

District Two LANDSCAPE BRANDING GUIDELINES



Florida Department of Transportation

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INTRODUCTION

The Florida Department of Transportation (FDOT) Central Office requested all Districts to develop Landscape Branding Guidelines that would uniquely identify the visual qualities and characteristics of each District while meeting the intent of The Business of Beautification memorandum published by Central office on October 13, 2011.

The Landscape Branding Guidelines for FDOT District Two has been developed to be consistent with the District's objectives and approach for implementing **consistent, predictable and repeatable** (CPR) BOLD landscaping projects that are attractive, cost effective, constructible and minimize long term maintenance activities.

To accomplish Central Office's Request, District Two has established the following list of criteria that serve as the basis for the development of the Landscape Branding Guidelines:

- Establish an aesthetic hierarchy of generalized roadway types and locations for use in prioritizing and implementing projects within the District.
- Identify a distinctive north Florida palette of suitable plant species that are adapted to the conditions of the District and are compatible with the BOLD Landscaping vision. Plant species selected are based on historical performances within the District.
- Establish planting themes symbolic of regional attributes. Attributes include tourist destinations such as beaches, recreational, historic and cultural attractions; business activity areas such as commercial/institutional development; and rural economic development initiative communities.
- Preserve, utilize, and reinforce natural vegetation.



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Business of Beautification

To me, in sum, beautification means our total concern for the physical and human quality we pass on to our children and the future. Mrs. Lyndon Johnson, 1993

Now and for the next few years, to make Florida the most attractive place to do business, to attract visitors and businesses to invest more time and money in Florida, the Department can implement **bold** roadside beautification projects using many large trees, and few if any shrubs. With thoughtful site specific design, this *Consistent, Predictable, and Repeatable* approach will produce the highest visual impact and distinctive sense of place at the lowest design, construction, and maintenance cost. Ten, twenty, thirty, and forty foot tall or taller trees generously and safely placed at the most highly traveled interchanges and gateways into and through the state (Florida's most visible landscapes) will instantly create a welcoming and enjoyable experience; the first and lasting impression of the state and individual communities. Overstocked Florida based nurseries are discounting large trees by 50% or more, and in at least one case offering 0% financing. Palms, especially in Central and South Florida, are the state's signature trees; what visitors and investors expect to see, what they pay to see. Palms are the only type of trees that can feasibly and effectively be transplanted (and re-transplanted if need be) when mature. No other type tree can provide such instant impact, and be as resilient to Florida's extreme weather events. Each District, in conjunction with other agencies, can identify and program the ten highest priority roadside landscapes (e.g., state line, sea ports, airports, rail stations, scenic highways, beaches, historic sites, resorts, REDI communities, national parks and forests); where beautification is most able to help attract and grow



business. Decisions about the selection, placement, and care of trees can continue to be made with full participation of the local governments and maintaining agencies. Where necessary to fully implement highest priority projects, the Department can budget and accept responsibility for landscape maintenance.

For the future, as the economy strengthens and as the highest priority roadside landscapes are being completed, beautification can be routinely integrated into the processes used to plan, design, construct, and maintain roadways; roadways that accommodate **bold** performing landscapes that enhance private enterprise and public health and safety. Roadside landscape projects can mimic natural processes that manage stormwater, filter air, abate noise, shade pedestrians, conserve energy, provide habitat, *and* be beautiful. **Bold** leadership at all levels within the Department can make it possible to create and sustain memorable landscapes that contribute to the State's overall well being.

Emphasis can increase on conservation and management of existing trees, and planting roadsides with many small trees that will grow large. There can be less emphasis on planting large trees. Less expensive smaller trees and widespread planting of tree seedlings will grow quickly to beautify and reforest urban, suburban, and rural roadsides. Planting and managing a diverse community of native and non-native tree species reinforces the bold landscapes already in place, and helps overcome other design, construction, and maintenance challenges. This simple and sound investment approach grows in value and pays meaningful environmental and economic dividends indefinitely, unimpeded by current or future recessions.

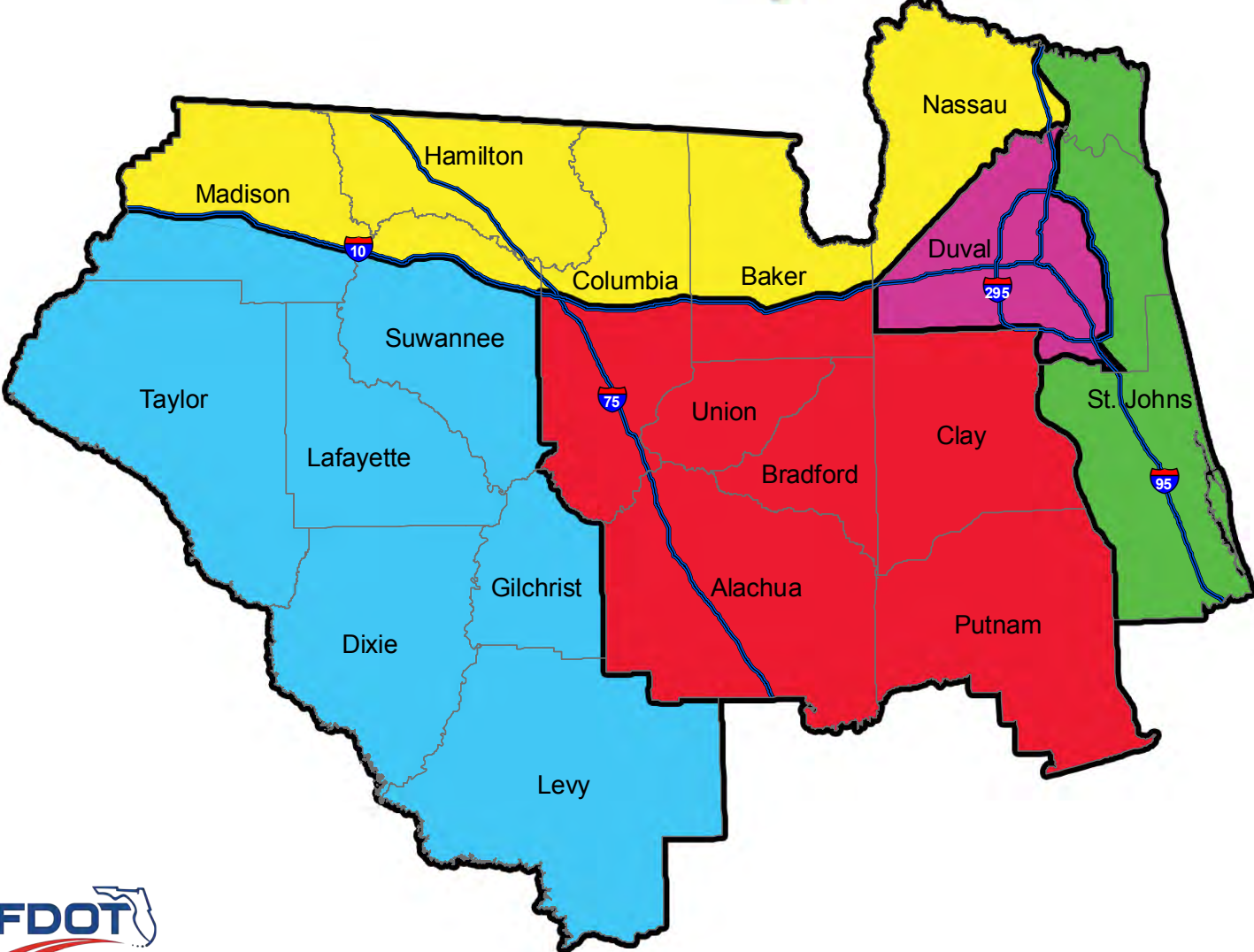
Let's get to work making beauty *everyone's* business at the Department of Transportation. A work plan developed by the District Landscape Architects and Managers describes strategies, tactics, and measures that can, upon implementation, increase and sustain the return on Florida's investment in highway beautification.

Work Plan Highlights:

- Strengthen the Department's Highway Beautification Policy to show renewed commitment.
- Increase landscape expertise in each District planning, design, construction, and maintenance office
- Address landscape conservation and improvements early in roadway planning, project development, and design (including drainage, utilities, ped/bike). The roadway design needs to safely accommodate the landscape design.
- Develop landscape project performance measures and targets tied to other department programs (safety, pedestrian and bicyclists, safe routes to schools, accessibility, drainage, transit, maintenance).
- Document the direct economic benefits of each landscape project, including number of full-time and part-time employees, suppliers, nurseries, etc.
- Develop system to track and monitor landscape projects over time and space. Create a report card for landscape projects with annual report cards on how the project matured and the cost and quality of care. Document what has been invested, where, and how the investment is growing.
- Utilize landscape projects to enhance mobility and safety, e.g., midblock crossing, delineation, headlight glare, traffic calming, etc.
- Upgrade online resources for landscape stakeholders. Include instruction and information about roadside landscape design, construction, and maintenance.
- Emphasize "right plant in right place", "sustainable", and "non-invasive" as well as "native".
- Establish specifications and method of payment for landscape soil to be placed during roadway construction and for soil replacement when necessary during landscape construction.
- As stand-alone projects, enhance oversight during landscape construction:
 - Develop process for maintaining agency to participate in final acceptance.
 - Revise inspection reports to include mulch, weeds, litter, etc.
 - Develop minimum education and experience requirements for landscape CEI.
 - Authorize post design services for RLA of record.
 - Develop process to pay contractor during establishment periods
- Improve landscape maintenance. Determine design life of the landscape project, and who and how maintenance will be paid for the duration. During design, establish a maintenance cost limit that cannot be exceeded. Review and approve landscape maintenance plans and projected annual maintenance costs before completing design. Determine if investment on front end can save on long term maintenance. Reconfirm agreements *before* installation. Develop and retain expertise in the art and science of tree care, roadside forestry, land and landscape management for safety, value, beauty, and soil and water quality.
- Develop programmatic landscape recommendations and requirements to minimize maintenance, e.g., large trees widely spaced with few shrubs to accommodate large machine mowing. Establish design guidelines for low and high maintenance commitments.
- Publish online photo gallery of successful landscape projects.
- Include landscape quality in customer satisfaction surveys.
- Explore opportunities for public private partnerships for landscape design, construction, and maintenance.

