After coordination with Ashlyn, it was determined that we are meeting criteria for the proposed landscape plan, and do not need to propose an alternative landscaping plan / rename our landscaping plan. Therefore, a statement about a request for an alternative landscape plan was not added to the letter of intent.

BARBARICK WASTE TRANSFER STATION

LETTER OF INTENT

PCD FILE NO.: COM2346

Affiliated Party Information:

Owner/Leasee/Applicant:
Vollmer Road Partners, LLLP.
Attn: Richard Graham
Email: grahaminvestments@gmail.com
Phone: 719-440-9414

Planning:
Kimley-Horn & Associates
Attn: Jim Houk
Email: jim.houk@kimley-horn.com
Phone: 719-453-0180

Engineering:
Kimley-Horn & Associates
Attn: Eric Gunderson, P.E.
Email: eric.gunderson@kimley-horn.com
Phone: 719-501-1723

PROPERTY INFORMATION: BARBARICK WASTE TRANSFER STATION

SITE ADDRESS:	8812 Cliff Allen Pt, Colorado Springs, CO 80908
PARCEL ID:	5233002013
ZONING:	I-3 CAD-O Heavy Industrial/Commercial Airport Overlay District
ACREAGE:	5.29 acres

LETTER OF INTENT

PROJECT UNDERSTANDING

Kimley-Horn's role in this project is to lead the entitlement process and provide civil engineering / Landscape Architecture + Planning services throughout the Site Development Plan and Construction Document planning processes with El Paso County.

The purpose of this project is to develop a recycling and refuse transfer station facility (TS), on the property: Parcel ID: 5233003013, located at: 8812 Cliff Allen Pt, Colorado Springs. Included in this project is: ~12,000 S.F. waste transfer building, drive aisles, scale house with ground scales, landscape buffering and screening as required for County Code Compliance. Vicinity map shown below.

VICINITY MAP
SCALE: 1" = 250'

SERVICE UNDERSTANDING

The services provided by the Recycling and Refuse Transfer Station (TS) include the indoor drop-off, removal, and recycling of various forms of **Dry Waste. Dry Waste pertains to various goods or materials such as/made of wood, plastic, composites, glass, and metals. Wet waste, such as garbage or other organic or consumable wastes, are not accepted at the TS.** Located within the proposed ~12,000 S.F. TS building, are six waste collection bins, used for various wood, plastic, composite, metal, etc. **Goods anticipated to be dropped off include, but are not limited to: bedframes, dressers, televisions, workout equipment, scrapped lumber, household remodel debris, yard clippings, etc.** These bins are laid out so the customer can safely and easily pull up to, or back into the drop off stall and safely relocate their wastes directly into the bins. Located outside the TS building are three metal recycling bins, also located for safe customer access. Two of such bins are for **Steel Recycling** and one for **Non-Ferrous Metal Recycling.** Non-ferrous metals pertain to aluminum, titanium, zinc, lead, nickel, copper, and copper alloys (brass, bronze, etc.). This waste material will be picked up daily as the containers are filled and transferred to the regional facilities. It is anticipated that 1 to 2 containers will be removed each day.

NOTE: The Indoor Waste Disposal and Recycling Facility was reviewed by the Colorado Department of Public Health & Environment (CDPHE) office, and was found Not Requiring a Certificate of Designation, required with traditional waste disposal sites based on the natural and limited storage and type of waste on the site.

SITE UNDERSTANDING (See site plan for reference)

As the site sits, lots to the north, northwest, and west are zoned industrial. Their respective land uses are self-storage, RV Storage, and Large Equipment Supply and Storage. The site of interest: 8812 Cliff Allen Pt, is a leased parcel, sharing an entrance with an existing auto mechanic shop (Dirt Road Diesel). Lots to the east are zoned residential, with residential homes existing there today. The lot to the south of the site is also zoned residential and is currently vacant. Within the project lot is an existing easement supporting the regional stormwater detention pond. The capacity of the pond is 1.49 ac-ft, and footprint of pond/easement is approximately 0.91 acres. The pond receives flows from the adjacent (I-3 Zone) industrial lots to the north and west, as well as the lots just to the north of Carah Dawn View, the private drive (dedicated as an ingress/egress easement) which is the serving the site.

The El Paso County Board of Adjustments granted dimensional variance on April 26th, 2023, allowing for minimum 35' building setbacks from the northern and western property frontages. This request and approval was made specifically with regard to the development code section 5.2.59.E.1.g.

In addition, the site layout is compliant to the standards set forth in Table 5-5: Density and Dimensional Standards for Industrial Districts (I-3 Zone).

SPECIAL USE

This Special Use is responding to **5.2.59(B)(1)** – Approval of a site development plan is required for all waste disposal recycling facilities, unless otherwise provided. Approval of a special use may be required in specific zoning districts.

The Special Use was approved on September 1st, 2023, by the Planning and Community Development Director.

