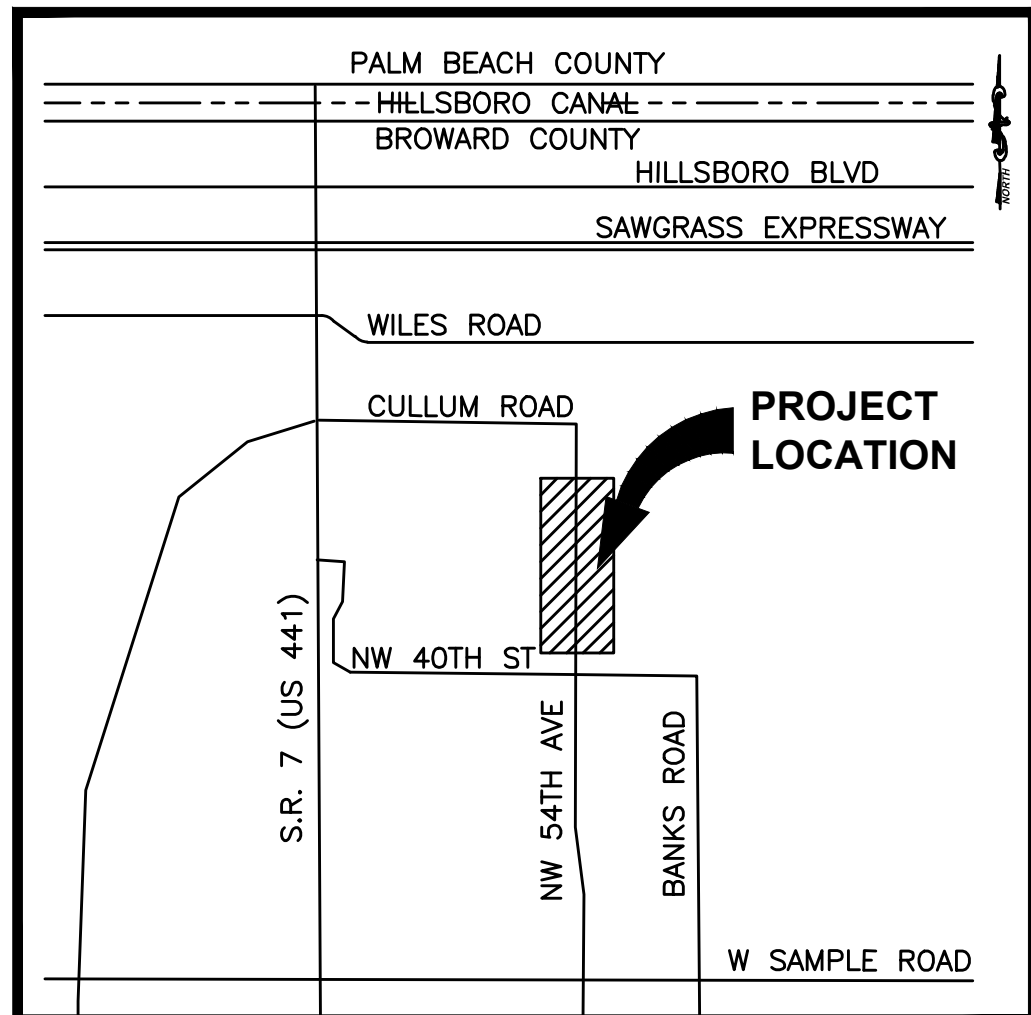


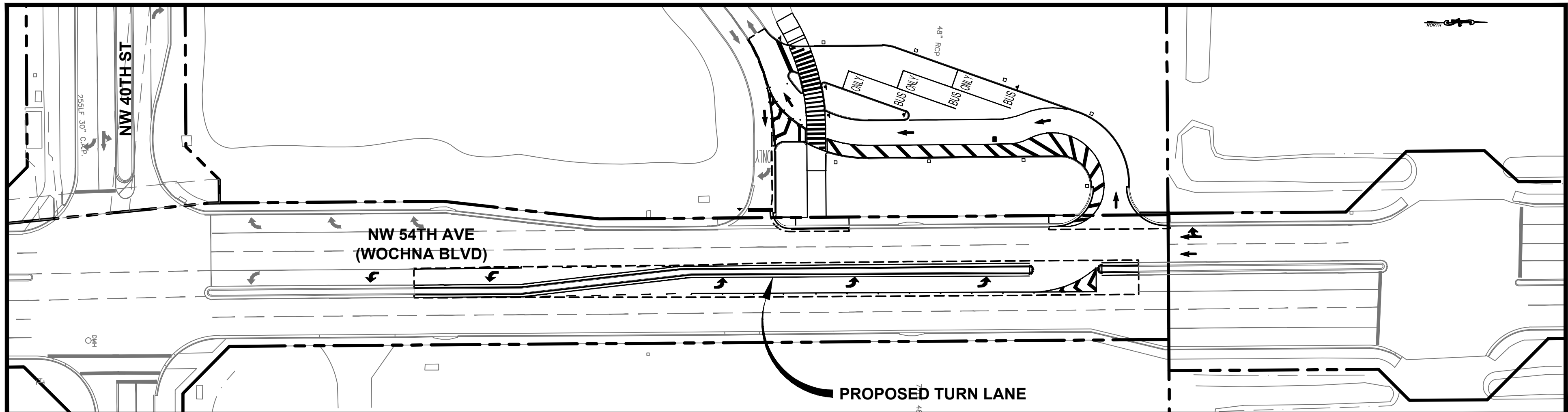
CONSTRUCTION PLANS
FOR

COMMERCE CENTER OF COCONUT CREEK
NW 54th AVE TURN LANE RELOCATION

CITY OF COCONUT CREEK
BROWARD COUNTY, FLORIDA



VICINITY MAP
N.T.S.



PROJECT LOCATION MAP
SCALE: 1"=50'

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K&S PROJECT NO. 17796.55
DATE: JULY 17, 2013

REVISIONS		
DATE	NO.	DESCRIPTION
08/19/13	1	STOF OP.'S REVISIONS



KEITH and SCHNARS, P.A.
ENGINEERS, PLANNERS, SURVEYORS
CERTIFICATE OF AUTHORIZATION #1337
6500 NORTH ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA 33309 (954) 776-1616

THE PUBLIC ROADWAY(S) INDICATED IN THESE PLANS HAVE BEEN
DESIGNED IN ACCORDANCE WITH THE "MANUAL OF UNIFORM
MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND
MAINTENANCE FOR STREETS & HIGHWAYS - STATE OF FLORIDA."

PRODUCED FOR:
SEMINOLE TRIBE OF FLORIDA
ONE SEMINOLE WAY
HOLLYWOOD, FLORIDA 33314

TIM J. HALL, P.E.
FLORIDA LIC. NO. 50588
(FOR THE FIRM)
DATE:

THE LOCATION AND SIZE OF ALL EXISTING UTILITIES AND TOPOGRAPHY HAVE BEEN PREPARED FROM INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ANY EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL UTILITIES, BY ELECTRONIC METHODS AND BY HAND EXCAVATION IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATIONS. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

I. APPLICABLE CODES

A. GENERAL

ALL CONSTRUCTION, MATERIALS AND TESTING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL, COUNTY, STATE AND NATIONAL CODES WHERE APPLICABLE.

WHEN ANY OF THE GOVERNING REGULATORY AGENCY'S STANDARDS AND SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT APPLY.

B. CONSTRUCTION SAFETY

ALL CONSTRUCTION SHALL BE DONE IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

C. TRENSH SAFETY ACT

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE FLORIDA TRENSH SAFETY ACT.

D. SURVEY DATA

ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS UNLESS OTHERWISE NOTED, ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD).

II. PRECONSTRUCTION RESPONSIBILITIES

A. THE CONTRACTOR SHALL OBTAIN A HOURSING STATE ONE CALL AT 811 CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION.

B. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE SIZE, LOCATION, ELEVATION, AND MATERIAL OF ALL EXISTING UTILITIES WITHIN THE AREA OF CONSTRUCTION.

C. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS ARE APPROXIMATE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING UTILITIES SHOWN OR FOR ANY EXISTING UTILITIES NOT SHOWN.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING UTILITIES FOR WHICH HE FAILS TO REQUEST LOCATIONS FROM THE UTILITY OWNER. HE IS RESPONSIBLE AS WELL FOR DAMAGE TO ANY EXISTING UTILITIES WHICH ARE PROPERLY LOCATED.

