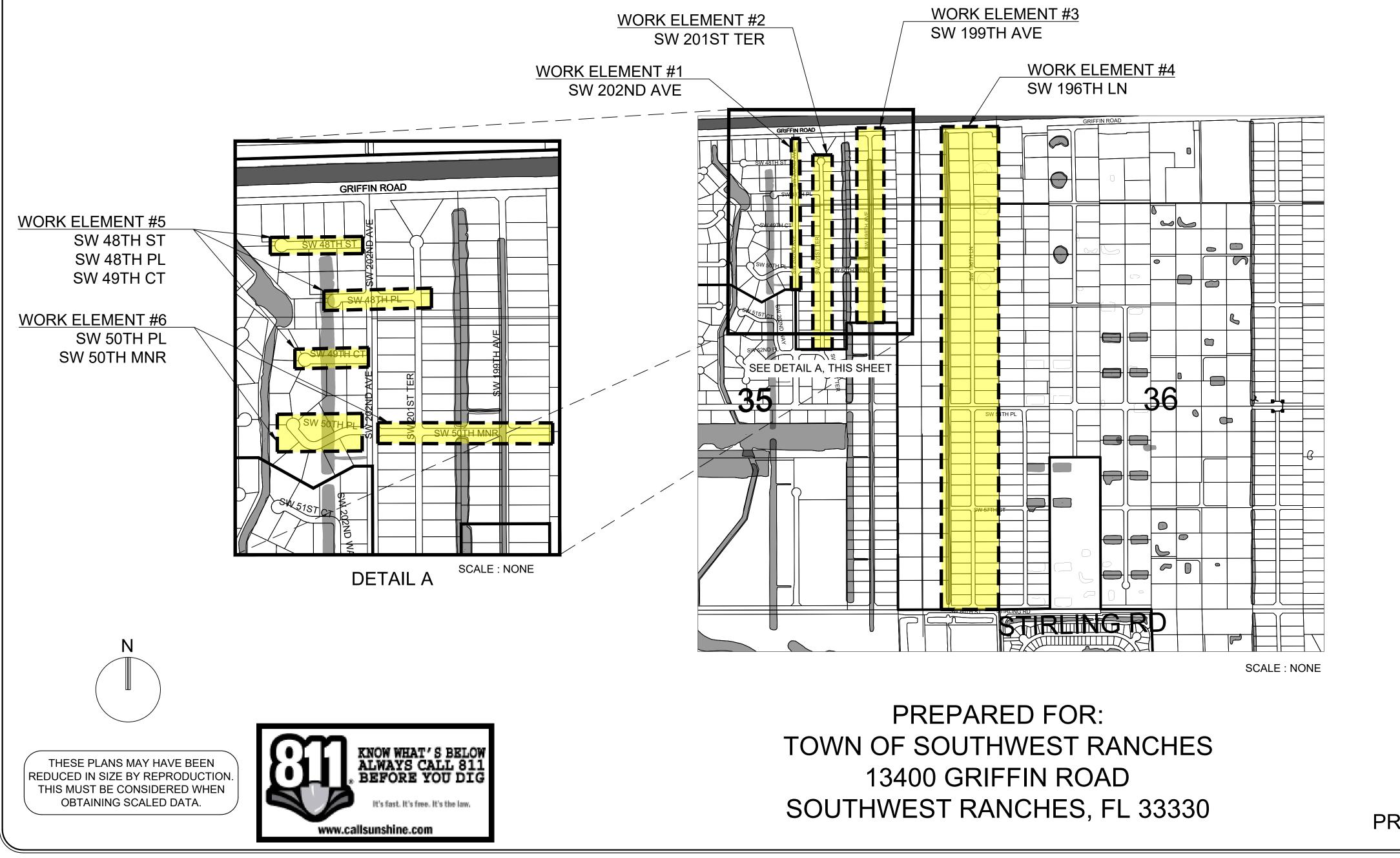
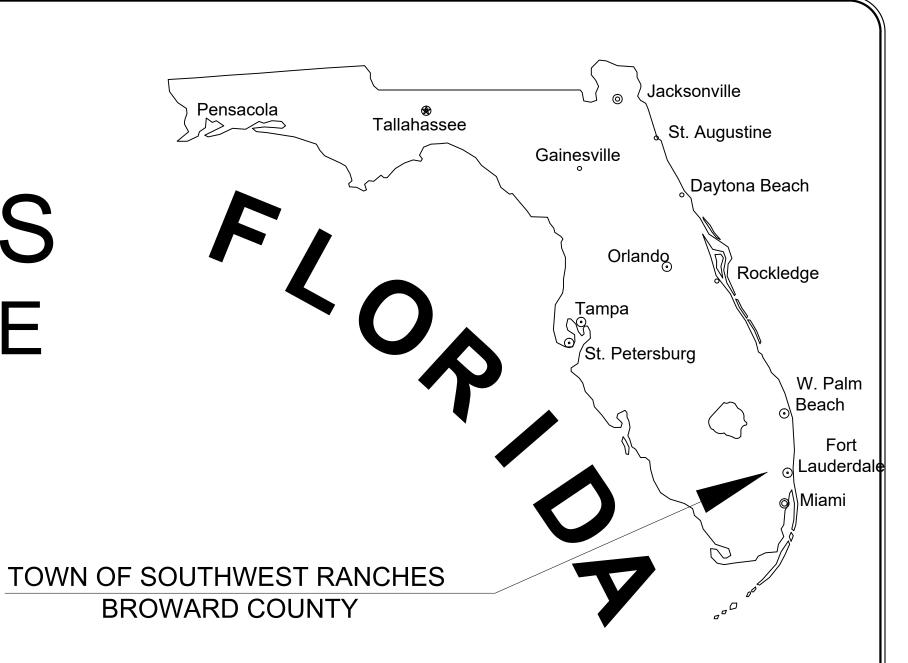
# **ENGINEERING PLANS** FOR THE TOWN OF SOUTHWEST RANCHES **TRANSPORTATION SURFACE & DRAINAGE** ON GOING REHABILITATION (TSDOR) TOWN OF SOUTHWEST RANCHES, **BROWARD COUNTY, FLORIDA**

SW 202ND AVE





Sheet



Key West

		INDEX OF SHEETS
t Sequence No.	Sheet Identification	Sheet Title
		COVER
1	GI-001	LEGEND
2	GI-002	CONSTRUCTION SPECIFICATIONS
3	GI-003	GENERAL NOTES
4	CP-101	ROADWAY IMPROVEMENT PLAN -
		WORK ELEMENT #1 (SW 202ND AVE)
5	CP-102	ROADWAY IMPROVEMENT PLAN -
		WORK ELEMENT #2 (SW 201ST TER)
6	CP-103	ROADWAY IMPROVEMENT PLAN - WORK ELEMENT #3
		(SW 199TH AVE)
7 - 8	CP-104 - CP-105	ROADWAY IMPROVEMENT PLAN - WORK ELEMENT #4
		(SW196TH LN)
9	CP-106	ROADWAY IMPROVEMENT PLAN - WORK ELEMENT #5
		(SW 48TH ST, SW 48TH PL, SW 49TH CT)
10	CP-107	ROADWAY IMPROVEMENT PLAN - WORK ELEMENT #6
		(SW 50TH PL, SW 50TH MNR)
11 - 15	CP-501 - CP-506	PAVING, GRADING, & DRAINAGE DETAILS

Existing	Il Symbols		<b>P</b>
	Description	Proposed	Existing
	Centerline & Baseline of Survey or Construction	<u>€</u> <u>₿</u>	Q B2
1	Building Access (ADA)		
	Building Access (NON-ADA)		
	Driveway Turnout Identification (Per FDOT Index 515) w/ Drive Width	A-1 24' WIDE	(A-1) 24' WIDE
	Sidewalk Curb Ramp (Per FDOT Index 304)	CR-A	(CR-A)
	Proposed Section Marker		
	Flag Pole	<b>b</b>	
		I	
	GPS Point		
	Hay Bales	<u> </u>	<u> </u>
Existing	Mail Box		5.00
СВ	Major Contour Elevation	5.00	
Св	Minor Contour Elevation	5.20	5.20
СВ	Parking Meter		
	Property Line	<u>₽</u>	P.
	Grade Elevation	14.48	
	Top Of Curb Elevation/Pavement Elevation	14.98	
	Soil Test Boring Hole	<u>14.48</u> ⊕-	
			· · · · · · · · · · · · · · · · · · ·
	Survey Bench Mark	€ B.M. NO. 112	E.M. NO. 112
C E G		<b></b>	Line Types
	Description	Proposed	Existing
	County Bound		
	Demolition Line		
	Easement Line		
	Property Line	_ · · · · · · · · ·	
<u> </u>	Limited Access Line/Non-Vehicular Access	· · · · · · · · · · · · · · · · · · ·	
	Railroad		
PS#	Right Of Way		
GT	Canal Or Drainage Ditch		
ST	Shore Line		
	Tree Line		
MW		C	C <sub>x</sub>
	Aerial Communication Line Underground Communication Line	C	C <sub>X</sub>
	Underground Communication Line Underground Storm Drain Line (Double Line 24" And Over	SD	
BFP (ŤvŤv)			SD <sub>x</sub>
	Underground Sanitary Line	SS	SS <sub>x</sub>
E	Aerial Electric Line	E	E <sub>x</sub>
ELEC	Underground Electric	E	— — E <sub>X</sub> —
	Underground Water Line	W	W <sub>x</sub>
	Underground Non Potable Water Line	NPW	NPW <sub>X</sub>
	Underground Force Main	FM	FM <sub>x</sub>
00	Gate		
	Chain Link Fence	— <u>X</u> — X —	XX
Ý ^	Wood Fence	O	
	Metal Rail Fence	—X X	—XX
<u></u>		SF	SF
<b>.</b>	Silt Fence Staked Turbidity Barrier	- JF	- JF
	Staked Turbidity Barrier		
- <del>0</del> -	Turbidity Barrier		
	Guard Rail		
	Roadway Centerline		
	2 - 4 Skip		
	3 - 9 Skip		
	6- 10 Skip		
	10 - 30 Skip		
	10 - 10 - 20 Skip		
	Curb		
	= = 		
	Curb And Gutter		
	Curb And Gutter Iscaping	Land	
	scaping	Land Proposed	Existing
	scaping Description	Proposed	
	scaping		Existing

2

D

1

С

В

А

		3
	Paving an	d Grading
Existing	Proposed	Description
		Flow Directional Arrow
	۰ ۲	Pavement Marking Arrows
1		Stop Bar
		Asphalt Pavement Overlay Area
		Milling And Resurfacing
		Concrete Driveway
		Paver Driveway
		Asphalt Driveway
	Dutuu	
Eviating	Drainage	
Existing	Proposed	Description
СВ	СВ	Catch Basin
CB	СВ	Yard Drain
СВ	Св	Exfiltration Trench
		Catch Basin With Filter Fabric Insert Curb Type 5
		Curb Type 6
		Pipe Culvert - Mitered End Section
		Pipe Culvert - Straight Endwall
ſ	C	Pipe Culvert - U - Type Endwall
E) G D S	CECDS	Manhole - Communication, Electric, Gas, Drn, San Sew
SW SHE HAR HA		Valve Box - Gas, San. Sew, Water, Non-Potable Water
$\sum_{i=1}^{n}$	Ĺ	22.5 degree Bend
	Ĺ	45 degree Bend
Ľ	Ľ	90 degree Bend
		Utility Crossing
· –	<u>`</u> -	Fire Hydrant
	•	Proposed Bacteriological Sampling Point
PS#	PS#	Pump Station
GT	GT	Grease Trap
ST	ST	Septic Tank
		Drainage Well
(MW)	(MW)	Monitoring Well
		Water Well
CO) BFP	CO) BFP	Sanitary Sewer Cleanout
	(N/N)	Back Flow Preventor
		Junction Box
E	E	Electric Handhole
	ELEC	Electric Meter
		Water Meter Gate Valve
		Guy wire Light Pole
0—0		Relocated Or Adjusted Light Pole
Ó	<u> </u>	Wood Power Pole
		Concrete Utility Pole
©	 ⊚	Traffic Signal Pole (Concrete, Wood, Metal)
		Pedestrian Signal Head (Pole Or Pedestal Mounted)
	-0-	Post Mounted Sign
		Street Sign
<u> </u>	 پي	High Mast Lighting Tower
		Controller Cabinet (Base Mounted)
		Controller Cabinet (Pole Mounted)
	←	Traffic Signal Head (Span Wire Mounted)
	-	Traffic Signal Head (Pedestal Mounted)
-	- A	Traffia Signal Hood (Most Arm Mounted)

Traffic Signal Head (Mast Arm Mounted)

Coordinate values shown on proposed improvements

are relative to the coordinate values indicated on the Right-of-Way, property corners or reference monument

