

Board of County Councilors Inquiry Response – (#0001)

Inquiry: NW 122nd St. Quiet Zone Project

Inquiry Date: 4/10/2015

Councilor: Madore

Staff Review

Responding Staff: Axel Swanson, Mark McCauley, Heath Henderson, Tom Grange, Matt Griswold, Carolyn Heniges

Response Date: 5/12/2015

Background/Facts

- A group of citizens requested the Board of County Councilors declare and establish a Railroad Quiet Zone at NW 122nd St.
- The Federal Rule allows local jurisdictions to implement quiet zones by preventing the use of the train horn at specific locations as long as certain Supplemental Safety Measures (SSM) are used to improve the crossing and offset any increased risk. This has proven difficult at NW 122nd St. because of the steep slopes, a narrow roadway and lack of sight distance.
- Originally the county pursued adding 100 feet of non-traversable curb-median on either side of the crossing to prevent motorists from driving around the extended gate arms and onto the tracks. This design would meet the Federal Rule for a quiet zone and allow the county, as a local jurisdiction, to design, construct and establish the quiet zone without federal approval.
- Once in the field for construction, however, it became clear that the road on the eastern side of the crossing was too narrow for the median and would require widening. Widening would require digging into the toe of steep slopes, which would necessitate stabilizing them. The stabilization work would increase the cost of the overall project beyond the \$25,000 authorized.
- Staff brought this information back to the council and received authorization to prepare detailed cost estimates for each of the three SSMs allowed within the federal rules (medians, way-side horns and quadrant gates). Staff prepared this information. Because each safety measure option would cost more than the authorized amount, the council gave direction to provide the SSM information to the citizens and ask them to work on a plan to pay for the improvements. Such work is most often accomplished by formation of a Road Improvement District or Local Improvement District, which would pay for the project by collecting an additional amount of property tax from those homes that would benefit from the project. The district would prevent other taxpayers who would not benefit from the site specific project from sharing the cost. Council also directed staff not to spend any more money on outside contracts for the project.
- Because of the relatively high cost for each of the three SSMs, the citizens requested the county consider designing an Alternative Safety Measure (ASM) for the crossing. The Federal Rule allows for the use of an ASM if, (1) it can be shown to offset the value of the train horn by reducing risk, and (2) the Federal Railroad Administration (FRA) approves the use of the ASM.
- To staff's knowledge, the most common SSM is the installation of medians at crossings. It follows that the most common ASM for site specific use is a shorter length of median than the 100 feet the Federal Rule requires. Honoring the citizens' request, staff designed a project using a shorter median on the crossing's east side, eliminating the need to dig into and stabilize the steep slopes. This new design is much cheaper - estimated construction cost is \$53,000 - but also requires FRA approval.
- The citizens have asked county staff to do the work necessary to submit the new ASM design to the FRA for approval.

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General Discussion

- Public Works staff has completed a preliminary design to submit with an ASM application.
- Public Works does not have staff with experience or expertise to do the track safety analysis necessary for an application to the FRA. This includes calculating and confirming that the improvements to the roadway are adequate to offset any increased risk of quieting the train horn. Staff has made initial contact with consultants in the area who do this work. Cost estimate is roughly \$15,000.
- In order to submit the application to the FRA, the following steps must be addressed: The crossing information held in the Utilities and Transportation data base needs to be updated; the design to install medians needs to be approved by the Utilities and Transportation Commission; staff, or a consulting firm, needs to prepare the application, which would include at least one onsite meeting with stakeholders and work to calculate the decreased risk at the crossing generated by the roadway improvements. Once the application is complete, it would go to the FRA for comment and consideration.
- If approved, the county would be authorized to send out a notice of intent to create a quiet zone, construct the improvements, and ultimately establish the quiet zone.
- Primary questions that remain are:
 - (1) Is the council willing to move forward with the project given the new alternative safety measure design?
 - (2) Who should be responsible for the costs of a railroad expert analyzing the safety improvements and preparing the application to the FRA?
 - (3) If approved by the FRA, who should be responsible for the costs of the construction improvements to establish the quiet zone?

Staff Recommendation

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Authority: Council

Felida Quiet Zone
 # 018222
 Engineers Estimate of Construction Costs

Estimate date: 1/21/2015

Roadway Estimate by: Bruce Klug

Note: Estimate does not include costs associated with staging, right of way, or environmental permitting & mitigation.
 Unit costs for items derived from prior bid tabulations, WSDOT unit costs, and professional experience.

