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CONSTRUCTION DRAWINGS FOR SHOPPES ON GRANADA

SECTION 30, TOWNSHIP 14 S, RANGE 32 E

1290, 1298 AND 1310 WEST GRANADA BOULEVARD

ORMOND BEACH, FL 32174

SEPTEMBER 27, 2013
REVISED FEBRUARY 24, 2014
REVISED MAY 20, 2014
REVISED JUNE 23, 2014
REVISED AUGUST 21, 2014

PROJECT TEAM

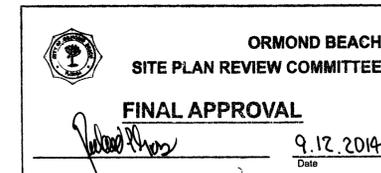
DEVELOPER/
APPLICANT:

FERBER CONSTRUCTION MANAGEMENT, LLC
151 SAWGRASS CORNERS DRIVE
SUITE 202
PONTE VEDRA BEACH, FL 32082
PHONE: (904) 285-7600
FAX: (904) 625-1189



PROPERTY
OWNERS:

WEST GRANADA, LLC
315 NORTH ATLANTIC AVENUE
DAYTONA BEACH, FL 32118



LOWE'S HOME CENTERS, INC.
1605 CURTIS BRIDGE ROAD
WILKESBORO, NC 28697
PHONE: (336) 658-4000

PROJECT MGR/
ENGINEER/
SURVEYOR/
LANDSCAPE
ARCHITECT:

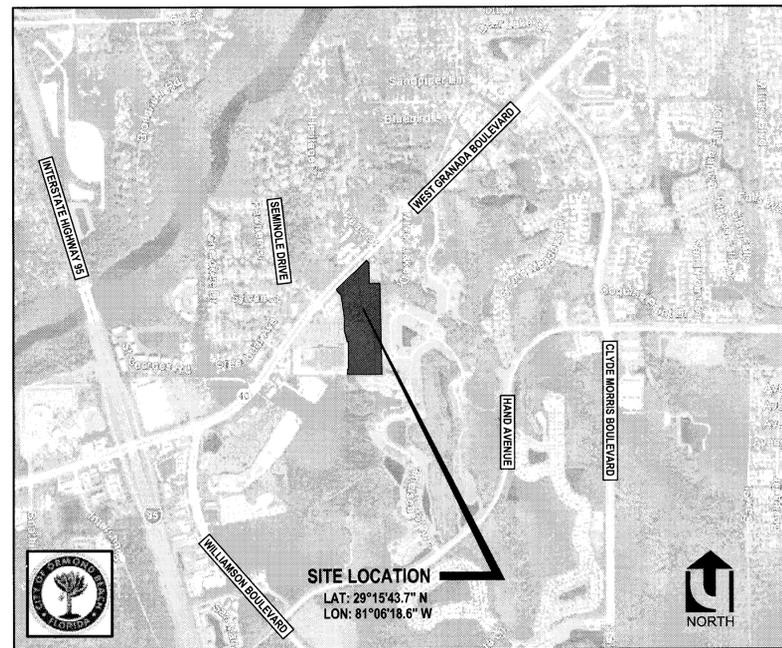
UPHAM, INC.
265 KENILWORTH AVENUE
ORMOND BEACH, FL 32174
PHONE: (386) 672-9515
FAX: (386) 673-6554

ARCHITECT:

FWH ARCHITECTS, INC.
3336 GRAND BOULEVARD, SUITE 102
HOLIDAY, FL 34690
PHONE: (727) 815-3336
FAX: (727) 815-3337

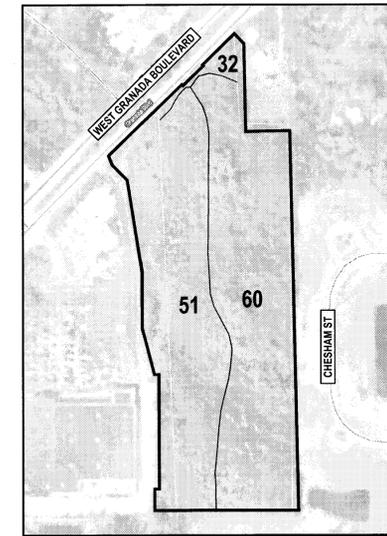
CONTACT NUMBERS

WATER - CITY OF ORMOND BEACH UTILITY DEPARTMENT (386) 676-3230
WASTEWATER - CITY OF ORMOND BEACH UTILITY DEPARTMENT (386) 676-3230
TECO PEOPLES GAS - (386) 671-2232
ELECTRIC - FLORIDA POWER & LIGHT (386) 257-7502
TELEPHONE/CABLE - AT&T (386) 254-8550



LOCATION MAP

1"=1,250'

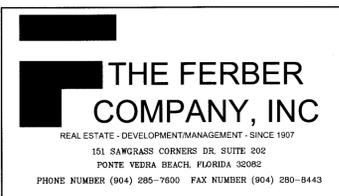


SOIL LEGEND:

- 32 MYAKKA FINE SAND
- 51 POMONA-ST. JOHNS COMPLEX
- 60 SMYRNA FINE SAND

SOILS MAP

1"=300'



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

THE GENERAL CONTRACTOR SHALL ENSURE THAT ANY SUBCONTRACTOR HAS A COMPLETE SET OF CONSTRUCTION DRAWINGS FOR ITS RESPECTIVE WORK. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR SUBCONTRACTORS ONLY UTILIZING INDIVIDUAL DRAWINGS FOR ITS WORK WHERE ADDITIONAL INFORMATION MAY BE CONTAINED ON OTHER DRAWINGS WITHIN THE SET.

JURISDICTIONAL AGENCY

CITY OF ORMOND BEACH (FINAL SITE PLAN)
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (NOI)
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (SEWER)
FLORIDA DEPARTMENT OF TRANSPORTATION (DRAINAGE)
FLORIDA DEPARTMENT OF TRANSPORTATION (DRIVEWAY)
FLORIDA DEPARTMENT OF TRANSPORTATION (UTILITY)
VOLUSIA COUNTY HEALTH DEPARTMENT (WATER)
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (ERP)

PERMIT No.

14-0000088
FLR100K36-001
CS64-0328623-001
2014-D-591-27
2014-A-591-24
2014-H-591-66
0125747-292-DSGP
IND-127-76071-3



ROGER W. STRCULA, P.E.
FL. REG. NO. 52784

PROJECT No. 120810
DRAWING FILES WITHIN THIS SET:
120810 CIVIL.DWG, 120810 DETAILS.DWG,
120810 LIFT STATION.DWG and
FERBER-12100810.DWG

DRAWING NUMBER:

1

GENERAL CONSTRUCTION NOTES

- GOVERNING SPECIFICATIONS: CITY OF ORMOND BEACH LAND DEVELOPMENT CODE, CITY OF ORMOND BEACH STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS, LATEST EDITION, FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN AND CONSTRUCTION STANDARDS, LATEST EDITION, AND STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, LATEST EDITION, AND SUPPLEMENTS THERETO IF NOTED IN THE SPECIAL PROVISIONS FOR THIS PROJECT.
- ALL UTILITY MATERIAL, CONSTRUCTION AND TESTING COVERED BY THESE DRAWINGS SHALL COMPLY WITH THE CITY OF ORMOND BEACH STANDARD CONSTRUCTION DETAILS AND SPECIFICATIONS, LATEST EDITION. ALL UTILITY WORK AND CONNECTIONS SHALL BE COORDINATED WITH THE CITY OF ORMOND BEACH INSPECTOR.
- THE CONTRACTOR SHALL PAY FOR AND OBTAIN A BUILDING PERMIT. THE ENGINEER WILL SCHEDULE THE PRECONSTRUCTION CONFERENCE BEFORE THE CONTRACTOR'S START OF WORK. THE CONTRACTOR SHALL CONTACT THE BUILDING DEPARTMENT AT (386) 676-3233 FOR INFORMATION ON ISSUANCE OF CITY PERMITS AND /OR OTHER REQUIREMENTS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR DISCREPANCIES AMONG THE DIVISIONS OF THE DRAWING AND SPECIFICATIONS PRIOR TO THE BID DATE. NEITHER THE OWNER OR ENGINEER WILL BE RESPONSIBLE FOR ANY DEFICIENCIES OR DISCREPANCIES RAISED AFTER THE BID OPENING. ACCORDINGLY, IN LIGHT OF THESE OBLIGATIONS, THE ENGINEER IS OBLIGATED TO INTERPRET THE DRAWINGS AND SPECIFICATIONS IN A MANNER THAT WILL PROVIDE THE OWNER WITH A COMPLETE, FUNCTIONING FACILITY FOR THE BID PRICE.
- THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLEMENTARY, AND ANY REQUIREMENT OF ONE SHALL BE A REQUIREMENT OF THE OTHER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS AND TO COMPARE THE REQUIREMENTS OF EACH DIVISION AND ENSURE THAT EACH TRADE OR SUBCONTRACTOR IS MAKING THE ALLOWANCES NECESSARY TO PROVIDE THE OWNER A COMPLETE FACILITY, OPERATIONAL IN ALL RESPECTS, UNLESS OTHERWISE SPECIFICALLY STATED IN THE DRAWINGS.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR INSTRUCTING THE CONTRACTOR IN THE METHODS OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE METHOD TO CONSTRUCT THE IMPROVEMENTS AS SHOWN ON THE PLANS.
- ONLY ONE TEMPORARY CONSTRUCTION SIGN IS PERMITTED. NOT TO EXCEED 32 SQUARE FEET IN SIGN AREA, MAXIMUM HEIGHT OF 8 FEET AND NO CLOSER THAN 10 FT FROM PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL APPLY FOR A TEMPORARY SIGN PERMIT AT THE ORMOND BEACH BUILDING DEPARTMENT. THE SIGN MUST BE REMOVED UPON RECEIPT OF THE CERTIFICATE OF OCCUPANCY.
- CONSTRUCTION NOISE IS RESTRICTED TO LESS THAN 86 dBA BETWEEN THE HOURS OF 7 AM AND 10 PM AND LESS THAN 55 dBA BETWEEN THE HOURS OF 10 PM AND 7 AM DAILY.
- NIGHT TIME CONSTRUCTION LIGHTING SHALL BE RESTRICTED TO NO MORE THAN 0.5 FT-CANDLE AT THE PROPERTY BOUNDARY.
- LITTER CONTROL MEASURES TO PREVENT WIND-DRIVEN DEBRIS SHALL BE IMPLEMENTED THROUGHOUT THE DURATION OF CONSTRUCTION. ALL DEBRIS SHALL BE REMOVED AND THE PROJECT SITE CLEANED WITHIN 30 DAYS OF COMPLETION OF CONSTRUCTION.
- AT NO TIME SHALL EXCAVATIONS BE LEFT UNCOVERED AFTER WORKING HOURS. CONTRACTOR SHALL SECURE THE WORK AREA AT THE END OF EACH DAY'S WORK.
- AT ALL TIMES, THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT UNDERGROUND UTILITIES, STRUCTURES AND OTHER ASSOCIATED FACILITIES FROM DAMAGE DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEASURES OF PROTECTION, ANY DAMAGED FACILITIES SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY OR ENGINEER AT THE CONTRACTORS EXPENSE.
- THERE SHALL BE NO DEVIATIONS FROM THESE PLANS UNLESS APPROVED IN WRITING BY THE ENGINEER AND THE OWNER.
- THE CONTRACTOR SHALL CONTACT ALL CONCERNED UTILITIES AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR SHALL COORDINATE AND COMPLY WITH ALL UTILITY COMPANIES INVOLVED IN PROJECT AND PAY ALL REQUIRED FEES AND COST.
- FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3 OR A-1-4 IN ACCORDANCE WITH AASHTO M-145 AND SHALL BE FREE FROM VEGETATION AND ORGANIC MATERIAL. NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF THE RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENGINEER. TEST RESULTS MUST INCLUDE, BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE AND BASE DENSITIES AT UTILITY CROSSINGS, MANHOLES, INLETS, STRUCTURES. TEST SHALL INCLUDE ASPHALT GRADATION REPORTS, CONCRETE CYLINDERS, ETC.
- WHERE NEW ASPHALT MEETS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.
- PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL BE SAW CUT TO PROVIDE A STRAIGHT EVEN LINE.
- ALL PROPOSED ELEVATIONS REFER TO FINISHED GRADES.
- CONCRETE WALKS SHALL BE 4 INCHES THICK HAVING A 3,000 PSI STRENGTH, POURED OVER PROPERLY PREPARED SUBGRADE. ALL CONCRETE SIDEWALKS SHALL BE 8 INCHES THICK ACROSS DRIVEWAYS. 1/2 INCH EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM OF 50'. CRACK CONTROL JOINTS SHALL BE 5' ON CENTERS.
- CORE TESTS SHALL BE TAKEN TO VERIFY THICKNESS AND SUBSURFACE COMPACTION. PROVIDE FOR THREE SAMPLES, RANDOMLY LOCATED. TEST FOR EXTRACTION, GRADATION, LABORATORY DENSITY, AND MARSHALL'S STABILITY. PROVIDE A CERTIFICATE FROM THE TESTING AGENCY THAT MATERIALS AND INSTALLATION COMPLY WITH SPECIFICATIONS, SIGNED BY THE ASPHALTIC CONCRETE PRODUCER AND CONTRACTOR. ALL COSTS OF TESTS SHALL BE PAID BY THE CONTRACTOR. IF TESTS SHOW THE INSTALLATION DOES NOT MEET SPECIFICATIONS, THE PAVING SHALL BE REMOVED, REPLACED, AND RETESTED.
- IF ANY MUCK-LIKE MATERIAL IS DISCOVERED, IT WILL BE REQUIRED TO BE REMOVED, BACKFILLED WITH APPROPRIATE FILL, COMPACTED, AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
- FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND BUILDING PADS, PER AASHTO T-180).
- NO BURYING OF ANY ORGANIC MATERIALS ALLOWED.
- ALL CONSTRUCTION WITHIN THE FDOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST EDITIONS OF THE FDOT DESIGN STANDARDS (INDICES), FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE FDOT UTILITY ACCOMMODATION MANUAL.

STATEMENT OF INTENT

- THE PROPOSED DEVELOPMENT CONSISTS OF COMBINING TWO PARCELS: 3.42 AC FROM LOWE'S HOME CENTERS, INC. AND 14.53 AC FROM WEST GRANADA, LLC FOR AN OVERALL 17.95 AC TWO PHASE COMMERCIAL DEVELOPMENT CALLED "SHOPPES ON GRANADA". THE DEVELOPMENT WILL CONSIST OF APPROXIMATELY 30,673 GSF FOR COMMERCIAL RETAIL AND RESTAURANT USES. APPROXIMATELY 2.67 AC OF WETLANDS WILL BE IMPACTED AND 1.02 AC OF A CONSERVATION EASEMENT WILL BE RELEASED AND REPLACED WITH A 2.26 AC PARCEL. THE TOTAL IMPERVIOUS AREA IS 3.20 AC AND 7.91 AC WILL BE PRESERVED WITHIN A CONSERVATION EASEMENT.
- BUILDINGS 1 AND 2 WILL BE DEVELOPED IN PHASE 1 WITH ALL SITE IMPROVEMENTS CONSTRUCTED IN PHASE 1. BUILDING 3 WILL BE DEVELOPED IN PHASE 2. ALL PAVEMENT SURFACES AND UTILITY SERVICES TO THE BUILDING WILL BE CONSTRUCTED IN PHASE 1.
- EACH BUILDING WILL BE A SEPARATE BUILDING PERMIT TO ALLOW A CERTIFICATE OF OCCUPANCY TO BE ISSUED SEPARATELY PROVIDED ALL SITE IMPROVEMENTS ARE COMPLETE AND ACCEPTED BY THE CITY.
- BUILDING ELEVATIONS FOR BUILDING 3 SHALL BE APPROVED AS A MINOR MODIFICATION TO THE SITE PLAN AND SHALL BE CONSISTENT WITH BUILDINGS 1 AND 2.

LEGEND NOTE: NOT ALL SYMBOLS SHOWN HERE MAY BE APPLICABLE TO THESE DRAWINGS, ALSO THERE MAY BE ADDITIONAL SYMBOLS WITHIN PLANS NOT SHOWN HERE, SEE INDIVIDUAL DRAWING LEGEND WHERE APPLICABLE.

#3	BENCHMARK ID	---	EXISTING EASEMENT
B24	BORING ID	FOC	EXISTING UNDERGROUND FIBER OPTIC CABLE
124	EXISTING CABLE TV PEDESTAL	#FM	EXISTING FORCE MAIN (# INDICATES SIZE)
C	EXISTING CAP OR PLUG	#PM	PROPOSED FORCE MAIN (# INDICATES SIZE)
⊙	EXISTING CLEAN OUT	CAS	EXISTING GAS MAIN
⊗	EXISTING CONDUIT RISER/ MARKER	CHE	EXISTING OVERHEAD ELECTRIC CABLES
⊕	EXISTING ELECTRIC METER	CHT	EXISTING OVERHEAD TRAFFIC SIGNAL CABLE
+11.7	EXISTING ELEVATION (SOFT)	#RAW	EXISTING RAW WATER MAIN (# INDICATES SIZE)
5.02	PROPOSED ELEVATION (SOFT)	#REC	EXISTING RECLAIM WATER MAIN (# INDICATES SIZE)
+11.75	EXISTING ELEVATION (HARD)	12	EXISTING CONTOUR
5.00	PROPOSED ELEVATION (HARD)	12	PROPOSED CONTOUR (SOFT)
⊕	EXISTING FIRE HYDRANT	12	PROPOSED CONTOUR (HARD)
⊕	PROPOSED FIRE HYDRANT	UTEL	EXISTING UNDERGROUND TELEPHONE CABLE
↔	EXISTING FLOW DIRECTION	UTV	EXISTING UNDERGROUND TELEVISION CABLE
↔	PROPOSED FLOW DIRECTION	UGE	EXISTING UNDERGROUND ELECTRICAL POWER CABLE
⊗	EXISTING GAS METER	---	JURISDICTIONAL WETLAND LINE
⊗	EXISTING GAS VALVE	#SAN	EXISTING SANITARY SEWER (# INDICATES SIZE)
←	EXISTING GUY WIRE & ANCHOR PIN	#SAN	PROPOSED SANITARY SEWER (# INDICATES SIZE)
⊕	EXISTING MAIL BOX	#WM	EXISTING WATER MAIN (# INDICATES SIZE)
⊕	EXISTING MANHOLE (UNKNOWN)	#WM	PROPOSED WATER MAIN (# INDICATES SIZE)
⊕	PROPOSED MANHOLE	---	EXISTING PIPE OR CONDUIT (TYPE SPECIFIED)
⊕	EXISTING SANITARY SEWER CLEANOUT	---	APPROXIMATE SOILS BOUNDARY
⊕	EXISTING SANITARY SEWER MANHOLE	---	EXISTING SWALE OR CENTER OF DITCH
⊕	EXISTING ROAD SIGNS AND POSTS	---	PROPOSED SWALE OR CENTER OF DITCH
⊕	PROPOSED SIGN AND POST	---	EXISTING TOP OF DITCH BANK
⊕	EXISTING TEE	---	EXISTING BOTTOM OF DITCH BANK
⊕	EXISTING UTILITY POLE	//	EXISTING WOOD FENCE
⊕	EXISTING VALVE IRRIGATION	X	EXISTING WIRE OR CHAIN LINK FENCE
⊕	EXISTING VALVE WATER	X	PROPOSED CHAIN LINK FENCE
⊕	PROPOSED WATER VALVE	□	PROPOSED SEDIMENT FENCE
⊕	EXISTING WATER METER	---	PROPOSED COIR ROLL OR WATTLE
⊕	EXISTING STORM SEWER WITH INLET	---	PROPOSED WIRE FENCE
⊕	PROPOSED STORM SEWER WITH INLET	---	PROPOSED TREE PROTECTION
●	FOUND 1/2" CAPPED IRON ROD L.B. #3724	---	
⊗	FOUND 1/2" IRON ROD (NO I.D.)	---	
⊗	FOUND 1/2" CAPPED IRON ROD L.B. #3724 (WITNESS MONUMENT)	---	
■	FOUND 4" BY 4" CONCRETE MONUMENT L.B. #3724	---	

SITE DEVELOPMENT USAGE

1. SETBACK:	BUILDING	LANDSCAPE	3. PARKING REQUIREMENTS (BASED ON SHOPPING CENTER ANALYSIS OF LDC)
FRONT (WEST GRANADA BLVD.)	25 FEET	36 FEET	1 SPACE PER 200 SF
REAR (SOUTH)	25 FEET	10 FEET	30,673 SF x 1 SPACE / 200 SF = 153 SPACES
SIDE (EAST)	8' MIN, 20 FEET TOTAL	10 / 20 FEET	TOTAL PARKING REQUIRED 153
SIDE (WEST)	20 FEET	6 FEET	
2. PROPOSED SITE COVERAGE:	SQ. FT	ACRE	4. PARKING PROVIDED
BUILDING	30,673	0.70	STANDARD PARKING 163
PAVEMENT (INCL WALKS)	102,140	2.34	HANDICAP PARKING 9
FUTURE IMPERVIOUS	6,587	0.15	TOTAL PARKING 172
INTERIOR LANDSCAPE	18,128	0.42	5. BICYCLE PARKING REQUIREMENTS
EXTERIOR LANDSCAPE / PONDS	279,814	6.42	LOTS WITH 151 TO 200 SPACES = 6 SPACES
CONSERVATION AREA	344,560	7.91	6. BICYCLE PARKING PROVIDED 10
TOTAL SITE	781,902	17.95	
TOTAL IMPERVIOUS	139,400	3.20	
TOTAL OPEN SPACE	642,502	14.77	
INTERIOR LANDSCAPE TO PAVEMENT RATIO			
(18,128 / 102,140) SF x 100		17.7	
FLOOR AREA RATIO		0.15	(FAR BASED ON AREA OF B-8 ZONING ONLY)
(30,673 / 202,118) SF x 100			

BUILDING BREAKDOWN USAGE

	RETAIL (SF)	RESTAURANT (SF)	PARAPET PEAK / ROOF HEIGHT / STORIES
EAST - BUILDING 1	4,737	3,780	32'-1" / 17' / 1
CENTER - BUILDING 2	17,485	N/A	35'-9" / 20' / 1
WEST - BUILDING 3	N/A	4,671	35'-9" / 20' / 1
TOTAL	22,222	8,451	

BUILDING CONSTRUCTION TYPE IIB PER THE FLORIDA BUILDING CODE

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS - 2013 AND QUALIFIED PRODUCTS LIST

INDEX NO.	DESCRIPTION	INDEX NO.	DESCRIPTION
102	TEMPORARY EROSION AND SEDIMENT CONTROL	612	MULTILANE, WORK ON SHOULDER
232	DITCH BOTTOM INLET TYPES C, D, E & H	613	MULTILANE, WORK WITHIN THE TRAVEL WAY
300	CURB & CURB AND GUTTER		MEDIAN OR OUTSIDE LANE
304	PUBLIC SIDEWALK CURB RAMPS	660	PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS
305	CONCRETE PAVEMENT JOINTS	860	ALUMINUM PEDESTRIAN / BICYCLE PICKET TRAINING
310	CONCRETE SIDEWALK	17302	GENERAL INFORMATION FOR TRAFFIC CONTROL
600	THROUGH WORK ZONING FOR TRAFFIC CONTROL	17346	MULTIPLE-COLUMN SIGNS
611	MULTILANE, WORK OUTSIDE SHOULDER		SPECIAL MARKING AREAS

ABBREVIATIONS

AWWA ASSOCIATION	AMERICAN WATER WORKS	H/C	HANDICAP	PVMT R	PAVEMENT RADIUS
CMP	CORRUGATED METAL PIPE	HDPE	HIGH DENSITY	RCP	REINFORCED CONCRETE PIPE
CPP	CORRUGATED PLASTIC PIPE	INV	INVERT	RPM	REFLECTIVE PAVEMENT
CTV	CABLE TELEVISION	KH	HORIZONTAL	MARKER	
DIP	DUCTILE IRON PIPE	PERMEABILITY		R/W	RIGHT-OF-WAY
EMST	EASEMENT	KV	VERTICAL PERMEABILITY	SAN	SANITARY
EXIST	EXISTING	KO	KNOCK OUT	SH	SEASONAL HIGH
FAC	FLORIDA ADMINISTRATIVE CODE	LF	LINEAL FEET	SHH	SANITARY MANHOLE
FDEP	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	MB	MAP BOOK	SS	SANITARY SEWER
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY	MES	MITERED END SECTION	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
FH	FIRE HYDRANT	N/A	NOT APPLICABLE	TSB	TEMPORARY SEDIMENT BASIN
FOC	FIBER OPTIC CABLE	NIC	NOT IN CONTRACT	TYP	TYPICAL
FF EL	FINISH FLOOR ELEVATION	NGVD	NATIONAL GEODETIC	UGE	UNDERGROUND ELECTRIC
FM	FORCE MAIN	OHE	OVERHEAD ELECTRIC	UGT	UNDERGROUND TELEPHONE
FPL	FLORIDA POWER AND LIGHT	OR	OFFICIAL RECORD	USACO	UNITED STATES ARMY CORP OF ENGINEERS
G	GAS	PG	PAGE	W	WATER (POTABLE)
GW	GROUND WATER	PSI	POUNDS PER SQUARE INCH		
		PVC	POLYVINYL CHLORIDE		

LEGAL DESCRIPTION LOWE'S PARCEL (30-14-32-00-00-0311):

BEING A PORTION OF THE NORTHEAST 1/4 OF SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, LYING SOUTH OF STATE ROAD 40, VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

AS A POINT OF REFERENCE COMMENCE AT THE SOUTHWEST CORNER OF THE NORTHEAST 1/4 OF SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST; RUN THENCE NORTH 89 DEGREES 51 MINUTES 34 SECONDS EAST ALONG THE SOUTH LINE OF SAID NORTHEAST 1/4 OF SECTION 30, FOR A DISTANCE OF 825.42 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 00 DEGREES 07 MINUTES 33 SECONDS WEST FOR A DISTANCE OF 75.77 FEET; THENCE NORTH 89 DEGREES 52 MINUTES 27 SECONDS EAST FOR A DISTANCE OF 16.50 FEET; THENCE NORTH 00 DEGREES 07 MINUTES 33 SECONDS WEST FOR A DISTANCE OF 402.00 FEET; THENCE SOUTH 89 DEGREES 52 MINUTES 27 SECONDS WEST FOR A DISTANCE OF 15.66 FEET; THENCE NORTH 14 DEGREES 34 MINUTES 42 SECONDS WEST FOR A DISTANCE OF 167.25 FEET; THENCE NORTH 00 DEGREES 07 MINUTES 33 SECONDS WEST FOR A DISTANCE OF 199.94 FEET; THENCE NORTH 09 DEGREES 08 MINUTES 57 SECONDS WEST FOR A DISTANCE OF 371.67 FEET; THENCE NORTH 44 DEGREES 26 MINUTES 01 SECONDS WEST FOR A DISTANCE OF 74.83 FEET; THENCE NORTH 21 DEGREES 41 MINUTES 56 SECONDS WEST FOR A DISTANCE OF 35.33 FEET TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 40 (GRANADA BOULEVARD), A RIGHT-OF-WAY THAT VARIES, SAID POINT BEING A POINT ON A CURVE, CONCAVE NORTHEASTERLY AND TO THE RIGHT, SAID CURVE HAVING CENTRAL ANGLE OF 89 DEGREES 50 MINUTES 51 SECONDS, A RADIUS OF 5647.59 FEET, A CHORD BEARING OF NORTH 45 DEGREES 44 MINUTES 19 SECONDS EAST AND A CHORD DISTANCE OF 83.54 FEET; THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 40 (GRANADA BOULEVARD) AND THE ARC OF SAID CURVE FOR A DISTANCE OF 83.54 FEET; THENCE NORTH 46 DEGREES 09 MINUTES 43 SECONDS EAST FOR A DISTANCE OF 151.87 FEET; THENCE SOUTH 04 DEGREES 49 MINUTES 46 SECONDS EAST, DEPARTING SAID SOUTH RIGHT-OF-WAY LINE, FOR A DISTANCE OF 1417.74 TO A POINT ON THE SAID SOUTH LINE OF THE NORTHEAST 1/4 OF SECTION 30; THENCE SOUTH 89 DEGREES 54 MINUTES 14 SECONDS WEST ALONG SAID SOUTH LINE OF THE NORTHEAST 1/4 FOR A DISTANCE OF 128.54 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 3.421 ACRES MORE OR LESS.

LEGAL DESCRIPTION WEST GRANADA PARCEL (30-14-32-00-00-0330):

BEING A PORTION OF THE WEST ONE-HALF (1/2), OF THE NORTHEAST ONE-QUARTER (1/4), SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF THE WEST ONE-HALF (1/2) OF THE NORTHEAST ONE-QUARTER (1/4), SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, VOLUSIA COUNTY, FLORIDA AND THE NORTHEASTERLY CORNER OF LOT 64, CHELSEA PLACE, PHASE 1, AS RECORDED IN MAP BOOK 52, PAGES 150 THROUGH 158, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; RUN THENCE NORTH 89 DEGREES 58 MINUTES 11 SECONDS WEST ALONG THE NORTHERLY LINE OF SAID CHELSEA PLACE, FOR A DISTANCE OF 380.86 FEET TO THE SOUTHEASTERLY CORNER OF A CONSERVATION EASEMENT, AS RECORDED IN OFFICIAL RECORD BOOK 6676, PAGE 3687, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE DEPARTING SAID NORTH LINE NORTH 04 DEGREES 49 MINUTES 46 SECONDS WEST ALONG THE EASTERLY LINE OF SAID CONSERVATION EASEMENT, FOR A DISTANCE OF 1417.93 FEET TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF STATE ROAD 40 (ALSO KNOWN AS GRANADA BOULEVARD AND TOMOKA ROAD) (A RIGHT-OF-WAY THAT VARIES); THENCE NORTH 46 DEGREES 25 MINUTES 45 SECONDS EAST ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID STATE ROAD 40, FOR A DISTANCE OF 123.41 FEET; THENCE SOUTH 43 DEGREES 47 MINUTES 04 SECONDS EAST FOR A DISTANCE OF 5.00 FEET; THENCE NORTH 46 DEGREES 23 MINUTES 48 SECONDS EAST FOR A DISTANCE OF 100.00 FEET; THENCE NORTH 43 DEGREES 57 MINUTES 38 SECONDS WEST FOR A DISTANCE OF 5.00 FEET; THENCE NORTH 45 DEGREES 47 MINUTES 27 SECONDS EAST FOR A DISTANCE OF 158.10 FEET; THENCE SOUTH 43 DEGREES 48 MINUTES 13 SECONDS EAST FOR A DISTANCE OF 49.27 FEET; THENCE SOUTH 01 DEGREES 06 MINUTES 08 SECONDS EAST FOR A DISTANCE OF 308.51 FEET; THENCE NORTH 88 DEGREES 54 MINUTES 13 SECONDS EAST FOR A DISTANCE OF 155.51 FEET TO A POINT ON THE EASTERLY LINE OF WEST ONE-HALF (1/2) OF THE NORTHEAST ONE-QUARTER (1/4) OF AFORESAID SECTION 30, SAID POINT BEING ON THE NORTHERLY EXTENSION OF THE WESTERLY LINE OF CHELSEA PLACE, PHASE II, AS RECORDED IN MAP BOOK 52, PAGES 49 THROUGH 55, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE SOUTH 01 DEGREES 16 MINUTES 03 SECONDS EAST ALONG THE EASTERLY LINE OF SAID WEST ONE-HALF 1/2, FOR A DISTANCE OF 1336.60 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 14.527 ACRES MORE OR LESS.

LEGAL DESCRIPTION SHOPPES ON GRANADA OVERALL PARCEL:

BEING A PORTION OF THE WEST ONE-HALF (1/2), OF THE NORTHEAST ONE-QUARTER (1/4), SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, VOLUSIA COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGIN AT THE SOUTHEAST CORNER OF THE WEST ONE-HALF (1/2) OF THE NORTHEAST ONE-QUARTER (1/4), SECTION 30, TOWNSHIP 14 SOUTH, RANGE 32 EAST, VOLUSIA COUNTY, FLORIDA AND THE NORTHEASTERLY CORNER OF LOT 64, CHELSEA PLACE, PHASE 1, AS RECORDED IN MAP BOOK 52, PAGES 150 THROUGH 158, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; RUN THENCE NORTH 89 DEGREES 58 MINUTES 11 SECONDS WEST ALONG THE NORTHERLY LINE OF SAID CHELSEA PLACE, FOR A DISTANCE OF 380.86 FEET TO THE SOUTHEASTERLY CORNER OF A CONSERVATION EASEMENT, AS RECORDED IN OFFICIAL RECORD BOOK 6676, PAGE 3687, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE NORTH 00 DEGREES 07 MINUTES 33 SECONDS WEST FOR A DISTANCE OF 75.77 FEET; THENCE NORTH 89 DEGREES 52 MINUTES 27 SECONDS EAST FOR A DISTANCE OF 16.50 FEET; THENCE NORTH 00 DEGREES 07 MINUTES 33 SECONDS WEST FOR A DISTANCE OF 402.00 FEET; THENCE SOUTH 89 DEGREES 52 MINUTES 27 SECONDS WEST FOR A DISTANCE OF 15.66 FEET; THENCE NORTH 14 DEGREES 34 MINUTES 32 SECONDS WEST FOR A DISTANCE OF 167.25 FEET; THENCE NORTH 09 DEGREES 07 MINUTES 33 SECONDS WEST FOR A DISTANCE OF 199.94 FEET; THENCE NORTH 09 DEGREES 08 MINUTES 57 SECONDS WEST FOR A DISTANCE OF 371.67 FEET; THENCE NORTH 44 DEGREES 26 MINUTES 01 SECONDS WEST FOR A DISTANCE OF 74.83 FEET; THENCE NORTH 21 DEGREES 41 MINUTES 56 SECONDS EAST FOR A DISTANCE OF 35.33 FEET, TO A POINT ON THE SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 40 (GRANADA BOULEVARD), A RIGHT-OF-WAY THAT VARIES, SAID POINT BEING ON A CURVE CONCAVE SOUTHERLY AND TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 5647.59 FEET, A CENTRAL ANGLE OF 00 DEGREES 50 MINUTES 51 SECONDS, A CHORD BEARING OF NORTH 45 DEGREES 44 MINUTES 19 SECONDS EAST, A CHORD DISTANCE OF 83.54 FEET; THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 40 FOR A DISTANCE OF 83.54 FEET; THENCE NORTH 46 DEGREES 09 MINUTES 43 SECONDS EAST ALONG SAID SOUTH RIGHT-OF-WAY LINE OF STATE ROAD 40 FOR A DISTANCE OF 151.87 FEET; THENCE NORTH 46 DEGREES 25 MINUTES 45 SECONDS EAST ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE OF SAID STATE ROAD 40, FOR A DISTANCE OF 123.41 FEET; THENCE SOUTH 43 DEGREES 47 MINUTES 04 SECONDS EAST FOR A DISTANCE OF 5.00 FEET; THENCE NORTH 46 DEGREES 23 MINUTES 48 SECONDS EAST FOR A DISTANCE OF 100.00 FEET; THENCE NORTH 43 DEGREES 57 MINUTES 38 SECONDS WEST FOR A DISTANCE OF 5.00 FEET; THENCE NORTH 45 DEGREES 47 MINUTES 27 SECONDS EAST FOR A DISTANCE OF 158.10 FEET; THENCE SOUTH 43 DEGREES 48 MINUTES 13 SECONDS EAST FOR A DISTANCE OF 49.27 FEET; THENCE SOUTH 01 DEGREES 06 MINUTES 08 SECONDS EAST FOR A DISTANCE OF 308.51 FEET; THENCE NORTH 88 DEGREES 54 MINUTES 13 SECONDS EAST FOR A DISTANCE OF 155.51 FEET TO A POINT ON THE EASTERLY LINE OF WEST ONE-HALF (1/2) OF THE NORTHEAST ONE-QUARTER (1/4) OF AFORESAID SECTION 30, SAID POINT BEING ON THE NORTHERLY EXTENSION OF THE WESTERLY LINE OF CHELSEA PLACE, PHASE II, AS RECORDED IN MAP BOOK 52, PAGES 49 THROUGH 55, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA; THENCE SOUTH 01 DEGREES 16 MINUTES 03 SECONDS EAST ALONG THE EASTERLY LINE OF SAID WEST ONE-HALF 1/2, FOR A DISTANCE OF 1,336.60 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 17.948 ACRES MORE OR LESS.

REVISIONS

DATE	DESCRIPTION
2/24/14	REVISED PER 102213 SURVMD COMMENTS
5/30/14	REVISED PER 32514 SURVMD COMMENTS
9/23/14	REVISED PER 6314 SPRC COMMENTS
8/21/14	REV PER 7/8/14 SPRC COMMENTS FINAL REVISIONS AND SURVMD



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DEVELOPMENT INFORMATION
SHOPPES ON GRANADA
 1290, 1298 AND 1310 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA

PROJECT No:	120810
DATE:	SEPTEMBER 27, 2013
DESIGN BY:	RWS
DRAWN BY:	HMT
CHECKED BY:	RWS
SCALE:	
DRAWING NUMBER:	

LOWE'S HOME CENTER
IMPROVEMENT STORE
F.F. EL = 27.35



0 50 100
GRAPHIC SCALE
1"=50'



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THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1"=50 FEET OR SMALLER. ANY USE OF THIS FILE AT A SCALE LARGER THAN STATED SHALL BE AT THE USER'S OWN RISK.

