

# TOWNSHIP OF HAMILTON

## PLANS OF KLOCKNER ELEMENTARY SCHOOL SAFE ROUTES TO SCHOOL

### PRELIMINARY ENGINEERING PHASE

TOWNSHIP OF HAMILTON

COUNTY OF MERCER

SCALES AS INDICATED

MAY 2022

PROJECT CATEGORIES	NON - NHS
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HIGHWAY TYPE	UM
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## KEY MAP



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	KEY
2-3	TYPICAL SECTIONS
4	PLAN SHEET INDEX AND BORING LOCATION PLAN
5	CONSTRUCTION LEGEND
6-30	CONSTRUCTION PLANS
31	ENVIRONMENTAL, SOIL EROSION & SEDIMENT CONTROL PLAN
32-38	TRAFFIC CONTROL AND STAGING PLANS
39-40	TIES
41-45	GRADES

MID-POINT OF PROJECT  
LONGITUDE: 74 ° 42' 37" W  
LATITUDE: 40 ° 14' 25" N

## PRELIMINARY DESIGN SUBMISSION

Submitted by \_\_\_\_\_  
Hamilton Township Superintendent of Engineering Date \_\_\_\_\_

Approved by \_\_\_\_\_  
State Transportation Engineer Date \_\_\_\_\_

**TOTAL LENGTH OF PROJECT = 5,400 LIN. FT. OR 1.023 MILES**

**2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION TO GOVERN**

THIS PROJECT IS ADMINISTERED BY THE NEW JERSEY DEPARTMENT OF TRANSPORTATION, DEPARTMENT OF LOCAL AID, AND THE TOWNSHIP OF HAMILTON USING GRANT MONIES AWARDED TO THE TOWNSHIP FROM THE NJDOT SAFE ROUTES TO SCHOOL PROGRAM.

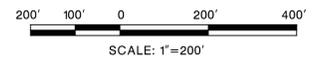
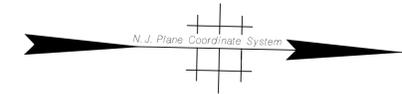
"CHANGES MADE TO THESE PLANS SINCE SIGNATURE BY THE CONSULTANT MAY BE DETERMINED BY COMPARISON OF THE PLANS FILED AT THE TOWNSHIP WITH THOSE FILES AT THE OFFICE OF THE CONSULTANT."

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800







PSI-1  
PSI-

**TOWNSHIP OF HAMILTON - NEW JERSEY**  
**PLAN SHEET INDEX AND BORING LOCATION PLAN**  
**KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL**

ARORA and ASSOCIATES, P.C.  
 PROFESSIONAL ASSOCIATION  
 DAVID HUTCHINSON, P.E.  
 NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

NO.	DATE	DESCRIPTION

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# NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD LEGEND

STATE	FEDERAL PROJECT NO.
N.J.	*

## Linear Features

<i>Existing</i>	<b>PROPOSED</b>	
		<b>Water Main (Size)</b>
		<b>Gas Main (Size)</b>
		<b>Telephone Conduit</b>
		<b>Electric Conduit (Highway or Utility)</b>
		<b>Cable TV</b>
		<b>Fiber Optic</b>
		<b>Intelligent Transportation System (Wires &amp; Cables)</b>
		<b>Sanitary Sewers or Storm Drains</b>
		<b>Pavements (Concrete or Bituminous)</b>
		<b>Shoulders</b>
		<b>Curbs</b>
		<b>Slopes (Cut &amp; Fill)</b>
		<b>Base Line</b>
		<b>Twp., City, County Lines</b>
		<b>Right of Way Lines (Access Permitted)</b>
		<b>Right of Way Lines (No Access)</b>
		<b>Easements</b>
		<b>Temp. Site Mitigation Work Line</b>
		<b>Temporary Site Alternative Access Easement</b>
		<b>Slope Easement Line</b>
		<b>Property Line</b>
		<b>Fence (Size &amp; Type)</b>
		<b>Reset Fence</b>
		<b>Beam Guide Rail</b>
		<b>Reset Beam Guide Rail</b>
		<b>Noise Walls</b>
		<b>Wetland Limit Line</b>
		<b>Silt Fence</b>
		<b>Ditches</b>
		<b>Railroad Tracks</b>
		<b>Tree Line</b>

## Topographical Features

<i>Existing</i>	<b>PROPOSED</b>	
		<b>Inlets (Label Type)</b>
		<b>Inlets (Type ES)</b>
		<b>Manholes (Label Type or Utility)</b>
		<b>Reset (Inlets or Manholes)</b>
		<b>Reconstructed (Inlets or Manholes)</b>
		<b>Cast Iron Extension (Frame or Ring) (Inlet or Manhole)</b>
		<b>New Manhole Casting, Square Frame, Circular Cover</b>
		<b>R.C. End Section or C.M. Headwall</b>
		<b>Headwalls</b>
		<b>Headwalls &amp; Aprons</b>
		<b>Water Gate Valves</b>
		<b>Reset Water Gate Valves</b>
		<b>Gas Gate Valves</b>
		<b>Reset Gas Gate Valves</b>
		<b>Hydrants</b>
		<b>Reset Hydrants</b>
		<b>Utility Pole (Type &amp; Number)</b>
		<b>Temporary Utility Pole</b>
		<b>Traffic Signal</b>
		<b>Junction Box</b>
		<b>Fiber Optic Junction Box</b>
		<b>Junction Box Foundation</b>
		<b>Signs</b>
		<b>Vertical Panels</b>
		<b>Camera (With Blind Spot)</b>
		<b>Dynamic Message Sign (DMS)</b>

## Topographical Features

<i>Existing</i>	<b>PROPOSED</b>	
		<b>Guide Rail End Terminals</b>
		<b>Beam Guide Rail Anchorages</b>
		<b>Monuments</b>
		<b>ROW Monument (ROW Control Points)</b>
		<b>Test Pit</b>
		<b>BORINGS (Boring Number)</b>
		<b>Deciduous Tree (Size, Kind)</b>
		<b>Evergreens</b>
		<b>Bush</b>
		<b>Hedges</b>
		<b>Swamp</b>

## Double Reference Codes

EDQ - ESTIMATE AND DISTRIBUTION OF QUANTITIES - ROADWAY  
 TS - TYPICAL SECTIONS  
 PSI - PLAN SHEET INDEX  
 CL - CONSTRUCTION LEGEND  
 C - CONSTRUCTION PLANS  
 EP - ENVIRONMENTAL PLANS AND SOIL EROSION AND SEDIMENT CONTROL PLANS  
 DU - DRAINAGE AND UTILITY PLANS  
 P - PROFILES  
 T - TIES  
 G - GRADES  
 TC - TRAFFIC CONTROL AND STAGING PLANS  
 ED - ELECTRICAL DETAILS  
 HL - HIGHWAY LIGHTING PLANS  
 TSS - TRAFFIC SIGNING AND STRIPING PLANS  
 L - LANDSCAPE PLANS  
 MS - METHOD OF CROSS SECTIONS  
 X - CROSS SECTIONS  
 DTL - CONSTRUCTION DETAILS  
 EQQB - ESTIMATE OF QUANTITIES - STRUCTURE  
 B - STRUCTURE PLANS

## Miscellaneous Symbols

**Items With No Alternate**

**Alternate Items**  
 OR

**Place 1" of HPTO over 2" HMA 12.5ME Intermediate Course, Vary Mill Depth (HMA Milling 3" or less)**

**Place 2" & Vary of HMA 12.5M64 Surface Course, Mill Depth 2"**

**Milling, Driveway**

**Place 1" of HPTO over 2" & Var. HMA 12.5ME Intermediate Course, No Mill**

**Nonvegetative Surface, Polyester Matting**

**Nonvegetative Surface, HMA**

**Building to be Removed & Paid for Under Clearing Site**

**PARCEL Demolition No. & Parcel No. of Building to be Demolished**

**PROFILE LEVEL LINE**

**High Point**

**Low Point**

**B.M. Bench Mark**

## GENERAL NOTES:



## ABBREVIATIONS USED IN THIS CONTRACT

AH., BK.	AHEAD, BACK	L.O.P.	LIMIT OF PAVEMENT (PAVING)	PVC, P.V.C.	POLYVINYL CHLORIDE PIPE,
B.L.	BASELINE	L.O.M.	LIMIT OF MILLING	PVI, P.V.I.	POINT OF VERTICAL CURVATURE
B.M.	BENCH MARK	M.B.	MAILBOX	PVT, P.V.T.	POINT OF VERTICAL INTERSECTION
B.T.	BELL TELEPHONE	M.P.	MILE POST	R	POINT OF VERTICAL TANGENCY, PAVEMENT
BIT., BITUM.	BITUMINOUS	MAX.	MAXIMUM	RCCP, R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
BLDG.	BUILDING	M.E.C.	MEET EXISTING CURB	RCP, R.C.P.	REINFORCED CONCRETE PIPE
CL., C.L.	CENTERLINE	M.E.P.	MEET EXISTING PAVEMENT	RMC, R.M.C.	RIGID METALLIC CONDUIT
C.I.P.	CAST IRON PIPE	M.E.S.	MEET EXISTING SIDEWALK	RNMC, R.N.M.C.	RIGID NON-METALLIC CONDUIT
C.M.P.	CORRUGATED METAL PIPE	MIN.	MINIMUM	ROW, R.O.W.	RIGHT OF WAY
CONC.	CONCRETE	NJTA	NEW JERSEY TURNPIKE AUTHORITY	R.R.	RAILROAD
CPD	CORRUGATED PLASTIC DUCT	NO.	NUMBER	RTE., RT.	ROUTE
C.T.	CURB TRANSITION	N.T.S.	NOT TO SCALE	SAN.	SANITARY
CULV.	CULVERT	PAV'T.	PAVEMENT	SDWK.	SIDEWALK
D, DIA.	DIAMETER	PERF.	PERFORATED	S.H.D.	STATE HIGHWAY DEPARTMENT
D.C.	DROP CURB	P.G.L.	PROFILE GRADE LINE	SHLD.	SHOULDER
DE	DITCH EXCAVATION	P.L.	PROPERTY LINE, PROFILE LINE	S.S.L.	SURVEY LINE
DEP., DP	DEPRESSED CURB	PK	PARKER KAYLON MASONRY NAIL	S.O.D.	SUBBASE OUTLET DRAIN
DH	DRILL HOLE	PC, P.C.	POINT OF CURVE	STY.	STORY
DWY	DRIVEWAY	PCC	POINT OF COMPOUND CURVATURE	T	TANGENT
E.B., W.B., N.B., S.B.	EASTBOUND, WESTBOUND NORTHBOUND, SOUTHBOUND	PCP	PERFORATED CONCRETE PIPE	TBA	TO BE ABANDONED
EL., ELEV.	ELEVATION	PI, P.I.	POINT OF INTERSECTION	TBR	TO BE REMOVED
EXIST.	EXISTING	POB, P.O.B.	POINT OF BEGINNING	TEL.	TELEPHONE
GR.	GRATE	POE, P.O.E.	POINT OF END	TEMP.	TEMPORARY
HT.	HEIGHT	POC, P.O.C.	POINT ON CURVE	THK., TH.	THICK
H.W.	HEADWALL	POL, P.O.L.	POINT ON LINE	TYP.	TYPICAL
HYD.	HYDRANT	POT, P.O.T.	POINT ON TANGENT	U.D.	UNDERDRAIN
INV.	INVERT	P.P.	PLASTIC PIPE	UP, U.P.	UTILITY POLE
IP	IRON PIN	P.P.C.	POINT OF REVERSE CURVE	VAR.	VARIABLE, VARIES
J.B.	JUNCTION BOX	PROP.	PROPOSED	W.C.V.C.	WHITE CONCRETE VERTICAL CURB
LT., RT.	LEFT, RIGHT	PT, P.T.	POINT OF TANGENCY	WM	WATER METER
				X-SECT	CROSS SECTION

