLED WITH FENCING.
3. BOARDS OR FENCING SHALL NOT BE NAILED TO TREES DURING CONSTRUCTION.
4. FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA INSIDE THE PROTECTED ROOT ZONE (PRZ).
5. DAMAGED TRUNKS OR EXPOSED ROOTS SHOULD HAVE DAMAGED BARK REMOVED IMMEDIATELY AND NO PAINT SHALL BE APPLIED. EXPOSED ROOTS SHALL BE PRUNED TO GIVE A CLEAN, SHARP, SURFACE AMENABLE TO HEALING. ROOTS EXPOSED DURING HOT WEATHER SHOULD BE IRRIGATED TO PREVENT PERMANENT TREE INJURY. CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY A PROFESSIONAL FORESTER OR LICENSED TREE EXPERT.
6. TREE LIMB REMOVAL, WHERE NECESSARY, WILL BE DONE AS NATURAL TARGET PRUNING TO REMOVE THE DESIRED BRANCH AS CLOSE AS POSSIBLE TO THE BRANCH COLLAR. THERE SHOULD BE NO FLUSH CUTS. FLUSH CUTS DESTROY A MAJOR DEFENSE SYSTEM OF THE TREE. NO TREE PAINT SHALL BE APPLIED. ALL CUTS SHALL BE MADE AT THE OUTSIDE EDGE OF THE BRANCH COLLAR. CUTS MADE TOO FAR BEYOND THE BRANCH COLLAR MAY LEAD TO EXCESS SPROUTING, ORADCIL AND ROT. REMOVAL OF A "Y" CROTCH SHOULD BE CONSIDERED FOR FREE STANDING SPECIMEN TREES TO AVOID FUTURE SPLITTING DAMAGE.
7. EXISTING TREES TO REMAIN WITHIN THE LIMITS OF THE CONTRACT WORK SHALL BE REGULARLY WATERED TO MAINTAIN THEIR HEALTH.
8. NO UTILITIES ARE PROPOSED FOR THIS PROJECT.

TREE PROTECTION DETAIL
NOT TO SCALE



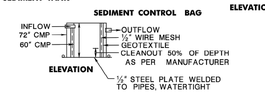
PLAN VIEW

EXAMPLE OF PORTABLE SEDIMENT TANK

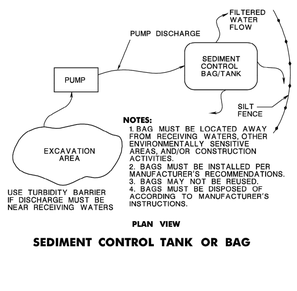


ELEVATION

SEDIMENT CONTROL BAG



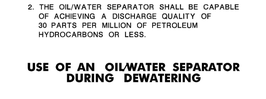
ELEVATION



NOTES:
1. BAG MUST BE LOCATED AWAY FROM RECEIVING WATERS, OTHER ENVIRONMENTALLY SENSITIVE AREAS, AND/OR CONSTRUCTION ACTIVITIES.
2. BAGS MUST BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3. BAGS MAY NOT BE REUSED.
4. BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

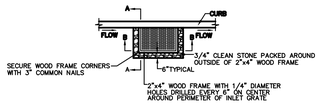
PLAN VIEW

SEDIMENT CONTROL TANK OR BAG

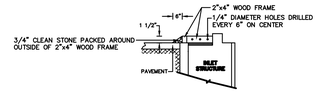


NOTES:
1. THE OIL/WATER SEPARATOR SHALL MEET THE UNDERWRITERS LABORATORY UL-58 STANDARD FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS.
2. THE OIL/WATER SEPARATOR SHALL BE CAPABLE OF ACHIEVING A DISCHARGE QUALITY OF 30 PARTS PER MILLION OF PETROLEUM HYDROCARBONS OR LESS.

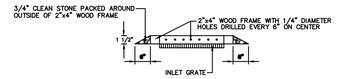
USE OF AN OIL/WATER SEPARATOR DURING DEWATERING



PLAN

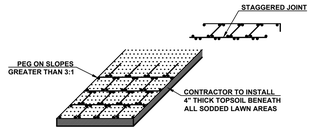


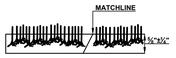
SECTION A–A



SECTION B–B

INLET PROTECTION DETAIL
NOT TO SCALE





METHODS & MATERIAL:

1. HIGH QUALITY CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURES SOD.
2. SOD SHOULD BE FREE OF BROADLEAF WEEDS AND UNDESIRABLE COARSE AND FINE WEEDY GRASSES.
3. SOD SHOULD BE UNIFORM THICKNESS, APPROXIMATELY ⅝" (± ¼"), AT TIME OF CUTTING (EXCLUDES TOP GROWTH).
4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS AND ROLLS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.
5. FOR DROUGHTY SITES, A SOD OF TURF-TYPE TALL FESCUE OR TURF-TYPE TALL FESCUE MIXED WITH KENTUCKY BLUEGRASS IS PREFERRED OVER A 100% KENTUCKY BLUEGRASS SOD. ALTHOUGH NOT WIDELY AVAILABLE, A SOD OF FINE FESCUE IS ALSO ACCEPTABLE FOR DROUGHTY SITES.
6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 24 HOURS OR LESS DURING SUMMER MONTHS.

SOIL PREPARATION:

1. UNIFORM APPLY GROUND LIMESTONE.
2. APPLY FERTILIZER AT THE RATE OF 500 POUNDS PER ACRE USING 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATED OTHERWSE AND INCORPORATED INTO THE SURFACE 4 INCHES.
3. IF FERTILIZER IS NOT INCORPORATED, APPLY ½ THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ½ RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
4. APPLY LIMESTONE AT THE RATE OF 2 TONS PER ACRE. UNLESS SOIL TESTING INDICATED OTHERWSE.
5. WORK LIME AND FERTILIZER INTO TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT.
6. REMOVE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO TOPSOIL CONTACT AND REMOVE ALL DEBRIS, SUCH AS WIRE, CABLE TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
7. INSPECT SITE BEFORE SODDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED.

SOD PLACEMENT:

1. SOD STRIPS SHALL BE LAID ON CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON THE STEEP SLOPES, USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
2. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS (SEAMS) THAT ARE STAGGERED. OPEN SPACE WILL INVITE EROSION.
3. LIGHTLY ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS AND INVASION OF GRASS.
4. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, BIODEGRADABLE PLASTIC SPIKES, OR SPLIT SHINGLES.
5. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHALL BE WATERED UNTIL WATER PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 1 INCH. MAINTAIN OPTIMUM WATER FOR AT LEAST TWO WEEKS.

