

EL PASO COUNTY



COLORADO

COMMISSIONERS:
MARK WALLER (CHAIR)
LONGINOS GONZALEZ, JR. (VICE-CHAIR)

HOLLY WILLIAMS
STAN VANDERWERF
CAMI BREMER

PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT
CRAIG DOSSEY, EXECUTIVE DIRECTOR

TO: El Paso County Planning Commission
Brian Risley, Chair

FROM: Kari Parsons, Planner III
Daniel Torres, PE Engineer II
Craig Dossey, Executive Director

RE: Project File #: WSEO-20-001
Project Name: Front Range-Midway Solar Energy Project Amendment
Parcel Nos.: 57200-00-003, 57200-00-010, 57210-01-019, 57170-07-004,
57170-07-005, 57170-07-006, 57170-07-052, 57170-07-047,
57170-07-019, and 51220-01-002

OWNER:	REPRESENTATIVE:
Front Range-Midway Solar Project, LLC Savion, LLC 422 Admiral Boulevard Kansas City, MO. 64106	Core Consultants 1950 Littleton Boulevard, Suite 109 Denver, CO 80120

Commissioner District: 4

Planning Commission Hearing Date:	10/13/2020
Board of County Commissioners Hearing Date	10/27/2020

EXECUTIVE SUMMARY

A request by Front Range-Midway Solar Project, LLC, and Savion, LLC, for approval of an overlay rezoning to amend the Front Range Midway Solar Energy Project pursuant to Section 4.3.5, Wind and/or Solar Energy Generation Plan Overlay District (WSE-O), of the El Paso County Land Development Code (2019). The approximately 939-acre overlay rezoning area includes multiple existing zoning designations, including the WSE-O (Wind and/or Solar Energy Generation Plan Overlay), RR-5 (Residential Rural), and



RR-2.5 (Residential Rural) zoning districts. The applicant is proposing to amend the existing overlay area (WSE-O-17-001) to allow for a 100.2 MW (Megawatt) solar energy generation facility and proposes to include a reduction in the overlay area from 1,170 acres to 939 acres of land. An increase in the maximum energy generation production is not proposed and will remain at 100.2 MW. The parcels are located north of Rancho Colorado Boulevard and the Waste Management Landfill, south of Boca Raton Heights, east of Fort Carson, and west of Interstate 25 and are located within Sections 17, 20 21, 22, 27, 28, 29, 32 and 33 Township 17 South, Range 65 West of the 6th P.M. The parcels are included within the South Central Comprehensive Plan (1988) area.

The applicant is proposing to amend the Wind and/or Solar Energy Generation Plan Overlay zoning plan on the subject properties to allow for solar arrays and appurtenant components, to include a substation. The 100.2 MW solar energy generation project's proposed substation is proposed to interconnect with either the Public Services Company (PSCo) or Western Area Power Administration (WAPA) supply system. If the proposed solar energy generation facility connects to the existing PSCo substation, then the connection will be via 115 kilovolt (kV) line. If the proposed project connects to the existing WAPA substation, then the connection will be via a 230 kV line.

The applicant has not secured a power purchase agreement (PPA) at this time. The PPA will be secured prior to submittal of the site development plan. If the PPA is not secured, the solar array project will not be constructed. A waiver was approved previously with the approval of the Front Range Midway Solar Energy Project (WSE-O-17-001) which deferred providing the (PPA) until submittal of the site development plan application and is requested to be retained.

The applicant is proposing one phase of development of the overall solar energy project to include a solar array site, associated equipment, energy storage, meteorological monitoring devices, electrical collection devices, six (6) lay down areas, a substation, and the electrical transmission corridor with a maximum generating capacity of 100.2 MW. The applicant has agreed to maintain El Hambra View, a private road easement, during construction and to allow it to remain open in order to provide additional access to the community after completion of site construction. Rancho Colorado Boulevard and La Questa Road are proposed to be utilized during construction, as depicted in the haul route map. The applicant will restore them to a drivable condition at completion of site construction (see Recommended Condition of Approval No. 14 below).

The applicant has secured a lease agreement with El Paso County for approximately 121 acres of the 939 acres proposed to be placed within the amended WSE-O overlay

zoning district to be utilized for the solar array project as depicted on the WSE-O map (attached).

A. REQUEST/MODIFICATIONS/AUTHORIZATION

Request: Approval of an overlay rezoning to amend the Front Range Midway Solar Energy Project pursuant to Section 4.3.5, Wind and/or Solar Energy Generation Plan Overlay District (WSE-O), of the El Paso County Land Development Code. The 10 parcels, totaling 939 acres, are zoned WSE-O (Wind and/or Solar Energy Generation Plan Overlay), RR-5 (Residential Rural), and RR-2.5 (Residential Rural). The applicant is proposing to amend the Wind and/or Solar Energy Generation Plan Overlay Zoning District to allow for solar arrays, a substation, energy storage, a transmission corridor, six (6) laydown yards and appurtenant components as allowed uses. The following two (2) waivers were previously approved by the Board of County Commissioners on April 24, 2018 with the Front Range-Midway Solar Energy Project (WSE-O- 17-001) and are requested to be retained:

Waiver:

Section 4.3.5.D.2 of the Land Development Code states that, “A development impact mitigation agreement shall be required with all wind and/or solar energy generation plan overlay district applications.” Staff is not requiring or recommending impact mitigation with this application due to the minimal, if any, impacts anticipated with the project. Therefore, the applicant is requesting a waiver of this section be retained as it was previously approved by the Board, on April 24, 2018.

Waiver:

Section 4.3.5, Procedures Manual, P-AR-083-11, 1.5 *General Submittal List* of the Land Development Code identifies that a copy of the power purchase agreement shall be submitted with all wind and/or solar energy generation plan overlay district applications. A PPA has not been finalized to date due to ongoing negotiations between the applicant and the two (2) potential energy purchasers, PSCo and WAPA. No impacts are anticipated if the waiver is retained, as the solar array project will not be developed if the power purchase agreement is not finalized. Therefore, staff has no objection to the waiver request to defer the submittal of the power purchase agreement to submittal of the site development plan application be retained as it was previously approved by the Board, on April 24, 2018.

Authorization to Sign: WSE-O Plan and any other documents necessary to carry out the intent of the Board of County Commissioners.

B. PLANNING COMMISSION SUMMARY

Request Heard:

Recommendation:

Waiver Recommendation:

Vote:

Vote Rationale:

Summary of Hearing:

Legal Notice:

C. APPROVAL CRITERIA

The Planning Commission and BOCC shall determine that the following the criteria for approval outlined in Section 4.3.5.B of the El Paso County Land Development Code (2019) have been met to approve a WSE-O zoning district if the above waiver requests are retained. Compliance with the approval criteria in Section 4.3.5.G.1 is discussed, as follows:

- *The application is in general conformance with the El Paso County Master Plan, including applicable Small Area Plans or there has been a substantial change in character of the neighborhood since the land was last zoned.*

Please see the discussions below in the Policy Plan, Small Area Plan

Compliance, Water Master Plan and Other Master Plan Elements sections of this report for detailed evaluations of the conformance of the project with the applicable portions of the County master plan.

- *The rezoning is in compliance with all applicable statutory provisions, including but not limited to C.R.S. § 30-28-111, § 30-28-113, and § 30-28-116.*

Staff recommends that the overlay rezoning (map amendment) request, which includes the use and dimensional standards within the proposed WSE-O Plan and supporting documentation, is in compliance with all applicable statutory provisions.

- *The site is suitable for the intended use(s), including the ability to meet the general development standards of the Land Development Code, except as otherwise amended by the specific overlay zoning district.*

Please see the discussions below in the Zoning Compliance section of this report for detailed evaluations whether the site is suitable for the intended uses and if the proposal is able to meet the general development standards of the Land Development Code.

- *The application is consistent with the specific development standards in the Land Development Code pertaining to wind and/or solar energy generation facilities.*
Please see the discussion below in the Zoning Compliance section of this report for a detailed evaluation of whether the application is consistent with the development standards for wind and/or solar energy generation facilities.
- *The application meets the air, water, light, odor or noise standards established by County, State, or federal regulations.*
The applicant submitted an air quality management plan which indicates no air pollution is anticipated. The site does not propose to discharge water nor contaminates from the operation of the solar energy project. The daily operations of the solar project are not anticipated to generate any odor or noise.
- *The proposed use(s) will not be detrimental to the health, safety, or welfare of the inhabitants of the area and the County.*
Staff has not identified any potential health, safety, or welfare concerns with the proposed solar array.
- *The proposed use(s) will not cause undue burden on existing infrastructure.*
The applicant has agreed to maintain El Hambre View, a private road easement, during construction and to allow it to remain open in order to provide additional access to the community after completion of site construction. Rancho Colorado Boulevard and La Questa Road are proposed to be utilized during construction, as depicted in the haul route map. The applicant will be required to restore them to a drivable condition at completion of site construction. Staff recommends compliance with this criterion. See Recommended Condition of Approval No. 14.

A. LOCATION:

Abutting zoning and land use:

North: RR-5 (Residential Rural) / Vacant

South: RR-5 (Residential Rural) /Waste Management Landfill

East: RR-5 (Residential Rural) / A-5 (Agricultural) / Gravel Pit / I-25

West: RR-5 (Residential Rural/ Residential / Fort Carson Army Post Buffer

B. BACKGROUND

1. Wind and/or Solar Energy Generation Plan Overlay District

Section 4.3.5, WSE-O (Wind and/or Solar Energy Generation Plan Overlay District), of the El Paso County Land Development Code was adopted by the Board of County Commissioners on August 11, 2011, in an effort to address interest in developing utility-scale wind and/or solar energy generation facilities within El Paso County. The purposes of the adopted regulations are:

- To regulate wind and/or solar energy generation facilities which are not subject to C.R.S. § 40-1-103 and C.R.S. §30-28-110 and Section 5.3.3. of this Code;
- To site wind and/or solar energy generation facilities where they are most appropriate, considering impacts to the environment, visual corridors, existing infrastructure, and the established development pattern;
- To ensure the preservation of public health, safety, and welfare;
- To provide a regulatory scheme that is designed to address certain standards regarding setbacks, height restrictions, and other requirements for wind and/or solar power energy generation facilities;
- To provide mitigation measures for impacts associated with large-scale wind and/or solar energy generation facilities; and
- To provide greater design flexibility and efficiency in siting wind and/or solar energy generation facilities.

2. **Section 4.3.5.E Board of County Commissioner Approval of Major Amendments**

A recommendation from the Planning Commission and a final action by the Board of County Commissioners are required for an amendment to the approved WSE-O plan that includes any of the following:

- The addition of any uses or structures not authorized by the approved WSE-O plan.
- Modification of any structure sitting envelope(s) resulting in noncompliance with the dimensional standards established by the approved WSE-O plan.
- Modification of the dimensional standards established by the approved WSE-O plan.
- Modification of the material terms of the associated impact mitigation development agreement, as defined by such agreement.

3. **Relationship of Wind and/or Solar Energy Generation Plan Overlay District to Base (Underlying) Zone District**

Section 4.3.5.A.3.a of the Code states that the, “WSE-O functions in combination with base zoning districts to both modify the existing standards associated with the base zoning districts and to impose additional requirements and standards on specific properties.” This means that the rights and restrictions associated with the base zoning district (RR-5, and RR-2.5)

associated with the individual properties included in this request will only modified as indicated on the proposed WSE-O Plan, if approved.

4. Relationship between WSE-O and Appendix B: Guidelines and Regulations for Areas and Activities of State Interest (a.k.a. “1041 Regulations”)

On June 6, 2013, the El Paso County Board of County Commissioners, pursuant to Section 24-65.1-101, et seq., C.R.S., adopted Appendix B of the El Paso County Land Development Code, which is titled “Guidelines and Regulations for Areas and Activities of State Interest”, and as further amended by the Board of County Commissioners on August 6, 2013. Commonly referred to as “1041 Regulations”, the Guidelines and Regulations serve to “facilitate identification, designation, and administration of matters of state interest,” of which is included the designated activity of state interest for “Site Selection and Construction of Major Facilities of a Public Utility” within Chapter 5 of Appendix B. The proposed 100.2 MW capacity Front Range Midway Solar Array is subject to guidelines and regulations of Appendix B, specifically Chapter 5, pursuant to the definition of “power plant” within the regulations. The definition of “power plant” includes the following:

- (b) Any solar or wind electrical energy generating facility or addition thereto with a generating capacity in excess of five hundred (500) kilowatts, and any appurtenant facilities.*

5. Front Range Midway Solar Energy Project

The applicant, Front Range Midway Solar Energy Project, LLC initiated discussions with the County regarding the process for developing the solar energy project in August, 2014. An early assistance meeting was held by staff with the applicant on March 15, 2017. A formal WSE-O rezoning application was submitted on October 24, 2017. Staff attended a neighborhood meeting held by the applicant on January 31, 2018. No objections to the application were stated by the attendees of the meeting. A discussion regarding access to El Hembra View was had at the meeting between an adjacent property owner and the applicant. The applicant agreed to maintain El Hembra View, a private road easement, during construction and to allow it to remain open in order to provide additional access to the community after completion of site construction. Rancho Colorado Boulevard and La Questa Road are proposed to be utilized during construction, as depicted in the haul route map. The applicant agreed to restore them to a drivable condition at completion of site construction. The Wind and/or Solar Energy Generation Plan Overlay District

map amendment rezoning, for the Front Range Midway Solar Energy Project was approved by the Board of County Commissioners on April 24, 2018 (WSE-O-17-001). The approval included the following two (2) waivers:

Waiver:

Section 4.3.5.D.2 of the Land Development Code states that, “A development impact mitigation agreement shall be required with all wind and/or solar energy generation plan overlay district applications.”

Waiver:

Section 4.3.5, Procedures Manual, P-AR-083-11, 1.5 *General Submittal List* of the Land Development Code identifies that a copy of the power purchase agreement shall be submitted with all wind and/or solar energy generation plan overlay district applications.

A second early assistance meeting was held by staff with the applicant, Front Range Midway Solar Energy Project, LLC and Savion, LLC, on November 12, 2019. A request to amend the WSE-O overlay zoning district application was submitted on June 25, 2020. No objections to the application have been received to date. The waivers above have been requested to be retained with this rezoning request. The amendments to the WSE-O overlay zoning district requested are as follows:

- Reduce the WSE-O Plan area from 1,170 acres to 939 acres,
- Altering the site envelopes as depicted on sheet 2 of 13 of the WSE-O plan (attached),
- An addition of an operation and maintenance building,
- An addition of an energy storage facility,
- An increase to the maximum height of the substation’s energy related components from 35 feet to 70 feet, and
- An increase to the maximum height of the overhead transmission and collection line poles from 90 feet to 100 feet.

The applicant continues to agree to maintain El Hambra View, a private road easement, during construction and to allow it to remain open in order to provide additional access to the community after completion of site construction. Additionally, Rancho Colorado Boulevard and La Questa Road are again proposed to be utilized during construction, as depicted in the haul route map. The applicant will restore them to a drivable condition at completion of site construction (see Recommended Condition of Approval No. 14 below).

1. ZONING COMPLIANCE

The WSE-O zoning can be applied for in any base zoning district. Section 4.3.5.B of the Code provides recommended use and dimensional standards for development within a WSE-O plan area. However, the same section also states that “the use, dimensional, and development standards for a WSE-O district shall be set forth in the approved WSE-O plan, and shall include: uses, maximum structure height(s), minimum setbacks, structure elevations, access, accessory structures, signage, lighting, project phasing, and other standards necessary to administer the plan.” Below is a comparison between the recommended use and dimensional standards and the proposed standards within the Front Range Midway Solar Energy Project WSE-O:

A. USE STANDARDS

Principal Uses

Section 4.3.5. Recommended Principal Uses for a Solar Project

The Code anticipates solar panels (arrays), transmission line(s), substations, energy storage, meteorological monitoring devices, and energy generation facility-related solar panels as allowed principal uses.

Proposed Front Range Midway Solar Energy Project WSE-O Principal Uses

The proposed WSE-O Plan is proposing meteorological monitoring devices, energy generation facility-related solar panels, energy storage, substation, transformer, stand, inverter, power poles and a single 115kV or 230kV line as principal uses. The applicant has depicted the locations of each of the proposed principal uses on Sheets 4, 5, 7 & 8 of 13 of the proposed WSE-O rezoning plan (see attached).

Accessory Uses

Section 4.3.5 Recommended Accessory Uses for a Solar Project

The Code anticipates collection lines, maintenance facilities, laydown areas and other accessory uses necessary to carry out the intent of the overlay zoning as allowed accessory uses.

Proposed Front Range Midway Solar Energy Project WSE-O Accessory Uses

The proposed WSE-O Plan does include site specific accessory uses. Laydown areas for construction proposes, an energy storage area, a maintenance building, and collection lines from the solar arrays to the

project substation are proposed as accessory uses with this WSE-O request.

B. DIMENSIONAL STANDARDS

Maximum Structure Heights

Section 4.3.5.B.2.a Maximum Structure Heights

The Code states that the height restrictions for solar panels are established by the specific WSE-O zoning and plan. All other structures (e.g., inverters and transformers) shall comply with the height restrictions of the base (underlying) zoning district unless otherwise established by the specific WSE-O zoning and plan.

Section 4.3.5.B.2.b Structure Setbacks

The Code states that all structures within a WSE-O Plan, except wind turbines and transmission lines, shall “meet the setbacks of the underlying zoning district unless otherwise established by the specific wind/solar energy generation overlay district zoning and development plan.”

Section 4.3.5.B.2.b.iv of the Code states that, “there shall be no setback requirement for the transmission lines.”

The density and dimensional standards established within the RR-2.5 zoning district as identified in Chapter 5, Table 5-4 of the Code are as follows:

- Setbacks – 25 feet front and rear, 15 feet side
- Maximum building height – 30 feet
- Maximum lot coverage – none

The density and dimensional standards established within the RR-5 zoning district as identified in Chapter 5, Table 5-4 of the Code are as follows:

- Setbacks – 25 feet front, rear and side
- Maximum building height – 30 feet
- Maximum lot coverage – 25 percent

Existing Front Range Midway Solar Energy Project WSE-O Maximum Structure Heights (WSE-O-17-001)

The current WSE-O Plan identifies the following as the maximum heights for each anticipated structure type:

Solar Panels – 14 feet tall as measured from finished grade to the top of the solar module in the vertical position.

Inverter and Transformer – 14 feet tall as measured from finished grade.

Meteorological Monitoring Poles – 14 feet tall as measured from finished grade.

Power Poles – 90 feet tall as measured from finished grade.

Substation – 35 feet tall as measured from finished grade

Proposed Front Range Midway Solar Energy Project WSE-O Maximum Structure Heights

The proposed WSE-O Plan identifies the following as the maximum heights for each anticipated structure type:

Solar Panels – 14 feet tall as measured from finished grade to the top of the solar module in the vertical position.

Inverter and Transformer – 14 feet tall as measured from finished grade

Meteorological Monitoring Poles – 14 feet tall as measured from finished grade.

Power Poles – 100 feet tall as measured from finished grade.

Substation – 70 feet tall as measured from finished grade

Operation and Maintenance Building – 20 feet tall as measured from finished grade

Energy Storage Facilities – 20 feet tall as measured from finished grade

Proposed Front Range Midway Solar Array WSE-O Structure Setbacks

The proposed structure setbacks with this WSE-O Plan are proposed to be a minimum of 25 linear feet.

2. POLICY PLAN COMPLIANCE

The El Paso County Policy Plan (1998) has a dual purpose; it serves as a guiding document concerning broader land use planning issues and provides a framework to tie together the more detailed sub-area elements of the County master plan. See the applicant's narrative in the letter of intent for a discussion regarding how the project conforms to the applicable goals and policies. Staff's review of the relevant policies is as follows:

SECTION 6 – Growth and Land Use

Policy 6.1.3- *Encourage new development which is contiguous and compatible with previously developed areas in terms of factors such as density, land use and access.*

Policy 6.1.7- *Encourage infill development which complements existing uses, is consistent with Small Area and other adopted plans.*

Policy 6.1.8- *Encourage incorporating buffers or transitions between areas of varying use or density where possible.*

Policy 6.1.9- *Viable residential properties should be reasonably protected from the adverse impacts of major roadways or potentially incompatible land uses.*

The proposed solar array will provide solar-generated electricity to the grid via interconnection with one of the existing PSCo or WAPA transmission lines at a point along the west end of the site. Staff recommends that the industrial character of the proposed solar array is compatible with the landfill to the south, the gravel pit to the northeast, the interstate to the east, the existing transmission lines running through the site, and the two (2) existing substations and natural gas power plant. The topography will mitigate the view of the facilities from nearby residents. Residential development to the west is not anticipated as a result of the buffer located at the eastern edge of the Fort Carson Army Base boundary. For the above reasons, staff recommends compliance with the above policies.

Policy 6.1.10- *Ensure that new development will not create a disproportionately high demand on public services and facilities by virtue of its location, design or timing.*

Following a detailed review of the proposed project, including a review of the potential for project-related impacts to existing infrastructure in the area, staff recommends that the impacts, if any, that are caused by the project will be negligible. For that reason, staff recommends compliance with this policy.

Policy 6.1.11- Plan and implement land development so that it will be functionally and aesthetically integrated within the context of adjoining properties and uses.

Policy 6.1.14- Support development which complements the unique environmental conditions and established land use character of each sub-area of the County.

The proposed solar arrays should be largely concealed from view due to the interior siting of the arrays on the 939-acre facility. The rolling terrain should adequately screen the solar arrays from adjacent properties. (See attached visual analysis). For that reason, staff recommends that the project will functionally and aesthetically be integrated into the area and will preserve as much of the existing vegetation on the site as possible.

Policy 6.1.15- Recognize the need for new development and redevelopment to respond to changes in demographic, market and technological conditions.

Policy 6.1.16- Allow for new and innovative concepts in land use design and planning if it can be demonstrated that off-site impacts will not be increased and the health, safety and welfare of property owners and residents will be protected.

The growing solar energy industry and the increasing demand by utility providers for solar generated energy in El Paso County lead staff to recommend this application as a response to a change in State mandates for renewable energy sources, market, and technological conditions. Development of the proposed site for any other use could be challenging given the strict Federal regulations limiting access to the public and other non-utility industries on an energy generation site. For that reason, staff recommends that the proposed solar arrays and appurtenant components are a reasonable use for the site and are not anticipated to cause off-site impacts or negatively affect the health, safety, and welfare of residents in the area.

SECTION 7 – Special and Unique Land Uses

Policy 7.1.2- Consider the future combined impact of potential additional land use requests when considering individual applications for special or unique land uses.

Policy 7.5.1- Encourage the multiple use of utility sites and corridors where feasible and appropriate.

The solar array site is within an area that has existing transmission lines and substations which will reduce the number of improvements that would otherwise need to be constructed to facilitate delivery of solar-generated energy. The new substation and proposed small section of electrical transmission line will connect directly into either the existing PSCo or WAPA line, which will interconnect at either the PSCo or WAPA substation.

SECTION 12– Other Services and Utilities

Policy 12.4.1- Ensure that electric, natural gas, petroleum and other facilities (generation, distribution, pipelines and storage) are located in a manner which is safe, environmentally sensitive and which does not unreasonably burden particular property owners with adverse impacts.

As mentioned above, the future development of residential properties on a portion of the project area and west towards Fort Carson is discouraged via the buffer area along the Fort Carson Army Base boundary. Ongoing operations at Fort Carson will not be unreasonably burdened by the proposed project. Fort Carson was sent a referral by Planning and Community Development to comment on the project and no response was received. The applicant also contacted Fort Carson directly, no concerns were noted. There are no environmentally sensitive areas within the proposed overlay area; therefore, staff does not anticipate adverse impacts from the proposed solar energy generation facility on adjacent properties.

Policy 12.4.5- Encourage the use of existing easements for utility installation in order to reduce negative impacts in other areas.

The overall area of the WSE-O plan is requested to be reduced. Additionally, the transmission corridor from the solar arrays will connect into the existing overhead lines which will eliminate the need for additional powerlines, thereby reducing the potential for additional visual impacts.

Policy 12.4.7- Allow for the effective use of renewable energy resources especially where it minimizes the local impacts on neighboring properties and non-renewable energy use.

This policy applies due to the “renewable” nature of the proposed solar energy generation facility. A general assessment of this policy as it applies to the proposed WSE-O rezoning has been provided in detail throughout this report.

3. Small Area Plan Compliance

The project is located within the South Central Comprehensive Plan (1988) area. The plan identifies the land as being within the “West Area Planning District” and acknowledges the noise constraints (artillery range) due to the proximity to the Fort Carson Army Base. The Plan acknowledges that access to the area is difficult due to the terrain and further identifies that the roads, on occasion, are impassible. The Plan generally discourages residential development in this area. The proposed solar array site is not anticipated to have significant negative impacts to the roads in this area. Due to the age of the Plan it does not identify or discuss any potential uses similar to the proposed WSE-O, however, staff finds that the request is generally consistent with the applicable policies pertaining to land use recommendations.

4. Water Master Plan Analysis

The El Paso County Water Master Plan (2018) has three main purposes; better understand present conditions of water supply and demand; identify efficiencies that can be achieved; and encourage best practices for water demand management through the comprehensive planning and development review processes. Relevant policies are as follows:

Goal 1.2 – Integrate water and land use planning.

Goal 3.1 – Promote cooperation among water providers to achieve increased efficiencies on infrastructure.

Policy 6.1.3.2 – Provide developers with clear landscape guidance that results in attractive landscaping and reduced water requirements.

Policy 6.1.3.3 – Encourage sustainable landscaping that is tailored to the variations of climate zones across the County.

The subject property is located within Region 7, Fountain Area, which is expected to have the largest growth demand in the County by 2060. Specifically, the Plan states:

“Region 7 could experience the largest demand growth in the County by 2060. Areas projected to develop by 2040 are located south of Fountain on

the north and south sides of Link Road. Areas northwest of Fountain along the east and west sides of Marksheffel Road are also expected to grow by then, as well as the area south of Fountain on the west side of I-25. Directly west of Fountain, areas north and south of Squirrel Creek Road are expected to grow by 2060. One large development is expected south of Fountain by 2060, along the west side of I-25. Another is expected in the northeast corner of Region 7, along both sides of Bradley Road. See Figure 5.6 for the Region 7 growth map.”

The proposed development is located west of I-25, south of the City of Fountain, and southwest of the Pikes Peak International Raceway. A 2040 growth area is identified to the west of the Pikes Peak International Raceway and is outside of the Wigwam Mutual Water Company service area. The land proposed to be included in the WSE-O area is not identified as a growth area in the Plan. Non-industrial development in this area of the County is unlikely due to a lack of centralized services and due to other existing industrial land uses in the area. The Wigwam Mutual Water Company has provided a water commitment letter to serve the development. The applicants will install a water tap to the existing Wigwam Mutual Water Company line in the area to fill a water truck anticipated to be used to wash the solar panels. It is anticipated that the solar panels will require washing twice a year, requiring approximately 22,000 gallons (0.07 acre-feet) per year with no annual increase. In comparison, the presumptive use value for a single-family dwelling unit is 0.26 acre-feet of water annually which is significantly higher than the anticipated water demand for the solar energy generation facility. Staff is not requesting landscape to be utilized for a visual buffer, due to the arid climate in this area of the County which is intended to meet the Policies in the Plan.

