

KAIRO POWER FACILITY
EXPANSION

EROSION AND SEDIMENT CONTROL PLAN

PROJECT NO.: 8800-22
DRAWN BY:
DATE: 8.26.2022

ESCP 1

1. All Erosion and Sediment Control (ESC) work on these plans, except as otherwise noted or provided herein shall be permitted, constructed, inspected, and maintained in accordance with:
 - a. The City Ordinance § 14-5-2-11, the ESC Ordinance,
 - b. The EPA 2017 Construction General Permit (CGP), and
 - c. The City of Albuquerque Construction BMP Manual.
2. All BMPs must be installed prior to beginning any earthmoving activities except as specified herein in the Planning Plan. Construction of earthwork BMPs such as sediment traps, sediment basins, and diversion ditches shall be completed and inspected prior to any other construction or earthwork. Self-inspection is required after installation of the BMPs and prior to beginning construction.
3. Self-inspection - At a minimum a routine compliance self-inspection is required to review the project for compliance with the Construction General Permit once every 14 days and after any precipitation event of 1/4 inch or greater until the site construction has been completed and the site determined to be stabilized by the City. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
4. Corrective action reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request.
5. Stabilization reports must be kept by the person or entity authorized to direct the construction activities on the site and made available upon request. Reports should include monthly wind erosion per City Ordinance § 14-5-2-11, stabilization, soil test results and recommendations, materials and manufacturer's specifications for application rates, estimated final surface integrity, methods of application, inspection and maintenance. The self-inspection schedule in CGP 4.1 applies to stabilization areas and any damaged or worn stabilization must be identified in the reports along with wind problems. Corrective actions for stabilization shall be documented in a stabilization report including actual area and date of stabilization, and the materials and manufacturer's specifications used.
6. BMPs shall be inspected and maintained until all disturbed areas are stabilized in accordance with the Final Stabilization Criteria (COP 2.14.13). Correctly, all disturbed areas, other than structures and impervious surfaces, shall have uniform perennial vegetation that provides 75 percent or more of the cover provided by native vegetation or seed the disturbed area and provide non-vegetative match that provides cover for at least three years without active maintenance. Final stabilization must be approved by the City of Albuquerque prior to removal of BMPs and discontinuation of inspections.



FILL MATERIAL SHALL NOT BE PLACED, SPREAD OR COMPACTED WHILE IT IS AT AN UNDESIRABLY HIGH MOISTURE CONTENT OR DURING OTHERWISE UNFAVORABLE CONDITIONS. WHEN THE WORK IS INTERRUPTED FOR ANY REASON THE FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TEST PERFORMED BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONDITIONS IN AREAS TO BE FILLED ARE AS PREVIOUSLY SPECIFIED. ALL EARTH MOVING AND WORKING OPERATIONS SHALL BE CONTROLLED TO PREVENT WATER FROM RUNNING INTO EXCAVATED AREAS. ALL EXCESS WATER SHALL BE PROMPTLY REMOVED AND THE SITE LEFT DRY.

DUST CONTROL:
THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY FOR THE ALLEGATION OR PREVENTION OF ANY DUST NUISANCE ON OR ABOVE THE SITE CAUSED BY THE CONTRACTOR'S OPERATION EITHER DURING THE PERFORMANCE OF THE GRADING OR RESULTING FROM THE CONDITION WHICH THE CONTRACTOR LEAVES THE SITE. THE CONTRACTOR SHALL ASSUME LIABILITY INCLUDING COURT COSTS OF CO-DEFENDANTS FOR ALL CLAIMS RELATED TO DUST OR WIND-BLOWN MATERIALS ATTRIBUTABLE TO HIS WORK. COST FOR THIS TIME OF WORK IS TO BE INCLUDED IN THE EXCAVATION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

INDEMNITY:
THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE ENGINEER, THE OWNER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY, CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO ARISE, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THE ARCHITECT, THE ENGINEER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS.