TOPDRESSING:

1. WHERE GROSS NITROGEN DEFICIENCY EXIST IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP, TOPDRESSING SHALL THEN BE APPLIED. TOPDRESS WITH 10-0-10 OR EQUIVALENT AT 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

SOD DETAIL
NOT TO SCALE

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ENGINEER
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NO. 24GE04470000

Project Name
CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

Project Owner Name
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD.
DENNIS TWP
CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
BF

Drawn By
KDW

Scale
AS NOTES

Drawing Name
SOIL EROSION AND SEDIMENT CONTROL DETAILS

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
SE-4

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FILE PATH: O:\TJK\1310\13195 - NJDPMC Belleplain State Forest\13195.001 RV Utility Improv\CADD\DWG\CCC Comp Final 03.27.2020\13195.001-SE35C DETL.dwg
LAST SAVED: 2020.05.27 09:30 AM PLOTTED: 2020.05.27 01:29 PM PLOTTED BY: BAHRAM FARZANEH

LEGEND

- DOMESTIC COLD WATER
- FLOW – IN DIRECTION OF ARROW
- GATE VALVE
- FROST PROOF SANITARY POST HYDRANT
- CAMPSITE DESIGNATION
- LEAN–TO SITE
- YURT SITE
- SHOWERS
- RESTROOMS / TOILETS
- WATER HYDRANT TO REMAIN
- WATER HYDRANT TO BE REMOVED
- DATUM POINT
- NORTH ARROW
- EXTENT OF REMOVAL TO THIS POINT
- CONNECT TO EXISTING AT THIS POINT
- REMOVAL NOTE DESIGNATION
- NEW WORK NOTE DESIGNATION

NUMBER — X
SHEET NUMBER — X–X
PLAN OR DETAIL
SCALE: 1/4" = 1'–0"

ABBREVIATIONS

(E)	EXISTING
I.E.	INVERT ELEVATION
TB	THRUST BLOCK
D.I.	DUCTILE IRON
PVC	POLYVINYL CHLORIDE

GENERAL NOTES

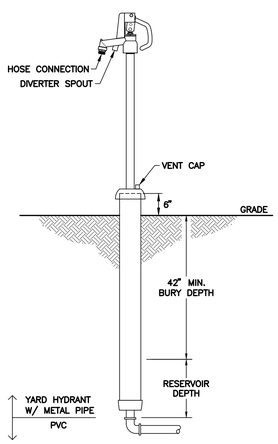
1. GENERAL NOTES APPLY TO ALL PLUMBING DRAWINGS.
2. CONTRACTOR TO COORDINATE AND FIELD VERIFY ALL DIMENSIONS, SIZES, CLEARANCES, AND LOCATIONS PRIOR TO THE START OF CONSTRUCTION. WHEN CONFLICT ARISES, MAKE ANY NECESSARY CHANGES TO ROUTING OF PIPING WITHOUT COMPROMISING THE INTEGRITY AND PERFORMANCE OF THE SYSTEM, AND AT NO ADDITIONAL COST TO THE OWNER.
3. PIPING LAYOUTS ARE SCHEMATIC IN NATURE. PROVIDE OFFSETS AND FITTINGS AS REQUIRED TO ACCOMMODATE FIELD CONDITIONS.
4. COORDINATE CONSTRUCTION OF ALL WORK WITH ELECTRICAL WORK.
5. PERFORM ALL WORK IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES. COMPLETE ALL WORK IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF THE APPLICABLE CONSTRUCTION CODE, AND ALL OTHER FEDERAL, STATE, AND LOCAL AGENCY REGULATIONS HAVING JURISDICTION AND PUBLIC UTILITY REQUIREMENTS OVER THIS PROJECT. IN THE EVENT OF ANY DISCREPANCIES BETWEEN AGENCY REQUIREMENTS, OBSERVE THE MORE STRINGENT OF REQUIREMENTS.
6. COORDINATE LOCATION OF ALL PLUMBING AND ELECTRICAL SYSTEMS AND EQUIPMENT WITH THE RESPECTIVE TRADE CONTRACTORS.
7. IDENTIFICATION LABELS TO BE USED/MADE FOR ALL SYSTEMS MUST USE THE OWNER'S SITE LOCATION NUMBERS AND SITE LOCATION NAMES, NOT THE NUMBERS OR NAMES ON THE CONSTRUCTION DOCUMENTS. PRIOR TO STARTING THE WORK MEET WITH THE OWNER TO REVIEW AND CONFIRM LABELING SYSTEMS.
8. COORDINATE ALL VALVES AND VALVE BOXES WITH THE OWNER.
9. PERFORM ROADWAY CUTTING, EXCAVATION, AND BACKFILL FOR ALL BELOW GRADE PIPING.
10. PRIOR TO COMMENCING WITH THE WORK, SCHEDULE, COORDINATE, AND OBTAIN APPROVAL FOR ALL SYSTEM SHUTDOWNS WITH THE OWNER.

FIXTURE SCHEDULE

DESCRIPTION	BASIS OF DESIGN	SUPPLIES	REMARKS/ACCESSORIES
FREEZE PROOF SANITARY POST HYDRANT	WOODFORD S4H – NJDCA APPROVED BY COMMENT	1" SUPPLY	NON–FREEZE SANITARY POST HYDRANT WITH HEAVY–DUTY CAST IRON HEAD. PROVIDE WITH ¾" HOSE CONNECTION, PIPE RESERVOIR, AND BACKFLOW PREVENTER. SEE HYDRANT DETAIL, THIS SHEET.

FIXTURE CONNECTION SCHEDULE

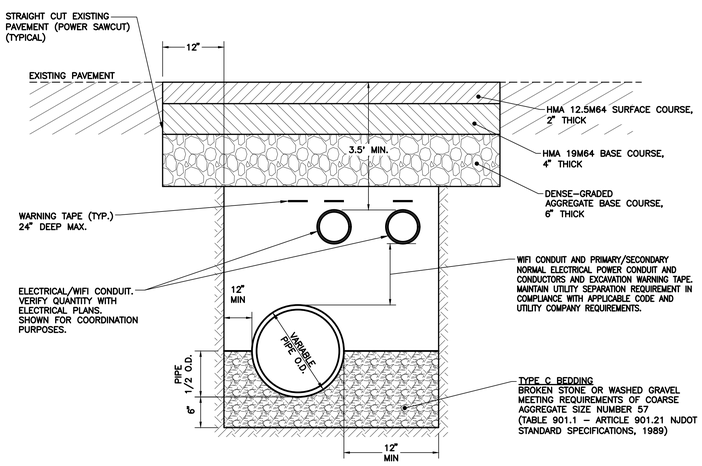
DESCRIPTION	DOMESTIC WATER		REMARKS
	GPM	CW SUPPLY	
FREEZE–PROOF SANITARY POST HYDRANT	2.5	1"	SEE HYDRANT DETAIL, THIS SHEET.