III. INSPECTIONS

A. THE CONTRACTOR SHALL NOTIFY THE OWNER/MUNICIPAL AUTHORITY, THE ENGINEER OF RECORD AND THE COUNTY, IF APPLICABLE, AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS:

1. STORM DRAINAGE
2. WATER SYSTEM
3. SUBGRADE - SUBMIT AND HAVE APPROVED DENSITIES PRIOR TO PLACEMENT OF ROCK.
4. LIMELOCK BASE - SUBMIT AND HAVE APPROVED DENSITIES AND AS-BUILTS PRIOR TO THE PLACEMENT OF ANY ASPHALT.
5. ASPHALTIC CONCRETE
6. FINAL INSPECTION

IV. SHOP DRAWINGS

PRIOR THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND REVIEWED BY THE OWNER/MUNICIPAL AUTHORITY AND ENGINEER OF RECORD FOR SANITARY BASELINES, CATCH BASINS, FIRE HYDRANTS, VALVES, PANS, OTHER MANHOLE/ ELECTRICAL EQUIPMENT WITH ASSOCIATED STRUCTURES, INCLUDING ALL DATA, CATALOGUE LITERATURE SHALL BE SUBMITTED FOR WATER AND SEWER PIPES, FITTINGS, AND APPURTENANCES.

PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW AND APPROVE THE DRAWINGS, AND SHALL NOTE IN RED ANY DEVIATIONS FROM THE ENGINEER'S PLANS OR SPECIFICATIONS.

INDIVIDUAL SHOP DRAWINGS FOR ALL PRECAST STRUCTURES ARE REQUIRED. CATALOGUE LITERATURE WILL NOT BE ACCEPTED FOR PRECAST STRUCTURES.

V. TEMPORARY FACILITIES

A. TEMPORARY UTILITIES

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES AND ELECTRICITY TO HIS EMPLOYEES AND SUBCONTRACTORS FOR THEIR USE DURING CONSTRUCTION.

B. TRAFFIC REGULATION

1. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE MUTCD.
2. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
3. NO TRENCHES OR HOLES NEAR WALKWAYS OR IN ROADWAYS OR THEIR SHOULDERS ARE TO EXIST OPEN FOR MORE THAN 72 HOURS. NO WORK SHALL COMMENCE WITHIN FDOT R/W'S WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.
4. ALL CONSTRUCTION WITHIN FDOT R/W MUST CONFORM WITH FDOT SPECIFICATIONS, STANDARDS AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FDOT R/W'S WITHOUT AN FDOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT SECTION IS REQUIRED IN ACCORDANCE WITH STANDARDS FOR PROPOSED WORK WITHIN FDOT R/W.
5. CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S TO BE ATSSA CERTIFIED.

VI. PROJECT CLOSEOUT

A. CLEANING OUT

1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER. UPON FINAL CLEAN UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEEPED BROOM CLEAN AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED BY THE ENGINEER OR OWNER/MUNICIPAL AUTHORITY, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT, EMPLOYEES OR THOSE OF HIS SUBCONTRACTORS TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS. TO THIS END, THE CONTRACTOR SHALL AS OR AS REQUIRED ALL NECESSARY HIGHWAY OR DRIVEWAY, WALK, IRRIGATION AND LANDSCAPING WORK. SUITABLE MATERIALS AND METHODS SHALL BE USED FOR SUCH RESTORATION.
3. WHERE MATERIAL OR DEBRIS HAS WASHED OR FLOWED INTO OR BEEN PLACED IN WATER BODIES, DITCHES, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED, SATISFACTORILY DISPOSED OF DURING PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION AS DIRECTED BY THE ENGINEER.
4. CONTRACTOR SHALL DISPOSE OF ALL SITE DEMOLITION IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

B. PROJECT RECORD DOCUMENTS

1. THE CONTRACTOR SHALL MAINTAIN ACCURATE AND COMPLETE RECORDS OF WORK ITEMS COMPLETED.
2. PRIOR TO THE PLACEMENT OF ANY ASPHALT OR CONCRETE PAVEMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER "AS-BUILT" PLANS SHOWING LIMELOCK BASE GRADES, AND ALL DRAINAGE, WATER, AND SEWER IMPROVEMENTS. PAVING OPERATIONS SHALL NOT COMMENCE UNTIL THE ENGINEER AND THE APPROVING AGENCY HAS REVIEWED THE "AS-BUILTS".
3. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR SUBGRADE SHALL BE PROVIDED TO THE ENGINEER AND THE OWNER/MUNICIPAL AUTHORITY PRIOR TO PLACING LIMELOCK BASE MATERIAL.
4. ALL REQUIRED DENSITY AND LBR TEST RESULTS FOR LIMELOCK SHALL BE PROVIDED TO THE ENGINEER AND THE OWNER/MUNICIPAL AUTHORITY PRIOR TO PLACING ASPHALT.
5. ALL "AS-BUILT" INFORMATION SUBMITTED TO THE ENGINEER SHALL BE SUFFICIENTLY ACCURATE, CLEAR AND LEGIBLE TO THE SATISFACTION OF THE ENGINEER THAT THE INFORMATION PROVIDES A TRUE REPRESENTATION OF THE IMPROVEMENTS CONSTRUCTED.
6. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD ONE COMPLETE SET OF "AS-BUILT" CONSTRUCTION DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "RECORD DRAWING" OR "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONED LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS AND SHALL BE SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR OR ENGINEER. FINAL "AS-BUILT" INFORMATION SHALL BE SUBMITTED ON AN AUTOCAD FORMAT AS DIRECTED BY THE ENGINEER.

CONTRACTOR MAY UTILIZE ONE OF THE FOLLOWING MATERIALS (AS DIRECTED AND APPROVED BY THE OWNER/MUNICIPAL AUTHORITY) ON A SIZE FOR SIZE BASIS:

1. ALUMINUM
 - a. PIPE SHALL BE ALUMINUM, MANUFACTURED IN CONFORMANCE WITH ASTM B-209. METAL PIPE SHALL NOT BE ALLOWED WITHIN THE ROAD RIGHT-OF-WAY.
 - b. PIPE SHALL BE SPIRAL RIB DRAINAGE PIPE WITH 3/4" X 3/4" RIBS, APPROXIMATELY 7-1/2" ON CENTER. GAUGE THICKNESS SHALL MEET FDOT STANDARD 945-1.
 - c. PIPE COUPLING BANDS SHALL BE 12" WIDE STANDARD SPLIT BANDS OF THE SAME ALLOY AS THE PIPE AND MAY BE ONE GAUGE LIGHTER THAN THE PIPE.
 - d. POLYURETHANE OR OTHER SEALANT MUST BE USED WITH COUPLING BANDS ON ALL NON-PERFORATED PIPE.
2. REINFORCED CONCRETE (RCP)
 - a. CONCRETE PIPE FOR STORM SEWERS ON DOT PROJECTS SHALL CONFORM TO FDOT 430-2.
 - b. CONCRETE PIPE FOR STORM SEWERS SHALL CONFORM TO ASTM 176-79, TABLE III CLASS B OR LATEST REVISION. ALL PIPE SHALL HAVE MODIFIED TONGUE AND GROOVE JOINTS AND HAVE RUBBER GASKETS, UNLESS OTHERWISE SPECIFIED.
3. HIGH DENSITY POLYETHYLENE PIPE (HDPE)
 - a. HIGH DENSITY POLYETHYLENE PIPE FOR STORM SEWERS SHALL CONFORM TO FDOT 948-2.
4. POLYVINYL-CHLORIDE PIPE (PVC)
 - a. POLYVINYL-CHLORIDE PIPE FOR STORM SEWERS SHALL CONFORM TO FDOT 948-1.

B. BEDDING AND INITIAL BACKFILL OVER DRAINAGE PIPE SHALL BE SAND WITH NO ROCK LARGER THAN 1" DIAMETER.

C. BACKFILL MATERIAL UNDER PAVED AREAS SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

D. BACKFILL MATERIAL UNDER AREAS NOT TO BE PAVED SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.

E. STORM WATER POLLUTION PROTECTION PLAN
CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY SILT SCREENERS IN CATCH BASINS AND AT LOCATIONS AS DIRECTED BY THE ENGINEER UNTIL FINAL ACCEPTANCE OCCURS.

VII. PAVING

A. GENERAL

1. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE LIMEROCK BASE AND PRIOR TO THE PLACEMENT OF THE PAVEMENT.
2. ALL STREET CORNER PAVEMENT RADII SHALL BE 35 FEET UNLESS OTHERWISE NOTED ON THE PLANS.
3. TWO ROWS OF BAHIA SOD SHALL BE LAID ALONG CURB WITHIN TWO WEEKS OR AS DIRECTED BY THE ENGINEER OF INSTALLING FIRST LIFT OF ASPHALT.

