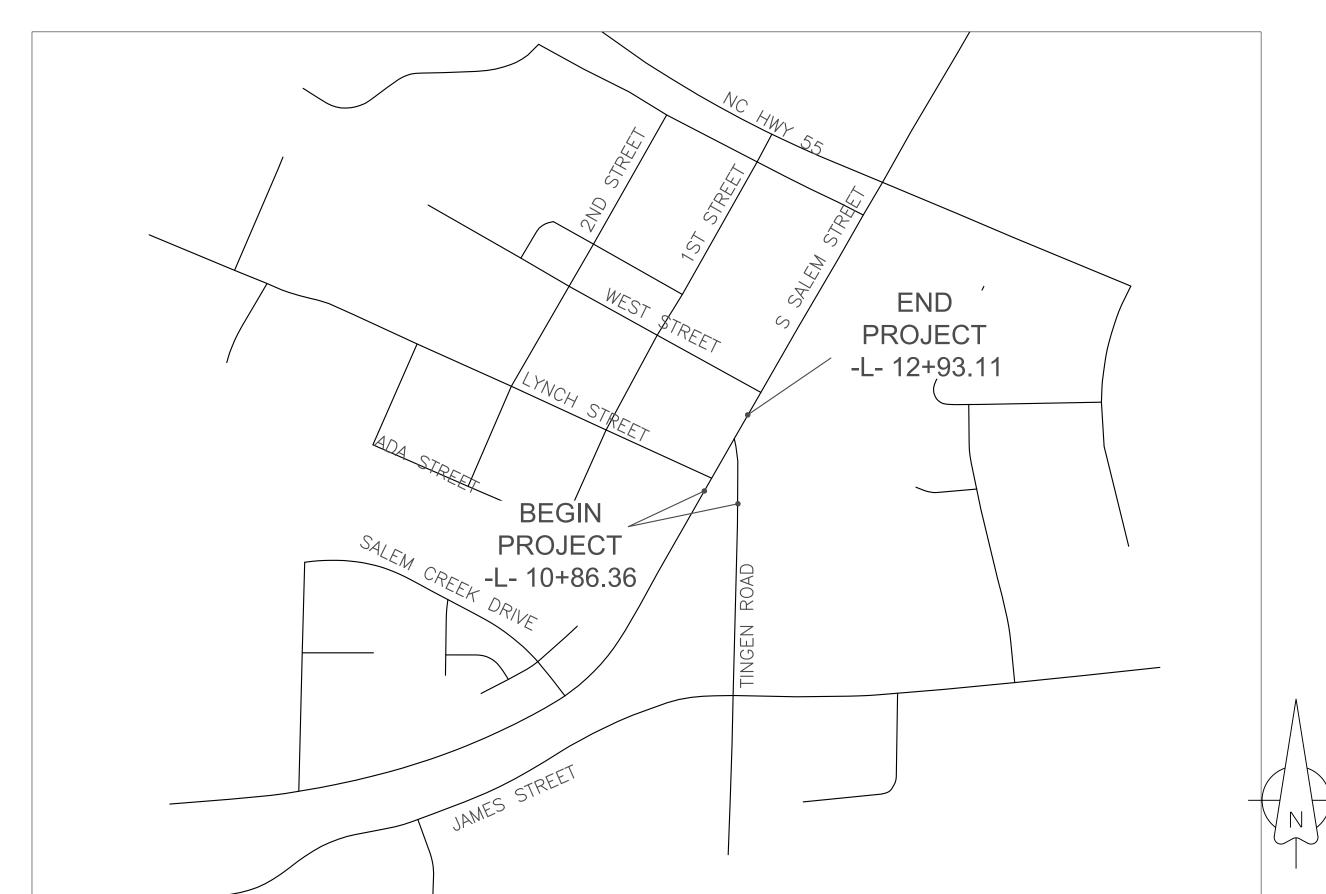
## TOWN OF APEX PUBLIC WORKS & TRANSPORTATION