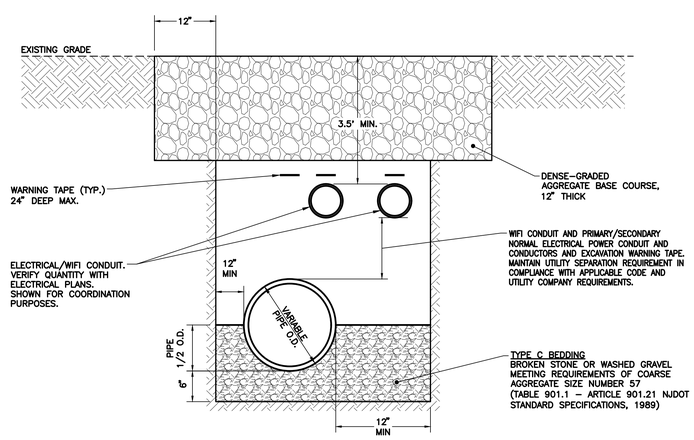
NOTE:

1. YARD HYDRANT LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. LOCATE PEDESTALS AS DIRECTED BY THE STATE AT NO ADDITIONAL COST TO THE PROJECT. REFER TO COORDINATION DRAWINGS ARTICLE IN SPECIFICATION SECTION 220010.

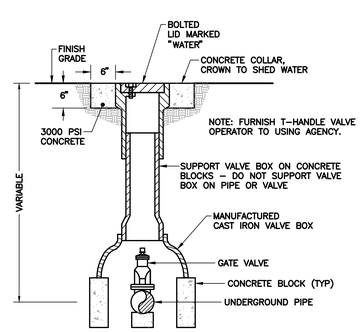
1 CW–0 DETAIL – FREEZE–PROOF YARD HYDRANT
NO SCALE



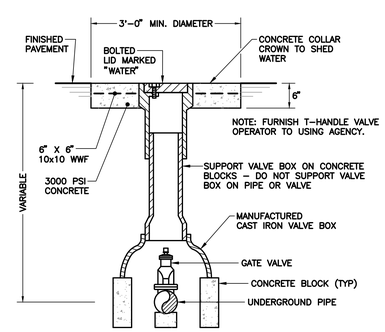
2 CW–0 DETAIL – TRENCH AND BEDDING
NO SCALE



3 CW–0 DETAIL – TRENCH AND BEDDING
NO SCALE



4 CW–0 DETAIL–VALVE BOX AT UNPAVED AREAS
NO SCALE



5 CW–0 DETAIL–VALVE BOX AT PAVED AREAS
NO SCALE

Consultant:

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Cert. of Auth. #24GA0final0400

ENGINEER
MICHAEL S. GILLAN, PE
NO. 24GE04470000
DATE 5/26/2020

Project Name
CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

Project Owner Name
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD. DENNIS TWP CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
TJB

Drawn By
TMH

Scale
NONE

Drawing Name
PLUMBING GENERAL NOTES, ABBREVIATIONS, SCHEDULES, DETAILS, & SYMBOLS

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
CW-0

FILE PATH: Q:\projects\2017\2017-253 dpmc belleplain beas campsite_drawings\modified scope - ccc camp only\PLUMB notes legend 2017-253.dwg
LAST SAVED: 2020.05.27 03:36 PM PLOTTED: 2020.05.28 09:48 AM PLOTTED BY: TML

REMOVAL NOTES:

1. REMOVE PORTION ON UNDERGROUND WATER MAIN AS REQUIRED TO INSTALL VALVES AND NEW TAP. REFER TO NEW WORK PLANS.

MEISLE FIELD CAMP
SITE DOMESTIC WATER REMOVAL PLAN
1 / CW-1.1
SCALE: 1"=50'

Consultant:

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NO. 24GE04470000
DATE 5/26/2020

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Project Location
1 HENKINSIFKIN RD. DENNIS TWP CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
TJB

Drawn By
TMH

Scale
AS NOTED

Drawing Name
SITE DOMESTIC WATER REMOVAL PLANS: MEISLE FIELD CAMP

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
CW-1.1

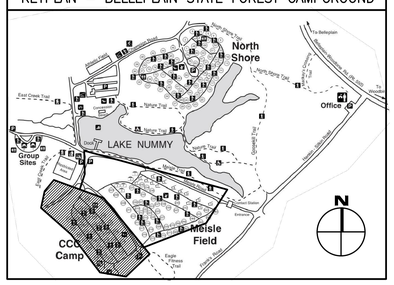
FILE PATH: g:\projects\2017\2017-253 dpmc bellaplain forest campsite_drawings\modified scope - ccc camp only\FLMB REMOVAL plans 2017-253.dwg
LAST SAVED: 2020.05.26 01:33 PM PLOTTED: 2020.05.28 09:48 AM PLOTTED BY: TML

REMOVAL NOTES:

1. DISCONNECT AND REMOVE EXISTING POST HYDRANT IN ITS ENTIRETY INCLUDING, VALVES, SUPPORTS, AND ACCESSORIES AS INDICATED ON PLANS. REMOVE DOMESTIC WATER PIPING BACK TO BELOW GRADE. CAP EXISTING PIPING AT EXTENT OF REMOVAL AND ABANDON IN PLACE.
2. DISCONNECT AND REMOVE EXISTING WATER SERVICE PIPING UPSTREAM OF THE VALVE TO FACILITATE CONNECTION TO NEW WATER SERVICE SYSTEM. REMOVE THE ASSOCIATED SERVICE VALVE(S). VERIFY VALVE QUANTITY, SIZES, AND TYPES IN THE FIELD. VERIFY EXISTING PIPE SIZE AND CONNECTION REQUIREMENTS WITH FIELD CONDITIONS. REFER TO NEW WORK PLANS.