B. MATERIALS

1. LIMEROCK BASE MATERIAL SHALL HAVE A MINIMUM OF 70% CARBONATES (CALCIUM AND MAGNESIUM) WITH A MINIMUM LBR OF 100.
2. SUBGRADE MATERIAL SHALL HAVE A MINIMUM LBR OF 40 AND INSTALLED AT 98% AASHTO T-180 SPECS.
3. PRIME COAT AND TACK COAT SHALL MEET FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS.
4. SURFACE COURSE AS SHOWN ON PLANS.

C. INSTALLATION

1. LIMEROCK BASE MATERIAL SHALL BE 8" THICK OR AS SHOWN AND SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
2. LIMEROCK BASE MATERIAL SHALL BE PLACED IN TWO OR MORE EQUAL LIFTS.
3. ASPHALTIC CONCRETE AS SHOWN ON PLANS.
4. PRIME COAT SHALL BE PLACED ON ALL LIMEROCK BASES IN ACCORDANCE WITH (FDOT) STANDARDS.
5. TACK COAT SHALL BE PLACED, AS REQUIRED, ON ALL ASPHALT OVERLAY, IN ACCORDANCE WITH (FDOT) STANDARDS.

D. TESTING
ALL SUBGRADE, LIMEROCK AND ASPHALT TESTS REQUIRED SHALL BE TAKEN AT THE DIRECTION OF THE ENGINEER AND/OR THE OWNER/MUNICIPAL AUTHORITY.

E. PAVERS
PAVER MATERIAL, INSTALLATION AND MAINTENANCE SPECIFICATIONS SHALL MEET THE REQUIREMENTS OF THE OWNER/MUNICIPAL AUTHORITY.

IX. SIGNING AND MARKING

A. PAVEMENT MARKINGS SHALL BE THERMOPLASTIC OR PAINT AS REQUIRED BY THE OWNER/MUNICIPAL AUTHORITY.

B. ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

C. REFLECTIVE PAVEMENT MARKERS SHALL BE CLASS B MARKERS MANUFACTURED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 706 AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES.

X. FDEP GENERAL WATER NOTES

A. ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS AND METERS INSTALLED SHALL CONFORM TO APPLICABLE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS.

B. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NST INTERNATIONAL STANDARD 61 AS ADOPTED BY RULE 62-555.335, F.A.C., OR OTHER APPLICABLE STANDARDS, REGULATION OR REQUIREMENTS REFERENCED IN PARAGRAPH 62-333.320(3)(b), F.A.C.

C. ALL PIPE AND PIPE FITTINGS INSTALLED SHALL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(b)3, F.A.C., USING BLUE AS PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDED BLUE EXTERNAL SING, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO OR APPLIED TO THE PIPEWALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES AND APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL 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 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 SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.)

D. NEW OR ALTERED WATER MAINS CONSTRUCTED OF POLYVINYL CHLORIDE PIPE SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C603 OR C605, RESPECTIVELY, AS INCORPORATED INTO RULE 62-555.330, F.A.C. AND ALL OTHER NEW OR ALTERED WATER MAINS SHALL BE PRESSURE AND LEAKAGE TESTED IN ACCORDANCE WITH AWWA STANDARD C600 AS INCORPORATED INTO RULE 62-333.330.

XI. LANDSCAPE NOTES

A. ALL CONSTRUCTION ACTIVITY, INCLUDING TRENCHING, IS TO BE A MINIMUM OF SIX FEET FROM THE BASE OF ANY TREE THAT IS DESIGNATED TO REMAIN, NO DRAINAGE STRUCTURES OR IMPROVEMENTS ARE PERMITTED WITHIN REQUIRED PLANTER AREAS/ISLANDS INCLUDING FIRE HYDRANTS, BACKFLOW PREVENTION DEVICES AND/OR FIRE DEPARTMENT CONNECTIONS.

ALL LIMEROCK AND BASE MATERIALS SHALL BE REMOVED FROM THE PLANTER AREAS/ISLANDS AND REPLACED WITH APPROPRIATE PLANTING SOIL PRIOR TO THE LANDSCAPING OF THE SITE.

THE REMOVAL OF ANY TREE ON THE SITE IS PROHIBITED WITHOUT THE REQUIRED MUNICIPAL AUTHORITY PERMIT. ANY SITE WORK MUST BE DONE UNDER AN ENVIRONMENTAL PERMIT PER MUNICIPAL AUTHORITY CODE OF ORDINANCES.

ALL WATER MAIN PIPE, INCLUDING FITTINGS, INSTALLED ON OR AFTER AUGUST 28, 2003, EXCEPT PIPE INSTALLED UNDER A CONSTRUCTION PERMIT FOR WHICH THE HEALTH DEPARTMENT RECEIVED A COMPLETE APPLICATION BEFORE AUGUST 28, 2003, SHALL BE COLOR CODED OR MARKED USING BLUE AS A PREDOMINANT COLOR TO DIFFERENTIATE DRINKING WATER FROM RECLAIMED OR OTHER WATER. UNDERGROUND PLASTIC PIPE SHALL BE SOLID-WALL BLUE PIPE, SHALL HAVE A CO-EXTRUDDED BLUE EXTERNAL SKIN, OR SHALL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE SHALL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE SHALL 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 STRIP PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT SHALL 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 PIPES WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE AT DRINKING WATER TREATMENT PLANTS SHALL BE COLOR CODED AND LABELED IN ACCORDANCE WITH SUBSECTION 62-555.320(10), F.A.C. AND ALL OTHER ABOVEGROUND PIPE SHALL BE PAINTED BLUE OR SHALL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.

1. SUBSECTION 62-555.320(10), F.A.C READS AS FOLLOWS:

COLOR CODING OF PIPING AT DRINKING WATER TREATMENT PLANTS: ALL NEW OR ALTERED, ABOVEGROUND PIPING AT DRINKING WATER TREATMENT PLANTS SHALL BE COLOR CODED AND LABELED AS RECOMMENDED IN SECTION 2.14 OF RECOMMENDED STANDARDS FOR WATER WORKS AS INCORPORATED INTO RULE 62-555.320, F.A.C. IN ADDITION, ALL UNDERGROUND WATER MAIN PIPE THAT IS INSTALLED AT DRINKING WATER TREATMENT PLANTS ON OR AFTER AUGUST 28, 2003, AND THAT IS CONVEYING FINISHED DRINKING WATER SHALL BE COLOR CODED AS REQUIRED UNDER SUBPARAGRAPH 62-555.320(21)(9)3., F.A.C. THIS SUBSECTION DOES NOT APPLY TO DRINKING WATER TREATMENT PLANT PIPING INSTALLED OR ALTERED UNDER A CONSTRUCTION PERMIT FOR WHICH THE DEPARTMENT RECEIVED A COMPLETE APPLICATION BEFORE AUGUST 28, 2003.

XIII. GENERAL NOTES - WATER AND SEWER

1. ALL APPLICABLE PERMITS MUST BE OBTAINED AND ALL APPLICABLE FEES AND CHARGES MUST BE PAID PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER/MUNICIPAL AUTHORITY ATTENDED BY THE CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.

3. THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES ON THE SITE A CURRENT SET OF APPROVED CONSTRUCTION PLANS. THE PLANS SHALL BE MADE AVAILABLE TO THE MUNICIPALITY'S ENGINEER OR HIS DESIGNEE UPON REQUEST.

4. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS. THE APPROVAL OF THE MUNICIPALITY IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. THE OWNER'S ENGINEER SHALL BRING TO THE ATTENTION OF THE MUNICIPALITY'S ENGINEER ANY DISCREPANCY IN, OR VARIATION FROM, THE APPROVED PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES AND IMPROVEMENTS FROM DAMAGE, DISRUPTION OF SERVICE, OR INTERFERENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.

THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. ANY AND ALL CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE ENGINEER.

5. THE CONTRACTOR SHALL INFORM THE MUNICIPALITY'S ENGINEER AT LEAST 48 HOURS IN ADVANCE OF COMMENCING CONSTRUCTION AND/OR CONNECTING TO A MUNICIPAL FACILITY.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SCHEDULING OF, AND PAYMENT FOR, SUCH TESTS AS MAY BE DEEMED NECESSARY BY THE OWNER'S ENGINEER OR THE MUNICIPAL ENGINEER, AND AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.

7. THE OWNER'S ENGINEER SHALL MAKE SUFFICIENT INSPECTIONS OF THE WORK TO ENABLE HIM TO CERTIFY THE INSTALLATION AS BEING IN CONFORMANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS.

8. THE OWNER'S REPRESENTATIVE WILL INFORM THE CONTRACTOR WHEN TO BACK FILL THE WORK, AND WILL WITNESS ALL PRESSURE, BACTERIOLOGICAL AND INFILTRATION/EXFILTRATION TESTS.

