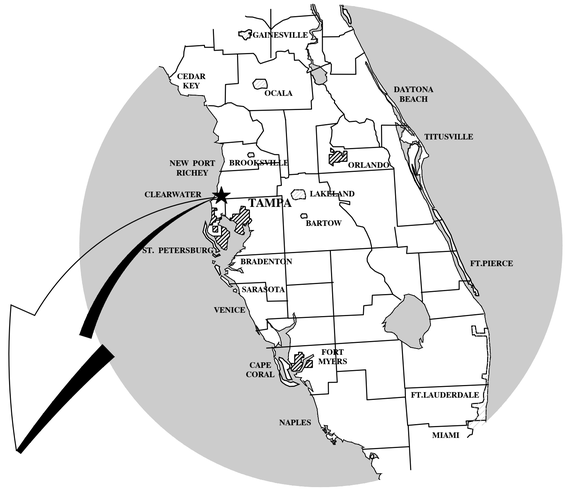
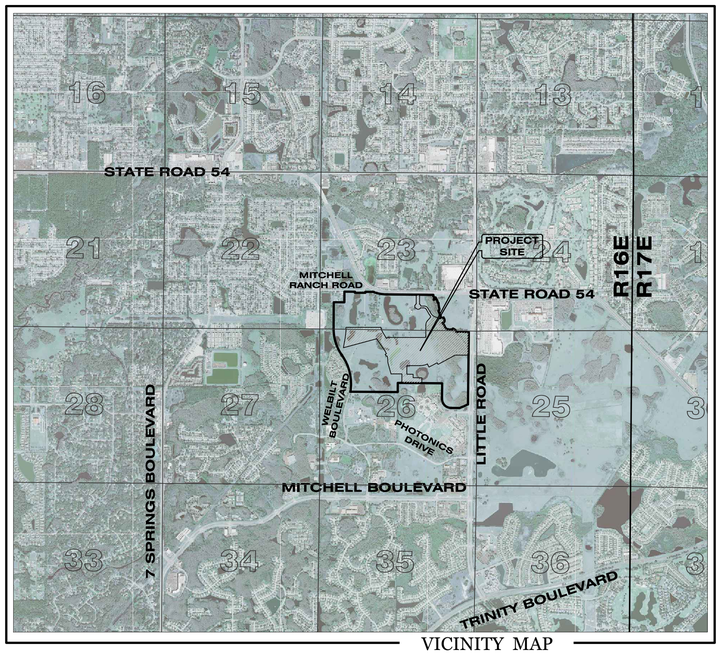
MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

CONSTRUCTION & STORMWATER MANAGEMENT PLAN (CP/SW)





VICINITY MAP
PASCO COUNTY, FLORIDA
SECTION 23 & 26, TOWNSHIP 26 SOUTH, RANGE 16 EAST

INDEX OF CONSTRUCTION PLANS

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, STATE OF FLORIDA IN EFFECT AT THE TIME OF PASCO COUNTY APPROVAL, AND ARE IN COMPLIANCE WITH THE STANDARDS THEREIN EXCEPT AS NOTED ON THE PLANS. ANY DEVIATIONS NOTED ON THE PLANS SUBSTANTIALLY COMPLY WITH THE INTENT OF THE STANDARDS.

PREPARED FOR:

LENNAR HOMES
4600 W. CYPRESS ST.
SUITE 200
TAMPA, FL 33607

PREPARED BY:

Clearview
LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

PERMIT / FILE NOS.	
PASCO PDD PROJECT NO.	CPSW-2019-00039
FGUA PROJECT NO.	PENDING
SWFWMD ERP/APPLICATION ID NO.	789073
WATER DEP	PENDING
SEWER DEP	PENDING
RECLAIMED WATER DEP	PENDING
PARCEL ID NO.	26-26-16-0000-00100-0000 23-26-16-0000-01900-0000

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IT'S THE LAW! DIAL 811
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SUNSHINE STATE ONE CALL OF FLORIDA, INC.

UTILITY CONTACT INFORMATION

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firerescue@pascocountyfl.net

DATE	SHEET NO.	BY
10-07-2019	PASCO CO. & SWFWMD RESUB.	BEM
08-07-2019	SHEETS 1-27,29,31-32,36-39,40-45 PERMIT PLANS	BEM

REVISIONS

MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

DATE: BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

DATE: 10-07-2019 JOB NO. LNH-MR-014

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

STREET & DRAINAGE	WATER & SANITARY SEWER
DESIGNED BY: MELVIN	DESIGNED BY: MELVIN
DRAWN BY: DROOR	DRAWN BY: DROOR

FILE: CV

SHEET 1 OF 45

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCV\DWG—COVER SHEET 2019/10/07 10:34 AM BRENT MELVIN

Pasco County Landscaping Standard Notes (Pasco LDC 905.2)

1. Maintenance Responsibility. The County is not responsible for maintenance of any landscaping unless approved through a County maintenance agreement. (LDC 905.2-C.1.a)
2. Clear-Sight Triangle. Where a driveway/accessway intersects a road right-of-way or where two (2) road rights-of-way intersect, vegetation, structures, and non-vegetative visual screens shall not be located so as to interfere with the clearsight triangle as defined in this Code or the Florida Department of Transportation, Manual of Uniform Minimum Standards, most recent edition (Green Book), whichever is more restrictive. (LDC 905.2-C.1.b)
3. Sustainable Practices. Landscaping shall be installed so that landscaping materials meet the concept of right material/right place. Installed trees and plants shall be grouped into zones according to water, soil, climate, and light requirements. Plant groupings based on water requirements are drought tolerant, natural, and oasis. (LDC 905.2-C.1.c)
4. Diversity. A maximum of 50 percent of the plant materials used, other than trees, may be non-drought tolerant. A minimum of 30 percent of the plant materials, other than trees and turfgrass, used to fulfill the requirements of this subsection shall be native Floridian species, suitable for growth in the county. (LDC 905.2-C.1.d)
5. Diversity. No one plant species of shrubs or ground cover plants, excluding turfgrass, shall constitute more than 25 percent coverage of the overall landscape area. (LDC 905.2-C.1.d.5)
6. Quality. All plant materials shall be Florida No. 1 grade per "Grades and Standards for Nursery Plants," Florida Department of Agriculture and Consumer Services (FDACS), which is incorporated herein by reference. (LDC 905.2-C.2.a)
7. Avoid Easements. Trees shall not be planted within any easement so as to interfere with the use of that easement, nor under any present or planned overhead utility, nor in any rights-of-way without County approval through the associated review process. (LDC 905.2-C.3.c)
8. Mulch shall be used in conjunction with living plant materials so as to cover exposed soil. Mulch shall be installed to a minimum depth of three (3) inches. The mulch should not be placed directly against the plant stem or tree trunk. Mulch shall not be required for annual beds. Stone or gravel may be used to cover a maximum of 20 percent of the landscaped area. (LDC 905.2-C.3.d)
9. Quality Practices. All landscaping shall be installed in accordance with standard practices of the Florida Nursery, Growers, and Landscape Association and the Florida Chapter of the International Society of Arboriculture. (LDC 905.2-C.3.e)
10. All portions of a lot upon which development has commenced, but not continued for a period of 30 days, shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization. Adequate coverage, so as to suppress fugitive dust, shall be achieved within 45 days. (LDC 905.2-C.3.g)
11. All required landscaping shall be maintained in a healthy condition in perpetuity in accordance with this Code. (LDC 905.2-E.2)
12. Ongoing maintenance to prevent the establishment of prohibited exotic species is required. (LDC 905.2-E.4)

GENERAL CONSTRUCTION NOTES:

1. Prior to the start of clearing and grubbing, or any soil disturbance the contractor shall contact Pasco County Stormwater Management at (727) 834-6311 for a soil erosion and sediment control pre-inspection meeting.
2. Prior to construction, the Contractor shall obtain from the Engineer or Owner a copy of all pertinent permits related to this project. It is the Contractor's responsibility to assure that all construction activities are in compliance with the conditions of all permits and approvals. Contractor must provide a Dewatering Plan, if applicable, to Pasco County Engineering Inspections Department at (727) 834-3670 for review prior to the erosion control measures pre inspection meeting. Contractor is also responsible for having his dewatering plan approved by SWFWMD.
3. All construction, materials and workmanship are to be in accordance with Pasco County Land Development Code and DOT Specifications, latest editions.
4. Grass and mulch, or solid sod, all areas in existing rights-of-way disturbed by construction. In the proposed rights-of-way a 16" wide area behind the back of curb shall be solid sodded. The remainder of the proposed rights-of-way shall be stabilized with Sod or Seed & Mulch in accordance with applicable County standards. On slopes 4:1 and flatter, seed & mulch may be used. On slopes steeper than 4:1, sod shall be used. Sod slopes steeper than 4:1 shall be installed with sod pegs per County standards.
5. Contractor is to coordinate all work within, but not limited to Pasco County rights-of-way with utility companies in order to prevent damage to utility lines and making of adjustments to same, if required.
6. Suitable fill obtained through excavation of streets and detention ponds shall be placed on lots and adjacent land in accordance with the Master Drainage and Grading Plan as directed by the Engineer.
7. Sod/Seed & Mulch shall be placed in accordance with applicable City/County standards as well as in accordance with standard and specific conditions in the SWFWMD permit, if applicable. At a minimum this shall include sodding of all pond embankments of a slope 4:1 or greater to the NW (SHWL) line, as well as seeding and mulching of the balance of the pond tracts (including pond berms, excluding the area below NW (SHWL)), sodding a minimum of 16" from the back of curb, and stabilizing all other areas within the project using sod or seed & mulch per County standards. On slopes 4:1 and flatter, seed & mulch may be used. On slopes steeper than 4:1, sod shall be used. Sod slopes steeper than 4:1 shall be installed with sod pegs per County standards.
8. Site clearing shall be performed per the approved construction plans and in accordance with Pasco County Land Development Code. Installation and maintenance of the required barricading and erosion control shall be the responsibility of the site development contractor unless otherwise designated.
9. Prior to beginning construction, Contractor shall expose all existing utility inverts to which a tie-in is proposed and have Engineer verify the elevation and adequacy of these inverts.
10. All subsurface construction shall comply with the "Trench Safety Act." The Contractor shall ensure that the method of trench protection and construction is in compliance with the Occupational Safety and Health Administration (OSHA)regulations.
11. Siltation accumulations greater than the lesser of 12 inches or one-half the depth of the siltation barrier shall be immediately removed and placed in upland areas.
12. During land alteration and construction activities, it shall be unlawful to remove vegetation by grubbing or to place soil deposits, debris, solvents, construction material, machinery or other equipment of any kind within the dripline of a tree to remain on the site unless otherwise approved by the County.
13. All erosion control installation and installation coordination shall be the responsibility of the Contractor. Clearview Land Design, if contracted by the Owner, will stake the alignment of the proposed erosion control and shall limit its responsibility and coordination at that point. Be advised that the construction approval and maintenance of the erosion control shall be the sole responsibility of the Site Contractor.
14. Building downspouts to be directed to the on-site storm drainage system.
15. Future expansion areas, if disturbed, to be seeded and mulched or sodded to prevent erosion to existing pavement surfaces.
16. Should any noticeable soil slumping or sinkhole formation become evident, the applicant/developer shall immediately notify the County, Tampa Bay Water (TBW), and SWFWMD, and adopt one or more of the following procedures as determined to be appropriate by the County and SWFWMD:
    - 16.1. If the slumping or sinkhole formation becomes evident before or during construction activities, stop all work (except for mitigation activities) in the affected area and remain stopped until the County and SWFWMD approve resuming construction activities.
    - 16.2. Take immediate measures to ensure no surface water drains into the affected areas.
    - 16.3. Visually inspect the affected area.
    - 16.4. Excavate and backfill or grout as required to fill the affected area and prevent further subsidence.
    - 16.5. Use soil reinforcement materials in the backfilling operation,when appropriate.
    - 16.6. If the affected area is in the vicinity of a water-retention area,maintain a minimum distance of two feet from the bottom of the retention pond to the surface of the limerock or karst connection.
    - 16.7. If the affected area is in the vicinity of a water-retention area and the above methods do not Stabilize the collapse, relocate the retention area.
    - 16.8. Discharge of stormwater into depressions with direct or demonstrated hydrologic connection to the Floridan Aquifer shall be prohibited.
17. The site shall be graded to within 12 inches of the final grade. Where fill is proposed it shall be placed in compliance with the geotechnical/geological engineering report recommendations (including any lift depths recommended) and compacted to a minimum density of 95% of the modified Proctor maximum dry density. Density tests to confirm compaction shall be required within the building pad area, before the next lift is placed. Upon completion of the land development construction, a professional engineer shall provide a certification to Pasco County that the project, including each pad area, complies with the recommendations of the geotechnical/geological engineering report.
18. The engineer responsible for the project shall certify to the County Engineering Services Director (thru PC Engineering Inspections) that the select material below the stabilized subgrade meets these standards prior to installation of the Base. Certification shall strictly comply with the subgrade certification form available in "Engineering Services Department: A Procedural Guide for the Preparation of Assurances of Completion and Maintenance.
19. The engineer responsible for the project shall certify to County Engineering Services Director that the underdrains have been properly installed prior to the installation of any asphalt. Certification shall strictly comply with the underdrain certification form available in Engineering Services Department: A procedural Guide for the Preparation of Assurance of Completion and Maintenance.
20. If during construction activities, any evidence of the presence of State or Federally protected plant and/or animal species is discovered, Pasco County and the applicable agencies shall be notified within two working days of the plant and/or animal species found on the site. All work in the affected area shall come to an immediate stop until all pertinent permits have been obtained, agency written authorization to commence activities has been given, or unless compliance with state and federal guidelines can be demonstrated.
21. If during construction activities any evidence of historic resources, including but not limited to aboriginal or historic pottery, prehistoric stone tools, bone or shell tools, historic trash pits, or historic building foundation, are discovered, work shall come to an immediate stop and the Florida Department of Historic Resources (State Historic Preservation Officer) and Pasco County shall be notified within two working days of the resources found on the site.
22. Prior to construction, a Building Permit shall be obtained for all structures that have a footer, regardless of size, through the Central Permitting Division; i.e.,including, but not inclusive of, buildings, accessories, dumpster walls, and retaining walls.
23. All first floor elevations (FF) shall be a minimum of one (1) foot above the base flood elevation (and meet the requirements of Pasco County LDC 1104) and be at least sixteen (16) inches above the highest crown line of the street lying between the projection of the side-building lines, unless otherwise approved by the County Administrator (per LDC 902).
24. No construction activities including: clearing, grading, grubbing shall occur within the Wetland Upland Buffer as depicted on the approved project Construction Plans.
25. The upland buffer line shall be clearly field demarcated prior to any construction activities.

SOIL REUSE REQUIREMENTS:

At least the following six (6) types of materials are present on-site that require proper handling/treatment by the Contractor, during the course of site development/construction activities, in accordance with the noted reuse requirements for each type. Although some soil material quality control testing will be randomly and periodically performed by the project Geotechnical Consultant, as required, working for the Owner, it is the Contractors sole responsibility to reuse onsite soil materials as described and specified below. All discovered or future filling or material reuse work onsite not in accordance or compliance with these notes, or any future adverse impacts or consequences resulting from the Contractors failure to properly reuse soil materials onsite as specifically described below, will be the Contractors sole responsibility for remedy and repair at his cost. If the Contractor has any questions regarding any of the soil materials onsite, the project Geotechnical reports (which he needs to obtain from the Owner/Geotechnical Consultant/ Engineer), or any questions associated with the notes below, it is presumed that the Contractor will satisfactorily resolve such questions/concerns prior to site demolition, clearing, grubbing, stripping and excavation operations begin.
Please note, local, state and federal rules, laws, and regulations prohibiting soil reuse as described below shall take precedence and shall be followed to the fullest extent.

1. Site Demolition Debris (Site demolition debris, not generally considered an environmental/contamination hazard, includes such items as wood pieces, concrete pieces, plastic pipe pieces,certain metal/steel pieces, or similar. If any such debris or other demolition debris is considered an environmental/contamination hazard, or if burial onsite of such materials is prohibited by the governing environmental agency, then all such materials shall be hauled off site by the Contractor for proper disposal, in accordance with all applicable governing environmental agency requirements. In no case shall any such debris materials remain, or be placed by the Contractor, beneath any type of structure, pavement, roadway, house, building, pipeline, slab, etc.)All Site Demolition Debris shall be removed from the site development and disposed of properly in accordance with all applicable governing environmental agency requirements.
2. Clearing and Grubbing Debris (Site clearing and grubbing debris includes all larger organic materials, such items as trees, stumps, limbs, brush, vegetation, or similar; all such materials must be either "burned" or "mulched" by the Contractor prior to reuse or disposal onsite,If acceptable to the governing environmental agency, then all such "burned" or "mulched" site clearing/grubbing debris, if approved in writing first by the Owner/Geotechnical Consultant/Engineer, could be:
    - 2.1.1. placed as "mulch" material surface dressing in future landscape areas, stockpiling of such "mulched" materials (amounts/locations), if acceptable, will be directed by the Owner/Geotechnical Consultant/Landscape Architect/Engineer;
    - 2.1.2. placed in temporarily excavated littoral shelf areas in selected stormwater ponds, or in temporarily excavated selected wetland mitigation ponds, in either case not in side banks and not below the permitted design depth of the pond, or such debris could be buried in temporarily excavated passive recreation/park areas (at least 30 feet from any structure) at approved depths/locations, but all these disposal areas will require adequate soil mixing (mix soil with the mulch) and then refilling (with compaction) to required design grades;
    - 2.1.3. placed along the bottom of selected floodplain mitigation ponds (not in side banks), not below the permitted excavation depth of the pond, but will require adequate soil cover;
    - 2.1.4. placed along the bottom of selected deeper stormwater ponds (not in side banks), not below the permitted design depth, but will require adequate soil cover.
    - 2.2. In all instances, the minimum pond depth (including floodplain and wetland mitigation areas) shall be no less than required by the Engineer.
    - 2.3. All organic debris burial areas in stormwater pond areas and floodplain mitigation pond areas will require adequate soil cover of 18 - 24 inches (with compaction) by the Contractor, meaning at least an adequate weight/thickness of soil material overtop the buried organic debris, such that there will be no future floating up of debris; and for all organic debris burial areas in littoral shelf areas, wetland mitigation pond areas, and passive recreation/park areas, adequate soil/mulch mixing (with compaction) will be necessary by the Contractor, such that no significant future unacceptable settlement of a littoral shelf area, created wetland area, or park/grassed area will occur. If any of these procedures are contemplated by the Contractor, then the Contractor shall notify the owner/Geotechnical Consultant/Engineer in writing, at the start of construction, with some specific information, including the estimated quantity and types of materials, to which stormwater ponds, floodplain mitigation ponds, wetland mitigation ponds, or passive recreation/park areas they propose to use for this type of organic debris disposal, and what approximate elevations will be the top and bottom of the organic debris.
3. Muck/Peat Organic Materials (Typically generated from wetland or lowland areas, or similar areas, permitted for impact or displacement, including excavation of unsuitable organic materials and refilling with suitable sandy soils to accommodate development; includes significant organic peat materials, organic sandy muck materials, and mucky or organic sand materials, designated either Pt or A-8, per the Unified and AASHTO Soil Classification Systems, respectively; those organic materials whose presence, or placement by the Contractor, is unacceptable beneath any type of structure, pavement, roadway, house, building, pipeline, slab, etc.) If acceptable to the governing environmental agency, then all such muck/peat (significant) organic materials, if approved in writing first by the Owner/Geotechnical Consultant/Engineer, could be:
    - 3.0.1. placed as "peat/muck/organic matter" surface layer in new or created wetland mitigation areas, stockpiling of such "significant organic" materials (amounts/locations), if acceptable, will be directed by the Owner/Wetland Consultant;
    - 3.0.2. placed in temporarily excavated littoral shelf areas in selected stormwater ponds, or in temporarily excavated selected wetland mitigation ponds, in either case not in side banks and not below the permitted design depth of the pond, or such organic materials could be buried in temporarily excavated passive recreation/park areas (at least 30 feet from any structure) at approved depths/locations, but all these disposal areas will require adequate soil mixing (mix soil with the organic materials) and then refilling (with compaction) to required design grades;
    - 3.0.3. placed along the bottom of selected floodplain mitigation ponds (not in side banks), not below the permitted excavation depth of the pond, but will require adequate soil cover;
    - 3.0.4. placed along the bottom of selected deeper stormwater ponds (not in side banks), not below the permitted design depth, but will require adequate soil cover.
    - 3.1. All organic debris burial areas in stormwater pond areas and floodplain mitigation pond areas will require adequate soil cover (with compaction) by the Contractor, meaning at least an adequate weight/thickness of soil material overtop the buried organic debris, such that there will be no future floating up of debris; and for all organic debris burial areas in littoral shelf areas, wetland mitigation pond areas, and passive recreation/park areas, adequate soil/organics mixing (with compaction) will be necessary by the Contractor, such that no significant future unacceptable settlement of a littoral shelf area, created wetland area, or park/grassed area will occur.
    - 3.2. If any of these procedures are contemplated by the Contractor, then the Contractor shall notify the Owner/Geotechnical Consultant/Engineer in writing, at the start of construction, with some specific information, including the estimated quantity and types of materials, to which stormwater ponds, floodplain mitigation ponds, wetland mitigation ponds, or passive recreation/park/landscape berm areas they propose to use for this type of organic material disposal, and what approximate elevations will be the top and bottom of the organic materials.
4. Topsoils/Site Strippings (Typically generated from upland areas, after demolition/clearing/grubbing/discing operations; stripping of surficial organics/topsoils being a requirement over at least all structure, building, concrete slab and pavement areas prior to filling to accomodate development; includes topsoils and organic laden sands; those topsoils/organic sand materials whose presence, or placement by the Contractor, is unacceptable beneath any type of structure, pavement, roadway, house, building, pipeline, slab, etc.)
    - 4.1. If acceptable to the governing environmental agency, all such topsoils/organic laden sand materials, if approved in writing first by the Owner/Geotechnical Consultant/Engineer, could be:
    - 4.1.1. placed as fill in new (larger) landscape/grass common areas or landscape berm areas (with compaction), stockpiling of such "topsoils/organic laden sand materials" (amounts/locations), if acceptable, will be directed by the Owner/Landscape Consultant;
    - 4.1.2. placed in temporarily excavated littoral shelf areas in selected stormwater ponds, or in temporarily excavated selected wetland mitigation ponds, in either case not in side banks and not below the permitted design depth of the pond, or such topsoils/organic laden sand materials could be buried in temporarily excavated passive recreation/park areas (at least 30 feet from any structure) at approved depths/locations, but all these disposal areas will require refilling (with compaction) to required design grades;
    - 4.1.3. placed along the bottom of selected floodplain mitigation ponds (not in side banks), not below the permitted excavation depth of the pond;
    - 4.1.4. placed along the bottom of selected deeper stormwater ponds (not in side banks), not below the permitted design depth.
    - 4.2. All topsoil/organic laden sand disposal areas in littoral shelf areas, wetland mitigation pond areas, passive recreation/park areas, or landscape/berm areas will require adequate compaction by the Contractor, such that no significant future unacceptable settlement of a littoral shelf area, created wetland area, park/grassed area, or landscape berm will occur.
    - 4.3. If any of these procedures are contemplated by the Contractor, then the Contractor shall notify the Owner/Geotechnical Consultant/Engineer in writing, at the start of construction, with some specific information, including the estimated quantity and types of materials, to which stormwater ponds, floodplain mitigation ponds, wetland mitigation ponds, passive recreation/park areas, or landscape berm areas they propose to use for this type of organic debris disposal, and what approximate elevations will be the top and bottom of the organic debris.
5. Non-Structural Clayey Sand/Clay Materials (Typically generated from pond/lake excavations or from utility pipeline/manhole excavations; such clayey sand/clay materials, with typically 40% fines or more passing the No. 200 sieve, designated either SC, CL, CH or A-4 to A-7 per the Unified and AASHTO Soil Classification Systems, respectively; such clayey sand/clay materials being unsuitable or unacceptable for reuse by the Contractor as building pad fill, structural fill, roadway embankment fill, and pipeline or manhole excavation backfill.)
    - 5.1. If acceptable to the governing environmental agency, all such clayey sand/clay materials, if approved in writing first by the Owner/Geotechnical Consultant/Engineer, could be: 5.11. placed as fill in new (larger) landscape/grass common areas or landscape berm areas (with compaction), provide some surface drainage relief, use where infiltration and drainage is not an important issue, provide some surface sandy soils (min. of 18-inches) as directed by the Landscape Consultant for planting; stockpiling of such "clayey sand/clay materials" (amounts/locations), if acceptable, will be directed by the Owner/Landscape Consultant;
    - 5.1.2. placed in temporarily excavated littoral shelf areas in selected stormwater ponds, or in temporarily excavated selected wetland mitigation ponds, in either case not in side banks and not below the permitted design depth of the pond, or such clayey sand/clay materials could be buried in temporarily excavated passive recreation/park areas (at least 30 feet from any structure) at approved depths/locations, but all these disposal areas will require refilling (with compaction) to required design grades, and then a 2 feet (min.) being sand materials (not clayey materials) for turbidity control and planting;
    - 5.1.3. placed along the bottom of selected floodplain mitigation ponds (not in side banks), not below the permitted excavation depth of the pond, however, a 12-inch layer (min.) of sand material overtop the clayey materials will be necessary for turbidity control.
    - 5.1.4. placed along the bottom of selected deeper stormwater ponds (not in side banks), not below the permitted design depth, however, a 12-inch layer (min.) of sand material overtop the clayey materials will be necessary for turbidity control.
    - 5.2. All clayey sand/clay disposal areas in littoral shelf areas, wetland mitigation pond areas, passive recreation/park areas, or landscape/berm areas will require adequate compaction by the Contractor, such that no significant future unacceptable settlement of a littoral shelf area, created wetland area, park/grassed area, or landscape berm will occur. 5.3. If any of these procedures are contemplated by the Contractor, then the Contractor shall notify the Owner/Geotechnical Consultant/Engineer in writing, at the start of construction, with some specific information, including the estimated quantity and types of materials, to which stormwater ponds, floodplain mitigation ponds, wetland mitigation ponds, passive recreation/park areas, or landscape berm areas they propose to use for this type of clayey sand/clay disposal area, and what approximate elevations will be the top and bottom of the clayey materials.
6. Structural Sand Fill Materials (Typically generated from pond/lake excavations, cut from higher elevation areas, or from utility pipeline/manhole excavations; such sand materials, with typically 35% fines or less passing the No. 200 sieve, designated either SP, SP-SM, SM or A-2-4, A-2-6 or A-3, per the Unified and AASHTO Soil Classification Systems, respectively; such sand materials being suitable or acceptable for reuse by the Contractor as building pad fill, structural fill, roadway embankment fill, and pipeline or manhole excavation backfill.)
    - 6.1. All such sand materials shall be reused onsite by the Contractor, per the Geotechnical reports, as building pad fill, structural fill, roadway embankment fill, and pipeline or manhole excavation backfill; placed by the Contractor in loose lifts not exceeding 12-inches, compacted to at least 95% or 98% modified Proctor (per ASTM D-1557 or AASHTO T-180), whichever is applicable depending upon the future use of the filled area (see Geotechnical reports); with density testing of each fill lift for acceptance by the Geotechnical Consultant, upon Contractor request, prior to the next fill lift being placed.

SURVEY DATA:
Boundary survey, topographic survey, tree survey, improvement location and associated survey work shown hereon and used for design purposes is based upon information provided by FLORIDA DESIGN CONSULTANTS, INC., Job Number 0533-0003. Clearview Land Design, P.L. has reviewed, but not verified the data provided. This data is the basis for design and Clearview Land Design, P.L. makes no certifications or representations as to the accuracy of the survey data.

GEOTECHNICAL REPORT:
THESE PLANS REFERENCE THE REPORT OF GEOTECHNICAL ENGINEERING EVALUATION (FES PROJECT NO. 19-4423), DATED SEPTEMBER 27, 2019 PREPARED BY FAULKNER ENGINEERING SERVICES, INC. AVAILABLE UPON REQUEST.

LEGAL DESCRIPTION:
SEE PRELIMINARY DEVELOPMENT PLAN

NOTE: CONTRACTOR SHALL INSPECT EROSION CONTROL DAILY (INCLUDING BUT NOT LIMITED TO TYPICAL OUTFALLS). CORRECTIVE ACTION SHALL BE TAKEN IMMEDIATELY TO REPAIR OR REPLACE AS NEEDED.

ESTIMATED EARTHWORK QUANTITIES (UNADJUSTED)*:

VOLUME:

CUT 15 CY
FILL 15 CY
NET 0 CY

SITE IS MASS GRADED UNDER PREVIOUS APPROVAL

*PROVIDED AS AN ESTIMATE PER PASCO COUNTY REQUIREMENTS - NOT INTENDED AS A BID QUANTITY

DATE	DESCRIPTION	BY
10-07-2019	UPDATE GEOTECH. REPORT INFO.	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

GENERAL NOTES

JOB NO.	LNH-MR-014
DESIGN	MELVIN
DRAWN	DROOR
DATE	10-07-2019
FILE	GN

MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

PREPARED FOR: LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\GN.DWG--2 GENERAL NOTES 2019/10/07 10:34 AM BRENT MELVIN

WCA 7
44.43 AC TOTAL
Cat I

EXISTING POND 30A

HOUNDSTOOTH ENCLAVE DRIVE

HOUNDSTOOTH ENCLAVE DRIVE

LEGEND PASTURE ROAD

DRUID OAKS LANE

YELLOWHAMMER WAY

COACH MANORS WAY

GRIDIRON GARDENS ISLE

CAMPUS WOODS WAY

CAMPUS WOODS WAY

EXISTING POND 20A

EXISTING POND 40C

PHASE 2

EXISTING POND 40A

WINNING FIELDS ROAD

AMENITY CENTER (MAIL KIOSK) TO BE SUBMITTED UNDER SEPARATE PLANS

WCA 3
4.16 AC
Cat III

EXISTING POND 20B

YELLOWHAMMER WAY

CAPSTONE RANCH DRIVE

CAPSTONE RANCH DRIVE

TOUCHDOWN POINT

EXISTING POND 40B

WCA 17
0.72 AC
Cat III

WCA 18
8.31 AC TOTAL
Cat II

EXISTING BASIN C MITIGATION AREA

EXISTING BASIN C STORMWATER POND

PHASE 3
(NOT IN SCOPE)

PHASE 1
(NOT IN SCOPE)

N

200 100 0 100 200

SCALE: 1" = 100'

DATE OF PHOTOGRAPH: 2017

FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE

IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

PONDS SHOWN AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. THIS WORK IS TO BE COMPLETED UNDER THE CONTRACT FOR THESE CONSTRUCTION PLANS. ROADS, STORMWATER COLLECTION, UTILITIES AND SERVICES SHOWN AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY UNDER PERMIT PSP17-004, DATED JULY 6, 2017 AND ARE SHOWN ON THE PLANS DATED FEBRUARY 2017 TITLED "MITCHELL 54 WEST MASTER INFRASTRUCTURE" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. REFER TO THE CURRENT PLANS BY REGENCY DESIGN & ENGINEERING, INC. FOR ANY MODIFICATIONS TO THE PREVIOUSLY PERMITTED DESIGN.

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\ASP.DWG-AERIAL SITE PLAN 2019/10/07 10:34 AM BRENT MELVIN

DATE	DESCRIPTION	BY
10-07-2019	CLARIFY PHASES LIMITS	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
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DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

AERIAL SITE PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE ASP	SHEET 3 OF 45 SHEETS

NEIGHBORHOOD PARK SUMMARY

PARK AREA REQ'D: 2.85 AC.

- PHASE 1 LOTS: 25
- PHASE 2 LOTS: 260

TOTAL LOTS 285 X 0.01 AC/UNIT = 2.85 AC.

PARK AREA PROVIDED: 10.18 AC.

- NH PARK NO. #1: 2.64 (Tracts C-1/B-3, PHASE 1)
- NH PARK NO. #2: 0.87 AC. (TRACT P-1)
- NH PARK NO. #3: 1.04 AC. (TRACT B-2)
- NH PARK NO. #4: 1.34 AC. (TRACT B-5)
- NH PARK NO. #6: 4.29 AC. (TRACT B-6)

TOTAL NH PARK AREA PROVIDED: 10.18 AC.

LEGEND

▬ ▬ ▬	R/W LINE
10' U.E.	UTILITY EASEMENT
SWFWL	WETLAND LINE
25'O.S.	25' OFFSET FROM WETLAND LINE
WCA 108	WETLAND CONSERVATION AREA
(Ac.)	
Cat III	PASCO WETLAND CATEGORY
	WETLAND AREAS
	PREVIOUSLY COMPLETED WETLAND IMPACTS
	PROJECT PHASE LINE
	5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
◇	5' DRAINAGE & ACCESS EASEMENT REQUIRED WHERE SHOWN.
▨	AREAS NOT WITHIN PHASE 2 SCOPE.

INDEX TO MAP COVERAGE

DATE	DESCRIPTION	BY
10-07-2019	ADDED SHEET	BEM

REVISIONS

Clearview
LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

SITE MAP

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE SITEMAP	**SHEET 3A OF 45 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\SITEMAP.DWG–3A SITE MAP 2019/10/07 10:35 AM BRENT MELVIN

PAVEMENT CONSTRUCTION NOTES (CRUSHED CONCRETE)

1. PAVEMENT WEARING SURFACE SHALL BE ASPHALTIC CONCRETE OF TYPE AND THICKNESS SHOWN IN DETAIL AND SHALL MEET CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) SPECIFICATIONS.
2. PAVEMENT BASE SHALL BE CRUSHED CONCRETE, AS DESIGNATED IN PLANS, AND SHALL BE COMPACTED TO A MINIMUM THICKNESS AS SHOWN.
3. CRUSHED CONCRETE ROAD BASE MATERIAL SHALL MEET THE FOLLOWING CONDITIONS:

   THE WORK SPECIFIED UNDER THIS SECTION CONSISTS OF THE CONSTRUCTION OF ROADWAY BASE UTILIZING CRUSHED CONCRETE (RECLAIMED CONCRETE AGGREGATE BASE MATERIAL) ON A PREPARED STABILIZED SUBGRADE OF LBR 40 WITH A DENSITY OF 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY AS DETERMINED BY FM1-T 180, METHOD D, IN CONFORMITY WITH THE LINES, GRADES NOTES AND TYPICAL CROSS SECTIONS SHOWN IN THE PLANS, AND AS DIRECTED BY THE COUNTY ENGINEER.

   THE CONSTRUCTION OF CRUSHED CONCRETE BASE SHALL CONFORM TO THE REQUIREMENTS OF THIS SECTION, OR, IN LIEU THEREOF, SUCH REQUIREMENTS AS MAY BE ESTABLISHED BY THE COUNTY ENGINEER DURING CONSTRUCTION. THE COUNTY ENGINEER SHALL HAVE FULL AUTHORITY TO MODIFY THE PROVISIONS OF THIS SECTION AS DEEMED NECESSARY, IN HIS OPINION, TO MEET FIELD CONDITIONS AND REQUIREMENTS.

3.1. MATERIALS

3.1.1. CRUSHED CONCRETE MUST BE PRODUCED FROM A SOURCE APPROVED BY FLORIDA DEPARTMENT OF TRANSPORTATION OR THE COUNTY ENGINEER. THE SUPPLIER SHALL HAVE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) PERMIT REQUIREMENTS SECTION 62-701.730 OR BE QUALIFIED AS A CLEAN DEBRIS SOURCE UNDER DEP RULES. THE RECLAIMED CONCRETE AGGREGATE BASE SHALL CONSIST OF CRUSHED CONCRETE MATERIAL DERIVED FROM THE CRUSHING OF HARD PORTLAND CEMENT CONCRETE.

3.2. COMPOSITION

3.2.1. BASE MATERIAL SHALL CONFORM TO THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE SIZE	% BY WEIGHT PASSING
2 INCH	100
3/4 INCH	65 TO 95
3/8 INCH	40 TO 85
NO. 4	25 TO 65
NO. 10	20 TO 50
NO. 50	5 TO 25
NO. 200	0 TO 10

3.2.2. CRUSHED CONCRETE BASE SHALL NOT CONTAIN PLASTIC SOILS SUCH THAT THE NO. 40 SIEVE MATERIAL SHALL BE NON-PLASTIC.

3.2.3. LIQUID LIMIT (AS DETERMINED BY AASHTO T80) (LESS THAN 25) PER MATERIAL TYPE

3.2.4. THE FINISHED IN-PLACE CRUSHED CONCRETE BASE LIMEROCK BEARING RATIO SHALL HAVE A MINIMUM (LBR) OF 150.

3.2.5. CRUSHED CONCRETE BASE SHALL BE FREE OF ALL MATERIALS THAT FALL UNDER THE CATEGORY OF SOLID WASTE OR HAZARD MATERIALS AS DEFINED BY THE STATE OR LOCAL JURISDICTION AND SHALL MEET ALL DEP PERMIT REQUIREMENTS WHICH PERTAIN TO CONSTRUCTION, DEMOLITION AND RECYCLING OF THESE MATERIALS. CRUSHED CONCRETE BASE SHALL BE ASBESTOS FREE. THE FOLLOWING LIMITS SHALL NOT BE EXCEEDED:

BITUMINOUS CONCRETE	1.0% BY WEIGHT
BRICKS	1.0% BY WEIGHT
WOOD & OTHER ORGANIC SUBSTANCES	0.5% BY WEIGHT
HEAVY METALS (EXCEPT LEAD)	0.1% BY WEIGHT
LEAD	5 PARTS PER MILLION
REINFORCED STEEL AND WELDED FABRIC	0.1% BY WEIGHT
PLASTER AND GYPSUM BOARD	0.1% BY WEIGHT

3.2.6. THE MATERIAL FOR CRUSHED CONCRETE BASE SHALL CONSIST ONLY OF CRUSHED CONCRETE PAVEMENT AND SUCH ADDITIVE MATERIAL AS MAY BE APPROVED BY THE COUNTY ENGINEER FOR THE PURPOSE OF FACILITATING CONSTRUCTION AND ACHIEVING THE DESIRED CHARACTERISTICS OF THE FINISHED IN-PLACED PRODUCT. APPROVAL FROM THE COUNTY ENGINEER IS REQUIRED BEFORE PLACING MATERIAL FROM MORE THAN ONE SOURCE. ONCE APPROVED, A CHANGE IN THE SOURCE OF BASE MATERIAL SHALL REQUIRE ADDITIONAL ACCEPTANCE TESTING. THE MATERIAL SHALL NOT CONTAIN LUMPS, BALLS OR POCKETS OF SAND OR CLAY MATERIAL IN SIZE OR QUANTITY SUFFICIENT TO BE DETRIMENTAL TO THE PROPER BONDING, FINISHING, STRENGTH OF THE CONCRETE BASE. EXISTING BASE IS TO BE REMOVED TO CONSTRUCT THE NEW BASE.

3.3. EQUIPMENT, PLACEMENT AND SPREADING OF MATERIAL

3.3.1. USE MECHANICAL ROCK SPREADERS, EQUIPPED WITH A DEVICE THAT STRIKES OFF THE ROCK UNIFORMLY TO LAYING THICKNESS AND CAPABLE OF PRODUCING EVEN DISTRIBUTION. FOR ROADWAY WIDTHS OF 20 FEET OR LESS, CROSSOVERS, INTERSECTIONS, RAMP AREAS OR WHERE THE USE OF A MECHANICAL SPREADER IS NOT PRACTICABLE; THE CONTRACTOR MAY SPREAD THE CRUSHED CONCRETE BASE USING BULLDOZERS OR BLADE GRADERS.

3.3.2. TRANSPORT CRUSHED CONCRETE TO THE POINT OF USE, OVER THE BASE PREVIOUSLY PLACED, AND DUMP IT ON THE END OF THE PRECEDING SPREAD. HAULING ON SUBGRADE TO DUMP CRUSHED CONCRETE BASE WILL BE PERMITTED ONLY WHEN, IN THE ENGINEER'S OPINION, THESE OPERATIONS WILL NOT BE DETRIMENTAL TO THE BASE AND SUBGRADE.

3.3.3. CRUSHED CONCRETE SHALL BE SPREAD UNIFORMLY WITHOUT SEGREGATION OF FINE OR COURSE MATERIALS. SEGREGATED AREAS SHALL BE REPLACED WITH PROPERLY GRADED CRUSHED CONCRETE AFTER REMOVAL.

3.3.4. THE MINIMUM THICKNESS OF THE CRUSHED CONCRETE BASE SHALL BE INDICATED ON THE PLANS. WHEN THE SPECIFIED COMPACTED THICKNESS OF THE CRUSHED CONCRETE BASE IS GREATER THAN SIX INCHES, CONSTRUCT THE BASE IN MULTIPLE COURSES OF EQUAL THICKNESS. INDIVIDUAL COURSES SHALL NOT BE LESS THAN THREE INCHES. PLACE CRUSHED CONCRETE MATERIAL TO ENSURE THE TOTAL THICKNESS SINGLE SOURCE INTEGRITY AT ANY STATION LOCATION OF THE BASE.

3.4. COMPACTING, FINISHING AND TESTING REQUIREMENTS

3.4.1. AFTER SPREADING IS COMPLETED THE CRUSHED CONCRETE SHALL BE UNIFORMLY COMPACTED, WITH WATER BEING ADDED AS REQUIRED TO A DENSITY OF NOT LESS THAN ONE HUNDRED PERCENT (100%) OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180. DURING FINAL COMPACTION OPERATIONS, IF THE BLADING OF ANY AREAS IS NECESSARY TO OBTAIN THE TRUE GRADE AND CROSS SECTION, FREE OF SCABS AND LAMINATIONS, THE COMPACTING OPERATIONS FOR SUCH AREAS SHALL BE COMPLETED PRIOR TO THE PERFORMANCE OF DENSITY TESTS ON THE FINISHED BASE.

3.4.2. MULTIPLE COURSE BASE: CLEAN THE FIRST COURSE OF FOREIGN MATERIAL, THEN BLADE AND BRING IT TO A SURFACE CROSS-SECTION APPROXIMATELY PARALLEL TO THE FINISHED BASE. BEFORE SPREADING ANY MATERIAL FOR THE UPPER COURSES, OBTAIN DENSITY TESTS FOR THE LOWER COURSES TO DETERMINE THAT THE REQUIRED COMPACTION (NOT LESS THAN ONE HUNDRED PERCENT (100%) OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 HAS BEEN OBTAINED. AFTER SPREADING THE CRUSHED CONCRETE FOR THE TOP COURSE, FINISH AND SHAPE ITS SURFACE TO PRODUCE THE REQUIRED GRADE AND CROSS-SECTION, FREE OF SCABS AND LAMINATIONS, AFTER COMPACTION.

3.4.3. THE MINIMUM DENSITY THAT WILL BE ACCEPTED AT ANY LOCATION OUTSIDE THE TRAVELED ROADWAY (SUCH AS INTERSECTIONS, CROSSOVERS, TURNOUTS, ETC.) SHALL BE 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

3.5. TESTING OF BASE COURSE

3.5.1. THE MINIMUM FREQUENCY OF SAMPLING AND TESTING OF CRUSHED CONCRETE MATERIAL, LAB DENSITY, FIELD DENSITY AND THICKNESS SHALL ADHERE TO THE FREQUENCY OF TESTING FOR LIMEROCK BASE IN THE MOST CURRENT EDITION OF "PASCO COUNTY ENGINEERING SERVICES DEPARTMENT TESTING SPECIFICATIONS FOR CONSTRUCTION OF ROADS, STORM DRAINAGE AND UTILITIES". ONE PLANT MIX DESIGN, ONE PLANT GRADATION TEST FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES (AASHTO T-27) (FM1-T027) INCLUDING A PLASTICITY INDEX (FM1-T090) (AASHTO T-90) FROM THE APPROVED SOURCE SHALL BE SUBMITTED AT ONE PER DAY OR CHANGE OF MATERIAL. ONE ROADWAY FIELD TEST FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES (ASTM C-136) SHALL BE SUBMITTED PER 500 FEET OF ROAD PER DAY PER MIX DESIGN; MINIMUM ONE PER ROAD.

3.5.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING PERFORMED IN CONNECTION WITH CONSTRUCTION OF THE BASE.

3.6. CORRECTION OF DEFECTS

3.6.1. ALL SEGREGATED AREAS OF FINE OR COURSE CRUSHED CONCRETE SHALL BE REMOVED AND REPLACED WITH PROPERLY GRADED RECLAIMED CONCRETE AGGREGATE BASE MATERIAL. ALL DEFECTS IN MATERIALS AND CONSTRUCTION SHALL BE CORRECTED BY THE CONTRACTOR, AT HIS EXPENSE, AND TO THE SATISFACTION OF THE COUNTY ENGINEER.

3.7. PRIMING AND MAINTENANCE

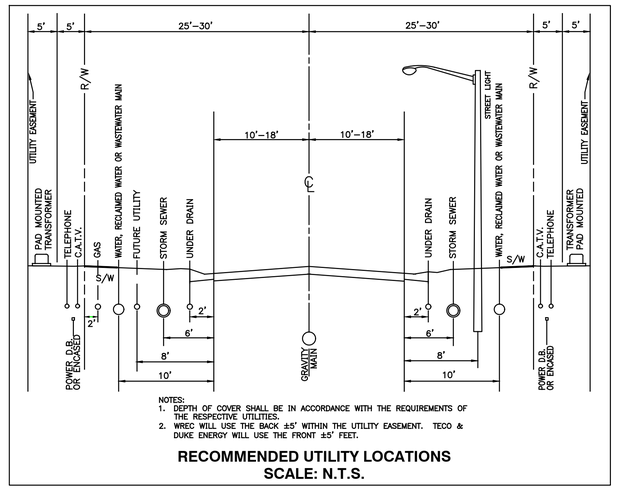
3.7.1. APPLY THE PRIME COAT ONLY WHEN THE BASE MEETS THE SPECIFIED DENSITY REQUIREMENTS AND WHEN THE MOISTURE CONTENT. AT THE TIME OF PRIMING, ENSURE THAT THE BASE IS FIRM, UNYIELDING AND IN SUCH CONDITION THAT NO UNDUE DISTORTION WILL OCCUR. MAINTAIN THE TRUE CROWN AND TEMPLATE, WITH NO RUTTING OR DISTORTION, WHILE APPLYING THE SURFACE COURSE.

3.8. PASCO COUNTY TESTING SPECIFICATIONS ON CRUSHED CONCRETE BASE

3.8.1. TESTS FOR BASE THICKNESS, AND DENSITY SHALL BE LOCATED NO MORE THAN THREE HUNDRED (300) FEET APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT, AND ON THE CENTERLINE OF ROADWAY. THERE SHALL BE NO LESS THAN ONE (1) TEST PER STREET. BEARING VALUE, GRADATION AND FIELD TEST FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES (ASTM C-136) SHALL BE NO MORE THAN FIVE HUNDRED (500) FEET.

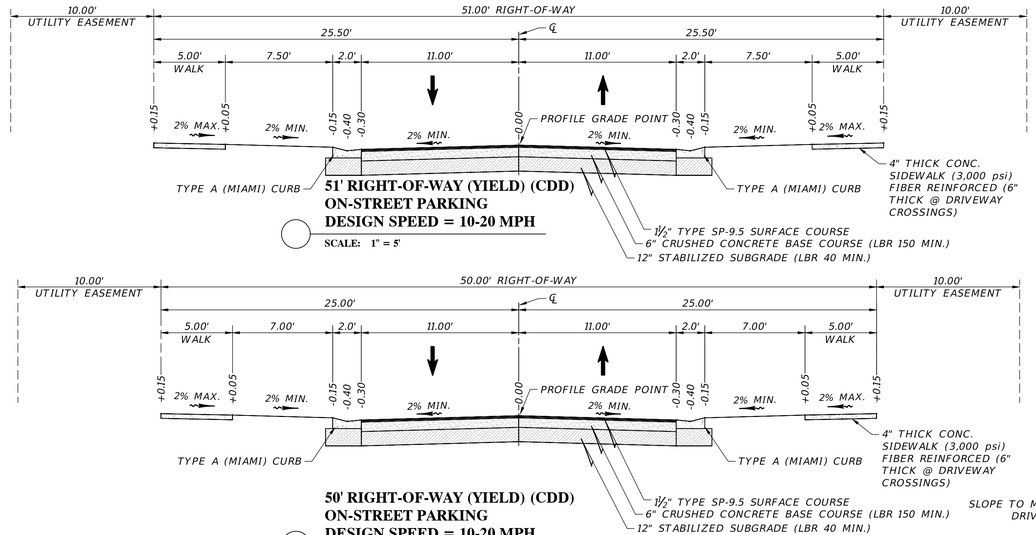
3.8.2. EXAMPLE: A SEVEN HUNDRED FEET ROAD WOULD REQUIRE TWO FIELD LBR AND GRADATION TESTS, THREE FIELD DENSITY AND THICKNESS TESTS ALONG WITH THE APPROPRIATE LAB TESTING.

4. SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH FDOT INDEX NO. 505, LATEST EDITION. EMBANKMENT FILLS OR NATURAL SANDS TO 24-INCHES BELOW THE BOTTOM OF THE PAVEMENT BASE (IF NO STABILIZED SUBGRADE); OR TO 24-INCHES BELOW THE BOTTOM OF STABILIZED SUBGRADE, SHALL BE SANDY SOILS (A-3 OR SP/SP-SM) WITH TYPICALLY 15% FINES OR LESS PASSING THE NO. 200 SIEVE.
5. A TYPE "B" STABILIZED SUBGRADE WITH A MINIMUM LBR OF 40 AND TESTED AT A FREQUENCY REQUIRED BY FDOT IS REQUIRED BENEATH CRUSHED CONCRETE BASE COURSES.
6. SUBGRADE UNDER A CRUSHED CONCRETE BASE SHALL BE PROOF-ROLLED TO GRADE, AS DIRECTED AND APPROVED BY THE ENGINEER WITH SUITABLE COMPACTION EQUIPMENT TO ACHIEVE A MINIMUM DENSITY OF NINETY-EIGHT (98) PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T-180 FOR A MINIMUM DEPTH OF TWELVE (12) INCHES.
7. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF ANY BASE MATERIAL.
8. THE BASE COURSE SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF ANY ASPHALT MATERIAL
9. CRUSHED CONCRETE SURFACE SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO ANY PAVING OPERATION.
10. ALL CURBS AND GUTTERS SHALL BE PLACED ON A FOUNDATION OF TYPE "B" STABILIZED SUBGRADE WITH A MINIMUM LBR OF 40 AND WHICH HAS BEEN COMPACTED TO A MINIMUM DENSITY OF NINETY-EIGHT (98) PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY AASHTO T 180 FOR A MINIMUM DEPTH OF TWELVE (12) INCHES.
11. ROADWAY UNDERDRAIN HAS BEEN LOCATED ON THESE PLANS TO MEET THE MINIMUM STANDARDS OF PASCO COUNTY PRIOR TO CURB CONSTRUCTION, THE GEOTECHNICAL ENGINEER SHALL REVIEW THE PREDESIGN BORINGS AND, ALONG WITH THEIR FIELD INSPECTION, MAKE A RECOMMENDATION REGARDING ADDITIONAL UNDERDRAIN REQUIREMENTS.
12. SHOULD NO UNDERDRAIN BE SPECIFIED ON THE PLANS THE CONTRACTOR IS TO INCLUDE 1,000 LINEAR FEET OF UNDERDRAIN AT UNIT PRICES FOR BID PURPOSES.
13. ALL PORTLAND CEMENT CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I. UNLESS OTHERWISE SPECIFIED.



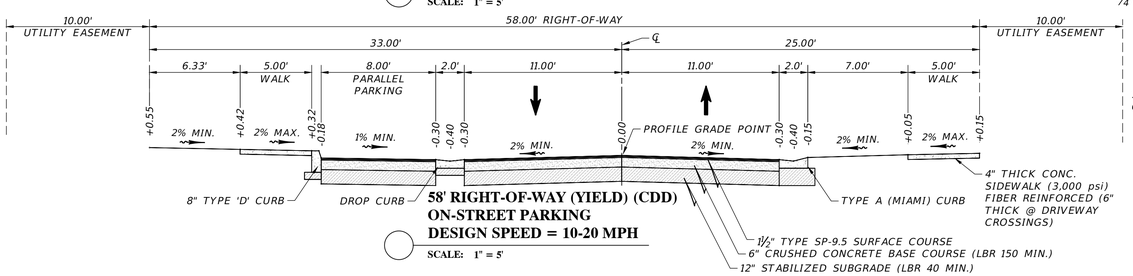
NOTES:
1. DEPTH OF COVER SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RESPECTIVE UTILITIES.
2. WREC WILL USE THE BACK ±5' WITHIN THE UTILITY EASEMENT. TECO & DUKE ENERGY WILL USE THE FRONT ±5' FEET.

RECOMMENDED UTILITY LOCATIONS
SCALE: N.T.S.

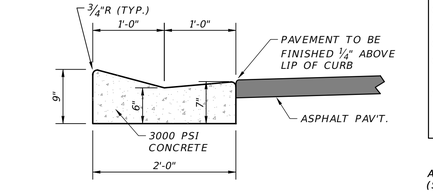


51' RIGHT-OF-WAY (YIELD) (CDD)
ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'

50' RIGHT-OF-WAY (YIELD) (CDD)
ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'

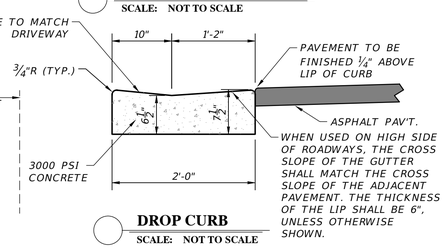


58' RIGHT-OF-WAY (YIELD) (CDD)
ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'

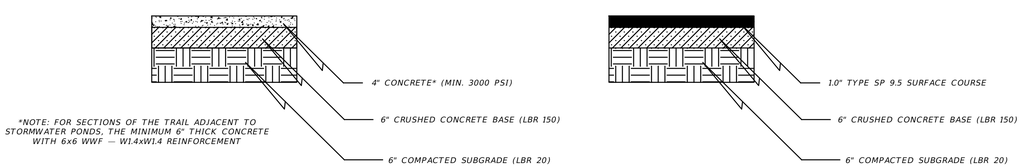


TYPE "D" CURB
SCALE: NOT TO SCALE

TYPE "A" CURB
SCALE: NOT TO SCALE



DROP CURB
SCALE: NOT TO SCALE



MULTI-USE TRAIL CONCRETE PAVEMENT
- NO SCALE -

MULTI-USE TRAIL ASPHALT PAVEMENT
- NO SCALE -

Proposed Pavement Structure (All LOCAL ROADS - Type 2, 3 & 4) (YIELD):

Layer Coefficients	Thickness
0.44 - Type SP-9.5 Asphalt Surface	1 1/2"
0.15 - Crushed Concrete Base (LBR 150 min.)	6"
0.08 - Stabilized Subgrade (LBR 40 min.)	12"

SN = (0.44) (1.50) + (0.15) (6) + (0.08) (12) = 2.52

Use: 6" Crushed Concrete Base with 1 1/2" Type SP-9.5 Asphalt Surface and 12" Stabilized Subgrade (LBR 40 Min)

Alternate Pavement Structure (All LOCAL ROADS - Type 2, 3 & 4) (YIELD):

Layer Coefficients	Thickness
0.44 - Type SP-9.5 Asphalt Surface Course	1 1/2"
0.15 - Soil Cement Base Course (300 p.s.i. min.)	8"
0.04 - Compacted Subgrade (LBR 20)	12"

SN = (0.44) (1.50) + (0.15) (8) + (0.04) (12) = 2.34

Use: 8" Soil Cement Base with 1 1/2" Type SP-9.5 Asphalt Surface Course and 12" Stabilized Subgrade (LBR 20)

Proposed Pavement Structure for TYPE 1 STREET

Layer Coefficients	Thickness
0.44 - Type FC-9.5 Friction Course	1"
0.44 - Type SP-12.5 Surface Course	2"
0.15 - Crushed Concrete Base (LBR 150 min.)	10"
0.08 - Stabilized Subgrade (LBR 40 min.)	12"

SN = (0.44) (1) + (0.44) (2) + (0.15) (10) + (0.08) (12) = 3.78

Alternate Pavement Structure for TYPE 1 STREET

Layer Coefficients	Thickness
0.44 - Type FC-9.5 Friction Course	1"
0.44 - Type SP-12.5 Surface Course	2"
0.15 - Soil Cement Base (300 p.s.i. min.)	12"
0.04 - Compacted Subgrade (LBR 20)	12"

SN = (0.44) (1) + (0.44) (2.5) + (0.15) (12) + (0.04) (12) = 3.82

ALTERNATE PAVEMENT CONSTRUCTION NOTES (SOIL CEMENT)

1. SUBGRADE UNDER A SOIL-CEMENT BASE SHALL BE PROOF-ROLLED TO GRADE, AS DIRECTED BY THE ENGINEER AND APPROVED BY THE ENGINEER WITH SUITABLE COMPACTION EQUIPMENT TO ACHIEVE A DENSITY OF NINETY-EIGHT (98%) PERCENT MODIFIED PROCTOR FOR A DEPTH OF TWELVE (12) INCHES PRIOR TO PLACING SOIL-CEMENT BASE.
2. SOIL-CEMENT MIX DESIGN SHALL BE PROVIDED A MINIMUM 30 DAYS IN ADVANCE OF PLACEMENT OF BASE MATERIAL FOR APPROVAL BY THE ENGINEER. THE SOIL-CEMENT PRODUCT SHALL BE IN ACCORDANCE WITH PCA STANDARDS. 300 P.S.I. MINIMUM.
3. SOIL-CEMENT SURFACE SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO ANY PAVING OPERATION.

CONTRACTOR MAY PROPOSE ALTERNATE PAVEMENT DESIGNS. CONTRACTOR SHALL SUBMIT ANY PAVEMENT ALTERNATIVES TO ENGINEER FOR APPROVAL PRIOR TO FINAL SUBGRADE PREPARATIONS.

PASCO COUNTY PAVEMENT DESIGN CRITERIA

MINIMUM SN*	ROADWAY CLASSIFICATION
2.34	LOCAL
3.50	TYPE 1
3.50	SUBDIVISION COLLECTOR

* PASCO COUNTY LDC SECTION 901

GRASSING NOTES:

- *16" STRIP OF SOD REQUIRED ON ALL BACK OF CURBS*
- *REMAINING GRASS AREAS WITHIN R/W MAY BE SEEDED AND MULCHED ON SLOPES FLATTER THAN 4:1*

ALL CLEAR ZONES SHALL BE FREE OF ANY OBSTRUCTIONS. SEE CLEAR ZONE WIDTHS PER PASCO COUNTY LDC 901.6(D)(6) IN THE FOLLOWING TABLE:

STREET TYPE	FDOT TYPE F & D CURB	FDOT TYPE A, E, & MIAMI CURB
2	4'	6'
3	4'	6'
4	1 1/2"	6'

1. FOR PRIVATE STREETS, ENTRANCE AND EXIT GATE EQUIPMENT, GUARDHOUSE, OR OTHER LIKE STRUCTURE MAY BE SET BACK ½ FEET FROM THE FDOT TYPE F AND D CURB.
2. WIDTHS IN ABOVE CHART ARE MEASURED FROM FACE OF BARRIER CURB OR EDGE OF PAVEMENT IF NO BARRIER CURB PROVIDED.

DATE	DESCRIPTION	BY
10-07-2019	ADD DROP CURB DETAIL, SIDEWALK NOTE	JRD
08-07-2019	ADD MULTI-USE TRAIL PAVEMENT OPTIONS PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

TYPICAL ROADWAY SECTIONS

JOB NO.	LNH-MR-014
DESIGN	MELVIN
DRAWN	DROOR
DATE	10-07-2019
FILE	RS

MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

PREPARED FOR: LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

FUTURE PHASE 10
(NOT IN SCOPE)

SWFWMD PROJECT LIMITS ±35.90 Ac.

M & M ROUTE 54 WEST, LLC

NO WETLAND IMPACTS ARE PROPOSED IN THIS PLAN

PHASE 2

FUTURE PHASE 3
(NOT IN SCOPE)

PHASE 1
(NOT IN SCOPE)

HOUNDSTOOTH ENCLAVE DRIVE

BEAR LANDING WAY

DRUID OAKS LANE

CAMPUS WOODS WAY

YELLOWHAMMER WAY

COACH MANORS WAY

GRIDIRON GARDENS ISLE

WINNING FIELDS ROAD

CAPSTONE RANCH DRIVE

LONGLEAF PINE POINT

LEGEND PASTURE ROAD

RETAINING WALL

FUTURE AMENITY CENTER

AREA PREVIOUSLY MASS GRADED, SEE REGENCY PLANS

EXISTING POND 30A
TOP=29.5
DHW100=28.5
DHW25=27.6
CE/SHW=24.70

EXISTING POND 40C
TOP=28.5
DHW100=27.6
DHW25=26.9
CE/SHW=24.50

EXISTING POND 40A
TOP=30.5
DHW100=30.0
DHW25=29.1
CE/SHW=25.58

EXISTING POND 40B
TOP=28.5
DHW100=28.1
DHW25=27.2
CE/SHW=24.00

EXISTING POND 20A
TOP=30.0
DHW100=29.2
DHW25=28.9
CE/SHW=26.63

EXISTING POND 20B
TOP=30.0
DHW100=28.7
DHW25=28.3
CE/SHW=26.63

EXISTING BASIN C MITIGATION AREA
TOP=VARIES*
SHWT=24.5
*(28.0 – 29.0 ALONG NORTH BOUNDARY)

EXISTING BASIN C POND
TOP=28.0
DHW=27.8
DLW=26.0
SHWT=25.5

PASCO COUNTY DISTRICT SCHOOL BOARD

TRINITY COLLEGE OF FLORIDA, INC.

TBM #6221

TBM #6220

TBM #6219

WCA 7
44.28 AC TOTAL
Cat I

WCA 5
0.44 AC
Cat III

WCA 4
1.62 AC
Cat III

WCA 3
4.16 AC
Cat III

WCA 18
8.31 AC TOTAL
Cat II

WCA 17
3.72 AC
Cat III

WCA 7
44.43 AC TOTAL
Cat I

SEE SHEET 11 FOR EXISTING DRAINAGE STRUCTURE DATA

THE EXISTING TOPOGRAPHY SHOWN IN THESE PLANS REPRESENTS THE ORIGINAL TOPOGRAPHY OF THE PROJECT SITE AS PER THE SURVEY DATA PROVIDED BY REGENCY DESIGN, PRIOR TO THE MASS GRADING OPERATION. THE CONTRACTOR/OWNER SHALL PROVIDE UPDATED TOPOGRAPHY OF THE PROJECT SITE FOR CONSTRUCTION BID PURPOSES

WETLAND IMPACTS PREVIOUSLY PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND SWFWMD PERMIT NO. 43013055.007 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC.

PONDS SHOWN AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. THIS WORK IS TO BE COMPLETED UNDER THE CONTRACT FOR THESE CONSTRUCTION PLANS. ROADS, STORMWATER COLLECTION, UTILITIES AND SERVICES SHOWN HERE AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY UNDER PERMIT PSP17-004, DATED JULY 6, 2017 AND ARE SHOWN ON THE PLANS DATED FEBRUARY 2017 TITLED ("MITCHELL 54 WEST MASTER INFRASTRUCTURE") PREPARED BY REGENCY DESIGN & ENGINEERING, INC. REFER TO THE CURRENT PLANS BY REGENCY DESIGN & ENGINEERING, INC. FOR ANY MODIFICATIONS TO THE PREVIOUSLY PERMITTED DESIGN.

