

BR BENSON MINES SOLAR PROJECT

TOWN OF CLIFTON
ST. LAWRENCE COUNTY, NEW YORK
LAT: N44° 09' 42.70"
LONG: W74° 59' 48.86"
DECEMBER 2021

PREPARED FOR:
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
17 COLUMBIA CIRCLE
ALBANY, NY 12203

CIVIL ENGINEER:
TRC ENGINEERS, LLC
10 MAXWELL DRIVE
CLIFTON PARK, NY 12065

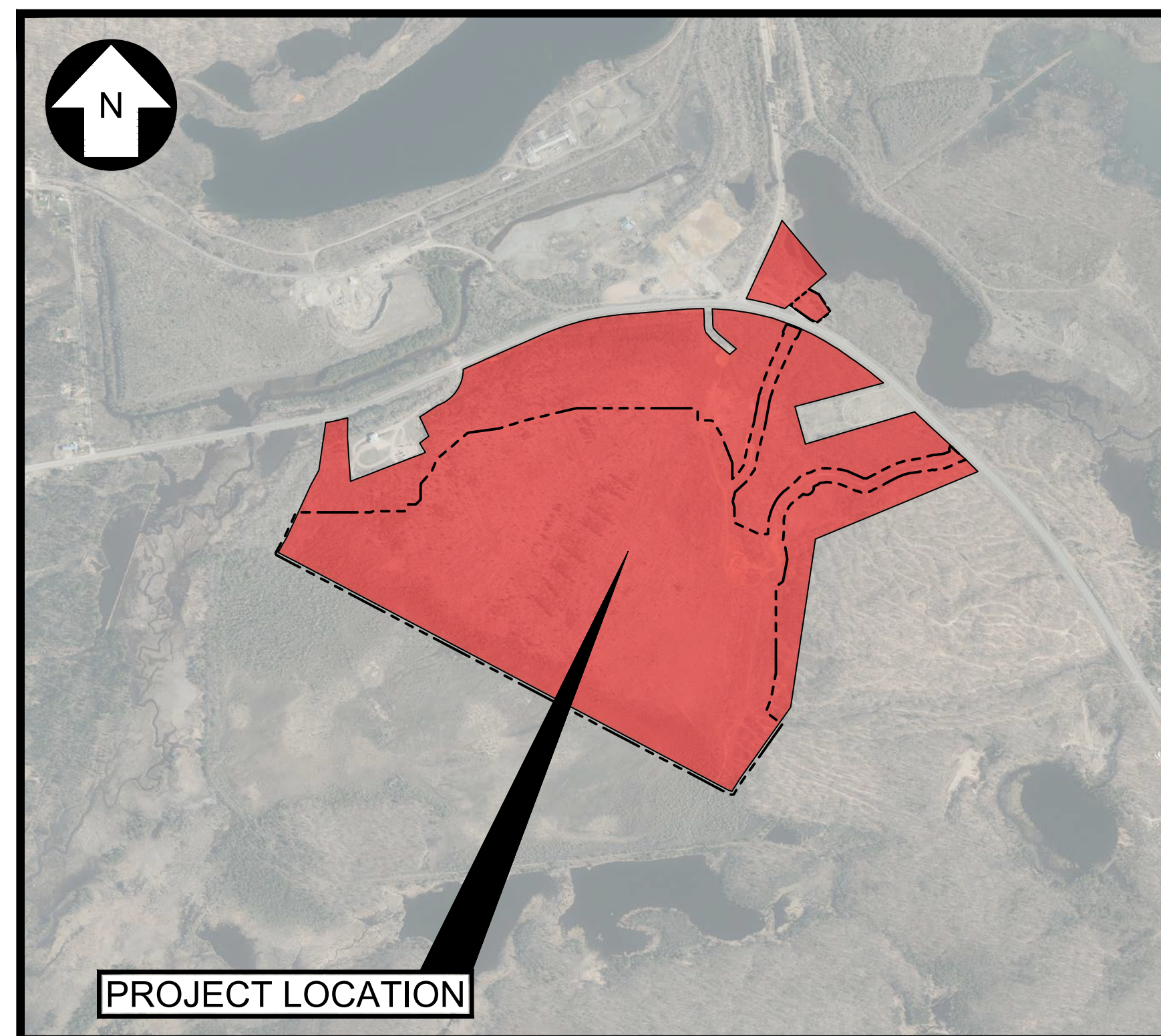
ELECTRICAL ENGINEER:
TRC ENGINEERS, LLC
124 GROVE STREET, SUITE 207
FRANKLIN, MA 02038

SURVEY PROVIDED BY:
CORNER POST LAND SURVEYING, LLC
364 SPRAGUETOWN ROAD
GREENWICH, NY 12834

PV ENGINEER:
TRC ENGINEERS, LLC
670 N. COMMERCIAL STREET, SUITE 203
MANCHESTER, NH 03101

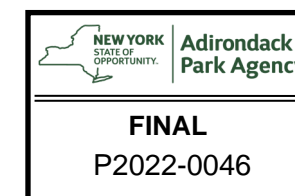
GEOTECHNICAL ENGINEER:
TRC ENGINEERS, LLC
16000 COMMERCE PARKWAY, SUITE B
MT. LAUREL, NJ 08054

ENVIRONMENTAL ENGINEER:
TRC ENGINEERS, LLC
10 MAXWELL DRIVE
CLIFTON PARK, NY 12065



LOCATION MAP
1" = 1000'

POINT OF INTERCONNECT:
DC CAPACITY: 26,449.88 kW
AC CAPACITY: 20,000.00 kW
DESIGN TEMP: 32°C
MINIMUM TEMP: -28°C




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PRELIMINARY
NOT FOR CONSTRUCTION



UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

 10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154			
REV	DESCRIPTION	DATE	DES	CHK	APP
0	IFP SET	02/25/2022	RMK	SJW	SJW



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APPROVED

COVER SHEET

BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE



G-100

REV.
0

GENERAL NOTES:

SURVEY NOTES:

- EXISTING CONDITIONS SURVEY WAS PROVIDED BY CORNER POST LAND SURVEYING, PLLC. SEE ALTA SURVEY DATED JULY 26, 2021, SEALED BY MATTHEW C. VAN DOREN, PLS.
- SURVEY IS REFERENCED HORIZONTALLY TO THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83/2011), PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE) AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- NORTH ARROW AS SHOWN INDICATES GRID NORTH REFERENCED TO NAD83 AND PROJECTED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM (CENTRAL ZONE).
- WETLAND BOUNDARY INFORMATION PROVIDED BY TRC AND CONFIRMED BY APA DURING 7/26/2021 SITE WALKTHROUGH.
- ZONING BOUNDARY INFORMATION OBTAINED FROM THE TOWN OF CLIFTON.
- APA LAND USE BOUNDARY OBTAINED FROM APA MAP AND GIS (<https://apa.ny.gov/gis/>)
- FLOOD ZONE CLASSIFICATION: THE SUBJECT PARCEL IS DEPICTED ON FEMA FIRM 361173 B, INDEX SHEET 01, DATED MAY 15, 1986. THE PROJECT LIMITS WITHIN THE SUBJECT PARCEL LIE WITHIN THE ZONE C FLOODPLAIN (AREAS OF MINIMAL FLOODING)
- TOPOGRAPHY SHOWN ON THIS MAP HAS BEEN COMPILED FROM AVAILABLE LIDAR ELEVATION DATA, PROVIDED BY THE N.Y.S. GIS PROGRAM, THROUGH A COOPERATIVE AGENCY(S) PROJECT. SURVEY GROUND CHECKS WERE DONE USING A BASE & ROVER RTKGPS SYSTEM, AND ALSO USING A CONVENTION TOTAL STATION. THE CONTOURS COMPILED ARE AT A 2 FOOT INTERVAL, AND THE ELEVATION DATUM IS NAVD88.
- SOME NATURAL FEATURES, SUCH AS FIELDS, TREE LINES, STREAMS, AND WATER BODIES SHOWN ON THE EXISTING CONDITIONS SURVEY WERE APPROXIMATED FROM N.Y.S. GIS ORTHOIMAGERY PROGRAM AND WERE NOT COMPILED FROM AN INVOLVED GROUND SURVEY.
- NO INFORMATION WAS PROVIDED OR OBSERVED IN REGARDS TO THE SURVEYED PROPERTY ADDRESS. THE TITLE DOCUMENTS DID NOT HAVE A PROPERTY ADDRESS LISTED AND NO PROPERTY ADDRESS WAS FOUND OR LISTED ON OTHER AVAILABLE ("ONLINE") SOURCES.
- THE PROPERTIES ARE CURRENTLY PARTIALLY WOODED, HAVE PONDS, WATERWAYS, OR WET AREAS. THE PROPERTIES SOUTH OF N.Y.S. ROUTE NO. 3 HAVE AREAS FORMERLY USED FOR THE MINE TAILINGS, AS SHOWN. PROPERTY NORTH OF N.Y.S. ROUTE NO. 3 IS CURRENTLY USED FOR AN ELECTRIC SUBSTATION & HIGHWAY, AS SHOWN.

REMOVAL NOTES:

- TREE REMOVAL WILL BE IN CONFORMANCE WITH LOCAL AND STATE REGULATIONS AS WELL AS ANY SPECIFIC NYSDEC OR APA GUIDANCE.
- TREE REMOVAL LIMITS IDENTIFIED ON THE PLANS SHALL BE DEMARCATED IN THE FIELD. TREE REMOVAL WITHIN 100' WETLAND BUFFER SHALL BE SELECTIVE CUTTING ONLY OF TREES TALLER THAN 30' AND SHALL BE ACCOMPLISHED WITH CHAINSAWS AND HAND TOOLS. NO SOIL DISTURBANCE, INCLUDING CLEARING & GRUBBING, STUMP REMOVAL, ETC., SHALL OCCUR WITHIN THE 100' WETLAND BUFFER.
- TREES AND OTHER VEGETATION MAY BE REDUCED TO CHIPS BY THE USE OF CHIPPING MACHINES OR STUMP GRINDER AND USED AS REQUIRED FOR EROSION CONTROL. ALL OTHER CHIPS AND WOOD WASTE RESULTING FROM REMOVAL OPERATIONS SHALL BE DISPOSED OF OFF-SITE AT A CERTIFIED FACILITY AND IN A MANNER APPROVED BY THE OWNER.
- ALL EXISTING DEBRIS, RUBBISH, AND ABANDONED ITEMS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF OFF-SITE IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. ANY MATERIALS TO BE REMOVED FROM PARCEL 224.000-8-4, NORTH OF ROUTE 3 MUST ALSO BE IN ACCORDANCE WITH THE NOTICE OF CERTIFICATE OF COMPLETION MADE BY FORMER JONES & LAUGHLIN ORE PROCESSING.
- ALL EXCESS SOIL FROM GRADING AND EXCAVATION, DEMOLITION WASTE, DEBRIS AND RUBBISH SHALL BE PROPERLY REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH THE SITE MANAGEMENT PLAN AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. ANY MATERIALS TO BE REMOVED FROM PARCEL 224.000-8-4, NORTH OF ROUTE 3 MUST ALSO BE IN ACCORDANCE WITH THE NOTICE OF CERTIFICATE OF COMPLETION MADE BY FORMER JONES & LAUGHLIN ORE PROCESSING. ALTERNATIVELY, EXCESS SOIL FROM GRADING MAYBE SPREAD IN RELATIVELY UNIFORM LAYERS WITHIN THE LIMITS OF THE TEMPORARY CONSTRUCTION LAYDOWN YARD UPON COMPLETION OF THE PV ARRAY FIELD.
- TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING IMPROVEMENTS AND FACILITIES TO REMAIN IN PLACE. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND REPLACEMENT OF DAMAGED ITEMS AS A RESULT OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

CONTRACTOR NOTES:

- UNLESS INDICATED OTHERWISE, REFER TO THE LATEST EDITION OF THE STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS FOR GENERAL REQUIREMENTS, PRODUCTS AND EXECUTION RELATED TO CONSTRUCTION OF BUT NOT LIMITED TO; CLEARING, GRUBBING, ROADS, UTILITY TRENCH EXCAVATION, BORROW, SUBGRADE, SUBBASE, GRANULAR FILL, AND AGGREGATE BASE.
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL MARK OR DELINEATE THE FOLLOWING PROJECT FEATURES USING APPROPRIATE MEANS, INCLUDING BUT NOT LIMITED TO LATH MARKERS, SURVEYORS RIBBON, PIN FLAGS, BARRIER FENCE, OR SUITABLE EQUIVALENT.
 - PROPOSED FACILITY COMPONENTS DEPICTED ON THE CONSTRUCTION DRAWINGS
 - STREAMS, WETLANDS, AND WETLAND BUFFER ZONES
 - VEHICLE TRAVEL CORRIDORS, STREAM CROSSING LOCATIONS
 - LIMITS OF CLEARING AND DISTURBANCE
 - LIMITS OF SELECTIVE TREE CUTTING
 - PROTECTED CULTURAL AND NATURAL RESOURCES
- THE CONTRACTOR SHALL NOTE THE CONDITION OF ANY EXISTING FEATURES NOT INDICATED FOR REMOVAL THAT MAY BE IMPACTED BY PROJECT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED FEATURES AT HIS/HER EXPENSE.
- DISRUPTION TO REGULATED WETLANDS AND PROTECTED HABITAT SHALL BE AVOIDED. THE CONTRACTOR SHALL NOTIFY THE FACILITY OWNER/LESSEE OF ANY UNAVOIDABLE IMPACTS THAT MAY VIOLATE THE APA PERMIT. FACILITY OWNER/LESSEE SHALL DETERMINE WHETHER TO EXERCISE STOP WORK AUTHORITY OR WHETHER TO DIRECT THE CONTRACTOR TO FURTHER MINIMIZE IMPACTS TO STREAMS AND WETLANDS.
- RESTRICTED ACTIVITIES PERTAIN TO A BUFFER ZONE OF 100 FEET ON EITHER SIDE OF THE BOUNDARIES OF REGULATED WATER-RELATED RESOURCES (STREAMS, WETLANDS, SPRINGS, WELLS, DRAINAGE, ETC.) AND INCLUDE THE FOLLOWING RESTRICTIONS:
 - NO DEPOSITION OF SLASH OR WOOD CHIPS WITHIN IDENTIFIABLE STREAM CHANNELS OR BUFFERS, OR WITHIN 100 FEET OF WETLANDS;
 - LIMITED TREE REMOVAL SHALL BE ACCOMPLISHED WITH CHAINSAWS AND HAND TOOLS ONLY; NO UNNECESSARY REMOVAL OF WOOD VEGETATION WITHIN WETLAND AND STREAM BUFFERS OR DEGRADATION OF STREAM BANKS;
 - NO EQUIPMENT WASHING OR REFUELING EXCEPT AS SPECIFICALLY PERMITTED BY THE FINAL PROJECT DOCUMENTS;
 - AND NO STORAGE, MIXING, OR HANDLING OF ANY PETROLEUM OR CHEMICAL MATERIALS IN OPEN CONTAINERS.

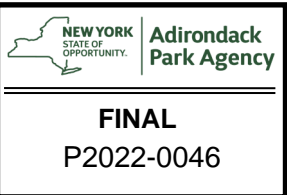
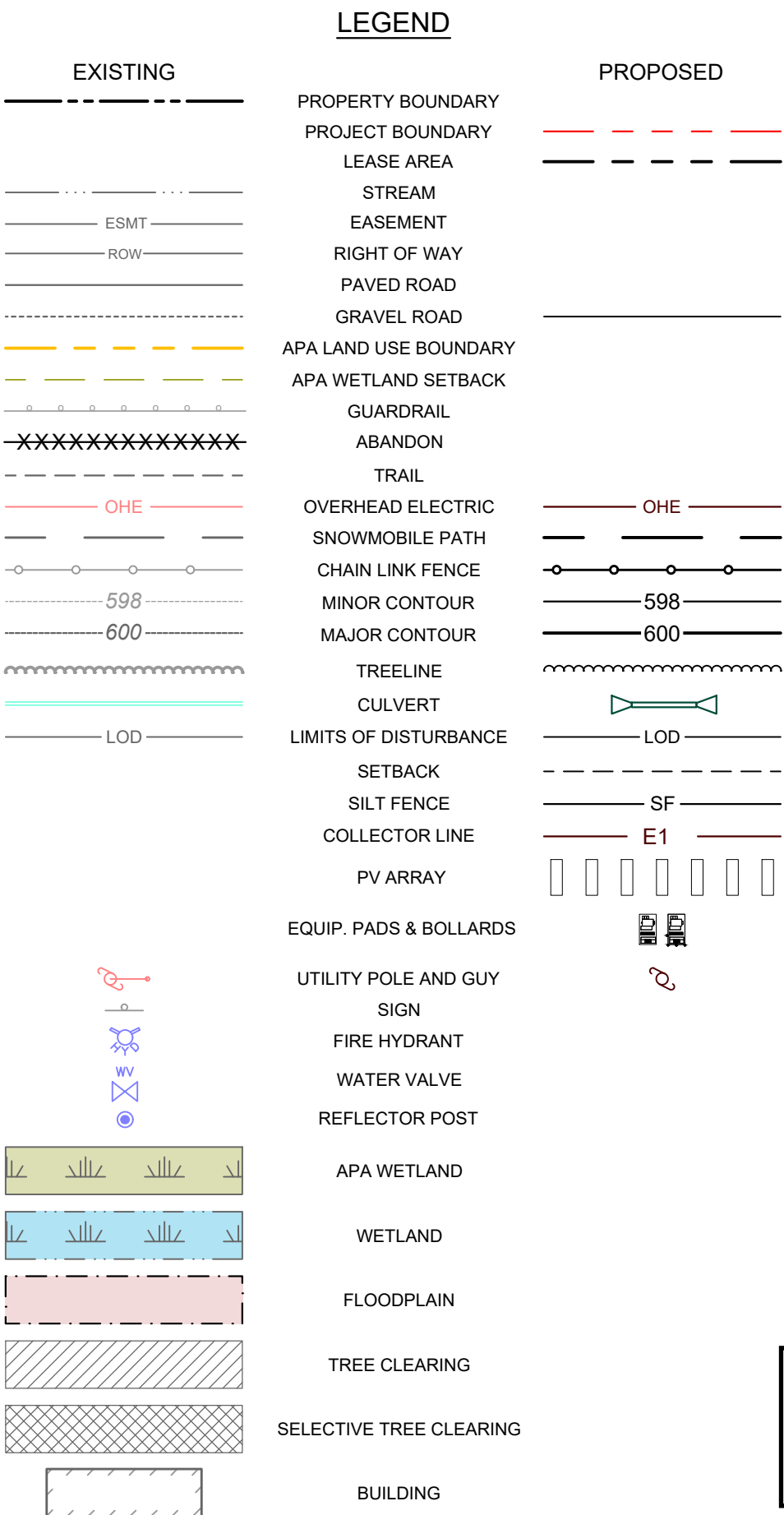
- AT THE END OF EACH WORK DAY ALL EQUIPMENT AND MACHINERY SHALL BE STORED AND SAFELY CONTAINED MORE THAN 100 FEET LANDWARD OF ANY REGULATED WETLAND OR WATER BODY.
- FUEL AND OTHER CHEMICAL STORAGE TANKS SHALL BE CONTAINED WITHIN THE TEMPORARY LAYDOWN YARD IDENTIFIED ON THE PLANS.
- ALL MOBILE EQUIPMENT, EXCLUDING DEWATERING PUMPS, SHALL BE FUELED IN LOCATIONS THAT ARE A MINIMUM OF 100 FEET FROM THE TOP OF STREAM BANK, WETLAND, OR WATER BODY. DEWATERING PUMPS OPERATING CLOSER THAN 100 FEET FROM THE STREAM BANK WETLAND, OR WATER BODY MUST BE ON AN IMPERVIOUS SURFACE WITH ABSORBENTS CAPABLE OF CONTAINING ANY LEAKAGE OF PETROLEUM PRODUCTS.
- "AVOID, DO NOT CROSS" INDICATES THAT AN AREA DOES NOT HAVE A DESIGNATED ACCESS ROUTE AND THAT EQUIPMENT IS RESTRICTED FROM CROSSING OR OPERATING IN THAT AREA. THIS DESIGNATION IS APPLIED TO ALL WETLANDS, STREAMS, AND ASSOCIATED BUFFERS THAT DO NOT HAVE APPROVED EQUIPMENT ACCESS, AS INDICATED.
- THE NATIVE SUBSOIL AT THE SITE CONTAINS VARYING FINE-GRAINED (SILT) CONTENT AND MAY BE SLIGHTLY SENSITIVE TO MOISTURE AND DISTURBANCE, ESPECIALLY DURING WET PERIODS. SUBSOILS MAY LOSE STRENGTH WHEN WET OR DISTURBED BY CONSTRUCTION EQUIPMENT AND COULD BE DIFFICULT TO WORK WITH DURING COLD OR WET WEATHER. THE CONTRACTOR SHALL UTILIZE APPROPRIATE WET WEATHER CONSTRUCTION TECHNIQUES DURING CONSTRUCTION OF THE FACILITY. WET WEATHER CONSTRUCTION TECHNIQUES MAY INCLUDE LIMITING EXPOSURE OF SUBSOILS TO THAT WHICH CAN BE COMPLETED OR COVERED BY THE END OF EACH WORKDAY; TEMPORARY CONSTRUCTION ROADS AND PLATFORMS BUILT WITH CONSTRUCTION MATTING OR GEOTEXTILES AND CRUSHED STONE; TEMPORARY FILL, AND OTHER METHODS.
- REFER TO THE PROJECT GEOTECHNICAL REPORT FOR MORE SPECIFIC CUT AND FILL CONSTRUCTION REQUIREMENTS.
- ALL VEHICLE TRAFFIC AND PARKING SHALL BE CONFINED TO THE TEMPORARY ACCESS ROADS, DESIGNATED WORK AREAS, AND DESIGNATED MATERIAL LAYDOWN AREAS.
- EXISTING FENCES NOT INDICATED FOR REMOVAL SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. WHERE EXISTING FENCE OR GATES MUST BE REMOVED OR ALTERED, TEMPORARY FENCING AND GATES SHALL BE PROVIDED TO MATCH THE FUNCTION OF THE EXISTING SYSTEM. AT THE END OF CONSTRUCTION, RESTORE THE FENCE AND GATE TO MATCH THAT EXISTING AT THE START OF THE WORK.
- THE CONTRACTOR SHALL IDENTIFY AND PROTECT ALL OIL/GAS WELLS AND PIPELINES PRIOR TO CONSTRUCTION ACTIVITIES.

GENERAL ENVIRONMENTAL RESTRICTIONS:

- THIS PROJECT INCLUDES A SWPPP THAT HAS BEEN PREPARED IN ACCORDANCE WITH THE "NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) STATE POLLUTION DISCHARGE ELIMINATION SYSTEM (SPDES) GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY" GENERAL PERMIT GP-0-20-001, EFFECTIVE JANUARY 29, 2020 THROUGH JANUARY 28, 2025. ALL SITE OPERATIONS SHALL COMPLY WITH THE SWPPP AND ASSOCIATED PERMIT REQUIREMENTS.
- ALL EQUIPMENT ACCESS, STORAGE OF EQUIPMENT, MATERIALS, EMPLOYEE PARKING, AND OTHER CONSTRUCTION ACTIVITIES ARE RESTRICTED TO THE DESIGNATED ACCESS ROADS, LAYDOWN AREAS, COLLECTION LINE ROUTES AS INDICATED BY THE PROJECT DOCUMENTS.
- FUGITIVE DUST RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL BY IMPLEMENTING APPROPRIATE CONTROL MEASURES. THESE MEASURES INCLUDE THE APPLICATION OF MULCH, WATER, OR STONE ON ACCESS ROADS, EXPOSED SOILS, STOCKPILED SOILS, OR UNPAVED PUBLIC ROADS WHEN DRY, WINDY CONDITIONS EXIST. A WATERING VEHICLE (OR A VEHICLE CONTAINING AN APPROVED CHEMICAL TREATMENT) SHALL BE MADE AVAILABLE AS NEEDED.
- CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN GOOD OPERATING CONDITION. ALL MOTORS AND ENGINES SHALL BE MUFFLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND SHALL COMPLY WITH STATE ENVIRONMENTAL LAW, SUBCHAPTER E, PART 450 (NOISE FROM HEAVY MOTOR VEHICLES). ANY FAULTY NOISE SUPPRESSOR SHALL BE REPAIRED OR REPLACED IMMEDIATELY. EQUIPMENT SHALL NOT BE LEFT RUNNING UNNECESSARILY. EXISTING TALL GROWING VEGETATION SHALL BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE, TO SERVE AS A NOISE BUFFER.
- NO STUMP REMOVAL OR GRUBBING SHALL OCCUR WITHIN ANY REGULATED STREAM, WETLAND OR ASSOCIATED BUFFER, EXCEPT WHERE PERMITTED.
- ALL NATIVE OR IMPORTED FILL MATERIALS SHALL CONSIST OF CLEAN SOIL, SAND, AND/OR GRAVEL THAT IS FREE OF THE FOLLOWING SUBSTANCES: ASPHALT, SLAG, FLY ASH, DEMOLITION DEBRIS, BROKEN CONCRETE, GARBAGE, HOUSEHOLD REFUSE, TIRES, WOODY MATERIALS, AND METAL OBJECTS. REASONABLE EFFORTS SHALL BE MADE TO USE FILL MATERIALS THAT ARE VISIBLY FREE OF INVASIVE SPECIES BASED ON ONSITE AND SOURCE INSPECTIONS. THE INTRODUCTION OF MATERIALS TOXIC TO AQUATIC LIFE IS EXPRESSLY PROHIBITED.
- INDIRECT IMPACTS TO STREAMS AND WETLANDS SHALL BE CONTROLLED THROUGH THE EMPLOYMENT OF APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH APPROVED PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP). MEASURES TO BE EMPLOYED SHALL INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCES, CHECK DAMS, MULCH, TEMPORARY SEEDING, AND OTHER PRACTICES AS OUTLINED IN THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (LATEST EDITION).
- EXPOSED SOIL SHALL BE SEEDED AND/OR MULCHED AS SOON AS PRACTICABLE AFTER FINAL GRADING. TEMPORARY SEED AND MULCH SHALL BE USED DURING PERIODS OF PLANNED EXTENDED SHUT-DOWNS, INTERRUPTED CONSTRUCTION AND DURING PERIODS OF HOT WEATHER WHEN PERMANENT SEEDING IS LIKELY TO FAIL. SEE LANDSCAPING PLAN AND SWPPP.
- IN THE EVENT THAT ARCHAEOLOGICAL MATERIALS, HUMAN REMAINS, OR EVIDENCE OF HUMAN BURIALS ARE ENCOUNTERED DURING CONSTRUCTION, ALL WORK IN THE VICINITY OF THE FIND SHALL BE IMMEDIATELY HALTED AND THE FACILITY OWNER/LESSEE AND LANDOWNER REPRESENTATIVES NOTIFIED.
- THE CONTRACTOR SHALL LOCATE AND DISTRIBUTE EXCESS EXCAVATION MATERIAL IN UPLAND AREAS (I.E., OUTSIDE OF WETLANDS, STREAMS, AND ASSOCIATED BUFFERS). WHERE PRACTICAL, SUCH MATERIAL SHALL BE USED AS ROAD FILL OR BACKFILL AROUND STRUCTURES. EROSION CONTROL PRACTICES SHALL BE INSTALLED, AND EXPOSED SOILS STABILIZED IN ACCORDANCE WITH THE SWPPP. EXCESS FILL THAT CAN'T BE DISPOSED ONSITE WILL BE PROPERLY REMOVED OFF SITE
- EXCESS CONCRETE SHALL BE PROPERLY DISPOSED OF OFF SITE.

EROSION PREVENTION AND SEDIMENT CONTROL:




- MITIGATION, RESTORATION, AND CLEAN UP MAY INCLUDE, BUT IS NOT LIMITED TO, THE FOLLOWING:
 - TOPSOIL STRIPPING AND STOCKPILING,
 - USE OF CONSTRUCTION MATTING,
 - CONSTRUCTION OF TEMPORARY HAUL ROADS AND HAUL ROAD REMOVAL,
 - PLACEMENT AND COMPACTION OF STONE BEARING LAYER WITH OR WITHOUT GEOSYNTHETIC LAYER,
 - SURFACE TILLAGE,
 - REGRAIDING AND SPREADING PREVIOUSLY STRIPPED TOPSOIL,
 - DRAINAGE SYSTEM REPAIR OR ALTERATION.
- TEMPORARY GRAVEL ROADS, TEMPORARY CULVERTS, TIMBER MATS, AND SIMILAR TEMPORARY MEASURES SHALL BE REMOVED AND THE IMPACTED AREAS RESTORED WITHIN THE TIMEFRAME PRESCRIBED BY THE PERMIT.
- RESTORATION OF DISTURBED AREAS, TEMPORARY ROADS AND WORK PLATFORMS SHALL INCLUDE THE FOLLOWING PRE- AND POST-CONSTRUCTION TREATMENTS:
 - REGRADED TO MATCH FINAL CONTOURS AND STABILIZED.
 - UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL TEMPORARY ROADS AND WORK SITES SHALL BE SCARIFIED/DECOMPACTED AND STOCKPILED SOIL SPREAD AND THE AREA STABILIZED AND ALLOWED TO RE-VEGETATE NATURALLY.
 - APPROVED SWPPP/ESC CONTROLS, INCLUDING BIODEGRADABLE MEASURES, SHALL BE PROVIDED AND SHALL REMAIN IN PLACE UNTIL THE RESTORED AREA HAS BEEN RE-VEGETATED.
- ACCESS ROUTES SHALL BE CONSTRUCTED AS INDICATED ON THE FINAL CONSTRUCTION DRAWINGS, WITH CONSTRUCTION ACTIVITIES RESTRICTED TO DESIGNATED CORRIDORS/RIGHTS-OF-WAY.
- ALL EXISTING DRAINAGE AND EROSION CONTROL FEATURES NOT INDICATED FOR REMOVAL INCLUDING BUT NOT LIMITED TO DRAINAGE DITCHES, DIVERSIONS, DRAIN TILE, CULVERTS ETC; SHALL BE AVOIDED OR PROTECTED FROM DAMAGE. ANY FEATURES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.
- TOPSOIL STRIPPED FROM WORK SITES SHALL BE SEGREGATED FROM OTHER SOIL PRODUCTS AND STOCKPILED IN AREAS IMMEDIATELY ADJACENT TO WHERE IT WAS REMOVED. THE TOPSOIL SHALL BE USED FOR RESTORATION OF THAT SITE AND NOT FOR BACKFILLING.



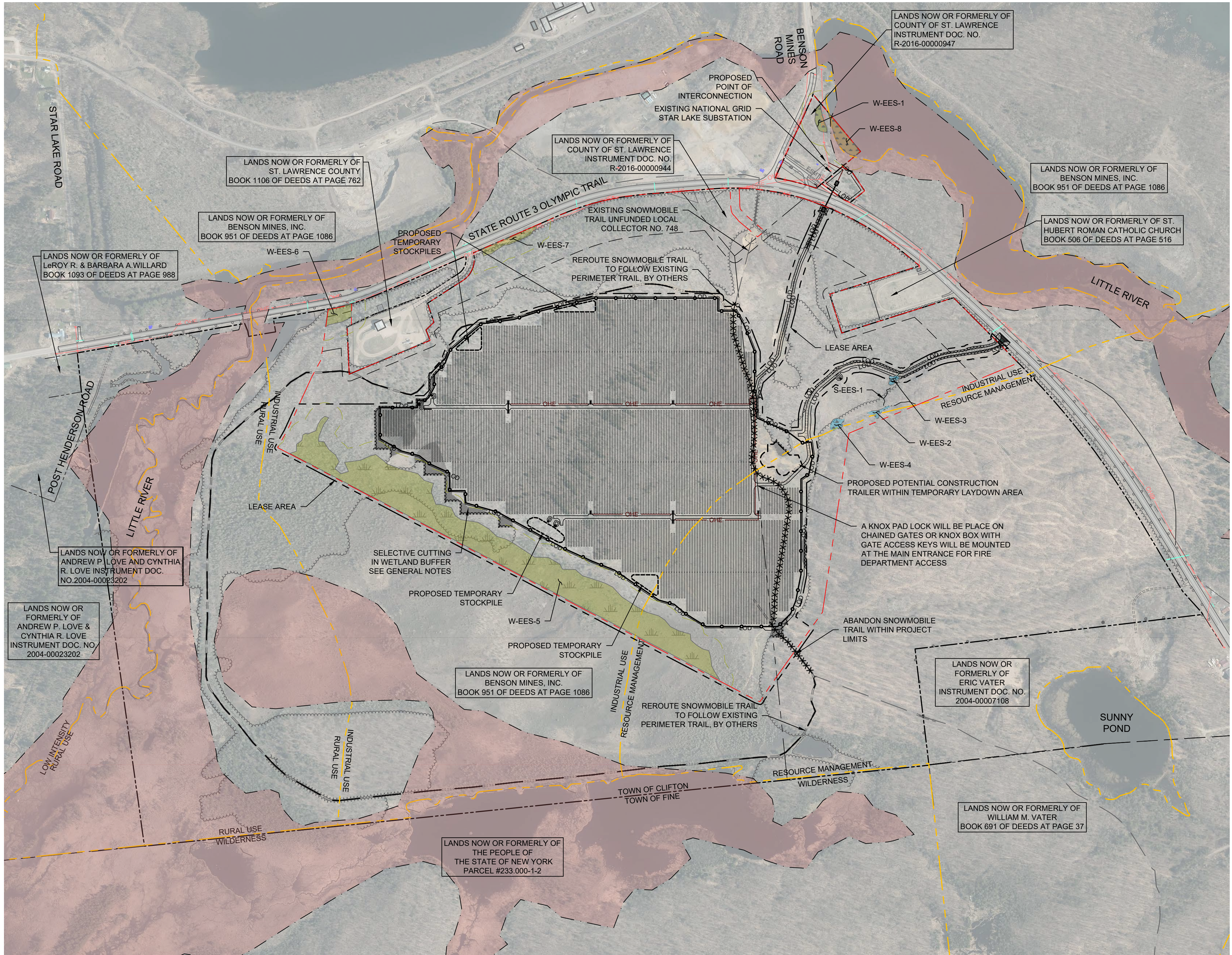
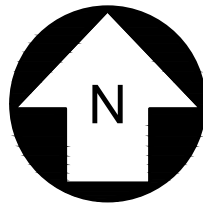
ESTIMATED CIVIL QUANTITIES	
PROJECT AREA (ACRES)	255.2
FENCED AREA (ACRES)	113.1
FENCE LENGTH (LF)	9,430
HAUL ROAD LENGTH (LF)	7,445
HAUL ROAD AREA (ACRES)	3.55
TREE CLEARING (ACRES)	3.58
SELECTIVE TREE CUTTING (ACRES)	1.72
VOLUME OF CUT (CY)*	21,950
VOLUME OF FILL (CY)*	10,686
LIMITS OF DISTURBANCE (LOD) (ACRES)	119.0
LEASE AREA (ACRES)	165.6
*EARTHWORK VOLUMES ARE RAW SURFACE CALCULATIONS BASED ON COMPARISON OF EXISTING LIDAR AND PROPOSED GRADING AND DO NOT ACCOUNT FOR EXPANSION, COMPACTION, STRUCTURAL FILL IMPORT OR TOPSOIL REMOVAL/REPLACEMENT.	

