

ADMINISTRATIVE ACTION
TYPE 2 CATEGORICAL EXCLUSION

Florida Department of Transportation

SR 535/VINELAND RD FROM US 192 TO NORTH OF WORLD CENTER DR

District: FDOT District 5

County:

ETDM Number: 14325

Financial Management Number: 437174-2-22-01

Federal-Aid Project Number: N/A

Project Manager: David Graeber

The Environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding (MOU) dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

This action has been determined to be a Categorical Exclusion, which meets the definition contained in 40 CFR 1508.4, and based on past experience with similar actions and supported by this analysis, does not involve significant environmental impacts.

Signature below constitutes Location and Design Concept Acceptance:

Director Office of Environmental Management
Florida Department of Transportation

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This document was prepared in accordance with the FDOT PD&E Manual.

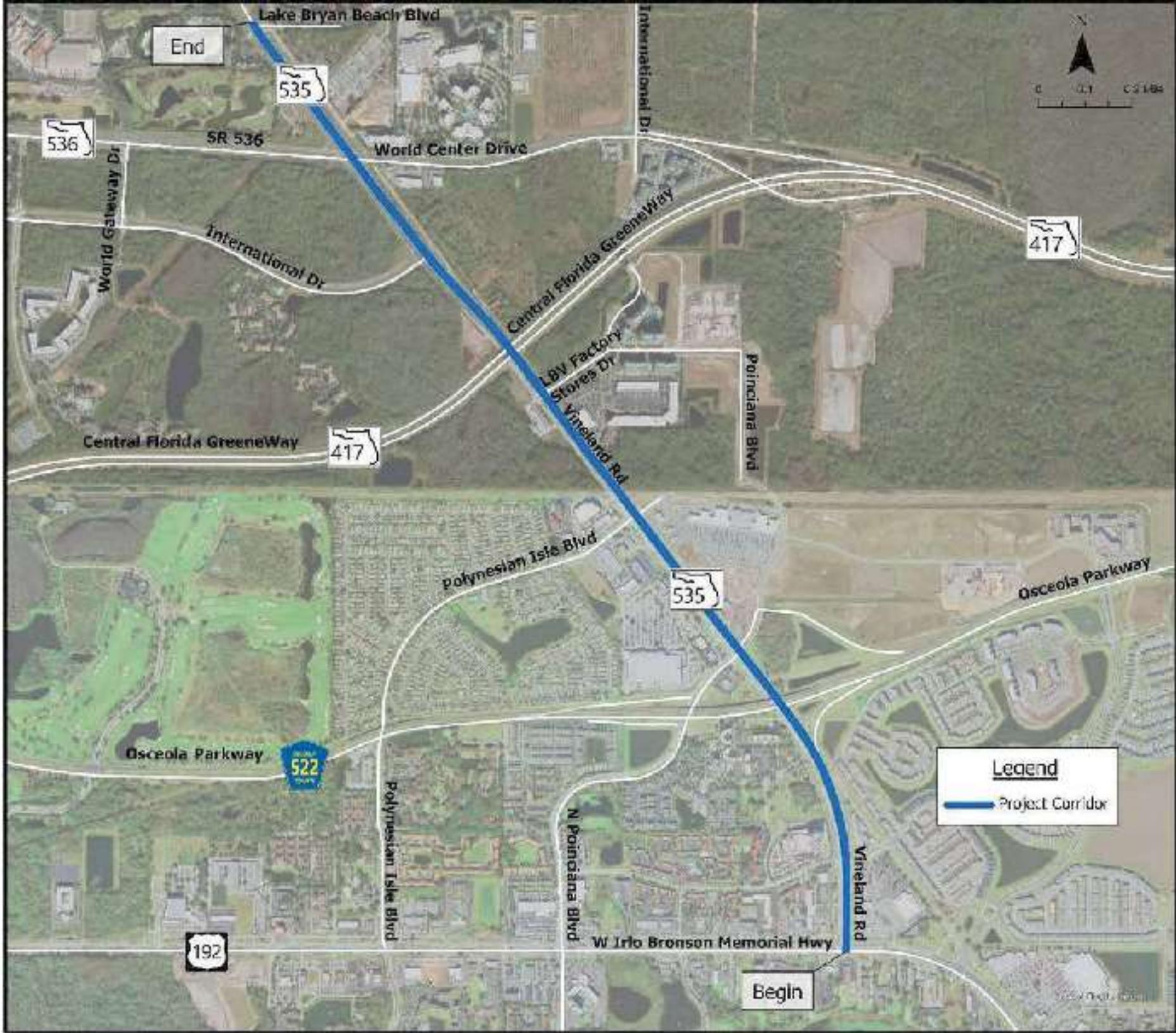
This project has been developed without regard to race, color or national origin, age, sex, religion, disability or family status (Title VI of the Civil Rights Act of 1964, as amended).

On 07/15/2019 the State of Florida determined that this project is consistent with the Florida Coastal Zone Management Program.

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1. Project Information

1.1 Project Description

SR 535 is a four-lane divided minor arterial facility located within Unincorporated Osceola and Orange Counties in Central Florida. SR 535 is known as Vineland Road in Osceola County and Kissimmee-Vineland Road in Orange County. The project limits extend approximately 2.35 miles from the US 192 intersection in Osceola County to just north of the SR 536 intersection in Orange County, as shown in Figure 1.1.



Figure 1-1 Project Location Map

Alternative Analysis Summary

The following alternatives were evaluated during the study:

- 'No-Build' Alternative
- Construction ('Build') Alternatives

The build alternative consists of widening SR 535 from four to six lanes. The study evaluated a range of typical section and intersection alternatives including inside widening and outside widening of the existing roadway. The build alternative analysis included the evaluation of open and closed stormwater drainage conveyance systems together with the evaluation of pond site locations. The study also evaluated Transportation System Management and Operations (TSMO).

and multimodal improvements.

Description of Preferred Alternative

The Preferred Alternative consists of inside widening from four to six lanes with a shared use path along both sides and intersection improvements. The preferred alternative is shown on Figure 1-2.

The Preferred Alternative has a design speed of 45-miles per hour (mph) and consists of full reconstruction with the additional lanes constructed towards the median. The typical section consists of three (3) 11-foot travel lanes in each direction separated by a 32-foot to 47-foot median with a 14-foot shared use path on the west side and a 12-foot shared use path on the east side of the roadway. The Preferred Alternative will be constructed within the existing right-of-way width of 200-feet to 224-feet. Swales with ditch bottom inlets in conjunction with flume inlets at the curb line will be provided for drainage conveyance. Stormwater attenuation and floodplain compensation will be provided.



Figure 1-2 Preferred Alternative Typical Section

Intersection Improvements

The Preferred Alternative will also implement intersection improvements including the following innovative intersection concepts:

- Polynesian Isle Boulevard Partial Median U-Turn (PMUT): Implementation of the PMUT involves the removal of northbound and southbound direct left turn movements from SR 535 to Polynesian Isle Boulevard and the addition of signalized U-turns at the existing median openings located just north and south of the intersection along SR 535 to accommodate vehicles wishing to travel east or west on Polynesian Isle Boulevard.
- International Drive Partial Displaced Left Turn (PDLT): Implementation of the PDLT involves the removal of direct eastbound and westbound left turns from International Drive at SR 535 with the displaced left turns installed on both legs International Drive. The northbound and southbound left turn movements for SR 535 continue to take place at the main intersection.
- SR 536 (World Center Drive) Partial Displaced Left Turn (PDLT): Implementation of the PDLT involves the removal and replacement of direct northbound and southbound left turns from SR 535 at SR 536 with the displaced left turns installed on both legs of SR 535. The eastbound and westbound left turn movements for the SR 536/World Center Drive continue to take place at the main intersection.

Drainage

There are 4 basins in the existing and proposed condition, and all basins drain to permitted stormwater systems in the existing condition (see Table 1-1). Where feasible, stormwater management facilities have been recommended within existing FDOT or County right-of-way (R/W). Below is a summary of the preferred pond alternatives (see Figure 1-3).

- **Basin 1:** Alternative 1A is the Preferred Alternative for Basin 1. Alternative 1A consists of an existing wet detention pond (identified as Exist. Pond 1-1) within FDOT R/W to provide the required water quality treatment and attenuation volumes.
- **Basin 2:** Alternative 2A is the Preferred Alternative for Basin 2. Alternative 2A consists of 2 ponds, one existing wet detention pond within existing FDOT R/W (identified as Exist. Pond 2-1) interconnected with a second wet detention pond (identified as Pond 2-2) to provide the required water quality treatment and attenuation volumes. Since there is insufficient area within the existing FDOT R/W to provide a stormwater management alternative to meet water quality treatment and attenuation requirements, Pond Alternative 2A will require acquisition of R/W.
- **Basin 3:** Alternative 3A is the Preferred Alternative for Basin 3. Alternative 3A consists of 2 ponds, one existing wet detention pond within existing FDOT R/W (identified as Exist. Pond 3-1) interconnected with a second wet detention pond (identified as Pond 3-2) to provide the required water quality treatment and attenuation volumes. Since there is insufficient area within the existing FDOT R/W to provide a stormwater management alternative to meet water quality treatment and attenuation requirements, Pond Alternative 3A will require acquisition of R/W.
- **Basin 4:** Alternative 4A is the Preferred Alternative for Basin 4. Alternative 4A consists of an existing wet detention pond (identified as Exist. Pond 4-1) within existing R/W and easement to provide the required water quality treatment and attenuation volumes.

Basin	Preferred Alternative	Ponds	Type	R/W Req'd.	Remarks
1	1A	Exist. Pond 1-1	wet	0.0	Exist. pond sufficient Reduced drainage area (30.94 ac to 29.16 ac) from exist to proposed conditions. Increased freeboard in exist. pond. Pond within exist R/W
2	2A	Exist. Pond 2-1 and Pond 2-2	wet	4.3	Interconnected ponds to provide required water quality treatment and attenuation. Utilize Exist. Pond 2-1 outfall to Shingle Creek. Exist. Pond 2-1 within exist R/W. Estimated R/W needs for Pond 2-2 provided (excluding public R/W used for pond).
3	3A	Exist. Pond 3-1 and Pond 3-2	wet	3.5	Interconnected ponds to provide required water quality treatment and attenuation. Utilize Exist. Pond 3-1 and Pond 3-2 outfalls to Shingle Creek. Exist. Pond 3-1 within exist R/W. Estimated R/W needs for Pond 3-2 provided (excluding public R/W used for pond).
4	4A	Exist. Pond 4-1	wet	0.0	Exist. pond sufficient Reduced drainage area (8.70 ac to 7.63 ac) from exist to proposed conditions. Increased freeboard in exist. pond. Pond within exist R/W

Table 1-1 Preferred Pond Alternatives

An analysis of floodplain impacts and Floodplain Compensation (FPC) alternatives was performed. Project improvements will impact the 100-year floodplain as a result of longitudinal impacts and transverse impacts. The preferred FPC alternative and anticipated right of way needs associated with the preferred alternative are provided in Table 1-2.

Name	Floodplain Impacts (ac-ft)	Floodplain compensation Volume Provided (ac-ft)	Estimated Pond R/W Req'd. (including access) (ac)
FPC-1	8.89	14.45	4.3

Table 1-2 Preferred FPC Site



Figure 1-3 Preferred Alternative Ponds

Right of Way and Construction Cost

SR 535 has an existing R/W of 224 feet which is ample R/W to accommodate the Preferred Alternative. Some R/W impacts will be required to accommodate intersection improvements at the International Drive and World Center Drive (SR 536) intersections and for offsite ponds. See Table 1-2.

	Cost
Construction	\$76.5M
R/W	\$38.1M
Utility Relocation	\$7M
Sub Total	\$121.6M
Design (15%)	\$11.5M
CEI (10%)	\$7.7M
Total Estimated Project Cost	\$140.8M

1.2 Purpose and Need

The purpose of the project is to accommodate future projected traffic demand and improve safety. The need for the project is based on addressing future transportation demand and safety concerns.

Transportation Demand

In the existing condition, the section of SR 535 from US 192 to Kyngs Heath Road operates at a Level of Service (LOS) D with an Annual Average Daily Traffic (AADT) of 28,300; the section from Kyngs Heath Road to Poinciana Boulevard operates at LOS D with an AADT of 26,900; the section from Poinciana Boulevard to Polynesian Isle Boulevard operates at LOS D with an AADT of 46,800; the section from Polynesian Isle Boulevard to World Center Drive operates at LOS D with an AADT of 44,300.

In the future year (2045) No-Build condition, the section of SR 535 from US 192 and Kyngs Heath Road is projected to operate at LOS F with an AADT of 42,000; the section from Kyngs Heath Road to Poinciana Boulevard is projected to operate at LOS E with an AADT of 40,000; the section from Poinciana Boulevard to Polynesian Isle Boulevard is projected to operate at LOS F with an AADT of 69,000; the section from Polynesian Isle Boulevard to World Center Drive is projected to operate at LOS F with an AADT of 66,000.

Safety

A total of 981 crashes were reported on SR 535 from US 192 to Lake Bryan Beach Boulevard in the five-year period from 2014 through 2018. Of those reported crashes, 463 (47%) resulted in injury and four (4) resulted in a fatality. The most frequent crash type was rear end with 605 (62%) total crashes, indicating congestion. Sidewipe crashes were the second highest with 106 (11%), followed by left-turn with 93 (9%) total crashes. Of the 981 crashes, 602 (61%) crashes occurred during daylight conditions. The crash rates along this segment of SR 535 exceed the FDOT statewide averages for similar facilities.

1.3 Planning Consistency

The project is within the jurisdiction of MetroPlan Orlando. The MetroPlan Orlando 2045 Cost Feasible Plan (CFP) includes widening of SR 535 from US 192 in Osceola County to SR 536 in Orange County in years 2031 to 2035 (construction). The SR 535 improvements are funded for design in the Florida Department of Transportation (FDOT) 2024-2029 Five-Year Work Program and MetroPlan Orlando 2023-2028 Transportation Improvement Program (TIP). This project was screened in the Efficient Transportation Decision Making (ETDM) system as ETDM #14325.

Currently Adopted LRTP-CFP	COMMENTS			
Yes				
	Currently Approved	\$	FY	COMMENTS
PE (Final Design)				
TIP	Y	5,240,000	2023/24 to 2027/28	
STIP	Y	5,240,000	2023/24 to 2027/28	
R/W				
TIP				
STIP				
Construction				
TIP				
STIP				

2. Environmental Analysis Summary

Issues/Resources	Significant Impacts?			
	Yes	No	Enhance	No Inv
3. Social and Economic				
1. Social	—	✗	—	—
2. Economic	—	✗	—	—
3. Land Use Changes	—	✗	—	—
4. Mobility	—	✗	—	—
5. Aesthetic Effects	—	✗	—	—
6. Relocation Potential	—	—	—	—
7. Farmland Resources	—	—	—	✗
4. Cultural Resources				
1. Section 106 of the National Historic Preservation Act	—	✗	—	—
2. Section 4(f) of the USDOT Act of 1966, as amended	—	—	—	—
3. Section 6(f) of the Land and Water Conservation Fund	—	—	—	—
4. Recreational Areas and Protected Lands	—	—	—	—
5. Natural Resources				
1. Protected Species and Habitat	—	✗	—	—
2. Wetlands and Other Surface Waters	—	✗	—	—
3. Essential Fish Habitat (EFH)	—	✗	—	—
4. Floodplains	—	✗	—	—
5. Sole Source Aquifer	—	✗	—	—
6. Water Resources	—	✗	—	—
7. Aquatic Preserves	—	✗	—	—
8. Outstanding Florida Waters	—	—	—	—
9. Wild and Scenic Rivers	—	—	—	—
10. Coastal Barrier Resources	—	—	—	—
6. Physical Resources				
1. Highway Traffic Noise	—	✗	—	—
2. Air Quality	—	✗	—	—
3. Contamination	—	✗	—	—
4. Utilities and Railroads	—	✗	—	—
5. Construction	—	✗	—	—

USCG Permit

- ✗ A USCG Permit IS NOT required.
- A USCG Permit IS required.

* Impact Determination: Yes = Significant; No = No Significant Impact; Enhance = Enhancement; NoInv = Issue absent, no involvement. Basis of decision is documented in the following sections.

3. Social and Economic

The project will not have significant social and economic impacts. Below is a summary of the evaluation performed.

3.1 Social

A Sociocultural Data Report (SDR) was developed using the FDOT Efficient Transportation Decision Making system. The median household income in the project area is \$48,016 and 17.44 percent of the population is considered low-income because their annual income is below the poverty level. The study area contains Limited English Proficiency populations and according to the SDR, 10.46 percent of the population in the project area speaks English not well or not at all.

There were no special cases identified on this project such as handicapped or disabled displacements that warrant special assistance. The project is not expected to contribute to social isolation of any special populations of elderly, handicapped, minority or transit-dependent groups. No relocations are proposed under the Preferred Alternative.

Based on the analysis conducted during this PD&E Study, the Preferred Alternative would not cause disproportionately high and adverse effects on any minority or low-income populations in accordance with the provisions of Executive Order 12898 and Federal Highway Administration (FHWA) Order 6640.23a. No further Environmental Justice analysis is required. Based on public engagement activities, no controversy is anticipated for the project. For all the reasons outlined above, it was determined that the project will have no substantial impact on Social resources.

3.2 Economic

During the PD&E Study, a review of potential impacts to commerce and the tax base was conducted. The study determined that there would be no relocations or displacements under the Preferred Alternative, so no significant negative economic impacts are anticipated. The project is anticipated to enhance the local economy by improving the transportation system and enhancing connectivity to/from major employment centers and tourist attractions.

3.3 Land Use Changes

Land use cover descriptions provided for both uplands and wetlands are classified utilizing the Florida Land Use Cover and Forms Classification System (FLUCCS) designations. In addition to existing FDOT right-of-way, the roadway impacts under the Preferred Alternative would impact 0.12 acre of Commercial and Services lands (FLUCCS 1400), 0.11 acre of Pine Flatwoods (FLUCCS 4110) and an additional 0.48 acre mapped as Roads and Highways (FLUCCS 8140).

Pond impacts under the Preferred Alternative would total 24.39 acre and would occur to areas mapped as Medium Density Under Construction, (FLUCCS 1290, 3.81 acre), Multiple Dwelling Units, High Rise (FLUCCS 1340, 0.73 acre), Commercial and Services (FLUCCS 1400, 3.38 acre), Golf Course (FLUCCS 1820, 2.38 acre), Upland Shrub and Brushlands (FLUCCS 3200, 2.72 acre), Pine Flatwoods (FLUCCS 4110, 4.44 acre), Reservoirs (FLUCCS 5300, 2.59 acre), Roads and Highways (FLUCCS 8140, 4.34 acre).

The project is compatible and consistent with the planned land uses documented in the Orange County Comprehensive Plan's Transportation Element, "Future Lynx Transit Routes 2017 and is neither consistent, nor inconsistent with the Osceola Comprehensive Plan. For these reasons, no significant impacts to land use are anticipated.

3.4 Mobility

The project is anticipated to enhance mobility through additional roadway capacity and connectivity with sidewalks and shared-use paths.

3.5 Aesthetic Effects

During this PD&E Study, a review of the potential viewshed, and compatibility issues was conducted. The Degree of Effect assigned to aesthetics by FTE during the Efficient Transportation Decision Making process was *Minimal*.

The Preferred Alternative follows an existing roadway corridor and would not introduce any unnatural or unusual elements into the surrounding viewshed. Because of the urban nature of the area and the location along a major transportation corridor with similar infrastructure at roadway interchanges, these impacts will not change the character of the viewshed and are compatible with the intended use of these transportation corridors.

3.6 Relocation Potential

The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, a Right of Way and Relocation Assistance Program will be carried out in accordance with Florida Statute 421.55, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

3.7 Farmland Resources

Through coordination with the Natural Resources Conservation Service, it has been determined that no farmlands as defined by 7 CFR Part 658 are located in the project vicinity.

4. Cultural Resources

The project will not have significant impacts to cultural resources. Below is a summary of the evaluation performed.

4.1 Section 106 of the National Historic Preservation Act

A Cultural Resource Assessment Survey (CRAS), conducted in accordance with 36 CFR Part 800, was performed for the project, and the resources listed below were identified within the project Area of Potential Effect (APE). FDOT found that these resources do not meet the eligibility criteria for inclusion in the National Register of Historic Places (NRHP), and State Historic Preservation Officer (SHPO) concurred with this determination on . Therefore, FDOT, in consultation with SHPO, has determined that the proposed project will result in No Historic Properties Affected.

Coordination with the State Historic Preservation Officer (SHPO) is ongoing. The defined archaeological area of potential effects (APE) includes the existing right-of-way where improvements are proposed. The architectural history APE included the existing right-of-way and was extended to the back or side property lines of parcels adjacent to the right-of-way or no more than 100 meters (328 feet) from the right-of-way line. Where ponds are proposed, the APE was defined to include the proposed pond footprints in addition to a 30.5-meter (100-foot) buffer of each pond. The archaeological survey was conducted within the construction footprint (i.e., the proposed pond footprints and existing right-of-way). In this document, the "APE" refers to the combined archaeological APE and architectural history APE.

The archaeological survey included the excavation of eight shovel tests and nine "no-dig" points; due to heavy modern development and buried utilities within the archaeological APE, most of the corridor was limited to pedestrian survey and surface inspection. No artifacts were recovered, and no archaeological sites or occurrences were identified within the APE. SEARCH recommends no further archaeological survey in support of the SR 535 project.

The architectural history survey resulted in the identification and evaluation of one newly recorded historic building at 8350 Lake Bryan Beach Boulevard (SOR11944). Resource SOR11944 is recommended ineligible for the National Register of Historic Places (NRHP). The survey also recorded a new segment of the Florida Midland Railroad, a previously recorded resource in Orange and Osceola counties. It is recorded in Orange County as Resource SOR10235 and in Osceola County as Resource SOR02541. The SHPO previously evaluated recorded segments of SOR10235 and SOR02541 outside the current APE as ineligible for the NRHP. Based on the results of the current architectural history survey and SHPO linear resource guidelines, the segment of SOR10235/SOR02541 within the APE lacks significance and is recommended ineligible for listing in the NRHP.

No historic properties were identified within the APE. No further work is required. For these reasons, no significant impacts to historic resources are anticipated.

4.2 Section 4(f) of the USDOT Act of 1966, as amended

There are no properties in the project area that are protected pursuant to Section 4(f) of the USDOT Act of 1966.

4.3 Section 6(f) of the Land and Water Conservation Fund Act of 1965

There are no properties in the project area that are protected pursuant to Section 6(f) of the Land and Water Conservation Fund of 1965.

4.4 Recreational Areas and Protected Lands

There are no other protected public lands in the project area.

5. Natural Resources

The project will not have significant impacts to natural resources. Below is a summary of the evaluation performed:

5.1 Protected Species and Habitat

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973 as amended as well as other applicable federal and state laws protecting wildlife and habitat.

This project was evaluated for impacts to protected plant and animal species and their habitats in accordance with the FDOT's *PD&E Manual, Part 2. Protected Species and Habitat* which incorporates the requirements of the National Environmental Policy Act (NEPA) and related federal and state laws. Federal and state listed species with potential to occur in the project corridor were identified through research and coordination with US Fish and Wildlife Service, and the Florida Fish and Wildlife Conservation Commission and information on each species is provided in the table below. Based on technical consultation with USFWS North Florida Ecological Services Field office on November 29, 2022 and USFWS South Florida Ecological Field Services office on November 21, 2022, it was determined that suitable habitat for sand and blue tail mole skinks and Audubon's crested caracara were unlikely to exist within the project limits and surveys would not be required (see attached letters). Effect determinations were made using USFWS effect determination keys for wood stork and Eastern indigo snake. For other species the proposed project activities along with the presence and quality of suitable habitat, historical records of occurrence, and field inspections were used to develop effect determinations.

Common Name	Scientific Name	Federal Status	State Status	Occurrence Potential in Project Area	Effect Determination
Fauna Species					
Audubon's crested caracara	<i>Polyborus plancus audubonii</i>	FT	-	Low	No Effect
Blue-tail mole skink	<i>Eumeces egregius lividus</i>	FT	-	Moderate	No Effect
Eastern black rail	<i>Laterallus jamaicensis ssp. jamaicensis</i>	FT	-	Low	No Effect
Eastern indigo snake	<i>Drymarchon corais couperi</i>	FT	-	Low	NLAA
Everglade snail kite	<i>Rostrhamus sociabilis plumbeus</i>	FE	-	Low	No Effect
Florida burrowing owl	<i>Athene cunicularia</i>	-	ST	Low	NAEA
Florida grasshopper sparrow	<i>Ammodramus savannarum floridanus</i>	FE	-	Low	No Effect
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	-	ST	Low	NAEA
Florida sandhill crane	<i>Grus canadensis pratensis</i>	-	ST	Low	NAEA
Florida sand skink	<i>Neoseps reynoldsi</i>	FT	-	Moderate	NLAA
Florida scrub-jay	<i>Aphelocoma coerulescens</i>	FT	-	Low	No Effect
Gopher tortoise	<i>Gopherus polyphemus</i>	-	ST	Low	NAEA
Little blue heron	<i>Egretta caerulea</i>	-	ST	Low	NAEA
Red-cockaded woodpecker	<i>Picoides borealis</i>	FE	-	Low	No Effect
Roseate spoonbill	<i>Platalea ajaja</i>	-	ST	Low	No Effect Anticipated
Southeastern American kestrel	<i>Falco sparverius paulus</i>	-	ST	Low	NAEA

Tricolored heron	<i>Egretta tricolor</i>	-	ST	Low	No Effect Anticipated
Wood stork	<i>Mycteria americana</i>	FE	-	Low	No Effect
Flora Species					
Beautiful paw paw	<i>Deeringothamnus pulchellus</i>	FE	-	Low	No Effect
Britton's beardgrass	<i>Nolina brittoniana</i>	FE	-	Low	No Effect
Florida greeneyes	<i>Berlandiera subacaulis</i>	FT	-	Low	No Effect
Gray's beaksedge	<i>Rhynchospora grayi</i>	FT	-	Low	No Effect
Lewton's polygala	<i>Polygala lewtonii</i>	FE	-	Low	No Effect

The monarch butterfly and tricolored bat are candidate species for Federal listing and coordination regarding these species will continue, as appropriate. The project is within the range of the Florida black bear and FWC reports multiple black bear sightings in the vicinity of the project. The Florida Black Bear Conservation Rule (68A-4.009 Florida Administrative Code) protects black bears in Florida. A commitment is made regarding Florida black bear and removal of garbage and food debris from construction sites to avoid impacts. There is no Critical Habitat present within the project area. No adverse impacts are anticipated to any listed species from the Preferred Alternative. There were no sightings or indications of protected species during field investigation.

5.2 Wetlands and Other Surface Waters

The following evaluation was conducted pursuant to Presidential Executive Order 11990 of 1977 as amended, Protection of Wetlands and the USDOT Order 5660.1A, Preservation of the Nation's Wetlands.

This project was evaluated for impacts to wetlands and other surface waters in accordance with FDOT's *PD&E Manual*, Part 2, *Wetlands and Other Surface Waters*, which incorporates the requirements of the National Environmental Policy Act (NEPA) and related federal and state laws. There would be no direct, indirect, or cumulative impacts to wetlands or natural surface waters under the Preferred Alternative, so no mitigation is anticipated. Impacts would occur to manmade stormwater features such as existing ponds and swales that are considered Other Surface Waters. These other surface water impacts would not occur to natural surface waters and would not require mitigation. The FDOT Standard Specifications for Road and Bridge Construction will be implemented to avoid and minimize impacts during construction. Coordination occurred with the South Florida Water Management Districts regarding drainage and surface water impacts. For the above reasons, no impacts to wetlands are anticipated.

5.3 Essential Fish Habitat (EFH)

There is no Essential Fish Habitat (EFH) in the project area.

5.4 Flood plains

Floodplain impacts resulting from the project were evaluated pursuant to Executive Order 11988 of 1977, Floodplain Management.

The Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRMs) for the study area. The relevant FIRM panel numbers are 12095C0585F and 12095C0605F for Orange County, Florida dated

September 25, 2009, and 12097C0055 G for Osceola County, Florida dated June 18, 2013. There are no regulatory floodways within the project limits.

There are no floodplains in the vicinity of the project within the Osceola County limits (see attached maps). There is a floodplain located on the west side of SR 535 between the Osceola/Orange County line and SR 536 within the Osceola County limits, which is designated as Zone A (no base flood elevations determined). The floodplain through this area is traversed by International Drive and SR 417, which creates 3 distinct sections, although the floodplains are hydrologically connected.

Since the three impact locations are hydrologically connected and within close proximity of each other, it was determined that the impacts from the three locations could be combined for developing compensation options. Equivalent storage was checked to ensure impacts at the lower elevations could be accommodated at each floodplain compensation site. Four floodplain compensation (FPC) sites have been developed as part of this analysis. All FPC sites analyzed will provide sufficient storage to mitigate floodplain impacts. All FPC sites analyzed will provide the requisite storage to offset floodplain impacts.

The floodplain is located in a low density, urbanized area, and the encroachments are classified as "minimal". Minimal encroachments on a floodplain occur when there is a floodplain involvement but the impacts on human life, transportation facilities, and natural and beneficial floodplain values are not significant and can be resolved with minimal efforts. Normally, these minimal efforts to address the impacts will consist of applying the Department's drainage design standards and following the South Florida Water Management District (SFWMD) procedures to achieve the results that will not increase or significantly change the flood elevations and/or limits. This project will make every effort to minimize the floodplain impacts resulting from the placement of fill. The maximum allowable roadway embankment slope will be used within the floodplain area to minimize the floodplain impacts, and floodplain compensation will be utilized in the stormwater ponds and roadside ditches where possible.

There is no change in flood "risk" associated with this project. The encroachments will not have a significant potential for interruption or termination of transportation facilities needed for emergency vehicles or used as an evacuation route. In addition, no significant adverse impacts on natural and beneficial floodplain values are anticipated and no significant impacts to highway users are expected. For the above reasons, no significant impacts to floodplains are anticipated.

5.5 Sole Source Aquifer

Biscayne Aquifer

The Biscayne Sole Source Aquifer underlies the project area and coordination occurred with the US Environmental Protection Agency (USEPA) through their online Sole Source Aquifer portal. The USEPA determined that the project is not expected to cause a significant impact to the Aquifer or its recharge zone.

5.6 Water Resources

A Water Quality Impact Evaluation was conducted for the proposed project. The project spans parts of Orange and Osceola Counties and their associated MS4 systems and ultimately discharges into Shingle Creek. The Biscayne Sole Source Aquifer underlies the project. Higher levels of stormwater treatment are required because of the Okeechobee Basin Management Area Plan. FDOT Standard Best Management Practices for Road and Bridge A Construction will be

implemented to avoid and minimize downstream impacts, particularly from sedimentation and erosion. No impacts to wetlands or natural surface waters are anticipated.

A SFWMD Environmental Resource Permit is anticipated for modifications to an existing drainage system and for increases in permeable cover. Nutrient loading calculations are not required for discharges to Shingle Creek due to the type of nutrient impairment (macrophytes), but net improvement for total phosphorus (TP) is required. An FDEP National Pollution Discharge Elimination System Permit will also be required. A Stormwater Runoff Control Concept will be developed during the design phase. For the above reasons, no significant impacts to water resources are anticipated.

Project nutrient loading calculations are not required for discharges to Shingle Creek due to the type of nutrient impairment (macrophytes), but net improvement for total phosphorus (TP) is required. Stormwater management facilities will be provided to maintain post-development discharge rates at or below pre-development discharge rates. No changes are proposed to the pre-development outfall locations.

Wet detention ponds will be provided to provide the required water quality treatment and attenuation for the project improvements. There are 4 basins in the existing and proposed condition, and all basins drain to permitted stormwater systems in the existing condition. Where feasible, stormwater management facilities have been recommended within existing FDOT or County right-of-way. A Pond Siting Report is attached, and below is a summary of the preferred pond alternatives.

Basin 1: Alternative 1A is the Preferred Alternative for Basin 1. Alternative 1A consists of an existing wet detention pond (identified as Exist. Pond 1-1) within FDOT right-of-way to provide the required water quality treatment and attenuation volumes.

Basin 2: Alternative 2A is the Preferred Alternative for Basin 2. Alternative 2A consists of 2 ponds, one existing wet detention pond within existing FDOT right-of-way (identified as Exist. Pond 2-1) interconnected with a second wet detention pond (identified as Pond 2-2) to provide the required water quality treatment and attenuation volumes. Since there is insufficient area within the existing FDOT right-of-way to provide a stormwater management alternative to meet water quality treatment and attenuation requirements, Pond Alternative 2A will require acquisition of right-of-way.

Basin 3: Alternative 3A is the Preferred Alternative for Basin 3. Alternative 3A consists of 2 ponds, one existing wet detention pond within existing FDOT right-of-way (identified as Exist. Pond 3-1) interconnected with a second wet detention pond (identified as Pond 3-2) to provide the required water quality treatment and attenuation volumes. Since there is insufficient area within the existing FDOT right-of-way to provide a stormwater management alternative to meet water quality treatment and attenuation requirements, Pond Alternative 3A will require acquisition of right-of-way.

Basin 4: Alternative 4A is the Preferred Alternative for Basin 4. Alternative 4A consists of an existing wet detention pond (identified as Exist. Pond 4-1) within existing right-of-way and easement to provide the required water quality treatment and attenuation volumes.

Figure Preferred Alternative Ponds



5.7 Aquatic Preserves

There are no aquatic preserves in the project area.

5.8 Outstanding Florida Waters

There are no Outstanding Florida Waters (OFW) in the project area.

5.9 Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers or other protected rivers in the project area.

5.10 Coastal Barrier Resources

There are no Coastal Barrier Resources in the project area.

6. Physical Resources

The project will not have significant impacts to physical resources. Below is a summary of the evaluation performed for these resources.

6.1 Highway Traffic Noise

The following evaluation was conducted pursuant to 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and Section 335.17, F.S., State highway construction; means of noise abatement.

A traffic noise analysis was performed following the Federal Highway Administration (FHWA) and FDOT procedures along with the most recent version of Chapter 18 of the FDOT PDE Manual and FDOT Traffic Noise Modeling and Analysis Practitioners Handbook (dated December 1, 2018). Additionally, the FHWA has established Noise Abatement Criteria (NAC) for seven land use activity categories. These criteria determine when an impact occurs and when consideration of noise abatement is required. Noise abatement measures must be considered when predicted noise levels approach or exceed the NAC levels or when a substantial noise increase occurs. A substantial noise increase is defined by FDOT as when the existing noise level is predicted to be exceeded by 15 dB(A) or more as a result of the transportation improvement project. Traffic noise levels were predicted along the project corridor for the Existing Conditions, No Build, and the Preferred Alternative.

Land uses surrounding this project corridor consist mainly of commercial land. Very few single-family homes (designated noise sensitive areas) are present within the project areas. All single-family homes present in this project area are located in The Cove, east of SR 535 and adjacent to Old Vineland Road and Kings Heath Road. Four (4) hotels with exterior areas of use were also identified within the project area, which include the Golden Link Hotel, Embassy Suites, Hampton Inn, and Buena Vista Suites. Five (5) restaurants with exterior seating were located within the project corridor which include Smokey Bones, Miller's Alehouse, Starbucks, Twisted Treat, and Wendy's. Lastly, the Mariott Golf Course has been identified as a noise sensitive area.

Traffic noise levels were predicted along the project corridor for the Existing Conditions, No Build, and the Preferred Alternative. Throughout the project corridor, 32 single-family homes (Category B/Residential Areas), four (4) hotels along with five (5) restaurants with exterior use (Category B/Outdoor Use Areas) and one (1) non-residential/special use sites consisting of the Mariott Golf Course (Category C/Recreational Area) were designated as noise sensitive sites. Existing condition predicted noise levels for the entire project range from 54.3 dB(A) to 67.8 dB(A). Under No Build, traffic noise levels for the entire project are predicted to range from 55.5 dB(A) to 68.9 dB(A). Under the Preferred Alternative, traffic noise levels for the entire project are predicted to range from 56.0 dB(A) to 69.2 dB(A). The highest traffic noise level increase between the Existing Condition and the Preferred Alternative is 2.7 dB(A). Therefore, traffic noise levels throughout the project corridor are not expected to substantially increase above the existing conditions. Throughout the project corridor, only the Mariott Golf Course special land use site would exceed the NAC. Noise abatement is not feasible and/or reasonable at the Mariott Golf Course due to not meeting the requirements for special land use sites which would not meet the occupancy required to consider the noise wall as reasonable. Noise abatement has no further consideration at the moment. For the above reasons, no significant impacts from noise are anticipated.

6.2 Air Quality

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to improve the Level of Service (LOS) and reduce delay and congestion on all facilities within the study area.

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

For the reasons outlined above, it was determined that the project will have no substantial impact on air quality.

6.3 Contamination

A Contamination Screening Evaluation was conducted to evaluate the potential risk to the project from contamination. Regulatory databases and field investigations were conducted to identify sites for evaluation. Sites were identified within applicable buffers of the project, including landfills, Comprehensive Environmental Response, Compensation, and Liability Act sites (CERCLA, also known as Superfund), and National Priorities List (NPL) sites within one half-mile of the project, petroleum contamination, drycleaners, and non-petroleum contamination within 500 feet of the project, and non-landfill solid waste sites within 1,000 feet of the project.

A total of 19 sites of potential contamination risk were identified, including 1 High Risk, 8 Medium Risk, and 10 Low Risk sites. Level II Contamination Assessment investigations are recommended where proposed dewatering or subsurface work (e.g., pole foundations, drainage features, soil excavation, etc.) would occur or adjacent to any sites rated High or Medium Risk. If dewatering will be necessary during construction, a FDEP Dewatering Permit will be required. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). A dewatering plan will be necessary to avoid potential contamination plume exacerbation. All permits will be obtained in accordance with Federal, state, and local laws and regulations, and in coordination with the District Contamination Impact Coordinator.

6.4 Utilities and Railroads

No railroads are present and no involvement with railroads is anticipated. A preliminary evaluation of potential impacts to utilities was performed based on the proposed improvements. Additional conflicts may be identified during the Design phase due to proposed drainage, lighting, noise walls, signals, foundations, or any other future design changes that are not included in the Preferred Alternative. Subsurface Utility Engineering for vertical and horizontal information will provide the necessary data to make decisions regarding relocations for potential utility conflicts.

To help avoid and minimize impacts to utilities, final design activities should consider the following:

- The accurate location and designation of all underground and aerial facilities to confirm or clear each conflict.
- Design improvements that avoid existing utilities where possible and minimize the impact to these facilities, particularly at major intersections.
- Phasing of utility relocation work to clear utility conflicts before construction starts in each segment of the project.
- Plans to minimize the duration of service disruptions to the community due to relocation work. These disruptions should only be allowed during periods of minimum usage.
- Removing Occupational Safety and Health Administration (OSHA) crane conflicts, utilize appropriate low overhead construction techniques/operations.

For all the reasons outlined above, it was determined that the project will have no substantial impact on utilities or railroads.

6.5 Construction

During the construction phase, the project will comply with the FDOT Standard Specifications to Road and Bridge Construction to avoid and minimize impacts. Construction phase impacts are anticipated to be short-term in duration and localized around the site of construction. For all the reasons outlined above, it was determined that the project will have no substantial impacts from construction.

7. Engineering Analysis Support

The engineering analysis supporting this environmental document is contained within the Draft PER Displayed for Public Hearing.

3. Permits

The following environmental permits are anticipated for this project:

Federal Permit(s)

USACE Section 10 or Section 404 Permit

Status

To be acquired

State Permit(s)

DEP or WMD Environmental Resource Permit (ERP)

DEP National Pollutant Discharge Elimination System Permit

Status

To be acquired

To be acquired

9. Public Involvement

The following is a summary of public involvement activities conducted for this project:

Summary of Activities Other than the Public Hearing

Public involvement activities were integrated into the PD&E study process providing the opportunity for property owners, residents, businesses, government entities and agencies to share their concerns and ideas with the Department. A Public Involvement Plan (PIP) has been developed and is being carried out as an integral part of the project and provides an overview of the outreach approach for the PD&E Study. The purpose of the PIP was to guide the public outreach process in establishing and maintaining communication with the public throughout the study and incorporating public input during the alternative evaluation. The PIP was signed on May 4, 2020.

Public involvement activities began when the project started in the Spring of 2020 and have continued throughout the study process. All input received served as valuable information that was taken into consideration for the refinement of the alternatives and the development of the recommended alternative. Representatives from the FDOT were available at each meeting to discuss the project and answer questions.

An Advance Notification Package was prepared and sent to the Florida State Clearinghouse on May 9, 2019, where it was then distributed to the appropriate state agencies for review. The Advance Notification was also distributed to appropriate non-state agencies and tribal nations. In addition, a Programming Screen Summary Report was generated by the ETDM Coordinator for the SR 535 PD&E Study. The purpose of this report is to summarize the results of the ETAT Programming Screen review of the project; providing details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase of this project. The environmental screening during these processes resulted in summary degrees of effect (DOE) of moderate or lower for all topics. Water quality received a substantial form in the US Environmental Protection Agency due to the presence of potentially contaminated sites, BMAP for Lake Okeechobee and the recharge source zone for the Biscayne Aquifer.

A key aspect of the PIP for this project included meetings with interested parties other than the Federal and State environmental, permit and review agencies. These include representatives of public agencies and project stakeholders. A Project Visioning Team was formed during the CPS. This group was expanded for the PD&E Study and a Community Advisory Group (CAG) was formed. The CAG included participation from the following groups: Orange County, Osceola County, MetroPlan Orlando, LYNX, East Central Florida Regional Council, Florida Department of Transportation District 5, International Drive Resort Area Chamber of Commerce, Kissimmee-Osceola County Chamber of Commerce.

An Informational Kick-Off Newsletter was sent to adjacent property owners within 300 feet of the study corridor, elected officials, agencies, and interested parties in November 2020, in lieu of a Kick-Off Meeting. The Newsletter was printed in English and Spanish. In addition, the Newsletter was hand delivered to 140 businesses along SR 535, and 30 copies were left at the Celebration Public Library in Osceola County and 30 copies left at the Southwest Public Library in Orange County.

A Hybrid Alternatives Public Information Meeting (APIM) was held on August 11, 2022 at Embassy Suites - Lake Buena Vista South and online via GoToWebinar. This meeting provided an opportunity for property owners, residents, businesses, elected officials, stakeholders and other interested parties to view project alternatives before developing a recommended set of improvements and ask questions of the study team and provide comments. Public meeting notices

were sent via mail to elected officials, agencies, stakeholders, and property owners. The notices were provided in English and Spanish. Newsletters were hand delivered to local businesses along the SR 535 corridor as well as 30 copies left at the Celebration Public Library and Southwest Public Library in Osceola and Orange Counties. The meeting was announced on the Department project website and as a Press Release, advertised in the Orlando Sentinel (Orange and Osceola Editions) in English and in the El Sentinel in Spanish, as well as the Florida Administrative Ad. A total of 11 people signed into the meeting excluding staff members at the in-person location and 5 people attended virtually.

As individuals signed in at the in-person venue, they received a comment form. Also available were the Project Information Handout, in English and Spanish, and a Newsletter in English and Spanish. The same materials were available to those attending virtually. Individuals could provide their input by submitting a completed comment form at the in-person meeting or by mailing or emailing it at a later date. For those attending virtually, they could type in comments in the "Questions" panel. Responses to the virtually submitted comments were provided after the meeting. At the in-person venue, several project display boards were available for review from 5 p.m. to 7 p.m. in an open house format. Study team members were available to answer questions and have one-on-one conversations with meeting participants. A project video was available was for review throughout the meeting. For those attending virtually, the same project materials were available at the project website.

Date of Public Hearing: 06/18/2024

Summary of Public Hearing

10. Commitments Summary

1. The project is within the Central Florida Black Bear Management Unit with known mortality in the region. Therefore, consistent with the 2019 FWC Black Bear Management Plan, garbage and food debris must be properly removed from the construction site daily to eliminate possible sources of food that could encourage and attract bears. Nuisance black bears are to be reported to the FWC at the Wildlife Alert Hotline at 1-888-404-3922.
2. Implement the USFWS Standard Protection Measures for the Eastern Indigo Snake.

