

AGENDA ITEM 1 C
Consent Item

MEMORANDUM

DATE: July 9, 2020

TO: El Dorado County Transit Authority

FROM: Brian James, Planning and Marketing Manager

SUBJECT: **County Line Multi-Modal Transit Center Preliminary Design & Engineering Services Report**

REQUESTED ACTION:

BY MOTION,

Receive and file the County Line Multi-Modal Transit Center Preliminary Design & Engineering Services report

BACKGROUND

In September 2019, the County Line Multi-Modal Transit Center Study was completed by Fehr and Peers for the El Dorado County Transportation Commission (EDCTC). In that study, six potential sites for a new Multi-Modal Transit Center were analyzed, and the study narrowed the locations to Site 3 and Site 5 as the best selections for the new center. After the study, Site A was added as an optional site.

To evaluate the potential sites from the Fehr and Peers study to determine potential layouts and construction costs, the El Dorado County Transit Authority (El Dorado Transit) contracted with CTA Engineering and Surveying. They completed the County Line Multi-Modal Transit Center Preliminary Design & Engineering Services report on April 6, 2020.

DISCUSSION

In the County Line Multi-Modal Transit Center Preliminary Design & Engineering Services report, three sites were evaluated, providing one layout for Site 3, two layouts for Site 5 and one layout for Optional Site A. The unit costs presented in the design report as part of the cost estimates are taken from actual construction bids for projects that are similar in scope.

Site 3 is located at the southwest corner of White Rock Road and Latrobe Road. The site topography is mild, which equates to a lower cost to develop with a total estimated construction cost of \$5,066,691.

Site 5 is located at the southwest corner of White Rock Road and Old Silva Valley Parkway. Main access to the site is envisioned as coming from Old Silva Valley Parkway, although the site was also evaluated with access from White Rock Road. Topography for site 5 is relatively steep

in some areas. The construction estimate for the first alternative with access from Old Silva Valley Parkway was \$9,242,250, and the second alternative with access from White Rock Road was \$6,799,520.

Optional Site A is located across White Rock Road from Site 5 at the southeast corner of White Rock Road and Old White Rock Road. Topography for Optional Site A has more grades than Site 3 but less than Site 5. Utilities are not available at this site, so power lines would need to be constructed to this site. The estimated cost of construction is \$7,358,228.

The County Line Multi-Modal Transit Center Preliminary Design & Engineering Services report from CTA Engineering & Surveying is attached for review.

EL DORADO COUNTY TRANSIT AUTHORITY

DESIGN REPORT

COUNTY LINE MULTI-MODAL TRANSIT CENTER PRELIMINARY DESIGN & ENGINEERING SERVICES



April 6, 2020

The contents of this report reflect the view of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views of El Dorado Transit. This report does not constitute a standard, specification, or regulation.

Executive Summary

Three sites were evaluated, providing one layout for Site 3, two layouts for Site 5 and one for Optional Site A. Layouts for Sites 3 and 5 were as presented in the Fehr and Peers study titled “County Line Multi-Modal Transit Center Study”. Optional Site A was designed from scratch for this analysis and report. The layout for Optional Site A incorporates the same features as what was presented for Sites 3 and 5 but configured to maximize the property.

Costs

Preliminary Construction Cost Estimate for Site 3:

Total Hard Cost:	\$3,024,011
Total Cost Including Soft Costs:	\$5,066,691

Preliminary Construction Cost Estimate for Site 5:

Total Hard Cost:	\$5,516,158
Total Cost Including Soft Costs:	\$9,242,250

Preliminary Construction Cost Estimate for Site 5-Alt:

Total Hard Cost:	\$4,058,236
Total Cost Including Soft Costs:	\$6,799,520

Preliminary Construction Cost Estimate for Optional Site A:

Total Hard Cost:	\$4,391,695
Total Cost Including Soft Costs:	\$7,358,228

The unit costs presented as part of these cost estimates are taken from actual construction bids for projects that are similar in scope and for a public agency versus a private development.

A budget for soft costs was included for each of the sites. This budget is 30% of hard construction cost and is in line with other public projects in the area. There is also a 25% contingency applied to the cost. While a contingency is typically 10%, this is for fully developed plans for a project. The planning level nature of this study requires that the contingency be increased to account for additional items that may be discovered during design. Once design has been completed, the contingency will be revised downward to reflect the level of design.

Introduction

In cooperation with The El Dorado County Transit Authority (EDCTA), the El Dorado County Transportation Commission (EDCTC) commissioned a study titled “County Line Multi-Modal Center Study”. This study was completed by Fehr & Peers and is dated September 5, 2019. This study analyzed 6 potential sites for a new Multi-Modal Transit Center to provide commuter bus operations to the community of El Dorado Hills and surrounding areas. The study narrowed the sites to Sites 3 and 5 with Optional Site A added for this analysis.

Site 3

Site 3 is located at the southwest corner of White Rock Road and Latrobe Road. The site is bounded by Latrobe Road to the east, White Rock Road to the north, Windfield Way to the west and Golden Foothill Parkway to the south. The proposed site has frontage directly on Latrobe Road and access to White Rock Road.

Access is provided from White Rock Road on the north and Latrobe Road to the east. There is a new retail development, Montano De El Dorado, proposed for the property directly to the east of Site 3. The preliminary documents for the EIR indicate that there will be a new traffic signal as part of the project. This will provide full access to the site for both customer and bus traffic.

The site topography is fairly mild. The site slopes from northeast to southwest. There is a seasonal creek located along the western boundary of the site. There is an existing 24-inch culvert located near what will be the southern project boundary. This culvert transmits storm water from the east side of Latrobe Road and eventually finds its way to the seasonal creek on the west side. This drainage feature can be incorporated into the design for the Center.



Site 3 has the lowest cost to develop. This appears to be because Site 3 requires less earthwork than the other sites. The site as currently designed does not have any creek crossings like Site 5. Utilities are also readily available to the site which reduces those costs.