CCC CAMP
SITE DOMESTIC WATER REMOVAL PLAN
1 / CW-1.2 SCALE: 1"=50'

KEYPLAN – BELLEPLAIN STATE FOREST CAMPGROUND



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ENGINEER
MICHAEL S. GILLAN, PE
NO. 24GE04470000
DATE 5/26/2020

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Project Owner Name
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
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DENNIS TWP
CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
TJB

Drawn By
TMH

Scale
AS NOTED

Drawing Name
SITE DOMESTIC WATER REMOVAL PLANS: CCC CAMP

Revisions

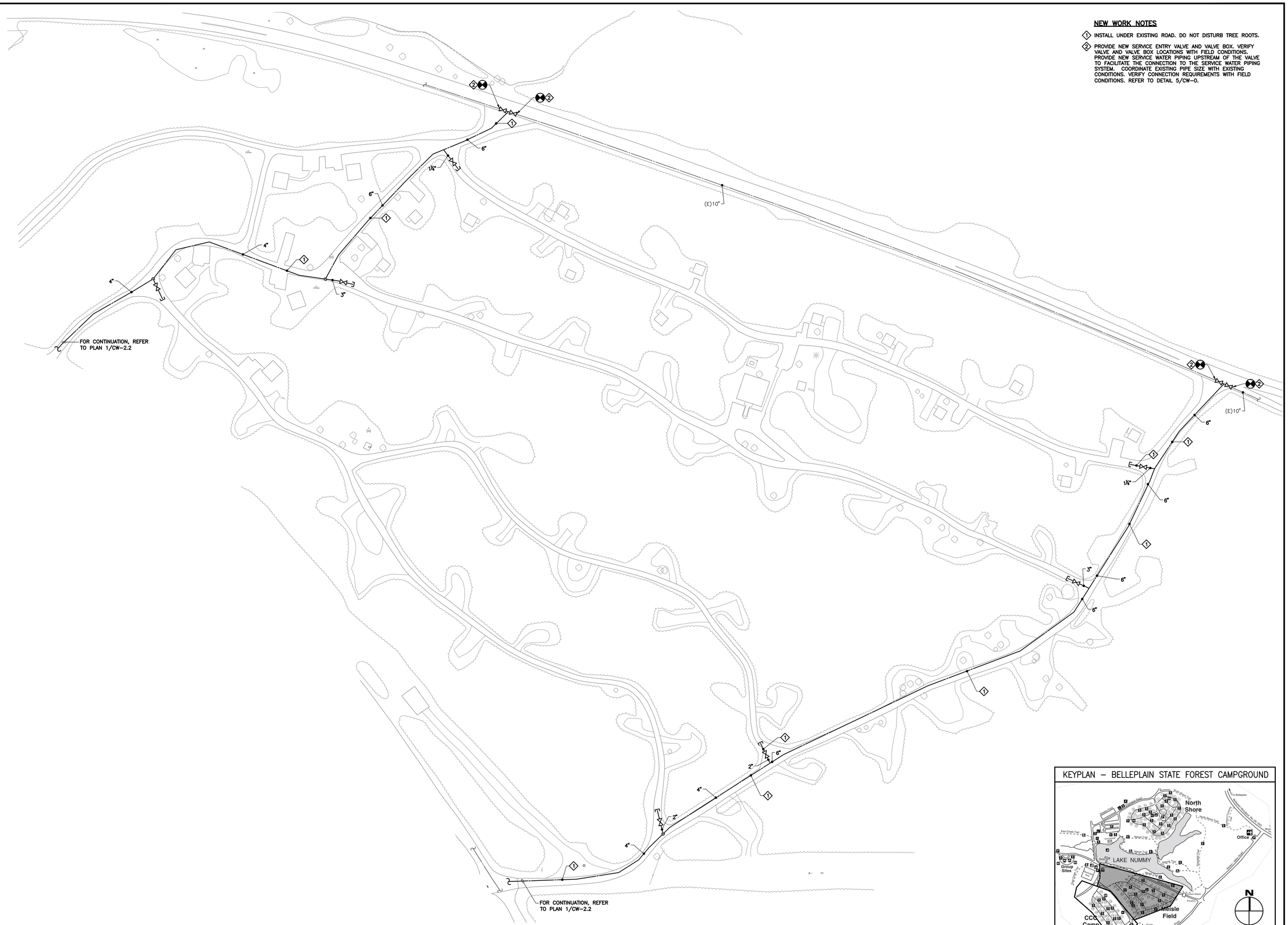
No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
CW-1.2

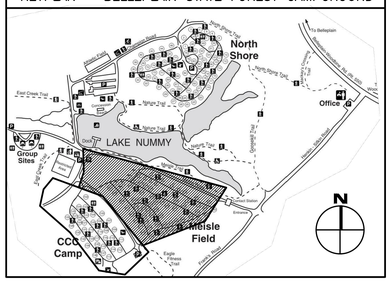
FILE PATH: g:\projects\2017\2017-253 dpmc belleplain forest campsite_drawings\modified scope - ccc camp only\PLUMB REMOVAL plans -2017-253.dwg
LAST SAVED: 2020.05.26 01:33 PM PLOTTED: 2020.05.28 09:48 AM PLOTTED BY: TML

NEW WORK NOTES

1. INSTALL UNDER EXISTING ROAD. DO NOT DISTURB TREE ROOTS.
2. PROVIDE NEW SERVICE ENTRY VALVE AND VALVE BOX. VERIFY VALVE AND VALVE BOX LOCATIONS WITH FIELD CONDITIONS. PROVIDE NEW SERVICE WATER PIPING UPSTREAM OF THE VALVE TO FACILITATE THE CONNECTION TO THE SERVICE WATER PIPING SYSTEM. COORDINATE EXISTING PIPE SIZE WITH EXISTING CONDITIONS. VERIFY CONNECTION REQUIREMENTS WITH FIELD CONDITIONS. REFER TO DETAIL 5/CW-0.



KEYPLAN – BELLEPLAIN STATE FOREST CAMPGROUND



MEISLE FIELD CAMP
SITE DOMESTIC WATER NEW WORK PLAN

1 / CW-2.1 SCALE: 1"=50'

Consultant:

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ENGINEER
MICHAEL S. GILLAN, PE
NO. 24GE04470000
DATE 5/26/2020

Project Name
CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

Project Owner Name
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD.
DENNIS TWP
CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
TJB