1. Elevations refer to the North American Vertical Datum of 1988 (NAVD88).
2. This site appears to lie within flood zones "A", "AE", and "X" according to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel 120230 0360 F Map No. 12101C0360F (Dated September 26, 2014)

200 100 0 100 200

SCALE: 1" = 100'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
10	10	STRUCTURE NO.
+62.9	65.00	SPOT ELEVATION
	65.00	PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
	10	PLAN & PROFILE SHEET NO. REFERENCE
	RA-#	ROADWAY AUGER LOCATION
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

DATE	DESCRIPTION	BY
10-07-2019	REMOVE 84B,332A,&332B; ADD 311A,334A 334B,334; RENUM. 335-337	BEM
08-07-2019	PERMIT PLANS	JRD
	REVISIONS	

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

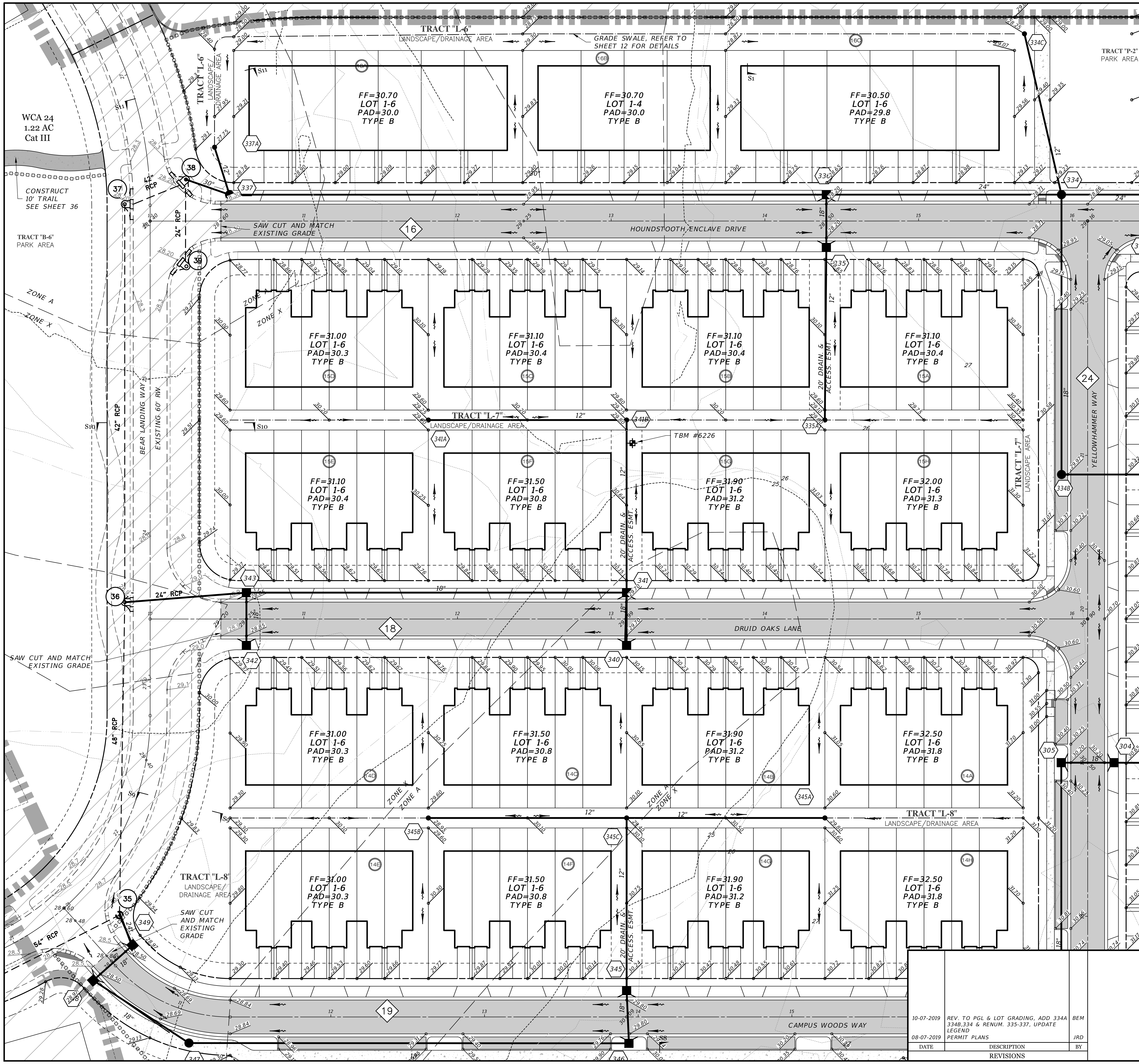
DATE:

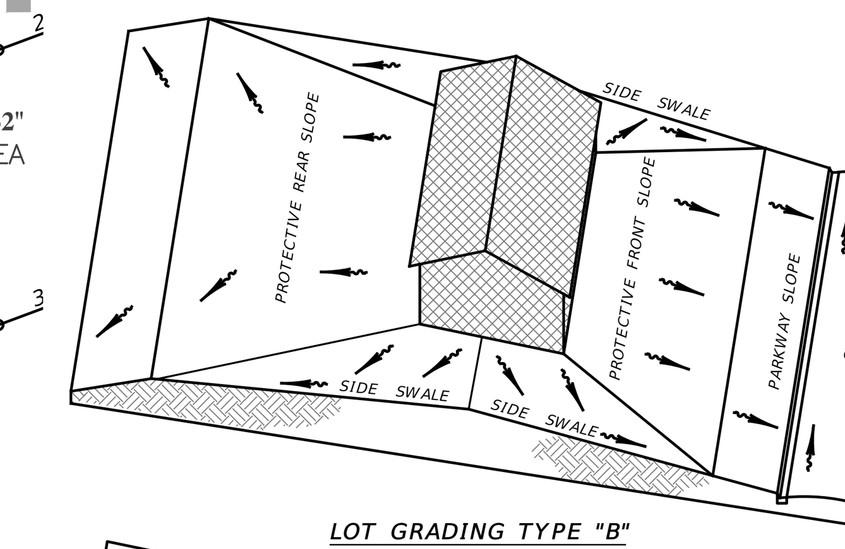
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

MASTER DRAINAGE PLAN

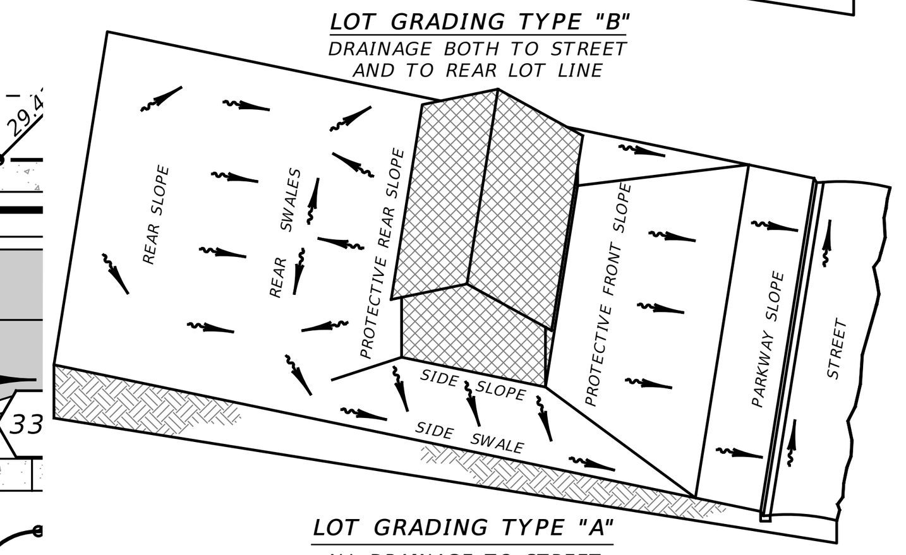
JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE MD	SHEET 5 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONSDOCS\MD.DWG-8 MASTER DRAINAGE PLAN 2019/10/07 10:35 AM BRENT MELVIN

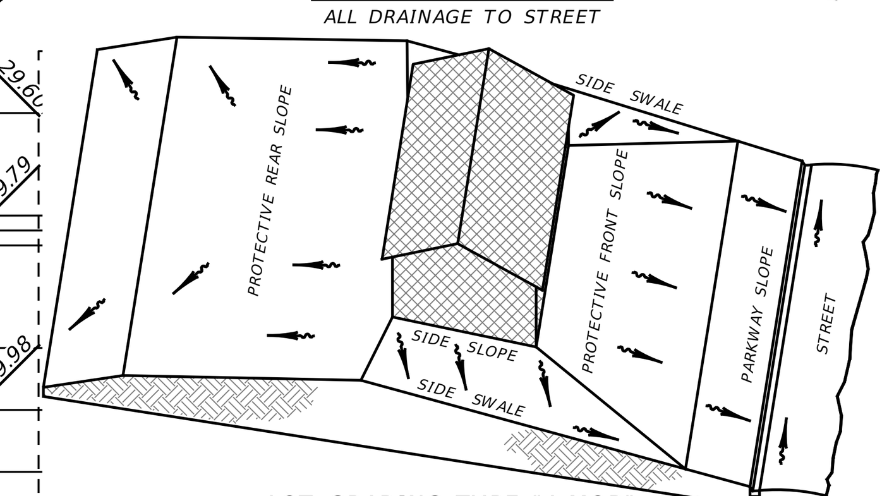




LOT GRADING TYPE "B"
DRAINAGE BOTH TO STREET
AND TO REAR LOT LINE



LOT GRADING TYPE "A"
ALL DRAINAGE TO STREET



LOT GRADING TYPE "A-MOD"
DRAINAGE BOTH TO STREET
AND REAR YARD TO REAR LOT LINE

60 30 0 30 60

SCALE: 1" = 30'

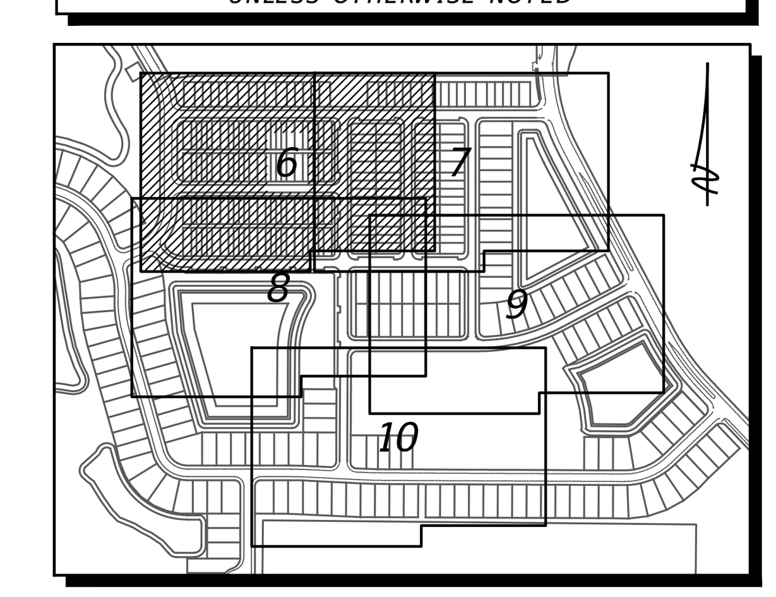
LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
10	10	STRUCTURE NO.
×62.9	65.00	SPOT ELEVATION
	65.00	PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.)		WETLAND CONSERVATION AREA
Cat III		PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
	10	PLAN & PROFILE SHEET NO. REFERENCE
	RA-#	ROADWAY AUGER LOCATION
	1	BLOCK NUMBER
STEMWALL REQUIRED WHERE SHOWN IN PLAN	FF=15.70	FINISHED FLOOR ELEV.
	LOT 15	LOT NUMBER
	PAD=15.0	PAD ELEVATION
	TYPE B	LOT GRADING TYPE
		5' DRAINAGE & ACCESS EASEMENT REQUIRED WHERE SHOWN.
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

GRADING & DRAINAGE PLAN NOTES:

1. Pad grades shown are minimum grades. Elevations of adjoining lots, existing trees, and other field conditions may warrant leaving lots which are higher in their natural state. The Contractor should consult with the Developer/Builder and the Engineer prior to grading activities when these conditions exist.
2. For all lots abutting wetlands no grading shall take place beyond the erosion control line unless specifically shown on the approved construction plans.
3. Side yard swales shall be constructed simultaneously with house construction. During the site grading activities, the contractor shall grade the side yards to an elevation no lower than 0.2 ft. below the adjoining house pad grades.
4. For Type "A" lot grading receiving runoff from abutting Type "B" lots, all runoff shall be directed to side yard swales.
5. For Type "B" lot grading not abutting detention facilities, the builder shall make every practical effort to direct roof runoff to the side yard swales unless otherwise directed by the Engineer of Record.
6. For Type 'A' lot grading, the builder shall make every practical effort to direct roof runoff to the side-yard swales unless directed otherwise by the Engineer of Record.
7. Minimum side yard swale slopes shall be 1.0%.
8. The site appears to lie within Flood Zone "A" "AE" & "X" according to Federal Emergency Management Agency (FEMA) - Community-Panel No. 120230 0360 F (Map Number 12101C0360F), revised September 26, 2014. Flood Zone determination based on FIRM data supplied by FEMA NFIP. Base Flood Elevation = 27.0 ft., NAVD88.
9. If prehistoric artifacts such as pottery or ceramics, stone tools or metal implements, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time, the project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The applicant, or designee, should contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at 850.245.6333, as well as the appropriate funding agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources.
10. In the event that unmarked human remains are encountered during permitted activities, all work must stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

ALL EXISTING WELLS SHALL BE ABANDONED BY A FLORIDA-LICENSED WATER WELL CONTRACTOR IN ACCORDANCE WITH RULE 40D-3.531(2) F.A.C. UNLESS OTHERWISE NOTED



INDEX TO MAP COVERAGE

DATE	DESCRIPTION	BY
10-07-2019	REV. TO PGL & LOT GRADING, ADD 334A 334B,334 & RENUM. 335-337, UPDATE LEGEND	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview
LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

NEIGHBORHOOD GRADING PLAN

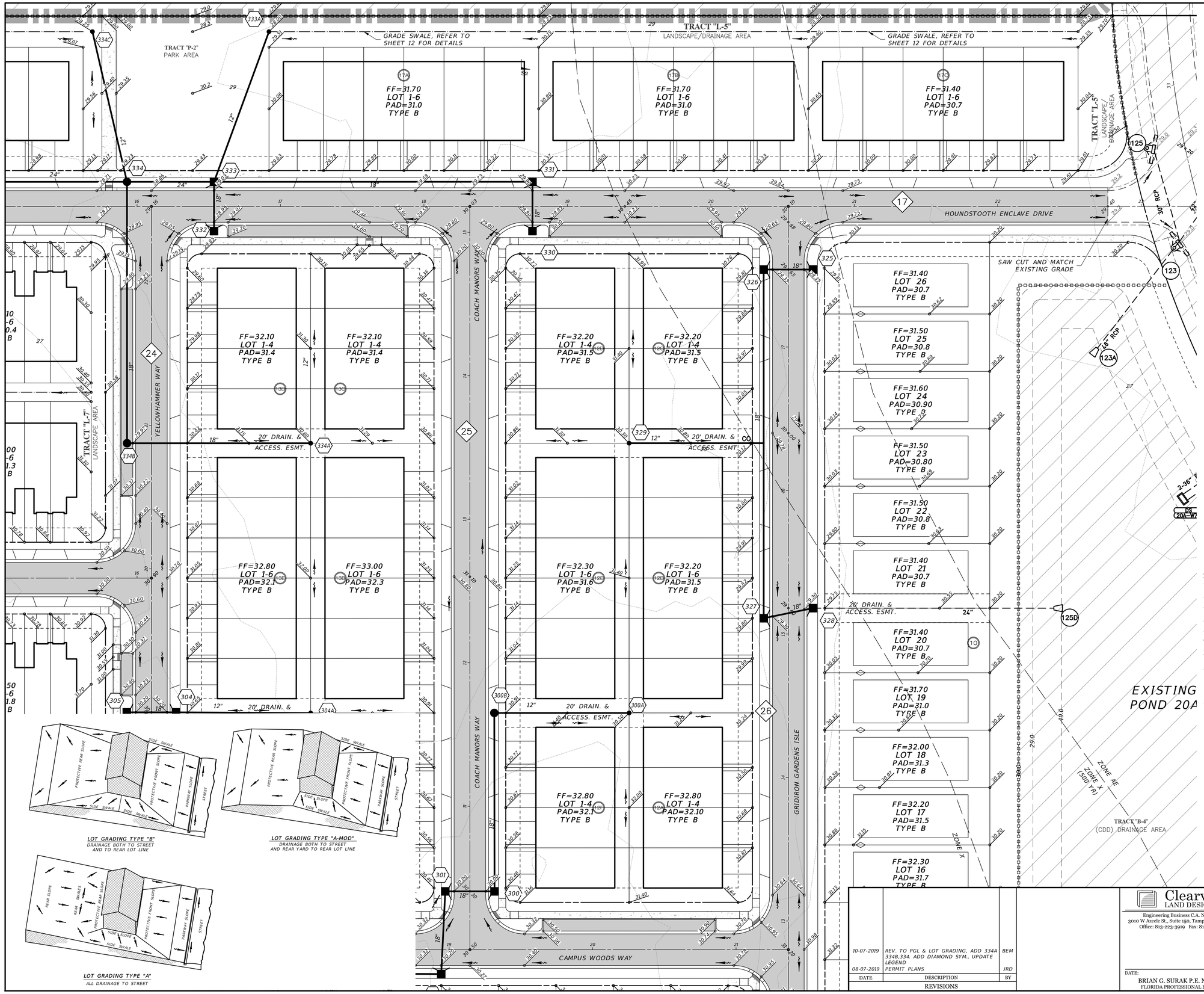
MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS

JOB NO. LNH-MR-014
DESIGN MELVIN
DRAWN DROOR
DATE 10-07-2019
FILE NG

PREPARED FOR: LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\NG.DWG-6 NEIGHBORHOOD GRADING PLAN 2019/10/07 10:36 AM BRENT MELVIN



60 30 0 30 60

SCALE: 1" = 30'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
10	10	STRUCTURE NO.
+62.9	65.00	SPOT ELEVATION
	65.00	PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
	10	PLAN & PROFILE SHEET NO. REFERENCE
	RA-#	ROADWAY AUGER LOCATION
	1	BLOCK NUMBER
STEMWALL REQUIRED WHERE SHOWN IN PLAN	FF=15.70 LOT 15 PAD=15.0 TYPE B	FINISHED FLOOR ELEV. LOT NUMBER PAD ELEVATION LOT GRADING TYPE
		5' DRAINAGE & ACCESS EASEMENT REQUIRED WHERE SHOWN.
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

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6. For Type 'A' lot grading, the builder shall make every practical effort to direct roof runoff to the side-yard swales unless directed otherwise by the Engineer of Record.
7. Minimum side yard swale slopes shall be 10%.
8. The site appears to lie within Flood Zone "A" "AE" & "X" according to Federal Emergency Management Agency (FEMA) - Community-Panel No. 120230 0360 F (Map Number 1210IC0360F), revised September 26, 2014. Flood Zone determination based on FIRM data supplied by FEMA NFIP. Base Flood Elevation = 27.0 ft., NAVD88.
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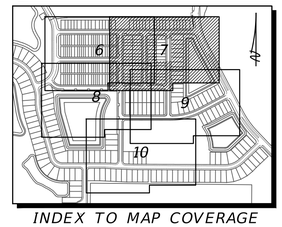

INDEX TO MAP COVERAGE

DATE	DESCRIPTION	BY
10-07-2019	REV. TO PGL & LOT GRADING, ADD 334A 334B,334. ADD DIAMOND SYM., UPDATE LEGEND	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

NEIGHBORHOOD GRADING PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE NG	**SHEET 7 OF 45 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\RG.DWG-8 NEIGHBORHOOD GRADING PLAN 2019/10/07 10:36 AM BRENT MELVIN

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
10	10	STRUCTURE NO.
+ 62.9	65.00	SPOT ELEVATION
	65.00	PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA / PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
	10	PLAN & PROFILE SHEET NO. REFERENCE
	RA-#	ROADWAY AUGER LOCATION
	1	BLOCK NUMBER
STEMWALL REQUIRED WHERE SHOWN IN PLAN	FF=15.70 LOT 15 PAD=15.0 TYPE B	FINISHED FLOOR ELEV. / LOT NUMBER / PAD ELEVATION / LOT GRADING TYPE
		5' DRAINAGE & ACCESS EASEMENT REQUIRED WHERE SHOWN.
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

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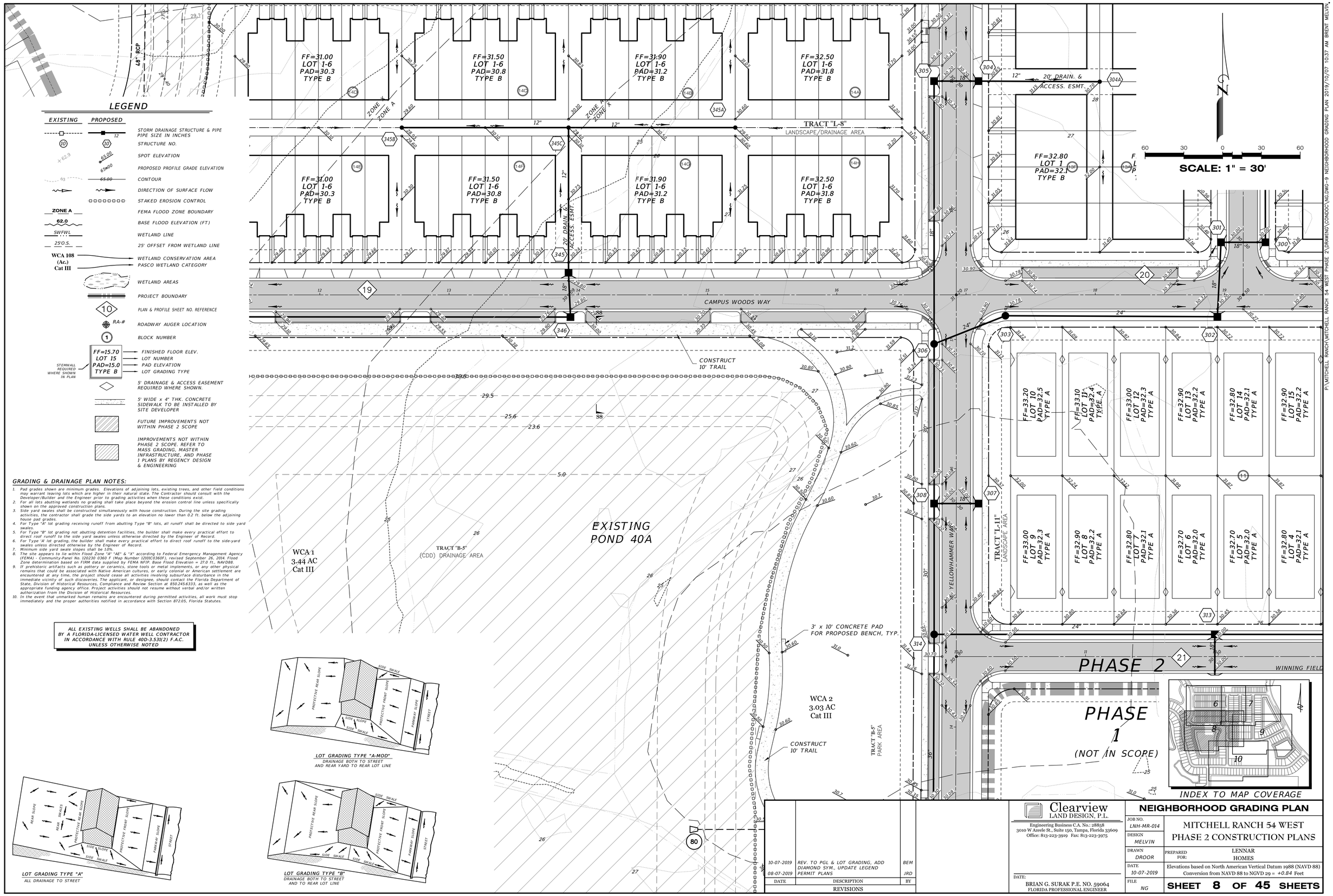
ALL EXISTING WELLS SHALL BE ABANDONED BY A FLORIDA-LICENSED WATER WELL CONTRACTOR IN ACCORDANCE WITH RULE 40D-3.531(2) F.A.C. UNLESS OTHERWISE NOTED

LOT GRADING TYPE "A-MOD"
DRAINAGE BOTH TO STREET AND REAR YARD TO REAR LOT LINE

LOT GRADING TYPE "A"
ALL DRAINAGE TO STREET

LOT GRADING TYPE "B"
DRAINAGE BOTH TO STREET AND TO REAR LOT LINE



P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDCV\NEIGHBORHOOD GRADING PLAN 2019/10/07 10:37 AM BRENT MELVIN

DATE	DESCRIPTION	BY
10-07-2019	REV. TO PGL & LOT GRADING, ADD DIAMOND SYM., UPDATE LEGEND	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
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Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

NEIGHBORHOOD GRADING PLAN

JOB NO.	LNH-MR-014
DESIGN	MELVIN
DRAWN	DROOR
DATE	10-07-2019
FILE	NG

MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

PREPARED FOR: LENNAR HOMES

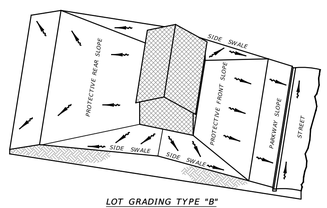
Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

LEGEND

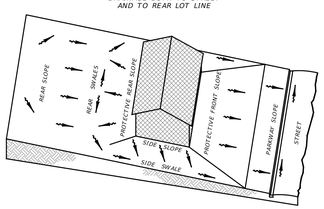
EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
(10)	10	STRUCTURE NO.
+62.9	62.90	SPOT ELEVATION
	65x00	PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA / PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
10		PLAN & PROFILE SHEET NO. REFERENCE
RA-#		ROADWAY AUGER LOCATION
1		BLOCK NUMBER
FF=15.70 LOT 15 PAD=15.0 TYPE B (STEMWALL REQUIRED WHERE SHOWN IN PLAN)		FINISHED FLOOR ELEV. / LOT NUMBER / PAD ELEVATION / LOT GRADING TYPE
		5' DRAINAGE & ACCESS EASEMENT REQUIRED WHERE SHOWN.
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

GRADING & DRAINAGE PLAN NOTES:

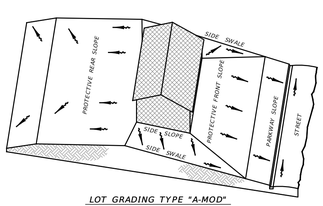
1. Pad grades shown are minimum grades. Elevations of adjoining lots, existing trees, and other field conditions may warrant leaving lots which are higher in their natural state. The Contractor should consult with the Developer/Builder and the Engineer prior to grading activities when these conditions exist.
2. For all lots abutting wetlands no grading shall take place beyond the erosion control line unless specifically shown on the approved construction plans.
3. Side yard swales shall be constructed simultaneously with house construction. During the site grading activities, the contractor shall grade the side yards to an elevation no lower than 0.2 ft. below the adjoining house pad grades.
4. For Type "A" lot grading receiving runoff from abutting Type "B" lots, all runoff shall be directed to side yard swales.
5. For Type "B" lot grading not abutting detention facilities, the builder shall make every practical effort to direct roof runoff to the side yard swales unless otherwise directed by the Engineer of Record.
6. For Type 'A' lot grading, the builder shall make every practical effort to direct roof runoff to the side-yard swales unless directed otherwise by the Engineer of Record.
7. Minimum side yard swale slopes shall be 10%.
8. The site appears to lie within Flood Zone "A" "AE" & "X" according to Federal Emergency Management Agency (FEMA) - Community-Panel No. 120230 0360 F (Map Number 12101C0360F), revised September 26, 2014. Flood Zone determination based on FIRM data supplied by FEMA NFIP. Base Flood Elevation = 27.0 ft., NAVD88.
9. If prehistoric artifacts such as pottery or ceramics, stone tools or metal implements, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time, the project should cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The applicant, or designee, should contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at 850.245.6333, as well as the appropriate funding agency office. Project activities should not resume without verbal and/or written authorization from the Division of Historical Resources.
10. In the event that unmarked human remains are encountered during permitted activities, all work must stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.



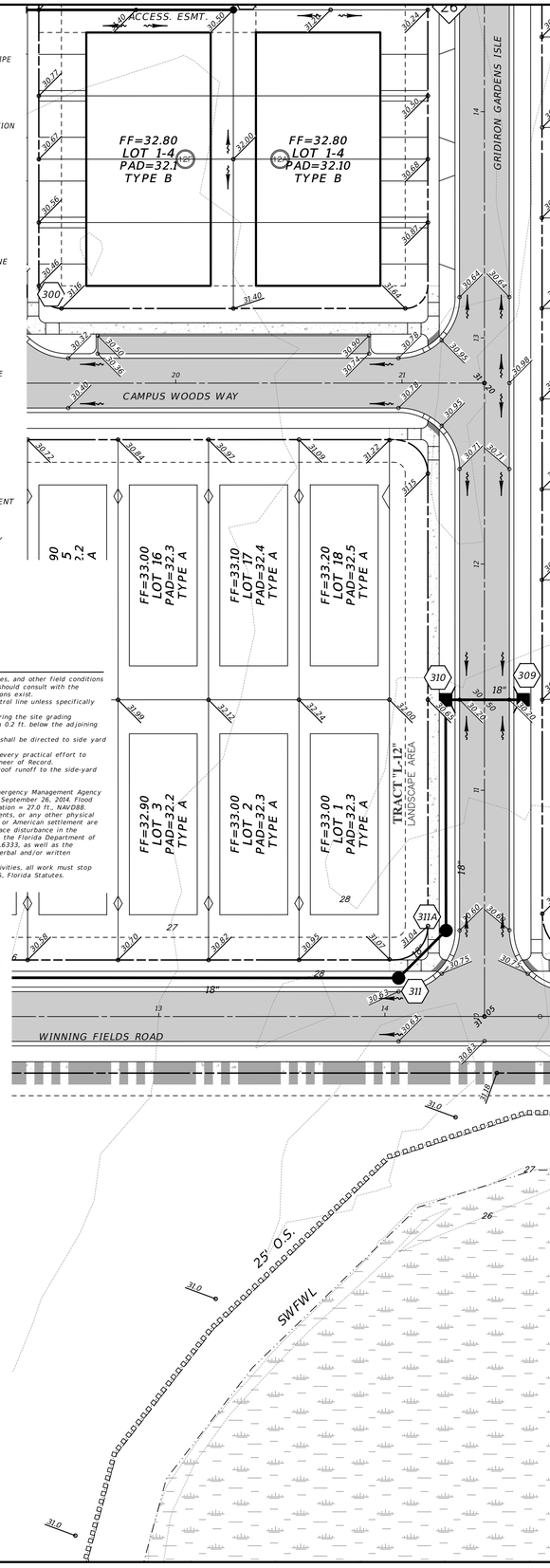
LOT GRADING TYPE "B"
DRAINAGE BOTH TO STREET AND TO REAR LOT LINE

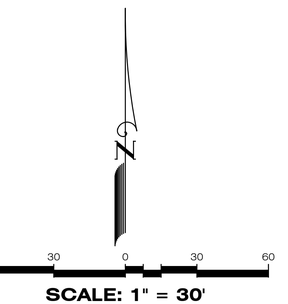


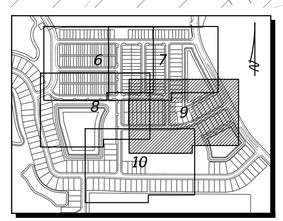
LOT GRADING TYPE "A"
ALL DRAINAGE TO STREET



LOT GRADING TYPE "A-MOD"
DRAINAGE BOTH TO STREET AND REAR YARD TO REAR LOT LINE







INDEX TO MAP COVERAGE

DATE	DESCRIPTION	BY
10-07-2019	REV. TO PGL & LOT GRADING, UPDATE LEGEND, ADD DIAMOND SYM., UPDATE LEGEND	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

NEIGHBORHOOD GRADING PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE NG	SHEET 9 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\MG.DWG-10 NEIGHBORHOOD GRADING PLAN 2019/10/07 10:37 AM BRENT MELVIN

GRADING & DRAINAGE PLAN NOTES:

1. Pad grades shown are minimum grades. Elevations of adjoining lots, existing trees, and other field conditions may warrant leaving lots which are higher in their natural state. The Contractor should consult with the Developer/Builder and the Engineer prior to grading activities when these conditions exist.
2. For all lots abutting wetlands no grading shall take place beyond the erosion control line unless specifically shown on the approved construction plans.
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10. In the event that unmarked human remains are encountered during permitted activities, all work must stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

N

60 30 0 30 60

SCALE: 1" = 30'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
(10)	(10)	STRUCTURE NO.
+62.9	65.00 / 65.00	SPOT ELEVATION
63	65.00	PROPOSED PROFILE GRADE ELEVATION
		CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
	10	PLAN & PROFILE SHEET NO. REFERENCE
	RA-#	ROADWAY AUGER LOCATION
	(1)	BLOCK NUMBER
	FF=15.70 LOT 15 PAD=15.0 TYPE B	FINISHED FLOOR ELEV. LOT NUMBER PAD ELEVATION LOT GRADING TYPE
		5' DRAINAGE & ACCESS EASEMENT REQUIRED WHERE SHOWN.
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

STEMWALL REQUIRED WHERE SHOWN IN PLAN

LOT GRADING TYPE "B" — DRAINAGE BOTH TO STREET AND TO REAR LOT LINE

LOT GRADING TYPE "A-MOD" — DRAINAGE BOTH TO STREET AND REAR YARD TO REAR LOT LINE

LOT GRADING TYPE "A" — ALL DRAINAGE TO STREET

PHASE 2

FUTURE PHASE 3 (NOT IN SCOPE)

PHASE 1 (NOT IN SCOPE)

EXISTING POND 40B

AMENITY CENTER (MAIL CENTER)

TRACT "C-1" PARK AREA

TRACT "B-5" PARK AREA

TRACT "B-3" WETLAND CONSERVATION AREA

WCA 2 3.03 AC Cat III

WCA 3 4.16 AC Cat III (NOT IMPACTED)

CONSTRUCT 10' TRAIL

CONSTRUCT 5' CONC. SIDEWALK

Existing 5' Conc. Sidewalk (Per Master Infrastructure Plans)

YELLOWHAMMER WAY

CAPSTONE RANCH DRIVE

SAW CUT AND MATCH EXISTING GRADE

EXISTING ROADWAY CONSTRUCTED WITH MASTER INFRASTRUCTURE PLANS

25' O.S.

SWFWL

36" RCP

30" RCP

24" RCP

18" RCP

FF=32.20 LOT 1 PAD=31.4 TYPE B

FF=32.20 LOT 2 PAD=31.5 TYPE B

FF=33.00 LOT 3 PAD=32.3 TYPE B

FF=33.40 LOT 5 PAD=32.7 TYPE A/B

FF=33.00 LOT 4 PAD=32.3 TYPE A

FF=33.10 LOT 5 PAD=32.4 TYPE A

FF=33.30 LOT 4 PAD=32.6 TYPE A

FF=33.50 LOT 3 PAD=32.8 TYPE A

FF=33.50 LOT 2 PAD=32.8 TYPE A

FF=33.40 LOT 1 PAD=32.7 TYPE A

FF=33.20 LOT 8 PAD=32.5 TYPE A-MOD

FF=32.80 LOT 7 PAD=32.1 TYPE A-MOD

FF=32.80 LOT 6 PAD=32.1 TYPE A-MOD

FF=33.00 LOT 5 PAD=32.3 TYPE A-MOD

FF=33.20 LOT 4 PAD=32.5 TYPE A-MOD

FF=33.50 LOT 3 PAD=32.8 TYPE A-MOD

FF=33.50 LOT 2 PAD=32.8 TYPE A-MOD

FF=33.30 LOT 1 PAD=32.6 TYPE A-MOD

69 LF OF RETAINING WALL

FF=32.90 LOT 22 PAD=32.2 TYPE A-MOD

69 LF OF RETAINING WALL

FF=32.80 LOT 21 PAD=32.1 TYPE A-MOD

FF=33.10 LOT 20 PAD=32.4 TYPE A-MOD

FF=33.30 LOT 19 PAD=32.6 TYPE A-MOD

FF=33.60 LOT 18 PAD=32.9 TYPE A-MOD

N.89°27'18"W. 1503.45'

INDEX TO MAP COVERAGE

ALL EXISTING WELLS SHALL BE ABANDONED BY A FLORIDA-LICENSED WATER WELL CONTRACTOR IN ACCORDANCE WITH RULE 40D-3.531(2) F.A.C. UNLESS OTHERWISE NOTED

EXISTING MITIGATION AREA C1

DATE	DESCRIPTION	BY
10-07-2019	REV. TO PGL & LOT GRADING, UPDATE LEGEND, ADD DIAMOND SYM., ADD WALL FOR TRAIL TO SCHOOL	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

NEIGHBORHOOD GRADING PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE NG	SHEET 10 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\MG.DWG-11 NEIGHBORHOOD GRADING PLAN 2019/10/07 10:38 AM BRENT MELVIN

EXISTING STORM STRUCTURE DATA

S-30
EXISTING FLARED END SECTION
I.E. = 17.1 (NE)

S-31
CURB INLET TYPE 3 FDOT INDEX #210
THROAT E.L. = 27.6
I.E. = 17.7 (E)
I.E. = 17.7 (W)

S-32
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 27.6
I.E. = 17.8 (NE)
I.E. = 17.8 (W)

S-33
CURB INLET TYPE 3 FDOT INDEX #210
THROAT E.L. = 27.9
I.E. = 18.0 (NE)
I.E. = 18.0 (SW)
I.E. = 20.9 (N)

S-34
CURB INLET TYPE 4 FDOT INDEX #210
THROAT = 27.9
I.E. = 21.1 (S)

S-35
STORM MANHOLE TYPE J BOTTOM
FDOT INDEX #200 / 201
RIM = 29.1
I.E. = 18.8 (N)
I.E. = 18.3 (W)
I.E. = 20.6 (SE)

S-36
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.9
I.E. = 19.4 (S)
I.E. = 19.9 (N)
I.E. = 20.9 (E)

S-37
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.2
I.E. = 20.7 (NE)
I.E. = 20.7 (S)

S-38
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.2
I.E. = 21.6 (E)
I.E. = 21.0 (SW)
I.E. = 23.0 (S)

S-39
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.2
I.E. = 23.2 (N)

S-70
FLARED END SECTION
I.E. = 21.7 (NE)

S-71
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.7
I.E. = 22.3 (NE)
I.E. = 22.3 (SW)

S-72
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.7
I.E. = 22.5 (NW)
I.E. = 22.5 (S)

S-73
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.6
I.E. = 24.7 (NW)
I.E. = 24.7 (SE)

S-74
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 28.6
I.E. = 24.9 (SE)

S-80
EXISITING FLARED END SECTION
FDOT INDEX #270
I.E. = 20.9 (E)

S-81
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 22.0 (S)
I.E. = 21.5 (W)
I.E. = 23.6 (E)

S-81A
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 23.8 (W)
I.E. = 23.8 (E)

S-82
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 25.2 (S)
I.E. = 24.7 (E)

S-83
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 25.3 (N)

S-84
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 23.9 (W)
I.E. = 23.4 (E)
I.E. = 25.2 (S)
I.E. = 22.9 (NE)

S- 84A
STORM MANHOLE TYPE P BOTTOM
FDOT INDEX#200 / 201
RIM = 30.3
I.E. = 22.8 (SW)
I.E. = 22.8 (N)

S-85
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 25.3 (NE)

S- 86
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 24.7 (S)
I.E. = 24.7 (W)

S-87
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 24.8 (N)

S-90
EXISTING FLARED END SECTION
I.E = 19.0 (S)

S-91
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.0
I.E. = 19.5 (N)
I.E. = 24.4 (S)
I.E. = 24.4 (W)
I.E. = 23.9 (E)

S-92
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.0
I.E. = 25.0 (N)

S-93
CURB INLET TYPE 3 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 25.7 (S)
I.E. = 25.7 (E)

S-94
CURB INLET TYPE 3 FDOT INDEX #120
THROAT E.L. = 30.3
I.E. = 25.9 (N)

S-95
STORM MANHOLE TYPE P BOTTOM
FDOT INDEX#200 / 201
RIM = 29.6
I.E. = 24.2 (NE)
I.E. = 24.2 (SW)

S-96
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.3
I.E. = 24.8 (SW)
I.E. = 25.3 (SE)
I.E. = 25.3 (N)

S-97
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.3
I.E. = 25.8 (NW)

S-98
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.1
I.E. = 25.7 (W)

S-99
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.1
I.E. = 25.5 (SW)
I.E. = 25.5 (E)

S-100
EXISTING FLARED END SECTION
FDOT INDEX #270
I.E. = 24.9 (NE)

S-101
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.0
I.E. = 25.2 (E)
I.E. = 25.2 (SW)

S-102
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.0
I.E. = 25.4 (W)

S-105
EXISTING FLARED END SECTION
FDOT INDEX #270
I.E. = 22.0 (NW)

S-120
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 29.1
I.E. = 24.7 (W)

S-121
CURB INLET TYPE 4 FDOT INDEX #210
THROAT E.L. = 29.1
I.E. = 24.5 (W)
I.E. = 24.5 (E)

S-122
EXISTING FLARED END SECTION
I.E. = 24.2 (E)

S-123
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.0
I.E. = 15.5 (SW)
I.E. = 16.0 (NE)
I.E. = 22.0 (NW)

S-123A
EXISTING FLARED END SECTION
FDOT INDEX #270
I.E. = 15.2 (NE)

S-124
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.0
I.E. = 16.1 (SW)
I.E. = 16.1 (N)

S-125
CURB INLET TYPE 4 FDOT INDEX #120
THROAT E.L. = 29.0
I.E. = 22.2 (SE)

DS40A-18C
CONTROL STRUCTURE
RIM E.L. = 30.13
I.E. - 22.5

SDMH-40A-18C1
STORM MANHOLE
TOP = 29.3
I.E. = 22.1 (E)
I.E. = 22.1 (W)

SDMH-40A-18C2
STORM MANHOLE
TOP = 29.3
I.E. = 22.0 (E)
I.E. = 22.0 (W)

FES-W18C2
FLARED END SECTION
I.E. = 21.5

DS20B-W3
CONTROL STRUCTURE
RIM E.L. = 28.63
I.E. = 23.5

FES 20B-W3
FLARED END SECTION
I.E. = 23.0

DSW3-W7A
CONSTROL STRUCTURE
RIM E.L. = 28.99
I.E. = 23.5

SDMH-20B1
STORM MANHOLE
RIM = 29.5
I.E. = 23.1 (W)
I.E. = 22.6 (NE)

SDMH-20B2
STORM MANHOLE
RIM = 30.0
I.E. = 22.2 (NE)
I.E. = 22.2 (SW)

FES-W3-2
FLARED END SETION
I.E. = 22.0

DS20B-W7A
CONTROL STRUCTURE
RIM E.L. = 28.63
I.E. = 22.5

FES 20B-1
FLARED END SECTION
I.E. = 22.0

DS20A-W7A
CONTROL STRUCTURE
RIM E.L. = 29.19
I.E. = 23.50

FES 20A-W7
FLARED END SECTIONS
I.E. = 22.9

FES-20A1 (125D)
I.E. = 22.9

DS40B-W18C
CONTROL STRUCTURE
RIM E.L. = 28.13
I.E. = 22.5

FES W18C
FLARED END SECTION
I.E. = 22.3

UNLESS OTHERWISE NOTED, THE EXISTING STORM STRUCTURE DATA IS BASED ON THE DESIGN INFORMATION IN THE "MITCHELL 54 WEST CONCEPTUAL DRAINAGE/MASS GRADING PLAN" AND "MITCHELL 54 WEST MASTER INFRASTRUCTURE PLAN" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. PLEASE REFER TO THOSE PLANS FOR ADDITIONAL INFORMATION.

STORM STRUCTURE DATA

STRUCTURE			LINE							STRUCTURE LOCATION & REMARKS
							INVERT ELEV.			
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. IN.	LENGTH FEET	SLOPE %	UPPER END	LOWER END	FALL IN FEET	
300A	INLINE DRAIN	30.50	PP	12	94	0.27	26.50	26.25	0.25	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
300B	MANHOLE	30.70	RCP	18	124	0.20	25.75	25.50	0.25	FDOT INDEX 425-001 & 425-010
300	CURB INLET TYPE 1	30.18	RCP	18	34	0.20	25.50	25.43	0.07	STANDARD STORMWATER INLET DETAIL
301	CURB INLET TYPE 1	30.18	RCP	18	57	0.35	25.43	25.23	0.20	STANDARD STORMWATER INLET DETAIL
302	CURB INLET TYPE 1	30.38	RCP	24	164	0.15	24.73	24.48	0.25	STANDARD STORMWATER INLET DETAIL
303	MANHOLE	31.00	RCP	24	60	0.15	23.78	23.69	0.09	FDOT INDEX 425-001 & 425-010
306							23.69			CONNECT 24" RCP TO STR. 306
304A	INLINE DRAIN	30.70	PP	12	93	1.56	27.70	26.25	1.45	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
304	CURB INLET TYPE 1	30.38	RCP	18	34	0.20	25.75	24.68	0.07	STANDARD STORMWATER INLET DETAIL
305	CURB INLET TYPE 1	30.38	RCP	18	203	0.40	25.68	24.87	0.81	STANDARD STORMWATER INLET DETAIL
306	MANHOLE	30.93	RCP	30	123	0.10	23.17	23.05	0.12	FDOT INDEX 425-001 & 425-010
308							23.77			CONNECT 30" RCP TO STR. 308
307	CURB INLET TYPE 1	30.18	RCP	18	34	0.20	25.50	25.43	0.07	STANDARD STORMWATER INLET DETAIL
308	CURB INLET TYPE 1	30.18	RCP	30	101	0.20	23.05	22.80	0.25	STANDARD STORMWATER INLET DETAIL
314							22.80			CONNECT 30" RCP TO STR. 314
309	CURB INLET TYPE 1	30.38	RCP	18	34	0.20	25.75	25.68	0.07	STANDARD STORMWATER INLET DETAIL
310	CURB INLET TYPE 1	30.38	RCP	18	102	0.20	25.68	25.48	0.20	STANDARD STORMWATER INLET DETAIL
311A	MANHOLE	30.83	RCP	18	30	0.20	25.48	25.42	0.06	FDOT INDEX 425-001 & 425-010
311	MANHOLE	30.96	RCP	18	206	0.20	25.42	25.01	0.41	FDOT INDEX 425-001 & 425-010
313							25.01			CONNECT 18" RCP TO STR. 313
312	CURB INLET TYPE 1	30.18	RCP	18	34	0.20	25.50	25.43	0.07	STANDARD STORMWATER INLET DETAIL
313	CURB INLET TYPE 1	30.18	RCP	24	217	0.20	24.51	24.05	0.43	STANDARD STORMWATER INLET DETAIL
314	MANHOLE	30.55	RCP	36	151	0.23	22.55	22.20	0.35	FDOT INDEX 425-001 & 425-010
316							22.20			CONNECT 36" RCP TO STR. 316
315	CURB INLET TYPE 1 TOP	30.18	*RCP*	*30*	*34*	*0.58*	*23.80*	*23.60*	*0.20*	CONST. CURB INLET TOP ON EXIST. STR. 81A PER STD. STORMWATER INLET DETAIL
316	CURB INLET TYPE 1 TOP	30.18	*RCP*	*36*	*182*	*0.30*	*21.45*	*20.90*	*0.55*	CONST. CURB INLET TOP ON EXIST. STR. 81 PER STD. STORMWATER INLET DETAIL
EX-80	*FES*						*20.90*			*EXISTING 36" FLARED END SECTION*
317 -319	OMITTED									
320	CURB INLET TYPE 1	29.48	RCP	18	34	0.30	22.60	22.53	0.07	STANDARD STORMWATER INLET DETAIL
321	CURB INLET TYPE 1	29.48	*RCP*	*48*	*167*	*0.30*	*22.50*	*22.00*	*0.50*	CONNECT TO EXISTING 48" RCP
EX-20B3	*FES*									*EXISTING 48" FLARED END SECTION*
322 -324	OMITTED									
325	CURB INLET TYPE 1	29.53	RCP	18	34	0.10	24.90	24.87	0.03	STANDARD STORMWATER INLET DETAIL
326	CURB INLET TYPE 1	29.53	RCP	18	243	0.10	24.87	24.62	0.24	STANDARD STORMWATER INLET DETAIL
327	CURB INLET TYPE 1	29.48	RCP	18	35	0.35	24.62	24.50	0.12	STANDARD STORMWATER INLET DETAIL
328	CURB INLET TYPE 1	29.48	*RCP*	*24*	*165*	*0.30*	*23.40*	*22.90*	*0.50*	STANDARD STORMWATER INLET DETAIL CONNECT TO EX. 24" RCP
EX-125D	*FES*									*EXISTING 24" FLARED END SECTION*
329	INLINE DRAIN	30.30	PP	12	94	0.80	25.74	25.00	0.74	NYLOPAST 12" INLINE DRAIN W/ 12" STD. GRATE CONNECT TO 18" RCP W/ INSERTA-TEE PER DETAIL
330	CURB INLET TYPE 1	29.98	RCP	18	34	0.20	25.20	25.13	0.07	STANDARD STORMWATER INLET DETAIL
331	CURB INLET TYPE 1	30.08	RCP	18	222	0.31	25.13	24.43	0.70	STANDARD STORMWATER INLET DETAIL
333							24.43			CONNECT 18" RCP TO STR. 333

Italics denotes pipes and/or structures constructed per the Mass Grading and Master Infrastructure by Regency Design & Engineering.

STORM STRUCTURE DATA

STRUCTURE			LINE							STRUCTURE LOCATION & REMARKS
							INVERT ELEV.			
NO.	TYPE & SIZE	TOP ELEV.	TYPE	DIAM. IN.	LENGTH FEET	SLOPE %	UPPER END	LOWER END	FALL IN FEET	
333A	INLINE DRAIN	28.00	PP	12	104	0.31	25.25	24.93	0.32	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
333							24.93			CONNECT 12" PP TO STR. 333
332	CURB INLET TYPE 1	29.13	RCP	18	34	0.20	24.50	24.43	0.07	STANDARD STORMWATER INLET DETAIL
333	CURB INLET TYPE 1	29.13	RCP	24	60	0.30	23.93	23.75	0.18	STANDARD STORMWATER INLET DETAIL
334							23.75			CONNECT 24" RCP TO STR. 334
334A	INLINE DRAIN	30.60	RCP	18	128	0.20	25.65	25.39	0.26	NYLOPLAST 12" INLINE DRAIN WITH 12" STANDARD WITH 12" STND. GRATE & DISS. PIPE CONNECTION
334B	MANHOLE	30.00	RCP	18	182	0.63	25.39	24.25	1.15	FDOT INDEX 425-001 & 425-010
334							24.25			CONNECT 18" RCP TO STR. 334
334C	INLINE DRAIN	28.25	PP	12	107	0.47	25.25	24.75	0.50	NYLOPLAST 12" INLINE DRAIN WITH 12" STANDARD WITH 12" STND. GRATE
334	MANHOLE	29.05	RCP	24	152	0.24	23.75	23.22	0.53	FDOT INDEX 425-001 & 425-010
336							23.22			CONNECT 24" RCP TO STR. 336
335A	INLINE DRAIN	29.10	PP	12	112	1.52	26.00	24.30	1.70	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
335	CURB INLET TYPE 1	28.38	RCP	18	34	0.22	23.80	23.73	0.07	STANDARD STORMWATER INLET DETAIL
336	CURB INLET TYPE 1	28.38	RCP	30	388	0.22	22.72	21.87	0.85	STANDARD STORMWATER INLET DETAIL
336							21.87			CONNECT 30" RCP TO STR. 336
337A	INLINE DRAIN	27.75	PP	12	32	1.39	24.75	24.43	0.32	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
337	MANHOLE	28.55	RCP	30	30	0.21	21.87	21.80	0.06	FDOT INDEX 425-001 & 425-010
EX-38							21.80			CONNECT 30" RCP TO EXISTING STR. 38
338 -339	OMITTED									
340	CURB INLET TYPE 1	29.88	RCP	18	34	0.20	24.20	24.13	0.07	STANDARD STORMWATER INLET DETAIL
341							24.13			CONNECT 18" RCP TO STR. 341
341A	INLINE DRAIN	29.25	PP	12	129	0.30	26.25	25.86	0.39	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
341B	DRAIN BASIN	29.25	PP	12	112	1.10	25.86	24.63	1.23	NYLOPAST 15" DRAIN BASIN WITH 15" STANDARD GRATE
341	CURB INLET TYPE 1	29.88	RCP	18	247	0.20	24.13	23.64	0.49	STANDARD STORMWATER INLET DETAIL
343							23.64			CONNECT 18" RCP TO STR. 43
342	CURB INLET TYPE 1	29.03	RCP	18	34	0.20	23.71	23.64	0.07	STANDARD STORMWATER INLET DETAIL
343	CURB INLET TYPE 1	29.03	RCP	24	78	0.40	21.21	20.90	0.31	STANDARD STORMWATER INLET DETAIL
EX-36							20.90			CONNECT 24" RCP TO EXISTING STR. 36
344	OMITTED									
345A	INLINE DRAIN	28.80	PP	12	129	0.20	26.30	26.04	0.26	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
345C							26.04			CONNECT 12" PP TO STR. 345C
345B	INLINE DRAIN	28.95	PP	12	129	0.20	26.30	26.04	0.26	NYLOPAST 12" INLINE DRAIN WITH 12" STANDARD GRATE
345C	DRAIN BASIN	29.40	PP	12	112	0.30	26.04	25.71	0.34	NYLOPAST 15" DRAIN BASIN WITH 15" STANDARD GRATE
345	CURB INLET TYPE 1	29.98	RCP	18	34	0.20	25.25	25.18	0.07	STANDARD STORMWATER INLET DETAIL
346	CURB INLET TYPE 1	29.98	RCP	18	286	0.20	25.18	24.61	0.57	STANDARD STORMWATER INLET DETAIL
347	MANHOLE	29.15	RCP	18	74	0.20	24.61	24.46	0.10	FDOT INDEX 425-001 & 425-010
348	CURB INLET TYPE 1	28.68	RCP	18	34	0.30	24.46	24.36	0.10	STANDARD STORMWATER INLET DETAIL
349	CURB INLET TYPE 1	28.68	RCP	24	21	0.15	20.83	20.80	0.03	STANDARD STORMWATER INLET DETAIL
EX-35							22.80			CONNECT 24" RCP TO EXISTING STR. 35

Italics denotes pipes and/or structures constructed per the Mass Grading and Master Infrastructure by Regency Design & Engineering.

DRAIN BASIN AND INLINE DRAIN NOTES:
1. *Notify the Engineer if Drain Basins & Inline Drain locations required field adjustment to avoid conflicts with landscaping.*
2. *Drain Basin & Inline Drain materials to be ADS Nyloplast brand or approved equal.*
3. *Polyvinyl-chloride pipe or corrugated polyethylene pipe used in yard drain/area drain applications shall meet the following requirements unless otherwise noted:*
   (a) PVC pipe: ASTM D-3034 SDR-35
   (b) Corrugated HDPE pipe: use ADS N-12 or HDPE in conformance with AASHTO M-252 and M-294, Class II.
4. *PP refers to Polypropylene Pipe. All Polypropylene Pipe shall meet FDOT Specification 948-7.*
5. *Pipe to Pipe connections shall be make with Inserta-Tee watertight connections, or approved equal.*

DATE	DESCRIPTION	BY
10-07-2019	*REMOVE 84B,332A,&332B; ADD 311A,334A 334B,334; RENUM. 335-337*	*BEM*
08-07-2019	*PERMIT PLANS*	*JRD*

REVISIONS

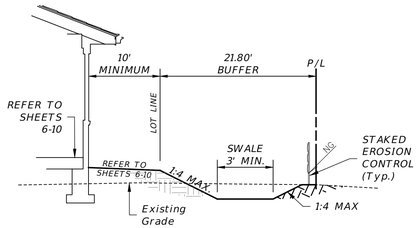
Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

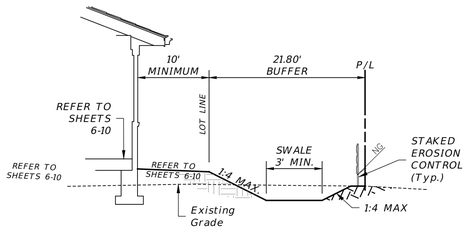
DRAINAGE STRUCTURE DATA

JOB NO. *LNH-MR-014*	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN *MELVIN*	
DRAWN *DROOR*	PREPARED FOR: LENNAR HOMES
DATE *10-07-2019*	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = *+0.84* Feet
FILE *ST*	**SHEET 11 OF 45 SHEETS**



SECTION S1-S1

- NO SCALE -



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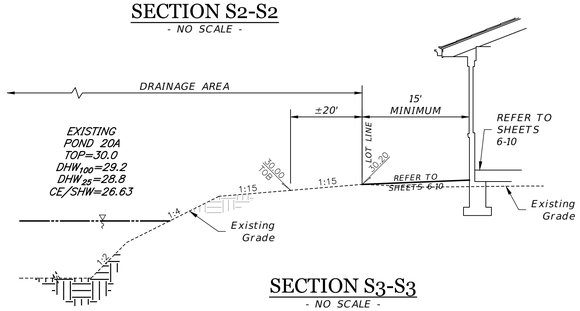

SECTION S3-S3

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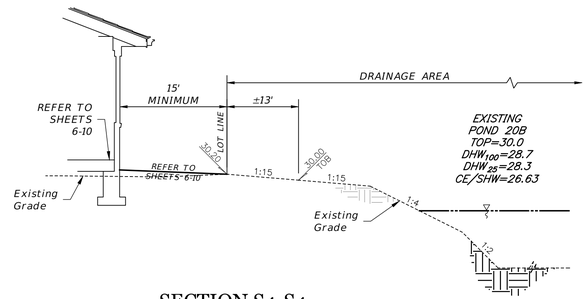

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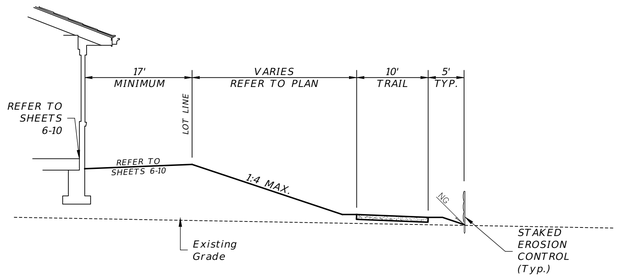

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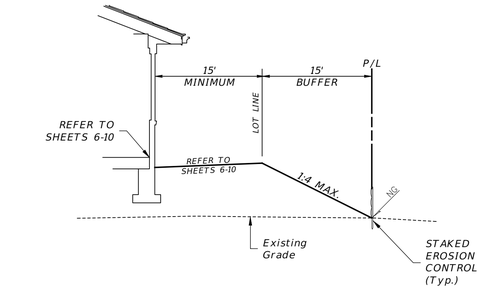

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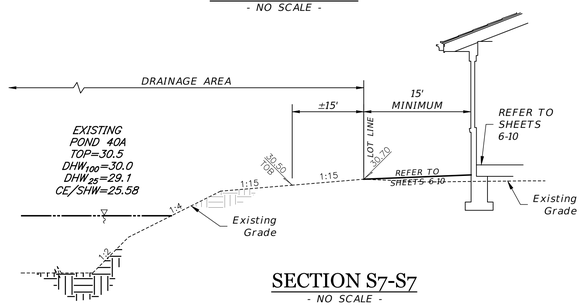

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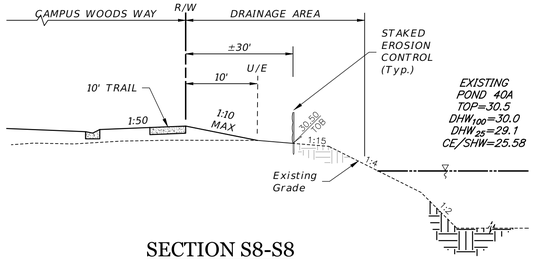

SECTION S8-S8

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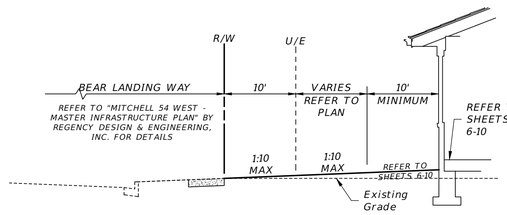
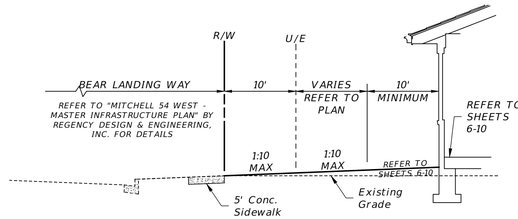


SECTION S9-S9

- NO SCALE -

PONDS SHOWN HERE AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. THIS WORK IS TO BE COMPLETED UNDER THE CONTRACT FOR THESE CONSTRUCTION PLANS. ROADS, STORMWATER COLLECTION, UTILITIES AND SERVICES SHOWN HERE AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY UNDER PERMIT PSP17-004, DATED JULY 6, 2017 AND ARE SHOWN ON THE PLANS DATED FEBRUARY 2017 TITLED ("MITCHELL 54 WEST MASTER INFRASTRUCTURE") PREPARED BY REGENCY DESIGN & ENGINEERING, INC. REFER TO THE CURRENT PLANS BY REGENCY DESIGN & ENGINEERING, INC. FOR ANY MODIFICATIONS TO THE PREVIOUSLY PERMITTED DESIGN.



SECTION S10-S10

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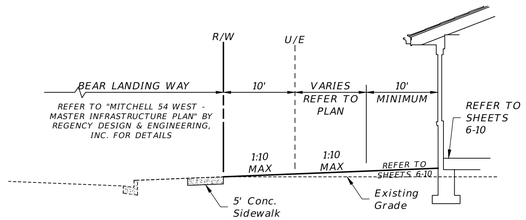

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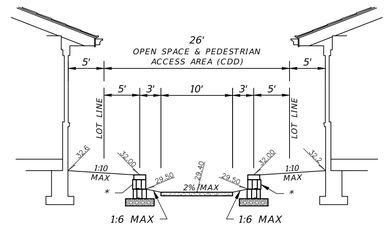
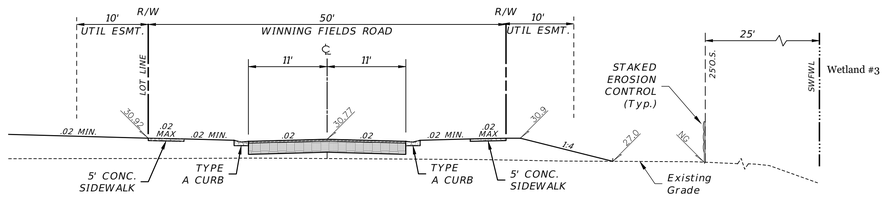


SECTION S12-S12

- NO SCALE -

RETAINING WALL NOTES
1. Wall shall be Anchor Block segmental wall or approved equal, wall shall be designed by a Florida-licensed Professional Engineer, and wall shall separately permitted through the Building Department.
2. Wall batter angle and length of geogrid to be determined by wall designer.
3. For wall heights exceeding 30", provide 42" guiderail per FDOT Indices 515-070 or 515-080



SECTION S13-S13

- NO SCALE -

DATE	DESCRIPTION	BY
10-07-2019	ADD POND BANK SLOPES, S12-12, & S13-13	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

CROSS SECTIONS

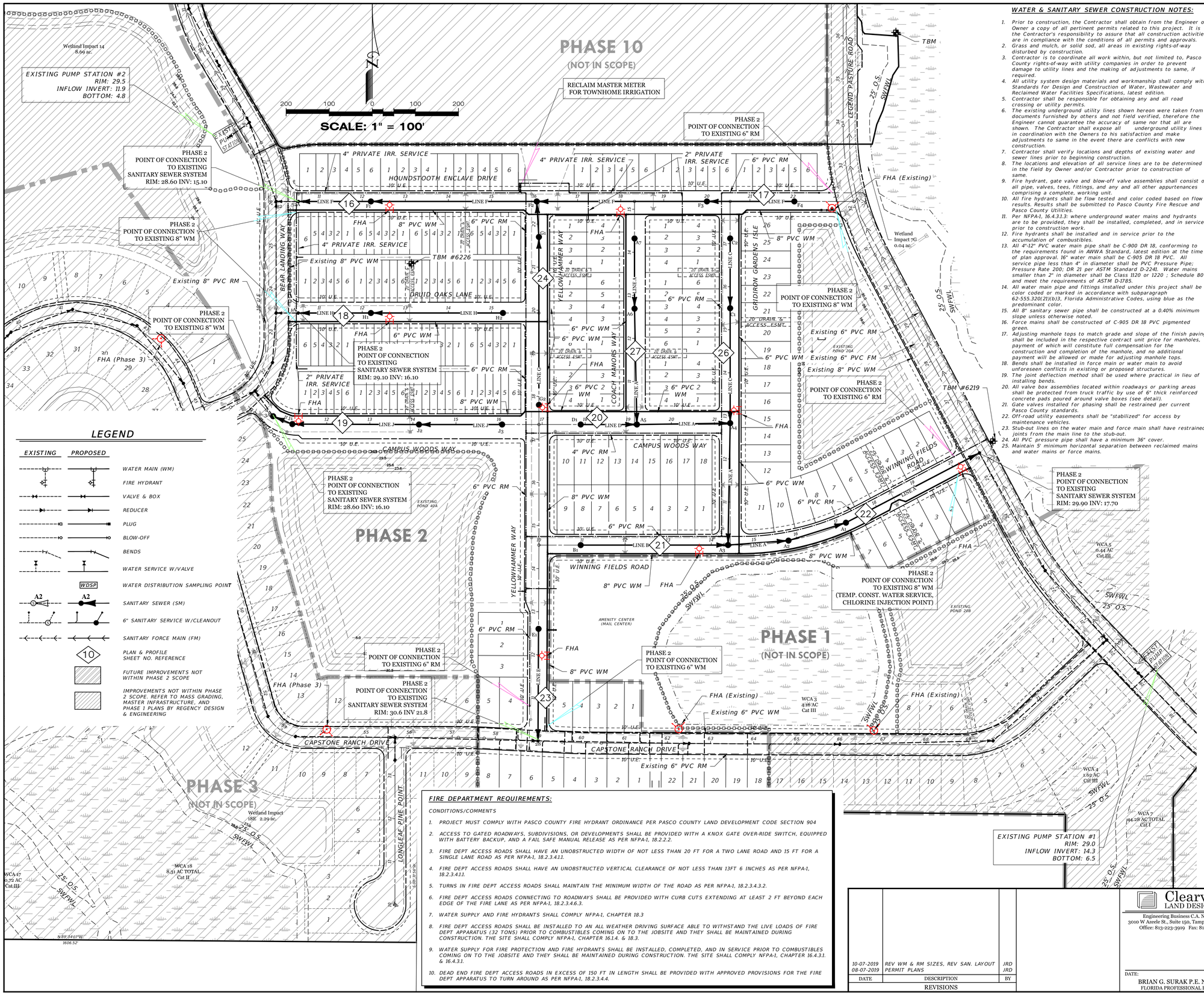
JOB NO.	LNH-MR-014
DESIGN	MELVIN
DRAWN	DROOR
DATE	10-07-2019
FILE	SEC

MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

PREPARED FOR: LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

SHEET 12 OF 45 SHEETS



LEGEND

EXISTING	PROPOSED	
		WATER MAIN (WM)
		FIRE HYDRANT
		VALVE & BOX
		REDUCER
		PLUG
		BLOW-OFF
		BENDS
		WATER SERVICE W/VALVE
	WDSP	WATER DISTRIBUTION SAMPLING POINT
A2	A2	SANITARY SEWER (SM)
		6" SANITARY SERVICE W/CLEANOUT
		SANITARY FORCE MAIN (FM)
	10	PLAN & PROFILE SHEET NO. REFERENCE
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE, REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

WATER & SANITARY SEWER CONSTRUCTION NOTES:

1. Prior to construction, the Contractor shall obtain from the Engineer or Owner a copy of all pertinent permits related to this project. It is the Contractor's responsibility to assure that all construction activities are in compliance with the conditions of all permits and approvals.
2. Grass and mulch, or solid sod, all areas in existing rights-of-way disturbed by construction.
3. Contractor is to coordinate all work within, but not limited to, Pasco County rights-of-way with utility companies in order to prevent damage to utility lines and the making of adjustments to same, if required.
4. All utility system design materials and workmanship shall comply with Standards for Design and Construction of Water, Wastewater and Reclaimed Water Facilities Specifications, latest edition.
5. Contractor shall be responsible for obtaining any and all road crossing or utility permits.
6. The existing underground utility lines shown hereon were taken from documents furnished by others and not field verified, therefore the Engineer cannot guarantee the accuracy of same nor that all are shown. The Contractor shall expose all underground utility lines in coordination with the Owners to his satisfaction and make adjustments to same in the event there are conflicts with new construction.
7. Contractor shall verify locations and depths of existing water and sewer lines prior to beginning construction.
8. The locations and elevation of all service lines are to be determined in the field by Owner and/or Contractor prior to construction of same.
9. Fire hydrant, gate valve and blow-off valve assemblies shall consist of all pipe, valves, tees, fittings, and any and all other appurtenances comprising a complete, working unit.
10. All fire hydrants shall be flow tested and color coded based on flow results. Results shall be submitted to Pasco County Fire Rescue and Pasco County Utilities.
11. Per FAPA-I, 16.4.13.2 where underground water mains and hydrants are to be provided, they shall be installed, completed, and in service prior to construction work.
12. Fire hydrants shall be installed and in service prior to the accumulation of combustibles.
13. All 4"-12" PVC water main pipe shall be C-900 DR 18, conforming to the requirements found in AWWA Standard, latest edition at the time of plan approval. 16" water main shall be C-905 DR 18 PVC. All service pipe less than 4" in diameter shall be PVC Pressure Pipe; Pressure Rate 200; DR 21 per ASTM Standard D-2241. Water mains smaller than 2" in diameter shall be Class 1120 or 1220 ; Schedule 80 and meet the requirements of ASTM D-1785.
14. All water main pipe and fittings installed under this project shall be color coded or marked in accordance with subparagraph 62-555.320(20)(b)3, Florida Administrative Codes, using blue as the predominant color.
15. All 8" sanitary sewer pipe shall be constructed at a 0.40% minimum slope unless otherwise noted.
16. Force mains shall be constructed of C-905 DR 18 PVC pigmented green.
17. Adjusting manhole tops to match grade and slope of the finish paving shall be included in the respective contract unit price for manholes, payment of which will constitute full compensation for the construction and completion of the manhole, and no additional payment will be allowed or made for adjusting manhole tops.
18. Bends shall be installed in force main or water main to avoid unforeseen conflicts in existing or proposed structures.
19. The joint deflection method shall be used where practical in lieu of installing bends.
20. All valve box assemblies located within roadways or parking areas shall be protected from truck traffic by use of 6" thick reinforced concrete pads poured around valve boxes (see detail).
21. Gate valves installed for phasing shall be restrained per current Pasco County standards.
22. Off-road utility easements shall be "stabilized" for access by maintenance vehicles.
23. Stub-out lines on the water main and force main shall have restrained joints from the main line to the stub-out.
24. All PVC pressure pipe shall have a minimum 36" cover.
25. Maintain 5' minimum horizontal separation between reclaimed mains and water mains or force mains.
26. All water mains shall be deflected vertically where crossing storm sewer pipe to obtain a minimum vertical distance of 18 inches between the outside of the water main and the outside of the storm sewer. Joints shall be located such that the distance from the storm sewer and water main joint is as far as practical.
27. Water mains should be laid at least 10 feet horizontally from any existing or proposed storm sewer.
28. At no time should vertical clearance between force main or gravity sewer and water main be less than 18" at crossing of same.
29. At no time should horizontal clearance between force main or gravity sewer and water main be less than 10' when same are paralleling each other.
30. Sanitary sewers, force and reclaimed mains and storm sewers should cross under water mains. Sanitary sewers, force and reclaimed mains and storm sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the invert of the upper pipe and the crown of the lower pipe whenever possible.
31. When sanitary sewers, force and reclaimed mains and storm sewers must cross a water main with less than 18 inches vertical distance, both the sewer and the water main shall be constructed of ductile iron pipe (DIP) at the crossing. (DIP is not required for storm sewers if it is not available in the size proposed). Sufficient lengths of DIP must be used to provide a minimum separation of 10 feet between any two joints. All joints on the water main within 20 feet of the crossing must be leak free and mechanically restrained. A minimum vertical clearance of 6 inches must be maintained at the crossing.
32. Where there is no alternative to sewer and reclaimed pipes crossing over a water main, the criteria for minimum separation of 18 inches between lines and 10 feet between joints shall be required.
33. All crossings shall be arranged so that the sewer and reclaimed pipes joints and the water main pipe joints are equidistant from the point of crossing (pipes centered on the crossing).
34. Where a new pipe conflicts with an existing pipe, the new pipe shall be constructed of DIP and the crossing shall be arranged to meet the requirements above.
35. A minimum 10-foot horizontal separation shall be maintained in parallel installations between any type of sewer (including drainage inlets) and water main whenever possible. A minimum 5-foot horizontal separation shall be maintained in parallel installation between reclaimed water mains and water mains, and between reclaimed water mains and sanitary sewers whenever possible.
36. In cases where it is not possible to maintain a 10-foot horizontal separation between any type of parallel sewer and water main, or a 5-foot separation between reclaimed main and water main, the water main must be laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer, reclaimed main, or force main at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.
37. Where it is not possible to maintain a vertical distance of 18 inches or a horizontal distance of 10 feet in parallel installations, the water main shall be constructed of DIP and the sewer, reclaimed main or the force main shall be constructed of DIP (if available in the size proposed) with a minimum vertical distance of 6 inches. The water main should be above the sewer, reclaimed main, or force main. Joints on the water main shall be located as far apart as possible from joints on the sewer, reclaimed main, or force main (staggered joints).
38. All subsurface construction shall comply with the "Trench Safety Act." The Contractor shall ensure that the method of trench protection and construction is in compliance with the Occupational Safety and Health Administration (OSHA) Regulations.
39. Fire protection shall meet the requirements of the Pasco County Code, Chapter 46, Fire Prevention and Protection, and plans shall comply with referenced requirements.
40. Connections into existing county-owned systems shall be via wet tap. Wet taps shall be performed exclusively by the Pasco County Utilities Services Branch at the developer's expense. Material for wet taps larger than 2" shall be provided and installed by the project contractor. Excavation, backfill and surface restoration shall be the contractor's responsibility.
41. "Contractor's Responsibilities" regarding wet taps two inches and larger shall be as follows:
    - 2" Only - This excavated trench must be dry or the trench will require rock and a pump to be in place. The minimum distance from the face of the valve to the wall of the trench is to be six feet. The County will provide the tapping saddle, corporation stop, stainless steel nipple, and iron body valve.
    - 3" and Larger - The contractor will supply a tapping saddle being epoxy coated, a tapping valve with mechanical joint and the equipment to provide, and conduct a pressure test. County personnel will witness the pressure test which must be at 150 psi for a duration of thirty minutes.
    - The contractor is responsible for the excavation before any County personnel will enter an excavated area. If the trench is four feet in depth or deeper, it will require a trench box or sloping, and a ladder according to Occupational Safety and Health (OSHA) standards.
    - The tapping valve will require a blocking device made of suitable material or device. This blocking device will be placed under the valve and remain in place until the tap machine is removed and the tap is completed.
    - Note: if the contractor has not fulfilled his responsibilities, as stated above, prior to the arrival of Pasco County Utilities Operations and Maintenance tapping crew, there will be an additional charge of $96.00.

    If you have any questions regarding this information, contact Nelson D. Holt, Maintenance Supervisor, Utilities Services Branch, at (813) 235-6189, or email nholt@pascocountyfl.net.
42. Proposed gravity sewer connections to existing sanitary sewer manholes, will require Spectrashield Liner System or approved equal coating; unless the connection is at an existing standard (non-drop) manholes, with a proposed non-drop connection. However, standard connections greater than 15' deep and/or within 2 manholes of a pump station, will require Spectrashield Liner System or approved equal coating.
43. Proposed force main connections to sanitary sewer manholes will require Spectrashield Liner System or approved equal coating to the connecting manhole, and two upstream manholes.

ALL SANITARY SEWER MAINS SHALL BE 8" DIA. SDR-26 GREEN PVC PIPE UNLESS OTHERWISE NOTED

REFER TO DRAINAGE KEY MAP FOR WETLAND INFORMATION

PONDS SHOWN HERE ON AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND IS SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. THIS WORK IS TO BE COMPLETED UNDER THE CONTRACT FOR THESE CONSTRUCTION PLANS. ROADS, STORMWATER COLLECTION, UTILITIES AND SERVICES SHOWN HERE AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY UNDER PERMIT PSPI7-004, DATED JULY 6, 2017 AND ARE SHOWN ON THE PLANS DATED FEBRUARY 2017 TITLED ("MITCHELL 54 WEST MASTER INFRASTRUCTURE") PREPARED BY REGENCY DESIGN & ENGINEERING, INC. REFER TO THE CURRENT PLANS BY REGENCY DESIGN & ENGINEERING, INC. FOR ANY MODIFICATIONS TO THE PREVIOUSLY PERMITTED DESIGN.