There are existing overhead utility lines that run parallel with Latrobe Road. These lines do not appear to conflict with the proposed improvements for a multi-modal station. The power looks to be in the 12kVa range and can be readily moved to underground. The remaining dry utilities can also be moved to a "joint trench". Costs for undergrounding the overhead utilities just for the access to Latrobe Road were captured in the cost estimate.

Site 3 Pros:

- Least amount of earthwork of all of the sites. Reduced construction cost.
- Close proximity to the US50/Latrobe Road interchange, approximately $\frac{3}{4}$ mile.
- Close proximity to commercial/retail areas.
- Could develop or sell the portion of the parcel to the west of the seasonal creek.

Site 3 Cons:

- Possible higher land cost.
- Existing seasonal creek borders western portion of project.

Site 5

Site 5 is located at the southwest corner of White Rock Road and Old Silva Valley Parkway. The site is bounded to the east by Old Silva Valley Parkway, to the south by White Rock Road, to the north by Joerger Cut Off Road and to the west by the District Church. The proposed site has frontage directly on White Rock Road with secondary access to Old Silva Valley Parkway via Joerger Cut Off Road.

Main access is envisioned as coming from White Rock Road. There are studies for the area that propose a new traffic signal on White Rock Road approximately 1,200 feet to the southwest of the existing traffic signal at White Rock Road and Old Silva Valley Parkway. This access

point is envisioned as providing the main access for the project. Joerger Cut Off Road could be used for a secondary access for Emergency Vehicle Access (EVA).

Topography for Site 5 is relatively steep in some areas. The preliminary design seeks to strike a balance with the existing topography with the cost of off-hauling a large amount of soil. The proposed layouts are located toward the eastern portion of the parcel, adjacent to a tributary to Carson Creek named Buck's Creek. This area is still a little steep but can be graded to such that the site that will provide adequate parking as well as an ADA accessible station.



Two options were developed for Site 5. The first option follows the Fehr & Peers layout with a few refinements during design. The second option rotated the layout clockwise to locate a majority of the station along White Rock Road. This option was explored as a way to find more useable area while reducing earthwork as much as possible.

There are existing overhead utility lines that run parallel with White Rock Road. These lines do not appear to conflict with the proposed improvements for a multi-modal station. The power looks to be in the 12kVa range and can be readily moved to underground. The remaining dry utilities can also be moved to a "joint trench". Costs for undergrounding the overhead utilities just for the access to White Rock Road were captured in the cost estimate.

Site 5 Pros:

- Close proximity to the US50/White Rock Road interchange, approximately 1/4 mile.
- Close proximity to commercial/retail areas.

Site 5 Cons:

- Extensive earthwork, high earthwork cost.
- Existing seasonal creek borders eastern portion of project. Structures required.
- Second point of access from Joerger Cut-Off Road requires major rework.

Optional Site A

Optional Site A is located across White Rock Road from Site 5. It is at the southeast corner of White Rock Road and Old White Rock Road. The site is bounded on the south and east sides by Carson Creek, to the north by Old White Rock Road and the west by White Rock Road. There is a drainage ditch on the project side of White Rock Road.



Old White Rock Road would provide the primary access to the Multi-Modal station. There is a possibility that there will be a future project that could provide a secondary access to the south,

across Carson Creek. This secondary access would connect to a future signalized intersection as described in Site 5.

Topography for Optional Site A has more grades than Site 3 but less than Site 5. This is reflected in the earthwork cost. There is a slight hill just south of Old White Rock Road that will need to be removed to make the site suitable for the station. It is always the intent to balance a site to avoid costly off-haul. The amount of earthwork can be reduced during detailed design to reduce construction cost. Care should be taken to not adversely impact the adjacent seasonal creeks.

Optional Site A does not have overhead utilities along either White Rock Road or Old White Rock Road. Utilities will need to be constructed for this site with utilities available on the west side of White Rock Road.

Optional Site A Pros:

- Close proximity to the US50/White Rock Road interchange, approximately 1/4 mile.
- Close proximity to commercial/retail areas.

Optional Site A Cons:

- Extensive earthwork, high earthwork cost. (but less than Site 5)
- Existing seasonal creeks border east and south property.

Structures

Each site is proposed to have a few structures intended to provide shelter to riders as well as breakroom facilities for bus drivers and restroom facilities for employees and riders.

CTA performed preliminary research into options for Bus Shelters. While there are vendors that provide bus shelters such as Tolar Manufacturing and Deamor, larger structures appear to be a combination of architect provided design and engineering coupled with glass and metal components provided by the manufacturer, fabricated per the architect and engineer's drawings. Options for bus shelters were provided to the Authority and two that were preferred were the Overlake Transit station shelters by Deamor and the Fresno Transit shelters by Tolar Manufacturing.



Overlake Transit – Deamor



Fresno Transit – Tolar Manufacturing

CTA was able to obtain cost information from Tolar for the Fresno Transit shelters. The cost provided by Tolar was \$50,000 per shelter.