	4		5
	Abbreviations	] [	Abbreviations Continued
General		P.G.L.	Profile Grade Line
AADT	Annual Average Daily Traffic	PI	Point Of Intersection
ABAN	Abandon	POC	Point On Curve
ADJ	Adjust	POT	Point On Tangent
APPROX.	Approximate	PRC	Point Of Reverse Curvature
A.C.	Asphalt Concrete	PROJ	Project
ACCM PIPE	Asphalt Coated Corrugated Metal Pipe	PROP	Proposed
BIT.	Bituminous	PT	Point Of Tangency
		1	
BC	Back Of Curb	PVC	Point Of Vertical Curvature
BD.	Bound	PVI	Point Of Vertical Intersection
BL	Baseline	PVT	Point Of Vertical Tangency
BLDG	Building	PVMT	Pavement
		1	
BM	Benchmark	PWW	Paved Water Way
ВО	By Others	R	Radius Of Curvature
BOS	Bottom Of Slope	R&D	Remove And Dispose
BR.	Bridge	RCP	Reinforced Concrete Pipe
	Corrugated Aluminum Pipe	1	· ·
САР		RD	Road
СВ	Catch Basin	RDWY	Roadway
CBCI	Catch Basin With Curb Inlet	REM	Remove
СС	Cement Concrete	RET	Retain
	Cement Concrete Masonry	1	
ССМ		RET WALL	Retaining Wall
CEM	Cement	ROW	Right Of Way
СІ	Curb Inlet	RR	Railroad
CIP	Cast Iron Pipe	R&R	Remove And Reset
	·	1	
CLF	Chain Link Fence	RT	Right
CL	Centerline	SHLD	Shoulder
CMP	Corrugated Metal Pipe	SMH	Sewer Manhole
CO.	County	ST	Street
		1	
CONC	Concrete	STA	Station
CONT	Continuous	SSD	Stopping Sight Distance
CONST	Construction	SW	Sidewalk
CR GR	Crown Grade	]   т	Tangent Distance Of Curve/Truck %
DHV	Design Hourly Volume	1	
		TAN	Tangent
DI	Drop Inlet	TEMP	Temporary
DIA	Diameter	ТС	Top Of Curb
DIP	Ductile Iron Pipe	TOS	Top Of Slope
DWY	Driveway		
		TSV	Tapping Sleeve and Valve
ELEV (OR EL.)	Elevation	ТҮР	Typical
EMB	Embankment	UP	Utility Pole
EOP	Edge Of Pavement	VAR	Varies
EXIST (OR EX.)	Existing		
, ,		VERT	Vertical
EXC	Excavation	VC	Vertical Curve
F&C	Frame And Cover	WCR	Wheel Chair Ramp
F&G	Frame And Grate	WIP	Wrought Iron Pipe
FDN.	Foundation		Water Meter/Water Main
FLDSTN	Fieldstone	WM	
		X-SECT	Cross Section
GAR	Garage		
GD	Ground		
GI	Gutter Inlet		
GIP	Galvanized Iron Pipe	1	
		1	
GRAN	Granite	{	
GRAV	Gravel		
GRD	Guard		
GV	Gate Valve	]	
		1	
HDW	Headwall	{	
HMA	Hot Mix Asphalt		
HOR	Horizontal		
HYD	Hydrant		
INV	Invert	1	
		1	
JCT	Junction	1	
L	Length Of Curve		
LB			
	Leach Basin		
IP		-	
LP	Light Pole		
LT	Light Pole Left		
	Light Pole		
LT	Light Pole Left		
LT MAX MB	Light Pole Left Maximum Mailbox		
LT MAX MB MEG	Light Pole Left Maximum Mailbox Match Existing Grade		
LT MAX MB MEG MH	Light PoleLeftMaximumMailboxMatch Existing GradeManhole		
LT MAX MB MEG MH MIN	Light Pole Left Maximum Mailbox Match Existing Grade		
LT MAX MB MEG MH	Light PoleLeftMaximumMailboxMatch Existing GradeManhole		
LT MAX MB MEG MH MIN	Light PoleLeftMaximumMailboxMatch Existing GradeManholeMinimum		
LT MAX MB MEG MH MIN NIC NO.	Light PoleLeftMaximumMailboxMatch Existing GradeManholeMinimumNot In ContractNumber		
LT MAX MB MEG MH MIN NIC NO. PC	Light PoleLeftMaximumMailboxMatch Existing GradeManholeMinimumNot In ContractNumberPoint Of Curvature		
LT MAX MB MEG MH MIN NIC NO.	Light PoleLeftMaximumMailboxMatch Existing GradeManholeMinimumNot In ContractNumber		

4

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N: 623025.4322

E: 850262.1786

301 East Atlantic Bou Pompano Beach, FL PH: (954) 788-34 Florida Certificate	ulevard 33060 00 e of			
Authorization # -	7928			
BID / CONTRACT NO. :				
REVISIONS NO. DESCRIPTION	DATE			
	SOUTHWEST RANCHES			
TRANSPORTATION				
SURFACE & DR	AINAGE			
SURFACE & DR/ ON-GOIN	AINAGE G			
SURFACE & DRA ON-GOING REHABILITAT	AINAGE G			
SURFACE & DR/ ON-GOIN	AINAGE G			
SURFACE & DRA ON-GOING REHABILITAT (TSDOR)	AINAGE G TION			
SURFACE & DRA ON-GOING REHABILITAT (TSDOR)	AINAGE G TION AS NOTED			
SURFACE & DRA ON-GOING REHABILITAT (TSDOR)	AINAGE G TION			
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## **CONSTRUCTION SPECIFICATIONS**

### Section 20 - General Specifications Paving Grading Drainage and Earthwork

20.General

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- 20.1. It is the intent of these specifications to describe the minimum be constructed in accordance with section 425 of the Standard acceptable technical requirements for the materials and workmanship for construction of site improvements for this project. Such improvements may generally include, but not to be limited to, clearing, grading, paving, removal of existing pavement storm drainage, water lines and sanitary sewers.
- 20.2. It is the intent that the Florida Department of Transportation (FDOT) "Standard Specifications for Road and Bridge Construction: (current edition) together with "Supplemental Specifications to the Standard Specifications for Road and Bridge Construction" (current edition), and the FDOT Roadway and Traffic Design Standards (current edition) be used where applicable for the various work, and that where such wording therein refers to the State of Florida and its Department of Transportation and personnel, such wording is intended to be replaced with the wording which would provide proper terminology; thereby making such "Standard Specifications for Road and Bridge Construction" together with the "FDOT Roadway and Traffic Design Standards" as the "Standard Specifications" for this project. If within a particular section, another section, article or paragraph is referred to, it shall be part of the Standard Specifications also. The Contractor shall abide by all local and State laws, regulations and building codes which have jurisdiction in the area.
- 20.3. The Contractor shall furnish all labor, materials and equipment and 22.4. Location of drainage structures shall govern, and pipe length materials perform all operations required to complete the construction of a paving have to be adjusted to accomplish construction as shown on these plans. and drainage system as shown on the plans, specified herein, or both. It 22.5. Distance and lengths shown on plans and profile drawings a is the intent to provide a complete and operating facility in accordance with these specifications and the construction drawings. The material and equipment shown or specified shall not be taken to exclude any 23. Asphalt Paving other incidentals necessary to complete the work.
- 20.4. All labor, materials, and methods of construction shall be in strict accordance with the plans and construction specifications and the minimum engineering and construction standards adopted by the unit of government which has jurisdiction and responsibility for the 23.2. Internal asphalt paving constructed on existing sandy soils shall construction. Where conflicts or omissions exist, the jurisdictional government Engineering Department's standards shall govern. Substitutions and deviations from plans and specifications shall be permitted only when written approval has been issued by the Engineer.
- installed by the Contractor under this contract, shall be guaranteed for a period of (I) one year from the date of final acceptance thereof, against defective materials, design and workmanship. Upon receipt of notice from the owner of failure of any part of the guaranteed equipment or materials, during the guarantee period, the affected part or materials 23.4. Limerock base shall be prepared, compacted and graded and sha shall be replaced promptly with new parts or materials by the contractor, at no expense to the owner. In the event the Contractor fails to make necessary replacement or repairs within (7) seven days after notification by the owner, the owner may accomplish the work at the expense of the contractor.
- 21.Earthwork
- 21.1. All areas within the project limits shall be cleared and grubbed prior to construction. This shall consist of the complete removal and disposal of all trees, brush, stumps, roots, grass, weeds, rubbish and all other obstructions resting on or protruding through the surface of the existing ground to a depth of 1'. All work shall be in accordance with section 110 of the Standard Specifications.
- 21.2. None of the existing limerock material from demolished pavement is to be incorporated in the new limerock base, unless noted in plans. The existing limerock material from demolished pavement may be incorporated into the stabilized subgrade / subbase, or stabilized shoulder.
- 21.3. Fill material shall be classified as A-I, A-3, or A-2-4 in accordance with AASHTO N--145 and shall be free from vegetation and organic material. Not more than 12% by weight of fill material shall pass the no. 200 sieve.
- 21.4. All fill material in areas not to be paved shall be compacted to 95% of the maximum density as determined by AASHTO T-99.
- 21.5. All material of construction shall be subject to inspection and testing to establish conformance with the specifications and suitably for the uses intended. The Contractor shall notify the Engineer at least 24 hours prior to the time he will be ready for an inspection or test. The Contractor shall follow Town and County inspection procedures. The Contractor shall not proceed with any phase of work dependent on an inspection or test of an earlier phase of work, prior to that test or inspection passing. 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 Engineer. Test results must include, but may not be limited to, densities for subgrade and limerock, utilities, excavation, asphalt gradation reports, concrete cylinders, etc.
- 21.6. When encountered, muck shall be completely removed from the center line (10) ten feet beyond the edge of pavement each side. All such material shall be replaced by approved granular fill.
- 21.7. When encountered within drainage swales, hardpan shall be removed to full depth for a width of (5) five feet at the invert and replaced with granular materials.
- 21.8. Ground adjacent to roadway/pavement having runoff shall be graded (2) two inches lower than the edge of pavement to allow for the placement of sod.
- 21.9. Site grading elevations shall be within 0.1' of the required elevation for non paved areas and all areas shall be graded to drain without ponding.
- 21.10. The Contractor shall perform all excavation, fill, embankment and grading to achieve the proposed plan grades including typical road sections, side slopes and canal sections. All work shall be in accordance with section 120 of the Standard Specifications. If fill material is required in excess of that generated by the excavation, the Contractor shall supply this material as required from off-site.
- 21.11. A 2" blanket of top soil shall be placed over all areas to be sodded or seeded and mulched within the project limits unless otherwise indicated

on the plans.

- 21.13.Sod shall be Bahia unless otherwise indicated on the plans, and shall be placed on the graded top soil and watered to insure satisfacto condition upon final acceptance of the project.
- 22.Drainage
- 22.1. Inlets all inlets shall be the type designated on the plans, and sh Specifications. All inlets and pipe shall be protected during construction to prevent siltation in the drainage systems by way of temporary plug and plywood or plastic covers over the inlets. The entire drainage system shall be cleaned of all debris prior to final acceptance.
- 22.2. Pipe specifications: the material type is shown on the drawings one of the following designations:
- RCP = reinforced concrete pipe, ASTM designation C--7 section 941 of the Standard Specifications.
- CMP = corrugated metal (aluminum) pipe, ASTM designation M-196.
- CMP (smooth lined) = corrugated metal aluminum pipe, (smoo • lined) ASTM designation M-196.
- SCP = slotted concrete pipe, sections 941 and 942, of t • Standard Specifications.
- PVC = polyvinyl chloride pipe. •
- PCMP = perforated cmp, section 945, of the Standard Specifications
- Corrugated High Density Polyethylene Pipe (HDPE) (12 Inches 60 Inches), shall meet the requirements of FDOT Specification section 948-2.3.

referenced to the inner walls of structures.

- 23.1. Where new asphalt meets existing asphalt, the existing asphalt sh be saw cut to provide a straight even line. Prior to removing curb gutter, the adjacent asphalt shall be saw cut to provide a straight even
- constructed with a 12" subgrade, compacted to a minimum density 100% maximum density as determined by AASHTO T-99. compacted subgrade shall be constructed in the limits shown on t plans. All subgrade shall have an LBR of 40 unless otherwise noted.
- 20.5. Guarantee all materials and equipment to be furnished and/or 23.3. Asphaltic concrete surface course shall be constructed to the limit shown on the plans. The surface course shall consist of the thickne and type asphaltic concrete as specified in the plans. All asphalt concrete shall be in accordance with sections 320, 327, 330, 334, 33 337, 337, 338, 339 and 341 of the Standard Specifications.
  - be in accordance with section 200 of the Standard Specifications. limerock shall be compacted to 98% per AASHTO T-180 and have r less than 70% of carbonates of calcium and magnesium unle otherwise designated. The Engineer shall inspect the completed bas course and the Contractor shall correct any deficiencies and clean t base course prior to the placement of the prime coat. A tack coat also be required if the Engineer finds that the primed base has becon excessively dirty or the prime coat has cured to the extent of losing bounding effect prior to placement of the asphaltic concrete surfacourse. The prime and tack coats shall be in accordance with section 300 of the Standard Specifications.
  - 23.5. Limerock base material shall be placed in maximum 6" lifts. Base greater than 6" shall be placed in two equal lifts. If, through field tes the Contractor can demonstrate that the compaction equipment ca achieve density for the full depth of a thicker lift, and if approved by engineer, the base may be constructed in successive courses of r more than 8 inches (200 mm) compacted thickness.
  - 23.6. Asphalt edges that are not curbed shall be saw cut to provide straight even line to the dimensions shown on plans.

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### **General Notes**

This construction project may or may not include all items 3.11. The contractor is to maintain existing signage during grading, drainage lines, water lines, or sanitary sewer lines. See plans for detailed project scope. Notes and specifications on this sheet refer to paving, grading, 3.12. The topographic survey included with this set of plans drainage, water, and sanitary sewer, and are intended for this projects scope of work and for reference purposes for other work items that may be required due to unforeseen existing conditions or required remedial work.

### **1. Specific Site Notes**

- 1.1. State in these notes refers to the State of Florida.
- 1.2. Existing topographic information in the plans is based on survey data and best available information. See project survey and notes on plan sheets regarding the source of the topographic information.

### 2. Applicable Codes

- 2.1. All construction and materials shall conform to the standards and specifications of the town, county, and all other jurisdictional, State and national codes where applicable.
- 2.2. In the event of a conflict between the general notes 3.13. The contractor shall be responsible for reading and and construction specifications in these plans, and the contract documents and specifications in the specification booklet, the contractor shall submit written request for clarification.
- 2.3. 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. and all State and jurisdictional safety and health regulations.
- 2.4. The contractor shall be required to comply with Federal, State, County, and Town laws, codes, and regulations

### 2.5. Trench safety act

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- 2.5.1. All trench excavation shall be performed in accordance with chapter 90-96 of the laws of Florida (the trench safety act).
- 2.5.2. All trench excavation in excess of 5 feet in depth shall be undertaken in accordance with O.S.H.A. standard 29 cfr. Section 1926.650 subpart p.
- 2.5.3. The contractor shall submit with his contract a completed, signed, and notarized copy of the trench safety act compliance statement. The identifying the cost of compliance with the applicable trench safety codes.
- 2.5.4. A trench safety system, if required, shall be designed by the excavation contractor utilizing a specialty engineer as required.

### **3.** Construction Notes:

- 3.1. Contractor shall tie to existing grade by evenly sloping from closest proposed grade provided to existing grade at limits of construction, unless otherwise noted on the plans. If no limit of work line is indicated, slope to adjacent property line or right-of-way line, as applicable.
- 3.2. Unless otherwise indicated on the plans, all existing manholes, catch basins, meters and other structures. whether indicated on the plans or not shall be 3.17. Any known or suspected hazardous material found on adjusted to match the new grade, by the contractor.
- 3.3. The curb shall be sloped to accommodate the new pavement, catch basin and grate, and the surface flow pattern
- 3.4. The contractor shall use care when cutting the existing asphalt pavement and during excavations, so that the existing catch basins and grates that are to remain will not be damaged.
- 3.5. The contractor shall maintain the roadway slope when resurfacing the roadway. The edge of pavement shall match the new gutter lip per FDOT index 300.
- 3.6. The new sidewalk shall be constructed in accordance with the given elevations and at the proper slopes depicted in the specifications, details and standards. Existing driveways and other features shall be matched when possible as directed by the engineer.
- 3.7. Radii shown are to the edge of pavement.
- 3.8. All bench mark monuments within the limits of construction shall be protected and referenced by the 4.1. All utility / access easements to be secured prior to 6. Temporary Facilities contractor in the same way as public land corners.
- 3.9. All excess material is to be disposed by the contractor 4.2. within 72 hours.
- 3.10. In areas where the base is exposed by the milling operation, the contractor shall restore the base to its original thickness and structural capacity before 4.3. All required governmental agency building permits to 6.2. paving over such areas. This includes but is not limited to restoring original degree of compaction, moisture content, composition, stability, and intended slope. If 4.4. paving will not take place the same day the base is exposed and reworked, the base shall be sealed according to the governing standards and specifications. Any additional work resulting from the 4.5. Prior to the start of construction, the owner shall contractor's failure to protect the exposed base as

stated above in order to restore the original structural capacity shall be the contractor's cost.

construction operations, in order to facilitate emergency vehicle traffic.