### TINGEN ROAD AT SOUTH SALEM STREET INTERSECTION IMPROVEMENTS

LOCATION: AT TINGEN ROAD, LYNCH STREET AND SOUTH SALEM STREET

TYPE OF WORK: MILLING, LEVELING, RESURFACING, PAVEMENT WIDENING, DITCH GRADING, SIDEWALK RAMPS,

PAVEMENT MARKINGS



#### SHEET INDEX

SHEET 1: TITLE SHEET

SHEET 2: PROPOSED WIDENING- PLAN SHEET 3: PROPOSED WIDENING- PROF

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SHEET 5: CROSS SECTIONS

SHEET 6: TOWN OF APEX DETAILS

#### **GENERAL NOTES:**

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL ILLUSTRATED KNOWN UNDERGROUND ELEMENTS. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXERCISING REASONABLE EFFORTS TO PROTECT ANY UNKNOWN UNDERGROUND ELEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF UNKNOWN ELEMENTS ARE DISCOVERED THAT WOULD NECESSITATE MODIFICATION TO THE ILLUSTRATED DESIGN.
- 2. PROTECT ALL ADJACENT PROPERTIES, THE GENERAL PUBLIC, AND ALL OF THE OWNER'S FACILITIES. SHOULD DAMAGES OCCUR, CONTRACTOR SHALL REPAIR IMMEDIATELY AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL HOLD HARMLESS THE OWNER AND THE ENGINEER FOR DAMAGES, INJURIES OR OTHER ACCIDENTS WHICH OCCUR DURING THESE CONSTRUCTION ACTIVITIES.
- 4. TREES AND EXISTING LANDSCAPING NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED DURING CONSTRUCTION.
- 5. ALL ELEVATIONS ARE IN REFERENCE TO DESIGNATED BENCHMARKS.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF ALL ILLUSTRATED CONSTRUCTION ACTIVITIES AT THE JOB SITE.
- 7. CONTRACTOR SHALL PROVIDE EXCAVATION AND TRAFFIC CONTROL AS REQUIRED BY LOCAL AUTHORITIES AND ALL APPLICABLE OSHA REGULATIONS.
- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES DURING CONSTRUCTION AND SHALL MAKE REPAIRS AT HIS EXPENSE.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION ADJUSTMENTS OF ALL EXISTING VAULTS (REGARDLESS OF FUNCTION), METER BOXES, FIRE HYDRANTS, CLEAN OUTS, MANHOLES ETC. TO MATCH FINISHED GRADES AND SITE PLAN. ALL SUCH WORK SHALL BE COORDINATED WITH THE ENGINEER.
- 10. UTILIZE SIGNS, BARRICADES, FLAG MEN, OR GUARDS, PER NCDOT STANDARDS, AS REQUIRED TO ENSURE THE SAFETY OF ALL VEHICULAR AND PEDESTRIAN TRAFFIC DURING ALL CONSTRUCTION ACTIVITIES.
- 11. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ADJACENT PROPERTY OWNERS AS REQUIRED FOR WORK OUTSIDE OF PROPERTY LINES.
- 12. UNDER ABSOLUTELY NO CIRCUMSTANCES SHALL ANY UNMANNED EXCAVATION BE LEFT OPEN OR UNPROTECTED DURING NON-WORKED HOURS. UTILIZE SIGNS, BARRICADES, ETC. TO ENSURE THE SAFETY OF THE GENERAL PUBLIC.
  13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYOUT OF ALL WORK AS ILLUSTRATED ON PLANS. IF EXISTING CONDITIONS DIFFER FROM THOSE ILLUSTRATED ON PLANS, NOTIFY ENGINEER PRIOR TO CONSTRUCTION ACTIVITIES.
- 14. VERIFY ALL DIMENSIONS AND GRADES AT THE JOB SITE. IF DIFFERENCES ARE FOUND, NOTIFY ENGINEER SO THAT MODIFICATIONS TO THESE DRAWINGS CAN BE MADE.
- 15. ALL WORK TO BE PERFORMED ACCORDING TO OSHA SAFETY REGULATIONS.
- 16. THE CONTRACTOR SHALL PROVIDE 24 HOURS NOTICE TO THE TOWN OF APEX FOR ALL REQUIRED INSPECTIONS
- 17. ALL UTILITIES OR STRUCTURES NOT DESIGNATED FOR REMOVAL OR MODIFICATION ARE TO REMAIN AND BE PROTECTED FROM DAMAGE
- 18. ALL DEMOLITION WORK SHALL BE PERFORMED WITH "DUE CARE AND DILIGENCE" SO AS TO PREVENT THE ARBITRARY DESTRUCTION OR INTERRUPTION OF CONCEALED UTILITIES WHICH ARE INTENDED TO REMAIN IN USE, THE ROUTING OF WHICH COULD NOT BE PREDETERMINED UNTIL DEMOLITION WAS STARTED. ALL SUCH DISCOVERIES OF UTILITIES DURING THE DEMOLITION PROCESS WHICH ARE IN A LOCATION DIFFERENT FROM THAT INDICATED OR ARE UNIDENTIFIED, SHALL BE REPORTED TO THE ENGINEER AND
- OWNER BEFORE REMOVAL FOR FINAL DISPOSITION.

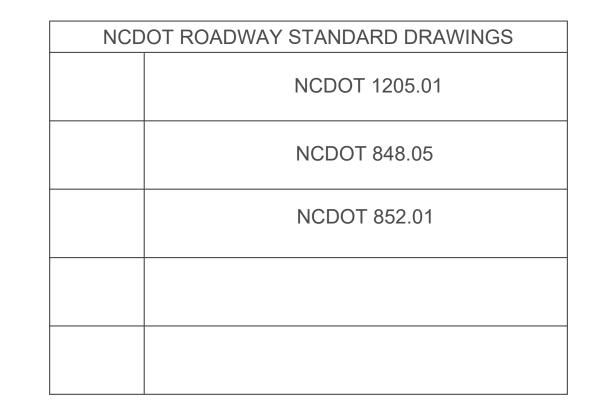
  19. ALL WASTE MATERIAL GENERATED FROM DEMOLITION WORK SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH TOWN OF APEX REGULATIONS.
- 20. SALVAGEABLE FILL MATERIALS FROM SITE DEMOLITION WORK SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH TOWN OF APEX REGULATIONS.