SAFETY:
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONTINUOUS SAFETY OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

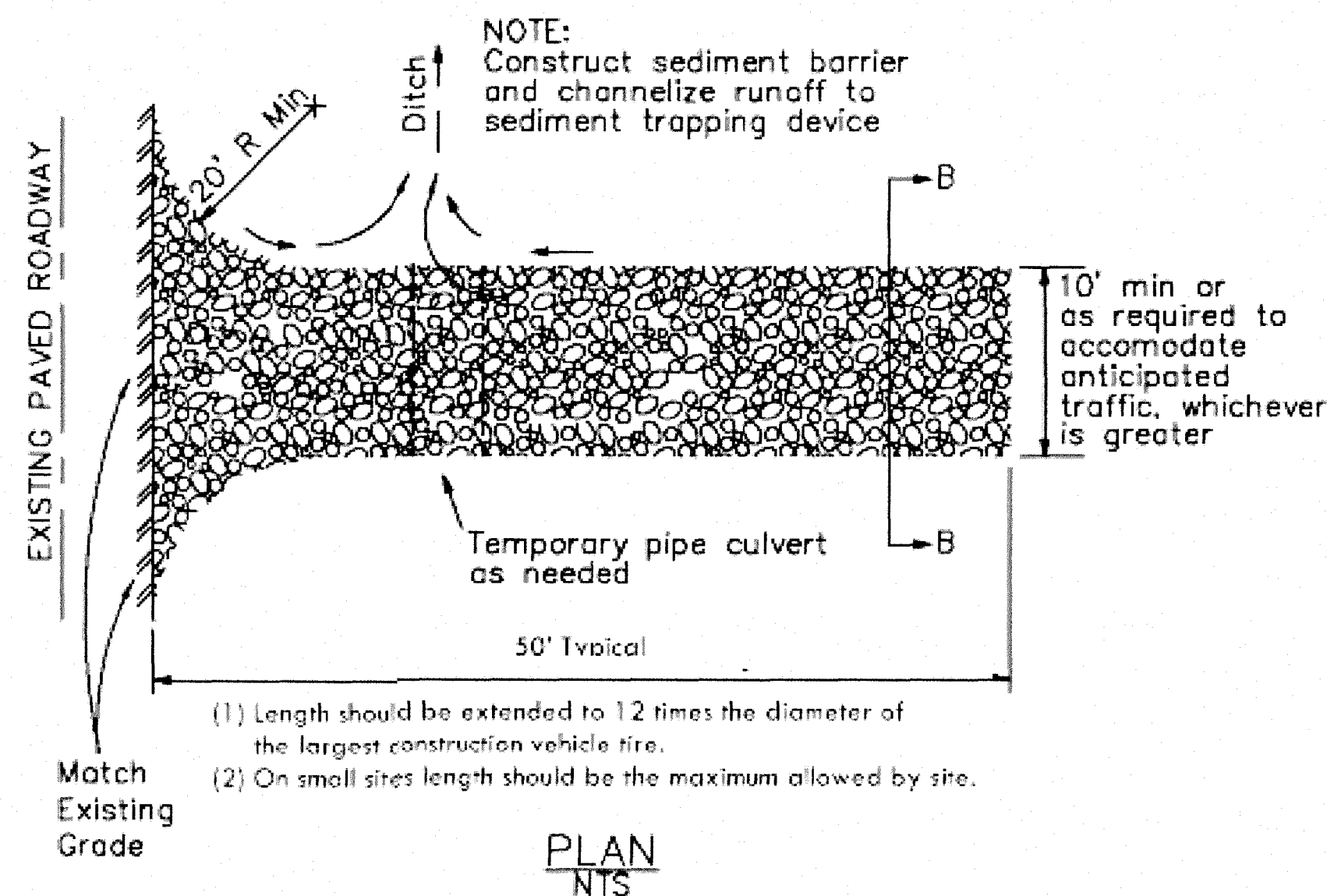
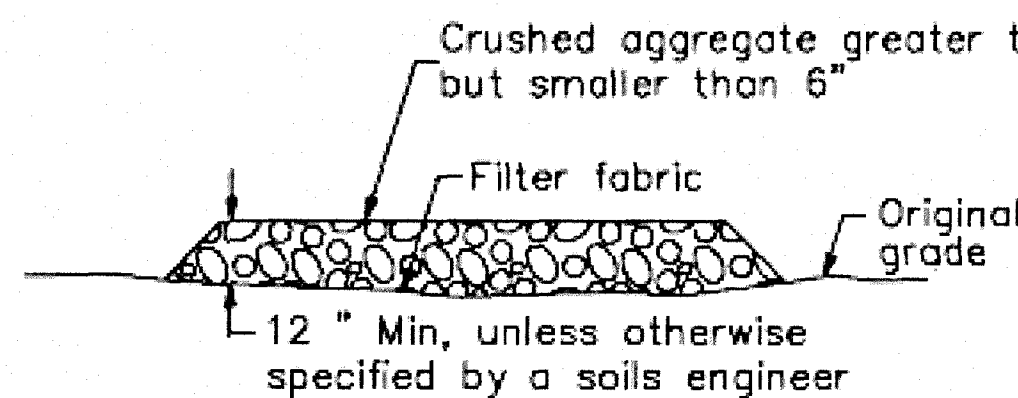
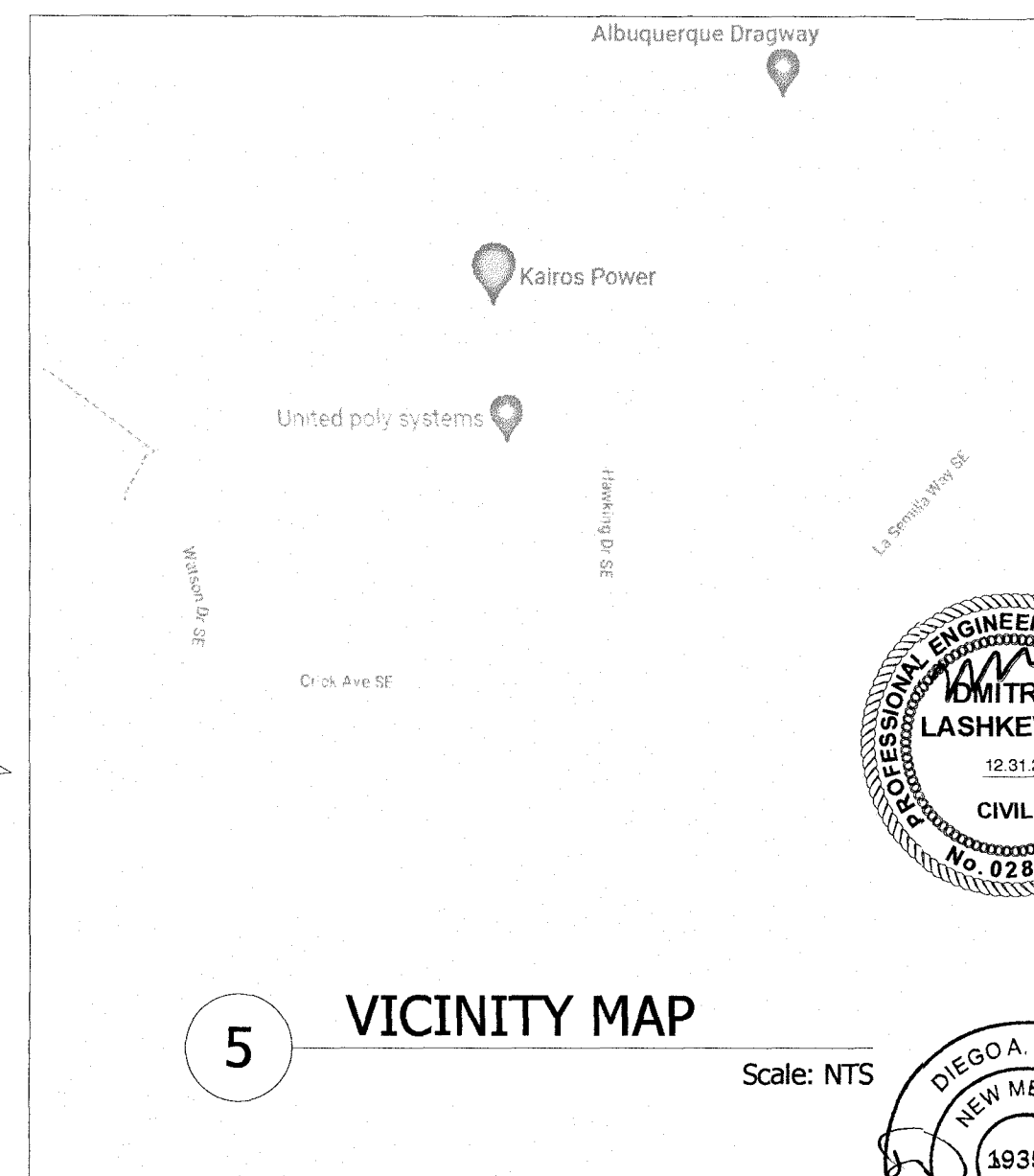
