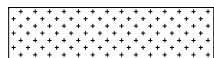


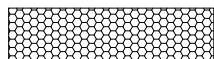
LEGEND



WETLAND MOSAIC MODERATE VALUE (PROPOSED IMPACT AREA)



WETLAND MODERATE/LOW VALUE (PROPOSED IMPACT AREA)



WETLAND MODERATE VALUE (PROPOSED IMPACT AREA)



WETLAND HIGH VALUE (PROPOSED IMPACT AREA)



CLASS I/II - ANADROMOUS/RESIDENT FISH



CLASS III - NON-FISH BEARING



EXISTING ROAD



PROPOSED ROAD



PROPOSED DAYLIGHT LIMITS (CUT AND FILL LIMITS)

FP

FISH PASSAGE STRUCTURE

PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

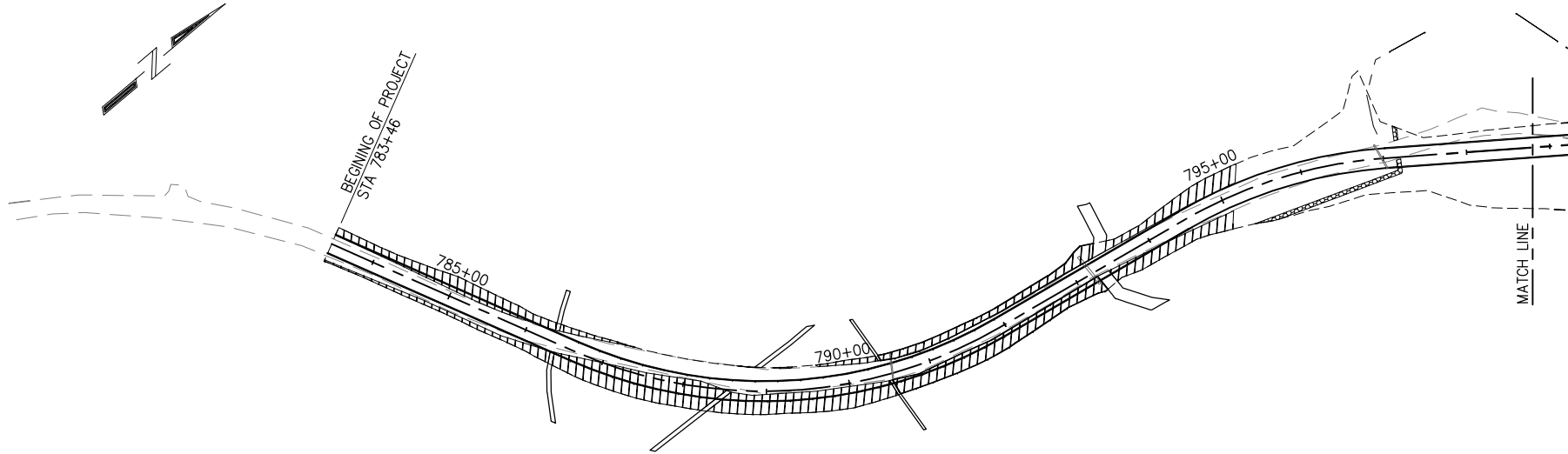
SHEET: 2 of 33

DATE: REV.2 1/17/13

0 50 100 200 300 FT.



KEY MAP



PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

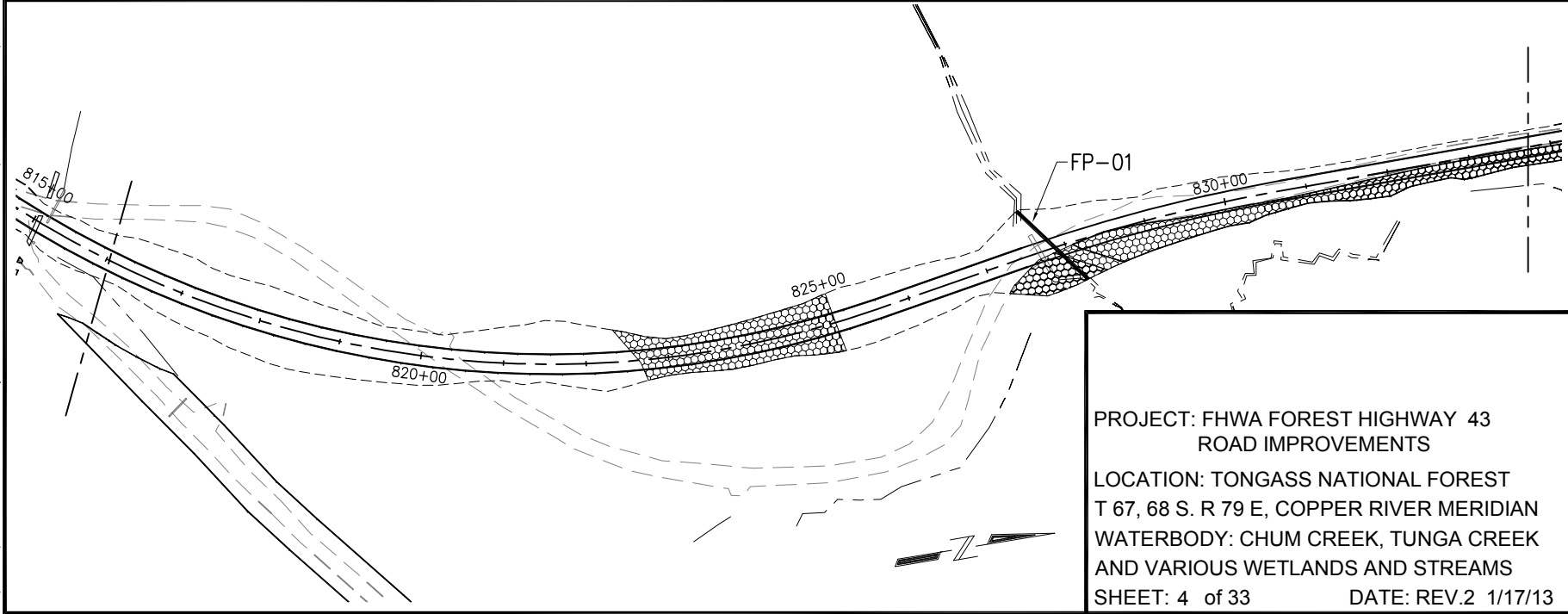
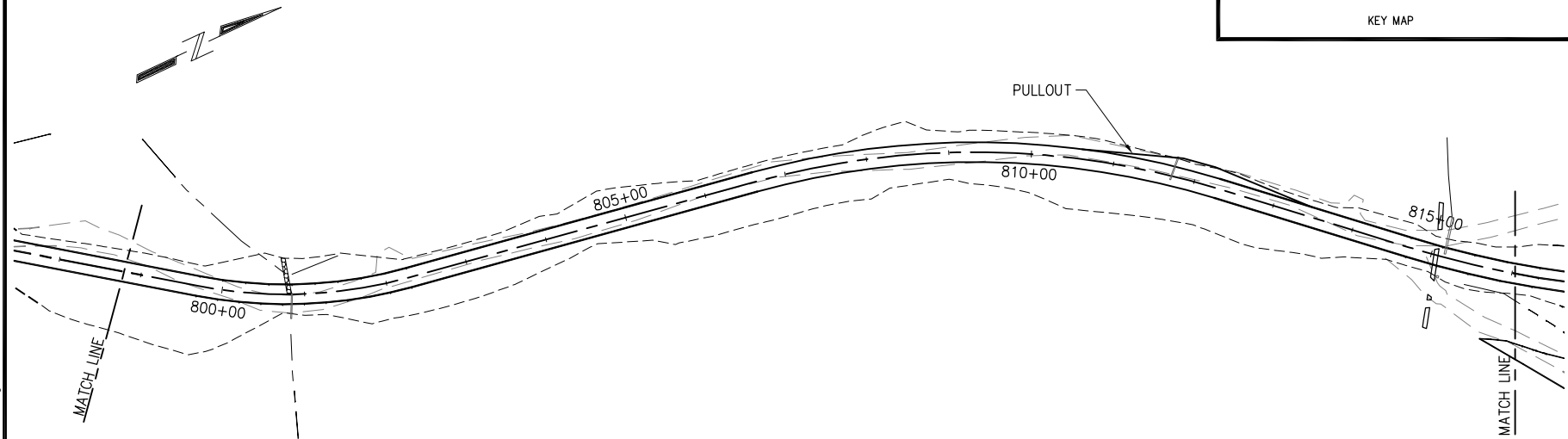
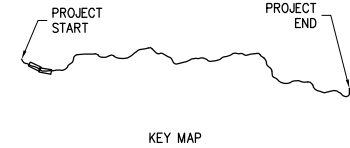
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 3 of 33

DATE: REV.2 1/17/13

K:\2012\121088 - FH43 Deweyville Trailhead to Neck Lake\Permits-Rev_2\03-30 - Layouts.dwg

0 50 100 200 300 FT.

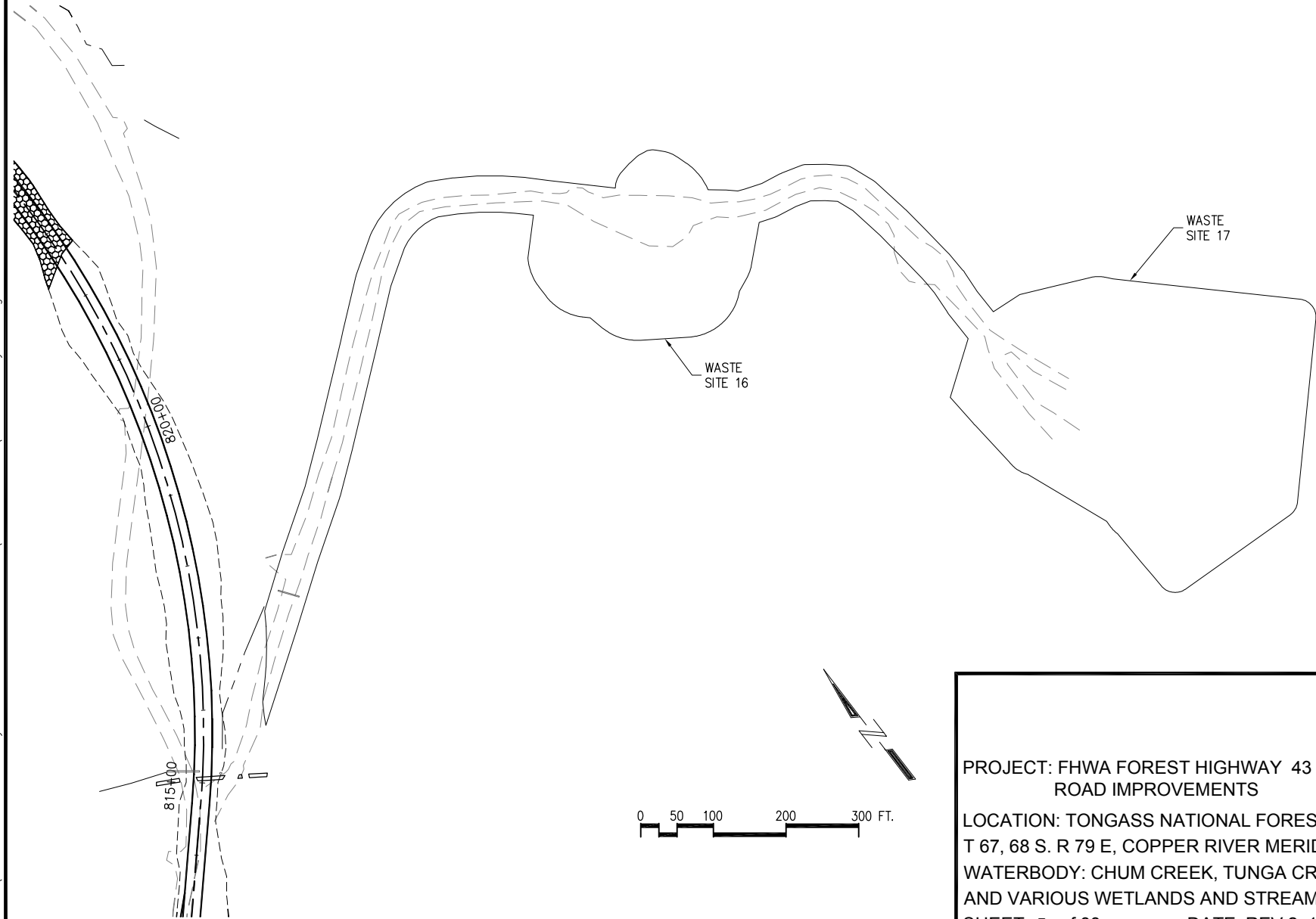


PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 4 of 33

DATE: REV.2 1/17/13



KEY MAP

PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

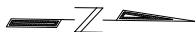
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 5 of 33