## ELECTRICAL PLAN ABBREVIATIONS

CF	CUTOFF LUMINAIRE, TYPE
E	EXPRESSWAY LUMINAIRE
ID	IMAGE DETECTOR
IDC	IMAGE DETECTOR CABLE
JBF	JUNCTION BOX FOUNDATION
L	LUMINAIRE
LMA-A	LIGHTING MAST ARM, ALUMINUM
LMA-S	LIGHTING MAST ARM, STEEL
LSA	LIGHTING STANDARD, ALUMINUM
LSF	LIGHTING STANDARD, FIBERGLASS
LSS	LIGHTING STANDARD, STEEL
MAS	MAST ARM SIGN
MSC II	MEDIUM SEMI-CUTOFF LUMINAIRE, TYPE 2
MSC III	MEDIUM SEMI-CUTOFF LUMINAIRE, TYPE 3
PB	PUSH BUTTON
PSH	PEDESTRIAN SIGNAL HEAD
PSS	PEDESTRIAN SIGNAL STANDARD
TSH	TRAFFIC SIGNAL HEAD
TSMA-A	TRAFFIC SIGNAL MAST ARM, ALUMINUM
TSMA-S	TRAFFIC SIGNAL MAST ARM, STEEL
TSS-C	TRAFFIC SIGNAL STANDARD, ALUMINUM "C"
TSS-K	TRAFFIC SIGNAL STANDARD, ALUMINUM "K"
TSS-S	TRAFFIC SIGNAL STANDARD, STEEL
TSS-SC	TRAFFIC SIGNAL STANDARD, STEEL COMBINATION
TSS-T	TRAFFIC SIGNAL STANDARD, ALUMINUM "T"
UL-P	UNDERDECK LIGHTING, TYPE "P"
UL-W	UNDERDECK LIGHTING, TYPE "W"
V	VERTICAL LUMINAIRE

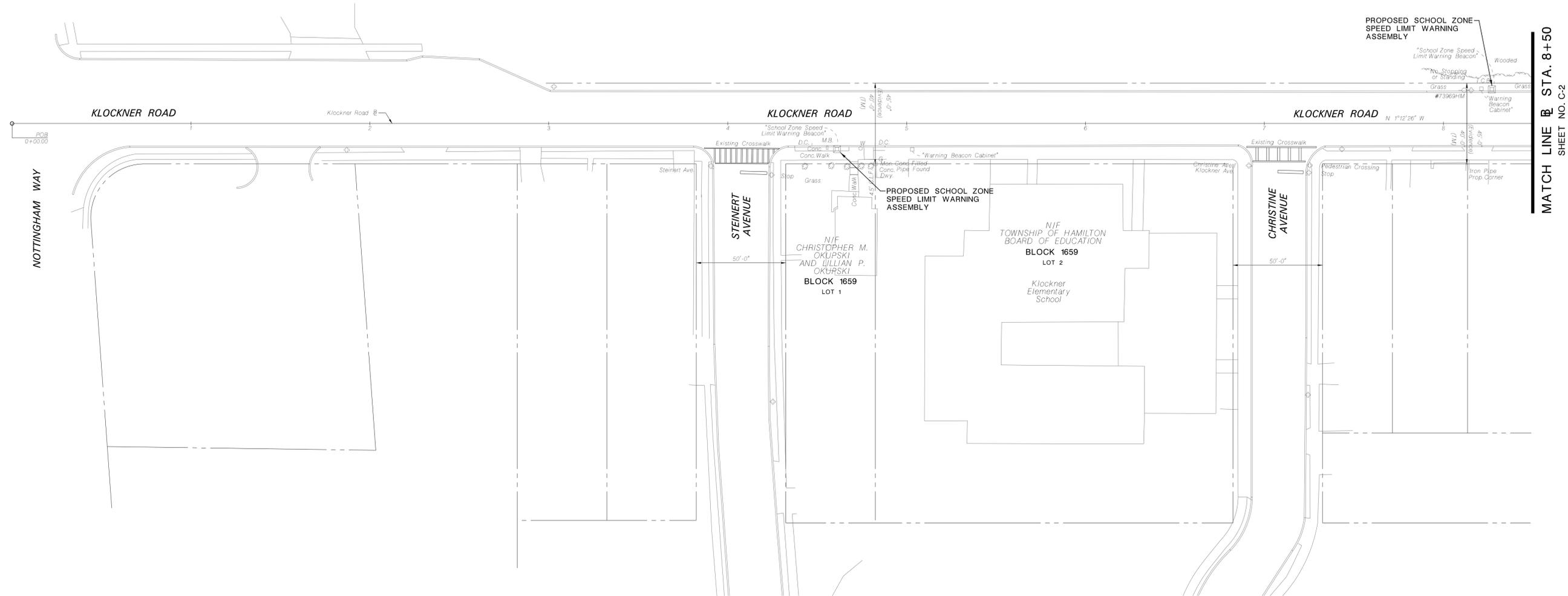
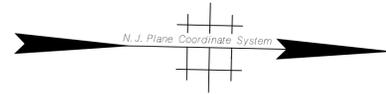
## CONSTRUCTION LEGEND

**KLOCKNER ROAD ELEMENTARY  
SAFE ROUTES TO SCHOOL**

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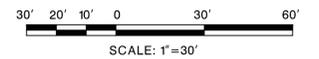


MATCH LINE @ STA. 8+50  
SHEET NO. C-2

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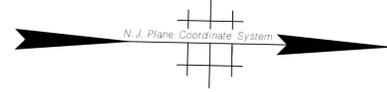
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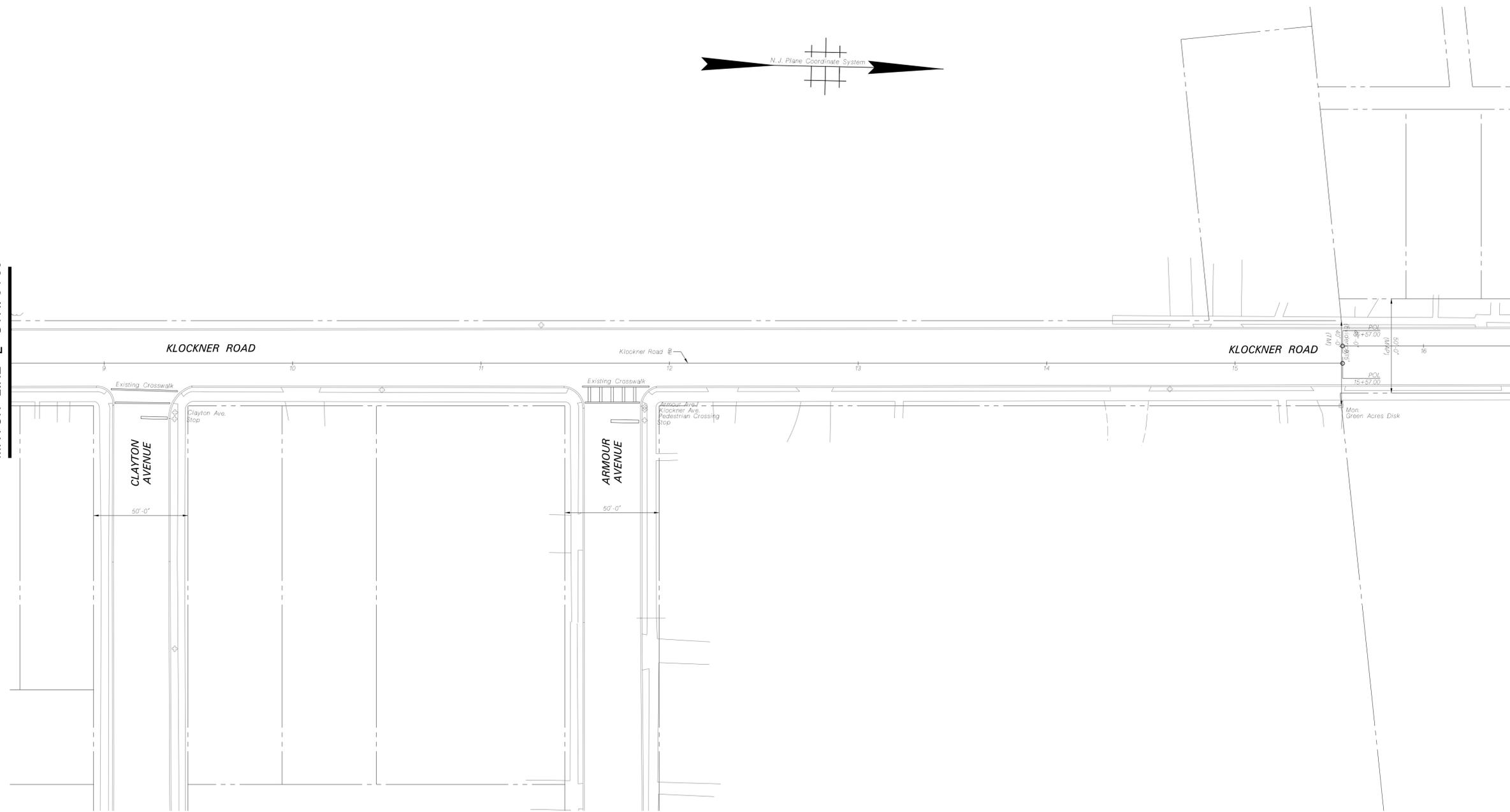
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C-1  
C-25



SHEET NO. C-1  
MATCH LINE @ STA. 8+50

MATCH LINE @ STA. 16+50  
SHEET NO. C-3

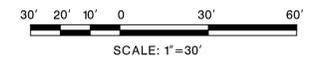


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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY

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C-2  
C-25

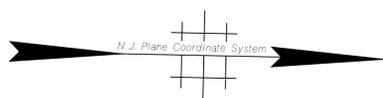
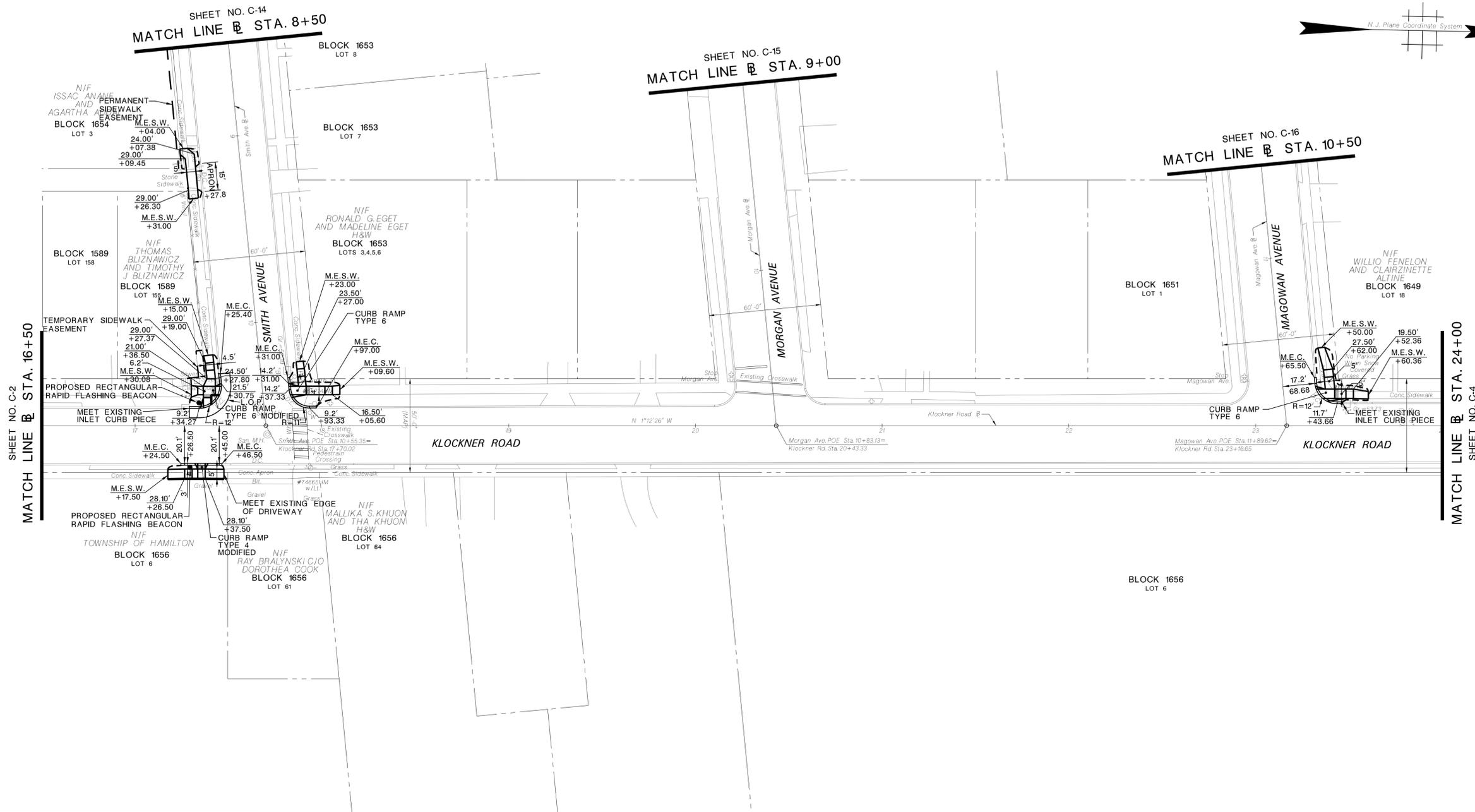
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SHEET NO. C-2  
MATCH LINE @ STA. 16+50

SHEET NO. C-15  
MATCH LINE @ STA. 9+00

SHEET NO. C-16  
MATCH LINE @ STA. 10+50

MATCH LINE @ STA. 24+00  
SHEET NO. C-4

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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY



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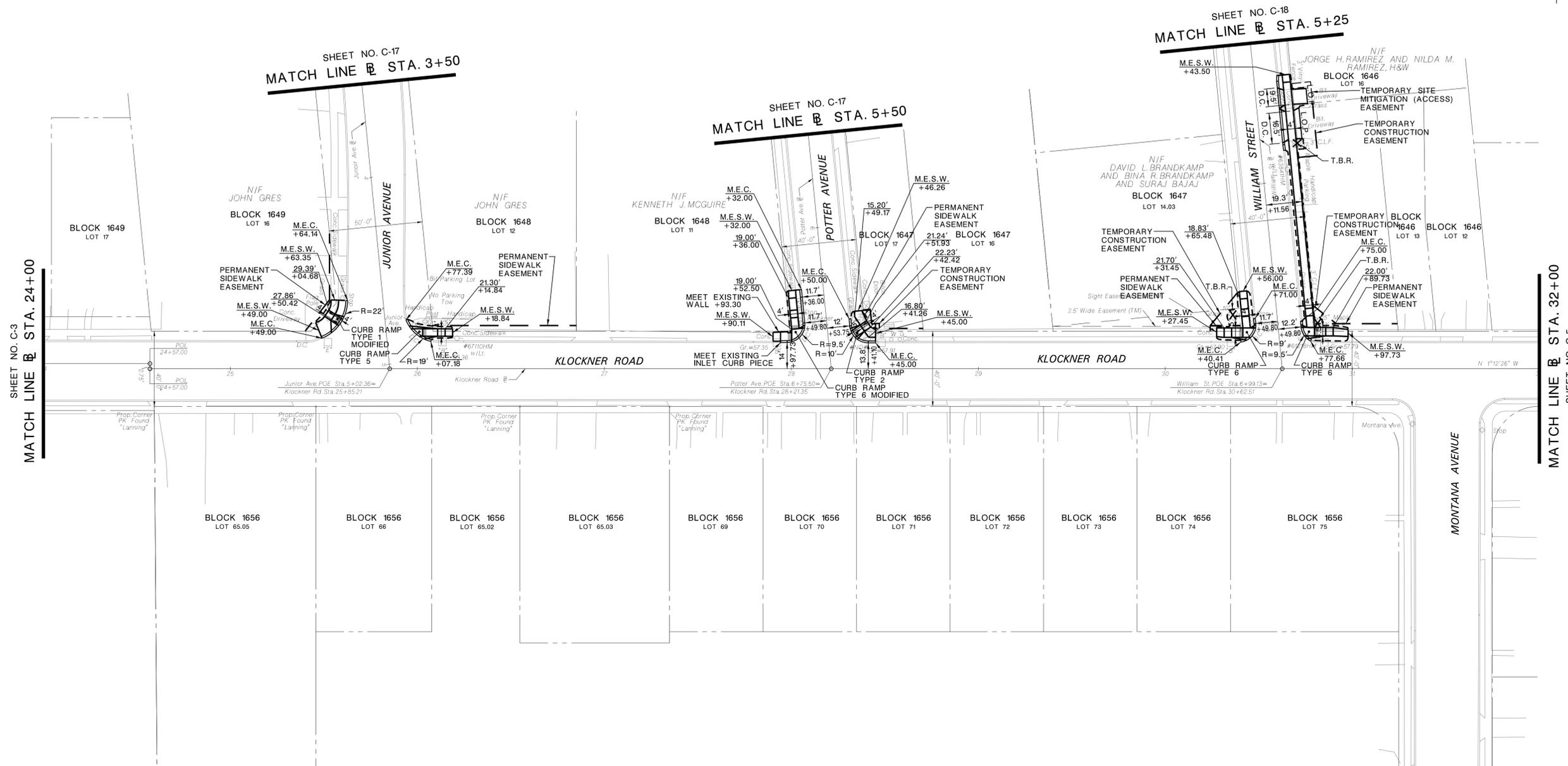
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C-3  
C-25



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TOWNSHIP OF HAMILTON - NEW JERSEY

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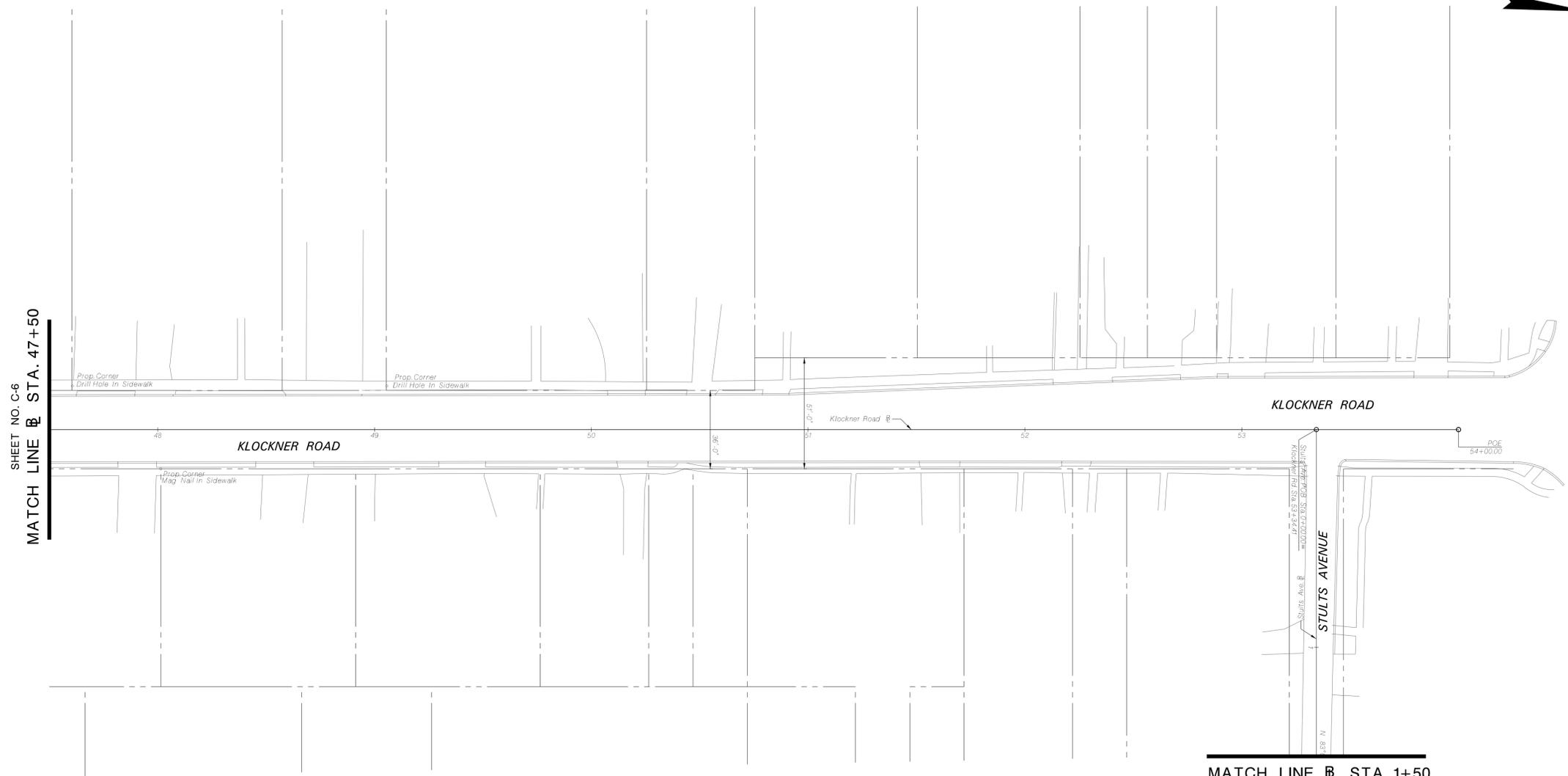
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C-4  
C-25







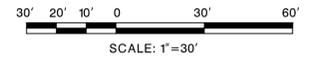
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SHEET NO. C-22