5. OTHER MASTER PLAN ELEMENTS

The Master Plan for Mineral Extraction (1996) identifies potential valley fill deposits (Mesa Gravel and Valley Fill deposits by water in a stream valley) in this area. The applicant provided an affidavit certifying that mineral rights for the property were researched and found and such rights are owned by multiple interests. The mineral rights owners were notified of the original application (WSEO-17-001) December 15, 2017 via certified mail. No responses have been received. State Statute requires notice to mineral rights owners prior to the initial public hearing on an application for development. If more than one application for development is filed for the same surface development, the applicant is only required to provide mineral rights notice for the initial public hearing scheduled for the first application for development. Therefore,

because the applicant noticed mineral estate holders in 2017 after submitting the original WSEO application, a second notice is not required with the WSE-O amendment.

C. PHYSICAL SITE CHARACTERISTICS

1. HAZARDS

The applicant provided a document titled “Preliminary Geotechnical Engineering Report”, which was prepared by Terracon Engineering, Inc., dated August 24, 2015. The document does not identify any significant areas of geologic concern that would preclude development of the solar energy generation facility.

The property included within the proposed WSE-O Plan is not identified as being within a high wildfire hazard area. With that being said, it should be noted that a fire, known as the Carson-Midway fire, did occur in the same area as the proposed solar energy generation facility in March 2018. The fire resulted in the destruction of multiple dwellings and accessory structures. The Hanover Fire Protection District provides emergency services in this area of the County. Hanover Fire Protection District has provided comments within their commitment letter to provide emergency services to the project area (see attached).

2. WILDLIFE

Potential impacts to wildlife are generally low as depicted in the El Paso County Wildlife Descriptors Map (1996). Colorado Parks and Wildlife was sent a referral to comment; however, no comments have been received to date.

3. FLOODPLAIN

The subject property is not located within a defined floodplain as determined by the FEMA Flood Insurance Rate Map (FIRM) panel numbers 08041C1170G, 08041C1165G, 08041C1160G, and 08041C1155G dated December 7, 2018.

4. DRAINAGE AND EROSION

The subject property lies within the Sand Creek (FOFO0600) and Midway Ranch (FOFO0800) Drainage Basins. A preliminary drainage report was submitted with the previously approved WSE-O-17-001 application and an amendment to that preliminary drainage report was submitted with this application to document the proposed changes. There will be minimal grading with this project and a minimal net increase in imperviousness, with multiple

extended detention basins proposed to mitigate developed flows and provide permanent water quality treatment for the site. Final platting (subdivision) is not proposed or required, therefore drainage fees will not apply.

This project has very limited potential to cause short-term drainage, erosion, and sedimentation impacts to downstream properties. The applicant will be required to mitigate construction impacts with Best Management Practices (BMPs) as outlined in the Drainage Criteria Manual, Volume II.

5. TRANSPORTATION

Access to the site for heavy and large trucks will be limited to southbound Interstate 25 exit 119, Rancho Colorado Boulevard. Light passenger vehicle traffic, such as that associated with the travel of construction workers, will not be restricted. Direct access from Rancho Colorado Boulevard to El Hambre View will be utilized as well as the unimproved southerly section of La Questa Drive.

Construction traffic is anticipated to occur for up to ten (10) months with a maximum of 500 trips per day. A breakdown of the anticipated traffic types has been provided in the Revised Transportation Memorandum which was submitted with this WSE-O application. A haul route plan with the proposed haul route roads has also been submitted with this application. As indicated in the Revised Transportation Memorandum, the existing road conditions along the haul route will be analyzed per the specifications from the El Paso County Department of Public Works (DPW) prior to the start of construction.

D. SERVICES

1. WATER

A finding of water sufficiency is not required with map amendment (rezoning) requests. Wigwam Mutual Water Company has committed to providing potable water to the solar array facility for dust control during construction, and post-construction maintenance purposes.

2. SANITATION

The proposed use as a solar array does not require wastewater service. Temporary on-site facilities are anticipated to be utilized at the time the facility is under construction.

3. EMERGENCY SERVICES

The subject parcels are located within the service area of Hanover Fire Protection District. Hanover Fire Protection District has provided comments

within their commitment letter to provide emergency services to the project area (see attached). Staff recommends Condition of Approval No. 1.j below which requires the applicant to work with the El Paso County Office of Emergency Management to develop an acceptable emergency response plan, which will be required as part of the site development plan application.

4. UTILITIES

The State of Colorado mandate described in Colorado Revised Statute §40-2-124 requires 30 percent of retail energy sales to be deliverable from renewable energy generation for investor owned utilities and 10 percent for large municipal utilities by year end 2020. Although construction of this facility will occur after the States mandate, it is anticipated that renewable energy will continue increase to meet the growing demands of the region. These solar arrays will provide power to either the PSCo or WAPA substation where it will be integrated into the electrical grid and distributed to Front Range customers.

5. PARKS/TRAILS

The El Paso County Parks Master Plan (2013) does not depict a park or trail corridor in this area. No fees are due with this request.

6. SCHOOLS

Staff provided Hanover School District No. 28 with an electronic referral packet and an opportunity to comment on the project. No comments were received in response.

E. APPLICABLE RESOLUTIONS:

Approval Resolution: Page 27

Disapproval Resolution: P28

F. STATUS OF MAJOR ISSUES

There are no remaining issues

G. RECOMMENDED CONDITIONS AND NOTATIONS

Should the Planning Commission and the Board of County Commissioners find that the request meets the criteria for approval outlined in Section 4.3.5, staff recommends the following conditions and notations:

CONDITIONS

1. Prior to excavation or construction, approval of a site development plan by El Paso County for the solar array facility is required. Site development plan applications shall include, but are not limited to the following information:

- a. Site development plan drawings;
 - b. Final drainage report;
 - c. Stormwater Management Plan and Report (SWMPR)
 - d. Any permits required by the Colorado Department of Public Health and Environment, if needed
 - e. Detailed reseeding plan;
 - f. Lighting plans and detailed specifications, including plans and specifications for temporary lighting, as applicable;
 - g. Sign plans, if signage is proposed;
 - h. Elevations of any above ground structures;
 - i. Emergency response plan, to be prepared in coordination with and acceptable to the El Paso County Office of Emergency Management;
 - j. Noxious weed management plan, to be prepared in coordination with and acceptable to El Paso County Environmental Services; and
 - k. Colorado Department of Health and Environment (CDPHE)-accepted surface and groundwater quality monitoring plans, if required.
2. The applicant shall provide copies of all required State and County air quality permits prior to approval of a site development plan application.
3. The applicant shall comply with all applicable local, State, and Federal laws and regulations regarding the use, disposal, storage, and transportation of solid and/or hazardous materials on and off site.
4. A County Erosion and Stormwater Quality Control Permit (ESQCP) shall be obtained prior to construction. All disturbed areas shall be promptly stabilized and re-vegetated in accordance with Best Management Practices (BMPs) as outlined in the Drainage Criteria Manual, Volume II.
5. The Board of County Commissioners, at a public hearing, shall have the authority to require the shutdown, removal, and/or relocation of any glare-causing component or components if the Board finds that any such component or components is/are creating a health and/or safety risk. Such shutdown, removal, and/or relocation requirement by the Board shall be based upon documented inspection of the facility by a County official at the applicant's expense.
6. The hours of operation during the construction and long-term maintenance of the project shall be limited to seasonal day time hours unless otherwise authorized by the Planning and Community Development Department Director

prior to the proposed construction and/or maintenance. Requests to conduct nighttime construction activities shall be submitted to the Planning and Community Development Department Director at least two business days prior to the time of the proposed construction. Any failure to respond to the requests by the Planning and Community Development Department Director within two business days shall be interpreted as an approval of the request.

7. Site lighting, including temporary lighting, will be limited to that characterized in the Project Lighting Memo and Lighting Plan. The Detailed specifications shall be provided at the site development plan stage. All light fixtures shall be directional and positioned so that the light sources are concealed and fully shielded from adjacent properties and roadways, unless otherwise specifically authorized under the regulations of the Occupational Safety and Health Administration (OSHA) of the United States Environmental Protection Agency.
8. The Board of County Commissioners may elect at an open and public hearing, following full published notice, to approve a rezoning of the properties included within the WSE-O boundary for the purpose of removing the overlay zoning if the applicant has not begun construction within two (2) years of the date of Board of County Commissioners approval.
9. Any approval of the WSE-O rezoning request is only valid with the additional approval of the concurrently reviewed 1041 permit. Failure to receive approval of the 1041 permit shall render approval of the WSE-O rezoning null and void.
10. At least six (6) months prior to the initiation of decommissioning activities, Developer shall prepare a Project Decommissioning and Site Restoration Plan (PDSRP) prepared in sufficient detail to identify, evaluate, and resolve all major deconstruction, environmental, hauling, and public health and safety issues reasonably anticipated by the developer on the date thereof and submit the same to the County for review and approval. The PDSRP shall describe the process that will be used to evaluate the options and select the measures that will be taken to restore, reclaim, or preserve the project site and to otherwise ensure the protection of the public against risks or dangers resulting from the project decommissioning. The PDSRP shall address provision for funding or bonding arrangements to meet the project site restoration or management costs and it shall include an estimate of market value of the equipment and salvage value of all other equipment and materials that do not have value at resale.

11. Developer shall provide notice to the Planning and Community Development Department of the date of initial delivery of power to the existing utility distribution system within 30 days following such date.
12. Developer, its successors or assigns, as the case may be, shall provide financial assurances sufficient for decommissioning costs in the form of a performance bond, guaranty or letter of credit, or cash to ensure the availability of funds for such costs to El Paso County no later than the beginning of year twenty (20) following the date of initial delivery of power. An updated engineering estimate of the amount of the decommissioning costs shall be provided by the developer to the County at least sixty (60) days and no sooner than ninety days prior to providing financial assurances to the County. If decommissioning should occur prior to year 20, an updated engineering estimate of the amount of the decommissioning costs shall be provided by the developer to the County at least 60 days and no sooner than 90 days prior to the start of decommissioning activities.
13. Any expansion, enlargement, or modification of the WSE-O Plan shall be subject to the provisions of Sections 4.3.5.E and F, as amended, of the El Paso County Land Development Code.
14. In recognition of past and current public use of El Hembra View, a private road easement, the applicant has voluntarily committed to the surrounding community to allow El Hembra View to remain open to the public during and after site construction. Rancho Colorado Boulevard and La Questa Road may be utilized during construction, as depicted in the haul route map. The applicant shall restore both roads to a drivable condition, as determined by the PCD Director in consultation with the County Engineer, at completion of site construction.
15. The approval is limited to the WSE-O plan as depicted. An amendment to the WSE-O Plan shall be required prior to development of any additional phases.
16. Development of the project shall be conducted in accordance with the regulations of El Paso County, conditions of approval and notations of the Board of County Commissioners and the accompanying documents/reports in the Planning and Community Development Department file for the rezoning application (WSEO-20-001).

NOTATIONS

1. If a zone or rezone petition has been disapproved by the Board of County Commissioners, resubmittal of the previously denied petition will not be accepted for a period of one (1) year if it pertains to the same parcel of land and is a petition for a change to the same zone that was previously denied. However, if evidence is presented showing that there has been a substantial change in physical conditions or circumstances, the Planning Commission may reconsider said petition. The time limitation of one (1) year shall be computed from the date of final determination by the Board of County Commissioners or, in the event of court litigation, from the date of the entry of final judgment of any court of record.
2. Rezoning requests not forwarded to the Board of County Commissioners for consideration within 180 days of Planning Commission action will be deemed withdrawn and will have to be resubmitted in their entirety.

H. PUBLIC COMMENT AND NOTICE

The Development Services Department notified 36 adjoining property owners on September 24, 2020 for the Planning and Commission and Board of County Commissioners' hearing. No responses have been received.

I. ATTACHMENTS

Vicinity Map

Letter of Intent

Midway Front Range Solar Energy Project WSE-O Plan

Fire Commitment Letter

Visual Analysis

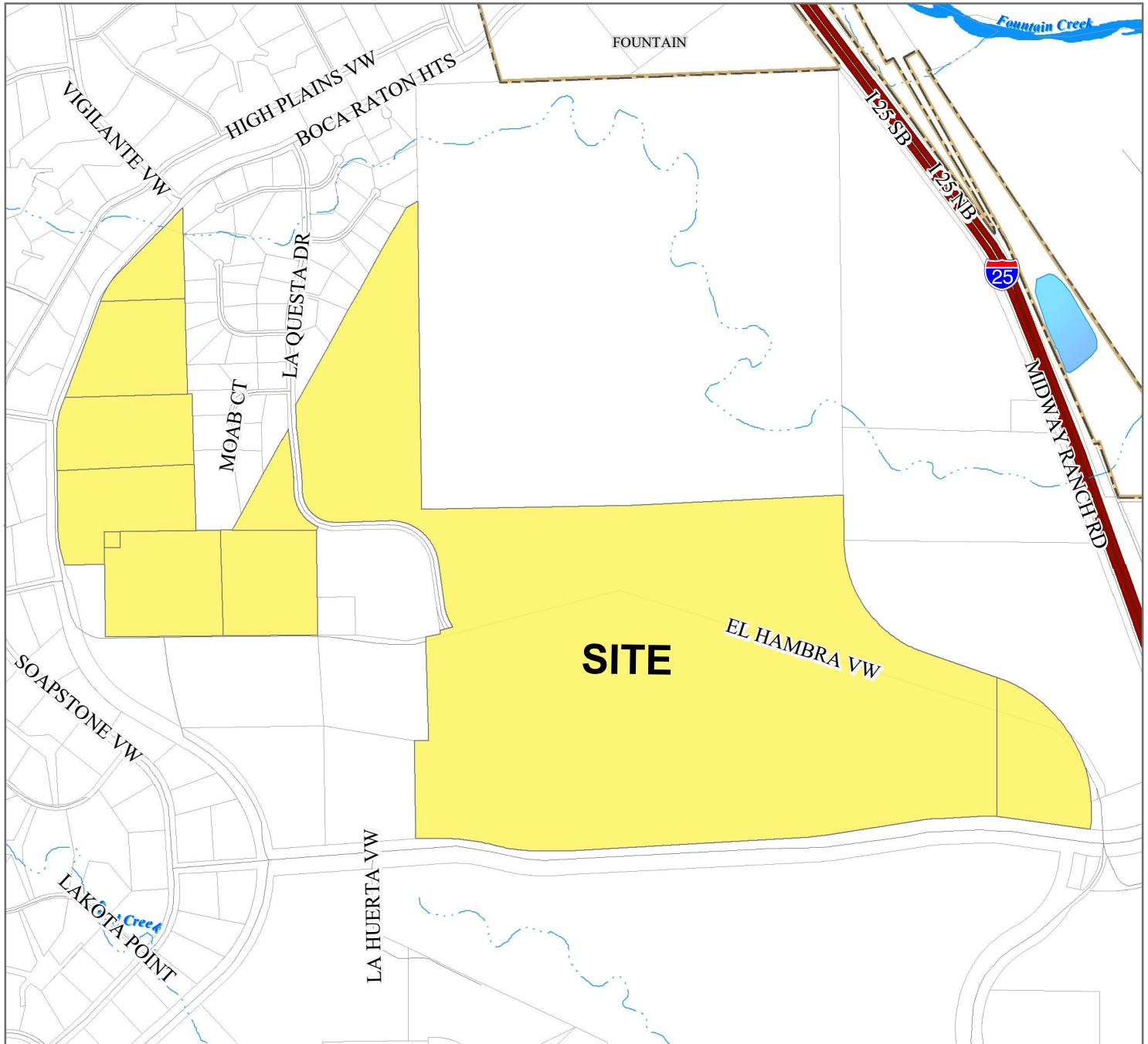
El Paso County Parcel Information

File Name: WSEO-20-001

Zone Map No. --

Date: September 24, 2020

PARCEL	NAME
5717007052	FRONT RANGE-MIDWAY
5717007006	EL PASO COUNTY
5717007004	EL PASO COUNTY
5717007005	EL PASO COUNTY
5721001019	FRONT RANGE-MIDWAY SOLAR PROJECT
5722001002	MIDWAY DEVELOPMENT COMPANY INC
5720000003	PUBLIC SERVICE CO OF COLORADO
5720000010	UNITED STATES RECLAMATION SERV
5720000009	WARD TIMOTHY T
5717007019	EL PASO COUNTY



Please report any parcel discrepancies to:
El Paso County Assessor
1675 W. Garden of the Gods Rd.
Colorado Springs, CO 80907
(719) 520-6600

24



COPYRIGHT 2018 by the Board of County Commissioners, El Paso County, Colorado. All rights reserved. No part of this document or data contained hereon may be reproduced; used to prepare derivative products; or distributed without the specific written approval of the Board of County Commissioners, El Paso County, Colorado. This document was prepared from the best data available at the time of printing. El Paso County, Colorado, makes no claim as to the completeness or accuracy of the data contained hereon.

September 21, 2020

Ms. Kari Parsons
El Paso County Planning and Community Development Department
2880 International Circle
Colorado Springs, CO 80910

RE: Letter of Intent – Major Amendment to the Wind and/or Solar Energy Generation Plan Overlay (WSE-O) District (WSEO-20-1)

Dear Ms. Parsons,

Front Range-Midway Solar Project, LLC (Applicant), a wholly owned subsidiary of Savion, LLC, is seeking a Major Amendment to the Wind/Solar Energy Generation Plan Overlay (WSE-O) District approved by El Paso County, Colorado Board of County Commissioners (BoCC) on April 24, 2018 (WSEO-17-001) to allow for modifications to the Front Range-Midway Solar Project (FRMW Project or Project). Per Section 4.3.5.E of the Land Development Code of El Paso County, Colorado (LDC), approval of a Major Amendment (to the WSE-O) includes any of the following and requires a recommendation from the Planning Commission and a final action by the BoCC:

- The addition of any uses or structures not authorized by the approved WSE-O plan
- Modification of any structure siting envelope(s) resulting in noncompliance with the dimensional standards established by the approved WSE-O plan
- Modification of the dimensional standards established by the approved WSE-O plan
- Modification of the material terms of the associated impact mitigation development agreement, as defined by such agreement

Since the WSEO-17-001 approval in 2018, the FRMW WSE-O amended plan area (WSEO-20-1) has been reduced from 1,170 acres to 939 acres. Recent advances to solar panel technology have resulted in increased panel efficiency (i.e. higher wattage [power] per panel). In addition, previous easements in the WSE-O Plan area have been released and no longer need to be avoided, allowing for a more efficient site layout within the smaller WSE-O Plan area. Given the advances in technology and the former easement area that no longer needs to be avoided; the FRMW Project design was optimized and the full 100.2 megawatt alternating capacity (MW AC) photovoltaic (PV) solar energy generation facility previously sited on 1,170 acres is now proposed to be located within 939 acres.

Project design updates include shifts in the solar panel array, details of an operation and maintenance (O&M) building, and details of an energy storage facility (battery storage). The updated design will require an increase to the maximum height of FRMW Project substation facilities from 35 feet to 70 feet to accommodate lightning arrestors/grounding pole structures and an increase to the maximum height of overhead transmission and collection line poles from 90 feet to 100 feet to accommodate minimum clearance requirements over existing transmission infrastructure.

The above changes were discussed with El Paso County Planning & Community Development (PCD) and at the agency's direction, the Applicant is requesting a Major Amendment to the WSE-O District for the FRMW Project (WSEO-20-1) to allow the following changes:

- WSE-O Plan area change from 1,170 acres to 939 acres
- Inclusion of O&M building details
- Inclusion of energy storage facility details
- Increase to the maximum height of Project substation facilities from 35 feet to 70 feet
- Increase to the maximum height of overhead transmission and collection line poles from 90 feet to 100 feet

Introduction

The Applicant has completed the Type D Application Form (I-2C) for the Major Amendment for the FRMW Project (Attachment I: Type D Application Form). Many of the FRMW Project details remain the same as those included in WSEO-17-001, including the Applicant's intent to construct, operate, and maintain a 100.2-megawatt (MW) photovoltaic solar energy generation facility. However, the amended FRMW WSE-O Plan area (WSEO-20-1) has changed from 1,170 acres to 939 acres and no longer includes parcels 5720007001, 5720007002, 5720007003, 5720007004, and 5720000007. The Project design has been optimized, and updates include an O&M building and an energy storage facility located adjacent to the Project substation. In addition, design updates will require an increase to the maximum height of Project substation facilities from 35 feet to 70 feet; and an increase in maximum height of transmission line poles from 90 feet to 100.

As approved, the facilities included the proposed solar panel array, a project substation, and meteorological monitoring devices (METs). Project accessory uses included 34.5 kV collection lines (including an overhead 115 kV transmission line and underground or overhead collection power lines), maintenance facilities, and any other uses necessary to carry out the intent of the overlay zoning, including but not limited to direct current (DC) to AC inverters associated with the solar array, medium voltage transformers, circuit breakers and disconnect switches, and a communications system that would interconnect from the new project substation to one of the adjacent substations (Western Area Power Administration [WAPA] or Public Service Company of Colorado [PSCo]).

The amended FRMW Project includes additional details for an O&M building. This O&M building consists of two storage containers (similar to trucking containers) placed side by side for storing equipment. The containers include electricity and HVAC systems for O&M staff. This building may require potable water and sewer for which it would utilize a potable water tank or waterline tap which has already been procured from the Wigwam Mutual Water Company and a septic tank to serve O&M staff.

The amended FRMW Project also includes details for an energy storage facility that will be coupled to the solar facility through an AC electrical bus system. The energy storage will utilize battery technology to store the energy generated by the FRMW Project for later use. The system will be comprised of multiple, specially designed cabinets that will be arranged on the FRMW Project site to house the batteries, inverters, and transformers. These cabinets include a number of safety features including temperature control equipment installed on each cabinet. Additional safety features of these energy storage cabinets include one or more of the following (1) integrated fire protection system (2) UL 9540 certifications, or (3) National Fire Protection Association-qualified equipment. The energy storage facility will be located within the FRMW Project structure siting envelope for energy storage. The Applicant discussed the addition of energy storage to the FRMW Project with El Paso County PCD during an Early Assistance meeting on November 12, 2019. During that meeting and in subsequent electronic mail correspondence dated December 2, 2019, El Paso County PCD concurred that energy storage is considered an accessory to the WSEO-17-001 and that it does not require an amendment. In addition, the Applicant has discussed the addition of energy storage with Hanover Fire District and a Commitment Letter from the fire district has been provided. Although no amendment is required for the energy storage facility, the Applicant is providing additional details on these accessory components through this process.

The FRMW Project transmission line will remain entirely within the FRMW WSE-O Plan structure siting envelope with a new route that would extend a short distance from the proposed FRMW Project substation to an existing bay within either the adjacent WAPA substation or the PSCo substation; the length of the transmission line would be determined upon execution of a Power Purchase Agreement (PPA), which in turn would determine the interconnection substation location (WAPA or PSCo). As a result of advanced engineering that has occurred since the WSEO-17-001 approval, Applicant has determined that at least three of the transmission line poles will need to be a maximum of 100-feet tall (versus the 90 feet previously approved in WSEO-17-001) wood or steel poles with guyed supports and

anchors on turning structures to cross over the existing transmission line. The height of the power poles above ground level may vary based on ground conditions at each pole location.

The amended Dimensional and Density Standards for the FRMW Project are provided in Table I. The setback from exterior lot lines will remain at 25 feet per the approved WSEO-17-001. An application to vacate the interior lot lines was submitted, approved, and recorded with the county for all parcels owned by the Applicant. Leased parcels will have above-ground solar facilities set back along interior lines per the lease agreements with the landowners.

Per the approved WSEO-17-001, up to 50 sets of transformers and inverters would be located adjacent to panels and would be at a maximum height of 14 feet. Three to five meteorological stations would be located across the Project and would be a maximum height of 14 feet.

Since approval of WSEO-17-001, engineering details for the FRMW Project substation have changed. The FRMW Project substation will be located within the underlying RR-5 zone. The Project substation would now include approximately 60-foot tall dead-end structures where the terminus of the transmission line is supported with the surge arrester and post insulators. Poles with lightning mast and finial would be up to 70-feet tall, connecting the static wire to the dead-end structure. Therefore, the maximum height requirement for the FRMW Project substation infrastructure would need to be 70-feet (versus the 35-foot tall maximum identified in the approved WSEO-17-001).

The maximum heights for substation structures within a WSE-O district is as established in the WSE-O Plan pursuant to LDC Sec. 4.3.5(B)(2)(a) and the maximum height for certain other structures not listed is per the underlying zoning district unless otherwise established by the WSE-O Plan. The Applicant notes that the maximum height for structures in the underlying RR-5 and RR-2.5 zoning districts (other than those exempted) is 30 feet. This Major Amendment seeks approval for an increase in the maximum height of Project substation facilities from 35 feet to 70 feet to accommodate grounding pole structures; and an increase in the maximum height of overhead transmission and collection line poles from 90 feet to 100 feet to accommodate minimum clearance requirements over existing transmission infrastructure.

Maximum heights for the O&M facility and energy storage have been added to Table I, although these facilities will not exceed maximum heights for the underlying zoning districts. Of note, the FRMW Project is located adjacent to existing utility infrastructure, which already exceeds the maximum height restrictions for the underlying zoning districts.

Construction access would remain unchanged from the approved WSEO-17-001 with use of existing routes from Interstate-25 from southbound Exit 119, following existing public roadway Rancho Colorado Boulevard and El Hambre View (private road) and La Questa Drive (county right-of-way). Internal Project access roads would be constructed between solar arrays to allow maintenance technicians access to individual arrays during routine maintenance.

It is anticipated that FRMW Project construction will begin in the fourth quarter of 2021 and commercial operation will begin by the end of year 2022.

Table 1. Amended Dimensional and Density Standards for the FRMW Project WSEO-20-1

Underlying Zoning District	Minimum Setbacks for structures ¹ (ft.) (Principal and Accessory Uses)	Maximum Height of Solar Panels (ft.)	Maximum Height of Transmission and Collection Line Poles (ft.)	Maximum Height of MET Stations (ft.)	Maximum Height of Inverter-Transformer Pairs (ft.)	Maximum Height of Project Substation Facilities (ft.) ^{2,3}	Maximum Height of Project O&M Building (ft.) ²	Maximum Height of Energy Storage Facilities (ft.) ²
	Perimeter of WSE-O Boundary							
RR-5	25	14	100	14	14	70	20	20
RR-2.5	25	14	100	14	14	70	20	20

¹ Setbacks are not applicable to fences or walls seven feet in height or less, retaining walls less than four feet in height, poles, lines, cables, transmission lines or other transmission or distribution facilities. All setbacks shall be measured from the WSE-O District boundary, except meteorological towers, which shall be setback as provided by the El Paso County LDC as of the date of application for this WSE-O District.

² FRMW Project substation, O&M building, and energy storage are currently sited in RR-5 parcels, however, due to design changes, may be relocated within the structure siting envelope.

³ The primary substation facilities will be a maximum of 35 feet with the exception of the grounding pole structures with lightning protection which could be up to a maximum 70 feet.

In accordance with El Paso County requirements as described in the LDC Site Specific Development Plan, this LOI includes the following information:

- 1) Owner/applicant and consultant, including addresses and telephone numbers
- 2) Site location, size, and zoning
- 3) Request and justification
- 4) Existing and proposed facilities, structures, roads, etc.
- 5) Deferral and waiver requests (if applicable) and justification
- 6) The purpose and need for the change in zone classification
- 7) The total number of acres in the requested area
- 8) The total number of residential units and densities for each dwelling unit type
- 9) The number of industrial or commercial sites proposed
- 10) Approximate floor area ratio of industrial and/or commercial uses
- 11) The number of mobile home units and densities
- 12) Typical lot sizes: length and width
- 13) Type of proposed recreational facilities
- 14) If phased construction is proposed, how will it be phased
- 15) Anticipated schedule of development
- 16) How water and sewer will be provided
- 17) Proposed uses, relationship between uses and densities
- 18) Areas of required landscaping
- 19) Proposed access locations
- 20) Approximate acres and percent of land to be set aside as open space, not to include parking, drive, and access roads

Additionally, a Wind and/or Solar Energy Generation Overlay Plan Amendment for the FRMW Project has been prepared in accordance with the El Paso County Development Services Department (DSD) requirements (Attachment 2).