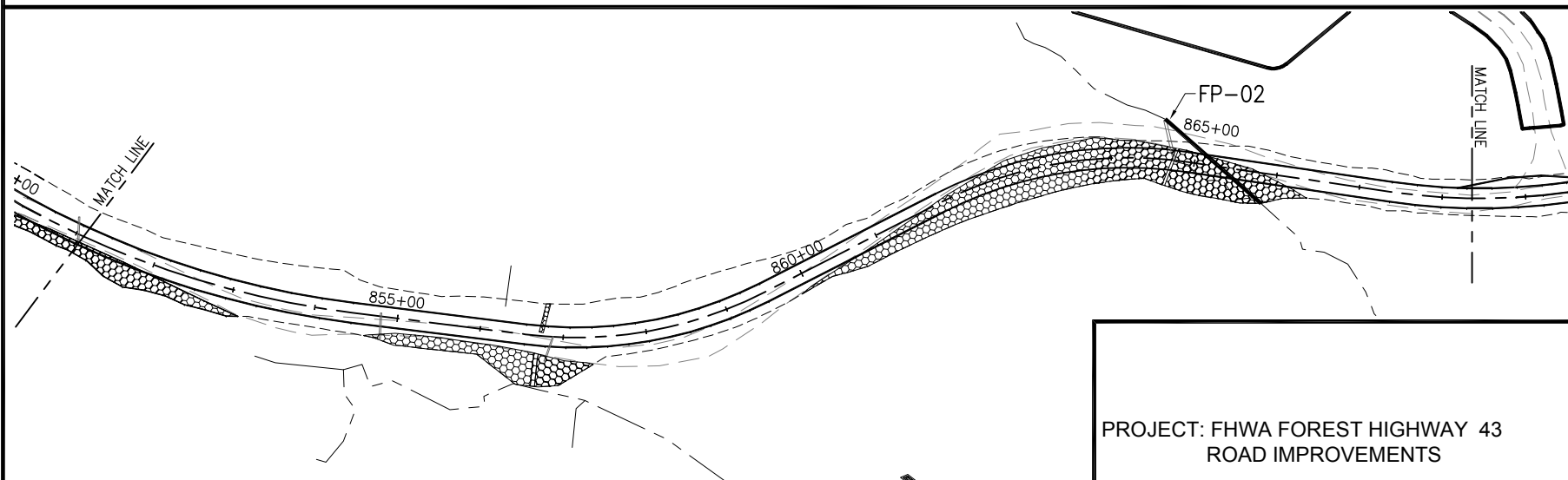
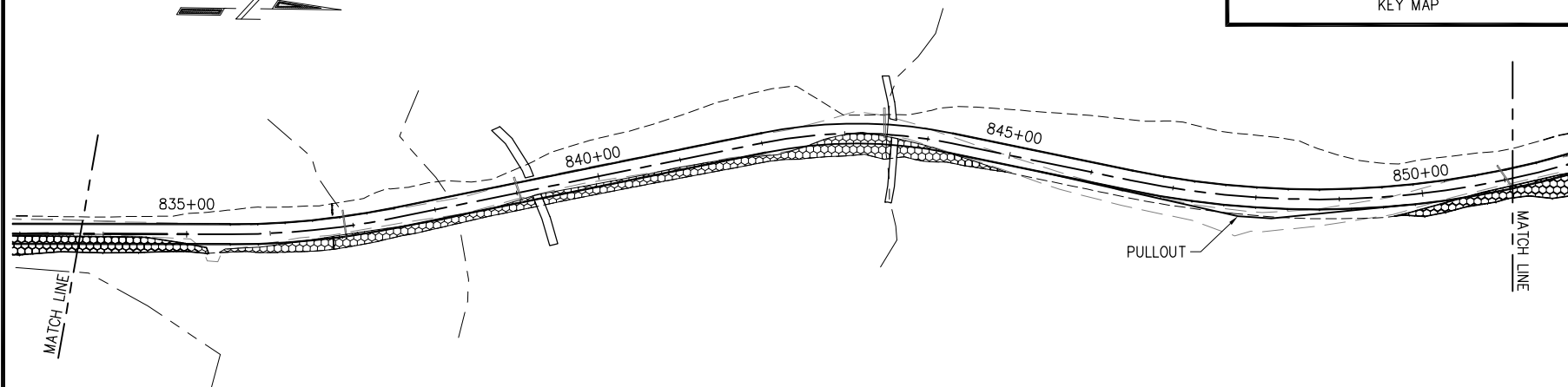
DATE: REV.2 1/17/13

K:\2012\121088 - FH43 Deweyville Trailhead to Neck Lake\Permits-Rev_2\03-30 - Layouts.dwg

0 50 100 200 300 FT.



KEY MAP

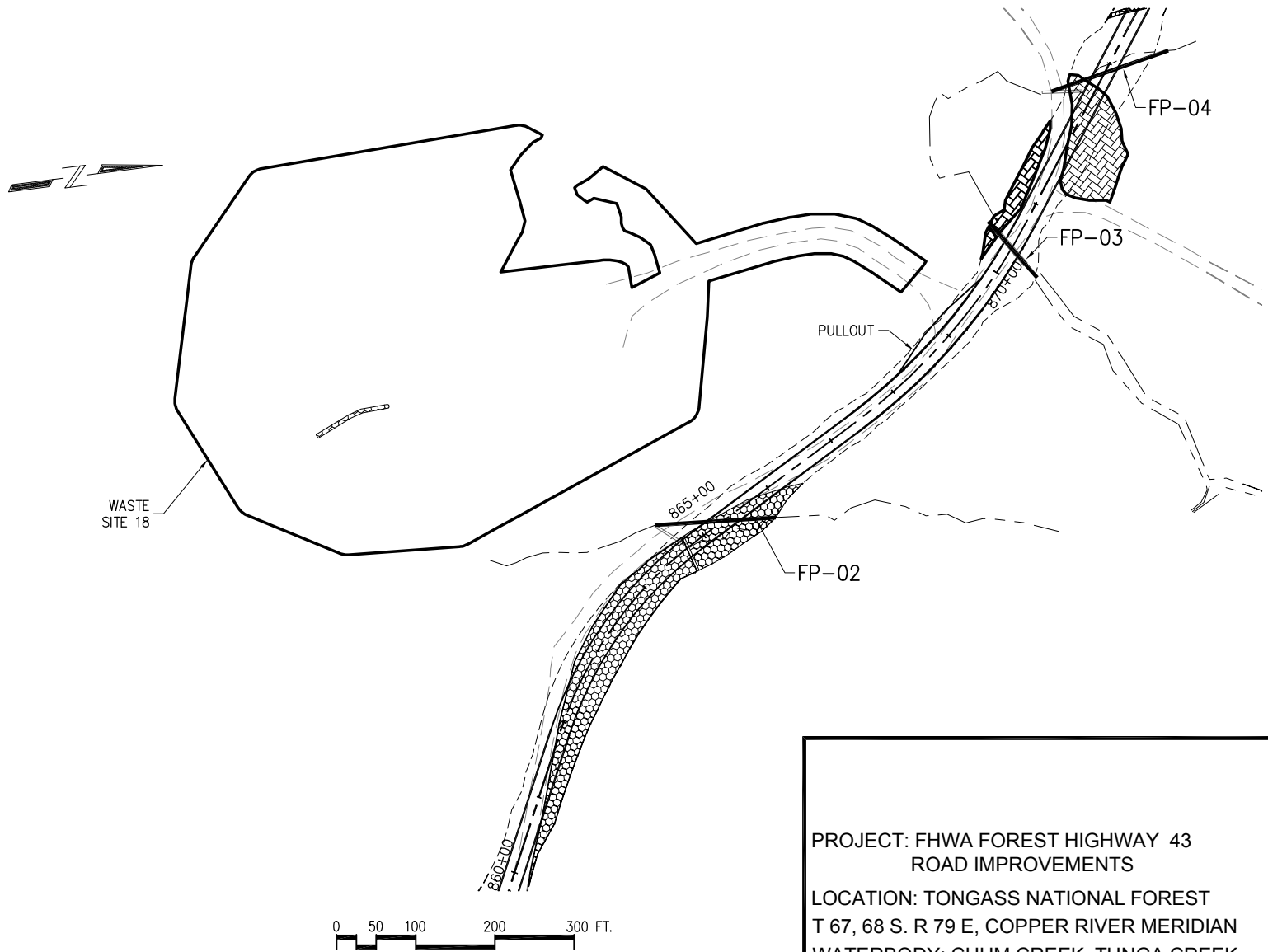


PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 6 of 33

DATE: REV.2 1/17/13

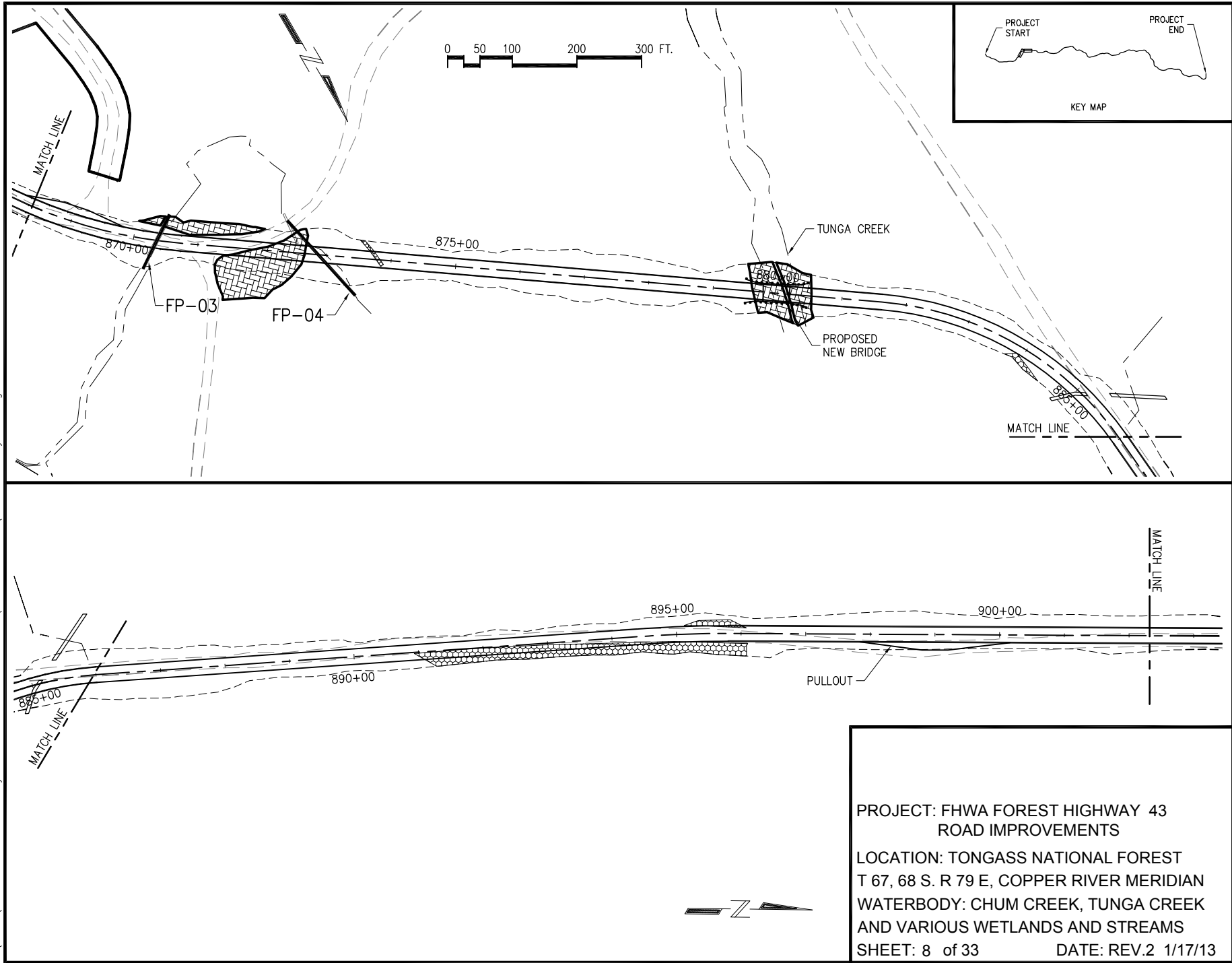


PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 7 of 33

DATE: REV.2 1/17/13

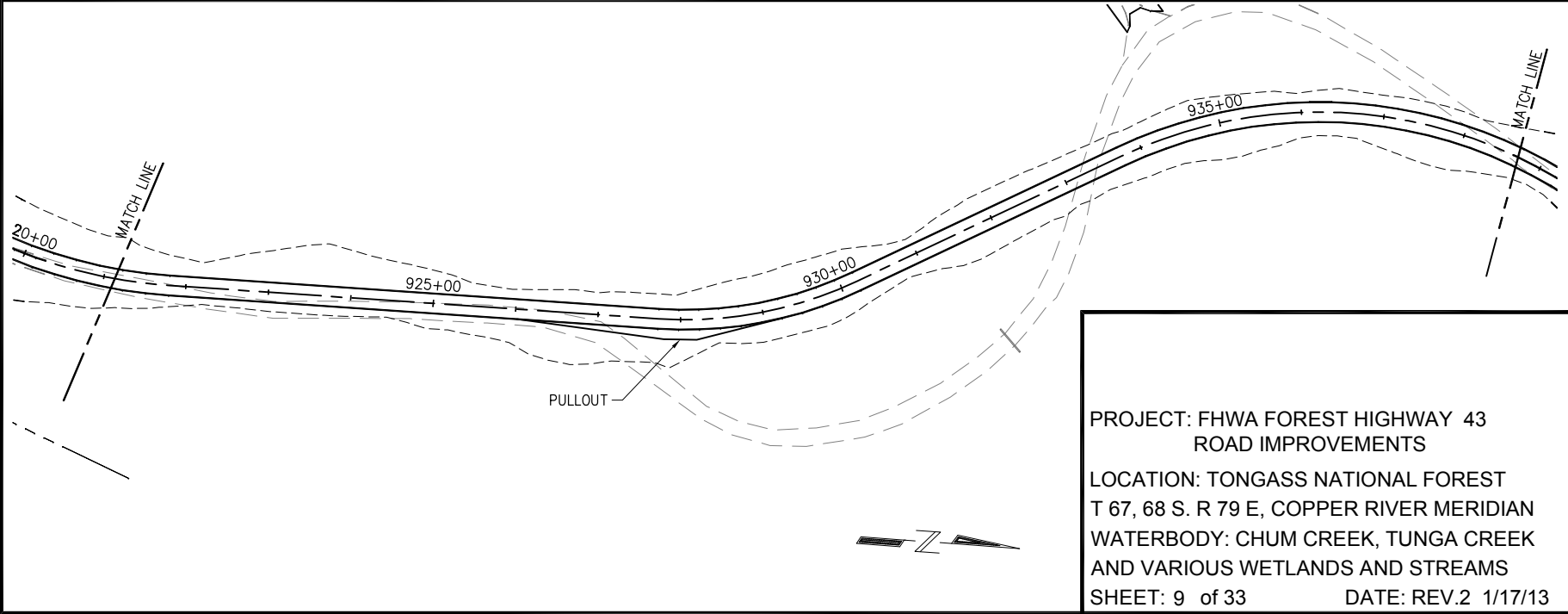
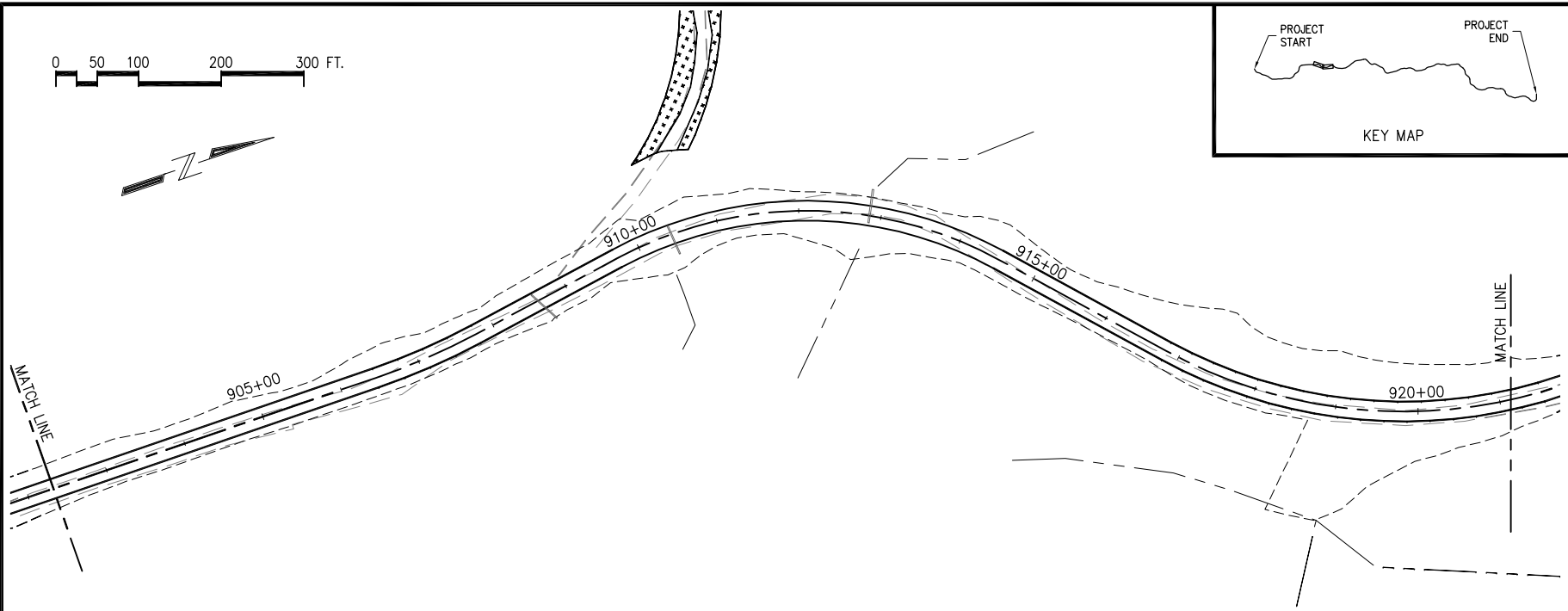


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0 50 100 200 300 FT.