SEE SHEET 2 OF 2 FOR SURVEYOR'S SIGNATURE

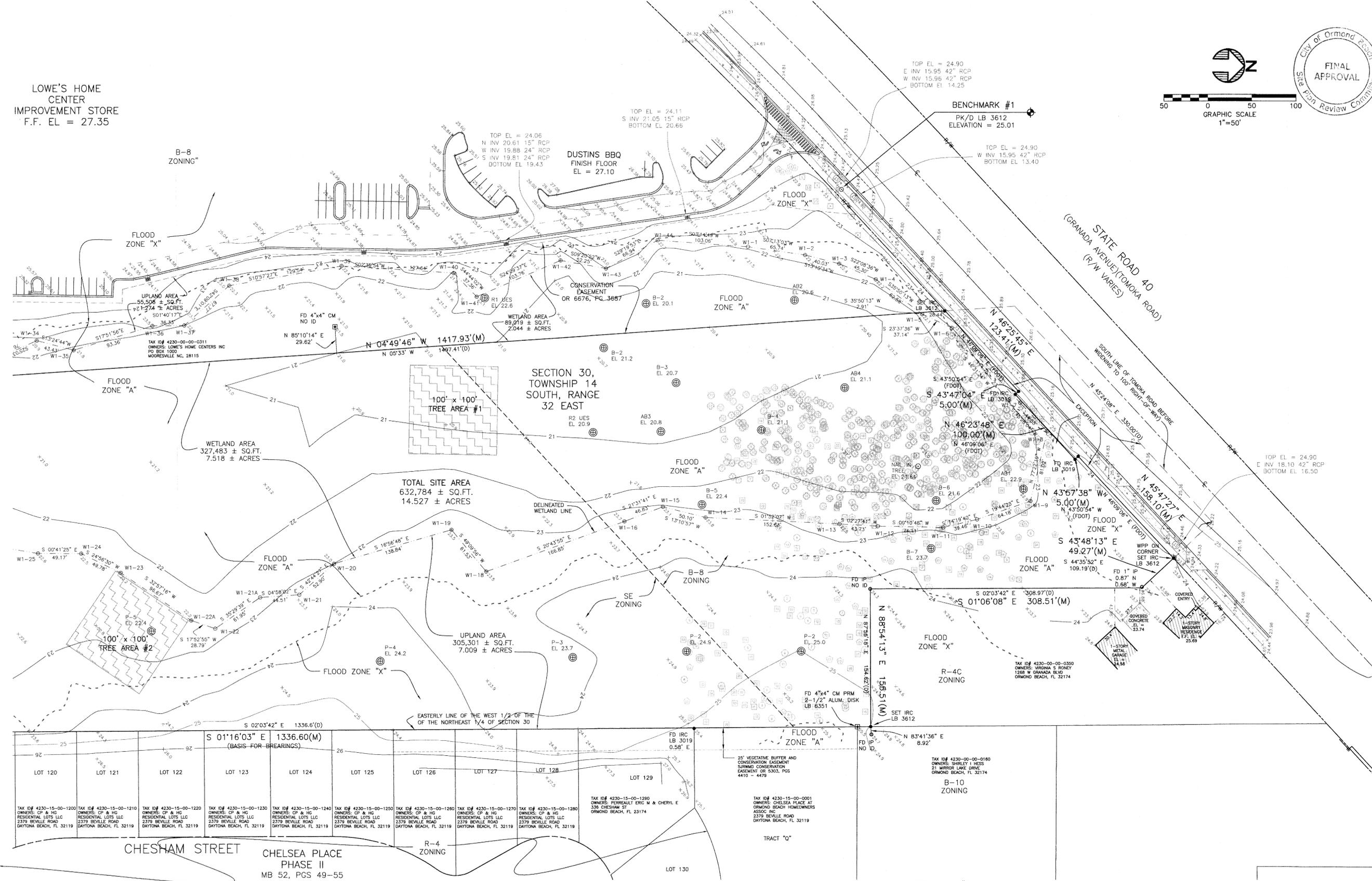
SURVEY MAP AND REPORT

THIS MAP IS NEITHER FULL NOR COMPLETE WITHOUT SHEETS 1 AND 2 ARE TOGETHER

TYPE OF SURVEY:
BOUNDARY AND TOPOGRAPHIC
MAP SUBJECT:
WEST GRANADA
ADDRESS:
WEST GRANADA BOULEVARD
ORMOND BEACH, FL 32174

PROJECT No: 121009
FIELD WORK BY: WSH
DATE: 05/29/2013
OFFICE WORK BY: AM, WSH
DATE: 05/29/2013
FIELD BOOK - PAGE: 54-17
SCALE: 1"=50'
DRAWING FILE:

27-121



LOT	TAX ID	OWNER
LOT 120	4230-15-00-1200	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 121	4230-15-00-1210	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 122	4230-15-00-1220	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 123	4230-15-00-1230	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 124	4230-15-00-1240	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 125	4230-15-00-1250	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 126	4230-15-00-1260	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 127	4230-15-00-1270	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 128	4230-15-00-1280	OWNERS: CP & HG RESIDENTIAL LOTS LLC 2378 BEVILLE ROAD DAYTONA BEACH, FL 32119
LOT 129	4230-15-00-1290	OWNERS: PERRELLI ERIC M & CHERYL E 336 CHESHAM ST ORMOND BEACH, FL 32174

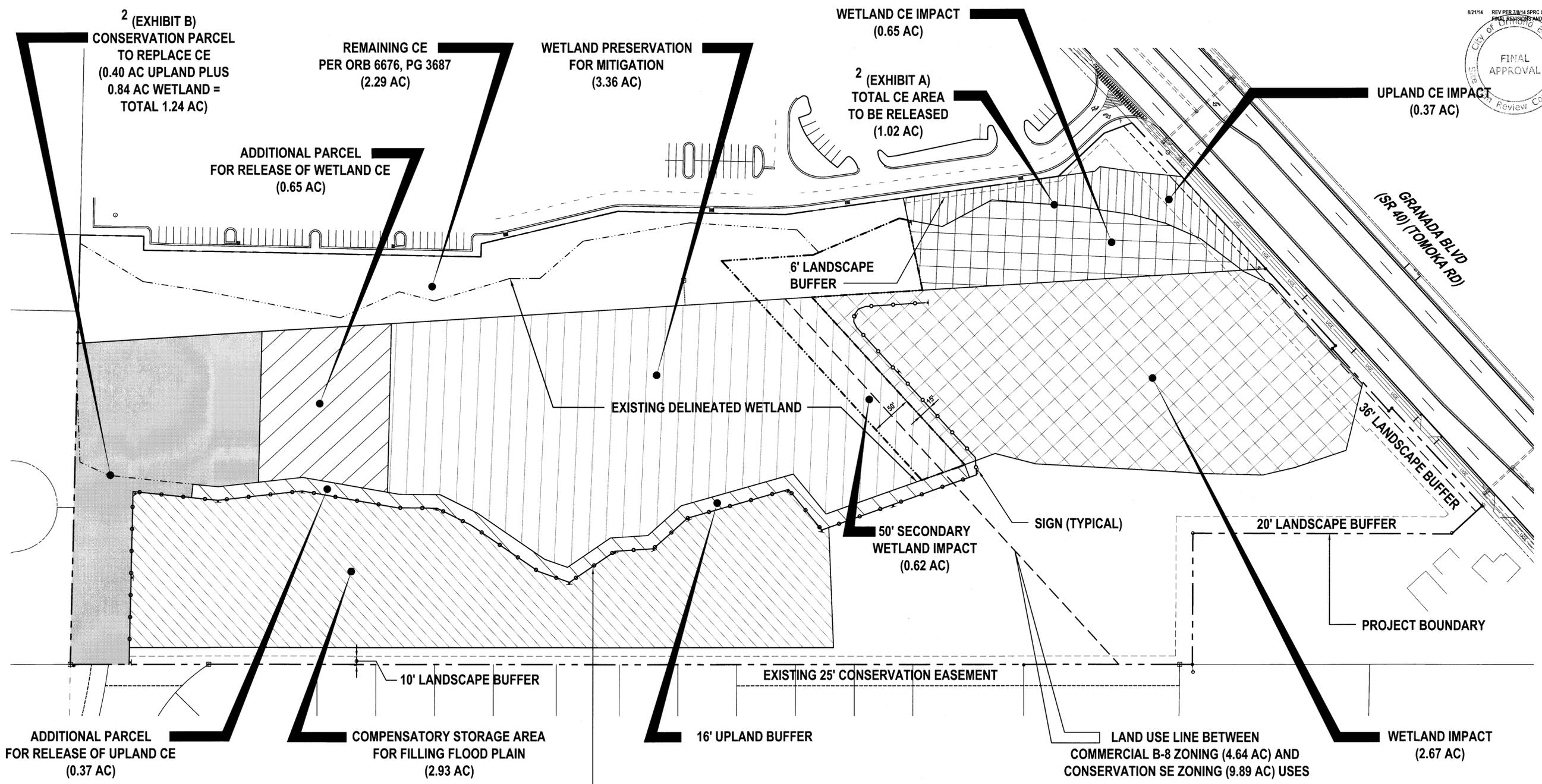
TREE AREA #1

NUMBER	TYPE	CALIBER
17	CYPRESS	2-1/2"
39	CYPRESS	3"
27	CYPRESS	4"
17	CYPRESS	5"
14	CYPRESS	6"
7	CYPRESS	7"
11	CYPRESS	8"
1	CYPRESS	9"
3	CYPRESS	10"
2	CYPRESS	11"
3	CYPRESS	12"

TREE AREA #2

NUMBER	TYPE	CALIBER
11	PINES	2-1/2"
15	PINES	3"
11	PINE	4"
5	PINE	5"
10	PINE	6"
8	PINE	7"
9	PINE	8"
2	PINE	9"
4	PINE	10"
1	PINE	11"
6	PINE	12"

REVISED TO UPDATE FLOOD ZONE - 4/30/14



REV PER 7/8/14 SPRC COMMENTS
 REV PER 10/27/13 SURVMD COMMENTS
 REV PER 3/10/14 SURVMD COMMENTS
 REV PER 3/25/14 SURVMD COMMENTS
 REV PER 8/21/14 SPRC COMMENTS

CITY OF ORMOND BEACH
 FINAL APPROVAL
 City Review Committee

REVISIONS	
DATE	DESCRIPTION
7/24/14	REVISED PER 10/27/13 SURVMD COMMENTS
3/17/14	REVISED PER 3/10/14 SURVMD COMMENTS
5/20/14	REVISED PER 3/25/14 SURVMD COMMENTS
8/23/14	REVISED PER 8/21/14 SPRC COMMENTS

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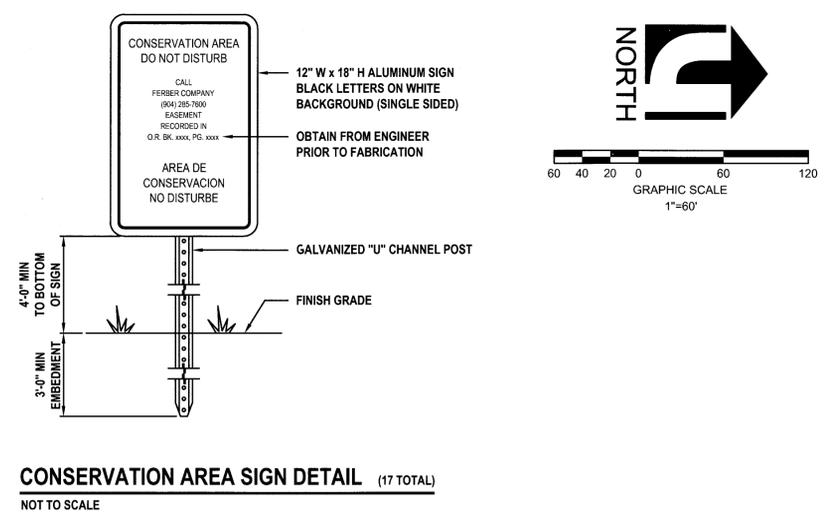
OVERALL IMPACT - MITIGATION PLAN
 SHOPPES ON GRANADA
 1290, 1298 AND 1310 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA

DEVELOPMENT SCHEDULE

IMPERVIOUS AREA	3.20 AC	17.8 %
STORMWATER / GREEN SPACE	5.82 AC	32.4 %
WETLAND PRESERVATION	3.36 AC	18.7 %
RELEASE OF CONSERVATION EASEMENT	1.02 AC	5.7 %
¹ REPLACEMENT FOR CONSERVATION EASEMENT	2.26 AC	12.6 %
CONSERVATION EASEMENT TO REMAIN	2.29 AC	12.8 %
TOTAL PROJECT BOUNDARY	17.95 AC	100.0 %

¹ CONSERVATION PARCEL IS COMPRISED OF 1.24 AC TO REPLACE THE EXISTING 1.02 AC RELEASE OF THE CE

² REFER TO SKETCH AND LEGAL DESCRIPTION BY UPHAM, INC. FOR THE TWO AREAS DESCRIBING EXHIBITS "A" AND "B"



PROJECT No:	120810
DATE:	SEPTEMBER 27, 2013
DESIGN BY:	RWS
DRAWN BY:	HMT
CHECKED BY:	RWS
SCALE:	1" = 60'
DRAWING NUMBER:	

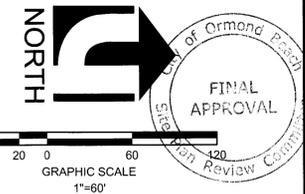
WARNING !!
CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING CONSTRUCTION TO AVOID CONTACT WITH EXISTING UNDERGROUND UTILITIES IN THE RIGHT-OF-WAY.

NOTE:
ALL IMPROVEMENTS SHALL BE STAKED FOR CONSTRUCTION BY MEANS OF DIGITAL COORDINATES BY SURVEYOR UTILIZING GEODETIC TOTAL STATION OR GPS. SCALING OF DRAWINGS FOR PURPOSES OF STAKING ARE AT THE SURVEYOR'S RISK.

CONTRACTOR SHALL RESTRICT CONSTRUCTION VEHICLES FROM UTILIZING LOWE'S INTERIOR DRIVE AISLES

CURB INLET FILTER OR OTHER ACCEPTABLE SYSTEM TO BE UTILIZED DURING CONSTRUCTION OF DRIVEWAY CONNECTION AND INSTALLATION OF VALLEY GUTTER

CONSTRUCTION ENTRANCE
(SEE DETAIL DWG No. 7)
MAINTAIN DAILY TO REMOVE FINES AND SAND FROM ROADWAY



DATE	DESCRIPTION
2/24/14	REVISED PER 10/22/13 SURVIMD COMMENTS
5/20/14	REVISED PER 3/25/14 SURVIMD COMMENTS
8/23/14	REVISED PER 6/3/14 SPRC COMMENTS
8/21/14	REV PER 7/14 SPRC COMMENTS FINAL REVISIONS AND SURVIMD



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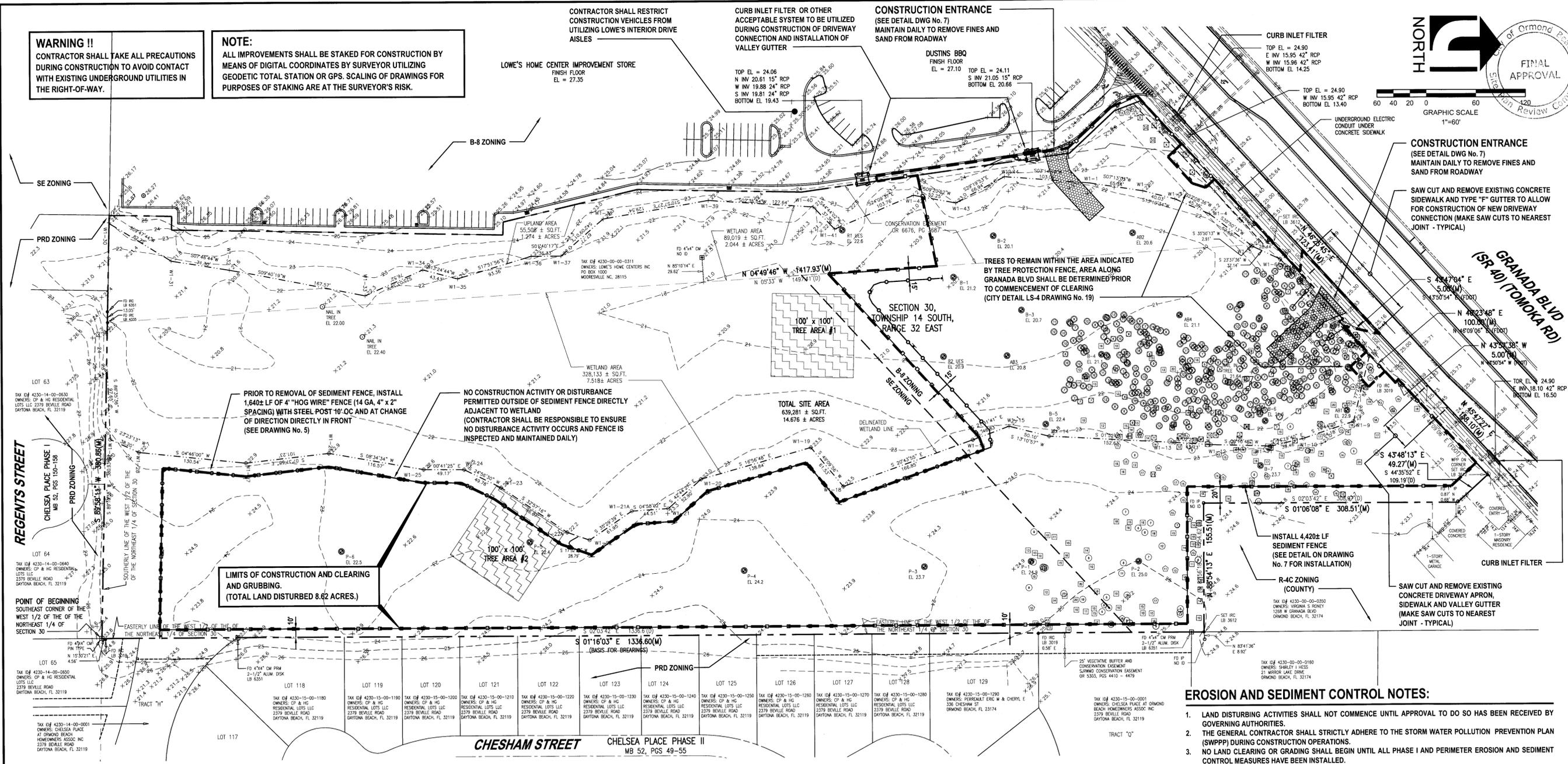
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CLEARING, TREE REMOVAL AND EROSION CONTROL PLAN
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No: 120810
DATE: SEPTEMBER 27, 2013
DESIGN BY: RWS
DRAWN BY: HMT
CHECKED BY: RWS
SCALE: 1" = 60'
DRAWING NUMBER:

6



PRIOR TO REMOVAL OF SEDIMENT FENCE, INSTALL 1,640± LF OF 4" "HOG WIRE" FENCE (14 GA. 4" X 2" SPACING) WITH STEEL POST 10'-00" ON CENTER AND AT CHANGE OF DIRECTION DIRECTLY IN FRONT (SEE DRAWING No. 5)

NO CONSTRUCTION ACTIVITY OR DISTURBANCE PERMITTED OUTSIDE OF SEDIMENT FENCE DIRECTLY ADJACENT TO WETLAND (CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE NO DISTURBANCE ACTIVITY OCCURS AND FENCE IS INSPECTED AND MAINTAINED DAILY)

LIMITS OF CONSTRUCTION AND CLEARING AND GRUBBING.
(TOTAL LAND DISTURBED 8.62 ACRES.)

TREE AREA #1

NUMBER	TYPE	CALIPER	NUMBER	TYPE	CALIPER
17	CYPRESS	2-1/2"	1	OAK	3"
39	CYPRESS	3"	7	PINE	3"
27	CYPRESS	4"	19	PINE	4"
17	CYPRESS	5"	10	PINE	5"
14	CYPRESS	6"	11	PINE	6"
7	CYPRESS	7"	6	PINE	7"
11	CYPRESS	8"	3	PINE	8"
1	CYPRESS	9"	3	PINE	10"
3	CYPRESS	10"			
2	CYPRESS	11"			
3	CYPRESS	12"			

TREE AREA #2

NUMBER	TYPE	CALIPER	NUMBER	TYPE	CALIPER
11	PINE	2-1/2"	2	PINE	14"
15	PINE	3"	1	PINE	14"
11	PINE	4"	1	SABAL PALM	18"
5	PINE	5"	1	OAK	4"
10	PINE	6"	1	SWEETGUM	4"
8	PINE	7"	1	HOLLY (DAHOON)	2 1/2"
9	PINE	8"	3	HOLLY	3"
2	PINE	9"	1	HOLLY	4"
4	PINE	10"	2	HOLLY	5"
1	PINE	11"	1	HOLLY	6"
6	PINE	12"	1	HOLLY	7"
			1	HOLLY	8"

TREE LEGEND:

SYMBOL	TYPE
(Symbol)	BAY
(Symbol)	CEDAR
(Symbol)	CYPRESS
(Symbol)	ELM
(Symbol)	HICKORY
(Symbol)	MAGNOLIA
(Symbol)	MAPLE
(Symbol)	OAK
(Symbol)	PALM
(Symbol)	PINE
(Symbol)	SWEETGUM
(Symbol)	TOOTHACHE

LEGEND:

- APPROXIMATE LIMITS OF DEMOLITION AND CONSTRUCTION
- - - PROPOSED SEDIMENT FENCE
- TP --- PROPOSED TREE PROTECTION FENCE
- PROPOSED WIRE FENCE WITH STEEL POST
- PROPOSED CURB INLET FILTER
- INLET PROTECTION
- PROPOSED AGGREGATE
- NAIL IN TREE AT ESTIMATED SEASONAL HIGH WATER MARK
- ⊙ CODE REFERENCE GEOTECHNICAL REPORT BY USGS
- ⊙ SOIL BORING LOCATION
- ⊙ EL AS NOTED
- ⊙ EXISTING GRADE ELEVATION

TREES TO REMAIN WITHIN THE LIMITS OF DEMOLITION AND CONSTRUCTION ARE INDICATED WITH DARKER SYMBOL AND ENCLOSED WITH TREE PROTECTION LINE
NOTE: EXISTING TREES AND PALMS TO REMAIN AND LOCATED WHERE PEDESTRIAN OR VEHICULAR TRAFFIC IS LIKELY SHALL BE PROPERLY PRUNED AND CLEANED OF DEADWOOD, BROKEN BRANCHES, DEAD FRONDS AND VINES.

- SWPPP NOTES:**
- THE CONTRACTOR SHALL ATTEND THE PRECONSTRUCTION AND SWPPP MEETING AS SPECIFIED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.
 - ALL EROSION CONTROL DEVICES AND VISIBLE BARRICADES SHALL BE INSTALLED AND APPROVED BY THE ENGINEER PRIOR TO THE START OF CLEARING AND GRUBBING. ALL DEVICES SHALL BE ROUTINELY INSPECTED AND REMAIN IN PLACE UNTIL ALL WORK IS COMPLETE.
 - A 24' WIDE 6" MINIMUM COMPACTED STONE DRIVE LANE TO THE CONSTRUCTION ENTRANCE THAT SHALL BE PLACED AFTER THE CLEARING AND GRUBBING IS COMPLETE. THE APPROXIMATE LOCATION IS INDICATED ON THE DRAWING. THE ELEVATION SHALL BE APPROXIMATELY PER THE GRADING PLAN. PROVIDE ACCESS ACROSS DRIVE LANE FOR EMERGENCY VEHICLES, COORDINATE WITH FIRE CHIEF.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERIODIC INSPECTION AND REMOVAL OF DEBRIS AND SEDIMENT BEHIND EROSION CONTROL DEVICES, REFER TO THE SWPPP LEDGER AND DRAWINGS.
 - INLET PROTECTION DEVICES SHALL BE INSPECTED DAILY AND ALL SEDIMENT AND DEBRIS REMOVED TO A TRASH DUMPSTER.
 - SEDIMENT SHALL BE REMOVED FROM BEHIND SEDIMENT FENCE BEFORE HEIGHT IS 25% FULL.
 - ALL INLETS AND PIPE SHALL BE PROTECTED DURING CONSTRUCTION BY INLET PROTECTION MEASURES TO PREVENT SEDIMENTATION FROM ENTERING THE DRAINAGE SYSTEM. THE ENTIRE DRAINAGE SYSTEM SHALL BE CLEANED OF ALL DEBRIS PRIOR TO FINAL ACCEPTANCE.
 - SOILS ARE TO BE STABILIZED BY WATER, SOIL ADDITIVES OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION, BLOWING SAND AND THE IMPACT TO NEIGHBORING PROPERTIES.
 - THE CONTRACTOR SHALL MAINTAIN A WEEKLY SWPPP INSPECTION REPORT ON-SITE FROM THE "NO" TO THE "NOT" AND STRICTLY ADHERE TO THE FDEP NPDES GENERIC PERMIT CONDITIONS AND SWPPP LEDGER.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT THE BEST MANAGEMENT PRACTICES ARE UTILIZED TO PREVENT TURBID WATER FROM LEAVING THE SITE.
 - THE CONTRACTOR SHALL TAKE MEASURES TO MAINTAIN EXISTING DRAINAGE FACILITIES DURING CONSTRUCTION UNTIL NEW STRUCTURES AND PIPES ARE CONSTRUCTED.
 - TEMPORARY DIVERSION SWALES SHALL BE CONSTRUCTED AS NEEDED TO DIRECT RUNOFF INTO THE TEMPORARY SEDIMENT BASIN.
 - THE TEMPORARY SEDIMENT BASIN SHALL REMAIN IN-PLACE UNTIL ALL CONSTRUCTION GROUND DISTURBANCE ACTIVITY IS COMPLETE THEN BACKFILL WITH CLEAN SAND AND COMPACT PER SPECIFICATIONS.
 - A POSITIVE DRAINAGE CONVEYANCE SHALL REMAIN FUNCTIONING THROUGHOUT THE CONSTRUCTION THAT WILL NOT CAUSE DOWNSTREAM FLOODING.
 - THE CONTRACTOR SHALL PROVIDE EMERGENCY TELEPHONE NUMBERS TO THE CITY AND ENGINEER OF AT LEAST TWO INDIVIDUALS THAT ARE CAPABLE OF CORRECTING ANY DRAINAGE PROBLEMS THAT MAY OCCUR AFTER WORK HOURS.

- EROSION AND SEDIMENT CONTROL NOTES:**
- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
 - THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DURING CONSTRUCTION OPERATIONS.
 - NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PHASE I AND PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED.
 - ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 7 DAYS (OR SHORTER DURATION IF REQUIRED BY GOVERNING NPDES PERMIT) OF FINAL GRADING.
 - SHOULD CONSTRUCTION STOP FOR LONGER THAN 7 DAYS (OR SHORTER DURATION IF REQUIRED BY GOVERNING NPDES PERMIT), THE SITE SHALL BE SEEDED AS SPECIFIED.
 - SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF 0.5 INCHES RAINFALL OR GREATER DURING A 24-HOUR PERIOD OR MORE FREQUENTLY IF REQUIRED BY GOVERNING NPDES GENERAL PERMIT. ALL MAINTENANCE REQUIRED BY INSPECTION SHALL COMMENCE WITHIN 24 HOURS AND BE COMPLETED WITHIN 48 HOURS OF REPORT.
 - THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SEDIMENT FROM LEAVING THE SITE.
 - GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
 - ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED AS DEEMED NECESSARY BY SITE INSPECTIONS.
 - IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.
 - GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
 - THE CONTRACTOR SHALL KEEP THE LOWE'S DRIVE AISLES CLEAN AND SWEEP OFF ANY ACCUMULATION OF SAND.

SWPPP INSPECTIONS AND RECORD KEEPING:

INSPECTIONS ARE REQUIRED AT LEAST EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS FOLLOWING A RAINFALL EVENT OF ONE-HALF (1/2) OF AN INCH OF RAINFALL OR GREATER AND SHALL CONTINUE UNTIL THE SITE COMPLIES WITH FINAL STABILIZATION (NOTICE OF TERMINATION). INSPECTIONS MUST BE CONDUCTED BY A "QUALIFIED" INSPECTOR. "QUALIFIED" IS DEFINED AS A PERSON THAT A) HAS SUCCESSFULLY COMPLETED AND MET ALL REQUIREMENTS NECESSARY TO BE FULLY CERTIFIED THROUGH THE FDEP STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR TRAINING PROGRAM; B) HAS SUCCESSFULLY COMPLETED AN EQUIVALENT FORMAL TRAINING PROGRAM; OR C) THAT IS QUALIFIED BY OTHER TRAINING OR PRACTICAL EXPERIENCE IN THE FIELD OF STORMWATER POLLUTION PREVENTION AND EROSION AND SEDIMENTATION CONTROL. EACH INSPECTION MUST BE FOLLOWED UP BY A REPORT DOCUMENTING THE INSPECTOR'S FINDINGS AND REQUEST THE REQUIRED MAINTENANCE AND/OR REPAIR FOR THE EROSION AND SEDIMENTATION CONTROL MEASURES. THESE RECORDS ARE USED TO PROVE THAT THE REQUIRED INSPECTION AND MAINTENANCE WERE PERFORMED AND SHALL BE PLACED IN THE SWPPP LEDGER. IN ADDITION TO INSPECTION AND MAINTENANCE REPORTS, RECORDS SHOULD BE KEPT OF CONSTRUCTION ACTIVITIES THAT OCCUR ON THE SITE. THE CONTRACTOR SHALL RETAIN COPIES OF THE SWPPP, ALL REPORTS AND DATA FOR A MINIMUM OF FIVE (5) YEARS AFTER THE PROJECT IS COMPLETE IN PAPER AND CD FORMAT.

PAVEMENT MARKING NOTES:

- ALL REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED IN ACCORDANCE WITH FOOT STANDARD INDEX NO. 17352.
- ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH INDEX NO. 17301 AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- LOCATION OF SIGNS IS APPROXIMATE ONLY AND IS SUBJECT TO CHANGE AS DIRECTED BY THE ENGINEER.
- FOR ADDITIONAL DETAILS SEE INDEX NO. 11860, 11863, 17302, 17344 AND 17346.
- ALL TRAFFIC CONTROL SIGNS SHALL BE FABRICATED USING 3M BRAND "SCOTCHLITE" SHEETING (ENGINEER GRADE) ON MINIMUM .08 GA ALUMINUM BLANKS. ALL 36"x48" SIGNS SHALL BE .100 GA MINIMUM AND SHALL BE INSTALLED USING 3"x12" ROUND ALUMINUM POST. ALL STOP SIGNS SHALL BE 30" OR 36" OCTAGON INSTALLED ON 12.3 LBS/FT "U" CHANNEL POST RAIL STEEL ONLY OR 3"x12" ROUND ALUMINUM POSTS. "U" CHANNEL POSTS MAY BE USED FOR SIGNS SMALLER THAN 36"x36".
- ALL PAVEMENT MARKINGS WITHIN R/W OR WHERE INDICATED SHALL BE THERMOPLASTIC.
- ALL SITE INTERIOR PAVEMENT MARKINGS SHALL BE PAINTED COLOR AS INDICATED WITH SHERWIN WILLIAMS TRAFFIC MARKING PAINT (TM5126) OR (TM5127) OR EQUAL, APPLY PER MANUFACTURER'S RECOMMENDATIONS.

GENERAL NOTES:

- ALL DIMENSIONS AND TIES ARE TO THE EDGE OF PAVEMENT AND OUTSIDE FACE OF BUILDING.
- ALL IMPROVEMENTS SHALL BE STAKED FOR CONSTRUCTION BY MEANS OF DIGITAL COORDINATES BY SURVEYOR UTILIZING GEODETIC TOTAL STATION OR GPS. SCALING OF DRAWINGS FOR PURPOSES OF STAKING ARE AT THE SURVEYOR'S RISK.
- THE CONTRACTOR SHALL COORDINATE WITH THE EXISTING ADJACENT BUSINESSES TO ENSURE THERE IS NO DISRUPTION TO THEIR RESPECTIVE OPERATIONS.
- THE CONTRACTOR AT ITS OWN DISCRETION SHALL MAINTAIN THE CONSTRUCTION SITE SECURE FROM TRESPASS.
- SOD ALL DISTURBED AREAS IN RIGHT-OF-WAY WITH BAHIA SOD.

PAVING LEGEND:

- ASPHALT PAVEMENT: 1.5" SP-9.5 WITH TACK COAT PER FDOT SPECIFICATIONS; 6" LIMEROCK BASE (LBR=100) MIN OF 98% MOD. PROCTOR MAX DENSITY PER AASHTO T-180; 12" STABILIZED SUBBASE (LBR 40) MIN OF 98% MOD. PROCTOR MAX DENSITY PER AASHTO T-180 (TYPE B STABILIZATION); *ALTERNATE ASPHALT PAVEMENT TYPE S-III; *ALTERNATE BASE COURSE 6" CRUSHED CONCRETE (LBR=100) MIN OF 98% MOD. PROCTOR MAX DENSITY PER AASHTO T-180; *ALTERNATE PAVEMENT TO ASPHALT IS CONCRETE PAVEMENT
 - CONCRETE PAVEMENT: 6" CONCRETE (4,000 P.S.I. AT 28 DAYS); 12" STABILIZED SUBGRADE (LBR 40) MIN OF 98% MOD. PROCTOR MAX DRY DENSITY PER ASTM D1557, AASHTO T-180; MAX CONTROL JOINT SPACING 12"x12"x1.5" (FIBERMESH OR #10 6"x6" WWF IN LOADING AREAS)
 - CONCRETE SIDEWALK: 4" THICK CONCRETE (MIN.) 3,000 PSI. CLASS I CONCRETE CONTROL JOINT SPACING PER FDOT INDEX NO. 305
- REFER TO UNIVERSAL ENGINEERING SCIENCES GEOTECHNICAL REPORT NO. 123267 FOR TECHNICAL SPECIFICATIONS AND RECOMMENDATIONS

NOTE:
BUILDINGS 1 AND 2 AND ALL SITE IMPROVEMENTS SHALL BE CONSTRUCTED IN PHASE 1, SEE "STATEMENT OF INTENT" NOTES ON DRAWING No. 2.

LEGEND:

- SITE LIGHTING
- TYPE "D" CURB
- TYPE "F" CURB
- 24" DETECTABLE WARNING MAT
- 4" WIDE IMPRINTED ASPHALT (SEE DETAIL, DRAWING No. 14)

9/26/14 REV PER TENANT'S COMMENTS

REVISIONS	
DATE	DESCRIPTION
2/24/14	REVISED PER 10/22/13 SURV COMMENTS
5/30/14	REVISED PER 3/25/14 SURV COMMENTS
6/23/14	REVISED PER 6/14/14 SPRC COMMENTS
8/21/14	REV PER 7/8/14 SPRC COMMENTS FINAL REVISIONS AND SURV



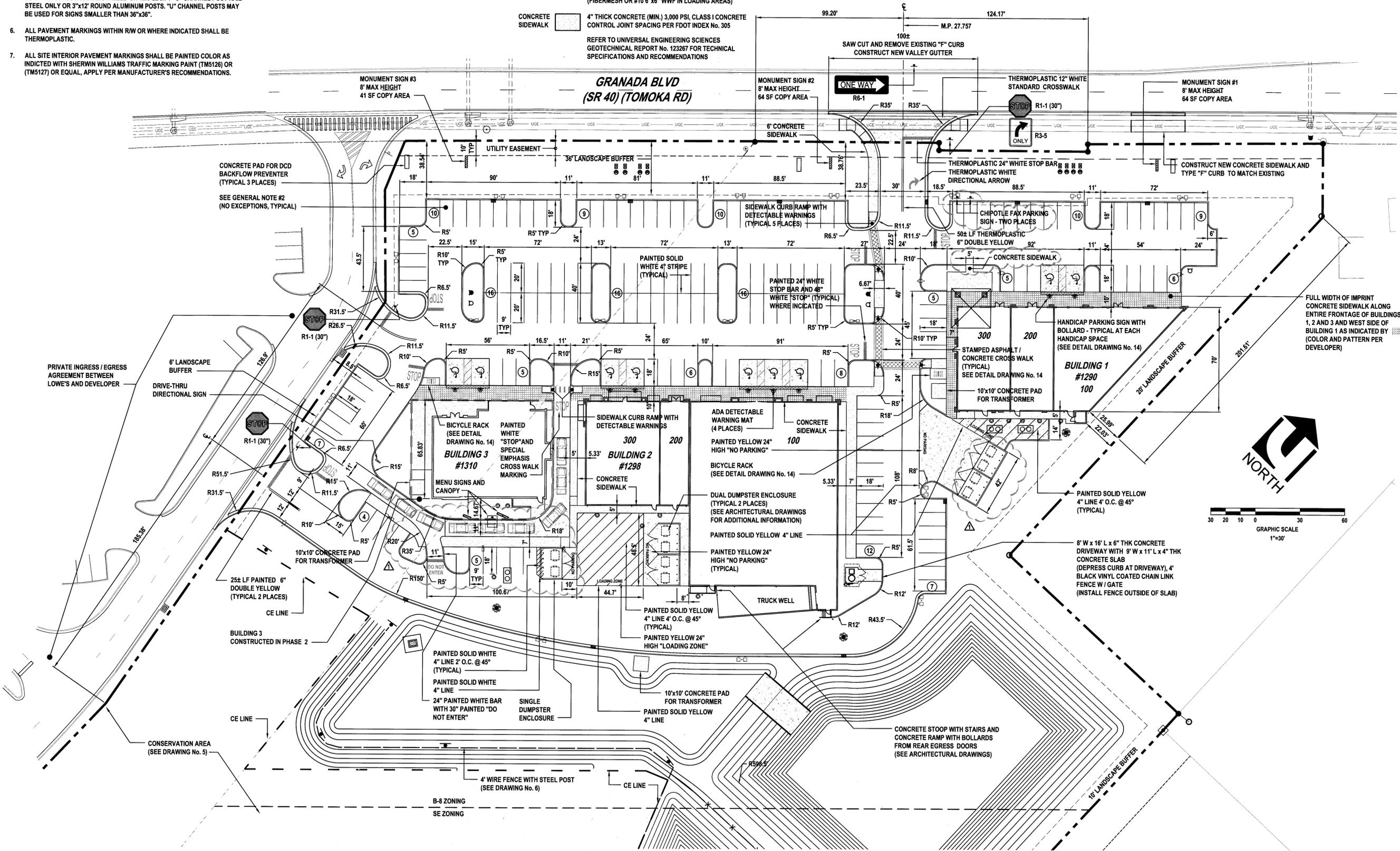
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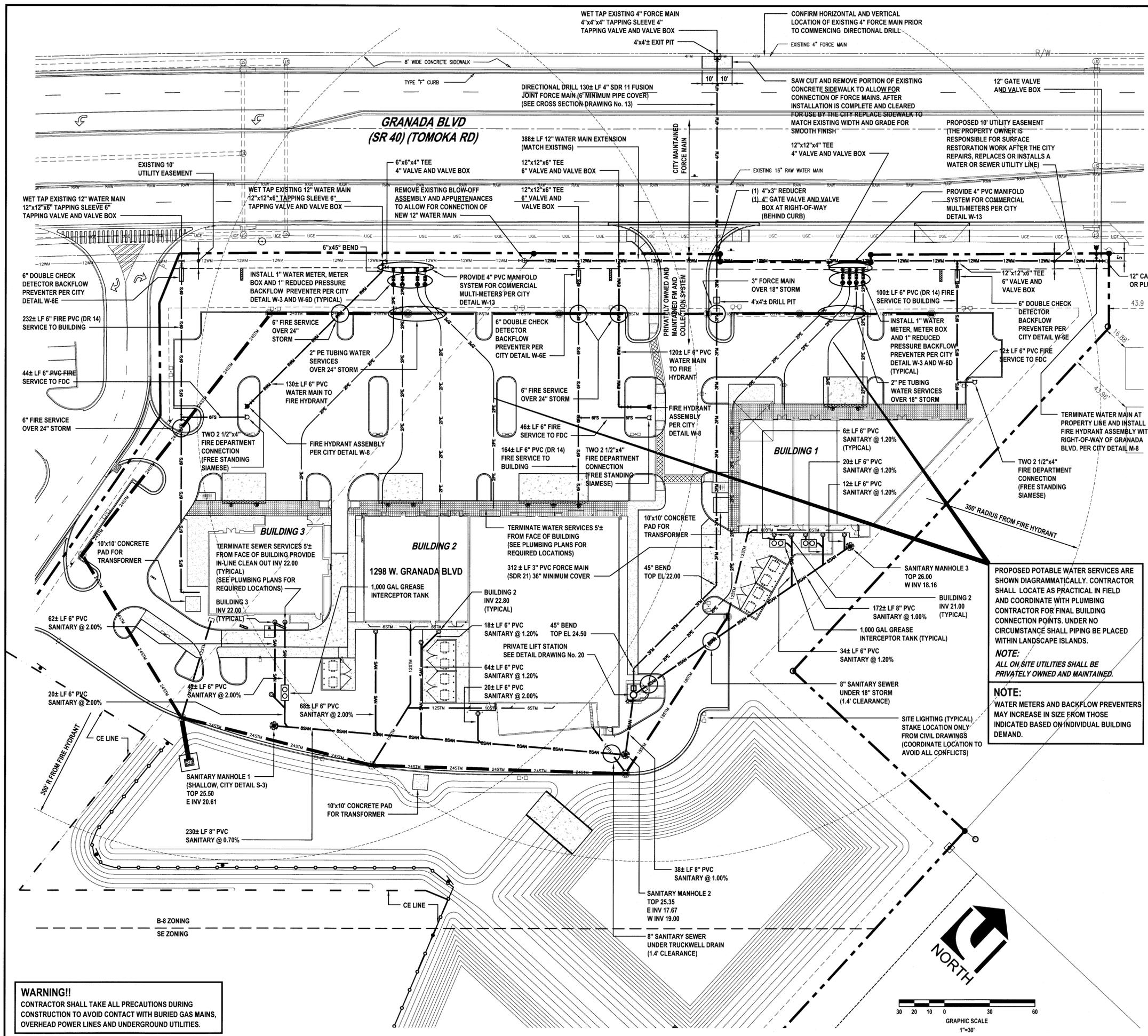
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SITE LAYOUT AND PAVEMENT MARKING PLAN
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No:	120810
DATE:	JULY 10, 2012
DESIGN BY:	RWS
DRAWN BY:	HMT
CHECKED BY:	RWS
SCALE:	1"=30'
DRAWING NUMBER:	





GENERAL WATER NOTES:

- THE CITY OF ORMOND BEACH WATER UTILITY DEPARTMENT SHALL BE NOTIFIED PRIOR TO BEGINNING ANY WATER SYSTEM CONSTRUCTION.
- ALL WATER DISTRIBUTION CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDEP REGULATIONS AND THE CITY OF ORMOND BEACH UTILITY DETAILS AND SPECIFICATIONS (LATEST EDITION).
- CONTRACTOR IS TO VERIFY THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES (UNDERGROUND AND OVERHEAD) PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER.
- CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ANY EXISTING PAVEMENT, SIDEWALK, CURBING, UTILITIES AND DRAINAGE SYSTEMS DAMAGED DURING CONSTRUCTION. ALL DAMAGED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- LOCATION OF TELEPHONE, T.V. CABLE AND ELECTRICAL SERVICE CONNECTIONS TO BE DETERMINED BY APPROPRIATE UTILITIES PERSONNEL IN COOPERATION WITH CONTRACTOR.
- ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
- ALL TRENCHES SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL AND COMPACTED TO MINIMUM COMPACTION OF 98% WITHIN PAVED AND 95% WITHIN UNPAVED AREAS OF THE OPTIMUM DENSITY OF THAT MATERIAL BASED ON THE AASHTO T-180 MODIFIED PROCTOR TEST.
- WATER SERVICES FROM 3/4" TO 2" POLYETHYLENE (ENDOT ENDOPURE) WITH 30" MINIMUM COVER.
- WATER MAIN FROM 4" TO 12" SHALL BE PVC CLASS 150 (DR 18) WITH 36" MINIMUM COVER.
- ALL WATER AND FIRE SERVICES ARE REQUIRED TO HAVE A HARD BODY GATE VALVE OFF THE MAIN LINE.
- ALL VALVES SHALL BE BOLTED TO TEES.
- ALL POTABLE WATER PIPE SHALL HAVE "NSF POTABLE WATER" IMPRINTED ON THE PIPE.
- A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF ORMOND BEACH WILL BE REQUIRED FOR TAPS.
- THE CONTRACTOR SHALL MAKE ALL ATTEMPTS TO LOCATE BURIED UTILITIES AND NOTIFY THE UTILITY COMPANIES 48 HR. PRIOR TO CONSTRUCTION.
- UTILITY TRENCH CONSTRUCTION SHALL CONFORM TO CITY OF ORMOND BEACH AND OSHA REQUIREMENTS.
- IN THE CASE WHERE SOLVENT CONTAMINATION IS FOUND IN THE TRENCH, WORK WILL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH THE APPROVAL OF THE CITY OF ORMOND BEACH UTILITY DEPARTMENT, DUCTILE IRON PIPE, FITTINGS AND APPROVED SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE WILL EXTEND AT LEAST 100 FEET BEYOND ANY DISCOVERED SOLVENT.

GENERAL SEWER NOTES:

- CITY OF ORMOND BEACH SHALL BE NOTIFIED PRIOR TO ANY SEWER CONSTRUCTION.
- ALL SEWER CONSTRUCTION MUST COMPLY WITH FDEP REGULATIONS AND THE CITY OF ORMOND BEACH UTILITY DETAILS AND SPECIFICATIONS (LATEST EDITION).
- WATER LINES, RECLAIMED LINES AND STORM DRAINAGE CROSSINGS SHALL FOLLOW THE C-900 OR CONCRETE ENCASEMENT REQUIREMENT PER THE CITY OF ORMOND BEACH DETAILS AND FDEP REQUIREMENTS.
- SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY CITY OF ORMOND BEACH.
- THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING, DEWATER THE GROUND SUFFICIENTLY TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE AREA OF THE TRENCH.
- ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION. SOFT OR SPONGY BEDDING FOR PIPES WILL NOT BE ACCEPTED. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY OF ORMOND BEACH.
- SANITARY SEWER PIPE SHALL BE PVC SDR 26.
- EXCAVATION AND BACKFILL: THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING OF EXCAVATION WORK IN ORDER TO PROVIDE FOR THE SAFETY OF WORKMEN, AS WELL AS REPRESENTATIVES OF THE CITY OF ORMOND BEACH, THE DESIGN ENGINEER, AND THE DEVELOPER.
- ALL TRENCHES SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL AND COMPACTED TO MINIMUM COMPACTION OF 98% WITHIN PAVED AND 95% WITHIN UNPAVED AREAS OF THE OPTIMUM DENSITY OF THAT MATERIAL BASED ON THE AASHTO T-180 MODIFIED PROCTOR TEST.
- ALL TESTING REQUIRED BY THE CITY SHALL BE PAID FOR BY THE CONTRACTOR. GRAVITY MAINS MUST HAVE A TELEVIEWED INSPECTION. A VIDEO INSPECTION FORM MUST BE FAXED TO THE CITY OF ORMOND BEACH WASTEWATER COLLECTION DEPARTMENT 48 HOURS PRIOR TO VIDEO INSPECTION. A CITY INSPECTOR MUST BE PRESENT.
- SEWER CLEANOUT LOCATED ON PAVEMENT AND SIDEWALK AREA SHALL BE TRAFFIC BEARING FLAT TOP BRASS CAP.
- ALL GREASE TANKS SHALL HAVE A MINIMUM CAPACITY OF 1000 GALLONS. TANKS SHALL BE PROVIDED AND INSTALLED BY PLUMBER WITH BUILDING CONSTRUCTION.
- PLUMBING CONTRACTOR SHALL INSTALL TANK AND COORDINATE PIPE INVERTS TO BUILDING WITH UTILITY CONTRACTOR.