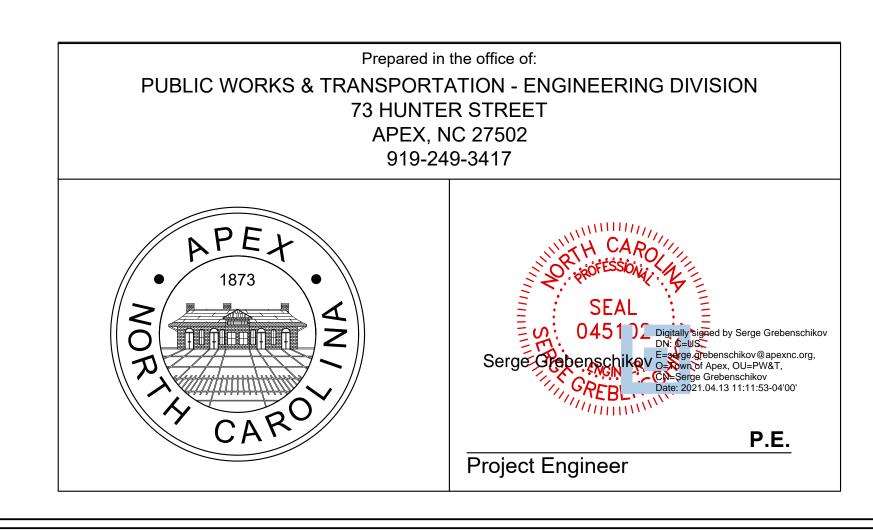
  20. SALVAGEABLE FILL MATERIALS FROM SITE DEMOLITION DETERMINED TO BE ACCEPTABLE BY AN INDEPENDENT SOILS TESTING LABORATORY SHALL BE UTILIZED FOR FILL MATERIAL WHERE APPROPRIATE.
- 21. ANY NOTE, OR REFERENCE TO ANY ELEMENT, WHICH DOES NOT SPECIFY ACTION BY THE CONTRACTOR SHALL BE CONSTRUED AS INFORMATION ONLY.
- 22. ALL STRUCTURES/UTILITIES DESIGNATED FOR MODIFICATION SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION.
- 23. CONTRACTOR SHALL NOTIFY THE NCDOT DISTRICT ENGINEER, IN ACCORDANCE WITH ALL DRIVEWAY PERMITS & ENCROACHMENT AGREEMENTS, PRIOR TO BEGINNING ANY WORK WITHIN THE STATE MAINTAINED RIGHT OF WAY.



THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS.

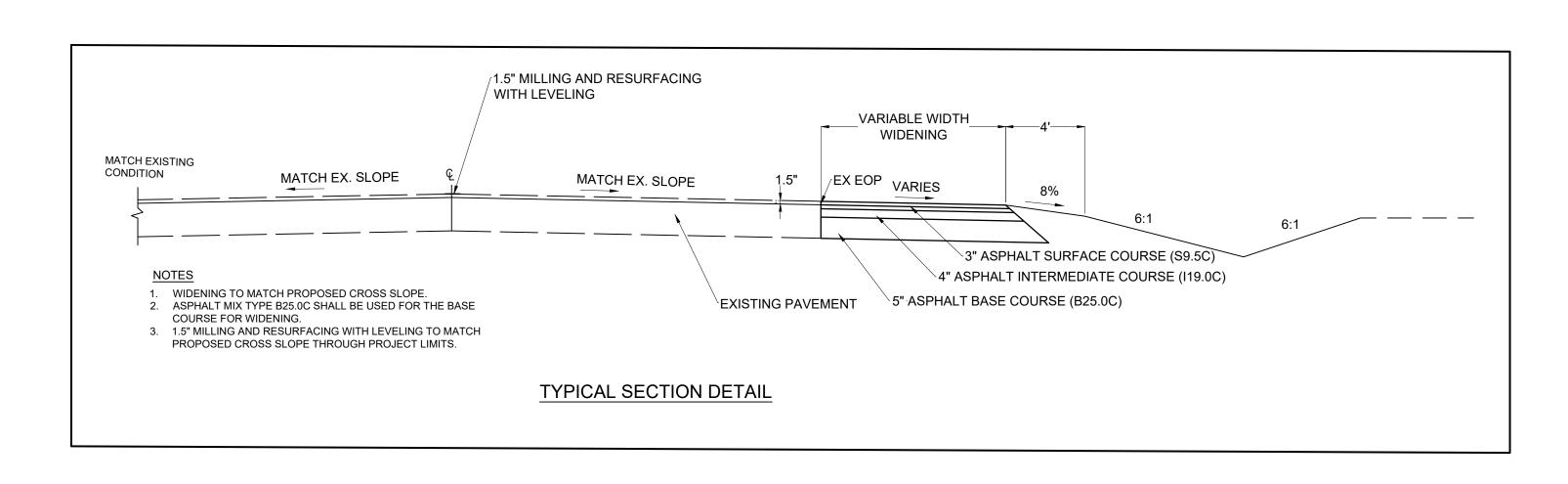
THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT HEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