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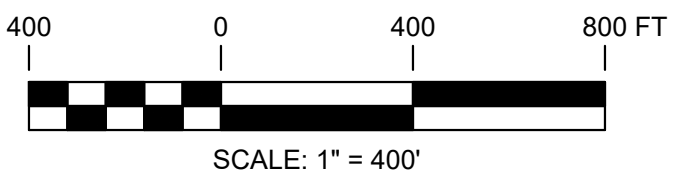


<div>10 MAXWELL DRIVE CLIFTON PARK, NY 12065</div>						PROJECT NO: 444154					<div>BWH DESIGNED</div> <div>BWH DRAWN</div> <div>JWH CHECKED</div> <div>NAM APPROVED</div>		GENERAL NOTES AND LEGEND			
REV	DESCRIPTION					DATE	DES	CHK	APP		BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK					
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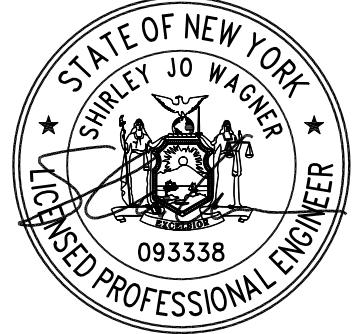


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OVERALL SITE LAYOUT

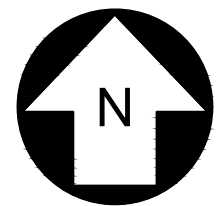
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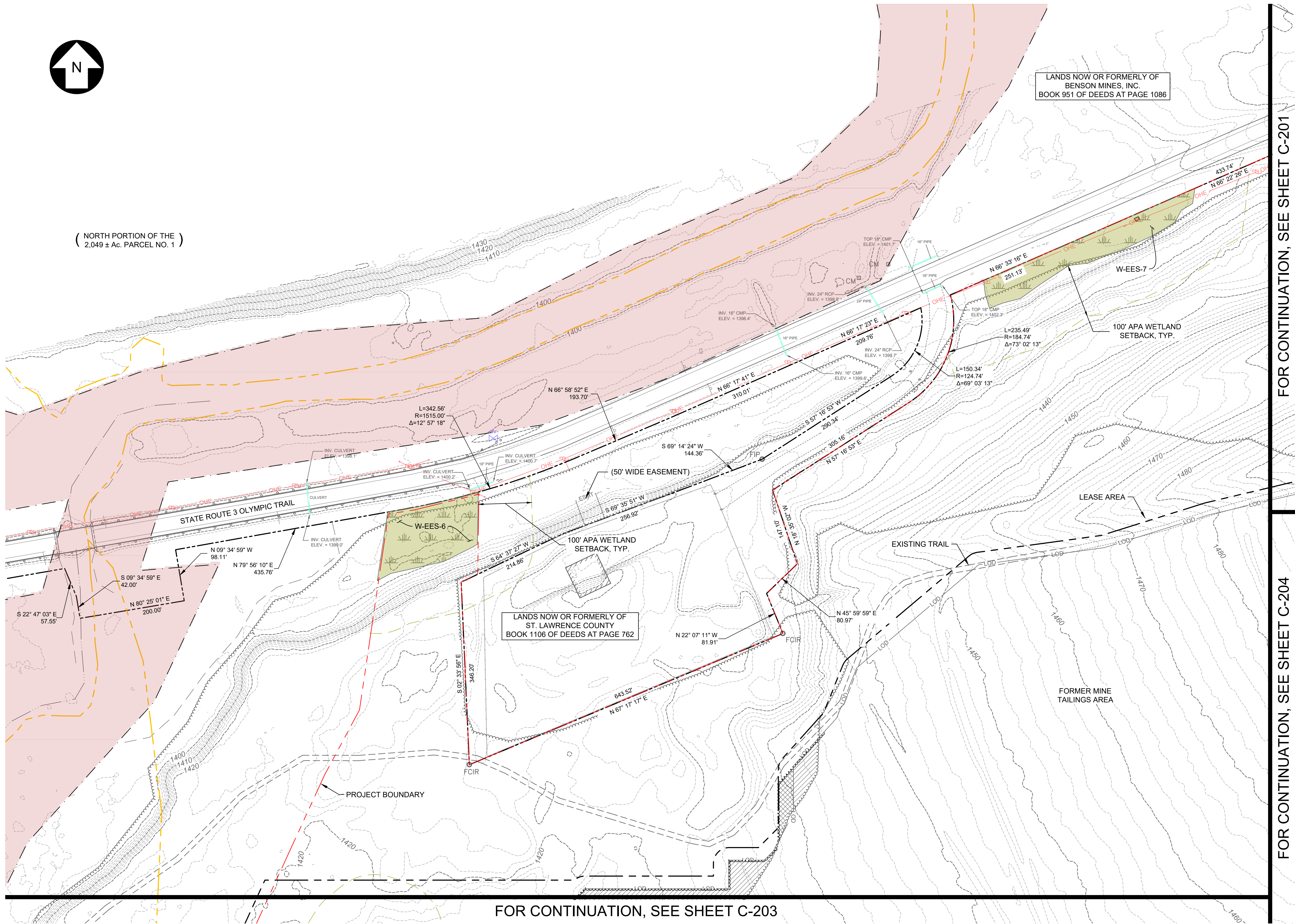


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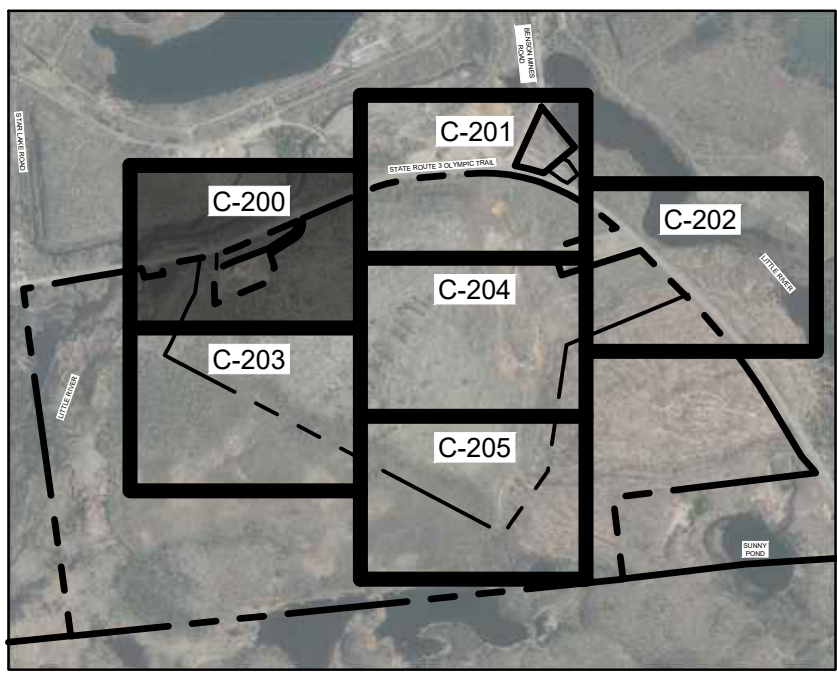
(NORTH PORTION OF THE
2,049 ± AC. PARCEL NO. 1)



FOR CONTINUATION, SEE SHEET C-203

FOR CONTINUATION, SEE SHEET C-201

FOR CONTINUATION, SEE SHEET C-204



KEY MAP
SCALE: 1" = 2000'

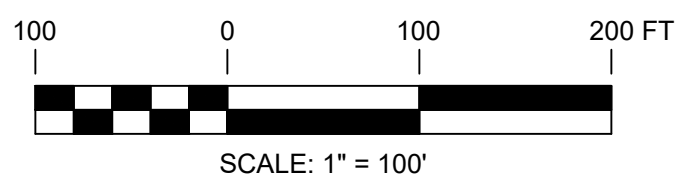
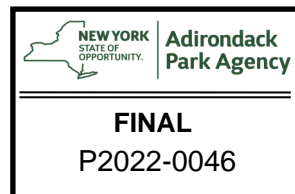
LEGEND

EXISTING	PROPOSED
ESMT	PROPERTY BOUNDARY
ROW	PROJECT BOUNDARY
	LEASE AREA
	EASEMENT
	STREAM
	RIGHT OF WAY
	PAVED ROAD
	GRAVEL ROAD
	APA LAND USE BOUNDARY
	APA WETLAND SETBACK
	GUARDRAIL
	ABANDON
	TRAIL
	OVERHEAD ELECTRIC
	SNOWMOBILE TRAIL
	CHAIN LINK FENCE
	MINOR CONTOUR
	MAJOR CONTOUR
	TREELINE
	CULVERT
	LIMITS OF DISTURBANCE
	SETBACK
	LAYDOWN YARD
	SILT FENCE
	COLLECTOR LINE
	PV ARRAY
	EQUIP. PADS & BOLLARDS
	UTILITY POLE AND GUY
	SIGN
	FIRE HYDRANT
	WATER VALVE
	REFLECTOR POST
	APA WETLAND
	WETLAND
	FLOODPLAIN
	TREE CLEARING
	SELECTIVE TREE CLEARING
	BUILDING

MAP REFERENCES:

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PRELIMINARY
NOT FOR CONSTRUCTION



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10 MAXWELL DRIVE
CLIFTON PARK, NY 12065

PROJECT NO: 444154

REV	DESCRIPTION	DATE	DES	CHK	APP
0	IFP SET	02/25/2022	RMK	SJW	SJW



BWH
DESIGNED
BWH
DRAWN
JWH
CHECKED
NAM
APPROVED

EXISTING CONDITIONS AND SITE REMOVALS PLAN

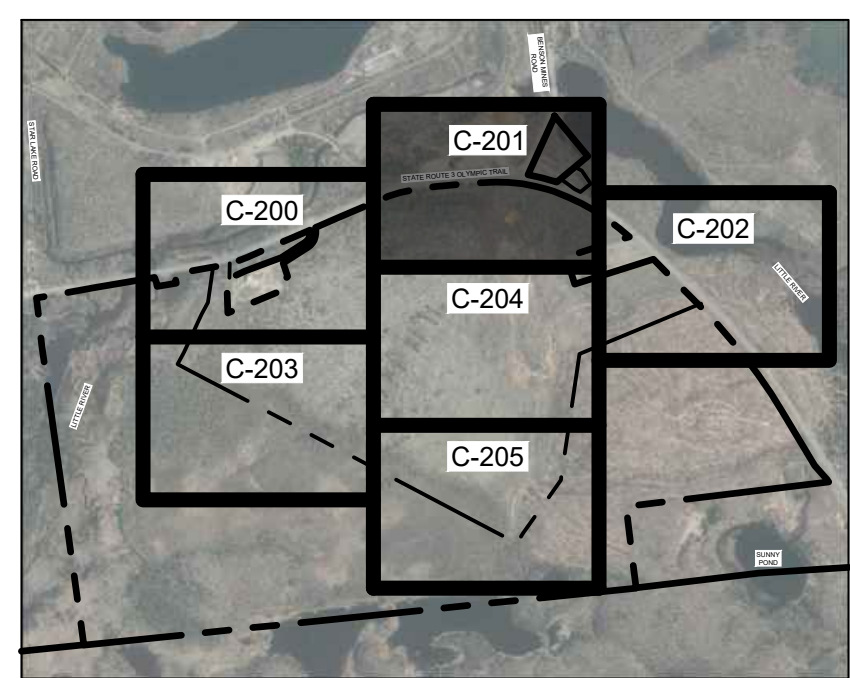
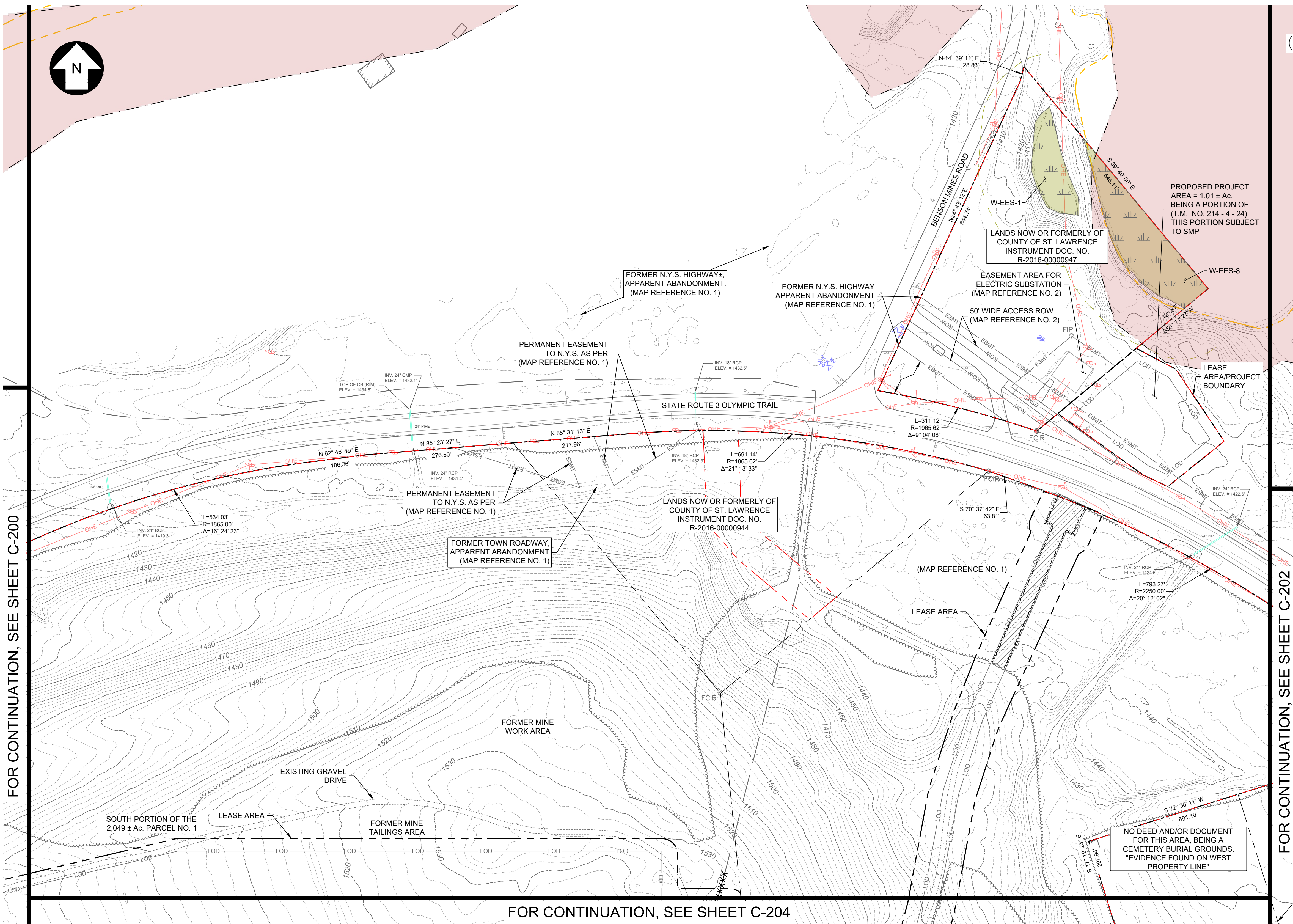
BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE



C-200

REV.
0



KEY MAP
SCALE: 1" = 2000'

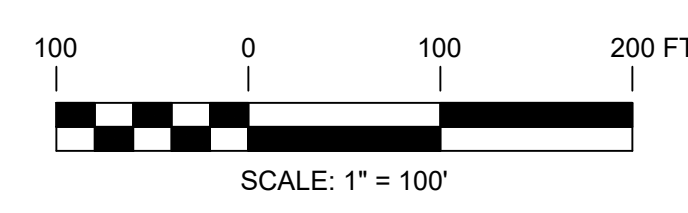
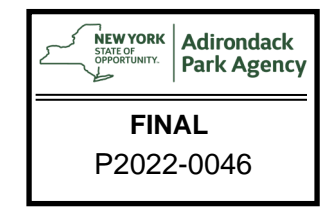
LEGEND

EXISTING	PROPOSED
ESMT	PROPERTY BOUNDARY
ROW	PROJECT BOUNDARY
	LEASE AREA
	EASEMENT
	STREAM
	RIGHT OF WAY
	PAVED ROAD
	GRAVEL ROAD
	APA LAND USE BOUNDARY
	APA WETLAND SETBACK
	GUARDRAIL
	ABANDON
	TRAIL
	OVERHEAD ELECTRIC
	SNOWMOBILE TRAIL
	CHAIN LINK FENCE
	MINOR CONTOUR
	MAJOR CONTOUR
	TREELINE
	CULVERT
	LIMITS OF DISTURBANCE
	SETBACK
	LAYDOWN YARD
	SILT FENCE
	COLLECTOR LINE
	PV ARRAY
	EQUIP. PADS & BOLLARDS
	UTILITY POLE AND GUY
	SIGN
	FIRE HYDRANT
	WATER VALVE
	REFLECTOR POST
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	WETLAND
	FLOODPLAIN
	TREE CLEARING
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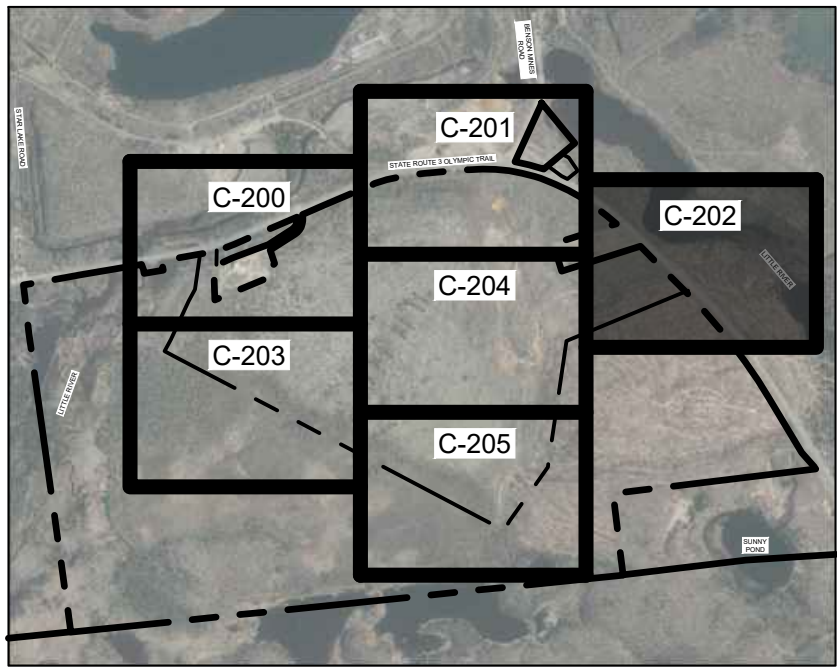
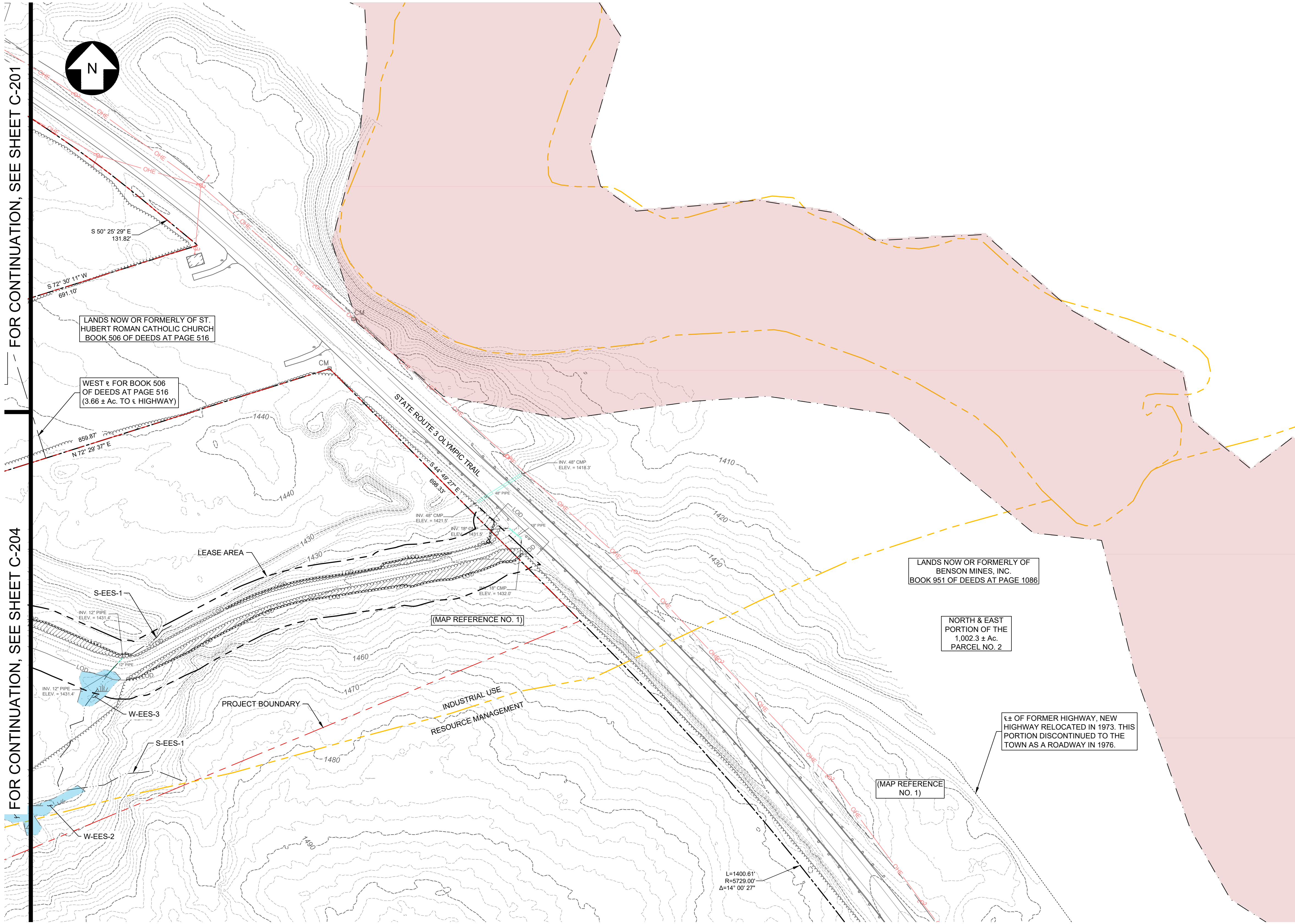


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		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154	
REV	DESCRIPTION	DATE	DES	CHK	APP
0	IFP SET	02/25/2022	RMK	SJW	SJW



EXISTING CONDITIONS AND SITE REMOVALS PLAN	
BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK	
7/21 DATE AS NOTED SCALE	TRC
C-201	REV. 0



KEY MAP
SCALE: 1" = 2000'

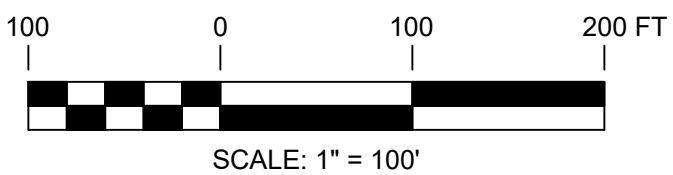
LEGEND

EXISTING		PROPOSED
ESMT	PROPERTY BOUNDARY	LEASE AREA
ROW	EASEMENT	STREAM
	RIGHT OF WAY	PAVED ROAD
	GRAVEL ROAD	APA LAND USE BOUNDARY
	APA WETLAND SETBACK	GUARDRAIL
	ABANDON	TRAIL
OHE	OVERHEAD ELECTRIC	OHE
	SNOWMOBILE TRAIL	CHAIN LINK FENCE
598	MINOR CONTOUR	600
600	MAJOR CONTOUR	TREELINE
	CULVERT	LOD
LOD	LIMITS OF DISTURBANCE	SETBACK
	LAYDOWN YARD	SILT FENCE
	COLLECTOR LINE	PV ARRAY
	EQUIP. PADS & BOLLARDS	UTILITY POLE AND GUY
	SIGN	FIRE HYDRANT
	WATER VALVE	REFLECTOR POST
	APA WETLAND	WETLAND
	FLOODPLAIN	TREE CLEARING
	SELECTIVE TREE CLEARING	BUILDING

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10 MAXWELL DRIVE
CLIFTON PARK, NY 12065

PROJECT NO: 444154

REV	DESCRIPTION	DATE	DES	CHK	APP
0	IFP SET	02/25/2022	RMK	SJW	SJW



BWH
DESIGNED
BWH
DRAWN
JWH
CHECKED
NAM
APPROVED

EXISTING CONDITIONS AND SITE REMOVALS PLAN

BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

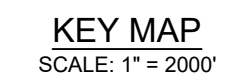
7/21
DATE
AS NOTED
SCALE



C-202

REV.
0

FOR CONTINUATION, SEE SHEET C-205



EXISTING		PROPOSED
	PROPERTY BOUNDARY	
	LEASE AREA	
	EASEMENT	
	STREAM	
	RIGHT OF WAY	
	PAVED ROAD	
	GRAVEL ROAD	
	APA LAND USE BOUNDARY	
	APA WETLAND SETBACK	
	GUARDRAIL	
	ABANDON	
	TRAIL	
	OVERHEAD ELECTRIC	
	SNOWMOBILE TRAIL	
	CHAIN LINK FENCE	
	MINOR CONTOUR	
	MAJOR CONTOUR	
	TREELINE	
	CULVERT	
	LIMITS OF DISTURBANCE	
	SETBACK	
	LAYDOWN YARD	
	SILT FENCE	
	COLLECTOR LINE	
	PV ARRAY	
	EQUIP. PADS & BOLLARDS	
	UTILITY POLE AND GUY	
	SIGN	
	FIRE HYDRANT	
	WATER VALVE	
	REFLECTOR POST	
	APA WETLAND	
	WETLAND	
	FLOODPLAIN	
	TREE CLEARING	
	SELECTIVE TREE CLEARING	
	BUILDING	

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Dig! Safety. New York.
Call 811
before you dig

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DESIGNED

BWH
DRAWN

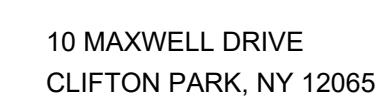
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CHECKED

NAM
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0	IFP SET	02/25/2022	RMK	SJW	SJW



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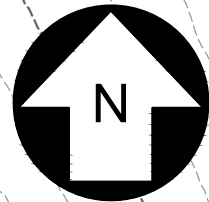
FOR CONTINUATION, SEE SHEET C-200

FOR CONTINUATION, SEE SHEET C-203

FOR CONTINUATION, SEE SHEET C-202

FOR CONTINUATION, SEE SHEET C-201

FOR CONTINUATION, SEE SHEET C-205



FORMER MINE
TAILINGS AREA

SOUTH PORTION OF THE
2,049 ± Ac. PARCEL NO. 1

PARCEL PROPERTY LINE
(PARCEL NO. 1 & 2)

LEASE AREA

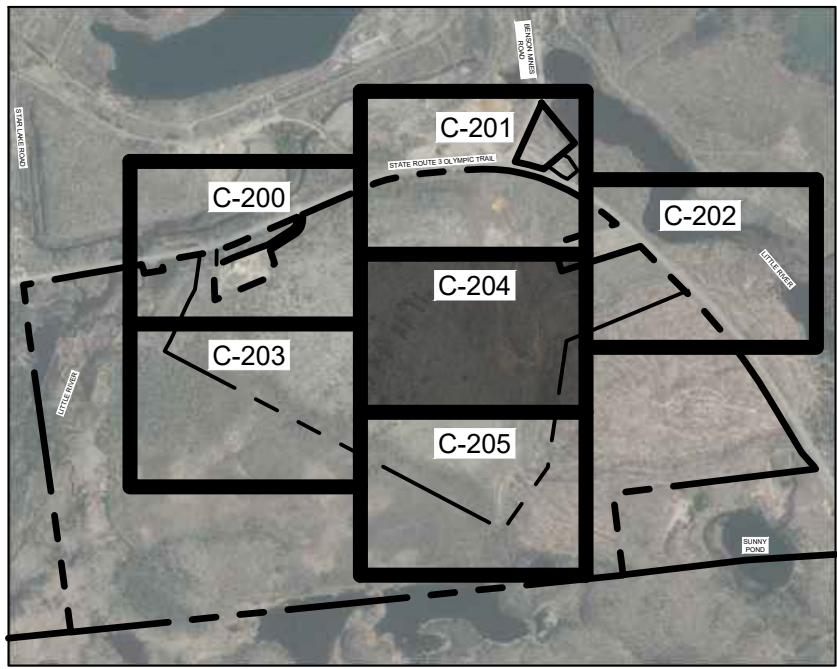
SNOWMOBILE PATH
TO BE ABANDONED

W-EES-4

W-EES-2

LEASE AREA

PROJECT BOUNDARY



KEY MAP
SCALE: 1" = 2000'

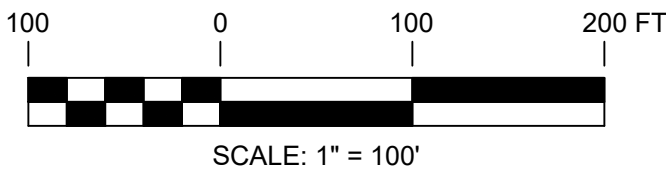
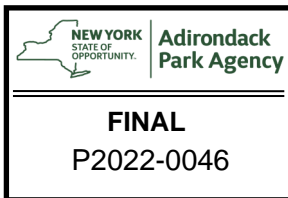
LEGEND

EXISTING		PROPOSED
ESMT	PROPERTY BOUNDARY	PROJECT BOUNDARY
ROW	LEASE AREA	LEASE AREA
	EASEMENT	EASEMENT
	STREAM	STREAM
	RIGHT OF WAY	RIGHT OF WAY
	PAVED ROAD	PAVED ROAD
	GRAVEL ROAD	GRAVEL ROAD
	APA LAND USE BOUNDARY	APA LAND USE BOUNDARY
	APA WETLAND SETBACK	APA WETLAND SETBACK
	GUARDRAIL	GUARDRAIL
	ABANDON	ABANDON
	TRAIL	TRAIL
OHE	OVERHEAD ELECTRIC	OHE
	SNOWMOBILE TRAIL	SNOWMOBILE TRAIL
	CHAIN LINK FENCE	CHAIN LINK FENCE
598	MINOR CONTOUR	598
600	MAJOR CONTOUR	600
	TREELINE	TREELINE
	CULVERT	CULVERT
LOD	LIMITS OF DISTURBANCE	LOD
	SETBACK	SETBACK
	LAYDOWN YARD	LAYDOWN YARD
	SILT FENCE	SILT FENCE
	COLLECTOR LINE	COLLECTOR LINE
	PV ARRAY	PV ARRAY
	EQUIP. PADS & BOLLARDS	EQUIP. PADS & BOLLARDS
	UTILITY POLE AND GUY	UTILITY POLE AND GUY
	SIGN	SIGN
	FIRE HYDRANT	FIRE HYDRANT
	WATER VALVE	WATER VALVE
	REFLECTOR POST	REFLECTOR POST
	APA WETLAND	APA WETLAND
	WETLAND	WETLAND
	FLOODPLAIN	FLOODPLAIN
	TREE CLEARING	TREE CLEARING
	SELECTIVE TREE CLEARING	SELECTIVE TREE CLEARING
	BUILDING	BUILDING

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10 MAXWELL DRIVE
CLIFTON PARK, NY 12065

PROJECT NO: 444154

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0	IFP SET	02/25/2022	RMK	SJW	SJW



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EXISTING CONDITIONS AND SITE REMOVALS PLAN

BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE

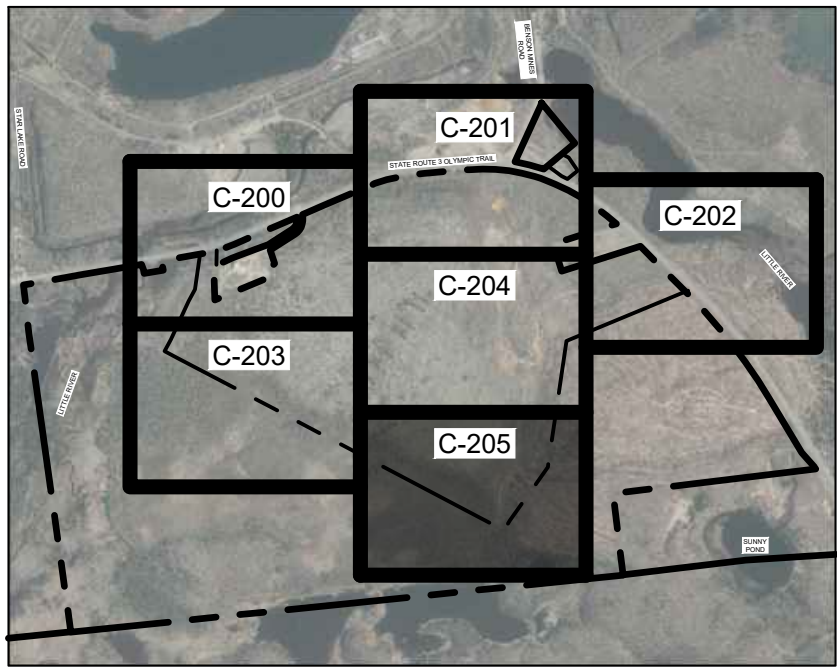
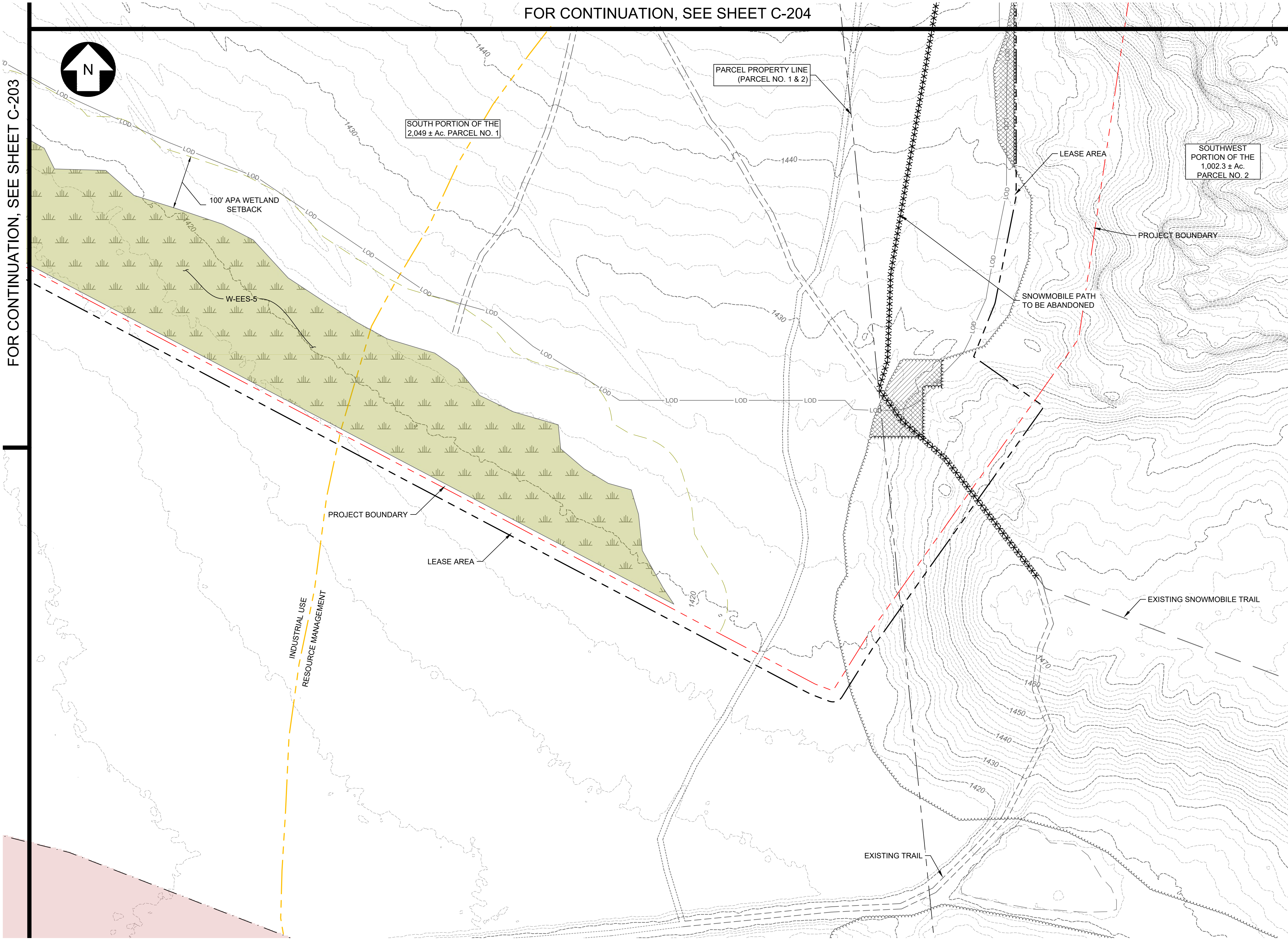


C-204

REV.
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FOR CONTINUATION, SEE SHEET C-203

FOR CONTINUATION, SEE SHEET C-204



KEY MAP
SCALE: 1" = 2000'

LEGEND

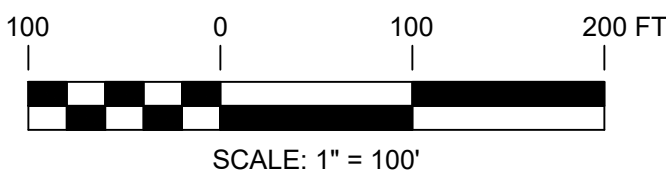
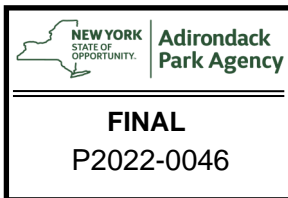
EXISTING		PROPOSED
ESMT	PROPERTY BOUNDARY	PROPERTY BOUNDARY
ROW	LEASE AREA	LEASE AREA
	EASEMENT	EASEMENT
	STREAM	STREAM
	RIGHT OF WAY	RIGHT OF WAY
	PAVED ROAD	PAVED ROAD
	GRAVEL ROAD	GRAVEL ROAD
	APA LAND USE BOUNDARY	APA LAND USE BOUNDARY
	APA WETLAND SETBACK	APA WETLAND SETBACK
	GUARDRAIL	GUARDRAIL
	ABANDON	ABANDON
	TRAIL	TRAIL
OHE	OVERHEAD ELECTRIC	OHE
	SNOWMOBILE TRAIL	SNOWMOBILE TRAIL
	CHAIN LINK FENCE	CHAIN LINK FENCE
598	MINOR CONTOUR	598
600	MAJOR CONTOUR	600
	TREELINE	TREELINE
	CULVERT	CULVERT
LOD	LIMITS OF DISTURBANCE	LOD
	SETBACK	SETBACK
	LAYDOWN YARD	LAYDOWN YARD
	SILT FENCE	SF
	COLLECTOR LINE	E1
	PV ARRAY	PV ARRAY
	EQUIP. PADS & BOLLARDS	EQUIP. PADS & BOLLARDS
	UTILITY POLE AND GUY	UTILITY POLE AND GUY
	SIGN	SIGN
	FIRE HYDRANT	FIRE HYDRANT
	WATER VALVE	WATER VALVE
	REFLECTOR POST	REFLECTOR POST
	APA WETLAND	APA WETLAND
	WETLAND	WETLAND
	FLOODPLAIN	FLOODPLAIN
	TREE CLEARING	TREE CLEARING
	SELECTIVE TREE CLEARING	SELECTIVE TREE CLEARING
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REV	DESCRIPTION	DATE	DES	CHK	APP	
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EXISTING CONDITIONS AND SITE REMOVALS PLAN

BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE



C-205

REV.
0



KEY MAP
SCALE: 1" = 2000'

LEGEND

EXISTING		PROPOSED
	PROPERTY BOUNDARY	
	PROJECT BOUNDARY	
	LEASE AREA	
	STREAM	
	EASMENT	
	RIGHT OF WAY	
	PAVED ROAD	
	GRAVEL ROAD	
	APA LAND USE BOUNDARY	
	APA WETLAND SETBACK	
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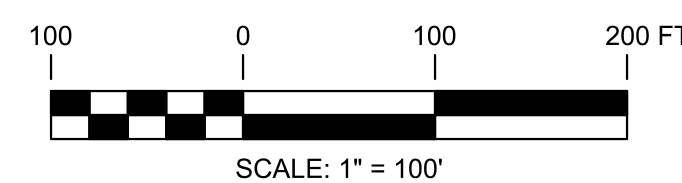
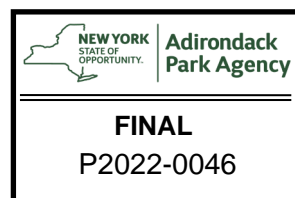
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PRELIMINARY
NOT FOR CONSTRUCTION



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10 MAXWELL DRIVE
CLIFTON PARK, NY 12065

PROJECT NO: 444154

REV	DESCRIPTION	DATE	DES	CHK	APP
1	IFP SET APA COMMENTS	03/31/2022	RMK	SJW	SJW
0	IFP SET	02/25/2022	RMK	SJW	SJW



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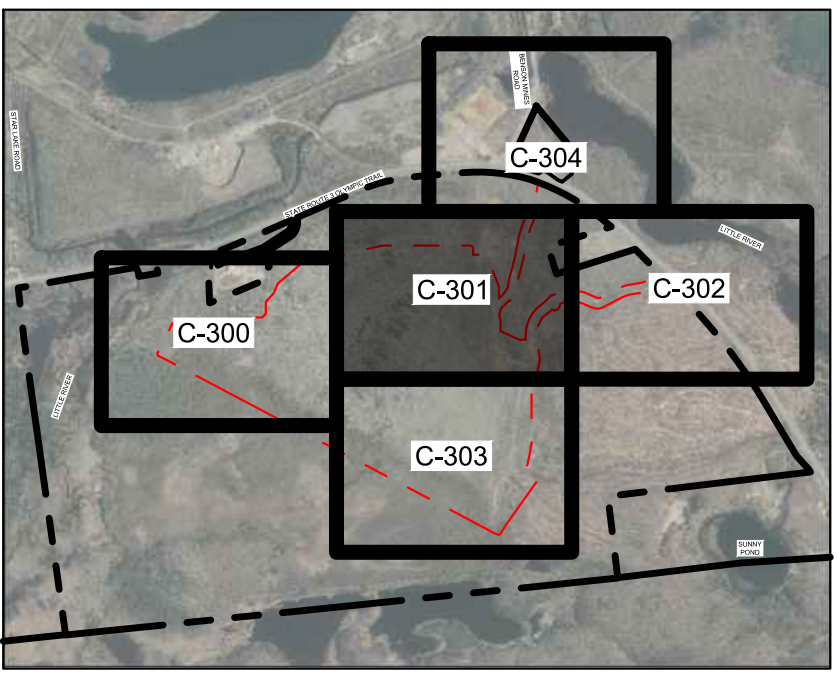
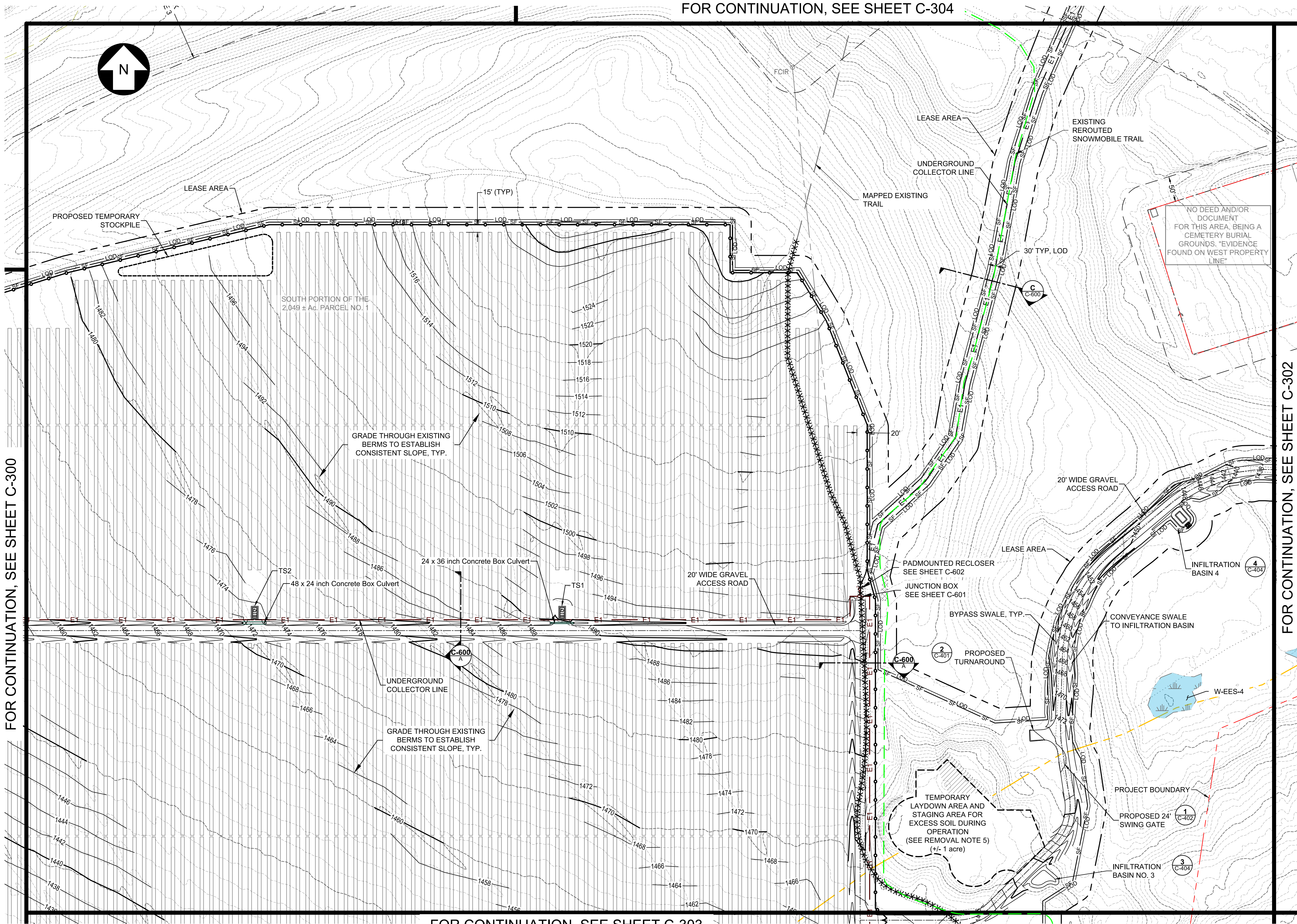
SITE PLAN

BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK



C-300

REV.
1



KEY MAP
SCALE: 1" = 2000'

LEGEND

EXISTING	PROPOSED
PROPERTY BOUNDARY	PROJECT BOUNDARY
LEASE AREA	STREAM
ESMT	EASEMENT
ROW	RIGHT OF WAY
PAVED ROAD	GRAVEL ROAD
GRADRAIL	ABANDON
TRAIL	OVERHEAD ELECTRIC
SNOWMOBILE TRAIL	CHAIN LINK FENCE
MINOR CONTOUR	598
MAJOR CONTOUR	600
TREELINE	CULVERT
LIMITS OF DISTURBANCE	SETBACK
LAYDOWN YARD	SILT FENCE
COLLECTOR LINE	PV ARRAY
EQUIP. PADS & BOLLARDS	UTILITY POLE AND GUY
SIGN	FIRE HYDRANT
WATER VALVE	REFLECTOR POST
APA WETLAND	WETLAND
FLOODPLAIN	TREE CLEARING
SELECTIVE TREE CLEARING	BUILDING

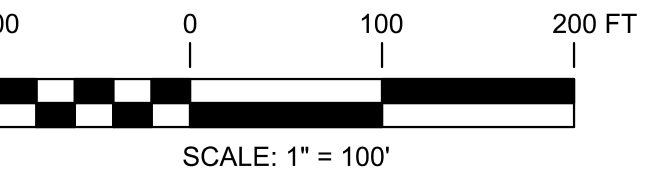
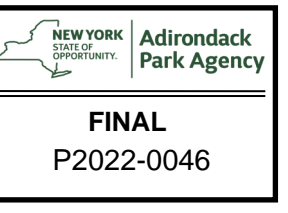
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BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK



C-301

REV.
1

FOR CONTINUATION, SEE SHEET C-301



KEY MAP
SCALE: 1" = 2000'

LEGEND

EXISTING	PROPOSED
PROPERTY BOUNDARY	LEASE AREA
PROJECT BOUNDARY	STREAM
LEASE AREA	EASEMENT
ESMT	RIGHT OF WAY
ROW	PAVED ROAD
GRAVEL ROAD	GRADUAL ROAD
APA LAND USE BOUNDARY	APA WETLAND SETBACK
GUARDRAIL	ABANDON
TRAIL	OVERHEAD ELECTRIC
OHE	SNOWMOBILE TRAIL
CHAIN LINK FENCE	MINOR CONTOUR
598	MAJOR CONTOUR
600	TREELINE
LOD	CULVERT
LIMITS OF DISTURBANCE	SETBACK
LAYDOWN YARD	SILT FENCE
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SIGN	FIRE HYDRANT
WATER VALVE	REFLECTOR POST
REFLECTOR POST	APA WETLAND
WETLAND	FLOODPLAIN
TREE CLEARING	SELECTIVE TREE CLEARING
BUILDING	

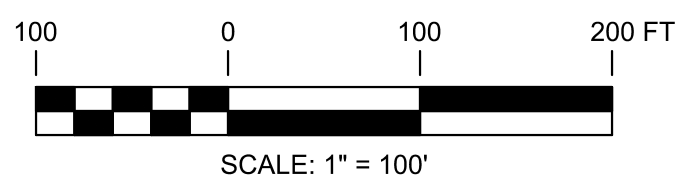
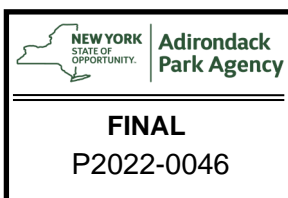
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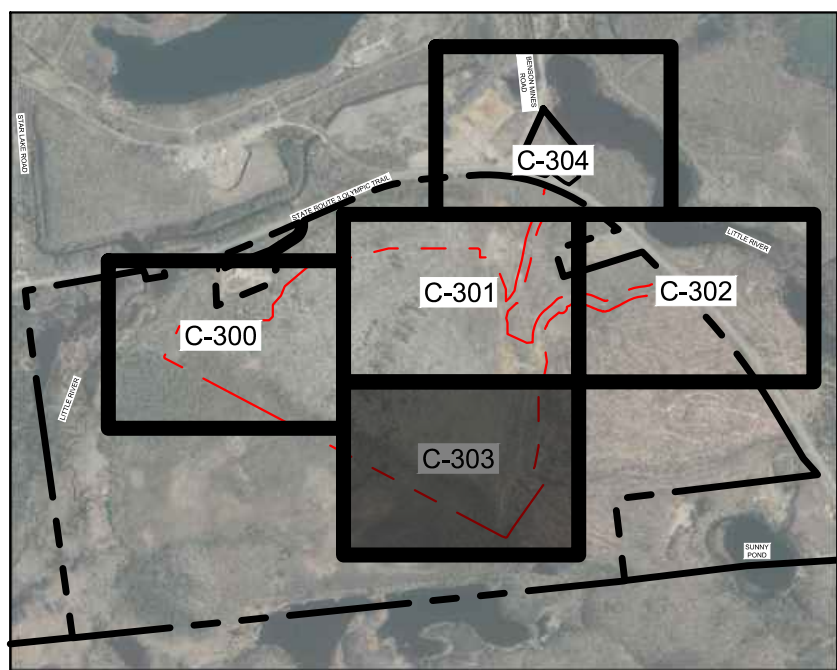
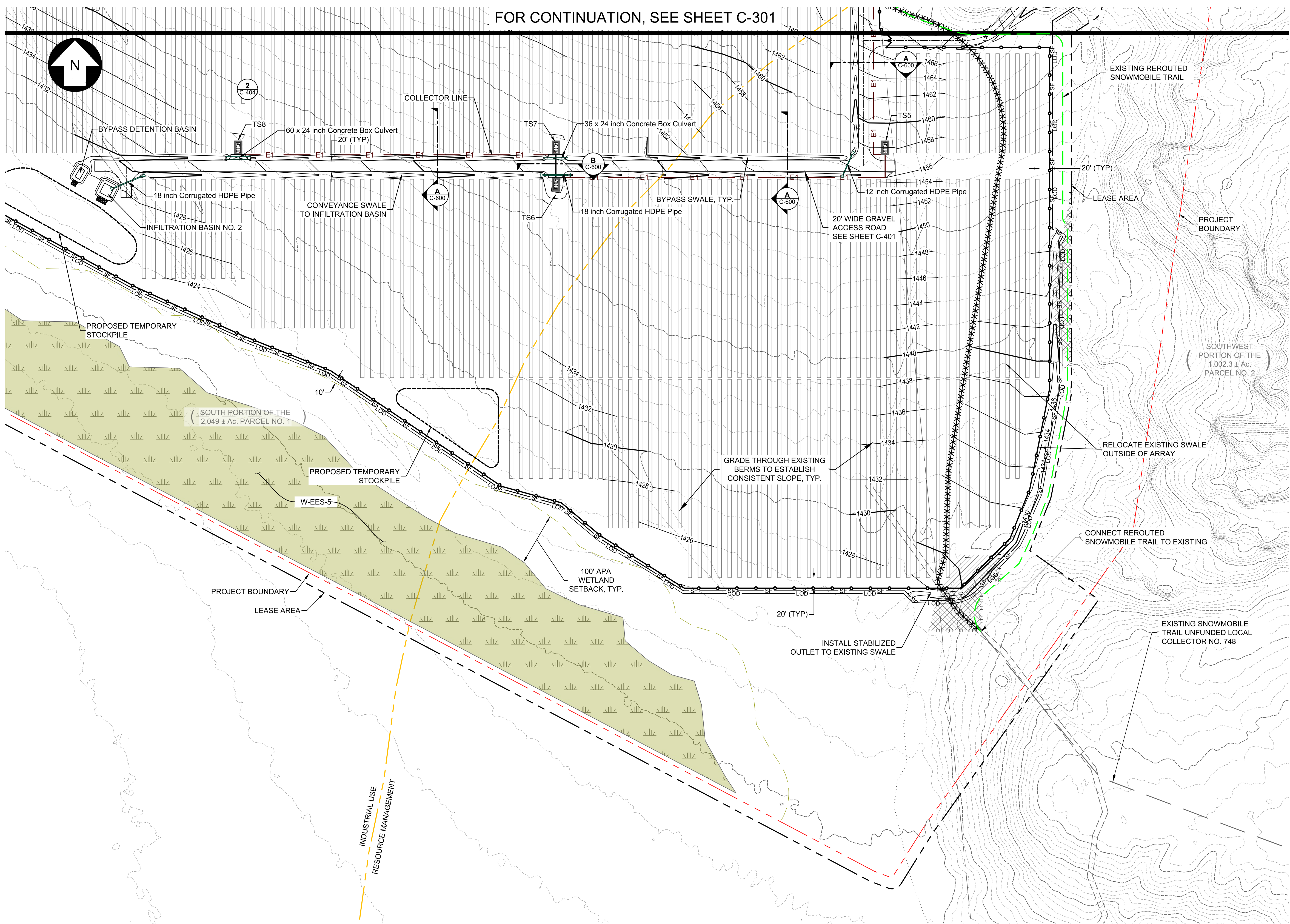
7/21
DATE
AS NOTED
SCALE



C-302

REV.
1

FOR CONTINUATION, SEE SHEET C-301



KEY MAP
SCALE: 1" = 200'

LEGEND

EXISTING	PROPOSED
PROPERTY BOUNDARY	PROPERTY BOUNDARY
LEASE AREA	LEASE AREA
STREAM	STREAM
EASEMENT	EASEMENT
RIGHT OF WAY	RIGHT OF WAY
PAVED ROAD	PAVED ROAD
GRAVEL ROAD	GRAVEL ROAD
APA LAND USE BOUNDARY	APA LAND USE BOUNDARY
APA WETLAND SETBACK	APA WETLAND SETBACK
GUARDRAIL	GUARDRAIL
ABANDON	ABANDON
TRAIL	TRAIL
OHE	OHE
SNOWMOBILE TRAIL	SNOWMOBILE TRAIL
CHAIN LINK FENCE	CHAIN LINK FENCE
MINOR CONTOUR	MINOR CONTOUR
MAJOR CONTOUR	MAJOR CONTOUR
TREELINE	TREELINE
CULVERT	CULVERT
LIMITS OF DISTURBANCE	LIMITS OF DISTURBANCE
SETBACK	SETBACK
LAYDOWN YARD	LAYDOWN YARD
SILT FENCE	SILT FENCE
COLLECTOR LINE	COLLECTOR LINE
PV ARRAY	PV ARRAY
EQUIP. PADS & BOLLARDS	EQUIP. PADS & BOLLARDS
UTILITY POLE AND GUY	UTILITY POLE AND GUY
SIGN	SIGN
FIRE HYDRANT	FIRE HYDRANT
WATER VALVE	WATER VALVE
REFLECTOR POST	REFLECTOR POST
APA WETLAND	APA WETLAND
WETLAND	WETLAND
FLOODPLAIN	FLOODPLAIN
TREE CLEARING	TREE CLEARING
SELECTIVE TREE CLEARING	SELECTIVE TREE CLEARING
BUILDING	BUILDING

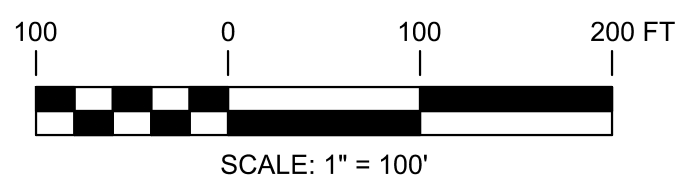
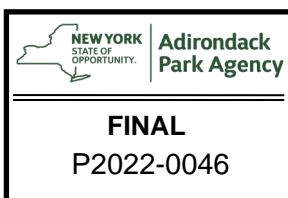
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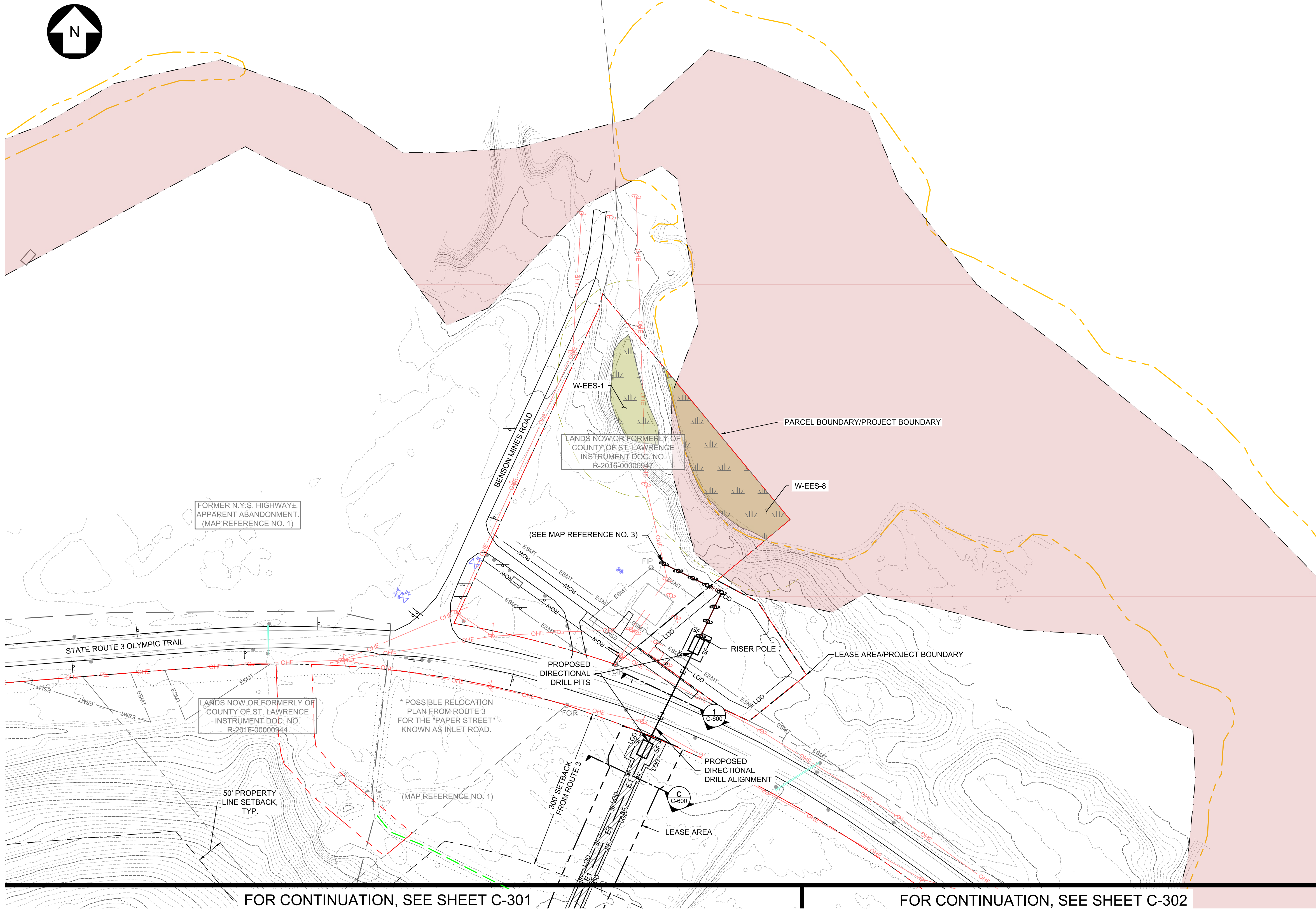
BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE



C-303

REV.
1



KEY MAP
SCALE: 1" = 2000'

LEGEND

EXISTING	PROPOSED
	PROPERTY BOUNDARY
	PROJECT BOUNDARY
	LEASE AREA
	STREAM
	EASEMENT
	RIGHT OF WAY
	PAVED ROAD
	GRAVEL ROAD
	APA LAND USE BOUNDARY
	APA WETLAND SETBACK
	GUARDRAIL
	ABANDON
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	SELECTIVE TREE CLEARING
	BUILDING

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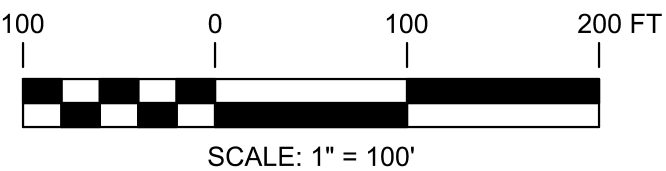
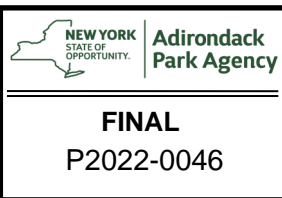
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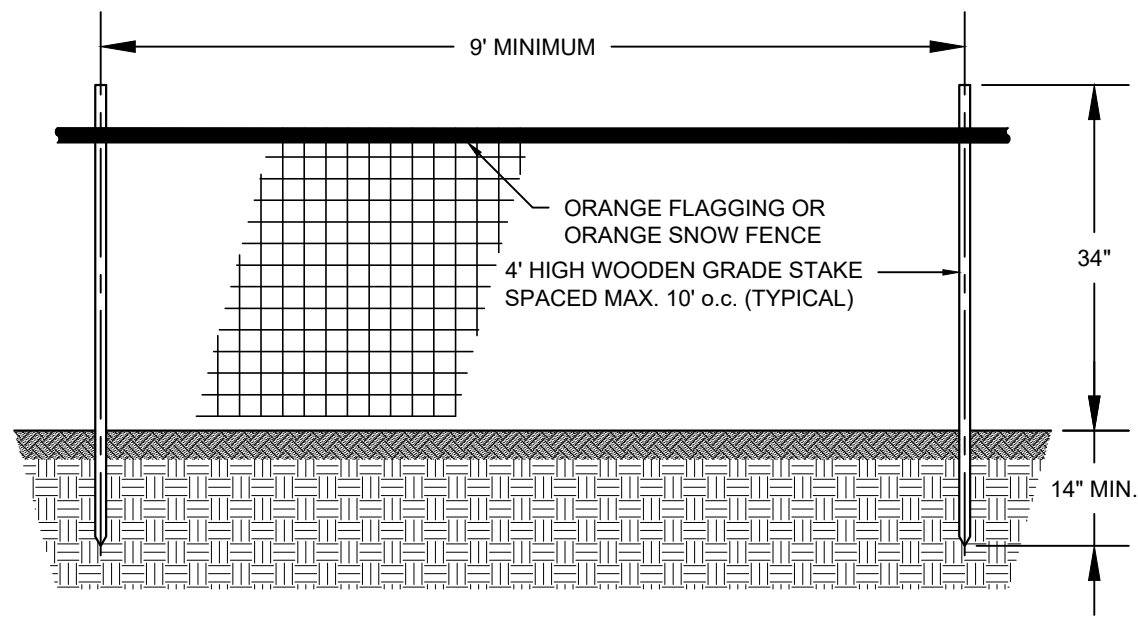


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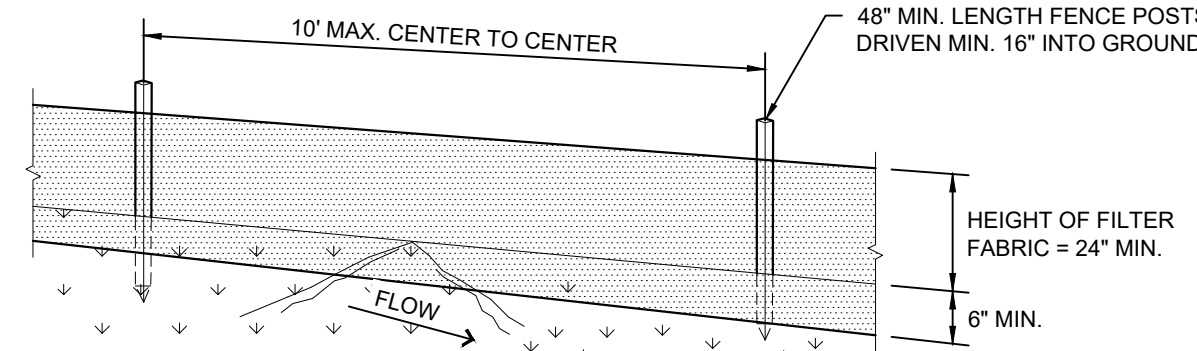
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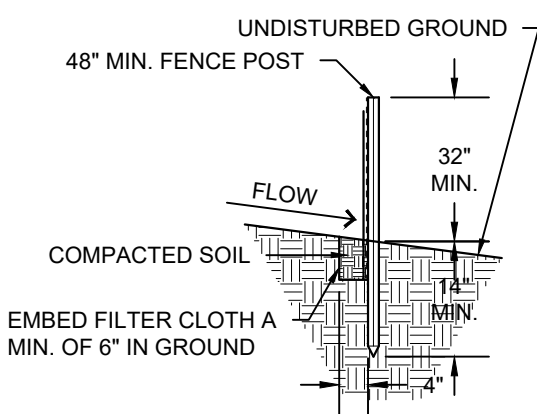




1 TYPICAL PROJECT DEMARCATION FENCE
SCALE: N.T.S.



PERSPECTIVE VIEW

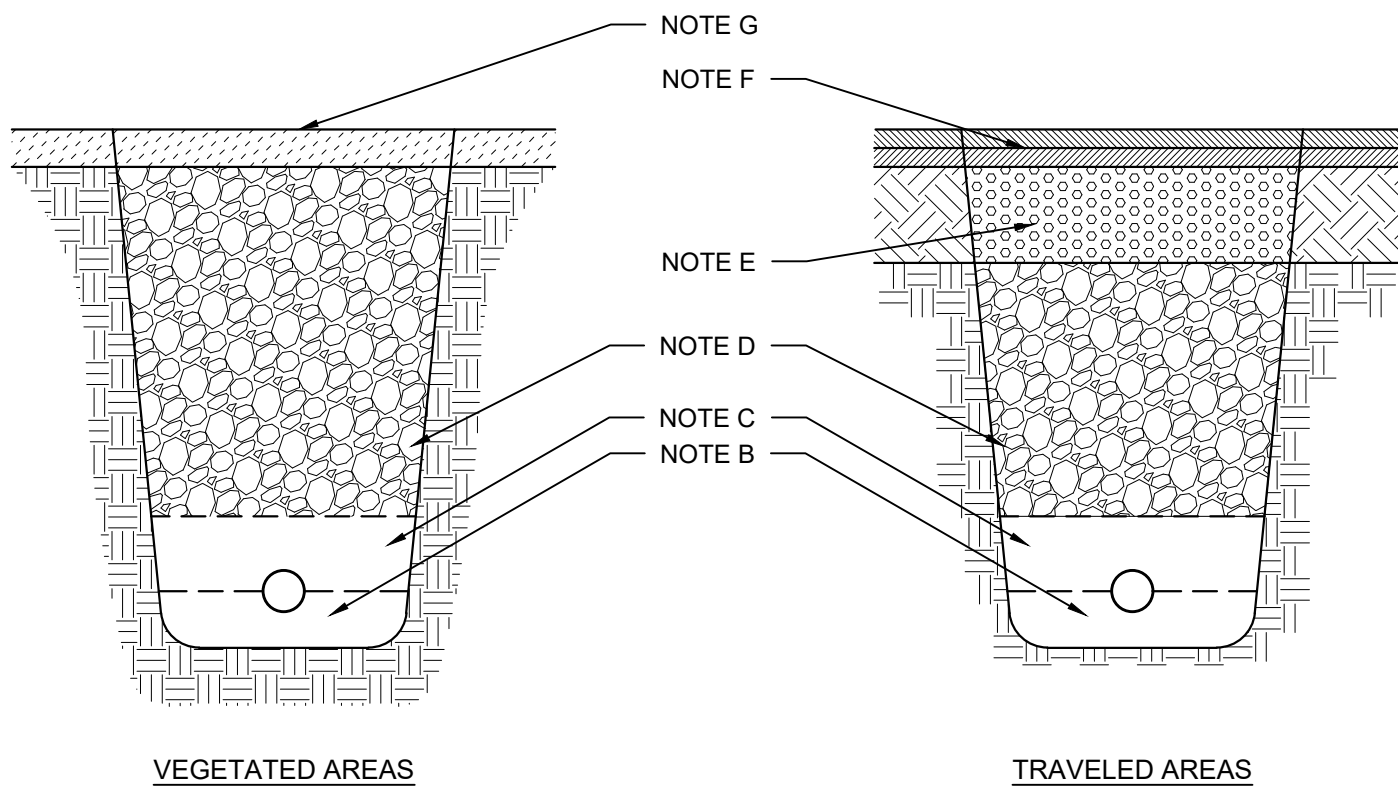


SECTION VIEW

CONSTRUCTION SPECIFICATIONS

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL, EITHER "T" OR "U" TYPE, OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER- LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
3. PRE-FABRICATED UNITS SHALL BE 'GEOFAB', 'ENVIROFENCE', OR APPROVED EQUIVALENT.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

2 TYPICAL SILT FENCE
SCALE: N.T.S.



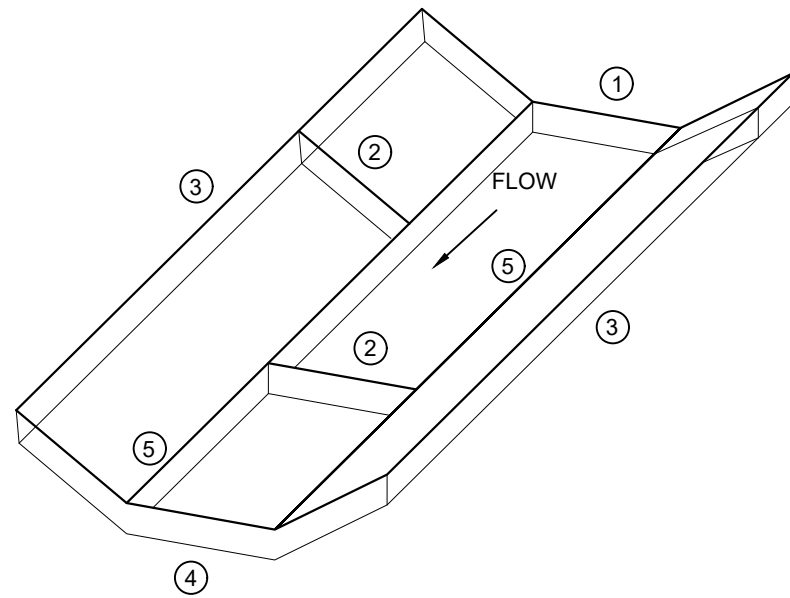
VEGETATED AREAS

TRAVELED AREAS

3 TYPICAL CULVERT DETAIL
SCALE: N.T.S.

INSTALLATION SPECIFICATIONS

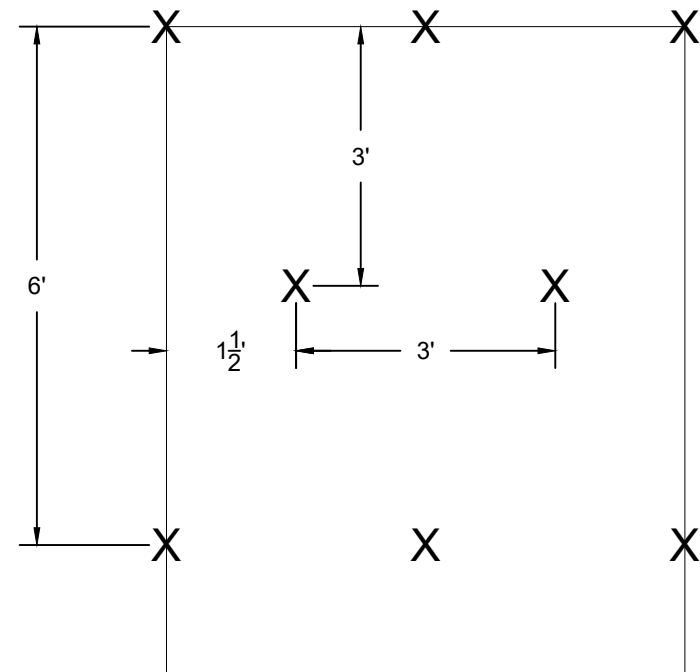
- A. MINIMUM BURY DEPTH 12" OR AS REQUIRED BY MANUFACTURER.
- B. BED PIPE TO SPRINGLINE IN 6" OF BEDDING MATERIAL MEASURED FROM BOTTOM OF PIPE TO SUBGRADE. PIPE SHALL NOT BE LAID IN UNCOMPACTED SOIL OR IN WATER. IF IN LEDGE CONDITIONS, BED PIPE IN A MINIMUM OF 6" OF SAND. DO NOT REST PIPE ON LEDGE ROCK.
- C. BACKFILL OVER PIPE WITH 12" MINIMUM SAND BEDDING MATERIAL, COMPACTED ENTIRE WIDTH OF TRENCH. BACKFILL WITH 3/8" STONE TO 12" DEPTH IF IN WATER.
- D. BACKFILL WITH SATISFACTORY SOIL MATERIAL COMPACTED IN 6" LIFTS TO 95% MAXIMUM DRY DENSITY IN ROADS AND PAVED AREAS, 85% MAXIMUM DRY DENSITY IN LAWN AND GRASSED AREAS..
- E. SEE TYPICAL ROAD SECTION & DRIVEWAY DETAILS FOR PAVEMENT & SUBBASE THICKNESS.
- F. EDGES OF PAVEMENT SHALL BE CUT PRIOR TO EXCAVATION TO PREVENT LIFTING OF REMAINING PAVEMENT, AND FOLLOWING EXCAVATION PRIOR TO PAVEMENT PATCHING. APPLY EMULSION TO EDGE OF EXISTING PAVEMENT PRIOR TO PAVING.
- G. 4" MINIMUM TOPSOIL, SEEDED AND MULCHED.



