# SITE CONSTRUCTION PLANS

FOR:

# DWELL AT MAITLAND

## NORTHWEST CORNER OF MAITLAND SUMMIT BOULEVARD AND SUMMIT PARK DRIVE

*PARCEL ID #:*
*27-21-29-8420-00-010*

PREPARED FOR:

THE KLEIN COMPANY
C/O CLAY CHANDLER
1735 MARKET STREET, SUITE 4010
PHILADELPHIA, PA 19103

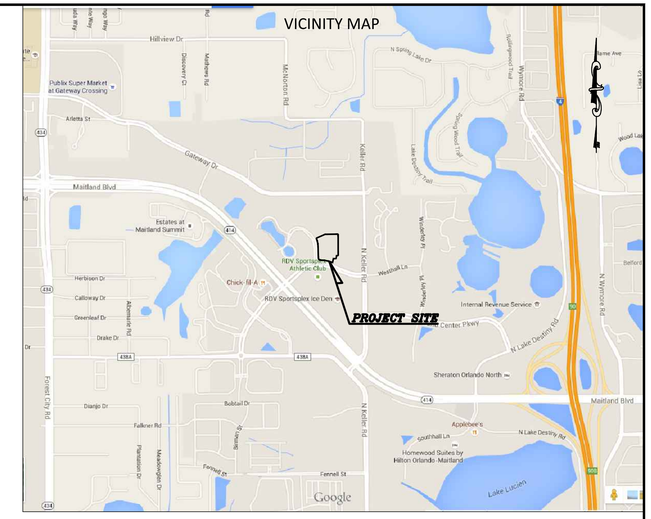
PREPARED BY:

KELLY, COLLINS & GENTRY, INC.
ENGINEERING • PLANNING

1700 NORTH ORANGE AVENUE
SUITE 400
ORLANDO, FLORIDA 32804
PHONE (407) 898-7858
FAX (407) 898-1488

SECTION 27 TOWNSHIP 21 SOUTH, RANGE 29 EAST, ORANGE COUNTY, FLORIDA

VICINITY MAP




SCALE: 1"=2000'

DWELL AT MAITLAND
CITY OF MAITLAND, FL

### PARCEL DESCRIPTION

*A PORTION OF LOT 1. SUMMIT PHASE III ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 36, PAGE 118 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA BEING DESCRIBED AS FOLLOWS:*

*COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 1, AS A POINT OF REFERENCE: THENCE RUN S 89°49'52" W, ALONG THE NORTH LINE THEREOF, 418.15 FEET TO THE POINT OF BEGINNING; THENCE RUN S 00°00'00"E, 359.51 FEET: THENCE RUN N 90°00'00"W, 26.58 FEET: THENCE RUN S 10°22'56" W, 49.72 FEET: THENCE RUN 90°00'00" W, 42.85 FEET; THENCE RUN S 13°47'48" W, 67.46 FEET TO THE NORTH RIGHT OF WAY LINE OF MAITLAND SUMMIT BOULEVARD, SAID LINE BEING A CURVE CONCAVE TO THE SOUTH; THENCE RUN WESTERLY ALONG SAID NORTH LINE AND CURVE HAVING CENTRAL ANGLE OF 20°28'04", A RADIUS OF 576.00 FEET, AN ARC LENGTH OF 205.6 FEET, A CHORD BEARING OF N 78°28'17" W NORTHWESTERLY ALONG SAID CURVE HAVING A CENTRAL ANGLE OF 87°33'46", A RADIUS OF 38.00 FEET. AN ARC LENGTH WAY UNE OF SUMMIT PARK DRIVE; THENCE RUN N 01°08'33"W, ALONG SAID EAST LINE 184.11 FEET TO A CURVE CONCAVE TO THE WEST; THENCE RUN NORTHERLY ALONG SAID EAST LINE AND CURVE HAVING A CENTRAL ANGLE OF 22°02'07", A RADIUS OF 389.06 FEET, AN ARC LENGTH OF 149.63 FEET, A CHORD BEARING OF N 12°09'36" W AND A CHORD DISTANCE OF 148.71 FEET TO THE AFORESAID NORTH LINE OF LOT 1: THENCE RUN N 66°49'09 E, ALONG SAID NORTH LINE, 166.96 FEET: THENCE RUN N 89°49'52" E, CONTINUING ALONG SAID NORTH LINE, 213.66 FEET TO THE POINT OF BEGINNING.*

**NOTE:**
PARCEL DESCRIPTION PROVIDED BY SURVEYOR.

### GENERAL/MISCELLANEOUS

| | |
|---|---|
| EXISTING USE: | VACANT/RESIDENTIAL |
| EXISTING VEGITATION | CLEARED |
| PROPOSED USE: | MULTI-FAMILY RESIDENTIAL |
| ZONING: | PD-NON |
| GATED COMMUNITY: | NO |

### SITE DATA

| | |
|---|---|
| TOTAL PROJECT AREA: | 3.27 AC |
| WETLANDS TO REMAIN: | 0.00 AC |
| WETLANDS TO REMOVE: | 0.00 AC |
| STORMWATER MANAGEMENT AREA:* | 0.00 AC |
| *STORMWATER MANAGEMENT PROVIDED OFFSITE. | |
| TOTAL UNITS: | 81 UNITS |
| DENSITY | 24.77 UNITS / AC |
| BUILDING SETBACKS (MINIMUMS) | |
| SUMMIT PARK ROAD: | 25' |
| MAITLAND SUMMIT BOULEVARD: | 25' |
| EAST PD BOUNDARY: | 10' |
| NORTH PD BOUNDARY: | 10' |
| PERMEABLE SURFACE COVERAGE: | |
| MINIMUM REQUIRED: | 30% |
| PROVIDED: | 30% |
| NOTE: | |
| PERMEABLE SURFACE AREA INCLUDES GRASS AND LANDSCAPE AREAS ONLY. | |
| FLOOR AREA RATIO (FAR): | |
| MAXIMUM PERMITTED: | 35% |
| PROVIDED: | 17% |

### PHASING

PROJECT WILL BE DEVELOPED IN ONE PHASE.

### SANITATION

TRASH AND RECYCLING TO BE COLLECTED INTERIOR TO THE BUILDING VIA CHUTES TO RECEPTACLES WITHIN A TRASH ROOM. RECEPTACLES TO BE WHEELED OUT OF A BUILDING FOR COLLECTION AS NECESSARY.

### BUILDING CRITERIA (BUILDING 100)

| | |
|---|---|
| MAXIMUM BUILDING HEIGHT: | 50' |
| MINIMUM LIVING AREA: | 650 SF |

**BUILDING SUMMARY**

| UNIT TYPES | BEDROOMS | LIVING AREA (SF) | NO. OF UNITS | TOTAL LIVING AREA (SF) |
|---|---|---|---|---|
| UNIT SA1 | 1 | 729 | 28 | 20,412 |
| UNIT B4 | 2 | 1,050 | 19 | 19,950 |
| UNIT B4A | 2 | 1,103 | 8 | 8,824 |
| UNIT B5 | 2 | 1,161 | 20 | 23,220 |
| UNIT B6 | 2 | 1,155 | 3 | 3,465 |
| UNIT B7 | 1 | 1,019 | 3 | 3,057 |
| TOTAL | | | 81 | 78,928 |

**PARKING SUMMARY**

| BUILDING 100 | SPACES | | |
|---|---|---|---|
| | REQUIRED | | PROVIDED |
| RESIDENT PARKING | 2 SPACES PER UNIT | 162 | 162 |
| LOADING | 50-100 UNITS | 2 | 2 |

**OPEN SPACE**

| LAND USE | DEVELOPABLE LAND AREA (AC.) | OPEN SPACE REQUIRED[3] | PROVIDED | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | | | CATEGORY A | | CATEGORY B[2] | | CATEGORY C[2] | |
| | | | PUBLIC PARK & | BUFFER/OPEN TRACTS | ORMWAT | LAKES | WETLANDS | |
| MULTIFAMILY RESIDENTIAL | 3.27 | 0.82 | 0.00 | 0.97 | 0.00 | 0 | 0 | |
| | | PROVIDED SUBTOTAL = | 0.97 | | 0.00 | | 0 | 0.97 |
| OPEN SPACE PROVIDED ADJUSTED PER 38-1234 | | B & C MAX 50% (EACH) OF TOTAL[2] = | | | 0.00 | | 0 | |
| | | B + C MAX 75% OF TOTAL[2] = | | | 0.00 | | | |
| | | ***OPEN SPACE PROVIDED (ADJUSTED)*** | 0.97 | | 0.00 | | | ***0.97*** |

1. **Per 38-1234 (3) [General PD Code] Open Space:** Open Space maybe provided within Categories A(Parks, Greenbelts, Buffers), B(Stormwater Amenities and Natural Lakes), and C(Wetland areas)
2. Categories B and C may only account for 50% of the required open space individually and shall not combine to account for more than 75% of the required open space
3. Required Open Space is calculated as 25% of the Developable Area per Sec. 38-1234 (3)a.2.

### DEVELOPMENT TEAM:

**OWNER / DEVELOPER**
*THE KLEIN COMPANY*
*C/O CLAY CHANDLER*
*1735 MARKET STREET, SUITE 4010*
*PHILADELPHIA, PA 19103*

**ENGINEER**
*KELLY, COLLINS & GENTRY, INC.*
*1700 NORTH ORANGE AVENUE, SUITE 400*
*ORLANDO, FLORIDA 32804*
*PHONE: (407) 898-7858*
*FAX: (407) 898-1488*

**LANDSCAPE ARCHITECT**
*LAND RESOURCE DESIGN GROUP*
*2929 WADSWORTH AVENUE*
*ORLANDO, FLORIDA 32806*
*PHONE: (407) 730-5774*

**ARCHITECT**
*SLOCUM PLATTS ARCHITECTS*
*670 N. ORLANDO AVE SUITE 1001*
*MAITLAND, FL 32741*
*PHONE: (407) 645-3019*

**TRAFFIC ENGINEER**
*TRAFFIC PLANNING & DESIGN*
*535 VERSAILLES DRIVE*
*MAITLAND, FL 32751*

**ENVIRONMENTAL CONSULTANT**
*BIOTECH CONSULTING, INC*
*2002 EAST ROBINSON STREET*
*ORLANDO, FL 32803*

**SURVEYOR**
*JONES, WOOD & GENTRY, INC.*
*2800 E ROBINSON STREET*
*ORLANDO, FL 32803*
*PHONE: (407) 898-7780*
*FAX: (407) 351-9691*

### UTILITIES:

**WATER**
*ORANGE COUNTY UTILITIES*
*9150 CURRYFORD RD*
*ORLANDO, FL 32825*
*DAN BROOME, PE*
*PHONE: (407) 254-9912*

**CABLE**
*BRIGHT HOUSE NETWORKS*
*3767 ALL AMERICAN BLVD*
*ORLANDO, FL 32810*
*MARVIN USRY JR*
*PHONE: (407) 532-8509*

**TELEPHONE**
*CENTURYLINK*
*33 N. MAIN ST.*
*WINTER GARDEN, FL 34787*
*JEFF GRIFFIN*
*PHONE: (407) 814-5344*

**SEWER & RECLAIM**
*ORANGE COUNTY UTILITIES*
*9150 CURRYFORD RD*
*ORLANDO, FL 32825*
*DAN BROOME, PE*
*PHONE: (407) 254-9912*

**NATURAL GAS**
*TECO PEOPLES GAS - ORLANDO*
*600 W ROBINSON ST*
*ORLANDO, FL 32801*
*J.J. MORRIS*
*PHONE: (407) 420-6649*

*BRIGHT HOUSE NETWORKS*
*3767 ALL AMERICAN BLVD*
*ORLANDO, FL 32810*
*MARVIN USRY JR*
*PHONE: (407) 532-8509*

SHEET INDEX


| SHEET TITLE | SHEET NO. |
|---|---|
| COVER SHEET | C-1.0 |
| GENERAL NOTES | GN-1.0 |
| BOUNDARY AND TOPOGRAPHIC SURVEY | 1 OF 1 |
| EROSION CONTROL & DEMOLITION PLAN | EC-1.0 |
| DIMENSION PLAN | C-2.0 |
| PAVING, GRADING, & DRAINAGE PLAN | C-3.0 |
| UTILITY PLAN | C-4.0 |
| SITE DETAILS | C-5.0 |
| UTILITY DETAILS | C-6.0 TO C-6.1 |
| SOLID WASTE AND RECYCLING PLAN | C-7.0 |
| LANDSCAPE & IRRIGATION PLANS | LA-00 IRD.02 |
| SITE ELECTRICAL & PHOTOMETRIC PLANS | E0.1 TO E5.2 |


FOR REVIEW ONLY
EXPIRES DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NUMBER EB0000222
GARTH R. RITTER
LICENSE No. 79364
STATE OF FLORIDA
PROFESSIONAL ENGINEER
GARTH R. RITTER, P.E.
FLORIDA REGISTRATION 79364
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

REVISIONS:

| DATE | DESCRIPTION |
|---|---|
| | |

| | |
|---|---|
| DRAWN: | BMR |
| DESIGN: | GRR |
| CHECKED: | SCF |
| JOB NO.: | 1109.000 |
| DATE: | 12/11/2015 |

SHEET
C-1.0

## GENERAL NOTES:

1. GENERAL:
   A. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE OF LATEST REVISION.

   B. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE APPROVED PLANS, APPROVED REVISIONS AND SPECIFICATIONS CONTAINED HEREIN AND/OR OTHERWISE REQUIRED BY APPLICABLE FEDERAL, STATE AND LOCAL CODES, ORDINANCES, AND REGULATIONS. IN THE EVENT OF A CONFLICT BETWEEN THE REQUIREMENTS, THE MOST STRINGENT SHALL APPLY AS DETERMINED BY THE OWNER'S REPRESENTATIVE.

   C. CONTRACTOR SHALL COMPLY WITH ALL PERMIT CONDITIONS DURING CONSTRUCTION.

2. MATERIALS: ALL MATERIALS PROVIDED SHALL MEET THE MOST STRINGENT APPLICABLE SPCIFICATION INCLUDING BUT NOT LIMITED TO CITY OR COUNTY, FDOT, UTILITY COMPANY, GEOTECHNICAL REPORT, FDEP, AND/OR AS REQUIRED BY OWNER.

3. INSTALLATION: ALL INSTALLATIONS SHALL MEET THE MOST STRINGENT APPLICABLE SPCIFICATION INCLUDING BUT NOT LIMITED TO CITY OR COUNTY, FDOT, UTILITY COMPANY, GEOTECHNICAL REPORT, FDEP, AND/OR AS REQUIRED BY OWNER.

4. INSPECTIONS AND TESTING:
   A. TESTING OF MATERIALS AND INSTALLATION SHALL BE PROVIDED BY THE OWNER RETAINED TESTING COMPANY. CONTRACTOR TO COORDINATE CLOSELY WITH TESTING COMPANY AND OWNER.

   B. CONTRACTOR IS RESPONSIBLE TO PERFORM ALL TESTING AS REQUIRED BY CITY OR COUNTY, UTILITY COMPANY, AND FDEP.

   C. TEST RESULTS SHALL BE SUPPLIED BY CONTRACTOR UPON REQUEST.

   D. MATERIALS TESTING RESULTS SHALL BE SUPPLIED BY CONTRACTOR UPON REQUEST.

5. SHOP DRAWINGS: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO RESPECTIVE GOVERNING AGENCIES AND KCG FOR REVIEW PRIOR TO PURCHASES AND FIELD INSTALLATION.

6. NOTIFICATIONS:
   A. PRIOR TO CONSTRUCTION: CONTRACTOR SHALL NOTIFY ENGINEER AND APPROPRIATE AGENCIES AT LEAST 3 WORKING DAYS PRIOR TO CONSTRUCTION AND SUPPLY THEM WITH THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED CONSTRUCTION SCHEDULE, ALL REQUIRED SHOP DRAWINGS, AND OTHER INFORMATION AS REQUIRED. ANY WORK PERFORMED PRIOR TO NOTIFYING THE ENGINEER MAY BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.

   B. DISCREPANCIES: CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS, KCG SPECIFICATIONS, CITY OR COUNTY SPECIFICATIONS, FDOT SPECIFICATIONS, ARCHITECTURAL PLANS, GEOTECHNICAL REPORT, AND/OR FIELD CONDITIONS PRIOR TO CONSTRUCTION.

   C. RIGHT OF WAY: CONTRACTOR SHALL NOTIFY THE CITY, COUNTY, OR FDOT OFFICE 48 HOURS PRIOR TO ANY WORK WITHIN THEIR RESPECTIVE RIGHT OF WAY.

7. BUILDING SPECIFIC INFORMATION:
   A. ARCHITECTURAL PLANS: CONTRACTOR SHALL REFER TO LATEST ARCHITECTURAL PLANS ISSUED BY ARCHITECT FOR BUILDING SPECIFIC INFORMATION (E.G. LAYOUT, ROOF DOWNSPOUT LOCATIONS, UTILITY SERVICE LOCATIONS, FOUNDATION DESIGN, ETC.).

   B. PLAN COORDINATION: CONTRACTOR SHALL COORDINATE BUILDINGS FROM ARCHITECTURAL PLANS WITH BUILDING OFFSETS AS SHOWN ON ENGINEERING PLAN TO ENSURE THAT THEY CAN BE CONSTRUCTED AS SHOWN. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.

   C. PROPOSED LOCATIONS: LOCATIONS OF THE PROPOSED BUILDING SHOWN ON THIS PLAN ARE MEANT AS A REFERENCE FOR CONSTRUCTING SITE IMPROVEMENTS. THE ACTUAL LOCATIONS AND DIMENSIONS OF PROPOSED BUILDING IMPROVEMENTS SHALL BE DETERMINED FROM THE ARCHITECTURAL PLANS AND FIELD LOCATED BY A SURVEYOR RETAINED BY THE CONTRACTOR.

   D. FOUNDATION DESIGN: CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR FOUNDATION DESIGN.

8. GEOTECHNICAL INVESTIGATION REPORT: CAN BE OBTAINED FROM THE OWNER AND/OR GEOTECHNICAL ENGINEER AS LISTED ON THE PLANS.

9. SITE LAYOUT:
   A. DIMENSIONS SHOWN ARE MEASURED TO/FROM THE FACE OF CURB, PROPERTY LINE, PROPERTY CORNER, OR FACE OF BUILDING.

   B. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE DIMENSION BASELINE AND OFFSETS PROVIDED ON THIS SHEET. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL (INCLUDING MINIMUM BUILDING SETBACKS) PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS.

   C. CONTRACTOR SHALL HAVE SURVEYOR SET/LOCATE THE PROPERTY CORNERS AND BENCHMARKS PRIOR TO CONSTRUCTION.

   D. ALL LIGHT POLES AND STRUCTURES SHALL BE LOCATED IN FIELD BY SURVEYOR RETAINED BY CONTRACTOR.

10. FENCING: FENCING MATERIALS AND INSTALLATION SHALL BE PER FDOT SPECIFICATIONS AND/OR AS REQUIRED BY OWNER.

11. PAVEMENT MARKINGS:
    A. ALL PAVEMENT MARKINGS SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, MANUAL OF UNIFORM CONTROL DEVICES, AND LOCAL CODE.

    B. ALL TRAFFIC ARROWS, STOP BARS, AND STRIPING SHALL BE THERMOPLASTIC. MATERIAL CERTIFICATION SHALL BE REQUIRED FOR ALL PAINT AND THERMOPLASTIC STATING SAID MATERIALS DO NOT CONTAIN LEAD.

12. TRAFFIC SIGNS AND EQUIPMENT:
    A. PERMANENT TRAFFIC SIGNS, THEIR SUPPORTS, ASSOCIATED HARDWARE, AND REFLECTIVE SHEETING SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE FDOT ROADWAY AND TRAFFICE DESIGN STANDARDS, MANUAL OF UNIFORM CONTROL DEVICES, AND LOCAL CODE.

    B. CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ANY TRAFFIC EQUIPMENT, INCLUDING BUT NOT LIMITED TO, FIBER, LOOP SENSORS, PULL BOXES, CONDUIT, TRAFFIC SIGNALS, AND CABINETS. ANY ITEMS DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UNLESS OTHERWISE AGREED UPON BY THE STATE AND/OR LOCAL ENGINEER.

13. MAINTENANCE OF TRAFFIC:
    A. REFER TO FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX NO. 602 FOR MAINTENANCE OF TRAFFICE.

    B. MAINTENANCE OF TRAFFIC SETUP SHALL BE SUPERVISED BY A CERTIFIED MAINTENANCE OF TRAFFIC INDIVIDUAL.

## PAVING, GRADING, AND DRAINAGE NOTES:

1. SURVEY: TOPOGRAPHIC INFORMATION, BOUNDARY INFORMATION, AND VERTICAL CONTROL PROVIDED WITHIN THESE CONSTRUCTION PLANS ARE TAKEN FROM A SURVEY BY THE SURVEYOR LISTED ON THE PLANS AND CAN BE OBTAINED FROM OWNER.

2. GENERAL:
   A. THE MOST STRINGENT OF SPECIFICATIONS AND REQUIREMENTS MENTIONED HEREIN SHALL BE ADHERED TO. CONTRACTOR IS RESPONSIBLE FOR ATTAINING COPIES OF LATEST SPECIFICATIONS AND REPORTS.

   B. CONTRACTOR SHALL RETAIN A COPY OF THE LOCAL JURISDICTIONAL, WATER MANAGEMENT DISTRICT, AND ANY OTHER RELATED PERMITS ON-SITE AT ALL TIMES AND SHALL ADHERE TO BOTH GENERAL CONDITIONS AND SPECIFIC CONDITIONS OF THE RESPECTIVE PERMITS AND APPLICATIONS.

   C. CONSTRUCTION SEQUENCE SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATIONS OF EVERY KIND, INCLUDING SPRINKLERS, SHALL BE PLACED BENEATH THE PAVEMENT AND ITS EDGES AND SHALL BE TESTED OR INSPECTED PRIOR TO THE CONSTRUCTION OF THE PAVEMENT. THE PAVEMENT SHALL NOT BE CUT WITHOUT PRIOR APPROVAL OF ENGINEER AND OWNER.

3. MATERIALS: ALL MATERIALS PROVIDED SHALL MEET CITY OR COUNTY, FDOT, AND ANY SPECIFICATIONS IN PLANS AND GEOTECHNICAL REPORT.

4. INSTALLATION: ALL INSTALLATIONS SHALL MEET CITY OR COUNTY, FDOT, AND ANY SPECIFICATIONS IN PLANS AND GEOTECHNICAL REPORT.

5. INSPECTIONS AND TESTING:
   A. TESTING OF MATERIALS AND INSTALLATION SHALL BE PROVIDED BY THE OWNER RETAINED TESTING COMPANY. CONTRACTOR TO COORDINATE CLOSELY WITH TESTING COMPANY AND OWNER.

   B. CONTRACTOR IS RESPONSIBLE TO PERFORM ALL TESTING AS REQUIRED BY CITY OR COUNTY, FDOT, GEOTECHNICAL ENGINEER, AND AS REQUIRED BY OWNER.

   C. TEST RESULTS SHALL BE SUPPLIED BY CONTRACTOR UPON REQUEST.

   D. MATERIALS TESTING RESULTS SHALL BE SUPPLIED BY CONTRACTOR UPON REQUEST.

   E. BASE TO BE INSPECTED PRIOR TO ASPHALT INSTALLATION. ENGINEER TO BE NOTIFIED 72 HOURS IN ADVANCE.

   F. CONCRETE FORMWORK TO BE INSPECTED PRIOR TO CONCRETE INSTALLATION. ENGINEER TO BE NOTIFIED 72 HOURS IN ADVANCED.

6. SHOP DRAWINGS: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO RESPECTIVE GOVERNING AGENCIES AND KCG FOR REVIEW PRIOR TO PURCHASES AND FIELD INSTALLATION.

7. COMPACTION: CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR COMPACTION REQUIREMENTS.

8. EARTHWORK
   A. GENERAL: IN THE CASE OF CONFLICTS, THE REQUIREMENTS OF THE EARTHWORK SPECIFICATIONS PREPARED FOR THE PROJECT BY THE SOILS ENGINEER SHALL GOVERN THE REQUIREMENTS OF THIS PLAN AND THESE NOTES. PLANS SHALL BE REVISED ACCORDINGLY.

   B. EARTHWORK QUANTITIES: CONTRACTOR SHALL PERFORM INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO CONFIRM THE EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED OR FOR REMOVAL AND DISPOSAL OF ANY EXCESS MATERIALS.

   C. FILL PREPARATION: ALL AREAS TO BE FILLED SHALL BE PREPARED PRIOR TO FILLING, AND FILL SHALL BE PLACED IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN THE SOILS REPORT. ALL VEGETABLE MATTER AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED BY CONTRACTOR FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED. LOOSE FILL AND ALLUVIAL SOILS SHALL BE REMOVED TO SUITABLE FIRM NATURAL GROUND. THE EXPOSED SOILS SHALL BE SCARIFIED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND THEN COMPACTED TO A MINIMUM OF 90% OF ASTM-D1557. CONTRACTOR SHALL PLACE, SPREAD, WATER, AND COMPACT THE FILL IN STRICT ACCORDANCE WITH THE SPECIFICATIONS.

   D. FILL MATERIAL: ALL FILL MATERIALS SHALL BE FREE OF MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH, OR OTHER UNSUITABLE MATTER.

   E. INSPECTIONS AND TESTING: ALL GRADING SHALL BE INSPECTED AND TESTED BY OR UNDER THE DIRECTION OF A QUALIFIED SOILS ENGINEER. THE SOILS ENGINEER SHALL INSPECT AND TEST THE EXCAVATION, PLACEMENT, AND COMPACTION OF FILLS AND SHALL INSPECT AND TEST THE BACKFILLING AND COMPACTION OF TRENCHES. THE SOILS ENGINEER SHALL SUBMIT SOILS REPORTS AS REQUIRED AND SHALL DETERMINE THE SUITABILITY OF ANY FILL MATERIAL UPON COMPLETION OF GRADING OPERATIONS. THE SOILS ENGINEER SHALL STATE THAT OBSERVATIONS AND TESTS WERE MADE BY HIM/HER OR UNDER HIS/HER SUPERVISION; THAT, IN THE SOIL ENGINEER'S OPINION, ALL EMBANKMENTS AND EXCAVATIONS WERE CONSTRUCTED IN ACCORDANCE WITH THE GEOTECHNICAL ASPECTS OF THE APPROVED GRADING PLANS AND ANY APPROVED REVISIONS THERETO, SUBJECT TO LAND DEVELOPMENT PERMIT AND AS AMENDED; AND THAT ALL EMBANKMENTS AND EXCAVATIONS ARE ACCEPTABLE FOR THEIR INTENDED USE.

## PAVING, GRADING, AND DRAINAGE NOTES (CONT.):

   F. COMPACTION: EXISTING GROUND AND IMPORT FILL SHALL BE COMPACTED PER THE MOST STRINGENT OF THE PLANS, LOCAL CODE REQUIREMENTS, AND GEOTECHNICAL REPORT. FOR USE OF ON SITE SOILS, REFER TO GEOTECHNICAL REPORT PROVIDED BY GEOTECHNICAL ENGINEER INDICATED ON COVER SHEET.

   G. TRENCH SOILS: ALL ORGANIC SOILS BELOW UTILITY TRENCHES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AND COMPACTED TO NO LESS THAN 98% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T-180).

9. GRADING:
   A. EXISTING GRADES: CONTRACTOR SHALL VERIFY ALL EXISTING GRADES ON SITE BEFORE BEGINNING WORK. OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY OF ANY MAJOR DIFFERENCES BETWEEN CONTRACTOR'S DATA AND DRAWINGS.

   B. PROPOSED GRADING INTENT: GRADING SHOWN ON THESE PLANS IS PROVIDED TO CONTRACTOR TO EXPRESS THE GENERAL GRADING INTENT OF THE PROJECT. CONTRACTOR SHALL GRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS TO PREVENT PONDING OF WATER, SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE, AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER PRIOR TO DEMOBILIZATION OF GRADING EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED.

   C. PAVEMENT GRADING: CONTRACTOR SHALL CONSTRUCT PAVEMENT TO THE SPOT GRADES SHOWN. IN ADDITION, ALL GRADE LINES AND H.P. AND L.P. LINES SHALL BE CONSTRUCTED AS SHOWN ON THE PLAN. FINAL ELEVATIONS MUST FALL WITHIN 0.25" OF THE PROPOSED SPOT GRADES AND LINES. ALL PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT SPECIFICATIONS.

   D. PAVEMENT SPOTS: SPOT ELEVATIONS ARE SHOWN AT THE EDGE OF PAVEMENT EXCEPT WHEN CALLED OUT AS TOP OF CURB (TC).

   E. BUILDING TIE-IN: AT ALL BUILDING ENTRANCES OR DRIVE-THRUS, CONTRACTOR SHALL MATCH EXISTING ELEVATIONS WITH THE SURFACE COURSE.

   F. FINISH FLOOR ELEVATIONS (FFE): ARE MINIMUMS. CONTRACTOR SHALL GRADE LOT PER SPECIFIC FLOOR PLAN REQUIREMENTS WITH MINIMUM 1% POSITIVE SLOPE AWAY FROM BUILDING. ACTUAL FINISH FLOOR ELEVATIONS MAY BE HIGHER IF NECESSARY.

   G. SIDEWALKS ADJACENT TO BUILDING: ARE TO BE BELOW FINISH FLOOR ELEVATIONS (FFE) UNLESS OTHERWISE STATED ON PLANS. FOR SIDEWALKS ABOVE FFE, BUILDING TO HAVE PROPER WATER SEALING. REFER TO ARCHITECT FOR WATER SEALING DETAILS. FOR DISCREPANCIES, CONTRACTOR TO COORDINATE WITH CIVIL ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION.

   H. THRESHOLDS: SHALL BE HIGHER THAN SIDEWALKS, BUT SHALL BE $\frac{1}{4}$ INCH HIGH MAXIMUM OR, IF BEVELED, $\frac{1}{2}$ INCH HIGH MAXIMUM PER FLORIDA ACCESSIBILITY CODE (OR LESS IF ANOTHER APPLICABLE CODE IS MORE STRINGENT). CHANGES IN ELEVATION SHALL COMPLY WITH FLORIDA ACCESSIBILITY CODE. SIDEWALKS SHALL SLOPE AWAY FROM ALL BUILDINGS. FOR DISCREPANCIES, CONTRACTOR TO COORDINATE WITH CIVIL ENGINEER AND ARCHITECT PRIOR TO CONSTRUCTION.

   I. SLOPES: SLOPES AND TRANSITIONS OF CONCRETE SIDEWALK, RAMP TAPERS, AND VEHICULAR USE AREAS SHALL NOT BE ANY STEEPER THAN 20:1 (5%) UNLESS OTHERWISE NOTED ON PLANS. ALL PEDESTRIAN USE AREAS TO MEET ADA SPECIFICATIONS AND SHALL NOT HAVE A CROSS SLOPE STEEPER THAN 2%.

10. PAVEMENT:
    A. SHOULDERS: PAVED SHOULDERS SHALL BE SAW CUT AND REMOVED PRIOR TO CONSTRUCTION.

    B. SAW CUT: CONTRACTOR SHALL SAW CUT THE EXISTING ASPHALT PAVING WHERE PROPOSED PARKING ISLANDS ARE LOCATED AND AT PARKING AREA PERIMETERS. PARKING AREAS AND TRAVEL WAYS SHALL BE OVERLAID WITH A SURFACE COURSE. POSITIVE DRAINAGE MAY REQUIRE ADDITIONAL ASPHALT.

    C. NOTIFICATIONS: CONTRACTOR SHALL NOTIFY ENGINEER AT LEAST 72 HOURS PRIOR TO PAVEMENT INSTALLATION TO INSPECT BASE COURSE.

    D. EXISTING PAVEMENT TIE-IN: CONTRACTOR SHALL TRIM, TACK, AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.

    E. TACK COAT: CONTRACTOR SHALL APPLY TACK COATS BETWEEN ALL LAYERS OF ASPHALTIC CONCRETE COURSES. TACK COAT SHALL MEET CITY OR COUNTY AND FDOT SPECIFICATIONS.

    F. EXISTING PAVEMENT MARKINGS: CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EXISTING PAVEMENT MARKINGS WHICH ARE IN CONFLICT WITH THIS PROPOSED PLAN.

    G. ROADWAY: CONSTRUCTION OF THE ROADWAY SHALL BE IN ACCORDANCE WITH THE PAVEMENT SECTION INCLUDED IN THESE PLANS AND THE GEOTECHNICAL REPORT. ANY CONFLICTS BETWEEN THE PAVEMENT SECTION SHOWN WITHIN THESE PLANS AND THE GEOTECHNICAL REPORT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONTRACT BID. SUBGRADE PREPARATION AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND GEOTECHNICAL REPORT RECOMMENDATIONS.

    H. SUBGRADE STABILIZATION: SHALL BE PER GEOTECHNICAL REPORT AND MEET FDOT SPECIFICATIONS.

    I. PAVEMENT REMOVAL AND REPLACEMENT: SHALL BE PER CITY OR COUNTY AND FDOT SPECIFICATIONS.

    J. TESTING: TESTING OF MATERIALS AND INSTALLATION SHALL BE PROVIDED BY OWNER RETAINED TESTING COMPANY. CONTRACTOR TO COORDINATE CLOSELY WITH TESTING COMPANY AND OWNER.

11. WALLS: CONTRACTOR SHALL PROVIDE STRUCTURAL DESIGN CERTIFIED BY A STRUCTURAL ENGINEER FOR RETAINING WALLS AND SCREEN WALLS, PROVIDE SHOP DRAWINGS, AND ATTAIN APPROVAL THROUGH THE BUILDING DEPARTMENT.