KEY MAP

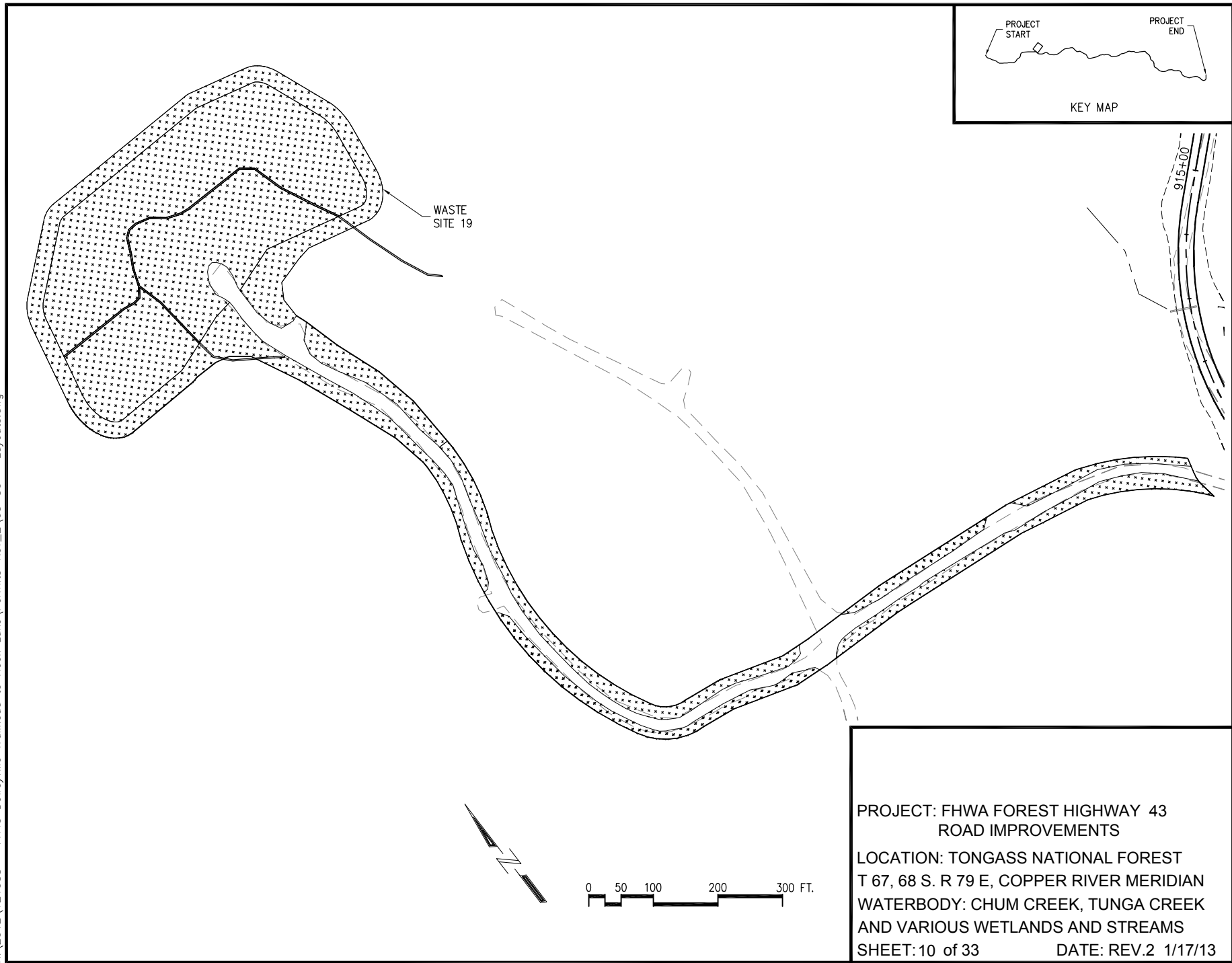


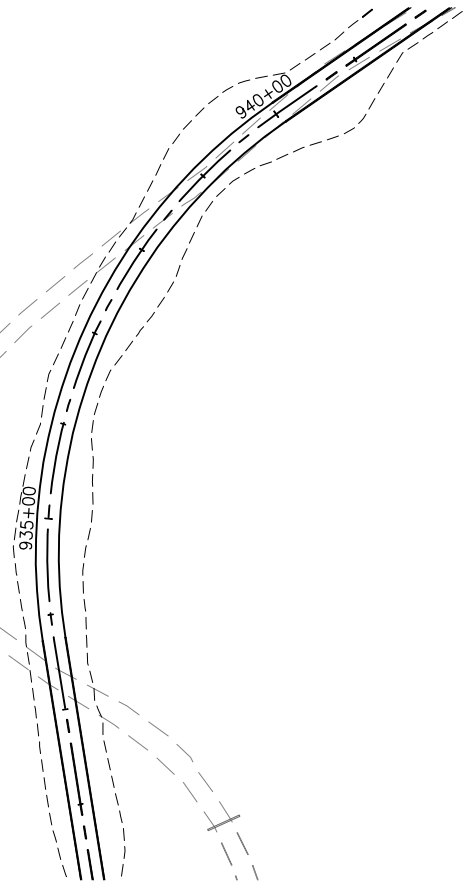
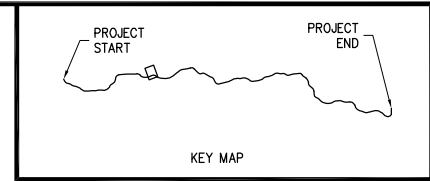
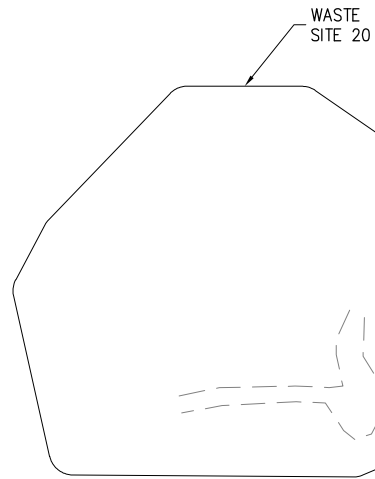
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 9 of 33

DATE: REV.2 1/17/13





PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

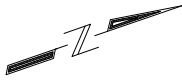
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 11 of 33

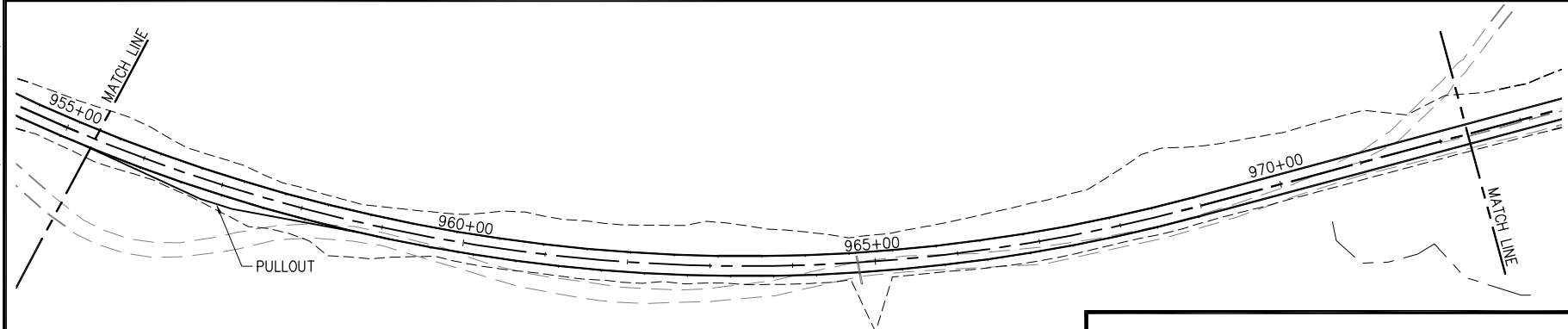
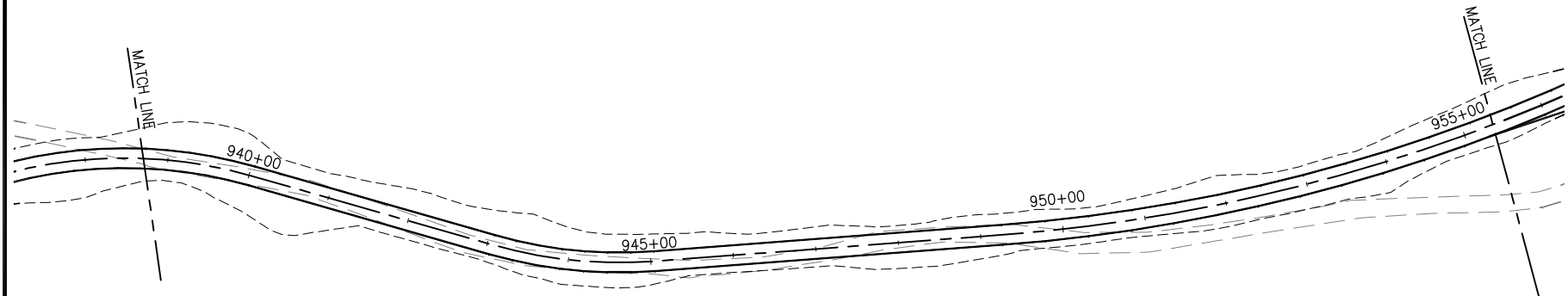
DATE: REV.2 1/17/13

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0 50 100 200 300 FT.



KEY MAP



PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

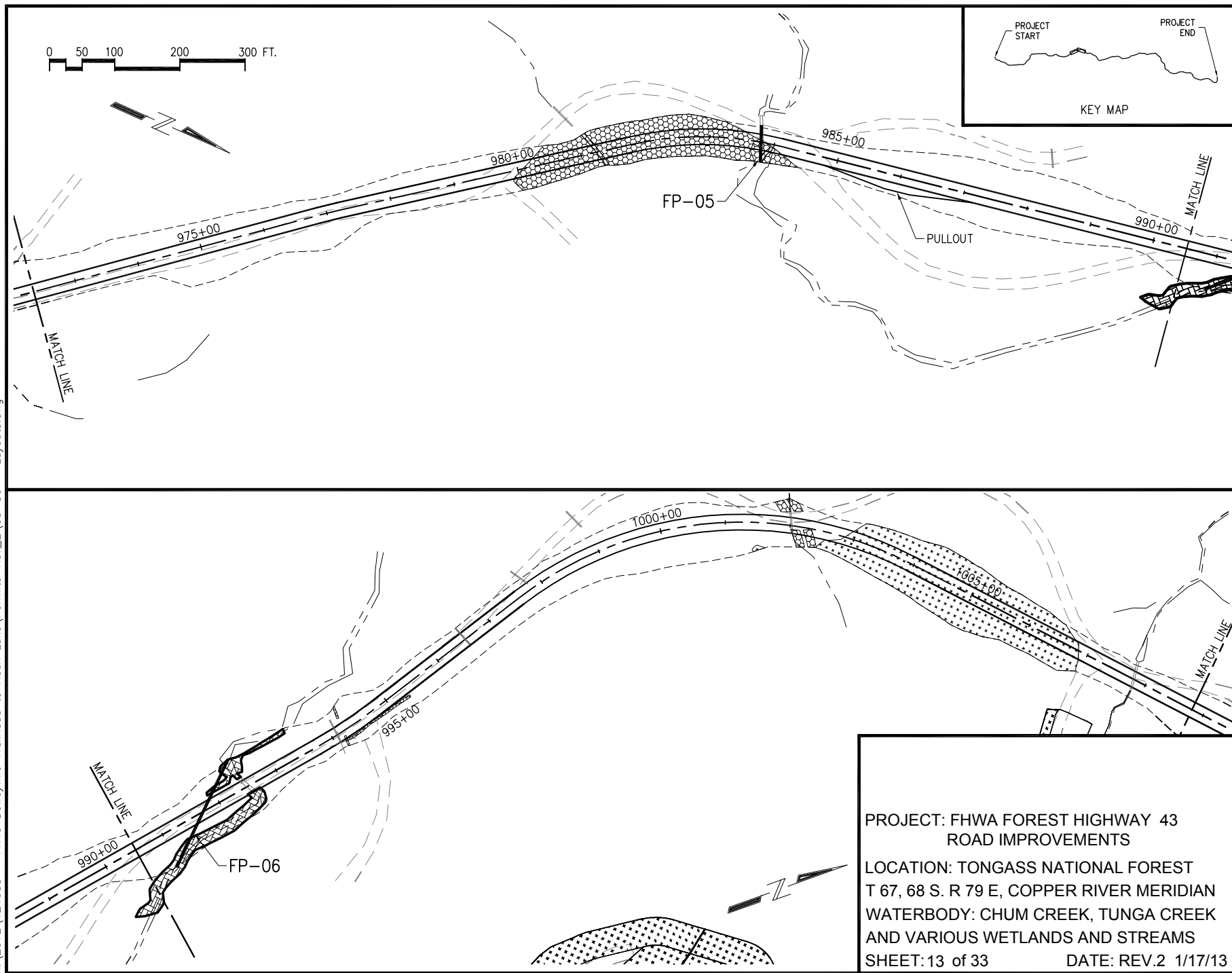
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