Appendix A
Cost Estimates

Improvement Plans for Site 3: Multi-Modal Transit Center
Engineer's Opinion of Probable Construction Cost
April, 2020

Item No.	Item Description	Qty.	Unit	Unit Price	Total Amount
GRADING					
1	Clear & Grub	7.6	AC	\$12,580.00	\$95,608.00
2	Excavation (Cut or Fill)	24,861	CY	\$11.80	\$293,359.80
3	Fugitive Dust Control	7.6	AC	\$1,000.00	\$7,600.00
				Subtotal	\$396,567.80
STREET IMPROVEMENTS					
4	PCC Pavement	1,858	CY	\$137.50	\$255,475.00
5	3" AC	172,701	SF	\$2.35	\$405,847.35
6	4" AB	85,523	SF	\$1.50	\$128,284.50
7	6" AB	44,439	SF	\$1.90	\$84,434.10
8	8" AB	172,701	SF	\$2.00	\$345,402.00
9	Remove and Replace Existing Pavement Section	300	SF	\$6.50	\$1,950.00
10	Type 2 - Vertical Curb & Gutter	2,148	LF	\$22.50	\$48,330.00
11	Concrete Sidewalk, 4" PCC	1,683	SF	\$12.50	\$21,037.50
12	Sawcut	146	LF	\$3.00	\$438.00
13	Handicap Ramp	9	EA	\$3,420.00	\$30,780.00
14	Bus Shelter	6	EA	\$50,000.00	\$300,000.00
15	Striping	11,492	LF	\$0.50	\$5,746.00
16	Traffic Signal (Fair Share - 1 leg)	1	LS	\$125,000.00	\$125,000.00
17	Parking Lot Curbing	5,890	LF	\$18.00	\$106,020.00
				Subtotal	\$1,858,744.45
POTABLE WATER IMPROVEMENTS					
18	6" Pipe w/Fittings	130	LF	\$62.00	\$8,060.00
19	Fire Hydrant & Appurtenances	1	EA	\$6,149.00	\$6,149.00
20	Fire Service	1	EA	\$2,000.00	\$2,000.00
21	Fire Dept. Connection	1	EA	\$2,500.00	\$2,500.00
22	1" Water Service	1	EA	\$1,521.00	\$1,521.00
23	Connect to Existing Waterline	1	EA	\$2,500.00	\$2,500.00
				Subtotal	\$22,730.00
DRAINAGE IMPROVEMENTS					
24	12" HDPE	419	LF	\$47.00	\$19,693.00
25	18" HDPE	345	LF	\$100.00	\$34,500.00
26	24" HDPE	59	LF	\$82.00	\$4,838.00
27	30" HDPE	231	LF	\$88.00	\$20,328.00
28	24" Flared End Section	1	EA	\$1,360.00	\$1,360.00
29	30" Flared End Section	1	EA	\$1,500.00	\$1,500.00
30	Type "B" Inlet	10	EA	\$3,200.00	\$32,000.00
31	Rip Rap	3	CY	\$91.70	\$275.10
32	TV Inspection	1,054	LF	\$2.30	\$2,424.20
				Subtotal	\$116,918.30

SEWER IMPROVEMENTS					
33	6" Pipe Gravity SDR-26	990	LF	\$71.00	\$70,290.00
34	Cleanout	1	EA	\$911.00	\$911.00
35	Gravity Service	1	EA	\$1,950.00	\$1,950.00
36	Manhole (48")	4	EA	\$7,057.00	\$28,228.00
37	Connect to Existing Sewerline	1	EA	\$2,500.00	\$2,500.00
38	Bore & Jack for 6" sewerline	50	LF	\$1,500.00	\$75,000.00
39	TV Inspection	990	LF	\$2.30	\$2,277.00
				Subtotal	\$181,156.00
DRY UTILITY COSTS					
40	Includes- Joint Utility Trench, Utility Services, Conduit & Service Boxes and Wiring & Transformer	1	LOT	\$50,000.00	\$50,000.00
41	Underground Overhead Utilities at Latrobe Intersection	1	LS	\$50,000.00	\$50,000.00
				Subtotal	\$100,000.00
				Estimated Direct Construction Cost	\$2,676,116.55
	SWPPP Compliance	3%			\$80,283.50
	Erosion Control Measures	5%			\$133,805.83
	Mobilization	5%			\$133,805.83
				Total Hard Cost	\$3,024,011.70
SOFT COSTS					
A	Soft Costs	30%			\$802,834.97
B	Bond Enforcement Costs	2%			\$60,480.23
C	Construction Staking	4%			\$120,960.47
D	Construction Management & Inspection	10%			\$302,401.17
E	Contingency	25%			\$756,002.93
				Subtotal Soft Cost	\$2,042,679.76
				Total Estimated Cost	\$5,066,691.46

Assumptions:

1. Soft costs include engineering, permitting, CEQA and other consultant work (geotech, biological, archeological)
2. Budget for Dry Utilities is estimated as a budget number. Further design work and information needed to adequately estimate the cost.
3. Cost for undergrounding of existing dry utilities for driveway connection area only.

Improvement Plans for Site 5: Multi-Modal Transit Center
 Engineer's Opinion of Probable Construction Cost
 April, 2020

Item No.	Item Description	Qty.	Unit	Unit Price	Total Amount
GRADING					
1	Clear & Grub	10.5	AC	\$12,580.00	\$132,090.00
2	Excavation (Cut or Fill)	133,000	CY	\$11.80	\$1,569,400.00
3	Retaining Wall	2,600	SF	\$25.00	\$65,000.00
4	Fugitive Dust Control	10.5	AC	\$1,000.00	\$10,500.00
				Subtotal	\$1,776,990.00
STREET IMPROVEMENTS					
5	PCC Pavement	2,100	CY	\$137.50	\$288,750.00
6	3" AC	178,247	SF	\$2.35	\$418,880.45
7	4" AB	111,918	SF	\$1.50	\$167,877.00
8	6" AB	44,183	SF	\$1.90	\$83,947.70
9	8" AB	178,247	SF	\$2.00	\$356,494.00
10	Type 2 - Vertical Curb & Gutter	3,149	LF	\$22.50	\$70,852.50
11	Concrete Sidewalk, 4" PCC	8,121	SF	\$12.50	\$101,512.50
12	Pedestrian Ramp	14	EA	\$3,420.00	\$47,880.00
13	Bus Shelter	6	EA	\$50,000.00	\$300,000.00
14	Striping	11,076	LF	\$0.50	\$5,538.00
15	Stop Bar and "STOP" sign	1	EA	\$1,700.00	\$1,700.00
16	Parking Lot Curbing	4,785	LF	\$18.00	\$86,130.00
17	Bridge Crossing	3	EA	\$300,000.00	\$900,000.00
				Subtotal	\$2,829,562.15
POTABLE WATER IMPROVEMENTS					
18	6" Pipe w/Fittings	444	LF	\$62.00	\$27,528.00
19	Fire Hydrant & Appurtenances	1	EA	\$6,149.00	\$6,149.00
20	Fire Service	1	EA	\$2,000.00	\$2,000.00
21	Fire Dept. Connection	1	EA	\$2,500.00	\$2,500.00
22	1" Water Service	1	EA	\$1,521.00	\$1,521.00
23	Connect to Existing Waterline	1	EA	\$2,500.00	\$2,500.00
				Subtotal	\$42,198.00
DRAINAGE IMPROVEMENTS					
24	12" HDPE	351	LF	\$47.00	\$16,497.00
25	18" HDPE	185	LF	\$100.00	\$18,500.00
26	18" Flared End Section	4	EA	\$1,200.00	\$4,800.00
27	Type "B" Inlet	9	EA	\$3,200.00	\$28,800.00
28	Rip Rap	3	CY	\$91.70	\$275.10
29	TV Inspection	536	LF	\$2.30	\$1,232.80
				Subtotal	\$70,104.90

