NEW YORK STATE OF OPPORTUNITY. | Office of General Services | Design & Construction

ADDENDUM NO. 1 TO PROJECT NO. M3040

CONSTRUCTION WORK
PROVIDE UTILITY POLES, GROUP CAMP OFFICE
2216 SEVEN LAKES RD. TUXEDO NY

BEAR MOUNTAIN STATE PARK
PALISADES INTERSTATE PARK REGION,
ADMIN HDQTRS
BEAR MOUNTAIN, NY 10911

August 12, 2015

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

SPECIFICATIONS

1. SECTION 261901 UTILITY POLES: Discard the section bound in the project Manual and substitute the attached Section (pages 261901-1 thru 261901-7) noted "SECTION 261901-A1".

2. SECTION 311000 SITE CLEARING: Discard the section bound in the project Manual and substitute the attached Section (page 311000-1) noted "SECTION 311000-A1".

3. SECTION 321216 ASPHALT CONCRETE PAVING: Discard the section bound in the project Manual and substitute the attached Section (pages 321216-1 and 321216-2) noted "SECTION 321216-A1".

DRAWINGS

4. DRAWING C-502: Detail 9 - ACCESS ROAD PAVEMENT, ASPHALT PAVING, noted "REVISED DETAIL 9 – A1" accompany this Addendum and supersede the same detail originally issued.

5. DRAWING C-502: Detail 2 – UTILITY POLES, CLASS CHART: Change Class selection from Class 4 to Class 2.

END OF ADDENDUM

Margaret F. Larkin
Executive Director
Design and Construction

SECTION 261901-A1

UTILITY POLES

PART 1 GENERAL

1.01 REFERENCES

A. Orange and Rockland Utilities, Inc., Standard No. C-01-002

B. Orange and Rockland Utilities, Inc., "Class Chart for Douglas Fir and Southern Yellow Pine Poles"

Note: In the event of any discrepancies between this specification and the latest versions of the Orange and Rockland Utilities referenced standards, the Orange and Rockland Utilities standards shall control.

1.02 SUBMITTALS

A. Product Data: Manufacturers catalog sheets, certifications and specifications.

1.03 PROJECT CONDITIONS

A. All Work adjacent to existing active utility lines shall be in accordance with all OSHA and Orange & Rockland Utilities requirements.

PART 2 PRODUCTS

2.01 MATERIALS

A. Utility Poles: Conform to Orange & Rockland Utilities requirements for 40' ~~Class 4 poles~~ Penta-treated Class 2 poles. See 'Class Chart' attached to end of this specification.
   1. Type of Wood: Douglas Fir or Yellow Southern Pine
   2. Minimum Circumference at Top: ~~21~~ 25 inches
   3. Minimum Circumference measured 6 feet from Butt: ~~33.5~~ 38.5 inches

B. Anchors: Conform to Orange & Rockland Utilities requirements for anchoring materials. Contractor shall include in his bid the furnishing, installation and pole attachment of 50 anchors at locations directed by Orange and Rockland and/or as required

PART 3 EXECUTION

3.01 INSTALLATION

A. Location:
   1. Utility poles shall be installed at locations shown on the Plans and within a 3-foot radius of the existing pole(s). All efforts shall be made to install new poles in-line with the existing power line, in order to minimize number of required anchors.

2. At locations where existing poles will not be replaced and the power line will span between new poles on either side, two anchors will be required on each of the two new poles.

B. Hole Preparation:
   1. In Soil: Use auger to prepare hole. Holes shall be large enough to permit free entrance of the pole without cutting down its normal circumference at the butt, and of sufficient size to permit tamping throughout its entire length.
   2. In Rock: Core drill rock to prepare hole. Holes shall be large enough to permit free entrance of the pole without cutting down its normal circumference at the butt, and of sufficient size to permit tamping throughout its entire length.
   3. Depth: Depth of Hole shall be as described in Orange and Rockland Utilities, Inc., Standard No. C-01-002.

C. Pole Setting:
   1. Poles shall be set plumb in the prepared holes.
   2. Holes shall be backfilled with either material removed during the preparation of the hole, or with on-site soil material approved for this use by the Directors Representative. Backfill shall be placed in 12-inch loose layers and tamped on all sides. Continue backfill operations until hole is filled. Assure that the pole is plumb at the end of the backfilling operations.