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C-7  
C-25

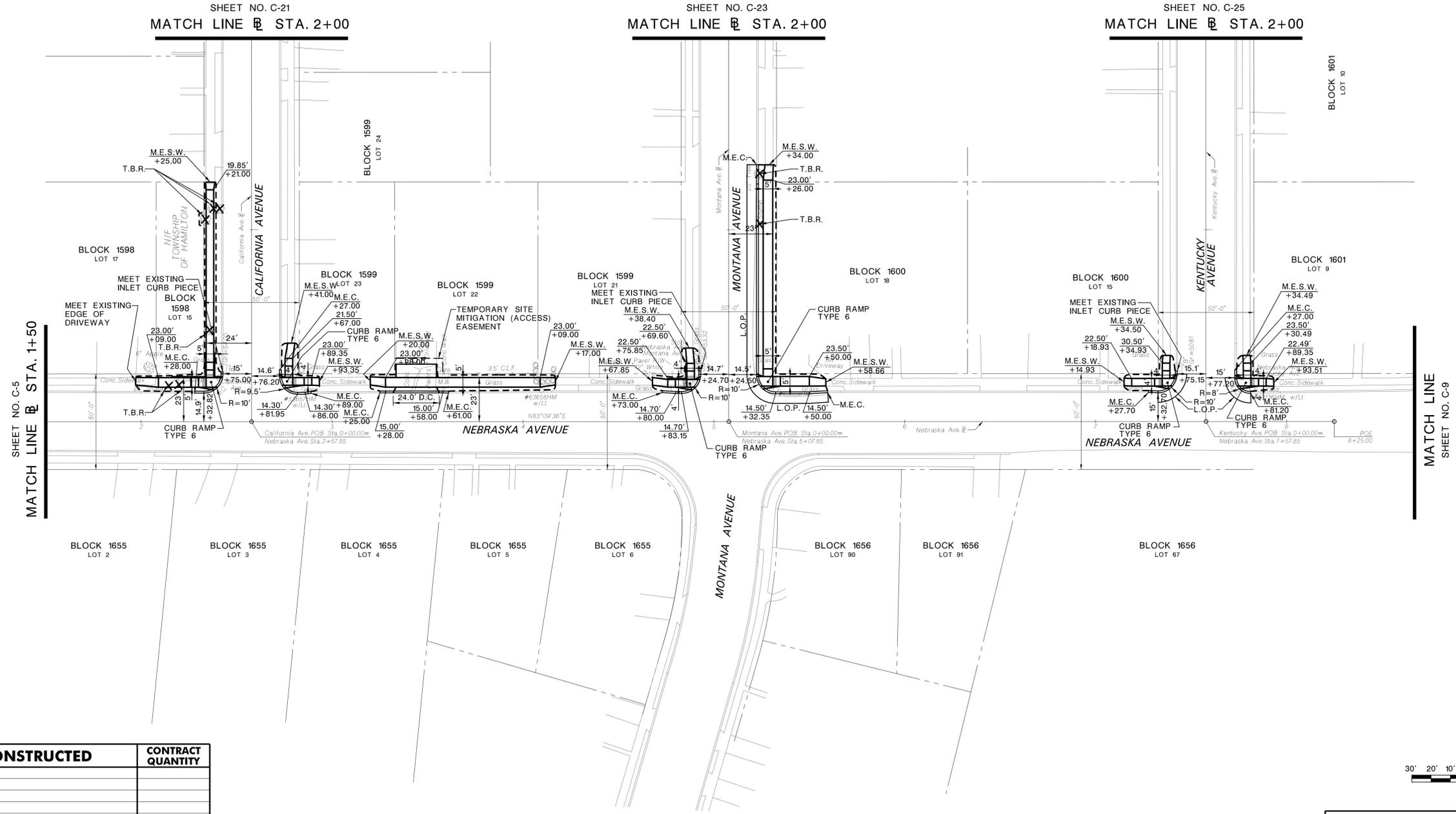
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## CONSTRUCTION PLAN

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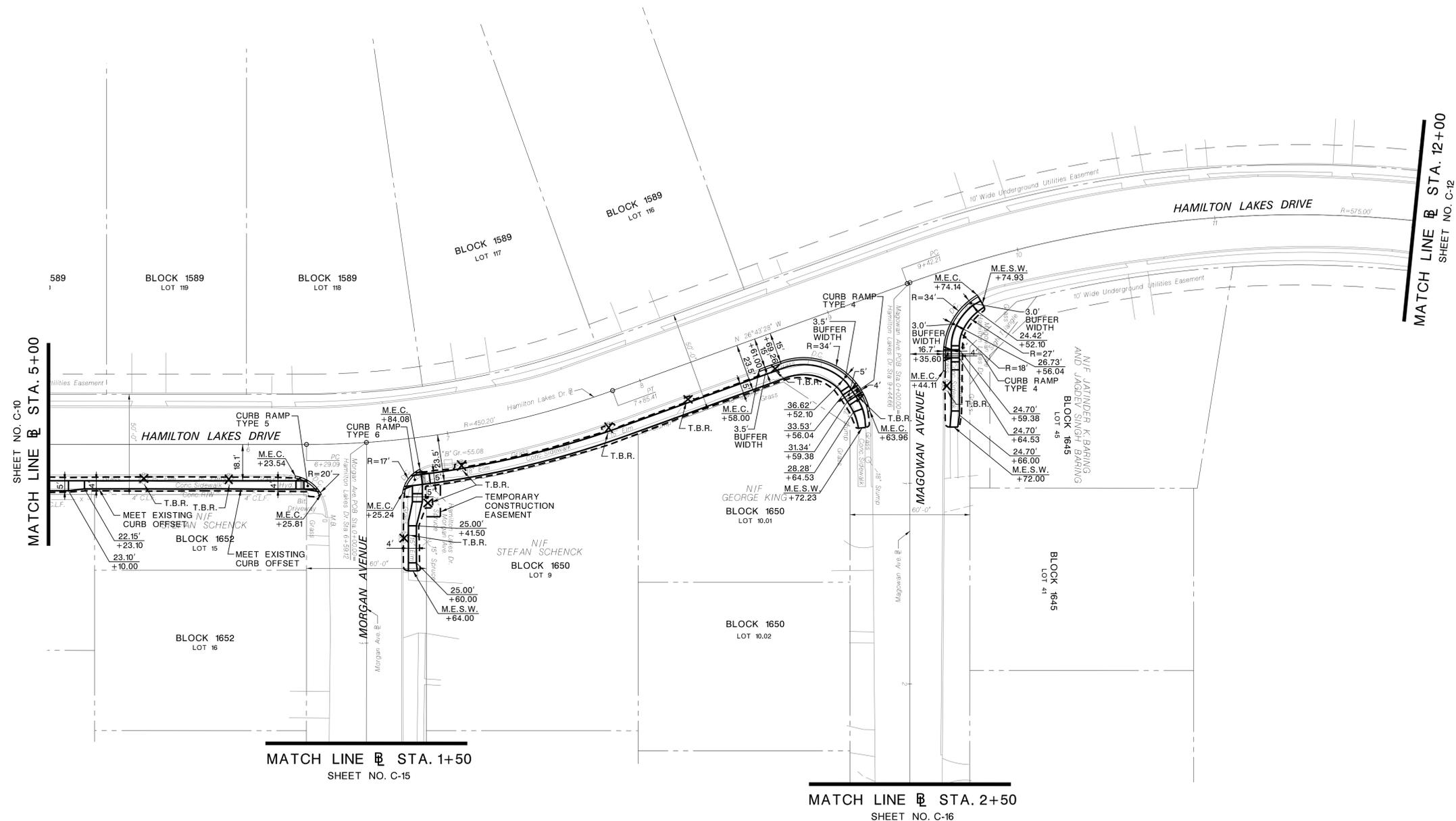
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C-8  
C-25



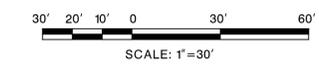




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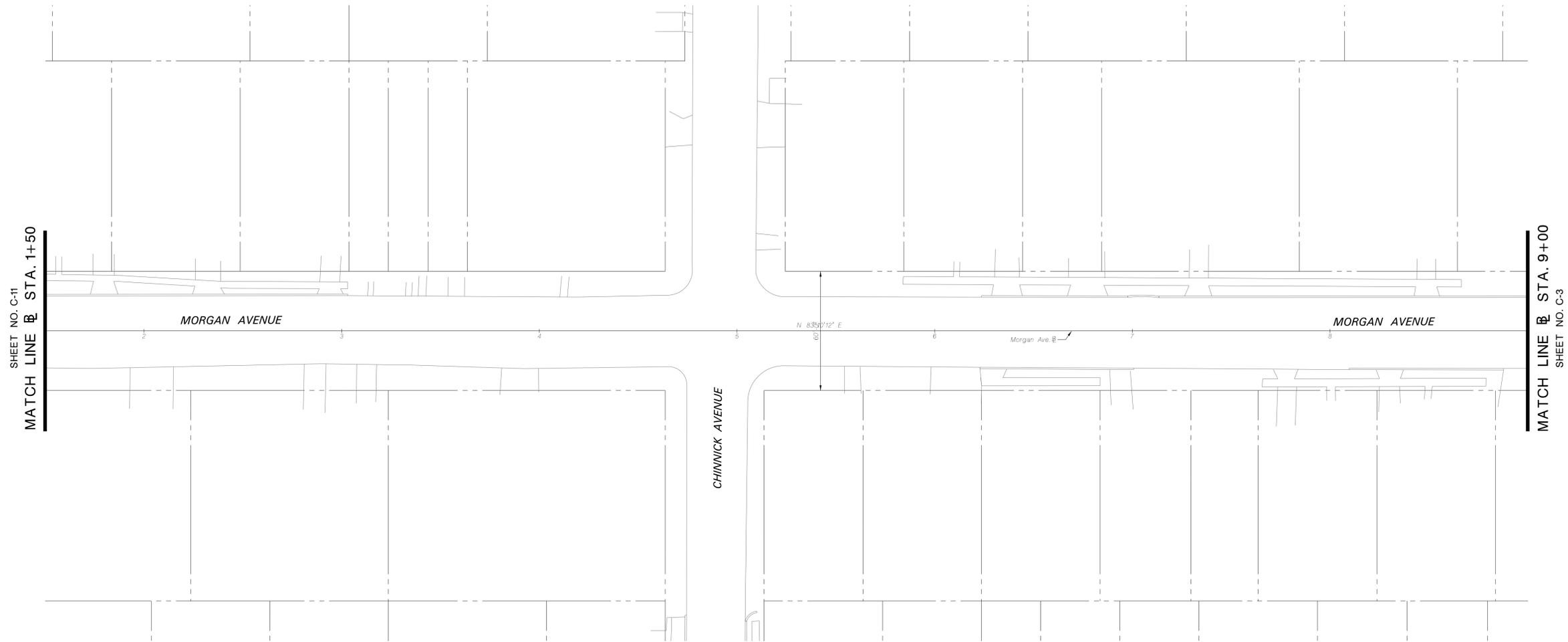
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C-11  
C-25







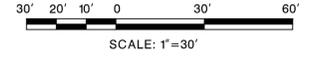


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NO WORK ON THIS SHEET



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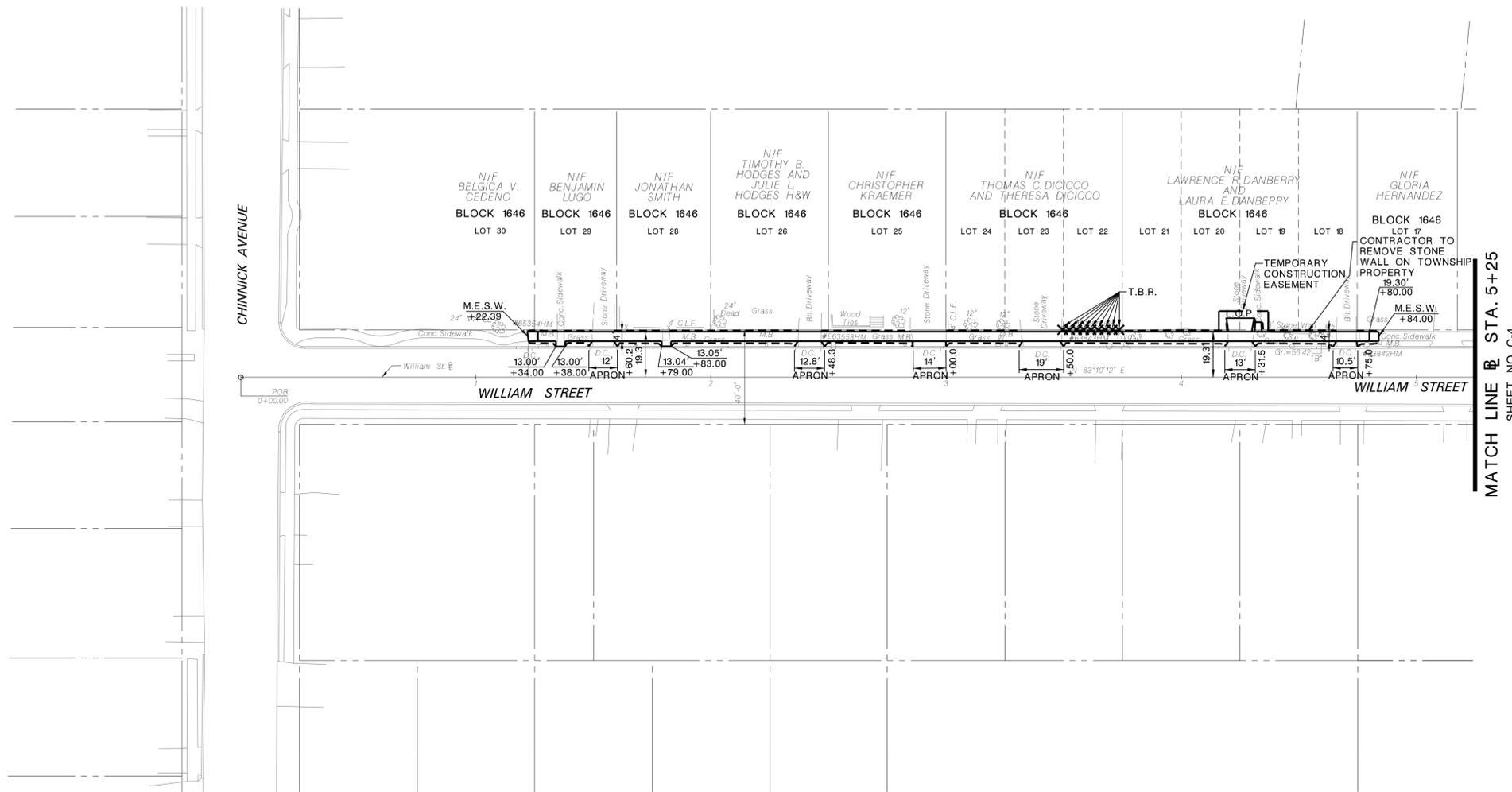
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C-15  
C-25