11. Technical Materials

The following technical materials have been prepared to support this Environmental Document and are included in the Project File:

- Cultural Resources Assessment Survey (CRAS)
- Sole Source Aquifer Checklist
- Draft Water Quality Impact Evaluation (WQIE)
- Draft Natural Resources Evaluation (NRE)
- Draft Location Hydraulics Report
- Draft Pond Siting Report (PSR)
- Draft Contamination Screening Evaluation Report (CSER)
- Draft Noise Study Report (NSR)
- Draft PER Displayed for Public Hearing
- Public Involvement Plan

Attachments

Social and Economic

Land Use Map

Cultural Resources

SHPO Concurrence Letter

Natural Resources

Coordination regarding Audubon's crested caracara, sand skink and bluetailed mole skink

Coordination regarding Audubon's crested caracara and listed skinks

Wetlands Map

EPA Sole Source Aquifer Concurrence (Section 1424(e) of the Safe Drinking Water Act)

Floodplains Map

Species and Habitat Map

Physical Resources

Potential Contamination Site Map

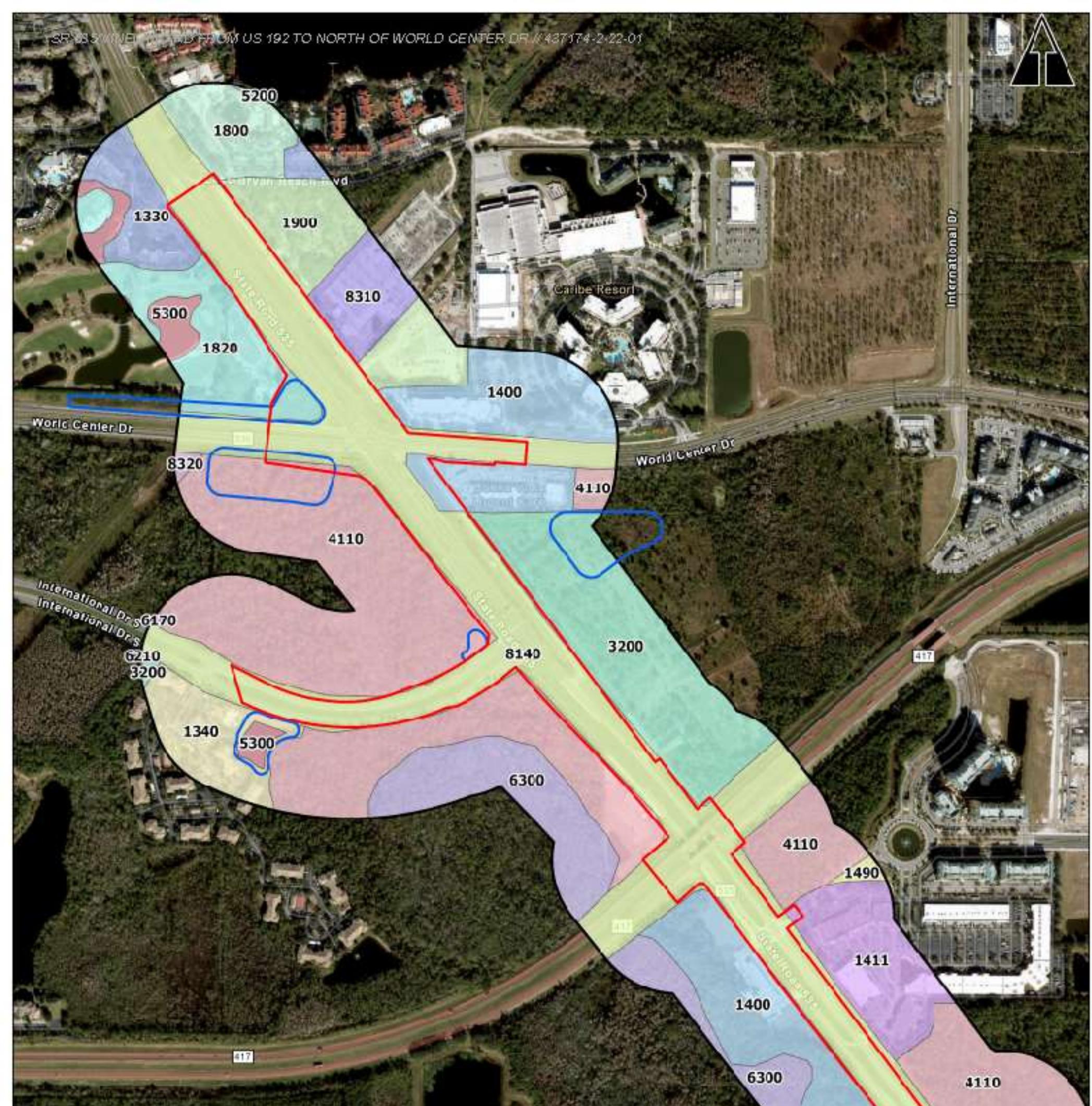
Draft Utilities Assessment Package

Social and Economic Appendix

Contents:

Land Use Map

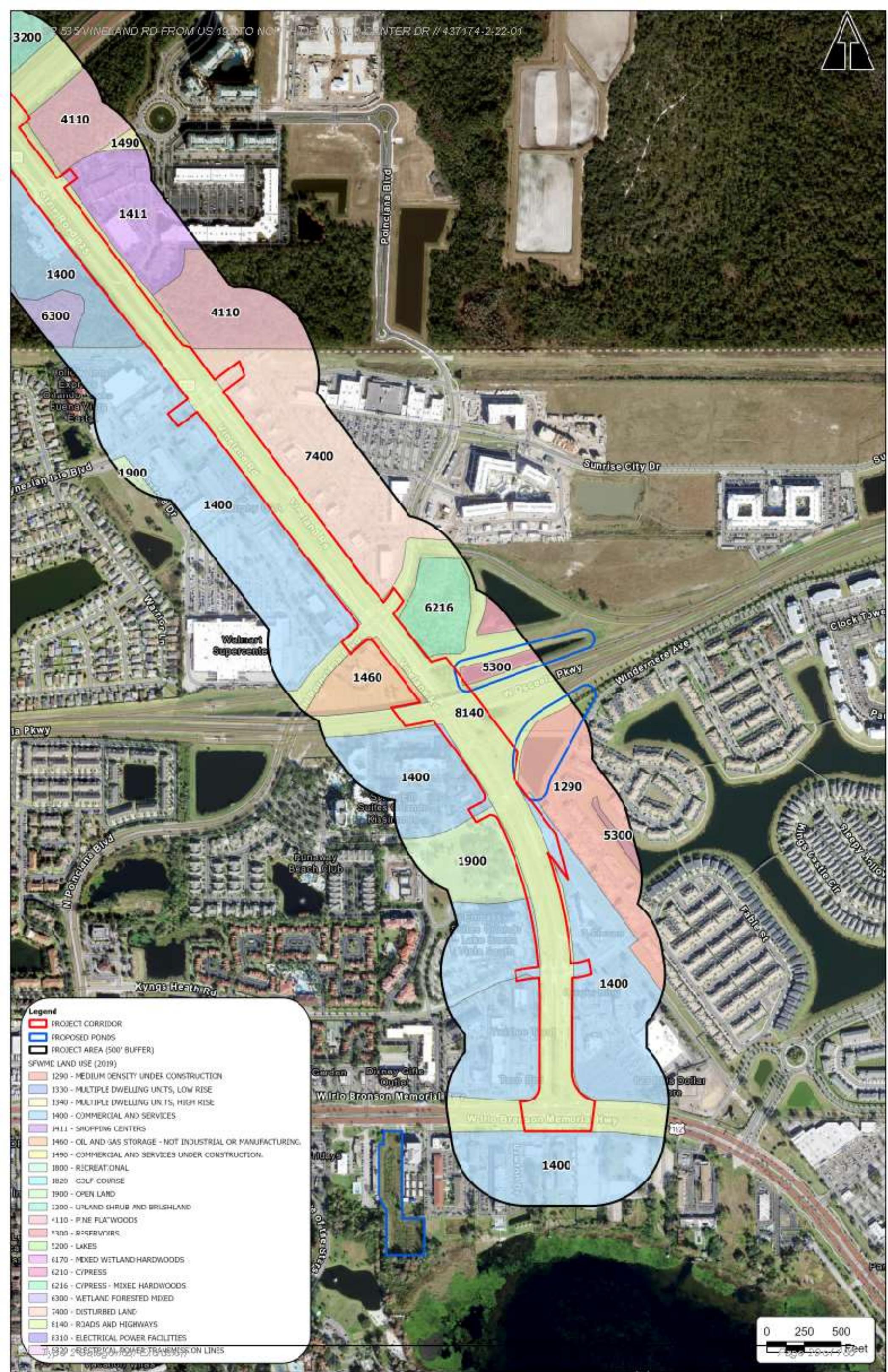
DRAFT

**Legend**

- PROJECT CORRIDOR
- PROPOSED PONDS
- PROJECT AREA (500' BUFFER)
- SFWMD LAND USE (2019)
 - 1330 - MULTIPLE DWELLING UNITS, LOW RISE
 - 1340 - MULTIPLE DWELLING UNITS, HIGH RISE
 - 1400 - COMMERCIAL AND SERVICES
 - 1411 - SHOPPING CENTERS
 - 1490 - OIL AND GAS STORAGE - NOT INDUSTRIAL OR MANUFACTURING
 - 1490 - COMMERCIAL AND SERVICES UNDER CONSTRUCTION
 - 1800 - RECREATIONAL
 - 1820 - GOLF COURSE
 - 1900 - OPEN LAND
 - 2200 - UPLAND SHRUB AND BRUSHLAND
 - #110 - PINE FLATWOODS
 - 5300 - RESERVOIRS
 - 5200 - LAKES
 - 6170 - MIXED WETLAND HARDWOODS
 - E210 - CYPRESS
 - E300 - WETLAND FORESTED MIXED
 - 7400 - DISTURBED LAND
 - E140 - ROADS AND HIGHWAYS
 - E310 - ELECTRICAL POWER FACILITIES
 - T-5329 - ELECTRICAL POWER TRANSMISSION LINES



3200 3835 VINELAND RD FROM US 10 TO NORTH DE KORF CENTER DR // 437174-2-22-01



Cultural Resources Appendix

Contents:

SHPO Concurrence Letter

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SHPO consultation is ongoing and resulting correspondence will be attached when available.

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Natural Resources Appendix

Contents:

Coordination regarding Audubon's crested caracara, sand skink and bluetailed mole skink

Coordination regarding Audubon's crested caracara and listed skinks

Wetlands Map

EPA Sole Source Aquifer Concurrence (Section 1424(e) of the Safe Drinking Water Act)

Floodplains Map

Species and Habitat Map

Rob Myers

From: Chasez, Heather <Heather.Chasez@dot.state.fl.us>
Sent: Tuesday, November 29, 2022 7:44 AM
To: Rob Myers
Cc: Graeber, David
Subject: FW: [EXTERNAL] SR 535 437174-1 PD&E Technical Consultation

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Hello Rob,

Please see below ☺

Heather Chasez
Environmental Specialist IV
Project Compliance Coordinator
FDOT District Five
719 S. Woodland Blvd.
DeLand, FL 32720
Phone: (386) 943-5393

From: Williams, Zakia <zakia_williams@fws.gov>
Sent: Tuesday, November 29, 2022 8:41 AM
To: Chasez, Heather <Heather.Chasez@dot.state.fl.us>
Subject: Re: [EXTERNAL] SR 535 437174-1 PD&E Technical Consultation

Good Morning Heather,

After reviewing the document I agree with John that there is no suitable nesting habitat for Audubon's crested caracara and no suitable habitat for the sand skink and blue-tailed mole skink. This project will have no affect on these species. No surveys would be needed in the Orange County portion of this project. Please let me know if you have any further questions.

Thank you,
Zakia

Zakia Williams
Fish and Wildlife Biologist
US Fish and Wildlife Service
7915 Baymeadows Way, Ste. 200
Jacksonville, Florida 32256
(o) 904-731-3119
(f) 904-731-3045
(c) 904-200-2678

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From: Chasez, Heather <Heather.Chasez@dot.state.fl.us>
Sent: Monday, November 21, 2022 1:57 PM
To: Wrublik, John <john_wrublik@fws.gov>; Williams, Zakia <zakia.williams@fws.gov>
Cc: Rob Myers <Rob.Myers@metriceng.com>
Subject: RE: [EXTERNAL] SR 535 437174-1 PD&E Technical Consultation

Thank you for the feedback and quick turnaround, John!

Heather Chasez
Environmental Specialist IV
Project Compliance Coordinator
FDOT District Five
719 S. Woodland Blvd.
DeLand, FL 32720
Phone: (386) 943-5393

From: Wrublik, John <john_wrublik@fws.gov>
Sent: Monday, November 21, 2022 1:51 PM
To: Chasez, Heather <Heather.Chasez@dot.state.fl.us>; Williams, Zakia <zakia.williams@fws.gov>
Cc: Rob Myers <Rob.Myers@metriceng.com>
Subject: Re: [EXTERNAL] SR 535 437174-1 PD&E Technical Consultation

EXTERNAL SENDER: Use caution with links and attachments.

Heather,

Since the Project appears to be about evenly split between my area of review responsibility (Osceola County) and Zakia's area of review responsibility (Orange County), I will comment on the section of the project in Osceola County only, and Zakia can provide you with comments for the portion of the project in Orange County. Based on my review of the information provided, I find it unlikely that suitable nesting habitat for Audubon's crested caracara and suitable habitat for the sand skink and blue-tailed mole skink would be affected by the section of the project in Osceola County. Therefore, the Service would not request that caracara nest surveys and skink coverboard surveys be conducted within the portion of the project within Osceola County.

Sincerely,

John M. Wrublik
U.S. Fish and Wildlife Service
1339 20th Street

Vero Beach, Florida 32960

Office: (772) 469-4282

Fax: (772) 562-4288

email: John_Wrublik@fws.gov

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.

From: Chasez, Heather <Heather.Chasez@dot.state.fl.us>
Sent: Monday, November 21, 2022 12:45 PM
To: Williams, Zakia <zakia.williams@fws.gov>; Wrublik, John <john_wrublik@fws.gov>
Cc: Rob Myers <Rob.Myers@metriceng.com>
Subject: [EXTERNAL] SR 535 437174-1 PD&E Technical Consultation

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Hello Zakia and John,

FDOT is performing a PD&E Study that proposes to widen SR 535 from 4- to 6-lanes between US 192 to north of World Center Drive in Osceola and Orange Counties. We are assessing parcels for potential stormwater ponds and would like to coordinate with you for technical consultation regarding potential survey needs for the Audubon's crested caracara, sand skink, and blue-tailed mole skink. I will FTA to you both a document providing information on the parcels, their existing conditions and historic conditions. Please let me know if you have trouble accessing the document. Due to the observed habitats, site conditions, and parcel histories we are proposing no surveys are necessary for the sand skink, blue-tailed mole skink, or Audubon's crested caracara. Please review and let us know if you concur, or if (and which) surveys would be necessary to satisfy Section 7.

Also, as this project splits the regulatory responsibility, when the NRE is submitted will you both be providing comment/concurrence or is one of you going to take the lead?

Thank you and have a wonderful Thanksgiving.

Cheers,

Heather Chasez
Environmental Specialist IV
Project Compliance Coordinator
FDOT District Five
719 S. Woodland Blvd.
DeLand, FL 32720
Phone: (386) 943-5393

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DRAFT

Rob Myers

From: Wrublik, John <john_wrublik@fws.gov>
Sent: Monday, November 21, 2022 12:51 PM
To: Chasez, Heather; Williams, Zakia
Cc: Rob Myers
Subject: Re: [EXTERNAL] SR 535 437174-1 PD&E Technical Consultation

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Sincerely,

John M. Wrublik
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, Florida 32960
Office: (772) 469-4282
Fax: (772) 562-4288
email: john_wrublik@fws.gov

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Cc: Rob Myers <Rob.Myers@metriceng.com>
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Also, as this project splits the regulatory responsibility, when the NRE is submitted will you both be providing comment/concurrence or is one of you going to take the lead?

Thank you and have a wonderful Thanksgiving.

Cheers,

Heather Chasez

Environmental Specialist IV
Project Compliance Coordinator
FDOT District Five
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Sole Source Aquifers for Drinking Water

CONTACT US <<https://epa.gov/dwssa/forms/contact-us-about-sole-source-aquifers-drinking-water>>

EPA Region 4 Sole Source Aquifer Project Review Form – Section B: Determination of Potential Project Impacts to the Sole Source Aquifer

Welcome to the Environmental Protection Agency (EPA) Region 4's Sole Source Aquifer (SSA) project review form. The EPA SSA Protection Program is authorized by section 1424(e) of the Safe Drinking Water Act of 1974 (42 U.S.C. 201,300 et. Seq., and 21 U.S.C. 349). Under the SSA Protection Program, EPA reviews proposed projects that will both: 1) be located within the SSA project review area and; 2) receive federal financial assistance. The review area may include the area overlying the SSA, its recharge zone, and source areas of streams that flow into the SSA's recharge zone. The EPA's review is intended to determine any possible contamination to the SSA from submitted projects. Your accurate submission of information will help us determine any possible contamination.

Please complete this form in its entirety and as well as the two-part submission process. Keep the email received at the end of submission process for your records. This email will serve as the official record of the decision and may be required by the federal agency funding your project. Thank you.

Date: March 4, 2024

Project Name: SR 535 PD&E Study

Sole Source Aquifer Name: Biscayne Aquifer (Florida)

Dear David Graeber:

The U.S. Environmental Protection Agency, Region 4, received your request to review the above referenced project to determine its effects on a Sole Source Aquifer (SSA). Pursuant to Section 1424(e) of the Safe Drinking Water Act (Public Law 93-523, 42 U.S.C. § 300 et. seq), no commitment for federal financial

assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the EPA determines may contaminate a SSA through a recharge zone so as to create a significant hazard to public health.

The project lies inside the designated boundaries of the SSA listed above, but based on the information provided, **is not expected to cause a significant impact to the Aquifer or its recharge zone**. However, please be advised that this letter is not a permit, whether for the injection of fluids under the SDWA or for any other activity, nor does it constitute a waiver, suspension, or modification of any applicable federal, state, or local laws. All applicable laws, regulations, permits, ordinances, planning designs, construction codes, operation, maintenance, and engineering requirements must therefore still be satisfied and complied with. In particular, EPA Region 4 highlights the following:

- All debris from the demolition of existing structures must be properly contained and removed from the project site prior to construction of any new structures.
- All county floodplain management plans and public notification processes must be followed.
- Any applicable contaminant mitigation recommendations outlined by federal and state agency reviews must be complied with.
- All best management practices for erosion and sedimentation control must be followed.
- State and local environmental offices must be contacted to address proper drainage and storm water designs, and to obtain a copy of any local Wellhead Protection Plans.

Please note that the determination that this project will not contaminate a SSA through a recharge zone so as to create a significant hazard to public health is based on the information you have provided to the EPA and that this determination has been made only in regard to the EPA's authority under Section 1424(e) of the Safe Drinking Water Act (Public Law 93-523 42 U.S.C. § 300 et. seq). This determination may no longer be valid if there are any changes to the project that would affect any of the information you have provided to the EPA, and you must notify the EPA Region 4 office as soon as you become aware of such changes.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact R4-SSA@epa.gov, Manuel E. López Sánchez at 404-562-8259 or Mr. Larry Cole at 404-562-9474.

Sincerely,

Sole Source Aquifer Team – EPA Region 4

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Basic Information <https://www.epa.gov/dwssa/overview-drinking-water-sole-source-aquifer-program#what_is_ssa>

Guidance on SSA Designation <<https://www.epa.gov/dwssa/guidance-petitioning-sole-source-aquifer-ssa-designation-type-2-categories-exclusion>> Page 47 of 186

Contact Us <<https://epa.gov/dwssa/forms/contact-us-about-sole-source-aquifers-drinking-water>> to ask a question, provide feedback, or report a problem.

LAST UPDATED ON FEBRUARY 12, 2024



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DRAFT



AE

World Center Dr.

World Center DC

International Drs

1

M

1

A

443

An aerial photograph of the Falcons Fire Golf Club. The image shows a large, well-maintained green area with several distinct golf courses, each featuring fairways, greens, and sand bunkers. A prominent, large, dark green area, likely a forest or undeveloped land, occupies the upper right portion of the frame. The surrounding terrain is a mix of green fields and darker, more vegetated areas. In the bottom left corner, the text "Falcons Fire Golf Club" is overlaid in white.

An aerial photograph of a residential area in Hilo, Hawaii. The neighborhood features a grid-like street pattern with several named roads: Hawk Dr, Flying Eagle Ln, Pinto Dr, Bear Paw Rd, Arrow Dr, and Polynesian Isle Blvd. The houses are mostly single-story bungalows with red roofs, arranged in rows. A large, dark green shape, possibly representing a shadow or a specific area of interest, is overlaid on the map, covering parts of Pinto Dr, Bear Paw Rd, and Arrow Dr. To the right, a large body of water, likely the ocean, is visible. The overall scene is a mix of urban residential development and natural coastal features.

Legend

PROJECT AREA (500' BUFFER)

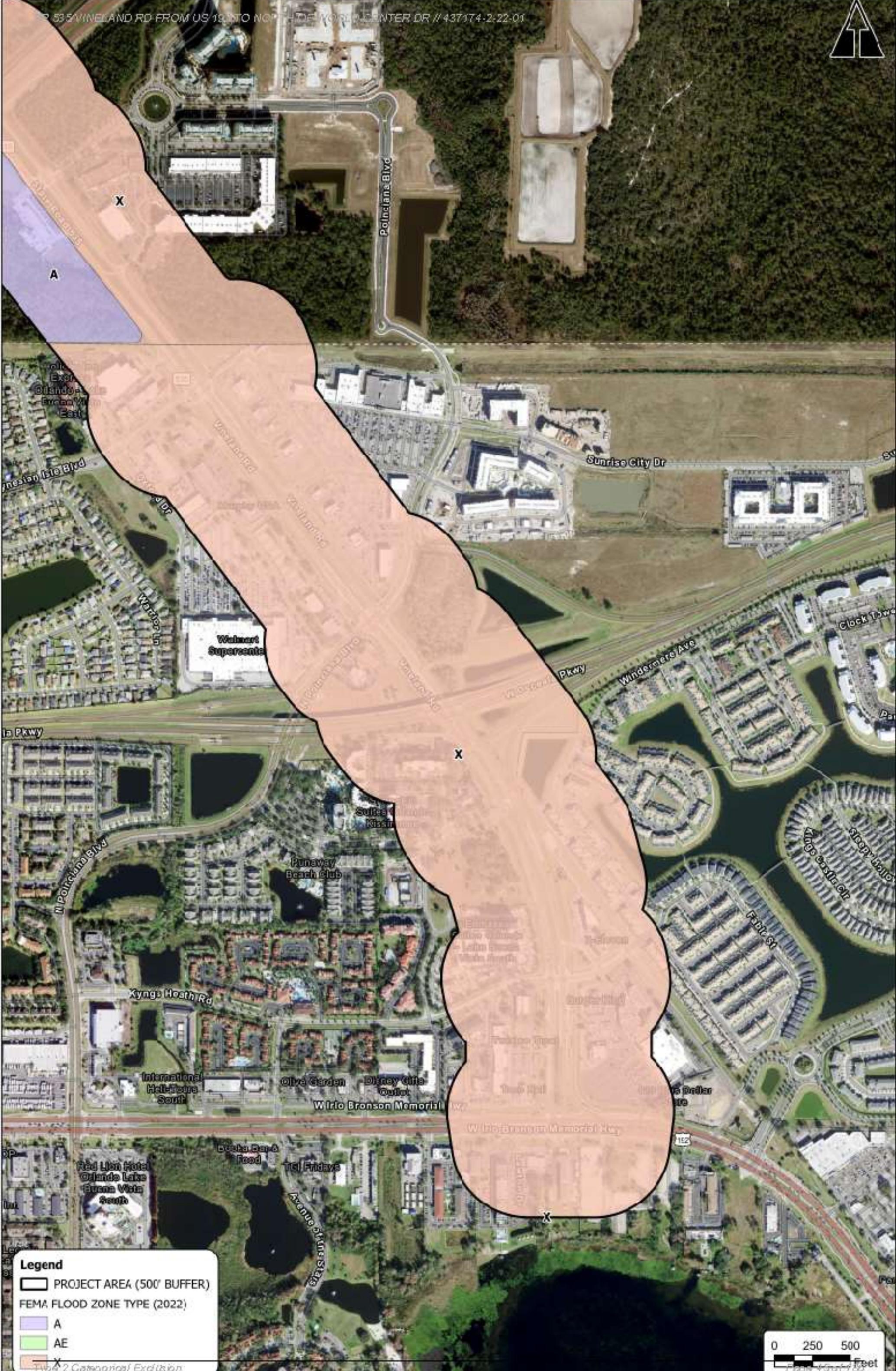
FEMA FLOOD ZONE TYPE (2022)

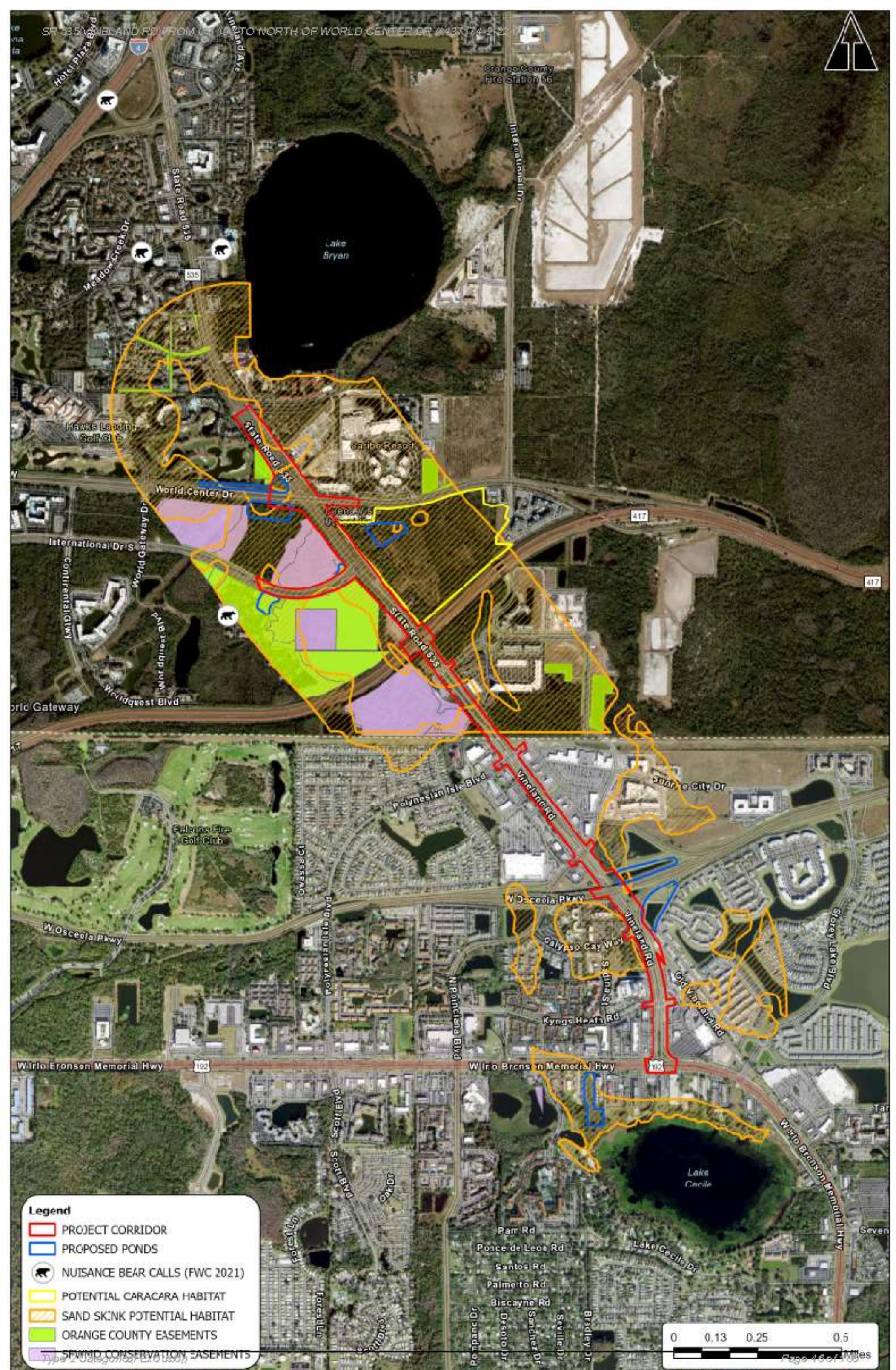
A

AE

~~Type 2 Categorical Exclusion~~

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Physical Resources Appendix

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Potential Contamination Site Map

Draft Utilities Assessment Package

SR 552 VINELAND RD FROM US-192 TO NORTH OF WORLD CENTER DR // 437174-2-29-01



Lake
Bryant

Z-DANE TALIC

**16: ORANGE
CO UTILITY -
PS SW #3597**

6: PROGRESS ENERGY SARAP LAKE BRYAN SUBSTATION

**5: 7-ELEVEN
FOOD STORE
#29775**

18:
REBEL
#861

**15:
RACETRAC
#2305**

4: CENTRAL FL
PIPELINE-RELEASE

**14: PUBLIX
SUPER MARKET
#1603**

3: PMA

13: MURPHY
USA #7190

**17: WAL-MART
SUPERCENTER
#5420**

Legend

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SR 535 PD&E Study Utility Assessment Package

From US 192 to North of World Center Drive (SR 536)
Orange and Osceola Counties, Florida

Contract CA770
FM Number: 437174-2

FDOT
District Five

Author
Metric Engineering, Inc.
CA #2294

Date of Publication
November 2023

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APPENDIX

Utility Responses

1.0 Introduction

1.1 Project Description

The Florida Department of Transportation (FDOT) is planning to provide roadway improvements along a 2.2 mile segment of State Road 535 (SR 535), a four-lane divided minor arterial facility located within unincorporated Osceola and Orange Counties in central Florida. SR 535 is known as Vineland Road in Osceola County and Kissimmee-Vineland Road in Orange County. The proposed improvements are needed to address serious existing and projected capacity and safety deficiencies prevalent within the study corridor.

SR 535 begins at the US 192 intersection in Kissimmee and extends generally in a northwest direction ending at the I-4 interchange in Lake Buena Vista. The project limits extend from the US 192 intersection to just north of the SR 536 intersection. It should be noted that the northernmost SR 535 segment from SR 536 to just south of I-4 was originally intended to also be widened but due to policy constraints from local jurisdictions, it was removed from consideration for this study.

Figure 1-1 depicts the project vicinity.

Principal crossing/intersecting roadway facilities:

As shown on **Figure 1-1**, there are four principal roadway facilities crossing or intersecting SR 535 within the project limits. A short description follows: 1) US 192 (W. Irlo Bronson Memorial Highway) US 192 is a 75 mile long four-to-six lane east-west divided facility extending from Four Corners in Lake County in the west to Indialantic in Brevard County in the east. Within the project vicinity, US 192 serves a significant proportion of tourist related traffic associated with Walt Disney World and Epcot Center, located north and west of the project limits. 2) Osceola Parkway (CR 522) provides a tolled alternate to US 192 between Walt Disney World and Kissimmee on the east. Within the project confines, Osceola Parkway features a modified split diamond interchange providing access to and from the west at Poinciana Boulevard (just west of the SR 535 intersection) and access to and from the east via SR 535 (on-ramp) and Poinciana Boulevard (off-ramp) just east of the SR 535 intersection. 3) SR 417 (Central Florida Greene Way) is a tolled limited-access facility owned by CFX and the Turnpike providing an eastern beltway around the city of Orlando. SR 417 overpasses SR 535 but does not provide any connections to it. 4) World Center Drive (SR 536) is an east-west 6-lane facility extending from an I-4 interchange near the Epcot theme park on the west to an interchange with SR 417 to the east.

Figure 1-1 Project Location

1.2 Purpose & Need

1.2.1 Purpose

The purpose of this study is to generate and evaluate alternate solutions to provide relief to the existing and projected congestion and operational conditions. These conditions coupled with the existing lack of effective corridor multimodal features are a major cause of serious safety issues for all facility users.

1.2.2 Need

The overall study was initiated with a detailed comprehensive analysis of existing/projected substandard conditions. In general terms, some of the most critical potential needs include Transportation Demand and Multimodalism.

1.3 Description of Preferred Alternative

Preferred Typical Section:

After a comprehensive alternative generation and evaluation process, one (1) alternative was selected as being the most effective option throughout the project corridor (see **Figure 1-2**). The preferred typical section consists of total reconstruction with the widening of the additional lane towards the median. This inside widening helps minimize potential impacts to the Florida Gas Transmission Line and at the various innovative intersections. The following information is a brief description of the preferred typical section. The typical section consists of three (3) 11-foot travel lanes in each direction with a 14-foot shared use path on the west side and a 12-foot sidewalk on the east side with a right-of-way varying between 200-feet to 224-feet.

Figure 1.2 Preferred Typical Section



Innovative Intersections

Alternative intersection evaluations are governed by the Intersection Control Evaluation (ICE) Process. A summary of the following innovative intersection results are provided below:

SR 535 and Poinciana Boulevard – Signalized Intersection Alternative

The SR 535 and Poinciana Boulevard traffic signal concept (see **Figure 1-3**) involves the installation of an additional lane along SR 535 for northbound and southbound movements and provision of triple eastbound left turn lanes.

Figure 1-3 SR 535 and Poinciana Blvd Signalized Intersection Alternative



SR 535 and Polynesian Boulevard – Partial Median U-Turn

The SR 535 and Polynesian Isle Boulevard Partial Median U-Turn concept (see **Figure 1-4**) involves the removal of northbound and southbound direct left turn movements on SR 535 and the addition of U-turn storage bays at the existing median openings located just north and south of the intersection.

Figure 1-4 SR 535 and Polynesian Isle Blvd Partial Median U-Turn Alternative

*SR 535 and International Drive Boulevard – Partial Displaced Left Turn (East-West) Alternative*

The SR 535 and International Drive Partial Displaced Left Turn concept (see **Figure 1-5**) involves the removal of direct eastbound and westbound left turns on International Drive with the displaced left turns installed on both legs of this minor street. The northbound and southbound left turn movements for the major street on SR 535 continue to take place at the main intersection.

Figure 1-5 SR 535 and International Drive Partial Displaced Left Turn Alternative**SR 535 and SR 536/World Center Drive - Partial Displaced Left Turn Alternative**

The SR 535 and SR 536/World Center Drive Partial Displaced Left Turn concept (see **Figure 1-6**) involves the removal and replacement of direct northbound and southbound left turns on SR 535 with the displaced left turns installed on both legs of SR 535 (major street). The eastbound and westbound left turn movements for the minor street on SR 536/World Center Drive continue to take place at the main intersection.

Figure 1-6 SR 535 and SR 536 World Center Dr Partial Displaced Left Turn Alternative

2.0 Existing Utilities

2.1 Utility Owners

A list of existing utility companies within the project limits was obtained from Sunshine 811. They are listed in **Table 2-1** along with their respective contact information. Preliminary utility coordination with the Utility Agency/Owners (UAO) was initiated through written communication. The contact informed the UAO of the PD&E study and requested that they provide documentation showing existing and proposed facilities within the limits of the project. They were also requested to submit any general concerns and/or comments that would be useful in the FDOT's evaluation process. Utility companies have responded with as-builts, marked plans, GIS system maps or a letter indicating they have no facilities in the area.

Table 2-1
Existing Utilities

Utility Agency / Owner	Facility Type	Contact Person	Phone	Email
AT&T Distribution	Communications	Alan Reynolds	(407) 351-8180	alan.reynolds@att.com
Charter Communications	Communications	Jonathan McDeroy	(407) 447-6147	jonathan.mcderoy@charter.com
Comcast	Communications	Cesar Rivera	(407) 312-5944	cesar.rivera@comcast.com
Duke Energy	Electric	Tomas Macias	(407) 929-6619	tomas.macias@duke-energy.com
Florida Gas Transmission	Gas	Joseph Sanchez	(407) 929-7171	joseph.sanchez@floridatransfer.com
Kinder-Morgan (Central Florida Pipeline, LLC)	Fuel	Mark Clark	(727) 271-0024	mark.clark@kindermorgan.com
Kissimmee Utility Authority	Electric	Carlos Galindez	(407) 923-7777 x#153	carlos.galindez@kua.com
Lumen (CenturyLink)	Communications	Bill McCloud	(850) 599-1444	william.mccloud@lumen.com
Orange County Utilities	Water/Sewer	Christina M. Crosby	(407) 254-9700	christina.crosby@ocu.net
Osceola County	Irrigation	Juan Diaz	(407) 449-0761	juan.diaz@ferntalservices.com
Orlando Utilities Commission	Electric	Robert Scheuerle	(407) 434-2107	robert.scheuerle@ouc.com
Summit Broadband	Communications	Michelle Daniel	(407) 920-07408	mdaniel@summit-broadband.com
TECO People's Gas Systems	Gas	Shawn Winsor	(407) 420-6663	shawn.winsor@teco-energy.com
TOHO Water Authority	Water/Sewer	Calvin Carrero	(407) 944-5044	ccarrero@tohowater.com
Umts Fiber	Communications	James Mosley	(251) 654-8210	james.mosley@umts.com
Verizon / MO	Communications	Timothy Cole	(407) 506-8635	timothy.colet@verizon.com

2.2 Description of Existing Utilities

AT&T Distribution owns the following facilities within the project's study limits:

- 144-count fiber optic cable (FOC) commencing at the south project limits near US-192 along the west R/W of SR-535.
- 24-count FOC along the north R/W of Kyngs Heath Rd. west of SR-535.
- 144-count FOC along the east R/W of SR-535 north of Kyngs Heath Rd.
- 144-count FOC along the south R/W of Osceola Pkwy.
- 48-count FOC along the east R/W of SR-535 extending north of Poinciana Blvd.
- 48-count and 60-count FOC along the east R/W of SR-535 north of International Dr.
- 60-count FOC along north R/W of International Drive crossing SR-535.
- 216-count FOC along the east R/W of SR-535 between International Dr. and SR-536 (World Center Dr.) and extending east along the north R/W of SR-536.
- 48-count FOC west of SR-535 along the north R/W of SR-536.
- 96-count FOC along the east R/W of SR-535 north of SR-536.
- Various cabinets, handholes, manholes, related utility appurtenances, and joint-use attachments to existing utility poles.

Charter Communications owns the following facilities within the project's study limits:

- Aerial communications cable attached to utility poles along the east R/W of SR-535 south of Poinciana Blvd
- Aerial communications cable attached to utility poles along the east R/W of SR-535 north of Poinciana Blvd with concurrent underground facilities located within 1.5' to 2' conduit.
- Various handholes and related utility appurtenances.

Comcast owns the following facilities within the project's study limits:

- Underground facilities along the west R/W of SR-535 from Polynesian Isle Blvd. to north of SR-417.
- Underground facilities along the east R/W of SR-535 from north of SR-417 to SR-536.
- Underground facilities along the south R/W of SR-536 east of SR-535.

Duke Energy owns the following facilities within the project's study limits:

- 7.2/12.47 kV overhead electric (OE) distribution lines and poles along the west R/W of SR-535 between Polynesian Isle Blvd. to International Dr.
- OE underbuilt distribution (7.2/12.47 kV) and transmission pole line along the east R/W of SR-535 from Osceola County line to north of SR-536.
- 7.2/12.47 kV buried electric (BE) distribution along the south R/W of International Dr. west of SR-535.
- 7.2-12.47 kV BE extending from the Duke Energy substation located on the east side of SR-535 north of SR-536 crossing the SR-535/536 intersection and continuing west along the south R/W of SR-536
- OE underbuilt distribution (7.2/12.47 kV) and transmission lines crossing SR-535 north of SR-536 extending from the Duke Energy substation.
- BE distribution along the west R/W of SR-535 north of SR-536.
- Various distribution-type and transmission-type poles, handholes, switch cabinets, pole-mounted and pad-mounted transformers, pole risers, down guys and other related utility appurtenances.

Florida Gas Transmission Co. owns the following facilities within the project's study limits:

- 18" steel pipeline crossing SR-535 along the north R/W of Osceola Pkwy.
- FGT-Reedy Creek take-off valve and regulator station located east of SR-535 along the north R/W of Osceola Pkwy.
- 6.625" steel pipeline along the east R/W of SR-535 extending between the FGT-Reedy Creek take-off valve/regulator station and the FGT-TECO People Gas Systems Orlando Meter Station located north of SR-536 east of SR-535 (Orlando Southwest Measurement Station) within an FGT-owned easement.

Kinder Morgan/Central Florida Pipeline, LLC owns the following facilities within the project's study limits:

- 16" petroleum fuel pipeline crossing SR-535 at the Osceola County line, generally within an existing OUC transmission corridor located east and west of SR-535.

Kissimmee Utility Authority owns the following facilities within the project's study limits:

- 25kV BE crossing SR-535 along the south R/W of Kyngs Heath Rd.
- OE distribution line along the west R/W of SR-535 from north of Kyngs Heath Rd. to Osceola Pkwy.
- OE transmission line along the east R/W of SR-535 from south of Osceola Pkwy. to north of Osceola Pkwy.
- OE transmission line with underbuilt distribution along the east R/W of SR-535 from north of Osceola Pkwy. to Polynesian Isle Blvd.
- Various distribution-type and transmission-type poles, handholes, switch cabinets, pole-mounted and pad-mounted transformers, pole risers, down guys and other related utility appurtenances.

Lumen (Centurylink) owns the following facilities within the project's study limits:

- Local fiber/underground (UG) copper along the east R/W of SR-535 south of Kyngs Heath Rd.
- Local fiber/UG copper along the east R/W of SR-535 from north of Calypso Cay Way to Osceola County line.
- Local fiber/UG copper along west R/W of SR-535 from north of Osceola County line to SR-536, and continuing west along the south R/W of SR-536.
- Local fiber/UG copper along the east R/W of SR-535 continuing to the north project limits.
- Metro optical ground wire affixed to Duke Energy Transmission poles crossing SR-535 north of SR-536 and along the east R/W of SR-535 north of SR-536.
- Various handholes and related utility appurtenances.

Orange County Utilities owns the following facilities within the project's study limits:

- 4" ductile iron pipe (DIP) force main (FM) along the west R/W of SR-535 from south of SR-417 to SR-536 and continuing west along the south R/W of SR-536.
- 12" polyvinyl chloride pipe (PVC) FM along the west R/W of SR-535 north of SR-536.
- 20' DIP FM crossing SR-535 north of SR-536 within a 36' steel casing.
- 10' PVC FM along the east R/W of SR-535 from south of SR-417 to north of SR-536 with a crossing south of SR-417.
- 20' DIP FM along the north R/W of SR-536 east of SR-535.

- 8' PVC watemain (WM) along the west R/W of SR-535 from Osceola County line and crossing SR-535 within a 30' steel casing south of SR-417.
- 16' DIP WM along the east R/W of SR-535 from south of SR-417 to SR-536.
- 16' high density polyethylene (HDPE) WM pipe crossing SR-535 north of SR-417.
- 12' PVC WM along the south R/W of International Dr. crossing SR-535 within a 30' steel casing and connecting to the 16' DIP WM along the east R/W of SR-535.
- 24" DIP WM along the east R/W of SR-535 north of SR-536 within a casing across SR-536 and connecting to the 24" DIP WM along the south R/W of SR-536 east of SR-535.
- 4" PVC Reclaimed WM along International Dr. west of SR-535.
- 12' PVC Reclaimed WM along west R/W of SR-535 north of SR-536.
- 12' PVC Reclaimed WM within a 24" steel casing crossing SR-535 north of SR-536 and connecting to an existing 24" DIP Reclaimed WM along the east R/W of SR-535 continuing east long the north R/W of SR-536.
- 6' PVC Redaimed WM along the east R/W of SR-535 connecting to an existing 12" PVC Reclaimed WM along SR-536 east of SR-535.

Orlando Utilities Commission owns the following facilities within the project's study limits:

- OE transmission lines crossing SR-535 along the Osceola County line north of Polynesian Isle Blvd. within an existing easement corridor located east and west of the SR-535 R/W.

Osceola County owns the following facilities within the project's study limits:

- Irrigation lines along the SR-535 east and west R/W and along the median between US-192 and SR-417.

Summit Broadband owns the following facilities within the project's study limits:

- 24-count fiber in (3) 1.25" HDPE conduit crossing SR-535 along the north R/W of Kyngs Heath Rd.
- 288-count fiber in (3) 1.25" HDPE conduit along the west R/W of SR-535 from Osceola Pkwy. to Poinciana Blvd.
- 144-count and 288-count aerial fiber along the east R/W of SR-535 from south of Poinciana Blvd. to south of SR-417.
- 144-count and 288-count aerial fiber along the east R/W of SR-535 from north of SR-417 to north of SR-536.

TECO Peoples Gas Systems owns the following facilities within the project's study limits:

- 4" coated steel (CS) gas main (GM) along the east R/W of SR-535 between Calypso Way and south of SR-417.
- 4" CS GM along the north R/W of US-192 crossing SR-535.
- 4" CS GM crossing SR-535 at Kyngs Heath Rd.
- 4" CS GM crossing SR-535 at Calypso Cay Way.
- 4" CS GM crossing SR-535 at Poinciana Blvd.
- 2" CS GM crossing SR-535 south of Polynesian Isle Blvd.
- 6" CS GM crossing SR-535 at International Dr.
- 6" CS GM along the east R/W of SR-535 from south of SR-417 to north of SR-536.
- 6" CS GM crossing SR-535 north of SR-536.
- 6" CS GM east along SR-536 connecting to the 6" CS GM along SR-535.

Toho Water Authority owns the following facilities within the project's study limits:

- 8' WM, valves, and appurtenances along the south R/W of US-192.
- 10' Gravity Sewer Main, manholes, and appurtenances.
- 12' Gravity Sewer Main and manholes across SR-535 at Kyngs Heath Rd.
- WM (unspecified diameter) across SR-535 at Kyngs Heath Rd.
- 10' WM along the west R/W of SR-535 from Kyngs Heath Rd. to south of Osceola Parkway.
- 12' FM crossing SR-535 south of Osceola Parkway and extending across Osceola Parkway to an existing lift station along N. Poinciana Blvd. west of SR-535.
- A 16' reclaimed WM along the north side of Osceola Parkway crossing SR-535.
- 24' WM along the north side of Osceola Parkway crossing SR-535.
- 6' WM along the west R/W of SR-535 from Poinciana Blvd. to the Osceola County line north of Polynesian Isle Blvd.
- 10' WM crossing SR-535 at Interior Street (south of Polynesian Isle Blvd.).
- 6' WM extending west along the south R/W of Polynesian Isle Blvd. from SR-535.
- 8' Gravity Sewer Main and manholes along the north and south R/W of Polynesian Isle Blvd. west of SR-535.

Uniti Fiber owns the following facilities within the project's study limits:

- (3) 1.25" ducts with 3/4" cable along the east R/W of SR-535 north of SR-536 and extending from the existing Duke Energy substation.

Verizon/MCI owns the following facilities within the project's study limits:

- Fiber optic cable along the SR-535 project limits.