EXISTING PUMP STATION #1
RIM: 29.0
INFLOW INVERT: 14.3
BOTTOM: 6.5

FIRE DEPARTMENT REQUIREMENTS:

CONDITIONS/COMMENTS

1. PROJECT MUST COMPLY WITH PASCO COUNTY FIRE HYDRANT ORDINANCE PER PASCO COUNTY LAND DEVELOPMENT CODE SECTION 904
2. ACCESS TO GATED ROADWAYS, SUBDIVISIONS, OR DEVELOPMENTS SHALL BE PROVIDED WITH A KNOX GATE OVER-RIDE SWITCH, EQUIPPED WITH BATTERY BACKUP, AND A FAIL SAFE MANUAL RELEASE AS PER NFPA-1, 18.2.2.2.
3. FIRE DEPT ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FT FOR A TWO LANE ROAD AND 15 FT FOR A SINGLE LANE ROAD AS PER NFPA-1, 18.2.3.4.1.1.
4. FIRE DEPT ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13FT 6 INCHES AS PER NFPA-1, 18.2.3.4.1.1.
5. TURNS IN FIRE DEPT ACCESS ROADS SHALL MAINTAIN THE MINIMUM WIDTH OF THE ROAD AS PER NFPA-1, 18.2.3.4.3.2.
6. FIRE DEPT ACCESS ROADS CONNECTING TO ROADWAYS SHALL BE PROVIDED WITH CURB CUTS EXTENDING AT LEAST 2 FT BEYOND EACH EDGE OF THE FIRE LANE AS PER NFPA-1, 18.2.3.4.6.3.
7. WATER SUPPLY AND FIRE HYDRANTS SHALL COMPLY NFPA-1, CHAPTER 18.3
8. FIRE DEPT ACCESS ROADS SHALL BE INSTALLED TO AN ALL WEATHER DRIVING SURFACE ABLE TO WITHSTAND THE LIVE LOADS OF FIRE DEPT APPARATUS (32 TONS) PRIOR TO COMBUSTIBLES COMING ON TO THE JOBSITE AND THEY SHALL BE MAINTAINED DURING CONSTRUCTION. THE SITE SHALL COMPLY NFPA-1, CHAPTER 16.1.4. & 18.3.
9. WATER SUPPLY FOR FIRE PROTECTION AND FIRE HYDRANTS SHALL BE INSTALLED, COMPLETED, AND IN SERVICE PRIOR TO COMBUSTIBLES COMING ON TO THE JOBSITE AND THEY SHALL BE MAINTAINED DURING CONSTRUCTION. THE SITE SHALL COMPLY NFPA-1, CHAPTER 16.4.3.1. & 16.4.3.1.
10. DEAD END FIRE DEPT ACCESS ROADS IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH APPROVED PROVISIONS FOR THE FIRE DEPT APPARATUS TO TURN AROUND AS PER NFPA-1, 18.2.3.4.4.

DATE	DESCRIPTION	BY
10-07-2019	REV WM & RM SIZES, REV SAN. LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

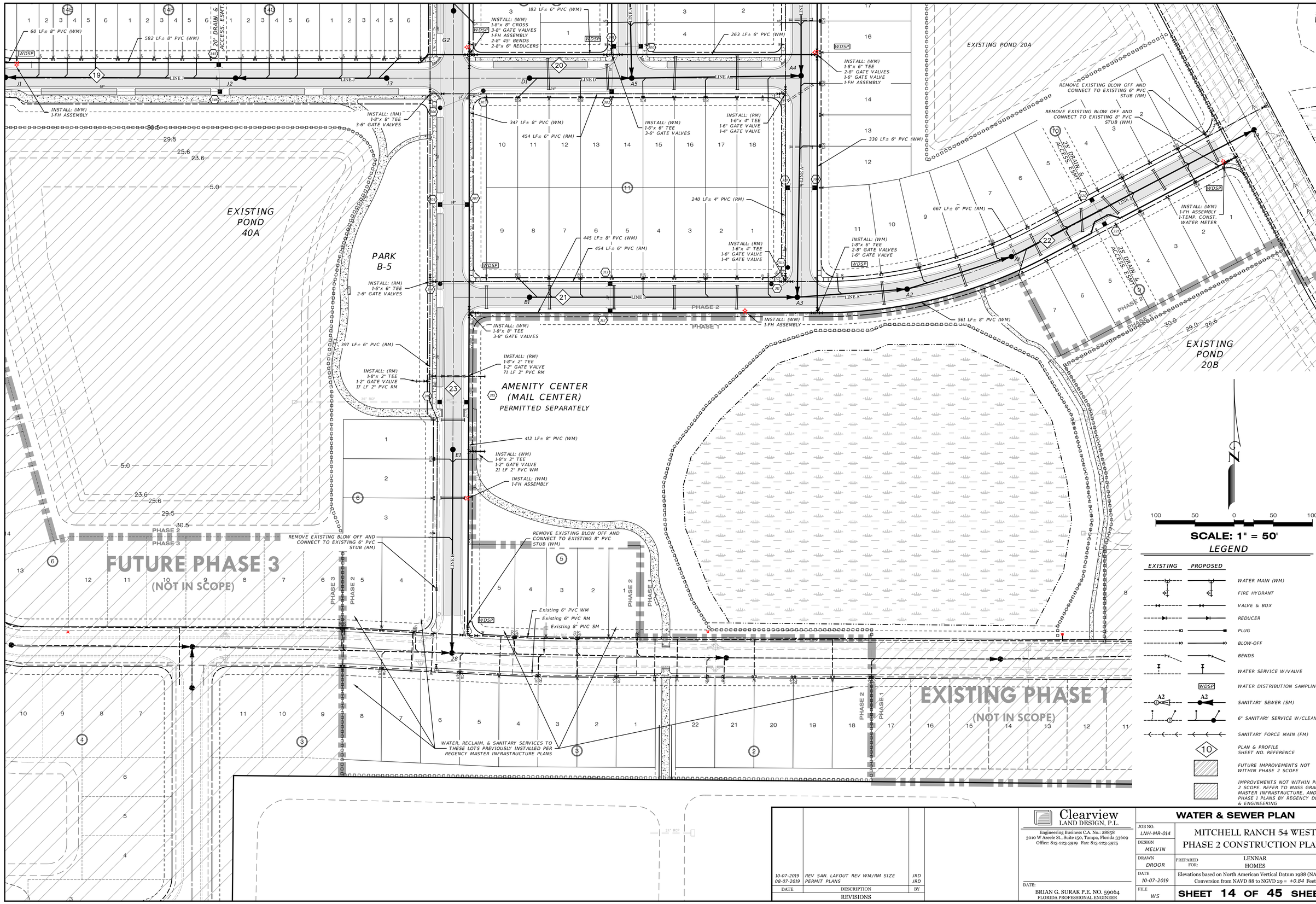
Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

WATER-SEWER KEY MAP

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST
DESIGN MELVIN	PHASE 2 CONSTRUCTION PLANS
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE WSKEY	**SHEET 13 OF 45 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\WSKEY.DWG–13 WATER–SEWER KEY MAP 2019/10/07 10:38 AM BRENT MELVIN



P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCVRS.DWG-14 WATER & SEWER PLAN 2019/10/07 10:39 AM BRENT MELVIN

DATE	DESCRIPTION	BY
10-07-2019	REV SAN. LAYOUT REV WM/RM SIZE	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

WATER & SEWER PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE WS	SHEET 14 OF 45 SHEETS

FUTURE PHASE 10

(NOT IN SCOPE)

Existing Pump Station

PARK P-2

INSTALL: (IM) IRRIGATION METER 1-4" TEE 4-4" 90° BENDS (PRIVATE)

INSTALL: (RM) IRRIGATION METER 1-6" GATE VALVES 2-6" 90° BENDS

INSTALL: (RM) 1-6" BEND 1-6" GATE VALVES

228 LF± 6" PVC (RM)

4" PRIVATE IRRIGATION

236 LF± 8" PVC (WM)

371 LF± 8" PVC (WM)

INSTALL: (WM) 2-8" 45° BENDS

REMOVE EXISTING BLOW OFF AND CONNECT TO EXISTING 8" PVC STUB (WM)

Existing 8" PVC SM

Existing 8" PVC WM

Existing 8" PVC RM

INSTALL: (WM) 1-8"x 6" TEE 2-8" GATE VALVES 1-6" GATE VALVE 1-FH ASSEMBLY

182 LF± 8" PVC (WM)

INSTALL: (WM) 1-8"x 6" TEE 2-8" GATE VALVES 1-6" GATE VALVE

262 LF± 8" PVC (WM)

197 LF± 8" PVC (WM)

INSTALL: (WM) 1-8"x 8" TEE 3-8" GATE VALVES 2-8" 45° BENDS

458 LF± 8" PVC (WM)

583 LF± 6" PVC (RM)

INSTALL: (RM) 1-6"x 6" TEE 2-6" GATE VALVES

20' DRAIN. & ACCESS. ESMT.

249 LF± 6" PVC (WM)

458 LF± 6" PVC (WM)

INSTALL: (WM) 1-6"x 6" TEE 3-6" GATE VALVES

558 LF± 6" PVC (RM)

INSTALL: (WM) 1-FH ASSEMBLY

584 LF± 6" PVC (WM)

192 LF± 6" PVC (WM)

REMOVE EXISTING BLOW OFF AND CONNECT TO EXISTING 8" PVC STUB (WM) W/ 8"x 6" REDUCER

INSTALL: (WM) 2-8" 22½° BENDS

60 LF± 8" PVC (WM)

582 LF± 8" PVC (WM)

INSTALL: (WM) 1-8"x 8" CROSS 3-8" GATE VALVES 1-FH ASSEMBLY 2-8" 45° BENDS 2-8"x 6" REDUCERS

182 LF± 6" PVC (WM)

263 LF± 6" PVC (WM)

INSTALL: (WM) 1-8"x 6" TEE 2-8" GATE VALVES 1-6" GATE VALVE 1-FH ASSEMBLY

INSTALL: (RM) 1-8"x 8" TEE 3-6" GATE VALVES

347 LF± 8" PVC (WM)

454 LF± 6" PVC (RM)

INSTALL: (WM) 1-6"x 6" TEE 3-6" GATE VALVES

INSTALL: (RM) 1-6"x 4" TEE 1-6" GATE VALVE 1-4" GATE VALVE

330 LF± 6" PVC (WM)

240 LF± 4" PVC (RM)

667 LF± 6" PVC (RM)

445 LF± 8" PVC (WM)

454 LF± 6" PVC (RM)

INSTALL: (WM) 1-8"x 6" TEE 2-8" GATE VALVES 1-6" GATE VALVE

INSTALL: (RM) 1-6"x 6" TEE 2-6" GATE VALVES

397 LF± 6" PVC (RM)

INSTALL: (RM) 1-8"x 2" TEE 1-2" GATE VALVE 71 LF 2" PVC RM

INSTALL: (RM) 1-8"x 2" TEE 1-2" GATE VALVE 17 LF 2" PVC RM

INSTALL: (WM) 1-8"x 8" TEE 3-8" GATE VALVES

INSTALL: (WM) 1-FH ASSEMBLY

561 LF± 8" PVC (WM)

EXISTING POND 40A

PARK B-5

AMENITY CENTER (MAIL CENTER) PERMITTED SEPARATELY

PHASE 1

PHASE 2

PHASE 3

EXISTING POND 20A

20' DRAIN. & ACCESS. ESMT.

25' DRAIN. & ACCESS. ESMT.

LINE A

LINE C

LINE D

LINE F

LINE G

LINE H

LINE I

LINE J

N

100 50 0 50 100

SCALE: 1" = 50'

LEGEND

EXISTING	PROPOSED	
		WATER MAIN (WM)
		FIRE HYDRANT
		VALVE & BOX
		REDUCER
		PLUG
		BLOW-OFF
		BENDS
		WATER SERVICE W/VALVE
	WDSP	WATER DISTRIBUTION SAMPLING POINT
	A2	SANITARY SEWER (SM)
	A2	6" SANITARY SERVICE W/CLEANOUT
		SANITARY FORCE MAIN (FM)
	10	PLAN & PROFILE SHEET NO. REFERENCE
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

DATE	DESCRIPTION	BY
10-07-2019	REV SAN. LAYOUT REV WM/RM SIZE	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.

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Office: 813-223-3919 Fax: 813-223-3975

DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

WATER & SEWER PLAN

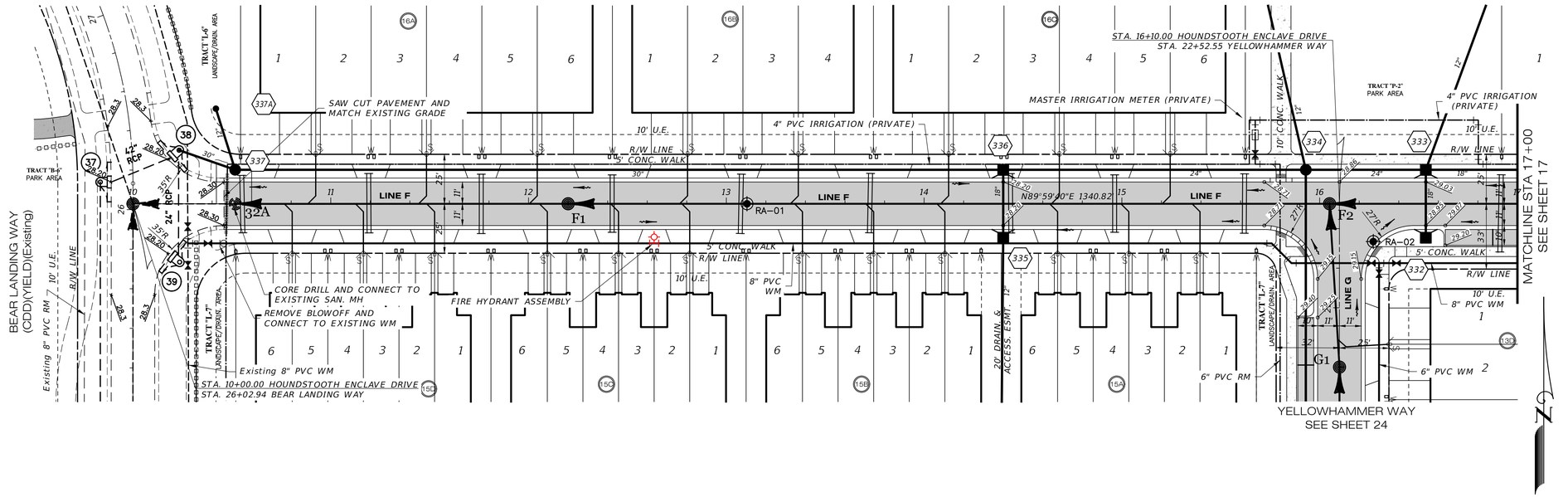
MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

JOB NO.	LNH-MR-014
DESIGN	MELVIN
DRAWN	DROOR
DATE	10-07-2019
FILE	WS
PREPARED FOR:	LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

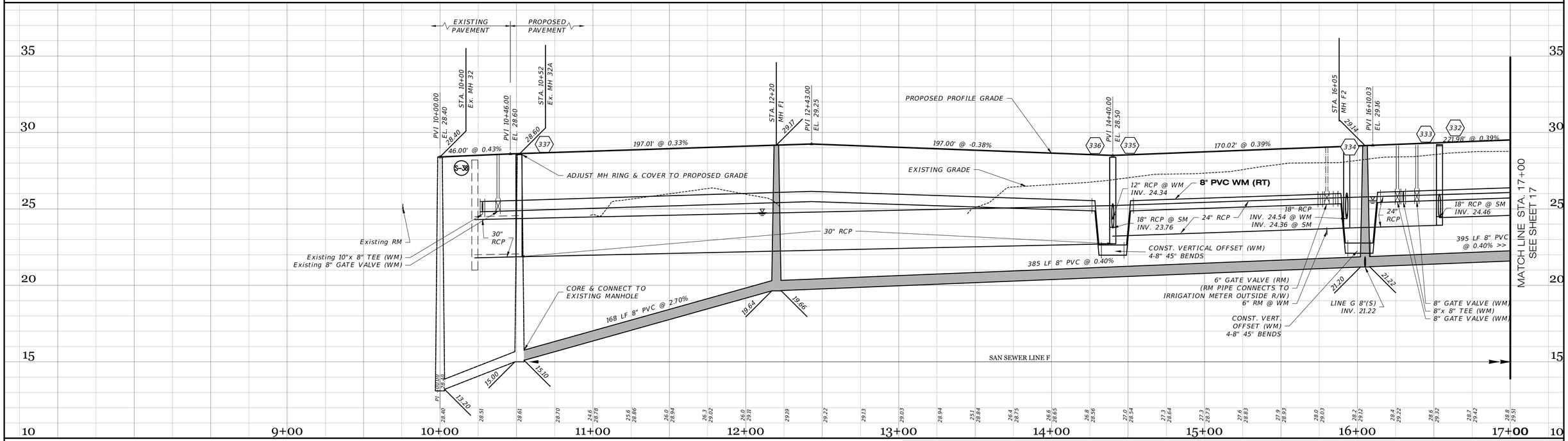
SHEET 15 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\PS.DWG-15 WATER & SEWER PLAN 2019/10/07 10:39 AM BRENT MELVIN



HOUNDSTOOTH ENCLAVE DRIVE

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



THE EXISTING TOPOGRAPHY SHOWN IN THESE PLANS REPRESENTS THE ORIGINAL TOPOGRAPHY OF THE PROJECT SITE AS PER THE SURVEY DATA PROVIDED BY REGENCY DESIGN. PRIOR TO THE MASS GRADING OPERATION. THE CONTRACTOR/OWNER SHALL PROVIDE UPDATED TOPOGRAPHY OF THE PROJECT SITE FOR CONSTRUCTION BID PURPOSES

DATE	DESCRIPTION	BY
10-07-2019	ADD BORINGS, REVISE STORM MHs	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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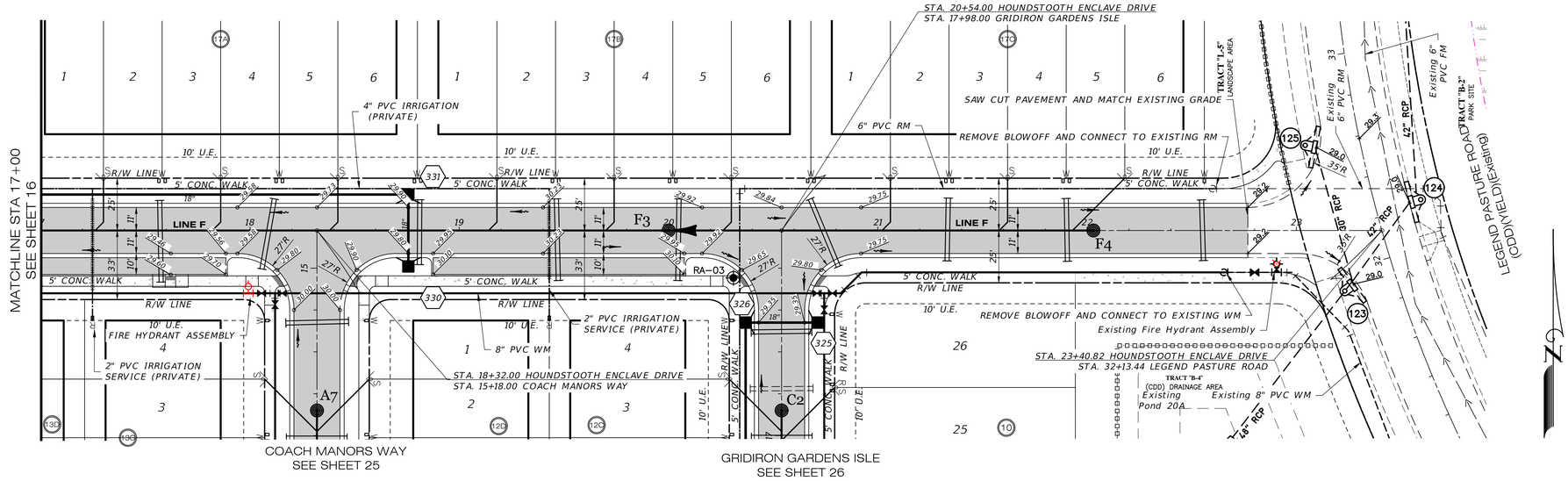
DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

ROADWAY &UTILITY PLAN & PROFILE

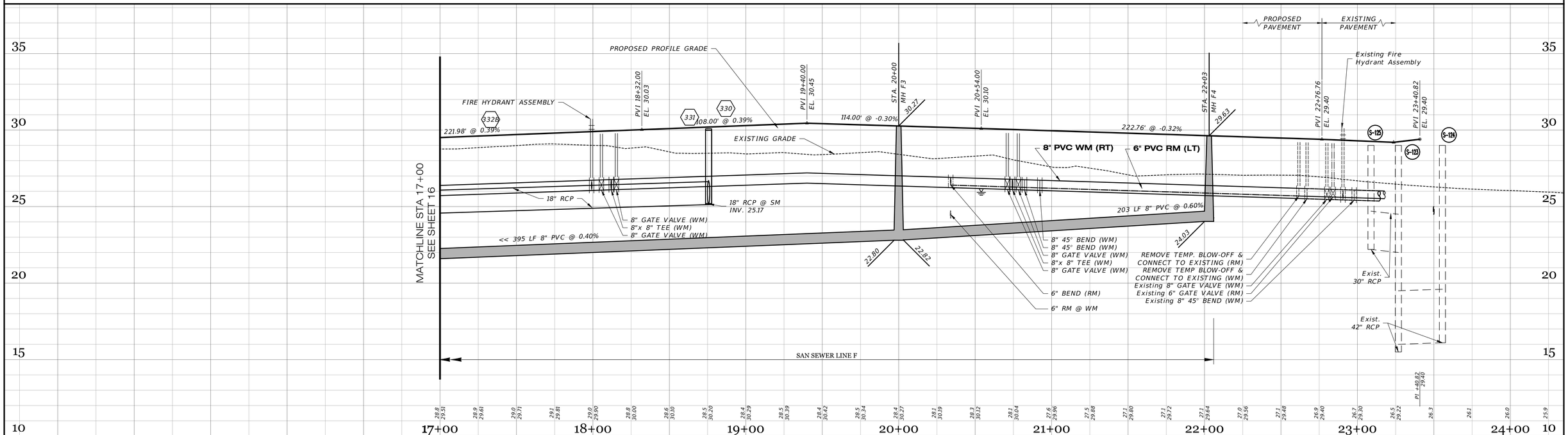
JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP01	SHEET 16 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\RP01.DWG-16 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:40 AM BRENT MELVIN



HOUNDSTOOTH ENCLAVE DRIVE

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



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DATE	DESCRIPTION	BY
10-07-2019	ADD TRACT LABELS & BORINGS, REV SAN LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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Engineering Business C.A. No.: 28858
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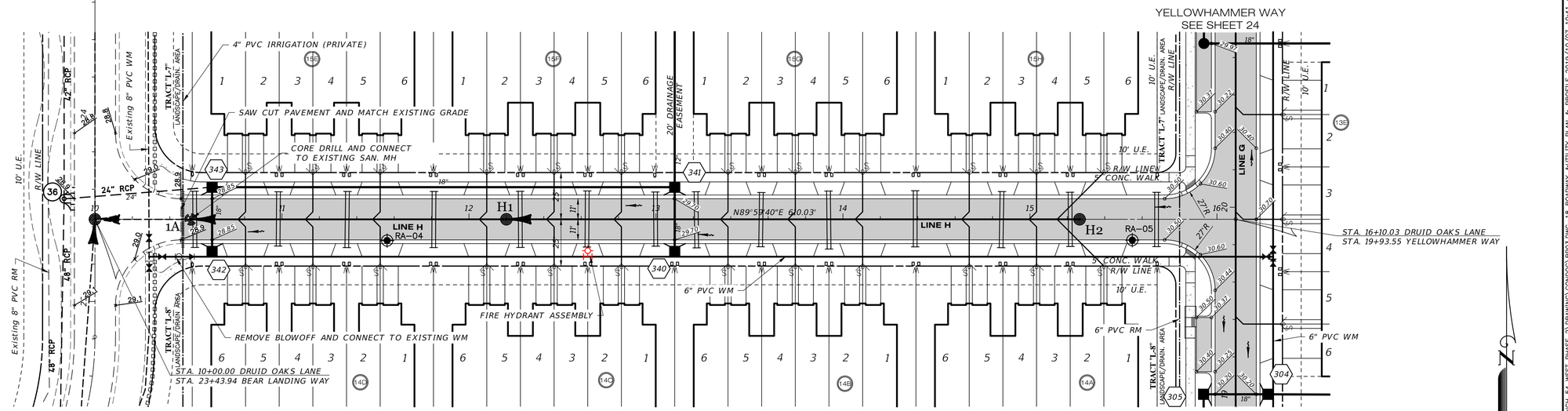
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

ROADWAY &UTILITY PLAN & PROFILE

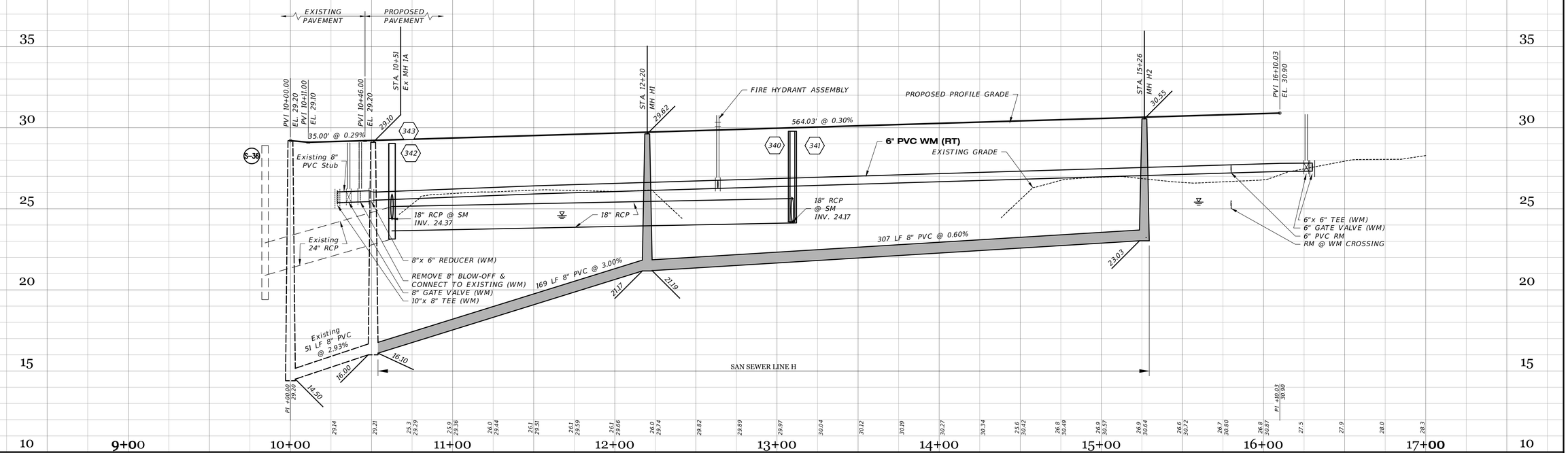
JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP02	SHEET 17 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\RP02.DWG-17 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:40 AM BRENT MELVIN



DRUID OAKS LANE

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



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DATE	DESCRIPTION	BY
10-07-2019	ADD TRACT LABELS & BORINGS, REV SAN LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
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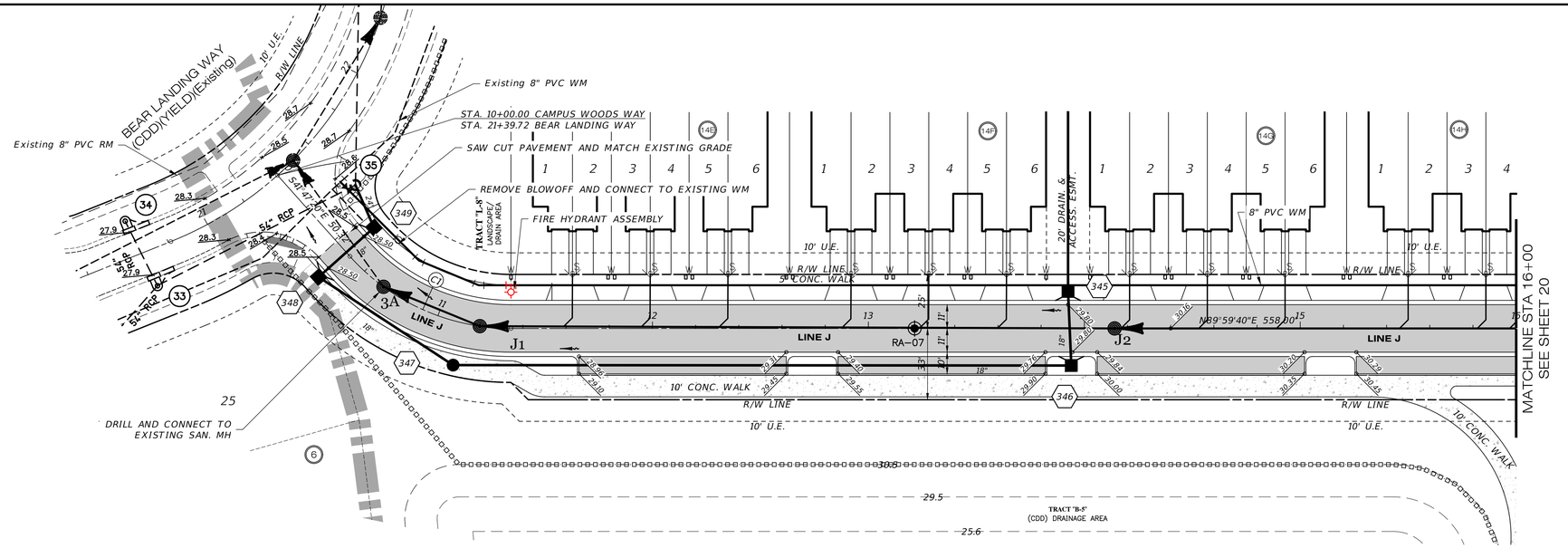
FLORIDA PROFESSIONAL ENGINEER

ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP03	SHEET 18 OF 45 SHEETS

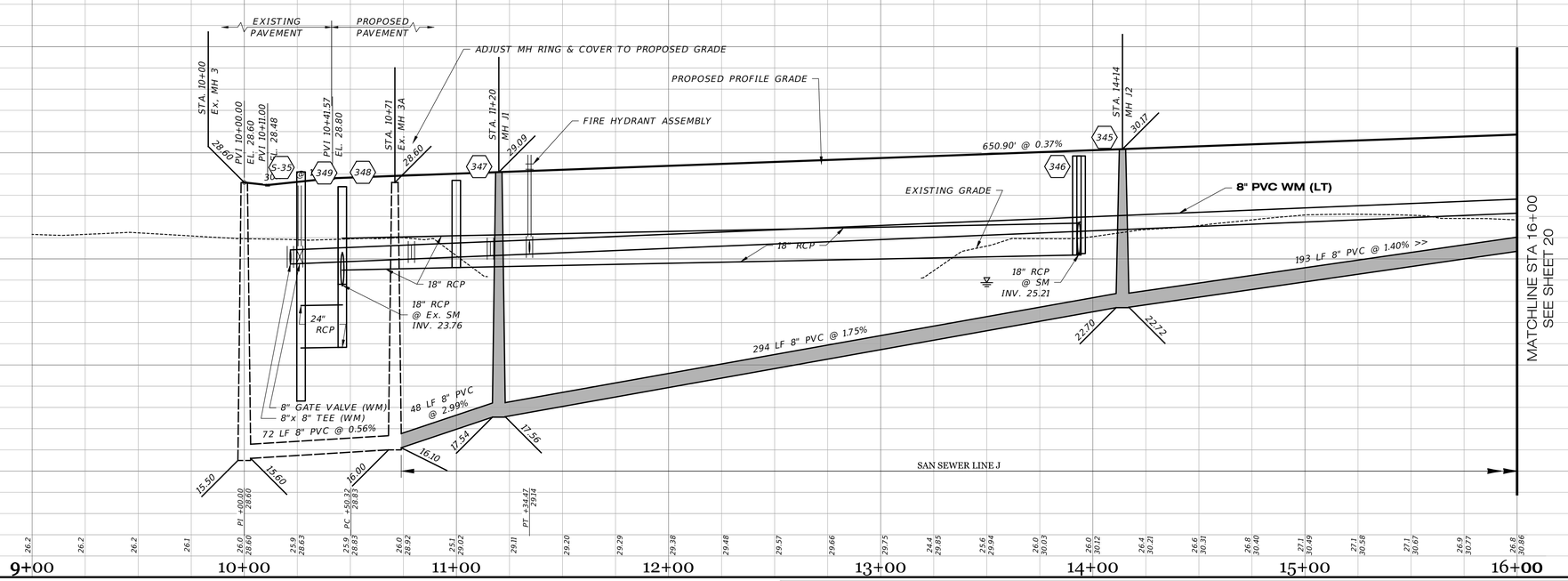
P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\RP03.DWG–18 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:41 AM BRENT MELVIN



Curve Table: Alignments								
Curve #	Radius	Length	Chord	Delta	Tan	Deg (Arc)	PC Sta.	PT Sta.	PI Sta.
C1	100.00'	84.15'	S65° 53' 49.75"E, 81.69'	048.2167	44.75'	057°18'	9+00.00	22+36.47	10+95.06

CAMPUS WOODS WAY

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



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DATE	DESCRIPTION	BY
10-07-2019	ADD TRACT LABELS	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
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ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP04	SHEET 19 OF 45 SHEETS

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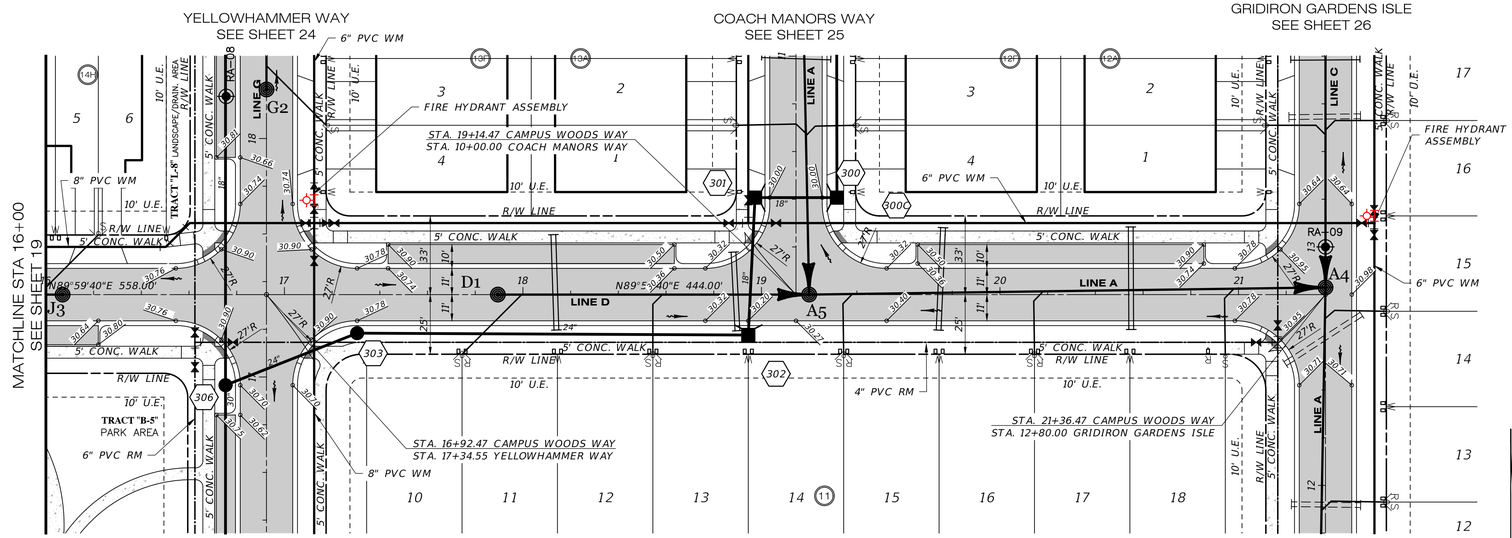
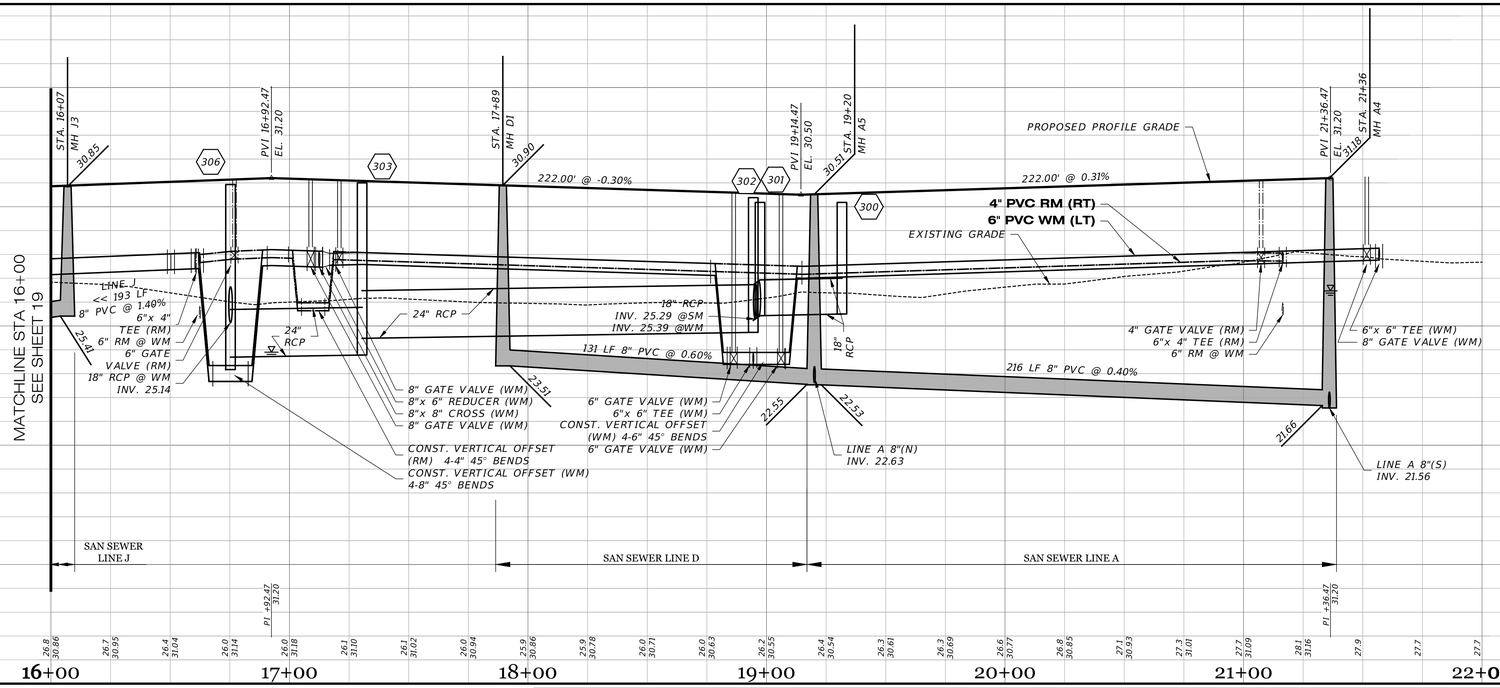


CAMPUS WOODS WAY

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



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DATE	DESCRIPTION	BY
10-07-2019	ADD BORINGS & TRACT LABELS REV SAN LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
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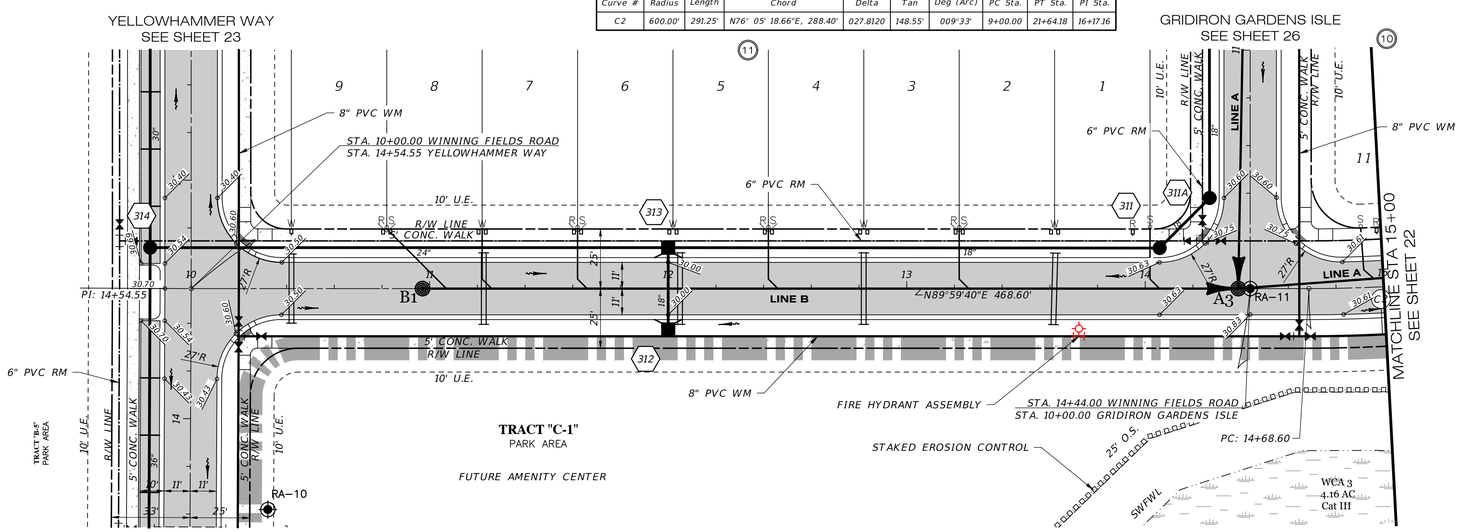
ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP05	**SHEET 20 OF 45 SHEETS**

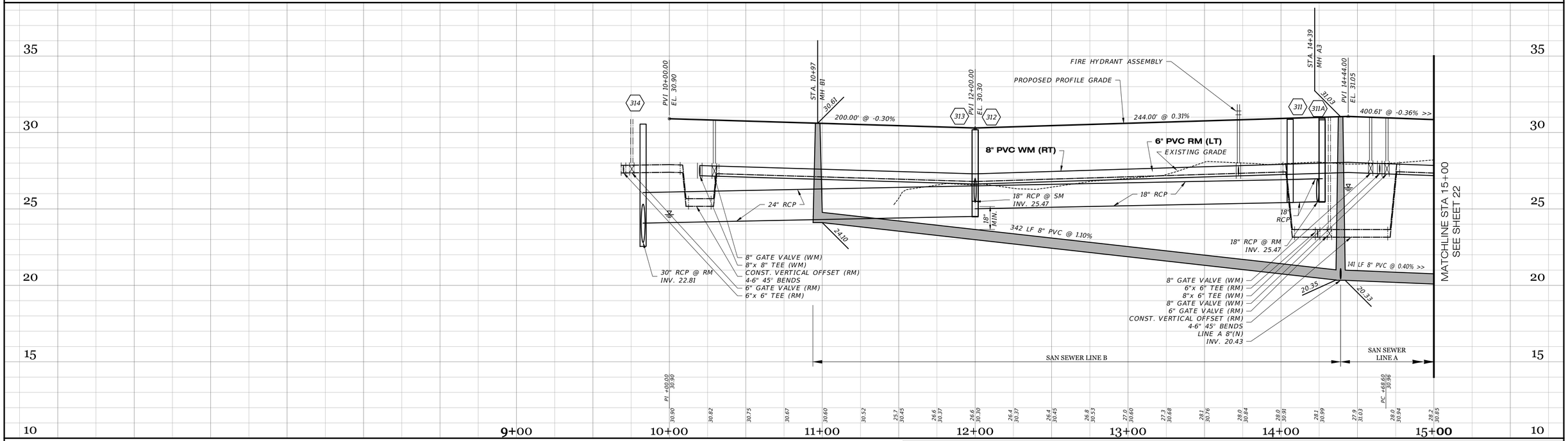
P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\RP05.DWG-20 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:42 AM BRENT MELVIN

Curve Table: Alignments									
Curve #	Radius	Length	Chord	Delta	Tan	Deg (Arc)	PC Sta.	PT Sta.	PI Sta.
C2	600.00'	291.25'	N76° 05' 18.66"E, 288.40'	027.8120	148.55'	009°33'	9+00.00	21+64.18	16+17.16



WINNING FIELDS ROAD

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



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DATE	DESCRIPTION	BY
10-07-2019	ADD BORINGS, REV SAN LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

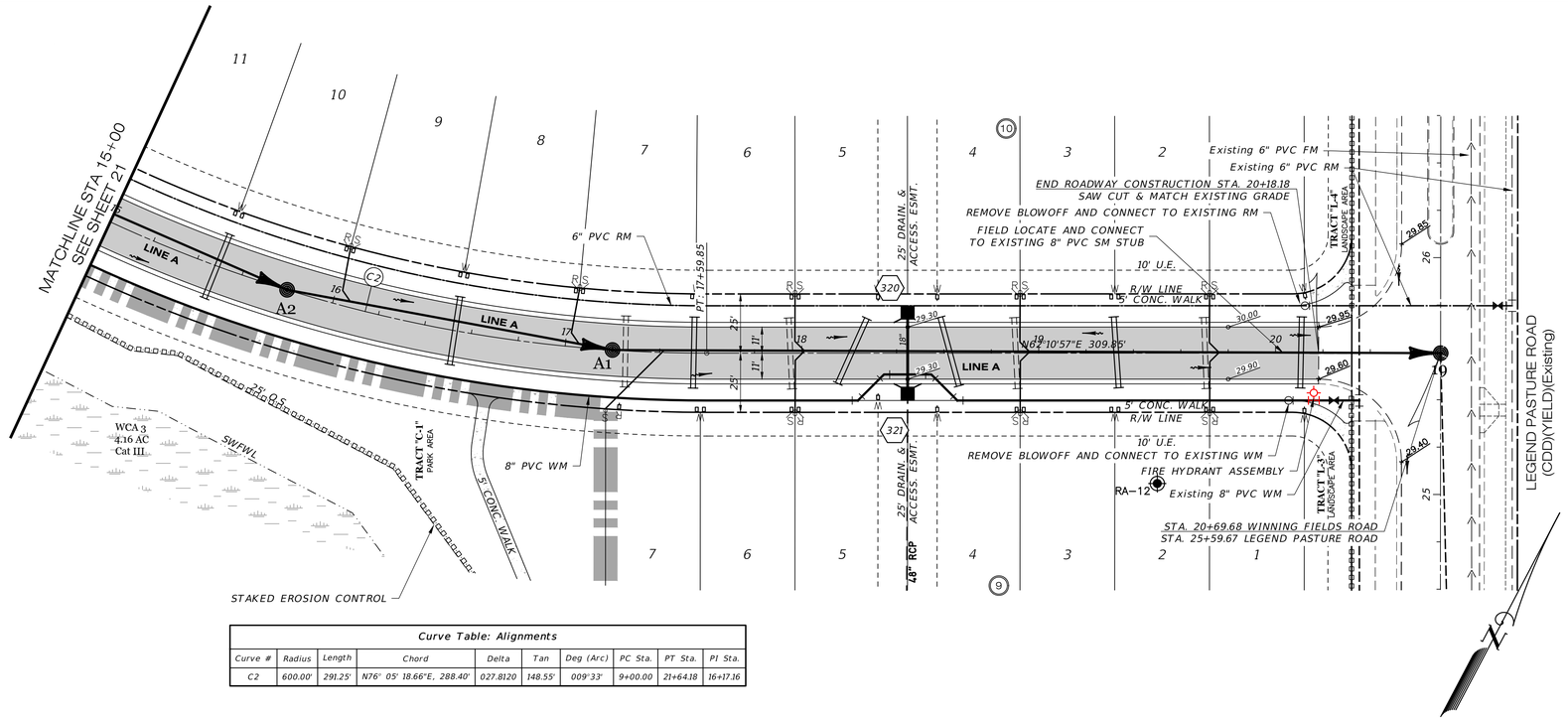
Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP06	SHEET 21 OF 45 SHEETS

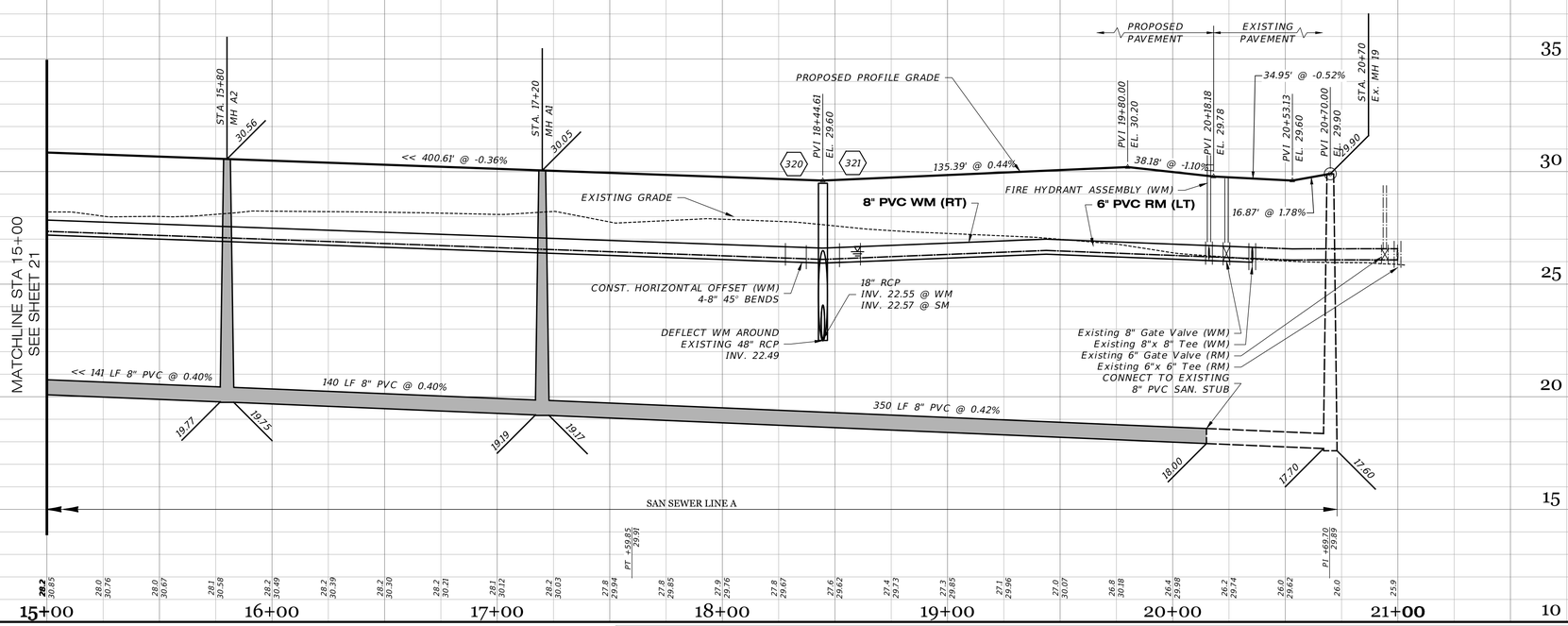
P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\RP06.DWG-21 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:42 AM BRENT MELVIN



Curve Table: Alignments									
Curve #	Radius	Length	Chord	Delta	Tan	Deg (Arc)	PC Sta.	PT Sta.	PI Sta.
C2	600.00'	291.25'	N76° 05' 18.66"E, 288.40'	027.8120	148.55'	009°33'	9+00.00	21+64.18	16+17.16

WINNING FIELDS ROAD

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



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DATE	DESCRIPTION	BY
10-07-2019	ADD BORING & TRACT LABELS	JRD
08-07-2019	PERMIT PLANS	JRD

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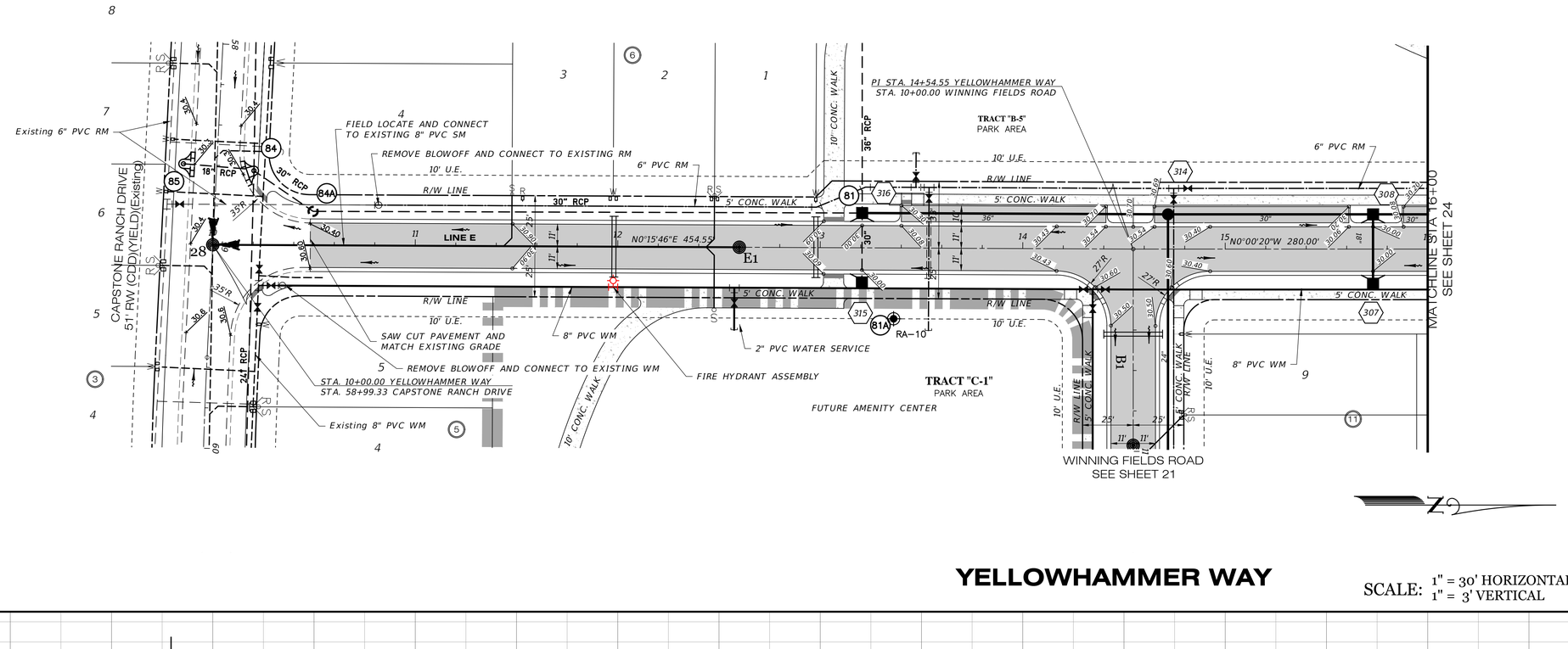
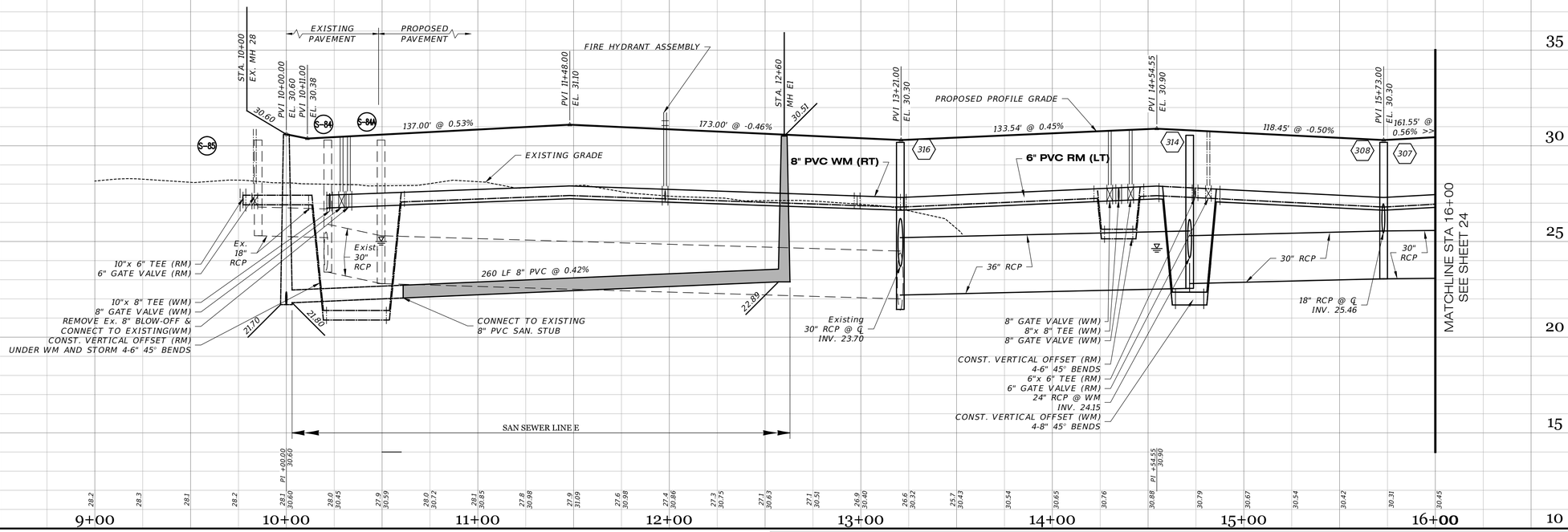
ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP07	SHEET 22 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\RP07.DWG-22 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:43 AM BRENT MELVIN





YELLOWHAMMER WAY

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL

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DATE	DESCRIPTION	BY
10-07-2019	ADD BORINGS & TRACT LABELS	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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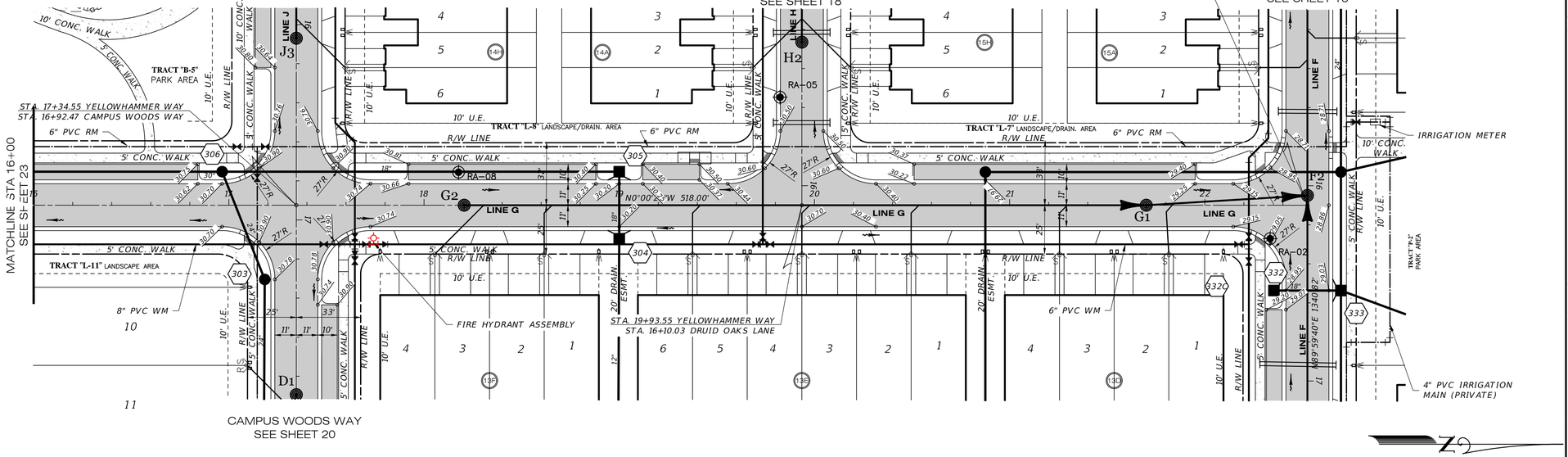
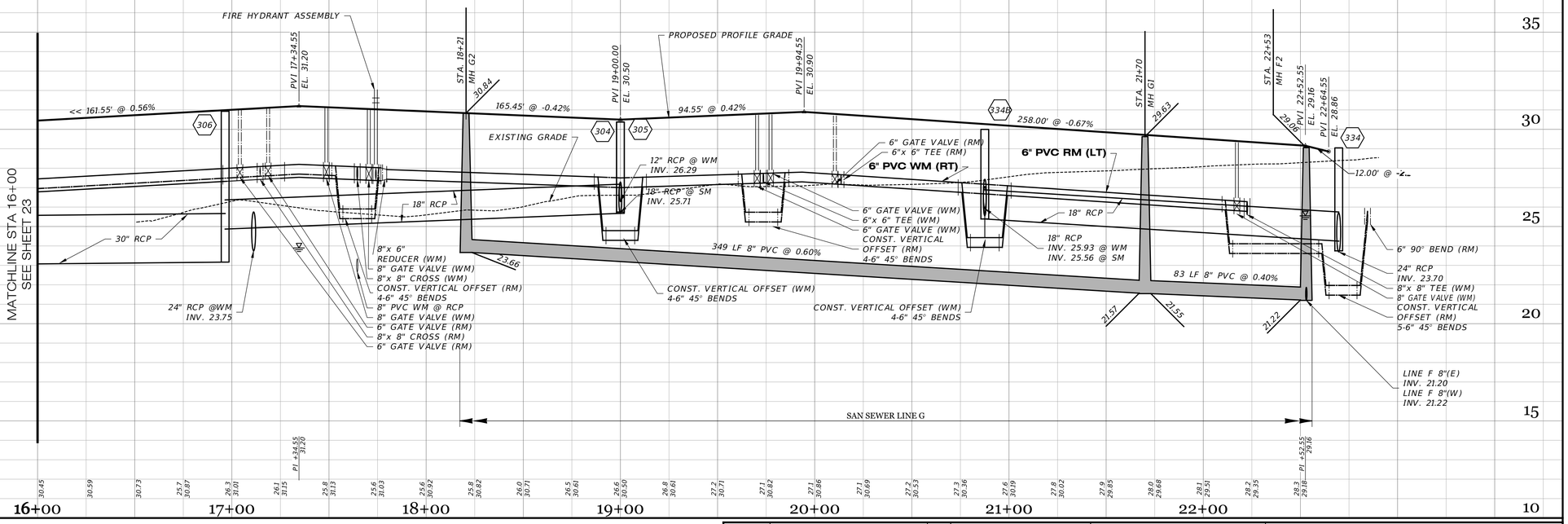
ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP08	SHEET 23 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\RP08.DWG-23 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:43 AM BRENT MELVIN





YELLOWHAMMER WAY

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL

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DATE	DESCRIPTION	BY
10-07-2019	ADD BORINGS & TRACT LABELS REV SAN. LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
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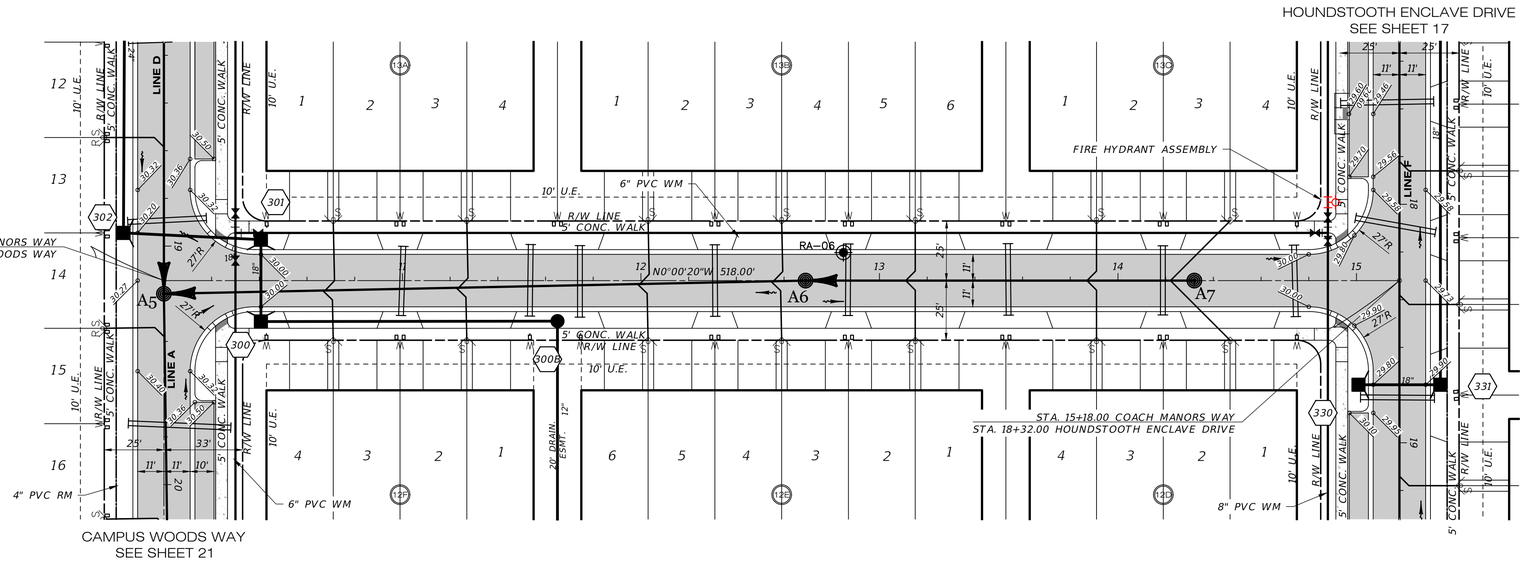
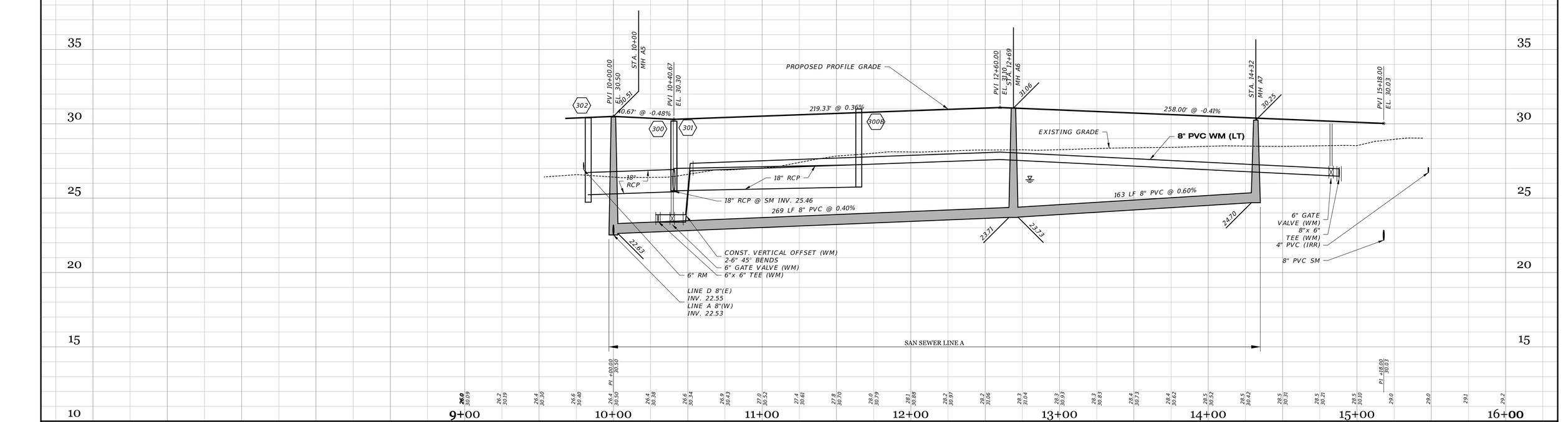
ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP09	SHEET 24 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOC\RP09.DWG-24 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:44 AM BRENT MELVIN





COACH MANORS WAY

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL

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DATE	DESCRIPTION	BY
10-07-2019	ADD BORINGS REV SAN. LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
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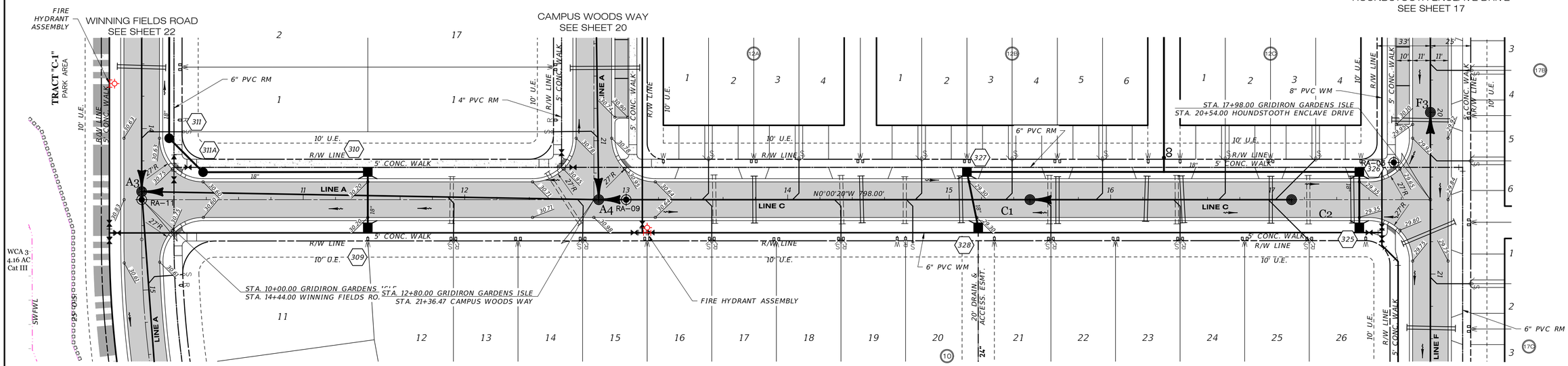
FLORIDA PROFESSIONAL ENGINEER

ROADWAY &UTILITY PLAN & PROFILE

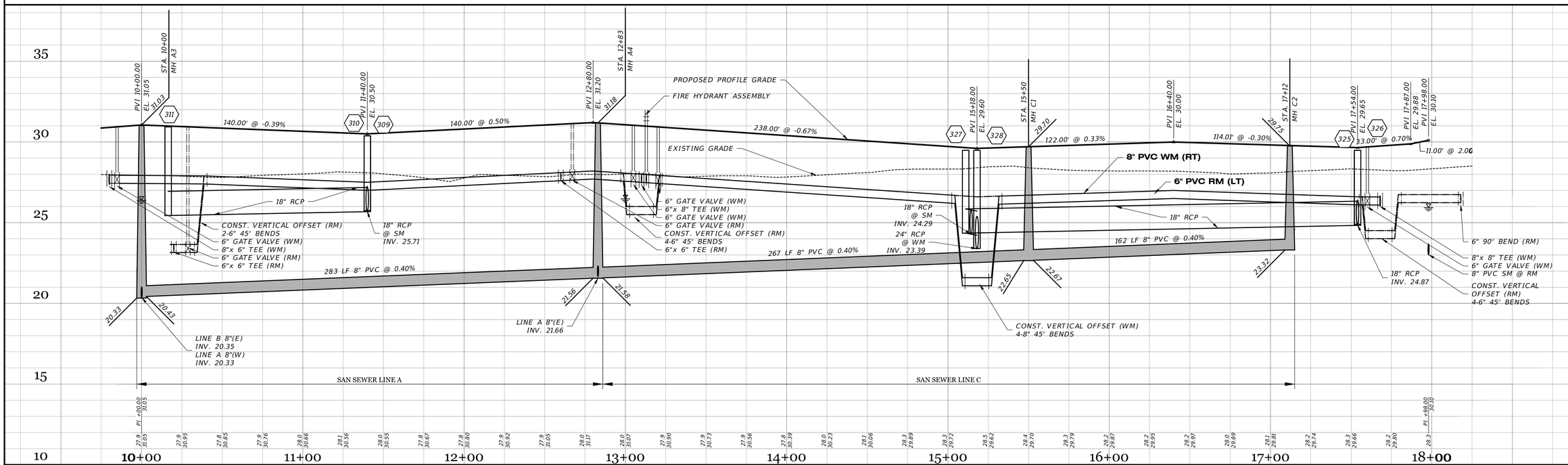
JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP10	SHEET 25 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\RP10.DWG-25 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:45 AM BRENT MELVIN



GRIDIRON GARDENS ISLE

SCALE: 1" = 30' HORIZONTAL
1" = 3' VERTICAL



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10-07-2019	ADD BORINGS REV SAN. LAYOUT	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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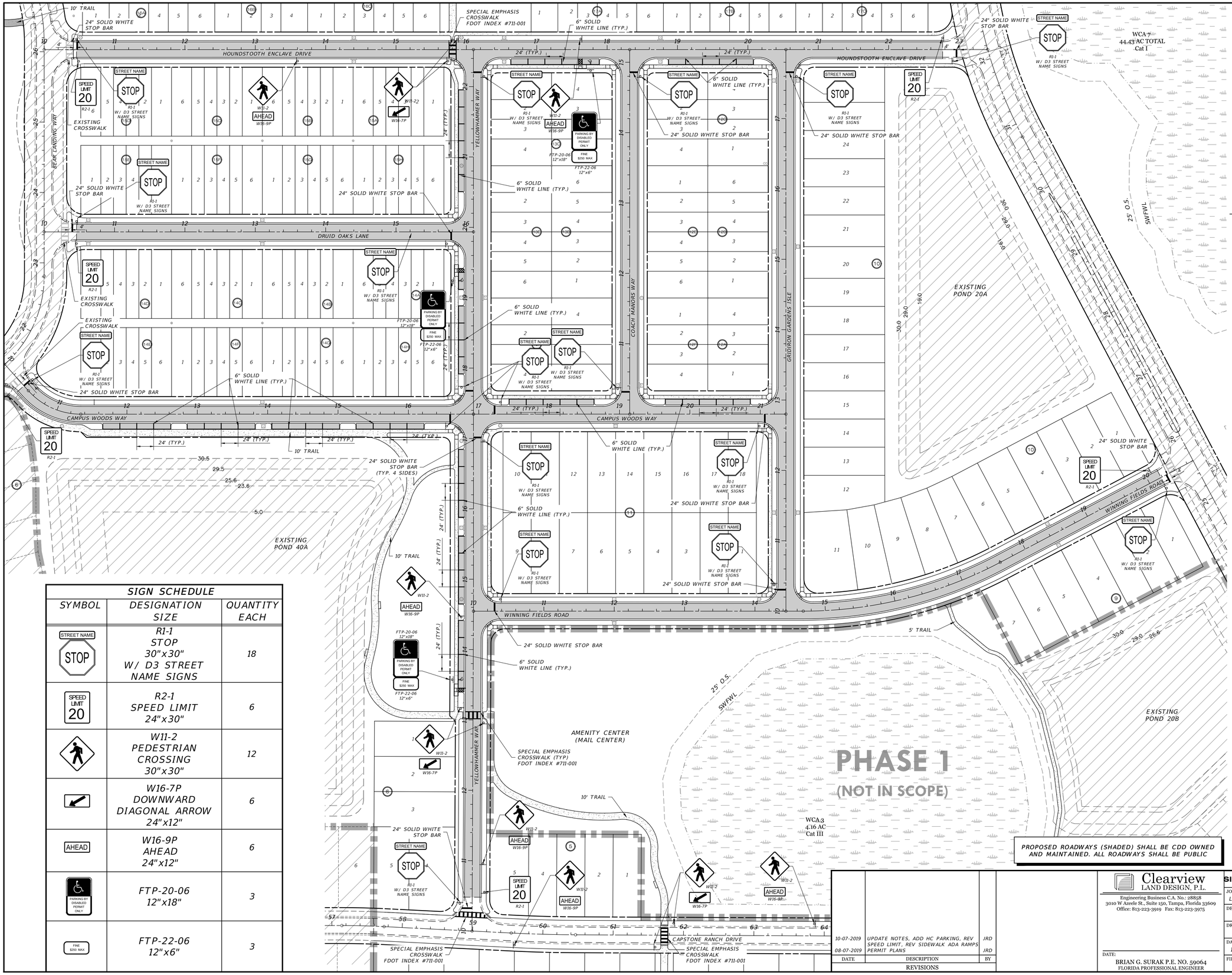
FLORIDA PROFESSIONAL ENGINEER

ROADWAY &UTILITY PLAN & PROFILE

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE RP11	**SHEET 26 OF 45 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\RP11.DWG-26 ROADWAY &UTILITY PLAN & PROFILE 2019/10/07 10:45 AM BRENT MELVIN



SIGN SCHEDULE

SYMBOL	DESIGNATION SIZE	QUANTITY EACH
STREET NAME / STOP	R1-1 STOP 30"x30" W/ D3 STREET NAME SIGNS	18
SPEED LIMIT 20	R2-1 SPEED LIMIT 24"x30"	6
	W11-2 PEDESTRIAN CROSSING 30"x30"	12
	W16-7P DOWNWARD DIAGONAL ARROW 24"x12"	6
AHEAD	W16-9P AHEAD 24"x12"	6
PARKING BY DISABLED PERMIT ONLY	FTP-20-06 12"x18"	3
FINE $250 MAX	FTP-22-06 12"x6"	3

120 60 0 60 120

SCALE: 1" = 60'

LEGEND

- PROPOSED SIDEWALK/PATH BY BUILDER (5' WIDE UNLESS OTHERWISE NOTED)
- PROPOSED SIDEWALK BY DEVELOPER (5' WIDE UNLESS OTHERWISE NOTED, 4" THICK)
- PROPOSED SIDEWALK BY DEVELOPER (5' WIDE, 6" THICK)
- SIGN & POST (POST / FACE OF POST)
- SIGN ON BOTH SIDE OF POST (FACE OF POST / FACE OF POST / POST)
- LIMITS OF CLEAR SIGHT PER FDOT INDEX 546 & MANUAL OF UNIFORM MINIMUM STANDARDS (FLORIDA GREENBOOK)
- CLEAR SIGHT TRIANGLE PER PASCO COUNTY
- FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
- IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING

PRIVATE/CDD ROADWAY NOTES:

1. All traffic control devices shall be installed in conformance with the current Federal Manual on Uniform Traffic Control Devices and Florida Department of Transportation Standards.
2. Street name signs shall be 6" on local roads and 9" on collector and arterial roads. Six-inch signs shall have 4" series c letters and 9" signs signs shall have 6" series b letters. All street name signs on private streets (non-county maintained) shall be standard d3 street names with the colors reversed, white background with green letters and border. At intersections with county maintained roads, the county maintained road shall be green background with white letters.
3. Contractor must contact engineer of record prior to ordering street name signs. Approved street names can not be determined until recording of the plat.
4. Existing striping and other pavement markings to be removed shall be done as necessary by hydroblasting. Grinding is not permitted.
5. The sidewalk that is to be installed by the individual shall be constructed prior to the issuance of certificate of occupancy to its corresponding dwelling unit. Along non-lot areas, sidewalks shall be constructed with infrastructure improvements to provide an uninterrupted sidewalk throughout the subdivision. Maintenance of sidewalk shall be the responsibility of homeowners association or an entity other than Pasco County.
6. Sidewalk clear zone shall be free of obstacles, this includes shrubs, trees, fences, above ground utilities i.e. power poles, street lights, guy anchors, fire hydrants, mail boxes, street signs and utility markers, etc.
7. Sidewalks will be provided on both sides of all roads including non-lot areas. Unless otherwise shown, all sidewalks shall be five (5) feet wide, 4" thick concrete, and 3000 p.s.i., fiber-reinforced. Sidewalks shall be constructed on a non-yielding subgrade, and 6" in thickness is required where sidewalk is crossed by a driveway.
8. Detectable warning surfaces shall be aligned in the direction of travel.
9. Curb ramps are required at all intersections and shall be constructed by the site developer with infrastructure improvements per fdot index 304.
10. Any traffic control device for a private roadway placed in a county or state right-of-way shall be installed on the appropriate breakaway post assembly.