CHANNEL INSTALLATION
NOT TO SCALE

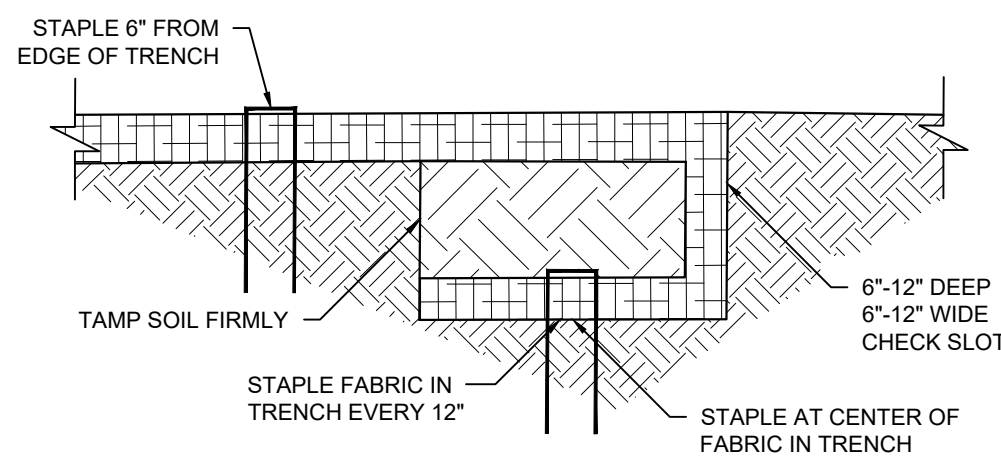
CONSTRUCTION SPECIFICATIONS

1. INSTALL RECP ON ALL SLOPES 3:1 OR GREATER AND IN CHANNELS
2. METAL STAPLES TO BE UNGALVANIZED U-SHAPED WIRE WITH 2" CROWN AND 8" TO 9" LONG LEG. SET STAPLE INTO THE FABRIC FLUSH WITH SURROUNDING SOIL. MAY BE MANUALLY OR MECHANICALLY HAMMERED DOWN.
3. METAL STAPLES ARE TO BE PLACED ALTERNATIVELY, IN COLUMNS ~ 2' APART AND IN ROWS ~ 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' x 225' ROLL OF MATERIAL AND ABOUT 125 STAPLES ARE REQUIRED PER 4' x 150' ROLL OF MATERIAL. ACTUAL STAPLE AMOUNTS VARY BASED UPON SOIL CONDITIONS.
4. DISTURBED AREA SHALL BE SMOOTHLY GRADED TO ENSURE CLOSE CONTACT BETWEEN RECP AND GROUND. REMOVE LARGE STONES AND WOODY DEBRIS THAT WILL PREVENT RECP FROM CONTACTING THE GROUND.
5. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
6. ENSURE EROSION CONTROL MATERIAL ROLLS ARE UNRAVELED DOWN SLOPE IN A CONTROLLED FASHION.
7. ALL RECP TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

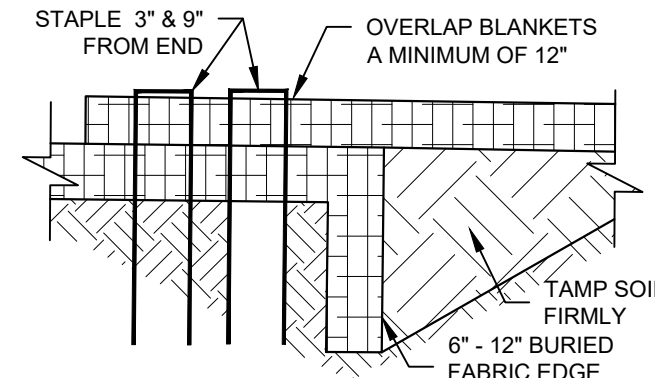


12 STAPLES/YD²
3:1 SLOPES
STAPLE PATTERN
NOT TO SCALE

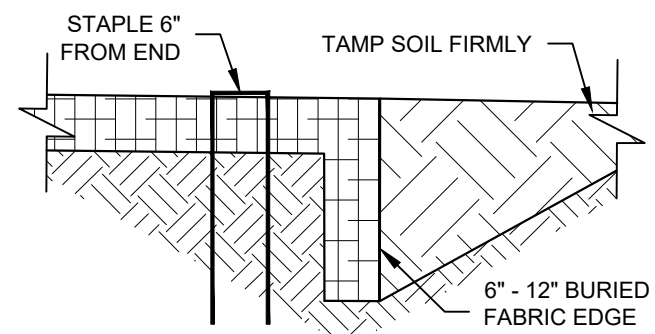
4 ROLLED EROSION CONTROL PRODUCT (RECP) - TYPICAL
SCALE: N.T.S.



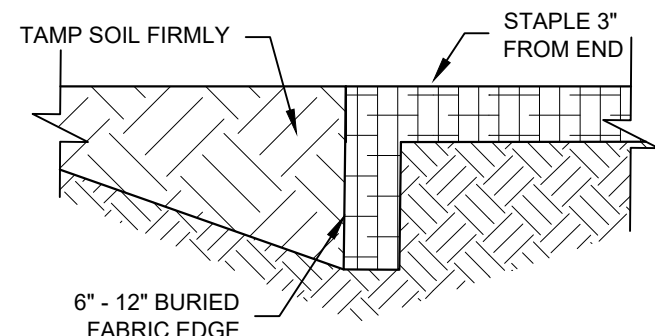
1. CHECK SLOT
NOT TO SCALE



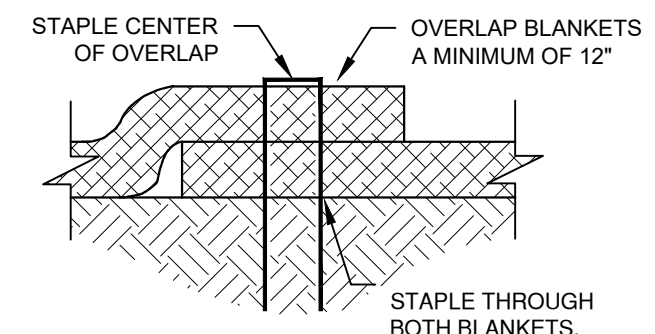
2. JUNCTION SLOT
NOT TO SCALE



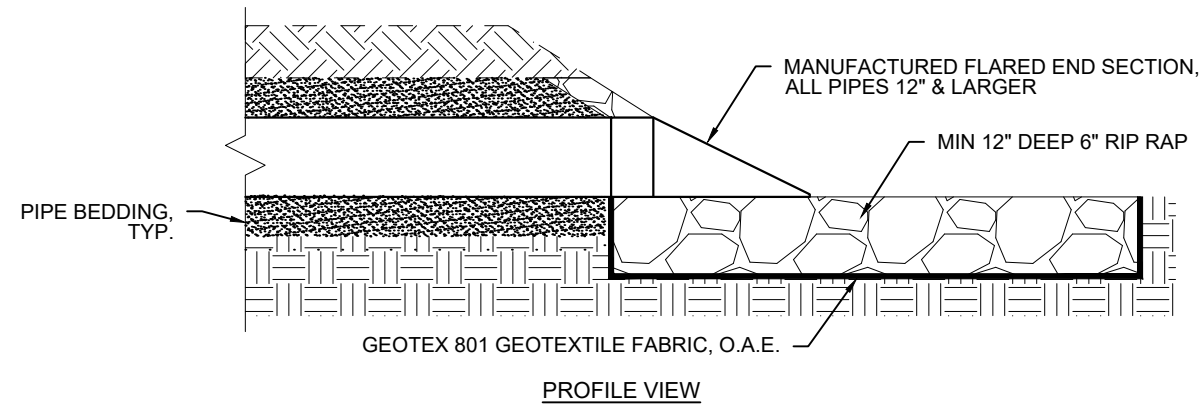
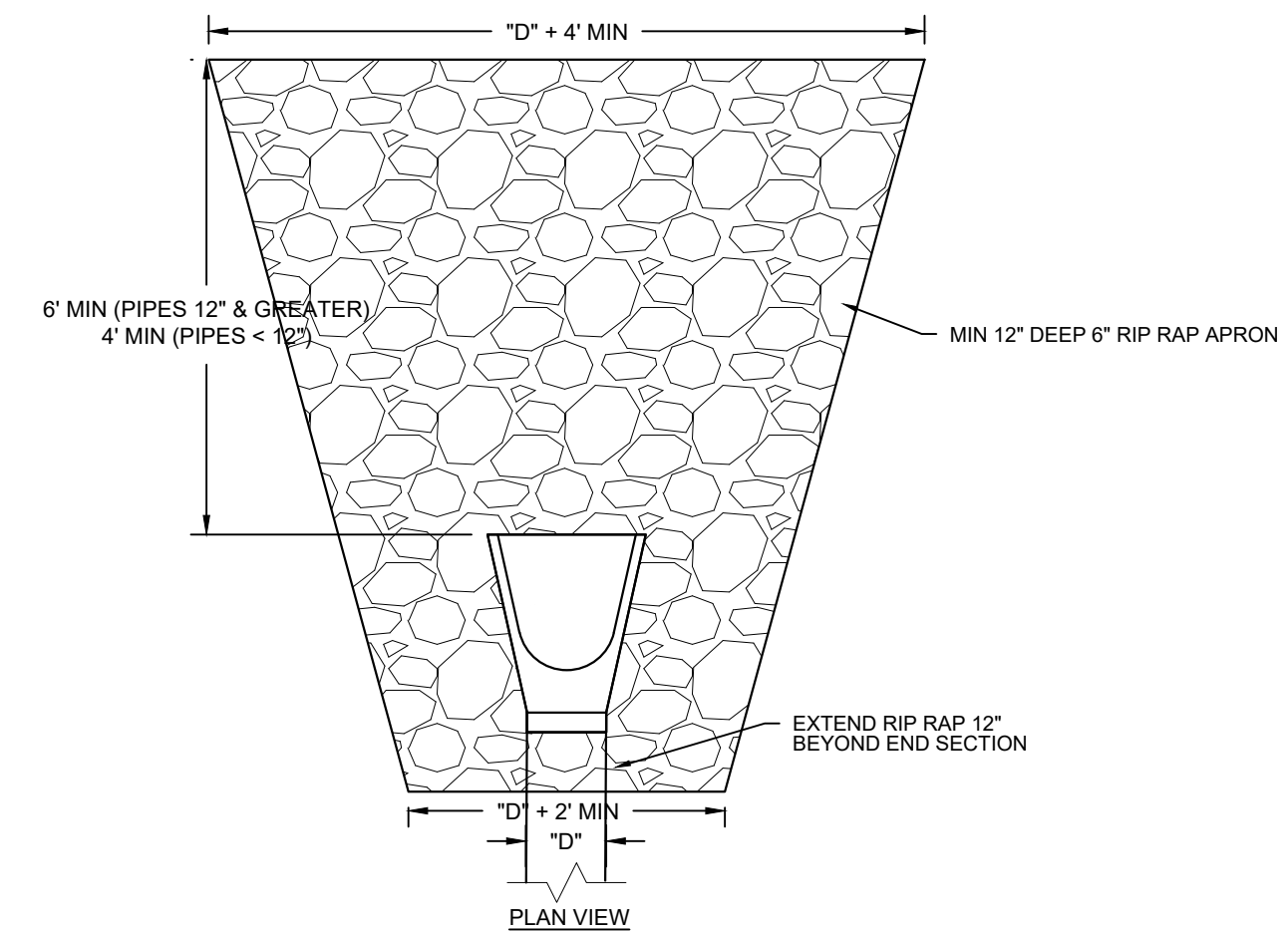
3. ANCHOR SLOT
NOT TO SCALE



4. TERMINAL FOLD
NOT TO SCALE



5. LAP JOINT
NOT TO SCALE



8 RIP-RAP APRON DETAIL
SCALE: N.T.S.

PRELIMINARY
NOT FOR CONSTRUCTION



		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154	
REV	DESCRIPTION	DATE	DES	CHK	APP
0	IFP SET	02/25/2022	RMK	SJW	SJW



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NAM
APPROVED

GRADING AND DRAINAGE DETAILS

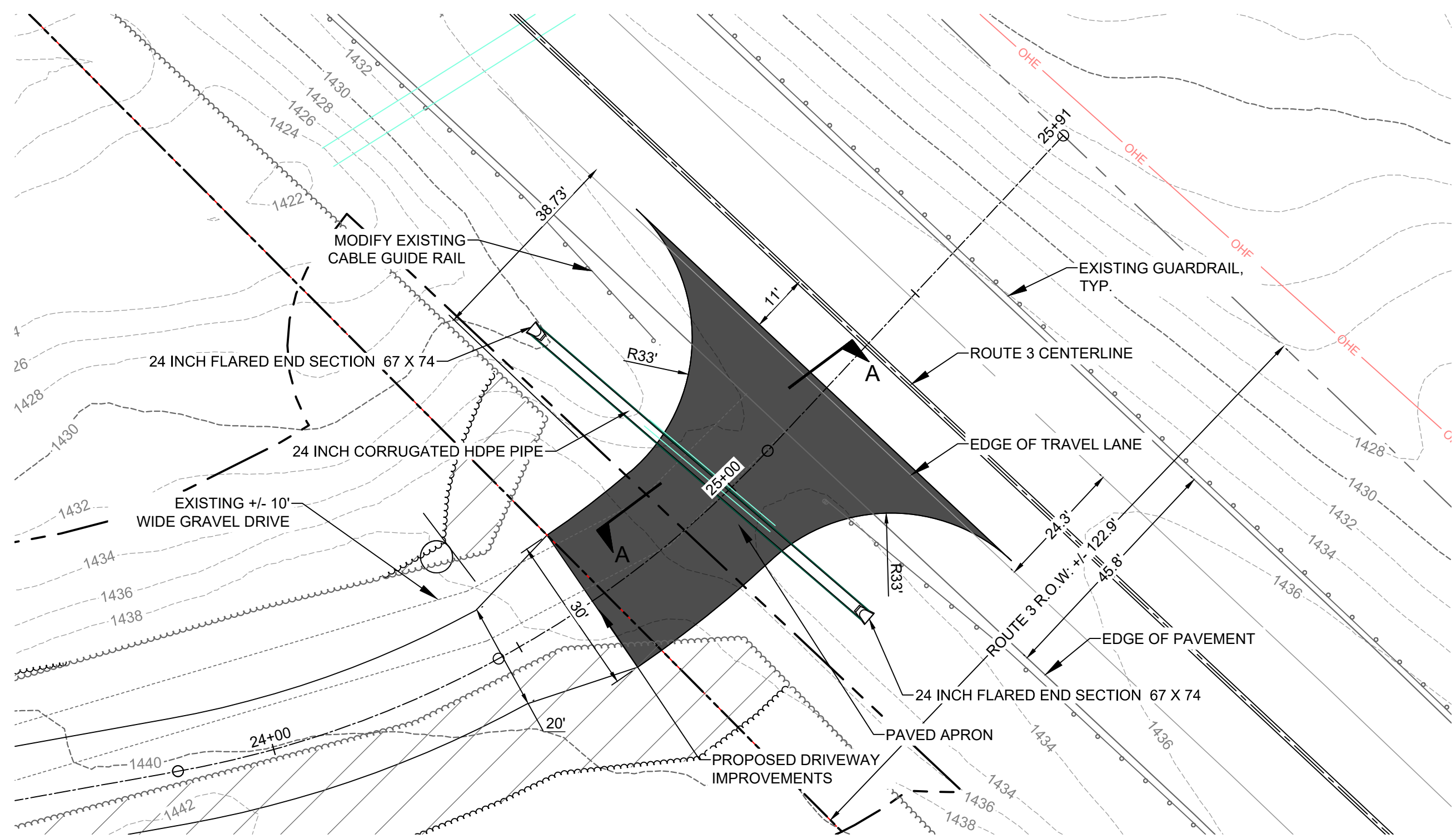
BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE

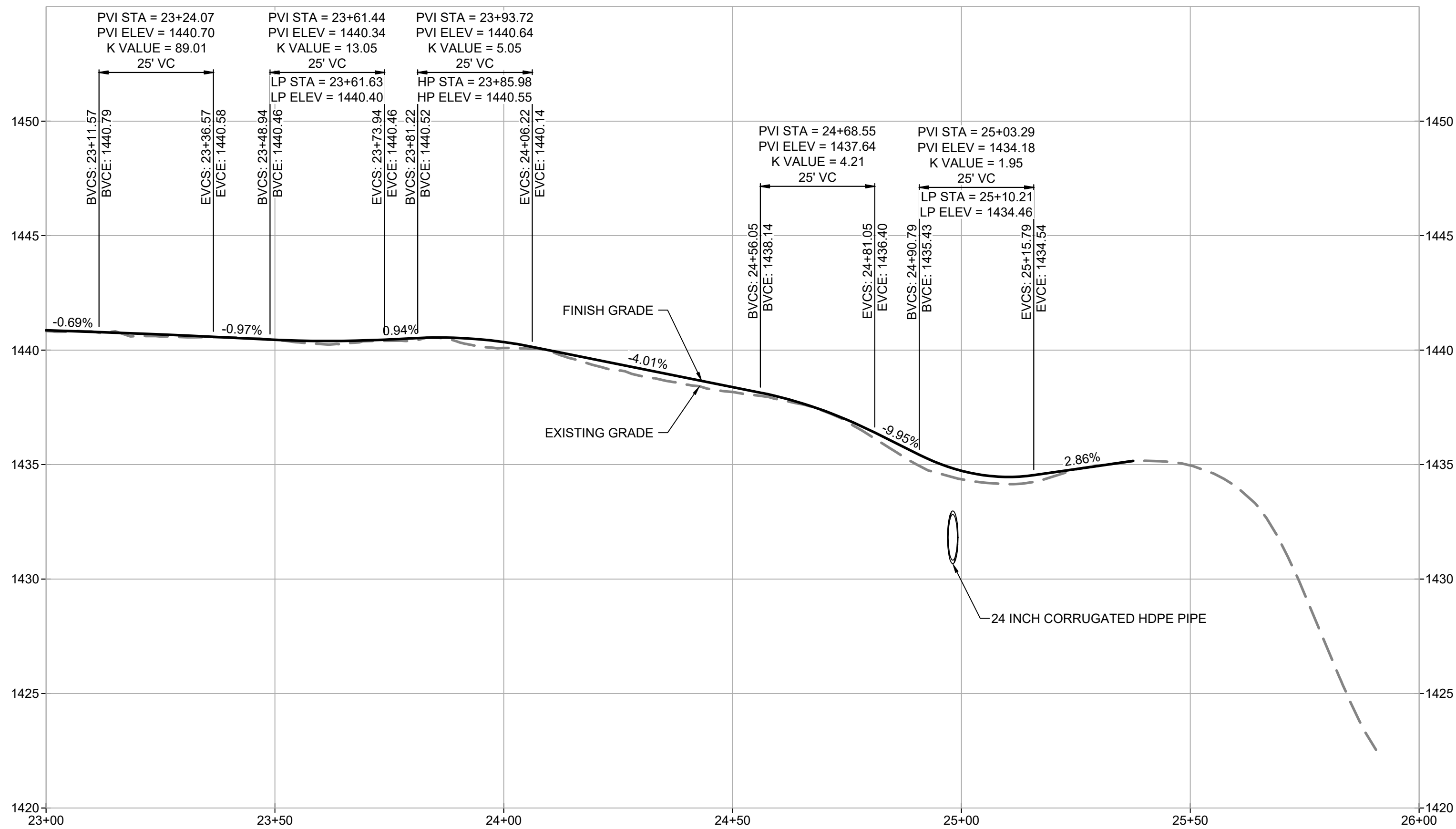


C-400

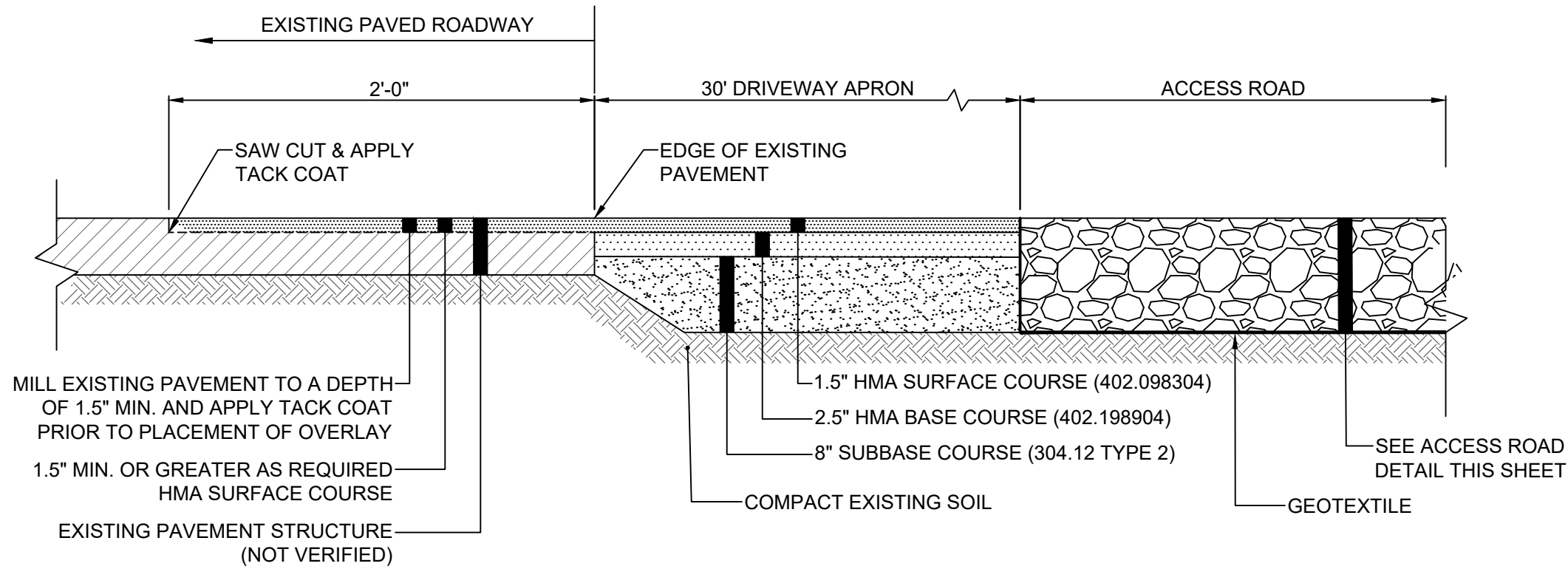
REV.
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PLAN VIEW
SCALE: 1"=20'



PROFILE VIEW
SCALE: H: 1"=20'; V: 1"=4'



SECTION A-A

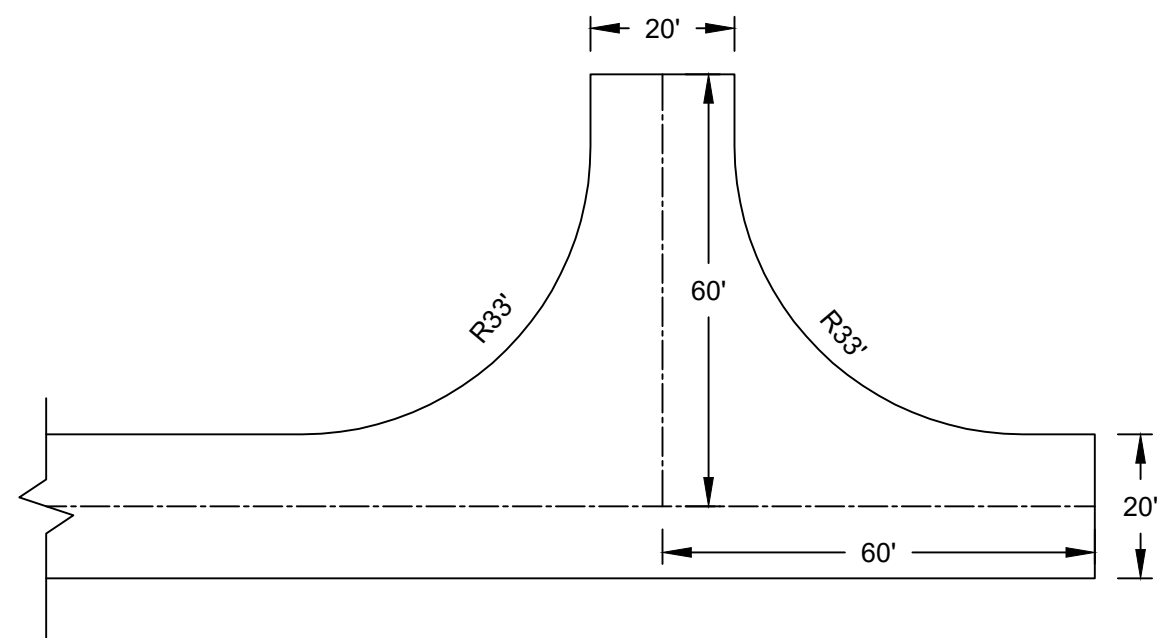
SCALE: N.T.S.

NOTES:

- PAVED DRIVEWAY APRON SHALL MEET ALL NYSDOT REQUIREMENTS FOR A MINOR COMMERCIAL DRIVEWAY ACCESSED FROM A STATE HIGHWAY.
- THIS DRIVEWAY HAS BEEN DESIGNED IN ACCORDANCE WITH NYSDOT STANDARD SHEETS 608.03 AND "POLICY AND STANDARDS FOR THE DESIGN OF ENTRANCES TO STATE HIGHWAYS" (SEPTEMBER 1, 2017 EDITION).

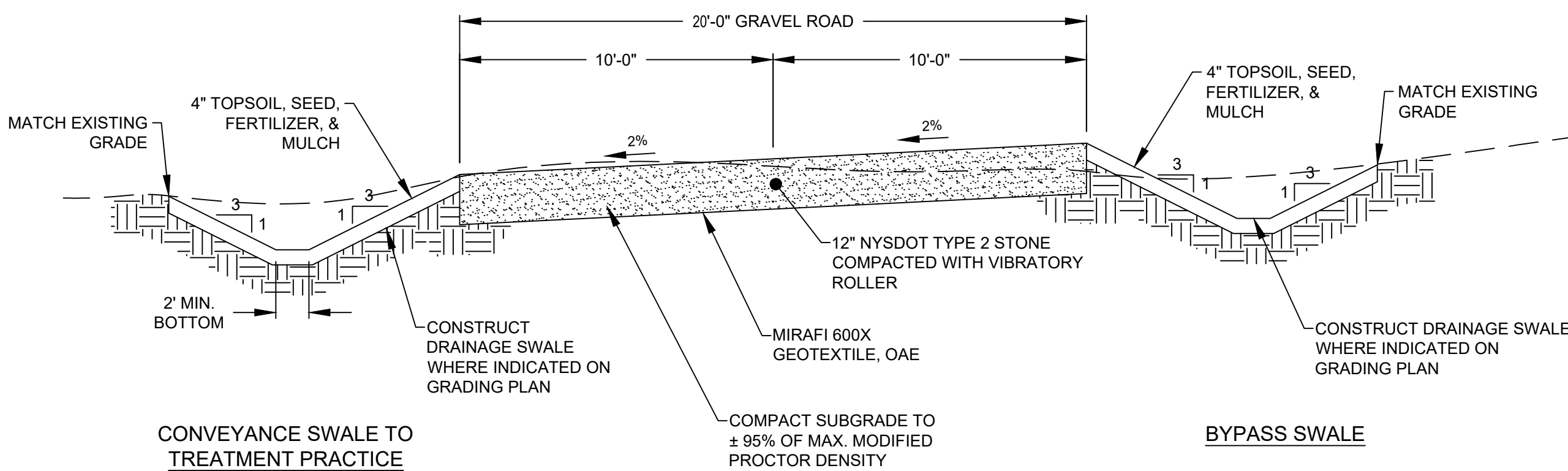
1 STATE ROUTE 3 DRIVEWAY DETAIL

SCALE: N.T.S.



2 TYPICAL ACCESS ROAD TURNAROUND

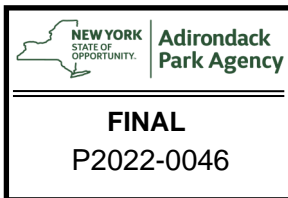
SCALE: N.T.S.






3 TYPICAL ACCESS ROAD SECTION

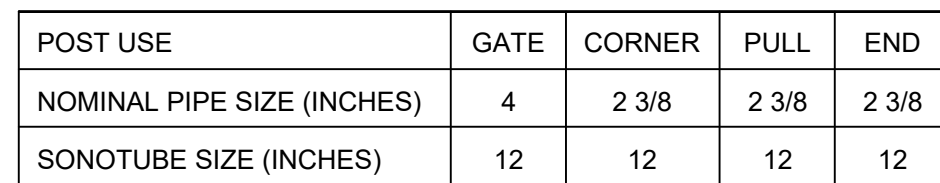
SCALE: N.T.S.

PRELIMINARY
NOT FOR CONSTRUCTION



UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

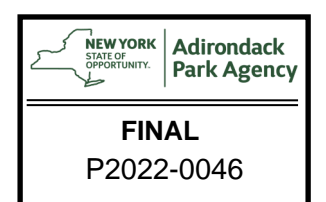
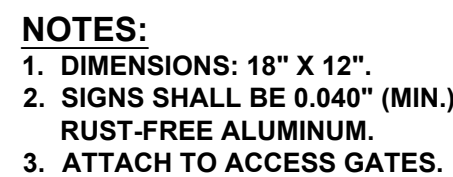
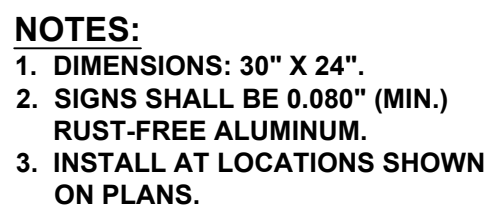
<div><div>10 MAXWELL DRIVE CLIFTON PARK, NY 12065</div></div>						PROJECT NO: 444154							<div>BWH DESIGNED</div> <div>BWH DRAWN</div> <div>JWH CHECKED</div> <div>NAM APPROVED</div>		DRIVEWAY AND ROAD DETAILS			
REV	DESCRIPTION				DATE	DES	CHK	APP	BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK									
0	IFP SET				02/25/2022	RMK	SJW	SJW	<div>7/21 DATE AS NOTED SCALE</div>				C-401		REV. 0			



- FOOTING NOTES:**
1. UNLESS OTHERWISE INDICATED, FENCE POST SIZES ARE INDUSTRY STANDARD NOMINAL SIZES IN ACCORDANCE WITH ASTM F 1083, GALVANIZED STEEL PIPE.
 2. BACKFILL SONOTUBE WITH MIN. 3,000 PSI CONCRETE.
 3. ALL CONCRETE SHALL BE SINGLE POUR TO FINAL GRADE.
 4. WHEN INSTALLING POSTS IN CLAY:
 - POST HOLE DEPTH SHALL BE INCREASED TO 6 FEET.
 - BACKFILL 4 FEET WITH CONCRETE.
 - BACKFILL FINAL 2 FEET WITH NATIVE SOIL.
 5. WHEN INSTALLING POSTS IN LEDGE, CORE AND GROUT POSTS IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
 6. LINE POSTS SHALL BE DRIVEN TO A DEPTH OF 6 FEET BELOW GRADE, AND NOT SET IN CONCRETE.

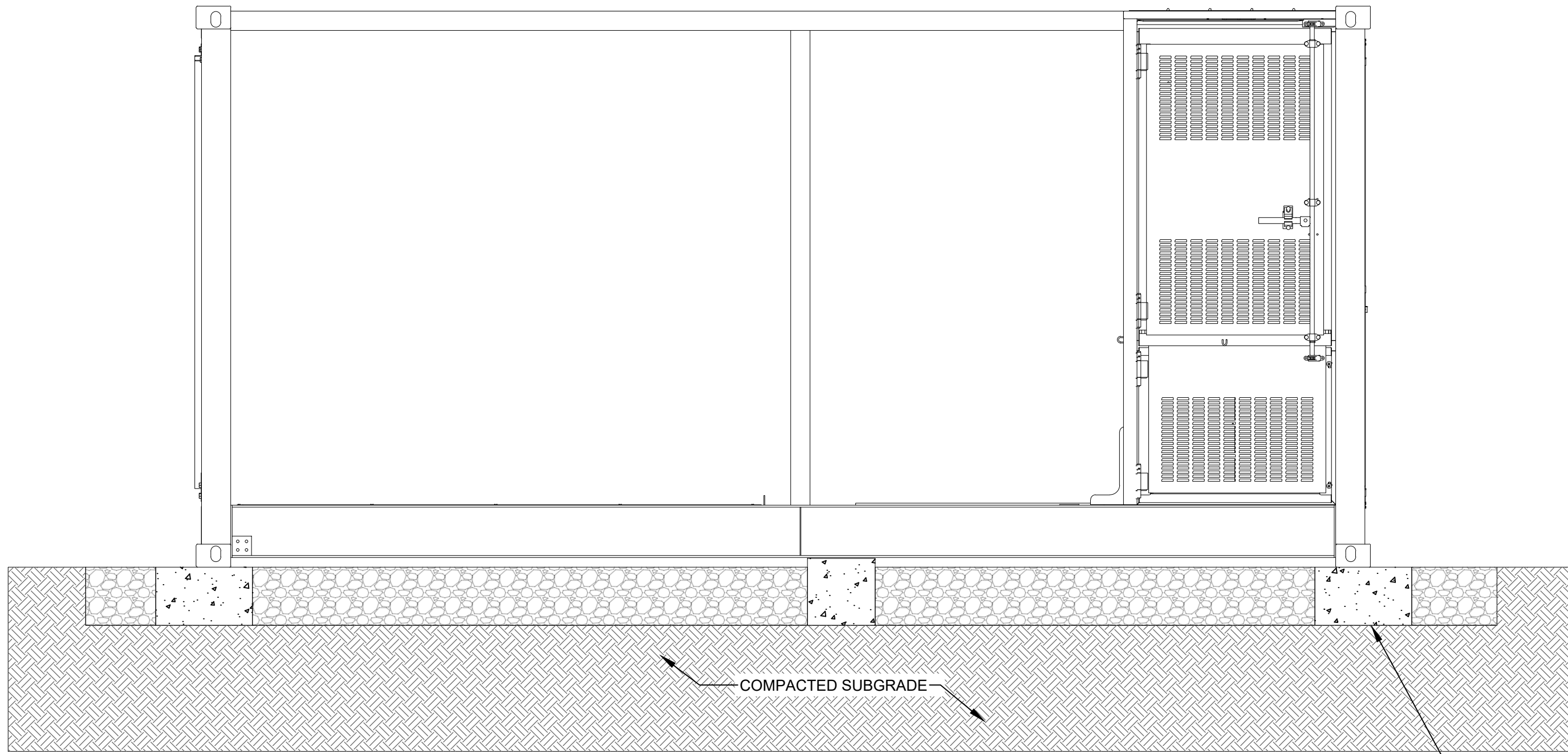


- FENCING NOTES:**
1. FENCING CONTRACTOR TO DESIGN AND INSTALL FENCE PER LOCAL REQUIREMENTS AND/OR SUGGESTED PRACTICE FOR ALL COMPONENTS NOT SPECIFICALLY CALLED OUT.
 2. THE CONTRACTOR SHALL BECOME FAMILIAR WITH ALL EXISTING SITE CONDITIONS AND WITH DESIGN DOCUMENTS PROVIDED BY THE VARIOUS DESIGN PROFESSIONALS INVOLVED IN THIS PROJECT.
 3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DETAILS, AND SPATIAL RELATIONSHIPS SHOWN ON THESE DRAWINGS IN CONJUNCTION WITH ALL OTHER RELATED DESIGN DRAWINGS. ANY DISCREPANCIES, CONFLICTS, OR OMISSIONS FOUND SHALL BE REPORTED TO THE ENGINEER AND OTHER DESIGN PROFESSIONALS AS APPROPRIATE FOR RESOLUTION PRIOR TO PROCEEDING WITH ANY WORK ON THE PROJECT.
 4. THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS, INCLUDING SHOP DRAWINGS, AND VERIFY CORRECTNESS OF THEM PRIOR TO SUBMISSION TO OWNER.
 5. MAXIMUM SPACING BETWEEN BRACES SHALL BE 500 FEET. CORNER BRACES TO BE PROVIDED WHERE CORNER ANGLE IS 15° OR MORE AND WHERE SPACING REACHES 500 FEET.
 6. SEE ELECTRICAL SHEETS FOR REQUIRED SIGNAGE.
 7. ALL STEEL SHALL BE GALVANIZED PER ASTM A123 UNLESS CORROSION ANALYSIS REPORT RECOMMENDS ADDITIONAL CORROSION PROTECTION.
 8. FOUNDATION CONCRETE SHALL MEET NEW YORK DOT SPECIFICATIONS FOR CLASS A3 CONCRETE.
 9. FACILITY LAYOUT RELATIVE TO THE PROJECT WETLANDS AND BOUNDARY SHALL BE CONFIRMED BY A LICENSED LAND SURVEYOR PRIOR TO CONSTRUCTION.
 10. PROVIDE 6" WILDLIFE GAP BENEATH THE FENCE AS REQUIRED BY NEW YORK STATE DEPARTMENT OF CONSERVATION.
 11. ALL POSTS SHALL BE CAPPED.
 12. FENCE TO BE ADEQUATELY GROUNDED PER APPLICABLE CODE.
 13. FENCE AND GATE TYPE TO BE APPROVED BY OWNER PRIOR TO CONSTRUCTION.