DISTRICT TWO - REGIONS

FDOT District Two is comprised of the following five regions: North, West, Central, Urban and Beaches. Each region has its own unique characteristics which are essential in developing planting themes. There are three interstates within District Two: I-75 (S.R. 93), I-10 (S.R. 8) and I-95 (S.R. 9). There are also numerous urban and rural state roads within the District.



NORTH REGION

The North Region is comprised of Madison, Suwannee, Hamilton, Columbia and Baker Counties (north of I-10) and all of Nassau County. The North region is primarily rural in nature with many small towns that are comprised of agricultural and residential land use. Timber production plays a significant role in this area. This region is bordered by Georgia to the north and I-10 to the south. It also includes the northern portion of the Suwannee River.

WEST REGION

The West Region is comprised of Madison and Suwannee Counties (south of I-10) and all of Taylor, Dixie, Levy, Lafayette and Gilchrist Counties. Land use is primarily rural farmland and forest land. The West Region is unique in that it borders the Gulf of Mexico to the west (part of the Florida’s Nature Coast) and includes the Suwannee River with its rich cultural and historical importance. The West Region is known for its many cultural and historical attractions and is home to many parks, conservation lands and coastal communities that provide an array of outdoor recreational activities, most notably fishing.

CENTRAL REGION

The Central region is comprised of Columbia, Baker and Clay Counties (south of I-10) and all of Union, Bradford, Alachua and Putnam Counties. The Central Region includes the cities of Palatka, Lake City, and Gainesville, which is home to the University of Florida and Shands Medical facilities. Like the West Region, the Central Region is home to many parks which offers a variety of recreational activities. Popular tourists destinations include fishing, golfing, intercollegiate sports and several natural springs parks like the Ichetucknee River. It also includes many thousands of acres of forestry/ timber lands and is bordered on the east by the St. Johns River.

URBAN REGION

The Urban Region is comprised of Duval County. It includes the largest city in the United States by area, Jacksonville. The City of Jacksonville is known for its river views, bridges, restaurants and downtown night scene, and also offers many educational, retail/commercial, industrial and military activity areas. Jacksonville is also home to the NFL’s Jacksonville Jaguars which attracts media, fans and tourists year round. Additionally, this region is home to the Jacksonville International Airport, as well as a major rail hub and a thriving port at the mouth of the St. Johns River. The Urban Region has the most interstates within its limits.

BEACHES REGION

The Beaches Region is comprised of St. Johns County and the eastern portions of Duval and Nassau counties. The St. Johns River forms much of this region’s western border and to the east lies the Atlantic Ocean and its many beaches and vacation communities. It includes Ponte Vedra’s world class golf course, the Tournament Players Club at Sawgrass which hosts an annual PGA Player’s Championship. Also in this region is the oldest city in the continental United States, the city of St. Augustine. The city is a prime tourist destination and has many attractions such as Castillo De San Marcos National Monument, St. Augustine Lighthouse, Flagler College and the Bridge of Lions among many others. The popularity of St. Augustine alone is evident year round. As a result, the Beach Region offers many recreational, historic, and cultural attractions.

PLANTING THEMES

Although each of the five regions within District Two have their own unique characteristics, they share many similarities as well. They are all rich in history, culture and natural resources attracting visitors to the state of Florida year round. In developing BOLD landscape designs, emphasis must be placed on preserving, utilizing and reinforcing the natural vegetation.

Planting themes symbolic of the regional attributes are described in the following section. The themes are followed by inspirational images which depict the distinctive qualities of each region.



PLANTING THEMES - NORTH REGION

The rural characteristics and natural setting of the North Region set the “theme” for this region. Surrounding natural vegetation should be considered for protection and enhancement where feasible. BOLD designs shall be reserved for Gateway locations along the state line, rural economic development initiative communities, and along interchanges where visibility is highest. Inspiration for the North Region can be taken from the historical architecture evident in the smaller towns and nature itself.

INSPIRATIONAL IMAGES



Plantation Style Home



Madison County Courthouse, circa 1912



Historic Bridge



Suwannee River

PLANTING THEMES - WEST REGION

The theme for the West Region is influenced by its natural setting. Known as being a part of the “Nature Coast”, the majority of the roads located within the Region are rural and oftentimes, bordered by existing vegetation. Many of the roads are scenic and require minimal enhancement. BOLD landscapes should consist of large masses of plant material that enhance the surrounding vegetation while providing immediate impact. The designs should be organic in nature but also distinct. Like the North region, Gateway locations and higher visibility areas shall take priority when implementing BOLD landscape designs. Inspiration for the West Region can be drawn from the many natural resources the region offers, along with its history, architecture and culture.

INSPIRATIONAL IMAGES



Typical Rural Road



Waterfront Community



Coastal Residential



Cable Stay Bridge

PLANTING THEMES - CENTRAL REGION

While similar to the North and Central Regions in its abundance of natural resources and recreational opportunities, the Central region offers more opportunities for BOLD landscape designs. The theme for rural areas within the region should focus on the cultural and historical aspects of surrounding towns, focusing primarily on nature. Like the North and West Regions, landscape designs should consist of large, organic masses of plant material. For the more institutional and urban settings, the theme should consist of more formal plant placement while mixing in informal plant masses, creating memorable landscapes. Emphasis must be placed on key interchanges along I-75 as well as other Gateways throughout the region.

INSPIRATIONAL IMAGES



University of Florida



Scenic Canopied Roadway



Tree-Lined University Road



Urban Residential

PLANTING THEMES - URBAN REGION

Different land use types, environments and the array of tourist destinations within the Urban Region allow for a variety of opportunities for BOLD landscapes. Due to its urban nature, this region is also faced with many challenges, primarily limitations on space. The theme for the Urban Region shall consider these limitations and consist of linear, formal arrangement of plant material where space is limited and larger masses elsewhere.

INSPIRATIONAL IMAGES



Urban Arterial Road



Downtown Corridor



I-95



Slope and Storm Water Pond Treatment

PLANTING THEMES - BEACHES REGION

While the Beaches Region offers many tourist destinations, its cultural and historical attributes must be taken into consideration prior to developing BOLD landscape designs. Designers should focus on enhancing key locations and making an immediate visual impact. The character of any given site, whether it be historical in nature or more coastal, should be analyzed when developing conceptual designs.

INSPIRATIONAL IMAGES



St. Augustine Castillo De San Marcos National Monument



S.R. A1A Bridge of Lions



Scenic Tree Lined Roadway



Intracoastal Community

DESIGN APPROACH

The approach to the development of the Landscape Branding Guidelines is to provide templates for the District and consultant designers to use as a reference guide in the development of BOLD Landscaping projects for the facilities managed by District Two. These exhibits illustrate possible conceptual layouts for the typical roadway configurations that occur within the District's facilities.

The aesthetic hierarchy places the highest priority and budgets on areas with the greatest traffic volumes and to maximize opportunities for attracting business, stimulating economic development and tourism. Concentrations of new landscaping at these locations will provide the highest visual impact and greatest value for District Two's investment in the Highway Beautification Program.

The hierarchy of locations and facilities is categorized in the following order of priority:

- District Gateways
- Interchanges and Mainlines
- Overpass / Underpass Crossings
- Urban Arterial
- Storm Water Management Areas
- Landscape Buffers

Typical roadway configurations that occur within the District's facilities have been identified and utilized to create exhibits. The exhibits will demonstrate different levels of intensity per roadway configuration. The "themes" will be contingent on the regional location of each individual project site.



Urban Arterial Road - Riverside Avenue, Jacksonville



Storm Water Management Area - I-95/I-10 Interchange

DESIGN GUIDELINES

The primary goal of the design guidelines is to create safe, attractive, efficient, cost effective and easily maintained BOLD Landscape projects. The aesthetic level of treatment will be based on the hierarchy of location and project budget and should be reflected in the landscape design. In order to achieve the “brand”, emphasis should be placed on the plant palette and patterns that reinforce the regional themes and characteristics of each location.

In order to maintain consistency in the design for the typical roadway configurations, the following guidelines should be considered during the development of the design:

- Strong accents at the most visible locations.
- Emphasis on large palms and/or trees and placement of large groupings to provide BOLD and immediate visual impact.
- Selection of appropriate plant material for the environmental conditions at proposed locations within the regions.
- Utilize plants that do not require high levels of maintenance and/or permanent irrigation.
- Enhance existing vegetation and tree canopy where applicable with proposed plant species selections and placement as well as preservation, where feasible.
- Understand the nature of the project site and respond to its unique setting. Respect the neighboring urban and suburban characteristics where applicable.
- Promote use of wildflowers and perennial peanut as an alternative to turf, where feasible.
- Varying perspectives and view points of the end user (pedestrians, bicyclists and motorist) should be taken into consideration.

Existing site conditions, billboards, utilities, ITS and surrounding land uses are some of the many issues that need to be taken into consideration and coordinated during the early stages of the design development process. Applicable local and regional codes along with the FDOT specifications and indices shall be adhered to at all times.

MASTER PLANT PALETTE

In order to achieve a consistent, predictable and repeatable brand, the selection of site appropriate plant materials is essential. While it is important to not only select plants that meet the BOLD landscape initiative, which promotes the use of large trees and palms, it is also important to use plants that will acclimate and thrive in the harsh roadway environments. The plants that have been selected for the Master Plant Palette have been successfully used throughout the district and have proven to be most adaptable to the various site and soil conditions and microclimates.

The plant species are grouped in the following categories:

- Palms
- Trees - Deciduous
- Trees – Evergreen
- Screening Plants
- Shrubs and Ground Covers

While the BOLD initiative discourages the use of shrubs and ground covers, the category has been included for use in higher intensity landscapes (i.e. gateway features) where their use could be justified. Additional uses include buffering of undesirable views (e.g. adjacent industrial land uses, utility boxes), enhancement of desirable views, slope stabilization (e.g. cross road embankments, limited maintenance access areas) and accenting sound walls. The use of shrubs and ground covers shall be minimal unless necessary.

