ORDINANCE NO. 2020-019

ORDINANCE OF THE MAYOR AND THE CITY COUNCIL OF THE CITY OF HIALEAH, FLORIDA APPROVING COVENANTS IN FAVOR OF MIAMI-DADE COUNTY TO MAINTAIN, OPERATE AND PRESERVE A STORMWATER MANAGEMNET SYSTEM AS DESIGNED ON N.W. 102 AVENUE, FROM N.W. 162 STREET TO N.W. 170 STREET, AS MORE PARTICULARLY DESCRIBED IN THE FORM COVENANTS, A COPY OF WHICH IS ATTACHED HERETO AND MADE A PART HEREOF AS "EXHIBIT 1"; AUTHORIZING THE EXECUTION OF THE COVENANTS BY THE MAYOR AND CITY CLERK, ON BEHALF OF THE CITY; REPEALING ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING FOR A SEVERABILITY CLAUSE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City has planned to construct certain roadway improvements on N.W. 102 Avenue from N.W. 162 Street to N.W. 170 Street; and

WHEREAS, in order to complete the roadway improvements and as part of the regulatory permits, Miami-Dade County Regulatory and Economic Resources Division of Environmental Resources Management requires the City covenant to maintain, operate and preserve the roadways stormwater management system as designed; and

WHEREAS, preservation of the stormwater management system is in the public's best interest.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND THE CITY COUNCIL OF THE CITY OF HIALEAH, FLORIDA, THAT:

Section 1: The City of Hialeah, Florida hereby approves the form covenants in favor of Miami-Dade County for the purpose of operating, maintaining and preserving the stormwater management system as designed for the public right of way known as N.W. 102 Avenue, from N.W. 162 Street to N.W. 170 Street as more particularly described in the covenants attached hereto and made a part hereof as "Exhibit 1".

Section 2: The City of Hialeah, Florida hereby authorizes the Mayor and the City Clerk to execute the form covenants on behalf of the City.

Section 3: **Repeal of Ordinances in Conflict.**

All ordinances or parts of ordinances in conflict herewith are hereby repealed to the extent of such conflict.

Section 4: **Severability Clause.**

If any phrase, clause, sentence, paragraph or section of this ordinance shall be declared invalid or unconstitutional by the judgment or decree of a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs or sections of this ordinance.

Section 5: **Effective Date.**

This ordinance shall become effective when passed by the City Council and signed by the Mayor or at the next regularly scheduled City Council meeting, if the Mayor's signature is withheld or if the City Council overrides the Mayor's veto.

PASSED and ADOPTED this 9 day of June, 2020.

Pablo B. Hernandez
Council President

Attest:

Approved on this 18 day of June, 2020.

Marbelys Fatjo, City Clerk

Mayor Carlos Hernandez

Approved as to form and legal sufficiency:

Lorena E. Bravo, City Attorney

Ordinance was adopted by a 6-0-1 vote with Councilmembers, Cue-Fuente, De la Rosa Garcia-Roves, Perez, Tundidor and Zogby, voting "Yes" and with Council President Hernandez not present during roll call.

S:\DJ\ORDINANCES\StormwaterDOR-NW102AvenuefromNW162sttoNW170st-COHtoMDC.docx

Prepared by
Sign _____
Print Jorge Torres
Address 2025 SW 32nd Avenue
Miami, Fl 33145

EXHIBIT "1"

COVENANT RUNNING WITH THE LAND OF _____
City of Hialeah
IN FAVOR OF THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, CONCERNING THE PROTECTION AND MAINTENANCE OF STORMWATER MANAGEMENT SYSTEM LOCATED AT ALONG N.W 154th STREET BETWEEN N.W 97th AND 107th AVENUE MIAMI-DADE COUNTY, FLORIDA.

The undersigned owner(s) of a parcel of real property, legally described as set forth in Exhibit "A", attached hereto and incorporated herein by reference, located at along N.W 154th Street between N.W 97th and 107th Avenue , Miami-Dade County, Florida, and further identified for ad valorem tax purposes by all or part of folio number(s) N/A (Right of Way) (hereinafter referred to as the "Property").

The undersigned owner(s) has submitted and the Miami-Dade County Department of Regulatory and Economic Resources Division of Environmental Resources Management (DERM) or its successors or assigns department has reviewed and approved: the site plan, stormwater management plan, and the maintenance plan for the control of impediments to the function of the stormwater management system.

The undersigned owner, in order to guarantee the permanency of all features depicted in the approved site plan, does hereby create(s) a covenant (the "Covenant") on behalf of the undersigned owner(s) and his/their heirs, successors, assigns and grantees (hereafter collectively referred to as the "Undersigned"), running with the land, to and in favor of the Board of County Commissioners of Miami-Dade County, Florida (hereafter referred to as the "Board"), their successors and assigns, with respect to the Property, as follows:

1. The Undersigned covenant(s) and represent(s) that the Undersigned owner(s) is/are the owner(s) in fee simple of the Property and that no other person or other legal entity has any fee interest in the Property.

2. The Undersigned agree(s) and covenant(s) that, if applicable, it shall form a Florida non-profit Homeowners Association to which all third party purchasers of any part of the Property shall be members, which Homeowners Association (the "Association") shall be obligated to maintain the stormwater management system at the sole cost and expense of the Association. The Undersigned agree(s) and covenant(s) that, if applicable, it shall form the Association upon the earlier of twelve (12) months from the date hereof or before the issuance of the first building permit.

3. This Covenant shall remain in effect unless and until an Improvement District is created to maintain and operate the stormwater management system as it relates to the Property. At the time that the Improvement District is created, the Miami-Dade Public Works Department or its successor department shall assume financial responsibility for the stormwater management system, at which time, this Covenant may be released by the County.

4. The Undersigned agree(s) and covenant(s) that, prior to entering into a landlord-tenant relationship with respect to granting an easement upon, encumbering or selling the stormwater management area or any portion thereof, the undersigned shall notify, in writing, all proposed tenants, easement holders, mortgagees or purchasers of the existence and contents of this Covenant, and shall provide the RER-DERM with copies of all such written notifications. Failure of the current Property owner(s) to provide such written notice to all successors, heirs, assigns and grantees shall not, however, affect the validity of this Covenant or the ability of the RER-DERM to enforce this Covenant against any successors, heirs, assigns and grantees.

5. The Undersigned has attached hereto as Exhibit "B", the site plan titled, "_N.W 102nd Ave Road Improvements __", and Exhibit "C" the stormwater management and maintenance plan. The Undersigned agree(s) and covenant(s) that any and all portion(s) of the Property designated as the stormwater management system, including all open, pervious, impervious and lake areas, as well as structural components of the conveyance system shall be maintained:

   A) in the condition depicted on the approved plans;
   B) free of silt, debris, solid waste or fill,
   C) free of noxious vegetation; and
   D) in accordance with the maintenance schedule and control techniques approved by the RER-DERM for the control of noxious vegetation, as applicable.

   The Undersigned agree(s) and covenant(s) that the same shall not be used for the placement or storage of any materials. The stormwater management area shall not be altered in size or shape without the approval of the RER-DERM.

6. The Undersigned agree(s) and covenant(s) to prevent any clearing or removal of native plants not defined as noxious vegetation pursuant to Section 24-5 of the Code of Miami-Dade County, Florida, and plants required to be planted by Miami-Dade County in the stormwater management area(s), except as required to maintain the stormwater management area(s) in a functional condition, in accordance with the approved management plan(s).

7. The Undersigned agree(s) and covenant(s) to prevent and prohibit adverse impacts to the stormwater management system. In the event RER-DERM determines that the stormwater management system is being adversely impacted, then RER-DERM may require the installation of protective barriers around the impacted portions of the stormwater management system.

8. The Undersigned agree(s) and covenant(s) that the RER-DERM shall have the right to inspect the Property at reasonable times to determine whether the Property is being used and maintained in the manner consistent with this Covenant. Should RER-DERM determine, after such an inspection, that curative action is required in order to achieve compliance with this Covenant, the RER-DERM shall notify the current Property owner(s) in writing be certified mail, return receipt requested, of the particular curative action is required in order to achieve compliance with this Covenant, the RER-DERM shall notify the current Property owner(s) in writing by certified mail, return receipt requested, of the particular curative action to be taken and the reasons therefor. The owner(s) shall take such curative action within a reasonable time, provided, however, that the owner(s) shall have the right to appeal RER-DERM's actions or decisions to the Miami-Dade County Environmental Quality Control Board in accordance with the provisions of Section 24-6 of the Code of Miami-Dade County. The

owner(s) shall be entitled to seek judicial review of any decisions of the Miami-Dade County Environmental Quality Control Board in accordance with the Florida Rules of Appellate Procedure.

9. Upon agreement by Miami-Dade County, this instrument may be modified, amended or released for any portion of the Property by a written instrument executed by the fee simple owner(s) of the Property, or any portion thereof, that would be affected by such modification, amendment or release. The director of RER-DERM shall have the authority to approve modifications or amendments to the site plans required under this instrument and require same to be recorded in the Public Records of Miami-Dade County. No other provisions of this Covenant shall be subject to cancellation, revision, alteration or amendment without the consent of the Board.

10. This instrument shall constitute a covenant running with the land binding upon the Undersigned and his/their heirs, successors, assigns and grantees upon the recording of the same in the Public Records of Miami-Dade County, Florida. The conditions contained herein shall apply to all present and future owners of any portion of the Property. This Covenant shall remain in full force and effect and shall be binding upon the Undersigned and his/their heirs, successors, assigns and grantees for an initial period of thirty (30) years from the date that this instrument is recorded in the Public Records of Miami-Dade County, Florida, and shall be automatically extended for successive periods of (10) years thereafter unless released prior to the expiration thereof as set forth in Paragraph 9 above.

11. The Undersigned agree(s) and covenant(s) that this Covenant and the provisions contained herein may be enforced by the Director of the RER-DERM or its successor agency by preliminary and permanent, prohibitory and mandatory injunctions as well as otherwise provided for by law or ordinance.

12. After this Covenant is accepted by the RER-DERM, the Covenant, together with a certified copy of the Board's resolution authorizing the RER-DERM to accept covenants in substantially the form of this Covenant, shall be promptly filed with the Clerk of Court for recording in the official records of Miami-Dade County.

13. Invalidations of any one of the covenants herein, to the extent it is not material, shall in no way affect any of the other provisions of this Covenant which shall remain in full force and effect.

14. This covenant shall replace and rescind the prior stormwater management covenant, executed on **January 8, 2016** and recorded Official Records Book **29919**, at Pages **2753** through **2769** of the Public Records of Miami-Dade County, Florida.

IN WITNESS WHEREOF, the Undersigned, being the owner(s) of the Property, agree(s) to the terms of this Covenant, hereby create same as a covenant running with the land, and set their hands and seal unto this Covenant this _____ day of _____, 20__.

Witnesses:

Sign_____

Print_____

Address_____

_____

_____

Property Owner(s):

Sign_____

Print_____

Corporate Seal (if applicable)

Witnesses:

Sign_____

Print_____

Address_____

_____

_____

Sign_____

Print_____

Corporate Seal (if applicable)

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____, who is personally known to me or who has produced _____ as identification and who did take an oath.

NOTARY PUBLIC

Sign_____

Print_____

State of Florida at Large (seal)

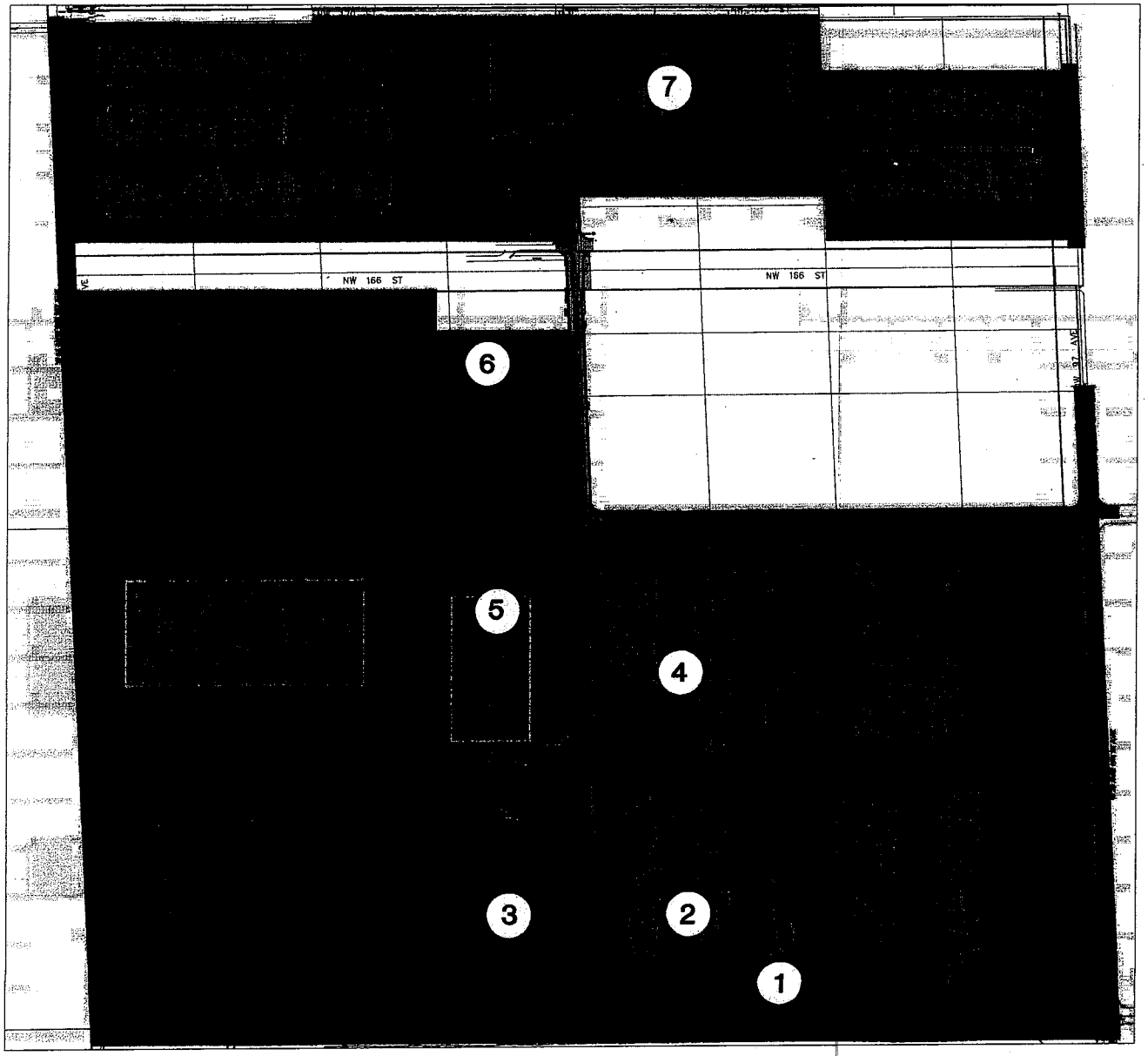
My Commission Expires: _____

Accepted by the Miami-Dade County Mayor or designee, on behalf of the Board of County Commissioners of Miami-Dade County, Florida

Sign _____ Date_____

Print _____
By: County Mayor or designee

EXHIBIT "A"



LEGEND:

1. N.W 154TH ST FROM N.W 97TH AVENUE TO WEST OF THE N.W 102ND AVE. TOTAL AREA FOR THE FULL RIGHT OF WAY: 10.49 AC
2. C&F 790 HAS ACCOUNTED FOR HALF R/W 40' *1,315 LF = 52,600 SF = 1.21 AC
3. C&F 804 HAS ACCOUNTED FOR REMAINING 25' OF HALF R/W = 27,875 SF = 0.64 AC
4. C&F 789 HAS ACCOUNTED FOR REMAINING 25' OF HALF R/W = 38,765 SF = 0.89 AC
5. C&F 791 HAS ACCOUNTED FOR HALF R/W 40' = 58,800 SF = 1.35 AC
6. C&F 806 HAS ACCOUNTED FOR REMAINING 25' OF HALF R/W = 27,100 SF = 0.62 AC
7. FLAGLER DEVELOPMENT WILL ACCOUNT FOR FULL HALF OF EACH R/W ABUTTING THEIR PROPERTIES: 90,450 SF = 2.26 AC

TOTAL ACCOUNTED AREA BY FLAGLER DEVELOPMENT: 6.97 AC

R/W ACCOUNTED AREA BY C&F 802 APPLICATION

BEGIN PROJECT
BEGIN CONSTRUCTION
STA. 7+16
OFFSET 69'R

0 20 40 80 120
GRAPHIC SCALE IN FEET

N.W. 154th ST.

AREA= 0.07 Ac

AREA=1.36 Ac

SEE STA. 18+00 BELOW SHEET FOR CONTINUATION

N.W. 154th ST.

SEE STA. 15+00 AVOBE SHEET FOR CONTINUATION

AREA=1.36 Ac

AREA= 0.09 Ac

AREA=2.32 Ac

SEE STA. 30+00 BELOW SHEET FOR CONTINUATION

N.W. 154th ST.

SEE STA. 30+00 AVOBE SHEET FOR CONTINUATION

AREA=2.32Ac

AREA=0.84 Ac

AREA=0.55 Ac

SEE STA. 42+00 BELOW SHEET FOR CONTINUATION

N.W. 154th ST.

SEE STA. 42+00 AVOBE SHEET FOR CONTINUATION

AREA=0.55 Ac

N.W. 154th ST.

PLAN VIEW
SCALE: 1"=40'

LEGEND

WATER MANAGEMENT AREA
AREA= 5.23 Ac

NO.	REVISION	DATE
1	REVISED PER RER WATER CONTROL SECTION	4/20/15

DRAWN L.G.
CHECKED J.M.
APPROVED A.M.

PROJECT NAME
HROWTP-ACCESS ROAD IMPROVEMENT PLANS
N.W. 154th ST. AND N.W. 102nd AVE.
CITY OF HIALEAH, FLORIDA

SHEET TITLE
WATER MANAGEMENT AREA

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL: (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: SCALE:
PROJECT NO.

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET C-27A OF 73

EXHIBIT "B"

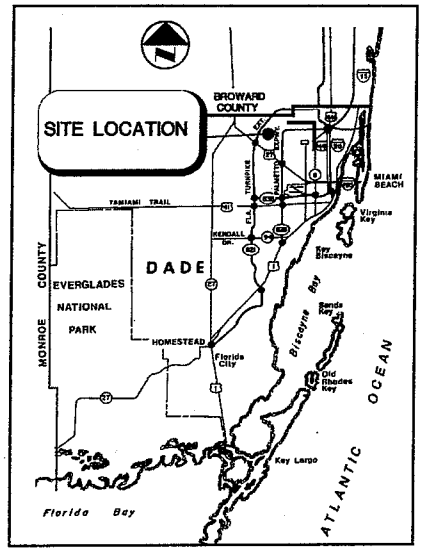
CITY OF HIALEAH STREETS DEPARTMENT

900 E. 56th ST. BLDG # 4. HIALEAH, FLORIDA 33013

DESIGN OF ROADWAY IMPROVEMENTS N.W. 102nd AVENUE

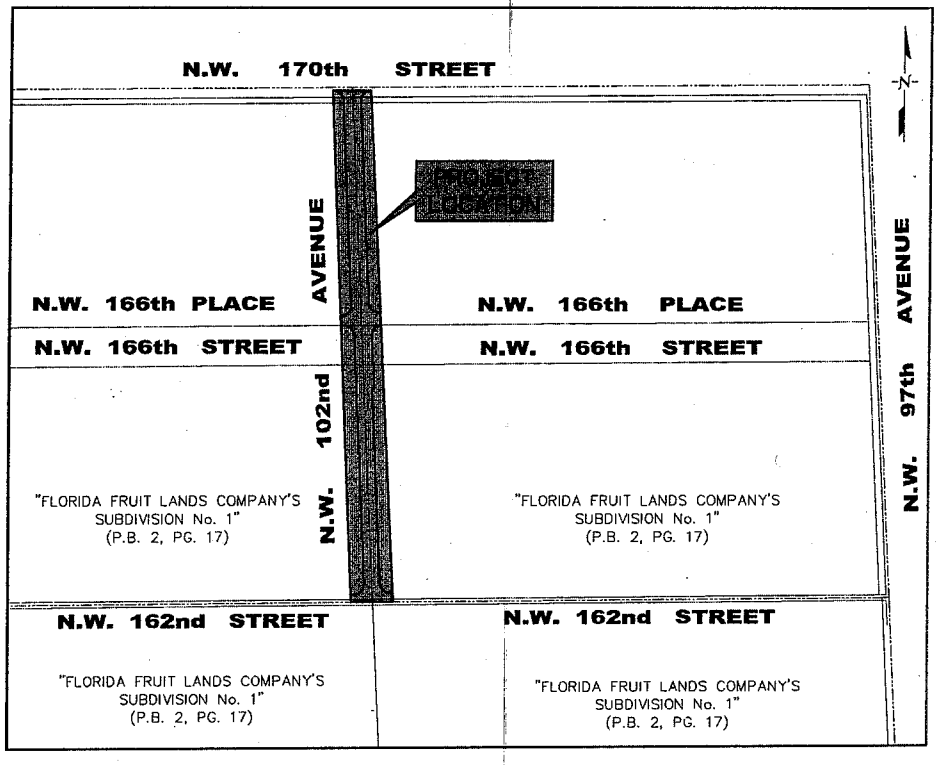
FROM N.W. 162nd ST. TO N.W. 170th ST.

CITY OF HIALEAH, FLORIDA



VICINITY MAP

SCALE: N.T.S.



LOCATION PLAN

SCALE: 1"=300'

INDEX

TOTAL NUMBER OF SHEETS : 34

G-1	COVER SHEET
G-2	GENERAL NOTES
G-3	KEY MAP PLAN AND LEGEND
C-1 to C-2	TYPICAL SECTIONS
C-3 to C-7	PAVING, GRADING AND DRAINAGE PLAN AND PROFILE
C-8 to C-12	DRAINAGE STRUCTURE CROSS SECTIONS
C-13	DRAINAGE DETAILS
C-14	DRAINAGE STRUCTURE SEALING DETAILS
C-15	DRAINAGE STRUCTURES TABLE
C-16 to C-18	PAVEMENT MARKING AND SIGNAGE PLAN
S-1 to S-3	EROSION AND TURBIDITY CONTROL SILT FENCE
S-4	EROSION AND TURBIDITY CONTROL NOTES AND DETAILS
S-5	EROSION AND TURBIDITY CONTROL GENERAL NOTES
E-1 to E-5	ROADWAY LIGHTING PLANS
E-6 to E-8	ROADWAY LIGHTING DETAILS AND NOTES

ARSENIO MILIAN LICENSE No. 13134 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Arsenio Milian
DN: c=US, o=Milian Swain and Associates Inc., ou=A01410C0000017010 74E6220001148E, cn=Arsenio Milian
Date: 2020.03.20 15:20:27 -04'00'

CERTIFICATION:

THIS PLAN WAS PREPARED UNDER MY DIRECTION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLIES WITH THE INTENT OF THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, AS ADOPTED BY THE FLORIDA LEGISLATURE, CHAPTER 72-328 F.S.

Sunshine 811

Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.

Check positive response codes before you dig!

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0688
CITY, & ENVIRONMENTAL ENGINEERS • STEPS • WATERSHED • FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

APPROVED BY:

ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

DRWG. HISTORY	DATE	BY
30% SUBMITTAL	05/21/19	J.T.
90% SUBMITTAL	12/18/19	J.T.
100% SUBMITTAL	03/20/20	J.T.

REV No.	DATE	DESCRIPTION	BY

APROVED BY	APROVED BY	FINAL CHECK BY	DESIGNED : J.T.
			DRAWN : L.G.
DIV CHIEF	SECTION HEAD	PROJECT MGR.	ER No. :
SHEET G-1 OF 34		FILE :	ESR No :
SCALE : AS NOTED	DATE : 05/21/19	DRWG. No.	

GENERAL NOTES

I. APPLICABLE CODES:

A. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT, CITY OF HIALEAH STREETS DEPARTMENT AND ALL OTHER APPLICABLE LOCAL, STATE AND NATIONAL CODES.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 OR LATEST EDITION, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.

C. ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON NATIONAL GEODETICAL VERTICAL DATUM OF 1929, (N.G.V.D.), UNLESS OTHERWISE NOTED.

D. CENTERLINE GEOMETRY AND DIMENSIONS SHOWN ON THESE PLANS ARE INTENDED FOR LOCATING HIGH AND LOW POINTS AND FOR SITE LAYOUT. FINAL SITE LAYOUT SHALL BE PROVIDED BY CONTRACTORS, FLORIDA LICENSED SURVEYOR

E. EXISTING TOPOGRAPHIC AND CADASTRAL INFORMATION SHOWN ON THESE DRAWINGS ARE BASED ON THE TOPOGRAPHIC SURVEY PERFORMED BY LONGITUDE SURVEYORS ON 01/25/2019

II. PRECONSTRUCTION RESPONSIBILITIES:

A. THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT ANY INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.

B. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.

C. THE CONTRACTOR SHALL CONTACT "SUNSHINE ONE-CALL OF FLORIDA" BY CALLING 1-800-432-4770 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY EXCAVATION OR CONSTRUCTION IN ORDER TO PROVIDE FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.

