

LANDSCAPE DESIGN STANDARDS

November 2021

NEW ALBANY TECHNOLOGY MANUFACTURING DISTRICT

INTENT OF THE TECHNOLOGY MANUFACTURING DISTRICT LANDSCAPE DESIGN STANDARDS

- Preserve and refine the rural character of the district along important transportation corridors
- Provide design guidelines and principles for the district through which proposed development within the district can be evaluated
- Define district roadway character and typologies
- Create a district greenway network through appropriately scaled and designed setbacks and development site edge conditions

EXECUTIVE SUMMARY

The Central Ohio landscape character is rooted in a rural and agrarian heritage. Preservation of this character along major street frontages is the guiding principle of this document, while facilitating development of properties in a manner that seeks to extend the success of the Business Park.

Drawing upon that inspiration, landscape elements in these standards include drainage swales, lanes, bridges, hedgerows, native tree massings, broad earthen berms, and meadow expanses. The intent of this “big” landscape is to ground and appropriately scale the large buildings planned for this district.

The Landscape Design Standards for the New Albany Technology Manufacturing District is an extension of Chapter 1154 - TMD Technology Manufacturing District zoning. Specific standards in this document are intended to supplement the requirements of Chapter 1154.

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November 2021

NEW ALBANY TECHNOLOGY MANUFACTURING DISTRICT

ROADWAY TYPOLOGIES & SETBACKS

ROADWAY TYPOLOGIES & SETBACKS

The following roadway typologies and setback standards provide a framework for the New Albany Technology Manufacturing District (TMD). This framework is supported by standards and recommendations for leisure trails, natural features, and a greenway edge network.

Roadway Typologies

Two primary roadway typologies will be found within the New Albany Technology Manufacturing District: Principal Arterial and Major Collector.

Figures 1 and 2 depict a typical roadway condition for the Principal Arterial typology. Figure 1 is the preferred condition for Principal Arterial roadways.

As the Technology Manufacturing District develops over time new roadways will be needed to support future users, and modifications to existing roadways may be required. The Major Collector roadway typology may be assigned to existing roadways within the district or to new roadways. New minor roadways built within the district shall also be classified as Major Collectors. New roadways bordered on both sides by TMD users, and intended to serve those users (truck traffic) shall be classified as Minor Collectors.

Figures 3 and 4 depict a typical roadway condition for Major Collectors. The specific number of lanes will be determined per roadway based on a future traffic study.

Setbacks

Setbacks along Principal Arterial roadways

will be generous in order to maintain a rural character. The required setbacks will vary based on the placement and height of required mounding and plantings. Chapter 1154 of the Codified Ordinances provides detailed objective standards and requirements for setbacks from Principal Arterial roadways and other streets and perimeter property boundaries, and should be referenced in addition to this document.

Leisure Trails

As an extension of existing and planned New Albany leisure trails, Leisure trails shall be provided within the Technology Manufacturing District.

Principal Arterial roadway typologies should incorporate leisure trails within the ROW on the side of the roadway bordering the district.

At the discretion of the City and based on engineering traffic studies, new roadways within the district may incorporate leisure trails within the ROW on one or both side of the street.

Specific layout/location of leisure trails is illustrated in Figures 1-4.

Roadway Typology Standards

Principal Arterial

Roadway Typology: Refer to Figures 4 & 5

Setback: 500 Feet (Building) & 300 Feet (Pavement)

Mounding: 6-10' Height (Refer to Figures 9 & 10)

Landscaping: Berms shall have a simple mix of meadow & tree groupings placed in massings at 30 trees per 100 linear feet. The intent is to provide 75% opacity screening. (Refer to Figures 10 & 11)

Major Collector (TMD on both sides of street)

Roadway Typology: Refer to Figures 6 & 7

Setback: 50 Feet (Building) & 25 Feet (Pavement)

Landscaping: Setback shall have a simple mix of meadow & tree groupings placed in massings at 10 trees per 100 linear feet. The intent is to provide 40% opacity screening.

Major Collector (TMD on one side of street & residential on one side of street)

Roadway Typology: Refer to Figures 6 & 7

Setback: 200 Feet (Building) & 100 Feet (Pavement)

Mounding: 10' Height (Refer to Figures 9 & 10)

Landscaping: Berms shall have a simple mix of meadow & tree groupings placed in massings at 30 trees per 100 linear feet. The intent is to provide 75% opacity screening. (Refer to Figures 10 & 11)

Natural Features and Greenway Edge Network

Large tree massings, tree stands, and established stream corridors may exist within the Technology Manufacturing District. Whenever possible, natural features should be incorporated into future development. All necessary governmental approvals shall be followed when a riparian corridor will be impacted.

In alignment with existing New Albany design standards, and with the possibility of natural features being relocated or removed within a Flagship Project Site, a greenway edge network shall be established in the district. This greenway corridor will occur within the required setbacks within each development site, and align with the landscape design standards.

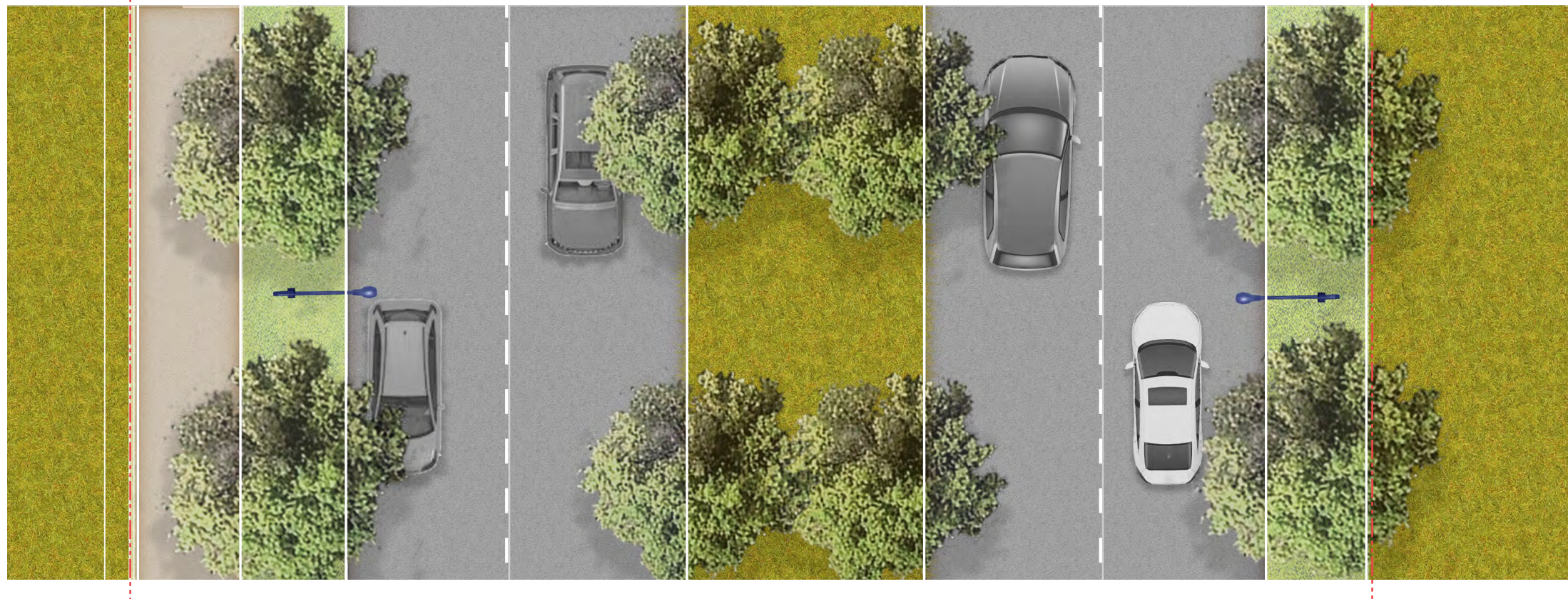
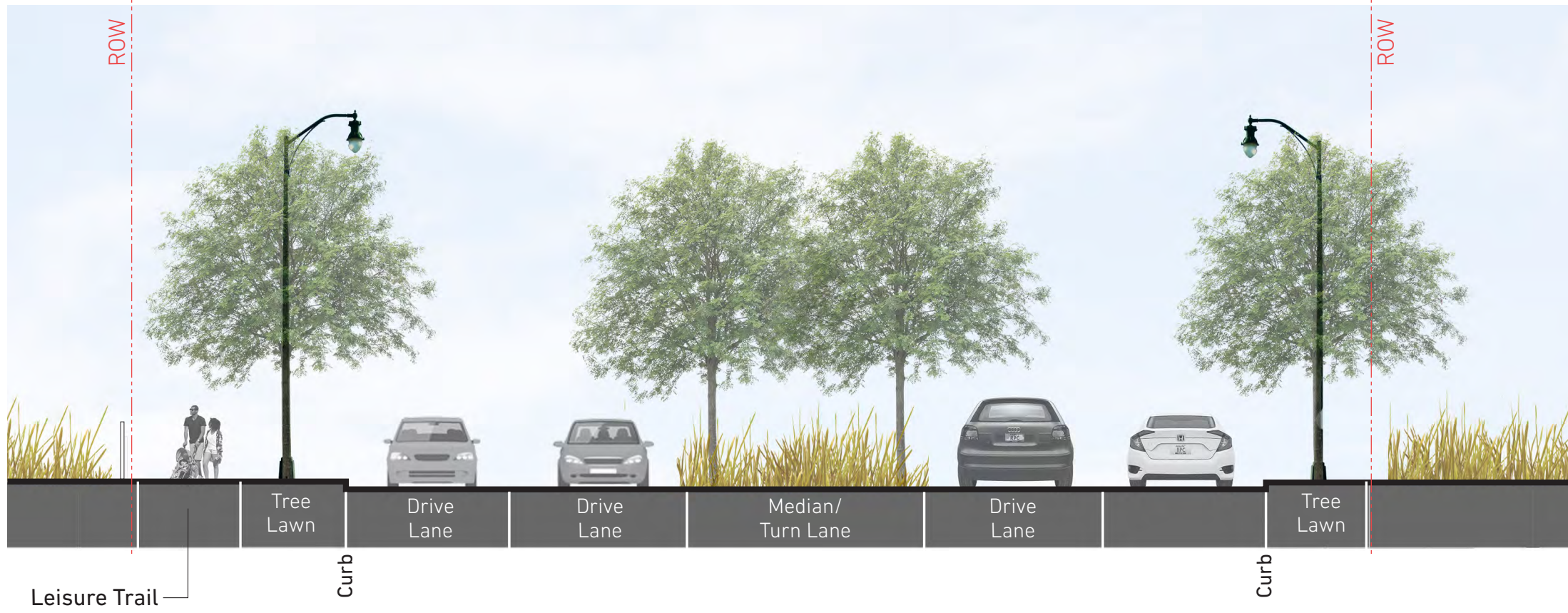
If existing trees are located within any perimeter area, mounding may be omitted and the existing trees may be utilized to achieve the required screening. Total amount of required screening will still be applicable and, therefore, additional landscape plantings may be necessary to meet the stated requirements.

Additionally, required mounds shall be installed within the pavement setbacks, except where a detention pond is used as a gateway feature and is located within the setback area. In this case the required mounding and landscaping shall be installed between the detention pond and any impervious site components. Breaks in, and/or tapering of mounding may occur at vehicular or pedestrian access points, subject to approval of the City's Landscape Architect.

Development within the TMD shall comply with the provisions of Chapter 1155 in the city zoning ordinance.

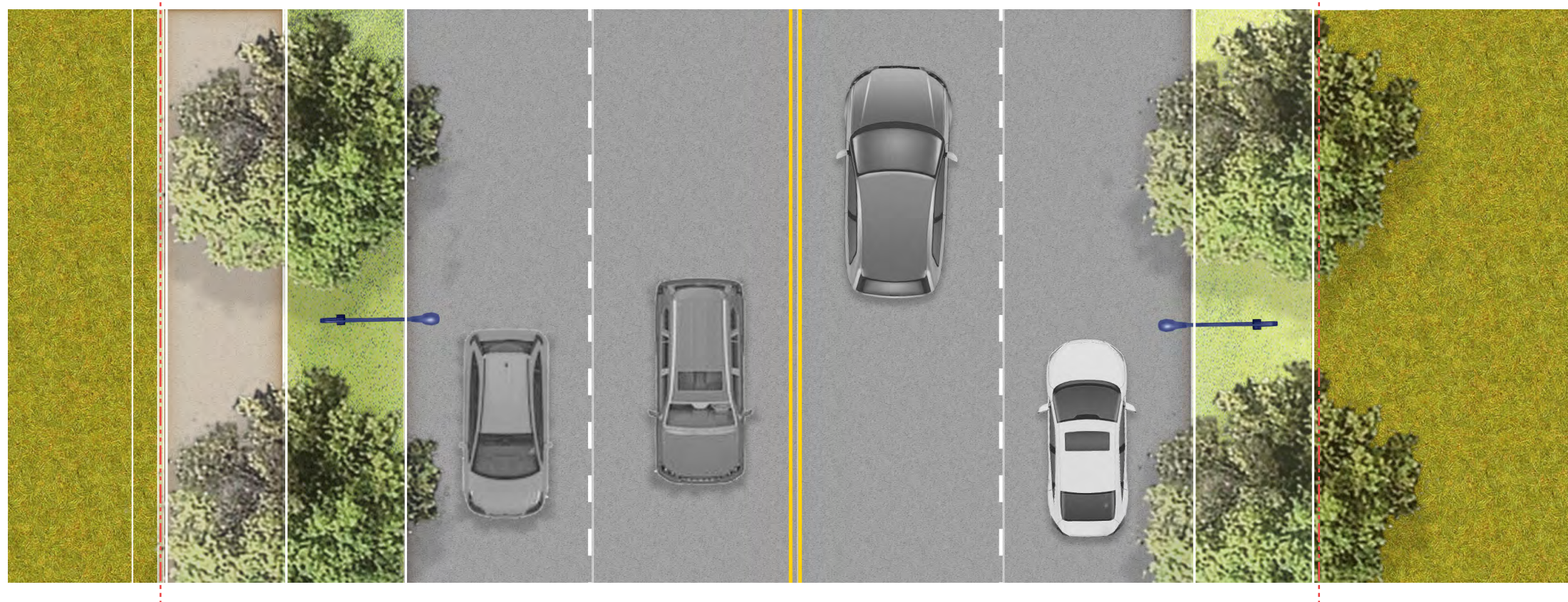
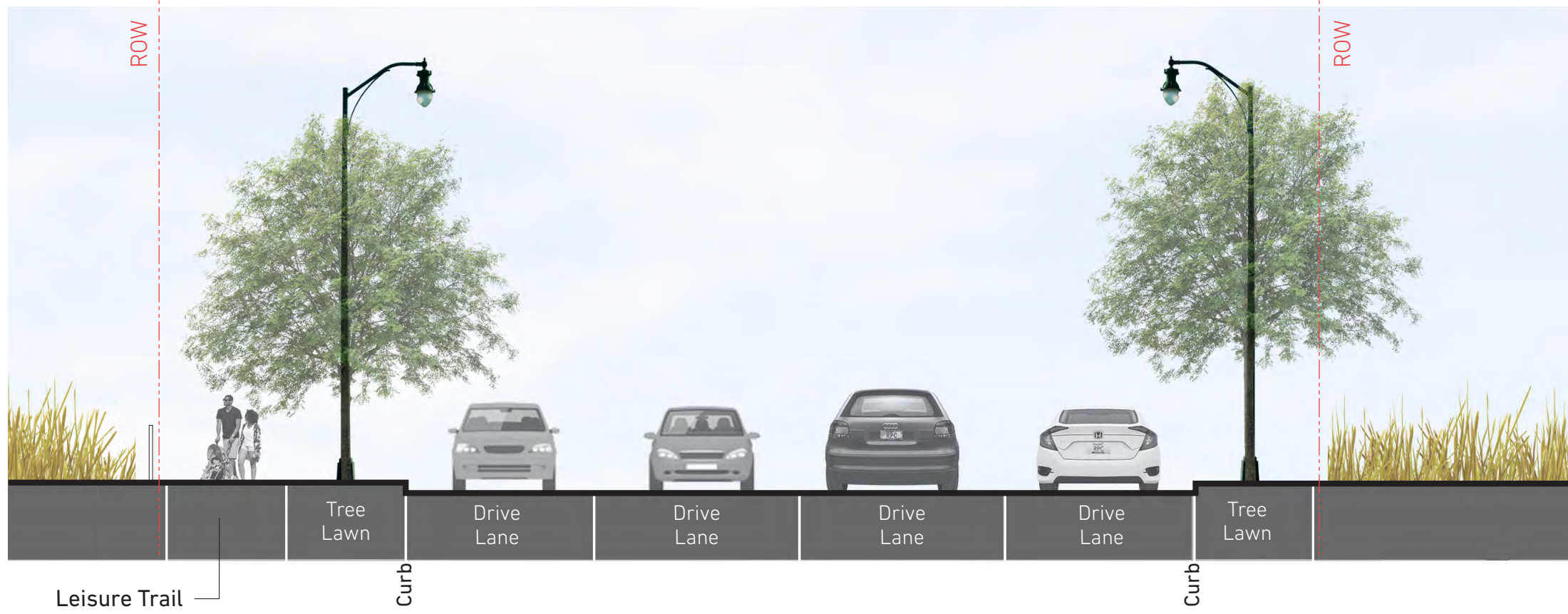


BUSINESS PARK | EDGE CONDITION EXAMPLE



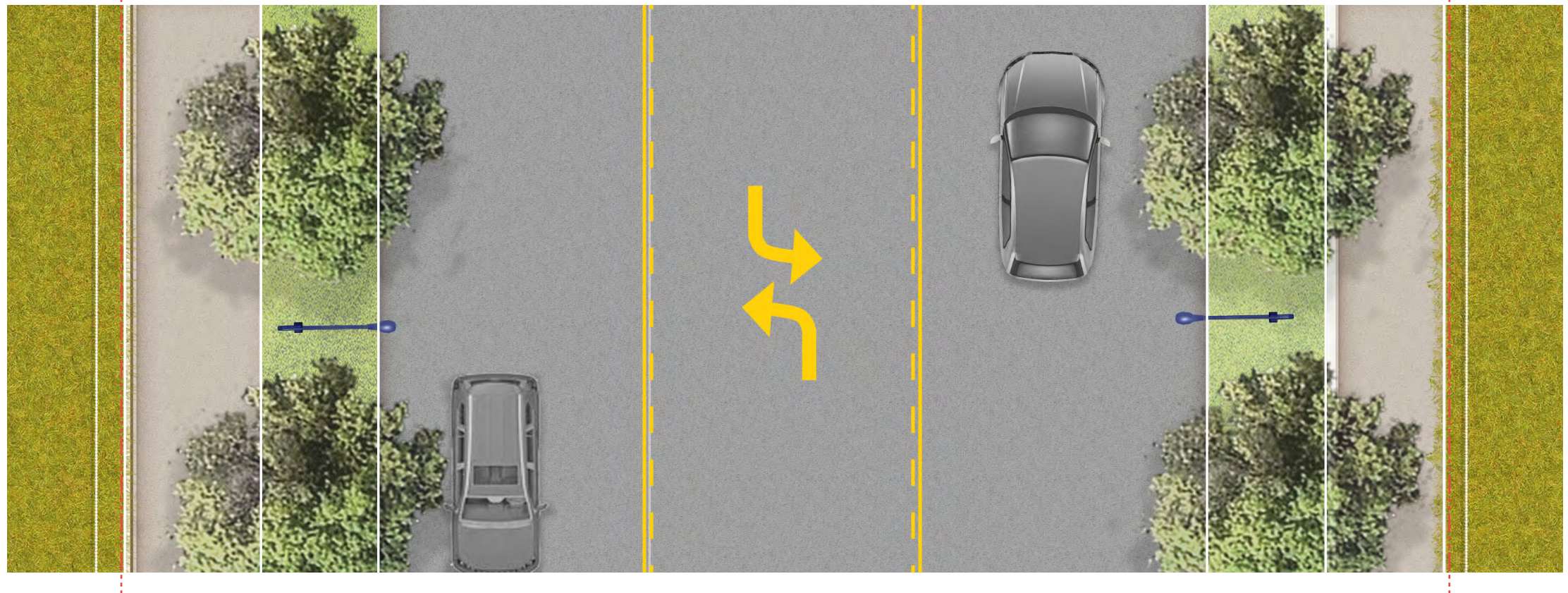
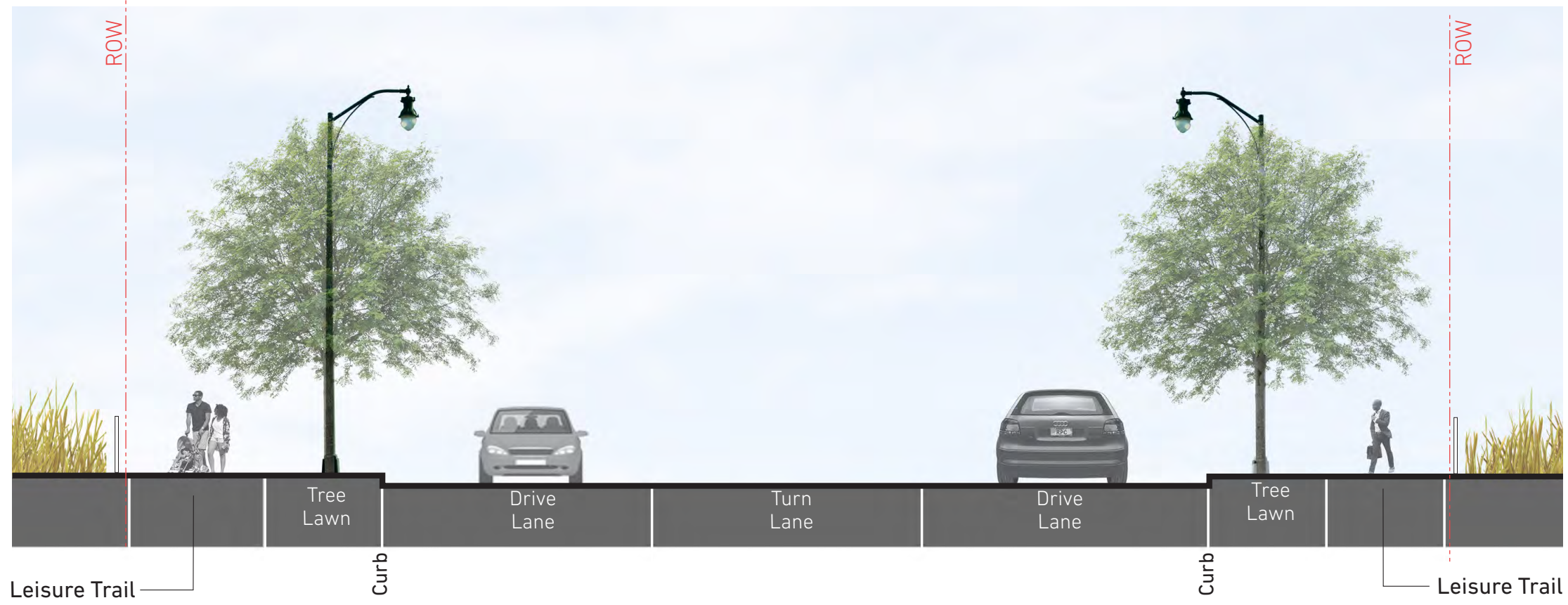
Public Road Section A
Principal Arterial (with Median)