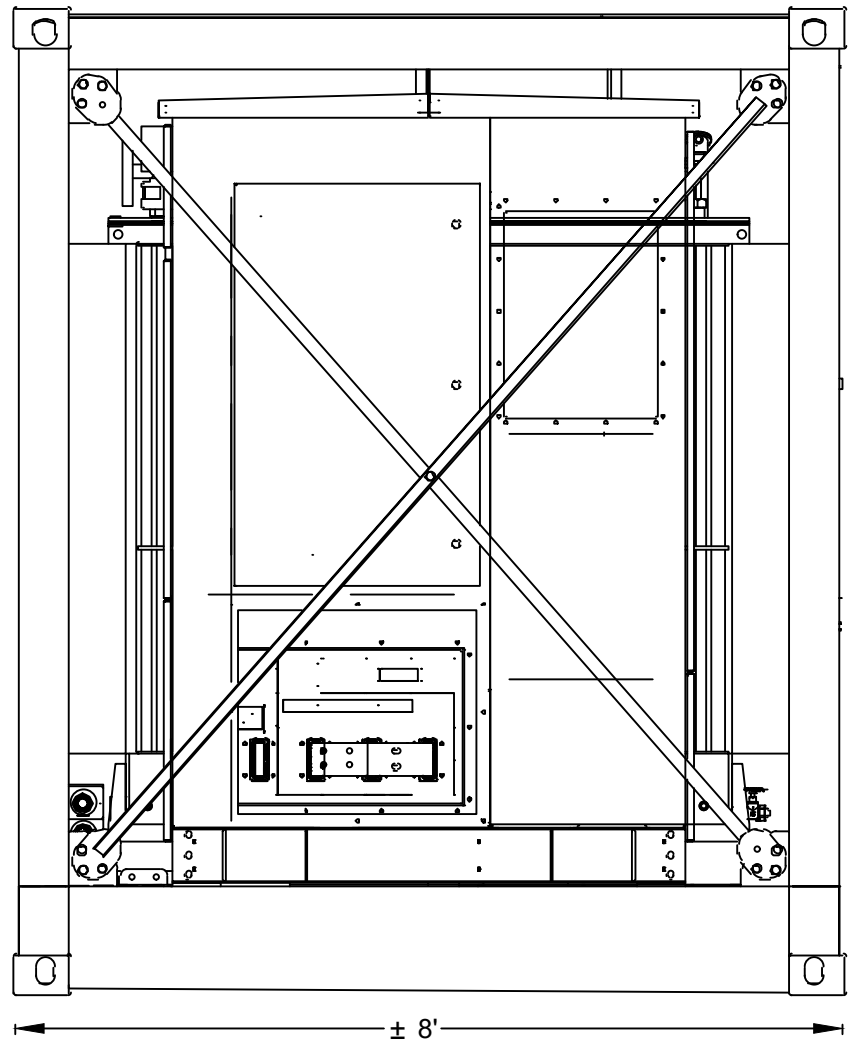


RMK DESIGNED SJW DRAWN SJW CHECKED NAM APPROVED	CIVIL AND FENCING DETAILS BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK			REV. 0
7/21 DATE AS NOTED		C-402		

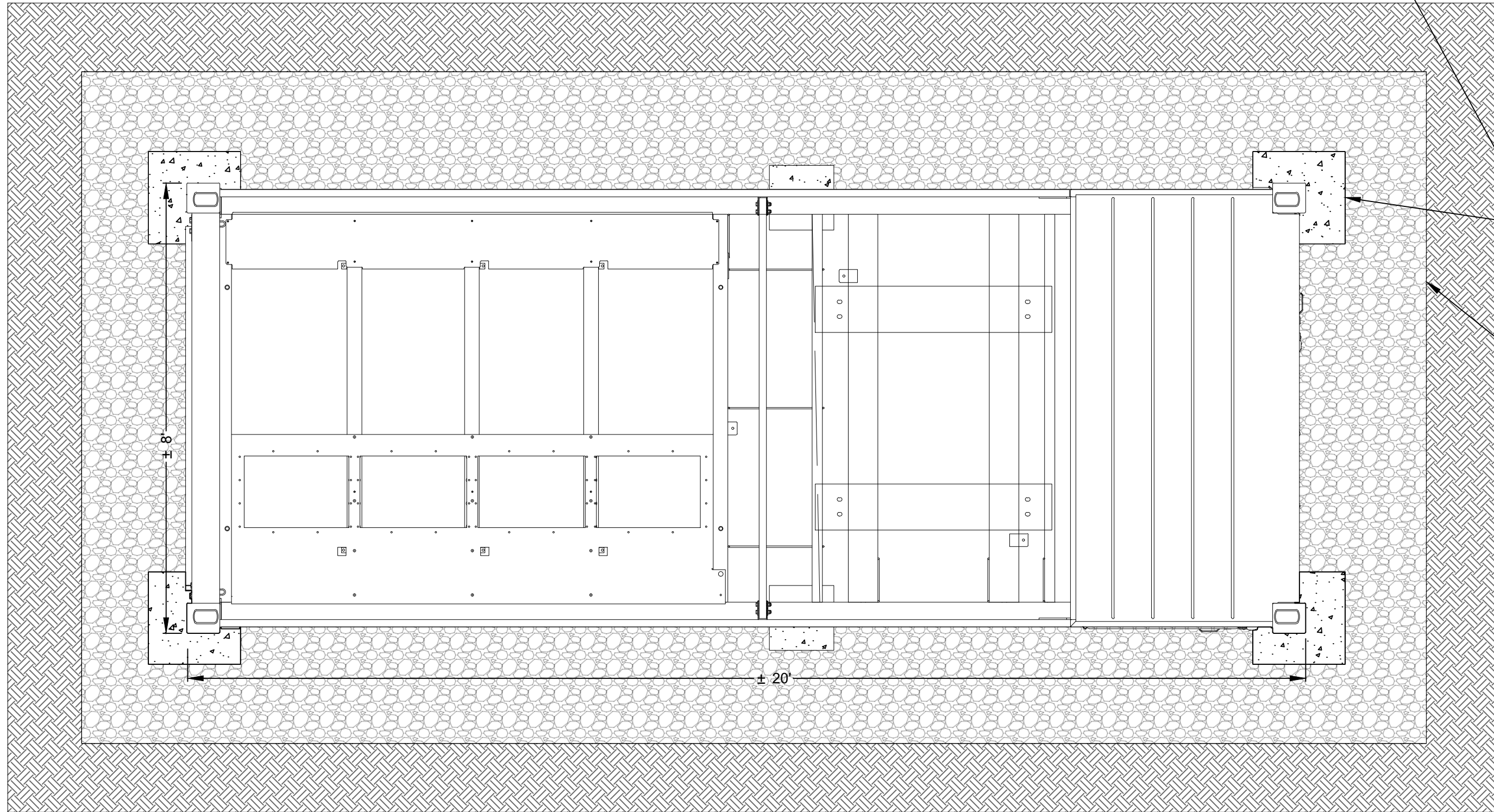
UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.



SIDE VIEW
SCALE: NTS



FRONT VIEW
SCALE: NTS

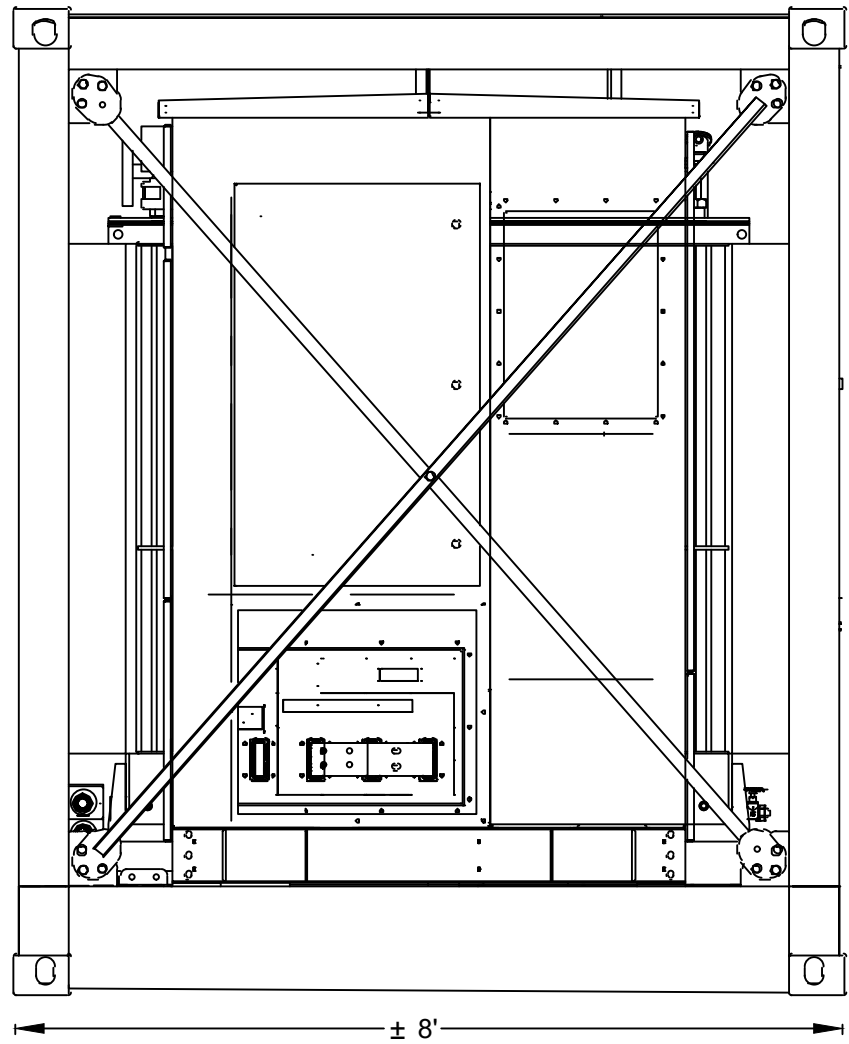


PLAN VIEW
SCALE: NTS

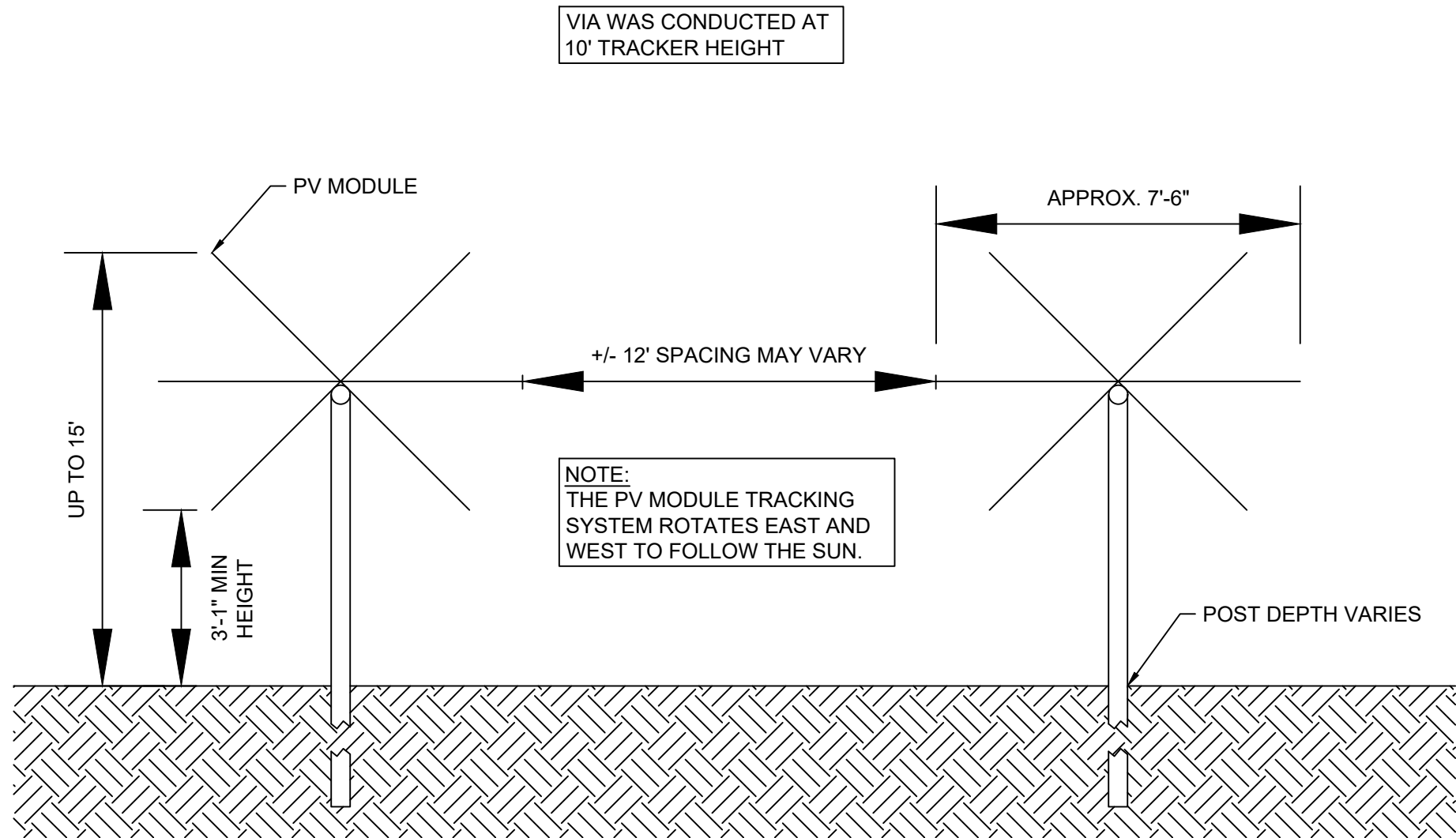
- FOUNDATION DESIGN BY OTHERS, SHOWN FOR GENERAL REFERENCE ONLY.
- THE LOCATIONS AND SIZES OF THE CABLE ENTRIES AND THE OIL TRAY, IF APPLICABLE, MUST BE TAKEN INTO ACCOUNT FOR THE FOUNDATION DESIGN.
- SKIDTAINER DIMENSIONS ARE TYPICAL AND VARY BY MANUFACTURER.

1 TYPICAL INVERTER SKID
SCALE: NTS

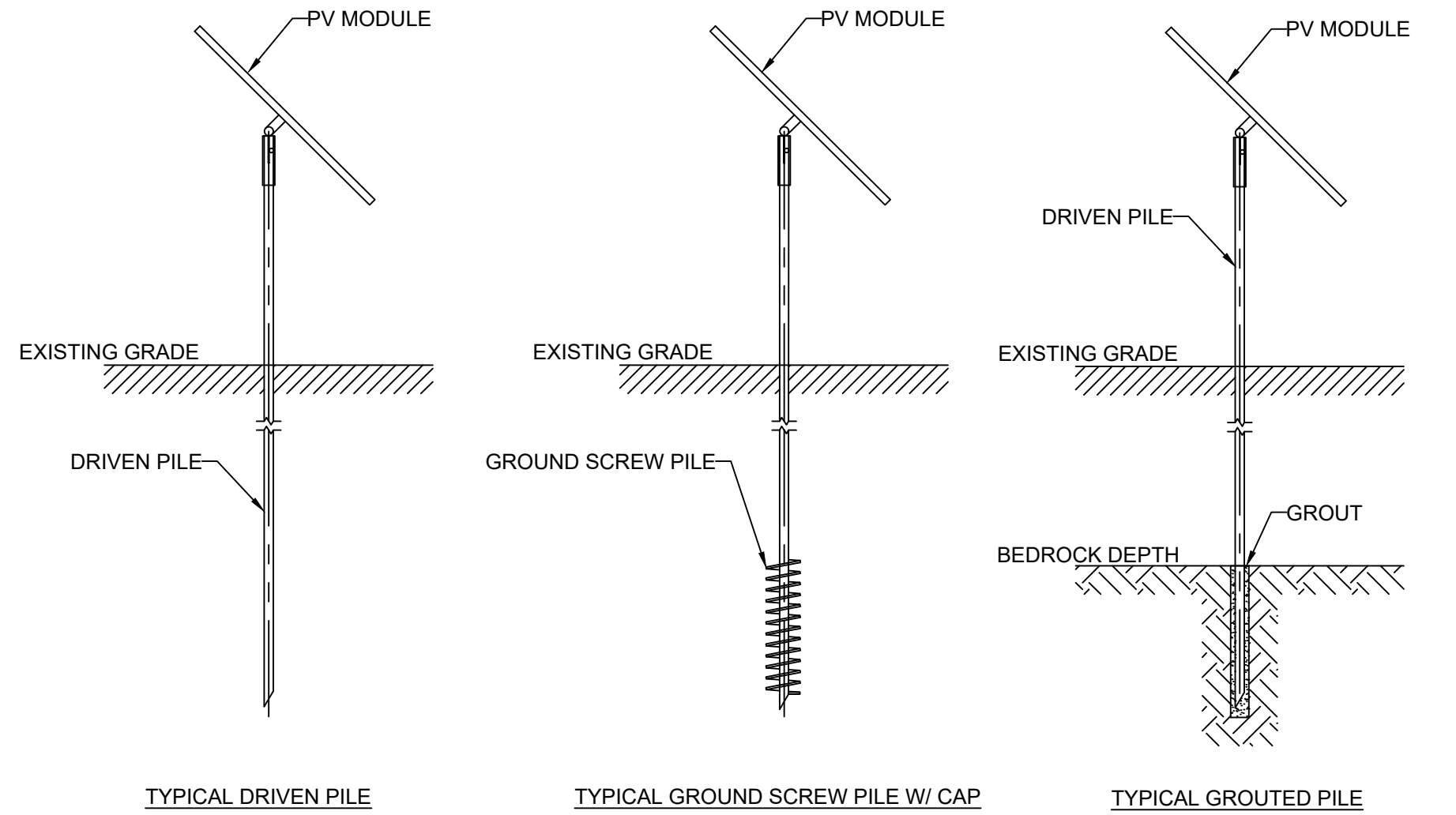
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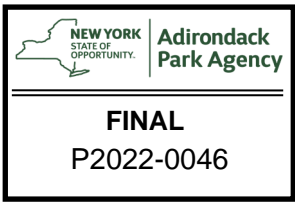
FRONT VIEW
SCALE: NTS



2 TRACKER RACK SECTION DETAIL
SCALE: N.T.S.




3 TYPICAL RACK FOUNDATION DETAILS
SCALE: N.T.S.



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		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154	
REV	DESCRIPTION	DATE	DES	CHK	APP
0	IFP SET	02/25/2022	RMK	SJW	SJW



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ARRAY AND RACKING DETAILS

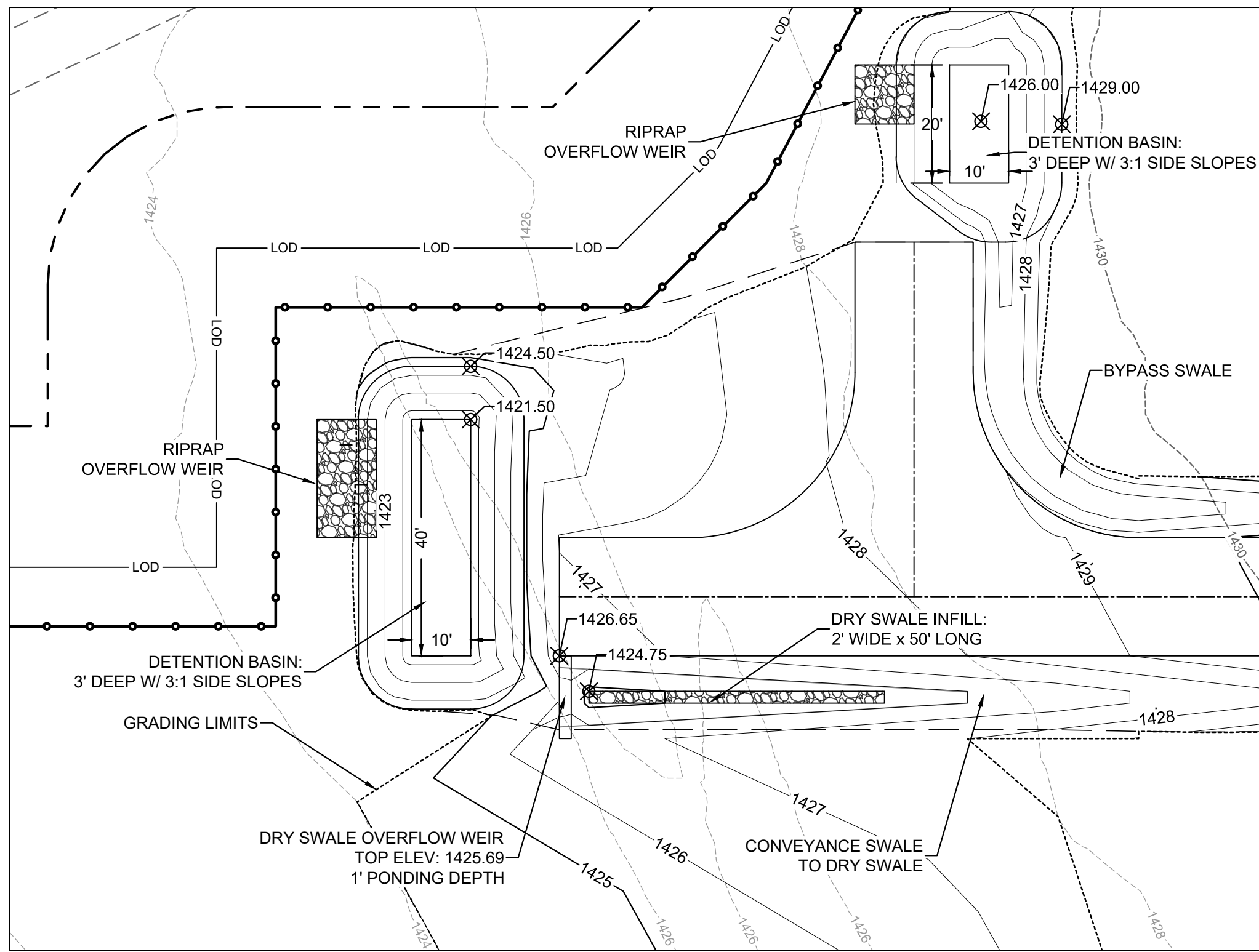
BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
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CLIFTON, ST LAWRENCE COUNTY, NEW YORK

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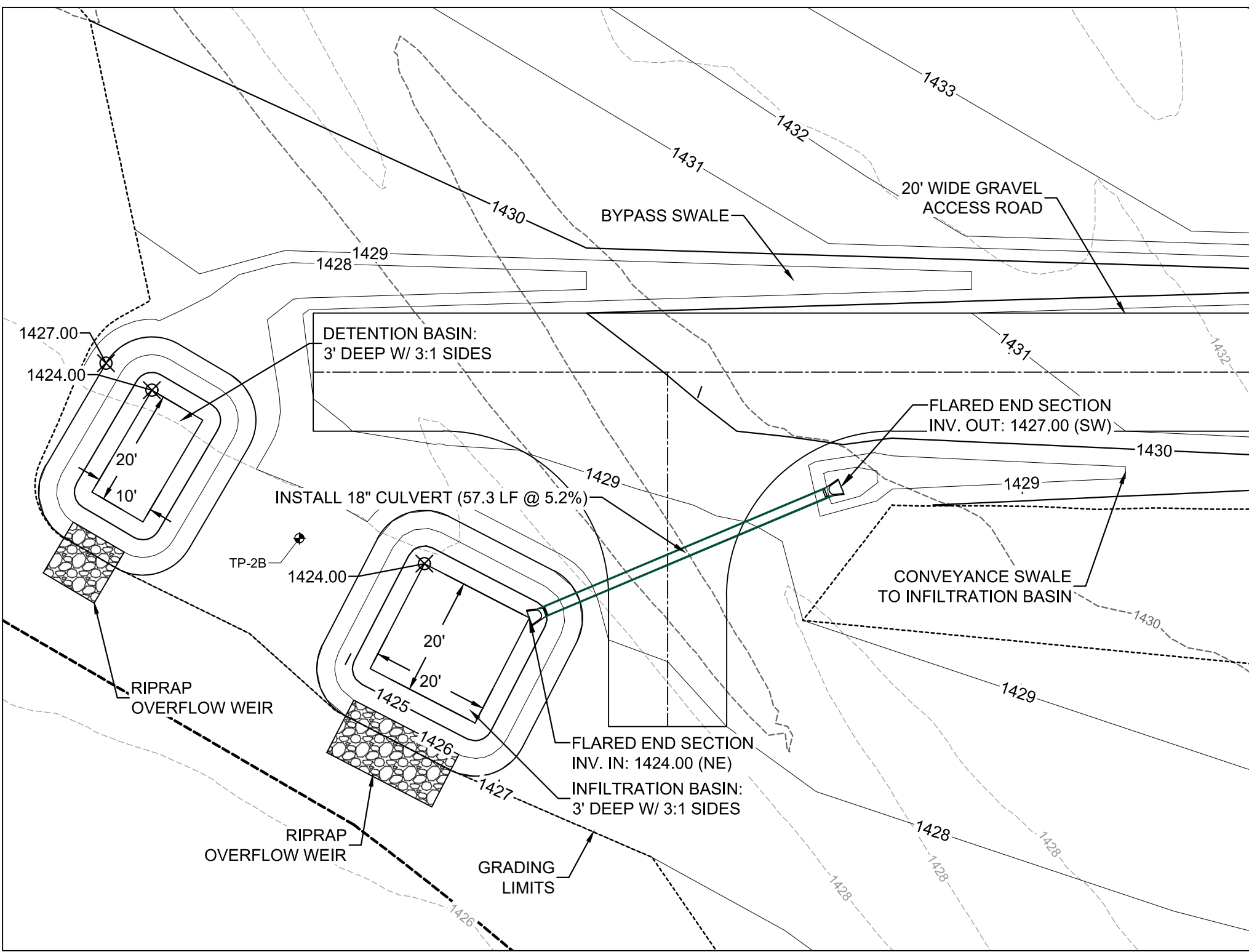


C-403

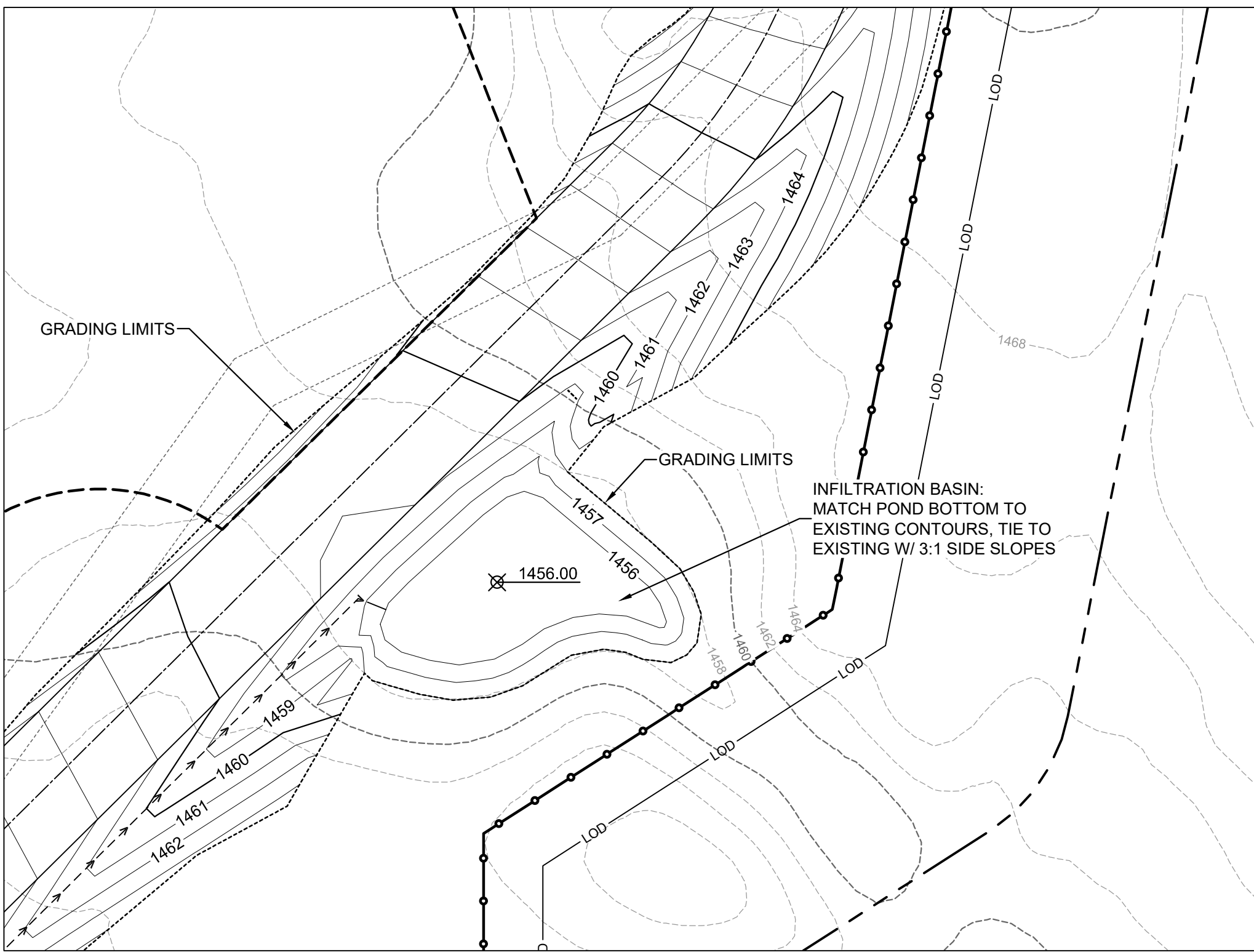
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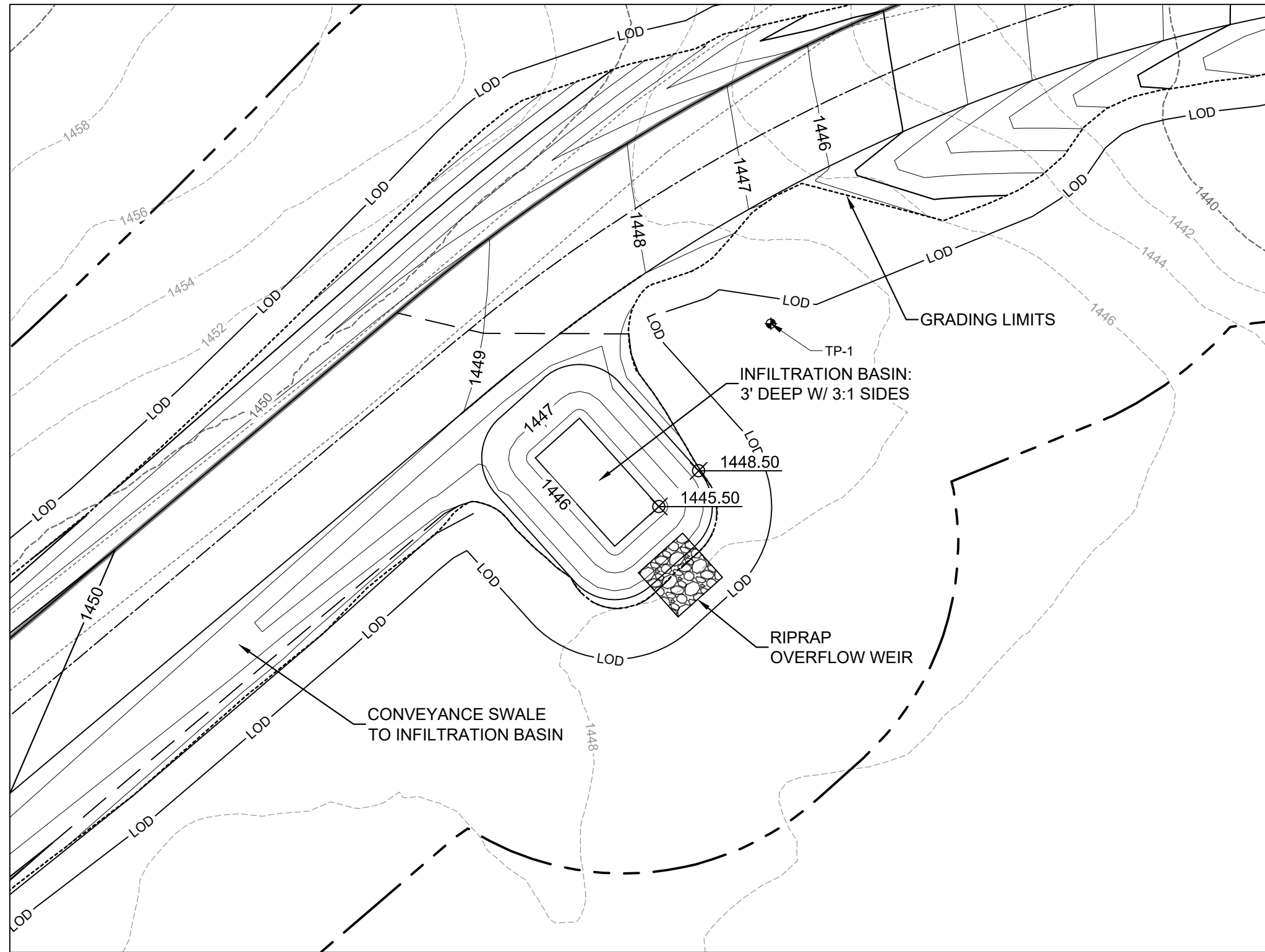
1 DRY SWALE 1
SCALE: 1" = 20'



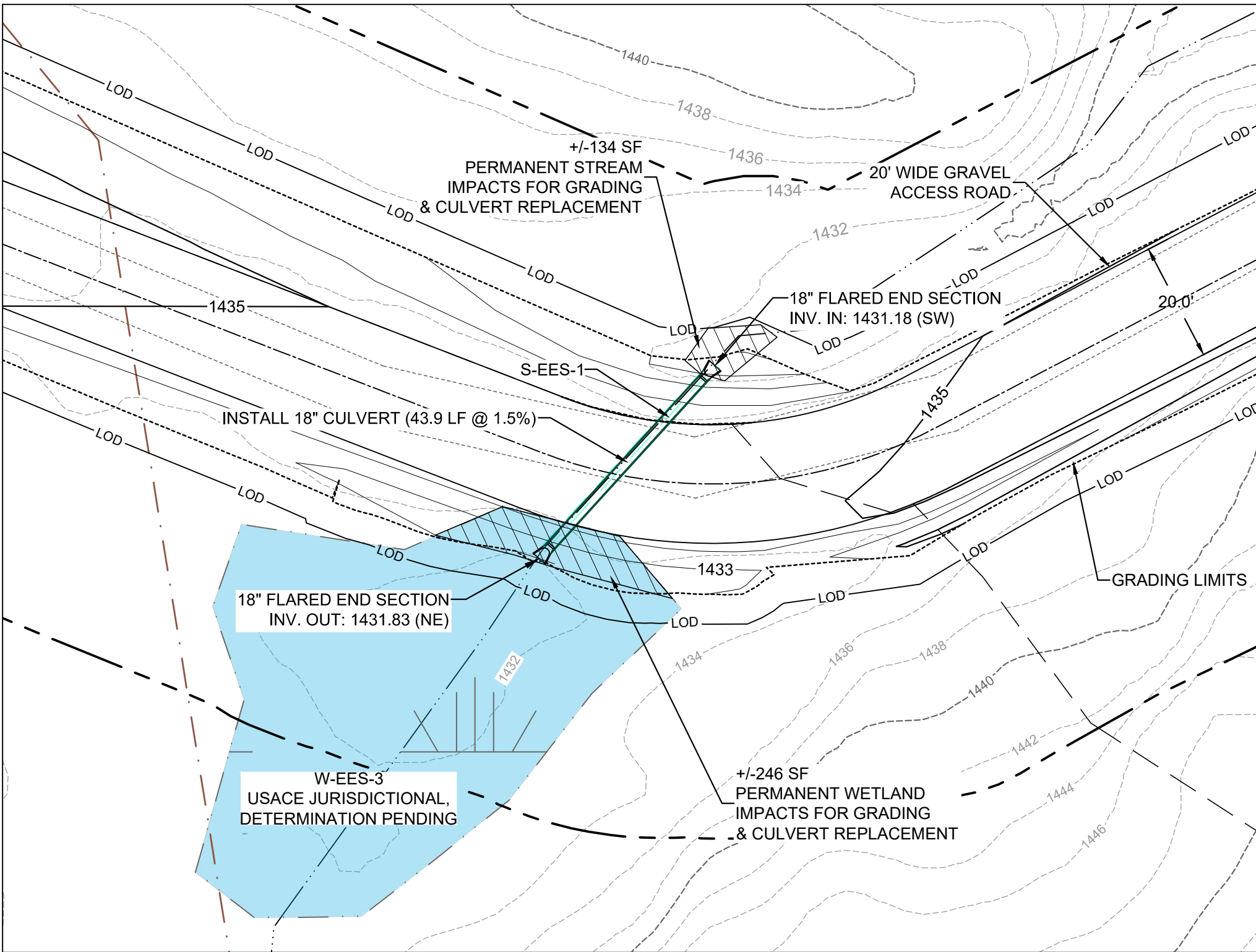
2 INFILTRATION BASIN 2
SCALE: 1" = 20'