PALMS

Phoenix dactylifera 'Medjool' - Medjool Date Palm

Phoenix sylvestris - Wild Date Palm

Sabal Palmetto - Sabal Palm

Washingtonia robusta - Washington Palm



Medjool Date Palm



Wild Date Palm



Sabal Palm



Washington Palm

TREES - DECIDUOUS

Lagerstroemia indica spp. - Crape Myrtle

Liquidambar styraciflua - Sweetgum

Quercus virginiana - Southern Live Oak

Quercus virginiana 'Cathedral' - Cathedral Live Oak

Taxodium distichum - Bald Cypress

Ulmus alata - Winged Elm

Ulmus parvifolia 'Emer II' - Allee Elm



Crape Myrtle



Sweetgum



Southern Live Oak



Cathedral Live Oak



Bald Cypress



Winged Elm



Allee Elm

TREES - EVERGREEN

EVERGREEN

Ilex x attenuata 'Eagleston' - Eagleston Holly

Juniperus virginiana silicicola - Southern Red Cedar

Magnolia grandiflora - Southern Magnolia

Pinus elliottii - Slash Pine

Pinus palustris - Longleaf Pine



Eagleston Holly



Southern Red Cedar



Southern Magnolia



Slash Pine



Longleaf Pine

SCREENING PLANTS

Ilex vomitoria - Yaupon Holly

Illicium floridanum - Florida Anise

Muhlenbergia capillaris - Muhly Grass

Myrcianthes fragrans - Simpson's Stopper

Myrica cerifera - Wax Myrtle

Spartina bakeri - Sand Cordgrass

Viburnum obovatum - Walter's Viburnum



Yaupon Holly



Florida Anise



Muhly Grass



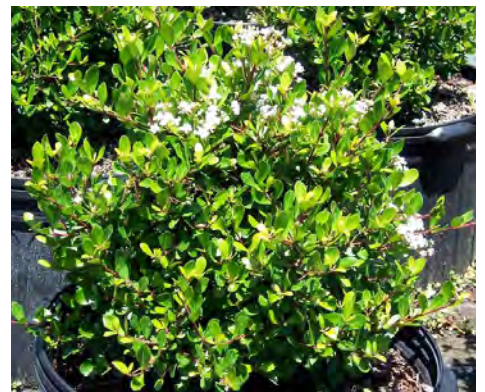
Simpson's Stopper



Wax Myrtle



Sand Cordgrass



Walter's Viburnum

SHRUBS & GROUND COVERS

Arachis glabrata - Perennial Peanut

Cortaderia selloana 'Dwarf' - Dwarf Pampas Grass

Paspalum quadrifarium - Evergreen Paspalum

Serenoa repens - Saw Palmetto

Serenoa repens 'Cinerea' - Silver Saw Palmetto



Perennial Peanut



Dwarf Pampas Grass



Evergreen Paspalum



Saw Palmetto



Silver Saw Palmetto

EXHIBITS

Exhibits showing possible conceptual layouts were prepared for the typical roadway configurations that occur within the District's facilities. The layouts are represented by color-coded shapes, which help categorize the various planting groups and illustrate the different levels of intensity.

Following is the list of exhibits prepared:

- Type 1 Interchange
- Type 2 Interchange
- Overpass/Underpass Crossings
- Urban Arterial
- Buffer Options

The District Gateways are listed as the highest priority within the hierarchy of locations and can be represented in a variety of ways: Welcome signs, major highways and interchanges and entrances to towns, cities or districts. District Gateways should consider unique characteristics of their immediate vicinity. An example of an existing Gateway in District Two is the I-95/I-10 Interchange. An exhibit was not prepared for the District Gateways because of the varying conditions where they occur.

The arrangement of the exhibits is based on the hierarchy of locations listed above. The placement of the conceptual layouts are based on the roadway configurations and different levels of intensity. Three levels of intensity are shown for each typical roadway configuration identified: Level 1 (low intensity), Level 2 (moderate intensity) and Level 3 (high intensity). The levels of intensity will be dependent on project budgets and are characterized by varying degrees of plant massing and the different types of plants specified. The planting "themes" are to be determined by the consultant designers with input by the District, and are contingent on the regional location of each individual project site.

LEGEND

The legend has been broken down into the following categories:

DATE PALMS

Medjool and/or Wild date palms are placed in formal arrangements with consistent heights to enhance key locations and provide a BOLD, immediate impact. Date palms can be utilized in smaller quantities within key locations to create an instant effect or can be used in larger quantities where the level of intensity is highest.

PALMS – INFORMAL

Large groupings of Washington or Sabal palms arranged informally, with staggered heights. Placement of informal palm groupings can occur along ramps and overpasses/underpasses to create a more natural, yet defined edge. They can also be applied to urban arterial roads.

PALMS – FORMAL

Large groupings of Washington or Sabal palms arranged in formal rows with varying heights. Formal placement of Sabal and Washingtonia palms can provide an immediate impact where budgets are limited.

POND TREES

Trees are arranged in formal groupings, accenting pond and infill areas. Trees specified should be appropriate for wet/dry conditions.

CANOPY TREES – INFORMAL

Informal groupings of canopy trees are arranged within large, open areas to provide contrasting textures and a more natural appearance within the landscape. Canopy trees placed in this arrangement can be added to enhance existing vegetation.

CANOPY TREE – FORMAL

Trees are arranged formally to provide a more dominant appearance. This can be achieved by placing a single or double row of trees with appropriate spacing based on the growth habit of the trees utilized.

ACCENT TREES

Trees are arranged in formal groupings to highlight key areas and give visual interest within the landscaping. Accent trees can provide seasonal color and varying textures.

FORMAL GROUPING OF PALMS WITH SHRUBS/GROUND COVER BELOW

Palms are arranged in formal groupings within beds of shrubs/ground cover.

MIX OF TREES (CANOPY AND UNDERSTORY) OR INFORMAL CLUSTERING OF PALMS

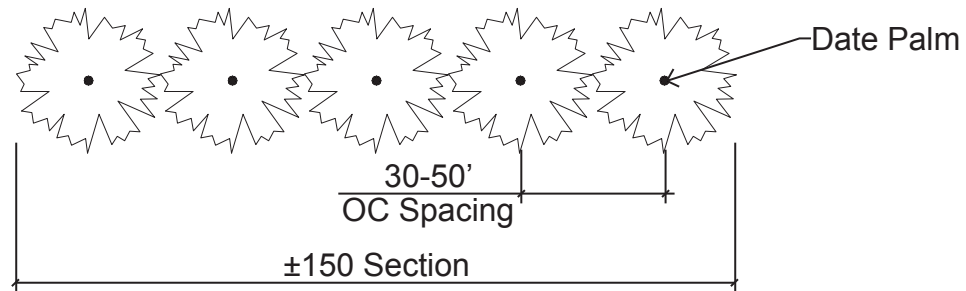
Mixture of trees and/or palms are arranged informally for a more natural appearance.

Plant species used in each category shall be selected from the Master Plant Palette.

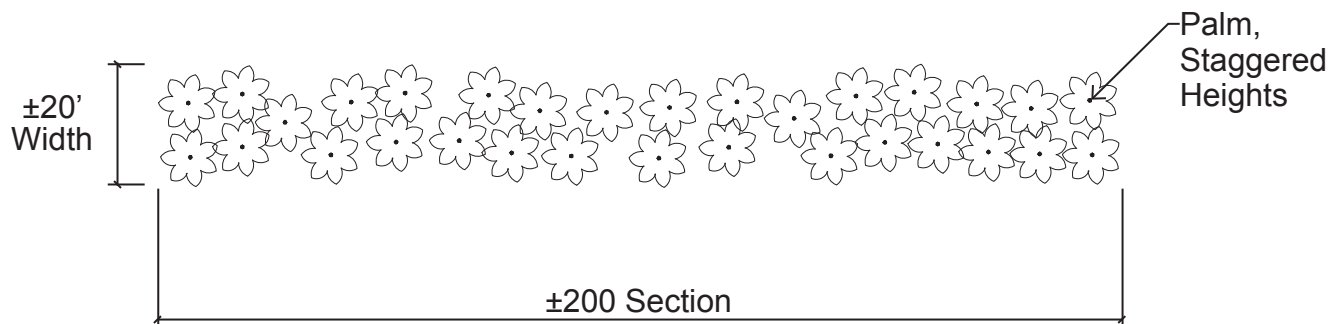
POTENTIAL LAYOUTS - ENLARGEMENTS

Enlargements illustrating examples of typical spacial arrangement and plant layouts have been provided to further demonstrate the categories within the legend. The enlargements are drawn at a scale of 1" = 40'-0". They are as follows:

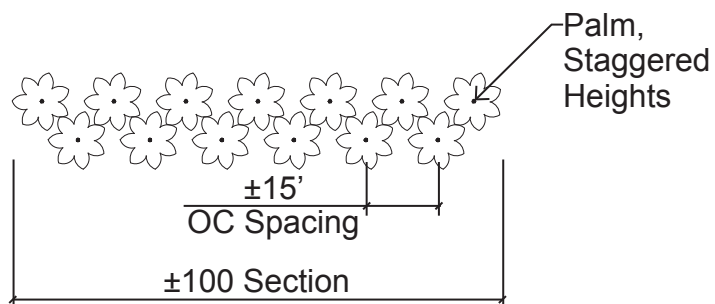
DATE PALMS



PALMS - INFORMAL

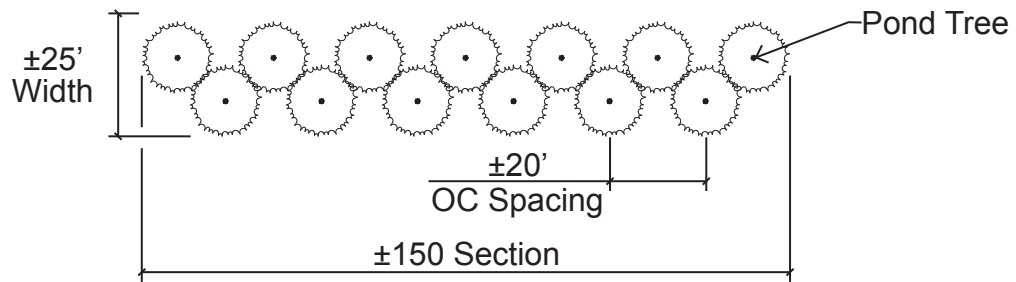


PALMS - FORMAL

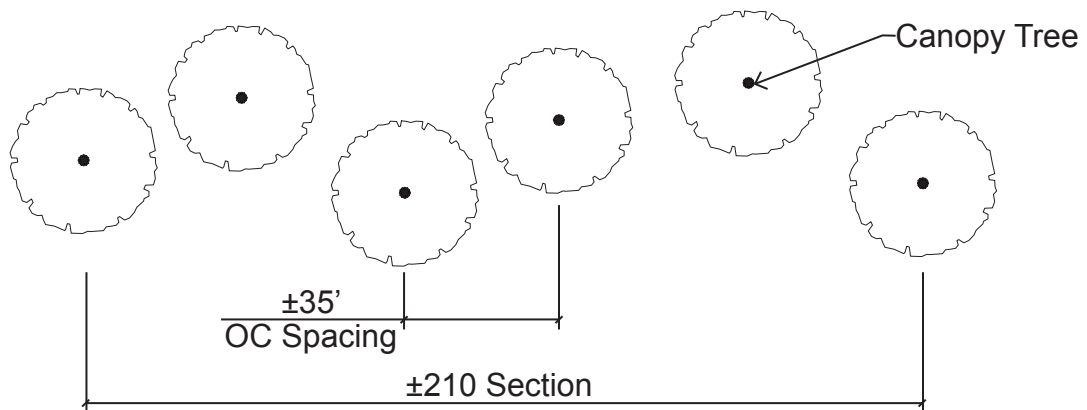


POTENTIAL LAYOUTS - ENLARGEMENTS

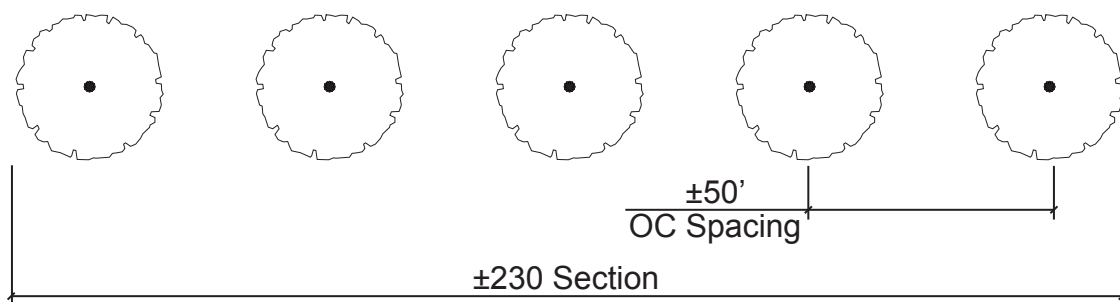
POND TREES



CANOPY TREES - INFORMAL

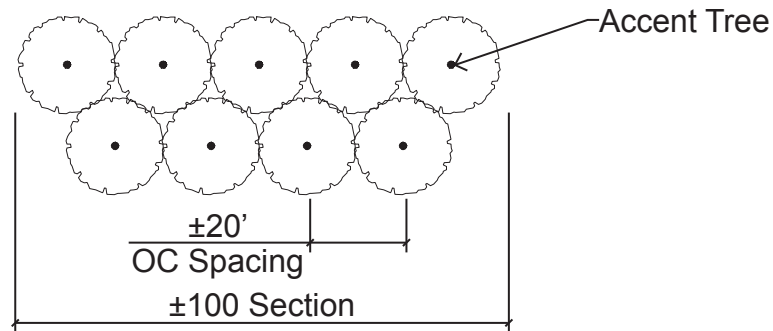


CANOPY TREES - FORMAL

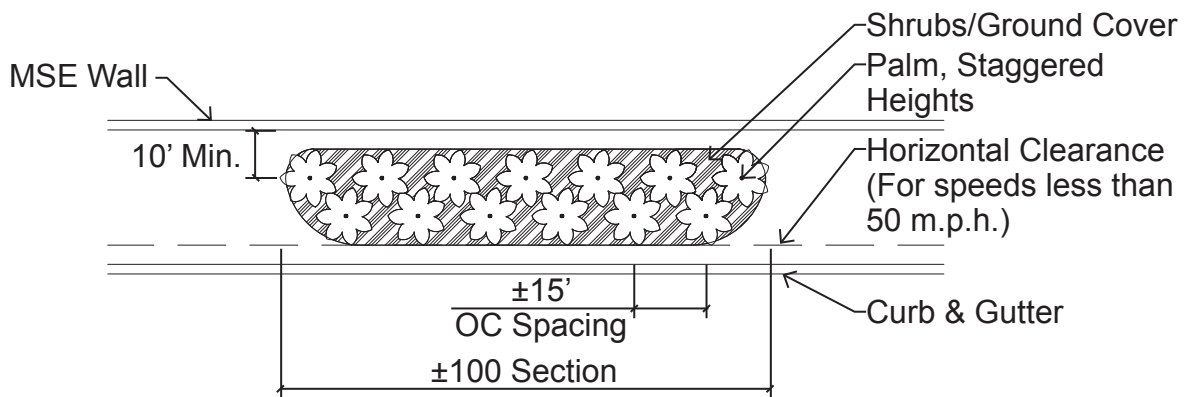


POTENTIAL LAYOUTS - ENLARGEMENTS

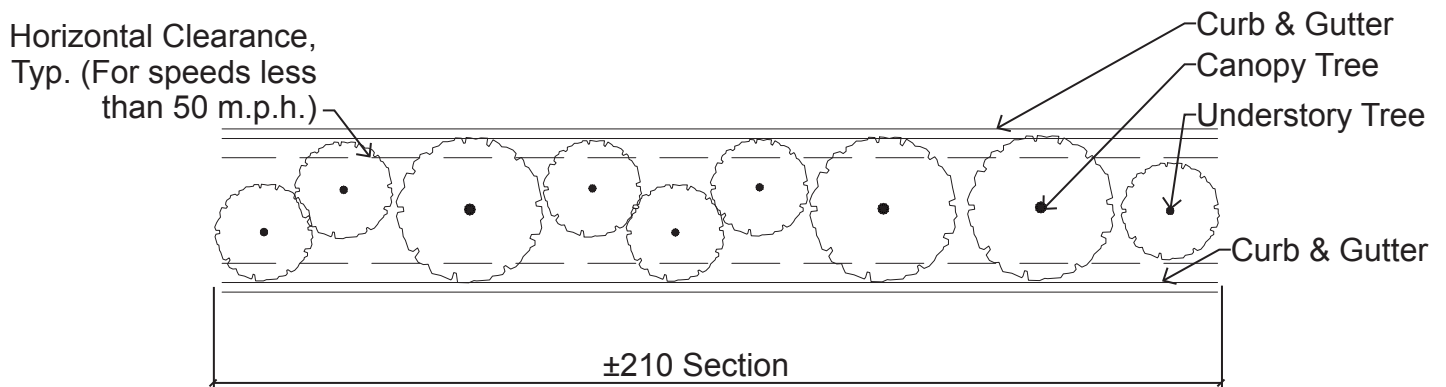