FIGURE 2

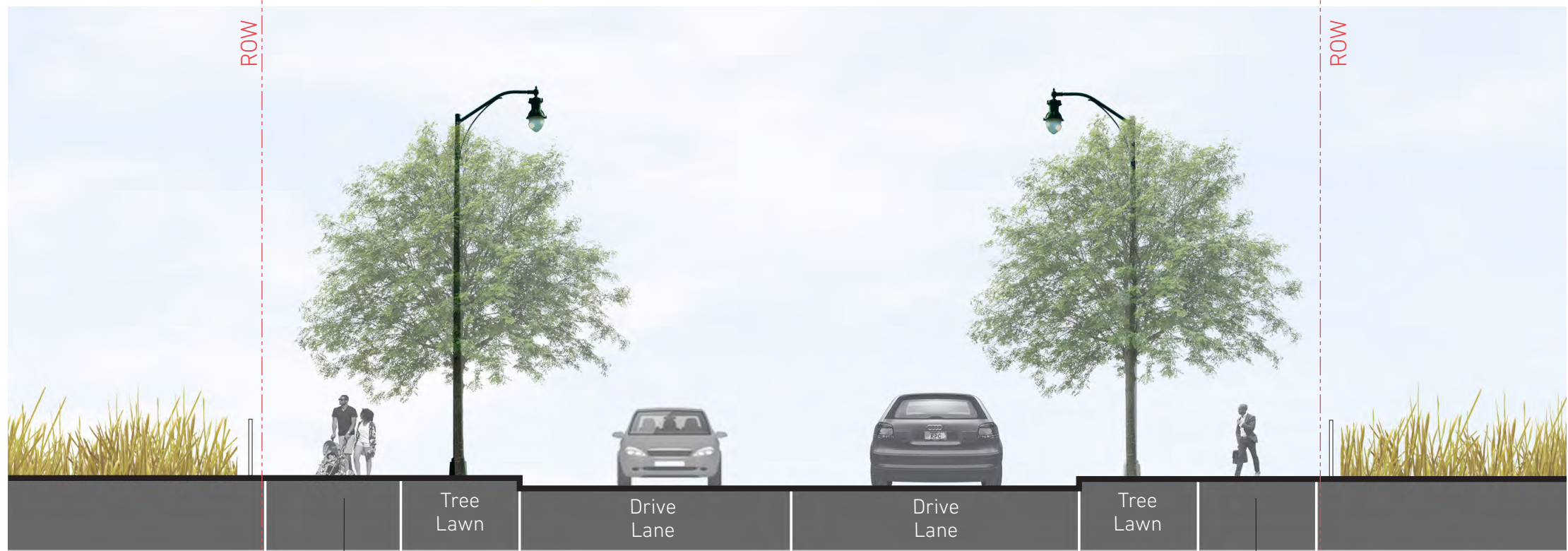


Public Road Section B
Principal Arterial (without Median)

FIGURE 3



Public Road Section C
Major Collector (with Turn Lane)

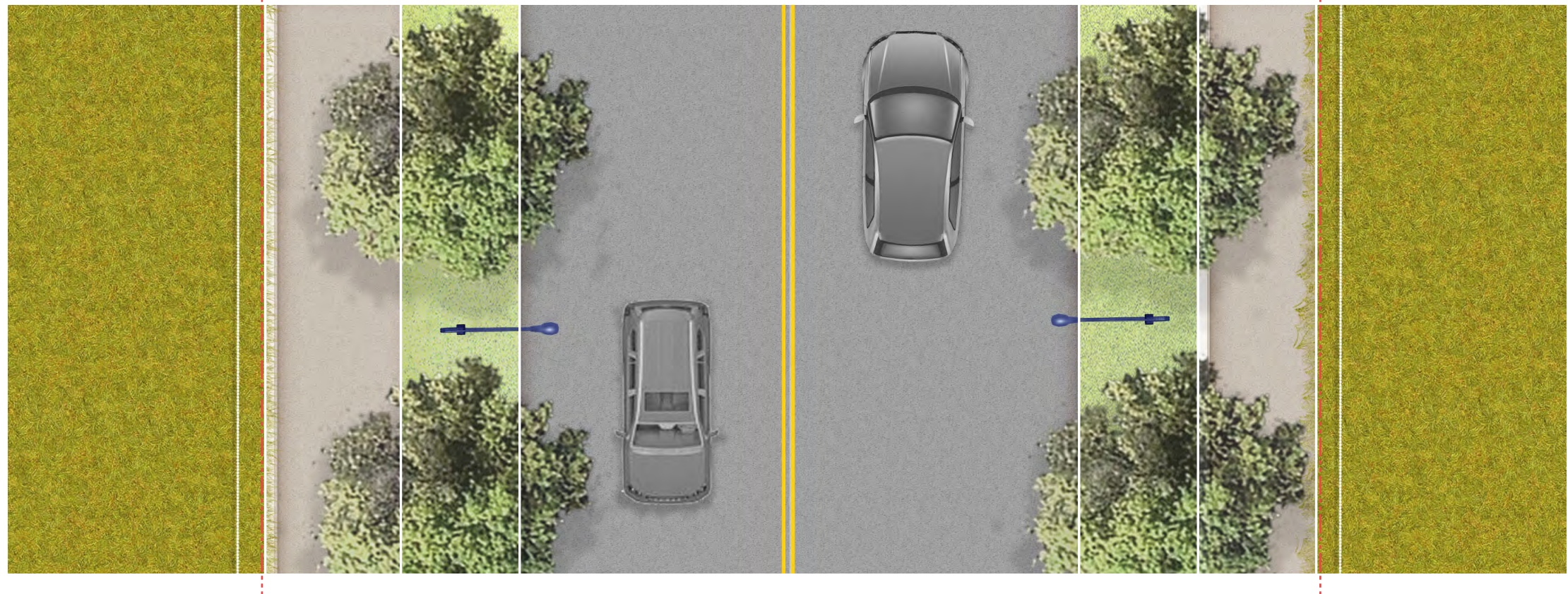


Leisure Trail
**may only occur on one side of the road in some locations*

Curb

Curb

Leisure Trail
**may only occur on one side of the road in some locations*



Public Road Section D
Major Collector (without Turn Lane)

LANDSCAPE DESIGN STANDARDS

November 2021

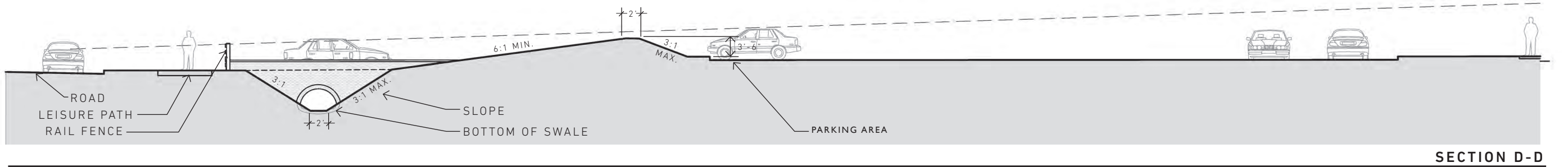
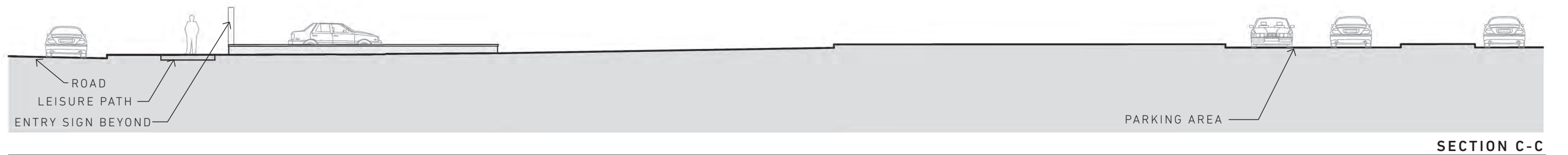
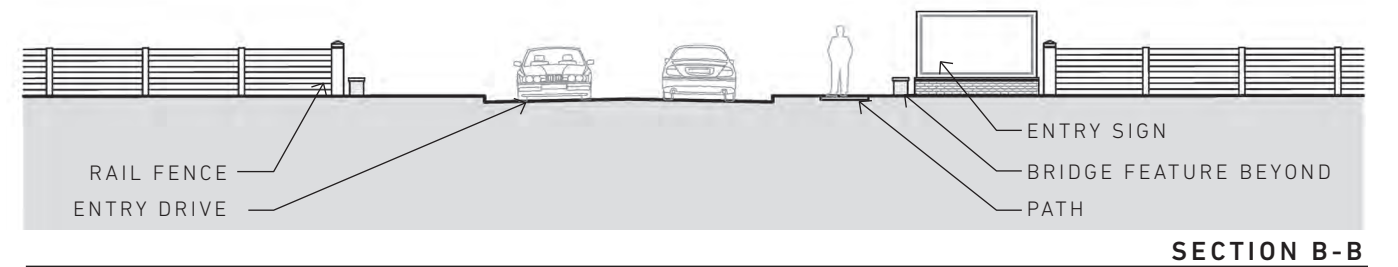
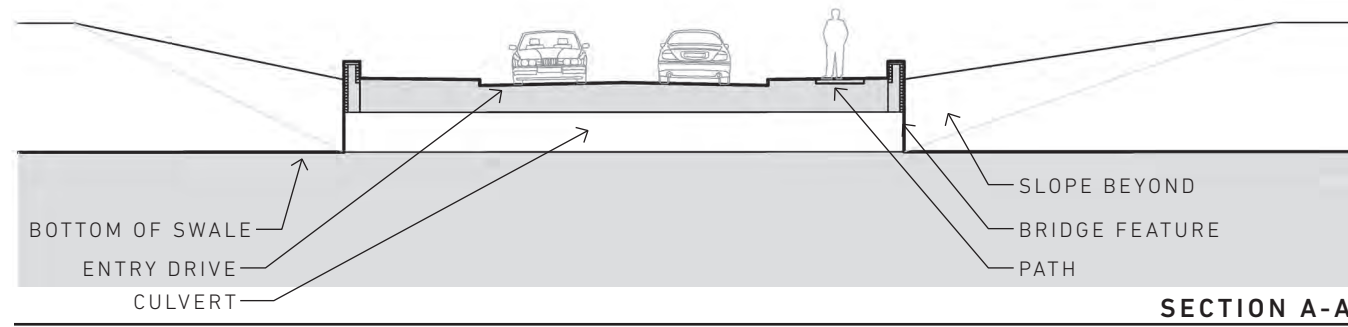
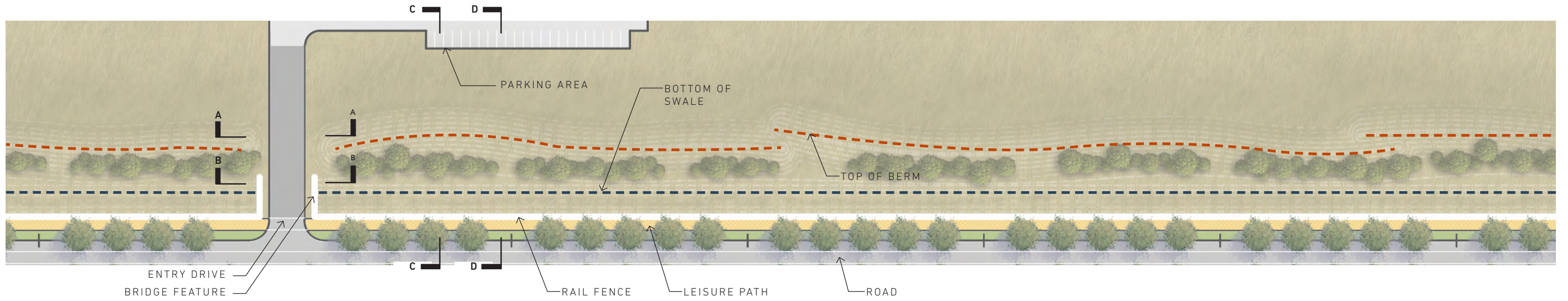
NEW ALBANY TECHNOLOGY MANUFACTURING DISTRICT

P r i m a r y R o a d w a y S t a n d a r d s

FIGURE 5

PRIMARY ROADWAYS - SWALE & BERM GRADING

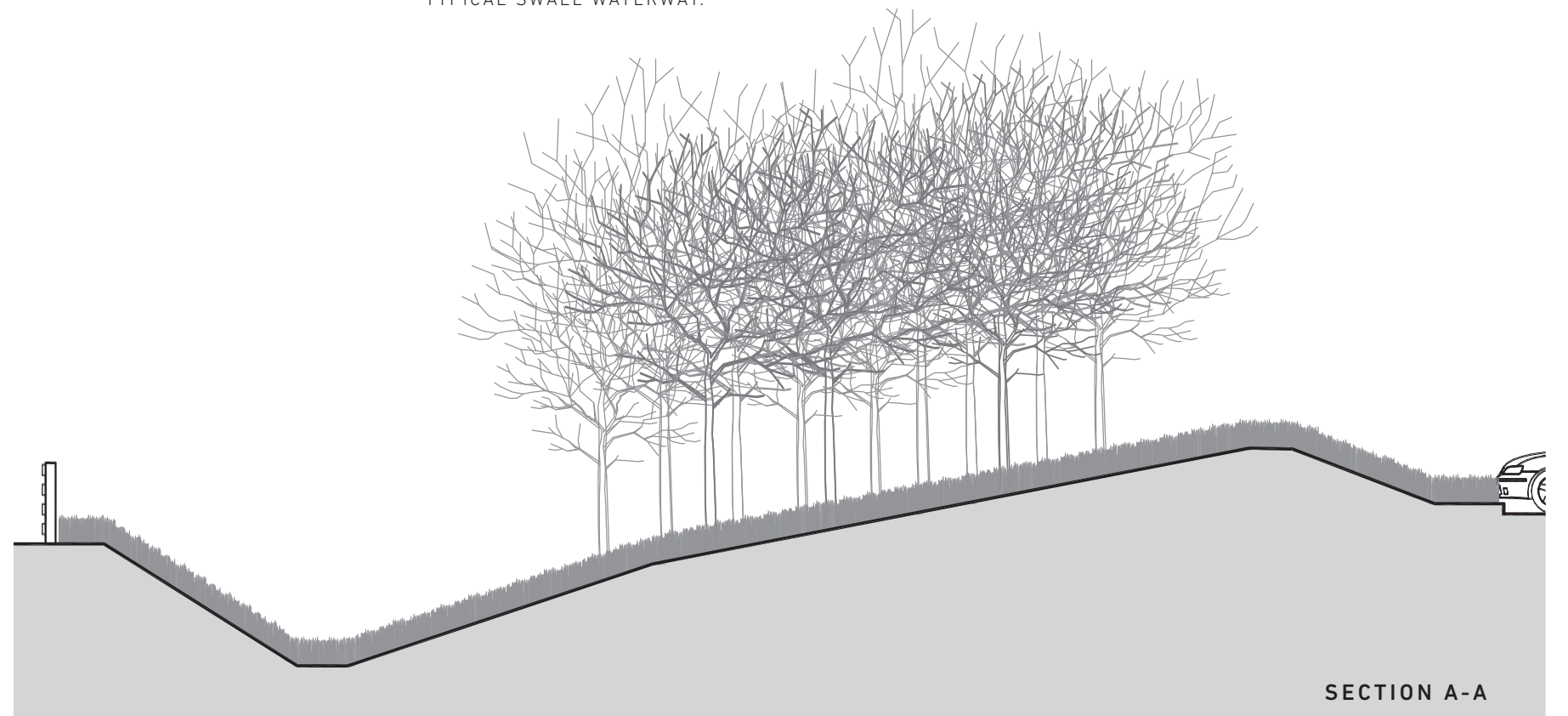
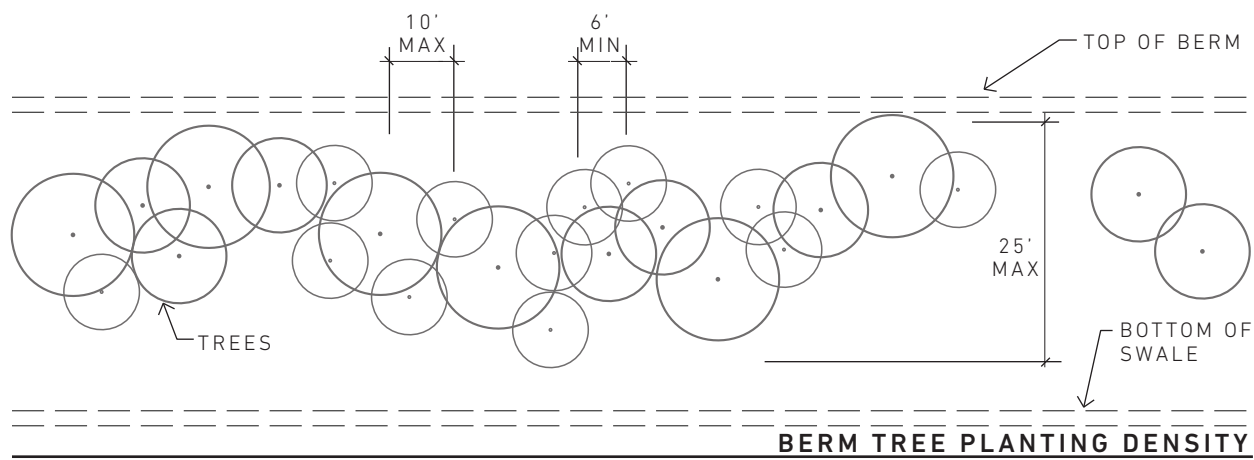
- If there is a swale condition, the swale shall be sloped at a maximum 3:1 gradient starting from three feet behind the white rail fence to the bottom of swale.
- The bottom of the swale shall be 2' wide.
- The backslope of the swale shall be sloped at a maximum 3:1 gradient up to the elevation of the adjacent leisure path. From this point further into the development site, the swale shall be sloped at a minimum 6:1 gradient to the top of the berm.
- Berm grading should undulate and vary in both vertical and horizontal dimensions, while remaining within the acceptable slope tolerances. Berm heights should range from 6-10' and the top of berm widths should range from 2-4'.
- The backslope of the berm should be sloped at a maximum 3:1 gradient. If grade cannot be met, a site wall of cast-in-place concrete or split faced concrete masonry unit block is allowable.
- In the case that berm height is unable to be met around the entirety of the Flagship site, plantings that provide 100% coverage at full foliage may be utilized to meet screening requirements. This condition should not exceed more than 30% of the entirety of the Flagship site edge condition.
- Plant species list: refer to Figure 18.