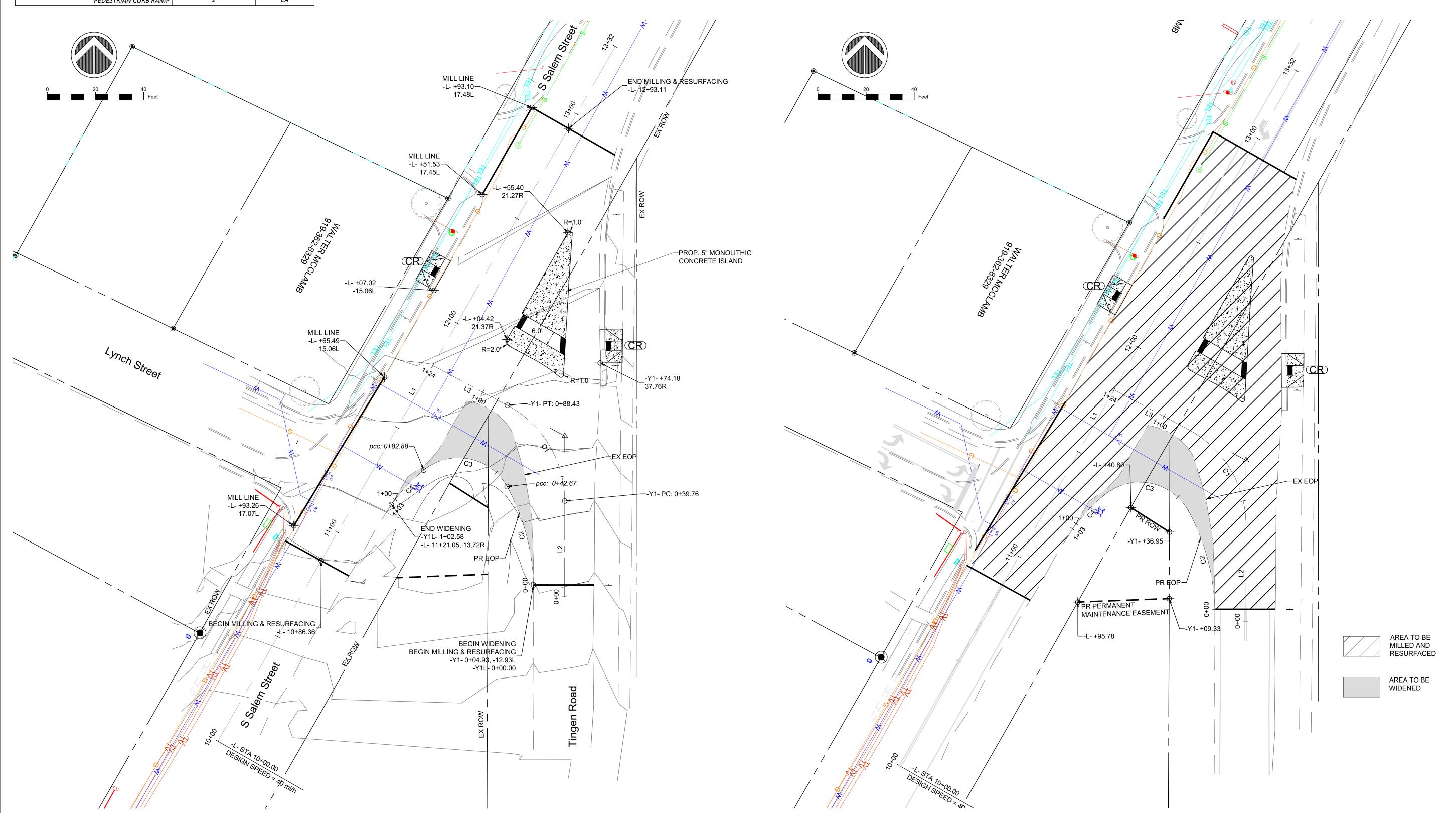


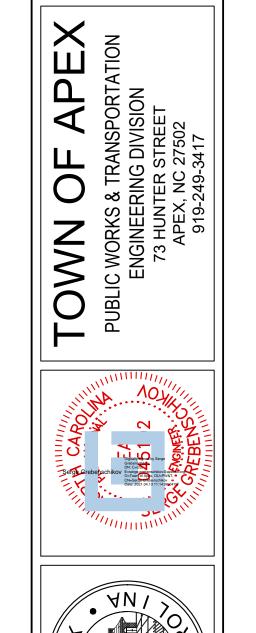


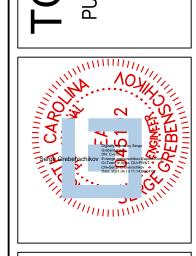
	Curve Data Table									
Number	Alignment	Radius (ft)	Length (ft)	Line/Chord Direction	Delta (° )	PC	PT			
L1	L	-	332.30	N 29° 47′ 08.77″ E	-	-	-			
L2	Y1	-	39.76	N 0° 03' 25.65" E	-	-	-			
L3	Y1	-	35.09	N 61° 54′ 49.48″ W	-	-	-			
C1	Y1	45	48.67	N 30° 55′ 41.91″ W	61.97	0+39.76	0+88.43			
C2	Y1L	88.92	42.67	N 15° 02′ 42.38″ W	27.49	0+00	0+42.67			
С3	Y1L	23.03	40.22	N 78° 49' 45.39" W	100.08	0+42.67	0+82.88			
C4	Y1L	71.30	19.70	S 43° 13' 05.04" W	15.83	0+82.88	1+02.58			

Summary of Q	Summary of Quantities						
Item	Qty	Unit					
Milling and Resurfacing							
1.5" ASPHALT SURFACE COURSE \$9.5C	1329	SY					
Widening							
3.0" ASPHALT SURFACE COURSE \$9.5C	96	SY					
4" ASPHALT INTERMEDIATE COURSE 119.0C	96	SY					
5" ASPHALT BASE COURSE B25.0C	96	SY					
Other Improvements							
5" MONOLITHIC CONCRETE ISLAND	74	SY					
PEDESTRIAN CURB RAMP	2	EA					