SEWER IMPROVEMENTS					
30	6" Pipe Gravity SDR-26	410	LF	\$71.00	\$29,110.00
31	Cleanout	1	EA	\$911.00	\$911.00
32	Gravity Service	1	EA	\$1,950.00	\$1,950.00
33	Manhole (48")	4	EA	\$7,057.00	\$28,228.00
34	Connect to Existing Sewerline	1	EA	\$2,500.00	\$2,500.00
35	TV Inspection	410	LF	\$2.30	\$2.30
				Subtotal	\$62,701.30
DRY UTILITY COSTS					
36	Includes- Joint Utility Trench, Utility Services, Conduit & Service Boxes and Wiring & Transformer	1	LOT	\$50,000.00	\$50,000.00
37	Underground Existing Overhead Utilities on White Rock Road	1	LS	\$50,000.00	\$50,000.00
				Subtotal	\$100,000.00
				Estimated Direct Construction Cost	\$4,881,556.35
SWPPP Compliance		3%			\$146,446.69
Erosion Control Measures		5%			\$244,077.82
Mobilization		5%			\$244,077.82
				Total Hard Cost	\$5,516,158.68
SOFT COSTS					
A	Soft Costs	30%			\$1,464,466.91
B	Bond Enforcement Costs	2%			\$110,323.17
C	Construction Staking	4%			\$220,646.35
D	Construction Management & Inspection	10%			\$551,615.87
E	Contingency	25%			\$1,379,039.67
				Subtotal Soft Cost	\$3,726,091.96
				Total Estimated Cost	\$9,242,250.64

Assumptions:

1. Soft costs include engineering, permitting, CEQA and other consultant work (geotech, biological, archeological)
2. Budget for Dry Utilities is estimated as a budget number. Further design work and information needed to adequately estimate the cost.
3. Cost for undergrounding of existing dry utilities for driveway connection area only.

Improvement Plans for Site 5 - Alternative: Multi-Modal Transit Center
Engineer's Opinion of Probable Construction Cost
April, 2020

Item No.	Item Description	Qty.	Unit	Unit Price	Total Amount
GRADING					
1	Clear & Grub	7.8	AC	\$12,580.00	\$98,124.00
2	Excavation (Cut or Fill)	102,000	CY	\$11.80	\$1,203,600.00
3	Retaining Wall	3,000	SF	\$25.00	\$75,000.00
4	Fugitive Dust Control	7.8	AC	\$1,000.00	\$1,000.00
				Subtotal	\$1,377,724.00
STREET IMPROVEMENTS					
5	PCC Pavement	1,785	CY	\$137.50	\$245,437.50
6	3" AC	168,479	SF	\$2.35	\$395,925.65
7	4" AB	90,203	SF	\$1.50	\$135,304.50
8	6" AB	44,178	SF	\$1.90	\$83,938.20
9	8" AB	168,479	SF	\$2.00	\$336,958.00
10	Type 2 - Vertical Curb & Gutter	2,459	LF	\$22.50	\$55,327.50
11	Concrete Sidewalk, 4" PCC	12,909	SF	\$12.50	\$161,362.50
12	Pedestrian Ramp	14	EA	\$3,420.00	\$47,880.00
13	Bus Shelter	6	EA	\$50,000.00	\$300,000.00
14	Striping	10,207	LF	\$0.50	\$5,103.50
15	Traffic Signal (Fair Share - 1 leg)	1	EA	\$125,000.00	\$125,000.00
16	Parking Lot Curbing	6,148	LF	\$18.00	\$110,664.00
				Subtotal	\$2,002,901.35
POTABLE WATER IMPROVEMENTS					
17	6" Pipe w/Fittings	104	LF	\$62.00	\$6,448.00
18	Fire Hydrant & Appurtenances	1	EA	\$6,149.00	\$6,149.00
19	Fire Service	1	EA	\$2,000.00	\$2,000.00
20	Fire Dept. Connection	1	EA	\$2,500.00	\$2,500.00
21	1" Water Service	1	EA	\$1,521.00	\$1,521.00
22	Connect to Existing Waterline	1	EA	\$2,500.00	\$2,500.00
				Subtotal	\$21,118.00
DRAINAGE IMPROVEMENTS					
23	12" HDPE	239	LF	\$47.00	\$11,233.00
24	18" HDPE	395	LF	\$100.00	\$39,500.00
25	18" Flared End Section	2	EA	\$1,200.00	\$2,400.00
26	Type "B" Inlet	6	EA	\$3,200.00	\$19,200.00
27	Rip Rap	3	CY	\$91.70	\$275.10
28	TV Inspection	634	LF	\$2.30	\$1,458.20
				Subtotal	\$74,066.30