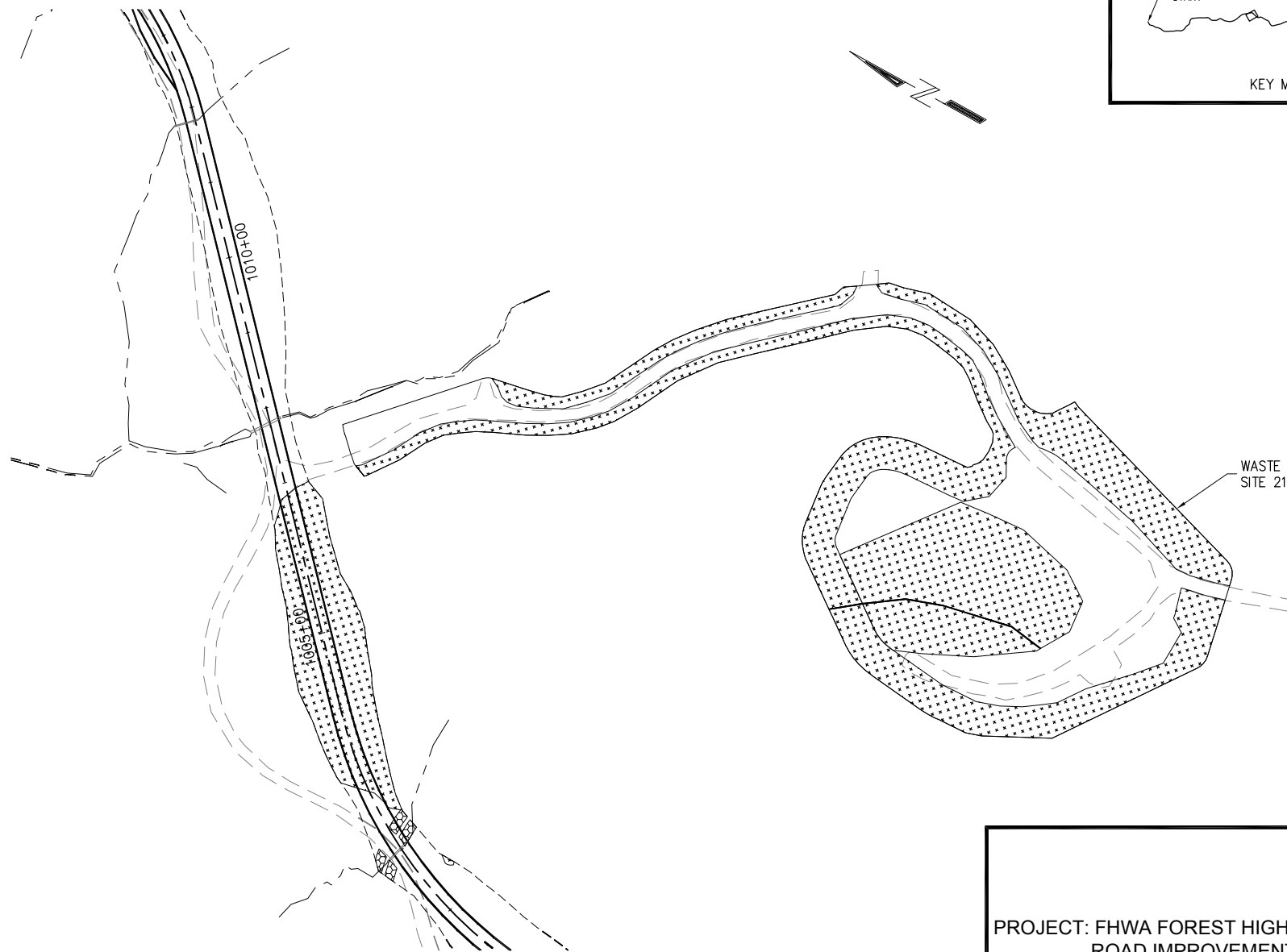
SHEET: 12 of 33

DATE: REV.2 1/17/13



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0 50 100 200 300 FT.



KEY MAP

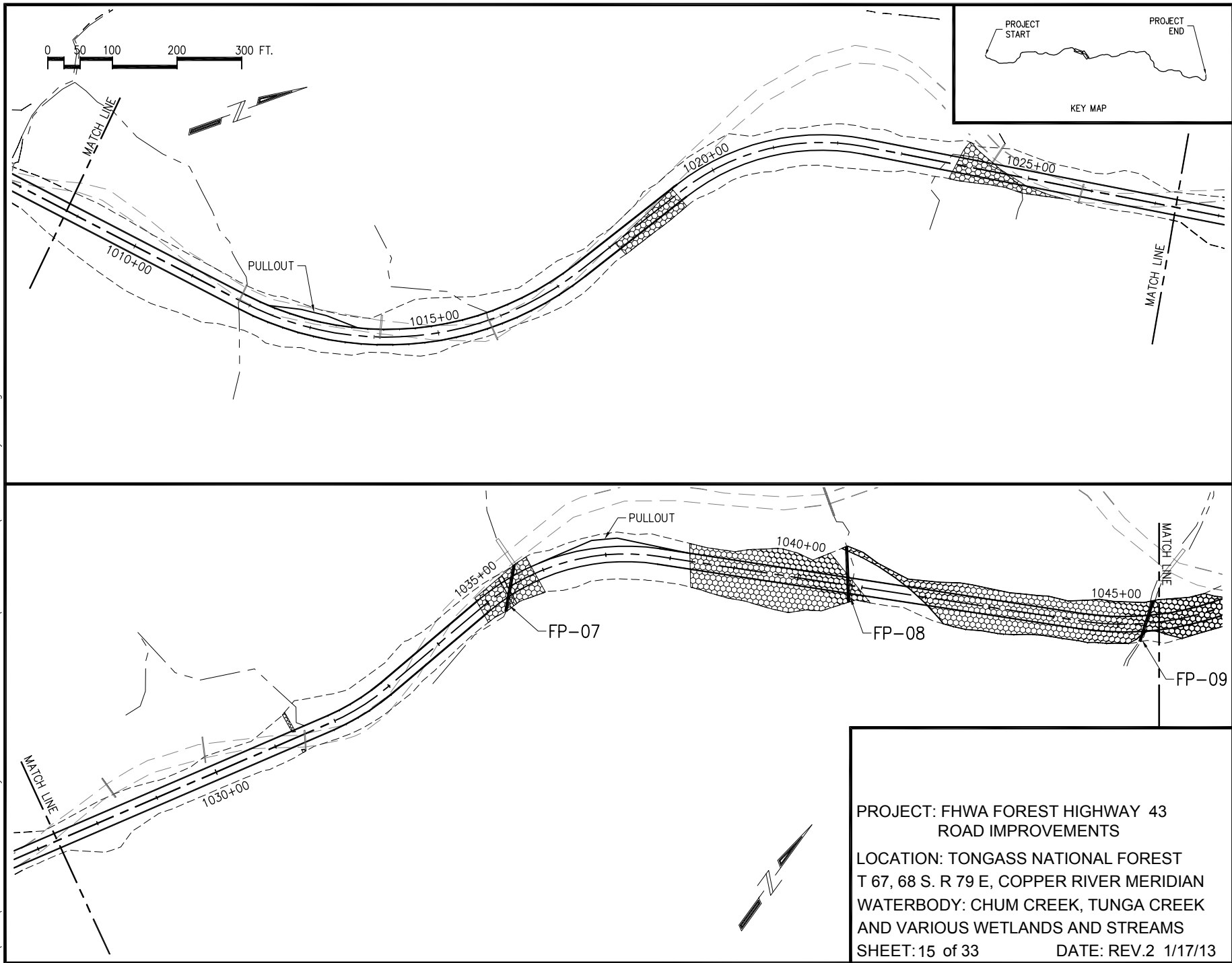
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 14 of 33

DATE: REV.2 1/17/13

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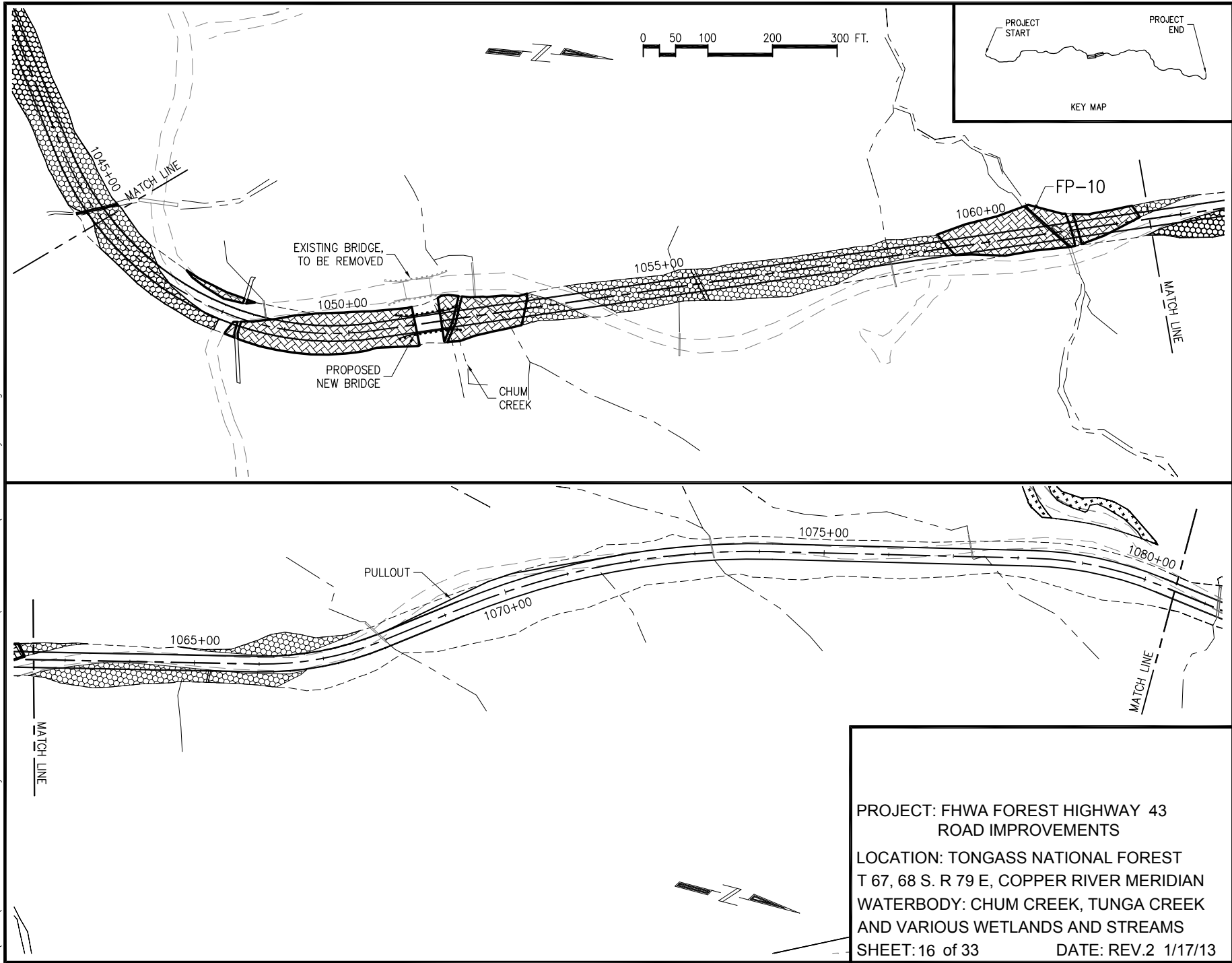
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 15 of 33

DATE: REV.2 1/17/13

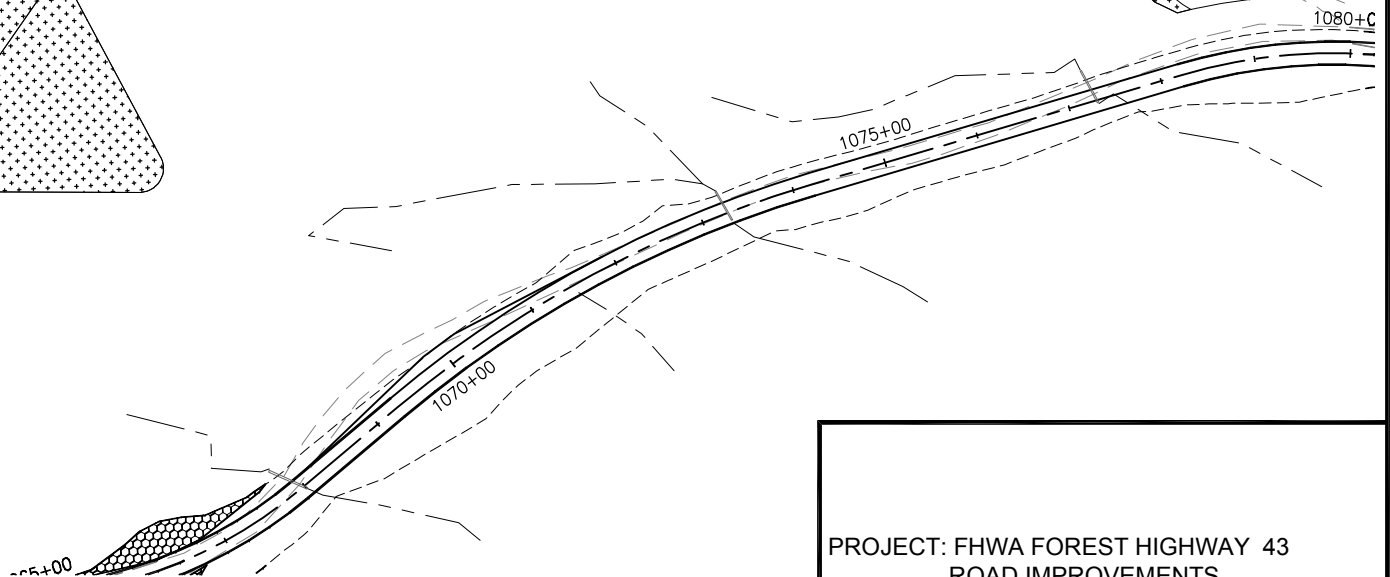
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KEY MAP

WASTE
SITE 23



0 50 100 200 300 FT.