Bid Item Number	Bid Item Description	Unit	Quantity	Unit Price	Total
1	MOBILIZATION	L.S.	1	10%	\$4,100.00
2	SPCC PLAN	L.S.	1	\$500.00	\$500.00
3	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	1	\$10,000.00	\$10,000.00
4	CLEARING AND GRUBBING	L.S.	1	\$500.00	\$500.00
5	ROADWAY EXCAVATION INCL. HAUL	C.Y.	30	\$20.00	\$600.00
6	CRUSHED SURFACING BASE COURSE	C.Y.	22	\$35.00	\$770.00
7	HMA CL. 1/2 IN. PG 64-22	TON	90	\$125.00	\$11,250.00
8	SAWCUT ASPHALT PAVEMENT	L.F.	300	\$2.00	\$600.00
9	CULVERT PIPE 24 IN. DIAM.	L.F.	6	\$100.00	\$600.00
10	TEMPORARY EROSION CONTROL	L.S.	1	\$500.00	\$500.00
11	PERMANENT EROSION CONTROL-QUARRY SPALLS	C.Y.	12	\$80.00	\$960.00
12	SEEDING	S.Y.	100	\$2.00	\$200.00
13	QWICK KURB	L.F.	125	\$100.00	\$12,500.00
14	PERMANENT STRIPING	L.S.	1	\$200.00	\$200.00
15	UTILITY ADJUSTMENT AND RELOCATION	L.S.	1	\$1,000.00	\$1,000.00
SUBTOTAL					\$44,280.00
CONTINGENCIES 20.00%					\$8,856.00
TOTAL					\$53,136.00

ESTIMATED PROJECT CONSTRUCTION COST	\$53,136.00
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LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE AND MAY BE INCOMPLETE



