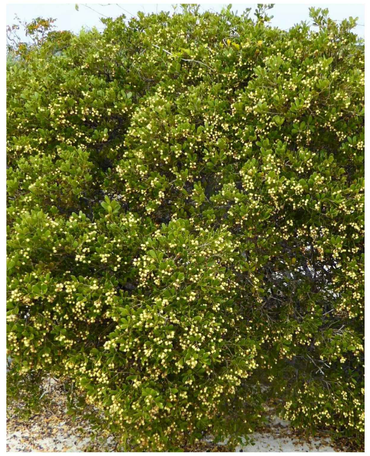
Southern Live Oak
Quercus virginiana

Pigeon Plum Tree
Coccoloba diversifolia

Autograph Tree
Clusia rosea

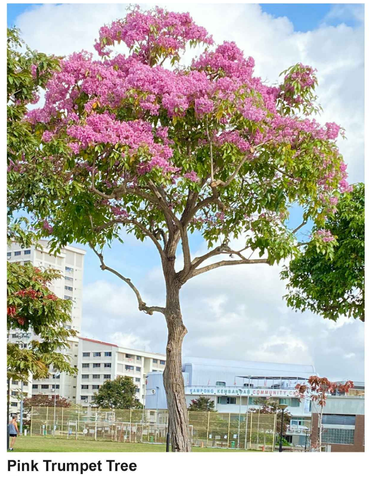
Seagrape Tree
Coccoloba uvifera



Joewood
Jacquinia keyensis

Red Powder Puff
Calliandra haematocephala

Crabwood
Gymnanthes lucida



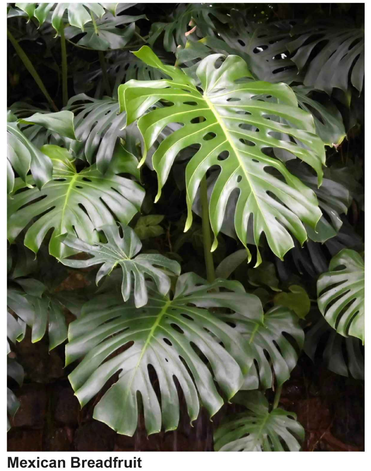
Pink Trumpet Tree
Tabebuia pallida

Wild Date Palm
Phoenix sylvestris

Hurricane Palm
Dictyosperma album

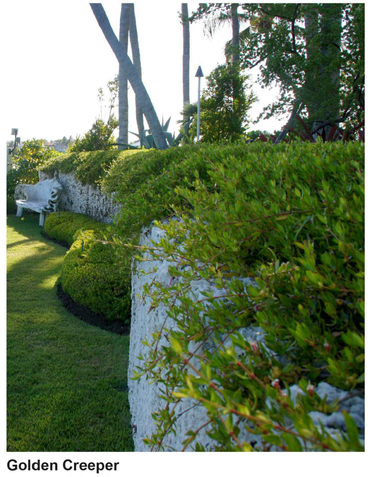
Miraguama Palm
Coccothrinax miraguama

Green Island Ficus
Ficus microcarpa



Mexican Breadfruit
Monstera deliciosa

Golden Pothos Vine
Epipremnum aureum 'Neon'



Golden Creeper
Ernodea littoralis

Rev.	Date	Rev.	Date

2100 N FEDERAL HWY

2100 N Federal Highway
Hollywood, FL, 33020

Owner:
Name BARDI VP LLC
Address 100 SE 2nd St, Suite3400
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Email thestarlifegroup@gmail.com

Landscape Architecture Consultant:
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Email Email: petar@strata-landarch.com

Consultant:
Name
Address
Address
Tel:
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Consultant:
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Email

Architect:
Kobi Karp Architecture and Interior Design, Inc.
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Fax: +1(305) 573 3766

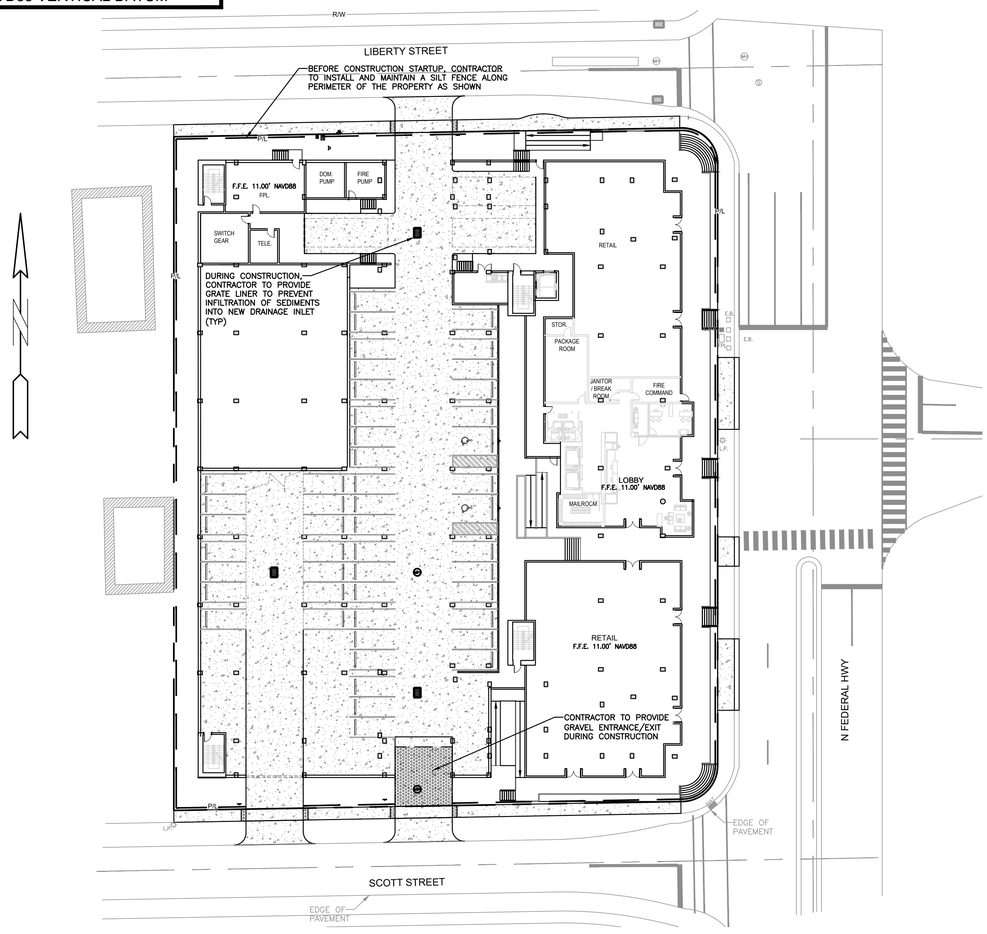
PETAR STRACENSKI
Lic. # LA6667526

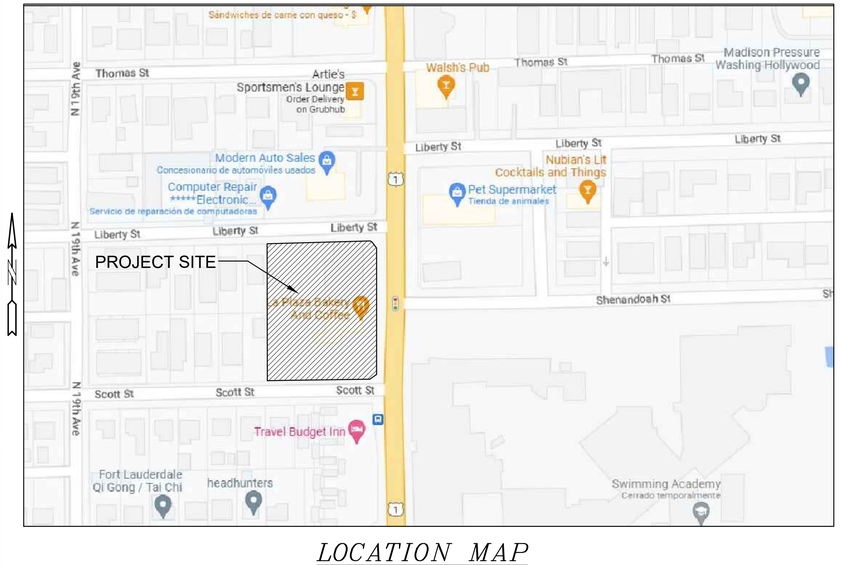
KOBI KARP

PLANTING PALETTE

Date	--	Sheet No.	L.07
Scale			
Project	2302		

ALL ELEVATIONS ARE REFERENCED TO NAVD88 VERTICAL DATUM





LOCATION MAP
NOT TO SCALE

LEGEND

- PROPOSED CONCRETE
- PROPOSED ASPHALT
- 8.90 PROPOSED GRADE
- 8.2 EXISTING ELEVATION
- PROPOSED CATCH BASIN
- EXISTING CATCH BASIN
- PROPOSED WATER METER
- EXISTING WATER METER
- EXISTING WATER VALVE
- N PROPOSED BFP DEVICE
- S EXISTING SAN. SEWER MH
- EXISTING FIRE HYDRANT

BMP NOTES:

1. ALL SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND BE CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE. PERIMETER SEDIMENT BARRIERS SHALL BE CONSTRUCTED TO PREVENT SEDIMENT OR TRASH FROM FLOWING OR FLOATING ON TO ADJACENT PROPERTIES.

2. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. THE DEVELOPER, OWNER AND/OR CONTRACTOR SHALL BE CONTINUALLY RESPONSIBLE FOR ALL SEDIMENT CONTROLS. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.

3. SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM WATER SYSTEM, DITCH OR CHANNEL. ALL STORMWATER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

4. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PUBLIC ROAD SURFACE WITH CURBS AND GUTTERS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL SUBDIVISION LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.

5. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN THIRTY (30) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT UNDISTURBED FOR MORE THAN ONE YEAR.

6. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES SHALL BE STABILIZED, COVERED OR CONTAINED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

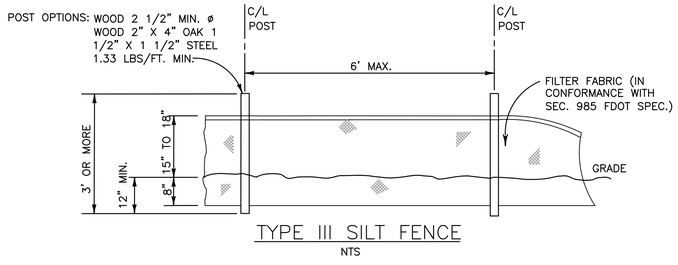
7. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

8. PROPERTIES AND WATER WAYS DOWNSTREAM FROM CONSTRUCTION SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND EROSION AT ALL TIMES DURING CONSTRUCTION.

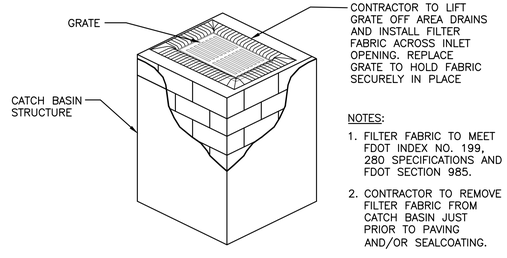
9. CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE WATER DISCHARGES, RAINFALL RUN OFF OR DEWATERING ACTIVITIES.

10. CONTRACTOR MUST INCORPORATE ALL BMP'S NECESSARY TO MEET OR EXCEED STATE WATER QUALITY AND SWPPP REQUIREMENTS.

11. THE POLLUTION PREVENTION PLAN IS A MINIMUM GUIDELINE ONLY. ADDITIONAL BMP'S MAY BE NECESSARY AT CONTRACTOR'S EXPENSE.



TYPE III SILT FENCE
NTS



NOTES:

1. FILTER FABRIC TO MEET FDOT INDEX NO. 199, 280 SPECIFICATIONS AND FDOT SECTION 985.
2. CONTRACTOR TO REMOVE FILTER FABRIC FROM CATCH BASIN JUST PRIOR TO PAVING AND/OR SEALCOATING.

POLLUTION PREVENTION FOR CATCH BASIN
N.T.S.

EROSION & SEDIMENT CONTROL PLAN
SCALE: 1"=30'

WILFORD ZEPHYR LICENSE No 76036 STATE OF FLORIDA PROFESSIONAL ENGINEER
6-30-23

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WILFORD ZEPHYR ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

REVISIONS

NO.	DATE	DESCRIPTION

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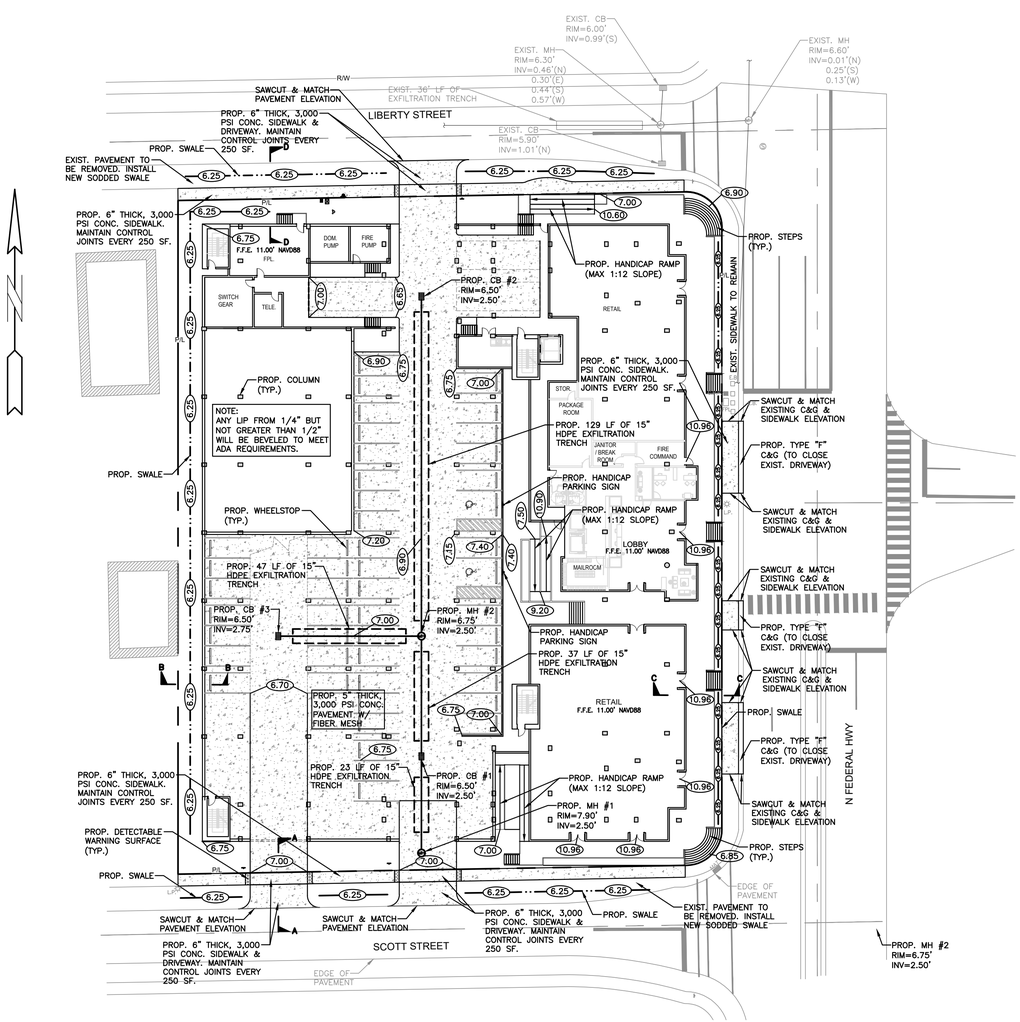
wzephyreng@gmail.com
CA#-31158