REVISIONS

DATE	DESCRIPTION
02/21/14	REVISED PER 03/14 SPRC COMMENTS
02/21/14	REV PER 10/14 SPRC COMMENTS
	FINAL REVISIONS AND SURVMO

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SITE UTILITIES PLAN
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No: 120810
DATE: SEPTEMBER 27, 2013
DESIGN BY: RWS
DRAWN BY: HMT
CHECKED BY: RWS
SCALE: 1" = 30'
DRAWING NUMBER: **9**

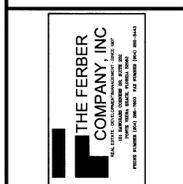
REVISIONS

DATE	DESCRIPTION
2/24/14	REVISED PER 10/22/13 SJRWMD COMMENTS
3/30/14	REVISED PER 3/25/14 SJRWMD COMMENTS
6/23/14	REVISED PER 6/14 SPRC COMMENTS
8/21/14	REV PER 7/8/14 SPRC COMMENTS FINAL REVISIONS AND SURVING



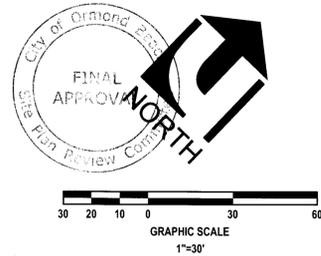
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STORMWATER PIPING PLAN
SHOPPES ON GRANADA
 1290, 1298 AND 1310 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA

PROJECT No: 120810
 DATE: SEPTEMBER 27, 2013
 DESIGN BY: RWS
 DRAWN BY: HMT
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 SCALE: 1" = 30'
 DRAWING NUMBER:



GENERAL DRAINAGE NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO DRAINAGE SYSTEM AND SHALL RESTORE ANY DAMAGED STRUCTURES.
2. ALL PIPE FROM THE BUILDING DRAINS SHALL BE SMOOTH INTERIOR CORRUGATED EXTERIOR (SICE) HDPE OR PVC SCH 40.
3. ALL STORM PIPE SHALL BE CONSTRUCTED OF REINFORCED CONCRETE CLASS III WITH BUTYL MASTIC SEALANT WITH CERTIFIED WATERTIGHT JOINTS BY THE MANUFACTURER OR HDPE PIPE WITH CERTIFIED WATERTIGHT JOINTS BY THE MANUFACTURER. RCP JOINTS SHALL BE WRAPPED WHERE APPLICABLE PER FDOT SPECIFICATIONS. ACCEPTABLE HDPE PIPE SHALL BE HANCOR SUR-LOK WT, ADS SERIES 35, ADS N-12 WITH WT JOINT OR EQUAL.
4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL MATERIAL AND STRUCTURES TO THE ENGINEER (UPHAM, INC.) FOR APPROVAL PRIOR TO THE PRECONSTRUCTION MEETING.
5. CONTRACTOR TO PLACE FILTER FABRIC BETWEEN DRAINAGE STRUCTURES AND TOPS TO PREVENT SOIL INTRUSION. THE FABRIC SHALL BE PERIODICALLY CLEANED OF SAND A DEBRIS FABRIC SHALL REMAIN IN PLACE UNTIL PAVING IS COMPLETE.
6. ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST PER FDOT SPECIFICATIONS.
7. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY PER FDOT STANDARD SPECIFICATIONS AND MANUFACTURES SPECIFICATIONS RESPECTIVELY.
8. ALL DRAINAGE STRUCTURES AND PIPES SHALL BE CLEANED OF SAND AT THE LAST STAGE OF CONSTRUCTION PRIOR TO THE FINAL INSPECTION.
9. ALL STORM STRUCTURES AND STORMWATER POND SHALL BE STAKED FOR CONSTRUCTION FROM DIGITAL COORDINATES BY A SURVEYOR UTILIZING A GEODETIC TOTAL STATION OR GPS. SCALING OF DRAWINGS FOR PURPOSES OF STAKING ARE AT SURVEYOR'S RISK.

STORM STRUCTURE SCHEDULE

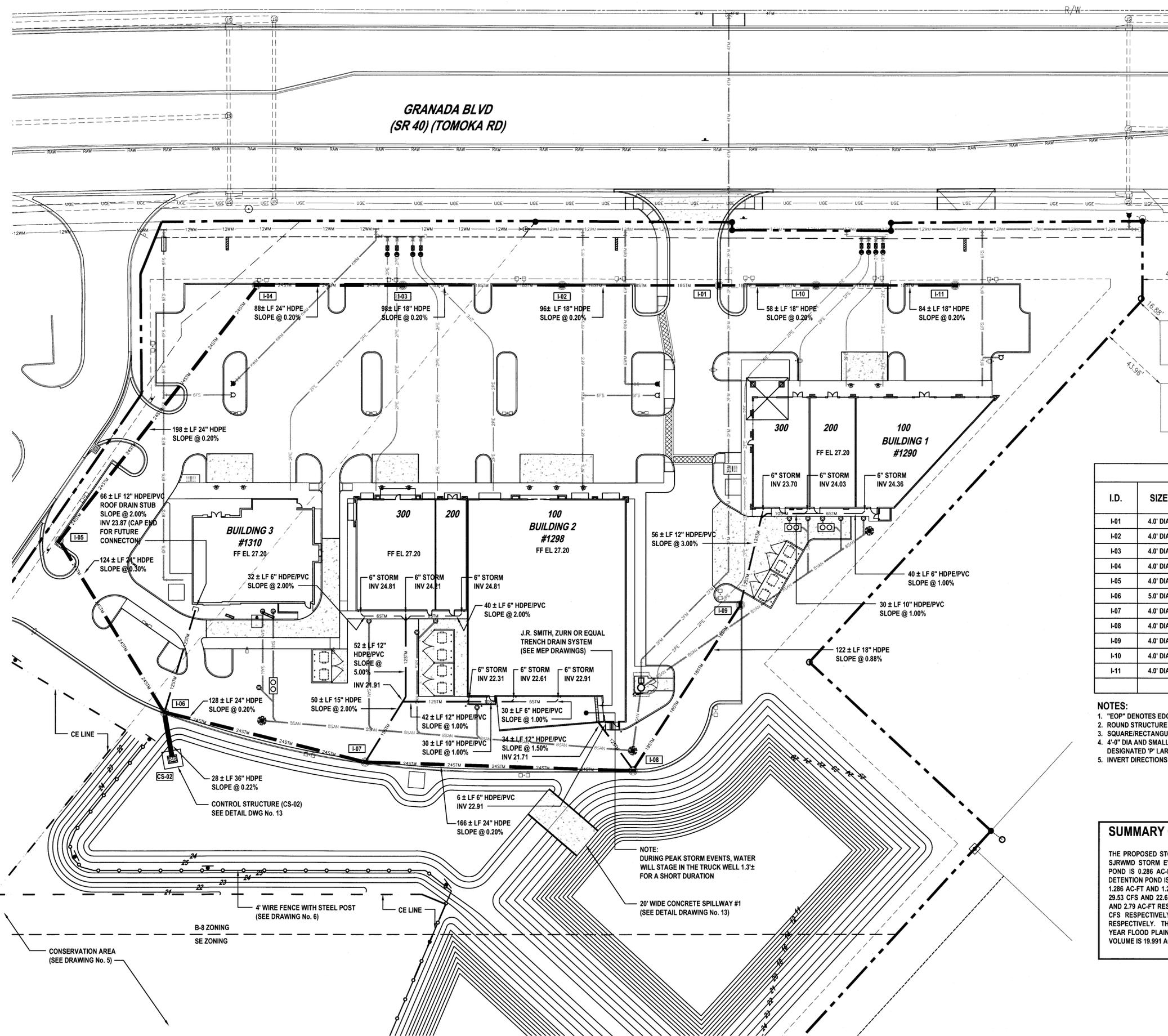
I.D.	SIZE	BOTTOM ELEV	TYPE OF TOP	TOP ELEV	NORTH INVERT	EAST INVERT	SOUTH INVERT	WEST INVERT
I-01	4.0' DIA	19.50	9	25.00 EOP	---	20.50	---	20.50
I-02	4.0' DIA	19.31	9	25.00 EOP	---	20.31	---	20.31
I-03	4.0' DIA	19.11	9	25.00 EOP	---	20.11	---	20.11
I-04	4.0' DIA	18.93	9	25.00 EOP	---	19.93	19.93	---
I-05	4.0' DIA	18.53	9	24.90 EOP	19.53	19.53	---	---
I-06	5.0' DIA	18.15	9	25.00 EOP	22.15	19.15	19.15	19.15
I-07	4.0' DIA	18.41	9	25.00 EOP	21.41	19.41	---	19.41
I-08	4.0' DIA	18.76	9	25.00 EOP	21.20	19.76	---	19.76
I-09	4.0' DIA	20.00	9	25.00 EOP	22.20	---	20.00	---
I-10	4.0' DIA	19.62	9	25.00 EOP	---	20.62	---	20.62
I-11	4.0' DIA	19.78	9	25.00 EOP	---	---	---	20.78

NOTES:

1. "EOP" DENOTES EDGE OF PAVEMENT.
2. ROUND STRUCTURE BOTTOMS ARE FDOT ALTERNATE 'A'.
3. SQUARE/RECTANGULAR STRUCTURE BOTTOMS ARE FDOT ALTERNATE 'B'.
4. 4'-0" DIA AND SMALLER AND 3'-6" SQUARE STANDARD STRUCTURE BOTTOMS ARE FDOT TYPE DESIGNATED 'P' LARGER STANDARD STRUCTURE BOTTOMS ARE DESIGNATED TYPE 'J'.
5. INVERT DIRECTIONS PER SITE NORTH.

SUMMARY OF DRAINAGE:

THE PROPOSED STORMWATER TREATMENT SYSTEM IS DESIGNED TO DISCHARGE LESS IN THE PRE VS. POST FOR THE SJRWMD STORM EVENTS. THE SJRWMD REQUIRED TREATMENT VOLUME FOR THE PRE-TREATMENT DRY RETENTION POND IS 0.286 AC-FT AND 0.297 AC-FT IS PROVIDED. THE SJRWMD REQUIRED TREATMENT VOLUME FOR THE WET DETENTION POND IS 1.00 AC-FT AND 1.00 AC-FT IS PROVIDED. THE OVERALL REQUIRED TREATMENT VOLUME PROVIDED IS 1.286 AC-FT AND 1.297 AC-FT IS PROVIDED. THE PRE AND POST MEAN ANNUAL 24 HOUR OFF-SITE DISCHARGE RATE IS 29.53 CFS AND 22.61 CFS RESPECTIVELY. THE PRE AND POST MEAN ANNUAL 24 HOUR OFF-SITE VOLUME IS 5.34 AC-FT AND 2.79 AC-FT RESPECTIVELY. THE PRE AND POST 25 YEAR 24 HOUR OFF-SITE DISCHARGE RATE IS 54.82 CFS AND 40.01 CFS RESPECTIVELY. THE PRE AND POST 25 YEAR 24 HOUR OFF-SITE VOLUME IS 11.21 AC-FT AND 7.47 AC-FT RESPECTIVELY. THE PRE VS. POST POLLUTANT LOADING IS 1.27 KG/YR AND 1.26 KG/YR. THE PRE DEVELOPMENT 100 YEAR FLOOD PLAIN COMPENSATING STORAGE VOLUME IS 19.919 AC-FT AND THE POST DEVELOPMENT COMPENSATING VOLUME IS 19.991 AC-FT.



NOTE:
 DURING PEAK STORM EVENTS, WATER WILL STAGE IN THE TRUCK WELL 1.3'± FOR A SHORT DURATION

20' WIDE CONCRETE SPILLWAY #1
 (SEE DETAIL DRAWING No. 13)

B-8 ZONING
 SE ZONING

CONSERVATION AREA
 (SEE DRAWING No. 5)

4' WIRE FENCE WITH STEEL POST
 (SEE DRAWING No. 6)

CONTROL STRUCTURE (CS-02)
 SEE DETAIL DWG No. 13

6 ± LF 6" HDPE/PVC
 INV 22.91

166 ± LF 24" HDPE
 SLOPE @ 0.20%

30 ± LF 10" HDPE/PVC
 SLOPE @ 1.00%

42 ± LF 12" HDPE/PVC
 SLOPE @ 1.00%

50 ± LF 15" HDPE
 SLOPE @ 2.00%

128 ± LF 24" HDPE
 SLOPE @ 0.20%

124 ± LF 24" HDPE
 SLOPE @ 0.30%

32 ± LF 6" HDPE/PVC
 SLOPE @ 2.00%

66 ± LF 12" HDPE/PVC
 ROOF DRAIN STUB
 SLOPE @ 2.00%
 INV 23.87 (CAP END
 FOR FUTURE
 CONNECTION)

56 ± LF 12" HDPE/PVC
 SLOPE @ 3.00%

40 ± LF 6" HDPE/PVC
 SLOPE @ 2.00%

30 ± LF 10" HDPE/PVC
 SLOPE @ 1.00%

40 ± LF 6" HDPE/PVC
 SLOPE @ 1.00%

122 ± LF 18" HDPE
 SLOPE @ 0.88%

6" STORM
 INV 24.03

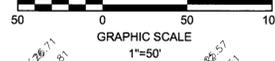
6" STORM
 INV 23.70

6" STORM
 INV 24.36

6" STORM
 INV 24.03

6" STORM
 INV 23.70

6" STORM
 INV 24.81



BENCHMARK INFORMATION:

#1 SET PARKER KALON NAIL & BRASS DISK LB 3612 ELEVATION = 25.01

#2 SET PARKER KALON NAIL & BRASS DISK LB 3612 ELEVATION = 26.27

VERTICAL DATA
ELEVATIONS REFER TO (NAVD 88) FEET AND DECIMAL PART THEREOF NORTH AMERICAN VERTICAL DATUM 1988. BENCHMARK REFERENCE NATIONAL GEODETIC SURVEY DESIGNATION F 477, PID DE6756, CONCRETE MONUMENT, ELEVATION = 24.55

CONTOUR LEGEND:

--- EXISTING CONTOUR

--- PROPOSED CONTOUR

REVISIONS

DATE	DESCRIPTION
09/27/13	REVISED PER 10/27/13 SJRWMD COMMENTS
03/14/14	REVISED PER 3/25/14 SJRWMD COMMENTS
02/27/14	REVISED PER 6/14/14 SPRC COMMENTS
07/14/14	REVISED PER 7/14/14 SPRC COMMENTS
07/14/14	REVISED PER 7/14/14 SPRC COMMENTS

APPROVALS: [Signatures]

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1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

STORMWATER POND PLAN AND SECTIONS

SHOPPES ON GRANADA

1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No: 120810

DATE: SEPTEMBER 27, 2013

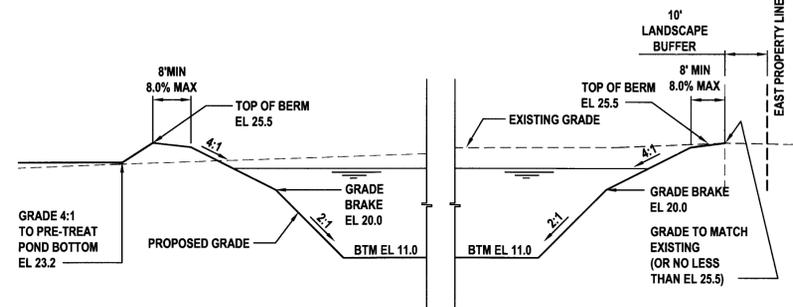
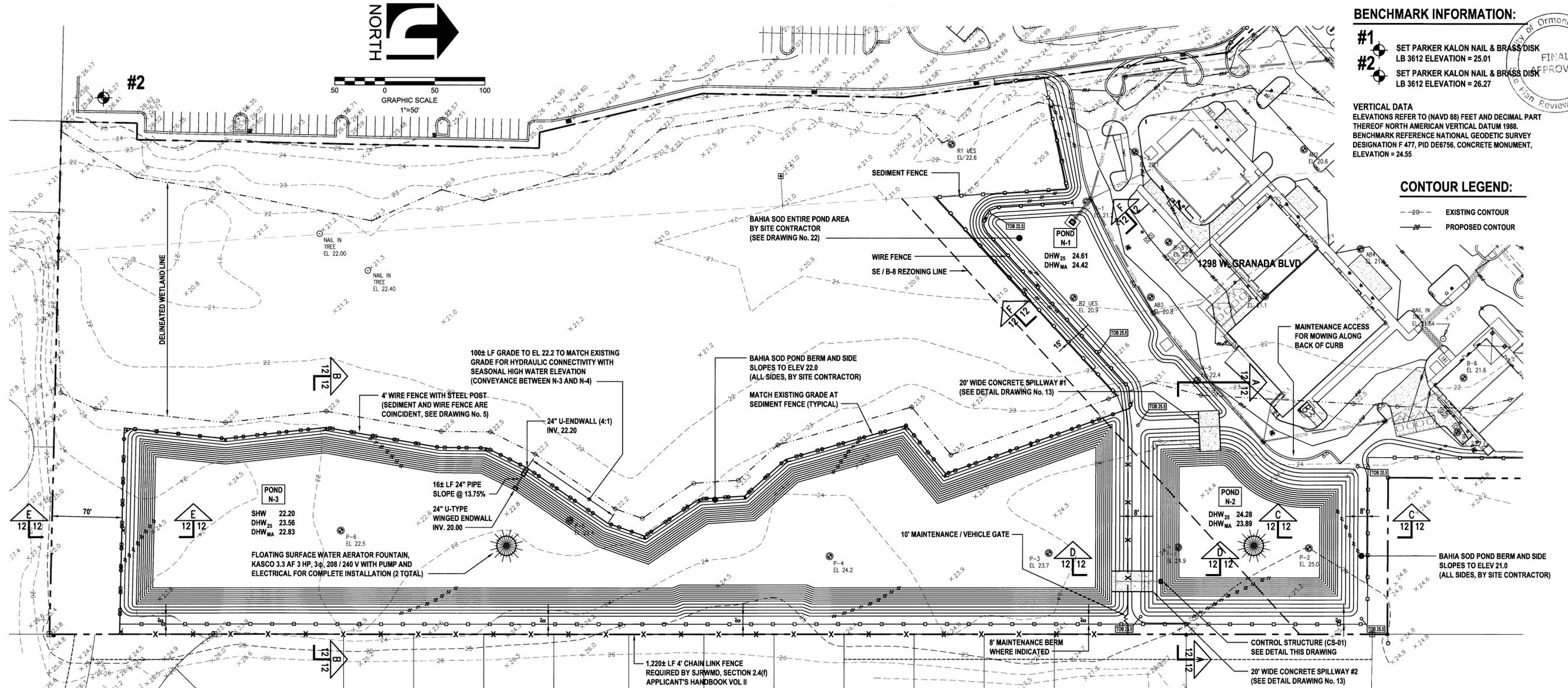
DESIGN BY: RWS

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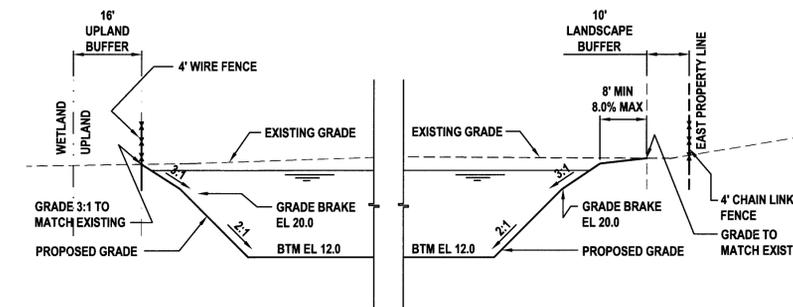
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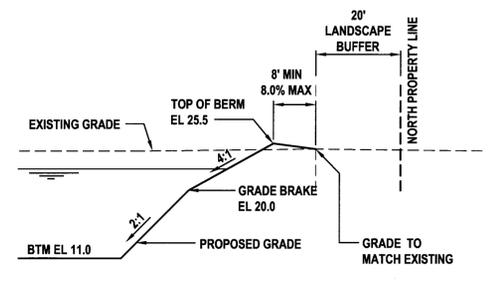
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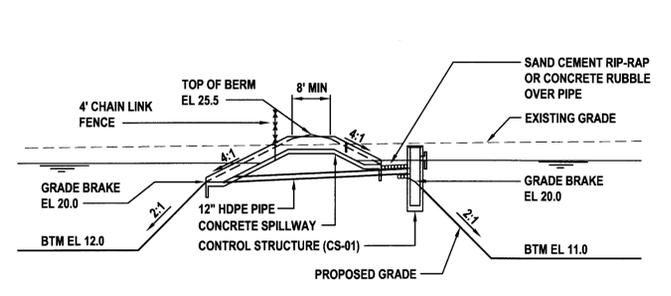
POND SECTION A
SCALE: 1" = 20' H
1" = 10' V



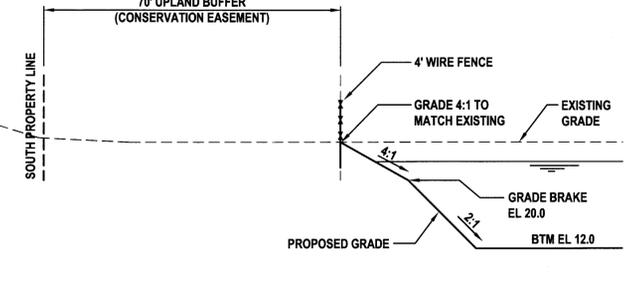
POND SECTION B
SCALE: 1" = 20' H
1" = 10' V



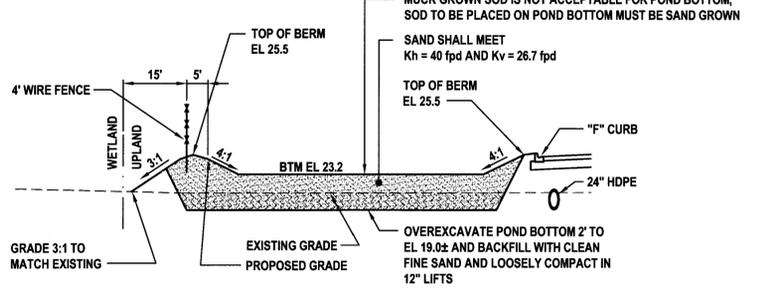
POND SECTION C
SCALE: 1" = 20' H
1" = 10' V



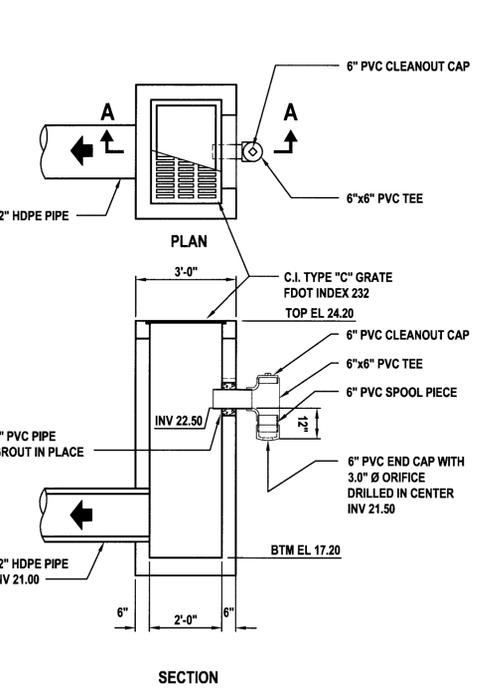
POND SECTION D
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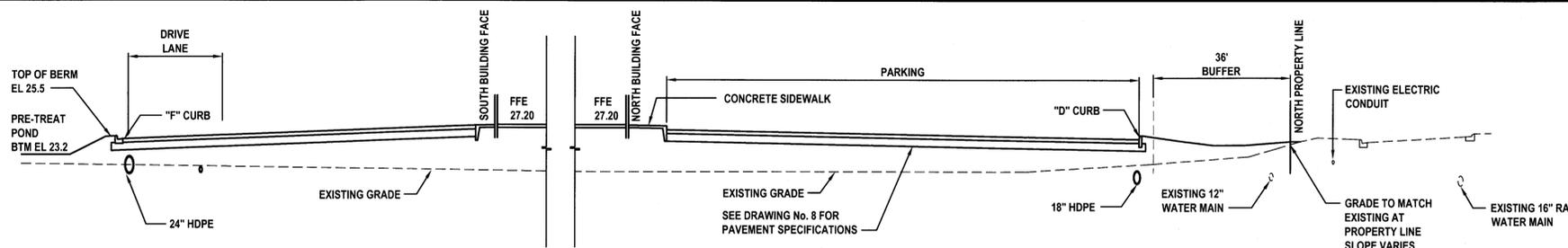
POND SECTION E
SCALE: 1" = 20' H
1" = 10' V



POND SECTION F
SCALE: 1" = 20' H
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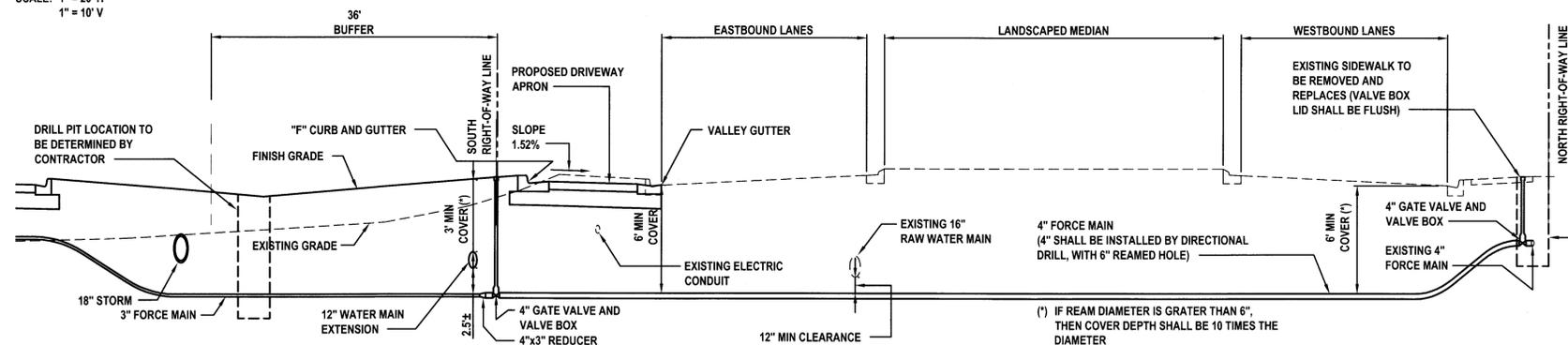


CONTROL STRUCTURE DETAIL (CS-01)
NOT TO SCALE



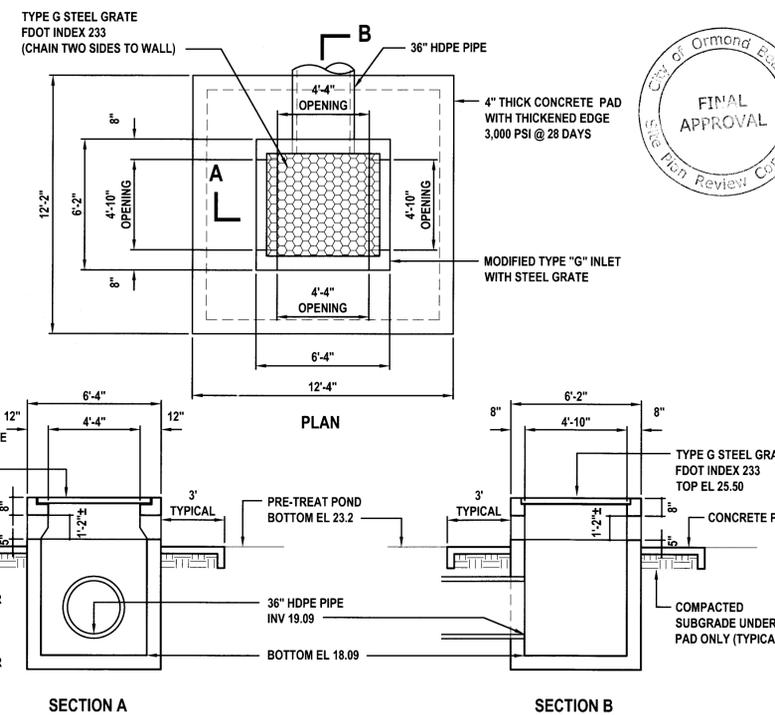
SITE SECTION G

SCALE: 1" = 20' H
1" = 10' V



FORCE MAIN CROSS SECTION OF WEST GRANADA BLVD

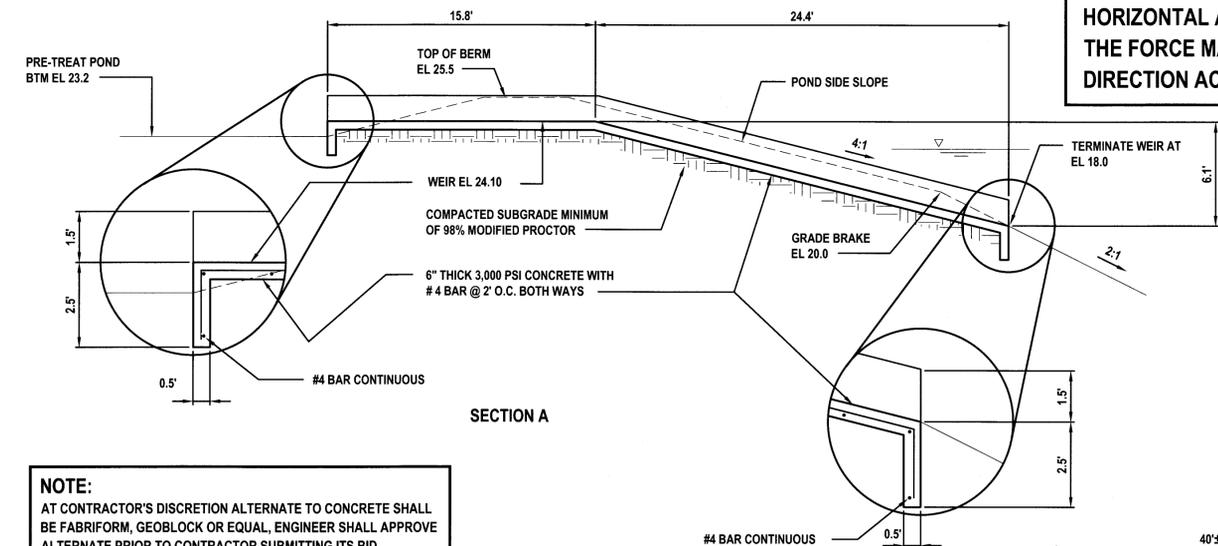
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1" = 5' V



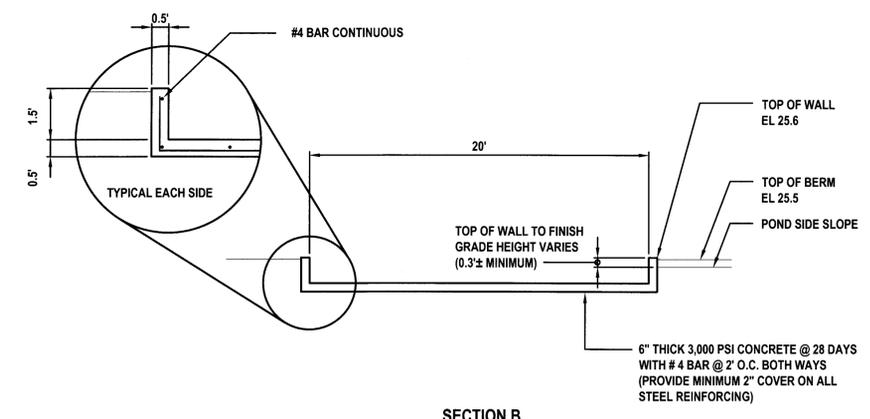
CONTROL STRUCTURE DETAIL (CS-02)

NOT TO SCALE

THE CONTRACTOR SHALL PREPARE A DIRECTIONAL DRILL LOG FOR THE HORIZONTAL AND VERTICAL LOCATION OF THE FORCE MAIN EVERY 50' OR CHANGE IN DIRECTION ACROSS THE RIGHT-OF-WAY.

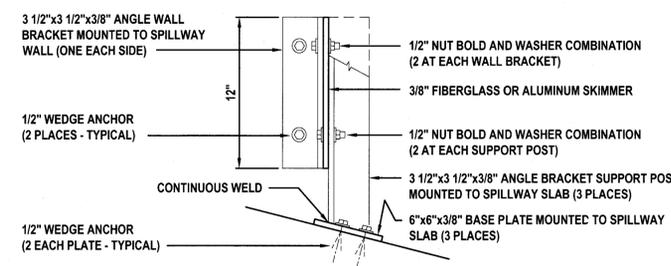


NOTE:
AT CONTRACTOR'S DISCRETION ALTERNATE TO CONCRETE SHALL BE FABRIFORM, GEOBLOCK OR EQUAL, ENGINEER SHALL APPROVE ALTERNATE PRIOR TO CONTRACTOR SUBMITTING ITS BID



SPILLWAY #1 DETAIL

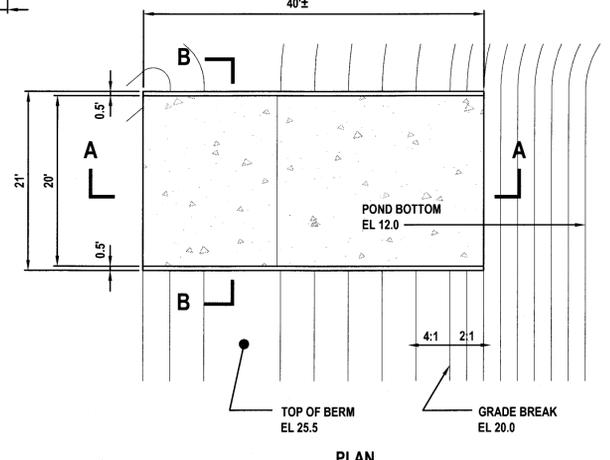
NOT TO SCALE



SKIMMER DETAIL

SKIMMER NOTES:

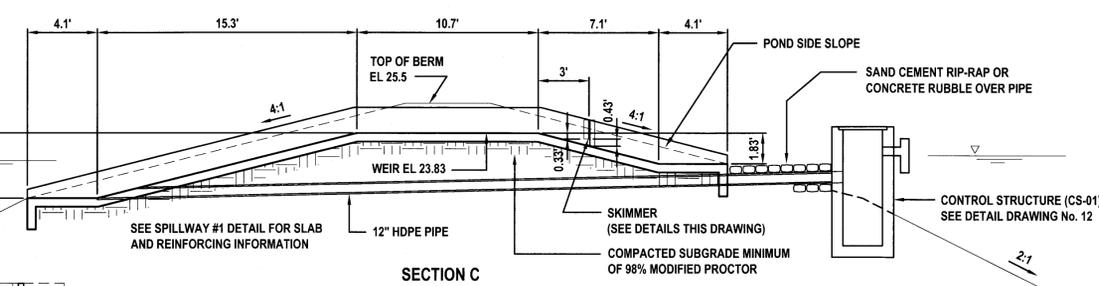
1. THE DETAIL SHOWN HEREON IS AN EXAMPLE ONLY. THE CONTRACTOR MAY WITH THE ENGINEER'S PERMISSION UTILIZE A DIFFERENT CONSTRUCTION TECHNIQUE.
2. USE ONLY STAINLESS STEEL WEDGE ANCHOR BOLTS, ALL OTHER FASTENERS MAY BE STAINLESS STEEL OR GALVANIZED.
3. STRUCTURAL SHAPES MAY BE ALUMINUM OR GALVANIZED.
4. COAT ALL CONTACT SURFACES BETWEEN ALUMINUM AND CONCRETE WITH MASTIC



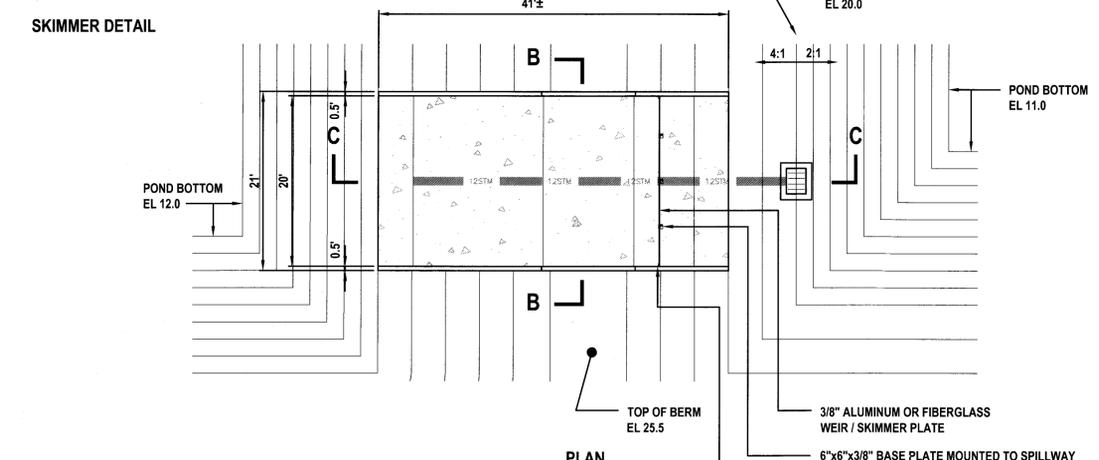
PLAN

SPILLWAY #2 DETAIL

NOT TO SCALE



SECTION C



PLAN

REVISIONS	
DATE	DESCRIPTION
10/24/14	REVISED PER 10/22/13 SURVWD COMMENTS
10/30/14	REVISED PER 10/25/14 SURVWD COMMENTS
11/23/14	REVISED PER 11/14/14 SPRC COMMENTS
12/11/14	REV PER 7/8/14 SPRC COMMENTS FINAL REVISIONS AND SURVWD

FINAL APPROVAL

City of Ormond Beach
Site Plan Review Committee

ROBERT W. STRICKLAND
PROFESSIONAL ENGINEER
No. 52784
FLORIDA
LICENSED PROFESSIONAL ENGINEER
NOT VALID UNLESS SIGNED & DATED

UPHAM, INC.
CIVIL ENGINEERING-SURVEYING-LANDSCAPE ARCHITECTURE
265 Kenilworth Avenue • Ormond Beach • Florida 32174
Voice: 386.672.9515 • Fax: 386.673.6554 • uphaminc.com
LC # 0000357 LB # 00003612

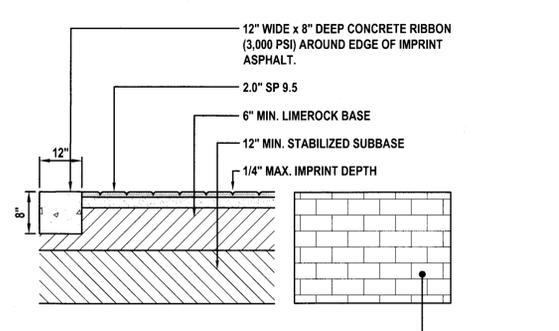
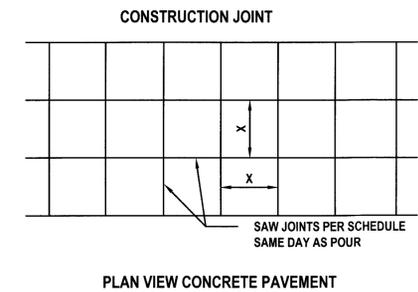
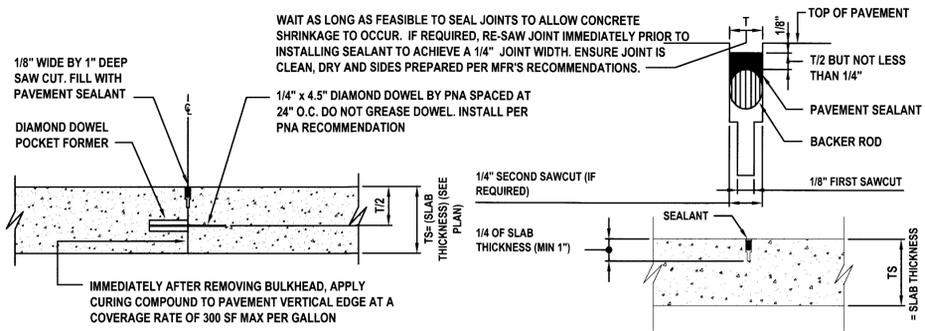
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THE FERBER COMPANY, INC.
1000 W. GRANADA BOULEVARD, SUITE 100
ORMOND BEACH, FLORIDA 32174
TEL: 386.672.9515 FAX: 386.673.6554

CROSS SECTIONS, PLANS AND DETAILS
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No: 120810
DATE: SEPTEMBER 27, 2013
DESIGN BY: RWS
DRAWN BY: HMT
CHECKED BY: RWS
SCALE: AS SHOWN
DRAWING NUMBER:

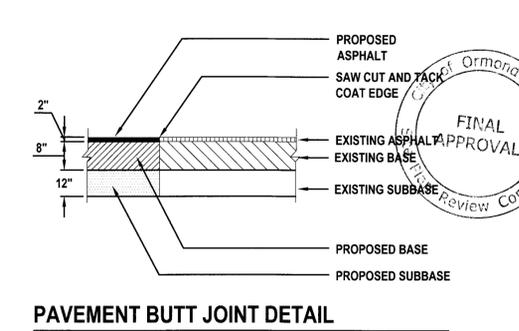
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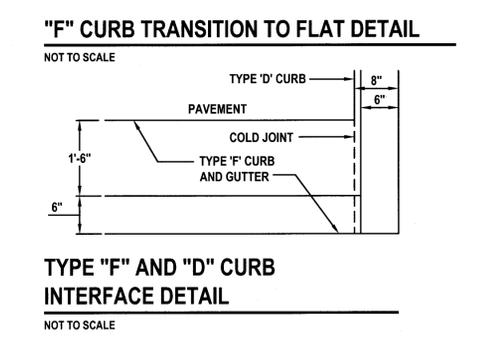
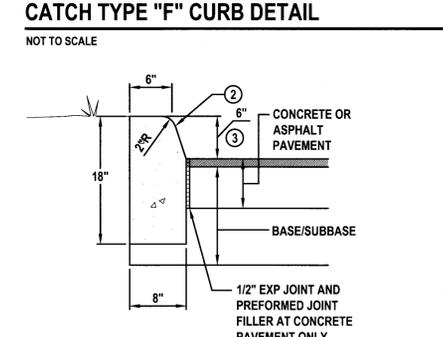
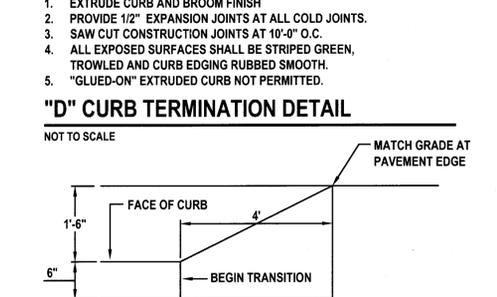
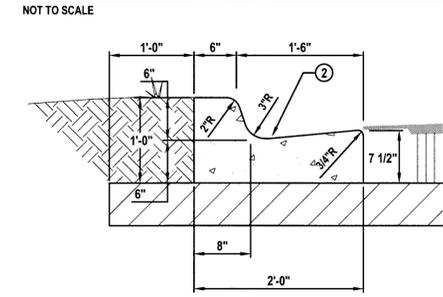
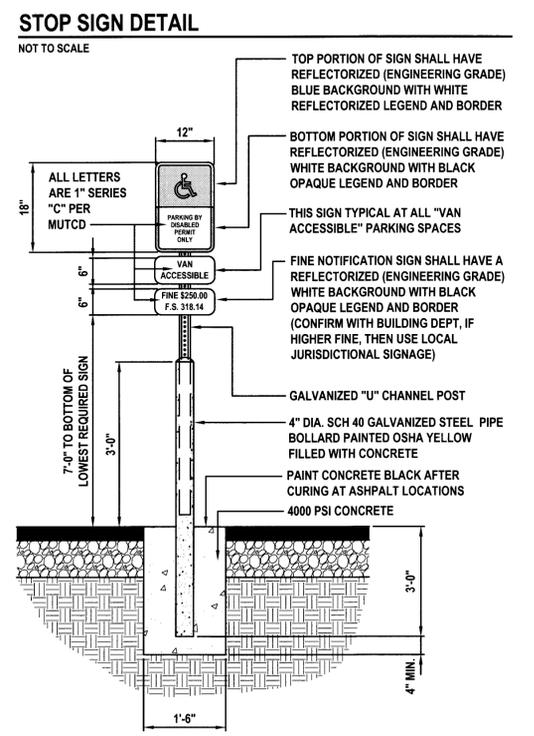
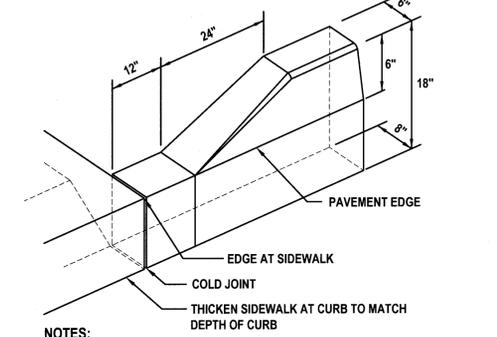
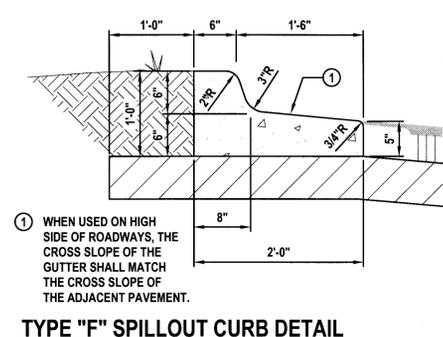
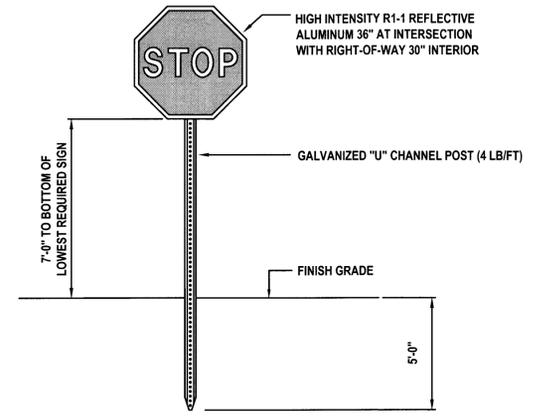
NOTES:

- MATERIAL AND INSTALLATION SHALL ADHERE TO "STREETPRINT PAVEMENT TEXTURING" TECHNICAL INFORMATION 1996 OR LATER.
- ASPHALT SHALL BE IMPRINTED WHERE INDICATED ON PLAN WITH A STAGGERED BRICK PATTERN (RUNNING BOND)
- ONLY A CONTRACTOR AUTHORIZED BY STREETPRINT SHALL PERFORM THE APPLICATION WORK

IMPRINTED ASPHALT DETAIL
NOT TO SCALE

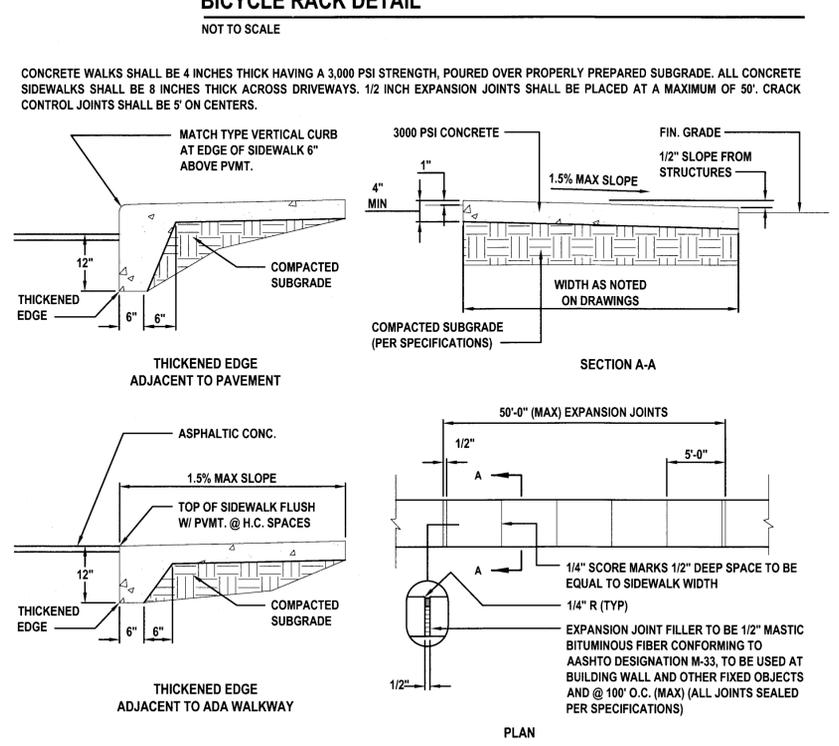
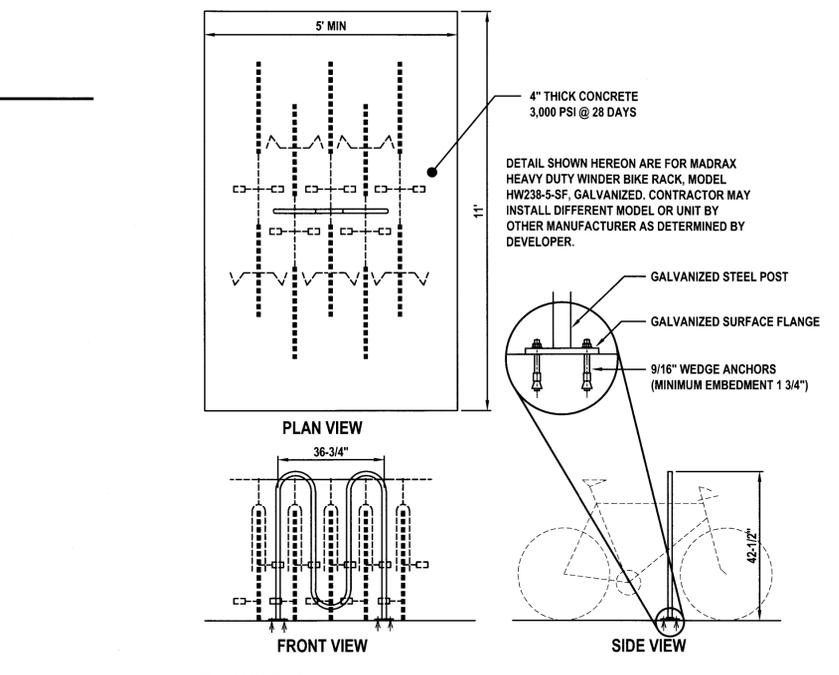


CONCRETE PAVEMENT JOINT DETAILS
NOT TO SCALE



CURB CONSTRUCTION NOTES

- ALL CURBS TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE.
- 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED EVERY 500', CONSTRUCTION JOINT REQUIRED EVERY 10' MAXIMUM (4' MINIMUM).
- 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED AT EACH SIDE OF ALL STORM INLET STRUCTURES AND AT ALL RADIUS POINTS.
- 6" SUBBASE TO BE COMPACTED AND TESTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST AND SHALL BE STABILIZED TO A MINIMUM L.B.R. 40.
- EXPANSION JOINT MATERIAL MUST COVER ENTIRE CROSS SECTION OF CURB.
- IN NO INSTANCE SHALL EXTRUDED CURBS (DEFINED AS HEADER-TYPE CURBS INSTALLED DIRECTLY ON TOP OF PAVEMENT) BE PERMITTED.



REVISIONS	
DATE	DESCRIPTION
02/27/14	REVISED PER 03/14 SPRC COMMENTS
03/14/14	REV PER 7/8/14 SPRC COMMENTS
03/14/14	FINAL REVISIONS AND S.J.R.W.M.

DATE: 02/27/14

DESCRIPTION: REVISED PER 03/14 SPRC COMMENTS

DATE: 03/14/14

DESCRIPTION: REV PER 7/8/14 SPRC COMMENTS

DATE: 03/14/14

DESCRIPTION: FINAL REVISIONS AND S.J.R.W.M.

UPHAM, INC.

CIVIL ENGINEERING-SURVIVING-LANDSCAPE ARCHITECTURE

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LB# 0003612

PROFESSIONAL ENGINEER

FLORIDA LICENSE NO. 5278

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THE FERBER COMPANY, INC.

1000 W. UNIVERSITY BLVD. SUITE 100

ORLANDO, FLORIDA 32817

PHONE: 407.251.1111 FAX: 407.251.1112

MISCELLANEOUS DETAILS AND NOTES

SHOPPES ON GRANADA

1290, 1298 AND 1310 WEST GRANADA BOULEVARD

ORMOND BEACH, FLORIDA

PROJECT No: 120810

DATE: SEPTEMBER 27, 2013

DESIGN BY: RWS

DRAWN BY: HMT

CHECKED BY: RWS

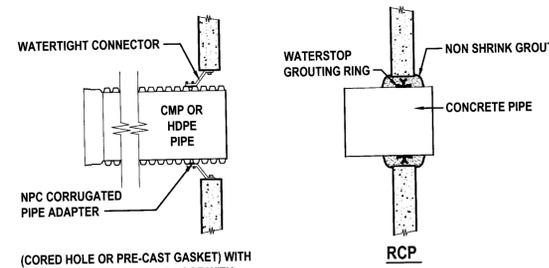
SCALE:

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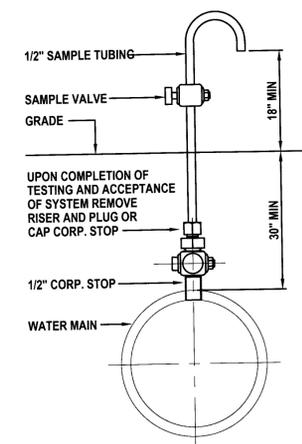
14

FDEP WATER NOTES

- ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT WILL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.
- ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL BE INSTALLED UNDER THIS PROJECT AND THAT WILL COME INTO CONTACT WITH DRINKING WATER WILL CONFORM TO NSF INTERNATIONAL STANDARD 61.
- ALL PROPOSED WATER MAINS SHALL BE FLUSHED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-651 AND THE FDEP PROTECTION REQUIREMENTS.
- POTABLE WATER PIPES SHALL BE HYDROSTATICALLY TESTED FOR PRESSURE AND LEAKAGE IN ACCORDANCE WITH AWWA STANDARD C600 FOR DUCTILE IRON PIPES AND C605 FOR PVC PIPES, RESPECTIVELY.
- ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL CONTAIN NO MORE THAN 8.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT WILL CONTAIN NO MORE THAN 0.2% LEAD.
- ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(2)(B)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.)
- POTABLE WATER PIPES MUST BE MANUFACTURED IN ACCORDANCE WITH THE FOLLOWING AWWA SPECIFICATIONS:
 - DUCTILE IRON PIPE (3 INCHES TO 54 INCHES) - AWWA C150 AND AWWA C151;
 - PVC PIPE
 - AWWA C900/ASTM 1784 (1 INCH TO 12 INCHES) WITH CL200 MINIMUM;
 - AWWA C905 (14 INCHES TO 48 INCHES);



WATER-TIGHT PIPE TO MANHOLE CONNECTION DETAIL PRECAST HOLES REQUIRED
NOT TO SCALE



BACTERIOLOGICAL SAMPLE POINT DETAIL
NOT TO SCALE

FDEP WASTEWATER NOTES

- APPROPRIATE DEFLECTION TEST ARE SPECIFIED FOR ALL FLEXIBLE PIPE. TESTING IS REQUIRED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS TO PERMIT STABILIZATION OF THE SOIL-PIPE SYSTEM. TESTING REQUIREMENTS SPECIFY: 1) NO PIPE SHALL EXCEED A DEFLECTION OF 5%; 2) USING RIGID BALL OR MANDREL FOR THE DEFLECTION TEST WITH A DIAMETER NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER OR AVERAGE INSIDE DIAMETER OF THE PIPE, DEPENDING ON WHICH IS SPECIFIED IN THE ASTM SPECIFICATIONS, INCLUDING THE APPENDIX, TO WHICH THE PIPE IS MANUFACTURED; AND 3) PERFORMING THE TEST WITHOUT MECHANICAL PULLING DEVICES.
 - LEAKAGE TEST ARE SPECIFIED PERFORMING THAT: 1) THE LEAKAGE EXFILTRATION OR INFILTRATION DOES NOT EXCEED 200 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM; 2) EXFILTRATION OR INFILTRATION TEST BE PERFORMED WITH A MINIMUM POSITIVE HEAD OF 2 FEET; AND 3) AIR TEST, AS A MINIMUM, CONFORM TO THE TEST PROCEDURE DESCRIBED IN ASTM C-828 FOR CLAY PIPE, ASTM C 924 FOR CONCRETE PIPE, ASTM F-1417 FOR PLASTIC PIPE, AND OTHER MATERIAL APPROPRIATE TEST PROCEDURES.
 - MANHOLE INSPECTION AND TESTING FOR WATERTIGHTNESS OR DAMAGE PRIOR TO PLACING INTO SERVICE ARE REQUIRED. AIR TESTING SPECIFIED FOR CONCRETE SEWER MANHOLES, SHALL CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM C-1244.
 - SUITABLE COUPLINGS COMPLYING WITH ASTM SPECIFICATIONS ARE REQUIRED FOR JOINING DISSIMILAR MATERIALS.
 - CONCRETE MANHOLES SHALL HAVE THE FOLLOWING: 1) MANHOLE LIFT HOLES AND GRADE ADJUSTMENT RINGS SEALED WITH NON-SHRINK MORTAR OR OTHER APPROPRIATE MATERIAL; 2) INLET AND OUTLET PIPES TO BE JOINED TO THE MANHOLE WITH A GASKETED FLEXIBLE WATERTIGHT CONNECTION OR ANOTHER WATERTIGHT CONNECTION ARRANGEMENT THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL; 3) WATERTIGHT MANHOLE COVERS BE USED WHEREVER THE TOPS MAY BE FLOODED BY STREET RUNOFF OR HIGH WATER.
- A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM."
- NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER; AND NEW OR RELOCATED, UNDERGROUND WATER MAINS THAT ARE INCLUDED IN THIS PROJECT AND THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE INSTALLED AS INDICATED IN SCHEDULE FOR F.A.C. RULE 62-555.314 THIS DRAWING.
 - AT THE UTILITY CROSSINGS DESCRIBED ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE WILL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE OR THE PIPES WILL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
 - IF CONNECTION OF THE PROPOSED ACTIVITY TO THE WATER MAIN WILL RESULT IN A DEPRESSURIZATION OF THE EXISTING SYSTEM BELOW 20 POUNDS PER SQUARE INCH, ONE OF THE FOLLOWING MUST OCCUR:
 - PRECAUTIONARY BOIL WATER NOTICES MUST BE ISSUED IN CASES OF PLANNED DISTRIBUTION INTERRUPTIONS, WHICH ARE DEEMED AN IMMINENT PUBLIC HEALTH THREAT BY THE DEP CENTRAL DISTRICT OR WILL AFFECT THE BACTERIOLOGICAL QUALITY OF THE DRINKING WATER UNLESS THE PUBLIC WATER SYSTEM CAN DEMONSTRATE, BY SOUND ENGINEERING JUDGMENT, THAT THE INTEGRITY OF THE WATER SYSTEM HAS BEEN MAINTAINED; OR
 - IN CASE OF BRIEF INTERRUPTION IN SERVICE, ADVISORIES (NOT BOIL WATER NOTICES) SHOULD BE ISSUED IF TEMPORARY CHANGES IN WATER QUALITY ARE EXPECTED TO OCCUR AND NOT DEEMED AN IMMINENT PUBLIC HEALTH RISK.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314 SCHEDULE

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	3 FT MINIMUM	12 INCHES IS THE MINIMUM EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND 12 INCHES IS PREFERRED	ALTERNATE 3 FT MINIMUM
VACUUM SANITARY SEWER	10 FT PREFERRED 3 FT MINIMUM	12 INCHES PREFERRED 6 INCHES MINIMUM	ALTERNATE 3 FT MINIMUM
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)	10 FT PREFERRED 6 FT MINIMUM (3)	12 INCHES IS THE MINIMUM EXCEPT FOR STORM SEWER, THEN 6 INCHES IS THE MINIMUM AND 12 INCHES IS PREFERRED	ALTERNATE 6 FT MINIMUM
ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM	10 FT MINIMUM (3)		

- WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
- RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- 3 FT FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
- RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

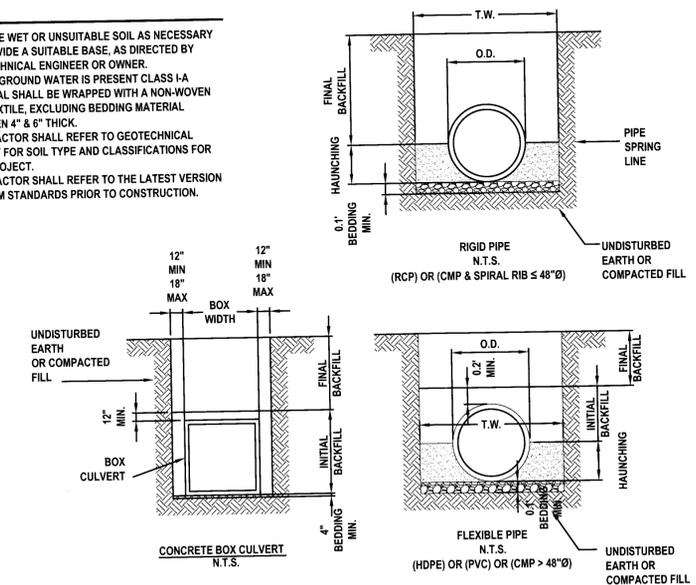
TABLE 1: CLASSES OF EMBEDMENT AND BACKFILL MATERIALS

ASTM D 2321 MATERIAL CLASS	ASTM D 2487 USCS SOIL GROUP	MATERIAL TYPE	% PASSING			ATTERBERG LIMITS	
			1 1/2 IN.	NO. 4	NO. 200	LL	PI
IA	NONE	MANUFACTURED OPEN GRADED AGGREGATES	100%	≤10%	<5%	NON PLASTIC	
IB	NONE	MANUFACTURED DENSE GRADED AGGREGATES	100%	≤50%	<5%	NON PLASTIC	
II	GW	COARSE-GRAINED SOILS, CLEAN	100%	<50% OF "COARSE FRACTION"	<5%	NON PLASTIC	
	GP						
	SW						
	SP						
III	GM	COARSE-GRAINED SOILS W/ FINES	100%	<50% OF "COARSE FRACTION"	12% TO 50%	<4 OR <"A" LINE	
	GC					<7 OR >"A" LINE	
	SM					>4 OR <"A" LINE	
	SC					>7 OR >"A" LINE	
IV-A	ML	FINE-GRAINED SOILS	100%	100%	>50%	<4 OR <"A" LINE	
	CL					>7 OR >"A" LINE	

TRENCH AND BEDDING DETAILS

GENERAL NOTES

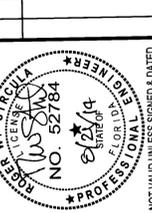
- BEDDING SHALL BE DUMPED CLASS I-A WORKED BY HAND, OR CLASS I-B COMPACTED TO 85% STANDARD PROCTOR, LOCAL CODE PERMITTING WITH GEOTECHNICAL ENGINEER AND OWNER APPROVAL. NATIVE SOIL MAY BE USED FOR BEDDING PROVIDED IT MEETS THE EMBEDMENT AND BACKFILL MATERIALS IN TABLE 1 EXCLUDING CLASS IV-A.
- HAUNCHING SHALL BE WORKED AROUND THE PIPE BY HAND TO ELIMINATE VOIDS AND SHALL BE CLASS I-A, OR CLASS I-B OR CLASS II COMPACTED TO 95% STANDARD PROCTOR. PEA GRAVEL SHALL NOT BE USED AS A HAUNCHING MATERIAL. CLASS III MATERIAL SHALL BE ALLOWED FOR RIGID PIPE COMPACTED AT 95% STANDARD PROCTOR.
- INITIAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 90% STANDARD PROCTOR, OR CLASS III COMPACTED TO 95% STANDARD PROCTOR. CLASS I & II MATERIAL SHALL BE USED FOR FLEXIBLE PIPE WHEN FILL HEIGHTS EXCEED 8'.
- FINAL BACKFILL SHALL BE CLASS I-A WORKED BY HAND, OR CLASS I-B OR CLASS II COMPACTED TO 90% STANDARD PROCTOR, OR CLASS III COMPACTED TO 95% STANDARD PROCTOR.
- FINAL BACKFILL NOT UNDER PAVED AREAS CAN BE CLASS IV-A COMPACTED TO 95% STANDARD PROCTOR.
- ALL MATERIALS ARE CLASSIFIED IN ACCORDANCE WITH ASTM D 2321. (SEE TABLE 1)
- ALL MATERIALS SHALL BE INSTALLED IN MAXIMUM 8" LOOSE LIFTS IN ACCORDANCE WITH ASTM D 698. CLASS III AND IV-A MATERIALS SHALL BE COMPACTED NEAR OPTIMUM MOISTURE CONTENT.
- FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
- ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.
- DESIGN ENGINEER SHALL DESIGNATE ON THE PLANS WHERE WATERTIGHT JOINTS ARE TO BE REQUIRED.
- REPLACE WET OR UNSUITABLE SOIL AS NECESSARY TO PROVIDE A SUITABLE BASE, AS DIRECTED BY GEOTECHNICAL ENGINEER OR OWNER.
- WHERE GROUND WATER IS PRESENT CLASS I-A MATERIAL SHALL BE WRAPPED WITH A NON-WOVEN GEO-TEXTILE, EXCLUDING BEDDING MATERIAL BETWEEN 4" & 6" THICK.
- CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT FOR SOIL TYPE AND CLASSIFICATIONS FOR THIS PROJECT.
- CONTRACTOR SHALL REFER TO THE LATEST VERSION OF ASTM STANDARDS PRIOR TO CONSTRUCTION.



NOTE: MINIMUM TRENCH WIDTH (T.W.) SHALL BE THE GREATER OF (1.25 O.D. + 12") OR (O.D. + 16")

REVISIONS

DATE	DESCRIPTION
6/23/14	REVISED PER 6/31/14 SPRC COMMENTS
7/21/14	REV PER 7/21/14 SPRC COMMENTS
	FINAL REVISIONS AND SURVIMD



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 CIVIL ENGINEERING SURVEYING-LANDSCAPE ARCHITECTURE
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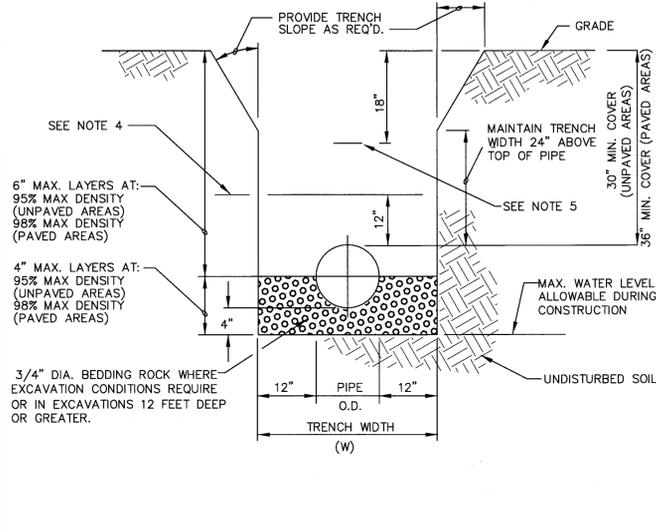


MISCELLANEOUS DETAILS AND NOTES
SHOPPES ON GRANADA
 1290, 1298 AND 1310 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA

PROJECT No:	120810
DATE:	SEPTEMBER 27, 2013
DESIGN BY:	RWS
DRAWN BY:	HMT
CHECKED BY:	RWS
SCALE:	
DRAWING NUMBER:	

GENERAL NOTES:

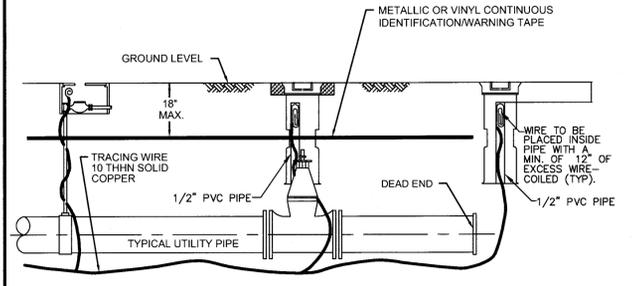
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ORMOND BEACH'S LAND DEVELOPMENT CODE REQUIREMENTS, AND THE STANDARD CONSTRUCTION DETAILS AND CONSTRUCTION SPECIFICATIONS (SDCS). AN ENGINEERING PERMIT AND TREE REMOVAL PERMIT IS REQUIRED PRIOR TO STARTING CONSTRUCTION.
- NO LAND SHALL BE CLEARED, EXCAVATED OR FILLED AND NO STRUCTURE SHALL BE ERRECTED, REPAIRED OR DEMOLISHED WITHOUT PROPER PERMIT(S) AS REQUIRED BY THE CITY OF ORMOND BEACH.
- NOTIFY THE CITY OF ORMOND BEACH'S ENGINEERING DIVISION AT 676-3269 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- ANY CONSTRUCTION CHANGES TO APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF ORMOND BEACH FOR APPROVAL PRIOR TO PERFORMING THE WORK.
- ROAD CONSTRUCTION AND PIPE INSTALLATION COMPACTION AND DENSITY TESTING SHALL CONFORM TO THE CITY OF ORMOND BEACH'S MINIMUM REQUIREMENTS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO THE CITY INSPECTOR AND THE CITY'S ENGINEERING DIVISION.
- A PRE-PAVING UTILITY INSPECTION MUST BE REQUESTED AND COMPLETED PRIOR TO THE PAVING OF ALL ROADS, STREETS, AND PARKING AREAS.
- A FINAL INSPECTION, TO BE CONDUCTED BY THE CITY OF ORMOND BEACH, SHALL BE PERFORMED ON ALL CONSTRUCTION. THE DESIGN ENGINEER SHALL NOTIFY THE CITY OF ORMOND BEACH'S ENGINEERING DIVISION 676-3269 WHEN REQUESTING A FINAL INSPECTION.
- THREE COMPLETE SETS OF AS-BUILT DRAWINGS (5 FOR SUBDIVISIONS) ARE REQUIRED TO BE SUBMITTED TO THE CITY OF ORMOND BEACH PRIOR TO REQUESTING A FINAL INSPECTION.
- THE CITY HAS A CONTRACTOR FOR ROLL OFF SERVICE. NO OTHER CONTRACTOR SHALL BE PERMITTED TO PROVIDE THIS SERVICE. VERIFY COMPANY UNDER CONTRACT WITH THE CITY.
- CONSTRUCTION SITES THAT DISTURB ONE ACRE OR MORE WILL BE REQUIRED TO SEEK COVERAGE UNDER THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. IN ACCORDANCE WITH THIS REQUIREMENT, A STORMWATER POLLUTION PREVENTION PLAN (SWPP) MUST BE SUBMITTED TO THE CITY'S ENGINEERING DIVISION PRIOR TO CONSTRUCTION TO BE IN COMPLIANCE WITH THE PERMIT.
- CONTRACTOR WILL FOLLOW REQUIRED WASTE MANAGEMENT PRACTICES
- SEEDING OR SODDING SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
- ANY FIELD MODIFICATIONS OR DEVIATIONS TO THIS CONSTRUCTION PLAN REQUIRES WRITTEN APPROVAL BY BOTH THE ENGINEER OF RECORD AND THE CITY OF ORMOND BEACH ENGINEERING DIVISION.



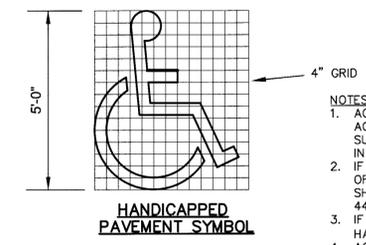
PIPE INSTALLATION DETAIL

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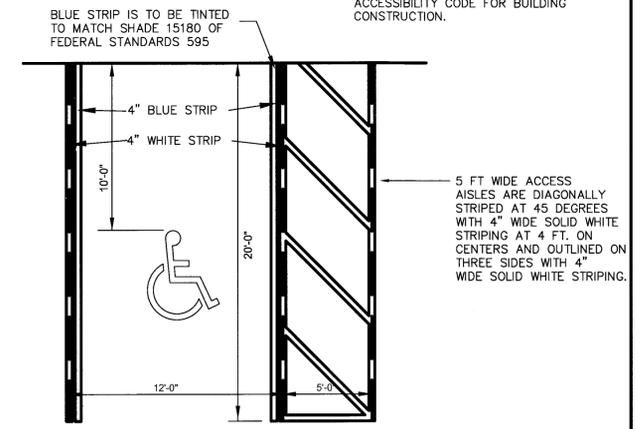
- WHERE SOIL CONDITIONS CAN NOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE APPROVED METHOD OF CONSTRUCTION.
- SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD.
- COMPACTION PERCENTAGES SHOWN REFER TO A.A.S.H.T.O. T-180. PROVIDE COPIES OF CERTIFIED TEST REPORTS TO CITY INSPECTOR.
- MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL.
- INSTALL METALLIC TAPE OVER FULL LENGTH OF PIPE.



- ALL PVC PIPE, OR OTHER CITY APPROVED NONMETALLIC PIPE INSTALLED WITHIN THE CITY'S WATER, SANITARY SEWER, OR RECLAIMED WATER SYSTEMS, SHALL BE INSTALLED WITH 10 THIN SOLID COPPER TRACING WIRE. IF PIPE IS INSTALLED BY DIRECTIONAL BORE, USE (2) 10 THIN SOLID COPPER TRACING WIRE.
- THE TRACING WIRE MUST BE INSTALLED DIRECTLY BELOW THE PIPE AND BROUGHT TO THE SURFACE AT 500' MINIMUM INTERVALS. WIRE SHALL EXTEND A MINIMUM OF 12" ABOVE GRADE AT EACH INTERVAL AND BE COILED AND PLACED IN A VALVE BOX, METER BOX, MANHOLE, CLEANOUT OR OTHER APPLICABLE STRUCTURE.
- TRACING WIRE BETWEEN INTERVALS SHALL BE INSTALLED SO AS TO PROVIDE CONTINUOUS CURRENT WHEN LINE LOCATION EQUIPMENT IS CONNECTED TO THE TRACING WIRE. WIRE BRANCHING FROM MAIN LINES SHALL BE LINKED BY A CITY APPROVED CONNECTOR SUCH AS KING # 2011 SAFETY SEALED CONNECTORS OR APPROVED EQUAL.
- COLOR CODING:
- POTABLE WATER SYSTEM: BLUE
 RECLAIMED WATER SYSTEM: LAVENDER
 SANITARY SEWER FORCE MAIN SYSTEM: GREEN
- POTABLE WATER AND RECLAIMED WATER SYSTEMS: WIRE SHALL BE INSTALLED BELOW ALL MAINS AND SERVICE LINES AND ATTACHED TO VALVES, HYDRANTS AND FITTINGS. WIRE INSTALLED WITH SERVICE LINES SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE CURB STOP.
 - FIRE SPRINKLER LINES: WIRE SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE RISER CONNECTION.
 - SANITARY SEWER FORCE MAINS: WIRE SHALL BE INSTALLED BELOW THE FORCE MAIN AND ATTACHED TO ALL VALVES AND FITTINGS AND BROUGHT TO THE SURFACE AND PLACED IN A METAL, CITY APPROVED, VALVE BOX.
 - DEAD END MAINS: WIRE SHALL BE PLACED IN A PROPERLY IDENTIFIED METAL VALVE BOX AT THE END OF THE RUN.
 - WIRE SHALL NOT BE FASTENED OR COILED TO VALVE OPERATING NUT.



USE OF PAVEMENT SYMBOL IN HANDICAPPED PARKING SPACES IS REQUIRED. WHEN USED THE SYMBOL SHALL BE 5 FT. HIGH AND WHITE IN COLOR. TO BE INSTALLED IN ACCORDANCE WITH FDOT STANDARD INDEX #17346



- NOTES:**
- ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2.0% IN ALL DIRECTIONS.
 - IF ACCESSIBLE AISLE CROSSES THE TOP OF THE HANDICAP SPACE, WHEEL STOP SHALL BE USED TO MAINTAIN MINIMUM 44 INCH CLEAR ACCESSIBLE ROUTE.
 - IF WHEEL STOP IS USED, PARKING SHALL HAVE 18' CLEAR SPACE.
 - ACCESSIBLE PARKING SIGN SHALL BE PLACED AS TO NOT ENCRACH INTO THE ACCESSIBLE AISLE MINIMUM 44 INCH CLEAR ACCESSIBLE ROUTE.
 - NUMBER OF ACCESSIBLE PARKING SPACES SHALL MEET REQUIREMENT OF THE LATEST ISSUE OF THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.

REVISIONS

DATE	DESCRIPTION
6/23/14	REVISED PER 6/14 SPRC COMMENTS
8/21/14	REV PER 7/8/14 SPRC COMMENTS FINAL REVISIONS AND SIGNOFF



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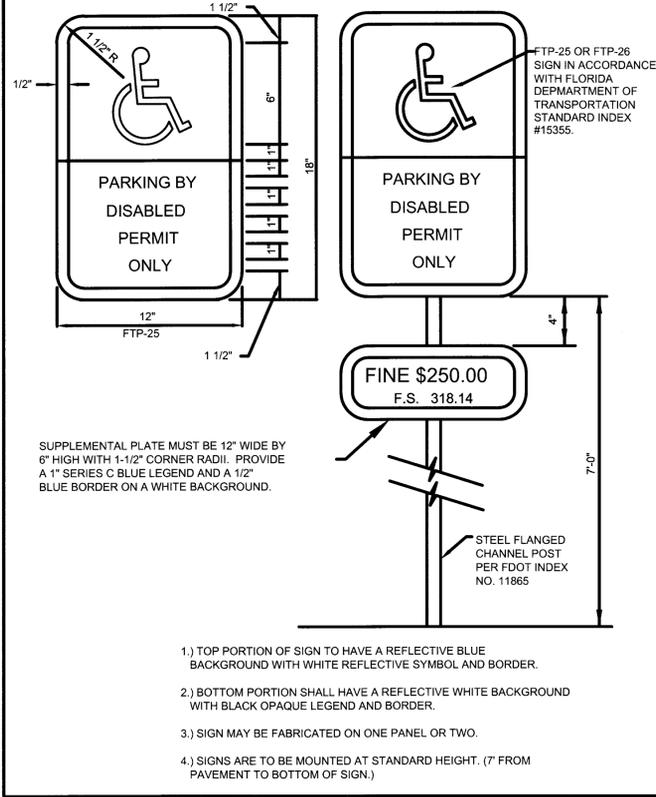
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- CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES**
- THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE EMPLOYED WHEN WARRANTED BY EXTREME CONDITIONS AND/OR THE FAILURE OF THE CONTRACTOR TO EMPLOY THE APPROPRIATE EROSION CONTROL BEST MANAGEMENT PRACTICES. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER".
- NO DISTURBANCE OF PROPOSED CONSERVATION EASEMENTS, NATURAL BUFFERS, OR WATER BODIES IS PERMITTED. THE CONTRACTOR SHALL LOCATE THESE AREAS ON SITE AND BARRICADE THEM TO AVOID ANY UNAUTHORIZED CLEARING, BARRICADES AND OTHER PROTECTIVE FENCING ARE TO BE LOCATED AT THE DRIP LINE OF EXISTING NATIVE TREES OR AT THE EDGE OF THE NATIVE UNDER-STORY HABITAT, WHICHEVER IS NEAREST TO THE CONSTRUCTION ACTIVITY.
 - SPECIMEN AND HISTORIC TREES, CONSERVATION EASEMENTS, NATURAL VEGETATION BUFFERS, AND SIMILAR AREAS MUST BE PROTECTED BY BARRICADES OR FENCING PRIOR TO CLEARING. BARRICADES ARE TO BE SET AT THE DRIP LINE OF THE TREES AND MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. BARBED WIRE IS NOT PERMITTED AS A PROTECTIVE BARRIER.
 - WHERE A CHANGE OF GRADE OCCURS AT THE DRIP LINE OF A SPECIMEN TREE, SILT FENCES WILL BE REQUIRED DURING CONSTRUCTION AND RETAINING WALLS MUST BE INSTALLED PRIOR TO FINAL ACCEPTANCE BY THE CITY.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PROTECTIVE VEGETATION BARRICADES AND EROSION CONTROL STRUCTURES AND MEASURES IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK, INCLUDING PRELIMINARY GRUBBING. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY CONSTRUCTION FENCES, SYNTHETIC JUTE BALES, WATTLES, &/OR HAVE BEST MANAGEMENT PRACTICES (BMP'S) AS REQUIRED, SILT FENCES, AND FLOATING TURBIDITY BARRIERS. FURTHER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE PERIODIC INSPECTION AND REMOVAL OF DEBRIS ABUTTING EROSION CONTROL DEVICES.
 - PRIOR TO THE INSTALLATION OF ANY FILL MATERIALS ON SUBJECT SITE, SILT FENCES SHALL BE INSTALLED (1) ALONG SUBJECT SITE BOUNDARY AND PROPERTY LINES, (2) AT THE EDGE OF CONSERVATION EASEMENTS AND WETLANDS, (3) ADJACENT TO NATURAL LANDSCAPE BUFFERS, (4) AROUND THE PERIMETER OF EXISTING STORM WATER TREATMENT FACILITIES, AND (5) AT ANY ADDITIONAL AREAS THAT THE CITY DEEMS NECESSARY TO BE PROTECTED FROM POTENTIAL EROSION IMPACTS DURING CONSTRUCTION. THESE CONDITIONS SHALL APPLY IN ALL INSTANCES WHERE FILL MATERIAL IS BEING INSTALLED WITHIN 25 FEET OF ANY OF THE AFOREMENTIONED LOCATIONS. WHILE THESE ITEMS REPRESENT THE MINIMUM REQUIREMENTS, THE CITY RESERVES THE RIGHT TO IMPOSE ADDITIONAL PROTECTIVE MEASURES, AS DETERMINED DURING ACTUAL SITE VISITS CONDUCTED AS PART OF THE STANDARD REVIEW OF THE SITE THROUGHOUT PROJECT CONSTRUCTION.
 - AT A MINIMUM, THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. SUFFICIENT GRASS COVERAGE IS TO BE ESTABLISHED WITHIN TWO WEEKS.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGH SCHEDULING, TO MINIMIZE THE DISTURBANCE OF SITE AREAS THAT HAVE BEEN BROUGHT TO THEIR PROPOSED FINAL GRADE. WITHIN SEVEN (7) DAYS OF BRINGING A SUBJECT AREA TO ITS FINAL GRADE OR INACTIVITY IN CONSTRUCTION, THE CONTRACTOR SHALL INSTALL SEED AND MULCH OR SOD, AS REQUIRED, ANY PROJECT THAT IS INACTIVE FOR A PERIOD OF 30 DAYS OR MORE SHALL BE STABILIZED TO THE SATISFACTION OF THE CITY OF ORMOND BEACH
 - ONCE AN AREA IS SEEDED OR SODDED, IT MUST BE MAINTAINED BY THE CONTRACTOR TO ALLOW THE GRASS TO BECOME ESTABLISHED. IF THE GRASS IS NOT ESTABLISHED WITHIN TWO WEEKS THE CITY MAY REQUIRE THE CONTRACTOR TO RE-SEED OR A NON-VEGETATIVE OPTION MAY BE EMPLOYED.
 - ABSOLUTELY NO BURYING OF CLEARED MATERIALS IS PERMITTED.

- CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES**
- THE REMOVAL OF ALL VEGETATION AND TOPSOIL ON THE FUTURE ROADWAY, PARKING AND BUILDING LOT AREAS IS REQUIRED TO BE COMPLETED PRIOR TO THE PLACEMENT OF FILL ON THOSE AREAS. THE TOPSOIL MAY BE TEMPORARILY STOCKPILED AND USED AS TOPSOIL OVER PROPOSED GREEN AREAS SUCH AS PLANT BEDS, SODDED AREAS, AND WHERE TREES ARE TO BE INSTALLED OR RELOCATED.
 - A SIGNED, DATED, AND SEALED LETTER FROM A SOILS ENGINEER OR THE ENGINEER OF RECORD CERTIFYING THAT THE AREAS TO BE FILLED HAVE BEEN STRIPPED OF ORGANIC MATERIALS, MUST BE SUBMITTED TO THE CITY PRIOR TO FILLING.
 - FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER AASHTO T-180).
 - DURING SUBDIVISION DEVELOPMENT WHEN FUTURE BUILDING LOTS ARE FILLED AS PART OF THE OVERALL SUBDIVISION IMPROVEMENTS, COMPACTION TEST REPORTS MUST BE PERFORMED ON THE BUILDING LOTS AT 300 FOOT INTERVALS. THESE TESTS ARE TO BE PERFORMED IN ONE-FOOT VERTICAL INCREMENTS. THE RESULTS OF THESE TESTS ARE TO BE SUBMITTED TO THE CITY UPON COMPLETION OF THE TESTS.
 - IF ANY MUCK MATERIAL IS DISCOVERED, IT SHALL BE REQUIRED TO BE REMOVED AND REPLACED WITH A SUITABLE MATERIAL THAT IS PROPERLY BACKFILLED, COMPACTED AND TESTED USING AASHTO T-180 MODIFIED PROCTOR METHOD.
 - STOCKPILING IS NOT GENERALLY PERMITTED BY THE CITY. WHEN ALLOWED, STOCKPILES SHALL NOT EXCEED SIX FEET IN HEIGHT MEASURED FROM THE ORIGINAL GRADE. AT A MINIMUM, STOCK PILLS THAT WILL REMAIN IN PLACE IN EXCESS OF TWENTY DAYS SHOULD BE SEEDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.
 - SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES. ADEQUATE WATERING METHODS SHOULD BE EMPLOYED TO ALLOW DAILY COVERAGE OF THE ENTIRE LIMITS OF ALL AREAS THAT DO NOT HAVE AN ESTABLISHED VEGETATIVE COVER. METHODS TO BE EMPLOYED INCLUDE, BUT ARE NOT LIMITED TO, WATER TRUCKS, PERMANENT IRRIGATION SYSTEMS, TEMPORARY SPRINKLER SYSTEMS OPERATED BY PUMPING UNITS CONNECTED TO WET RETENTION PONDS, WATER CANNONS, TEMPORARY IRRIGATION SYSTEMS MOUNTED ATOP STOCKPILE AREAS, AND OTHER METHODS AS DEEMED NECESSARY BY THE CITY.
 - ALL FILL MATERIALS LOCATED BENEATH STRUCTURES AND PAVEMENT SHALL CONSIST OF CLEAN GRANULAR SAND FREE FROM ORGANICS AND SIMILAR MATERIAL THAT COULD DECOMPOSE.
 - ALL FILL TO BE PLACED IN LANDSCAPED AREAS SHALL HAVE A Ph RANGE BETWEEN 5.5 AND 7.5, BE ORGANIC IN NATURE, FREE OF ROCKS AND DEBRIS, OR MATCH NATIVE EXISTING SOILS.
 - OWNER SHALL FILE A "NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES" WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AS REQUIRED BY FDEP. CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH ALL PROVISIONS OF THE GENERIC PERMIT INCLUDING BUT NOT LIMITED TO:
 - PROVIDE SUCH EROSION AND SEDIMENT CONTROL MEASURES AS MAY BE NECESSARY TO PREVENT DISCHARGE OF POLLUTANTS FROM THE SITE FROM THE START OF CONSTRUCTION UNTIL THE FINAL GROUND COVER HAS BEEN ESTABLISHED.
 - EMPLOY A DEP CERTIFIED INSPECTOR TO MAKE WEEKLY INSPECTIONS / REPORTS OF THE CONDITION OF EROSION AND SEDIMENT CONTROL MEASURES.
 - EMPLOY A DEP CERTIFIED INSPECTOR TO MAKE INSPECTIONS / REPORTS OF THE CONDITION OF EROSION AND SEDIMENT CONTROL MEASURES WITHIN 24 HOURS OF EVERY RAINFALL EVENT EXCEEDING ONE-HALF INCH.
 - MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION.
 - ADD EROSION AND SEDIMENT CONTROL MEASURES AS SITE CONDITIONS CHANGE.

- SANITARY SEWER CONSTRUCTION GENERAL NOTES**
- THE CITY'S PUBLIC UTILITY DEPARTMENT SHALL BE NOTIFIED PRIOR TO BEGINNING ANY SEWER CONSTRUCTION.
 - ALL SANITARY SEWER MAIN LINES SHALL BE A MINIMUM OF 8" IN DIAMETER. SERVICE LATERALS SHALL BE A MINIMUM OF 4" DIAMETER (RESIDENTIAL) OR A MINIMUM OF 6" DIAMETER (COMMERCIAL)
 - ALL SANITARY SEWER LINES SHALL BE PVC SDR 26. IN PLACES WHERE A MINIMUM COVER OF 4.0' CANNOT BE MAINTAINED, C-900 GREEN PVC DR-25, CLASS 100 OR CONCRETE ENCASEMENT SHALL BE USED.
 - MINIMUM ALLOWABLE SANITARY SEWER SLOPES ALLOWED ARE:
 - 8" PIPE 0.40%
 - 10" PIPE 0.30%
 - 12" PIPE 0.22%
 - SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY THE CITY.
 - THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING, DEWATER THE GROUND SUFFICIENTLY TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE AREA OF THE TRENCH.
 - ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION. SOFT OR SPONGY BEDDING FOR PIPES WILL NOT BE ACCEPTED. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY.
 - EXCAVATION AND BACKFILL: THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING OF EXCAVATION WORK OR USE OF TRENCH BOX IN ORDER TO PROVIDE FOR THE SAFETY OF WORKMEN, AS WELL AS REPRESENTATIVES OF THE CITY, THE DESIGN ENGINEER, AND THE DEVELOPER.
 - THE CONTRACTOR SHALL INSTALL A METALLIZED FOIL LOCATER TAPE, OR SIMILAR DEVICE AS MAY BE APPROVED BY THE CITY FOR THE FULL LENGTH OF ALL PVC WATER, RECLAIMED WATER AND SEWAGE FORCE MAINS. THIS PIPE LOCATER AID SHALL BE INSTALLED (15) INCHES BELOW FINISHED GRADE OR AS DIRECTED BY THE MANUFACTURER AND IS IN ADDITION TO THE LOCATER WIRE REQUIRED IN THE UTILITY PIPE LOCATION MATERIALS DETAIL (MISCELLANEOUS DETAILS SECTION - M10).
 - MANHOLES SHALL BE LOCATED AT INTERVALS NOT EXCEEDING 400 FEET.
 - MANHOLE RIMS SHALL MATCH FLUSH WITH THE FINISH GRADE ELEVATION IN PAVED AREAS AND A MINIMUM OF 0.2 FEET ABOVE GRADE IN UNPAVED AREAS.

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CITY OF ORMOND BEACH
 STANDARD CONSTRUCTION DETAILS
 SHOPPES ON GRANADA
 1290, 1298 AND 1310 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA

PROJECT No: 120810

DATE: SEPTEMBER 27, 2013

DESIGN BY: RWS

DRAWN BY: HMT

CHECKED BY: RWS

SCALE:

DRAWING NUMBER:

SANITARY SEWER CONSTRUCTION GENERAL NOTES

- THE CONTRACTOR SHALL CONSTRUCT SANITARY SEWER MANHOLES IN SUCH A WAY THAT SEWER LINES DO NOT INTERSECT SEALED JOINTS BETWEEN SECTIONS OF THE MANHOLE.
- RUBBER BOOTS AND STAINLESS STEEL BANDS SHALL BE UTILIZED IN THE CONNECTION OF THE SEWER MAIN TO THE MANHOLES (SEE RUBBER BOOT AND PRECAST JOINT CONNECTION DETAIL).
- NO DOGHOUSE TYPE MANHOLES ARE PERMITTED WITHIN THE CITY OF ORMOND BEACH.
- INDIVIDUAL SANITARY SERVICE CONNECTORS ON NEW CONSTRUCTION SHALL NOT BE CONNECTED DIRECTLY INTO MANHOLES, BUT TO SEWER MAIN LINES BY USE OF WYE CONNECTIONS.
- FOR SINGLE FAMILY HOMES, SINGLE FOUR INCH SEWER SERVICES SHALL BE CONSTRUCTED AT EACH LOT OR UNIT AND LOCATED ON THE DOWNSTREAM SIDE OF THE LOT CENTER LINE. THESE SERVICES SHALL BE EXTENDED 4 FEET ABOVE GROUND AT THE PROPERTY LINE WITH A PVC RISER AND PLUG BEING EASILY VISIBLE FROM THE ROAD. RUBBER SEAL FITTINGS TO BE USED ON ALL LINES, NO GLUED JOINTS.
- FOR MULTI-FAMILY AND COMMERCIAL SITES, SIX INCH MINIMUM SEWER SERVICES AND CLEANOUTS SHALL BE PROVIDED AS APPROVED BY THE CITY.
- SANITARY SEWER LATERALS LONGER THAN 70 FEET, MEASURED FROM THE SEWER MAIN TO THE RIGHT-OF-WAY LINE MAY BE APPROVED ON A CASE BY CASE BASIS. SUCH LATERALS SHALL BE D.I.P. EPOXY LINED OR C-900 PVC.
- SANITARY SEWER MANHOLES WHICH HAVE SEWER FORCE MAINS DISCHARGING DIRECTLY INTO THEM, OR ANY MANHOLE WITHIN 200 FEET OF A LIFT STATION, SHALL BE FIBERGLASS OR PVC LINED. RETRO-FITTING OF MANHOLES WITH LINERS SHALL BE REQUIRED WHEN NEW CONNECTIONS SUCH AS THIS ARE MADE. FIBERGLASS SHALL BE A MINIMUM 1/2" THICKNESS UNLESS APPROVED OTHERWISE BY THE CITY. LINING SHALL BE AGRU SURE-GRIP OR PRE-APPROVED EQUAL.
- SEE CHART ON DETAIL INDEX S-1C FOR FORCEMAIN AND REUSE PIPE SIZE AND MATERIALS.
- THE CITY OF ORMOND BEACH REQUIRES THE DEVELOPER TO TELEVIEW ANY AND ALL SANITARY SEWER MAIN LINES AND LATERALS PRIOR TO ANY FINAL ACCEPTANCE, AND RESERVES THE RIGHT TO REQUEST WATER AND AIR TESTING.
- ALL SEWER MAINS PRIOR TO ACCEPTANCE BY THE CITY SHALL BE TELEVIEWED BY A REPUTABLE COMPANY THAT ENGAGES IN THIS TYPE OF WORK. THE VIDEO SHALL BE NON-STOP WITH AUDIO DESCRIBING WHAT IS BEING REVIEWED. WRITTEN VIDEO LOGS DESCRIBING THE CONDITION OF THE LINES SHALL ACCOMPANY THE TAPE SUBMISSION TO THE CITY.
- CONTRACTORS SHALL BE REQUIRED TO TELEVIEW ALL SEWER LINES IN THE PRESENCE OF CITY PERSONNEL AND PROVIDE COPIES OF THE VIDEO TAPE TO THE PUBLIC UTILITY DEPT. ANY DEFECTS NOTED SHALL BE CORRECTED PRIOR TO ACCEPTANCE BY THE CITY.

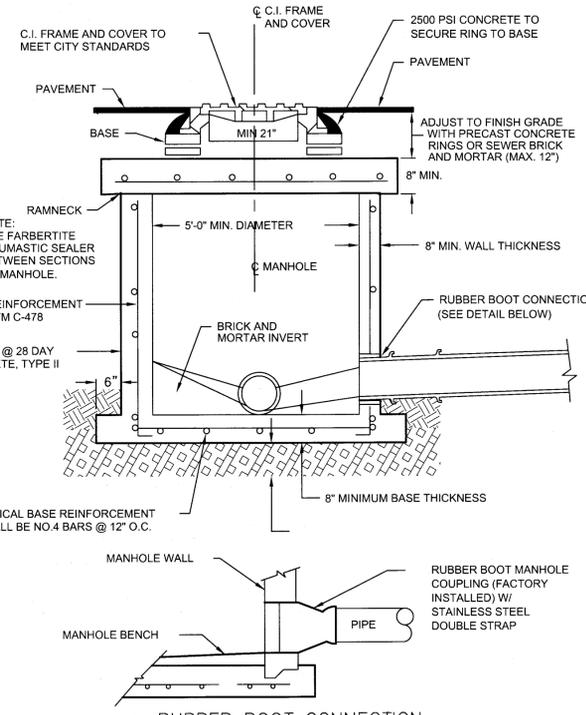
SANITARY SEWER CONSTRUCTION GENERAL NOTES

- ALL MANHOLES CONSTRUCTED IN SIDE YARDS, BACKYARDS, AND EASEMENTS OFF THE RIGHT-OF-WAY SHALL BE OUTFITTED WITH FIBERGLASS LINERS OR OTHER TYPES OF LINERS OR COATINGS APPROVED BY THE CITY. IN ADDITION THE CITY MAY REQUIRE LINERS OR COATINGS TO BE INSTALLED IN OTHER AREAS WHERE THE PUBLIC UTILITY DEPARTMENTS BELIEVE THE NEED IS JUSTIFIED.
- ALL SEWER LINES WHICH ARE CONSTRUCTED OFF PUBLIC RIGHTS-OF-WAY WITHIN SIDEYARDS, BACKYARDS, AND OTHER POORLY ACCESSIBLE AREAS SHALL BE CONSTRUCTED OF C-900 PVC, OR EPOXY LINED DUCTILE IRON PIPE. ABSOLUTELY NO USE OF PLASTIC STYRENE FITTINGS SHALL BE ALLOWED.
- SEWER LATERAL LOCATIONS SHALL BE MARKED ALONG THE OUTSIDE OF THE CURB WITH A SAWCUT V, OR BY A METAL TAB SET INTO THE PAVEMENT.
- EZ-WRAP PLASTIC, AS MANUFACTURED BY PRESS-SEAL GASKET CORPORATION OR APPROVED EQUAL, SHALL BE USED ON THE OUTSIDE OF ALL MANHOLE AND WETWELL JOINTS. APPLY ONE LAYER OF 9" WRAP CENTERED ON EACH JOINT. A CITY INSPECTOR SHALL PERSONALLY INSPECT ALL JOINT SEALS PRIOR TO BACKFILLING OPERATIONS.
- ALL PROPOSED SEWER MAINS, 4" OR GREATER, SHALL BE FLUSHED AND CLEANED WITH A POLY PIG IN ACCORDANCE WITH LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
- ALL SEWER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES. IN SPECIAL CASES WHERE IT IS IMPOSSIBLE OR INAPPROPRIATE TO PROVIDE ADEQUATE COVER, DUCTILE IRON CLASS 350 OR CONCRETE ENCASEMENT MAY BE USED AS APPROVED BY THE CITY.
- SEWER SYSTEMS SHALL BE PRESSURE TESTED AT 100 PSI STATIC PRESSURE FOR A PERIOD OF 2 HOURS PER AWWA STANDARDS. TESTS SHALL BE CONDUCTED BEFORE FINAL PAVING AND IN THE PRESENCE OF THE CITY'S INSPECTOR.

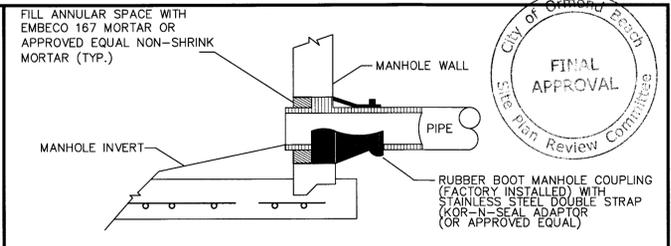
FORCE MAIN & REUSE MAIN STANDARDS

DIAMETER	MATERIAL	STANDARD
2" - 4"	PVC 1120 / SDR 21	ASTM D 2241
> 4" - 12"	PVC 1120 / CLASS 100	AWWA C 900
14" - 36" (16" - 24" DR - 18) (30" - 36" DR - 21)	PVC 1120	AWWA C 905
ALL SIZES	HDPE (DIPS) DR 13.5	ASTM F 714

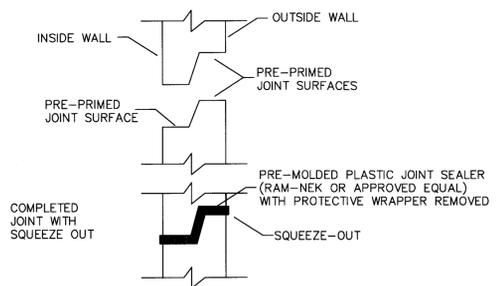
NOTE: PVC PIPE COLOR SHALL BE GREEN OR WHITE FOR SEWER FORCE MAIN, AND PURPLE FOR REUSE MAIN.



RUBBER BOOT CONNECTION DETAIL
USE FOR MANHOLES OF 5'-0" OR LESS IN DEPTH



MANHOLE PIPE CONNECTION



NOTE: ALL CONNECTIONS TO EXISTING SANITARY SEWER MANHOLES SHALL UTILIZE A CORING METHOD AND THE IN-FIELD INSTALLATION OF A RUBBER BOOT INTO THE MANHOLE AND THEN SECURED WITH A STAINLESS STEEL DOUBLE STRAP.

PRECAST JOINT CONNECTION



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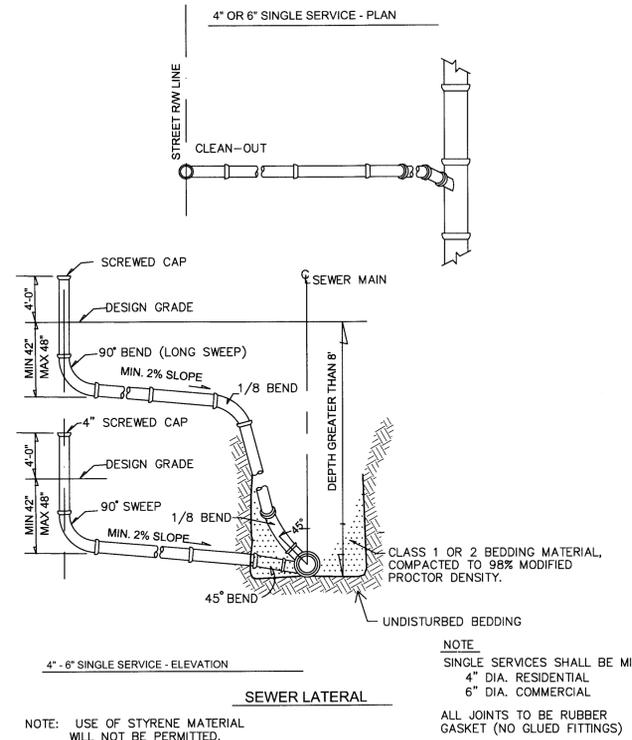
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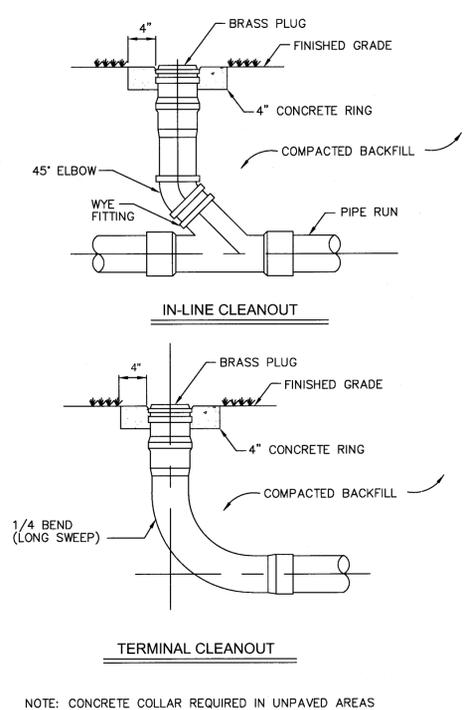


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RUBBER BOOT AND PRECAST
JOINT CONNECTION DETAIL
NTS.

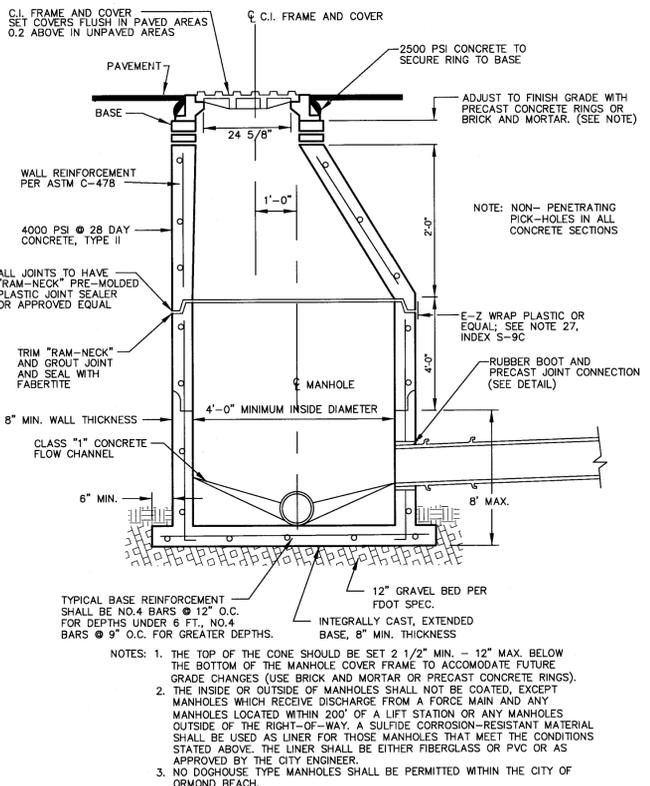
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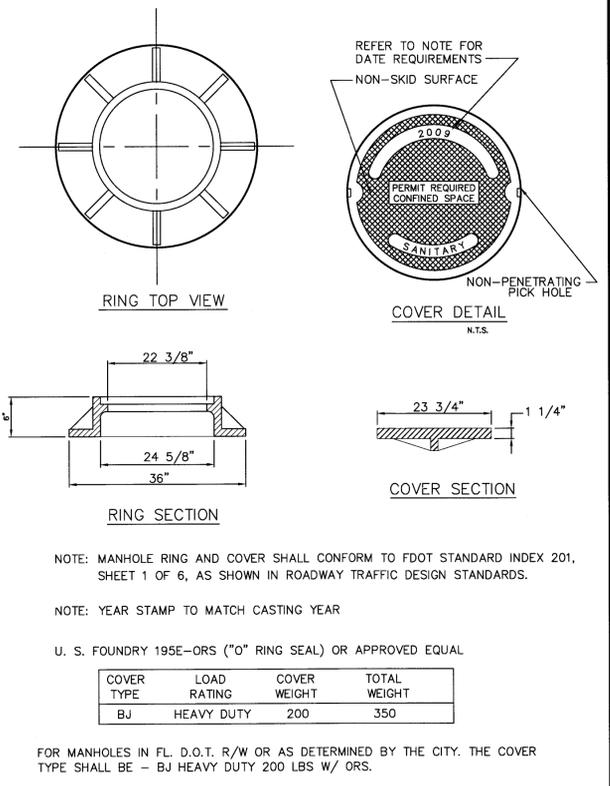
NOTE: USE OF STYRENE MATERIAL WILL NOT BE PERMITTED.



NOTE: CONCRETE COLLAR REQUIRED IN UNPAVED AREAS



- NOTES:
- THE TOP OF THE CONE SHOULD BE SET 2 1/2" MIN. - 12" MAX. BELOW THE BOTTOM OF THE MANHOLE COVER FRAME TO ACCOMMODATE FUTURE GRADE CHANGES (USE BRICK AND MORTAR OR PRECAST CONCRETE RINGS).
 - THE INSIDE OR OUTSIDE OF MANHOLES SHALL NOT BE COATED, EXCEPT MANHOLES WHICH RECEIVE DISCHARGE FROM A FORCE MAIN AND ANY MANHOLES LOCATED WITHIN 200' OF A LIFT STATION OR ANY MANHOLES OUTSIDE OF THE RIGHT-OF-WAY. A SULFIDE CORROSION-RESISTANT MATERIAL SHALL BE USED AS LINER FOR THOSE MANHOLES THAT MEET THE CONDITIONS STATED ABOVE. THE LINER SHALL BE EITHER FIBERGLASS OR PVC OR AS APPROVED BY THE CITY ENGINEER.
 - NO DOGHOUSE TYPE MANHOLES SHALL BE PERMITTED WITHIN THE CITY OF ORMOND BEACH.



FOR MANHOLES IN FL. D.O.T. R/W OR AS DETERMINED BY THE CITY. THE COVER TYPE SHALL BE - BJ HEAVY DUTY 200 LBS W/ ORS.



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SEWER LATERAL DETAIL
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REVISIONS

DATE	DESCRIPTION
8/21/14	REVISED PER 8/21/14 SPRC COMMENTS
8/21/14	REV PER 7/8/14 SPRC COMMENTS FINAL REVISIONS AND S.W.N.M.D.



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CITY OF ORMOND BEACH
STANDARD CONSTRUCTION DETAILS
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No: 120810
DATE: SEPTEMBER 27, 2013
DESIGN BY: RWS
DRAWN BY: HMT
CHECKED BY: RWS
SCALE:
DRAWING NUMBER:

GENERAL NOTES
WATER SYSTEM CONSTRUCTION

- THE CITY'S PUBLIC UTILITIES DEPARTMENT SHALL BE NOTIFIED PRIOR TO BEGINNING ANY WATER SYSTEM CONSTRUCTION.
- DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW WATER MAIN BEING LAID.
- ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
- TRENCHES SHALL BE BACKFILLED WITH CLEAN GRANULAR MATERIAL IN MAX. 1' LIFTS WITH A MINIMUM COMPACTION OF 98 PERCENT (AASHTO-T180) IN PAVED AREAS AND 90 PERCENT IN UNPAVED AREAS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 1 FOOT ABOVE THE PIPE AND AT 1 FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET, AND TO FURNISH COPIES OF TEST REPORTS PROMPTLY TO THE CITY ENGINEERING DEPARTMENT.
- METALLIZED PIPE LOCATION TAPE SHALL BE LOCATED 15 INCHES BELOW FINISHED GRADE OR AS SPECIFIED BY MANUFACTURER FOR ALL PVC LINES. MARKER TAPE SHALL BE USED ON ALL DUCTILE IRON PIPE.
- WATER SERVICES (SINGLE 1") SHALL BE POLYETHYLENE TUBING (BLUE IN COLOR); POLYBUTYLENE SHALL NOT BE ALLOWED.
- ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH 4" X 4" LUMBER (PRESSURE TREATED) EXTENDING 4 FEET ABOVE GRADE. WITH WATER SERVICES SECURED 24" ABOVE THE GROUND. WIRE TIES SHALL BE USED TO SECURE THE CURB STOPS TO SUPPORT POSTS.
- WATER VALVES SHALL BE PLACED AT ALL STREET INTERSECTIONS AND AT MAXIMUM SPACINGS OF 500 FEET.
- AT ALL WATER MAIN TEES AND CROSSES, VALVES SHALL BE INSTALLED ON ALL LEGS EXCEPT ONE.
- APPROVED WATER VALVE TYPES ARE THE FOLLOWING:
 - STANDARD GATE VALVES LESS THAN 48" DIAMETER RESILIENT SEAT GATE VALVES (AWWA C-509 OR C-515).
 - TAPPING VALVES AND MECHANICAL TAPPING SLEEVE SHALL BE STAINLESS STEEL. (AWWA C - 509)

GENERAL NOTES
WATER SYSTEM CONSTRUCTION

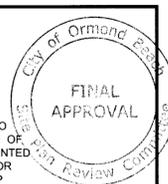
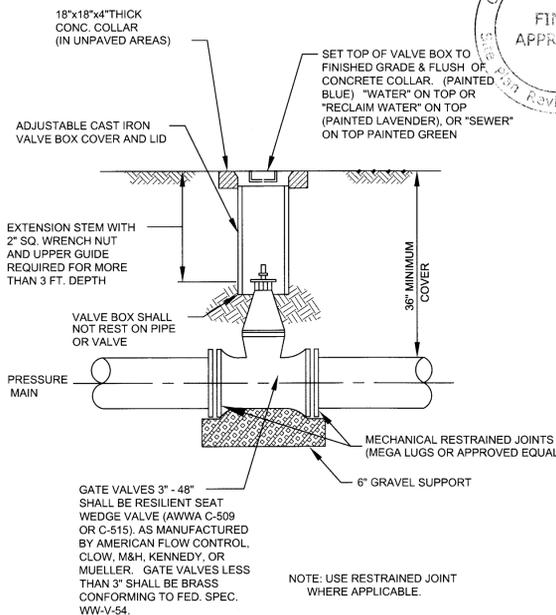
- ALL WATER VALVE BOXES SHALL BE ADJUSTED TO FINISH GRADE AND THE LIDS PAINTED BLUE TO MAKE THEM PLAINLY VISIBLE.
- WATER VALVES SHALL BE COMPLETELY OPENED BY THE CONTRACTOR UPON FINAL ACCEPTANCE OF NEW WATER SYSTEMS IN THE PRESENCE OF UTILITY DEPARTMENT PERSONNEL.
- HYDRANTS SHALL BE PLACED AT 500 FEET MAXIMUM SPACINGS IN RESIDENTIAL DEVELOPMENTS AND AT 300 FEET MAXIMUM SPACINGS IN BUSINESS AND INDUSTRIAL DEVELOPMENTS. ALL WATER MAIN TO WHICH HYDRANTS ARE CONNECTED SHALL BE 8 INCHES MINIMUM.
- ALL FIRE HYDRANTS SHALL BE CONSTRUCTED TO MAKE THEM EASILY ACCESSIBLE TO FIRE PERSONNEL IN CASE OF FIRE. THE MAIN NOZZLE CONNECTION SHOULD ALWAYS FACE THE STREET AND BE 18-24" ABOVE GRADE.
- AS STANDARD PRACTICE, WATER MAINS SHALL BE INSTALLED 4 FEET OFF THE BACK OF CURB OR AS APPROVED BY THE CITY.
- ALL WATER MAINS SHALL BE NSF-APPROVED FOR POTABLE WATER USE, AND SHALL HAVE A MINIMUM COVER OF 36 INCHES. IN SPECIAL CASES WHERE IT IS IMPOSSIBLE OR INAPPROPRIATE TO PROVIDE ADEQUATE COVER, DUCTILE IRON CLASS 350 OR CONCRETE ENCASEMENT MAY BE USED AS APPROVED BY THE CITY.
- ALL PROPOSED WATER MAINS SHALL BE FLUSHED, CLEANED WITH A POLY PIG, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
- WATER MAINS SHALL BE AWWA C-900 CL 150, OR D.I.P. CLASS 350 STANDARD CEMENT LINED.
- UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE HEALTH DEPARTMENT, AND THAT CERTIFIED AS-BUILT DRAWINGS (24"x36") ARE PROVIDED TO THE CITY PRIOR TO PAVING AND ANY USE OF THE SYSTEM. PROVIDE THREE (3) BLUELINE COPIES AND ONE (1) MYLAR OF AS-BUILT DRAWINGS AND A DIGITAL COPY.
- MEGALUG OR EQUIVALENT, RESTRAINED JOINT SYSTEM MAY BE USED ON ALL RESTRAINED FITTINGS, VALVES, ETC. MINIMUM DEPTH OF BURY ON PIPES NOT MEETING REQUIRED COVER REQUIREMENTS SHALL FOLLOW THE MOST RECENT DIPRA THRUST RESTRAINT DESIGN GUIDELINES.

GENERAL NOTES
WATER SYSTEM CONSTRUCTION

- WATER SYSTEMS SHALL BE PRESSURE TESTED AT 150 PSI STATIC PRESSURE FOR A PERIOD OF 2 HOURS PER AWWA STANDARDS. TESTS SHALL BE CONDUCTED BEFORE FINAL PAVING AND IN THE PRESENCE OF THE CITY'S INSPECTOR.
- ALL WATER SERVICES SHALL BE MARKED WITH A "A" SAW CUT INTO THE CURB OR BY METAL TABS SET INTO THE PAVEMENT.
- ALL WATER VALVES AND BLOW-OFFS SHALL BE MARKED WITH AN "X" SAWCUT INTO THE CURB OR BY METAL TABS SET INTO THE PAVEMENT. LOCATION OF METAL TABS IN INCHES FROM EDGE OF PAVEMENT SHALL EQUAL DISTANCE IN FEET FROM EDGE OF PAVEMENT TO VALVE.
- UNIFLANGE 1300 SERIES PIPE RESTRAINTS AS MANUFACTURED BY FORD OR APPROVED EQUAL MAY BE USED AS APPROPRIATE FOR RESTRAINING IN-LINE PRESSURE PIPE EACH SIDE OF PIPE JOINT. AS REQUIRED BY RESTRAINT TABLE.
- NO GALVANIZED PIPE, FITTINGS, ETC. ARE ACCEPTED.
- ALL WATER METERS SHALL BE INSTALLED AT THE RIGHT OF WAY LINE ONLY REGARDLESS OF SIZE.
- SUBMIT ASSEMBLY CERTIFICATION FOR ALL BACKFLOW PREVENTERS TO THE CITY'S ENGINEERING DEPARTMENT BEFORE FINAL INSPECTION.
- PIPING FOR RAW WATER SHALL BE OLIVE GREEN FOR ABOVE GROUND PIPING, BUIRED PVC PIPING SHALL BE BLUE WITH WHITE COLOR BACKGROUND LOCATOR TAPE PLACED DIRECTLY ON TOP OF THE PIPE AND AT 12" TO 18" ABOVE THE PIPE. THE TAPE SHALL CONTINUOUSLY READ "CAUTION - RAW WATER MAIN BURIED BELOW" OR WHITE WITH LOCATOR TAPE PLACED 12" TO 18" ABOVE THE TOP OF THE PIPE.
- SEE CHART BELOW FOR WATERMAIN SIZE AND MATERIALS.

MATERIALS		
DIAMETER	MATERIAL	STANDARD
2" - 4"	PVC 1120 / SDR 21	ASTM D 2241
4" - 12"	PVC 1120 / CLASS 150	AWWA C 900
> 4" - 12" DEDICATED FIRE LINE	PVC 1120 / CLASS 150	AWWA C 900
14" - 36"	PVC 1120	AWWA C 905
(14" - 24" DR - 18)		
(30" - 36" DR - 21)		
ALL SIZES	HOPE DIPS DR 11	ASTM F 714

NOTE: PVC PIPE COLOR SHALL BE BLUE FOR POTABLE WATER MAINS, BLUE WITH WHITE LOCATOR TAPE OR WHITE WHITE LOCATOR TAPE FOR RAW WATER MAIN.



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STANDARD CONSTRUCTION DETAIL
GATE VALVE AND VALVE BOX
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VALVE SCHEDULE
FORD OR EQUIVALENT

WATER SERVICES

VALVES AT MAIN

1"	F1000-4
1 1/2"	B81-666 (REQ. C84-66 PACK JOINT COUPLING)
2"	B81-777 (REQ. C84-77 PACK JOINT COUPLING)

VALVES AT METER

1"	B94-324W
1 1/2"-2"	BF43-777W

REUSE SERVICES

1"	BRW41-444W
2"	BRW41-777W

NOTES:

- PE TUBING SHALL BE 200 PSI, NSF APPROVED, SDR 9, MEETING ASTM D1248. TUBING SHALL BE ENDOT ENDOPIRE OR APPROVED EQUAL.
- REDUCED PRESSURE BACKFLOW PREVENTERS ARE REQUIRED FOR ALL COMMERCIAL SERVICES. TO BE INSTALLED BY A CERTIFIED TECHNICIAN AT OWNERS EXPENSE.
- ALL SERVICE TAPS SHALL BE NO CLOSER THAN 2'-0" STAGGERED INTERVAL OR WITHIN 2'-0" OF BELL OR SPIGOT ENDS.
- METERS 3" AND LARGER SHALL BE PLACED IN A VAULT TO BE CONSTRUCTED BY DEVELOPER IN ACCORDANCE WITH ARTICLE 4.0484 LDC.
- IN AREAS TO BE PAVED PROVIDE A 2" MIN. PVC SCHEDULE 40 SLEEVE FOR PE-TUBING. SLEEVE SHALL EXTEND A MIN. OF 2' BEHIND BACK OF CURB AT EACH SIDE OF ROAD.
- ALL IRRIGATION SERVICES (WATER) MUST HAVE AN APPROVED BACKFLOW PREVENTION DEVICE INSTALLED ON CUSTOMERS SIDE OF WATER METER. THE CUSTOMER IS RESPONSIBLE FOR INSTALLATION AND CERTIFICATION COST. A COPY OF THE CERTIFICATION MUST BE SENT TO THE CITY OF ORMOND BEACH ENGINEERING DEPARTMENT, PRIOR TO FINAL INSPECTION.
- WATER METERS INSTALLED IN AREAS SERVED BY RECLAIMED WATER OR AN ALTERNATE IRRIGATION SUPPLY SHALL BE EQUIP WITH DUAL CHECK BACKFLOW PREVENTERS.
- WATER METERS SHALL BE RADIO READ.

SCHEDULE OF LENGTHS OF RESTRAINED PVC PIPE (FT.)

FITTING	1/4 BEND	1/8 BEND	1/16 BEND	1/32 BEND	TEE OR DEAD END
4"	20	18	18	18	45
6"	28	18	18	18	63
8"	36	18	18	18	82
10"	44	28	18	18	98
12"	51	21	18	18	116
14"	57	24	18	18	132
16"	63	26	18	18	148
18"	69	29	18	18	163
20"	75	31	18	18	179
24"	87	36	18	18	208
30"	102	42	20	18	248

TABLE APPLIES TO PVC PIPE FOR THE FOLLOWING CONDITIONS:
TEST PRESSURE: 150 PSIG
SOIL TYPE: SP
COVER DEPTH: 2.5 FEET
SAFETY FACTOR: 1.5
TRENCH TYPE: 3

LENGTHS BETWEEN HEAVY LINES INDICATE ONE FULL LENGTH (18' MIN.) OF PIPE TO BE RESTRAINED.
TABLE SHOWS MINIMUM LENGTH OF PIPE EACH WAY FROM FITTING FOR WHICH RESTRAINT IS REQUIRED.

SCHEDULE OF LENGTHS OF RESTRAINED DIP (FT.)

FITTING	1/4 BEND	1/8 BEND	1/16 BEND	1/32 BEND	TEE OR DEAD END
4"	21 (26)	18 (18)	18 (18)	18 (18)	37 (55)
6"	30 (36)	18 (18)	18 (18)	18 (18)	52 (78)
8"	38 (45)	18 (18)	18 (18)	18 (18)	67 (100)
10"	45 (54)	18 (22)	18 (18)	18 (18)	81 (122)
12"	52 (63)	22 (26)	18 (18)	18 (18)	94 (141)
14"	60 (72)	25 (30)	18 (18)	18 (18)	107 (160)
16"	66 (80)	27 (33)	18 (18)	18 (18)	120 (180)
18"	74 (87)	31 (36)	18 (18)	18 (18)	132 (198)
20"	80 (94)	33 (39)	18 (18)	18 (18)	144 (216)
24"	92 (108)	38 (45)	18 (22)	18 (18)	167 (250)
30"	106 (126)	44 (53)	21 (25)	18 (18)	199 (298)
36"	122 (144)	51 (60)	24 (28)	18 (18)	231 (345)
42"	138 (162)	58 (69)	27 (32)	18 (18)	264 (396)
48"	156 (180)	66 (79)	30 (36)	18 (18)	300 (450)

TABLE APPLIES TO D.I.P. FOR THE FOLLOWING CONDITIONS:
TEST PRESSURE: 150 PSIG
SOIL TYPE: SP
COVER DEPTH: 2.5 FEET
SAFETY FACTOR: 1.5
TRENCH TYPE: 2

LENGTHS BETWEEN HEAVY LINES INDICATE ONE FULL LENGTH (18' MIN.) OF PIPE TO BE RESTRAINED.
TABLE SHOWS MINIMUM LENGTH OF PIPE EACH WAY FROM FITTING FOR WHICH RESTRAINT IS REQUIRED.
VALUES IN PARENTHESIS ARE FOR PIPE ENCASED IN POLYETHYLENE.

SCHEDULE OF LENGTHS OF RESTRAINED PVC PIPE (FT.)