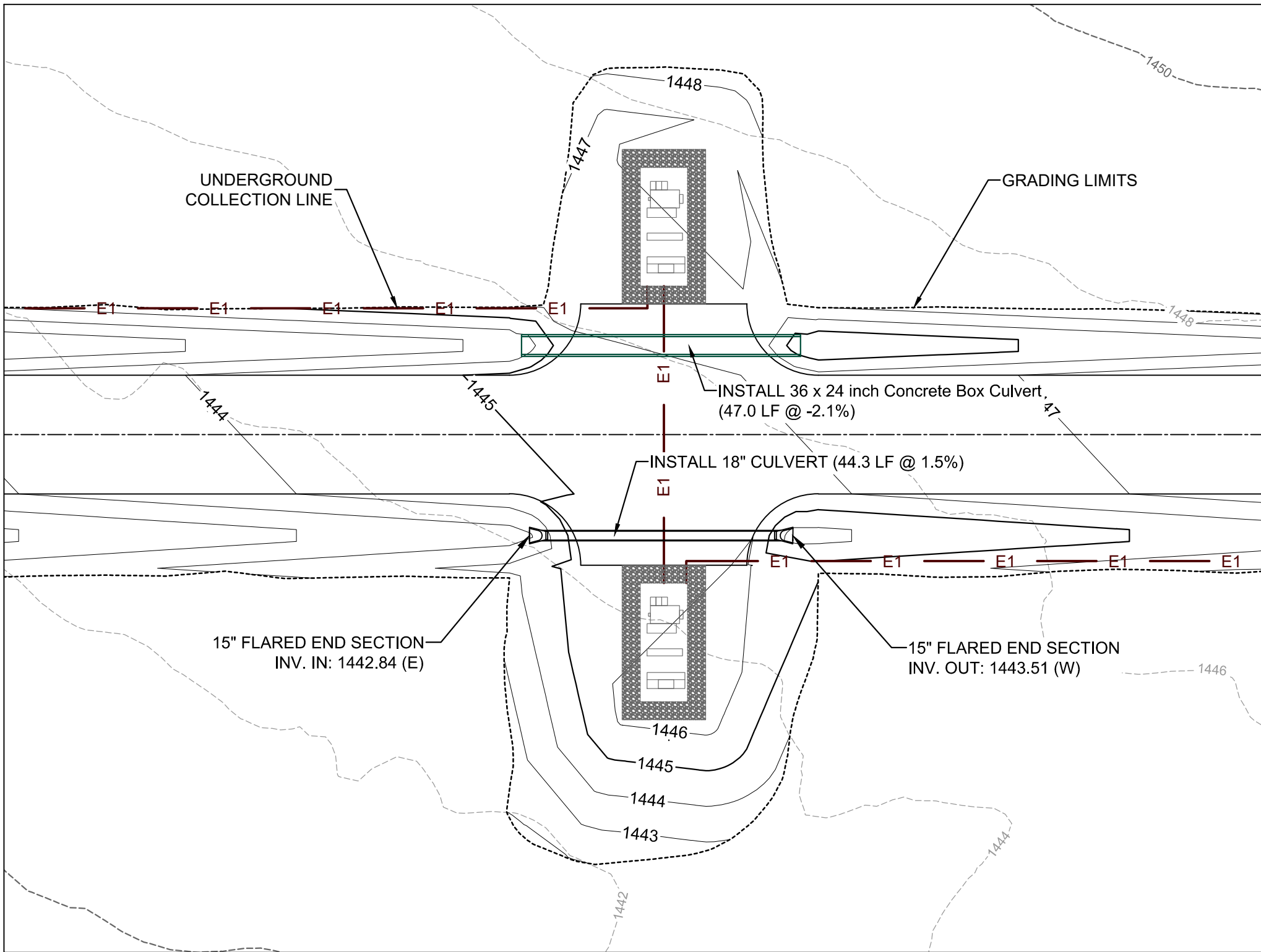
3 INFILTRATION BASIN 3
SCALE: 1" = 20'



4 INFILTRATION BASIN 4
SCALE: 1" = 20'

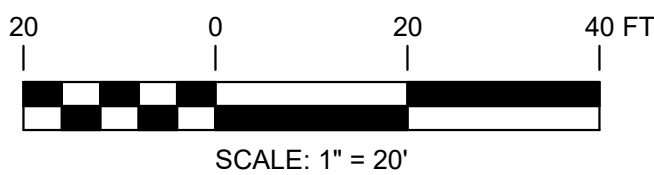
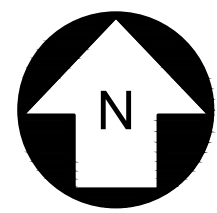
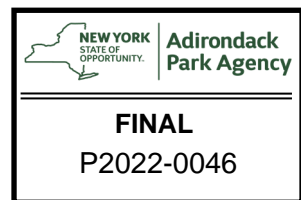


5 CULVERT @ LOW WATER CROSSING
SCALE: 1" = 20'




6 TYPICAL UNDERGROUND COLLECTION LINE CROSSING
SCALE: 1" = 20'

PRELIMINARY
NOT FOR CONSTRUCTION



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 10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154			
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HYDROLOGY DETAILS

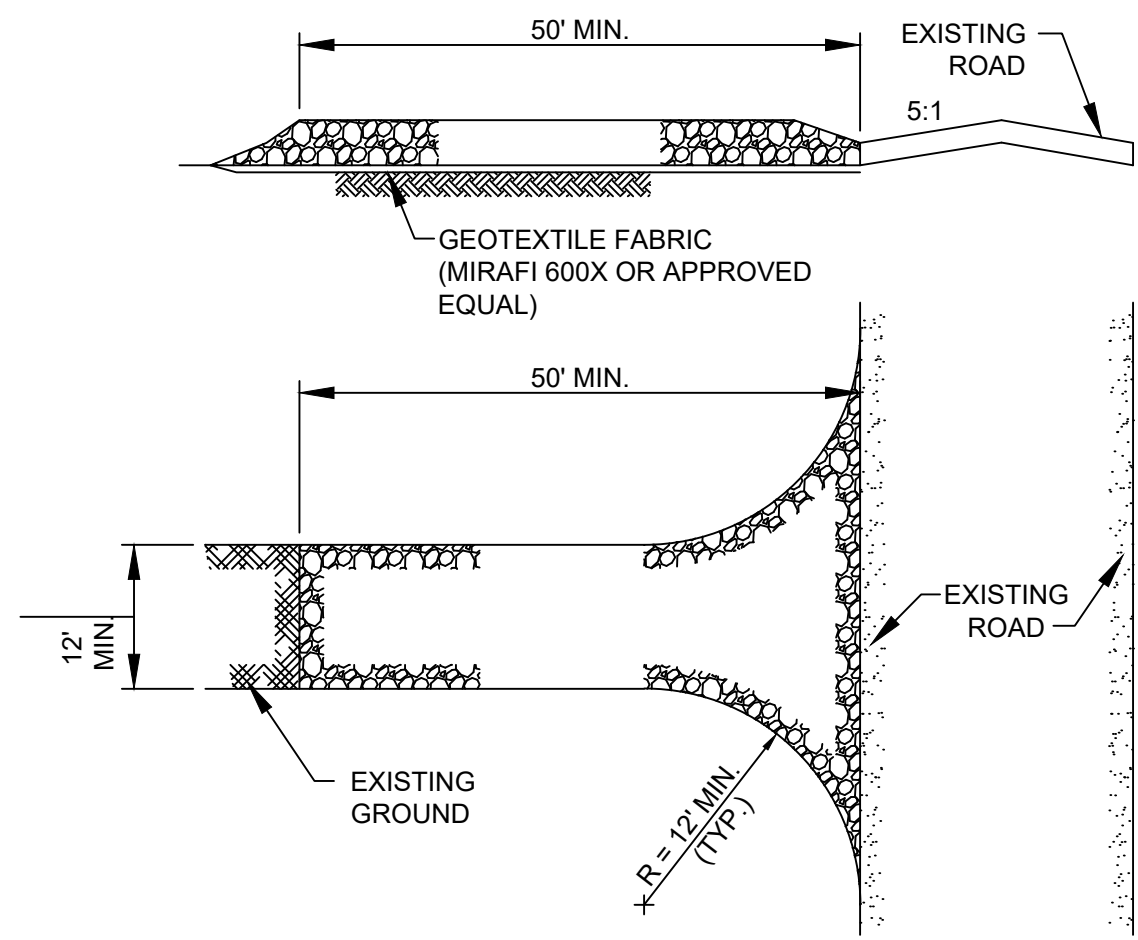
BR BENSON MINES SOLAR PROJECT
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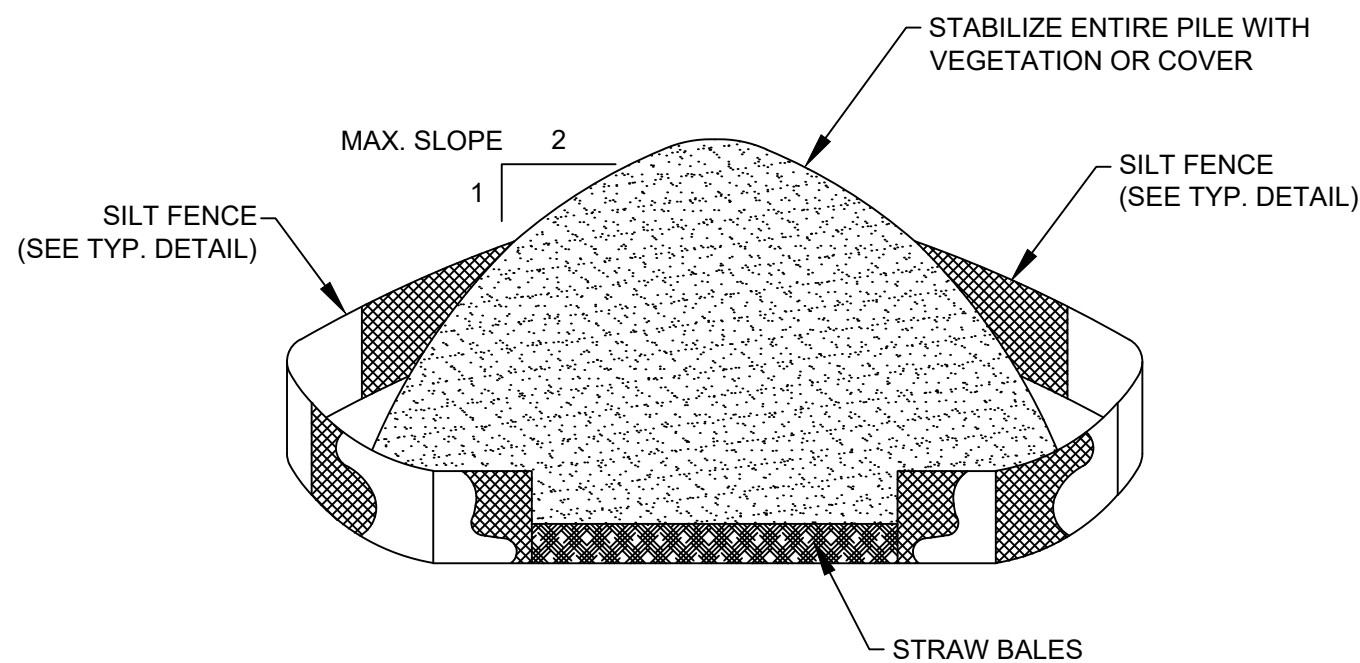
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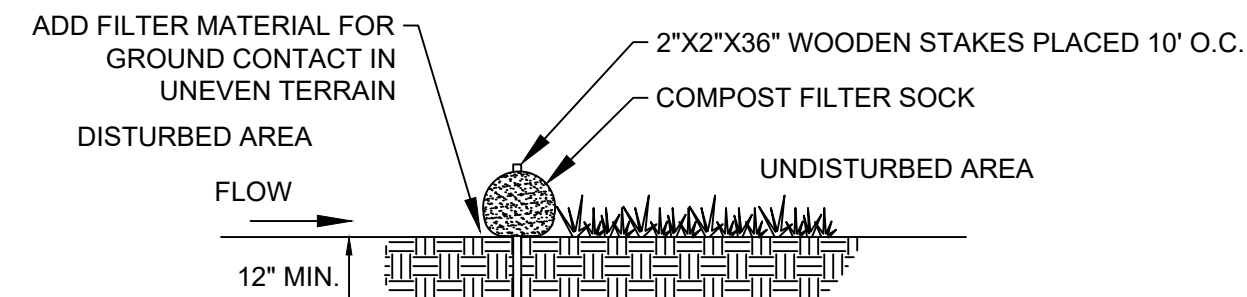
1. STONE SIZE - USE 1" - 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MIN. BUT NOT LESS THAN THE FULL ROAD WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. PROVIDE TWENTY-FOUR (24) FOOT WIDTH IF THERE IS ONLY A SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

1 STABILIZED CONSTRUCTION ENTRANCE
SCALE: N.T.S.

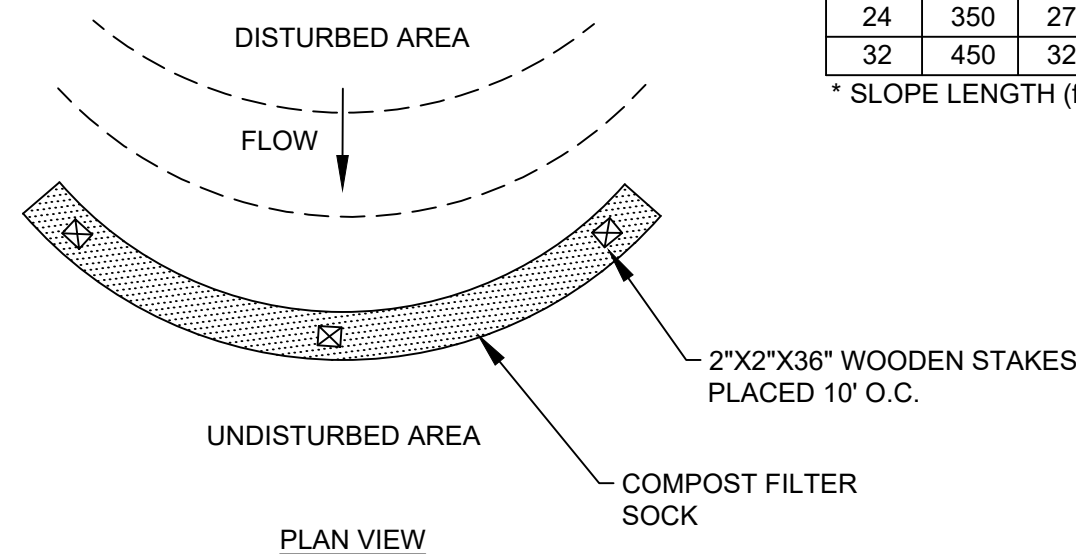


- INSTALLATION NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

2 TYPICAL TOPSOIL STOCKPILE
SCALE: N.T.S.



SECTION VIEW

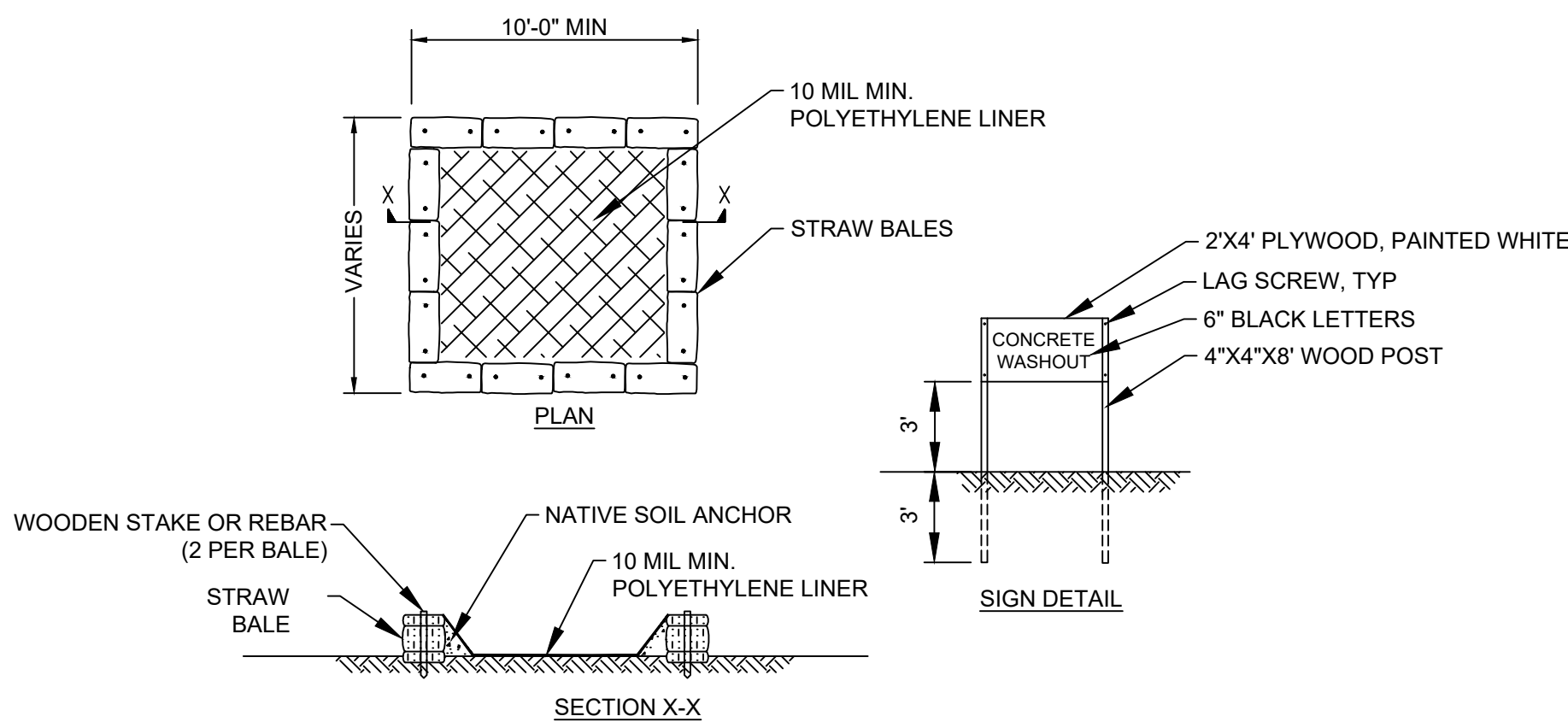


PLAN VIEW

DIA. (in.)	MAXIMUM SLOPE LENGTH SLOPE					
	2 %	5 %	10 %	20 %	25 %	33 %
8	225*	200	100	50	20	--
12	250	225	125	65	50	40
18	275	250	150	70	55	45
24	350	275	200	130	100	60
32	450	325	275	150	120	75

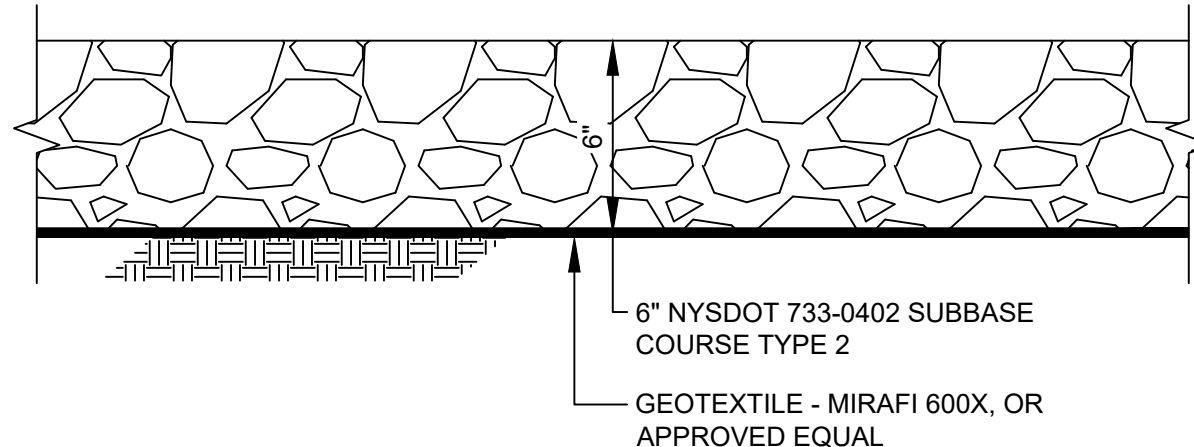
* SLOPE LENGTH (ft)

3 TYPICAL COMPOST FILTER SOCK
SCALE: N.T.S.

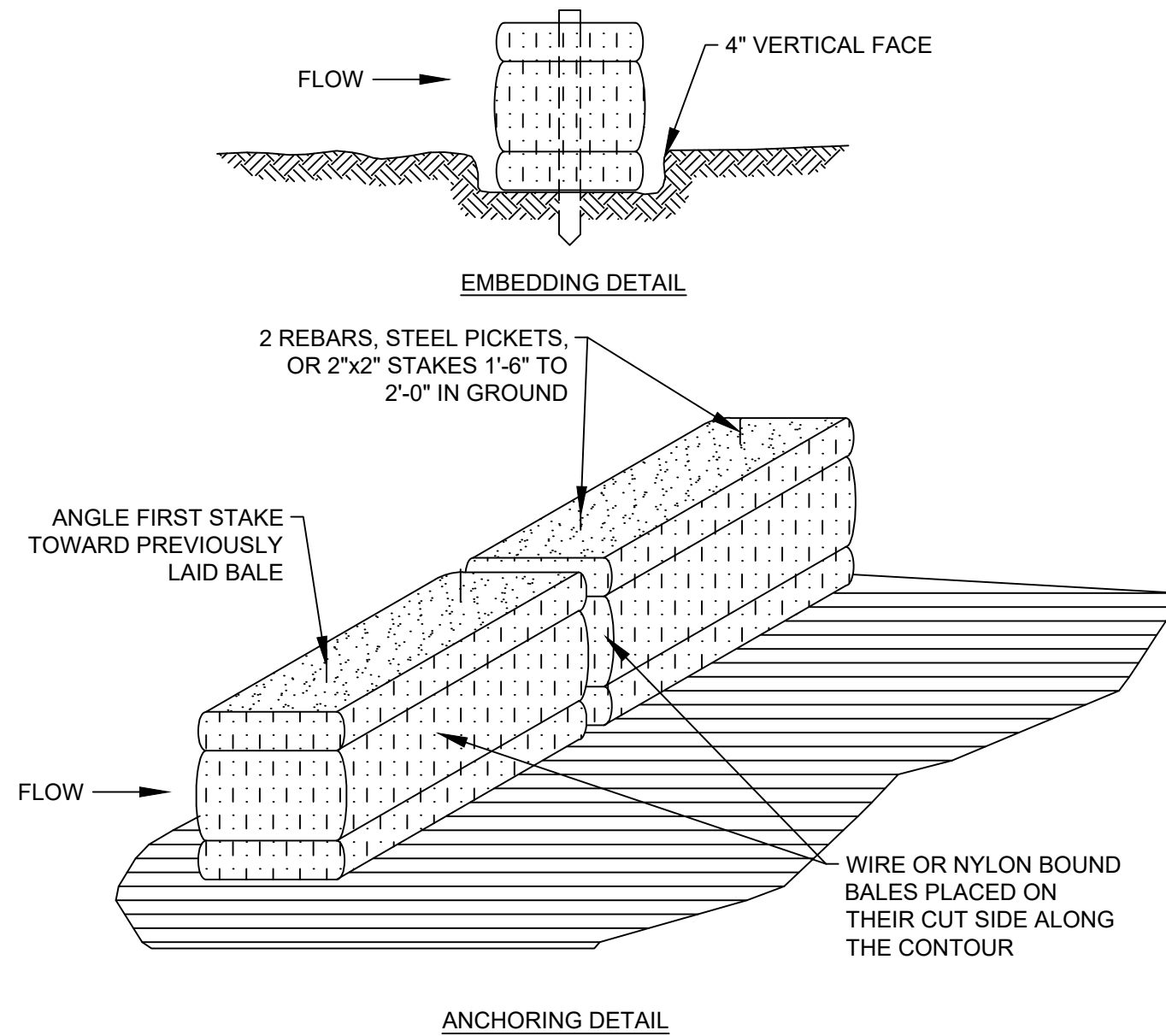


- NOTES:
1. SUMP(S) SHALL BE LOCATED NEAR WORK SITES BUT SHALL BE PLACED AT A MIN. OF 100 FEET AWAY FROM WETLANDS, BUFFERS AND DRAINAGE SWALES AS PRACTICAL.
 2. SUMP(S) SHALL BE CLEANED AND WASTE CONCRETE REMOVED AND PROPERLY DISPOSED OF PERIODICALLY AND UPON COMPLETION OF WORK.

4 TYPICAL CONCRETE WASHOUT
SCALE: N.T.S.

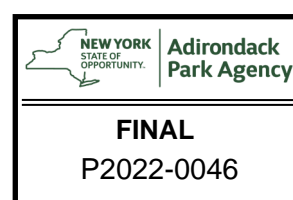


5 TEMPORARY LAYDOWN YARD TYPICAL SECTION
SCALE: N.T.S.



- NOTES:
1. STRAW BALES SHALL BE USED ONLY AS REINFORCEMENT FOR SILT FENCE WHERE NEEDED.
 2. BALES SHALL BE PLACED IN A ROW AT THE TOE OF A SLOPE OR ON THE CONTOUR, WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
 3. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
 4. BALES SHALL BE SECURELY ANCHORED IN PLACE BY DRIVING EITHER TWO STAKES OR RE-BARS THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE TOP OF BALE.
 5. INSPECTIONS SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 6. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

6 STRAW BALE BARRIER
SCALE: N.T.S.



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TRC		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154			
REV	DESCRIPTION	DATE	DES	CHK	APP		
0	IFP SET	02/25/2022	RMK	SJW	SJW		



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DESIGNED
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DRAWN
JWH
CHECKED
NAM
APPROVED

EROSION AND SEDIMENTATION CONTROL DETAILS

BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE

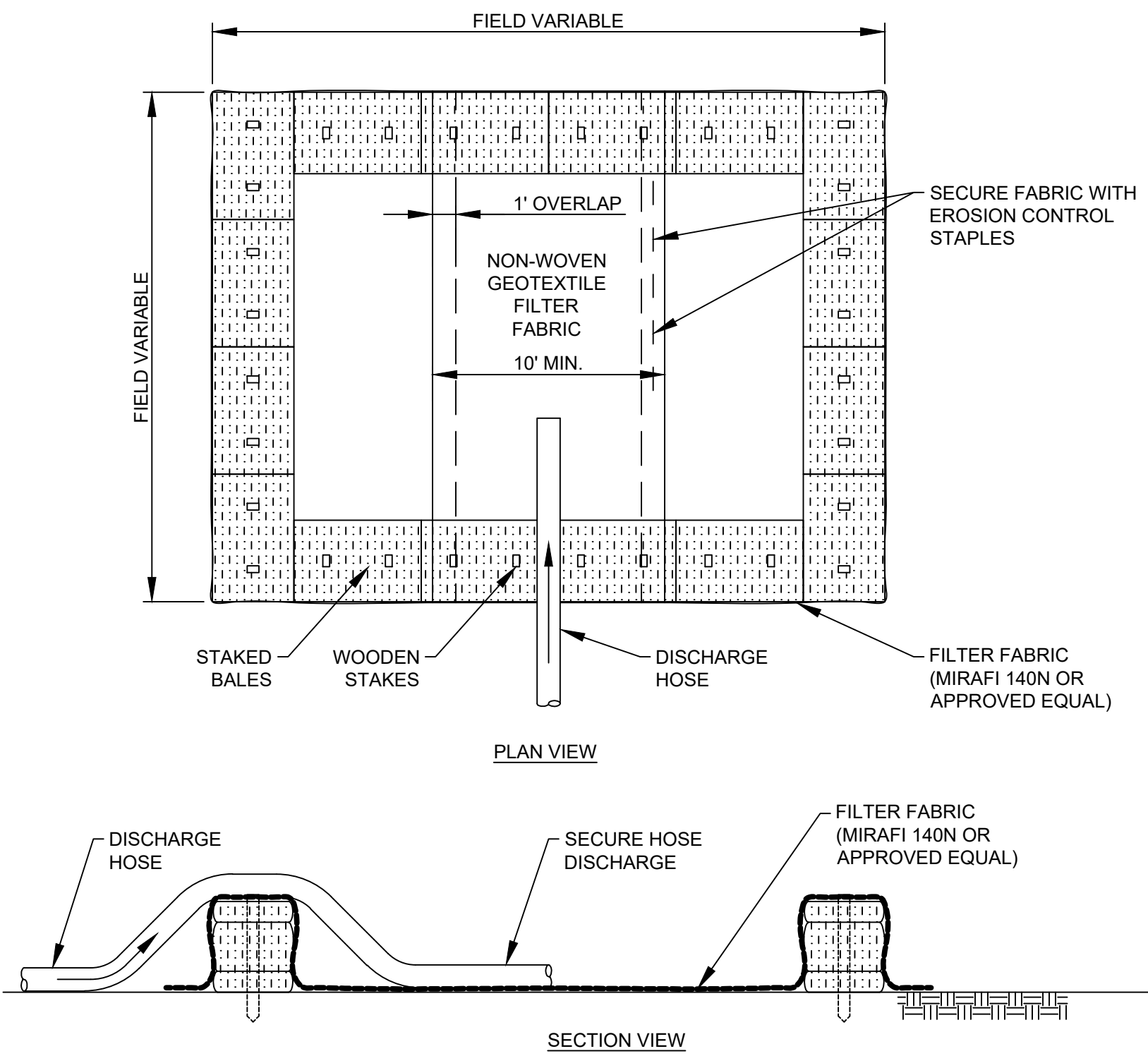


C-500

REV.
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PRELIMINARY
NOT FOR CONSTRUCTION



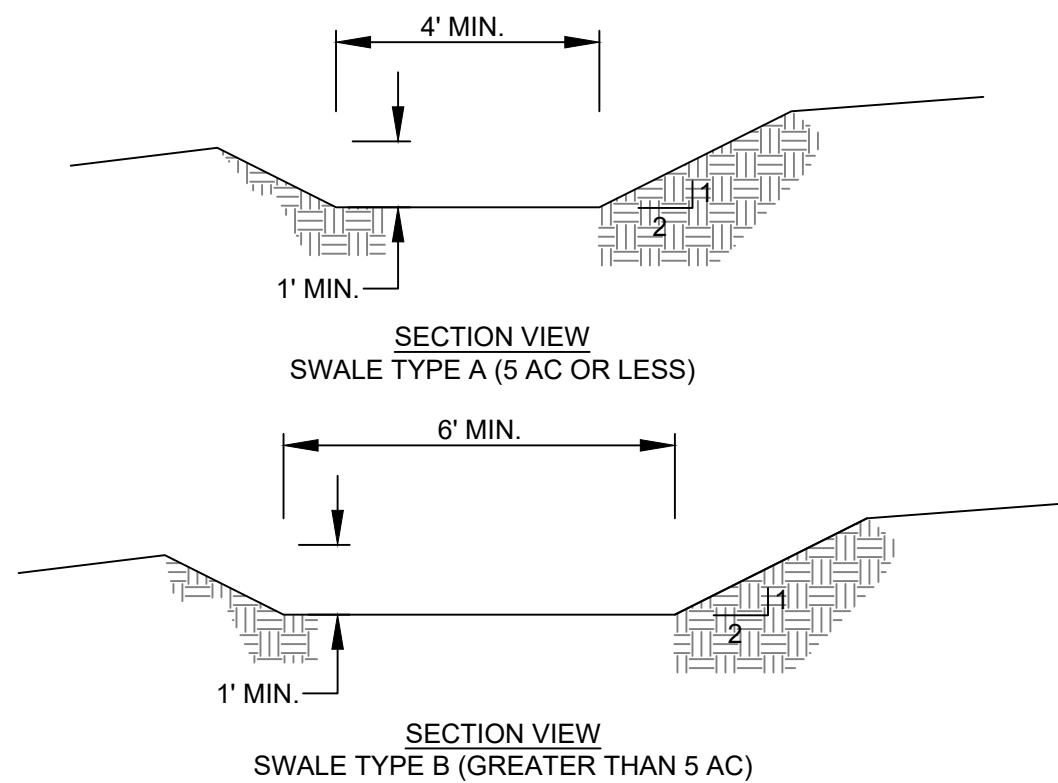


NOTES:

1. NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS.
2. THE BASIN SHALL BE SIZED TO PREVENT DISCHARGE WATER FROM OVERTOPPING BASIN.
3. THE BASIN SHALL BE PLACED AT A MIN. OF 100 FEET AWAY WETLANDS AS PRACTICAL.
4. CLEAN AND REMOVE AS SOON AS DEWATERING IS COMPLETE.

1 TYPICAL DEWATERING BASIN

SCALE: N.T.S.



NOTES:

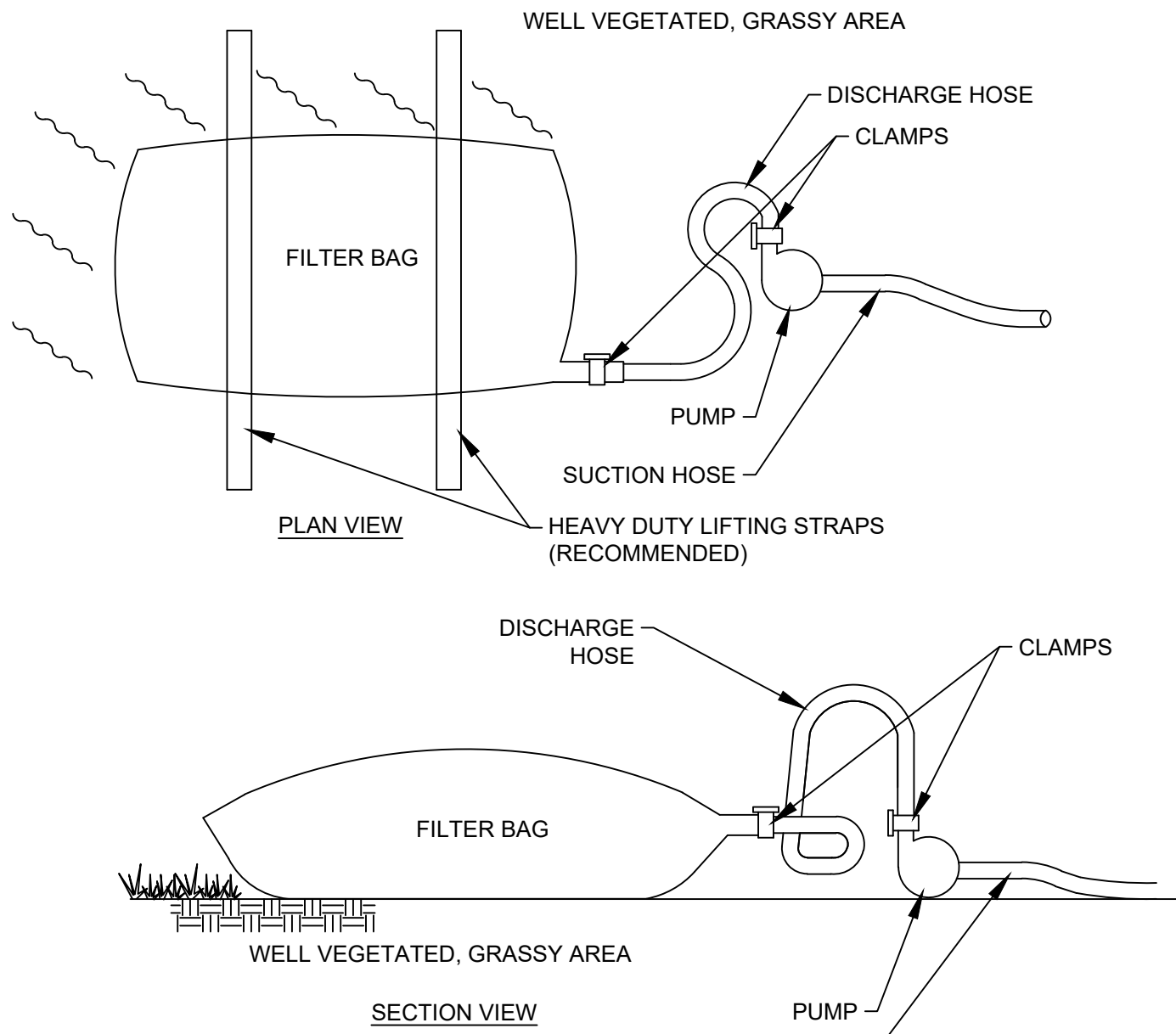
1. ALL CONSTRUCTION DITCHES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT A NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTION OF THE DITCH.
5. DITCHES SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EXCAVATED MATERIAL NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SUCH THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DITCH.
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

CHANNEL GRADE	TYPE A DITCH (5 AC OR LESS)	TYPE B DITCH (GREATER THAN 5 AC)
0.5-3.0%	SEED & STRAW MULCH	SEED & STRAW MULCH
3.1-5.0%	SEED & STRAW MULCH	SEED AND COVER W/ RECP
5.1-8.0%	SEED AND COVER W/ RECP	LINED 4-8" RIP RAP OR GEOTEXTILE
8.1-10%	LINED 4-8" RIP RAP OR GEOTEXTILE	ENGINEERED DESIGN

9. INSPECT AND PROVIDE MAINTENANCE AFTER EACH RAIN EVENT.
10. FIGURE IS BASED ON NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

4 TEMPORARY SWALE DETAIL

SCALE: N.T.S.

