

- 1 Q. HOW DID HALFF EVALUATE POTENTIAL CROSSINGS OF THE USACE
2 PROPERTY?
- 3 A. In assessing the feasibility of potential crossings of the USACE property and
4 surrounding areas, Halff relied on: (1) the language of the Outgrant Policy;
5 (2) feedback from USACE representatives; (3) the locations and existing
6 uses of the designated utility corridors; (4) a review of the existing
7 constraints near the USACE property; (5) input from Oncor's planning and
8 engineering teams; and (6) Oncor's routing policies.
- 9 Q. PLEASE DESCRIBE THE POTENTIAL USACE CROSSINGS THAT
10 WERE EVALUATED FOR THE PROPOSED TRANSMISSION LINE
11 PROJECT.
- 12 A. The crossings that Halff and Oncor evaluated include: (1) an aerial spanning
13 of I-35W and USACE property near Utility Corridor 15 using Link G2; (2) an
14 overhead crossing outside of the designated utility corridors in the northern
15 portion of the USACE property, near the Trailwood subdivision; (3) an
16 underground crossing near the Trailwood subdivision in the same general
17 location as crossing 2; (4) crossings using one of the five designated utility
18 corridors established in the Master Plan; (5) an overhead crossing using an
19 existing Trinity River Authority ("TRA") easement; and (6) overhead
20 crossings outside of the designated utility corridors in the southern portion
21 of the USACE near SH 114. The locations of these alternatives are shown
22 in Exhibit RJM-5.
- 23 Q. PLEASE DESCRIBE HALFF'S EVALUATION OF THE OVERHEAD
24 CROSSING IN THE NORTH OF THE USACE PROPERTY NEAR THE
25 TRAILWOOD SUBDIVISION.
- 26 A. Halff evaluated an approximately 0.2-mile overhead crossing in northern
27 extents of the USACE property. This area is located adjacent to the
28 Trailwood subdivision in Flower Mound, near Northwest Regional Airport.
29 Because several of the designated utility corridors are located west of this
30 area and south of Northwest Regional Airport, a crossing in this general

1 location would facilitate reaching those corridors from the existing link
2 network.

3 Halff's evaluation of this option included a field visit attended by
4 representatives from the USACE, Oncor, Halff, and Senator Tan Parker's
5 office. After this field visit, a follow-up meeting was hosted at the USACE
6 Lake Office which also included the towns of Argyle, Bartonville, Flower
7 mound, and Northlake. During this meeting, the USACE stated that this
8 crossing would not be approved through the outgrant process due to the
9 high quality of the habitat in this area. A follow-up to this communication is
10 included on page A-240 of the Environmental Assessment (Appendix A).

11 Q. DID ONCOR EVALUATE AN UNDERGROUND CROSSING IN THIS
12 GENERAL AREA?

13 A. Oncor's engineering team evaluated a potential underground crossing of
14 the USACE property in this general area. Oncor's analysis produced no
15 evidence that undergrounding a project of this ampacity is currently feasible.
16 Even if it were feasible, Oncor's analysis concluded that constructing even
17 a small portion of the Proposed Transmission Line Project underground
18 would cause unacceptable delays in the project schedule and massive
19 increases in project costs. This analysis is described in greater detail in the
20 direct testimony of Oncor witness Ms. Amy L. Zapletal.

21 Q. PLEASE DESCRIBE THE DESIGNATED UTILITY CORRIDORS ON THE
22 USACE PROPERTY.

23 A. The designated utility corridors are established in the Master Plan to provide
24 preferred pathways for crossing the USACE property. The Master Plan
25 establishes the utility corridors and their width, ranging from 70 to 140 feet
26 wide, and sets specific restrictions on their use. In some cases, the Master
27 Plan expressly prohibits any further expansion of the corridors. The use of
28 all five corridors is restricted to sub-surface boring (i.e., no overhead
29 facilities), and bore pits are generally not permitted on the USACE property.

1 Three of the corridors are currently occupied by existing infrastructure,
2 including roads, transmission lines, and underground utilities.

3 Q. DO ANY OF THE DESIGNATED UTILITY CORRIDORS PROVIDE
4 FEASIBLE ROUTING OPTIONS?

5 A. Yes. Utility Corridor 15 parallels the east side of I-35W near the Denton
6 Creek crossing. The northern end of Utility Corridor 15 provides an
7 opportunity to cross I-35W using a portion of USACE property that is
8 currently occupied by I-35W, thereby minimizing impacts to the environment
9 to the greatest extent practicable. Communication from the USACE is
10 included on page A-225 of the Environmental Assessment (Appendix A),
11 which suggests that the USACE is amenable to this short crossing.

