APPENDIX A
FRAMEWORK ACCESS ROAD SITING AND MANAGEMENT PLAN

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ACRONYMS

Applicant	TransWest Express LLC, also TransWest
AUMs	a unit of measure equal to the amount of forage needed to sustain one animal unit (or its equivalent) for one month
BLM	Bureau of Land Management
BMP	Best Management Practice
CDOT	Colorado Department of Transportation
COM Plan	Construction, Operation, and Maintenance Plan
DEIS	Draft Environmental Impact Statement
EMM	Environmental Mitigation Measure
FEIS	Final Environmental Impact Statement
FSH	Forest Service Handbook
FSM	Forest Service Manual
IRAs	Inventories Roadless Areas
NDOT	Nevada Department of Transportation
NFS	National Forest System
NTP	Notice to Proceed
Plan	Access Road Siting and Management Plan
POD	Plan of Development
Project	TransWest Express Transmission Project, also TWE Project
ROD	Record of Decision
ROW	right-of-way
SWPPP	Stormwater Pollution Prevention Plan
TransWest	TransWest Express LLC, also Applicant
TWE Project	TransWest Express Transmission Project, also Project
UDOT	Utah Department of Transportation
USACE	United States Army Corps of Engineers
USFS	United States Forest Service
WDOT	Wyoming Department of Transportation

A1.0 INTRODUCTION

This framework Access Road Siting and Management Plan (Plan) addresses regulatory compliance, access road management practices, design features and Best Management Practices (BMPs) to reduce environmental impacts related to construction of new access roads during construction of the TransWest Express Transmission Project (TWE Project or Project) by TransWest Express LLC (TransWest or Applicant) and its Construction Contractor(s).

A2.0 PLAN PURPOSE

The purpose of this plan is to provide the Bureau of Land Management (BLM), U.S. Forest Service (USFS) and other agencies with a description of the types and location of access roads associated with the construction, operation, and maintenance of the Project. The goal of this Plan is to establish management practices and mitigation measures that, when implemented, will avoid and minimize impacts from construction of the transmission line and any associated access roads. These practices and measures are intended to mitigate the effects of construction access on environmental resources.

A3.0 PLAN UPDATES

The initial layout of all access roads to each structure location for the selected Agency Preferred Alternative will be provided in the Record of Decision (ROD) Plan of Development (POD). The Plan will include detailed mapping of the backbone access network, existing access, existing access with improvements, overland access and proposed new access. The Notice to Proceed (NTP) POD will include final field verified access road layouts specific to each construction segment. TransWest will be responsible for developing the final Access Road Siting and Management Plan. Local BLM Field Offices may require field verification to approve the final Access Road Siting and Management Plan.

A4.0 REGULATORY

A number of agencies have jurisdiction over the transportation-related components of the Project. These include the BLM, the USFS, Wyoming Department of Transportation (WDOT), Colorado Department of Transportation Department (CDOT), Utah Department of Transportation (UDOT), Nevada Department of Transportation (NDOT), Federal Highway Administration, local law enforcement and road departments, and local highway districts in the counties crossed by the Project. The Construction Contractor must file encroachment and oversized vehicle permit applications with appropriate road agencies prior to construction for those areas where the transmission line crosses public roads or where oversized vehicles will be used on public roads.

Other permits and approvals not directly related to transportation could affect the construction, use, and/or maintenance of roads in certain areas. Persons responsible for Project transportation activities must be familiar with all relevant sections of the Project's POD, of which this Plan is a part.

Where new roads are required or where improvements to existing roads are required, access roads will be designed in accordance with standards and guidelines for Non-constructed Roads and Routes as described in "The Gold Book – Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development" (AASHTO 2006). Portions of the access road network requiring design and construction to a more stringent standard will be identified in this Access Road Siting and Management Plan to be submitted with the NTP POD.

On BLM-managed lands, new road construction and existing roads improved for Project use in some locations may be required to meet or exceed the minimum standards of width, alignment, grade, surface, and other requirements presented in the BLM Travel Management Program and BLM

Manual Section 9113 (BLM 1985). On USFS lands, road construction and existing roads improved for Project use in some locations may be required to comply with the Forest Service Manual (FSM) (USFS 1999a) and Forest Service Handbook (FSH) (USFS 1999b). Some example sections relative to the Project are FSH 7709.56 – *Road Preconstruction Handbook (Forest Service 2010)*, FSH 7709.57 – *Road Construction Handbook (Forest Service 1992)*, and 7709.58 – *Transportation System Maintenance Handbook (Forest Service 2009b).*

Existing travel and transportation networks identified in BLM and USFS land use plans or travel management plans will be used as guidance for the identification and siting of access roads for the Project. These federal plans are designed to provide decision-makers with information to manage road systems that are safe and responsive to public needs and desires, are economically and efficiently managed, and have minimal negative ecological impacts on the land. The plans include designated areas for motorized use, prohibition of some uses to protect resources, or limitations on road use at certain times of the year for resource protection.