Since approval of WSEO-17-001, some of the adjacent land has changed ownership. The Applicant attempted to reach all new adjacent landowners to inquire if 1) they were aware of the FRMW Project, 2) if they had any issues with the FRMW Project and 3) to inform them of upcoming communications directly from the county and from the FRMW Project. To date the Applicant has had discussions with six of the thirteen new landowners, some of which were aware of the FRMW Project. None of these new landowners expressed any issues with the FRMW Project nor did they express opposition to the FRMW Project or this Major Amendment. The Applicant also left messages for four of these new owners. As of this submittal the Applicant has not heard back from these owners. Finally, the Applicant was unable to find active phone numbers to reach three of the new adjacent landowners. In order to ensure some form of communication, each adjacent landowner was sent a letter to update them on the status of the FRMW Project. The letters were mailed on August 14, 2020 and a copy of the letter with delivery receipts is included in Attachment 5.

The Applicant has been in discussion with Tami West of the Pioneer Village Roads Public Improvement District and Tim McNerney, Interim Superintendent of the Hanover School District to discuss the Amended FRMW Project. Both entities have expressed their continued support for the Project. Support letters are anticipated and will be provided to the county upon receipt. Chief Tatum provided an updated fire commitment letter which is included in the application.

I. Project Owner/Applicant and Preparer/Consultant

Owner/Applicant Front Range-Midway Solar Project, LLC Courtney Timmons, Development Director 422 Admiral Boulevard Kansas City, Missouri 64106 Phone: 906.458.4350 Project Owner: Front Range-Midway Solar Project, LLC 9070 and 9310 Rancho Colorado Boulevard Fountain, CO 81008	Preparer/Consultant: CORE Consultants, Inc 1950 W Littleton Blvd, Suite 109 Littleton, CO 80120 Phone: 303.703.4444
---	---

2. Site Location, Size, and Zoning

Site Location

The amended WSEO-20-1 is located in Sections 17, 20, 21 and 22, Township 17 South, and Range 65 West in El Paso County, Colorado. The amended WSEO-20-1 is located west of Interstate-25 (I-25) approximately 20 miles south of downtown Colorado Springs on private and El Paso County-owned lands secured by the Applicant through direct ownership and/or lease agreements. The amended FRMW WSE-O-20-1 is bounded by county lands on the west, an existing gas plant and by dispersed residential development, by rangeland to the north, by a gravel pit to the east, and by the Midway Waste Management Landfill to the south (Attachment 2). Specifically, the amended FRMW WSE-O Plan consists of the parcels listed in Table 2.

Table 2. Parcels located within the Amended FRMW WSEO-20-1 Plan Area

Parcel ID	Zoning	Landowner
5717007004	RR-5	El Paso County
5717007005	RR-5	El Paso County
5717007006	RR-5	El Paso County
5717007019	RR-5	El Paso County
5717007047	RR-2.5	Powell Homes LLC
5717007052	RR-2.5	Front Range-Midway Solar Project LLC
5721001019	RR-2.5	Front Range-Midway Solar Project LLC
5722001002	RR-2.5	Midway Development Company, Inc.
5720000010	RR-5	U.S. Reclamation Service, U.S. Dept. of Interior, BOR
5720000003	RR-5	Public Service Co. of Colorado c/o Property and Local Taxes

Size

The amended FRMW WSE-O Plan area has been reduced from 1,170 acres to 939 acres and the Project design optimized to accommodate the full 100.2 MW AC PV solar energy generation facility within the smaller 939 acres. Therefore, the amended WSEO-20-1 is more efficient and less overall impact than the previously approved WSEO-17-001.

The FRMW Project structure siting envelope includes any area where FRMW Project facilities can be sited. The design shown within the siting envelope is preliminary, therefore locations of facilities within the siting envelopes may shift without an amendment.

Zoning

The FRMW WSE-O Plan area is zoned Residential Rural (RR)-2.5 and RR-5 (Attachments 1 and 2).

3. Request and Justification

As was approved for WSEO-17-001, the purpose of the FRMW Project remains the same; to construct, operate, and maintain a 100.2-MW photovoltaic solar power generation facility to provide clean, cost effective, renewable energy to one or more public utility companies with connections to this area of the county. The need for the FRMW Project was established by multiple factors including local and state statutes including Colorado's Renewable Energy Standard (Section 40-2-124, C.R.S) which requires 30% of retail energy sales to be derived from renewable generation for investor owned utilities and 10% for large municipal utilities by the year 2020. Other statutes and policy directives that require or encourage the production of renewable energy include the Colorado Governor's Climate Action Plan, and local initiatives of Colorado rural cooperatives, municipal utilities, and generation and transmission associations.

Conformance to the El Paso County Master Plan

The activities associated with the FRMW Project are compatible with the current El Paso County Master Plan (Master Plan) which consists of the County Policy Plan (CPP), small area plans (SAPs), the Parks Master Plan, the Master Plan for Mineral Extraction, drainage basin planning studies and the major transportation corridors plan. The Master Plan guides land use in El Paso County. The Master Plan has been reviewed as part of this process and specific component plans under the Master Plan have been identified and reviewed further as they are impacted by the location and nature of the Project, including the CPP and the applicable SAP (South Central Comprehensive Plan). The original WSEO-17-001 LOI (Attachment 3) includes a summary of key elements of the CPP, and the South Central Comprehensive Plan (SCCP) with a detailed discussion of those elements of both plans that are relevant to the FRMW Project and describe how the FRMW Project would conform to those components.

Conformance to the El Paso County Water Master Plan

The activities associated with the FRMW Project are compatible with the current El Paso County Water Master Plan (El Paso County February 2019) which outlines the water planning, demand, and supply analysis for the county water supply. The FRMW Project requires water usage limited to dust control during construction and minimal water usage during operations. Water required during construction will be supplied by the Wigwam Mutual Water Company located in Region 7 of the El Paso County providers. A water commitment letter has been included with the application (Attachment 44). A water line within the Wigwam Water District traverses the FRMW Project; the Applicant procured a tap for use during construction and operations. It is anticipated that the solar panels will require washing twice a year, requiring approximately 22,000 gallons (0.07 acre-feet) per year with no annual increase. Water required for O&M staff for drinking and sanitary uses will be minimal during operations, procured and stored in tanks associated with the O&M facility. The minimal water usage required for the FRMW Project therefore meets the goals and policies identified in the Water Master Plan.

4. Existing and proposed facilities, structures, roads, etc.

Existing Uses

At present, existing transmission lines, a natural gas-fueled electric generation unit, the WAPA and PSCo substations, and country roads are located within the extent of the WSEO-20-1 boundary (Attachment 2).

Proposed Uses

The FRMW Project would generate 100.2 MW AC, the same as approved, and include facilities located within the structure siting envelope identified in Attachment 2. Project facilities include solar panels, a substation, and METs. The WSE-O Plan (Attachment 2) shows the location of these facilities as well as the accessory uses which include collection lines (including an overhead transmission line and underground or overhead collection power lines), an operations and maintenance building and energy storage facility, and any other uses necessary to carry out the intent of the overlay zoning, including but not limited to DC to AC inverters associated with the solar array, medium voltage transformers, circuit breakers and disconnect switches, and a communications system that would interconnect from the new Project substation to the WAPA or PSCo substations. The collection lines lead to the FRMW Project substation and the FRMW Project substation is connected to the existing substation with an overhead transmission line as shown in the WSE-O Plan (Attachment 2). Internal access roads would be constructed between solar arrays and contained within the FRMW WSE-O Plan area.

The energy storage facility would be coupled to the solar facility through an AC electrical bus system. The energy storage will utilize battery technology to store the energy for later use. The system will be comprised of multiple, specially designed, cabinets that will be arranged on the site to house the batteries, inverters, and transformers. The energy storage facility will be located within the siting envelope.

Up to six laydown areas will be placed within the siting envelope identified in the WSE-O Plan. These laydown areas will be used during construction to place equipment and supplies as needed starting from grading until the final solar panels and overhead lines are completed. Laydown areas are located in areas where project infrastructure will be placed. Laydown areas will be restored and reseeded at the completion of construction.

5. Deferral and waiver requests (if applicable) and justification

This Amendment for the FRMW Project does not request any modifications to the deferral and waiver requests from the approved WSEO-17-001. The WSEO-17-001 approval included the approval of two waivers: a waiver for the development impact mitigation agreement required in Section 4.3.5.D.2 of the LDC, and a waiver for the PPA required in Section 4.3.5 Procedures Manual, P-AR-083-11, 1.5 General Submittal List of the LDC. Text from the BoCC staff report for the April 24, 2018 BoCC hearing is included in Attachment 4: Waivers. BoCC staff did not require impact mitigation with the WSEO-17-001 due to the minimal, if any, impacts anticipated with the Project. A PPA for the FRMW Project is currently being negotiated. BoCC staff had no objection to the waiver request to defer the submittal of the PPA to the submittal of the Site Development Plan application.

6. The purpose and need for the change in zone classification

No underlying zoning change is needed. The FRMW Project purpose remains the same: to construct a solar energy project to generate 100.2 MW to satisfy multiple local, state, and federal statutes including Colorado's RES statute (Section 40-2-124, C.R.S.) which requires 30% of retail energy sales to be derived from renewable generation by 2020 and thereafter from investor owned utilities and 10% for large municipal utilities.

7. The total number of acres in the requested area

The amended WSE-O Plan area has been reduced from 1,170 acres to 939 acres as a result of removing five parcels totaling 231 acres from the Project (5720007001, 5720007002, 5720007003, 5720007004, and 5720000007). As a result, the FRMW Project WSE-O Plan area and structure siting envelope have changed.

8. The total number of residential units and densities for each dwelling unit type

No residential units are included in this Major Amendment for the FRMW Project.

9. The number of industrial or commercial sites proposed

The Applicant is proposing one solar energy generation facility including the principal and accessory uses listed herein to be located within the amended FRMW WSE-O Plan area (WSEO-20-1; Attachment 2).

10. Approximate floor area ratio of industrial and/or commercial uses

The Siting Envelope encompasses all usable land within the amended FRMW WSE-O Plan area (WSEO-20-1), approximately 905 acres, and excludes land within 25 feet of exterior property lines; non-jurisdictional water features, and two cultural areas (5EP7625 and 5EP7632). FRMW Project design optimization has resulted in a shift in the PV solar panel array location and an overall reduction in the solar panel area (approximately 546 acres reduced to 477 acres). However, the layout of the Project facilities is preliminary and may shift within the siting envelope shown on the WSE-O Plan without an amendment to the WSE-O.

Design updates include an O&M building and an energy storage facility near the Project substation. The proposed O&M building will include two construction storage containers retrofitted with electricity and HVAC units for O&M staff. The containers will be up to 40 feet long by 8 feet wide and 8 feet in height. The O&M building is the only portion of the FRMW Project that would be occupied.

The energy storage facility area is approximately 365 feet by 175 feet, with room for multiple energy storage containers. The number of containers will depend on the model chosen. Typical size for the proposed model is approximately 24 feet long by 5 feet wide and 10 feet in height.

11. The number of mobile home units and densities

There are no mobile home units included in this WSEO-20-1 Major Amendment for the FRMW Project application.

12. Typical lot sizes: length and width

A lot line vacation application was recorded with the county clerk on August 11, 2020, reducing the number of lots located within the WSEO-20-1 from 28 to 10 lots. However, as of the date of this submittal, the county has not assigned a new Parcel ID for the lots combined in the lot line vacation. No further changes to lot sizes are planned to the existing lots within the amended FRMW Project WSE-O Plan area associated with this application.

13. Type of proposed recreational facilities

There are no proposed recreational facilities included in this FRMW Project WSEO-20-1 amendment application.

14. If phased construction is proposed, how will it be phased

Construction is not phased, and construction of the FRMW Project would occur in one phase until complete.

15. Anticipated schedule of development

The FRMW Project construction schedule would be determined upon execution of a PPA. It is anticipated that construction would begin sometime in the fourth quarter of 2021 with a commercial operation date in late 2022.

16. How water and sewer will be provided

Water would be required for dust mitigation during construction, and for washing panels during operations twice per year. A water line within the Wigwam Water District traverses the FRMW WSE-O Plan area. Water for the FRMW Project will be obtained from a water tap that the Applicant procured from the district. No new sewer utility line extensions would be required to be established for FRMW

Project construction or operations. Portable sewer facilities would be utilized during construction. The O&M building would not require connecting to water or sewer utilities, as the building will not be heavily used, therefore a water tank will be sufficient for potable water use and a septic tank will be installed for wastewater.

17) Proposed uses, relationship between uses and densities

The approved WSEO-17-001 allowed principal uses include solar panels, substations, and meteorological monitoring devices. FRMW Project accessory uses include collection lines (including an overhead transmission line and underground or overhead collection power lines), maintenance facilities, and any other uses necessary to carry out the intent of the overlay zoning, including but not limited to DC to AC inverters, medium voltage transformers, circuit breakers and disconnect switches, and a communications system that would interconnect from the new FRMW Project substation to the WAPA or PSCo substation.

The amended FRMW Project (WSEO-20-1) includes the addition of an energy storage facility to balance out the power supply needs during times when the solar panels are not generating power. The energy storage facility is an accessory use to fulfill the intent of the WSE-O district.

An amendment is requested to the Dimensional Standards in the approved WSEO-17-001 district to increase the maximum height of the transmission pole, substation pole, and account for the additional structures, including the O&M building and energy storage facility.

18. Areas of required landscaping

Formal landscaping is not required for the FRMW Project. Noxious weeds will be treated prior to construction and reseeding of native vegetation would occur where feasible following construction. Revegetation methods will likely include broadcast seeding and/or drill seeding a mix of native grasses. It is anticipated that weed stubble will secure seed in the topsoil following noxious weed treatment and mowing of the site. The exact method of revegetation is dependent upon the time of year at which construction begins. As such, specific revegetation methods will be detailed during the Site Development Plan phase. Operations would require regular mowing to prevent shading of the solar panels.

19) Proposed access locations

Access to the site would occur from Rancho Colorado Boulevard, El Hambre View, and La Questa Drive. Permanent access roads within the FRMW WSE-O Plan area would be constructed to provide emergency access pursuant to LDC Section 4.3.5(B)(3) and movement through the site for regularly scheduled maintenance. Maintenance vehicles would park at the FRMW Project O&M facility or FRMW Project substation, if required, during maintenance activities. Otherwise, maintenance vehicles would park on private FRMW Project access roads, within the fence-line, to reach specific areas of the site. The Applicant will not permanently close El Hambre View.

20) Approximate acres and percent of land to be set aside as open space, not to include parking, drive, and access roads

No areas within the FRMW WSE-O Plan area would be set aside as open space. Project facilities may shift within the siting envelope, therefore no areas are designated as open space, as non-developable areas have been omitted from the siting envelope.

Attachments referenced above are listed below in Table 3 by numbers 1 through 4. Additional attachments 5 through 46 are requested by El Paso County as listed in EDARP. Revision notes for each attachment identifies if it has been updated for the Major Amendment application since approval of WSEO-17-01.

Table 3. Amended FRMW Project WSEO-20-I Application Attachments

Revised Attachments	Revision Note
1. WSE-O Application Form (Type D)	Updated for new contact information
2. WSE-O Plan Amendment (WSEO-20-I) for the Front Range-Midway Solar Project	WSE-O Plan area reduced: Plan updated for FRMW Project details
3. Letter of Intent from WSEO-17-001 Application, dated February 23, 2018	No changes made to original submittal
4. Waivers approved April 24, 2018	Request that original approval applies to WSEO-20-I
5. Adjacent Property Owner Notification	Sent notices to updated adjacent landowner list August 2020
6. Authority to Represent	No revisions provided.
7. Drainage Report	Provided an amendment letter for new preliminary site layout with new calculations
8. Soils and Geology Report	No revisions provided
9. Legal Description (MS Word version)	Revised for FRMW WSE-O Plan area
10. Lighting Plan	Revised for new site layout and O&M facility
11. Maintenance Plan (MS Word version)	Updated for energy storage and O&M facility
12. Mineral Rights Certification	Updated mineral owner list; no changes to owners
13. Noise Study	Prepared noise study (not previously requested)
14. Noxious Weed Management Plan	No revisions provided
15. Phasing Plan	This Attachment is not needed as there is only one phase of-construction
16. Title Commitment	Updated for new ownership and leases within the FRMW WSE-O Plan area
17. Revised Transportation Memorandum	Revised for increased construction traffic due to energy storage and O&M building
18. Visual Impact Analysis	Provided revised KOPs 6 and 7
19. Wetlands Analysis Report/Wildlife Report/Natural Landforms, Vegetation, Riparian Analysis ("Wetlands, Waterbodies, and TES Report")	No revisions provided
20. Wildland Fire and Hazard Mitigation Plan	Updated for energy storage and O&M facility
21. Hanover Fire District Commitment Letter	Updated letter provided addressing amended FRMW Project.
22. Site Map (Proposed Use)	Revised for amended FRMW Project
23. Easements	Revised for amended FRMW Project
24. Applicant Comment Response Letter	Responses provided for Submittal #1 comments
25. Tower/Structure Removal Agreement ("Decommissioning Plan")	Updated for energy storage and O&M facility
26. Lease Agreements	Updated for FRMW WSE-O Plan area parcels
27. Photo Simulations	Provided new Key Observation Points 6 and 7 for amended site plan
28. WSE-O Overlay Map	Revised for amended FRMW Project
29. Operations Plan	Updated for energy storage and O&M facility
30. Power Purchase Agreement	Waiver requested as PPA is in negotiations
31. Interconnect Agreement	No revision provided
32. Floodplain Development Permit	No permit required
33. Proof of Liability Insurance	Revised for new contact info
34. State Air Quality Permit	No revision provided

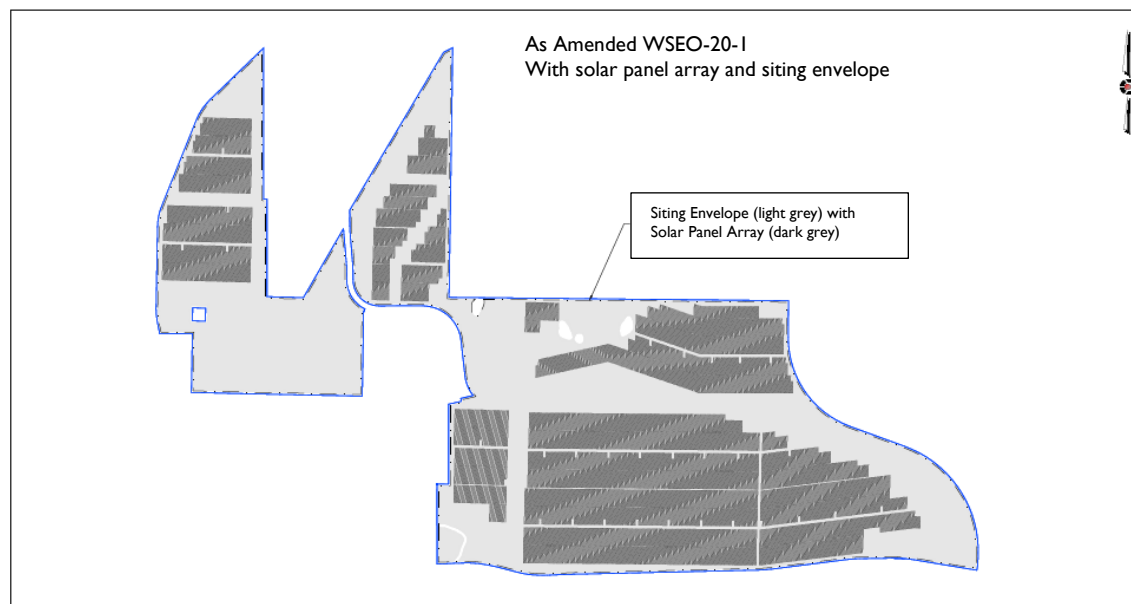
Revised Attachments	Revision Note
35. US Army Corps of Engineer's Permit	Provided letter identifying all water bodies are non-jurisdictional; No permit required
36. Electromagnetic Interference Report	Report prepared (not previously requested)
37. Clearance Letter - USFWS	No revision provided
38. Clearance Letter - CPW	No revision provided
39. Determination of No Hazard from FAA	No revision provided
40. Haul Route Plan	No revision provided
41. Road Condition Survey	No revision provided
42. Physical Constraints Map	Revised for FRMW Project
43. Site Plan with Easements	Updated for FRMW Project Amendment
44. Water Company Commitment Letter	No revision provided
45. Application Form and Affected Boundaries Map	Revised for new contact info and new parcel ownership
46. Letter of Support Provided in 2017	Provided previous letters written in 2017

We appreciate your review of these Project details and look forward to hearing from you.

Sincerely,

Scott Zeimetz

Scott Zeimetz
Front Range-Midway Solar Project, LLC, authorized person



WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1)
FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO

FRONT RANGE-MIDWAY (FRMW) WIND/SOLAR ENERGY OVERLAY (WSE-O) PLAN

GENERAL PROVISIONS:

THE PURPOSE OF THE FRMW WSE-O PLAN IS TO:

- REGULATE AND SITE THE FRONT RANGE-MIDWAY SOLAR WSE-O PLAN WHERE IT IS MOST APPROPRIATE, CONSIDERING SOLAR ASPECTS, IMPACTS TO THE ENVIRONMENT, VISUAL CORRIDORS, EXISTING INFRASTRUCTURE, AND THE ESTABLISHED DEVELOPMENT PATTERN.
ENSURE THE PRESERVATION OF PUBLIC HEALTH, SAFETY AND WELFARE.
IDENTIFY APPROPRIATE SITING ENVELOPES THAT COMPLY WITH SETBACKS, HEIGHT RESTRICTIONS, AND OTHER REQUIREMENTS OF SOLAR GENERATION FACILITIES DEFINED IN CHAPTER 4 OF THE EL PASO COUNTY LAND DEVELOPMENT CODE (LDC).
PROVIDE MITIGATING MEASURES FOR IMPACTS ASSOCIATED WITH THE FRONT RANGE-MIDWAY SOLAR WSE-O PLAN.

AUTHORITY

THIS WSE-O IS AUTHORIZED BY CHAPTER 4 OF THE EL PASO COUNTY LAND DEVELOPMENT CODE.

APPLICABILITY

THE PROVISIONS OF THE WSE-O SHALL RUN WITH THE LAND. THE LANDOWNERS, THEIR SUCCESSORS, HEIRS, OR ASSIGNS SHALL BE BOUND BY THIS WSE-O PLAN, AS AMENDED AND APPROVED BY THE EL PASO COUNTY DEVELOPMENT SERVICES DEPARTMENT DIRECTOR OR BOARD OF COUNTY COMMISSIONERS.

ADOPTION

THE ADOPTION OF THIS WSE-O PLAN SHALL EVIDENCE THE FINDINGS AND DECISIONS OF THE EL PASO COUNTY BOARD OF COUNTY COMMISSIONERS THAT THIS WSE-O PLAN FOR THE FRMW PROJECT IS IN GENERAL CONFORMITY WITH THE EL PASO COUNTY MASTER PLAN, EL PASO COUNTY POLICY PLAN AND APPLICABLE (SMALL AREA PLAN(S)) IS AUTHORIZED UNDER THE PROVISION OF THE EL PASO COUNTY LAND DEVELOPMENT CODE; AND THAT THE EL PASO COUNTY LAND DEVELOPMENT CODE AND THIS WSE-O PLAN COMPLIES WITH STATE STATUTE.

RELATIONSHIP TO COUNTY REGULATIONS

THE PROVISIONS OF THE WSE-O PLAN SHALL PREVAIL AND GOVERN THE DEVELOPMENT OF THE FRONT RANGE-MIDWAY SOLAR WSE-O PLAN. PROVIDED, HOWEVER, THAT WHERE THE PROVISIONS OF THIS WSE-O PLAN DO NOT ADDRESS A PARTICULAR SUBJECT, THE RELEVANT PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, AS AMENDED AND IN EFFECT AT THE TIME OF THE WSE-O PLAN APPROVAL, OR ANY OTHER APPLICABLE RESOLUTIONS OR REGULATIONS OF EL PASO COUNTY, SHALL BE APPLICABLE.

RELATIONSHIP TO BASE ZONING DISTRICT

EXCEPT AS PROVIDED IN LDC SECTION 4.3.5, APPROVAL OF THIS PLAN DOES NOT IN ANY WAY REDUCE OR ALTER THE REGULATIONS AND PROVISIONS OF THE UNDERLYING BASE ZONING DISTRICT(S). INSTEAD, THIS PLAN PROVIDES THE PROPERTY WITHIN THE SPECIFIC WSE-O ZONING DISTRICT WITH ADDITIONAL ALLOWED USES, REGULATED BY SPECIFIC DEVELOPMENT STANDARDS.

ENFORCEMENT

TO FURTHER THE MUTUAL INTEREST OF THE RESIDENTS, OCCUPANTS, AND OWNERS OF THE WSE-O AND OF THE PUBLIC IN THE PRESERVATION OF THE INTEGRITY OF THIS WSE-O PLAN, THE PROVISIONS OF THIS PLAN RELATING TO THE USE OF LAND SHALL RUN IN FAVOR OF EL PASO COUNTY AND SHALL BE ENFORCEABLE AT LAW OR IN EQUITY BY THE COUNTY WITHOUT LIMITATION ON ANY POWER OR REGULATION OTHERWISE GRANTED BY LAW.

CONFLICT

WHERE THERE IS MORE THAN ONE PROVISION WITHIN THE WSE-O PLAN THAT COVERS THE SAME SUBJECT MATTER, THE PROVISION WHICH IS MOST RESTRICTIVE OR IMPOSES HIGHER STANDARDS OR REQUIREMENTS SHALL GOVERN.

MAXIMUM LEVEL OF DEVELOPMENT

THE ALLOWED USES AND STRUCTURE SITING ENVELOPES SHOWN ON THE WSE-O PLAN IS THE MAXIMUM DEVELOPMENT AUTHORIZED FOR CONSTRUCTION.

APPLICANT AND LEGAL AUTHORIZATION

KNOWN ALL BY THESE PRESENTS: FRONT RANGE-MIDWAY SOLAR PROJECT, LLC IS THE LEGALLY AUTHORIZED REPRESENTATIVE OF THE PROPERTY INCLUDED WITHIN THIS WSE-O PLAN, AS DESCRIBED IN THE ACCOMPANYING LEGAL DESCRIPTION LOCATED ON SHEET 3 FOR THE PURPOSES OF THIS OVERLAY PLAN AMENDMENT APPLICATION.

IN WITNESS WHEREOF:

THE AFOREMENTIONED HAVE EXECUTED THESE PRESENTS THIS DAY OF 20.