- reflects pre-demolition conditions and does not reflect the site conditions after demolition. The contractor is fully and solely responsible in determining the required earthwork for the proposed development of the site. This includes, but is not limited to, any excavation/dredge and fill activities required at any phase of the project. The contractor shall use the final approved (released for construction) plans, surveys, geotechnical reports, and any other available information for determining the amount of excavation/dredging and filling required. Any quantities included in the approved permits were estimated by the engineer for purposes of obtaining the permit and under no circumstances 4.6. shall be used by the contractor in lieu of performing their own earthwork calculations required for cost estimating and bidding the project.
- familiarizing themselves with any and all available geotechnical reports prepared by others and/or any recommendations written or implied by the geotechnical engineer for this project. The geotechnical conditions and recommendations outlined in these reports are in force and in full effect as part of the proposed improvements. The contractor is responsible for ensuring that all the work associated with this project is in compliance with the geotechnical engineer's recommendations. Keith and Associates, Inc. is not responsible for the suitability or unsuitability of the soils encountered. It is the contractor's responsibility to ensure that the means and methods of construction used can and will allow for the successful completion of the required site improvements.
- 3.14. The contractor shall ensure that the available 4.1. geotechnical information is sufficient for his complete understanding of the soil conditions for the site. If additional geotechnical investigation is required by the contractor, this additional work shall be considered incidental to the contract and no **5. Inspections / Testing:** additional compensation shall be allowed.
- contractor shall also submit a separate cost item 3.15. The contractor shall be responsible for the repair and restoration of existing pavement, pipes, conduits, sprinkler heads, cables, etc., and landscaped areas damaged as a result of the contractor's operations and/or those of his subcontractors and shall restore at no additional cost.
  - 3.16. The contractor shall not bring any hazardous materials onto the project. Should the contractor require such for performing the contracted work, the contractor shall request, in writing, permission from the owner, town and Engineer. The contractor shall provide the owner, town and engineer with a copy of the material safety data sheet (MSDS) for each hazardous material proposed for use. The project engineer shall coordinate with the owner and town prior to issuing written approval to the contractor.
  - the project by the contractor shall be immediately reported to the town and/or engineer, who shall direct the contractor to protect the area of known or suspected contamination from further access. The town and/or engineer are to notify the owner/engineer of the discovery. The owner/engineer will arrange for investigation, identification, and remediation of the hazardous material. The contractor shall not return to the area 5 1 of contamination until approval is provided by the engineer.
  - 3.18. The contractor shall contact the appropriate town engineering inspector and engineer 48 hours in 5.3. advance of the event to notify the town of construction start up, or to schedule all required tests and inspections including final walk-throughs.

### 4. Preconstruction Responsibilities

- construction.
- No construction may commence until the appropriate permits have been obtained from all municipal, State, County, and Federal agencies and a pre-construction meeting has been conducted.
- be obtained by the contractor prior to any construction activity.
- Contractor to coordinate construction scheduling for 6.3. connection to the existing water and sewer lines with the utility department that owns and/or maintains 6.4. Contractor shall construct and maintain temporary the water and sewer lines.

submit an NPDES construction general permit (CGP) 6.5. The contractor shall maintain access to adiacent "notice of intent (N.O.I.) to use Generic Permit for storm water discharge from construction activities 7. Project Progress and Closeout form (DEP form 62-621.300(4)(b)) to FDEP notices center. The contractor will be responsible for (1) /.1. implementation of the storm water pollution prevention plan (SWPPP) that was required to be developed prior to NOI submittal, and (2) retention of records required by the permit, including retention of a copy of the SWPPP at the construction site from the 7.2. date of project initiation to the date of final site stabilization. A "notice of termination (N.O.T.) of generic permit coverage" form (DEP form 62-621.300(6)) must be submitted to FDEP to discontinue permit coverage, subsequent to completion of construction. For additional FDEP website: 73 information see http://www.dep.state.fl.us/water/ storm water/npdes.

Prior to construction or installation, 5 sets of shop drawings shall be submitted for review as required for the following items listed below, but not limited to:

- Drainage: Catch basins, manholes, headwalls, contractor's expense. grates/tops, yard drains. 7.5. All unpaved surfaces disturbed as a result of construction activities shall be graded, sodded, & restored to a condition equal to or better than that DDCV, meter box. which existed before the construction.
- Water: Fire hydrants, valves, backflow preventer, • Sewer: Manholes, lift stations (wetwell, hatches,

- valves, pump data, electrical panel)
- drainage, water and sewer pipes, fittings, and appurtenances. 4.0.2. Prior to submitting shop drawings to the
- - engineer, the contractor shall review and specifications.
- approve the drawings, and shall note in red 8.2. Upon completion of drainage improvements and any deviations from the engineer's plans or limerock base construction (at least 48 hours before placing asphalt pavement) the contractor shall furnish the engineer of record "as-built" plans for these 4.0.3. Individual shop drawings for all precast structures improvements, showing the locations and pertinent are required. Catalogue literature will not be grades of all drainage installations and the finished accepted for precast structures. rock grades of the road crown and edges of pavement Contractor to submit maintenance of traffic plan(s) in at 50 foot intervals, including locations and elevations accordance with FDOT, Broward county and Town of of all high and low points. SW Ranches requirements, and submit for approval Upon completion of construction, and prior to final 8.3. prior to beginning construction.

- 5.1. The contractor shall notify in writing the owner, Town, County, engineer of record, and any other governmental agencies having jurisdiction at least 48 locations, and elevations of all improvements. hours prior to beginning construction and prior to 84 "As-built" drawings of water lines and force mains required inspections of the following items, where shall include the following information: applicable: 8.4.1. Top of pipe elevations every 100 LF.
  - Clearing and earthwork Storm drainage systems

  - Subgrade
  - Limerock base
- Landscaping
  - Pavement marking and signage
  - Signalization
  - Site lighting
- Electrical and communication lines
- Utility conduits
- Irrigation
- Final

inspections.

- 6.1. It shall be the contractor's responsibility to arrange for or supply temporary water service, sanitary facilities, communications, and electricity, for his operations and works, cost included under mobilization.
  - Contractor shall construct temporary fencing to secure construction areas at all times, cost included in mobilization.
  - Contractor to obtain a secure staging area and obtain all necessary approvals from the owner. lighting as required to light the construction project limits at all times, to at least the same lighting intensity levels as the existing conditions.

- Sanitary sewer systems
- Water distribution systems
- Asphalt or concrete pavement • Sidewalks, concrete flatwork/curbing
- The owner, engineer, and jurisdictional permitting agencies may make inspections of the work at any time. The contractor shall cooperate fully with all
- Testing all testing required by the plans and specifications shall be performed by a licensed / FDOT 8.7. qualified testing company. Required test for asphalt and limerock shall be taken at the direction of the engineer or the jurisdictional governmental agency in accordance with the plans and specifications.

- 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 broom swept clean.
- The contractor shall restore or replace any public or private property (such as highway, driveway, walkway, and landscaping), damaged by his work, equipment, or employees, to a condition at least equal to that existing immediately prior to the beginning of construction. Suitable materials and methods shall be used for such restoration.
- Material or debris shall be hauled in accordance with <sup>8.9.</sup> NPDES permit and jurisdictional laws.
- 7.4. All land survey property monuments or permanent reference markers, removed or destroyed by the 9. Utility Notes contractor during construction shall be restored by a 9.1. State of Florida registered land surveyor at the

### 8. Project record documents:

- 4.0.1. Catalogue literature shall be submitted for 8.1. During the daily progress of the job, the contractor shall record on his set of construction drawings the location, length, material and elevation of any facility not built according to plans. This copy of the "as-built" shall be submitted to engineer for project record. 9.4.
  - acceptance, the contractor shall submit to the engineer of record one complete set of all "as-built" 9.1. contract drawings. These drawings shall be marked to show "as-built" construction changes, dimensions,
  - 8.4.2. Locations and elevations of all fittings including bends, tees, gate valves, double detector check valves, fire hydrants, and appurtenances.
  - 8.4.3. All connections to existing lines.
  - 8.4.4. Ends of all water services at the buildings where the water service terminates.
  - 8.5. "As-built" drawings of gravity sanitary sewer lines shall include the following information:
  - 8.5.1. Rim elevations, invert elevations, length of piping 9.2. between structures, and slopes.
  - 8.5.2. The stub ends and cleanouts of all sewer laterals shall be located horizontally and vertically.
  - 8.6. "As-built" drawings of all drainage lines shall include the following information:
  - 8.6.1. Rim elevation, invert elevation, length of piping between structures, and control structure elevations if applicable.
  - 8.6.2. The size of the lines.
  - 8.6.3. Drainage well structure shall include, but not be limited to, top of casing elevation, top and bottom elevations of the structure and baffle walls, rim elevations and pipe inverts.
  - "As-built" drawings of construction areas shall include  $^{9.3.}$ the following:
  - 8.7.1. Rock elevations at all high, and low points, and at enough intermediate points to confirm slope consistency.
  - 8.7.2. Rock elevations and concrete base elevations shall **10.** Signing and Pavement Markings be taken at all locations where there is a finish 10.1. All signing and pavement markings installed as part of grade elevation shown on the design plans.
  - 8.7.3. All catch basin and manhole rim elevations.
  - 8.7.4. Finish grade elevations in island areas.
  - 8.7.5. "As-built" elevations shall be taken on all paved and unpaved swales, at enough intermediate 10.2. Match existing pavement markings at the limits of points to confirm slope consistency and conformance to the plan details.
  - 8.7.6. Lake and canal bank "as-built" drawings shall include a key sheet of the lake for the location of cross sections. Lake and canal bank cross sections shall be plotted at a minimum of every 100 lf, markings over friction course will be removed by unless otherwise specified. "as-built" drawings shall consist of the location and elevation of the

top of bank, edge of water, and the deep cut line, with the distance between each shown on the drawing.

8.7.7. Retention area "as-built" elevations shall be taken 10.5. Place all retro-reflective pavement markers in at the bottom of the retention area and at the top accordance with standard index 17352 and / or as of bank. If there are contours indicated on the shown in the plans. design plans, then they shall be included in 10.6. Caution should be exercised while relocating existing "as-built" drawings as well.

Upon completion of the work, the contractor shall prepare "as-built" drawings on full size, 24" x 36" sheets. All "as-built" information shall be put on the latest engineering drawings. Eight (8) sets of blue or 10.7. All existing signs that conflict with construction black line drawings shall be submitted. These drawings shall be signed and sealed by a Florida registered professional engineer or land surveyor.

An electronic copy of these "as-built" drawings shall 10.8. Relocated sign support system must meet the current be submitted to the engineer of record in AutoCAD, version 2008 or later.

Contractor is responsible for utility verification prior to fabrication.

- 9.2. The contractor is advised that properties adjacent to the project have electric, telephone, gas, water 10.10. All roadway pavement markings shall be thermoplastic in accordance with FDOT specifications and/or sewer service laterals which may not be shown section 711. in plans. The contractor must request the location of these lateral services from the utility companies. 10.11. Hand dig the first four feet of sign foundation.
- 9.3. The contractor shall use hand digging when 10.12. All signs shall meet all of the following: excavating near existing utilities. Extreme caution shall be exercised by the contractor while excavating, installing, backfilling or compacting around the utilities.

The contractor shall notify and obtain an underground clearance from all utility companies and governmental agencies at least 48 hours prior to beginning any construction. The contractor shall obtain a Sunshine811.com Certification clearance number and field markings at least 48 hours prior to beginning any excavation.

• Prior to commencement of any excavation, the contractor shall comply with Florida statute 553.851 for the protection of underground gas pipelines.

For street excavation or closing or for alteration of access to public or private property, the contractor shall notify:

- Roadway jurisdictional engineering / public works authority.
- County transit authority
- School board transportation authority
- Jurisdictional fire department dispatch
- Jurisdictional police department(s)

9.1. The contractor shall use extreme caution working contractor shall contact the electric provider company to verify locations, voltage, and required clearances, onsite, in right-of-ways, and in easements, prior to any construction in the vicinity of existing lines.

Location and size of all existing utilities and topography (facilities) as shown on construction drawings are drawn from available records. The engineer assumes no responsibility for the accuracy of the facilities shown or for any facility not shown. It is the contractor's responsibility to determine the exact location (vertical & horizontal) of any existing utilities and topography prior to construction. The contractor shall verify the elevations and locations of all existing facilities, in coordination with all utility companies, prior to beginning any construction operations. If an existing facility is found to conflict with the proposed construction, the contractor shall immediately notify the engineer so that appropriate measures can be taken to resolve the conflict.

The contractor shall coordinate the work with other contractors in the area and any other underground utility companies required. The contractor shall coordinate relocation of all existing utilities with applicable utility companies.

these plans shall conform to the Federal highway administration (FHWA) "manual on uniform traffic control devices" (MUTCD), County Traffic Design Standards and FDOT design standards as a minimum criteria.