2100 N. FEDERAL HWY
2100 N. FEDERAL HWY
HOLLYWOOD, FL 33020

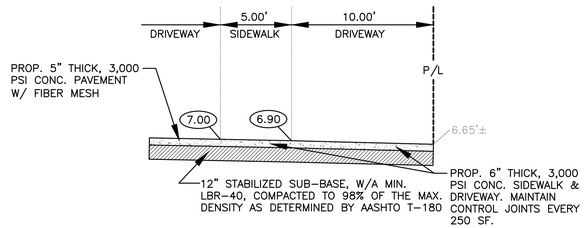
P.E.#:76036
DATE: 3/23/23
SCALE: 1"=30'
SHEET NO.: C1
1 OF 7
PROJECT NO.: 23-10

ALL ELEVATIONS ARE REFERENCED TO NAVD88 VERTICAL DATUM

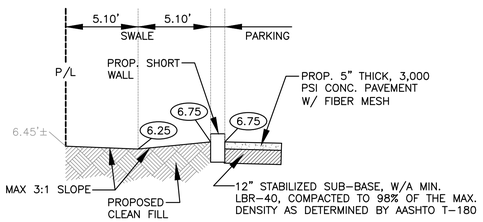


NOTES:

1) CONTRACTOR MUST NOTIFY ZEPHYR ENGINEERING OF THE START OF CONSTRUCTION DATE PRIOR TO START OF CONSTRUCTION. ZEPHYR ENGINEERING WILL NOT CERTIFY ANY CONSTRUCTION THAT WAS NOT INSPECTED BY ZEPHYR ENGINEERING, OR ZEPHYR ENGINEERING'S AUTHORIZED REPRESENTATIVE.
2) PRIOR TO CONSTRUCTION, CONTRACTOR RESPONSIBLE TO FIELD VERIFY ALL EXISTING ELEVATIONS.
3) CONTRACTOR MUST COORDINATE PROPOSED IMPROVEMENTS SHOWN ON CIVIL PLANS WITH EXISTING SITE CONDITIONS & PROPOSED PLANS BY THE OTHER DESIGN PROFESSIONALS PRIOR TO CONSTRUCTION. CONTRACTOR MUST ALSO VERIFY THAT THERE ARE NO DISCREPANCIES BETWEEN THE WATER, SEWER & DRAINAGE PLANS THAT MAY CAUSE CONFLICTS PRIOR TO CONSTRUCTION. CONTACT ZEPHYR ENGINEERING IF DISCREPANCIES EXIST.
4) PRIOR TO CONSTRUCTION, CONTRACTOR RESPONSIBLE TO DOCUMENT EXISTING CONDITIONS ON AND AROUND THE PROJECT AREA, INCLUDING THE R.O.W. AND ADJACENT PROPERTIES. IT'S RECOMMENDED THAT CONTRACTOR TAKE PHOTOGRAPHS & VIDEOS TO CLEARLY DOCUMENT CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR RESPONSIBLE TO REPAIR ALL DAMAGES CAUSED BY OR AS A RESULT OF THE PROPOSED CONSTRUCTION.
5) ALL ROOF DRAINS MUST BE CONNECTED TO THE ONSITE DRAINAGE SYSTEM.
6) CONTRACTOR TO REFER TO ARCHITECTURAL PLANS FOR SITE PLAN LAYOUT AND DIMENSIONS.
7) EXISTING UTILITIES SHOWN ARE BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR'S RESPONSIBLE TO FIELD VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR TO BE AWARE THAT THERE MAY BE SOME EXISTING UTILITIES ON OR ADJACENT TO THE PROJECT SITE THAT MAY NOT BE SHOWN ON THE CIVIL PLANS, AND CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY THOSE UTILITIES AS WELL. CONTRACTOR RESPONSIBLE FOR RELOCATION OF EXISTING UTILITIES THAT CONFLICTS WITH PROPOSED CONSTRUCTION.



TYPICAL SECTION A-A
N.T.S.



TYPICAL SECTION B-B
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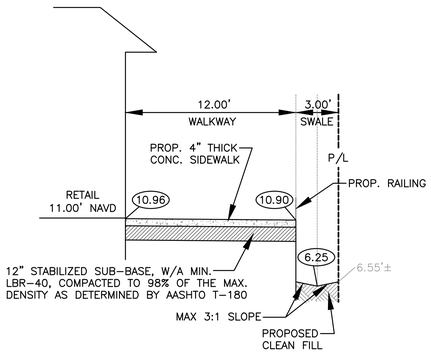

TYPICAL SECTION C-C
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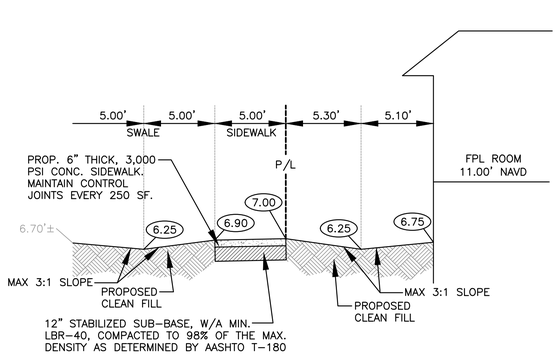

TYPICAL SECTION D-D
N.T.S.

LEGEND

- PROPOSED CONCRETE
- PROPOSED ASPHALT
- (8.90) PROPOSED GRADE
- 8.2 EXISTING ELEVATION
- PROPOSED CATCH BASIN
- EXISTING CATCH BASIN
- PROPOSED WATER METER
- EXISTING WATER METER
- EXISTING WATER VALVE
- N PROPOSED BFP DEVICE
- (S) EXISTING SAN. SEWER MH
- EXISTING FIRE HYDRANT

WILFORD ZEPHYR LICENSE No 76036 STATE OF FLORIDA PROFESSIONAL ENGINEER
6-30-23

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WILFORD ZEPHYR ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

PAVING, GRADING & DRAINAGE PLAN
SCALE: 1"=30'

REVISIONS

NO.	DATE	DESCRIPTION

ZEPHYR ENGINEERING
WILFORD ZEPHYR, P.E.
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(786)302-7693
wzephyreng@gmail.com
CA#:31158

2100 N. FEDERAL HWY
2100 N. FEDERAL HWY
HOLLYWOOD, FL 33020

P.E.#:76036

DATE: 3/23/23

SCALE: 1"=30'

SHEET NO.: C2
2 OF 7

PROJECT NO.: 23-10

ALL ELEVATIONS ARE REFERENCED TO NAVD88 VERTICAL DATUM

GENERAL CONDITION NOTES :

1. THE LOCATION OF EXISTING UTILITIES AND TOPOGRAPHY HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THIS INFORMATION IS NOT GUARANTEED AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETER-MINE THE EXACT LOCATION OF ALL EXISTING UTILITIES AND TOPOGRAPHY PRIOR TO CONSTRUCTION.
2. PRIOR TO CONSTRUCTION THE CONTRACTOR IS TO NOTIFY THE FOLLOWING COMPANIES & AGENCIES AND ANY OTHERS SERVING THE AREA:

   FLORIDA POWER & LIGHT CO., CONSTRUCTION
   BELLSOUTH
   COMCAST
   TECO
   LOCAL CITY / COUNTY ENGINEERING & UTILITY DEPARTMENTS
   FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT), AS APPLICABLE
   UNDERGROUND UTILITIES NOIFICATION CENTER OF FLORIDA (S.U.N.S.H.I.N.E.)

PAVING, GRADING & DRAINAGE NOTES:

1. ALL UNSUITABLE MATERIALS, SUCH AS MUCK, HARDPAN, ORGANIC MATERIAL & OTHER DELETERIOUS MATERIAL AS CLASSIFIED BY AASHTO M-145, FOUND WITHIN THE ROAD & PARKING LOT AREAS SHALL BE REMOVED DOWN TO ROCK OR SUITABLE MATERIAL, & REPLACED W/ THE SPECIFIED FILL MATERIAL IN MAXIMUM 12" LIFTS COMPACTED TO NOT LESS THAN 100% MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE IN ACCORDANCE W/ AASHTO T-99. THICKNESS OF LAYERS MAY BE INCREASED PROVIDED THE EQUIPMENT & METHODS USED ARE PROVEN BY FIELD DENSITY TESTING TO BE CAPABLE OF COMPACTING THICK LAYERS TO SPECIFIED DENSITIES.
2. ALL AREAS SHALL BE CLEARED & GRUBBED PRIOR TO CONSTRUCTION. THIS SHALL CONSIST OF THE COMPLETE REMOVAL & DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH & ALL OTHER OBSTRUCTION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE EXIST. GROUND TO A DEPTH OF 12". ITEMS DESIGNATED TO REMAIN OR TO BE RELOCATED OR ADJUSTED SHALL BE SO DESIGNATED ON THE DWGS.
3. FILL MATERIAL SHALL BE CLASSIFIED AS A-1, A-3 OR A-2.4 IN ACCORDANCE W/ AASHTO M-145 & SHALL BE FREE FROM VEGETATION & ORGANIC MATERIAL. NOT MORE THAN 12% BY WEIGHT OF FILL MATERIAL SHALL PASS THE NO. 200 SIEVE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING CERTIFIED MATERIAL TEST RESULTS TO THE ENGINEER OF RECORD PRIOR TO THE RELEASE OF FINAL CERTIFICATION BY THE ENG. TEST RESULTS MUST INCLUDE BUT MAY NOT BE LIMITED TO, DENSITIES FOR SUBGRADE & LIME ROCK, UTILITIES, EXCAVATION, ASPHALT GRADIATION REPORTS, CONC. CYLINDERS, ETC...
5. ALL INLETS & PIPE SHALL BE PROTECTED DURING CONSTRUCTION TO PREVENT SILTATION IN THE DRAINAGE SYSTEMS BY WAY OF TEMPORARY PLUGS & PLYWOOD OR PLASTIC COVERS OVER THE INLETS. THE ENTIRE DRAINAGE SYSTEM TO BE CLEAN OF DEBRIS PRIOR TO FINAL ACCEPTANCE.
6. WHERE NEW ASPHALT MEETS OR ABUTS EXIST. ASPHALT, THE EXIST. ASPHALT SHALL BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE. PRIOR TO REMOVING CURB OR GUTTER, THE ADJACENT ASPHALT SHALL ALSO BE SAWCUT TO PROVIDE A STRAIGHT EVEN LINE.
7. ALL PROPOSED GRADES (ELEVATIONS) REFER TO ASPHALT GRADES UNLESS INDICATED OTHERWISE.
8. SITE GRADING SHALL BE W/IN 0.1' OF THE REQUIRED ELEVATION & ALL AREAS SHALL BE GRADED TO DRAIN.
9. ALL SUBGRADE SHALL HAVE AN LBR OF 40 UNLESS OTHERWISE NOTED & SHALL BE COMPACTED TO 98% MAXIMUM DRY DENSITY PER AASHTO T-99.
10. ALL LIMEROCK SHALL BE COMPACTED TO 98% PER AASHTO T-180 & HAVE NOT LESS THAN 60% OF CARBONATES OF CALCIUM & MAGNESIUM UNLESS OTHERWISE DESIGNATED. ALL LIMEROCK SHALL BE PRIMED.
11. CONCRETE & ASPHALT THICKNESS SHALL BE OF TYPE DESIGNATED ON DWGS. (SEE SECTIONS)
12. PLASTIC FILTER FABRIC SHALL BE MIRAFI, TYPAR OR EQUAL CONFORMING TO SECTION 985 OF THE FDOT STANDARD SPECIFICATIONS.
13. CONC. SIDEWALKS SHALL BE 4" THICK ON COMPACTED SUBGRADE, W/ 1/2" EXPANSION JOINTS PLACED AT A MAXIMUM OF 75'. CRACK CONTROL JOINTS SHALL BE 5' ON CENTER. THE BACK OF SIDEWALK ELEVATION SHALL EQUAL THE CROWN OF ROADWAY, UNLESS SPECIFIED OTHERWISE BY LOCAL CODES OR INDICATED ON DWGS. ALL CONC. SIDEWALKS THAT CROSS DRIVEWAYS SHALL BE 6" THICK.
14. PIPE SPECIFICATIONS : THE MATERIAL TYPE IS SHOWN ON THE DRAWINGS BY ONE OF THE FOLLOWING DESIGNATIONS –

    RCP = REINFORCED CONC. PIPE, ASTM DESIGNATION C-76, TABLE III
    CMP = CORRUGATED METAL (ALUM.) PIPE, TM DESIGNATION M-196
    CMP = (SMOOTH LINED) CORRUGATED METAL (ALUM.) PIPE, ASTM DESIGNATION M-196
    SCP = SLOTTED CONC. PIPE, FDOT SECTIONS 941 & 942
    PVC = POLYVINYLCHLORIDE PIPE
    PCMP = PERFORATED CMP, FDOT SECTION 945
    DIP = DUCTILE IRON PIPE
    HDPE = HIGH DENSITY POLYETHYLENE PIPE.