9. SANITARY SEWERS AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.

WHERE SANITARY SEWERS OR FORCE MAINS MUST CROSS A WATERMAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP), MIN. CLASS 52 AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 12 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).

WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL DISTANCE, THE PIPE SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

10. A MINIMUM OF 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL SEPARATION OF 8 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

11. NO DEVIATION FROM APPROVED PLANS SHALL BE PERMITTED WITHOUT THE WRITTEN CONSENT OF THE MUNICIPAL ENGINEER.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THESE PLANS WITH ANY PAVING AND DRAINAGE PLANS IN THIS PROJECT WORK AREA.

13. THE FOLLOWING DOCUMENTS ARE TO BE ON FILE AT THE OFFICE OF THE MUNICIPAL ENGINEER PRIOR TO THE CONNECTION OF THE FIRST WATER METER:

A. FINAL ENGINEERING PLANS APPROVED BY THE MUNICIPALITY'S ENGINEERING DEPARTMENT.

B. LETTERS OF ACCEPTANCE FROM:

1) COUNTY HEALTH DEPARTMENT

2) COUNTY DPWP - WASTEWATER LICENSING SECTION/FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (FDEP)

C. COPIES OF BACTERIOLOGICAL REPORTS STAMPED BY THE COUNTY HEALTH DEPT.

D. CERTIFICATION OF ENGINEER OF RECORD

E. LETTER FROM OWNER STATING ACTUAL COST OF CONSTRUCTION

F. LETTER FROM OWNER STATING THAT NO LIENS HAVE BEEN FILED RELATING TO INSTALLATION OF UTILITIES

G. BILL OF SALE ABSOLUTE FOR SYSTEM

H. GRANT OF EASEMENT OR LETTER STATING THAT EASEMENTS ARE ON THE PLAT

I. LETTER FROM OWNER COMMITTING TO RECORDATION OF APPROPRIATE DOCUMENTS WITHIN 90 DAYS

J. ADDRESS PLAN OF PROJECT

K. REQUIRED NUMBER OF SIGNED AND SEALED COPIES, AS REQUIRED BY THE ENGINEER OF ASBUILTS CERTIFIED BY A LAND SURVEYOR OR ENGINEER REGISTERED IN THE STATE OF FLORIDA, AND ONE COPY OF AS-BUILTS ON CD-ROM(S) IN AUTOCAD FORMAT.

L. FINAL INSPECTION VERIFICATION

M. TEMPORARY METER REMOVAL LETTER

14. ALL INSTALLATIONS WITHIN THE COUNTY RIGHT-OF-WAY SHALL BE IN CONFORMITY WITH THE COUNTY ENGINEERING DIVISION "MINIMUM STANDARDS".

15. ALL INSTALLATIONS AND TESTING OF DUCTILE IRON PIPE SHALL COMPLY WITH ANSI/AWWA C-600-99 (OR CURRENT EDITION).

16. COATINGS AND LININGS (DIP):

A. DUCTILE IRON PIPE AND FITTINGS FOR UNDERGROUND SERVICE SHALL RECEIVE AN EXTERIOR BITUMINOUS COATING OF COAL TAR VARNISH OR ASPHALT BASE PAINT, 1.0-MIL FILM THICKNESS IN ACCORDANCE WITH ANSI/AWWA A21.51/C-151.

B. EXPOSED DUCTILE IRON PIPE AND FITTINGS FOR SERVICE SHALL RECEIVE A FACTORY APPLIED EXTERIOR COATING OF UNIVERSAL RUST-INHIBITIVE PRIMER, 2.0 MILS DRY FILM THICKNESS.

C. DUCTILE IRON PIPE AND FITTINGS FOR WASTEWATER SERVICE SHALL RECEIVE A FACTORY APPLIED INTERIOR CERAMIC EPOXY COATING WITH A MINIMUM DRY THICKNESS OF 40 MILS IN ACCORDANCE WITH ANSI A21.4. PROTECTED 401 OR APPROVED EQUAL.

D. DUCTILE IRON PIPE AND FITTINGS FOR WATER AND REUSE SERVICE SHALL RECEIVE AN EXTERIOR COATING AS SPECIFIED ABOVE AND SHALL BE CEMENT MORTAR LINED AND BITUMINOUS SEALED IN ACCORDANCE WITH ANSI A21.4.

17. WASTEWATER APPLICATIONS:

PVC

— FOR GRAVITY SEWER ONLY SDR 26 PVC

OR

DIP

— PRESSURE CLASS 350 FOR 4"-24" DIAMETER PIPE

— PRESSURE CLASS 250 FOR 30" OR GREATER DIAMETER PIPE

— CLASS 53 FOR FLANGED APPLICATIONS

XIV. WATER SYSTEM NOTES

1. ALL WATER MAINS LARGER THAN 12" SHALL BE DUCTILE IRON PIPE (DIP). ALL PIPE MATERIAL SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:

~~PVC— NO PVC WATER MAIN ALLOWED~~

~~— 4" AND 6" DIA. CLASS 200, DR14~~

~~— 8" TO 12" DIA. CLASS 150, DR18 ANSI/AWWA C900-07~~

OR

DIP

— ANSI/AWWA C151/A21.51 - 02 AND CEMENT MORTAR LINED AND SEALED PER ANSI/AWWA C104/A21.4-02

— PRESSURE CLASS 350 FOR 4"-24" DIAMETER PIPE

— PRESSURE CLASS 250 FOR 30" OR GREATER DIAMETER PIPE

— CLASS 53 FOR FLANGED APPLICATIONS

2. ALL DUCTILE IRON PIPE WATER MAINS SHALL BE INSTALLED WITH A MINIMUM CLEAR COVER OF 30 INCHES. ALL PVC WATER MAINS SHALL BE INSTALLED WITH MINIMUM CLEAR COVER OF 36 INCHES.

3. ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING AND DISINFECTING MUST COMPLY WITH THE COUNTY OFFICE MINIMUM CONSTRUCTION REQUIREMENTS.

4. MINIMUM CLEARANCE BETWEEN STORM STRUCTURES AND WATER MAINS SHALL BE 2', AND MAXIMUM DEFLECTION PER EACH JOINT SHALL BE 2" WHERE DEFLECTION IS REQUIRED.

5. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON MEETING ANSI/AWWA C-110/A21.10-03 SPECIFICATIONS, WITH 250 PSI MINIMUM WORKING PRESSURE. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C151/A21.51-02 AND C-104/A21.4-03.

6. WEG-A-LUG OR APPROVED EQUAL RESTRAINED JOINT CONSTRUCTION, IF APPROVED BY THE ENGINEER, SHALL BE USED TO MINIMIZE OR ELIMINATE THRUST BLOCKS.

7. GATE VALVES 4 INCH AND LARGER SHALL BE RESILIENT SEAT AND SHALL MEET ANSI/AWWA C-509-01 SPECIFICATIONS (LATEST REVISION). VALVES SHALL BE MUELLER OR APPROVED EQUAL.

8. MIN. VALVE SPACING SHALL BE AS PER SECTION 8.2 OF THE TEN STATES STANDARDS.

9. FIRE HYDRANTS SHALL BE AS REQUIRED BY THE MUNICIPAL AUTHORITY AND AT A MINIMUM SHALL BE TRAFFIC BREAKAWAY TYPE MUELLER CO. CENTURION MODEL NO. A-423, AMERICAN DARLING OR APPROVED EQUAL AND SHALL BE INSTALLED WITH THE CENTER OF THE HOSE NOZZLE 18" ABOVE FINISHED GRADE OR AS DIRECTED BY ENGINEER.

10. CONTRACTOR SHALL SUBMIT REQUIRED NUMBER OF COPIES AS REQUESTED BY THE ENGINEER OF THE PROPOSED MATERIALS.

1. PIPE AND FITTINGS	5. WATER SERVICE TUBING
2. VALVES	6. U BRANCHES
3. FIRE HYDRANTS	7. WATER SERVICE CASING
4. CURB AND CORP. STOPS	

ALL OTHERS AS REQUESTED BY THE ENGINEER OR THE OWNER.

11. WHEN PVC PIPE IS USED FOR WATER MAINS, A 14-GAUGE MULTISTRAND COPPER WIRE OR APPROVED EQUAL MATERIAL SHALL BE INSTALLED CONTINUOUSLY ALONG THE LENGTH OF THE PIPE. THE WIRE SHALL BE BROUGHT UP AND A MINIMUM OF FOUR FEET OF EXCESS WIRE SHALL BE COILED AT EACH VALVE. A GREEN LOCATOR (MODEL NO. 1253 AS MANUFACTURED BY AUTOMATION PRODUCTS CO.) OR APPROVED EQUAL SHALL BE INSTALLED AT EVERY WATER SERVICE.