COMPLIANCE TO REQUIRED USE AND DIMENSIONAL STANDARDS (LDC – CHAPTER 5)

5.2.59(E)(1) General Requirements - Trash Transfer or Intermediate Processing Facilities Not Requiring a Certificate of Designation

(a) Receive only household, commercial, and industrial wastes
    a. The site will only accept dry waste goods (i.e. wood, plastic, composites, glass, and metal) – Such as, but not limited to: bedframes, dressers, TVs, workout equipment, etc.
    b. The site will also recycle non-ferrous metals (i.e. aluminum, titanium, zinc, lead, nickel, copper, and copper alloys)
(b) No Radioactive Materials
    a. No radioactive materials are accepted – Radiation detection devices shall be used.
(c) Transfer Standards
    a. The proposed Transfer Facility operations occurs within the enclosed building. Garage style roll-doors are utilized to access/restrict removal and drop off areas.
(d) Transfer Stations Comply with Regulations
    a. The proposed project will comply with the design criteria and operations standards of the state.
(e) Comply with State Design Criteria and Operations
    a. The facility will comply with the design criteria of the state.
(f) Issues to be Addressed by Operational Plan
    a. O&M Plan addresses interim storage of wastes (when necessary), location of equipment, temporary parking of vehicles, methods of cleaning, means of disposal, alternative disposal plan.
(g) Solid Waste Structure Location
    a. Structure is compliant to approved setback requirements. The El Paso County Board of Adjustments granted dimensional variance on April 26th, 2023 allowing for minimum 35' building setbacks from the northern and western property frontages.
(h) No dumping or Storage of Waste in Open Areas
    a. Dumping and storage to occur within the waste collection bins located inside the enclosed facility.
(i) Additional Findings

(j) Closure Plan
    a. A closure plan is included in the operations manual for the proposed transfer station. CDPHE notification, debris removal, sweeping, and final cleanup is proposed.

5.3.2 Special Use

The proposed site is in accordance with 5.3.2 and responds to 5.3.2(C) Criteria for Approval with the following. The proposed use is generally consistent with the applicable El Paso County Master Plans by Placetype, being within the Priority Development Area, and being consistent with the call for water conservation. The use will exist in harmony with the character of the industrial subdivision and surrounding residential by providing a clean, efficient, and necessary service to the general public for dry-waste and recycling transfer operations. Impacts to existing infrastructure is mitigated by the water friendly nature of the use and minimal additional runoff production. The special use will not create unmitigated traffic congestion or traffic hazards, and it is anticipated that the connecting intersection will operate acceptably throughout the 2045 development horizon. All vehicle queues are anticipated to be maintained within the existing storage lengths, per the current traffic study. Lastly, the special use will comply with all applicable local, county, state, and federal laws and regulations, and will not be detrimental to the public health, safety and welfare of the present or future residents of El Paso County. The special use was approved on September 1st, 2023.

COMPLIANCE TO GENERAL DEVELOPMENT STANDARDS (LDC – CHAPTER 6)

The proposed site is compliant to all applicable general development standards set forth by Chapter 6 of the El Paso County Land Development Code.

Development Standards for Ancillary Facilities and Activities

6.2.2 Landscape Requirements:

- Minor Private Road, 20’ Setback – 1 tree per 25 feet.
- Maintaining existing screening and buffering per use. This is achieved by existing topography and vegetated berm associated with the regional detention facility on site, the proposed/existing tree line along the south and east landscape buffer frontages, the existing chain link property fencing around the entirety of the site, and the existing ~6.5’ paneled fencing along the south and east property frontages.

6.2.3 Lighting

- Full cut off lights are required and are to be installed on the proposed enclosure
    - Max 10fc and 0.1fc allowable spillover to adjacent sites

6.2.5 Parking, Loading and Maneuvering Standards

- 14 Parking stalls (1 ADA) are required and provided for the site.
- A setback reduction to the northern and western property boundaries has been granted via the Board of Adjustments. This has allowed for more room for safe and efficient site maneuverability by customers and removal service drivers.

6.2.7 Operational Standards

- A setback reduction to the northern and western property boundaries has been granted via the Board of Adjustments. This has allowed for a greater setback distance from the adjacent residentially zoned areas to the south and east of the property.
    - Dust Control
        - Water is provided on-site for dust control via soil wetting
        - Existing ground material is a crushed asphalt millings and gravel mixture
    - Noise Control
        - Deliveries and pick-ups are scheduled to pass through a check-in station, all other operations are to take place within the building enclosure

6.2.8 Maintenance Plans

- An Operations & Maintenance Manual is proposed and addresses long-term maintenance for the facility per the Colorado Department of Public Health & Environment (CDPHE) standards.

Environmental Standards

6.3.2 Drainage and Floodplain

- The existing detention pond on site has capacity for runoff associated with the proposed improvements. Drainage and capacity study will be included in the required Final Drainage Report.

6.3.3 Fire Protection and Wildfire Mitigation

- The fire protection plan for the site will be submitted for approval by Black Forest Fire and Rescue / Colorado Springs Fire Department.
- Wall mounted fire extinguishers are proposed for the enclosure
- Water is provided to the property via the existing well located at the northern property frontage

EL PASO COUNTY MASTER PLAN

Project Site Placetype: Employment Center

El Paso County's primary location for large-scale, nonretail business that provide significant employment and economic development opportunities. Being that the site is within the Employment Center Placetype, it is important to note that the proposed business will offer employment opportunity to this industrial subdivision and will serve the general public in a way that doesn't currently exist in this region of Colorado Springs and El Paso County.