15. ASPHALT –

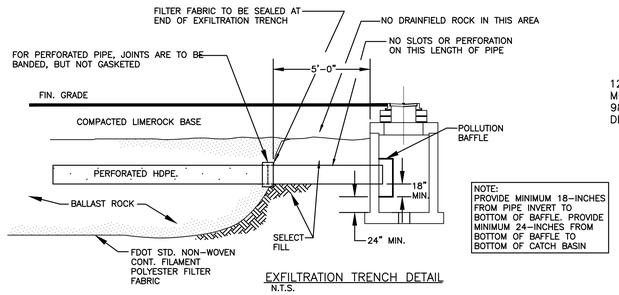
    BITUMINOUS MATERIAL SHALL BE ASPHALT CEMENT, VISCOSITY GRADE AC-20, CONFORMING TO THE REQUIREMENTS OF FDOT STANDARD SPECIFICATIONS, 1986 EDITION, SECTION 916-1.

    PRIME COAT SHALL BE CUT BACK ASPHALT, GRADE RC-70 OR RC-250 CONFORMING TO THE REQUIREMENTS SPECIFIED IN AASHTO DESIGNATION M-81-75 (1982). RATE – 0.10 GALS./S.Y. TACK COAT SHALL BE EMULSIFIED ASPHALT, GRADE RS-2 CONFORMING TO THE REQUIREMENTS SPECIFIED IN AASHTO DESIGNATION M-140-82. RATE – 0.02 TO 0.08 GALS/S.Y.

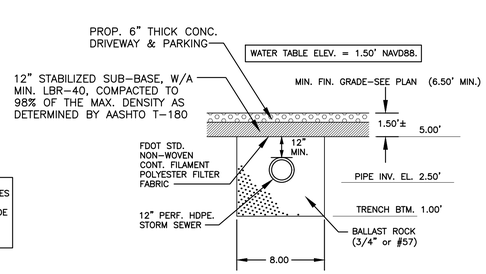
DESIGN MIX SHALL CONFORM TO FDOT SECTION 331 UNLESS OTHERWISE SPECIFIED.

PAVEMENT MARKING & SIGNING STANDARD NOTES :

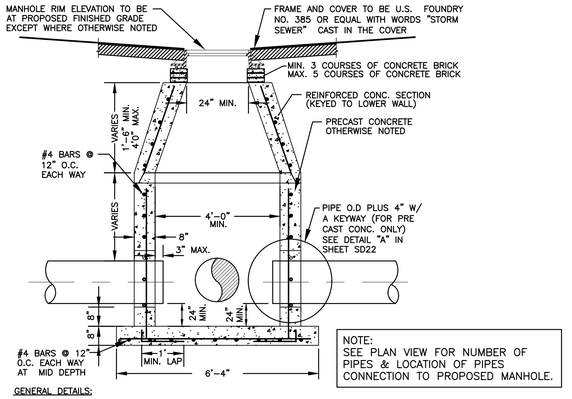
1. STOP SIGNS SHALL BE 30"x30" (R1-1), HIGH INTENSITY.
2. ALL SIGNS SHALL BE PLACED AT A HEIGHT NOT LESS THAN 5' & NOT GREATER THAN 7', THE HEIGHT IS MEASURED FROM THE BOTTOM OF THE SIGN TO THE EDGE OF NEAREST PAVEMENT. THE SIGN POST SHALL BE PLACED A MINIMUM OF 6' TO A MAXIMUM OF 12' FROM THE ADJACENT PAVEMENT, & A MINIMUM OF 6' FROM THE CROSS TRAFFIC PAVEMENT.
3. STOP BARS SHALL BE 24" WHITE.
4. ALL SITE PAVEMENT MARKINGS SHALL BE PAINT. (UNLESS INDICATED OTHERWISE)
5. ALL PAVEMENT MARKINGS AND SIGNAGE IN THE ROAD RIGHT-OF-WAY SHALL BE THERMOPLASTIC & SHALL CONFORM TO MUTCD AND PBC TYPICAL T-P-06-001.



EXFILTRATION TRENCH DETAIL
N.T.S.



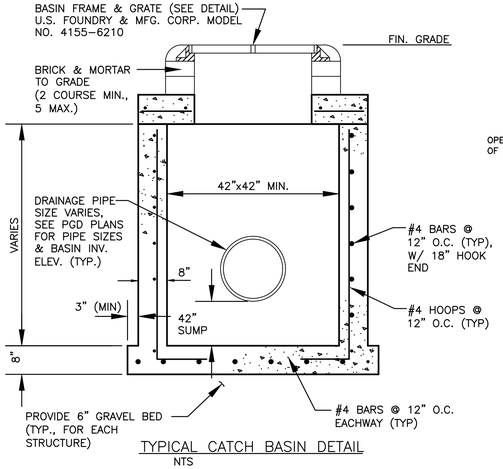
PROPOSED EXFILTR. TRENCH SECTION
N.T.S.



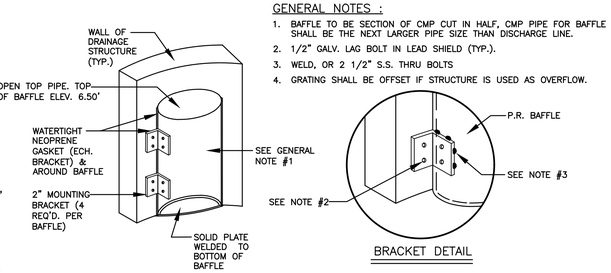
GENERAL DETAILS:

1. PROVIDE SHOP DRAWINGS OF STRUCTURES.
2. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478, SHALL BE TYPE II ACID RESISTANT CEMENT AND SHALL MAINTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS.
3. REFER TO FDOT INDEX 200 FOR ADDITIONAL DETAILS AND SPECIFICATIONS.
4. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60, ALL COVER SHALL BE 3 INCHES MINIMUM.
5. ALL OPENINGS SHALL BE SEALED WITH ELASTROMETIC GROUT (TYPE 3 CEMENT) SEE DETAIL "A", IN SHEET SD22.

CONCENTRIC PRECAST DRAINAGE MANHOLE (4'-0" MIN. DIA.) DETAIL
NTS

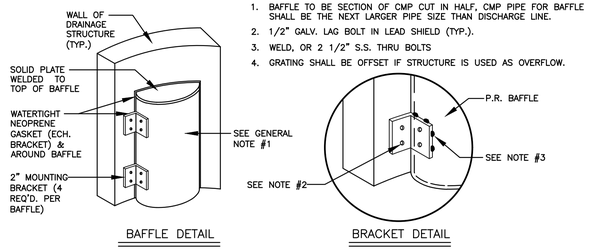


TYPICAL CATCH BASIN DETAIL
NTS



BRACKET DETAIL

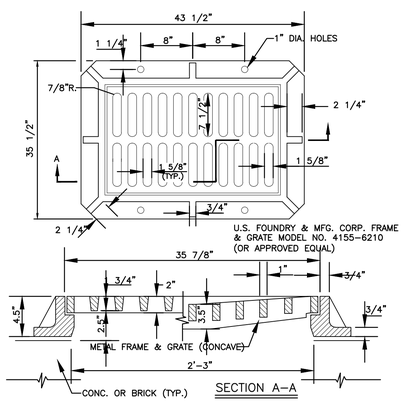
INVERTED BAFFLE DETAIL
NTS



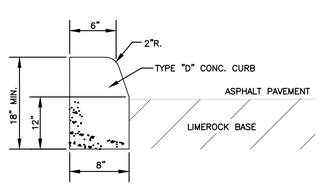
BAFFLE DETAIL

BRACKET DETAIL

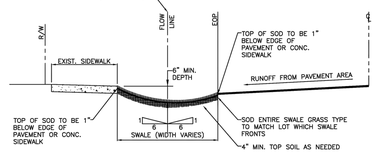
POLLUTION RETARDANT BAFFLE DETAIL
NTS



FRAME & GRATE DETAIL
NTS



TYPE "D" CONCRETE CURB DETAIL
NTS



NOTES:

1. HORIZONTAL BOTTOM (FLOW LINE) OF SWALE LOCATION IS TO BE PLACED AT THE POINT WHERE 6:1 SLOPE FROM THE EDGE OF S/W AND 6:1 SLOPE FROM EDGE OF PAVEMENT MEET.
2. TOP OF SOD ELEVATION AS SHOW ABOVE.

	ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
	DRAWN: EG	TYPICAL SWALE GRADING	DRAWING NO.: C-33
	APPROVED: JG		

WILFORD ZEPHYR LICENSE No 76036 STATE OF FLORIDA PROFESSIONAL ENGINEER
6-30-23

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CIVIL DETAILS I

SCALE: N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION

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wzephyreng@gmail.com
CA#:31158

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HOLLYWOOD, FL 33020

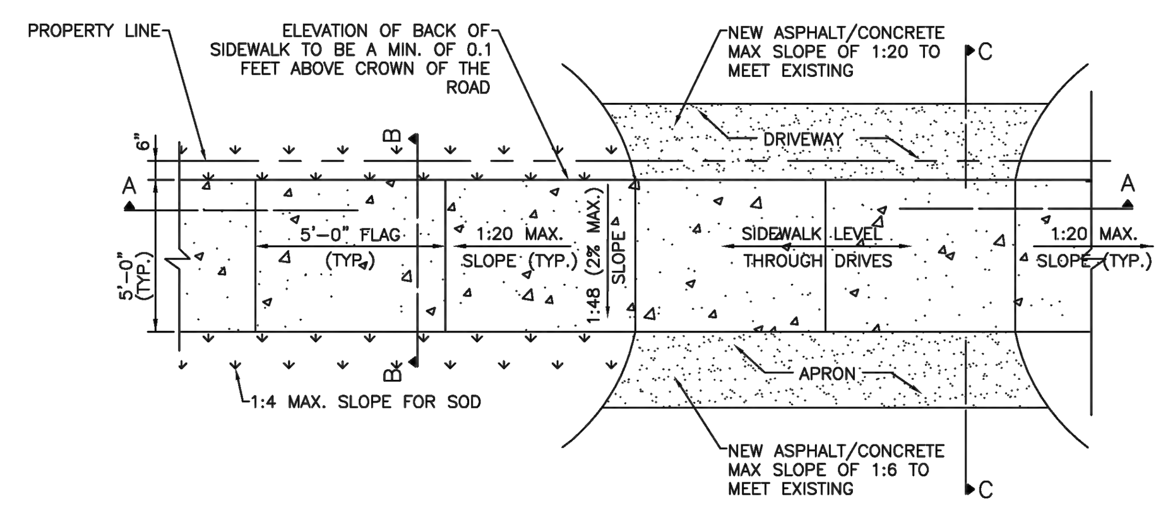
P.E.#:76036

DATE: 3/23/23

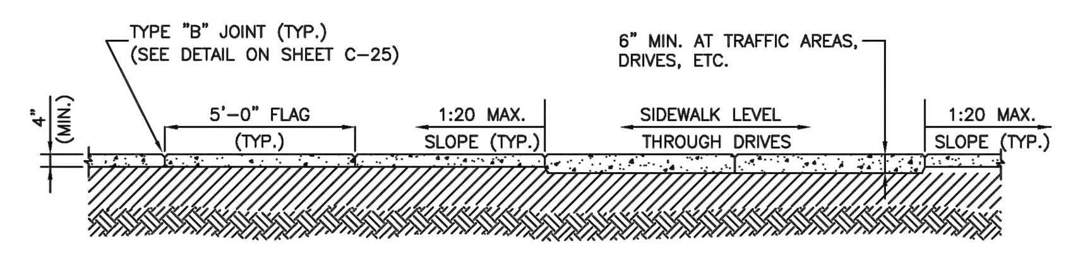
SCALE: N.T.S.

SHEET NO.: C3
3 OF 7

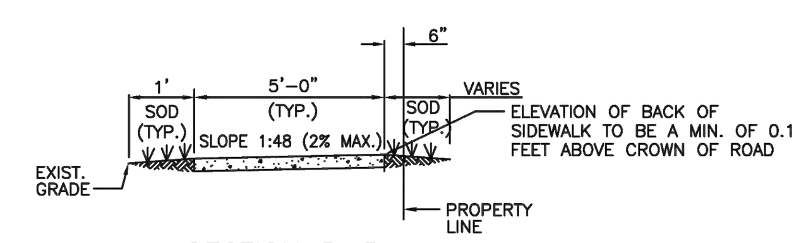
PROJECT NO.: 23-10



PLAN



SECTION A–A

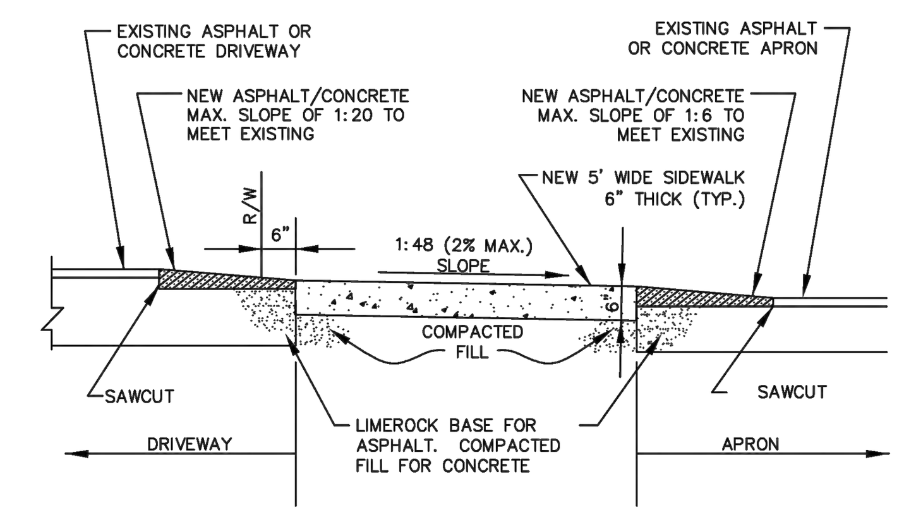


SECTION B–B

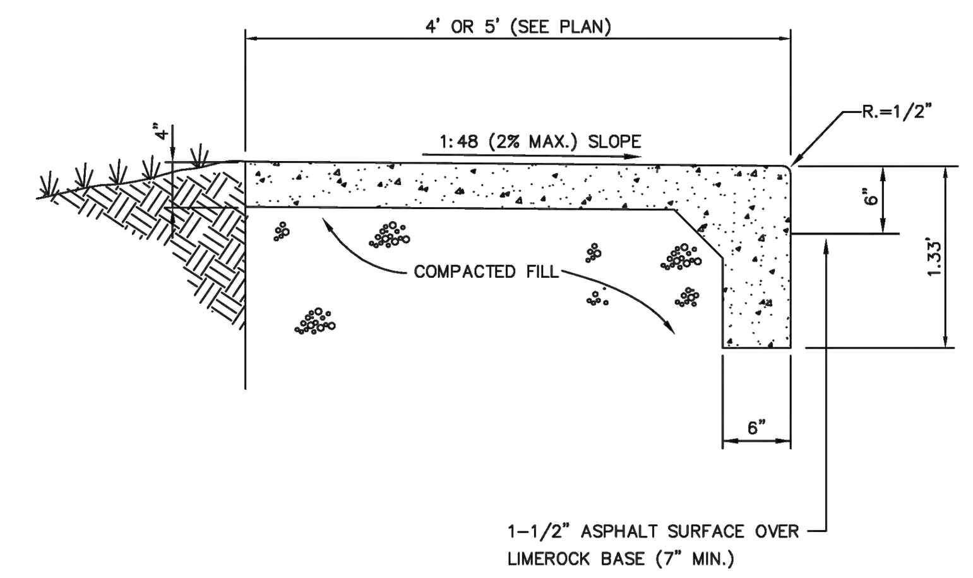
NOTE:

1. ALL SIDEWALK CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE ADA STANDARDS.
2. LIGHT BROOM FINISH PERPENDICULAR TO THE DIRECTION OF THE SIDEWALK.
3. ALL SIDEWALKS CROSS SLOPES SHALL BE 1:48 (2% MAX.); AND, RUNNING SLOPES 1:20 MAX.

ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	SIDEWALK CONSTRUCTION DETAILS (1 OF 3)	DRAWING NO.: C–23
APPROVED: JG		

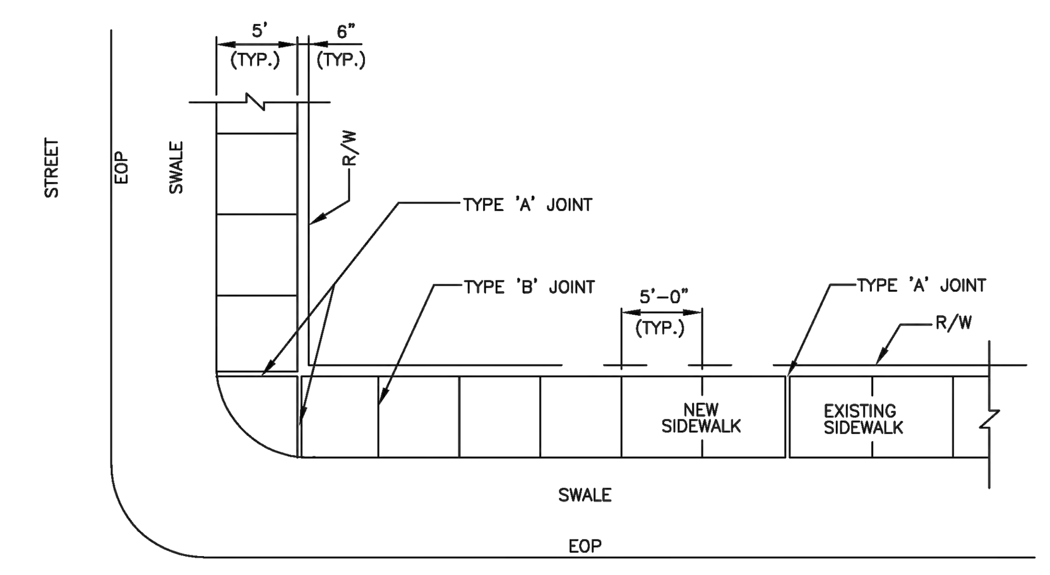


SECTION C–C

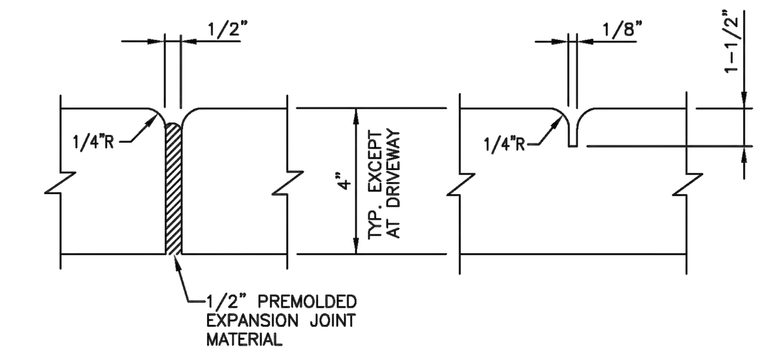


SIDEWALK WITH CURB

ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	SIDEWALK CONSTRUCTION DETAILS (2 OF 3)	DRAWING NO.: C–24
APPROVED: JG		



PLAN



TYPE 'A'

TYPE 'B'

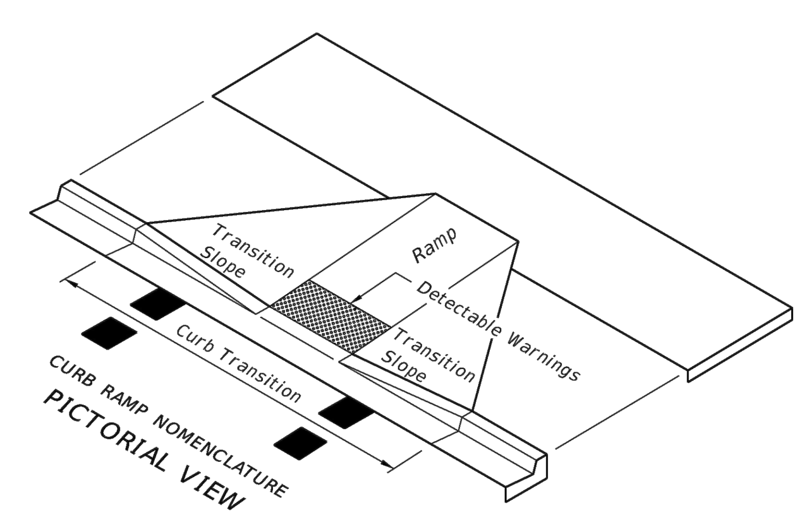
SIDEWALK JOINTS

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
'A'	P.C. & P.T. OF CURVES; JUNCTION OF EXISTING AND NEW SIDEWALKS; WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS AND SIMILAR STRUCTURES.
'B'	5' CENTER TO CENTER ON SIDEWALKS.

NOTES:

1. CONCRETE SHALL BE CLASS 1 WITH MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.
2. USE OF FIBER REINFORCED CEMENT IS PROHIBITED.
3. SIDEWALK LONGITUDINAL AND CROSS SLOPES SHALL MEET ADA STANDARDS.
4. SIDEWALK CURB RAMPS SHALL BE PROVIDED AT ALL DESIGNATED PEDESTRIAN CROSSING AT INTERSECTIONS PER FDOT STANDARD PLANS INDEX NO. 522-002.
5. THE VERTICAL DEVIATION OF THE COVER/LID OF A GIVEN UTILITY BOX/STRUCTURE SHALL NOT BE MORE THAN A ¼" DIFFERENCE IN HEIGHT/ELEVATION OF THE FINISHED SIDEWALK SURFACE.
6. 4" THICK MINIMUM (TYP.); 6" THICK AT DRIVEWAYS, EXTENDED TWO FEET ON BOTH SIDES BEYOND THE DRIVE.

ISSUED: MAY 2023	DEPARTMENT OF DEVELOPMENT SERVICES ENGINEERING, TRANSPORTATION & MOBILITY DIVISION	REVISED: –
DRAWN: EG	SIDEWALK CONSTRUCTION DETAILS (3 OF 3)	DRAWING NO.: C–25
APPROVED: JG		



LEGEND

Detectable Warnings

GENERAL NOTES

1. Sidewalk curb ramps shall be constructed at locations that will provide continuous unobstructed pedestrian circulation path to pedestrian areas, elements and facilities within the right of way and to accessible pedestrian routes on adjacent sites. Curbed facilities with sidewalks and those without sidewalks are to have curb ramps constructed for all intersections and turnouts with curbed returns. To accommodate curb ramps, partial curb returns are to extend to the limits prescribed in Index No. 515. Ramps constructed at locations without sidewalks are to have a landing constructed at the top of each ramp, see LANDINGS FOR CURB RAMPS WITHOUT SIDEWALKS.
2. When altering existing pedestrian facilities, where existing restricted conditions preclude the accommodation of a ramp slope of 1:12, a ramp slope between 1:12 and 1:10 is permitted for a rise of 6" maximum. Where compliance with the requirements for cross slope cannot be fully met, the minimum feasible cross slope shall be provided. Ramp slopes are not required to exceed 15' in length.
3. If sidewalk curb ramps are located where pedestrians must walk across the ramp, then provide transition slopes to the ramp; otherwise a sidewalk curb may be required.
4. All sidewalks, ramps, and landings with a cross slope of 0.02 shown in this Index are 0.02 maximum. All ramp slopes shown in this Index as 1:12 are 1:12 maximum. Landings shall have slopes less than or equal to 0.02 in any direction.
5. Grade breaks at the top and bottom of ramps shall be parallel to each other and perpendicular to the direction of the ramp slope.
6. Where a sidewalk curb ramp is constructed within existing curb, curb and gutter and/or sidewalk, the existing curb or curb and gutter shall be removed to the nearest joint beyond the curb transition or to the extent that no remaining section of curb or curb and gutter is less than 5' long. Existing sidewalks shall be removed to the nearest joint beyond the transition slope or to the extent that no remaining section of sidewalk is less than 5' long. For CONCRETE SIDEWALK details refer to Index 310.
7. Sidewalk curb ramp alpha-identifications are for reference purposes (plans, permits, etc.). Alpha-identifications CR-I and CR-J were intentionally omitted.
8. Detectable warnings shall extend the full width of the ramp and to a depth of 2'. Detectable warnings shall be constructed in accordance with Specification Section 527. For the layout of detectable warnings, refer to the TYPICAL PLACEMENT OF DETECTABLE WARNINGS details. Detectable warnings shall not be provided on transition slopes.
9. When detectable warnings are placed on a slope greater than 5%, domes shall be aligned with the centerline of the ramp; otherwise domes are not required to be aligned.
10. Detectable warnings shall be required on sidewalks at:
    a. Intersecting roads,
    b. Median Crossings greater than or equal to 6' in width,
    c. Railroad Crossings,
    d. Signalized driveways.
11. Detectable Warnings - Acceptance Criteria:
    a. Color and texture shall be complete and uniform.
    b. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.
    c. There shall be no more than 4 non-compliant domes in any one square foot.
    d. Non-compliant domes shall not be adjacent to other non-compliant domes.
    e. Surfaces shall not deviate more than 0.10" from a true plane.
12. Detectable warnings shall be installed no greater than 5' from the back of curb or edge of pavement.
13. Detectable warnings shall not be installed over grade breaks.

LAST REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/13		FDOT 2014 DESIGN STANDARDS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	304	1 of 7

NTS

WILFORD ZEPHYR LICENSE No 76036 STATE OF FLORIDA PROFESSIONAL ENGINEER

6-30-23

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CIVIL DETAILS II

SCALE: N.T.S.

REVISIONS		
NO.	DATE	DESCRIPTION

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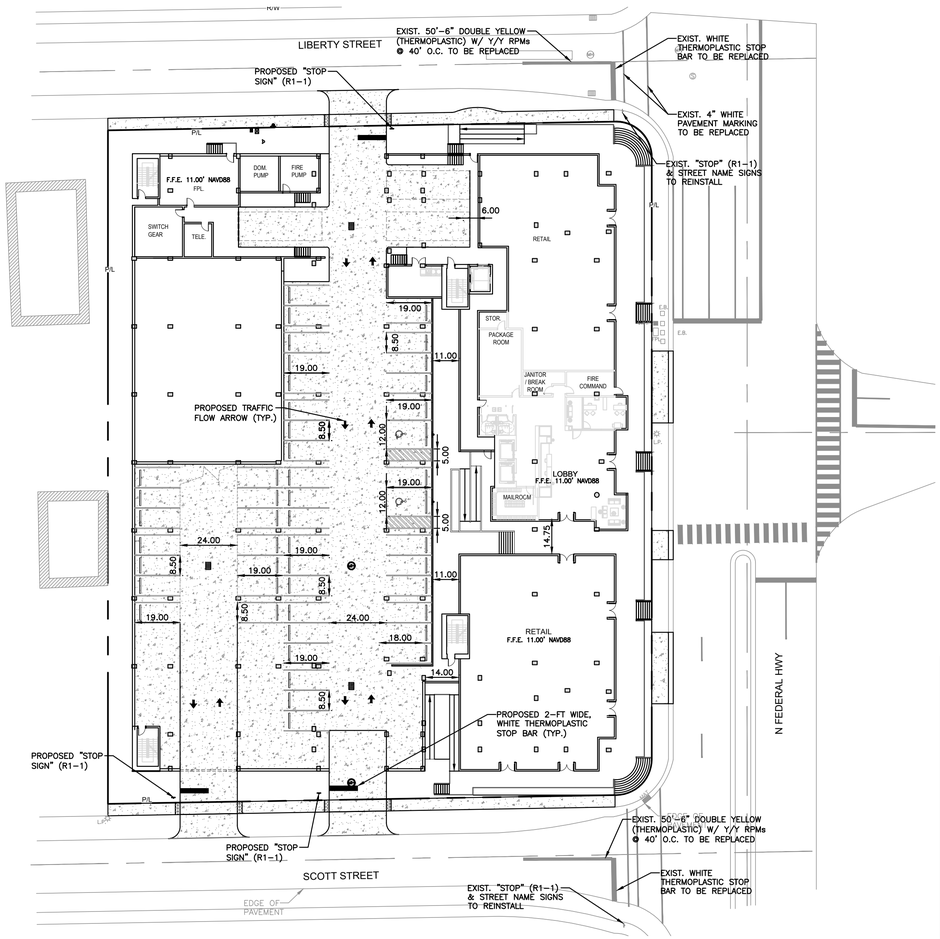
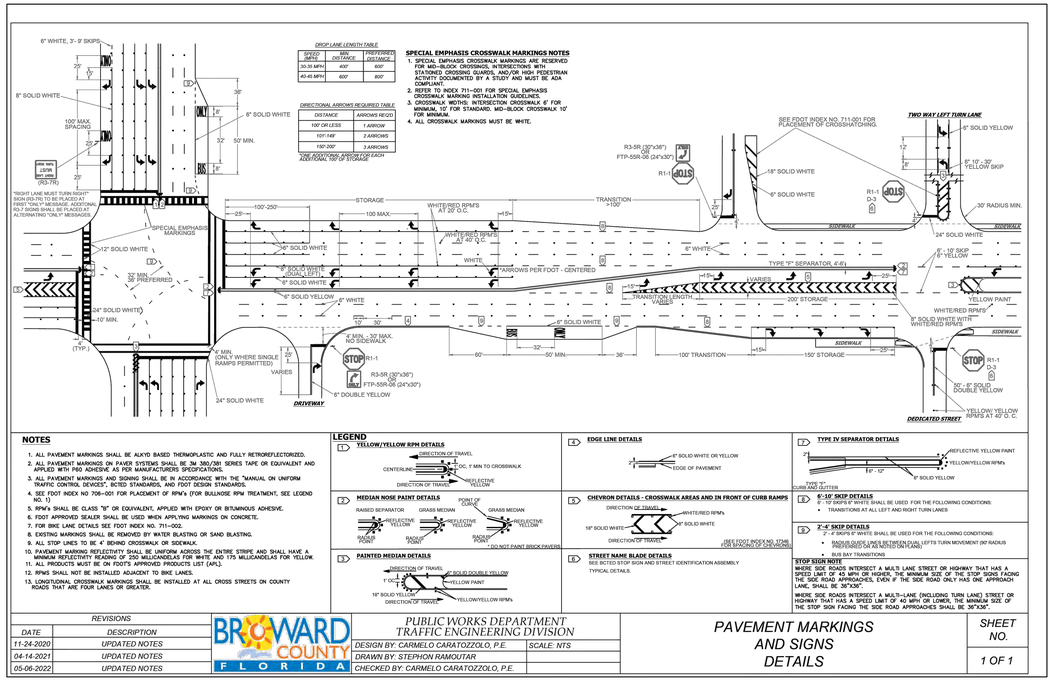
P.E.#:76036
DATE: 3/23/23
SCALE: N.T.S.
SHEET NO.: C4
4 OF 7
PROJECT NO.: 23-10