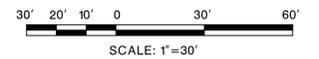




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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY



C-18  
C-25

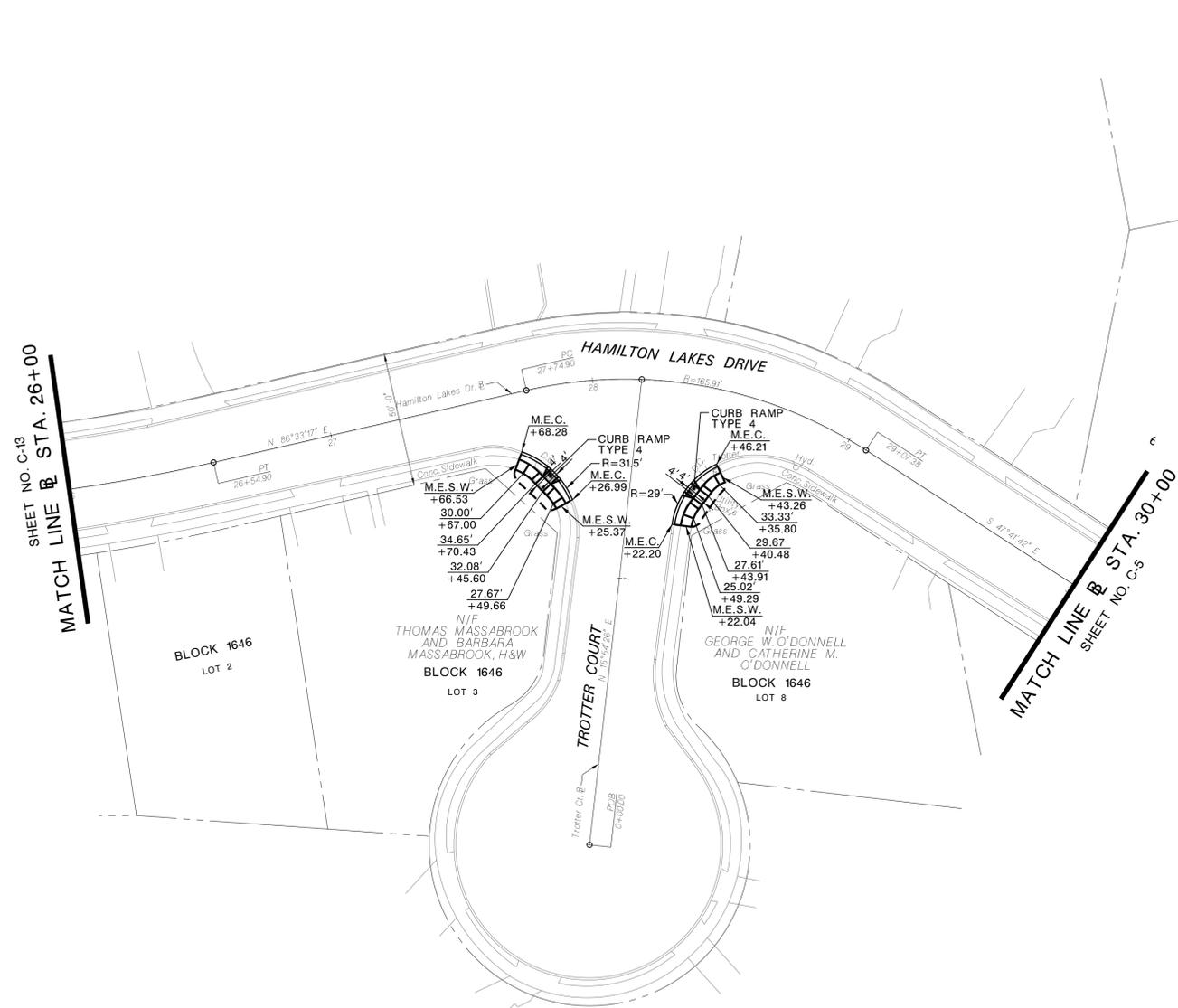
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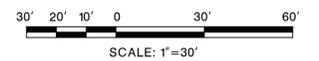
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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY



C-19  
C-25

**TOWNSHIP OF HAMILTON - NEW JERSEY**

**CONSTRUCTION PLAN**

**KLOCKNER ROAD ELEMENTARY  
SAFE ROUTES TO SCHOOL**

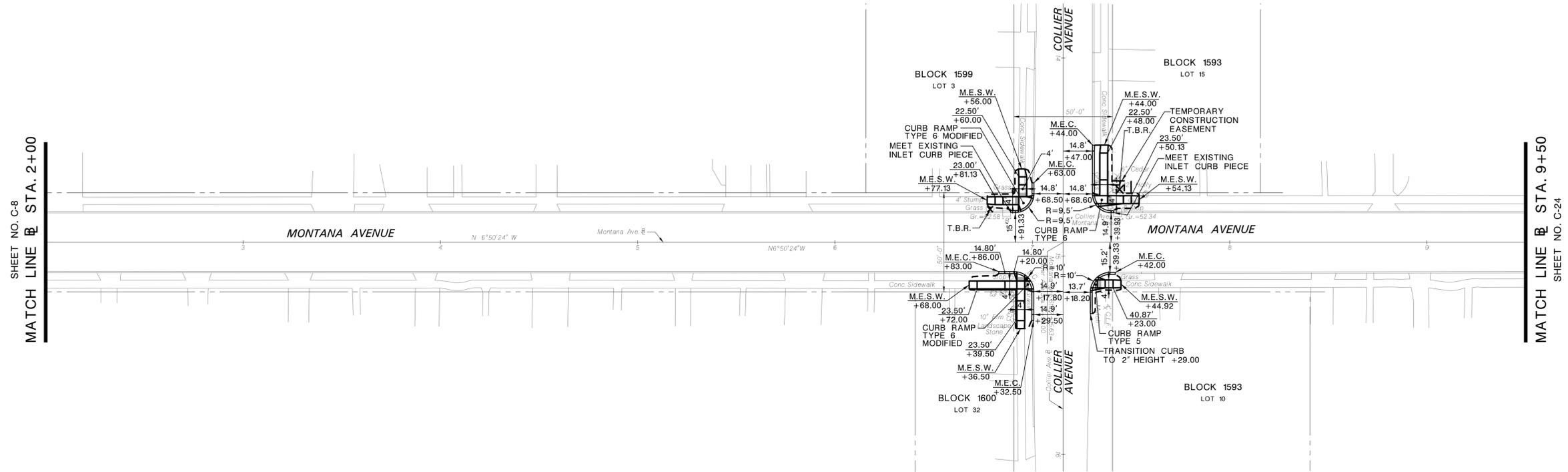
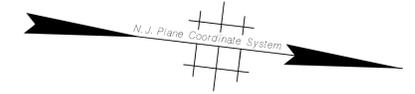
ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800





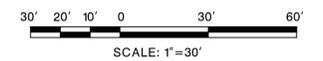




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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY



TOWNSHIP OF HAMILTON - NEW JERSEY

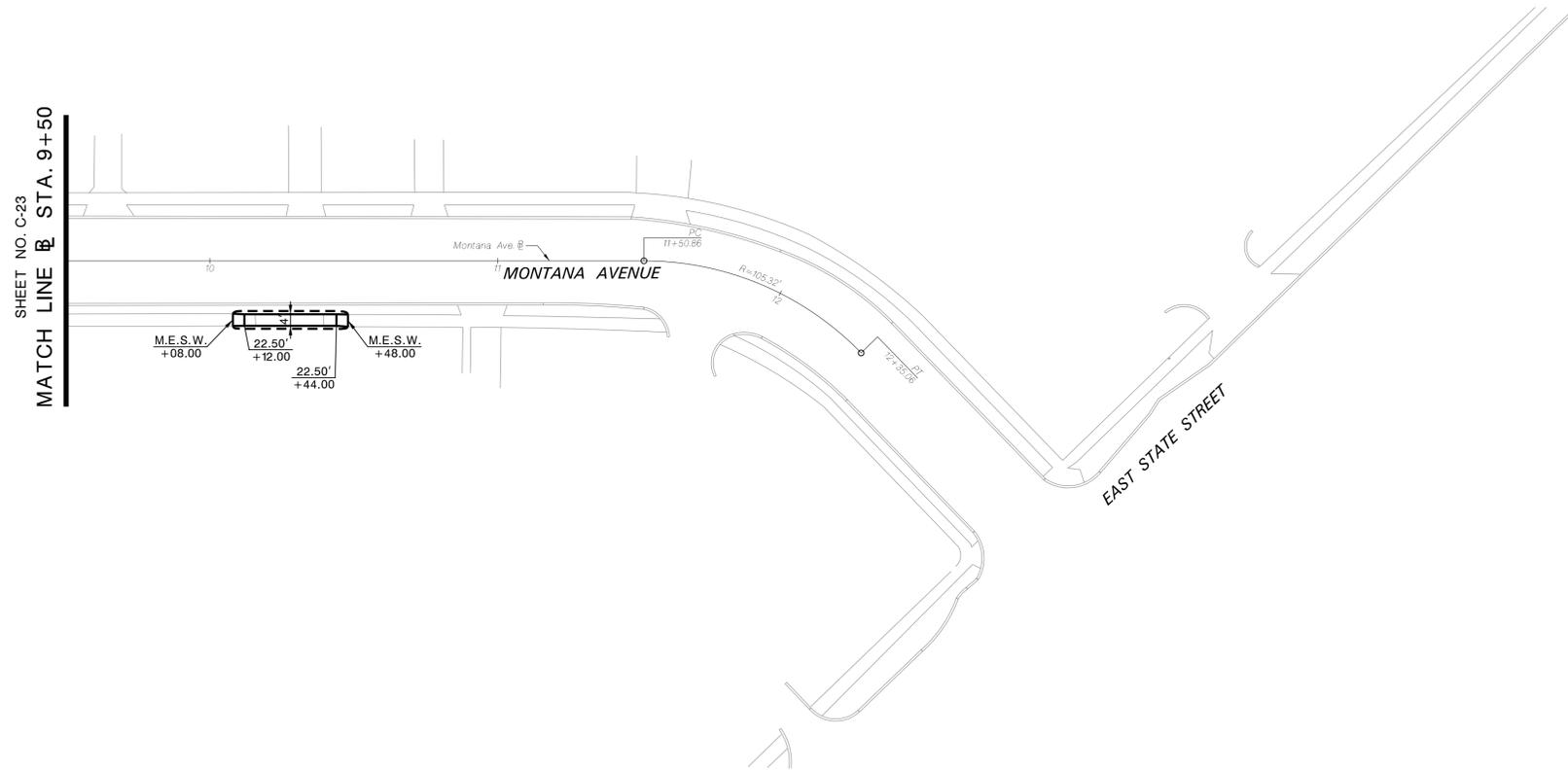
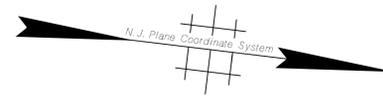
## CONSTRUCTION PLAN

### KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

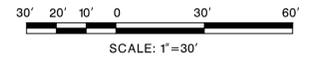
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TOWNSHIP OF HAMILTON - NEW JERSEY

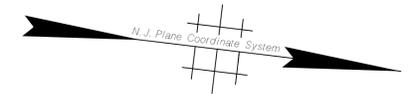
## CONSTRUCTION PLAN

### KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL

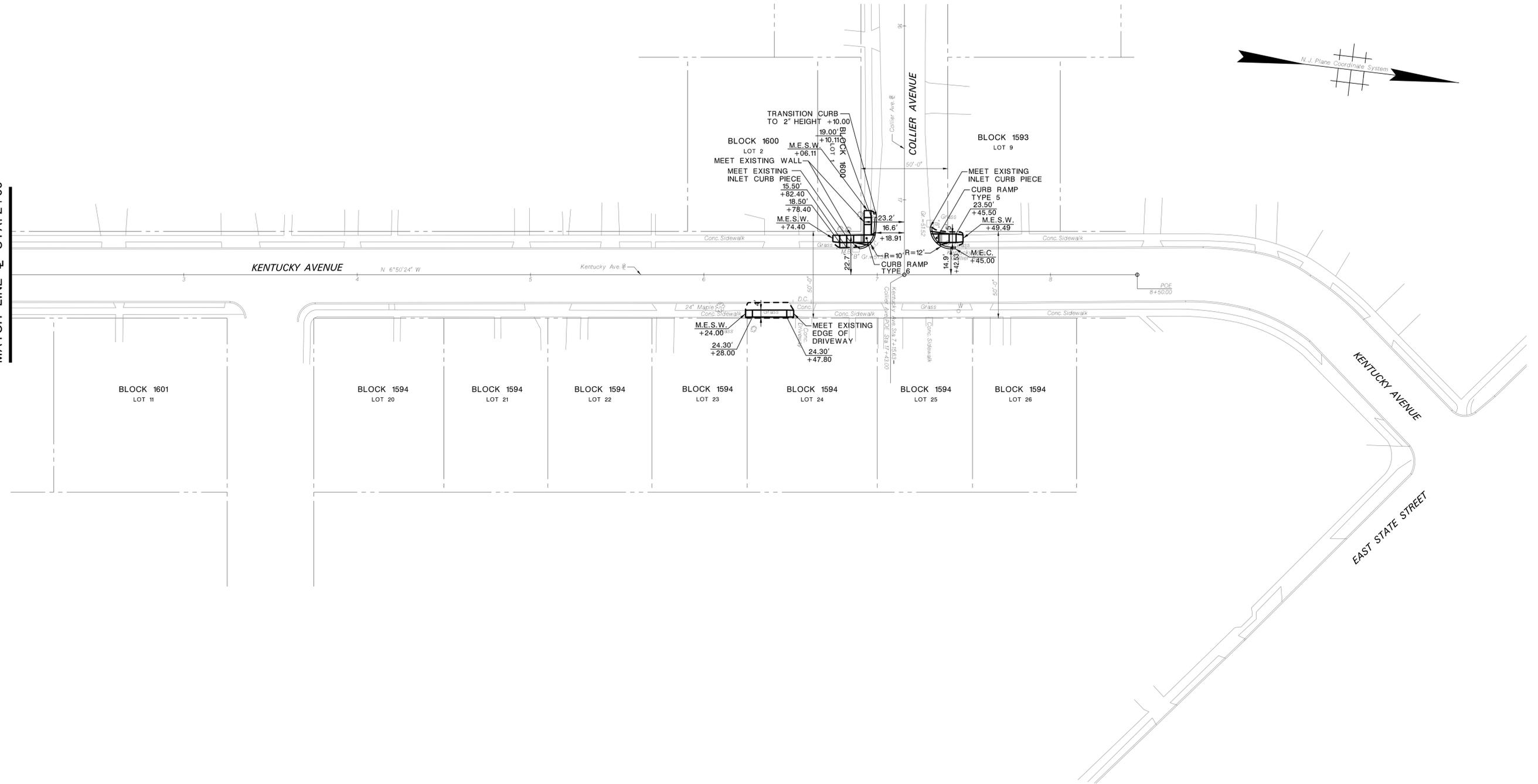
ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

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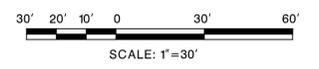


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ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY



TOWNSHIP OF HAMILTON - NEW JERSEY

## CONSTRUCTION PLAN

### KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

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C-25

**ENVIRONMENTAL NOTES AND COMMITMENTS:**

- STATE (NJDEP) ENVIRONMENTAL PERMITS AND/OR STORMWATER MANAGEMENT REVIEW IS NOT NEEDED FOR THIS PROJECT. THE CONTRACTOR WILL SATISFY ALL CONDITIONS AND REQUIREMENTS NEEDED FOR HAMILTON TOWNSHIP TO SELF-CERTIFY THIS PROJECT FOR COMPLIANCE WITH THE MUNICIPAL STORMWATER REGULATION PROGRAM AND THE HAMILTON STORMWATER POLLUTION PREVENTION PLAN.
- DO NOT LOCATE STOCKPILES, VEHICLES, CONCRETE WASHOUT FACILITIES, AND/OR EQUIPMENT WITHIN 150 FEET IF FEASIBLE OF A SLOPE, DRAINAGE FACILITY, WATERBODY, WETLAND, FLOODPLAIN, OR OTHER ENVIRONMENTALLY SENSITIVE AREA. PROTECT STOCKPILE BASES WITH A HAY BALE BARRIER OR SILT FENCE.
- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED. CORRECT NON-FUNCTIONING SOIL EROSION AND SEDIMENT CONTROL MEASURES AND SITE WASTE CONTROL MEASURES WITHIN 24 HOURS AND AS SPECIFIED IN SECTION 158 OF THE NJDOT SPECIFICATIONS. SILT FENCE WILL REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION.
- THE RE MAY LIMIT CLEARING, GRUBBING, GRADING, OR OTHER SOIL DISTURBING ACTIVITIES TO A MAXIMUM OF 0.999 ACRES BASED ON SITE CONDITIONS AND THE CONTRACTOR'S ABILITY TO INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- PRECAUTIONS MUST BE TAKEN TO PREVENT RAW CONCRETE/GROUT FROM COMING INTO CONTACT WITH WATERBODIES. RAW CONCRETE/GROUT IS TOXIC TO AQUATIC BIOTA. ANY RAW CONCRETE/GROUT THAT COMES IN CONTACT WITH A WATERBODY MUST BE REMOVED IMMEDIATELY. NO PUMPED WATER FROM CONCRETE/GROUT OPERATIONS MAY BE DISCHARGED DIRECTLY TO A WATERBODY. ALL PUMPED WATER IS TO BE DISCHARGED TO A HOLDING TANK OR CONCRETE WASHOUT FACILITY AND MANAGED AS SPECIFIED IN THE CONCRETE WASHOUT SYSTEM SPECIFICATION IN SECTION 158 OF THE NJDOT SPECIFICATIONS.
- THE CONTRACTOR IS NOT ALLOWED TO DROP WASTE CONCRETE, DEBRIS, OR OTHER CONSTRUCTION MATERIAL INTO WATERBODIES, UNIMPACTED WETLANDS/TRANSITION AREAS, OR OTHER ENVIRONMENTALLY SENSITIVE AREAS. IF DEBRIS DOES ACCIDENTALLY FALL INTO ANY OF THESE ENVIRONMENTALLY SENSITIVE AREAS, PROMPTLY REMOVE IT.
- DUST/DIRT CONTROL/TRACKING: EMPLOY CONSTRUCTION METHODS THAT MINIMIZE AIRBORNE DUST AND PREVENT SOILS AND OTHER MATERIALS FROM BEING DEPOSITED ON EXISTING ROADWAYS. APPLY WATER OR OTHER RESIDENT ENGINEER APPROVED MATERIALS TO UNPAVED AREAS TO CONTROL DUST CAUSED BY HAULING OR OTHER CONSTRUCTION OPERATIONS. IMMEDIATELY REMOVE ALL SOIL OR OTHER MATERIALS WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE OF THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY AND DISPOSE OF IT AS SPECIFIED IN 202.03.07.B OF THE NJDOT SPECIFICATIONS. PAVED ROADS AND DRIVEWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- DURING SAWCUTTING, MILLING, DIAMOND GRINDING, AND SIMILAR OPERATIONS THAT COULD CAUSE DUST, SLURRY, AND STORMWATER RUNOFF PROBLEMS, DO NOT CREATE A DUST HAZARD AND ENSURE THAT DEBRIS AND SLURRY DO NOT ENTER INLETS OR ENVIRONMENTALLY SENSITIVE AREAS SUCH AS WETLANDS AND WATERBODIES. PROVIDE FOR CONTINUOUS REMOVAL OF GRINDING RESIDUE FROM THE PAVEMENT SURFACE BEFORE IT IS BLOWN ABOUT BY TRAFFIC MOTION, WIND, OR PRECIPITATION. CONTAIN THE CONCRETE SLURRY AND DISPOSE OF IT AS SPECIFIED IN 202.03.07.B OF THE NJDOT SPECIFICATIONS. THE CONTRACTOR MAY MANAGE THE SLURRY IN A CONCRETE WASHOUT FACILITY IF THAT ITEM IS PART OF THE CONTRACT.
- EXCAVATED MATERIAL THAT WILL NOT BE USED AS BACKFILL MUST BE DISPOSED OF IN A LAWFUL MANNER OUTSIDE OF ANY FLOODPLAIN, OPEN WATER, WETLAND, OR WETLAND TRANSITION AREA, AND IN SUCH A WAY AS NOT TO INTERFERE WITH THE POSITIVE DRAINAGE OF THE RECEIVING AREA.
- ENSURE ALL VEGETATION OUTSIDE LIMITS OF DISTURBANCE IS PRESERVED.
- UPON COMPLETION OF THE PROJECT, ALL TEMPORARILY DISTURBED AREAS, INCLUDING UPLANDS, STATE OPEN WATER, WETLANDS, AND TRANSITION AREAS, MUST BE RESTORED TO THEIR PRE-CONSTRUCTION GRADES USING NATIVE SOILS AND PLANTED WITH INDIGENOUS NON-INVASIVE VEGETATION AS DIRECTED BY THE RESIDENT ENGINEER IN CONSULTATION WITH THE BUREAU OF LANDSCAPE ARCHITECTURE AND ENVIRONMENTAL SOLUTIONS' ENVIRONMENTAL TEAM.
- ENVIRONMENTAL COMPLIANCE INSPECTIONS (INCLUDING, BUT NOT LIMITED TO, SOIL EROSION AND SEDIMENT CONTROL MEASURES, WATER QUALITY MEASURES, AND SITE WASTE CONTROL OPERATIONS) ARE TO BE PERFORMED BY THE CONTRACTOR AND THE RESIDENT ENGINEER AS SPECIFIED IN SECTION 158 OF THE NJDOT SPECIFICATIONS. COMPLETE THE NJDOT ENVIRONMENTAL COMPLIANCE CHECKLIST AND INSPECTION FORM FOR EACH INSPECTION AND RETAIN THE ORIGINAL WITHIN THE PROJECT LIMITS. MAKE THE FORM AVAILABLE UPON REQUEST.
- STORE PESTICIDES, FERTILIZERS, FUELS, LUBRICANTS, PETROLEUM PRODUCTS, ANTFREEZE, PAINTS AND PAINT THINNERS, CLEANING SOLVENTS AND ACIDS, DETERGENTS, CHEMICAL ADDITIVES, AND CONCRETE CURING COMPOUNDS IN CONTAINERS IN A DRY COVERED AREA. ENSURE MANUFACTURERS' RECOMMENDED APPLICATION RATES, USES, AND METHODS ARE STRICTLY FOLLOWED TO THE EXTENT NECESSARY TO PREVENT OR MINIMIZE THE PRESENCE OF WASTE FROM SUCH MATERIALS IN THE STORMWATER DISCHARGE/RUNOFF FROM THE PROJECT LIMITS. STORE PRODUCTS AT A MINIMUM OF 150 FEET, IF FEASIBLE, FROM A WATERBODY, WETLAND, OR OTHER ENVIRONMENTALLY SENSITIVE AREA.
- ENSURE THE HANDLING OF WASTE BUILDING MATERIAL, RUBBLE AND OTHER CONSTRUCTION SITE WASTES, INCLUDING LITTER AND HAZARDOUS AND SANITARY WASTES, IS IN ACCORDANCE WITH THE STATE SOLID WASTE MANAGEMENT ACT, N.J.S.A. 13:1E-1 ET SEQ., AND ITS IMPLEMENTING RULES AT N.J.A.C. 7:26, 7:26A, AND 7:26G; THE NEW JERSEY PESTICIDE CONTROL CODE AT N.J.A.C. 7:30; THE STATE LITTER STATUTE (N.J.S.A. 13:1E-99.3); AND OSHA REQUIREMENTS FOR SANITATION AT 29 C.F.R. 1926.
- ENSURE THE PROJECT LIMITS ARE KEPT CLEAN AND FREE OF DEBRIS, TRASH AND LITTER. CONTAIN LITTER AND WASTE THAT HAS THE POTENTIAL TO BE TRANSPORTED BY STORMWATER DISCHARGE/RUNOFF. ENSURE THE PROJECT LIMITS HAVE ONE OR MORE DESIGNATED WASTE COLLECTION AREAS ON-SITE OR ADJACENT TO THE SITE AND AN ADEQUATE NUMBER OF CONTAINERS (WITH LIDS OR COVERS) FOR WASTE. ENSURE WASTE IS COLLECTED FROM SUCH CONTAINERS BEFORE THEY OVERFLOW. IMMEDIATELY CLEAN UP SPILLS AT SUCH CONTAINERS SHOULD THEY OCCUR.
- CONCRETE WASHOUT SYSTEM: CONCRETE WASHOUT WITHIN THE PROJECT LIMITS IS PROHIBITED OUTSIDE OF DESIGNATED AREAS. PROVIDE CONCRETE WASHOUT FACILITY(IES) AS SPECIFIED IN THE CONCRETE WASHOUT FACILITY SPECIFICATION IN 158.03.02, PART 16. MORE THAN ONE DESIGNATED CONCRETE WASHOUT FACILITY LOCATION MAY BE NECESSARY DEPENDING ON EASE OF ACCESS AND THE AMOUNT OF CONCRETE BEING POURED AT ONE TIME.