Areas of Change: Priority Development Area

"El Paso County is expecting significant growth over the next 20 years. While large expanses of undeveloped land exist throughout the County, particularly in the Rural Placetype, development should be prioritized elsewhere to efficiently utilize and extend existing infrastructure, conserve water resources, and strengthen established neighborhoods. This framework identifies specific locations throughout the County that should be prioritized first for new residential development to help accommodate growth. While some priority development areas may be made up of a mix of placetypes, each area is driven by a predominant placetype that defines most of the area.".

This project responds to the Area of Change and Priority Development Area sections of the Master Plan by proposing new services to the industrial subdivision and providing the surrounding community with recycling services for dry goods.

El Paso County Water Master Plan

The proposed site responds to the El Paso County Water Master Plan's call for water conservation with it's low-water consumption model. The proposed use is not reliant on water and is considered a "dry site".

OVERLAY ZONING (CAD-O)

The proposed site is within the CAD-O, airport overlay zone. The proposed site responds to all requirements associated with CAD-O zoning.

PROVISION OF UTILITIES

Water, sanitary sewer, and gas service is not needed for the proposed transfer building and operations. Water and sanitary sewer service is proposed for the single bathroom located in the entrance operations building. Existing water is provided to the property via the existing well located at the northern property frontage. An existing septic field serves the property just east of proposed enclosure. Electric is to be serviced from the existing transformer at the north of the site. The existing business and primary user of the lot, Dirt Road Diesel, utilizes water, sanitary sewer, gas, and electric services.

ACCESS TO SITE & TRAFFIC GENERATION

The site is accessed from the intersection of Vollmer Road and Lochwinnoch Lane. The eastbound leg of the Vollmer Road and Lochwinnoch Lane intersection facilitates traffic into Carah Dawn View, then southwards via Cliff Allen Pt. The proposed site for the Barbarick Recycling and Refuse Transfer Station is accessed from Cliff Allen Pt. It is anticipated that this intersection will operate acceptably throughout the 2025 development horizon, and all vehicle queues are anticipated to be maintained within the existing storage lengths. If the future 2045 traffic volume projects are realized, northbound and southbound left turn lanes with 245 feet of length plus 180-foot tapers may be needed at the intersection of Lochwinnoch Lane/Carah Dawn View and Vollmer Road to meet El Paso County Standards. Improvements would be of joint responsibility between the respective property owners of the Barbarick Subdivision. Escrow for such improvements will be coordinated between the Project Team and County Staff.

ADJACENT PROPERTY INFORMATION

Adjacent Property to the West:
PARCEL ID: 5233002011
OWNER: HW Diesel Enterprises
ZONING: I-3
USE: Self Storage, Large Vehicle and Freight Storage, Construction Equipment Supply

Adjacent Property to the North:
PARCEL ID: 5233002012
OWNER: BWH Properties LLC
ZONING: I-2
USE: Self Storage and RV Storage

Adjacent Property to the Northwest:
PARCEL ID: 5233002010
OWNER: Lewis-Wolf Properties LLLP
ZONING: I-3
USE: Self Storage, Large Vehicle and Freight Storage, Construction Equipment Supply

Adjacent Property to the East:
PARCEL ID: 5233302013
OWNER: Joseph Vasquez
ZONING: RS-5000
USE: Single Family Residential

Adjacent Property to the East:
PARCEL ID: 5233302014
OWNER: Mic Phillips
ZONING: RS-5000
USE: Single Family Residential

Adjacent Property to the East:
PARCEL ID: 5233302022
OWNER: Chad Caskey
ZONING: RS-5000
USE: Single Family Residential

CONSTRUCTION
DOCUMENTS
COMMENT RESPONSE

BARBARICK RECYCLING AND REFUSE TRANSFER STATION

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.
CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

CONSTRUCTION DOCUMENTS
APRIL 2024

OWNER/DEVELOPER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

04/03/2024
OWNER/DEVELOPER SIGNATURE — DATE

RICHARD A. GRAHAM, JR.
VOLLMER ROAD PARTNERS, LLLP
6035 ERIN PARK DR., SUITE 101
COLORADO SPRINGS CO 80918

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

COLORADO REGISTERED ERIC VON GUNDERSON 49487 04/02/24 PROFESSIONAL ENGINEER

04/02/24
ERIC GUNDERSON, PE (CO #49487) – KIMLEY–HORN AND ASSOCIATES, INC. DATE

EL PASO COUNTY REVIEW STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

JOSHUA PALMER, PE COUNTY ENGINEER/ECM ADMINISTRATOR — DATE

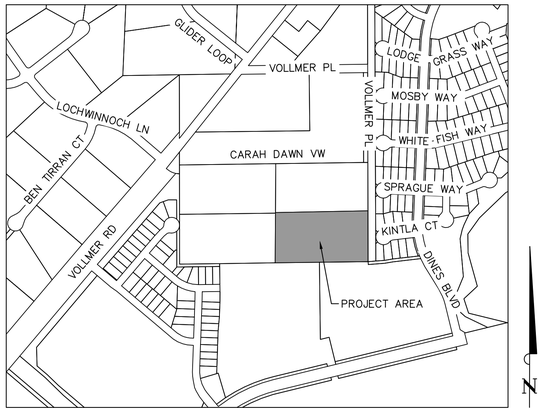
KH Addressed: Added to the cover sheet

Please add EPC Standard Construction Notes to CD sheets (missing)