ALL ELEVATIONS ARE REFERENCED TO NAVD88 VERTICAL DATUM





REVISIONS	
DATE	DESCRIPTION
11-24-2020	UPDATED NOTES
04-14-2021	UPDATED NOTES
05-06-2022	UPDATED NOTES

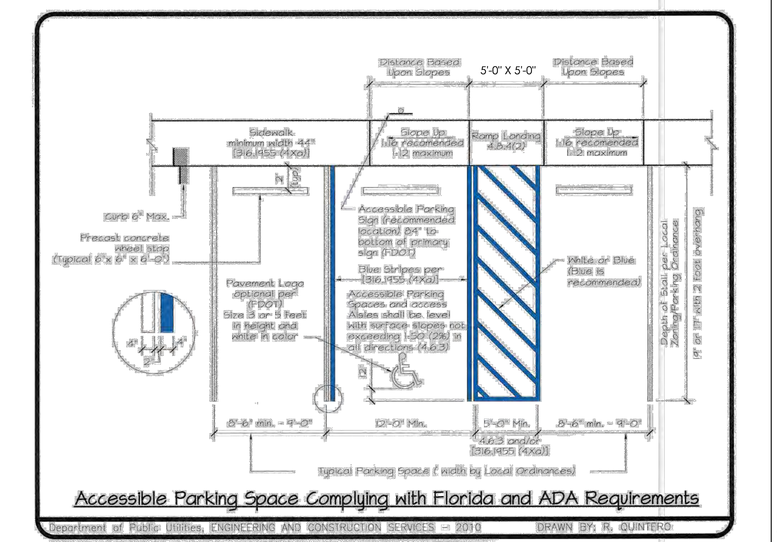
BROWARD COUNTY FLORIDA

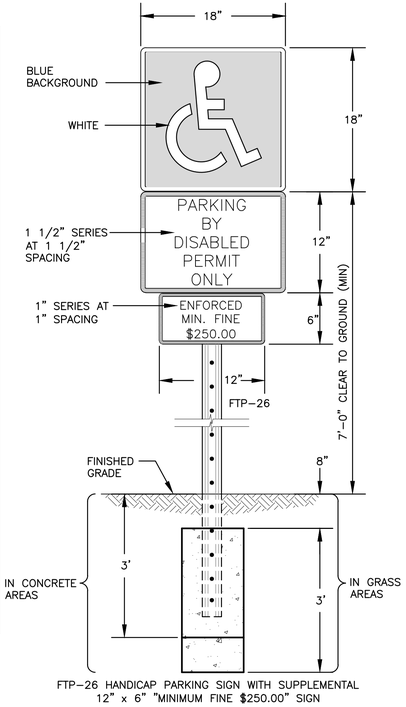
PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

DESIGN BY: CARMELO CARATOZZOLO, P.E. | SCALE: NTS
DRAWN BY: STEPHON RAMOUTAR
CHECKED BY: CARMELO CARATOZZOLO, P.E.

PAVEMENT MARKINGS AND SIGNS DETAILS

SHEET NO. 1 OF 1

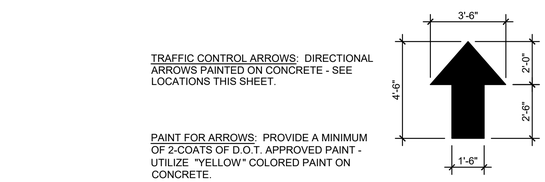




FTP-26 HANDICAP PARKING SIGN WITH SUPPLEMENTAL 12" x 6" "MINIMUM FINE $250.00" SIGN

NOTES:
1. TOP PORTION OF SIGN SHALL HAVE A REFLECTORIZED BLUE BACKGROUND.
2. BOTTOM PORTION OF SIGN SHALL HAVE A REFLECTORIZED WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. LOCATE SIGN AT CENTERLINE AND HEAD OF EACH HANDICAP PARKING STALL, WHERE APPLICABLE.

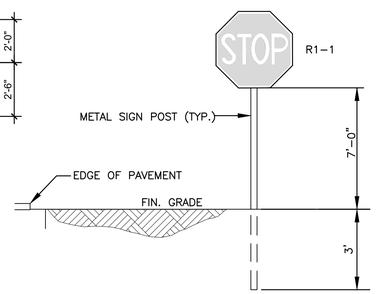
HANDICAP PARKING SIGN DETAIL
NTS



TRAFFIC CONTROL ARROWS: DIRECTIONAL ARROWS PAINTED ON CONCRETE - SEE LOCATIONS THIS SHEET.

PAINT FOR ARROWS: PROVIDE A MINIMUM OF 2-COATS OF D.O.T. APPROVED PAINT - UTILIZE "YELLOW" COLORED PAINT ON CONCRETE.

TRAFFIC CONTROL ARROWS DETAILS
N.T.S



TYPICAL SIGN INSTALLATION DETAIL
NTS

LEGEND

- PROPOSED CONCRETE
- PROPOSED ASPHALT
- 8.90 PROPOSED GRADE
- 8.9 EXISTING ELEVATION
- PROPOSED CATCH BASIN
- EXISTING CATCH BASIN
- PROPOSED WATER METER
- EXISTING WATER METER
- EXISTING WATER VALVE
- N PROPOSED BFP DEVICE
- S EXISTING SAN. SEWER MH
- EXISTING FIRE HYDRANT

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WILFORD ZEPHYR LICENSE No 76036 STATE OF FLORIDA PROFESSIONAL ENGINEER
6-30-23

PAVEMENT MARKINGS & SIGNAGE PLAN

SCALE: 1"=30'

REVISIONS	
NO.	DATE / DESCRIPTION

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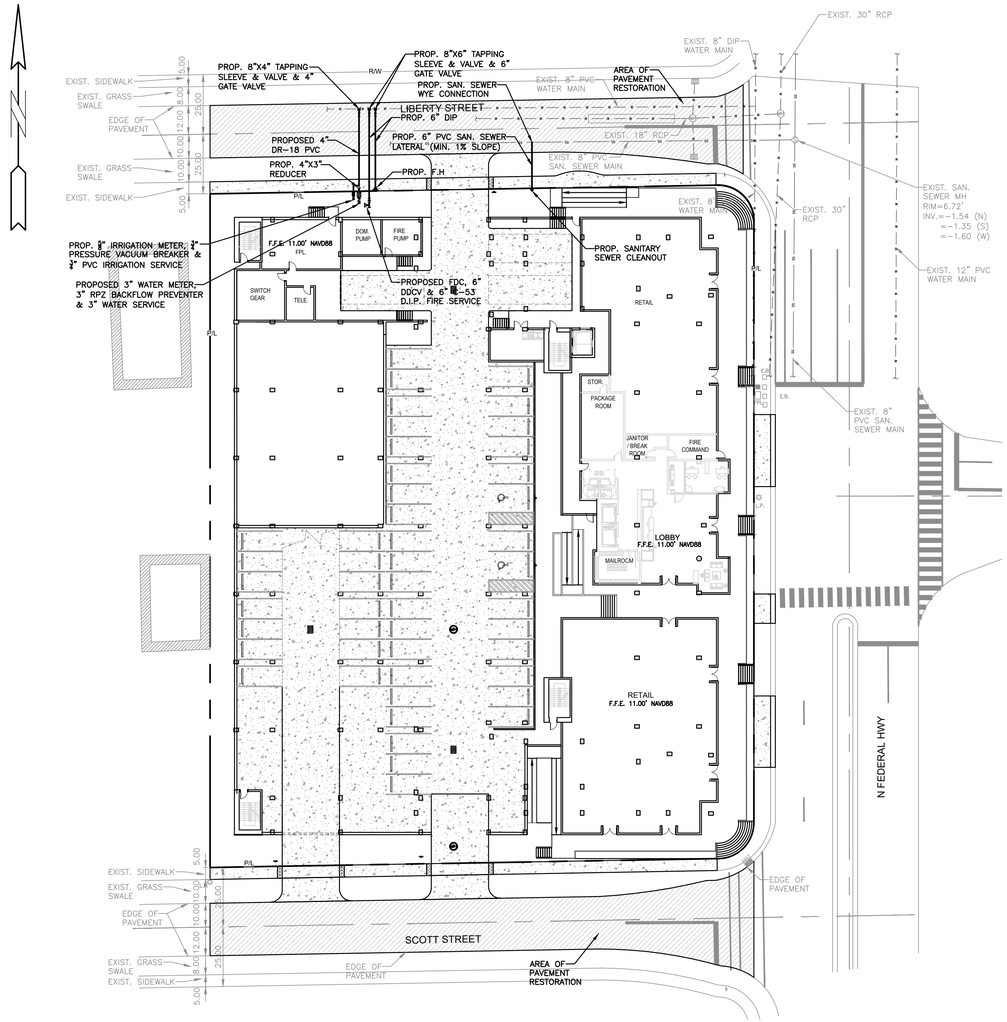
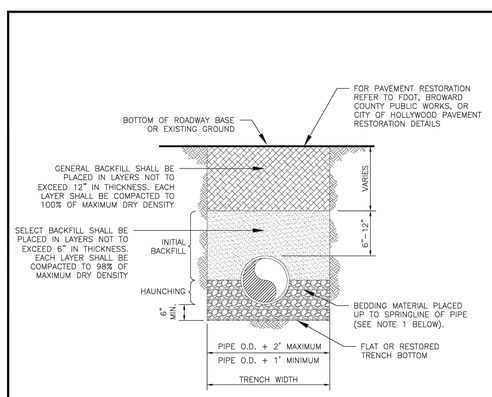
P.E.#:76036
DATE: 3/23/23
SCALE: 1"=30'
SHEET NO.: C5
5 OF 7
PROJECT NO.: 23-10

ALL ELEVATIONS ARE REFERENCED TO NAVD88 VERTICAL DATUM



LEGEND

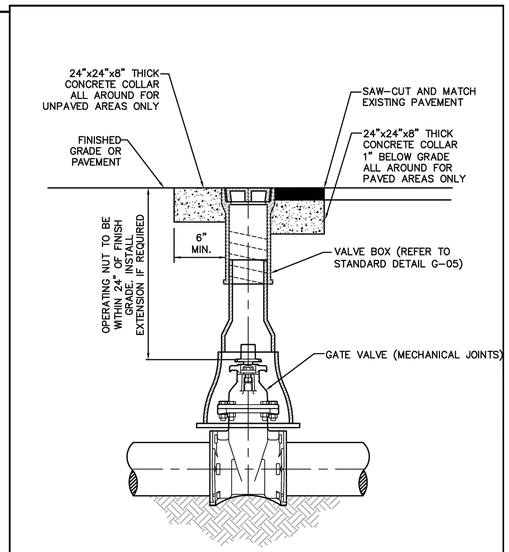
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- 8.90 PROPOSED GRADE
- 8.2' EXISTING ELEVATION
- PROPOSED CATCH BASIN
- EXISTING CATCH BASIN
- PROPOSED WATER METER
- EXISTING WATER METER
- EXISTING WATER VALVE
- N PROPOSED BFP DEVICE
- S EXISTING SAN. SEWER MH
- EXISTING FIRE HYDRANT



NOTES:

1. WHEN PIPE INSTALLATION IS ABOVE THE GROUND WATER TABLE ELEVATION, OR WHENEVER BEDDING COPPER PIPE UNDER ANY CONDITION, BEDDING MATERIAL SHALL BE CLEAN SANDY SOIL IF AVAILABLE WITHIN THE LIMITS OF CONSTRUCTION. IMPORTED BEDDING SHALL BE WELL GRADED, WASHED CRUSHED STONE (OR DRAINFIELD LIMEROCK). CRUSHED STONE SHALL CONSIST OF HARD, DURABLE, SUB-ANGULAR PARTICLES OF PROPER SIZE AND GRADATION, AND SHALL BE FREE FROM ORGANIC MATERIAL, WOOD, TRASH, SAND, LOAM, CLAY, EXCESS FINES, AND OTHER DELETERIOUS MATERIALS.
2. ALL BEDDING MATERIAL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY BEFORE ANY PIPE IS LAID. FOR ADDITIONAL MATERIAL SPECIFICATIONS REFER TO SPECIFICATION SECTION 02222, "EXCAVATION AND BACKFILL FOR UTILITIES".
3. DENSITY TESTING SHALL BE IN ACCORDANCE WITH AASHTO T-180 AND ASTM D-3017.
4. BACKFILL TO COMPLY WITH FDOT DESIGN STANDARD 125-8.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	PIPE LAYING CONDITION TYPICAL SECTION (P.V.C.)	DRAWING NO. G-03
APPROVED: XXX		



ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 06/08/2014
DRAWN: EAM	TYPICAL GATE VALVE AND VALVE BOX SETTING	DRAWING NO. G-07
APPROVED: XXX		