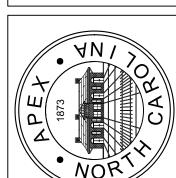
SHEET 2 of 6

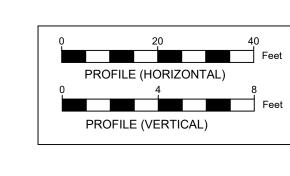
PLAN SHEET

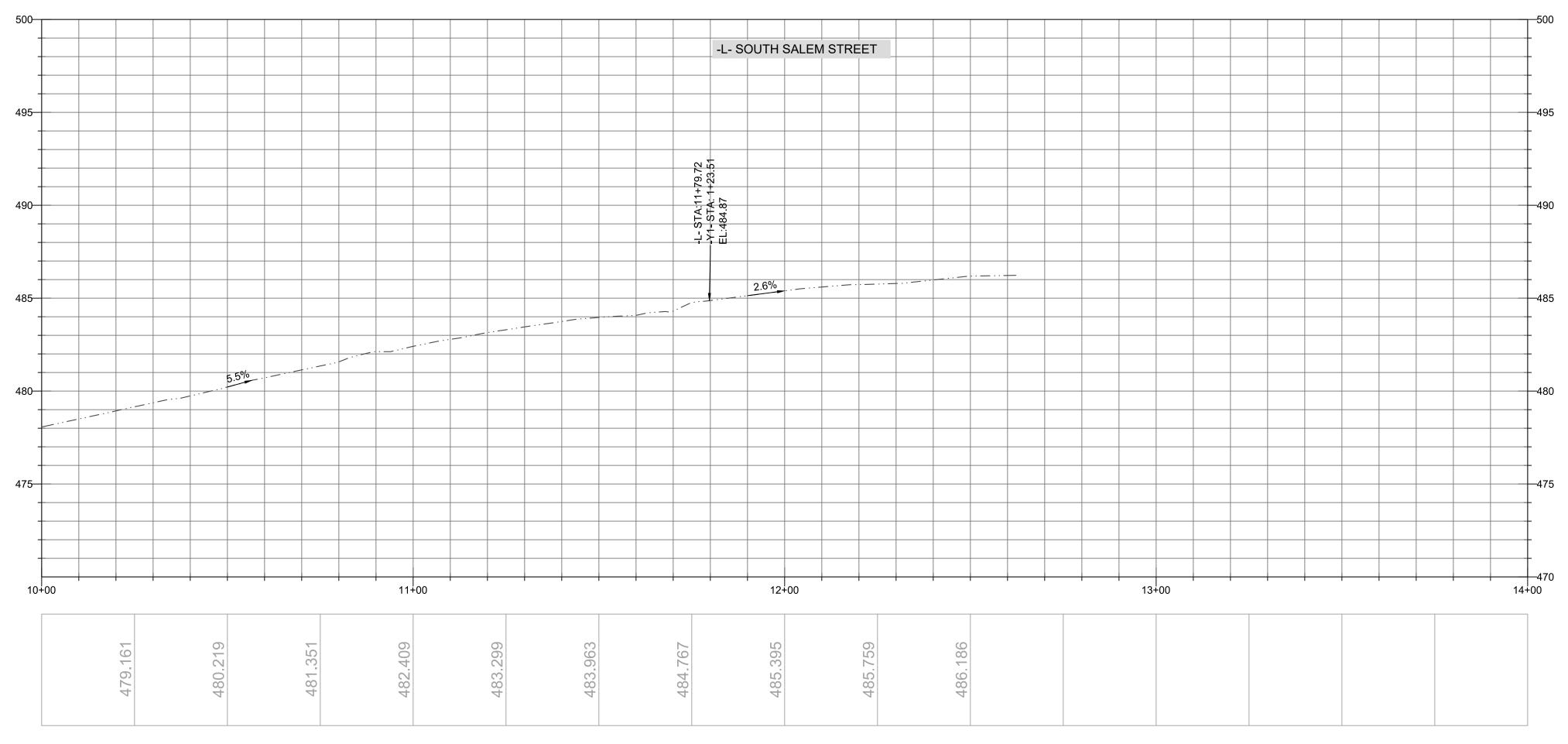
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I IMPROVEMENTS