12 Q. DO ANY OF THE OTHER DESIGNATED UTILITY CORRIDORS PROVIDE
13 FEASIBLE ROUTING OPTIONS?

14 A. No. Halff evaluated the potential use of all five designated utility corridors.
15 Utility Corridors 12 through 14 were rendered inaccessible from the existing
16 link network once the USACE denied the crossing in the north near the
17 Trailwood subdivision. The only accessible corridor is Utility Corridor 11,
18 which is currently occupied by a US Highway 377 and two existing
19 transmission lines. This corridor is 100 feet wide, and the Master Plan
20 prohibits it from being expanded beyond 100 feet, including the space
21 currently occupied by US Highway 377. Like the other utility corridors, use
22 of Utility Corridor 11 is restricted to sub-surface boring, and the presence of
23 bore pits is prohibited.

24 The presence of a highway and existing transmission lines in Utility
25 Corridor 11 creates planning and engineering constraints that are
26 addressed in the direct testimonies of Mr. Naik and Ms. Zapletal,
27 respectively. But even if these constraints were addressed, the Proposed
28 Transmission Line Project would exit Utility Corridor 11 in the highly
29 congested area southwest of the USACE property. This area is bounded
30 by SH 114 to the south and I-35W to the west. It lies just north of the City

1 of Fort Worth, northeast of Alliance Airport, and east of the Texas Motor
2 Speedway. Within this area are a commercial and industrial park, densely
3 packed residential subdivisions, a mobile home park, numerous oil, gas,
4 and water pipelines, and existing transmission and distribution lines. Given
5 the density of existing development, Halff could not identify any feasible
6 routes through this area. Notably, all five of the designated utility corridors
7 would force the Proposed Transmission Line Project's routing into this area.
8 The specific engineering constraints that preclude a crossing through this
9 area are addressed in Ms. Zapletal's direct testimony.

10 Q. DOES THE TRA EASEMENT CORRIDOR PROVIDE A FEASIBLE
11 ROUTING OPTION?.

12 A. No. The TRA easement is a 60-foot-wide easement that runs generally
13 north to south through an ESA on the USACE property. It is occupied by
14 underground sewage and wastewater pipelines 16, 30, and 42 inches in
15 diameter. The location and spacing of the existing pipelines do not allow
16 for the placement of structures within the existing easement area. Even if
17 structures could be placed in the easement, because it is only 60 feet wide,
18 use of this easement area would require clearing an additional 40 feet of
19 ESA to maintain a 100-foot ROW for the Proposed Transmission Line
20 Project. This would require USACE approval through the outgrant process.
21 Furthermore, like Utility Corridor 11, the TRA easement corridor leads to the
22 highly congested area southwest of the USACE property, which does not
23 provide any feasible routing options.

24 Q. DID HALFF EVALUATE ANY OTHER CROSSINGS OF USACE
25 PROPERTY?

26 A. Yes. Halff also evaluated potential crossings outside of the designated
27 utility corridors in the far southern portion of the study area that would be
28 necessary to make use of Utility Corridors 11 or 12 or the TRA easement
29 corridor. Both crossings would traverse ESAs, thus requiring USACE
30 approval through the outgrant process. Further, like the other corridors Halff

evaluated, these crossings lead to the dense development southwest of the USACE property, which does not provide any feasible routing options.

Additional details of Halff's coordination with the USACE, and with other parties in regard to the USACE property, are included in sections 4.1, 5.2, and 6.3 and Appendix A (pages A-202 to A-244) of the Environmental Assessment. Specific planning and engineering issues identified during this assessment are detailed in Appendix G of the Environmental Assessment and in the direct testimonies of Oncor witnesses Mr. Naik and Ms. Zapletal.

VI. EVALUATION OF THE PROPOSED ROUTING ALTERNATIVES

Q. PLEASE DESCRIBE THE PROCESS FOLLOWED BY HALFF TO EVALUATE THE ALTERNATIVE ROUTES.

A. Once the preliminary alternative routes were established, the Halff Project Team evaluated them based upon the requirements set forth in Texas Utilities Code § 37.056(c)(4)(A)-(D), 16 TAC § 25.101(b)(3)(B), the Commission's CCN application form requirements, environmental and land use constraints present along each route, and Oncor's routing policies. Section 7.0 of the Environmental Assessment describes the evaluation of the alternative routes. Each professional on the Halff Project Team independently analyzed the routes defined in Table ~~7-27-1~~ of the Environmental Assessment to identify the environmental and land use data for the proposed routing alternatives, which is presented in Table ~~7-47-2~~ (Appendix E) of the Environmental Assessment.

Q. HOW DID HALFF IDENTIFY HABITABLE STRUCTURES IN THE STUDY AREA?

A. Halff reviewed and interpreted aerial photography to identify the location of habitable structures within 500 feet of the centerline of each alternative route, then verified those results during reconnaissance surveys where practical. To account for photographic interpretation limitations such as shadows, tree canopies, and horizontal accuracy of the photography, Halff identified all habitable structures within a measured distance of 520 feet of

1 the alternative route centerlines. Habitable structures within 520 measured
2 feet of each centerline are documented in Table 7-3 (Appendix E) and
3 shown in Figures 3-1A, 3-1B, 3-1C, and 3-1D of the Environmental
4 Assessment. Habitable structure measurements reflect conditions that
5 were confirmed from public ROW in the January to April 2023 timeframe.
6 However, as additional homes and other planned developments are
7 constructed in the project area, additional habitable structures may
8 ultimately be located within 520 feet of many alternative route links.