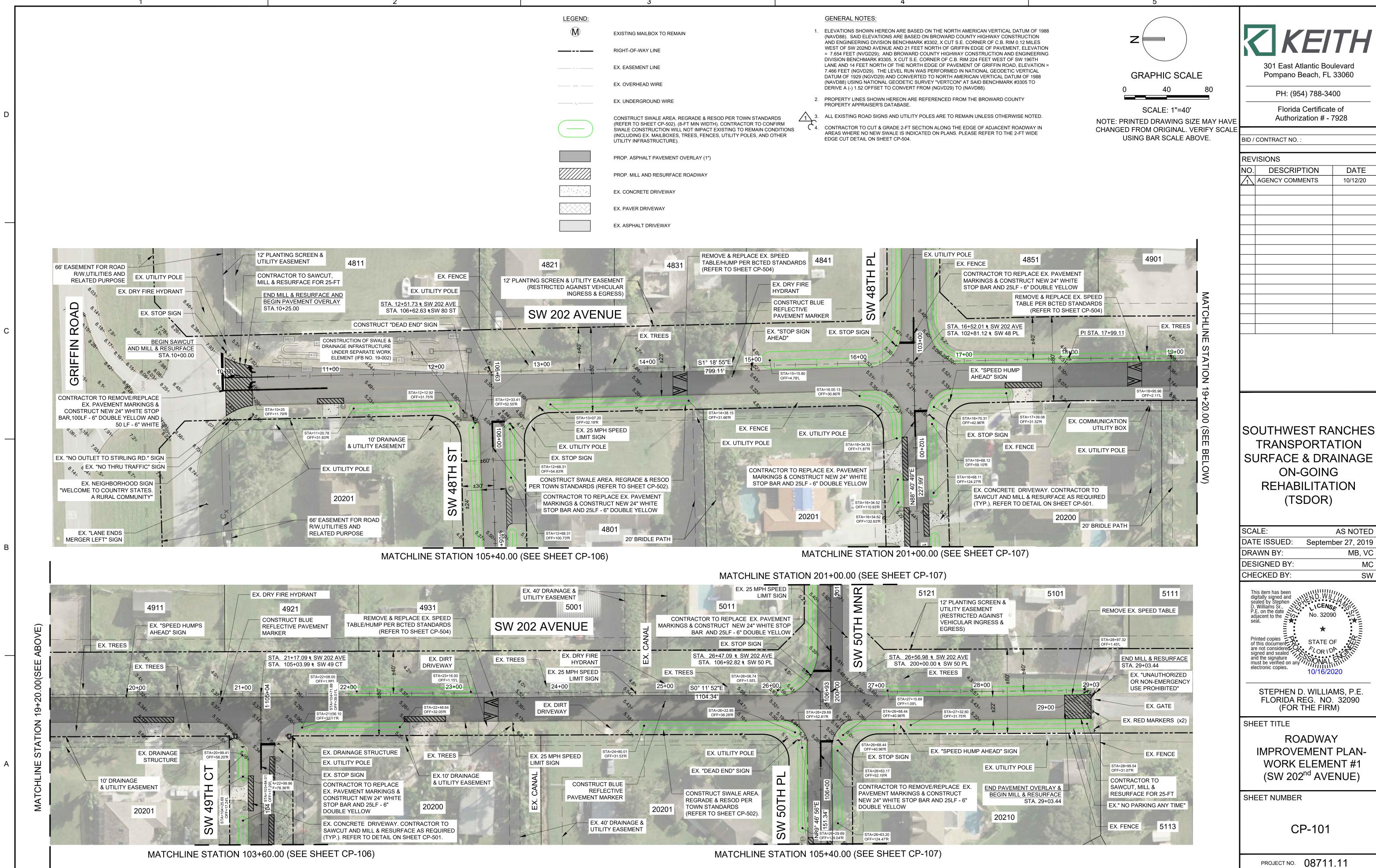
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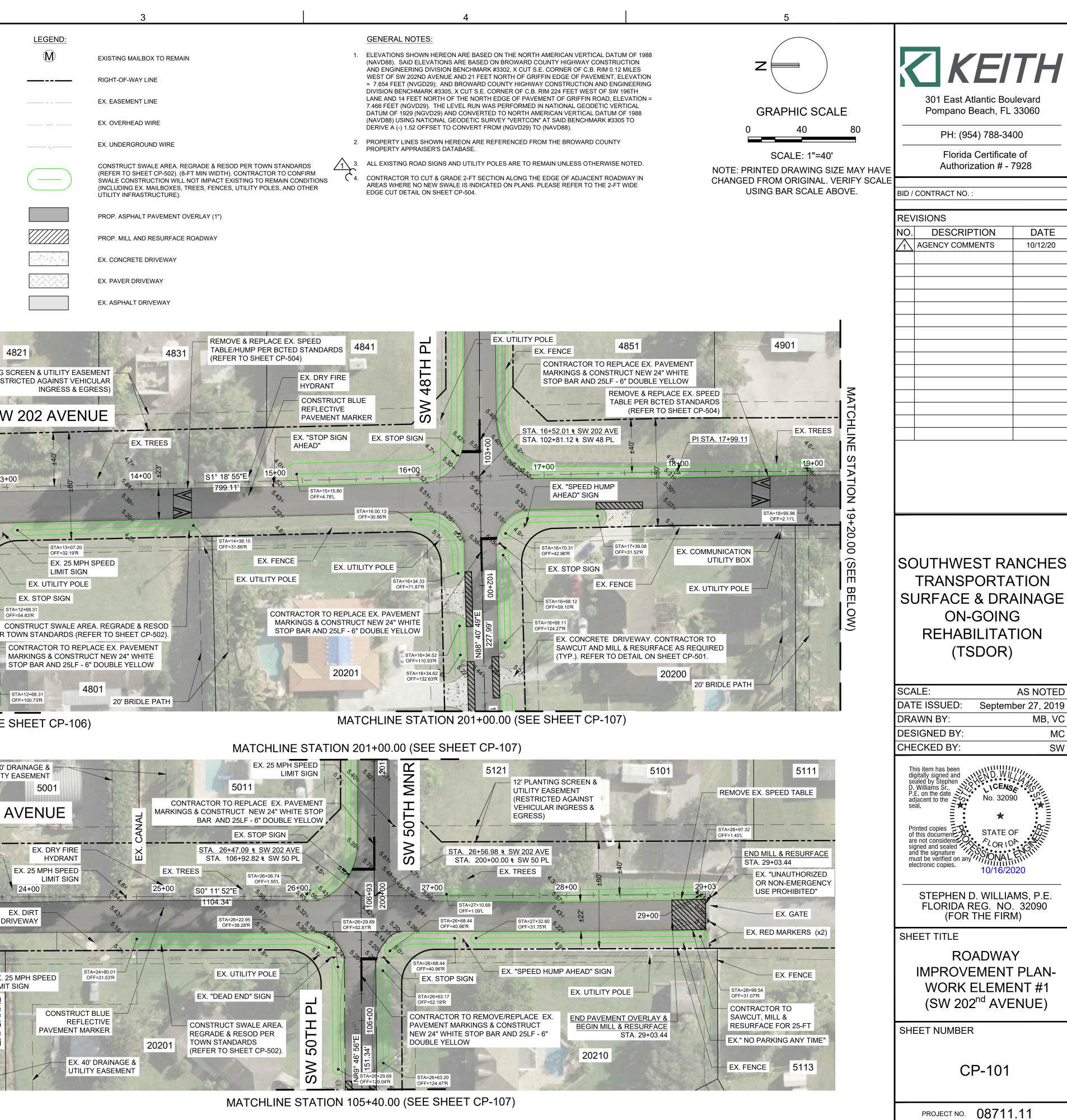
10.3. Removal of the existing pavement markings shall be accomplished by water blasting or other approved methods determined by the engineer.

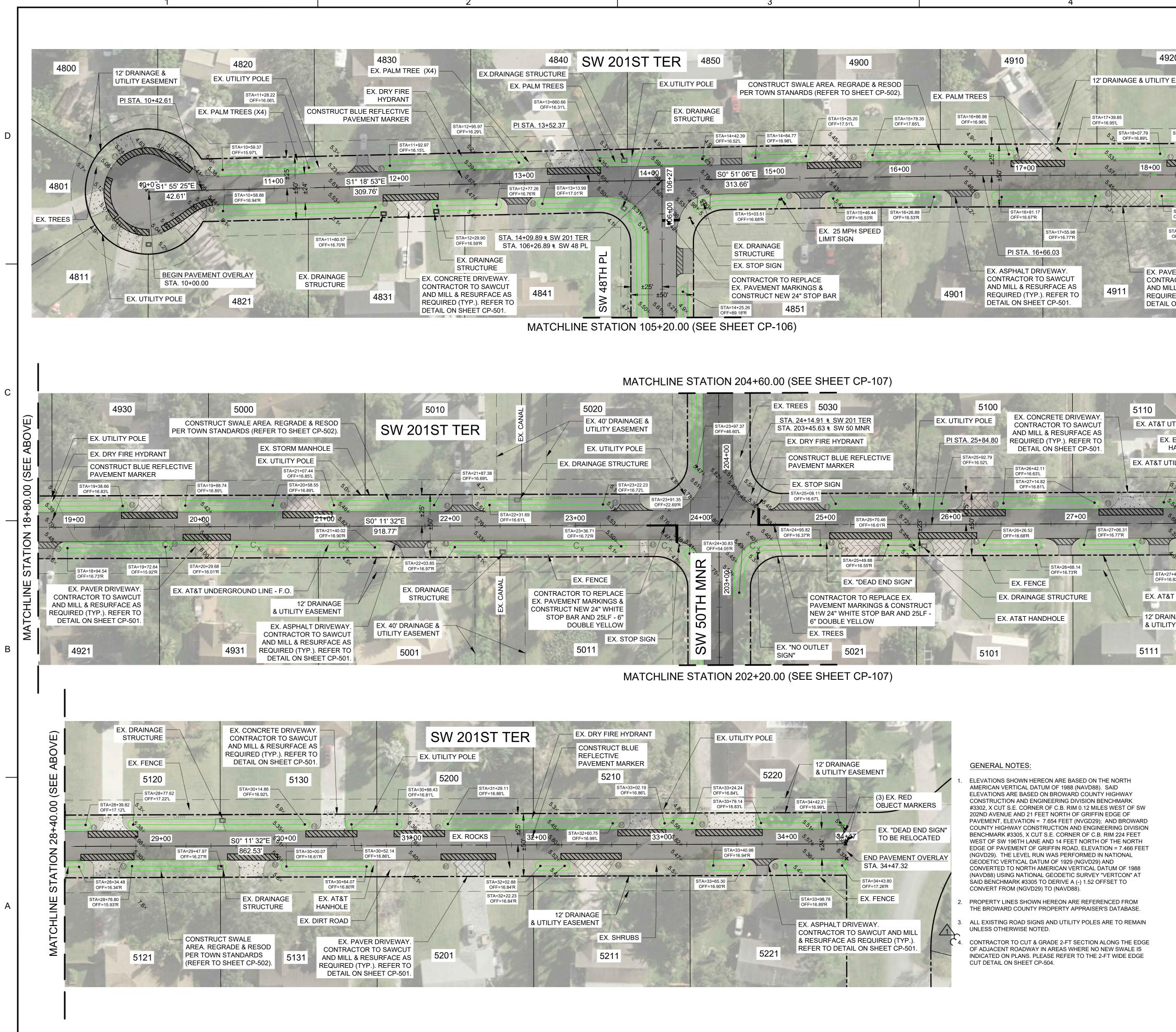
markings over friction course will be removed by milling and replacing the friction course a minimum width of 18 in at the contractor's expense. The

- signs to prevent unnecessary damage to signs. If the sign is damaged beyond use, as determined by the engineer, signs shall be replaced by the contractor at his expense.
- operations shall be removed, stockpiled, and relocated by the contractor. Sign removal shall be directed by the engineer.
- design standard.
- 10.9. The contractor shall provide an inventory of existing signs to remain or to be relocated prior to starting the job and forward this list to the engineer. Contractor shall notify if there are any missing or damage signs that the plans show to remain or to be relocated.
- - Meet the criteria outlined in Section 2A.08 of the 2009 MUTCD
  - Meet the specifications outlined in Section 700 and 994 of the latest FDOT Standard Specifications.
  - Consist of materials certified to meet the retroreflective sheeting requirements outlined in the current version of ASTM D4956 for type-XI retroreflective sheeting materials made with prisims, except for school zone and pedestrian signs which shall be comprised of retroreflective fluorescent yellow-green sheeting certified to meet ASTM D4956 Type IV retroreflective sheeting materials.
  - Consist of retroreflective sheeting materials that have a valid FDOT Approved Product List (APL) certification for specification 700 Highway Signing for FDOT sheeting Type XI (or type IV for school and pedestrian signs).
- 10.13.Patch attachment hardware, such as countersunk screws or rivet heads, with retro reflective buttons that match the color and sheeting material of the finished sign panel including the background, legend or border.
- 10.14.Ensure the outside corner of sign is concentric with border. Ensure white borders are mounted parallel to the edge of the sign. Ensure black borders are recessed from the edge of the sign.
- under, over, and around existing electric lines. The 10.15.Layout permanent final striping that leaves no visible marks at time of final acceptance.

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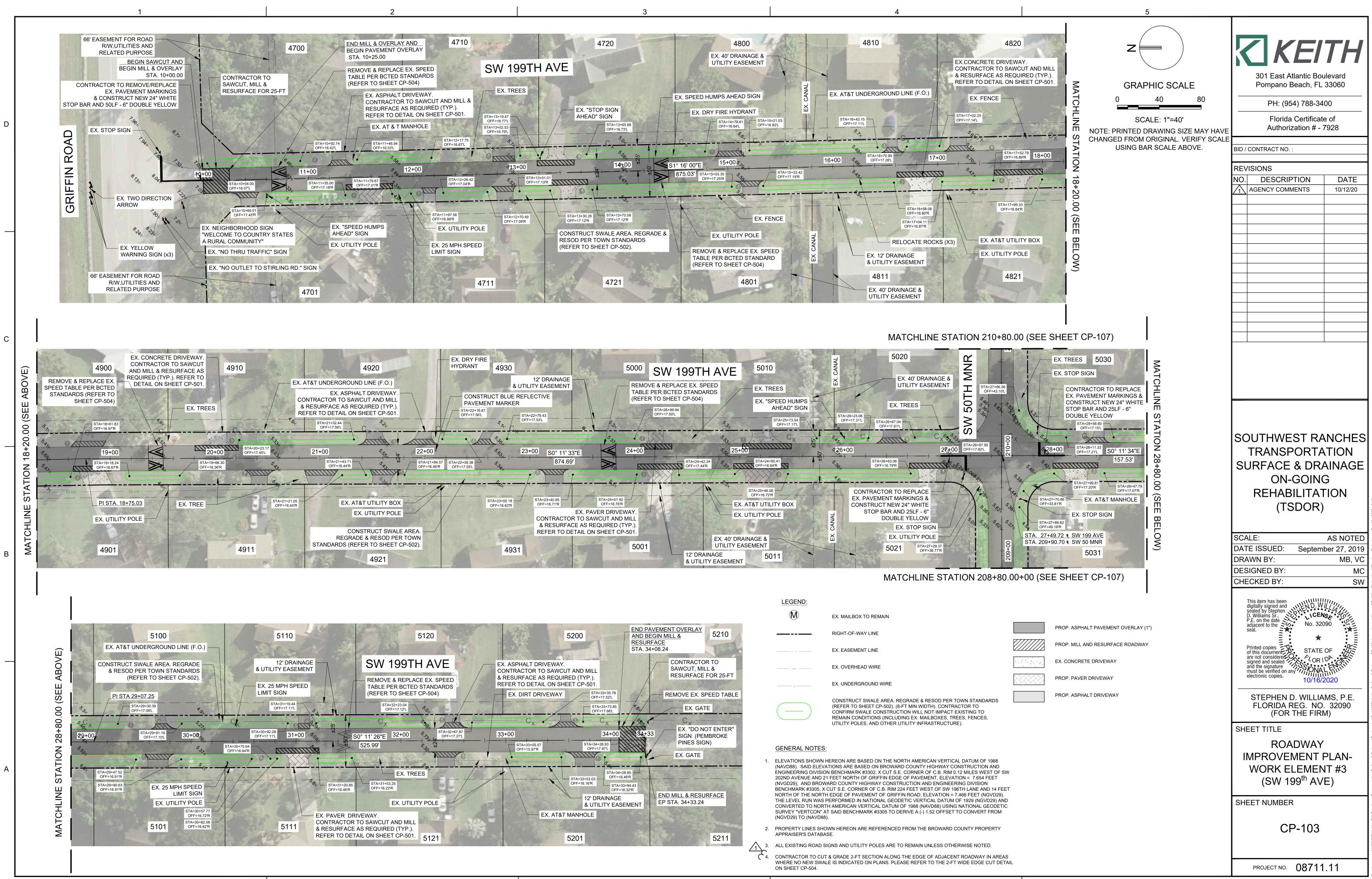