MR. SCOTT ZEIMETZ, AUTHORIZED PERSON, FRONT RANGE-MIDWAY SOLAR PROJECT, LLC

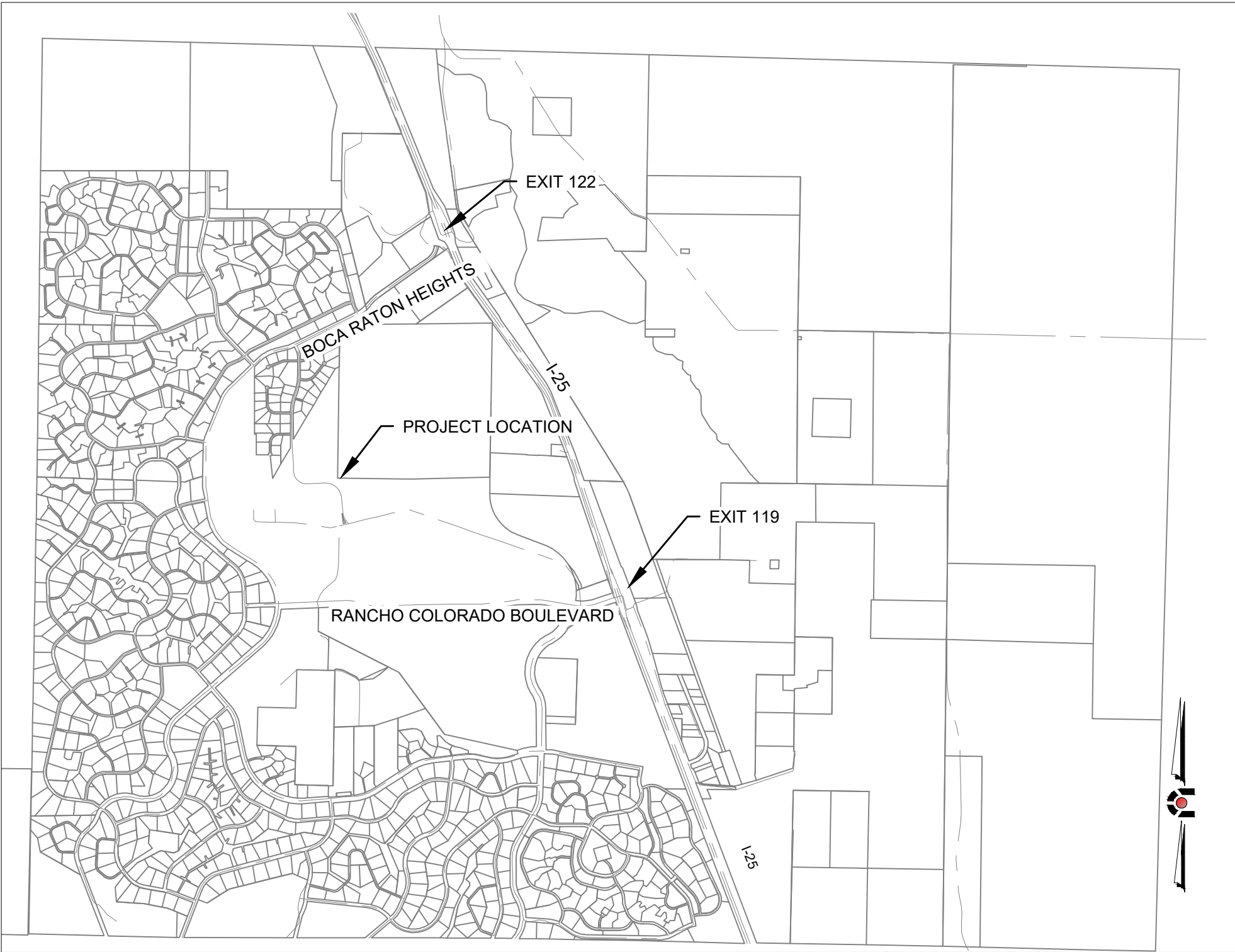
STATE OF MISSOURI)
SS
COUNTY OF JACKSON)

THE ABOVE AND FOREGOING STATEMENT WAS ACKNOWLEDGED BEFORE ME THIS DAY OF 20, BY SCOTT ZEIMETZ

WITNESS MY HAND AND OFFICIAL SEAL:

NOTARY PUBLIC

MY COMMISSION EXPIRES:



VICINITY MAP

COUNTY CERTIFICATION

THIS OVERLAY REQUEST TO THE WSE-O HAS BEEN REVIEWED AND FOUND TO BE COMPLETE IN ACCORDANCE WITH BOARD OF COUNTY COMMISSIONER RESOLUTION NO. DATED THE DAY OF 20 APPROVING THIS WSE-O AND IN ACCORDANCE WITH ALL APPLICABLE EL PASO COUNTY REGULATIONS.

DIRECTOR, PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT DATE

PRESIDENT, BOARD OF COUNTY COMMISSIONERS DATE

TITLE VERIFICATION

I, KRIS HANZLICEK, DO HEREBY CERTIFY THAT I HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AS WITHIN THE WSE-O DISTRICT BOUNDARY AS DESCRIBED HEREON AND THAT TITLE TO SUCH LANDS IS OWNED IN FEE SIMPLE, AT THE TIME OF THE APPLICATION.

KRIS HANZLICEK, SENIOR REAL ESTATE SPECIALIST

STATE OF MISSOURI)
SS
COUNTY OF JACKSON)

THE ABOVE AND FOREGOING STATEMENT WAS ACKNOWLEDGED BEFORE ME THIS DAY OF 20 BY KRIS HANZLICEK

WITNESS MY HAND AND OFFICIAL SEAL:

NOTARY PUBLIC

MY COMMISSION EXPIRES:

SURVEYOR'S CERTIFICATE

I, RANDALL HENCY, A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OR COLORADO, DO HEREBY CERTIFY THAT THIS LEGAL FOR THE FRONT RANGE-MIDWAY SOLAR WSE-O PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, BASED ON RECORD INFORMATION. THE DESCRIPTION DOES NOT REPRESENT A MONUMENTED HELD SURVEY PERFORMED BY CORE CONSULTANTS.

RANDALL HENCY, COLORADO PROFESSIONAL LAND SURVEYOR DATE
FOR AND ON BEHALF OF:
POLARIS SURVEYING, INC.
1903 LELARAY STREET, SUITE 102
COLORADO SPRINGS, CO 80909

APPLICANT:

FRONT RANGE-MIDWAY SOLAR PROJECT, LLC
422 ADMIRAL BOULEVARD
KANSAS CITY, MISSOURI 64106

DEVELOPER:

FRONT RANGE-MIDWAY SOLAR PROJECT, LLC
422 ADMIRAL BOULEVARD
KANSAS CITY, MISSOURI 64106

LANDOWNERS NO LONGER INCLUDED IN THE AMENDED FRMW WSE-O PLAN WSEO-20-1:

FOUNTAIN VALLEY POWER, LLC
SWG FOUNTAIN VALLEY II, LLC

LANDOWNERS WITHIN THE AMENDED FRMW WSE-O PLAN (WSEO-20-1):

EL PASO COUNTY
FRONT RANGE-MIDWAY SOLAR PROJECT, LLC
MIDWAY DEVELOPMENT COMPANY, INC
POWELL HOMES, LLC
PUBLIC SERVICE CO OF COLORADO
UNITED STATES RECLAMATION SERVICE.....

TAX SCHEDULE NUMBERS & ZONING:

Table with 2 columns: PARCEL ID and ZONING. Lists various parcel IDs and their corresponding zoning codes (RR-5, RR-2.5).

COUNTY PARCELS:

5717007004, 5717007005, 5717007006, 5717007019

SITE ADDRESS:

FRONT RANGE-MIDWAY SOLAR PROJECT, LLC
9070 AND 9310 RANCHO COLORADO BOULEVARD
FOUNTAIN, CO 81008

TOTAL FRMW WSE-O PLAN AMENDMENT:

939 ACRES (REMOVED 231 ACRES FROM WSEO 17-001)

PROPOSED USE:

THE PROPOSED FRMW PROJECT LOCATED WITHIN THE APPROVED WSEO-17-001 DISTRICT WOULD INCLUDE FACILITIES LOCATED WITHIN THE STRUCTURE SITING ENVELOPES. PROJECT FACILITIES INCLUDE SOLAR PANELS; A WSE-O PLAN SUBSTATION, AND METEOROLOGICAL MONITORING DEVICES. ACCESSORY USES INCLUDE COLLECTION LINES (INCLUDING AN OVERHEAD TRANSMISSION LINE AND UNDERGROUND AND OVERHEAD COLLECTION POWER LINES), AN OPERATIONS AND MAINTENANCE FACILITY, AND ANY OTHER USES NECESSARY TO CARRY OUT THE INTENT OF THE OVERLAY ZONING, INCLUDING BUT NOT LIMITED TO DC TO AC INVERTERS, MEDIUM VOLTAGE TRANSFORMERS, CIRCUIT BREAKERS AND DISCONNECT SWITCHES, AND A COMMUNICATIONS SYSTEM THAT WOULD INTERCONNECT FROM THE NEW WSE-O PLAN SUBSTATION TO THE WAPA OR PSCO SUBSTATIONS. INTERNAL ACCESS ROADS CONSTRUCTED BETWEEN SOLAR ARRAYS AND CONTAINED WITHIN THE WSE-O PLAN AREA. AN ENERGY STORAGE FACILITY LOCATED WITHIN THE SITING ENVELOPE COMPRISED OF MULTIPLE CABINETS TO HOUSE THE BATTERIES, INVERTERS, AND TRANSFORMERS. UP TO SIX TEMPORARY LAYDOWN AREAS WILL BE USED DURING CONSTRUCTION.

DEVELOPMENT SCHEDULE:

CONSTRUCTION IS ANTICIPATED TO BEGIN Q4 2021

GENERATING CAPACITY:

100.2 MW AC

SHEET INDEX table with 2 columns: SHEET NO. and SHEET TITLE. Lists sheets 1 through 13 and their corresponding titles.

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120

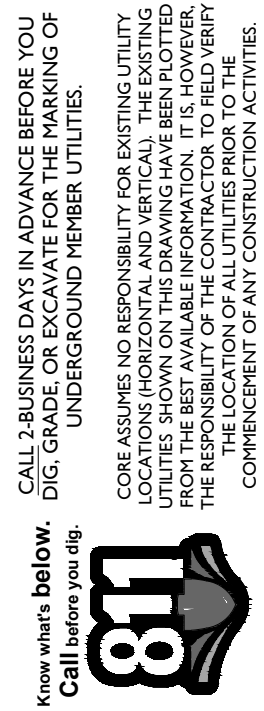


Table with 4 columns: #, REVISION DESCRIPTION, DATE, BY. Contains revision history for the plan amendment.

WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
COVER SHEET

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177

SHEET
1 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1)
FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO

NOTES:

- 1. THE FRMW WSE-O PLAN WILL HAVE A NAME PLATE RATING OF 100.2 MWAC THAT WILL BE INTERCONNECTED BY A 115.0 KV OR 230.0 KV DISTRIBUTION LINE.
- 2. THE WSE-O DISTRICT WAS APPROVED ON APRIL 24, 2018 SITED ON APPROXIMATELY 1,170 ACRES OF LAND. THIS MAJOR AMENDMENT DEPICTS THE REVISED DESIGN FOR THE FRMW WSE-O PLAN WITHIN A 939 ACRE AREA. THE MAXIMUM ANTICIPATED GENERATION CAPACITY FOR THE FRMW WSE-O PLAN REMAINS AT APPROXIMATELY 100.2 MW AC.
- 3. THE INFORMATION AND FEATURES IN THIS WSE-O PLAN WERE DEVELOPED BY RELYING ON EL PASO COUNTY GIS SPATIAL DATA; LAND SURVEY PLATS (PREPARED BY MANGINI REEVES, INC. DATED 4/1/2005, POLARIS SURVEYING, INC. DATED 3/31/2014 AND 6/12/2020, AND CORE CONSULTANTS, INC. DATED 4/28/2017); COLORADO SPRINGS AERIAL IMAGERY, AND FEMA FLOODPLAIN DATA.
- 4. THE WSE-O PLAN WAS DEVELOPED IN ACCORDANCE WITH SECTION 4.3.5 OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, APPENDIX B AND PROCEDURES MANUAL SECTION S-PL-023-11.
- 5. IN ACCORDANCE WITH SECTION 4.3.5 LDC, METEOROLOGICAL TOWERS HAVE BEEN SET BACK A MINIMUM DISTANCE OF 1.5:1 FROM EXISTING DWELLINGS, EXISTING ABOVE GROUND UTILITIES, PUBLIC RIGHTS-OF-WAY, THE WSE-O DISTRICT BOUNDARY AS DEPICTED IN THIS PLAN, AND 165 FEET FROM SLOPES GREATER THAN 20% AND ARE WHOLLY OUTSIDE OF THE FLOODPLAIN AREAS IDENTIFIED IN FEMA FLOODPLAIN DATA. METEOROLOGICAL TOWERS WILL BE CONSTRUCTED WITHIN THE SITING ENVELOPES DEPICTED ON SHEET 7 OF THIS WSE-O PLAN.
- 6. FACILITIES CONSTRUCTED AS PART OF FRMW WSE-O PLAN WILL BE CONSTRUCTED WITHIN HORIZONTAL AND VERTICAL SITING ENVELOPES AS DEFINED BY THE DENSITY AND DIMENSIONAL STANDARDS FOR FRMW WSE-O PLAN WITHIN THE APPROVED WSE-O DISTRICT (SEE TABLE 1 BELOW).
- 7. VERTICAL HEIGHTS OF FACILITIES CONSTRUCTED AS PART OF THE FRMW WSE-O PLAN SHALL COMPLY WITH THE DENSITY AND DIMENSIONAL STANDARDS FOR FRMW WSE-O PLAN DISTRICT (SEE TABLE 1 BELOW).
- 8. SPECIFIC ALIGNMENT OF THE WSE-O PLAN ROADS AND THE ELECTRICAL SYSTEM WILL BE PROVIDED AT THE SITE DEVELOPMENT PLAN STAGE.
- 9. THE FRMW WSE-O PLAN MAY POST SIGNS ON THE FOLLOWING FACILITIES, INCLUDING BUT NOT LIMITED, TO:
 - 9.1. PROJECT ROADS
 - 9.2. FENCES
 - 9.3. SIGNS WILL COMPLY WITH SECTION 6.2.10 OF THE EL PASO COUNTY LDC. DETAILS FOR ALL SIGNS WILL BE PROVIDED WITH THE RESPECTIVE SITE DEVELOPMENT PLANS AND MAY REQUIRE SEPARATE SIGN PERMITS.
- 10. ALL INTERIOR ACCESS PROJECT ROADS AND PROJECT FACILITIES WILL BE MAINTAINED BY SOLAR FACILITY OWNER FOR UNDERLYING PROPERTY.
- 11. SITE DEVELOPMENT PLANS WILL BE REQUIRED SHOWING THE DETAILED DESIGN OF ALL FACILITIES RELATED TO THE WSE-O PLAN PRIOR TO CONSTRUCTION.
- 12. BASED ON A JURISDICTIONAL DETERMINATION MADE BY THE U.S. ARMY CORPS OF ENGINEERS, THERE ARE NO WATERS OF THE U.S. LOCATED WITHIN THE PROPOSED WSE-O PLAN. HOWEVER, WSE-O PLAN FACILITIES ARE DESIGNED TO AVOID SEVERAL NON-JURISDICTIONAL WATER FEATURES AS INDICATED ON SHEET 5. PROJECT CONSTRUCTION WILL COMPLY WITH SECTION 404 OF THE CLEAN WATER ACT.
- 13. "BASIS OF BEARINGS". BEARINGS FOR THIS DESCRIPTION ARE BASED UPON THE SOUTH LINE OF THE NORTHWEST QUARTER OF SECTION 21, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH P.M., BEARING S 89°26'12" E, FROM THE NORTHWEST CORNER OF SAID SECTION 21, BEING MONUMENTED BY A PIPE WITH A 2-1/2" ALUMINUM CAP STAMPED "PLS 11624" TO THE NORTH QUARTER CORNER OF SAID SECTION 21, BEING MONUMENTED BY A PIPE WITH A 2-1/2" ALUMINUM CAP STAMPED "PLS 11624", AS SHOWN ON THE PLAT OF MIDWAY RANCHES FILING NO. 7, RECEPTION NO. 203250422, SAID EL PASO COUNTY RECORDS, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.
- 14. CULTURAL RESOURCE AREAS 5EP7625 AND 5EP7632 WILL BE AVOIDED AND ARE NOT INCLUDED IN THE STRUCTURE SITING ENVELOPES.
- 15. THIS SITE LAYOUT IS PRELIMINARY AND NOT FOR CONSTRUCTION. THE SITE LAYOUT MAY CHANGE WITHIN THE SITING ENVELOPE.

TABLE 1. AMENDED DIMENSIONAL AND DENSITY STANDARDS FOR THE FRMW PROJECT

UNDERLYING ZONING DISTRICT	MINIMUM SETBACKS FOR STRUCTURES ¹ (FT.) (PRINCIPAL AND ACCESSORY USES)	MAXIMUM HEIGHT OF SOLAR PANELS (FT.)	MAXIMUM HEIGHT OF TRANSMISSION AND COLLECTION LINE POLES (FT.)	MAXIMUM HEIGHT OF MET STATIONS (FT.)	MAXIMUM HEIGHT OF INVERTER-TRANSFORMER PAIRS (FT.)	MAXIMUM HEIGHT OF PROJECT SUBSTATION FACILITIES (FT.) ^{1,2}	MAXIMUM HEIGHT OF PROJECT O&M BUILDING (FT.) ¹	MAXIMUM HEIGHT OF ENERGY STORAGE FACILITIES (FT.) ²
	PERIMETER OF WSE-O BOUNDARY							
RR-5	25	14	100	14	14	70	20	20
RR-2.5	25	14	100	14	14	70	20	20

- 1. SETBACKS ARE NOT APPLICABLE TO FENCES OR WALLS 7 FEET IN HEIGHT OR LESS, RETAINING WALLS LESS THAN FOUR FEET IN HEIGHT, POLES, LINES, CABLES, TRANSMISSION LINES OR OTHER TRANSMISSION OR DISTRIBUTION FACILITIES. ALL SETBACKS SHALL BE MEASURED FROM THE WSE-O DISTRICT BOUNDARY, EXCEPT METEOROLOGICAL TOWERS, WHICH SHALL BE SETBACK AS PROVIDED BY THE COUNTY LAND DEVELOPMENT CODE AS OF THE DATE OF APPLICATION FOR THIS WSE-O DISTRICT.
- 2. FRMW PROJECT SUBSTATION, O&M BUILDING, AND ENERGY STORAGE ARE CURRENTLY SITED IN RR-5 PARCELS, HOWEVER, MAY BE RELOCATED WITHIN STRUCTURE SITING ENVELOPE.
- 3. THE PRIMARY SUBSTATION FACILITIES WILL BE A MAXIMUM OF 35 FT WITH THE EXCEPTION OF THE GROUNDING POLE STRUCTURES WITH LIGHTNING PROTECTION WHICH COULD BE UP TO A MAXIMUM 70 FT.

AS APPROVED WSEO 17-001 WITH PANEL LAYOUT



AS AMENDED WSEO 20-1 WITH PANEL LAYOUT



CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND HERBER UTILITIES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS. THE INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED
FROM THE BEST AVAILABLE INFORMATION. TO AVOID DAMAGE TO EXISTING UTILITIES,
THE LOCATION OF ALL UTILITIES PRIOR TO THE
CONSTRUCTION OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
NOTES

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177

SHEET
2 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1)
FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO

LEGAL DESCRIPTION

TRACT 1
FEE OWNER: EL PASO COUNTY BY AND THROUGH THE BOARD OF COUNTY COMMISSIONERS OF EL PASO COUNTY, COLORADO
ALL OF LOTS 152, 153 AND 155, MIDWAY RANCHES FILING NO. 7, EL PASO COUNTY, COLORADO.

AND
A PORTION OF LOTS 149 AND 150, MIDWAY RANCHES FILING NO. 7, AS RECORDED UNDER RECEPTION NO. 201085497 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER, LOCATED IN SECTION 17, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 17, FROM WHICH THE EAST ONE-QUARTER CORNER OF SAID SECTION 17 BEARS N00°49'21"E, A DISTANCE OF 2643.52 FEET AND IS THE BASIS OF BEARINGS USED HEREIN; THENCE N46°44'55"W, A DISTANCE OF 3928.85 FEET TO THE NORTH CORNER COMMON TO LOTS 151 AND 152 OF SAID MIDWAY RANCHES FILING NO. 7, SAID POINT ALSO BEING A POINT ON THE SOUTH LINE OF SAID LOT 150 AND THE POINT OF BEGINNING OF THE TRACT HEREIN DESCRIBED; THENCE N90°00'00"W ALONG THE SOUTH LINE OF SAID LOT 150, A DISTANCE OF 1051.22 FEET TO THE SOUTHWEST CORNER OF SAID LOT 150 AND A POINT ON THE SOUTHEASTERLY RIGHT-OF-WAY LINE OF BOCA RATON HEIGHTS (FORMERLY RANCHO COLORADO BOULEVARD); THENCE ALONG SAID SOUTHEASTERLY RIGHT-OF-WAY LINE, THE FOLLOWING FOUR (4) COURSES: 1.) THENCE N21°56'43"E, A DISTANCE OF 29.14 FEET; 2.) THENCE ALONG THE ARC OF A 930.00 FOOT RADIUS CURVE TO THE RIGHT, THROUGH A CENTRAL ANGLE OF 23°59'45", AN ARC LENGTH OF 389.49 FEET (THE LONG CHORD OF WHICH BEARS N33°56'30"E, A LONG CHORD DISTANCE OF 386.65 FEET); 3.) THENCE N45°56'15"E, A DISTANCE OF 476.24 FEET TO THE WEST CORNER COMMON TO LOTS149 AND 150; THENCE CONTINUING N45°56'15"E, A DISTANCE OF 671.08 FEET; THENCE S00°00'00"W, A DISTANCE OF 1145.69 FEET TO THE POINT OF BEGINNING. SAID TRACT CONTAINS 15.19 ACRES OF LAND, MORE OR LESS.

TRACT 2
FEE OWNER: FRONT RANGE MIDWAY SOLAR PROJECT, LLC, A DELAWARE LIMITED LIABILITY COMPANY
TRACT A, EL DORADO VILLAGE FILING NO. 1, COUNTY OF EL PASO, STATE OF COLORADO

AND
LOT 1, MIDWAY RANCHES FILING NO. 8, EL PASO COUNTY, STATE OF COLORADO

TRACT 3
FEE OWNER: MIDWAY DEVELOPMENT COMPANY, INC., A COLORADO CORPORATION
LOT 122 IN MIDWAY RANCHES FILING NO. 7, EL PASO COUNTY, COLORADO, ACCORDING TO THE RECORDED PLAT THEREOF.

TRACT 4
FEE OWNER: POWELL HOMES, LLC, A COLORADO LIMITED LIABILITY COMPANY
THE SOUTH 200 FEET OF LOT 27, EL DORADO VILLAGE FILING NO. 1, COUNTY OF EL PASO, STATE OF COLORADO

TRACT 5
FEE OWNER: PUBLIC SERVICE CORPORATION
THE NORTHWEST ¼ OF THE NORTHEAST ¼ OF SECTION 20, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, EXCEPT THE WEST 145 FEET THEREOF.

TRACT 6
FEE OWNER: USA RECLAMATION SERVICE
THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 AND THE WEST 145 FEET OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 20, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO, EXCEPT A TRACT OF LAND LOCATED IN THE NORTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE ABOVE SAID SECTION 20, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4; THENCE EASTERLY ALONG THE NORTH LINE OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4 A DISTANCE OF 200 FEET; THENCE SOUTHERLY PARALLEL TO THE WEST LINE OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4 A DISTANCE OF 200 FEET; THENCE WESTERLY PARALLEL TO THE NORTH LINE OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4 A DISTANCE OF 200 FEET TO A POINT ON THE WEST LINE OF SAID NORTHEAST 1/4 OF THE NORTHWEST 1/4; THENCE NORTHERLY ALONG SAID WEST LINE 200 FEET TO THE POINT OF BEGINNING.