9 Q. BRIEFLY DESCRIBE YOUR UNDERSTANDING OF THE COMMISSION'S
10 POLICY OF PRUDENT AVOIDANCE.

11 A. Under 16 TAC § 25.101, prudent avoidance is defined as "the limiting of
12 exposures to electric and magnetic fields that can be avoided with
13 reasonable investments of money and effort." My understanding of the
14 Commission's policy of prudent avoidance is that the process of routing a
15 proposed transmission line should include consideration of routing options
16 that will reasonably avoid population centers and other locations where
17 people gather. This does not mean that a proposed transmission line must
18 avoid habitable structures at all costs, but that reasonable alternatives
19 should be considered.

20 Q. DO THE ALTERNATIVE ROUTES HALFF EVALUATED ADHERE TO THE
21 COMMISSION'S POLICY OF PRUDENT AVOIDANCE?

22 A. Yes, all of the alternative routes evaluated by Halff adhere to the
23 Commission's policy of prudent avoidance.

24 Q. IN DEVELOPING THE ALTERNATIVE ROUTES, DID HALFF ATTEMPT
25 TO FOLLOW PROPERTY BOUNDARIES?

26 A. Yes. For many reasons, however, paralleling property lines was not
27 possible in all instances. For example, an inverse relationship often exists
28 between following compatible corridors and property boundaries. Given
29 that most existing compatible corridors do not follow property boundaries,
30 as the amount of a proposed route parallel to corridors increases, the

1 amount of the line parallel to property boundaries will typically decrease.
2 Additionally, in some parts of the study area, the orientation of property
3 boundaries makes paralleling impractical. For example, curved or irregular
4 property lines make it difficult to parallel property boundaries without adding
5 substantial additional length or numerous large angle structures. However,
6 even given these limitations, Halff considered the paralleling of property
7 boundaries and, in the absence of other compatible corridors, attempted to
8 follow property boundaries where appropriate when routing for the
9 Proposed Transmission Line Project.

10 Q. WHAT ARE THE RESULTS OF HALFF'S INVESTIGATIONS REGARDING
11 THE PROPOSED TRANSMISSION LINE PROJECT?

12 A. Construction of the Proposed Transmission Line Project should not have a
13 significant impact on existing: (1) physiographic or geologic
14 features/resources; (2) soils and prime farmland; (3) water resources; (4)
15 fish and wildlife species or their habitats and ecosystems; (5) natural
16 resources; (6) land use; or (7) cultural resources. The primary impact to
17 vegetation resulting from the site preparation and construction of the
18 Proposed Transmission Line Project is the potential removal of existing
19 woody vegetation from areas required for the transmission line ROW.
20 However, these impacts can be mitigated by minimizing the length of the
21 transmission line through existing wooded areas and by paralleling existing
22 roads or transmission line corridors wherever possible. Moreover,
23 construction within the ROW will be performed in such a manner as to
24 minimize adverse impacts to vegetation and to retain existing ground cover
25 where feasible. Section 7.0 of the Environmental Assessment describes in
26 detail the results of the alternative route evaluations and any potential
27 impacts for all the routes.

28 Q. ARE THE ALTERNATIVE ROUTES PROVIDED BY HALFF CONSISTENT
29 WITH THE APPLICABLE PROVISIONS OF THE TEXAS UTILITIES CODE
30 AND THE COMMISSION'S SUBSTANTIVE RULES?

1 A. Yes. The Halff Project Team, with expertise in different disciplines (e.g.,
2 physiography, geology, water resources, soils, vegetation ecology, fish and
3 wildlife ecology, land use/aesthetics, maps/figures/graphics, and cultural
4 resources), delineated and evaluated the potential alternative routes for the
5 Proposed Transmission Line Project based upon environmental and land
6 use conditions present along each potential route, reconnaissance surveys,
7 and the public involvement program. The routes provided to Oncor were
8 evaluated by Halff in accordance with the requirements of Texas Utilities
9 Code § 37.056(c)(4)(A)-(D) and 16 TAC § 25.101. All of the alternative
10 routes provided to Oncor comply with the routing requirements of Texas
11 Utilities Code § 37.056(c)(4)(A)-(D) and 16 TAC § 25.101.

12 **VII. CONCLUSION**

13 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

14 A. Yes, it does.

AFFIDAVIT

STATE OF TEXAS §
 §
COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this day personally appeared Russell J. Marusak who, having been placed under oath by me, did depose as follows:

My name is Russell J. Marusak. I am of legal age and a resident of the State of Texas. The foregoing testimony and exhibits offered by me are true and correct, and the opinions stated therein are, to the best of my knowledge and belief, accurate, true and correct.

Russell J. Marusak

SUBSCRIBED AND SWORN TO BEFORE ME on this ____ day of August, 2023.

Notary Public, State of Texas

My Commission Expires

PUC Docket No. 55067

**Marusak – Direct
Oncor Electric Delivery Company LLC
Ramhorn Hill-Dunham 345 kV CCN**