D. THE CONTRACTORS SHALL COORDINATE WITH UTILITIES TO ARRANGE FOR RELOCATION AND TEMPORARY SUPPORT OF UTILITY FEATURES, ETC. AS NECESSARY TO COMPLETE THE WORK, IF APPLICABLE.

E. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ANY AND ALL EXISTING UTILITIES ON THIS PROJECT.

F. THE CONTRACTOR SHALL SECURE ALL UTILITY EASEMENTS (IF REQUIRED) PRIOR TO CONSTRUCTION.

G. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES AS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC., WITHIN THE PROJECT AREA WHICH WERE INSTALLED AND CONSTRUCTED AFTER THE PREPARATION OF THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE FACILITIES SHOWN OR FOR ANY FACILITIES NOT SHOWN. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING FACILITIES, STRUCTURES AND OTHER FEATURES (WHETHER SHOWN ON THE PLANS OR NOT) AFFECTING THE WORK.

H. IF, UPON EXCAVATION, EXISTING CONDITIONS ARE FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE PROBLEM.

I. ALL ROAD CROSSINGS ARE OPEN CUT UNLESS OTHERWISE NOTED ON THE DRAWINGS.

III. INSPECTION AND TESTING:

A. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AS WELL AS ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

B. THE CONTRACTOR SHALL GIVE THE ENGINEER OF RECORD AT LEAST 48 HOURS ADVANCE NOTICE OF, AND THE ENGINEER OF RECORD MUST BE PRESENT TO WITNESS, THE FOLLOWING (AS APPLICABLE), AT INTERVALS DETERMINED BY THE ENGINEER COORDINATED WITH THE CITY AND CONTRACTOR:

1. DRAINAGE STRUCTURES AND EXFILTRATION TRENCH INSTALLATION.
2. FINAL INSPECTION OF PAVING, GRADING AND DRAINAGE.

C. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL APPLICABLE REGULATORY AGENCIES FOR INSPECTION REQUIREMENTS.

IV. SHOP DRAWINGS:

A. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD INCLUDING BUT NOT LIMITED TO THE FOLLOWING ITEMS: CATCH BASIN, STORM MANHOLES AND ALL OTHER DRAINAGE STRUCTURES, DRAINAGE PIPE, BALLAST ROCK, EXFILTRATION TRENCH FILTER FABRIC, FILL, LIMEROCK, ASPHALT. IN ADDITION, SOME CITIES, COUNTIES, STATE AND/OR NATIONAL REGULATORY AGENCIES REQUIRE THEIR OWN INDIVIDUAL REVIEW AND APPROVAL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY SHOP DRAWING APPROVALS IF REQUIRED.

V. TEMPORARY FACILITIES:

A. TEMPORARY FACILITIES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES, AND ELECTRICITY, DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE ACCESS ENTRANCE TO COMMERCIAL PROPERTIES AT ALL TIMES, IF APPLICABLE.
3. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION, IF APPLICABLE.

B. TRAFFIC REGULATION:

1. THE CONTRACTOR SHALL PROVIDE ALL WARNING SIGNALS, SIGNS, LIGHTS AND FLAGPERSONS AS NECESSARY FOR THE MAINTENANCE OF TRAFFIC WITHIN PUBLIC RIGHT-OF-WAYS IN ACCORDANCE WITH THE M.U.T.C.D., AND MIAMI DADE COUNTY PUBLIC WORKS.
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, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMEN, AND CITY OF HIALEAH STREETS DEPARTMENT.

VI. PROJECT CLOSEOUT:

A. CLEANING UP:

1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED AREAS SHALL BE SWEPT BROOM CLEAN.
2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS WORK, EQUIPMENT AND/OR EMPLOYEES TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE BEGINNING OF OPERATIONS.
3. THE CONTRACTOR SHALL REPLACE ALL PAVING, STABILIZED EARTH, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS REMOVED DURING CONSTRUCTION WITH THE SAME TYPE OF MATERIAL AND TO THE CONDITION WHICH EXISTED PRIOR TO THE BEGINNING OF OPERATIONS.
4. WHERE MATERIAL OR DEBRIS HAVE WASHED OR FLOWED INTO, OR HAVE BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING THE PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION.

B. ALL PROPERTY MONUMENTS OR PERMANENT REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

C. PROJECT RECORD DOCUMENTS:

1. DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH AND ELEVATION OF ANY FACILITY NOT BUILT EXACTLY ACCORDING TO PLANS.
2. UPON COMPLETION OF DRAINAGE IMPROVEMENTS AND LIMEROCK BASE CONSTRUCTION (AND BEFORE PLACING ASPHALT PAVEMENT) THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD "AS-BUILT" PLANS FOR THESE IMPROVEMENTS, SHOWING THE LOCATIONS AND PERTINENT GRADES OF ALL DRAINAGE INSTALLATIONS AND THE FINISHED ROCK GRADES OF THE ROAD CROWN AND EDGES OF PAVEMENT AT 50 FEET INTERVALS.
3. UPON COMPLETION OF CONSTRUCTION, AND PRIOR TO FINAL PAYMENT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER OF RECORD ONE COMPLETE SET OF ALL "AS-BUILT" CONTRACT DRAWINGS. THESE DRAWINGS SHALL BE MARKED TO SHOW "AS-BUILT" CONSTRUCTION CHANGES AND DIMENSIONS, LOCATIONS AND ELEVATIONS OF ALL IMPROVEMENTS.
4. "AS-BUILT" INFORMATION ON WATER MAINS AND GRAVITY SEWERS MUST BE PROVIDED IN ACCORDANCE WITH MDWASD STANDARD AS-BUILT REQUIREMENTS.
5. ALL "AS-BUILT" INFORMATION SHALL BE CERTIFIED BY A FLORIDA REGISTERED LAND SURVEYOR.

VII. EARTHWORK AND COMPACTION:

A. EARTHWORK AND COMPACTION SHALL BE PERFORMED IN ACCORDANCE WITH SECTION C3, "REQUIREMENTS FOR FILLING LAND IN UNINCORPORATED DADE COUNTY", OF THE MIAMI-DADE COUNTY PUBLIC WORKS MANUAL AND RECOMENDATIONS SET FORTH IN GEOTECHNICAL REPORT BY ALL STATE ENGINEERING AND TESTING CONSULTANTS, INC DATED MAY 20, 2019.

VIII. STORM DRAINAGE:

A. GENERAL:

1. CATCH BASIN GRATES AND RIM ELEVATIONS AS SHOWN ON PLANS SHALL BE ADJUSTED TO CONFORM TO NEW OR EXISTING GRADES.
2. DISTANCES AND LENGTHS SHOWN ON PLANS AND PROFILE DRAWINGS ARE REFERENCED TO THE CENTER OF STRUCTURES.
3. ALL STORM DRAINAGE MATERIALS AND INSTALLATION SHALL CONFORM TO THE APPLICABLE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

SECTION	TITLE
310	EXCAVATION, TRENCHING AND BACKFILLING FOR PIPE STRUCTURES
320	DRAINAGE PIPE
340	STORM SEWER MANHOLES
350	CATCH BASINS
355	INLETS
360	SEEPAGE DRAIN (FRENCH DRAIN)

B. ALL EXFILTRATION TRENCH SHALL BE AS PER STANDARD DETAIL SD 1.1 OF THE MIAMI-DADE COUNTY PUBLIC WORKS MANUAL, AND INSTALLED AT THE WIDTH, DEPTH AND ELEVATION SHOWN ON THE APPROVED CROSS SECTION DEPICTED ON THE PLANS. ANY CONFLICT WITH EXISTING OR PROPOSED UTILITIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER. ANY IMPERMEABLE MATERIAL ENCOUNTERED IN THE EXCAVATION FOR THE EXFILTRATION TRENCH SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

C. ALL DRAINAGE CATCH BASINS AND STRUCTURES SHALL BE PRECAST CONCRETE AS MANUFACTURED BY U.S. PRECAST CORPORATION OR APPROVED EQUAL.

D. THE TRENCH FILTER FABRIC SHALL BE SELECTED FROM THE LIST OF MANUFACTURERS AND FABRIC TYPES APPROVED BY THE MIAMI DADE COUNTY PUBLIC WORKS DEPARTMENT. IT SHALL BE USED TO WRAP ALL SIDES AND TOP OF THE EXFILTRATION TRENCH. THE TOP SECTION OF THE MATERIAL SHALL BE LAPPED A MINIMUM OF 12 INCHES AND THE CONTRACTOR SHALL TAKE EXTREME CARE IN BACKFILLING TO AVOID BUNCHING OF THE FABRIC.

E. PERFORATED PIPE SHALL TERMINATE 4'-0" FROM THE DRAINAGE STRUCTURE. THE REMAINING 4'-0" SHALL BE NON-PERFORATED PIPE.

F. PROVIDE A MINIMUM PROTECTIVE COVER OF 24 INCHES OVER STORM SEWER AND AVOID UNNECESSARY CROSSING BY HEAVY CONSTRUCTION VEHICLES DURING CONSTRUCTION.

G. THE CONTRACTOR SHALL PROTECT COMPLETED DRAINAGE STRUCTURES AND EXFILTRATION SYSTEM CONTAMINATION OF SILT AND CONSTRUCTION DEBRIS IN CONFORMANCE WITH REGULATORY REQUIREMENTS AND ATTACHED EROSION AND TURBIDITY CONTROL PLAN, AT MINIMUM, PLACE PLYWOOD ON OR FILTER FABRIC BETWEEN THE FRAME AND INLET GRATE UNTIL CONSTRUCTION OPERATIONS ARE FINISHED.

IX. PAVING:

A. GENERAL:

1. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF LIMEROCK BASE.
2. ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
3. ALL ROAD CROSSINGS ARE OPEN CUT UNLESS OTHERWISE NOTED ON THE DRAWINGS.
4. WHERE ANY PROPOSED PAVEMENT IS TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT.
5. PAVEMENT REPAIRS SHALL BE AS PER STANDARD DETAIL R 21.1 OF THE MIAMI- DADE COUNTY PUBLIC WORKS MANUAL.

B. MATERIALS AND INSTALLATION:

1. ALL WORK WITHIN HIALEAH STREET DEPARTMENT RIGHT-OF-WAYS SHALL BE IN ACCORDANCE WITH MIAMI DADE COUNTY PUBLIC WORKS DEPARTMENT SPECIFICATIONS BUT NOT LIMITED TO THE FOLLOWING:

SECTION	TITLE
24	CLEARING AND GRUBBING
30	EXCAVATION AND EMBANKMENT
33	STABILIZING
40	RESTORATION OF TRENCHES
51	LIMEROCK BASE
100	PRIME AND TACK COATS
133	TYPE S-1 (SP-12.5) ASPHALTIC CONCRETE SURFACE COURSE
168	STREET NAME SIGNS

2. SUBGRADE FOR ROADWAY SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY (AASHTO T-180), LBR 40.
3. BASE COURSE MATERIAL FOR PAVED AREAS SHALL BE A MINIMUM THICKNESS OF 8" PLACED ON A SINGLE LAYER FOR STREETS.
4. BASE COURSE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180, LBR 100.

C. TESTING:

1. DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY, CERTIFIED BY THE STATE OF FLORIDA, WHERE DIRECTED BY THE CITY OF HIALEAH STREETS DEPARTMENT AND INSPECTOR.

X. TRAFFIC GENERAL NOTES & CONDITIONS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL PAVEMENT MARKINGS AND SIGNS CONFLICTING WITH THE PROPOSED ROADWAY CONSTRUCTION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL PAVEMENT MARKINGS AND SIGNS AS SHOWN IN THE PLANS AND APPLICABLE TRAFFIC DESIGN STANDARDS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR MATCHING EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND AT THE END OF THE PROJECT, AND AT ALL INTERSECTING SIDE STREETS.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF REFLECTIVE PAVEMENTS MARKERS ALONG THE ENTIRE LENGTH OF THE PROJECT.
5. ANY SIGNING MATERIAL, INCLUDING SUPPORTS TO BE REMOVED, SHALL BE DELIVERED BY THE CONTRACTOR TO CITY OF HIALEAH TRAFFIC SIGNALS AND SIGNS MAINTENANCE FACILITY.
6. SIGN ASSEMBLY LOCATIONS SHOWN IN THE PLANS WHICH ARE IN CONFLICT WITH STREET LIGHTING UTILITIES, DRIVEWAYS, PEDESTRIAN RAMPS ETC MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER/INSPECTOR.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PEDESTRIAN RAMPS WHERE SIDEWALK IS EXISTING OR PROPOSED (ADA-PWM).

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.C.
CHECKED J.T.
APPROVED J.M.

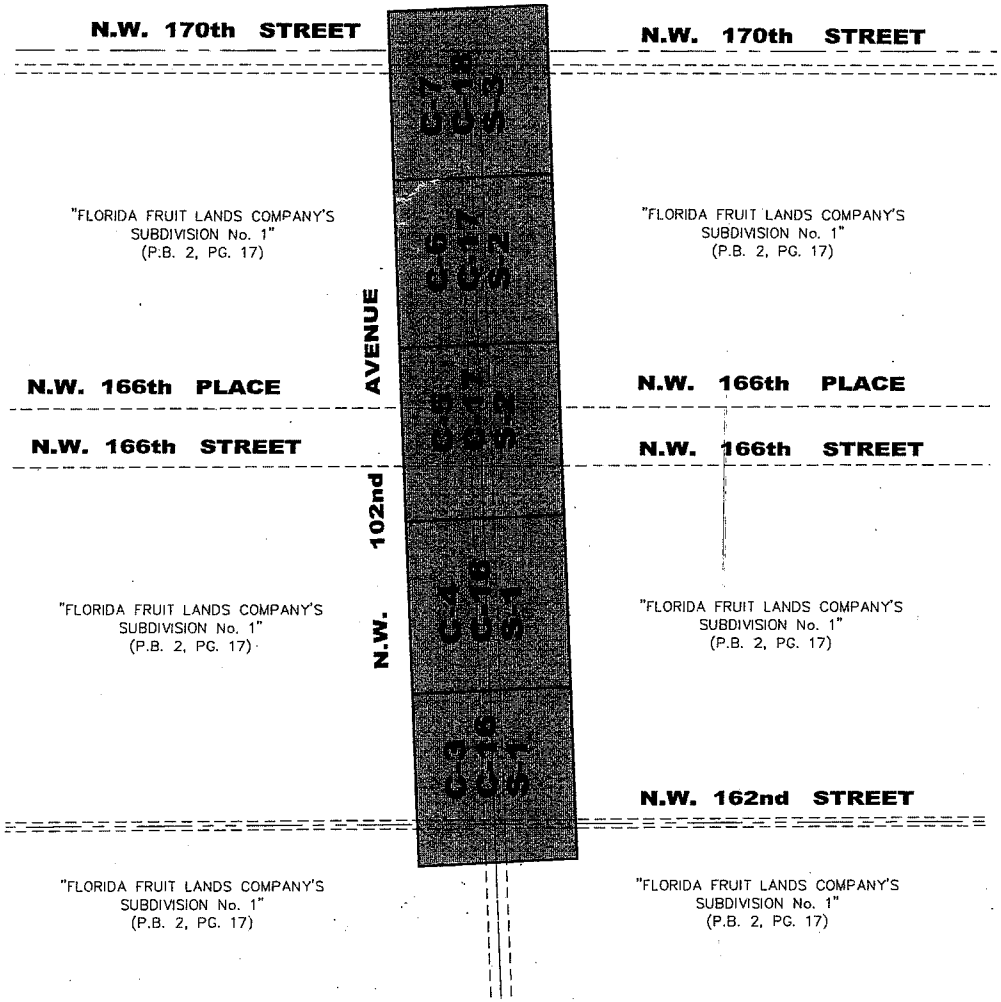
PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
GENERAL NOTES

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5480

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: N/A
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134



0 100 200 400 800

GRAPHIC SCALE IN FEET
SCALE: 1"=200'

LEGEND

- EXIST. PALM TREE
- EXIST. TREE
- EXIST. ORNAMENTAL TREE
- EXIST. SEWER MANHOLE
- EXIST. LIGHT POLE
- EXIST. CATCH BASIN
- EXIST. WATER VALVE
- EXIST. TELEPHONE MANHOLE
- EXIST. ELEVATION
- EXIST. TRAFFIC SIGN
- PROP. NAME STREET SIGN
- PROP.. TRAFFIC SIGN
- EXIST. STORM DRAINAGE MANHOLE
- EXIST. AIR RELEASE VALVE
- TEMPORARY SITE BENCHMARK
- PROP. ELEVATION
- EXIST. BOLLARD
- PROP. ASPHALT PAVEMENT
- PROP. CONCRETE
- PROP. SOD/SWALE
- 50 LF-24" FD — PROP CATCH BASIN AND LENGTH OF EXFILTRATION TRENCH
- EXIST. RIGHT-OF-WAY LINE
- PROP. RIGHT-OF-WAY LINE
- ROADWAY CENTERLINE
- EXIST. WOOD FENCE
- EXIST. BARBED WIRE FENCE AND CHAIN LINK FENCE

ABBREVIATIONS

ASPH.	ASPHALT
CONC.	CONCRETE
ELEC.	ELECTRIC
F.F.E.	FINISHED FLOOR ELEVATION
INV.	INVERTS
R/W	RIGHT-OF-WAY LINE
CMP	CORRUGATED METAL PIPE
CI	CAST IRON
INV EL.	INVERT ELEVATION
T.O.P.	TOP OF PIPE
TOB	TOP OF BANK
EOW	EDGE OF WATER
D.I.	DUCTILE IRON
P.V.C.	POLYVINYL CHLORIDE
HDPE	HIGH DENSITY POLYETHYLENE
MH	MANHOLE
WM	WATER MAIN
FM	FORCE MAIN
U.E.	UTILITY EASEMENT
SDWK	SIDEWALK
WV	WATER VALVE
℄	SECTION LINE
℄	CENTERLINE
℄	BASELINE
R	RADIUS
RW	RAW WATER
OHE	OVERHEAD ELECTRIC LINE
SAN	SANITARY
ST	STORM
TYP.	TYPICAL
O.R.B.	OFFICIAL RECORDS BOOK
P.B.	PLAT BOOK
PG.	PAGE
EXFILT.	EXFILTRATION

INDEX OF KEY MAP SHEETS

SHEET No.	DESCRIPTION
C-3 to C-7	PAVING, GRADING AND DRAINAGE PLANS AND PROFILES
C-16 to C-18	PAVEMENT MARKING AND SIGNAGE PLANS
S-1 to S-3	EROSION AND TURBIDITY CONTROL SILT FENCE PLANS

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

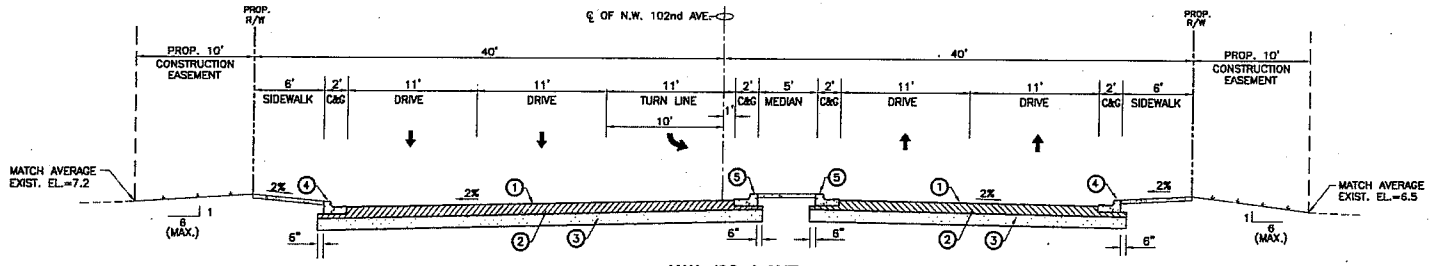
SHEET TITLE
KEY MAP PLAN AND LEGEND

MSA Millan, Swain & Associates, Inc.
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
2075 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-9888
CERTIFICATE OF AUTHORIZATION NO. 5400

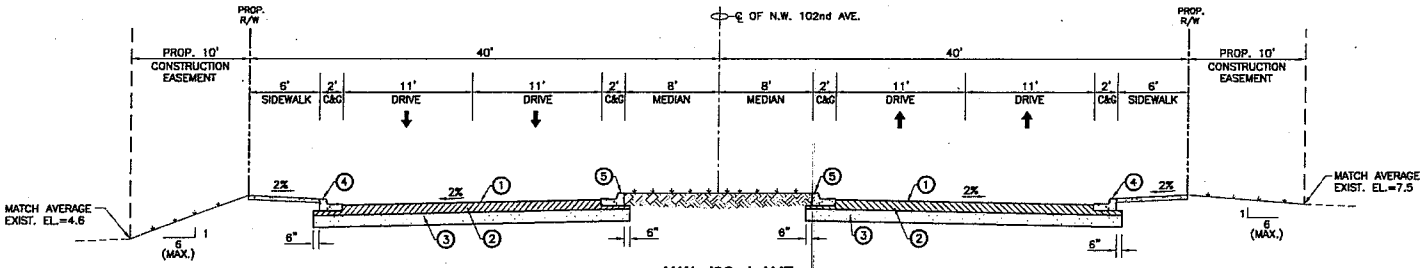
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=200'
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

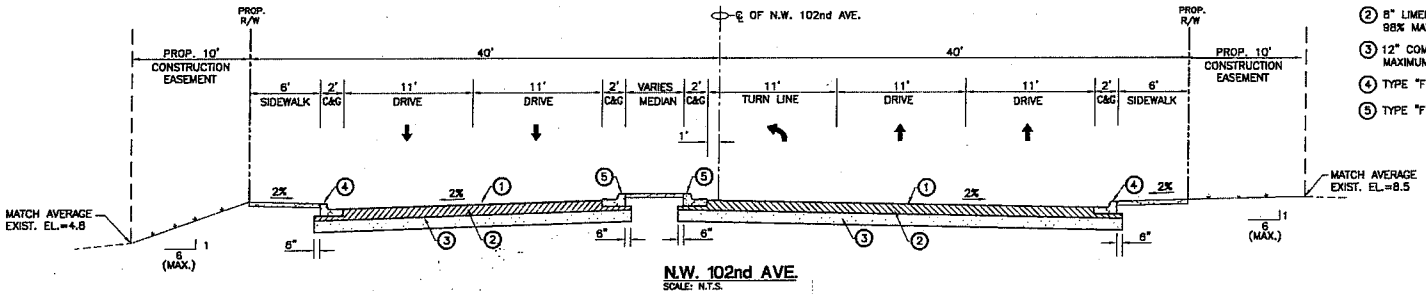
SHEET G-3 OF 34



N.W. 102nd AVE.
SCALE: N.T.S.
(FROM STA. 12+09 TO STA. 13+83



N.W. 102nd AVE.
SCALE: N.T.S.
(FROM STA. 14+75 TO STA. 20+89



N.W. 102nd AVE.
SCALE: N.T.S.
(FROM STA. 21+39 TO STA. 22+00

NOTES:

1. ASPHALTIC CONCRETE TYPE SP-12.5, 2" THICK AND 1" FC-9.5 ASPHALTIC FRICTION COURSE.
2. 8" LIMEROCK BASE, MIN. LBR 100. COMPACTED TO 98% MAXIMUM DENSITY PER AASHTO T-180.
3. 12" COMPACTED SUBGRADE. MIN. LBR 40. COMPACTED TO 95% MAXIMUM DENSITY PER AASHTO T-180.
4. TYPE "F" CURB AND GUTTER.
5. TYPE "F" FOR MEDIAN CURB AND GUTTER.