3.0 Estimated Utility Relocation Costs

Table 2-2 Estimate Utility Relocation Costs

UAO	ITEMIZED COST	ESTIMATED RELOCATION COST
AT&T Distribution	<i>see breakout of items below</i>	\$ 675,000.00
Charter Communications	<i>see breakout of items below</i>	\$ 252,500.00
Comcast	<i>see breakout of items below</i>	\$ 144,500.00
Duke Energy	<i>see breakout of items below</i>	\$ 2,320,000.00
Florida Gas Transmission	<i>see breakout of items below</i>	\$ -
Kinder-Morgan (Central FL Pipeline)	<i>see breakout of items below</i>	\$ -
Kissimmee Utility Authority	<i>see breakout of items below</i>	\$ 1,090,000.00
Lumen Technologies	<i>see breakout of items below</i>	\$ 195,500.00
Orange County	<i>see breakout of items below</i>	\$ 1,170,000.00
Osceola County	<i>see breakout of items below</i>	\$ -
Orlando Utilities Commission	<i>see breakout of items below</i>	\$ -
Summit Broadband	<i>see breakout of items below</i>	\$ 141,000.00
TECO Peoples Gas	<i>see breakout of items below</i>	\$ 654,000.00
TOHO Water Authority	<i>see breakout of items below</i>	\$ 275,500.00
Uniti Fiber	<i>see breakout of items below</i>	\$ -
Verizon/MCI	<i>see breakout of items below</i>	\$ 110,000.00
TOTAL:		\$ 7,028,000.00



AT&T DISTRIBUTION					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
24-ct FOC (in 4" duct)	North R/W of Kyngs Heath Rd west of SR-535	380	300	\$ 125.00	\$ 37,500.00
48-ct FOC (in 4" duct)	Along north R/W Poinciana Blvd to east R/W SR-535	900	300	\$ 125.00	\$ 37,500.00
48-ct FOC (in 4" duct)	Along east R/W SR-535 from Poinciana Blvd to SR-536	6900	2400	\$ 125.00	\$ 300,000.00
60-ct FOC (in 4" duct)	Along north R/W International Dr and east R/W SR-535 to SR-536	1900	1400	\$ 125.00	\$ 175,000.00
216-ct FOC (in 4" duct)	Along east R/W SR-535 from International Dr to SR-536 and east of SR-535 along north R/W SR-536	2100	1000	\$ 125.00	\$ 125,000.00
ESTIMATED RELOCATION COST:					\$ 675,000.00
CHARTER COMMUNICATIONS					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
Aerial Cable	Along east R/W SR-535 from from US-192 to Poinciana Blvd	3700	1000	\$ 50.00	\$ 50,000.00
Aerial Cable	Along east R/W SR-535 from from Poinciana Blvd to SR-536	7000	1500	\$ 50.00	\$ 75,000.00
2" Duct	Along east R/W SR-535 from from Poinciana Blvd to SR-536	7000	1500	\$ 85.00	\$ 127,500.00
ESTIMATED RELOCATION COST:					\$ 252,500.00

COMCAST CABLE					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
UG Cable	Along west R/W SR-535 from Polynesian Isle Blvd to north of SR-417	2800	700	\$ 85.00	\$ 59,500.00
UG Cable	Along east R/W SR-535 from north of SR-417 to SR-536	2000	700	\$ 85.00	\$ 59,500.00
UG Cable	South R/W SR-536 east of SR-535	1000	300	\$ 85.00	\$ 25,500.00
ESTIMATED RELOCATION COST:					\$ 144,500.00
DUKE ENERGY					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
7.2/12.47 KV OE	Along west R/W SR-535 from Polynesian Isle Blvd to International Dr.	3600	1000	\$ 200.00	\$ 200,000.00
transmission (underbuilt distribution)	Along east R/W SR-535 from Osceola County line to north of SR-536	5000	1000	\$ 2,000.00	\$ 2,000,000.00
7.2/12.47 KV BE	Crossing SR-535 north of SR-536 and west along SR-536 south R/W	1200	400	\$ 300.00	\$ 120,000.00
ESTIMATED RELOCATION COST:					\$ 2,320,000.00
KISSIMMEE UTILITY AUTHORITY					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
25KV BE	Crossing SR-535 along south R/W Kyngs Heath Rd	310	300	\$ 300.00	\$ 90,000.00
OE transmission (underbuilt distribution)	Along east R/W SR-535 from north of Osceola Pkwy to Polynesian Isle Blvd	2500	500	\$ 2,000.00	\$ 1,000,000.00
ESTIMATED RELOCATION COST:					\$ 1,090,000.00

LUMEN TECHNOLOGIES					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
UG Copper	Along east R/W SR-535 from north of Calypso Cay Way to Osceola County line	3500	1700	\$ 85.00	\$ 144,500.00
UG Copper	Along west R/W SR-535 from north of Osceola County line to SR-536 and west of SR-536	5100	300	\$ 85.00	\$ 25,500.00
UG Copper	Along east R/W SR-535 from south of SR-536 to north of SR-536	3400	300	\$ 85.00	\$ 25,500.00
ESTIMATED RELOCATION COST:					\$ 195,500.00

ORANGE COUNTY UTILITIES					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLCT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
4" DIP FM	Along west R/W SR-535 from south of SR-417 to SR-536 and west along SR-536	4400	1700	\$ 195.00	\$ 331,500.00
10" PVC FM	Along east R/W SR-535 from south of SR-417 to north of SR-536	4000	600	\$ 140.00	\$ 84,000.00
20" DIP FM	Along north R/W of SR-536 east of SR-535	700	100	\$ 220.00	\$ 22,000.00
16" DIP WM	Along east R/W SR-535 from south of SR-417 to north of SR-536	4500	1100	\$ 215.00	\$ 236,500.00
24" DIP WM	Crossing SR-536 along east side of SR-535 and east along SR-536	900	400	\$ 230.00	\$ 92,000.00
4" PVC Reclaim WM	Along International Dr west of SR-535	700	100	\$ 240.00	\$ 24,000.00
12" PVC Reclaim WM	Along north R/W SR-536 going north along west R/W SR-535	1500	600	\$ 300.00	\$ 180,000.00
12" PVC Reclaim WM (24" steel casing)	Crossing SR-535 north of SR-536 and going east along SR-536	1200	400	\$ 500.00	\$ 200,000.00
ESTIMATED RELOCATION COST:					\$ 1,170,000.00

SUMMIT BROADBAND					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
24-ct FOC (in 3-1.25" HDPE)	Crossing SR-535 along north R/W Kyngs Heath Rd	380	300	\$ 110.00	\$ 33,000.00
288-ct FOC (in 3-1.25" HDPE)	Along west R/W SR-535 from Osceola Pkwy to Poinciana Blvd	800	300	\$ 110.00	\$ 33,000.00
144-ct & 288-ct aerial FOC	Along east R/W SR-535 from south of Poinciana Blvd to south of SR-417	3600	500	\$ 50.00	\$ 25,000.00
144-ct & 288-ct aerial FOC	Along east R/W SR-535 from north of SR-417 to north of SR-536	2300	1000	\$ 50.00	\$ 50,000.00
ESTIMATED RELOCATION COST:					\$ 141,000.00

TECO PEOPLES GAS					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
4" Coated Steel GM	Crossing SR-535 at Kyngs Heath Rd	320	300	\$ 215.00	\$ 64,500.00
4" Coated Steel GM	Along east R/W SR-535 from Calypso Way to south of SR-417	5200	600	\$ 215.00	\$ 129,000.00
4" Coated Steel GM	Crossing SR-535 at Poinciana Blvd	250	300	\$ 215.00	\$ 64,500.00
6" Coated Steel GM	Crossing SR-535 at International Dr	500	400	\$ 220.00	\$ 88,000.00
6" Coated Steel GM	Along east R/W SR-535 from south of SR-417 to north of SR-536	4000	700	\$ 220.00	\$ 154,000.00
6" Coated Steel GM	Crossing SR-535 north of SR-536	1200	500	\$ 220.00	\$ 110,000.00
6" Coated Steel GM	Heading east of SR-535 along SR-536	650	200	\$ 220.00	\$ 44,000.00
ESTIMATED RELOCATION COST:					\$ 654,000.00

TOHO WATER AUTHORITY					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
12" Gravity Sewer Main	Across SR-535 at Kyngs Heath Rd	400	300	\$ 375.00	\$ 112,500.00
12" WM	Across SR-535 at Kyngs Heath Rd	400	300	\$ 210.00	\$ 63,000.00
6" WM	Along west R/W of SR-535 from Poinciana Blvd to north of Polynesian Isle Blvd.	1900	300	\$ 200.00	\$ 60,000.00
6" WM	Extending west from SR-535 along south R/W Polynesian Isle Blvd	500	200	\$ 200.00	\$ 40,000.00
ESTIMATED RELOCATION COST:					\$ 275,500.00
VERIZON-MCI					
DESCRIPTION	GENERAL LOCATION	TOTAL LENGTH (LF)	CONFLICT LENGTH (LF)	UNIT COST (\$)	TOTAL (\$)
Buried Fiber Optic Cable	Along Poinciana Blvd crossing SR-535	1000	300	\$ 100.00	\$ 30,000.00
Buried Fiber Optic Cable	Crossing SR-535 at International Dr and north along east R/W SR-535 to SR-536	2000	800	\$ 100.00	\$ 80,000.00
ESTIMATED RELOCATION COST:					\$ 110,000.00

4.0 Mitigation Recommendations

This is a preliminary evaluation of potential utility conflicts within the project corridor based on proposed improvements under the preferred Build Alternative. Additional conflicts may be identified during final design due to proposed drainage, signals, Maintenance of Traffic, etc.

Conflict mitigation strategies should include the following:

- Subsurface Utility Engineering (SUE) for verified vertical and horizontal (Vvh) information on existing underground utilities to confirm conflicts.
- Obtaining Vvh information will also help guide the final design phase and ensure that informed decisions are made where practical to reduce potential utility relocations.
- Accurate location of all aerial utility facilities to confirm conflicts with the project final design, temporary work, MOT, and constructability of project improvements.
- Consideration of final design location to maintain Occupational Safety and Health Administration (OSHA) and National Electric Safety Code (NESC) final and temporary clearance requirements from energized overhead powerlines.
- Implementation of Utility Work by Highway Contractor Agreement (UWHCA) for any necessary relocation of water and sewer facilities.
- Completion of utility relocation work prior to the start of roadway construction activities.
- Most UAOs have the capability to adjust their facilities without causing major inconvenience to their customers. Mitigation measures to minimize service disruptions should include the following:
 - Installation and activation of new facilities prior to removal of existing.
 - Allowing service disruptions only during periods of minimum usage.
 - Limiting the duration of service disruptions.
 - Evaluation of innovative approaches to maintaining utility services in temporary work areas.

APPENDIX

DRAFT

AT&T Distribution

DRAFT

Rick Duran

Subject: FDOT FM #437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact
Attachments: 437174-2-22-01_ATT_GREENLINES.pdf

From: REYNOLDS, ALAN <ar2916@att.com>
Sent: Friday, July 16, 2021 5:16 PM
To: AT&T_FL_811 <g27896@att.com>
Cc: Rick Duran <rduran@bcceng.com>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Rick,
Attached are AT&T Florida facility (preliminary) markups for this project. Let me know if you have any questions.
Thanks,

Alan Reynolds

Manager OSP Ping & Eng Design
ACE- East Region, Florida Construction & Engineering

AT&T
5100 Steyr St Orlando, FL 32819
O: 407-351-8180
M: 352-442-1106 / ar2916@att.com

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From: AT&T_FL_811 <g27896@att.com>
Sent: Thursday, July 15, 2021 11:18 AM
To: REYNOLDS, ALAN <ar2916@att.com>
Cc: rduran@bcceng.com
Subject: FW: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Alan,

Good morning. I am assisting Dino Farruggio by referring the Drawing/Map Markup Request-Road below to you for handling. Please respond directly to rduran@bcceng.com.

Thanks,

Juana Curtis

Engineering Assistant

Wireline Access-Southeast, Florida Engineering

AT&T

600 NW 79 AVE, RM 356, Miami, FL 33126

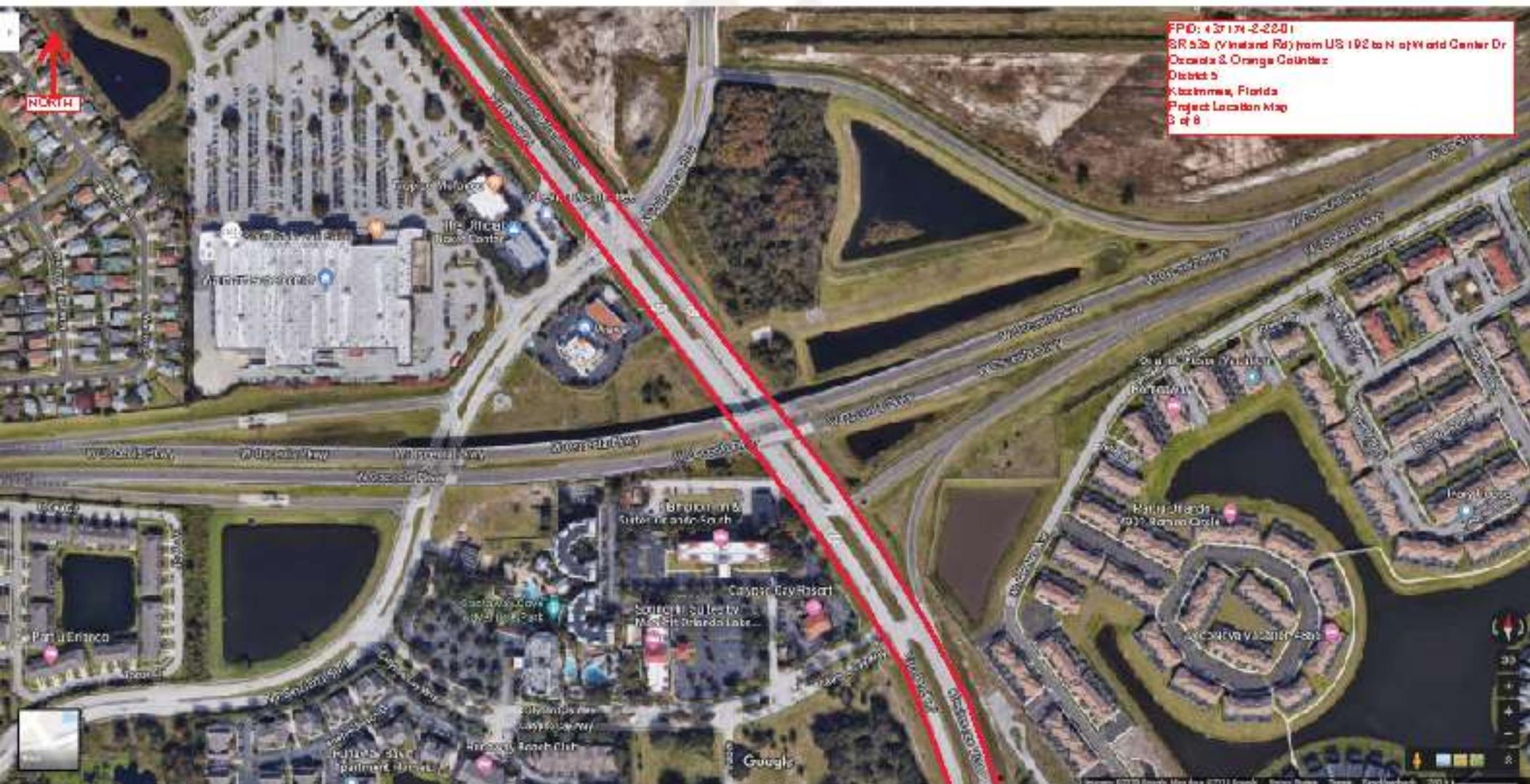
ofc 786-792-54** | jc2399@att.com

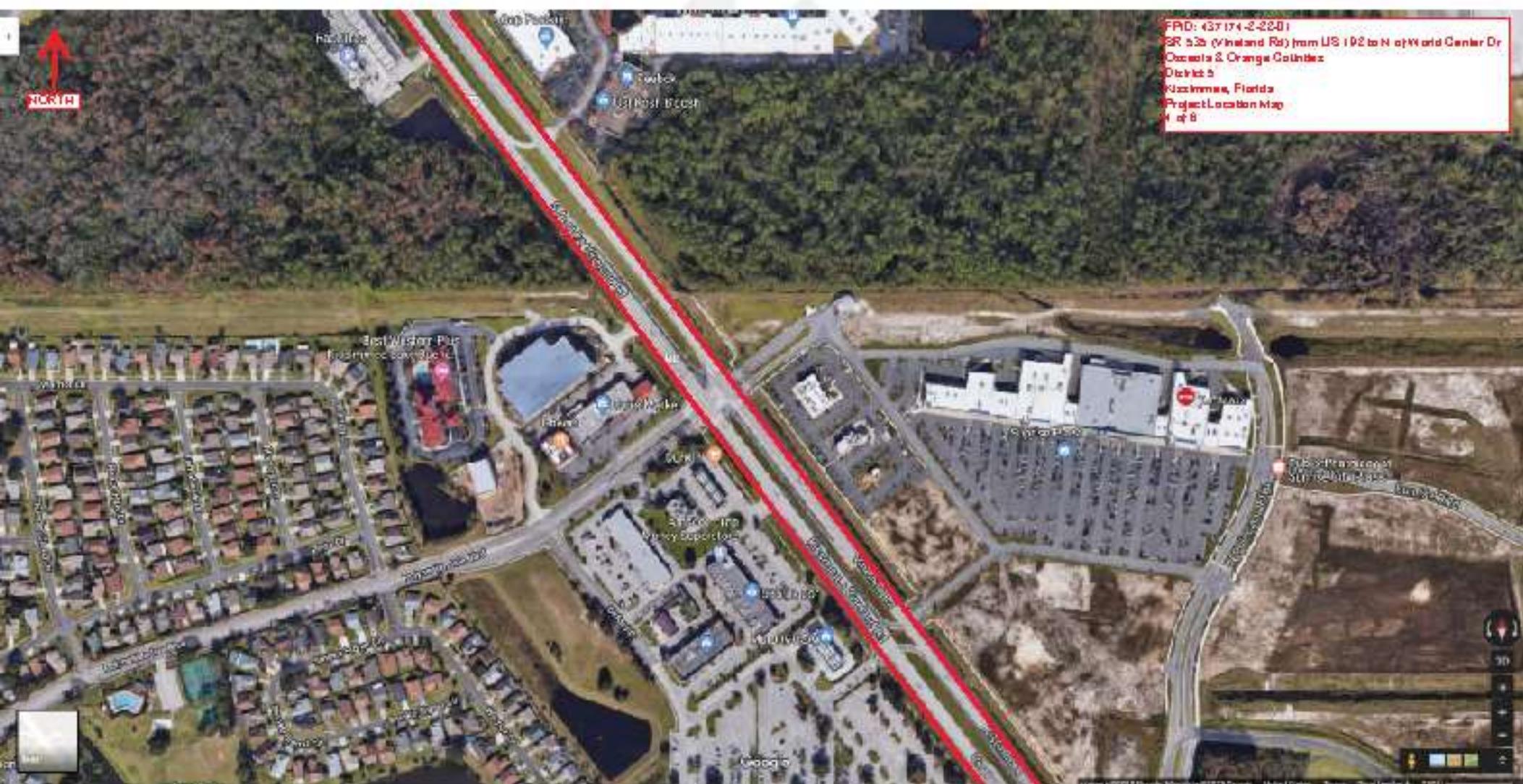
**temporarily working from home-please use jc2399@att.com

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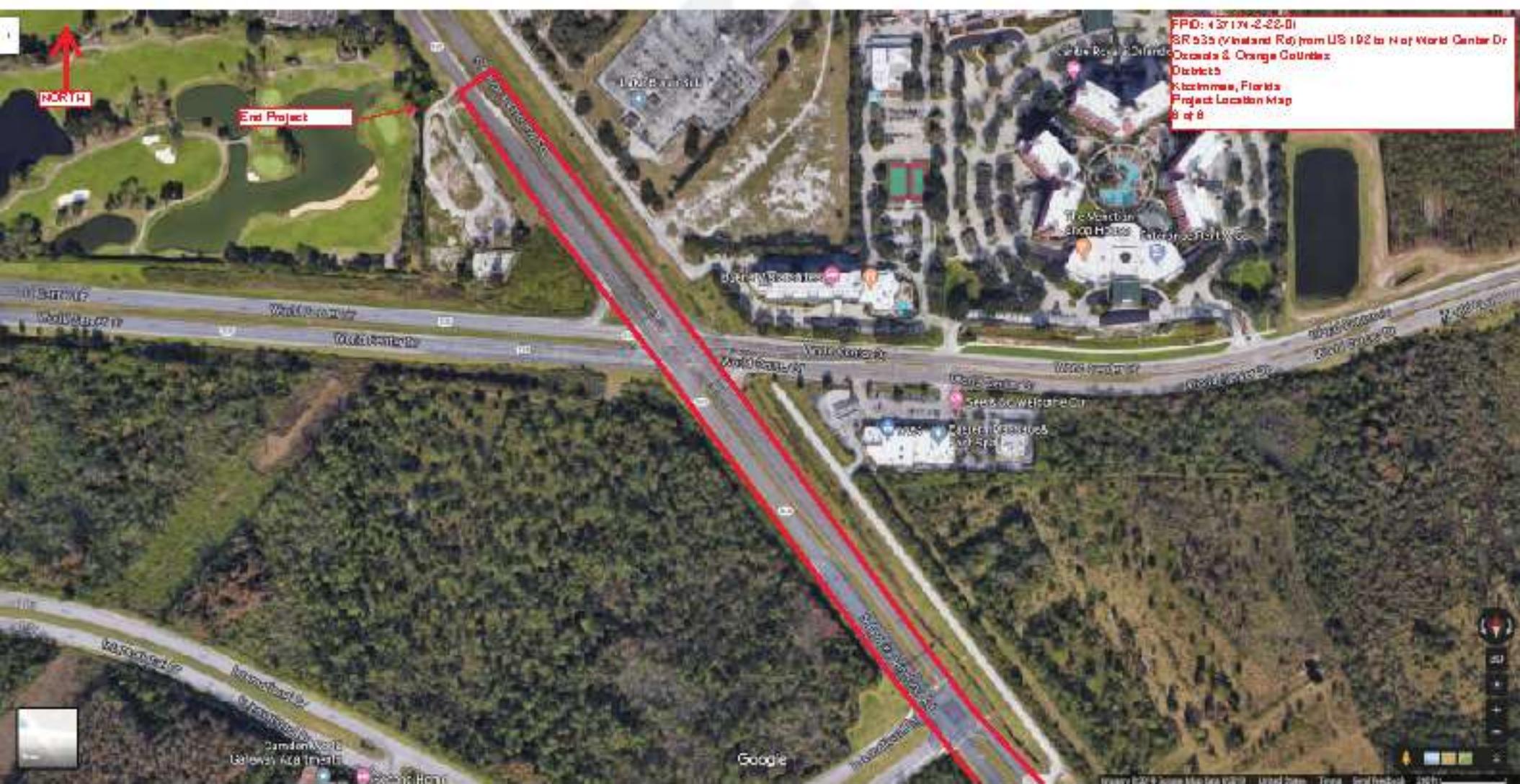












Charter Communications

DRAFT

Rick Duran

Subject: FDOT FM #437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Attachments: 535 192 TO OSCEOLA .pdf; 535 OSCEOLA TO 417.pdf; 535 417 TO 536.pdf

From: McLeroy, Jonathan <Jonathan.Mcleroy@charter.com>

Sent: Monday, August 9, 2021 7:59 AM

To: Rick Duran <rduran@boceng.com>

Cc: Leachman, Dwayne D <Dwayne.Leachman@charter.com>

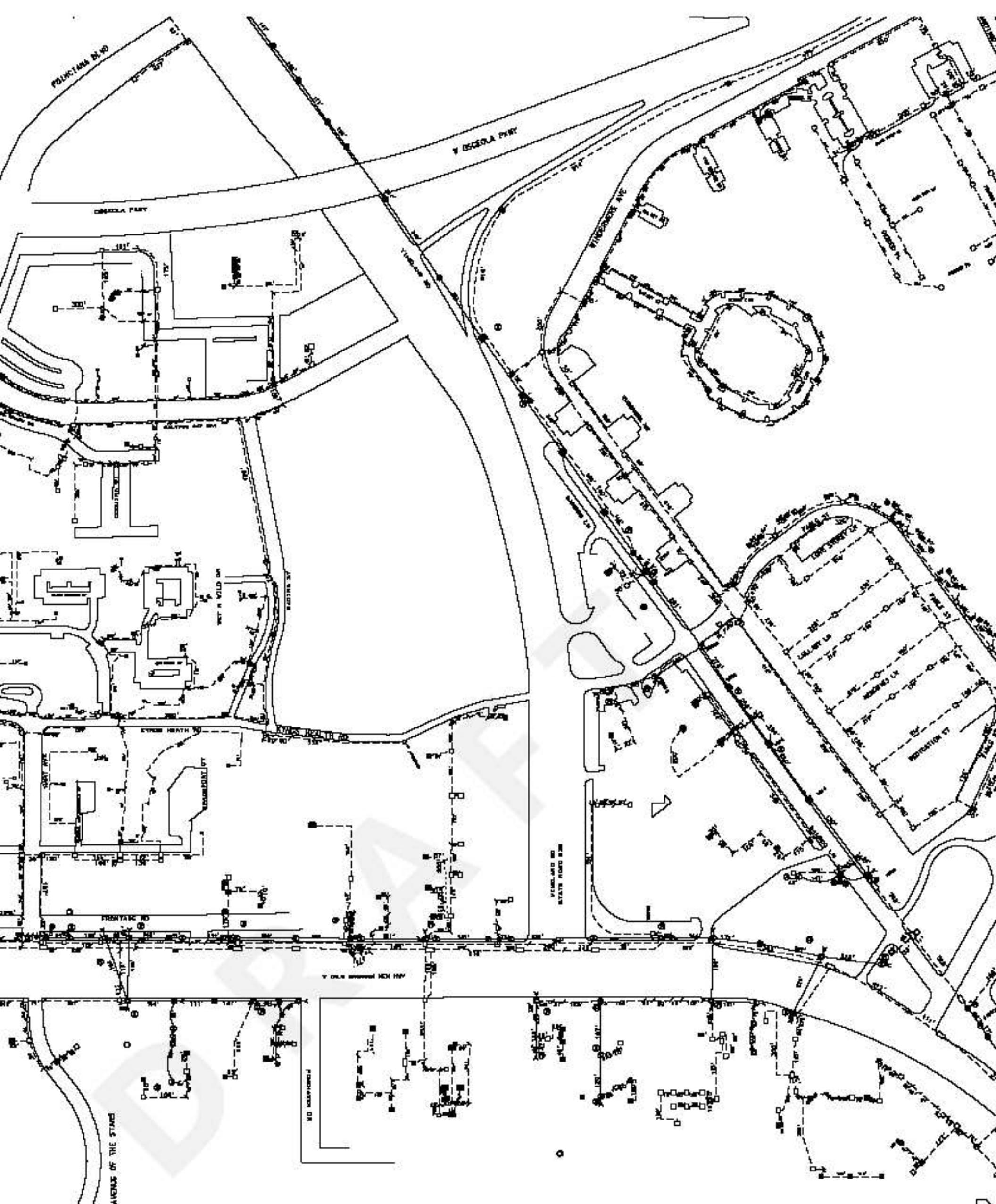
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

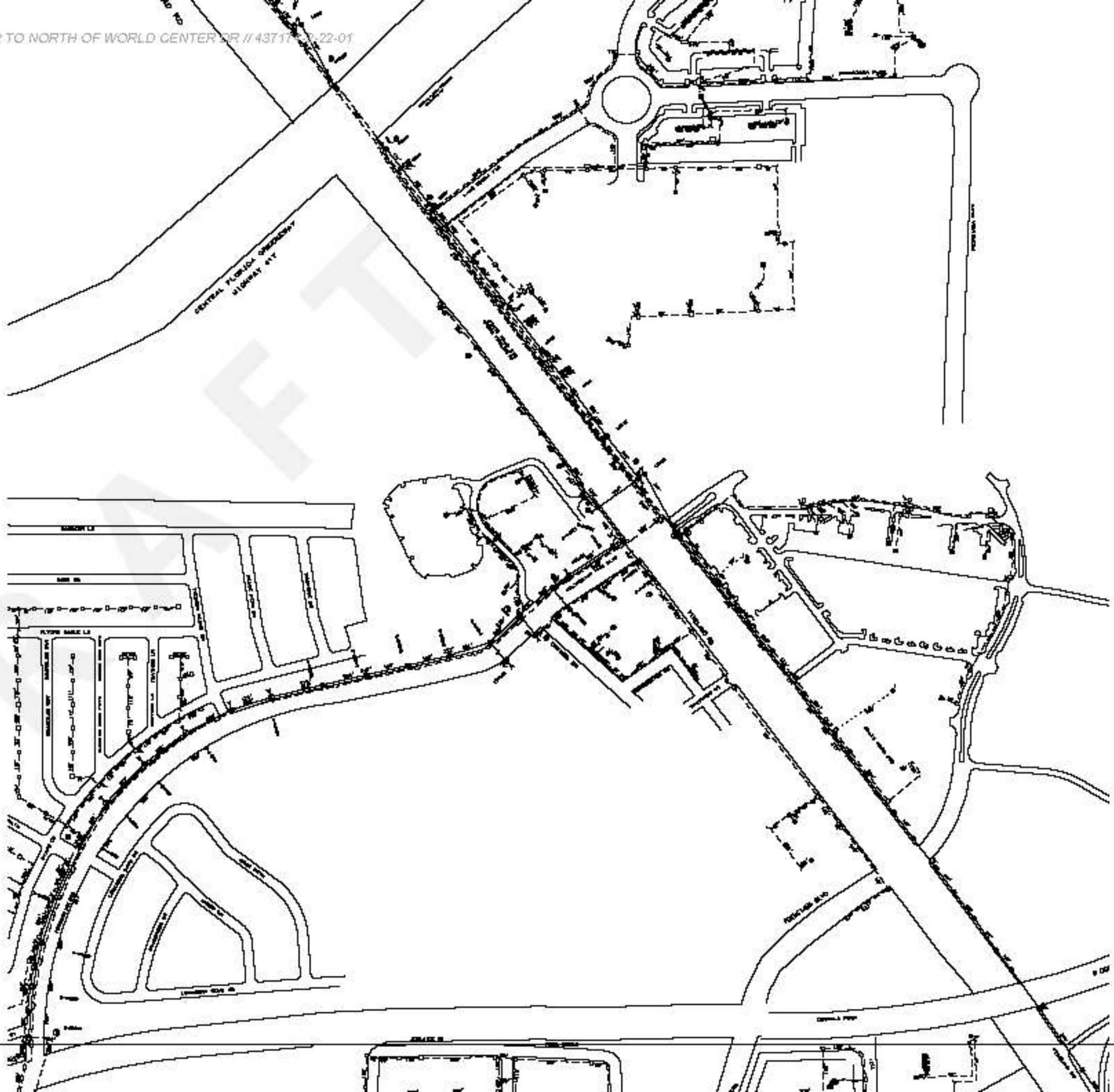
See attached maps.

Thanks,



Jonathan McLeroy | Construction Coordinator III | 407-532-8517
3767 All American Blvd. | Orlando, FL 32810







Comcast

DRAFT

Rick Duran

Subject: FDOT FM #437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

From: WeTransfer <noreply@wetransfer.com>

Sent: Tuesday, August 31, 2021 2:26 PM

To: Rick Duran <rduran@bcceng.com>

Subject: sWilliams@truenetcommunications.com sent you FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact via WeTransfer



sWilliams@truenetcommunications.com
sent you FDOT FM # 437174-2: SR 535
PD&E Study from US 192 to n/o of
World Center Drive (SR 536)_Initial
Contact

1 item, 53.3 MB in total - Expires on 7 September, 2021

**FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of
World Center Drive (SR 536)_Initial Contact** Rick,

Attached are the green line markups you requested. Comcast has
existing underground with the project limits.

Please use the attached plans for any future meetings and/or discussions
regarding Comcast involvement

Let me know if you have any questions, concerns, or need additional
information as the project moves forward.

Thank You,
Sean Williams

[Get your files](#)

Download link

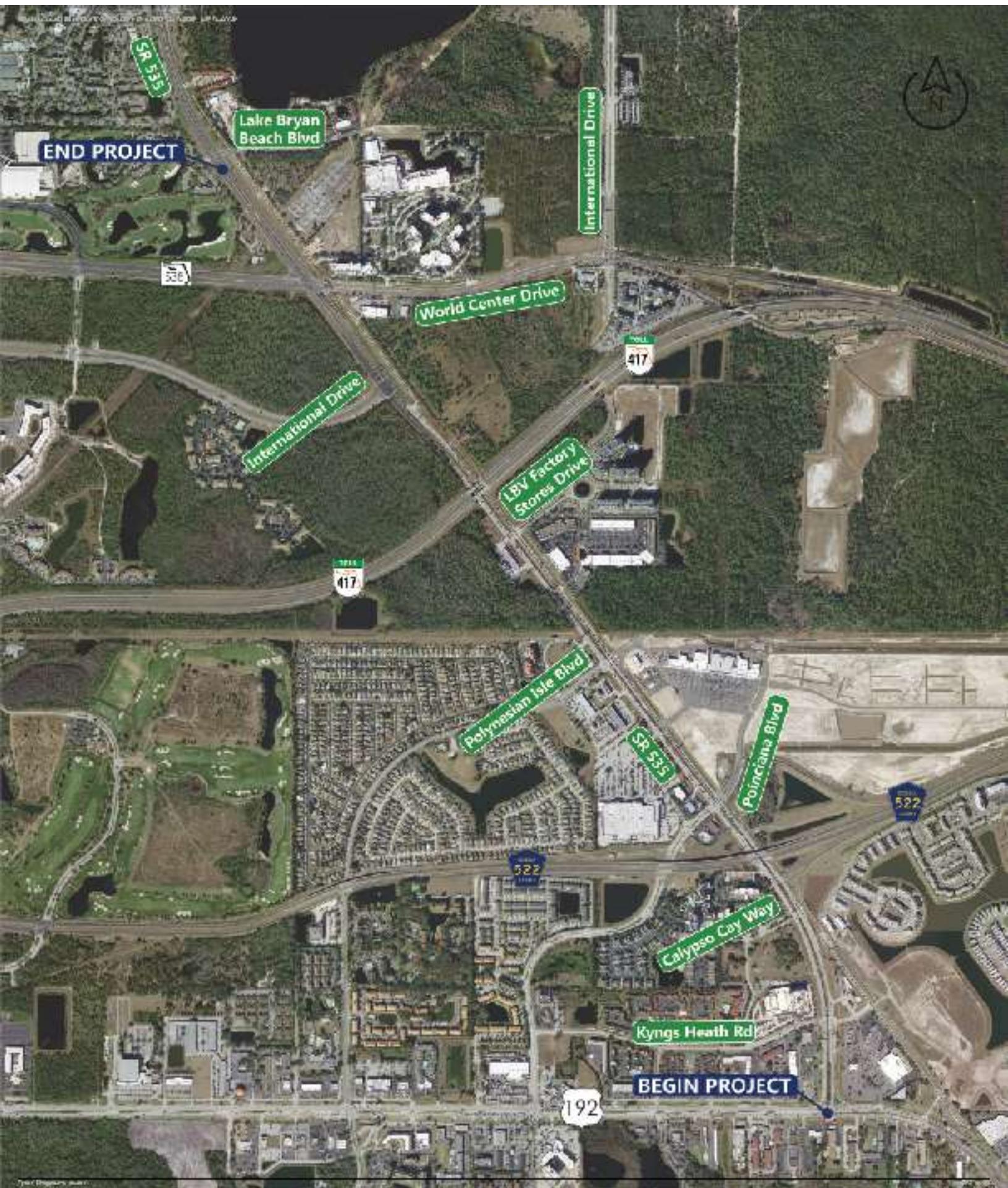
<https://wetransfer.com/downloads/d3a676865054940a7bafe62f07a6e0b420210831182527/ccbc78c69c7b8f2f5ffa7ba0dddb757020210831182543/08ae68>

1 item

SR 535 PD&E Study Roll Plot - Comcast.pdf
53.3 MB

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Duke Energy

DRAFT

Rick Duran

Subject: FW: 42027767 RGB_DOT_ORANGE COUNTY_437174-2_PD_E_STUDY_US_192_&_SR_536
Attachments: SR 535_OC_437174-2_Duke Energy Green Lines.pdf

From: Macias, Tomas <Tomas.Macias@duke-energy.com>
Sent: Thursday, August 19, 2021 3:57 PM
To: Rick Duran <rduran@bcceng.com>
Cc: DEFDistributionGOV <DEFDistributionGOV@duke-energy.com>; Macias, Tomas <Tomas.Macias@duke-energy.com>
Subject: RE: 42027767 RGB_DOT_ORANGE COUNTY_437174-2_PD_E_STUDY_US_192_&_SR_536

Rick,

I have marked up Green Plans on your conceptual layout. Please forward your future plans for more precise RGB's.

Sincerely,

Tomas Macias
Engineering | SouthCentral Asset Design | Customer Delivery - Duke Energy Florida
3250 Bonnet Creek Rd | Lake Buena Vista, FL 32830 | Office: (407) 938-6619 | Mobile: (520) 366-7254
Tomas.Macias@Duke-Energy.com



"Attitude is a little thing that makes a big difference." – Sir Winston Churchill

From: Rick Duran <rduran@bcceng.com>
Sent: Wednesday, August 18, 2021 9:48 AM
To: DEFDistributionGOV <DEFDistributionGOV@duke-energy.com>
Subject: [EXTERNAL] FW: FDOT FM# 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Good morning, please be advised that responses for the subject contact are due today. Link to plans can be found below:

<https://bcceng-my.sharepoint.com/:b/p/rduran/ETb47eUtYhpArqueGRr9koYBGq3jSHMQp6xitevKcHgkIg?e=x4qZwU>

Thanks.

Rick Duran
Senior Utilities Coordinator



t. 305.670.2350 | www.bcceng.com



END PROJECT

Lake Bryan
Beach Blvd

International Drive

World Center Drive

TOLL
417

International Drive

Levy Factory
Stores Drive

TOLL
417

Poinciana Ido Blvd

SR 535

Poinciana Et P

532

Cayman Cay Way

Kings Heath Rd

192

BEGIN PROJECT

Florida Gas Transmission

DRAFT

Rick Duran

Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

From: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>

Sent: Wednesday, July 21, 2021 11:32 AM

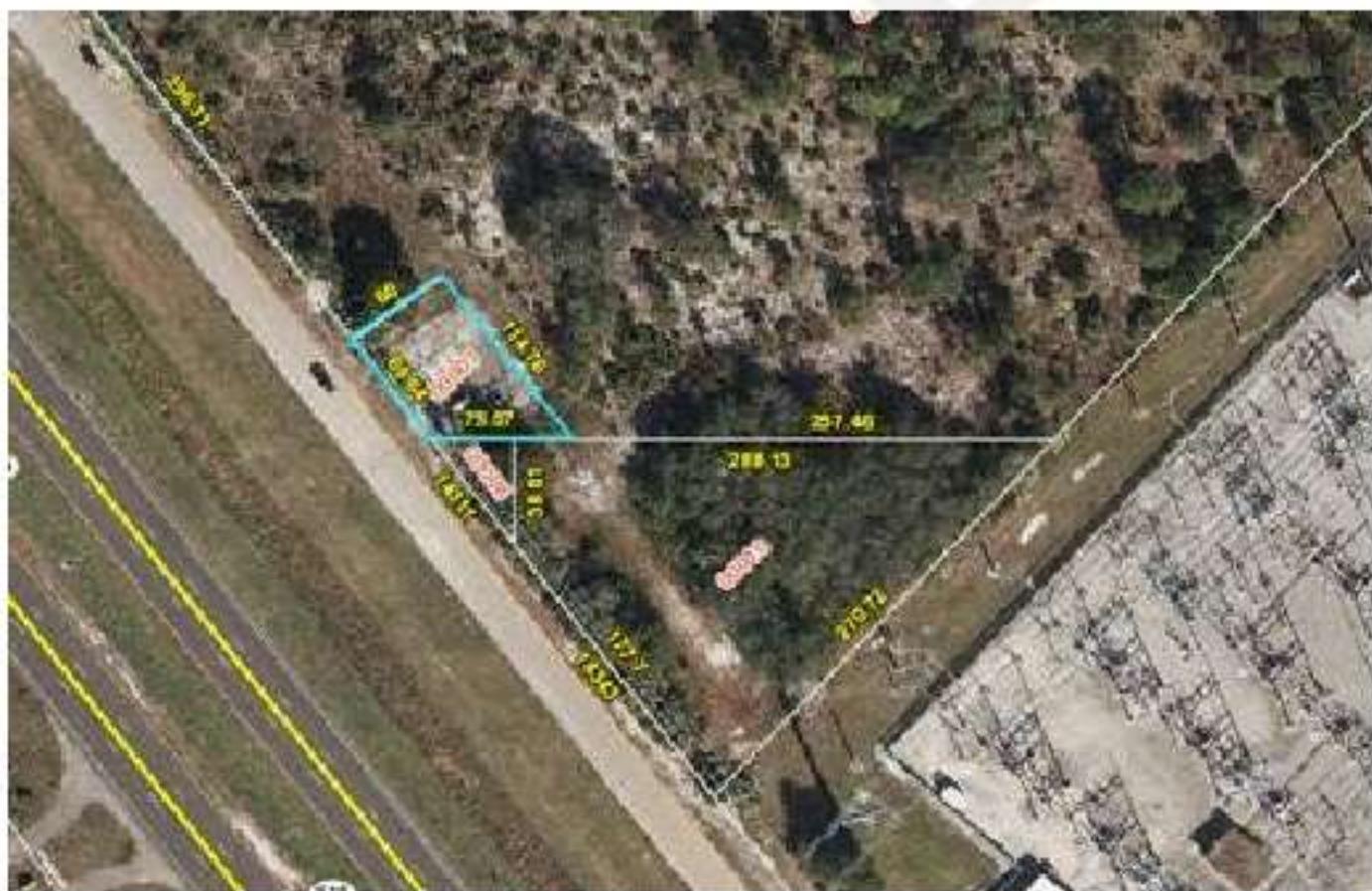
To: Rick Duran <rduran@boceng.com>; Coleman, Terry <Terry.Coleman@energytransfer.com>; Powell, Amy <amy.Powell@energytransfer.com>

Cc: Mulhausen, Douglas <Douglas.Mulhausen@energystar.gov>

Subject: RE: FDOT EM # 437174-2: SB 535 PD & E Study from US 192 to n/o of World Center Drive (SB 536) [Initial Contact]

Rick

The 6" transmission pipeline from the Orange/Osceola County Line to the FGT – TECO PGS Meter Station resides within a 30' FGT Easement. In addition, FGT owns the Meter Station Site (the limits are shown in Cyan below).



Hope this helps.

Thank you,



Joseph E. Sanchez

Sr. Technical Specialist
Engineering and Construction
Enforcements

Florida Gas Transmission Company
Southeast Division
Energy Transfer
2405 Luden Way, Suite 200
Maitland, FL 32751

office: 407.808.7171
cell: 407.808.4607

From: Rick Duran <rduran@bcceng.com>

Sent: Tuesday, July 20, 2021 2:26 PM

To: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>; Coleman, Terry <Terry.Coleman@energytransfer.com>;

Powell, Amy <Amy.Powell@energytransfer.com>

Cc: Mulhausen, Douglas <Douglas.Mulhausen@energytransfer.com>

Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Joe – one more thing and I apologize for all the pestering... although there are no maps/survey available of the easement areas, would you happen to have on hand the easement width?

Rick Duran

Senior Utilities Coordinator



t. 305.670.2350 | <http://secure-web.cisco.com/1COOpV-HG2JUv-yeqqGON3wlheAe0>

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From: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>

Sent: Tuesday, July 20, 2021 10:55 AM

To: Rick Duran <rduran@bcceng.com>; Coleman, Terry <Terry.Coleman@energytransfer.com>; Powell, Amy

<Amy.Powell@energytransfer.com>

Cc: Mulhausen, Douglas <Douglas.Mulhausen@energytransfer.com>

Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Rick,

It appears the pipeline segment in question (6" Reedy Creek lateral) was installed within the limits of an old railroad corridor that was turned over to Osceola County, so the installation of the FGT transmission pipeline was via an Osceola County Permit.

From: Rick Duran <rduran@bcceng.com>
Sent: Monday, July 19, 2021 3:17 PM
To: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>; Coleman, Terry <Terry.Coleman@energytransfer.com>; Powell, Amy <Amy.Powell@energytransfer.com>
Cc: Mulhausen, Douglas <Douglas.Mulhausen@energytransfer.com>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Good afternoon, Terry & Amy – have you been able to confirm if the 6" transmission pipeline depicted in blue on the attached map is in by permit or subordination? (between north Osceola Co. line and W. Osceola Pkwy along the east side of SR-535)

Rick Duran

Senior Utilities Coordinator



t. 305.670.2350 | http://secure-web.cisco.com/1A8TXL6c5u7CRzeec0HMMYVxQSYqY5TqeIL091RKe5TrMkW17g-RdpCSJEGXdJnUDQKzIjjeiaaPYGavR_G77qPyQ5K18Flz-oea3J-tvxWOiFn_f5vy6BAOLXNOITwCe8txpfoLHV2W26xKjq6PVi6Jqo5ICRnaTw9tDSkK3gjMHvGycOQkVmddf4Wjb2/XNWLTGlgRXN-TX154uQN6BsnAnmuN_9Yk83QVwUCdAao5aBD&9kPWPOYOhttp%3A%2F%2Fwww.bcceng.com

From: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>
Sent: Thursday, July 15, 2021 4:34 PM
To: Rick Duran <rduran@bcceng.com>; Coleman, Terry <Terry.Coleman@energytransfer.com>; Powell, Amy <Amy.Powell@energytransfer.com>
Cc: Mulhausen, Douglas <Douglas.Mulhausen@energytransfer.com>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Rick,

As requested, please see the attached revised FGT GIS screen shot map for the areas of the pipeline that reside within easement and shown as highlighted in Red. Amy and Terry will confirm the remaining 6" transmission pipeline shown as being within Osceola County limits resides by permit or by subordination agreement.

Thank you,



Joseph E. Sanchez
Sr. Technical Specialist
Engineering and Construction
Attachments

Florida Gas Transmission Company
Southeast Division
Energy Transfer
2405 Luden Way, Suite 200
Maitland, FL 32751

office: 407.808.7171
cell: 407.808.4607

From: Rick Duran <rduran@bcceng.com>
Sent: Thursday, July 15, 2021 3:28 PM
To: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>; Coleman, Terry <Terry.Coleman@energytransfer.com>
Cc: Powell, Amy <Amy.Powell@energytransfer.com>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Thank you, sir.

Rick Duran

Senior Utilities Coordinator



t. 305.670.2350 | [---

From: Sanchez, Joseph <\[Joseph.E.Sanchez@energytransfer.com\]\(mailto:Joseph.E.Sanchez@energytransfer.com\)>
Sent: Thursday, July 15, 2021 3:19 PM
To: Rick Duran <\[rduran@bcceng.com\]\(mailto:rduran@bcceng.com\)>; Coleman, Terry <\[Terry.Coleman@energytransfer.com\]\(mailto:Terry.Coleman@energytransfer.com\)>
Cc: Powell, Amy <\[Amy.Powell@energytransfer.com\]\(mailto:Amy.Powell@energytransfer.com\)>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive \(SR 536\)_Initial Contact](http://secure-web.cisco.com/1f73MR5BUK5dzfwEO-KIQDAQHoe_e0MZhGaBEOMuVdz_O8dN2MjT-I9YDAYlhP7HplvSER6lyNy0atBwWDBt33NGcA0m35tQi4KM2pjzpblMu6QY31ZGia?VmPhwq30FKGfnZOOg-MR9HwX2HUP5GTlDpY2vChU6dWTHdmhOP0KQDLsKd1Seu0MCUh99cljqH41DPKo0L1KHw33G8kwydpK9nqMaqUBiKW-XdFqS6wk_kNx mY hEm-F0I/http%3A%2F%2Fwww.bcceng.com</p></div><div data-bbox=)

Rick,

We do not have maps that depict easement limits, however, I will provide a similar map with the pipelines highlighted that reside within easements.

Thank you

From: Rick Duran <rduran@bcceng.com>
Sent: Thursday, July 15, 2021 2:50 PM
To: Coleman, Terry <Terry.Coleman@energytransfer.com>; Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>
Cc: Powell, Amy <Amy.Powell@energytransfer.com>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Great to hear from both of you. I may be up around that way in the near future maybe we can grab some lunch.

Is there a map or survey available that denotes the limits of the easement?

Rick Duran

Senior Utilities Coordinator



t: 305.670.2350 | http://secure-web.cisco.com/1Ra2Lvh6vMQ5XwnNv0QLq13_8pdR1bqW0Yg65hajv41ChA-Ref-2-RPqPExYXmXhcRPBD_5g-ht6CCa54tM.Rn4amAclqMhUFO4Fx.kgrl-E5p80JyHHdjlBwckVWak3tg&HsAaPhzV9hG953dF2L9QzPjQhx5OGazPW7&asbE3WHWBjRCJ94IdNwVoL24dzmHW_MqYXlqWaAeWO5damKjJXfKNaugmrQLjCp&VWRaabLrOfVCCznStyQrOnub/http%3A%2F%2Fwww.bcceng.com

From: Coleman, Terry <Terry.Coleman@energytransfer.com>

Sent: Thursday, July 15, 2021 2:46 PM

To: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>; Rick Duran <rduran@bcceng.com>

Cc: Powell, Amy <Amy.Powell@energytransfer.com>

Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Hey Rick, long time no see. Hope your doing well.



Terry D. Coleman
Sr. Representative – Right-of-Way
Florida Gas Transmission Company, LLC
2405 Lucien Way, Suite 200
Maitland, FL 32751
O: 407-838-7054
C: 407-448-7123

From: Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>

Sent: Thursday, July 15, 2021 2:41 PM

To: Rick Duran <rduran@bcceng.com>

Cc: Powell, Amy <Amy.Powell@energytransfer.com>; Coleman, Terry <Terry.Coleman@energytransfer.com>

Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Hey Rick,

Hope all is well with you and all the good folks down there. It is always nice to hear from you.