ACCENT TREES

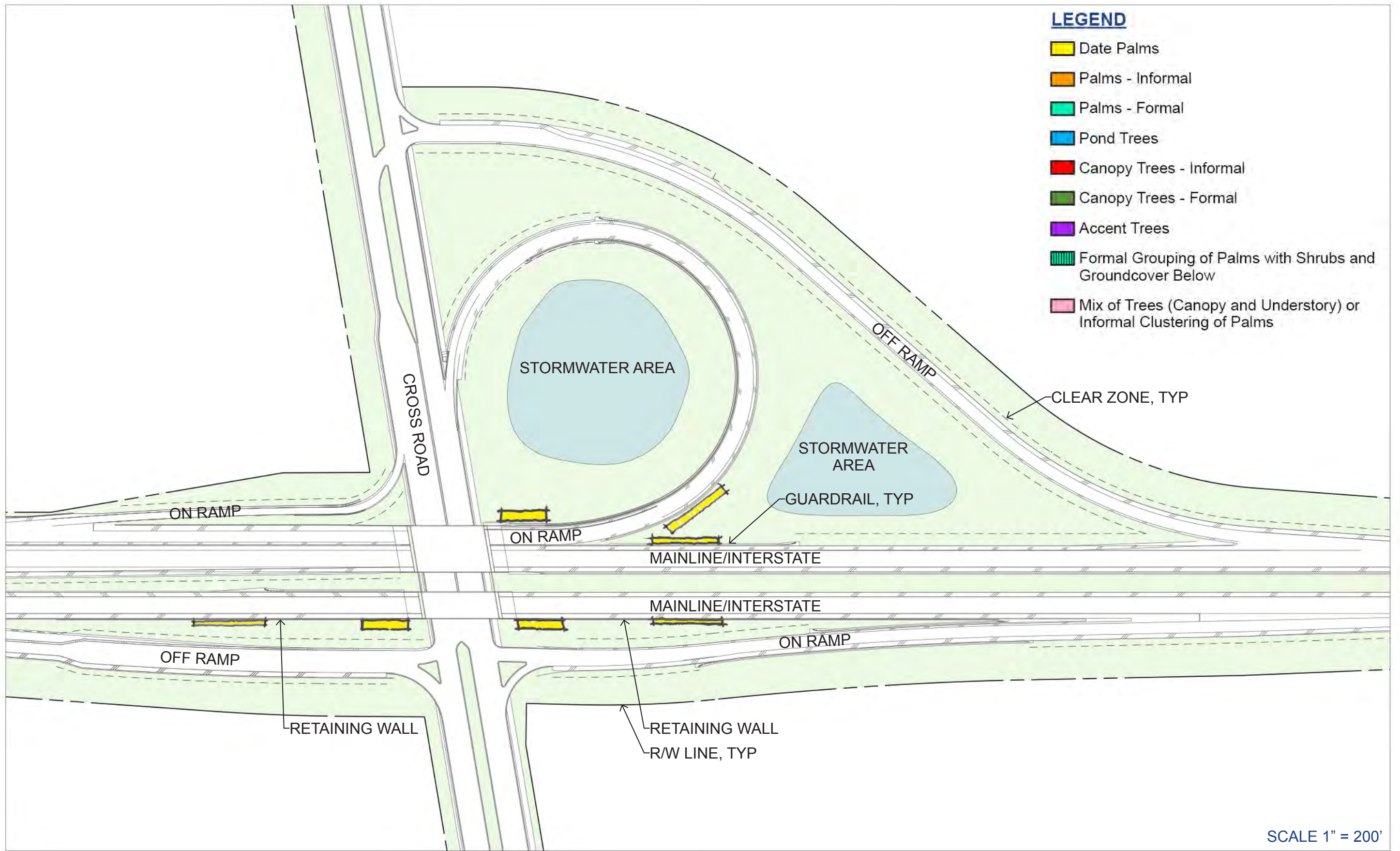


FORMAL GROUPING OF PALMS WITH SHRUBS/GROUND COVER BELOW

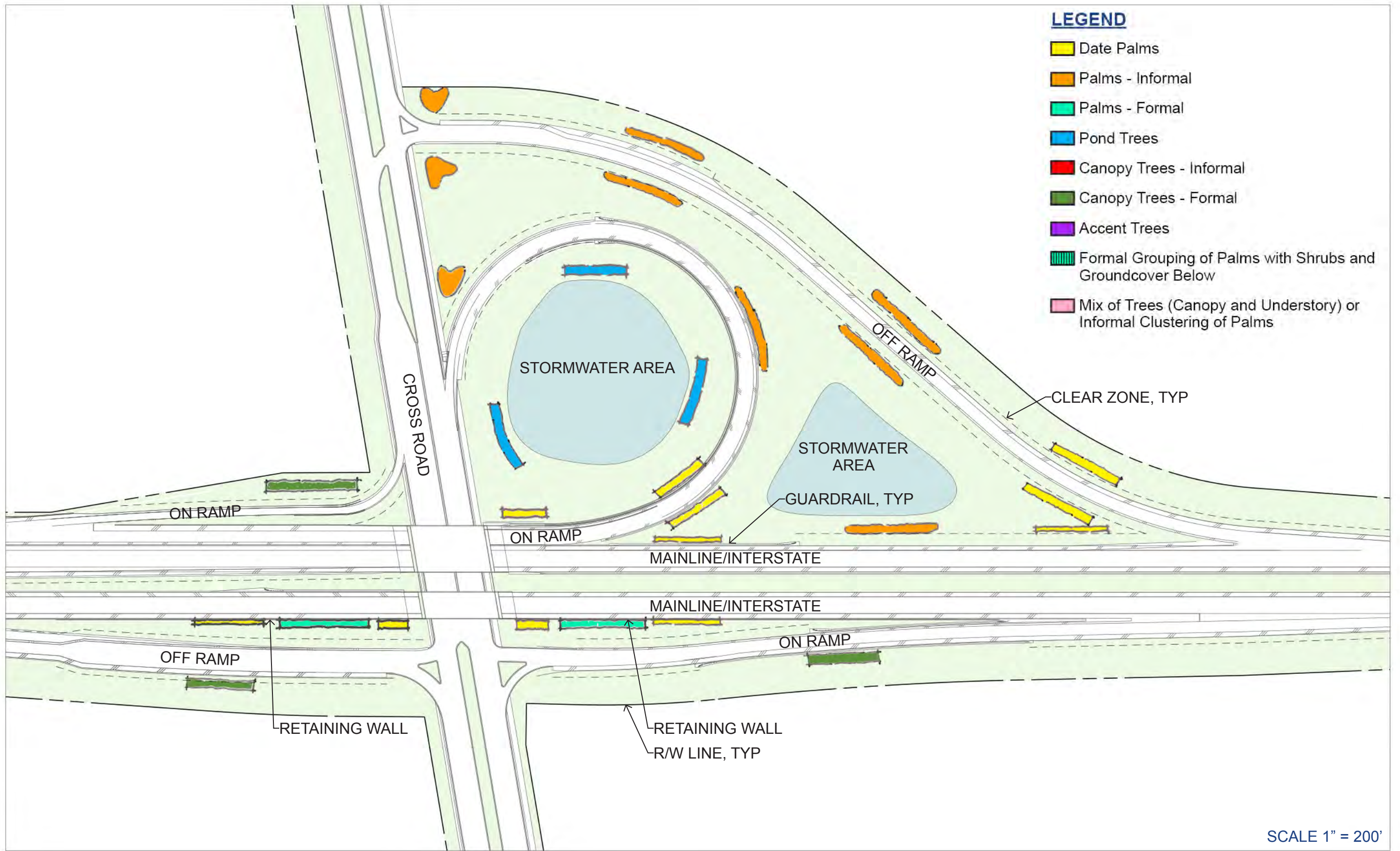


MIX OF TREES (CANOPY AND UNDERSTORY) OR INFORMAL CLUSTERING OF PALMS

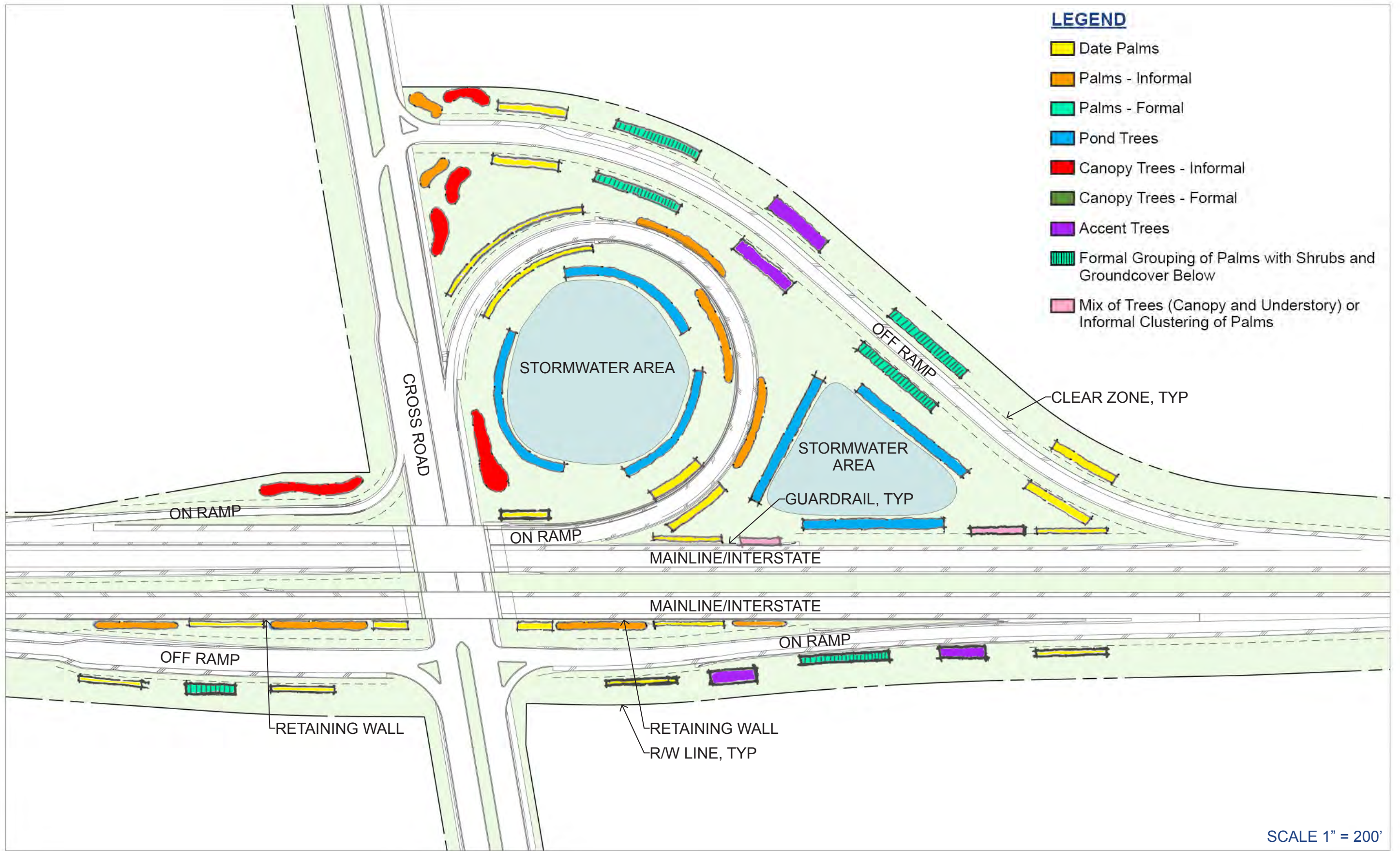




TYPE 1 INTERCHANGE - LEVEL 1 TREATMENT



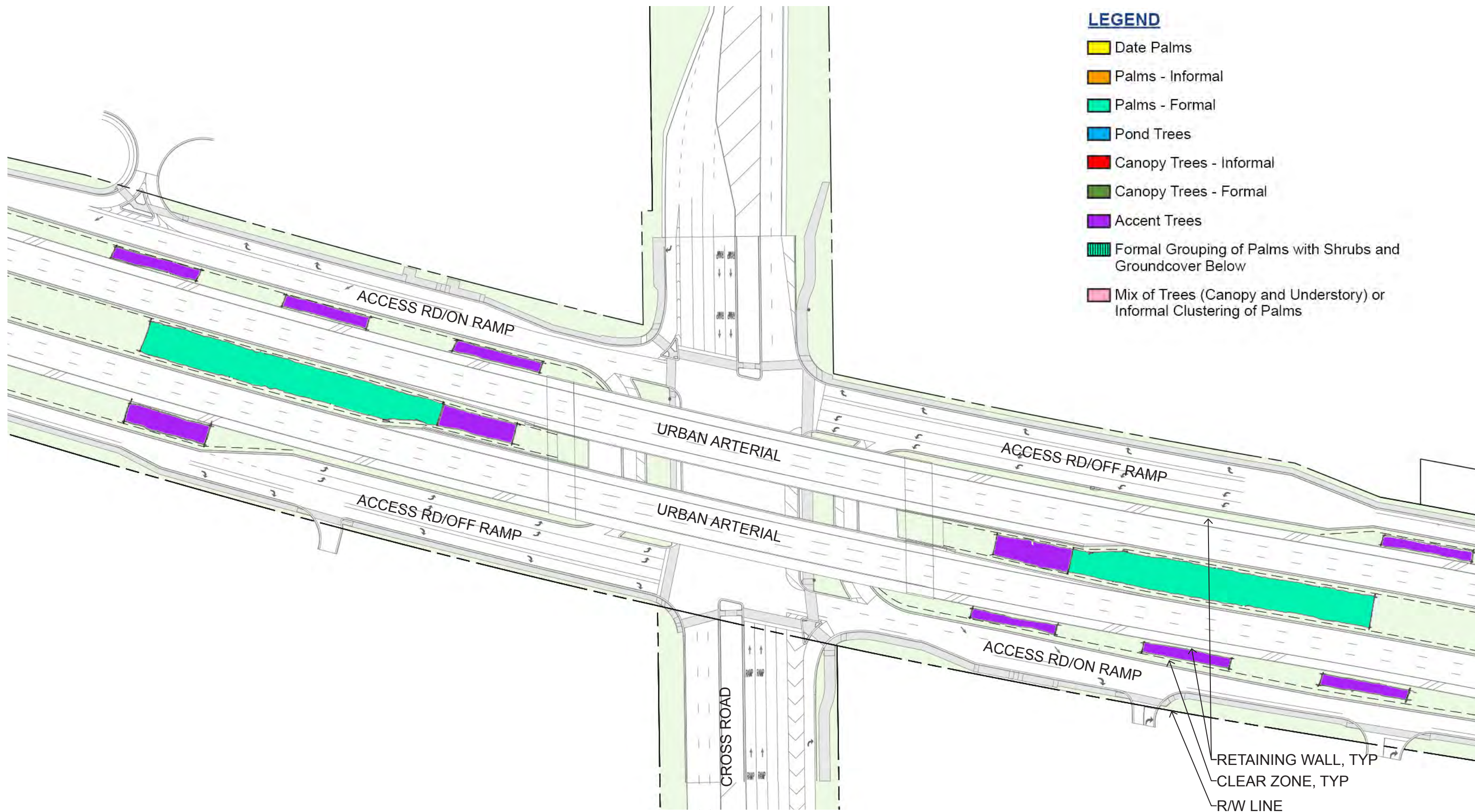
TYPE 1 INTERCHANGE - LEVEL 2 TREATMENT



TYPE 1 INTERCHANGE - LEVEL 3 TREATMENT



TYPE 1 INTERCHANGE - LEVEL 3 TREATMENT RENDERING