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SITE WITH AERIAL

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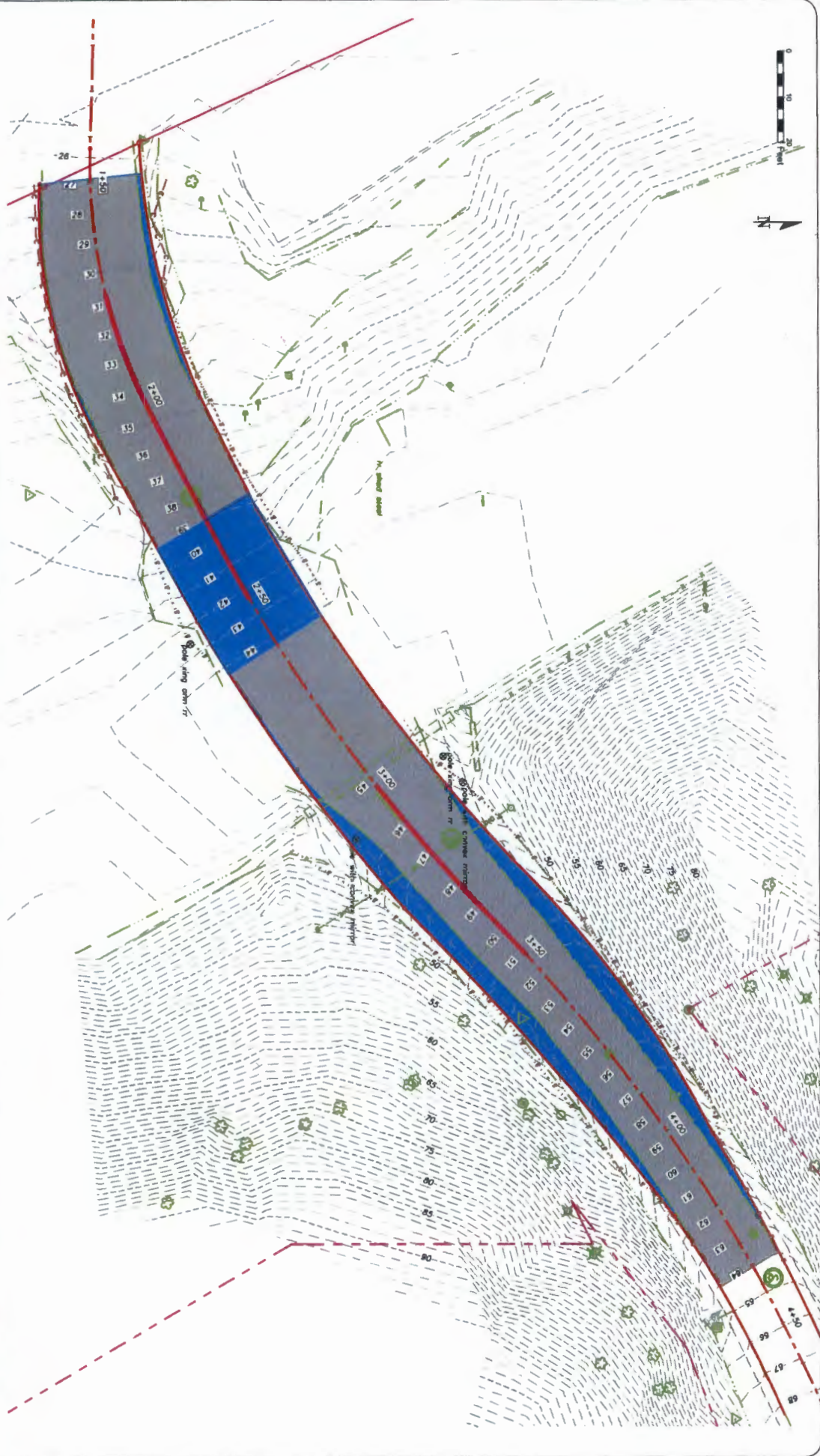
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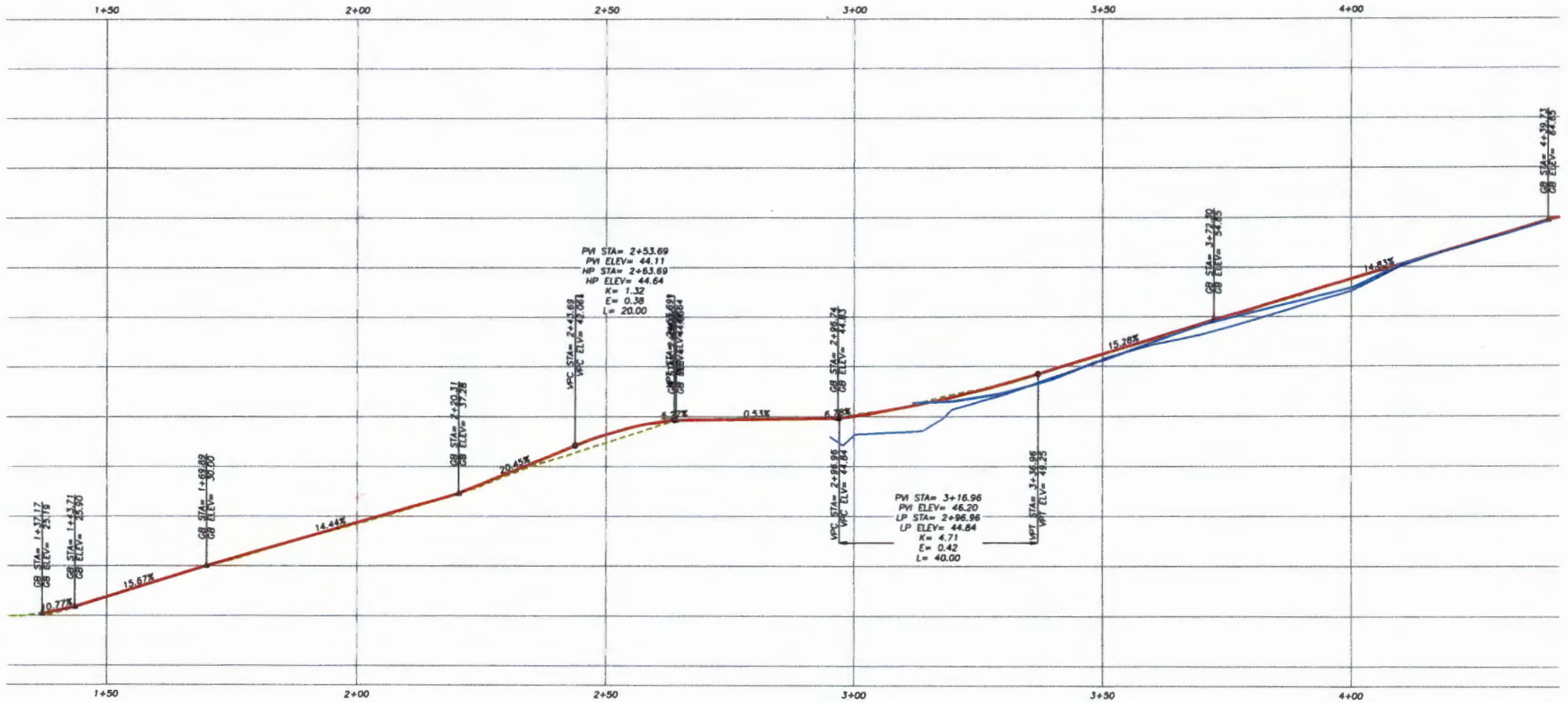