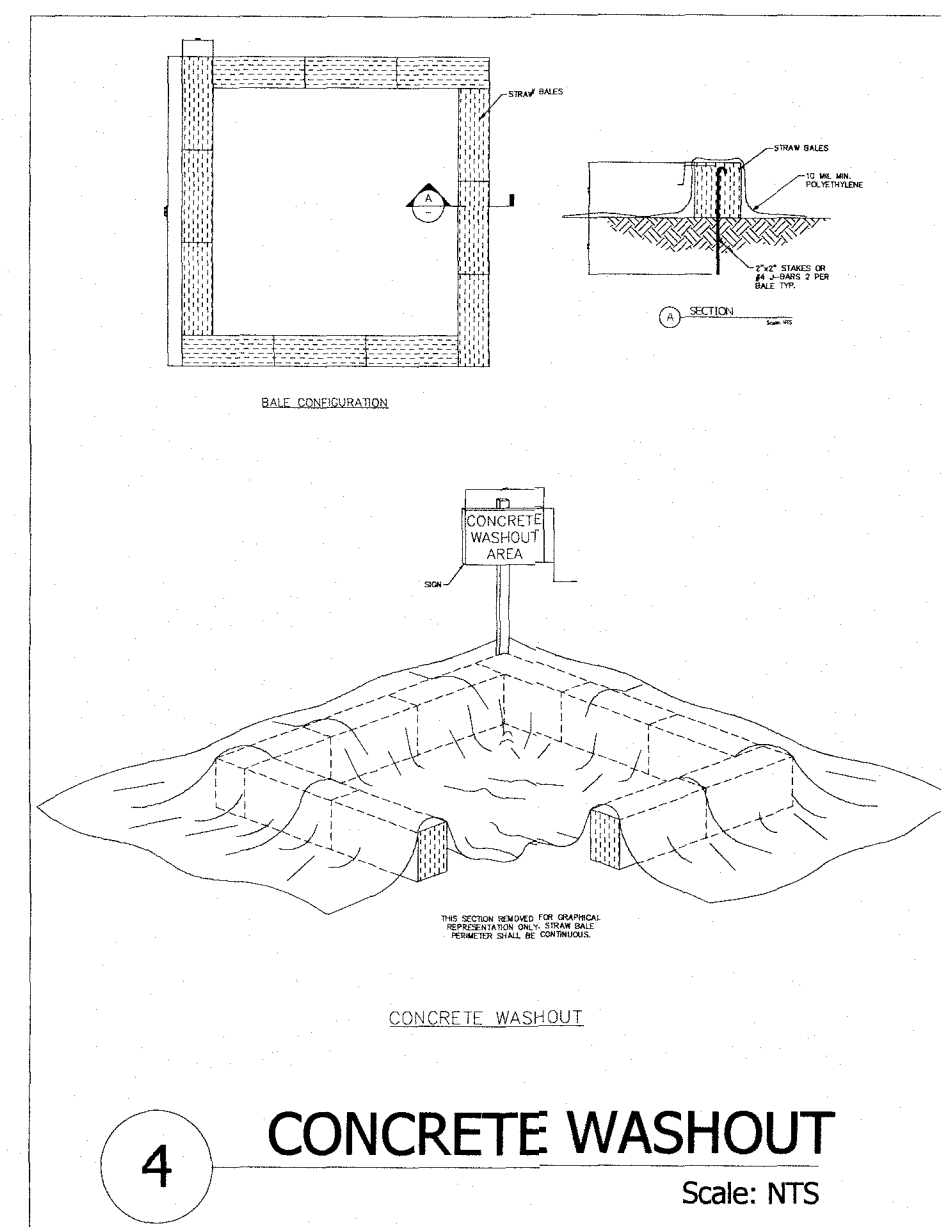
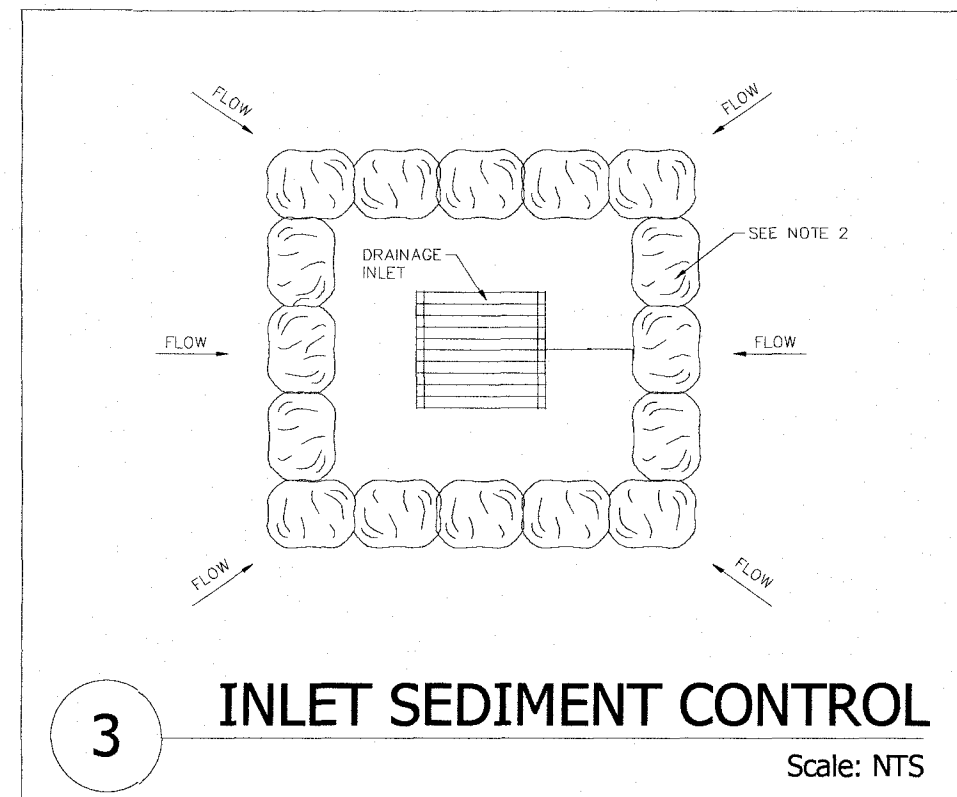
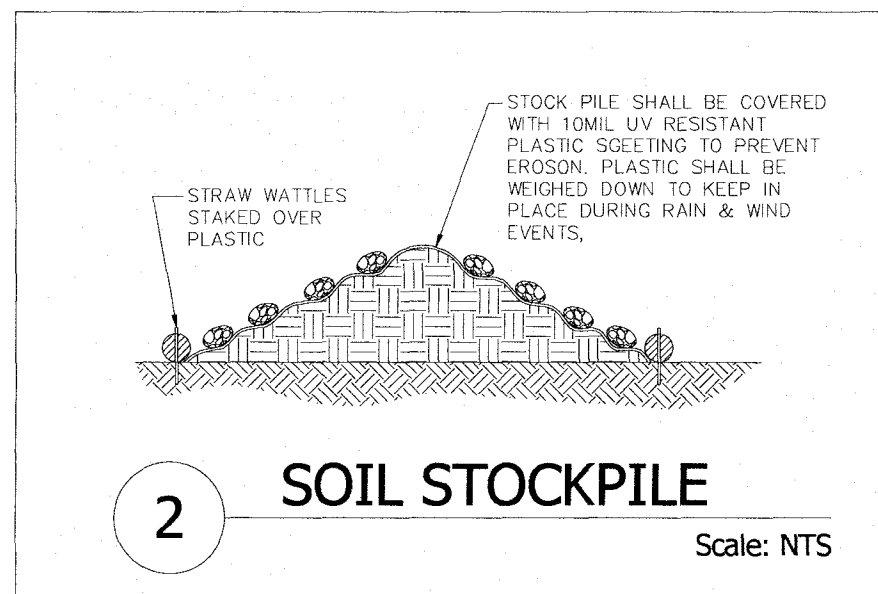
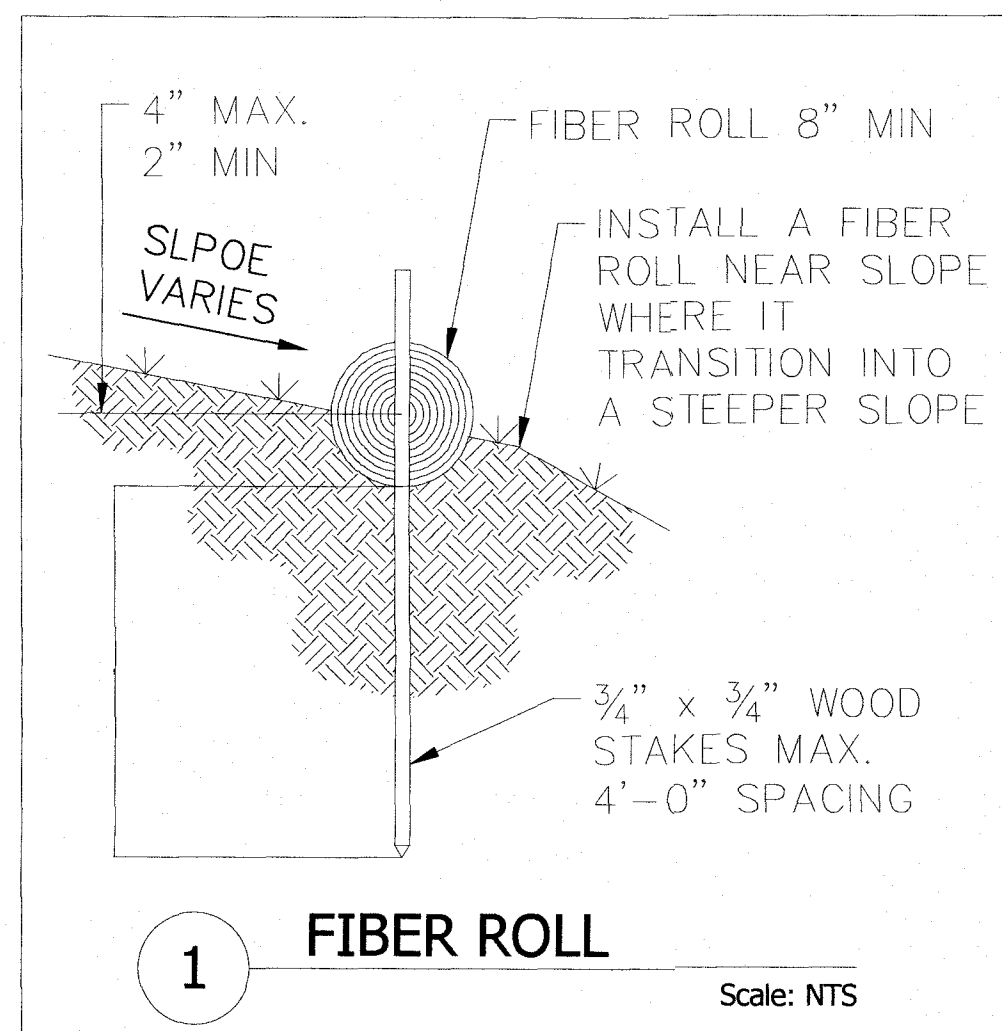
THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ACCURACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.