FLEXIBLE PAVEMENT RESTORATION NOTES:

1. THE ABOVE DETAILS APPLY ONLY TO ASPHALT PAVEMENT RESTORATION OVER UTILITY TRENCHES CUT WITHIN CITY OF HOLLYWOOD RIGHTS-OF-WAY. FOR PAVEMENT RESTORATION WITHIN BROWARD COUNTY OR FDOT RIGHTS-OF-WAY REFER TO THE CORRESPONDING DETAILS FOR THOSE AGENCIES.
2. LIMEROCK BASE MATERIAL SHALL HAVE A MINIMUM L.B.R. OF 100 AND A MINIMUM CARBONATE CONTENT OF 70%. REPLACED BASE MATERIAL OVER TRENCH SHALL BE A MINIMUM OF 12" THICK".
3. LIMEROCK BASE MATERIAL SHALL BE PLACED IN 12" MAXIMUM (LOOSE MEASUREMENT) THICKNESS LAYERS WITH EACH LAYER THOROUGHLY ROLLED OR TAMPED AND COMPACTED TO 100% OF MAXIMUM DENSITY, PER AASHTO T-180, PRIOR TO THE PLACEMENT OF THE SUCCEEDING LAYERS.
4. STABILIZED SUBGRADE MATERIAL SHALL BE GRANULAR AND SHALL HAVE A MINIMUM L.B.R. OF 40.
5. BACKFILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE PIPE LAYING CONDITION TYPICAL SECTIONS IN DETAILS G-02 AND G-03, AND THE SPECIFICATIONS, BUT TESTING WILL BEGIN 12" ABOVE THE INSTALLED FACILITY.
6. ALL EDGES AND JOINTS OF EXISTING ASPHALT PAVEMENT SHALL BE SAW CUT TO STRAIGHT LINES, PARALLEL TO OR PERPENDICULAR TO THE ROADWAY, PRIOR TO THE RESURFACING.
7. RESURFACING MATERIAL SHALL BE FDOT SUPERPAVE, AND SHALL BE APPLIED A MINIMUM OF TWO INCH IN THICKNESS.
8. MILL AND BUTT JOINT TO EXISTING PAVEMENT.
9. IF THE TRENCH IS FILLED TEMPORARILY, IT SHALL BE COVERED WITH A 2" ASPHALTIC CONCRETE PATCH TO KEEP THE FILL MATERIAL FROM RAVELING UNTIL REPLACED WITH A PERMANENT PATCH.
10. REFER TO SPECIFICATIONS FOR DETAILED PROCEDURES.
11. WHERE THE UTILITY TRENCH CROSSES EXISTING ASPHALT DRIVEWAYS, THE LIMEROCK BASE THICKNESS MAY BE A MINIMUM OF 6 INCHES THICK. REGARDLESS OF THE EXTENT OF IMPACT, THE ENTIRE DRIVEWAY SURFACE BETWEEN THE EDGE OF THE ROADWAY PAVEMENT AND PROPERTY LINE OR FRONT OF SIDEWALK SHALL BE OVERLAID USING 2-INCH THICK MINIMUM ASPHALTIC CONCRETE SURFACE COURSE WHERE INDICATED ON THE PLANS OR AS DIRECTED BY THE CITY/ENGINEER.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL	REVISED: 11/06/2017
DRAWN: EAM	FLEXIBLE PAVEMENT RESTORATION NOTES	DRAWING NO. G-12
APPROVED: XXX		

WILFORD ZEPHYR LICENSE No 76036 STATE OF FLORIDA PROFESSIONAL ENGINEER
6-30-23

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WATER & SEWER PLAN & DETAILS

SCALE: N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION

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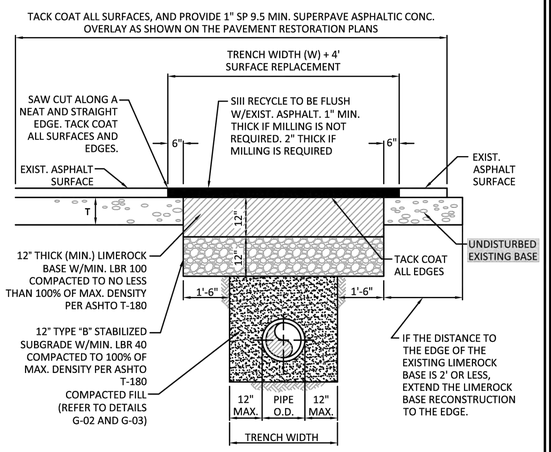
P.E.#:76036

DATE: 3/23/23

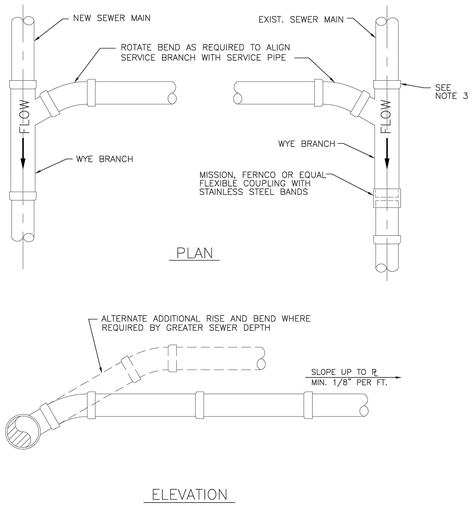
SCALE: N.T.S.

SHEET NO.: C6
6 OF 7

PROJECT NO.: 23-10



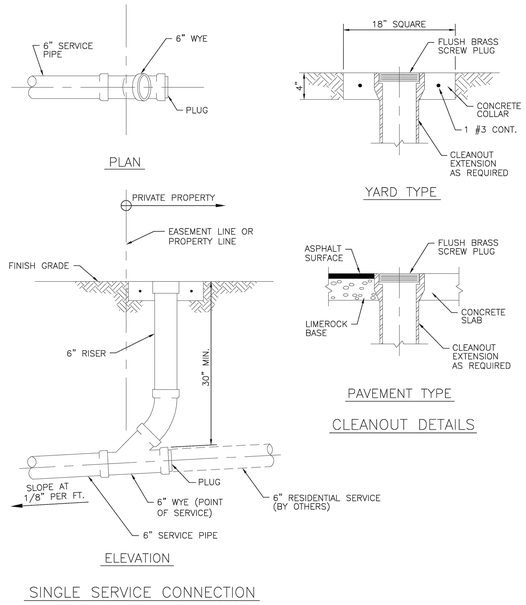
ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL		REVISED: 11/06/2017
DRAWN: EAM	FLEXIBLE PAVEMENT RESTORATION FOR TRENCHES CUT PERPENDICULAR AND PARALLEL TO THE ROADWAY		DRAWING NO. G-12.1
APPROVED: XXX			



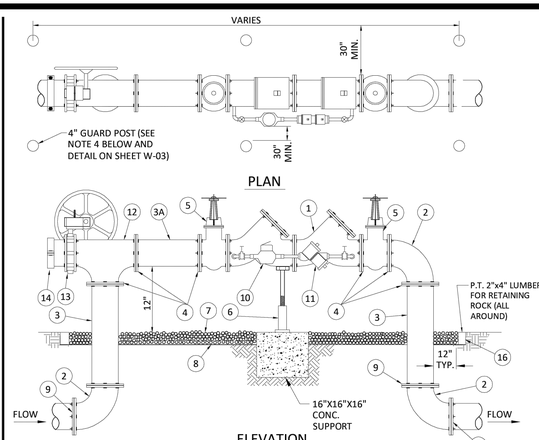
NOTES:

1. SINGLE SERVICE CONNECTIONS SHALL USE 6" PIPE AND FITTINGS.
2. USE RISER CONNECTIONS WHERE INVERT OF SEWER IS GREATER THAN 7'-0" DEEP.
3. WHERE BELL OF WYE AND SPIGOT OF EXISTING MAIN ARE NOT COMPATIBLE, USE A SECOND FLEXIBLE COUPLING.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL		REVISED: 06/08/2014
DRAWN: EAM	WYE BRANCH CONNECTION		DRAWING NO. S-09
APPROVED: XXX			



ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL		REVISED: 06/08/2014
DRAWN: EAM	SEWER SERVICE CONNECTION AND CLEANOUT AT PROPERTY LINE		DRAWING NO. S-12
APPROVED: XXX			

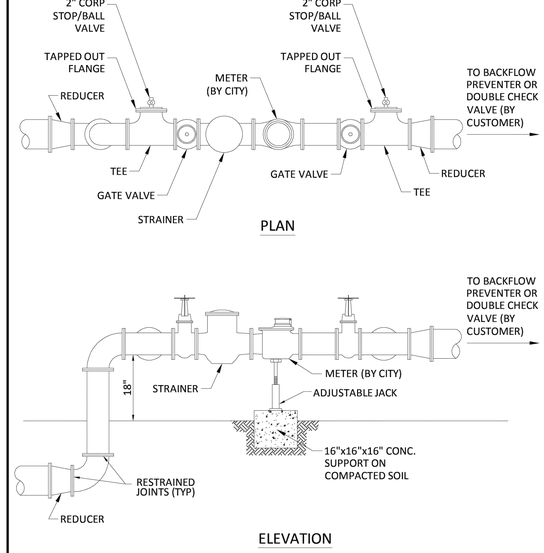


MATERIALS					
ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION
1	1	4",6",8" VALVE,DOUBLE CHECK	8	N/A	PLASTIC LINER/WEED STOP (5 MILS)
2	4	4",6",8" BEND-90°	9	4	RESTRAINED JOINTS
3	2	4",6",8" D.I.P. SPOOL PIECE	10	1	LOW FLOW METER
3A	1	4",6",8" D.I.P. SPOOL PIECE(24" LONG)	11	1	VALVE, BYPASS DOUBLE CHECK
4	10	4",6",8" FLANGE, D.I.P.	12	1	4", 6", 8" TEE
5	2	4",6",8" GATE VALVE (SEE NOTE 6)	13	1	4", 6" 8" BUTTERFLY VALVE (SUPERVISED CLOSED), CHAINED AND LOCKED
6	1	SCREW JACK/ANCHORED			
7	N/A	PEA GRAVEL (4" DEEP)	14	1	4", 6", 8" CAP

NOTES:

1. FIELD ADJUST AND CUT ITEM 3 TO THE PROPER LENGTH.
2. ALL PIPING SHALL BE D.I.P. CL 50/52 AS APPLICABLE TO MINIMUM STANDARDS.
3. ALL LOW FLOW METER PIPING SHALL BE BRASS OR COPPER.
4. PROTECTIVE 4" GALV. GUARD POSTS SHALL BE SPACED EVENLY APART AS SHOWN ABOVE OR IN ACCORDANCE WITH INSPECTOR'S DIRECTIONS.
5. MAY USE 45° BENDS (SEE DETAIL W-05) WHEN WORKING AREA IS NOT LIMITED, AS DIRECTED BY CITY.
6. GATE VALVES SHALL BE CHAINED AND LOCKED TOGETHER TO PREVENT TAMPERING

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL		REVISED: 06/08/2014
DRAWN: EAM	TYPICAL 4", 6" AND 8" DOUBLE CHECK DETECTOR FOR FIRE SPRINKLER SERVICE W/B.V. CONNECTION (90° BENDS)		DRAWING NO. W-04
APPROVED: XXX			



NOTES:

1. THE WATER METER AND STRAINER IS PROVIDED BY THE CITY OF HOLLYWOOD.
2. THE CITY'S RESPONSIBILITY ENDS AT THE REDUCER PRECEDING THE BACKFLOW PREVENTER.
3. TAPPED OUT FLANGE SHOULD MATCH SIZE OF TEE AND STANDARD 2" CORP STOP OR BALL VALVE.

ISSUED: 03/01/1994	DEPARTMENT OF PUBLIC UTILITIES STANDARD DETAIL		REVISED: 06/08/2014
DRAWN: EAM	TYPICAL METER 3" DIAMETER AND LARGER		DRAWING NO. W-11
APPROVED: XXX			

WILFORD ZEPHYR LICENSE No 76036 STATE OF FLORIDA PROFESSIONAL ENGINEER

6-30-23

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WATER & SEWER DETAILS

SCALE: N.T.S.

REVISIONS

NO.	DATE	DESCRIPTION

ZEPHYR ENGINEERING
WILFORD ZEPHYR, P.E.
HOLLYWOOD, FL
(786)302-7693
wzephyreng@gmail.com
CA#-31158

2100 N. FEDERAL HWY
2100 N. FEDERAL HWY
HOLLYWOOD, FL 33020

P.E.#:76036

DATE: 3/23/23

SCALE: N.T.S.

SHEET NO.: C7
7 OF 7

PROJECT NO.: 23-10

ZEPHYR ENGINEERING
A Civil Engineering Firm
Tel: (786)302-7693 • Email: wilford@zephyrengineeringfl.com

June 30, 2023

Drainage Calculations for 2100 N. Federal Highway Hollywood, FL 33020

PEAK STAGES

STORM EVENT	PRE-DEVELOPMENT	POST-DEVELOPMENT
5 Year - 1 Hour	N/A	5.00' NAVD88
25 YEAR - 3 DAY	8.28' NAVD88	8.18' NAVD88
100 YEAR - 3 DAY	8.63' NAVD88	8.61' NAVD88

Prepared by:

6-30-23

_____
Wilford Zephyr, P.E., LEED AP, CFM

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Project Name: **2100 N Federal Hwy** **Date:** **06/30/23**
Project Address: **2100 N Federal Hwy** **Designed by:**
Hollywood, FL 33020 **Wilford Zephyr, P.E.**
ZE Project #: 23-10

Post Development

All Elevations are referenced to NAVD88 vertical datum

Site Data

Project Area:	1.48	AC	
Pavement Area:	0.86	AC	
Building Area:	0.51	AC	
Grass Area (Pervious):	0.11	AC	
Lake Area:	0	AC	
Total Pervious Area:	0.11	AC	7.43%
Total Impervious Area:	1.37	AC	92.57%

Design Parameters

Water Table Elevation:	1.50 ft
Exist. Crown of Road Elev.:	7.05 ft
Average Finished Grades:	8.50 ft
Prop. Finished Floor Elev.:	11.00 ft

C Factor

Pervious:	0.6
Impervious:	0.9

C Factor (weighted) = $\frac{0.11\ (0.60) + 0.86\ (\ .90)\ =}{0.97}$ 0.87

Storm Event Information

3 year, 1 hour event:	2.5 inches (for retention/detention)
25 year, 24 hour event:	10.50 inches
25 year, 72 hour event:	14.27 inches (Finished Floor Elevation)
100 year, 24 hour event:	13 inches
100 year, 72 hour event:	17.67 inches (Finished Floor Elevation)

Soil Storage (S) & Curve Number (CN)

All Elevations are referenced to NAVD88

Cumulative Water Storage (CWS)

Design Water Table (WT) = 1.50 ft

Average Finished Grade = 8.50 ft

Average Depth to Water Table (DWT) = 7.00 ft

Cumulative Water Storage (CWS) = 6.75 IN
(from table below)

Cumulative Soil Moisture Storage (flatwoods soil)

DWT	NAS	DAS
1.0 '	0.60 ''	0.45 ''
2.0 '	2.50 ''	1.88 ''
3.0 '	5.40 ''	4.05 ''
4.0 '	9.00 ''	6.75 ''

DWT=Depth to Water Table
NAS=Natural Available Storage
DAS=Developed Available Storage

Soil Storage (S in inches)

S = CWS X (percentage of total pervious area) = 0.50

Curve Number (CN)

CN = 1000/(S+10) = 95.22

Water Quality Retention/Detention & Pretreatment Calculations

A. For a wet detention system, size system for highes ot first inch of runoff over the entire site or 2.5" times the % impervious area
B. For a dry detention system, size system for 75% of the volume required for a wet detention system.
C. For a retention system, size system for 50% of the volume required for a wet detention system.