DATE	DESCRIPTION	BY
10-07-2019	UPDATE NOTES, ADD HC PARKING, REV SPEED LIMIT, REV SIDEWALK ADA RAMPS	JRD
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
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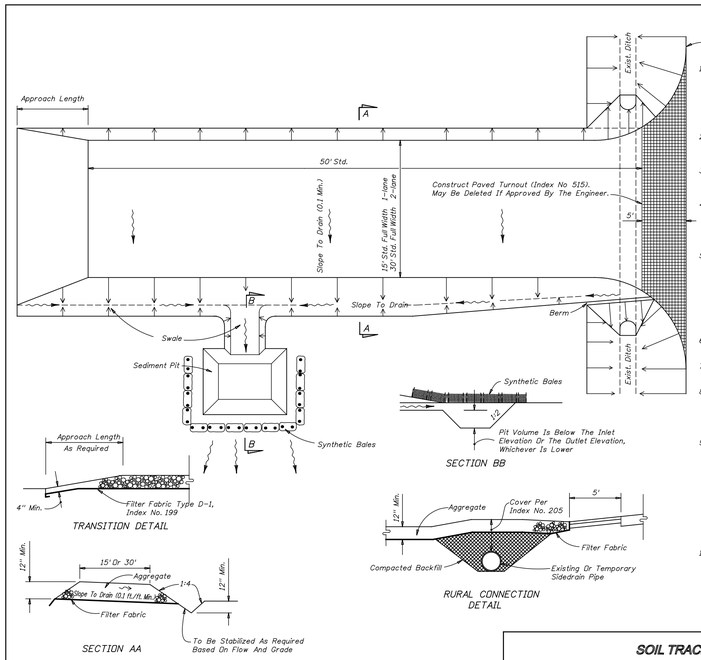
FLORIDA PROFESSIONAL ENGINEER

SIDEWALK & SIGNING & PAVEMENT MARKING PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE SPM	SHEET 27 OF 45 SHEETS

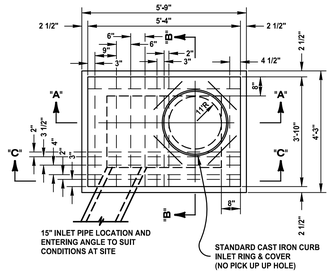
P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\SPM.DWG--27 SIDEWALK & SIGNING & PAVEMENT MARKING PLAN 2019/10/07 10:45 AM BRENT MELVIN



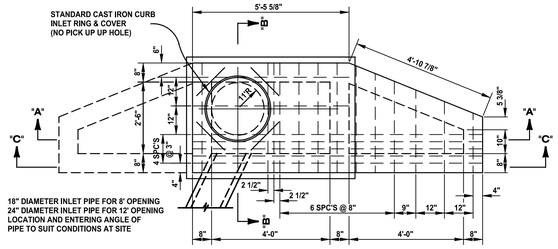
GENERAL NOTES

1. A Soil Tracking Prevention Device (STPD) shall be constructed at locations designated by the engineer for points of egress from unstabilized areas of the project to public roads where off-site tracking of mud could occur. Traffic from unstabilized areas of the construction project shall be directed thru a STPD. Barriers, flagging, or other positive means shall be used as required to limit and direct vehicular egress across the STPD.
2. The Contractor may propose an alternative technique to minimize off-site tracking of sediment. The alternative must be reviewed and approved by the Engineer prior to its use.
3. All materials spilled, dropped, or tracked onto public roads (including the STPD aggregate and construction mud) shall be removed daily, or more frequently if so directed by the Engineer.
4. Aggregates shall be as described in Section 901 excluding 901-2.3. Aggregates shall be FDOT size #1. If this size is not available, the next available smaller size aggregate may be substituted with the approval of the Engineer. Sizes containing excessive small aggregate will track off the project and are unsuitable.
5. The sediment pit should provide a retention volume of 3600 cubic feet/acre of surface area draining to the pit. When the STPD is isolated from other drainage areas, the following pit volumes will satisfy this requirement:
   15' x 50'=100 ft.³ 30' x 50'=200 ft.³
   As an option to the sediment pit, the width of the swale bottom can be increased to obtain the volume. When the sediment pit or swale volume has been reduced to one half, it shall be cleaned. When a swale is used, synthetic bales or silt fence shall be placed along the entire length.
6. The swale ditch draining the STPD shall have a 0.02% minimum and a 1.0% maximum grade along the STPD and to the sediment pit.
7. Mitered end sections are not required when the sidedrain pipe satisfies the clear zone requirements.
8. The STPD shall be maintained in a condition that will allow it to perform its function. To prevent off-site tracking, the STPD shall be rinsed (daily when in use) to move accumulated mud downward thru the stone. Additional stabilization of the vehicular route leading to the STPD may be required to limit the mud tracked.
9. A STPD shall be paid for under the contract unit price for Soil Tracking Prevention Device, EA. The unit price shall constitute full compensation for construction, maintenance, replacement of materials, removal, and restoration of the area utilized for the STPD; including but not limited to excavation, grading, temporary pipe (including MES when required), filter fabric, aggregate, paved turnout (including asphalt and base construction), ditch stabilization, approach route stabilization, sediment removal and disposal, water, rinsing and cleaning of the STPD and cleaning of public roads, grassing and sod. Synthetic Bale or Bale Type Barrier shall be paid for under the contract unit price for Synthetic Bales, LF. Silt fence shall be paid for under the contract unit price for Staked Silt Fence, LF.
10. The nominal size of a standard STPD is 15' x 50' unless otherwise shown in the plans. If the volume of entering and existing vehicles warrant, a 30' width STPD may be used if approved by the Engineer. When a double width (30') STPD is used, the pay quantity shall be 2 for each location.

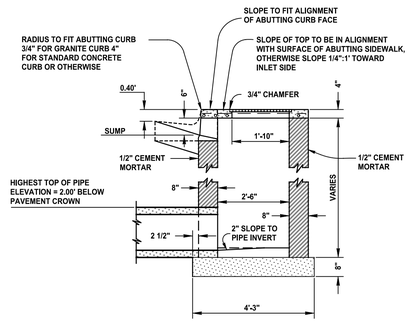
SOIL TRACKING PREVENTION DEVICE TYPE A



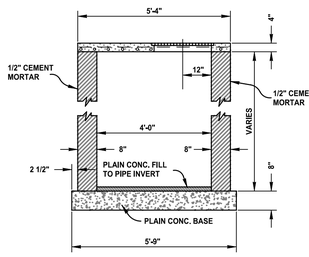
PLAN



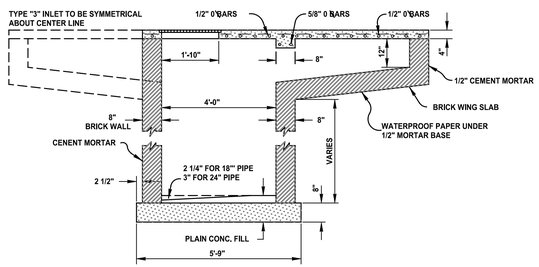
PLAN



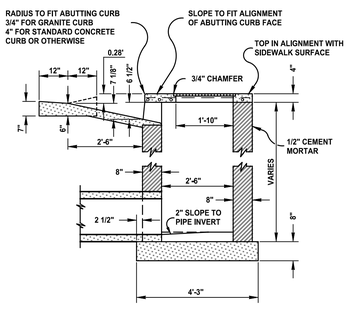
SECTION "B-B"
TYPE "F" CURB ONLY



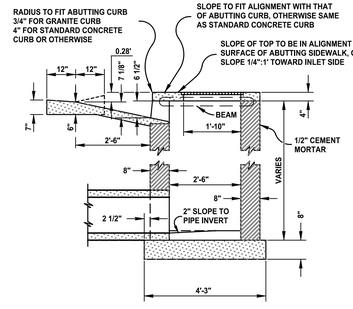
SECTION "A-A"



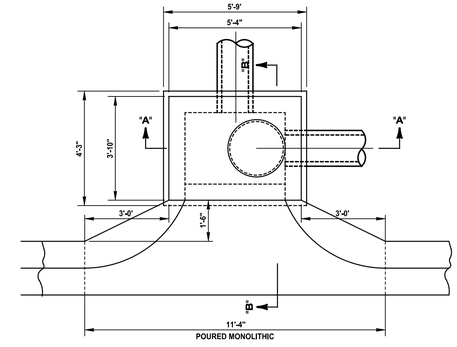
SECTION "A-A"



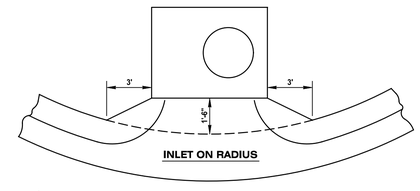
SECTION "B-B"



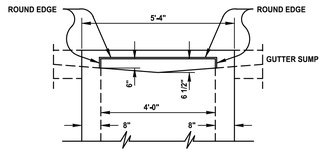
SECTION "B-B"



PLAN



STANDARD INLET FOR MIAMI GUTTER

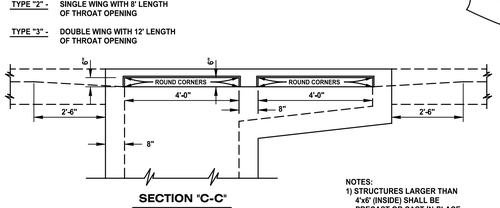


SECTION "C-C"

STANDARD STORM WATER CURB INLET TYPE 1

NOTES:
1) STRUCTURES LARGER THAN 4'x6' (INSIDE) SHALL BE PRECAST OR CAST-IN-PLACE.
2) ALL INSIDE BRICK WALLS TO BE PLASTERED WITH 1/2" MIN. OF 1:2 CEMENT MORTAR.

BAR SCHEDULE FOR TOP SLAB			
NO.	SIZE	LOCATION	LENGTH
8	1/2" Ø	TRANSVERSE BARS	3'-6"
6	1/2" Ø	LONGITUDINAL BARS	5'-1"
1	1/2" Ø	LONGITUDINAL BARS	2'-8"
5	5/8" Ø	TRAFFIC BEARING ONLY	2'-4"



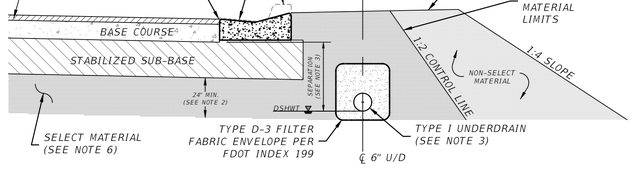
SECTION "C-C"

STANDARD STORM WATER CURB INLET TYPE 2 & 3

BAR SCHEDULE FOR TOP SLAB			
NO.	SIZE	LOCATION	LENGTH
8	1/2" Ø	TRANSVERSE BARS - STRAIGHT	3'-6"
1	1/2" Ø	TRANSVERSE BARS - STRAIGHT	3'-4"
1	1/2" Ø	TRANSVERSE BARS - STRAIGHT	3'-0"
1	1/2" Ø	TRANSVERSE BARS - STRAIGHT	2'-9"
1	1/2" Ø	TRANSVERSE BARS - STRAIGHT	2'-5"
1	1/2" Ø	TRANSVERSE BARS - STRAIGHT	2'-0"
2	5/8" Ø	TRANSVERSE BARS - W/ HOOKED ENDS	3'-6"
5	1/2" Ø	LONGITUDINAL BARS - STRAIGHT	9'-9"
1	1/2" Ø	LONGITUDINAL BARS - STRAIGHT	6'-3"
1	1/2" Ø	LONGITUDINAL BARS - STRAIGHT	5'-9"

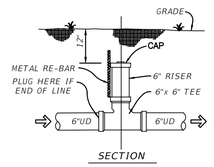
NOTES:
1) STRUCTURES LARGER THAN 4'x6' (INSIDE) SHALL BE PRECAST OR CAST-IN-PLACE.
2) PAVE WITH BRICK AND MORTAR UP TO SPRING LINE WHEREVER TWO OR MORE PIPES ENTER ONE INLET TO PROVIDE A CHANNEL FOR FLOW OF WATER THROUGH INLET.

MUMS NOTE:
THIS CURB INLET HAS BEEN APPROVED BY PASCO COUNTY FOR USE ON NON-FUNCTIONALLY CLASSIFIED ROADWAYS, SUCH AS LOCAL STREETS AND SUBDIVISION COLLECTOR ROADWAYS. IT DOES NOT CONFORM TO THE FLORIDA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION, AND MAINTENANCE FOR STREETS AND HIGHWAYS, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, OR THE DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM. HOWEVER, WE HEREBY CERTIFY THAT IT IS SUITABLE FOR USE AT THE LOCATIONS DEPICTED HEREIN.

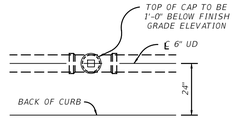


SECTIONAL VIEW
NTS

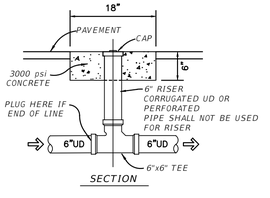
NOTE:
LOCATION OF CLEANOUT TO BE MARKED ON CURB.



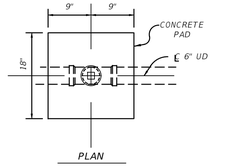
SECTION



PLAN



SECTION



PLAN

CLEANOUT DETAIL
NTS

1. THE MINIMUM VERTICAL SEPARATION BETWEEN THE DESIGN SEASONAL HIGH WATER TABLE (DHSWT) AND THE BOTTOM OF THE BASE AT THE LOWEST EDGE OF PAVEMENT SHALL BE AS FOLLOWS:

A. LIMEROCK BASE	24 INCH
B. SOIL CEMENT BASE	12 INCH
C. CRUSHED CONCRETE BASE (IF APPROVED)	12 INCH
D. ASPHALT BASE COURSE (ABC)	12 INCH

2. A MINIMUM TWO (2) FEET OF SELECT MATERIAL CONSISTING OF A-1, A-3, OR A-2-4 WITH A MAXIMUM 15% PASSING THE #200 SIEVE BELOW THE STABILIZED SUB BASE.
3. TYPE I UNDERDRAIN PER FDOT INDEX 286
   3.1. MINIMUM UNDERDRAIN SLOPE = 0.2% (FDOT INDEX 500)
   3.2. UNDERDRAIN SHALL HAVE A TYPE D-3 FILTER FABRIC ENVELOPE PER FDOT INDEX 199
   3.3. UNDERDRAIN PIPE SIZE = 6"
   3.4. IF THE VERTICAL SEPARATION BETWEEN DSHWT AND BOTTOM OF BASE IS LESS THAN 2 FEET, UNDERDRAINS SHALL BE CONSTRUCTED ALONG BOTH SIDES OF THE ROAD. IF 2-3 FEET, UNDERDRAINS SHALL BE CONSTRUCTED ALONG ONE SIDE.
   3.5. THE INVERT OF A SIX (6) INCH UNDERDRAIN SHALL BE TWO (2) FEET MINIMUM BELOW THE BOTTOM OF THE BASE.
4. TYPE 2 THRU TYPE 5 ROADWAYS SHALL CONTAIN A MINIMUM OF 1.5 INCH OF SP ASPHALTIC CONCRETE. COLLECTOR ROADWAYS SHALL HAVE A MINIMUM OF THREE (3) INCHES OF SP SPHALTIC CONCRETE. TYPE ROADWAYS MAY BE COMPLETED IN STAGES, INITIALLY 2.25 INCHES OF SP 12.5 (S-1) ASPHALT COURSE WITH REQUIRED PAVEMENT MARKINGS AND 0.75 INCHES OF SP 9.5 (S-3) COURSE INSTALLED WITH ANY THERMOPLASTIC STRIPES, PRIOR TO RELEASE OF THE ASSURANCE FOR MAINTENANCE.
5. THE ROAD DESIGN DRAWINGS SHALL CONTAIN SOIL BORING LOCATIONS WITH EXISTING SOIL DATA, OBSERVED WATER LEVEL AND DSHWT SURFACE. UNDERDRAIN OUTFALL POND DATA AND PROXIMATE WETLAND HYDRO PERIOD ELEVATIONS SHALL ALSO BE IDENTIFIED.
6. SELECT MATERIAL SHALL BE PLACED PER FOOT INDEX DRAWINGS 500 & 505.
7. THE REQUIRED MINIMUM STRUCTURAL NUMBER (SN) SHALL BE;
   2.34 MIN. TYPE 2 ROADWAY
   3.50 MIN. TYPE 1 ROADWAYS
   3.70 MIN. COUNTY COLLECTOR
   4.00 MIN. COUNTY ARTERIAL
8. SOIL CEMENT BASE SHALL NOT BE CONSTRUCTED OVER STABILIZED SUBGRADE EXCEEDING LBR 20. THE COUNTY ASSIGNED LAYER COEFFICIENT FOR A MAXIMUM 12 INCH DEPTH, LBR 20 SHALL BE 0.04 PER INCH.
9. CURB DESIGN IS SITE SPECIFIC AND SHALL BE IDENTIFIED ON PLANS.

NOTE:
NO DEVIATIONS TO THIS DETAIL WILL BE PERMITTED UNLESS APPROVED BY THE COUNTY ENGINEER.
ANY PROPOSED ALTERATIONS SHALL BE CLEARLY IDENTIFIED AND HIGHLIGHTED ON DETAIL.

ROADWAY DESIGN CRITERIA & UNDERDRAIN DETAIL

DATE	DESCRIPTION	BY
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

DRAINAGE DETAILS

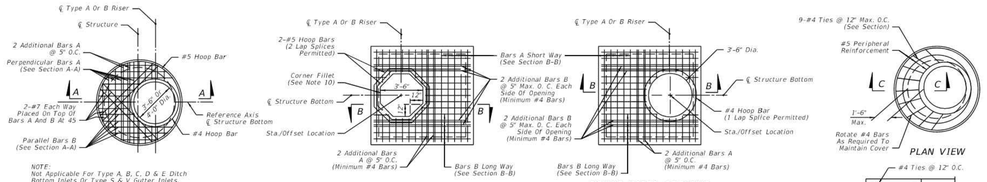
JOB NO. LNH-MR-014
DESIGN MELVIN
DRAWN DR0OR
DATE 10-07-2019
FILE DD

MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

PREPARED FOR: LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\DD.DWG-28 DRAINAGE DETAILS 2019/10/07 10:46 AM BRENT MELVIN



LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	STRUCTURE BOTTOMS TYPE J AND P	INDEX	SHEET
11/01/17						425-010	1 of 5

10/30/2018 #4254.dgn

ROUND STRUCTURE BOTTOMS (ALTERNATE A) & ROUND RISERS– TABLE 1
Wall Thickness (t_1 & t_2) and Vertical & Horizontal Areas of Reinforcement (A_s)

Type	Structure/Riser Diameter (ft)	Cast–In–Place Items Class II Concrete			Precast Items				
					Class II Concrete			ASTM C478	
		t_1 Riser (in.)	t_2 Bottom (in.)	A_s (in^2/ft.)	t_1 Riser (in.)	t_2 Bottom (in.)	A_s (in^2/ft.)	t_1 or t_2 (in.)	A_s *** (in^2/ft.)
P	3'-6"	6	8	0.20	6	8	0.20	4**	0.105
P	4'-0"	6	8	0.20	6	8	0.20	5**	0.120
J	5'-0"	–	8	0.20	–	8	0.20	6**	0.150
J	6'-0"	–	8	0.20	–	8	0.20	6	0.180
J	7'-0"	–	8	0.20	–	8	0.20	7	0.210
J	8'-0"	–	8	0.20	–	8	0.20	8	0.240
J	10'-0"	–	10	0.40##*	–	10	0.40##*	10	0.300
J	12'-0"	–	10	0.40##*	–	12	0.40##*	12	0.360

TABLE 1 NOTES:
##Provide 0.20 eq. in^2/ft. at each face, 12" max. bar spacing.
**Modified minimum wall thickness.
***Min. total circumferential reinforcement for continuous steel hoops:
A_s = 0.40 sq. in. for riser section height equal or less than 2'-0" (2 hoop min.)
A_s = 0.60 sq. in. for riser section height more than 2'-0" up to 4'-0" (3 hoop min.)
Areas of reinforcing for precast items are based on Grade 60 reinforcing;
No reduction in the area of reinforcement is allowed for welded wire fabric in Table 1;
Area of vertical reinforcing may be reduced in accordance with ASTM C478.

SQUARE & RECTANGULAR STRUCTURES (ALTERNATE B) – TABLE 2

Type	Wall Length (ft)	Max. Depth (ft)	Wall Thickness (t_1)	
			CIP (in.)	Precast (in.)
P	≤ 3'-6"	40	6 Riser 8 Bottom	8
J	4'-0"	40	8	6
J	5'-0"	22	–	6
J	6'-0"	15	–	6
J	5'-0" to 9'-0"	40	8	8
J	10'-0"	26	8	8
J	10'-0" to 12'-0"	40	10	9
J	16'-0"	35	–	9
J	16'-0"	40	10	10
J	20'-0"	25	-	9
J	20'-0"	30	10	10

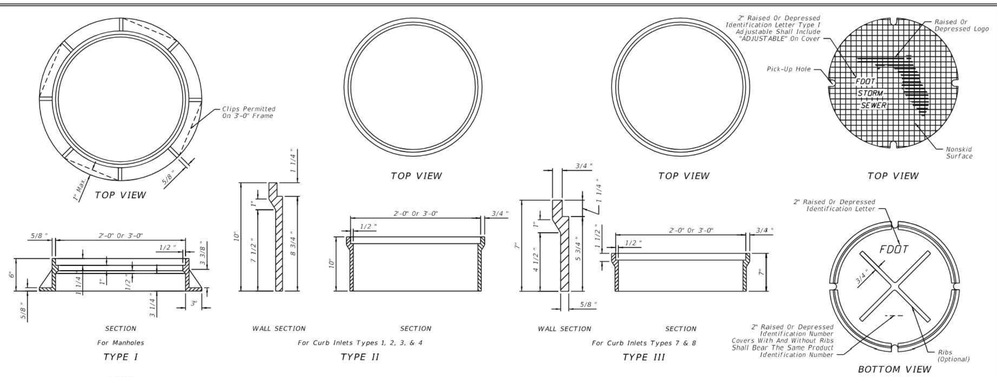
TABLE 2 NOTES:
See Table 8 for Reinforcing Schedule.

GENERAL NOTES

1. Standard structure bottoms 4'-0" diameter and smaller (Alt. A) and 3'-6" square (Alt. B) are designated Type P. Larger standard structure bottoms are designated Type J. Risers are permitted for all structures. Round risers are designated Type A, square risers are designated Type B.
2. Walls of circular structures (Alt. A) constructed in place may be of brick or reinforced concrete. Precast and rectangular structures (Alt. B) shall be constructed of reinforced concrete only.
3. Wall thickness and reinforcement are for either reinforced cast–in–place or precast concrete units except that precast circular units may be furnished with walls in accordance with ASTM C478 (see modified wall thicknesses in Table 1).
4. Top and bottom slab thickness and reinforcement are for precast and cast–in–place construction. All concrete shall be of Class II concrete, except use Class IV concrete when shown in the Plans, for special applications of structures located in extremely aggressive environments. Concrete as specified in ASTM C478 (4000 psi) may be used in lieu of Class II concrete for precast items manufactured in accordance with Specifications Section 449.
5. All reinforcement shown is Grade 60 steel, deformed bar. Equivalent area Grade 40 steel or equivalent area smooth or deformed welded wire reinforcement in accordance with Specification Section 931 may be substituted according to Index 425–001, unless otherwise noted.
6. Alt. A or Alt. B structure bottoms may be used in conjunction with curb inlet tops Types 1, 2, 3, 4, 5, 6, 9, and 10, and any manhole or junction box unless otherwise shown in the plans or other standard drawings. Alt. B structure bottoms may be used in conjunction with curb inlet Types 7 & 8, or any ditch bottom inlet unless otherwise shown in the plans or other standard drawings.
7. Rectangular structures may be rotated as directed by the Engineer in order to facilitate connections between the structure walls and storm sewer pipes.
8. Except when ACI hooks are specifically required, reinforcement in top and bottom slab shall be straight embedment.
9. All reinforcement must have 2" minimum cover except for 3'-6" diameter precast circular units manufactured under ASTM C478, keyed construction otherwise shown. Additional bars used to restrain hole formers for precast structures with grouted pipe connections,may be left flush with the hole surface. Cut or bend reinforcement at pipe openings to maintain cover. Exposed ends of reinforcing at precast pipe openings and grouted joints must be removed to 1" below the concrete surface and sealed with a Type F epoxy in accordance with Specification Section 926. Horizontal steel in rectangular structures shall be lapped a minimum of 30 bar diameters or by standard hooks at corners.
10. The corner fillets shown are necessary for rectangular structures used with circular risers and inlet throats and when used on skew with rectangular risers, inlets and inlet throats. Fillets will be required in the top slab of the Alt. A structure bottoms when used with the Alt. B risers. Each fillet shall be reinforced with two #5 bars.
11. Inlet walls, throats, risers or manhole tops shall be secured to structures as shown on Index 425–001 Optional Construction Joints.
12. Structures with depths over 14' below the mean high water table are to be checked for flotation by the designer of the drainage project.
13. Units larger than specified standards may be substituted at the contractor's option when these units will not cause or increase the severity of utility conflicts. Such larger units shall be furnished at no additional cost to the Department. Larger Alt. A units cannot replace Alt. B units without approval of the Engineer. This note applies to this Index only.
14. For manhole and junction box tops, for frames and covers, and, for supplementary details and notes see Index 425–001.
15. Type J structure bottoms must have a minimum 6'-0" wall height when possible, for maintenance access.

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	STRUCTURE BOTTOMS TYPE J AND P	INDEX	SHEET
11/01/17						425-010	2 of 5

10/30/2018 #4258.dgn



WEIGHT OF CASTINGS (lb)

Frame Type	2' OPENING		3' OPENING			
	Frame	Cover (Std.)	Frame	2-Piece Cover		
				Inside	Outside	Total
I *	155	190	220	190	220	410
II	145	190	255	190	220	410
III	90	190	180	190	220	410

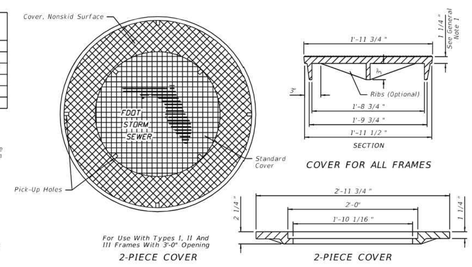
* Includes Type I Adjustable

NOTES (FRAMES, AND COVER)

1. The standard cover is to be used for all frames Types I, II, III and the 2-piece cover, and is the replacement cover for all previous frames with 1½" deep seats (traffic type). The 185 lb. cover (nontraffic type), 1984 Roadway and Traffic Design Standards Index 201, is the replacement cover for existing frames with ½" deep seats. Installation of frame with ½" deep seats is not permitted.
2. Use the 7'-0" cover, unless the 2-piece cover is called for in the plans, except at inlets and manholes with sump bottoms use the 2-piece cover when the sump depth exceeds 2', unless otherwise noted.

DESIGNER NOTE:

Consider using the 2-piece cover where depths exceed 5' and manual entry may be required for cleaning. Clearly note the requirement for a 2-piece cover, on the Drainage Structure sheets in the plans.



LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS	INDEX	SHEET
11/01/17						425-001	1 of 5

10/30/2018 #4133.dgn

DATE	DESCRIPTION	BY
10-07-2019	UPDATE FDOT DETAILS	BEM
08-07-2019	PERMIT PLANS	JRD
REVISIONS		

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

DRAINAGE DETAILS

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE DD	SHEET 29 OF 45 SHEETS

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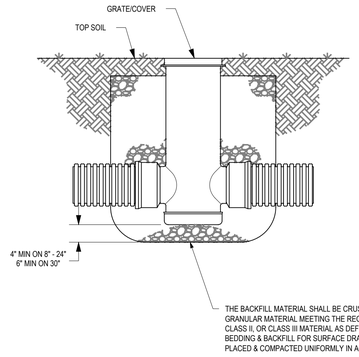
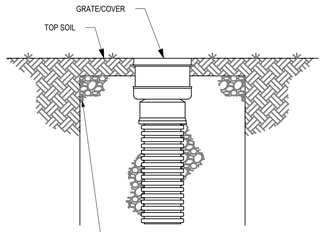
NON TRAFFIC INSTALLATION

DRAIN BASIN

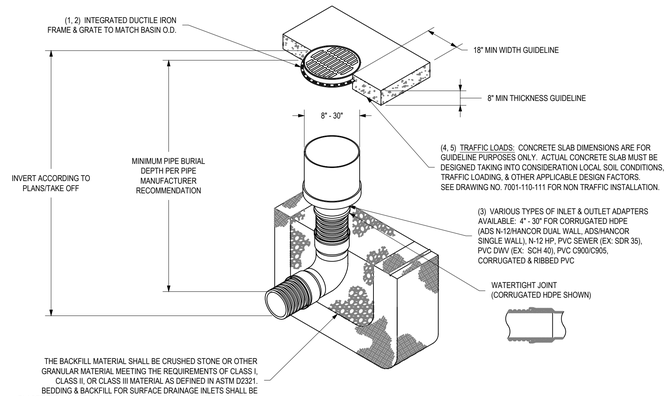


INLINE DRAIN



DRAWN BY CJA	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 9-30-99			
REVISED BY NMH	PROJECT NO./NAME	TITLE	DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION
DATE 03-11-16			
DWG SIZE A	SCALE 1:25 SHEET 1 OF 1	DWG NO. 7001-110-111	REV E

NYLOPLAST INLINE DRAIN WITH STANDARD GRATE



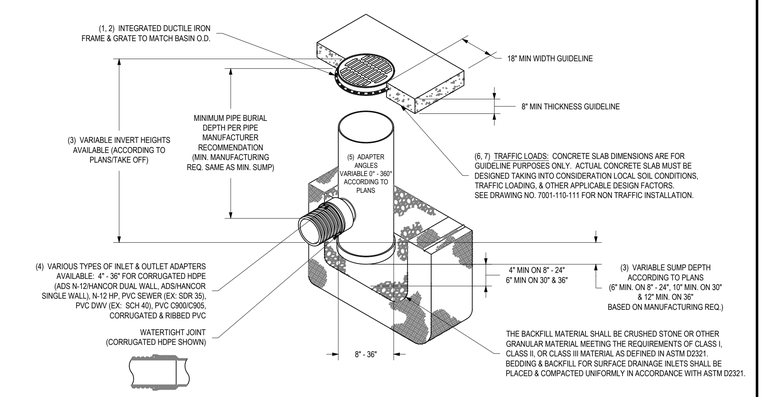
1 - 8" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" STANDARD GRATES FIT DIRECTLY ONTO INLINE DRAINS SEE DRAWING NO. 7003-110-000 & 7003-110-001.
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
4 - 12" - 30" STANDARD GRATES SHALL MEET H-20 LOAD RATING.
5 - 8" & 10" STANDARD GRATES ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

DRAWN BY EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 1-23-06			
REVISED BY NMH	PROJECT NO./NAME	TITLE	INLINE DRAIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DATE 03-15-16			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7003-110-022	REV J

DRAIN BASIN AND INLINE DRAIN NOTES:

1. *Drain Basins & Inline Drain locations may required field adjusted to accommodate conflicts with landscaping and irrigation. Notify the Engineer prior to make adjustments*
2. *Drain Basin & Inline Drain materials to be ADS Nyloplast brand or approved equal.*
3. *Polyvinyl-chloride pipe or corrugated polyethylene pipe used in yard drain/area drain applications shall meet the following requirements unless otherwise noted:*
   (a) PVC pipe: ASTM D-3034 SDR-35
   (b) Corrugated HDPE pipe: use ADS N-12 or HDPE in conformance with AASHTO M-252 and M-294, Class II.
4. *PP refers to Polypropylene Pipe. All Polypropylene Pipe shall meet FDOT Specification 948-7.*
5. *Pipe to Pipe connections shall be make with Inserta-Tee watertight connections, or approved equal.*

NYLOPLAST DRAIN BASIN WITH STANDARD GRATE



1 - 8" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" STANDARD GRATES FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" STANDARD GRATES SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" STANDARD GRATES ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

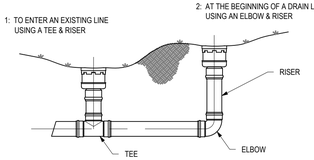
DRAWN BY EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 1-23-06			
REVISED BY NMH	PROJECT NO./NAME	TITLE	DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DATE 06-12-18			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-144	REV J

WHEN ARE INLINE DRAINS USED?

2708AG _ _ X
2710AG _ _ X
2712AG _ _ X
2715AG _ _ X
2718AG _ _ X
2724AG _ _ X
2730AG _ _ X

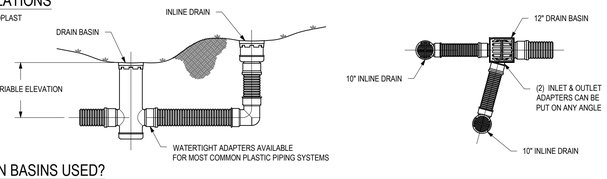
1: TO ENTER AN EXISTING LINE USING A TEE & RISER

2: AT THE BEGINNING OF A DRAIN LINE USING AN ELBOW & RISER



TYPICAL INSTALLATIONS

TYPICAL INSTALLATION OF NYLOPLAST DRAIN BASIN AND INLINE DRAIN



WHEN ARE DRAIN BASINS USED?

2808AG _ _ X
2810AG _ _ X
2812AG _ _ X
2815AG _ _ X
2818AG _ _ X
2824AG _ _ X
2830AG _ _ X
2836AG _ _ X

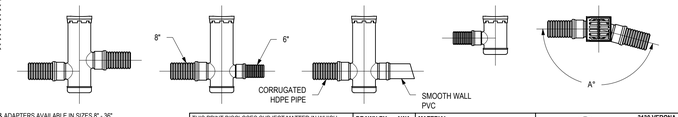
1: TO CHANGE ELEVATION

2: TO CHANGE PIPE DIAMETER

3: TO CHANGE PIPE TYPE

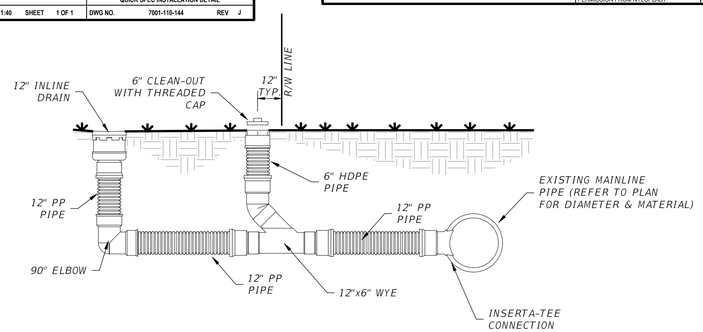
4: FOR SHALLOW APPLICATIONS

5: TO CHANGE DIRECTION



1 - STRUCTURES & ADAPTERS AVAILABLE IN SIZES 8" - 36"
2 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°, TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS SEE DRAWING NO. 7001-110-065.
4 - REDUCING CONES DOWN TO 30" DIAMETER WILL BE REQUIRED FOR 36" DRAIN BASINS.

DRAWN BY AWA	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 8-10-00			
REVISED BY NMH	PROJECT NO./NAME	TITLE	8 IN - 36 IN TYPICAL INSTALLATION OPTIONS
DATE 11-2-18			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-042	REV E



INLINE DRAIN DIRECT CONNECTION WITH CLEANOUT

NTS

DATE	DESCRIPTION	BY
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

DRAINAGE DETAILS

JOB NO.	LNH-MR-014
DESIGN	MELVIN
DRAWN	DR0OR
DATE	10-07-2019
FILE	DD

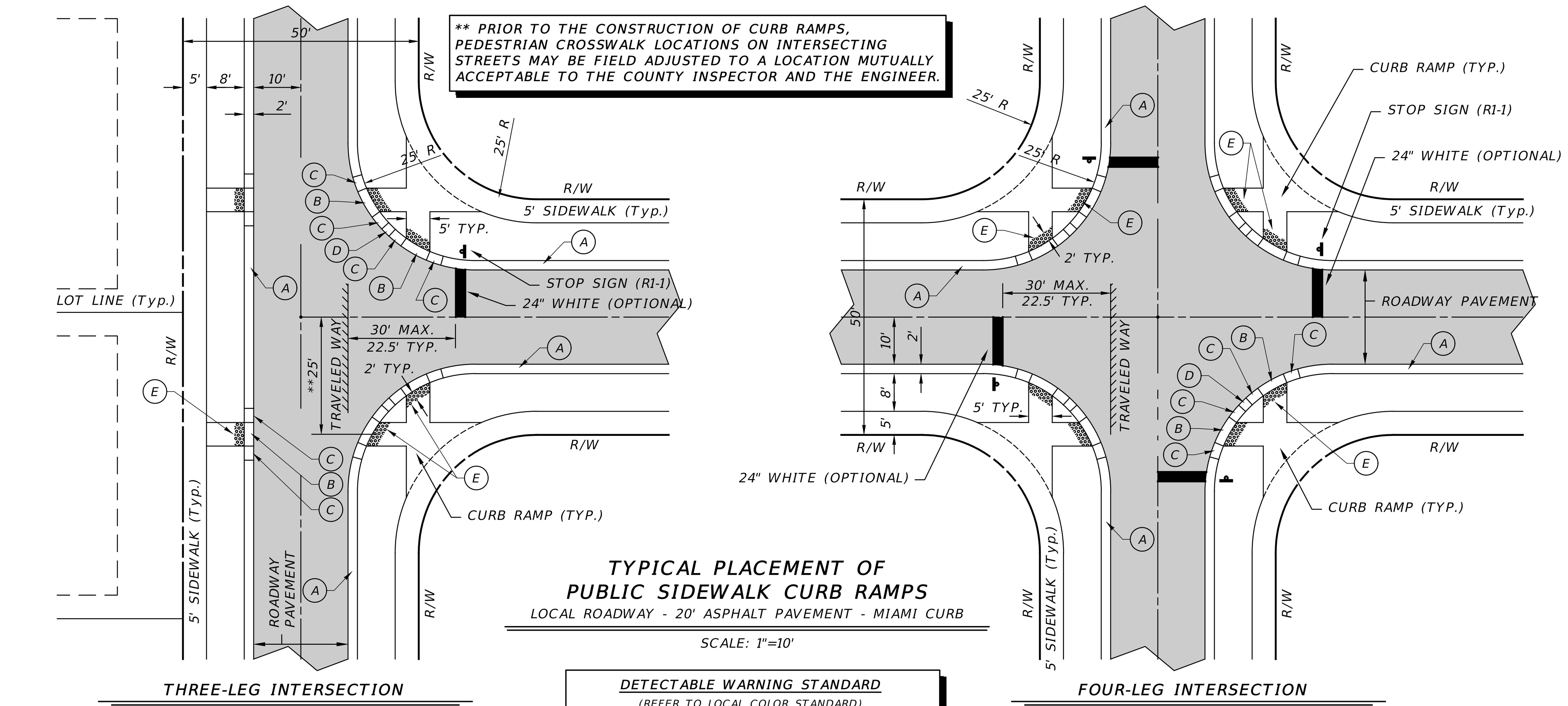
MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

PREPARED FOR: LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

SHEET 30 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\DD.DWG-30 DRAINAGE DETAILS 2019/10/07 10:46 AM BRENT MELVIN



TYPICAL PLACEMENT OF PUBLIC SIDEWALK CURB RAMPS

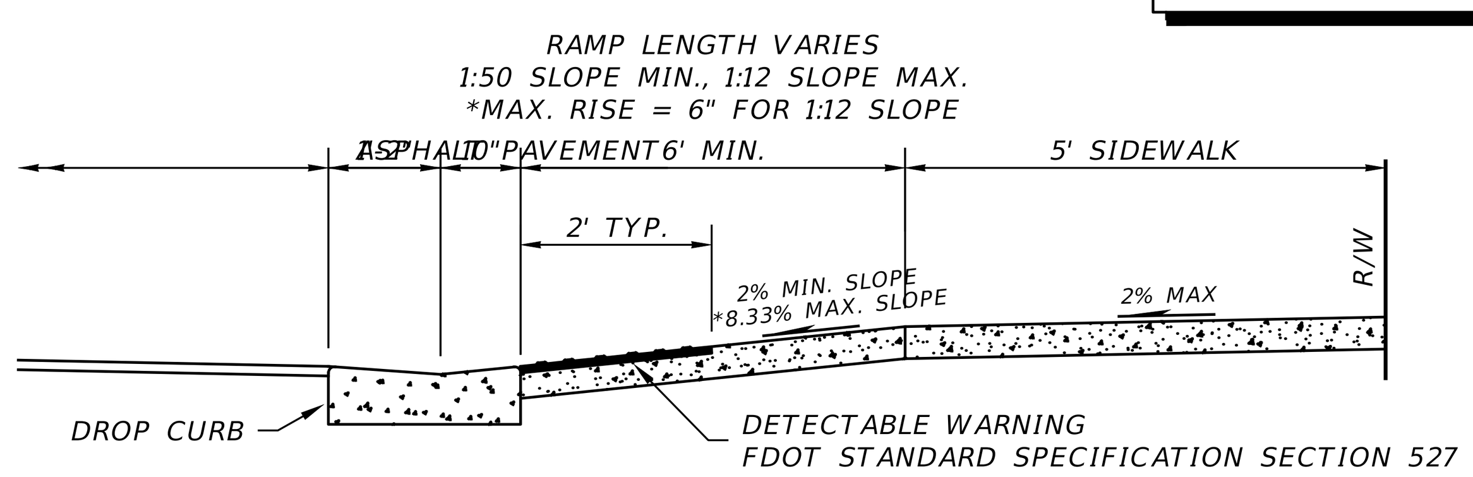
LOCAL ROADWAY - 20' ASPHALT PAVEMENT - MIAMI CURB

SCALE: 1"=10'

DETECTABLE WARNING STANDARD

(REFER TO LOCAL COLOR STANDARD)
BLACK - FDOT
YELLOW - CITY OF TAMPA
RED - HILLSBOROUGH COUNTY

- (A) CONCRETE CURB (TYP.) (SEE TYPICAL ROADWAY SECTION)
- (B) DROP CURB (TYP.)
- (C) 3' CURB TRANSITION (TYP.)
- (D) 2' FULL HEIGHT CONCRETE CURB (TYP.) (SEE TYPICAL ROADWAY SECTION)
- (E) CURB RAMP DETECTABLE WARNING (TYP.)



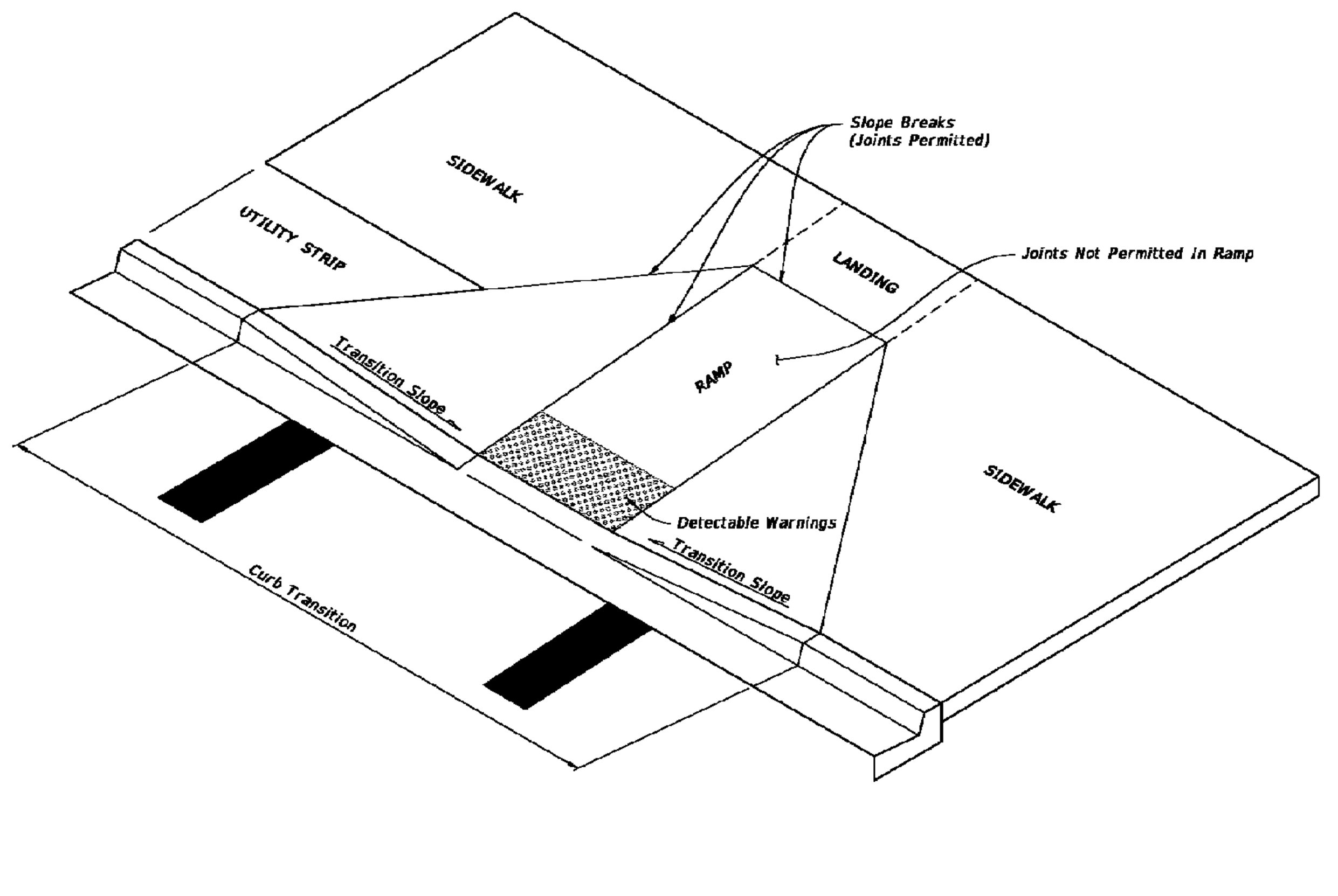
RAMP PROFILE

NOT TO SCALE

GENERAL NOTES

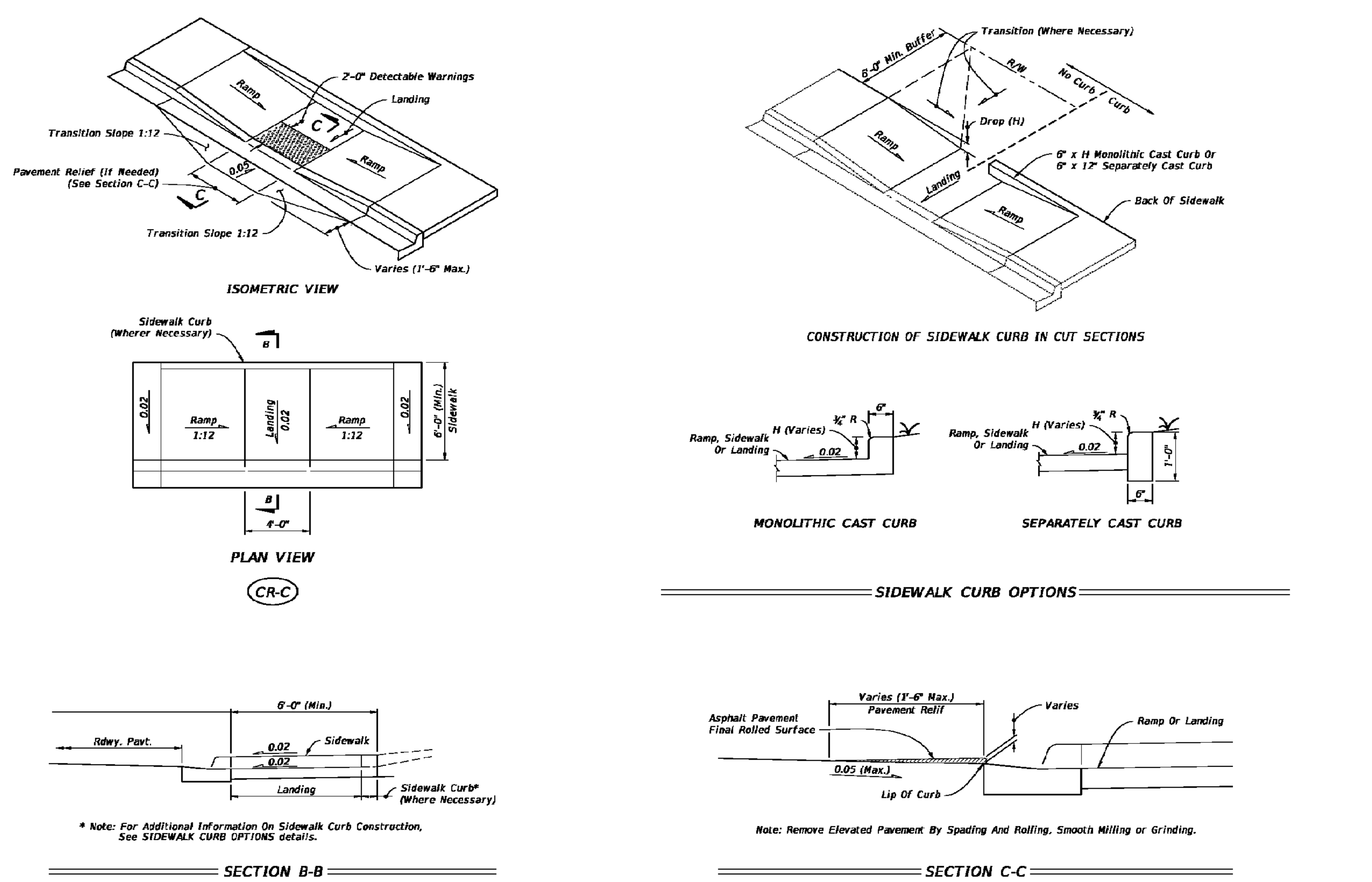
1. Cross Slopes and Grades:
   - A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.
   - B. Landings must have cross-slopes less than or equal to 0.02 in any direction.
   - C. Install ramp slopes along a single linear plane (i.e. no warps or varying slope). Ramp slopes are not required to exceed 15 feet in length.
   - D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.
2. Grade Breaks:

   Grade breaks at the top and bottom of ramps must be parallel to each other and perpendicular to the direction of the ramp slope.
3. Curb, Curb and Gutter and/or Sidewalk:
   - A. Refer to Index 522-001 for concrete thickness and sidewalk details.
   - B. Remove any existing curb or curb and gutter to the nearest joint beyond the curb transition or to the extent that no remaining section of curb or curb and gutter is less than 5 feet long. Remove any existing sidewalk to the nearest joint beyond the transition slope or to the extent that no remaining section of sidewalk is less than 5 feet long.
4. Curb Ramp Alpha-Identification:
   - A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.
   - B. Alpha-identifications CR-I and CR-J are intentionally omitted.
5. Detectable Warnings:
   - A. Install detectable warnings in accordance with Specification 527.
   - B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.
   - C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.
6. Detectable Warnings - Acceptance Criteria:
   - A. Color and texture shall be complete and uniform.
   - B. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
   - C. There shall be no more than 4 non-compliant domes in any one square foot.
   - D. Non-compliant domes shall not be adjacent to other non-compliant domes.
   - E. Surfaces shall not deviate more than 0.10" from a true plane.



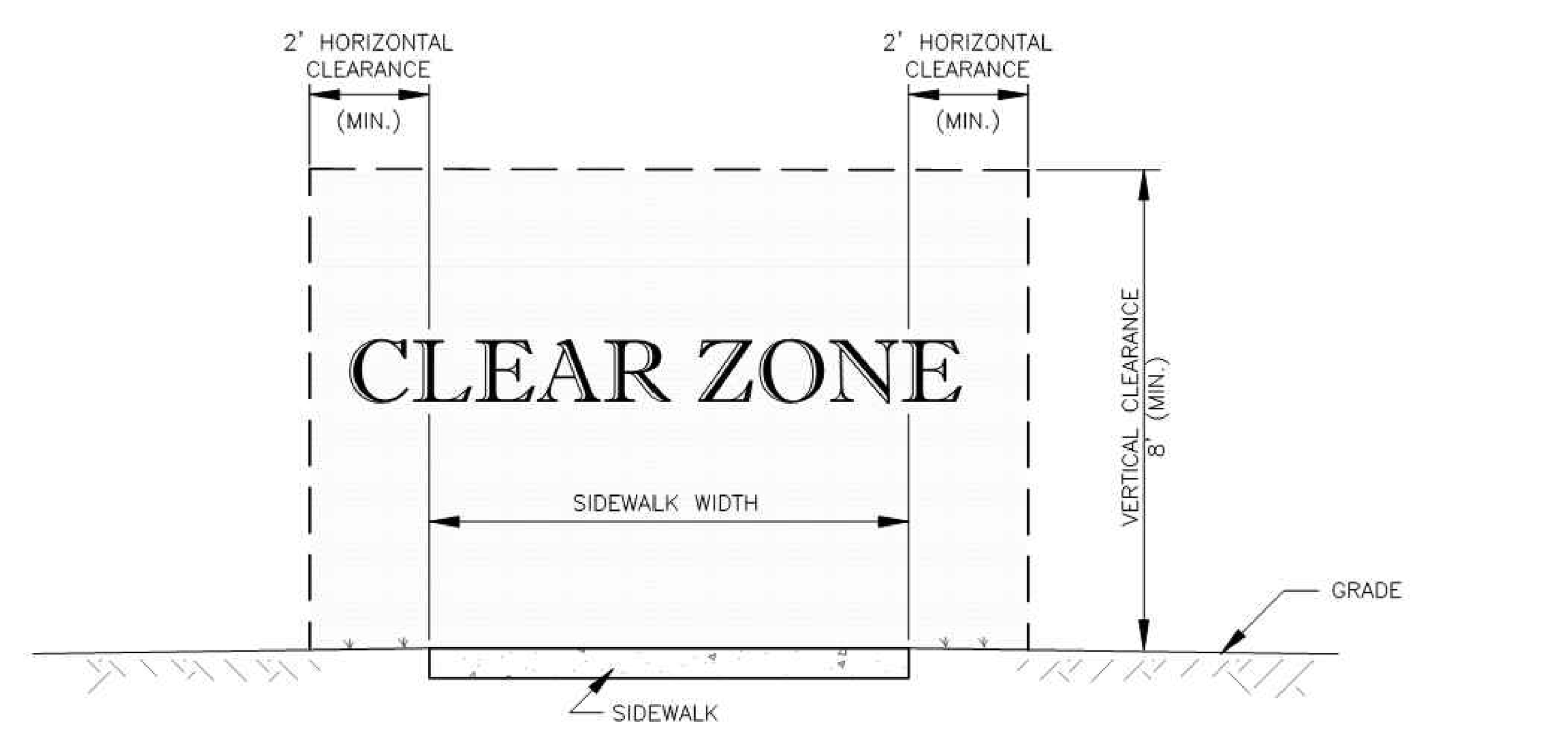
CURB RAMP NOMENCLATURE

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX	SHEET
11/01/17						522-002	1 of 8



SIDEWALK CURB RAMPS CR-C AND SIDEWALK CURB

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX	SHEET
11/01/17						522-002	3 of 8



SIDEWALK CLEAR ZONE SECTION

NTS

NOTES:

1. THIS CLEAR ZONE APPLIES TO THE SIDEWALK ONLY. IT IS NOT INTENDED FOR ROADWAY PLACEMENT SET BACKS.
2. THE SIDEWALK CLEAR ZONE SHALL BE AN OPEN WINDOW FREE OF OBSTACLES. THIS INCLUDES SHRUBS, TREES, FENCES, ABOVE GROUND UTILITIES, I.E., POWER POLES, STREET LIGHTS, GUY ANCHORS, FIRE HYDRANTS, BLOW-OFFS, MAIL BOXES, STREET SIGNS, UTILITY MARKERS, ETC.
3. THE SIDEWALK HORIZONTAL CLEAR ZONE CLEARANCE IS MEASURED FROM THE SIDEWALK EDGE AND SHALL BE A MINIMUM OF 2 FEET.
4. THE SIDEWALK VERTICAL CLEAR ZONE CLEARANCE IS MEASURED FROM THE FINISHED SIDEWALK SURFACE AND SHALL BE A MINIMUM OF 8 FEET.

NOTE:
NO DEVIATIONS TO THIS DETAIL WILL BE PERMITTED UNLESS APPROVED BY THE COUNTY ENGINEER.
ANY PROPOSED ALTERATIONS SHALL BE CLEARLY IDENTIFIED AND HIGHLIGHTED ON DETAIL.

PASCO COUNTY ENGINEERING SERVICES DESIGN STANDARDS	SIDEWALK CLEAR ZONE	Sheet No. 1 of 1
	APPROVED BY JCW / BCC APPROVAL / REVISED	Index No. 106

DATE	DESCRIPTION	BY
10-07-2019	UPDATE FDOT DETAILS	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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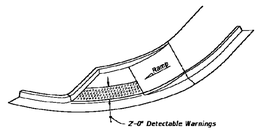
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

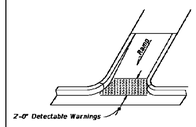
SIDEWALK DETAILS

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE SWD	SHEET 31 OF 45 SHEETS

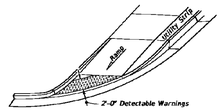
P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\SWD.DWG-31 SIDEWALK DETAILS 2019/10/07 10:46 AM BRENT MELVIN



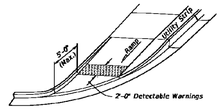
ISOMETRIC VIEW



ISOMETRIC VIEW

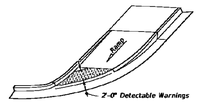


OPTION A



OPTION B

ISOMETRIC VIEW



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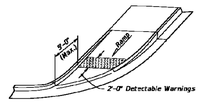
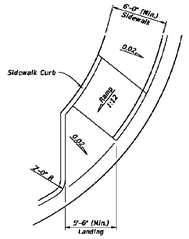


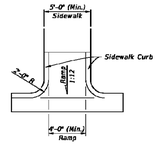
OPTION B

ISOMETRIC VIEW



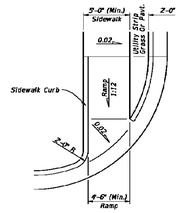
PLAN VIEW

CR-D



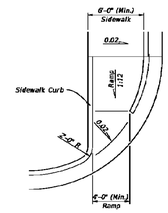
PLAN VIEW

CR-E



PLAN VIEW

CR-F



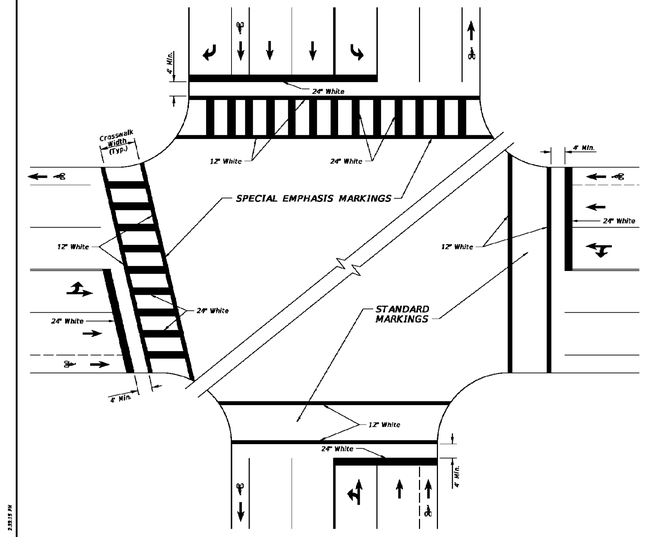
PLAN VIEW

CR-G

SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2018-19 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 4 of 8

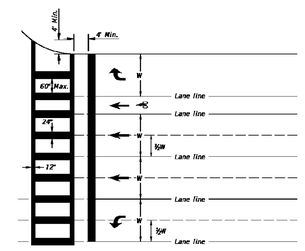
10/31/2017 1:57:51 PM



INTERSECTION DETAILS

NOTES:

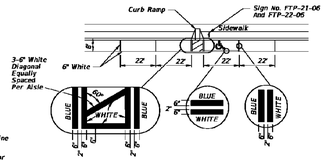
1. For crosswalk width, exceed width of the adjacent sidewalk, but do not make width less than 6' for intersection crosswalks and 10' for midblock crosswalks. Measure width from the inside of the transverse crosswalk markings.
2. When the Special Emphasis Crosswalk is not perpendicular to the lane lines, make the longitudinal markings parallel to the lane lines.
3. Extend double yellow centerlines 100' back from intersection on all approaches or 50' for unmarked cross roads.
4. Refer to Index 522-002 when Curb Ramps are present.



SPECIAL EMPHASIS CROSSWALK DETAILS

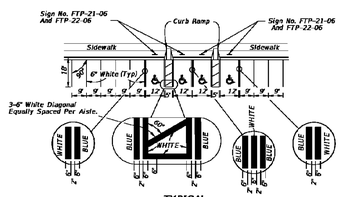
LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2018-19 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 10 of 14

11/1/2017 3:33:17 PM

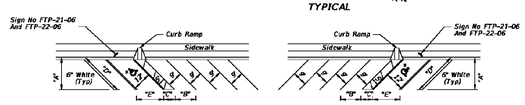


NOTES:

1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Tint blue pavement markings to match color 15180 of Federal Standards' 595a.
5. Mount FTP-22-06 sign below the FTP-21-06 sign.



TYPICAL



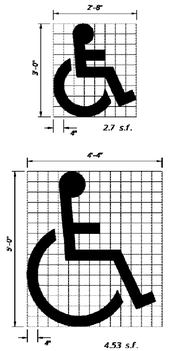
FORWARD-IN PARKING

REVERSE-IN PARKING

*FOR ACCESSIBLE MARKINGS - SEE ABOVE

∠ θ	"A"	"B"	"C"	"D"	"E"
45°	18'-1"	12'-9"	7'-0"	21'-0"	17'-0"
60°	20'-1"	10'-5"	9'-9"	23'-2"	13'-10"

PAVEMENT MARKING FOR PARKING



& Use of pavement symbol in accessible parking spaces is optional, when used the symbol shall be 3' or 5' high and white in color.