PRIMARY ROAD - SWALE & BERM GRADING

FIGURE 6
PRIMARY ROADWAYS - SWALE & BERM
PLANTING

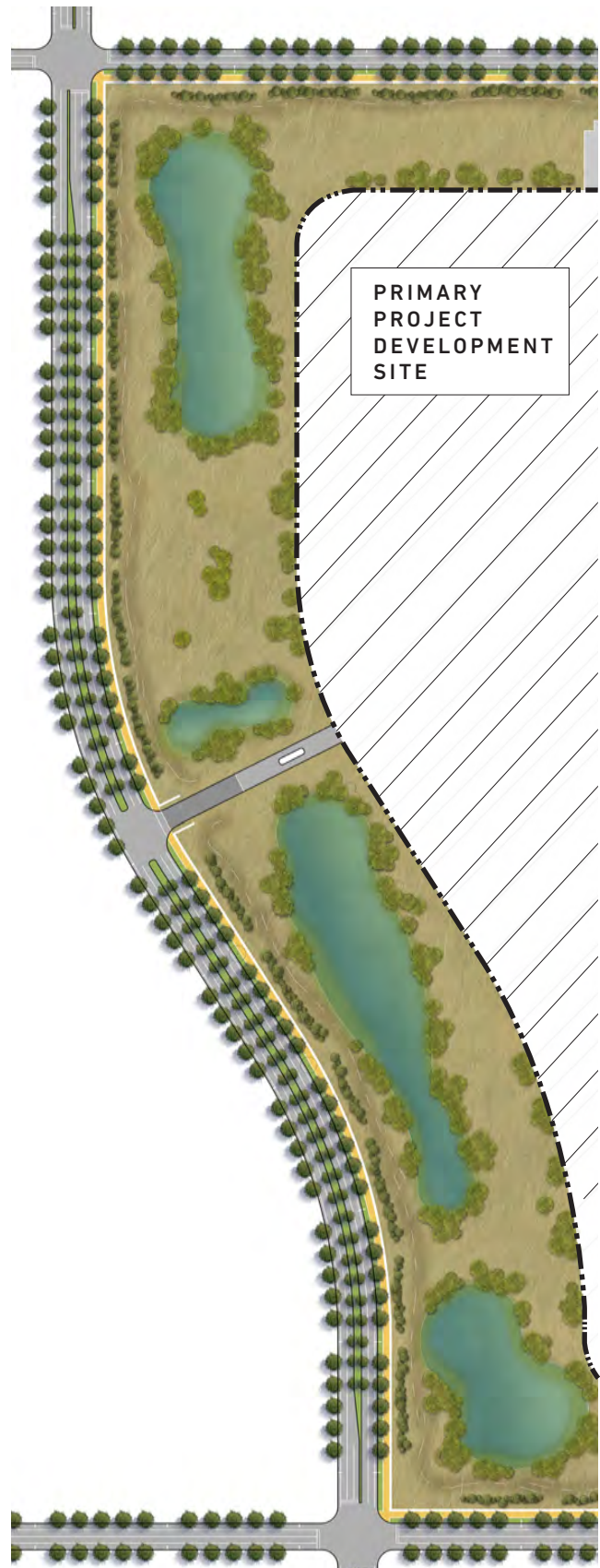
- Swales shall have a simple meadow mix.
 - Installation method: Seeded (see Construction Guidelines)
- Berms shall have a simple mix of meadow and tree groupings placed in massings
 - Tree installation sizes: Tree sizes to be mixed in at least three different sizes, ranging from 2" to 3" caliper. No more than 50% of trees shall be 2" caliper.
 - Tree species diversity: At least 6 species shall be used per property. No quantity of any given species shall comprise more than 20% of the overall quantity of trees
 - Tree spacing: tree species and sizes are to be randomly spaced in a staggered pattern between 6' and 10' on-center. There should be a minimum of 30 trees per 100 linear feet.
 - Trees shall be underplanted with native woodland shrubs in massings, as indicated on the adjoining diagram.
- Only the back (private) side of the berm can be mown, maintained turf grass. This condition should not be visible from the public ROW.
- Plant species list: refer to Figure 18.



PRIMARY ROAD - SWALE & BERM PLANTING

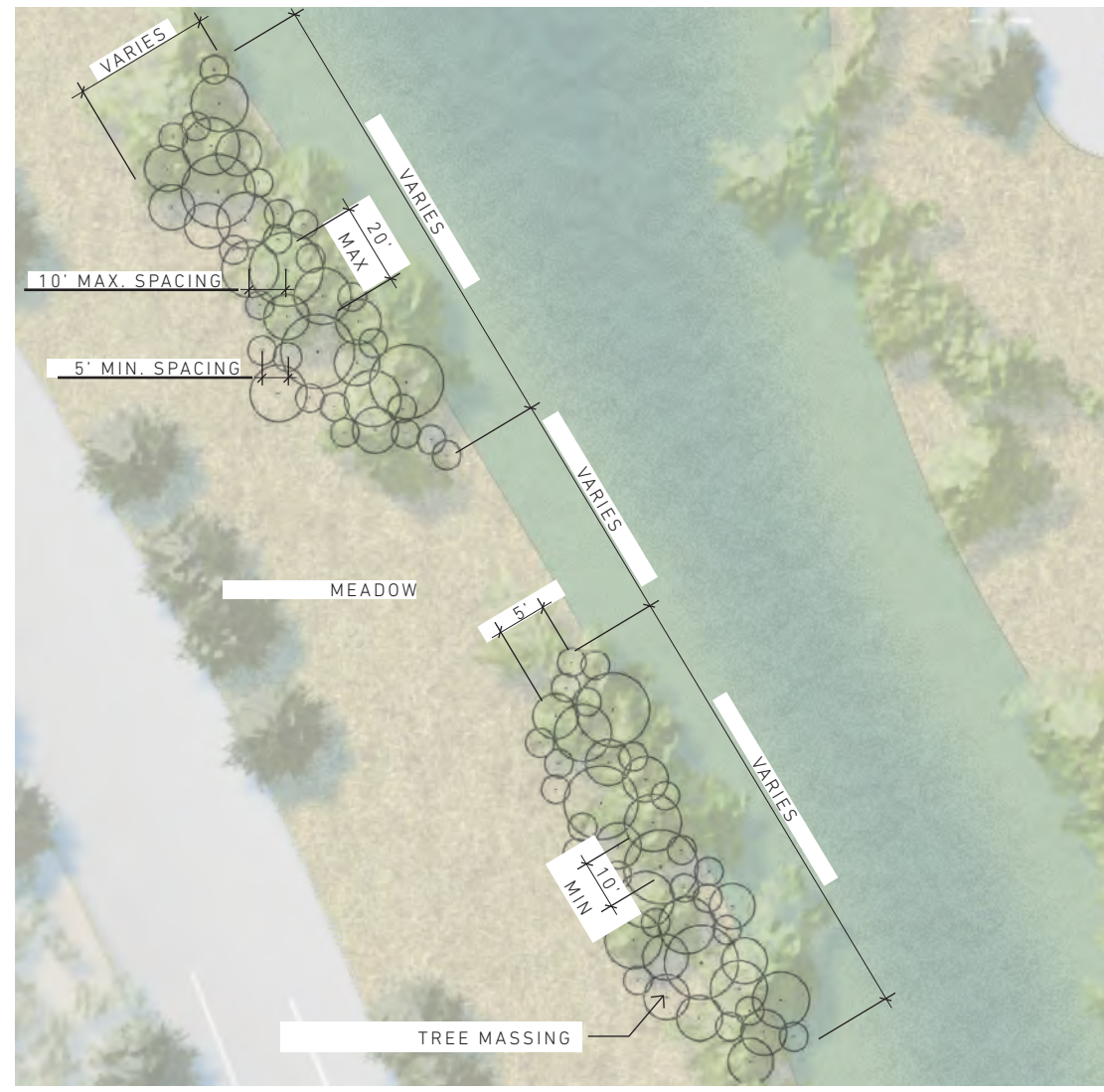
FIGURE 7
PRIMARY ROADWAYS - DETENTION
POND PLANTING & GRADING

- Ponds shall have a simple edge of meadow grass, wetland plantings (in emergent areas), and tree groupings.
- Ponds shall have a natural shape and be planted and graded in an attractive manner to be aesthetically integrated into the surrounding landscape.
- Meadow shall be same seed mix as swale and berm meadow mix.
- Trees shall be native canopy trees.
 - Species diversity: At least 8 species shall be used. No quantity of any given species shall comprise more than 20% of the overall quantity of trees
 - Installation sizes: trees are to be planted in a variety of sizes, ranging from 3-year seedlings to 1.5" caliper trees. No more than 60% of trees can be seedlings. At least 20% of trees shall be 1.5" caliper.
 - Tree spacing: tree species and sizes are to be randomly spaced in a staggered pattern between 4' and 10' on-center.
- Wetland mix shall be developed in consultation with a wetland ecologist.
- Diffused or bubbler type aeration devices are permitted in stormwater ponds. Fountains or any above-water aeration devices are prohibited.
- Generally, detention pond slopes (from pond shelf) should be an average of 12:1 slope, but no steeper than 6:1 and no more gradual than 20:1.
- Ponds may be constructed within the defined building and pavement setbacks.
- Plant species list: refer to Figure 18.



PRIMARY
PROJECT
DEVELOPMENT
SITE

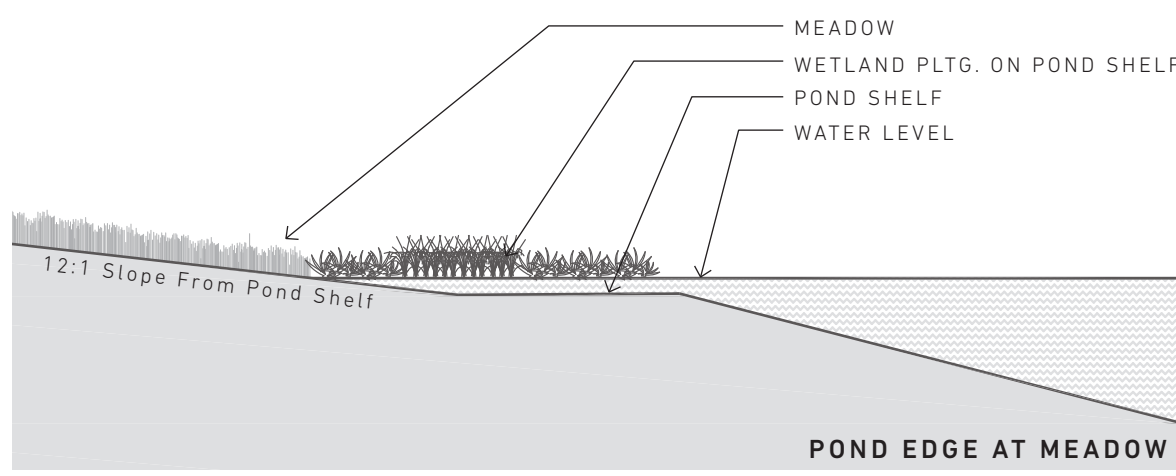
PLANT MASSINGS AT PONDS



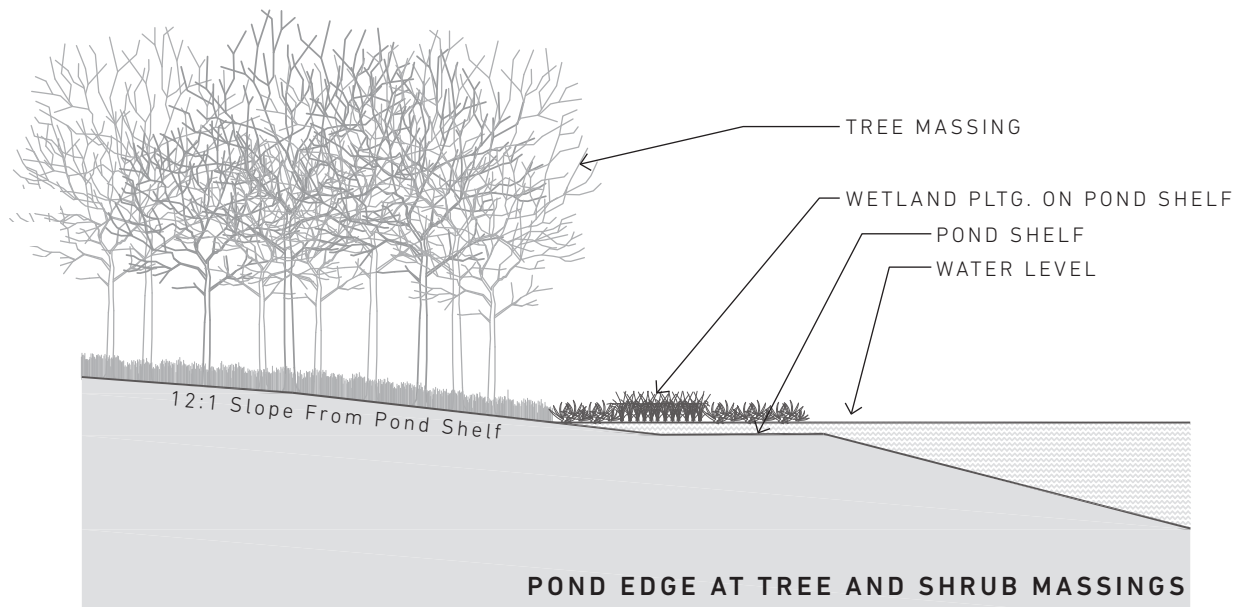
TREE PLANTINGS AT POND EDGE



EXAMPLE: MEADOW AT POND EDGE



POND EDGE AT MEADOW

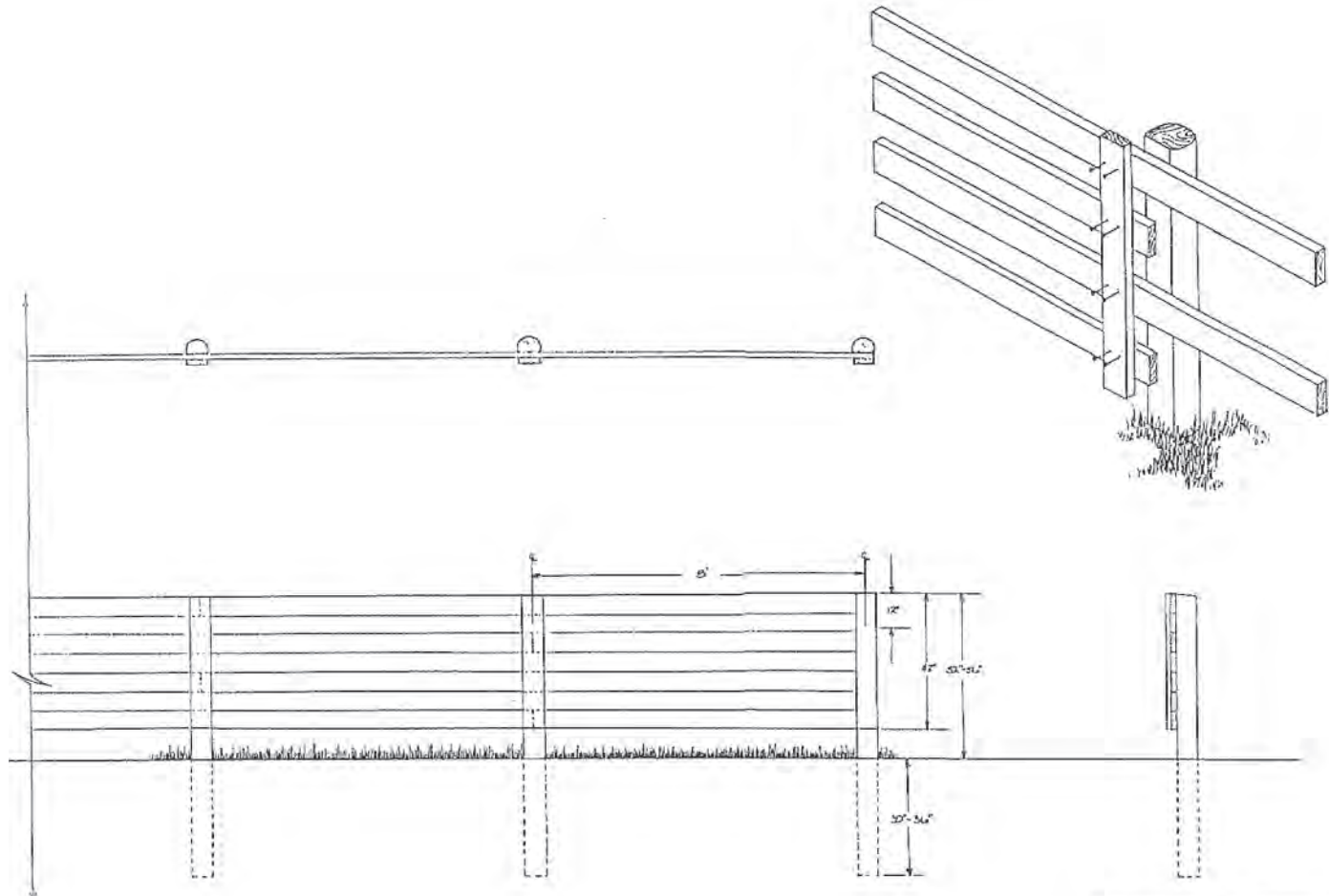


POND EDGE AT TREE AND SHRUB MASSINGS

PRIMARY ROAD - DETENTION POND PLANTING

FIGURE 8
PRIMARY ROADWAYS - RAIL FENCE &
LEISURE PATH

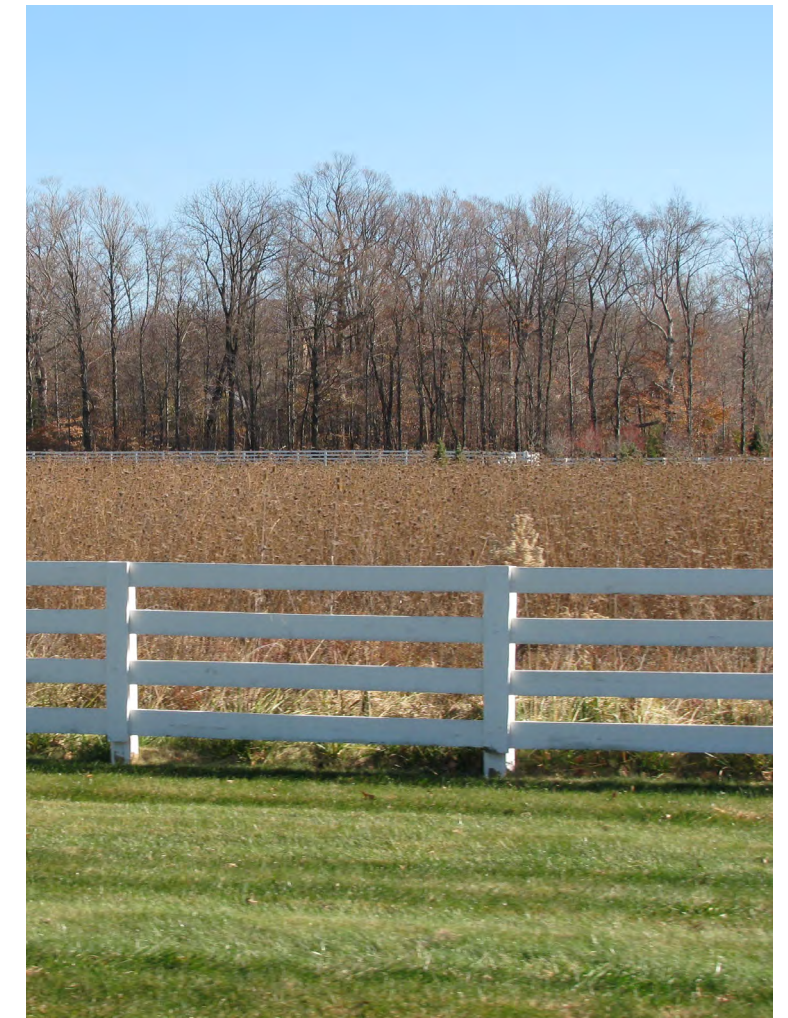
- Fence to be placed on both sides of road.
- Top of fence elevation to match (tolerance of +/- 6") on both sides of road.
- Fence to be located 2' away from leisure path.
- Fence to begin and terminate with a 10" x 10" post.
- Fence character to match the current standard City of New Albany four rail horse fence in each of the following characteristics:
 - Finish: barn and fence paint by Sherwin Williams. Color to be consistent with fencing throughout the City. Primer used for treated wood.
 - Rail: 1"x6"x16', treated rough sawn Poplar
 - Intermediate post: 6"x7'-6", treated Southern Yellow Pine, installed with post driver.
 - End post: 12"x12"x7'-6", treated Southern Yellow Pine.
- A leisure path shall be placed along the inside of the road.
- Leisure path location: 8' from back of curb, consistent.
- Leisure path width: 8' wide.
- Leisure path material: bituminous concrete (asphalt) paving.
- Turf shall be planted between the leisure path and roadway curb and between the leisure path and the rail fence.