12. EROSION CONTROL: SEE SEPARATE NOTES AND PLAN. CONTRACTOR SHALL PROVIDE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH FDEP, CITY OR COUNTY, AND FDOT REQUIREMENTS.

13. STORM SEWER SYSTEM:
    A. ALL RELATED ITEMS REQUIRED FOR THE CONSTRUCTION OF THE STORM SEWER (OUTFALL PROTECTION, POLLUTION CONTROL, ETC.) SHALL BE IN ACCORDANCE WITH DETAILS SHOWN ON THE CONSTRUCTION PLANS, FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION (LATEST EDITION).

    B. CONTRACTOR SHALL PROTECT ALL EXISTING STORM SEWER SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES. SEE EROSION CONTROL NOTES AND PLAN.

    C. STORM CLEAN OUTS LOCATED IN PAVEMENT SHALL BE TRAFFIC BEARING.

    D. STORM AND UTILITY STRUCTURES SHOWN WITHIN PAVED AREAS SHALL HAVE TRAFFIC BEARING STEEL GRATES.

    E. CULVERTS AND STORM PIPES SHALL MEET FDOT AND LOCAL JURISDICTIONAL SPECIFICATIONS AND REQUIREMENTS PROVIDED BY MANUFACTURER. ALL PIPES SHALL BE RCP WITH A MAX MANNINGS COEFFICIENT OF 0.012 UNLESS OTHERWISE SPECIFIED.

14. ARCHITECTURAL COORDINATION: CONTRACTOR SHALL COORDINATE THE PLACEMENT OF STORM SEWER APPURTENANCES INCLUDING ROOF DRAIN CONNECTIONS WITH THE LATEST ARCHITECTURAL PLANS ISSUED BY THE ARCHITECT. ANY CONFLICTS BETWEEN ARCHITECTURAL AND CIVIL PLANS SHALL BE BROUGHT TO THE ATTENTIONS OF ALL PARTIES IMMEDIATELY.

15. SUBDRAINS: SUBDRAIN LOCATIONS SHOWN ARE APPROXIMATE AND ARE RECOMMENDED FOR ALL SIGNIFICANT FILL CANYONS. THE ACTUAL LOCATION AND EXTENT OF SUBDRAINS SHALL BE DETERMINED BY THE GEOTECHNICAL CONSULTANT AT THE TIME OF CONSTRUCTION.

16. DISPOSAL:
    A. ALL TREES, BRUSH, GRASS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE COLLECTED, PILED, OR OTHERWISE DISPOSED OF OFF-SITE BY CONTRACTOR SO AS TO LEAVE THE AREAS THAT HAVE BEEN CLEARED WITH A NEAT AND FINISHED APPEARANCE FREE FROM UNSIGHTLY DEBRIS. APPROVAL FOR LOCATION OF DEBRIS FILL SHALL BE SECURED FROM THE SOILS ENGINEER PRIOR TO DISPOSAL OF ANY SUCH MATERIAL.

    B. EXCESS EXCAVATED MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR. CONTRACTOR SHALL OBTAIN A PERMIT TO MOVE FILL OR EXCESS MATERIAL OFF-SITE IF NECESSARY.

17. SODDING/SEEDING AND MULCHING: SHALL BE PER FDOT SPECIFICATIONS AND LANDSCAPE PLAN.

18. DEWATERING:
    A. CONTRACTOR SHALL INCLUDE DEWATERING AS NECESSARY IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND LOCAL TECHNICAL SPECIFICATIONS.

    B. CONTRACTOR IS RESPONSIBLE TO COORDINATE DEWATERING WITH OTHER SITE ACTIVITIES.

    C. CONTRACTOR SHALL ATTAIN ALL PERMITS NECESSARY FOR DEWATERING.

    D. CONTRACTOR IS RESPONSIBLE TO ADHERE TO ALL CITY OR COUNTY, FDEP, FDOT, AND ALL OTHER APPLICABLE ENVIRONMENTAL REGULATIONS.

19. TRENCHING, STRUCTURE EXCAVATION, AND BACKFILLING: CONTRACTOR SHALL COMPLY WITH CITY OR COUNTY, GEOTECHNICAL REPORT, FDOT, AND KCG SPECIFICATIONS.

20. HANDICAP: HANDICAP RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND SHALL BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

21. CONCRETE: ALL CONCRETE SITE WORK, FORM WORK, REINFORCEMENT, AND ACCESSORIES SHALL MEET GEOTECHNICAL REPORT, CITY OR COUNTY, AND FDOT SPECIFICATIONS.

22. CONCRETE STRUCTURES:
    A. STRUCTURES SHALL BE CONSTRUCTED PER FDOT SPECIFICATIONS.

    B. GROUTING OF STRUCTURES SHALL BE PER FDOT SPECIFICATIONS.

23. CONCRETE SIDEWALKS AND RAMPS: SHALL BE CONSTRUCTED PER GEOTECHNICAL REPORT, CITY OR COUNTY, AND FDOT SPECIFICATIONS.

24. CURBS AND GUTTER: SHALL BE CONSTRUCTED PER FDOT STANDARDS AND SPECIFICATIONS.

25. RIGHT OF WAY CONSTRUCTION: ALL STRUCTURES, PIPE, AND OTHER CONSTRUCTION IN THE RIGHT OF WAY SHALL BE IN ACCORDANCE TO THE APPLICABLE ROADWAY DESIGN STANDARDS AND SPECIFICATIONS OF THE GOVERNING LOCAL OR STATE AGENCY.

## UTILITY NOTES:

1. GENERAL:
   A. THE MOST STRINGENT OF SPECIFICATIONS AND REQUIREMENTS MENTIONED HEREIN SHALL BE ADHERED TO. CONTRACTOR IS RESPONSIBLE FOR ATTAINING COPIES OF LATEST SPECIFICATIONS AND REPORTS.

   B. CONTRACTOR SHALL RETAIN A COPY OF THE FDEP DRINKING WATER AND DOMESTIC WASTEWATER PERMITS ON-SITE AT ALL TIMES AND SHALL ADHERE TO BOTH GENERAL CONDITIONS AND SPECIFIC CONDITIONS OF THE RESPECTIVE PERMITS AND APPLICATIONS.

   C. THE UTILITY IMPROVEMENTS AND ADJUSTMENTS SHOWN ON THESE PLANS ARE INTENDED TO MAINTAIN THE INTEGRITY OF THE VARIOUS JURISDICTIONAL WATER, WASTE WATER, AND RECLAIMED WATER SYSTEMS. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROPRIATE JURISDICTIONAL UTILITY MANUAL.

   D. ON SITE WASTEWATER COLLECTION SYSTEM AND ON SITE WATER SYSTEM IS PRIVATELY OWNED AND MAINTAINED.

2. MATERIALS: ALL MATERIALS PROVIDED SHALL MEET CITY OR COUNTY, UTILITY COMPANY, AND FDOT SPECIFICATIONS.

3. INSTALLATION: ALL INSTALLATIONS SHALL MEET CITY OR COUNTY, UTILITY COMPANY, AND FDOT SPECIFICATIONS.

4. INSPECTIONS AND TESTING:
   A. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTION(S) AND TESTING TO COMPLETE THE ON-SITE WASTEWATER AND WATER SYSTEMS.

   B. CONTRACTOR IS RESPONSIBLE TO PERFORM ALL TESTING AS REQUIRED BY CITY OR COUNTY, UTILITY COMPANY, AND FDEP.

   C. TEST RESULTS SHALL BE SUPPLIED BY CONTRACTOR UPON REQUEST.

   D. MATERIALS TESTING RESULTS SHALL BE SUPPLIED BY CONTRACTOR UPON REQUEST.

   E. CONTRACTOR TO NOTIFY ENGINEER 72 HOURS IN ADVANCE OF ALL TESTING. ENGINEER TO BE PRESENT FOR TEST.

5. SHOP DRAWINGS: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO RESPECTIVE GOVERNING AGENCIES AND KCG FOR REVIEW PRIOR TO PURCHASES AND FIELD INSTALLATION.

6. ARCHITECTURAL COORDINATION:
   A. CONTRACTOR SHALL COORDINATE THE PLACEMENT OF WATER AND SEWER APPURTENANCES WITH THE LATEST ARCHITECTURAL PLANS ISSUED BY THE ARCHITECT. ANY CONFLICTS BETWEEN ARCHITECTURAL AND CIVIL PLANS SHALL BE BROUGHT TO THE ATTENTIONS OF ALL PARTIES IMMEDIATELY.

   B. FIRE LINE AND WATER SERVICE LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL RISER ROOM LOCATIONS.

7. ELECTRICAL AND OTHER UTILITIES COORDINATION:
   A. CONTRACTOR SHALL OBTAIN LATEST SPECIFICATIONS FROM ELECTRICAL PROVIDER PRIOR TO CONSTRUCTION.

   B. TRANSFORMER LOCATION, IF SHOWN, IS PRELIMINARY. ELECTRIC COMPANY SHALL COORDINATE ACTUAL LOCATION AND ELEVATION WITH ENGINEER PRIOR TO CONSTRUCTION.

   C. UTILITY CONDUIT AND OTHER UTILITIES LOCATIONS, IF SHOWN, ARE PRELIMINARY. CONTRACTOR SHALL COORDINATE ACTUAL LOCATIONS WITH ARCHITECT, UTILITY COMPANY, OWNER, AND ENGINEER.

8. EXISTING UTILITIES:
   A. CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND VERIFY LOCATION OF THEIR FACILITIES PRIOR TO COMMENCING CONSTRUCTION.

   D. ALL EXISTING UTILITIES SHALL BE FIELD VERIFIED AT ALL POINTS OF CONNECTION AND AREAS OF CONFLICT. SIZES, LOCATION AND INVERT ELEVATIONS OF EXISTING PIPE SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION REVIEW.

   E. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES IN RIGHT OF WAY FOR RELOCATION AND COSTS OF RELOCATION OF EXISTING UTILITIES.

   F. CONTRACTOR SHALL USE SPECIAL CARE IN WORKING AROUND AND NEAR ALL EXISTING UTILITIES THAT ARE ENCOUNTERED DURING CONSTRUCTION, PROTECTING THEM WHERE NECESSARY SO THAT THEY WILL GIVE UNINTERRUPTED SERVICE. CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNERS FOR ALL DAMAGES TO SAID UTILITIES. DURING THE COURSE OF CONSTRUCTION BY THE CONTRACTOR, WHEN IT IS NECESSARY TO HAVE UTILITIES RELOCATED OR ADJUSTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND COORDINATING THIS WORK WITH THE UTILITY COMPANIES.

9. NOTIFICATIONS:
   A. CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITY COMPANIES 48 HOURS PRIOR TO ANY UTILITY CONSTRUCTION.

   B. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IN EVENT OF CONFLICTS BETWEEN PLANS, SPECIFICATIONS BOOK, OR LOCAL/STATE REQUIREMENTS.

10. EMERGENCY WASTEWATER SPILL AND WATER MAIN BREAK PROCEDURES:
    A. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WASTEWATER FORCE MAINS AND GRAVITY SEWERS. FORCE MAIN AND SEWER LOCATIONS SHOWN ON PLANS ARE NOT EXACT OR GUARANTEED. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING.

    B. THE APPROPRIATE UTILITY COMPANY SHALL BE NOTIFIED IMMEDIATELY BY PHONE IN EVENT OF A GRAVITY SEWER OR WATER MAIN BREAK OR DAMAGE AT THE PHONE NUMBER LISTED ON THE COVER SHEET.

    C. ALL DAMAGE TO UTILITIES SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY THE UTILITY'S INSPECTOR, THE UTILITY COMPANY MAY PERFORM REPAIRS, AND THE CONTRACTOR WILL BE CHARGED FOR REPAIRS.

    D. THE UTILITIES CONSTRUCTION SECTION SHALL BE NOTIFIED AT LEAST 7 DAYS PRIOR TO ANY CONSTRUCTION ACTIVITY AND SHALL BE NOTIFIED AT LEAST 7 DAYS IN ADVANCE TO SCHEDULE MAIN TIE-INS AND VALVE OPERATIONS.

    E. OPERATION OF UTILITY OWNED VALVES. WATER, WASTEWATER, AND REUSE VALVES ARE TO BE OPERATED ONLY BY THE RESPECTIVE UTILITY COMPANY. ALL VALVES BEING INSTALLED SHALL TO REMAIN CLOSED DURING CONSTRUCTION.

    F. CONTRACTOR SHALL COORDINATE ALL PUMP STATION OPERATION AND SHUT DOWN WITH A REPRESENTATIVE OF THE APPROPRIATE UTILITY COMPANY.

11. CERTIFIED AS-BUILTS: CONTRACTOR SHALL PROVIDE CERTIFIED AS-BUILTS TO RESPECTIVE GOVERNING AGENCIES AND KCG FOR REVIEW. FORMAT TO BE ON DISC AS AUTO CAD FILES AND ON FULL SIZE PLANS CERTIFIED BY THE CONTRACTOR'S SURVEYOR. SEE SEPARATE NOTE. ALL UTILITY CROSSINGS TO BE SURVEYED WITH ELEVATIONS AND CROSSINGS.

12. UTILITY SERVICES:
    A. ALL WATER SERVICES SHALL BE CONSTRUCTED BY CONTRACTOR.

    B. WATER AND SEWER LINES SHALL EXTEND 5 FEET FROM THE EXTERIOR WALL OF BUILDING AND SHALL BE MARKED, CAPPED, AND BURIED.

13. COVER: CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL NEW UTILITY MAINS AND MAINTAIN MINIMUM SEPARATION BETWEEN WATER AND OTHER UTILITIES AS INDICATED ON THESE PLANS AND THE FDEP PERMITS.

14. LANDSCAPE SEPARATION: CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5 FEET SEPARATION BETWEEN UTILITIES AND TREES WITH INVASIVE ROOT SYSTEMS OR AS REQUIRED BY UTILITY COMPANY AND CITY OR COUNTY SPECIFICATIONS.

15. FITTINGS, DEVICES, ASSEMBLIES, AND APPARATUS:
    A. WATER AND SEWER INSTALLATIONS ARE SHOWN IN OUTLINE FORM. CONTRACTOR SHALL INSTALL ALL FITTINGS AND INCIDENTALS NECESSARY TO COMPLETE THE FACILITY. CONTRACTOR TO PROVIDE FITTINGS FOR CROSSINGS OF OTHER UTILITIES AS NECESSARY.

    B. BACKFLOW PREVENTER LOCATIONS ARE SHOWN GRAPHICALLY FOR CLARITY. CONTRACTOR SHALL FIELD ADJUST LOCATIONS. BACKFLOW PREVENTERS SHALL BE SCREENED. SEE LANDSCAPE PLAN.

    C. ALL BACKFLOW PREVENTERS SHALL BE INSTALLED BY CONTRACTOR.

    D. WATER MAIN SHALL HAVE GATE VALVE WHICH SHALL BE INSTALLED VERTICALLY.

    E. BLOW OFF VALVES SHALL BE PLACED AT THE BACK OF SIDEWALKS.

    F. ALL PUBLIC METERS SHALL BE INSTALLED BY UTILITY COMPANY. ALL PRIVATE METERS SHALL BE INSTALLED BY CONTRACTOR.

16. COMBUSTIBLES: DURING CONSTRUCTION, WHEN COMBUSTIBLES ARE BROUGHT ONTO THE SITE, ACCESS ROADS AND SUITABLE TEMPORARY OR PERMANENT SUPPLY OF WATER, ACCEPTABLE TO THE FIRE DEPARTMENT, SHALL BE PROVIDED AND MAINTAINED.

17. FIRE MAINS AND SUPPRESSION SYSTEMS:
    A. THE UNDERGROUND FIRE MAINS STARTING AT THE PUBLIC WATER UTILITY POINT OF CONNECTION HAVE BEEN DESIGNED TO NFPA 24. MATERIAL. INSTALLATION, AND TESTING OF UNDERGROUND FIRE MAINS SHALL BE IN ACCORDANCE WITH NFPA 24 AND CITY OR COUNTY REQUIREMENTS.

    B. AUTOMATIC FIRE SPRINKLER SYSTEMS SHALL BE ELECTRONICALLY MONITORED. ALL CONTROL VALVES, INCLUDING CONTROL VALVES ON BACK FLOW PREVENTION DEVICES THAT MIGHT INTERFERE WITH THE OPERATION OF THE SYSTEM AND ALL WATERFLOW DETECTION DEVICES, SHALL BE MONITORED IN ACCORDANCE WITH NFPA 72.

18. IRRIGATION SYSTEM:
    A. REFER TO IRRIGATION PLANS FOR CONTINUATION OF DESIGN AND SPECIFICATIONS.

    B. ALL IRRIGATION METERS SHALL BE PROVIDED BY THE UTILITY COMPANY.

    C. IRRIGATION PIPING SHALL BE PURPLE FOR FUTURE CONNECTION TO RECLAIMED WATER.

    D. IF IRRIGATED WITH RECLAIMED WATER, A SIGN SHALL BE PLACED AT ALL ENTRANCES AND IRRIGATED AREAS WITH THE WORDS "IRRIGATION BY REUSE WATER, DO NOT DRINK." SIGN SHALL ADHERE TO LOCAL REQUIREMENTS.

19. TRENCHING, STRUCTURE EXCAVATION, AND BACKFILLING: CONTRACTOR SHALL COMPLY WITH CITY OR COUNTY, UTILITY COMPANY, GEOTECHNICAL REPORT, FDOT, AND KCG SPECIFICATIONS.

20. PAINTING: UTILITIES SHALL BE PAINTED PER CITY OR COUNTY AND UTILITY COMPANY SPECIFICATIONS.

21. DEWATERING:
    A. CONTRACTOR SHALL INCLUDE DEWATERING AS NECESSARY IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND LOCAL TECHNICAL SPECIFICATIONS..

    B. CONTRACTOR IS RESPONSIBLE TO COORDINATE DEWATERING WITH OTHER SITE ACTIVITIES.

    C. CONTRACTOR SHALL ATTAIN ALL PERMITS NECESSARY FOR DEWATERING.

    D. CONTRACTOR IS RESPONSIBLE TO ADHERE TO ALL CITY OR COUNTY, FDEP, FDOT, AND ALL OTHER APPLICABLE ENVIRONMENTAL REGULATIONS.

## UTILITY NOTES (CONT.):

22. BORING AND JACKING: CONTRACTOR IS RESPONSIBLE TO ADHERE TO UTILITY COMPANY, CITY OR COUNTY, AND FDOT SPECIFICATIONS.

23. DIRECTIONAL DRILLING: CONTRACTOR IS RESPONSIBLE TO ADHERE TO UTILITY COMPANY, CITY OR COUNTY, AND FDOT SPECIFICATIONS.

24. CONCRETE STRUCTURES:
    A. STRUCTURES SHALL BE CONSTRUCTED PER FDOT SPECIFICATIONS.

    B. GROUTING OF STRUCTURES SHALL BE PER UTILITY COMPANY AND FDOT SPECIFICATIONS.

## SAFETY NOTES:

1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS SHALL BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL.

2. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.

3. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE STATE OF FLORIDA, "ROADWAY AND TRAFFIC DESIGN STANDARDS" SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKMEN FROM HAZARDS WITHIN THE PROJECT.

4. ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

5. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

## REVISION NOTES:

REVISION CLOUDS PROVIDED TO ASSIST THE CONTRACTOR. ONLY THE LATEST REVISION IS SHOWN. OTHER PLAN CHANGES MAY BE NECESSARY AS A RESULT OF THIS REVISION WHICH MAY NOT BE CLOUDED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THIS PLAN SET IN ITS ENTIRETY TO ENSURE ALL PLAN CHANGES ARE ACCOUNTED FOR, INCLUDING PREVIOUS REVISIONS AND CHANGES TO OTHER PLAN SHEETS AS A RESULT OF THE REVISIONS SHOWN (EX. SCREENED IMAGES AT PIPES, ETC.).

## UTILITY LOCATIONS:

THE CONTRACTOR SHALL NOTIFY SUNSHINE LOCATORS FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION AT 811 OR 1-800-432-4770, MONDAY THROUGH FRIDAY 7:00 A.M. TO 4:30 P.M. CHAPTER 553 - 851 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO EXCAVATING. THE DRAWINGS SHOW ONLY THE APPROXIMATE LOCATION OF GAS MAINS (IF ANY) AND DO NOT SHOW SERVICE LINES.

## AS-BUILT SURVEY:

UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH COMPLETE "AS-BUILT" INFORMATION CERTIFIED BY A REGISTERED LAND SURVEYOR. THE "AS-BUILT" INFORMATION SHALL INCLUDE ELEVATIONS AT ALL PROPOSED SPOT ELEVATIONS, INVERT ELEVATIONS, LOCATIONS OF FITTINGS, LOCATIONS OF STRUCTURES FOR ALL UTILITIES INSTALLED, AS WELL AS TOP OF BANKS, TOE OF SLOPE AND GRADE BREAK LOCATIONS AND ELEVATIONS FOR POND AND DITCH CONSTRUCTION. NO ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY PURPOSES WILL BE MADE UNTIL THIS INFORMATION IS RECEIVED AND APPROVED BY THE ENGINEER.

**REVISED: APRIL 29, 2015**

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NUMBER 00007350

GARTH R. RITTER ★ LICENSE No. 79364 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

**GARTH R. RITTER, P.E.**
FLORIDA REGISTRATION 79364
NOT VALID FOR CONSTRUCTION
UNLESS SIGNED IN THIS BLOCK


KELLY, COLLINS & GENTRY, INC.
KCG
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488


REVISION | DATE

PREPARED FOR:
THE KLEIN COMPANY

DWELL AT MAITLAND

GENERAL NOTES

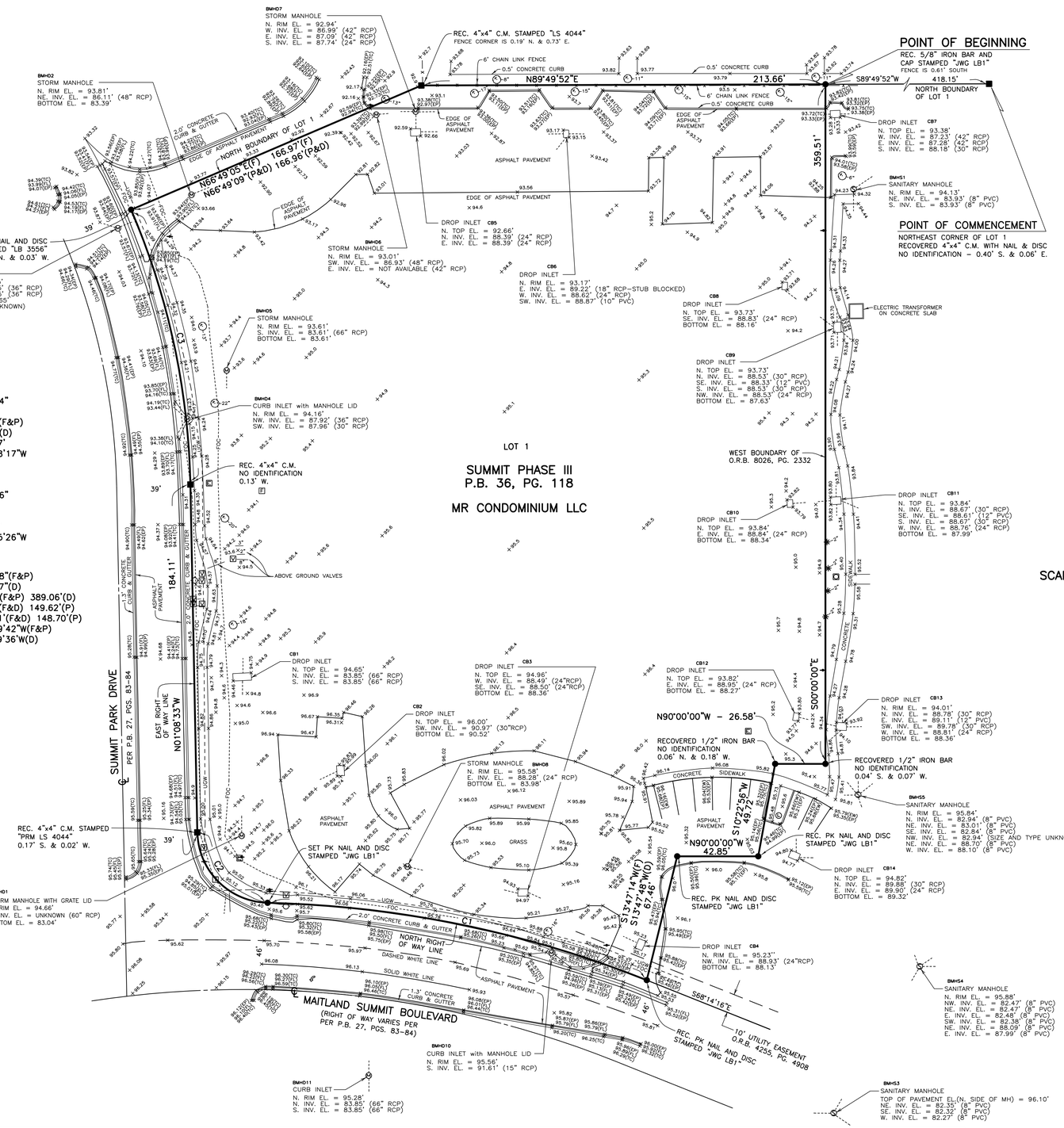
| | |
|---|---|
| DRAWN: | BMR |
| DESIGN: | GRR |
| CHECKED: | SCF |
| JOB NO.: | 1109.000 |
| DATE: | 12/11/2015 |

SHEET
GN-1.0

# BOUNDARY SURVEY

SECTION 27, TOWNSHIP 21 SOUTH, RANGE 29 EAST

ORANGE COUNTY, FLORIDA




## DESCRIPTION

A PORTION OF LOT 1, SUMMIT PHASE III ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 36, PAGE 118 OF THE PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA BEING DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 1, AS A POINT OF REFERENCE; THENCE RUN S 89°49'52" W, ALONG THE NORTH LINE THEREOF, 418.15 FEET TO THE POINT OF BEGINNING; THENCE RUN S 00°00'00"E, 359.51 FEET; THENCE RUN N 90°00'00"W, 26.58 FEET; THENCE RUN S 10°22'56" W, 49.72 FEET; THENCE RUN 90°00'00" W, 42.85 FEET; THENCE RUN S 13°47'48" W, 67.46 FEET TO THE NORTH RIGHT OF WAY LINE OF MAITLAND SUMMIT BOULEVARD, SAID LINE BEING A CURVE CONCAVE TO THE SOUTH; THENCE RUN WESTERLY ALONG SAID NORTH LINE AND CURVE HAVING A CENTRAL ANGLE OF 20°28'04", A RADIUS OF 576.00 FEET, A CHORD BEARING OF N 78°28'17" W AND A CHORD DISTANCE OF 204.67 FEET TO A REVERSE CURVE CONCAVE TO THE NORTHEAST; THENCE RUN NORTHWESTERLY ALONG SAID CURVE HAVING A CENTRAL ANGLE OF 87°33'46", A RADIUS OF 38.00 FEET. AN ARC LENGTH OF 58.07 FEET, A CHORD BEARING OF N 44°55'26" W AND A CHORD DISTANCE OF 52.59 FEET TO THE EAST RIGHT OF WAY LINE OF SUMMIT PARK DRIVE; THENCE RUN N 01°08'33" W, ALONG SAID EAST LINE 184.11 FEET TO A CURVE CONCAVE TO THE WEST; THENCE RUN NORTHERLY ALONG SAID EAST LINE AND CURVE HAVING A CENTRAL ANGLE OF 22°02'07", A RADIUS OF 389.06 FEET, AN ARC LENGTH OF 149.63 FEET, A CHORD BEARING OF N 12°09'36" W AND A CHORD DISTANCE OF 148.71 FEET TO THE AFORESAID NORTH LINE OF LOT 1; THENCE RUN N 66°49'09" E, ALONG SAID NORTH LINE, 166.96 FEET; THENCE RUN N 89°49'52" E, CONTINUING ALONG SAID NORTH LINE, 213.66 FEET TO THE POINT OF BEGINNING.

## NOTES

1. This Plat represents a Boundary Survey of the Description provided to Jones, Wood & Gentry, Inc. in the Title Commitment and does not indicate ownership.
2. Pertinent visible improvements are shown unless noted otherwise.
3. Underground improvements not located.
4. Bearings shown hereon are based on the North boundary of Lot 1 as bearing S89°49'52"W, per plat.

   The relative accuracy of boundary dimensions as determined by this survey is in excess of 1 Foot in 15,000 Feet.
5. Basing my opinion on the FEDERAL EMERGENCY NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, Orange County, Florida, Community Panel Number 120950C0265 F, revised September 25, 2009 and not a survey, it appears from a reading of said map that the land described hereon is shown to be within "ZONE X" (areas determined to be outside 500–year floodplain) The FLOOD INSURANCE RATE MAP is not a survey and no responsibility is taken for the information contained in or the accuracy of the above referenced map.
6. TITLE COMMITMENT NOT
7. There is no observed evidence of current earth moving work, building construction or building additions.
8. Zoning IS P–D, Planned Development.
   Setbacks and restriction per the P–D are:
   P–D Boundaries –25 Feet
   SIDE/REAR – 10 FEET
   REAR – 25 Feet
   KELLER ROAD – 25 FEET

## LEGEND

| | | |
|---|---|---|
| Δ | = | DELTA |
| R | = | RADIUS |
| L | = | ARC LENGTH |
| CH | = | CHORD DISTANCE |
| CB | = | CHORD BEARING |
| TB | = | TANGENT BEARING |
| C.M. | = | CONCRETE MONUMENT |
| EL. | = | ELEVATION |
| FOC | = | FIBER OPTIC CABLE |
| INV. | = | INVERT |
| O.R.B. | = | OFFICIAL RECORDS BOOK |
| P.B. | = | PLAT BOOK |
| PG.(S) | = | PAGE(S) |
| PVC | = | POLYVINYL CLORIDE |
| REC. | = | RECOVERED |
| RCP | = | REINFORCED CONCRETE PIPE |
| UGW | = | UNDERGROUND WATER LINE |
| (F) | = | FIELD |
| (P) | = | PLAT |
| (D) | = | DEED |
| (EP) | = | EDGE OF ASPHALT PAVEMENT |
| (FL) | = | FLOWLINE |
| (TC) | = | TOP OF CURB |
| (EW) | = | EDGE OF SIDEWALK |
| | = | DOGGY POT |
| | = | ELECTRIC BOX |
| | = | FAUCET |
| | = | FIRE HYDRANT |
| | = | LEVEL 3 BOX |
| | = | LIGHT POLE |
| | = | MANHOLE – DRAINAGE |
| | = | MANHOLE – SANITARY |
| | = | METER – WATER |
| | = | SIGN |
| | = | TELECOM BOX |
| | = | VALVE COVER – WATER |
| | = | CREPE MYRTLE TREE |
| | = | OAK TREE |

BY: C.A. SCHIELKE
DATE: 08–11–2015
29081–BDY.DWG
JOB NO. 29081
SHEET 1 OF 1 SHEETS


MEMBERS F.S.M.S.