- SANITARY SEWAGE/SEPTAGE DISPOSAL: DISCHARGES OF RAW SANITARY SEWAGE OR SEPTAGE ON-SITE ARE STRICTLY PROHIBITED. THE CONTRACTOR MUST ENSURE PROPER DISPOSAL OF SANITARY SEWAGE/SEPTAGE AND PROVIDE AND MAINTAIN ADEQUATE FACILITIES ADJACENT TO THE WORK SITE FOR ALL WORKERS AND OTHER SANITARY NEEDS.
- BEFORE THE START OF CONSTRUCTION OPERATIONS, PROVIDE A MINIMUM OF TWO (2) OIL-ONLY EMERGENCY SPILL KITS THAT ARE READILY AVAILABLE WITHIN THE PROJECT LIMITS WITH EACH KIT CAPABLE OF CLEANING UP AT LEAST 95 GALLONS OF SPILL. ENSURE THE KITS ARE AS SPECIFIED IN THE OIL-ONLY EMERGENCY SPILL KIT SPECIFICATION IN SUBSECTION 158.03.02, PART 19. IF A SPILL OCCURS, IMMEDIATELY CONTAIN IT AND CONTACT THE NJDEP HOTLINE AT 1-877-WARN-DEP (1-877-927-6337), AS WELL AS THE RE CLEAN UP AND REMEDIATE THE SPILL AS DIRECTED BY NJDEP. SUBMIT AN INCIDENT REPORT TO THE RE ENSURE CLEANED UP MATERIALS ARE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS AND AS SPECIFIED IN SECTION 201.03.09 OF THE NJDOT SPECIFICATIONS. REPLACE COMPONENTS OF SPILL KITS AS USED.
- DISCHARGES OF HAZARDOUS SUBSTANCES (AS DEFINED IN N.J.A.C. 7:1E-1.6) IN CONSTRUCTION SITE WASTES ARE SUBJECT TO THE PROVISIONS OF THE SPILL COMPENSATION AND CONTROL ACT, N.J.S.A. 58:10-23.11 ET SEQ., AND OF NJDEP RULES FOR DISCHARGES OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES AT N.J.A.C. 7:1E.
- ENSURE REFUELING OPERATIONS ARE CONDUCTED AT A MINIMUM OF 150 FEET, IF FEASIBLE, FROM A WATERBODY, WETLAND, OR OTHER ENVIRONMENTALLY SENSITIVE AREA. DO NOT STORE FUEL TANKS CLOSER THAN 150 FEET, WHERE FEASIBLE, FROM THESE SENSITIVE AREAS. IMMEDIATELY REPAIR LEAKING EQUIPMENT OR REMOVE IT FROM THE PROJECT LIMITS. CLEAN UP THE TANKED MATERIAL AND DISPOSE OF THE MATERIAL AS SPECIFIED IN 202.03.08 OF THE NJDOT SPECIFICATIONS. PROTECT FUELING AREAS FROM RUN-ON AND RUNOFF.
- ACID-PRODUCING SOIL IS TO BE TREATED ACCORDING TO THE NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL AND AS SPECIFIED IN 202.03.05 OF THE NJDOT SPECIFICATIONS. ENSURE THE CLEANING OF EQUIPMENT USED TO MOVE ACID-PRODUCING SOIL IS CONDUCTED AT A MINIMUM OF 150 FEET, IF FEASIBLE, FROM A WATERBODY, WETLAND, OR OTHER ENVIRONMENTALLY SENSITIVE AREA. IF NO ACID-PRODUCING SOILS ARE FOUND ON SITE, CONSTRUCTION EQUIPMENT SHALL NOT BE CLEANED IN THE WATERWAY OR IN ANY AREA FROM WHICH WASH WATER WILL DRAIN INTO THE WATERWAY.
- IF A SPILL OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATION, IMMEDIATELY CONTAIN THE SPILL AND CONTACT THE NJDEP HOTLINE AT 1-877-WARN DEP (1-877-927-6337) AS WELL AS THE RESIDENT ENGINEER. CLEAN UP AND REMEDIATE THE SPILL AS DIRECTED BY NJDEP. SUBMIT AN INCIDENT REPORT TO THE RESIDENT ENGINEER AS SPECIFIED IN SECTION 158 (OIL-ONLY EMERGENCY SPILL KIT) OF THE NJDOT SPECIFICATIONS.
- PROTECT ALL DRAINAGE SYSTEM INLETS (NEW AND EXISTING) FROM SILTATION.
- PROJECT PLAN SHEETS USE NAVD 1988 DATUM. (NGVD 1929 ELEVATION) -1.00 FEET = (NAVD 1988 ELEVATION).
- THE CONTRACTOR SHALL MAKE SPECIFIC ARRANGEMENTS TO ENSURE THE CONTINUOUS MAINTENANCE AND EFFICIENT OPERATION OF ALL PROPOSED STORMWATER MANAGEMENT MEASURES ON-SITE. THIS INCLUDES THE INSPECTION (AND CLEANING WHERE NECESSARY) OF ANY AND ALL CONSTRUCTED SWALES, BASINS AND INLETS, AS DIRECTED BY THE RESIDENT ENGINEER AND AFTER EVERY MAJOR STORM TOTALING 1 INCH OF RAINFALL OR MORE.
- THE CONSTRUCTION SHALL NOT EXPOSE UNSET OR RAW CEMENT TO FLOWING WATER WITHIN ANY CHANNEL OR REGULATED WATER DURING CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ANY REQUIRED APPROVALS FROM THE SOIL CONSERVATION DISTRICT OR DESIGNEE HAVING JURISDICTION OVER THE SITE PRIOR TO CONDUCTING ANY ACTIVITY INVOLVING SOIL DISTURBANCE OR CHANGES IN NATURAL CONTOURS.
- THE CONTRACTOR SHALL TAKE ALL REASONABLE STEPS TO PREVENT, MINIMIZE, OR CORRECT ANY ADVERSE IMPACT ON THE ENVIRONMENT RESULTING FROM ACTIVITIES CONDUCTED ON SITE. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE RESIDENT ENGINEER OF ANY ADVERSE EFFECTS ON THE ENVIRONMENT THAT OCCUR DURING CONSTRUCTION. THE RESIDENT ENGINEER, IN TURN, SHALL IMMEDIATELY INFORM NJDEP BY TELEPHONE AT (877) 927-6337 (WARN DEP HOTLINE) OF ANY ISSUE THAT MAY ENDANGER PUBLIC HEALTH, SAFETY, WELFARE OR THE ENVIRONMENT. THE RESIDENT ENGINEER SHALL ALSO INFORM THE RESPONSIBLE WATERSHED & LAND MANAGEMENT AGENCY BY TELEPHONE AT (609) 777-0454 WITHIN TWO WORKING DAYS FROM THE TIME ISSUE IS DISCOVERED AND IN WRITING WITHIN FIVE WORKING DAYS OF SAME.
- THE WRITTEN NOTICE SHALL INCLUDE: A DESCRIPTION OF THE NONCOMPLIANCE AND ITS CAUSE; THE PERIOD OF NONCOMPLIANCE, INCLUDING EXACT DATES AND TIMES; IF THE NONCOMPLIANCE HAS NOT BEEN CORRECTED, THE ANTICIPATED LENGTH OF TIME IT IS EXPECTED TO CONTINUE; AND THE STEPS TAKEN OR PLANNED TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NONCOMPLIANCE.
- ANY NONCOMPLIANCE WITH THE CONDITIONS SET HEREIN SHALL CONSTITUTE A VIOLATION, AND IS GROUNDS FOR ENFORCEMENT ACTION. IT SHALL NOT BE A DEFENSE FOR THE CONTRACTOR IN AN ENFORCEMENT ACTION THAT IT WOULD HAVE BEEN NECESSARY TO HALT OR REDUCE THE AUTHORIZED ACTIVITY IN ORDER TO MAINTAIN COMPLIANCE WITH THE CONDITIONS HEREIN.
- THE CONTRACTOR SHALL EMPLOY APPROPRIATE MEASURES TO MINIMIZE NOISE WHERE NECESSARY DURING CONSTRUCTION, AS SPECIFIED IN N.J.S.A. 13:1G-1 ET SEQ. AND N.J.A.C. 7:29.
- THE CONTRACTOR SHALL NOT CAUSE OR ALLOW ANY UNREASONABLE INTERFERENCE WITH THE FREE FLOW OF A WATERWAY REGULATED BY NJDEP BY PLACING OR DUMPING ANY MATERIALS, EQUIPMENT, DEBRIS OR STRUCTURES WITHIN OR ADJACENT TO THE CHANNEL WHILE THE PROJECT IS BEING UNDERTAKEN. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF IN A LAWFUL MANNER ALL EXCESS MATERIALS, DEBRIS, EQUIPMENT, SILT FENCES AND OTHER TEMPORARY SOIL EROSION AND SEDIMENT CONTROL DEVICES.
- ALL CONDITIONS, SITE PLANS, AND SUPPORTING DOCUMENTS ASSOCIATED WITH THIS CONSTRUCTION PROJECT SHALL REMAIN IN FULL FORCE AND EFFECT, SO LONG AS THE PROJECT, OR ANY PORTION THEREOF, IS IN EXISTENCE.