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND NEPHER UTILITIES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS. THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
811

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

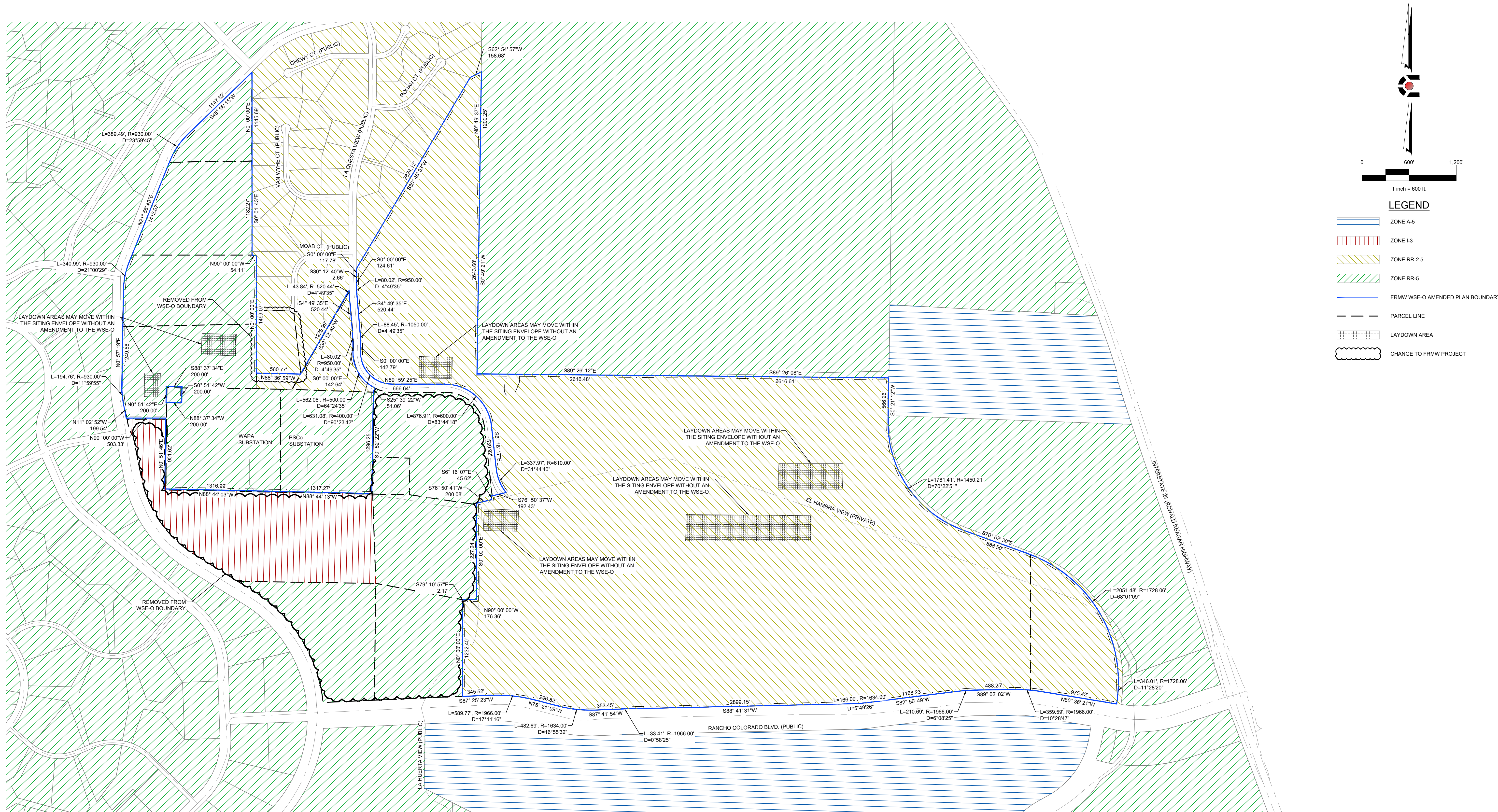
WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
LEGAL DESCRIPTION

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO. 19-177
SHEET 3 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120

CORE
CONSULTANTS

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND UTILITY LINES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS SHOWN ON THIS DRAWING. TO SHOW THE
LOCATION OF ALL UTILITIES PRIOR TO THE
CONSTRUCTION OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO

FRONT RANGE-MIDWAY SOLAR PROJECT
WSEO BOUNDARY WITH ZONING OVERLAY

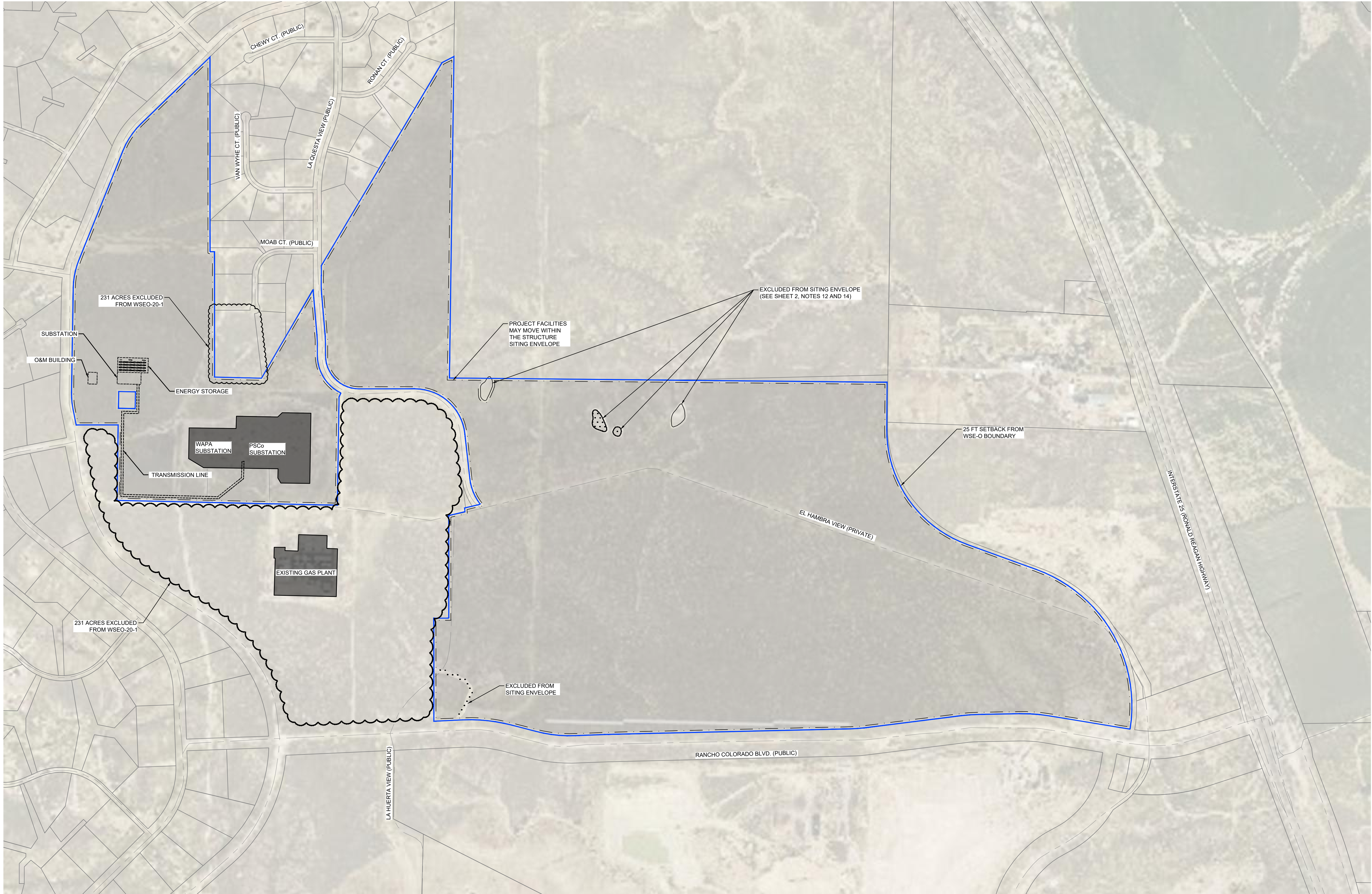
DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177

SHEET
4 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



0 600' 1,200'

1 inch = 600 ft.

LEGEND

- STRUCTURE SITING ENVELOPE
- EXISTING STRUCTURES
- NON-JURISDICTIONAL WATER FEATURE
- FRMW WSE-O AMENDED PLAN BOUNDARY
- EXISTING ROAD CENTERLINE
- SETBACK
- CHANGE TO FRMW PROJECT

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120

CORE
CONSULTANTS

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
Dig, Grade, or Excavate for the Marking of
UNDERGROUND UTILITY LINES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS. THE LOCATION OF ALL UTILITIES SHOWN ON THIS DRAWING HAVE BEEN LOCATED
FOR THE BEST AVAILABLE INFORMATION. TO SHOW THE
LOCATION OF ALL UTILITIES PRIOR TO THE
CONSTRUCTION OF ANY CONSTRUCTION ACTIVITIES.

Know what's below.
Call before you dig.
811

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO

FRONT RANGE-MIDWAY SOLAR PROJECT
PROPOSED SOLAR GENERATION MAP

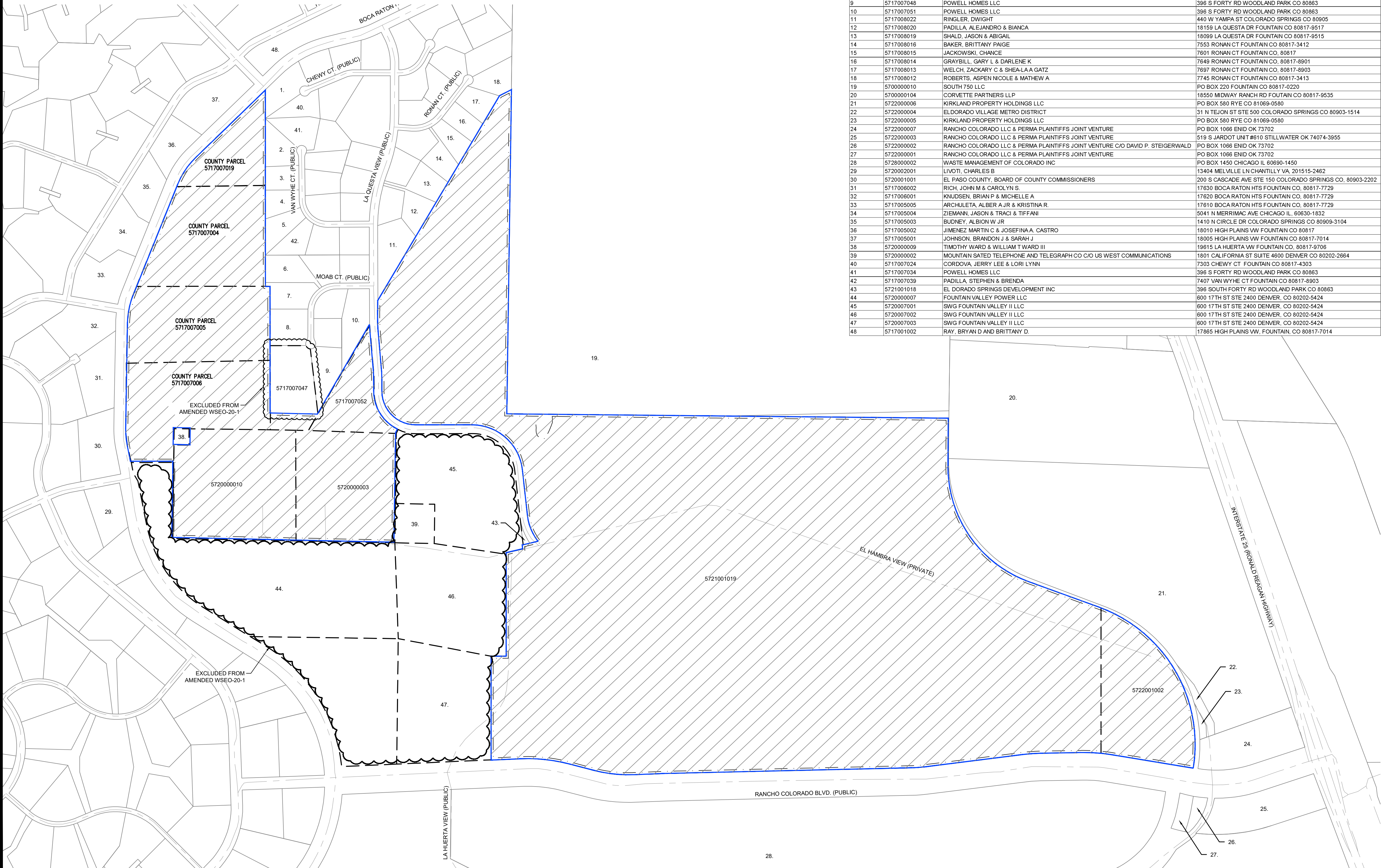
DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177

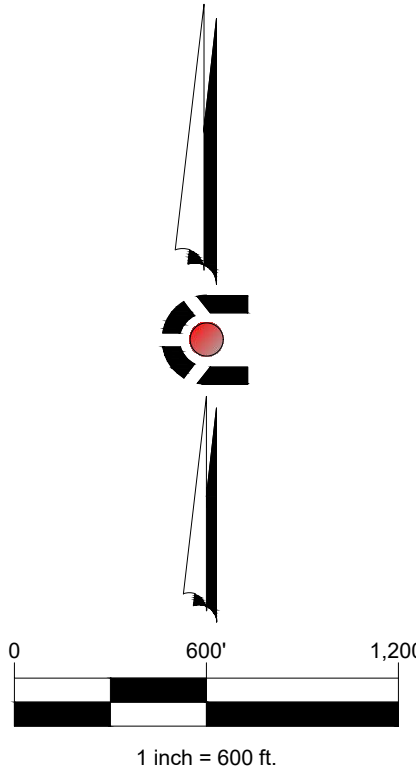
SHEET
5 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1)
FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



ADJACENT PARCELS TO WSEO-20-1 BOUNDARY			
NUMBER	TAX PARCEL ID	OWNER	ADDRESS
1	5717007023	STEVENS, GARRETT C & MELINDA C	7304 CHEWY CT FOUNTAIN CO 80817-4303
2	5717007035	POWELL HOMES LLC	386 S FORTY RD WOODLAND PARK CO 80863
3	5717007036	JACKSON, ANDREW & MARISSA GONZALES	7287 VAN WYHE COURT FOUNTAIN CO, 80817
4	5717007037	BOLISH, JAMES R & JENNIFER N	7327 VAN WYHE CT FOUNTAIN CO, 80817
5	5717007038	BELL, TIMOTHY MARTIN & KIMBERLY A	7367 VAN WYHE CT FOUNTAIN CO 80817-8901
6	5717007044	POWELL HOMES LLC	386 S FORTY RD WOODLAND PARK CO 80863
7	5717007045	POWELL HOMES LLC	386 S FORTY RD WOODLAND PARK CO 80863
8	5717007046	POWELL HOMES LLC	386 S FORTY RD WOODLAND PARK CO 80863
9	5717007048	POWELL HOMES LLC	386 S FORTY RD WOODLAND PARK CO 80863
10	5717007051	POWELL HOMES LLC	386 S FORTY RD WOODLAND PARK CO 80863
11	5717009022	RINGLER, DWIGHT	440 W YAMPA ST COLORADO SPRINGS CO 80905
12	5717008020	PADILLA, ALEJANDRO & BIANCA	18159 LA QUESTA DR FOUNTAIN CO 80817-9517
13	5717008019	SHALD, JASON & ABIGAIL	18099 LA QUESTA DR FOUNTAIN CO 80817-9515
14	5717008016	BAKER, BRITTANY PAIGE	7553 ROMAN CT FOUNTAIN CO 80817-3412
15	5717008015	JACKOWSKI, CHANCE	7601 ROMAN CT FOUNTAIN CO, 80817
16	5717008014	GRAYBILL, GARY L & DARLENE K	7649 ROMAN CT FOUNTAIN CO, 80817-8901
17	5717008013	WELCH, ZACKARY C & SHEA-LA A GATZ	7697 ROMAN CT FOUNTAIN CO, 80817-8903
18	5717008012	ROBERTS, ASPEN NICOLE & MATHEW A	7745 ROMAN CT FOUNTAIN CO 80817-3413
19	5700000010	SOUTH T50 LLC	PO BOX 220 FOUNTAIN CO 80817-0220
20	5700000104	CORVETTE PARTNERS LLP	15550 MIDWAY RANCH RD FOUNTAIN CO 80817-9535
21	5722000006	KIRKLAND PROPERTY HOLDINGS LLC	PO BOX 580 RYE CO 81069-0580
22	5722000004	EL DORADO VILLAGE METRO DISTRICT	31 N TEJON ST STE 500 COLORADO SPRINGS CO 80903-1514
23	5722000005	KIRKLAND PROPERTY HOLDINGS LLC	PO BOX 580 RYE CO 81069-0580
24	5722000007	RANCHO COLORADO LLC & PERMA PLAINTIFFS JOINT VENTURE	PO BOX 1066 ENID OK 73702
25	5722000003	RANCHO COLORADO LLC & PERMA PLAINTIFFS JOINT VENTURE	519 S JARDOT UNIT #610 STILLWATER OK 74074-3855
26	5722000002	RANCHO COLORADO LLC & PERMA PLAINTIFFS JOINT VENTURE C/O DAVID P. STEIGERWALD	PO BOX 1066 ENID OK 73702
27	5722000001	RANCHO COLORADO LLC & PERMA PLAINTIFFS JOINT VENTURE	PO BOX 1066 ENID OK 73702
28	5728000002	WASTE MANAGEMENT OF COLORADO INC	PO BOX 1450 CHICAGO IL 60690-1450
29	5720002001	LIVOTI, CHARLES B	13404 MELVILLE LN CHANTILLY VA, 201515-2482
30	5720001001	EL PASO COUNTY, BOARD OF COUNTY COMMISSIONERS	200 S CASCADE AVE STE 150 COLORADO SPRINGS CO, 80903-2202
31	5717006002	RICH, JOHN M & CAROLYN S	17630 BOCA RATON HTS FOUNTAIN CO, 80817-7729
32	5717006001	KNUDSEN, BRIAN P & MICHELLE A	17620 BOCA RATON HTS FOUNTAIN CO, 80817-7729
33	5717005005	ARCHULETA, ALBER A JR & KRISTINA R	17610 BOCA RATON HTS FOUNTAIN CO, 80817-7729
34	5717005004	ZIEMANN, JASON & TRACI & TIFFANI	5041 N MERRIMAC AVE CHICAGO IL, 60630-1832
35	5717005003	BUDNEY, ALBION W JR	1410 N CIRCLE DR COLORADO SPRINGS CO 80909-3104
36	5717005002	JIMENEZ MARTIN C & JOSEFINA A. CASTRO	18010 HIGH PLAINS VW FOUNTAIN CO 80817
37	5717005001	JOHNSON, BRANDON I & SARAH J	18025 HIGH PLAINS VW FOUNTAIN CO 80817-7014
38	5720000009	TIMOTHY WARD & WILLIAM T WARD III	19615 LA HUERTA VW FOUNTAIN CO, 80817-9706
39	5720000002	MOUNTAIN SATED TELEPHONE AND TELEGRAPH CO C/O US WEST COMMUNICATIONS	1801 CALIFORNIA ST SUITE 4600 DENVER CO 80202-2684
40	5717007024	CORDOVA, JERRY LEE & LORI LYNN	7303 CHEWY CT FOUNTAIN CO 80817-4303
41	5717007034	POWELL HOMES LLC	386 S FORTY RD WOODLAND PARK CO 80863
42	5717007039	PADILLA, STEPHEN & BRENDA	7407 VAN WYHE CT FOUNTAIN CO 80817-8903
43	5721001018	EL DORADO SPRINGS DEVELOPMENT INC	386 SOUTH FORTY RD WOODLAND PARK CO 80863
44	5720000007	FOUNTAIN VALLEY POWER LLC	600 17TH ST STE 2400 DENVER, CO 80202-5424
45	5720007001	SWG FOUNTAIN VALLEY II LLC	600 17TH ST STE 2400 DENVER, CO 80202-5424
46	5720007002	SWG FOUNTAIN VALLEY II LLC	600 17TH ST STE 2400 DENVER, CO 80202-5424
47	5720007003	SWG FOUNTAIN VALLEY II LLC	600 17TH ST STE 2400 DENVER, CO 80202-5424
48	5717001002	RAY, BRYAN D AND BRITTANY D	17865 HIGH PLAINS VW, FOUNTAIN CO 80817-7014



- LEGEND**
- STRUCTURE SITING ENVELOPE
 - FRMW WSE-O AMENDED PLAN BOUNDARY
 - EXISTING ROAD CENTERLINE
 - SETBACK
 - CHANGE TO FRMW PROJECT

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND UTILITIES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS. THE LOCATION OF ALL UTILITIES SHOWN ON THIS DRAWING HAVE BEEN RATED
BASED ON THE BEST AVAILABLE INFORMATION. TO THE EXTENT POSSIBLE, THE LOCATION OF ALL UTILITIES PRIOR TO THE
CONSTRUCTION OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

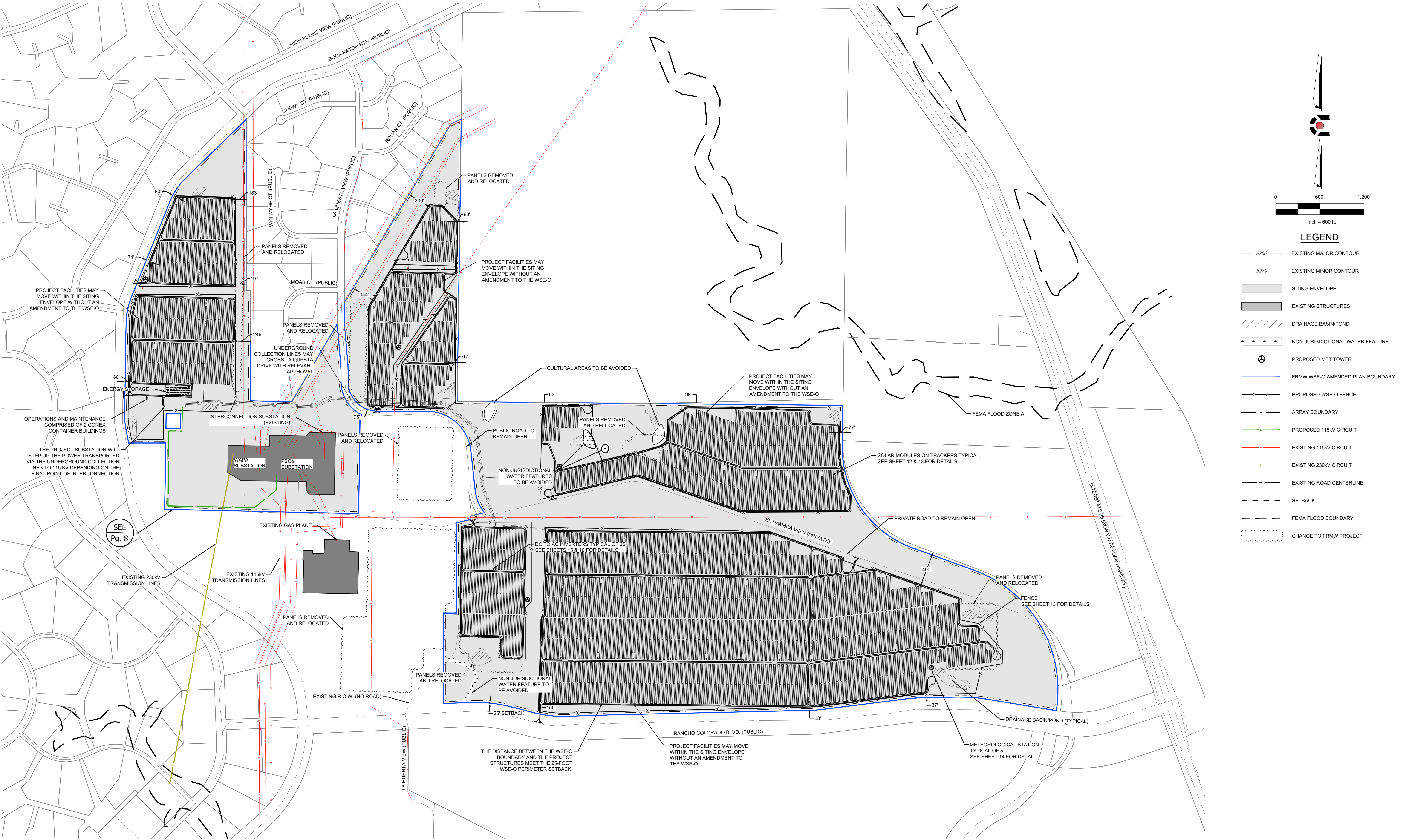
WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
ADJACENT PARCEL OVERLAY MAP

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177
SHEET
6 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120

CORE
CONSULTANTS

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND UTILITY LOCATIONS.

CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS SHOWN ON THIS DRAWING HAVE BEEN RATED
FOR THE BEST AVAILABLE INFORMATION. TO SHOW THE
LOCATION OF ALL UTILITIES PRIOR TO THE
CONSTRUCTION OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

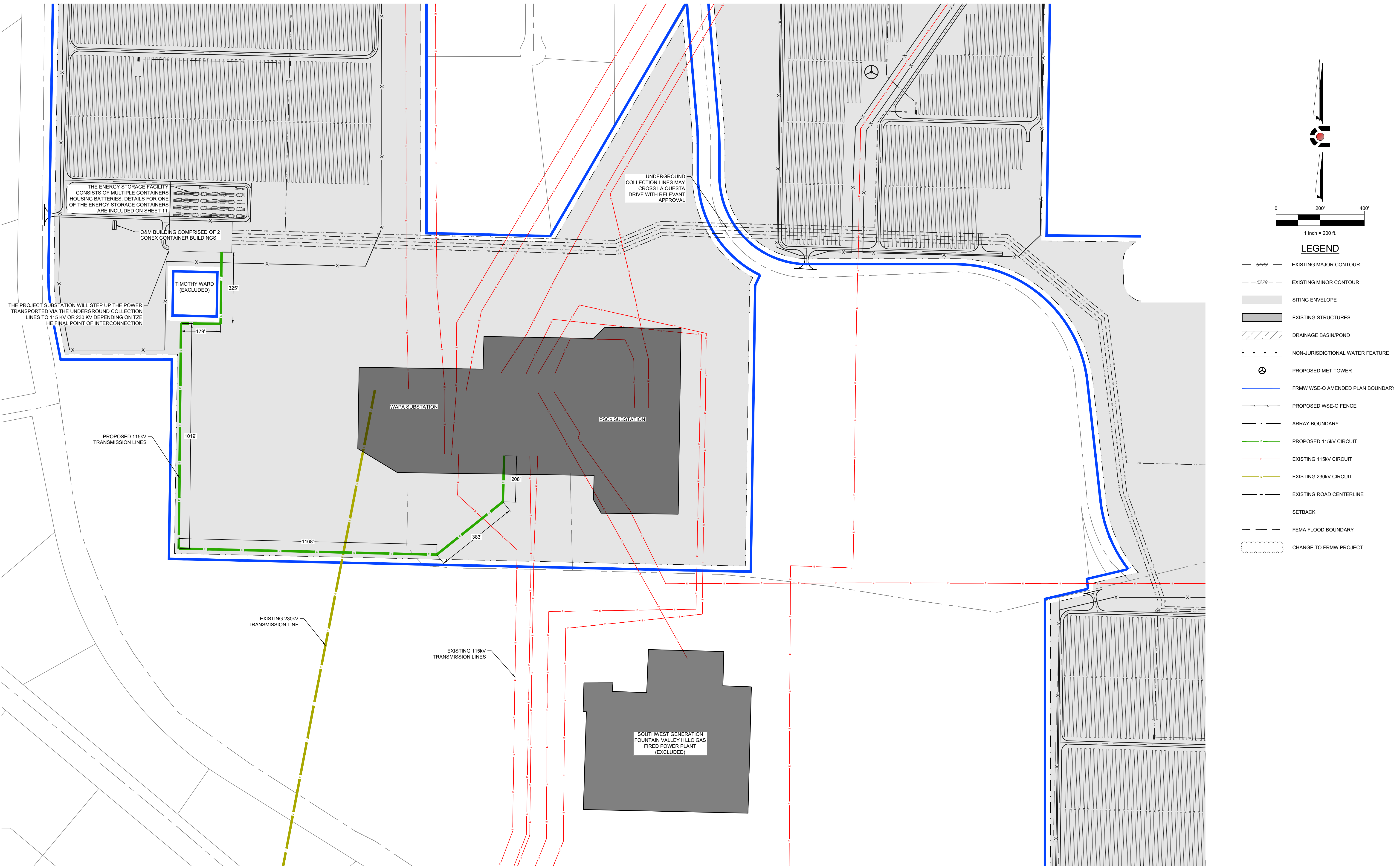
WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
SITE LAYOUT

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177
SHEET
7 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITY LINES.

CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LINES SHOWN ON THIS DRAWING HAVE BEEN LOCATED FROM THE BEST AVAILABLE INFORMATION TO SHOW ONLY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO

FRONT RANGE-MIDWAY SOLAR PROJECT
INTERCONNECTION MAP

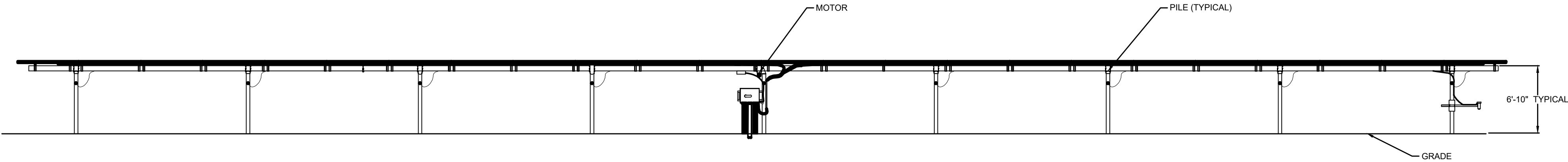
DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177

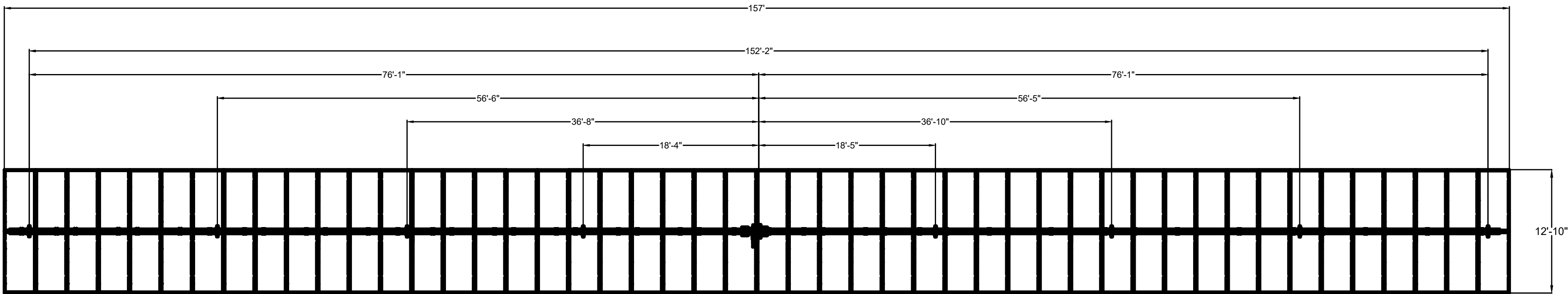
SHEET
8 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO

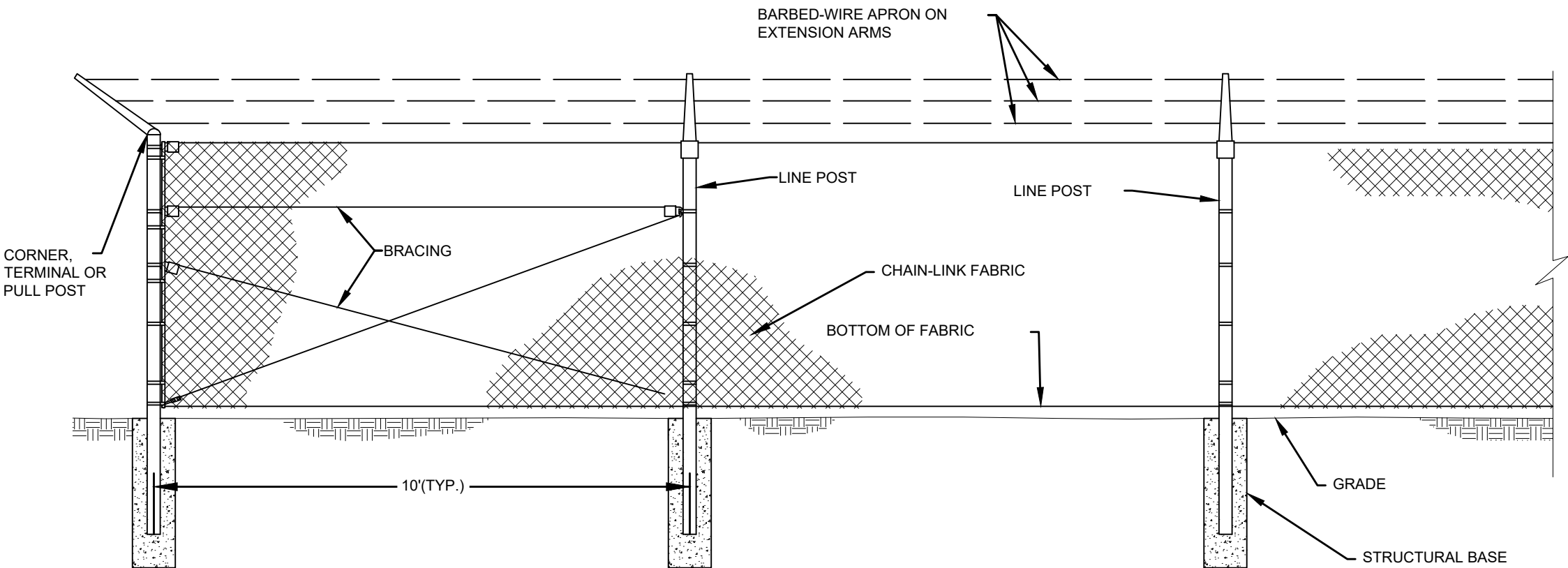


1 TRACKER - ELEVATION VIEW
NTS



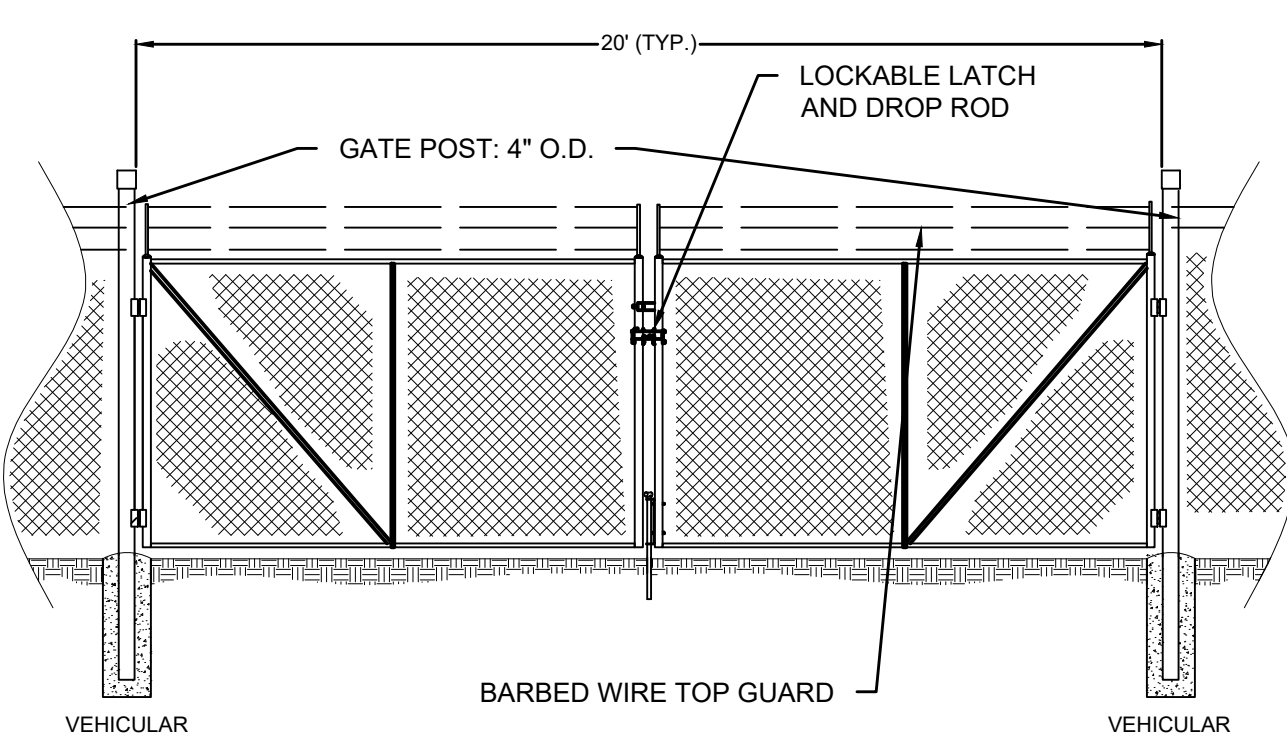
2 TRACKER - PLAN VIEW
NTS

- NOTES:
- PIER DIMENSIONS SHOWN ARE FROM CENTER OF WEB TO CENTER OF WEB FOR FLANGE BEAMS.
 - MODULE SPACING MAY VARY SLIGHTLY DEPENDING ON MODULE TYPE.
 - PILE EMBEDMENT DEPTH VARIES BASED ON GEOTECHNICAL STUDY RESULTS AND STRUCTURAL DESIGN.
 - ACTUAL OPTIMAL DIMENSIONS MAY DEPEND ON SPECIFIC CONDITIONS OF THE SITE.



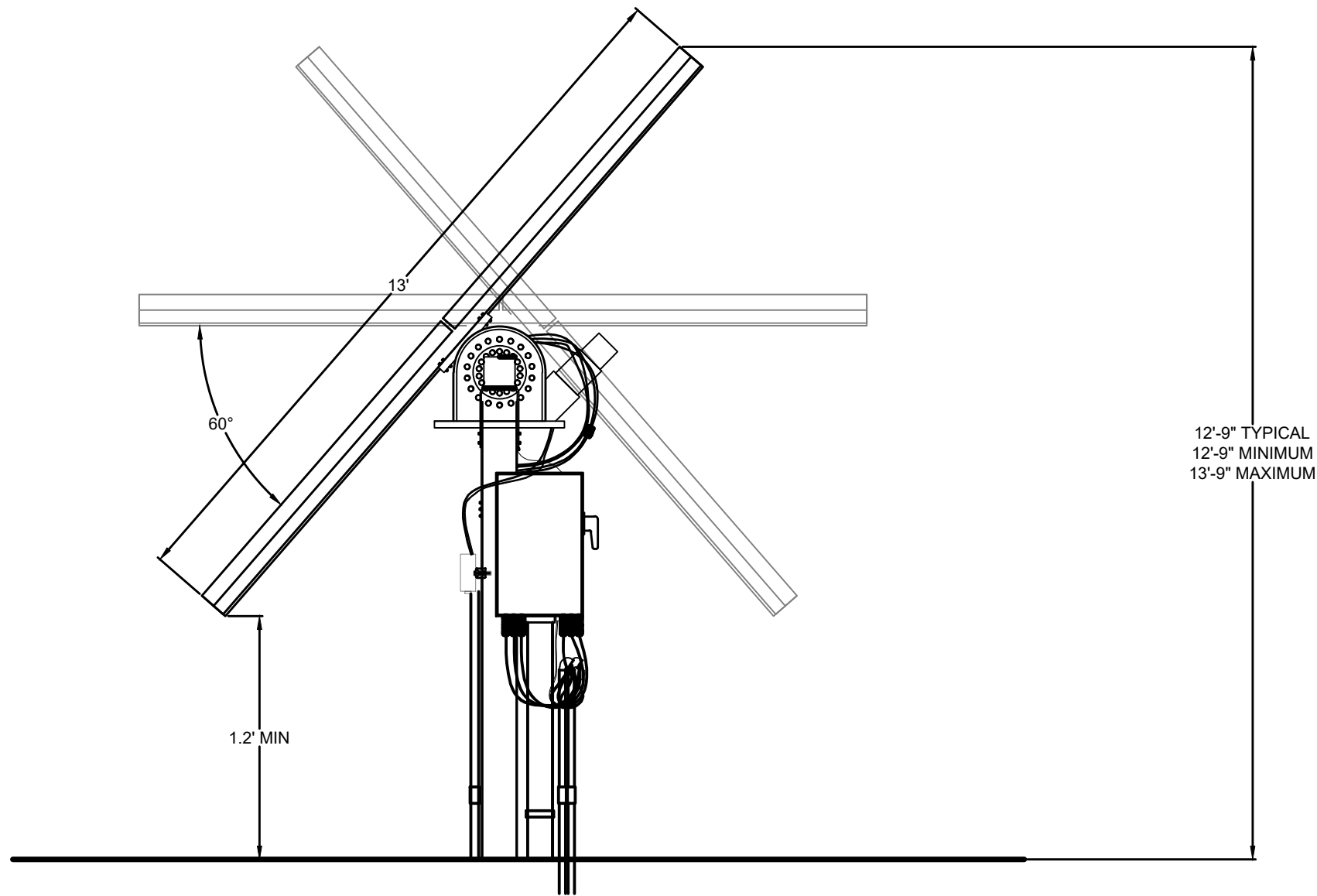
3 CHAIN-LINK SECURITY FENCE
NTS

- NOTES:
- FENCE AND GATE DETAILS WILL BE PROVIDED IN THE SITE DEVELOPMENT PLAN.
 - STRUCTURAL DESIGN TO BE PROVIDED BY FENCE SUPPLIER.
 - DIMENSIONS AND INFORMATION SHOWN ABOVE ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS AND INFORMATION TO BE PROVIDED BY MANUFACTURER/SUPPLIER.



4 CHAIN-LINK SECURITY GATE
NTS

- NOTES:
- FENCE AND GATE DETAILS WILL BE PROVIDED IN THE SITE DEVELOPMENT PLAN.
 - STRUCTURAL DESIGN TO BE PROVIDED BY FENCE SUPPLIER.
 - DIMENSIONS AND INFORMATION SHOWN ABOVE ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS AND INFORMATION TO BE PROVIDED BY MANUFACTURER/SUPPLIER.



5 PANEL PROFILE
NTS

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND PUBLIC UTILITIES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS. THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES IS THE RESPONSIBILITY OF THE CLIENT. TO SHOW THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, THE CLIENT SHALL OBTAIN A UTILITY LOCATING SERVICE FROM A QUALIFIED PROFESSIONAL ENGINEER OR SURVEYOR. THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES IS THE RESPONSIBILITY OF THE CLIENT.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

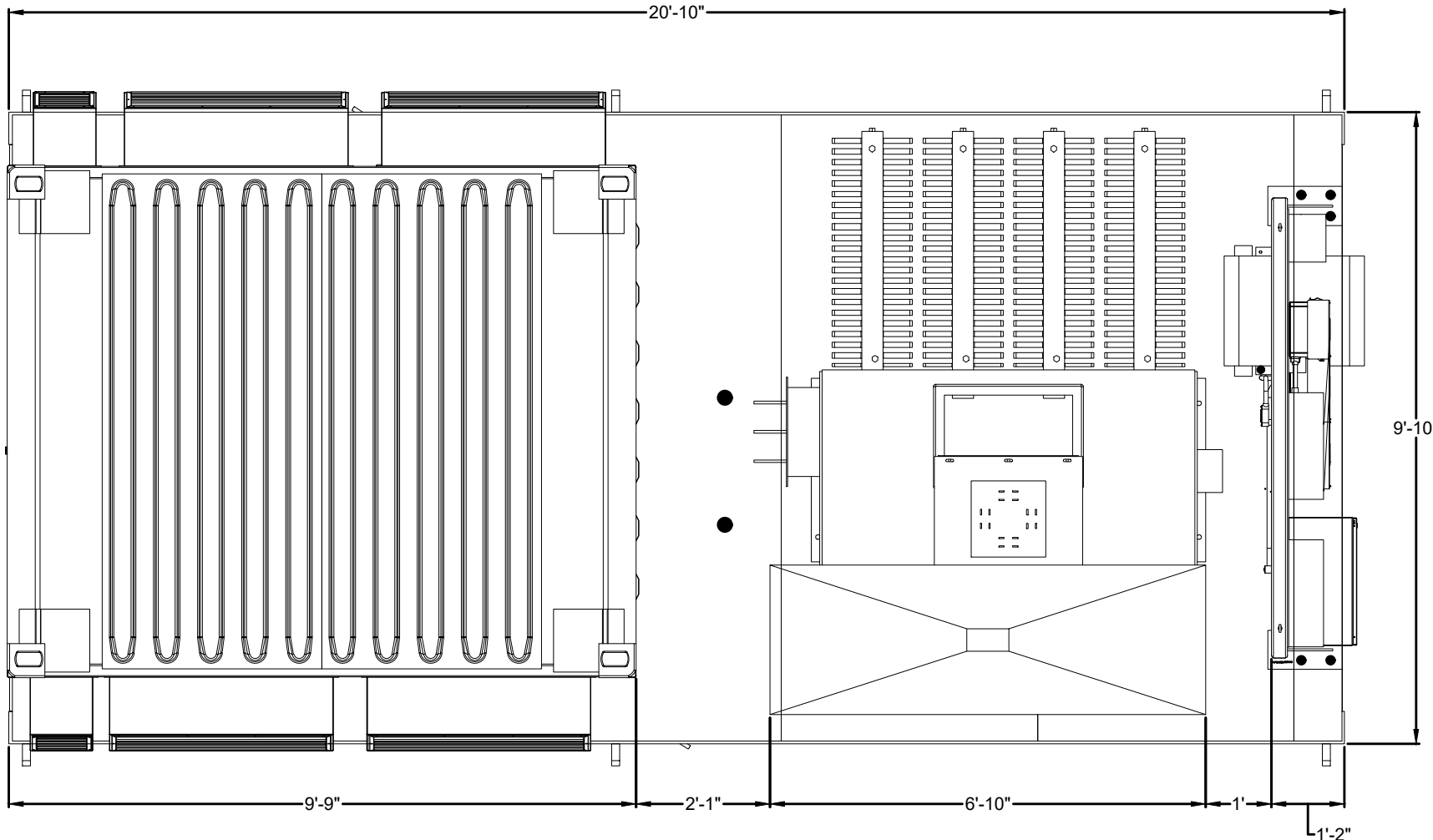
WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
DETAILS (1 OF 5)

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

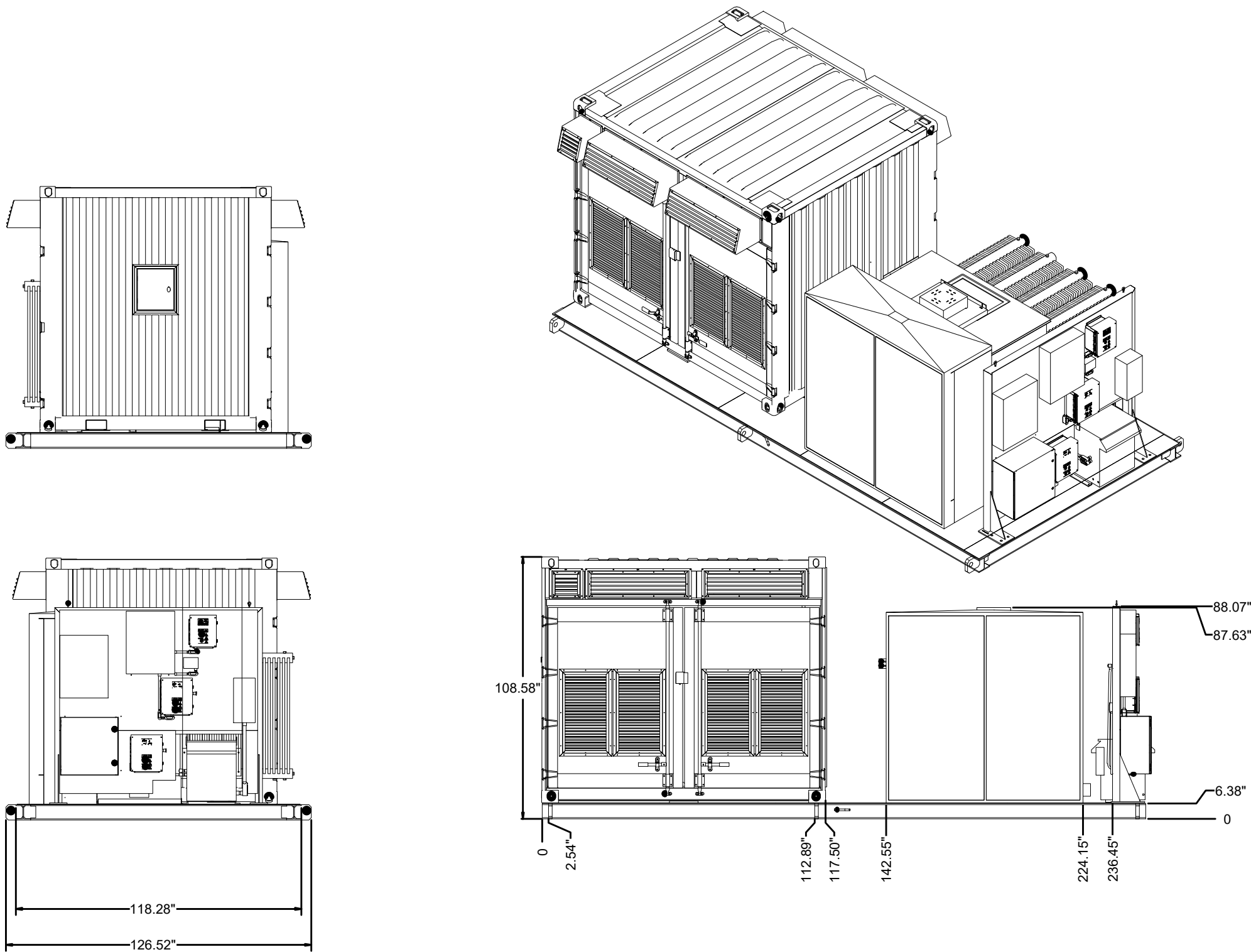
JOB NO.
19-177
SHEET
9 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

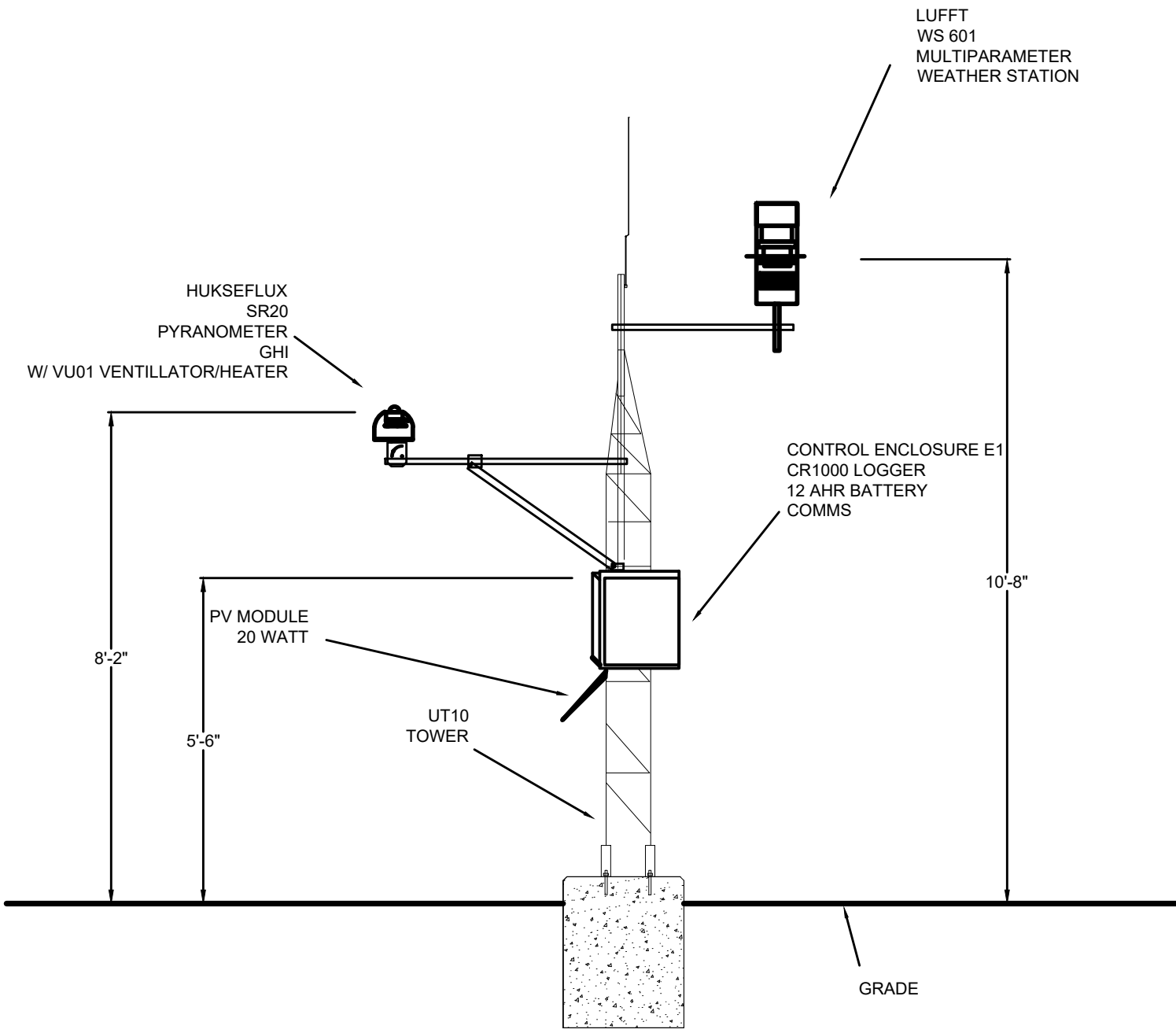
PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



1 TRANSFORMER AND INVERTER LAYOUT
NTS



2 TRANSFORMER AND INVERTER PROFILE
NTS



3 MET STATION DETAIL
NTS

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Littleton Blvd., Ste. 109
Littleton, CO 80120



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND UTILITY LINES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS. THE LOCATION OF ALL UTILITIES SHOWN ON THIS DRAWING HAVE BEEN RATTED
FOR THE BEST AVAILABLE INFORMATION. TO SHOW THE LOCATION OF ALL UTILITIES PRIOR TO THE
CONSTRUCTION OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
DETAILS (2 OF 5)