C-01-002 Sht 2

GENERAL SETTING DEPTH FOR POLES

BACKFILLING:

BACKFILL HOLE WITH THE COMPANY APPROVED MATERIAL (ITEM 4). THE BACKFILL MUST BE WELL TAMPED AND COMPACTED IN LAYERS NOT EXCEED A MAXIMUM OF 12 INCHES.

WEIGHT LIMITS ON POLE CLASSES:

LIMITATION CHART: MAXIMUM WEIGHT OF ANY 3 TRANSFORMER CLUSTER					
POLE LENGTH IN FEET	MINIMUM MOUNTING DISTANCE FROM POLE TOP IN FEET	POLE CLASS			
		1	2	3	4
		MAXIMUM WEIGHT IN POUNDS ON SOUTHERN PINE POLES			
30	5	9,350	6,950	5,200	3,400
	7	10,700	8,600	6,500	4,350
35	5	8,700	6,200	4,600	2,800
	7	9,600	7,800	5,600	3,700
40	5	7,300	5,450	3,600	2,200
	7	8,700	6,500	4,500	2,750
	9	10,100	7,650	5,550	3,400
45	5	6,250	4,850	2,800	1,600
	7	7,500	5,550	3,300	2,200
	9	8,650	6,650	4,450	2,900
50	5	5,350	3,450	2,150	1,200
	7	6,700	4,400	2,700	1,800
	9	7,800	5,000	3,500	2,250

LIMITATION CHART: MAXIMUM WEIGHT OF UP TO 3-500KVA TRANSFORMER CLUSTER						
POLE LENGTH IN FEET	POLE CLASS					
	H-6	H-5	H-4	H-3	H-2	H-1
	MINIMUM POLE CIRCUMFERENCE IN INCHES, MEASURED 9 FEET FROM POLE TOP					
	43 ½	41 ½	39	37	35	33
	MAXIMUM WEIGHT IN POUNDS ON SOUTHERN PINE POLES. INSTALL ALL CLUSTER MOUNTS AT: **9 FOOT** DISTANCE FROM THE POLE TOP.					
40			▶ 23,445	▶ 18,225	▶ 13,815	11,250
45	▶ 27,045	24,150	19,050	14,650	10,850	7,450
50	22,750	18,400	13,950	10,550	7,550	4,850
55	18,150	13,950	10,650	7,650	4,950	3,050
60	14,150	10,650	7,750	5,450	3,250	1,450

NOTES:

1. THE MAXIMUM WEIGHT APPLIES TO THREE TRANSFORMERS; CLUSTER MOUNTED 110° APART ON A SINGLE POLE. IT IS APPLICABLE TO STEP DOWN AND VOLTAGE REGULATOR INSTALLATIONS. IN A THREE PHASE STEP DOWN INSTALLATION, THE CENTER OF THE TRANSFORMER IS MOUNTED INLINE WITH THE PRIMARY CONDUCTOR.
2. FOR SINGLE TRANSFORMER INSTALLATIONS, DIVIDE TABLE WEIGHT BY 2. UTILIZE THE BRACKET'S TOP MOUNTING HOLE FOR DISTANCE FROM THE POLE TOP
3. THE MOUNTING DISTANCE IS FROM THE TOP OF THE POLE, TO THE CENTER LINE OF THE MOUNTING HOLE.
4. WHEN THE WEIGHT DIFFERS BETWEEN EACH TRANSFORMER IN A CLUSTER MOUNT, USE THE APPROPRIATE POLE CLASS FOR THE HEAVIEST TRANSFORMER.
5. REFERENCE MATERIAL STANDARD M-2-2 FOR POLE SPECIFICATIONS, MEASUREMENT PRACTICES AND MINIMUM REQUIREMENTS.