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

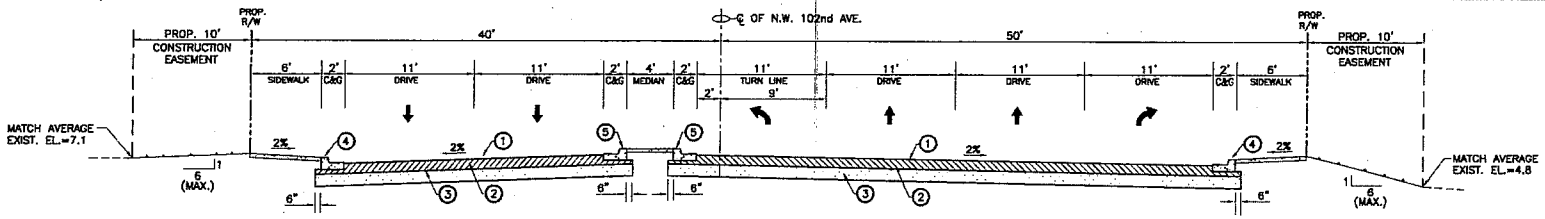
SHEET TITLE
TYPICAL SECTIONS

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

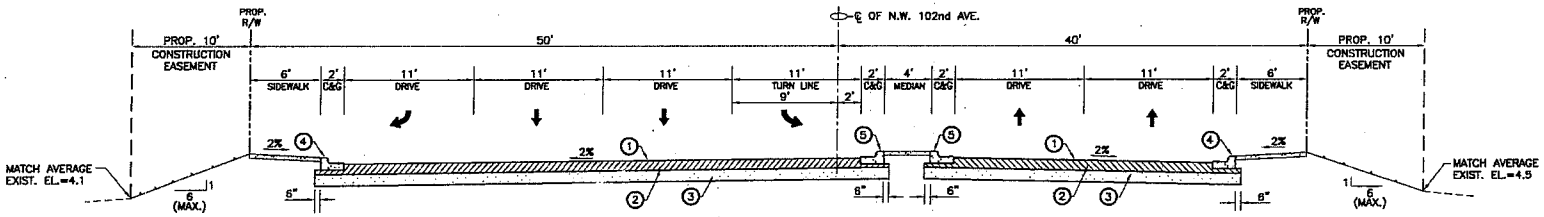
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: N/A
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

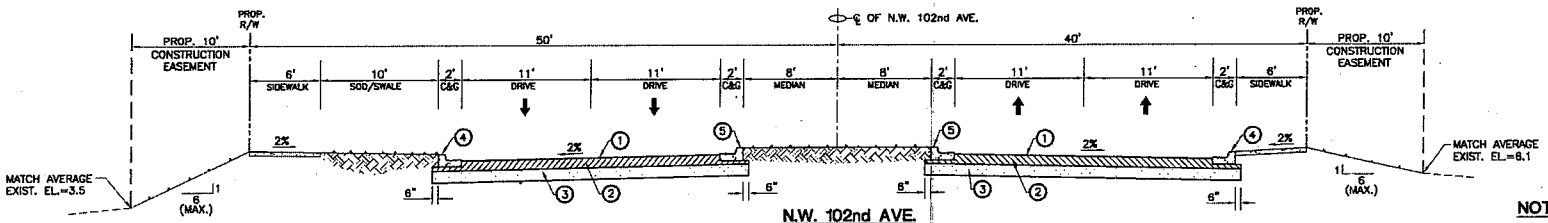
SHEET C-1 OF 34



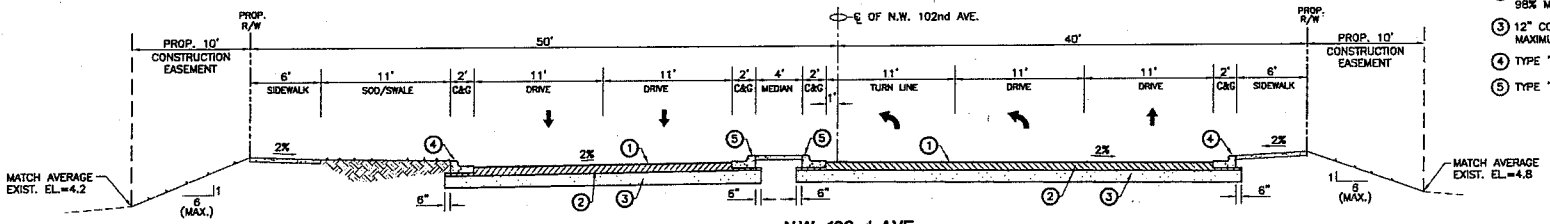
N.W. 102nd AVE.
SCALE: N.T.S.
(FROM STA. 23+21 TO STA. 24+66



N.W. 102nd AVE.
SCALE: N.T.S.
(FROM STA. 26+26 TO STA. 27+40



N.W. 102nd AVE.
SCALE: N.T.S.
(FROM STA. 28+40 TO STA. 33+52



N.W. 102nd AVE.
SCALE: N.T.S.
(FROM STA. 34+03 TO STA. 36+95

NOTES:

1. ASPHALTIC CONCRETE TYPE SP-12.5, 2" THICK AND 1" FC-9.5 ASPHALTIC FRICTION COURSE.
2. 8" LIMEROCK BASE, MIN. LBR 100, COMPACTED TO 98% MAXIMUM DENSITY PER AASHTO T-180.
3. 12" COMPACTED SUBGRADE, MIN. LBR 40, COMPACTED TO 95% MAXIMUM DENSITY PER AASHTO T-180.
4. TYPE "F" CURB AND GUTTER.
5. TYPE "F" FOR MEDIAN CURB AND GUTTER.

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

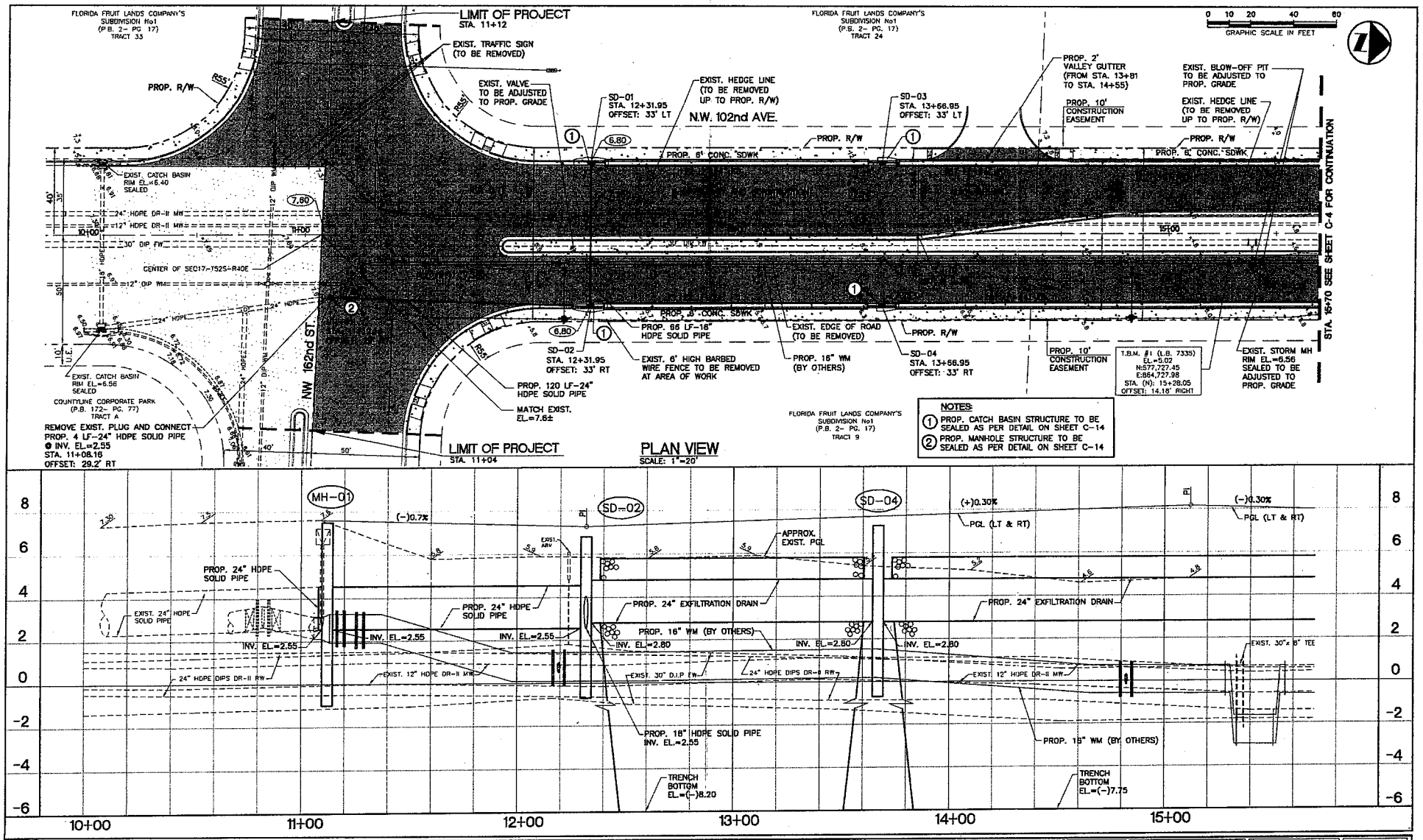
SHEET TITLE
TYPICAL SECTIONS

MSA Miller, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: N/A
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET C-2 OF 34



NOTES:

1. PROP. CATCH BASIN STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14
2. PROP. MANHOLE STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME

DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE

PAVING, GRADING AND DRAINAGE PLAN AND PROFILE

MSA Milian, Swaiz & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

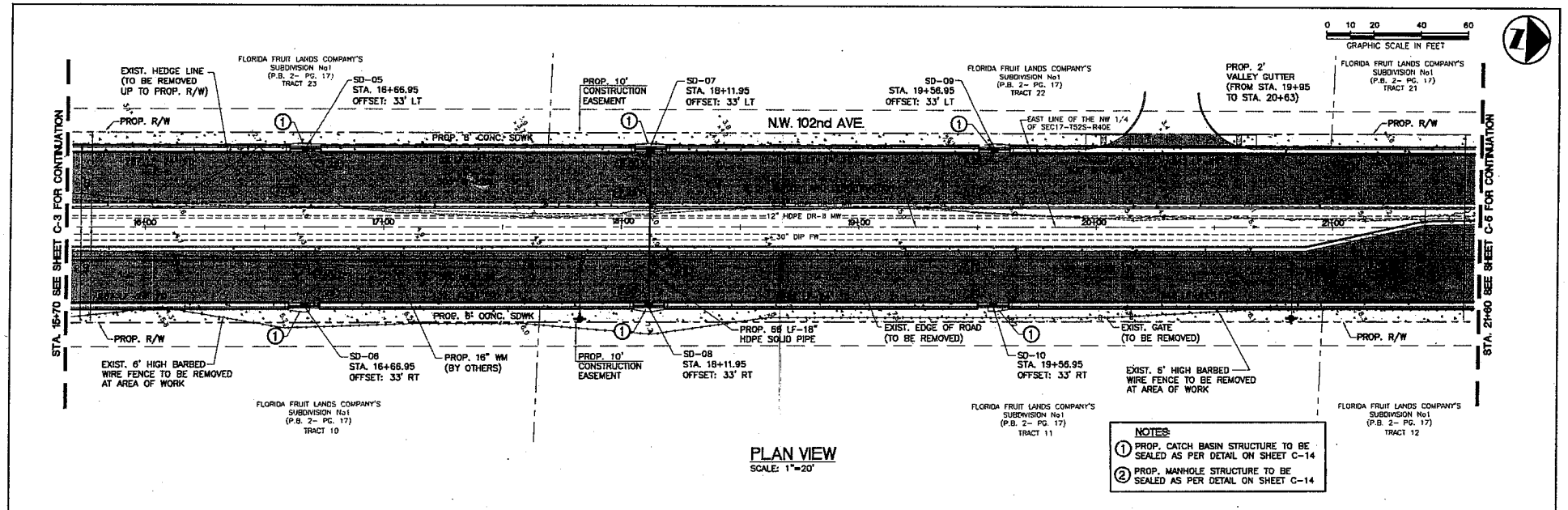
DATE: 05/21/19 SCALE: 1"=20' (H) 1"= 2' (V)

PROJECT NO. C27-23

APPROVED BY:

ARSENIO MILIAN, P.E.
FL LICENSE No. 13134

SHEET C-3 OF 34

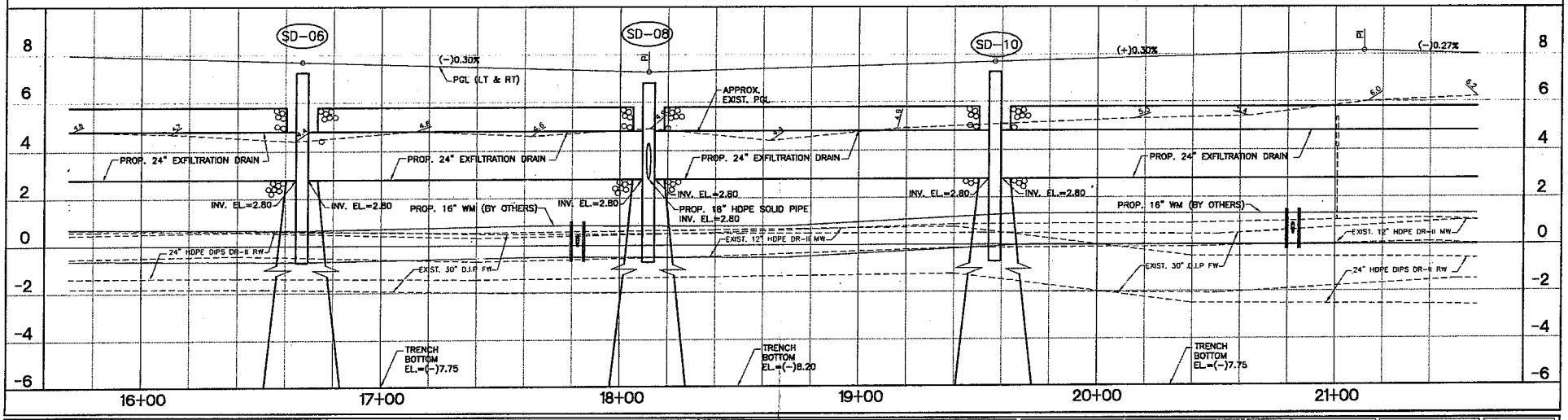


PLAN VIEW

SCALE: 1"=20'

NOTES:

1. PROP. CATCH BASIN STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14
2. PROP. MANHOLE STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14



NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME: DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE: PAVING, GRADING AND DRAINAGE PLAN AND PROFILE

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 3460

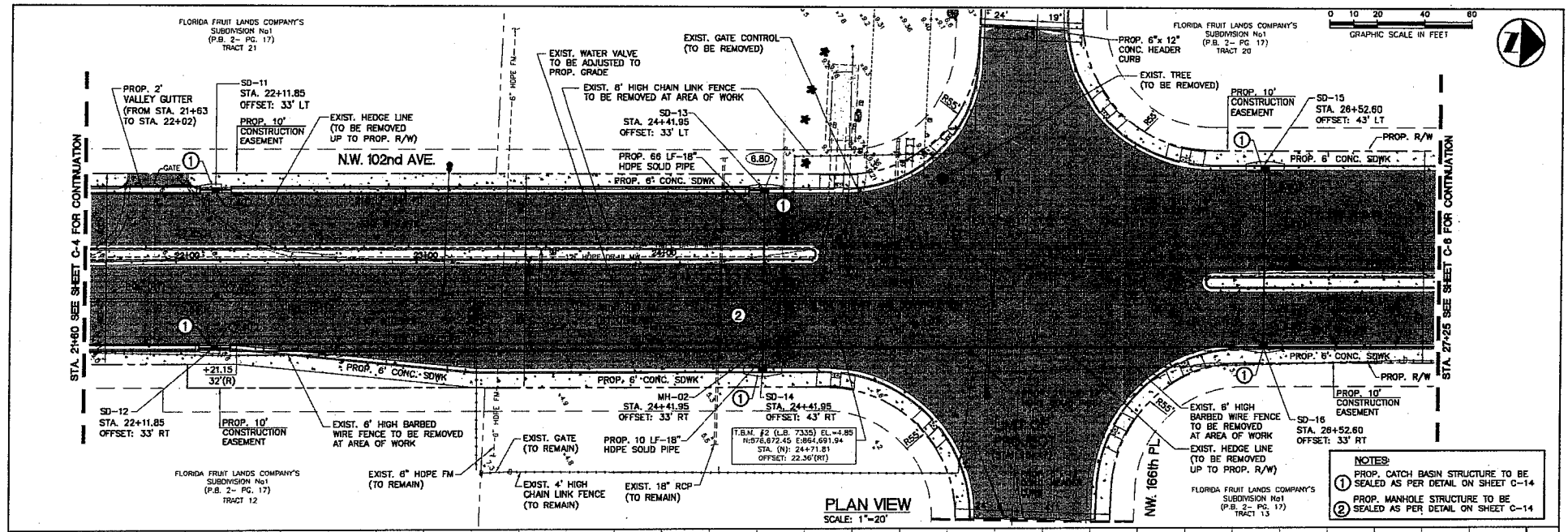
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

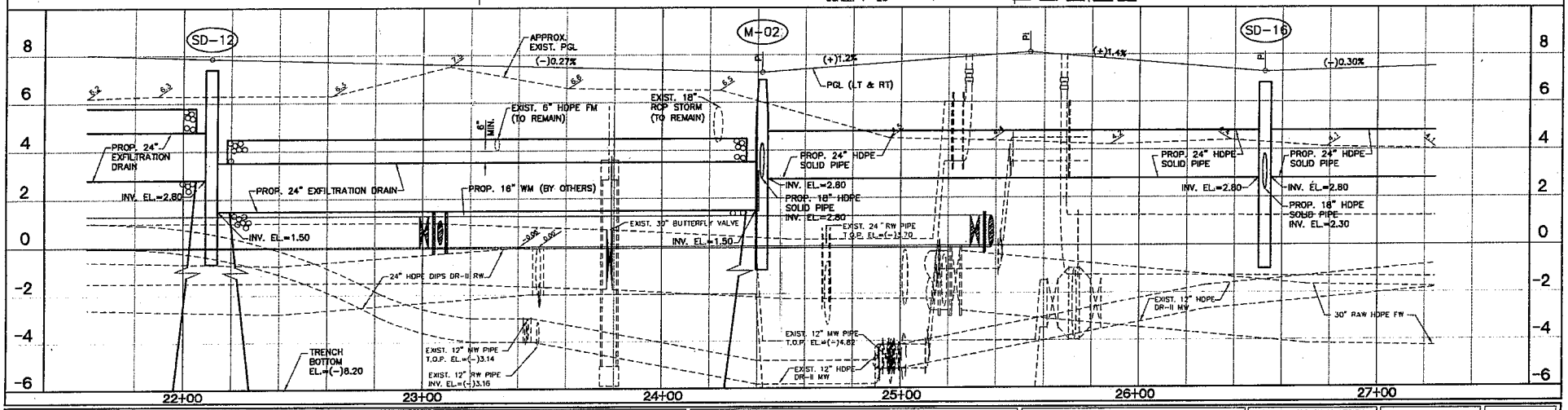
DATE: 05/21/19 SCALE: 1"=20' (H) 1"= 2' (V)

PROJECT NO. C27-23

APPROVED BY: ARSENIO MILIAN, P.E. FL. LICENSE No. 13134

SHEET C-4 OF 34





NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

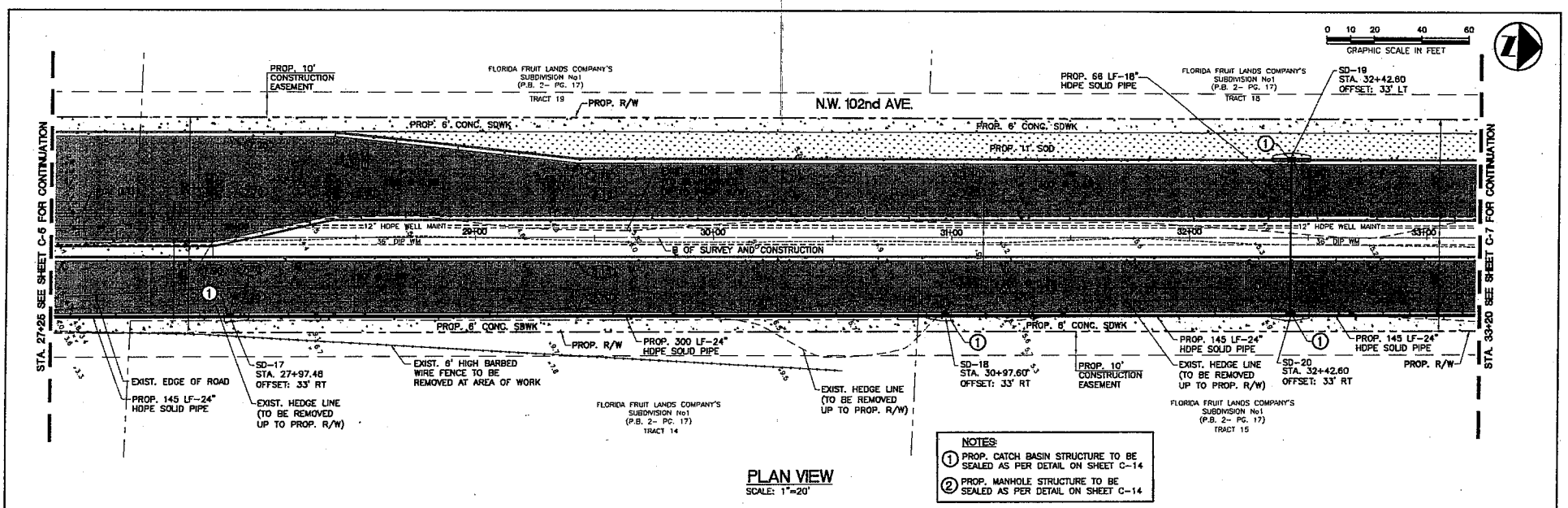
SHEET TITLE
PAVING, GRADING AND DRAINAGE PLAN AND PROFILE

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS URBAN MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20' (H) 1"=2' (V)
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET C-5 OF 34

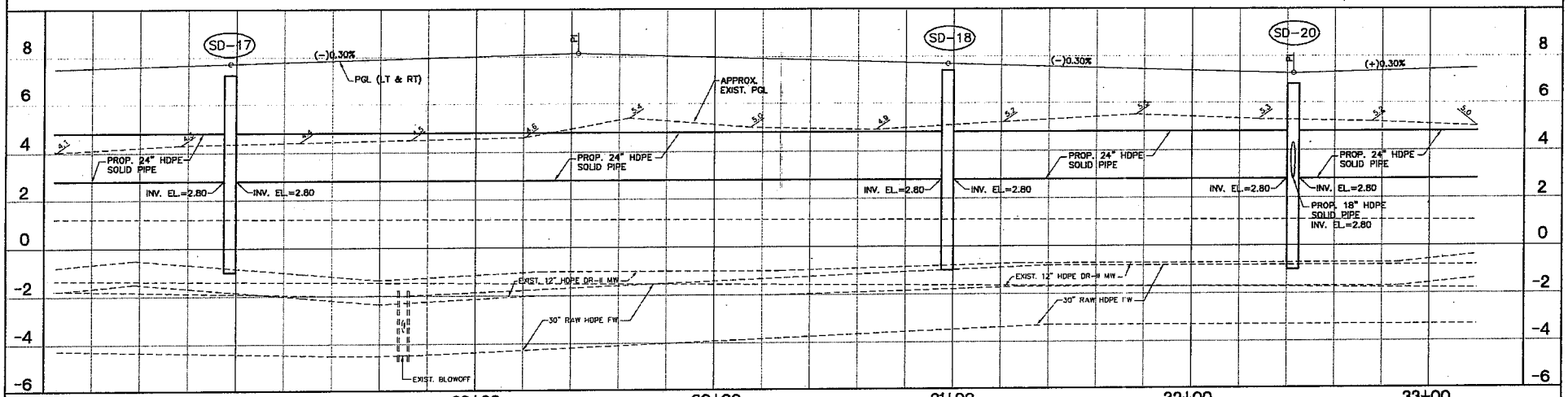


PLAN VIEW

SCALE: 1"=20'

NOTES:

1. PROP. CATCH BASIN STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14
2. PROP. MANHOLE STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14



NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME

DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE

PAVING, GRADING AND DRAINAGE PLAN AND PROFILE

MSA Miles, Swain & Associates, Inc.
2029 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 3460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

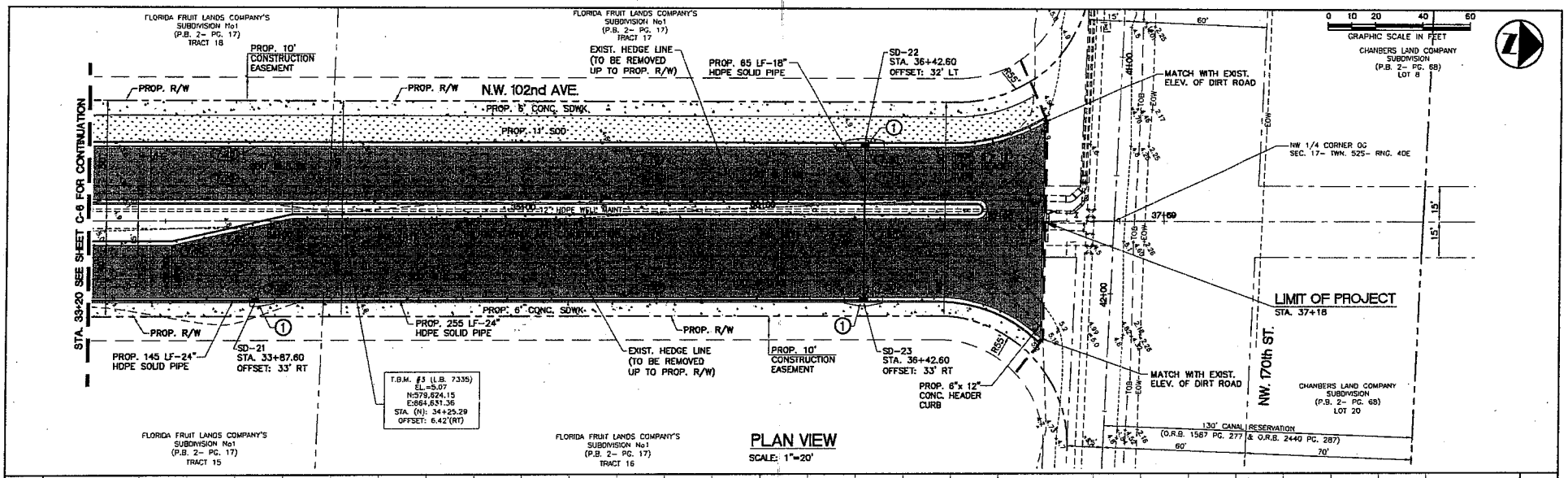
DATE: 05/21/19 SCALE: 1"=20' (H) 1"= 2' (V)

PROJECT NO. C27-23

APPROVED BY:

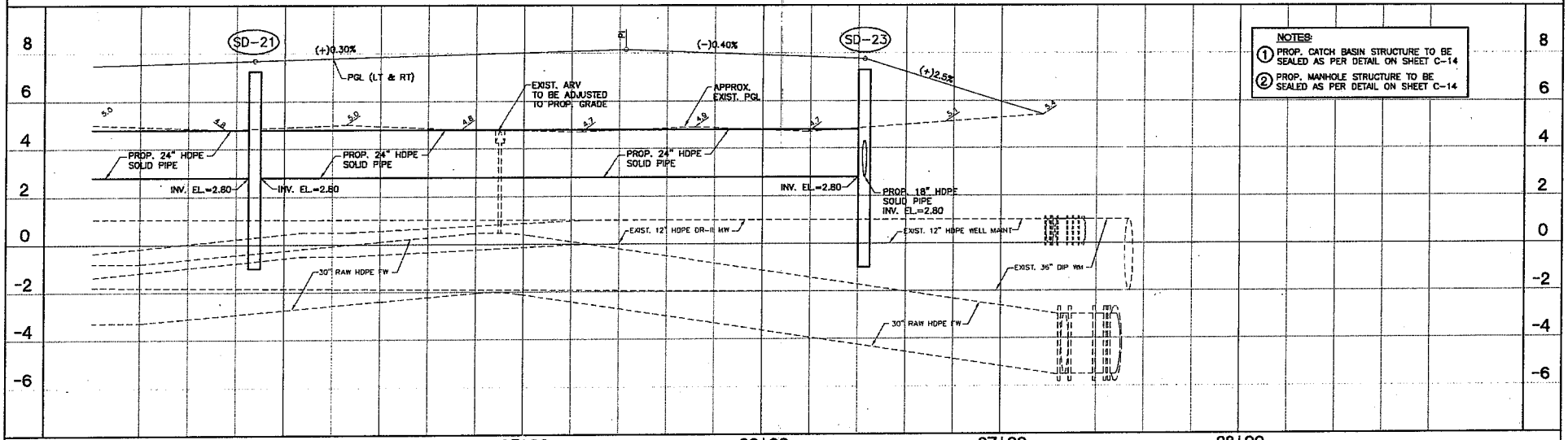
ARSENIO MILIAN, P.E.
FL LICENSE No. 13134

SHEET C-6 OF 34



PLAN VIEW

SCALE: 1"=20'



NOTES:

1. PROP. CATCH BASIN STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14
2. PROP. MANHOLE STRUCTURE TO BE SEALED AS PER DETAIL ON SHEET C-14

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G. CHECKED J.T. APPROVED J.M.