Anyway, as requested, please see the attached FGT GIS screenshot of the natural gas transmission facilities located within the project limits known as being on SR 535 from North of SR 536 to US 192. In addition, almost the all the FGT transmission pipeline shown on the GIS screenshot does reside within FGT easement.

Thank you,



Joseph E. Sanchez
Sr. Technical Specialist
Engineering and Construction
Attachments

Florida Gas Transmission Company
Southeast Division
Energy Transfer
2405 Indian Way, Suite 200
Mattland, FL 32751

office: 407.288.7171
cell: 407.208.4807

From: Rick Duran <rduaran@bcceng.com>

Sent: Wednesday, July 14, 2021 4:42 PM

To: g27896@att.com; relocations@lumen.com; jonathan.mcleroy@charter.com; DEFDistributionGOV@duke-energy.com; Sanchez, Joseph <Joseph.E.Sanchez@energytransfer.com>; investigations@verizon.com; jose.hernandez2@ocfl.net; mdaniel@summit-broadband.com; swinson@tecoenergy.com; rphelham@tohowater.com; michel-lee.chapuseaux@uniti.com; matt.richards@zayo.com; juan.diaz@ferrovialservices.com

Subject: FDOT FM # 437174-2; SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Good afternoon, UAOs:

Please use the link below to access the *Initial Contact* roll plot for the subject FDOT project. Your response to this request by 08/18/2021 is appreciated.

 https://secure-web.cisco.com/1jRrsBsMuAFCoefR66P8EPa6P0-oqWpyQARVh56Yq4UMIq58U-ZaFMKYGOAGTyJDzOPhCVHbJVitxPghBOUhMoewR9gRUMWmORCNhTO-4fAY2-QAPIORjOu9KOObumKpAvhUK66/429jlqNsNRhP420wneogORbNinhUFdfPJT3Y15Zq8wnCMrEr92t_5SLQtxfj8vkfedfbgVuYCsFyDnPvXtQ43v3Vi8tho92xzPuxPnTXT3Wjz78ea9t2w9YD/https%3A%2F%2Fbcceng-my.sharepoint.com%2P%3Ab%34%2Fp%2Frduran%2FETb47eUtYhpArgueGRr9koYBGa3jSHMQp6kitevKcHgkLg%3Fe%3Dx4qZwU

Should you have any questions, please feel free to contact me.

Thank you.

Rick Duran
Senior Utilities Coordinator



Florida | Georgia | Texas | Puerto Rico

6401 SW 87th Avenue, Suite 200, Miami, FL 33173

t. 305.670.2350 | [http://secure-web.cisco.com/1u2jllqlvOxleeklmh-vdIFsClJ9942Yz569dojkxJh1Fa44gl08L0ob272e3z3;Ny d9dd_1BxM8WTjfrV7X87;GiGJjF2c_MwaeXYvaKivr57IC5_zAdD2lclSvd_folo5qRavt1wGmpw84Vo5L7_NhKajiVPcdDs5-AoTuCOqMld5blfsqJ0zvCByVak0fPsM-zMb7UVloNpiPtwgX95RrEqVVHsqjqquNN;63my-gHjyj20mW4_7Wqa/http%3A%2F%2Fwww.bcceng.com](https://secure-web.cisco.com/1u2jllqlvOxleeklmh-vdIFsClJ9942Yz569dojkxJh1Fa44gl08L0ob272e3z3;Ny d9dd_1BxM8WTjfrV7X87;GiGJjF2c_MwaeXYvaKivr57IC5_zAdD2lclSvd_folo5qRavt1wGmpw84Vo5L7_NhKajiVPcdDs5-AoTuCOqMld5blfsqJ0zvCByVak0fPsM-zMb7UVloNpiPtwgX95RrEqVVHsqjqquNN;63my-gHjyj20mW4_7Wqa/http%3A%2F%2Fwww.bcceng.com)

87535 VINELAND RD FROM MILE 1.22 TO NORTH OF WORLD CENTER DR // 13-02-12-22401

Falls-Vineyard

Orlando SW Tap Take-off PGS Orlando SW (PY) M&R

WARNING:

THESE MATERIALS ARE FOR INFORMATIONAL PURPOSES ONLY AND MUST NOT BE USED OR RELIED ON AS AN EXACT REPRESENTATION OF EXISTING CONDITIONS AND/OR PIPELINE LOCATIONS. FIELD CONDITIONS OR THE EXACT LOCATION(S) OF THESE FACILITIES MUST BE ESTABLISHED SOLELY BY FIELD VERIFICATION. STATE LAW REQUIRES AN EXCAVATOR OR CONTACT THE STATE ONE-CALL CENTER AT ITS 800 NUMBER OR THE NATIONAL RESPONSE 211 NUMBER BEFORE DIGGING TO ALLOW AN ON-SITE INSPECTION BY A PIPELINE COMPANY FIELD REPRESENTATIVE.

THIS INFORMATION IS CONFIDENTIAL AND MUST BE PROTECTED. DISCLOSURE, COPYING, DISTRIBUTION, OR USE OF THE CONTENTS OF THIS AND/OR THE ATTACHMENT(S) IF YOU ARE NOT THE INTENDED RECIPIENT IS PROHIBITED.

International Dr S

Central Florida Greenway (Teleroad)

West Blvd

417

Central Florida Greenway (Teleroad)

536

Hawk Dr

Hearns Dr

Aton Rd

Omaha Cr

Dominican Dr

Bear Path

Arrow Dr

Lonesome Dove Dr

Deer Dr

Deer Dr

Deer Dr

Deer Dr

Deer Dr

St. Petersburg Lateral Ultrasonic (VA) M&R Reedy Creek Lateral Take-off

Google Earth

ORIGINAL

Reedy Creek Lateral
 Osceola County, Florida
 694-06CE-1

Upon motion of Commissioner Barber, duly seconded by Commissioner Lockhart, the following resolution was unanimously adopted:

BE IT RESOLVED by the Board of County Commissioners of Osceola County, Florida, that Florida Gas Transmission Company, a corporation, its successors and assigns, be and it is hereby given and granted a permit granting the right to construct, reconstruct, enlarge, maintain and operate natural gas pipelines hereinafter called "facility," together with the necessary appurtenances, underground, across and along county owned lands abutting State Road 535, subject to the following conditions:

1. The Licensee shall prevent the creation of any obstructions or conditions which are or may become dangerous to the traveling public.
2. The Licensee shall repair any damage or injury to the roads, streets, highways and easements occasioned by reason of the exercise of the privileges granted by this resolution and to repair said roads, streets, highways and easements promptly, restoring the same to a condition at least equal to that which existed immediately prior to the infliction of such damage or injury.
3. The Licensee shall hold the Board of County Commissioners of Osceola County, Florida, and members thereof, harmless from the payment of any compensation or damages resulting from the exercise of the privileges of this resolution.
4. The Licensee shall comply with those reasonably necessary rules and regulations promulgated for the protection of the County and the public by the Board of County Commissioners of Osceola County, Florida, enacted both before and after the granting of the privileges herein.

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ENTERED SEP 26 1994

APR 22 1970

Florida Gas Transmission Lt
LAND DEPT.

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5. Whenever necessary, in the opinion of the Board of County Commissioners, for the construction, widening, repair, improvement, alteration or relocation of all, or any portion of said State Road 535 as determined by the Board of County Commissioners, the facility and appurtenances hereto as authorized hereunder, shall be immediately removed from said right of way, or reset or relocated thereon, as required by the Board of County Commissioners and at the expense of the holder, it being the intention of the said Board of County Commissioners that all and every expense of the licensee in removing, resetting, relocating or in any other way altering said gas pipelines, for any reason or cause whatsoever, shall be the expense of the licensee.

6. The Licensee shall file a written acceptance of the terms of this resolution within thirty (30) days with the Board of County Commissioners stating that it will comply with the conditions stated herein.

7. The failure of the Licensee to file a written acceptance within thirty (30) days as provided for above shall render this resolution null and void and of no legal effect.

8. Any assignment or transfer by said company of the rights granted hereunder to any person, firm or corporation shall obligate such person, firm or corporation to perform any and all of the obligations contained herein in the same manner as the licensee is obligated hereunder.

DONE AND ADOPTED in regular session this 26th day of March, 1970.

(SEAL)

BOARD OF COUNTY COMMISSIONERS
OF OSCEOLA COUNTY, FLORIDA

ATTEST:

Hans G. Daniel
Clerk

By Paul M. Rosen
Chairman

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APR 22 1970

Florida Gas Transmission Co.
LAW AND DEPT.

ENTERED SEP 26 1970

STATE OF FLORIDA
COUNTY OF OSCEOLA

I, HARRIS G. DANIEL, Clerk of the Circuit Court in and for the Ninth Judicial Circuit, State of Florida, County of Osceola, DO HEREBY CERTIFY that the above and foregoing is pertaining to use of R/W along the East side of Highway 535 a true and correct copy of the Resolution/adopted by the Board of County Commissioners of Osceola County at a Regular meeting held March 26th A. D. 19670 and has been filed and recorded with the minutes of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Seal of my office, at Kissimmee, Florida, this the 22nd day of April A. D. 19670.

(SEAL)

HARRIS G. DANIEL

Clerk of the Circuit Court and
Ex-officio Clerk and Auditor
for the Board of County Commis-
sioners of Osceola County, State
of Florida.

By Susan D. Jones
Deputy Clerk

RECEIVED
APR 22 1967
CLERK'S OFFICE
DEPT. OF PUBLIC WORKS

ENTERED SEP 26 1964

The foregoing Resolution is accepted as of the day and date hereinabove specified.

FLORIDA GAS TRANSMISSION COMPANY

By H. L. Wilhite
H. L. WILHITE Vice President
SENIOR VICE PRESIDENT

R. S. Sebring
R. S. Sebring
Legal Dept.

STATE OF FLORIDA)

COUNTY OF ORANGE)

I, Lorraine Sebring, a Notary Public in and for said County and in said State, hereby certify that H. L. Wilhite, whose name as Senior Vice President is signed to the foregoing instrument and who is known to me acknowledged before me on this day that being informed of the contents of the instrument, he, in his capacity as such officer, and with full authority, executed the same voluntarily for and as the act of the Corporation.

Given under my hand and official seal this the 17th day of April, 1970.

Lorraine Sebring
REUBEN

Lorraine Sebring
Notary Public, Orange County, Florida

Notary Public State of Florida at Large
My Commission expires _____
Notary Public State of Florida at Large
My Commission Expires March 31, 1973

ENTERED SEP 2 6 1994

01947

T-45-3 + 12-18-1E

DETERA COUNTY

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Kinder-Morgan

DRAFT



Bob Gray
2101 GATX Drive
Tampa, FL 33605
Phone: 813-241-1106
Email: Bob_Gray@kindermorgan.com

COMPANY OVERVIEW

Kinder Morgan's Central Florida Pipeline system consists of a 110-mile, 16-inch diameter pipeline that transports gasoline and batched denatured ethanol, and an 85-mile, 10-inch diameter pipeline that transports diesel fuel and jet fuel from Tampa to Orlando. The 10-inch pipeline connects to Kinder Morgan's Taft, Florida, terminal (located near Orlando) and is the sole pipeline supplying jet fuel to the Orlando International Airport. Kinder Morgan also owns and operates liquids terminals in Tampa and Taft. The Tampa terminal contains approximately 1.6 million barrels of storage capacity for sub-octane gasoline, ultra low sulfur diesel, bio diesel, ethanol, and jet fuel, and is connected to two ship dock facilities in the Port of Tampa. The Tampa terminal also provides truck rack blending services for ethanol, neat loads of denatured ethanol and bio-diesel. The Taft terminal contains approximately 1.0 million barrels of storage capacity for sub-octane gasoline, ultra low sulfur diesel, bio diesel, ethanol, and jet fuel for further movement into trucks.

COMMITMENT TO HEALTH, SAFETY & ENVIRONMENT

Kinder Morgan is committed to public safety, protection of the environment, and operation of its facilities in compliance with all applicable rules and regulations. The Central Florida Pipelines fall under the regulatory oversight of the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA). The company is proud of its safety record and follows many regulations and procedures to monitor and ensure the integrity of its pipelines.

Pipeline operating conditions are monitored 24 hours a day, 7 days a week by personnel in control centers using a Supervisory Control and Data Acquisition (SCADA) computer system. This electronic surveillance system gathers such data as pipeline pressures, volume and flow rates and the status of pumping equipment and valves. Whenever operating conditions change, an alarm warns the operator on duty and the condition is investigated. Both automated and manual valves are strategically placed along the pipeline system to enable the pipeline to be shutdown immediately and sections to be isolated quickly, if necessary. We want you to be aware of our pipelines. We ask for your help in preventing accidental damage to pipelines. Kinder Morgan supports the Nation's Homeland Security efforts and Kinder Morgan

encourages you to immediately notify and report any suspicious persons and/or activities near the pipeline to your local law enforcement authorities by calling 911.

WORKING TOGETHER TO PROTECT PIPELINES & RIGHT-OF-WAYS

In addition to 24-hour monitoring and on-going safety and security procedures, Kinder Morgan relies on you, the local emergency responder, to notify Kinder Morgan when you observe potential right-of-way restriction violations or potential damage to our facilities, which could endanger public safety. We support your enforcement of "Call Before You Dig" requirements in states where they apply.

Excavation activity is the most common cause of serious pipeline damage. In most states, residents, excavators and farmers are required by law to call 811 or their local One-Call center at least two or three working days before starting an excavation project to have underground utilities marked. Refer to your state-specific One-Call laws for more information.

An unauthorized use, such as building or planting, in the pipeline right-of-way is known as encroachment. Kinder Morgan regularly conducts maintenance to trim trees and remove shrubs or structures that prohibit the company

EMERGENCY CONTACT: 1-800-510-5678

PRODUCTS/PIPE FLOW INDEX/GUIDES

Gasoline, sub-octane	1203	128
Denatured Ethanol	1170	127
Diesel	1202/1993	128
Bio Diesel	1202/1993	128
Jet Fuel	1863	128

FLORIDA COUNTIES OF OPERATION:

Hillsborough	Orange
Osceola	Polk

Changes may occur. Contact the operator to discuss their pipeline systems and areas of operation.

from clearly viewing the pipeline corridor during aerial or foot patrols and regular maintenance activities.

Please contact us if you know of places where trees, plants or structures are located on the pipeline right-of-way or if you see individuals digging in areas where underground utilities are not marked with flags.

SIGNS OF A PETROLEUM PIPELINE LEAK OR RUPTURE

The following are indications of a possible pipeline leak:

- Brown or discolored vegetation amid healthy plants
- Dirt being blown into the air
- Colorful sheens on water surfaces
- Fire at or below ground level
- Stains or pools of hydrocarbons not usually present in the right-of-way
- Bubbles coming from bodies of water
- A loud roar or hissing sound
- Distinctive petroleum type odors

On occasion, a pressure-relieving device may activate at a CO₂ aboveground pipeline facility. These devices are acting as designed to relieve pressure on the system to prevent over pressurization. Under no circumstances should a pressure relieving device be capped or valved off.

Pipeline Incident Response Tactics

The list below summarizes emergency response tactics to implement when you respond to a pipeline incident.

1. Assess the situation

- Approach with caution from upwind location.
- Isolate and secure the area.
- Employ ICS.
- Identify hazards.
- Identify and contact the pipeline operator using the emergency number listed on the pipeline marker.

2. Protect people, property & the environment

- Establish isolation zones and set up barriers.
- Rescue and evacuate people (if needed).
- Eliminate ignition sources.
- Stage apparatus and equipment based on atmospheric monitoring and weather conditions.
- If liquid products are involved, use appropriate defensive Hazardous Waste Operations & Emergency Response (HAZWOPER) procedures such as installing dikes and dams, if trained and equipped.
- Control fires, vapor and leaks. Do not extinguish burning fires. Protect exposures and coordinate isolation operations with pipeline personnel.
- Do not operate (open or close) valves or other pipeline equipment.
- Employ containment techniques if personnel are trained, equipped and it is safe to do so.
- Designate a safe location for bystanders and the media.

3. Call for assistance as needed

- Contact your local emergency response organization and/or national resources if needed.

Refer to PHMSA's Emergency Response Guidebook at <http://hazmat.dot.gov/pubs/erg/guidebook.htm> for additional information.

ADDITIONAL INFORMATION:

National Pipeline Mapping System
www.nplms.phmsa.dot.gov

NASFM's "Pipeline Emergencies"
www.pipelineemergencies.com

PHMSA Emergency Response Guidebook

<http://hazmat.dot.gov/pubs/erg/guidebook.htm>

Kinder Morgan Public Awareness

www.kindermorgan.com/public_awareness

BASIC PIPELINE INFORMATION

Kinder Morgan's pipelines are typically underground, but they are located above ground in select climates and at compressor stations, pumping stations, valve sites and terminals.

Kinder Morgan operates pipelines in your community. Pipelines are the backbone of our nation's energy transportation infrastructure. According to the National Transportation Safety Board, pipelines are the safest mode of fuel transportation, both for the public and the environment.

Pipelines are constructed in a corridor of land called the pipeline right-of-way that includes the land over and around the pipeline, typically 25 feet on each side. Right-of-way agreements limit how the corridor is used to protect the pipeline and allow operators to monitor and inspect the pipeline.

Kinder Morgan monitors its pipeline system 24-hours a day from its state-of-the-art System Control Center. We ensure public safety and safe pipeline operations through employee training, regular testing, aerial and right-of-way foot patrols and adherence to our

comprehensive Integrity Management plan and procedures.

There are three primary types of pipelines: gathering, transmission and distribution. Gathering pipelines transport CO₂ and petroleum products from the wellhead and production areas to processing facilities. Transmission pipelines, like those operated by Kinder Morgan, transport CO₂ and hazardous liquids to marketing and distribution terminals. Transmission pipelines are typically large, high-pressure pipelines.

Distribution systems for hazardous liquids differ. Liquids products are stored and transported to their final destination by tanker trucks.

LOCATING PIPELINES IN YOUR COMMUNITY

Pipeline markers are located along the right-of-way, at road intersections, waterways, railroad crossings and all aboveground facilities. These signs identify the general area but not the exact location of the pipeline. They specify the type of product transported, the operator's name and emergency contact number.

The federal government provides access to maps of transmission pipelines in your community through the National Pipeline Mapping System at www.nplms.phmsa.dot.gov. Government and safety officials can access additional information and download electronic files to import into emergency preparedness GIS mapping systems.



Examples of Kinder Morgan pipeline markers

POTENTIAL HAZARDS ASSOCIATED WITH PIPELINE LEAKS

The following chart outlines potential hazards associated with the release of specific products transported by Kinder Morgan:

Denatured Ethanol - Typical	Colorless, waterwhite liquid with a mild fragrant odor.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin.	Alcohol resistant foam, dry chemical or carbon dioxide
Gasoline - Typical (Unleaded Gasoline)	Clear (may be dyed) liquid with a gasoline odor.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin.	Dry chemical foam, carbon dioxide (CO ₂) or water fog
Bio-Diesel - Typical (petroleum hydrocarbons)	Clear (may be dyed) liquid with a hydrocarbon odor.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed. Inhaled or absorbed through skin.	Dry chemical foam, carbon dioxide (CO ₂) or water fog. Water may be ineffective but should be used to keep fire exposed containers cool.
Low Sulfur and Ultra Low Sulfur Diesel - Typical	Clear/yellow liquid with a petroleum odor.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if inhaled or absorbed through skin.	Dry chemical foam, carbon dioxide (CO ₂) or water fog
Turbine Fuel - Typical	Clear/very-white liquid with a faint hydrocarbon odor.	Flammable liquid. Keep away from heat, sparks, open flames and other ignition sources.	Harmful or fatal if swallowed. Inhaled or absorbed through skin.	Dry chemical foam, carbon dioxide (CO ₂), water fog or a poring liquid type extinguishing agents

For specific information about each product Material Safety Data Sheets (MSDS) can be found in this book or downloaded from Kinder Morgan's Web site at www.kindermorgan.com/public_awareness/AdditionalInformation/msds

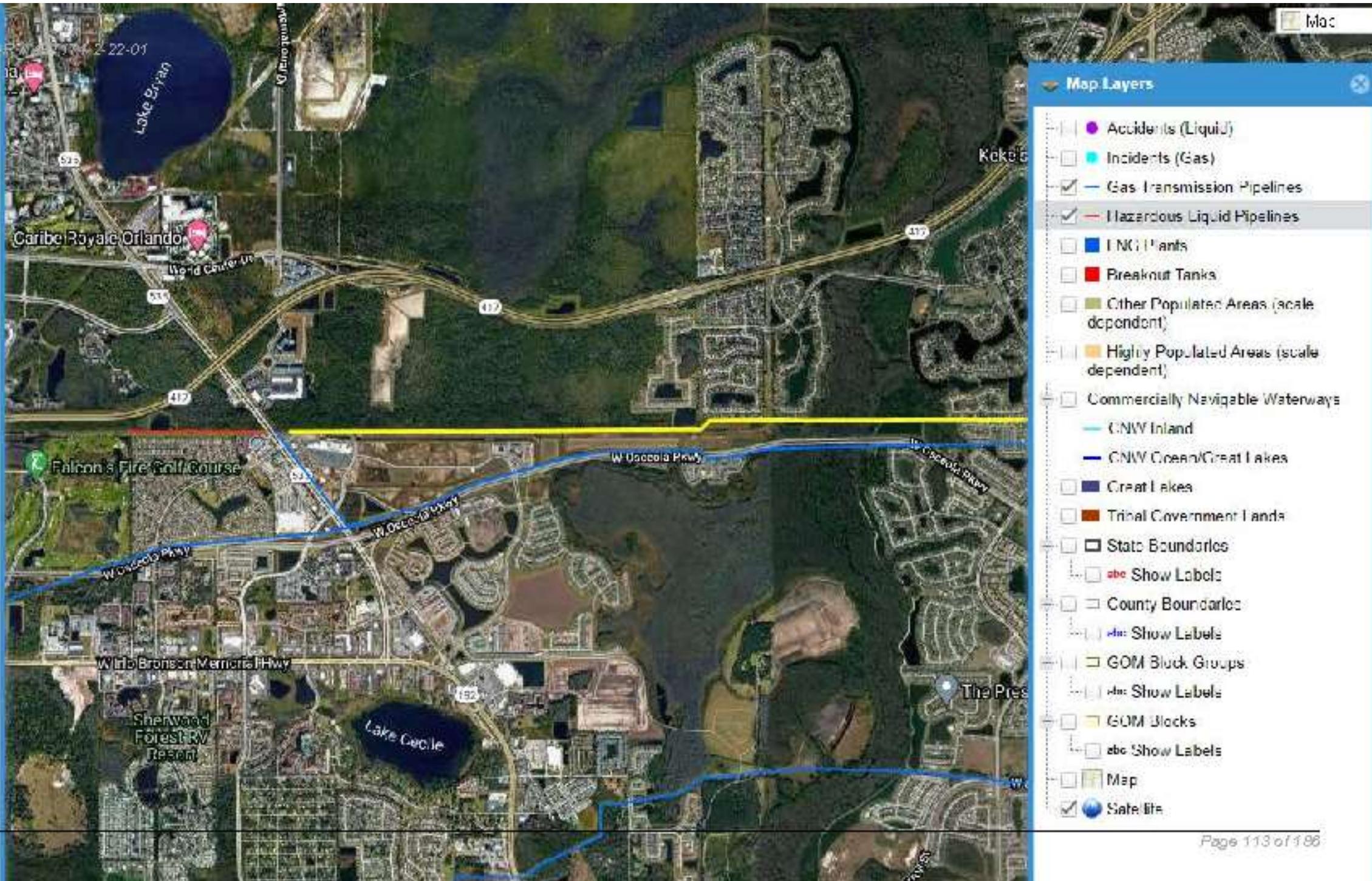
PLEASE ENSURE THAT THE FOLLOWING PHONE NUMBERS ARE INCLUDED IN YOUR EMERGENCY CONTACT SYSTEM
When calling a non-toll free number, call collect:

Natural Gas	Kinder Morgan Cochin LLC 800-265-6000	Carteret, New Jersey 732-541-5161
KM Interstate Gas Transmission 888-763-3690	Kinder Morgan Energy Partners, LP (Cypress Pipeline) 800-265-6000	Galena Park, Texas 713-455-1231
KM Louisiana Pipeline 800-733-2490	Plantation Pipe Line Company 800-510-5678	Pasadena, Texas 713-475-9235
KM North Texas Pipeline 800-633-0184	SFPP, LP 714-560-4411	Perth Amboy, New Jersey 732-826-1144
KM Tejas Pipeline 800-568-7512	Southeast Terminals LLC 800-510-5678	St. Gabriel, Louisiana 877-217-5243
KM Texas Pipeline 800-633-0184	West Coast Terminals LLC 714-560-4411	Corporate Headquarters NON-EMERGENCY INQUIRIES ONLY 500 Dallas St., Suite 1000 Houston, TX 77002 713-369-9000
Midcontinent Express Pipeline 800-733-2490	CO2 Kinder Morgan CO2 Company, LP 877-390-8640	
Natural Gas Pipeline Company of America 800-733-2490	Crude	Kinder Morgan's Public Awareness Program; developed under the guidance of federal public awareness, damage prevention and integrity management regulation; is a single administered program for all applicable business units or entities. The Program is administered by Kinder Morgan's DOT Technical Working Group. For more information regarding Kinder Morgan's Public Awareness Program visit www.kindermorgan.com/public_awareness .
Rockies Express Pipeline LLC 877-436-2253	Kinder Morgan Pipelines (USA) Inc. 888-449-7539	
Trailblazer Pipeline Company 800-733-2490	Kinder Morgan Wink Pipeline, LP 866-784-6494	
TransColorado Gas Transmission 800-944-4817	Trans Mountain Pipeline (Puget Sound) LLC 888-876-6711	
Products	Liquid Terminals	
CaNev Pipe Line Company 714-560-4411	Kinder Morgan Liquids Terminals LLC Argo, Illinois 866-499-2746	
Central Florida Pipeline Company 800-537-8832		

Identify - Total 1 record(s) found

2022-07-22 00:00:00 AND FROM 00:00:00 TO NORTH OF WORLD CENTER

2190	
Attribute	Value
= Category: PIPELINE ATTRIBUTES	
OPERATOR ID	2190
OPERATOR NAME	CENTRAL FLORIDA PIPELINE CO
SYSTEM NAME	CFPI
SUBSYSTEM NAME	16" TAMPA TO ORLANDO
PIPELINE ID	16" TAMPA TO TAF*
MILES	3.61
COMMODITY CATEGORY	Fuel Grade Ethanol
COMMODITY DESCRIPTION	FUEL GRADE ETHANOL
INTERSTATE DESIGNATION	N
PIPELINE STATUS CODE	Active (filed)
REVISION DATE	06/01/2020
FRP SEQUENCE NUMBER	
INSPECTION AUTHORITY	PHMSA
= Category: GENERAL CONTACT	
LAST NAME	
TITLE	
ENTITY	PUBLIC AWARENESS COORDINATOR
PHONE	(800) 776-9927
EMAIL	PUBLICAWARLN33@KINDL.RM...
ADDRESS	1001 LOUISIANA STREET SUITE ...
CITY/TYPE 2 CATEGORICAL EXCLUSION	HOUSTON
STATE	TX



7 Identity - Total 1 record(s) found

Map

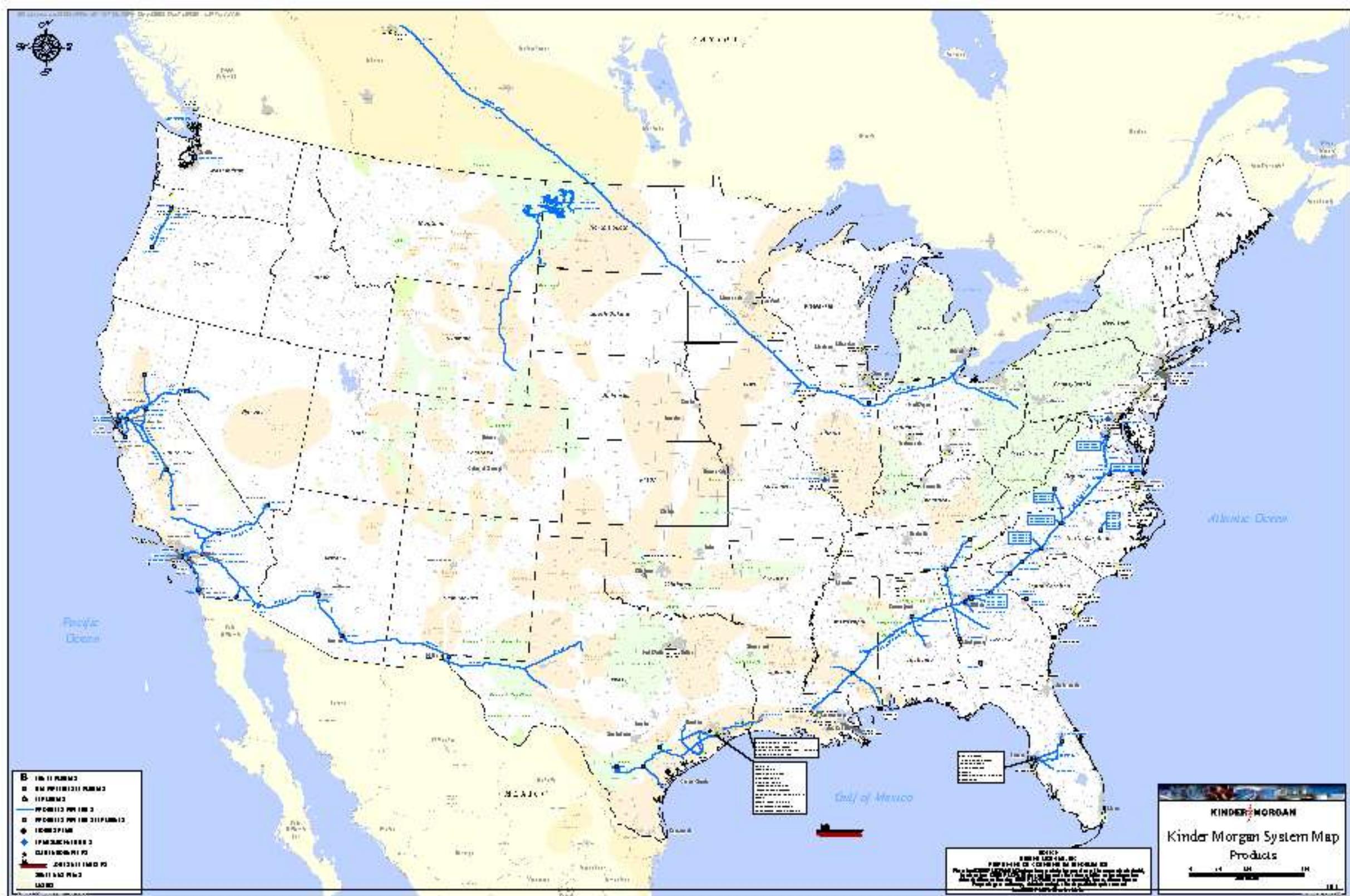
2190

Attribute	Value
Category: PIPELINE ATTRIBUTES	
OPERATOR ID	2190
OPERATOR NAME	CENTRAL FLORIDA PIPELINE CO.
SYSTEM NAME	CFPL
SUBSYSTEM NAME	167 TAMPA TO ORLANDO
PIPELINE ID	167 TAMPA TO TAP
MILES	0.13
COMMODITY CATEGORY	Fuel Grade Ethanol
COMMODITY DESCRIPTION	FUEL GRADE ETHANOL
INTERSTATE DESIGNATION	N
Pipeline Status Code	Active (filled)
REVISION DATE	08/01/2020
FRP SEQUENCE NUMBER	
INSPECTION AUTHORITY	PHMSA
Category: GENERAL CONTACT	
FIRST NAME	
LAST NAME	
TITLE	
ENTITY	PUBLIC AWARENESS COORDINATOR
PHONE	(800) 276-0027
EMAIL	PUBLICAWARENESS@KINDERM...
ADDRESS	1001 LOUISIANA STREET SUITE ...
Category: 2 Categorical Evolution	
STATE	TX

Map Layers

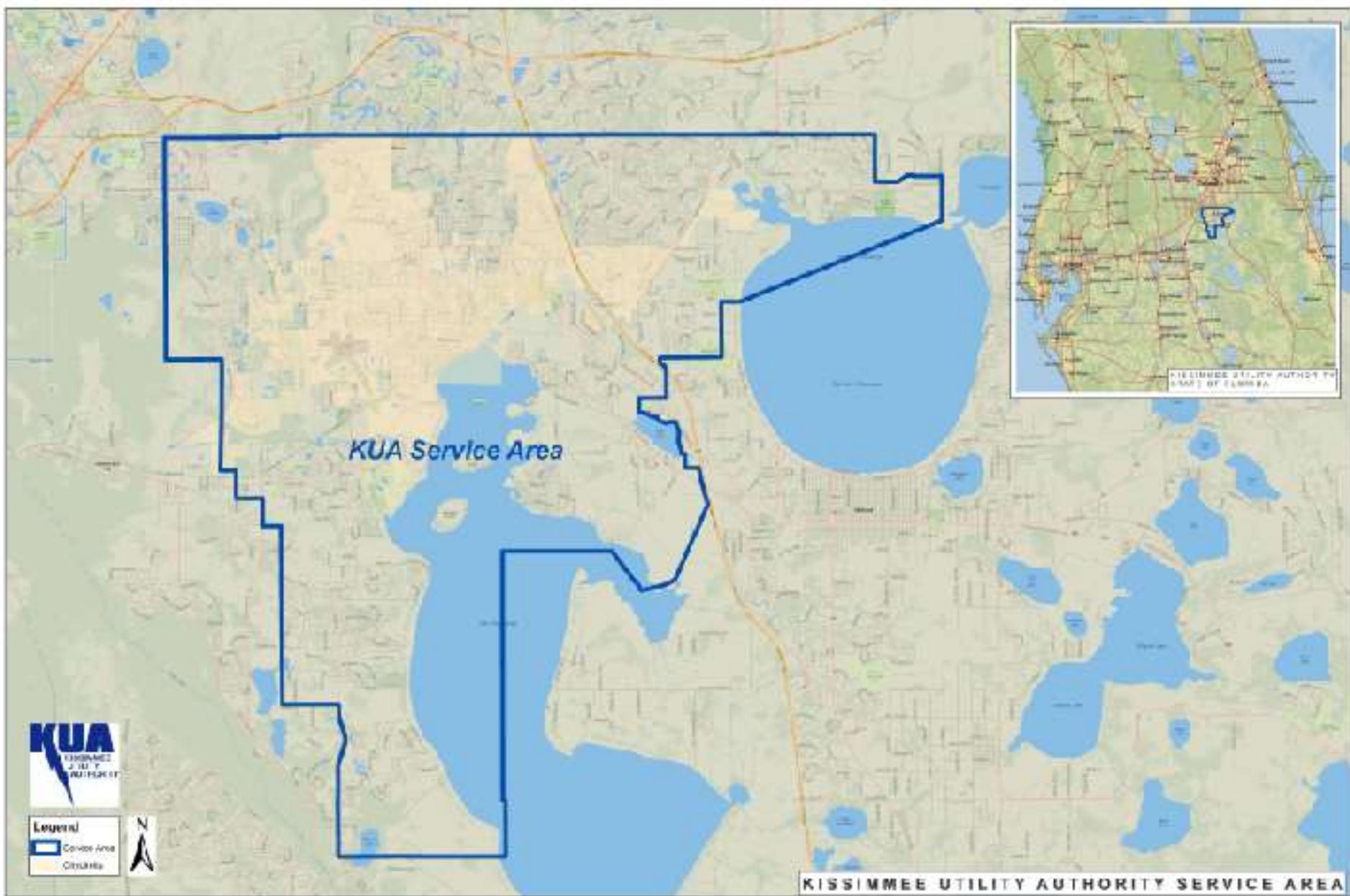
- An incident (Liquid)
- Incident (Gas)
- Gas Transmission Pipelines
- Hazardous Liquid Pipelines
- LNG Plants
- Breakout Tanks
- Other Populated Areas (scale dependent)
- Highly Populated Areas (scale dependent)
- Commercially Navigable Waterways
- CNW Inland
- CNW Ocean/Great Lakes
- Great Lakes
- Tribal Government Lands
- State Boundaries
 - Show Labels
 - County Boundaries
 - Show Labels
- GOM Block Groups
 - Show Labels
- COM Blocks
 - Show Labels
- Map
- Satellite

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Kissimmee Utility Authority

DRAFT



Lumen (Centurylink)

DRAFT

Rick Duran

Subject: PW: Under Review 437174-2-22-01 - State Rd 535 - International Dr to US 192, Kissimmee, FL
Attachments: 437174-2-22-01_Contact Letter (PD&E).docx; 156583.4.pdf; 156583.3.pdf; 156583.2.pdf; 156583.1.pdf

From: Rypkema, Xan <xan.rypkema@lumen.com>
Sent: Thursday, July 22, 2021 7:32 PM
To: Rick Duran <rduran@bcceng.com>
Subject: Under Review 437174-2-22-01 - State Rd 535 - International Dr to US 192, Kissimmee, FL



Thank you for your project notification. LUMEN has reviewed your utility notice dated 7-14-2021 regarding the P 156583 FL | 437174-2-22-01 - State Rd 535 - International Dr to US 192, Kissimmee, FL ("Project"). In response to your inquiry please find the enclosed drawings indicating the approximate location of the LUMEN facilities (the "Facilities").

LUMEN Local/National does not have facilities within your proposed construction area.

LUMEN Local/National has facilities within your proposed construction area. Please find the enclosed drawings indicating the location of the LUMEN facilities. Once you have completed your review, please respond back if LUMEN facilities appear to be in conflict. A LUMEN engineer will be assigned when engineering plans are ready for review.

LUMEN Local/National facilities are under review by our LUMEN Field Engineer(s) listed below. For questions concerning the details of this review, please contact them directly. Currently, the estimated completion date of review is 8-6-2021.

LUMEN Local/National is leasing facilities within your proposed construction zone, which may have potential conflicts. Please verify that you have contacted all communications providers listed on your One Call Ticket.

LUMEN Local/National - The information provided in your initial request is insufficient to determine if the location of your proposed construction will conflict with LUMEN facilities. Please provide additional detailed location maps, drawings (PDF preferred), and description for further conflict review.

LUMEN Local/National has facilities within your proposed construction zone, but it has been determined that no relocation will be necessary. However, due to the proximity of your project to our facilities, a LUMEN representative will be required on-site when construction begins.

[LUMEN National Engineer-Name | Email | PhoneNumber]/ [LUMEN Local Engineer-Name | Email | PhoneNumber]

Please contact your [State One Call](#) prior to construction service (click link for state specific requirements).

Any changes or additions to the project plans or parameters should be submitted to [Network Relocations](#) for review of potential new impacts to the LUMEN facilities. Note: the location(s) of facilities shown on these drawings you receive from us, are only approximate. LUMEN hereby disclaims any responsibility for the accuracy of this information. Please

contact Network Relocations regarding the above mentioned project if you should have any questions. Please reference the file number **P 156583 FL** with any future communications.

Thank you for your cooperation!

[dq#P dulu#U|snhp d#]

Business Analyst

Network Relocations

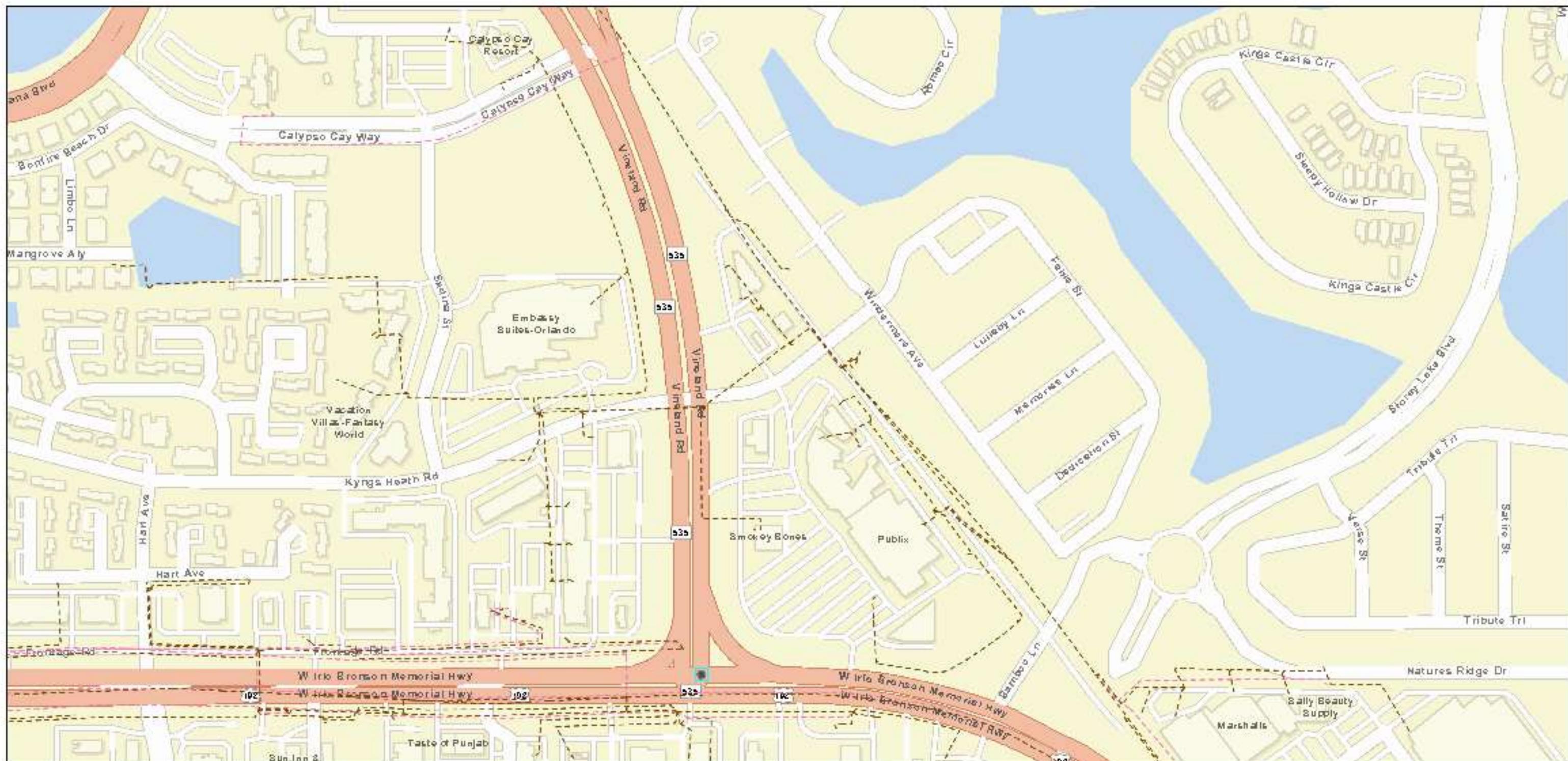
xan.nykema@lumen.com

We have combined!! To better serve everyone, there is now a single email inbox for LUMEN. One team is monitoring both national and local network relocations & road moves. Please add relocations@lumen.com to your contacts list for inquiries, updates, and use it for all future notifications.

LUMEN

E-mail: relocations@lumen.com

LUMEN Relocate Utility Map



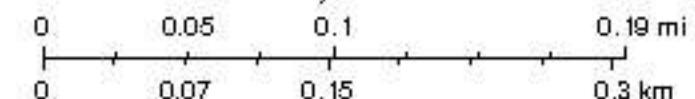
7/22/2021, 5:15:09 PM

Local Fiber Routes

Underground

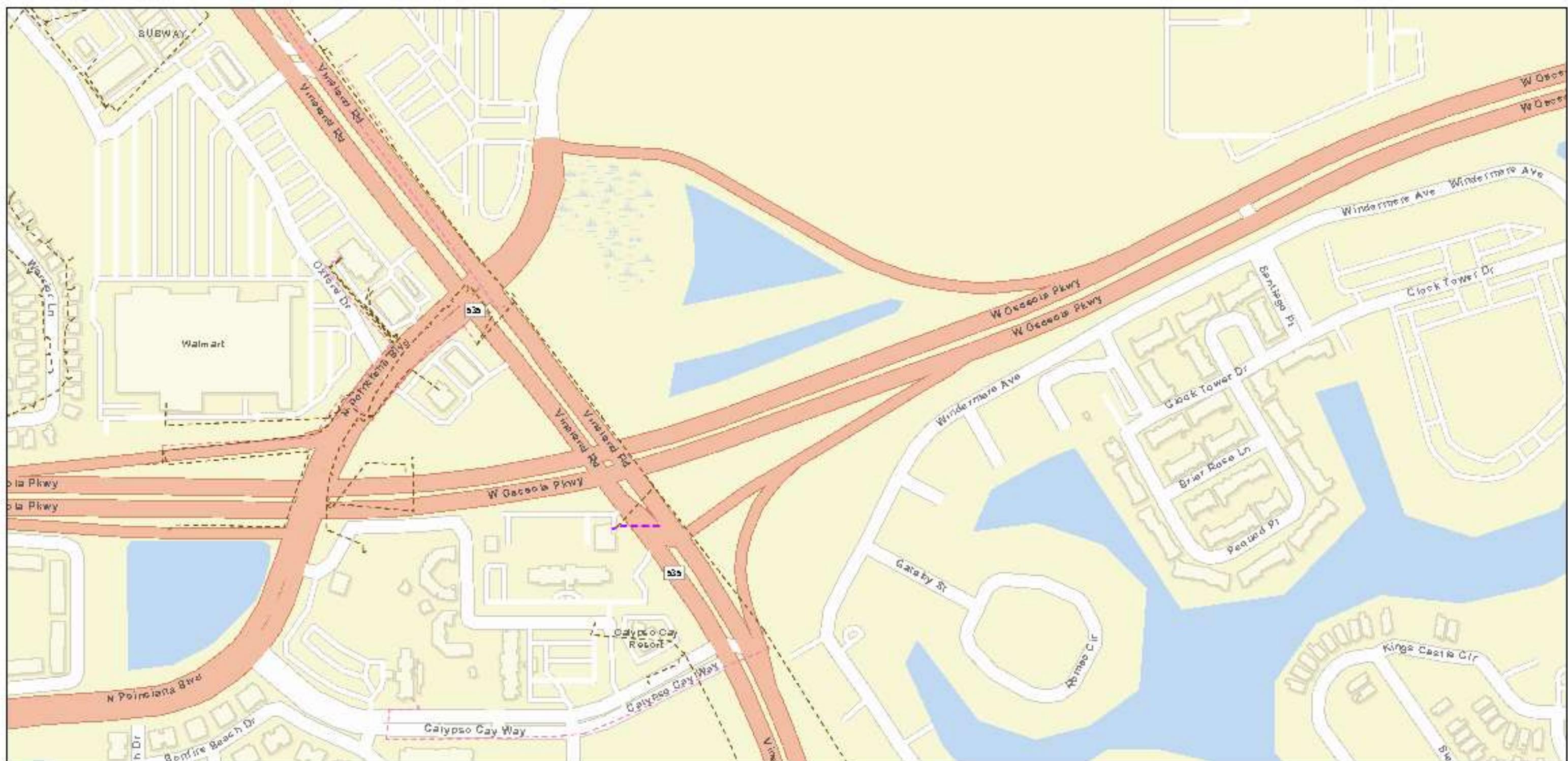
Local Copper UG Route

1:4,514



Eri Community Maps Contributors, FDEP, BuildingFootprintUSA, Eri, HERE, Garmin, SafeGraph, INCREMENT P, METINASA, USGS, EPA, NPS, US Census Bureau, USDA

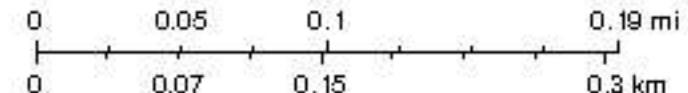
LUMEN Relocate Utility Map



7/22/2021, 5:17:17 PM

1:4,514

Local Fiber Routes



Underground

Local Copper UG Route

Routes Owned

METRO LATERAL, UNDERGROUND

Eri Community Maps Contributors, FDEP, Building FootprintUSA, Eri, HERE, Garmin, SafeGraph, INCREMENT P, METINASA, USGS, EPA, NPS, US Census Bureau, USDA

LUMEN Relocate Utility Map



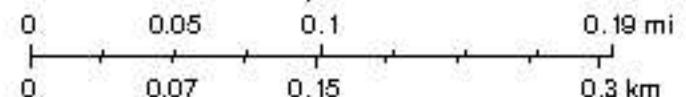
7/22/2021, 5:18:47 PM

Local Fiber Routes

Underground

Local Copper UG Route

1:4,514



Eri Community Maps Contributors, FDEP, BuildingFootprintUSA, Eri, HERE, Garmin, SafeGraph, INCREMENT P, METINASA, USGS, EPA, NPS, US Census Bureau, USDA

LUMEN Relocate Utility Map

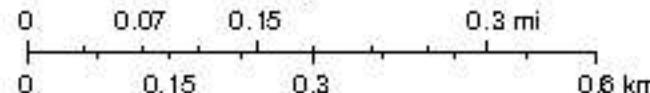


7/22/2021, 5:20:08 PM

1:9,028

Local Fiber Routes

- Local Copper Aerial Route — METRO, OPGW
- - - Underground Routes Owned --- METRO, UNDERGROUND
- - - Local Copper UG Route — METRO, AERIAL



Eri Community Maps Contributors, County of Orange, FL, FDEP,
Eri, HERE, Garmin, SafeGraph, INCREMENT P, METINASA,
USGS, EPA, NPS, US Census Bureau, USDA

Orange County Utilities

DRAFT

Rick Duran

Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536) Initial Contact
Attachments: SR 535 PD&E Study GIS Map.pdf

From: Christline.Crosby@ocfl.net <Christina.Crosby@ocfl.net>
Sent: Wednesday, July 28, 2021 1:44 PM
To: Rick Duran <rduan@bctrng.com>
Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Rick,
Here are the GIS maps showing OCU's current facilities. Remember the maps are representations of the approximate location of the pipelines and everything must be field verified. Please let me know if you need anything further.
Thanks,

Christina M. Crosby

Engineer II
ORANGE COUNTY UTILITIES
Utilities Engineering Division
600 University Blvd., Orlando, Florida 32801
407-245-7370 • fax 407-245-7370
christine.crosby@ocfl.net

Christina

FL - ASK NOTE: Florida has a very broad public records law [F.S. 287]
All e-mails to and from County Officials are kept as a public record.
Your e-mail communications, including your e-mail address may be
dislosed to the public and media at any time.