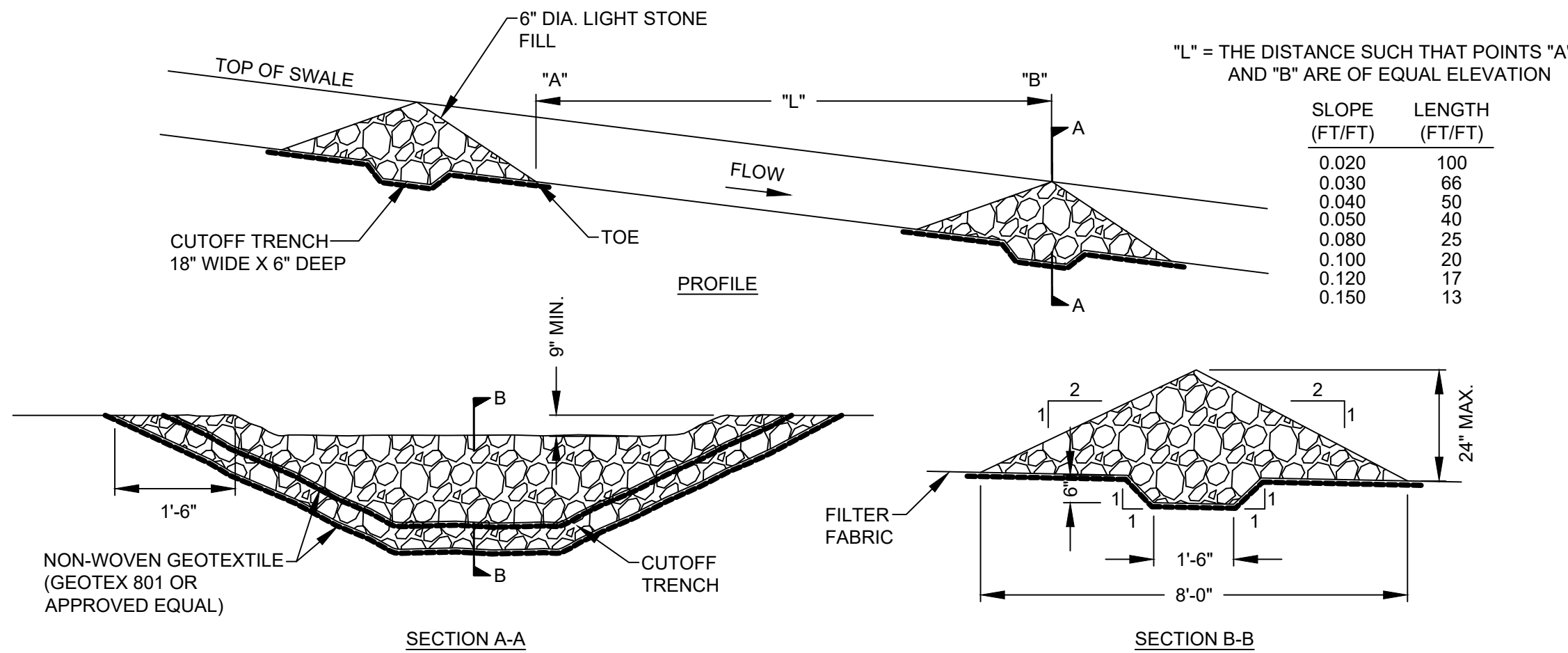


NOTES:

1. THE GEOTEXTILE MATERIAL USED TO CONSTRUCT THE FILTER BAG SHALL MEET OR EXCEED THE SPECIFICATIONS PROVIDED IN THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL - 2016" OR LATEST EDITION. THE BAG SHALL BE SEWN WITH A DOUBLE NEEDLE MACHINE USING HIGH STRENGTH DOUBLE STITCHED "J" TYPE SEAMS (ASTM D4884).
2. GEOTEXTILE FILTER BAGS SHALL BE SIZED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS BASED ON THE PUMP DISCHARGE RATE.
3. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 75% FULL. THE ACCUMULATED SEDIMENT DISPOSAL SHALL BE MANAGED IN CONFORMANCE WITH THE PROJECT SWPPP.
4. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. IT IS RECOMMENDED THAT BAGS BE PLACED ON STRAPS AS SHOWN TO FACILITATE REMOVAL.
5. BAGS SHALL BE LOCATED IN A WELL-VEGETATED (GRASSY) AREA AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE THEIR DISCHARGE CAPACITY.
6. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
7. BAGS SHALL NOT BE PLACED WITHIN 50 FEET OF WETLANDS, STREAMS, OR OTHER SURFACE WATERS.
8. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. A COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS PLACED WHERE A GRASSY AREA IS NOT AVAILABLE. A COMPOST FILTER SOCK MUST BE PLACED BELOW ANY BAG DISCHARGING TO A SPECIAL PROTECTION SURFACE WATER.
9. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
10. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 50 PERCENT OF THE MAXIMUM RATE SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PROVIDE FLOATING SUCTION SCREENS AT THE WATER SOURCE.
11. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

2 SEDIMENT FILTER BAG

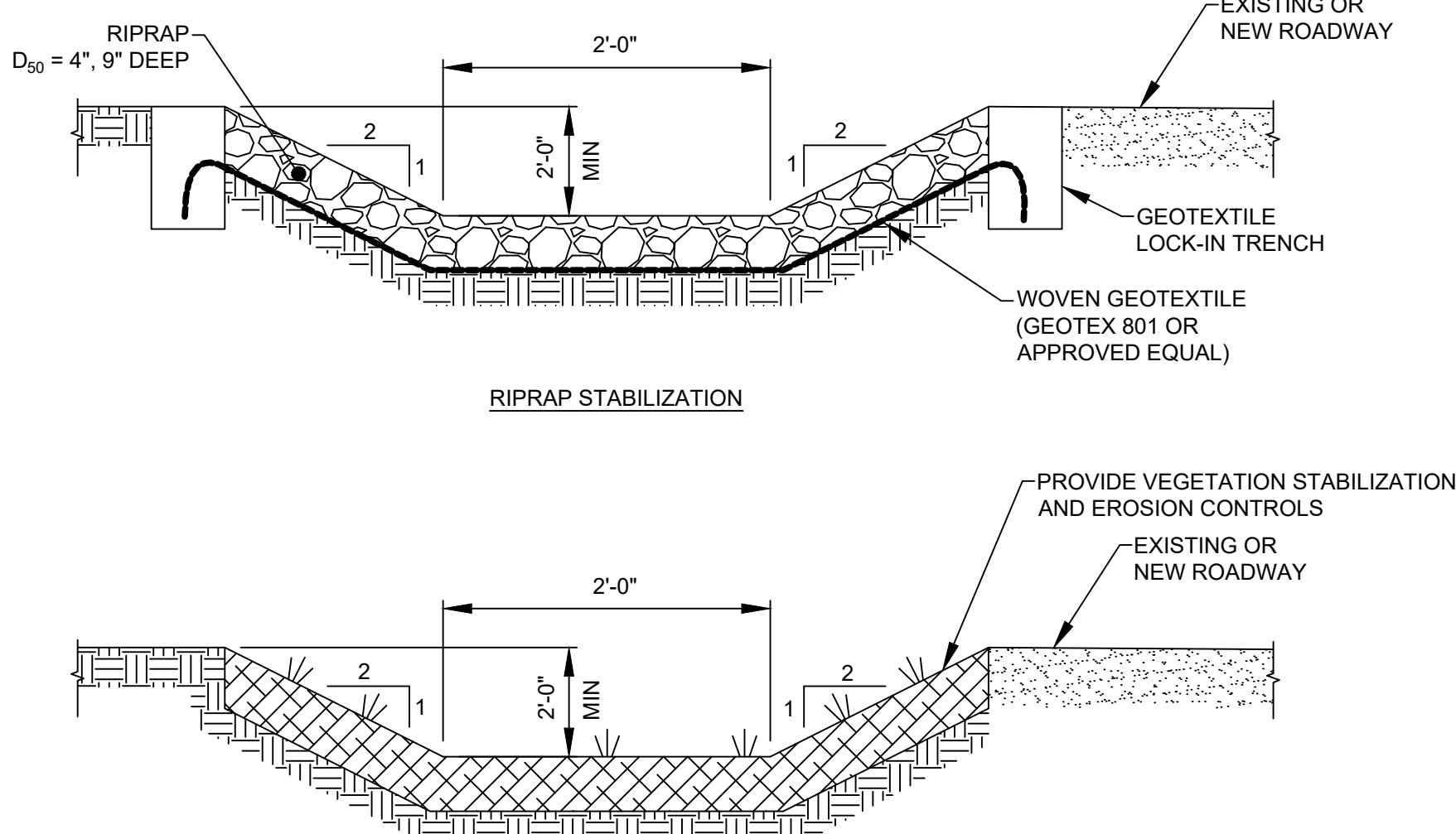
SCALE: N.T.S.



NOTE: INSTALL WHERE INDICATED ON SITE GRADING PLAN AND AS NEEDED BY SPACING REQUIREMENTS.

5 TYPICAL CHECK DAM DETAIL

SCALE: N.T.S.

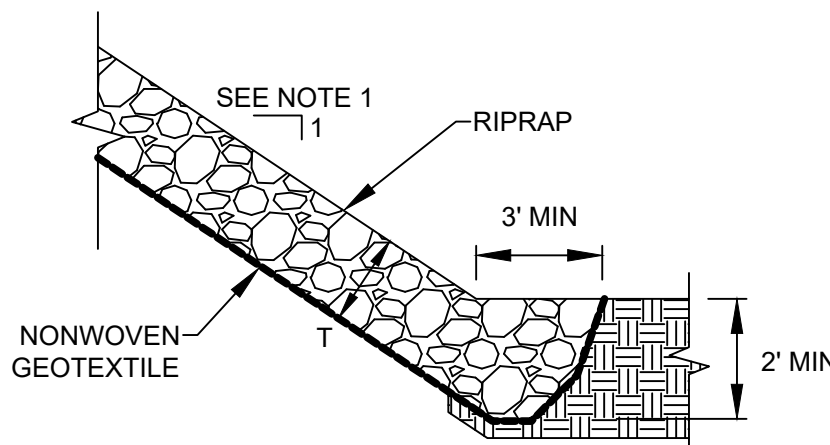


NOTES:

1. DRAINAGE SWALE PROFILE SHALL BE MODIFIED TO TRANSITION WHERE IT TIES INTO EXISTING SWALES. TRANSITION LENGTH SHALL BE COORDINATED WITH ON-SITE ENVIRONMENTAL INSPECTOR.
2. SWALE SHALL DISCHARGE TO STABILIZED LEVEL SPREADERS, CONTAINMENT OR OTHER STRUCTURES PROVIDED TO CONTROL EROSION RUN-OFF.
3. PROVIDE STABILIZATION AND EROSION CONTROLS AS REQUIRED BY THE ON-SITE ENVIRONMENTAL INSPECTOR IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

3 TYPICAL DRAINAGE SWALE

SCALE: N.T.S.

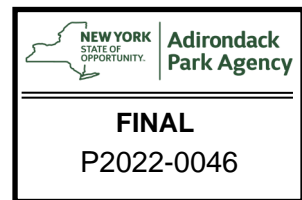


NOTES:

1. RIPRAP GRADATION SHALL BE D₅₀=6".
2. MINIMUM RIPRAP THICKNESS (T) OF RIPRAP COVER SHALL BE 15".
3. GEOTEXTILE SHALL BE GEOTEX 801 OR APPROVED EQUAL.

6 TYPICAL RIPRAP SLOPE DETAIL

SCALE: N.T.S.



PRELIMINARY
NOT FOR CONSTRUCTION

		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154	
REV	DESCRIPTION	DATE	DES	CHK	APP
0	IFP SET	02/25/2022	RMK	SJW	SJW



BWH
DESIGNED
BWH
DRAWN
JWH
CHECKED
NAM
APPROVED

EROSION AND SEDIMENTATION CONTROL DETAILS

BR BENSON MINES SOLAR PROJECT
NEW YORK STATE ENERGY RESEARCH
AND DEVELOPMENT AUTHORITY
CLIFTON, ST LAWRENCE COUNTY, NEW YORK

7/21
DATE
AS NOTED
SCALE

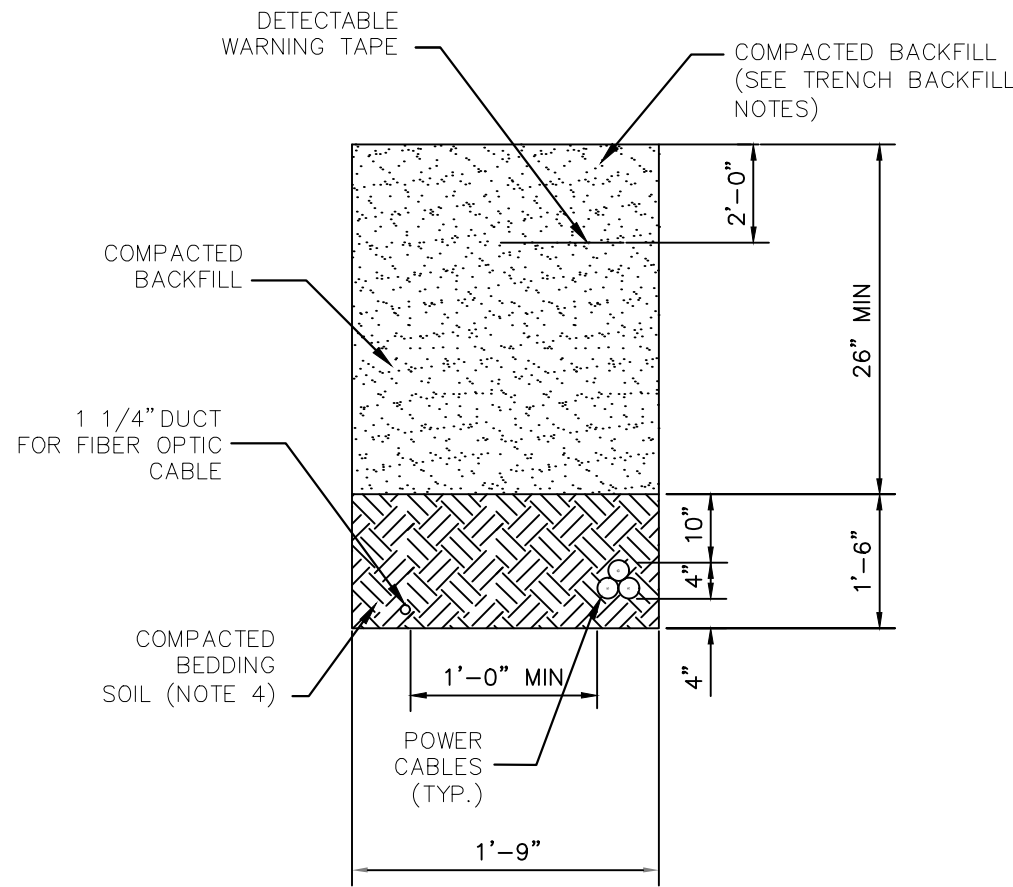


C-501

REV.
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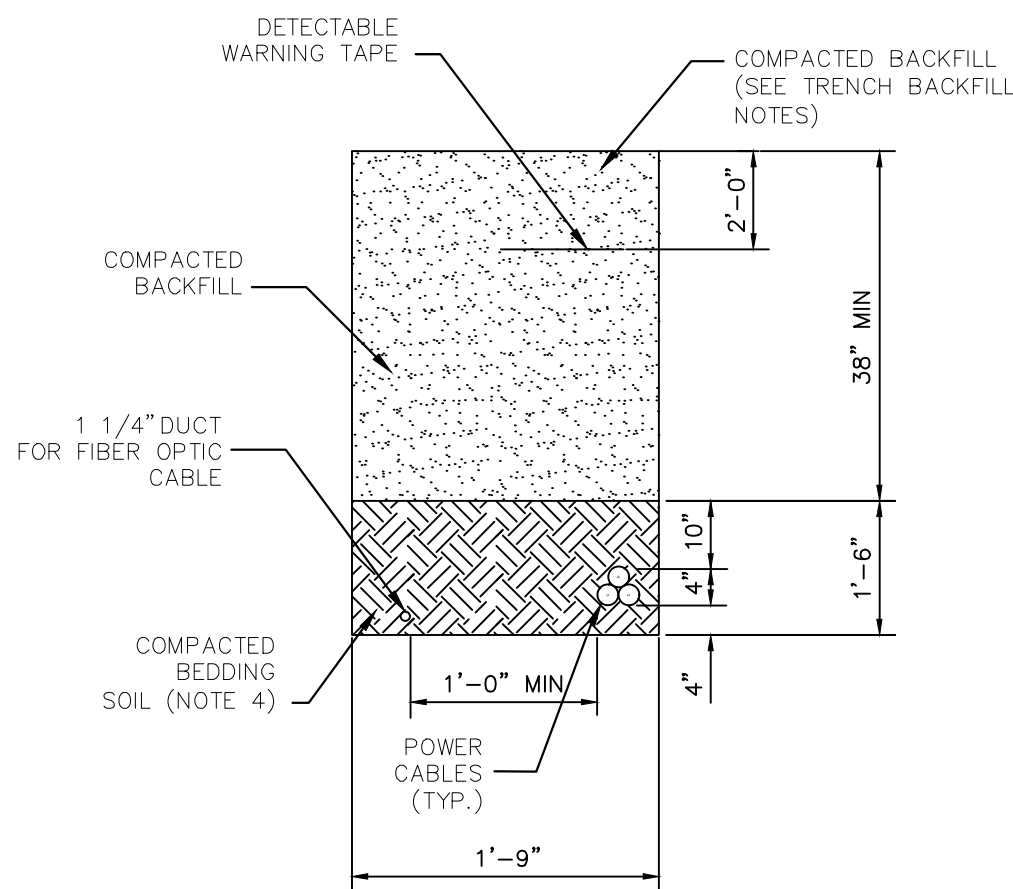


UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.



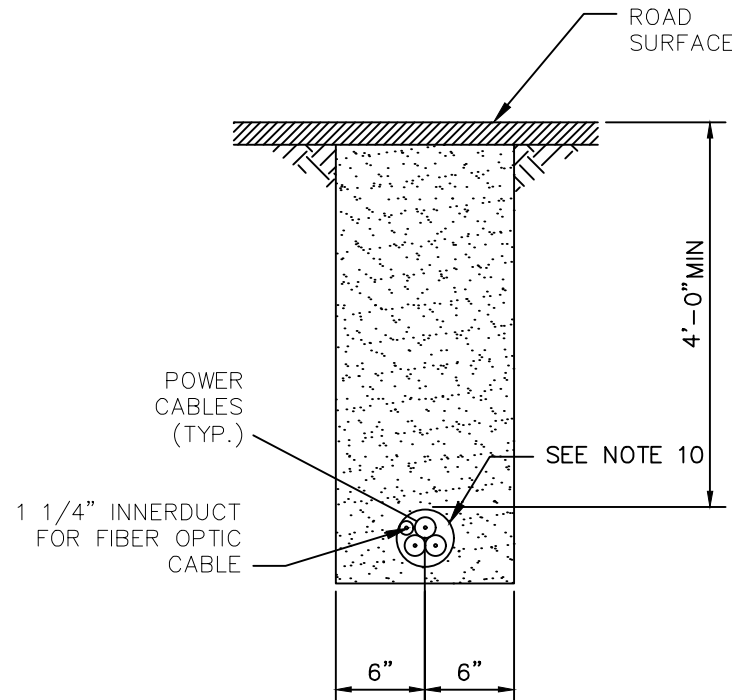
STANDARD TRENCH/ONE CIRCUIT (ST-1)
SCALE: NONE

A TRENCH DETAIL A-A
SCALE: N.T.S.

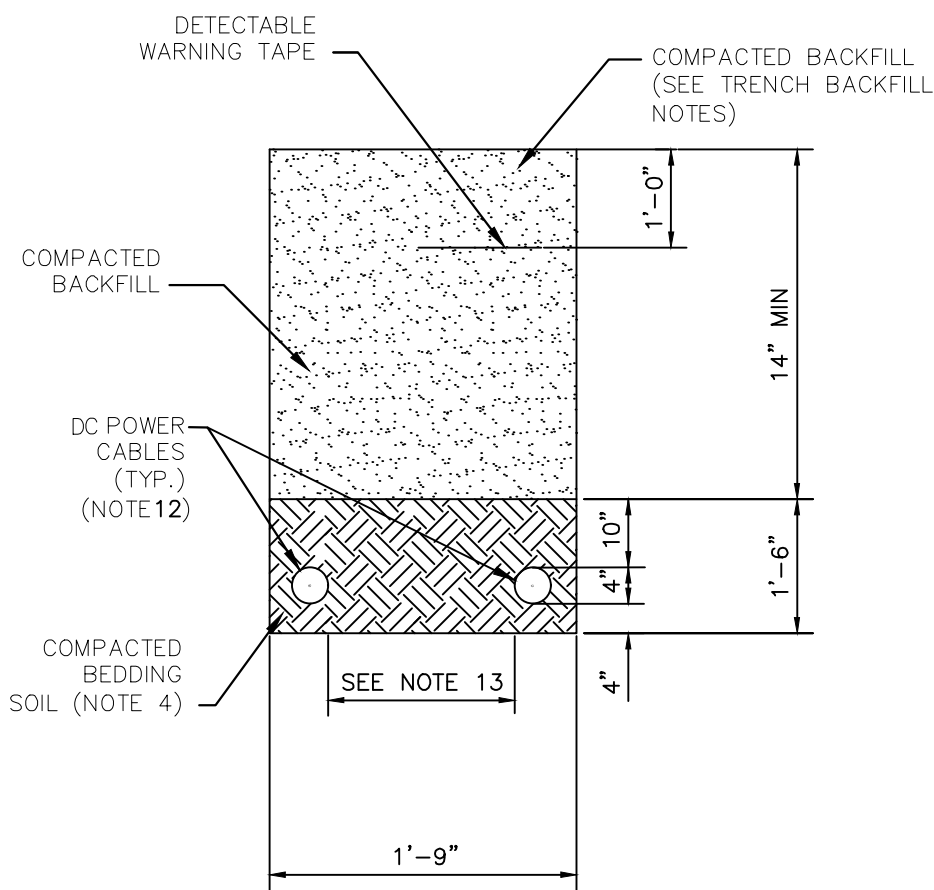


STANDARD TRENCH/ONE CIRCUIT
AREAS OUTSIDE OF FENCE IN CROPLAND,
HAYLAND, AND IMPROVED PASTURE

C TRENCH DETAIL C-C
SCALE: N.T.S.



B TRENCH DETAIL B-B
SCALE: N.T.S.



TYPICAL DC TRENCH
SCALE: NONE

D TRENCH DETAIL D-D
SCALE: N.T.S.

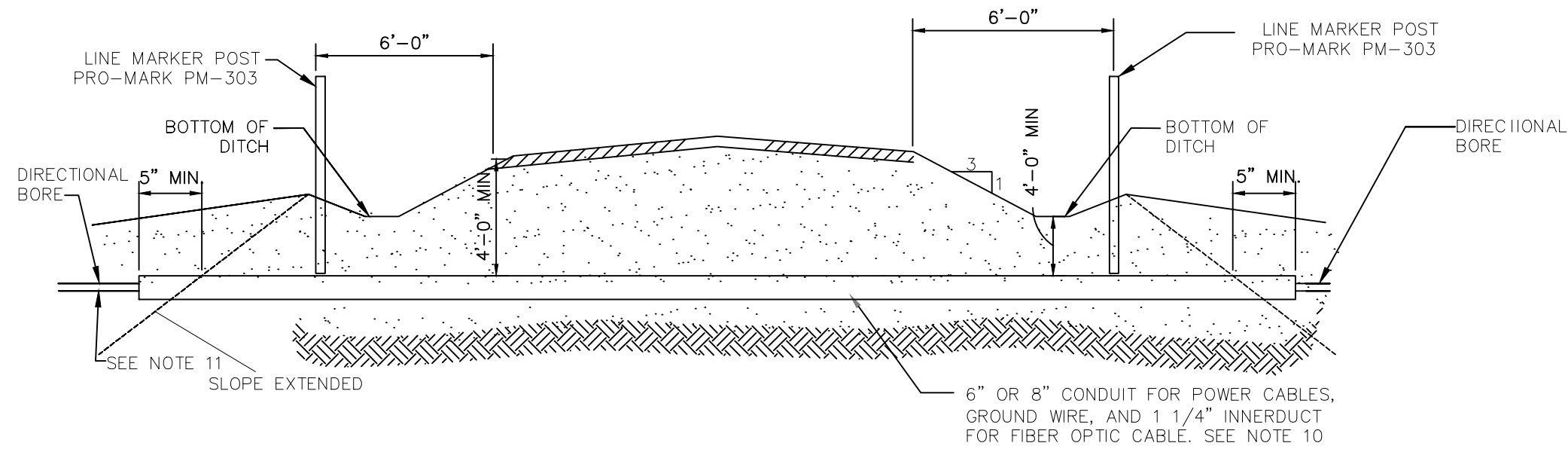
TRENCH BACKFILL NOTES

- BACKFILLING OPERATIONS SHALL NOT BE CONDUCTED UNDER FREEZING TEMPERATURE OR FROZEN SOIL CONDITIONS.
- THE BEDDING AND PADDING BACKFILL MATERIAL FOR THE TRENCH SHALL BE EXCAVATED SOIL FREE OF ROCKS (NO ROCKS LARGER THAN 3/8" DIAMETER) AND FREE OF WOOD, ROOTS, VEGETABLE MATTER, TOPSOIL OR OTHER DELETERIOUS MATERIAL.
- TOPSOIL CONSISTS OF ORGANIC SILT AND SILTY SAND IN ACCORDANCE WITH THE UNITES SOIL CLASSIFICATION SYSTEMS (USCS).
- SUITABLE PROTECTIVE BEDDING AND PADDING SOIL WITH A MINIMUM COVER ON ALL SIDES OF ALL CABLE AND / OR CONDUIT SYSTEMS SHALL BE PROVIDED. CONTRACTOR TO INSTALL GPS BALL MARKER AT EACH BORING PIT, NO DEEPER THAN 5'-0".
- ALL THE LAYERS SHALL BE SUFFICIENTLY COMPACTED TO ACHIEVE THE NECESSARY THERMAL RESISTIVITY. COMPACTING BY FLOODING SHALL NOT BE PERMITTED.
- BACKFILL SHALL BE PLACED IN THREE LIFTS (1 FOOT BOTTOM LIFT, 1 FOOT CENTER LIFT AND 2 FOOT TOP LIFT WITH TOPSOIL HEAPED FOR FINAL COMPLETION.
- COMPACTED BACKFILL ABOVE CABLE SHALL NOT HAVE ROCKS LARGER THAN 1.5" DIAMETER.
- ALL BACKFILL SHALL BE 140°CM/W (TO BE VERIFIED BY AMPACITY MODELING) OR LESS, AT 2% MOISTURE CONTENT SHALL BE USED.
- ALL BACKFILL SHALL BE COMPACTED TO THE LESSOR OF 93 PERCENT OF THE ASTM D698 DRY-DENSITY VALUE OR THE NATIVE IN-SITU DENSITY.
- USE 6" BORE-GARD SCHEDULE 40 FOR POWER CABLES 1/0 AWG TO 500 MCM, USE 8" HDPE SDR 13.5 FOR POWER CABLES GREATER THAN 500MCM.
- ALL BACKFILL REQUIRED TO MATCH DENSITY OF EXISTING ADJACENT SOILS, TYP.
- ADD CONDUITS AS REQUIRED
- SEPARATION BETWEEN CIRCUITS WILL BE DETERMINED BASED ON THE AMPACITY CALCULATIONS DURING IFC DESIGN.

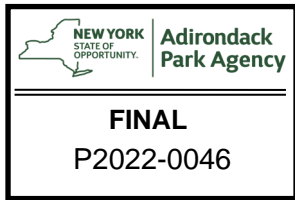
UNDERGROUND OR EMBEDDED UTILITIES MAY BE LOCATED WITHIN OR ADJACENT TO THE AREA IN WHICH EXCAVATION, DEMOLITION, FOUNDATION, OR MODIFICATION WORK IS TO BE PERFORMED.


REFERENCES RELATING TO THE UNDERGROUND OR EMBEDDED UTILITIES ARE PROVIDED TO ASSIST THE CONTRACTOR/INSTALLER IN THE FIELD LOCATING THOSE UTILITIES AND OTHER POSSIBLE UNDERGROUND OR EMBEDDED INTERFERENCES WITH THE WORK.

THE CONTRACTOR/INSTALLER SHALL EXERCISE DUE CAUTION DURING ALL EXCAVATION/FOUNDATION/DEMOLITION WORK.




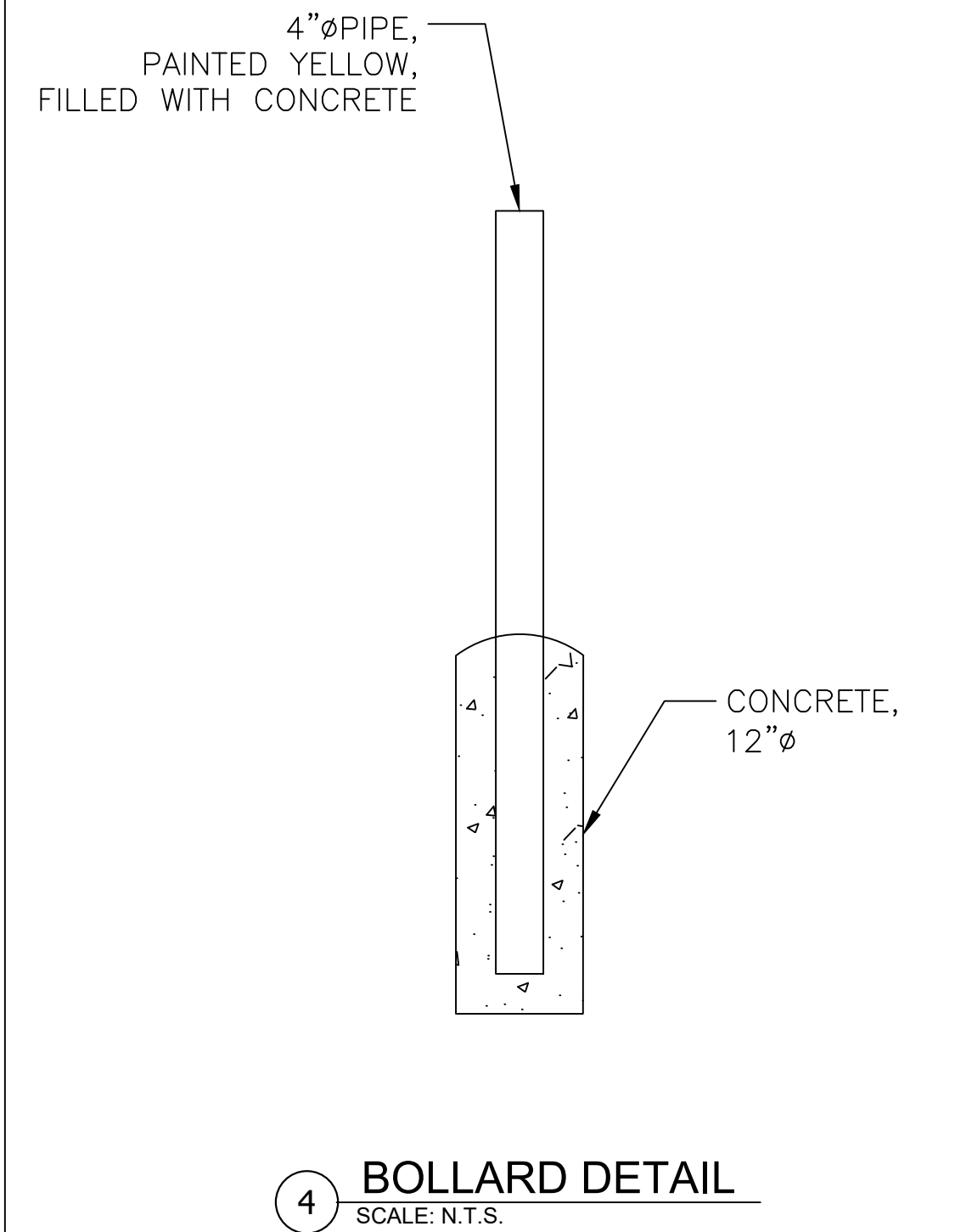
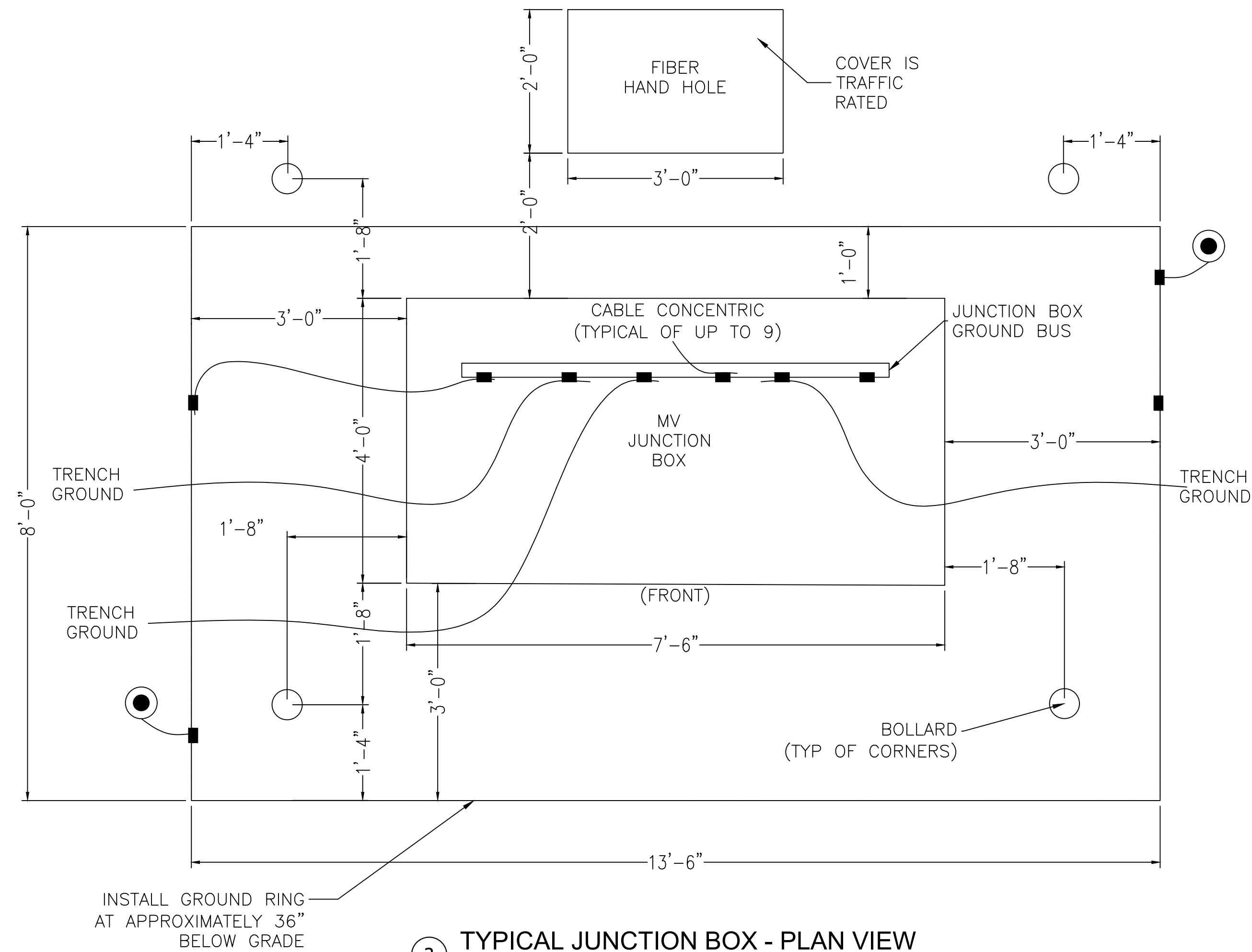
1 ROADWAY CROSSING DETAIL - ONE CIRCUIT (RC-1)
SCALE: N.T.S.