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177

SHEET
10 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO

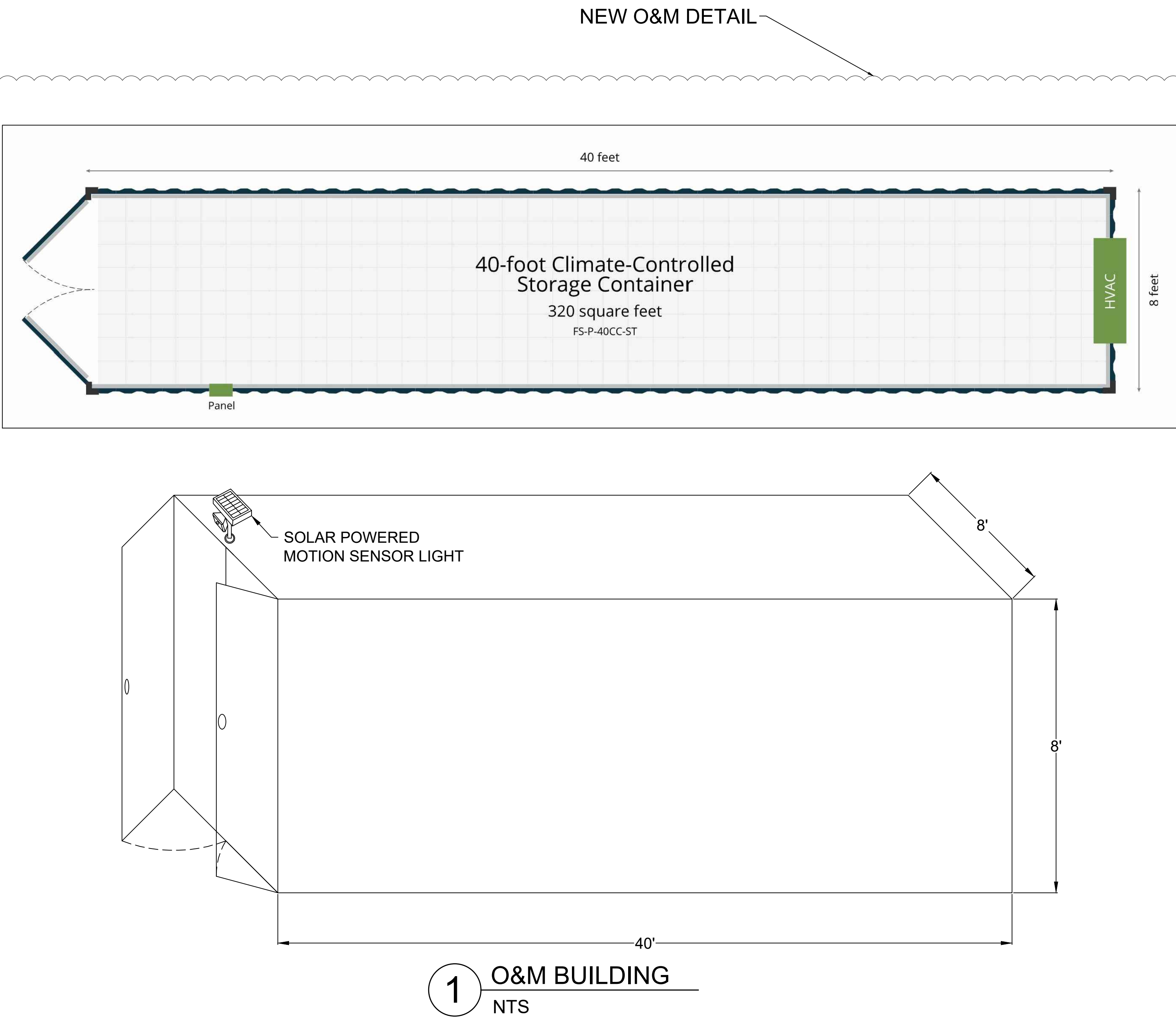
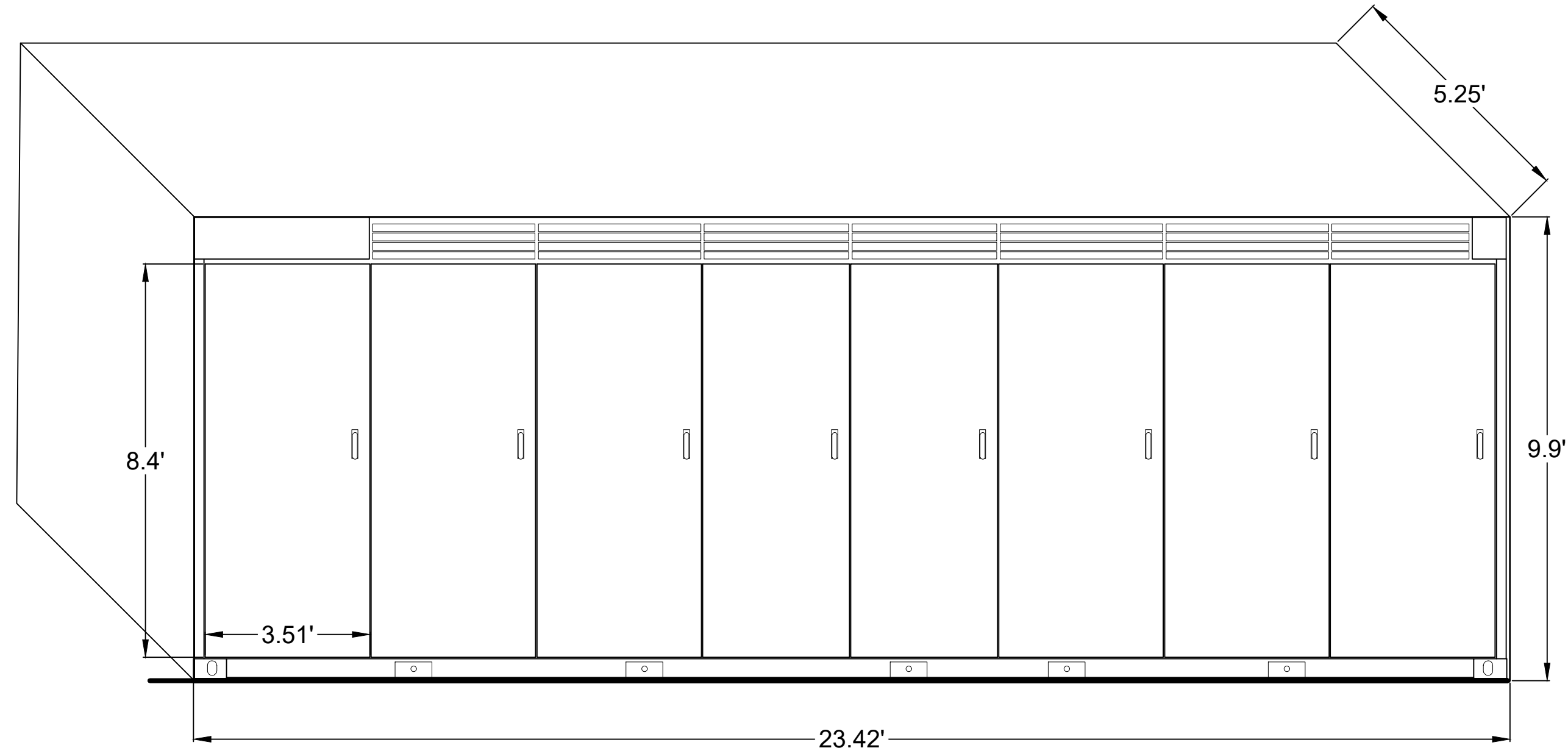
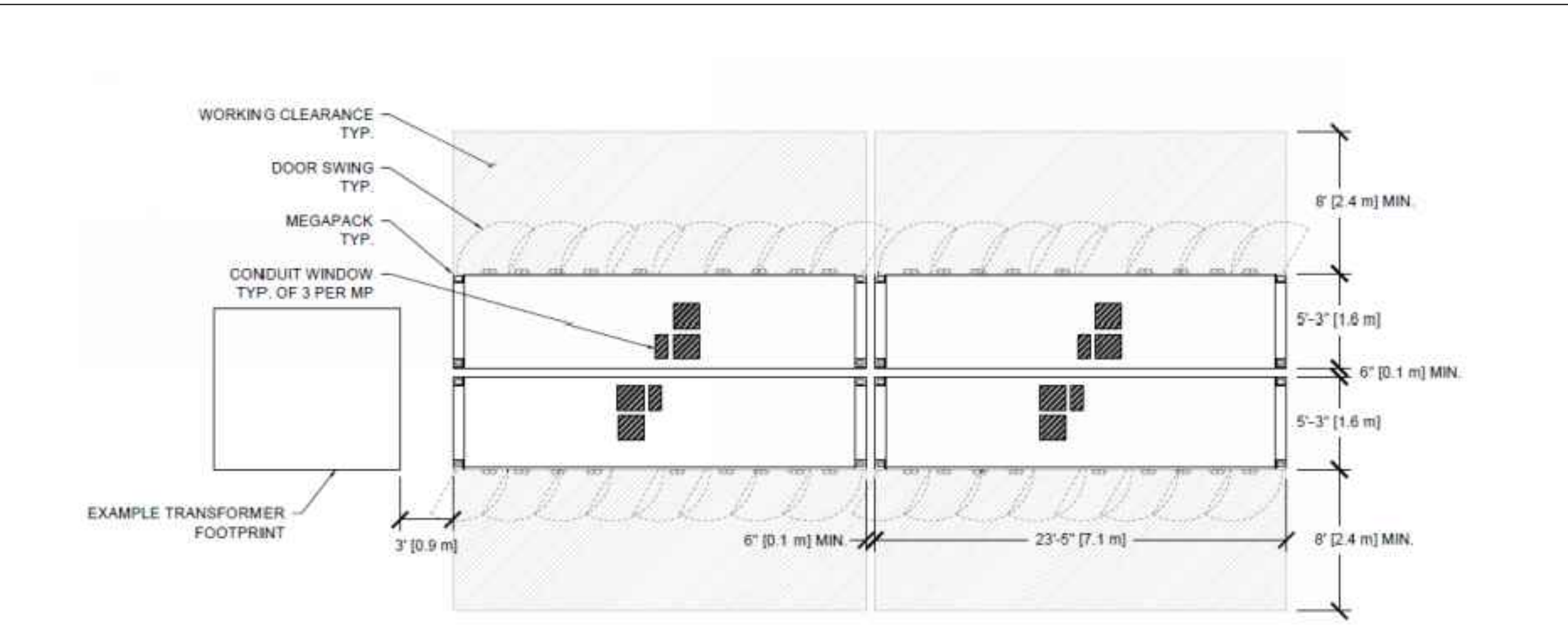


Figure 1: Example Megapack

1. Thermal bay
2. Battery module bays
3. Customer interface bay
4. Inverter bay
5. Battery/inverter "flex" bay
6. IP66 enclosure
7. Thermal roof

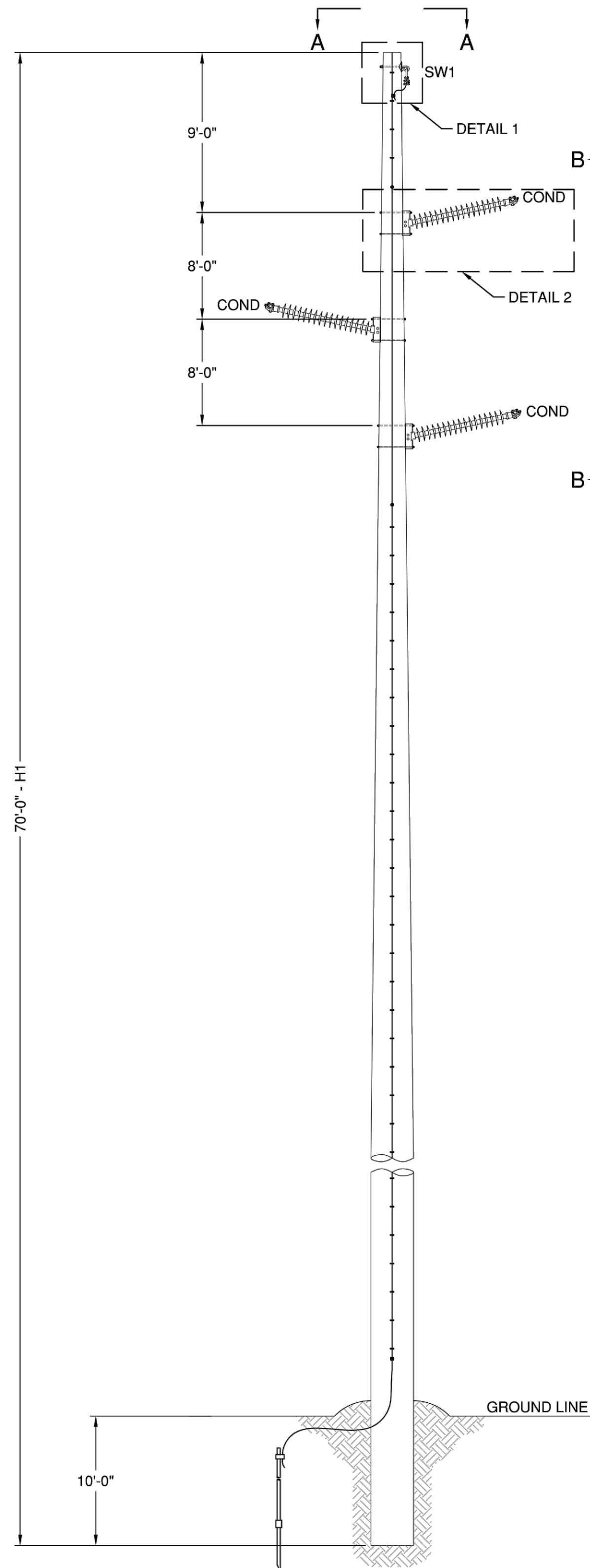


1 ENERGY STORAGE FACILITY
NTS

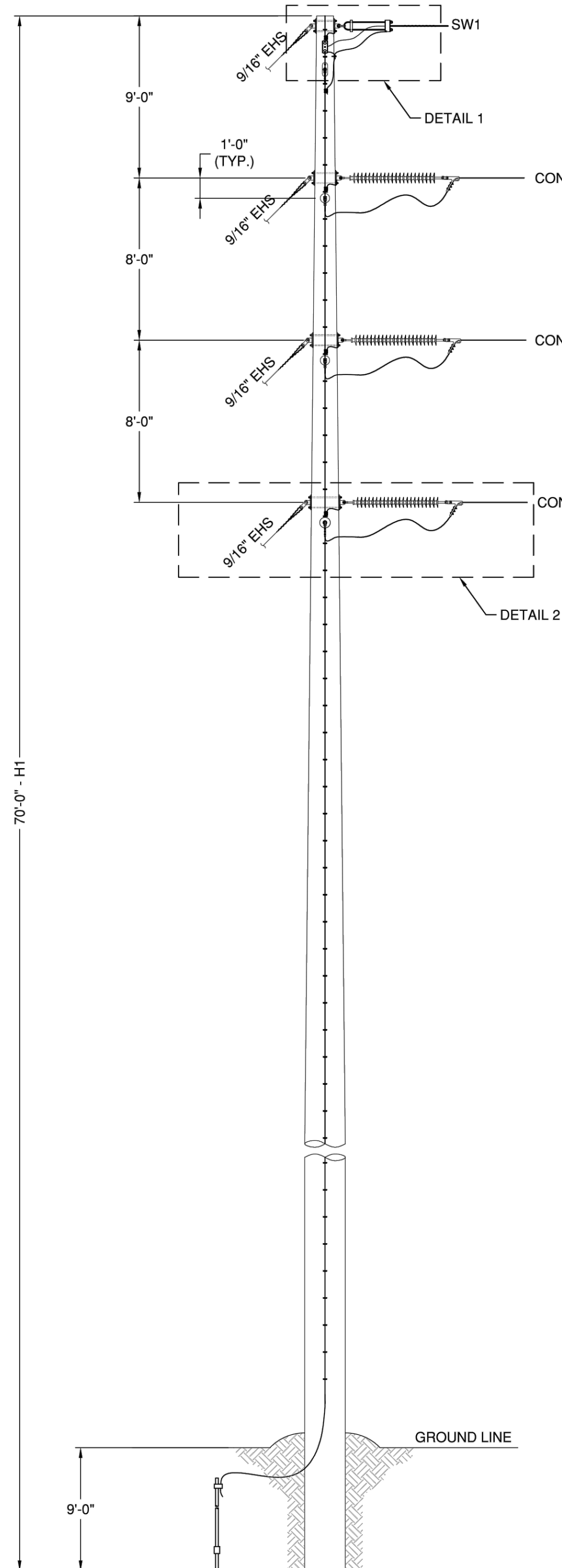
NEW ENERGY
STORAGE DETAIL

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

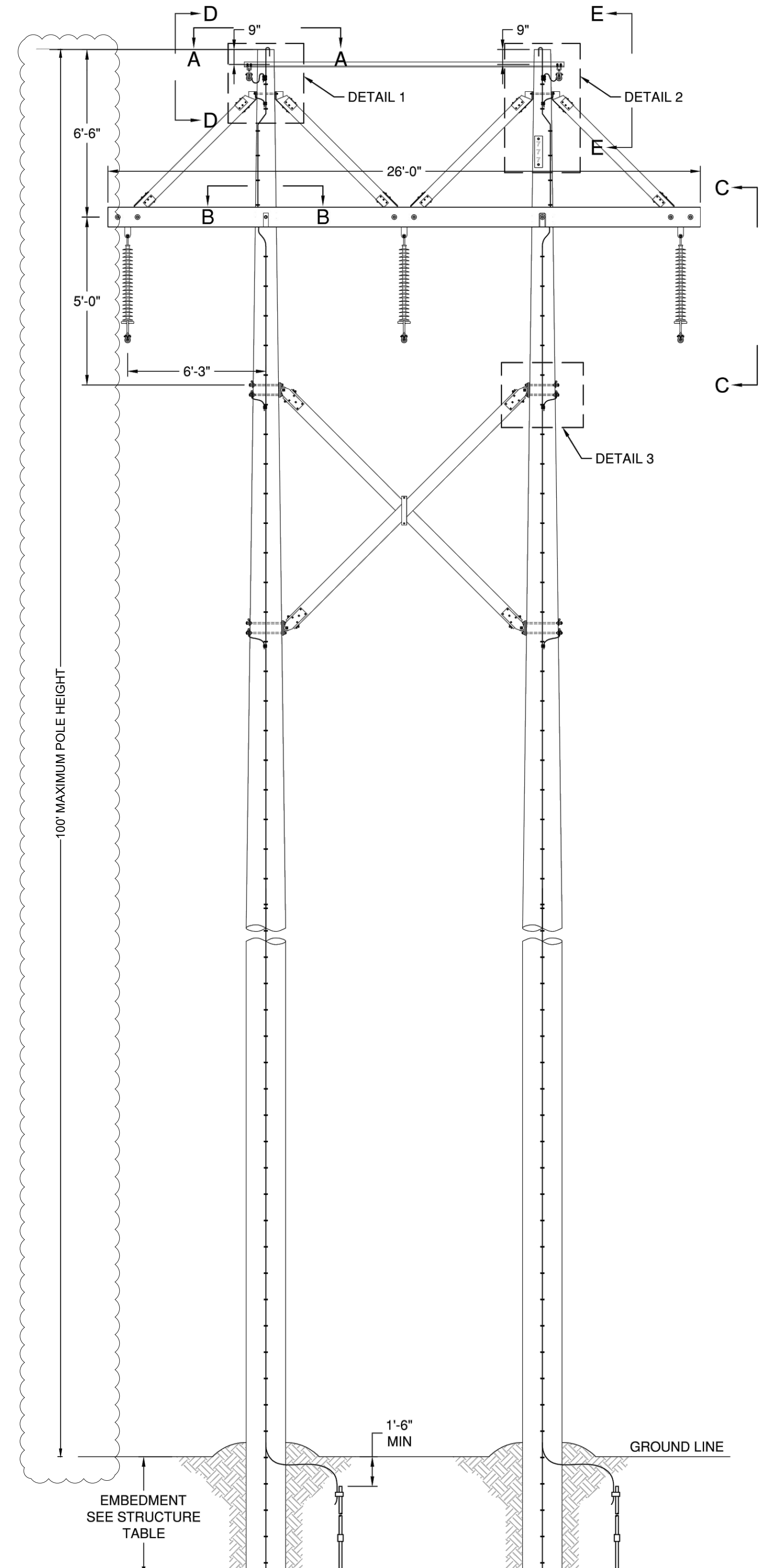
PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



TRANSMISSION LINE POLE ELEVATION
SCALE: N.T.S.
LOOKING AHEAD



TRANSMISSION LINE POLE ELEVATION
SCALE: N.T.S.



TRANSMISSION LINE POLE ELEVATION
SCALE: N.T.S.

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND UTILITY LINES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS. THE LOCATION OF ALL UTILITIES SHOWN ON THIS DRAWING HAVE BEEN LOCATED
FOR THE BEST AVAILABLE INFORMATION. TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE
COMPLETION OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

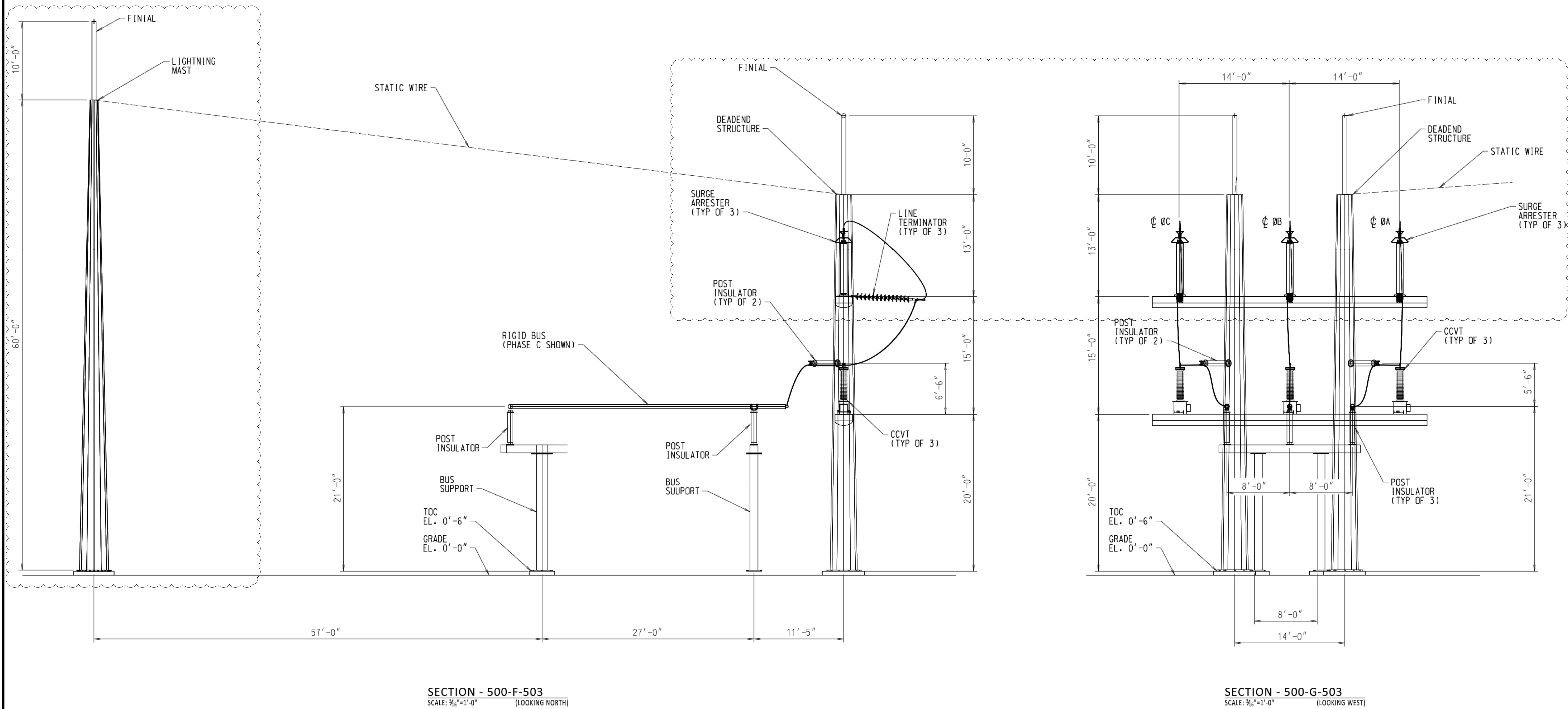
WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
DETAILS (4 OF 5)

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177
SHEET
12 OF 13

WIND/SOLAR ENERGY GENERATION OVERLAY (WSE-O) PLAN AMENDMENT (WSEO-20-1) FOR THE FRONT RANGE-MIDWAY SOLAR PROJECT

PORTIONS OF SECTIONS 17, 20, 21, & 22, TOWNSHIP 17 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN,
EL PASO COUNTY, COLORADO



1 SUBSTATION GROUNDING POLE
NTS

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING
303.703.4444
1950 W. Litchton Blvd., Ste. 109
Litchton, CO 80120



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU
DIG, GRADE, OR EXCAVATE FOR THE MARKING OF
UNDERGROUND UTILITY LINES.
CORE ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY
LOCATIONS OR DEPTHS. THE LOCATION OF ALL UTILITIES
SHOWN ON THIS DRAWING HAVE BEEN LOCATED
AND MARKED BY THE ENGINEER OR SURVEYOR.
THE LOCATION OF ALL UTILITIES PRIOR TO THE
CONSTRUCTION OF ANY CONSTRUCTION ACTIVITIES.

#	REVISION DESCRIPTION	DATE	BY
1	FIRST SUBMITTAL	06/17/20	TP
2	SECOND SUBMITTAL	08/21/20	TP

WSE-O PLAN AMENDMENT (WSEO-20-1)
EL PASO COUNTY, COLORADO
FRONT RANGE-MIDWAY SOLAR PROJECT
DETAILS (5 OF 5)

DESIGNED BY: TP
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
19-177

SHEET
13 OF 13



Hanover Fire Protection District
13325 Old Pueblo Road
Fountain, CO 80817
(719) 382-1900



July 16, 2020

To: Front Range-Midway Solar Project (FRMW)
From: Chief Tatum, Hanover Fire Protection District

Re: Commitment Letter

Dear FRMW:

Based upon prior discussions with Mr. Iadarola in 2017 regarding the original Front Range-Midway Solar Project (FRMW) site plan, continuing communication with the project in 2019 and 2020, and the information exchanged about the revised Front Range-Midway Solar Project site plan, the Hanover Fire Department (HFD) is providing a commitment letter to provide Fire and EMS service for this project. This commitment letter to provide service is conditioned on a final project proposal submission to El Paso County Land Development services.

Hanover Fire Department still reserves the right to review and provide feedback on the submitted project design and fire mitigation plan with the Site Development Plan permit application. HFD will be interested in how this project will design roads on the interior and exterior of the project area. HFD expects all interior roads to be at least 16' wide along the fence to accommodate HFD's trucks and road design will allow all season access onsite. We expect an 8' fire break on the exterior of the fence that will be planted in low growing native vegetation. Prior to construction, HFD will review what roads may be closed or have restricted access to the area during the construction phase of the project.

The Hanover Fire Department is aware this project may include energy storage using lithium ion batteries onsite. Due to this, HFD requests the ability to review and understand the site design associated with the energy storage facility. Additionally, HFD requests the project provide a plan for HFD to address emergency response to the energy storage facility. This plan will include the steps needed to safely respond to a fire event at the energy storage facility and any handling of hazardous materials, if any, by HFD.

Based on previous conversations with project representatives, HFD is committed to provide service to FRMW. HFD requests Knox boxes be located at all main gates to each solar farm area for fire department access. During the project construction, HFD requests classroom training for firefighter and EMS workers on hazards they may come across and onsite training once the construction is complete. HFD will review and comment on the projects weed control plans on the outside and inside of the fence area. Finally, HFD will review and comment on the projects plans emergency service plans for the battery storage facility.

If you have any questions, please give me a call.

A handwritten signature in blue ink, appearing to read "Carl Tatum", is written over the text.

Chief Carl Tatum
Hanover Fire Department
13325 Old Pueblo Rd
Fountain CO 80817
Office 719-382-1900
Cell 719-492-2729

Front Range-Midway Solar Project Fire Protection Plan

This Fire Protection Plan identifies the Front Range-Midway Solar Project's (Project) adherence to the El Paso County Land Development Code Section 6.3.3 Fire Protection and Wildfire Mitigation Standards. Project design and access was reviewed in consideration of the wildfire risks and need to provide adequate fire protection in order to:

- Regulate development, buildings and structures so as to minimize the hazard to public health, safety, and welfare;
- Ensure that adequate fire protection is available for new development;
- Implement wildfire hazard reduction in new development;
- Encourage voluntary efforts to reduce wildfire hazards; and
- Reduce the demands from the public for relief and protection of structures and facilities.

The Project was assessed for the risk of wildfire based on the *Wildfire Hazards Based on Colorado Vegetation Classification Project – El Paso County, Colorado* as referenced in Section 6.3.3(A)(6). The Project is in a low hazard – non forested area of the county (see attached). As such, wildfire hazard mitigation would not be required since wildfire hazard is minimal on the Project. Nonetheless, the Project will conform to the additional fire-related standards under Section 6.3.3 as requested by the county and described below.

The Front Range-Midway Solar Project (Project) will receive services from the Hanover Fire Protection District (HFPD) through a mutual aid agreement with Hanover Fire Department. The HFPD provides fire and emergency services from three stations located at 17550 S. Peyton Way, 12225 Old Pueblo Rd. and 7930 Indian Village Heights. Services provided by Hanover Fire include wildland, structure, and vehicle fires; medical emergencies; rescues; and hazardous materials responses at a limited capacity for operational response. El Paso County will provide assistance on hazardous materials calls as needed. High angle rescue and heavy rescue would be provided by Ft Carson or Colorado Springs on a mutual aid agreement.

HFPD is equipped to handle first alarm fires and personnel include two medical squads. The department's equipment includes three engine pump trucks, three tender pump trucks, three brush trucks, a heavy brush pump truck, and two ambulances to respond to emergencies. Water will be pulled from one or more of the three Wigwam Water District Taps procured for the Project and located within the proposed WSE-O boundary. El Paso County has a hazardous material decontamination trailer, if needed. Their longest ladder is 25 feet. If a longer ladder is needed the Security Fire Department responds with their 75-foot ladder truck on all structure fires. The department's goal response time for 2017 is 10 minutes for first department vehicle on scene. In 2016 the HFPD averaged a 12 minute response time.