PROJECT NAME: DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

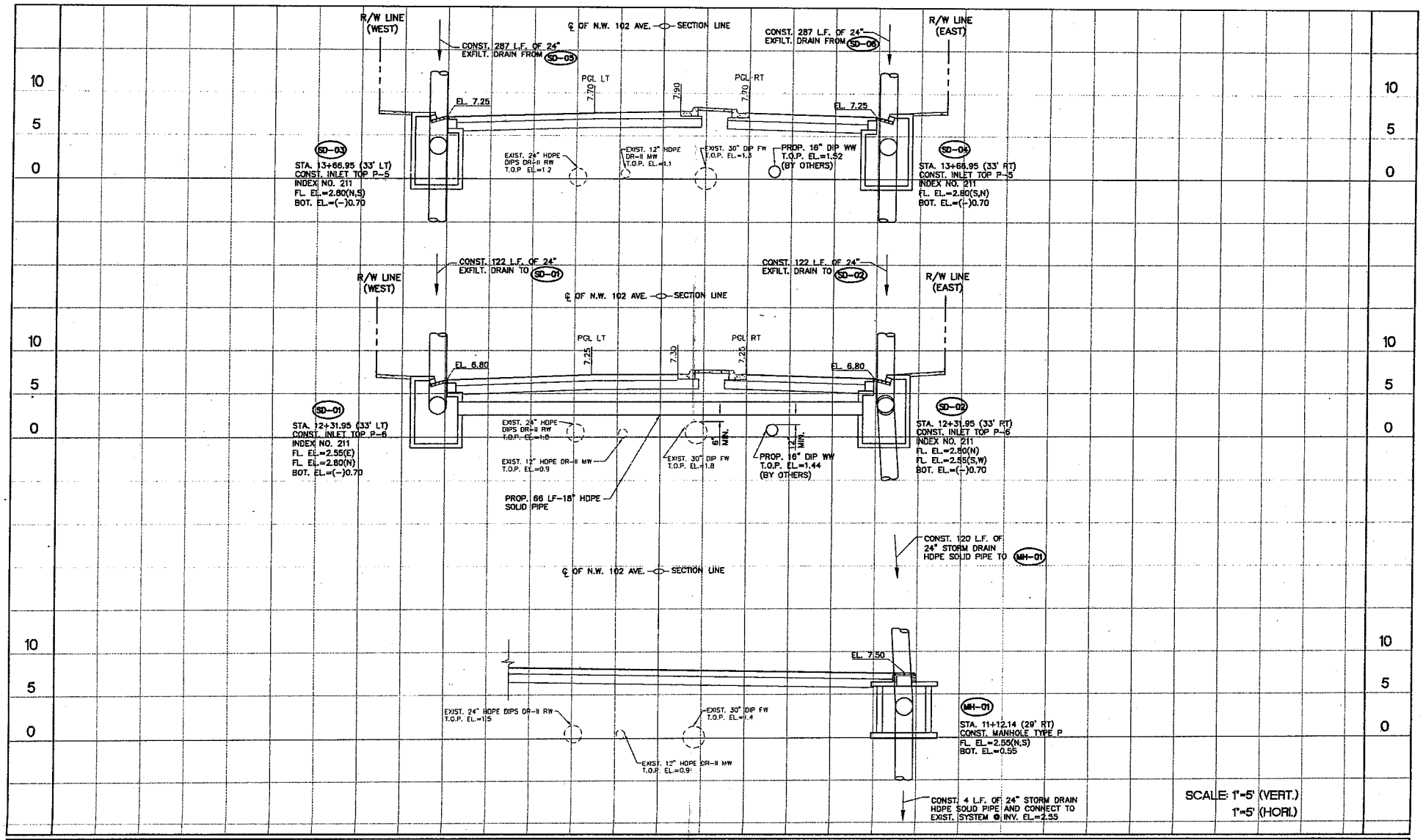
SHEET TITLE: PAVING, GRADING AND DRAINAGE PLAN AND PROFILE

MSA Miles, Sveis & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5490

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20' (H) 1"= 2' (V)
PROJECT NO. C27-23

APPROVED BY: ARSENIO MILIAN, P.E. FL. LICENSE No. 13134

SHEET C-7 OF 34



NO.	REVISION/ISSUE	DATE
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CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
DRAINAGE STRUCTURE CROSS SECTIONS

MSA Milian, Swain & Associates, Inc.
2021 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
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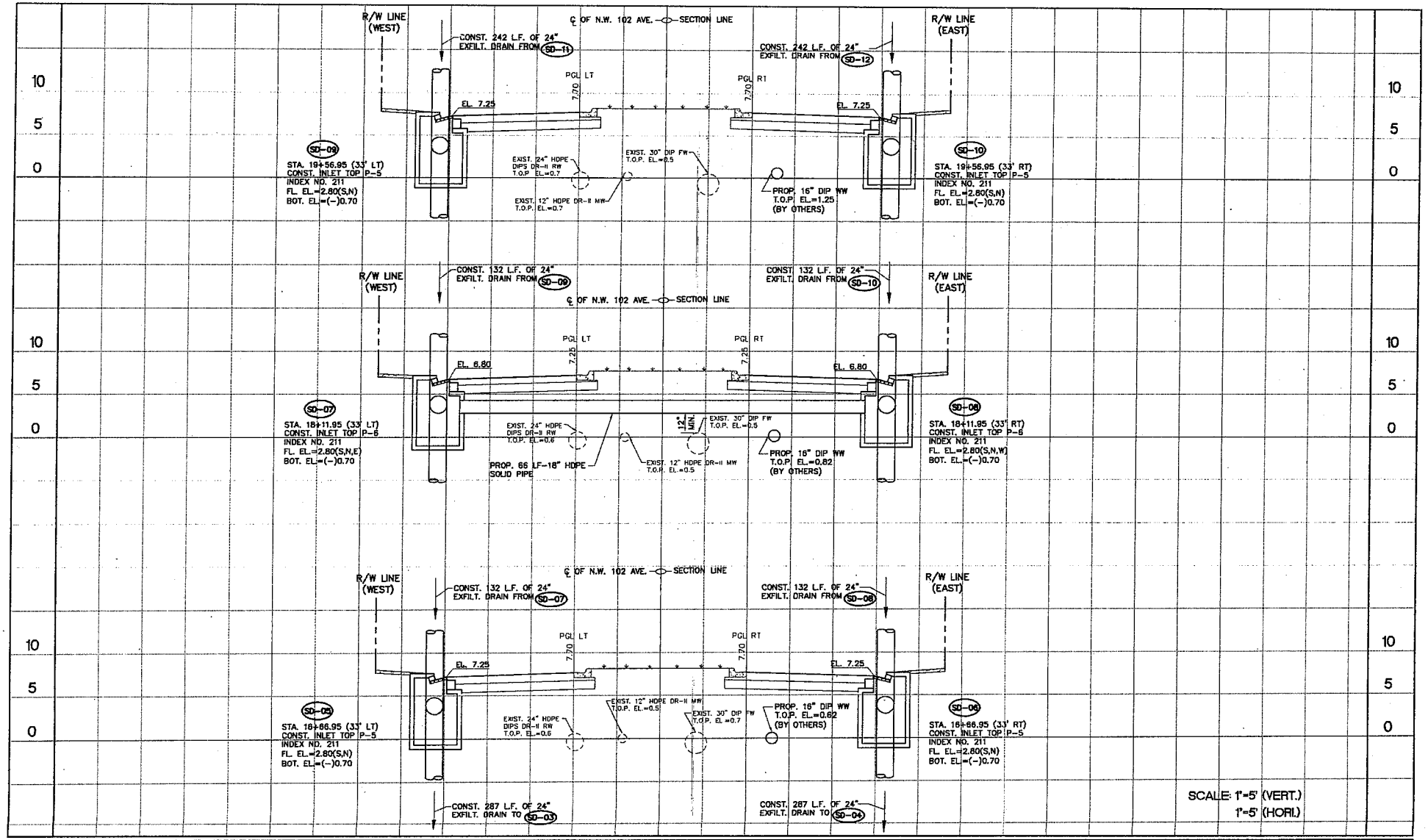
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: AS NOTED
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET C-8 OF 34



NO	REVISION/ISSUE	DATE
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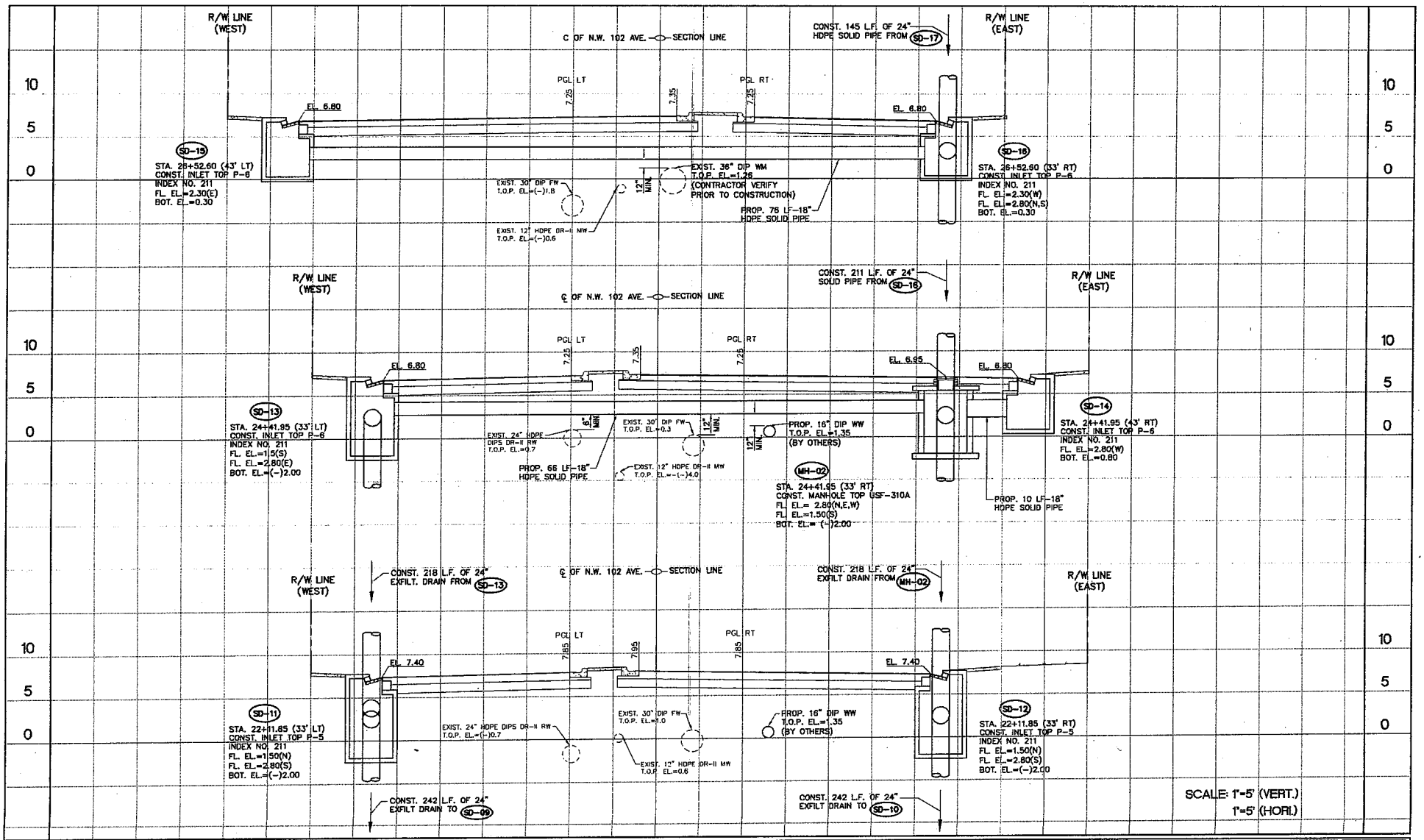
SHEET C-9 OF 34



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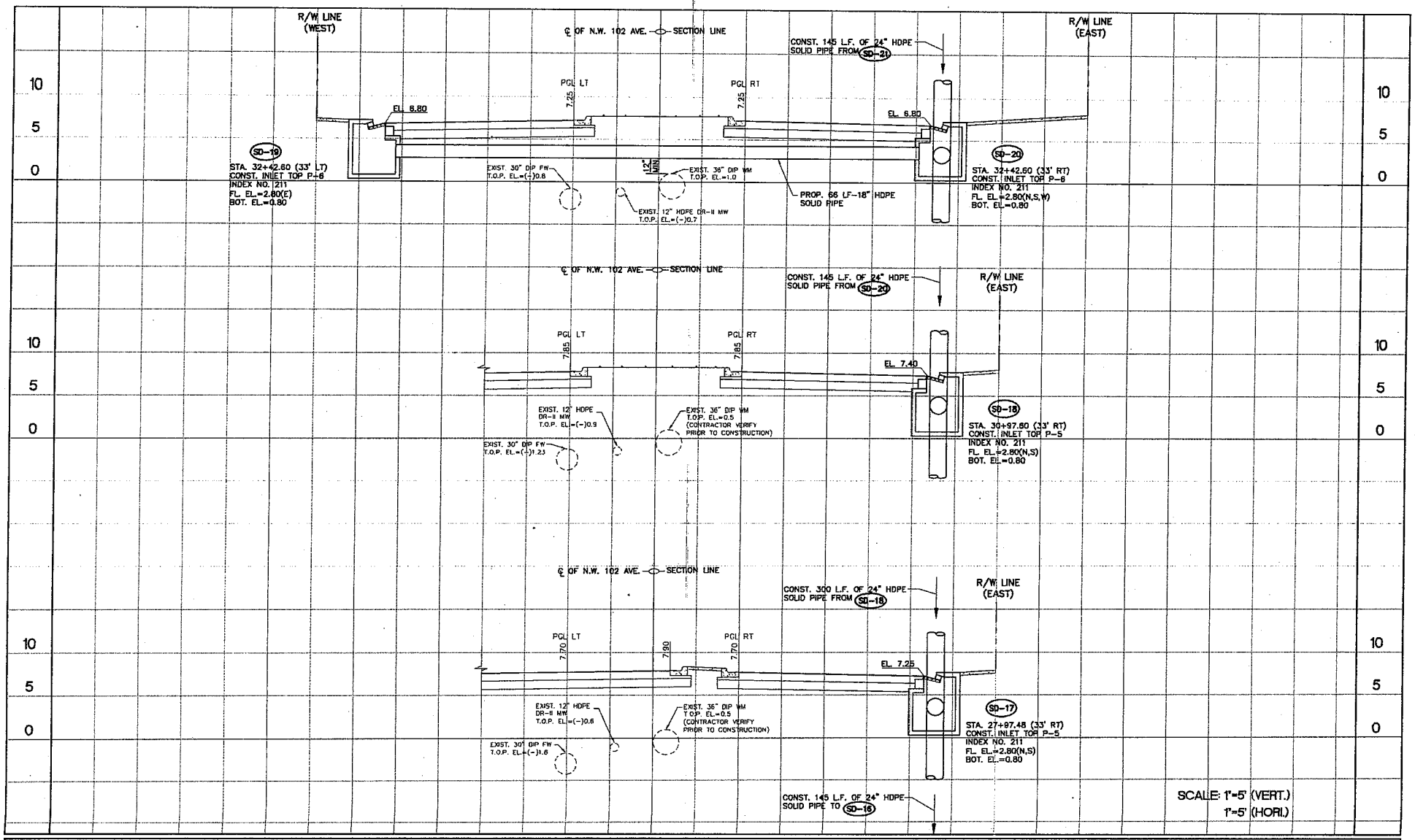
SHEET C-10 OF 34



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MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
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CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
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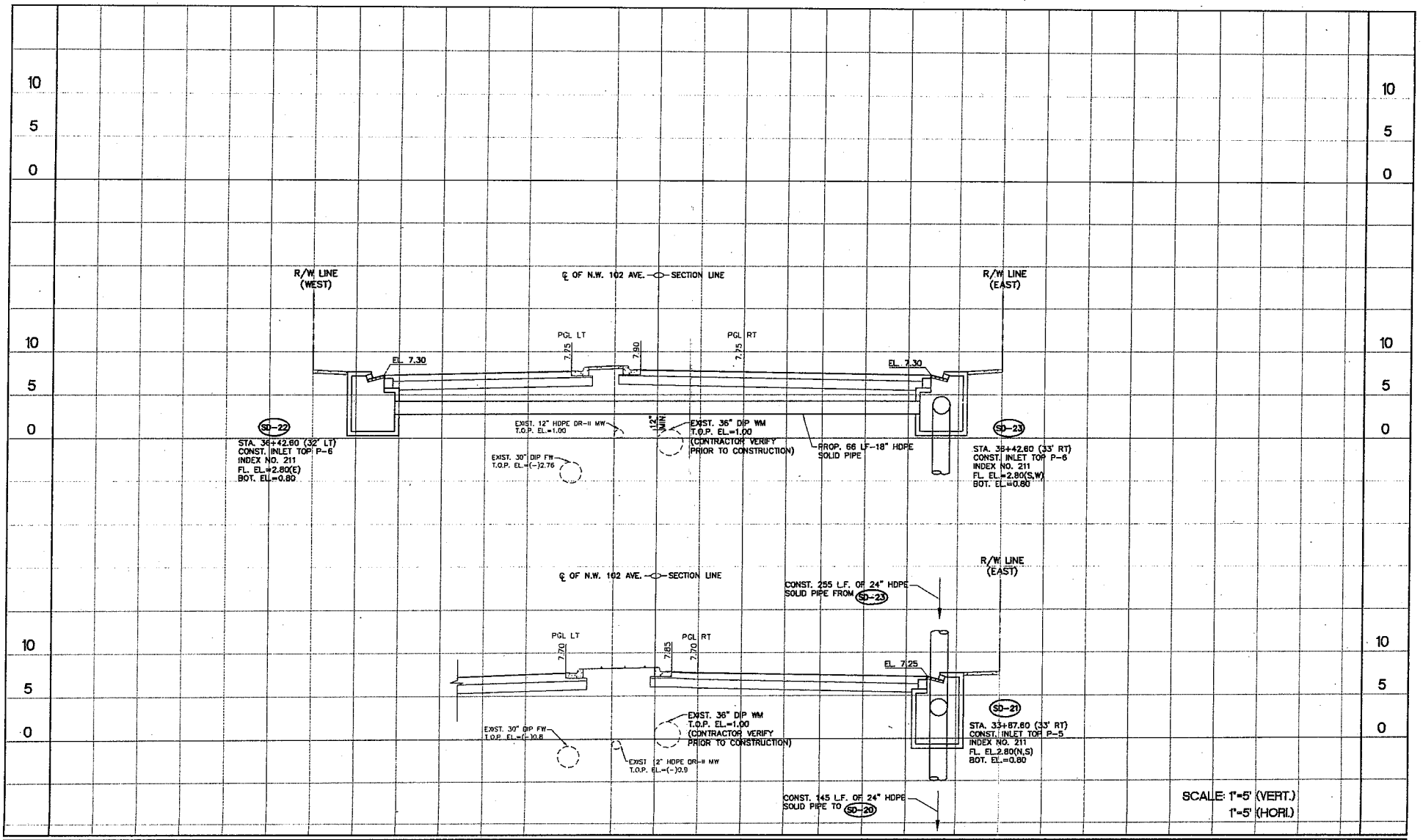
FL. LICENSE No. 13134

SHEET C-11 OF 34



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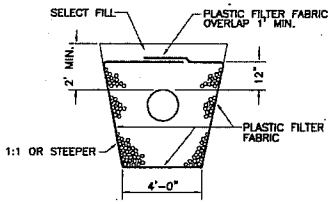
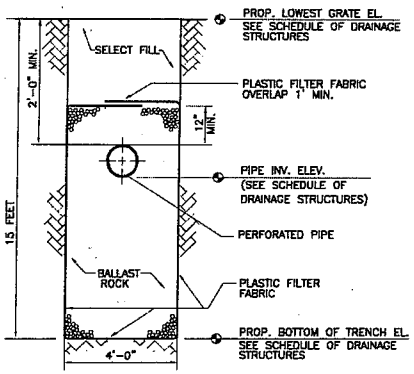
SHEET C-12 OF 34

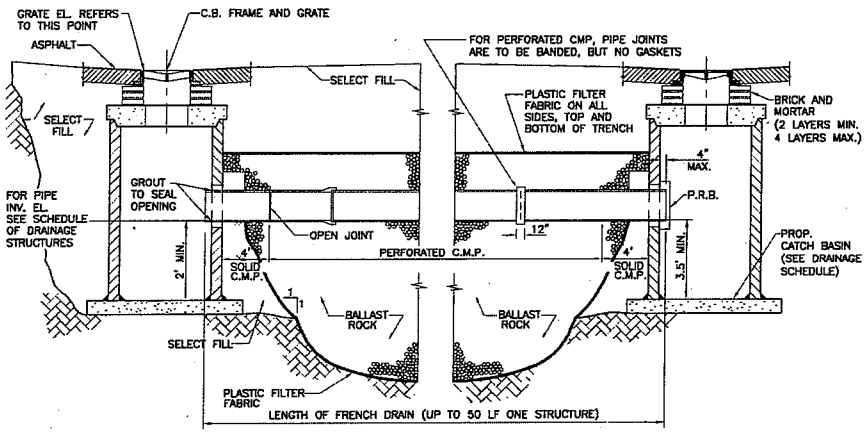


ALT. TRANS. SECTION*

*MAY BE USED IN AREAS WHERE TRENCH WALLS WILL NOT STAND VERTICAL, OR WHERE CAVE-IN BELOW THE WATER TABLE IS LIKELY TO OCCUR. TO BE USED AT THE ENGINEER'S DISCRETION.