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PAVING LIMITS

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ROAD PROFILE

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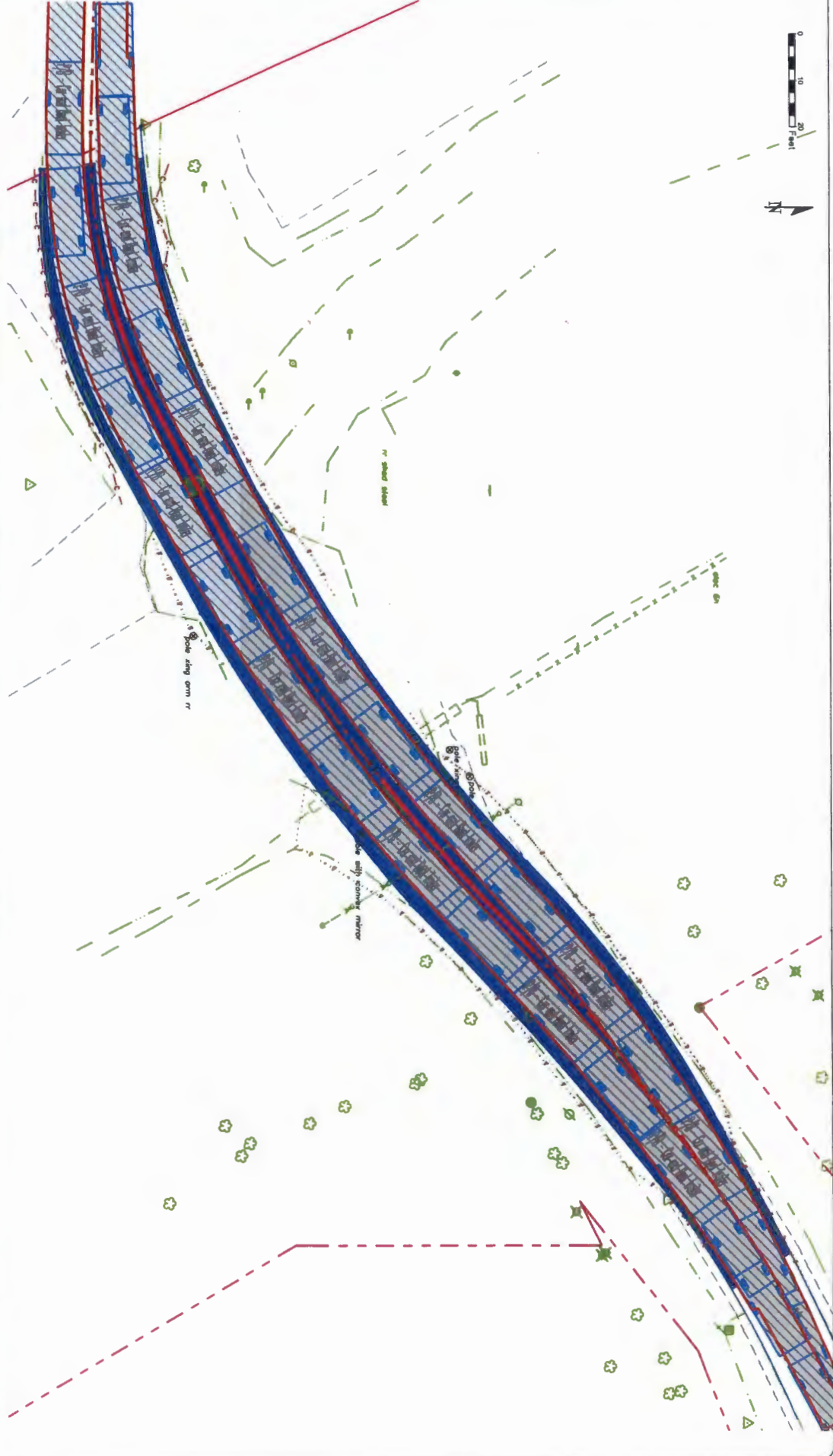
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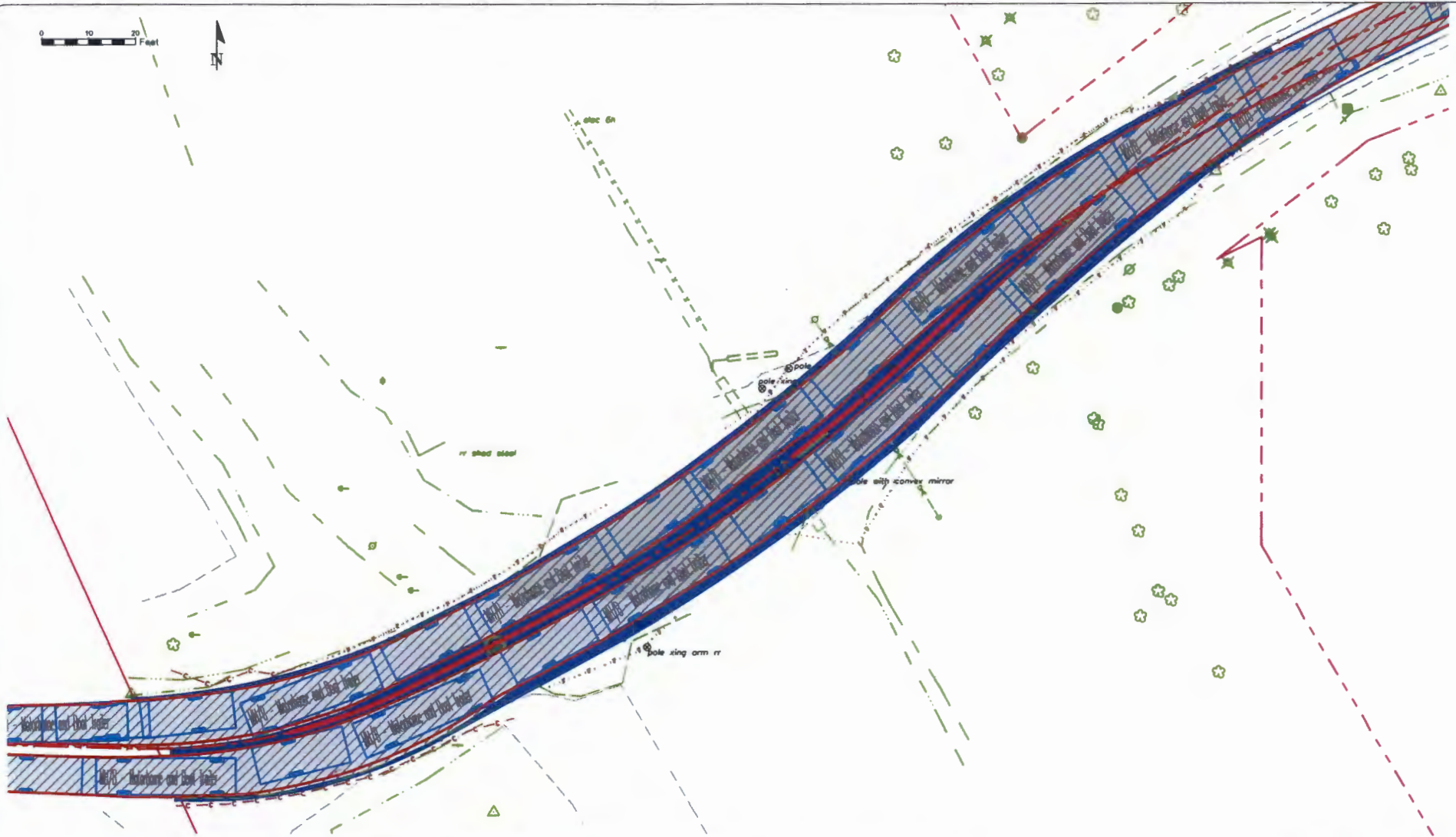
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FELIDA RR QUIET ZONE 018222
VEHICLE TRACKING-CAR