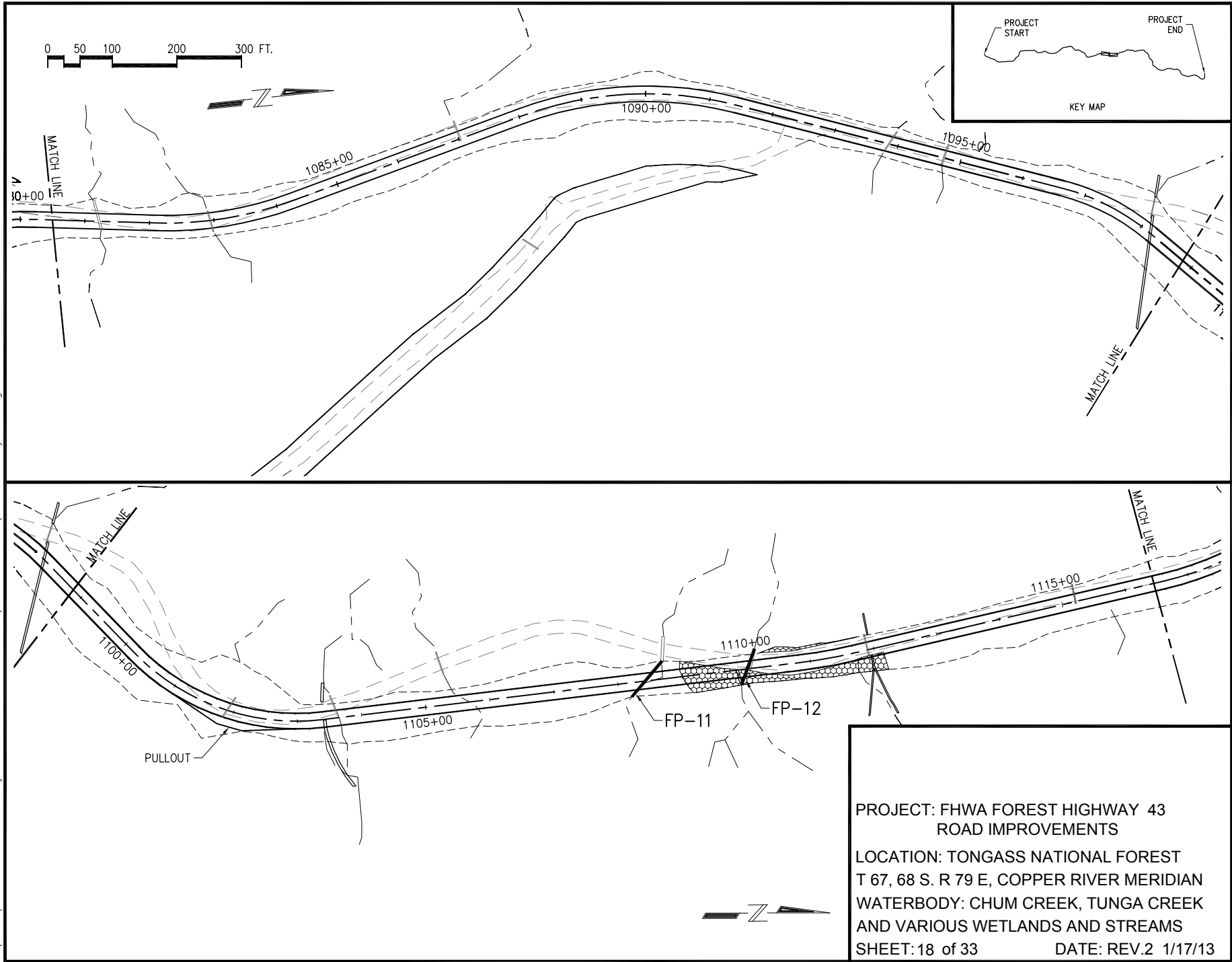
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

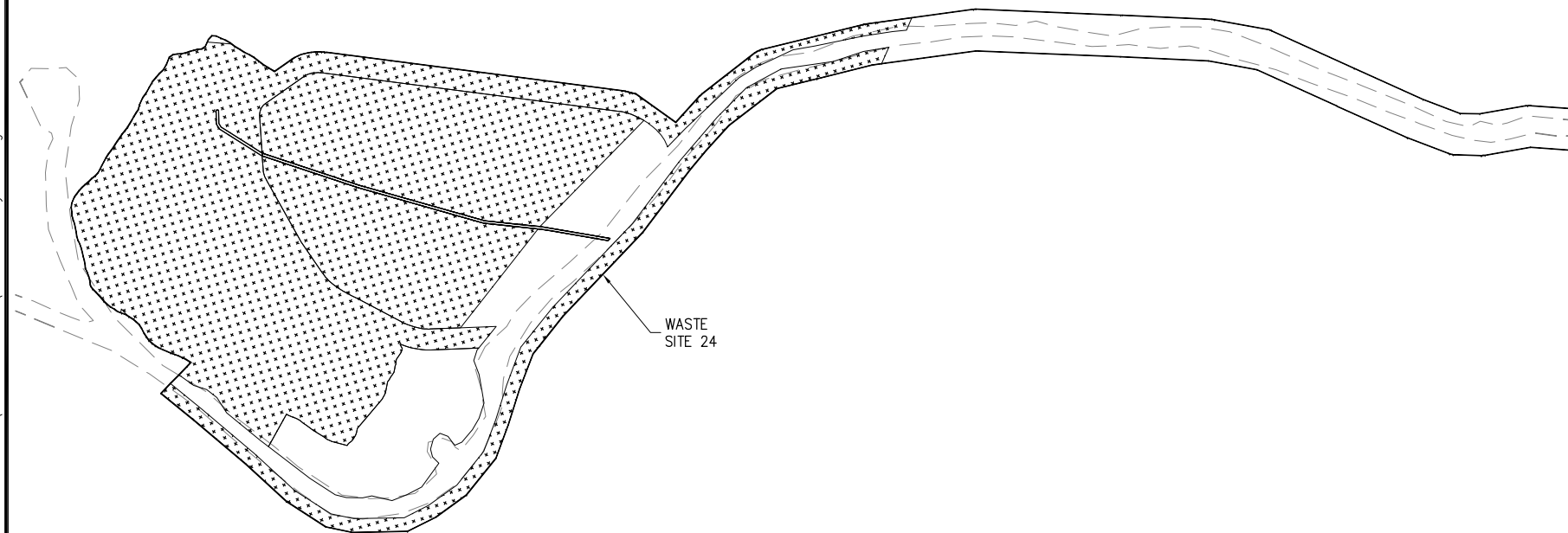
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 17 of 33

DATE: REV.2 1/17/13

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0 50 100 200 300 FT.



KEY MAP

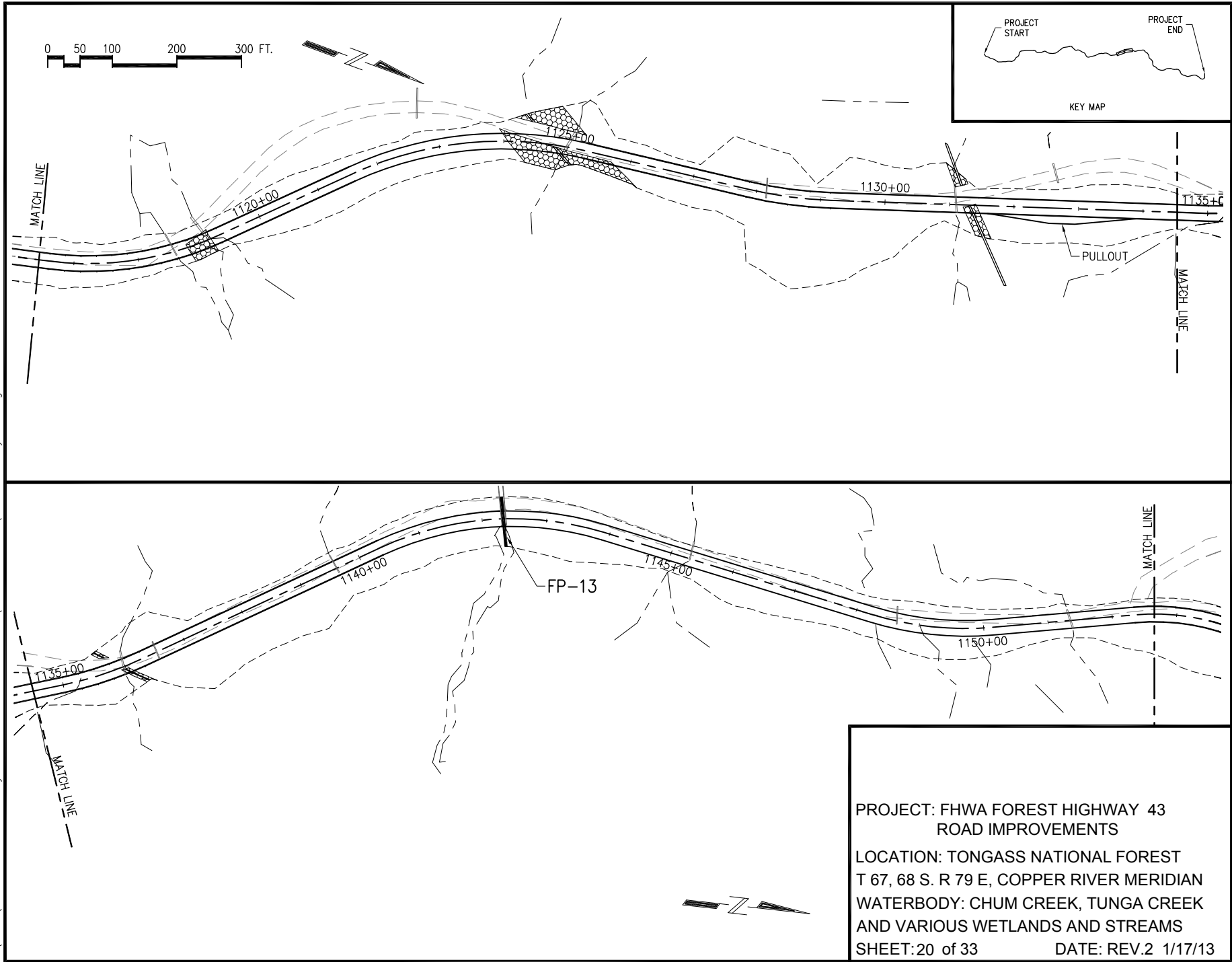
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

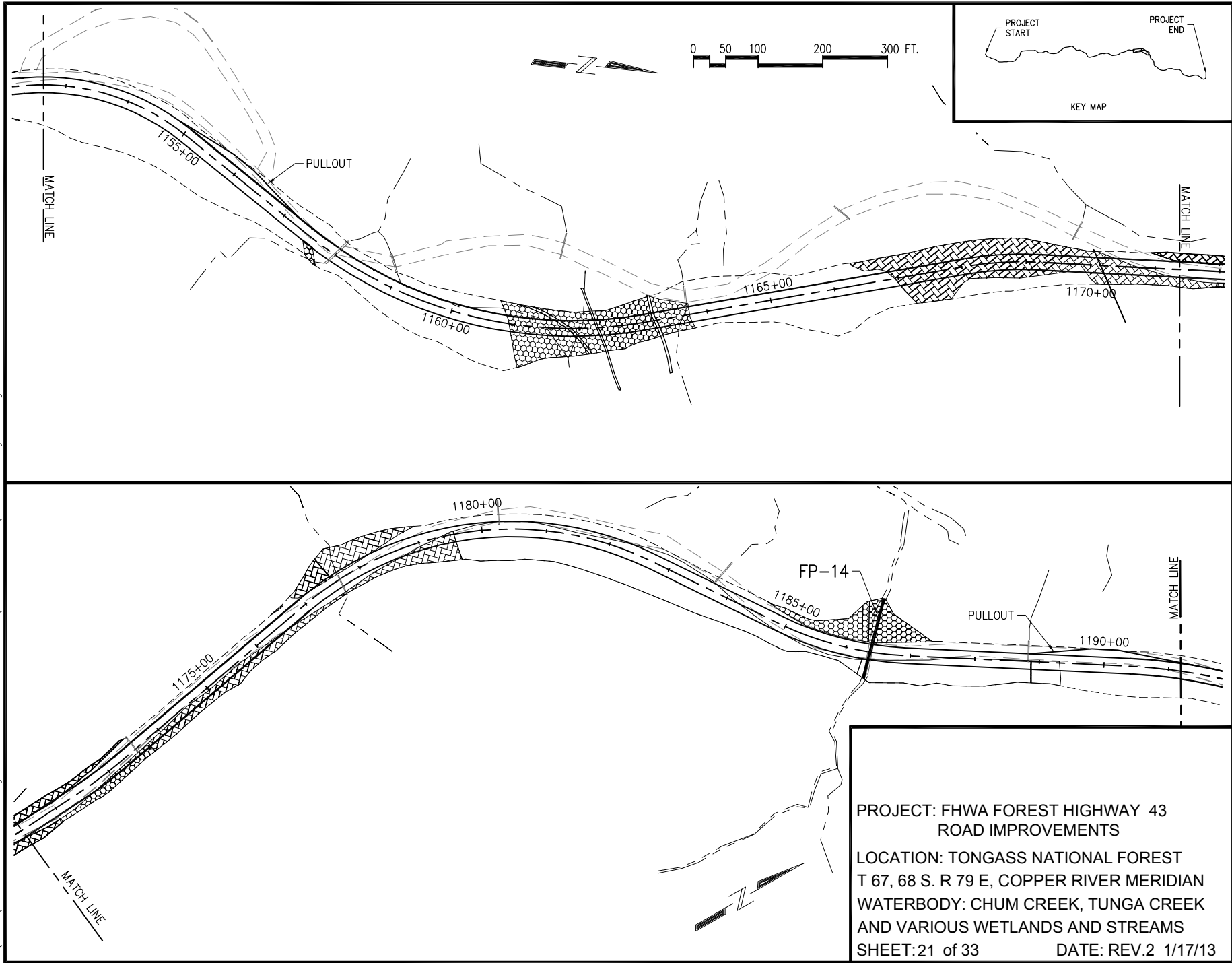
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 19 of 33