- LEGEND**
- NEW TOP OF PAVEMENT OR TOP OF GRADE ELEVATION POINT (IF E IS INDICATED WS)
 - NEW BULK OF WALK ELEVATION POINT (IF E IS INDICATED WS)
 - NEW TOP OF CURB ELEVATION POINT (IF E IS INDICATED WS)
 - NEW FLOW LINE ELEVATION POINT (IF E IS INDICATED WS)
 - EXISTING ELEVATION POINT TO REMAIN
 - EXISTING CONTOUR TO REMAIN
 - LIMITS OF GRADING
 - NEW DRAINAGE CONCEPT PWD: 50:1 40: 50:2 PER PLAN
 - NEW DRAINAGE INLET

- 1. FIBER ROLL SEE DETAIL 1
- 2. PROTECTED SOIL STOCKPILE SEE DETAIL 2
- 3. DRAINAGE INLET SEDIMENT CONTROL
- 4. CONCRETE WASHOUT AREA SEE DETAIL 4
- 5. STABILIZED CONSTRUCTION ENTRANCE SEE DETAIL 5

TR-D-1: PLAN OF TRACTS D-1 THRU D-7 MEANS AND MATERIALS (A SUBDIVISION OF TRACT D MEANS DEL SOL INNOVATION COMPANY) (C-2) (DATE 04/24/2022)



5 STABILIZED CONSTRUCTION SITE ENTRANCE

Scale: NTS

6 EROSION AND SEDIMENT CONTROL DETAILS

SCALE: 1" = 40'

EROSION AND SEDIMENT CONTROL CHECKLIST RESPONSES

Include a legible map, or series of maps, showing the following features of the site:

a. Boundaries, lot lines, and lot numbers of the property and adjoining, and adjoining street names.

b. Locations where construction activities will occur, including:

i. Limits of land-disturbing activities - Locations where earth-disturbing activities will occur (note any phasing), including any demolition activities and frontage improvements. (If the location changes during construction the ESC Plan must be updated and submitted to the City);

ii. Limits of land disturbance and construction activities are highlighted on the map.

iii. Existing and Proposed Grades as shown on the Grading Plan approved by Hydrology, label longitudinal street slopes and steep slopes before and after major grading activities (note any steep slopes regulated by the IDO).

EXISTING AND PROPOSED TOPOGRAPHIC DATA IS SHOWN ON THE PLAN / MAP.

iv. Stockpiles - Locations where sediment, soil, or other construction materials will be stockpiled.

RESPONSE: STOCKPILES ARE SHOWN SEE EROSION CONTRIL PLAN AND DETAIL 2.

v. Construction Entrances - Designated points where vehicles will exit onto paved roads.

A SINGLE STABILIZED CONSTRUCTION SITE ENTRANCE IS PROPOSED.

vi. Locations of structures and other impervious surfaces upon completion of construction; and

RESPONSE: LOCATIONS OF IMPERVIOUS SURFACES IS SHOWN.

vii. Construction support activity - Locations of on-site and off-site construction support activity areas covered by this permit (see Part 1.2.14).