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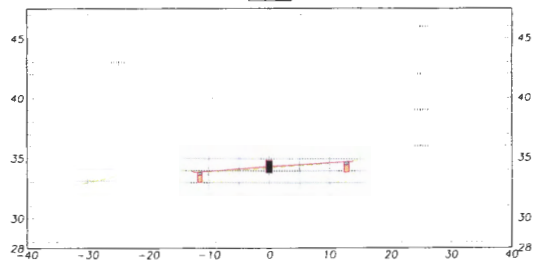


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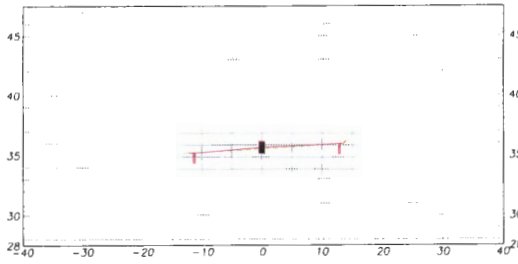
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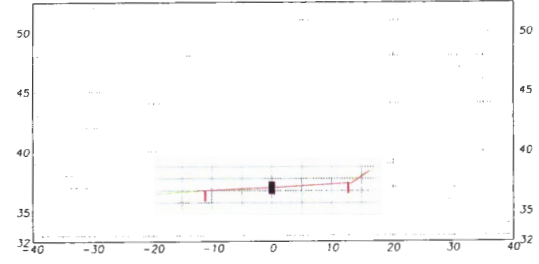
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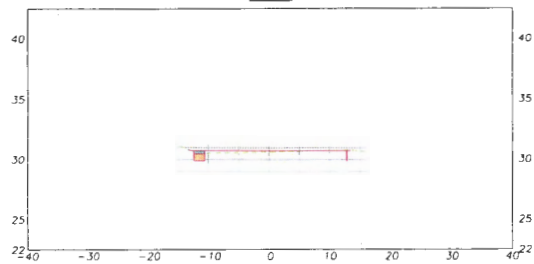
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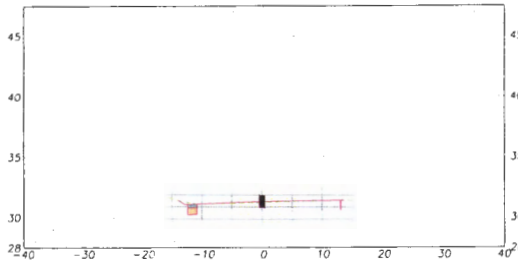
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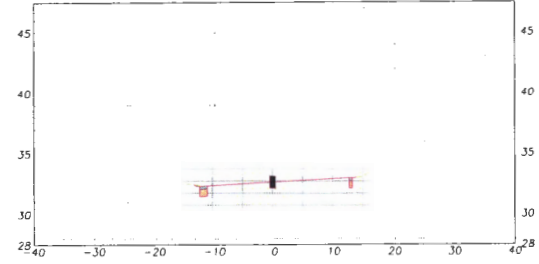
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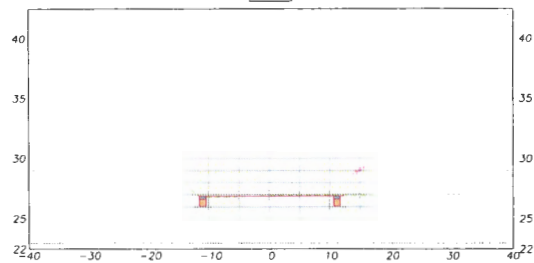
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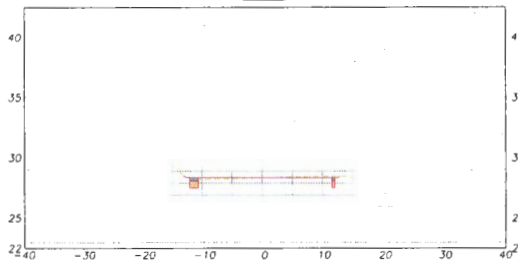
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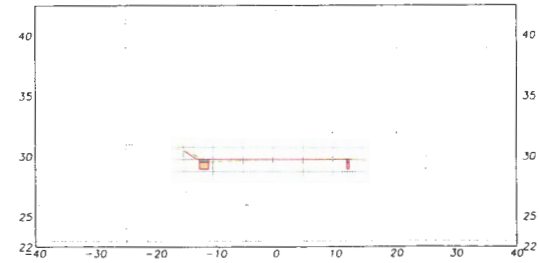