SR 535 PD&E STUDY FROM US 192 TO NORTH OF WORLD CENTER DRIVE

SR 535/WINELAND RD FROM US 192 TO NORTH OF WORLD CENTER DR // 437174-2-22-01

SHEET 1

MATCH LINE - SEE SHEET 2

500 250 0 500 Feet

N

OCEOLA
522
COUNTY

Polynesian Isle Blvd

SR 535

Poinciana Blvd

OCEOLA
522
COUNTY

Calypso Cay Way

Kyngs Heath Rd

BEGIN PROJECT

192

SR 535 PD&E STUDY FROM US 192 TO NORTH OF WORLD CENTER DRIVE

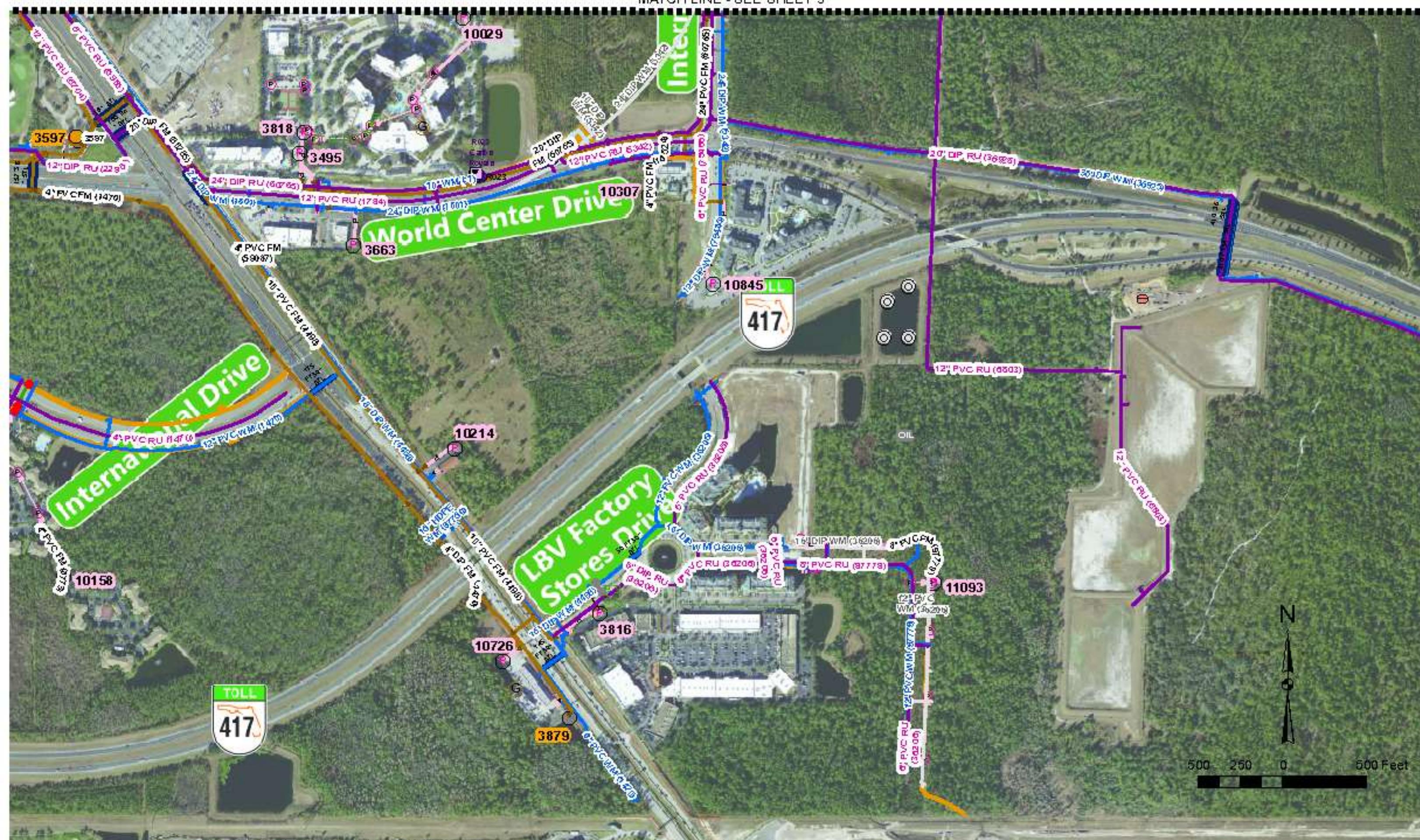
SHEET 2

SR 535/VINELAND RD FROM US 192 TO NORTH OF WORLD CENTER DR // 437174-2-22-01

MATCH LINE - SEE SHEET 3



MATCH LINE - SEE SHEET 1





Osceola County

DRAFT

Rick Duran

Subject: FDOT FM #437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact
Attachments: IRRIGATION PHASE A.pdf

From: Diaz, Juan <juan.diaz@ferroviaservices.com>

Sent: Thursday, August 19, 2021 2:09 AM

To: Rick Duran <rduran@boceng.com>; Christina Morris <Christina.Morris@OSCEOLA.ORG>

Cc: Luis Alvarado <Luis.Alvarado@osceola.org>; Roman Rodriguez, Edwin A

<edwin.romanrodriguez@ferroviaservices.com>; Morales Maldonado, Monica

<monica.moralesmaldonado@ferroviaservices.com>

Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Good evening Rick,

Attached you will find the map plans marked with comments/explanation of the assets that belong to Osceola County, also attached are the blue prints for the underground utilities belonging to Osceola county on this part of the proposed project. Please let me know if you have any questions or need any additional information, have a safe and good rest of the week sir.

- Osceola County Assets located within the right of way of this sector. It includes decorative 10ft sidewalks, pavers, seating hardscape seating benches, Irrigation main lines, laterals irrigation communication wiring on the south, North, east and west bound right of ways, also have irrigation main lines located in the median landscape areas US 192 SR 535 until Kings Heath.



Juan Carlos Diaz
Project Manager
Osceola Project
T. (407) 448 0761
juandiaz@broadstpectrum.com

814 N. Haggard Blvd.
Kissimmee FL 34741
www.ferrovialservices.com

ferrovial
services

[Twitter](#) · [Facebook](#) · [LinkedIn](#) · [Blog](#)

2-24-05

IRRIGATION PIPE SIZING KEY

SYMBOL	PIPE SIZES
NONE	13mm
NCN	19mm
25mm	25mm
A	32mm
C	38mm
C	50mm
E	63mm
C	75mm
E	100mm
C	150mm
E	200mm
C	250mm

PHASE A - 192
(EAST Bound From A1)
WITH GENERAL NOTES AND
Pages

1:1000

RACE TRAC

POINT OF IRRIGATION CONSTRUCTION →
BEGIN IRRIGATION
STA 126+00.00

THE SYMBOL INDICATES
SLEEVING ER-33
(IRON AL. RICE 3)

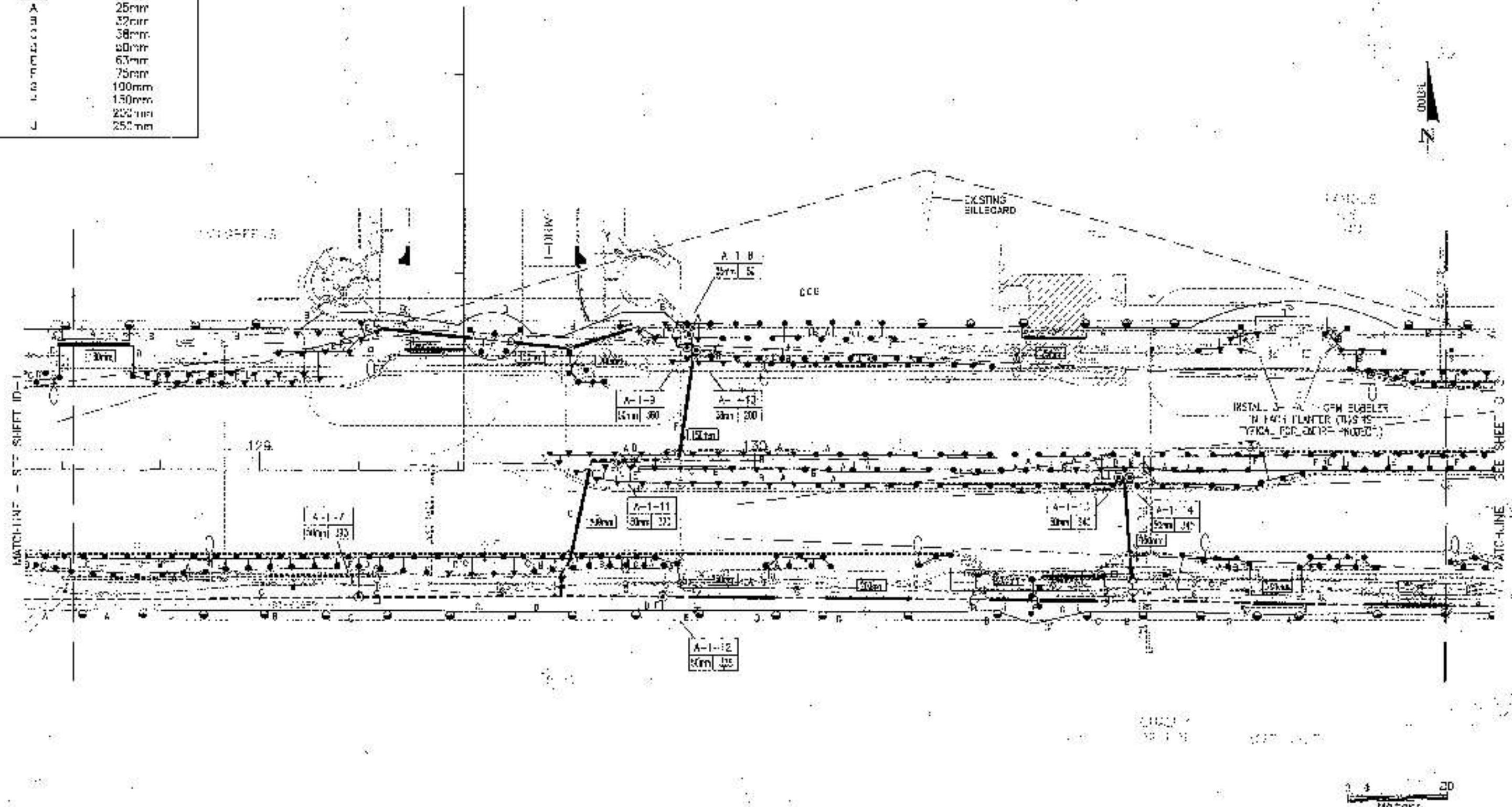
SOUTHERN CONNECTOR
L19

0 4 8
Meters

IRRIGATION PIPE SIZING KEY

SYMBOL	PIPE SIZES
NONE	13mm
None	16mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	130mm
I	200mm
J	250mm

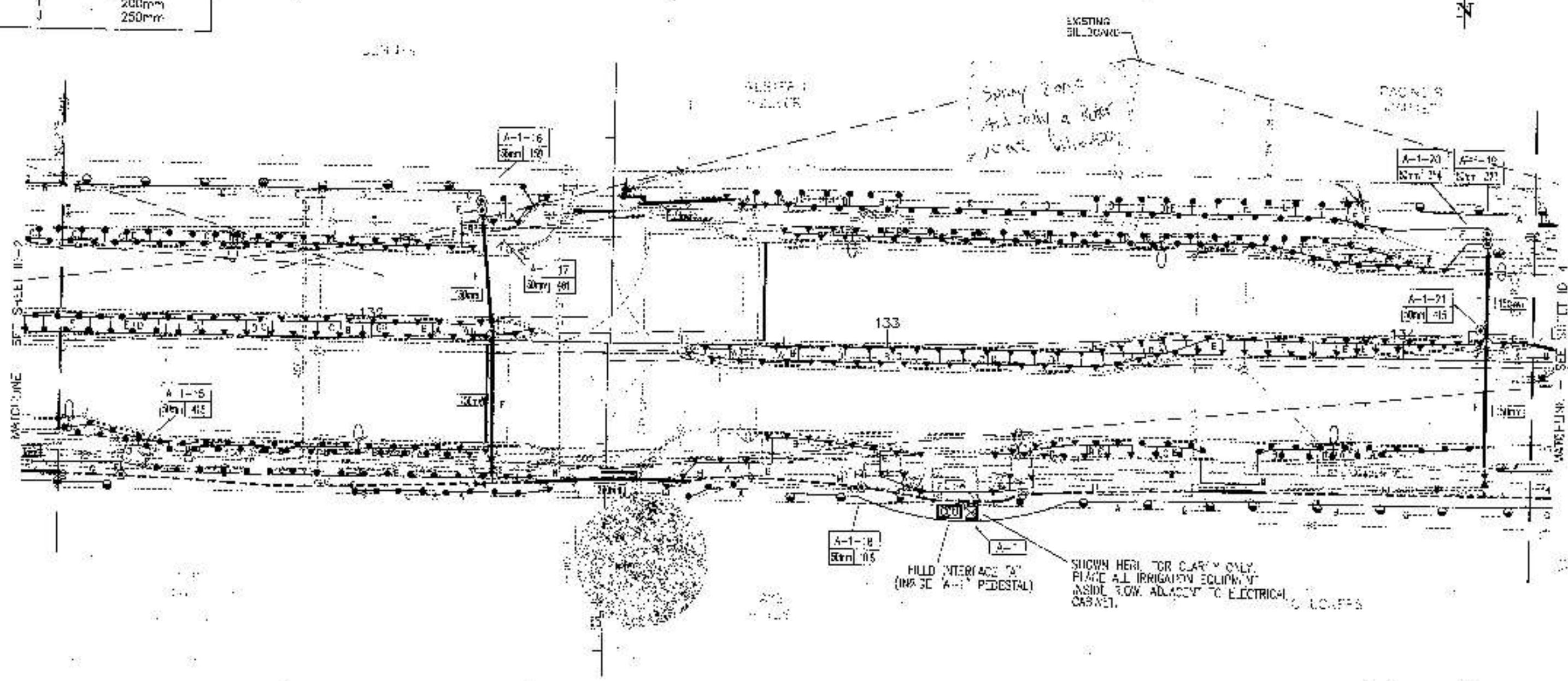
STATE PROJ. NO.
92090-3501 D2



IRRIGATION PIPE SIZING KEY

SYMBOL	PIPE SIZES
NONE	130mm
NONE	190mm
A	250mm
B	320mm
C	380mm
D	500mm
E	830mm
F	1000mm
G	1000mm
H	2000mm
I	2500mm

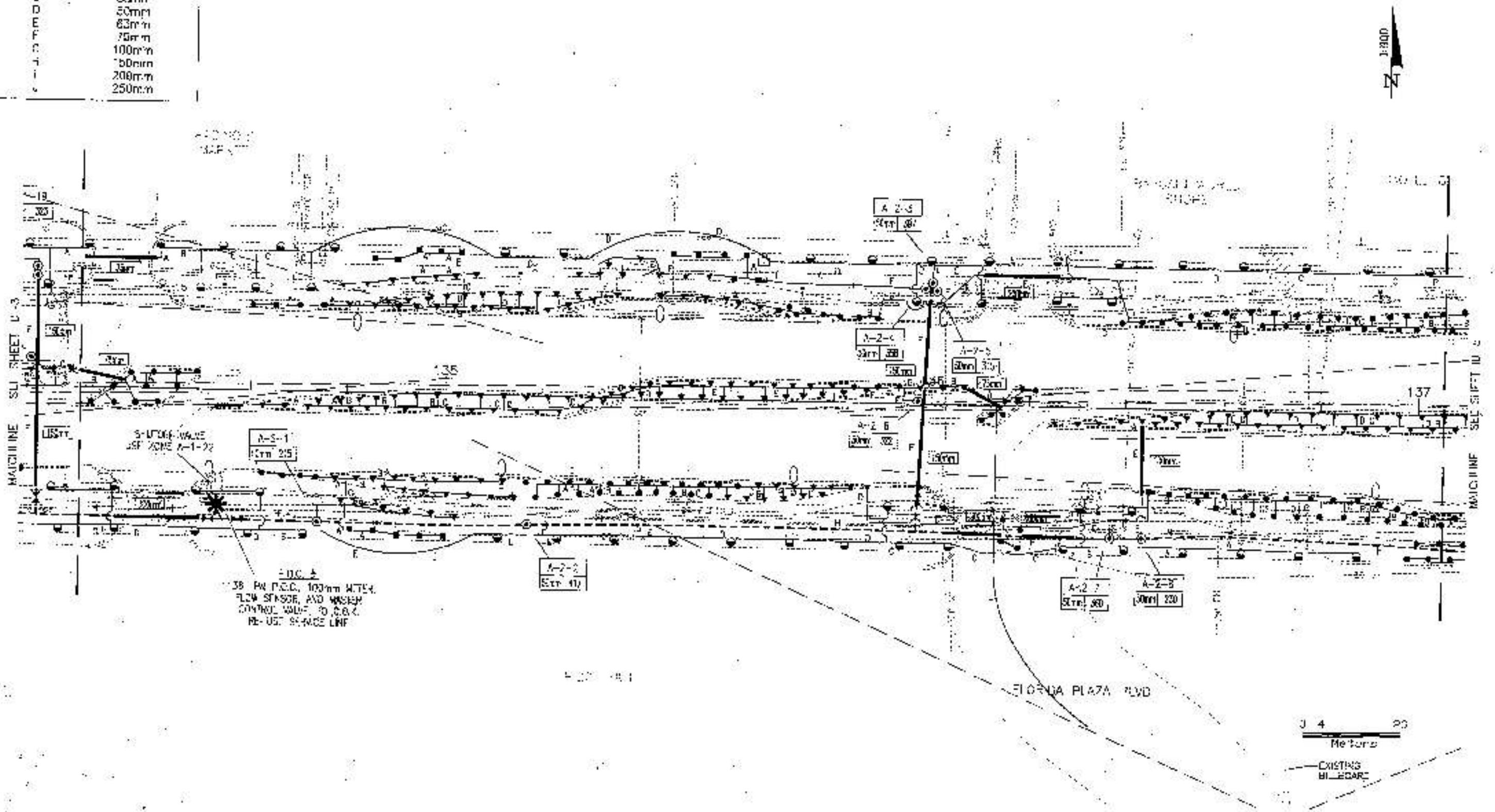
STATE PHOL. NO. 9209C-35016-03
DATE



IRRIGATION PIPE SIZING KEY

SYMBOL	PIPE SIZES
NONE	13mm
NONE	27mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	125mm
I	200mm
J	250mm

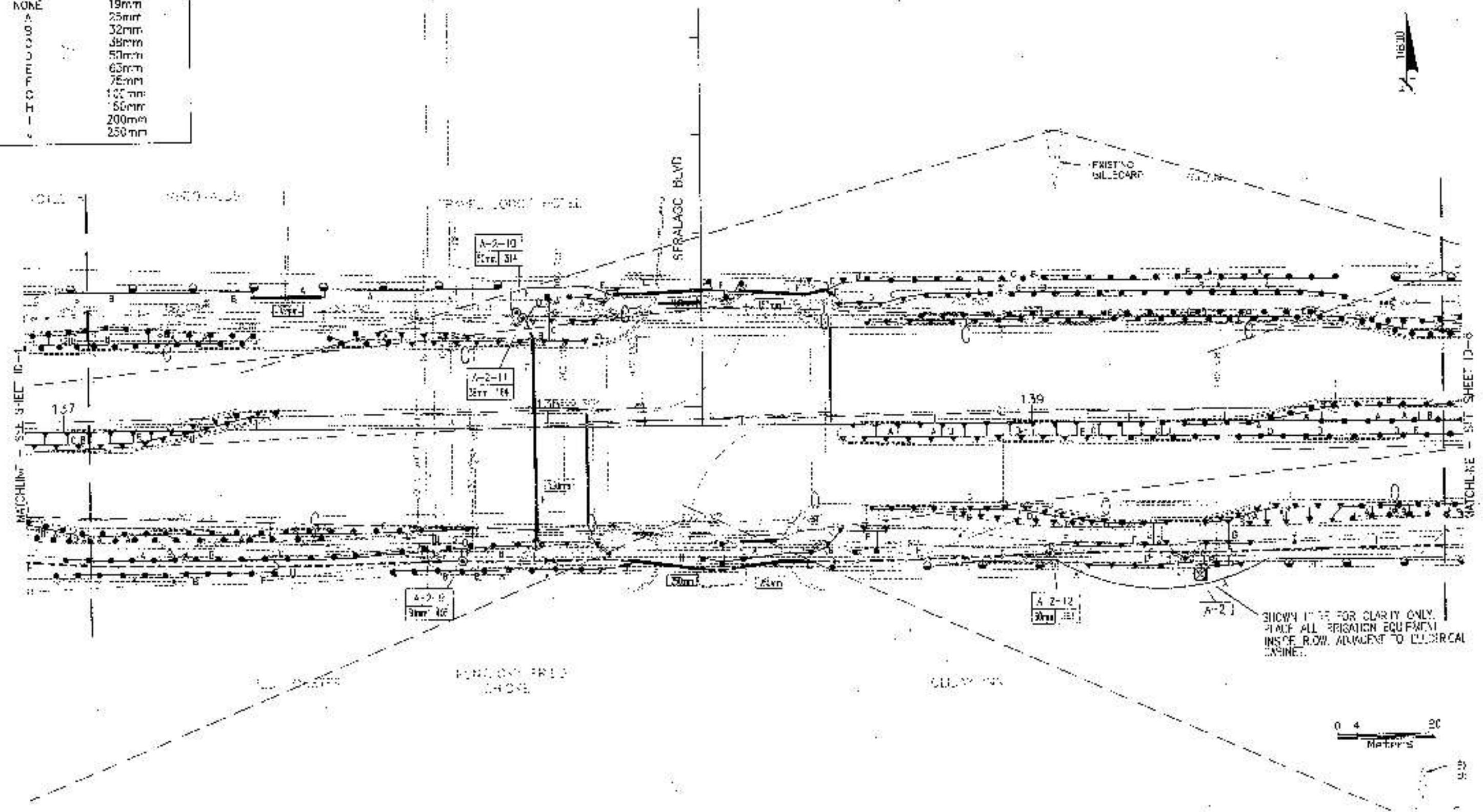
STATE PHON. NO. SH-2
92090-3501 ID 4



STATE PROB. NO. 15-445
12050 35013 IC5

IRRIGATION PIPE SIZING KEY.

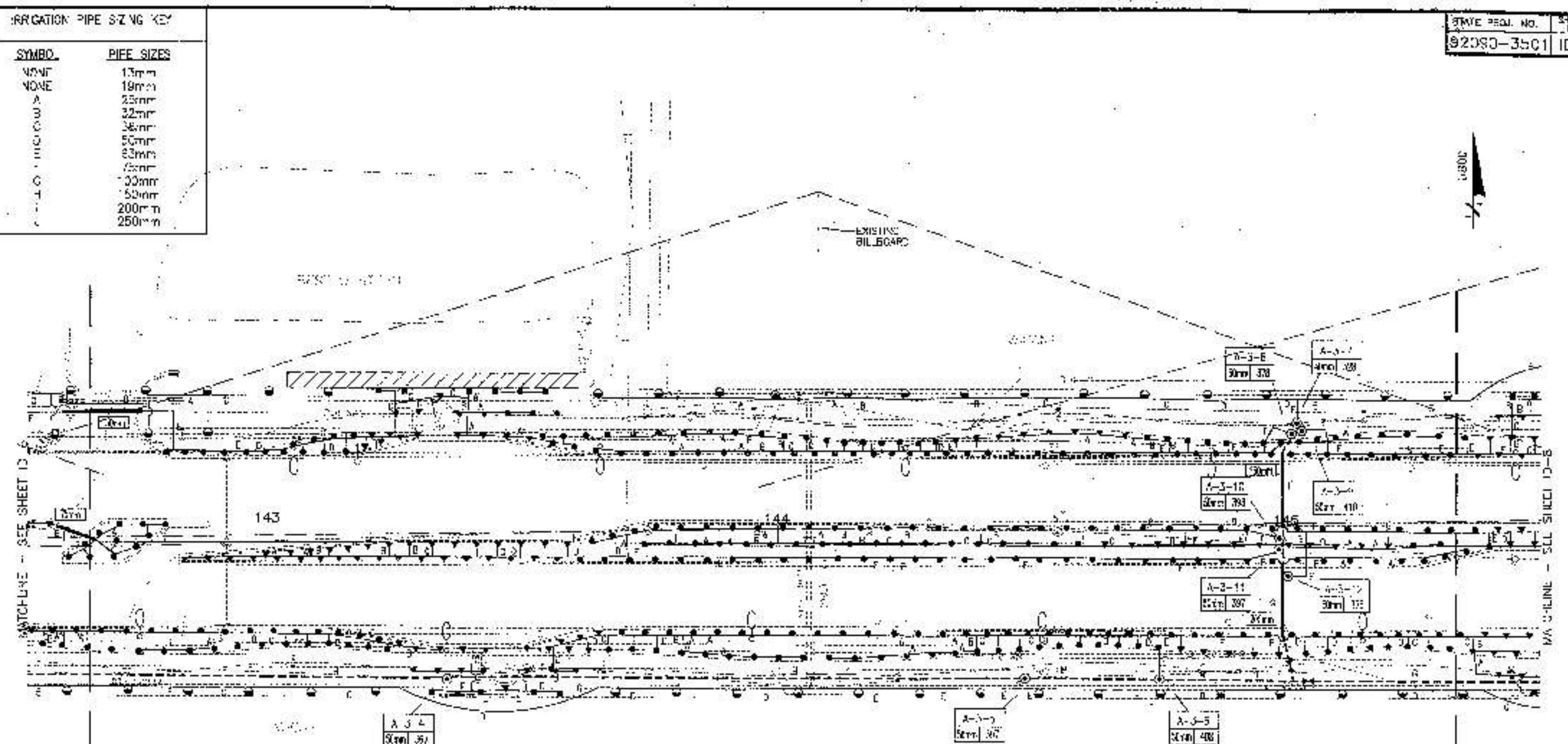
<u>SYMBOL</u>	<u>Part Sizes</u>
NONE	13mm
NONE	19mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	150mm
I	200mm
J	250mm



IRRIGATION PIPE SIZING KEY

SYMBOL	PIPE SIZES
NONE	13mm
NONE	19mm
A	25mm
B	32mm
C	36mm
D	50mm
E	63mm
F	68mm
G	100mm
H	150mm
I	200mm
J	250mm

STATE REG. NO. 351
92080-3501 ID7



NONE	13mm
NONE	19mm
A	25mm
B	32mm
C	36mm
D	40mm
E	43mm
F	75mm
G	100mm
H	150mm
I	200mm
J	250mm

— EXISTING
SILBOM

卷之三

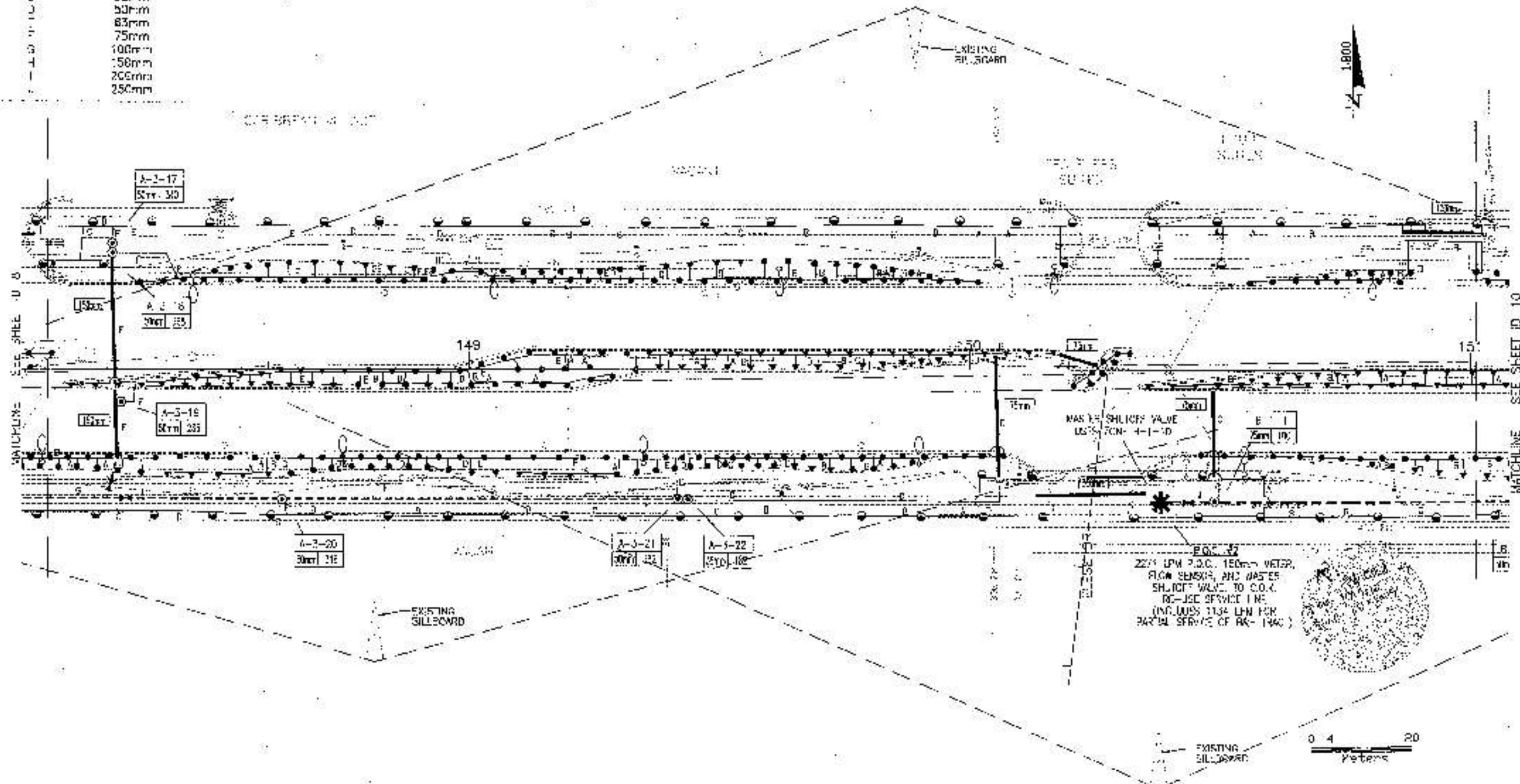
1803

1 23

IRRIGATION PIPE SIZING KEY

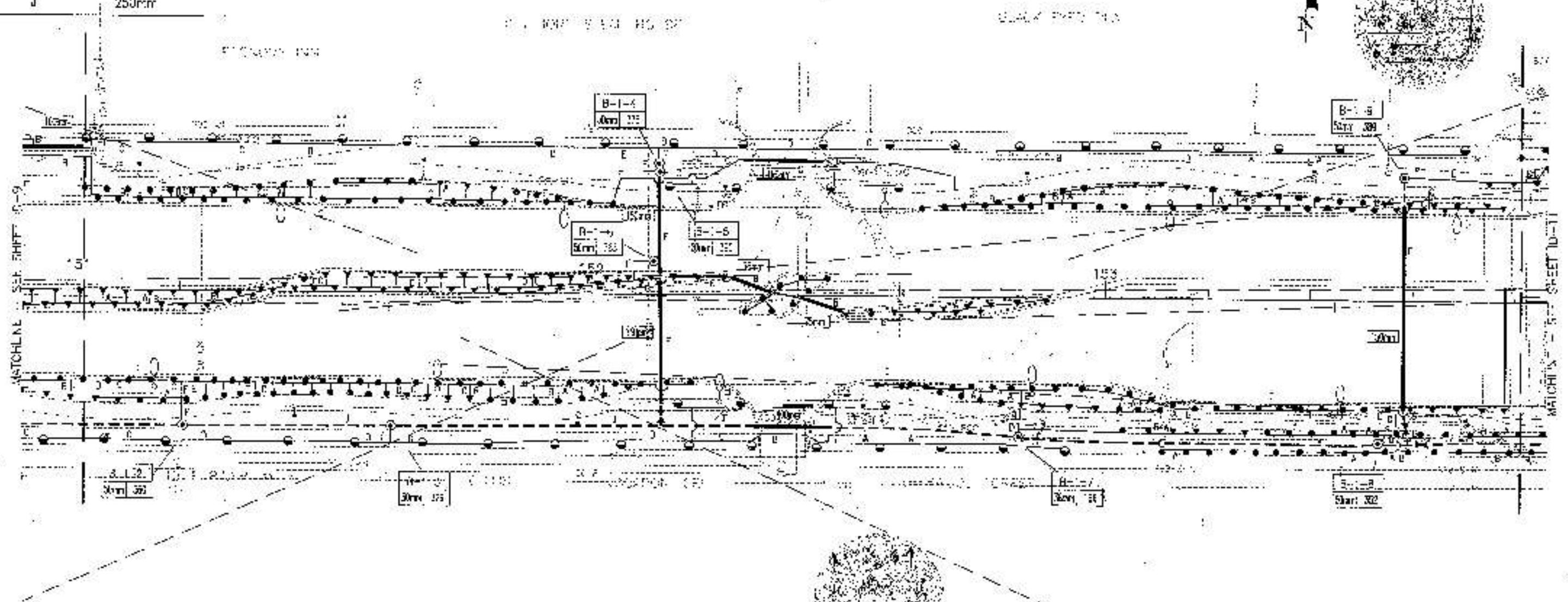
STATE PROJ. NO. 92000-3501
REV. K
ID9

SYMB.	PIPE SIZES
NONE	13mm
NONE	19mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	150mm
I	200mm
J	250mm



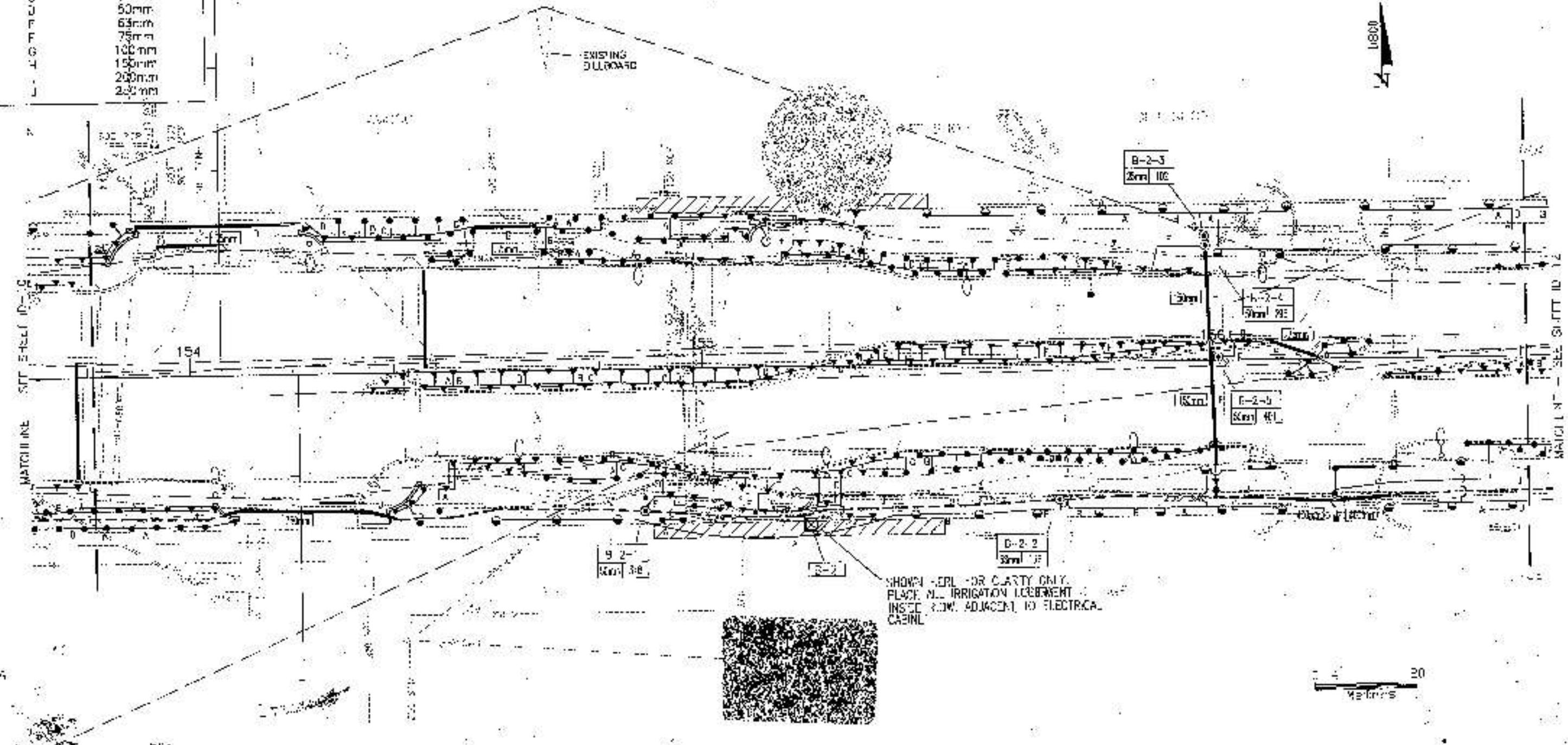
IRRIGATION PIPE SIZING KEY

SYMBOL	PIPE SIZES
NONE	13mm
NONE	19mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	150mm
I	200mm
J	250mm

STATE PROJ. NO. SHEET
92C90-3501 1.1D

IRRIGATION PIPE SIZING KEY

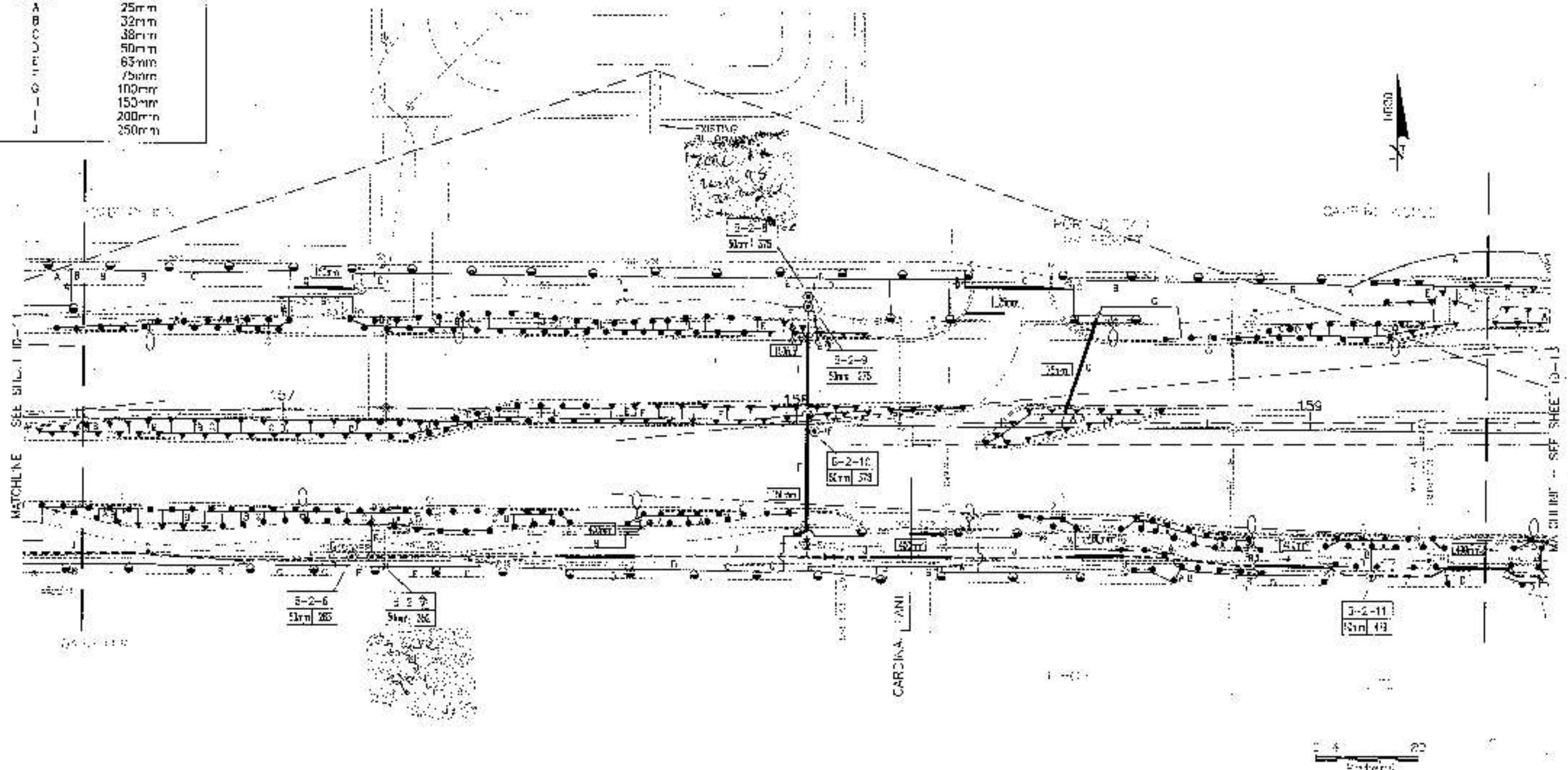
SYMBOL	PIPE SIZES
NONE	15mm
NONE	19mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	125mm
I	150mm
J	200mm
K	250mm



IRRIGATION PIPE SIZING (cm)

<u>S Y M B O L</u>	<u>LENTH. S.Y.C/S</u>
NONE	13mm
NONE	15mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	76mm
G	100mm
H	150mm
I	200mm
J	250mm