NOTES:

- ALL JOINTS SHALL BE RESTRAINED
- HYDRANTS TO BE PAINTED SAFETY YELLOW (PUBLIC) OR RED (PRIVATE) BONNET COLOR.
- HYDRANT BONNET AND CAP TO BE PAINTED ACCORDING TO THE FOLLOWING SCHEME:
CLASS A - 1500 GPM AND GREATER - LIGHT BLUE
CLASS A - 1000 GPM TO 1499 GPM - GREEN
CLASS B - 500 GPM TO 999 GPM - ORANGE
CLASS C - LESS THAN 500 GPM - RED
- HYDRANTS INSTALLED ON THE PENINSULA SHALL BE PAINTED WITH A CATALYZED TWO PART PRIMER (DUPRILATE #235) OR EPOXY BATH SOLUTION, ELECTRICALLY CHARGED AND A CATALYZED URETHANE TOP COAT (ACRODOL 318) OR TWO COMPONENT POLYURETHANE PAINT.
- HOSE CONNECTIONS TO BE AMERICAN STANDARD THREADS.
- THE HYDRANT SHOE WILL BE COATED INSIDE WITH FUSION BONDED EPOXY. 6 MIL. MINIMUM
- ADJUSTMENTS OR REPAIRS TO THE HYDRANT AFTER INSTALLATION SHALL BE DONE BY AN UNDERGROUND UTILITY CONTRACTOR OR THE CITY AND ALL COST SHALL BE CHARGED TO THE DEVELOPER. PAYMENT SHALL BE MADE PRIOR TO CERTIFICATE OF OCCUPANCY OF PROPERTY.
- RESTRAINED JOINTS REQUIRED. THRUST BLOCKS NOT PERMITTED.
- BOLTS SHALL BE 316 STAINLESS STEEL
- INSTALL BLUE REFLECTIVE MARKER IN SUCH A MANNER THAT THE REFLECTIVE FACE OF THE MARKER IS PERPENDICULAR TO A LINE PARALLEL TO THE ROADWAY CENTERLINE. THE BLUE REFLECTIVE MARKERS SHALL BE PLACED IN THE CENTER OF THE TRAVEL LANE, DIRECTLY ACROSS FROM AND ADJACENT TO EACH FIRE HYDRANT.

ACCEPTABLE MANUFACTURERS: HERSEY MODEL FRP II, WILKINS MODEL 975XL, WATTS MODEL 009 QTS

MATERIALS

ITEM	QUANT.	DESCRIPTION
1	1	3/4", 1", 1-1/2" OR 2" BACKFLOW PREVENTER ASSEMBLY
2	3	3/4", 1", 1-1/2" OR 2" NOM. NIPPLES - BRASS
3	2	3/4", 1", 1-1/2" OR 2" x 90° ELBOWS - PVC, BRASS, OR COPPER
4	2	3/4", 1", 1-1/2" OR 2" x VARIES RISER - PVC, BRASS, OR COPPER
5	2	3/4", 1", 1-1/2" OR 2" BALL VALVE
6	*	PEA GRAVEL
7	*	PLASTIC LINER

NOTE: -FIELD ADJUST AND CUT ITEM 4 TO THE PROPER LENGTH.
-NO GALVANIZED FITTINGS OR PIPE ALLOWED.
-A COPY OF THE ASSEMBLY CERTIFICATION SHALL BE SUBMITTED TO THE CITY'S ENGINEERING DEPARTMENT BEFORE FINAL INSPECTION.
-ASSEMBLY SHOULD HAVE ADEQUATE LANDSCAPING AROUND IT TO OBSOURE VIEW.
-ASSEMBLY SHALL BE PAINTED FOREST GREEN

STANDARD CONSTRUCTION DETAIL
WATER LATERAL SERVICE
5/8", 3/4", 1", 1-1/2", 2" METERS
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STANDARD CONSTRUCTION DETAIL
REDUCED PRESSURE BACKFLOW PREVENTER
(POTABLE WATER & IRRIGATION)
3/4", 1", 1 1/2", OR 2"
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CITY OF ORMOND BEACH
STANDARD CONSTRUCTION DETAILS
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No: 120810
DATE: SEPTEMBER 27, 2013
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18

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	FINAL REVISIONS AND SJRWMD

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**CITY OF ORMOND BEACH
 STANDARD CONSTRUCTION DETAILS
 SHOPPES ON GRANADA**
 1290, 1298 AND 1310 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA

PROJECT No: 120810
 DATE: SEPTEMBER 27, 2013
 DESIGN BY: RWS
 DRAWN BY: HMT
 CHECKED BY: RWS
 SCALE:
 DRAWING NUMBER:

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ACCEPTABLE MANUFACTURERS: HERSEY MODEL 6CM, WILKINS MODEL 350ADA, WATTS MODEL 757 DCDA OS&Y, AME'S COLT 300 (OS&Y), WATTS MODEL 709 DCDA

MATERIALS		
ITEM	QUANT.	DESCRIPTION
1	1	4", 6", 8", 10" VALVE, DOUBLE CHECK BACKFLOW PREVENTER
2	2	4", 6", 8", 10" VALVE, GATE, C.I., F-F
3	1	4", 6", 8", 10" NIPPLE, PVC, BRASS, OR D.I. (12" LONG) (OPT.)
4	2	4", 6", 8", 10" ELBOW, PVC, BRASS, OR D.I., -90°
5	2	4", 6", 8", 10" FLANGE, STEEL PIPE, SCREW-TYPE
6	2	4", 6", 8", 10" PIPE, PVC, BRASS, OR D.I. (42" LONG)
7	1	4", 6", 8", 10" NIPPLE, PVC, BRASS, OR D.I. (6" LONG)
8	*	PEA GRAVEL
9	*	PLASTIC LINER
10	1	PIPE SUPPORT / CONCRETE FOUNDATION

NOTE: -FIELD ADJUST AND CUT ITEM 6 TO THE PROPER LENGTH.
 -NO GALVANIZED FITTINGS OR PIPE ALLOWED.
 -A COPY OF THE ASSEMBLY CERTIFICATION SHALL BE SUBMITTED TO THE CITY'S ENGINEERING DEPARTMENT BEFORE FINAL INSPECTION.
 -ASSEMBLY SHOULD HAVE ADEQUATE LANDSCAPING AROUND IT TO OBSCURE VIEW.
 -ASSEMBLY SHALL BE PAINTED FOREST GREEN.

1. WRENCH AND DISCHARGE SPOUT AS SUPPLIED BY MANUFACTURER SHALL BE TURNED OVER TO THE CITY DURING FINAL INSPECTION.

- CONSTRUCTION STANDARDS FOR ALL DRAINAGE SYSTEM COMPONENTS SHALL CONFORM TO THE LATEST EDITION OF THE "FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND AS SPECIFIED HEREIN.
- ALL STORMWATER PIPES AND STRUCTURES SHALL BE INSTALLED ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
- DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW THE COMPONENT BEING INSTALLED.
- ALL PIPES AND STRUCTURES SHALL BE PLACED TRUE TO LINES AND GRADES AS DEPICTED ON THE APPROVED PLANS.
- ALL PIPE JOINTS SHALL BE PROPERLY HONED AND FILTER FABRIC LINED USING A METHOD TO HOLD THE FABRIC IN PLACE DURING BACKFILL.
- BACKFILL AND COMPACT TO THE SPRING-LINE (CENTER OF PIPE) ELEVATION AND REQUEST CITY INSPECTION AND APPROVAL BEFORE CONTINUING.
- ALL WORK COVERED WITHOUT CITY INSPECTION WILL BE REQUIRED TO BE EXCAVATED AND INSPECTED AT THE CONTRACTOR'S EXPENSE.
- TRENCHES SHALL BE BACKFILLED AND COMPACTED WITH CLEAN GRANULAR MATERIAL IN MAX 6" LIFTS WITH A MINIMUM COMPACTION OF 98 PERCENT (AASHTO-T180) IN PAVED AREAS AND 95 PERCENT (AASHTO-T180) IN UNPAVED AREAS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS AT POINTS 1' ABOVE THE PIPE AND AT A MAX. 1' VERTICAL INTERVALS TO FINISH GRADE, AT A MAXIMUM SPACING OF 100 FEET, AND TO FURNISH COPIES OF TEST REPORTS PROMPTLY TO THE CITY'S INSPECTOR.
- ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE (RCP), HIGH DENSITY POLYETHYLENE (HDPE), POLYVINYL CHLORIDE (PVC) OR ALUMINUM CORRUGATED METAL PIPE (ACMP), AS SHOWN ON THE PLANS.
- STORM DRAINAGE PIPES WITHIN PUBLIC RIGHT-OF-WAY SHALL BE A MINIMUM OF FIFTEEN (15) INCH RCP DIAMETER OR EQUIVALENT.
- STORM INLETS, MANHOLES, AND CATCH BASINS SHALL BE EITHER POURED IN PLACE OR PRECAST REINFORCED CONCRETE. STRUCTURES SHALL BE REQUIRED AT EACH CHANGE OF PIPE SIZE OR CHANGE IN PIPE DIRECTION.

- STORM INLETS SHALL BE SPACED IN SUCH A MANNER AS TO ACCEPT ONE HUNDRED (100) PERCENT OF THE DESIGN STORM RUNOFF.
 - WET DETENTION PONDS SHALL BE EIGHT (8) FEET MINIMUM TO TWELVE (12) FEET MAXIMUM DEPTH BELOW THE DESIGN LOW OR NORMAL WATER STAGE.
 - MAXIMUM DISTANCES BETWEEN INLETS AND/OR JUNCTION BOXES:
- | PIPES SIZE (INCHES) | LENGTH OF RUN (FEET) |
|---------------------|----------------------|
| 15 | 150 |
| 18 | 300 |
| 24 OR GREATER | 400 |
- ALL SWALES, DITCHES, AND DRY RETENTION POND SIDE SLOPES SHALL BE NO STEEPER THAN 4:1 (H:V) AND SHALL BE SODDED.
 - ALL RETENTION POND BACKSLOPES SHALL BE NO STEEPER THAN 3:1 (H:V) AND SHALL BE SODDED.
 - NORMAL ROADSIDE SWALES SHALL BE CONSTRUCTED TO A MAXIMUM DEPTH OF 18" BELOW THE OUTSIDE EDGE OF PAVEMENT OR CONCRETE CURB.
 - CONCRETE EROSION CONTROL MUST BE PROVIDED WHERE SWALES OR CULVERTS INTERCEPT DRAINAGE DITCHES.
 - A MINIMUM ONE FOOT (1') FREEBOARD ABOVE THE DESIGN HIGH WATER ELEVATION IS REQUIRED AT ALL POINTS AROUND WET RETENTION PONDS.
 - A MINIMUM SIX INCH (6") FREEBOARD ABOVE THE DESIGN HIGH WATER ELEVATION IS REQUIRED AT ALL POINTS AROUND DRY RETENTION PONDS.
 - POND INFLOW SHALL GENERALLY BE CONSTRUCTED WITH REINFORCED CONCRETE AND SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.
 - OUTLET STRUCTURES ARE REQUIRED ON ALL PONDS. ALL OUTLET STRUCTURES SHALL BE PERMANENT CONCRETE OVERFLOW WEIRS OR CONCRETE OUTLET CONTROL STRUCTURES. NO SODDED WEIRS OR OTHER NON-PERMANENT OVERFLOW STRUCTURES SHALL BE ALLOWED.
 - SOIL EROSION CONTROL MEASURES SATISFACTORY TO THE CITY, SHALL BE EMPLOYED DURING CONSTRUCTION AND UPON COMPLETION OF THE POND.
 - THE CITY MAY REQUEST THAT THE DEVELOPER SUBMIT A REPORT BY A QUALIFIED HYDROLOGIST ON THE IMPACT THE POND WILL HAVE ON NEIGHBORING WATER TABLE ELEVATIONS BOTH DURING CONSTRUCTION AND AFTER POND COMPLETION. THE CITY MAY REQUIRE GROUNDWATER MONITORING DURING THE POND EXCAVATION.

STANDARD CONSTRUCTION DETAIL
 DOUBLE CHECK DETECTOR BACKFLOW PREVENTER
 (DEDICATED FIRE LINE) 4", 6", 8", 10"
 NTS

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W-6E
 MARCH 2014

STANDARD CONSTRUCTION DETAIL
 BLOW-OFF ASSEMBLY
 NTS.

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STANDARD CONSTRUCTION DETAIL
 STORM DRAINAGE
 CONSTRUCTION NOTES

INDEX
ST-1A
 MARCH 2014

STANDARD CONSTRUCTION DETAIL
 STORM DRAINAGE
 CONSTRUCTION NOTES

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ST-1B
 MARCH 2014

WATER MAIN

#5 REBAR DRIVEN 1' INTO GROUND 8' O.C. (ATTACH MESH TO REBAR WITH NYLON ZIP TIES OR TWISTED WIRE)

- ADEQUATE MAINTENANCE ACCESS AS APPROVED BY THE CITY SHALL BE PROVIDED AROUND THE ENTIRE PERIMETER OF ALL PONDS AND ASSOCIATED OUTFALLS DISCHARGING INTO AND OUT OF PONDS.
- IN GENERAL, ALL RETENTION/DETENTION PONDS MUST BE CONSTRUCTED PRIOR TO ANY ROAD, PARKING LOT, OR BUILDING CONSTRUCTION COMMENCING OR AS CURRENT PERMIT CONDITIONS DICTATE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ANY DEWATERING PERMITS THAT MAY BE REQUIRED.
- CULVERTS CROSSING RIGHT-OF-WAYS SHALL EXTEND FROM RIGHT-OF-WAY LINE TO RIGHT-OF-WAY LINE UNDER THE ROADWAY.
- ALL STORMWATER DISCHARGE FROM RETENTION/DETENTION PONDS ARE REQUIRED TO BE CHANNLED INTO DEFINED DRAINAGE PATHS TO EXISTING WATER BODIES, WETLANDS, DITCHES, ETC.
- THE CITY OF ORMOND BEACH REQUIRES THE DEVELOPER TO TELEVISION ANY AND ALL STORM SEWER PIPE SYSTEMS IN THE PRESENCE OF THE CITY INSPECTOR BY A REPUTABLE COMPANY THAT ENGAGES IN THIS TYPE OF WORK. THE VIDEO SHALL BE IN HIGH QUALITY STANDARD RESOLUTION USING A CAMERA WITH SUITABLE LIGHTING TO ALLOW A CLEAR FOCUSED PICTURE OF THE ENTIRE INSIDE PIPE CIRCUMFERENCE. THE VIDEO SHALL BE NON-STOP WITH AUDIO DESCRIBING WHAT IS BEING VIEWED. COPIES OF VIDEO SHALL BE SUBMITTED IN DVD FORMAT ACCOMPANIED BY WRITTEN LOGS DESCRIBING THE CONDITION OF THE LINES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO REQUESTING FINAL INSPECTIONS. ANY DEFECTS NOTED SHALL BE CORRECTED PRIOR TO ACCEPTANCE BY THE CITY OR ISSUANCE OF CERTIFICATE OF OCCUPANCY.

NOTE: YEAR STAMP TO MATCH CASTING YEAR

COVER TYPE	LOAD RATING	COVER WEIGHT	TOTAL WEIGHT
E	HEAVY DUTY	130	325

FOR MANHOLES IN FL. D.O.T. R/W OR AS DETERMINED BY THE CITY. THE COVER TYPE SHALL BE - BJ HEAVY DUTY 200 LBS W/ ORS.

STANDARD CONSTRUCTION DETAIL
 MANIFOLD SYSTEM FOR
 COMMERCIAL MULTI-METERS
 NTS

INDEX
W-13
 MARCH 2014

STANDARD CONSTRUCTION DETAIL
 TREE BARRICADE
 NTS.

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LS-4
 MARCH 2014

STANDARD CONSTRUCTION DETAIL
 STORM DRAINAGE
 CONSTRUCTION NOTES

INDEX
ST-1C
 MARCH 2014

STANDARD CONSTRUCTION DETAIL
 MANHOLE RING AND COVER DETAIL
 NTS.

INDEX
ST-6
 MARCH 2014

XYLEM, INC (H-20 LP)

w/ BATTERY BACK-UP FOR AUDIO AND VISUAL ALARMS

SCOPE: Supply one complete H-20 LP Pre-Fab Lift Station, per design.
Pumps shall be capable of pumping domestic & commercial sewage.
Complete system shall be supplied by:
XYLEM, INC

NO SUBSTITUTIONS - NO ALTERNATES

The H-20 Load Rated Fiberglass Wetwell Must Be Manufactured By L.F. Manufacturing, Giddings, Texas, Which Includes A Written 20 Yr. Warranty
Certification of the wetwell H-20 load rating must be supplied with submittals.
H-20 certification must be signed and sealed by an engineer registered in the State of Florida.

After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible.

PUMPS: The submersible pumps shall be manufactured by Flygt Corporation.
"The pumps shall be installed in the H-20 LP FRP wetwell utilizing a dual slide rail system. The pumps shall be capable of handling solids, fibrous materials, heavy sludge, and other matter typically found in wastewater.
Major pump components shall be grey cast iron, ASTM A-48, Class 35B. The pump motor shall be NEMA B design and housed in an air-filled watertight chamber. The stator windings shall be insulated with moisture resistant Class H insulation by use of the trickle impregnation method. The motor shall be heat-shrink fit into the stator housing. The use of bolts, pins, or other fastening devices is not acceptable. The cable entry seal shall consist of a cylindrical elastomer grommet flanked by washers. Epoxies, silicones, or other sealing systems are not acceptable. Thermal switches set to open at 125 degrees C shall be embedded in the stator end coils to monitor the temperature of each phase winding. The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

The pump shall be provided with a dual mechanical seal. Both upper and lower seal assemblies shall consist of a stationary tungsten-carbide ring and a rotating tungsten-carbide ring. Other seal materials are not considered acceptable."

DUPEX CONTROL PANEL:

Control panel shall be assembled and built by a TUV (UL508A CERTIFIED) manufacturing facility.

The Enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep Fiberglass with padlockable draw latches.

The enclosure shall have external mounting feet to allow for wall mounting. All hardware shall be stainless steel.

The following components shall be mounted through the enclosure:

- 1- ea. Red Alarm Beacon (Light)
- 1- ea. Alarm Horn
- 1- ea. Generator Receptacle w/ weatherproof cover
- 1- ea. Alarm Silence Pushbutton

The backpanel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to backpanel:

- 2- ea. Motor Contactors
- 1- ea. Volt Monitor (Single Phase) Phase Monitor (Three Phase)
- 1- ea. Control Transformer (480 Volt Only)
- 1- ea. Silence Relay
- 1- ea. Duplex Alternator
- 1- ea. Model BOAC5AH Battery Back-Up w/ Smart Charger (Per DEP)
- 20- ea. Terminals For Field Connections
- 6- ea. Terminals For Motor Connections (Single Phase Only)
- 3- ea. Grounding Lugs

The innerdoor shall be fabricated from .080, 5052-H32 marine alloy aluminum. The innerdoor shall have a continuous aluminum piano hinge.

The following components shall be mounted through the innerdoor:

- 1- ea. Main Circuit Breaker
- 1- ea. Emergency Circuit Breaker
- 1- ea. Mechanical Interlock For Emergency And Main Breakers
- 2- ea. Short Circuit Protectors
- 1- ea. Control Circuit Breaker
- 1- ea. Hand-Off-Auto Selector Switches
- 2- ea. Pump Run Pilot Lights
- 1- ea. Power On Pilot Light
- 2- ea. Elapse Time Meters (Non-Resetable)
- 1- ea. GFI Duplex Convenience Outlet

THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH MR. SCOTT RACHAL WITH XYLEM, INC AT (407) 880-2900 FOR THE PUMP STATION EQUIPMENT AND INSTALLATION GUIDANCE FOR STARTUP.

COMPONENT SPECIFICATIONS:
All circuit breakers shall be molded thermal magnetic. The mechanical interlock shall prevent the normal and emergency main breakers being energized at the same time.

An emergency generator receptacle shall be supplied in accordance with DEP standards. The generator receptacle shall be adequately sized to meet the equipment operating conditions.

NEUTRAL TO BE SUPPLIED FOR BOTH 230V 3PHASE OR 230V SINGLE PHASE POWER

All motor short circuit protection devices must provide for undervoltage release and class 10 overload protection on all three phases. Visible trip indication, test, and reset capability must be provided without opening inner door.
Open frame, across the line, contactors shall be rated per IEC standards and properly sized per the motor requirements.
Contactors shall provide for safe touch power and control terminals.

Lightning Arrestor shall meet or exceed the requirements of ANSI/IEEE Std. C62.21-1984 section 8.6.1. and 8.7.3 shall be supplied by electrician and mounted on the bottom side of the switch disconnect ahead of the pump control panel.
A voltage monitor shall be supplied for single phase service. A phase monitor shall be supplied for (3) phase service.
A green pilot light shall be supplied for each motor. The pilot light shall illuminate each time the motor is called to run. Each pump shall have an Elapse Time Meter to record the accumulated run time. The ETM shall be 2" diameter, non-resettable, six digit, totally encapsulated unit.
A Red pilot light shall be supplied for control power. The pilot light shall illuminate when the control power is available inside the control panel.

Relays shall be ice-cube plug in type. Relay contacts shall be rated 10 amp minimum, DPDT.
Twenty (20) terminals shall be supplied for field connections. The terminals shall be rated 25 amps minimum.
Each motors over-temperature contact shall be connected to the terminal strip and shall open a contact to de-energize the appropriate motor upon a high temperature within the motor.
A 15 Amp GFI duplex receptacle shall be supplied and mounted on the innerdoor.
Ground lugs shall be supplied and appropriately sized for each motor and for service entrance.

Nameplates for the innerdoor and back panel shall be of a graphic design, specifically depicting the intent for each device.

MISCELLANEOUS: All wiring on the backpanel shall be contained within the wiring duct. All wiring between the innerdoor and the backpanel shall be contained within in a plastic spiral wrap. Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting.
The control panel shall be assembled by a TUV (UL508A Certified) manufacturing facility.

PUMP DATA		ELEVATIONS	
PRIMARY PUMP CAPACITY	52 GPM	TOP OF WETWELL	27.00
PRIMARY TDH	51' TDH	INLET INVERT	17.30
PUMP MANUFACTURER	FLYGT	HIGH LEVEL ALARM (HLA)	19.00
PUMP MODEL #	MP3068.170HT	2nd PUMP ON (LAG)	17.50
R.P.M.	3315	1st PUMP ON (LEAD)	16.55
HORSEPOWER	2.7	PUMPS OFF (OFF)	14.50
ELECTRICAL/VOLTS/PHASE	60/208/3	BOTTOM OF WETWELL	13.00
PUMP DISCHARGE SIZE	3"	WETWELL DIAMETER	48"
IMPELLER CODE	170 HT		

*** ELECTRICIAN NOTES:**

1. DRAWING NOT TO SCALE
- * 2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
- * 3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
- * 4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
- * 5. CONTRACTOR SHALL VERIFY IF 230V POWER SOURCE IS AVAILABLE PRIOR TO ORDERING EQUIPMENT, IF AVAILABLE THEN USE 230V PUMP MOTOR
- * 6. NEUTRAL TO BE SUPPLIED FOR 208V-3 PHASE OR 208V-SINGLE PHASE POWER
7. CIVIL ENGINEER IS NOT RESPONSIBLE FOR THE ELECTRICAL DESIGN, ANY ELECTRICAL INFORMATION PROVIDED IS FOR INFORMATION ONLY

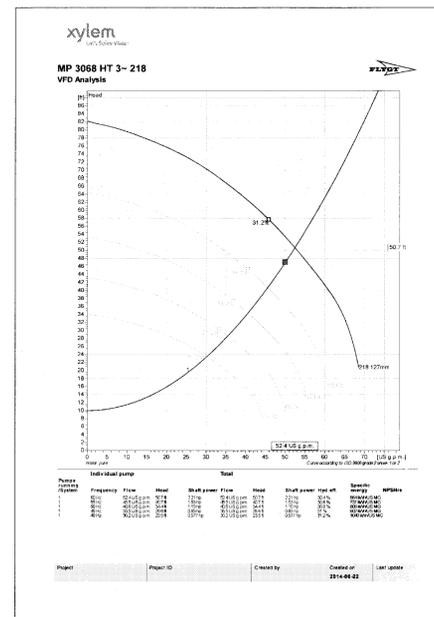
FASTNERS & APPURTANCES: All fasternes, lifting cables, float cable bracket, hinges, and appurtances shall be made of AISI 304SS.
A 304SS slide/latch assembly shall be provided for holding the doors open on the wetwell and valve box.
Slide rails shall be made of SCH.40 AISI 304SS pipe.
Pump lifting cables shall be made of AISI 304 SS.

H-20 LOAD RATED WETWELL WITH LIFTING LUGS:
The fiberglass wetwell must be H-20 load rated with integral lifting lugs, fiberglass slope in bottom of wetwell and valve box.
Certification of the H-20 load rating must be supplied at the time of submittals to Engineer.
The wetwell shall be manufactured of fiberglass reinforced polyester (FRP) of depth and diameter as shown on the lift station elevation detail. The wall thickness shall be adequate for the depth of the wetwell to maintain the H-20 LOAD RATING.

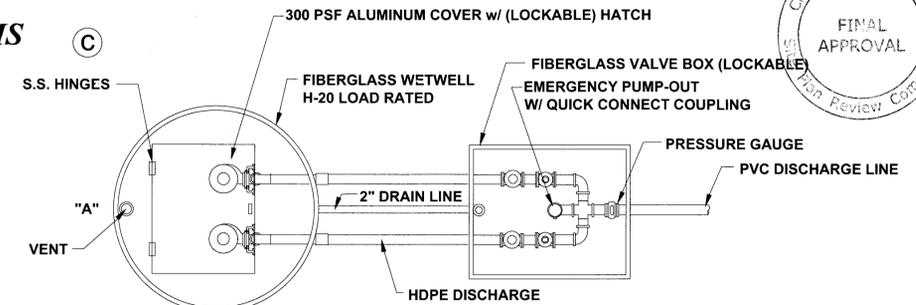
EXECUTION:
Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the drawing.

INSPECTION & TESTING: A factory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance of complete system.
Megger the motors. The pump motors shall be meggered out prior to the start-up to ensure that the insulation of the pump motor/cable is intact.
The pump controls and pumps shall be checked for mechanical reliability and proper operation.

LIFT STATION SHALL BE PRIVATELY OWNED AND MAINTAINED.

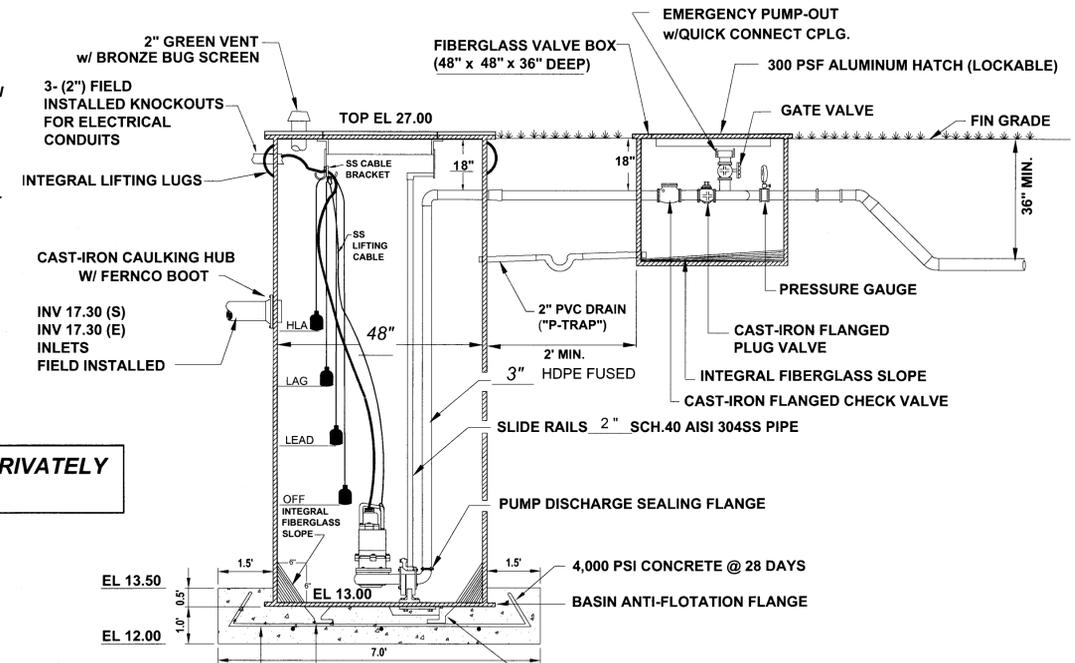


PUMP CURVE DATA

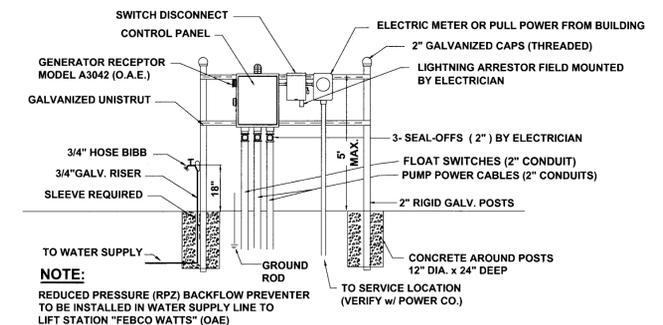
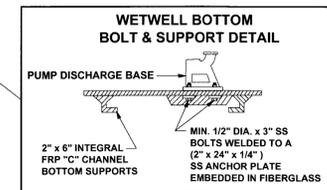


NOTE: PUMP CONTROL PANEL SHALL BE LOCATED 3 FEET MINIMUM FROM WETWELL PERIMETER AT POINT "A"

LIFT STATION PLAN



LIFT STATION SECTION



ELECTRICAL RISER

City of Ormond Beach
FINAL APPROVAL
Plan Review Committee

REVISIONS	
DATE	DESCRIPTION
6/23/14	REVISED PER 6/23/14 SPRC COMMENTS
8/21/14	REV PER 7/8/14 SPRC COMMENTS FINAL REVISIONS AND S.I.R.W.M.D.

PROFESSIONAL ENGINEER
STATE OF FLORIDA
No. 52784
JAMES W. STRICKLAND
NOT VALID UNLESS SIGNED & DATED

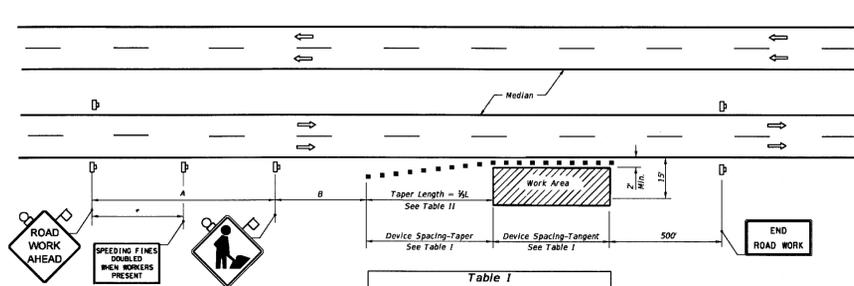
UPHAM
CIVIL ENGINEERING-SURVEYING-LANDSCAPE ARCHITECTURE
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LB # 0003612

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THE FERBER COMPANY, INC.
REGISTERED PROFESSIONAL ENGINEER
STATE OF FLORIDA
No. 120810
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

LIFT STATION DETAILS AND NOTES
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No:	120810
DATE:	JULY 10, 2012
DESIGN BY:	RWS
DRAWN BY:	HMT
CHECKED BY:	RWS
SCALE:	
DRAWING NUMBER:	



**Table II
Taper Length - Shoulder**

Speed (mph)	K _L (ft.)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	L = WS ¹ L = WS
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	
50	123	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

¹ L = Length of shoulder taper in feet
W = Width of total shoulder in feet (combined paved and unpaved width)
S = Posted speed limit (mph)

**Table I
Device Spacing**

Speed (mph)	Max. Distance Between Devices (ft.)			
	Type I or Type II Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS

Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

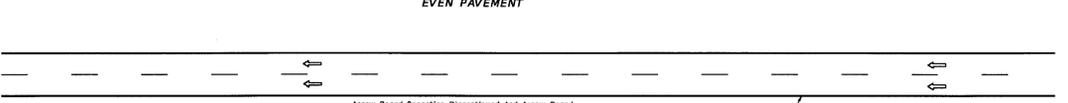
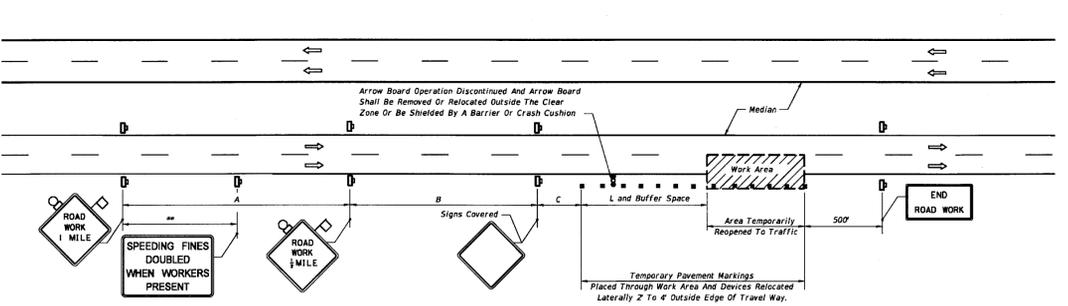
- GENERAL NOTES**
- If the work operation encroaches on the through traffic lanes or when four or more work vehicles enter the through traffic lanes in a one hour period (excluding establishing and terminating the work area), a flagger shall be provided and a FLAGGER sign shall be substituted for the WORKERS sign. The flagger shall be positioned at the point of vehicle entry or departure from the work area.
 - This TCZ plan also applies to work performed in the median more than 2' but less than 15' from the edge of travelway.
 - When work is being performed on a multilane undivided roadway the signs normally mounted in the median (as shown) shall be omitted.
 - WORKERS signs to be removed or fully covered when no work is being performed.
 - SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign.
 - When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TTC indexes.
 - For general TTC requirements and additional information, refer to Index No. 600.

- DURATION NOTES**
- Signs and channelizing devices may be omitted if all of the following conditions are met:
 - Work operations are 60 minutes or less.
 - Work operations are high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

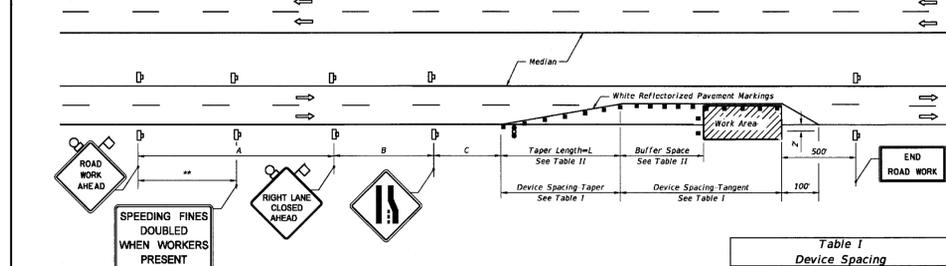
WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRoACH ON THE AREA CLoSER THAN 15' BUT NOT CLoSER THAN 2' TO THE EDGE OF TRAVEL WAY.

LAST REVISION: 07/01/09	DESCRIPTION: FDOT DESIGN STANDARDS 2013	MULTILANE, WORK ON SHOULDER	INDEX NO. 612	SHEET NO. 1
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INTERMITTENT WORK STOPPAGE - LANE REOPENED TO TRAFFIC

LAST REVISION: 07/01/09	DESCRIPTION: FDOT DESIGN STANDARDS 2013	MULTILANE, WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE	INDEX NO. 613	SHEET NO. 2
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**Table II
Buffer Space and Taper Length**

Speed (mph)	Buffer Space (ft.)		Notes
	L	W	
25	155	125	L = WS ¹ L = WS
30	200	160	
35	250	245	
40	305	320	
45	360	540	
50	425	600	
55	495	660	
60	570	720	
65	645	780	
70	730	840	

**Table I
Device Spacing**

Speed (mph)	Max. Distance Between Devices (ft.)			
	Type I or Type II Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS

Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
55 mph or greater	2640	1640	1000

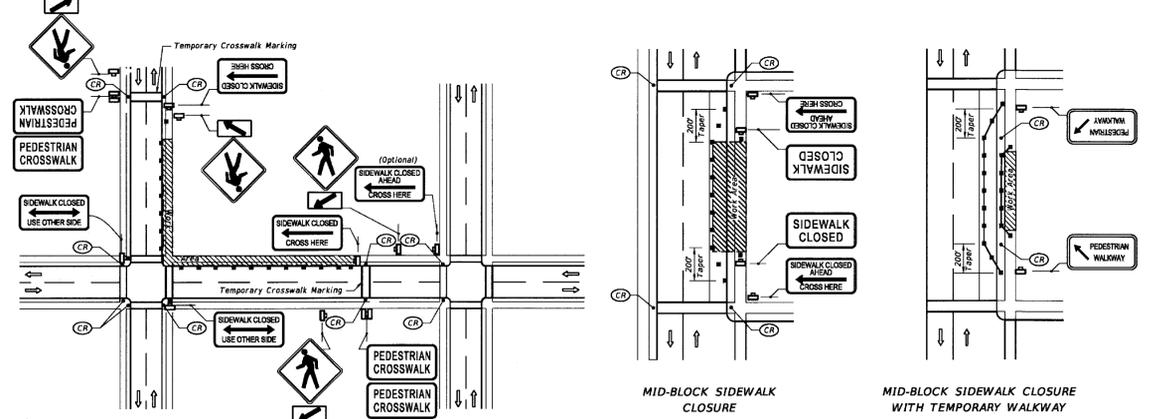
- GENERAL NOTES**
- Work operations shall be confined to one traffic lane, leaving the adjacent lane open to traffic.
 - On undivided highways the median signs as shown are to be omitted.
 - When work is performed in the median lane on divided highways, the channelizing device plan is inverted and left lane closed and lane ends signs substituted for the right lane closed and lane ends signs.
 - The same applies to undivided highways with the following exceptions:
 - Work shall be confined within one median lane.
 - Additional barricades, cones, or drums shall be placed along the centerline abutting the work area and across the trailing end of the work area.
 - When work on undivided highways occurs across the centerline so as to encroach on both median lanes, the inverted plan is applied to the approach of both roadways.
 - Signs and traffic control devices are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (sheet 2 of 2) when no work is being performed and the highway is open to traffic.
 - The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
 - When paved shoulders having a width of 8 ft. or more are closed, channelizing devices shall be used to close the shoulder. In advance of the merging taper to direct vehicular traffic to remain within the travel way. See Index No. 612 for shoulder taper formulas.
 - When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TTC indexes.
 - This TCZ plan does not apply when work is being performed in the middle lanes of a six or more lane highway. See Index No. 614.
 - For general TTC requirements and additional information, refer to Index No. 600.

- DURATION NOTES**
- Temporary white edgeline may be omitted for work operations less than 3 consecutive calendar days.
 - For work operations up to approximately 15 minutes, signs, channelizing devices, arrow board, and buffer space may be omitted if all of the following conditions are met:
 - Speed limit is 45 mph or less.
 - No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
 - Volume and complexity of the roadway has been considered.
 - The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GVWR) of 16,001 lb with high-intensity rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.
 - For work operations up to 60 minutes, arrow board and buffer space may be omitted if conditions a, b, and c in DURATION NOTE 2 are met, and vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRoACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION: 07/01/09	DESCRIPTION: FDOT DESIGN STANDARDS 2013	MULTILANE, WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE	INDEX NO. 613	SHEET NO. 1
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- GENERAL NOTES**
- Only the signs controlling pedestrian flows are shown. Other work zone signs will be needed to control traffic on the streets.
 - For spacing of traffic control devices and general TTC requirements refer to Index No. 600. Maximum spacing between barricades, vertical panels, drums or tubular markers shall not be greater than 25'.
 - Street lighting should be considered.
 - For nighttime closures use Type A flashing warning lights on barricades supporting signs and closing sidewalks. Use Type C steady-burn lights on channelizing devices separating the work area from vehicular traffic.
 - Pedestrian traffic signal display controlling closed crosswalks shall be covered or deactivated.
 - Post Mounted Signs located near or adjacent to a sidewalk shall have a 7' minimum clearance from the bottom of sign to the sidewalk.
 - When construction activities involve sidewalks on both sides of the street, efforts should be made to stage the construction so that both sidewalks are not out of service at the same time.
 - In the event that sidewalks on both sides of the street are closed, pedestrians shall be guided around the construction zone.
 - Temporary walkways shall be a minimum of 4' wide with a maximum 0.02 cross slope and a maximum 0.05 running slope between ramps. Temporary walkways less than 5' in width shall provide for a 9" x 5" passing space at intervals not to exceed 200'. Temporary ramps shall meet the requirements for curb ramps specified in Index No. 304. Temporary walkway surfaces and ramps shall be stable, firm, slip resistant, and kept free of any obstructions and hazards such as holes, debris, mud, construction equipment, stored materials, etc.
 - Temporary ramps and temporary crosswalk markings shall be removed with reopening of the sidewalk, unless otherwise noted in the plans. All work and materials associated with constructing temporary curb ramps and temporary crosswalk markings, removal and disposal of temporary curb ramps and temporary crosswalk markings, and restoration to original condition shall be paid for as Maintenance of Traffic, Lump Sum.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT WORKERS ON THEIR ACTIVITIES ENCRoACH ON THE SIDEWALK FOR A PERIOD OF MORE THAN 60 MINUTES.

LAST REVISION: 07/01/12	DESCRIPTION: FDOT DESIGN STANDARDS 2013	PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS	INDEX NO. 660	SHEET NO. 1
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NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND INSTALLING THE PROPER TRAFFIC CONTROL DEVICES FOR ALL CONSTRUCTION ACTIVITY WITHIN ALL PUBLIC RIGHT-OF-WAY. THE FDOT INDICES SHOWN SHALL BE ADJUSTED TO THE APPLICABLE APPLICATION BASED UPON ROADWAY CONDITIONS.

FDOT STANDARD DETAILS
THESE DETAILS ARE PROVIDED AS A COURTESY AND ARE A REPRODUCTION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM, eBookLET 2013.

REVISIONS

DATE	DESCRIPTION
8/23/14	REVISED PER 03/14 SPRC COMMENTS
8/21/14	REV PER 7/8/14 SPRC COMMENTS
	FINAL REVISIONS AND S.W.R.W.D.