TRANSVERSE SECTION

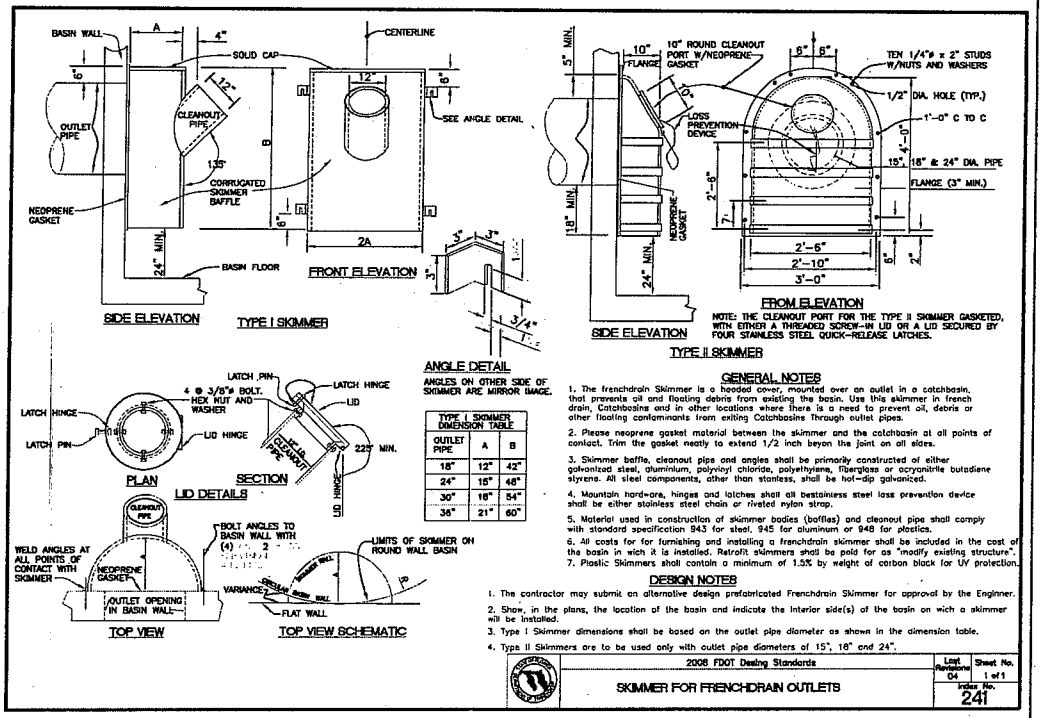


LONGITUDINAL SECTION

NOTE
AFTER THE BALLAST ROCK HAS BEEN PLACED TO THE PROPER ELEVATION IT SHALL BE CAREFULLY WASHED DOWN WITH CLEAN WATER TO ALLOW FOR INITIAL SETTLEMENT THAT MAY OCCUR. IF SETTLEMENT DOES TAKE PLACE, ADDITIONAL BALLAST ROCK WILL BE ADDED TO RESTORE THE PROPER ELEVATION SO THAT THE EXFILTRATION TRENCH IS COMPLETED IN ACCORDANCE WITH THE DETAILS.

TYPICAL CATCH BASIN AND EXFILTRATION TRENCH DETAIL

N.T.S.



NOTE: THE CLEANOUT PORT FOR THE TYPE II SKIMMER GASKETED, WITH EITHER A THREADED SCREW-IN LID OR A LID SECURED BY FOUR STAINLESS STEEL QUICK-RELEASE LATCHES.

TYPE I SKIMMER DIMENSION TABLE		
OUTLET PIPE	A	B
18"	12"	42"
24"	15"	48"
30"	18"	54"
36"	21"	60"

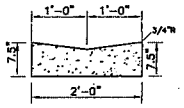
GENERAL NOTES

1. The frenchdrain Skimmer is a hooded cover, mounted over an outlet in a catchbasin, that prevents oil and floating debris from existing the basin. Use this skimmer in french drain, Catchbasins and in other locations where there is a need to prevent oil, debris or other floating contaminants from exiting Catchbasins through outlet pipes.
2. Please neoprene gasket material between the skimmer and the catchbasin at all points of contact. Trim the gasket neatly to extend 1/2 inch beyon the joint on all sides.
3. Skimmer baffle, cleanout pipe and angles shall be primarily constructed of either galvanized steel, aluminum, polyvinyl chloride, polyethylene, fiberglass or acrylonitrile butadiene styrene. All steel components, other than stainless, shall be hot-dip galvanized.
4. Mountain hardware, hinges and latches shall all bestainless steel loss prevention device shall be either stainless steel chain or riveted nylon strap.
5. Material used in construction of skimmer bodies (baffles) and cleanout pipe shall comply with standard specification 943 for steel, 945 for aluminum or 948 for plastics.
6. All costs for for furnishing and installing a frenchdrain skimmer shall be included in the cost of the basin in wich it is installed. Retrofit skimmers shall be paid for as "modify existing structure".
7. Plastic Skimmers shall contain a minimum of 1.5% by weight of carbon black for UV protection.

DESIGN NOTES

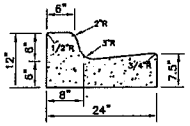
1. The contractor may submit an alternative design prefabricated Frenchdrain Skimmer for approval by the Engineer.
2. Show, in the plans, the location of the basin and indicate the interior side(s) of the basin on wich a skimmer will be installed.
3. Type I Skimmer dimensions shall be based on the outlet pipe diameter as shown in the dimension table.
4. Type II Skimmers are to be used only with outlet pipe diameters of 15", 18" and 24".

2008 FDOT Design Standards	Last Revision	Sheet No.
SKIMMER FOR FRENCHDRAIN OUTLETS	04	1 of 1
	Index No. 241	



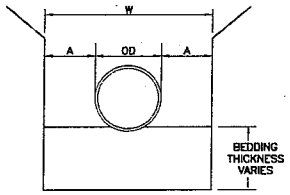
VALLEY GUTTER

N.T.S.



6" TYPE "F" CURB AND GUTTER

N.T.S.



PIPE DIA. "OD"	MAXIMUM "A"
6" TO 15"	8"
16" TO 21"	10"
24" TO 30"	12"
33" TO 42"	15"
48" & LARGER	18"

MAXIMUM TRENCH WIDTH "W" TAKEN AT TOP PIPE

NOTE:
BEDDING MATERIAL SHALL CONSIST OF SELECT BACKFILL MATERIAL 2" MAX. SIZE, OR WASHED AND GRADED LIMEROCK (3/8"-7/8") COMPACTED TO AR LEAST 90' OF MAX. DENSITY, 6" LIFTS PER ASSHTO SPEC. NO. T-180.

TRENCH CROSS SECTION FOR SOLID DRAINAGE PIPE

N.T.S.

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DRAWN L.C. CHECKED J.T. APPROVED J.M.

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CITY OF HIALEAH, FLORIDA

SHEET TITLE
DRAINAGE DETAILS

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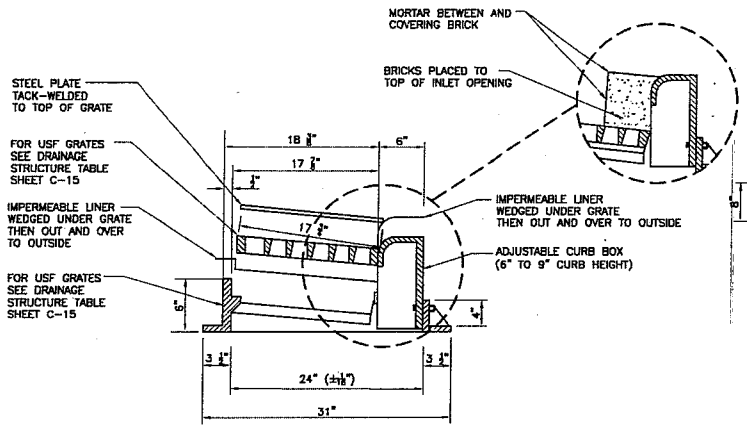
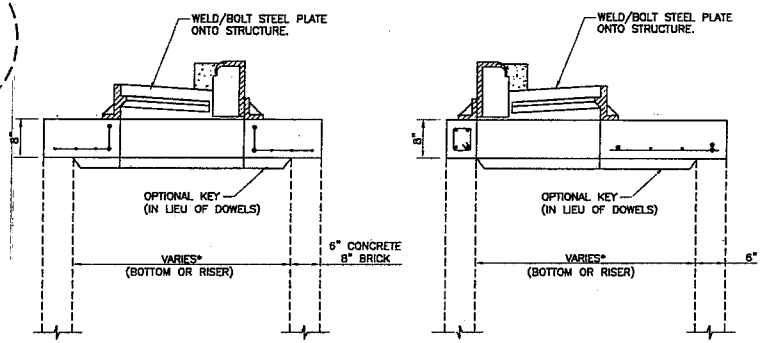
SHEET C-13 OF 34



FRAME AND GRATE

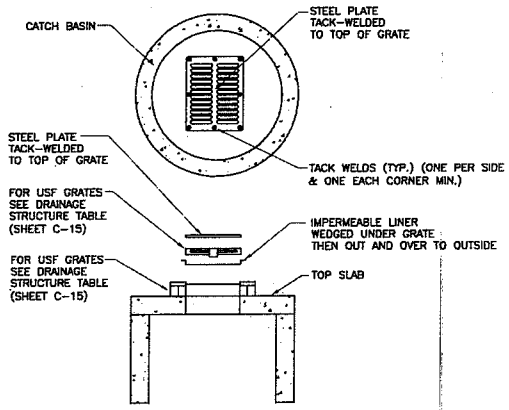


TOP SLABS

* SEE SCHEDULE OF DRAINAGE STRUCTURES SHEET C-15 FOR DIMESIONS

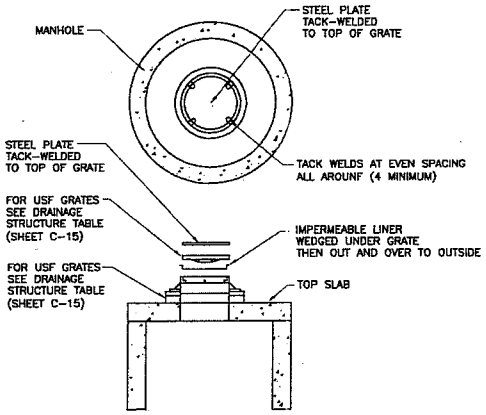
TYPICAL CURB INLET SEALING

N.T.S.



TYPICAL CATCH BASIN SEALING

N.T.S.



TYPICAL MANHOLE SEALING

N.T.S.

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SHEET C-14 OF 34

DRAINAGE STRUCTURE SCHEDULE

NO.	TYPE & INSIDE DIMENSION	TOP STRUCTURE	STATION	OFFSET	GRATE/RIM ELEVATION	PIPE INVERT ELEVATION								BOTTOM OF TRENCH ELEV.	PRB	REMARKS
						N	S	E	W	NE	SE	NW	SW			
SD-01	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	12+31.95	33' L	6.80	2.80	–	2.55	–	–	–	–	–	(–)8.20	N	PER MDCPWD SD-2.6
SD-02	CATCH BASIN TYPE "J" 60" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	12+31.95	33' R	6.80	2.80	2.55	–	2.55	–	–	–	–	(–)8.20	N	PER MDCPWD SD-2.6
SD-03	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	13+66.95	33' L	7.25	2.80	2.80	–	–	–	–	–	–	(–)7.75	N,S	PER MDCPWD SD-2.6
SD-04	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	13+66.95	33' R	7.25	2.80	2.80							(–)7.75	N,S	PER MDCPWD SD-2.6
SD-05	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	16+66.95	33' L	7.25	2.80	2.80	–	–	–	–	–	–	(–)7.75	N,S	PER MDCPWD SD-2.6
SD-06	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	16+66.95	33' R	7.25	2.80	2.80	–	–	–	–	–	–	(–)7.75	N,S	PER MDCPWD SD-2.6
SD-07	CATCH BASIN TYPE "J" 60" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	18+11.95	33' L	6.80	2.80	2.80	2.80	–	–	–	–	–	(–)8.20	N,S	PER MDCPWD SD-2.6
SD-08	CATCH BASIN TYPE "J" 60" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	18+11.95	33' R	6.80	2.80	2.80	–	2.80	–	–	–	–	(–)8.20	N,S	PER MDCPWD SD-2.6
SD-09	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	19+56.95	33' L	7.25	2.80	2.80	–	–	–	–	–	–	(–)7.75	N,S	PER MDCPWD SD-2.6
SD-10	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	19+56.95	33' R	7.25	2.80	2.80	–	–	–	–	–	–	(–)7.75	N,S	PER MDCPWD SD-2.6
SD-11	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	22+11.85	33' L	7.40	1.50	2.80	–	–	–	–	–	–	(–)7.60	N,S	PER MDCPWD SD-2.6
SD-12	CATCH BASIN TYPE "P" 48" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	22+11.85	33' R	7.40	1.50	2.80	–	–	–	–	–	–	(–)7.60	N,S	PER MDCPWD SD-2.6
SD-13	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	24+41.95	33' L	6.80	–	1.50	2.80	–	–	–	–	–	(–)8.20	S	PER MDCPWD SD-2.6
SD-14	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	24+41.95	43' R	6.80	–	–	–	2.80	–	–	–	–	(–)8.20	–	PER MDCPWD SD-2.6
SD-15	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	26+52.60	43' L	6.80	–	–	2.30	–	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-16	CATCH BASIN TYPE "J" 60" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	26+52.60	33' R	6.80	2.80	2.80	–	2.30	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-17	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	27+97.46	33' R	7.25	2.80	2.80	–	–	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-18	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	30+97.60	33' R	7.40	2.80	2.80	–	–	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-19	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	32+42.60	33' L	6.80	–	–	2.80	–	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-20	CATCH BASIN TYPE "J" 60" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	32+42.60	33' R	6.80	2.80	2.80	–	2.80	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-21	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-5 (FDOT INDEX 211)	33+87.60	33' R	7.25	2.80	2.80	–	–	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-22	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	36+42.60	32' L	7.30	–	–	2.80	–	–	–	–	–	–	–	PER MDCPWD SD-2.6
SD-23	CATCH BASIN TYPE "P" 42" (SQUARED)	TYPE P-6 (FDOT INDEX 211)	36+42.60	33' R	7.30	–	2.80	–	2.80	–	–	–	–	–	–	PER MDCPWD SD-2.6
MH-01	MANHOLE TYPE "P" (60"ø)	USF 310 A	11+12.14	29' R	7.50	2.55	2.55	–	–	–	–	–	–	–	–	PER MDCPWD SD-2.6
MH-02	MANHOLE TYPE "P" (60"ø)	USF 310 A	24+41.95	33' R	6.95	2.80	1.50	2.80	2.80	–	–	–	–	(–)7.80	S	PER MDCPWD SD-2.6

NO	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
DRAINAGE STRUCTURES TABLE

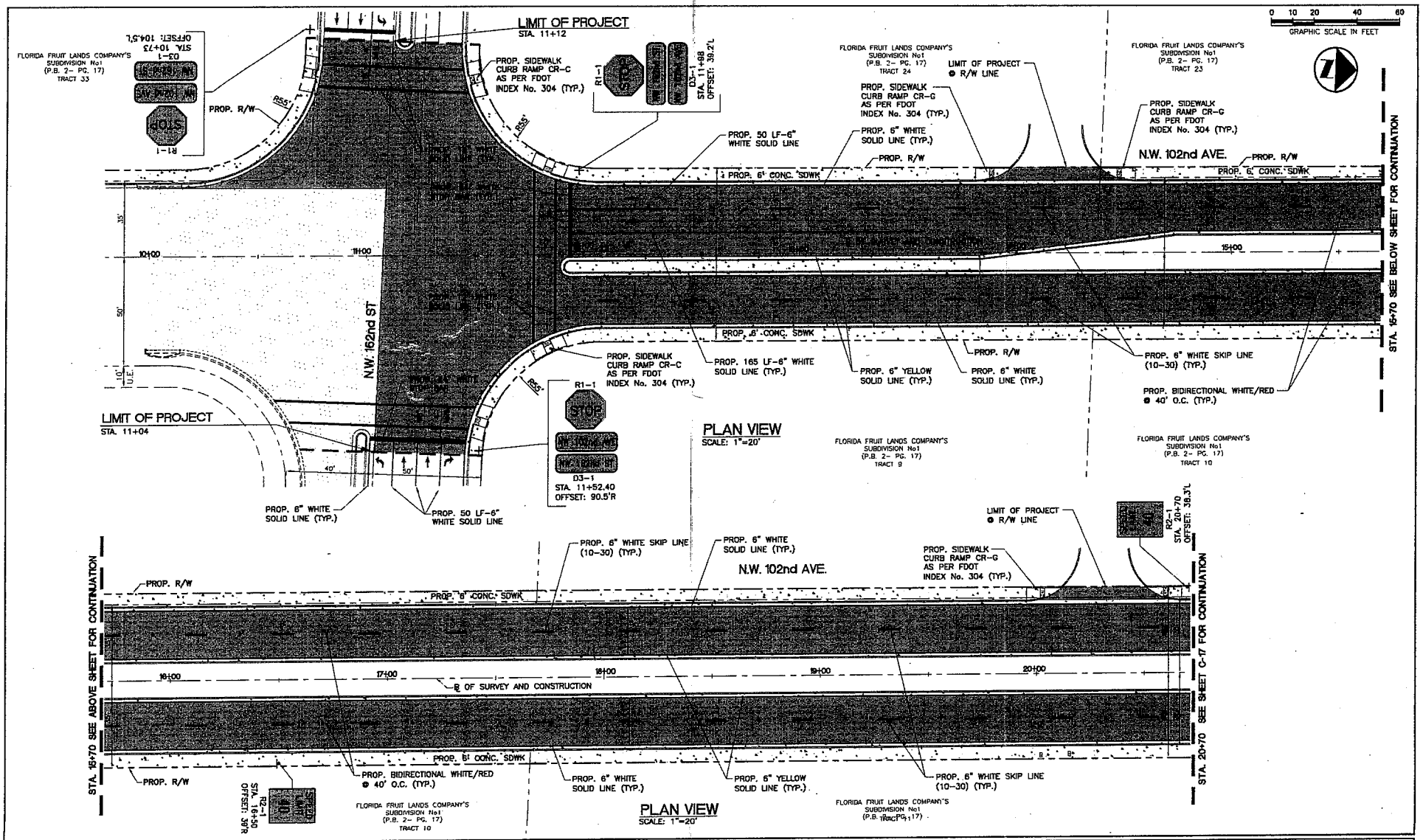
MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0669
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

DATE: 05/21/19 SCALE: N/A

PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL LICENSE No. 13134



NO	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.C.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

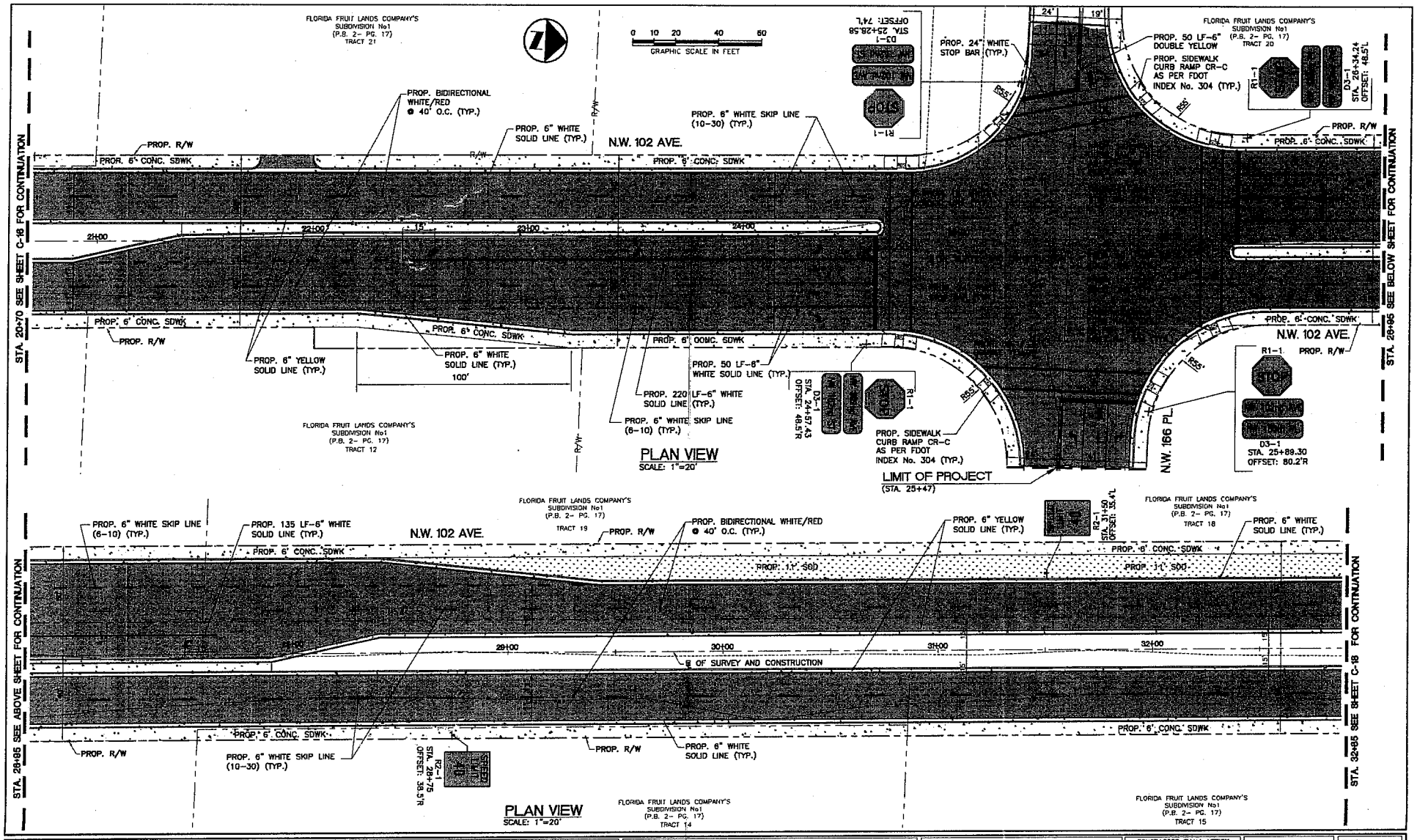
SHEET TITLE
PAVEMENT MARKING AND SIGNAGE PLAN

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION No. 5400

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20'
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET C-16 OF 34



NO	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

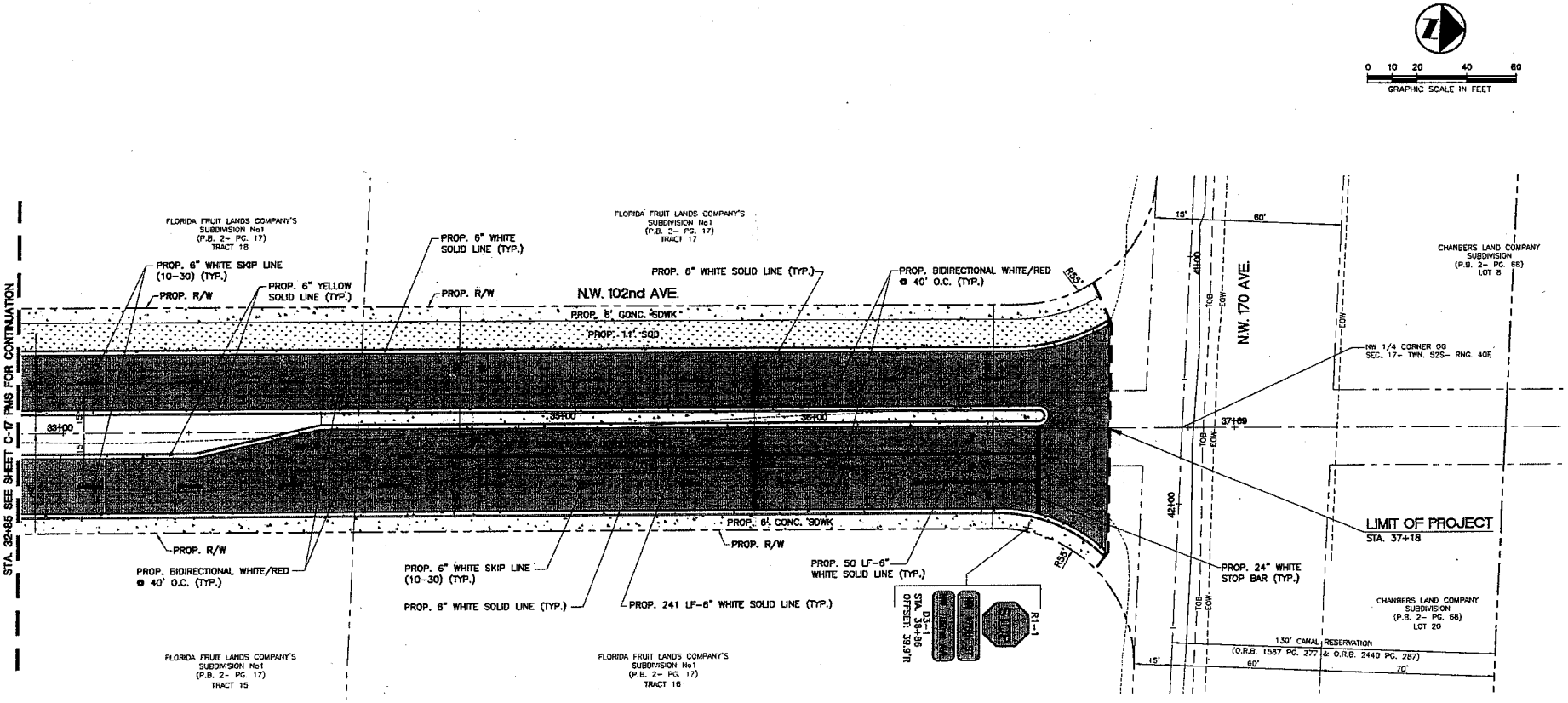
SHEET TITLE
PAVEMENT MARKING AND SIGNAGE PLAN

MSA Milian, Swaia & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20'
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET C-17 OF 34