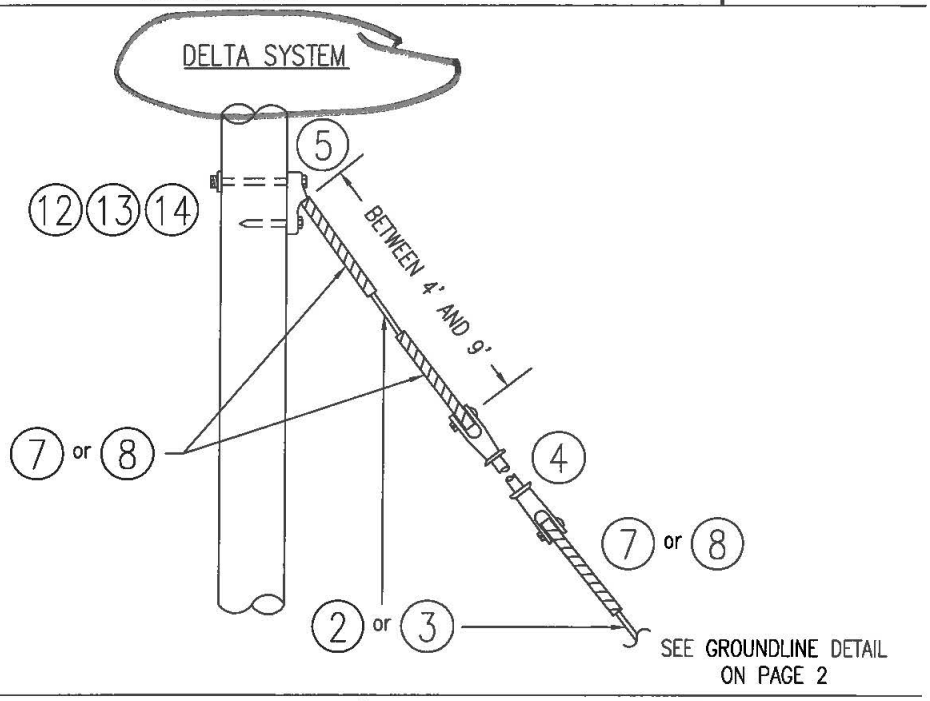
ORANGE AND ROCKLAND UTILITIES, INC.