Drawn By
TMH

Scale
AS NOTED

Drawing Name
SITE DOMESTIC WATER NEW WORK PLANS: MEISLE FIELD CAMP AND LAKE NUMMY DAM AREA

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
CW-2.1

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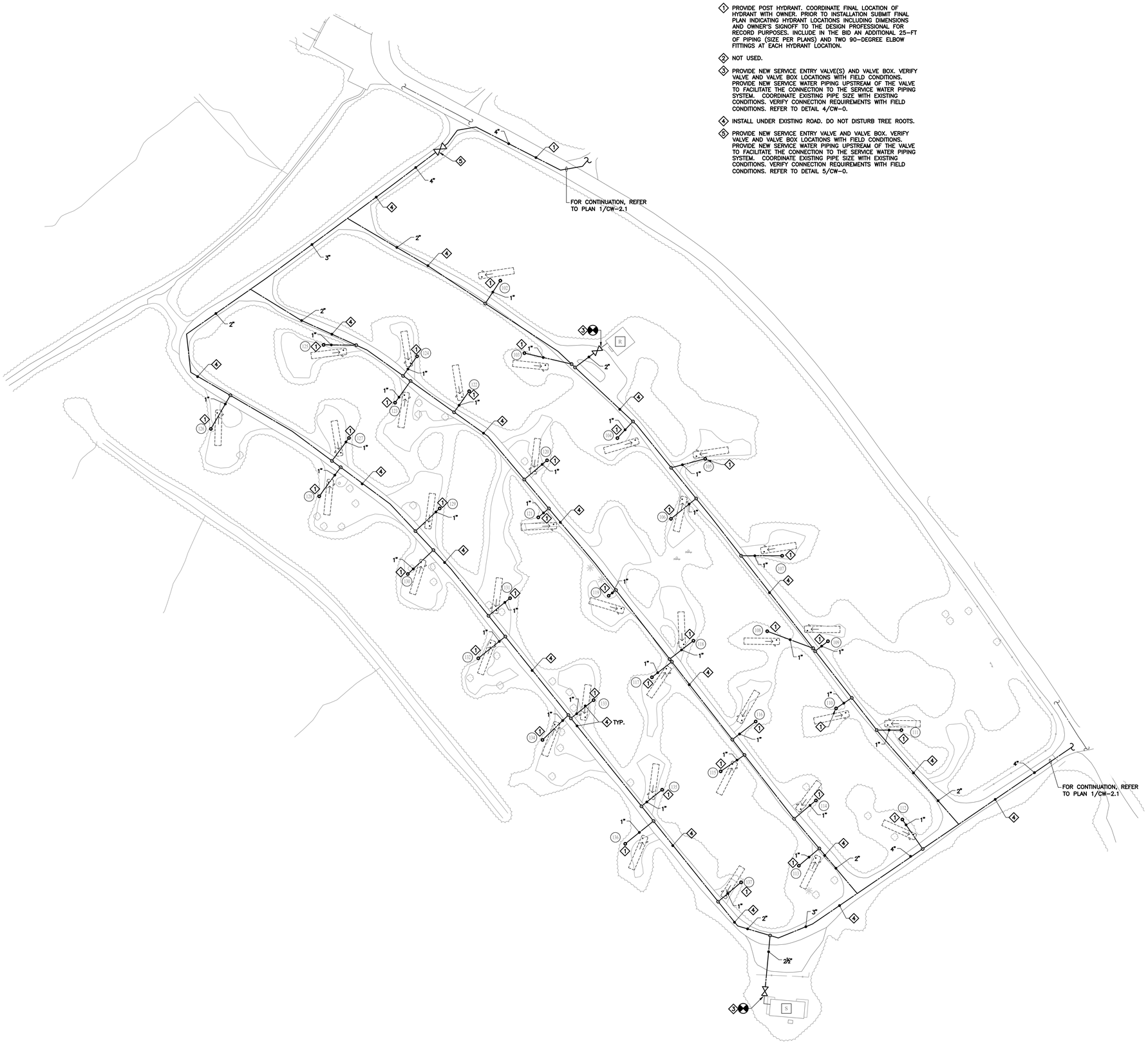
LAST SAVED: 2020.05.26 01:32 PM PLOTTED: 2020.05.28 09:48 AM PLOTTED BY: TML

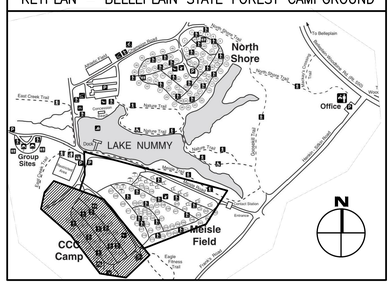
NEW WORK NOTES

1. PROVIDE POST HYDRANT. COORDINATE FINAL LOCATION OF HYDRANT WITH OWNER. PRIOR TO INSTALLATION SUBMIT FINAL PLAN INDICATING HYDRANT LOCATIONS INCLUDING DIMENSIONS AND OWNER'S SIGNOFF TO THE DESIGN PROFESSIONAL FOR RECORD PURPOSES. INCLUDE IN THE BID AN ADDITIONAL 25-FT OF PIPING (SIZE PER PLANS) AND TWO 90-DEGREE ELBOW FITTINGS AT EACH HYDRANT LOCATION.
2. NOT USED.
3. PROVIDE NEW SERVICE ENTRY VALVE(S) AND VALVE BOX. VERIFY VALVE AND VALVE BOX LOCATIONS WITH FIELD CONDITIONS. PROVIDE NEW SERVICE WATER PIPING UPSTREAM OF THE VALVE TO FACILITATE THE CONNECTION TO THE SERVICE WATER PIPING SYSTEM. COORDINATE EXISTING PIPE SIZE WITH EXISTING CONDITIONS. VERIFY CONNECTION REQUIREMENTS WITH FIELD CONDITIONS. REFER TO DETAIL 4/CW-0.
4. INSTALL UNDER EXISTING ROAD. DO NOT DISTURB TREE ROOTS.
5. PROVIDE NEW SERVICE ENTRY VALVE AND VALVE BOX. VERIFY VALVE AND VALVE BOX LOCATIONS WITH FIELD CONDITIONS. PROVIDE NEW SERVICE WATER PIPING UPSTREAM OF THE VALVE TO FACILITATE THE CONNECTION TO THE SERVICE WATER PIPING SYSTEM. COORDINATE EXISTING PIPE SIZE WITH EXISTING CONDITIONS. VERIFY CONNECTION REQUIREMENTS WITH FIELD CONDITIONS. REFER TO DETAIL 5/CW-0.



CCC CAMP
SITE DOMESTIC WATER NEW WORK PLAN
1 / CW-2.2 SCALE: 1"=50'

KEYPLAN – BELLEPLAIN STATE FOREST CAMPGROUND



Consultant:

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Cert. of Auth. #24GA27933400

ENGINEER
MICHAEL S. GILLAN, PE
NO. 24GE04470000
DATE 5/26/2020

Project Name
CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

Project Owner Name
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD.
DENNIS TWP
CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
TJB

Drawn By
TMH

Scale
AS NOTED

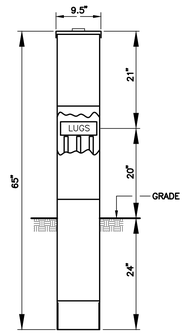
Drawing Name
SITE DOMESTIC WATER NEW WORK PLANS: CCC CAMP AND GROUP CABIN AREA