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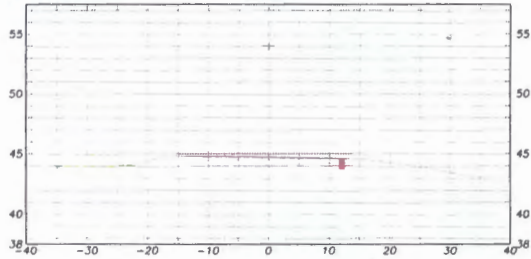
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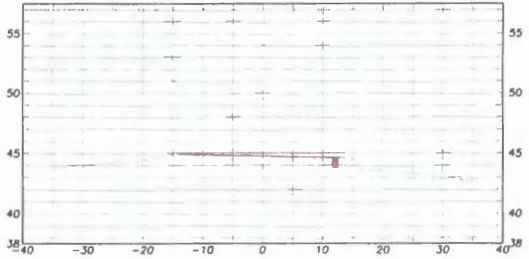
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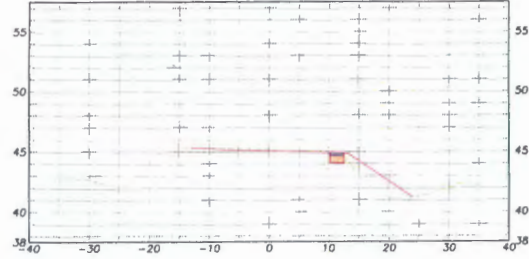
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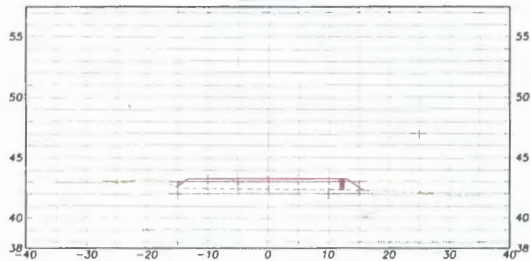
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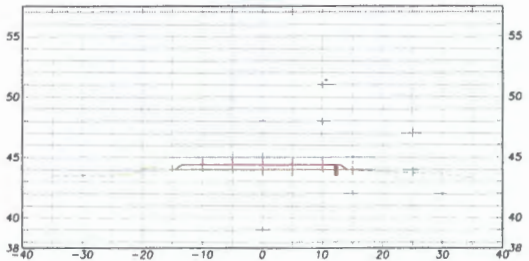
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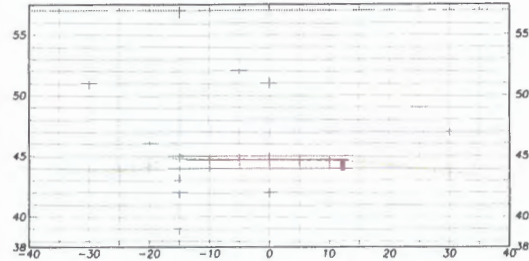
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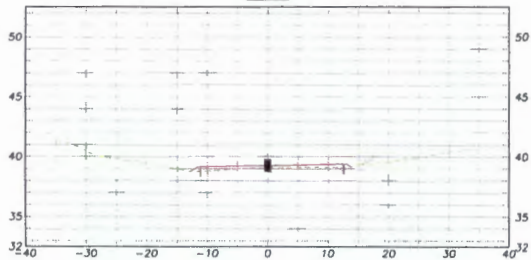
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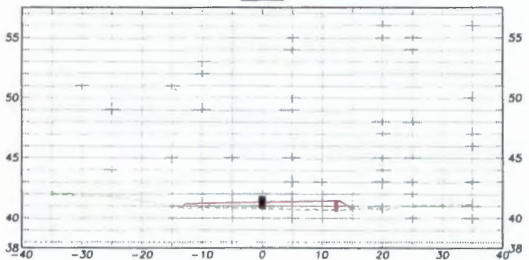
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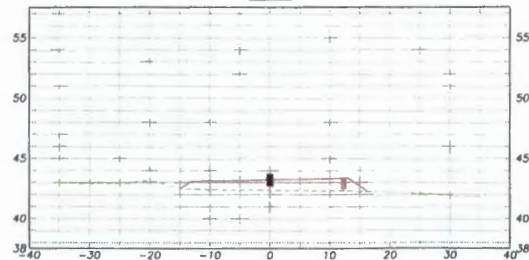
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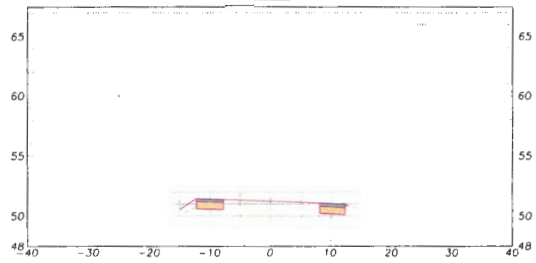