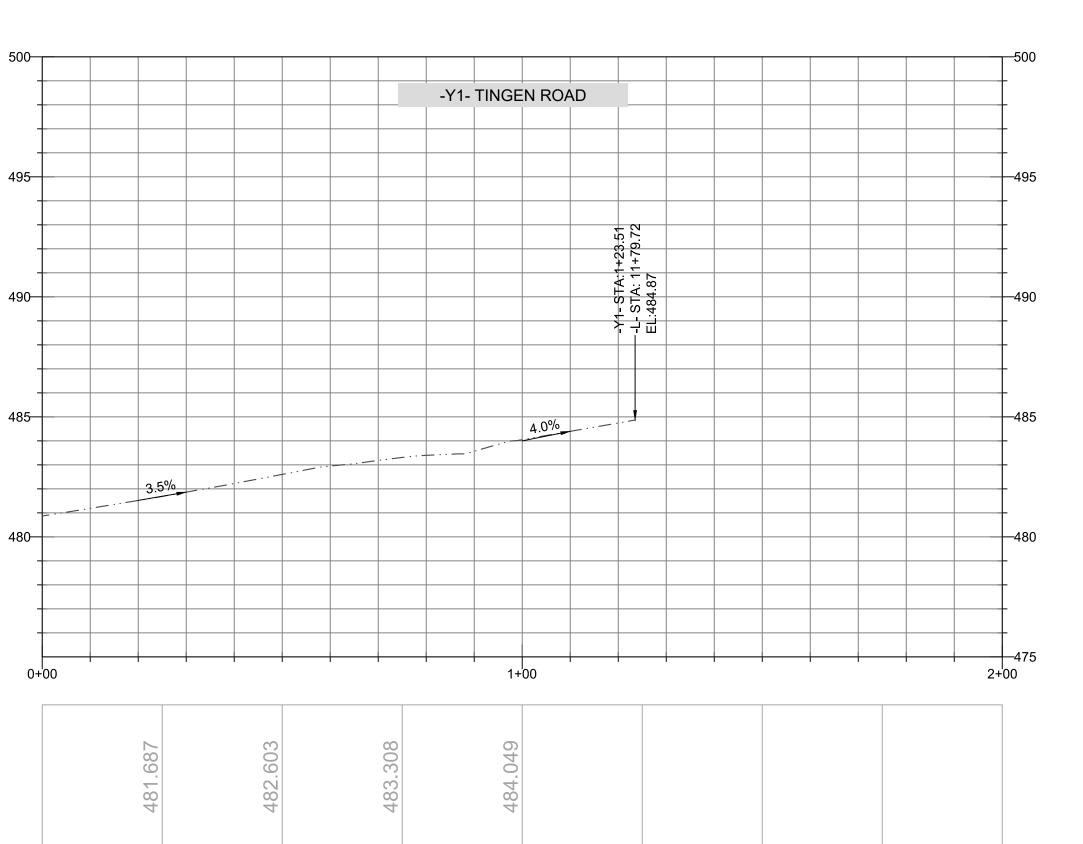
TINGEN ROAD AT INTERSECTION

APEX, WAKE COL









TINGEN ROAD AT S SALEM STREET INTERSECTION IMPROVEMENTS

SHEET 3 of 6

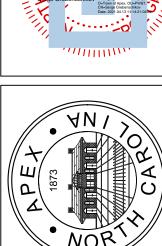
PROFILE SHEET

12/01/20

APEX, WAKE COUNTY, NORTH CAROLINA

TOWN OF APEX
PUBLIC WORKS & TRANSPORTATION
ENGINEERING DIVISION
73 HUNTER STREET
APEX, NC 27502
919-249-3417





#### PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	QUANTITY
THERMOPLASTIC (4", 90 MILS)	WHITE EDGELINE	415 LF
THERMOPLASTIC (4", 120 MILS)	White EDGELINE	413 LF
TB	YELLOW CENTERLINE	155 LF
T8	2 FT 6 FT./SP WHITE MINISKIP	100 Li
T9	2 FT 6 FT./SP YELLOW MINISKIP	75 LF
TC	10 FT. WHITE SKIP	-
TD	3 FT 9 FT./SP WHITE MINISKIP	-
TE	WHITE SOLID LANE LINE	71 LF
THERMOPLASTIC (8", 120 MILS)		
TQ	WHITE CROSSWALK LINE	73 LF
THERMOPLASTIC (8", 90 MILS)		
TR	WHITE SOLID DIAGONAL LINE	65 LF
THERMOPLASTIC (24", 120 MILS)		
T2	WHITE STOPBAR	84 LF
THERMOPLASTIC PAVEMENT MA	,	0.54
UA	LEFT TURN ARROW	2 EA
UB	RIGHT TURN ARROW	-
UI	ALPHANUMERIC CHARACTER	-
UN	24 " YIELD LINE TRIANGLE	4 EA