FENCE DETAIL



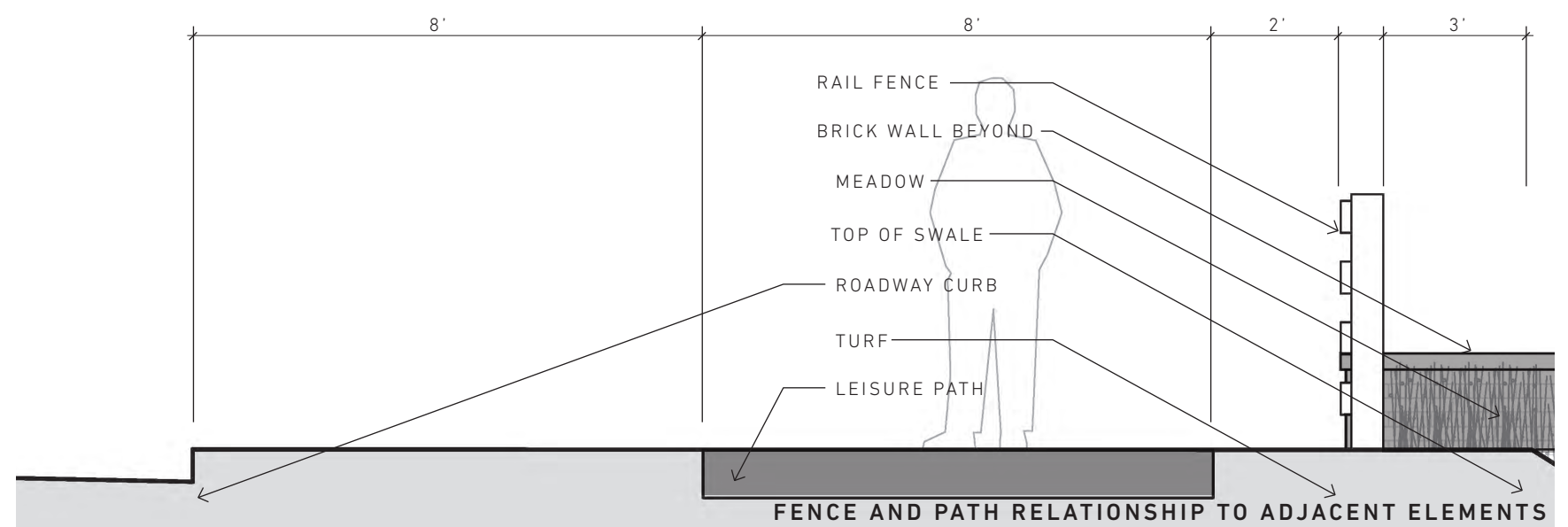
FENCE ELEVATION



FENCE WITH MEADOW GRASS BEHIND



LEISURE PATH WITH FENCE AND TREE LAWN

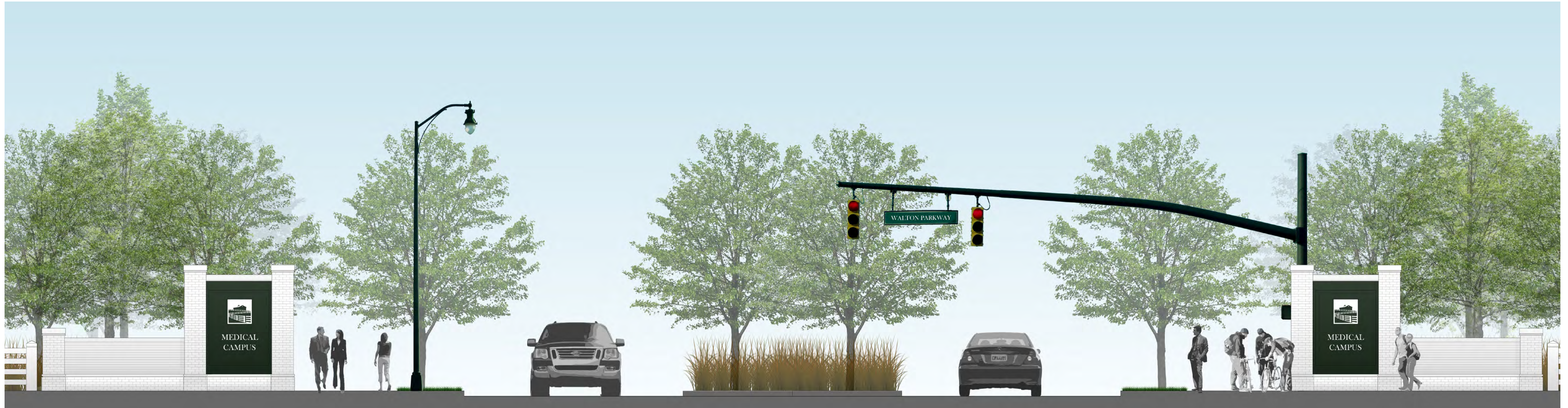


FENCE AND PATH RELATIONSHIP TO ADJACENT ELEMENTS

PRIMARY ROAD - RAIL FENCE & LEISURE PATH

FIGURE 9
PRIMARY ROADS - SIGNAGE & STREET LIGHTING

- All street lights shall match the optics, lamping, and style established within the existing Business Campus.
- Street light metal post, base, and luminaire shall be dark green, final color selection is to be coordinated with the City.
- Street lights shall be located in the middle of the tree lawn between the leisure path and back of road curb
- Street lights shall be spaced according to the current road bid documents, and coordinated with recommended street tree plantings. See Figure 14.
- Wayfinding from Business Park roadways shall direct all deliveries to the truck road.
- Signs shall be permitted at each drive off of the truck road, with an address and company name. The size and character of these signs shall match City regulatory signage.
- The size and character of street signs shall match street signs within the existing business campus. Street signs shall have a mix of upper and lower case letters.



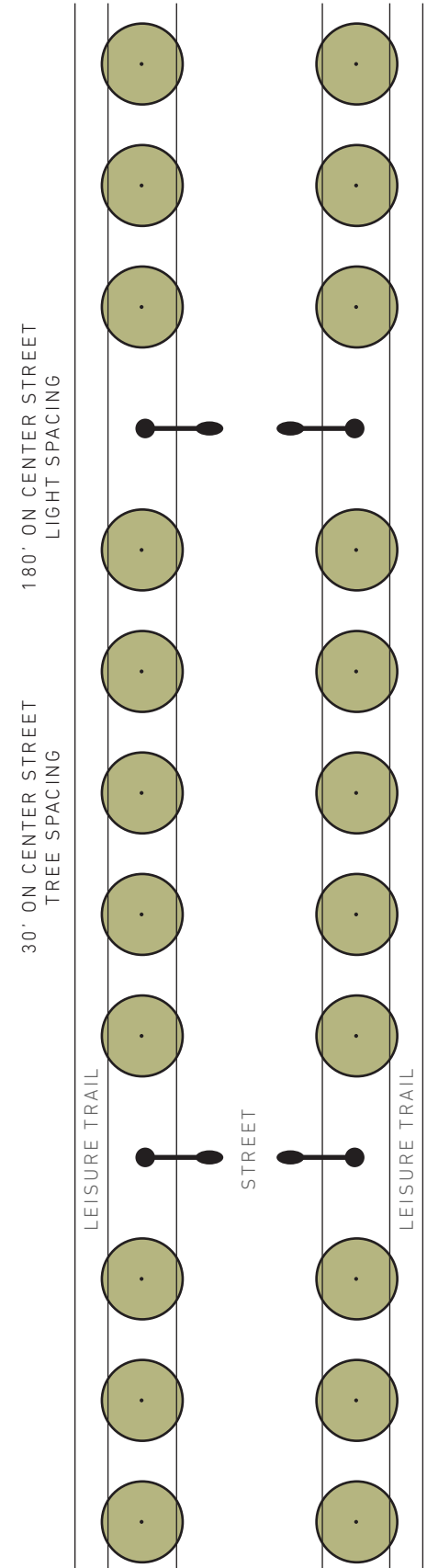
PROPOSED DISTRICT MARKERS



PRIMARY ROAD - SIGNAGE & STREET LIGHTING

FIGURE 10
PRIMARY ROADS - STREET TREE &
STREET LIGHT SPACING

- All street trees shall be canopy trees
- Trees shall be planted in middle of tree lawn between the leisure trail and back of road curb
- Trees shall be planted at a spacing of 30' on center.
- Street lights shall replace street tree locations every 180' (every sixth tree).
- Installation size: 2.5" in AEP easement, 3" caliper elsewhere.
- Tree species list: refer to Figure 18.



PRIMARY ROAD - STREET TREES

LANDSCAPE DESIGN STANDARDS

November 2021

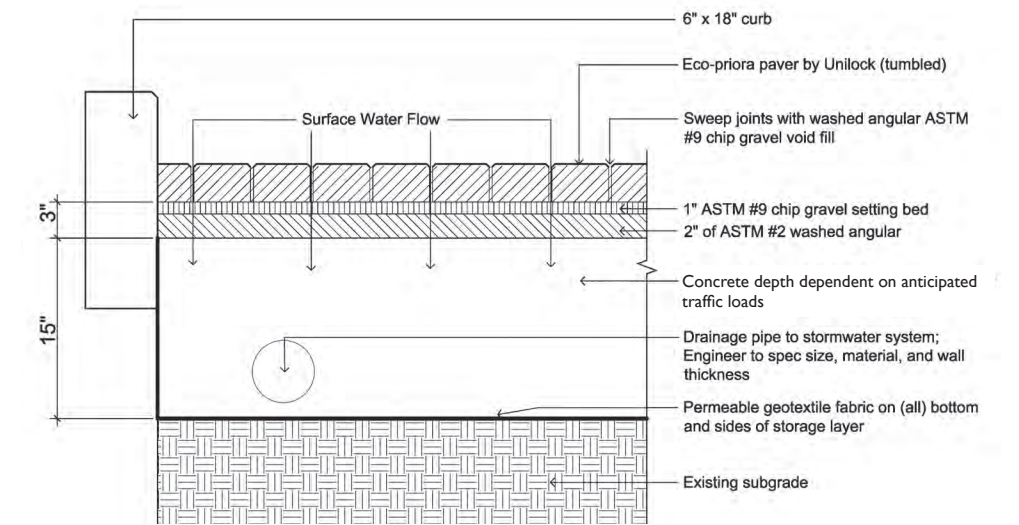
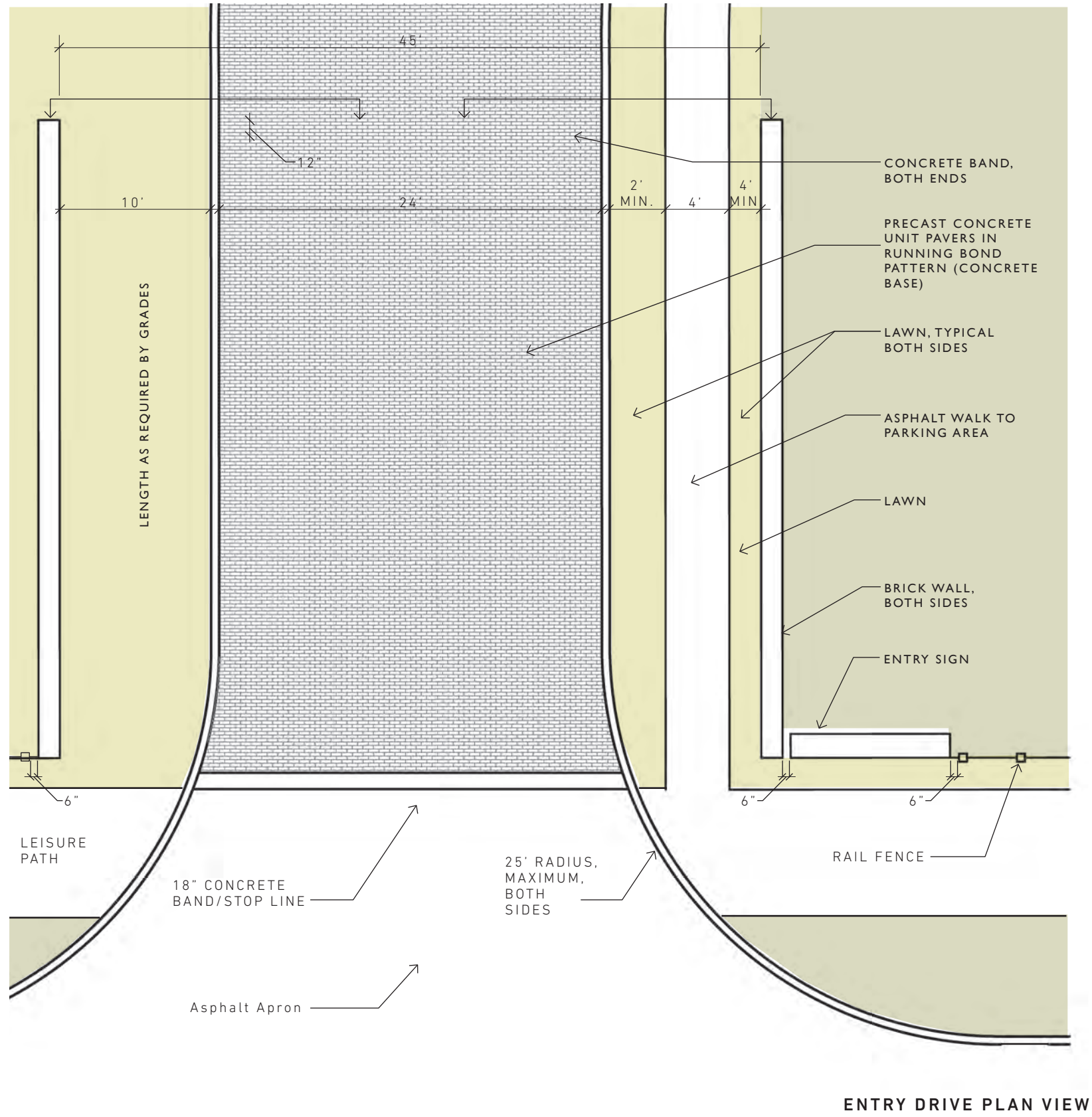
NEW ALBANY TECHNOLOGY MANUFACTURING DISTRICT

D e v e l o p m e n t S i t e

FIGURE 11
DEVELOPMENT SITE - PRIMARY ENTRY
DRIVE

Standards set forth below apply to primary vehicular entry drives for employees and visitors. Service drives (trucks) should be asphalt and can vary in width based on engineering (traffic) study.

- Width: drive shall be 24' wide.
- Radii of curbing from entry drive to road shall be 25' maximum.
- Roadway material shall be bituminous concrete
- Roadway material over bridge shall be as follows:
 - Pavers shall be Eco-Priora by Unilock, color: granite, texture: tumbled, size: rectangle (9.36" x 4.68" x 3.12")
 - Field paving shall be precast concrete pavers laid in a running bond pattern and set on an aggregate setting bed and permeable aggregate base.
 - A 12" wide concrete band shall separate the precast concrete pavers from the asphalt roadway.
 - Area of pavers shall equal the length of the bridge minus the two 12" concrete bands.
- Driveway pavers extend back to first parking or drive intersection.
- Pathway adjacent to entry drive shall be 4' wide minimum, and 6' wide maximum. If pathway is wider than 4' wide, additional width shall be split evenly on either side of the pathway centerline.
- Concrete band/stop line shall be 18" wide.



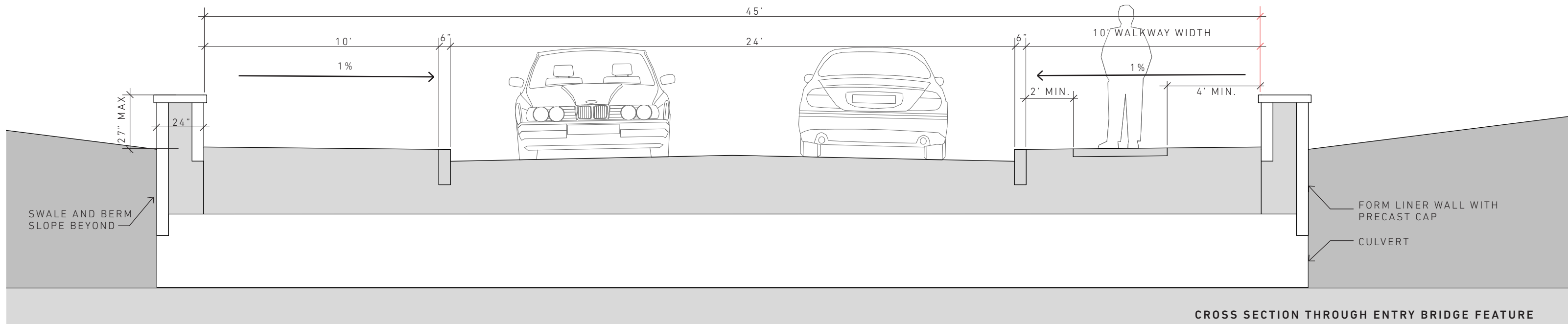
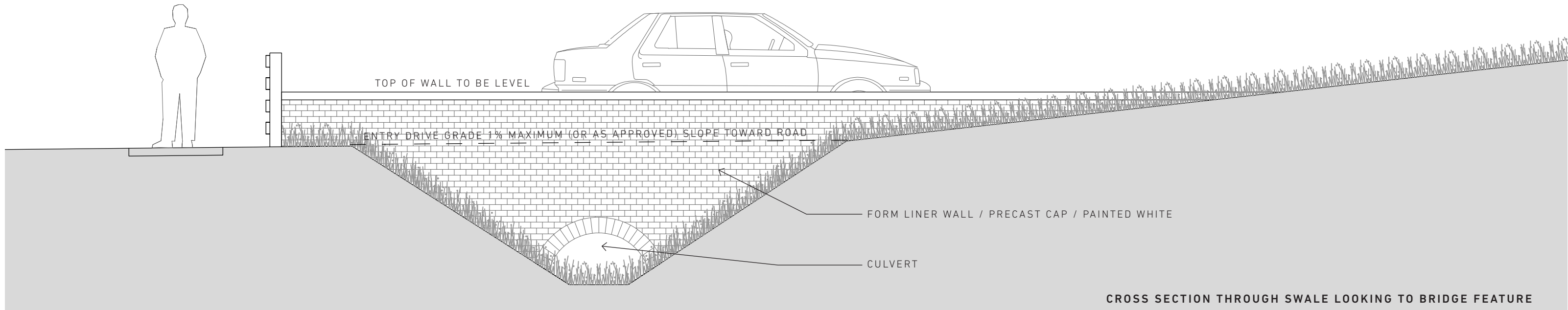
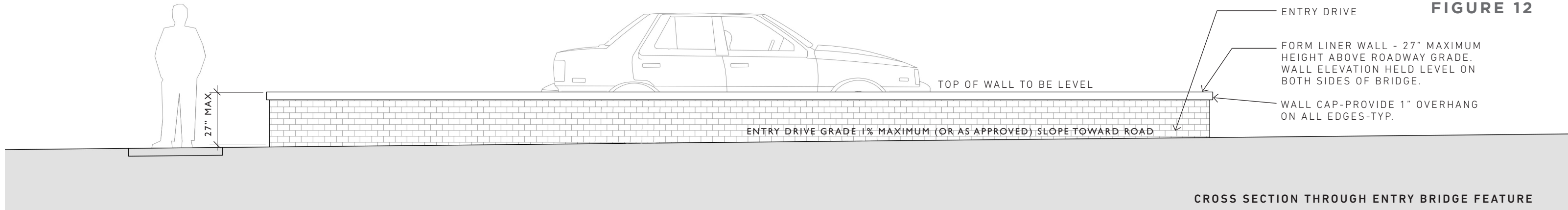
PRECAST CONCRETE UNIT PAVER IMAGE AND SCHEMATIC CONSTRUCTION DETAIL

DEVELOPMENT SITE - ENTRY DRIVE

FIGURE 12
DEVELOPMENT SITE - BRIDGE AT
ENTRY DRIVE

- Bridge wall shall be parallel with entry drive
- Face of bridge wall shall be located 10' away from back of entry drive curb
- Height of bridge wall shall be 27" above finish grade on entry drive side of wall at entrance adjacent to sign wall location (see Figure 17 for sign base details). Top of wall shall be held level.
- Wall width shall be 24".
- Wall Construction: cast in place concrete formliner. Paint color shall match color on fence. Finish face of form liner to be smooth and free of voids. Coordinate appropriate concrete mix design with structural engineer to provide this finished look.
- Capstone: white painted precast stone. minimum lengths of 4' with a thickness of 4". All sections to be equal. Provide 1" overhang on all edges.
- Culvert Size and Shape: arch-shaped or round precast concrete pipe equivalent to 4' diameter flow.
 - Example supplier: Rinker Materials (concrete arch pipe - 54" round equivalent)
- Additional vehicular lanes on entry drives may be warranted based on traffic volumes.