1/2" Pretreatment

0.5" X 1.48 acres = 0.74 acre-inches (0.062 acre-ft)

1 IN Over Entire Site

1" X 1.48 acres = 1.48 acre-inches (0.123 acre-ft)

2.5 INCHES Times Percent Impervious

Total project area - roof area = 1.48 acres - 0.51 acres = 0.97 acres
0.97 acres - 0.11 acres (pervious area) = 0.86 acres
0.86 acres / 0.97 acres X 100% = 88.66% impervious
2.5" X 0.8866 = 2.22" to be treated
2.22" X 1.48 acres = 3.29 acre-inches (0.274 acre-feet)

0.274 acre-ft of storage required for water quality.
Water quality storage provided in existing dry retention area and proposed exfiltration trench system.

Runoff (Q) & Runoff Volume (V) Calculations

All Elevations are referenced to NAVD88

$Q = (P-0.2S)^2 / (P + 0.8S)$ $V = Q \times A$ (ft/ 12 in)

Q = direct runoff (inches)
P = rainfall (inches)
S = soil storage (inches)
A = site area (acre)
V = Runoff Volume (ac-ft)

Finished Floor Elevation

$P_{1\ day}$=	100 year, 24 hour event:		13	(inches)
$P_{3\ day}$=	100 year, 72 hour event:		17.67	(inches)
		S=	0.50	(inches)
		A=	1.48	(acre)

Q =	17.08	(inches)
V =	2.11	(ac-ft)

Corresponding Stage = 8.61 ft
Set minimum finished floor elevation at 11.00' NAVD88.

Perimeter Control Elevation

$P_{1\ day}$=	25 year, 24 hour event:		10.5	(inches)	
$P_{3\ day}$=	25 year, 72 hour event:		14.27	(inches)	
		S=	0.50	(inches)	(see "Soil Storage" sheet
		A=	1.48	(acre)	for calculating "S")

Q =	13.68	(inches)
V =	1.69	(ac-ft)

Corresponding Stage = 8.18 ft

Runoff (Q) & Runoff Volume (V) Calculations

All Elevations are referenced to NAVD88

$Q = (P-0.2S)^2 / (P + 0.8S)$ $V = Q \times A$ (ft/ 12 in)

Q = direct runoff (inches)
P = rainfall (inches)
S = soil storage (inches)
A = site area (acre)
V = Runoff Volume (ac-ft)

5 Year - 1 Hour (Lowest Catch Basin Elevation)

P=	5 year, 1 hour event:	3.28	(inches)
	S=	0.50	(inches)
	A=	1.48	(acre)

Q =	2.75	(inches)
V =	0.34	(ac-ft)

Corresponding Stage = 5.00 ft

Set minimum lowest catch basin at elevation at 6.50' NAVD88.

Stage Storage

All Elevations are referenced to NAVD88

Total Surface Storage Area = 0.96 AC

	(0.099 AC) *(Lin. 6.25'-6.75')*	*(0.86 AC)* *(Lin. from 6.50'-7.25')*		
Stage	***Surface Storage* (Landscape)**	***Surface Storage* (Pavement)**	***Trench Storage***	***Total***
6.00 '	0.00 AC-FT	0.00 AC-FT	0.000 AC-FT	0.00 AC-FT
6.50 '	0.01 AC-FT	0.00 AC-FT	0.404 AC-FT	0.42 AC-FT
7.00 '	0.05 AC-FT	0.22 AC-FT	0.404 AC-FT	0.67 AC-FT
7.50 '	0.10 AC-FT	0.54 AC-FT	0.404 AC-FT	1.04 AC-FT
8.00 '	0.15 AC-FT	0.97 AC-FT	0.404 AC-FT	1.52 AC-FT
8.50 '	0.20 AC-FT	1.40 AC-FT	0.404 AC-FT	2.00 AC-FT
9.00 '	0.25 AC-FT	1.83 AC-FT	0.404 AC-FT	2.48 AC-FT

*total landscape area=0.11 AC. 10% reduction applied (-0.011 AC) due to loss of stormwater storage from tree trunks.

Exfiltration Trench Length Calculation

All elevations are referenced to NAVD88 vertical datum.

Calculating H_2

Design Water Table (WT) = 1.50 ft
Lowest Catch Basin Elevation = 6.50 ft
Bottom of Exfiltration Trench = 1.00 ft
Top of Exfiltration Trench = 5.00 ft
$EL_{inv.}$ = N/A

H_2 = 5.00 ft

Calculating Exfiltration Trench Length

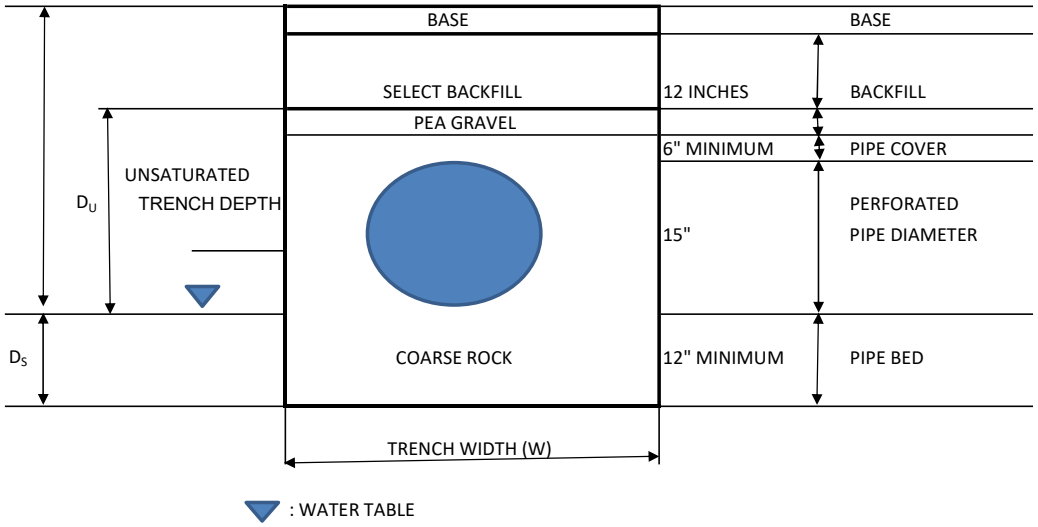
$EL_{inv.}$ = invert elevation of lowest weir/bleeder allowing discharge from trench
L_R = length of trench required (ft)
L_P = length of trench provided (ft)
$V_{exft.}$ = volume in exfiltration trench (ac-in)
FS = factor of safety
K =hydraulic conductivity (cfs/ft^2 - ft head)
H_2 = head on saturated surface (ft)
W = trench width (ft)
D_U = unsaturated trench depth (ft)
D_S = saturated trench depth

$$L_R = \frac{FS[(\%WQ)(V_{wq}) + V_{add}]}{K[H_2W + 2H_2D_U - D_U^2 + 2H_2D_S] + (1.39 \times 10^{-4})(WD_U)}$$

V_{wq} =	3.29	(0.274 ac-ft)
V_{add} =	1.56	(0.130 ac-ft)
%WQ =	0.5	
FS =	2	
K =	0.000345	average
H_2 =	5	
W =	8	
D_U =	3.5	
D_S =	0.5	

L_R = 235.09 ' of exfiltration trench required.

L_P = 236.00' of exfiltration trench provided.



Project Name: 2100 N Federal Hwy
Project Address: 2100 N Federal Hwy
Hollywood, FL 33020
ZE Project #: 23-10

Date: 06/30/23
Designed by:
Wilford Zephyr, P.E.

Pre Development

All Elevations are referenced to NAVD88 vertical datum

Site Data

Project Area:	1.48	AC	
Pavement Area:	1.12	AC	
Building Area:	0.28	AC	
Grass Area (Pervious):	0.08	AC	
Lake Area:	0	AC	
Total Pervious Area:	0.08	AC	5.41%
Total Impervious Area:	1.4	AC	94.59%

Design Parameters

Water Table Elevation:	1.50 ft
Exist. Crown of Road Elev.:	7.05 ft
Average Finished Grades:	8.10 ft
Prop. Finished Floor Elev.:	7.35 ft

C Factor

Pervious:	0.6
Impervious:	0.9

C Factor (weighted) = $\frac{0.08\ (0.60) + 1.12\ (\ .90)}{1.2} =$ 0.88

Storm Event Information

3 year, 1 hour event:	2.5 inches (for retention/detention)
25 year, 24 hour event:	10.50 inches
25 year, 72 hour event:	14.27 inches (Finished Floor Elevation)
100 year, 24 hour event:	13 inches
100 year, 72 hour event:	17.67 inches (Finished Floor Elevation)

Soil Storage (S) & Curve Number (CN)

All Elevations are referenced to NAVD88

Cumulative Water Storage (CWS)

Design Water Table (WT) = 1.50 ft

Average Finished Grade = 8.10 ft

Average Depth to Water Table (DWT) = 6.60 ft

Cumulative Water Storage (CWS) = 6.75 IN
(from table below)

Cumulative Soil Moisture Storage (flatwoods soil)

DWT	NAS	DAS
1.0 '	0.60 ''	0.45 ''
2.0 '	2.50 ''	1.88 ''
3.0 '	5.40 ''	4.05 ''
4.0 '	9.00 ''	6.75 ''

DWT=Depth to Water Table
NAS=Natural Available Storage
DAS=Developed Available Storage

Soil Storage (S in inches)

S = CWS X (percentage of total pervious area) = 0.36

Curve Number (CN)

CN = 1000/(S+10) = 96.48

Runoff (Q) & Runoff Volume (V) Calculations

All Elevations are referenced to NAVD88

$Q = (P-0.2S)^2 / (P + 0.8S)$ $V = Q \times A$ (ft/ 12 in)

Q = direct runoff (inches)
P = rainfall (inches)
S = soil storage (inches)
A = site area (acre)
V = Runoff Volume (ac-ft)

Finished Floor Elevation

$P_{1\ day}$=	100 year, 24 hour event:		13	(inches)
$P_{3\ day}$=	100 year, 72 hour event:		17.67	(inches)
		S=	0.36	(inches)
		A=	1.48	(acre)

Q =	17.24	(inches)
V =	2.13	(ac-ft)

Corresponding Stage = 8.63 ft
Set minimum finished floor elevation at 11.00' NAVD88.

Perimeter Control Elevation

$P_{1\ day}$=	25 year, 24 hour event:		10.5	(inches)	
$P_{3\ day}$=	25 year, 72 hour event:		14.27	(inches)	
		S=	0.36	(inches)	(see "Soil Storage" sheet
		A=	1.48	(acre)	for calculating "S")

Q =	13.84	(inches)
V =	1.71	(ac-ft)

Corresponding Stage = 8.28 ft

Stage Storage

All Elevations are referenced to NAVD88

Total Surface Storage Area = 1.19 AC

	(0.072 AC) *(Lin. 6.00'-6.75')* ***Surface Storage***	*(1.12 AC)* *(Lin. from 6.50'-7.25')* ***Surface Storage***	***Trench***	
Stage	**(Landscape)**	**(Pavement)**	***Storage***	***Total***
6.00 '	0.00 AC-FT	0.00 AC-FT	0.000 AC-FT	0.00 AC-FT
6.50 '	0.02 AC-FT	0.00 AC-FT	0.000 AC-FT	0.02 AC-FT
7.00 '	0.05 AC-FT	0.28 AC-FT	0.000 AC-FT	0.33 AC-FT
7.50 '	0.08 AC-FT	0.70 AC-FT	0.000 AC-FT	0.78 AC-FT
8.00 '	0.12 AC-FT	1.26 AC-FT	0.000 AC-FT	1.38 AC-FT
8.50 '	0.15 AC-FT	1.82 AC-FT	0.000 AC-FT	1.97 AC-FT
9.00 '	0.19 AC-FT	2.38 AC-FT	0.000 AC-FT	2.57 AC-FT

*total landscape area=0.08 AC. 10% reduction applied (-0.008 AC) due to loss of stormwater storage from tree trunks.

MEMORANDUM

To: Rick Mitinger, P.E.

From: Karl Peterson, P.E.

Date: April 8, 2023

Subject: 2100 N. Federal Highway
Traffic Impact Study Methodology

2100 N. Federal Highway is a proposed mixed-use development (residential and retail) to be located on the west side of N. Federal Highway (US 1) between Liberty Street and Scott Street in Hollywood, Broward County, Florida. The proposed development program consists of 202 multifamily dwelling units in a high-rise format (thirteen stories) and 10,911 square feet of retail space on the ground floor. Vehicular access to the site will be provided by two (2) driveways on Scott Street. The buildout year is projected to be 2026. A preliminary site plan is presented in Attachment A. The following is the traffic study methodology for this proposed development.

- The trip generation analysis will be based upon the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11th Edition)*. A preliminary estimate of project traffic is presented below:

Table 1
2100 N. Federal Highway
Trip Generation Summary
Hollywood, Florida

Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Proposed								
Residential - (MF - High Rise)	202 DU	917	19	36	55	36	29	65
Retail (<40k)	10,911 SF	594	16	10	26	36	36	72
Total:		**1,511**	**35**	**46**	**81**	**72**	**65**	**137**

Source: KBP Consulting, Inc., April 2023.
Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition).