STANDARD NO.
C-01-053
SHEET
1 OF 3

ELECTRIC DISTRIBUTION STANDARDS

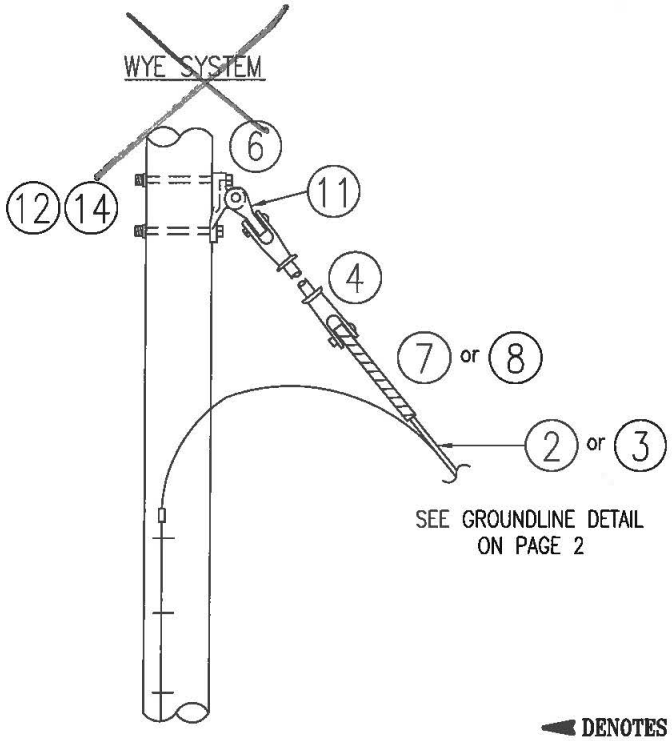
ANCHOR GUYS

C-01-053.1



SEE GROUNDLINE DETAIL ON PAGE 2

C-01-053.2



SEE GROUNDLINE DETAIL ON PAGE 2

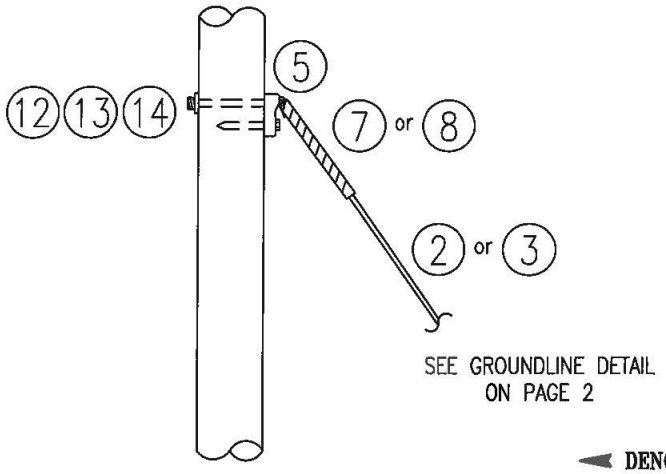
◄ DENOTES LATEST REVISION

STANDARDS ENGINEER	CHIEF DISTRIBUTION ENGINEER	ELECTRIC OPERATIONS	ISSUE
Christopher Gonzales — Digitally signed by Christopher Gonzales DN: cn=Christopher Gonzales, o=Distribution Engineering, ou=Standards Engineer, email=gonzalesc@oru.com, c=US Date: 2015.01.08 17:08:58 -05'00'	Wayne Banker — Digitally signed by Wayne Banker DN: cn=Wayne Banker, o=Distribution Engineering Dept., ou=Distribution Standards, email=bankerw@oru.com, c=US Date: 2015.01.16 11:20:41 -05'00'	Patrick Burke — Digitally signed by Patrick Burke DN: cn=Patrick Burke, o=Electric Operations, ou, email=burkep@oru.com, c=US Date: 2015.04.04 09:56:35 -04'00'	6
			DATE 4/6/2015

STANDARD NO.	ORANGE AND ROCKLAND UTILITIES, INC.
C-01-053	ELECTRIC DISTRIBUTION STANDARDS
SHEET 2 OF 3	ANCHOR GUYS

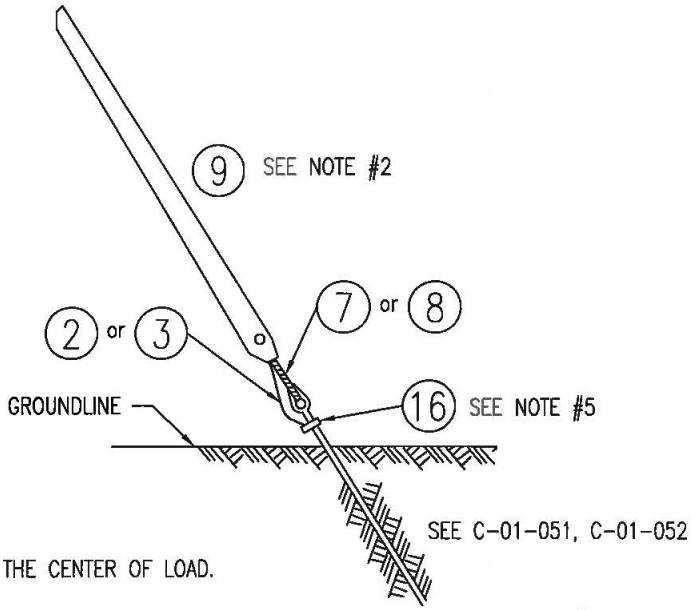
C-01-053.3

NEUTRAL/SECONDARY GUYS



◄ DENOTES LATEST REVISION

GROUNDLINE DETAIL



NOTES (APPLICABLE TO ENTIRE STANDARD):

1. ATTACH GUY AS NEAR AS PRACTICAL TO THE CENTER OF LOAD.
2. ALWAYS INSTALL GUY GUARDS.
3. SEE CONSTRUCTION STANDARD C-01-059 FOR DETAILS ON FIBER REINFORCED POLYMER INSULATOR (GUY STRAIN INSULATOR).
4. GUY WIRE SHALL BE BONDED TO SYSTEM NEUTRAL, USUALLY VIA POLE GROUND DOWNLEAD, EXCEPT ON DELTA PRIMARY SYSTEM.
5. ►THE GUY WIRE SHALL BE GROUNDED TO THE ANCHOR ROD VIA THE ANCHOR ROD GROUND CLAMP ON ALL NEW INSTALLATIONS; IT IS DESIRABLE TO HAVE EXISITNG FIELD INSTALLATIONS MEET THIS REQUIREMENT, BUT IT IS NOT REQUIRED (ALSO SEE C-01-050, NOTE #5).
6. MORE INFORMATION ON GUYING, INCLUDING STRENGTH LISTINGS, FORMULAS, CALCULATIONS, AND AN INTERACTIVE GUY SELECTOR (SPREADSHEET FORMAT) CAN BE FOUND ON THE ORU INTRANET:
   EMPLOYEES & ORGANIZATIONS/DEPARTMENT SITES/OPERATIONS/DISTRIBUTION ENGINEERING/ USEFUL ENGINEERING DATA/INSTRUCTIONS (LINK IS LOCATED IN 3RD ROW DOWN)
   AND,
   EMPLOYEES & ORGANIZATIONS/DEPARTMENT SITES/OPERATIONS/DISTRIBUTION ENGINEERING/ USEFUL ENGINEERING DATA/GUY STRENGTH CALCULATOR (LINK IS LOCATED IN 3RD ROW DOWN)