12. THE COMPLETE WATER SYSTEM SHALL BE HYDROSTATICALLY TESTED UNDER A MINIMUM CONSTANT PRESSURE OF 150 PSI FOR A MINIMUM 2 HOURS TEST AND SHALL NOT EXCEED THE LEAKAGE REQUIREMENTS AS PER ANSI/AWWA SPECIFICATIONS OF C600-05 IN ACCORDANCE WITH THE FOLLOWING LEAKAGE FORMULA:

$$L = \frac{SD P^{1/2}}{148,000}$$

WHERE: L = ALLOWABLE LEAKAGE IN GPH

D = NOMINAL PIPE DIAMETER IN INCHES

S = LENGTH OF PIPE IN FEET

P = AVERAGE TEST PRESSURE IN PSI

NOTE: THE SECTION OF MAIN TESTED SHALL BE LIMITED TO A MAXIMUM LENGTH OF 2,000'. NO ALLOWABLE LEAKAGE SHALL BE PERMITTED FOR FIRE HYDRANTS.

13. DISINFECTION OF WATER MAINS SHALL COMPLY WITH ANSI/AWWA C-651-05 STANDARD.

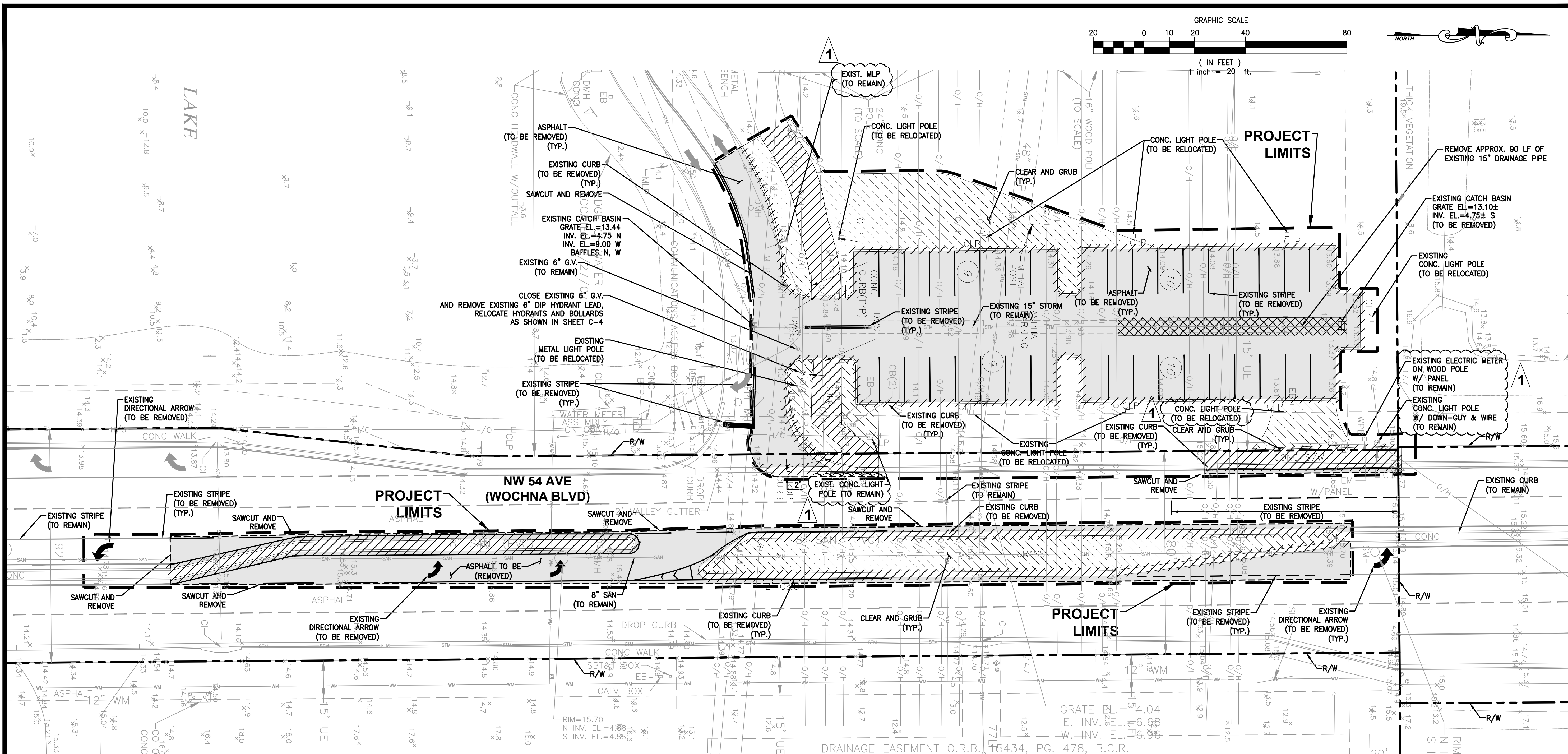
14. THE CONTRACTOR SHALL SUPPLY AND INSTALL APPROVED REFLECTIVE MARKERS IN THE STREET DRIVING LANE ADJACENT TO ALL FIRE HYDRANTS. COLOR AND LOCATION SHALL BE DIRECTED BY THE ENGINEER.

15. PAVEMENT RESTORATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

16. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320, FAC.

17. RESTRAINED JOINT PIPE SHALL BE USED FOR ALL BENDS, TEES, CROSSES, PLUGS AND FIRE HYDRANTS PER THE STANDARD DETAILS AND MUNICIPAL UTILITY REQUIREMENTS.

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DEMOLITION LEGEND

- ASPHALT TO BE REMOVED
- CURB/CONC TO BE REMOVED
- CLEAR AND GRUB
- EXISTING DRAINAGE TO BE REMOVED
- PROJECT LIMITS

DEMOLITION NOTES

UNLESS OTHERWISE NOTED, THE "LIMITS OF DEMOLITION" SHOWN ON PLANS DELINEATES THE LIMITS WITHIN WHICH DEMOLITION IS TO BE PERFORMED. TYPICAL DEMOLITION INCLUDES THE REMOVAL OF ASPHALT, CURBING, VEGETATION, SIGNS AND ALL OTHER FEATURES UNLESS OTHERWISE NOTED TO REMAIN.

- PROPER SAFETY PRECAUTIONS SHALL BE TAKEN TO SEPARATE AREA OF DEMOLITION FROM SURROUNDING PROPERTY. A 6' CHAIN LINK FENCE SHALL BE ERECTED AROUND THE LIMITS OF DEMOLITION TO PREVENT PUBLIC ACCESS WITH PROPER SIGNAGE TO IDENTIFY HAZARD.
- ALL ASPHALT AND CURB SHALL BE SAW-CUT AT THE LIMITS OF DEMOLITION PRIOR TO REMOVAL.
- ALL DEMOLITION TO BE PERFORMED IN A MANNER TO ELIMINATE HAZARDS TO PERSONS AND PROPERTY, MINIMIZE INTERFERENCE WITH USE OF ADJACENT AREAS, PROVIDE NON-DISRUPTION OF SERVICES PROVIDED BY EXISTING UTILITIES TO ADJACENT AREAS, AND TO PROVIDE FREE PASSAGE TO AND FROM ADJACENT AREAS OR STRUCTURES.
- PRIOR TO DEMOLITION, CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING ITEMS TO REMAIN.