UNIVERSAL SYMBOL OF ACCESSIBILITY

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	FDOT FY 2018-19 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 13 of 14

11/1/2017 3:33:17 PM

DATE	DESCRIPTION	BY
10-07-2019	UPDATE FDOT DETAILS	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
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SIDEWALK DETAILS

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE SWD	**SHEET 32 OF 45 SHEETS**

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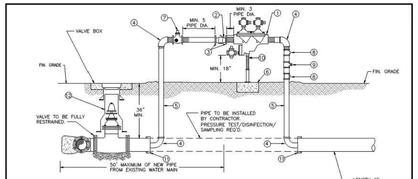
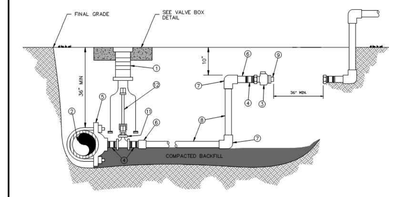


MATERIALS

ITEM	QUANT.	DESCRIPTION
1	1	2" BACKFLOW PREVENTER ASSEMBLY, REDUCED PRESSURE ZONE
2	1	2" METER FURNISHED BY PASCO COUNTY UTILITIES
3	2	BRASS–METER FLANGES OR ADAPTORS
4	2	2" ELBOWS – S.S. 90° THREADED
5	2	2" RISER – S.S.
6	*	CONCRETE SLAB
7	1	2" VALVE – BRASS OR S.S.
8	2	2" TEE / VALVES – BRASS OR S.S.
9	1	2" GATE VALVE – BRASS OR S.S.
10	1	PIPE STAND (SUPPORT)
11	2	M.J. CAP WITH 2" TAP, 90°, THREADED, BEND
12	2	GATE VALVE AND BOX

NOTE:
- CONTRACTOR/CUSTOMER SHALL APPLY AT PASCO COUNTY UTILITIES CUSTOMER SERVICE (727-847-8131) FOR TEMPORARY WATER SERVICE AT LEAST THREE DAYS PRIOR TO REQUIRED SERVICE DATE.
- THE METER WILL BE FURNISHED, INSTALLED AND INITIAL READING TAKEN BY PASCO COUNTY UTILITIES. ALL FITTINGS, PIPING, VALVES AND MATERIALS INCLUDING THE PASCO COUNTY APPROVED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR/CUSTOMER.
- CONTRACTOR/CUSTOMER FURNISHED REDUCED PRESSURE BACKFLOW PREVENTION DEVICE MUST BE INSTALLED BEFORE THE METER IS INSTALLED BY PASCO COUNTY UTILITIES. THE APPROVED BACKFLOW PREVENTION DEVICE SHALL BE TESTED AND CERTIFIED BY CONTRACTOR; UTILITIES CERTIFIED BACKFLOW PREVENTION TECHNICIAN AT TIME OF METER INSTALLATION.
- CONTRACTOR/CUSTOMER SHALL PROTECT THE JUMPER/METER ASSEMBLY FROM DAMAGE.
- CONTRACTOR/CUSTOMER IS RESPONSIBLE FOR BACTERIOLOGICAL TESTING AFTER CONNECTION OF TEMPORARY WATER SERVICE.
- TEMPORARY CONSTRUCTION JUMPER/METER ASSEMBLY SHALL NOT BE REMOVED UNTIL SYSTEM IS ACCEPTED BY PASCO COUNTY UTILITIES.
- WHEN THE NEW SYSTEM IS ACCEPTED AND THE FINAL METER READING TAKEN BY PASCO COUNTY, THE TEMPORARY CONSTRUCTION JUMPER/METER ASSEMBLY MUST BE COMPLETELY REMOVED FROM M.J. CAP TO M.J. CAP AND A NEW WATER MAIN IS TO BE CHLORINATED AND INSTALLED COMPLETING THE FINAL CONNECTION.
- BY APPLYING FOR SERVICE, CONTRACTOR/CUSTOMER AGREES TO TAKE WATER SERVICE FROM PASCO COUNTY UTILITIES IN ACCORDANCE WITH THE APPROPRIATE RATE SCHEDULE AND IN ACCORDANCE WITH PASCO COUNTY UTILITIES RULES AND REGULATION.

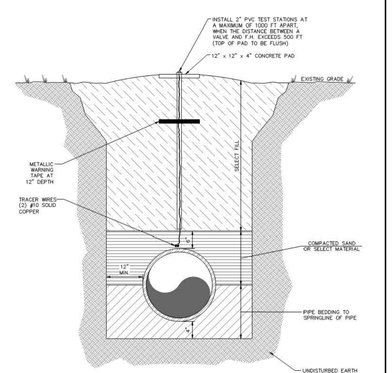
CREATED FEB 2003	TEMPORARY CONSTRUCTION WATER SERVICE (JUMPER METER)	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED JAN 2014		
MAY 2016		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL W1



ITEM	QUANT.	DESCRIPTION
1	1	BOX, VALVE CAST IRON SLIP TYPE
2	*	4" & LARGER PIPE, PVC (DR-18) OR D.I.P. (CLASS 50)
3	2	2" CURB STOP BALL VALVE W/ LOCK WINGS (FIP x FIP OR FIP x CTS)
4	3	2" NIPPLE, BRASS OR STAINLESS STEEL
5	1	2" SADDLE, SERVICE (I.P. THREADS)
6	2	2" ADAPTER BRASS MIP x CTS)
7	2	2" 90° ELBOW SCH 40
8	*	2" PIPE, PE (3408) – LENGTH VARIES
9	1	2" PLUG, THREADED (W/ TEFLON TAPE)
11	1	2" GATE VALVE, IRON BODY W/ SQUARE NUT R/W RESILIENT WEDGE
12	1	VALVE EXTENSION ROD, AS REQUIRED (3' MAX. BELOW GRADE)

NOTE:
- A VALVE BOX SHALL BE REQUIRED ON ALL GATE VALVES.
- SERVICE SADDLES SHALL BE INSTALLED ON ALL TAPS TO P.V.C. (DR-18) WATER MAINS.
- 2" GATE VALVE TO BE RESILIENT WEDGE IRON BODY TYPE WITH 2" OPERATING UNIT.
- SADDLES 4" AND LARGER TO BE DUCTILE IRON DUAL STRAP TYPE.
- 1 1/2" BRASS REDUCER BUSHING REQUIRED WITH ITEM NO. 11 FOR 1 1/2" SERVICE.
- MARKER STAKES PAINTED SAFETY BLUE FOR WATER, PURPLE FOR REUSE.
- 4" DIAMETER CASING REQUIRED FOR ROAD CROSSINGS.

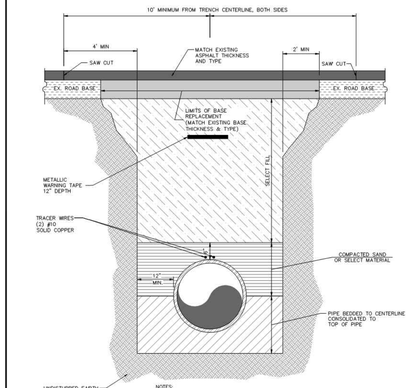
CREATED 02/24/03	WATER AND REUSE LATERAL SERVICE 2"SERVICE CASING – 1" SERVICE LATERAL	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED AUG 2015		
MAY 2016		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL G1



NOTES:
- COMPACTION TO FINISHED GRADE IS TO BE 95% MOD. PROCTOR.
- SELECT FILL TO BE PLACED AND COMPACTED IN 12" LAYERS. ROLLING EQUIPMENT SHALL NOT BE USED FOR COMPACTION UNTIL A MINIMUM OF 6" OF COMMON FILL HAS BEEN PLACED AND COMPACTED OVER THE PIPE. 18" OF FILL SHALL BE PLACED BEFORE A HYDRAHAMMER MAY BE USED FOR COMPACTION.

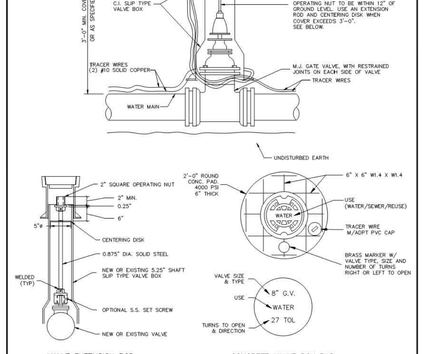
NOTE:
ANY WIRE SPLICING SHALL USE CAMPBELL HEAT SHRINK SPLICE KIT LSX-A-B OR APPROVED EQUAL

CREATED FEB 2003	PIPE LAYING CONDITIONS UNPAVED AREAS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED JAN 2014		
MAY 2015		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL G2



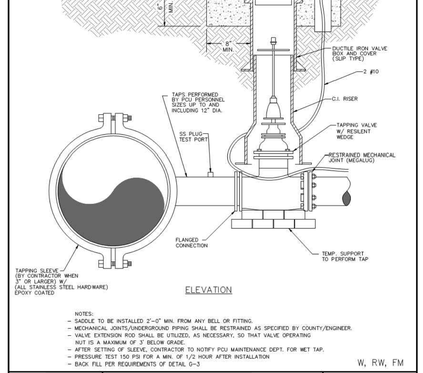
NOTES:
- COMPACTION TO BOTTOM OF BASE IS TO 98% MODIFIED PROCTOR; AASHTO T-99.
- USE OF FLOWABLE FILL SHALL ONLY BE ALLOWED AT PASCO COUNTY'S DISCRETION.
- EXISTING CONCRETE/ASPHALT PAVEMENT SURFACE AND BASE TO BE SAW CUT.
- FOR F.D.O.T. ROAD WORK, UTILIZE F.D.O.T. STANDARDS. AS PER R/W PERMITS RECD.

CREATED FEB 2003	PIPE LAYING CONDITIONS EXISTING PAVED AREAS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED JAN 2014		
JUNE 2015		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL G3



VALVE EXTENSION ROD — CONCRETE VALVE BOX PAD

CREATED FEB 2003	VALVE BOX SLIP TYPE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED JAN 2014		
MAY 2016		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL G5

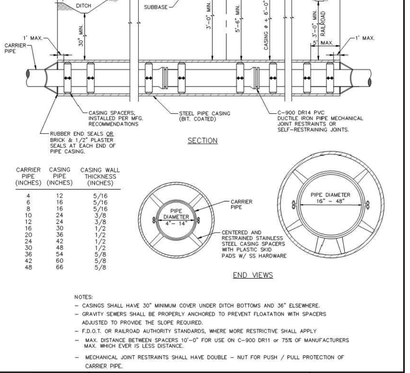


ELEVATION

NOTES:
- SADDLE TO BE INSTALLED 3'-0" MIN. FROM ANY BELL OR FITTING.
- MECHANICAL JOINTS/UNDERGROUND PIPING SHALL BE RESTRAINED AS SPECIFIED BY COUNTY/ENGINEER.
- VALVE EXTENSION ROD SHALL BE UTILIZED, AS NECESSARY, SO THAT VALVE OPERATING NUT IS A MAXIMUM OF 3' BELOW GRADE.
- AFTER SETTING OF SLEEVE, CONTRACTOR TO NOTIFY PCU MAINTENANCE DEPT. FOR WET TAP.
- PRESSURE TEST 150 PSI FOR A MIN. OF 1/2 HOUR AFTER INSTALLATION
- BACK FILL PER REQUIREMENTS OF DETAIL D-3

W, RW, FM

CREATED FEB 2003	TAPPING VALVE AND SLEEVE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED JAN 2014		
JUNE 2015		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL G6



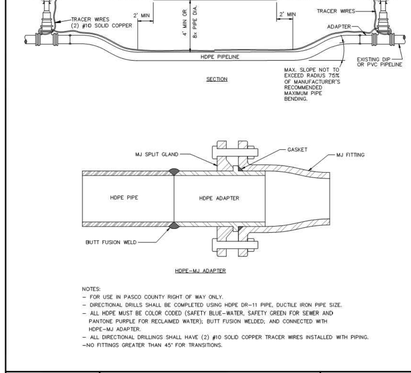
SECTION

CARRIER PIPE (INCHES)	CASING PIPE (INCHES)	CASING WALL THICKNESS (INCHES)
4	12	5/16
6	18	7/16
8	16	5/16
10	24	7/8
12	24	3/8
16	30	1/2
20	36	1/2
24	42	1/2
30	48	1/2
36	54	5/8
42	60	5/8
48	66	5/8

END VIEWS

NOTES:
- CASINGS SHALL HAVE 30" MINIMUM COVER UNDER DITCH BOTTOMS AND 36" ELSEWHERE.
- GRAVITY SEWERS SHALL BE PROPERLY ANCHORED TO PREVENT FLOATATION WITH SPACERS ADJUSTED TO PROVIDE THE SLOPE REQUIRED.
- F.D.O.T. OR RAILROAD AUTHORITY STANDARDS, WHERE MORE RESTRICTIVE SHALL APPLY
- MAX. DISTANCE BETWEEN SPACERS 10'-0" FOR USE ON C-900 DR11 or 7.5% OF MANUFACTURERS MAX. WHICH EVER IS LESS DISTANCE.
- MECHANICAL JOINT RESTRAINTS SHALL HAVE DOUBLE – NUT FOR PUSH / PULL PROTECTION OF CARRIER PIPE.

CREATED FEB 2003	JACK & BORE DETAIL	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED JAN 2014		
MAY 2015		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL G7



NOTES:
- FOR USE IN PASCO COUNTY RIGHT OF WAY ONLY.
- DIRECTIONAL DRILLS SHALL BE COMPLETED USING HDPE DR-11 PIPE, DUCTILE IRON PIPE SIZE.
- ALL HDPE MUST BE COLOR CODED (SAFETY BLUE–WATER, SAFETY GREEN FOR SEWER AND PANTONE PURPLE FOR RECLAIMED WATER), BUTT FUSION WELDED, AND CONNECTED WITH HDPE–MJ ADAPTER.
- ALL DIRECTIONAL DRILLINGS SHALL HAVE (2) #10 SOLID COPPER TRACER WIRES INSTALLED WITH PIPING.
- NO FITTINGS GREATER THAN 45° FOR TRANSITIONS.

CREATED FEB 2003	DIRECTIONAL DRILLING	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
REVISED JAN 2014		
MAY 2015		
JUNE 2017	PASCO COUNTY UTILITIES	DETAIL G8

DATE	DESCRIPTION	BY
08-07-2019	PERMIT PLANS	JRD

REVISIONS

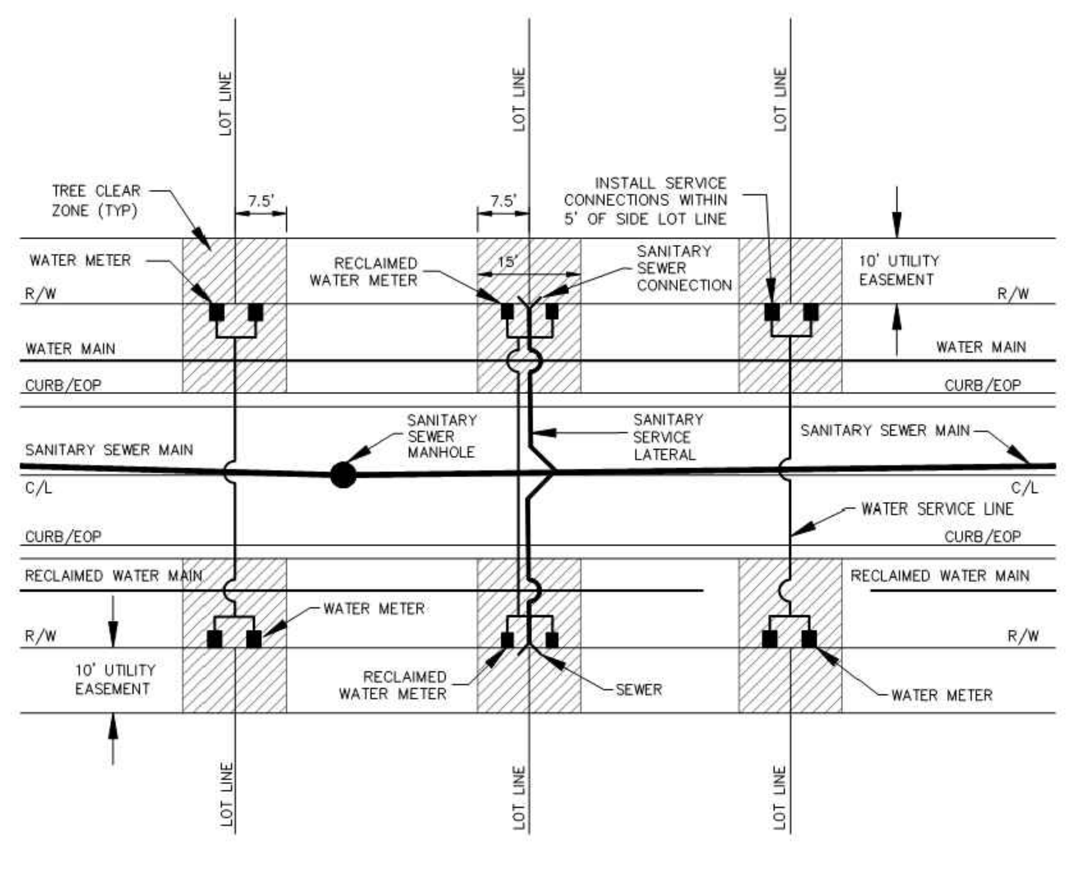
Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

UTILITY DETAILS

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE WSD	**SHEET 33 OF 45 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCWSD.DWG–33 UTILITY DETAILS 2019/10/07 10:46 AM BRENT MELVIN



LANDSCAPING CLEAR ZONE EXTENDS 7.5' TO EITHER SIDE OF PROPERTY LINE THAT IS PERPENDICULAR TO THE ROW LINE AND EXTENDS FROM THE EDGE OF ROADWAY PAVEMENT TO A DEPTH OF 5.0' BEYOND THE EDGE OF RIGHT-OF-WAY.

TREES AND SHRUBS MUST NOT BE PLANTED IN THE LANDSCAPING CLEAR ZONE. LANDSCAPING CLEAR ZONES ARE ESTABLISHED TO PROTECT WATER SERVICE LINES AND SEWER LATERALS FROM DAMAGE CAUSED BY GROWTH OF ROOT SYSTEMS.

REUSE AND POTABLE WATER CROSSES THE ROAD IN 2" CASING (NOT SHOWN FOR CLARITY).

CREATED FEB 2003 REVISED JAN 2014, MAY 2015, JUNE 2017

SINGLE FAMILY SUBDIVISION TYPICAL UTILITY CONNECTION DETAIL

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL G9

SEE NOTES DETAIL G-11

LARGE END	4"	6"	8"	12"	16"	18"	20"	24"	30"
6"	31(44)								
8"	55(79)	32(46)							
12"	94(134)	79(113)	57(82)						
16"		117(166)	101(144)	59(84)					
18"			120(171)	83(118)	31(44)				
20"				104(149)	58(83)	31(44)	58(83)		
24"				143(204)	106(151)	83(119)	58(83)		
30"					163(232)	145(207)	126(180)	81(115)	
36"							181(258)	145(207)	80(114)
48"							266(381)	241(345)	196(280)

REDUCER RESTRAINED JOINTS (150 PSI)

MINIMUM LINEAR FEET OF BRANCH PIPE TO BE RESTRAINED FROM JOINT TEE

TEE

RUN	BRANCH 4"	6"	8"	12"	16"	18"	20"	24"	30"	36"	48"
4"	21(29)										
6"	10(15)	38(54)									
8"	0(0)	30(43)	55(78)								
12"	0(0)	15(21)	43(62)	86(123)							
16"		0(0)	30(43)	78(111)	116(185)						
18"		0(0)	24(34)	73(104)	112(161)	130(186)					
20"		0(0)	16(23)	68(98)	109(156)	127(181)	143(205)				
24"		0(0)	1(2)	58(83)	102(145)	120(172)	128(197)	170(243)			
30"		0(0)	0(0)	42(61)	90(128)	110(157)	129(184)	163(233)	207(296)		
36"			0(0)	25(35)	77(110)	99(141)	118(169)	155(221)	201(287)	241(344)	
48"				0(0)	48(68)	73(104)	96(136)	136(194)	186(266)	229(328)	300(429)

TEE RESTRAINED JOINTS (150 PSI)

MINIMUM LINEAR FEET OF BRANCH PIPE TO BE RESTRAINED FROM JOINT TEE

PIPE SIZE	4"	6"	8"	12"	16"	18"	20"	24"	30"	36"	48"
CAPPED ENDS	–	–	–	–	–	–	–	–	–	–	–
90° BENDS	42(60)	59(85)	77(110)	108(155)	138(198)	153(218)	166(238)	194(277)	231(330)	265(379)	325(465)
45° BENDS	17(25)	25(35)	32(45)	45(64)	57(82)	63(90)	69(987)	80(115)	96(137)	110(157)	135(192)
22 1/2° BENDS	8(12)	12(17)	15(22)	22(31)	28(39)	30(43)	33(47)	39(55)	46(66)	53(75)	65(92)
11 1/4° BENDS	4(6)	6(8)	8(11)	11(15)	14(19)	15(21)	16(23)	19(27)	23(32)	26(37)	32(46)
VALVE	–	–	–	–	–	–	–	–	–	–	–

DUCTILE IRON RESTRAINED JOINTS FOR VERTICALLY ORIENTED FITTINGS (150 PSI)

MINIMUM LINEAR FEET OF PIPE TO BE RESTRAINED JOINTS TEE AT BENDS VALVE OR END CAPS

PIPE SIZE	4"	6"	8"	12"	16"	18"	20"	24"	30"	36"	48"
CAPPED ENDS	42(60)	59(85)	77(110)	108(155)	138(198)	153(218)	166(238)	194(277)	231(330)	265(379)	325(465)
90° BENDS	20(24)	29(33)	37(43)	51(60)	65(76)	72(83)	78(90)	89(104)	104(122)	120(138)	144(167)
45° BENDS	8(10)	12(14)	15(18)	21(25)	27(31)	30(35)	32(37)	37(43)	44(52)	50(57)	60(69)
22 1/2° BENDS	4(5)	6(7)	7(9)	10(12)	13(15)	15(17)	16(18)	18(21)	21(24)	24(28)	29(33)
11 1/4° BENDS	2(2)	3(3)	4(4)	5(6)	7(8)	8(9)	8(9)	9(11)	11(12)	12(14)	14(16)
VALVE	35(50)	49(71)	64(92)	90(130)	115(165)	128(182)	139(198)	160(230)	193(275)	220(320)	325(465)

DUCTILE IRON RESTRAINED JOINTS FOR HORIZONTAL FITTINGS (150 PSI)

MINIMUM LINEAR FEET OF PIPE TO BE RESTRAINED JOINTS TEE AT BENDS VALVE OR END CAPS

* NUMBER IN PARENTHESIS REPRESENTS LINEAL FEET OF RESTRAINT FOR POLY WRAP AND FOR PVC PIPE

CREATED JULY 2015 REVISED NOV. 2015, MAY 2016, JUNE 2017

RESTRAINED JOINT TABLES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL G10

RESTRAINED JOINT NOTES

1. THE PROGRAM, "THRUST RESTRAINT" DISTRIBUTED BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) WAS USED TO CALCULATE THE LENGTH OF RESTRAINED JOINTS BASED ON TYPE 3 STANDARD ANSI/AWWA C150/A21.50 LAYING CONDITIONS FOR DUCTILE IRON PIPE. SANDY/ SILTY SOIL 3.0 FT MIN. COVERAGE AND 150PSI OPERATING PRESSURE APPROPRIATE ADJUSTMENTS MUST BE MADE FOR DEVIATIONS FROM THESE ASSUMPTIONS.
2. SELECTED COMMON FILL FROM ORIGINAL EXCAVATION, SEE SPECIFICATIONS.
3. USE OF ALTERNATIVE TYPES OF PIPE BEDDING TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE ENGINEER.
4. FOR COMBINED BENDS FORMING OFFSETS, THE LENGTHS QUOTED SHALL BE DOUBLED AND PROVIDED EACH SIDE OF THE CENTROID OF THE OFFSET.
5. VALVES LOCATED NEAR BENDS OR TEES SHALL TAKE ACCOUNT OF ADDITIONAL PASSIVE SOIL RESISTANCE.
6. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION, DEWATER AS NECESSARY.
7. EXISTING CONCRETE / ASPHALT SURFACES AND BASE SHALL BE CUT SQUARE WITH CONCRETE SAW.
8. ALL FITTINGS AND VALVES SHALL BE MECHANICALLY RESTRAINED. IN ADDITION TO THE FITTING BEING RESTRAINED, THE MINIMUM LINEAR FEET TO BE RESTRAINED ON BOTH SIDES OF THE FITTING SHALL BE AS SHOWN IN THE TABLE UNLESS OTHERWISE NOTED. THE RESTRAINED JOINT LENGTH FOR DUCTILE IRON PIPE ARE AS SHOWN. APPROPRIATE ADJUSTMENTS MUST BE MADE FOR PIPE MATERIALS OTHER THAN DUCTILE IRON.
9. IF THE PIPE IS DEFLECTED, THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE 75% OF THE MANUFACTURERS RECOMMENDED DEFLECTION, FOR THE JOINT TYPE USED.
10. RESTRAINED JOINTS IN CARRIER PIPES (JACK AND BORE) SHALL NOT BE INCLUDED IN RESTRAINED LENGTHS.

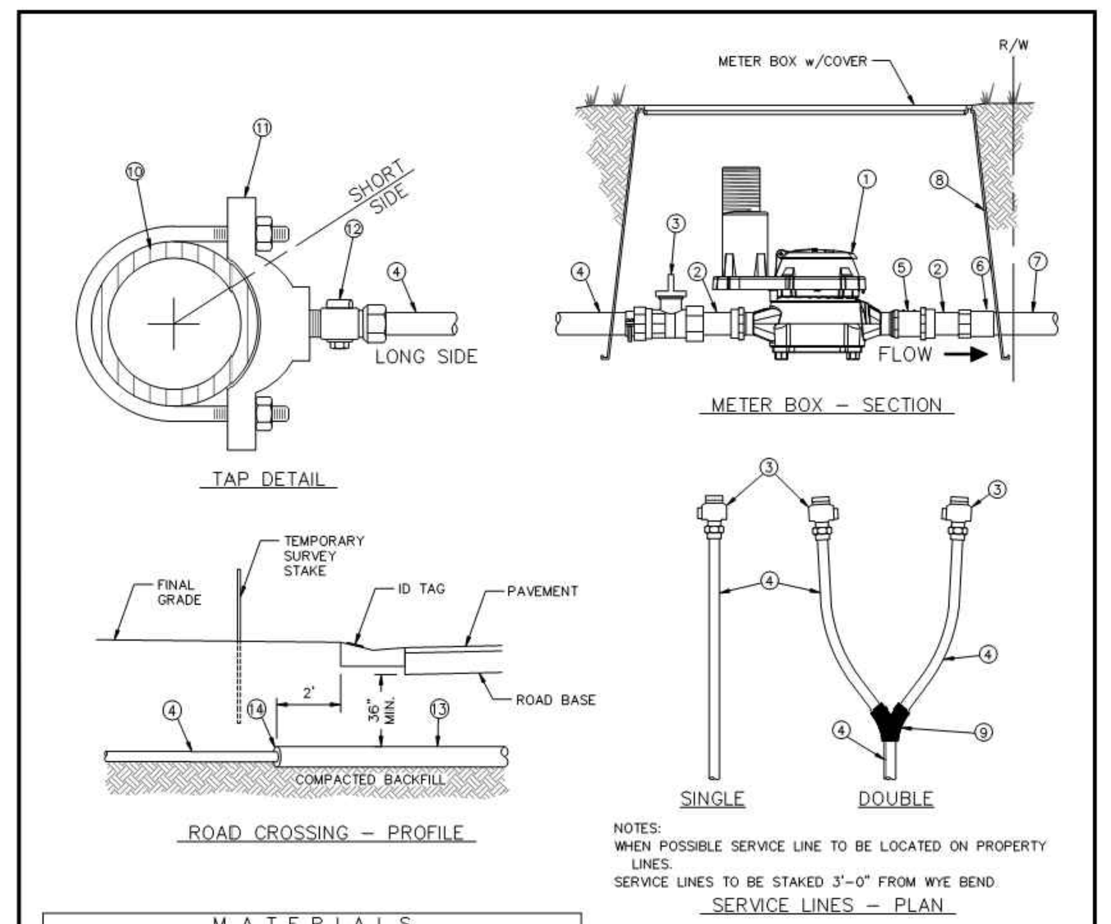
* NUMBERS IN PARENTHESES REPRESENT LINEAL FEET OF RESTRAINT FOR POLY WRAPPED DIP AND FOR PVC PIPE.

CREATED JULY 2015 REVISED NOV. 2015, MAY 2016, JUNE 2017

RESTRAINED JOINT NOTES

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL G11



NOTES:
WHEN POSSIBLE SERVICE LINE TO BE LOCATED ON PROPERTY LINES.
SERVICE LINES TO BE STAKED 3'-0" FROM WYE BEND.

MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	RECORDALL WATER METER w/ADE & ORION INTEGRAL PIT
		TRANSMITTER (5/8" x 3/4" RCDL C25 OR 1" RCDL M55)
2	2	METER TAIL, 3/4" OR 1" LONG,
		BRONZE MULTISIDED, w/RUBBER WASHER
3	1	CURB STOP BALL VALVE w/LOCK WING (FIP X COMP)
4	*	WATER TUBING, POLYETHYLENE BLUE
5	1	DUAL CHECK VALVE (FMTR X MMTR)
6	1	COUPLING, PVC (TYP)
7	*	PIPE, PVC (TYP.)
8	1	METER BOX w/READER COVER, NDS D1200 OR EQUAL
9	1	1" x 3/4" WYE BRANCH (COMP. x COMP.)
10	*	PIPE, PVC (DR-18) OR D.I.P.
11	1	1" TAPPING SADDLE, DOUBLE STRAP, F.I.P., S.S.
12	1	1" CORPORATION (M.I.P. x COMP.)
13	*	2" CASING, PVC OR HDPE
14	*	SEALER, RAM-NEK

NOTES:
- A DUAL CHECK VALVE IS REQUIRED ON THE POTABLE SERVICE LINE WHEN THE CUSTOMER HAS REUSE AVAILABLE.
- METER BOX TO BE LOCATED INSIDE R.O.W. @ PROPERTY LINE.
- TOP OF BOX TO BE AT FINISHED GRADE.
- ALL FITTINGS FOR POLYETHYLENE TUBING ARE BRASS COMPRESSION TYPE.
- POTABLE WATER METERS INCLUDE A GREY' REGISTER LID & SHROUD, SUPPLIED BY PCU
- METER BOX & COVER ARE 'BLACK' FOR POTABLE APPLICATION, SUPPLIED BY PCU
- TUBING TO BE YARDLEY 3406 OR EQUAL 'BLUE'.
- SADDLES 2" – 3" TO BE BRASS FULL CIRCLE TYPE.
- SADDLES 4" AND LARGER TO BE D.I. DUAL STRAP TYPE.
- SADDLE MAY BE INSTALLED AT ANGLE (WITHIN 45° OF HORIZONTAL).

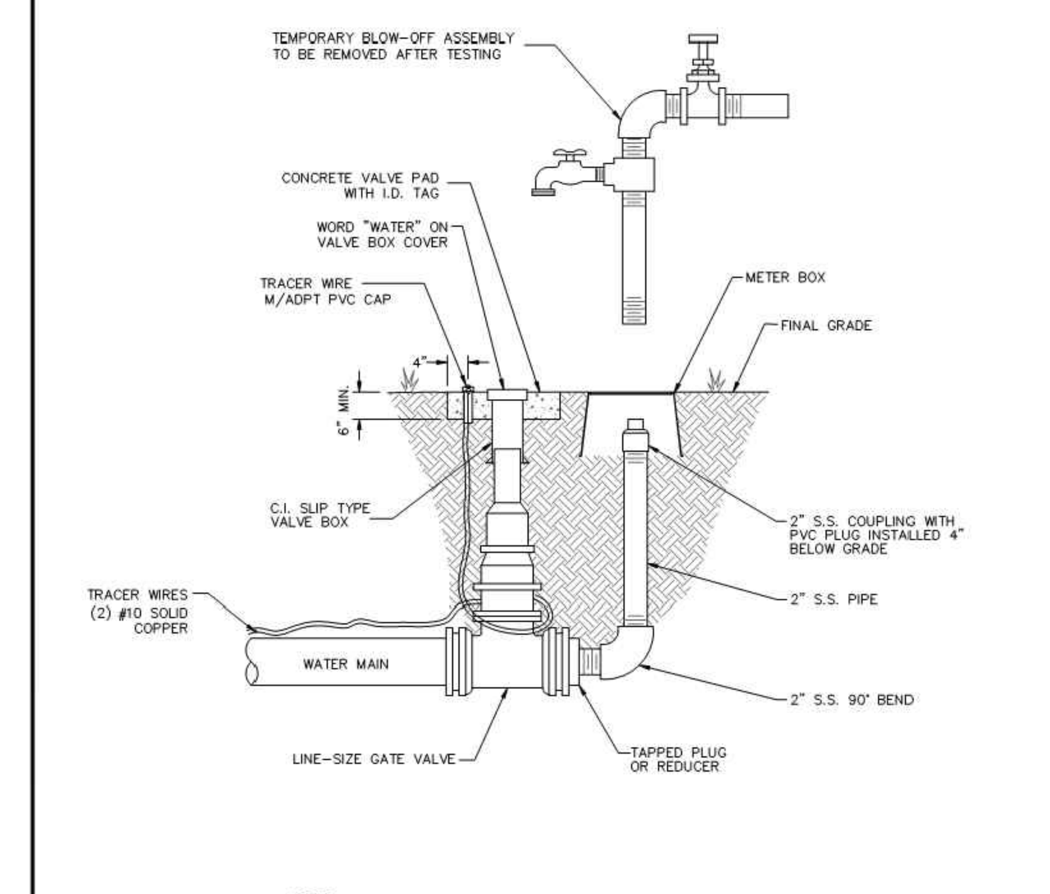
W, RW

CREATED JAN 2014 REVISED AUG 2015, MAY 2016, JUNE 2017

AMR METER SERVICE INSTALLATION 5/8", 3/4" OR 1"

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL G13



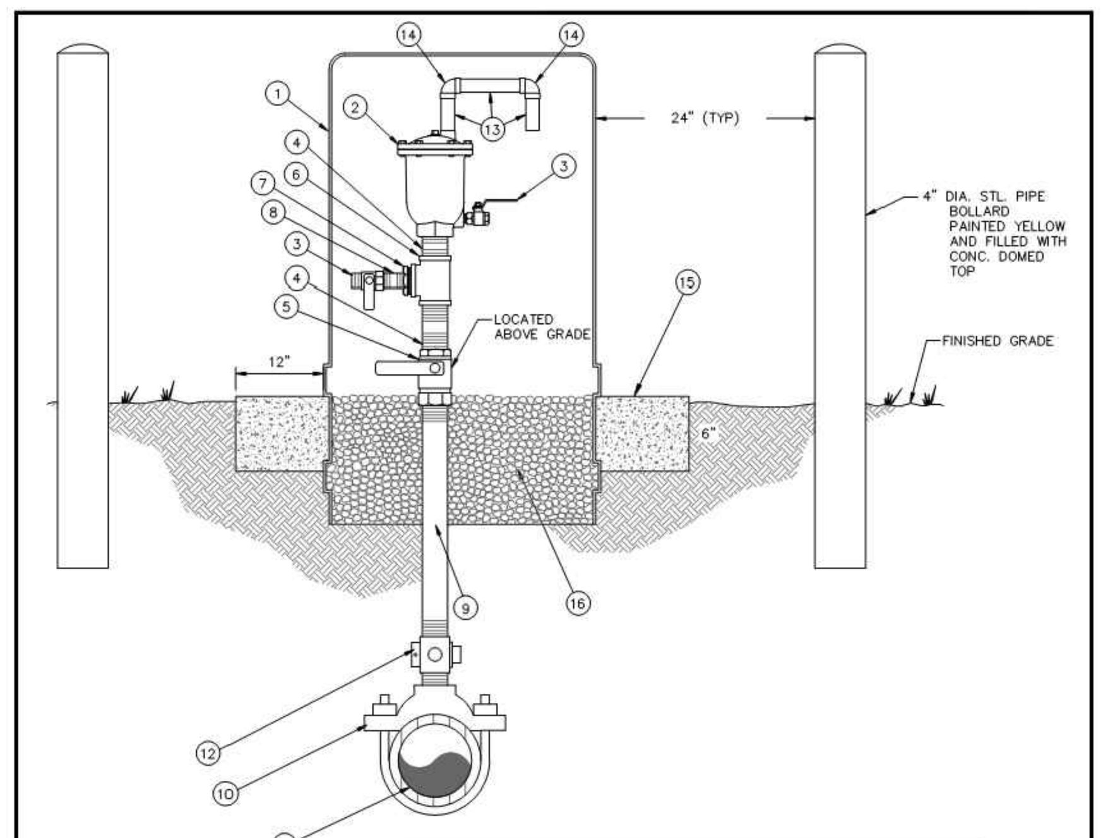
NOTES:
- MECHANICAL JOINTS/UNDERGROUND PIPING SHALL BE RESTRAINED AS SPECIFIED IN JOINT RESTRAINT TABLE (DETAIL G10)
- VALVE EXTENSION ROD SHALL BE UTILIZED, AS NECESSARY, SO THAT VALVE OPERATING NUT IS A MAXIMUM OF 3' BELOW GRADE.
- END OF LINE SAME SIZE VALVE

CREATED FEB 2003 REVISED JAN 2014, AUG 2015, JUNE 2017

PERMANENT BLOW-OFF DETAIL

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL G15



MATERIALS			
	ITEM	QUANT.	DESCRIPTION
	1	1	VENTED ENCLOSURE, WATER PLUS CORP. MODEL #131632, BLUE, GREEN AND PURPLE
	2	1	AIR RELEASE VALVE 2" ARI SEE MODEL # LIST THIS SHEET
	3	1	1" BALL VALVE 316 S.S. (NOT USED WITH ARV MODEL# D-025)
	4	1	2" NIPPLE BREAK AWAY SCHEDULE 80
	5	1	2" BALL VALVE, S.S. ABOVE GRADE
	6	1	2" TEE, S.S.
	7	1	2" X 1" REDUCER, S.S.
	8	1	1" SHORT NIPPLE, S.S.
	9	1	2" PIPE, S.S.
	10	1	2" DOUBLE STRAP TAPPING SADDLE, S.S.
	11	1	4" & LARGER PIPE, D.I. (DR-18)
	12	1	2" CORPORATION BRASS
**	13	3	1/2" PIPE, PVC, LENGTH AS REQUIRED
**	14	2	1/2" 90° ELBOW, PVC
	15	1	CONCRETE SLAB AROUND ENCLOSURE
	16	*	#57 WHITE ROCK

** = NOT REQUIRED FOR ARI MODELS RW=D-021 OR FM=D-025

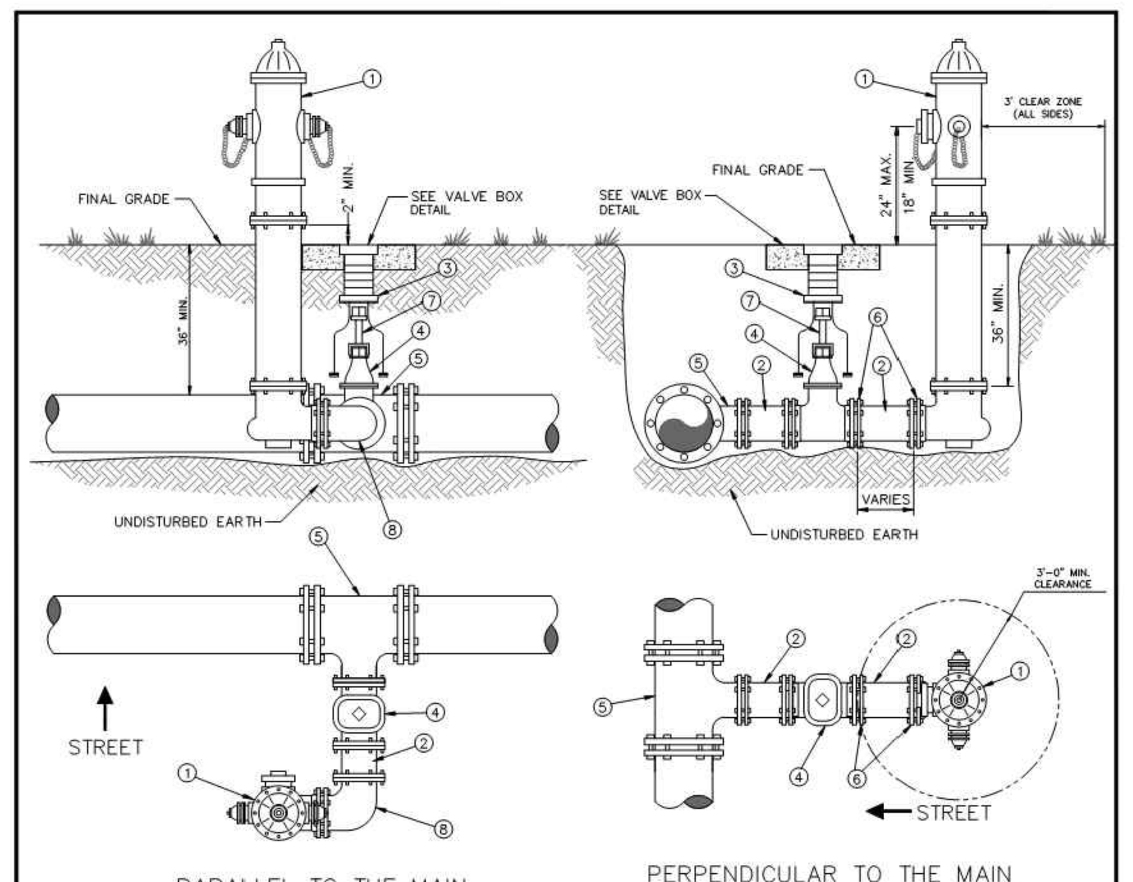
ARI ARV MODEL#
S-040 W=WATERMAIN
D-021 RW= REUSE WATER
D-025 FM=FORCEMAIN

CREATED FEB 2003 REVISED JAN 2014, AUG 2015, JUNE 2017

W, RW, FM AIR RELEASE VALVE ASSEMBLY (VERTICAL PIPE LAYOUT)

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL G16



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	FIRE HYDRANT (5 1/4" VALVE MIN.), PAINTED YELLOW
2	*	6" DIA. PIPE, P.V.C. (DR-14) MAX 20' LENGTH VALVE MUST BE RESTRAINED TO "TEE" (ANCHOR COUPLING OR ANCHOR TEE)
3	1	VALVE BOX, SLIP TYPE
4	1	6" VALVE, GATE, M.J. RESILIENT WEDGE, N.R.S.
5	1	ANCHOR TEE, M.J.
6	*	6" RESTRAINED JOINT M.J. (MEGALUG OR EQUAL)
7	*	VALVE EXTENSION ROD, AS NECESSARY (3' MAX. BELOW GRADE)
8	*	6" 90° BEND, D.I., RESTRAINED

CLOW CORP. F-943 M.J. HYDRANT TEE

** F-943 M.J. HYDRANT TEE MAY BE SUBSTITUTED FOR THE ANCHOR TEE

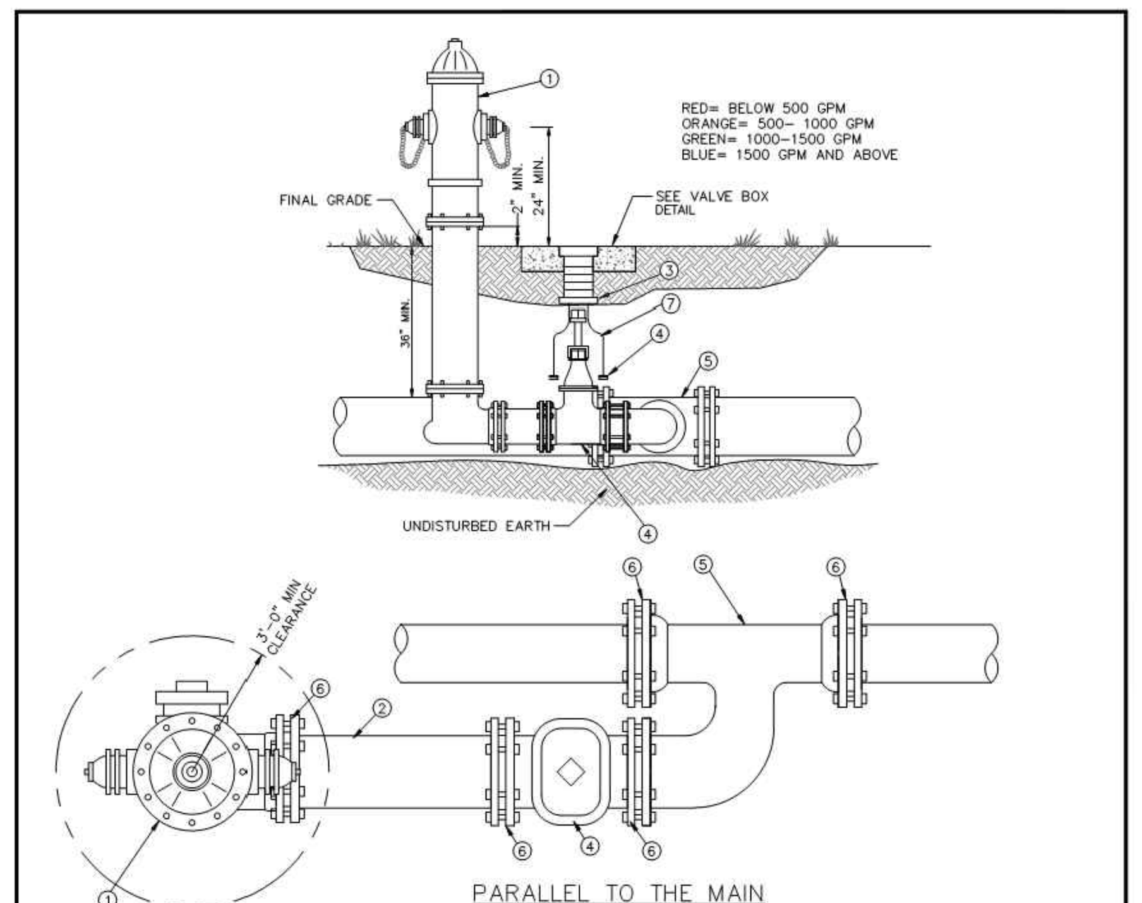
NOTES:
1. MINIMUM CLEARANCE OF 18" FROM C/L OF STEAMER NOZZLE TO FINAL GRADE, TO BE ADJUSTED BY CONTRACTOR.
2. ADD REFLECTIVE PAVEMENT MARKER (RPM, BLUE/BLUE) IN CENTER OF LANE IMMEDIATELY ADJACENT TO HYDRANT.
3. A 3-FT CLEAR ZONE SURROUNDING THE HYDRANT SHALL BE FREE OF ANY TREES, SHRUBS, AND DRIVEWAYS.
4. HYDRANT CAPS SHALL BE COLOR CODED BASED ON FLOW RATES:
   - BELOW 500 GPM: RED
   - 500–1,000 GPM: ORANGE
   - 1,000–1,500 GPM: GREEN
   - ABOVE-1,500 GPM: BLUE

CREATED FEB 2003 REVISED SEPT 2014, AUG 2015, JUNE 2017

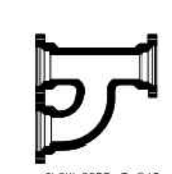
FIRE HYDRANT CONFIGURATION

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL W13



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	FIRE HYDRANT (5 1/4" VALVE MIN.), PAINTED YELLOW
2	*	6" PIPE, P.V.C. (DR-14) MAX 10' LENGTH
3	1	VALVE BOX, SLIP TYPE
4	1	6" VALVE, GATE, M.J. RESILIENT WEDGE, N.R.S.
5	1	MJ HYDRANT TEE, F-943
6	*	6" RESTRAINED JOINT M.J. (MEGALUG OR EQUAL)
7	*	VALVE EXTENSION ROD, AS NECESSARY (3' MAX. BELOW GRADE)



CLOW CORP. F-943 M.J. HYDRANT TEE

** F-943 M.J. HYDRANT TEE MAY BE SUBSTITUTED FOR THE ANCHOR TEE

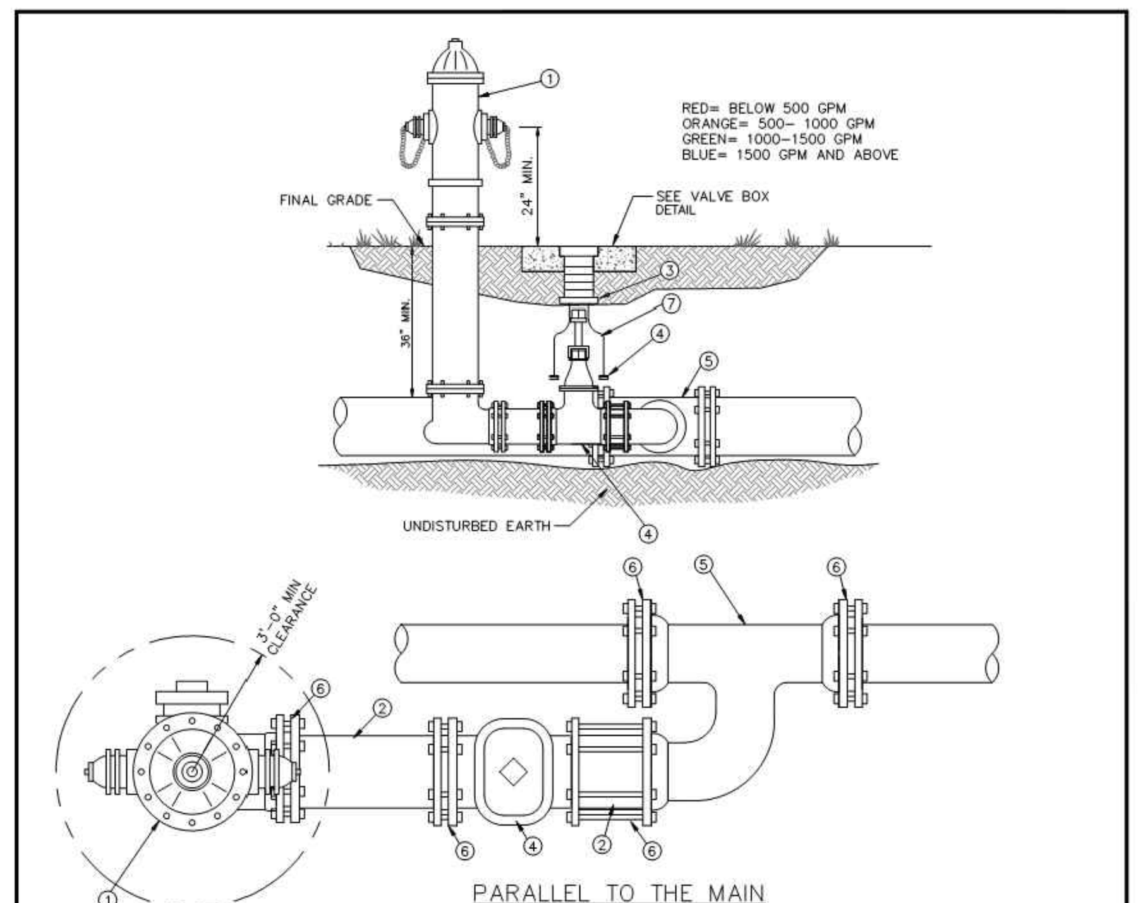
NOTE:
MINIMUM CLEARANCE OF 18" FROM C/L OF STEAMER NOZZLE TO FINAL GRADE, TO BE ADJUSTED BY CONTRACTOR.

CREATED FEB 2003 REVISED JAN 2014, AUG 2015, JUNE 2017

FIRE HYDRANT CONFIGURATION

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL W14



MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	FIRE HYDRANT (5 1/4" VALVE MIN.), PAINTED YELLOW
2	*	6" PIPE, P.V.C. (DR-18) MAX 10' LENGTH
3	1	VALVE BOX, SLIP TYPE
4	1	6" VALVE, GATE, M.J. RESILIENT WEDGE, N.R.S.
5	1	MJ HYDRANT TEE, F-943
6	*	6" RESTRAINED JOINT M.J. (MEGALUG OR EQUAL)
7	*	VALVE EXTENSION ROD, AS NECESSARY (3' MAX. BELOW GRADE)

CLOW CORP. F-943 M.J. HYDRANT TEE

** F-943 M.J. HYDRANT TEE MAY BE SUBSTITUTED FOR THE ANCHOR TEE

NOTE:
MINIMUM CLEARANCE OF 18" FROM C/L OF STEAMER NOZZLE TO FINAL GRADE, TO BE ADJUSTED BY CONTRACTOR.

CREATED FEB 2003 REVISED JAN 2014, AUG 2015, JUNE 2017

FIRE HYDRANT CONFIGURATION

PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL

PASCO COUNTY UTILITIES — DETAIL W15

DATE	DESCRIPTION	BY
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

UTILITY DETAILS

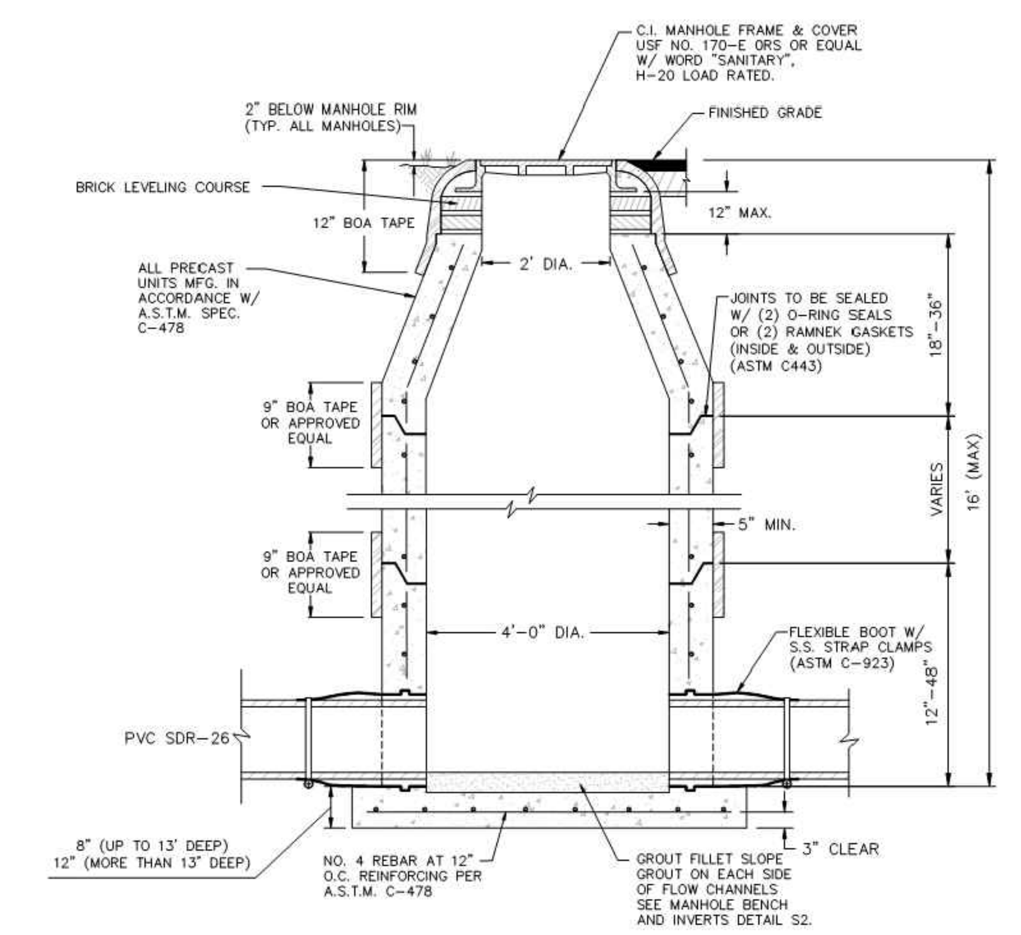
MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS

JOB NO. LNH-MR-014
DESIGN MELVIN
DRAWN DROOR
DATE 10-07-2019
FILE WSD

PREPARED FOR: LENNAR HOMES

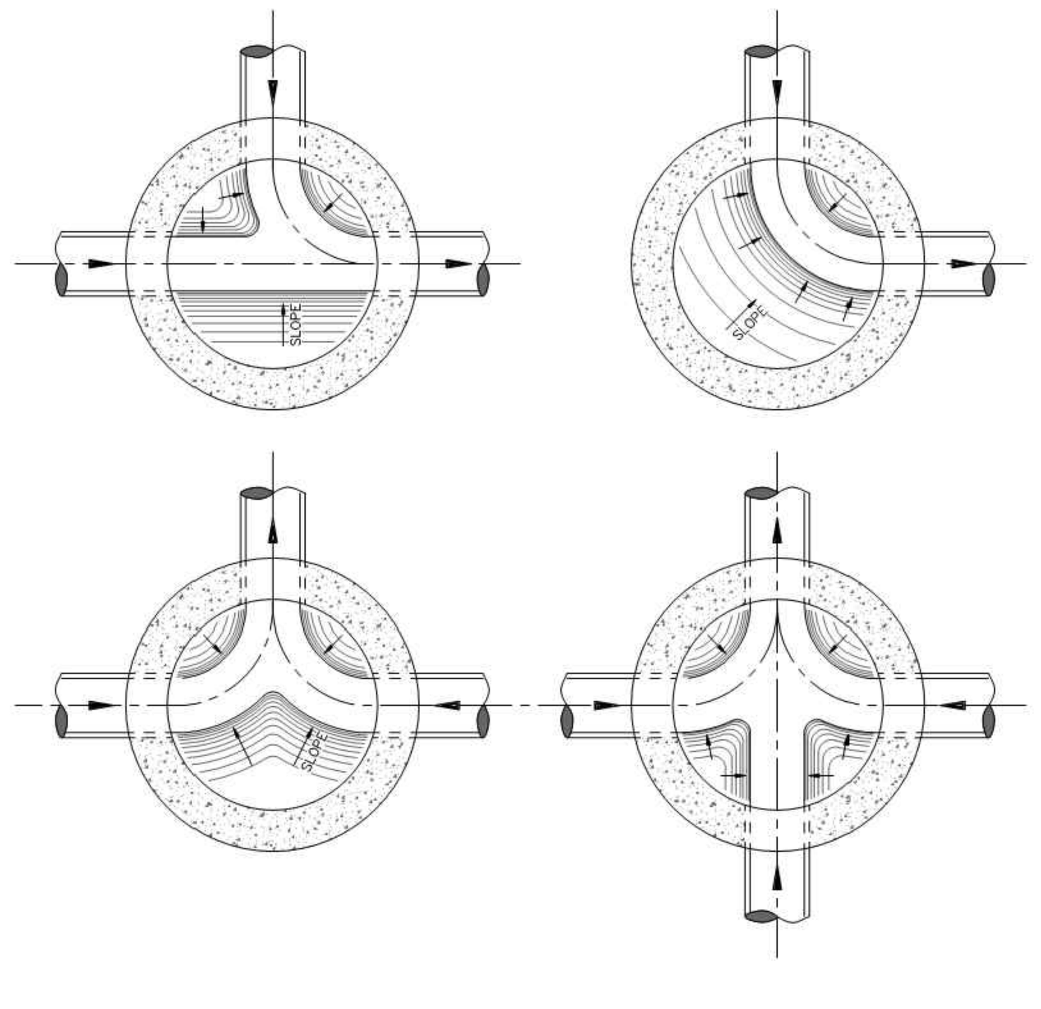
Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

SHEET 34 OF 45 SHEETS



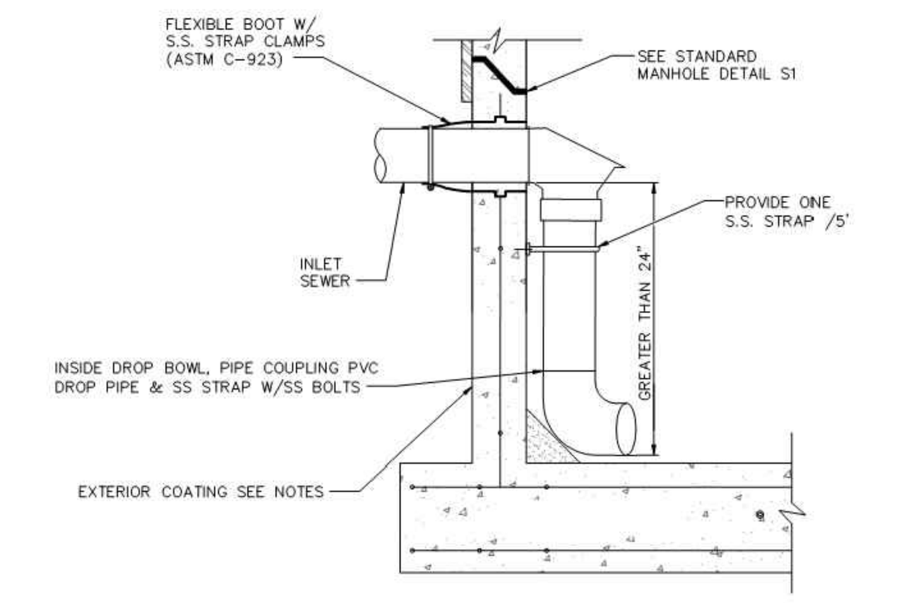
NOTES:
1. BOA TAPE MUST BE USED ON ALL JOINTS, CASTINGS AND RISER RINGS: ON ALL JOINTS ON AIR RELEASES, MANHOLES, GREASE/WATER, OIL/WATER SEPARATORS, AND WETWELLS.
2. BOA TAPE MUST BE USED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
3. THE TYPE OF INTERIOR LINING USED SHALL BE QUADEX ALUMINALINER ON EXISTING WET WELLS
4. A FORCEMAIN CONNECTION REQUIRES THE MANHOLE AND THE FOUR DOWN STREAM TWO UPSTREAM MANHOLES TO BE LINED.
5. PASCO COUNTY MAY REQUIRE ADDITIONAL MANHOLES TO BE LINED BASED ON MANHOLE SPACING.
6. PASCO COUNTY SHALL HAVE THE OPTION OF REQUIRING A NEGATIVE PRESSURE TEST PER ASTM C-1244.
7. LIFT HOLES MUST NOT PENETRATE THE WALLS.
8. PRECAST CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
9. USE OF ECCENTRIC CONES REQUIRE SPECIAL APPROVAL.
10. EXTERIOR COATING, KOPPERS BITUMASTIC BLACK SOLUTION, 2 COATS, OR TYPE II PORTLAND CEMENT MUST BE USED IN THE MANUFACTURING.
11. MANHOLE W/ CONNECTION SHALL HAVE 24 HR HYDROSTATIC LEAK TEST.

CREATED FEB 2003 REVISED JAN 2014 AUG 2015 JUNE 2017	STANDARD MANHOLE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL S1



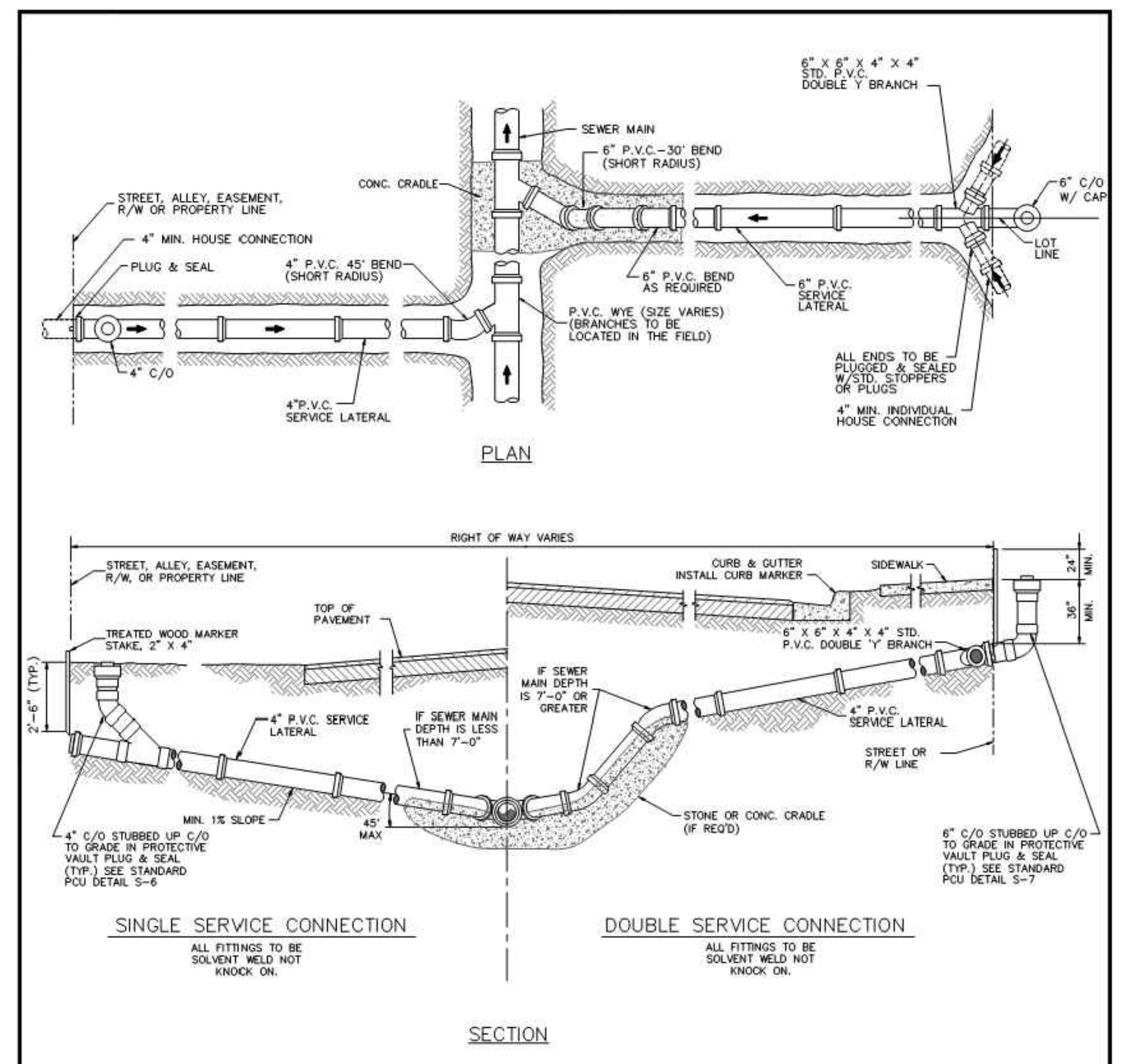
NOTES
- MANHOLE BENCH SHALL HAVE A STEEL TROWEL FINISH.
- MINIMUM DROP FROM INLET INVERT TO OUTLET INVERT SHALL BE NO LESS THAN 0.10 FEET.
- DEPTH OF CHANNELIZATION SHALL BE EQUAL TO 80% OF PIPE DIA. (MIN.)
- MINIMUM SHELF SLOPE TO BE 1"/FT FROM WALL TO CHANNEL.
- TYPE II CONCRETE FILL SHALL BE USED FOR MANHOLE BENCH.

CREATED FEB 2003 REVISED JAN 2014 AUG 2015 JUNE 2017	STANDARD MANHOLE BENCH AND INVERTS	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL S2



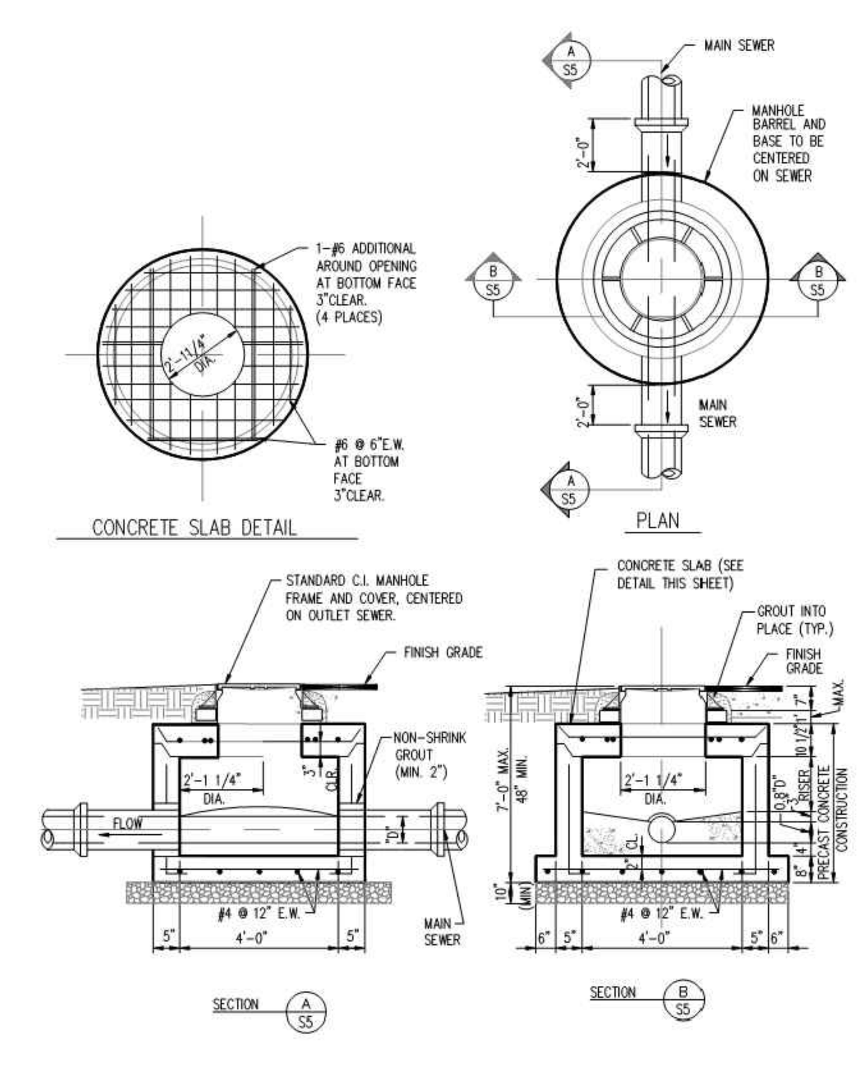
NOTES:
- DROP SECTION PIPE SIZE TO BE EQUIVALENT TO INLET PIPE SIZE.
- PASCO COUNTY SHALL HAVE THE OPTION OF REQUIRING A NEGATIVE PRESSURE TEST PER ASTM C-1244.
- LIFT HOLES MUST NOT PENETRATE THE WALLS.
- PRECAST CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
- EXTERIOR COATING, KOPPERS BITUMASTIC BLACK SOLUTION, 2 COATS, OR TYPE II PORTLAND CEMENT MUST BE USED IN THE MANUFACTURING.
- DROP MANHOLE TO BE USED WHEN THE DIFFERENCE BETWEEN INLET INVERT AND OUTLET INVERT IS 24" OR MORE.