ITEM	STANDARD NUMBER	QUANTITY C-01-053.1	QUANTITY C-01-053.2	QUANTITY C-01-053.3	DESCRIPTION	C&S NUMBER	OLD M&S NUMBER
1	EO-23	N/A	#	#	#2 CU CONDUCTOR FOR POLE GROUND	5640802	
2	EO-25	#	#	#	GUY WIRE, 7#7	0820008	
3	EO-26	#	#	#	GUY WIRE, 7#9	0820009	
4	EO-100,171	1	1	1*	78" FIBER REINFORCED POLYMER STRAIN INSULATOR	5970051	
5	M-5-1.01	1	N/A	1	GUY HOOK	0070113	
6	M-5-1.02	N/A	1	N/A	GUY PLATE	0070154	
7	M-5-8.02	4*	2*	2*	ALUMOWELD GUY GRIP DEAD END, 7#7	0079951	
8	M-5-8.03	4*	2*	2*	ALUMOWELD GUY GRIP DEAD END, 7#9	0079952	
9	M-5-10.08	1	1	1	PLASTIC GUY GUARD, YELLOW	0070157	
10	M-6-12.XX	#	#	#	COMPRESSION CONNECTOR	5710XXX	
11	M-8-10.02	N/A	1	N/A	90° CLEVIS	0070153	
12	M-8-14.XX	1	2	1	MACHINE BOLT, 3/4" x XX"	03500XX	
13	M-8-15.04	1	N/A	1	LAG SCREW, 1/2" x 4"	0070121	
14	M-8-16.07	1	2	1	SQUARE CURVED WASHER FOR 3/4" MACHINE BOLT	0070179	
15	M-9-3.01	#	#	#	STAPLES	0320009	
16	M-9-4.02	#	1*	1*	ANCHOR ROD GROUND CLAMP	0070085	

MATERIAL AS LISTED IN THE FOLLOWING CONSTRUCTION STANDARDS

	C-01-007			POLE IDENTIFICATION MARKINGS
	C-01-050			GUYING INFORMATION
	C-01-059			GUY STRAIN INSULATOR INSTALLATION
	C-01-101			STANDARD GROUNDING INSTALLATION (WHEN APPLICABLE)