JONES, WOOD & GENTRY, INC.
PROFESSIONAL SURVEYORS AND MAPPERS – LB1
2600 EAST ROBINSON STREET
ORLANDO, FLORIDA 32803
407–898–7780


NOT VALID WITHOUT SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

DANIEL E. GENTRY JR., Florida Registration Number 5047

FOR:

THE KLEIN COMPANY

IT IS CERTIFIED THAT THE SURVEY REPRESENTED HEREON WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN RULE 5J–17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO CHAPTER 472 FLORIDA STATUTES. UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER THIS DRAWING, SKETCH, PLAT OR MAP/REPORT IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

## EROSION CONTROL:

1. GENERAL: CONTRACTOR SHALL INSTALL ANY ADDITIONAL EROSION CONTROL WHEN NECESSARY IN ORDER TO MEET STATE AND LOCAL STANDARDS.
2. EXISTING SYSTEMS: CONTRACTOR SHALL PROTECT ALL EXISTING STORMWATER COLLECTION SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES.
3. CONFLICTS: CONTRTACTOR SHALL COORDINATE ALL UTILITY CROSSINGS AND ADDRESS CONFLICTS PRIOR TO BEGINNING WORK IN A GIVEN AREA(S).
4. STABILIZATION:
   A. EROSION CONTROL SHALL BE MAINTAINED WITHIN CONSTRUCTION AREAS BY QUICKLY STABILIZING DISTURBED AREAS TO PREVENT THE RELEASE OF SEDIMENT. THIS SHALL BE ACCOMPLISHED USING SOD, TURBIDITY FENCES, AND OTHER MEANS ACCEPTABLE TO OWNER, ENGINEER, AND REGULATORY AGENCIES.
   B. AREAS DISTURBED THAT WILL NOT BE IMPROVED FOR A PERIOD OF 30 DAYS OR MORE SHALL RECEIVE TEMPORARY STABILIZATION AS DEEMED NECESSARY BY THE MUNICIPAL INSPECTOR.
5. BMP:
   A. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, CONTRACTOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES BMP TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
   B. WHEN UTILIZING CONSTRUCTION PHASES, CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL ON-SITE BMPs AS DEEMED NECESSARY AND SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
   C. ALL BMPs SHALL BE CLEANED OF SEDIMENT WHEN 50% OR LESS OF BMP IS REACHED.
   D. ALL BMPs SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT THE MUNICIPAL INSPECTOR ALLOWS REMOVAL.
   E. APPROPRIATE BMPs MUST BE IMPLEMENTED TO ENSURE THAT DISCHARGES DO NOT EXCEED SURFACE WATER QUALITY STANDARDS PER THE FDEP CONSTRUCTION GENERIC PERMIT (CGP). IF DEWATERING OFFSITE OR INTO A COUNTY MS4, TURBIDITY MUST BE MONITORED TO ENSURE THAT DISCHARGES DO NOT EXCEED 29 NTU OVER BACKGROUND PER 62-302.530 FAC. REFER TO THE DEWATERING REQUIREMENTS IN 62-621.300(4)(a) CONSTRUCTION GENERIC PERMIT OR 62-621.300(2)(a) DEWATERING GENERIC PERMIT AS APPLICABLE.
   F. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RAIN EVENT OF 1/2" AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY, IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED. REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED SHALL BE REQUIRED.
   G. CONTRACTOR SHALL INSPECT BMPs AT END OF EACH WORKING DAY.
   H. SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN TOPSOIL STOCKPILES.
   I. BMPs USED ON SITE MUST MEET THE MINIMUM SPECIFICATIONS IN THE 2013 STATE OF FLORIDA E&SC DESIGNER AND REVIEWER MANUAL.
6. MULCH:
   A. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER.
   B. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
7. ENTRANCE/EXIT:
   A. CONSTRUCTION ENTRANCE SHALL BE GRADED SO THAT NO SEDIMENTS LEAVE THE SITE.
   B. ALL EMPLOYEES, SUBCONTRACTORS, AND SUPPLIERS SHALL UTILIZE CONSTRUCTION ACCESS.
   C. CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE AT ONE LOCATION.
   D. ALL EXIT LOCATIONS INTENDED SHALL BE USED CONTINUOUSLY AND FOR A PERIOD OF TIME SHALL HAVE STABILIZED CONSTRUCTION ENTRANCE/EXIT BMPs (TC-1 "STABILIZED CONSTRUCTION ENTRANCE/EXIT" OR TC-2 "ENTRANCE/OUTLET TIRE WASH").
   E. INSPECT ROUTINELY FOR DAMAGE AND ASSESS EFFECTIVENESS OF THE BMP. REMOVE AGGREGATE, SEPARATE AND DISPOSE OF SEDIMENT IF CONSTRUCTION ENTRANCE/EXIT IS CLOGGED NO MORE THAN 50% WITH SEDIMENT.
   F. IF APPLICABLE, ROUTE RUNOFF FROM STABILIZED ENTRANCES THROUGH A SEDIMENT TRAPPING DEVICE BEFORE DISCHARGE.
8. INLETS:
   G. ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS AND PIPES SHALL BE PROTECTED FROM SILT, SAND, AND DEBRIS DURING CONSTRUCTION. ANY ACCUMULATION OF DEBRIS WITHIN THE STORM DRAINAGE PIPE SYSTEM SHALL BE REMOVED BY CONTRACTOR.
   H. PROVIDE GEOHAY HAY BALES IN FRONT OF ALL DRAINAGE CURB INLETS AND PROVIDE FILTER FABRIC UNDER THE GRATE OF ALL DITCH BOTTOM INLETS AFTER INITIAL COMPLETION OF THE DRAINAGE STRUCTURES. MAINTAIN THESE MEASURES DAILY.
9. DAILY:
   A. CONSTRUCTION SITE SHALL BE INSPECTED FOR EROSION PROBLEMS DAILY AND AFTER EACH RAINFALL GREATER THAN 0.5". A RAIN GAUGE SHALL BE ON SITE TO MEASURE THE FALL AMOUNTS.
   B. THE ADJACENT STREETS SHALL BE SWEPT AT THE END OF EACH DAY OF DIRT FROM THE CONSTRUCTION SITE. CONTRACTOR SHALL IMPLEMENT "STREET SWEEPING AND VACUUMING: AS NEEDED. CLEAN DIRT FROM ROADWAYS DAILY.
   C. CONSTRUCTION SITE SHALL BE CLEANED OF LITTER AND TRASH EACH DAY AND DISPOSED OF OFF-SITE.
   D. INSPECT ALL SEDIMENT CONTROL DEVICES FOR DAMAGE DAILY AND REPAIRS AS NEEDED.
   E. CONTRACTOR SHALL EMPLOY SAFETY AND ROADWAY ENTRY AND EXIT PLANS ON A DAILY/WEEKLY BASIS.
   F. HUMAN WASTEWATER SHALL BE COLLECTED ON-SITE BY THE USE OF TEMPORARY SANITARY SERVICE.
10. SILT FENCE:
   A. SILT FENCE SHALL BE IN PLACE AS SHOWN PRIOR TO CONSTRUCTION.
   B. SILT FENCE SHALL BE IN PLACE AROUND THE ENTIRE PERIMETER OF THE SITE, OR AS SHOWN, PRIOR TO CONSTRUCTION. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON EROSION CONTROL.
   C. SILT FENCE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
11. SOD: ALL DISTURBED AREAS SHALL BE SODDED EXCEPT AS SHOWN ON PLAN. ALL SOD IN RIGHT OF WAY SHALL BE ARGENTINE BAHIA. ALL SLOPES 4:1 OR GREATER SHALL BE SODDED.
12. STOCKPILES: SHALL BE ENCOMPASSED WITH SILT FENCE, SHALL NOT EXCEED 35' IN HEIGHT, AND SHALL NOT BE LOCATED NEAR SITE PERIMETER. LOCATION AND SLOPE SHALL BE APPROVED BY MUNICIPAL INSPECTOR AND OTHER JURISDICTIONAL AUTHORITIES AS REQUIRED.
13. TOXIC SUBSTANCES: ALL TOXIC SUBSTANCES (IF ANY) BROUGHT ON-SITE SHALL BE HANDLED AND STORED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND STANDARDS. ALL SUBSTANCES THAT MAY BE CONSIDERED TOXIC SHALL ALSO BE HANDLED AND STORED ACCORDING TO FEDERAL, STATE, AND LOCAL LAWS AND STANDARDS.
14. DRAINAGE/GRADE: THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER; SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE; AND SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
15. GRAVEL LAYER: GRAVEL LAYER SHALL BE 12" MIN THICK AND PLACED OVER GEOTEXTILE MAT.
16. SPEED: TRUCK SPEED TO BE REDUCED TO CONTROL DUST.
17. DITCHES: KEEP ALL TEMPORARY ROADWAY DITCHES CLEAR.
18. WATER DOWN: CONTRACTOR TO WATER DOWN AREAS WHEN AND WHERE DISTURBED SOIL IS RAISING AND BECOMING AIRBORNE IN ORDER TO SETTLE IT. REPEAT AS NEEDED.
19. SEDIMENT BASIN: LARGE SITES MAY REQUIRE A TEMPORARY SEDIMENT BASIN. CONTRACTOR SHALL DETERMINE LOCATION. TEMPORARY SEDIMENT BASIN SHALL BE APPROVED BY JURISDICTIONAL AUTHORITIES.
20. STORMWATER DISCHARGE: CONTRACTOR TO ABIDE BY ALL PROVISIONS OF THE FDEP GENERAL PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.
21. DUST ABATEMENT: CONTRACTOR TO PROVIDE A DUST ABATEMENT PLAN INCLUDING A 6-FOOT HIGH SCREEN FENCE ALONG ALL PROPERTY LINES.

## DEMOLITION NOTES:

1. DEMOLISH AS REQUIRED TO ACCOMPLISH WORK INDICATED IN THESE DOCUMENTS. ALL REQUIRED DEMOLITION WORK SHALL BE INCLUDED IN THE BASE BID PACKAGE SUBMITTED BY THE CONTRACTOR.
2. DO NOT ALLOW MATERIALS AND DEBRIS GENERATED BY DEMOLITION ACTIVITIES TO ACCUMULATE ON THE JOB SITE. REMOVE DAILY AND DISPOSE OF IN A LEGAL MANNER. NO ON SITE SALE OR BURNING OF REMOVED ITEMS IS PERMITTED.
3. THIS PLAN IS TO BE USED IN CONJUNCTION WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS. DO NOT REMOVE ANY ITEMS WITHOUT VERIFYING AND COORDINATING WITH ALL GENERAL TRADES AS TO HOW THEY RELATE TO THE OVERALL PROJECT.
4. THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE PUBLIC AND/OR WORKMEN ON THE SITE TO PREVENT ACCIDENTS OR INJURY TO ANY PERSON ON, ABOUT OR ADJACENT TO THE PREMISES. THE CONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, CODES AND REGULATIONS PERTAINING TO SAFETY AND THE PREVENTIONS OF ACCIDENTS.
5. THE CONTRACTOR MUST MAINTAIN ADEQUATE SUPPORTS, INSULATIONS, WATERPROOFING, EMERGENCY LIGHTING, SECURITY, ALARMS, ETC. FOR ALL OR PART OF ITEMS WHICH ARE TO REMAIN.

## CONTRACTOR CERTIFICATION:

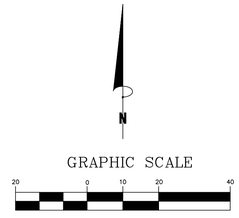
" I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PLAN THEREUNDER."

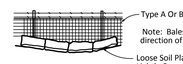
NAME: TITLE:

CONTRACTING FIRM: ADDRESS:

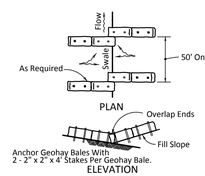
TELEPHONE #: DATE:

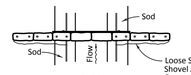
THIS SOIL EROSION/SEDIMENT CONTROL & DUST ABATEMENT PLAN IS FOR THE PURPOSE OF SHOWING INTENTION OF METHOD TO CONTROL STORM WATER RUNOFF & DUST DISTURBANCE CAUSED BY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL ADJUST AND/OR ADD BMP'S BASED ON SPECIFIC SITE CONDITIONS & CONSTRUCTION ACTIVITY SATISFYING NPDES REQUIREMENTS. CONTRACTOR TO OBTAIN GENERAL PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES (RULE 62-621.300(4), F.A.C.)

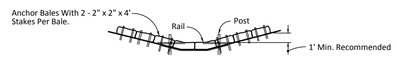



BALES BACKED BY FENCE

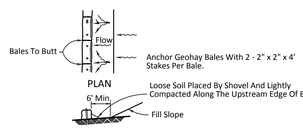


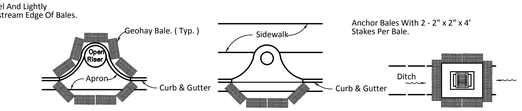




Spacing: Bale barriers for paved ditches should be spaced in accordance with Chart I, Sheet 1 of 3, Index No. 102

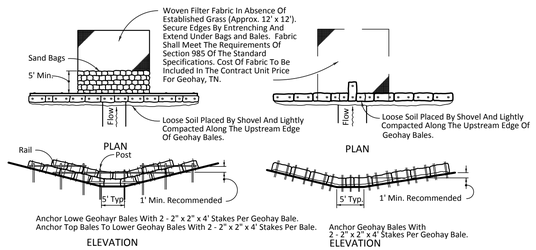
BARRIER FOR PAVED DITCH




BARRIERS FOR FILL SLOPES



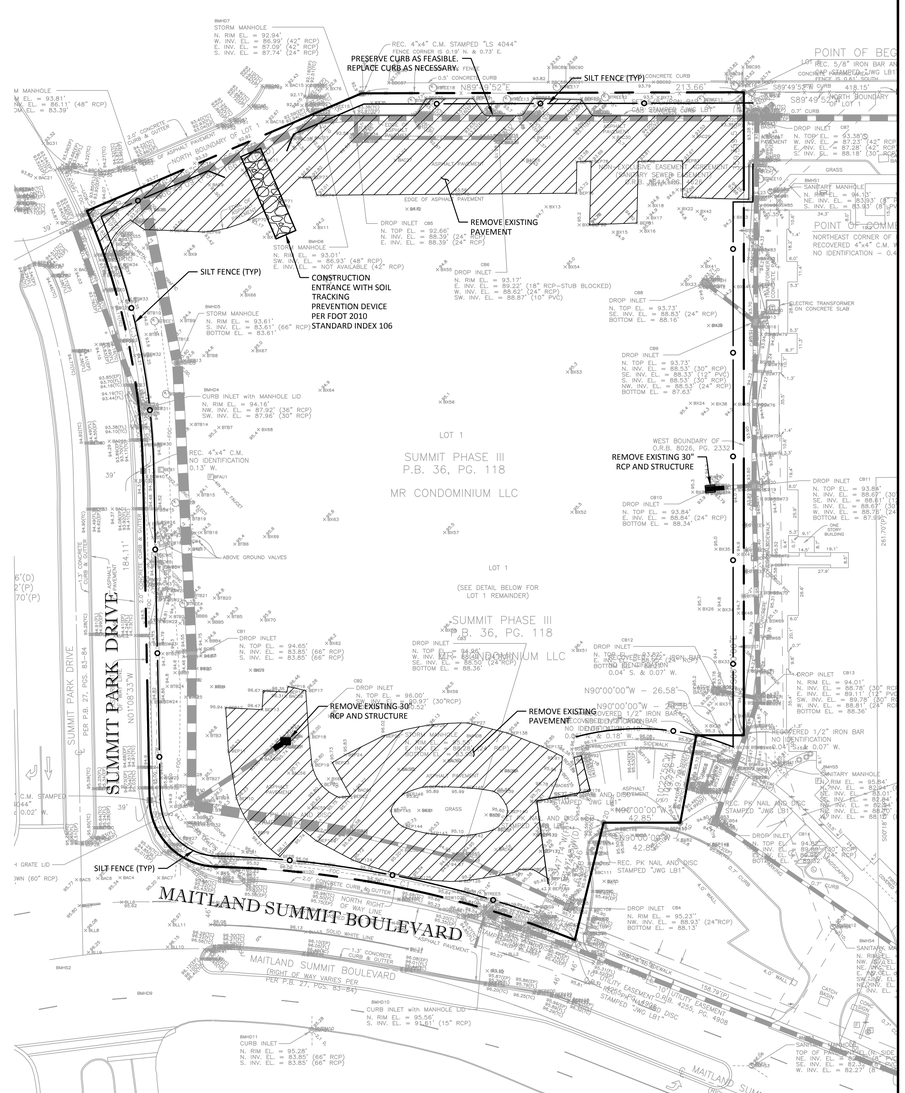

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

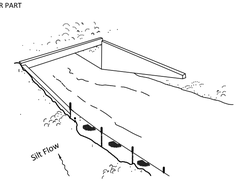



Application and Spacing: The use of Types I & II Geohay bale barriers should be limited to the conditions outlined in ChartJ, Sheet 1 of 3, Index No. 102

TYPE II TYPE I

BARRIER FOR UNPAVED DITCHES




Type ~~~ Silt Fence

Type ~~~ Silt Fence Protection Around Ditch Bottom Inlets.

Note: Spacing for Type ~~~ Fence to be in accordance with Chart *, Sheet 1 of 3 and ditch installations at drainage structures Sheet 2 of 3.

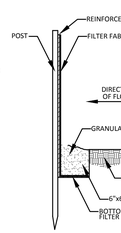
Type ~~~ Silt Fence

Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS

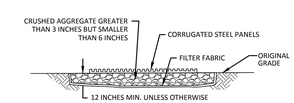
BALED GEOHAY AND SILT FENCES

N.T.S



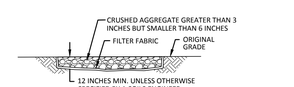

SILT BARRIER DETAIL

N.T.S.



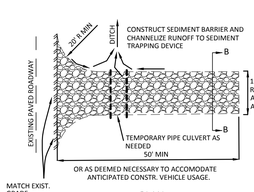

SECTION A-A

NTS




SECTION B-B

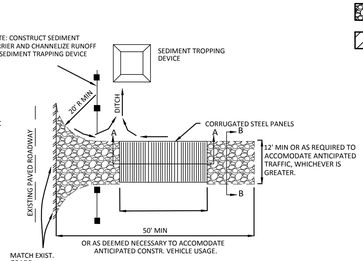
NTS




PLAN

NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 1)




PLAN

NTS

STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 2)

### SITE LEGEND

- PROJECT BOUNDARY
- SILT FENCE
- RIP RAP
- EXISTING PAVEMENT TO BE REMOVED

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION
NUMBER:0900750

GARTH R. RITTER LICENSE No. 79364 STATE OF FLORIDA PROFESSIONAL ENGINEER

GARTH R. RITTER, P.E.
FLORIDA REGISTRATION: 79364
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK


KCG KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7658 FAX (407) 898-1488


| DATE | REVISION |
|---|---|
| | |

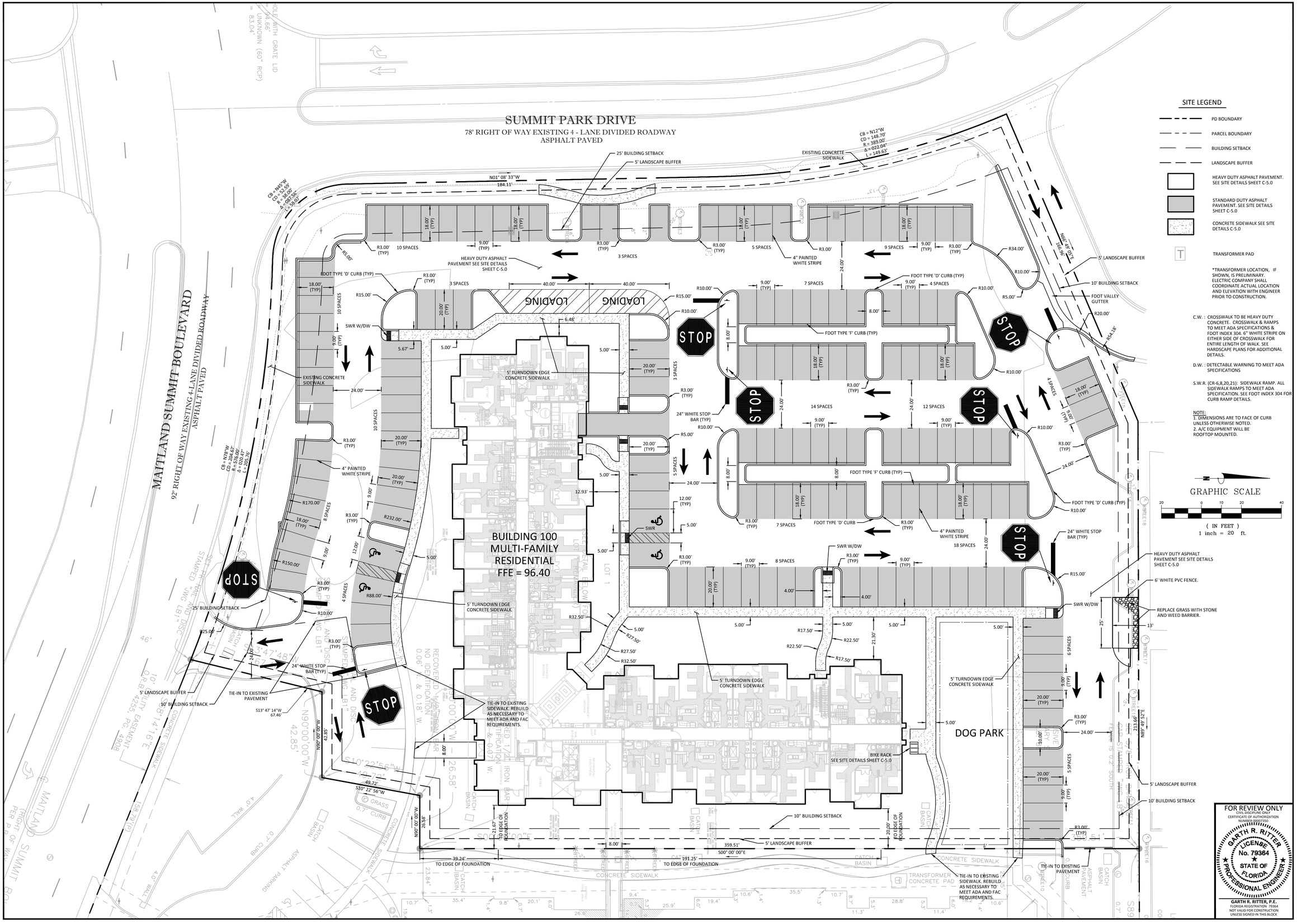
PREPARED FOR: THE KLEIN COMPANY

DWELL AT MAITLAND

EROSION CONTROL & DEMOLITION PLAN

DRAWN: BMR
DESIGN: GRR
CHECKED: SCF
JOB NO.: 1109.000
DATE: 12/11/2015

SHEET EC-1.0




## SITE LEGEND

- PD BOUNDARY
- PARCEL BOUNDARY
- BUILDING SETBACK
- LANDSCAPE BUFFER
- HEAVY DUTY ASPHALT PAVEMENT. SEE SITE DETAILS SHEET C-5.0
- STANDARD DUTY ASPHALT PAVEMENT. SEE SITE DETAILS SHEET C-5.0
- CONCRETE SIDEWALK SEE SITE DETAILS C-5.0
- T TRANSFORMER PAD

*TRANSFORMER LOCATION, IF SHOWN, IS PRELIMINARY. ELECTRIC COMPANY SHALL COORDINATE ACTUAL LOCATION AND ELEVATION WITH ENGINEER PRIOR TO CONSTRUCTION.

C.W. : CROSSWALK TO BE HEAVY DUTY CONCRETE. CROSSWALK & RAMPS TO MEET ADA SPECIFICATIONS & FDOT INDEX 304. 6" WHITE STRIPE ON EITHER SIDE OF CROSSWALK FOR ENTIRE LENGTH OF WALK. SEE HARDSCAPE PLANS FOR ADDITIONAL DETAILS.

D.W. : DETECTABLE WARNING TO MEET ADA SPECIFICATIONS

S.W.R. (CR-6,8,20,21): SIDEWALK RAMP. ALL SIDEWALK RAMPS TO MEET ADA SPECIFICATION. SEE FDOT INDEX 304 FOR CURB RAMP DETAILS.

NOTE:
1. DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. A/C EQUIPMENT WILL BE ROOFTOP MOUNTED.

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 00007350
GARTH R. RITTER LICENSE No. 79364 STATE OF FLORIDA PROFESSIONAL ENGINEER
GARTH R. RITTER, P.E.
FLORIDA REGISTRATION: 79364
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

| DATE | REVISION |
|---|---|
| | |

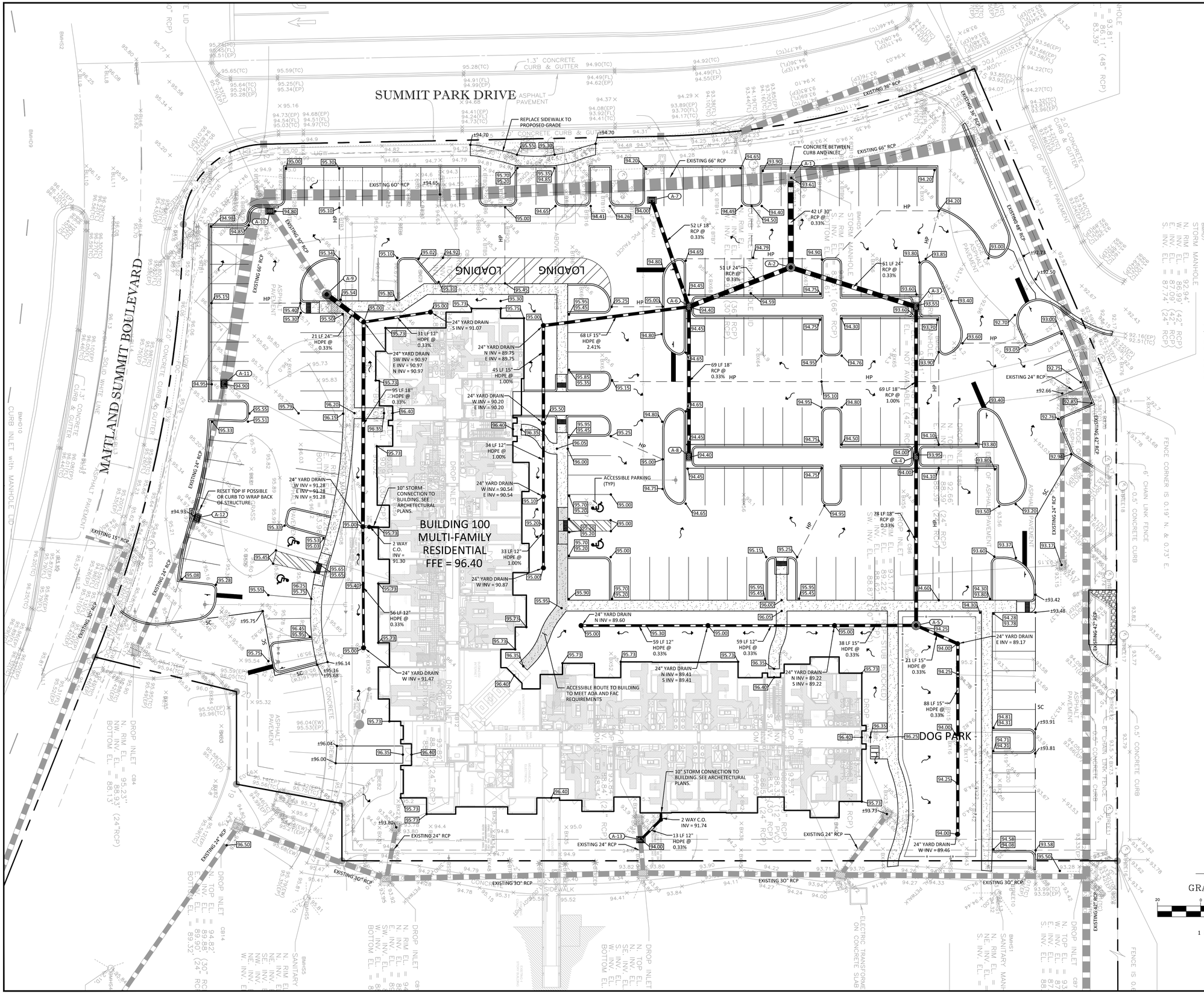
PREPARED FOR:
THE KLEIN COMPANY

# DWELL AT MAITLAND

# DIMENSION PLAN

DRAWN: BMR
DESIGN: GRR
CHECKED: SCF
JOB NO.: 1109.000
DATE: 12/11/2015

SHEET
C-2.0




## STORM PIPE

ALL RCP STORM PIPE SHALL HAVE MANNINGS "N" AT 0.012, UNLESS OTHERWISE STATED

ALL HDPE STORM PIPE SHALL BE ADS N-12 WT OR EQUIVALENT

## PGD LEGEND

- PROJECT BOUNDARY
- UTILITY EASEMENT
- STORM PIPES
- STORM INLET
- STORM MANHOLE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- EXISTING STORM PIPES
- FIRE HYDRANT
- WATER MAIN
- SANITARY PIPE
- FIRE LINE

## STORMWATER NOTE

THE DEVELOPMENT OF "DWELL AT MAITLAND" WILL OCCUR IN LOT 8 OF THE MASTER DEVELOPMENT OF MAITLAND SUMMIT PHASE 2. MAITLAND SUMMIT PHASE 2 (PERMIT # 4-095-0234M5) INCLUDED THE CONSTRUCTION OF A SURFACE WATER MANAGEMENT SYSTEM DESIGNED AND APPROVED BY "ST. JOHNS RIVER WATER MANAGEMENT DISTRICT" TO DEVELOP LOT 8 UP TO 80% IMPERVIOUS. THE PROPOSED IMPERVIOUS AREA OF "DWELL AT MAITLAND" IS 70.0%.

## STORM SEWER SCHEDULE

ALL STRUCTURES SHOWN WITHIN PAVED AREAS SHALL HAVE TRAFFIC BEARING STEEL GRATES.

STRUCTURE TOP ELEVATIONS ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO ADJUST STRUCTURE TOPS TO PROPOSED GRADE.

| | | | |
|---|---|---|---|
| A-1 | FDOT TYPE 'C' INLET<br>N INV = 83.61 (EXIST)<br>S INV = 83.61 (EXIST)<br>E INV = 87.81 | A-11 | PROP. FDOT TYPE 'C' INLET TOP<br>TOP ELEV = 95.48 |
| A-2 | STORM MANHOLE<br>N INV = 87.95<br>S INV = 87.95<br>W INV = 87.95 | A-12 | PROP. FDOT TYPE 'C' INLET TOP<br>TOP ELEV = 94.93 |
| A-3 | FDOT TYPE 'C' INLET<br>E INV = 88.15<br>S INV = 88.15 | A-13 | FDOT TYPE 'C' INLET<br>W INV = 88.81<br>E INV = 88.81 (EXIST) |
| A-4 | FDOT TYPE 'C' INLET<br>E INV = 88.84<br>W INV = 88.84 | | |
| A-5 | STORM MANHOLE<br>S INV = 89.10<br>NE INV = 89.10<br>W INV = 89.10 | | |
| A-6 | FDOT TYPE 'C' INLET<br>N INV = 88.11<br>S INV = 88.11<br>E INV = 88.11<br>W INV = 88.11 | | |
| A-7 | FDOT TYPE 'C' INLET<br>E INV = 88.28 | | |
| A-8 | FDOT TYPE 'C' INLET<br>W INV = 88.34 | | |
| A-9 | STORM MANHOLE<br>SW INV = 90.90 (EXIST)<br>NE INV = 90.90 | | |
| A-10 | FDOT TYPE 'C' INLET<br>NE INV = 84.33<br>SW INV = 84.33 | | |

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CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 0007350

GARTH R. RITTER
LICENSE No. 79364
STATE OF FLORIDA
PROFESSIONAL ENGINEER

GARTH R. RITTER, P.E.
FLORIDA REGISTRATION 79364
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK

KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

| DATE | REVISION |
|---|---|
| | |

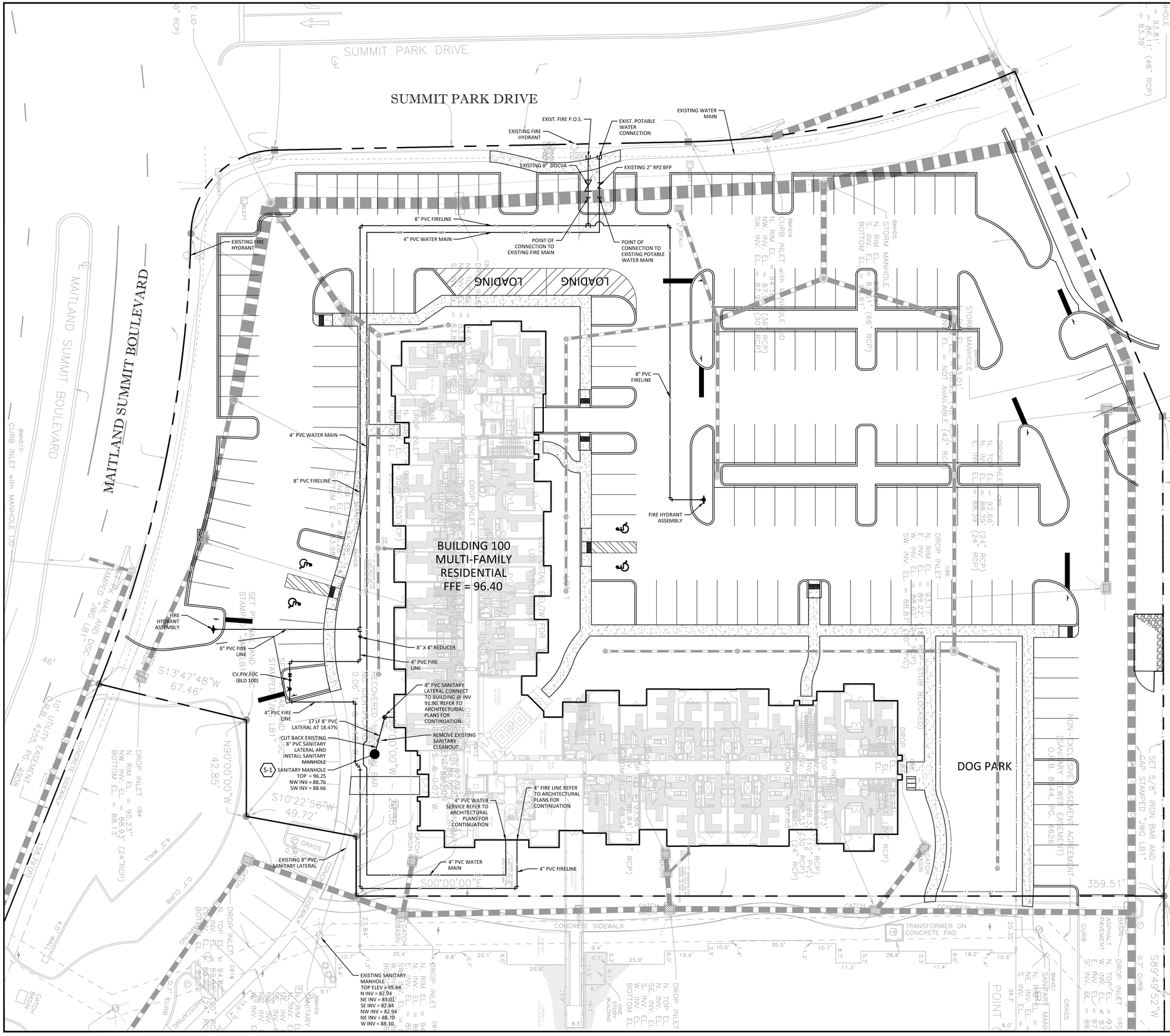
PREPARED FOR:
THE KLEIN COMPANY

DWELL AT MAITLAND

PAVING, GRADING, & DRAINAGE PLAN

| | |
|---|---|
| DRAWN: | BMR |
| DESIGN: | GRR |
| CHECKED: | SCF |
| JOB NO.: | 1109.000 |
| DATE: | 12/11/2015 |

SHEET
C-3.0




| REQUIRED FIRE FLOW PER FLORIDA FIRE PREVENTION CODE, FIFTH EDITION | | | |
|---|---|---|---|
| Building Area (SF) | Building Type | Required Fire Flow (gpm)[2] | Adjusted Required Fire Flow (gpm)[1,2] |
| 97,292 | V(III) | 5,750 | 1,438 |

Note:
1) For sprinklered buildings, a 75% reduction in required fire flow is allowed per 18.4.5.2.1 of the Florida Fire Prevention Code, Fifth Edition.
2) Required and adjusted fire flow is per hydrant.