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
CW-2.2

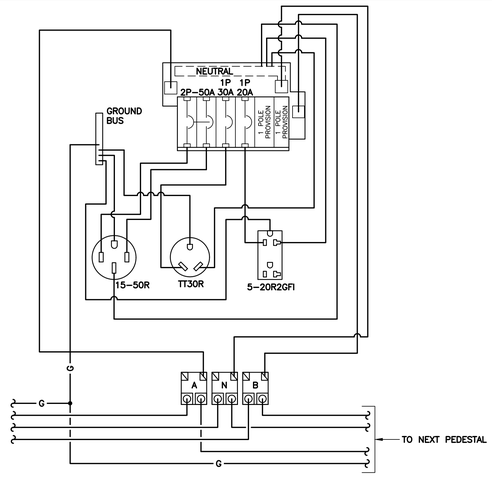
FILE PATH: q:\projects\2017\253 dpmc belleplain bves campsite_drawings\modified scope - ccc camp only\CUBS NEW WORK plans 2017253.dwg
LAST SAVED: 2020.05.26 01:12 PM PLOTTED: 2020.05.28 09:48 AM PLOTTED BY: TML



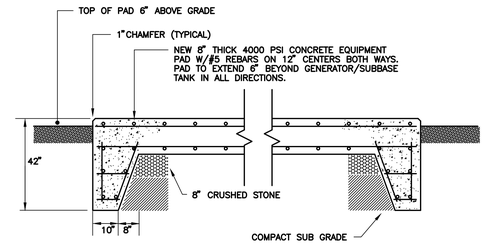
NOTE:

1. POWER PEDESTAL LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. LOCATE PEDESTALS AS DIRECTED BY THE STATE AT NO ADDITIONAL COST TO THE PROJECT. REFER TO COORDINATION DRAWINGS ARTICLE IN SPECIFICATION SECTION 260010.

1 CE-0 TYP. RV POWER PEDESTAL DETAIL
SCALE: NONE



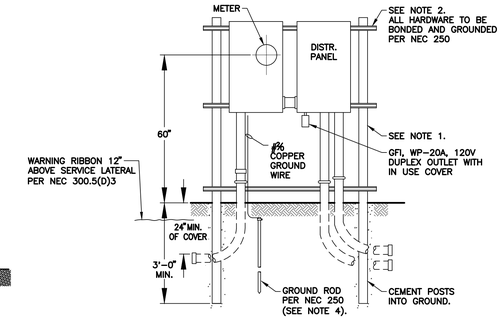
2 CE-0 TYP. RV PEDESTAL WIRING DIAGRAM
SCALE: NONE



NOTE:

1. COORDINATE PAD CONSTRUCTION, DIMENSIONS, LOCATION, AND ORIENTATION WITH THE UTILITY COMPANY.

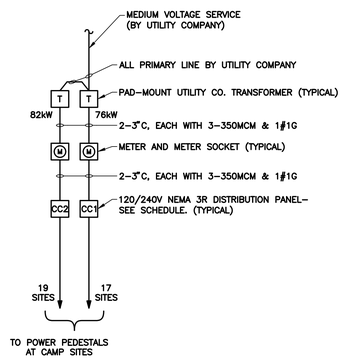
3 CE-0 TRANSFORMER PAD DETAIL
SCALE: 1/4" = 1'-0"



NOTES:

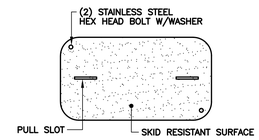
1. SUPPORT POST–USE ANY OF THE FOLLOWING:
   2–3" MIN. STEEL PIPE CAPPED AND CEMENTED IN GROUND.
   2–3" MIN. GALV. STEEL I–BEAM (3⅜" – ⅜" THICK) CEMENTED IN GROUND.
   2–3" MIN. CHANNEL IRON CEMENTED INTO GROUND.
2. MOUNTING HARDWARE – TWO 12 GAUGE 1⅝"x1⅝" CONTINUOUS SLOT HOT DIPPED GALVANIZED CHANNEL (e.g., UNISTRUT) COMPLETE WITH 1¼"x¾" DIA. 13 THD SPRING NUT (2 PER CHANNEL), ⅜" HEX NUT, AND LOCK WASHER SECURELY MOUNTED TO SUPPORT POSTS.
3. SUPPLY SIDE CONDUIT SHALL BE RIGID GALVANIZED OR IMC STEEL, OR SCHEDULE 80 PVC(ELECTRICAL GRADE.
4. METER SOCKET(S) MAY BE CONNECTED TO AN EXTERNAL GROUND ROD IF REQUIRED BY LOCAL INSPECTION AUTHORITIES.

4 CE-0 TYP. METER & PANEL MOUNTING DETAIL
SCALE: NONE



CCC CAMP

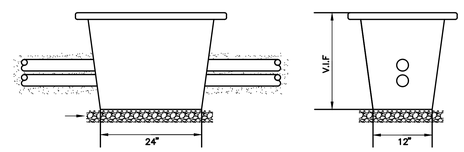
5 CE-0 SINGLE LINE DIAGRAM
SCALE: NONE



COVER

NOTES:

1. HH MUST BE UL LISTED.
2. HH MUST MEET ANSI TIER 15 TEST PROVISIONS.
3. OPEN BOTTOM SHALL BE SET ON 6" OF 3/4" MODIFIED STONE
4. USE TRAFFIC GRADE TYPE HH IF APPLICABLE.



FRONT SIDE

6 CE-0 HAND HOLE DETAIL
NO SCALE

LEGEND

- RV POWER PEDESTAL (SEE DETAIL)
- PAD MOUNTED UTILITY COMPANY TRANSFORMER
- 12"x24"x24" DEEP FIBERGLASS IN GROUND HAND HOLE
- NEW UNDERGROUND DIRECT BURIAL CABLE, (3C–250MCM,1#4G UNO)
- HOME RUN
- NEW DISTRIBUTION PANEL & UTILITY COMPANY METER
- CAMPSITE
- LEAN–TO SITE
- YURT SITE
- SHOWERS
- RESTROOMS / TOILETS

NOTE:

1. ALL WORK SHALL COMPLY WITH THE NJUCC AND RELATED ELECTRICAL SUBCODES – NFPA 70–2014 EDITION & ALL EQUIPMENT SHALL BE LABELED AS PER APPLICABLE SECTIONS OF THE NEC.