SEWER IMPROVEMENTS					
29	6" Pipe Gravity SDR-26	139	LF	\$71.00	\$9,869.00
30	Cleanout	1	EA	\$911.00	\$911.00
31	Gravity Service	1	EA	\$1,950.00	\$1,950.00
32	Connect to Existing Sewerline	1	EA	\$2,500.00	\$2,500.00
33	TV Inspection	139	LF	\$2.30	\$319.70
				Subtotal	\$15,549.70
DRY UTILITY COSTS					
34	Includes- Joint Utility Trench, Utility Services, Conduit & Service Boxes and Wiring & Transformer	1	LOT	\$50,000.00	\$50,000.00
35	Underground Existing Overhead Utilities on White Rock Road	1	LS	\$50,000.00	\$50,000.00
				Subtotal	\$100,000.00
				Estimated Direct Construction Cost	\$3,591,359.35
SWPPP Compliance		3%			\$107,740.78
Erosion Control Measures		5%			\$179,567.97
Mobilization		5%			\$179,567.97
				Total Hard Cost	\$4,058,236.07
SOFT COSTS					
A	Soft Costs	30%			\$1,077,407.81
B	Bond Enforcement Costs	2%			\$81,164.72
C	Construction Staking	4%			\$162,329.44
D	Construction Management & Inspection	10%			\$405,823.61
E	Contingency	25%			\$1,014,559.02
				Subtotal Soft Cost	\$2,741,284.59
				Total Estimated Cost	\$6,799,520.66

Assumptions:

1. Soft costs include engineering, permitting, CEQA and other consultant work (geotech, biological, archeological)
2. Budget for Dry Utilities is estimated as a budget number. Further design work and information needed to adequately estimate the cost.
3. Cost for undergrounding of existing dry utilities for driveway connection area only.

Improvement Plans for Optional Site A: Multi-Modal Transit Center
 Engineer's Opinion of Probable Construction Cost
 April, 2020

Item No.	Item Description	Qty.	Unit	Unit Price	Total Amount
GRADING					
1	Clear & Grub	10.0	AC	\$12,580.00	\$125,800.00
2	Excavation	95,265	CY	\$11.80	\$1,124,127.00
3	Retaining Wall	1,340	SF	\$25.00	\$33,500.00
4	Tree Protection Fence	3,123	LF	\$4.10	\$12,804.30
5	Fugitive Dust Control	10	AC	\$1,000.00	\$10,000.00
				Subtotal	\$1,306,231.30
STREET IMPROVEMENTS					
6	PCC Pavement	2,331	CY	\$137.50	\$320,512.50
7	3" AC	174,313	SF	\$2.35	\$409,635.55
8	4" AB	124,955	SF	\$1.50	\$187,432.50
9	6" AB	42,576	SF	\$1.90	\$80,894.40
10	8" AB	174,313	SF	\$2.00	\$348,626.00
11	Remove and Replace Existing Pavement Section	5,132	SF	\$6.50	\$33,358.00
12	Type 2 - Vertical Curb & Gutter	3,274	LF	\$22.50	\$73,665.00
13	Concrete Sidewalk, 4" PCC	14,912	SF	\$12.50	\$186,400.00
14	Sawcut	2,566	LF	\$3.00	\$7,698.00
15	Handicap Ramp	16	EA	\$3,420.00	\$54,720.00
16	Bus Shelter	6	EA	\$50,000.00	\$300,000.00
17	Striping	10,345	LF	\$0.50	\$5,172.50
18	Stop Bar and "STOP" sign	1	EA	\$1,700.00	\$1,700.00
19	Commercial Driveway	386	SF	\$17.00	\$6,562.00
20	Parking Lot Curbing	5,780	LF	\$18.00	\$104,040.00
				Subtotal	\$2,120,416.45
POTABLE WATER IMPROVEMENTS					
21	6" Pipe w/Fittings	1,239	LF	\$62.00	\$76,818.00
22	6" Gate Valve	2	EA	\$1,729.00	\$3,458.00
23	Fire Hydrant & Appurtenances	1	EA	\$6,149.00	\$6,149.00
24	Fire Service	1	EA	\$2,000.00	\$2,000.00
25	Fire Dept. Connection	1	EA	\$2,500.00	\$2,500.00
26	1" Water Service	1	EA	\$1,521.00	\$1,521.00
27	Connect to Existing Waterline	1	EA	\$2,500.00	\$2,500.00
				Subtotal	\$94,946.00
DRAINAGE IMPROVEMENTS					
28	12" HDPE	644	LF	\$47.00	\$30,268.00
29	18" HDPE	261	LF	\$100.00	\$26,100.00
30	18" Flared End Section	4	EA	\$1,200.00	\$4,800.00
31	Type "B" Inlet	12	EA	\$3,200.00	\$38,400.00
32	Rip Rap	3	CY	\$91.70	\$275.10
33	TV Inspection	905	LF	\$2.30	\$2,081.50
				Subtotal	\$101,924.60

SEWER IMPROVEMENTS					
34	6" Pipe Gravity SDR-26	1,187	LF	\$71.00	\$84,277.00
35	Cleanout	1	EA	\$911.00	\$911.00
36	Gravity Service	1	EA	\$1,950.00	\$1,950.00
37	Manhole (48")	10	EA	\$7,057.00	\$70,570.00
38	Connect to Existing Sewerline	1	EA	\$2,500.00	\$2,500.00
39	TV Inspection	1,187	LF	\$2.30	\$2,730.10
				Subtotal	\$162,938.10
DRY UTILITY COSTS					
40	Includes- Joint Utility Trench, Utility Services, Conduit & Service Boxes and Wiring & Transformer	1	LOT	\$50,000.00	\$50,000.00
41	Connection of Dry Utilities to West Side of White Rock Road	1	LS	\$50,000.00	\$50,000.00
				Subtotal	\$100,000.00
				Estimated Direct Construction Cost	\$3,886,456.45
	SWPPP Compliance	3%			\$116,593.69
	Erosion Control Measures	5%			\$194,322.82
	Mobilization	5%			\$194,322.82
				Total Hard Cost	\$4,391,695.79
SOFT COSTS					
A	Soft Costs	30%			\$1,165,936.94
B	Bond Enforcement Costs	2%			\$87,833.92
C	Construction Staking	4%			\$175,667.83
D	Construction Management & Inspection	10%			\$439,169.58
E	Contingency	25%			\$1,097,923.95
				Subtotal Soft Cost	\$2,966,532.21
				Total Estimated Cost	\$7,358,228.00