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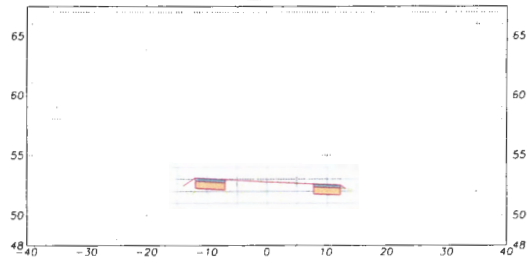
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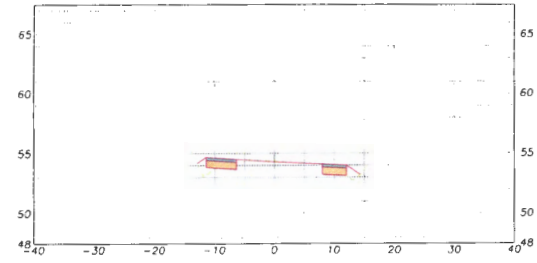
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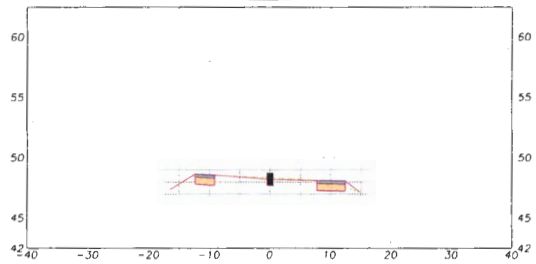
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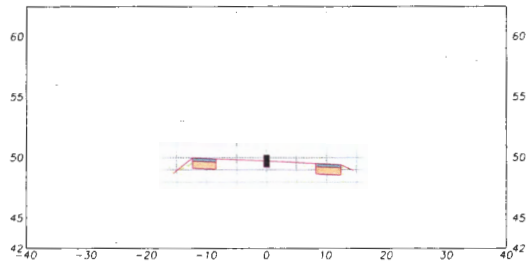
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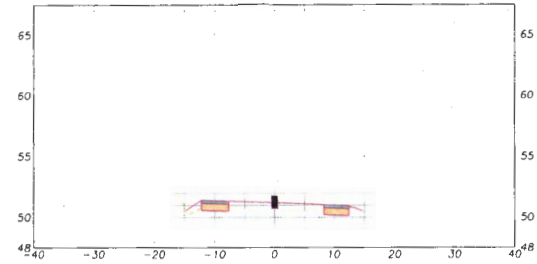
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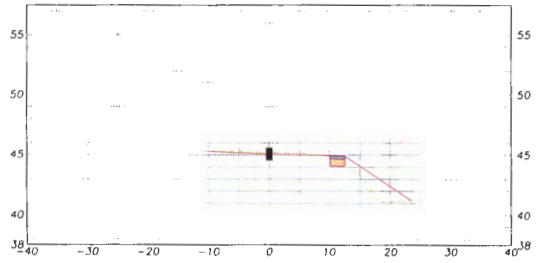
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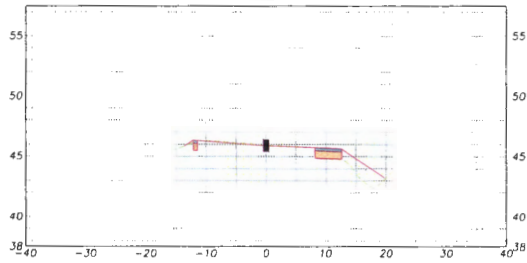
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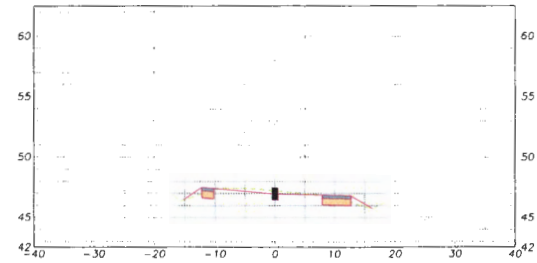
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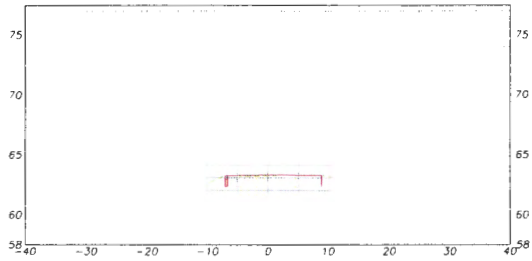