RESPONSE: CONSTRUCTION SUPPORT ACTIVITY AREA SHOWN ON THE PLAN.

viii. Waters of the U.S. - Locations of all waters of the U.S. within and one mile downstream of the site's discharge point. Also identify if any are listed as impaired, or are identified as a Tier 2, Tier 2.5, or Tier 3 water.

RESPONSE: THERE ARE NO WATERS OF THE US WITHIN THE SUBJECT PROPERTY.

ix. Critical habitat - Areas of federally listed critical habitat within the site and/or at discharge locations.

RESPONSE: THERE ARE NO KNOWN CRITICAL HABITAT AREAS WITHIN THE SUBJECT PROPERTY.

x. Describe undisturbed and pre-construction cover - Density and type of native undisturbed ground cover (including perennial grass and shrubs, rocks, and litter) Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures).

RESPONSE: EXISTING SITE CONDITIONS INCLUDE A LARGELY UNVEGETATED SANDY SOIL WITH A LOW TOPOGRAPHIC SLOPE. THE SITE HAS EXISTING BUILDINGS AND TWO EXISTING BIO RETENTION SWALES.

xi. Drainage patterns - Identify locations of concentrated flow paths that enter and exit the site.

RESPONSE: DRAINAGE PATTERNS ARE DESIGNATED WITH ARROWS AND ELEVATION POINTS. THE ARROWS INDICATE GENERAL DIRECTION OF SURFACE FLOW. THE STORMWATER IS DIRECTED TOWARDS CATCH BASINS THAT WILL DISPERSE INTO TIER 2 RETENTION SWALES.

xii. Directly connected storm drains and channels - Stormwater and authorized non-stormwater discharge locations, including:

i. Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets; and

ii. Locations where stormwater or authorized non-stormwater will be discharged directly to waters of the U.S.

RESPONSE: 23 ACRES

RESPONSE: 6.9 ACRES

RESPONSE: NOT APPLICABLE

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RESPONSE: SITE HAS NO SUCH CONDITIONS.

H. Pollutant-generating activities - Locations of all potential pollutant-generating activities identified in CQP Part 7.2.3g.

RESPONSE: THE ONLY POLLUTANT GENERATING ACTIVITIES ARE GRADING AND CONCRETE POUR. THE GRADING AREA IS SHOWN ON THE PLANS. THE SOIL STOCKPILE LOCATIONS ARE SHOWN ON THE PLANS.

I. Best Management Practice (BMP) Locations Discussion and Details - Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with the San below additional elements of CQP 9.4.1.c to be included on the ESC Plan. City Standard Details, if available must be included on the ESC Plan. The City Standard Details establish the minimum design criteria, construct, inspection and maintenance standards and specifications that will be allowed in the City's jurisdiction.

RESPONSE: THE SELECTED BMPs ARE STABILIZED CONSTRUCTION SITE ENTRANCE, STRAW WATTLES, INLET PROTECTION, CONCRETE WASHOUT AREAS.

J. Chemicals - Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

RESPONSE: NOT APPLICABLE. CHEMICALS WILL NOT BE USED AND STORED

Additional items from SWPPP to be shown on the ESC Plan

2. CQP 7.2.1 List All Site Operators. Include a list of all other operators who will be engaged in construction activities at the site, and the areas of the site over which each operator has control. Include the name, phone number, and e-mail address of:

a. The Developer/Property Owner's representative authorized to make changes to contract documents, plans, and specifications.

b. All contractors directly employed by the Developer/Property Owner. They are Operators if they are not a sub to the general contractor. Common examples include the earthwork contractor, the Work Order contractor, Building Permit contractor, and landscaping contractor.

RESPONSE:

Property Owner: Lara Gutierrez, Kairos Power, 505-702-1128, gutierrez@kairopower.com

Contractor: Jack Weems, JTC Craft, 951-213-0989, jack@craftcon357.com

3. CQP 7.2.2 Identify Stormwater Team. Identify the personnel (by name or position) that are part of the stormwater team, as well as their individual responsibilities, including the name, phone number, and e-mail address of:

a. Personnel who are responsible for the design, installation, maintenance, and/or repair of stormwater controls (including pollution prevention controls);

b. Personnel responsible for the application and storage of treatment chemicals (if applicable);

c. Personnel who are responsible for conducting inspections as required in Part 4.1; and

d. Personnel who are responsible for taking corrective actions as required in Part 5.