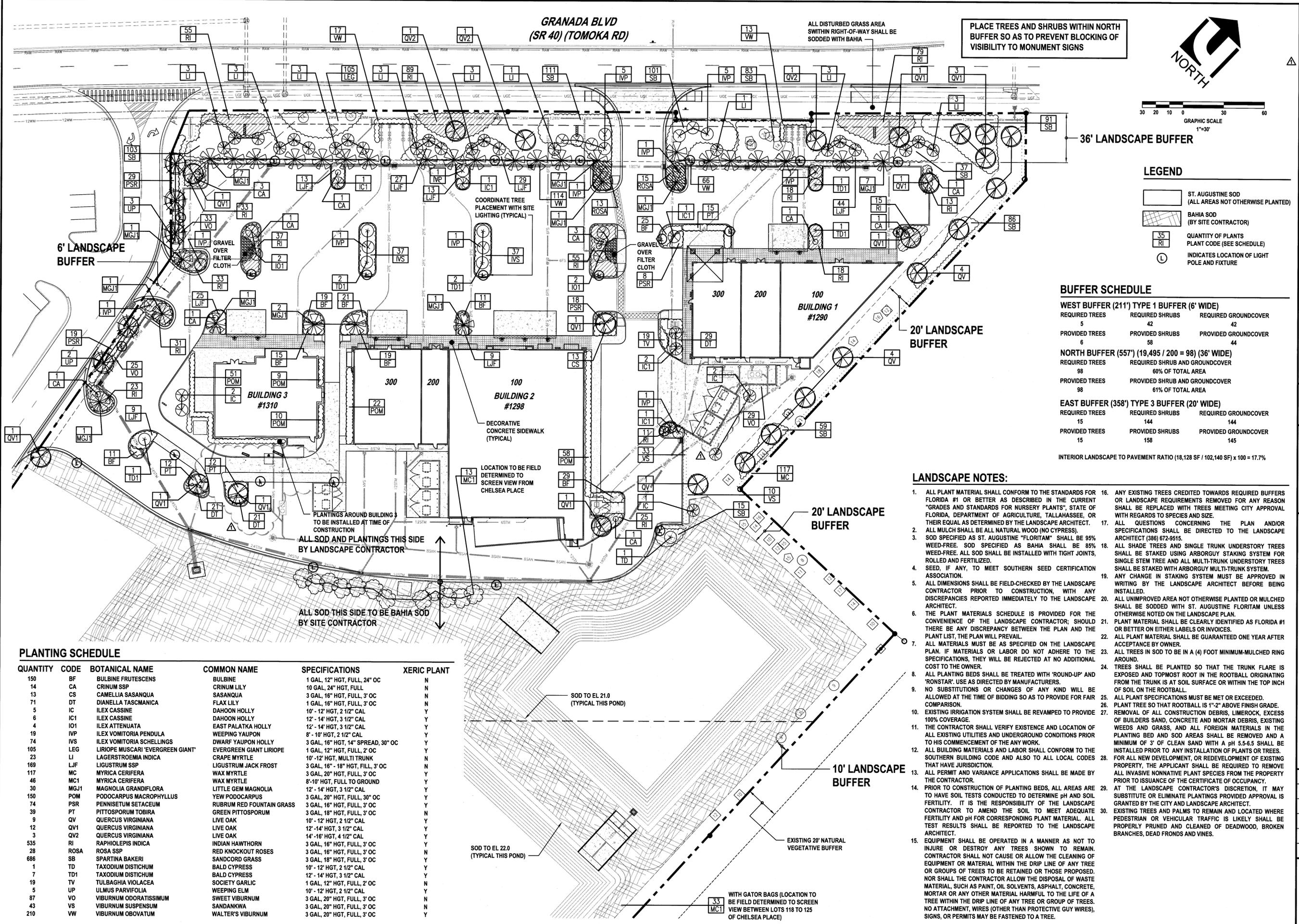
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FDOT MAINTENANCE OF TRAFFIC INDICES
SHOPPES ON GRANADA
1290, 1288 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No:	120810
DATE:	SEPTEMBER 27, 2013
DESIGN BY:	RWS
DRAWN BY:	HMT
CHECKED BY:	RWS
SCALE:	
DRAWING NUMBER:	



REVISIONS	
DATE	DESCRIPTION
8/23/14	REVISED PER 8/21/14 SPRC COMMENTS
8/26/14	REV PER 7/14 SPRC COMMENTS
8/26/14	FINAL REVISIONS AND S.W.R.M.D. REV PER TENANT'S COMMENTS



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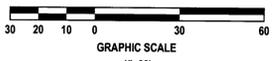


LANDSCAPE PLAN
SHOPPES ON GRANADA
 1290, 1298 AND 1310 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA

PROJECT No:	120810
DATE:	SEPTEMBER 27, 2013
DESIGN BY:	RLP
DRAWN BY:	HMT
CHECKED BY:	RLP
SCALE:	1" = 30'
DRAWING NUMBER:	

GRANADA BLVD
(SR 40) (TOMOKA RD)

PLACE TREES AND SHRUBS WITHIN NORTH BUFFER SO AS TO PREVENT BLOCKING OF VISIBILITY TO MONUMENT SIGNS



36' LANDSCAPE BUFFER

LEGEND

- ST. AUGUSTINE SOD (ALL AREAS NOT OTHERWISE PLANTED)
- BAHIA SOD (BY SITE CONTRACTOR)
- QUANTITY OF PLANTS PLANT CODE (SEE SCHEDULE)
- INDICATES LOCATION OF LIGHT POLE AND FIXTURE

BUFFER SCHEDULE

WEST BUFFER (211') TYPE 1 BUFFER (6' WIDE)		
REQUIRED TREES	REQUIRED SHRUBS	REQUIRED GROUNDCOVER
5	42	42
PROVIDED TREES	PROVIDED SHRUBS	PROVIDED GROUNDCOVER
6	58	44
NORTH BUFFER (557') (19,495 / 200 = 98) (36' WIDE)		
REQUIRED TREES	REQUIRED SHRUB AND GROUNDCOVER	
98	60% OF TOTAL AREA	
PROVIDED TREES	PROVIDED SHRUB AND GROUNDCOVER	
98	61% OF TOTAL AREA	
EAST BUFFER (358') TYPE 3 BUFFER (20' WIDE)		
REQUIRED TREES	REQUIRED SHRUBS	REQUIRED GROUNDCOVER
15	144	144
PROVIDED TREES	PROVIDED SHRUBS	PROVIDED GROUNDCOVER
15	158	145

INTERIOR LANDSCAPE TO PAVEMENT RATIO (18,128 SF / 102,140 SF) x 100 = 17.7%

LANDSCAPE NOTES:

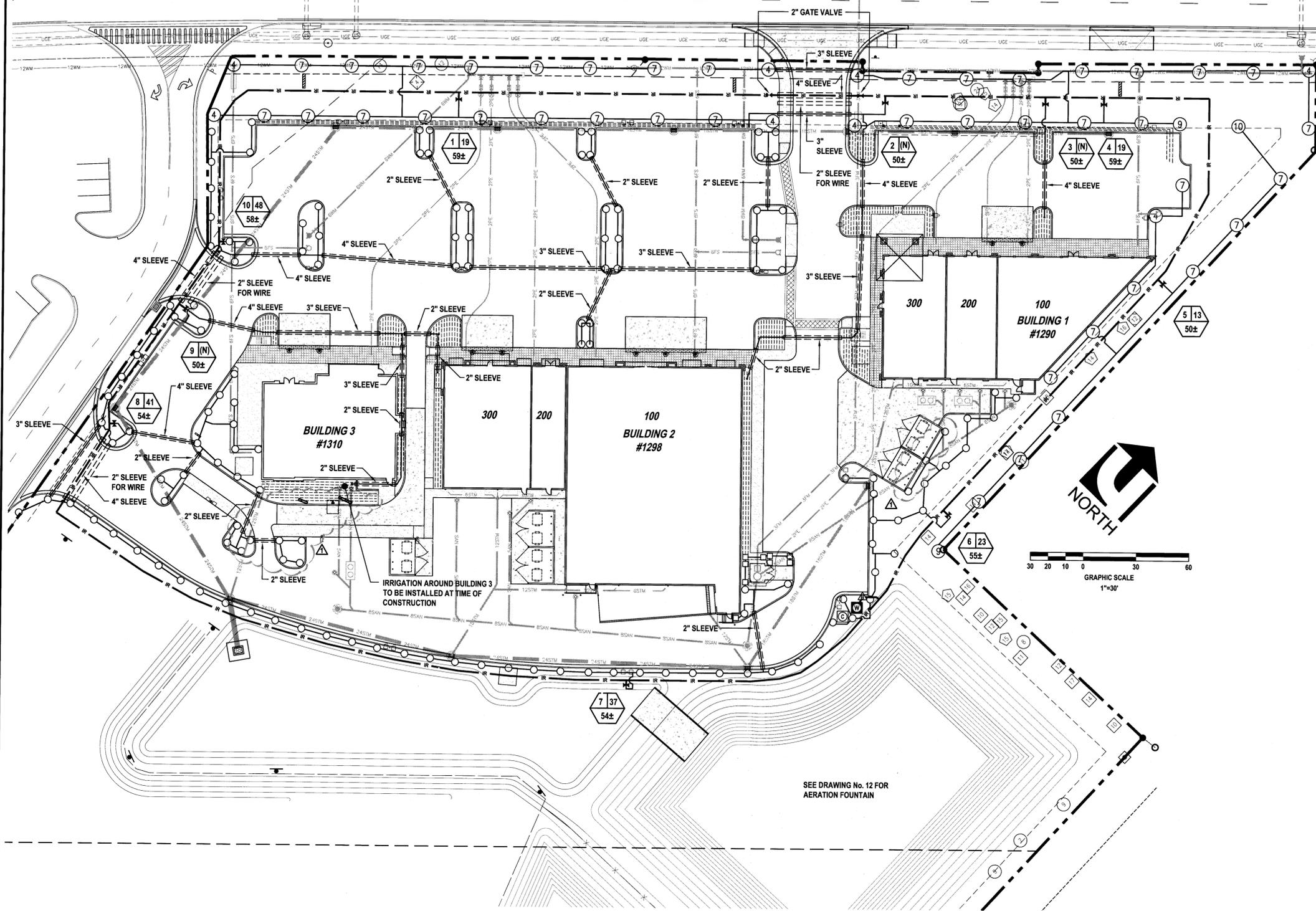
1. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS FOR FLORIDA #1 OR BETTER AS DESCRIBED IN THE CURRENT "GRADES AND STANDARDS FOR NURSERY PLANTS", STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE, TALLAHASSEE, OR THEIR EQUAL AS DETERMINED BY THE LANDSCAPE ARCHITECT.
2. ALL MULCH SHALL BE ALL NATURAL WOOD (NO CYPRESS).
3. SOD SPECIFIED AS ST. AUGUSTINE "FLORITAM" SHALL BE 95% WEED-FREE. SOD SPECIFIED AS BAHIA SHALL BE 85% WEED-FREE. ALL SOD SHALL BE INSTALLED WITH TIGHT JOINTS, ROLLED AND FERTILIZED.
4. SEED, IF ANY, TO MEET SOUTHERN SEED CERTIFICATION ASSOCIATION.
5. ALL DIMENSIONS SHALL BE FIELD-CHECKED BY THE LANDSCAPE CONTRACTOR PRIOR TO CONSTRUCTION, WITH ANY DISCREPANCIES REPORTED IMMEDIATELY TO THE LANDSCAPE ARCHITECT.
6. THE PLANT MATERIALS SCHEDULE IS PROVIDED FOR THE CONVENIENCE OF THE LANDSCAPE CONTRACTOR; SHOULD THERE BE ANY DISCREPANCY BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN WILL PREVAIL.
7. ALL MATERIALS MUST BE AS SPECIFIED ON THE LANDSCAPE PLAN. IF MATERIALS OR LABOR DO NOT ADHERE TO THE SPECIFICATIONS, THEY WILL BE REJECTED AT NO ADDITIONAL COST TO THE OWNER.
8. ALL PLANTING BEDS SHALL BE TREATED WITH 'ROUND-UP' AND 'RONSTAR' USE AS DIRECTED BY MANUFACTURERS.
9. NO SUBSTITUTIONS OR CHANGES OF ANY KIND WILL BE ALLOWED AT THE TIME OF BIDDING SO AS TO PROVIDE FOR FAIR COMPARISON.
10. EXISTING IRRIGATION SYSTEM SHALL BE REVAMPED TO PROVIDE 100% COVERAGE.
11. THE CONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND CONDITIONS PRIOR TO HIS COMMENCEMENT OF THE ANY WORK.
12. ALL BUILDING MATERIALS AND LABOR SHALL CONFORM TO THE SOUTHERN BUILDING CODE AND ALSO TO ALL LOCAL CODES THAT HAVE JURISDICTION.
13. ALL PERMIT AND VARIANCE APPLICATIONS SHALL BE MADE BY THE CONTRACTOR.
14. PRIOR TO CONSTRUCTION OF PLANTING BEDS, ALL AREAS ARE TO HAVE SOIL TESTS CONDUCTED TO DETERMINE pH AND SOIL FERTILITY. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO AMEND THE SOIL TO MEET ADEQUATE FERTILITY AND pH FOR CORRESPONDING PLANT MATERIAL. ALL TEST RESULTS SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT.
15. EQUIPMENT SHALL BE OPERATED IN A MANNER AS NOT TO INJURE OR DESTROY ANY TREES SHOWN TO REMAIN. CONTRACTOR SHALL NOT CAUSE OR ALLOW THE CLEANING OF EQUIPMENT OR MATERIAL WITHIN THE DRIP LINE OF ANY TREE OR GROUPS OF TREES TO BE RETAINED OR THOSE PROPOSED. NOR SHALL THE CONTRACTOR ALLOW THE DISPOSAL OF WASTE MATERIAL, SUCH AS PAINT, OIL SOLVENTS, ASPHALT, CONCRETE, MORTAR OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE WITHIN THE DRIP LINE OF ANY TREE OR GROUP OF TREES. NO ATTACHMENT, WIRES (OTHER THAN PROTECTIVE GUY WIRES), SIGNS, OR PERMITS MAY BE FASTENED TO A TREE.
16. ANY EXISTING TREES CREDITED TOWARDS REQUIRED BUFFERS OR LANDSCAPE REQUIREMENTS REMOVED FOR ANY REASON SHALL BE REPLACED WITH TREES MEETING CITY APPROVAL WITH REGARDS TO SPECIES AND SIZE.
17. ALL QUESTIONS CONCERNING THE PLAN AND/OR SPECIFICATIONS SHALL BE DIRECTED TO THE LANDSCAPE ARCHITECT (386) 672-9515.
18. ALL SHADE TREES AND SINGLE TRUNK UNDERSTORY TREES SHALL BE STAKED USING ARBORGY STAKING SYSTEM FOR SINGLE STEM TREE AND ALL MULTI-TRUNK UNDERSTORY TREES SHALL BE STAKED WITH ARBORGY MULTI-TRUNK SYSTEM.
19. ANY CHANGE IN STAKING SYSTEM MUST BE APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT BEFORE BEING INSTALLED.
20. ALL UNIMPROVED AREA NOT OTHERWISE PLANTED OR MULCHED SHALL BE SODDED WITH ST. AUGUSTINE FLORITAM UNLESS OTHERWISE NOTED ON THE LANDSCAPE PLAN.
21. PLANT MATERIAL SHALL BE CLEARLY IDENTIFIED AS FLORIDA #1 OR BETTER ON EITHER LABELS OR INVOICES.
22. ALL PLANT MATERIAL SHALL BE GUARANTEED ONE YEAR AFTER ACCEPTANCE BY OWNER.
23. ALL TREES IN SOD TO BE IN A (4) FOOT MINIMUM-MULCHED RING AROUND.
24. TREES SHALL BE PLANTED SO THAT THE TRUNK FLARE IS EXPOSED AND TOPMOST ROOT IN THE ROOTBALL ORIGINATING FROM THE TRUNK IS AT SOIL SURFACE OR WITHIN THE TOP INCH OF SOIL ON THE ROOTBALL.
25. ALL PLANT SPECIFICATIONS MUST BE MET OR EXCEEDED.
26. PLANT TREE SO THAT ROOTBALL IS 1" - 2" ABOVE FINISH GRADE.
27. REMOVAL OF ALL CONSTRUCTION DEBRIS, LIMEROCK, EXCESS OF BUILDERS SAND, CONCRETE AND MORTAR DEBRIS, EXISTING WEEDS AND GRASS, AND ALL FOREIGN MATERIALS IN THE PLANTING BED AND SOD AREAS SHALL BE REMOVED AND A MINIMUM OF 3" OF CLEAN SAND WITH A pH 5.5-6.5 SHALL BE INSTALLED PRIOR TO ANY INSTALLATION OF PLANTS OR TREES. FOR ALL NEW DEVELOPMENT, OR REDEVELOPMENT OF EXISTING PROPERTY, THE APPLICANT SHALL BE REQUIRED TO REMOVE ALL INVASIVE NONNATIVE PLANT SPECIES FROM THE PROPERTY PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
28. IN THE LANDSCAPE CONTRACTOR'S DISCRETION, IT MAY SUBSTITUTE OR ELIMINATE PLANTINGS PROVIDED APPROVAL IS GRANTED BY THE CITY AND LANDSCAPE ARCHITECT.
29. EXISTING TREES AND PALMS TO REMAIN AND LOCATED WHERE PEDESTRIAN OR VEHICULAR TRAFFIC IS LIKELY SHALL BE PROPERLY PRUNED AND CLEANED OF DEADWOOD, BROKEN BRANCHES, DEAD FRONDS AND VINES.
- 30.

PLANTING SCHEDULE

QUANTITY	CODE	BOTANICAL NAME	COMMON NAME	SPECIFICATIONS	XERIC PLANT
150	BF	BULBINE FRUTESCENS	BULBINE	1 GAL, 12" HGT, FULL, 24" OC	N
14	CA	CRINUM SSP	CRINUM LILY	10 GAL, 24" HGT, FULL	N
13	CS	CAMELLIA SASANQUA	SASANQUA	3 GAL, 18" HGT, FULL, 3" OC	N
71	DT	DIANELLA TASCMANICA	FLAX LILY	1 GAL, 16" HGT, FULL, 3" OC	N
5	IC	ILEX CASSINE	DAHOON HOLLY	10' - 12' HGT, 2 1/2" CAL	Y
6	IC1	ILEX CASSINE	DAHOON HOLLY	12' - 14' HGT, 3 1/2" CAL	Y
4	IO1	ILEX ATTENUATA	EAST PALATKA HOLLY	12' - 14' HGT, 3 1/2" CAL	Y
19	IVP	ILEX VOMITORIA PENDULA	WEEPING YAUPON	8' - 10' HGT, 2 1/2" CAL	Y
74	IVS	ILEX VOMITORIA SCHELLINGS	DWARF YAUPON HOLLY	3 GAL, 18" HGT, 14" SPREAD, 30" OC	Y
105	LEG	LIRIOPE MUSCARI 'EVERGREEN GIANT'	EVERGREEN GIANT LIRIOPE	1 GAL, 12" HGT, FULL, 2" OC	N
23	LI	LAGERSTROEMIA INDICA	CRAPE MYRTLE	10' - 12' HGT, MULTI TRUNK	Y
169	LJF	LIGUSTRUM SSP	LIGUSTRUM JACK FROST	3 GAL, 16" - 18" HGT, FULL, 3" OC	N
117	MC	MYRICA CERIFERA	WAX MYRTLE	3 GAL, 20" HGT, FULL, 3" OC	Y
46	MC1	MYRICA CERIFERA	WAX MYRTLE	8' - 10' HGT, FULL TO GROUND	Y
30	MGJ1	MAGNOLIA GRANDIFLORA	LITTLE GEM MAGNOLIA	12' - 14' HGT, 3 1/2" CAL	Y
150	POM	PODOCARPUS MACROPHYLLUS	YEW PODOCARPUS	3 GAL, 20" HGT, FULL, 30" OC	Y
74	PSR	PENNISTEMUM SETACEUM	RUBRUM RED FOUNTAIN GRASS	3 GAL, 18" HGT, FULL, 3" OC	Y
39	PT	PITTIOSPORUM TOBIRA	GREEN PITTIOSPORUM	3 GAL, 18" HGT, FULL, 3" OC	N
9	QV	QUERCUS VIRGINIANA	LIVE OAK	10' - 12' HGT, 2 1/2" CAL	Y
12	QV1	QUERCUS VIRGINIANA	LIVE OAK	12' - 14' HGT, 3 1/2" CAL	Y
3	QV2	QUERCUS VIRGINIANA	LIVE OAK	14' - 16" HGT, 4 1/2" CAL	Y
535	RI	RAPHIOLEPIS INDICA	INDIAN HAWTHORN	3 GAL, 16" HGT, FULL, 3" OC	Y
28	ROSA	ROSA SSP	RED KNOCKOUT ROSES	3 GAL, 16" HGT, FULL, 3" OC	N
686	SB	SPARTINA BAKERI	SANDCORD GRASS	3 GAL, 18" HGT, FULL, 3" OC	N
1	TD	TAXODIUM DISTICHUM	BALD CYPRESS	10' - 12' HGT, 2 1/2" CAL	Y
7	TD1	TAXODIUM DISTICHUM	BALD CYPRESS	12' - 14' HGT, 3 1/2" CAL	Y
19	TV	TULBAGHIA VIOLACEA	SOCIETY GARLIC	1 GAL, 12" HGT, FULL, 2" OC	N
5	UP	ULMUS PARVIFOLIA	WEEPING ELM	10' - 12' HGT, 2 1/2" CAL	Y
87	VO	VIBURNUM ODORATISSIMUM	SWEET VIBURNUM	3 GAL, 20" HGT, FULL, 3" OC	N
43	VS	VIBURNUM SUSPENSUM	SANDANKWA	3 GAL, 20" HGT, FULL, 3" OC	N
210	VW	VIBURNUM OBOVATUM	WALTER'S VIBURNUM	3 GAL, 20" HGT, FULL, 3" OC	Y

NOTE 70% OF PLANTS ARE XERIC

GRANADA BLVD
(SR 40) (TOMOKA RD)

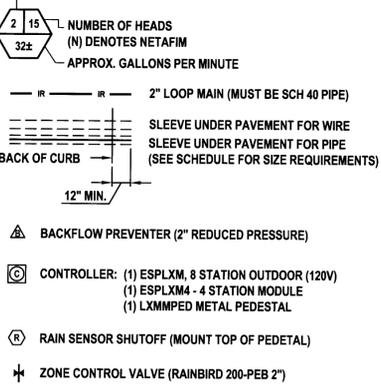


IRRIGATION NOTES:

- THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL EXISTING UTILITIES AND CONDITIONS PRIOR TO ITS COMMENCEMENT OF THE IRRIGATION WORK.
- CHECK PRESSURE AND GPM OF WATER SUPPLY BEFORE BEGINNING JOB AND REPORT FINDING TO LANDSCAPE ARCHITECT. LANDSCAPE ARCHITECT WILL MAKE ANY ADJUSTMENT NECESSARY TO MAKE SYSTEM WORK AT ITS BEST.
- THE PLAN IS SCHEMATIC ONLY. THE CONTRACTOR SHALL INSTALL PIPING IN A MINIMUM NUMBER OF TRENCHES AND SHALL INSTALL PIPE IN A MINIMUM LENGTH. QUANTITIES FOR IRRIGATION MATERIALS ARE NOT GIVEN. THE CONTRACTOR SHALL DETERMINE THIS FROM THE PLAN.
- INSTALL SLEEVE PIPING WHERE SHOWN ON THE DRAWINGS AT THE PROPER DEPTH. ALL SLEEVE PIPE SHALL BE SCHEDULE 40 PVC PIPE INSTALLED A MINIMUM OF 20" BELOW FINISHED PAVING GRADES.
- ALL SLEEVES WHEN PLACED IN FIELD ARE TO BE LOCATED BY A METAL PIPE AT EACH END AND LOCATED FROM TWO STATIONARY POINTS BY TAPE MEASUREMENTS.
- ALL PIPE SHALL BE INSTALLED A MINIMUM OF 20" BELOW GRADE.
- ALL TRENCHING SHALL BE KEPT OUT OF THE DRIP LINE AREA OF ALL EXISTING TREES. USE RADIAL LINES OR TUNNELING WHEN NECESSARY TO ENCRANCH INTO THE DRIP LINE AREA OF TREES.
- LOCATE ALL VALVES AND OTHER IRRIGATION EQUIPMENT IN PLANT BED AREAS WITHIN THE PROJECT LIMITS FOR CONCEALMENT PURPOSES.
- RISERS ARE TO BE HIDDEN COMPLETELY IN SHRUBBERY OR PAINTED BLACK AND IN NO CASE BE HIGHER THAN THE SHRUBBERY INSTALLED.
- ALL PIPE EXPOSED ABOVE GRADE AND TO VIEW SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE OF THE NOTED SIZE.
- ALL VALVES SHALL BE INSTALLED IN METER TYPE SIZE BOXES EQUAL TO AMETEK POLY-IRON.
- PROVIDE A 6" GRAVEL SUMP AT THE BOTTOM OF ALL METER BOXES AND INSTALL 1/2" TO 1" DIAMETER GRAVEL AT THE BOTTOM OF THE VALVE PIT.
- IRRIGATION SHALL MEET ALL APPLICABLE CURRENT MUNICIPAL, COUNTY, STATE OR FEDERAL CODES, ORDINANCES AND REGULATIONS THAT HAVE JURISDICTION.
- ALL PIPE 1/2" TO 2 1/2" IN SIZE SHALL BE PRESSURE RATED 160 PVC (EXCEPT MAIN).
- ALL FITTINGS SHALL BE SCHEDULE 40 PVC.
- ALL SPRAY HEADS ARE TO BE A MINIMUM OF 6" POP-UP AND ALL HEADS IN PLANTING AREAS TO BE 12" POP-UP OR RISERS. RISERS SHALL BE PAINTED GREEN OR BLACK.
- ELECTRICAL TO CONTROLLER SHALL BE SUPPLIED BY ELECTRICAL CONTRACTOR (NOT IRRIGATION CONTRACTOR)
- ALL HEADS MUST BE PRESSURE REGULATING.

IRRIGATION LEGEND (USE THE FOLLOWING IRRIGATION EQUIPMENT OR EQUAL)

15 SERIES MPR	FLOW RATE (GPM)	15' EST	FLOW RATE (GPM)
○ ADJUSTABLE 15' RADIUS	VARIABLE	□ 15' EST	0.61
⑤ HUNTER GEAR PGP WITH RUBBER COVER.	④		1.80
# INDICATES NOZZLE SIZE	⑤		2.10
	⑦		3.40
	⑧		3.90
	⑨		5.20
	⑩		7.60



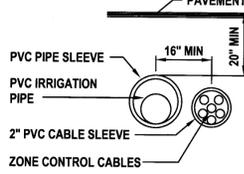
NOTES:

- ALL SPRAY HEADS ARE TO BE RAINBIRD 6" POPUP FOR TURF AREA AND ALL OTHER SPRAY HEADS ARE TO BE POPUPS AND/OR ON RISERS TO ASSURE 100% COVERAGE. ALL RISERS ARE TO BE STAKED AND PAINTED BLACK OR GREEN.
- ZONES 1, 4 & 5 TO RUN FOR 45 MINUTES EACH
- ZONES 6, 7, 8 & 10 TO RUN FOR 25 MINUTES EACH
- ZONES 3, 3 & 9 TO RUN FOR 1 HOUR EACH

PIPE SIZING INFORMATION

GALLONS PER MINUTE (GPM)	PIPE SIZE
0-6	1/2"
7-10	3/4"
11-16	1"
17-28	1 1/4"
29-35	1 1/2"
35-55	2"

IRRIGATION PIPE SIZE	PREFERRED SLEEVE SIZE
2 1/2"	6"
1" THRU 2"	4"
1/2" AND 3/4"	3"



NOTE: AT THE DISCRETION OF THE IRRIGATION CONTRACTOR, THE DIAMETER OF THE SLEEVE PIPE MAY BE REDUCED.

NOTE: WHEN INSTALLING IRRIGATION PIPING IN ISLAND AND OTHER NARROW PLANTING AREAS RUN PIPING CLOSE TO CURB AND NOT DOWN THE MIDDLE OF THE PLANTING AREA. (BEFORE DOING IRRIGATION GET A COPY OF THE LANDSCAPE PLAN AND KEEP IRRIGATION LINES OUT OF PLANTING AREAS WHERE POSSIBLE.)

NOTE: IRRIGATION LINES ARE SHOWN DIAGRAMMATICALLY AND ARE INTENDED TO SHOW DISTRIBUTION ZONES ONLY. ALL VALVES SHALL BE LOCATED WITHIN PLANTING AREAS (NOT WITHIN PAVEMENT). LINES LOCATED UNDER PAVEMENT SHALL BE KEPT TO A MINIMUM AND ALL PIPING UNDER PAVED AREAS SHALL BE SLEEVED.

NOTE: PRIOR TO SUBMITTING A BID, THE IRRIGATION CONTRACTOR SHALL INSPECT THE EXISTING LOWE'S IRRIGATION SYSTEM AS IT WILL BE NECESSARY TO REMOVE SOME EXISTING ZONES AND RESETTING THE CLOCK. THE CONTRACTOR MUST BE SURE THAT NO LOWE'S ZONE WILL BE BELOW IT'S DESIGNATED GPM. THERE WILL BE A TIME DESIGNATED BEFORE BIDS ARE SUBMITTED FOR CONTRACTORS TO INSPECT THE EXISTING LOWE'S SYSTEM. COORDINATE IRRIGATION WORK WITH LOWE'S IRRIGATION MAINTENANCE CONTRACTOR.

WELL DATA:
4" DIA. DEEP WELL
STA-RITE 1 1/2 HP PUMP END L50P4FH
MOTOR 208 V P43B0015A2
CONTROL BOX P217-813
PUMP START PSR52

PUMP MUST PROVIDE A MINIMUM OF 60 GALLONS PER MINUTE @ 50 PSI

- CONTRACTOR SHALL DRILL NEW WELL TO A DEPTH OF GROUNDWATER TO ACHIEVE SPECIFIED FLOW.
- GROUNDWATER SOURCE SHALL BE FREE OF STAIN PRODUCING IRON MATERIALS.
- EQUIPMENT SHALL BE PERMANENTLY MOUNTED TO THE CONCRETE SLAB.

REVISIONS

DATE	DESCRIPTION
02/23/14	REVISED PER 03/14 SPRC COMMENTS
02/23/14	REV PER 7/8/14 SPRC COMMENTS
02/26/14	FINAL REVISIONS AND SURVING REV PER TENANT'S COMMENTS



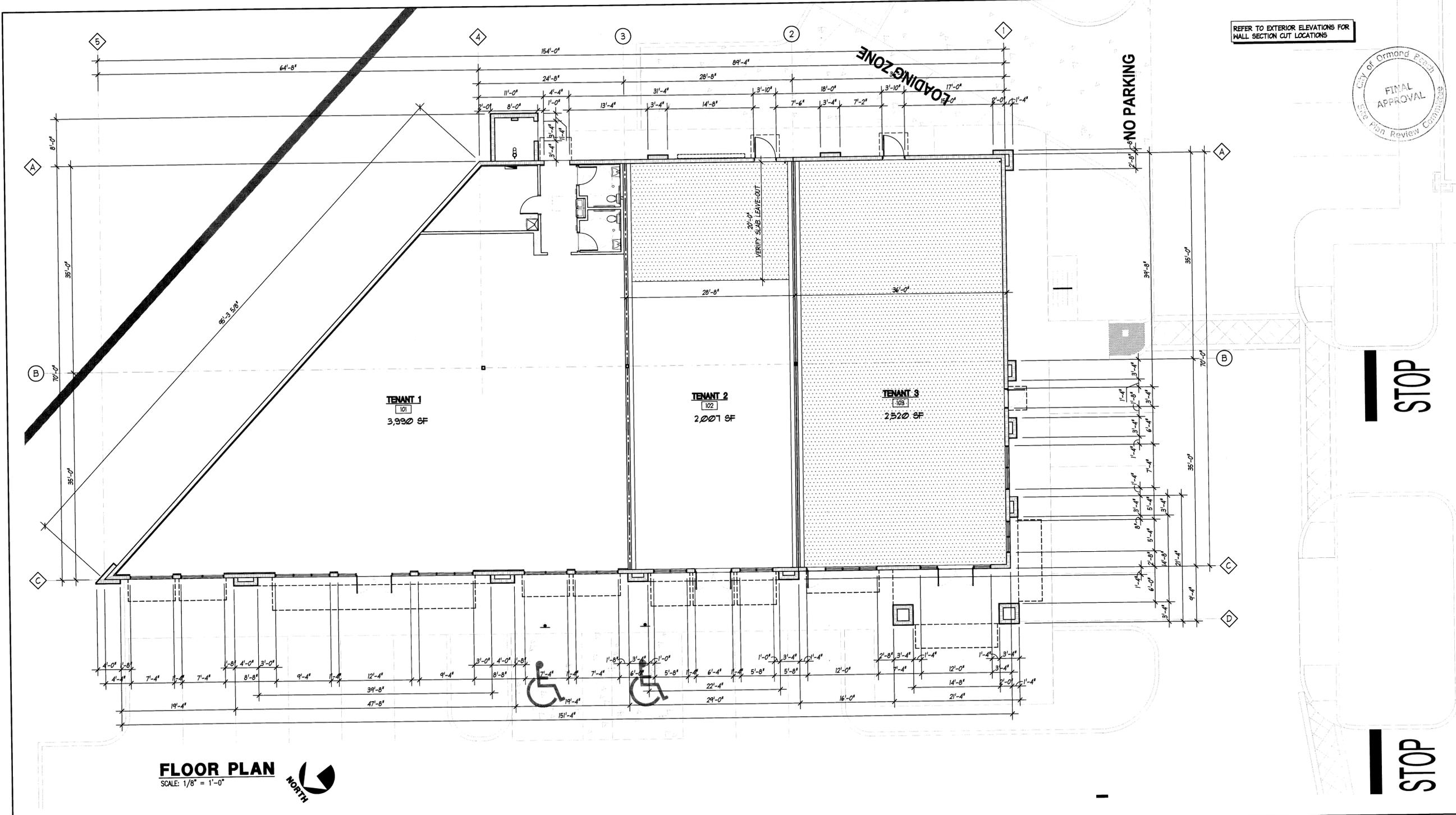
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IRRIGATION PLAN
SHOPPES ON GRANADA
1290, 1298 AND 1310 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA

PROJECT No: 120810
DATE: SEPTEMBER 27, 2013
DESIGN BY: RLP
DRAWN BY: HMT
CHECKED BY: RLP
SCALE:
DRAWING NUMBER:



REFER TO EXTERIOR ELEVATIONS FOR WALL SECTION CUT LOCATIONS



FWH Architects
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THE FERBER COMPANY, INC.
 ARCHITECTS AND ENGINEERS
 1001 W. UNIVERSITY AVENUE, SUITE 100
 GAITHERSBURG, MARYLAND 20878

TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS.

GUY F. FABER
 FL License No. AR0015323
 seal

no.	date	revision descriptions

**RETAIL BUILDING NO. 1
 AT
 SHOPPES ON GRANADA**
 1298 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA 32174

06.23.14
 date

13065
 comm. no.

FLOOR PLAN, NOTES
 AND DETAILS

A1.0

WALL LEGEND

- 8" CMU WALL CONSTRUCTION. REFER TO STRUCTURAL DRAWINGS FOR REINFORCEMENT AND FILLED CELL LOCATIONS
- (1) LAYER 5/8" GMB EA. SIDE OVER 3 5/8" 20 GA. METAL STUDS AT 24" O.C. AND EXTEND 6" MIN. ABOVE FINISHED CEILING. VERIFY WITH TENANT SPECIFICATIONS FOR FUTURE FINISHED CEILING HEIGHTS THAT ARE NOT PART OF THESE CONTRACT DOCUMENTS. PROVIDE SOUND ATTENUATION BATT INSULATION CONTINUOUS AT CAVITY.
- 2-HOUR RATED TENANT DEMISING WALL. CONSTRUCT PER UL ASSEMBLY U-411 WITH (2) LAYERS 5/8" FIRE RATED GMB EACH SIDE OVER 6" 20 GA. METAL STUDS AT 24" O.C. PROVIDE SOUND ATTENUATION BATT INSULATION CONTINUOUS AT CAVITY. EXTEND ALL FULL HEIGHT TO UNDERSIDE OF ROOF DECK. REFER TO UL ASSEMBLY DETAILS ON SHEET A6.0. GMB SHALL BE OF SPECIFIC TYPE AND MANUFACTURER LISTED IN SPECIFIED UL ASSEMBLY DETAIL
- FUTURE WALL BY TENANT UNDER SEPARATE PERMIT

- ROOM FINISH NOTES:**
1. ALL INTERIOR WALLS WITH GYPSUM WALLBOARD TO BE MUDD, TAPED, SANDED AND PREPARED TO RECEIVE FINAL FINISH PER TENANT SPECIFICATIONS.
 2. CONCRETE FLOOR SLAB SHALL BE SEALED AND PREPARED TO RECEIVE FINAL FINISH PER TENANT SPECIFICATIONS.
 3. WALL BASE BY TENANT (N.I.C.) UNLESS OTHERWISE SPECIFIED IN DRAWINGS.
 4. FINISH CEILING BY TENANT (N.I.C.) UNLESS OTHERWISE SPECIFIED IN DRAWINGS. REFER TO REFLECTED CEILING PLAN.

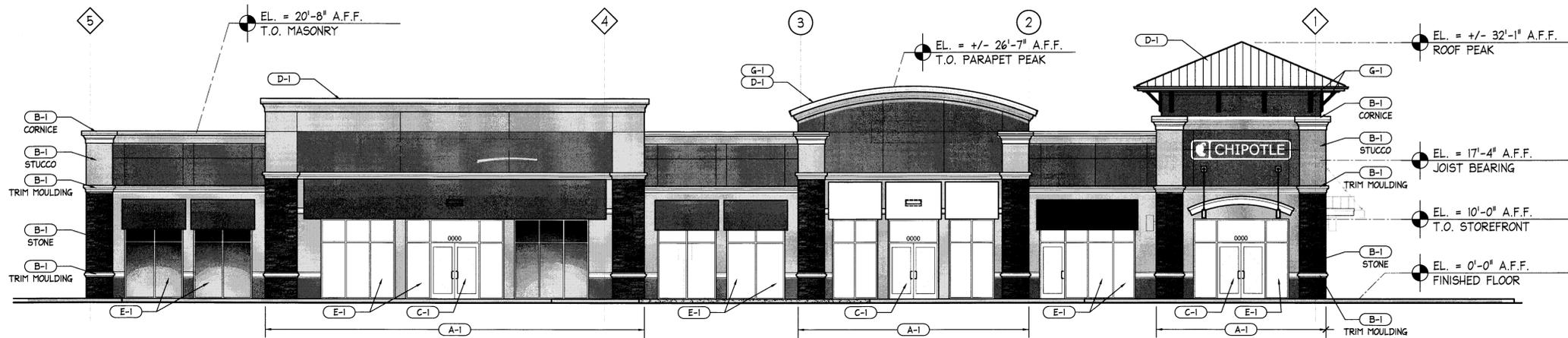
GENERAL NOTES

1. ALL DIMENSIONS ARE TO FINISHED FACE OF GMB PARTITIONS, FACE OF CMU & CENTERLINE OF COLUMNS UNLESS OTHERWISE INDICATED
- 5/8" TYPE 'X' GYPSUM WALLBOARD IS REQUIRED AT THE DEMISING WALL (OR AS OTHERWISE SPECIFIED IN THE UL ASSEMBLY DETAIL PROVIDED). GMB SURFACES AT THE DEMISING WALL SHALL BE TAPED, SPACKLED AND SANDED TO A LEVEL 4 FINISH. WALLS TO BE READY TO RECEIVE TENANTS PAINT FINISH.
- SEE FLOOR PLAN FOR WALL FURRING, INSULATION AND GMB REQUIREMENTS AT THE INTERIOR OF PERIMETER CMU WALLS
- ALL EXTERIOR CONCRETE SHALL BE MEDIUM BROOM FINISHED. RETOOL (WITH HAND EDGER) ALL CONTROL JOINTS AND EXPANSION JOINTS AFTER BROOM FINISHING TO ACHIEVE 'PICTURE FRAME' IN CONCRETE. THIS SHALL INCLUDE ALL ABUTMENTS TO WALLS, CURBS, COLUMNS, ETC.
- REFER TO ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY STUB-IN LOCATIONS INCLUDING, BUT NOT LIMITED TO, ELECTRICAL POWER, SANITARY WASTE, POTABLE WATER, GREASE WASTE, TELEPHONE AND CATV. TO THE FULLEST EXTENT POSSIBLE, THE SHELL GENERAL CONTRACTOR SHALL OBTAIN TENANT FINISH-OUT PLANS FOR PLACEMENT
- REFER TO CIVIL DRAWINGS FOR ALL ELEVATIONS AND GRADES. ADDITIONALLY, REFER TO CIVIL DRAWINGS FOR DIMENSIONS OF ALL ITEMS OUTSIDE THE BUILDING INCLUDING, BUT NOT LIMITED TO SIDEWALKS, PARKING STALLS, LANDSCAPE AREAS AND DRIVE AISLES.