		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154		
REV	DESCRIPTION	DATE	DES	CHK	APP	
0	IFP SET	02/25/2022	AS	SJW	SJW	

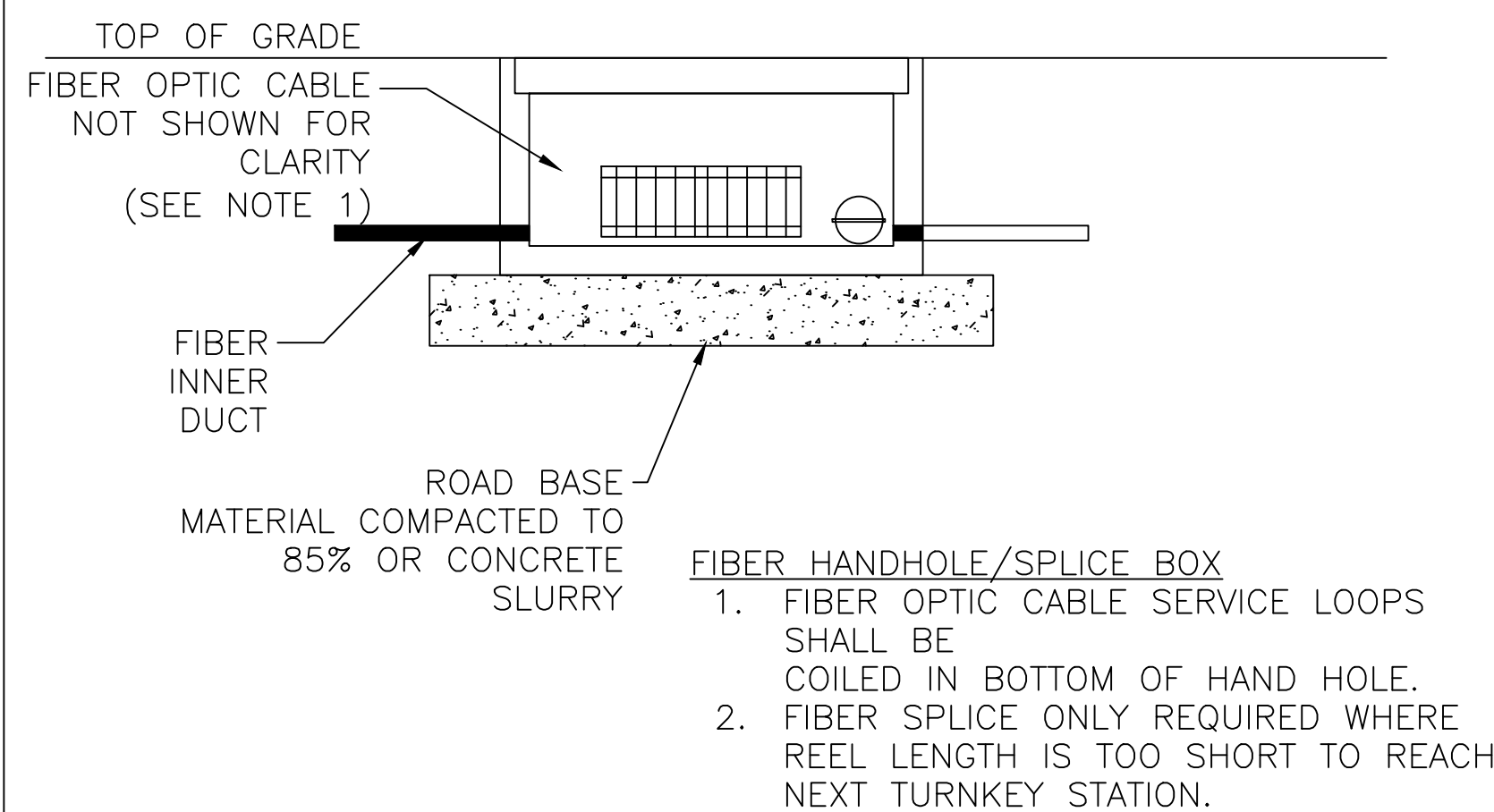


AS DESIGNED	TRENCH BORING AND CROSSING DETAILS		BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK		REV. 0
SJW DRAWN					
SJW CHECKED					
NAM APPROVED					
- REVIEW 1	7/21 DATE		C-600		
- REVIEW 2	AS NOTED SCALE				

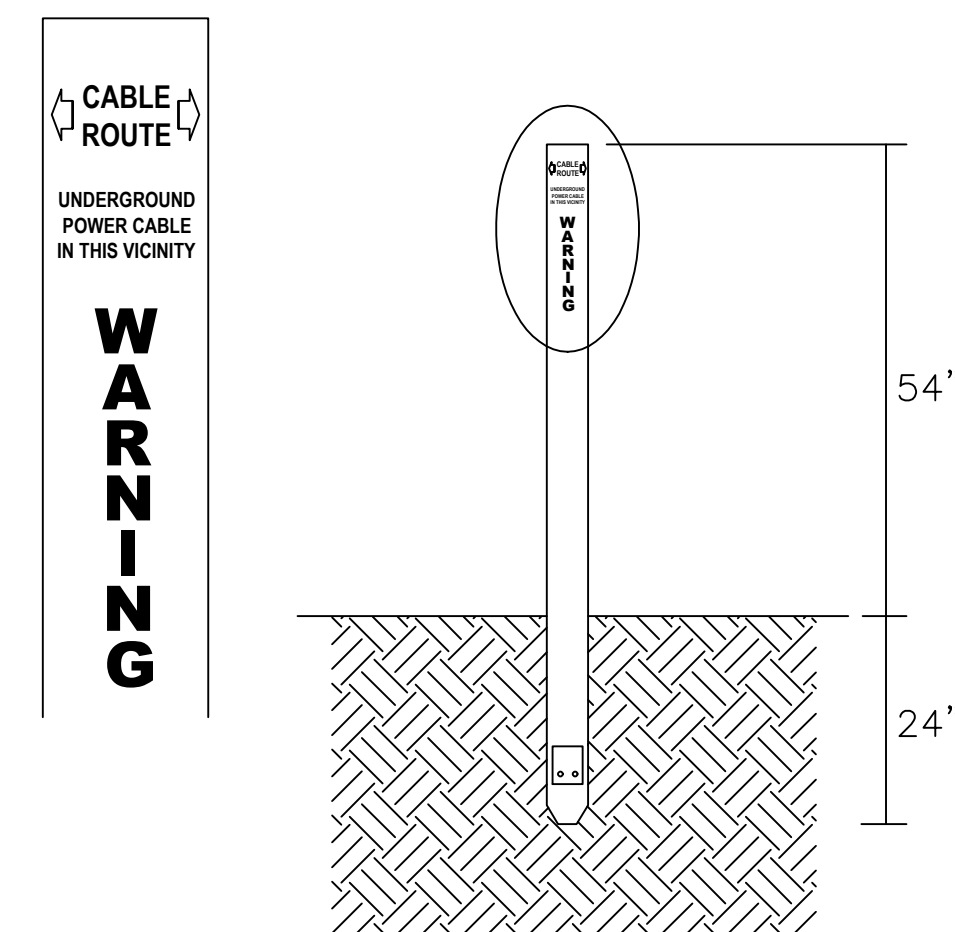


1 POWER CABLE SPLICE DETAIL
SCALE: N.T.S.

3 TYPICAL JUNCTION BOX - PLAN VIEW
SCALE: N.T.S.



2 FIBER HANDHOLE-SPLICE BOX
SCALE: N.T.S.

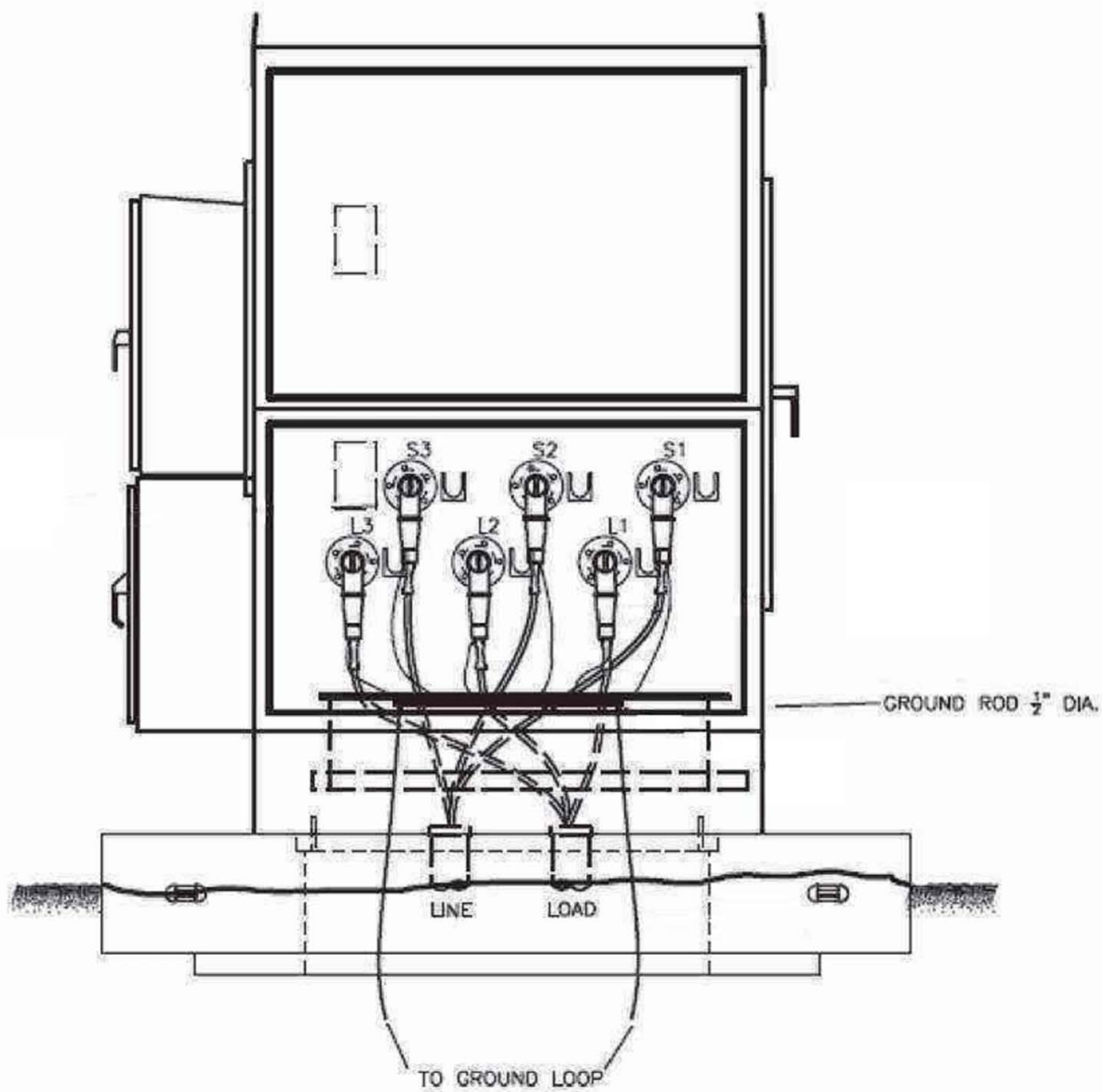


5 CABLE MARKER DETAIL

- GENERAL NOTES:
1. INSTALL IR VIEW PORT PER INSTALLATION INSTRUCTIONS FOR FLK-CLKT, IF POSSIBLE DISPLAY TO FACE ROADWAY
 2. INSTALL ONE FULL COIL OF SLACK MV CABLE FOR EACH CIRCUIT, EACH PHASE, 500 KCMIL CABLE SHALL BE COILED INSIDE JUNCTION BOX, 750 KCMIL AND LARGER CABLE SHALL BE COILED OUTSIDE OF JUNCTION BOX, PROVIDE 3M 1422-XR/ID BALL MARKER. INSTALL NO DEEPER THAN 5'-0" AT EACH LOOP. AT THESE LOCATIONS PROVIDE A CONDUIT PAVEWAY/RACK TO HELP PULL IN SLACK CABLE.
 3. ATTACH LABELS TO EACH CONDUCTOR IDENTIFYING PHASING AND CIRCUIT # OF THE CABLES. PROVIDE LABELS AT ENTRY AND EXIT.
 4. CABLE TERMINATIONS NEAREST TO SUBSTATION SHALL HAVE SINGLE WRAP PHASING TAPE, SIDE AWAY FROM SUBSTATION SHALL HAVE DOUBLE WRAP PHASING TAPE.
 5. THE FOLLOWING TAPE SHALL BE USED FOR PHASE INDICATION: RED TAPE FOR PHASE A, WHITE TAPE FOR PHASE B, AND BLUE FOR PHASE C.
 6. FINISHED GRADE SHALL BE 2" ABOVE WHERE JUNCTION BOX SECTIONALIZER ATTACH.


UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.





TYPICAL THREE PHASE PAD-MOUNTED RECLOSER








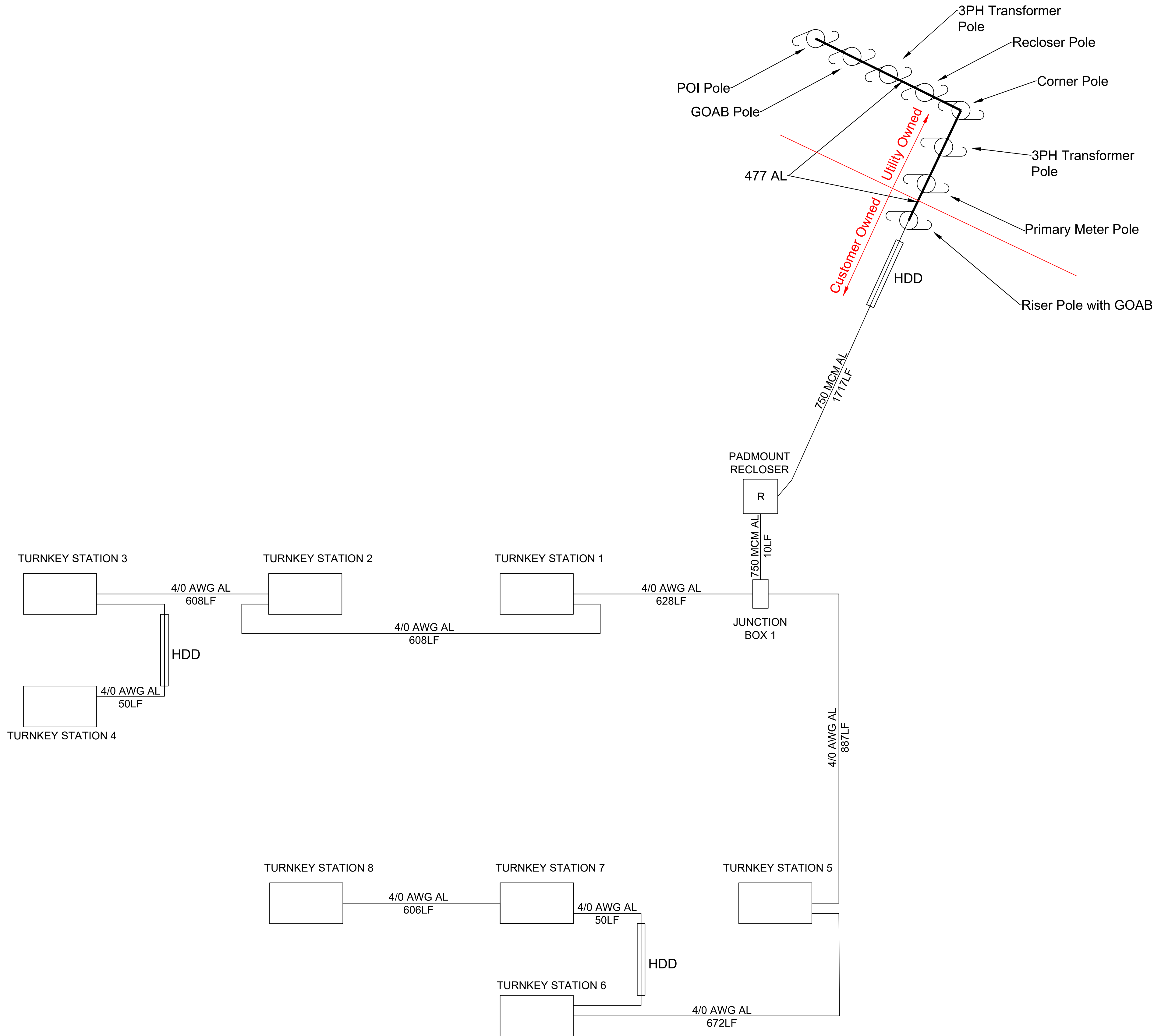
Adirondack
Park Agency

FINAL

P2022-0046

UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

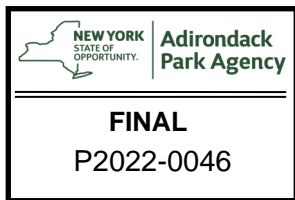
 <div>10 MAXWELL DRIVE CLIFTON PARK, NY 12065</div>						PROJECT NO: 444154				<div>AS DESIGNED</div> <div>SJW DRAWN</div> <div>SJW CHECKED</div> <div>NAM APPROVED</div>		RECLOSER DETAIL BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK			C-602	REV. 0
REV	DESCRIPTION	DATE	DES	CHK	APP	<div>- REVIEW 1</div> <div>- REVIEW 2</div>	<div>7/21 DATE</div> <div>AS NOTED SCALE</div>									
0	IFP SET	02/25/2022	AS	SJW	SJW											



LEGEND:

- PROPOSED INSTALL POLE
- 34.5kV OVERHEAD CONDUCTOR
- 34.5kV UNDERGROUND CABLE
- TURNKEY STATION TRANSFORMER INTEGRATED
- 34.5kV ABOVE GROUND JUNCTION BOX
- 38KV PADMOUNT RECLOSER G&W VIPER-S TYPE


NOTES:
1. ALL COLLECTION CIRCUITS OPERATED AT 34.5kV



UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154		
REV	DESCRIPTION	DATE	DES	CHK	APP	
0	IFP SET	02/25/2022	AS	SJW	SJW	



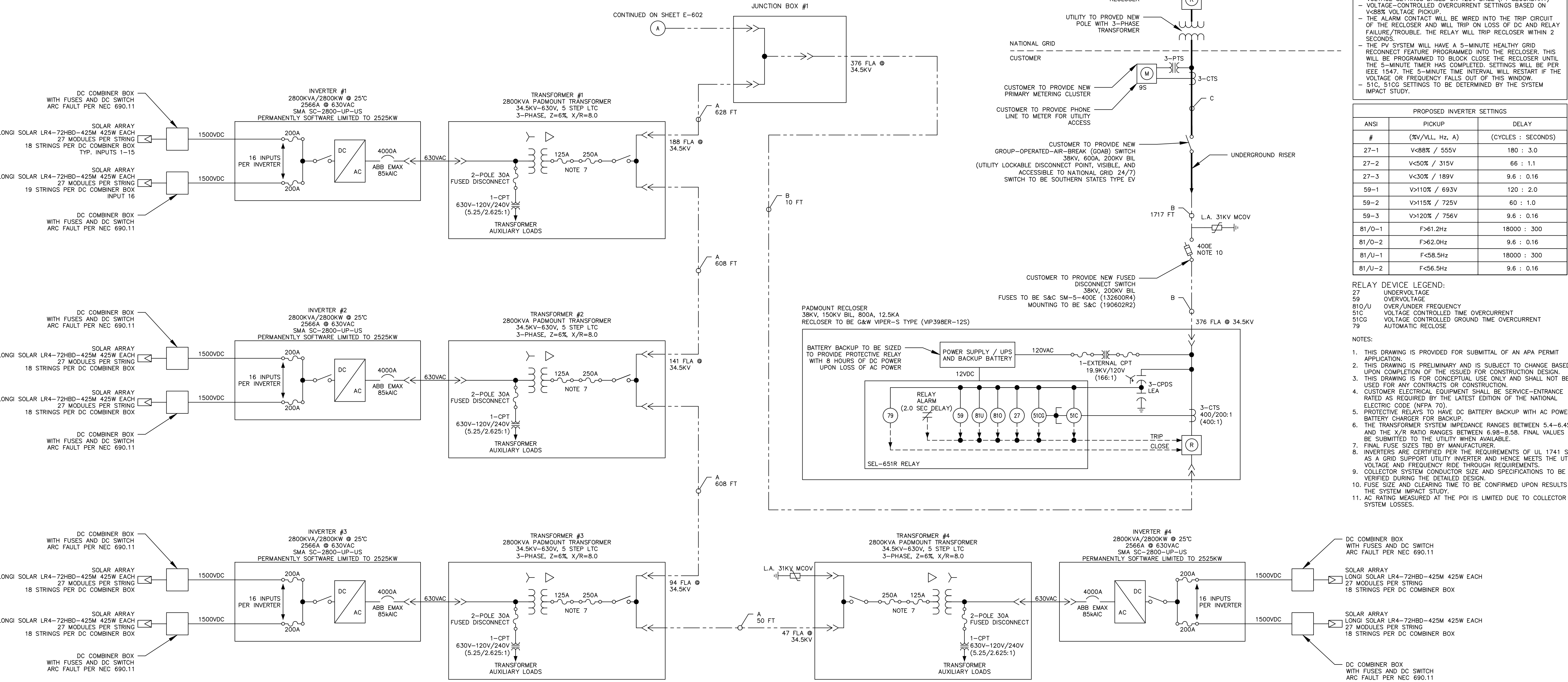
AS DESIGNED		COLLECTION ONE LINE DIAGRAM BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK		
S.J.W DRAWN				
S.J.W CHECKED				
NAM APPROVED				
- REVIEW 1	7/21 DATE		E-600	REV. 0
- REVIEW 2	AS NOTED SCALE			

CONDUIT & WIRE SCHEDULE			
NO.	DESCRIPTION	CONDUCTORS	CONDUIT
A	FEEDER CIRCUIT	3 X 4/0 AL 35KV DISTRIBUTION CABLE	N/A
B	FEEDER CIRCUIT	3 X 750 KCMIL AL 35KV DISTRIBUTION CABLE	N/A
C	PRIMARY SERVICE	3 X 477 ACSR 18/1 (PELICAN) PHASE CONDUCTORS	N/A

PV SYSTEM SPECIFICATIONS (THIS SHEET)		
PV MODULES	31,131 X LONGI SOLAR LR4-72HBD-425M 425W	
DC RATING AT STC	13,230.68 KW	
INVERTERS	(4) X SMA SC-2800 UP-US EACH PERMANENTLY SOFTWARE LIMITED TO 2525 KW	
AC RATING	10,000.00 KW	
DC/AC RATIO @ INVERTER	1.31	
DC/AC RATIO @ POI	1.32	

PV SYSTEM SPECIFICATIONS (TOTAL SYSTEM)		
PV MODULES	62,235 X LONGI SOLAR LR4-72HBD-425M 425W	
DC RATING AT STC	26,449.88 KW	
INVERTERS	(8) X SMA SC-2800 UP-US EACH PERMANENTLY SOFTWARE LIMITED TO 2525 KW	
AC RATING	20,000.00 KW	
DC/AC RATIO @ INVERTER	1.31	
DC/AC RATIO @ POI	1.32	

WARNING
THIS DRAWING HAS BEEN APPROVED BY A NEW YORK STATE PROFESSIONAL ENGINEER IN ACCORDANCE WITH NEW YORK EDUCATION LAW TITLE 8, ART. 145, PARA 7209. IT MUST NOT BE REVISED OR ALTERED IN ANY MANNER UNLESS AUTHORIZED BY A NYS LICENSED PROFESSIONAL ENGINEER.



PROPOSED SEL-651R RELAY SETTINGS		
ANSI #	PICKUP (%V/VLN, Hz, A)	DELAY (CYCLES : SECONDS)
27-1	V<88% / 105V	120 : 2.0
27-2	V<50% / 60V	66 : 1.1
59-1	V>110% / 132V	120 : 2.0
59-2	V>120% / 144V	9.6 : 0.16
81/O-1	F>61.2Hz	18000 : 300
81/O-2	F>62.0Hz	9.6 : 0.16
81/U-1	F<58.5Hz	18000 : 300
81/U-2	F<56.5Hz	9.6 : 0.16
51C	73A PRI	2.0TD U5 (V<88%)
51CG	55A PRI	3.0TD U4 (V<88%)

NOTES:

- SETTINGS INCLUDE 3 CYCLE ESTIMATED RECLOSER OPENING TIME.
- VOLTAGE SETTINGS BASED ON 120V BASE (PT SECONDARY)
- VOLTAGE-CONTROLLED OVERCURRENT SETTINGS BASED ON V<88% VOLTAGE PICKUP.
- THE ALARM CONTACT WILL BE WIRED INTO THE TRIP CIRCUIT OF THE RECLOSER AND WILL TRIP ON LOSS OF DC AND RELAY FAILURE/TROUBLE. THE RELAY WILL TRIP RECLOSER WITHIN 2 SECONDS.
- THE PV SYSTEM WILL HAVE A 5-MINUTE HEALTHY GRID RECONNECT FEATURE PROGRAMMED INTO THE RECLOSER. THIS WILL BE PROGRAMMED TO BLOCK CLOSE THE RECLOSER UNTIL THE 5-MINUTE TIMER HAS COMPLETED. SETTINGS WILL BE PER IEEE 1547. THE 5-MINUTE TIME INTERVAL WILL RESTART IF THE VOLTAGE OR FREQUENCY FALLS OUT OF THIS WINDOW.
- 51C, 51CG SETTINGS TO BE DETERMINED BY THE SYSTEM IMPACT STUDY.

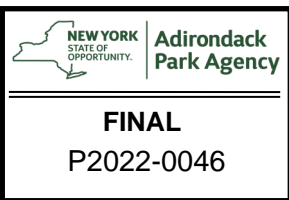
PROPOSED INVERTER SETTINGS		
ANSI #	PICKUP (%V/VLL, Hz, A)	DELAY (CYCLES : SECONDS)
27-1	V<88% / 555V	180 : 3.0
27-2	V<50% / 315V	66 : 1.1
27-3	V<30% / 189V	9.6 : 0.16
59-1	V>110% / 693V	120 : 2.0
59-2	V>115% / 725V	60 : 1.0
59-3	V>120% / 756V	9.6 : 0.16
81/O-1	F>61.2Hz	18000 : 300
81/O-2	F>62.0Hz	9.6 : 0.16
81/U-1	F<58.5Hz	18000 : 300
81/U-2	F<56.5Hz	9.6 : 0.16

RELAY DEVICE LEGEND:

27 UNDERVOLTAGE
59 OVERVOLTAGE
81/O/U OVER/UNDER FREQUENCY
51C VOLTAGE CONTROLLED TIME OVERCURRENT
51CG VOLTAGE CONTROLLED GROUND TIME OVERCURRENT
79 AUTOMATIC RECLOSURE

NOTES:

- THIS DRAWING IS PROVIDED FOR SUBMITTAL OF AN APA PERMIT APPLICATION.
- THIS DRAWING IS PRELIMINARY AND IS SUBJECT TO CHANGE BASED UPON COMPLETION OF THE ISSUED FOR CONSTRUCTION DESIGN.
- THIS DRAWING IS FOR CONCEPTUAL USE ONLY AND SHALL NOT BE USED FOR ANY CONTRACTS OR CONSTRUCTION.
- CUSTOMER ELECTRICAL EQUIPMENT SHALL BE SERVICE-ENTRANCE RATED AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC 70).
- PROTECTIVE RELAYS TO HAVE DC BATTERY BACKUP WITH AC POWERED BATTERY CHARGER FOR BACKUP.
- THE TRANSFORMER SYSTEM IMPEDANCE RANGES BETWEEN 5.4-6.4%, AND THE X/R RATIO RANGES BETWEEN 6.98-8.58. FINAL VALUES TO BE SUBMITTED TO THE UTILITY WHEN AVAILABLE.
- FINAL FUSE SIZES TBD BY MANUFACTURER.
- INVERTERS ARE CERTIFIED PER THE REQUIREMENTS OF UL 1741 SA AS A GRID-SUPPORT UTILITY INVERTER AND HENCE MEETS THE UTILITY VOLTAGE AND FREQUENCY RIDE THROUGH REQUIREMENTS.
- COLLECTOR SYSTEM CONDUCTOR SIZE AND SPECIFICATIONS TO BE VERIFIED DURING THE DETAILED DESIGN.
- FUSE SIZE AND CLEARING TIME TO BE CONFIRMED UPON RESULTS OF THE SYSTEM IMPACT STUDY.
- AC RATING MEASURED AT THE POI IS LIMITED DUE TO COLLECTOR SYSTEM LOSSES.



UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

TRC		10 MAXWELL DRIVE CLIFTON PARK, NY 12065	PROJECT NO: 444154			
REV	DESCRIPTION	DATE	DES	CHK	APP	
0	IFP SET	02/25/2022	AS	SJW	SJW	



AS DESIGNED	ELECTRIC ONE-LINE DIAGRAM	
SJW DRAWN	BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK	
SJW CHECKED		
NAM APPROVED		
7/21 DATE AS NOTED SCALE		E-601



REV.
0

CONDUIT & WIRE SCHEDULE			
NO.	DESCRIPTION	CONDUCTORS	CONDUIT
A	FEEDER CIRCUIT	3 X 4/0 AL 35KV DISTRIBUTION CABLE	N/A

WARNING

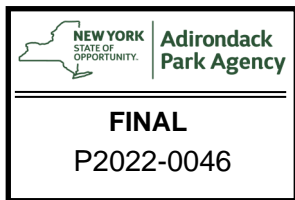
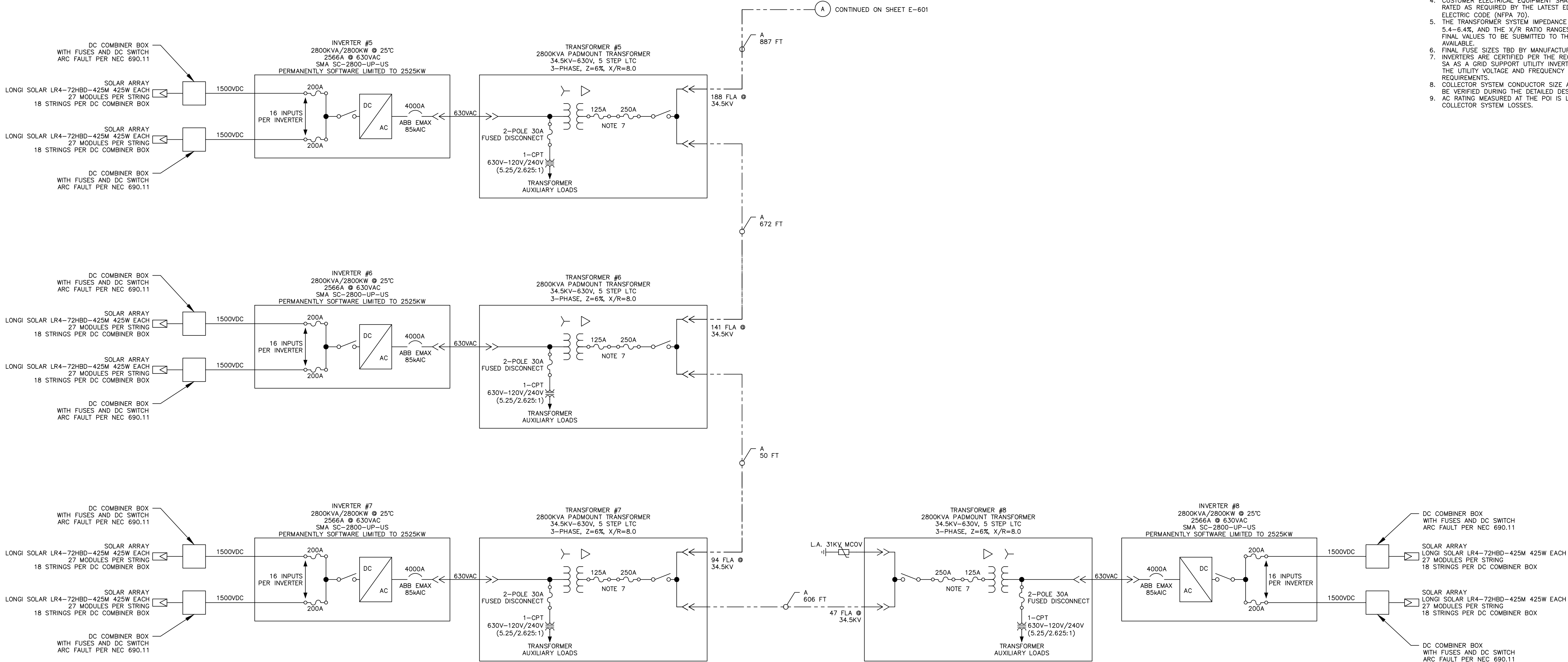
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PV SYSTEM SPECIFICATIONS (THIS SHEET)	
PV MODULES	31,104 X LONGI SOLAR LR4-72HBD-425M 425W
DC RATING AT STC	13,219.20 KW
INVERTERS	(4) X SMA SC-2800 UP-US EACH PERMANENTLY SOFTWARE LIMITED TO 2525 KW
AC RATING ^{NOTE 8}	10,000.00 KW
DC/AC RATIO @ INVERTER	1.31
DC/AC RATIO @ POI	1.32

PV SYSTEM SPECIFICATIONS (TOTAL SYSTEM)	
PV MODULES	62,235 X LONGI SOLAR LR4-72HBD-425M 425W
DC RATING AT STC	26,449.88 KW
INVERTERS	(8) X SMA SC-2800 UP-US EACH PERMANENTLY SOFTWARE LIMITED TO 2525 KW
AC RATING ^{NOTE 8}	20,000.00 KW
DC/AC RATIO @ INVERTER	1.31
DC/AC RATIO @ POI	1.32

PROPOSED INVERTER SETTINGS		
ANSI	PICKUP	DELAY
#	($\%V/VLL$, Hz, A)	(CYCLES : SECONDS)
27-1	V<88% / 555V	180 : 3.0
27-2	V<50% / 315V	66 : 1.1
27-3	V<30% / 189V	9.6 : 0.16
59-1	V>110% / 693V	120 : 2.0
59-2	V>115% / 725V	60 : 1.0
59-3	V>120% / 756V	9.6 : 0.16
81/O-1	F>61.2Hz	18000 : 300
81/O-2	F>62.0Hz	9.6 : 0.16
81/U-1	F<58.5Hz	18000 : 300
81/U-2	F<56.5Hz	9.6 : 0.16

- NOTES:
- THIS DRAWING IS PROVIDED FOR SUBMITTAL OF AN APA PERMIT APPLICATION.
 - THIS DRAWING IS PRELIMINARY AND IS SUBJECT TO CHANGE BASED UPON COMPLETION OF THE ISSUED FOR CONSTRUCTION DESIGN.
 - THIS DRAWING IS FOR CONCEPTUAL USE ONLY AND SHALL NOT BE USED FOR ANY CONTRACTS OR CONSTRUCTION.
 - CUSTOMER ELECTRICAL EQUIPMENT SHALL BE SERVICE-ENTRANCE RATED AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NFPA 70).
 - THE TRANSFORMER SYSTEM IMPEDANCE RANGES BETWEEN 5.4-6.4%, AND THE X/R RATIO RANGES BETWEEN 6.88-8.58. FINAL VALUES TO BE SUBMITTED TO THE UTILITY WHEN AVAILABLE.
 - FINAL FUSE SIZES TBD BY MANUFACTURER.
 - INVERTERS ARE CERTIFIED PER THE REQUIREMENTS OF UL 1741 SA AS A GRID SUPPORT UTILITY INVERTER AND HENCE MEETS THE UTILITY VOLTAGE AND FREQUENCY RIDE THROUGH REQUIREMENTS.
 - COLLECTOR SYSTEM CONDUCTOR SIZE AND SPECIFICATIONS TO BE VERIFIED DURING THE DETAILED DESIGN.
 - AC RATING MEASURED AT THE POI IS LIMITED DUE TO COLLECTOR SYSTEM LOSSES.



UNDER NEW YORK STATE EDUCATION LAW ARTICLE 145 (ENGINEERING), SECTION 7209 (2), IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

TRC		10 MAXWELL DRIVE CLIFTON PARK, NY 12065		PROJECT NO: 444154			
REV	DESCRIPTION	DATE	DES	CHK	APP		
0	IFP SET	02/25/2022	AS	SJW	SJW		



AS DESIGNED	ELECTRIC ONE-LINE DIAGRAM	
SJW DRAWN	BR BENSON MINES SOLAR PROJECT NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY CLIFTON, ST LAWRENCE COUNTY, NEW YORK	
SJW CHECKED		
NAM APPROVED		
7/21 DATE AS NOTED SCALE		E-602
		0