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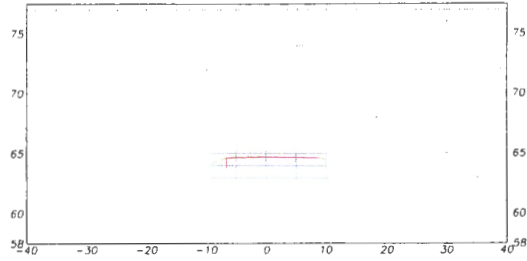
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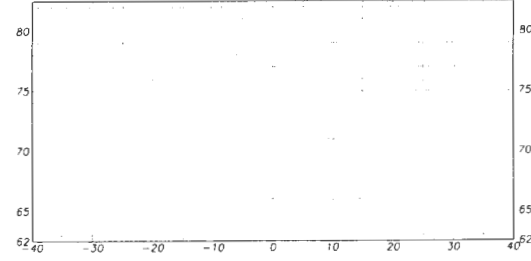
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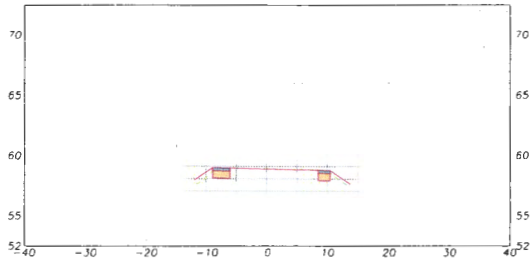
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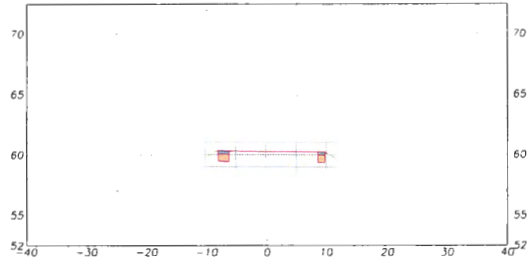
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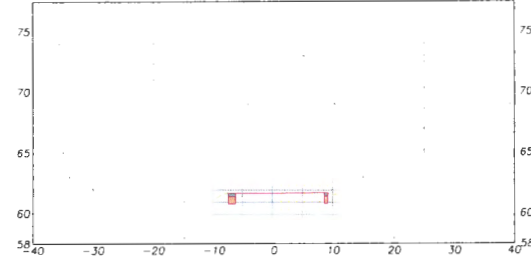
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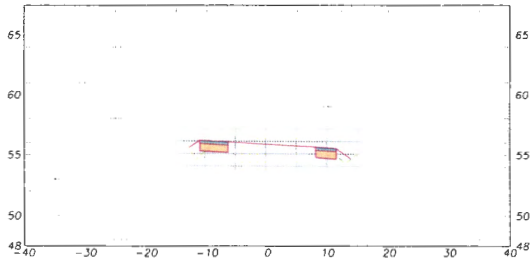
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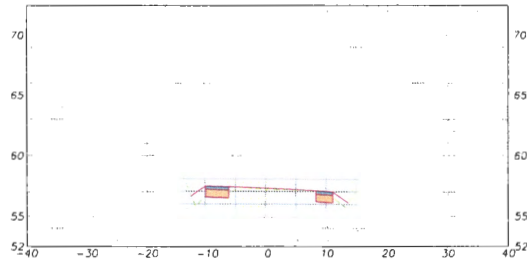
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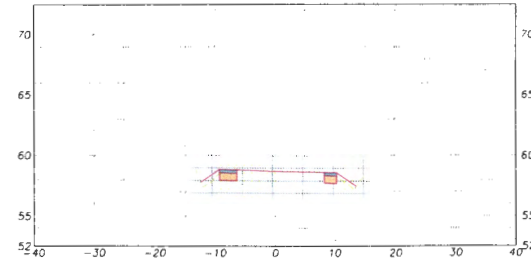
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