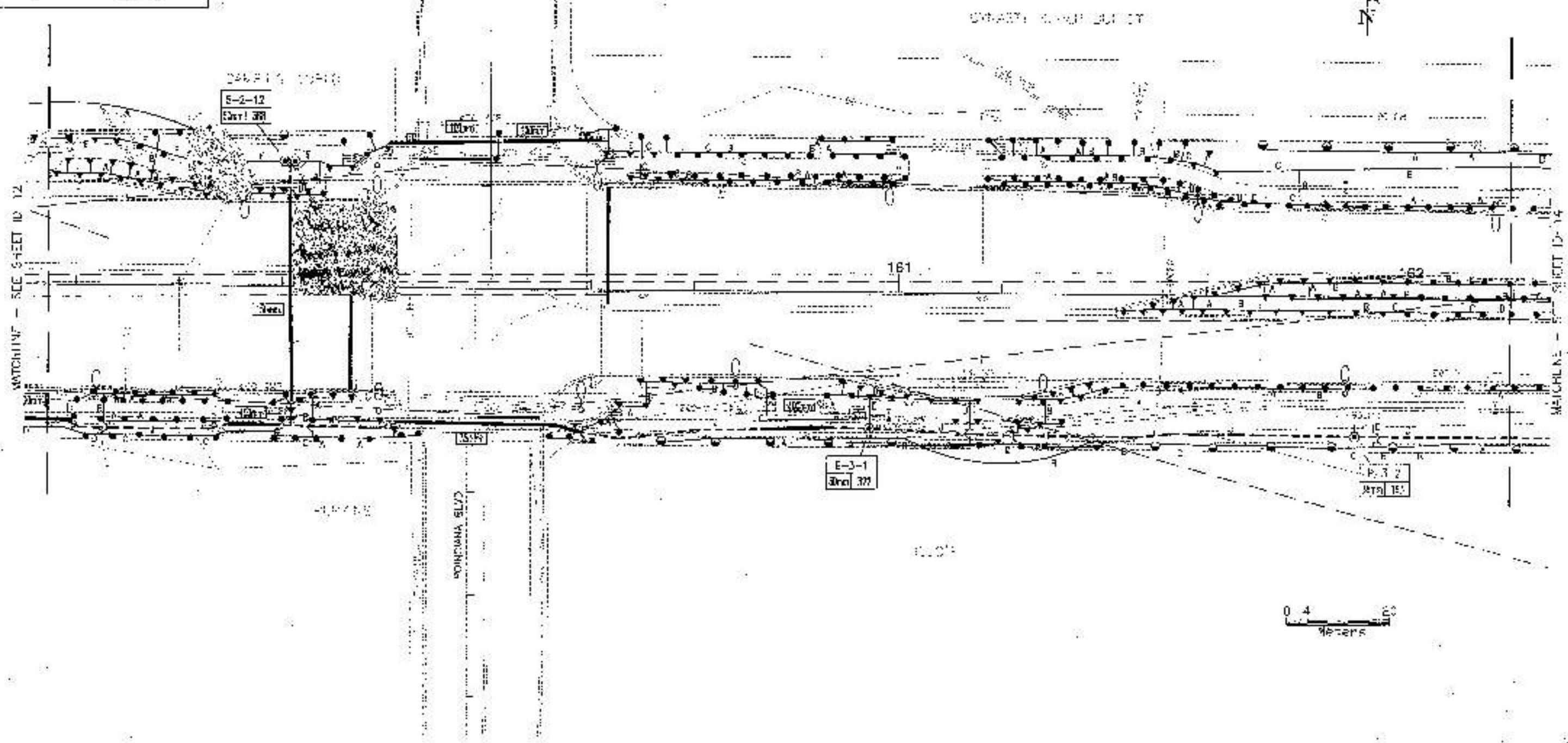
NAME PROJ. NO.	FILE NO.
92090-3501	IC12



IRRIGATION PIPE SIZING KEY

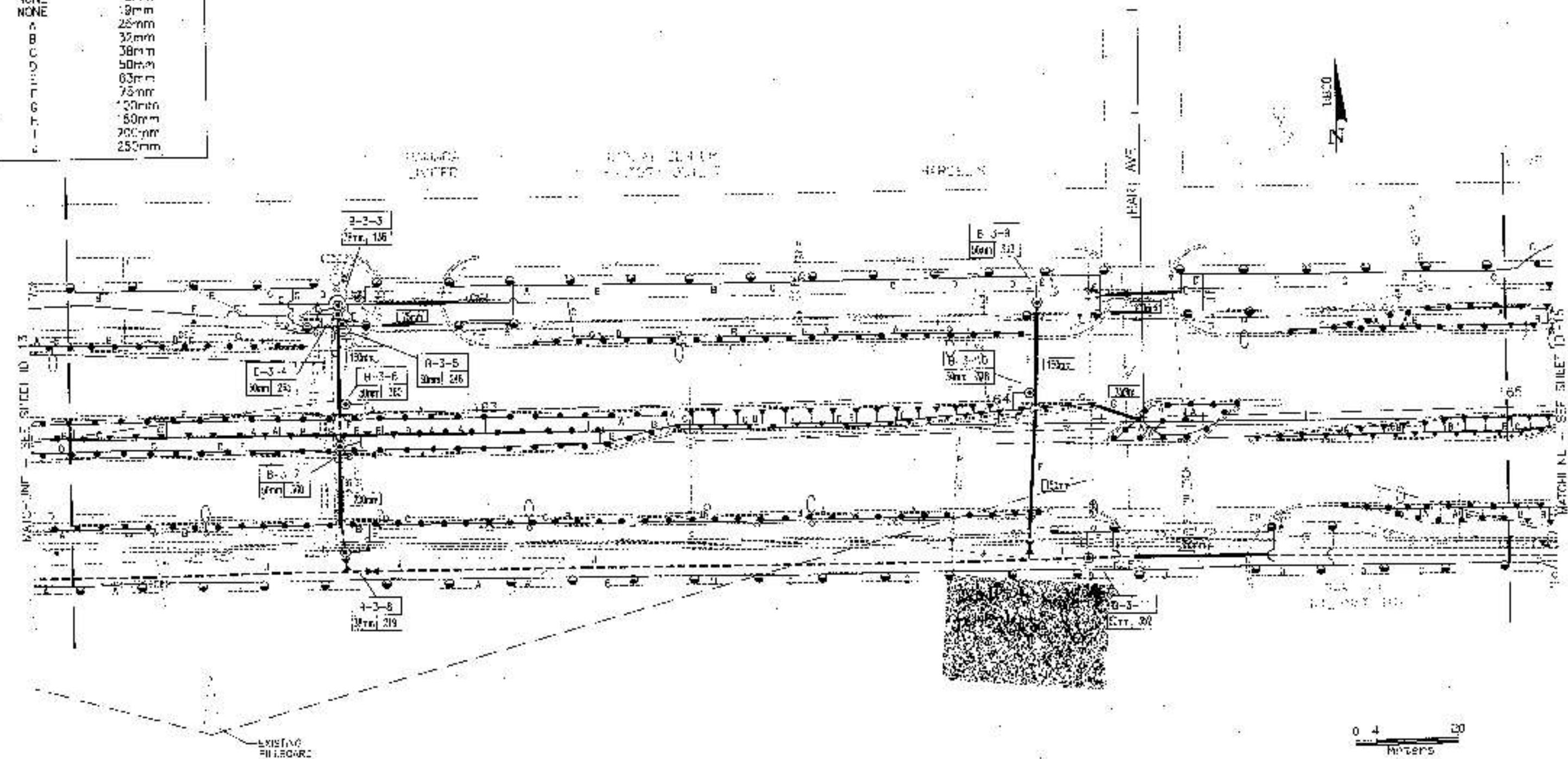
STAFF PROJ. NO. 1
92090-3801 ID13

SYMBOL	PIPE SIZES
NONE	13mm
NONE	15mm
A	25mm
B	32mm
C	38mm
D	50mm
E	62mm
F	75mm
G	90mm
H	120mm
I	200mm
J	250mm



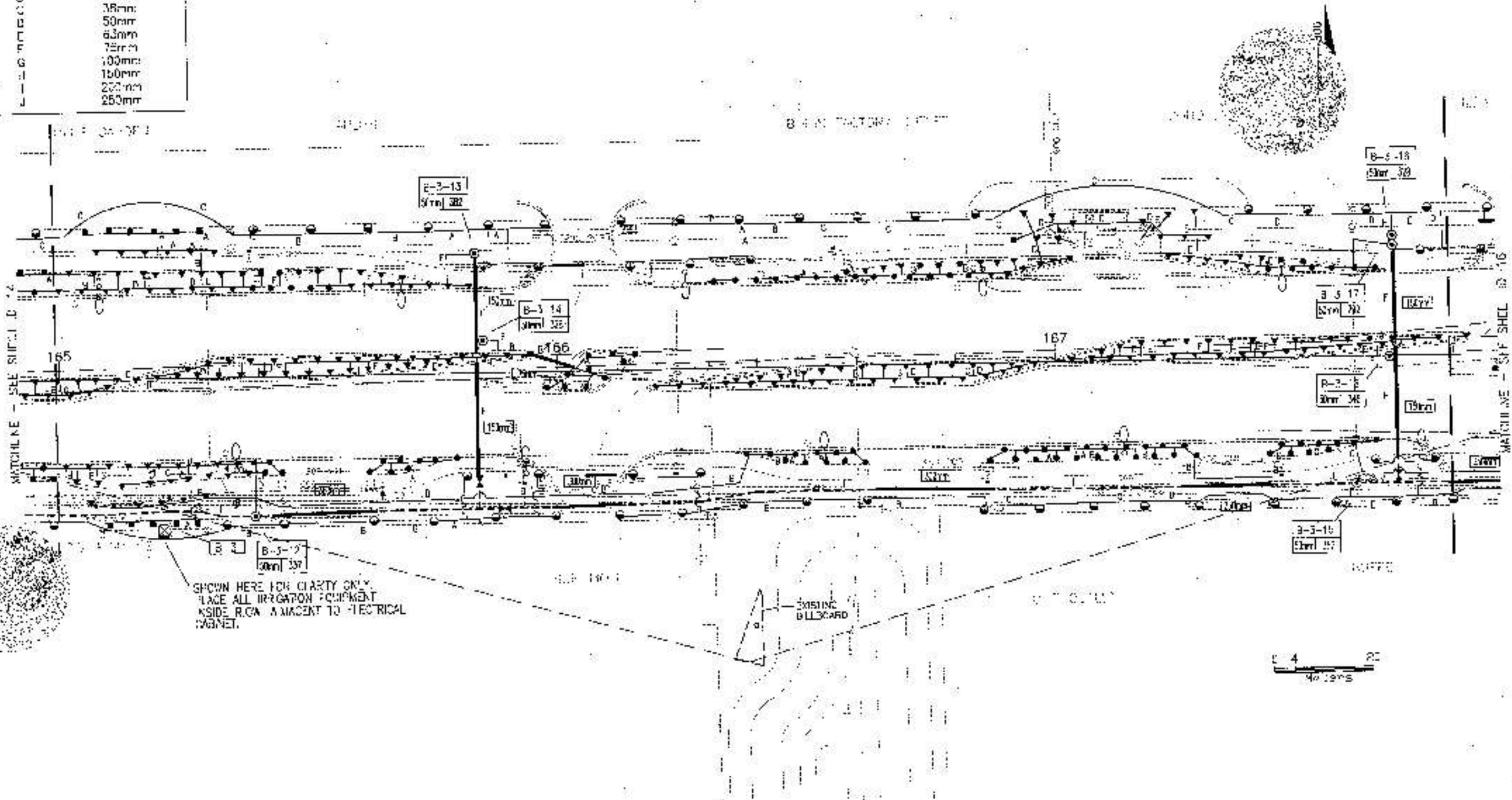
REGULATION PIPING SIZING (EPA)

SYMBOL	PIFF SIZES
VCNE	13mm
NONE	19mm
A	26mm
B	35mm
C	38mm
D	50mm
E	63mm
F	75mm
G	130mm
H	150mm
I	200mm
J	250mm



IRRIGATION P-27 SIZING KEY
SR 535/VINELAND RD FROM US 192 TO NORTH OF WORLD CENTER DR // 437174; 2-22-01

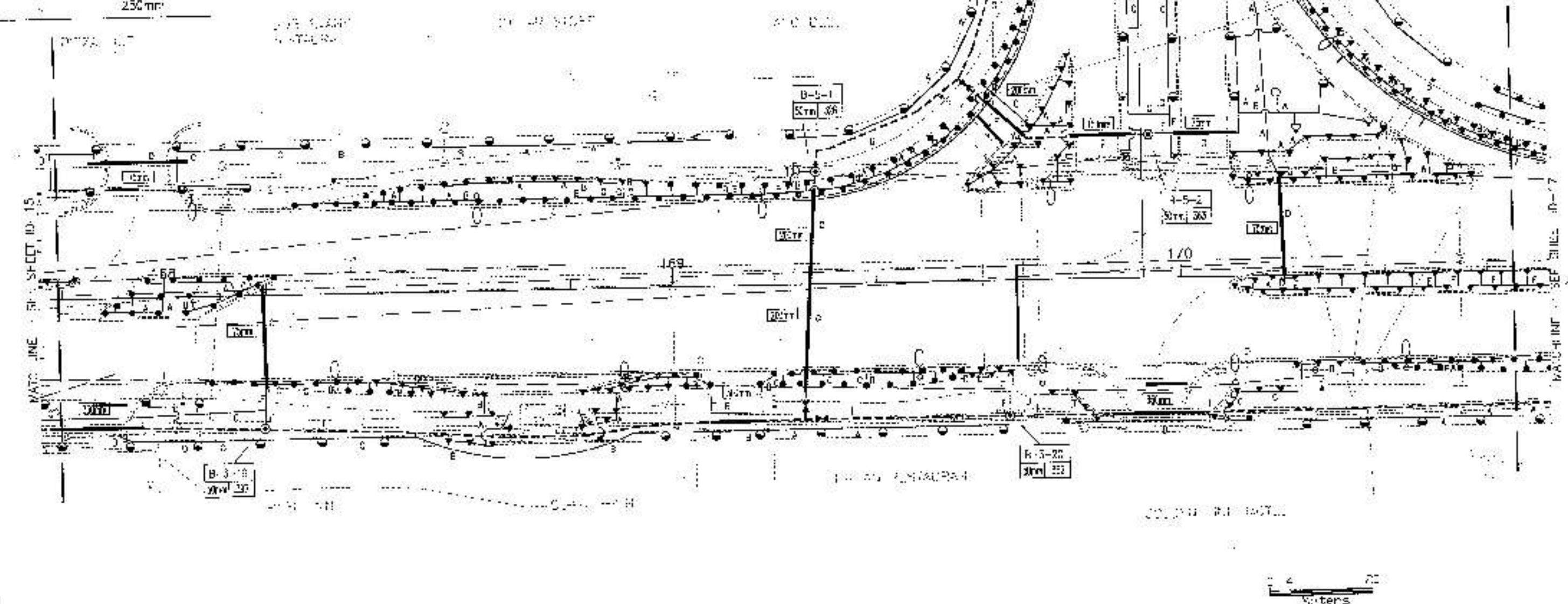
SYMO:	PIPE SIZES
NONE	13mm
NONE	16mm
A	20mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	150mm
I	222mm
J	250mm



STATE PROJ. NO. **32C90-3501**
SHEET **C16**

IRRIGATION PIPE SIZING KEY

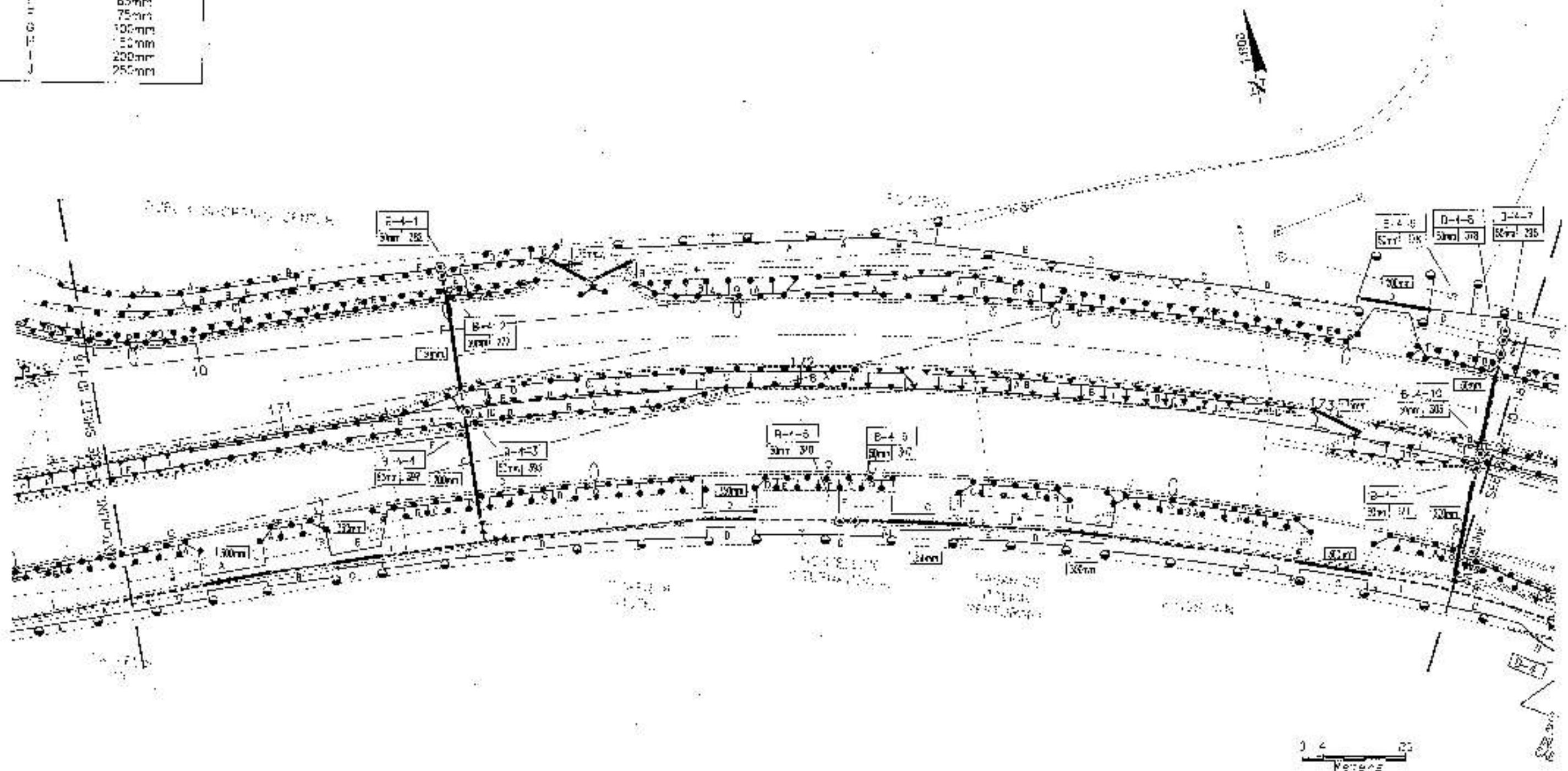
SYMBOL	PIPE SIZE
KONE	13mm
KONT	19mm
A	25mm
B	32mm
C	42mm
D	50mm
E	63mm
F	75mm
G	100mm
H	150mm
I	200mm
J	250mm



IRRIGATION PIPE SIZING KEY

SYMBOL	SIZE
NONE	13mm
NONE	19mm
A	25mm
B	37mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	150mm
I	200mm
J	250mm

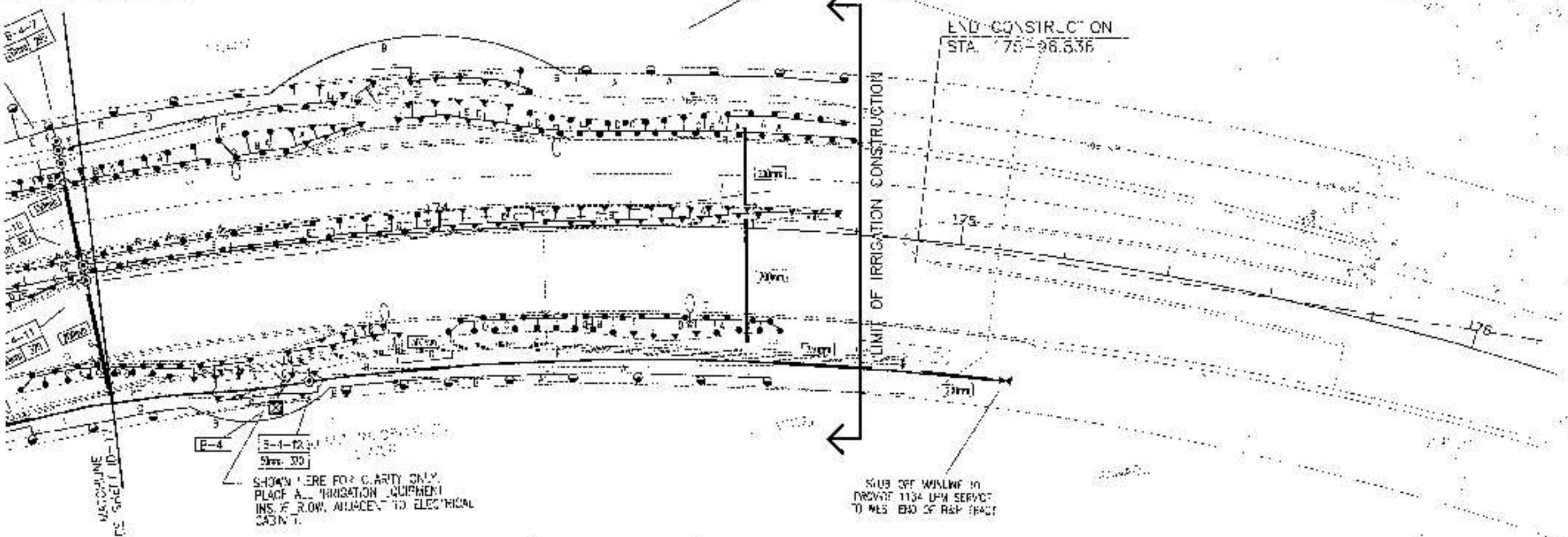
STATE PROJ. NO.	S-EE K-1
8209C-3501	017



IRRIGATION PIPE SIZING KEY

SYMBOL	PIPE SIZES
NONE	15mm
NONE	19mm
A	25mm
B	32mm
C	38mm
D	46mm
E	55mm
F	75mm
G	100mm
H	125mm
I	150mm
J	200mm
K	250mm

STATION PROJ. NO. 02000 350 1013



STATE =R2.. 40
S2090-3501 ID:9

IRRIGATION PIPE SIZING (E)

<u>SYMBOL</u>	<u>PF. SIZE</u>
NONE	15mm
NONE	19mm
A	25mm
B	32mm
C	38mm
D	50mm
E	63mm
F	75mm
G	100mm
H	150mm
I	200mm
J	250mm

534

11

FIND CONSTRUCTION
S.A. 152-23,730

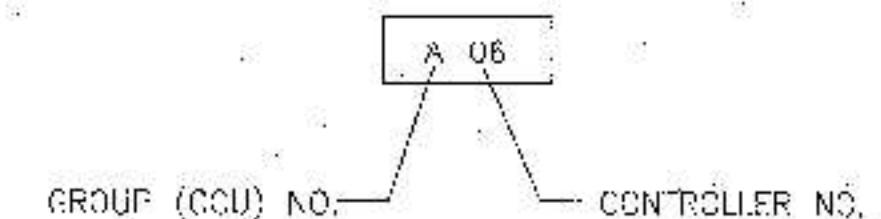
SHOWN HERE FOR CLARITY ONLY.
PLACE ALL REFRIGERATION EQUIPMENT
INSIDE R.C.W. AD AGENT C ELECTRICAL
CABINET.

0 4 8
Veteran

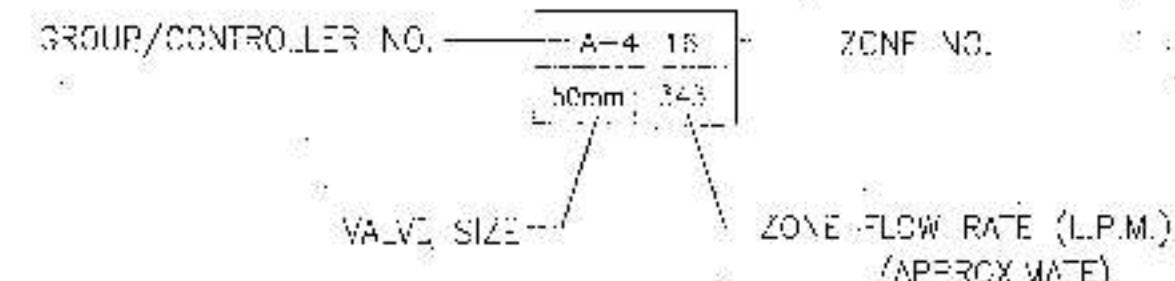
SYMBOLS LEGEND

- 150mm POP-UP SPRAY HEAD
(1.5-14.0 LPM @ 2.44-4.57 M RADIUS @ 207 KPa)
- ▼ 300mm HI-POP SPRAY HEAD
(1.5-14.0 LPM @ 2.44-4.57 M RADIUS @ 207 KPa)
- RISER MOUNTED SHRUB SPRAY HEAD
(1.5-14.0 LPM @ 2.44-4.57 M RADIUS @ 207 KPa)
- ◆ 100mm POP-LP ROTOR HEAD, ADJUSTABLE PART CIRCLE
(11.4-15.1 LPM @ 11.88 M @ 276 KPa)
- ▽ 300mm HI-POP ROTOR HEAD, ADJUSTABLE PART CIRCLE
(11.4-15.1 LPM @ 11.88 M @ 276 KPa)
- RISER MOUNTED SHRUB ROTOR HEAD, ADJUSTABLE PART CIRCLE
(11.4-15.1 LPM @ 11.88 M @ 276 KPa)
- 100mm POP-LP ROTOR HEAD, FULL CIRCLE
(22.7-30.3 LPM @ 11.88 M @ 276 KPa)
- ▽ 300mm HI-POP ROTOR HEAD, FULL CIRCLE
(22.7-30.3 LPM @ 11.88 M @ 276 KPa)
- RISER MOUNTED SHRUB ROTOR HEAD, FULL CIRCLE
(22.7-30.3 LPM @ 11.88 M @ 276 KPa)
- ◀ LR.B.M. GASKET YH RATE VALVE, LINE SIZE
- ◎ ELECTRIC ZONE CON-RO. VALVE, SIZE AS NOTED
(CONTAMINATION-RESISTANT)
- ☒ SATELLITE CONTROLLER (RAIN BIRD ETC SAI-24 SS, OR EQUAL)
- * F.G.C. AND VETER TO REUSE MAINLINE
- FR200 RING-TYPE PVC MAINLINE (PURPLE)
- FR100 SOLVENT-WELD PVC LATERAL PIPING
- CCU MASTER CONTROLLER INTERFACE JNT, INTERNAL MOUNT-
RAIN BIRD MAXICOM 24 EQUAL
- SCHEDULE 40 PVC IRRIGATION SUEV- (C. 300 >300mm)

CONTROLLER KEY

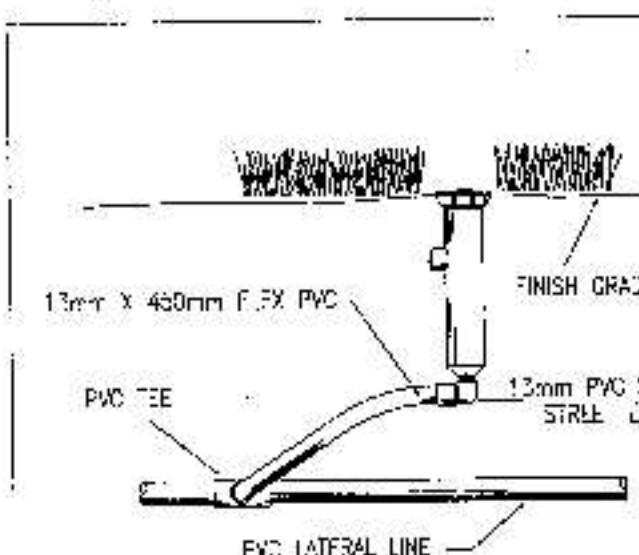


ZONE VALVE KEY

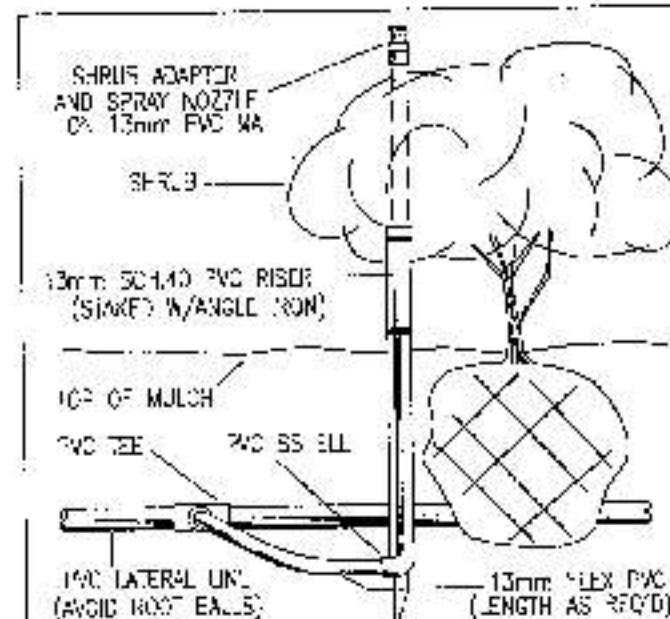


GENERAL IRRIGATION NOTES

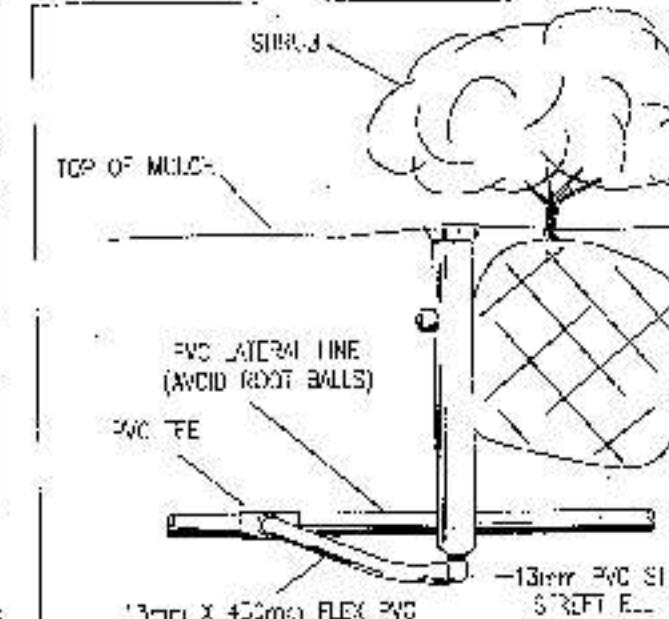
- 1) ALL MATERIALS AND METHODS SHALL CONFORM TO PROVING CODES AND REGULATIONS. THE WORK SHALL INCLUDE ANY AND ALL ASSOCIATED AND NECESSARY MATERIALS AND WORK RELATIVE TO A COMPLETE AND APPROPRIATE INSTALLATION, WHETHER OR NOT THE ASSOCIATED MATERIALS ARE ACTUALLY SPECIFIED WITHIN THE DOCUMENTS. ALTHOUGH IT IS NECESSARY TO SPECIFY CERTAIN COMPONENTS WITH RESPECT TO MAKE AND MODEL, IT SHALL BE UNDERSTOOD THAT COMPETITIVE PRODUCTS WILL BE CONSIDERED, PROVIDED THAT SAID PRODUCTS ARE DEEMED BY THE OWNER AND LANDSCAPE ARCHITECT TO BE EQUAL OR SUPERIOR TO THOSE SPECIFIED, AND SUITABLE FOR USE WITHIN THIS DESIGN. ANY AND ALL ADDITIONAL MATERIALS AND LABOR RELATIVE TO THE INSTALLATION OF ANY SUCH ALTERNATE COMPONENTS SHALL BE INCLUDED IN THE WORK.
- 2) THE CONTROL SYSTEM SHALL BE A COMPUTER-BASED CENTRALIZED SYSTEM, WITH THE COMPUTER TO BE INSTALLED AT THE OFFICES OF THE OSCEOLA COUNTY PUBLIC WORKS DEPARTMENT, AT A LOCATION TO BE DESIGNATED BY THAT AGENCY. THE COMPUTER SYSTEM SHALL INCLUDE ALL COMPONENTS REQUIRED AND RECOMMENDED BY THE PARTICULAR MANUFACTURER OF THE CONTROL SYSTEM. THIS SHALL USUALLY INCLUDE, BUT NOT BE LIMITED TO, A PENTIUM 200MHZ CPU, MIN VDH OF 32-99 RAM, MINIMUM OF 2-GB HARD DRIVE, 88mm (3-1/2") FLOPPY DRIVE, TAPE BACKUP, INTERNAL MODEM, A LASER OR INKJET PRINTER, 17" SVGA MONITOR, AND UPS STANDBY POWER UNIT.
- 3) THE INSTALLATION OF ALL COMPONENTS SHALL BE COORDINATED WITH THE MANUFACTURER OF THE EQUIPMENT, AND SHALL CONFORM TO THE NOMINAL REQUIREMENTS OF THE MANUFACTURER. THE INSTALLER SHALL OBTAIN AND SUBMIT FOR APPROVAL ALL ASSOCIATED SHOP DRAWINGS, DETAILS OR OTHER LITERATURE PROVIDED BY THE MANUFACTURER FOR PROPER INSTALLATION AND OPERATION OF THE EQUIPMENT.
- 4) THE INSTALLER SHALL COORDINATE ALL WORK WITH ACTUAL SITE CONDITIONS, AND WITH THE WORK OF OTHER TRADES, INCLUDING UNDERGROUND PAVING AND LANDSCAPING. ALL SPRINKLERS SHALL BE IDENTIFIED ON SITE, AND THE LOCATION AND TYPE OF SPRINKLER HEADS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLANT TYPES AND LOCATIONS.
- 5) EACH CONTROLLER LOCATION SHALL REQUIRE A 120V POWER CIRCUIT, WHICH SHALL BE RUN FROM THE CORRESPONDING POWER EQUIPMENT LOCATION. ALL ELECTRICAL WORK SHALL BE BY APPROVED AND LICENSED INDIVIDUALS, AND INSTALLED ACCORDING TO CODE. ADDITIONALLY, EACH CONTROLLER LOCATION SHALL REQUIRE A DEDICATED EARTH GROUND WITH A VERIFIED RESISTANCE TO GROUND OF TEN OHMS OR LESS.
- 6) EACH CONTROLLER LOCATION SHALL RECEIVE A "TEN-PAIR" PHONE CABLE HOOKUP, WHICH SHALL BE ROUTED AND DERIVED FROM SPRINT TELEPHONE. ADDITIONALLY, A DEDICATED MF PHONE SERVICE CONNECTION SHALL BE REQUIRED AT EACH FIELD INTERFACE UNIT (CFU) AND AT THE MAIN COMPUTER LOCATION.
- 7) ANY AND ALL LIGHTNING PROTECTION EQUIPMENT RECOMMENDED BY THE MANUFACTURER OF THE CONTROL SYSTEM FOR APPLICATION IN A LIGHTNING INTENSIVE ENVIRONMENT SHALL BE INCLUDED IN THE WORK.
- 8) SUPPLY FROM THE SYSTEM SHALL BE FROM RECLAIMED WATER SERVICE TO BE OBTAINED FROM AND COORDINATED WITH THE CITY OF KISSIMMEE UTILITIES DEPT., P.O.C. #1, S.A. 1167-LW (300 GPM) SERVICE, AND P.O.C. #2 IS A 2333 LPW (600 GPM) SERVICE, HALF OF WHICH IS RESERVED FOR USE IN A SUBSEQUENT PROJECT ADJOINING THE EAST END OF THIS PROPERTY. THE INSTALLER SHALL PROVIDE AT EACH P.O.C. A WATER METER APPROVED BY THE UTILITY CO., A 24 VAC SOLENOID ACTUATED NORMALLY OPEN AUTO SHUT-OFF VALVE (75mm AT P.O.C. #1, AND 100mm AT P.O.C. #2) AND AN N-LINE ELECTRONIC LOW SENSOR IN CONjunction WITH THE CONTROL SYSTEM, AND INCLUDING ALL ASSOCIATED PULSE TRANSMITTER HARDWARE, AND Cabling TO THE NEAREST SAT-10 CONTROLLER LOCATION.
- 9) ALL PROGRAMMING OF THE CONTROL SYSTEM SHALL BE PERFORMED BY THE INSTALLER, WITH THE ASSISTANCE OF THE MANUFACTURER'S REPRESENTATIVE FOR THE CONTROL SYSTEM. THE INSTALLER SHALL ORGANIZE FACTORY BACKED TRAINING CLASSES FOR THE OPERATOR'S DESIGNATED STAFF.
- 10) DUE TO THE SMALL SCALE OF THE DRAWINGS, THE SIZING FOR LATENT PIPING SMALLER THAN 25mm (1") HAS BEEN OMITTED. IT SHALL BE UNDERSTOOD THAT LATENT PIPING DOWNSTREAM FROM THE WHICH HAS AN INCREASED SIZE SHALL BE 13mm (3/4"), EXCEPT FOR PIPING WHICH SERVICES A SINGLE SPRAY HEAD OR BUBBLER, WHICH SHALL BE 13mm (1/2").
- 11) THE INSTALLER SHALL NOTE THE LOCATIONS OF OBSTRUCTORS OR SIMILAR FEATURES INDICATED ON THE LANDSCAPE DRAWINGS PLANTED IN ROWS ALONG THE RIGHT-OF-WAY LINES. ROTARY SPRINKLER HEADS LOCATED ALONG THE LINES IN THESE AREAS SHALL BE ADJUSTED TO THE FRONT OF THE PLANTING, AND THEIR ARCS OF THROW SHALL BE ADJUSTED SO THAT COVERAGE IS EXTENDED FROM THE TURF AREAS BACK INTO THE PLANTS.
- 12) THE DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC. THE LOCATIONS OF THE EQUIPMENT SHALL BE COORDINATED IN THE H-11, AND ADJUSTED AS NECESSARY TO AVOID CONFLICTS, AND TO REACT TO FIELD VARIABLES. DUE TO SMALL SCALE OF DRAWINGS, IT IS OFTEN NECESSARY TO SHOW PIPING OR OTHER EQUIPMENT OUTSIDE RIGHTS-OF-WAY OR IN PAVED AREAS. THE INSTALLATION OF ALL PIPING AND OTHER EQUIPMENT SHALL BE IN TURFLESS AREAS AND WITHIN RIGHTS-OF-WAY UNLESS IT IS SPECIFICALLY NOTED TO THE CONTRARY. ALSO, SOME PIPING IS SHOWN OUTSIDE THE RESPECTIVE SLEEVES (WHERE MULTIPLE PIPES RUN THROUGH A SINGLE SLEEVE). THIS IS FOR DESIGN CLARITY.
- 13) EACH SPRAY SPRINKLER SHALL BE EQUIPPED WITH THE PARTICULAR NOZZLE WHICH IS BEST SUITED TO THE LOCATION OF THAT SPRINKLER, AND THE OPTIMAL COVERAGE OF PLANTING. THE FLOW RATES INDICATED ON THE DRAWINGS ARE ESTIMATED, AND MAY VARY SLIGHTLY, DEPENDING ON THE NOZZLES ACTUALLY USED IN THE INSTALLATION. ALL HEADS SHALL BE ADJUSTED TO AVOID OVERSPRAY onto ROADWAYS AND WALKWAYS. AS SPACING VARIATIONS ARE DIFFICULT TO DETERMINE FROM SMALL SCALE DRAWINGS, THE INSTALLER SHALL SEE THAT ALL SPRINKLER SPACINGS ARE COORDINATED WITH THE ACTUAL NOZZLE PATTERNS ACTUALLY INSTALLED, IN ORDER TO PROVIDE 100% COVERAGE.
- 14) THE INSTALLER SHALL BE RESPONSIBLE FOR OBTAINING ANY REQUIRED LOCATES, PERMITS AND/OR INSPECTIONS CONNECTED WITH THE WORK.
- 15) ANY AND ALL REQUIREMENTS IN EFFECT AT THE TIME OF INSTALLATION REGARDING THE USE OF TREATED EFFLUENT WATER SHALL BE ADHERED TO. THIS INCLUDES THE INSTALLATION OF WARNING SIGNS APPROVED BY THE AUTHORITIES.
- 16) ALL MATERIALS SHALL BE CURRENT PRODUCTION AT THE TIME OF CONSTRUCTION. THE INSTALLER SHALL SUBMIT FOR APPROVAL ANY EQUIPMENT CHANGES WHICH MAY BE REQUIRED DUE TO THE TIME DIFFERENTIAL BETWEEN THE DESIGN AND ACTUAL INSTALLATION OF THE PROJECT.
- 17) LOW VOLTAGE CONTROL WIRING SHALL BE UFA-4-1 CAEL, WITH PVC INSULATION. WIRES SHALL BE COLOR CODED TO DISTINGUISH BETWEEN "HOT" AND COMMON, AND TO DISTINGUISH BETWEEN ONE CONTROLLER AND ANOTHER; IF WIRES FOR MULTIPLE CONTROLLERS ARE INSTALLED IN THE SAME TRENCH, THERE SHALL BE NO CROSS-CONNECTION OF WIRING BETWEEN CONTROLLERS.
- 18) ALL SPRINKLERS AND OTHER EQUIPMENT SHALL BE INSTALLED WITH APPROPRIATE AND UNIFORM CLEARANCE FROM CURBS, WALKWAYS, PAVEMENT EDGES, AND OTHER OBSTACLES. RISER-MOUNTED SPRINKLERS SHALL BE VISIBLE DIRECTLY WITHIN, AND PROTECTED BY, THE FIRST ROW OF PLANTS. RISER HEIGHTS SHALL CONFORM TO ADJACENT PLANTING.
- 19) THE INSTALLER SHALL MAINTAIN ANY REQUIRED CLEARANCES BETWEEN HIS PIPING AND DOMESTIC WATER LINES.
- 20) ALL CONTROLLER AND P.D.C. LOCATIONS SHALL BE STAKED OUT IN THE FIELD AND APPROVED PRIOR TO INSTALLATION. THE INDICATED LOCATIONS FOR SERVICE CONNECTIONS MAY BE BASED PARTLY ON PROJECTIONS OF SERVICE AVAILABILITY MADE PRIOR TO ACTUAL CONSTRUCTION. VERIFY SERVICE AVAILABILITY AT THESE LOCATIONS, AND NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES.
- 21) THRUST BLOCKS SHALL BE PROVIDED FOR ALL GASKETED PIPE, EQUIPMENT AND FITTINGS. THRUST BLOCKS SHALL CONFORM TO THE MINIMUM SIZE AND CONFIGURATION PUBLISHED BY THE EQUIPMENT MANUFACTURERS. THE METAL INCLUDED WITH THESE DOCUMENTS IS FOR REFERENCE PURPOSES ONLY. FITTINGS SHALL BE WRAPPED WITH A SLIMADIF MATERIAL BEFORE THRUST BLOCKS ARE PLACED AND WIRES SHALL BE ROUTED AROUND THE THRUST BLOCKS SO AS NOT TO BE TRAPPED THEREIN.
- 22) THE INSTALLER SHALL PROVIDE A COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, COMPLETE WITH MEASUREMENTS TO POINTS OF INTERFERENCE FROM ALL VALVES AND DIRECTIONAL CHANGES IN THE MANIFOLD, AND PERIODIC OFFSET MEASUREMENTS FOR THE MANIFOLD. THE RECORD DRAWINGS SHALL ALSO INCLUDE LOCATIONS OF ANY WIRING NOT RUNNING WITH THE MANIFOLD.
- 23) THE CONTROLLER INTERFACE ASSEMBLIES SHALL BE INSTALLED IN THE PEDESTAL OF THE SATELLITE CONTROLLER CORRESPONDING TO THAT LOCATION, PROVIDED THE MANUFACTURER MAKES A FACTORY-BUILT MOUNTING APPLIANCE FOR THIS PURPOSE. ALSO INCLUDED AT EACH OF THE TWO INTERFACE SITES SHALL BE A RUCKET-TYPE RAIN SENSING DEVICE AND THE APPROPRIATE CORDING JETS.
- 24) THE LOCATIONS, DEPTH OF COVER, AND ANGULAR DEFLECTIONS OF ALL SLEEVES SHALL BE COORDINATED BY THE INSTALLER IN THE FIELD WITH ALL OTHER UTILITIES AND OTHER POTENTIAL OBSTRUCTIONS. ADJUSTMENTS SHALL BE MADE AS NEEDED TO AVOID CONFLICTS. COORDINATE SLEEVING WITH PAVING.
- 25) THE INSTALLER SHALL NOTE THE LOCATIONS OF APPROXIMATELY (40) GROWTH HABITICS CONTAINING PALM TREES. EACH SUCH LOCATION SHALL BE PROVIDED WITH TWO BUBBLER HEADS, WHICH SHALL BE INSTALLED IN AN INCONSPICUOUS MANNER, AND PLACED IN THE NEAREST SPRAY ZONE.