CREATED FEB 2003 REVISED JAN 2014 AUG 2015 JUNE 2017	DROP MANHOLE CONNECTION	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL S3



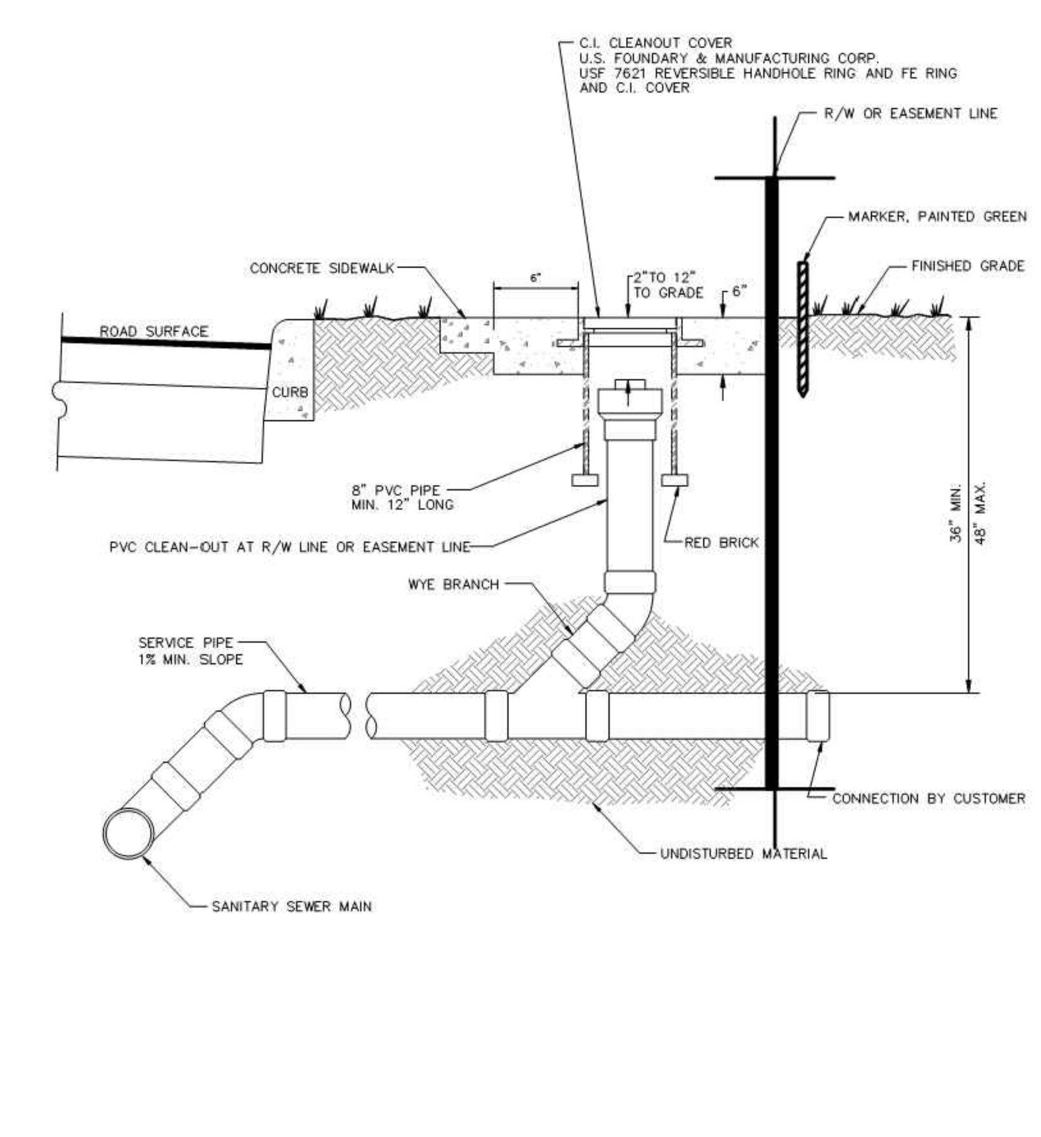
NOTE:
- CONTRACTOR SHALL MAKE, ON A CLEAN SET OF PLANS, THE FINAL STATIONING OR DISTANCE AND DIRECTION FROM MANHOLE OF EACH SERVICE LATERAL AND THEN GIVE TO ENGINEER FOR RECORD PURPOSES.
- PROVIDE 2" x 4" PRESSURE TREATED WOOD MARKER STAKE AT ALL SANITARY SERVICES (INCLUDE IN PIPE PRICE), TOP OF STAKE TO BE PAINTED WITH GREEN PAINT.
- THE MINIMUM DIAMETER OF ALL SERVICE LATERALS SHALL BE 4 INCHES.

CREATED FEB 2003 REVISED JAN 2014 MAY 2015 JUNE 2017	SANITARY SEWER LATERAL CONNECTION	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL S4

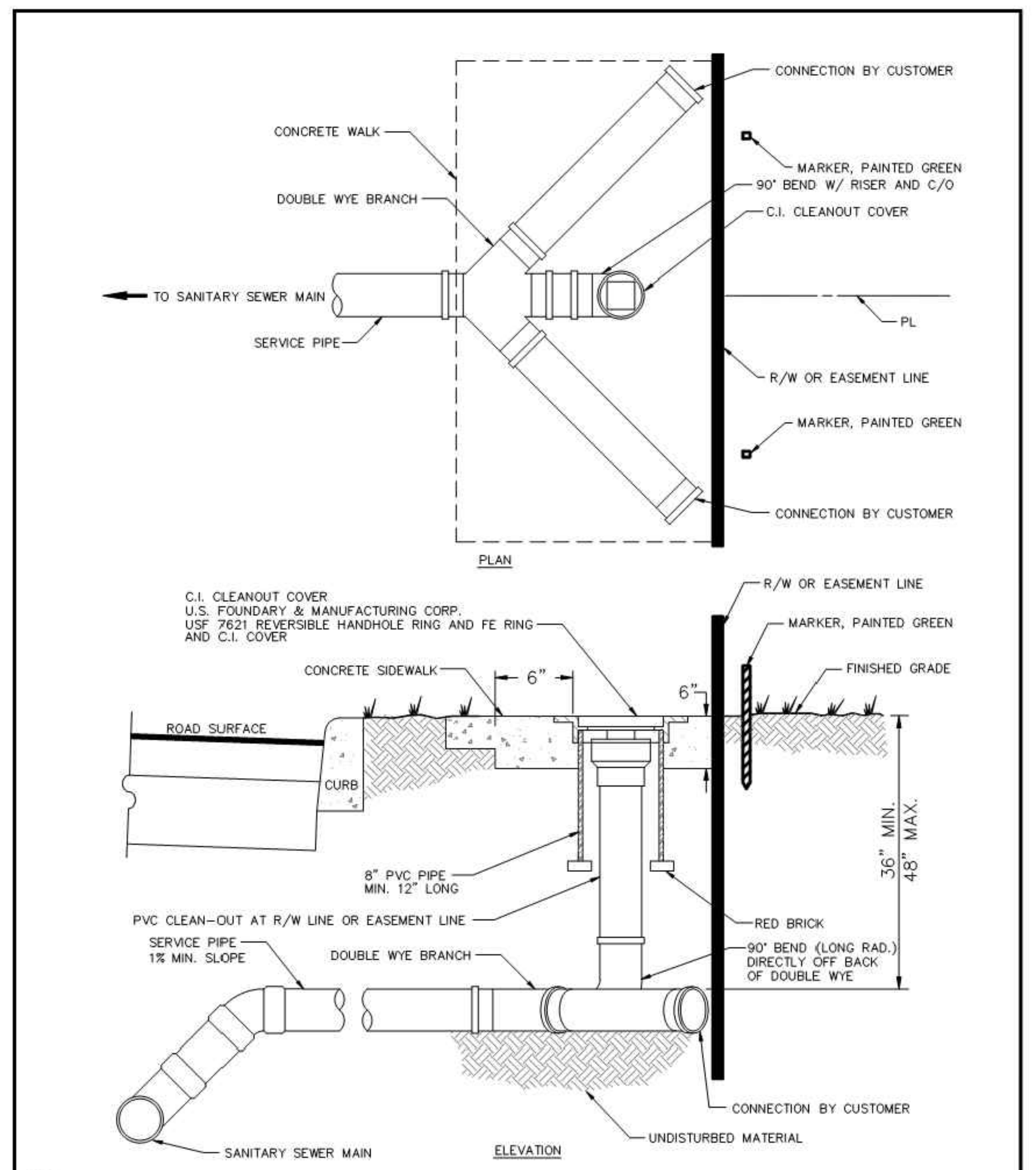


-MANHOLE W/ CONNECTION SHALL HAVE 24 HR HYDROSTATIC LEAK TEST PERFORMED.

CREATED FEB 2003 REVISED JAN 2014 AUG 2015 JUNE 2017	STANDARD SHALLOW MANHOLE	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL S5



CREATED AUG 2015 REVISED MAY 2016 JUNE 2017	SANITARY SEWER - SINGLE WYE CONNECTION AND TYPICAL CLEAN-OUT	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL S6



CREATED AUG 2015 REVISED MAY 2016 JUNE 2017	SANITARY SEWER - DOUBLE WYE CONNECTION AND TYPICAL CLEAN-OUT	PROVIDED FOR INFORMATIONAL PURPOSES ONLY. NO MODIFICATIONS WITHOUT WRITTEN PCU APPROVAL
	PASCO COUNTY UTILITIES	DETAIL S7

DATE	DESCRIPTION	BY
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

UTILITY DETAILS

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE WSD	SHEET 35 OF 45 SHEETS

PHASE 4
(NOT IN SCOPE)

PHASE 2

WCA 22
3.31 AC
Cat III

WELBILT ROAD

TIE INTO EXISTING WALK, MATCH EXISTING GRADE

EXISTING POND 30A

CONSTRUCT 10' TRAIL

POUR PADS FOR BENCHES WITH TRAIL, TYP.

PUMP STATION

CONSTRUCT 10' CONCRETE TRAIL

BEAR LANDING WAY

EXISTING 60' RW

PHASE 3
(NOT IN SCOPE)

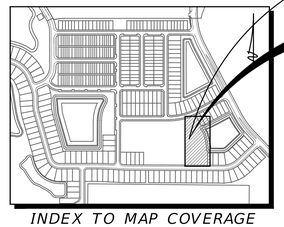
N

100 50 0 50 100

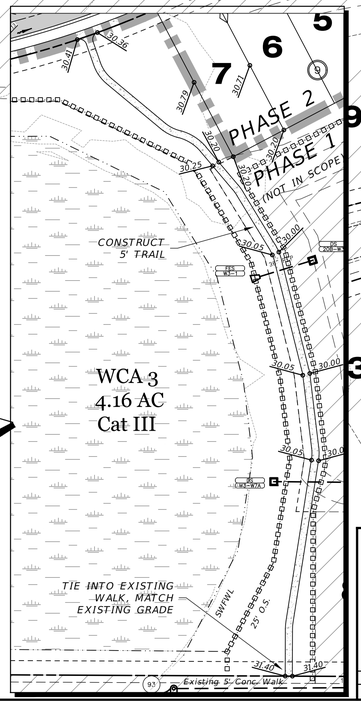
SCALE: 1" = 50'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
10	10	STRUCTURE NO.
+62.9	65.00 / 65.00	SPOT ELEVATION
		PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
		FLOATING TURBIDITY BARRIER
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
		PROPOSED SIDEWALK/PATH BY BUILDER (5' WIDE UNLESS OTHERWISE NOTED)
		PROPOSED SIDEWALK/PATH BY DEVELOPER (5' WIDE UNLESS OTHERWISE NOTED, 4" THIC
		PROPOSED SIDEWALK/PATH BY DEVELOPER (10' WIDE, 6" THICK)
		PROPOSED DETECTABLE WARNING
101		WETLAND AREAS
		PROJECT BOUNDARY
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING



INDEX TO MAP COVERAGE



DATE	DESCRIPTION	BY
10-07-2019	REV. EAST TRAIL TO 5', ADD GRADING SPOTS, UPDATE LEGEND	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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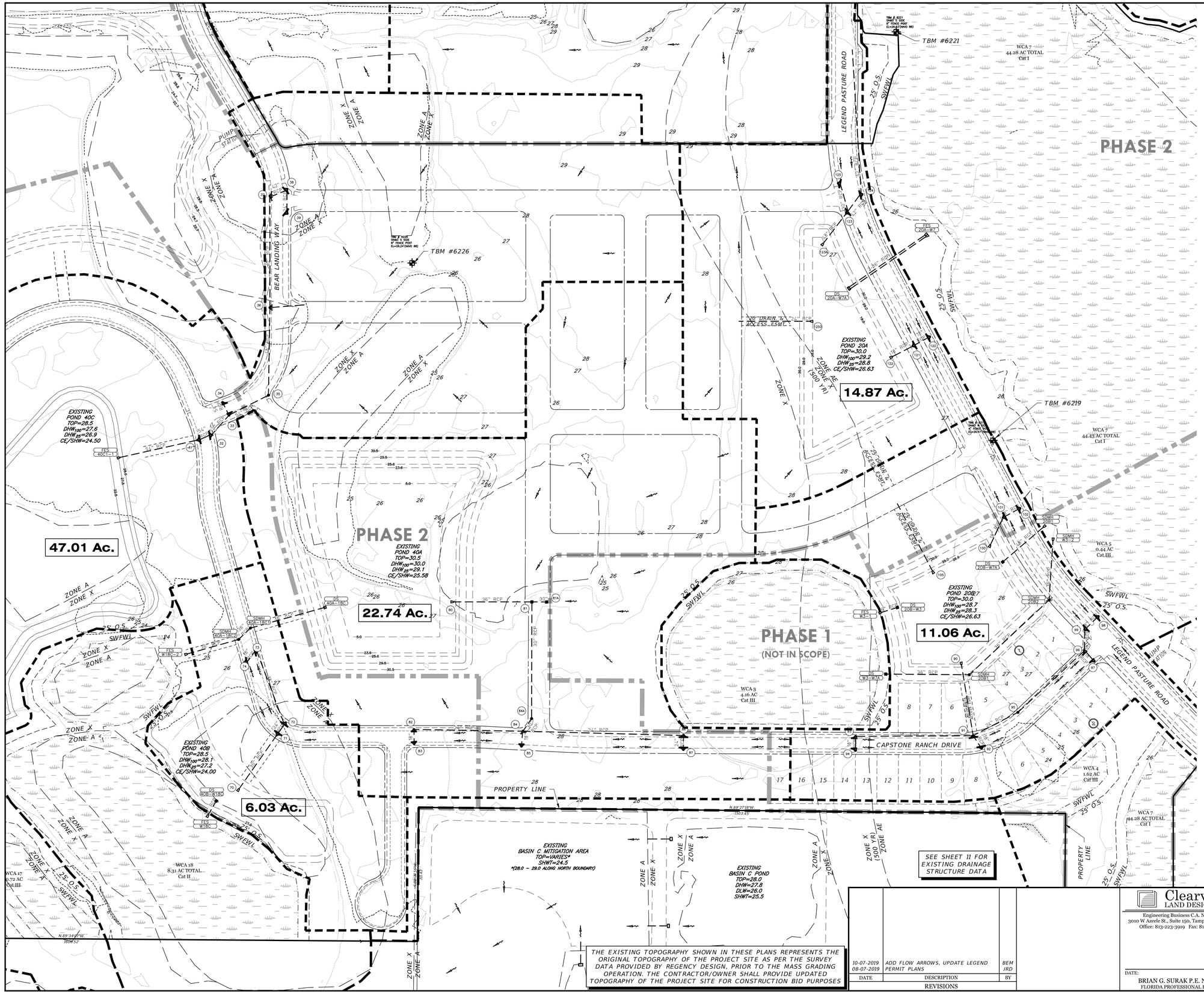
DATE:

BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

DETAILED GRADING PLAN - TRAIL

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE TRAIL	SHEET 36 OF 45 SHEETS



N

200 100 0 100 200

SCALE: 1" = 100'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
(10)	(10)	STRUCTURE NO.
+62.9	63.00	SPOT ELEVATION
63	63.00	PROPOSED PROFILE GRADE ELEVATION
	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
	10	PLAN & PROFILE SHEET NO. REFERENCE
	RA-#	ROADWAY AUGER LOCATION
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING
1.00 AC.		MAJOR DRAINAGE AREA ACREAGE
		MAJOR DRAINAGE AREA

WETLAND IMPACTS PREVIOUSLY PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND SWFWMD PERMIT NO. 430130555.007 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC.

PONDS SHOWN AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. THIS WORK IS TO BE COMPLETED UNDER THE CONTRACT FOR THESE CONSTRUCTION PLANS. ROADS, STORMWATER COLLECTION, UTILITIES AND SERVICES SHOWN HERE AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY UNDER PERMIT PSP17-004, DATED JULY 6, 2017 AND ARE SHOWN ON THE PLANS DATED FEBRUARY 2017 TITLED ("MITCHELL 54 WEST MASTER INFRASTRUCTURE") PREPARED BY REGENCY DESIGN & ENGINEERING, INC. REFER TO THE CURRENT PLANS BY REGENCY DESIGN & ENGINEERING, INC. FOR ANY MODIFICATIONS TO THE PREVIOUSLY PERMITTED DESIGN.

1. Elevations refer to the North American Vertical Datum of 1988 (NAVD88).
2. This site appears to lie within flood zones "A", "AE", and "X" according to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel 120230 0360 F Map No. 12101C0360F (Dated September 26, 2014)

THE EXISTING TOPOGRAPHY SHOWN IN THESE PLANS REPRESENTS THE ORIGINAL TOPOGRAPHY OF THE PROJECT SITE AS PER THE SURVEY DATA PROVIDED BY REGENCY DESIGN, PRIOR TO THE MASS GRADING OPERATION. THE CONTRACTOR/OWNER SHALL PROVIDE UPDATED TOPOGRAPHY OF THE PROJECT SITE FOR CONSTRUCTION BID PURPOSES

DATE	DESCRIPTION	BY
10-07-2019 08-07-2019	ADD FLOW ARROWS, UPDATE LEGEND PERMIT PLANS	BEM JRD

REVISIONS

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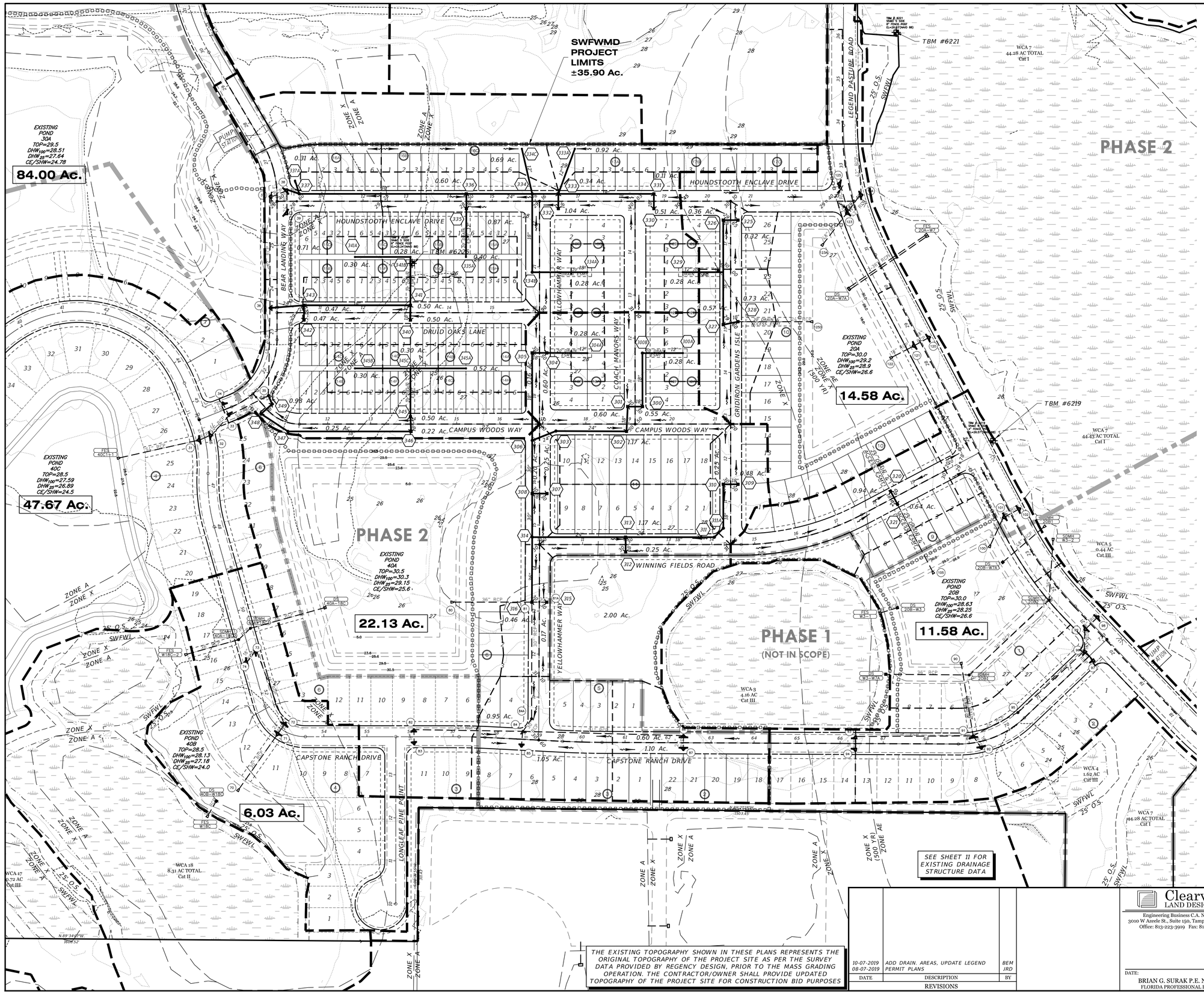
DATE:

BRIAN G. SURAK P.E. NO. 58064
FLORIDA PROFESSIONAL ENGINEER

PRE-DEVELOPMENT DRAINAGE MAP

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE DA-PRE	**SHEET 37 OF 45 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOC\DA-PRE.DWG-37 PRE-DEVELOPMENT DRAINAGE MAP 2019/10/07 10:48 AM BRENT MELVIN



N

200 100 0 100 200

SCALE: 1" = 100'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
10	10	STRUCTURE NO.
+62.9	63.50	SPOT ELEVATION
63	63.00 65.00	PROPOSED PROFILE GRADE ELEVATION
	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
		STAKED EROSION CONTROL
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROJECT BOUNDARY
	10	PLAN & PROFILE SHEET NO. REFERENCE
	RA-#	ROADWAY AUGER LOCATION
		5' WIDE x 4" THK. CONCRETE SIDEWALK TO BE INSTALLED BY SITE DEVELOPER
		FUTURE IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE
		IMPROVEMENTS NOT WITHIN PHASE 2 SCOPE. REFER TO MASS GRADING, MASTER INFRASTRUCTURE, AND PHASE 1 PLANS BY REGENCY DESIGN & ENGINEERING
1.00 AC.		MAJOR DRAINAGE AREA ACREAGE
		MAJOR DRAINAGE AREA
0.10 AC.		MINOR DRAINAGE AREA ACREAGE
		MINOR DRAINAGE AREA

WETLAND IMPACTS PREVIOUSLY PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND SWFWMD PERMIT NO. 43013055.007 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC.

PONDS SHOWN AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY PERMIT LRG 15-039, 4/22/18 AND ARE SHOWN ON THE PLANS DATED 4/27/16 TITLED "MITCHELL 54 WEST MASS GRADING" PREPARED BY REGENCY DESIGN & ENGINEERING, INC. THIS WORK IS TO BE COMPLETED UNDER THE CONTRACT FOR THESE CONSTRUCTION PLANS. ROADS, STORMWATER COLLECTION, UTILITIES AND SERVICES SHOWN HERE AS "EXISTING" WERE PERMITTED UNDER PASCO COUNTY PERMIT PSP17-004, DATED JULY 6, 2017 AND ARE SHOWN ON THE PLANS DATED FEBRUARY 2017 TITLED ("MITCHELL 54 WEST MASTER INFRASTRUCTURE") PREPARED BY REGENCY DESIGN & ENGINEERING, INC. REFER TO THE CURRENT PLANS BY REGENCY DESIGN & ENGINEERING, INC. FOR ANY MODIFICATIONS TO THE PREVIOUSLY PERMITTED DESIGN.

1. Elevations refer to the North American Vertical Datum of 1988 (NAVD88).
2. This site appears to lie within flood zones "A", "AE", and "X" according to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel 120230 0360 F Map No. 12101C0360F (Dated September 26, 2014)

THE EXISTING TOPOGRAPHY SHOWN IN THESE PLANS REPRESENTS THE ORIGINAL TOPOGRAPHY OF THE PROJECT SITE AS PER THE SURVEY DATA PROVIDED BY REGENCY DESIGN, PRIOR TO THE MASS GRADING OPERATION. THE CONTRACTOR/OWNER SHALL PROVIDE UPDATED TOPOGRAPHY OF THE PROJECT SITE FOR CONSTRUCTION BID PURPOSES

DATE	DESCRIPTION	BY
10-07-2019	ADD DRAIN. AREAS, UPDATE LEGEND	BEM
08-07-2019	PERMIT PLANS	JRD
	REVISIONS	

Clearview LAND DESIGN, P.L.
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DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

POST-DEVELOPMENT DRAINAGE MAP

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE DA-POST	SHEET 38 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\DA-POST.DWG--38 POST-DEVELOPMENT DRAINAGE MAP 2019/10/07 10:48 AM BRENT MELVIN

STORM WATER POLLUTION PREVENTION PLAN NOTES

Contained on these plans and within the following notes is a Storm Water Pollution Prevention Plan (SWPPP) which has been developed by Clearview Land Design in accordance with the Florida Department of Environmental Protection's (FDEP) "National Pollutant Discharge Elimination System" (NPDES) Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

The following entities are identified as team members of "SWPPP": Clearview Land Design, the Developer as identified in the title box of these plans, and the site contractor and his sub-contractors. Each team member has specific responsibilities and obligations. In general, all team members, with regard to their involvement and responsibilities on the project, are to implement all necessary storm water management controls to assure compliance with the NPDES Generic Permit for Storm Water Discharges from Construction Activities, the Southwest Florida Water Management District Permit, the applicable local governing agency (i.e. Hillsborough County, Pasco County, etc.) and the guidelines listed in the SWPPP. The duties and responsibilities of the team members as they pertain to the SWPPP are as follows:

CLEARVIEW LAND DESIGN, P.L.

A. Develop Surface Water Management Plan including, but not limited to, retention/detention ponds, control structures, general erosion control methods and locations and stabilization criteria. This design is included within these construction plans and the following notes and instructions.

B. Submit and obtain the necessary design related storm water permits from the Florida Department of Environmental Protection, the Southwest Florida Water Management District and other applicable governmental bodies.

CONTRACTOR

A. Upon notification by the developer of his intent to commence construction, submit a Notice of Intent to the FDEP on behalf of the developer and copy the contractor including SWPPP certification and copy of the permit.

B. Submit to SWFWMD and the operator of the municipal separate storm water system, if applicable, a letter of construction commencement.

C. A. Ensure each subcontractor affected by the SWPPP must certify that they understand and shall comply with the NPDES permit and SWPPP. A record of these certifications shall be maintained by the contractor on site.

D. B. During construction, assure compliance with the designed Storm Water Pollution Prevention Plans and the NPDES Generic Permit for Storm Water Discharges from Large and Small Construction Activities.

E. Maintain a copy of the construction plans, which include the Storm Water Pollution Prevention Plan, the NOI, and all inspection reports and certifications on site.

F. Undertake all reasonable Best Management Practices (BMP's) to assure that silted or otherwise polluted storm water is not allowed to discharge from the site during all phases of construction. Stabilization BMP's that may be used include: temporary or permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees and preservation of mature vegetation. Structural erosion and sediment control BMP's that may be used include: straw bale dikes, silt fences, earth dikes, brush barriers, drainage swales, check dams, subsurface drain, pipe slope drain, level spreaders, storm drain inlet protection, outlet protection, sediment traps, and temporary sediment basins. Detention ponds may also be used as temporary sediment basins. Additional BMP's that may need to be implemented include: providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials. Providing waste receptacles at convenient locations and providing regular collection of wastes, including building material wastes. Minimizing off-site tracking of sediments. Making adequate preparations, including training and equipment to contain spills of oil and hazardous materials. Complying with applicable state or local waste disposal, sanitary sewer or septic system regulations and the use of appropriate pollution prevention measures for allowable non-storm water components of discharge.

G. Notify Clearview Land Design and the developer in writing of any non-storm water pollution sources which are being stored, or otherwise used during the construction of the project, i.e., fertilizers, fuels, pesticides, other chemicals. This notification should be accompanied with the contractor's design and methods to prevent pollution run-off from these sources.

H. Develop a maintenance and inspection plan which includes, but is not limited to the following:

A. The specific areas to be inspected and maintained that includes all the disturbed areas and material storage areas of the site.

B. The erosion and sediment controls identified in the SWPPP to be maintained and inspected and those additional controls that the contractor deems necessary.

C. Maintenance procedures.

D. The procedure to follow if additional work is required or whom to call.

E. Inspections and maintenance forms.

F. The personnel assigned to each task.

The following shall be inspected a minimum of once a week or within 24 hours after 0.50 inches of rainfall:

Stabilization measures (once a month if fully stabilized).

Structural controls.

Discharge points.

Construction entrances and exits.

Areas used for storage of exposed materials.

An inspection form shall be completed for each inspection. Any permit violations should be noted and corrective measures shall be taken no later than 7 days after the inspection occurred. If revisions to the SWPPP are needed, a report form for changes in the SWPPP shall be completed and a copy sent to Clearview Land Design, P.L. The original shall be kept on-site as documentation of the change. If the inspection passes, a certification that the facility is in compliance with the SWPPP and the NPDES permit must be signed by a duly authorized representative of the principal executive official of the operator of the SWPPP with one of the following qualifications:

1. Has successfully completed the Florida Stormwater, Erosion and Sediment Control Inspector Training Program.
2. Successfully completed a similar training program.
3. Has enough practical on the job training to be qualified to perform the inspections.

Retain inspection reports and certifications for at least three years.

I. Site stabilization measures shall be initiated as soon as practical but in no case more than 7 days, in portions of the site where construction activities have temporarily or permanently ceased.

J. Complete and submit a Notice of Termination and certification for developer. The NOT's shall be submitted no more than 30 days after
(a) completion of the project and final stabilization of the site or
(b) when responsibility for the site has ended. Final stabilization as defined by EPA is when all soil disturbing activities at the site have been completed and a uniform (e.g. evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures. As an alternative, equivalent permanent stabilization measures (such as riprap, gabions, or geotextiles) may be employed. The client shall notify Clearview Land Design when one of these criteria has been met

H. Releases in Excess of Reportable Quantities.

1. The discharge of hazardous substances or oil in the stormwater discharge(s) from a facility or activity shall be prevented or minimized in accordance with the applicable stormwater pollution prevention plan for the facility or activity. This permit does not relieve the operator of the reporting requirements of 40 CFR part 117 and 40 CFR part 302. Where a release containing a hazardous substance in an amount equal to or in excess of a reporting quantity established under either 40 CFR 117 or 40 CFR 302, occurs during a 24 hour period:

   a. The operator is required to notify the State Warning Point (800-210-0519 or 850-413-9911) as soon as he or she has knowledge of the discharge;

   b. The operator shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and remedial steps to be taken, to the Florida Department of Environmental Protection, NPDES Stormwater Section, Mail Station 2500, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and

   c. The stormwater pollution prevention plan required under Part V of this permit must be modified within 14 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

2. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

DEVELOPER

A. Notify Clearview and the Contractor of your intent to commence construction. Sign the Notice of Intent form as operator of the storm water discharge facility and permittee and coordinate with the Contractor for submittal to FDEP.

B. Sign a Certification of Storm Water Pollution Prevention Plan and provide a copy to Clearview Land Design, P.L.

C. Notify Clearview when the submittal of a Notice of Termination as defined under Part 1 of the Clearview Land Design section of the SWPPP Notes.

PRE-DEVELOPED SITE INFORMATION:

1. Total site acreage: ±94.941 ACRES (PHASE 2)
2. Land use: PASTURE
3. Vegetation: GRASS WITH SCATTERED AREAS OF DENSE TREES
4. Receiving waters or municipal separate storm water system: ANCLOTE RIVER / DUCK SLOUGH
5. 2 Year/24 Hour rainfall depth: 4.5"
6. Soil types: VARIES - REFER TO GEOTECHNICAL REPORT FOR COMPLETE LIST

PROJECT INFORMATION:

1. Project type: Residential
2. Anticipated construction sequence is as follows:
   1. Complete erosion control installation
   2. Clearing and grubbing
   3. Earthwork activities
   4. Storm water system construction
   5. Utility construction
   6. Base and pavement construction
   7. Final stabilization

   The BMP's listed in Part D of the Contractor section of the SWPPP shall be considered during all phases of construction.
3. Anticipated start date: SPRING 2020
4. Anticipated completion date: SPRING 2021
5. Total acres disturbed: ±35.90 Ac. ± (SILT FENCE LIMITS)
6. Pre-developed "C" factor: 0.55
7. Post-developed "C" factor: 0.80
8. The storm water management system, upon completion of construction and appropriate certification and as-built submittals will be operated and maintained by CDD (UNLESS OTHERWISE NOTED)
9. The potential source of pollution from this project is on-site development and construction activity.

OWNER'S INSTRUCTIONS FOR MAINTENANCE AND INSPECTION OF STORMWATER FACILITIES

The entire stormwater system should be inspected on at least a semi-annual basis. This should include a visual inspection of the pond, pond banks, bleed-down orifices, other control structures, and discharge pipes. These should be kept free of debris and cleaned on a frequency as required to keep them functional, as designed. Mowing/clearing around the structures may be required to prevent vegetation from clogging them.

Wetland plants, if intentionally installed, should be monitored and maintained as required on the approved construction plans. Areas of littoral shelving, which are required to be vegetated but not intentionally planted, should not be cleared of the wetland plants. These areas should have as high a plant coverage as possible, for maximum water filtration.

Sediment sumps, if designed and installed, should have sediment removed as necessary to allow them to efficiently remove suspended particles. They should be re-dug to the original design specifications, if silted in.

For percolation treatment ponds/swales, the owner of the facility shall inspect the pond bottom periodically after heavy rainfall events to check for persistent ponding or pooling of water. All large debris shall be removed and disposed of elsewhere. If prolonged ponding persists, i.e., in excess of 72 hours, the owner shall rake or scarify the surface. If required, the soil in the area of ponding shall be removed and replaced with clean sandy, non-cohesive soils.

Please check the construction plans to see if written reports on monitoring or plant survival rates are required to be sent to any reviewing agencies. Written notes should always be kept which describe maintenance activities undertaken during each inspection.

Specific conditions of all permits may require additional maintenance activities above and beyond those outlined above. Please be aware of all permit conditions as issued by regulatory agencies to ensure permit compliance.

NOTE: CONTRACTOR SHALL INSPECT EROSION CONTROL DAILY (INCLUDING BUT NOT LIMITED TO TYPICAL OUTFALLS TO OFW(s). CORRECTIVE ACTION SHALL BE TAKEN IMMEDIATELY TO REPAIR OR REPLACE AS NEEDED.

GENERAL EROSION AND TURBIDITY CONTROL NOTES

1. The Site Subcontractor shall be responsible for installation and maintenance of all erosion and turbidity controls and the quality and quantity of offsite or wetland discharges.

2. Prior to construction, the Site Subcontractor is responsible for having his dewatering plan and turbidity control plan approved by the applicable reviewing agencies. Refer to the project's permit approvals and permit conditions for agencies requiring such review and approval. Questions concerning appropriate techniques should be addressed to those agencies and/or discussed with the project engineer and owner.

3. The appropriate turbidity and erosion control methodologies selected by the Site Subcontractor for this project should be made following assessment of the plans and project site specific factors and after consultations as needed with the project engineer and appropriate agencies.

4. The Site Subcontractor will be responsible for obtaining any and all necessary permits for such activity; several factors to consider are listed below:
   4.1. Clay content in excavated materials and/or permeabilities rates
   4.2. Depth of cut in ponds, trenches, or utility lines
   4.3. Ambient ground water levels
   4.4. Actual rainfall amounts and time of year relative to normal rainy season
   4.5. Proximity to wetlands, water bodies or offsite properties
   4.6. 'Class' designation of receiving water bodies (i.e., Outstanding Florida Waters, shellfish harvesting areas, etc.)
   4.7. Density, type, and proximity of upland vegetation to be retained during construction (for use as possible filtration areas)
   4.8. Fill height relative to natural grade and length and steepness of the proposed slopes
   4.9. Existing topography and directions of surface flow
   4.10. Type of equipment used
   4.11. Project type
   4.12. Duration of construction activities
   4.13. Separation distance of onsite ponds
   4.14. Ambient quality of surface and groundwater
   4.15. Temporary stockpile locations and heights

5. At the onset of construction, the Site Subcontractor, as the party responsible for implementation of the erosion and sediment control plan, shall assess the above described conditions and factors with respect to relative cost effectiveness and select the appropriate methods of protection. A fairly extensive list of techniques are presented below but it must be stressed that any or all of the following may be necessary to maintain water quality and quantity standards.

6. The construction sequencing should be thought out in advance of initiation to provide adequate protection of water quality.

7. Any offsite disturbance shall be restored to the Pre or better condition.
   7.1. Discharges of water quantities which affect offsite properties or may damage wetlands are also prohibited by regulating agencies.
   7.2. Discharges which exceed 29 N.T.U.'s over the background levels are in violation of state water quality standards.

8. The erosion and turbidity control measures shown hereon are the minimum required for agency approval. Additional control and measures may be required due to the Site Subcontractor's construction sequence & unforeseen weather conditions. Any additional measures deemed necessary by the Site Subcontractor shall be included in the lump sum bid with no extras for materials and labor allowed.

9. Hay bales or silt screens shall be installed prior to land clearing to protect water quality and to identify areas to be protected from clearing activities and maintained for the duration of the project until all soil is stabilized.

10. Floating turbidity barriers shall be in place in flowing systems or in open water lake edges prior to initiation of earthwork and maintained for the duration of the project until all soil is stabilized.

11. No clay material shall be left exposed in any stormwater storage facility.
   11.1. If clay or sandy-clays are encountered during stormwater storage excavation, the Site Subcontractor shall notify the Engineer immediately before proceeding with further excavation.
   11.2. If the Engineer of Record has determined that such soils are non-confining and must be excavated to meet permit and design conditions, excavation may proceed after obtaining written authorization from the appropriate governing agency.
   11.3. If said soils are left exposed at the permitted and designed depth, the Site Subcontractor shall over-excavate the pond's bottom and side slopes by a minimum of twenty-four (24") inches and backfill with clean sands to help prevent suspension of fine particles in the water column.

12. The installation of temporary erosion control barriers shall be coordinated with the construction of the permanent erosion control features to the extent necessary to assure effective and continuous control of erosion and water pollution throughout the life of the construction phase.

13. The type of erosion control barriers used shall be governed by the nature of the construction operation and soil type that will be exposed. Silty and clayey material may require solid sediment barriers to prevent turbid water discharge, while sandy material may need only silt screens or hay bales to prevent erosion. Floating turbidity curtains should generally be used in open water situations. Diversion ditches or swales may be required to prevent turbid stormwater runoff from being discharged to wetlands or other water bodies. It may be necessary to employ a combination of barriers, ditches, and other erosion/turbidity control measures if conditions warrant.

14. Where pumps are to be used to remove turbid waters from construction areas, the water shall be treated prior to discharge to the wetlands. Treatment methods include, for example, turbid water being pumped into grassed swales or appropriate upland vegetated areas (other than upland preservation areas and wetland buffers), sediment basins, or confined by an appropriate enclosure such as turbidity barriers or low berms, and kept confined until turbidity levels meet State Water Quality Standards.

15. The Permittee shall schedule his operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operation, and the duration of exposed, uncompleted construction to the elements shall be as short as practicable. Clearing and grubbing shall be so scheduled and performed such that grading operations can follow immediately thereafter. Grading operations shall be so scheduled and performed that permanent erosion control features can follow immediately thereafter if conditions on the project permit.

16. Water derived from various dewatering methods should be passed through sufficiently wide areas of existing upland vegetation to filter out excess turbidity. If this is not sufficient, the water shall be retained in previously constructed permanent stormwater ponds or else retained in temporary sedimentation basins until the clarity is suitable to allow for its discharge. Plugging the outfalls from completed stormwater ponds may be needed to avoid discharge. However, such situations should be monitored closely to preclude berm failure if water levels rise too high.

17. Water can be transported around the site by the use of internal swales or by pumps and pipes.

18. Sheet flow of newly filled or scraped areas may be controlled or contained by the use of brush barriers, diversion swales, interceptor ditches or low berms. Flow should be directed toward areas where sediments can sufficiently settle out.

19. Exposed soils shall be stabilized as soon as possible, especially slopes leading to wetlands. Stabilization methods include solid sod, seeding and mulching or hydromulching to provide a temporary or permanent grass cover mulch blankets, filter fabrics, etc., can be employed to provide vegetative cover.

20. Energy dissipaters (such as rip rap, a gravel bed, hay bales, etc.) shall be installed at the discharge point of pipes or swales if scouring is observed.

21. Attempt to install roadway curb and gutters as soon as possible to reduce the surface area for erosion to occur.

22. Implement storm drain inlet protection (hay bales or gravel) to limit sedimentation within the stormwater system. Perform inspections and periodic cleaning of sediments which wash out into the streets until all soil is stabilized.

23. Water discharge velocities from impounded areas and temporary sedimentation basins shall be restricted to avoid scouring in receiving areas.

24. If water clarity does not reduce to state standards rapidly enough in holding ponds, it may be possible to use chemical agents such as alum to flocculate or coagulate the sediment particles.

25. Hay bales, silt screens, or gravel beds can be added around the pipe or swale discharge points to help clarify discharges. Spreader swales may help dissipate cloudy water prior to contact with wetlands.

26. All fuel storage areas or other hazardous storage areas shall conform to accepted state or federal criteria for such containment areas.

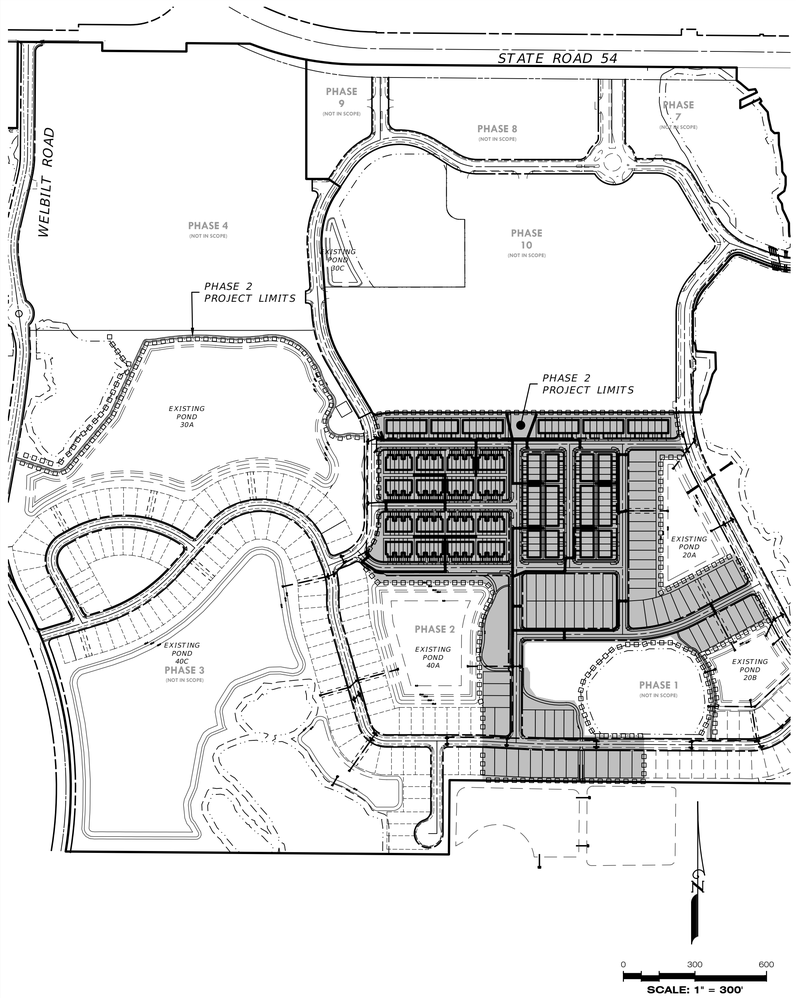
27. Vehicle or equipment washdown areas will be sufficiently removed from wetlands or offsite areas.

28. Fugitive dust controls (primarily by using water spray trucks) shall be employed as needed to control windborn emissions.

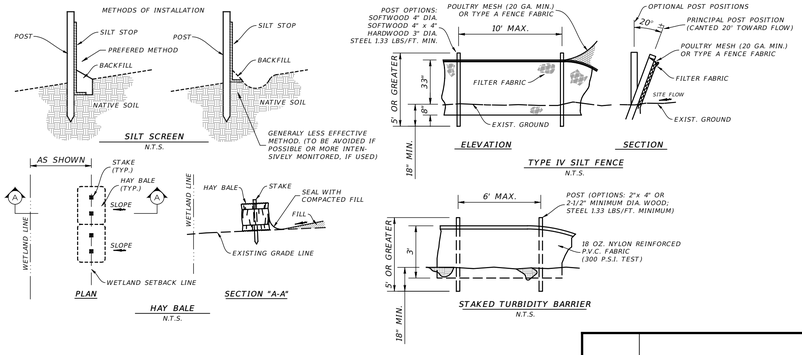
29. If the above controls remain ineffective in precluding release of turbid water, especially during pond or utility line dewatering, then the contractor may be compelled to use a vertical dewatering system such as well points or sock drains to withdraw groundwater which may already be clear enough to allow for direct discharge to wetlands.

30. Ongoing inspections and periodic maintenance by the Site Subcontractor shall occur daily (at a minimum) to insure the above methods are working suitably. Corrective action must be taken immediately to repair or replace any damaged BMP's to ensure the above methods are working properly.

31. Site Subcontractors are required to obtain and thoroughly review The Florida Development Manual: A Guide to Sound Land and Water Management, which was developed by the State of Florida Department of Environmental Protection in 1988. This provides fairly in-depth discussions of recommended techniques and also provides specific design and technical standards. A copy of this document is available for review at Clearview Land Design, P.L.



P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWINGS\CONDOCS\SWMP.DWG--SURFACE WATER MANAGEMENT PLAN 2019/10/07 10:49 AM BRENT MELVIN



EROSION CONTROL DETAILS

EITHER METHOD OR A COMBINATION OF BOTH IS ACCEPTABLE

NOTE:
THE EROSION BARRIERS, AS SHOWN, ARE NOT TO BE CONSTRUED TO MEAN THAT THEY ARE ALL THAT MAY BE REQUIRED. THE CONTRACTOR IS TO TAKE WHATEVER MEASURES NECESSARY TO CONTROL EROSION THROUGHOUT THE PROJECT.

CSWMP SEQUENCING NOTES

CSWMP PHASE 1 - PERIMETER CONTROLS

1. Install silt fence(s) pertinent to the current limits of construction. Clear only those areas necessary to install silt fence(s).
2. Prepare temporary parking and storage area.
3. Stop all activities and contact the Civil Engineer and Agency Representatives to perform an inspection.

CSWMP PHASE 2 - SITE CONSTRUCTION

4. Begin clearing and grubbing the site in those areas pertinent to the current limits of construction.
5. Begin grading the site in those areas pertinent to the current limits of construction.
6. Proceed with site work. Install utilities, underdrains, storm sewers, curb and gutter, etc. pertinent to the limits of construction. Exposed soils shall be stabilized as soon as possible.
7. All disturbed areas shall be permanently stabilized. Stabilization methods include solid sod, seeding and mulching or hydromulching to provide a temporary or permanent grass cover. Mulch blankets, filter fabrics, etc., can be employed to provide vegetative cover.

DATE	DESCRIPTION	BY
10-07-2019	CLARIFY PHASE 2 LIMITS	BEM
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

SURFACE WATER MANAGEMENT PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST
DESIGN MELVIN	PHASE 2 CONSTRUCTION PLANS
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE CSWMP	SHEET 39 OF 45 SHEETS

MATCHLINE SEE PAGE 43

FUTURE PHASE NOT INCLUDED

QV2 8

TRAIL ALIGNMENT CONCEPTUAL AND SUBJECT TO CHANGE WITH FINAL DESIGN OF PARK SITE. TRAIL AND LANDSCAPE MAY BE FIELD ADJUSTED.

AR2 3

LS 1

TD2 4

REQUIRED PER LDC 905.2.D.6.
1 TREE PER 50 LF
330 LF = 7 REQ. TREES

POND 30A (EXISTING)

JSP 9

REQUIRED TREES TO MEET MPUD CONDITION OF 1 CANOPY TREE PER 60' O.C ADJACENT TO MULTI-USE TRAIL.

UPA 3

QV2 6

AR2 3

REQUIRED TREES TO MEET MPUD CONDITION OF 1 CANOPY TREE PER 60' O.C ADJACENT TO MULTI-USE TRAIL TREES SHOWN FOR REFERENCE AND MAY BE FIELD ADJUSTED BASED ON FINAL WALK LOCATION SHOWN IN CONSTRUCTION PLANS FOR ADJACENT LAND.

HOUNDSTOOTH ENCLAVE DRIVE

BEAR LANDING WAY

DRUID OAKS LANE

MATCHLINE SEE PAGE 41

JSP 3

CAMPUS WOODS WAY

QV2 6

AR2 3

TD2 4

UPA 3

REQUIRED PER LDC 905.2.D.6.
1 TREE PER 50 LF
500 LF = 10 REQ. TREES

REQUIRED TREES TO MEET MPUD CONDITION OF 1 TREE PER 60' O.C ADJACENT TO MULTI-USE TRAIL.

PE2 6

FUTURE PHASE NOT INCLUDED

POND 40A (EXISTING)

MATCHLINE SEE INSET B THIS SHEET

^ INSET A

MATCHLINE SEE INSET A THIS SHEET

TD2 3

QV2 6

POND 40A (EXISTING)

TRAIL ALIGNMENT CONCEPTUAL AND SUBJECT TO CHANGE WITH FINAL DESIGN OF PARK SITE. TRAIL AND LANDSCAPE MAY BE FIELD ADJUSTED.

BENCH LOCATION TYP. LOCATED MIN. OF EVERY ¼ MILE OF MULTI-USE TRAIL. LOCATIONS MAY BE FIELD ADJUSTED TO PROVIDE BEST VIEWS AND MAXIMIZE SHADE.

AR2 3

REQUIRED PER LDC 905.2.D.6.
1 TREE PER 50 LF
330 LF = 7 REQ. TREES

PE2 3

REQUIRED TREES TO MEET MPUD CONDITION OF 1 TREE PER 60' O.C ADJACENT TO MULTI-USE TRAIL.

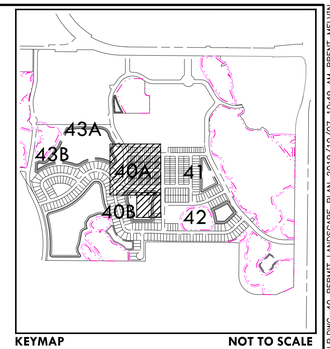
MATCHLINE SEE PAGE 42

^ INSET B

80' 40' 0 40' 80'

SCALE: 1" = 40'

N



KEYMAP NOT TO SCALE

LEGEND

- WETLAND LINE
- WETLAND BUFFER
- PROPERTY (PARCEL) BOUNDARY
- WETLAND HATCH
- REQUIRED TREE TO MEET LDC REQUIREMENT
- REQUIRED TREE TO MEET MPUD CONDITION #13.
- BUFFER LANDSCAPE - SEE TYPICAL PLAN

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\PLP.DWG-40 PERMIT LANDSCAPE PLAN 2019/10/07 10:49 AM BRENT MELVIN

DATE	DESCRIPTION	BY
09-18-2019	REVISED PER COUNTY COMMENTS	NG
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W. Azeele Street, Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
HANNAH D. MCALEER RLA# 6667074
FLORIDA REGISTERED LANDSCAPE ARCHITECT

PERMIT LANDSCAPE PLAN

JOB NO. LNH-MR-029	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MCALEER	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE PLP	SHEET 40 OF 45 SHEETS

FUTURE PHASE NOT INCLUDED

AR2 3

UPA 2

JSP 6

QV2 8

REQUIRED TREES TO MEET MPUD CONDITION OF 1 CANOPY TREE PER 60' O.C ADJACENT TO MULTI-USE TRAIL. TREES SHOWN FOR REFERENCE AND MAY BE FIELD ADJUSTED BASED ON FINAL WALK LOCATION SHOWN IN CONSTRUCTION PLANS FOR ADJACENT LAND.

PE2 3

PER 901.13.E.1.a.(4).(b) SYSTEM OF STREET TREES IN 10' WIDE PLANTING BUFFER OR 10' BUFFER WITH TYPE D PLANTING SCHEME. SEE MUTRM BUFFER TYPICAL DETAIL.

HOUNDSTOOTH ENCLAVE DRIVE

MATCHLINE SEE PAGE 40 INSET A

YELLOWHAMMER WAY

COACH MANORS WAY

GRIDIRON GARDENS ISLE

BST 17

IC 5

REQUIRED PER LDC 905.2.D.6.
1 TREE PER 50 LF
550 LF = 11 REQ. TREES

AR2 1

TD2 5

WETLAND

POND 20A (EXISTING)

CAMPUS WOODS WAY

UPA 1

QS 2

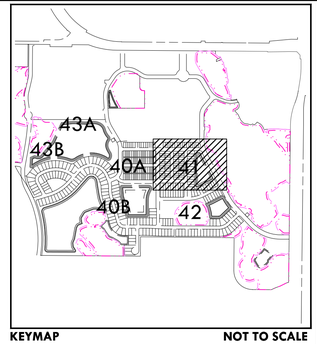
BST 13

PE2 4

PER 901.13.E.1.a.(4).(b) SYSTEM OF STREET TREES IN 10' WIDE PLANTING BUFFER OR 10' BUFFER WITH TYPE D PLANTING SCHEME. SEE MUTRM BUFFER TYPICAL DETAIL.

BST 2

MATCHLINE SEE PAGE42



KEYMAP NOT TO SCALE

LEGEND

- WETLAND LINE
- WETLAND BUFFER
- PROPERTY (PARCEL) BOUNDARY
- WETLAND HATCH
- REQUIRED TREE TO MEET LDC REQUIREMENT
- REQUIRED TREE TO MEET MPUD CONDITION #13.
- BUFFER LANDSCAPE - SEE TYPICAL PLAN

80' 40' 0 40' 80'

SCALE: 1" = 40'

N

DATE	DESCRIPTION	BY
09-18-2019	REVISED PER COUNTY COMMENTS	NG
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
HANNAH D. MCALEER RLA# 6667074
FLORIDA REGISTERED LANDSCAPE ARCHITECT

PERMIT LANDSCAPE PLAN

JOB NO. LNH-MR-029	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MCALEER	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE PLP	SHEET 41 OF 45 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\PLP.DWG-41 PERMIT LANDSCAPE PLAN 2019/10/07 10:50 AM BRENT MELVIN

MATCHLINE SEE PAGE 41

MATCHLINE SEE PAGE 40 INSET B

MATCHLINE SEE BELOW

WINNING FIELDS ROAD

YELLOWHAMMER WAY

CAPSTONE RANCH DRIVE

BST 13

BST 11

BST 7

Q5 4

TD2 3

PE2 4

PER 905.2.D.5. TYPE D BUFFER REQUIRED. SEE TYPE D BUFFER TYPICAL DETAIL.

REQUIRED TREES TO MEET MPUD CONDITION OF 1 CANOPY TREE PER 60' O.C ADJACENT TO MULTI-USE TRAIL INCLUDED WITH INFRASTRUCTURE PLANS.

REQUIRED TREES TO MEET LDC 905.2.D.6.FOR POND 20 B PROVIDED IN PHASE 1 PERMIT PLAN.

POND 20B (EXISTING)

AR2 3

AMENITY CENTER (FUTURE DEVELOPMENT)

Q5 1

REQUIRED TREES TO MEET MPUD CONDITION OF 1 CANOPY TREE PER 60' O.C ADJACENT TO MULTI-USE TRAIL.

TRAIL ALIGNMENT CONCEPTUAL AND SUBJECT TO CHANGE WITH FINAL DESIGN OF PARK SITE. TRAIL AND LANDSCAPE MAY BE FIELD ADJUSTED.

QV2 5

WETLAND

TD2 3

AR2 2

BENCH LOCATION TYP. LOCATED MIN. OF EVERY ½ MILE OF MULTI-USE TRAIL. LOCATIONS MAY BE FIELD ADJUSTED TO PROVIDE BEST VIEWS AND MAXIMIZE SHADE.

REFER TO PHASE 1 CONSTRUCTION PLAN.

TD2 3

Q5 3

FIELD ADJUST TREES AS NEEDED IN FIELD TO AVOID CONFLICT WITH RETAINING WALL

PHASE 2

PHASE 1

15' TYPE "B" BUFFER
1 TREE /60 LF & 6' HT FENCE

AR2 1

QV2 1

AR2 1

PE2 7

QV2 1

AR2 1

43A
43B
40A
41
40B
42

KEYMAP NOT TO SCALE

LEGEND

- WETLAND LINE
- WETLAND BUFFER
- PROPERTY (PARCEL) BOUNDARY
- WETLAND HATCH
- REQUIRED TREE TO MEET LDC REQUIREMENT
- REQUIRED TREE TO MEET MPUD CONDITION #13.
- BUFFER LANDSCAPE - SEE TYPICAL PLAN

80' 40' 0 40' 80'

SCALE: 1" = 40'

N

DATE	DESCRIPTION	BY
09-18-2019	REVISED PER COUNTY COMMENTS	NG
08-07-2019	PERMIT PLANS	JRD

REVISIONS

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DATE:
HANNAH D. MCALEER RLA# 6667074
FLORIDA REGISTERED LANDSCAPE ARCHITECT

PERMIT LANDSCAPE PLAN

JOB NO.	LNH-MR-029
DESIGN	MCALEER
DRAWN	DROOR
PREPARED FOR:	LENNAR HOMES
DATE	10-07-2019
FILE	PLP

MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

SHEET 42 OF 45 SHEETS

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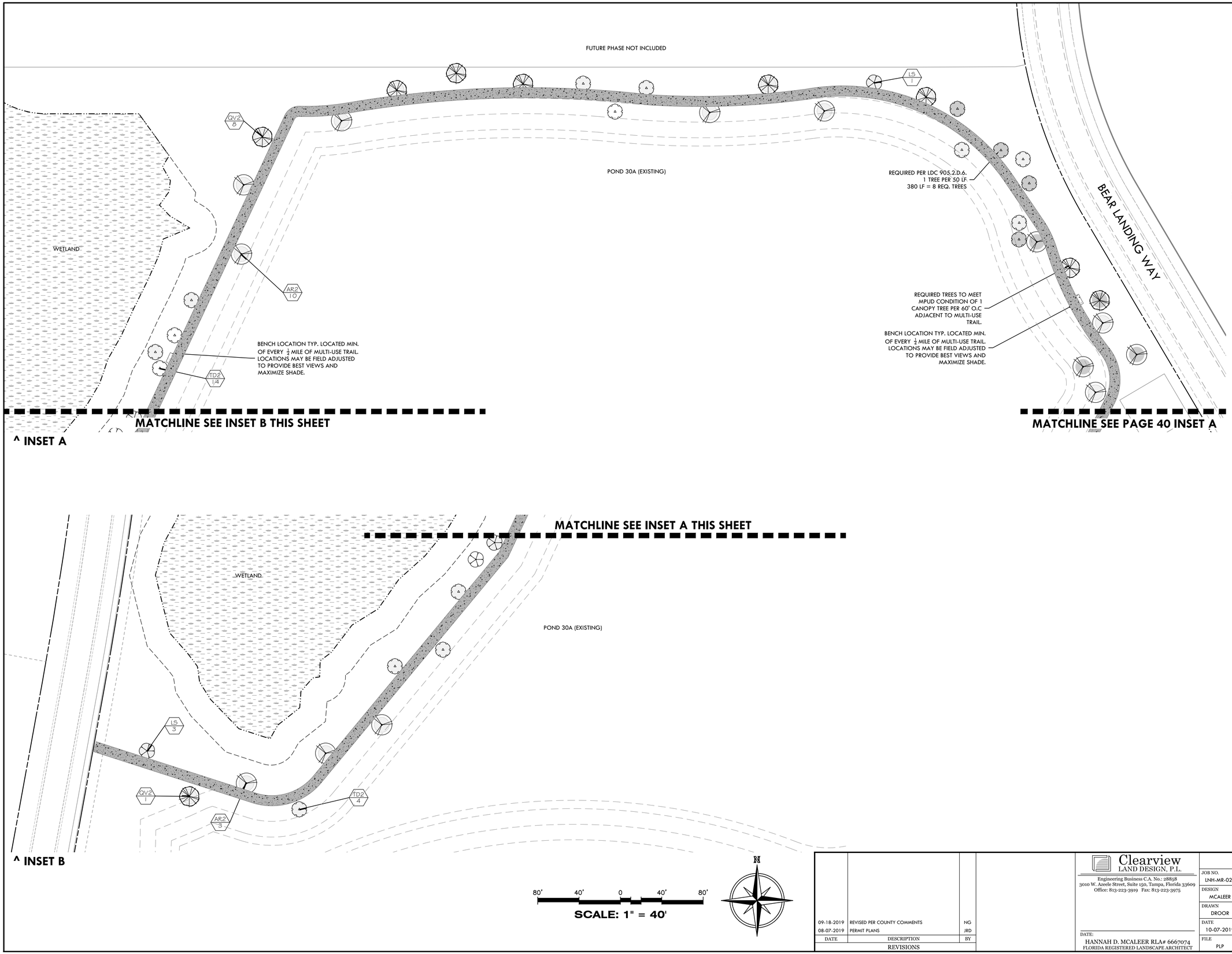

80' 40' 0 40' 80'

SCALE: 1" = 40'

N

DATE	DESCRIPTION	BY
09-18-2019	REVISED PER COUNTY COMMENTS	NG
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W. Azeele Street, Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
HANNAH D. MCALEER RLA# 6667074
FLORIDA REGISTERED LANDSCAPE ARCHITECT

PERMIT LANDSCAPE PLAN

JOB NO. LNH-MR-029	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MCALEER	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE PLP	SHEET 43 OF 45 SHEETS

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PASCO COUNTY STANDARD LANDSCAPE NOTES:

1. Maintenance Responsibility. The County is not responsible for maintenance of any landscaping unless approved through a County maintenance agreement. (LDC 905.2-C.1.a) LENNAR (or its successors) will be responsible for maintenance.
2. Clear-Sight Triangle. Where a driveway/accessway intersects a road right-of-way or where two (2) road rights-of-way intersect, vegetation, structures, and non-vegetative visual screens shall not be located so as to interfere with the clearsight triangle as defined in this Code or the Florida Department of Transportation, Manual of Uniform Minimum Standards, most recent edition (Green Book), whichever is more restrictive. (LDC 905.2-C.1.b)
3. Sustainable Practices. Landscaping shall be installed so that landscaping materials meet the concept of right material/right place. Installed trees and plants shall be grouped into zones according to water, soil, climate, and light requirements. Plant groupings based on water requirements are drought tolerant, natural, and oasis. (LDC 905.2-C.1.c)
4. Diversity. A maximum of 50 percent of the plant materials used, other than trees, may be non-drought tolerant. A minimum of 30 percent of the plant materials, other than trees and turfgrass, used to fulfill the requirements of this subsection shall be native Floridian species, suitable for growth in the county. (LDC 905.2-C.1.d)
5. Diversity. No one plant species of shrubs or ground cover plants, excluding turfgrass, shall constitute more than 25 percent coverage of the overall landscape area. (LDC 905.2-C.1.d.5)
6. Quality. All plant materials shall be Florida No. 1 grade per "Grades and Standards for Nursery Plants," Florida Department of Agriculture and Consumer Services (FDACS). (LDC 905.2-C.2.a)
7. Avoid Easements. Trees shall not be planted within any easement so as to interfere with the use of that easement, nor under any present or planned overhead utility, nor in any rights-of-way without County approval through the associated review process. (LDC 905.2-C.3.c)
8. Mulch shall be used in conjunction with living plant materials so as to cover exposed soil. Mulch shall be installed to a minimum depth of three (3) inches. The mulch should not be placed directly against the plant stem or tree trunk. Mulch shall not be required for annual beds. Stone or gravel may be used to cover a maximum of 20 percent of the landscaped area. (LDC 905.2-C.3.d)
9. Quality Practices. All landscaping shall be installed in accordance with standards and practices of the Florida Nursery, Growers, and Landscape Association and the Florida Chapter of the International Society of Arboriculture. (LDC 905.2-C.3.e)
10. All portions of a lot upon which development has commenced, but not continued for a period of 30 days, shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization. Adequate coverage, so as to suppress fugitive dust, shall be achieved within 45 days. (LDC 905.2-C.3.g)
11. All required landscaping shall be maintained in a healthy condition in perpetuity in accordance with this Code. (LDC 905.2-E.2)
12. Ongoing maintenance to prevent the establishment of prohibited exotic species is required. (LDC 905.2-E.4)

LANDSCAPE CONSTRUCTION / PERMITTING NOTES:

1. This Landscape Plan is for permitting purposes only. Additional trees, shrubs, groundcovers, and landscape materials may be added for aesthetic or environmental benefits. Additional landscape shall comply with Pasco County requirements and standards.
2. No reference to engineering or survey shall be made from this Landscape Plan.
3. All landscape shall be installed in accordance with Florida chapter, International Society of Arboriculture Standards for Planting and Florida Nursery Growers and Landscape Association.
4. No plants from the most current Appendix B and/or Appendix C of Pasco County LDC shall be planted on the project site.
5. A maximum 50% of the plant materials, other than trees shall be non-drought tolerant plants.
6. A minimum 30% of the plant materials, other than trees and turf grass shall be native Floridian species, as defined in the most current Appendix A of Pasco County LDC.
7. Shade trees utilized to meet requirements of the code shall have a mature spread of 20' and at time of planting have a min. 2" cal. and min. 6' ht.
8. Multi-trunk trees shall be 6' ht. min., have 3 trunks min. with 1" min. cal. per trunk.
9. Landscape shall be placed to avoid conflict with existing or proposed overhead and underground utilities.
10. Palm trees may be substituted at a 3:1 ratio, to meet no more than 30% of required shade trees. Phoenix species, excluding Roebellini, may be planted to count for one tree. Palms to meet shade tree requirements shall be 10' c.t. min. and planted in groups.
11. Required shrubs shall be 18" ht. min. at time of planting. Shrubs shall obtain 24" ht. within 1 year of planting to form a continuous appearance. Shrubs shall be spaced 36"o.c. max. Optional shrubs and groundcovers may be smaller but planted to achieve a finished appearance.
12. Dwarf varieties of shrubs used to meet code requirements shall be 14" ht. min. at time of planting and spaced 36" o.c. max.
13. Groundcovers shall be spaced to provide complete coverage within 1 year of planting.
14. Beds shall be kept free of disease, pests, weeds, and other debris.
15. Groundcovers and shrubs shall be planted with triangular spacing for optimum growth and fill in of planting bed.
16. Any required plant material that is removed or dies shall be replaced within 30 days.
17. All trees shall be guaranteed for a period of one year from the date of acceptance.
18. Trees used for Tree Replacement shall be in accordance with Pasco County LDC 602.7: All trees used to meet the requirements of tree replacement shall be equal to or greater than two (2) inches in caliper. Multi-trunked trees shall be equal to or greater than three (3) inches in caliper, with a minimum of 3 trunks.
19. To provide diversity, trees required shall be provided according to the chart below. Even distribution shall be strived for.

Required Trees	Required Species
1-5	1
6-10	2
11-15	3
16-20	4
21-25	5
26-30	6
31-35	7
35+	8

20. Trees shall be provided (planted or retained) on single family and two (2) family residential lots lots per LDC 905.D.2.(a)

Size of Lot (Square Feet)	Minimum Number of Trees
Less than 6,000	1
6,001 - 8,999	2
9,000 -11,999	3
12,000 - 14,999	4
15,000 - 17,999	5
18,000 - 43,560	6
1 Acre to Under 2.5 Acres	8
2.5 Acres to Under 5 Acres	6 per Developable Acre
5 Acres and Larger	4 per Developable Acre

21. Trees and other landscape material shall be planted in such a manner as not to impede the storm-water run off to or in a ditch, swale or pond and away from the pipes, underdrains and sidewalk without obstructing the maintenance access to the stormwater facility.
22. All portions of a lot upon which development has commenced but not continued for a period of 30 days shall be planted with a grass species or ground cover to prevent erosion and encourage soil stabilization. Adequate coverage shall be achieved within 45 days.
23. All necessary permits for the work, prior to commencement of operations on-site shall be obtained.
24. All work within the right-of-way areas shall require a R.O.W. use permit and conform to the standards and specifications of all applicable local and/or state highway jurisdictions.
25. All utility locations, existing and proposed shall be located prior to commencement of work. Field adjustments may be made as necessary to avoid utility conflicts, including lighting, signage and driveways.
26. Per NFPA a 36" clear space shall be maintained around the circumference of the hydrants. Field adjust any landscape to provide clear radius around hydrant.
27. A 3' min. diameter ring shall be applied around all existing trees that do not fall within a mulched planting bed and/or are surrounded by turf. Mulch rings shall be sized appropriately for size of tree. Where sodded between planting beds or mulch rings, maintain 3' minimum sod strip. Where 3' between mulch areas is unobtainable, fill in area with mulch. Remove mulch from canopies of shrubs and tuck in along edges for clean, smooth bed lines.
28. Beds shall be kept free of disease, pests, weeds, and other debris.
29. Groundcovers and shrubs shall be planted with triangular spacing for optimum growth and fill in of planting bed.