- DEBRIS RESULTING FROM DEMOLITION SHALL BECOME THE PROPERTY OF CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF ON A DAILY BASIS. DISPOSAL OF DEBRIS SHALL BE IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL PERMITS, RULES AND/OR REGULATIONS.
- HAZARDOUS MATERIALS IF PRESENT, SHALL BE DEALT WITH IN A MANNER CONSISTENT WITH FEDERAL, STATE AND LOCAL REGULATIONS.
- UPON COMPLETION OF DEMOLITION, SITE IS TO BE LEFT IN CLEAN CONDITION FREE OF DEBRIS.
- CONTRACTOR TO PROVIDE PROPER SEDIMENT CONTROL AND PROTECTION OF STORM WATER STRUCTURES, BOTH WITHIN AND OUTSIDE OF THE LIMITS OF DEMOLITION, TO PREVENT DEPOSIT OF SEDIMENTS CONVEYED THROUGH RUNOFF. CONTRACTOR TO CLEAN AND REMOVE SEDIMENTS FROM ALL STRUCTURES AS NEEDED.
- EXISTING UTILITIES INFORMATION IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL UTILITIES, SHOWN OR NOT SHOWN, PRIOR TO DEMOLITION. CONTRACTOR SHALL HAVE ALL UTILITIES PROPERLY LOCATED PRIOR TO COMMENCEMENT OF DEMOLITION.
- CONTRACTOR IS RESPONSIBLE FOR REMOVING AND REPLACING TO ITS ORIGINAL CONDITION ALL IMPACTED VEGETATION AND IRRIGATION WITHIN DESIGNATED DEMOLITION LIMITS. OBTAINING ALL TREE REMOVAL PERMITS THRU THE CITY OF COCONUT CREEK IS THE RESPONSIBILITY OF THE CONTRACTOR.
- EXCAVATION RELATED TO PROPOSED STRUCTURE REMOVAL AND PROPOSED PIPE REMOVALS ARE TO BE BACKFILLED WITH CLEAN SUITABLE MATERIAL. DISTURBED PAVEMENT AND TRENCH AREAS FROM PROPOSED PIPE/STRUCTURE REMOVAL AREAS ARE TO BE COMPACTED AND COMPLETELY RESTORED IN ACCORDANCE WITH THE RESTORATION NOTES AND DETAILS IN ENGINEERING PLANS.
- BRICK AND GROUT ANY REMAINING HOLE OPENINGS IN EXISTING STRUCTURES AFTER REMOVAL OF ANY PIPE DESIGNATED FOR REMOVAL.

NOTES:

- ALL PAVEMENT MARKINGS AND SIGNING DAMAGED DURING CONSTRUCTION, SHALL BE RESTORED TO BROWARD COUNTY TRAFFIC ENGINEERING STANDARD (CURRENT EDITION.)
- ALL PAVEMENT MARKING AND SIGNING SHALL CONFORM TO BROWARD COUNTY TRAFFIC ENGINEERING STANDARD (CURRENT EDITION.)
- THE METHODS USED FOR REMOVING EXISTING PAVEMENT MARKINGS SHALL BE BY SAND OR WATER BLASTING PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARD.
- ALL RPM'S SHALL BE INSTALLED PER BCTD STANDARDS (CURRENT EDITION.) REMOVE ALL RPM'S THAT ARE NOT PER BCTD STANDARDS.

NOTE:

ALL ELEVATIONS ON THE PLANS OR REFERENCED IN THE SPECIFICATIONS, UNLESS OTHERWISE NOTED, ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD)



ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF WORK OPERATIONS.

KEITH and SCHNARS, P.A.
ENGINEERS, PLANNERS, SURVEYORS
CERTIFICATE OF AUTHORIZATION NO. 1337



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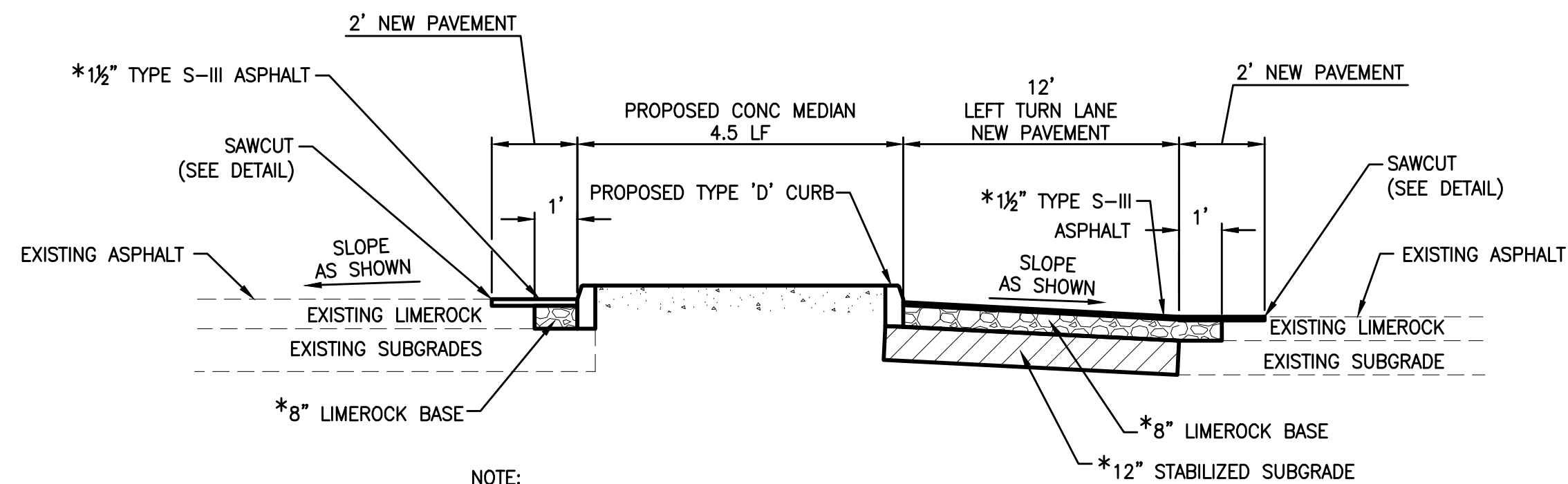
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DATE: JULY 17, 2013
SCALE: 1"=20'
DESIGNED BY: T.H.
DRAWN BY: F.L.
CHECKED BY: T.J.H.

COMMERCE CENTER
OF COCONUT CREEK
COCONUT CREEK
FLORIDA
NW 54TH AVE
TURN LANE RELOCATION
EXISTING CONDITIONS

SHEET NO. C-3
PROJECT NO. 17796.55

TIM J. HALL, P.E.
FLORIDA LIC. NO. 50588
(FOR THE FIRM)
DATE:



SECTION A-A
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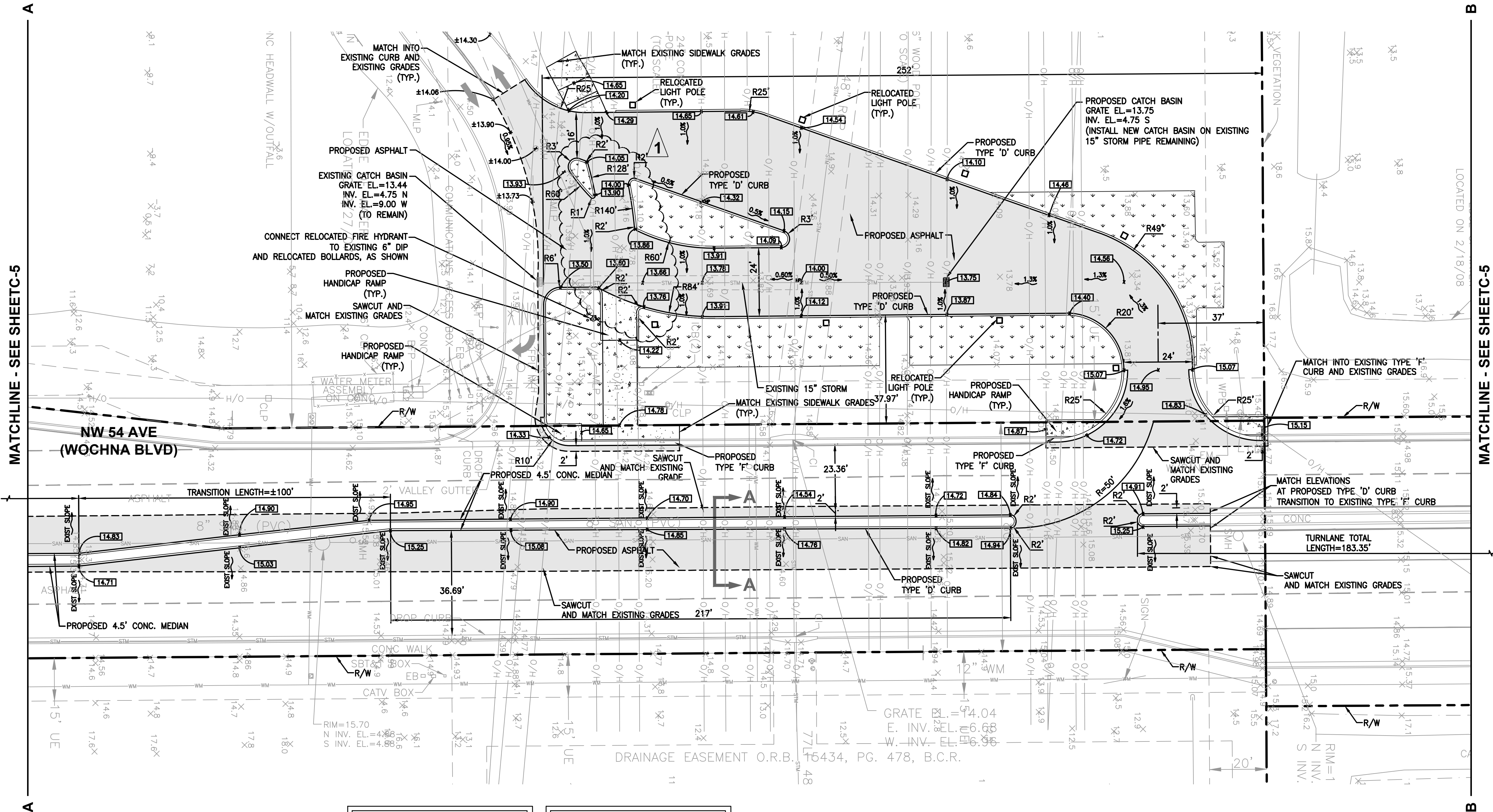
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LEGEND

[Pattern]	PROPOSED ASPHALT
[Pattern]	PROPOSED CONCRETE
[Pattern]	PROPOSED LANDSCAPE



ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF WORK OPERATIONS.