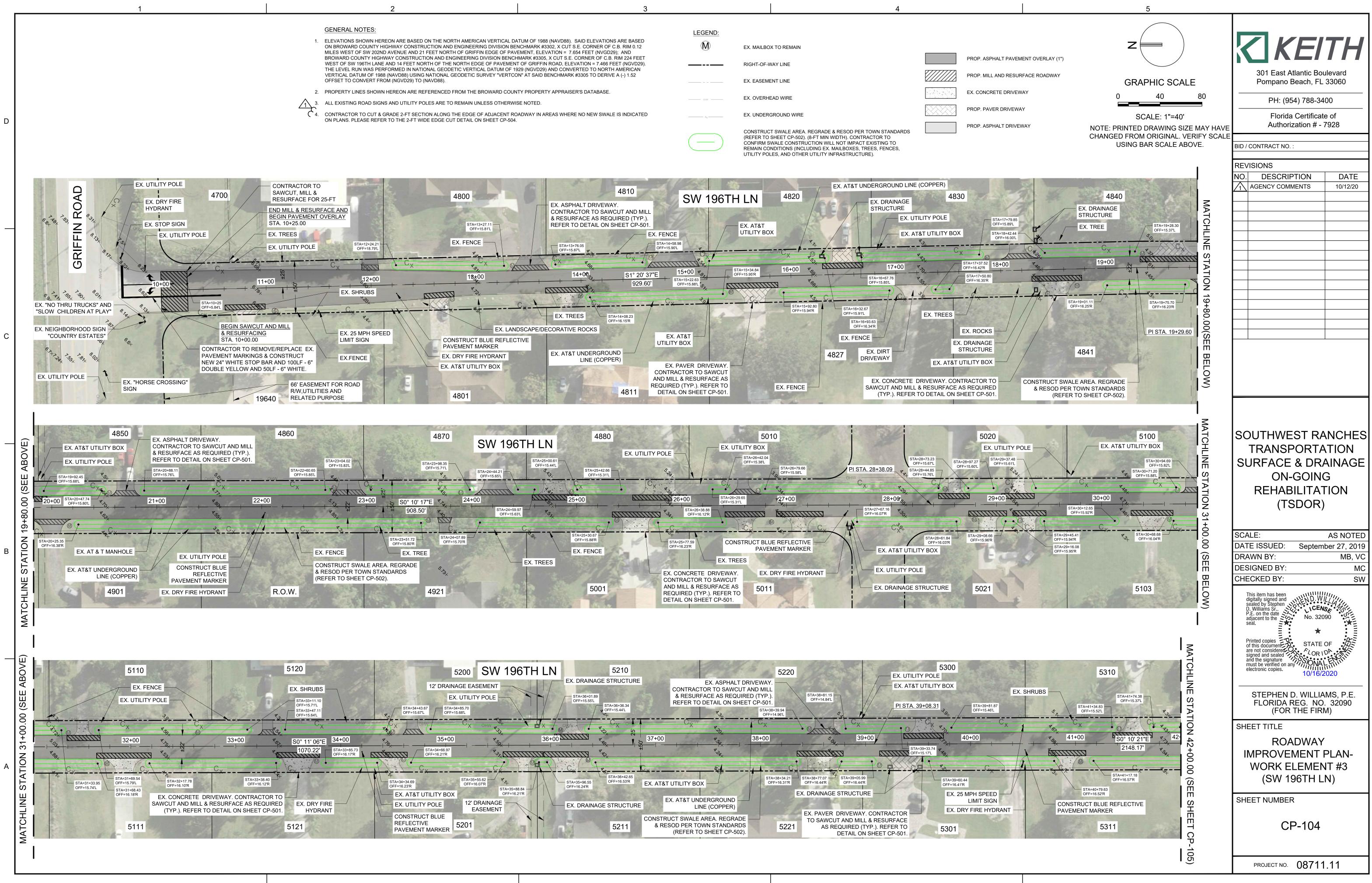




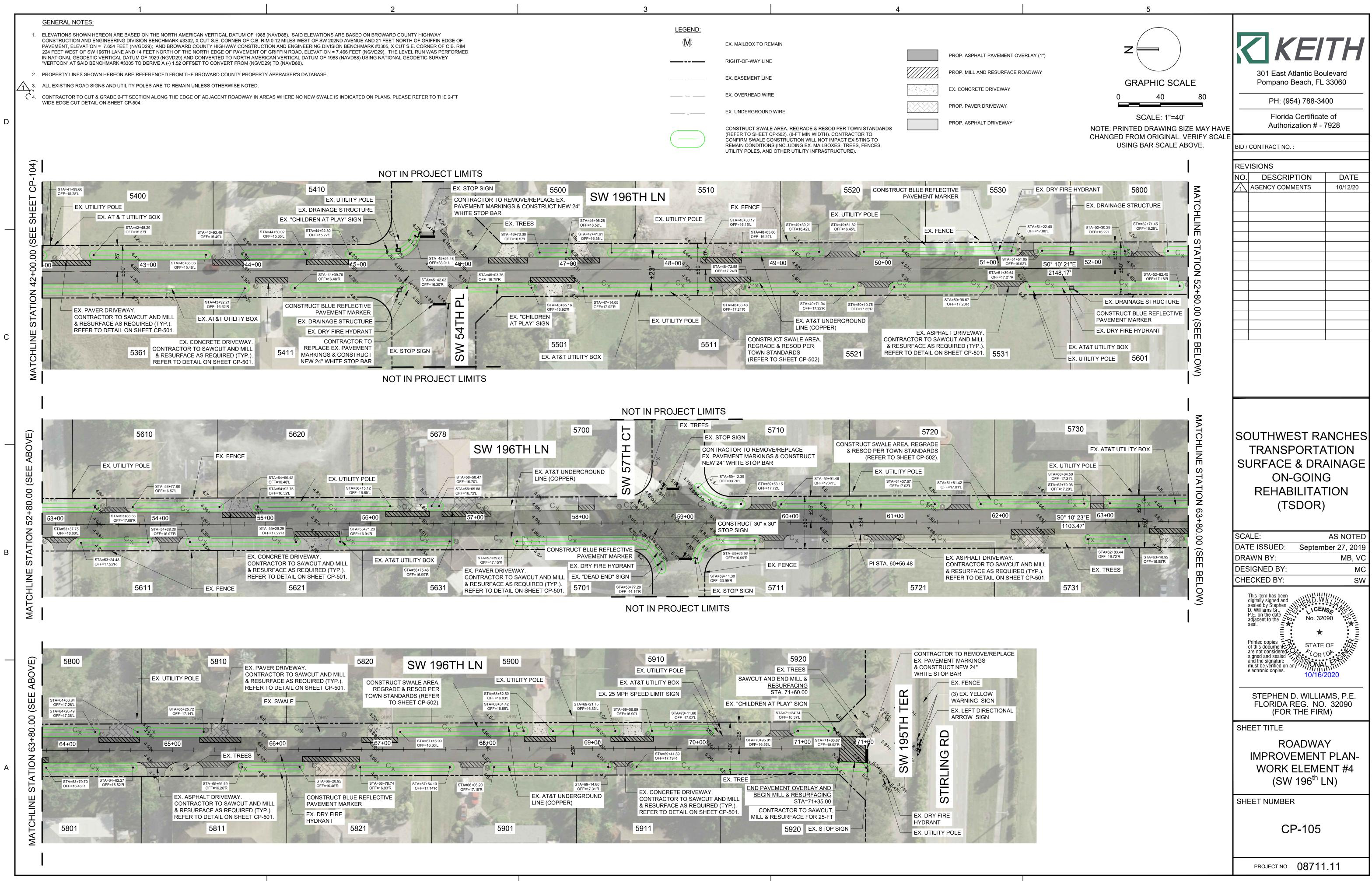
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<u>LEGEND:</u>	EXISTING MAILBOX TO REMAIN     RIGHT-OF-WAY LINE     EX. EASEMENT LINE	Are not considered signed and sealed and the signature must be verified on any electronic copies. 10/16/2020 STEPHEN D. WILLIAMS, P.E.
OHW	EX. OVERHEAD WIRE	FLORIDA REG. NO. 32090 (FOR THE FIRM)
c	EX. UNDERGROUND WIRE CONSTRUCT SWALE AREA. REGRADE & RESOD PER TOWN STANDARDS (REFER TO SHEET CP-502). (8-FT MIN WIDTH). CONTRACTOR TO CONFIRM SWALE CONSTRUCTION WILL NOT IMPACT EXISTING TO REMAIN CONDITIONS (INCLUDING EX. MAILBOXES, TREES, FENCES, UTILITY POLES, AND OTHER UTILITY INFRASTRUCTURE). PROP. ASPHALT PAVEMENT OVERLAY (1")	SHEET TITLE ROADWAY IMPROVEMENT PLAN- WORK ELEMENT #2 (SW 201 <sup>st</sup> TER)
	PROP. MILL AND RESURFACE ROADWAY	SHEET NUMBER
	EX. CONCRETE DRIVEWAY	CP-102
	EX. PAVER DRIVEWAY	
		PROJECT NO. 08711.11