CONSTRUCTION NOTES

- 1 CONCRETE FLOOR SLAB. NO FINISH REQUIRED. REFER TO STRUCTURAL DRAWINGS
- 1A SHADED AREA INDICATES CONCRETE SLAB LEAVE-OUT. REFER TO STRUCTURAL FOUNDATION PLAN AND DETAILS
- 2 PARTIAL SLAB/ FOUNDATION AT DEMISING WALL. REFER TO STRUCTURAL DRAWINGS
- 3 DASHED LINE INDICATES FUTURE INTERIOR PARTITION BY TENANT (UNDER SEPARATE PERMIT)
- 4 ALUMINUM STOREFRONT GLAZING SYSTEM. SEE FRAME OPENING SCHEDULE
- 5 CONCRETE SIDEWALK, 4" THK. 3000 PSI W/ 6 X 6, W1.4 X W1.4 W/M OVER 10 MIL WATERPROOF MEMBRANE. PROVIDE 12" TURNED DOWN EDGE W/ (1) #5 CONT. AT PERIMETER. PROVIDE CONTROL JOINTS AT MAX. 5'-0" O.C. AND EXPANSION JOINTS AT MAX. 20'-0" O.C., TYPICAL. REFER TO GENERAL NOTE THIS SHEET REGARDING CONCRETE FINISHING AND TOOLING
- 6 REFER TO CIVIL DRAWINGS FOR ALL PAVEMENT/SURFACING BEYOND BUILDING AND SIDEWALK INCLUDING ALL PAVEMENT MARKINGS, PARKING STRIPPING, HC GRAPHICS, CROSSWALKS AND DIRECTIONAL ARROWS
- 7 DASHED LINE INDICATES STEEL CANOPY FRAME OR AWNING ABOVE. REFER TO WALL SECTIONS AND EXTERIOR ELEVATIONS
- 8 LANDSCAPE AREA. REFER TO CIVIL AND LANDSCAPE DRAWINGS
- 9 PROVIDE 5/8" GMB OVER 1-1/2" 1/2" FURRING AT 24" O.C. W/ 1 1/2" RIGID INSULATION AT 24" O.C. FROM FINISHED FLOOR TO ROOF DECK, TYPICAL AT ALL PERIMETER CMU WALLS AS INDICATED
- 9A EXPOSED CONC BLOCK FINISH AT ALL PERIMETER CMU WALLS WITHIN TENANT SPACE 102. FURRING, INSULATION AND GMB SHALL BE PROVIDED DURING FUTURE TENANT BUILD-OUT BY OTHERS (UNDER SEPARATE PERMIT)

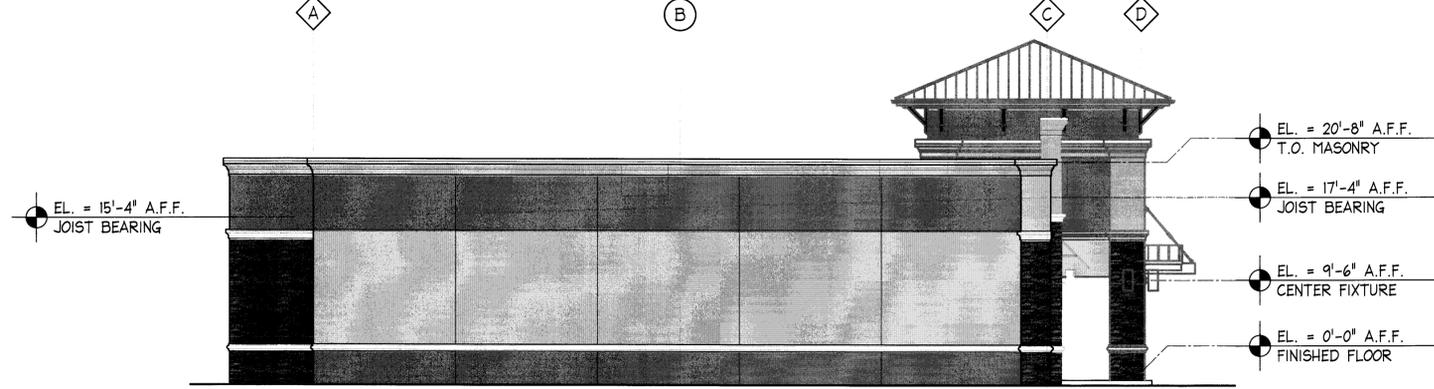
- 9B CONTRACTOR SHALL PROVIDE AND INSTALL PARTITION W/ 3-5/8" 20GA. MTL. STUDS AT 16" O.C. WITH 5/8" GYPSUM WALLBOARD ON EXPOSED SIDES. TAPE AND SPACKLE AND FINISHED WITH PAINT. EXTEND WALLS TO 6" ABV FINISHED CEILINGS AT LAY-IN CLG. AND FULL HEIGHT TO DECK AT ALL REST ROOM WALLS. BRACE TO STRUCT. ABOVE AS NEC. PROVIDE MOISTURE RESISTANT GYP. BD. AT HIGH MOISTURE AREAS.
- 9C CONTRACTOR TO PROVIDE AND INSTALL 3 5/8" 20 GA. METAL STUD PLUMBING CHASE WALL WITH 5/8" M.R. GMB FINISH WALL TO 6" ABOVE FINISHED CEILING. SEE NOTE (19) FOR ADDITIONAL INFORMATION.
- 10 GREASE TRAP. REFER PLUMBING AND CIVIL DRAWINGS AND
- 10A WATER LINE WITH SHUT OFF VALVE INSTALLED AS HIGH AS POSSIBLE, STUBBED IN AND READY FOR CONTINUATION BY TENANT'S CONTRACTOR. LOCATION SHOWN FOR GRAPHIC PURPOSES ONLY. G.C. TO VERIFY EXACT LOCATION WITH TENANT PRIOR TO INSTALLATION. SEE PLUMBING DRAWINGS
- 10B 4" SANITARY WASTE LINE STUBBED IN AND READY FOR CONNECTION BY TENANT'S CONTRACTOR. LOCATION SHOWN FOR GRAPHIC PURPOSES ONLY. G.C. TO VERIFY EXACT LOCATION WITH TENANT PRIOR TO INSTALLATION. SEE PLUMBING DRAWINGS
- 10C 4" GREASE WASTE LINE STUBBED IN AND READY FOR CONNECTION BY TENANT'S CONTRACTOR. LOCATION SHOWN FOR GRAPHIC PURPOSES ONLY. G.C. TO VERIFY EXACT LOCATION WITH TENANT PRIOR TO INSTALLATION. SEE PLUMBING DRAWINGS
- 10D GAS LINE STUBBED IN AND READY FOR CONNECTION BY TENANT'S CONTRACTOR. LOCATION SHOWN FOR GRAPHIC PURPOSES ONLY. G.C. TO VERIFY EXACT LOCATION AND SIZE WITH TENANT PRIOR TO INSTALLATION. SEE PLUMBING DRAWINGS
- 10E VENT LINE AND ROOF PENETRATION STUBBED IN AND READY FOR CONNECTION BY TENANT'S CONTRACTOR. LOCATION SHOWN FOR GRAPHIC PURPOSES ONLY. G.C. TO VERIFY EXACT LOCATION AND SIZE WITH TENANT PRIOR TO INSTALLATION. SEE PLUMBING DRAWINGS
- 11 TELEPHONE / CABLE STUB-IN FOR CONNECTION BY FUTURE TENANT. SEE ELECTRICAL DRAWINGS FOR REQUIREMENTS
- 12C 400 AMP 120 /208V 3PH, 4 WIRE METERED ELECTRICAL SERVICE. PROVIDE CONDUIT AND CONDUCTORS TO LOCATION OF FUTURE PANELS BY TENANT
- 12V 400 AMP 120 /208V 3PH, 4 WIRE METERED ELECTRICAL SERVICE AND ELECTRIC PANEL(S). REFER TO ELECTRICAL DRAWINGS. VERIFY FINAL PLACEMENT WITH TENANT DRAWINGS.
- 13 HC RAMP, REFER DETAILS ON THIS SHEET AND CIVIL DRAWINGS
- 14 HANDICAPPED PARKING SIGN. REFER TO CIVIL DRAWINGS
- 15 PROVIDE DETECTABLE WARNING SURFACE AS SPECIFIED ON CIVIL DRAWINGS
- 16 GC TO PROVIDE PLATFORM ABOVE CEILING TO SUPPORT WATER HEATER. REFER TO PLUMBING DRAWINGS
- 17 STEEL COLUMN, REFER TO STRUCTURAL DRAWINGS
- 18 DOWNSPOUT LOCATIONS. SEE ROOF PLAN, EXTERIOR ELEVATIONS AND CIVIL DRAWINGS
- 19 CONCRETE FILLED PIPE BOLLARD, REFER TO DETAIL ON SHEET A5.1
- 20 ROOFTOP HVAC UNIT AND CURB ABOVE. SEE ROOF PLAN AND MECHANICAL AND STRUCTURAL DRAWINGS
- 20A ROOF CURB AND RTU BY TENANT (UNDER SEPARATE PERMIT)
- 21 CONCRETE CAP AT FOUNDATION WALL WHERE STOREFRONT OR DOORS OCCUR AT AREA OF CONCRETE SLAB LEAVE-OUT. REFER TO WALL SECTIONS AND STRUCTURAL DRAWINGS
- 22 LOCATION OF ELECTRIC SERVICE, HOUSE PANEL, AND TELEPHONE/CABLE CABINETS. REFER TO ELECTRICAL DRAWINGS
- 23 ROOF ACCESS LADDER W/ LOCKABLE SECURITY ENCLOSURE. REFER TO EXTERIOR ELEVATIONS AND DETAIL ON SHEET A5.3



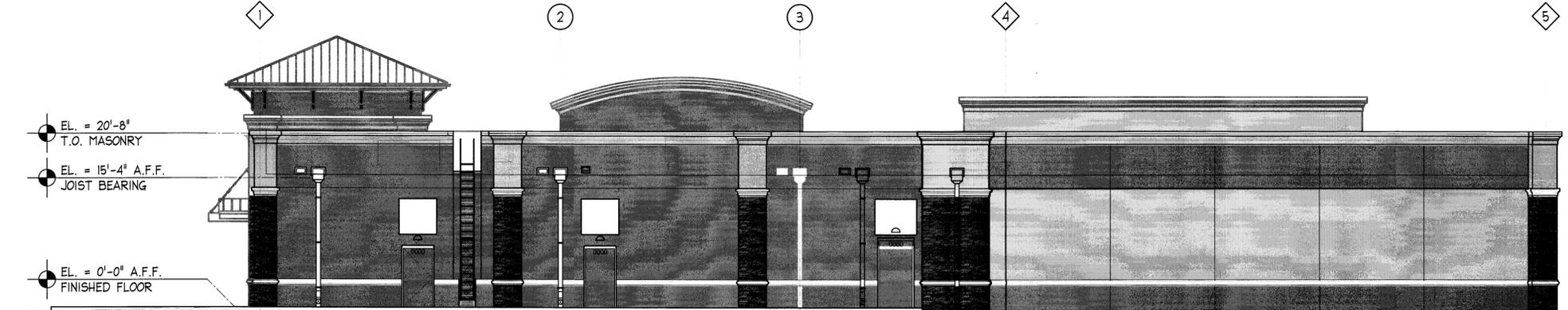
1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 WEST ELEVATION
SCALE: 1/8" = 1'-0"



3 EAST ELEVATION
SCALE: 1/8" = 1'-0"



4 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

SIGN CODE SUMMARY
 PERMIT OFFICIAL: STEVEN SPRAKER 386-676-3236
 ALLOWABLE BUILDING SIGNAGE:
 - SIGN PLAN IS REQUIRED FOR MULTI-TENANT DEVELOPMENTS
 - SIZE LIMIT: ONE SQ FT OF SIGNAGE PER ONE LINEAR FT OF BUILDING FRONTAGE UP TO 30'-0", PLUS 1/2 SQ FT FOR EACH LINEAR FOOT THEREAFTER.
 - NUMBER/LOCATION: ONE WALL SIGN FOR EACH BUSINESS. CORNER, DOUBLE FRONTAGE AND SHOPPING CENTER CORNER UNITS: TWO WALL SIGNS WITH A MAX SQ FOOTAGE OF 150% OF THE MAX SIZE LIMIT PERMITTED. ONE SIGN PER BUILDING FACADE.

BUILDING MOUNTED SIGNAGE DEPICTED ON THE ELEVATIONS IS FOR GRAPHIC PURPOSES ONLY AND IS NOT INTENDED FOR FABRICATION OR INSTALLATION BY THE GENERAL CONTRACTOR FOR THE SHELL CONSTRUCTION. BUILDING MOUNTED SIGNAGE SHALL BE THE RESPONSIBILITY OF THE RESPECTIVE TENANT'S SIGN VENDOR. COMPLETE SHOP DRAWINGS SHALL BE PREPARED BY THE VENDOR(S) AND SUBMITTED TO THE OWNER/LANDLORD FOR REVIEW AND APPROVAL.

ARCHITECTURAL DESIGN CRITERIA - NEO-ECLECTIC

- MASSING: BUILDINGS LESS THAN 15,000 SF, MASSING ELEMENTS IN FACADE SHALL BE EVERY 25' OF BUILDING LENGTH. A-1 REFER TO ELEVATION FOR MASSING ELEMENTS
- MATERIALS: STUCCO, STONE
B-1 REFER TO ELEVATION FOR MATERIAL ELEMENTS
- DOORS: DIFFERENTIATED VISUAL FOCAL POINTS WHICH PROVIDE WEATHER & SUN PROTECTION AND FUNCTIONAL ACCESS AND FENESTRATION. C-1 REFER TO ELEVATION FOR DOOR ELEMENTS
- ROOFS: MULTILEVEL PARAPETS WHICH BREAK THE FACADE AND ADD INTEREST ARE PROVIDED ALONG WITH METAL ROOF TOWER ELEMENTS. D-1 REFER TO ELEVATION FOR ROOF ELEMENTS
- WINDOWS: PLACEMENT ALONG 50% MINIMUM OF FACADE VISIBLE FROM PUBLIC RIGHT-OF-WAY WITH 1/2" MINIMUM RECESS AND STUCCO RELIEF. E-1 REFER TO ELEVATION FOR WINDOW ELEMENTS
- COLOR: DIFFERENTIATING EARTH TONES WITH HARMONIOUS ACCENTS AND TRIMS. REFER TO COLORIZED ELEVATIONS FOR COLORS
- DETAILS: DECORATIVE TRIM AND BRACKETS ARE PROVIDED WITH UNIQUE PARAPET CHANGES PROVIDING VISUAL INTEREST. G-1 REFER TO ELEVATION FOR DETAIL ELEMENTS



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TO THE BEST OF THE KNOWLEDGE OF THE ARCHITECTS AND ENGINEERS, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS.

GUY F. FABER
 FL License No. AR0015323
 seal

no.	date	revision descriptions

RETAIL BUILDING NO. 1
AT
SHOPPES ON GRANADA
 1298 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA 32174

08.11.14
 date
 13065
 comm. no.
 EXT. ELEVATIONS & NOTES

A3.0



FWH
Architects

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Holiday, Florida 34690
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SPECIFICATIONS COMPLY WITH THE
APPLICABLE MINIMUM BUILDING
CODES AND THE APPLICABLE
MINIMUM FIRE SAFETY STANDARDS

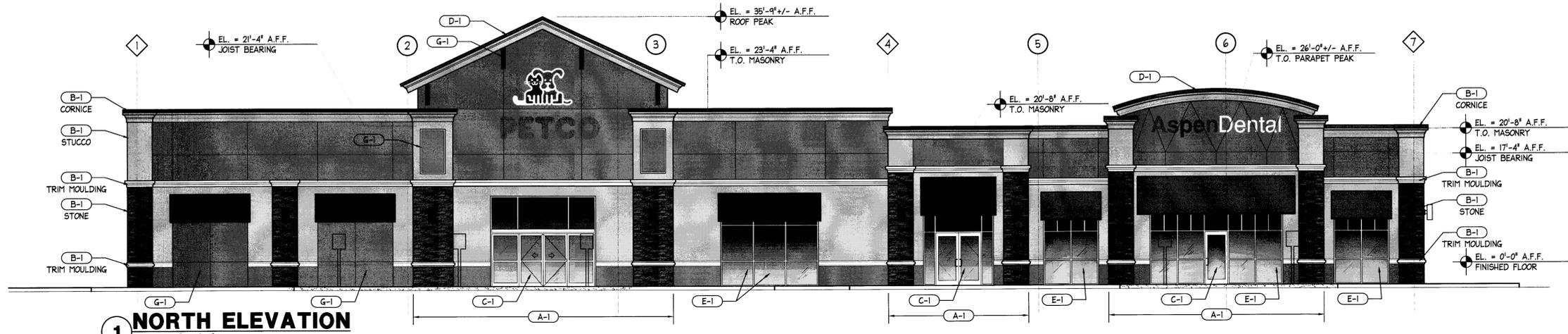
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seal

no.	date	revision descriptions

RETAIL BUILDING NO. 2
AT
SHOPPES ON GRANADA
1298 WEST GRANADA BOULEVARD
ORMOND BEACH, FLORIDA 32174

08.11.14
date
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EXT. ELEVATIONS
& NOTES

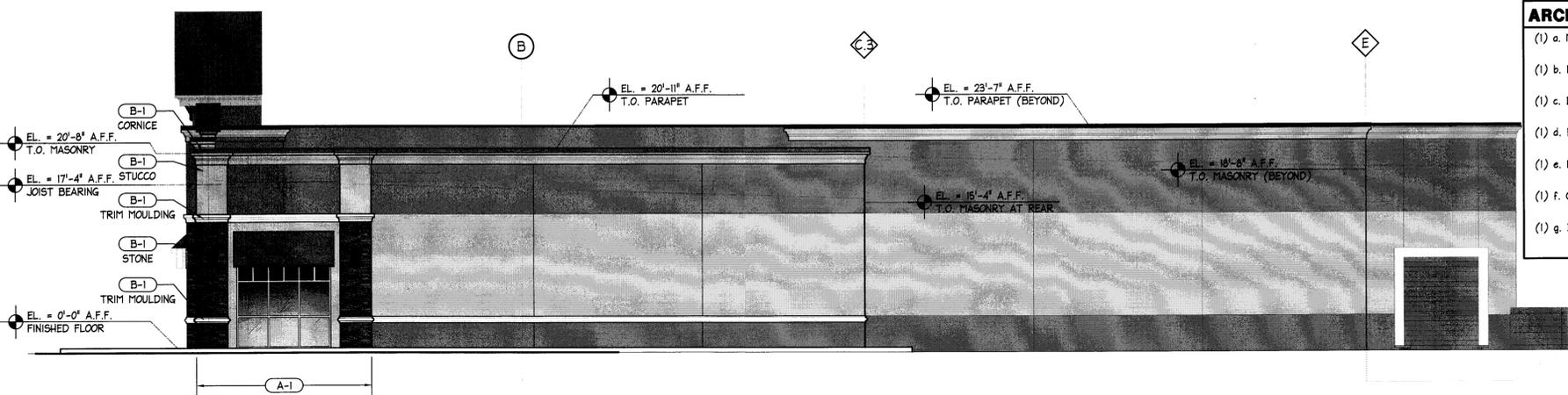
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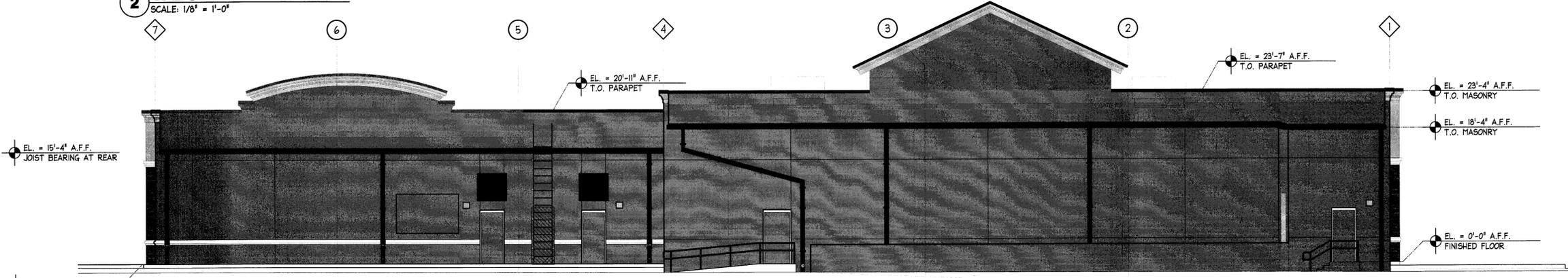
1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

ARCHITECTURAL DESIGN CRITERIA - NEO-ECLECTIC

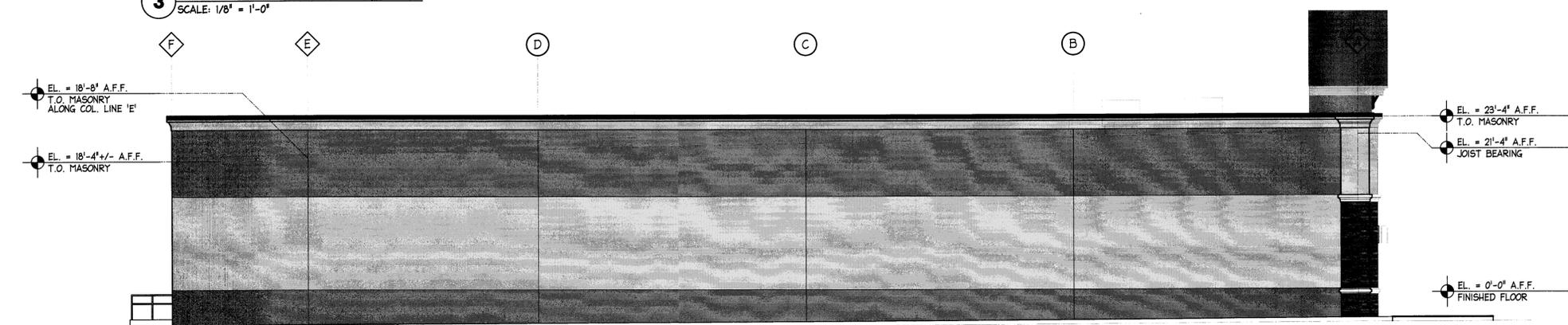
- (1) a. MASSING: BUILDINGS LESS THAN 15,000 SF, MASSING ELEMENTS IN FACADE SHALL BE EVERY 25' OF BUILDING LENGTH.
A-1 REFER TO ELEVATION FOR MASSING ELEMENTS
- (1) b. MATERIALS: STUCCO, STONE
B-1 REFER TO ELEVATION FOR MATERIAL ELEMENTS
- (1) c. DOORS: DIFFERENTIATED VISUAL FOCAL POINTS WHICH PROVIDE WEATHER & SUN PROTECTION AND FUNCTIONAL ACCESS AND FENESTRATION.
C-1 REFER TO ELEVATION FOR DOOR ELEMENTS
- (1) d. ROOFS: MULTILEVEL PARAPETS WHICH BREAK THE FACADE AND ADD INTEREST ARE PROVIDED ALONG WITH METAL ROOF TOWER ELEMENTS.
D-1 REFER TO ELEVATION FOR ROOF ELEMENTS
- (1) e. WINDOWS: PLACEMENT ALONG 50% MINIMUM OF FACADE VISIBLE FROM PUBLIC RIGHT-OF-WAY WITH 1/2" MINIMUM RECESS AND STUCCO RELIEF.
E-1 REFER TO ELEVATION FOR WINDOW ELEMENTS
- (1) f. COLOR: DIFFERENTIATING EARTH TONES WITH HARMONIOUS ACCENTS AND TRIMS.
REFER TO COLORIZED ELEVATIONS FOR COLORS
- (1) g. DETAILS: DECORATIVE TRIM AND BRACKETS ARE PROVIDED WITH UNIQUE PARAPET CHANGES PROVIDING VISUAL INTEREST.
G-1 REFER TO ELEVATION FOR DETAIL ELEMENTS



2 WEST ELEVATION
SCALE: 1/8" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



4 EAST ELEVATION
SCALE: 1/8" = 1'-0"



SIGN CODE SUMMARY

PERMIT OFFICIAL: STEVEN SPRAKER 386-676-3238
ALLOWABLE SITE SIGNAGE:
 -MONUMENT SIGN IS REQUIRED
 -MONUMENT HEIGHT - 8'-0" MAX (MUST INCLUDE MIN 2'-0" OF ARCHITECTURAL EMBELLISHMENT)
 -MULTIPLE PRINCIPAL BUILDINGS ONE SIGN PER BUILDING BASED ON ALLOWABLE SIGN COPY AREA OF LINEAR LOT FRONTAGE OF THE PARCEL
 -BUILDINGS OVER 20,000 SQ FT AND WITH MORE THAN 250 LINEAR FEET OF FRONTAGE: TWO SIGNS BASED ON THE ALLOWABLE SIGN COPY AREA OF LINEAR LOT FRONTAGE OF THE PARCEL
 -ALL TENANT PANELS MUST HAVE THE SAME DIMENSIONS, MATERIAL AND COLOR AND BE APPROVED AS PART OF A MASTER SIGN PLAN
 -ALL SIGNS MUST PROVIDE LOCATION ADDRESS ON EACH SIDE IN A FONT NO LESS THAN 6"
 -WHERE MULTIPLE SIGNS ARE ALLOWED (MULTIPLE PRINCIPAL BUILDINGS):
 -MASTER SIGN PLAN IS REQUIRED
 -EACH SIGN'S SQUARE FOOTAGE SHALL BE BASED ON THE AMOUNT OF LOT FRONTAGE ALLOCATED TO THE SIGN
 -NO SIGN SHALL BE LOCATED WITHIN 100' FROM ANOTHER ON-SITE SIGN
 -ALL SIGNAGE SHALL BE COORDINATED IN COLOR, STYLE AND LETTERING
ALLOWABLE WALL SIGNAGE:
 -MAXIMUM SIZE LIMIT - LINEAR BUILDING FRONTAGE, UP TO 30'-0"; ONE SQUARE FOOT OF SIGNAGE PER ONE LINEAR FOOT OF FRONTAGE. LINEAR BUILDING FRONTAGE OVER 30'-0": ONE SQUARE FOOT OF SIGNAGE PER ONE LINEAR FOOT OF FRONTAGE, PLUS 1/2 SQUARE FOOT FOR EACH LINEAR FOOT THEREAFTER.
 -NUMBER LOCATION - ONE WALL SIGN FOR EACH BUSINESS USE. THE SIGN SHALL BE LOCATED ALONG THE BUILDING FRONTAGE THAT IS DESIGNED TO ADVERTISE.



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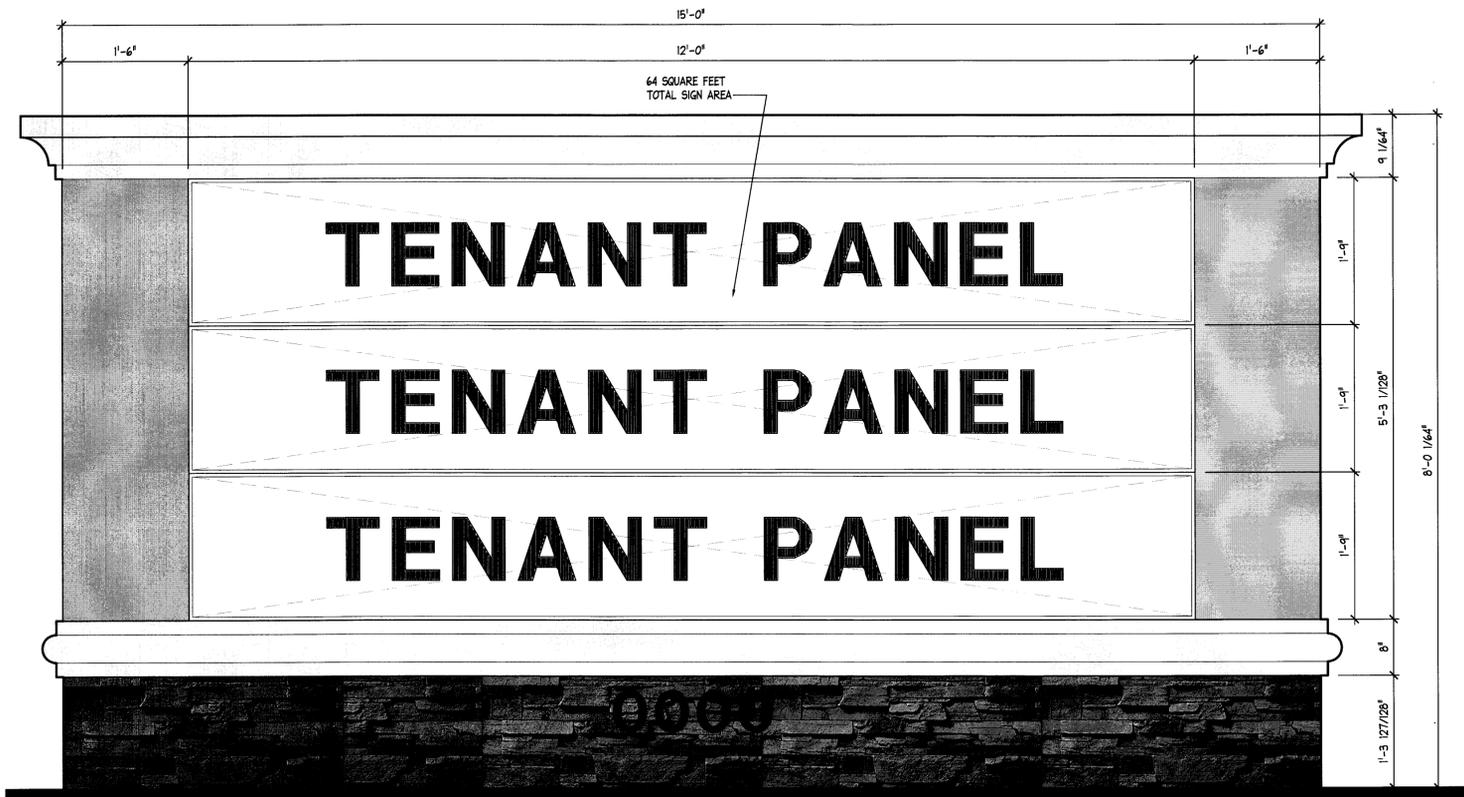
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RETAIL BUILDING NO. 1
 AT
 SHOPPES ON GRANADA
 1298 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA 32174

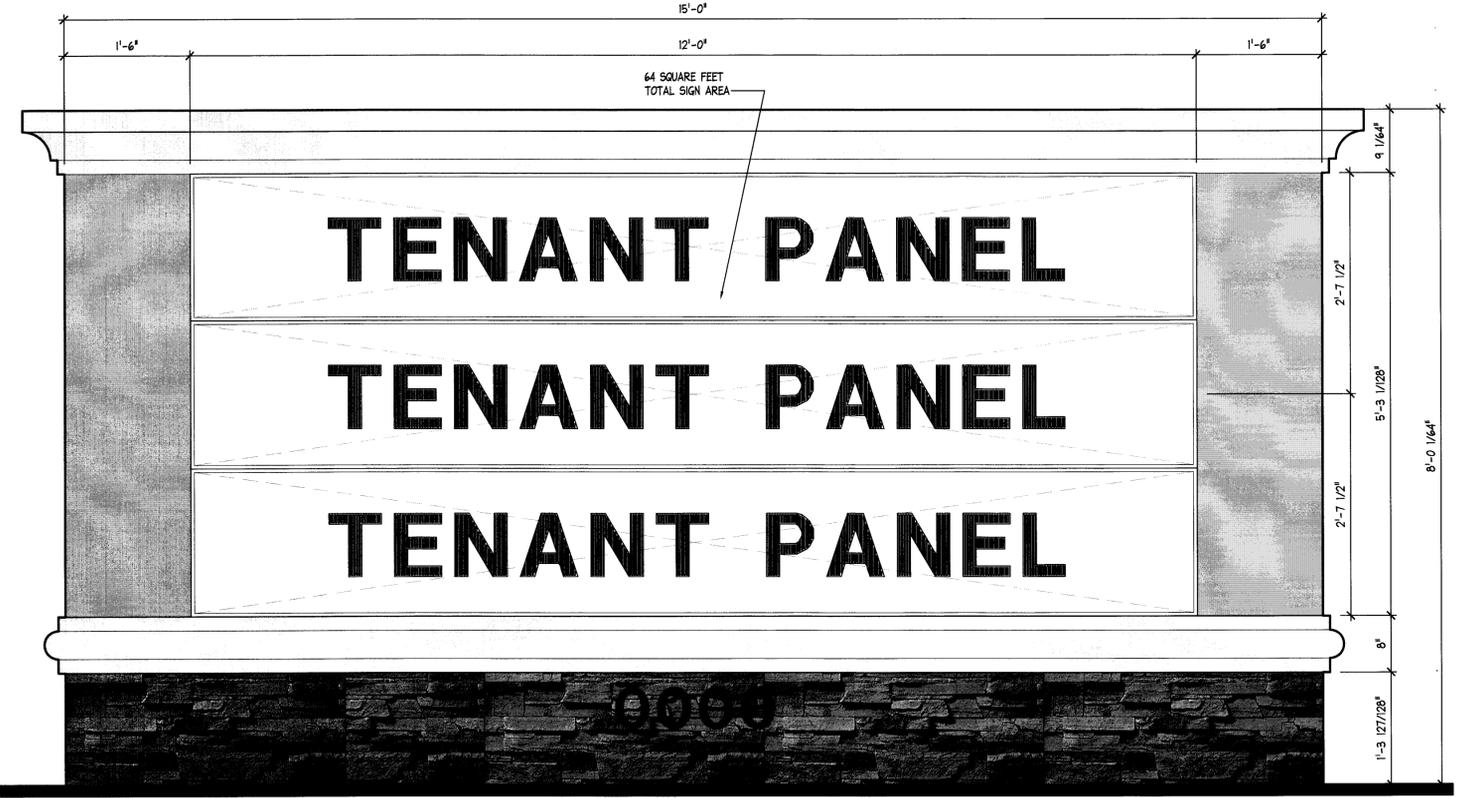
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SITE DETAILS

AS.2



1A SIGN '1'
 SCALE: 1" = 1'-0"

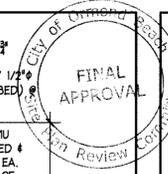


1B SIGN '2'
 SCALE: 1" = 1'-0"

1 MONUMENT SIGN DETAILS
 SCALE: AS SHOWN



1C SIGN '3'
 SCALE: 1" = 1'-0"



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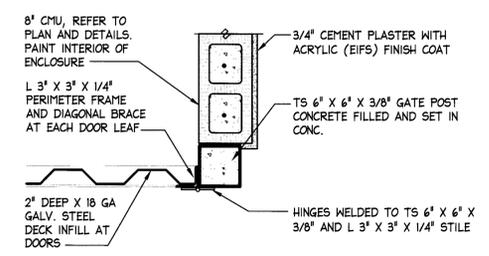
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no.	date	revision descriptions

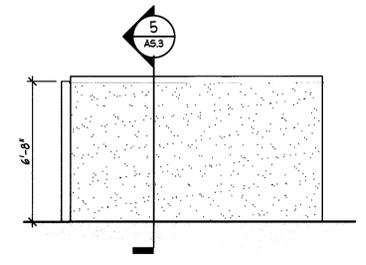
RETAIL DEVELOPMENT AT SHOPPES ON GRANADA
 1298 WEST GRANADA BOULEVARD
 ORMOND BEACH, FLORIDA 32174

06.23.14
 date
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 comm. no.
 DUMPSTER ENCLOSURE DETAILS

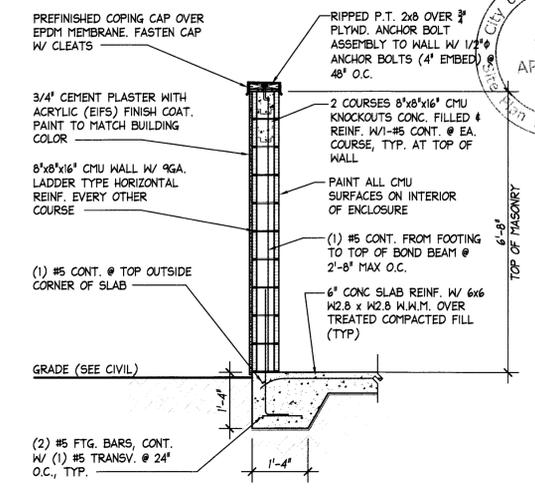
AS.3



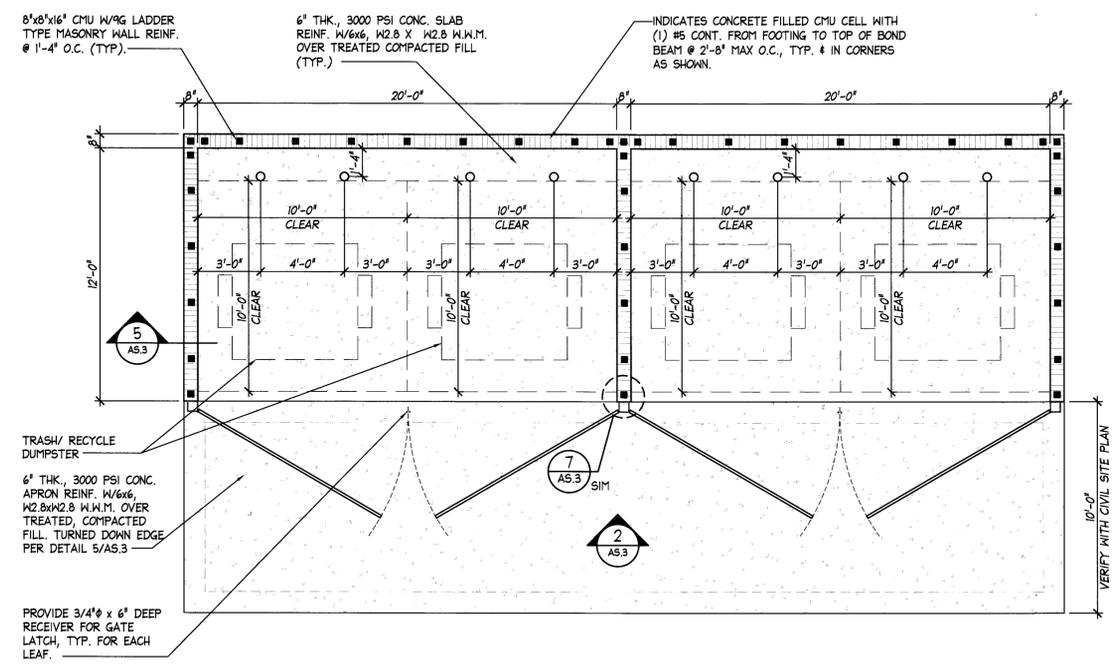
7 ENCLOSURE GATE DETAIL



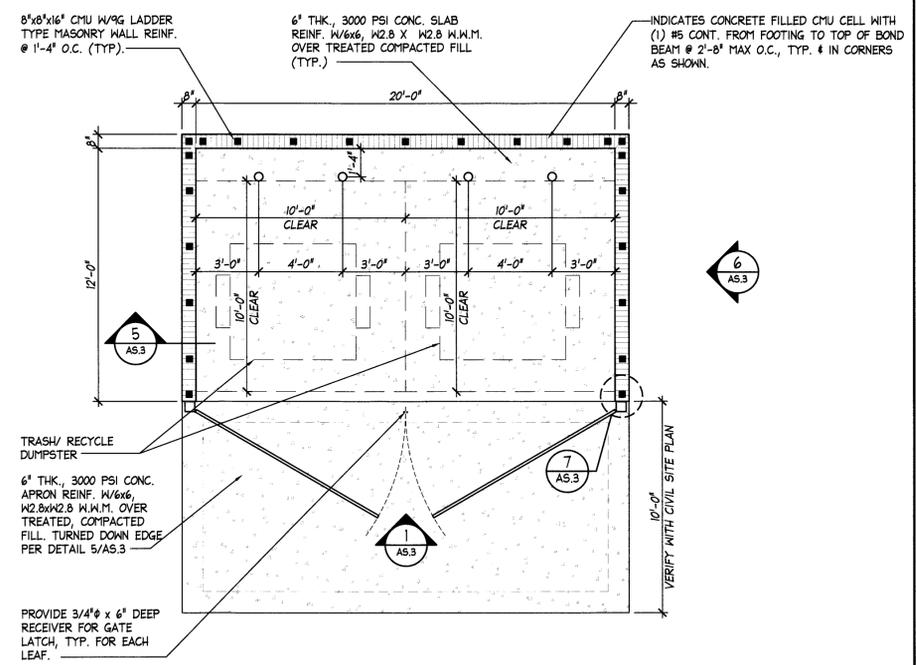
6 ENCLOSURE ELEVATION - TYP. SIDE



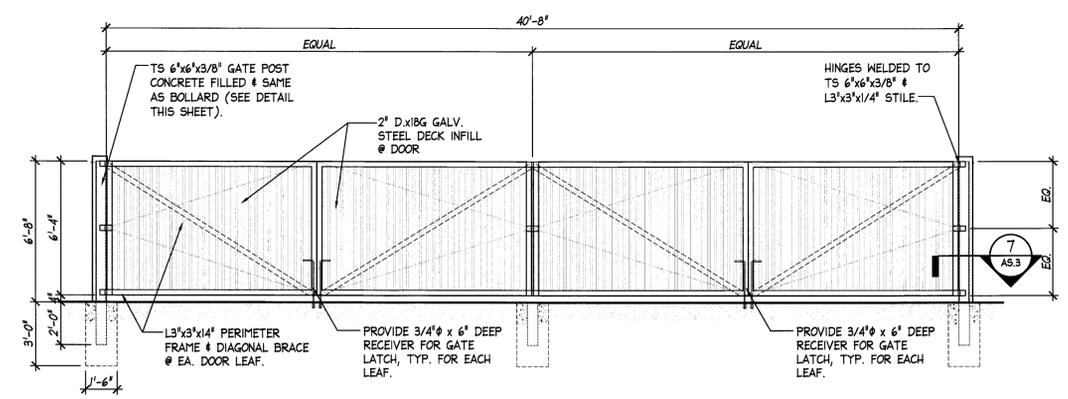
5 TYP. ENCLOSURE SECTION



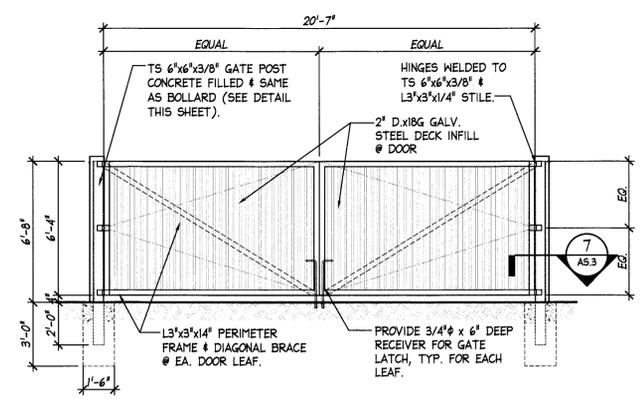
4 ENCLOSURE PLAN - BUILDING 2



3 ENCLOSURE PLAN - BUILDING 1



2 ENCLOSURE ELEVATION - BUILDING 2



1 ENCLOSURE ELEVATION - BUILDING 1