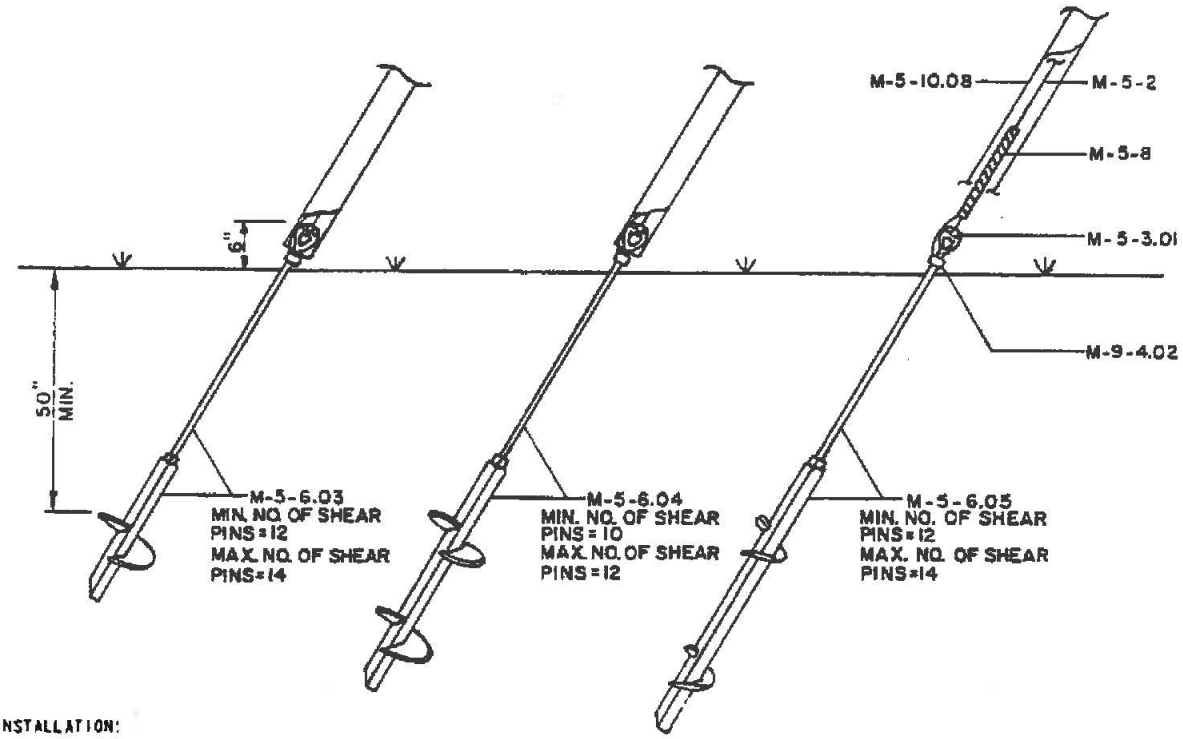
► DENOTES REVISION

* WHEN REQUIRED
\# QUANTITY AS REQUIRED
XX MISSING DIGITS ARE DETERMINED BY THE TYPE, SIZE OR LENGTH OF THIS ITEM

ORANGE AND ROCKLAND UTILITIES, INC. | C-01-060 SH. 1 of 3

ELECTRIC DISTRIBUTION STANDARDS

POWER INSTALLED SCREW ANCHOR INSTALLATION



INSTALLATION:

1. POSITION DIGGER SO THE BOOM IS IN ALIGNMENT WITH THE ANCHOR STAKE AND THE PROPOSED POINT OF GUY ATTACHMENT ON THE POLE. CORRECT ALIGNMENT PREVENTS BENDING THE ANCHOR ROD WHEN THE GUY STRAND IS INSTALLED.
2. INSTALL MAXIMUM RECOMMENDED NUMBER OF SHEAR PINS (STD. NO. M-5-3.06· M&S CODE NO. 948090) IN TORQUE INDICATOR AS SHOWN ABOVE.
3. INSERT THE ANCHOR ROD INTO THE WRENCH SO THAT THE HEX COLLAR ON TOP OF THE ROD IS TRAPPED BY THE LOCKING "DOGS" AT THE UPPER END OF THE WRENCH. THE LOWER PART OF THE WRENCH ENGAGES THE HUB OF THE ANCHOR HELIX.
4. POSITION THE ANCHOR AND START INSTALLATION. KEEP DOWN PRESSURE ON THE ANCHOR AT ALL TIMES TO PREVENT "CHURNING" THE EARTH. PROPER FEED IS 2½" PER REVOLUTION.

   IT MAY BE NECESSARY TO REMOVE A FEW INCHES OF EARTH OR START THE ANCHOR AT A STEEP ANGLE TO PREVENT THE HELIX FROM "WALKING". IF THE WRENCH ANGLE IS CHANGED TO GET A BITE, CORRECT THE ALIGNMENT AS SOON AS THE ANCHOR STARTS TO DIG IN.
5. STOP INSTALLATION WHEN THE LOCKING "DOGS" ARE ABOUT 12" ABOVE GROUND LINE. REMOVE PINS FROM THE TORQUE INDICATOR UNTIL THE MINIMUM RECOMMENDED NUMBER OF PINS REMAIN. DRIVE ANCHOR UNTIL LOCKING "DOGS" ARE ABOUT 6" ABOVE GROUND. AT ABOUT THIS POINT THE PINS SHOULD SHEAR COMPLETING THE INSTALLATION. IF MORE THAN 7' IS NEEDED TO REACH GOOD HOLDING SOIL INSTALL AN EXTENSION ROD (STD. NO. M-5-3.02: M&S CODE NO. 286090) AND CONTINUE INSTALLATION. WHEN SCREWING THE EXTENSION ON THE ROD, TIGHTEN THE THREADS SO THEY ARE SECURE BUT NOT BOTTOMED. THIS WILL PROVIDE MORE FREEDOM FOR FINAL ALIGNMENT OF THE EYE.
6. RELEASE THE LOCKING DOGS AND REMOVE THE WRENCH.
7. SCREW THE TRIPLEYE ANCHOR EYE (STD. NO. M-5-3.01; M&S CODE NO. 947098) ON TO THE ROD AND ALIGN THE HOLE PARALLEL WITH THE GROUND.
8. REPLACE ANY DIRT OR SOD WHICH WAS REMOVED PRIOR TO INSTALLATION.
9. INSTALL REMAINING REQUIRED GUYING EQUIPMENT.