FIGURE 12

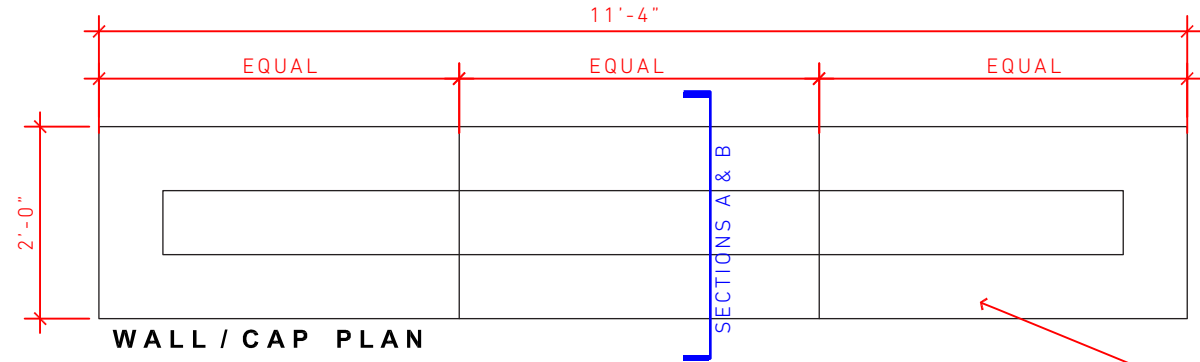


DEVELOPMENT SITE - BRIDGE AT ENTRY DRIVE

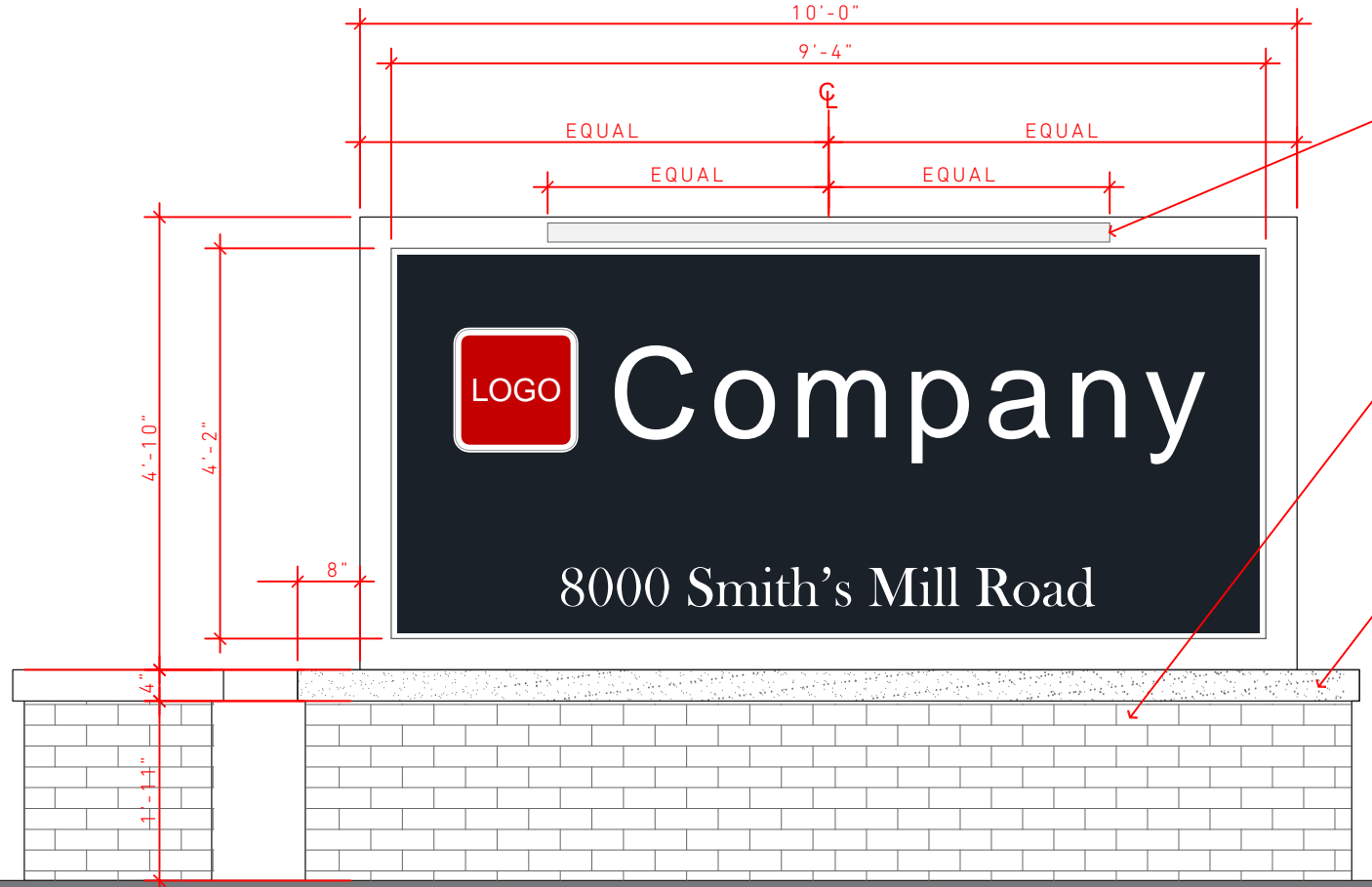
FIGURE 13
DEVELOPMENT SITE - PRIMARY
ENTRANCE SIGNAGE

- Sign shall be parallel with road and in line with white rail fence and end of bridge wall.
- Overall sign size (including brick base element): 11'-0" wide x 7'-2" tall. (Sign size can be assessed on a case-by-case basis - Size defined here is minimum size).
- Sign shall be comprised of a formliner concrete base and aluminum sign frame.
- Wall Base: cast in place concrete formliner. Paint color shall match color on fence. Finish face of form liner to be smooth and free of voids. Coordinate appropriate concrete mix design with structural engineer to provide this finished look.
- Capstone: white painted precast stone. Lengths as shown. Cap thickness: 4". Overhang: 1"-All Sides.
- Metal Sign Frame: painted aluminum, white, RAL 9003.
- Metal Sign Panel: painted aluminum, dark charcoal, RAL 7021.
- Sign Graphics and Type:
 - Letters: 1/2" thick aluminum letters - color: white [RAL 9003]. Letters mounted to face of sign panel (company names and addresses).
 - Colors: Max of Four Colors Permitted
 - Letters: White [RAL 9003]
 - Sign Panel: Charcoal [RAL 7021]
 - Company Logo: Two Color Max.
 - Note: Address font shall be Baskerville BT Regular. Address shall appear on single line.
- Sign Lighting
 - Hydrel: Rhythm-Linear LED Flood - See pages 36-38 for product cutsheet.

NOTE:
 1. All electrical / lighting is shown for design intent purposes only.
 II. All means / method / mounting / connections / etc. shall conform to all applicable state and local codes.



PRECAST CAP PAINTED
 COLOR: WHITE [RAL-9003]



HYDREL RHYTHM-LINEAR LED FIXTURE
 -SEE SPECIFICATION FOR MODEL AND MOUNTING HARDWARE

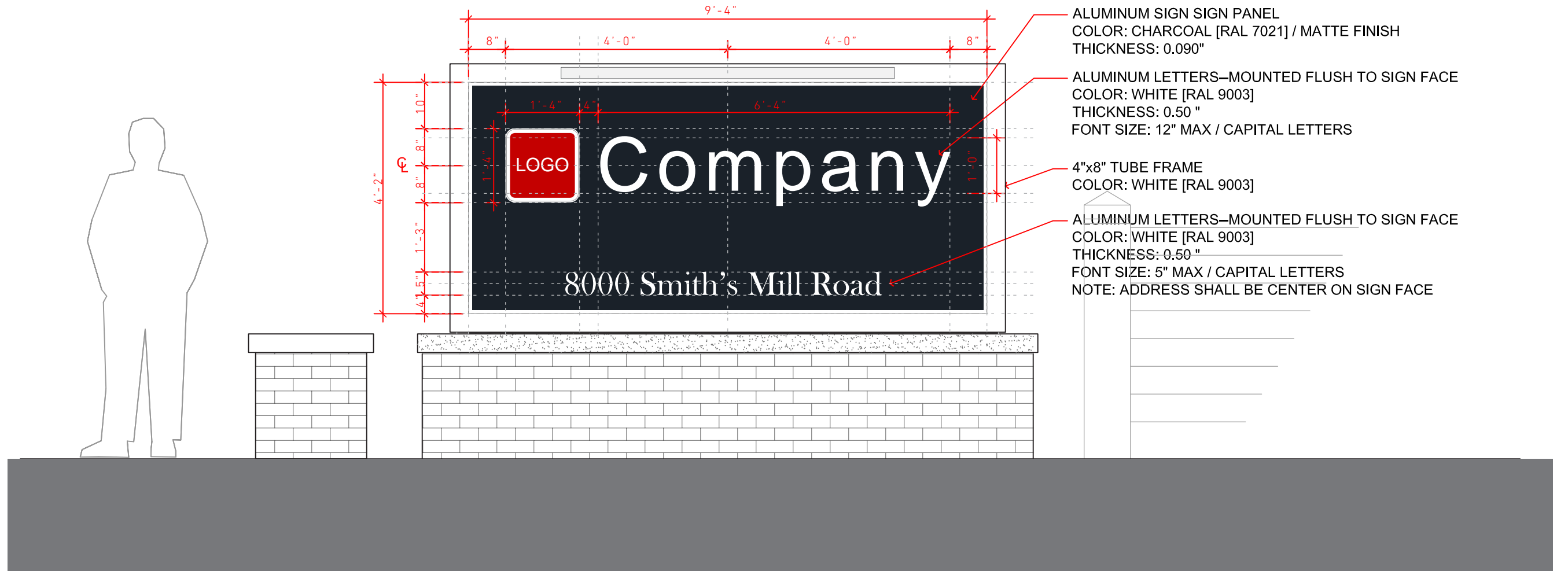
CRITICAL: SET FORMS ACCORDINGLY TO PROVIDE A 'FULL BRICK' UNIT AT TOP OF CAST WALL [1'-11"] ABOVE FINISH GRADE

PRECAST CAP PAINTED
 COLOR: WHITE [RAL-9003]

DEVELOPMENT SITE - PRIMARY ENTRANCE SIGNAGE

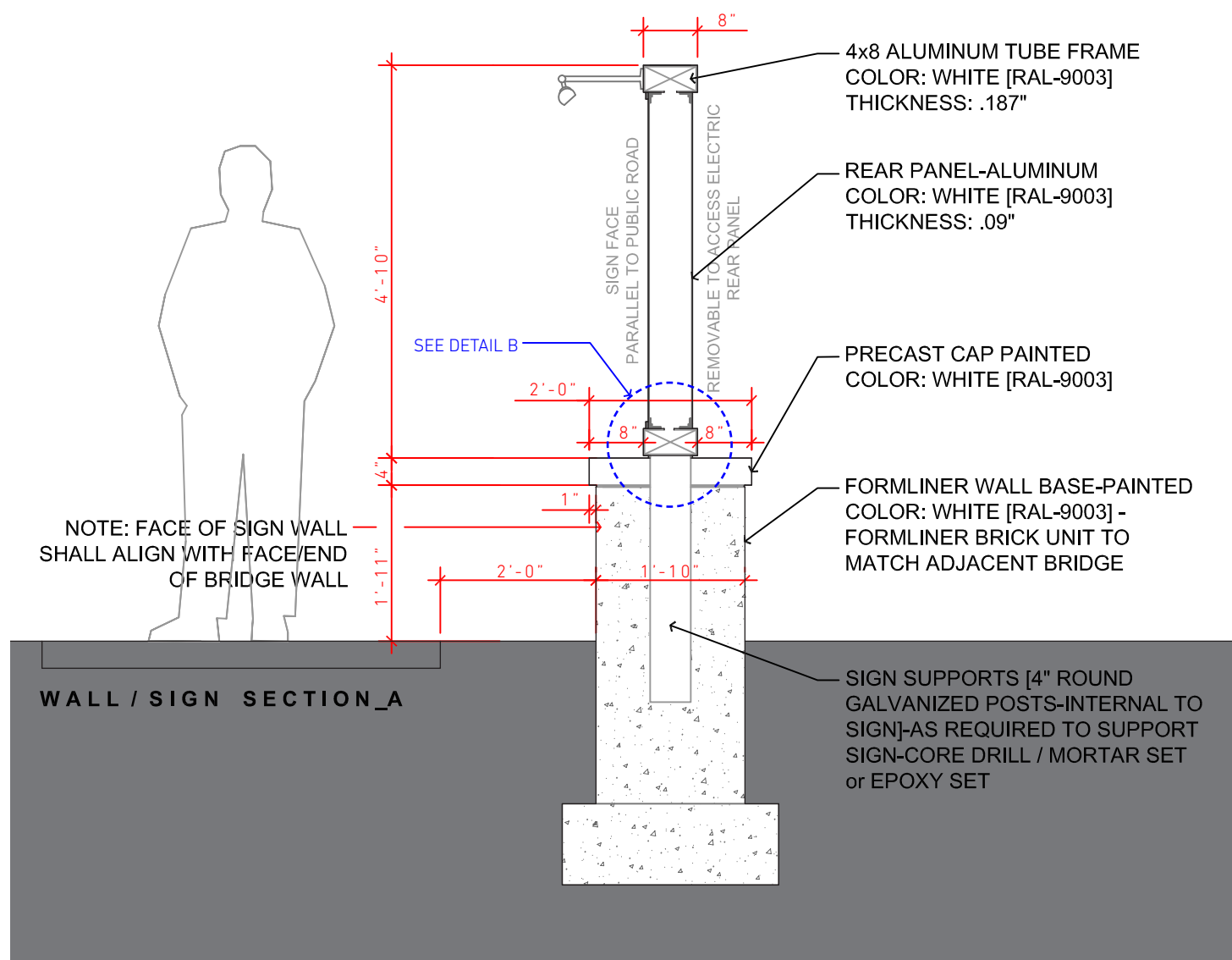
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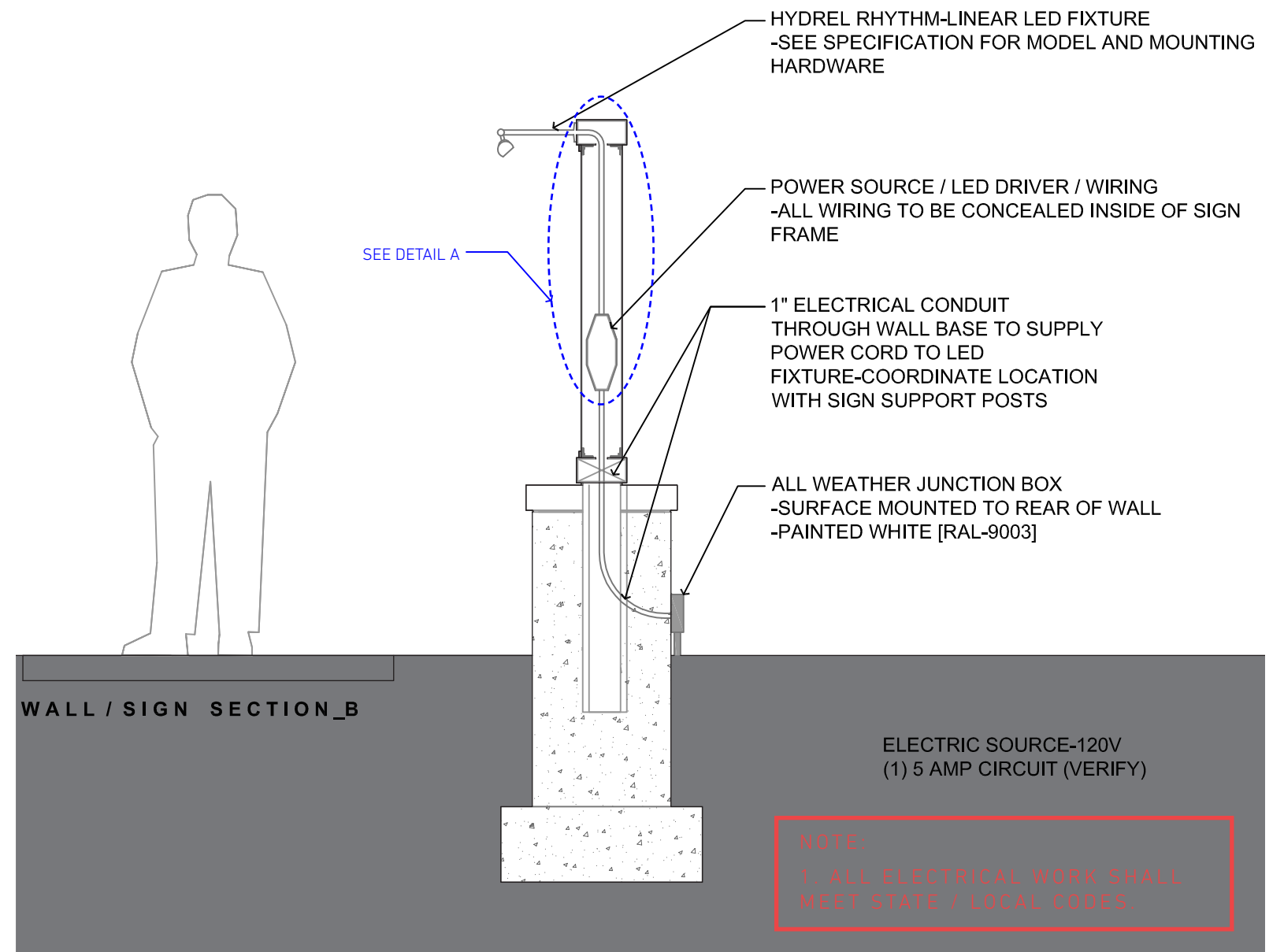


PROPERTY ENTRANCE SIGN_ELEVATION

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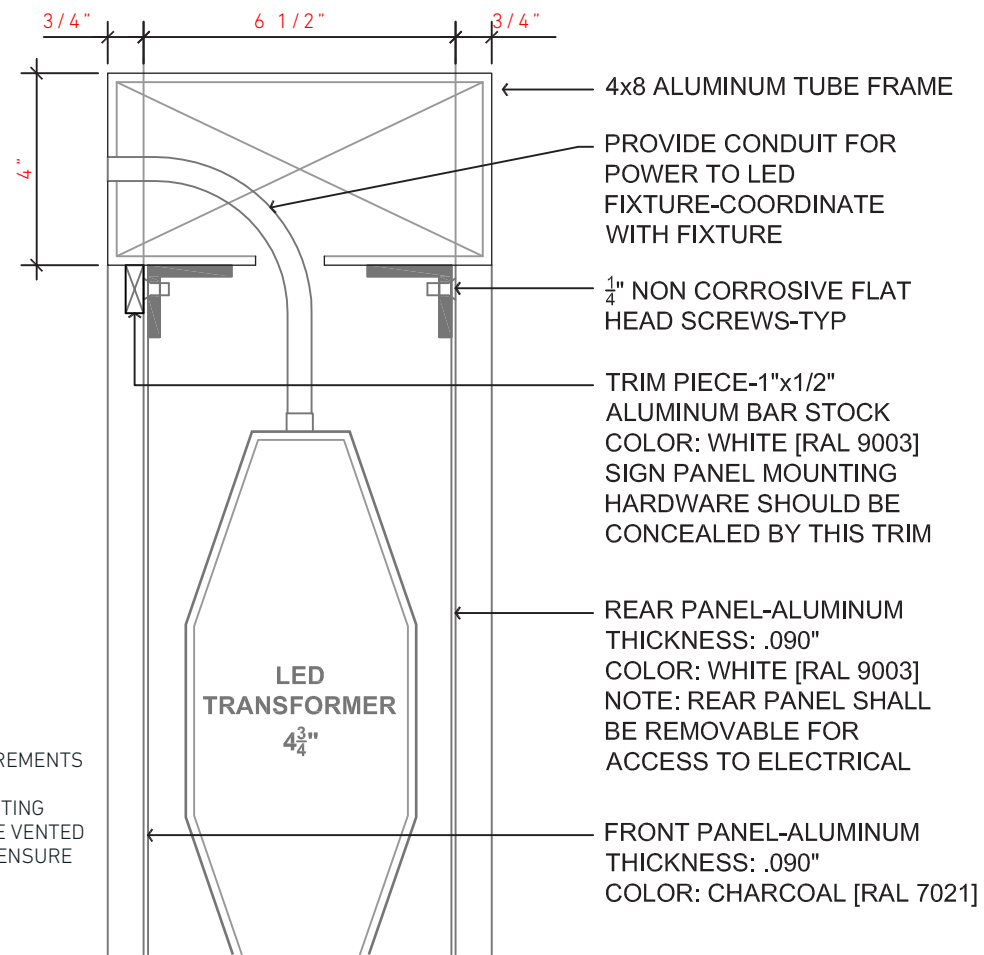
PROPERTY ENTRANCE SIGN_SECTION A