PLAN VIEW
SCALE: 1"=20'

NO	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.C.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
PAVEMENT MARKING AND SIGNAGE PLAN

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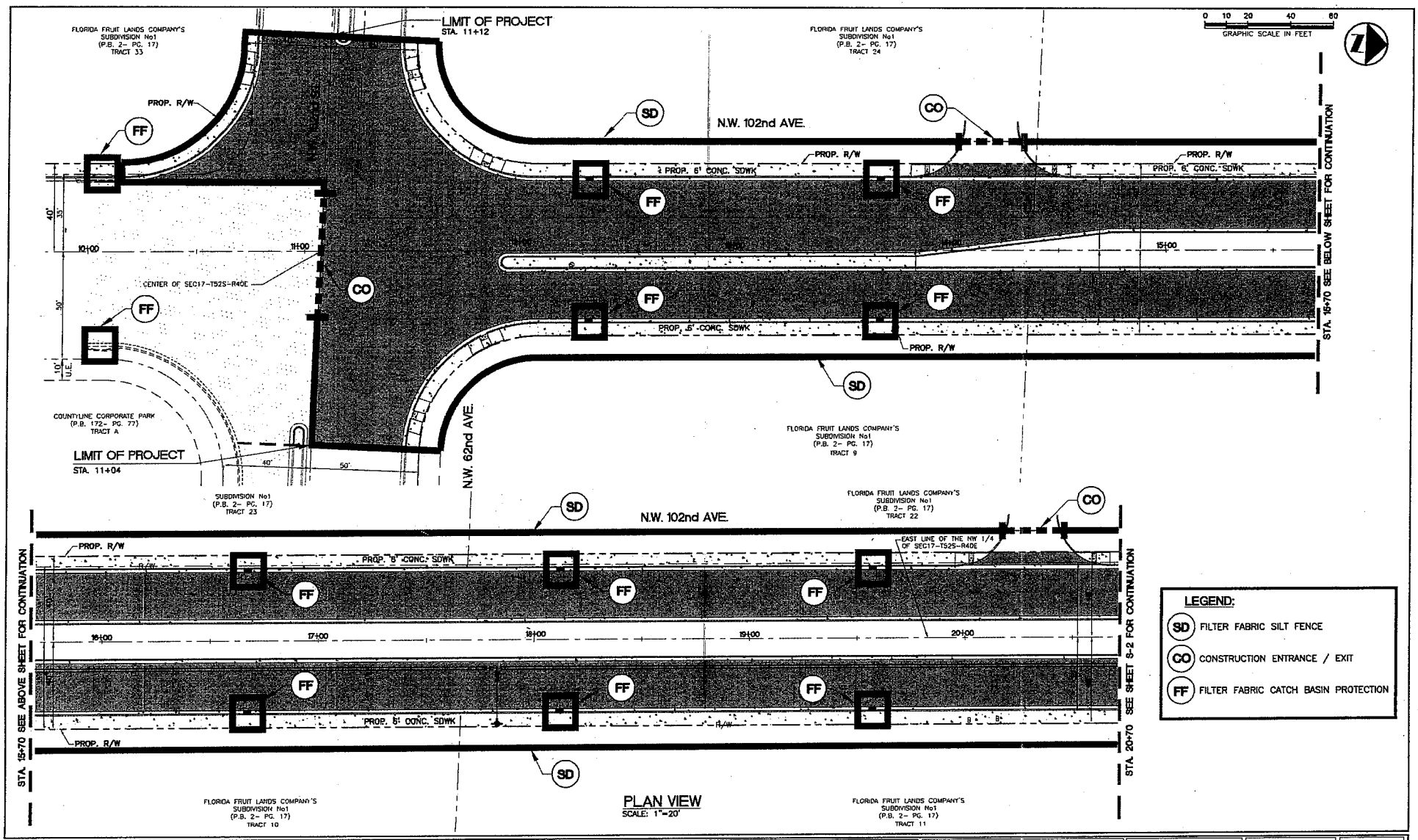
2025 N.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20'
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET C-18 OF 34



PLAN VIEW
SCALE: 1"=20'

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
EROSION AND TURBIDITY CONTROL SILT FENCE

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
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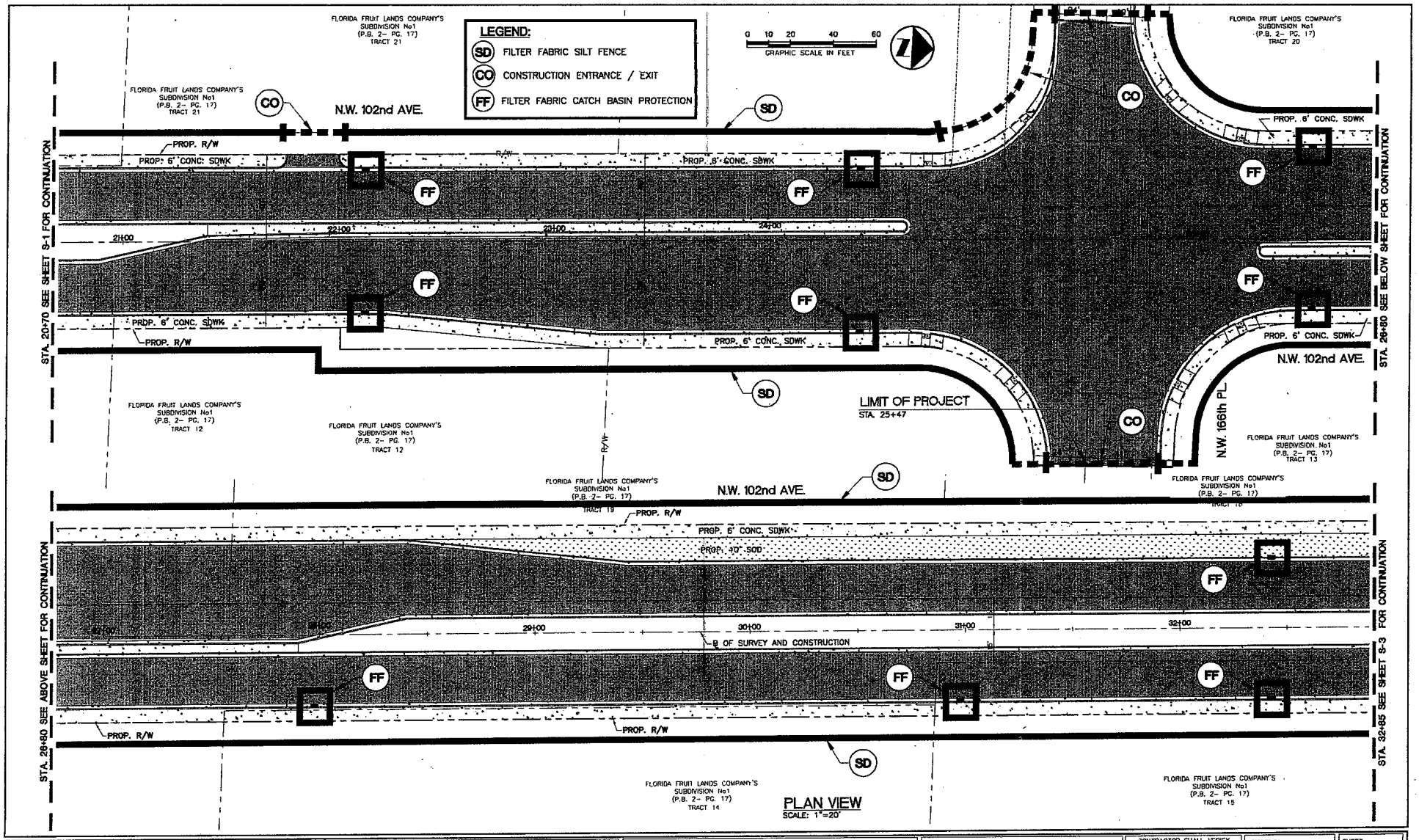
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5490

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20'
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET S-1 OF 34



PLAN VIEW
SCALE: 1"=20'

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

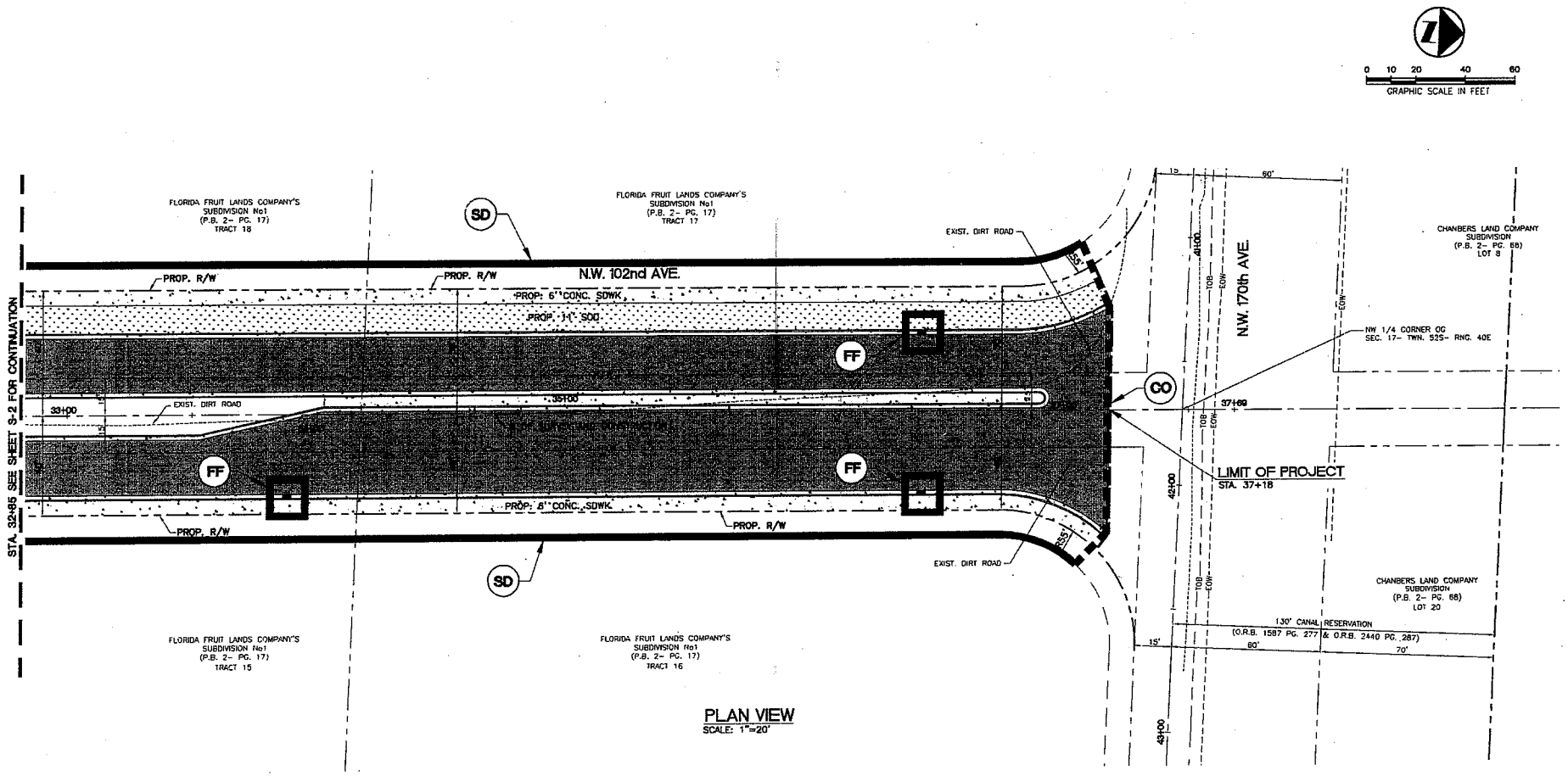
SHEET TITLE
EROSION AND TURBIDITY CONTROL SILT FENCE

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20'
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET S-2 OF 34



NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
EROSION AND TURBIDITY CONTROL SILT FENCE

MSA Milian, Swain & Associates, Inc.
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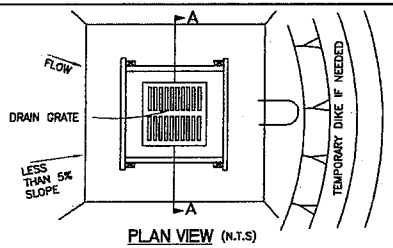
CIVIL & ENVIRONMENTAL ENGINEERS · UTILITY MANAGEMENT · FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

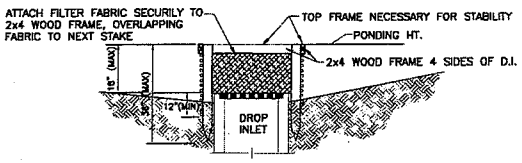
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: 1"=20'
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL LICENSE No. 13134

SHEET S-3 OF 34



PLAN VIEW (N.T.S)

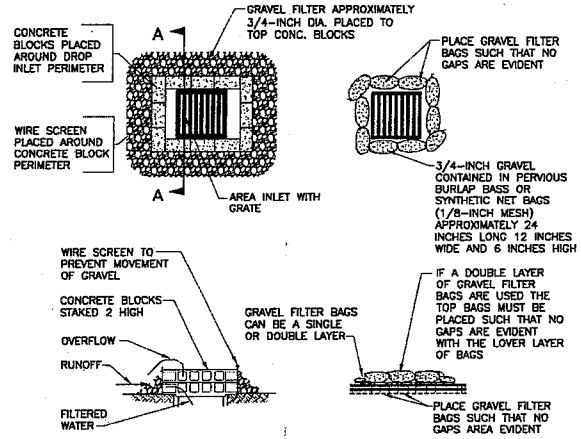


SECTION A-A (N.T.S)

NOTES:

1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)
2. USE 2x4 WOOD OR EQUIVALENT METAL STAKES, (3 FT. MIN. LENGTH)
3. INSTALL 2x4 WOOD TOP FRAME TO INSURE STABILITY.
4. THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

DROP INLET SEDIMENT BARRIER (N.T.S)

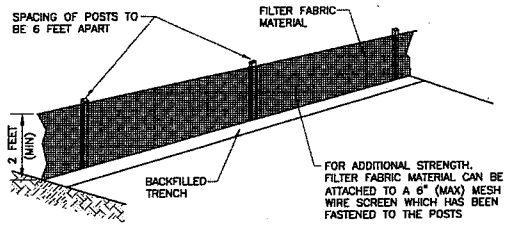


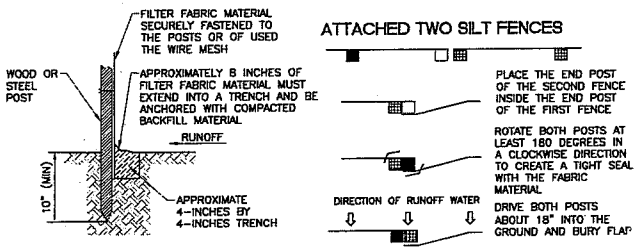
CROSS SECTION A-A
CONCRETE BLOCK FILTER

SITE VIEW
GRAVEL FILTER BAGS

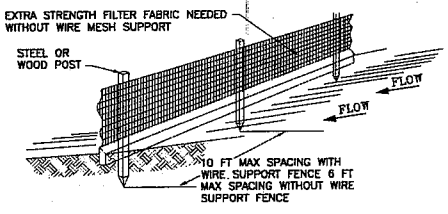
NOTE: GRAVEL FILTERS MAY BE USED ON PAVEMENT OR BARE GROUND

AREA INLET SEDIMENT BARRIER (N.T.S)

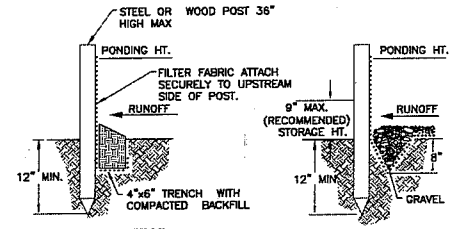




FILTER FABRIC SILT FENCE
INSTALLATION DETAILS (N.T.S)



SILT FENCE DETAIL (N.T.S)



STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

SILT FENCE (N.T.S)

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES PIPES, E.T.C ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2 INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FDOT No 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN D- 903. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 8 INCHES.
    AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
12. LOOSE STRAW SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
13. STRAW BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
14. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
16. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
17. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL . ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
18. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
19. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE -THIRD THE HEIGHT OF THE BARRIER.
20. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.
21. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
22. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA IN SUCH A MANNER THAT IT WILL NOT ERODE.
23. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES.
24. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND COVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
25. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
26. ALL DISTURBED AREAS ARE TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAY BALES, AND GRASSING. ALL THE FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
27. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND REMOVE ONLY WHEN AREAS HAVE STABILIZED.
28. THIS PLAN INDICATES MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
29. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER DEP INQUIRIES, RELATIVE TO COMPLIANCE OF DEP FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.

NOTE:
WHERE FDOT SPECS AND INDEX ARE REFERENCED, PLEASE REFER TO FDOT ROADWAY & TRAFFIC DESIGN STANDARDS, AND FDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G.
CHECKED J.T.
APPROVED J.M.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
EROSION AND TURBIDITY CONTROL NOTES AND DETAILS

MSA Millan, Swain & Associates, Inc.
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0888
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 05/21/19 SCALE: N/A
PROJECT NO. C27-23

APPROVED BY:
ARSENIO MILIAN, P.E.
FL. LICENSE No. 13134

SHEET S-4 OF 34

STORM WATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION

PROJECT NAME AND LOCATION:

DESIGN OF ROADWAY IMPROVEMENT
(NW 102nd AVE. FROM N.W. 162nd ST. TO N.W. 170th ST.)

OWNER NAME AND ADDRESS:

CITY OF HIALEH STREETS DEPARTMENT
900 E. 56th STREET, BLDG. # 4
HIALEAH, FLORIDA 33013

DESCRIPTION:

PUBLIC
ON A 5.49 +/- ACRE SITE

SOIL DISTURBING ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING; EARTHWORK, PAVEMENT AND GRADING; STORM SEWER, UTILITIES, AND PREPARATION FOR FINAL PLANTING AND SEEDING.

RUNOFF CURVE NUMBERS

1. PRE-CONSTRUCTION: CN = 68 2. DURING CONSTRUCTION: CN = 83 3. POST-CONSTRUCTION: CN = 98

SOIL:

SEE SOIL BORING REPORT FOR SOIL DATA SITE MAPS:

* SEE ATTACHED GRADING PLAN FOR PRE & POST DEVELOPMENT GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.
* SEE ATTACHED EROSION & TURBIDITY CONTROL PLAN FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS.
* SEE GENERAL NOTES FOR REQUIREMENTS FOR TEMPORARY AND PERMANENT STABILIZATION.

SITE AREA:

1. TOTAL AREA OF SITE= 5.49 ACRES 2. TOTAL AREA TO BE DISTURBED = 5.49 ACRES (APPROX)

NAME OF RECEIVING WATERS: RETENTION SYSTEM

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS REQUIREMENTS" FOR A VERBAL DESCRIPTION OF CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT

STORM WATER DRAINAGE WILL BE PROVIDED BY (DESCRIPTION:) STORM WATER RUNOFF WILL BE COLLECTED BY PIPING SYSTEM AND DISCHARGED INTO MASTER STORM WATER SYSTEM.

TIMING OF CONTROLS/MEASURES

REFER TO "CONTRACTORS REQUIREMENTS" FOR THE TIMING OF CONTROL/MEASURES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS RELATED TO STORM WATER MANAGEMENT AND EROSION AND TURBIDITY CONTROLS. THE FOLLOWING PERMITS HAVE BEEN OBTAINED.

DERM PERMIT # _____

GENERAL CONTRACTOR'S REQUIREMENTS

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS.

TIMING OF CONTROLS/ MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION & TURBIDITY CONTROL PLAN.

SEQUENCE OF MAJOR ACTIVITIES

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND HAY BALES AS REQUIRED
3. CLEAR AND GRUB FOR DIVERSION SWALE/DIKES AND SEDIMENT BASIN
4. CONSTRUCT SEDIMENTATION BASIN
5. CONTINUE CLEARING AND GRUBBING
6. STOCK PILE TOP SOIL IF REQUIRED
7. PERFORM PRELIMINARY GRADING ON ITE AS REQUIRED
8. STABILIZE DISTURBED AREAS AND STOCKPILES AS SOON AS PRACTICABLE
9. INSTALL UTILITIES,STORM SEWER, CURBS & GUTTER.
10. APPLY BASE TO PROJECT
11. COMPLETE GRADING, AND INSTALL PERMANENT SEEDING/ SOD AND PLANTING
12. COMPLETE FINAL PAVING
13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALE/DIKES AND RESEED /SOD AS REQUIRED

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS STABILIZATION PRACTICES

1. HAY BALE BARRIER: HAY BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET EROSION WITH THE FOLLOWING LIMITATIONS:

A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.

B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.

C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.

D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.

2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET EROSION WITH THE FOLLOWING LIMITATIONS:

A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.

B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.

3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

4. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

5. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREA WILL NOT SIGNIFICANTLY AFFECT OFF - SITE DEPOSIT OF SEDIMENTS.

6. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.

7. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.

8. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

9. PERMANENT EROSION CONTROL: THE CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.

10. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDED MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.

2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN AN DRAINAGE WAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA. THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE:

A. BLOCK & GRAVEL SEDIMENT FILTER:-THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

B. GRAVEL SEDIMENT TRAP:- THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED AREAS.

C. DROP INLET SEDIMENT TRAP:- THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S<5 WHERE SHEET OR OVERLAND FLOW (q< 0.5 CFS) ARE TYPICAL THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS.

4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASIN. THESE SEDIMENT BASIN MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE. THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASIN CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL

WASTE MATERIALS

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DEPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER SYSTEMS.

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

☒ CONCRETE	☒ FERTILIZERS	☒ WOOD
☒ ASPHALT	☒ PETROLEUM BASED PRODUCTS	☒ MASONRY BLOCKS
☒ PAINT	☒ CLEANING SOLVENTS	☒ ROOFING MATERIALS
☒ DETERGENTS	☒ PAINTS	☒ METAL STUDS
☐ _____	☐ _____	☐ _____

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURED. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP: MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (i.e. KITTY LITTER OR EQUAL), SAND SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE. SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

- NO MORE THAN 10 ACRES OF THE SITE WILL BE DISTURBED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

- ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.

- ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

- BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

-SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TOO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

- THE SEDIMENT BASIN WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.

- DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

-THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

- PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL BE RECEIVE TRAINING FROM THE SITE. SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

-WATER FROM WATER LINE FLUSHING

-PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

-UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION). CONTRACTOR'S CERTIFICATION

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

SIGNATURE	BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS	RESPONSIBLE FOR/DUTIES
		GENERAL CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR

NO.	REVISION/ISSUE	DATE
1	BID SET	03-20-20

DRAWN L.G. CHECKED J.T. APPROVED J.M.

PROJECT NAME: DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE: EROSION AND TURBIDITY CONTROL GENERAL NOTES

MSA Milian, Swain & Associates, Inc.
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CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5480

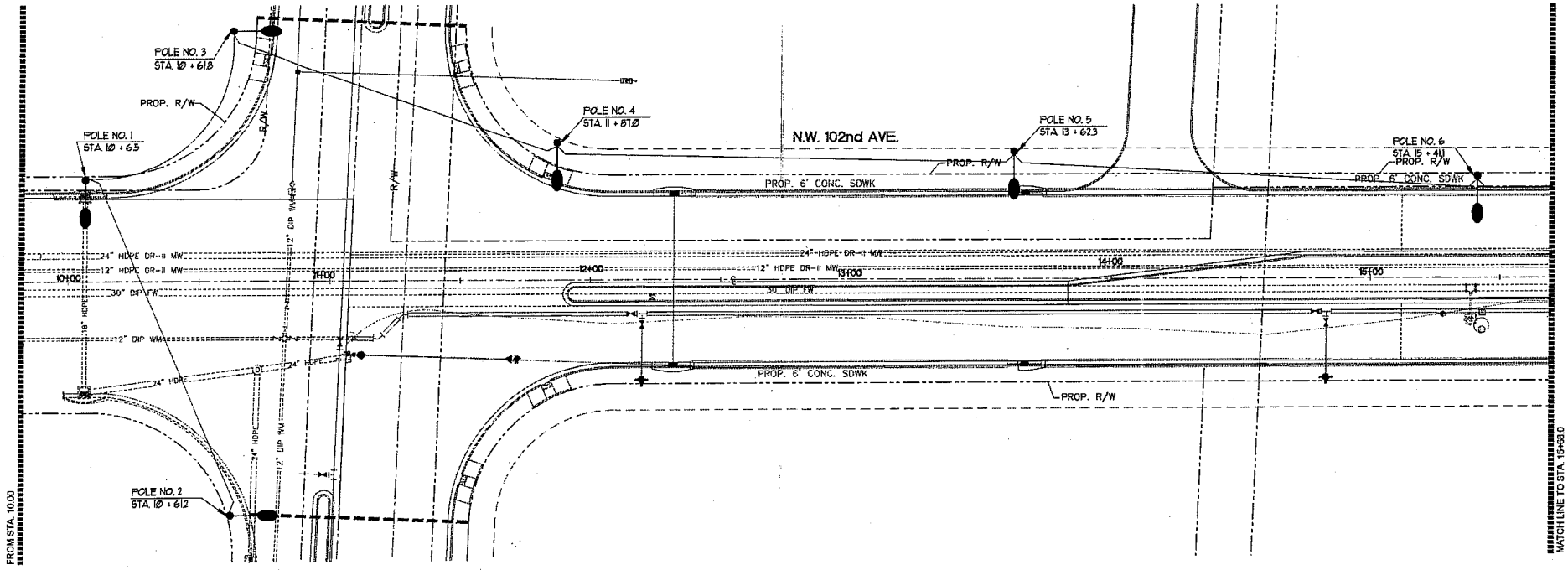
CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

DATE: 05/21/19 SCALE: N/A

PROJECT NO. C27-23

APPROVED BY: ARSENIO MILIAN, P.E. FL. LICENSE No. 13134

SHEET S-5 OF 34



ELECTRICAL PLAN

SCALE: 1"=20'-0"

Project No.- 19029

BASULTO

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NO.	REVISION	DATE

DRAWN D.T.
CHECKED C.Y.
APPROVED C.Y.