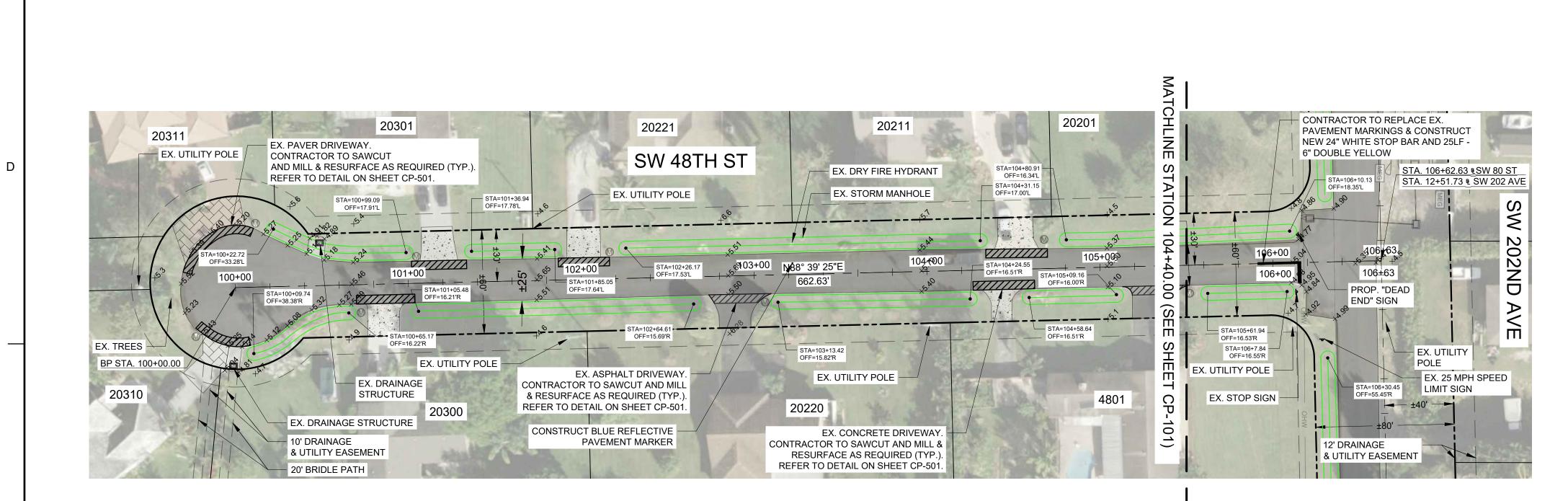


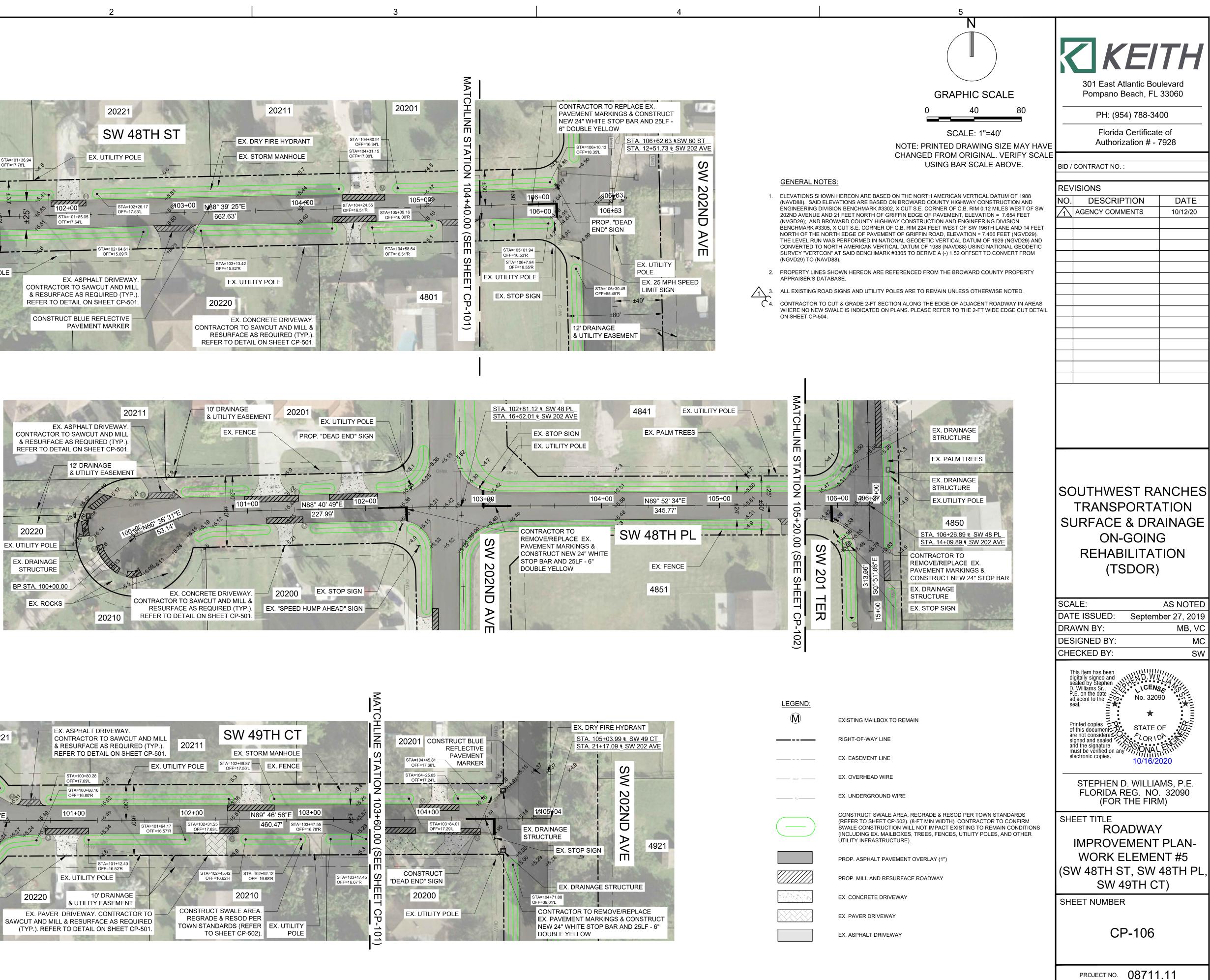


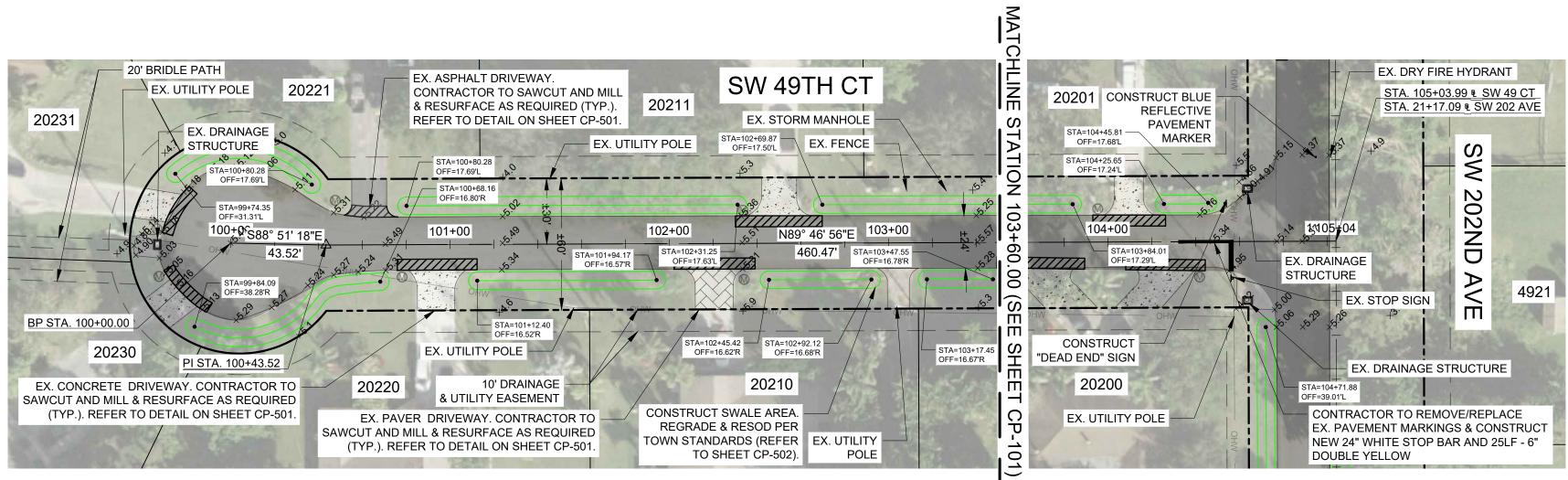
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		LEGEND:			
ENGINEERING DIVISION BEI	TUM OF 1988 (NAVD88). SAID ELEVATIONS ARE BASED NCHMARK #3302, X CUT S.E. CORNER OF C.B. RIM 0.12 EMENT, ELEVATION = 7.654 FEET (NVGD29); AND	M	EX. MAILBOX TO REMAIN		
NORTH EDGE OF PAVEMENT	MARK #3305, X CUT S.E. CORNER OF C.B. RIM 224 FEET F OF GRIFFIN ROAD, ELEVATION = 7.466 FEET (NGVD29). 29 (NGVD29) AND CONVERTED TO NORTH AMERICAN		RIGHT-OF-WAY LINE		PROP. A
EODETIC SURVEY "VERTCO	N" ÁT SAID BENCHMARK #3305 TO DERIVE A (-) 1.52		EX. EASEMENT LINE		PROP. N
ROM THE BROWARD COUN	TY PROPERTY APPRAISER'S DATABASE.	OHW	EX. OVERHEAD WIRE		EX. CON
	ADWAY IN AREAS WHERE NO NEW SWALE IS INDICATED	) c <sub>x</sub>	EX. UNDERGROUND WIRE		PROP. F
DETAIL ON SHEET OF 504.			CONSTRUCT SWALE AREA. REGRADE & RESOD PEF (REFER TO SHEET CP-502). (8-FT MIN WIDTH). CONT CONFIRM SWALE CONSTRUCTION WILL NOT IMPAC REMAIN CONDITIONS (INCLUDING EX. MAILBOXES, 1	RACTOR TO T EXISTING TO	PROP. A

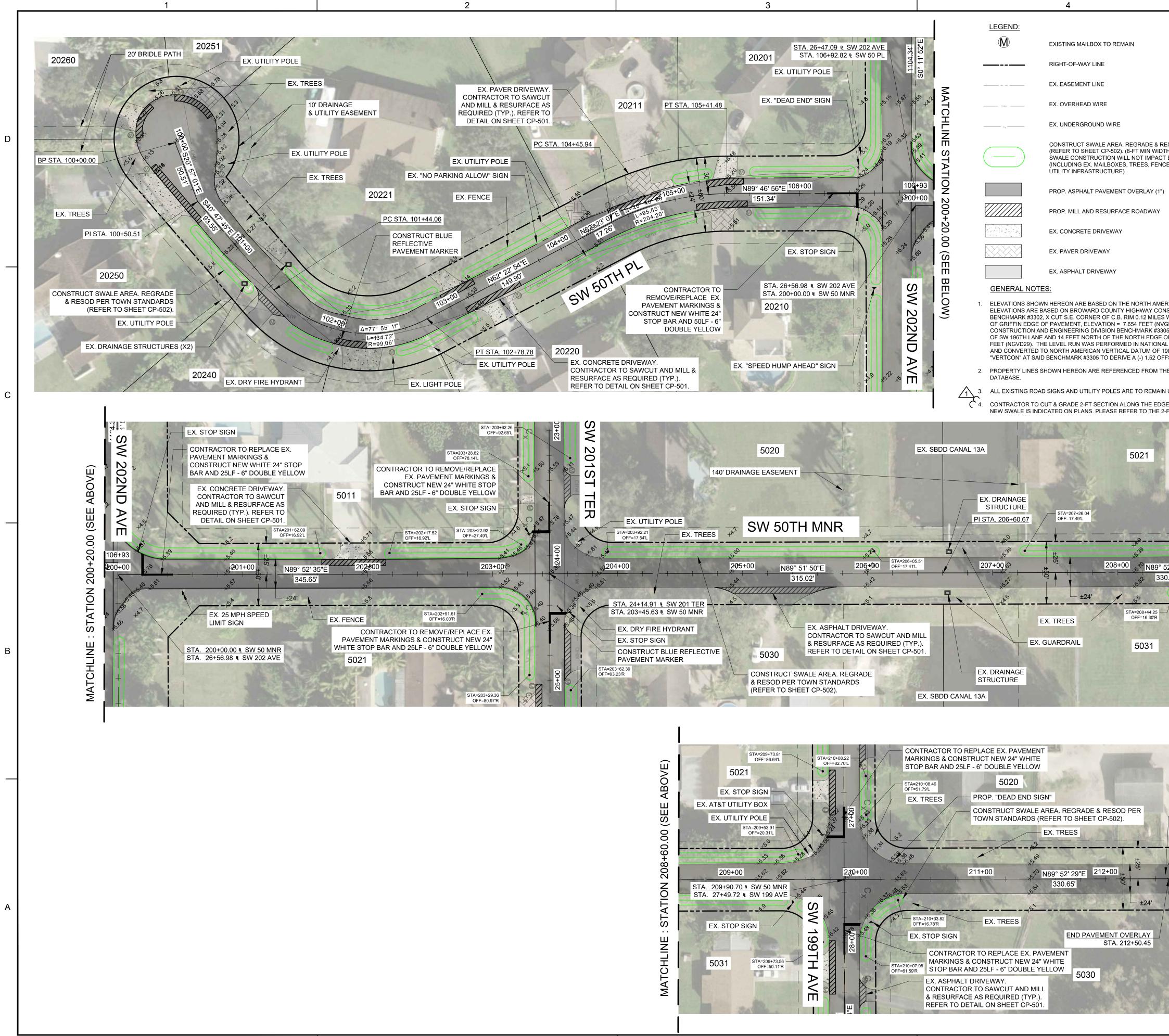


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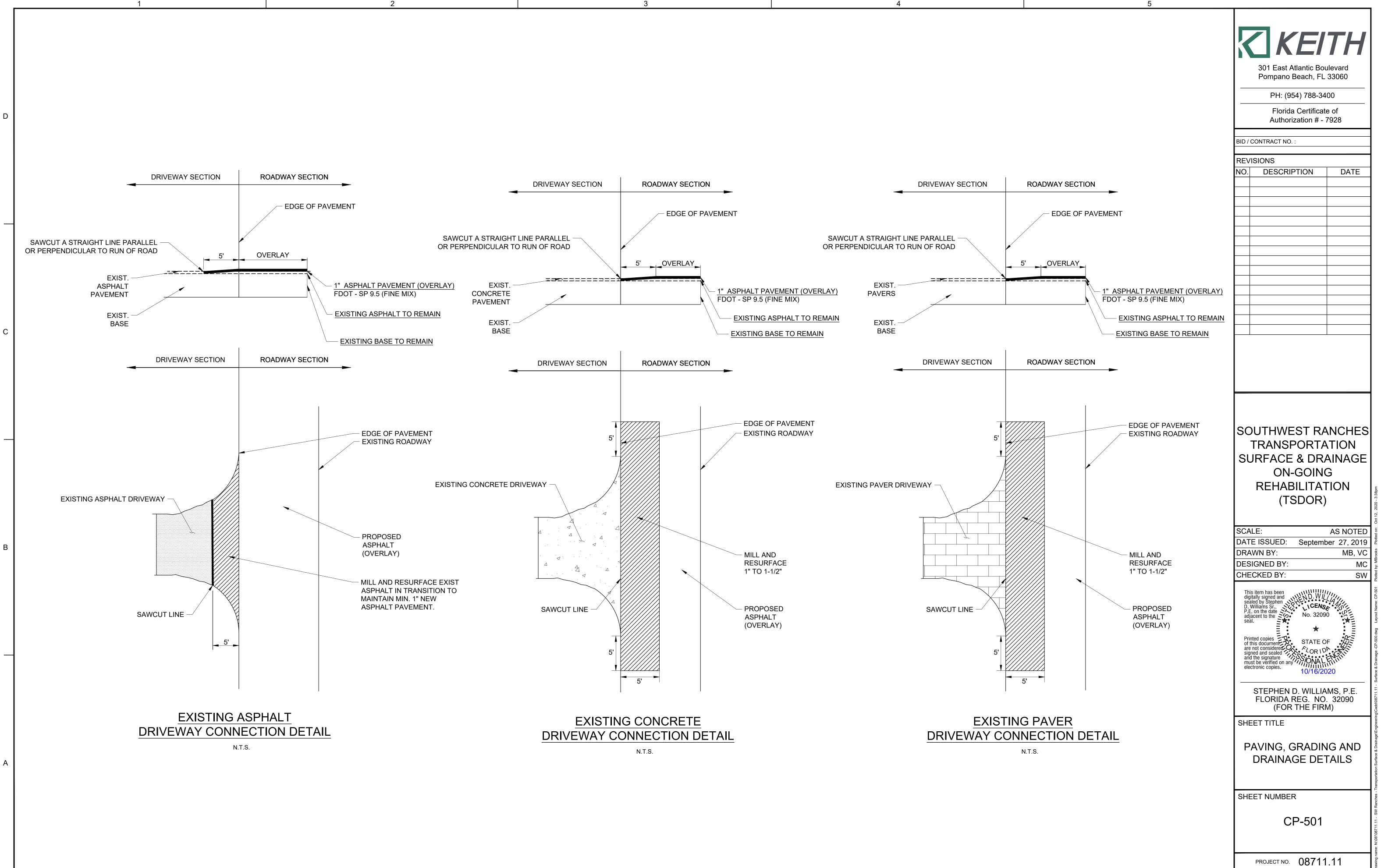