## ORANGE COUNTY UTILITIES NOTES

1. ALL EXISTING UTILITIES TO BE FIELD VERIFIED AT ALL POINTS OF CONNECTION TO, AND AT ALL AREAS OF CONFLICT WITH OCU MAINS.
2. ALL UTILITIES (INCLUDING PUMP STATION IF APPLICABLE) LOCATED OUTSIDE PUBLIC RIGHT-OF-WAYS AND PUBLIC EASEMENTS SHALL BE PRIVATELY OWNED AND MAINTAINED.
3. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL PROPOSED WATER, WASTEWATER, AND RECLAIMED WATER LINES. PLEASE REFER TO THE FOLLOWING SECTIONS FROM THE 2011 OCU MANUAL: SECTION 2210, PART 4: WATER MAINS; SECTION 2310, PART 5: GRAVITY MAINS; SECTION 2311, PART 4: FORCE MAINS; SECTION 2510, PART 6: RECLAIMED WATER MAINS.

## UTILITY LEGEND

- SANITARY PIPE
- SANITARY MANHOLE
- WATER MAIN
- FIRE LINE
- FIRE HYDRANT
- GAS LINE
- PD BOUNDARY
- STORM PIPE
- STORM MANHOLE
- STORM INLET
- FDC
- CV
- PIV
- TRANSFORMER PAD

*TRANSFORMER LOCATION, IF SHOWN, IS PRELIMINARY. ELECTRIC COMPANY SHALL COORDINATE ACTUAL LOCATION AND ELEVATION WITH ENGINEER PRIOR TO CONSTRUCTION.

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| DATE | REVISION |
|---|---|

PREPARED FOR:
THE KLEIN COMPANY

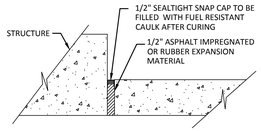
DWELL AT MAITLAND

UTILITY PLAN

DRAWN: BMR
DESIGN: GRR
CHECKED: SCF
JOB NO.: 1109.000
DATE: 12/11/2015

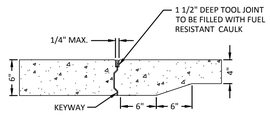
SHEET
C-4.0

## CONCRETE JOINT DETAILS



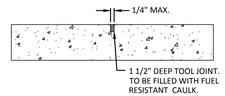

ISOLATION JOINT DETAIL

NTS




CONSTRUCTION JOINT DETAIL

NTS

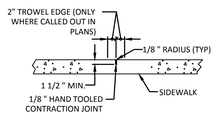



CONTROL JOINT DETAIL

NTS

NOTE: SEE ARCHITECT SPECIFICATIONS FOR COMPLETE CONCRETE DETAILS.

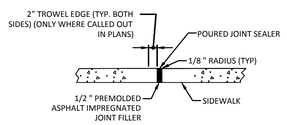
## SIDEWALK DETAILS




NOTE: CONTRACTION JOINTS TO BE SPACED AT A WIDTH OF WALKWAY OR A MAX. OF 10'.

CONTRACTION JOINTS

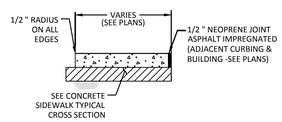
NTS




NOTE: EXPANSION JOINTS TO BE SPACED AT A MAX. OF 30'.

EXPANSION JOINTS

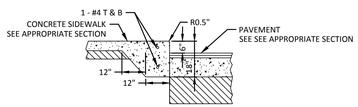
NTS




NOTE: TO BE CONSTRUCTED PER FDOT INDEX 310 & FDOT SPECIFICATIONS (SECTION 350)

SIDEWALK

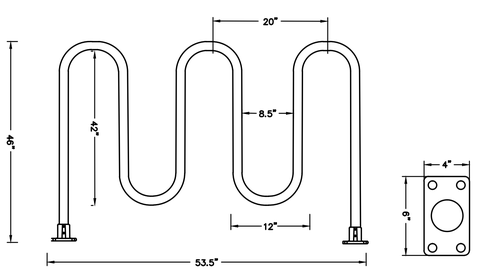
NTS




TURNED DOWN EDGE SIDEWALK

NTS

## BIKE RACK DETAILS

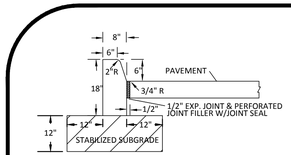



| | |
|---|---|
| MADE OF ROLLED ALUMINUM: | 1 1/2" SCHEDULE 40 ALUMINUM WITH 1 7/8" O.D. |
| STANDARD LENGTHS: | 60" SECTION FITS UP TO 5 BIKES |
| STANDARD HEIGHT: | 46" |
| INSTALLATION OPTIONS: | SURFACE MOUNT |
| FINISHING OPTIONS: | STANDARD CLEAR ANODIZED |
| MANUFACTURED BY: | IDEAL SHIELD<br>2525 CLARK ST<br>DETROIT, MI 48209<br>PHONE: 1-866-825-8659 |

STANDARD BICYCLE RACK DETAIL

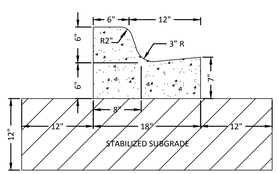
NTS

## CURB DETAILS




TYPE D CURB (FDOT INDEX 300)

NTS




MODIFIED FDOT TYPE F CURB

NTS

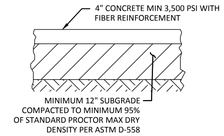
CURB NOTES:

DETAILS FOR DIMENSION ONLY. TO BE CONSTRUCTED TO MOST STRINGENT SPECIFICATIONS AND REQUIREMENTS OF THE FOLLOWING: FDOT, GEOTECHNICAL ENGINEER, LOCAL JURISDICTION, AND TENANT.

FOR CURB, GUTTER, CURB AND GUTTER AND TRAFFIC SEPARATORS PROVIDE ¼" - ½" CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS, WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS.

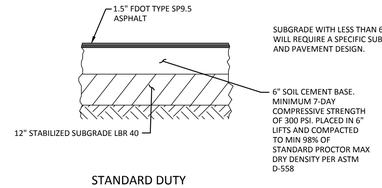
## PAVEMENT DETAILS

NOTE: TO BE CONSTRUCTED TO MOST STRINGENT SPECIFICATIONS AND REQUIREMENTS OF THE FOLLOWING: FDOT, GEOTECHNICAL ENGINEER, LOCAL JURISDICTION, AND TENANT.



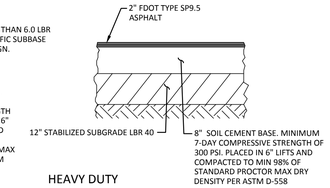

SIDEWALK CONCRETE PAVEMENT

NTS



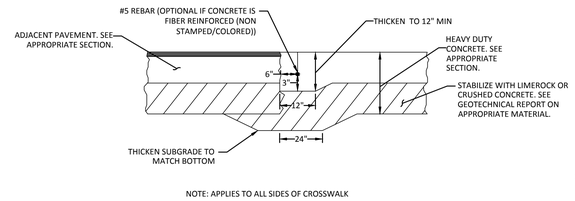

STANDARD DUTY ASPHALT PAVEMENT

NTS




HEAVY DUTY ASPHALT PAVEMENT

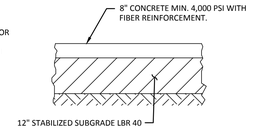
NTS




NOTE: APPLIES TO ALL SIDES OF CROSSWALK

HEAVY DUTY CONCRETE CROSSWALK

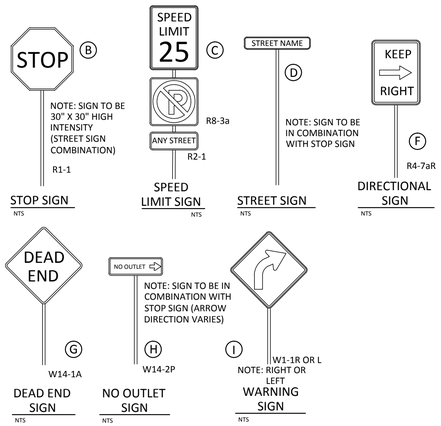
NTS




HEAVY DUTY (NON-STAMPED/COLORED) CONCRETE PAVEMENT

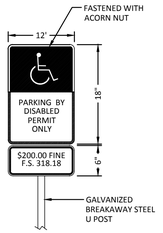
NTS

## SIGNAGE DETAILS



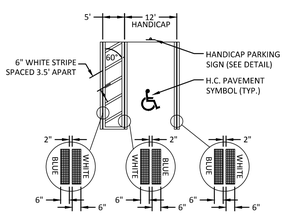

TYPICAL STREET SIGNS
LOCATE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

NOTES:
1. ALL LETTERS ARE 1" SERIES "C" PER MUTCD.
2. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
4. FINE NOTIFICATION SIGN SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) WHITE BACKGROUND WITH BLACK OPAQUE LEGEND & BORDER. CONTRACTOR SHALL VERIFY FINE AMOUNT & ORD. NO.
5. ONE(1) SIGN REQUIRED FOR EACH PARKING SPACE.
6. INSTALLATION HEIGHT OF SIGN SHALL BE 84" ABOVE THE FINISHED GRADE TO THE BOTTOM OF THE SIGN. ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
7. SIGN POST TO BE GALVANIZED BREAKAWAY STEEL U POST.
8. SIGN TO BE FASTENED TO POST WITH ACORN NUT.




HANDICAP PARKING SIGN

NTS




STRIPING, SPACING, AND CURB RAMPS SHALL COMPLY WITH THE LATEST STATE OF FLORIDA ACCESSIBILITY CODE & FDOT STANDARD INDEX 17346

NOTE: ALL SIGNS TO USE ACORN BOLTS.

HANDICAP STRIPING DETAIL

NTS

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 00007350

GARTH R. RITTER
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PROFESSIONAL ENGINEER

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ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488


| DATE | REVISION |
|---|---|

PREPARED FOR:
THE KLEIN COMPANY

DWELL AT MAITLAND

SITE DETAILS

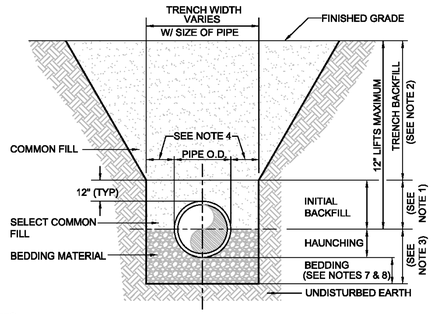
| | |
|---|---|
| DRAWN: | BMR |
| DESIGN: | GRR |
| CHECKED: | SCF |
| JOB NO.: | 1109.000 |
| DATE: | 12/11/2015 |

SHEET
C-5.0

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **BEDDING AND TRENCHING - TYPE A** | FIGURE A101

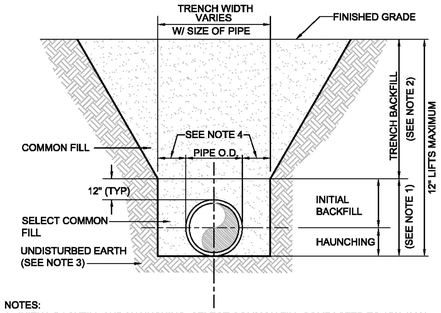



NOTES:
1. INITIAL BACKFILL: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. TYPE A BEDDING MATERIAL SHALL CONFORM TO FDOT NO. 57 AGGREGATE.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. BEDDING DEPTH SHALL BE 4" MINIMUM FOR PIPE DIAMETER UP TO 12" AND 6" MINIMUM FOR PIPE DIAMETER 16" AND LARGER.
8. DEPTH FOR REMOVAL OF UNSUITABLE MATERIAL SHALL GOVERN DEPTH OF BEDDING ROCK BELOW THE PIPE. UTILITIES SHALL DETERMINE IN THE FIELD REQUIRED REMOVAL OF UNSUITABLE MATERIAL TO REACH SUITABLE FOUNDATION.
9. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF R/W UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **BEDDING AND TRENCHING - TYPE B** | FIGURE A102

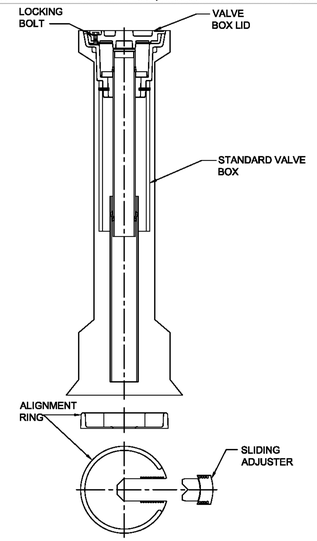



NOTES:
1. INITIAL BACKFILL AND HAUNCHING: SELECT COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% (98% UNDER PAVEMENT) OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE A BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY UTILITIES.
4. 15" MAX. (12" MIN.) FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX (12" MIN) FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
7. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN ORANGE COUNTY RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **SEALED VALVE BOX, ADJUSTABLE** | FIGURE A111

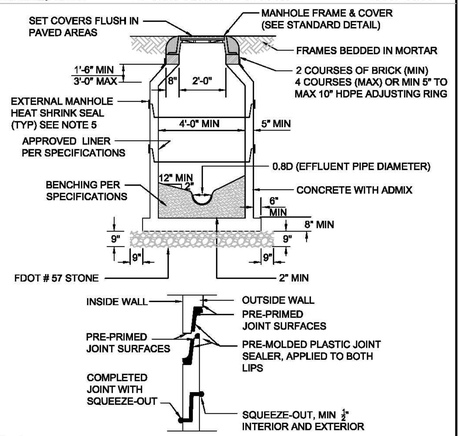



NOTES:
1. FOR ALL MAINS 6' DEEP OR GREATER.
2. FOR MAINS 16" IN DIAMETER OR GREATER REGARDLESS OF DEPTH.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **PRECAST CONCRETE MANHOLE** | FIGURE A301

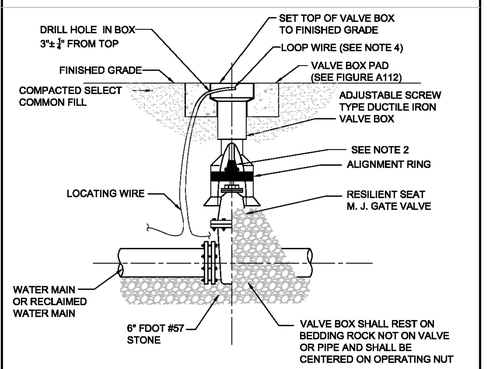



NOTES:
1. DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAIL.
2. ECCENTRIC CONE DESIGN MAY BE USED FOR CONFLICT RESOLUTION WITH OCU APPROVAL.
3. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
4. LIFT HOLES THROUGH STRUCTURE ARE NOT PERMITTED.
5. WRAP TIGHTLY AROUND CASTING JOINTS AND APPLY HIGH INTENSITY PROPANE TORCH TO EFFECTIVELY SEAL THEM FROM GROUND WATER INFILTRATION.
6. HDPE ADJUSTING RINGS MAY BE SUBSTITUTED FOR BRICK RISERS.
7. SECTION HEIGHTS VARY AS REQUIRED, AND AS AVAILABLE, FROM APPROVED MANUFACTURERS LISTED IN APPENDIX D.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **GATE VALVE AND BOX WATER AND RECLAIMED WATER MAINS** | FIGURE A107

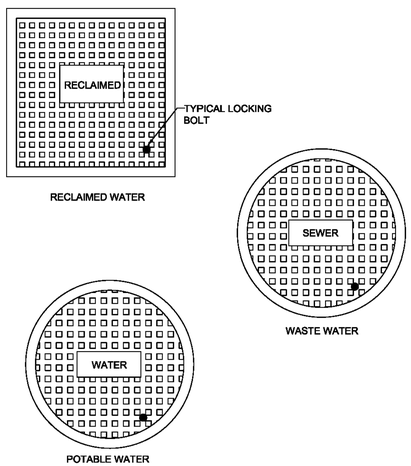



NOTES:
1. PVC PIPE OR DUCTILE IRON PIPE EXTENSIONS SHALL NOT BE USED ON VALVE BOX INSTALLATION.
2. THE VALVE ACTUATING NUT SHALL BE EXTENDED TO BE WITHIN 3' OF FINISHED GRADE.
3. PROVIDE A PLASTIC DEBRIS SHIELD / ALIGNMENT RING WHICH INSTALLS BELOW THE VALVE ACTUATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE ACTUATING NUT AND MINIMIZE INFILTRATION.
4. LOCATING WIRE SHALL BE CONTINUOUS WITH NO SPLICES AND SHALL EXTEND 12" ABOVE TOP OF COLLAR. WIRE SHALL BE COLOR CODED TO MATCH THE UTILITY INSTALLED.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS.
6. REFER TO FIGURE A111 FOR INSTALLATIONS AT A DEPTH OF 6' OR GREATER.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **TYPICAL VALVE BOX COVER** | FIGURE A110

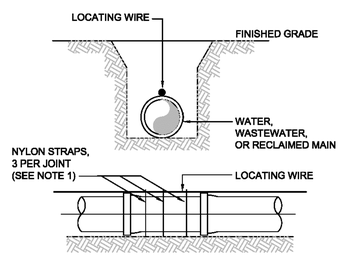



NOTE:
1. LOCKING LIDS ARE REQUIRED ON ALL VALVE BOXES.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **PIPE LOCATING WIRE** | FIGURE A114




NOTES:
1. ALL PIPE SHALL REQUIRE INSULATED LOCATING WIRE (10 GAUGE SOLID COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR AND SHALL BE WRAPPED WITH NYLON STRAPS TO TOP CENTERLINE OF THE PIPE.
2. LOCATING WIRE SHALL BE CONTINUOUS INSIDE VALVE BOXES AND SHALL EXTEND 12" ABOVE TOP OF COLLAR.
3. WIRE INSULATION SHALL BE COLOR CODED FOR THE TYPE OF PIPE BEING INSTALLED.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS** | FIGURE A116

| HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PROPOSED UTILITY | POTABLE WATER | | RECLAIMED WATER | | WASTEWATER (GRAVITY & FM) | | STORM SEWER | |
| | HORIZ | VERT | HORIZ | VERT | HORIZ | VERT | HORIZ | VERT |
| POTABLE WATER | 3' NOTE 1 | 12" | 3' NOTE 1 & 3 | 12" NOTE 3 | 6' NOTE 3 | 12" NOTE 3 | 3' NOTE 1 & 3 | 12"/18" NOTE 2 & 3 |
| RECLAIMED WATER | 3' NOTE 1 & 3 | 12" NOTE 3 | 3' NOTE 1 | 12" | 3' NOTE 1 | 12" | 3' NOTE 1 | 12"/18" NOTE 2 |
| WASTEWATER (GRAVITY AND FM) | 6' NOTE 3 | 12" NOTE 3 | 3' NOTE 1 | 12" | 3' NOTE 1 | 12" | 3' NOTE 1 | 12"/18" NOTE 2 |
| RIGHT OF WAY | 3' NOTE 1 | N/A | 3' NOTE 1 | N/A | 3' NOTE 1 | N/A | N/A | N/A |

NOTES:
1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTHS, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
2. THE 18-INCH SEPARATION REQUIREMENT APPLIES WHEN THE STORM PIPE CROSSES ABOVE THE OCU MAIN, AND WHEN THE STORM PIPE HAS A DIAMETER EQUAL TO OR GREATER THAN 24 INCHES. OTHERWISE, THE REQUIRED SEPARATION IS 12 INCHES.
3. THIS SEPARATION REQUIREMENT COMPLIES WITH MINIMUM FDEP SEPARATION REQUIREMENTS OUTLINED IN 62-555.314, FAC. VARIANCES FROM THE FDEP REQUIREMENTS MUST COMPLY WITH 62-555.314(5), FAC AND MUST BE APPROVED INDIVIDUALLY BY BOTH FDEP AND OCU.
4. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURE.

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 00007050
GARTH R. RITTER LICENSE No. 79364 STATE OF FLORIDA PROFESSIONAL ENGINEER
GARTH R. RITTER, P.E.
FLORIDA REGISTRATION 79364
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK


KCG KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7656 FAX (407) 898-1488


| DATE | REVISION |
|---|---|
| | |

PREPARED FOR: THE KLEIN COMPANY

DWELL AT MAITLAND

UTILITY DETAILS

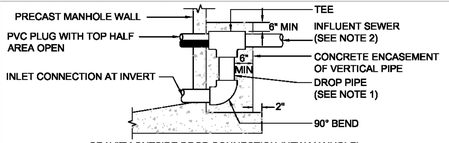
DRAWN: BMR
DESIGN: GRR
CHECKED: SCF
JOB NO.: 1109.000
DATE: 12/11/2015

SHEET C-6.0

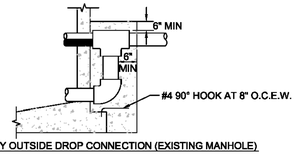
ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

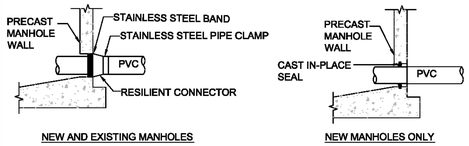
DATE: February 11, 2011 | **GRAVITY MANHOLE CONNECTION** | FIGURE A302




GRAVITY OUTSIDE DROP CONNECTION (NEW MANHOLE)




GRAVITY OUTSIDE DROP CONNECTION (EXISTING MANHOLE)




NEW AND EXISTING MANHOLES | NEW MANHOLES ONLY

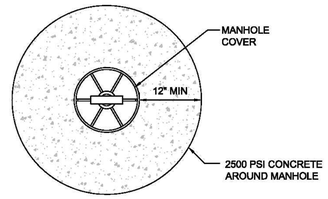
STANDARD CONNECTION

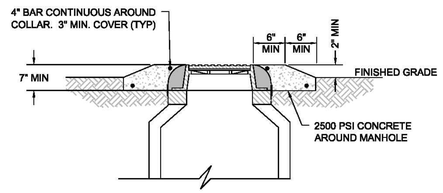
NOTES:
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. AN OUTSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT LINES WHICH HAVE AN INVERT 2' OR MORE ABOVE THE MANHOLE INVERT.
3. CONTRACTOR TO COORDINATE THE PRESENCE OF UTILITIES INSPECTOR DURING CORING AND CONNECTIONS TO EXISTING MANHOLES.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **MANHOLE IN GRASS AREA** | FIGURE A303



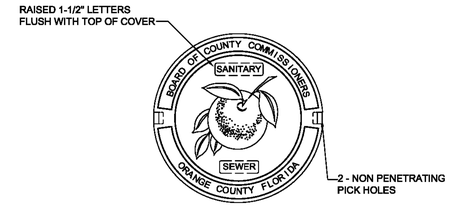




NOTES:
1. CLEARANCE OF 30" FREE FROM OBSTRUCTIONS IN ALL DIRECTIONS.
2. AREAS SUPPORTING CONCRETE COLLAR OR SLAB SHALL BE PROPERLY COMPACTED.
3. TOP OF MANHOLE SHALL BE 2" ABOVE FINISHED GRADE, CROWN OF ADJACENT ROADWAY, OR 100 YEAR FLOOD ELEVATION, WHICHEVER IS GREATER.

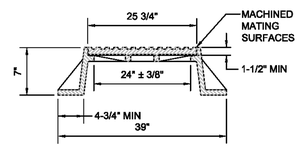
ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | STANDARD DRAWINGS | GENERAL

DATE: February 11, 2011 | **STANDARD MANHOLE FRAME AND COVER** | FIGURE A304




PLAN




ELEVATION

NOTES:
1. ONLY APPLIES TO UTILITIES OWNED AND MAINTAINED MANHOLES. "ORANGE COUNTY" SHALL NOT APPEAR ON PRIVATE MANHOLES.

ORANGE COUNTY UTILITIES
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

APPENDIX A | FIGURE GN

DATE: February 11, 2011

OCU GENERAL NOTES:

1. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WATER MAINS, WASTEWATER FORCE MAINS, GRAVITY MAINS AND RECLAIMED WATER MAINS. MAIN LOCATIONS SHOWN ON PLANS MAY NOT BE EXACT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING UTILITY LOCATIONS.
2. SHOULD A PIPE EMERGENCY OCCUR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OCU DISPATCH OPERATOR (407-836-2777) AND THE OCU INSPECTOR.
3. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST SEVEN DAYS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION PROJECT BY CALLING (407) 254-9798.
4. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION BY CALLING (407) 254-9798.
5. THE MATERIALS, PRODUCTS, AND CONSTRUCTION OF ALL UTILITIES CONNECTING TO THE OCU SYSTEM SHALL BE IN CONFORMANCE WITH THE ORANGE COUNTY UTILITIES STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL.
6. ALL OCU MAINS AND FACILITIES WITHIN THE LIMITS OF THE PROJECT SHALL BE SUPPORTED AND PROTECTED AGAINST DAMAGE DURING CONSTRUCTION.
7. THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, SHALL IMMEDIATELY REPAIR ALL DAMAGES TO OCU MAINS AND FACILITIES. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY OCU, OCU MAY PERFORM REQUIRED REPAIRS AND CLEANUP. THE CONTRACTOR WILL BE CHARGED FOR ALL EXPENSES ASSOCIATED WITH THE REPAIR.
8. THE CONTRACTOR SHALL ADJUST ALL EXISTING OCU MAINS AND FACILITIES IN CONFLICT WITH NEW GRADE, NEW OR ALTERED ROADWAYS, SIDEWALKS, DRIVEWAYS, OR STORM WATER IMPROVEMENTS. OCU FACILITIES TO BE ADJUSTED INCLUDE, BUT ARE NOT LIMITED TO PIPELINES, PUMP STATIONS, VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, MANHOLE COVERS, AND METERS.
9. ONLY OCU SHALL OPERATE OCU WATER, WASTEWATER, AND RECLAIMED WATER VALVES. THE CONTRACTOR SHALL COORDINATE VALVE OPERATION WITH THE OCU INSPECTOR. FOR OPERATION OF MAINS NOT OWNED BY OCU, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE APPROPRIATE UTILITY REPRESENTATIVE.
10. CONSTRUCTION ACTIVITIES SHALL NOT CAUSE INTERRUPTIONS IN WATER, WASTEWATER, OR RECLAIMED WATER SERVICE. THE CONTRACTOR SHALL COORDINATE PRE-APPROVED INTERRUPTIONS OF SERVICE WITH THE OCU INSPECTOR 7 WORKING DAYS IN ADVANCE.
11. THE CONTRACTOR SHALL PROVIDE FOR BYPASSING AND/OR HAULING WASTEWATER DURING APPROVED INTERRUPTIONS OF WASTEWATER FLOWS AND CONNECTIONS. THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER TO OCU DEVELOPMENT ENGINEERING FOR APPROVAL PRIOR TO IMPLEMENTATION BY CONTRACTOR.
12. ALL VALVES INSTALLED AS PART OF THIS CONSTRUCTION PROJECT SHALL REMAIN CLOSED DURING CONSTRUCTION. KEEP VALVES ON ALL WET TAPS CLOSED UNTIL CLEARED BY FDEP. DO NOT CONNECT NEWLY CONSTRUCTED WATER MAINS TO ANY EXISTING WATER MAINS UNLESS CLEARED BY FDEP AND OCU.
13. THE CONTRACTOR SHALL PROVIDE A JUMPER ASSEMBLY WITH A BACKFLOW PREVENTER FOR MAKING TEMPORARY CONNECTIONS TO AN EXISTING POTABLE WATER SOURCE IN ORDER TO CHLORINATE AND FLUSH NEW WATER MAINS WITH POTABLE WATER. ANY TEMPORARY POTABLE WATER CONNECTIONS TO RECLAIMED WATER OR FORCEMAIN SHALL ALSO BE EQUIPPED WITH A BACKFLOW PREVENTER.
14. FOR PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, NO PIPE BENDING IS ALLOWED. THE MAXIMUM ALLOWABLE TOLERANCE FOR JOINT DEFLECTION IS 0.75 DEGREES (3-INCHES PER JOINT PER 20 FT STICK OF PIPE.) ALIGNMENT CHANGE SHALL BE MADE ONLY WITH SLEEVES AND FITTINGS.
15. FOR NON-PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, LONG RADIUS CURVES, EITHER HORIZONTAL OR VERTICAL, MAY BE INSTALLED WITH STANDARD PIPE BY DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTINGS AND LAYING RADIUS FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75 PERCENT OF THE PIPE MANUFACTURER'S RECOMMENDATION.

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 00007350
GARTH R. RITTER
LICENSE No. 79364
STATE OF FLORIDA
PROFESSIONAL ENGINEER
GARTH R. RITTER, P.E.
FLORIDA REGISTRATION 79364
NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK


KCG KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488


| DATE | REVISION |
|---|---|

PREPARED FOR:
THE KLEIN COMPANY

DWELL AT MAITLAND

UTILITY DETAILS

DRAWN: BMR
DESIGN: GRR
CHECKED: SCF
JOB NO.: 1109.000
DATE: 12/11/2015

SHEET
C-6.1

SUMMIT PARK DRIVE

MAITLAND SUMMIT BOULEVARD

LOADING

LOADING

WHEN FULL OR AS NECESSARY, TRASH AND RECYCLING RECEPTACLES TO BE WHEELED OUT OF TRASH ROOM BY MAINTENENCE STAFF FOR COLLECTION BY LOCAL SOLID WASTE COLLECTOR.

INTERIOR TRASH AND RECYCLING ROOM. RECEPTACLES TO BE LOADED VIA CHUTES ON EACH FLOOR.

BUILDING 100
MULTI-FAMILY
RESIDENTIAL
FFE = 96.40

DOG PARK

Garbage truck

Garbage truck

Garbage truck

31.70

6.00 16.30

Garbage truck feet

| | |
|---|---|
| Width | : 8.00 |
| Track | : 8.00 |
| Lock to Lock Time | : 6.0 |
| Steering Angle | : 33.3 |

GRAPHIC SCALE

20 0 10 20 40

( IN FEET )
1 inch = 20 ft.

FOR REVIEW ONLY
CIVIL DISCIPLINE ONLY
CERTIFICATE OF AUTHORIZATION NUMBER 00007350

GARTH R. RITTER
LICENSE No. 79364
STATE OF FLORIDA
PROFESSIONAL ENGINEER

GARTH R. RITTER, P.E.
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KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488


| DATE | REVISION |
|---|---|

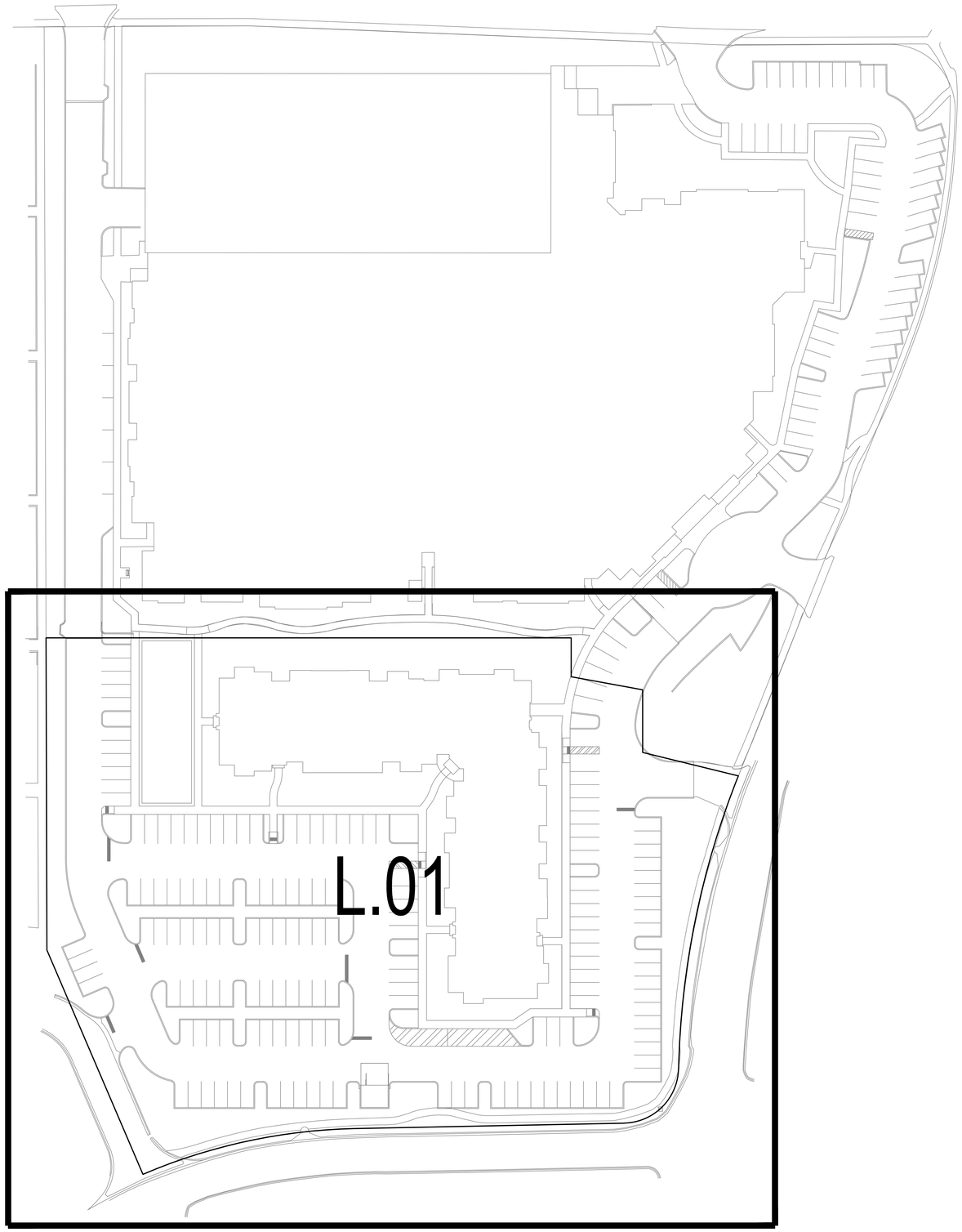
PREPARED FOR:
THE KLEIN COMPANY

DWELL AT MAITLAND

SOLID WASTE AND RECYCLING PLAN

| | |
|---|---|
| DRAWN: | BMR |
| DESIGN: | GRR |
| CHECKED: | SCF |
| JOB NO.: | 1109.000 |
| DATE: | 12/11/2015 |

SHEET
C-7.0




LRDG
407-730-5774

NORTH

0 20 40 80
SCALE: 1"= 40'

| NO. | DATE | DESCRIPTION | DWG BY | CHK BY |
|---|---|---|---|---|
| | | | | |

# DWELL AT MAITLAND

CITY OF MAITLAND, FLORIDA

CONSTRUCTION DOCUMENTS

PREPARED FOR:
THE KLEIN COMPANY

## OVERALL REFERENCE PLAN

Landscape Architect
In Charge:
Barry H. Rymer

REGISTERED LANDSCAPE ARCHITECT
BARRY H. RYMER
LA 1343
Florida

Registration No. LA0001343
Certificate of
Authorization LC 26000435

DATE:
11-23-2015

PROJECT NO.:
KLE015-03.01

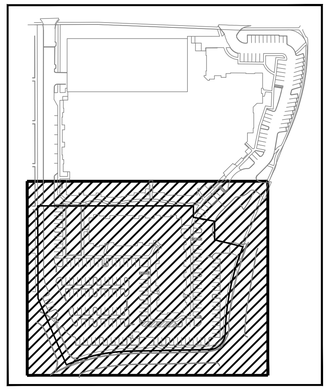
DRAWN BY:
JMM/SAM

DESIGNED BY:
JMM

CHECKED BY:
BHR

SHEET NO.