PERMIT IRRIGATION NOTES

1. An underground irrigation system shall be installed in compliance with Pasco County Land Development Code and meet the Irrigation Ordinance.
2. 50% maximum of on-site green space shall utilize irrigation techniques other than micro-irrigation when a conventional system is used.
3. Irrigation system shall be zoned according to plant moisture requirements. Sod shall be separately zoned from any zone that irrigates trees, shrubs, and/or groundcovers.
4. Reclaim Water to be used when available for irrigation. Common areas to be irrigated by reclaim water source. Refer to Engineering Plans.
5. Irrigation system shall be designed to avoid overspray, runoff, or flow onto non-irrigated areas.
6. Automatic controller shall be used to program irrigation cycles.
7. Rain sensor device shall be incorporated into irrigation system and be placed where it will be unobstructed to rainfall.
8. Irrigation system shall be maintained to ensure efficient water use.
9. Irrigation system shall be checked and properly working for a min. of 24 hours prior to planting.

SIGHT VISIBILITY NOTES & HORIZONTAL CLEARANCE

1. Sight visibility triangles shall be maintained as shown per FDOT Index 546, Passenger Car.
2. All plant material, including sod, groundcovers, shrubs and trees shall be maintained to keep clear sight areas free from obstructions at all times. Maintain minimum and maximum plant heights and clear areas per Sight Window Detail, as shown in most recent FDOT Index 546.
3. No trees to be planted within horizontal clearance as defined by FDOT index 700.

CONSTRUCTION NOTES

1. No reference to engineering or survey shall be made from this Landscape Plan. Plans for landscape reference only. Prior to commencement of any work associated with this Landscape Plan, the Contractor(s) shall locate and verify all utilities, including but not limited to, water, irrigation, sewer, storm, soft utilities, above ground utilities, street lights and electrical supply. Contractor shall make necessary adjustments in field to relocate trees and plants to avoid conflict with any existing utilities.
2. The Contractor(s) shall bear sole responsibility for any and all damages that result from his activities due to improper verification of utilities and/or operator error during excavations. See related civil plans for additional information and coordinate work with the General Contractor and other trades prior to start of work.
3. Contractor shall notify the Owner's Representative in writing of unsatisfactory conditions prior to start of work. Commencement of work will indicate acceptance of conditions and full responsibility for completed work.
4. All work within the right of way shall conform with all applicable local and/or state highway jurisdictions and standards.
5. Contractor shall provide maintenance of traffic in work zones per FDOT Index 613 during all applicable construction, installation, and maintenance.
6. Plants shall be measured when branches, stems, and petioles are in their normal position. Heights and spread dimensions specified refer to the main body of the plant, and not to the extreme branch or tip to tip measurement. Measurements specified in this plan are the minimum size acceptable and represent the measurements after pruning, where pruning is required. When sizes are specified as a range, the plant shall have the proper proportions as outlined in "Grades and Standards for Nursery Plants."
7. Balled and Burlapped (B&B)plants and Wire Balled and Burlapped (WB&B) plants: All ball sizes shall be of a diameter and depth to encompass the fibrous and feeding root system necessary for the full recovery of the plant after planting. All balls shall be firm, not broken or cracked and shall be wrapped and securely tied with heavy twine or wire. All trees shall be root pruned a minimum of six (6) weeks before delivery. During any pruning and thinning of the canopy that is required, care shall be taken to assure that the plant form will not be distorted and will remain typical of the species growth characteristics.
8. No substitutions in size or type of plant material shall be made without the explicit written permission of the Landscape Architect. Plants shall be bid as shown. Submit written verification of any plant material(s) that may be unavailable as specified, to the Landscape Architect, with suggestions based upon availability. Plants larger than specified may be used, if approved by the Landscape Architect, however use of larger plant material shall not increase the contract price.
9. Where trees are specified as container or field grown, they may be substituted for equal quality trees where market availability and pricing warrants using the other type than specified. Where substituted, it shall be noted in bid.
10. All trees planted using either a tree auger or tree spade are to be correctly water settled to ensure no future settling. All holes dug by either a spade or auger are to be scored along all sides to allow root growth to escape limits of excavation. All trees that settle crooked or low will be reset by Landscape Contractor.
11. Shrubs shall be planted in circular plant pits with a diameter of 6" greater than the rootball or container. Trees shall be planted in circular pits with a diameter of 12" greater than rootball or container and backfilled with mix of native soil and planting soil mix.
12. Landscape Contractor shall remove all plant labels, tags, flagging tape and ribbon and synthetic material from all trees, and shrubs upon final acceptance of the landscape.
13. Fertilize trees, shrubs and groundcovers with - "Sierra" 7.5 gram tablets per manufacturer's directions and at the following rate:

Larger container plants/trees	= 1 tablet per gallon size
5 gallon container	= 4 - 5 tablets per plant
3 gallon container	= 3 - 4 tablets per plant
1 gallon container	= 2 - 3 tablets per plant

14. All trees shall be guaranteed for one (1) year after final acceptance. All shrubs and groundcovers shall be guaranteed for ninety (90) days after final acceptance. All trees, plants and/or grassing not found in a healthy growing condition at the end of the guarantee period shall be removed from the site and replaced within ten (10) days after written notice. All plant replacements shall be of the same type and size as specified in the plant list. The replacements shall be furnished, and installed as herein specified at no additional cost to the Owner.
15. At the time of final acceptance, the Landscape Contractor shall provide the Owner with a maintenance manual containing instructions for the proper care of all materials specific to the job. Landscape Contractor shall supply the Owner's Representative with a bid to provide yearly maintenance of all work contained in these plans.
16. The Owner shall be responsible for the proper maintenance and watering of the landscaping and turf after final acceptance, unless otherwise a maintenance agreement with the Contractor has been established.
17. The Landscape Contractor shall be responsible for properly securing trees, plans and large shrubs immediately after planting. All trees over six feet (6') in height and all palms shall be guyed and staked below grade as per the details of this plan. No deviations from staking methods illustrated in this plan shall be used without prior written consent of the Landscape Architect. In any instance where staking and guying crosses a walkway or pedestrian path between grade level and nine feet (9') height, bright colored tape shall be attached to the guy straps and/or stakes to serve as a visual signal. All stakes shall be driven flush with surrounding grade for public safety.
18. Trunks of all palms and all trees shall have no abrupt changes in caliper. No holes, cavities, gouges, or other defects shall be present in the trunks of palms and trees.
19. Each palm shall have a heavy, dense canopy with seventy-five percent (75%) excellent leaves as defined "Grades and Standards for Nursery Plants."
20. During all work and cleanup, it shall be the responsibility of the Landscape Contractor to protect all plant materials from damage due to landscape operations, operations by other contractors, other trades, and trespassers. Protection of plant material shall be maintained during installation and maintenance periods. Landscape Contractor shall treat, repair or replace damaged material from any such activity. Plant materials that die shall be replaced within thirty (30) days. Plant materials that are removed shall be replaced within fifteen (15) days.
21. All plant materials shall be the genus, species, and cultivars or varieties specified in this landscape plan. Plants shall show typical characteristics, including growth habitat, leaf arrangement, texture, and plant structure of the specified genus, species, and cultivars or varieties.
22. Trees with branches overhanging into vehicular or pedestrian use areas shall be maintained to provide safe usage of area. Trees overhanging sidewalks, trails, or other pedestrian zones shall be maintained to provide 8' clear height from the edge of pedestrian surface, as defined in the most current ADA Standards for Accessible Design. Overhanging branches in collector roadways shall be maintained to provide 16' clear height above pavement, as defined in the most current Florida Greenbook.
23. Provide full coverage in sod areas. Contractor to field verify limits with Owner. Where existing Bahia is used to meet full coverage, areas shall be be modified with fertilization and/or weeding as necessary to meet industry and horticultural standards.
24. Turf areas shall be free of weeds, objectionable plants, and thatch. Sod sections shall be standard width and length according to industry standards for the type of sod. No broken pads or pads with torn or uneven ends will be accepted. Transition from turf areas to planting beds should have smooth round edges. No jagged edges will be allowed on sod margins. All turf shall be laid on smooth finish grade and rolled to provide even surface with no high and low points in turf areas, with exception of berming areas identified in plan.
25. Apply "Devrinol" selective herbicide (dry flowable) per manufacturer's directions to all plant bed areas prior to mulching. Use a properly calibrated granular applicator and do not apply chemical directly onto leaves of plants.
26. Groundcovers and shrub beds shall be planted on triangular spacing with plants installed and faced for optimum growth into the bed. Curvilinear bed lines shall be accurately scaled from plans and laid-out in the field. All planting beds and sod edges shall have consistent, smooth edges, free of any jags, bumps, jogs, or rough edges. If field conditions are different from plans, immediately notify the Landscape Architect for field adjustment of materials.
27. Plants and trees shall be set plumb, at the same grade at which they have been grown, best side facing prime visibility and thoroughly watered-in, to eliminate air pockets. Trees set too high or low will be rejected. Trees with large air pockets around rootballs will be rejected. Verify proposed finish grades and set trees accordingly.
28. Finish grade to be raked, level and free of weeds, rocks and debris prior to installation of sod. Landscape Contractor to notify Owner's Representative immediately if site conditions are not acceptable. Inconsistency in sod quality, grade and installation may warrant removal and reinstallation, with no additional compensation.
29. All landscape material shall be maintained and pruned in a manner that preserves its natural shape and growth habitat and characteristics. No plant material shall be manicured, shaped, or pruned in unnatural shapes, including but not limited to, circles, squares, ovals, or triangles. This does not prevent removal of limbs from throat of the trunk.
30. No more than 1/3 of tree canopy shall be trimmed or pruned in any one year, with exception to dead growth. This includes, but is not limited to, species such as crape myrtle and holly.
31. All topsoil brought on site shall be reasonably free of clay lumps, brush, weeds, and other debris, including litter, roots, stumps, and stones larger than one and one-half inches (1-1/2") in any dimension, and any other extraneous or toxic matter harmful to plant growth.
32. The work includes soil preparation, finish grading, supplying and planting of trees, shrubs, groundcovers, vines, and sod of the species, sizes and quality shown on the drawings and/or as specified herein. Further, the work shall include the maintenance of all landscape and sod/seed areas until final acceptance by the Landscape Architect and Owner's Representative.
33. The job site shall be kept orderly and reasonably clean on a daily basis during construction operations. Upon completion, the Landscape Contractor shall remove all debris and waste generated by his operations on-site, including the cleaning of walks and paving as necessary.
34. The use of mulch and bark ground cover adjacent to storm structures and curb has a proven history to discharge into inlets and retention areas increasing maintenance costs and adverse impacts to county stormwater systems. Precautionary measures such as strips of sod, stone or manufactured boarders to inhibit ground cover illicit discharge shall be implemented if necessary.
35. No track type equipment will be allowed on any asphaltic or concrete surfaces.
36. No illicit discharge shall occur as a result of activity performed pursuant to this permit.
37. No de-watering shall occur without written approval by the Public Works Director. Where dewatering in the Right Of Way is proposed, it must be accompanied by a plan to insure there is no sediment transfer, pumped water is uncontaminated.
38. NO OPEN CUTS without specific approval from the Public Works Director.
39. All traffic control devices, i.e.: Warning/Construction type signs will comply with F.D.O.T. 600 Standard Index during the construction phase.
40. All disturbed areas outside the 2:1 roadway control line (shoulder) shall be compacted to firmness equal to that of the soil adjacent to the trench and replaced with sod. Areas within three (3) feet of edge of pavement shall be compacted to Pasco County Testing Specifications.
41. All existing drainage to be maintained and restored to design flow lines.
42. No work, except for emergency type, will be performed after sundown and before sunrise.
43. At all times during construction apply perimeter control (BMP's) practices to protect the disturbed area from offsite runoff and to prevent sedimentation damage to areas below activity.
44. Minimize the extent of area exposed of natural vegetation at one time and the duration of exposure to elevate erosion potential.
45. Inlets to storm sewers shall be protected by suitable filtering devices during construction to keep pollutants from entering conveyance systems.
46. Required erosion and sediment control devices shall be in place at all times during construction and shall be removed only after stabilization has been established.
47. Prior to installation of irrigation and plant material, all utility lines within right-of-way shall be clearly identified at regular intervals.
48. A minimum twelve inch separation from any stormwater structure or pipe shall be required.
49. If required, all disturbed areas outside the 2:1 roadway control line (shoulder) shall be compacted to firmness equal to that of the soil adjacent to the trench and replaced with sod. Areas within three feet of edge of pavement shall be compacted to Pasco County Testing Specifications.
50. If required, all backfill sub-base, base and asphalt surface restoration shall comply with the latest Pasco County Specifications.
51. If required, it will be the responsibility of the contractor to remove and relocate all traffic control devices during the construction phase. After the construction is complete, the devices will be reinstalled to the original location. Any damaged devices will be the responsibility of the contractor to replace.
52. In the event, sidewalk is removed, they shall be constructed within 3 days after removal and maintain safe pedestrian traffic at all times. If sidewalk is removed, it shall be removed at the nearest expansion joint and replaced per FDOT Index 310. Any sidewalk which becomes undermined must be removed and replaced. Roadway/Sidewalk connections replacements must meet current ADA Standards and FDOT Index 304. Replacement walks shall be natural colored concreted, 3000 PSI, fiber reinforced, 4" thick typ, with 6" thick at driveway approaches.

Tree Planting Schedule

Code	Quantity	Botanical Name	Common Name	Cont	Cal	Size	Native	Drought	Remarks	Tree Replacement Credit
AR2	36	Acer rubrum	Red Maple	30 gal	2"Cal	8-10' HT x 4-5' SPR	Yes	Medium	Single straight central leader. Even branching distributed throughout canopy. Dense foliage.	72
IC	5	Ilex cassine	Dahoon Holly	30 gal	2"Cal	8-10' HT x 3-4' SPR	Yes	High	Straight trunk with symmetrical head. Dense canopy with no large gaps.	10
JSP	18	Juniperus silicicola	Southern Red Cedar	30 gal	2"Cal	8-10' HT x 3-4' SPR	Yes	High	Straight trunk with symmetrical head. Full to ground. Dense canopy with no gaps.	36
LS	5	Liquidambar styraciflua	American Sweet Gum	30 gal	2"Cal	8-10' HT x 4-5' SPR	Yes	High	Single, straight central leader. Even branching distributed throughout canopy. Evenly spaced limbs around entire circumference and height of tree. 5' CT	10
PE2	27	Pinus elliotti	Slash Pine	30 gal	2"Cal	8-10' HT x 3-4' SPR	Yes	High	Single trunk. Highest point of tree in center. Evenly distributed branching around the circumference and along the height of tree. No large gaps on trunk devoid of branching. Needles present and full along majority of each branch.	54
QS	10	Quercus shumardii	Shumard Red Oak	30 gal	2"Cal	8-10' HT x 3-4' SPR	Yes	High	Single, straight central leader. Even branching distributed throughout canopy. Well-spaced limbs around entire circumference of tree.	20
QV2	50	Quercus virginiana	Southern Live Oak	30 gal	2"Cal	8-10' HT x 3-4' SPR	Yes	High	Single, straight central leader. Even branching distributed throughout canopy. Well-spaced limbs around entire circumference of tree.	100
TD2	43	Taxodium distichum	Bald Cypress	30 gal	2"Cal	8-10' HT x 3-4' SPR	Yes	High	Single, straight central leader with branching distributed evenly throughout the height and circumference of tree.	86
UPA	9	Ulmus parvifolia `Allee`	Allee Lacebark Elm	30 gal	2"Cal	8-10' HT x 3-4' SPR	Non-Native	High	Single, straight central leader. Full head with even branching throughout the circumference of tree.	18
	95.57%	**Native %**							**Total Replacement Provided**	**406**
	100.00%	**Drought Tolerant %**								
									Total Replacement Required - Overall Project Mass Grading	**4602**
									Replacement Provided in Previous Plans (Infrastructure Plan)	**1166**
									Replacement Provided in Previous Plans (Phase 1)	**44**
									Replacement Provided This Phase (Phase 2)	**406**
									Remaining Tree Replacement After Phase 2 Credit - To be Mitigated in Future Phases	**2986**
Residential Street Tree Planting Schedule										
BST	63	Species Varies	Optional Street Tree	30 gal	2"Cal	8-10' HT x 3-4' SPR	Varies	Varies	Optional Residential Street Tree to be provided by Builder. Full and even canopy. Straight, single central leader. Select species and provide sidewalk protection as needed per LDC Table 905.3-A.	

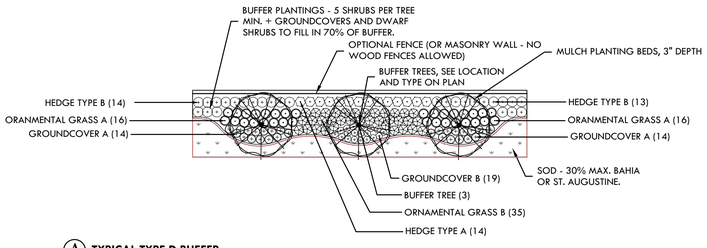
Typical Type D Buffer Planting for 100' Section.

Planting Reference	Plant Type and Size	Qty	Diversity %
HEDGE TYPE A	Walter`s Viburnum / Viburnum obovatum (Native and Drought Tolerant) 18" minimum height at time of planting.	14	9.03%
HEDGE TYPE B	Simpson`s Stopper / Myrcianthes fragrans (Native and Drought Tolerant) 18" minimum height at time of planting.	27	17.42%
ORANMENTAL GRASS A	Fakahatchee Grass / Tripascum dactyloides (Native and Drought Tolerant) 18" minimum height at time of planting.	32	20.65%
ORNAMENTAL GRASS B	Muhly Grass / Muhlenbergia capillaris (Native and Drought Tolerant) 18" minimum height at time of planting.	35	22.58%
GROUNDCOVER B	Groundcovers may vary from list below by location. Dwarf Schilling's Holly / Ilex vomitoria 'Schilling's Dwarf' (Native-Drought Tolerant) 12" minimum height at time of planting. Parson`s Juniper / Juniperus chinensis 'Parsonii' (Non-Native Drought Tolerant) 10" minimum height at time of planting.	19	12.26%
GROUNDCOVER A	Groundcovers may vary from list below by location. Carissa Holly / Ilex cornuta 'Carissa' (Non-Native Drought Tolerant) 12" minimum height at time of planting. Dwarf Indian Hawthorn/ Rhaphiolepsis indica 'Alba' (Non-Native Drought Tolerant) 12" minimum height at time of planting.	28	18.06%
	Total Shrubs and Groudcovers Per 100' Buffer Section (Based on 20' x 100' Type D Planting)	**155**	
			Drought Tolerant %
			100.00%
			Native %
			69.68%

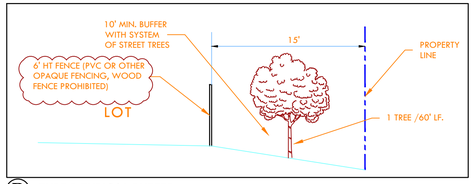
Typical MUTRM Buffer (10' With Type D Scheme) Planting for 100' Section.

Planting Reference	Plant Type and Size	Qty	Diversity %
HEDGE TYPE A	Walter`s Viburnum / Viburnum obovatum (Native and Drought Tolerant) 18" minimum height at time of planting.	32	25.00%
HEDGE TYPE B	Simpson`s Stopper / Myrcianthes fragrans (Native and Drought Tolerant) 18" minimum height at time of planting.	32	25.00%
ORANMENTAL GRASS A	Fakahatchee Grass / Tripascum dactyloides (Native and Drought Tolerant) 18" minimum height at time of planting.	32	25.00%
ORNAMENTAL GRASS B	Muhly Grass / Muhlenbergia capillaris (Native and Drought Tolerant) 18" minimum height at time of planting.	32	25.00%
	Total Shrubs and Groudcovers Per 200' Buffer Section (Based on 10' x 200' Type D Planting)	**128**	
			Drought Tolerant %
			100.00%
			Native %
			100.00%

TYPICAL 100' SECTION

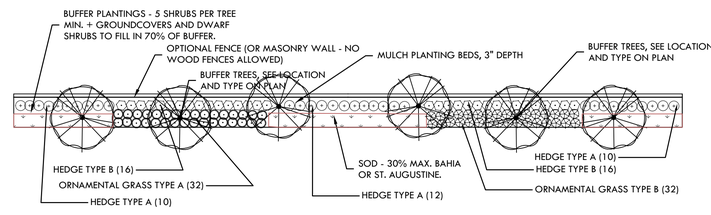


Ⓐ **TYPICAL TYPE D BUFFER**



Ⓑ **TYPE B TYPICAL BUFFER**

TYPICAL 200' SECTION



Ⓑ **TYPICAL MUTRM BUFFER (10' WITH TYPE D SCHEME PLANTING)**

DATE	DESCRIPTION	BY
09-18-2019	REVISED PER COUNTY COMMENTS	NG
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W. Azeele Street, Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
HANNAH D. MCALEER RLA# 6667074
FLORIDA REGISTERED LANDSCAPE ARCHITECT

PERMIT LANDSCAPE PLAN

JOB NO.	LNH-MR-029
DESIGN	MCALEER
DRAWN	DROOR
DATE	10-07-2019
FILE	PLP

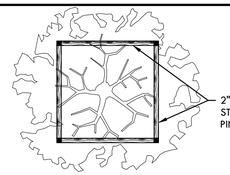
MITCHELL RANCH 54 WEST
PHASE 2 CONSTRUCTION PLANS

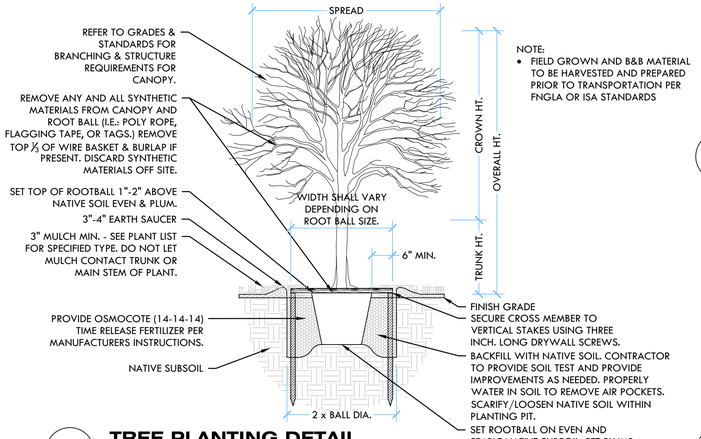
PREPARED FOR: LENNAR HOMES

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.84 Feet

SHEET 44 OF 45 SHEETS

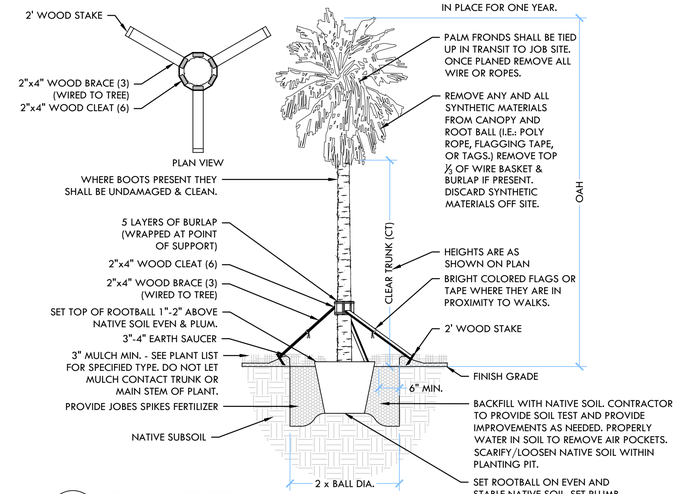
P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCS\PLP.DWG-44 PERMIT LANDSCAPE PLAN 2019/10/07 10:51 AM BRENT MELVIN





NOTE:
- FIELD GROWN AND B&B MATERIAL TO BE HARVESTED AND PREPARED PRIOR TO TRANSPORTATION PER FNGLA OR ISA STANDARDS

A TREE PLANTING DETAIL
SCALE: N.T.S.



NOTE:
- PALM STAKES SHALL REMAIN IN PLACE FOR ONE YEAR.

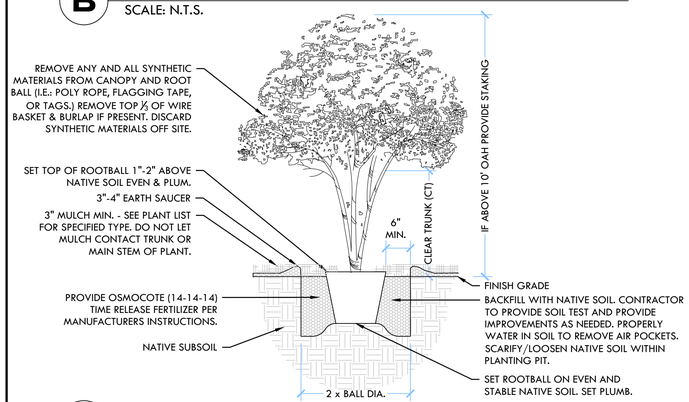
PALM FRONDS SHALL BE TIED UP IN TRANSIT TO JOB SITE. ONCE PLANED REMOVE ALL WIRE OR ROPES.

REMOVE ANY AND ALL SYNTHETIC MATERIALS FROM CANOPY AND ROOT BALL (I.E.: POLY ROPE, FLAGGING TAPE, OR TAGS.) REMOVE TOP ⅓ OF WIRE BASKET & BURLAP IF PRESENT. DISCARD SYNTHETIC MATERIALS OFF SITE.

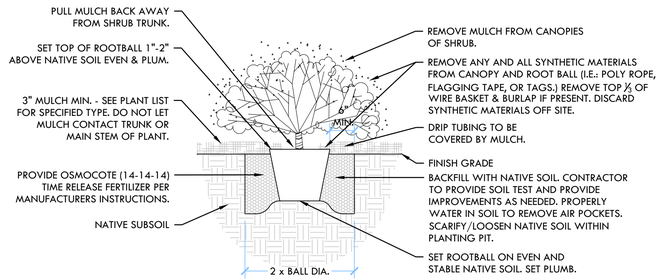
HEIGHTS ARE AS SHOWN ON PLAN

BRIGHT COLORED FLAGS OR TAPE WHERE THEY ARE IN PROXIMITY TO WALKS.

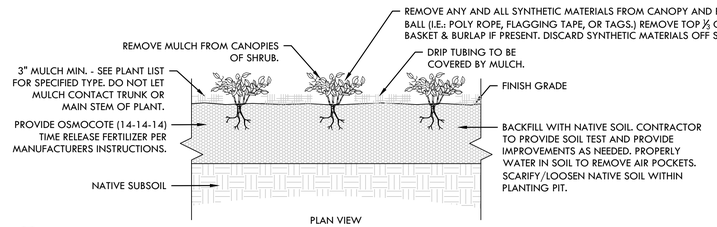
B PALM TREE
SCALE: N.T.S.



C MULTI-STEM TREE PLANTING DETAIL
SCALE: N.T.S.

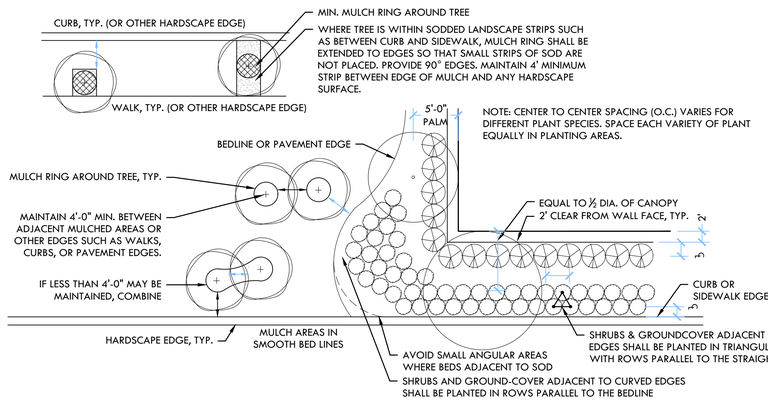


D SHRUB PLANTING DETAIL
SCALE: N.T.S.

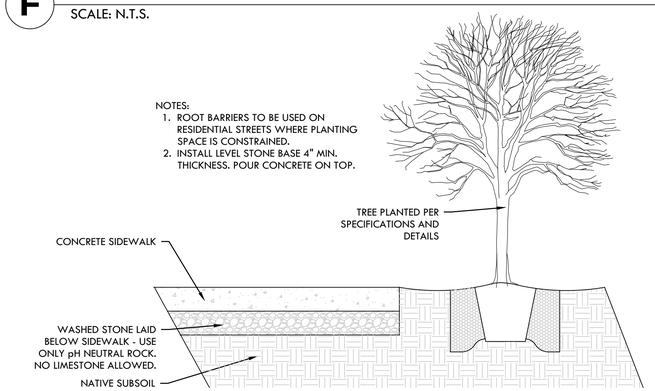


E GROUNDCOVER
SCALE: N.T.S.

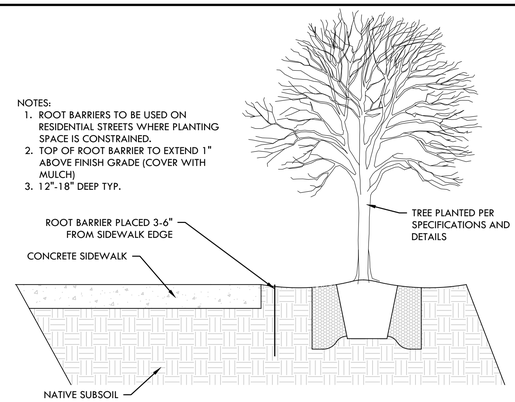
NOTE:
- SEE PLANTING LEGEND FOR GROUNDCOVER SPECIES, SIZE, AND SPACING DIMENSION.
- SMALL ROOTS (¼" OR LESS) THAT GROW AROUND, UP, OR DOWN THE ROOT BALL PERIPHERY ARE CONSIDERED A NORMAL CONDITION IN CONTAINER PRODUCTION AND ARE ACCEPTABLE HOWEVER THEY SHOULD BE ELIMINATED AT THE TIME OF PLANTING. ROOTS ON THE PERIPHERY CAN BE REMOVED AT TIME OF PLANTING.
- SETTLE SOIL AROUND ROOT BALL OF EACH GROUNDCOVER PRIOR TO MULCHING.



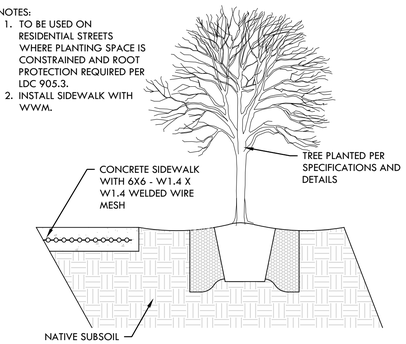
F PLANTING BED/TREE RING MULCH DETAIL
SCALE: N.T.S.



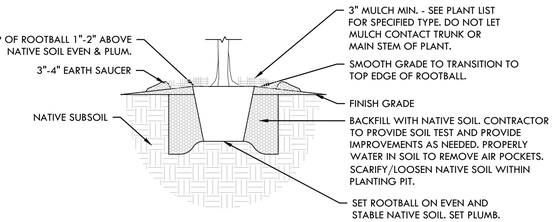
G ROOT BARRIER TYPE A
SCALE: N.T.S.



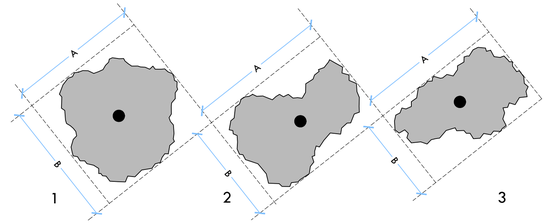
H ROOT BARRIER TYPE B
SCALE: N.T.S.



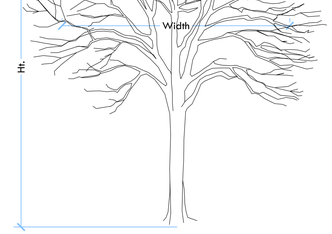
I ROOT PROTECTION TYPE C
SCALE: N.T.S.



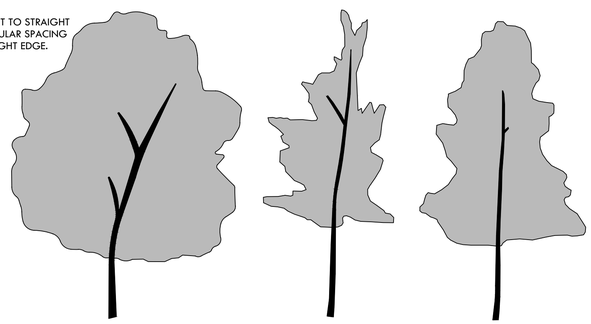
J FOR HEAVY CLAY & SLOW DRAINING SOILS
SCALE: N.T.S.



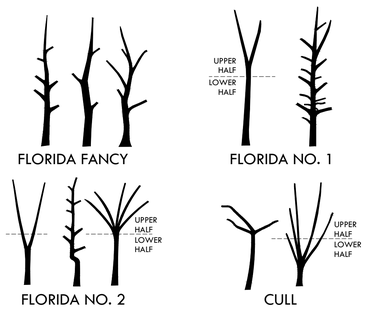
ABOVE: DIAGRAM 1 = ACCEPTABLE CANOPY WITHOUT LARGE GAPS IN ANY SIDE
DIAGRAMS 2 AND 3 REPRESENT LARGE GAPS OR ONE SIDED TREES AND WILL BE REJECTED



ABOVE: TREE MEASUREMENTS TO BULK OF TREE (AFTER ANY NECESSARY PRUNING) AND NOT TIP TO TIP OR EXTREME EXTENTS



ABOVE: FULL CANOPY WITH EVEN AND BALANCED DISTRIBUTION OF BRANCHING. SMALL GAPS AND INCONSISTENCIES THAT ARE CHARACTERISTIC OF SPECIES GROWTH ACCEPTABLE. NO LARGE VOIDS.



ABOVE: BRANCHING STRUCTURE IS EXPECTED TO BE FLORIDA FANCY OR FLORIDA #1 AS DEPICTED ABOVE. ALL OTHER TREES WILL BE REJECTED.

DATE	DESCRIPTION	BY
09-18-2019	REVISED PER COUNTY COMMENTS	NG
08-07-2019	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W. Azeele Street, Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:
HANNAH D. MCALEER RLA# 6667074
FLORIDA REGISTERED LANDSCAPE ARCHITECT

PERMIT LANDSCAPE PLAN

JOB NO. LNH-MR-029	MITCHELL RANCH 54 WEST
DESIGN MCALEER	PHASE 2 CONSTRUCTION PLANS
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE PLP	**SHEET 45 OF 45 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH 54 WEST PHASE 2\DRAWING\CONDOCC\ADDRESS.DWG--1 ADDRESS PLAN 2019/10/07 10:51 AM BRENT MELVIN

DATE	DESCRIPTION	BY
08-07-2019	PERMIT PLANS	JRD
REVISIONS		

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W Azeele St., Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

DATE:

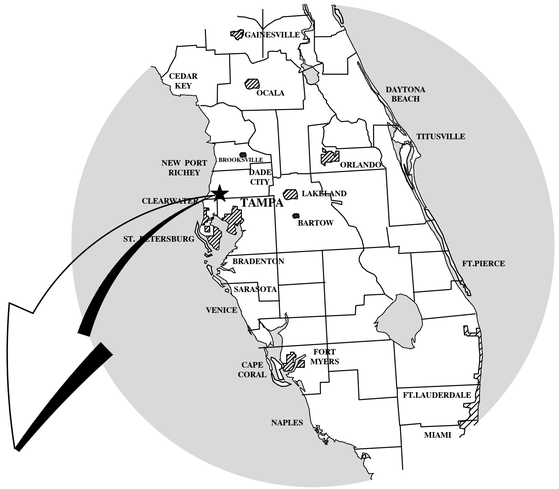
BRIAN G. SURAK P.E. NO. 59064
FLORIDA PROFESSIONAL ENGINEER

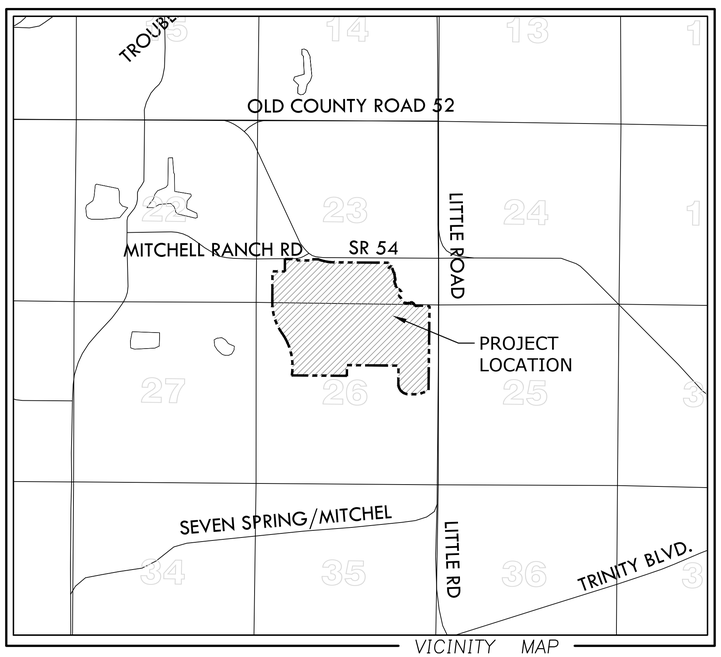
ADDRESS PLAN

JOB NO. LNH-MR-014	MITCHELL RANCH 54 WEST PHASE 2 CONSTRUCTION PLANS
DESIGN MELVIN	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES
DATE 10-07-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.84 Feet
FILE ADDRESS	SHEET 1 OF 1 SHEETS

MITCHELL RANCH

PRELIMINARY DEVELOPMENT PLAN (PDP)





VICINITY MAP
PASCO COUNTY, FLORIDA
SECTION 23 & 26, TOWNSHIP 26 SOUTH, RANGE 16 EAST

INDEX OF CONSTRUCTION PLANS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PRELIMINARY DEVELOPMENT PLAN OVERALL
3-4	PDP NOTES & DETAILS
5	ROADWAY SECTIONS
6-9	PRELIMINARY DEVELOPMENT PLAN ENLARGED
10	MODEL PARKING LOT DETAIL

PREPARED FOR:

LENNAR

4600 W. CYPRESS ST.
SUITE 200
TAMPA, FL 33607

PREPARED BY:

CLEARVIEW LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W. Azeele st. Suite 150 Tampa, FL 33609
Office: 813-223-3919 Fax: 813-223-3975

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

PERMIT / FILE NOS.	
PASCO PDD PROJECT NO.	
FGUA PROJECT NO.	
SWFWMD ERP/APPLICATION ID NO.	
WATER DEP	
SEWER DEP	
RECLAIMED WATER DEP	
PARCEL ID NO.	23-26-16-0000-01200-0050 23-26-16-0000-01200-0000 23-26-16-0000-01200-0014 23-26-16-0000-01900-0000 26-26-16-0000-00100-0000 26-26-16-0000-00100-0100 26-26-16-0000-00100-0110

UTILITY CONTACT INFORMATION

CHARLES CULLEN
PASCO COUNTY
UTILITIES DEPARTMENT
19420 CENTRAL BLVD.
LAND O' LAKES, FL 34637
727-847-8145
ccullen@pascocountyfl.net

JANELLE KUSIOLEK
FLORIDA GOV'T UTILITIES AUTHORITY (FGUA)
280 WEKIVA SPRINGS RD
LONGWOOD, FL 32779-6026
407-340-2782
JKUSIOLEK@GOVMSERV.COM

TIM GRAYSON
DUKE ENERGY
4121 SAINT LAWERENCE DR
NEW PORT RICHEY, FL 34653
727-372-5109
TIMOTHY.GRAYSON@DUKE-ENERGY.COM

CARLOS BATES
FRONTIER COMMUNICATIONS
3712 W. WALNUT ST
TAMPA FL 33607
941-906-6709
carlos.l.bates@ftr.com

BILL WALKER
CHARTER COMMUNICATIONS
- EAST PASCO
30432 SR 54
WESLEY CHAPEL, FL 33543
813-808-5658
michael.kiker@mybrighthouse.com

PHYLLIS BRIDGES
TECO PEOPLES GAS-TAMPA
1400 CHANNELSIDE DR
TAMPA, FL 33605
813-275-3742
jlcastellanos@tecoenergy.com

MEGAN DEVINO
PASCO COUNTY FIRE SERVICES
4111 LAND O'LAKES BLVD. STE. 208
LAND O' LAKES, FL 34639
813-929-2750
firerescue@pascocountyfl.net

DATE	SHEET NO.	BY
05-30-19	3, 5, 6, 9	JRD

REVISIONS

MITCHELL RANCH

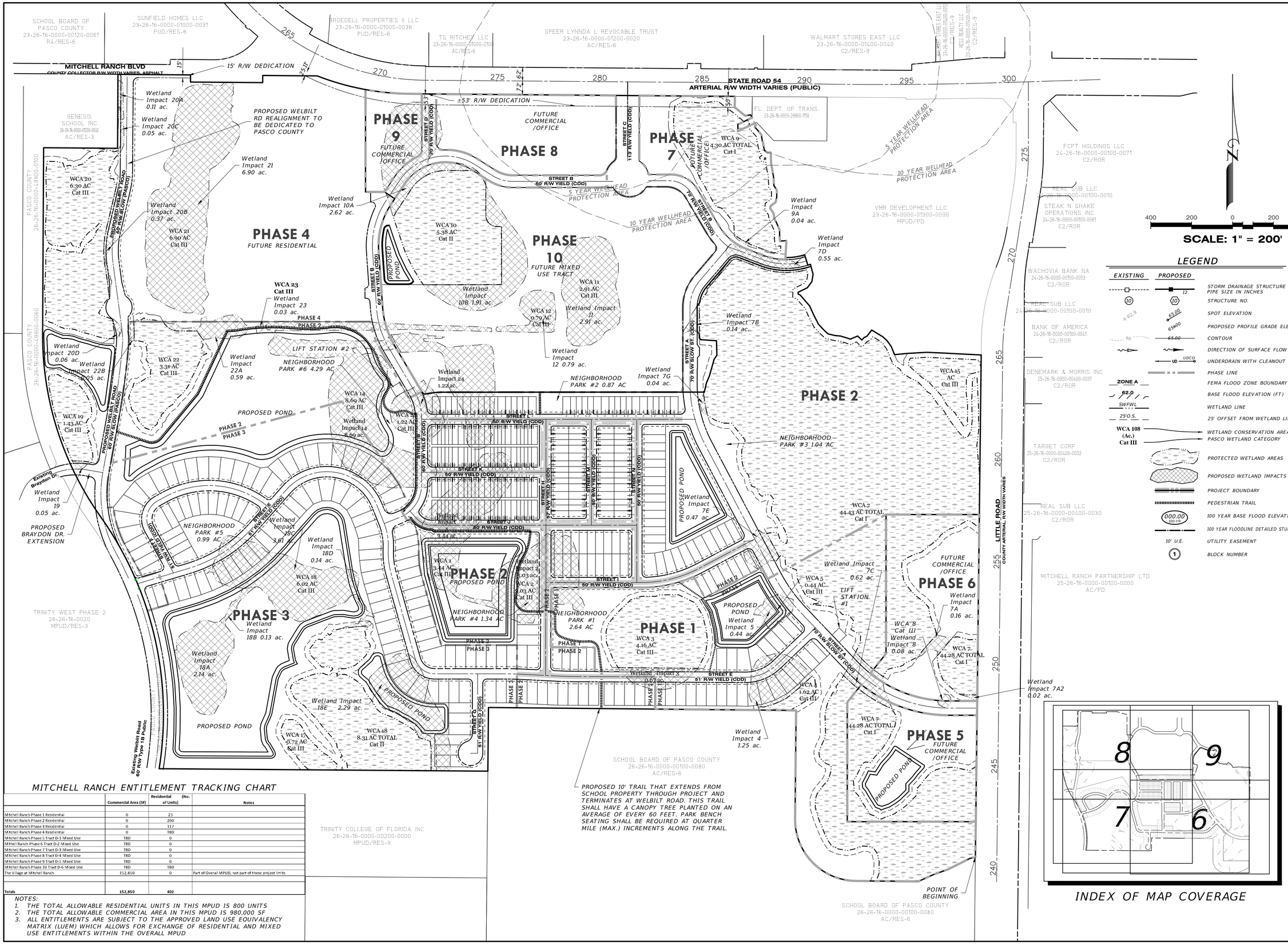
DATE: BRIAN G. SURAK P.E. No 59064

DATE: 04-01-19 JOB NO. LNH-MR-011

FILE: CV

SHEET 1 OF 10

P:\MITCHELL RANCH\MITCHELL RANCH \WEST DRAWING \CONDOC\CV DWG-1 COVER SHEET 2019.07.31 7:56 AM BRIAN SURAK



MITCHELL RANCH ENTITLEMENT TRACKING CHART

	Commercial Area (SF)	Residential (No. of Units)	Notes
Mitchell Ranch Phase 1 Residential	0	25	
Mitchell Ranch Phase 2 Residential	0	260	
Mitchell Ranch Phase 3 Residential	0	117	
Mitchell Ranch Phase 4 Residential	0	TBD	
Mitchell Ranch Phase 5 Tract D-1 Mixed Use	TBD	0	
Mitchell Ranch Phase 6 Tract D-2 Mixed Use	TBD	0	
Mitchell Ranch Phase 7 Tract D-3 Mixed Use	TBD	0	
Mitchell Ranch Phase 8 Tract D-4 Mixed Use	TBD	0	
Mitchell Ranch Phase 9 Tract D-5 Mixed Use	TBD	0	
Mitchell Ranch Phase 10 Tract D-6 Mixed Use	TBD	TBD	
The Village at Mitchell Ranch	152,850	0	Part of Overall MPUD, not part of these project limits
Totals	**152,850**	**402**	

NOTES:
1. THE TOTAL ALLOWABLE RESIDENTIAL UNITS IN THIS MPUD IS 800 UNITS
2. THE TOTAL ALLOWABLE COMMERCIAL AREA IN THIS MPUD IS 980,000 SF
3. ALL ENTITLEMENTS ARE SUBJECT TO THE APPROVED LAND USE EQUIVALENCY MATRIX (LUEM) WHICH ALLOWS FOR EXCHANGE OF RESIDENTIAL AND MIXED USE ENTITLEMENTS WITHIN THE OVERALL MPUD

PRELIMINARY DEVELOPMENT PLAN

MITCHELL RANCH

JOB NO. LNH-MR-011
DESIGN
DRAWN
DATE
FILE PDP

PREPARED FOR: LENNAR HOMES LLC

Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.00 Feet

SHEET 2 OF 10 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOCX\PDP.DWG-2 PRELIMINARY DEVELOPMENT PLAN 2019/06/05 4:00 PM BRIAN SURAK

Clearview LAND DESIGN, P.L.
Engineering Business CA No.: 28868
3010 W. Azeele St, Suite 150, Tampa, Florida 33609
Office: 813-282-3990 Fax: 813-283-3975

DATE:
BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

DATE	DESCRIPTION	BY
05-30-19	REVISED PER COUNTY COMMENT	JRD
05-14-19	REVISED PER COUNTY COMMENT	JRD
04-01-19	PERMIT PLANS	JRD

REVISIONS

PRELIMINARY PLAN NOTES:

Developer: Lennar Homes
4600 West Cypress St. Suite 200
Tampa, FL 33607
(813)574-5658
Parker.Hirons@Lennar.com

Engineer: Clearview Land Design, P.L.
3010 Azeele St. Suite 150
Tampa, Florida 33609
(813) 223-3919
brian.surak@clearviewland.com

Surveyor: Florida Design Consultants, Inc.
3030 Starkey Blvd
New Port Richey FL, 34655
(800)532-1047
jpatenaude@fldesign.com

1. Existing Zoning: MPUD (RZ-7116) (Current Approval 08/29/2016). The Owner/Developer acknowledges that the site and its subsequent building permits shall comply with all rezoning MPUD/PUD conditions.
2. Existing Land Use: Vacant Pasture, Single Family Residence
3. Future Land Use Classification: Planned Development (PD)
4. Water service to be provided by Florida Government Utility Authority (FGUA).
5. Sewage disposal service to be provided by Florida Government Utility Authority (FGUA).
6. Electrical power to be provided by DUKE ENERGY Telephone service to be provided by FRONTIER & SPECTRUM.
7. Street lighting to be provided by DUKE ENERGY for the entire project in accordance with Section 901.11.
8. Fire protection to be provided by the existing Pasco County Fire Station No. 17. located at Seven Springs Blvd. approximately 2 miles from the project entrance. Fire Hydrants will be provided on-site.
9. The uplands are pasture. The wetlands are cypress heads and grass marshes.
10. Predominant soil types on-site consist of Myakka, Tavares, Sellers, Adamsville, Smyrna, and Basinger Fine Sands.
11. Recreation areas, conservation areas, and stormwater management facilities will be owned and maintained by the Homeowner's Association (HOA) unless otherwise noted.
12. Stormwater Management ponds to be within tracts dedicated to the CDD for maintenance unless otherwise noted.
13. Contours shown are based on North American Vertical Datum (NAVD88).
14. All roadway standards to comply with the Manual of Uniform Minimum Standards, State of Florida.
15. Signing & Pavement Markings:
    15.1. Handicap parking spaces will be properly signed and striped in accordance with Florida Statute 316, the Manual on Uniform Traffic Control Devices, or other applicable standards.
    15.2. All onsite parking spaces shall be striped and signed in accordance with the Manual on Uniform Traffic Control Devices, latest edition. Parking spaces, directional arrows, and stop bars shall be striped in WHITE. It shall be the owner/developer's responsibility to properly sign and stripe in accordance with applicable standards.
    15.3. All proposed signs must be applied for, approved, and permitted on an individual basis apart from any ultimately approved site plan. Approval of this site plan does not constitute approval of any signage.
16. All utility construction shall comply with the FGUA Standards for Design and Construction of Water and Wastewater Facilities Specifications, latest edition.
17. All utility lines shall be installed underground.
18. The site appears to lie within Flood Zones A, Ae, and X according to F.I.R.M. Panel 12101C0360F of Pasco County FL, Dated 09/26/2014
19. A minimum of 16" of sod strip will be provided along all roadways per Pasco County requirements.
20. Setbacks from post-developed wetlands shall be as follows: 25-foot minimum undisturbed around all Category I Wetlands; Buffers around Category II and Category III Wetlands shall be as required by SWFWMD. Allowable uses and restrictions for buffers shall be in accordance with Section 805 of the Pasco County Land Development Code.
21. Sidewalks will be provided on both sides of all roads including non-lot areas. Unless otherwise shown, all sidewalks shall be five (5) feet wide, 4" thick concrete, and 3000 p.s.i., fiber-reinforced. Sidewalks shall be constructed on a compacted non-yielding subgrade, and 6" in thickness is required where sidewalk is crossed by a driveway.
22. Buffering for all retention/detention areas along road right-of-ways and private roads to have trees selected from tree list at the top of one tree per 50 L.F.
23. All landscape and sodded areas along collector road will be irrigated and maintained by the HOA or an entity other than Pasco County.
24. This project will comply with the Pasco County Tree Protection and Restoration Ordinance.
25. All construction work, including road, drainage and utilities, shall be constructed in accordance with Pasco County design standards and tested in compliance with the Pasco County Engineering Service Department Testing Specifications for construction of roads, storm drainage and utilities.
26. If during construction activities any evidence of historic resources, including but not limited to aboriginal or historic pottery, prehistoric stone tools, bone or shell tools, historic trash pits, or historic building foundation, are discovered, work shall come to an immediate stop and the Florida Department of Historic Resources (State Historic Preservation Officer) and Pasco County shall be notified within two working days of the resources found on the site. In the event that unmarked human remains are encountered during permitted activities, all work must stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statue.
27. The architect/engineer certifies that the site has been designed in accordance with the Americans with Disabilities Act.
28. All clear-site areas shall be kept free of any signage plantings, trees, etc. in excess of three-and-a-half (3-1/2) feet in height.
29. No irrigation system or landscaping shall be installed in any County or State right-of-way without issuance of appropriate Right-of-way Use Permit.
30. Fugitive dust emissions shall be controlled by sprinkling as necessary.
31. On-site burning shall not be employed without approval from the Fire Marshall.
32. The soil erosion and sediment control devices shall be installed prior to construction, maintained throughout construction and until the site is permanently stabilized.
33. All driveway cuts shall be installed to local streets.
34. The CDD or HOA will be responsible for maintenance of the underdrain system.
35. Maintenance of sidewalk shall be the responsibility of the HOA, or an entity other than Pasco County.
36. Drainage tracts/easements shall be conveyed to the HOA by plat. The easements will be required to be given to Pasco County, for the right but not the obligation to maintain. Maintenance responsibility will be that of the HOA.
37. In consideration of Pasco County's agreement to provide potable water and/or reclaimed water to the subject property, Developer/Owner, and its successors and assigns, agree to the following:
38. (a) In the event of Production Failure or Shortfall by Tampa Bay Water, as set forth in section 3.19 of the Interlocal Agreement creating Tampa Bay Water, Developer/Owner shall transfer to Pasco County any and all water use permits or water use rights the Developer/Owner may have to use or consume surface or ground water within Pasco County.
39. (b) Prior to Developer/Owner selling water or water use permits or water use rights, Developer/Owner shall notify Pasco County, and Pasco County shall have a right of first refusal to purchase such water or water use permits or water use rights.
40. The Developer will grant, convey, warrant and dedicate to the County via plat a Non-Exclusive Flow through Easement and reasonable right of access to ensure the free flow of water for general public drainage purposes over, through and under all drainage easements/areas or commonly owned property shown on this plat. In the event the Owner, the District or the Association fails to properly maintain any public or private drainage easements/areas preventing the free flow of water, the County shall have the reasonable right, but not the obligation, to access and enter upon any public or private drainage easement/area for the purpose of performing maintenance to ensure the free flow of water.
41. As applicable, the Owner/Developer will provide copies of the required permits from the respective agencies prior to the issuance of the SDP.
42. The Owner/Developer acknowledges that this approval does not include any work in the County ROW. All ROW work shall be a function of an approved Pasco Right-of-Way Use Permit.
43. All structures, including buffer walls, retaining walls, signage, etc...require building permits.
44. The project is located in Hurricane Evacuation Zone: E
45. If during construction activities any evidence of the presence of State and Federally protected plant and/or animal species is discovered, work shall come to an immediate stop and Pasco County shall be notified within two working days of the plant and/or animal species found on the site.
46. If a project site contains an easement, especially a power company easement, a letter of no objection is required from the easement holder. By signing and sealing this plan the engineer of record is attesting that he has identified and accurately shown all easements of record on the plans.
47. There were no known cultural resources discovered on site.

PASCO COUNTY STANDARD SITE PLAN NOTES:

1. All utility construction shall comply with the Pasco County Standards for Design and Construction of Water and Wastewater Facilities Specifications, latest edition.
2. All on-site water and sewer facilities shall be owned and maintained by the owner-developer.
3. Installation of fuel storage tanks requires review and approval by the Fire Marshal and the issuance of a separate building permit. Approval of the site plan does not constitute approval of the location of the fuel tanks.
4. All proposed signs must be applied for, approved, and permitted on an individual basis apart from any ultimately approved site plan. Approval of this site plan does not constitute approval of any signage.
5. Handicap parking spaces will be properly signed and striped in accordance with Florida Statute 316, the Manual on Uniform Traffic Control Devices, or other applicable standards.
6. The architect/engineer certifies that the site has been designed in accordance with the Americans with Disabilities Act.
7. All on-site parking spaces will be striped and signed in accordance with the Manual on Uniform Traffic Control Devices, latest edition. Parking spaces, directional arrows, and stop bars shall be striped in WHITE. It shall be the owner/developer's responsibility to properly sign and stripe in accordance with applicable standards.
8. The owner/developer acknowledges that this approval does not include any work in the County right-of-way. All right-of-way work shall be a function of an approved Pasco Right-of-way Use Permit.
9. All clear-site areas shall be kept free of any signage plantings, trees, etc. in excess of three-and-a-half (3-1/2) feet in height.
10. No irrigation system or landscaping shall be installed in any County or State right-of-way without issuance of appropriate Right-of-Way Use Permit.
11. The owner/developer acknowledges that the site and its subsequent building permits shall comply with all rezoning/MPUD/PUD conditions.
12. All structures, including buffer walls, retaining walls, signage, etc. require building permits.

RESIDENT & VISITOR PARKING REQUIREMENTS (PHASE 1-3):

1. REQUIRED:
   1.1. Resident: 3 spaces x 402 units = 1206 Spaces
   1.2. Visitor: 0.25 spaces X 402 units = 101 Spaces
   1.3. Total Required = 1307 Required

2. PROVIDED:
   - SINGLE FAMILY DETACHED: (2-CARS IN GARAGE + 2-CAR IN DRIVEWAY) = 216x 4 = 864 SPACES
   - 28' TOWNHOMES (2-CARS IN GARAGE + 2-CAR IN DRIVEWAY) = 90 x 4 = 360 SPACES
   - 16' TOWNHOMES (1 CAR IN GARAGE + 1 CAR IN DRIVEWAY) = 96 x 2 = 192 SPACES
   - SURFACE PARKING = 60 SPACES*
   - TOTAL PARKING PROVIDED = 1,476 SPACES

* DOES NOT INCLUDE GENERAL STREET PARKING ON YIELD STREETS

*NEIGHBORHOOD PARK REQUIREMENTS:

1. TOTAL AREA REQUIRED:
   1.1. REQUIRED: 1.0 AC. + (1 ACRE/100 LOTS) X 402 LOTS = 4.02 AC.

PROVIDED:

- NEIGHBORHOOD PARK 1: 2.64 AC. (TRACTS C-1 & B-3)
- NEIGHBORHOOD PARK 2: 0.87 AC. (TRACT P-2)
- NEIGHBORHOOD PARK 3: 1.04 AC. (TRACT B-2)
- NEIGHBORHOOD PARK 4: 1.34 AC. (TRACT B-5)
- NEIGHBORHOOD PARK 5: 0.99 AC. (TRACT P-1)
- NEIGHBORHOOD PARK 6: 4.29 AC. (TRACT B-6)
- TOTAL 11.17

(7.15 AC MAY BE APPLIED TO PHASE 4 FUTURE RESIDENTIAL)

2. THE SERVICE RADIUS FOR THE NEIGHBORHOOD PARK IS ½ MILE. THE ENTIRE PROJECT SITE FALLS WITHIN THIS SERVICE BOUNDARY

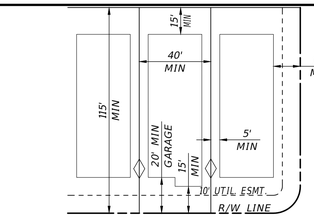
ENVIRONMENTAL NOTES:

1. If during construction activities any evidence of the presence of State or Federally protected plant and/or animal species is discovered, Pasco County and applicable agencies shall be notified within two working days of the plant and/or animal species found on the site. All work shall come to an immediate stop until all pertinent permits have been obtained, agency written authorization to commence activities has been given, or compliance with state and federal guidelines can be demonstrated.
2. No construction activities including: clearing, grading, grubbing shall occur within the Wetland Upland Buffer as depicted on the approved project Construction Plans.
3. The county biologist shall be contacted prior to construction activities to confirm if the Florida Sandhill Crane, Southeastern American Kestrel, Sherman's Fox Squirrel breeding season surveys are necessary.
4. The upland buffer line shall be clearly field demarcated prior to any construction activities.

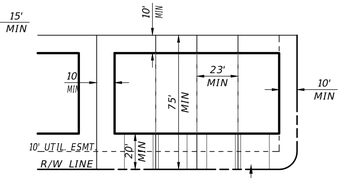
STANDARD FIRE PROTECTION NOTES:

1. All projects must comply with Pasco County Fire Hydrant Ordinance as per the Pasco County Land Development Code, Section 904.
2. Fire hydrants shall be installed and in service prior to the accumulation of combustibles.
3. Per the National Fire Protection Association, NFPA-1, 16.4.3.1.3: Where underground water mains and hydrants are to be provided, they shall be installed, completed, and in service prior to construction work.
4. Per NFPA-1, 18.3.4.1: Clearances of 7 1/2 feet in front of and to the sides of the fire hydrant with a 4-foot clearance to the rear must be maintained at all times.
5. Gated entries require a Siren Operating System or a 3M Opticom system for emergency access.

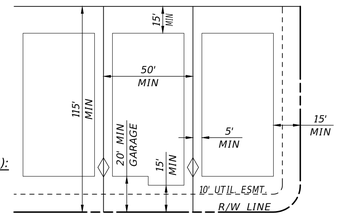
WETLAND CATEGORY SUMMARY	
CATEGORY	AREA
CAT I	48.73 AC
CAT II	5.94 AC.
CAT III	63.83 AC
TOTAL	118.50 AC



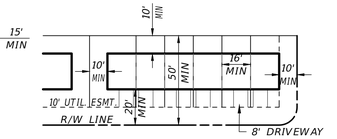
SINGLE FAMILY 40' MIN.
NOT TO SCALE



TOWNHOUSE - 23' MIN.
NOT TO SCALE



SINGLE FAMILY 50' MIN.
NOT TO SCALE



TOWNHOUSE - 16' MIN.
NOT TO SCALE

SINGLE FAMILY DETACHED NOTES
1. SIDE YARD SETBACKS SHALL BE IN COMPLIANCE WITH PASCO COUNTY LDC SECTION 902.2.K.2.b
2. MAXIMUM LOT COVERAGE IS 65%
3. MAXIMUM BUILDING HEIGHT IS 35'
4. ALL CORNER LOTS SHALL BE A MINIMUM OF 10 FEET LARGER THAN THE STANDARD LOT WIDTH ON THAT BLOCK.
5. FORWARD FACING GARAGES SHALL HAVE A MINIMUM SETBACK OF 20 FEET
6. LOT WIDTH IS MEASURED HORIZONTALLY AT THE FRONT SETBACK LINE.
7. ON CORNER LOTS WHERE THERE IS MORE THAN ONE SETBACK THE FRONT SETBACK MAY BE REDUCED TO 10 FEET.

◇ REPRESENTS REQUIRED 5' WIDE DRAINAGE & ACCESS EASEMENT ALONG BOTH SIDES OF DESIGNATED LOT LINE FOR EACH LOT WITH SIDE SETBACKS LESS THAN 7.5 FEET

TOWNHOUSE NOTES
1. MAXIMUM LOT COVERAGE IS 90%.
2. MAXIMUM BUILDING HEIGHT IS 35 FEET.
3. ALL FORWARD FACING GARAGES SHALL HAVE A MINIMUM SETBACK OF 20 FEET.

WETLAND SUMMARY TABLE:

WETLAND ID	WETLAND CATEGORY	WETLAND AREA (AC.)	WETLAND IMPACT ID	IMPACT AREA (AC.)
1	III	3.44	1	3.44
2	III	3.03	2	3.03
3	III	4.16	3	0.67
4	III	1.62	4	1.25
5	III	0.44	5	0.44
7	I	44.43	7A	0.16
			7A2	0.02
			7B	0.14
			7C	0.62
			7D	0.55
			7E	0.47
			7G	0.04
8	III	0.07	8	0.07
9	I	4.30	9A	0.04
10	III	9.92	10A	2.62
			10B	1.91
11	III	2.91	11	2.91
12	III	0.79	12	0.79
14	III	8.69	14	8.69
15	III	1.26		
17	II	0.72		
18	II	5.22	18E	2.29
18	III	8.31	18A	2.14
			18B	0.13
			18C	3.61
			18D	0.14
19	III	1.43	19	0.05
20	III	6.30	20A	0.11
			20B	0.37
			20C	0.05
			20D	0.06
21	III	6.90	21	6.90
22	III	3.31	22A	0.59
			22B	0.05
23	III	0.03	23	0.03
24	III	1.22	24	1.22
	TOTAL	118.50		45.60

LEGAL DESCRIPTION:

A parcel of land being a portion of Sections 23 and 26, Township 26 South, Range 16 East, Pasco County, Florida, being more particularly described as follows:

COMMENCE at the Southeast corner of the Northeast 1/4 of Section 26, Township 26 South, Range 16 East, Pasco County, Florida; thence N89°31'39"W, along the South line of said Northeast 1/4 of Section 26 (being the basis of bearings for this legal description), for 260.17 feet to the point of intersection with the Westerly Right-of-Way line of Little Road, according to Official Records Book 1469, page 1422 of the Public Records of Pasco County, Florida; thence leaving said South line of the Northeast 1/4 of Section 26, N00°34'52"E, along said Westerly Right-of-Way line of Little Road, for 0.71 feet; thence N00°39'53"E, continuing along said Westerly Right-of-Way line of Little Road, for 119.91 feet to the Northeast corner of that certain property as described in Official Records Book 3102, page 1213 of the Public Records of Pasco County, Florida, same being the POINT OF BEGINNING; thence the following eight (8) courses along the Northerly line of said certain property as described in Official Records Book 3102, page 1213; (1) thence leaving said Westerly Right-of-Way line of Little Road, S78°06'26"W, for 26.54 feet; (2) thence S63°27'58"W, for 121.46 feet; (3) thence S70°17'12"W, for 76.89 feet; (4) thence S65°26'03"W, for 78.57 feet to the point of intersection with said South line of the Northeast 1/4 of Section 26; (5) thence N89°31'39"W, along said South line of the Northeast 1/4 of Section 26, for 305.14 feet to the point of intersection with a non-tangent curve, concave Northeasterly; (6) thence leaving said South line of the Northeast 1/4 of Section 26, Northwesterly along the arc of said curve, from a radial bearing of S00°28'07"W, having a radius of 300.00 feet, a central angle of 90°03'58", an arc length of 471.58 feet, and a chord bearing N44°29'54"W for 424.51 feet to the point of intersection with a non-tangent line; (7) thence N00°32'09"E, for 531.05 feet; (8) thence N89°27'18"W, for 1,503.45 feet to the point of intersection with the West line of said Northeast 1/4 of Section 26, same being the Northwest corner of said certain property as described in Official Records Book 3102, page 1213; thence S00°31'56"W, along said West line of the Northeast 1/4 of Section 26, same being the West line of said certain property as described in Official Records Book 3102, page 1213, for 311.43 feet to the Northeast corner of that certain property as described in Official Records Book 5070, page 101 of the Public Records of Pasco County, Florida; thence leaving said West line of the Northeast 1/4 of Section 26, N89°34'07"W, along the North line of said certain property as described in Official Records Book 5070, page 101, for 1,606.52 feet to the point of intersection with the Easterly Right-of-Way line of Welbilt Boulevard, according to Official Records Book 5418, page 1791 of the Public Records of Pasco County, Florida, same being the Northwest corner of said certain property as described in Official Records Book 5070, page 101, same also being the point of intersection with a non-tangent curve, concave Westerly; thence the following four (4) courses along said Easterly Right-of-Way line of Welbilt Boulevard and the Easterly line of that certain property as described in Official Records Book 3176, page 970 of the Public Records of Pasco County, Florida, respectively; (1) thence Northerly along the arc of said curve, from a radial bearing of S80°53'01"E, having a radius of 1,675.00 feet, a central angle of 44°25'55", an arc length of 1,298.94 feet, and a chord bearing N13°05'59"W for 1,266.63 feet to the point of tangent; (2) thence N35°18'57"W, for 1.44 feet to the point of curvature of a curve concave Easterly; (3) thence Northerly along the arc of said curve, having a radius of 1,530.00 feet, a central angle of 35°37'16", an arc length of 951.21 feet, and a chord bearing N17°30'19"W for 935.96 feet to the point of tangent; (4) thence N00°18'19"E, for 909.22 feet to the Southeast corner of that certain property as described in Official Records Book 1712, page 1843 of the Public Records of Pasco County, Florida; thence leaving said Easterly line of that certain property as described in Official Records Book 3176, page 970, S89°32'50"E, along the South line of said certain property as described in Official Records Book 1712, page 1843, for 361.59 feet to the Southeast corner of said certain property as described in Official Records Book 1712, page 1843; thence N00°17'44"E, along the East line of said certain property as described in Official Records Book 1712, page 1843, for 361.67 feet to the point of intersection with the Southerly line of Mitchell Ranch Road, according to Official Records Book 1281, page 1225 of the Public Records of Pasco County, Florida, same being the Northeast corner of said certain property as described in Official Records Book 1712, page 1843; thence S89°32'48"E, along said Southerly line of Mitchell Ranch Road, according to Official Records Book 1281, page 1225, for 354.67 feet to the point of intersection with the Southerly Right-of-Way line of Mitchell Ranch Road, according to Official Records Book 3518, page 1394 of the Public Records of Pasco County, Florida; thence the following three (3) courses along said Southerly Right-of-Way line of Mitchell Ranch Road, according to Official Records Book 3518, page 1394; (1) thence S00°27'22"W, for 34.95 feet; (2) thence S89°32'38"E, for 352.93 feet; (3) thence N00°14'00"E, for 34.97 feet to the point of intersection with said Southerly line of Mitchell Ranch Road, according to Official Records Book 1281, page 1225; thence S89°32'48"E, along said Southerly line of Mitchell Ranch Road, according to Official Records Book 1281, page 1225, for 266.52 feet to the point of intersection with the Southerly Right-of-Way line of State Road 54, according to Official Records Book 4042, page 1444 of the Public Records of Pasco County, Florida, same being the point of intersection with a non-tangent curve, concave Northerly; thence Easterly along said Southerly Right-of-Way line of State Road 54, according to Official Records Book 4042, page 1444, along the arc of said curve, from a radial bearing of S21°20'12"W, having a radius of 1,278.23 feet, a central angle of 20°53'00", an arc length of 465.89 feet, and a chord bearing S79°06'18"E for 463.32 feet to the point of tangent; thence S89°32'48"E, along the Southerly Right-of-Way line of State Road 54, according to said Official Records Book 4042, page 1444 and Official Records Book 2058, page 1993, Official Records Book 2059, page 1 and Official Records Book 2058, page 1999, all of the Public Records of Pasco County, Florida, respectively, for 1,585.46 feet; thence leaving said Southerly Right-of-Way line of State Road 54, according to said Official Records Book 4042, page 1444, Official Records Book 2058, page 1993, Official Records Book 2059, page 1 and Official Records Book 2058, page 1999, S00°27'12"W, for 53.70 feet; thence S52°55'46"E, for 18.78 feet; thence S49°59'15"E, for 46.05 feet; thence N81°22'55"E, for 28.05 feet; thence S27°00'44"E, for 15.26 feet to the point of intersection with the Westerly line of Official Records Book 4216, Page 1356 of the Public Records of Pasco County, Florida; thence along said Westerly line of Official Records Book 4216, Page 1356 the following three (3) courses: (1) S64°29'40"W, for 77.17 feet; (2) thence S00°00'51"E, for 33.24 feet; (3) thence N64°29'40"E, for 92.27 feet; thence leaving said Westerly line of Official Records Book 4216, Page 1356, S27°00'44"E, for 11.71 feet; thence S45°50'13"W, for 9.95 feet; thence S40°59'00"E, for 51.02 feet; thence S07°59'39"E, for 29.08 feet; thence S12°52'33"E, for 47.84 feet; thence S45°41'57"E, for 18.80 feet; thence N86°17'41"E, for 18.19 feet; thence S01°00'16"E, for 50.44 feet; thence S10°19'26"E, for 21.96 feet; thence S09°58'46"E, for 51.15 feet; thence S01°54'20"E, for 40.31 feet; thence S34°05'10"E, for 24.92 feet; thence S00°10'13"W, for 26.37 feet; thence S12°12'20"W, for 31.88 feet; thence S04°01'54"W, for 10.83 feet; thence S34°58'03"E, for 28.28 feet; thence S07°48'57"E, for 24.52 feet; thence S26°04'58"E, for 27.76 feet; thence S23°35'24"E, for 35.01 feet; thence S00°40'51"E, for 34.18 feet; thence S03°58'09"E, for 21.19 feet; thence N86°52'30"E, for 31.46 feet; thence S03°02'10"W, for 82.63 feet to the point of intersection with a non-tangent curve, concave Northerly; thence Easterly along the arc of said curve, with a radial bearing of N00°56'28"E, having a radius of 300.00 feet, a central angle of 18°09'08", an arc length of 95.04 feet, and a chord bearing N81°51'54"E, for 94.65 feet, to the point of intersection with a non-tangent line; thence S17°12'40"E, for 53.00 feet to the point of intersection with a non-tangent curve, concave Northerly; thence Easterly along the arc of said curve, with a radial bearing of N17°12'40"W, having a radius of 353.00 feet, a central angle of 0°29'45", an arc length of 13.32 feet, and a chord bearing N71°42'27"E, for 13.32 feet, to the point of intersection with a non-tangent line; thence S14°45'00"E, for 50.17 feet; thence S08°47'03"W, for 36.27 feet; thence S36°41'57"W, for 38.12 feet; thence S64°01'30"W, for 49.44 feet; thence S01°29'49"W, for 8.74 feet; thence S65°28'37"E, for 10.67 feet; thence S40°49'34"E, for 71.12 feet; thence S24°25'58"E, for 50.22 feet; thence S27°01'34"E, for 47.77 feet; thence S42°44'00"E, for 41.35 feet; thence S46°57'57"E, for 26.27 feet; thence S76°35'44"E, for 34.77 feet; thence S84°38'51"E, for 26.74 feet; thence S73°27'33"E, for 34.82 feet; thence S70°12'24"E, for 15.86 feet; thence N67°10'39"E, for 39.52 feet; thence S45°47'56"E, for 28.28 feet; thence N41°43'35"E, for 15.76 feet; thence N64°20'38"E, for 11.49 feet; thence N64°16'59"E, for 4.26 feet; thence N37°41'42"E, for 38.23 feet; thence S58°53'21"E, for 63.12 feet; thence S47°30'02"E, for 28.50 feet; thence S35°47'44"E, for 35.15 feet; thence S22°14'29"E, for 42.92 feet; thence N84°39'59"E, for 63.75 feet; thence N86°43'45"E, for 94.58 feet; thence S87°27'23"E, for 74.94 feet; thence S87°05'04"E, for 190.93 feet to the point of intersection with the Westerly Right-of-Way line of LITTLE ROAD as described in Official Records Book 1469, Page 1422 of the Public Records of Pasco County, Florida; thence S00°39'53"W, along said Westerly Right-of-Way line of LITTLE ROAD, for 2,456.27 feet to the POINT OF BEGINNING.