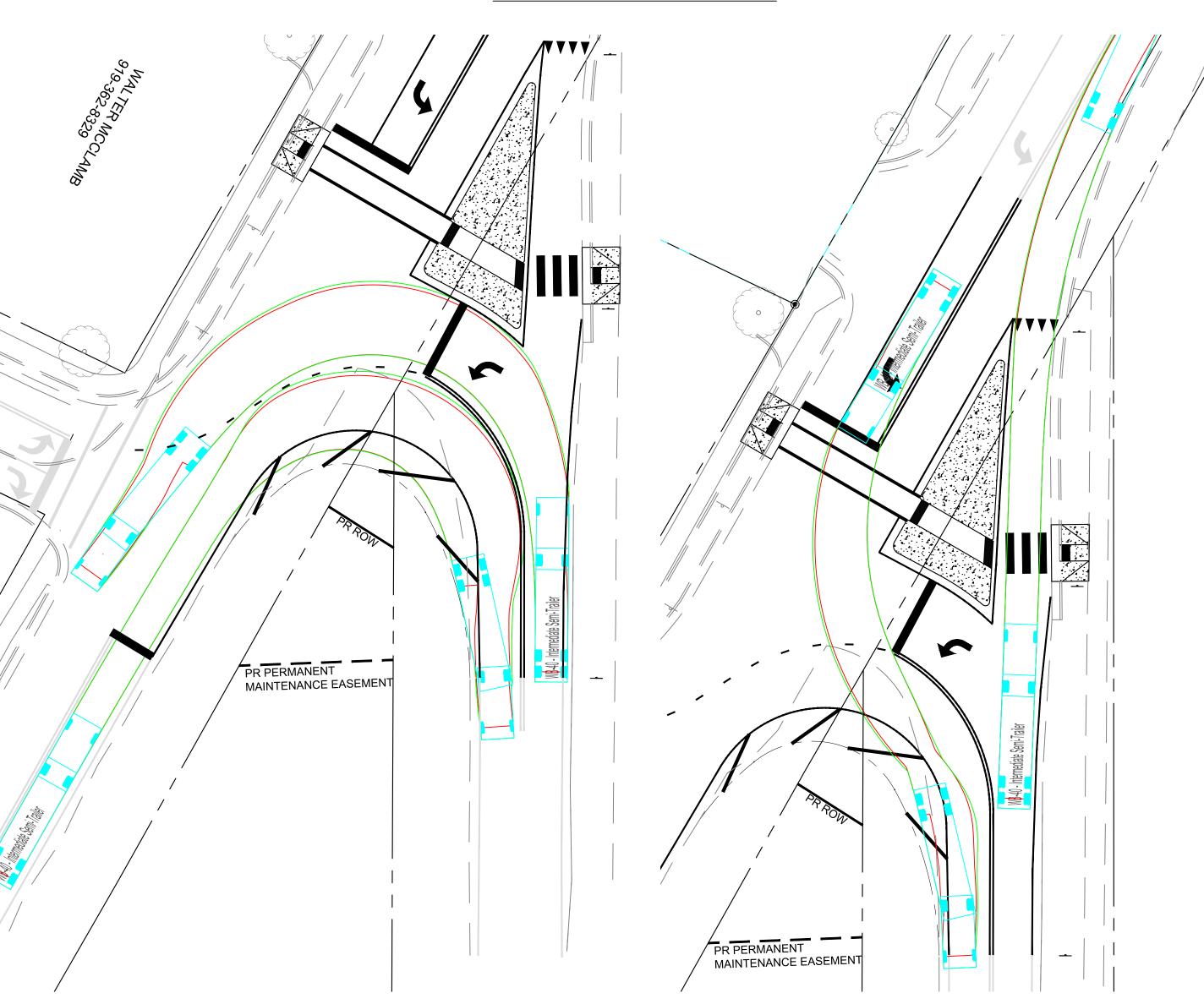
#### PAVEMENT MARKING GENERAL NOTES

- ALL MARKINGS SHALL BE THERMOPLASTIC PER THE PAVEMENT MARKING SCHEDULE.
- 2. TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT
- 3. REMOVE AND/OR REPLACE ANY CONFLICTING PAVEMENT MARKINGS
- AND MARKERS.
- 4. STOP BAR LOCATIONS AT UNSIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

#### SIGN SCHEDULE

YIELD	R1-2	36" X 36"	QTY: 1
TURNING VEHICLES TO	R10-15	30" X 30"	QTY: 1
	W11-2	30" X 30"	QTY: 1
	W16-7P	24" X 12"	QTY: 1

#### **WB-40 TURN TEMPLATES**



SHEET 4 of 6

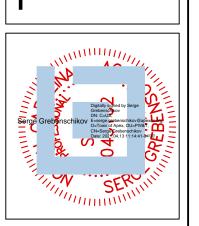
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/EMENTS

TINGEN ROAD AT S SALEM STREE INTERSECTION IMPROVEMENTS

LIC WORKS & TRANSPORTATION
ENGINEERING DIVISION
73 HUNTER STREET





11+75.00

Offset=0.00

Offset=19.60 Elev = 484.07

0 10

Offset=0.00 Elev = 484.98

10 20 30 40 50

11+79.72

Elev = 484.28

-10 0

Elev = 484.79

Offset=-15.05\_

Elev = 485.05

Elev = 485.49

-30

<del>-</del>40

Feet

0 4 8
VERTICAL (Y-AXIS)

HORIZONTAL (X-AXIS)

<del>-</del>20







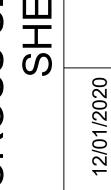




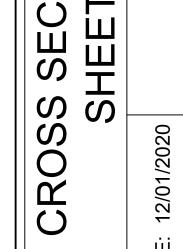
# TINGEN ROAD AT !