**LA-00**



# KEY MAP

SCALE: N.T.S.

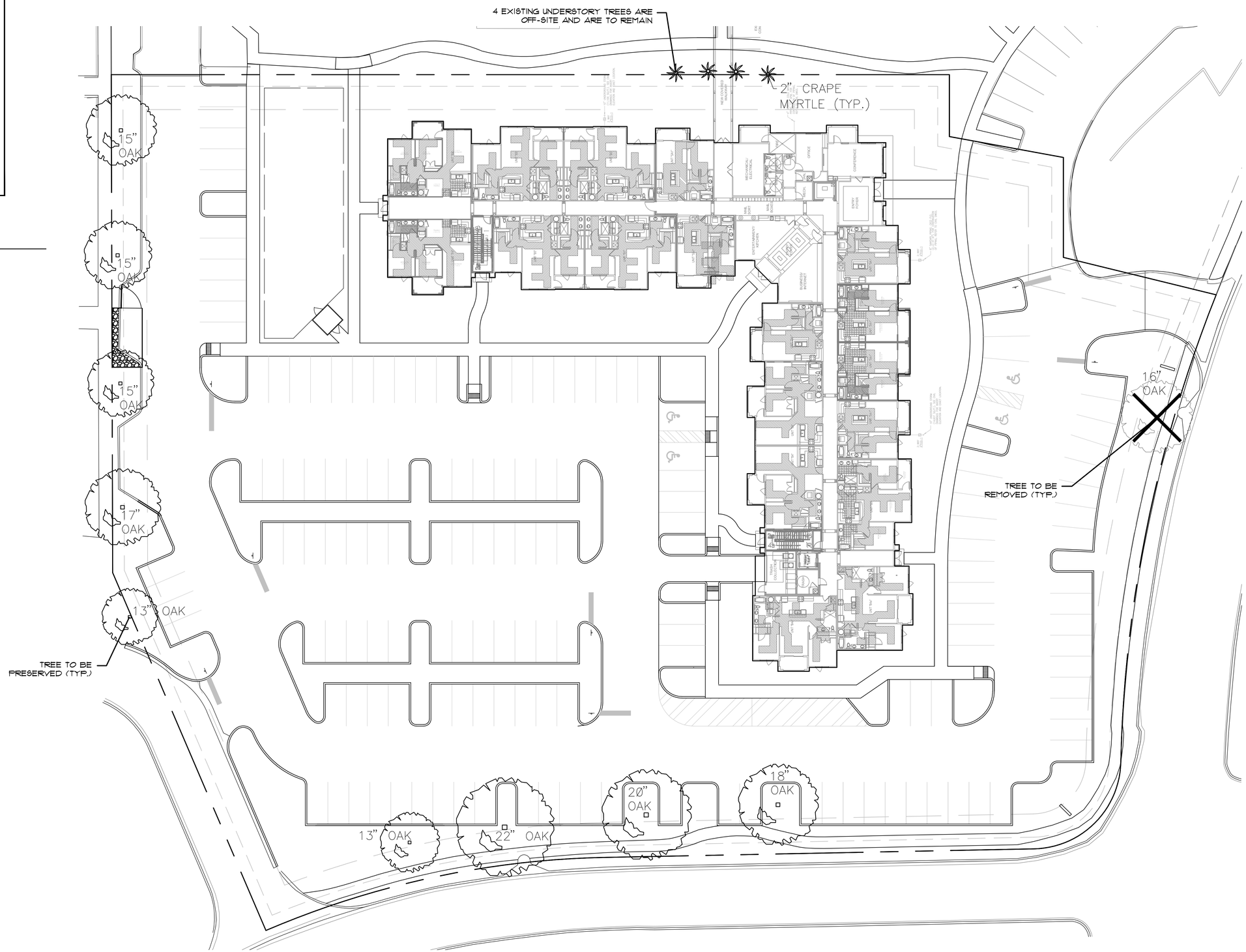
**PLANT LEGEND:**

15" OAK — TREE TO BE PRESERVED: 9 THIS SHEET

TREE TO BE REMOVED: Ø SPECIMENS THIS SHEET

TOTAL MITIGATION REQUIREMENTS:
Ø TREES REQUIRED FOR REPLACEMENT

LOT SIZE: 43,56Ø+ SF
37" DBH/ACRE REQUIRED
SEE SHEET LD.Ø1 FOR TREES PROVIDED




LRDG
407-730-5774

NORTH

SCALE: 1" = 20'

| NO. | DATE | DESCRIPTION | DWG BY | CHK BY |
|---|---|---|---|---|
| | | | | |

# DWELL AT MAITLAND

CITY OF MAITLAND, FLORIDA

CONSTRUCTION DOCUMENTS

PREPARED FOR:
THE KLEIN COMPANY

## TREE REMOVAL PLAN

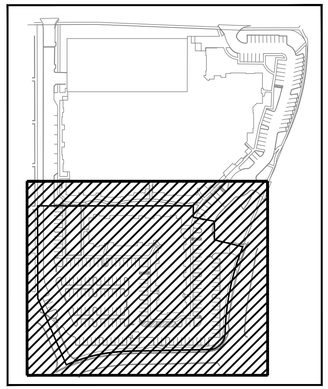
Landscape Architect
In Charge:
Brian H. Rymer
Registration No. LA0001343
Certificate of Authorization LC 26000435

REGISTERED LANDSCAPE ARCHITECT
BRIAN H. RYMER
LA 1343
Florida

DATE: 11-23-2015
PROJECT NO.: KLE015-03.01
DRAWN BY: JMM/SAM
DESIGNED BY: JMM
CHECKED BY: BHR

SHEET NO.

**TR.01**



# KEY MAP

SCALE: N.T.S.

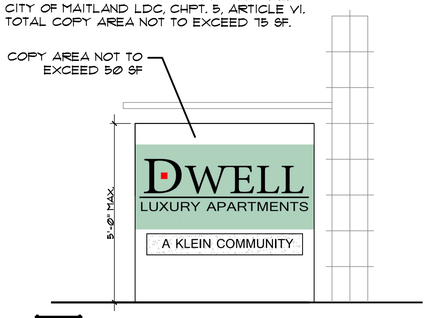
REQUIRED BUFFER YARD
MULTI-FAMILY USE ADJ TO
ARTERIAL/COLLECTOR RD
BUFFER D REQUIRED, 355 LF
10' WIDE (WHERE EXISTING PAVEMENT TO REMAIN ALLOWS), 60 SHRUBS/100 LF, & 4 TREES/100 LF
213 SHRUBS REQ, 213 SHRUBS PROVIDED
14 TREES REQUIRED, 14 TREES PROVIDED

**PLANT LEGEND:**

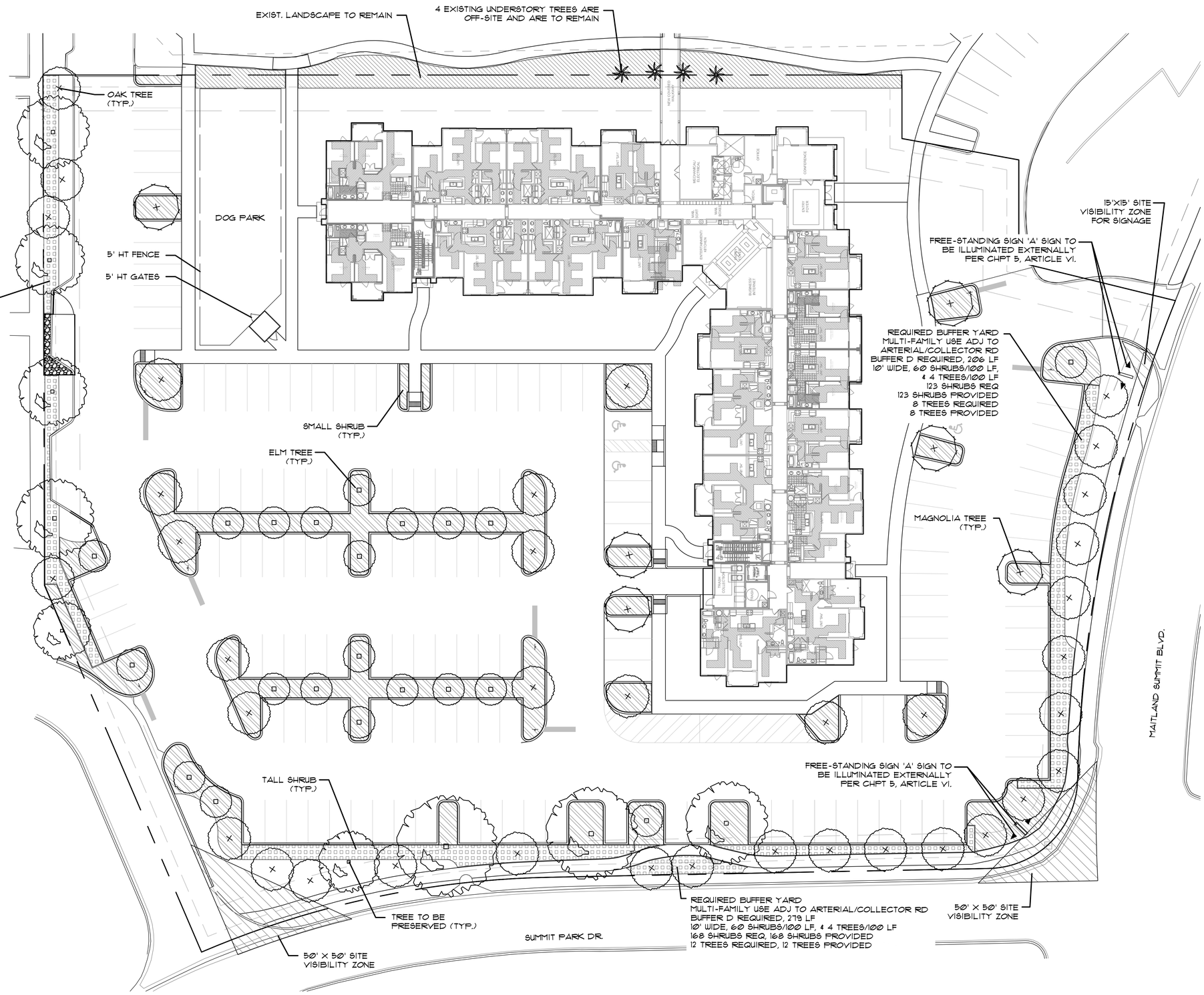
- TREE TO BE PRESERVED: 9 THIS SHEET
- 37 = OAK TREE, *Quercus virginiana* (12' HT. MINIMUM PER LDC)
- 6 = MAGNOLIA TREE, *Magnolia grandiflora* (12' HT. MINIMUM PER LDC)
- 21 = DRAKE ELM TREE, *Ulmus parvifolia* (10' HT. MINIMUM PER LDC)
- EXISTING LANDSCAPE TO REMAIN
- SMALL SHRUB, NOT TO EXCEED 30" HT
  - ASIAN JASMINE
  - BORDER GRASS
  - PERENNIAL PEANUT
- TALL SHRUB, 3' TALL W/I ONE YEAR OF PLANTING
  - SANDANKWA VIBURNUM - 30" HT. MIN, 30" OC
  - SWEET VIBURNUM - 30" HT. MIN, 30" OC
  - PODOCARPUS - 30" HT. MIN, 30" OC

NOTE:
TREE TOTALS ARE PRELIMINARY AND SUBJECT TO CHANGE AT TIME OF FINAL ENGINEERING.

NOTE:
SIGN TO BE ILLUMINATED EXTERNALLY PER CITY OF MAITLAND LDC, CHPT. 5, ARTICLE VI.
TOTAL COPY AREA NOT TO EXCEED 75 SF.




**A** MULTI-FAMILY FREESTANDING SIGN
SCALE: 1/2" = 1'-0"




LRDG
407-730-5774

NORTH

SCALE: 1"= 20'

| NO. | DATE | DESCRIPTION | DWG BY | CHK BY |
|---|---|---|---|---|
| | | | | |

# DWELL AT MAITLAND

CITY OF MAITLAND, FLORIDA

**CONSTRUCTION DOCUMENTS**

PREPARED FOR:
THE KLEIN COMPANY

## LANDSCAPE & SIGNAGE PLAN

Landscape Architect In Charge: Brian H. Rimer

REGISTERED LANDSCAPE ARCHITECT BRIAN H. RIMER LA 1343 STATE OF FLORIDA

Registration No. LA0001343
Certificate of Authorization LC 26000435

DATE: 11-23-2015
PROJECT NO.: KLE015-03.01
DRAWN BY: JMM/SAM
DESIGNED BY: JMM
CHECKED BY: BHR

SHEET NO.

**L.01**

## PLANT LIST:

| SHADE TREES, 40% MIN. | | | |
|---|---|---|---|
| QTY. | BOTANICAL NAME | COMMON NAME | SIZE & SPECIFICATION |
| | TREES | | |
| 6 | Magnolia grandiflora | Southern Magnolia | 3.0 DBH, 12' HT. min |
| 37 | Quercus virginiana | Live Oak | 3.0 DBH, 12' HT. min |

40% MIN. OF 122" REQUIRED FOR REPLACEMENT = 49" AT 3" DBH. = 17 SHADE TREES REQUIRED
SHADE TREES REQUIRED = 17
SHADE TREES PROVIDED = 43

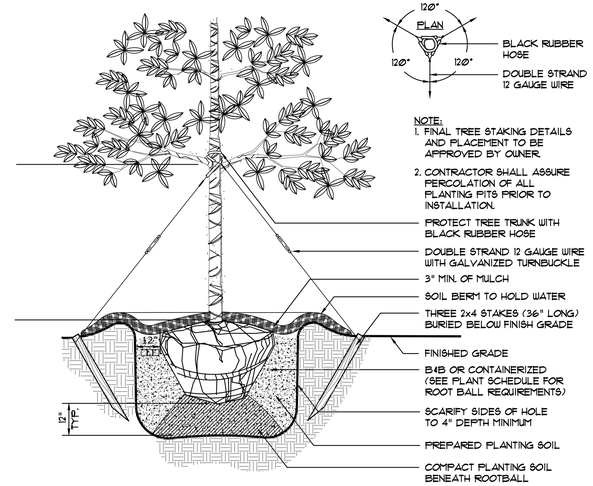
| INTERMEDIATE TREES, 30% MIN. | | | |
|---|---|---|---|
| QTY. | BOTANICAL NAME | COMMON NAME | SIZE & SPECIFICATION |
| | TREES | | |
| 21 | Ulmus parvifolia | Drake Elm | 2.0 DBH, 10' HT. min |

30% MIN. OF 122" REQUIRED FOR REPLACEMENT = 36.6" AT 2" DBH. = 18 INTERMEDIATE TREES REQUIRED
INTERMEDIATE TREES REQUIRED = 18
INTERMEDIATE TREES PROVIDED = 21

## CODE REQUIREMENTS:

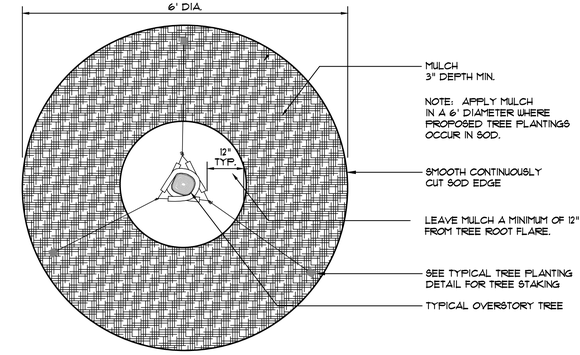
| REQUIRED PLANT MATERIAL | REQUIRED | PROVIDED |
|---|---|---|
| LOT SIZE = 142,601 SF OR 3.274 ACRES | 37" DBH/ACRE REQUIRED = 122" REQUIRED FOR REPLACEMENT | 168" PROVIDED |
| 17 CANOPY TREES + 18 INTERMEDIATE TREES = 35 TOTAL TREES REQUIRED | 11-35 REQUIRED TREES = 3 SPECIES REQUIRED | 3 SPECIES PROVIDED |

| LANDSCAPE IN PARKING LOTS | REQUIRED | PROVIDED |
|---|---|---|
| SHRUBS SHALL BE REQUIRED AT A MINIMUM RATE OF ONE (1) SHRUB PER TWO HUNDRED (200) TOTAL SQUARE FEET OF PARKING LOT AREA, EXCLUSIVE OF PERIMETER PLANTINGS. | PARKING LOT AREA = 62,129 SF / 200 SF = 311 SHRUBS REQUIRED | 311+ SHRUBS PROVIDED |

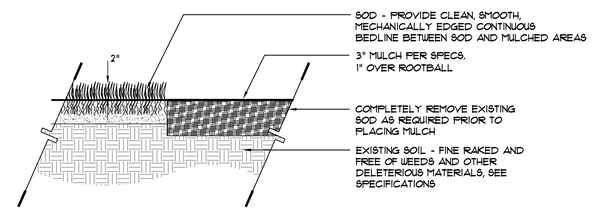



NOTE:
1. FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY OWNER.
2. CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS PRIOR TO INSTALLATION.

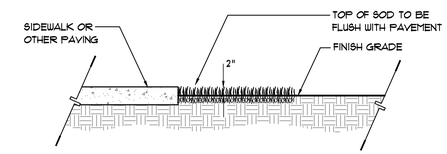
LARGE TREE PLANTING DETAIL 1 LD-01
NOT TO SCALE




TYPICAL TREE MULCHING DETAIL IN SOD AREAS 2 LD-01
NOT TO SCALE



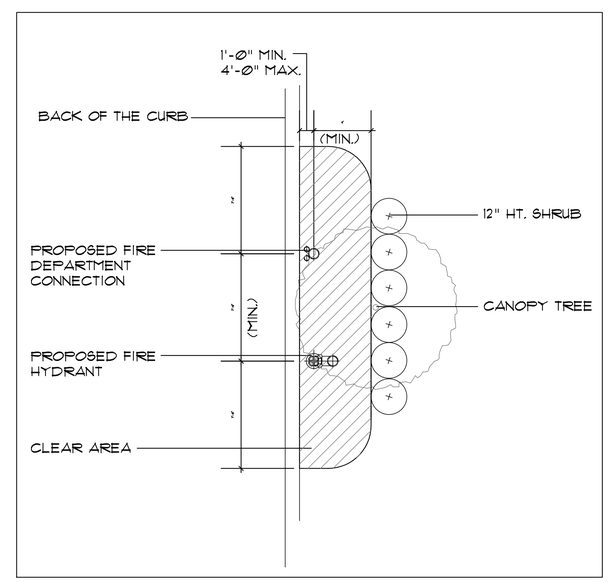

SOD PLACEMENT ADJ. TO MULCH 3 LD-01
NOT TO SCALE




SOD PLACEMENT ADJ. TO PAVEMENT 4 LD-01
NOT TO SCALE

## LANDSCAPE NOTES:

1. ALL PLANT MATERIAL SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS SPECIFIED IN "GRADES AND STANDARDS FOR NURSERY PLANTS", "PARTS 1 AND 2, BY DIVISION OF PLANT INDUSTRY, FLORIDA", DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, AND SHALL CONFORM TO CURRENT AMERICAN ASSOCIATION OF NURSERYMEN 'STANDARDS FOR NURSERY STOCK', LATEST EDITION.
2. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF QUANTITIES THE PLANT LIST. IN THE EVENT OF A CONFLICT BETWEEN QUANTITIES ON THE PLANT LIST AND THE PLANS, THE PLANS SHALL CONTROL AND THE DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BID. ANY DEVIATION FROM THESE PLANS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
3. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE BUILDING CODES, ORDINANCES AND LOCAL REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS TO PREFORM THE WORK.
4. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR INSPECTION OF EXISTING CONDITIONS AND PROMPTLY REPORTING ALL DISCREPANCIES AND IMPROPER CONDITIONS (WETNESS, MUCK, DEBRIS, ECT) TO LANDSCAPE ARCHITECT PRIOR TO BIDDING. CONTRACTOR IS RESPONSIBLE FOR SOIL ANALYSIS PRIOR TO INSTALLATION OF PLANTINGS, AND IS RESPONSIBLE FOR ALL SOIL AMENDMENTS TO CONFORM TO SPECIFICATIONS.
5. ALL TREE MATERIAL SHALL BE CONTAINER GROWN UNLESS OTHERWISE SPECIFIED.
6. THE LANDSCAPE CONTRACTOR SHALL AQUAINT HIMSELF WITH ALL CIVIL DRAWING AS THEY RELATE TO PAVING SITE GRADING, AND ALL UTILITIES, (INCLUDING WATER, SEWER AND ELECTRICAL SUPPLY) TO PRECLUDE ANY MISUNDERSTANDING AND ENSURE TROUBLE FREE INSTALLATION. THE EIACT LOCATION OF ALL EXISTING STRUCTURES, UNDERGROUND UTILITIES, EXISTING UNDERGROUND SPRINKLERS AND PIPE MAY NOT BE INDICATED ON DRAWINGS. THE CONTRACTOR SHALL CONDUCT HIS WORK IN A MANNER TO PREVENT INTERRUPTION OR DAMAGE TO EIISTING SYSTEMS WHICH MUST REMAIN OPERATIONAL. THE CONTRACTOR SHALL PROTECT UTILITY SERVICES WHICH MUST REMAIN OPERATIONAL AND SHALL BE RESPONSIBLE FOR THERE REPLACEMENT IF DAMAGED BY HIM.
7. ALL PLANTING BEDS SHALL RECEIVE A 3" LAYER (1" OVER ROOTBALL) OF PINE BARK NUGGETS.
8. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.
9. SHALL MEET CHAPTER 8 OF CITY OF MAITLAND LAND DEVELOPMENT CODE.




FIRE HYDRANT PLANTING DETAIL
SCALE: 1"= 5'

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# DWELL AT MAITLAND

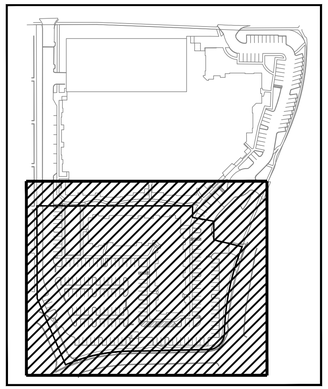
CITY OF MAITLAND, FLORIDA
CONSTRUCTION DOCUMENTS
PREPARED FOR:
THE KLEIN COMPANY

## LANDSCAPE NOTES, DETAILS, & PLANT LIST

Landscape Architect In Charge: Brown Reynolds Armer
REGISTERED LANDSCAPE ARCHITECT BRIAN H. REYNOLDS LA 1343 STATE OF FLORIDA
Registration No. LA0001343
Certificate of Authorization LC 26000435

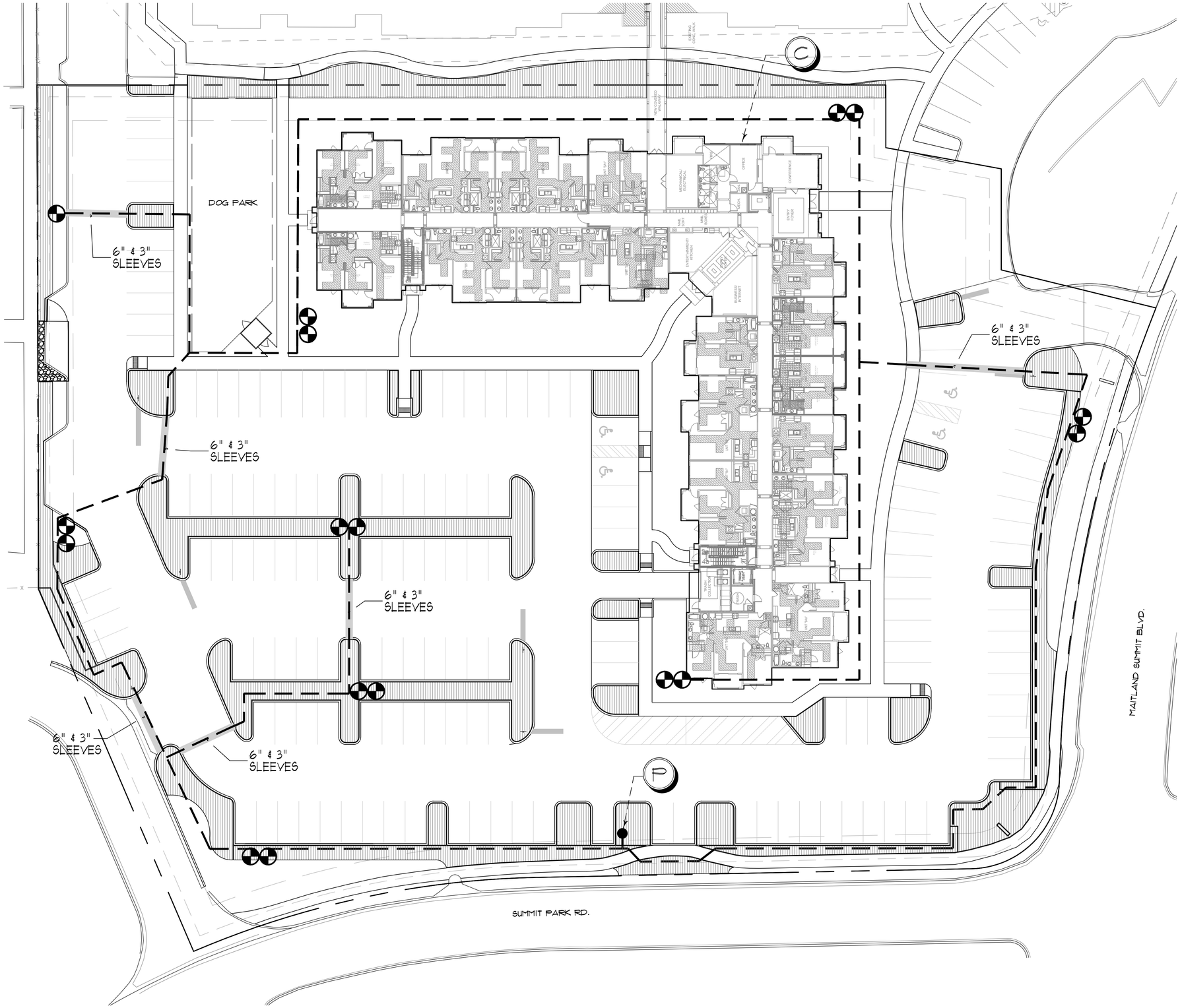
DATE: 11-23-2015
PROJECT NO.: KLE015-03.01
DRAWN BY: JMM/SAM
DESIGNED BY: JMM
CHECKED BY: BHR

SHEET NO.
LD.01



KEY MAP

SCALE: N.T.S.

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NORTH

0 10 20 40

SCALE: 1"= 20'

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# DWELL AT MAITLAND

CITY OF MAITLAND, FLORIDA

CONSTRUCTION DOCUMENTS

PREPARED FOR:
THE KLEIN COMPANY

## IRRIGATION PLAN

Landscape Architect
In Charge:
Barry H. Rymer

REGISTERED BARRY H. RYMER LANDSCAPE ARCHITECT LA 1343 FLORIDA

Registration No. LA0001343
Certificate of
Authorization LC 26000435

DATE: 11-23-2015

PROJECT NO.: KLE015-03.01

DRAWN BY: JMM/SAM

DESIGNED BY: JMM

CHECKED BY: BHR

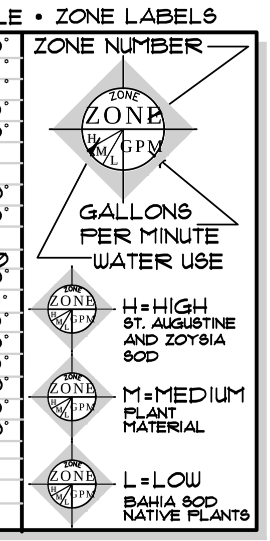
SHEET NO.

**IR.01**

# NOZZLE CHART

| LETTER | PRODUCT SPEC. | G.P.M. @ 40PSI | RADIUS | RADIUS/ANGLE | |
|---|---|---|---|---|---|
| A | MP2000 | 1.47 | 19' | FULL | 360˚ |
| B | MP CORNER | .45 | 14' | CORNER | 105˚ |
| C | MP CORNER | .19 | 14' | CORNER | 45˚ |
| D | MP2000 | .74 | 19' | HALF | 180˚ |
| F | MP2000 | .40 | 19' | QUARTER | 90˚ |
| G | MP STRIP | .22 | 5' X 15' | END STRIP | |
| H | RAINBIRD SQ-H | .23 | 4.5' | HALF PATTERN | |
| J | MP1000 | .50 | 14' | THREE QTR. | 270˚ |
| K | MP1000 | .75 | 14' | FULL | 360˚ |
| M | MP SIDE STRIP | .44 | 5' X 30' | SIDE STRIP | |
| P | MP3500 | 2.86 | 30' | HALF PATTERN | 180 |
| R | MP1000 | .19 | 14' | QUARTER | 90˚ |
| S | MP SR SERIES | .42 | 6' | HALF | 180˚ |
| T | MP1000 | .37 | 14' | HALF | 180˚ |
| V | MP3000 | .86 | 30' | QUARTER | 90˚ |
| W | MP3000 | 1.82 | 30' | HALF | 180˚ |
| X | MP3000 | 2.73 | 30' | THREE QTR. | 270˚ |
| Y | MP3000 | 3.64 | 30' | FULL | 360˚ |
| Z | MP2000 | 1.10 | 19' | THREE QTR. | 270˚ |

ZONE LABELS




THE NOZZLES LISTED SHOW THE TYPE OF MP ROTATOR NOZZLE THAT SHOULD BE USED. THE CONTRACTOR SHOULD INSTALL THE MP1000, MP2000, MP3000 OR SPECIALTY NOZZLE IN EACH HEAD AS SHOWN BY THE LETTER BESIDE THE HEAD ON THE PLAN. THE GPM, DISTANCE AND ANGLE ON THE NOZZLE CHART ARE APPROXIMATE. THE CONTRACTOR SHALL ADJUST ALL NOZZLES TO PROVIDE THE 100% COVERAGE, BUT LIMIT OVERTHROW ON TO BUILDINGS, WALLS, PAVEMENT, ETC. THE HEADS SHALL BE SPACED AS PER THE PLAN. SCALE THE PLAN FOR DISTANCE. DO NOT ASSUME THAT ALL HEADS ARE SPACED AS PER CONVENTIONAL SPRAY HEADS. THE PRECIPITATION RATE FOR THESE NOZZLES IS LESS THAN A CONVENTIONAL SPRAY NOZZLE. FOLLOW THE ZONE CHART FOR AN APPROXIMATE RUN TIME FOR EACH ZONE, BUT SET THE RUN TIME ON THE CONTROLLER BASED ON THE SPECIFIC SITE CONDITIONS.

# GENERAL NOTES

1) REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES AND SHRUBS. HAND DIG AROUND ANY EXISTING TREES. DO NOT CUT ANY ROOTS OVER 2" IN DIAMETER.

2) ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 18" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.

3) ALL POP-UP ROTORS AND SPRAYS SHALL BE INSTALLED USING AN 18" PVC FLEX PIPE CONNECTION. DO NOT USE POLYETHYLENE PIPE.

4) ADJUST ALL NOZZLES TO REDUCE WATER WASTE ON HARD SURFACES & BLDG. WALLS. THROTTLE ALL VALVES ON SHRUB LINES AS REQUIRED TO PREVENT FOGGING. USE ADJUSTABLE NOZZLES WHERE REQUIRED TO AVOID ANY WATER ON BUILDING WINDOWS.