PROJECT NAME

DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE

LIGHTING PLAN
FROM STA. 10+00 TO STA. 15+68.0

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
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CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

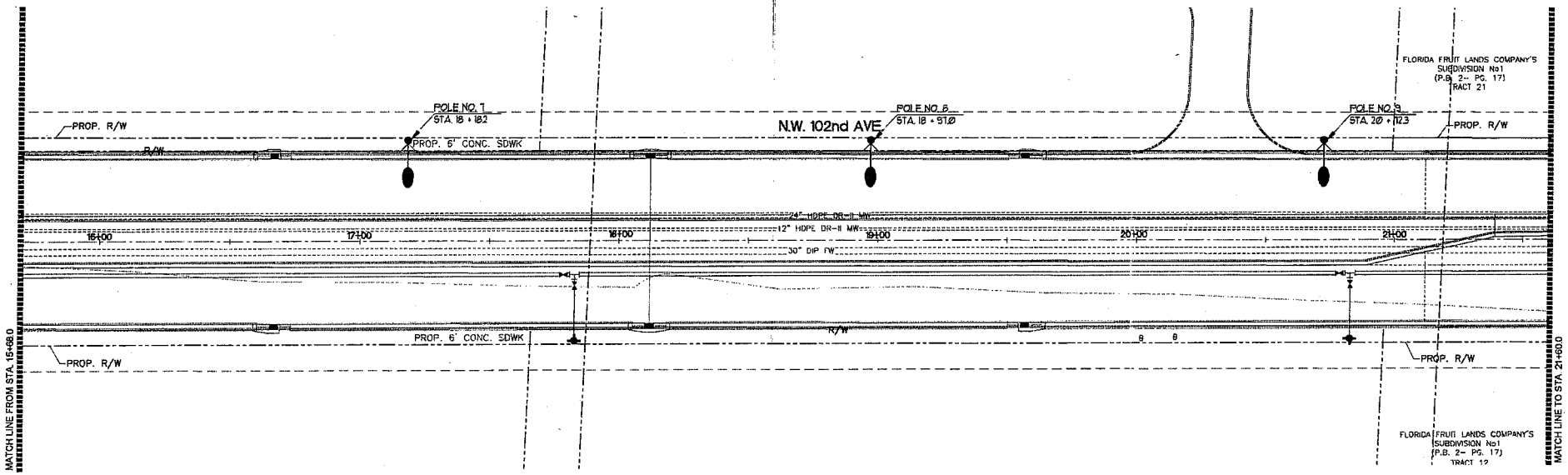
DATE: 03/17/20 SCALE: 1"=20' (H) 1"=2' (V)

PROJECT NO.

APPROVED BY:

RENE L. BASULTO, P.E.
No. 40869

SHEET E-1 OF 27



ELECTRICAL PLAN
SCALE: 1"=20'-0"

Project No.- 19029

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NO.	REVISION	DATE

DRAWN D.T.
CHECKED C.Y.
APPROVED C.Y.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
LIGHTING PLAN
FROM STA. 15+68.0 TO STA. 21+60.0

MSA Milian, Swain & Associates, Inc.
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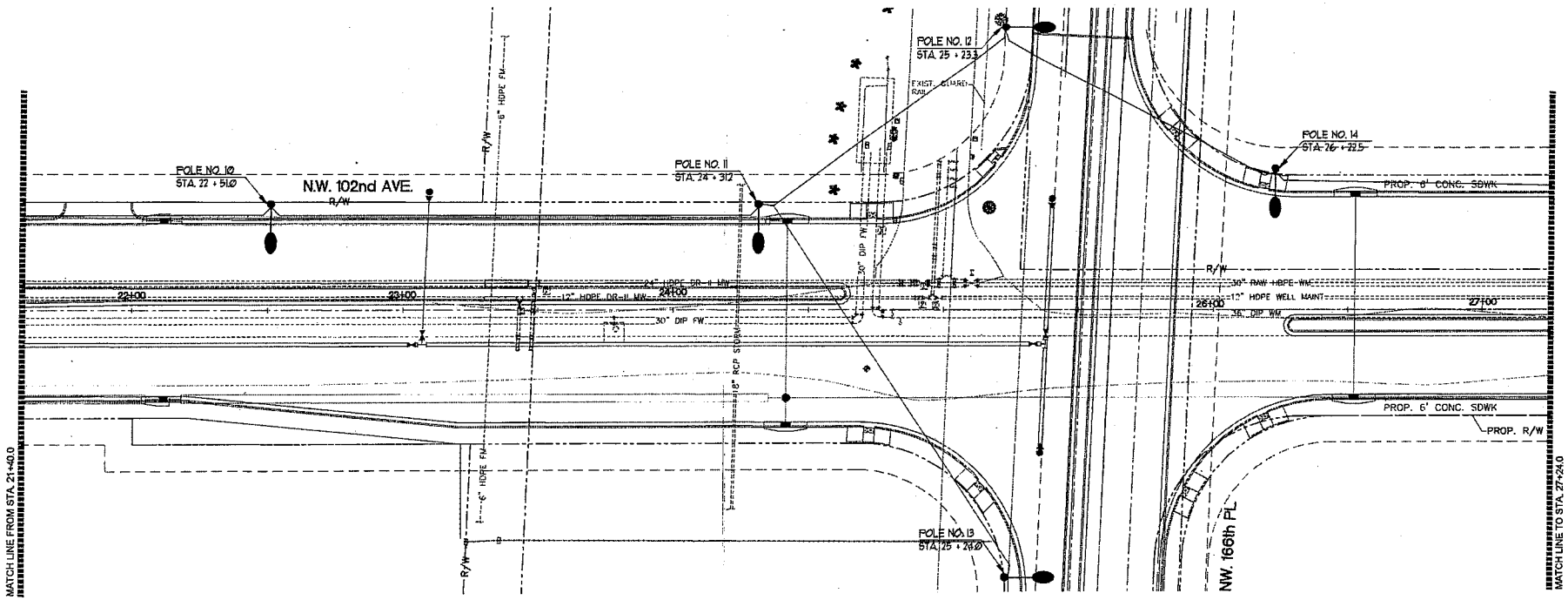
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 03/17/20 SCALE: 1"=20' (H) 1"= 2' (V)
PROJECT NO.

APPROVED BY.
RENE I. BASULTO, P.E.
No. 40869

SHEET E-2 OF 28



ELECTRICAL PLAN
SCALE: 1"=20'-0"

Project No.- 19029

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NO.	REVISION	DATE

DRAWN D.T.
CHECKED C.Y.
APPROVED C.Y.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
LIGHTING PLAN
FROM STA. 21+40.0 TO STA. 27+24.0

MSA Milian, Swain & Associates, Inc.
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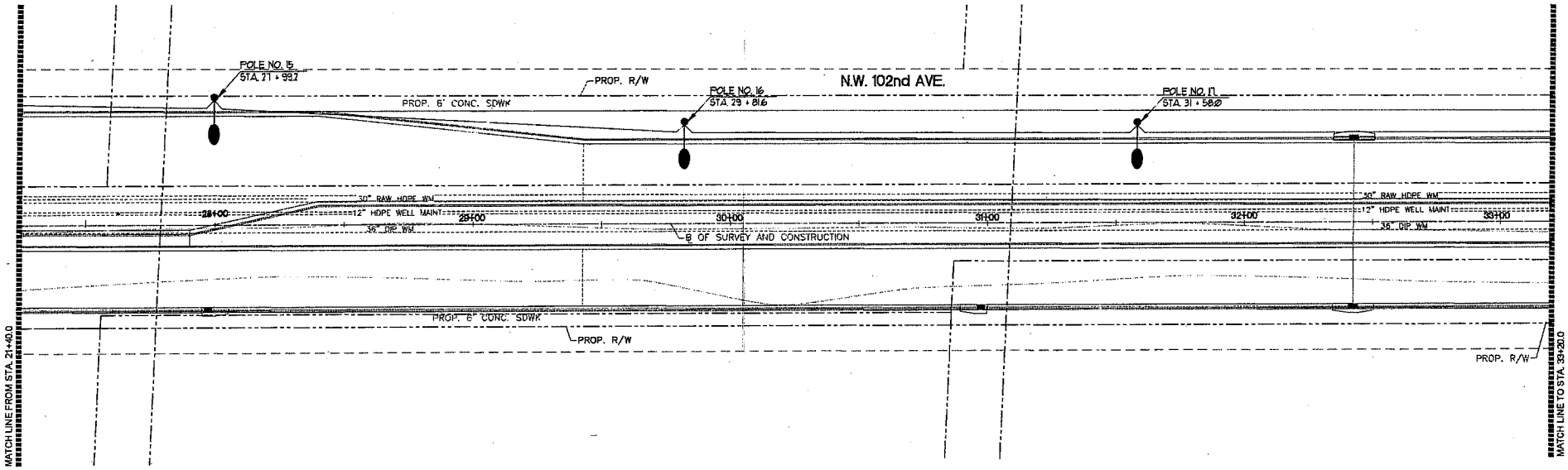
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 03/17/20 SCALE: 1"=20' (H) 1"= 2' (V)
PROJECT NO.

APPROVED BY:
RENE I. BASULTO, P.E.
No. 40869

SHEET E-3 OF 29



ELECTRICAL PLAN
SCALE: 1"=20'-0"

Project No.- 19029

BASULTO

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NO.	REVISION	DATE

DRAWN D.T.
CHECKED C.Y.
APPROVED C.Y.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

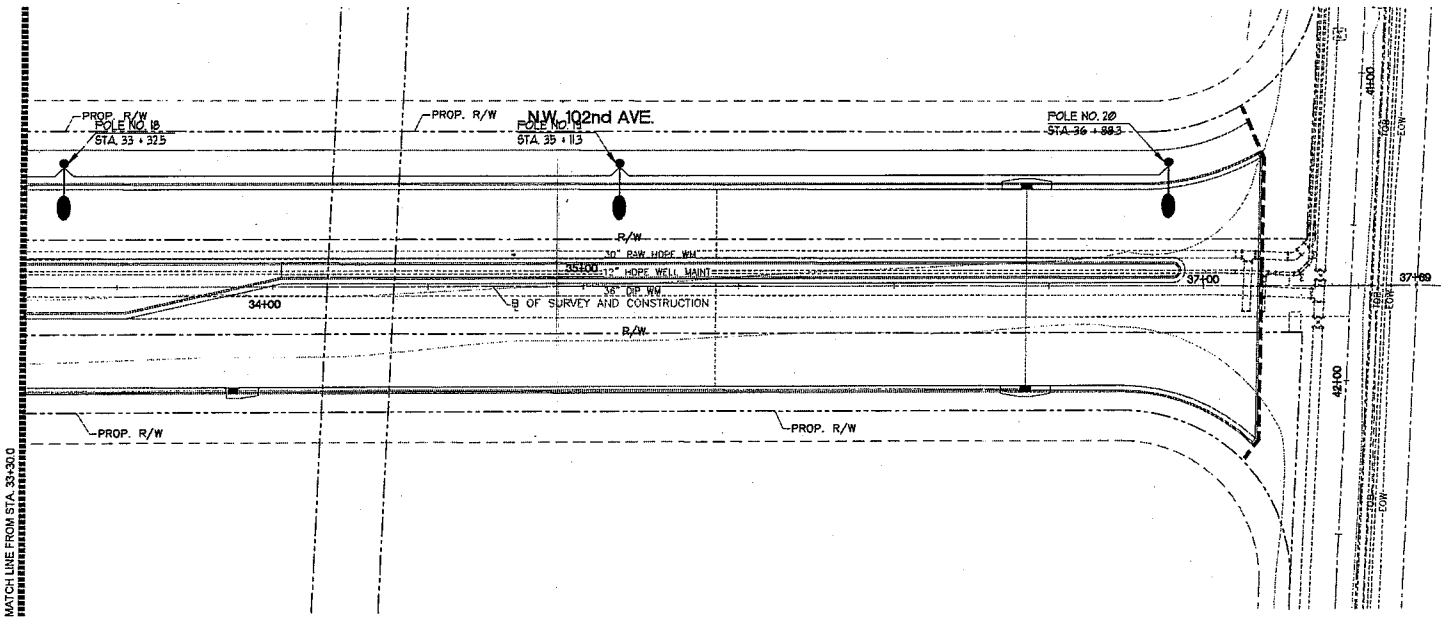
SHEET TITLE
LIGHTING PLAN
FROM STA. 21+40.0 TO STA. 33+20.0

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0688
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK
DATE: 03/17/20 SCALE: 1"=20' (H) 1"= 2' (V)
PROJECT NO.

APPROVED BY.
RENE I. BASULTO, P.E.
No. 40869

SHEET E-4 OF 30



ELECTRICAL PLAN
SCALE: 1"=20'-0"

Project No.- 19029

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NO.	REVISION	DATE

DRAWN D.T.
CHECKED C.Y.
APPROVED C.Y.

PROJECT NAME
DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE
LIGHTING PLAN
FROM STA. 33+30.0 TO STA. 37+69

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0688
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

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APPROVED BY.

RENE I. BASULTO, P.E.
No. 40869

SHEET E-5 OF 31

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GENERAL NOTES

1. THE CONTRACTOR SHALL PERFORM AN INVENTORY OF THE EXISTING LIGHTING SYSTEM PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES. A WRITTEN REPORT WILL BE PREPARED LISTING ALL LIGHTING ITEMS OPERABLE AND INOPERABLE. THE COMPLETED REPORT WILL BE FORWARDED TO THE PROJECT ENGINEER WITH COPIES TO THE MAINTAINING AGENCY PRIOR TO THE BEGINNING OF CONSTRUCTION.
2. GOVERNING STANDARDS AND SPECIFICATIONS ARE: THE DESIGN STANDARDS OF 2006, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE MIAMI-DADE COUNTY STANDARD SPECIFICATIONS FOR ROADWAY LIGHTING. THE 2014 NATIONAL ELECTRIC CODE, NATIONAL ELECTRIC SAFETY CODE OR LATER EDITION AND LOCAL CODES WHICH EXCEED THESE SPECIFICATIONS.
3. ENDS OF CONDUITS SHALL BE SEALED WITH POLYURETHANE FOAM AFTER WIRING IS COMPLETE. FOAM SEAL SHALL NOT BE USED AS A MEANS TO PROTECT CONDUCTORS FROM ABRASION IN RACEWAYS, GALVANIZED RIGID METAL CONDUIT SHALL HAVE PROPER FITTINGS TO PROTECT CONDUCTORS FROM ABRASION.
4. DEVICE SUPPORT IN PULL BOXES: THE PREFERRED METHOD OF ATTACHMENT OF LIGHTING ARRESTORS AND OTHER DEVICES LIKELY TO BE SUPPORTED IN PULL BOXES, IS BY MEANS OF A SELF-TAPPING SCREW OR BY A MASONRY SCREW. CARE SHOULD BE EXERCISED WHEN UTILIZING THIS METHOD NOT TO BREAK THE SUPPORTING TABS. SCREWS SHOULD BE FIRM BUT NOT SNUG AGAINST THE SUPPORTING TABS. OTHER APPROVED AND LISTED METHODS MAY BE USED, IF THEY ARE FOUND SUITABLE FOR THE CONDITIONS.
5. THE CONTRACTOR SHALL CHECK THE CONTINUITY OF GROUNDING CONDUCTOR USING MEGGER OR EQUAL LOW RESISTANCE / HIGH CAPACITY OHMMETER CALIBRATED WITHIN THE PAST 180 DAYS. A NEUTRAL / GROUND LOOP RESISTANCE OF MORE THAN 0.5 OHMS PER THOUSAND FEET SHALL BE CONSIDERED INADEQUATE.
6. GROUND RODS ARE TO BE LOCATED AT EACH PULL BOX ASSOCIATED WITH A LIGHTING POLE OR ELECTRICAL LOAD CENTER. THE MIAMI-DADE PUBLIC WORKS LIGHTING STANDARDS REQUIRES TWO 5/8" X 20' COPPER CLAD STEEL GROUNDING ELECTRODES AT EACH SERVICE POINT. THEY MUST BE SPACED A MINIMUM OF SIX FEET AND SIX INCHES FROM EACH OTHER WHEN INSTALLED AS AN ARRAY. WHEN THE GROUNDING ELECTRODE CONDUCTOR IS ENCLOSED IN A METAL RACEWAY BOTH ENDS OF THE RACEWAYS AND ALL INTERVENING RACEWAYS AND METALLIC ENCLOSURES CONTAINING THE GROUNDING ELECTRODE CONDUCTOR MUST BE BONDED TO THE GROUNDING ELECTRODE CONDUCTOR.
7. SLUGS: WHERE THE POLE CABLE DISTRIBUTION IS EMPLOYED (MG SQUARE, DOT 3), AND WHERE THE POWER SOURCE IS GROUNDED TYPE (GROUNDED NEUTRAL CONDUCTOR) EXAMPLE 480 VAC TO GROUND, A SLUG SHALL BE INSERTED IN THE GROUNDED (NEUTRAL SIDE) REPLACING THE FACTORY INSTALLED FUSE, IN THE MALE DISTRIBUTION PLUG AT THE TIME OF INSTALLATION.
8. ALL GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED AS PER F.D.O.T. SPECIFICATIONS SECTION 715-11 AND MIAMI-DADE COUNTY MAINTENANCE AGENCY NEW SPECIFICATIONS. WHERE THE POLE CABLE DISTRIBUTION SYSTEM IS EMPLOYED (MG SQUARE, DOT 3), GROUNDING CONNECTIONS TO THE DISTRIBUTION BLOCK AND LIGHTING ARRESTOR OR OTHER DEVICES CONTAINING LEADS SMALLER THAN #8 AWG, SHALL BE DONE BY MECHANICAL CONNECTIONS OR OTHER APPROVED MEANS. SYSTEM SHALL BE GROUNDED WITH INSULATED GREEN THHN CONDUCTORS RUN INSIDE THE CONDUIT, SIZE AS SHOWN ON DRAWINGS.
9. GROUND CONDUCTOR SHALL HAVE A GREEN JACKET, TYPE THW AND SHALL BE SIZED AS SHOWN ON DRAWINGS.
10. PULL BOXES SHALL HAVE EXTERIOR DIMENSIONS OF 13-1/2" X 25" X 12" AND SHALL BE CONCRETE OR POLYMER REINFORCED BY HEAVY-WEAVE FIBERGLASS WITH POLYMER HEAVY DUTY TRAFFIC COVERS. LIDS SHALL BE OF POLYMER COMPOSITE OF THE HEAVY DUTY TYPE AND MARKED STREET-LIGHTING.
11. SERVICE PULL BOX (ELECTRIC): ONLY LINE CONDUCTORS WILL BE PERMITTED TO BE OCCUPIED IN THIS PULL BOX. NO GROUND RODS OR ANY OTHER ITEMS OR DEVICES WILL BE PERMITTED. IF THE PULL BOX IS INSTALLED OUT OF THE SIDEWALK, A 5' X 5' X 6" CONCRETE APRON SHALL BE INSTALLED AROUND PULL BOXES.
12. PULL BOXES (GENERAL): NO UNNECESSARY SPLICING WILL BE PERMITTED IN PULL BOXES. A 5' X 5' X 6" CONCRETE APRON SHALL BE INSTALLED AROUND PULL BOXES.
13. PULL BOX COVER SHALL BE BOLTED TO THE PULL BOX USING A TAMPER PROOF NUT.
14. LIGHTING POLE FOUNDATION SHALL BE CONCRETE AS PER INDEX 17503. (SCREW TYPE POLE BASE IS NOT ALLOWED).
15. POLE FOUNDATIONS SHALL BE INSTALLED AT A GRADE THAT IS FLUSH WITH THE ADJACENT AND SURROUNDING SIDEWALK AND THAT MAINTAINS A CLEAR PATH.
16. RACEWAYS: RACEWAYS CONTAINING #4 AWG OR LARGER CONDUCTORS MUST BE PROTECTED BY AN INSULATING FITTING, UNLESS THE CONDUCTORS ARE SEPARATED FROM THE FITTING OR RACEWAY BY SUBSTANTIAL INSULATING MATERIAL THAT IS SECURELY FASTENED IN PLACE.
17. INSTALLATIONS OF NEW PULL BOXES SHALL BE PERFORMED BY A QUALIFIED ELECTRICAL CONTRACTOR. WHEN A NEW PULL BOX IS REPLACING AN EXISTING PULL BOX, THE CONTRACTOR SHALL ADJUST CONDUITS AND CABLES TO FIT THE NEW PULL BOX ELEVATION. COST OF ADJUSTMENTS IS INCLUDED IN THE PULL BOX PAY ITEM. PULL BOXES CONTAINING #4 AWG OR LARGER CONDUCTORS CONTAINING SPLICES OR U PULLS, THE DISTANCE BETWEEN RACEWAYS SHALL BE INCREASED. THE DISTANCE BETWEEN RACEWAYS SHALL BE INCREASED SIX TIMES THE TRADE SIZE DIAMETER OF THE LARGEST RACEWAY.
18. POLE CABLE DISTRIBUTION SYSTEM USED SHALL BE (MG SQUARE DOT 3). THE ONLY ACCEPTABLE SPLICING DEVICE ACCEPTABLE TO THE MIAMI-DADE PUBLIC WORKS LIGHTING STANDARD, IS THE MOLDED SPLICE KIT TYCO-RAYCHEM CATALOG # GELCAP SL-2/0-3 HOLE.
19. ALL DISTRIBUTION BLOCKS SHALL HAVE THE MIAMI-DADE COUNTY NUMBER MDC/PW 215-500 MOLDED ONTO IT.
20. PAYMENT FOR CONDUIT SHALL BE BASED ON THE HORIZONTAL PATH OF THE INSTALLED CONDUIT AS MEASURED BETWEEN THE CENTER OF PULL BOXES, POLES, JUNCTION BOXES, ETC. NO ALLOWANCES SHALL BE MADE FOR SWEEPS OR VERTICAL DISTANCES ABOVE OR BELOW GROUND.
21. PAYMENT FOR CONDUCTOR SHALL BE BASED ON THE LINEAR FEET OF SINGLE CONDUCTOR IN HORIZONTAL MEASUREMENT. NO ALLOWANCES SHALL BE MADE FOR CONNECTION IN PULL BOXES, CABINETS OR POLES.
22. ALL CONDUCTORS SHALL BE TYPE USE/RHH-XLP AS SPECIFIED IN THE FDOT SPECIFICATION SECTION 992 AND AS PER MIAMI-DADE COUNTY MAINTENANCE AGENCY NEW SPECIFICATION. OTHER TYPE OF CABLE IS NOT ALLOWED, EXCEPT GROUND WIRE WHICH SHALL BE TYPE THHN.
23. THE CONTRACTOR IS RESPONSIBLE TO PAY THE POWER COMPANY THE COST OF PROVIDING ELECTRICITY TO THE TEMPORARY AND PROPOSED LIGHTING FROM THE MOMENT THE EXISTING SERVICE IS DISCONNECTED UNTIL FINAL ACCEPTANCE OF THE NEW LIGHTING BY THE MAINTAINING AGENCY. COST TO BE INCLUDED IN PAY ITEM 102-1 MAINTENANCE OF TRAFFIC.
24. ALL SALVAGEABLE LIGHTING EQUIPMENT THAT IS REMOVED MUST BE DISASSEMBLED, DELIVERED AND UNLOADED AT THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT, LIGHTING DIVISION, 7100 NW 36TH STREET, MIAMI, FLORIDA 33166. LIGHTING EQUIPMENT CONSIDERED SALVAGEABLE IS AS FOLLOWS: LIGHTING POLES ALUMINUM, LUMINAIRES, AND CABLE DISTRIBUTION SYSTEMS THAT ARE INTACT. ALL OTHER EQUIPMENT SHALL BE DISPOSED AT THE CONTRACTOR'S EXPENSE. COST TO BE INCLUDED IN THE REMOVAL PAY ITEMS.
25. EXISTING LIGHTING SYSTEM TO BE REMOVED BY FPL AFTER NEW LIGHTING SYSTEM HAS BEEN INSTALLED AND ENERGIZED.
26. POLE ARM SHALL BE TRUSS TYPE WITH CLAMP TYPE MOUNTING. THE ARM RISE SHALL BE AS SHOWN ON DRAWINGS.