Rev. 8/29/2023

Standard Notes for El Paso County Construction Plans

1. All drainage and roadway construction shall meet the standards and specifications of the City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2, and the El Paso County Engineering Criteria Manual.
2. Contractor shall be responsible for the notification and field notification of all existing utilities, whether shown on the plans or not, before beginning construction. Location of existing utilities shall be verified by the contractor prior to construction. Call 811 to contact the Utility Notification Center of Colorado (UNCC).
3. Contractor shall keep a copy of these approved plans, the Grading and Erosion Control Plan, the Stormwater Management Plan (SWMP), the soils and geotechnical report, and the appropriate design and construction standards and specifications at the job site at all times, including the following:
   a. El Paso County Engineering Criteria Manual (ECM)
   b. City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2
   c. Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction
   d. CDOT M & S Standards
4. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing. Any modifications necessary to meet criteria after-the-fact will be entirely the developer's responsibility to rectify.
5. It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans. Any modifications necessary due to conflicts, omissions, or changed conditions will be entirely the developer's responsibility to rectify.
6. Contractor shall schedule a pre-construction meeting with El Paso County Planning and Community Development (PCD) – Inspections, prior to starting construction.
7. It is the contractor's responsibility to understand the requirements of all jurisdictional agencies and to obtain all required permits, including but not limited to El Paso County Erosion and Stormwater Quality Control Permit (ESQCP), Regional Building Floodplain Development Permit, U.S. Army Corps of Engineers-issued 401 and/or 404 permits, and county and state fugitive dust permits.
8. Contractor shall not deviate from the plans without first obtaining written approval from the design engineer and PCD. Contractor shall notify the design engineer immediately upon discovery of any errors or inconsistencies.
9. All storm drain pipe shall be Class III RCP unless otherwise noted and approved by PCD.
10. Contractor shall coordinate geotechnical testing per ECM standards. Pavement design shall be approved by El Paso County PCD prior to placement of curb and gutter and pavement.
11. All construction traffic must enter/exit the site at approved construction access points.
12. Sight visibility triangles as identified in the plans shall be provided at all intersections. Obstructions greater than 18 inches above flowline are not allowed within sight triangles.
13. Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
14. Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special Transport permits.
15. The limits of construction shall remain within the property line unless otherwise noted. The owner/developer shall obtain written permission and easements, where required, from adjoining property owner(s) prior to any off-site disturbance, grading, or construction.
16. El Paso County does not own and is not responsible for the underdrains or groundwater discharge systems shown on these plans and assumes no liability for water rights administration by approving these plans. Maintenance and water rights are the responsibility of the developer and ____[xx metropolitan district, or xx property owner's association]. ____



VICINITY MAP
SCALE: 1"=500'

SHEET INDEX

LEGAL DESCRIPTION

PARCEL A:
LOT 4, AMENDED PLAT OF BARBARICK SUBDIVISION, COUNTY OF EL PASO, STATE OF COLORADO.

CONTAINING 5.290 ACRES (230,442 S.F.), MORE OR LESS.

PARCEL B:
A NON–EXCLUSIVE INGRESS AND EGRESS EASEMENT AS SET FORTH AND DESCRIBED IN DECLARATION AND BYLAWS OF BARBARICK SUBDIVISION PROPERTY OWNERS ASSOCIATES, INC., RECORDED FEBRUARY 12, 2008 UNDER RECEPTION NO. 208016289 AS AMENDED BY INSTRUMENT RECORDED MARCH 10, 2008 UNDER RECEPTION NO. 208028000.

LEASED PARCEL: 3.297 ACRES

BENCHMARK

4" DIAMETER PRECAST CONCRETE STORM SEWER MANHOLE RIM LOCATED IN THE SOUTHEASTERLY PORTION OF THE PROPERTY; ELEVATION = 7027.34 "NGVD 1929 AND THE 1960 SUPPLEMENTARY ADJUSTMENT" DATUM.

FEMA CLASSIFICATION

THIS PROPOERTY IS LOCATED WITHIN THE ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP NO. 08041C0533G, EFFECTIVE DATE DECEMBER 7, 2018.

CONTACTS

OWNER:
BRIAN BELAND, BR 8812 CLIFF ALLEN POINT LLC
PO BOX 88120
COLORADO SPRINGS CO 80908–8120
TEL: (719) 499–0208
CONTACT: BRIAN BELAND

APPLICANT:
RICHARD A. GRAHAM, JR.
VOLLMER ROAD PARTNERS, LLLP
6035 ERIN PARK DR., SUITE 101
COLORADO SPRINGS CO 80918
TEL: (719) 499–0208
CONTACT: RICHARD GRAHAM JR

EL PASO COUNTY:
EL PASO COUNTY
PCD DEPARTMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
PHONE: (719) 520–6300

ENGINEER
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COLORADO SPRINGS, CO 80903
TEL: (719) 453–0182
CONTACT: ERIC GUNDERSON, P.E.