5) N/A

6) ALL CONTROL WIRE SPLICES SHALL BE MADE IN VALVE BOXES USING 3M DBR-Y WIRE CONNECTORS AND SEALANT WITH WIRE NUTS.

7) THE CONTRACTOR SHALL PREPARE AN AS-BUILT DRAWING SHOWING ALL IRRIGATION INSTALLATION. THE CONTRACTOR SHALL NEATLY MARK IN RED INK ON A WHITE BOND PAPER COPY OF THE IRRIGATION PLAN ANY INSTALLATION THAT DEVIATES FROM THE PLAN. THE AS-BUILT DRAWING SHALL ALSO LOCATE ALL MAINLINE AND VALVES BY SHOWING EXACT MEASUREMENTS FROM HARD SURFACES. MEASUREMENTS SHALL BE MARKED ON THE PLAN EVEN WHEN THE EQUIPMENT IS INSTALLED IN THE EXACT LOCATION AS THE PLAN.

8) ALL VALVES, GATE VALVES AND QUICK COUPLERS SHALL BE INSTALLED IN VALVE BOXES. THE VALVE BOXES SHALL BE PURPLE WHEN USING RECLAIMED WATER.

9) ANY PIPING SHOWN OUTSIDE THE PROPERTY LINE OR RUNNING OUTSIDE A LANDSCAPE AREA IS SHOWN THERE FOR CLARITY ONLY. ALL LINES SHALL BE INSTALLED ON THE PROPERTY AND INSIDE THE LANDSCAPE AREAS OR INSIDE A SCH. 40 SLEEVE.

10) ALL HEADS SHALL BE INSTALLED A MINIMUM OF 24" FROM ANY WALL AND A MINIMUM OF 6" FROM ANY SIDEWALK, PATIO OR ROAD. (MINIMUM OF 2' WHERE THERE ARE NO BUMPER STOPS) THE EXACT HEIGHT OF ANY 12" POP-UP THAT IS SHOWN IN A SHRUB BED SHALL BE DETERMINED BY THE OWNER'S REPRESENTATIVE IN THE FIELD.

11) THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY THEIR WORK.

12) ALL WORK SHALL BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP. (OR AS OUTLINED IN THE WRITTEN SPECIFICATIONS)

13) ELECTRICAL SERVICE TO LOCATION OF THE CONTROLLER, WELL OR PUMP SHALL BE PROVIDED TO A JUNCTION BOX OR DISCONNECT AT THE EQUIPMENT LOCATION BY THE ELECTRICAL CONTRACTOR OR BY OWNER WHEN IT IS NOT PART OF THE BID PACKAGE. CONFIRM THE LOCATION OF THE CONTROLLER WITH THE OWNER OR GENERAL CONTRACTOR BEFORE ANY INSTALLATION.

14) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCALE THE PLAN AND CHECK NOZZLE TYPES TO DETERMINE THE CORRECT SPACING OF THE HEADS. THE CONTRACTOR SHALL NOT SPACE THE HEADS FURTHER APART OR USE LESS HEADS THAN SHOWN ON THE PLAN. ANY CHANGES TO THE HEAD SPACING OR LAYOUT, WITHOUT THE CONSENT OF THE LANDSCAPE ARCHITECT OR OWNER, SHALL HOLD THE IRRIGATION CONTRACTOR RESPONSIBLE FOR WARRANTY OF THE PLANTS AND OR SOD IN THESE AREAS.

15) 48 HOURS BEFORE DIGGING, CALL 1-800-432-4770 (SUNSHINE STATE ONE CALL CENTER)

# DRIP TUBING NOTES

1) INSTALL ALL DRIP TUBING AT GROUND LEVEL AFTER PLANT INSTALLATION. INSTALL NETAFIM TLS6 U SHAPED WIRE STABILIZERS A MIN. OF 4' O.C. TO HOLD THE LINES IN PLACE.

2) KEEP ALL DRIP LINE CLEAN AT ALL TIMES BEFORE THE FINAL CONNECTION. ALL TUBE ENDS SHALL BE INTERCONNECTED TO ALL OTHER DRIP TUBES. DO NOT DEAD END TUBING. SINGLE ROWS SHALL HAVE A END CAP AND NOT BENT OVER OR TAPED.

3) AVOID SHARP BENDS IN THE TUBING. DO NOT BEND THE TUBING WITH LESS THEN A 12" RADIUS. THERE SHALL NOT BE ANY KINKS IN THE TUBING.

4) ALL DRIP TUBING SHALL HAVE UNIFORM SPACING AND BURIAL DEPTH. THE PLAN DOES NOT ALWAYS REFLECT THE EXACT SPACING OR LAYOUT OF THE TUBING. LAYOUT THE TUBING DOWN THE LONGEST WIDTH WHEN POSSIBLE. ADAPT THE TUBING TO CURVED BEDS OR PLANTERS AS REQUIRED. ADJUST AND ADAPT THE TUBING FOR ALL TREES. REFER TO THE TREE DRIP RING DETAIL.

5) INSTALL DRIP TUBING TO ALL AREAS THAT SHALL RECEIVE PLANT MATERIAL. SEE THE LANDSCAPE PLAN FOR THE EXACT LOCATIONS. THERE SHALL BE A MINIMUM OF TWO ROWS OF TUBING ON A SINGLE ROW OF PLANTS.

6) SPACE TUBING AS NOTED ON THE PLAN. DO NOT SNAKE TUBING BACK AND FORTH EXCEPT WHERE SHOWN ON THE PLAN. ALWAYS INSTALL A HEADER PIPE UNLESS THE TOTAL GALLONAGE OF AN AREA IS 3 GPM OR LESS.

7) REFER TO THE MANUFACTURERS DRIP INSTALLATION MANUAL FOR INSTALLATION INSTRUCTIONS. ALL FITTINGS SHALL BE THE SAME TYPE AND MANUFACTURER AS THE DRIP TUBING.

8) ALWAYS FLUSH ALL LINES BEFORE FINAL CONNECTION.

9) INSTALL A A "SYSTEM ON" INDICATOR FLAG ON EVERY ZONE WHERE IT IS SEEN FROM THE CONTROL VALVE.

10) INSTALL FLUSH VALVES WHERE SHOWN AT THE ENDS OF EACH RUN OF DRIP TUBING AND ONE FOR EVERY 15 GPM OF TUBING.

11) CLEARLY AND NEATLY MARK THE TOP OF EACH VALVE BOX WITH THE TYPE OF EQUIPMENT THAT IT CONTAINS. (I.E. VALVE, FLUSH VALVE, ETC.)

12) THE DRIP ZONE VALVE ASSEMBLY SHALL BE PLACED INSIDE AN ARMOR JUMBO VALVE BOX. THE VALVE SHALL BE INSTALLED AS PER THE DETAIL ON THE PLANS.

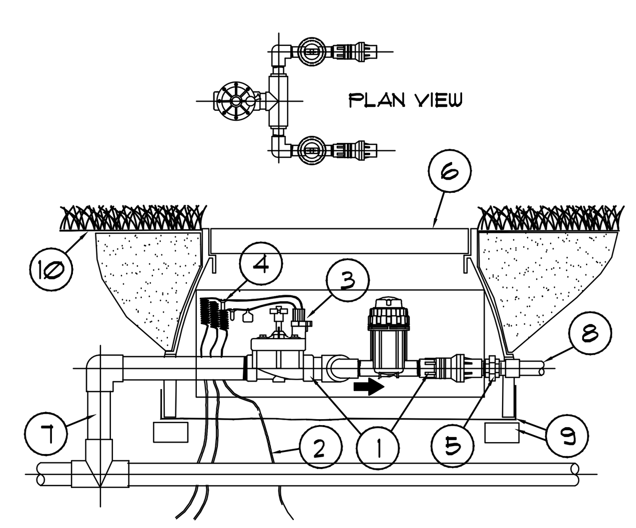
13) THE DRIP TUBING SHALL HAVE EMITTERS EVERY 12" AND SHALL BE SPACED 12" APART IN GROUND COVER BEDS AND A MINIMUM OF TWO RUNS FOR EACH ROW OF SHRUBS WHEN THE SHRUBS ARE SPACED FARTHER THAN 2' ON CENTER.

14) REFER TO THE ZONE CONTROL KIT DETAIL FOR FILTER SIZES.

15) THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE HIS/HER WORK WITH THE LANDSCAPE CONTRACTOR.

# LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| ● | HUNTER PRS40 6" POP-UP SPRAY HEAD W/ CHECK VALVE USE HUNTER MP ROTATOR NOZZLES |
| | |
| ■ | HUNTER PRS40 12" POP-UP SPRAY HEAD W/ CHECK VALVE |
| (circle with triangle) | TREE BUBBLERS- TWO PER TREE. REFER TO THE DETAIL |
| ◎ | NETAFIM DRIP BUBBLER TREE RING- REFER TO DRIP BUBBLER DETAIL |
| ▣ | NETAFIM FLAG INDICATOR- REFER TO THE DETAIL |
| ▲ | NETAFIM FLUSH VALVE |
| (double diagonal line) | NETAFIM TECHLINE CV 17MM DRIP TUBING- 1 GPH EMITTERS EVERY 12". PLACE ROWS 12" APART IN ALL GROUND COVER BEDS. INSTALL A DOUBLE ROW ON ALL HEDGE ROWS. REFER TO ALL NOTES AND DETAILS ON THIS SHEET. |
| (thin line) | CLASS 200 PVC DRIP HEADER PIPE-REFER TO DETAIL |
| (dashed line) | CLASS 200 PVC MAINLINE-3" |
| (thin light line) | CLASS 200 PVC LATERAL LINE- SIZE AS SHOWN UNTIL A SMALLER SIZE IS SHOWN. MINIMUM SIZE OF 3/4" |
| (grey bar) | SCH. 40 SLEEVE (MINIMUM OF 24" DEPTH AND 2 SIZES LARGER THAN THE PIPE SIZE OR AS LABELED ON THE PLAN) |
| (half-filled circle) / ⊕ | HUNTER ICV ELECTRIC VALVE. 2" OR SIZE AS SHOWN BELOW. INSTALL VALVE IN AN 11"X17" VALVE BOX AND COVER<br>0-24 GPM=1" 25-55 GPM=1 1/2" 56 AND HIGHER GPM=2"<br>HUNTER ZONE CONTROL KIT- REFER TO THE DETAIL. |
| Ⓒ | CONTROLLER- HUNTER I-CORE SERIES 32 STATION. WHERE SHOWN ON THE PLAN. INSTALL WITH A MINI-CLIK RAIN SENSOR. GROUND WITH A MINIMUM 8' COPPER CLAD ROD. SLEEVE TO AS REQUIRED. |
| Ⓟ | POINT OF CONNECTION TO A 2" IRRIGATION METER. REFER TO THE UTILITY PLAN FOR THE EXACT LOCATION AND DETAILS. |

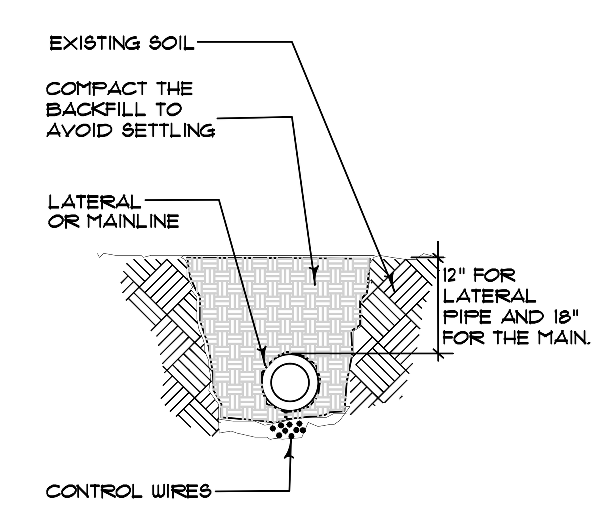



LEGEND

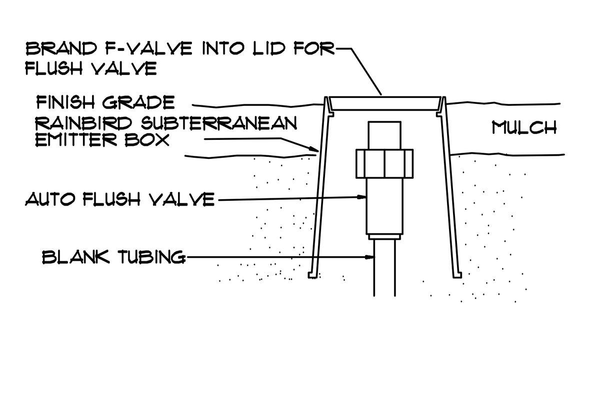
1. A. HUNTER ICZ-101 1" CONTROL ZONE KIT. (0-20 GPM)
   B. HUNTER ICZ-151 1 1/2' CONTROL ZONE KIT. (21-60 GPM)
2. CONTINUE 14 GAUGE WIRE TO THE CONTROLLER. INSTALL THE WIRE UNDER THE MAIN. INSTALL IN CONDUIT WHERE THE MAIN DOES NOT CONTINUE. (EXCEPT TWO-WIRE SYSTEMS)
3. HUNTER ICV VALVE
4. WATERPROOF CONNECTORS (DBY ON TWO-WIRE SYS.)
5. PVC UNION FOR SERVICING ASSEMBLY.
6. JUMBO PLASTIC VALVE BOX.
7. PVC PIPE FROM POINT OF CONNECTION. (45 OR 90 DEG.)
8. PVC PIPE TO IRRIGATION ZONE.
9. SOIL SEPARATOR FABRIC W/ BRICK UNDER EACH CORNER
10. FINISHED GRADE.

REFER TO THE DECODER DETAILS FOR TWO-WIRE SYSTEMS FOR DECODERS, WIRE SPECIFICATIONS AND WIRE NUTS.

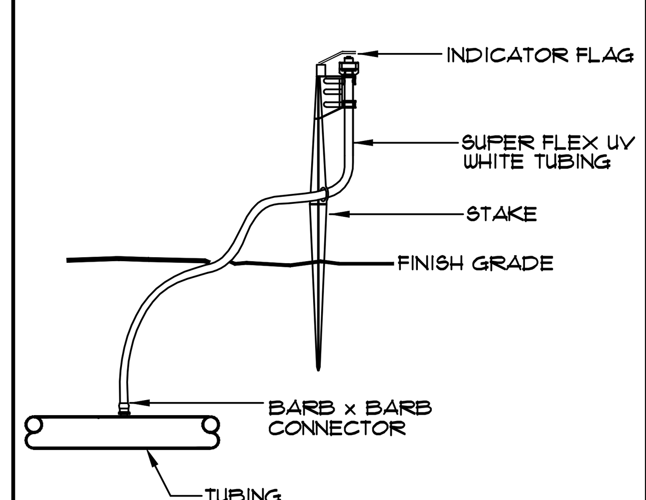
ZONE CONTROL KIT DETAIL



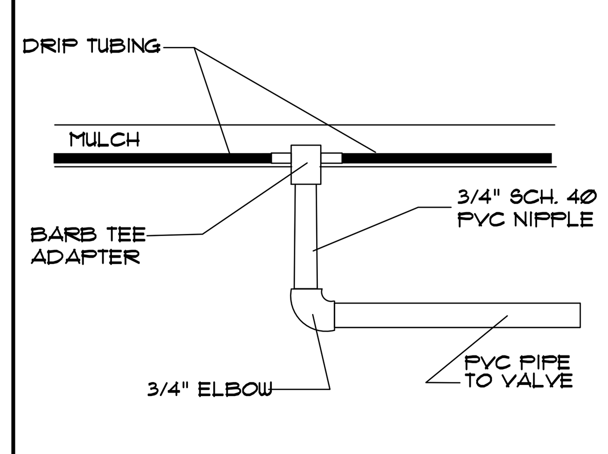

TRENCHING DETAIL




FLUSH VALVE



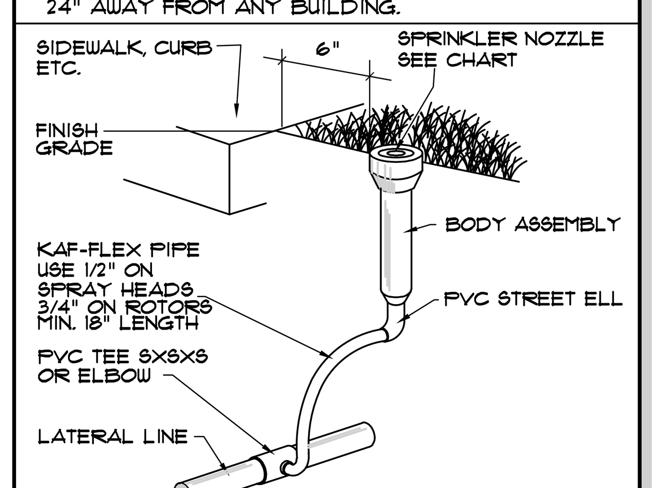

FLAG INDICATOR



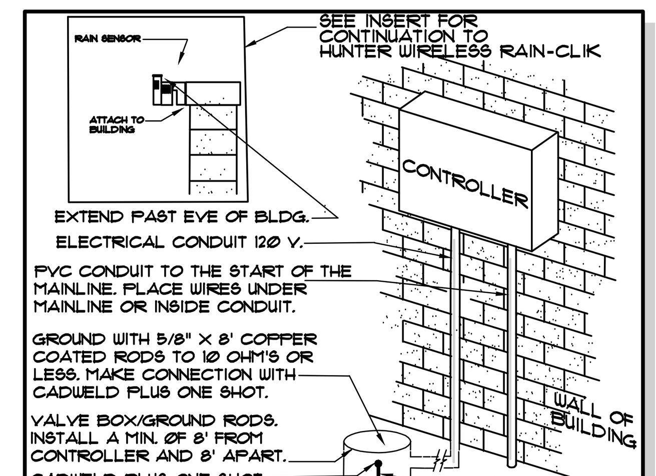

(FOR AREAS 3 GPM OR LESS)

DRIP CONNECTION DETAIL

• ALL HEADS SHALL BE INSTALLED A MINIMUM OF 24" AWAY FROM ANY BUILDING.

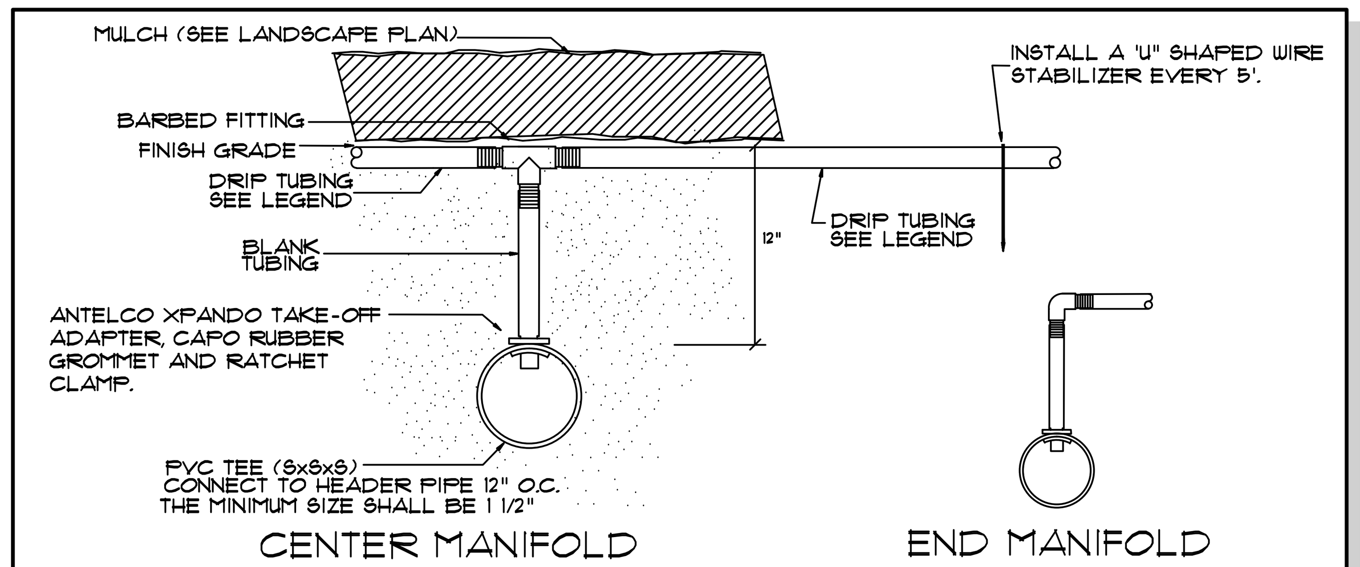



HEAD DETAIL

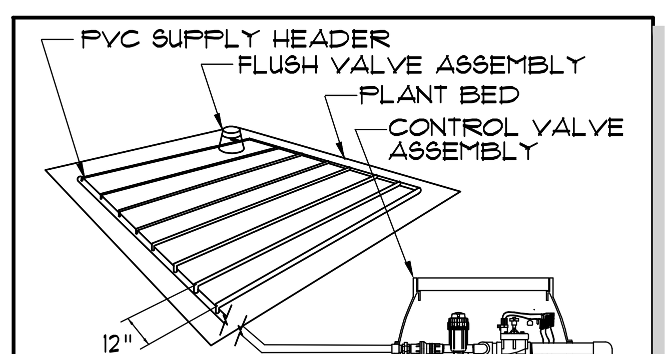



• WIRE AS PER LOCAL CODE
• PLACE THE RAIN SENSOR TO RECEIVE RAIN FROM ALL DIRECTIONS.

CONTROLLER DETAIL



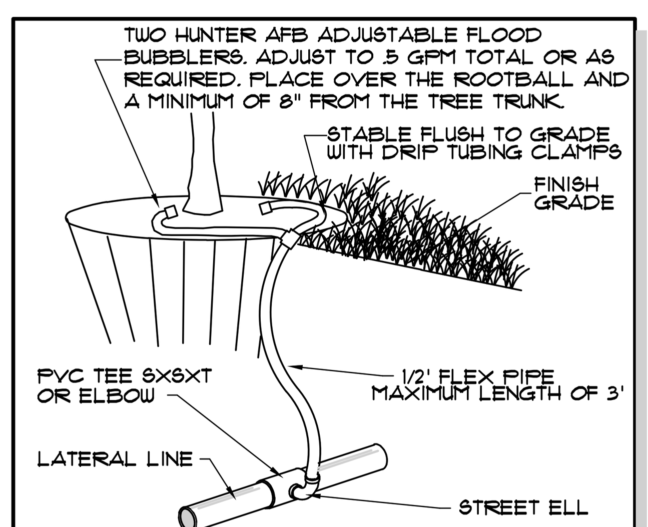

MANIFOLD CONNECTION DETAIL




12" IN ALL GROUND COVER AND A MINIMUM OF TWO TUBES PER PLANT ROW ON SHRUBS.

ALIGN LATERAL PIPES PARALLEL TO THE CONTOURS OF THE SLOPE OR ALONG THE LONGEST WIDTH OF THE BED. REFER TO DRIP NOTES AND THE MANIFOLD DETAIL.

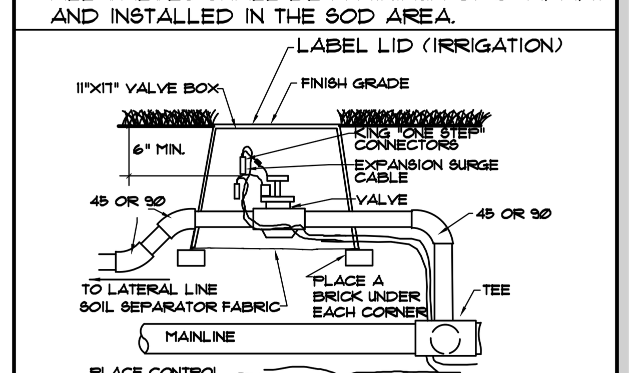
MANIFOLD PLAN VIEW




TREE BUBBLER DETAIL

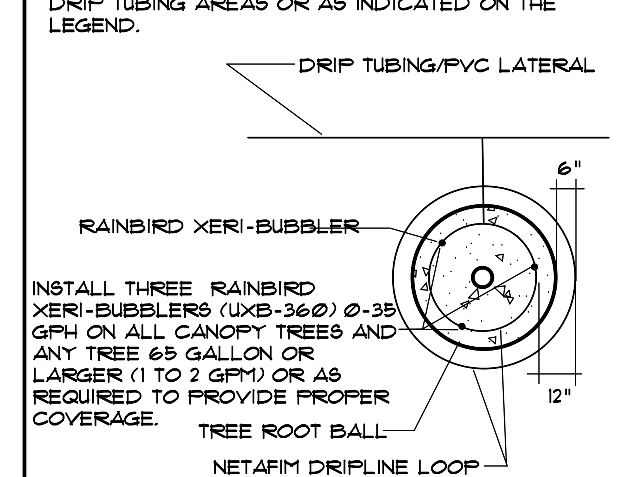
• ALL VALVE BOXES SHALL BE MARKED INSIDE WITH THE ZONE NUMBER ON PLASTIC CHRISTY TAGS OR AS PER THE WRITTEN SPECIFICATIONS.

• DO NOT MANIFOLD THE VALVES. EACH VALVE SHALL BE ON A SEPARATE TEE ON THE MAIN. ALL VALVES SHALL BE A MINIMUM OF 6' APART AND INSTALLED IN THE SOD AREA.




ELECTRICAL VALVE

INSTALL A DRIP RING AROUND ALL TREES WITHIN THE DRIP TUBING AREAS OR AS INDICATED ON THE LEGEND.




DRIP BUBBLER DETAIL

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# DWELL AT MAITLAND

CITY OF MAITLAND, FLORIDA

CONSTRUCTION DOCUMENTS

PREPARED FOR: THE KLEIN COMPANY

## IRRIGATION LEGEND AND DETAILS

Landscape Architect In Charge: Barry H. Rymer
REGISTERED LANDSCAPE ARCHITECT BARRY H. RYMER FLORIDA LA 1343
Registration # LA0001343
Certificate of Authorization LC 26000435

DATE: 11-23-2015
PROJECT NO.: KLE015-03.01
DRAWN BY: JMM/SAM
DESIGNED BY: JMM
CHECKED BY: BHR

SHEET NO.

IRD.01

# IRRIGATION SPECIFICATIONS

## 1.1.0 GENERAL

A. The general conditions, supplementary conditions and special conditions apply to the work in this section.

## 1.01 DESCRIPTION

A. Scope of Work: Provide all labor, materials, transportation and services necessary to furnish and install irrigation systems as shown on the drawings and described herein.

B. Contractor shall submit job schedule for all areas of the work. Coordinate with Owner's dates of occupancy.

## 1.02 QUALITY ASSURANCE & REQUIREMENTS

A. Permits and Fees: The Contractor shall obtain and pay for any and all permits and all inspections as required.

B. Manufacturer's Directions: Manufacturer's directions and detailed drawings shall be followed in all cases where the manufacturers of articles used in this contract furnish directions covering points not shown in the drawings and specifications.

C. Ordinances and Regulation: All local, municipal and state laws, and rules and regulations governing or relating to any portion of this work are hereby incorporated into and made a part of these specifications, and their provisions shall be carried out

D. Superintendent:

1. There shall be a superintendent satisfactory to the Owner's Representative
2. The Superintendent shall not be changed except with the consent of the Owner's Representative.
3. The Superintendent shall be authorized to represent the Contractor.

E. Explanation of Drawings:

1. Due to the scale of the drawings, it is not possible to indicate all offsets, fittings, sleeves, etc., which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of his work.
2. The term Landscape Architect as used herein shall refer to the Owner's authorized representative. specifically mentioned in the specifications.
3. The Contractor shall not willfully install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences and discrepancies in the area dimensions exist that might not have been considered in design.
4. Work of this Section which is allied with the work of other trades shall be coordinated as necessary.

## 1.03 SUBMITTALS

A. Materials List:

1. The Contractor shall furnish the articles, equipment, materials or processes specified by name in the drawings and specifications. No substitution will be allowed without prior written acceptance by the Landscape Architect.
2. Complete material list shall be submitted prior to performing any work. Material list shall include the manufacturer, model number and specifications.
3. Equipment or materials installed or furnished without prior approval of the Landscape Architect may be rejected and the Contractor required to remove such materials from the site at his own expense.
4. Approval of any item, alternate or substitute indicates only that the product or products apparently meet the requirements of the drawings and specifications on the basis of the information submitted.
5. Manufacturer's warranties shall not relieve the Contractor of his liability under the guaranties. Such warranties shall only supplement the guarantee.
6. If equipment is as specified, no manufacturer descriptive catalogs are necessary in submittal.

B. Record and As-Built Drawings:

1. The Contractor shall provide and keep up to date and complete "as-built" record set of bond prints which shall be corrected daily and show every change from the and specifications and the exact "as-built" locations, sizes sizes and kinds of equipment.
2. These drawings shall also serve as work progress sheets and shall be the basis for measurement and payment for work completed. These drawings shall be available at all times for reviews and shall be kept in a location designated by the Landscape Architect.
3. The Contractor shall make neat and legible notations on the as-built progress sheets daily as the work proceeds, showing the work as actually installed. For example, should a piece of equipment be installed in a location that does not match the plan.
4. Before the date of provisional acceptance, the Contractor shall provide a clean and legible as-built drawing. The drawing shall indicate the location of equipment as described below. The drawing shall be red ink marked on a bond copy or a pdf of this drawing.
5. The Contractor shall dimension from two permanent points of reference, building corners, sidewalk, or road intersections, mainlines (dimension max. 100' along routing).
   a. Sprinkler control valves.
   b. Routing of control wiring.
   c. Quick coupling valves.
   d. Other related equipment as directed by the Landscape Architect.
6. On or before the date of work review for provisional acceptance, the Contractor shall deliver the corrected and completed as-built and pdf to the Landscape Architect. Delivery of the as-built shall not relieve the Contractor of the responsibility of finishing all requirements.

C. Controller Charts:

1. The chart shall show the area controlled by the automatic controller and shall be the maximum size which the controller door will allow. (size as directed by Landscape Architect)
2. The chart is to be a reduced drawing of the actual as-built system ,of a maximum size that will fit inside controller housing, double sided if required for readability.
3. The chart shall be black line print and a different color shall be used to indicate the area of coverage for each station, using pastel or transparent colors.
4. When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being minimum 20 mils.
5. These charts shall be completed and approved prior to final acceptance of the irrigation system.

D. Operation and Maintenance Manuals:

1. Prepare and deliver to the Landscape Architect within 10 calendar days prior to completion of construction, two hard cover binders with three rings containing the following information:
   a. Index sheet stating Contractor's address and telephone number, list of equipment with name and addresses of local manufacturer's representative.
   b. Catalog and part sheets on every material and equipment installed under this contract.
   c. Guarantee statement.

## 1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Handling of PVC Pipe and Fittings: The Contractor is cautioned to exercise care in handling, loading, unloading, and storing of PVC pipe and fittings.

## 2.01 MATERIALS

A. General: Use only new materials of brands and types noted on drawings, specified herein, or approved equals.

## 2.02 PIPE & FITTINGS

A. Pressure Main Line Piping and Fittings: (Purple reclaimed type on reclaimed water systems) Size 3 inches or smaller shall be PVC class 200 solvent weld type.

B. Pressure Main Line Piping and Fittings: (Purple reclaimed type on reclaimed water systems) Size 2 1/2 inches and smaller shall be Schedule PVC class 200.

C. Non-pressure lines: Shall be PVC class 200. (Purple reclaimed type on reclaimed water systems)

D. All pipe and fittings shall conform to specific requirements as follows:

1. PVC (Solvent Weld)
   a. Pipe: Manufactured from virgin polyvinyl chloride compound in accordance with ASTM D 1784 or ASTM D 2241, cell classification 12454B, hydrostatic design less than 2,000 psi.
   b. Fittings (solvent weld or thread): Standard weight Schedule 40, side gated, injection molded PVC complying with ASTM D 1784, cell classification 4B, including threads when required.
2. PVC nipples shall be Schedule 80 with molded threads.
3. All PVC pipe must bear the following markings:
   a. Manufacturer's name.
   b. Nominal pipe size.
   c. Schedule or class.
   d. Date of extrusion.
4. Solvent cement and primer for PVC solvent-weld pipe and fittings shall be of type and installation method prescribed by the manufacturer.

## 2.03 ELECTRICAL (HIGH VOLTAGE)

A. All high voltage electrical service required for automatic controller and other equipment noted on the drawing for irrigation system will be provided in the electrical plans.

## 2.04 ELECTRICAL (LOW VOLTAGE)

A. Connections between controller and remote control valves shall be made with direct burial Hunter two-wire.

B. All connections shall be with 3M dbry, dbyr connectors. Any wire that cannot be placed under the main shall be installed inside 1 1/4" gray conduit.

## 2.05 ELECTRICAL CONTROL VALVE

A. As noted on the details. No 18 gauge wire shall be used.

## 2.06 GATE VALVES

A. See Legend

## 2.07 QUICK COUPLING VALVES

A. See Legend

## 2.08 REMOTE CONTROL VALVES

A. See Legend

## 2.09 ROTOR HEADS

A.See Legend

## 2.10 SPRAY HEADS

A. The heads shall be as indicated in the legend.

B. Height as noted in legend on drawing.

## 2.11 VALVE BOXES

A. Valve boxes shall be fabricated from a durable plastic material resistant to weather, sunlight and chemical action of soils.

B. Valve box extensions shall be by the same manufacturer as the valve box.

C. Gate valve boxes shall be round plastic boxes.

D. Remote control valve boxes shall be 11" x 17" rectangular plastic boxes. (Purple reclaimed type on reclaimed water systems)

## 3.01 SITE CONDITIONS

A. All scaled dimensions are approximate. The Contractor shall check and verify all sizes dimensions and receive Landscape Architect's approval prior to proceeding with work under this section. Any pipe shown outside of the property line is shwn for clarity only. All pipe and heads shall be installed within the property line.