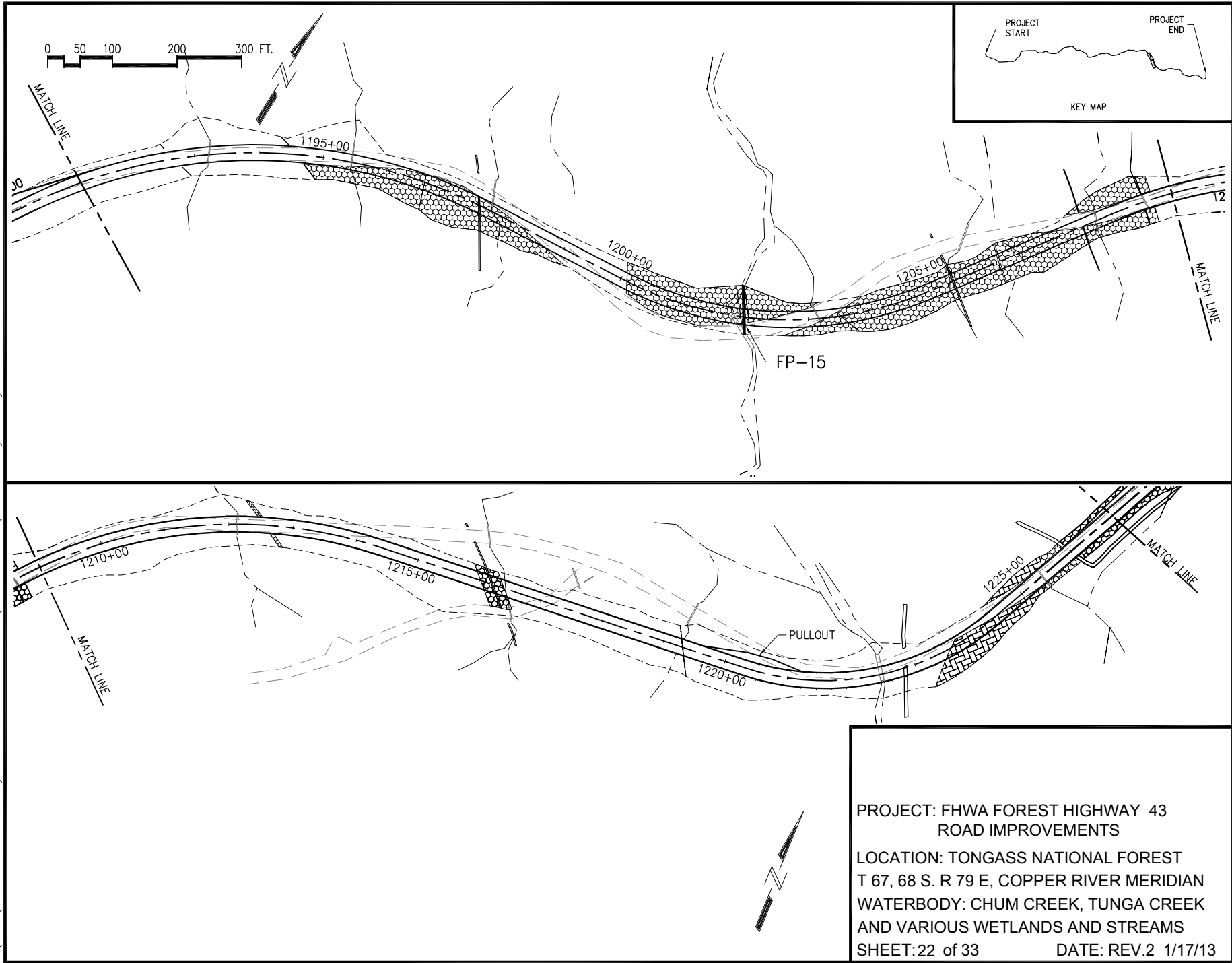
DATE: REV.2 1/17/13

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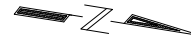
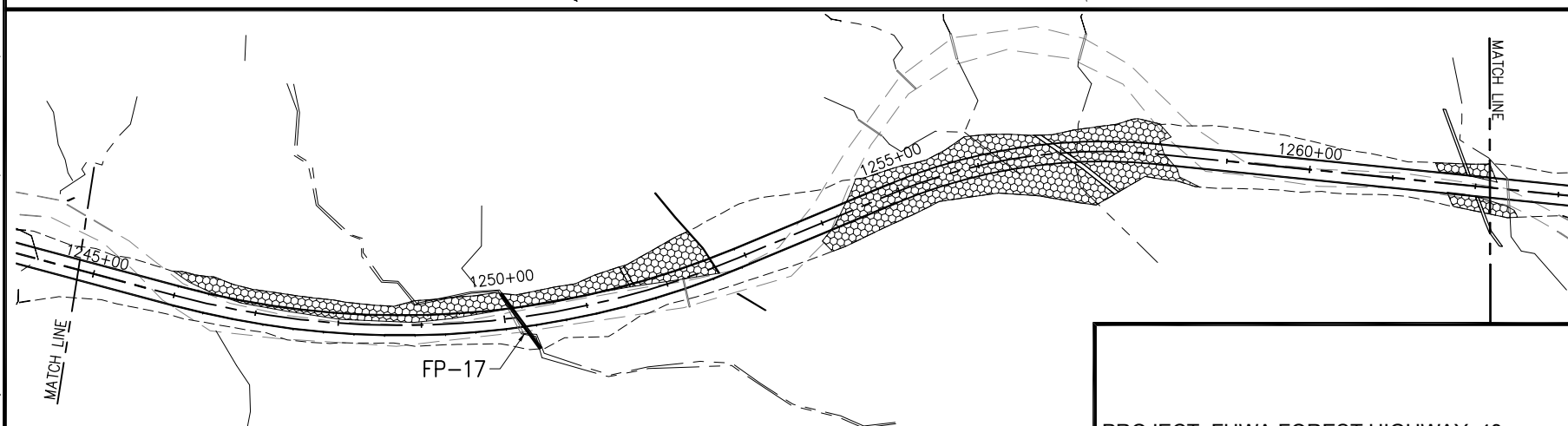
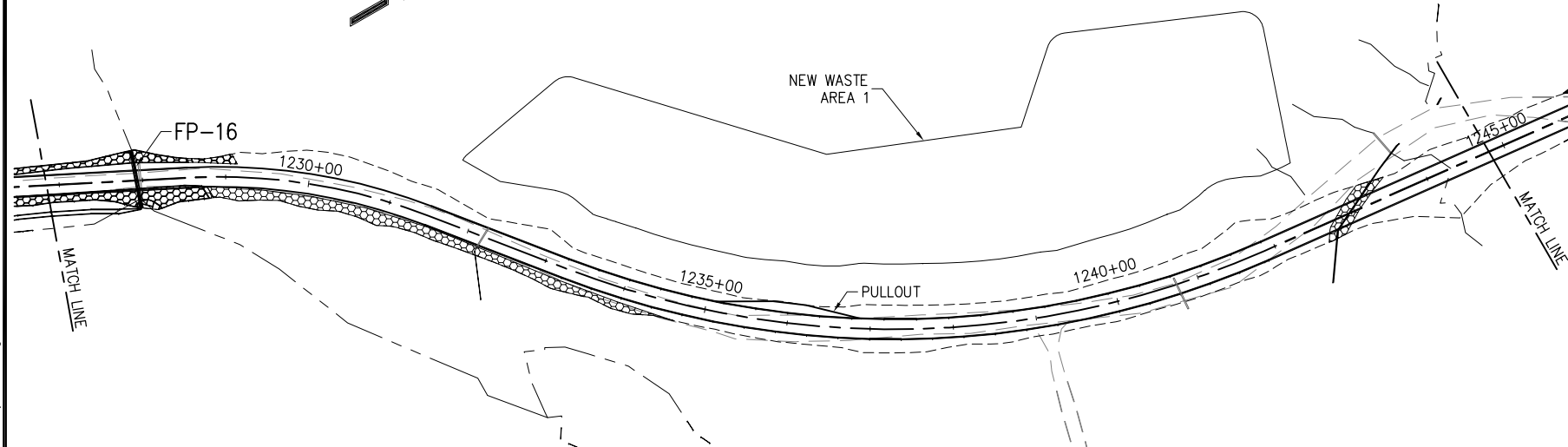
K:\2012\121088 - FH43 Deweyville Trailhead to Neck Lake\Permits-Rev_2\03-30 - Layouts.dwg



0 50 100 200 300 FT.



KEY MAP



PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

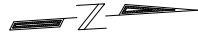
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 23 of 33

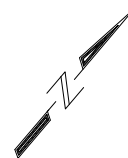
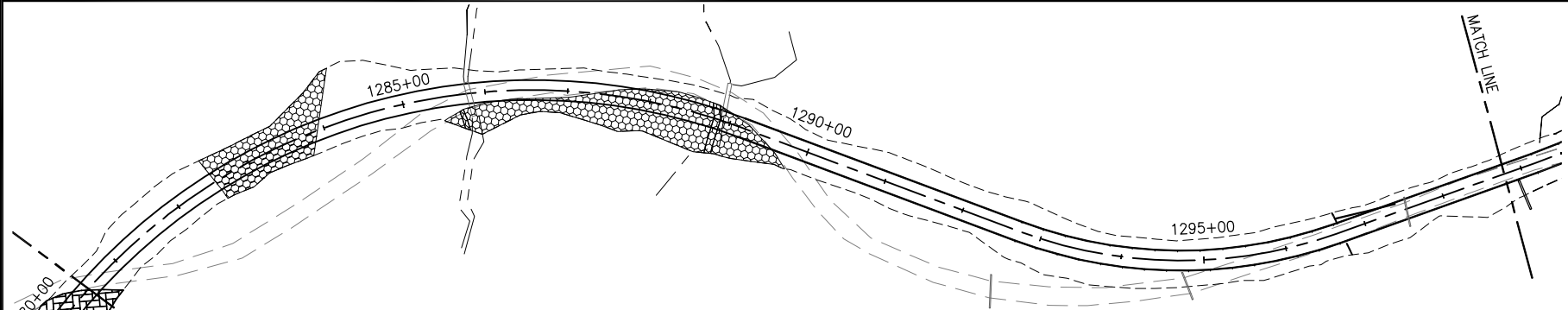
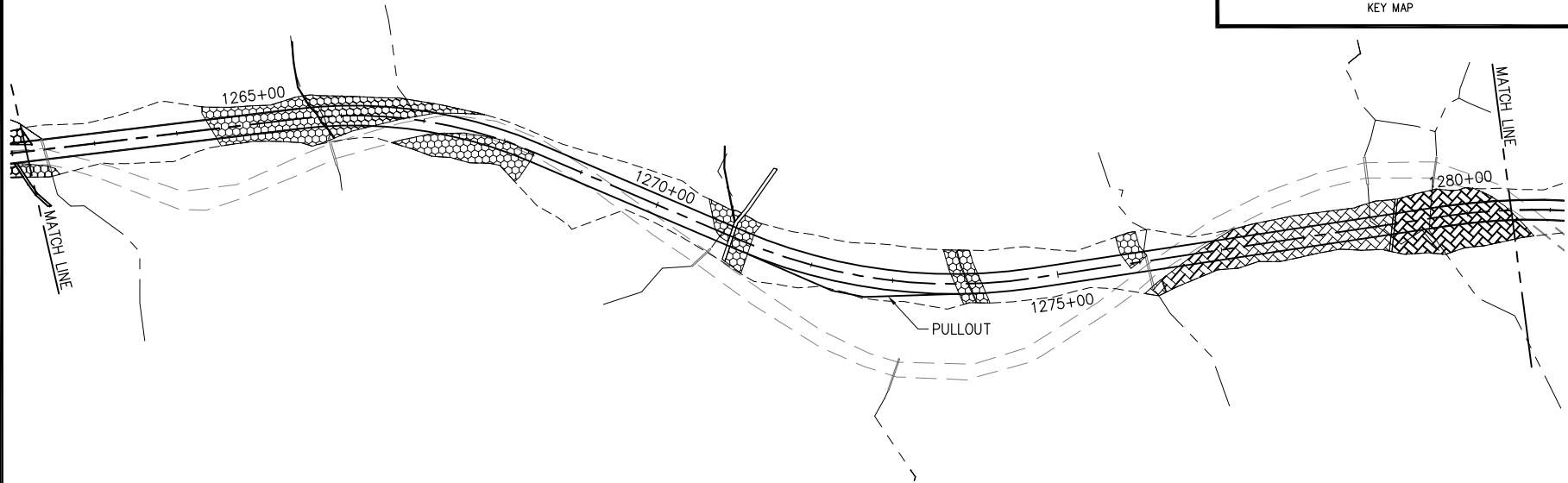
DATE: REV.2 1/17/13

K:\2012\121088 - FH43 Deweyville Trailhead to Neck Lake\Permits-Rev_2\03-30 - Layouts.dwg

0 50 100 200 300 FT.



KEY MAP



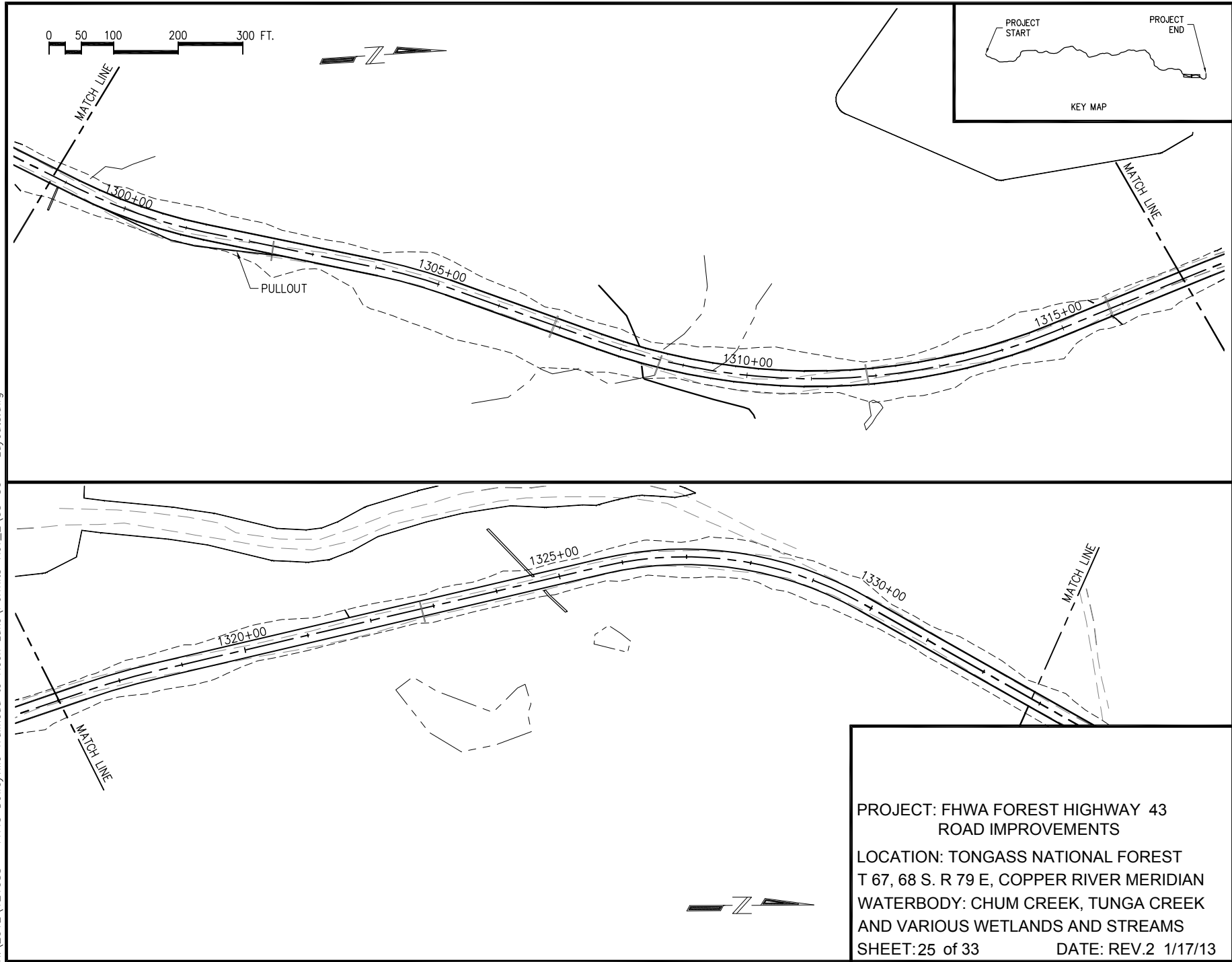
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