ARCHITECT:
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12325 ORACLE BLVD, SUITE 101
COLORADO SPRINGS, CO 80921
(719) 484–0480
CONTACT: JASON SHOUDIS

LANDSCAPE ARCHITECT:
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(719) 284–7280
CONTACT: JIM HOUK

SURVEYOR:
LAND DEVELOPMENT CONSULTANTS, INC.
3898 MAIZELAND ROAD
COLORADO SPRINGS, CO 80909
TEL: (719) 528–6133
CONTACT: DAVID V. HOSTETLER

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

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2–BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

PCD FILE NO. COM2346

Kimley»Horn
2024 KIMLEY–HORN AND ASSOCIATES, INC.
2 North Nevada Avenue Suite 900
Colorado Springs, Colorado 80903 (719) 453–0180

DESIGNED BY: EJG
DRAWN BY: RES
CHECKED BY: EJG
DATE: 4/2/2024

BARBARICK WASTE TRANSFER STATION
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
COVER SHEET

COLORADO REGISTERED ERIC VON GUNDERSON 49487 04/02/24 PROFESSIONAL ENGINEER

PROJECT NO.
196489000

SHEET
C0.0

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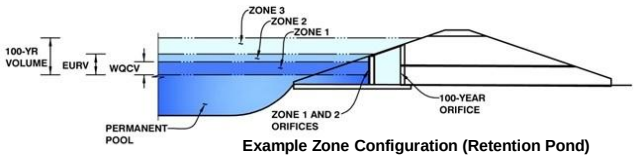
FINAL DRAINAGE REPORT
COMMENT RESPONSE

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.06 (July 2022)

Project: Barbarick Transfer Station

Basin ID: EDB Modification - Proposed Condition



Example Zone Configuration (Retention Pond)

	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	2.07	0.344	Orifice Plate
Zone 2 (EURV)	4.08	0.903	Orifice Plate
Zone 3 (100-year)	4.94	0.511	Weir&Pipe (Restrict)
Total (all zones)		1.758	

User Input: Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)	Underdrain Orifice Area =	N/A	ft²
Underdrain Orifice Diameter =	N/A	inches	Underdrain Orifice Centroid =	N/A	feet

Calculated Parameters for Underdrain

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Centroid of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)	WQ Orifice Area per Row =	N/A	ft²
Depth at top of Zone using Orifice Plate =	4.10	ft (relative to basin bottom at Stage = 0 ft)	Elliptical Half-Width =	N/A	feet
Orifice Plate: Orifice Vertical Spacing =	N/A	inches	Elliptical Slot Centroid =	N/A	feet
Orifice Plate: Orifice Area per Row =	N/A	sq. inches	Elliptical Slot Area =	N/A	ft²

Calculated Parameters for Plate

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	2.00	2.75					
Orifice Area (sq. inches)	2.75	3.00	1.00					

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Not Selected	Not Selected				
Invert of Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Area =	N/A	N/A
Depth at top of Zone using Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Centroid =	N/A	N/A
Vertical Orifice Diameter =	N/A	N/A	inches			

Calculated Parameters for Vertical Orific

User Input: Overflow Weir (Dropbox with Flat or Sloped Grate and Outlet Pipe OR Rectangular/Trapezoidal Weir and No Outlet Pipe)

	Zone 3 Weir	Not Selected			Zone 3 Weir	Not Selected
Overflow Weir Front Edge Height, Ho =	4.10	N/A	ft (relative to basin bottom at Stage = 0 ft)	Height of Grate Upper Edge, H_t =	4.10	N/A
Overflow Weir Front Edge Length =	12.00	N/A	feet	Overflow Weir Slope Length =	4.00	N/A
Overflow Weir Grate Slope =	0.00	N/A	H:V	Grate Open Area / 100-yr Orifice Area =	47.80	N/A
Horiz. Length of Weir Sides =	4.00	N/A	feet	Overflow Grate Open Area w/o Debris =	33.41	N/A
Overflow Grate Type =	Type C Grate	N/A		Overflow Grate Open Area w/ Debris =	16.70	N/A
Debris Clogging % =	50%	N/A	%			

Calculated Parameters for Overflow Wei

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Restrictor	Not Selected			Zone 3 Restrictor	Not Selected
Depth to Invert of Outlet Pipe =	1.02	N/A	ft (distance below basin bottom at Stage = 0 ft)	Outlet Orifice Area =	0.70	N/A
Outlet Pipe Diameter =	30.00	N/A	inches	Outlet Orifice Centroid =	0.30	N/A
Restrictor Plate Height Above Pipe Invert =	6.00		inches	Half-Central Angle of Restrictor Plate on Pipe =	0.93	N/A

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plat

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	4.53	ft (relative to basin bottom at Stage = 0 ft)	Spillway Design Flow Depth=	0.53	feet
Spillway Crest Length =	33.00	feet	Stage at Top of Freeboard =	6.06	feet
Spillway End Slopes =	4.00	H:V	Basin Area at Top of Freeboard =	0.76	acres
Freeboard above Max Water Surface =	1.00	feet	Basin Volume at Top of Freeboard =	2.52	acre-ft

Calculated Parameters for Spillway

Routed Hydrograph Results

The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AF).