RESPONSE:

Property Owner: Lara Gutierrez, Kairos Power, 505-702-1128, gutierrez@kairopower.com

Contractor: Jack Weems, JTC Craft, 951-213-0989, jack@craftcon357.com

SWPPP Inspector: Len Horan, 505-844-5813, lenhoran@rockwell.com

4. CQP 7.2.3 Describe Nature of Construction Activities. Include the following:

a. A brief description of the nature of your construction activities.

b. The size of the property in acres.

RESPONSE: 23 ACRES

c. The total area expected to be disturbed by the construction activities.

RESPONSE: 6.9 ACRES

d. A description of any on-site and off-site construction support activity areas covered by this permit (see Part 1.2.14).

RESPONSE: NOT APPLICABLE

e. The maximum area expected to be disturbed at any one time, including on-site and off-site construction support activity areas.

RESPONSE: 6.9 ACRES

f. Projected schedule - A description and projected schedule for the following:

RESPONSE: ESTIMATED START DATE NOVEMBER 2022. ESTIMATED COMPLETION DATE NOVEMBER 2023.

RESPONSE: ESTIMATED START DATE NOVEMBER 2022. ESTIMATED COMPLETION DATE NOVEMBER 2023.

i. Commencement of construction activities in each portion of the site, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization.

RESPONSE: NOVEMBER 2022

ii. Temporary or permanent cessation of construction activities in each portion of the site.

RESPONSE: CONSTRUCTION ACTIVITIES WILL CEASE UPON COMPLETION OF PROJECT.

iii. Temporary or final stabilization of exposed areas for each portion of the site; and

RESPONSE: TEMPORARY ESCP MEASURES WILL BE IN PLACE DURING CONSTRUCTION. SEEDING AND LANDSCAPING TO BE IN PLACE AS FINAL ESCP MEASURE.

iv. Removal of temporary stormwater controls and construction equipment or vehicles, and the cessation of construction-related pollutant-generating activities.

RESPONSE: TEMPORARY ESCP WILL BE REMOVED UPON COMPLETION OF PROJECT.

5. CQP 7.2.6.b.vi Stabilization measures (see Part 2.2.14). You must include the following:

a. The specific vegetative and/or non-vegetative practices that will be used.

RESPONSE: See landscaping plan

b. The stabilization deadline that will be met in accordance with Part 2.2.14.a.i-ii.

RESPONSE: Within 14 days of soil disturbance activities

c. If complying with the deadlines for sites in arid, semi-arid, or drought-stricken areas, the beginning and ending dates of the seasonally dry period and the schedule you will follow for initiating and completing vegetative stabilization; and

RESPONSE: Due to project schedule, does not apply

d. If complying with deadlines for sites affected by unforeseen circumstances that delay the initiation and/or completion of vegetative stabilization, document the circumstances and the schedule for initiating and completing stabilization.

RESPONSE:

i. Will apply temporary soil stabilization within 14 days, per NMUO 1 specification

ii. CQP 2.1.1 Soil name, type, particle sizes, and Erodibility Factor (K value) - Describe the soils on the site including a table and map if where there is wide variation on the site. Data may be obtained on line at <https://websoilsurvey.nrcs.usda.gov/app/> or from the "Soils Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico" issued June 1977 available at https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/new_mexico/NM600/0/bernalillo

RESPONSE: PER SOILS REPORT THE SOIL IS SILTY SAND WITH A K VALUE OF 1.33x10⁻⁴ FT/SEC

7. CQP 9.4.1.c.i BMP Design - The ESC Plan must include site-specific interim and permanent stabilization, managerial, and structural solids, erosion and sediment control best management practices (BMPs) and/or other controls that are designed to prevent to the maximum extent practicable an increase in the sediment yield and flow velocity from pre-construction, pre-development conditions to assure that applicable standards in NM 8.4 NMAC, including the anti-degradation policy, or TMDL waste load allocations (WLA) are met. The ESC Plan must identify and document the rationale for selecting these BMPs and/or other controls. The ESC Plan must also describe design, specifications, construction

specifications, maintenance schedules, criteria for inspections, and expected performance and longevity of these interim and permanent Stabilization and Best Management Practices. On streets where the longitudinal slope is steeper than 2.5% wattles/mulch socks or j-hood silt fence shall be shown in the front yard swale or on the side of the street.

RESPONSE: SLOPE OF EXISTING TOPOGRAPHY IS LESS THAN 2%.

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KAIRO POWER FACILITY EXPANSION

EROSION AND SEDIMENT CONTROL DETAILS

PROJECT NO.: 8800-22

DRAWN BY:

DATE: 8.26.2022

ESCP 2