B. Exercise extreme care in excavating and working near existing utilities. Contractor shall be responsible for damages to utilities which are caused by his operations or neglect. Check existing utilities drawings for existing utility locations.

C. Coordinate installation of sprinkler irrigation materials including pipe, so there will be no interference with utilities or other construction or difficulty in planting trees, shrubs and ground covers.

D. The Contractor shall carefully check all grades to satisfy himself that he may safely proceed before starting work on the sprinkler irrigation system.

E. The Irrigation Contractor shall be responsible to coorinate their work with the landscape contractor. All head layout shall match the plan and the installed plant beds.

## 3.02 PREPARATION

A. Water Supply:

1. The irrigation system shall be connected to water supply points of connection as indicated on the drawings. The contractor shall be responsible for the installation of the well, unless otherwise noted on well systems.
2. Connections shall be made at approximate locations as shown on the drawings. Contractor is responsible for minor changes caused by actual site conditions. Refer to the utilities plan for the exact location and details.

B. Observation Schedule:

1. Contractor shall be responsible for notifying the Landscape Architect in advance for the following observation meetings,
   a. Pressure supply line installation and testing - 48 hours.
   b. Coverage test and provisional observation for approval - 48 hours.
2. When observations have been conducted by other than the Landscape Architect, show evidence in writing of when and by whom these observations were made.
3. No site observations will commence without as-built drawings.

C. Final Observation

1. The Contractor shall operate each system in its entirety for the Landscape Architect at time of final observation. Any items deemed not acceptable by the Landscape Architect, or not in compliance with these specifications and drawings, shall be replaced or repaired by the contractor.

D. Physical Layout:

1. All piping or equipment shown diagrammatically on drawings outside planting areas shall be installed inside planting area whenever possible. coordinate locations with the landscape contractor. The irrigation contractor shall be responsible to move heads as required to match the plant beds.
2. All layout shall be as per the plans.

## 3.03 INSTALLATION

A. General:

1. Line Clearance: All lines shall have a minimum clearance of 18 inches from each other and from lines of other trades. Refer to the reclaimed water requirements.
2. A fine granular material back fill will be initially placed on all lines. No foreign matter larger than 1/2 inch in size will be permitted.

B. Trenching:

1. Excavate trenches to required depths as indicated on the legend. Follow approved layout for each system.
2. Trench bottom shall be flat to ensure piping is supported continuously on an even grade.
3. Where lines occur under paved areas, consider dimension to be below the subgrade.
4. Provide minimum coverage as follows unless otherwise shown in the legend:
   b. Non-pressure lines: 12 inches.
   c. Control wire: 18 inches.
   C. Backfilling:
   D. Trenching and Backfill Under Paving:

3. If settlement occurs and subsequent adjustments in pipe, valves, sprinkler heads, lawn or plantings, or other construction are necessary, the Contractor shall make all required adjustments without cost to the Owner.

1. Trenches located under areas where paving, asphaltic concrete or concrete will be installed shall be back filled and compacted.
2. Piping under existing walks is the responsibility of the irrigation contractor. Any cutting or breaking of sidewalks and/or concrete necessary shall be performed by the Contractor and paving replaced as a part of the contract cost. The contractor can jet or wash the pipes under pavement that is 5' wide or less.
3. Coordinate installation of piping and wires under paved areas.
3. Hand dig within the dripline of existing trees. Do not cut any roots 2" or larger.

E. Assemblies:

1. Routing of sprinkler irrigation lines as indicated on the drawings is diagrammatic. Install lines (and various assemblies) in such a manner as to conform with the details per plans.
2. Install no multiple assemblies in plastic lines. Provide each assembly with its own outlet.
3. PVC pipe and fittings shall be thoroughly cleaned of dirt, dust and moisture before installation.

F. Electrical Supply:

1. Low voltage wiring shall be placed in the same ditch and along side of main lines unless otherwise approved.
2. When more than one wire is placed in a trench, tape wires to each other at maximum 12 feet on center.
3. Provide a 12 inch expansion loop at each connection and directional change.
4. Use a continuous wire between controller and remote control valves.

G. Flushing of System:

1. After all new sprinkler pipe lines and risers are in place and connected, all necessary diversion work has been completed and prior to installation of sprinkler heads, the control valves and full head of water to flush out the system.
2. Sprinkler heads shall be installed only after flushing of the system has been accomplished to the complete satisfaction of the Landscape Architect.

H. Sprinkler Heads:

1. Install the sprinkler heads as designated on the drawings and in accordance with their respective details.
2. Spacing of heads shall not exceed the maximum indicated on the drawings.
3. Install the control valves as per the detail.
4. All boxes shall be permanently marked on top, designating type of equipment installed therein stenciled in 2" high black letters/numbers using AVERO Black No. 206M paint or approved equalR.

## 3.04 TEMPORARY REPAIRS

A. The Owner reserves the right to make temporary repairs as necessary to keep the sprinkler system equipment in operating condition. The exercise of this right by the Owner shall not relieve the Contractor of his responsibilities under the contract.

## 3.05 FIELD QUALITY CONTROL

A. Adjustment of the System:

B. Testing of Irrigation System:

1. Test all pressure lines under hydrostatic pressure of 150 psi for 2 hours and prove watertight.
2. Testing of pressure main lines shall occur prior to installation of electric control valves, quick couplers or any other equipment that might prevent a proper test from being performed.
3. All piping under paved areas shall be tested under hydrostatic pressure of 150 psi, and proved watertight, prior to paving in planting area at static pressure.
4. Sustain pressure in lines for not less than 2 hours. If leaks develop, replace joints and repeat test until entire system is proven watertight.
5. All hydrostatic tests shall be made only in the presence of the Landscape Architect, or other duly authorized representative of the Owner. No pipe shall be completely back filled until it inspected, tested and approved in writing.
6. Furnish necessary force pump and all other test equipment.
7. When the sprinkler irrigation system is completed, perform a coverage test in the presence of the Landscape Architect, to determine if the water coverage for planting areas is complete and adequate.
8. Upon completion of each phase of work, entire system shall be tested and adjusted to meet site requirements.

## 3.06 MAINTENANCE

A. The entire sprinkler irrigation system shall be under full automatic operation for a period of seven days prior to any inspections.

B. The Landscape Architect reserves the right to waive or shorten the operation period.

## 3.07 CLEANUP

A. Cleanup shall be performed as each portion of the work progresses. Trash and excess dirt shall be removed from the site, all walks and paving shall be sweeped or washed down, and any damage sustained to the work of others shall be repaired.

LRDG
407-730-5774

| NO. | DATE | DESCRIPTION | DWG BY | CHK BY |
|---|---|---|---|---|
| | | | | |

DWELL AT MAITLAND
CITY OF MAITLAND, FLORIDA
CONSTRUCTION DOCUMENTS
PREPARED FOR:
THE KLEIN COMPANY

IRRIGATION SPECIFICATIONS

Landscape Architect In Charge: Barry Rymer
Registration # LA0001343
Certificate of Authorization LC 26000435

REGISTERED ARCHITECT BARRY H. RYMER LA 1343 FLORIDA

DATE: 11-23-2015
PROJECT NO.: KLE015-03.01
DRAWN BY: JMM/SAM
DESIGNED BY: JMM
CHECKED BY: BHR

SHEET NO.
IRD.02

# ELECTRICAL SYMBOLS LEGEND

## LIGHTING (SEE LIGHTING FIXTURE SCHEDULE)

- 2'X 2' FLUORESCENT LIGHTING FIXTURE
- 2' x 2' EMERGENCY FLUORESCENT LIGHTING FIXTURE WITH EMERGENCY BALLAST INTEGRAL 1400 LUMEN.
- 2' X 4' FLUORESCENT LIGHTING FIXTURE
- 2' x 4' EMERGENCY FLUORESCENT LIGHTING FIXTURE WITH EMERGENCY BALLAST INTEGRAL 1400 LUMEN.
- 1'X 4' FLUORESCENT LIGHTING FIXTURE CONNECTED TO EMERGENCY BALLAST.
- 1'X 4' EMERGENCY FLUORESCENT LIGHTING FIXTURE WITH EMERGENCY BALLAST INTEGRAL 1400 LUMEN.
- FLUORESCENT LIGHTING FIXTURE – WALL MOUNTED
- FLUORESCENT LIGHTING FIXTURE – WALL MOUNTED WITH EMERGENCY BALLAST INTEGRAL 1400 LUMEN.
- FLUORESCENT STRIP LIGHTING
- FLUORESCENT EMERGENCY STRIP LIGHTING WITH EMERGENCY BALLAST INTEGRAL 1400 LUMEN.
- LIGHTING FIXTURE
- LIGHTING FIXTURE – WALL MOUNTED
- WALL WASH / ACCENT FIXTURE – CEILING MOUNTED
- EMERGENCY LIGHTING FIXTURE WITH EMERGENCY BALLAST INTEGRAL 1400 LUMEN.
- EMERGENCY LIGHTING FIXTURE – WALL MOUNTED WITH EMERGENCY BALLAST INTEGRAL 1400 LUMEN.
- EXIT SIGN – SINGLE FACE ARROW INDICATES DIRECTION– CEILING MOUNTED
- EXIT SIGN – SINGLE FACE ARROW INDICATES DIRECTION– WALL MOUNTED
- EXIT SIGN – DOUBLE FACE – ARROW INDICATES DIRECTION – CEILING MOUNTED
- EMERGENCY LIGHT WITH INTEGRAL BATTERY PACK – DUAL HEAD
- DECORATIVE PENDANT
- LIGHT TRACK – CEILING MOUNTED.

## SWITCHES

S — SINGLE POLE SWITCH – TOGGLE TYPE. SEE ELECTRICAL SPECIFICATIONS FOR MOUNTING HEIGHTS.
- (3) 3 WAY
- (4) 4 WAY
- (2) DOUBLE POLE
- (P) WITH PILOT LIGHT INDICATION
- (D) DIMMER
- (K) KEY

$S_M$ — MOTOR RATED SWITCH – 1 POLE OR 2 POLE 30 AMP 250 VOLT WITH INTEGRAL THERMAL OVERLOADS

$S_{OS}$ — WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH.

OS a,b — CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. a,b= DUAL CIRCUIT CONTROL.

## SERVICE AND DISTRIBUTION

- BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, SURFACE MOUNTED, U.O.N.
- 3 30 — FUSED DISCONNECT SWITCH.3–POLE, 30AMP ASTERISK INDICATES TO FUSE ACCORDING TO MANUFACTURERS RECOMMENDATIONS. NEMA 1 RATED INDOORS, NEMA 3R RATED OUTDOORS.
- 3 30 — COMBINATION STARTER/DISCONNECT SWITCH 3–POLE, 30AMP, FUSED. NEMA SIZE 1 NEMA RATED INDOORS, NEMA 3R RATED OUTDOORS.
- UTILITY TRANSFORMER
- TVSS — TRANSIENT VOLTAGE SURGE SUPPRESSOR.

## FIRE ALARM

- 120 CM — CEILING OR WALL MOUNTED 120 VOLT DUAL RATED RESIDENTIAL SELF CONTAINED SMOKE AND CARBON MONOXIDE DETECTORS DETECTOR WITH BATTERY BACK UP. ALL UNITS SHALL BE TIED TOGETHER AND ALARM ALL AT ONE TIME. LOW FREQUENCY SOUNDER (520Hz). MANUFACTURER: GENTEX #GN–503 SERIES. CM = CARBON MONOXIDE DETECTOR
- F — MANUAL PULL STATION
- F — COMBINATION AUDIBLE VOICE/VISUAL SIGNALING UNIT– HORN/ STROBE FLASHING "FIRE" LIGHT WALL MOUNTED 48" AFF UNLESS OTHERWISE NOTED. WP=WEATHER PROOF. C= CEILING, 110 CANDELA UNLESS NOTED OTHERWISE. LOW FREQUENCY SOUNDER (520Hz).
- S — FIRE ALARM SYSTEM, RESIDENTIAL UNIT MINI–HORN. LOW FREQUENCY SOUNDER (520Hz).
- F — VISUAL SIGNALING UNIT, WALL MOUNTED– FLASHING "FIRE" LIGHT ONLY (NO AUDIO DEVICE) 75 CANDELA UNLESS NOTED OTHERWISE.
- R/S — PHOTOELECTRIC DUCT SMOKE DETECTOR R=RETURN S=SUPPLY
- R — FIRE ALARM SHUTDOWN OR CONTROL RELAY
- RTI — DUCT DETECTOR REMOTE TROUBLE INDICATOR. MOUNT ADJACENT TO UNIT.
- H 2 — FIRE ALARM HEAT DETECTOR. (2) INDICATES TO PROVIDE DUAL RATED CONVERTIBLE CONTACTS.
- 2 — CEILING MOUNTED SMOKE DETECTOR. (2) INDICATES PROVIDE DUAL RATED CONVERTIBLE CONTACT.
- DH — MAGNETIC DOOR HOLDER
- FACP — FIRE ALARM CONTROL PANEL.
- FAJB — FIRE ALARM JUNCTION BOX.
- FAAP — REMOTE FIRE ALARM ANNUNCIATOR PANEL, FLUSHED MOUNTED.
- TS — SPRINKLER TAMPER SWITCH CONNECTION
- FS — SPRINKLER WATERFLOW SWITCH CONNECTION
- PIV — POST INDICATOR VALVE
- F/S — FIRE DAMPERS/SMOKE ALARM CONNECTION
- F — FIRE DEPARTMENT TWO WAY COMMUNICATION

## POWER

SEE ELECTRICAL SPECIFICATIONS FOR MOUNTING HEIGHTS.

- DUPLEX RECEPTACLE – SEE ELECTRICAL SPECIFICATIONS FOR MOUNTING HEIGHTS.
  - (WP) WEATHERPROOF
  - (H) HORIZONTALLY MOUNTED
  - (G) CEILING MOUNTED
- DOUBLE DUPLEX RECEPTACLE
- "GFI" DUPLEX RECEPTACLE/GROUND FAULT INTERRUPTING
- WP — "GFI" DUPLEX RECEPTACLE/GROUND FAULT INTERRUPTING/WEATHERPROOF COVER
- "GFI" DOUBLE DUPLEX RECEPTACLE/GROUND FAULT INTERRUPTING
- "GFI" DOUBLE DUPLEX RECEPTACLE/GROUND FAULT INTERRUPTING, COUNTER HEIGHT
- DUPLEX RECEPTACLE – TOP HALF SWITCHED – MOUNT 18" A.F.F.
- DUPLEX RECEPTACLE, COUNTER HEIGHT
- DOUBLE DUPLEX RECEPTACLE, COUNTER HEIGHT
- DUPLEX RECEPTACLE, COMMUNICATIONS AND COMPUTER OUTLETS MOUNTED TOGETHER IN A FLUSH MOUNTED FLOOR BOX. EXTEND 1" CONCEALED CONDUIT TO ABOVE ACCESSIBLE CEILING AND STUB–OUT WITH PLASTIC BUSHING.
- DUPLEX RECEPTACLE – FLUSH MOUNTED IN FLOOR BOX.
- DOUBLE DUPLEX RECEPTACLE MOUNTED TOGETHER IN A FLUSH MOUNTED FLOOR BOX.
- 30 50 — SPECIAL PURPOSE OUTLET – COORDINATE EXACT NEMA CONFIGURATION AMPACITY RATING AS INDICATED. MOUNT AT 36" A.F.F., U.O.N..
- F J — CEILING FAN JUNCTION BOX (SIZE AS REQUIRED PER N.E.C.).
- J — WALL MOUNTED JUNCTION BOX (SIZE AS REQUIRED PER N.E.C.).
- EF — MOTOR (EF) EXHAUST FAN
- PC — PHOTO CELL
- WP — ELECTRICAL SERVICE SHUNT TRIP BREAK GLASS STATION SQUARE "D" CLASS#900 1–K15 W/ CLASS 9001–K25 STAINLESS STEEL COVER PLATE. ENGRAVE "SERVICE DISCONNECT" MOUNT 7'–0"A.F.F./WEATHERPROOF HOUSING
- GB — GROUND BAR
- MB–A — DESIGNATION FOR FEEDER CONNECTED TO METER CENTER "A"
- MB–B — DESIGNATION FOR FEEDER CONNECTED TO METER CENTER "B"
- PUSH BUTTON / CHIME CH / 120 T TRANSFORMER — WALL MOUNTED PUSH BUTTON DOOR BELL TO ME MOUNTED AT 48"AFF. WITH 120 VOLT TRANSFORMER AND CHIME, MANUFACTURER NUTONE RESIDENTIAL KIT. PART #CD115WHBULK. TRANSFORMER TO BE CONNECTED TO NEAREST RECEPTACLE OUTLET. MOUNT TRANSFORMER AT 80" A.F.F.

# ABBREVIATIONS

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| A | – | AMPERES | FA | – | FIRE ALARM | NEC | – | NATIONAL ELECTRICAL CODE |
| A/C | – | AIR CONDITIONING | FACP | – | FIRE ALARM CONTROL PANEL | NEMA | – | NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION |
| AC | – | ALTERNATING CURRENT | FBC | – | FLORIDA BUILDING CODE | NFPA | – | NATIONAL FIRE PROTECTION ASSOCIATION |
| AFF | – | ABOVE FINISHED FLOOR | GFI | – | GROUND FAULT INTERRUPTER | NF | – | NON–FUSED |
| AFG | – | ABOVE FINISHED GRADE | GND | – | GROUND | NIC | – | NOT IN CONTRACT |
| AHU | – | AIR HANDLING UNIT | GRC | – | GALVANIZED RIGID CONDUIT | NL | – | NIGHT LIGHT |
| AWG | – | AMERICAN WIRE GAUGE | HVAC | – | HEATING, VENTILATING AND AIR CONDITIONING | O.C. | – | ON CENTER |
| C | – | CONDUIT | IWH | – | INSTANTANEOUS WATER HEATER | P | – | POLE |
| CFL | – | COMPACT FLUORESCENT LAMP | H.I.D. | – | HIGH INTENSITY DISCHARGE | PNL | – | PANELBOARD |
| CH | – | CHIME | I.G. | – | ISOLATED GROUND | PVC | – | POLYVINYL CHLORIDE |
| CH | – | COUNTER HEIGHT | J | – | JUNCTION | RGS | – | RIGID GALVANIZED STEEL |
| CM | – | CARBON MONOXIDE | KAIC | – | (THOUSAND) AMPERE INTERRUPTING CAPACITY | RM | – | ROOM |
| CONC | – | CONCRETE | KCMIL | – | THOUSANDS OF CIRCULAR MILLS | SPEC | – | SPECIFICATION |
| COND | – | CONDUIT | KVA | – | KILOVOLT–AMPERES | SS | – | STAINLESS STEEL |
| CU | – | COPPER | KW | – | KILOWATT | TECO | – | TAMPA ELECTRIC |
| DISC | – | DISCONNECT | LED | – | LIGHT EMITTING DIODE | TVSS | – | TRANSIENT VOLTAGE SURGE SUPPRESSION |
| ECB | – | ENCLOSED CIRCUIT BREAKER | LTG | – | LIGHTING | TYP | – | TYPICAL |
| ELEC | – | ELECTRICAL | MCP | – | MOTOR CIRCUIT PROTECTION | UON | – | UNLESS OTHERWISE NOTED |
| EM | – | EMERGENCY | MCU | – | MASTER CONTROL UNIT | V | – | VOLTS |
| EMS | – | ENERGY MANAGEMENT SYSTEM | MH | – | MOUNTING HEIGHT | W | – | WIRE |
| EMT | – | ELECTRICAL METALLIC TUBING | N | – | NEUTRAL | WP | – | WEATHERPROOF |
| EF | – | EXHAUST FAN | NA | – | NOT APPLICABLE | | | |
| EWC | – | ELECTRIC WATER COOLER | | | | | | |
| EX | – | EXISTING | | | | | | |

## GENERAL NOTE

THESE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2011 NATIONAL ELECTRICAL CODE.

## VOLTAGE DROP

THIS PROJECT IS IN COMPLIANCE WITH 2014 FBC–ENERGY CONSERVATION C405.7.3 AND NEC 210.19 WITH REGARDS TO VOLTAGE DROP FOR BOTH DISTRIBUTION PANELS (2%) AND DOWNSTREAM BRANCH CIRCUITS (3%).


ingenuity engineers
"Proactive Engineering Solutions"
4798 new broad street
suite 300
orlando, fl 32814
407.398.6007 (p)
407.398.6003 (f)


| REVISIONS |
|---|
| SITE PLAN 11-24-15 |


SLOCUM PLATTS
ARCHITECTS, P.A.
RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL. (407)645-3019 FAX (407)645-2771
WWW.SLOCUMPLATTS.COM
CA# 26308
Joseph B. Hamill, PE
PE No. 73015


I14203.00

ELECTRICAL LEGEND, NOTES AND ABBREVIATIONS

DWELL AT MAITLAND

MAITLAND FLORIDA

| | |
|---|---|
| DRAWN | MAT |
| CHECKED | JBH |
| DATE | 11-24-15 |
| SCALE | AS NOTED |
| JOB NO. | 14-045 |
| SHEET | E0.1 |


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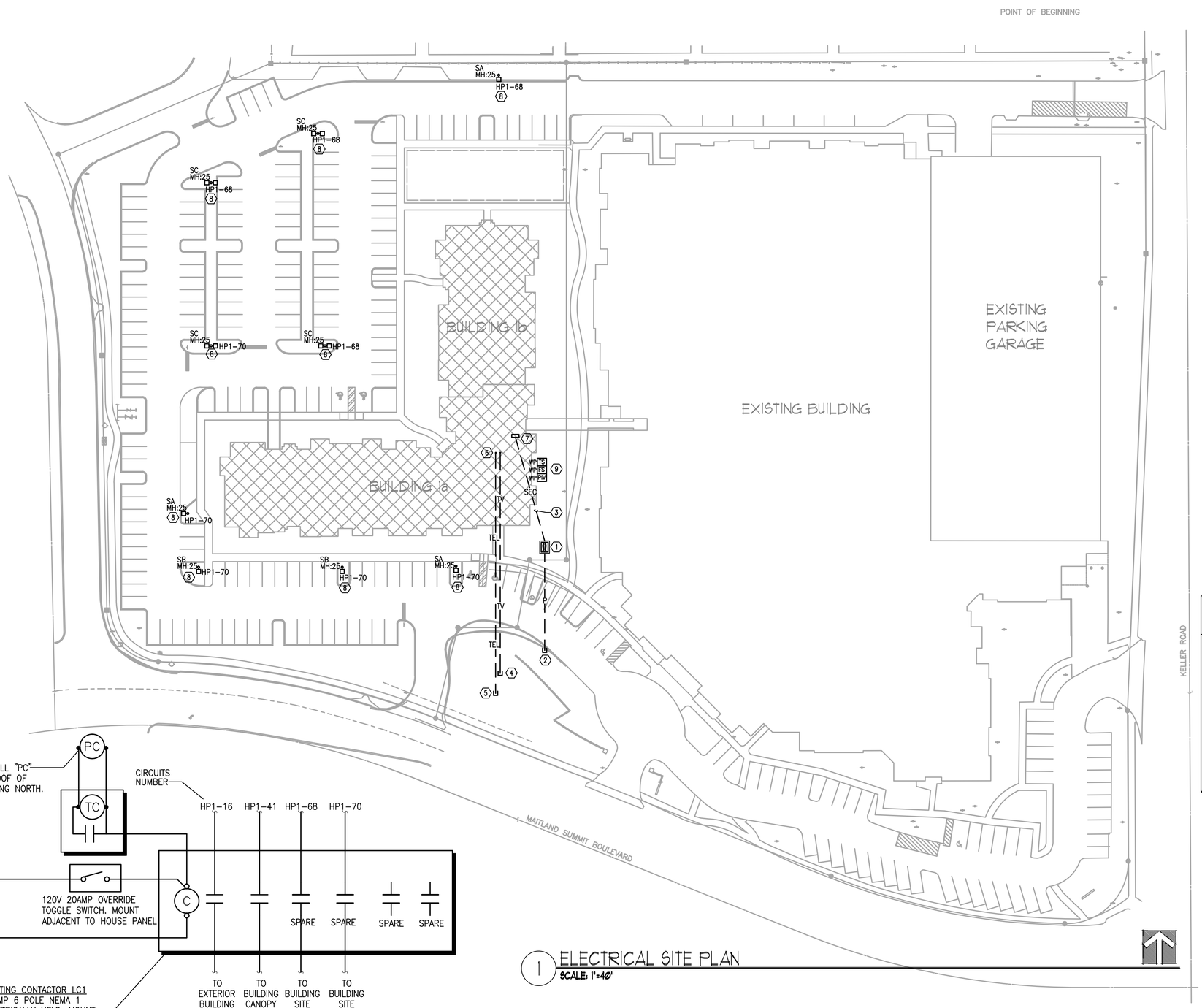
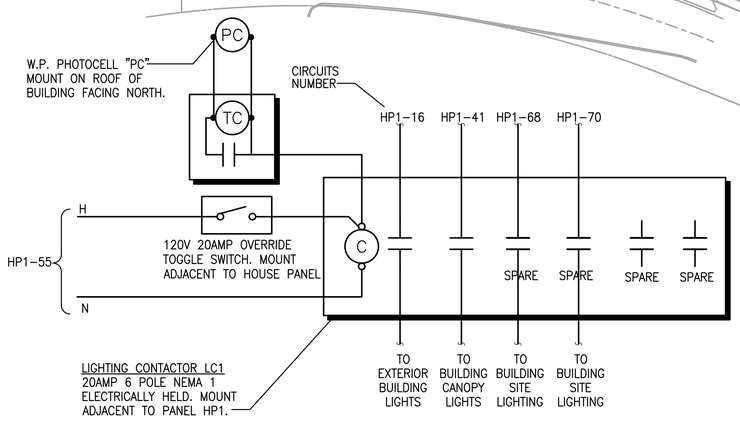



1 ELECTRICAL SITE PLAN
SCALE: 1"=40'




# LIGHTING CONTACTOR DETAIL - LC1

NTS

## GENERAL NOTES

1. THIS PROJECT IS IN COMPLIANCE WITH 2014 FBC-ENERGY CONSERVATION C405.7.3 AND NEC 210.19 WITH REGARDS TO VOLTAGE DROP FOR BOTH DISTRIBUTION PANEL (2%) AND DOWNSTREAM BRANCH CIRCUITS (3%).
2. ALL LIGHTING CIRCUITS SHALL BE CONNECTED TO PANEL "HP1" UNLESS OTHERWISE NOTED.
3. ALL SITE LIGHTING WIRING SHALL BE (2)#6 AWG CU, (1) AWG CU GROUND.

## REFERENCE NOTES

1. 120/208V, 3ø, 4W UTILITY TRANSFORMER. PROVIDE PAD PER UTILITY COMPANY REQUIREMENTS. CONTACT LOCAL UTILITY COMPANY.
2. UNDERGROUND PRIMARY SERVICE ENTRANCE CONDUITS. (2) 6" UNDERGROUND SCHEDULE 40 PVC CONDUIT TO PROPERTY LINE WITH PULL WIRE AND CAP. INSTALL MARKER. UTILIZE LONG RADIUS ELBOWS. TERMINATE AT PAD MOUNTED TRANSFORMER. FIELD VERIFY EXACT FINAL LOCATION WITH UTILITY COMPANY PRIOR TO INSTALLATION OF CONDUITS.
3. UNDERGROUND 120/208V 3ø 4W ELECTRICAL SECONDARY SERVICE ENTRANCE. SEE ONE-LINE ELECTRICAL RISER DIAGRAM DRAWING SHEET. FIELD COORDINATE THE EXACT ROUTING AND TERMINATION POINT PRIOR TO BIDDING.
4. (3)4" UNDERGROUND CONDUITS BURIED 30" B.F.G. TO PROPERTY LINE FOR TELEVISION SERVICE ENTRANCE. UTILIZE LONG RADIUS ELBOWS. INSTALL PULLWIRE. TERMINATE AT PROPERTY LINE. CAP CONDUIT AND INSTALL MARKER.
5. (3)4", AND (2)2" SPARE, UNDERGROUND CONDUITS BURIED 30" B.F.G. TO PROPERTY LINE FOR TELEPHONE SERVICE ENTRANCE. UTILIZE LONG RADIUS ELBOWS. INSTALL PULLWIRE. TERMINATE AT PROPERTY LINE. CAP CONDUIT AND INSTALL MARKER.
6. APPROXIMATE LOCATION OF MAIN TELEPHONE, TELEVISION TERMINAL BOARD. SEE FLOOR PLANS FOR EXACT TERMINATION LOCATION AND DETAILS.
7. APPROXIMATE LOCATION OF MAIN ELECTRICAL DISTRIBUTION EQUIPMENT.
8. ALL SITE LIGHTING AND MONUMENT SIGNS SHALL BE CONTROLLED BY LIGHTING CONTROL PANEL "ELC-1". REFER TO ELECTRICAL SHEET E2.1a FOR LIGHTING CONTROL DETAILS PHOTOMETRIC SHEET.
9. LOCATION OF SITE P.I.V. WEATHERPROOF FLOW AND TAMPER SWITCH FIRE ALARM CONNECTION. FIELD VERIFY THE EXACT LOCATION OF DEVICES PRIOR TO INSTALLATION.