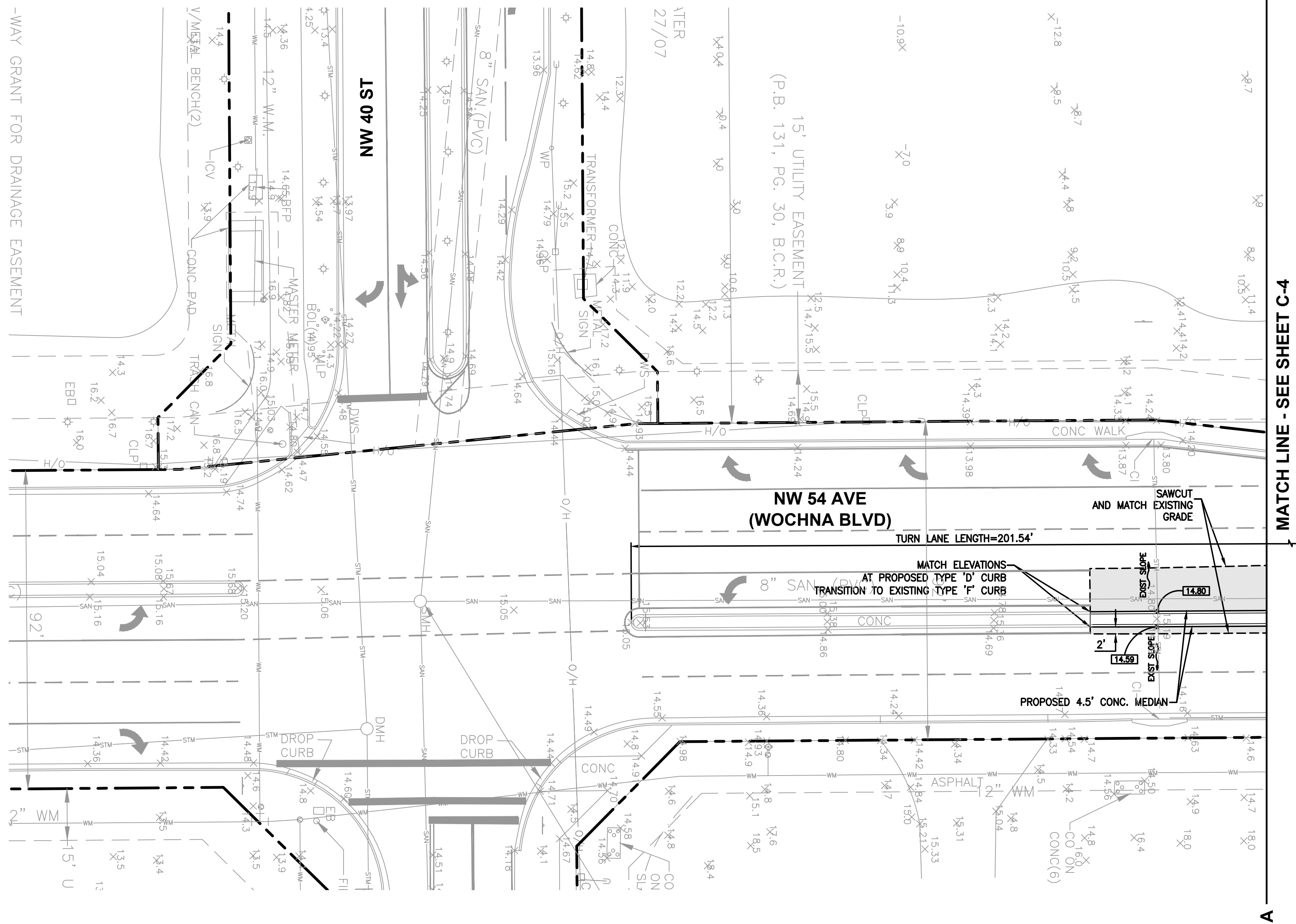
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COMMERCE CENTER OF COCONUT CREEK
COCONUT CREEK, FLORIDA
NW 54TH AVE TURN LANE RELOCATION PROPOSED IMPROVEMENTS

SHEET NO.	C-4
PROJECT NO.	17796.55
TIM J. HALL, P.E. FLORIDA LIC. NO. 50588 (FOR THE FIRM) DATE:	



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PRIOR TO THE START
OF WORK OPERATIONS.

BY THE CONTRACTOR
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LEGEND

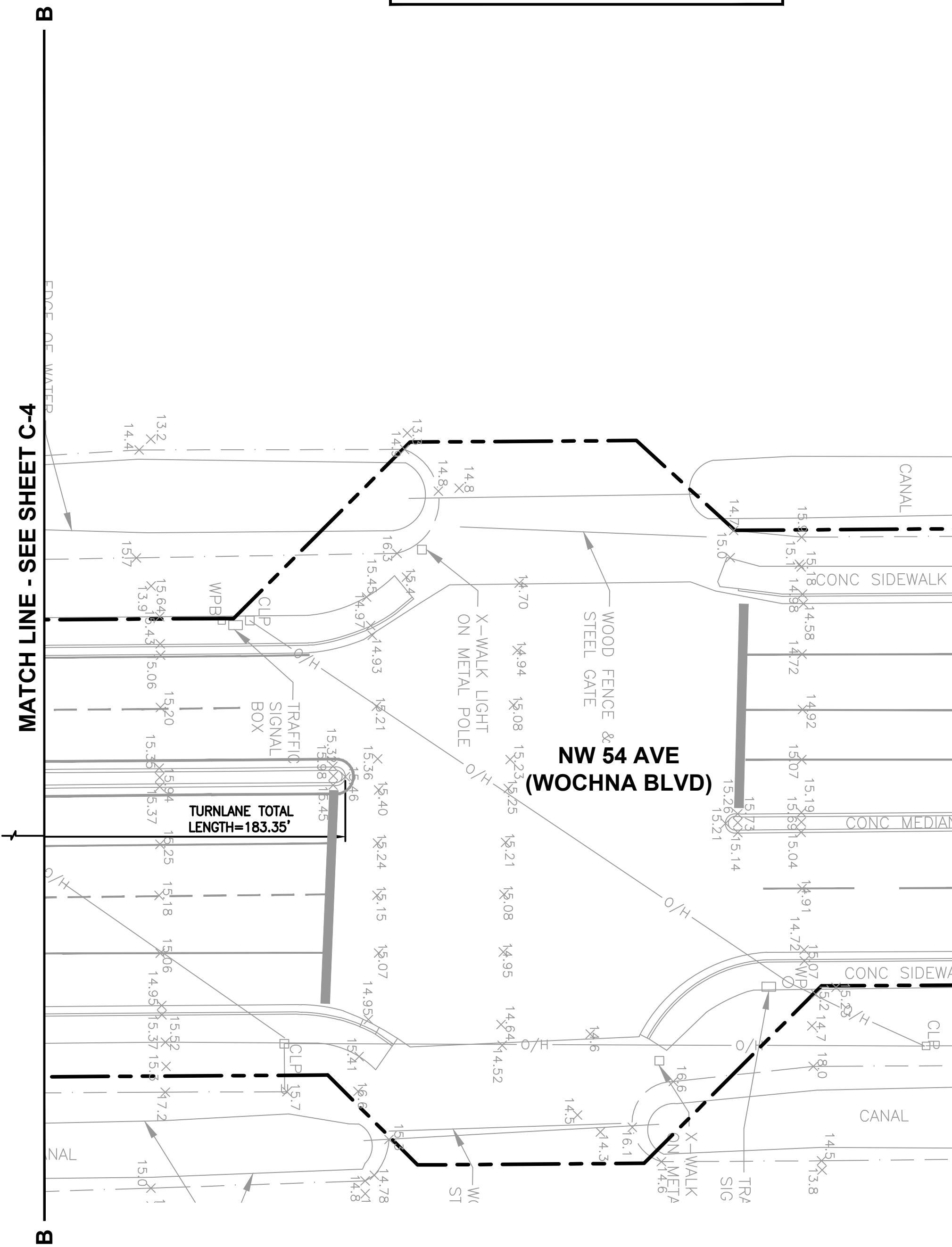
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COMMERCE CENTER OF COCONUT CREEK

FLORIDA

**NW 54TH AVE
TURN LANE RELOCATION
PROPOSED IMPROVEMENTS**

SHEET NO.