TABULATION OF LIGHTING QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	E-01 PLAN	E-01 FINAL	E-02 PLAN	E-02 FINAL	E-03 PLAN	E-03 FINAL	E-04 PLAN	E-04 FINAL	E-05 PLAN	E-05 FINAL		GRAND TOTAL PLAN	GRAND TOTAL FINAL
610-1-1	GROUNDING ELECTRODE	EA	6		3		7		3		3			22	
715-1-13	LIGHTING CONDUCTORS, F & I, INSULATED NO6	LF	2120		2220		2895		2210		1380			1145	
715-1-13	LIGHTING CONDUCTORS, F & I, INSULATED NO3	LF	0		0		0		0		0			0	
630-2-11	CONDUIT, F & I, OPEN TRENCH (PVC SCH 40) (3/4")	LF	60		30		10		30		30			220	
630-2-11	CONDUIT, F & I, OPEN TRENCH (PVC SCH 40) (2")	LF	900		140		363		140		460			3805	
630-2-15	CONDUIT, F & I, BRIDGE MOUNT (RGS SCH 40) (2")	LF	0		0		0		0		0			0	
635-2-30	PULL & SPLICE BOX INSTALL	EA	6		3		1		3		3			22	
715-500-1	POLE CABLE DISTRIBUTION SYSTEM (CONVENTIONAL)	EA	6		3		5		3		3			20	
715-511-145	LIGHTING POLE COMPLETE	EA	6		3		5		3		3			20	
715-7-11	LOAD CENTER	EA	0		0		1		0		0			1	
715-440-000	LIGHTING POLE COMPLETE - RELOCATE	EA	0		0		0		0		0			0	

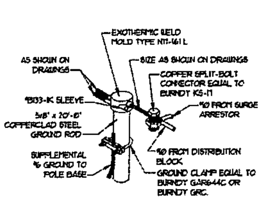
PAY ITEM NOTES

ITEM NO. 610-1-1 — INCLUDES THE COST OF FURNISHING AND INSTALLING 20 FT. OF GROUND ROD AT EACH PULL BOX, EACH LIGHT POLE PULL BOX, AND AT EACH SERVICE POINT. (MIAMI-DADE COUNTY MAINTENANCE AGENCY REQUIREMENT)

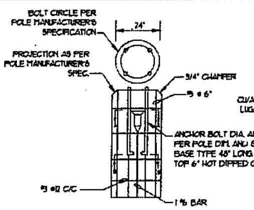
ITEM NO. 715-1-13 — PAY ITEM FOR CONDUCTOR SHALL BE BASED ON THE LINEAR FEET OF SINGLE CONDUCTOR IN HORIZONTAL MEASUREMENT. NO ALLOWANCE SHALL BE MADE FOR CONNECTION IN PULL BOXES AND CABINETS. ALL CONDUCTORS USE/ RHH-XLP AS SPECIFIED IN F.D.O.T. SECTION 992 AND AS PER DADE COUNTY MAINTENANCE AGENCY NEW SPECIFICATION. ALL CONDUCTORS SHALL BE 2 #6 RHH-XLP AND 1 #6 THHN GROUND OR 2 #3 RHH-XLP AND 1 #5 THHN GROUND AS SHOWN ON DRAWINGS. OTHER TYPE OF CABLE SHALL NOT BE ALLOWED (EXCEPT GROUND WIRE WHICH SHALL BE THW OR THHN)

ITEM NO. 715-2-15 — PAY ITEM FOR CONDUIT SHALL BE BASED ON THE HORIZONTAL PATH OF THE INSTALLED CONDUIT AS MEASURED BETWEEN THE CENTER OF PULL BOXES, CABINETS, ETC. NO ALLOWANCE SHALL BE MADE FOR SWEEPS OR VERTICAL DISTANCES ABOVE OR BELOW GROUND. INCLUDES CONDUIT, ELBOWS, SWEEPS, CONNECTING HARDWARE, TRENCHING AND BACKFILL AS PER THE PLANS AND THE STANDARD INDEXES. ALSO INCLUDES THE COST OF RESTORING CUT PAVEMENT, SIDEWALKS, SOD AND ETC. TO ITS ORIGINAL CONDITION.

ITEM NO. 715-511-145 — INCLUDES THE COST OF FURNISHING AND INSTALLING THE POLE, BRACKET ARM, LUMINAIRE WITH LAMP, ANCHOR BOLTS WITH LOCK NUTS AND WASHERS, FRANGIBLE BASE, CONCRETE FOUNDATION PER PLANS AND STANDARD INDEXES.

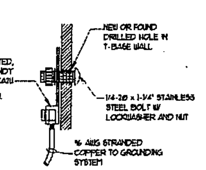


CABLE TO GROUND ROD DETAIL
N.T.S.

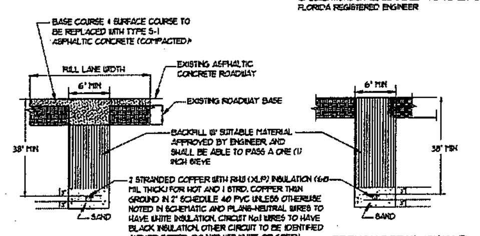


METAL POLE CONCRETE BASE DETAIL
N.T.S.

CONTRACTOR SHALL PROVIDE WIND LOAD CALCULATIONS FOR POLE BASE REFLECTING COMPLIANCE WITH CODES. CALCULATIONS SHALL BE SIGNED AND SEALED BY FLORIDA REGISTERED ENGINEER



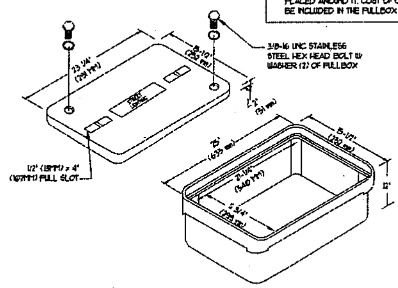
GROUND LUG DETAIL
N.T.S.



TRENCH DETAIL (ROAD)
N.T.S.

TRENCH DETAIL (SWALE)
N.T.S.

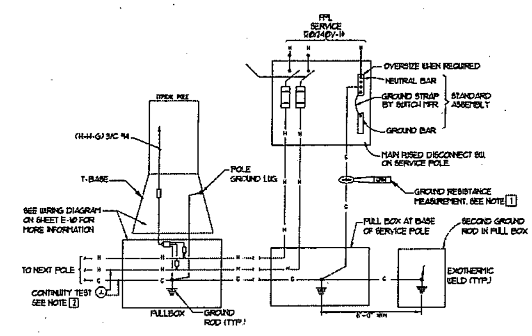
* IF IN THE OPINION OF THE ENGINEER, APPRECIABLE SETTLEMENT OCCURS DURING THE ONE YEAR GUARANTEE PERIOD, THE CONTRACTOR WILL BE REQUIRED TO RESTORE THE AREA OF CUT TO ADJACENT ROADWAY ELEVATION. SEE "TRAFFIC CONTROL EQUIPMENT SPECIFICATIONS" AND STANDARDS FOR THE MTCSHDC.



PULL BOX DETAIL
N.T.S.

PULL BOX SPECIFICATION.

1. ALL STREET LIGHT PULLBOXES SHALL HAVE AN OPEN-BOTTOM, QUAZITE POLYMER CONCRETE DESIGN OR PRECAST CONCRETE DESIGN CONSTRUCTED OF CLASS I CONCRETE HAVING A MINIMUM COMPRESSIVE STRENGTH OF 2,500 PSI AT TWENTY-EIGHT (28) DAYS. POLYMER CONCRETE PULLBOX SHALL BE QUAZITE PRODUCT NO. PG1324BA12 OR APPROVED EQUIVALENT. CONCRETE PULLBOX SHALL BE BROOKS 36 SERIES OR APPROVED EQUIVALENT. IN EITHER CASE, BOTH PULLBOXES SHALL BE CONSTRUCTED PER ABOVE SPECIFIED MANUFACTURERS SIZED MATERIAL AND PERFORMANCE SPECIFICATIONS. THEREFORE, BELOW SPECIFIED PULLBOX COVER SHALL BE FULLY INTERCHANGEABLE WITH EITHER PULLBOX. ALL PULLBOX COVERS FURNISHED AND INSTALLED SHALL BE POLYMER CONCRETE QUAZITE PRODUCT NO. PG1324HA00 OR APPROVED EQUIVALENT. NO OTHER DESIGN, SIZE, MODIFICATION OR MATERIALS SHALL BE ACCEPTABLE. PULLBOX COVERS SHALL BE MARKED "STREET LIGHTING" OR "ELECTRIC/MIAMI-DADE HD"
2. IN SITUATIONS WHERE PULLBOX IS LOCATED OUTSIDE OF SIDEWALK, i.e. SWALE AREA THE PULLBOX IS TO HAVE A 5'X5'X6" THICK CONCRETE APRON (6" THICK) PLACED AROUND IT. COST OF CONCRETE APRON IS TO BE INCLUDED IN THE PULLBOX INSTALLATION COST.



GROUNDING SYSTEM SCHEMATIC
N.T.S.

GROUND TEST NOTES

1. USE CLAMP-ON GROUND TESTER, AEMC CAT. NO. 3711, 3731 OR APPROVED EQUAL, CALIBRATED WITHIN THE PAST 180 DAYS. RESISTANCE-TO-GROUND MEASUREMENT OF MORE THAN 5 OHMS SHALL BE CONSIDERED INADEQUATE.
2. TEST FOR CONTINUITY OF GROUNDING CONDUCTOR USING A MEGGER OR EQUAL LOW RESISTANCE/ HIGH CAPACITY OHMMETER, CALIBRATED WITHIN THE PAST 180 DAYS. A NEUTRAL/GROUND LOOP RESISTANCE OF MORE THAN 0.5 OHMS-PER THOUSAND FEET SHALL BE CONSIDERED INADEQUATE.

Project No.- 19029
BASULTO & ASSOCIATES
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14160 Palmetto Frontage Road, Suite 22, Miami Lakes, FL 33016 — 305.698.3968, Cur: 305.698.3969

NO.	REVISION	DATE		
			DRAWN	D.T.
			CHECKED	C.Y.
			APPROVED	C.Y.

PROJECT NAME: DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE: LIGHTING DETAILS PLAN

MSA Millon, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0688
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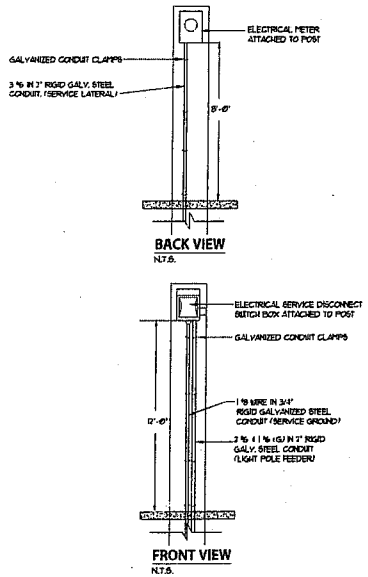
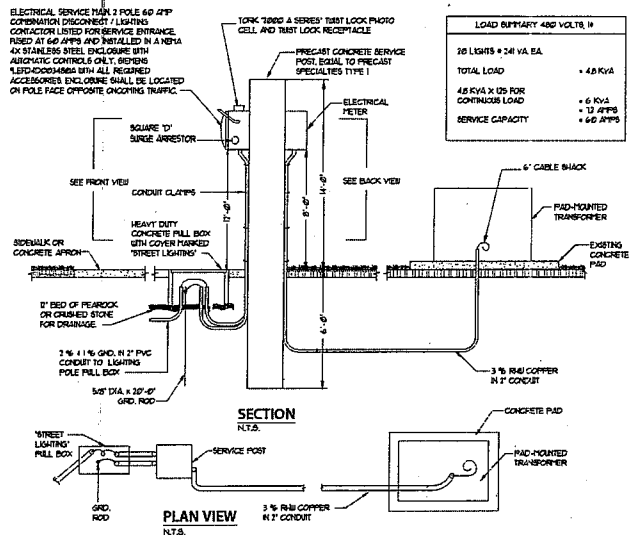
SHEET E-6 OF 32





LOAD SUMMARY 480 VOLTS, 1Ø	
28 LIGHTS @ 241 VA EA.	
TOTAL LOAD	= 6.8 KVA
6.8 KVA X 125 FOR CONTINUOUS LOAD	= 6 KVA = 12.4 AMPS
SERVICE CAPACITY	= 60 AMPS

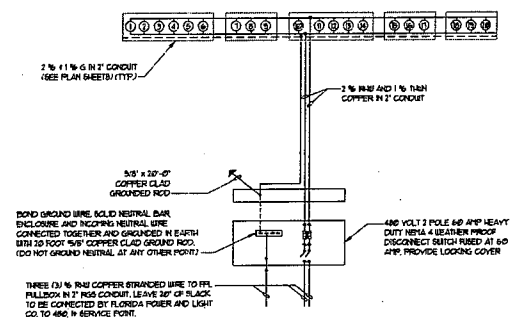
SERVICE POINT DETAIL "A"
N.T.S.

POLE DATA (PART)

POLE No.	DIR.	STATION	OFFSET	DIST. OR ARM	LUM. WATTAGE			FOUNDATION BELOW GRADE (Ft.)	FOUNDATION ABOVE GRADE (Ft.)	FOUNDATION TOTAL (Ft.)	FINAL
1	A	10+ 6.5'	23.0' LT.	8'-0"	241		45'	5		8.0	
2		10+ 60.2'	23.0' LT.					5		8.0	
3		10+ 61.8'	23.0' LT.					5		8.0	
4		11+ 87.0'	23.0' LT.					5		8.0	
5		13+ 60.3'	23.0' LT.					5		8.0	
6		15+ 41'	23.0' LT.					5		8.0	
7		18+ 18.3'	23.0' LT.					5		8.0	
8		19+ 57.0'	23.0' LT.					5		8.0	
9		20+ 72.3'	23.0' LT.					5		8.0	
10		22+ 54.0'	23.0' LT.					5		8.0	
11	A	24+ 30.2'	23.0' LT.					5		8.0	
12		25+ 23.3'	23.0' LT.					5		8.0	
13		25+ 24.0'	23.0' LT.					5		8.0	
14		26+ 22.5'	33.15' LT.					5		8.0	
15		27+ 98.2'	33.15' LT.					5		8.0	
16		29+ 86.5'	23.0' LT.					5		8.0	
17		31+ 58.0'	23.0' LT.					5		8.0	
18		33+ 32.5'	23.0' LT.					5		8.0	
19		35+ 8.3	23.0' LT.					5		8.0	
20		36+ 86.3'	23.0' LT.					5		8.0	

CONVENTIONAL LIGHTING DESIGN CRITERIA

A. DESIGN WIND SPEED...140 MPH. PLUS 13 GUST FACTOR
B. UNIFORMITY RATIO...REQUIRED VALUE = LESS THAN 4 : 1
C. MAX. TO MIN. RATIO...REQUIRED VALUE = LESS THAN 10 : 1
D. AVERAGE INITIAL ILLUMINATION... 15 FOOT-CANDLE
E. AT THE FINAL INSPECTION THE CONTRACTOR SHALL VERIFY THE HORIZONTAL FOOT-CANDLE LEVELS ON THE ROADWAY WITH AN APPROVED CURRENT CALIBRATED LIGHT METER TO THE SATISFACTION OF THE PROJECT ENGINEER.



SERVICE POINT "A"
NTS

LEGEND

DESCRIPTION

- SERVICE POINT, CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF SERVICE POINT PRIOR TO INSTALLATION. ENCLOSURE TO BE MOUNTED OPPOSITE APPROACHING TRAFFIC.
- ROADSIDE HEAVY DUTY POLYMER CONCRETE PULL BOX WITH HEAVY DUTY TRAFFIC COVER MARKED "STREET LIGHTING." AS MANUFACTURED BY QUAZITE OR APPROVED EQUAL.
- SIZE 2" SCHEDULE 40 P.V.C. CONDUIT UNDER PAVEMENT WITH #4/0-XLP CONDUCTORS INSIDE (CONDUCTOR SIZE AND NUMBER OF CONDUCTORS AS SHOWN ON PLAN SHEETS). RUN (1)#6 GREEN INSULATION COPPER BOND WIRE INSIDE CONDUIT WITH OTHER CONDUCTORS.
- POLE, SINGLE ARM, LUMINAIRE AND ROADSIDE PULL BOX. 241 WATT LED SODIUM LUMINAIRE WIRED FOR 480 VOLT OPERATION.

Project No.- 19029

BASULTO ASSOCIATES
CIVIL ENGINEERS
René I. Basulto, PE
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NO.	REVISION	DATE

DRAWN D.T.
CHECKED C.Y.
APPROVED C.Y.

PROJECT NAME

DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE

LIGHTING DETAILS PLAN

MSA Milton, Swain & Associates, Inc.
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0688
CERTIFICATE OF AUTHORIZATION NO. 5460

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

DATE: 03/17/20 SCALE: 1"=20' (H) 1"= 2' (V)

PROJECT NO.

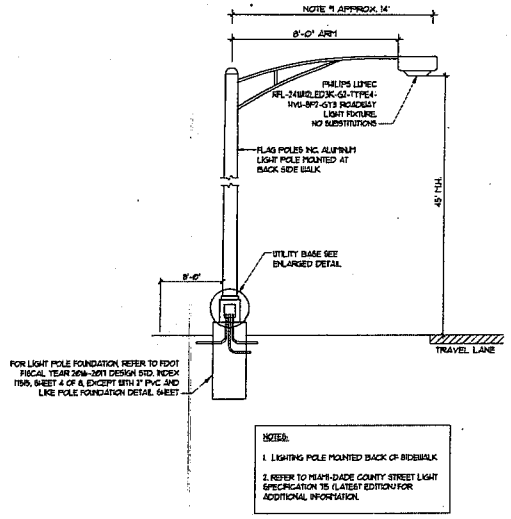
APPROVED BY.

RENE I. BASULTO, P.E.
No. 40869

SHEET E-7
OF 33

CONVENTIONAL LIGHTING DESIGN CRITERIA

A. DESIGN WIND SPEED...80MPH.
B. UNIFORMITY RATIO...REQUIRED VALUE 6 : 4 : 1
C. MAX. TO MIN. RATIO...REQUIRED VALUE 6 : 10 : 1
D. AVERAGE INITIAL ILLUMINATION...1 OF C.
E. AT THE FINAL INSPECTION THE CONTRACTOR SHALL VERIFY THE HORIZONTAL FOOT-CANDLE LEVELS ON THE ROADWAY WITH AN APPROVED CURRENT CALIBRATED LIGHT METER TO THE SATISFACTION OF THE PROJECT ENGINEER.



NOTES:

1. LIGHTING POLE MOUNTED BACK OF SIDEWALK
2. REFER TO MIAMI-DADE COUNTY STREET LIGHT SPECIFICATION 115 (LATEST EDITION) FOR ADDITIONAL INFORMATION.

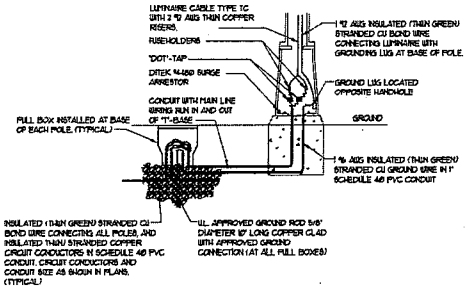
POLE LIGHT DETAIL

N.T.S.

LEGEND

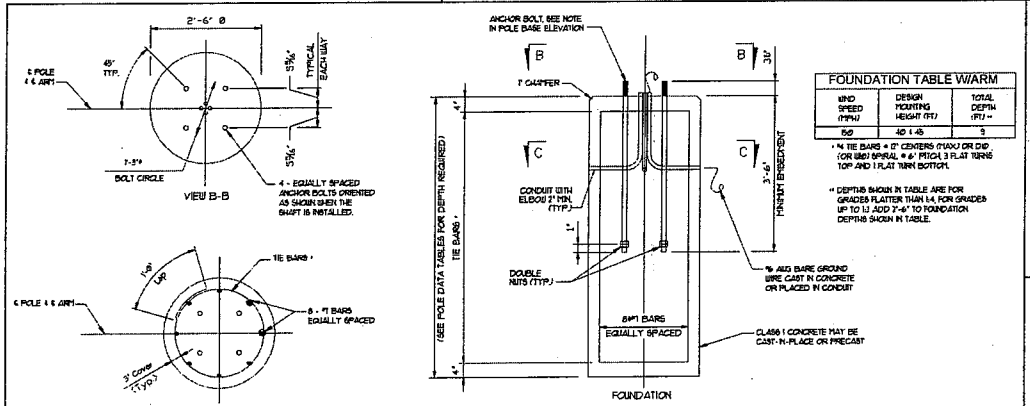
DESCRIPTION

- SERVICE POINT
  CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF SERVICE POINT PRIOR TO INSTALLATION. ENCLOSURE TO BE MOUNTED OPPOSITE APPROACHING TRAFFIC.
- ROADSIDE HEAVY DUTY CONCRETE PULL BOX WITH HEAVY DUTY TRAFFIC COVER MARKED "STREET LIGHTING".
  SIZE 2" SCHEDULE 80 PVC CONDUIT UNDER PAVEMENT WITH THWN CONDUCTORS INSIDE (CONDUCTOR SIZE AND NUMBER OF CONDUCTORS AS SHOWN ON PLAN SHEETS). RUN 1 #5 (THWN GREEN INSULATION) COPPER BOND WIRE INSIDE CONDUIT WITH OTHER CONDUCTORS.
- POLE, SINGLE ARM LUMINAIRE AND ROADSIDE PULL BOX. 149 WATT LED LUMINAIRE WITH TYPE RSM DISTRIBUTION WIRED FOR 480 VOLT OPERATION. LAMPS SHALL PRODUCE 50,000 INITIAL LUMENS.GLASS M-C-III OR APPROVED EQUAL.



POLE WIRING DETAIL

N.T.S.



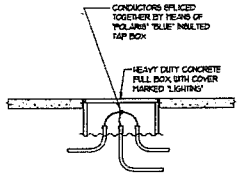
FOUNDATION TABLE W/ARM		
WIND SPEED (MPH)	DESIGN MOUNTING HEIGHT (FT)	TOTAL DEPTH (FT) **
80	40 & 45	9

* #4 TIE BARS @ 12" CENTERS (MAX) OR DIO (FOR 18#) SPIRAL @ 6" PITCH, 3 FLAT TURNS TOP AND 1 FLAT TURN BOTTOM.

** DEPTHS SHOWN IN TABLE ARE FOR GRADES FLATTER THAN 1:4. FOR GRADES UP TO 1:3 ADD 3'-6" TO FOUNDATION DEPTHS SHOWN IN TABLE.

POLE FOUNDATION DETAILS

N.T.S.



SPLICE POINT DETAIL

N.T.S.

Project No.- 19029

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NO.	REVISION	DATE

DRAWN D.T.
CHECKED C.Y.
APPROVED C.Y.

PROJECT NAME

DESIGN OF ROADWAY IMPROVEMENT PLANS
N.W. 102nd AVE. (FROM N.W. 162nd ST. TO N.W. 170th ST.)
CITY OF HIALEAH, FLORIDA

SHEET TITLE

LIGHTING DETAILS PLAN

MSA Milian, Swain & Associates, Inc.
2025 S.W. 32nd AVENUE, MIAMI, FLORIDA 33145
TEL. (305)441-0123 FAX (305)441-0688
CIVIL & ENVIRONMENTAL ENGINEERS UTILITY MANAGEMENT FINANCIAL CONSULTANTS
CERTIFICATE OF AUTHORIZATION NO. 5483

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING W/WORK

DATE: 03/17/20 SCALE: 1"=20' (H) 1"= 2' (V)

PROJECT NO.

APPROVED BY.

RENE I. BASULTO, P.E.
No. 40869

SHEET E-8 OF 34

Exhibit C

File #: CF-802

File Name: C&F No. 802 – Review of Countyline Corporate Park – NW 102nd Avenue from NW 154th Street and NW 170th Street

Stormwater Area Maintenance Plan
Exhibit C to Stormwater Covenant
Folio No.

This Maintenance Plan is to be performed on a quarterly basis, in perpetuity (unless legally released), regardless of ownership, and is important to ensure proper functioning of the retention area, the purpose of which is to provide flood protection for the proposed development referenced in Exhibit "B". Deviation from this plan requires prior approval from Miami-Dade RER/DERM or its successor or assigns department.

Maintenance Activities include the following activities:

- Maintenance of the configuration, slopes and elevation as detailed on the site plan approved under CF_802_
- Removal of any silt, debris, solid waste and/or fill illegally placed in the Stormwater Management Area.
- Maintaining the Stormwater Management Area free of noxious and/or exotic vegetation with the exotic removal to be completed by a licensed herbicide applicator registered in the State of Florida.
- Maintenance of the Stormwater Management Area will be in accordance with the approved schedule referenced above and control techniques approved by RER/DERM or its successor or assigns department for the control of noxious/or exotic vegetation, as applicable.
- Maintenance of native plant communities.

The property owner hereby covenants to allow Miami-Dade RER/DERM access to the site at reasonable times to ensure compliance with the covenant. In the event RER/DERM or its successor or assigns department determines that modifications are required to ensure property operation of the stormwater maintenance area, the property owner will make said revisions within a set timeframe. Said decision can be presented for appeal at the RER/DERM's EQCB (Environmental Quality Control Board).

By reference in this document, the property owner agrees to comply with any and all conditions listed in the stormwater covenant.