## SITE ELECTRICAL UTILITY LEGEND

| | |
|---|---|
| ——— P ——— | PRIMARY U.G. SERVICE ENTRANCE CONDUITS |
| ——— SEC ——— | UNDERGROUND SECONDARY SERVICE ENTRANCE FEEDERS. |
| ——————— | U.G. FEEDER AND CONDUIT |
| ——— TV ——— | U.G. SERVICE ENTRANCE TELEPHONE CONDUITS U.H. INSTALLED AT 30" BELOW FINISHED GRADE. |
| ——— TEL ——— | U.G. TELEVISION CONDUITS INSTALLED AT 30" BELOW FINISHED GRADE. |

0 20' 40' 80
SCALE: 1"=40'

ingenuity engineers
4798 new broad street
suite 300
orlando, fl 32814
407.398.6007 (p)
407.398.6003 (f)
"Proactive Engineering Solutions"

| REVISIONS |
|---|
| SITE PLAN 11-24-15 |

SLOCUM PLATTS
ARCHITECTS, P.A.
RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL. (407)645-3019 FAX (407)645-2771
WWW.SLOCUMPLATTS.COM

CA# 26308

Joseph B. Harrill, PE
PE No. 73015

I14203.00

ELECTRICAL SITE PLAN

DWELL AT MAITLAND

MAITLAND FLORIDA

DRAWN MAT
CHECKED JBH
DATE 11-24-15
SCALE AS NOTED
JOB NO. 14-045
SHEET E1.0

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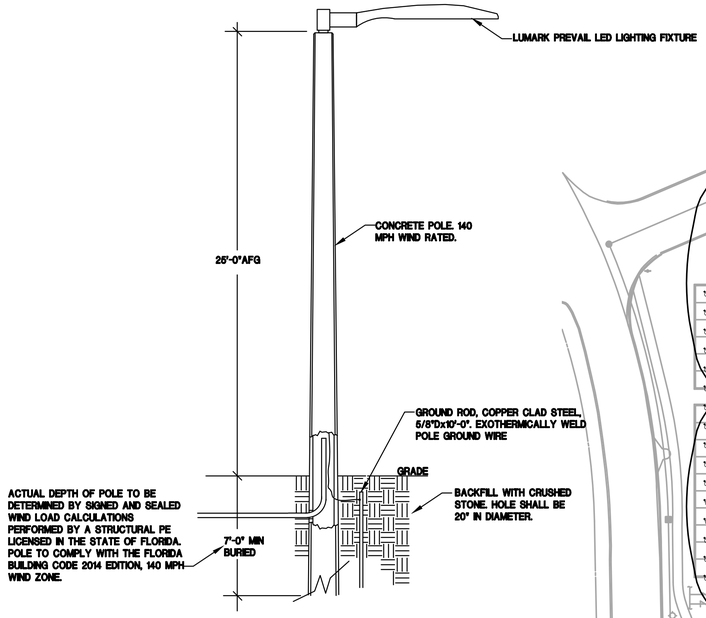
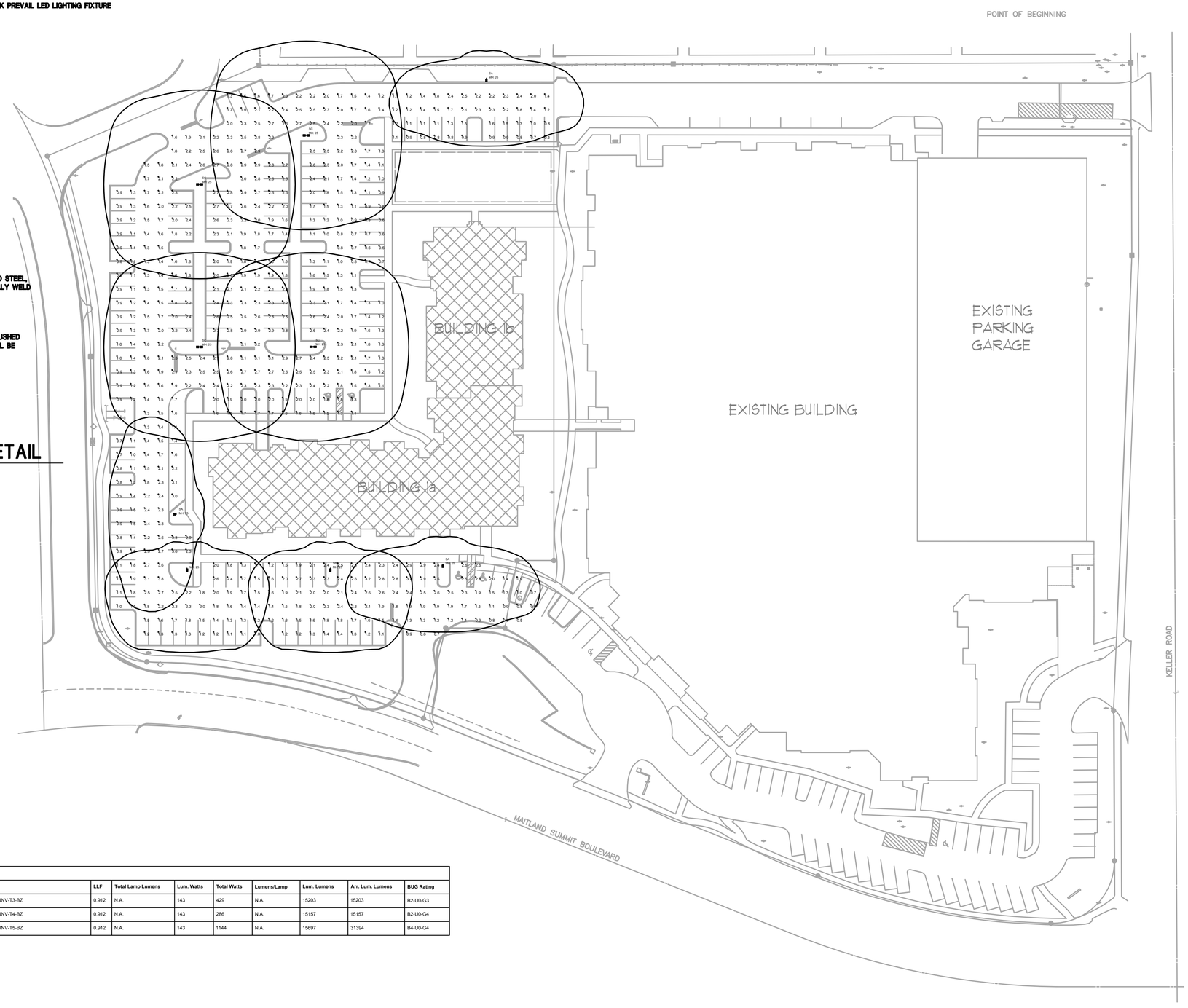



## POLE MOUNTED LIGHTING FIXTURE DETAIL

NTS




| Luminaire Schedule | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Symbol | Qty | Label | Arrangement | Manufacturer | Description | LLF | Total Lamp Lumens | Lum. Watts | Total Watts | Lumens/Lamp | Lum. Lumens | Arr. Lum. Lumens | BUG Rating |
| | 3 | SA | SINGLE | EATON - LUMARK (FORMER COOPER LIGHTING) | PRV-A40-D-UNV-T3-BZ | 0.912 | N.A. | 143 | 429 | N.A. | 15203 | 15203 | B2-U0-G3 |
| | 2 | SB | SINGLE | EATON - LUMARK (FORMER COOPER LIGHTING) | PRV-A40-D-UNV-T4-BZ | 0.912 | N.A. | 143 | 286 | N.A. | 15157 | 15157 | B2-U0-G4 |
| | 4 | SC | BACK-BACK | EATON - LUMARK (FORMER COOPER LIGHTING) | PRV-A40-D-UNV-T5-BZ | 0.912 | N.A. | 143 | 1144 | N.A. | 15697 | 31394 | B4-U0-G4 |

| Calculation Summary | | | | | | | |
|---|---|---|---|---|---|---|---|
| Label | CalcType | Units | Avg | Max | Min | Avg/Min | Max/Min |
| PARKING AREA - DRIVEWAY | Illuminance | Fc | 1.81 | 3.8 | 0.5 | 3.62 | 7.60 |

1 ELECTRICAL SITE PLAN
SCALE: 1"=40'

0 20' 40' 80
SCALE: 1"=40'

ingenuity engineers
"Proactive Engineering Solutions"
4798 new broad street
suite 300
orlando, fl 32814
407.398.6007 (p)
407.398.6003 (f)

| REVISIONS |
|---|
| SITE PLAN 11-24-15 |

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670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL. (407)645-3019 FAX (407)645-2771
WWW.SLOCUMPLATTS.COM
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PE No. 73015

I14203.00

ELECTRICAL SITE PHOTOMETRIC PLAN

DWELL AT MAITLAND

MAITLAND FLORIDA

DRAWN MAT
CHECKED JBH
DATE 11-24-15
SCALE AS NOTED
JOB NO. 14-045
SHEET E1.1

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## ORDERING INFORMATION

**Sample Number**: PRV-A25-D-UNV-T3-SA-BZ

| Product Family [1] | Light Engine [2] | Driver [3] | Voltage | Distribution | Mounting | Color [5] |
|---|---|---|---|---|---|---|
| **PRV**–Prevail | **A15**–(1 LED) 6,100 Nominal Lumens<br>**A25**–(2 LEDs) 10,200 Nominal Lumens<br>**A40**–(2 LEDs) 15,100 Nominal Lumens | **D**–Dimming (0-10V) | **UNV**–Universal (120-277V)<br>**347**–347V<br>**480**–480V [4] | **T2**–Type II<br>**T3**–Type III<br>**T4**–Type IV<br>**T5**–Type V | **SA**–Standard Versatile Arm<br>**MA**–Mast Arm<br>**WM**–Wall Mount Arm | **AP**–Gray<br>**BZ**–Bronze (Standard)<br>**BK**–Black<br>**DP**–Dark Platinum<br>**GM**–Graphite Metallic<br>**WH**–White |

| Options (Add as Suffix) | Accessories (Order Separately) [16] |
|---|---|
| **7030**–70 CRI / 3000K CCT [6]<br>**7050**–70 CRI / 5000K CCT [6]<br>**10K**–10kV/10kA UL 1449 Fused Surge Protective Device<br>**DMRF-LW**–LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [7,8]<br>**DMRF-LN**–LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [7,8]<br>**MSP/DIM-L12**–Integrated Sensor for Dimming Operation, 8' - 12' Mounting Height<br>**MSP/DIM-L30**–Integrated Sensor for Dimming Operation, 12' - 30' Mounting Height<br>**MSP-L12**–Integrated Sensor for ON/OFF Operation, 8' - 12' Mounting Height<br>**MSP-L30**–Integrated Sensor for ON/OFF Operation, 12' - 30' Mounting Height<br>**PER**–NEMA 3-PIN Twistlock Photocontrol Receptacle [9]<br>**PER7**–NEMA 7-PIN Twistlock Photocontrol Receptacle [9]<br>**HSS**–House Side Shield<br>**HA**–50°C High Ambient Temperature | **WM-XX**–Wall Mount Kit<br>**MA-XX**–Mast Arm Mounting Kit<br>**SA-XX**–Standard Arm Mounting Kit<br>**HS/VERD**–House Side Shield<br>**MA1010-XX**–Single Tenon Adapter for 3-1/2" O.D. Tenon<br>**MA1011-XX**–@180° Tenon Adapter for 3-1/2" O.D. Tenon<br>**MA1012-XX**–@120° Tenon Adapter for 3-1/2" O.D. Tenon<br>**MA1013-XX**–@90° Tenon Adapter for 3-1/2" O.D. Tenon<br>**MA1014-XX**–@90° Tenon Adapter for 3-1/2" O.D. Tenon<br>**MA1015-XX**–@120° Tenon Adapter for 3-1/2" O.D. Tenon<br>**MA1016-XX**–@180° Tenon Adapter for 3-1/2" O.D. Tenon<br>**MA1017-XX**–Single Tenon Adapter for 2-3/8" O.D. Tenon<br>**MA1018-XX**–@180° Tenon Adapter for 2-3/8" O.D. Tenon<br>**MA1019-XX**–@120° Tenon Adapter for 2-3/8" O.D. Tenon<br>**MA1045-XX**–@180° Tenon Adapter for 2-3/8" O.D. Tenon<br>**MA1048-XX**–@180° Tenon Adapter for 2-3/8" O.D. Tenon<br>**MA1049-XX**–@90° Tenon Adapter for 2-3/8" O.D. Tenon<br>**MA1191-XX**–@120° Tenon Adapter for 2-3/8" O.D. Tenon<br>**OA/RA1013**–Photocontrol Shorting Cap<br>**OA/RA1014**–NEMA Photocontrol - 120V<br>**OA/RA1016**–NEMA Photocontrol - Multi-Tap 105-285V<br>**OA/RA1027**–NEMA Photocontrol - 480V<br>**OA/RA1201**–NEMA Photocontrol - 347V<br>**ISRH-01**–Integrated Sensor Programming Remote |

**NOTES:**
1. DesignLights Consortium™ Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
2. Standard 4000K CCT and 70 CRI.
3. Consult factory for driver surge protection values.
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. Different housing colors impact lumen output. IES files for the non-standard colors are available upon request.
6. Extended lead times apply. Use dedicated IES files for 3000K and 5000K when performing layouts. These files are published on the Prevail luminaire product page on the website.
7. LumaWatt wireless sensors are factory installed and require network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See website for LumaWatt application information.
8. LumaWatt wireless system is not available with photocontrol receptacle (Not needed).
9. Not available with MSP or DIMRF options.
16. Replace XX with paint color.

## STOCK ORDERING INFORMATION

**Stock Sample Number**: PRV-S-A25-UNV-T3

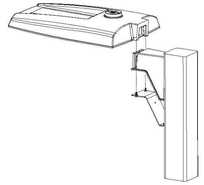
| Product Family | Light Engine | Voltage | Distribution | Options (Add as Suffix) |
|---|---|---|---|---|
| **PRVS**–Prevail | **A15**–(1 LED) 6,100 Nominal Lumens<br>**A25**–(2 LEDs) 10,200 Nominal Lumens<br>**A40**–(2 LEDs) 15,300 Nominal Lumens | **UNV**–Universal (120-277V)<br>**347**–347V | **T3**–Type III<br>**T4**–Type IV | **MSP/DIM-L30**–Integrated Sensor for Dimming Operation, Maximum 30' Mounting Height |

**NOTE:** Bronze only, 4000K CCT, 120-277V, 347V, standard mounting arm, standard non-fused 10kV MOV and 0-10V dimming.

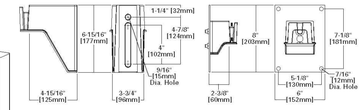




## VERSATILE MOUNT SYSTEM



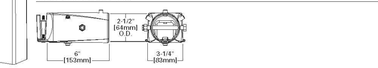
## POLE MOUNT ARM (SA)




## WALL MOUNT (WM)




## MAST ARM MOUNT (MA)




## MOUNTING CONFIGURATIONS AND EPAS

**Wall Mount**

**Arm Mount Single** EPA 0.75

**Arm Mount 2 @ 180°** EPA 1.50

**Arm Mount 2 @ 90°** EPA 1.50

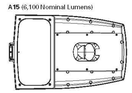
**Arm Mount 3 @ 90°** EPA 2.25



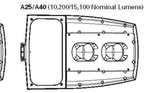
**Arm Mount 4 @ 90°** EPA 3.00

## OPTICAL CONFIGURATIONS

**A15** (6,100 Nominal Lumens)



**A25/A40** (10,200/15,100 Nominal Lumens)



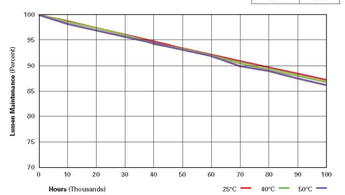
## POWER AND LUMENS

| Light Engine | | A15 | A25 | A40 |
|---|---|---|---|---|
| **Nominal Power** (Watts) | | 57W | 87W | 142W |
| **Input Current @ 120V** (A) | | 0.49 | 0.76 | 1.23 |
| **Input Current @ 277V** (A) | | 0.22 | 0.35 | 0.54 |
| **Input Current @ 347V** (A) | | 0.18 | 0.28 | 0.45 |
| **Input Current @ 480V** (A) | | 0.13 | 0.21 | 0.33 |
| **Type II** | Lumens | 6,139 | 10,204 | 15,073 |
| | BUG Rating | B1-U0-G1 | B2-U0-G2 | B3-U0-G3 |
| **Type III** | Lumens | 6,192 | 10,292 | 15,203 |
| | BUG Rating | B1-U0-G2 | B2-U0-G3 | B2-U0-G3 |
| **Type IV** | Lumens | 6,173 | 10,261 | 15,157 |
| | BUG Rating | B1-U0-G3 | B2-U0-G3 | B2-U0-G4 |
| **Type V** | Lumens | 6,393 | 10,627 | 15,697 |
| | BUG Rating | B3-U0-G3 | B4-U0-G3 | B4-U0-G4 |

**NOTE**: Lumen output for standard bronze fixture color. Different housing colors impact lumen output. IES files for the non-standard colors are available upon request.

## LUMEN MAINTENANCE

| Ambient Temperature | 25,000 Hours* | 50,000 Hours* | 60,000 Hours* | Theoretical 100,000 Hours | Theoretical L70 (Hours)* |
|---|---|---|---|---|---|
| **25°C** | > 96% | > 93% | > 92% | > 87% | > 260,000 |
| **40°C** | > 96% | > 93% | > 92% | > 87% | > 255,000 |
| **50°C** | > 95% | > 92% | > 91% | > 86% | > 250,000 |




## LUMEN MULTIPLIER

| Ambient Temperature | Lumen Multiplier |
|---|---|
| **10°C** | 1.02 |
| **15°C** | 1.01 |
| **25°C** | 1.00 |
| **40°C** | 0.99 |



# Lumark

| | | Type |
|---|---|---|
| Catalog # | | |
| Project | | |
| Comments | | Date |
| Prepared by | | |

## DESCRIPTION

The Prevail LED area, site luminaire combines optical performance, energy efficiency and long term reliability in an advanced, patent pending modern design. Utilizing the latest LED technology, the Prevail luminaire delivers unparalleled uniformity resulting in greater pole spacing. A versatile mount standard arm facilitates ease of installation for both retrofit and new installations. With energy savings greater than 62%, the Prevail fixture replaces 150-400W metal halide fixtures in general area lighting applications such as parking lots, walkways, roadways and building areas.

## SPECIFICATION FEATURES

**Construction**
Construction is comprised of a heavy-duty, single-piece die-cast aluminum housing. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. The die-cast aluminum door is tethered to provide easy access to the driver if replacement is required. A one-piece silicone gasket seals the door to the fixture housing. The optics is mounted on a versatile, aluminum plate that dissipates heat from the LEDs resulting in longer life of the fixture. The fixture is IP66 and 3G vibration rated (ANSI C136.31) to insure strength of construction and longevity in the selected application.

**Optics**
Precision molded, high efficiency optics are precisely designed to shape the distribution, maximizing efficiency and application spacing. Available in Type II, III, IV and V distributions with lumen packages ranging from 6,100 to 15,100 nominal lumens. Light engine configurations consist of 1 or 2 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L92/60,000 hours at 25°C) per IESNA TM-21. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

**Electrical**
LED drivers are mounted to the fixture for optimal heat sinking and ease of maintenance. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Class 1 electronic drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Available in 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. 10kV/10 kA surge protection standard. 0-10V dimming driver is standard with leads external to the fixture to accommodate controls capability such as dimming and occupancy. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. Standard NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options.

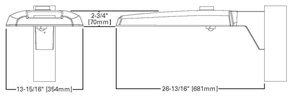
**Controls**
The Prevail LED luminaire control options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. The ANSI C136.41 compliant NEMA 7-PIN receptacle enables wireless dimming when used with compatible photocontrol. An integrated dimming and occupancy sensor is a standalone control option available in on/off (MSP) and bi-level dimming (MSP/DIM) operation. The optional LumaWatt system is best described as a peer-to-peer wireless network of luminaire-integral sensors that operate in accordance with programmable profiles. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication.

**Mounting**
Standard pole mount arm is bolted directly to the pole and the fixture slides onto the arm and locks in place with a bolt facilitating quick and easy installation. The versatile, patent pending, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the standard mounting arm enables wiring of the fixture without having to access the driver compartment. A knock-out on the standard mounting arm enables round pole mounting. Wall mount and mast arm mounting options are available. Mast arm adapter fits 2-3/8" O.D. tenon.

**Finish**
Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is bronze. Additional colors available in white, grey, black, dark platinum and graphite metallic.

**Warranty**
Five-year warranty.

## DIMENSIONS



**PRV** PREVAIL

LED

AREA / SITE / ROADWAY LUMINAIRE

**CERTIFICATION DATA**
UL and cUL Wet Location Listed
IP66 Rated
3G Vibration Rated
ISO 9001
DesignLights Consortium™ Qualified*

**ENERGY DATA**
**Electronic LED Driver**
0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 and 60Hz,
347V/60Hz, 480V/60Hz
-40°C Minimum Temperature Rating
+40°C Ambient Temperature Rating

**EPA**
**Effective Projected Area** (Sq. Ft.): 0.75

**SHIPPING DATA**
**Approximate Net Weight:**
20 lbs. (9.09 kgs.)



ingenuity engineers
"Proactive Engineering Solutions"
4798 new broad street
suite 300
orlando, fl 32814
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407.398.6003 (f)

| REVISIONS |
|---|
| SITE PLAN 11-24-15 |

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ARCHITECTS , P.A.
RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
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ELECTRICAL SITE PHOTOMETRIC SPECS

DWELL
AT MAITLAND

MAITLAND FLORIDA

| | |
|---|---|
| DRAWN | MAT |
| CHECKED | JBH |
| DATE | 11-24-15 |
| SCALE | AS NOTED |
| JOB NO. | 14-045 |
| SHEET | E1.2 |

# PANEL HP1 — SECTION 1

RATING: 400 AMP M.L.O. | SERVICE: 120/208V, 3Ø, 4 WIRE | LUG LOCATION: BOTTOM | MOUNTING: SURFACE | AIC : 22KAIC | TYPE : SIEMENS

| CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND | Ø | CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | STAIRS | L | 0.50 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 2 | STAIRS | L | 0.50 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 3 | STAIRS | L | 0.50 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 4 | STAIRS | L | 0.50 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 5 | 1st FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 6 | 3rd FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 7 | 1sT FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 8 | 3rd FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 9 | 2nd FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 10 | 4th FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 11 | 2nd FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 12 | 4th FLOOR HALL WAY LTS. | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 13 | 1ST FLR RECEPT CORRIDOR | R | 1.80 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 14 | RECEPTACLES HALL WAY | R | 0.72 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 15 | ELEVATOR PIT LIGHT | L | 0.20 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 16 | BUILDING EXTERIOR LTS. | L | 1.00 | 1 | 20 | 10 | 10 | 10 | 1/2" |
| 17 | ELEVATOR RECEPTACLE | R | 0.36 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 18 | 2ND FLR CORRIDOR REC | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 19 | EWC | M | 0.60 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 20 | 3RD FLR CORRIDOR REC | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 21 | FACP | M | 0.30 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 22 | 4TH FLR CORRIDOR REC | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 23 | TTB RECEPTACLE | R | 0.36 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 24 | EXTERIOR RECPT | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 25 | TTB RECEPTACLE | R | 0.36 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 26 | EXTERIOR RECPT | R | 0.72 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 27 | FIRE/SMOKE DAMPERS | M | 0.40 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 28 | ELEV MACH RM REC | R | 0.18 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 29 | ELEVATOR PIT LIGHT | L | 0.20 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 30 | ELEV MACH RM LTG | L | 0.30 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 31 | ELEVATOR RECEPTACLE | R | 0.36 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 32 | SP-1 | M | 1.20 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 33 | ELEV MACH RM REC | R | 0.18 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 34 | SP-2 | M | 2.40 | 1 | 30 | 12 | 12 | 12 | 1/2" |
| 35 | ELEV MACH RM LIGHTING | L | 0.30 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 36 | EWH-2 | M | 2.25 | 1 | 30 | 10 | -- | 10 | 3/4" |
| 37 | 1ST FLR RECEPT CORRIDOR | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 38 | ---- | M | 2.25 | -- | -- | 10 | -- | -- | -- |
| 39 | ELEC RM RECEPT | R | 0.54 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 40 | ELEVATOR CAB LTS | L | 0.30 | 1 | 20 | | | | |
| 41 | EXTERIOR CANOPY LTG | L | 0.60 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 42 | ELEVATOR CAB LTS | L | 0.30 | 1 | 20 | | | | |

| EQUIPMENT SERVED | CONN. LOAD | LF | DF | DESIGN LOAD (KVA) |
|---|---|---|---|---|
| LIGHTING | 20.0 | 1.25 | | 25.00 |
| MISC. EQUIPMENT | 51.1 | | 1.00 | 51.13 |
| RECEPTACLES (1ST 10KVA) | 10.0 | | 1.00 | 10.00 |
| REMAINING RECEPTACLES | 6.8 | | 0.50 | 3.42 |
| HVAC EQUIPMENT | 38.8 | | 1.00 | 38.77 |
| KITCHEN | 0.0 | | 1.00 | 0.00 |
| | | | TOTAL | 128.32 |

REMARKS
-PROVIDE NEUTRAL & GROUND BUS
-PROVIDE TYPE WRITTEN DIRECTORY

42 CIRCUITS — 356 AMPS

# PANEL HP1 — SECTION 2

RATING: 400 AMP M.L.O. | SERVICE: 120/208V, 3Ø, 4 WIRE | LUG LOCATION: BOTTOM | MOUNTING: SURFACE | AIC : 22KAIC | TYPE : SIEMENS

| CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND | Ø | CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | MAIN AREA LTG | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 44 | RECEPTACLES | R | 0.36 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 45 | MAIN AREA LTG | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 46 | U.C. REFRIG | M | 0.60 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 47 | MAIN AREA LTG | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 48 | RECEPTACLES | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 49 | MAIN AREA LTG | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | A | 50 | RECEPTACLES | R | 0.72 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 51 | MAIN AREA LTG | L | 1.00 | 1 | 20 | 12 | 12 | 12 | 1/2" | B | 52 | RECEPTACLES | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 53 | LC-1 | M | 0.20 | 1 | 20 | 12 | 12 | 12 | 1/2" | C | 54 | RECEPTACLES | R | 0.72 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 55 | FCU-1.4/CU-1.4 | A | 1.43 | 1 | 15 | 10 | 10 | 10 | 3/4" | A | 56 | RECEPTACLES | R | 0.36 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 57 | FCU-1.5/CU-1.5 | A | 1.43 | 1 | 15 | 10 | 10 | 10 | 3/4" | B | 58 | RECEPTACLES | R | 0.36 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 59 | FCU-1.6/CU-1.6 | A | 1.43 | 1 | 15 | 10 | 10 | 10 | 3/4" | C | 60 | U.C. REFRIG | M | 0.60 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 61 | FCU 1.1 | A | 4.67 | 2 | 45 | | | | | A | 62 | EXTERIOR ROOF RECEPT | R | 1.08 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 63 | ---- | A | 4.67 | -- | -- | | | | | B | 64 | EXTERIOR ROOF RECEPT | R | 0.90 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 65 | FCU-1.2 | A | 5.03 | 2 | 60 | | | | | C | 66 | EXTERIOR ROOF RECEPT | R | 0.54 | 1 | 20 | 12 | 12 | 12 | 1/2" |
| 67 | ---- | A | 5.03 | -- | -- | | | | | A | 68 | EXT PARKING LOT LTG | L | 0.90 | 1 | 20 | 6 | 6 | 6 | 1" |
| 69 | FCU-1.3 | A | 2.56 | 2 | 30 | | | | | B | 70 | EXT PARKING LOT LTG | L | 0.90 | 1 | 20 | 6 | 6 | 6 | 1" |
| 71 | ---- | A | 2.56 | -- | -- | | | | | C | 72 | SPARE | | | 1 | 20 | | | | |
| 73 | CU-1.1 | A | 1.56 | 2 | 30 | | | | | A | 74 | SPARE | | | 1 | 20 | | | | |
| 75 | --- | A | 1.56 | -- | -- | | | | | B | 76 | SPARE | | | 1 | 20 | | | | |
| 77 | CU-1.2 | A | 1.96 | 2 | 40 | | | | | C | 78 | SPARE | | | 1 | 20 | | | | |
| 79 | ---- | A | 1.96 | -- | -- | | | | | A | 80 | HP1A | M | 13.44 | 3 | 150 | 1/O | -- | 6 | 2" |
| 81 | CU-1.3 | A | 1.46 | 2 | 25 | | | | | B | 82 | ---- | M | 13.44 | -- | -- | 1/O | -- | -- | -- |
| 83 | ---- | A | 1.46 | -- | -- | | | | | C | 84 | ---- | M | 13.44 | -- | -- | 1/O | -- | -- | -- |

REMARKS
-PROVIDE NEUTRAL & GROUND BUS
-PROVIDE TYPE WRITTEN DIRECTORY

42 CIRCUITS

# PANEL HP1A

RATING: 150 AMP M.L.O. | SERVICE: 120/208V, 3Ø, 4 WIRE | LUG LOCATION: BOTTOM | MOUNTING: SURFACE | AIC : 22KAIC | TYPE : SIEMENS

| CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND | Ø | CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FCU-2.1 | A | 1.72 | 2 | 20 | 10 | -- | 10 | 3/4" | A | 2 | CU-2.1 | A | 0.98 | 2 | 20 | 10 | -- | 10 | 3/4" |
| 3 | ---- | A | 1.72 | -- | -- | 10 | -- | -- | -- | B | 4 | ---- | A | 0.98 | -- | -- | 10 | -- | -- | -- |
| 5 | FCU-2.2 | A | 2.56 | 2 | 30 | 10 | -- | 10 | 3/4" | C | 6 | CU-2.2 | A | 1.46 | 2 | 25 | 10 | -- | 10 | 3/4" |
| 7 | ---- | A | 2.56 | -- | -- | 10 | -- | -- | -- | A | 8 | ---- | A | 1.46 | -- | -- | 10 | -- | -- | -- |
| 9 | FCU-3.1 | A | 1.72 | 2 | 20 | 10 | -- | 10 | 3/4" | B | 10 | CU-3.1 | A | 0.98 | 2 | 20 | 10 | -- | 10 | 3/4" |
| 11 | ---- | A | 1.72 | -- | -- | 10 | -- | -- | -- | C | 12 | ---- | A | 0.98 | -- | -- | 10 | -- | -- | -- |
| 13 | FCU-3.2 | A | 2.56 | 2 | 30 | 10 | -- | 10 | 3/4" | A | 14 | CU-3.2 | A | 1.46 | 2 | 25 | 10 | -- | 10 | 3/4" |
| 15 | ---- | A | 2.56 | -- | -- | 10 | -- | -- | -- | B | 16 | ---- | A | 1.46 | -- | -- | 10 | -- | -- | -- |
| 17 | FCU-4.1 | A | 1.72 | 2 | 20 | 10 | -- | 10 | 3/4" | C | 18 | CU-4.1 | A | 0.98 | 2 | 20 | 10 | -- | 10 | 3/4" |
| 19 | ---- | A | 1.72 | -- | -- | 10 | -- | -- | -- | A | 20 | ---- | A | 0.98 | -- | -- | 10 | -- | -- | -- |
| 21 | FCU-4.2 | A | 2.56 | 2 | 30 | 10 | -- | 10 | 3/4" | B | 22 | CU-4.2 | A | 1.46 | 2 | 25 | 10 | -- | 10 | 3/4" |
| 23 | ---- | A | 2.56 | -- | -- | 10 | -- | -- | -- | C | 24 | ---- | A | 1.46 | -- | -- | 10 | -- | -- | -- |
| 25 | SPARE | | | 1 | 20 | | | | | A | 26 | SPARE | | | 1 | 20 | | | | |
| 27 | SPARE | | | 1 | 20 | | | | | B | 28 | SPARE | | | 1 | 20 | | | | |
| 29 | SPARE | | | 1 | 20 | | | | | C | 30 | SPARE | | | 1 | 20 | | | | |

| EQUIPMENT SERVED | CONN. LOAD | LF | DF | DESIGN LOAD (KVA) |
|---|---|---|---|---|
| LIGHTING | 0.0 | 1.25 | | 0.00 |
| MISC. EQUIPMENT | 0.0 | | 1.00 | 0.00 |
| RECEPTACLES (1ST 10KVA) | 0.0 | | 1.00 | 0.00 |
| REMAINING RECEPTACLES | 0.0 | | 0.50 | 0.00 |
| HVAC EQUIPMENT | 40.3 | | 1.00 | 40.33 |
| KITCHEN | 0.0 | | 1.00 | 0.00 |
| | | | TOTAL | 40.33 |

REMARKS
-PROVIDE NEUTRAL & GROUND BUS
-PROVIDE TYPE WRITTEN DIRECTORY

42 CIRCUITS — 112 AMPS

# SWBD MDP

RATING: 800 AMP M.C.B., W/ SHUNT TRIP | SERVICE: 120/208V, 3Ø, 4 WIRE | LUG LOCATION: TOP | MOUNTING: SURFACE | AIC : 65KAIC | TYPE : SIEMENS

| CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND | Ø | CKT NO. | EQUIPMENT SERVED | -LD TYP | KVA | CKT. BKR. POLE | CKT. BKR. TR | BRANCH CIRCUIT Ø | NEUT | GND | COND |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PANEL "HP1" | M | 46.12 | 3 | 400 | 250 | 250 | 3 | (2) 4" | A | 2 | ELEVATOR W/ SHUNT TRIP C.B. | M | 8.00 | 3 | 90 | 1 | -- | 6 | 1 1/2" |
| | | M | 41.23 | -- | -- | 250 | -- | -- | -- | B | | | M | 8.00 | -- | -- | 1 | -- | -- | -- |
| | | M | 41.04 | -- | -- | 250 | -- | -- | -- | C | | | M | 8.00 | -- | -- | 1 | -- | -- | -- |
| 3 | PANEL "HP1A" | L | 13.44 | 3 | 150 | 1/O | 1/O | 6 | 2" | A | 4 | ELEVATOR W/ SHUNT TRIP C.B. | M | 8.00 | 3 | 90 | 1 | -- | 6 | 1 1/2" |
| | | L | 13.44 | -- | -- | 1.O | -- | -- | -- | B | | | M | 8.00 | -- | -- | 1 | -- | -- | -- |
| | | L | 13.44 | -- | -- | 1/O | -- | -- | -- | C | | | M | 8.00 | -- | -- | 1 | -- | -- | -- |
| 5 | SPACE | M | | 3 | | | | | | A | 6 | SPACE | M | | 3 | | | | | |
| | | M | | -- | | | | | | B | | | M | | | | | | | |
| | | M | | -- | | | | | | C | | | M | | | | | | | |
| 7 | SPACE | M | | 3 | | | | | | A | 8 | SPACE | M | | 3 | | | | | |
| | | M | | -- | | | | | | B | | | M | | | | | | | |
| | | M | | -- | | | | | | C | | | M | | | | | | | |
| 9 | SPACE | M | | 3 | | | | | | A | 10 | SPACE | M | | 3 | | | | | |
| | | M | | -- | | | | | | B | | | M | | -- | | | | | |
| | | M | | -- | | | | | | C | | | M | | -- | | | | | |
| 11 | SPACE | M | | 3 | | | | | | A | 12 | SPACE | M | | 3 | | | | | |
| | | M | | -- | | | | | | B | | | M | | | | | | | |
| | | M | | -- | | | | | | C | | | M | | | | | | | |
| 13 | SPACE | | | 3 | | | | | | A | 14 | SPACE | M | | 3 | | | | | |
| | | | | | | | | | | B | | | M | | -- | | | | | |
| | | | | | | | | | | C | | | M | | -- | | | | | |
| 15 | SPACE | | | 3 | | | | | | A | 16 | SPACE | | | 3 | | | | | |
| | | | | | | | | | | B | | | | | | | | | | |
| | | | | | | | | | | C | | | | | | | | | | |
| 17 | SPACE | | | 3 | | | | | | A | 18 | TVSS | M | -- | 3 | 60 | 2 | 2 | 6 | 1 1/2" |
| | | | | | | | | | | B | | | M | -- | -- | -- | 2 | | | |
| | | | | | | | | | | C | | | M | -- | -- | -- | 2 | | | |

| EQUIPMENT SERVED | CONN. LOAD | LF | DF | DESIGN LOAD (KVA) |
|---|---|---|---|---|
| LIGHTING | 40.3 | 1.25 | | 50.42 |
| MISC. EQUIPMENT | 176.4 | | 1.00 | 176.39 |
| RECEPTACLES (1ST 10KVA) | 0.0 | | 1.00 | 0.00 |
| REMAINING RECEPTACLES | 0.0 | | 0.50 | 0.00 |
| HVAC EQUIPMENT | 0.0 | | 1.00 | 0.00 |
| | | | TOTAL | 226.80 |

REMARKS

18 CIRCUITS — 630 AMPS

## NOTE:

1. PANEL SCHEDULES SHOWN FOR REFERENCE ONLY. NOT ALL CIRCUITS ARE USED IN SITE PACKAGE.

| SCHEDULE LEGEND | |
|---|---|
| HP1 SECTION 1 | HP1 SECTION 2 |
| HP1A | MDP |
| -- | -- |


ingenuity engineers
"Proactive Engineering Solutions"
4798 new broad street
suite 300
orlando, fl 32814
407.398.6007 (p)
407.398.6003 (f)


| REVISIONS |
|---|
| SITE PLAN 11-24-15 |


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ARCHITECTS, P.A.
RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL. (407)645-3019 FAX (407)645-2771
WWW.SLOCUMPLATTS.COM
CA# 26308
Joseph B. Harrill, PE
PE No. 73015


I14203.00

ELECTRICAL PANEL SCHEDULES

DWELL AT MAITLAND

MAITLAND FLORIDA

DRAWN: MAT
CHECKED: JBH
DATE: 11-24-15
SCALE: AS NOTED
JOB NO.: 14-045
SHEET: E5.2


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