- The trip distribution will be based upon the existing nearby land uses, the prevailing traffic patterns within the study area, and transportation network in the vicinity of the project site.

- The subject traffic study will evaluate the following intersections during the typical AM and PM peak periods:

- N. Federal Highway and Sheridan Street (signalized)
- N. Federal Highway and Liberty Street (unsignalized)
- N. Federal Highway and Shenandoah Street (signalized)
- N. Federal Highway and Scott Street (unsignalized)
- N. Federal Highway and Harding Street (signalized)
- N. 19th Avenue and Liberty Street (unsignalized)
- N. 19th Avenue and Scott Street (unsignalized)
- Scott Street and Future Driveway Locations

These intersection locations are presented graphically in Attachment B.

- Traffic counts will be performed at the study intersections on a typical weekday (while Broward County schools are in session) during the AM peak period (7:00 AM to 9:00 AM) and the PM peak period (4:00 PM to 6:00 PM).

- Traffic counts will be adjusted to reflect average peak season conditions based upon the most recent available FDOT adjustment factors.

- A growth factor will be applied to the traffic counts to reflect future traffic conditions at project build-out. The growth factor will be based upon historical traffic data available for the area near the project site. A minimum annual growth rate of 1.0% will be applied.

- Traffic analysis figures will be prepared for the following trip scenarios for each of the intersections analyzed:

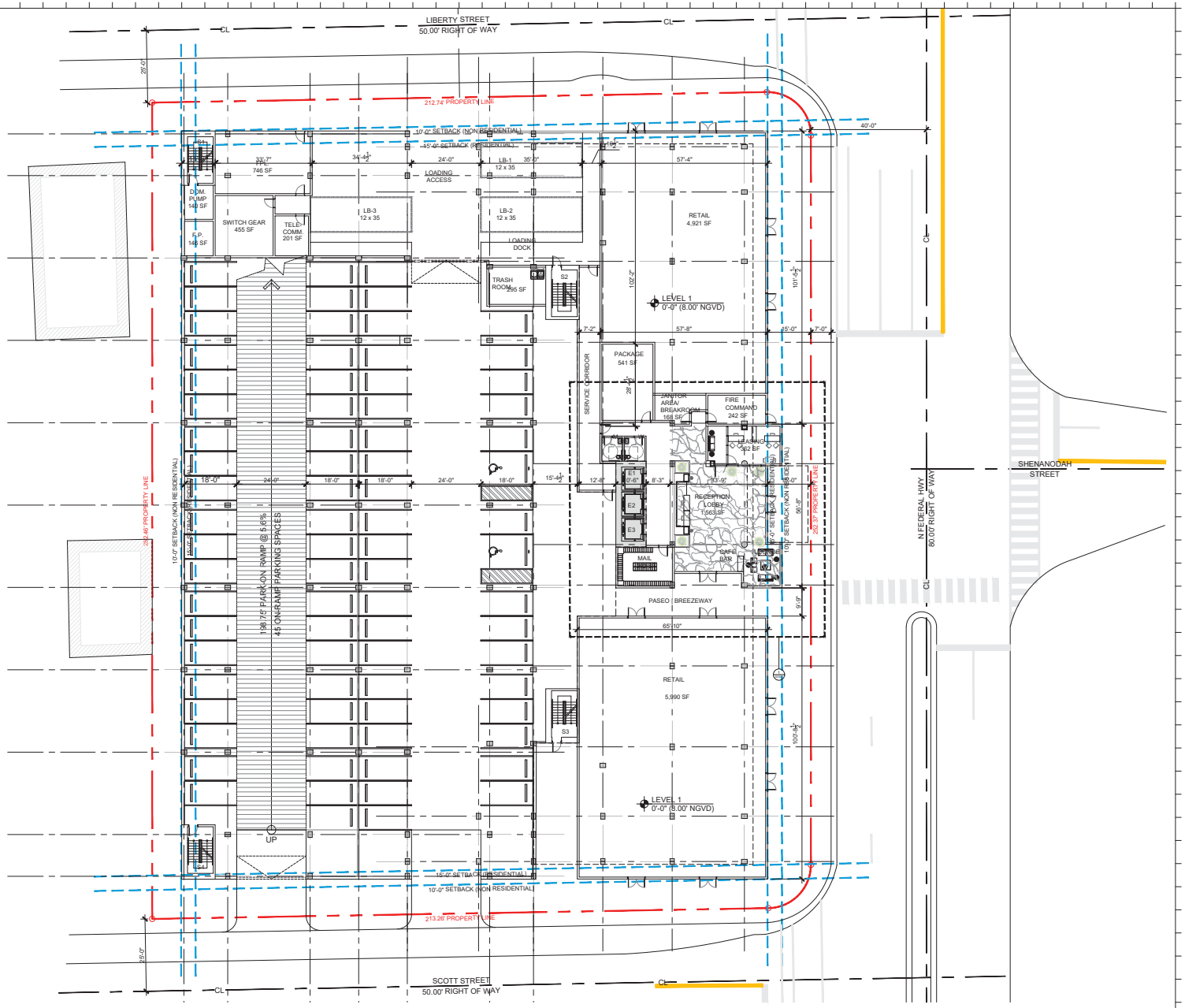
  - Existing traffic
  - Proposed project traffic distribution
  - Future background (w/out project traffic) conditions for buildout year
  - Future total (with project traffic) conditions for buildout year

- Intersection analyses will be conducted using the Synchro software for existing conditions, future conditions without the project, and future conditions with the proposed project in place.

- All traffic data obtained and supporting traffic analysis information for this project will be included in the Appendix of the traffic study.

Attachment A

Preliminary Site Plan



1 PROPOSED LEVEL 1
SCALE 1/16" = 1'-0"

Rev.	Date	Rev.	Date

2100 N FEDERAL HWY

2100 N Federal Highway
Hollywood, FL, 33020

Owner:
Name BARDI VP LLC
Address 100 SE 2nd St, Suite3400
Address Miami, FL, 33131
Tel: 305-915-7737
Email thestarlifegroup@gmail.com

Consultant:
Name
Address
Address
Tel:
Email

Consultant:
Name
Address
Address
Tel:
Email

Consultant:
Name
Address
Address
Tel:
Email

Architect:
Kobi Karp Architecture and Interior Design, Inc.
571 NW 28th Street
Miami, Florida 33127 USA
Tel: +1(305) 573 1818
Fax: +1(305) 573 3766

KOBI KARP
Lic. # AR0012578

PROPOSED LEVEL 1
FLOOR PLAN

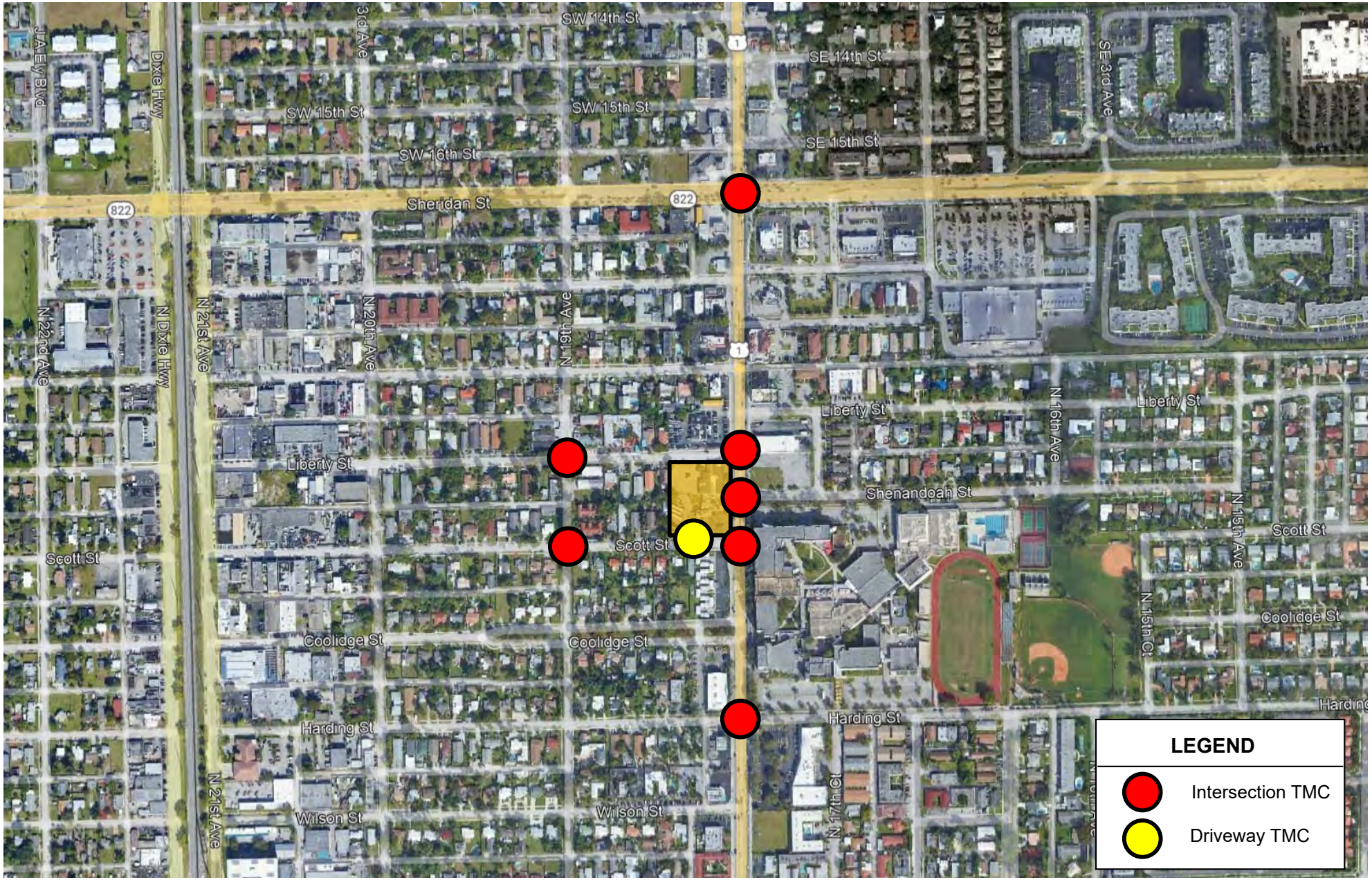
Date	--	Sheet No.	A3.00
Scale			
Project	2302		

Attachment B

Traffic Count Locations

Attachment B

2100 N. Federal Highway – Data Collection Sites



ZEPHYR ENGINEERING
A Civil Engineering Firm
Tel: (786)302-7693 • Email: wilford@zephyrengineeringfl.com

June 30, 2023

FIRE FLOW CALCULATIONS
New Mixed-Use Development

2100 N Federal Highway
Hollywood, FL 33020

These calculations are for a ten-story building. The total area of the three (3) largest floors is 48,066 SF.

Fire Flow Area = 48,066 SF

Per NFPA 18.4,Fire Flow Requirements, the required fire flow for Type II (222) construction for the above-referenced fire flow area is 2,250 GPM.

Per NFPA 18.4.5.3.2, a reduction in required fire flow of 75% shall be permitted when the building is protected throughout by an approved automatic sprinkler system. The resulting fire flow may not be less than 1000 gpm.

(2,250 GPM)X0.75=1,687.5 GPM (fire flow credit for automatic sprinkler system)

(2,250 GPM) – (1,687.5 GPM)=562.5 GPM

Per NFPA 18.4.5.3.2, The resulting fire flow may not be less than 1,000 GPM

Therefore, fire flow required=1,000 GPM

Prepared by:

6-30-23

Wilford Zephyr, P.E., LEED AP, CFM

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WILFORD ZEPHYR ON THE DATE ADJACENT TO THE SEAL.

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Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.
SECRETARY

June 7, 2023

THIS PRE-APPLICATION LETTER IS VALID UNTIL – June 7, 2024
THIS LETTER IS NOT A PERMIT APPROVAL

Wilford Zephyr
Zephyr Engineering
5451 Pierce Street, Hollywood, FL 33021

Dear Wilford Zephyr:
RE: Pre-application Review for **Category D Driveway,** Pre-application Meeting Date: **June 1, 2023**
Broward County - Hollywood; SR 5; Sec. # 86010000; MP: 3.9; Access Class - 06;
Posted Speed - 35; SIS - No; FDOT Ref. Project: 439991.1-Vandana Nagole-BIKE LANE/SIDEWALK

Request: Right-in/right-out access on the north side of Scott Street (side street).

SITE SPECIFIC INFORMATION
Project Name & Address: **2100 N Federal Hwy Mixed-Use – 2100 N Federal Highway**
Property Owner: **Bardi VP LLC**; Parcel Size: **1.48 Acres**
Development Size: **10,911 SF of retail and 202 residential dwelling units.**

REQUEST APPROVED/DISAPPROVED

This decision is based on your presentation of the facts, site plan and survey - please see the conditions and comments below. You may choose to review this concept further with the District Access Management Review Committee (AMRC).

Conditions:
- **Close existing driveways located on the west side of SR 5 / N. Federal Highway.**

Comments:
- All driveways not approved in this letter must be fully removed and the area restored.
- A Drainage Permit is required for any stormwater impacts within FDOT right-of-way (i.e. increased runoff or reduction of existing storage).
- The applicant shall donate property to the Department if right-of-way dedication is required to implement the improvements.
- Dimensions between driveways are measured from the near edge of pavement to near edge of pavement and for median openings are measured from centerline to centerline unless otherwise indicated.

The purpose of this Pre-Application letter is to document the conceptual review of the approximate location of driveway(s) to the State Highway System and to note required improvements, if any. This letter shall be submitted with any further reviews and for permitting. The Department's personnel shall review permit plans for compliance with this letter as well as current Department standards and/or specifications. Final design must consider the existing roadway profile and any impacts to the existing drainage system. **Note, this letter does not guarantee permit approval**. The permit may be denied based on the review of the submitted engineering plans. Be aware that any approved median openings may be modified (or closed) in the future, at the sole discretion of the Department. For right-of-way dedication requirements go to: https://osp.fdot.gov; click on Statewide Permit News; Scroll down to District 4; Scroll down to Additional Information and Examples and choose Right-of-way Donations/Dedications.
Please contact the Access Management Manager - Tel. # 954-777-4363 or e-mail: D4AccessManagement@dot.state.fl.us with any questions regarding the Pre-Approval Letter.

Sincerely,

Carina Harvey
District Access Management Manager

cc: Anthony Beecher
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