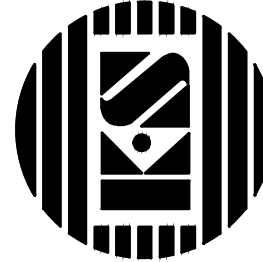
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PROJECT NO.
17796.55

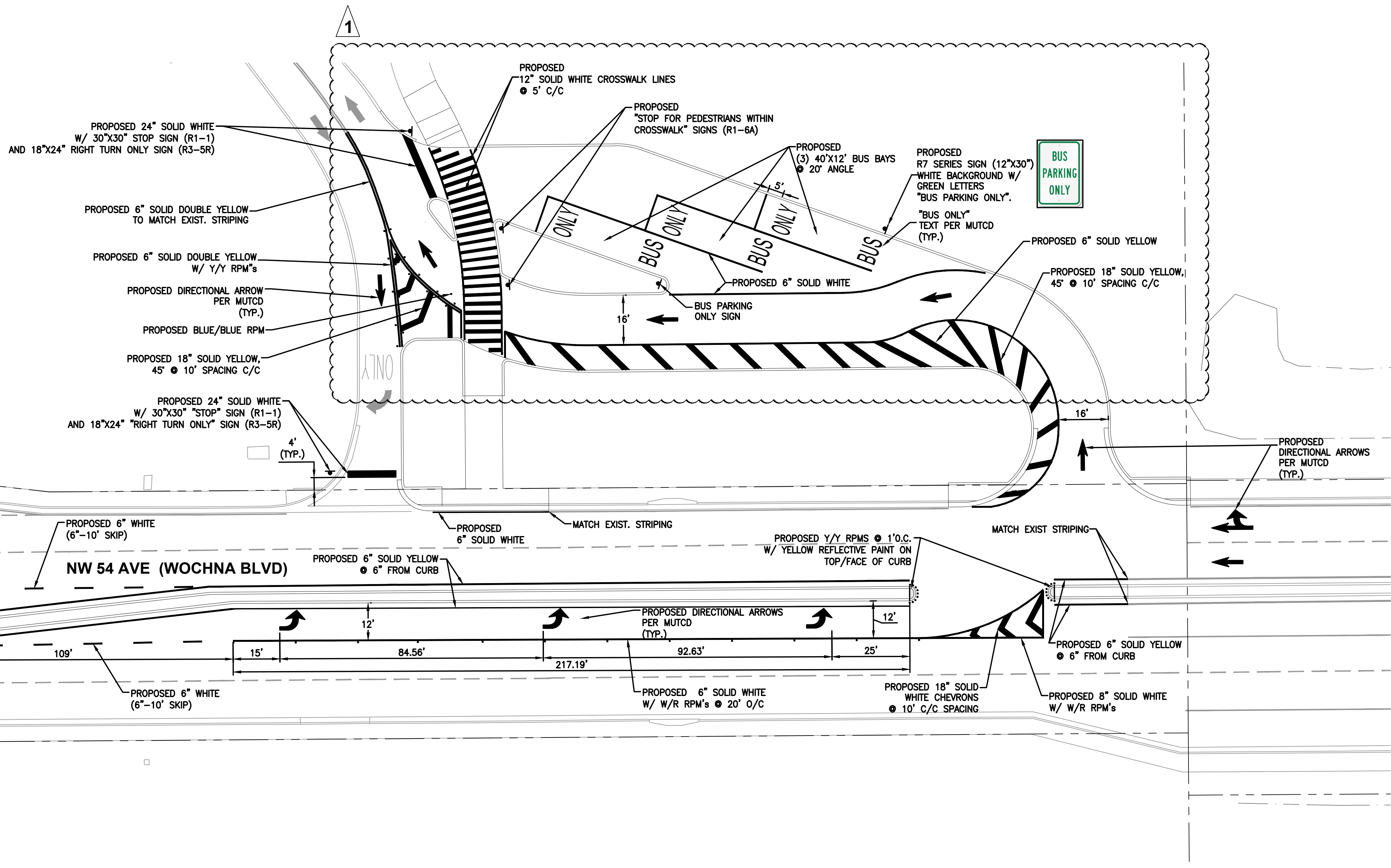
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6500 NORTH ANDREWS AVENUE, FORT LAUDERDALE, FLORIDA 33309 TEL.: (954) 776-1616



\\KSFDATA\Z\PROJECTS\17796 STOF SERVICES CONTRACT\55 NW 54TH TURNLANE RELOCATION\CAD\17796.55_54AV-TNLN_06_CPM1.DWG



- ## TYPICAL TRENCH DETAIL

N.T.S.



N.T.S.



N.T.S.



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N.T.S.



PRESSURE PIPE CONFLICT DETAIL

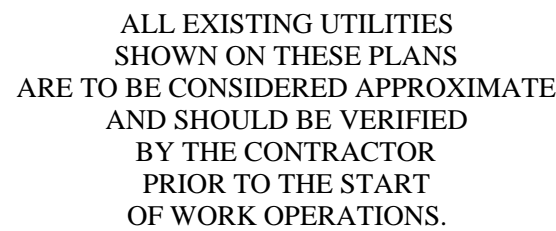
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- NOTES:

1. STORM SEWER, GRAVITY WASTEWATER AND RECLAIMED WATER MAIN CROSSING UNDER POTABLE WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE STORM/WASTEWATER/RECLAIMED WATER PIPE JOINTS AND POTABLE WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TEN (10) FEET BETWEEN ANY TWO JOINTS. BOTH PIPES SHALL BE LAID TO THE MINIMUM VERTICAL SEPARATION SHALL BE 6 INCHES WHERE THERE IS NO ALTERNATIVE TO STORM/WASTEWATER/RECLAIMED WATER PIPES CROSSING OVER A POTABLE WATER MAIN. THE CRITERIA FOR MINIMUM 18" VERTICAL SEPARATION BETWEEN LINES AND JOINT ARRANGEMENT, AS STATED ABOVE, SHALL BE REQUIRED, AND BOTH PIPES SHALL BE D.I.P. IRRESPECTIVE OF SEPARATION. D.I.P. IS NOT REQUIRED FOR STORM SEWERS.
2. MAINTAIN MIN. TEN (10) FEET HORIZONTAL DISTANCE BETWEEN POTABLE WATER MAIN AND STORM SEWER, WASTEWATER MAIN, OR FORCE MAIN. MAINTAIN MIN. TEN (10) FEET HORIZONTAL DISTANCE (WALL TO WALL) BETWEEN RECLAIMED WATER MAIN AND POTABLE WATER MAIN, STORM SEWER, WASTEWATER GRAVITY MAIN OR FORCE MAIN. VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND OUTSIDE OF THE POTABLE WATER MAIN OR RECLAIMED WATER MAIN WITH THE POTABLE WATER MAIN OR RECLAIMED WATER MAIN CROSSING OVER THE FORCE MAIN.
3. FORCE MAIN CROSSING POTABLE WATER MAIN OR RECLAIMED WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND OUTSIDE OF THE POTABLE WATER MAIN OR RECLAIMED WATER MAIN WITH POTABLE WATER MAIN OR RECLAIMED WATER MAIN CROSSING OVER THE FORCE MAIN.
4. FITTINGS SHALL BE RESTRAINED.
5. THE DEFLECTION TYPE CROSSING IS PREFERRED.
6. DO NOT EXCEED 75% OF MANUFACTURER'S RECOMMENDED MAXIMUM JOINT DEFLECTION FOR DUCTILE IRON PIPE.

PRESSURE PIPE CONFLICT NOTES

N.T.S.



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**COMMERCE CENTER
OF COCONUT CREEK
COCONUT CREEK FLORIDA
NW 54TH AVE TURN LANE
TURN LANE RELOCATION
CONSTRUCTION DETAILS**

SHEET NO.

C-7

PROJECT NO.

17796.42

TIM J. HALL, P.E.
FLORIDA LIC. NO. 50588
(FOR THE FIRM)
DATE:

DATE _____