PROPERTY ENTRANCE SIGN_SECTION B

NOTE:

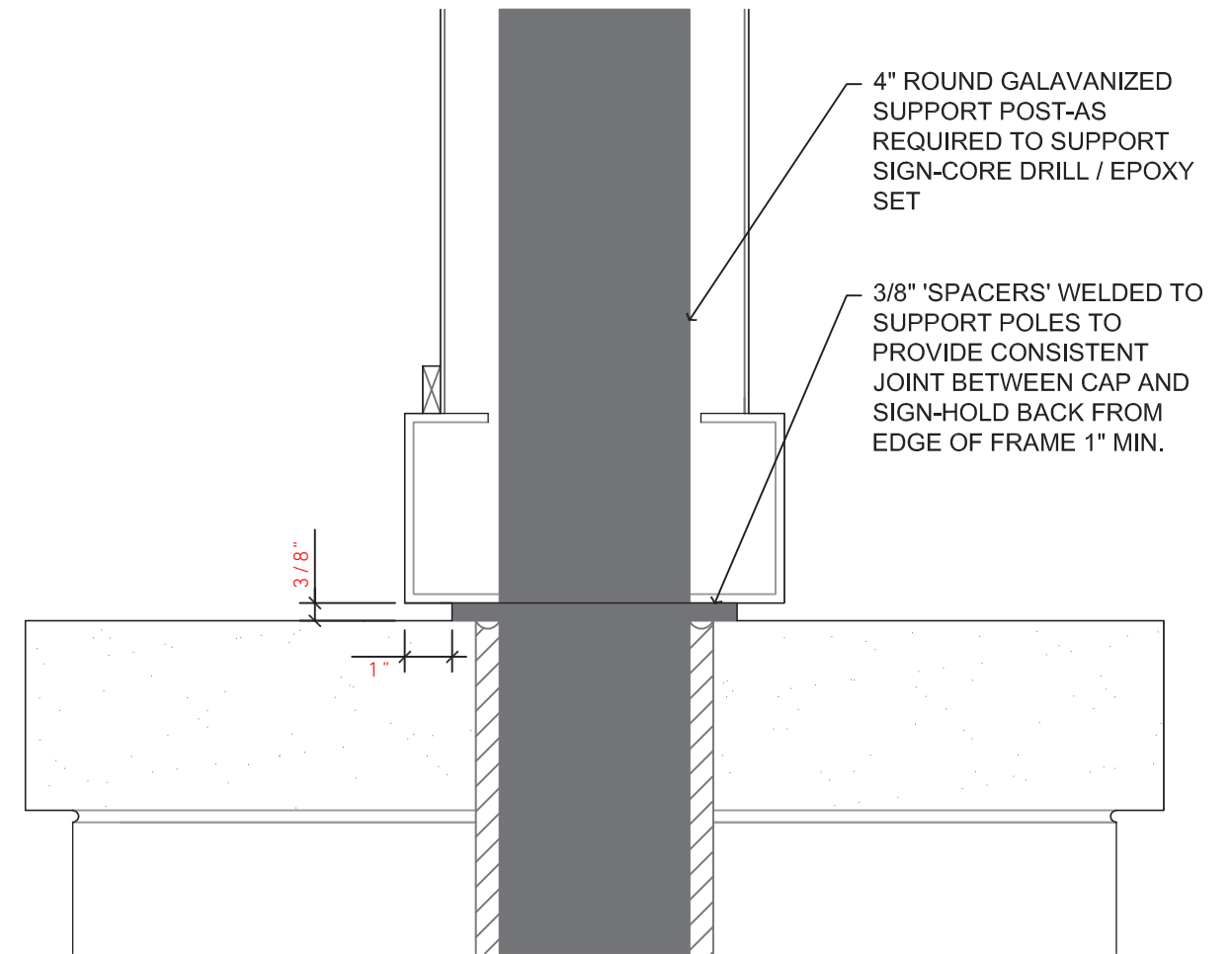
- 1. All electrical / lighting is shown for design intent purposes only.
- II. All means / method / mounting / connections / etc. shall conform to all applicable state and local codes.



NOTE:
CONFIRM AIRFLOW REQUIREMENTS
IN REGARDS TO THE LED
TRANSFORMER WITH LIGHTING
MANUFACTURER. PROVIDE VENTED
ACCESS AS REQUIRED TO ENSURE
PROPER VENTILATION.

A PANEL ATTACHMENT
SCALE: 3" = 1'-0"

DETAIL A



B MOUNTING DETAIL
SCALE: 3" = 1'-0"

DETAIL B



CE-5829 LINEAR LED FLOOD

DESCRIPTION

Hydrel's CE-5829 Linear LED Flood series is a knuckle mount, versatile and distinct LED-based range of linear floodlights, providing designers unlimited options to illuminate and enhance the architecture for interior and exterior applications. Clean, sophisticated lines blend seamlessly with architectural elements and create dramatic washes of light for spectacular effects. Luminaire designs balance day form with function while incorporating the smallest surface mountable power LED's available today. Designed to optimize thermal management, Rhythm luminaires deliver industry best lumen maintenance of 50,000 hours life at 615 mA with 70% lumen maintenance. CE-5829 unique custom finish includes a complete white finish scheme including cord, all external housing and attachment components.

Enclosure Construction: Designed to marry the day-form of the Rhythm wall mount plate, the SSBR power supply enclosure is a wet location housing suitable for surface mounting.

FEATURES & SPECIFICATIONS

MATERIAL: **FIXTURE** - Extruded 6063-T4 aluminum with die cast A360 aluminum mounting. All fasteners are stainless steel.

SSBR - Copper-free cast aluminum A360. All aluminum materials treated prior to anodizing.

LENS: High strength optical grade clear acrylic.

MOUNTING: Knuckle Mount (KM).

SOURCE: Quantity six (6) Rebel™ LED's per linear foot, driven at 615 mA, with maximum power consumption of 13 watts per linear foot. Lumen Maintenance of individual LED light sources have been independently tested to IESNA LM-80 standards. (NOTE: LM-80 does not cover measurement of luminaire.)

POWER SUPPLY: 60W power supply is provided standard with NEMA rated enclosure, and may be remotely located up to 20' (w/ 18AWG). Two (2) 60W power supplies and two (2) NEMA rated enclosures required for 6' luminaires.

VOLTAGE: MVOLT (120-277V) 60HZ.

DISTRIBUTION: 55° Wall Wash Distribution. All photometry tested to IESNA LM-79 Standards.

OPTIONS: EARM12 - Extended Arm 12" (Included).

FASTENERS: Stainless Steel.

FINISH: : WH - White

WARRANTY: Five (5) year limited warranty. Consult factory for details.

NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension: *Used for information purposes only. It does not govern manufacturing or inspection requirements.* (ANSI Y14.5-1973)

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2/6/12
CE-5829 LED

IP66

TYPE	JOB NAME
PART NUMBER	
CE-5829	
APPROVALS	

20660 Nordhoff St., Suite B
Chatsworth, CA 91311
Phone: 866.533.9901
Fax: 866.533.5291
www.hydel.com

LIGHTING CUT SHEET #1



IP66

RHYTHM ORDERING INFORMATION

60-50 Hz Application

Choose the boldface catalog nomenclature that best suits your needs.

PART NO.

EXAMPLE:

Model	LED Color	Mounting Options	Cord Length⁵	Accent Finish
<input type="checkbox"/> RHY2 <input type="checkbox"/> RHY3 <input type="checkbox"/> RHY4 <input checked="" type="checkbox"/> RHY6 <input type="checkbox"/> RHY8	<input type="checkbox"/> WHT53K White <input checked="" type="checkbox"/> WHT41K White <input type="checkbox"/> WHT30K White <input type="checkbox"/> RED Red <input type="checkbox"/> GRN Green <input type="checkbox"/> BLU Blue	<input checked="" type="checkbox"/> EARM Extended Arm Specify length 6", 12" <input type="checkbox"/> EASRM Extended Arm with Strut 12", 18", 24", 36"	<input checked="" type="checkbox"/> CSL20 20' of cord (18 AWG)	Optional <input type="checkbox"/> RDA Red Accent <input type="checkbox"/> GNA Green Accent <input type="checkbox"/> BUA Blue Accent
Power Supply	Voltage	Mounting³	Accessories	Options
<input checked="" type="checkbox"/> SSBR ² Surface Box Rhythm <input type="checkbox"/> NRPS ² NEMA Power Supply <input type="checkbox"/> L/PS ¹ Less Power Supply <input type="checkbox"/> BPCA ⁶ Polymeric Combo Box Aluminum Lid <input type="checkbox"/> BPCB ⁶ Polymeric Combo Box Bronze Lid	<input checked="" type="checkbox"/> MVOLT 120-277VAC <input type="checkbox"/> 12 12VDC	<input checked="" type="checkbox"/> ASM Adjustable Surface Mount <input type="checkbox"/> SASM Side Adjustable Surface Mount <input type="checkbox"/> KM Knuckle Mount	External <input type="checkbox"/> HVSR Half Visor <input type="checkbox"/> FVSR Full Visor	<input type="checkbox"/> LDIM ⁴ 0-10V Dimming <input type="checkbox"/> ETE End-to-End
Distributions	Finish			
<input type="checkbox"/> NSP Narrow Spot <input type="checkbox"/> MFL Medium Flood <input type="checkbox"/> FL Flood <input checked="" type="checkbox"/> WDL Wide Flood <input type="checkbox"/> WWD Wall Wash Distribution	<input type="checkbox"/> BLA Black Anodized <input checked="" type="checkbox"/> RAL9003 White (custom color) **Note: Entire fixture, cord & end caps to be RAL9003. 20' power cord is 18AWG.			

****SSBR notes:** 1/2" NPT watertight conduit connect to SSBR conduit hub. (2) SSBR power supplies per 6ft fixture

LIGHT ENGINE SPECIFICATIONS

COLOR	TYPE	COLOR TEMP	CRI	QTY / LINEAR FOOT	LUMENS / WATT	LUMENS / LINEAR FOOT	INPUT WATTS / LINEAR FOOT
White (WHT53K)	REBEL	5300° K	70	6	75.64	950	12.56
White (WHT41K)	REBEL	4100° K	70	6	75.64	950	12.56
White (WHT30K)	REBEL	3000° K	85	6	46.18	580	12.56
Red (RED)	REBEL	627 nm		6	33.43	440	13.16
Green (GRN)	REBEL	530 nm		6	75.64	950	12.56
Blue (BLU)	REBEL	470 nm		6	19.90	250	12.56

Notes:

- L/PS requires remote 12V +/- 5% DC Power Supply at Site. If L/PS then 12 required.
- Quantity (2) Two Power Supplies provided with RHY6 & RHY8 models.
- Two (2) horizontally adjustable mounting arms provided with RHY2, RHY3, and RHY4. Three (3) arms provided with RHY6 and RHY8.
- If LDIM is chosen, SSBR required.
- All fixtures shipped with 20' cord (18 AWG).
- For ground mount applications only.

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10/25/11
Rhythm

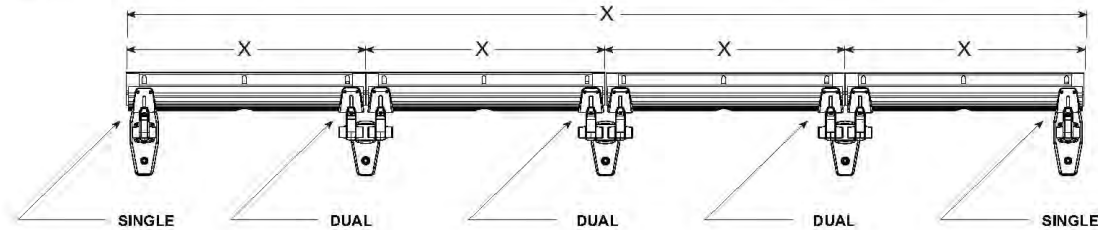
NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension: *Used for information purposes only. It does not govern manufacturing or inspection requirements.* (ANSI Y14.5-1973)

20660 Nordhoff St., Suite B
Chatsworth, CA 91311
Phone: 866.533.9901
Fax: 866.533.5291
www.hydel.com

LIGHTING CUT SHEET #2

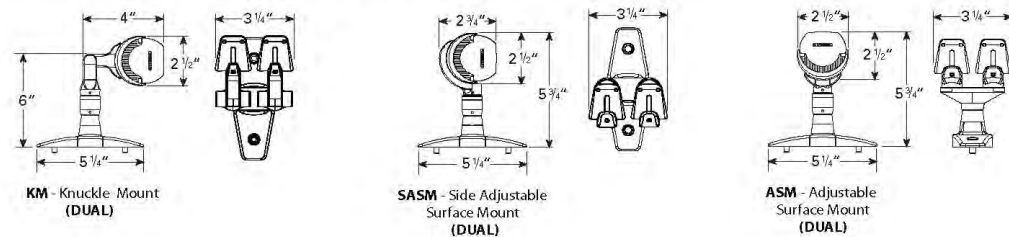
END-TO-END SYSTEM (ETE)

When specifying end-to-end (ETE) option, each luminaire will ship with one single and one dual mounting configuration, ensuring ease of specification and installation everytime.



Refer to housing chart on first page for actual lengths.

ETE - DUAL MOUNT DIMENSIONS



NEMA RATED SURFACE BOX (SSBR)

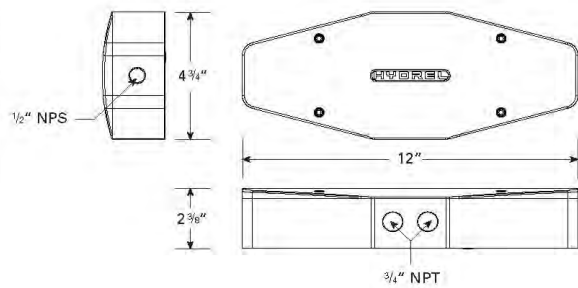
Enclosure Construction: Designed to marry the day-form of the Rhythm wall mount plate, the SSBR power supply enclosure is a wet location housing suitable for surface mounting. The SSBR box is available with side conduit entries or standard with back mounting over recessed splice box.

MATERIAL: Copper-free cast aluminum A360. All aluminum materials treated prior to anodizing.

FINISH: Black powder coat

FASTENERS: Stainless steel tamper resistant

LISTING: CSA, CSA_{US}



NRPS - NEMA RATED POWER SUPPLY

DESCRIPTION:

Lightweight, compact LED driver designed for remote applications at a maximum of 50 feet. Integrated wiring compartments for easy installation and intended for both indoor/outdoor applications. (UL wet location listed).

SPECIFICATIONS:

MATERIAL: Lightweight extruded aluminum case.

CONDUIT: 1/2" NPT Side with input access plate.

VOLTAGE: MVOLT (120 - 277).

CONSTANT VOLTAGE: 12 Volt DC Calibrated for 5 amps output.

PROTECTION: Over-Voltage, Over-Power and Short-Circuit Protection. Has auto-recovery feature.

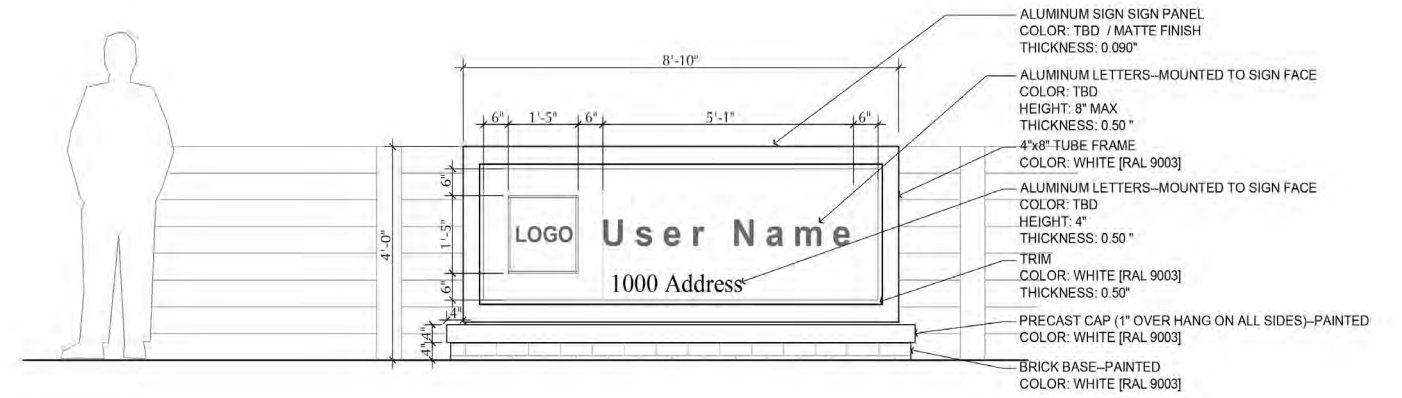
TYPE	JOB NAME
PART NUMBER	
APPROVALS	

NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension. "Used for information purposes only. It does not govern manufacturing or inspection requirements." (ANSI Y14.5-1973)

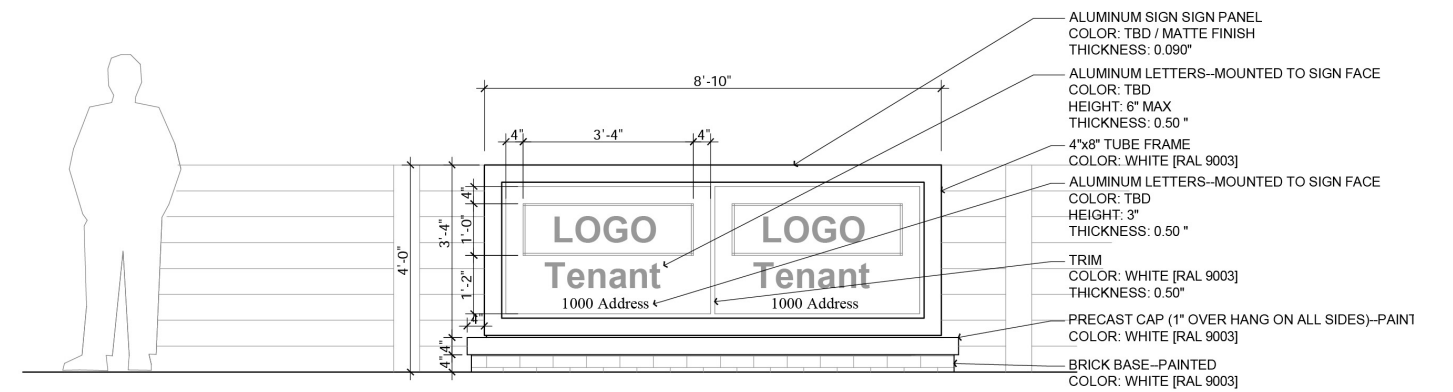
FIGURE 14
DEVELOPMENT SITE - INTERIOR
PROPERTY SIGNAGE

In the special case of secondary signage needed (visible from the public ROW), including address, directional, and other signage required by the state and federal agencies, the following standards shall be met.

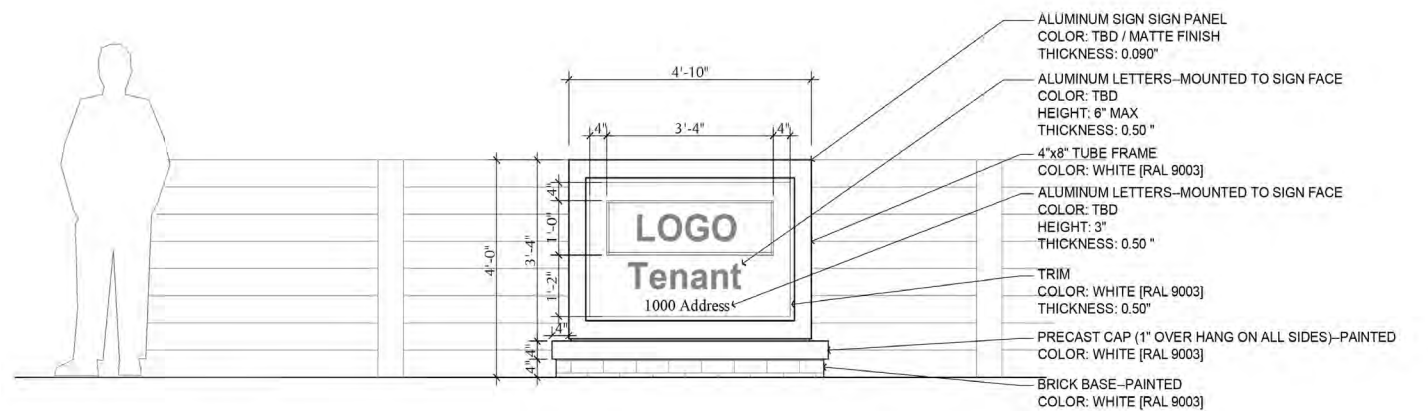
- Sign shall be parallel with road and in line with white rail fence and end of bridge wall.
- If multiple tenants are to be listed, tenants should be included on one sign.
- Refer to Figure 18 exhibits for sign details (materials, sizing, placement).
- In the case of a tenant needing to remain unlisted, an address only sign may be approved to be placed along the fence - as illustrated on the following page.
- Additional internal signage, not seen from the exterior of the site, is permitted by right. The quantity and size of these signs shall be determined by the developer.