Assumptions:

1. Soft costs include engineering, permitting, CEQA and other consultant work (geotech, biological, archeological)
2. Budget for Dry Utilities is estimated as a budget number. Further design work and information needed to adequately estimate the cost.

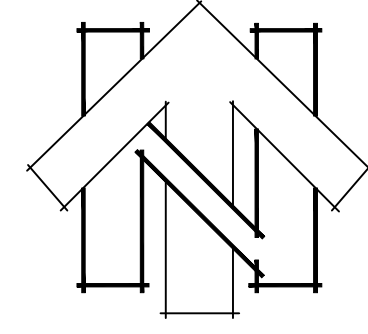
Appendix B
Site Layouts

EDC TRANSIT AUTHORITY PROPOSED LAYOUT FOR SITE 3

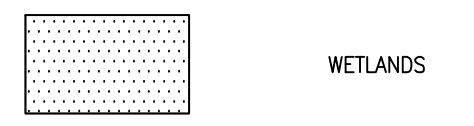
EL DORADO COUNTY, CALIFORNIA

SCALE: 1"=60'

APRIL, 2020

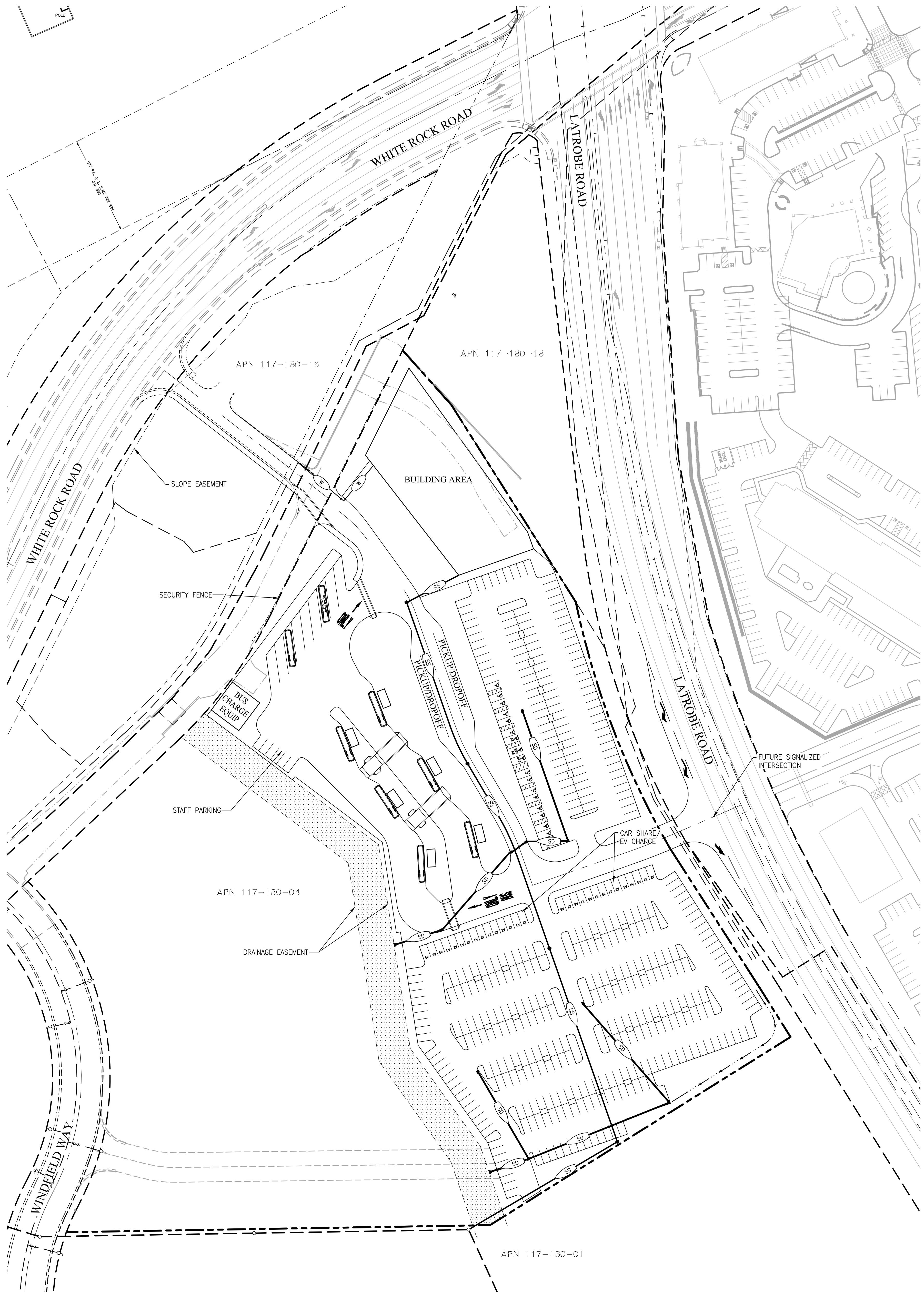
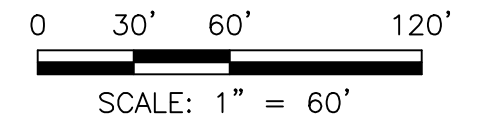