STD. ENGR.	ELEC. ENGR.	ISSUE
OPERATIONS	SAFETY	DATE

END OF SECTION

SECTION 311000-A1

SITE CLEARING

PART 1 GENERAL

1.01 REGULATORY REQUIREMENTS

A. Site Clearing operations shall not be performed in areas shown on the Plans as wetlands.

PART 2 PRODUCTS - None

PART 3 EXECUTION

3.01 PREPARATION

A. Protection
   1. Prevent damage to pavement, pipes, conduits, poles and other structures above and below ground that are adjoining or included in the contract area. Repair damage resulting from the contractor's negligence.
   2. Protect existing trees and shrubs not to be removed. Cut back to point of branching all broken branches and skinned areas.
   3. Store materials and equipment in cleared areas away from tree roots. Prevent employees and equipment from trampling over woodland, existing planting, and established lawns.

3.02 REMOVALS

A. Remove all tree and shrub growth for a distance of 15 feet on both sides of the power line. All woody material shall be chipped and left on-site. Tree stumps may be left in place.

B. Remove all dead tree and shrub growth where in conflict with the proposed access road.

C. Before removing living tree and shrub growth that is in conflict with the proposed access road and/or within the Grading Limit Line, review proposed access road alignment with Directors Representative for possible alignment adjustment.

D. Top and limb all trees before felling, unless otherwise approved by the Director's Representative.

3.03 CLEAN UP

A. Dispose of all diseased Elmwood within 4 days after cutting by burning or by other methods approved by the Department of Environmental Conservation.

B. All logs, tree trimmings, and debris may be chipped and left on-site at locations determined by the Directors Representative. Leave Work area in a neat uncluttered condition.

END OF SECTION

SECTION 321216-A1

ASPHALT PAVING (RECYCLED ASPHALT MILLINGS)

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

A. Earthwork: Section 310000.

1.02 SUBMITTALS

A. Not applicable. Millings shall be supplied by the Project Owner.

1.03 PROJECT CONDITIONS

A. Asphalt Millings:
   1. Project Owner has arranged for Asphalt Millings to be stored within Harriman State Park for use on this project. The Asphalt Millings are located at the Sebago Beach Area. Sebago Beach is located 1.6 miles south and 0.4 miles west of the Kanawauke Circle. Kanawauke Circle is the intersection of Seven Lakes Drive and Kanawauke Road, near the southern terminus of the Project.
   2. Contractor shall be responsible for:
      a. Retrieving the Asphalt Millings from the storage area.
      b. Installation of the Asphalt Millings in accordance with the Plans and Specifications.
      c. Maintaining the Asphalt Millings storage area during construction.

B. Environmental Requirements:
   1. Do not place asphalt on wet surfaces, or when weather conditions otherwise prevent the proper handling or finishing of bituminous mixtures as determined by the Director's Representative.

PART 2 PRODUCTS

2.01 MATERIALS

A. Recycled Asphalt:
   1. Recycled asphalt shall be in accordance with Section 304 of the New York State Department of Transportation Standard Speciation
   2. Bituminous material shall be reclaimed from bituminous pavement and/or shoulders (Reclaimed Asphalt Pavement, or RAP) from a project constructed by the Department of Transportation or public municipality.
   3. Material shall be well-graded from course to fine and free from organic or other deleterious material, including tar. This material is at least 95 percent, by weight, reclaimed bituminous material and has a maximum top size, at time of placement, of 2 inches. The graduation requirements

for do not apply when the material consists of RAP. No soundness or Plasticity Index testing will be required.