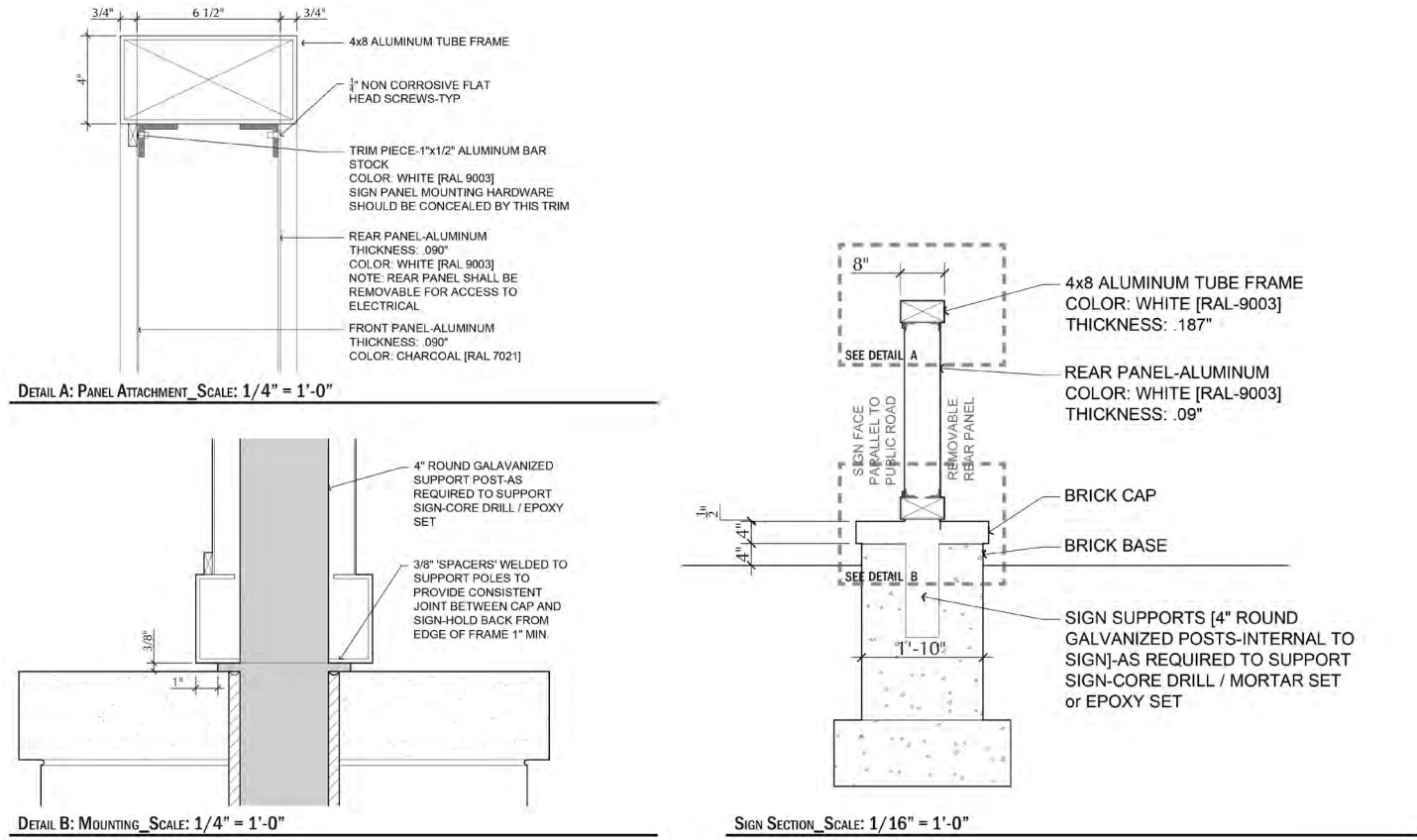
Secondary - Single Tenant Sign



Secondary - Multi-Tenant Sign



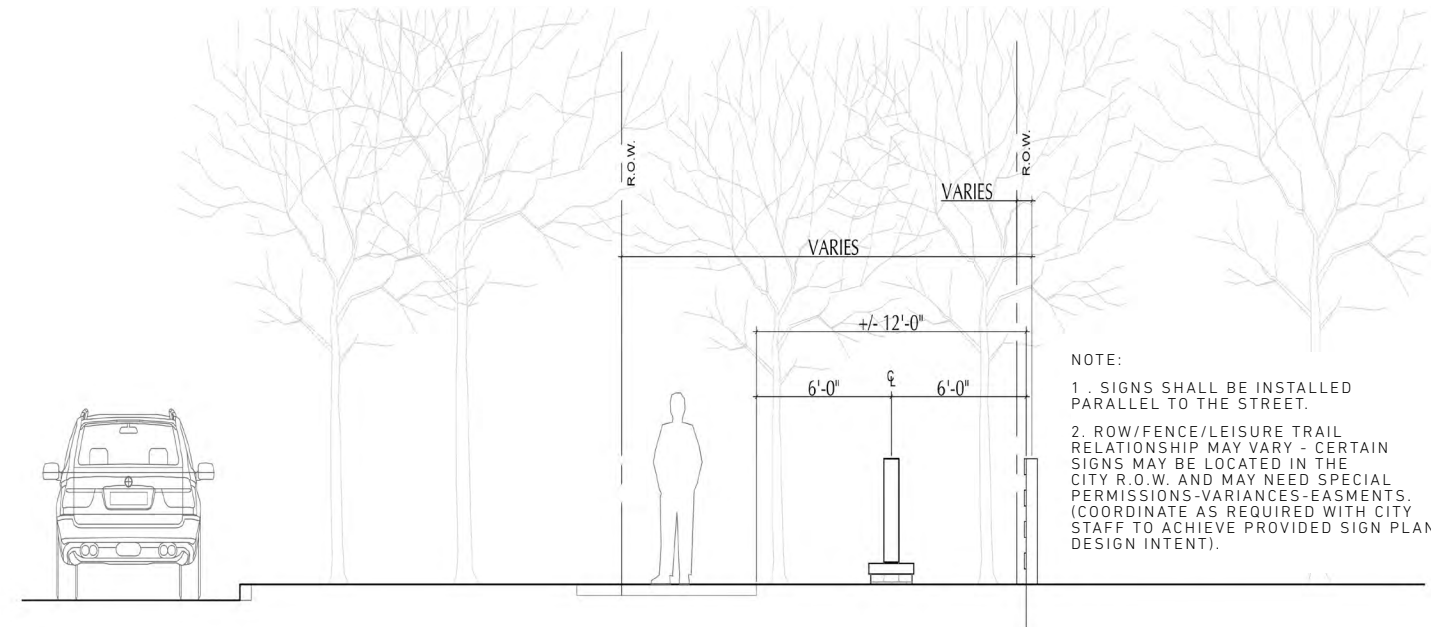
Secondary - Single Tenant Sign



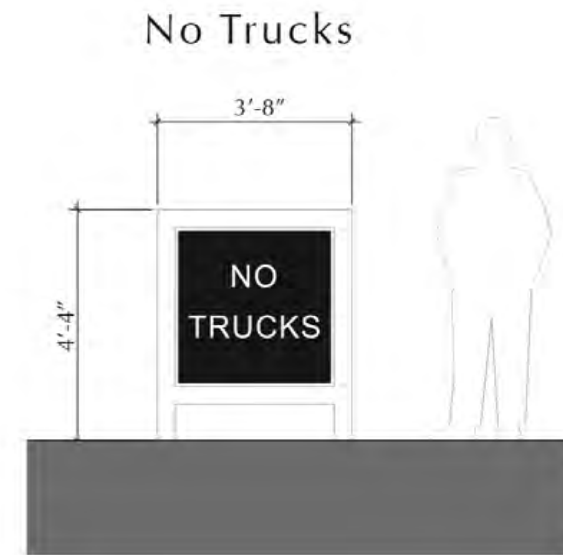
Secondary - Tenant Sign Detail



Secondary - Address Only Sign



Secondary - Tenant Sign



Wayfinding Signage

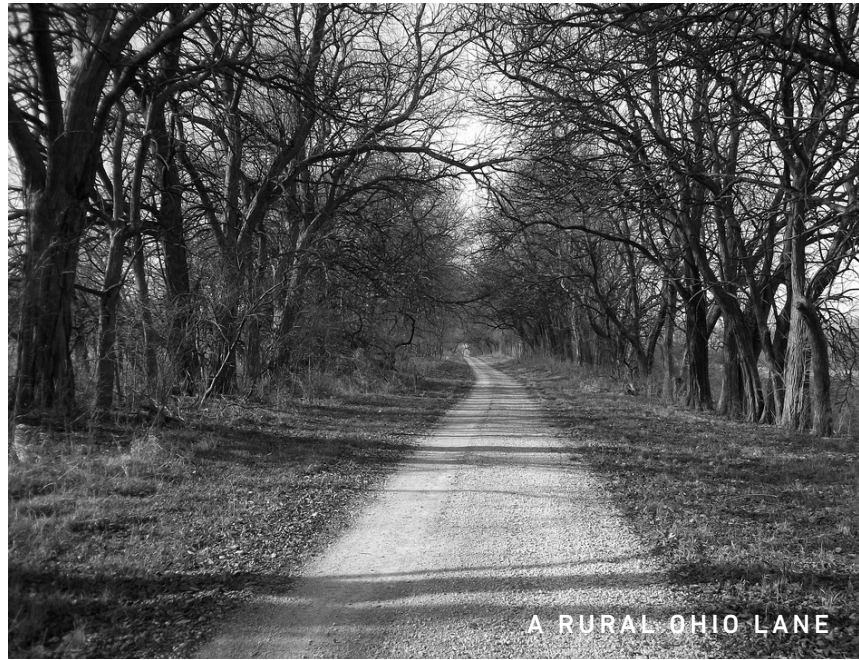
- Wayfinding Signage Materials:**
- Frame: 4" Steel Tube
 - Frame Color: Powder-Coated White [RAL 9003]
 - Sign Panel: 36" x 36" Aluminum Sign Panel
 - Sign Color: Charcoal [RAL 7021]
 - Company Name: 5" White Letters, Font: TBD by Company
 - Address: 2.5" White Numbers, Font: New Baskerville
 - Street Name: 2.5" White Letters, Font: New Baskerville

FIGURE 15
DEVELOPMENT SITE - FRONT YARD
PLANTING

- Refer to Berm Planting where parking areas abut the back of road berm.
- All front yard plantings shall be meadow and the occasional canopy tree grouping.
- Species diversity: At least 5 species shall be used throughout front yard plantings. No quantity of any given species shall comprise more than 40% of the overall quantity of trees in the front yard plantings.
- Installation sizes: trees are to be planted in a variety of sizes, ranging from 1" to 2" caliper trees. No more than 60% of trees can be 1" caliper.
- Tree spacing: tree species and sizes are to be randomly spaced in a groups of 3 to 6 trees, and spaced between 12' and 18' apart within groupings. Distribution of groupings shall be as generally shown on the overall plan.
- Lane tree plantings shall be planted 6' on center, consistently offset 8' from the end of the entry drive.
- Tree species list: refer to Figure 18.



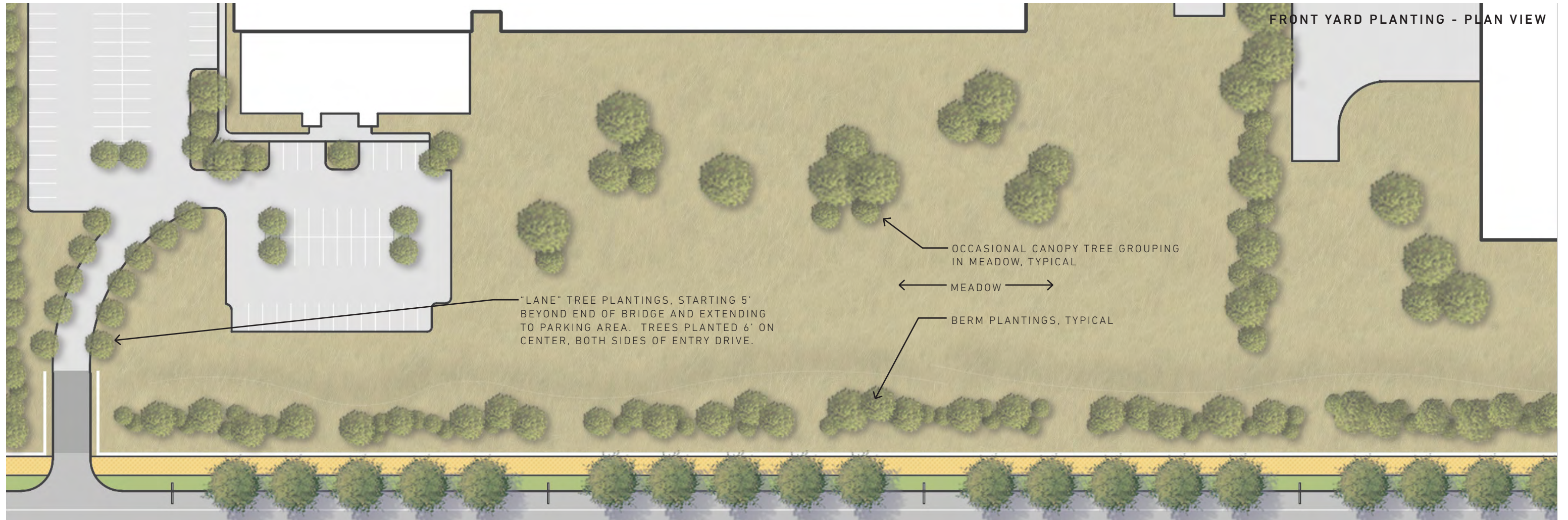
LARGE BUILDING IN MEADOW



A RURAL OHIO LANE



TREE GROUPINGS IN MEADOW



DEVELOPMENT SITE - FRONT YARD PLANTING

FIGURE 16
DEVELOPMENT SITE - HEDGEROW
PLANTING

The following standards apply to Primary Development Sites.

- "Hedgerows" shall be planted between properties.
- Hedgerows shall consist of large deciduous shade and understory trees. Plant material shall be tightly spaced and comparable to the existing mature agricultural hedgerows surrounding the district.
- To either side of the property line, a 12' wide area shall be planted with native trees as a hedgerow.
- Where hedgerows are planted in swales, begin hedgerow plantings 3' upslope from the bottom of the swale.
- Species diversity: At least 5 species shall be used. No quantity of any given species shall comprise more than 40% of the overall quantity of trees in the hedgerow.
- Installation sizes: trees are to be planted in a variety of sizes, ranging from 3-year seedlings to 1" caliper trees. No more than 60% of trees can be seedlings. At least 20% of trees shall be 1" caliper.
- All installed plant material will require tree protection until the plant material reaches 3" caliper for single stem trees and 6' height for understory and/or multistem trees. Tree protection fence should be a neutral color and a minimum 3' in height.
- Hedgerow tree spacing: tree species and sizes are to be randomly spaced in a staggered pattern between 5' and 6' on-center.
- At power line easement, tree species shall be selected to not exceed 30' height.
- Interior side yards should be meadow with random massings of large deciduous shade trees. Random massings should consist of 3-7 trees and installed at a minimum 3" caliper.
- Tree species list: refer to Figure 18.

FIGURE 17A

PRIMARY DEVELOPMENT SITE - PARKING LOT PLANTING

- Parking lot islands shall be planted with native canopy trees and meadow mix.
- Every ten parking spaces shall be separated by one tree island.
- Species diversity: At least 4 species shall be used per parking lot. No quantity of any given species shall comprise more than 50% of the overall quantity of trees in parking areas.
- Installation sizes: trees are to be planted as 3" caliper trees.
- Vehicular parking lots shall be screened from public streets by a 3.5' minimum height evergreen hedge or similar landscaping, wall, mound or combination thereof. Landscaping shall be planted at least 2' in average height when planted and shall conform to the height requirements within 4 years after planting.
- Tree species list: refer to Figure 18.

FIGURE 17B

FLAGSHIP DEVELOPMENT SITE - PARKING LOT PLANTING

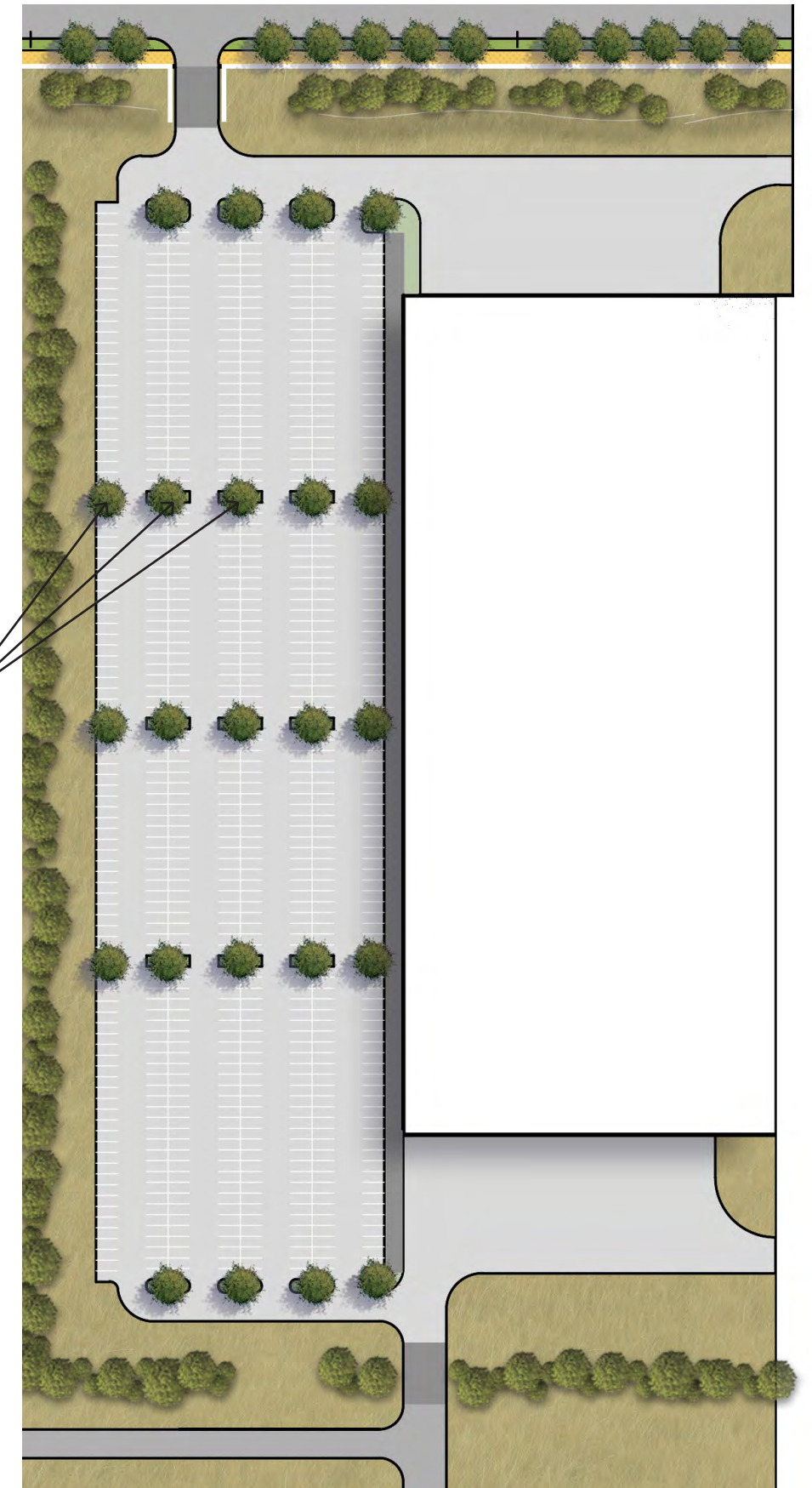
- Parking lot islands shall be planted with native canopy trees and meadow mix.
- To retain tree planting standards, but reduce the footprint of parking on the Flagship Site, the following standard should be met. For every twenty parking spaces one tree shall be planted on site. 50% of these required trees shall be planted in a tree island within the parking lot, spaced one island every twenty spaces (one tree per island). The remaining 50% shall be planted around the edges of the site (not within the public ROW).
- Species diversity: At least 4 species shall be used per parking lot. No quantity of any given species shall comprise more than 50% of the overall quantity of trees in parking areas.
- Installation sizes: trees are to be planted as 3" caliper trees.
- Vehicular parking lots shall be screened from public streets by a 3.5' minimum height evergreen hedge or similar landscaping, wall, mound or combination thereof. Landscaping shall be planted at least 2' in average height when planted and shall conform to the height requirements within 4 years after planting.
- Tree species list: refer to Figure 18.
- The minimum number of parking spaces provided can be phased and determined by the developer.