LEGEND



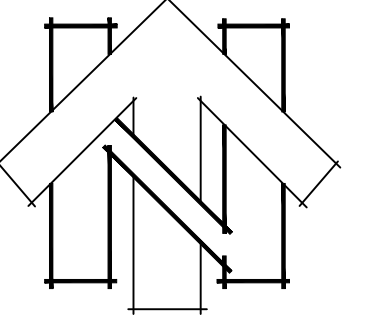
PARKING BREAKDOWN

PARK & RIDE PARKING SPACES	390
ADA PARKING SPACES (14 ADA + 2 VAN ADA)	16
EVCS PARKING SPACES	29
ADA EVCS PARKING SPACES (1 ADA + 1 VAN ADA)	2
TOTAL PARKING SPACES	437



EDC TRANSIT AUTHORITY
PROPOSED LAYOUT FOR SITE 5
 EL DORADO COUNTY, CALIFORNIA

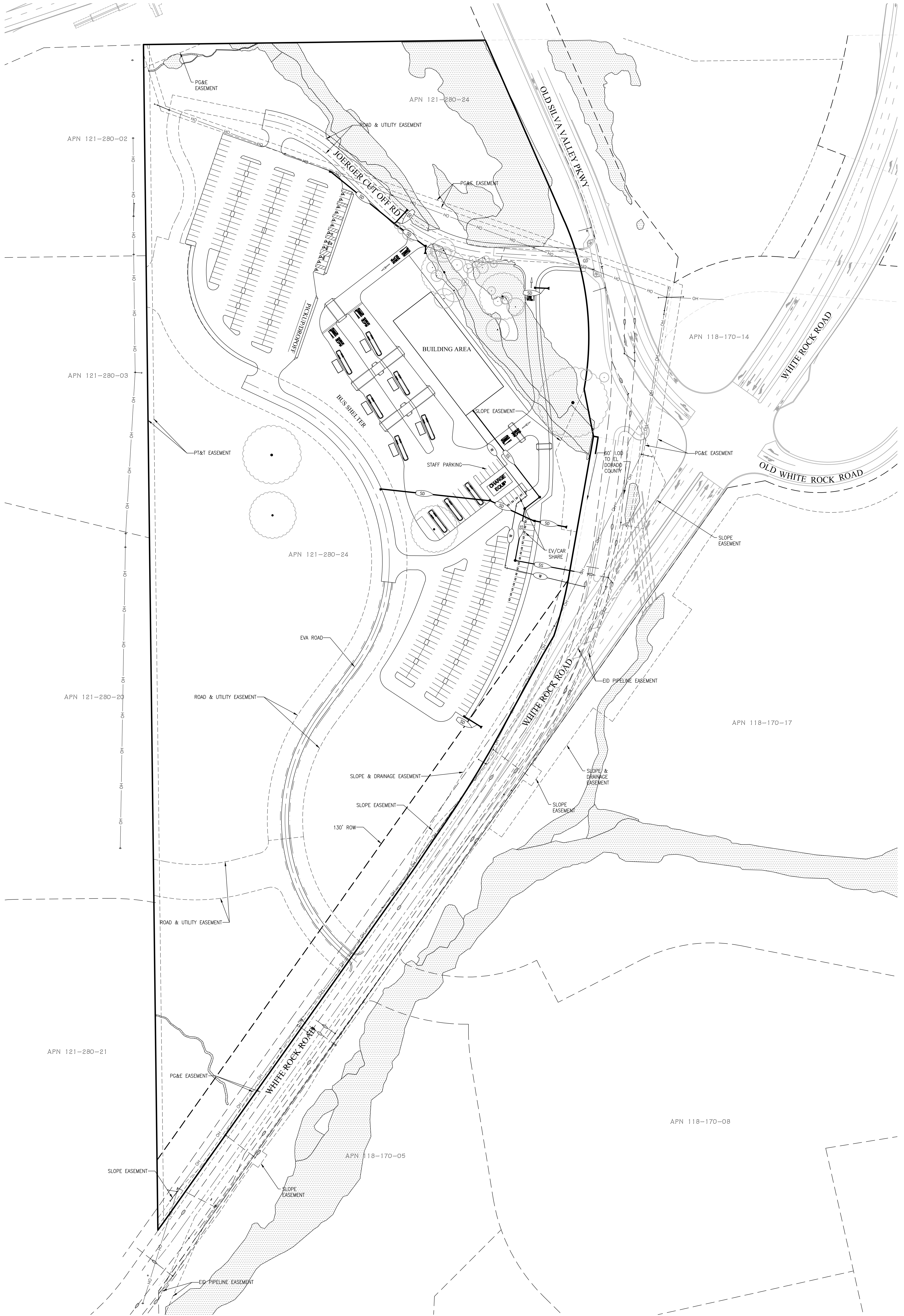
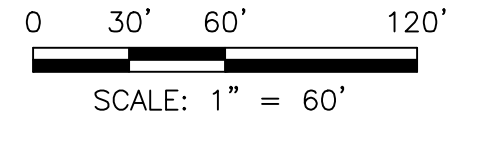
SCALE: 1"=60' APRIL, 2020



PARKING BREAKDOWN	
PARK & RIDE PARKING SPACES	315
ADA PARKING SPACES (8 ADA + 2 VAN ADA)	10
EVCS PARKING SPACES	22
ADA EVCS PARKING SPACES (1 ADA + 1 VAN ADA)	2
TOTAL PARKING SPACES	349