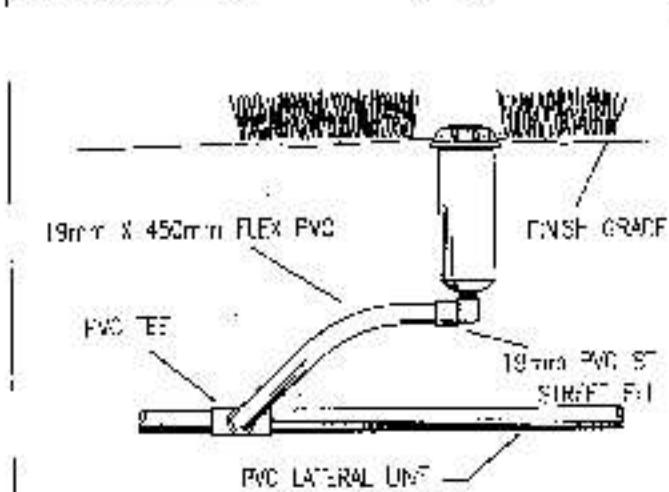
150mm POP-UP SPRAY HEAD
(DO NOT USE SHrub INLET)



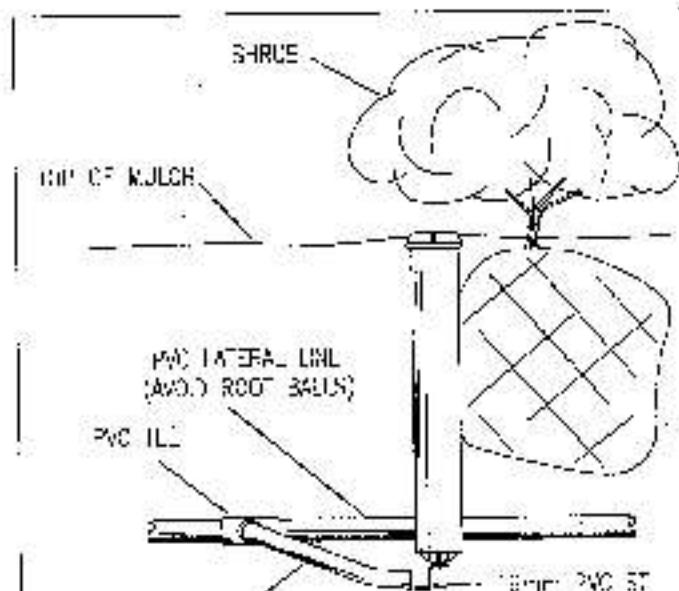
SHRUB SPRAY HEAD
AVOID HAVING ITC PLANTS FROM WALLS, WALKS, GATES, ETC.
(DANT RISER AND STAKE APPROVED ON SP - HEIGHT P.L. PLANTING)



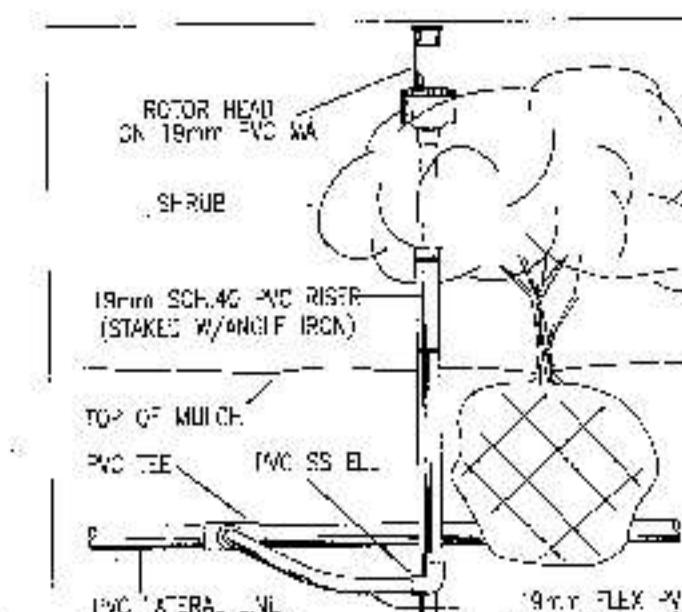
300mm POP-UP SPRAY HEAD
(DO NOT USE SHrub INLET)



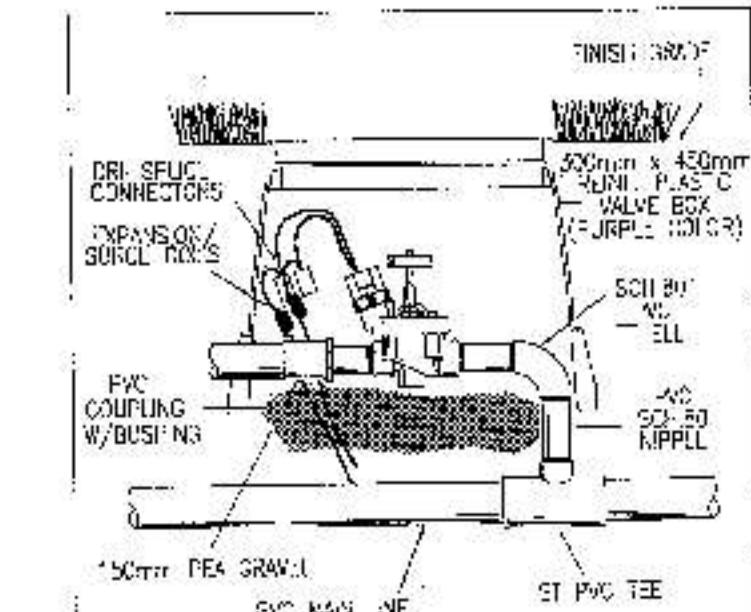
POP-UP ROTOR HEAD



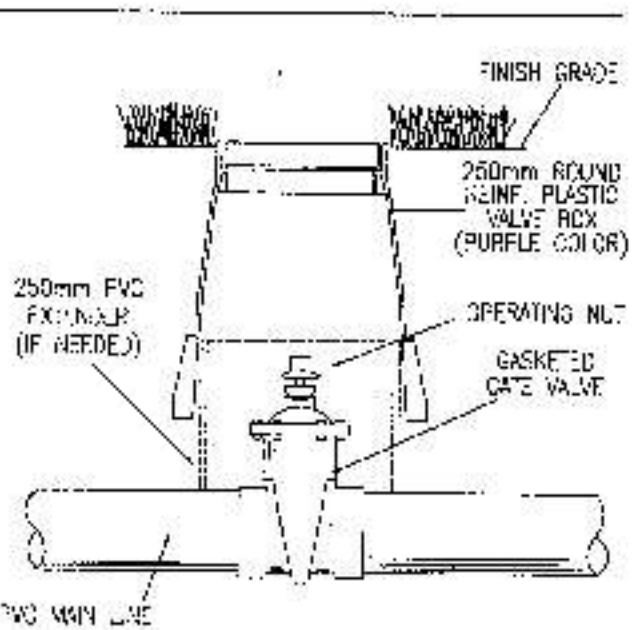
300mm POP-UP ROTOR HEAD



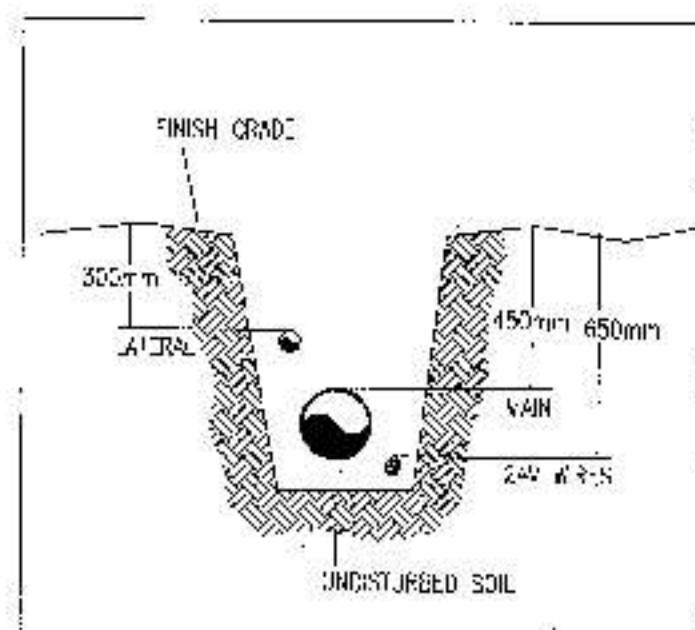
SHRUB ROTOR HEAD
AVOID HAVING ITC PLANTS FROM WALLS, WALKS, GATES, ETC.
(DANT RISER AND STAKE APPROVED ON SP - HEIGHT P.L. PLANTING)



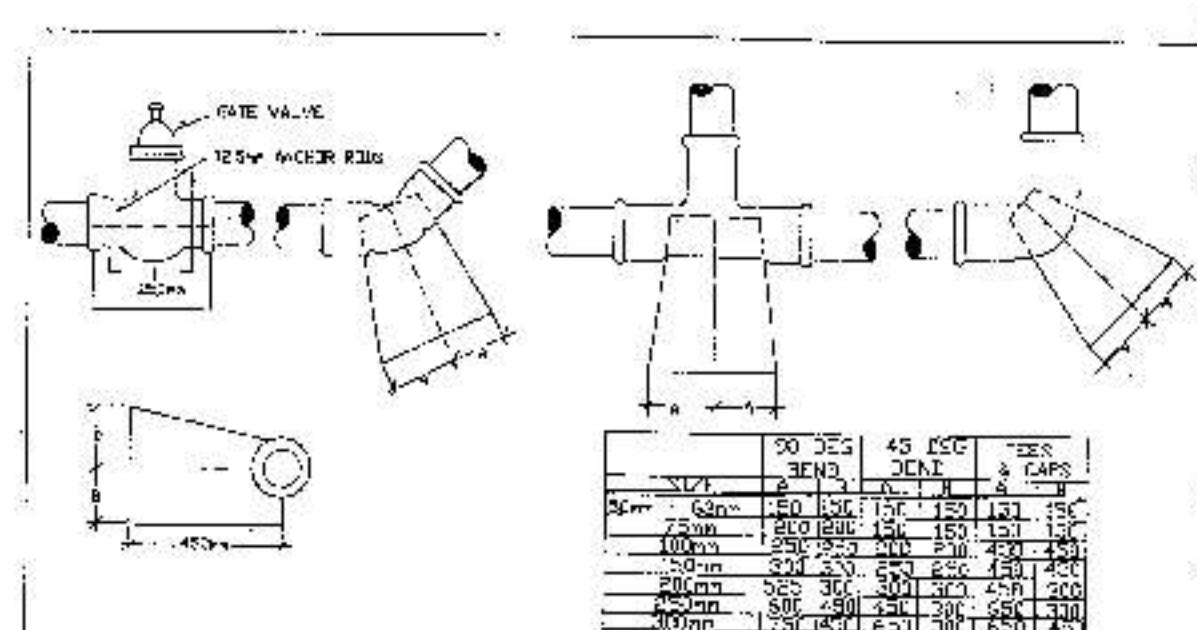
ELECTRIC CONTROL VALVE



ISOLATION GATE VALVE

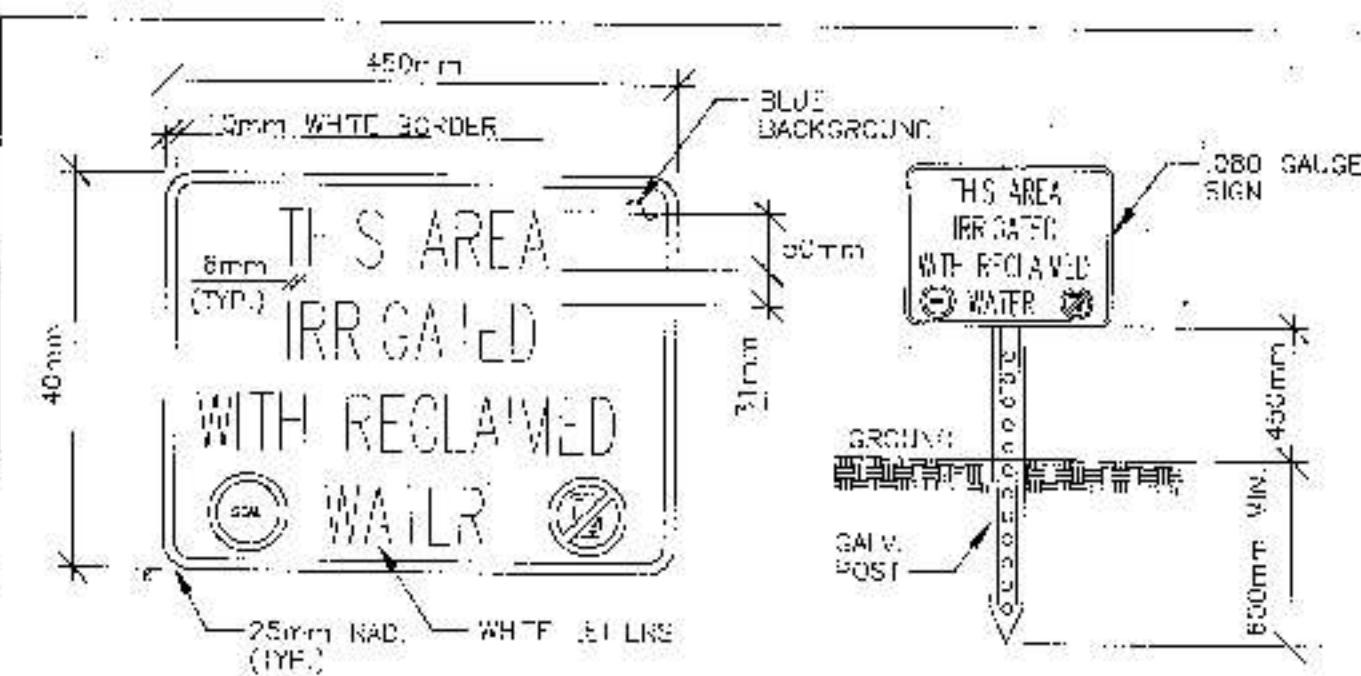


TRENCHING DETAIL
(USE SOLE DEPTHS, IF GREATER)

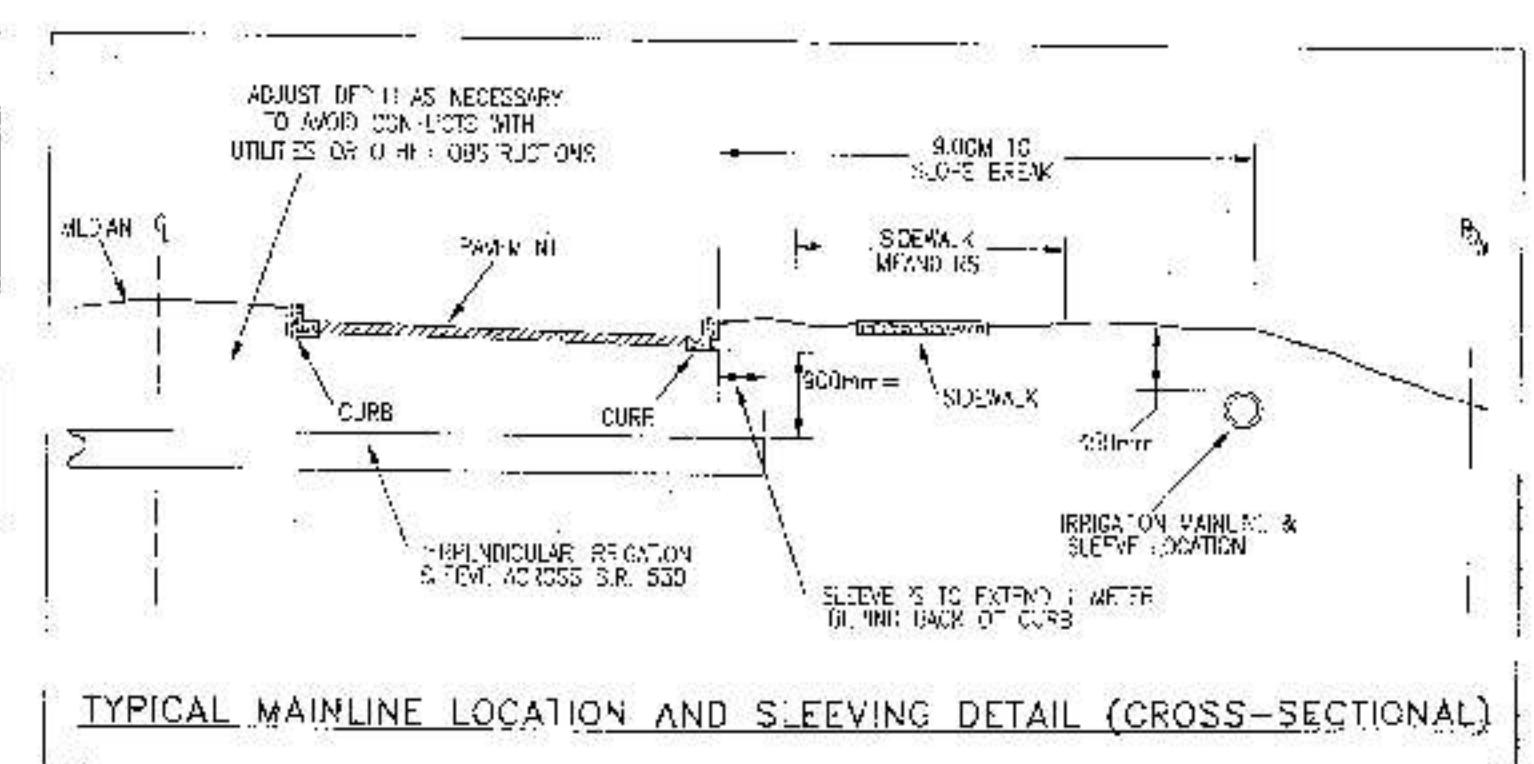


TYPICAL THRUST BLOCK DETAIL

REFERENCE ONLY - ADJUST TO MEET MANUFACTURER'S SPECS IF NECESSARY

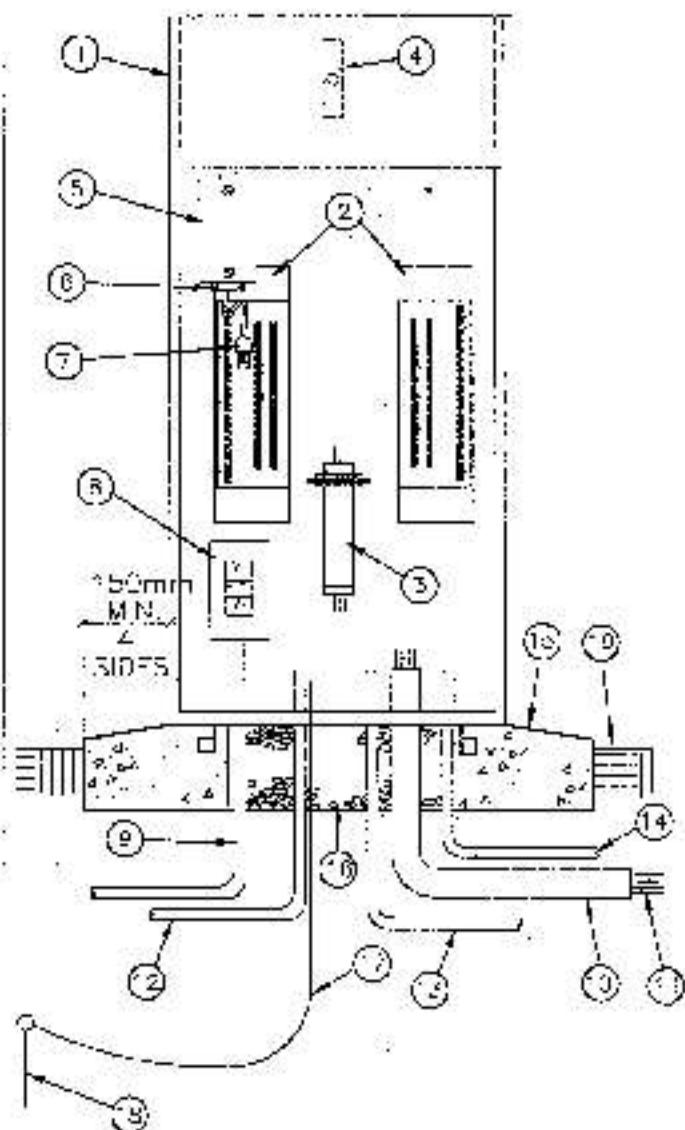


RECLAIMED WATER WARNING SIGN



TYPICAL MAINLINE LOCATION AND SLEEVING DETAIL (CROSS-SECTIONAL)

LEGEND



FIELD SATELLITE CONTROLLER

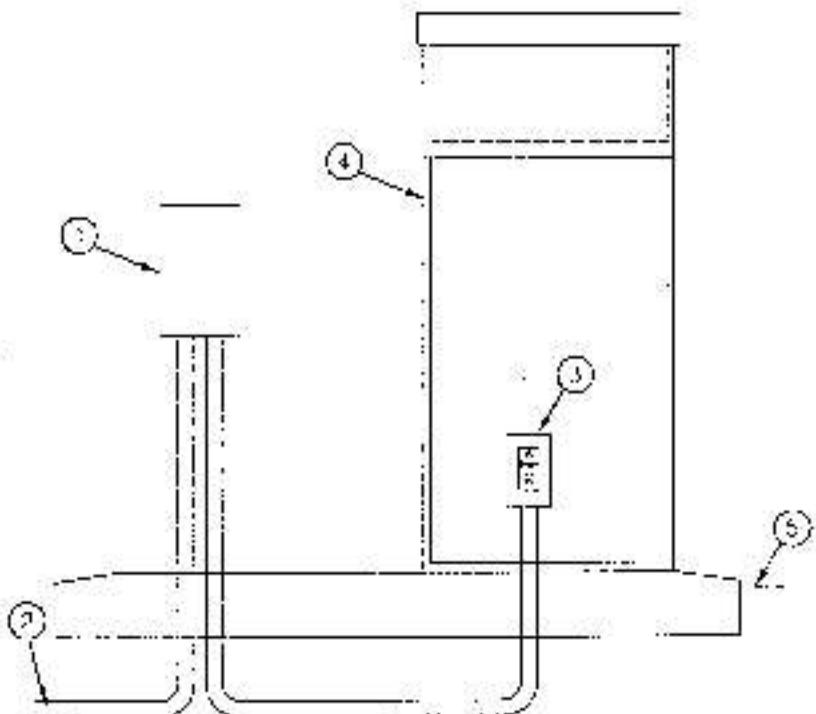
NOT TO SCALE

LEGEND

1. DISCONNECT SWITCH TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
2. 38mm PVC CONDUIT WITH (3) 12 AWG THW WIRES.
3. SURGE SUPPRESSION RECEPTACLE MOUNTED IN A JUNCTION BOX.
4. SATELLITE CONTROLLER OR RAINBIRD CCU OR APPROVED EQUAL.
5. FINISH GRADE

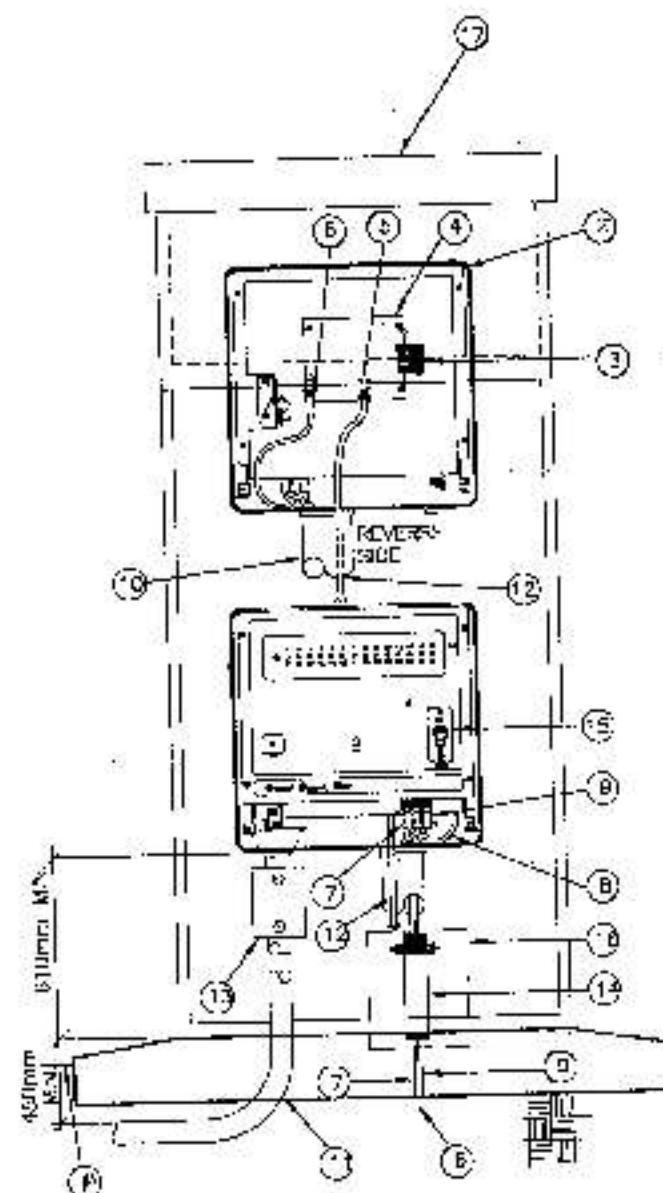
NOTES

1. DISCONNECT WIRE SHALL BE UNIFORM IN SIZE WITH FIXING DISCONNECTS.
2. CONDUIT SHALL BE RUN FROM ELECTRICAL CABINET. CONTRACTOR SHALL COORDINATE WITH FLORIDA POWER/KISSIMMEE UTILITY AUTHORITY ON SITE.
3. ALL WORK AND MATERIALS SHALL CONFORM WITH ALL NCC, ITC, KUA, AND ALL OTHER LOCAL ELECTRICAL CODES.



CONTROLLER ELECTRIC SERVICE

NOT TO SCALE

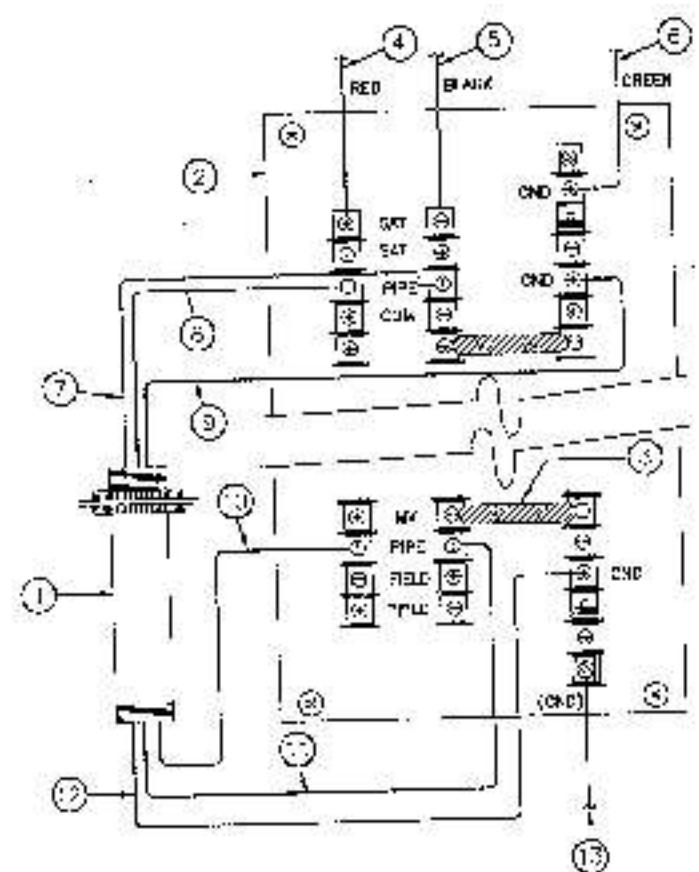


CLUSTER CONTROL UNIT (CCU)

NOT TO SCALE

LEGEND

1. FINISH GRADE.
2. RAINFOREST PEDESTAL MOUNTED CLUSTER CONTROL UNIT (CCU) OR APPROVED EQUAL.
3. COLOR RIBBON/CABLE CONNECTION.
4. MODEM.
5. R.J. 11 PHONE JACK.
6. GROUND WIRE.
7. COMMUNICATION CABLE CONNECT TO COMMON WIRE TERMINAL POST.
8. GROUND WIRE(GREEN) TO GROUND POST ON TERMINAL STRP.
9. COMMUNICATION CABLE CONNECT TO HOT WIRE TERMINAL POST.
10. 50mm LOW VOLTAGE COMMUNICATION CABLE CONDUIT-ECH 40 PVC.
11. 120 VOLT 60 CYCLE POWER SUPPLY.
12. TELEPHONE COMMUNICATION CABLE TO RJ-11 JACK IN PVC CONDUIT.
13. 120 VOLT ELECTRICAL JUNCTION BOX.
14. MSP-1 RECOMMENDED SURGE ARRESTOR PART NO. 89300 OR APPROVED EQUAL.
15. FED-B BREAKER.
16. JUNCTION BOX.
17. RAINFOREST PEDESTAL FOR CCU ON 150mm CONC. SLAB OR APPROVED EQUAL.

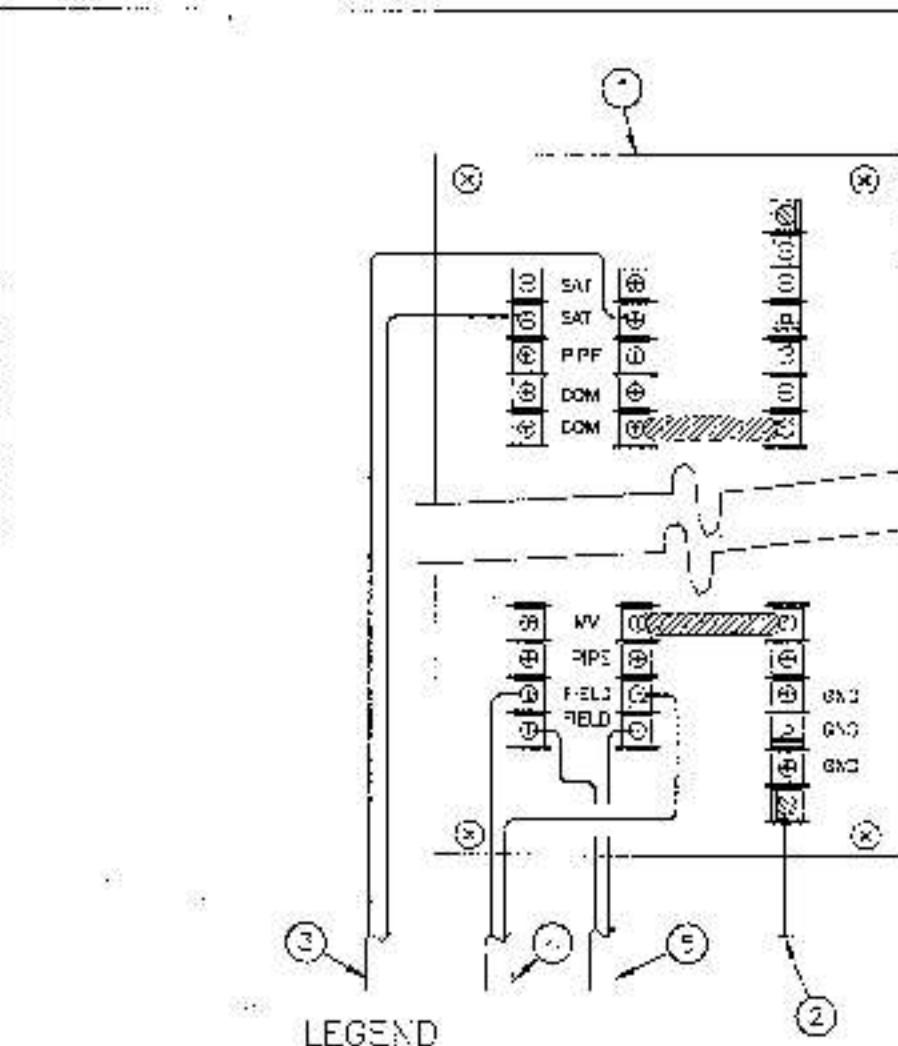


LEGEND

1. RAINFOREST MSP-1 SURGE ARRESTOR OR APPROVED EQUAL ATTACH TO EXISTING BRACKET N CONTROLLER.
2. SATELLITE CONTROLLER TERMINAL BOARD.
3. MCY SURGE ARRESTOR (TYPICAL).
4. HOT WIRE (RED) FROM SATELLITE ASSEMBLY.
5. COMMON WIRE (BLACK) FROM SATELLITE ASSEMBLY.
6. GROUND WIRE (GREEN) FROM SATELLITE ASSEMBLY.
7. COMMON WIRE (BLACK) FROM SURGE ARRESTOR.
8. HOT WIRE (RED) FROM SURGE ARRESTOR.
9. GROUND WIRE (GREEN) FROM SURGE ARRESTOR.
10. HOT WIRE (RED) FROM SURGE ARRESTOR (LINE END).
11. COMMON WIRE (BLACK) FROM SURGE ARRESTOR (LINE END).
12. GROUND WIRE (GREEN) FROM SURGE ARRESTOR (LINE END).
13. #10 GROUNDING WIRE TO GROUND ROD ASSEMBLY. REFER TO MANUFACTURER'S SPECIFICATIONS.

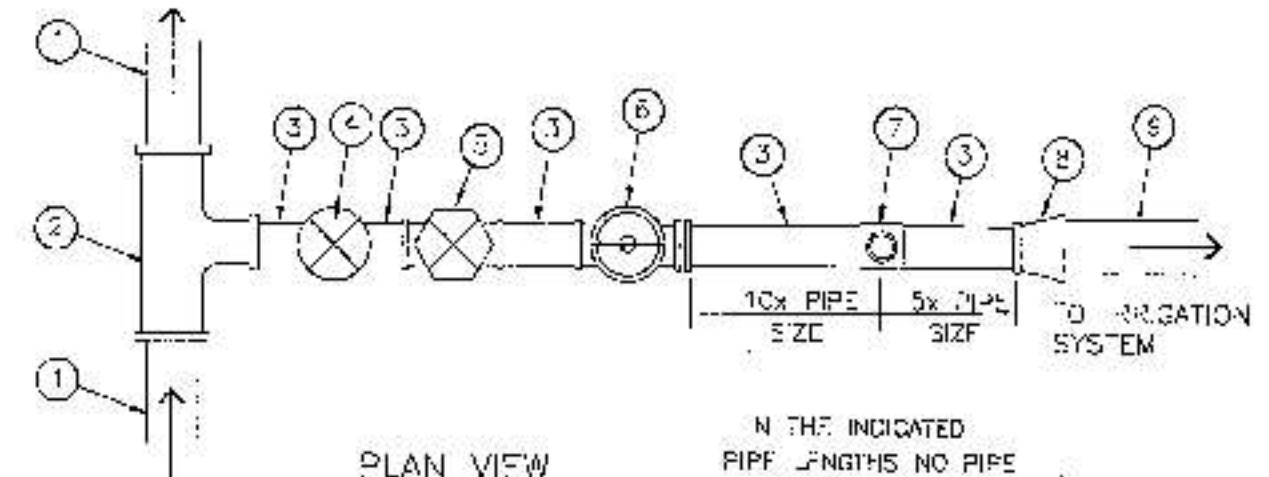
FIELD SATELLITE WIRING &
MSP SURGE PROTECTION

NOT TO SCALE



FIELD SATELLITE COMMUNICATION WIRING

NOT TO SCALE



IN THE INDICATED PIPE LENGTHS NO PIPE RESTRICTIONS, FITTINGS, COUPLINGS, OR DIFFERENTIALS SHALL OCCUR.

NOTES

1. T-E CLA VALVE SHALL BE NO MORE THAN 750mm DEEP TO TOP OF BONNET.
2. ALL VALVE BOXES TO HAVE 75mm - 100mm OF PEA GRAVEL.
3. CLA VALVE ASSEMBLY SHALL BE GALVANIZED. NO GLUED JOINTS.

LEGEND

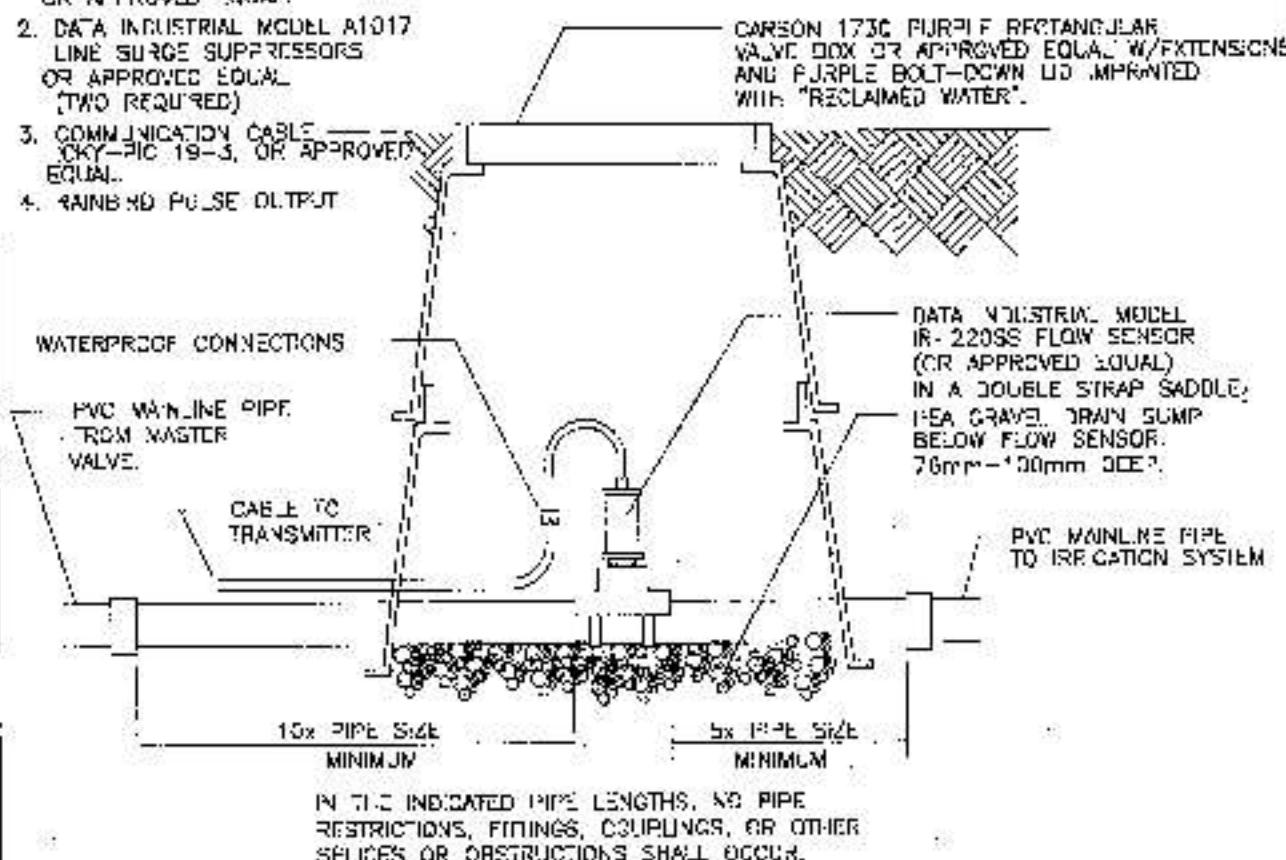
1. EXISTING 300mm RECLAIMED WATER MAIN
 2. MAINLINE CONNECTION FITTING FOR WETTAP (SEE WETTAP DETAIL).
 3. 150mm IRRIGATION PIPE (PVC CL 200)
 4. 100mm or 150mm M.F.HR (SEE PLANS FOR METER SIZE AT EACH P.C.C.)
 5. 150mm SOLATION GATE VALVE
 6. 150mm AUTOMATIC MASTER CLA VALVE OR APPROVED EQUAL (SEE MASTER VALVE DETAIL).
 7. FLOW SENSOR IN DOBLE STRAPPED SADDLE
 8. 250mm X 150mm REDUCER COUPLING
 9. 150mm OR 250mm PVC CL 200 IRRIGATION MAINLINE TO IRRIGATION SYSTEM (SEE PLANS FOR EXACT PIPE SIZING OR LENGTH P.C.C.)
- ALL VALVE BOXES AS PER SPECIFICATIONS

POINT OF CONNECTION TO RECLAIMED WATER

NOT TO SCALE

REQUIRED ACCESSORIES

1. DATA INDUSTRIAL MODEL 600-15
PULSE OUTPUT TRANSMITTER
OR APPROVED EQUAL.
2. DATA INDUSTRIAL MODEL A1017
LINE SURGE SUPPRESSORS
OR APPROVED EQUAL
(TWO REQUIRED)
3. COMMUNICATION CABLE
WCKY-PIC 19-5, OR APPROVED
EQUAL.
4. RAINBIRD PULSE OUTPUT



FLOW SENSOR NOTES:

THE IRRIGATION MAIN SUPPLY SHALL BE EQUIPPED WITH A FLOW METER CAPABLE OF COMMUNICATION WITH THE MAXCOM SYSTEM. THIS SHALL BE A DATA INDUSTRIAL IR-220SS FLOW SENSOR, DATA INDUSTRIAL 600-15 PULSE OUTPUT TRANSMITTER WITH A DATA INDUSTRIAL A1008 PLUG-IN TRANSFORMER, AND A RAINBIRD PB9300 PULSE DECODER.

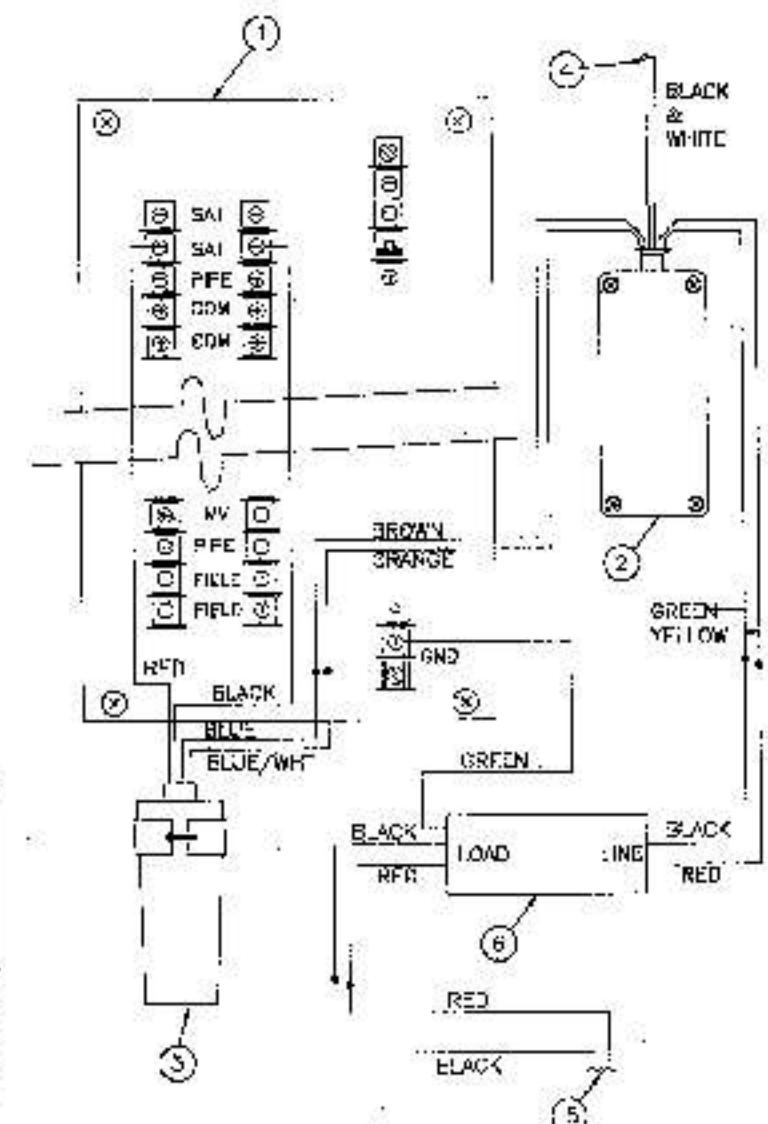
OR APPROVED EQUALS.

THE FLOW SENSOR SHALL BE WIRED BACK TO THE CONTROLLER UTILIZING AN ANTEK SINGE SHIELDED TWISTED PAIR CABLE #E-000319AF0 AND #E-C00119AF0. ALL WIRE SPLICES OR CONNECTIONS FOR THE FLOW SENSOR TO THE CABLE SHALL BE MADE USING 3M SCOTCHLOK CONNECTORS.

THE IRRIGATION CONTRACTOR SHALL CONTACT THE LOCAL MAXCOM DISTRIBUTOR BEFORE BIDDING TO BECOME FULLY AWARE OF ALL THE RESPONSIBILITIES CONCERNING THE MAXCOM SYSTEM AND THE COMMUNICATIONS CONNECTIONS.

FLOW SENSOR DETAIL

NOT TO SCALE

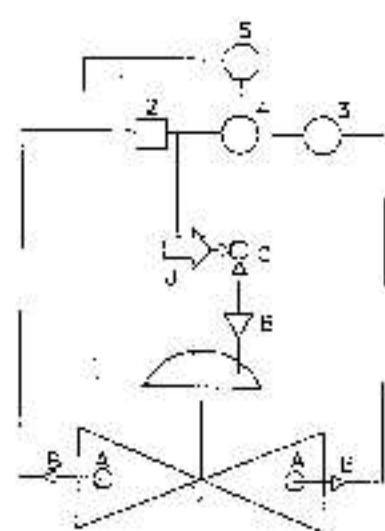


LEGEND

1. SATELLITE CONTROLLER TERMINAL BOARD.
2. DATA INDUSTRIAL MODEL 600-15 PULSE OUTPUT TRANSMITTER, OR APPROVED EQUAL.
3. RAINBIRD PULSE DECODER MODEL NO. 69300 OR APPROVED EQUAL.
4. ATTACH TO EXISTING SEM CABINET'S LD WITH A 7/8 x 63mm CONDUIT STRAP.
5. TO 24 VAC GROUNDED POWER SUPPLY (WHT/BLK).
6. TO DATA INDUSTRIAL FLOW SENSOR (BLK/RED) (MAXIMUM RUN ~ 610 M).
7. DATA INDUSTRIAL MODEL A1017 LINE SURGE SUPPRESSOR, OR APPROVED EQUAL.

FIELD SATELLITE WIRING FOR FLOW SENSING

NOT TO SCALE



CLA-VALVE M/N BSG-01ABCJ
OR APPROVED EQUAL

CLAYTON 100-D-C VALVE
X-42 RESTRICTION TUBE FITING
C42 CONTROL PILOT
CS2 ROTONOID CONTROL (24V)

A X46 FLOW CLEAN STRAINER
B C42 SHUTOFF COCKS
C CV FLOW CONTROL-CLOSING SPST
D CV2 FLOW STABILIZER

NOTE: VALVE IS MOUNTED BELOW
GRADE IN CARSON 17303 PIGEON VALVE
BOX WITH PURPLE BOLT-DOWN LID
IMPRINTED WITH "RECLAIMED WATER"
(OR APPROVED EQUAL).

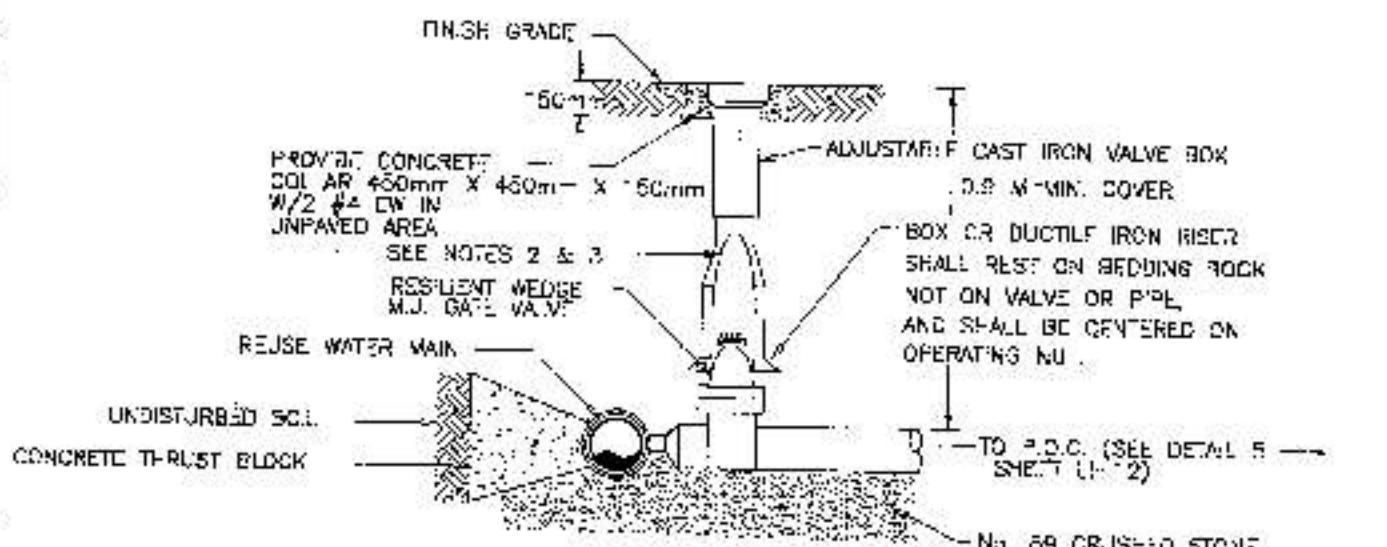
CLA-VALVE ASSEMBLY SHALL BE
GALVANIZED-NO GLUED JOINTS
SHALL BE PERMITTED ON ANY
MAINLINE FITTINGS.

MASTER CONTROL VALVE

NOT TO SCALE

WEI TAP AND VALVE BOX DETAIL

NOT TO SCALE



NOTES:

1. TAP SHALL NOT BE MADE WITHIN 1.8M OF EXISTING PIPE JOINT OR ACTIVE LINE.
2. THRUST BLOCK SHALL BE IN PLACE AND CURED PRIOR TO TAPPING TASK.
3. API 5ZF SHALL BE NO GREATER THAN 50% OF EXISTING LINE BEING TAPPED.
4. 50MM BRASS PLUG WITH RECESSED NUT TERMINATE INSULATED, SOLDER 14 GAUGE COPPER LOCATOR WIRES A TOP W/300mm EXTRA WIRE.

TECO People's Gas Systems

DRAFT

Rick Duran

Subject: FDOT FM #437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact
Attachments: Marked up plan pdf.pdf

From: Winsor, Shawn <SWinsor@tecoenergy.com>
Sent: Tuesday, August 31, 2021 12:16 PM
To: Rick Duran <rduran@bcceng.com>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

I sent this back on 6/17/2019 is this what you are looking for?