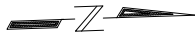
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 24 of 33

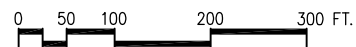
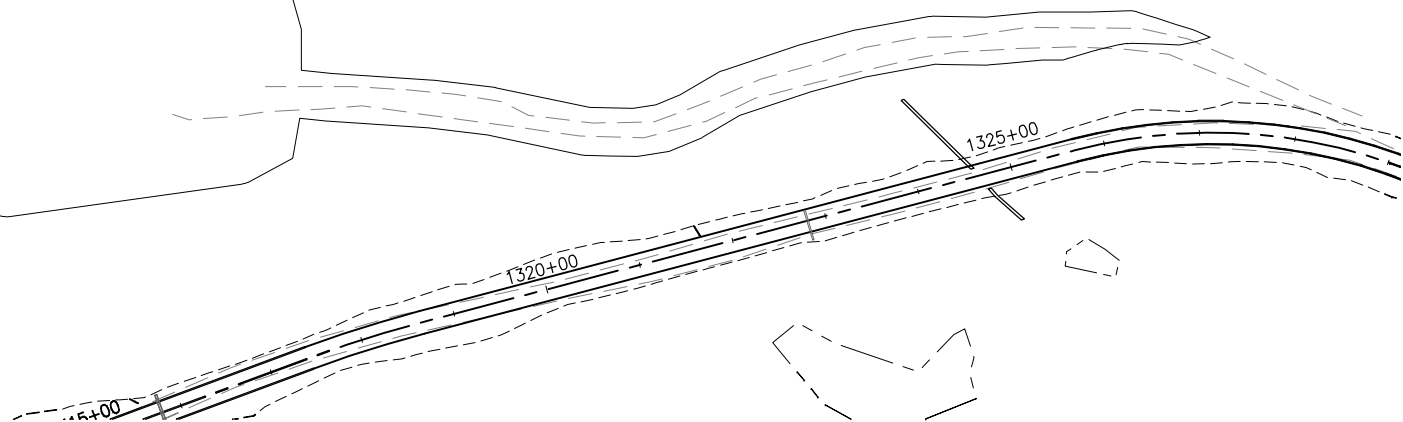
DATE: REV.2 1/17/13

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WASTE
SITE 25



KEY MAP

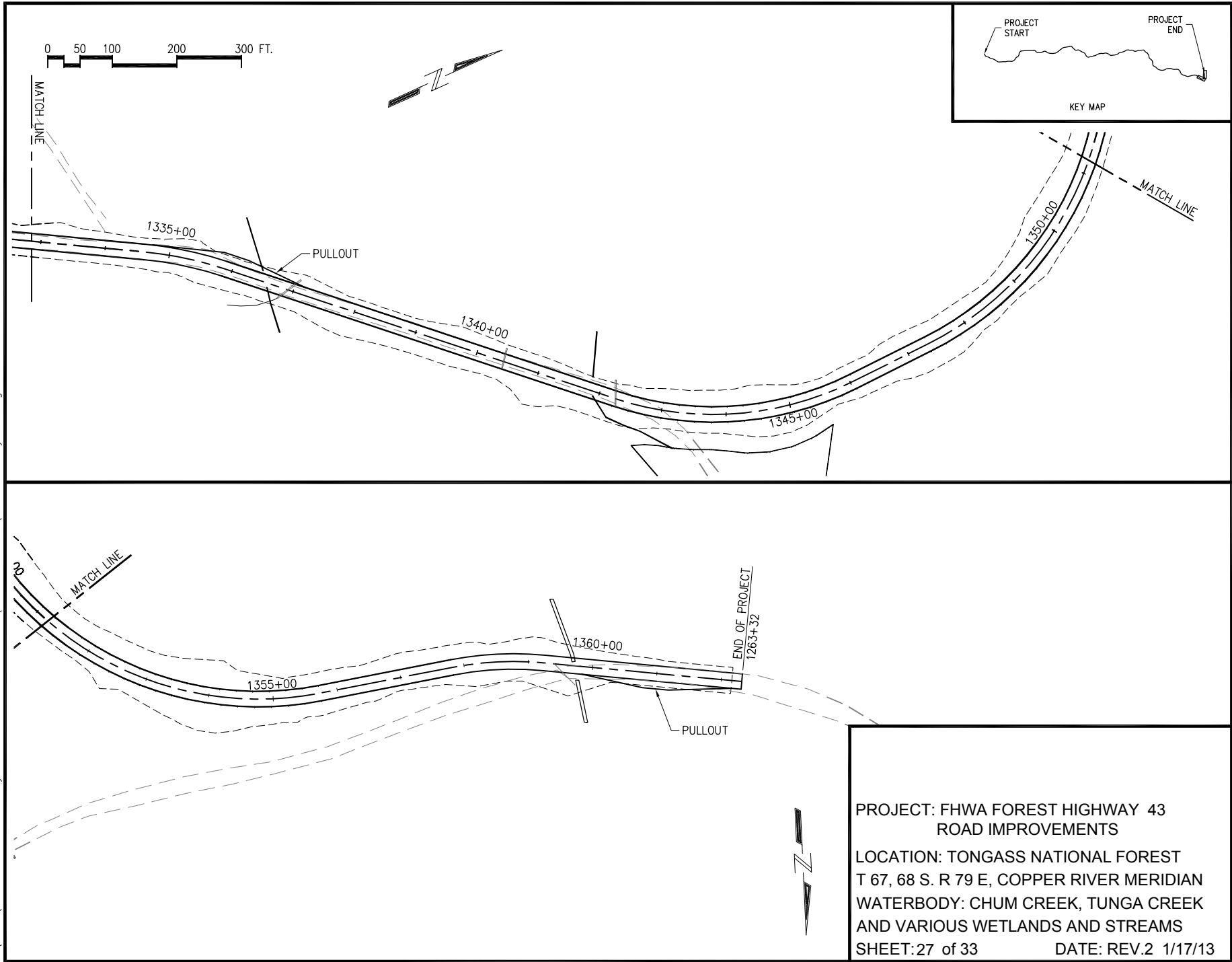
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

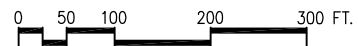
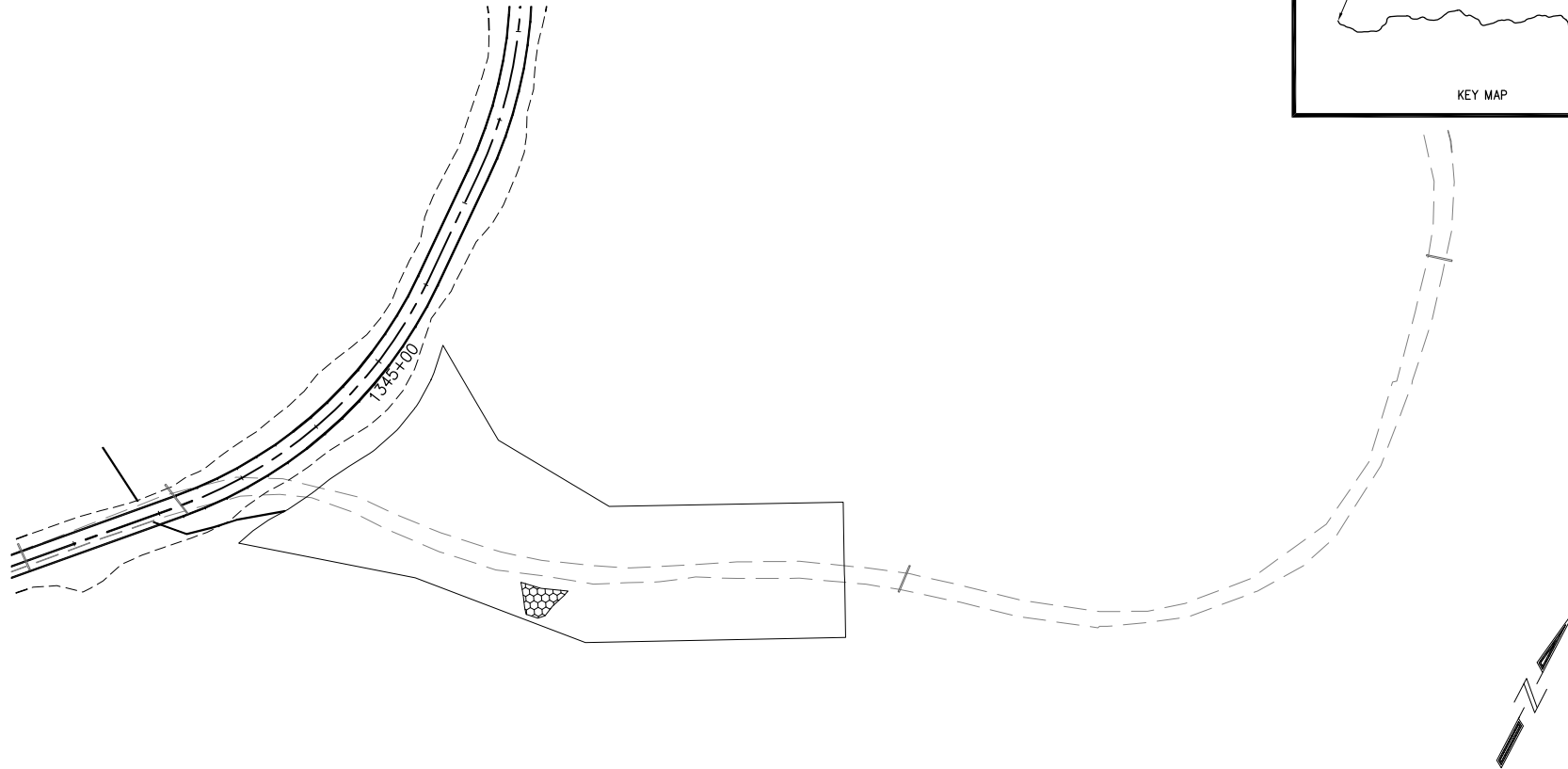
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 26 of 33

DATE: REV.2 1/17/13

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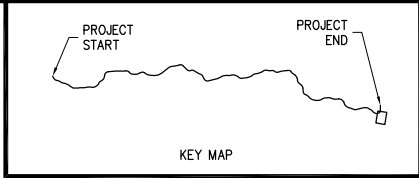
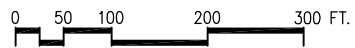
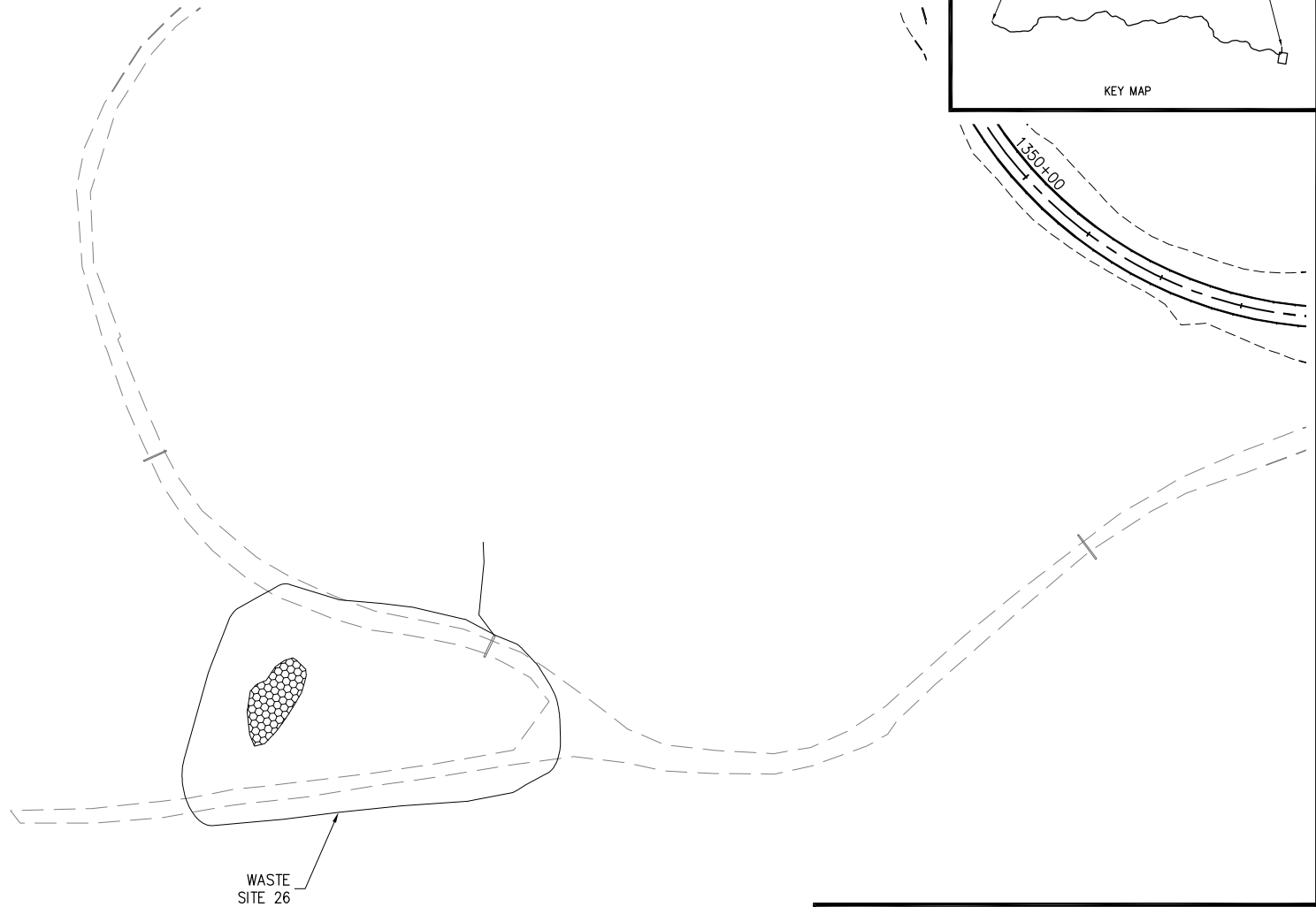


PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

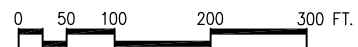
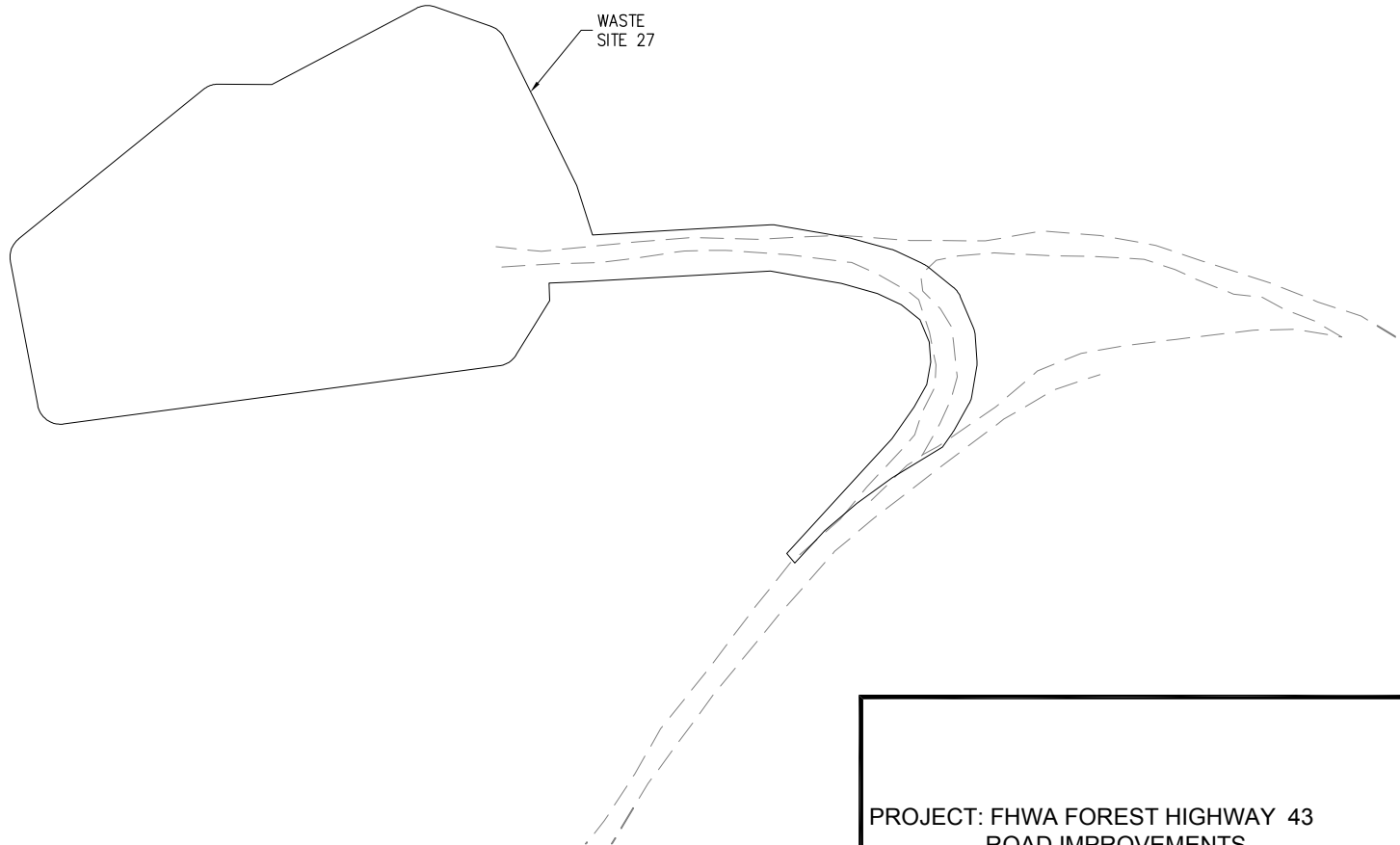
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 28 of 33

DATE: REV.2 1/17/13



PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS
LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS
SHEET: 29 of 33 DATE: REV.2 1/17/13



KEY MAP

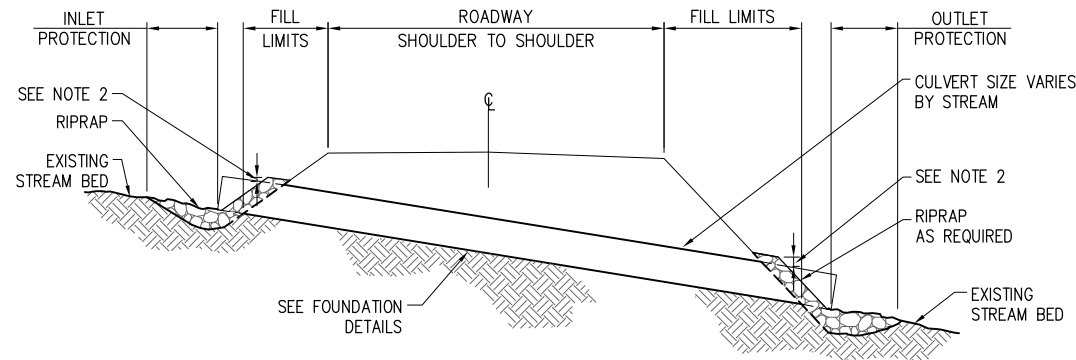
PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

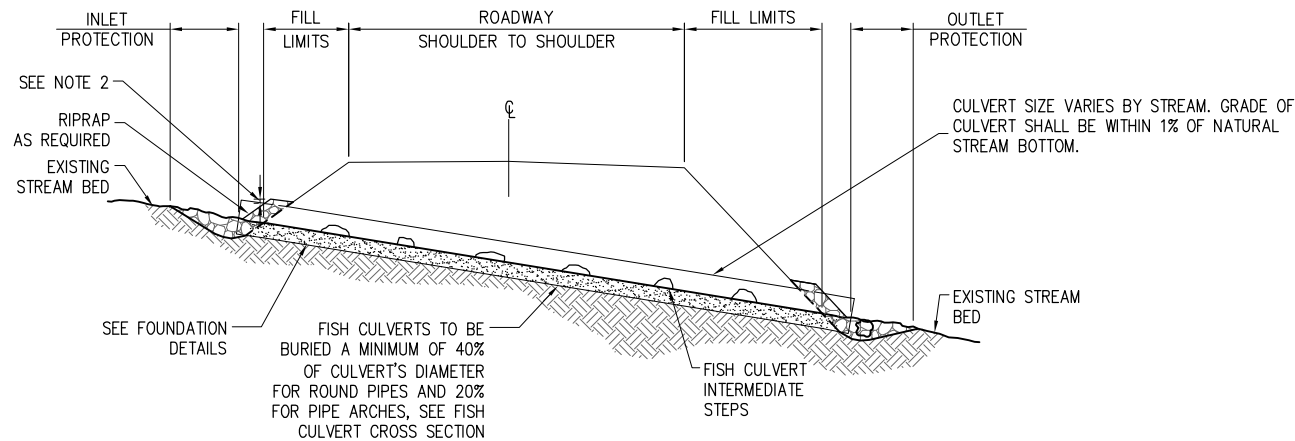
SHEET: 30 of 33

DATE: REV.2 1/17/13

This diagram illustrates the cross-section of a road construction over a peat excavation. The road surface is shown with a central crown and sloping sides. The top surface is labeled "FINISHED GRADE". The road width is divided into two sections, each labeled "18'-0\"". The road is supported by "STRUCTURAL FILL" on the sides and "NON-STRUCTURAL FILL" in the center. A "GEOTEXTILE SEPARATION FABRIC AS REQUIRED" is shown between the structural and non-structural fill. The "BOTTOM OF SUBEXCAVATION" is indicated by a dashed line. The "LIMITS OF PEAT EXCAVATION" are marked with 'x' symbols. The "BOTTOM OF PEAT VARIES" is indicated by a wavy line. Slopes are labeled with ratios: "1/1" for the main embankment and "2/1" for the steeper side slopes. The text "AS STEEP AS POSSIBLE" is also present.



TYPICAL PIPE CULVERT INSTALLATION - NON-FISH STREAMS



TYPICAL PIPE CULVERT INSTALLATION - FISH STREAMS

NOTES:

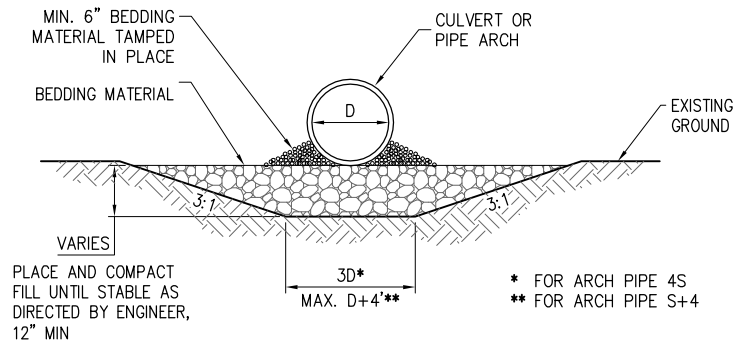
- 1) ACTUAL INDIVIDUAL CULVERT SECTIONS WILL VARY DUE TO STREAM SPECIFIC HYDROLOGY, TOPOGRAPHY AND OTHER EXISTING CONDITIONS.
- 2) FISH PASSAGE CULVERT WILL BE INSTALLED PER THE AUGUST 29, 2001 MEMORANDUM OF AGREEMENT (MOA) BETWEEN ADF&G AND DOT&PF FOR "DESIGN, PERMITTING AND CONSTRUCTION OF CULVERTS FOR FISH PASSAGE". DESIGN CULVERTS TO BE BANKFULL WIDTH PLUS 1 FOOT ADDITIONAL WIDTH PER SIDE.
- 3) CULVERTS 48"Ø OR SMALLER ARE TO BE INSTALLED WITH FLARED END SECTIONS PER ADOT&PF STANDARD PLANS D-06.10. CULVERTS GREATER THAN 48"Ø ARE TO BE PROVIDED WITH MITERED PIPE ENDS THAT CONFORM TO FILL SLOPE OR HEADWALLS WITH BEVELED EDGES.

PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

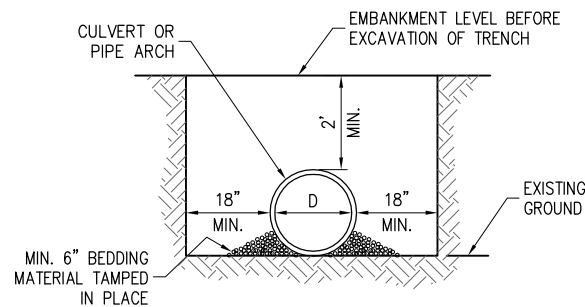
SHEET: 32 of 33

DATE: REV.2 1/17/13



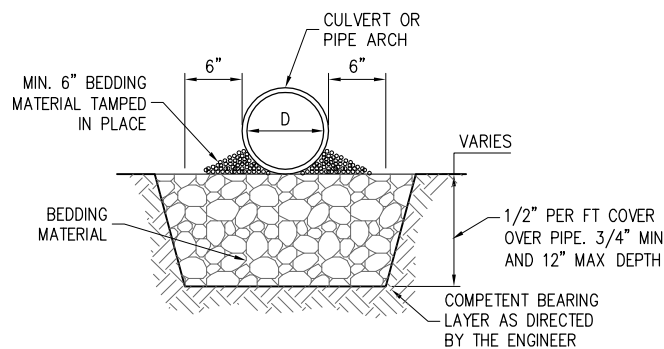
SOFT SUBGRADE

TO BE USED IN UNSTABLE AREAS
AS DIRECTED BY THE ENGINEER.



STABLE SUBGRADE

FOR USE ON EXISTING GROUND

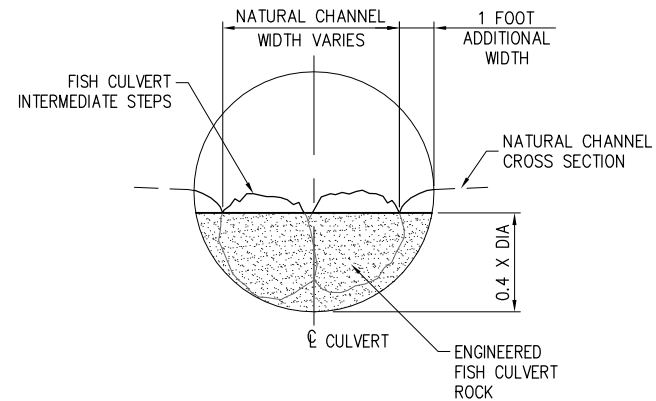


STABLE SUBGRADE (UNYIELDING MATERIAL)

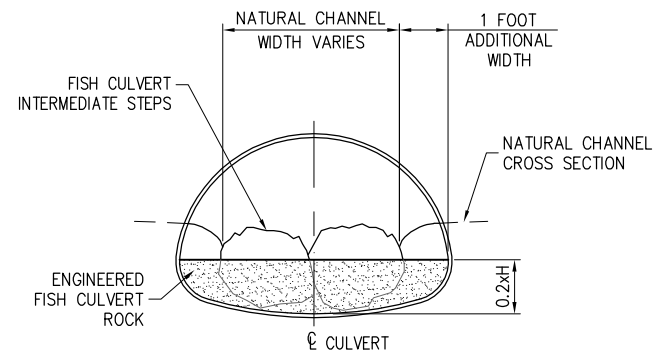
SUBEXCAVATION REQUIRED

FOUNDATION DETAILS

(FOUNDATION TYPE TO BE DETERMINED IN THE FIELD)



TYPICAL FISH CULVERT CROSS SECTION



TYPICAL FISH ARCH PIPE CROSS SECTION

NOTES:

- 1) ACTUAL INDIVIDUAL CULVERT DETAILS WILL VARY DUE TO STREAM SPECIFIC HYDROLOGY, TOPOGRAPHY AND OTHER EXISTING CONDITIONS.

PROJECT: FHWA FOREST HIGHWAY 43
ROAD IMPROVEMENTS

LOCATION: TONGASS NATIONAL FOREST
T 67, 68 S. R 79 E, COPPER RIVER MERIDIAN
WATERBODY: CHUM CREEK, TUNGA CREEK
AND VARIOUS WETLANDS AND STREAMS

SHEET: 33 of 33

DATE: REV.2 1/17/13