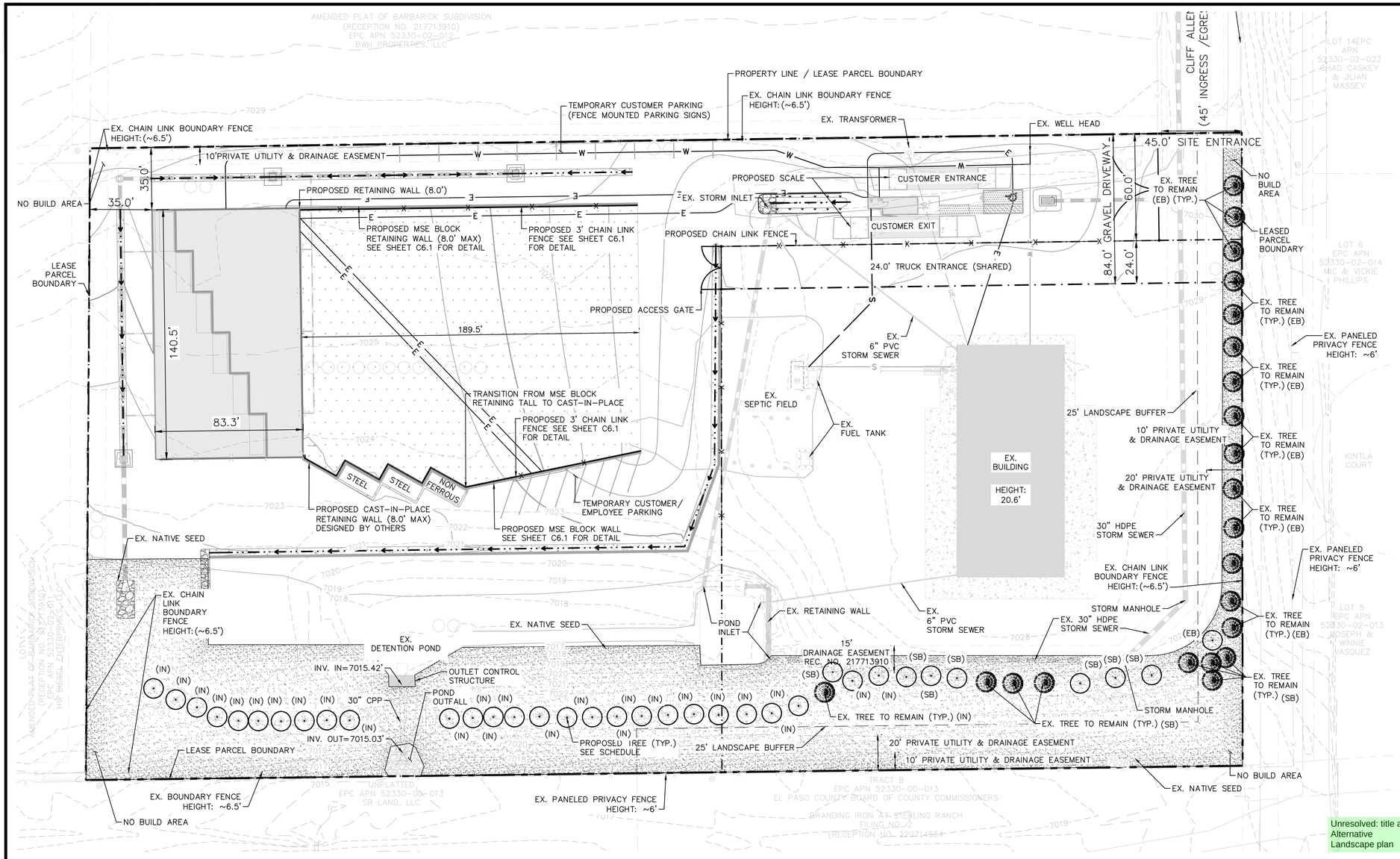
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year
One-Hour Rainfall Depth (in) =	N/A	N/A	1.19	1.50	1.75	2.00	2.25	2.52
CUHP Runoff Volume (acre-ft) =	0.344	1.247	0.865	1.116	1.320	1.551	1.770	2.018
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.865	1.116	1.320	1.551	1.770	2.018
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.1	0.2	0.3	4.0	6.4	9.5
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A						
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.01	0.02	0.03	0.38	0.60	0.89
Peak Inflow Q (cfs) =	N/A	N/A	17.8	23.0	27.1	32.6	37.2	41.3
Peak Outflow Q (cfs) =	0.2	0.4	0.3	0.3	0.4	3.0	5.7	7.7
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	1.5	1.4	0.7	0.9	0.8
Structure Controlling Flow =	Plate	Plate	Plate	Plate	Overflow Weir 1	Overflow Weir 1	Overflow Weir 1	Spillway
Max Velocity through Grate 1 (fps) =	N/A	N/A	N/A	N/A	0.0	0.1	0.2	0.2
Max Velocity through Grate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	39	74	63	71	77	76	75	74
Time to Drain 99% of Inflow Volume (hours) =	41	79	67	75	81	82	81	81
		4.08	3.25	3.74	4.11	4.24	4.32	4.53
		0.56	0.47	0.52	0.56	0.57	0.58	0.60
		1.248	0.822	1.064	1.265	1.333	1.384	1.502

KH Addressed:
Good catch! We have addressed and modified the restrictor plate accordingly.

Comment generated due to Kimley's response to my comment in the previous submittal:

Stage = 0ft at 7016.5, per pg 61 of FDR. Then per this page, the "Depth to Invert of Outlet Pipe" is 1.02ft below Stage = 0ft which would be 7015.48ft. But on Sht C3.0 (pg 8) of CDs, the invert is labeled as 7015.42ft. So depth in these MHFD calcs should be 1.08ft.