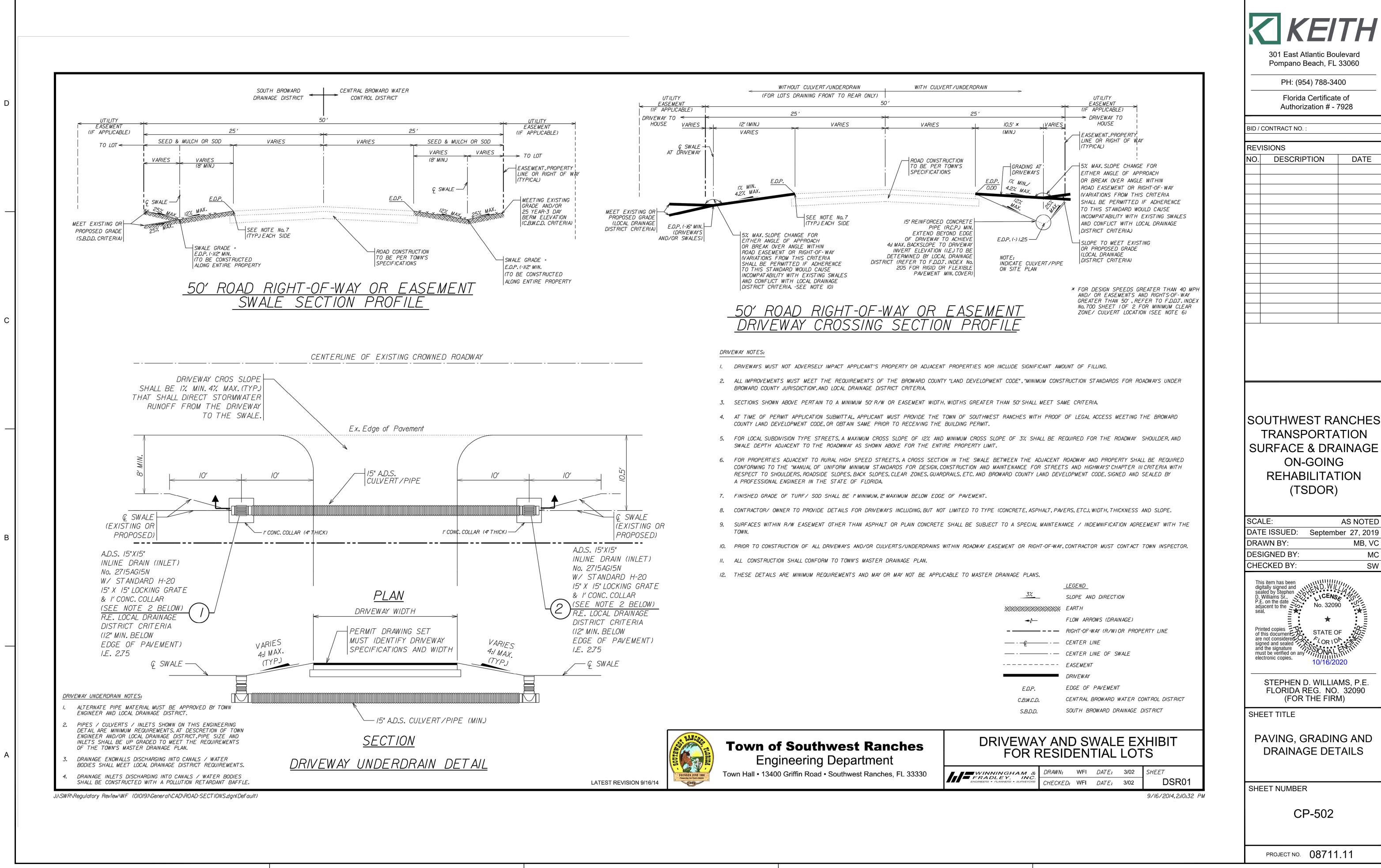




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ES, UTILITY POLES, AND OTHER	USING BAR SCALE ABOVE.		CONTRACT NO. :	
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MC

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2300 W. Commercial Boulevard · Fort Lauderdale, Florida 33309 · 954-847-2600 · FAX 954-847-2700

### MEMORANDUM

TO:	Maintenance of Traffic (MOT) Applicants
FROM:	Maj Shakib Engineer II
DATE:	May 6, 2008

SUBJECT: MOT Application Procedure

In an effort to facilitate and expedite Broward County's MOT review/approval process, please review the attached MOT Instructions/Requirements documents and complete the attached MOT Application Form.

Effective October 1, 2007, the Broward County Traffic Engineering Division (BCTED), has implemented new submittal procedures to include the approved MOT Application Form and the items listed in the MOT Instructions/Requirements.

All submitted materials shall be legible. Therefore, it is recommended all facsimile transmittals be made from original documents.

Should you have any questions regarding these procedures, please call the MOT Hotline at (954) 847-2670.

Attachments:

"Maintenance of Traffic Instructions/Requirements" (Page 1) 2. "Maintenance of Traffic Application Form" (Page 2)

G:\STUDIES\MOT\Mot\_Letters\MOT Application Form 09-23-10.doc

Broward County Board of County Commissioners www.broward.org



### Maintenance of Traffic (MOT) Instructions/Requirements

An approved MOT Plan from the Broward County Traffic Engineering Division (BCTED) shall be required when work is being performed within Broward County Right of Way regardless of whether a permit is required. The approved MOT Plan shall be on site prior to and during the entire operation. Ensure the Certified Worksite Traffic Supervisor is present to direct the initial setup of the traffic control plan, is available on a 24-hour basis, participates in all changes to traffic control and reviews the project on a daily basis. An MOT plan shall conform to, unless otherwise noted in the Broward County Minimum Standards, the latest editions of the Florida Department of Transportation (FDOT) Design Standards 600 Series and the Manual on Uniform Traffic Control Devices (MUTCD). An approved MOT Plan and a copy of the permit, if issued, must be on site at all times. The MOT is valid for the duration of the permit or completion of the project, whichever comes first. Once the MOT is approved by the BCTED, the permittee shall be solely responsible for the installation and maintenance of the approved work zone traffic control devices throughout the length of the project.

Application Process for an MOT Plan:

Include an MOT Application Form.

Include a location map for the project.

- Submit an applicable FDOT Design Standard Index from the 600 Series and/or a Typical Application figure from the MUTCD which represents the roadway characteristics and project conditions.
- For example: If the project involves the closure of a sidewalk, include a sidewalk closure index.
- If the project does not impede a lane but is within the right of way, include the appropriate index for work off the road. If the project requires a lane shift, include a lane shift index.
- A sketch should accompany the submittals for a condition that is non-typical. Include taper lengths, shift lengths, shift widths, sign spacing, barricade or cone spacing, pavement markings, removal of pavement markings, nearby signal locations, etc..

> Indexes, Typical Applications or sketches shall have the roadways identified by name and show a north arrow.

> Applications shall include a current FDOT-approved certification for Worksite Traffic Supervisor. If you are submitting an MOT Plan with an FDOT Design Standards 600 Series Index or a Typical Application figure from the MUTCD, an Intermediate Level Certification Card will be required; if a sketch is submitted with the standard index, an Advanced Level Certification Card will be required. The certification card is required to contain the student's name, instructor's name, course provider, course category (Advance: BT-05-0079 or Intermediate: BT-05-0078), date course was successfully completed and date when training or refresher course is required.

> The FDOT Standard Index has notes in small print included on them. When sending these indexes, ensure the notes are legible.

The MOT Plan must cover all phases of construction.

> If the project includes a sign-off sheet, it must be labeled with the project's name and/or location of the project.

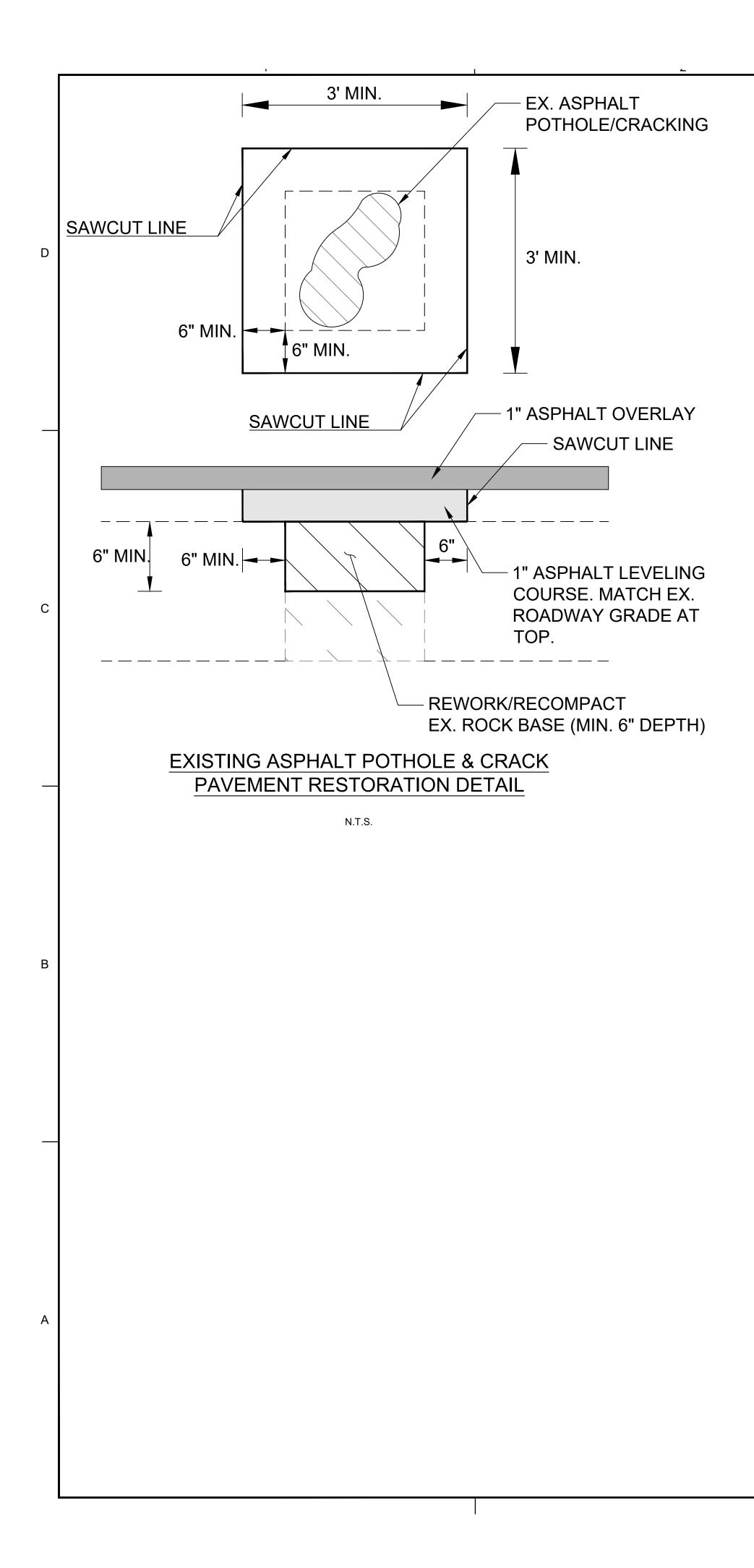
> The approval of an MOT application may require up to (2) weeks from the time that all required documents as stated above are received at the Traffic Engineering Division. Any rejected MOT submittal that is corrected and sent back to BCTED will be considered a new submittal, which may require up to two (2) additional weeks to approve. Additional time may be needed for more complex plans or plans requiring additional coordination/information.

G:\STUDIES\MOT\Mot\_Letters\MOT Application Form 09-23-10.doc Page 1

Revised 1/08



			SolutionSolution301 East Atlantic Boulevard Pompano Beach, FL 33060PH: (954) 788-3400Florida Certificate of Authorization # - 7928			
			BID / CONTRACT NO. :			
			REVISIONS			
			NO. DESCRIPTION DATE			
<b>BROWARD</b> TRAFFIC ENGINEERING DIVISION Maintenance of Traf	fic Application Form					
Date Broward County Permit	Number (if required)					
Contractor						
City State Z Mobile # Fax #						
Full name and number of 24 hr contact person						
Name of Contractors working under this approval:						
Location of Project:						
Project Boundaries, From Description of Work:						
Proposed Start Date: Prop Authorized Contractor's Representative (Print Name)			TRANSPORTATION SURFACE & DRAINAGE ON-GOING			
A copy of the certification card(s) shall be included w	(Signature) ith every MOT Plan	(Date)	REHABILITATION (TSDOR)			
(Print Name of Certified Person Submitting MOT) (I	Level) (Signature)	(Date)				
(Print Name of Certified Person Setting Up MOT) (I	Level) (Signature)	(Date)	SCALE: AS NOTED DATE ISSUED: September 27, 2019			
(Print Name of Certified Person Maintaining MOT) (I	.evel) (Signature)	(Date)	DRAWN BY: MB, VO DESIGNED BY: MO			
(Print Name of Certified Person in Charge of Flagging Operation MOT)	Level) (Signature)	(Date)	CHECKED BY: SV			
The following will be required when signal equipment	t is affected		This item has been digitally signed and sealed by Stephen D. Williams Sr., P.E. on the date			
Certified Signal Contractor's Name			D. Williams Sr., P.E. on the date adjacent to the seal.			
Certified Signal Contractor's Phone # G:\STUDIES\MOT\Mot_Letters\MOT Application Form 09-23-10.doc Pag	ge 2	Revised 1/08	Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.			
			STEPHEN D. WILLIAMS, P.E. FLORIDA REG. NO. 32090 (FOR THE FIRM)			
			SHEET TITLE			
			PAVING, GRADING AND DRAINAGE DETAILS			
			SHEET NUMBER			
			CP-503			
			PROJECT NO. 08711.11			





Broward County Traffic Engineering Division's

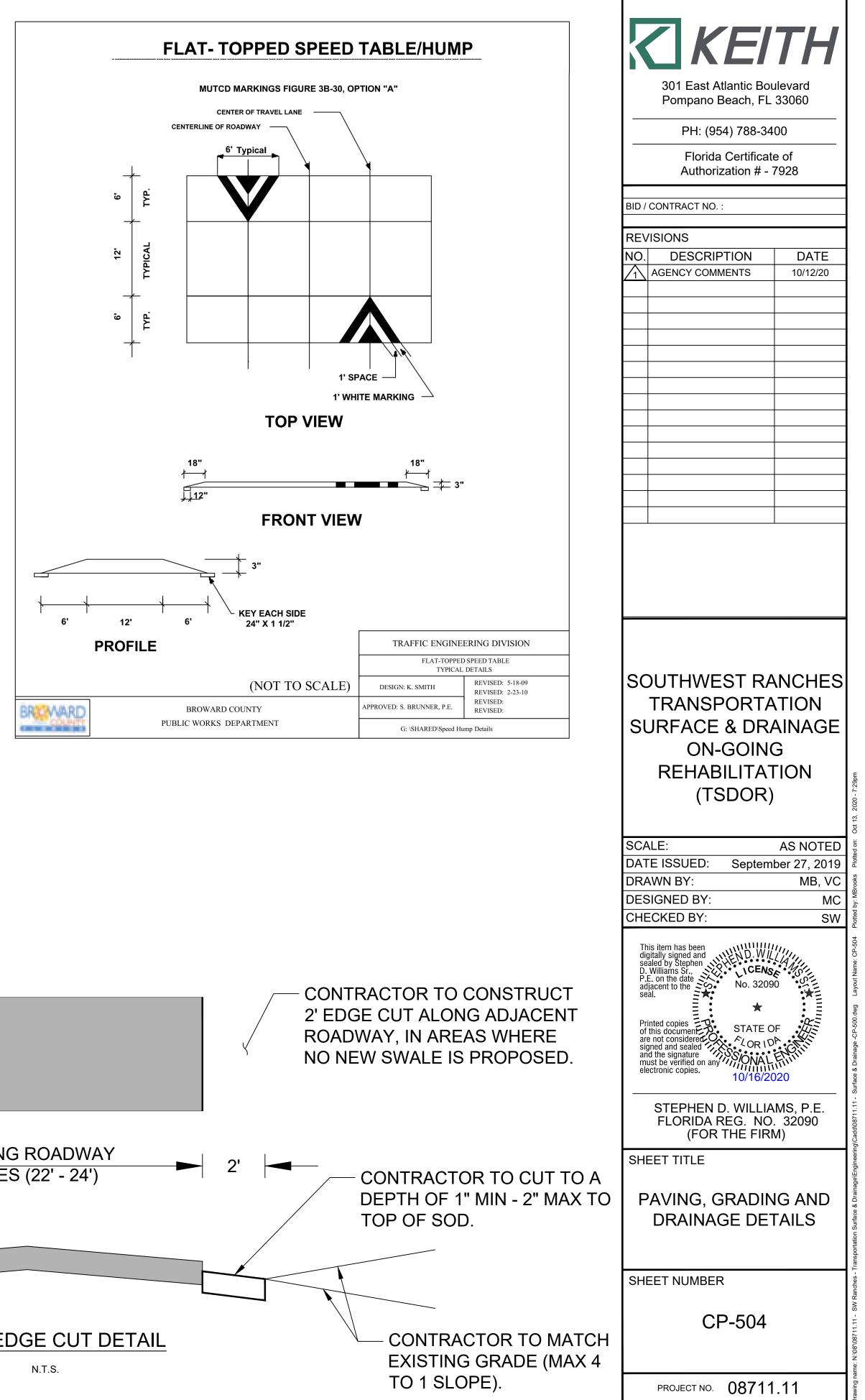
The following is a typical installation of a speed hump within the unincorporated area of Broward County.