No new or improved access roads may be sited within USFS Inventoried Roadless Areas (IRA). IRAs are identified as areas of National Forest Service (NFS) land currently inventoried for planning purposes as roadless. The 2001 Roadless Area Conservation Rule does not prohibit special use developments, but generally does prohibit the construction or reconstruction of any roads associated with these uses within the boundaries of an IRA. Construction of any portions of the TWE Project which fall within IRA or other areas where access road construction is prohibited or restricted will follow the Roadless Construction Methods described in Section 5.7.3 of the Final Environmental Impact Statement (FEIS) POD.

A5.0 ACCESS ROAD MANAGEMENT PRACTICES

With the exception of IRAs and other sensitive areas identified by land management agencies, the TWE Project will require surface access to all structures and work areas during construction to allow vehicles and equipment to access the location of each transmission structure. Existing public roads will be used as the backbone access road network to access the selected Agency Preferred Alternative. Construction of new access roads will be required only as necessary to access structure sites lacking direct access from existing roads, or where topographic conditions (e.g., steep terrain, rocky outcrops, and drainages) prohibit safe overland access to the site. New access road layouts will require the appropriate approvals from jurisdictional agencies.

A route-specific plan will be developed for the selected Alternative and will be described within the Access Road Siting and Management Plan to be submitted with the NTP POD. The types of access including backbone access, existing access with improvements, overland access and proposed new access will be identified. A detailed map book will be provided showing the location of the 250-foot-wide transmission line right-of-way (ROW), proposed structure locations, backbone access network, and existing access that do not require improvements, existing access that require improvements, and new access to be constructed. The surface type (gravel, paved or other) and terrain type (flat, rolling, steep and mountainous) will also be defined. The detailed Plan for the selected Agency Preferred Alternative will be used to define location-specific mitigation measures, as needed.

Prior to construction, authorized access roads and associated limits of disturbance will be clearly delineated and marked in the field. The Construction Contractor(s) will review the location of approved access and will be responsible for ensuring construction travel is limited to those approved access roads and limits of disturbance.

All field personnel will attend an environmental training program. As part of this program, field personnel will be instructed to use only approved access roads, drive within the limits of disturbance, obey posted and jurisdictional speed limits, and become familiar with the Flagging, Fencing and Signage Plan (Appendix I).

A6.0 DESIGN FEATURES AND BEST MANAGEMENT PRACTICES

In addition to applicable design and operational standards, regulations, laws and permit requirements, the following design features and BMPs are intended to help reduce impacts related to construction of new access roads. Note that the Construction, Operation and Maintenance Plan will be incorporated into the NTP POD.

> **TWE-5**: The Construction, Operation and Maintenance (COM) Plan will display the location of Project infrastructure (i.e. towers, access roads, substations) and identify short-term and long-term land and resource impacts and the mitigation measures that will be implemented for site-specific and resource-specific environmental impacts.
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> **TWE-6:** The Construction, Operation and Maintenance (COM) Plan will include an Access Road Plan that incorporates relevant agency standards regarding road design, construction, maintenance, and decommissioning. The Access Road Plan will incorporate BMPs, stipulated by the agencies in their respective decision documents and permits.
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> **TWE-8:** Crossings of streams and waterways will be done in compliance with federal, state, and local regulations. Roads will be built as near as possible at right angles to the streams and washes (Arizona crossing). Culverts will be installed where necessary. All construction and maintenance activities will be conducted in a manner that will minimize disturbance to vegetation, drainage channels, and intermittent or perennial stream banks. In addition, fugitive dust will be controlled during road construction as required by state and local permits. . All existing roads will be left in a condition equal to, or better than, their condition prior to the construction of the transmission line. Structures will be sited with a minimum distance of 200 feet from streams, wherever possible.
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> **TWE-9:** All construction vehicle movement outside the ROW normally will be restricted to pre-designated access or public roads.
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> **TWE-12:** Except for repairs necessary to make roads passable, no widening or upgrading of existing access roads will be undertaken in the area of construction and operation, where soils or vegetation are sensitive to disturbance. In designated areas, structures will be placed to avoid sensitive features such as, but not limited to, riparian areas, water courses and cultural sites, or to allow conductors to clearly span the features within limits of standard structure design. This will minimize the amount of disturbance to the sensitive feature or reduce visual contrast.

Additional BMPs and Environmental Mitigation Measures (EMMs) identified in the Draft Environmental Impact Statement (DEIS) are listed below. These measures have not been finalized at this time and may be updated, changed, or eliminated in future revisions of this Plan.

> **TRAN-1:** The Applicant shall prepare an access road siting and management plan that incorporates relevant agency standards regarding road design, construction, maintenance, and

decommissioning. Corridors would be closed to public access unless determined by the appropriate federal land manager to be managed as part of an existing travel and transportation network in a land use plan or subsequent travel management plan(s).