LANDSCAPE PLAN
COMMENT RESPONSE



PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT. SIZE	SIZE/CAL.	WIDTH	HEIGHT
EVERGREEN TREES							
	PP	35	PINUS PONDEROSA / PONDEROSA PINE	B & B	6' HGT.	30'-40'	60' ±
EXISTING TREES TO REMAIN							
	EX	22	------ / EXISTING TREE TO REMAIN	-	-		

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	TYPE	INSTALL RATE	WEED FABRIC	MFR.
GROUND COVERS							
	SEED	50,413 SF	EXISTING NATIVE SEED TO REMAIN / EPC LOW GROW MIX INSTALL PER TABLE 5-2. SUBMIT SUPPLIER CUT-SHEET FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.	SEED	PER CHART		PAWNEE BUTTES SEED

NOTE: THIRTY-FOUR (34) OF THE ORIGINALLY PLANTED TREES HAVE DIED AND SHALL BE REPLACED WITH PONDEROSA PINES PER THE LANDSCAPE PLAN ABOVE.
NOTE: SEE DETAILS SHEET (L7.2) FOR CODE CHARTS

GRAPHIC SCALE IN FEET
0 15 30 60

NORTH

LEGEND

- PROPERTY LINE
- LEASED PARCEL BOUNDARY
- EXISTING UTILITY & DRAINAGE EASEMENT
- PROPOSED TRUCK TURN MOVEMENT
- EXISTING FENCE
- EXISTING STORM SEWER
- EXISTING GAS MAIN
- EXISTING VEGETATION
- EXISTING TRANSFORMER
- PROPOSED ASPHALT
- PROPOSED CONCRETE

Unresolved: title as Alternative Landscape plan

KH Addressed: After coordination with Ashlyn, it was determined that we will not need to request an alternative landscape plan.

PCD FILE NO. COM2346

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

CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

Kimley»Horn
2024 KIMLEY-HORN AND ASSOCIATES, INC.
2 North Nevada Avenue Suite 900
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJG
DRAWN BY: RES
CHECKED BY: EJG
DATE: 4/2/2024

BARBARICK WASTE TRANSFER STATION
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
LANDSCAPE PLAN

COLORADO REGISTERED PROFESSIONAL ENGINEER 49487 04/02/24

PROJECT NO. 196489000

SHEET L7.0

K:\COS_Civil\196489000_Barbarick Waste Transfer\CADD\PlanSheets\CDs\DP_LA.dwg Schnelbach, Ryan 4/12/2024 10:43 AM