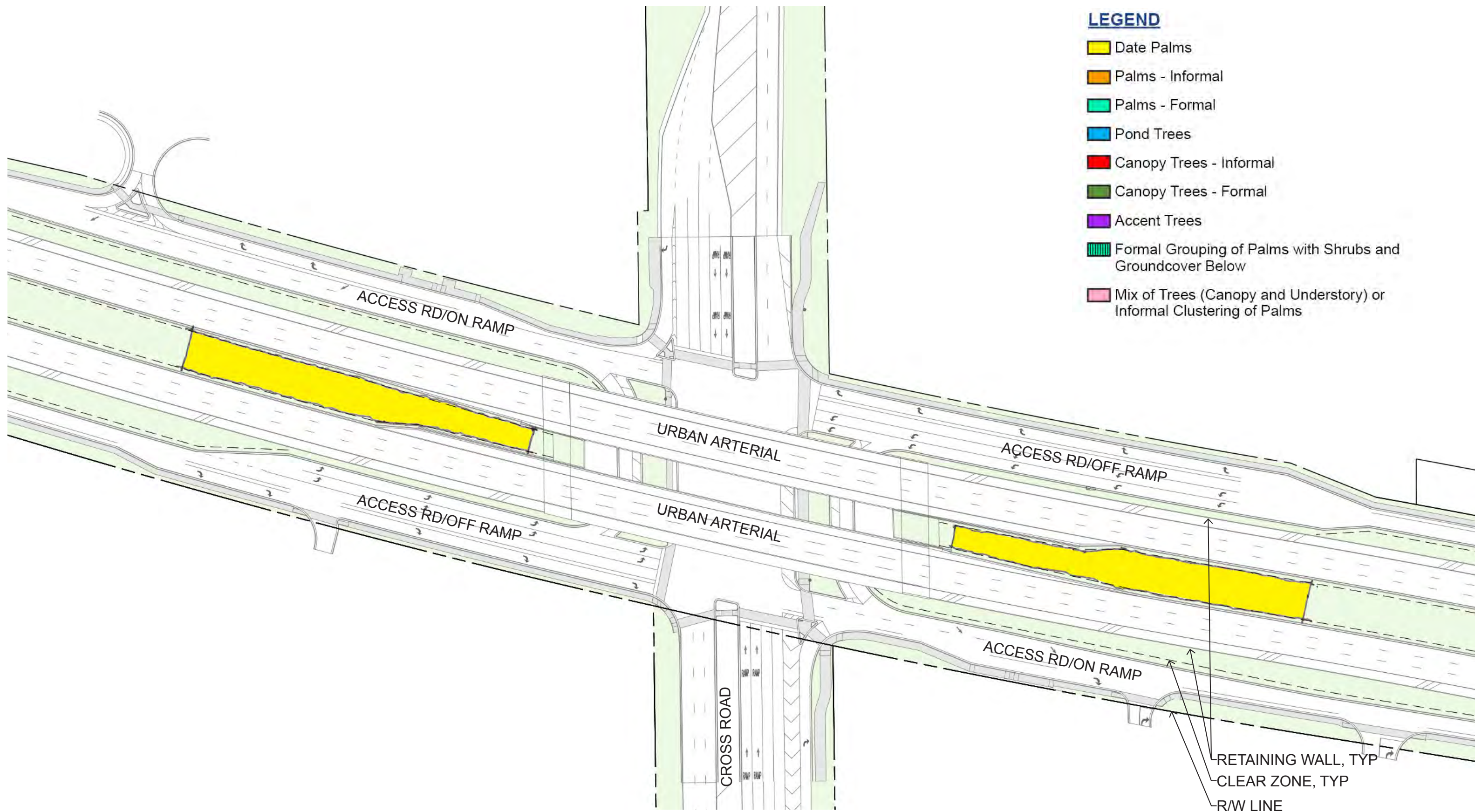


LEGEND

- Date Palms
- Palms - Informal
- Palms - Formal
- Pond Trees
- Canopy Trees - Informal
- Canopy Trees - Formal
- Accent Trees
- Formal Grouping of Palms with Shrubs and Groundcover Below
- Mix of Trees (Canopy and Understory) or Informal Clustering of Palms

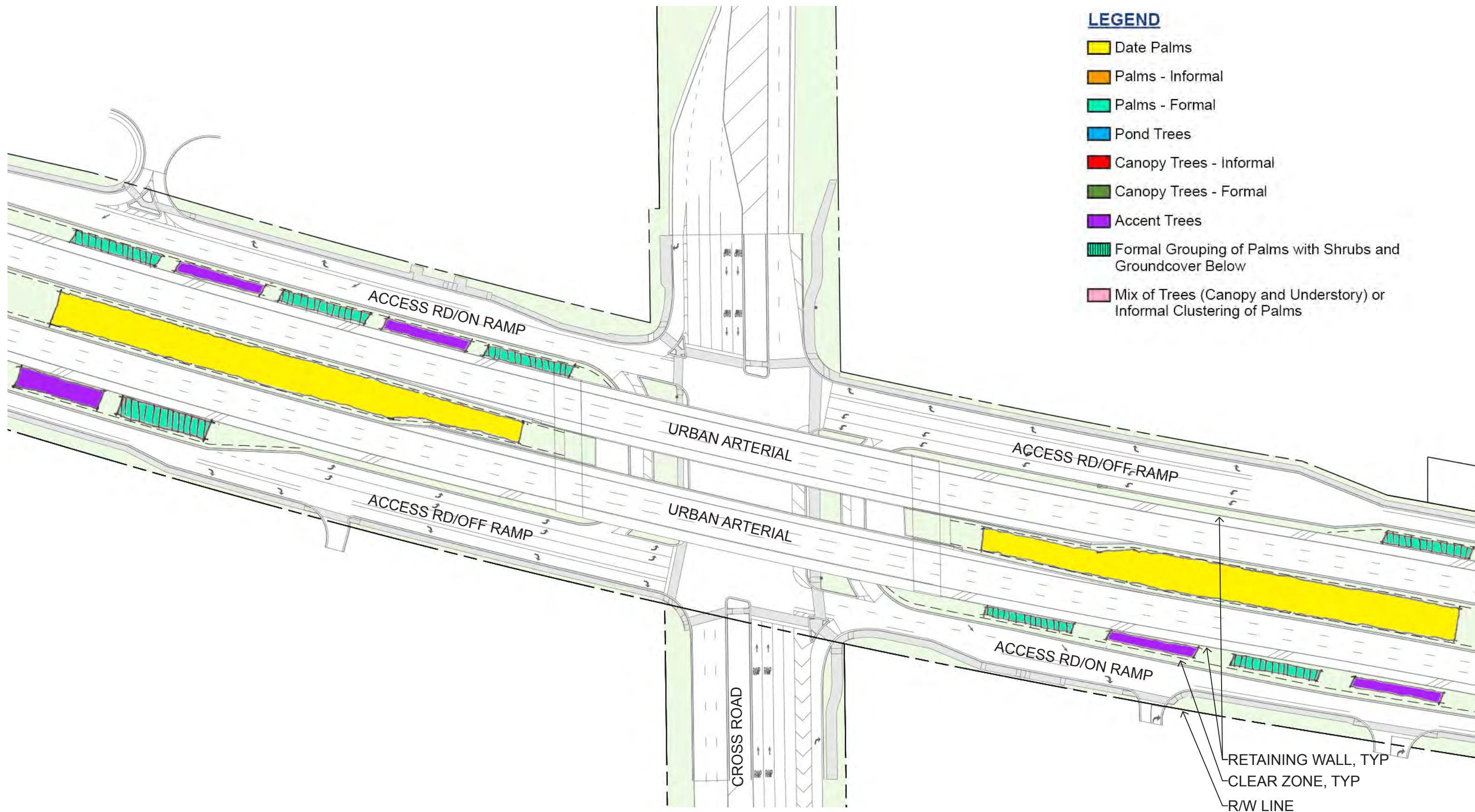
TYPE 2 INTERCHANGE - LEVEL 1 TREATMENT

SCALE 1" = 100'



TYPE 2 INTERCHANGE - LEVEL 2 TREATMENT

SCALE 1" = 100'