TRAN-2: The Applicant shall prepare a comprehensive transportation plan for the transport of transmission tower or pipeline components, main assembly cranes, and other large equipment. The plan should address specific sizes, weights, origin, destination, and unique equipment handling requirements. The plan should evaluate alternative transportation routes and should comply with state regulations and all necessary permitting requirements. The plan should address site access roads and eliminate hazards from truck traffic or impacts to normal traffic flow. The plan should include measures such as informational signage and traffic controls that may be necessary during construction or maintenance of facilities.

TRAN-3: Applicants shall consult with local planning authorities regarding increased traffic during the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (e.g., location of school bus routes and stops) should be identified and addressed in the traffic management plan.

TRAN-4: Additional access roads needed for decommissioning shall follow the paths of access roads established during construction to the greatest extent possible; all access roads not required for the continued operation and maintenance of other energy systems present in the corridor shall be removed and their footprints reclaimed and restored.

PHS-5: The health and safety program shall establish a safety zone or setback from roads and other public access areas that is sufficient to prevent accidents resulting from various hazards. It should identify requirements for temporary fencing around staging areas, storage yards, and excavations during construction or decommissioning activities. It should also identify measures to be taken during the operations phase to limit public access to those components of energy facilities that present health or safety risks.

AGRI-3: Minimize locating access roads within the two-mile transmission line corridor in areas with croplands. For croplands that cannot be avoided by access roads, establish procedures for determining temporary and permanent access road locations with landowners and operators, and establish protection methods for roads over croplands that cannot be avoided by construction activities. Restore locations of temporary access roads to pre-construction conditions and leave permanent access roads intact through mutual agreement with the landowner and operator.

LU-1: The proponent will develop an approved Plan of Development (POD) and shall coordinate with land managers on final structure placement, including all aboveground components, access roads, and permanent disturbance areas, to ensure optimal compatible land use.

RANGE-1: Prior to construction of each segment, access road, or ancillary facility crossing a BLM or USFS grazing allotment, TransWest shall coordinate with the associated BLM Field Office and USFS national forest concerning planned development and operations that will occur and identify potential livestock management issues. TransWest will provide a schedule and locations of construction activities on affected grazing allotments to the BLM Field Office and USFS national forest to be provided to the affected grazing permittees. The construction activities schedule and construction activity locations shall be provided on a date

early enough to allow grazing permittees sufficient time to make decisions and allocate their resources during the construction time period.

RANGE-2: Prior to construction of transmission line segments, access road, or ancillary facilities, active range improvement locations shall be inventoried. Based on the results of these inventories, no roads, or ancillary facilities would be placed within 200 meters of range improvements, including livestock and wildlife water sources/systems. If avoidance is not feasible, features would be relocated to an alternate location per BLM, USFS, or state wildlife agency guidance.

RANGE-6: Prior to construction and placement of permanent facilities and access roads, TransWest shall coordinate with the associated BLM Field Office and USFS forest to identify areas where the placement of tower structures, facilities, and access roads would prevent access to either a portion or all of a livestock grazing allotment resulting in the livestock grazing allotment becoming unusable or decreasing the AUMs (a unit of measure equal to the amount of forage needed to sustain one animal unit (or its equivalent) for one month) available to a point that requires the grazing permit to be modified. In these areas, corrective actions would then be identified including rearranging of grazing allotment fences, additional access roads to the grazing allotment, re-arrangement of project facilities and access roads as feasible, etc.

GEN-5: Corridors are to be efficiently used. The Applicant, assisted by the appropriate agency, shall consolidate the proposed infrastructure, such as access roads, wherever possible and utilize existing roads to the maximum extent feasible, minimizing the number, lengths, and widths of roads, construction support areas, and borrow areas.

WAT-7: A Stormwater Pollution Prevention Plan (SWPPP) permit will be obtained and its provisions implemented for all affected areas before any ground disturbance activities commence.

WAT-10: The Applicant shall minimize stream crossings by access roads to the extent practicable. All structures crossing intermittent and perennial streams should be located and constructed so that they do not decrease channel stability, increase water velocity, or impede fish passage.

WET-3: Access roads will be routed around riparian areas, wetlands, intermittent or perennial drainages, and ephemeral channels to the extent practical. If jurisdictional wetlands or waters of the U.S. cannot be avoided, U.S. Army Corps of Engineers (USACE) approved construction techniques for construction in wetlands and waters of the U.S. will be applied. BLM and USFS construction techniques for non-jurisdictional wetlands, riparian areas, intermittent drainages, and ephemeral channels would be applied on BLM and USFS lands, as appropriate. These include the use of timber mats, erosion controls, and the placement of equipment outside of the wetland, riparian areas, intermittent drainages, and ephemeral channels boundaries.

A7.0 REFERENCES

American Association of State Highway and Transportation Officials (AASHTO). 2006. The Gold Book – Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development" AASHTO, 4th Edition, 2006.

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