SIGN PLAN COMMENT
RESPONSE

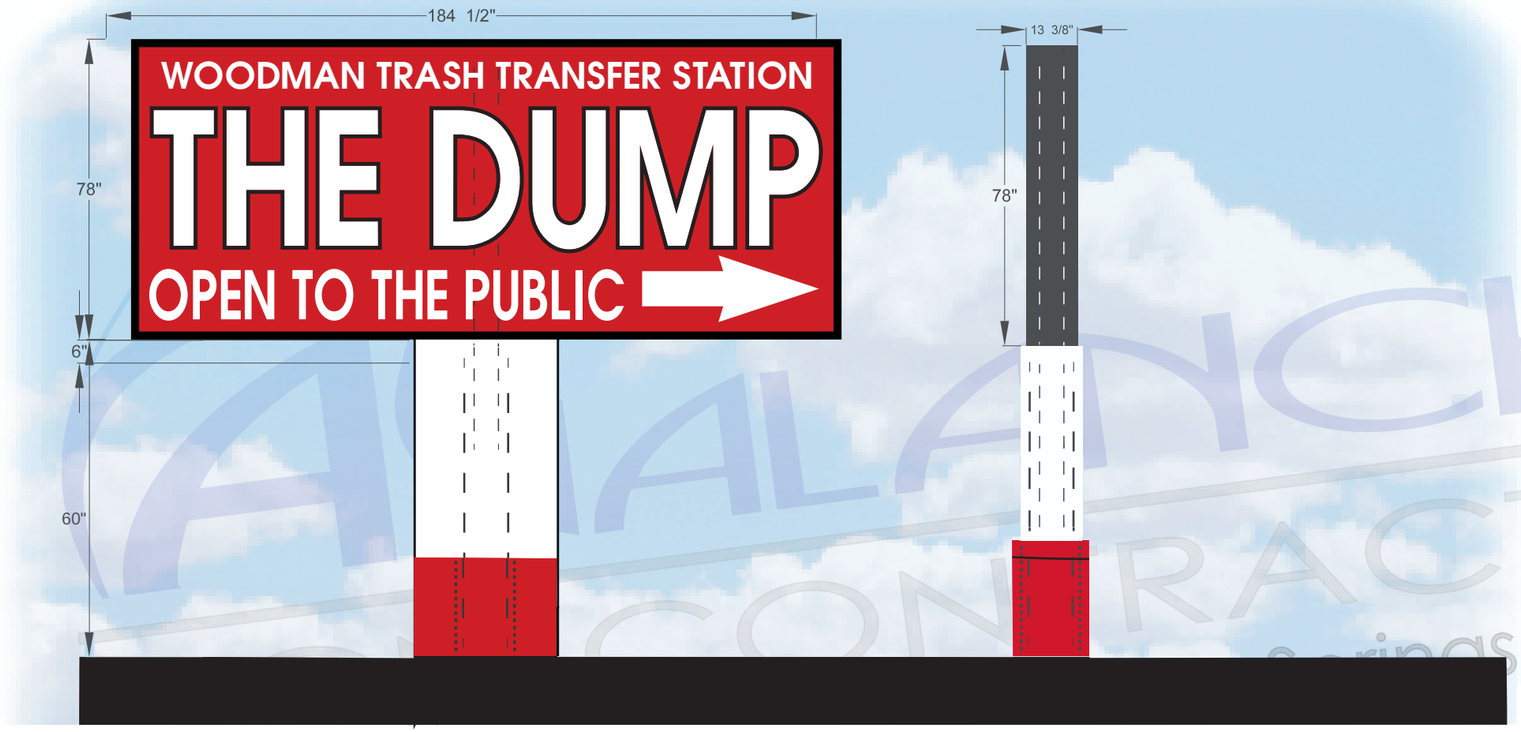
Sign Type: CABINET SIGNS

A DOUBLE SIDED SIGN CABINETS. INTERNALLY ILLUMINATED, FLEX FACE WITH VINYL LETTERING.

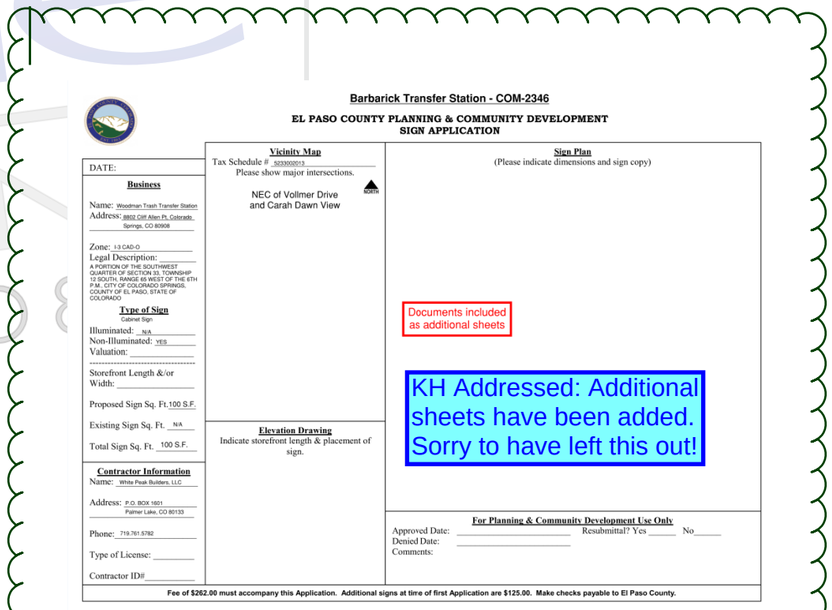
B PAINTED ALUMINUM POLE COVER

KH Addressed: Sign table / summary added

Please add:
-table of allowed sq ft vs proposed
- height of sign, in I-3 max height is 40 ft



Please add this sheet back or the information from it



Barbarick Transfer Station - COM-2346

EL PASO COUNTY PLANNING & COMMUNITY DEVELOPMENT
SIGN APPLICATION

DATE:

Business
Name: Woodman Trash Transfer Station
Address: 8602 Cliff Allen Pt, Colorado Springs, CO 80908

Zone: I-3 CAD-O
Legal Description:
A PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

Type of Sign
Cabinet Sign
Illuminated: N/A
Non-Illuminated: YES
Valuation:

Storefront Length &/or Width:
Proposed Sign Sq. Ft. 100 S.F.
Existing Sign Sq. Ft. N/A
Total Sign Sq. Ft. 100 S.F.

Contractor Information
Name: White Peak Builders, LLC
Address: P.O. BOX 1601, Palmer Lake, CO 80133
Phone: 719.761.5782
Type of License:
Contractor ID#

Vicinity Map
Tax Schedule # 5203000013
Please show major intersections.
NEC of Vollmer Drive and Carah Dawn View

Elevation Drawing
Indicate storefront length & placement of sign.

Sign Plan
(Please indicate dimensions and sign copy)

Documents included as additional sheets

KH Addressed: Additional sheets have been added. Sorry to have left this out!

For Planning & Community Development Use Only
Approved Date: _____ Resubmittal? Yes _____ No_____
Denied Date: _____
Comments: _____

Fee of $262.00 must accompany this Application. Additional signs at time of first Application are $125.00. Make checks payable to El Paso County.

COLORS

BLACK

WHITE

PMS 186C

KH Addressed: EPC File number has been added

AVALANCHE SIGN CONTRACTING
7204 Cole View, Colorado Springs, CO 80915
Phone: 719.471.9898 • Fax: 719.632.7781

Project: THE DUMP /GRAHAM INVESTMENTS
Address:
City/State: COLORADO SPRINGS, CO
Sales Rep: CG
Artist: CG
Date: 2/7/24

Client Approval

Signed: _____

Date: _____

File Number: COM2346