Shawn Winsor
Gas Design / Project Manager
600 West Robinson St.
Orlando, FL 32801
Office: 407-420-6663
swinsor@tecoenergy.com



From: Rick Duran <rduran@bcceng.com>
Sent: Tuesday, August 31, 2021 9:55 AM
To: Winsor, Shawn <SWinsor@tecoenergy.com>
Subject: RE: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Good morning, Shawn – can you provide the status of your marked plans for this project?

Rick Duran
Senior Utilities Coordinator



t. 305.670.2350 | www.bcceng.com

CAUTION - External Email

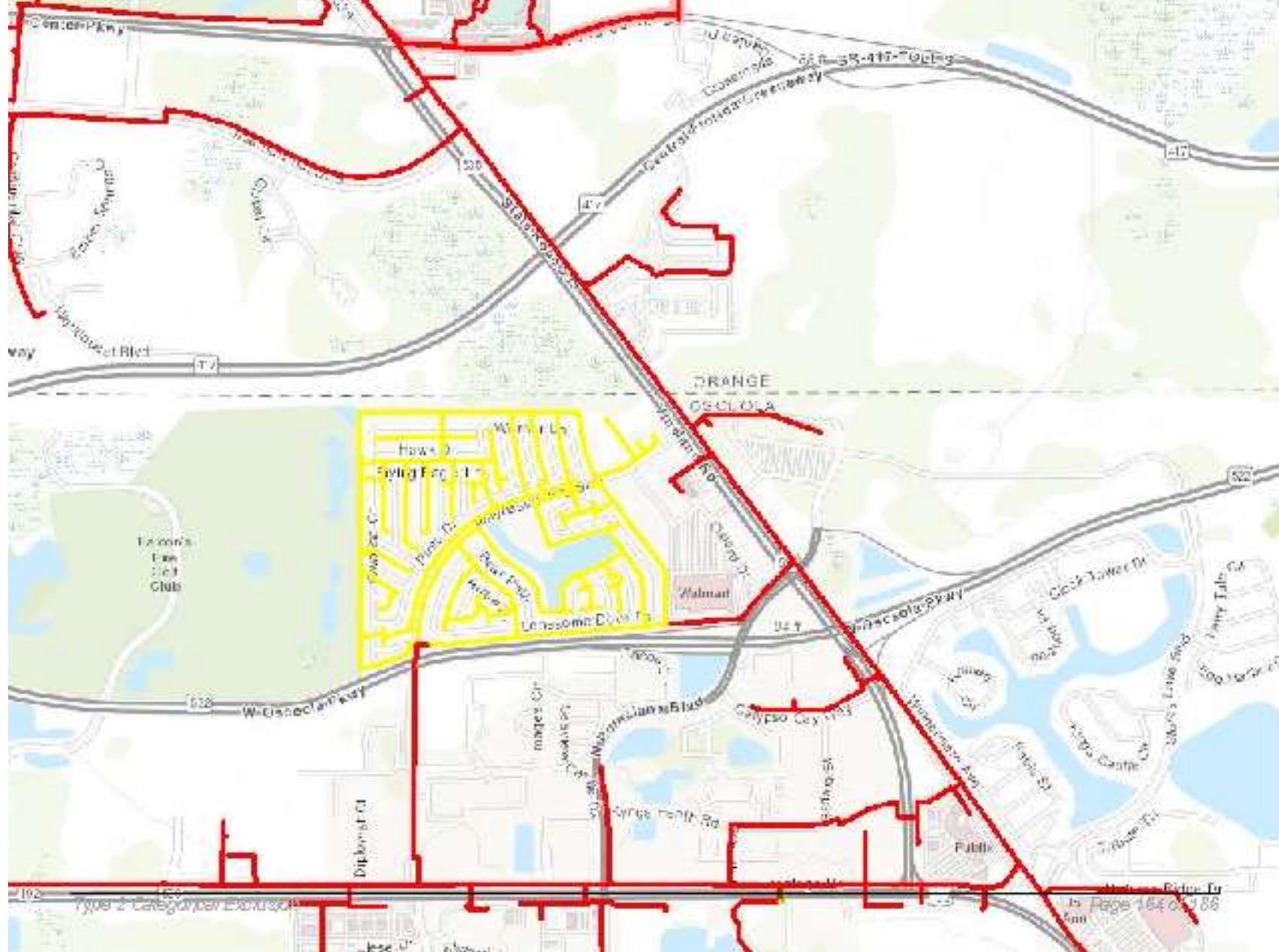
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mistake, please notify the sender immediately, delete this email from your system and do not copy or disclose it to anyone else. Although we take precautions to protect against viruses, we advise you to take your own precautions to protect against viruses as we accept no liability for any which remain.

DRAFT

TEETH 535 VINELAND RD FROM 182 TO 1800 CENTER DR / 407174-2-22-01





Date: August 31, 2021

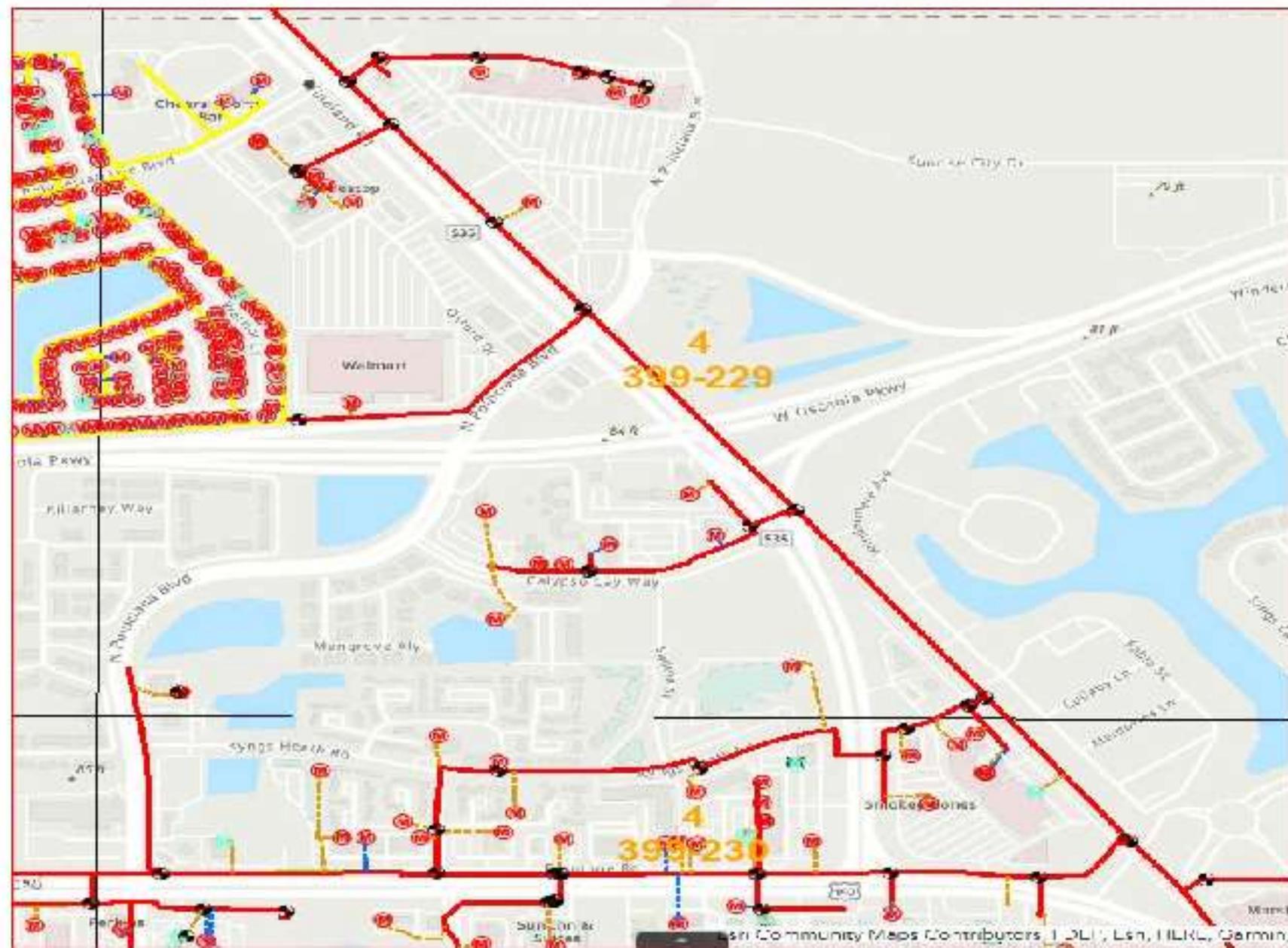
() Peoples Gas System Inc. has no gas mains or services within the referenced area

- () We are returning your prints marked with Peoples Gas System, Inc. gas mains or services within the referenced area.
- (x) We are returning a print of Peoples Gas System, Inc. gas main or services within the referenced area.
- () Please furnish final construction plans for this job and include Peoples Gas System, Inc. in the pre-design and pre-construction meeting(s).
- (x) **For further information please call: Shawn Winsor, Gas Design Department at (407) 420-6663.**
- () Remarks:

THE ATTACHED DRAWINGS ARE PROVIDED SUBJECT TO RESTRICTIONS AND LIMITATIONS.

NOTE: If a map is provided with this letter the following applies. The map is provided for convenience purpose only, and is not intended to be used for detailed locations. No warranty or guaranty expressed or implied, is made as to completeness, accuracy or fitness for a particular purpose. Use of this map is at the risk of the recipient who assumes full responsibility therefor.

Please call 811, two full business days prior to construction to have the locations of the facilities field verified



TOHO Water Authority

DRAFT

Rick Duran

Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

From: Calvin Carrero <ccarrero@tohowater.com>

Sent: Monday, August 23, 2021 5:27 PM

To: Rick Duran <rduran@boceng.com>

Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Good afternoon Mr. Duran

Please find the requested information located on our share website linked below. If you have any questions please feel free to reach out to me.

<https://private.filesanywhere.com/TOHOWATER/fs/v.aspx?v=897169bd9a63a6baaca0>

Guest Password: fsftp4eng07

Thank You,

Calvin Carrero

Engineering Technician

Toho Water Authority

951 Martin Luther King Blvd. | Kissimmee, FL 34741 | www.tohowater.com

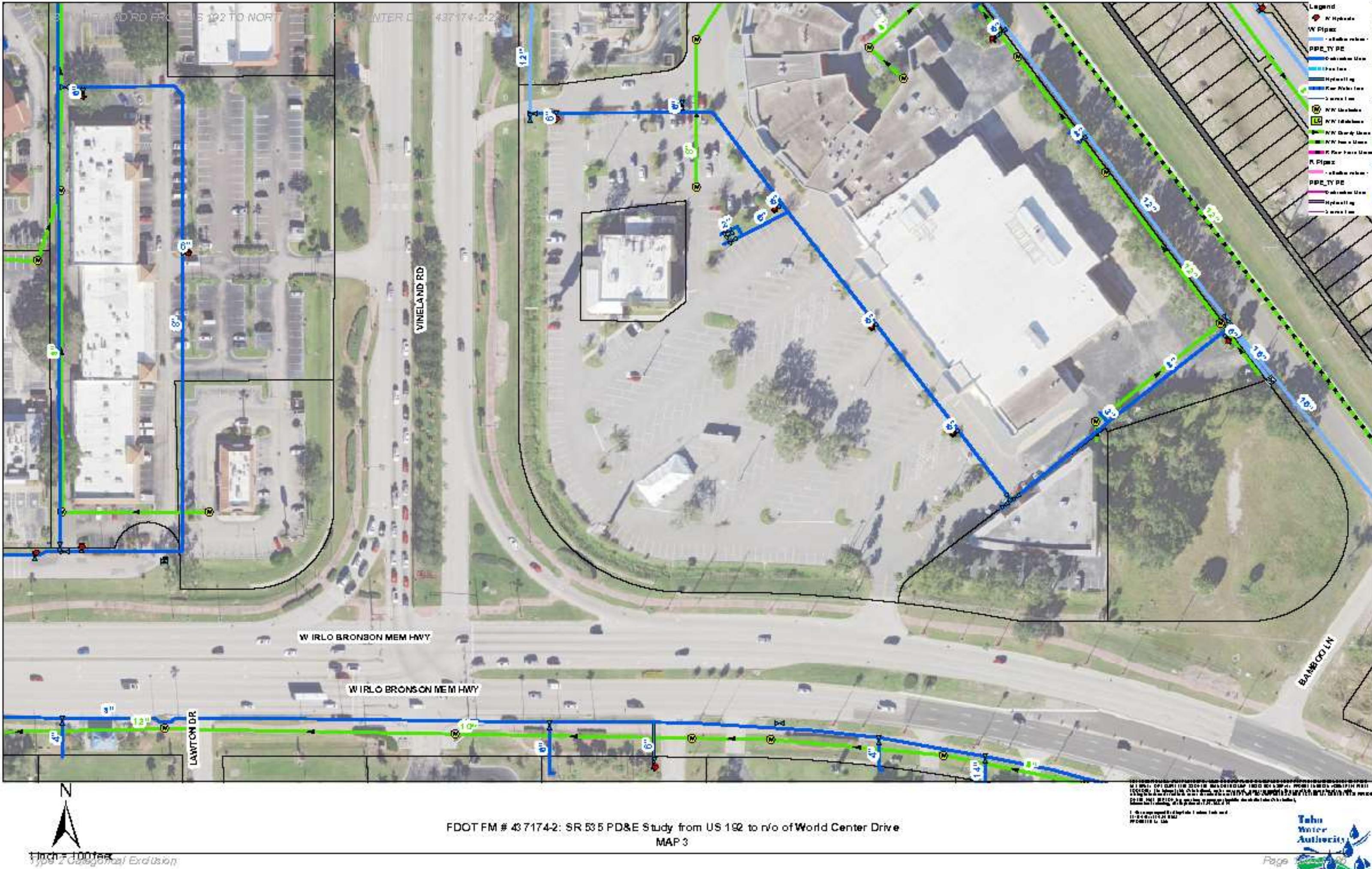
Telephone: (407) 944-5044

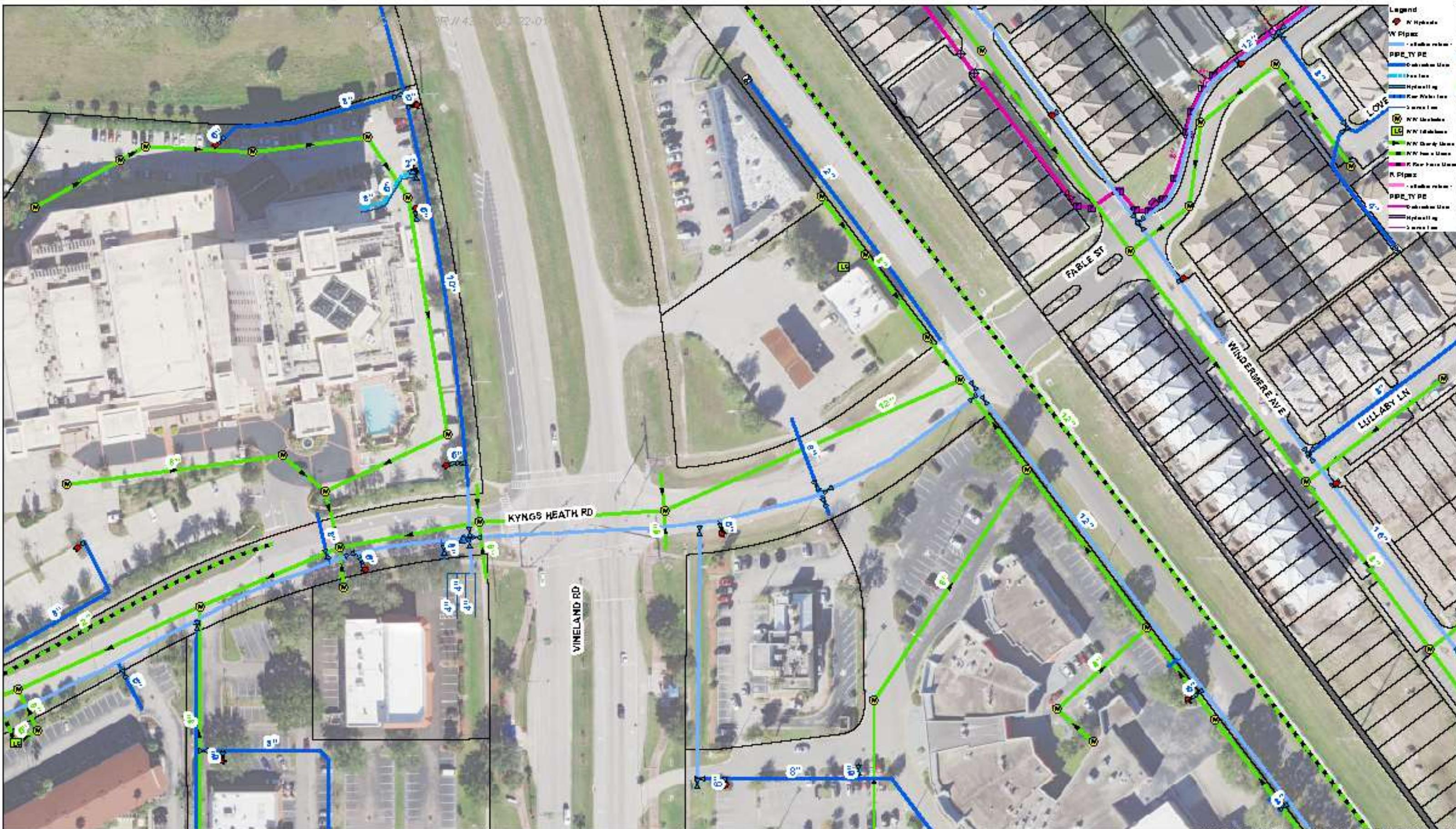
Email: ccarrero@tohowater.com



"Bringing you life's most precious resource"

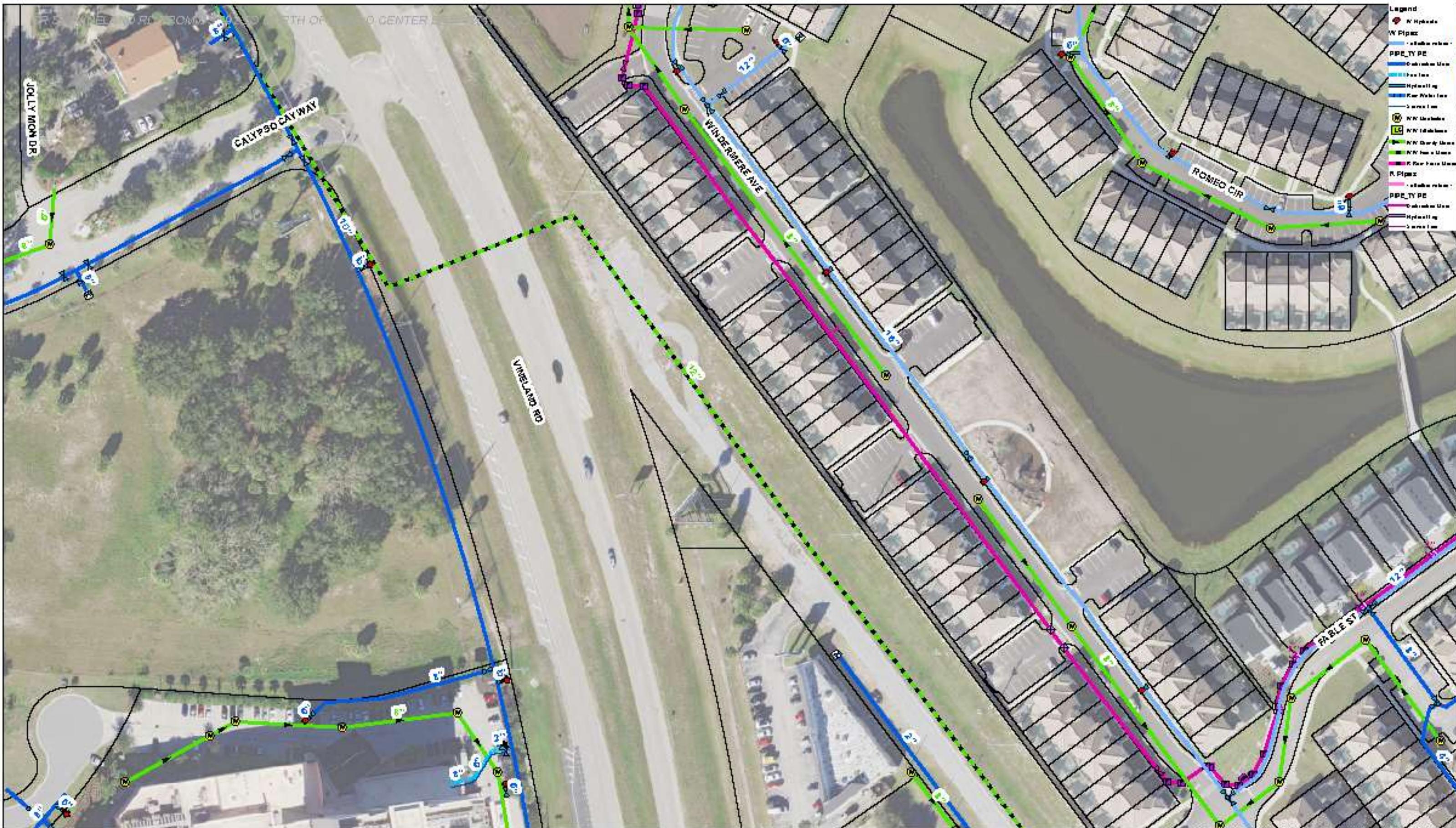
NOTE: Florida has a very broad public records law (F.S. 119). All e-mails to and from Toho Employees may be kept as a public record. By law, your e-mail communications, including your e-mail address may be disclosed to the public and media at any time.





FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
MAP 3





FDOT FM # 43 7174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
MAP 3

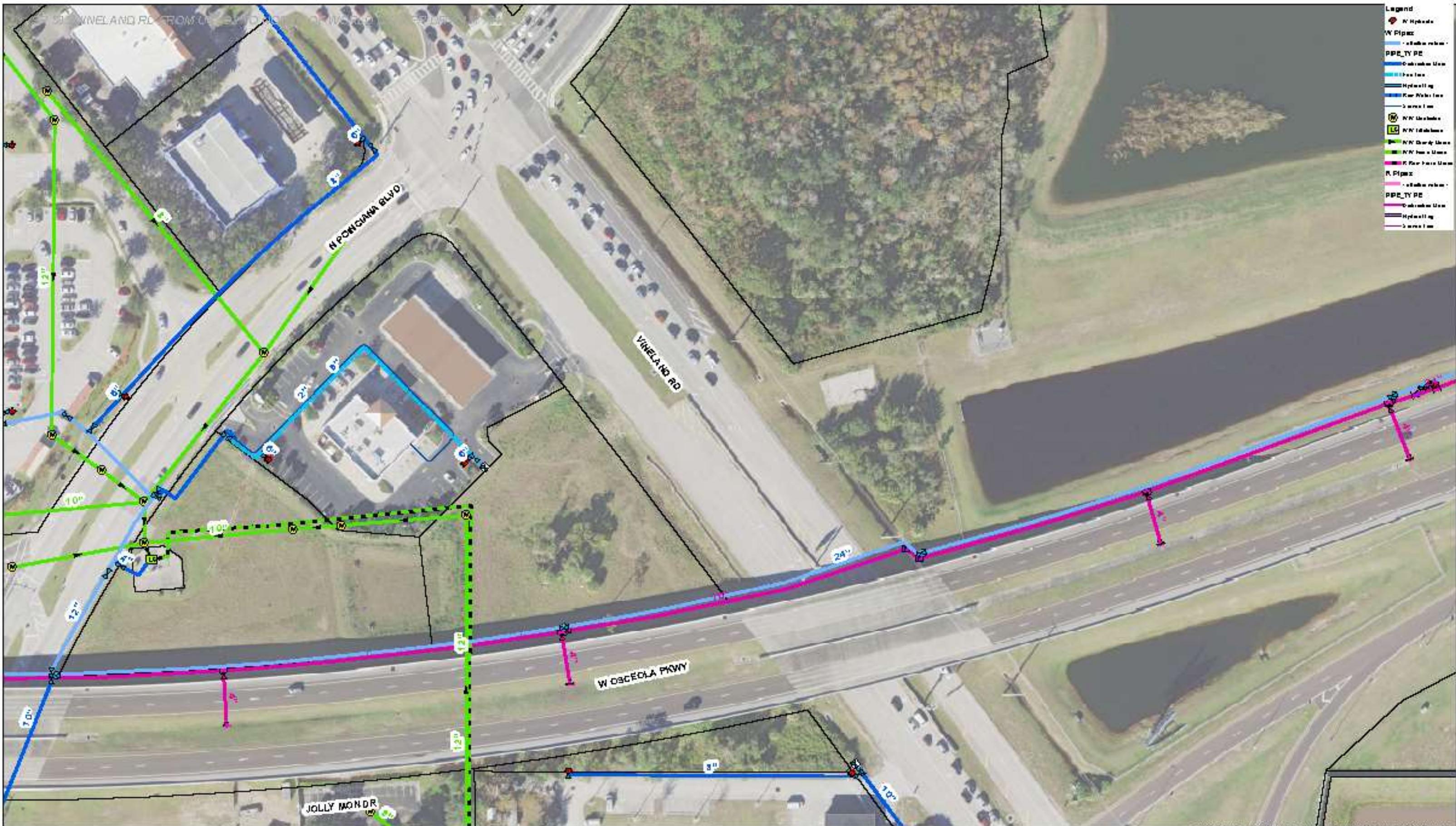
~~Health Center~~
Type 2 Categorical Exclusion





FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
MAP 4

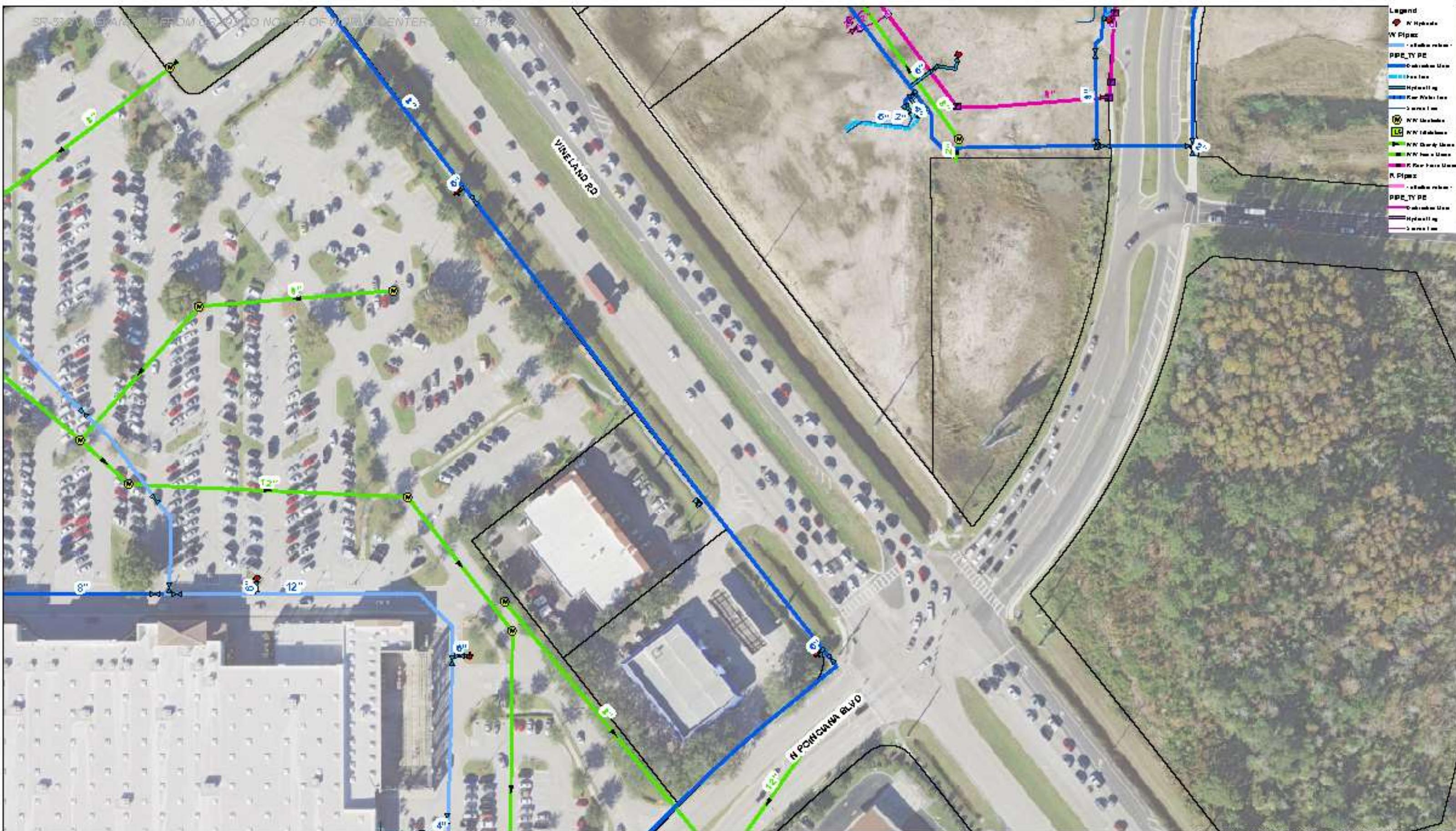




FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
MAP 5

~~Type 2 Categorical Exclusion~~

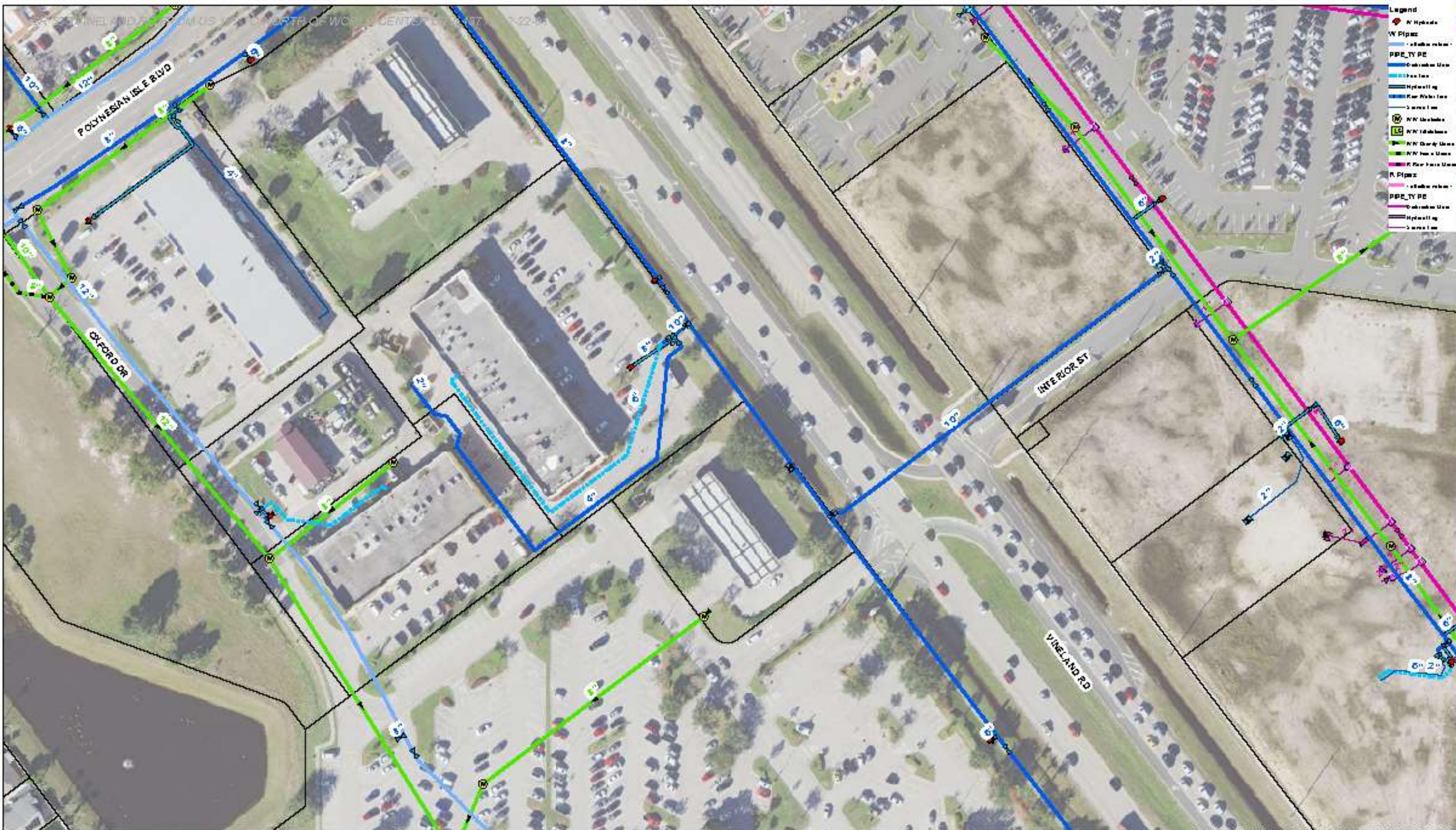




1000ft
Type 2 Categorical Exclusion

FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
MAP 6

M 192, ON GULF COAST HIGHWAY 1920 MI 30, PREVIOUSLY HIGHWAY 98
HIGHWAY 98, WHICH IS A STATE HIGHWAY, IS SUPPORTED BY THE FEDERAL GOVERNMENT.
HIGHWAY 98, WHICH IS A STATE HIGHWAY, IS SUPPORTED BY THE FEDERAL GOVERNMENT.
HIGHWAY 98, WHICH IS A STATE HIGHWAY, IS SUPPORTED BY THE FEDERAL GOVERNMENT.

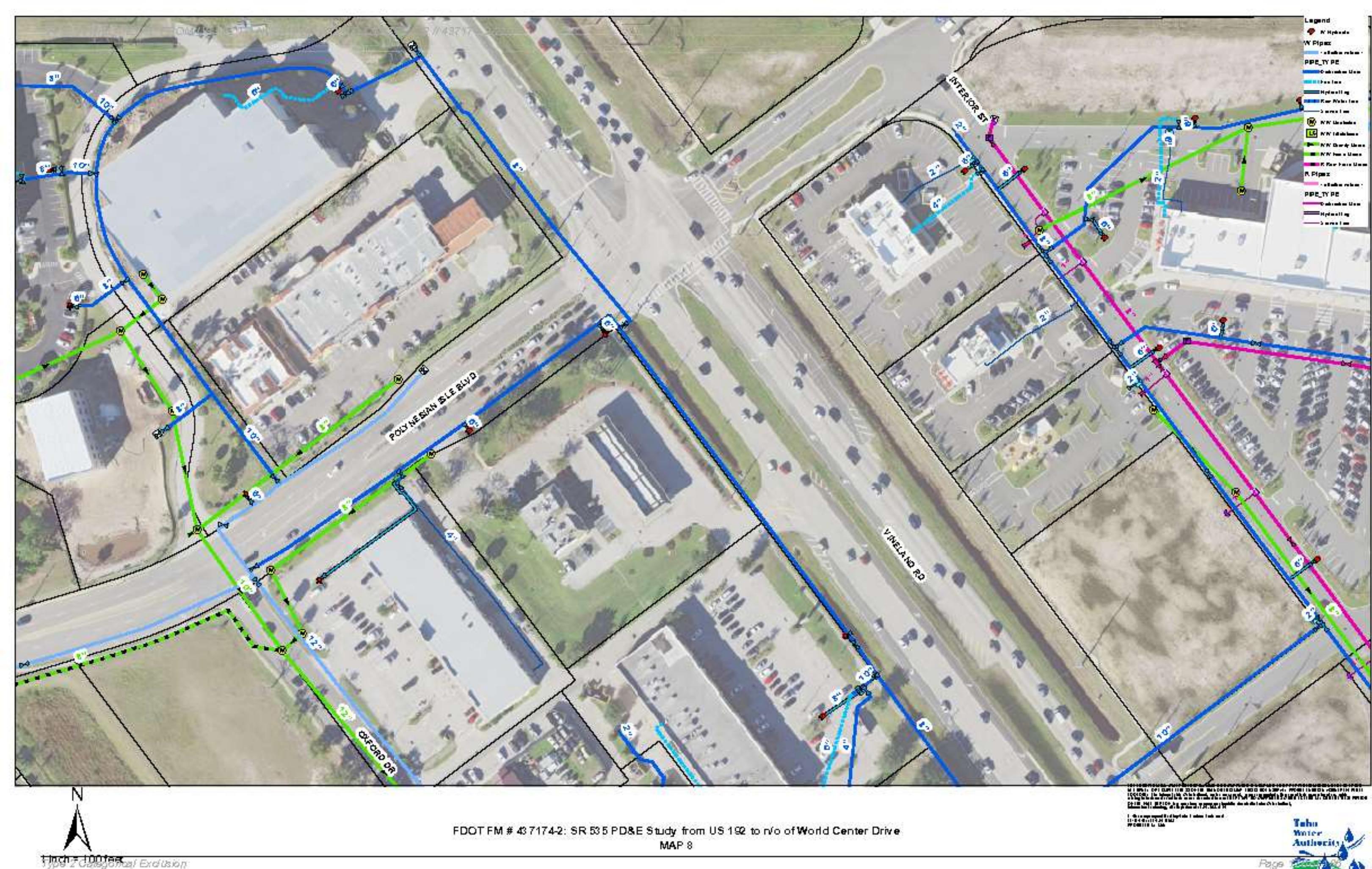


FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
MAP 7

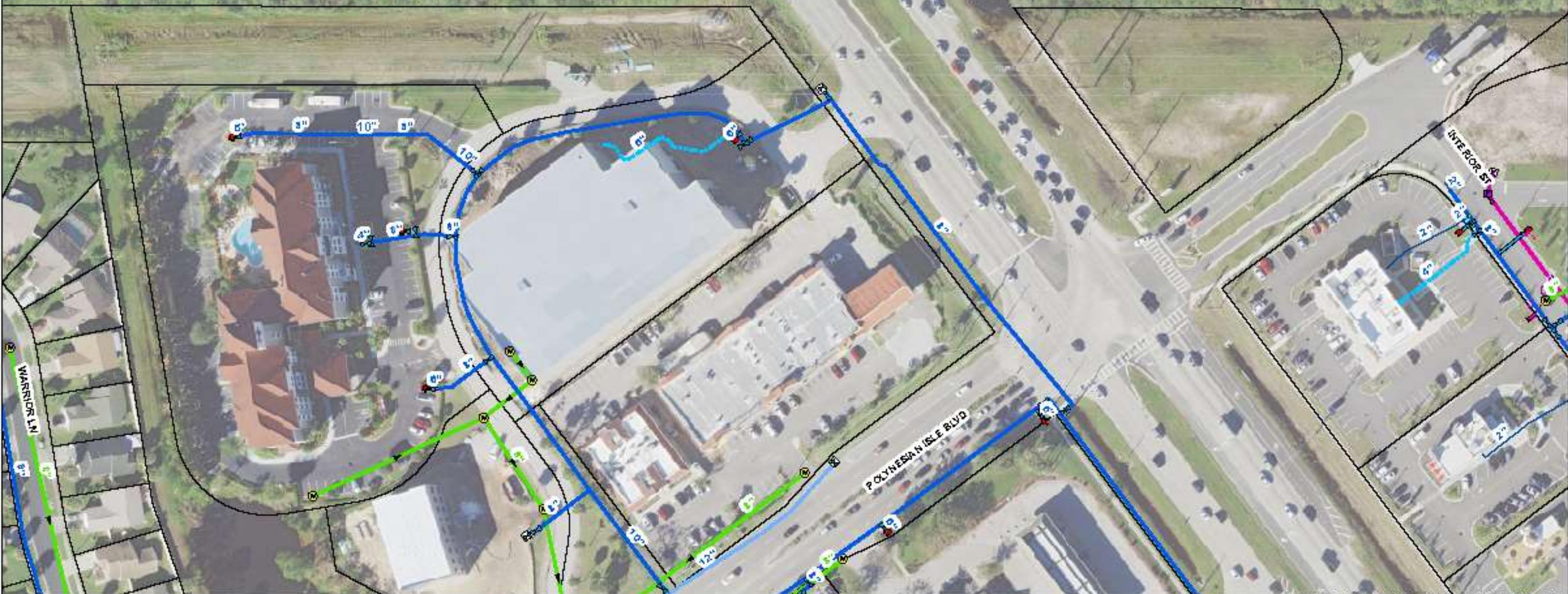
1000 feet
Type 2 Categorical Exclusion

Map showing utility network overlay on satellite imagery. The map includes streets such as POLYNESIAN ISLE BLVD, OXFORD DR, INTERIOR ST, and VINELAND RD. Utility lines are color-coded: blue for W_Pipes, green for R_Pipes, and magenta for PIPES_TYPE PE. Pipe sizes are indicated by numbers next to the lines. A north arrow and a scale bar (0-1000 feet) are located at the bottom left. A page number (Page 7) is at the bottom right.

Legend
N Hydrant
W Pipez
-> Valve location
PIPE_TYPE
Blue = Cast Iron
Cyan = PVC
Dark Blue = HDPE
Red = Steel
Yellow = Ductile Iron
NW Hydrant
NW Valve
NW Ductile Iron
NW PVC
NW HDPE
NW Steel
NW Ductile Iron
NW PVC
NW HDPE
NW Steel
R Pipez
-> Valve location
PIPE_TYPE
Magenta = Cast Iron
Dark Blue = HDPE
Red = Steel
Yellow = Ductile Iron
Green = PVC



SR 925: INELAND MD FROM US 192 TO NORTHCITY WORLD CENTER DB 7/437174-2-23



FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
MAP 9



Uniti Fiber

DRAFT

Rick Duran

Subject: FDOT FM #437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

From: James Mosley

Sent: Wednesday, August 18, 2021 12:09 PM

To: 'rduran@bcoeng.com' <rduran@bcoeng.com>

Cc: Bob Mensching <Bob.Menschling@uniti.com>

Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive (SR 536)_Initial Contact

Here you go! Apologies for the delay

Attached is a markup of our underground facilities shown with the green line.

Uniti Fiber has underground ducts/fiber in this area.

Please call 811 before you dig.



Respectfully,

James Mosley

OSP Engineer

Cell 251.654.8216

James Mosley <James.Mosley@uniti.com>



This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.



Verizon / MCI

DRAFT

Rick Duran

Subject: FDOT FM # 437174-2: SR 535 PD&E Study from US 192 to n/o of World Center Drive
(SR 536)_Initial Contact

From: Investigations , <investigations@one.verizon.com>
Sent: Thursday, September 21, 2023 11:26 AM
To: Rick Duran <rduran@boceng.com>
Subject: Design Pending - Conflict - Forward to Engineering_Kissimee, FL_2023-5051

437174-2-22-01

Verizon Business ID: 2023-5051

Dear Sir or Madam:

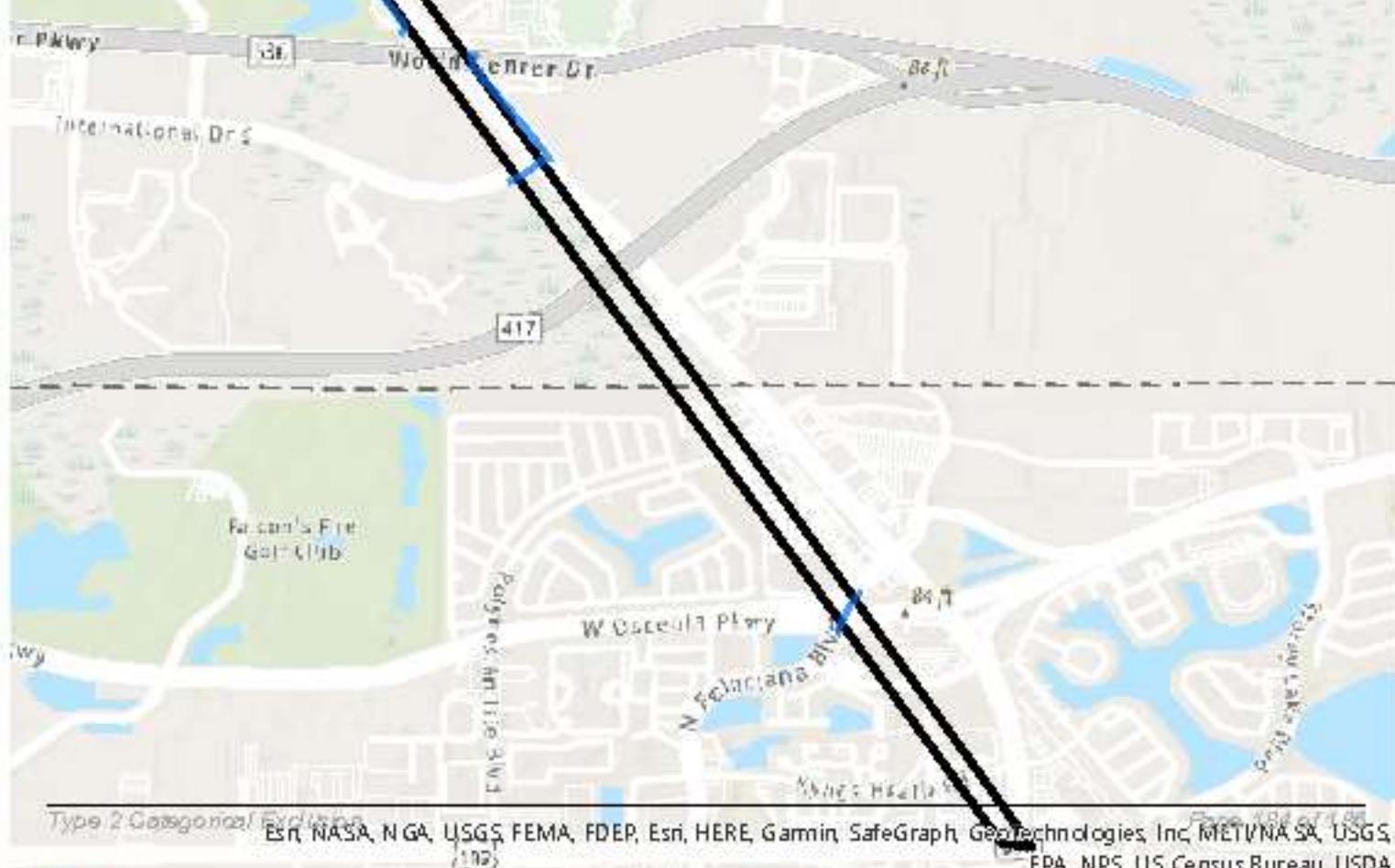
Verizon Business has been notified by your office regarding the above referenced project.

The comparison of your location map with the Verizon Business in-house records determined that Verizon Business facilities do exist in the area of the proposed construction. At this time, a conflict is anticipated. Your information has been forwarded to our Engineering group and they will be in contact to coordinate the next steps.

It will be necessary for you to **contact the One Call System for your area at least 48 hours prior to construction** to ensure our facilities are properly located.

Sincerely,

Verizon Business



verizon

SR 535 VINELAND RD FROM CR 192 TO NORTH OF WORLD CENTER DR // 437174-2-22-01