The Project has received a Fire Commitment Letter (see attached) from the HFPD and has agreed to the following requests to ensure adequate site access and safety for HFPD during incident response:

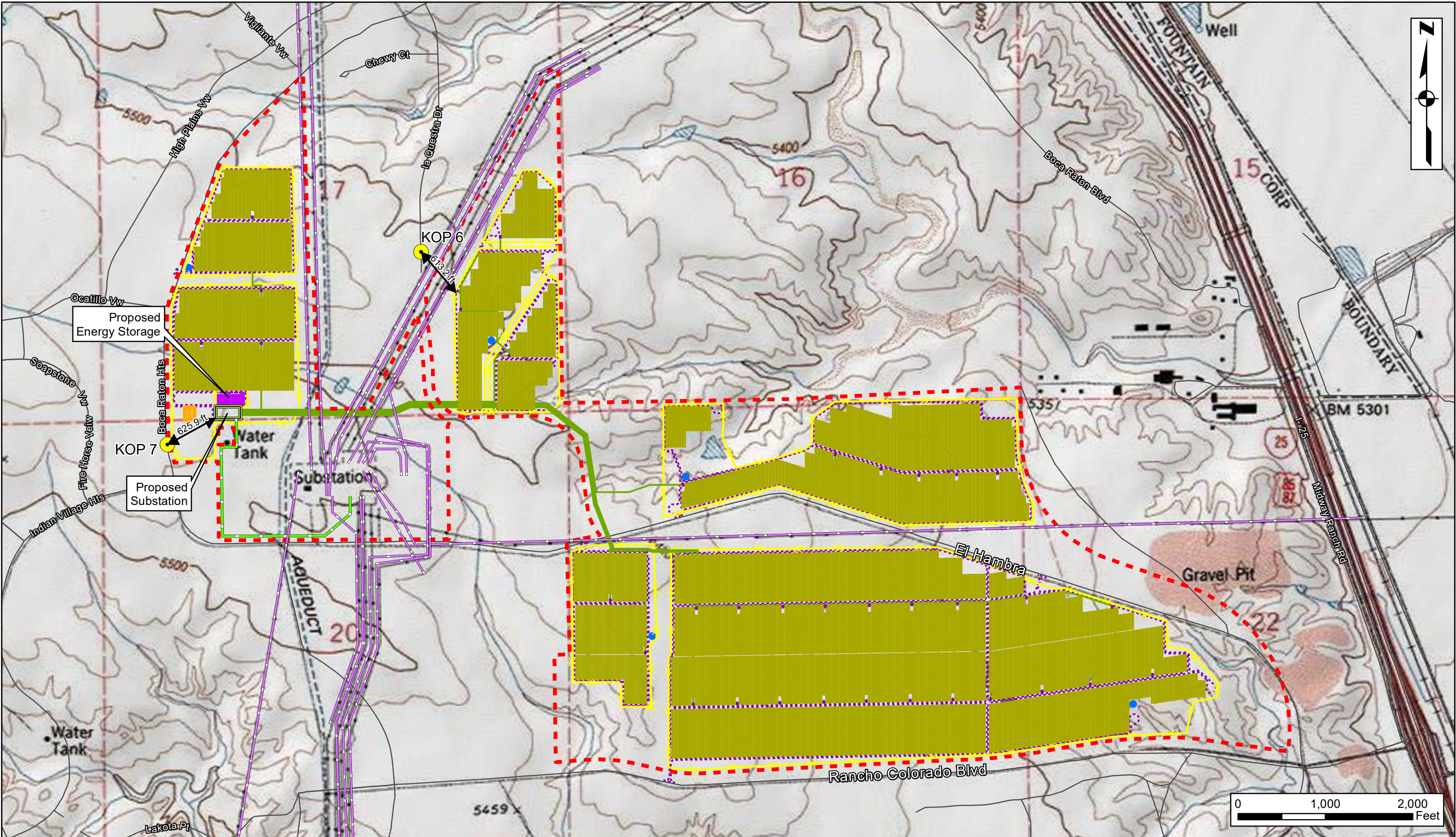
- Roads should be brought up to all season access during Project construction.
- Knox boxes will be located at all main gates along the perimeter of the solar facility.
- The Project will support classroom training during construction for firefighter and EMS workers on potential hazards during construction of the Project.

- The Project will support sight training for firefighter and EMS workers once construction is complete.
- The Project will control weeds on the Project to remove fuels.
- Fire breaks along the perimeter fences will be kept clear of vegetation to reduce the risk of grassland wildfire spreading into the Project.
- Gravel areas will surround the energy storage facility and kept clear of vegetation.
- Welding operations will not occur on red flag days or during any fire restrictions. Welding operations will have a fire watch and water trucks on site for support.
- Any onsite smoking area during construction will be clearly marked and cleared of all vegetation in a 20-foot radius equipped with appropriate disposal cans and extinguishers.
- Energy storage facility will be equipped with temperature control systems and either UL certification for fire events or a fire suppression system within the containers.
- The Project will provide a detailed fire event response plan for the energy storage facility.

Attachment 18 Visual Impact Analysis

Front Range-Midway Solar Project Major Amendment to WSE-O Plan

For this Major Amendment for the Front Range-Midway Solar Project WSEO-20-1, two key observation points (KOP) were added to the photo simulations to account for the new site layout. KOP 6 and KOP 7 were selected to also account for recent construction of houses adjacent to the north side of the Project and the substation location on the west side of the Project, respectively. The new photo simulations for the amended FRMW Project are provided first, with the photo simulations from 2017 provided second.



- FRMW WSE-O Plan Boundary
- Proposed Collection Line
- Key Observation Point
- Proposed Fencing
- Proposed Solar Array
- Proposed MET Unit
- Proposed Energy Storage
- Proposed O&M Building
- Proposed Substation
- Proposed Access Road
- Proposed Gen-Tie Line
- Existing Transmission Line

Front Range-Midway Solar Project

Key Observation Points - 2020 Amendment

El Paso County, Colorado



CORE
CONSULTANTS

CIVIL ENGINEERING
DEVELOPMENT CONSULTING
NATURAL RESOURCES CONSULTING
LAND SURVEYING

303.703.4444
1950 W. Littleton Blvd., Ste. 109
Littleton, CO 80120

CORE Project #: 19-177

Date: 8/21/2020

Front Range-Midway Solar Project - Key Observation Point 6

Existing View



0572

KOP 6

Name

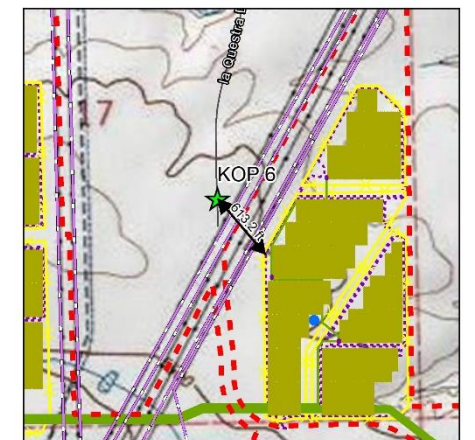
La Questa Dr

Latitude/Longitude

38.568036/-104.687371

Direction/Distance

Northwest /613 ft



Vicinity Map

Proposed View



0572- SIMULATION

Front Range-Midway Solar Project - Key Observation Point 7

Existing View



KOP 7

Name

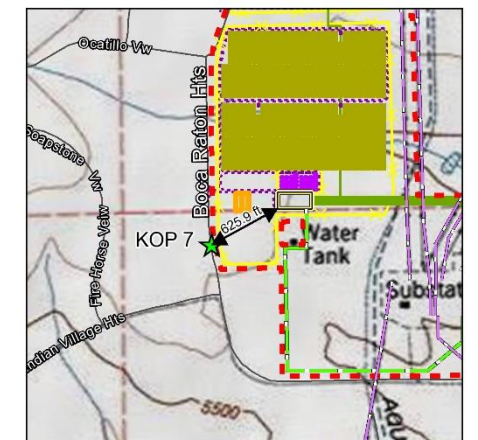
Boca Raton Dr

Latitude/Longitude

38.562061/-104.697592

Direction/Distance

Southwest / 625 ft



Vicinity Map

Proposed View



Front Range-Midway Solar Project - Key Observation Point 1

Existing View



KOP 1

Name

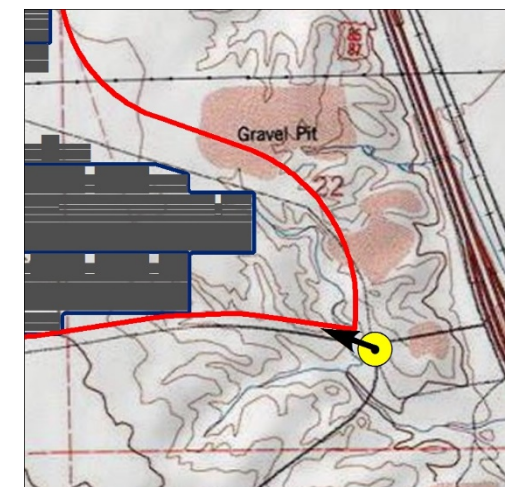
Boca Raton Heights & Rancho
Colorado Blvd

Latitude/Longitude

38.5508/-104.6507

Direction/Distance

East / 2,000 ft



Vicinity Map

Proposed View



CORE
CONSULTANTS

Project #17-012
Date 08/17/2017

Front Range-Midway Solar Project - Key Observation Point 2

Existing View



KOP 2

Name

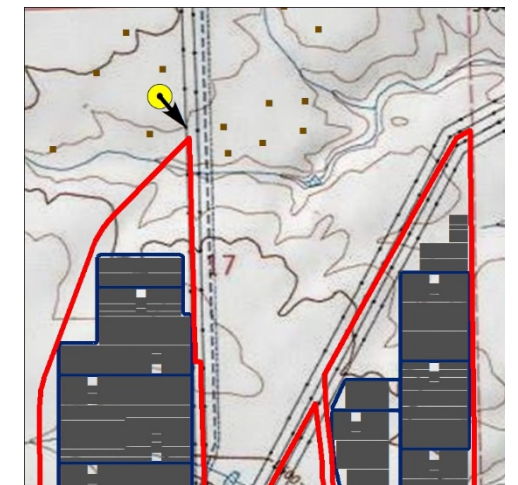
High Plains View

Latitude/Longitude

38.5739/-104.6918

Direction/Distance

North / 1,700 ft



Vicinity Map

Proposed View



Front Range-Midway Solar Project - Key Observation Point 3

Existing View



KOP 3

Name

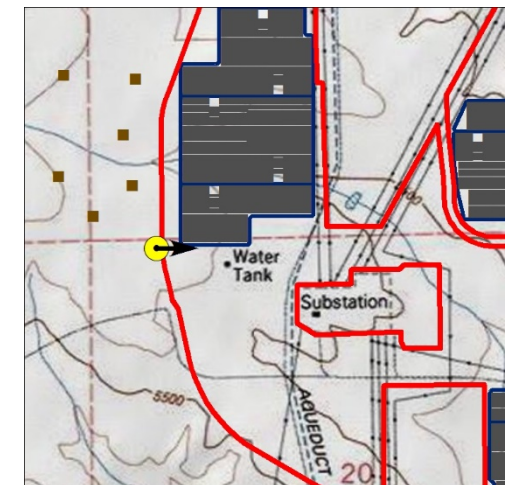
Boca Raton Heights Mailboxes

Latitude/Longitude

38.5620/-104.6974

Direction/Distance

West / 250 ft



Vicinity Map

Proposed View



CORE
CONSULTANTS

Project #17-012
Date 08/17/2017

Front Range-Midway Solar Project - Key Observation Point 4

Existing View



KOP 4

Name

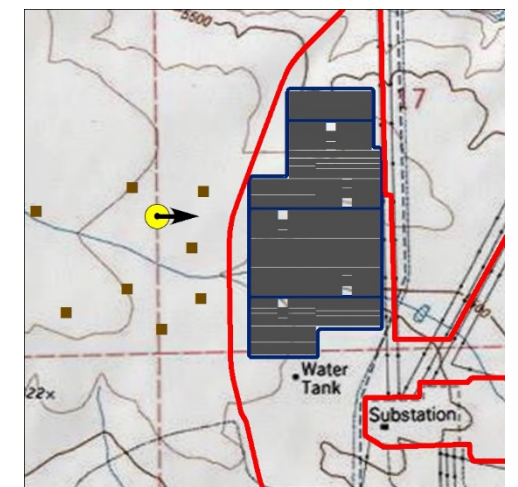
High Plains View

Latitude/Longitude

38.5665/-104.7001

Direction/Distance

West / 800 ft



Vicinity Map

Proposed View



Front Range-Midway Solar Project - Key Observation Point 5

Existing View



KOP 5

Name

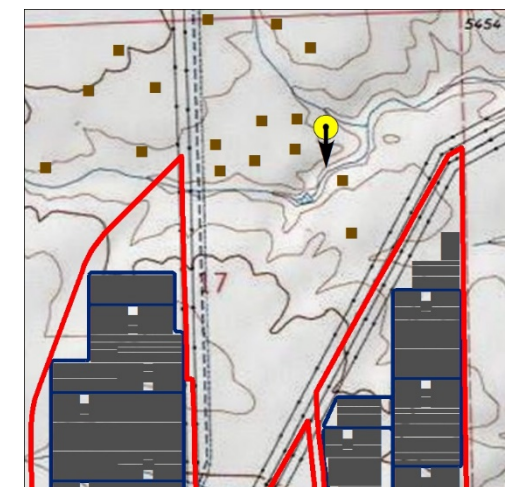
Chewy Ct & La Questa Dr

Latitude/Longitude

38.5723/-104.6845

Direction/Distance

North / ½ Mile



Vicinity Map

Proposed View



Solar Glare Hazard Analysis Report

Generated Aug. 18, 2017, 11:20 a.m.

No glare found

 Print



Inputs

Analysis name	FrontRange
PV array axis tracking	single
Tilt of tracking axis (deg)	0.0
Orientation of tracking axis (deg)	180.0
Offset angle of module (deg)	0.0
Limit rotation angle?	True
Maximum tracking angle (deg)	45.0

Rated power (kW)	5000.0
Vary reflectivity	True
PV surface material	Smooth glass without ARC

Timezone offset	-7.0
Subtended angle of sun (mrad)	9.3
Peak DNI (W/m ²)	1000.0
Ocular transmission coefficient	0.5
Pupil diameter (m)	0.002
Eye focal length (m)	0.017
Time interval (min)	1
Correlate slope error with material	False
Slope error (mrad)	10.0

PV array vertices

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
1	38.5716559845	-104.693312645	5471.92	7.0	5478.92
2	38.570179661	-104.694943428	5496.34	7.0	5503.34
3	38.5685019839	-104.695887566	5515.5	7.0	5522.5
4	38.5651465122	-104.696745872	5513.98	7.0	5520.98
5	38.5625291354	-104.696745872	5519.27	7.0	5526.27
6	38.5626633622	-104.692025185	5505.4	7.0	5512.4
7	38.5625962489	-104.68644619	5489.12	7.0	5496.12
8	38.5558845972	-104.686102867	5470.32	7.0	5477.32

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
9	38.5558174775	-104.690136909	5496.67	7.0	5503.67
10	38.5518573054	-104.689793587	5476.13	7.0	5483.13
11	38.5524614135	-104.675374031	5456.85	7.0	5463.85
12	38.5526627818	-104.658293724	5341.78	7.0	5348.78
13	38.5526627818	-104.654688835	5341.59	7.0	5348.59
14	38.555683238	-104.655461311	5358.58	7.0	5365.58
15	38.5576968049	-104.658722878	5375.59	7.0	5382.59
16	38.558300864	-104.660868645	5379.33	7.0	5386.33
17	38.5593076178	-104.663443565	5388.72	7.0	5395.72
18	38.5625962489	-104.663786888	5363.87	7.0	5370.87
19	38.5625291354	-104.671511165	5427.96	7.0	5434.96
20	38.5610526245	-104.674086571	5441.48	7.0	5448.48
21	38.5599116634	-104.68018055	5483.89	7.0	5490.89
22	38.5599787793	-104.682154655	5492.73	7.0	5499.73
23	38.5713875643	-104.681982994	5451.43	7.0	5458.43
24	38.5713875643	-104.684729576	5464.65	7.0	5471.65
25	38.564206952	-104.687905312	5499.01	7.0	5506.01
26	38.564206952	-104.691252708	5495.96	7.0	5502.96
27	38.5723270305	-104.691510201	5459.83	7.0	5466.83

Observation Points

Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Eye-level height above ground (ft)
----------------	-----------------	-----------------------	------------------------------------

1	38.5858137277	-104.668786526	5331.29	5.5
---	---------------	----------------	---------	-----

No glare found.

©1997-2014 Sandia Corporation

Solar Glare Hazard Analysis Report

Generated Aug. 18, 2017, 11:20 a.m.

No glare found

 Print



Inputs

Analysis name	FrontRange
PV array axis tracking	single
Tilt of tracking axis (deg)	0.0
Orientation of tracking axis (deg)	180.0
Offset angle of module (deg)	0.0
Limit rotation angle?	True
Maximum tracking angle (deg)	45.0

Rated power (kW)	5000.0
Vary reflectivity	True
PV surface material	Smooth glass without ARC

Timezone offset	-7.0
Subtended angle of sun (mrad)	9.3
Peak DNI (W/m ²)	1000.0
Ocular transmission coefficient	0.5
Pupil diameter (m)	0.002
Eye focal length (m)	0.017
Time interval (min)	1
Correlate slope error with material	False
Slope error (mrad)	10.0

PV array vertices

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
1	38.5716559845	-104.693312645	5471.92	7.0	5478.92
2	38.570179661	-104.694943428	5496.34	7.0	5503.34
3	38.5685019839	-104.695887566	5515.5	7.0	5522.5
4	38.5651465122	-104.696745872	5513.98	7.0	5520.98
5	38.5625291354	-104.696745872	5519.27	7.0	5526.27
6	38.5626633622	-104.692025185	5505.4	7.0	5512.4
7	38.5625962489	-104.68644619	5489.12	7.0	5496.12
8	38.5558845972	-104.686102867	5470.32	7.0	5477.32

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
9	38.5558174775	-104.690136909	5496.67	7.0	5503.67
10	38.5518573054	-104.689793587	5476.13	7.0	5483.13
11	38.5524614135	-104.675374031	5456.85	7.0	5463.85
12	38.5526627818	-104.658293724	5341.78	7.0	5348.78
13	38.5526627818	-104.654688835	5341.59	7.0	5348.59
14	38.555683238	-104.655461311	5358.58	7.0	5365.58
15	38.5576968049	-104.658722878	5375.59	7.0	5382.59
16	38.558300864	-104.660868645	5379.33	7.0	5386.33
17	38.5593076178	-104.663443565	5388.72	7.0	5395.72
18	38.5625962489	-104.663786888	5363.87	7.0	5370.87
19	38.5625291354	-104.671511165	5427.96	7.0	5434.96
20	38.5610526245	-104.674086571	5441.48	7.0	5448.48
21	38.5599116634	-104.68018055	5483.89	7.0	5490.89
22	38.5599787793	-104.682154655	5492.73	7.0	5499.73
23	38.5713875643	-104.681982994	5451.43	7.0	5458.43
24	38.5713875643	-104.684729576	5464.65	7.0	5471.65
25	38.564206952	-104.687905312	5499.01	7.0	5506.01
26	38.564206952	-104.691252708	5495.96	7.0	5502.96
27	38.5723270305	-104.691510201	5459.83	7.0	5466.83

Observation Points

Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Eye-level height above ground (ft)
----------------	-----------------	-----------------------	------------------------------------

2	38.55105182	-104.646942616	5272.08	5.5
---	-------------	----------------	---------	-----

No glare found.

©1997-2014 Sandia Corporation

Solar Glare Hazard Analysis Flight Path Report

Generated Aug. 18, 2017, 11:21 a.m.

Flight path: 1

No glare found

 Print



Analysis & PV array parameters

Analysis name	FrontRange
PV array axis tracking	single
Tilt of tracking axis (deg)	0.0
Orientation of tracking axis (deg)	180.0
Offset angle of module (deg)	0.0
Limit rotation angle?	True
Maximum tracking angle (deg)	45.0
Rated power (kW)	5000.0
Vary reflectivity	True
PV surface material	Smooth glass without ARC

Timezone offset	-7.0
Subtended angle of sun (mrad)	9.3
Peak DNI (W/m ²)	1000.0
Ocular transmission coefficient	0.5
Pupil diameter (m)	0.002
Eye focal length (m)	0.017
Time interval (min)	1
Correlate slope error with material	False
Slope error (mrad)	10.0

Flight path parameters

Direction (deg)	312.81
Glide slope (deg)	3.0
Consider pilot visibility from cockpit	False

PV array vertices

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
1	38.5716559845	-104.693312645	5471.92	7.0	5478.92
2	38.570179661	-104.694943428	5496.34	7.0	5503.34
3	38.5685019839	-104.695887566	5515.5	7.0	5522.5
4	38.5651465122	-104.696745872	5513.98	7.0	5520.98
5	38.5625291354	-104.696745872	5519.27	7.0	5526.27
6	38.5626633622	-104.692025185	5505.4	7.0	5512.4
7	38.5625962489	-104.68644619	5489.12	7.0	5496.12
8	38.5558845972	-104.686102867	5470.32	7.0	5477.32
9	38.5558174775	-104.690136909	5496.67	7.0	5503.67
10	38.5518573054	-104.689793587	5476.13	7.0	5483.13
11	38.5524614135	-104.675374031	5456.85	7.0	5463.85
12	38.5526627818	-104.658293724	5341.78	7.0	5348.78
13	38.5526627818	-104.654688835	5341.59	7.0	5348.59
14	38.555683238	-104.655461311	5358.58	7.0	5365.58
15	38.5576968049	-104.658722878	5375.59	7.0	5382.59
16	38.558300864	-104.660868645	5379.33	7.0	5386.33
17	38.5593076178	-104.663443565	5388.72	7.0	5395.72
18	38.5625962489	-104.663786888	5363.87	7.0	5370.87
19	38.5625291354	-104.671511165	5427.96	7.0	5434.96
20	38.5610526245	-104.674086571	5441.48	7.0	5448.48
21	38.5599116634	-104.68018055	5483.89	7.0	5490.89

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
22	38.5599787793	-104.682154655	5492.73	7.0	5499.73
23	38.5713875643	-104.681982994	5451.43	7.0	5458.43
24	38.5713875643	-104.684729576	5464.65	7.0	5471.65
25	38.564206952	-104.687905312	5499.01	7.0	5506.01
26	38.564206952	-104.691252708	5495.96	7.0	5502.96
27	38.5723270305	-104.691510201	5459.83	7.0	5466.83

Flight Path Observation Points

	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Eye-level height above ground (ft)	Glare?
Threshold	38.6733820132	-104.750390053	5788.11	50.0	No
1/4 mi	38.6709262238	-104.746990394	5770.49	136.8	No
1/2 mi	38.6684704344	-104.743590736	5754.69	221.79	No
3/4 mi	38.6660146451	-104.740191077	5728.09	317.55	No
1 mi	38.6635588557	-104.736791418	5724.7	390.12	No
1 1/4 mi	38.6611030663	-104.73339176	5692.08	491.93	No
1 1/2 mi	38.658647277	-104.729992101	5700.45	552.73	No
1 3/4 mi	38.6561914876	-104.726592443	5655.73	666.64	No
2 mi	38.6537356982	-104.723192784	5678.93	712.61	No

No glare found.

Solar Glare Hazard Analysis Flight Path Report

Generated Aug. 18, 2017, 11:21 a.m.

Flight path: 2

No glare found

 Print



Analysis & PV array parameters

Analysis name	FrontRange
PV array axis tracking	single
Tilt of tracking axis (deg)	0.0
Orientation of tracking axis (deg)	180.0
Offset angle of module (deg)	0.0
Limit rotation angle?	True
Maximum tracking angle (deg)	45.0
Rated power (kW)	5000.0
Vary reflectivity	True
PV surface material	Smooth glass without ARC

Timezone offset	-7.0
Subtended angle of sun (mrad)	9.3
Peak DNI (W/m ²)	1000.0
Ocular transmission coefficient	0.5
Pupil diameter (m)	0.002
Eye focal length (m)	0.017
Time interval (min)	1
Correlate slope error with material	False
Slope error (mrad)	10.0

Flight path parameters

Direction (deg)	159.94
Glide slope (deg)	3.0
Consider pilot visibility from cockpit	False

PV array vertices

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
1	38.5716559845	-104.693312645	5471.92	7.0	5478.92
2	38.570179661	-104.694943428	5496.34	7.0	5503.34
3	38.5685019839	-104.695887566	5515.5	7.0	5522.5
4	38.5651465122	-104.696745872	5513.98	7.0	5520.98
5	38.5625291354	-104.696745872	5519.27	7.0	5526.27
6	38.5626633622	-104.692025185	5505.4	7.0	5512.4
7	38.5625962489	-104.68644619	5489.12	7.0	5496.12
8	38.5558845972	-104.686102867	5470.32	7.0	5477.32
9	38.5558174775	-104.690136909	5496.67	7.0	5503.67
10	38.5518573054	-104.689793587	5476.13	7.0	5483.13
11	38.5524614135	-104.675374031	5456.85	7.0	5463.85
12	38.5526627818	-104.658293724	5341.78	7.0	5348.78
13	38.5526627818	-104.654688835	5341.59	7.0	5348.59
14	38.555683238	-104.655461311	5358.58	7.0	5365.58
15	38.5576968049	-104.658722878	5375.59	7.0	5382.59
16	38.558300864	-104.660868645	5379.33	7.0	5386.33
17	38.5593076178	-104.663443565	5388.72	7.0	5395.72
18	38.5625962489	-104.663786888	5363.87	7.0	5370.87
19	38.5625291354	-104.671511165	5427.96	7.0	5434.96
20	38.5610526245	-104.674086571	5441.48	7.0	5448.48
21	38.5599116634	-104.68018055	5483.89	7.0	5490.89

id	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Height of panels above ground (ft)	Total elevation (ft)
22	38.5599787793	-104.682154655	5492.73	7.0	5499.73
23	38.5713875643	-104.681982994	5451.43	7.0	5458.43
24	38.5713875643	-104.684729576	5464.65	7.0	5471.65
25	38.564206952	-104.687905312	5499.01	7.0	5506.01
26	38.564206952	-104.691252708	5495.96	7.0	5502.96
27	38.5723270305	-104.691510201	5459.83	7.0	5466.83

Flight Path Observation Points

	Latitude (deg)	Longitude (deg)	Ground Elevation (ft)	Eye-level height above ground (ft)	Glare?
Threshold	38.5433321269	-104.504957199	5147.91	50.0	No
1/4 mi	38.5467266389	-104.50654385	5157.94	109.15	No
1/2 mi	38.5501211509	-104.508130501	5166.84	169.44	No
3/4 mi	38.5535156628	-104.509717151	5177.21	228.24	No
1 mi	38.5569101748	-104.511303802	5167.8	306.82	No
1 1/4 mi	38.5603046868	-104.512890453	5189.91	353.9	No
1 1/2 mi	38.5636991988	-104.514477104	5204.66	408.32	No
1 3/4 mi	38.5670937107	-104.516063754	5215.57	466.6	No
2 mi	38.5704882227	-104.517650405	5223.75	527.59	No

No glare found.