FIGURE 17A
TRES AT PARKING AREAS



MEADOW AND CANOPY TREES PLANTED IN 9' WIDE ISLANDS. MINIMUM ONE ISLAND SEPARATING EVERY 10 PARKING SPACES.

FIGURE 17B
TRES AT PARKING AREAS



MEADOW AND CANOPY TREES PLANTED IN 9' WIDE ISLANDS. MINIMUM ONE ISLAND SEPARATING EVERY 20 PARKING SPACES. THE REMAINING REQUIRED TREES SHALL BE PLANTED AROUND THE EDGES OF THE SITE (NOT WITHIN THE PUBLIC ROW).

DEVELOPMENT SITE - PARKING LOT PLANTING

FIGURE 18
DEVELOPMENT SITE - PLANTING
GUIDELINES

- Street Trees
- Swale/Berm Plantings
 - Trees
 - Woody Shrubs
 - Meadow Mix
 - Maintained Turf Mix
- Detention Pond Plantings
 - Trees
 - Woody Shrubs
 - Wetland Mix
 - Meadow Mix
- Front Yard / Side Yard Plantings
 - Trees
 - Meadow Mix
 - Maintained Turf Mix
- Hedgerow and Side Yard Plantings
- Parking Lot Trees

Street Trees

- North Leg (dominant): Quercus coccinea - scarlet oak
- North Leg (secondary): Celtis occidentalis - hackberry
- East Leg (dominant): Celtis occidentalis - hackberry
- East Leg (secondary): Quercus bicolor - swamp white oak
- South Leg (dominant): Quercus rubrum - red oak
- South Leg (secondary): Celtis occidentalis - hackberry

Swale/Berm Plantings

- Trees
 - Acer nigrum - black maple
 - Acer saccharum - sugar maple
 - Aesculus flava - yellow buckeye
 - Asimina triloba - common pawpaw
 - Betula lutea - yellow birch
 - Carya ovata - shagbark hickory
 - Celtis occidentalis - hackberry
 - Gleditsia triacanthos var. inermis - thornless honeylocust
 - Juglans nigra - black walnut
 - Liquidambar styraciflua - sweetgum
 - Prunus serotina - wild black cherry
 - Quercus alba - white oak
 - Quercus bicolor - swamp white oak
 - Quercus coccinea - scarlet oak
 - Quercus rubrum - red oak
 - Robinia pseudoacacia - black locust
 - American linden - basswood
- Woody Shrubs
 - Aronia melanocarpa - black chokeberry
 - Comptonia peregrina - sweetfern
 - Diervilla lonicera - dwarf bush-honeysuckle
 - Rhus aromatica - fragrant sumac
 - Rubus odoratus - flowering raspberry
 - Rhus typhina - staghorn sumac
 - Spiraea tomentosa - steeplebush
 - Symphoricarpos albus - common snowberry
 - Vaccinium angustifolium - lowbush blueberry
- Meadow: See Meadow Mix, this sheet.
- Maintained Turf: See Maintained Turf Mix, this sheet.

Swale/Berm Plantings_Alternates

- Trees
 - Quercus sp.
 - Acer sp.
 - Aesculus sp.
 - Fagus sp.
 - Betula sp.
 - Ulmus americana
 - Gleditsia sp.
 - Gymnocladus sp.
 - Pinus Strobus
 - Pinus Nigra
 - Picea Abies
 - Picea Omorika
 - Juniperus Virginiana

Detention Pond Plantings

- Trees
 - Acer rubrum - red maple
 - Asimina triloba - common pawpaw
 - Betula nigra - river birch
 - Gymnocladus dioicus - kentucky coffeetree
 - Juglans nigra - black walnut
 - Liriodendron tulipifera - tuliptree
 - Nyssa sylvatica - black gum
 - Platanus occidentalis - sycamore
 - Populus deltoides - eastern cottonwood
 - Quercus bicolor - swamp white oak
 - Salix discolor - pussy willow
 - Taxodium distichum - bald cypress
- Woody Shrubs
 - Cephalanthus occidentalis - buttonbush
 - Clethra alnifolia - sweet pepperbush
 - Cornus sericea - redosier dogwood
 - Hamamelis virginiana - common witchhazel
 - Ilex verticillata - common winterberry
 - Myrica pensylvanica - northern bayberry
 - Potentilla fruticosa - bush cinquefoil
 - Vaccinium corymbosum - highbush blueberry
- Wetland Shelf - plant list to be developed in consultation with wetland ecologist.
- Meadow: See Meadow Mix, this sheet.

Parking Lot Trees

- Trees
 - Acer nigrum - black maple
 - Acer saccharum - sugar maple
 - Celtis occidentalis - hackberry
 - Gleditsia triacanthos var. inermis - thornless honeylocust
 - Liriodendron tulipifera - tuliptree
 - Platanus occidentalis - sycamore
 - Quercus bicolor - swamp white oak
 - Quercus coccinea - scarlet oak
 - Quercus rubrum - red oak
- Meadow: See Meadow Mix, this sheet.

Front Yard Plantings

- Meadow Trees
 - Aesculus flava - yellow buckeye
 - Fagus grandifolia - american beech
 - Quercus alba - white oak
 - Quercus macrocarpa - bur oak
 - Quercus muehlenbergii - chinquapin oak
 - Robinia pseudoacacia - black locust
 - Platanus occidentalis - sycamore
- Lane Trees
 - Ostrya virginiana - american hophorn-beam
- Meadow: See Meadow Mix, this sheet.
- Maintained Turf: See Maintained Turf Mix, this sheet.

Hedgerow and Side Yard Plantings

- Trees
 - Acer nigrum - black maple
 - Acer saccharum - sugar maple
 - Betula lenta - sweet birch
 - Carya ovata - shagbark hickory
 - Juglans nigra - black walnut
 - Prunus serotina - wild black cherry
 - Quercus alba - white oak
 - Quercus bicolor - swamp white oak
 - Quercus coccinea - scarlet oak
 - Quercus palustris - pin oak
 - Quercus rubrum - red oak
- Trees at AEP easements
 - Amelanchier laevis - allegheny serviceberry
 - Carpinus caroliniana - american hornbeam
 - Crataegus crusgalli - cockspur hawthorn
 - Crataegus phaenopyrum - washington hawthorn
 - Oxydendrum arboreum - sourwood (or sorrel tree)
- Meadow: See Meadow Mix, this sheet.
- Maintained Turf: See Maintained Turf Mix, this sheet.

Meadow Mix

- Meadow Mix shall be:
 - 20% Aruba or Audubon red fescue
 - 20% J5 chewings fescue
 - 20% Ecostar hard fescue
 - 20% Marco Polo sheeps fescue
 - 20% annual ryegrass
 Application rate shall be 225 lbs per acre.
- Plant seed with "Brillion" type landscape seeding machine that accurately places seed at specified depth and rate and rolls in single operation. Plant seed no deeper than 1/2 inch. Hydroseeding of meadows is not permitted.
- Plant seed with slit seeder in areas that have been previously graded and seeded with annual ryegrass for erosion control. Plant seed no deeper than 1/2 inch.
- Apply fertilizer at time of seeding and 30 days after seeding. Use starter fertilizer, 1-2-1, that will provide actual phosphorus of at least 1.5 lbs./1000 sq. ft.
- Maintain meadow no less than 12 months after planting.
- Mow meadow as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain a height of 3 1/2 to 4 inches. Do not mow after 12 months from planting completion.
- Apply 2 applications of a broad spectrum, 3-way selective herbicide to meadow within 12 month after planting. Schedule first application no earlier than 6 months after planting.

Maintained Turf Mix

- Turf Mix shall be:
 - 80% 2 of 3 Tall Fescue
 - 10% Kentucky Blue Grass
 - 10% Perennial Ryegrass
 Application rate shall be 225 lbs per acre.

General Planting Guidelines

- Trees
 - Trees over 2" shall be nursery tagged by a landscape architect. Trees under 2" shall be visually inspected with representative photographs by a landscape architect.
 - Areas of trees (not individual trees) to be planted along the road and detention ponds shall be staked for approval by a landscape architect.
 - Width of tree planting hole for trees shall be 3 times the diameter of the rootball. Bottom and sides of tree hole shall be loosened prior to planting.
 - Depth of tree planting hole shall be 1.5 times the depth of the rootball, minimum. Container grown or balled and burlapped trees shall be planted on a compacted mound of #57 stone.
 - Trunks of trees under 1" in caliper in size shall be protected with plastic wrap for a period of one year.
 - Seedlings/whips may be planted as bare root stock.
 - All sizes and grades of plant material shall be in accordance with the American Standard for Nursery Stock (latest edition), published by the American Nursery and Landscape Association standards.
- Woody Shrubs
 - Representative photos of woody shrubs shall be approved by a landscape architect.
 - Woody shrub beds shall be staked for approval by a landscape architect.
 - Shrub beds shall be a continuous excavation to the depth of the deepest rootball in the shrub bed. Bottom and sides of shrub bed excavation shall be loosened prior to planting.
 - All sizes and grades of plant material shall be in accordance with the American Standard for Nursery Stock (latest edition), published by the American Nursery and Landscape Association standards.
- Wetland Mix and Meadow Mix
 - Mixes shall be pre-packaged at the specified species percentages and applied at rates consistent with the seed supplier's recommendations.
 - Bed preparation shall be in accordance with seed supplier's recommendations.
- Planting Soils
 - Planting soils shall be a mix of three components: topsoil, organic amendment, and sand.
 - Topsoil: central Ohio topsoil with a USDA texture classification of clay loam or loam and a pH of 5.5 to 7.0.
 - Organic Amendment: composted yard debris (green waste) compost with a pH of 7.2 to 8.0
 - Sand: ASTM C33 concrete sand.
 - The three components shall be blended into a the following ratio: 4 parts sand, 2 parts topsoil, 1 part compost.

FIGURE 19
DEVELOPMENT SITE - MAINTENANCE

- Trees
- Shrubs
- Meadow
- Turf

Trees

- January: Check trunks for rodent damage. Treat appropriately if damage is present. Selectively hand prune limbs to repair, remove damaged limbs, or to 'limb-up' canopy (provided temps are >32 degrees). Do not prune evergreen trees unless necessary for damage repair. Use dormant oils for pest management as required for insect control provided temps remain >32 degrees for 24 hours or more.
- February: If there's evidence of an insect infestation, dormant horticultural oils are effective as a dormant application – temperatures must be >32 for 24 hours after application to be effective.
- March: Selectively hand prune limbs to repair, remove damaged limbs, or to 'limb-up' canopy (provided temps are >32 degrees). Do not prune evergreen trees unless necessary for damage repair. Install any new container grown or B&B trees.
- April: Inspect for potential pest problems at 2 week intervals – document all findings. Remove any/all dead or damaged branches or limbs. Install any new container grown or B&B trees. Closely monitor newly planted trees to ensure root ball has the proper moisture content. Apply mulch tree rings to trees in plant beds and turf areas. Provide 2"-3" depth throughout entire tree ring. Pull mulch 2" away from trunk to prevent mold and rotting.
- May: Weed mulch tree rings as required. Continue bi-monthly inspections for pest/disease problems. Closely monitor newly planted trees to ensure root ball has the proper moisture content.
- June/July: Irrigate trees if needed in the early morning hours to prevent evapotranspiration. Trim/remove unwanted limbs from trees as required. Monitor for weed / insect / and disease problems – control as needed. Use pheromone traps to help determine insect problems. Closely monitor newly planted trees to ensure root ball has the proper moisture content. Provide 1" water per week (supplement natural rainfall with irrigation as needed).
- August: Maintain 2-3" depth mulch tree rings for trees in plant beds and turf areas. Pull mulch 2" away from trunk to prevent mold and rotting. Weed mulch tree rings as required.
- September: Pesticide application is not recommended at this time unless for heavy infestations. Plan for container grown shade trees and evergreens that can be planted in the fall (Oct./Nov.).
- October: Fertilize using a granular fertilizer with slow release nitrogen – a 4:1:2 ratio is appropriate – Broadcast over entire root zone / dripline (if root zone includes turf do not exceed 2lbs of nitrogen / 1000 sf).
- November: Monitor for weed / insect / and disease problems – control as needed. Remove any diseased / damaged / or dead branches. If there's evidence of an insect infestation, dormant horticultural oils are effective as a dormant application – temperatures must be >32 for 24 hours after application to be effective. Renew mulch tree rings - provide 3" depth for trees in plant beds and turf areas. Pull mulch 2" away from trunk.

- December: Monitor for signs of pest problems and desiccation from winter winds. Plants that routinely show dissection may be treated with an application of wilt proof to reduce damage. More than one treatment is detrimental. Plants with reoccurring problems should be removed.

Shrubs

- January/February: Remove wind driven leaves from shrub beds.
- March: Remove wind driven leaves from shrub beds. Inspect for potential pest problems at 2 week intervals- document all findings.
- April: Inspect for potential pest problems at 2 week intervals- document all findings. Edge all shrub beds by hand spade or other acceptable method. Hand prune as needed – use standard horticultural practices when pruning. Shearing is not acceptable. Selectively hand prune non-spring flowering shrubs as required. Apply granular pre-emergent control to shrub beds. Apply mulch to shrub beds. Provide 2"-3" depth within bed.
- May: Hand prune as needed (see April). Closely monitor newly planted shrubs to ensure root ball has the proper moisture content. Remove weeds from beds weekly. Continue bi-monthly inspections for pest/disease problems.
- June: Hand prune as needed (see April). Monitor for weed / insect / and disease problems – control as needed. Use pheromone traps to help determine insect problems. Closely monitor newly planted shrubs to ensure root ball has the proper moisture content. Remove weeds from beds weekly.
- July: Monitor potential weed / insect / and disease problems – control as needed. Closely monitor newly planted shrubs to ensure root ball has the proper moisture content. Pre-emergent herbicide may be used to control weeds in beds. Remove weeds from beds weekly.
- August: Large shrubs should be pruned if necessary to maintain desired character (except for summer/fall flowering species). Monitor for weed / insect / and disease problems – control as needed. Closely monitor newly planted shrubs to ensure root ball has the proper moisture content. Pre-emergent herbicide may be used to control weeds in landscape beds. Maintain a 2"-3" of mulch in all shrub beds. Remove weeds from beds weekly.
- September: Monitor for weed / insect / and disease problems – control as needed. Pesticide application is not recommended at this time unless for heavy infestations. Maintain a 2"-3" of mulch in all shrub beds. Remove weeds from beds weekly. Remove early fall leaves and other debris from plant beds. Apply pre-emergent herbicide for control of winter annuals.
- October: Fertilize using a granular fertilizer with slow release nitrogen – a 4:1:2 ratio is appropriate – Broadcast over entire shrub bed. Remove fallen leaves to prevent damage of turf.
- November: Monitor for weed / insect / and disease problems – control as needed. Remove any diseased / damaged / or dead branches. If there's evidence of an insect infestation, dormant horticultural oils are effective as a dormant application – temperatures must be >32 for 24 hours after application to be effective. Renew mulch at shrub beds - provide 2-3" depth.

- December: Monitor for signs of pest problems and desiccation from winter winds. Plants that routinely show dissection may be treated with an application of wilt proof to reduce damage. More than one treatment is detrimental. Plants with reoccurring problems should be removed.

Meadow

- April (late): Apply 3-way selective herbicide to control weed populations - Do not apply pre-emergence to areas that need overseeded. Overseeding can take place in April for severe bare areas at rate of 4 lbs / 1000sf - slice seed or seed-a-vator method. (Note: Fall overseed is preferred)
- May: Mow at 4" height (Single Mow).
- June - September: No mowing to occur
- September: Fertilize with 1-1-1 ratio NPK at 1.0 lb actual per 1000 sf. - Apply with broadcast spreader.
- Oct (early): Mow at 4" height (Single Mow). Overseed thin areas at rate of 4 lbs / 1000sf - slice seed or seed-a-vator method
- November (late): Fertilize with 1-1-1 ratio NPK at 1.0 lb actual per 1000 sf. - Apply with broadcast spreader.
- Note: The fine fescue blend that is utilized in the meadow portions of the PC&B campus is designed to be maintained with low fertility and two mowings per year. Fine fescues struggle during hot and dry periods when maintained at traditional lawn heights (+/- 3").

Turf

- January/ February/March: Minimize salt damage along walks and drives. Remove any wind driven leaves from lawns/beds.
- April: Test soil PH. Turf areas should maintain PH levels between 6.2-7.0. Apply lime to increase PH as needed. Apply chemical pre-emergents as needed after soil temps reach 55 degrees and crabgrass begins to germinate. If season is advanced, begin mowing. First cut should be slightly shorter than normal (3"ht.) to encourage greening. Trim turf along all walks and road edges as required – DO NOT line trim around tree trunks. Core aerate prior to fertilization / lawn renovations. Avoid rolling of turf; this causes compaction/poor root development; it should be avoided unless excessive heaving has taken place. Overseed turf areas after aeration to increase lawn density and crowd out aggressive weeds.
- May: Maintain turf at 3" height by mowing as needed-removing not more than 1/3 of the blade length in a single mowing. Treat disease with appropriate fungicide if damage is extensive. Check for soil insects - document all findings. Treat as necessary. Spring Fertilization: Memorial Day; fertilize at 1 lb nitrogen / 1000 sf. or as required by soil analysis.
- June: Maintain turf at 3" height by mowing as needed-removing not more than 1/3 of the blade length in a single mowing. Treat disease with appropriate fungicide if damage is extensive. Monitor turf for broadleaf weeds (ground ivy, plantain, dandelion, etc.) and apply chemical weed killers as needed. New seeded lawn areas require

the top 1/4" to remain moist – a thin layer of hydro mulch will help to keep soil from drying out. New sod should be kept moist for 4-5 weeks or until firmly rooted.

- July: Maintain turf at 3" height by mowing as needed-removing not more than 1/3 of the blade length in a single mowing. Frequency may decrease during this time due to heat stress. Treat disease with appropriate fungicide if damage is extensive.
- August: Maintain turf at 3" height by mowing as needed-removing not more than 1/3 of the blade length in a single mowing. Frequency may decrease during this time due to heat stress. Treat disease with appropriate fungicide if damage is extensive. Core aerate prior to fertilization / lawn renovations. Monitor turf for insect and disease problems – Grubs are typical during this month. Cut section of lawn and examine roots for young grubs. Treatment is necessary at populations of 4 grubs / sf.
- September: Summer Fertilization: Labor Day; fertilize at 1 lb nitrogen / 1000 sf. or as required by soil analysis. Maintain turf at 3" height by mowing as needed-removing not more than 1/3 of the blade length in a single mowing. Frequency may decrease during this time due to heat stress. Treat disease with appropriate fungicide if damage is extensive. Over-seed all bare areas – Rake bare soil and amend with three cubic yards of finely screened compost / 1000 sf. Broadcast seed and hand rake into top 1/4" topsoil. Monitor turf for broadleaf weeds (ground ivy, plantain, dandelion, etc.) and apply treatments as needed.
- October: Maintain turf at 3" height by mowing as needed-removing not more than 1/3 of the blade length in a single mowing. Treat disease with appropriate fungicide if damage is extensive. Continue monitoring turf for broadleaf weeds (ground ivy, plantain, dandelion, etc.) and apply treatments as needed. Fall Fertilization: Late October; fertilize at 1 lb nitrogen / 1000 sf. or as required by soil analysis.
- November: Remove fall leaves from turf to prevent damage. Reduce mower cutting height to 1 ½" for last cut of the season – to reduce chance of snow mold and winter burn. Apply spot applications of broadleaf herbicides as required.
- December: Complete any leaf removal to prevent damage to turf.

FIGURE 20
FLAGSHIP ARCHITECTURAL
STANDARDS

- Buildings shall be required to employ a comparable use of materials on all elevations
- Accessory or ancillary buildings, whether attached or detached, shall be of similar design, materials and construction as the nearest primary structure, if they are visible from a public street right-of-way. Fenestration themes that employ windows, panels and piers that are consistent with the architectural vocabulary of the building are encouraged.
- All building elevations shall be designed to be compatible with each other and to reflect a consistent design approach.
- Buildings and structure shall be designed to be harmonious in character to other buildings and structures within the same Flagship project or Primary Project, as applicable. Façade colors shall be coordinated to complement each other.
- Architectural design for all portions of a building or structure that are visible from a public right-of-way (excluding public rights-of-way whose primary purpose is to accommodate truck traffic or service loading areas) shall meet the community standard in terms of quality while taking into account the unique nature of the use(s) that will be found therein.
- Landscaping and/or the use of existing vegetation shall be utilized where appropriate to enhance the aesthetics of the building and to lessen its visual impact when viewed from public rights-of-way.