SCHEDULE FOR POWER PANEL CC1					General Panel Data 120/240V, 1φ, 3W, 22KAIC 600A MB, NEMA 3R				
Circuit Number	LOAD SERVED Type of Load	KVA	Ø	Volts	CIRCUIT PROTECTOR Quan.	Amps	Poles	Frame	WIRING DATA
1	4 SITES	29			1	175	2		3#⅜,1#4G
2	7 SITES	37			1	200	2		3–350MCM,1#2G
3	6 SITES	34			1	200	2		3–350MCM,1#2G
4	SPACE	–			–	–	2		–
5	RECEPTACLE	–			1	20	1		2#12,1#12G
–	–	–			–	–	–		–
–	–	–			–	–	–		–
–	–	–			–	–	–		–

SCHEDULE FOR POWER PANEL CC2					General Panel Data 120/240V, 1φ, 3W, 22KAIC 600A MB, NEMA 3R				
Circuit Number	LOAD SERVED Type of Load	KVA	Ø	Volts	CIRCUIT PROTECTOR Quan.	Amps	Poles	Frame	WIRING DATA
1	7 SITES	37			1	200	2		3–350MCM,1#2G
2	6 SITES	34			1	200	2		3–250MCM,1#4G
3	6 SITES	34			1	200	2		3–350MCM,1#2G
4	SPARE	–			1	50	2		–
5	RECEPTACLE	–			1	20	1		2#12,1#12G
–	–	–			–	–	–		–
–	–	–			–	–	–		–
–	–	–			–	–	–		–

Consultant:

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Cert. of Auth #24GA0final03400

ENGINEER
MICHAEL S. GILLAN, PE
NO. 24GE04470000
DATE 5/26/2020

Project Name
CAMPSITE ELECTRIC AND WATER SERVICE BELLEPLAIN STATE FOREST DPMC NO. P1173-00

Project Owner Name
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
1 HENKINSIFKIN RD. DENNIS TWP CAPE MAY COUNTY, NEW JERSEY

Project Number
2017-253

Project Date
5/26/2020

Checked By
ROB

Drawn By
MEN / JTM

Scale
AS NOTED

Drawing Name
ELECTRICAL GENERAL NOTES, ABBREVIATIONS, SYMBOLS, SCHEDULES, DETAILS, & SINGLE-LINE RISER DIAGRAMS

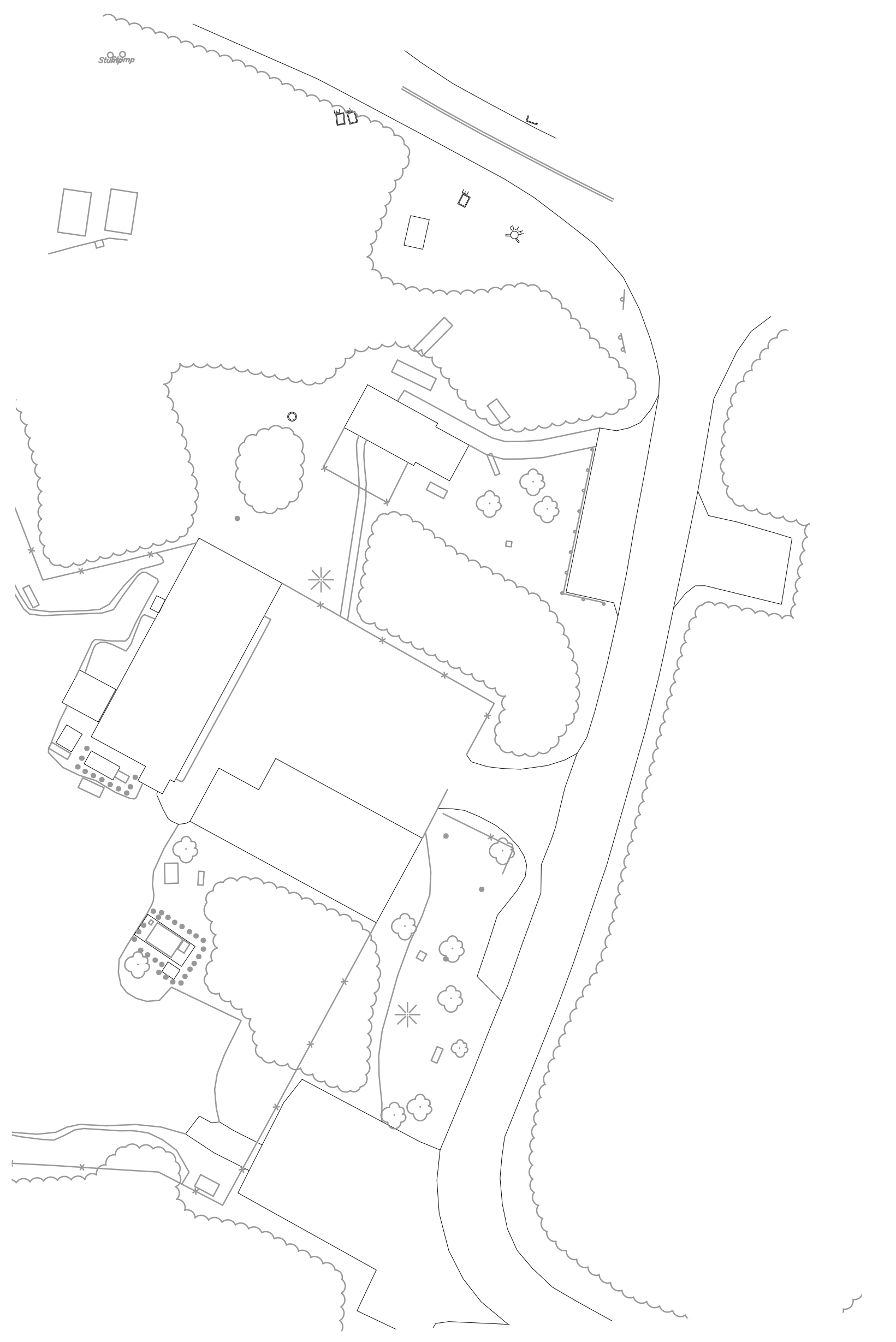
Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS
3	5/26/2020	PERMIT SET

Drawing Number
CE-0

FILE PATH: g:\projects\2017\2017-253 dpmc belleplain forest campsite_drawings\modified scope - ccc camp only\Electrical Legend Symbols & Notes.dwg
LAST SAVED: 2020.05.27 03:35 PM PLOTTED: 2020.05.28 09:48 AM PLOTTED BY: TML