Containing 13,207,514 Square feet or 303.203 Acres, more or less.

SITE DATA TABLE						
	TOTAL	UPLAND	WETLAND	LOTS	GROSS DENSITY	NET DENSITY
PHASE 1	31.12 AC	17.69 AC	13.43 AC	25	0.80	1.41
PHASE 2	94.95 AC	66.86 AC	28.09 AC	260	2.73	3.89
PHASE 3	56.32 AC	50.39 AC	5.93 AC	117	2.08	2.29
PHASE 4	51.03 AC	43.91 AC	7.12 AC	TBD	TBD	TBD
PHASE 5	8.17 AC	4.40 AC	3.77 AC	0	0	0
PHASE 6	9.38 AC	4.92 AC	4.46 AC	0	0	0
PHASE 7	7.79 AC	3.07 AC	4.72 AC	0	0	0
PHASE 8	7.24 AC	7.24 AC	0 AC	0	0	0
PHASE 9	2.60 AC	2.60 AC	0 AC	0	0	0
PHASE 10	34.60 AC	29.22 AC	5.38 AC	0	0	0
TOTAL	303.20AC	230.30AC	72.90 AC			

NOTES:
1. WETLAND AREA REFLECTS POST-DEVELOPMENT WETLAND AREA ONSITE.
2. RESIDENTIAL DENSITY IS BASED ON PHASES 1,2, & 3. THE NUMBER OF RESIDENTIAL UNITS IN PHASE 4 WILL BE DETERMINED IN THE FUTURE WITH A MODIFICATION OF THIS PLAN.

DATE	DESCRIPTION	BY
05-30-19	REVISED PER COUNTY COMMENT	JRD
05-14-19	REVISED PER COUNTY COMMENT	JRD
04-01-19	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
Engineering Business C.A. No.: 28858
3010 W. Azeele St. Suite 150, Tampa, Florida 33609
Office: 813-223-3919 Fax: 813-223-3975

BRIAN G. SURAK
State of Florida, Professional Engineer, License No. 59064
This item has been digitally signed and sealed by BRIAN G. SURAK on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

DATE: 07/31/2019
BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

PDP NOTES & DETAILS

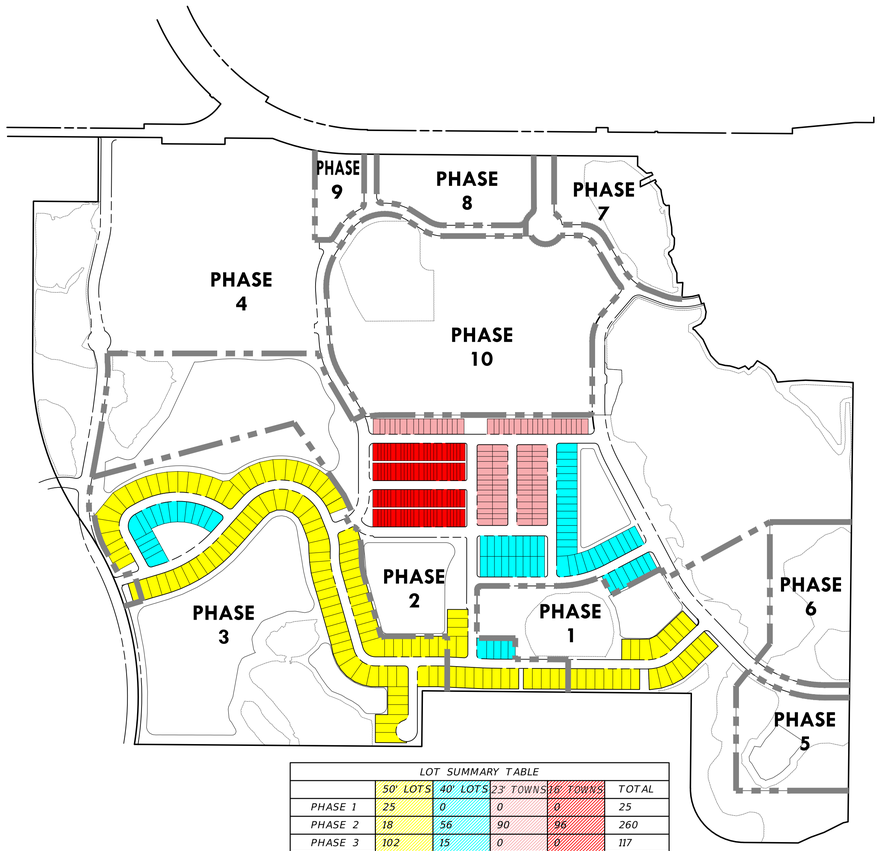
JOB NO.	LNH-MR-011
DESIGN	SURAK
DRAWN	DROOR
DATE	03-01-2019
FILE	PDP NOTES

MITCHELL RANCH

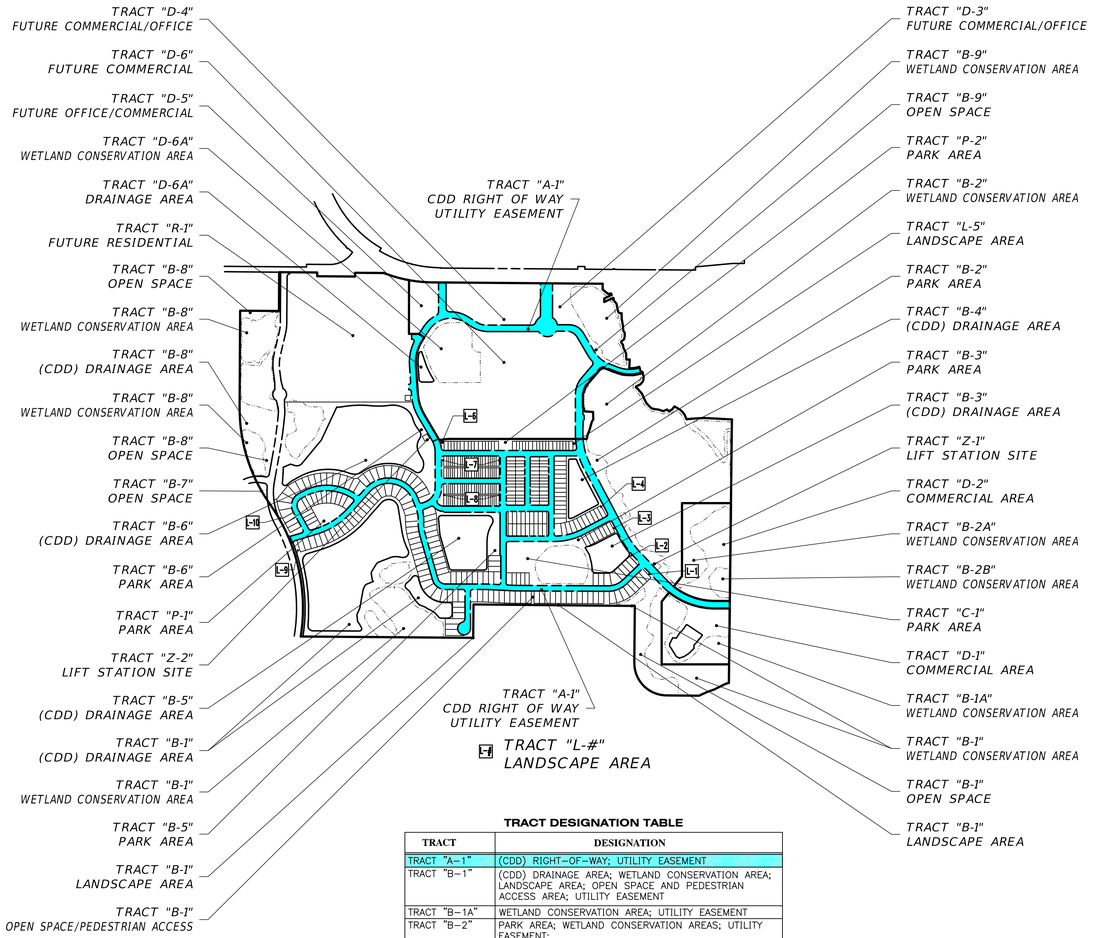
PREPARED FOR: LENNAR HOMES LLC

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.00 Feet

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOC\PDP NOTES.DWG-3 PDP NOTES & DETAILS 2019/07/31 7:56 AM BRIAN SURAK



LOT SUMMARY TABLE					
	50' LOTS	40' LOTS	23' TOWNS	16' TOWNS	TOTAL
PHASE 1	25	0	0	0	25
PHASE 2	18	56	90	96	260
PHASE 3	102	15	0	0	117
PHASE 4	TBD	TBD	TBD	TBD	TBD
TOTAL	145	71	90	96	402



TRACT DESIGNATION TABLE

TRACT	DESIGNATION
TRACT "A-1"	(CDD) RIGHT-OF-WAY; UTILITY EASEMENT
TRACT "B-1"	(CDD) DRAINAGE AREA; WETLAND CONSERVATION AREA; LANDSCAPE AREA; OPEN SPACE AND PEDESTRIAN ACCESS AREA; UTILITY EASEMENT
TRACT "B-1A"	WETLAND CONSERVATION AREA; UTILITY EASEMENT
TRACT "B-2"	PARK AREA; WETLAND CONSERVATION AREAS; UTILITY EASEMENT;
TRACT "B-2A"	WETLAND CONSERVATION AREA; UTILITY EASEMENT
TRACT "B-2B"	WETLAND CONSERVATION AREA; UTILITY EASEMENT
TRACT "B-3"	(CDD) DRAINAGE AREA; WETLAND CONSERVATION AREA; PARK AREA; UTILITY EASEMENT
TRACT "B-4"	(CDD) DRAINAGE AREA; UTILITY EASEMENT
TRACT "B-5"	(CDD) DRAINAGE AREA; PARK AREA; UTILITY EASEMENT
TRACT "B-6"	(CDD) DRAINAGE AREA; WETLAND CONSERVATION AREA; PARK AREA; UTILITY EASEMENT
TRACT "B-7"	OPEN SPACE; UTILITY EASEMENT
TRACT "B-8"	(CDD) DRAINAGE AREA; WETLAND CONSERVATION AREA; OPEN SPACE; UTILITY EASEMENT
TRACT "B-9"	WETLAND CONSERVATION AREA; OPEN SPACE; UTILITY EASEMENT
TRACT "C-1"	PARK AREA; UTILITY EASEMENT
TRACT "D-1"	COMMERCIAL AREA; UTILITY EASEMENT
TRACT "D-2"	COMMERCIAL AREA; UTILITY EASEMENT
TRACT "D-3"	COMMERCIAL AREA; UTILITY EASEMENT
TRACT "D-4"	COMMERCIAL AREA; UTILITY EASEMENT
TRACT "D-5"	COMMERCIAL AREA; UTILITY EASEMENT
TRACT "D-6"	COMMERCIAL AREA; UTILITY EASEMENT
TRACT "D-6A"	WETLAND CONSERVATION AREA; DRAINAGE AREA; UTILITY EASEMENT
TRACT "L-1"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-2"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-3"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-4"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-5"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-6"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-7"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-8"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-9"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "L-10"	LANDSCAPE AREA; UTILITY EASEMENT
TRACT "P-1"	PARK AREA; UTILITY EASEMENT
TRACT "P-2"	PARK AREA; UTILITY EASEMENT
TRACT "R-1"	RESIDENTIAL AREA; UTILITY EASEMENT
TRACT "Z-1"	LIFT STATION SITE
TRACT "Z-2"	LIFT STATION SITE

DATE	DESCRIPTION	BY
05-30-19	REVISED PER COUNTY COMMENT	JRD
05-14-19	REVISED PER COUNTY COMMENT	JRD
04-01-19	PERMIT PLANS	JRD

REVISIONS

Clearview LAND DESIGN, P.L.
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BRIAN G. SURAK
State of Florida, Professional Engineer, License No. 59064
This item has been digitally signed and sealed by BRIAN G. SURAK on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

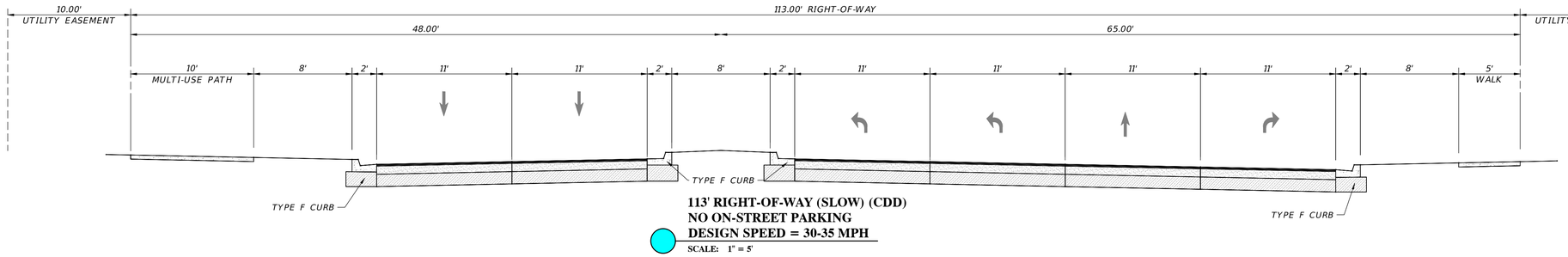
DATE: 07/31/2019

BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

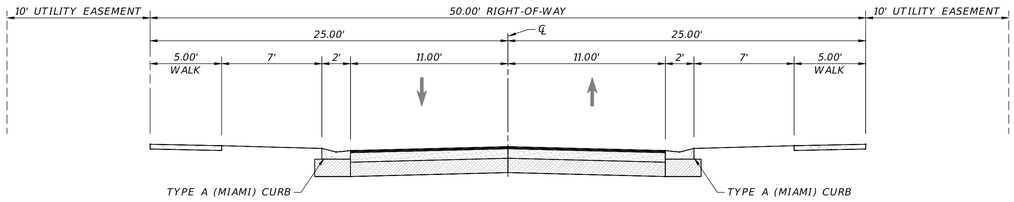
PDP NOTES & DETAILS

JOB NO. LNH-MR-011	MITCHELL RANCH
DESIGN SURAK	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES LLC
DATE 03-01-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.00 Feet
FILE PDP NOTES	SHEET 4 OF 10 SHEETS

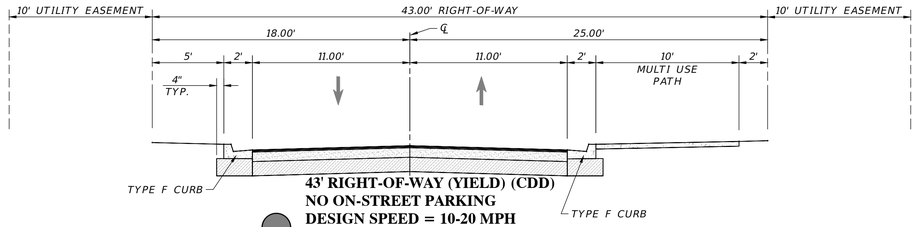
P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOC\PDP NOTES.DWG-4 PDP NOTES & DETAILS 2019/07/31 7:56 AM BRIAN SURAK



113' RIGHT-OF-WAY (SLOW) (CDD)
NO ON-STREET PARKING
DESIGN SPEED = 30-35 MPH
SCALE: 1" = 5'

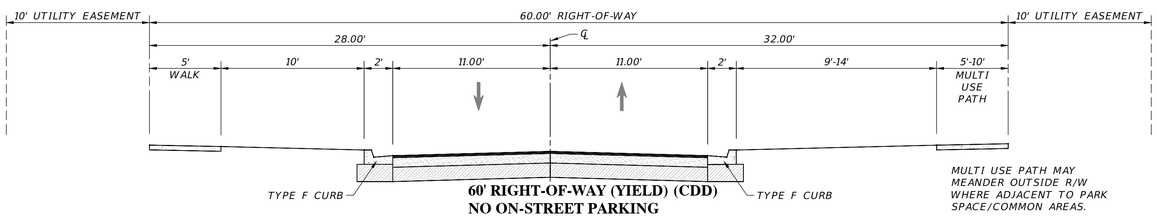


50' RIGHT-OF-WAY (YIELD) (CDD)
ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'



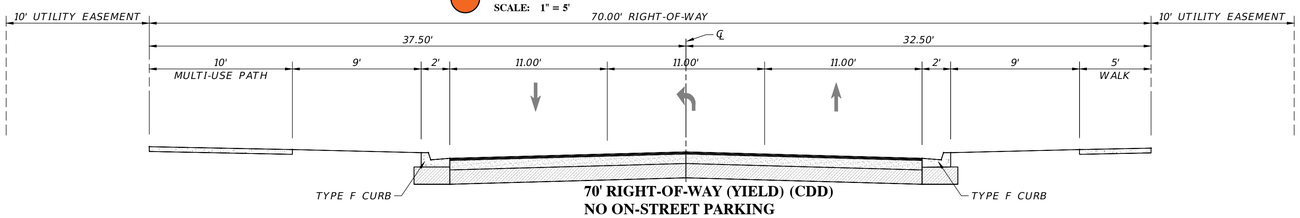
43' RIGHT-OF-WAY (YIELD) (CDD)
NO ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'

WELBILT BLVD EXTENSION
60' RIGHT-OF-WAY (SLOW) (PASCO COUNTY)
NO ON-STREET PARKING
DESIGN SPEED = 20-25 MPH
SCALE: 1" = 5'

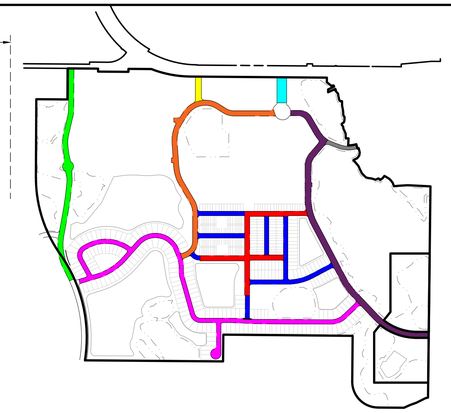


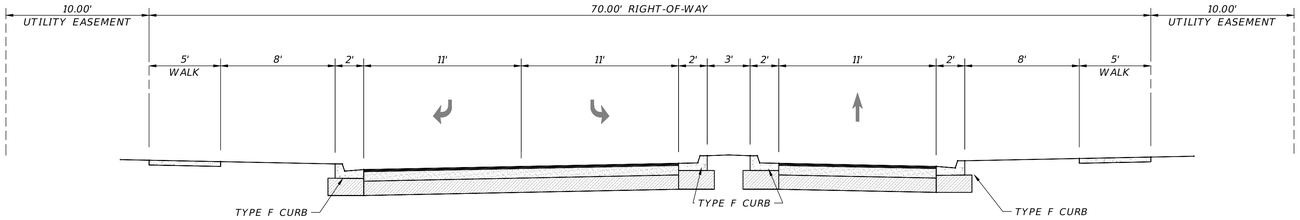
60' RIGHT-OF-WAY (YIELD) (CDD)
NO ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'

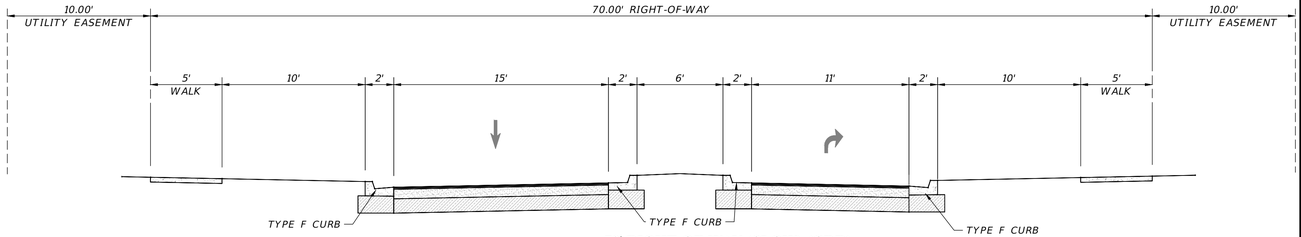
MULTI USE PATH MAY MEANDER OUTSIDE R/W WHERE ADJACENT TO PARK SPACE/COMMON AREAS.



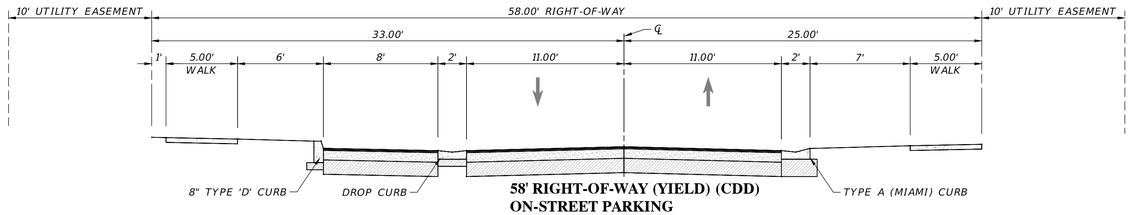
70' RIGHT-OF-WAY (YIELD) (CDD)
NO ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'



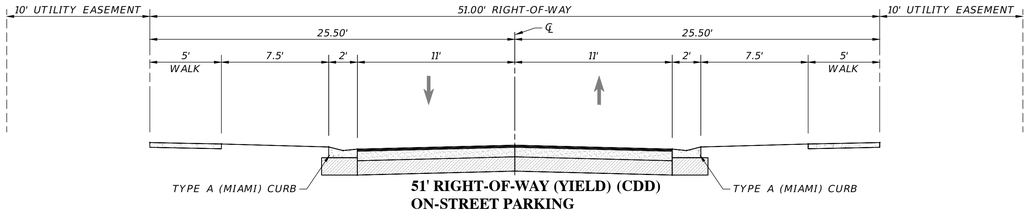




70' RIGHT-OF-WAY (SLOW) (CDD)
NO ON-STREET PARKING
DESIGN SPEED = 30-35 MPH
SCALE: 1" = 5'



58' RIGHT-OF-WAY (YIELD) (CDD)
ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'



51' RIGHT-OF-WAY (YIELD) (CDD)
ON-STREET PARKING
DESIGN SPEED = 10-20 MPH
SCALE: 1" = 5'

DATE	DESCRIPTION	BY
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DATE: 07/31/2019
BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

ROADWAY SECTIONS

JOB NO. LNH-MR-011	MITCHELL RANCH
DESIGN	
DRAWN	PREPARED FOR: LENNAR HOMES LLC
DATE	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.00 Feet
FILE PDP ROADSECT	SHEET 5 OF 10 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOC\PDP ROADSECT.DWG-5 ROADWAY SECTIONS 2019/07/31 7:56 AM BRIAN SURAK

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOCS\PDP1.DWG--6 PRELIMINARY DEVELOPMENT PLAN 2019/07/31 7:56 AM BRIAN SURAK

PHASE 1

PHASE 2

PHASE 5

PHASE 6

STREET I
50' R/W YIELD (CDD)

STREET J
50' R/W YIELD (CDD)

STREET E
51' R/W YIELD (CDD)

STREET G
51' R/W YIELD (CDD)

STREET H 50' R/W YIELD (PUBLIC)

STREET M 50' R/W YIELD (PUBLIC)

STREET N 50' R/W YIELD (PUBLIC)

STREET A
70' R/W SLOW ST (CDD)

LITTLE ROAD
COUNTY ARTERIAL R/W VARIES

TRACT "A-1"
ALL STREET R/W TYP.

TRACT "B-1"
LANDSCAPE AREA

TRACT "B-1"
OPEN SPACE

TRACT "B-1"
WETLAND CONSERVATION AREA

TRACT "B-1A"
WETLAND CONSERVATION AREA

TRACT "B-2"
WETLAND CONSERVATION AREA

TRACT "B-2"
PARK SITE

TRACT "B-2A"
WETLAND CONSERVATION AREA

TRACT "B-2B"
WETLAND CONSERVATION AREA

TRACT "B-3"
WETLAND CONSERVATION AREA

TRACT "B-4"
(CDD) DRAINAGE AREA

TRACT "B-5"
(CDD) DRAINAGE AREA

TRACT "C-1"
PARK AREA

TRACT "D-1"
COMMERCIAL AREA

TRACT "D-2"
COMMERCIAL AREA

TRACT "Z-1"
LIFT STATION SITE

WCA 1
3.44 AC
Cat III

WCA 2
3.03 AC
Cat III

WCA 3
4.16 AC
Cat III

WCA 4
1.62 AC
Cat III

WCA 5
0.44 AC
Cat III

WCA 7
44.43 AC TOTAL
Cat I

WCA 7
44.28 AC TOTAL
Cat I

WCA 8
Cat III

Wetland Impact 1
3.44 ac.

Wetland Impact 2
3.03 ac.

Wetland Impact 3
0.67 ac.

Wetland Impact 4
1.25 ac.

Wetland Impact 5
0.44 ac.

Wetland Impact 7A
0.16 ac.

Wetland Impact 7A2
0.02 ac.

Wetland Impact 7C
0.62 ac.

Wetland Impact 8
0.07 ac.

PROPOSED POND

PROPOSED 10' TRAIL

5' PROPOSED TRAIL

10' MULTI USE TRAIL

MAIL KIOSK

NEIGHBORHOOD PARK #1
2.64 AC

NEIGHBORHOOD PARK #4 1.34 AC

100'x100' PLAY AREA

TEMPORARY TURNAROUND

FUTURE COMMERCIAL /OFFICE
ZONE X

DRAINAGE ESMT
PARCEL 809.8
ORB 1855, PG 256

CONSERVATION ESMT
ORB 9007, PG 1244

25' DRAINAGE ESMT
PARCEL 809.7
ORB 1855, PG 256

ZONE A

ZONE X

ZONE X
500 YR

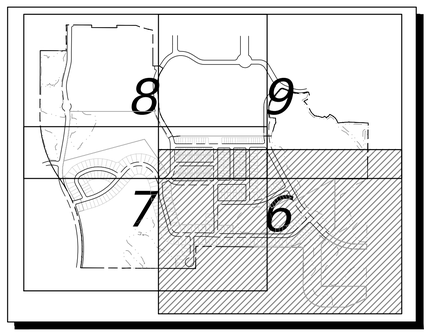
PROPOSED 10' TRAIL THAT EXTENDS FROM SCHOOL PROPERTY THROUGH PROJECT AND TERMINATES AT WELBILT ROAD. THIS TRAIL SHALL HAVE A CANOPY TREE PLANTED ON AN AVERAGE OF EVERY 60 FEET. PARK BENCH SEATING SHALL BE REQUIRED AT QUARTER MILE (MAX.) INCREMENTS ALONG THE TRAIL.

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
10	10	STRUCTURE NO.
+62.9	62.80 65.00	SPOT ELEVATION
63	65.00	PROPOSED PROFILE GRADE ELEVATION
		CONTOUR
	UD UDCO	DIRECTION OF SURFACE FLOW
ZONE A		UNDERDRAIN WITH CLEANOUT
62.0		FEMA FLOOD ZONE BOUNDARY
SWFWL		BASE FLOOD ELEVATION (FT)
25'O.S.		WETLAND LINE
WCA 108 (Ac.) Cat III		25' OFFSET FROM WETLAND LINE
		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROPOSED WETLAND IMPACTS
		PROJECT BOUNDARY
		PEDESTRIAN TRAIL
	000.00 100-YR	100 YEAR BASE FLOOD ELEVATION
		100 YEAR FLOODLINE DETAILED STUDY
10' U.E.		UTILITY EASEMENT
	1	BLOCK NUMBER
		PHASE LINE
		LOT DRAINAGE & ACCESS EASEMENT

200 100 0 100 200

SCALE: 1" = 100'



INDEX OF MAP COVERAGE

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05-14-19	REVISED PER COUNTY COMMENT	JRD
04-01-19	PERMIT PLANS	JRD

REVISIONS

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Office: 813-223-3919 Fax: 813-223-3975

DATE:

BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

PRELIMINARY DEVELOPMENT PLAN

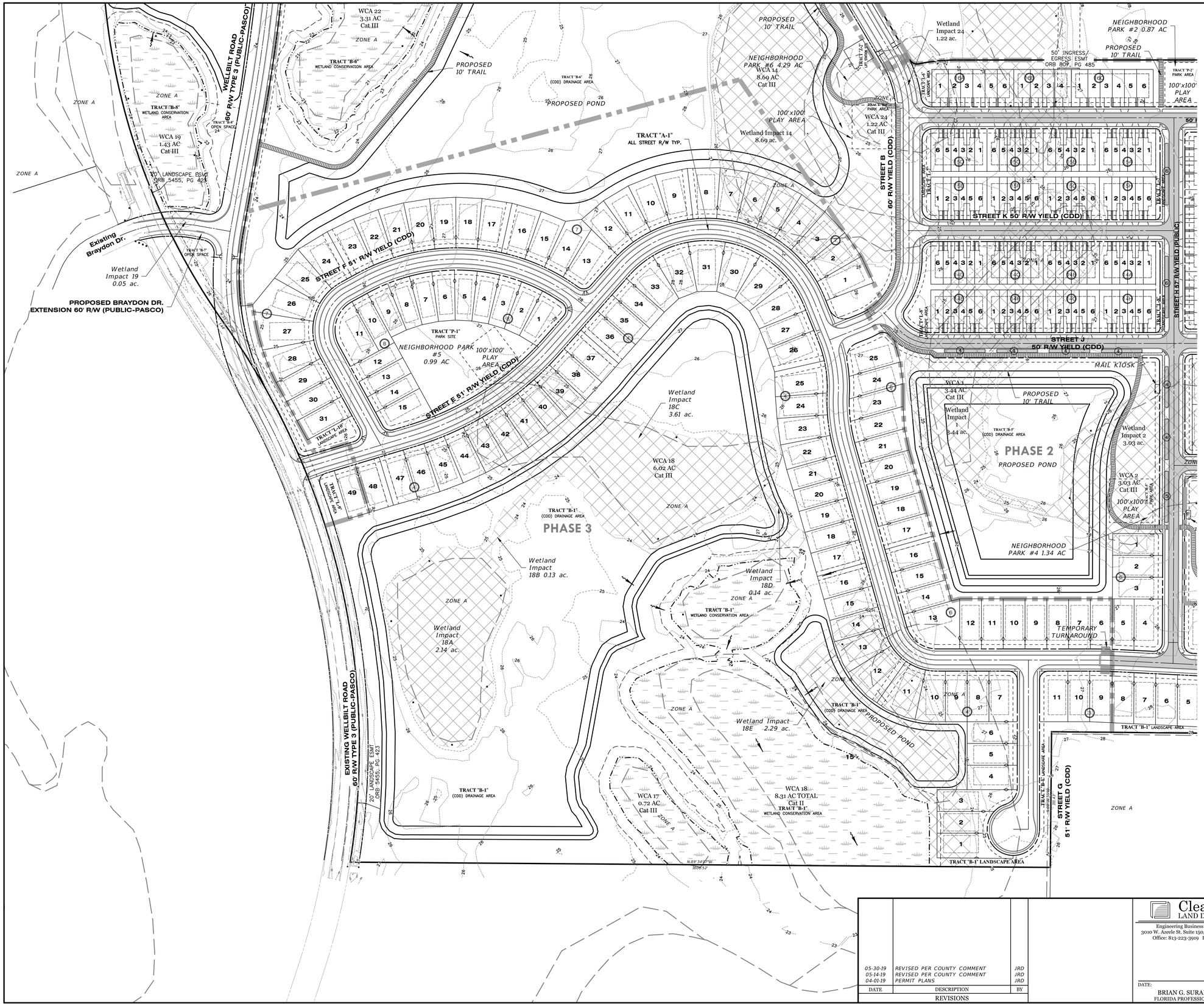
JOB NO.	LNH-MR-011
DESIGN	
DRAWN	
DATE	
FILE	PDP1

MITCHELL RANCH

PREPARED FOR: LENNAR HOMES LLC

Elevations based on North American Vertical Datum 1988 (NAVD 88)
Conversion from NAVD 88 to NGVD 29 = +0.00 Feet

SHEET 6 OF 10 SHEETS

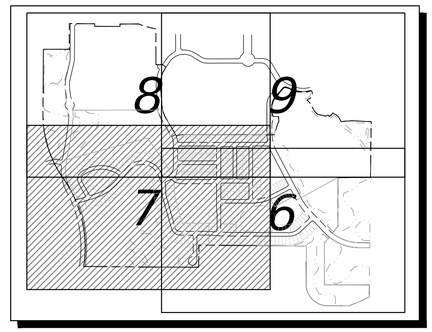


200 100 0 100 200

SCALE: 1" = 100'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIZE IN INCHES
10	10	STRUCTURE NO.
+62.9	65.00	SPOT ELEVATION
	65.00 / 65.00	PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
	UD UDCO	UNDERDRAIN WITH CLEANOUT
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROPOSED WETLAND IMPACTS
		PROJECT BOUNDARY
		PEDESTRIAN TRAIL
	000.00 100-YR	100 YEAR BASE FLOOD ELEVATION
		100 YEAR FLOODLINE DETAILED STUDY
10' U.E.		UTILITY EASEMENT
	1	BLOCK NUMBER
		PHASE LINE
		LOT DRAINAGE & ACCESS EASEMENT



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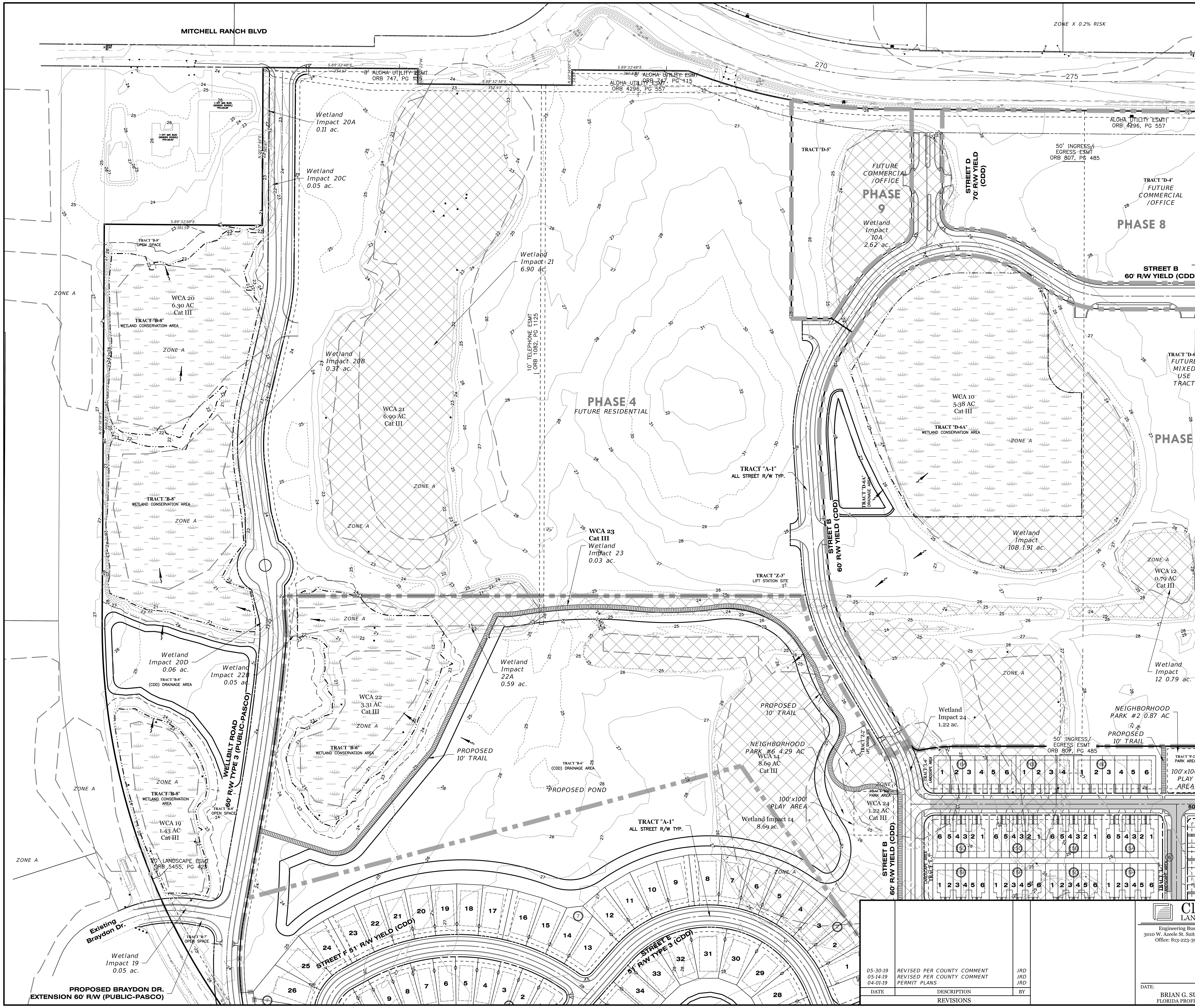
DATE:

BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

PRELIMINARY DEVELOPMENT PLAN

JOB NO. LNH-MR-011	MITCHELL RANCH
DESIGN	
DRAWN	PREPARED FOR: LENNAR HOMES LLC
DATE	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.00 Feet
FILE PDP1	**SHEET 7 OF 10 SHEETS**

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOCS\PDP1.DWG--7 PRELIMINARY DEVELOPMENT PLAN 2019/07/31 7:56 AM BRIAN SURAK

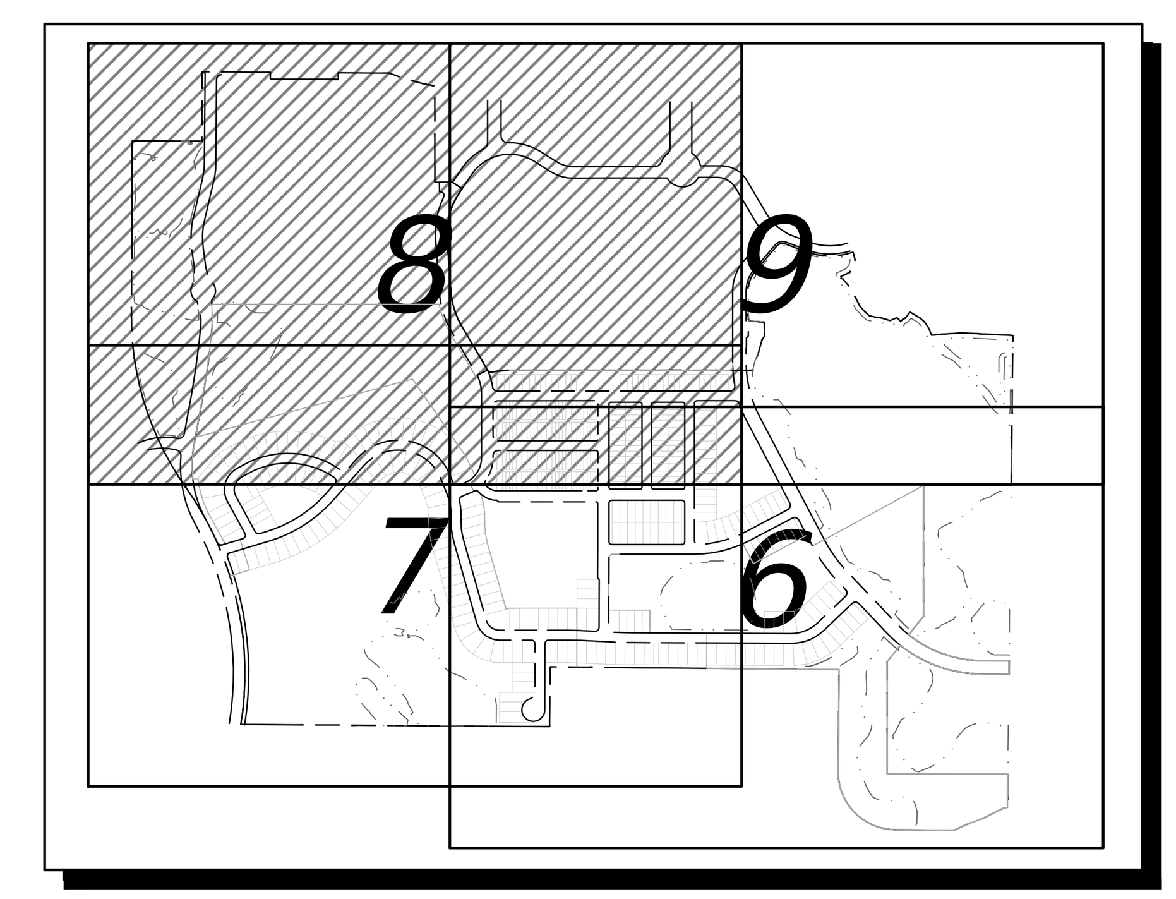


MITCHELL RANCH BLVD
ZONE X 0.2% RISK
8' ALOHA UTILITY ESMT ORB 747, PG 115
ALOHA UTILITY ESMT ORB 4296, PG 557
ALOHA UTILITY ESMT ORB 4296, PG 557
Wetland Impact 20A 0.11 ac.
Wetland Impact 20C 0.05 ac.
Wetland Impact 20B 0.37 ac.
Wetland Impact 21 6.90 ac.
WCA 20 6.30 AC Cat III
TRACT "B-8" WETLAND CONSERVATION AREA
TRACT "B-8" OPEN SPACE
WCA 21 6.90 AC Cat III
10' TELEPHONE ESMT ORB 1082, PG 1125
PHASE 4 FUTURE RESIDENTIAL
TRACT "D-5"
FUTURE COMMERCIAL /OFFICE
PHASE 9
Wetland Impact 10A 2.62 ac.
STREET D 70' R/W YIELD (CDD)
50' INGRESS/ EGRESS ESMT ORB 807, PG 485
TRACT "D-4" FUTURE COMMERCIAL /OFFICE
PHASE 8
STREET B 60' R/W YIELD (CDD)
TRACT "D-6" FUTURE MIXED USE TRACT
WCA 10 5.38 AC Cat III
TRACT "D-6A" WETLAND CONSERVATION AREA
PHASE 1
TRACT "A-1" ALL STREET R/W TYP.
Wetland Impact 10B 1.91 ac.
WCA 23 Cat III
Wetland Impact 23 0.03 ac.
TRACT "Z-3" LIFT STATION SITE
WCA 12 0.79 AC Cat III
Wetland Impact 12 0.79 ac.
ZONE A
Wetland Impact 20D 0.06 ac.
Wetland Impact 22B 0.05 ac.
TRACT "B-8" (CDD) DRAINAGE AREA
Wetland Impact 22A 0.59 ac.
WCA 22 3.31 AC Cat III
TRACT "B-6" WETLAND CONSERVATION AREA
PROPOSED 10' TRAIL
TRACT "B-6" (CDD) DRAINAGE AREA
PROPOSED POND
WELLBILT ROAD 60' R/W TYPE 3 (PUBLIC-PASCO)
WCA 19 1.43 AC Cat III
TRACT "B-5" WETLAND CONSERVATION AREA
10' LANDSCAPE ESMT ORB 5455, PG 425
NEIGHBORHOOD PARK #6 4.29 AC
WCA 14 8.69 AC Cat III
100'x100' PLAY AREA
Wetland Impact 14 8.69 ac.
Wetland Impact 24 1.22 ac.
WCA 24 1.22 AC Cat III
NEIGHBORHOOD PARK #2 0.87 AC
PROPOSED 10' TRAIL
100'x100' PLAY AREA
TRACT "A-1" ALL STREET R/W TYP.
STREET F 51' R/W YIELD (CDD)
STREET E 51' R/W TYPE 3 (CDD)
STREET B 60' R/W YIELD (CDD)
Existing Braydon Dr.
Wetland Impact 19 0.05 ac.
PROPOSED BRAYDON DR. EXTENSION 60' R/W (PUBLIC-PASCO)

SCALE: 1" = 100'

LEGEND

EXISTING	PROPOSED	
		STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
		STRUCTURE NO.
		SPOT ELEVATION
		PROPOSED PROFILE GRADE ELEVATION
		CONTOUR
		DIRECTION OF SURFACE FLOW
		UNDERDRAIN WITH CLEANOUT
ZONE A		FEMA FLOOD ZONE BOUNDARY
62.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25' O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROPOSED WETLAND IMPACTS
		PROJECT BOUNDARY
		PEDESTRIAN TRAIL
		100 YEAR BASE FLOOD ELEVATION
		100 YEAR FLOODLINE DETAILED STUDY
	10' U.E.	UTILITY EASEMENT
		BLOCK NUMBER
		PHASE LINE
		LOT DRAINAGE & ACCESS EASEMENT



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PRELIMINARY DEVELOPMENT PLAN

JOB NO. LNH-MR-011

DESIGN

MITCHELL RANCH

DRAWN

PREPARED FOR: LENNAR HOMES LLC

DATE

Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.00 Feet

FILE PDP1

SHEET 8 OF 10 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWINGS\CONDOC\PDP1.DWG-8 PRELIMINARY DEVELOPMENT PLAN 2019/07/31 7:56 AM BRIAN SURAK

N

200 100 0 100 200

SCALE: 1" = 100'

LEGEND

EXISTING	PROPOSED	
	12	STORM DRAINAGE STRUCTURE & PIPE PIPE SIZE IN INCHES
(10)	(10)	STRUCTURE NO.
+ 62.9	65.00	SPOT ELEVATION
	65.00	PROPOSED PROFILE GRADE ELEVATION
63	65.00	CONTOUR
		DIRECTION OF SURFACE FLOW
UD	UD CO	UNDERDRAIN WITH CLEANOUT
ZONE A		FEMA FLOOD ZONE BOUNDARY
82.0		BASE FLOOD ELEVATION (FT)
SWFWL		WETLAND LINE
25'O.S.		25' OFFSET FROM WETLAND LINE
WCA 108 (Ac.) Cat III		WETLAND CONSERVATION AREA PASCO WETLAND CATEGORY
		WETLAND AREAS
		PROPOSED WETLAND IMPACTS
		PROJECT BOUNDARY
		PEDESTRIAN TRAIL
	000.00 100-YR	100 YEAR BASE FLOOD ELEVATION
		100 YEAR FLOODLINE DETAILED STUDY
10' U.E.		UTILITY EASEMENT
	1	BLOCK NUMBER
		PHASE LINE
		LOT DRAINAGE & ACCESS EASEMENT

INDEX OF MAP COVERAGE

8 9 7 6

STATE ROAD 54

ALOHA UTILITY ESMT ORB 4296, PG 557

TRACT "D-4" FUTURE COMMERCIAL /OFFICE

PHASE 8

STREET C 113' R/W YIELD (CDD)

ACCESS EASEMENT AREA ORB 9724, PG 1694

FUTURE COMMERCIAL /OFFICE

TRACT "D-3" ZONE X 500 YEAR

PHASE 7

WCA 9 4.30 AC TOTAL Cat I

CONSERVATION EASEMENT ORB 9007, PG 1244

RELOCATED FDOT POND

DISTRIBUTION ESMT (BLANKET) ORB 1713, PG 970

STREET B 60' R/W YIELD (CDD)

ACCESS INTERCONNECT TO VILLAGE SHOPPING CENTER CURRENTLY UNDER CONSTRUCTION. THIS ACCESS WILL BE MODIFIED WITH THE IMPLEMENTATION OF THE MITCHELL RANCH PLAN.

VILLAGES OF MITCHELL RANCH (UNDER CONSTRUCTION)

TRACT "B-9" WETLAND CONSERVATION AREA

10' MULTI USE TRAIL (TYP)

ACCESS EASEMENT AREA ORB 9724, PG 1694

TRACT "D-6" FUTURE MIXED USE TRACT

Wetland Impact 9A 0.04 ac.

DETENTION EASEMENT AREA ORB 9724, PG 1694

Wetland Impact 7D 0.55 ac.

PHASE 10

ACCESS EASEMENT AREA ORB 9724, PG 1694

STREET B 43' R/W YIELD (CDD)

TRACT "B-2" WETLAND CONSERVATION AREA

WCA 11 2.91 AC Cat III

ZONE A Wetland Impact 11 2.91 ac.

10' MULTI USE TRAIL (TYP)

ZONE A

WCA 12 0.79 AC Cat III

TRACT "A-1" ALL STREET R/W TYP.

Wetland Impact 12 0.79 ac.

NEIGHBORHOOD PARK #2 0.87 AC

PROPOSED 10' TRAIL

ZONE X 500 YR

Wetland Impact 7G 0.04 ac.

TRACT "B-2" WETLAND CONSERVATION AREA

TRACT "B-2" WETLAND CONSERVATION AREA

ALOHA UTILITY ESMT ORB 4296, PG 557

UTILITY ESMT ORB 5330, PG 637

DRAINAGE ESMT PARCEL 810 ORB 1855, PG 296

DRAINAGE ESMT / PARCEL 810.1 ORB 1855, PG 296

ALOHA UTILITY ESMT ORB 4296, PG 557

ALOHA UTILITY ESMT ORB 4296, PG 557

WCA 15 AC Cat III

DRAINAGE ESMT PARCEL 809.14 ORB 1855, PG 296

EGRESS ESMT ORB 809, PG 485

TRACT "P-2" PARK AREA

100'x100' PLAY AREA

STREET L 50' R/W YIELD (CDD)

CONSERVATION ESMT ORB 9007, PG 1244

NEIGHBORHOOD PARK #3 1.04 AC

WCA 24 1.22 AC Cat III

STREET B 60' R/W YIELD (CDD)

STREET K 50' R/W YIELD (PUBLIC)

STREET H 50' R/W YIELD (PUBLIC)

STREET M 50' R/W YIELD (PUBLIC)

STREET N 50' R/W YIELD (PUBLIC)

ZONE AE BFE 27

TRACT "B-2" PARK SITE

100'x100' PLAY AREA

STREET A 70' R/W TYPE 3 (CDD)

TRACT "B-2" WETLAND CONSERVATION

10' MULTI USE TRAIL

Wetland Impact 7E 0.47 ac.

PROPOSED POND

TRACT "B-2" PARK SITE

TRACT "B-F" CDD) DRAINAGE AREA

DATE	DESCRIPTION	BY
05-30-19	REVISED PER COUNTY COMMENT	JRD
05-14-19	REVISED PER COUNTY COMMENT	JRD
04-01-19	PERMIT PLANS	JRD

REVISIONS

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DATE:
BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

PRELIMINARY DEVELOPMENT PLAN

JOB NO.	LNH-MR-011
DESIGN	
DRAWN	
DATE	
FILE	PDP1

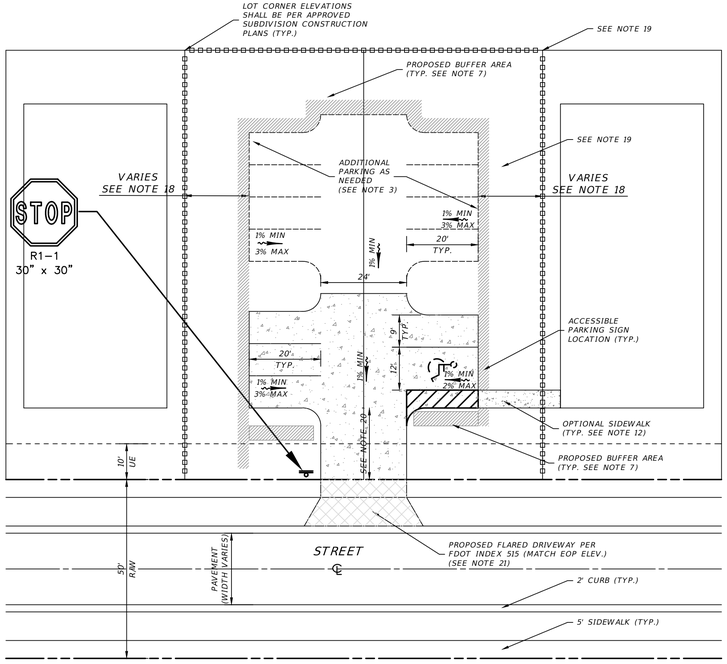
MITCHELL RANCH

PREPARED FOR: LENNAR HOMES LLC

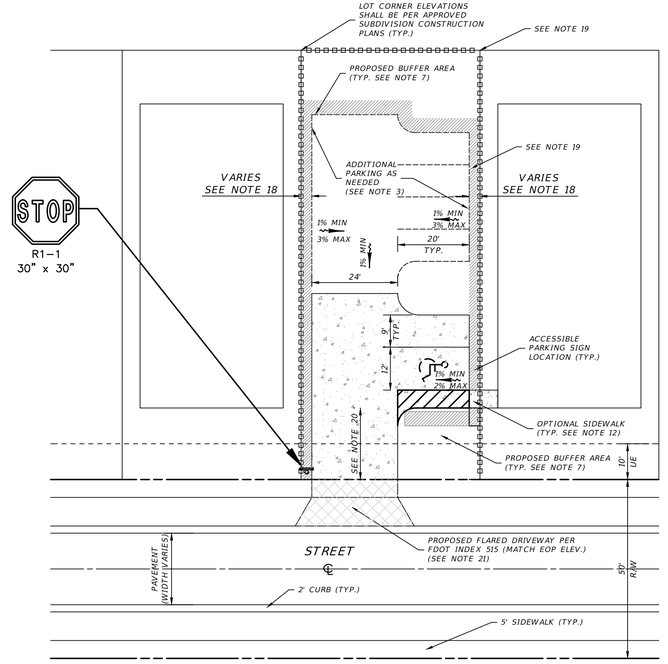
Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.00 Feet

SHEET 9 OF 10 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOCS\PDP1.DWG-9 PRELIMINARY DEVELOPMENT PLAN 2019/07/31 7:57 AM BRIAN SURAK



STANDARD LOT MODEL CENTER GRADING PLAN
DOUBLE LOADED PARKING LOT
SCALE 1"=20'



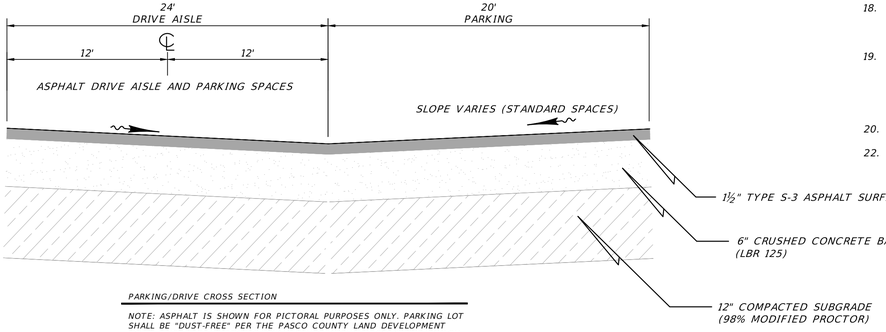
STANDARD LOT MODEL CENTER GRADING PLAN
SINGLE LOADED PARKING LOT
SCALE 1"=20'

ASSUMPTIONS:

1. PARKING LOT LAYOUT ASSUMES AN ARBITRARY NUMBER OF DESIRED PARKING SPACES. IF THE NUMBER OF MODELS PROPOSED REQUIRES FEWER, THE NUMBER MAY BE REDUCED IN ACCORDANCE WITH NOTES AND GRADES MUST BE PRO-RATED ACCORDINGLY. IF MORE SPACES ARE DESIRED OR REQUIRED DUE TO THE NUMBER OF MODELS PROPOSED, THEY MAY BE ADDED IN ACCORDANCE WITH THE LAYOUT SHOWN, WITH GRADES PRO-RATED ACCORDINGLY.
2. IF SLOPE OF ROADWAY FRONTING MODEL CENTER PARKING AREA IS EXTREME (>3% LONGITUDINALLY), PARKING LOT SLOPES MAY NEED TO BE ADJUSTED OUTSIDE OF RANGES RECOMMENDED HEREON. HANDICAP ACCESSIBLE PARKING SPACE MUST STILL MEET APPLICABLE SLOPE CRITERIA.

LEGEND

- 4' HIGH OPAQUE BUFFER
- SIDEWALK TO BE CONSTRUCTED ON A LOT-TO-LOT BASIS WITH MODEL HOMES
- SIDEWALK TO BE CONSTRUCTED WITH PARKING AREA
- PROPOSED PAVED PARKING MINIMUM 1½" ASPHALT (SP-9.5) OR 4" CONCRETE (3000 PSI, FIBER REINFORCED)
- PROPOSED PAVED PARKING 6" CONCRETE (3000 PSI, FIBER REINFORCED)

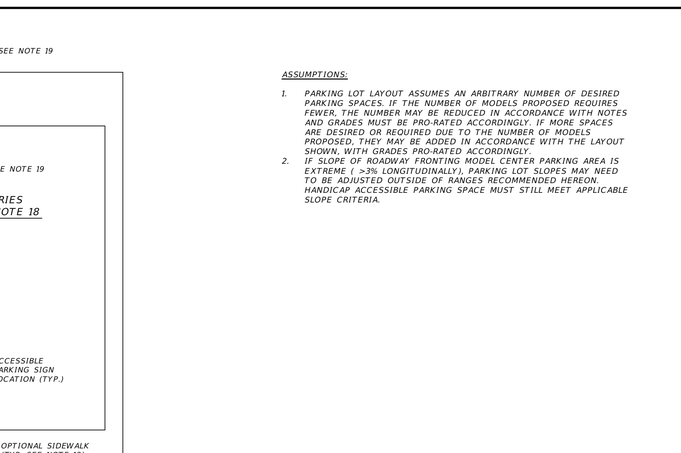


PARKING/DRIVE CROSS SECTION

NOTE: ASPHALT IS SHOWN FOR PICTORAL PURPOSES ONLY. PARKING LOT SHALL BE "DUST-FREE" PER THE PASCO COUNTY LAND DEVELOPMENT CODE. DUST-FREE SURFACES MAY INCLUDE ASPHALT, CONCRETE, MULCH, ASPHALT MILLINGS, OR BRICK PAVERS, EXCEPT THAT HANDICAP PARKING SPACES SHALL BE A HARD, WHEELCHAIR-TRANSVERSABLE SURFACE, SUCH AS CONCRETE, ASPHALT, OR PAVERS.

NOTES:

1. LAND USE DESIGNATION: PD ZONING: MPUD
2. PARKING SHALL BE PROVIDED AT A MINIMUM RATE OF 1 PARKING SPACE PER 2,500 SQUARE FEET OF MODEL HOME.
3. A MINIMUM OF 1 HANDICAP PARKING SPACE WITH ACCESS AISLE SHALL BE PROVIDED. IT SHALL BE CONSTRUCTED PER THE DETAIL "B" THIS SHEET AND SHALL BE CLEARLY MARKED WITH SIGNAGE AND PAVEMENT MARKING AS REQUIRED.
4. PARKING AREAS SHALL BE GRADED FOR PROPER DRAINAGE AND BE MAINTAINED IN A DUST-FREE CONDITION. PARKING SHALL BE ARRANGED TO PROVIDE FOR ORDERLY AND SAFE ACCESS.
5. SIDEWALKS REQUIRED BY THE MODEL CENTER PLANS SHALL BE INSTALLED PRIOR TO ISSUANCE OF A TEMPORARY CERTIFICATE OF OCCUPANCY FOR THE FIRST MODEL CENTER HOME.
6. SEWAGE SHALL BE CONNECTED TO THE PASCO SEWER SYSTEM. POTABLE WATER, SEWAGE, FIRE SERVICE AND ELECTRICAL WILL BE SUPPLIED BY THE UTILITY INFRASTRUCTURE. REFER TO CONSTRUCTION PLANS FOR LOCATIONS AND DETAILS.
7. PROPOSED BUFFERING OF PARKING FROM NON-MODEL CENTER AREAS SHALL BE 5' WIDE AND SHALL BE A PLANTING REACHING 4' HEIGHT AND 100% OPACITY. NOTE THAT ADDITIONAL BUFFERING MAY BE REQUIRED BEYOND THAT WHICH IS DEPICTED HEREON DEPENDING ON LOCATION OF ADJACENT NON-MODEL CENTER AREAS.
8. EROSION CONTROL FOR MODEL HOME LOTS SHALL BE PROPOSED BY AND INSTALLED BY HOME BUILDERS AS PART OF THE INDIVIDUAL BUILDING PERMITS.
9. THE PADS SHOWN HEREON ARE INTENDED TO INDICATE THE MAXIMUM BUILDING ENVELOPE THAT THE LOT WILL ACCOMMODATE AT MINIMUM SETBACKS. ACTUAL HOUSE FOOTPRINTS WILL BE DIFFERENT, BUT SHALL FIT WITHIN THESE MAXIMUM BUILDING ENVELOPES.
10. LIGHTING SHALL BE DESIGNED TO AVOID SPILL-OVER TO ADJOINING RESIDENCES AND THE PUBLIC RIGHT-OF-WAY.
11. CONCRETE PAVEMENT USED AS ACCESSIBLE PARKING ACCESS AISLES AND CONCRETE APRON FROM EDGE OF PAVEMENT IN RIGHT-OF-WAY SHALL BE 6" THICK, 3000 PSI CONCRETE.
12. THE SIDEWALKS SHOWN HEREON ARE INTENDED TO INDICATE THAT AN ADA ACCESSIBLE TRAVERSABLE PATH WILL BE ACCOMMODATED FOR ACCESS TO THE PROPOSED BUILDINGS. ACTUAL SIDEWALK ALIGNMENT COULD BE DIFFERENT. ONSITE SIDEWALKS ARE OPTIONAL; BUILDER MIGHT OPT TO CONNECT DIRECTLY TO SIDEWALK WITHIN THE LOCAL STREETS. SIDEWALK GRADING AND/OR ALIGNMENT MAY NEED TO BE FIELD ADJUSTED TO MEET ADA SLOPE CRITERIA (LONGITUDINAL SLOPE MAY NOT EXCEED 5% WITHOUT HANDRAILS AND CROSS-SLOPE SHALL NOT EXCEED 2%).
13. SELECT THE APPROPRIATE PARKING LOT GRADING PLAN BASED UPON THE SELECTED LOT SIZE AND PARKING CONFIGURATION. A SINGLE-LOADED PARKING LOT HAS A MINIMUM WIDTH OF 44 FEET (20' STALL PLUS 24' DRIVE AISLE), AND A DOUBLE-LOADED PARKING LOT HAS A MINIMUM WIDTH OF 64 FEET (TWO 20' STALLS PLUS A 24' DRIVE AISLE), SO PARKING LOTS MIGHT OCCUPY 2 LOTS DEPENDING ON LOT WIDTH AND DESIRED CONFIGURATION.
14. THE MINIMUM WIDTH OF LOT THAT CAN ACCOMMODATE A SINGLE-LOADED PARKING LOT ON A SINGLE LOT IS 50 FEET.
15. THE MINIMUM WIDTH LOT THAT CAN ACCOMMODATE A DOUBLE-LOADED PARKING LOT ON A SINGLE LOT IS 70 FEET.
16. PERIMETER LOT GRADES AND ADJACENT LOT PAD GRADES SHALL BE AS SHOWN ON THE APPROVED SUBDIVISION CONSTRUCTION PLANS.
17. DISTANCE BETWEEN EDGE OF PARKING LOT AND LOT LINE VARIES. THE MINIMUM DISTANCE IS 3 FEET.
18. PARKING LOT EDGE OF PAVEMENT ELEVATION GUIDELINES: (A) PARKING LOT EDGE OF PAVEMENT ELEVATIONS SHALL, AT A MINIMUM, BE 0.10 FEET ABOVE THE BOTTOM ELEVATION OF THE ADJACENT SIDE YARD SWALE; (B) PARKING LOT EDGE OF PAVEMENT ELEVATIONS SHALL NOT EXCEED AN ELEVATION THAT CAUSES THE SLOPE BETWEEN THE EDGE OF PAVEMENT AND THE BOTTOM OF THE SIDE YARD SWALE TO BE STEEPER THAN 1.5 VERTICAL -TO- 1.0 HORIZONTAL.
19. DRIVEWAY THROAT GRADING GUIDELINES: THE LONGITUDINAL PARKING LOT SLOPE (ALONG THE INVERT OF THE INVERTED CROWN SECTION) SHALL GENERALLY BE 1%. HOWEVER, THE 20-FOOT THROAT FROM RIGHT-OF-WAY TO FIRST PARKING STALL, SHALL BE ADJUSTED SUCH THAT THE GRADE MATCHES THAT OF AN FDOT-STANDARD FLARED TURN-OUT PER INDEX 515. THE SLOPE OF THE THROAT SHALL NOT EXCEED 9%, AND CARE SHALL BE TAKEN NOT TO EXCEED A SLOPE OF 2% IN ANY DIRECTION IN THE ADJACENT HANDICAP AISLE. FURTHER, THROUGH THE 20-FOOT THROAT, THE PAVEMENT SHALL TRANSITION FROM INVERTED CROWN TO SLANTED IN THE DIRECTION OF AND AT THE EQUIVALENT SLOPE OF THE ROADWAY.
20. THE FLARED DRIVEWAY TURNOUT SHALL BE PER FDOT INDEX 515 AND SHALL GENERALLY FOLLOW THE GRADING PROFILE FOR "SIDEWALK WITH UTILITY STRIP ON 0.02 SLOPE."
22. GRADING OF THE PARKING LOT AREA SHALL BE PER THE SUBDIVISION CONSTRUCTION PLANS WHEN THE LOT IS CONVERTED TO A HOME SITE



LAST REVISION 07/01/09	DESCRIPTION:	FDOT 2015 DESIGN STANDARDS	SPECIAL MARKING AREAS	INDEX NO. 17346	SHEET NO. 12 of 14

NOTES:

1. ACCESS AISLE AND PARKING SPACE TO BE STRIPED AND MARKED PER FDOT INDEX 17346.
2. REFER TO SECT. 11-4.6 OF THE FLORIDA BUILDING CODE FOR PARKING AND PASSENGER LOADING ZONES.
3. REFER TO SECT. 4.6.2. OF THE FLORIDA BUILDING CODE FOR LOCATION. "ACCESSIBLE PARKING SPACES SERVING A PARTICULAR BUILDING SHALL BE LOCATED ON THE SHORTEST SAFELY ACCESSIBLE ROUTE OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE ENTRANCE".
4. STANDARD SPACES 9' X 20'. HANDICAP SPACE 12' X 20'.
5. RECOMMENDED ACCESSIBLE PARKING SPACE DESIGN IS GENERALIZED AND IS INCLUDED HEREIN FOR INFORMATIONAL PURPOSES. THE SPECIFIC CONFIGURATION FOR THIS PROJECT VARIES FROM IT IN THAT THE ACCESS AISLE IS INCORPORATED INTO THE ADJACENT SIDEWALK. ALL STRIPING AND DIMENSIONAL SPECIFICATIONS ON THIS DETAIL STILL APPLY.

DATE	DESCRIPTION	BY
05-30-19	REVISED PER COUNTY COMMENT	JRD
05-14-19	REVISED PER COUNTY COMMENT	JRD
04-01-19	PERMIT PLANS	JRD

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Office: 813-223-3919 Fax: 813-223-3975

DATE:
BRIAN G. SURAK NO. 59064
FLORIDA PROFESSIONAL ENGINEER

MODEL PARKING LOT DETAIL

JOB NO. LNH-MR-011	MITCHELL RANCH
DESIGN SURAK	
DRAWN DROOR	PREPARED FOR: LENNAR HOMES LLC
DATE 03-01-2019	Elevations based on North American Vertical Datum 1988 (NAVD 88) Conversion from NAVD 88 to NGVD 29 = +0.00 Feet
FILE MODEL PARKING	SHEET 10 OF 10 SHEETS

P:\MITCHELL RANCH\MITCHELL RANCH WEST\DRAWING\CONDOC\MODEL PARKING.DWG--10 MODEL PARKING LOT DETAIL 2019/07/31 7:57 AM BRIAN SURAK