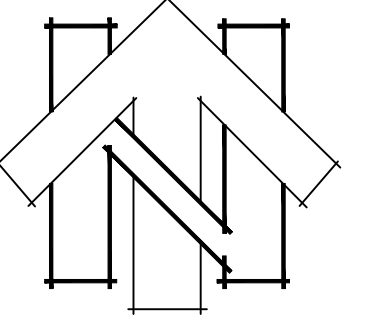
LEGEND

WETLANDS



EDC TRANSIT AUTHORITY PROPOSED LAYOUT FOR SITE 5 - ALTERNATIVE

EL DORADO COUNTY, CALIFORNIA
SCALE: 1"=60' APRIL, 2020

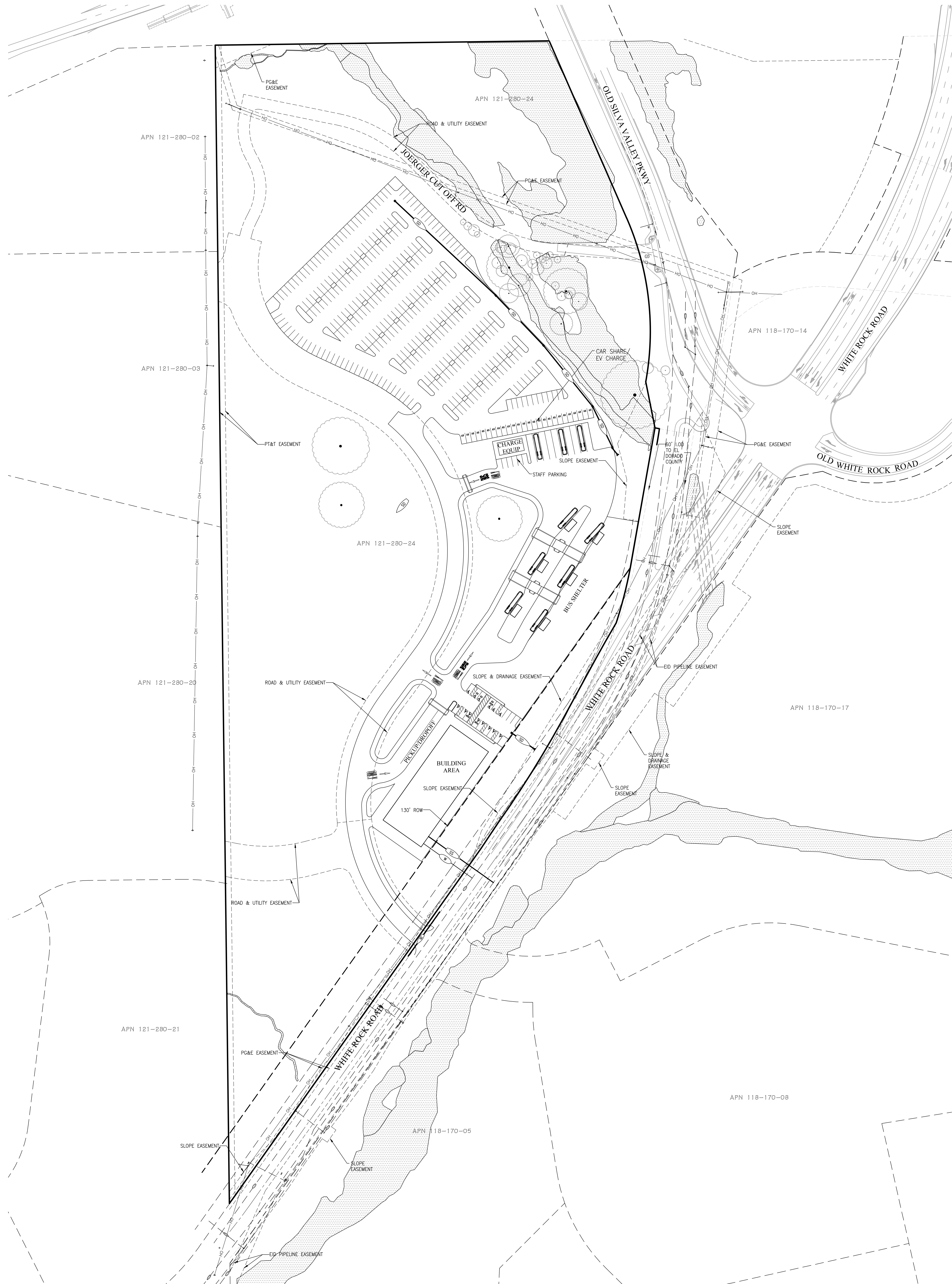
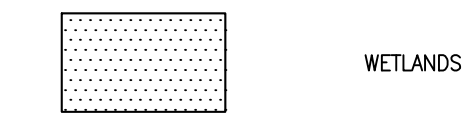


0 30' 60' 120'
SCALE: 1" = 60'

PARKING BREAKDOWN

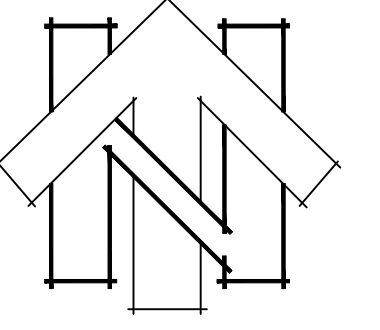
PARK & RIDE PARKING SPACES	354
ADA PARKING SPACES (3 ADA + 2 VAN ADA)	11
EVCS PARKING SPACES	28
ADA EVCS PARKING SPACES (2 ADA + 1 VAN ADA)	3
TOTAL PARKING SPACES	394

LEGEND



EDC TRANSIT AUTHORITY
PROPOSED LAYOUT FOR OPTIONAL SITE A
 EL DORADO COUNTY, CALIFORNIA

SCALE: 1"=60' APRIL, 2020



0 30' 60' 120'
 SCALE: 1" = 60'

LEGEND

	WETLANDS
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PARKING BREAKDOWN

PARK & RIDE PARKING SPACES	361
ADA PARKING SPACES (1:1 ADA = 2 VAN ADA)	13
EVCS PARKING SPACES	24
ADA EVCS PARKING SPACES (1 ADA = 1 VAN ADA)	2
TOTAL PARKING SPACES	400