1
CE-1
CCC CAMP
ELECTRICAL NEW WORK PLAN
SCALE: 1" = 50'

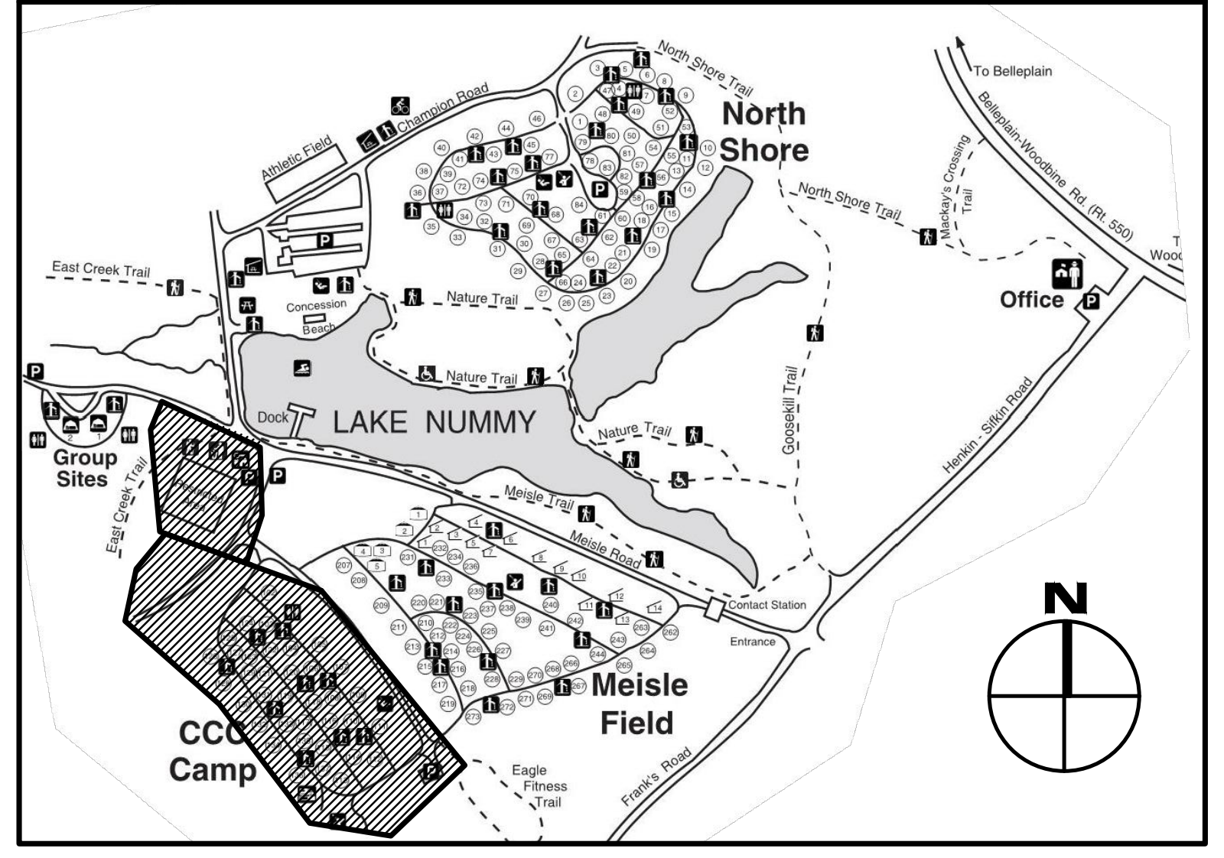


2
CE-1
MAINTENANCE AREA
ELECTRICAL NEW WORK PLAN
SCALE: 1" = 50'

SHEET NOTES:

1. NOT USED.
2. NEW UNDERGROUND PRIMARY NORMAL ELECTRIC POWER FEEDER PROVIDED BY THE ELECTRICAL UTILITY COMPANY. METHOD OF INSTALLATION TO BE DIRECTIONAL BORING AND TUNNELING. MINIMUM DEPTH OF FEEDER TO BE 3'-0".
3. NEW TRANSFORMER PROVIDED BY THE ELECTRICAL UTILITY COMPANY. COORDINATE EXACT LOCATION WITH THE UTILITY COMPANY AND PARK SERVICE.
4. PROVIDE NEW CONCRETE PAD PEDESTAL TYPE ELECTRIC METER SOCKET IN ACCORDANCE WITH THE ELECTRIC COMPANY REQUIREMENTS. REFER TO DRAWING CE-0 DETAIL 1/CE-0, DETAIL 2/CE-0, DETAIL 3/CE-0, AND DETAIL 4/CE-0. COORDINATE EXACT LOCATION WITH THE UTILITY COMPANY AND PARK SERVICE.
5. APPROXIMATE LOCATION OF EXISTING UNDERGROUND PRIMARY ELECTRIC POWER FEEDER OWNED BY THE ELECTRIC UTILITY COMPANY, INDICATED FOR COORDINATION.
6. APPROXIMATE LOCATION OF EXISTING ELECTRICAL UTILITY COMPANY OWNED TRANSFORMER / SPLICE BOX. LOCATION PROVIDED FOR COORDINATION.
7. PROVIDE NEW UNDERGROUND SECONDARY NORMAL POWER CIRCUIT. ROUTE FEEDER UNDER THE EXISTING ROADWAY. DIRECT BURY THE ELECTRICAL FEEDER. REFER TO DRAWING CW-0, DETAIL 2/CW-0 AND DETAIL 3/CW-0.
8. PROVIDE NEW RV NORMAL ELECTRICAL POWER PEDESTAL. REFER TO DRAWING CE-0, DETAIL 1/CE-0. COORDINATE FINAL LOCATION OF POWER PEDESTAL WITH OWNER. PRIOR TO INSTALLATION SUBMIT FINAL PLAN INDICATING POWER PEDESTAL LOCATIONS INCLUDING DIMENSIONS AND OWNER'S SIGNOFF TO THE DESIGN PROFESSIONAL FOR RECORD PURPOSES. INCLUDE IN THE BID AN ADDITIONAL 25-FT OF CONDUIT AND WIRING (SIZES PER PLANS) AND TWO 90-DEGREE ELBOW FITTINGS AT EACH POWER PEDESTAL LOCATION.
9. PROVIDE NEW UNDERGROUND SECONDARY NORMAL POWER CIRCUIT. METHOD OF INSTALLATION TO BE DIRECTIONAL BORING AND TUNNELING.

KEYPLAN – BELLEPLAIN STATE FOREST CAMPGROUND



Consultant:

3/27/2020
FINAL DESIGN
NOT FOR CONSTRUCTION

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ENGINEER
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NO. 24GE04470000

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DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION

Project Location
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DENNIS TWP
CAPE MAY COUNTY,
NEW JERSEY

Project Number
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Project Date
3/27/2020

Checked By
ROB

Drawn By
JTM

Scale
AS NOTED

Drawing Name
ELECTRICAL NEW WORK PLAN: CCC CAMP

Revisions

No.	Date	Description
1	12/19/2018	PINELANDS COMM. COMMENTS
2	2/25/2019	NJ PC COMMENTS

Drawing Number
CE-1

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