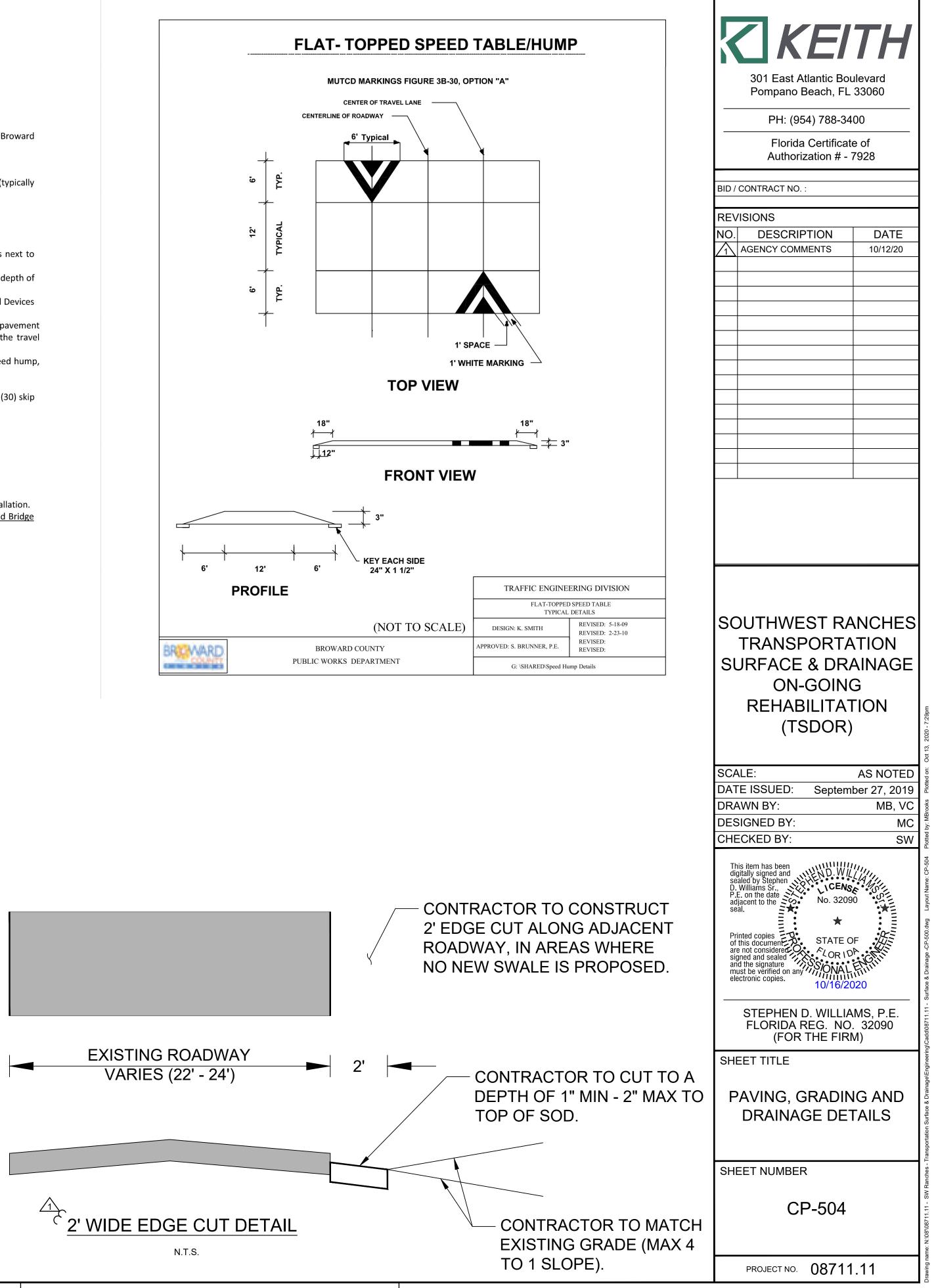
- 1. The speed hump shall be twenty-four (24) feet in length for the width of the roadway (typically twenty-four (24) feet), with the following characteristics:
  - a. Height of three (3) inches b. Twelve (12) foot flat top
  - c. Six (6) foot transitions on both the near & far sides
  - d. Eighteen (18) inch transitions on both curb sides
- 2. Key cut twenty-four (24) inches on both the near & far sides with twelve (12) inches next to speed hump and twelve inches underneath, for a depth of one and a half (1 1/2) inches.
- 3. Key cut twelve (12) inches on both curb side edges, underneath the speed hump, for a depth of one and a half (1 ½) inches.
- 4. Pavement markings shall be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) Figure 3B-30 Option "A".
  - a. For each direction of travel, install two (2) Chevrons, one (1) foot white pavement marking, spaced one (1) foot apart for a length of six (6) feet centered on the travel lane, placed on the transition only.
  - b. Six (6) inch white thermoplastic edge line to be replaced along side of the speed hump, if this edge line previously existed.
  - c. Centerline to be replaced based on BCTED Pavement Marking Policy: i. Either a six (6) inch single yellow in thermoplastic as a ten (10) / thirty (30) skip line; or
    - ii. Six (6) inch double yellow solid line in thermoplastic.

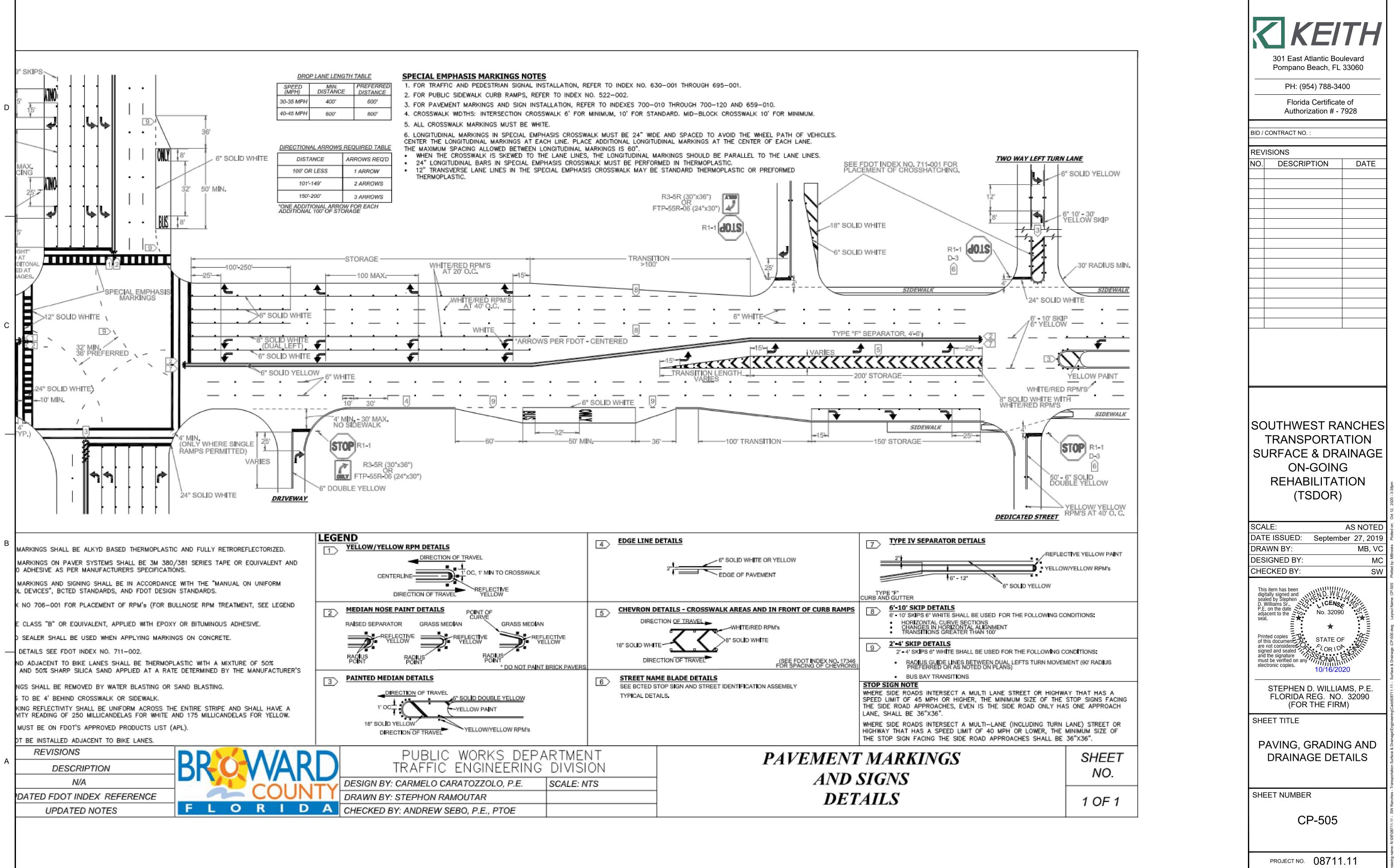
Other information:

- 1. All speed humps shall be installed in two (2) lifts of S3 asphalt.
- 2. Tack coat to be applied prior to laying the S3 asphalt.
- 3. An **approved** Maintenance of Traffic Plan shall be established for each speed hump installation. 4. Installation shall be in compliance with the FDOT Standards Specifications for Road and Bridge Construction 2010.

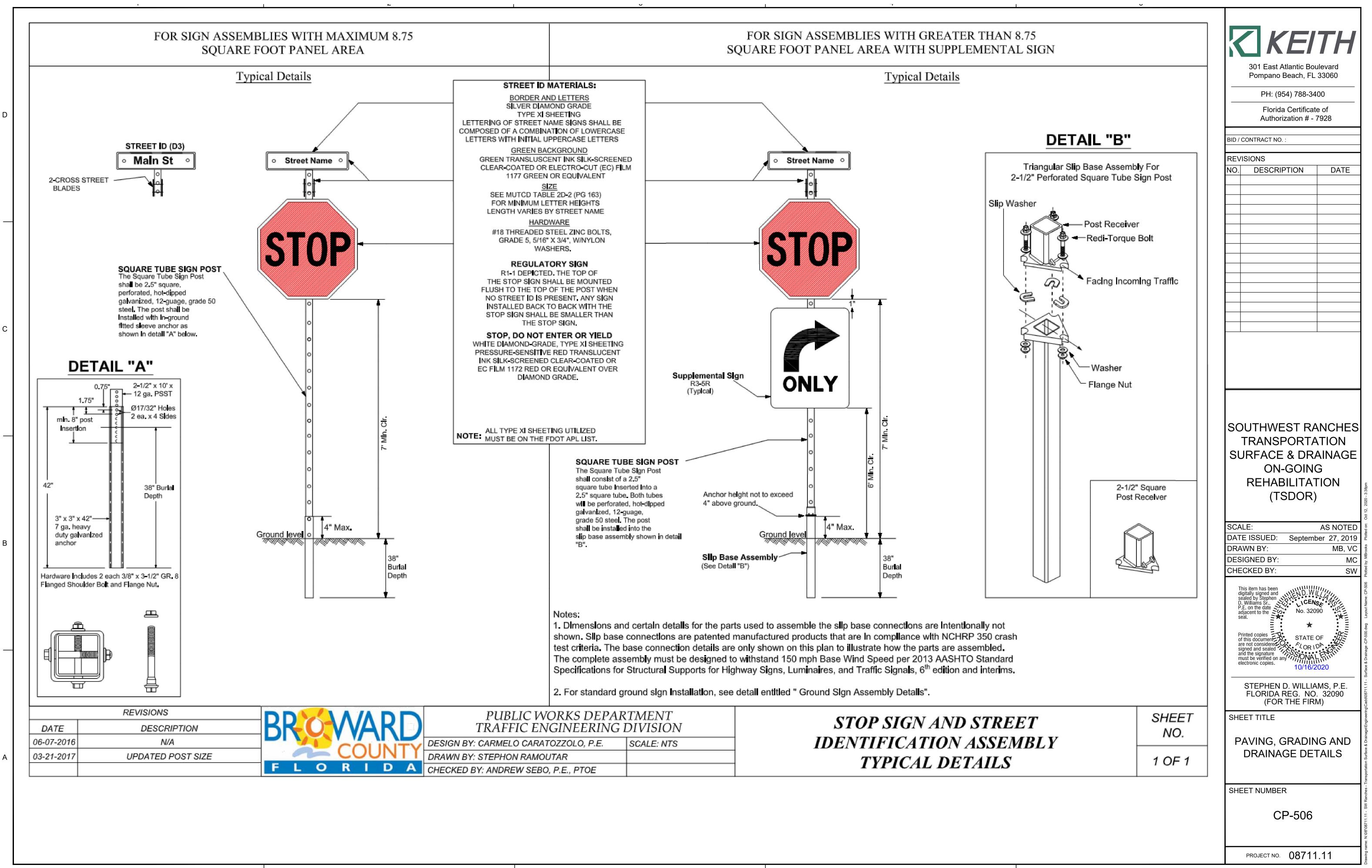
February 22, 2010; revised February 24, 2010, revised April 11, 2018







		4>	EDGE LINE D	DETAILS		7>	TYPE IV SEP	PARATOR DETIAL	<u>.s</u>
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RADIUS POINT * DO NOT PAINT E	ECTIVE LOW BRICK PAVERS		18" SOLID WHIT		(SEE FDOT INDEX NO. 17346 FOR <u>SPACING OF CHEVRONS</u>	9		ETAILS 6" WHITE SHALL BE GUIDE LINES BETW RRED OR AS NOTED	
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<b>IDENTIFICATION AS</b>	SCALE: NTS	BY: CARMELO CARATOZZOLO, P.E.
TYPICAL DETA		BY: STEPHON RAMOUTAR
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