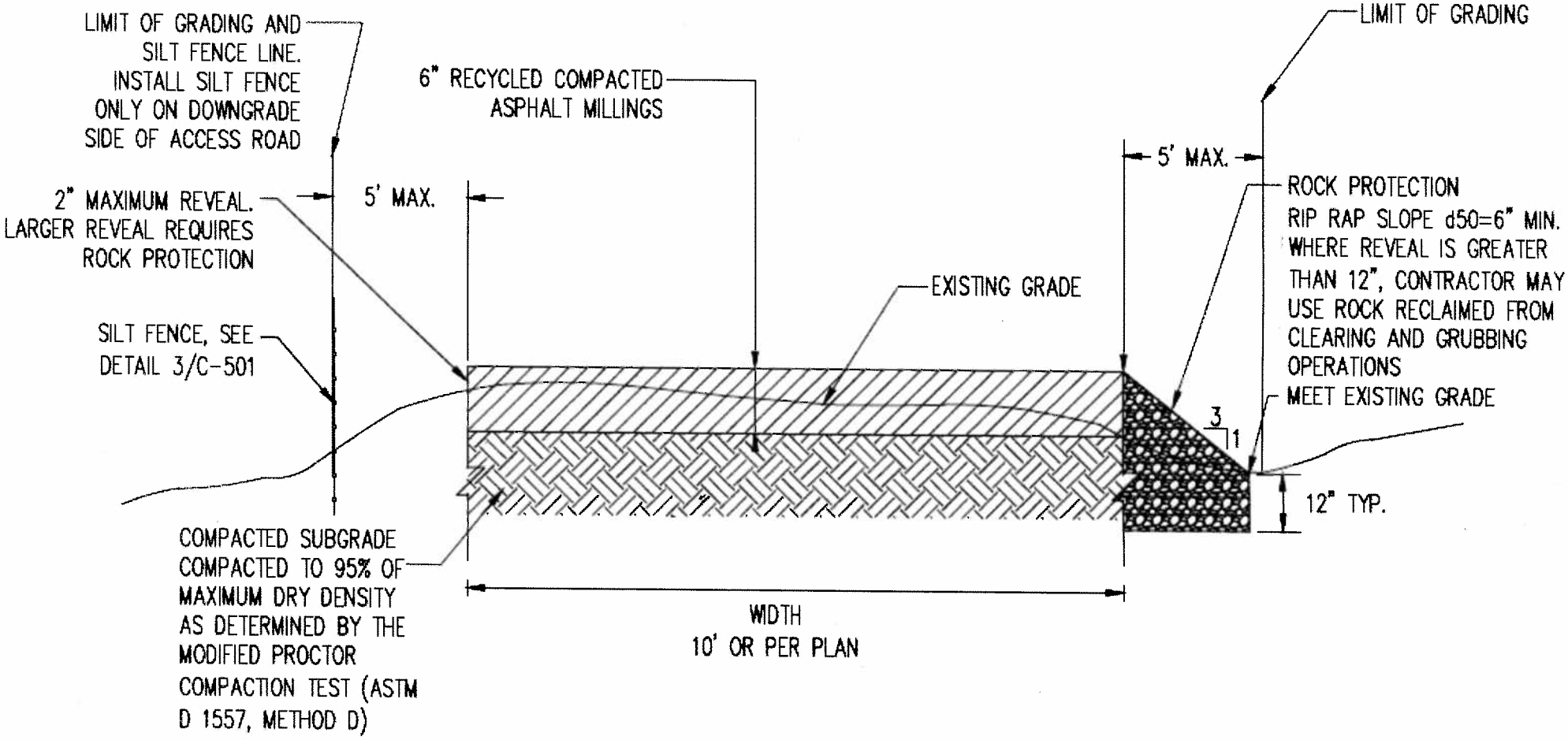
4. If this material becomes unstable during construction, it may be necessary to add a mixture of natural suitable material to the RAP. Acceptance of the final product shall be based on an evaluation by the Regional Geotechnical Engineer.
5. Provide written documentation that the reclaimed bituminous material originated on a Department of Transportation project or other public agency project. Include an identifier, such as State Highway, Construction Contract or Project Identification Number

PART 3 EXECUTION

3.01 ASPHALT CONCRETE PAVING

A. Construct asphalt directly on prepared subgrade. Spread recycled asphalt pavement millings and compact with 10-ton static roller in single lift to the compacted thickness as shown on the Plans.

END OF SECTION



9
C-502

ACCESS ROAD PAVEMENT
ASPHALT MILLINGS

N.T.S.

REVISED DETAIL 9 –A1