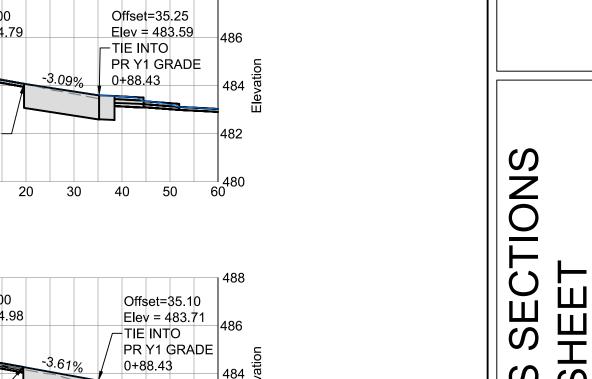
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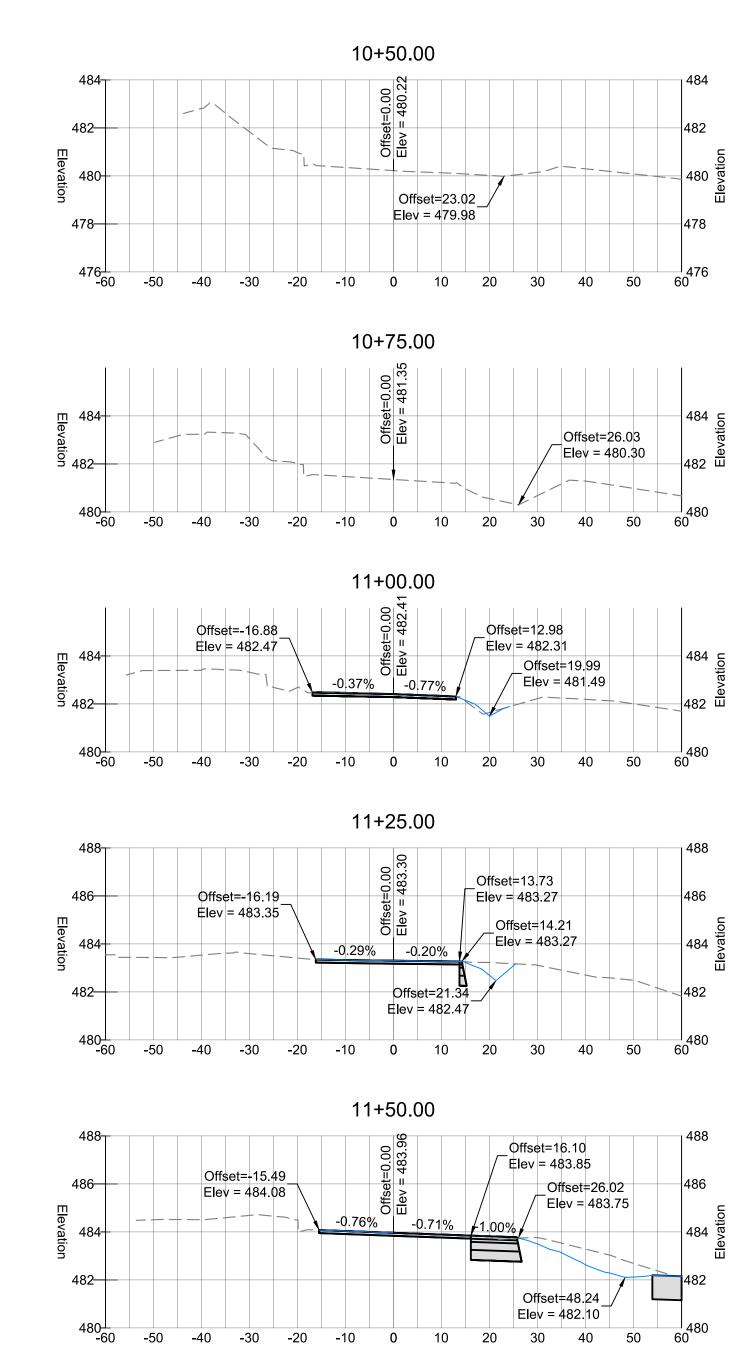
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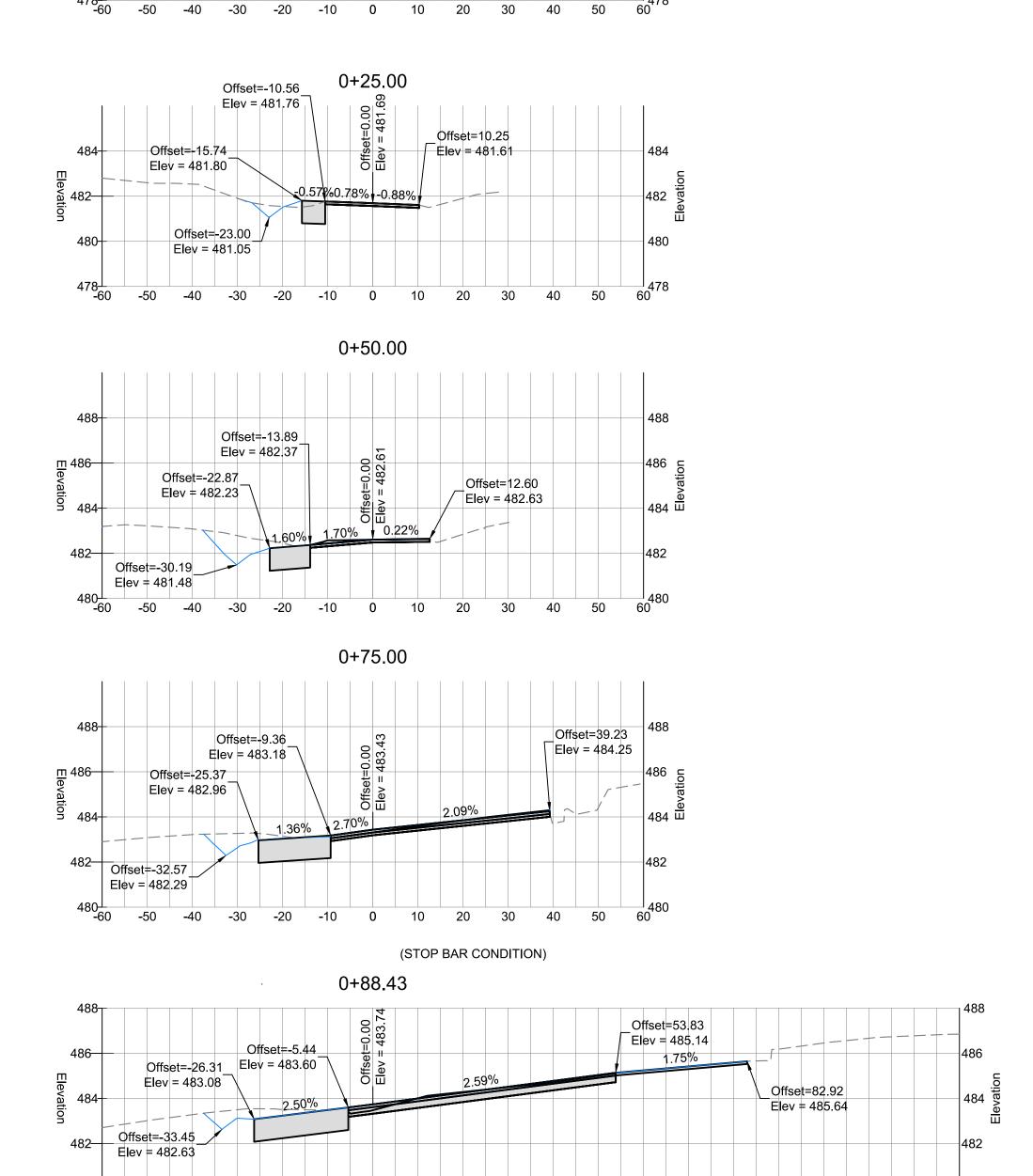












-50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

-Y1- TINGEN ROAD

Offset=-12.92 Elev = 480.81 0+00.00