LEGEND

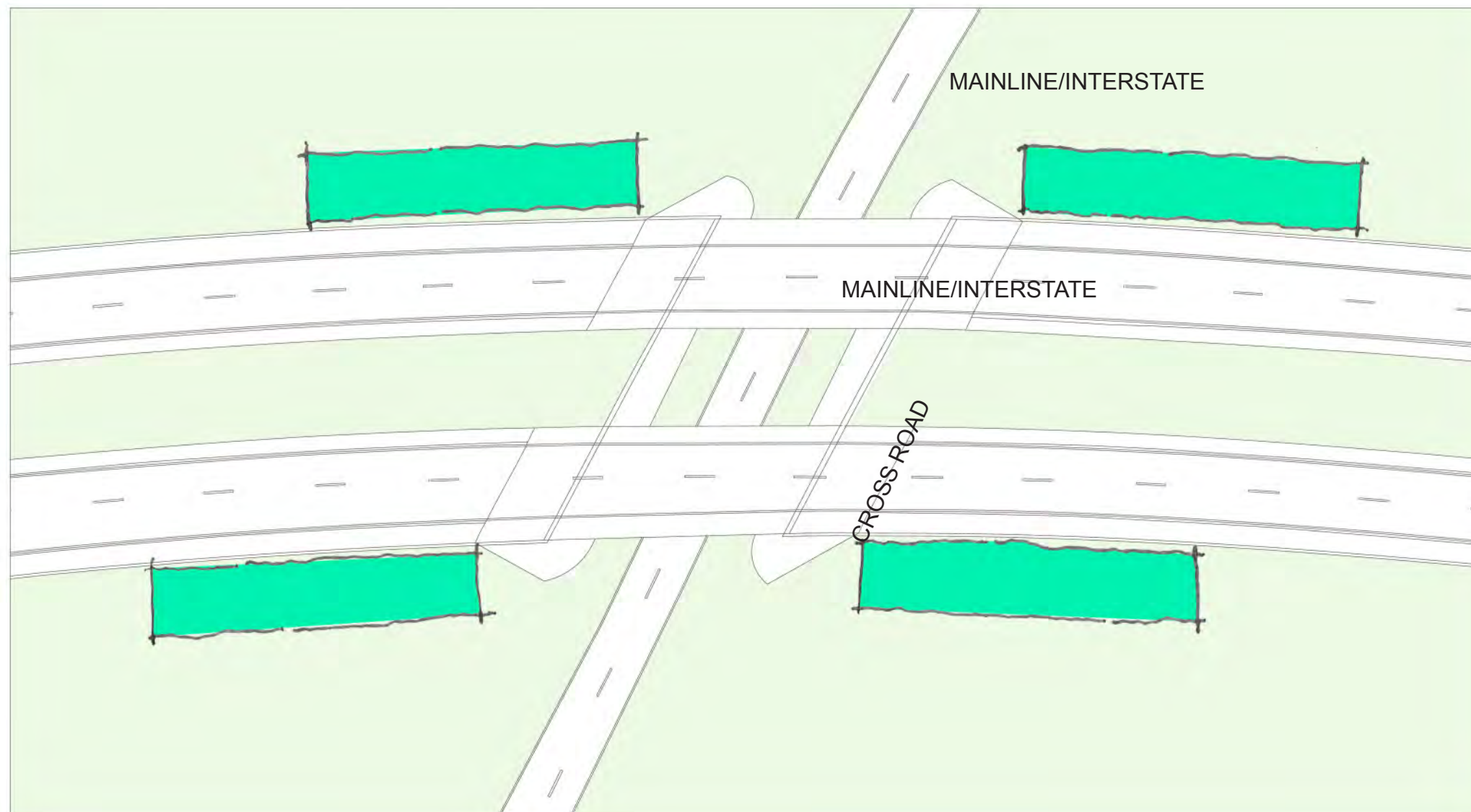
- Date Palms
- Palms - Informal
- Palms - Formal
- Pond Trees
- Canopy Trees - Informal
- Canopy Trees - Formal
- Accent Trees
- Formal Grouping of Palms with Shrubs and Groundcover Below
- Mix of Trees (Canopy and Understory) or Informal Clustering of Palms

TYPE 2 INTERCHANGE - LEVEL 3 TREATMENT

SCALE 1" = 100'



TYPE 2 INTERCHANGE - LEVEL 3 TREATMENT RENDERING

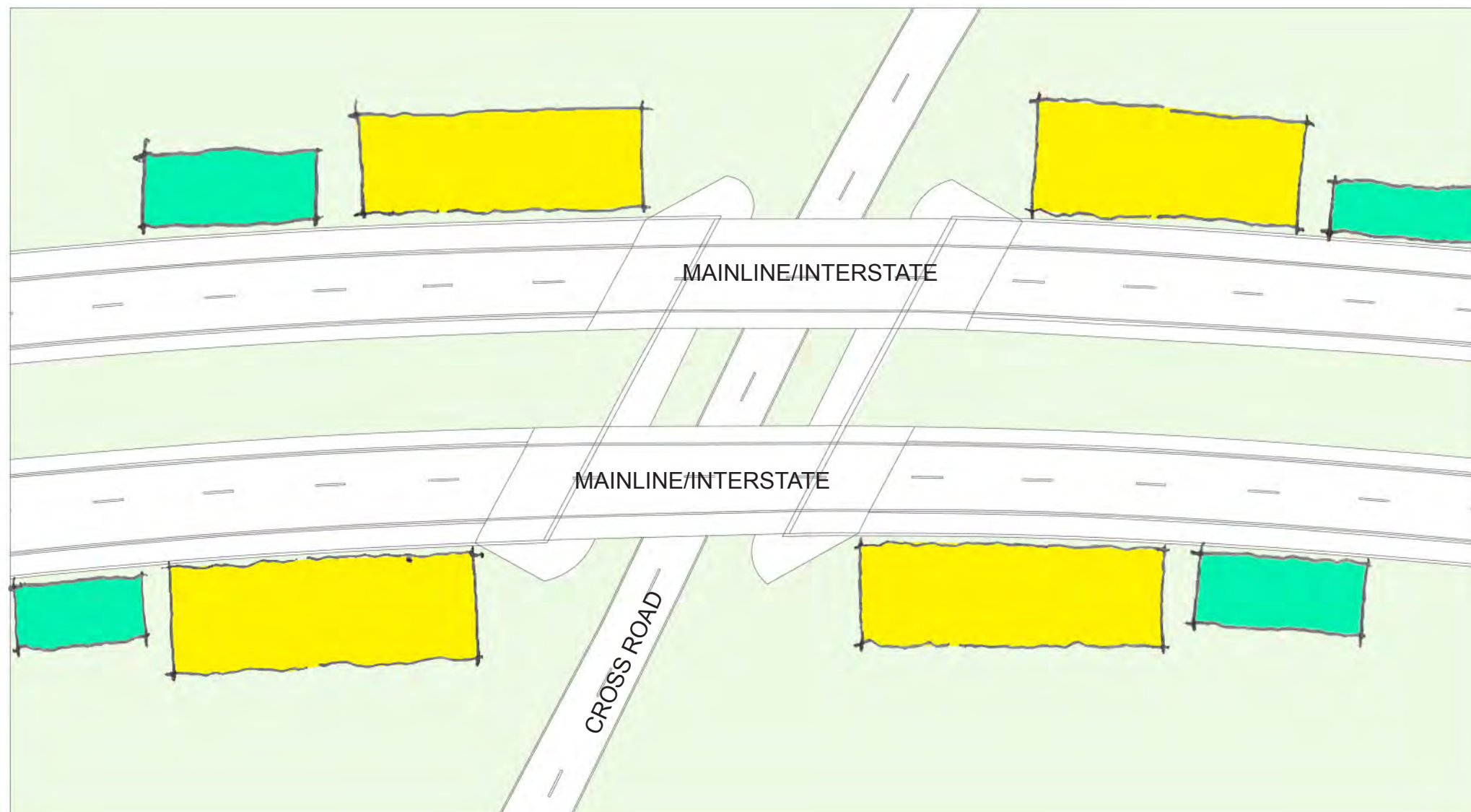


SCALE 1" = 50'

LEGEND

- Date Palms
- Palms - Informal
- Palms - Formal
- Pond Trees
- Canopy Trees - Informal
- Canopy Trees - Formal
- Accent Trees
- Formal Grouping of Palms with Shrubs and Groundcover Below
- Mix of Trees (Canopy and Understory) or Informal Clustering of Palms

OVERPASS/UNDERPASS - LEVEL 1 TREATMENT

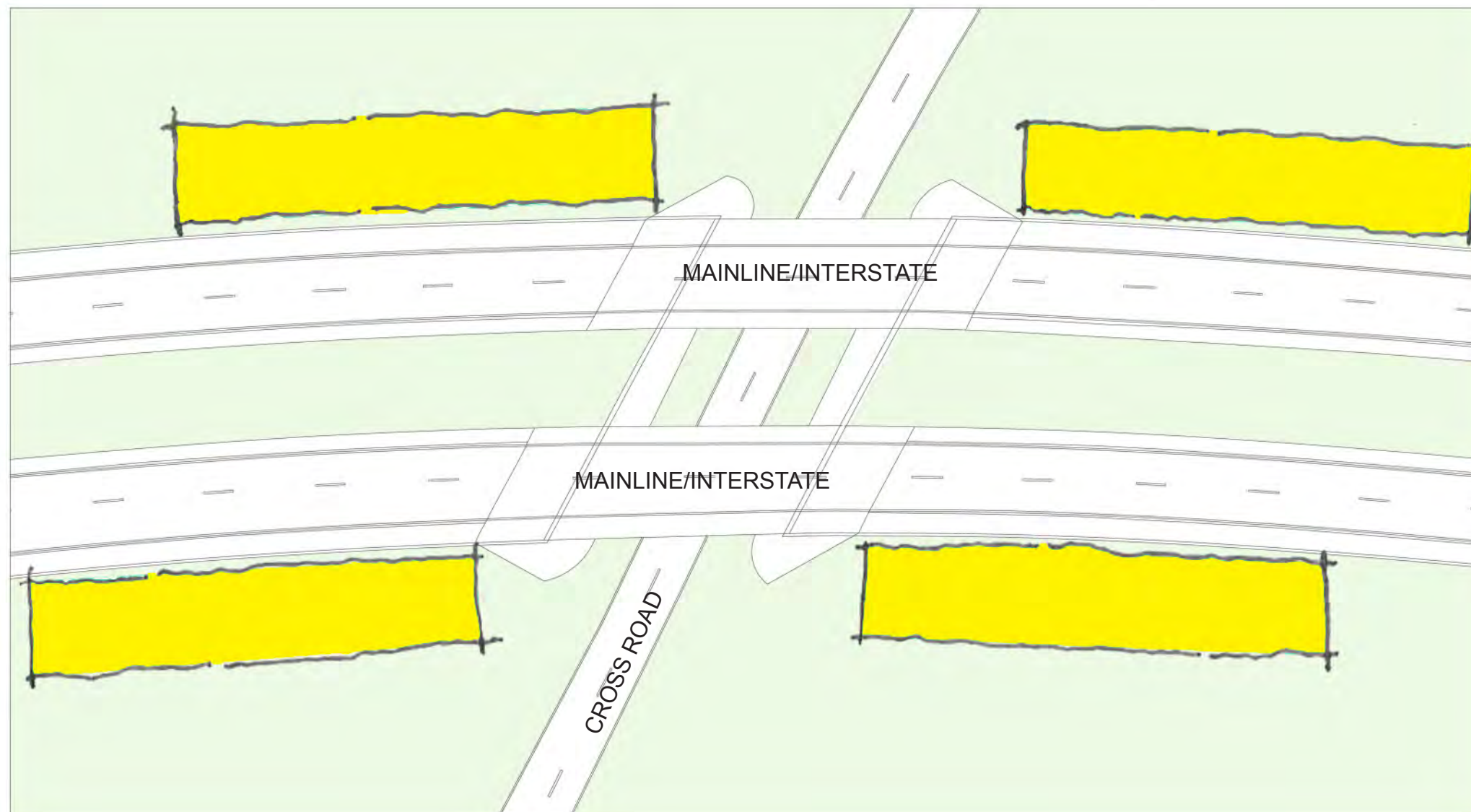


SCALE 1" = 50'

LEGEND

- Date Palms
- Palms - Informal
- Palms - Formal
- Pond Trees
- Canopy Trees - Informal
- Canopy Trees - Formal
- Accent Trees
- Formal Grouping of Palms with Shrubs and Groundcover Below
- Mix of Trees (Canopy and Understory) or Informal Clustering of Palms

OVERPASS/UNDERPASS - LEVEL 2 TREATMENT

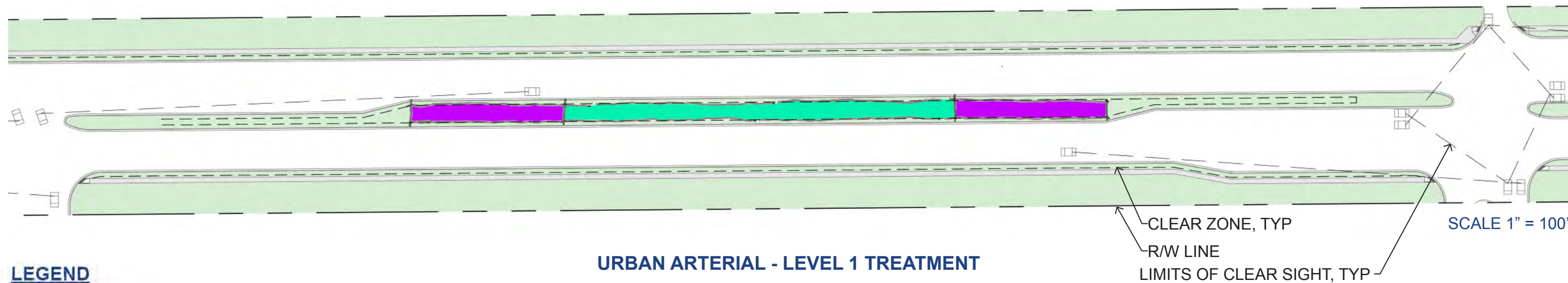


SCALE 1" = 50'

LEGEND

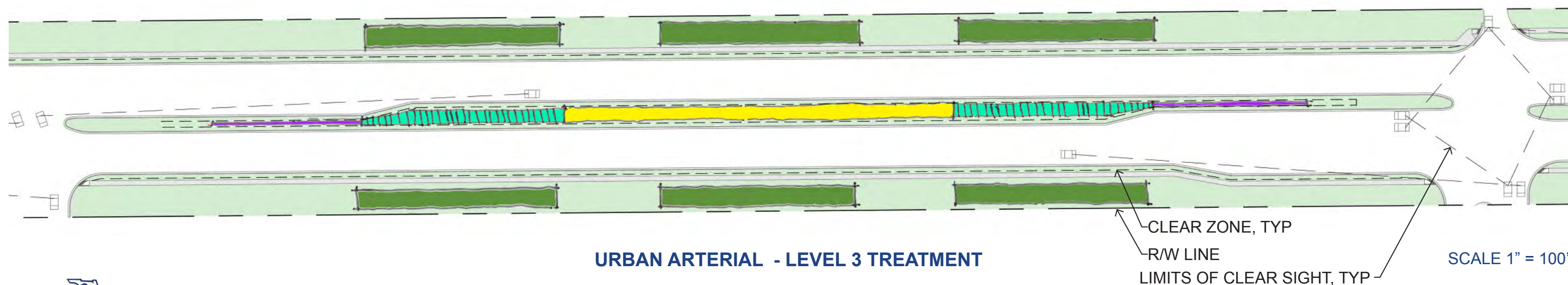
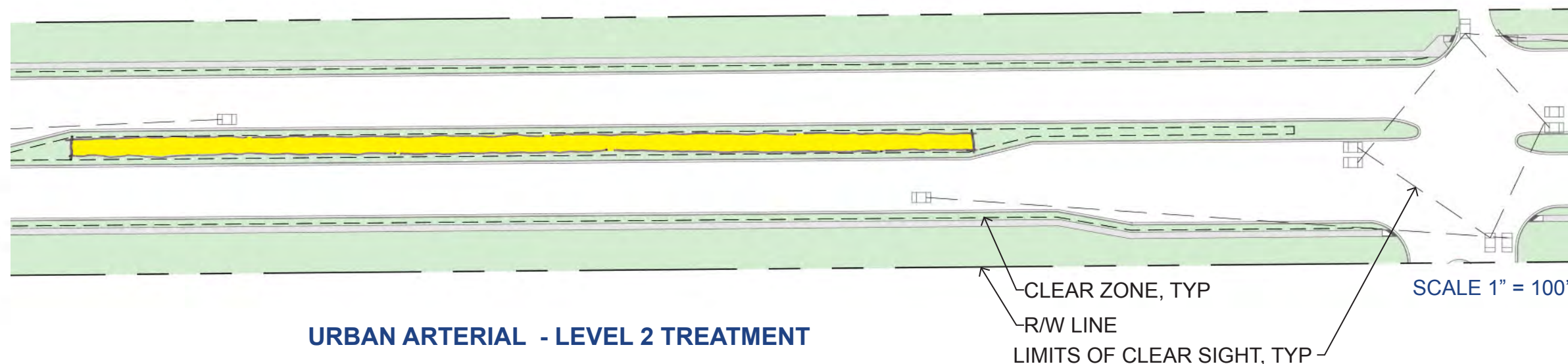
- Date Palms
- Palms - Informal
- Palms - Formal
- Pond Trees
- Canopy Trees - Informal
- Canopy Trees - Formal
- Accent Trees
- Formal Grouping of Palms with Shrubs and Groundcover Below
- Mix of Trees (Canopy and Understory) or Informal Clustering of Palms

OVERPASS/UNDERPASS - LEVEL 3 TREATMENT



LEGEND

- Date Palms
- Palms - Informal
- Palms - Formal
- Pond Trees
- Canopy Trees - Informal
- Canopy Trees - Formal
- Accent Trees
- Formal Grouping of Palms with Shrubs and Groundcover Below
- Mix of Trees (Canopy and Understory) or Informal Clustering of Palms

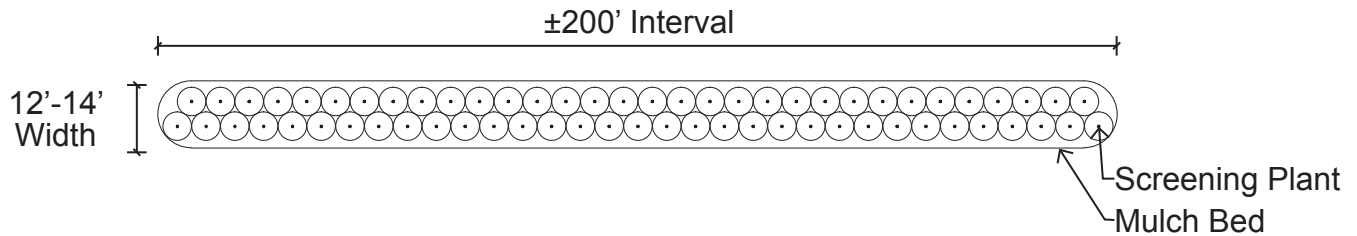


TYPICAL BUFFER DESIGN OPTIONS

Typical design options have been provided to depict potential levels of buffer treatment. Each option varies in plant type, spacing and arrangement providing adequate screening of surrounding land uses, undesirable views or other instances where buffering is required. Candidate plant material is listed in the Master Plant Palette.

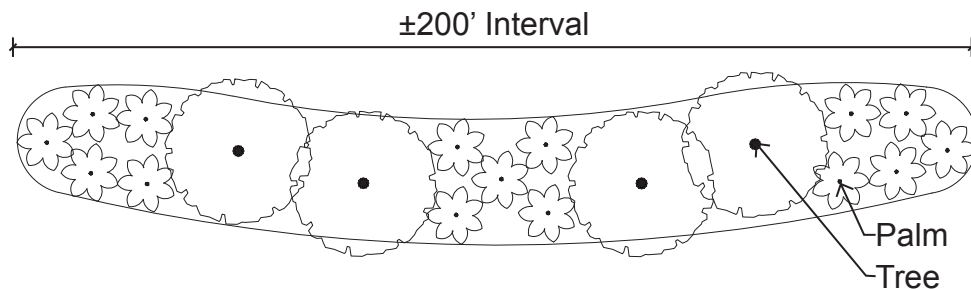
TYPICAL BUFFER DESIGN - OPTION 1 - SCREENING PLANTS

Large screening plants (10 gallon or larger) are arranged in a double row, tightly spaced to create a dense buffer.



TYPICAL BUFFER DESIGN - OPTION 2 - TREES AND PALMS

A mixture of trees and palms arranged informally creating a buffer while providing visual interest. Palms shall have no less than 12' clear trunk and can vary in heights. Trees selected should have dense canopies and be evergreen/semi-evergreen in nature to allow for year-round coverage.



TYPICAL BUFFER DESIGN - OPTION 3 - TREES WITH SCREENING PLANTS

A mixture of evergreen/semi-evergreen and canopy trees placed informally. Screening plants are placed in the background providing additional understory buffering.