**PRE-CONSTRUCTION CONDITIONS:**

- PRIOR TO SITE PREPARATION OR CONSTRUCTION ONSITE, THE PERMITTEE SHALL OBTAIN ALL NECESSARY CONSENT FROM AFFECTED OFFSITE AND EASEMENT PROPERTY OWNERS. NO WORK SHALL OCCUR WITHOUT PROPER PERMISSIONS.
- PRIOR TO THE COMMENCEMENT OF SITE CLEARING, GRADING, OR CONSTRUCTION ONSITE, THE CONTRACTOR SHALL INSTALL A SEDIMENT BARRIER AT THE LIMITS OF DISTURBANCE WHICH IS SUFFICIENT TO PREVENT THE SEDIMENTATION OF ADJACENT WATERCOURSES, FRESHWATER WETLANDS AND TRANSITION AREAS. THIS PHYSICAL BARRIER SHALL PROTECT ALL SENSITIVE AREAS FROM ENCROACHMENT BY CONSTRUCTION VEHICLES OR OTHER SOIL-DISTURBING ACTIVITIES. ALL SEDIMENT BARRIERS AND SOIL EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION, UNTIL SUCH TIME THAT THE RESIDENT ENGINEER AGREES THAT THE SITE IS STABILIZED.

**SOIL EROSION AND SEDIMENT CONTROL GENERAL NOTES:**

- ENSURE THAT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE IN ACCORDANCE WITH THE "NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" AND THE 2019 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- INSTALL ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO MAJOR SOIL DISTURBANCE OR CONSTRUCTION OPERATIONS. CLEAR PROPOSED CONSTRUCTION AREAS ONLY AS REQUIRED. INSTALL SILT FENCE PRIOR TO GRUBBING, CLEARING, OR OTHER EARTH DISTURBING CONSTRUCTION OPERATIONS. PROTECT INLETS WITH INLET FILTERS PRIOR TO INITIAL SITE DISTURBANCE. MAINTAIN AND INSPECT SOIL EROSION AND SEDIMENT CONTROL MEASURES AND SITE WASTE CONTROL MEASURES AT LEAST WEEKLY, AND AFTER WEATHER EVENTS THAT COULD CAUSE EROSION OR DAMAGE TO SOIL EROSION AND SEDIMENT CONTROL MEASURES AND IN 24 HOUR INTERVALS AFTER A PROLONGED STORM UNTIL PERMANENT STABILIZATION IS ESTABLISHED.
- APPLY TEMPORARY SEEDING WITH STRAW MULCH (OR SUITABLE EQUIVALENT) TO ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) DAYS AND IS NOT SUBJECT TO CONSTRUCTION TRAFFIC.
- INCLUDE PERMANENT GRASS SEEDING AND PROVIDE TEMPORARY SEEDING WHEN THE SITE IS BEING PREPARED FOR PERMANENT VEGETATIVE STABILIZATION. NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATIONS MUST BE EMPLOYED WHEN REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS.
- SEED OR SOD ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER THE FINAL GRADING FOR PERMANENT VEGETATION CONTROL. PROTECT SEEDED AREAS WITH MULCH UNTIL TURF IS ESTABLISHED.
- THE CONTRACTOR SHALL REMEDIATE ANY SOIL EROSION OR SEDIMENT PROBLEMS FROM ONGOING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT OCCURS BELOW THE STORMWATER OUTFALLS, OR ONSITE, AS A RESULT OF ANY CONSTRUCTION ON THE PROJECT. DO NOT DISCHARGE EFFLUENT FROM DEWATERING DIRECTLY INTO ANY WATERBODY.
- THE CONTRACTOR MUST BE IN ACCORDANCE WITH THE STANDARDS FOR HIGH ACID-PRODUCING SOIL. COVER SOIL HAVING A PH OF 4 OR LESS, OR CONTAINING IRON SULPHIDES, WITH A LAYER OF LIMESTONE, AND A MINIMUM OF TWELVE (12) INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION AND A MINIMUM OF TWENTY FOUR (24) INCHES FOR TREE AND SHRUB PLANTING AREAS AND STRUCTURES.
- MONITORING WELLS IN AND NEAR THE CONSTRUCTION ZONE MUST BE BARRICADED TO PREVENT BEING DAMAGED. ANY MONITORING WELLS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. THE REPAIR, REPLACEMENT, OR SEALING OF MONITORING WELLS SHALL BE DONE IN ACCORDANCE WITH NJDEP REQUIREMENTS AND NJDOT SPECIFICATIONS 2010.03.05 AND 2010.03.06.

**SEQUENCE OF CONSTRUCTION:**

- PRIOR TO ANY SOIL DISTURBANCE, TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED AND MAINTAINED UNTIL CONTRIBUTING AREAS ARE STABILIZED.
- INLET FILTERS WILL BE INSTALLED ON ALL EXISTING AND PROPOSED INLETS TO CAPTURE SEDIMENT FROM ENTERING DRAINAGE SYSTEMS BEFORE ANY EXCAVATION TAKES PLACE.
- SILT FENCE WILL BE INSTALLED DOWNSLOPE OF DISTURBED AREAS, AS NEEDED, TO CAPTURE SEDIMENT BEFORE IT ENTERS THE MAIN ROADWAY AND ADJACENT LANDS. SILT FENCE WILL ALSO BE USED TO PROTECT ENVIRONMENTALLY SENSITIVE AREAS FROM SEDIMENT.
- DUST CONTROL MEASURES, INCLUDING MULCHING, VEGETATIVE COVER, SPRAY ADHESIVES, SPRAYING, AND CALCIUM CHLORIDE APPLICATION WILL BE EMPLOYED TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SURFACES. A WATER TRUCK MAY BE ON SITE TO WATER DOWN THE AREAS AS NEEDED AND AS DIRECTED BY THE ENGINEER.
- CONCRETE WASHOUT AREAS WILL BE PROVIDED FOR CLEANING CONCRETE TRUCKS AND EQUIPMENT.
- OIL ONLY EMERGENCY SPILL KITS WILL BE PROVIDED.
- A PAY ITEM FOR CLEANING HAND TOOLS MAY BE REQUIRED AND WILL BE ADDED TO THE CONTRACT IF NECESSARY.
- ALL SEDIMENTATION, SPILL CLEANUP, WASTEWATER FROM CLEANUP, AND OTHER WASTE DEBRIS OR DISCHARGE RESULTING FROM CONSTRUCTION ACTIVITIES WILL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS.
- TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED IN THEIR PROPER SEQUENCE WHEN CONTRIBUTING AREAS ARE STABILIZED BY PERMANENT SEDIMENT CONTROLS.

NO.	DATE	DESCRIPTION

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EP-1

**TOWNSHIP OF HAMILTON – NEW JERSEY**

**ENVIRONMENTAL, SOIL EROSION & SEDIMENT CONTROL PLAN**

**KLOCKNER ROAD ELEMENTARY**

**SAFE ROUTES TO SCHOOL**

**ARORA and ASSOCIATES, P.C.**

**PROFESSIONAL ASSOCIATION**

**DAVID HUTCHINSON, P.E.**

**NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800**

## LEGEND

	BREAKAWAY BARRICADES
	BREAKAWAY BARRICADES WITH SIGN
	CONSTRUCTION SIGNS
	DRUMS
	CONE
	CONSTRUCTION BARRIER CURB (TYPE SPECIFIED)
	DIRECTION OF TRAFFIC FLOW
	TRAFFIC DIRECTOR, FLAGGER
	TRAILER MOUNTED ARROW BOARD SHOWING CAUTION MODE
	ILLUMINATED FLASHING ARROW MOUNTED ON TOWING VEHICLE SHOWING ARROW PATTERN (LEFT, RIGHT, BOTH)
	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD SHOWING CAUTION MODE
	TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION AND ARROW BOARD SHOWING ARROW PATTERN (LEFT, RIGHT, BOTH)
	TEMPORARY CRASH CUSHION, INERTIAL BARRIER SYSTEM
	TEMPORARY CRASH CUSHION, (ALL OTHER APPROVED)
	BUFFER ZONE
	WORK AREA
	PAINT STRIPING TRUCK OR OTHER OPERATING VEHICLE

## LANE CLOSURE SCHEDULE

### ALL LANES MAINTAINED

MONDAY THROUGH THURSDAY 3:00 P.M. TO 9:00 A.M.  
 FRIDAY 3:00 P.M. TO 9:00 A.M. (MONDAY)

### ALTERNATING TRAFFIC PATTERNS

MONDAY THROUGH FRIDAY 9:00 A.M. TO 3:00 P.M.

THE CONTRACTOR MUST ADHERE TO THE TOWNSHIP WORK SCHEDULE, INCLUDING HOLIDAYS. A TYPICAL WORK DAY IS BETWEEN THE HOURS OF 8:30 A.M. AND 4:30 P.M. BETWEEN MONDAY AND FRIDAY. NO CONSTRUCTION, TEMPORARY LANE CLOSURES, SHOULDER CLOSURES, OR TRAFFIC SHIFTS WILL BE ALLOWED OUTSIDE OF THESE HOURS.

## GENERAL NOTES:

- ADVANCE WARNING SIGN DISTANCES AND TAPER LENGTHS MAY BE EXTENDED, AT DIRECTION OF THE RESIDENT ENGINEER TO ADJUST FOR REDUCED VISIBILITY DUE TO HORIZONTAL AND VERTICAL CURVATURE OF THE ROADWAY.
  - THE APPROXIMATE LOCATIONS OF THE ILLUMINATED FLASHING ARROW BOARDS ARE SHOWN ON THE TRAFFIC CONTROL PLANS. THESE LOCATIONS MAY BE MODIFIED AS APPROVED BY RE TO ADJUST FOR VISIBILITY DUE TO HORIZONTAL OR VERTICAL CURVATURE OF THE ROADWAY OR TO POSITION AT A SAFER LOCATION. ILLUMINATED FLASHING ARROW BOARDS ARE TO BE USED FOR TEMPORARY LANE CLOSINGS AND AT LOCATIONS SHOWN ON THE TRAFFIC CONTROL PLANS.
  - PRIOR TO ANY ROAD CONSTRUCTION, TRAFFIC CONTROL SIGNS AND DEVICES ARE TO BE IN PLACE.
  - RAMPS AND/OR SIDE STREETS ENTERING THE ROADWAY AFTER THE FIRST ADVANCE WARNING SIGN ARE TO BE PROVIDED WITH AT LEAST ONE W20-IF SIGN (ROAD WORK AHEAD) AS A MINIMUM.
  - ALL EXISTING ROAD SIGNS, PAVEMENT MARKINGS, AND / OR PLOWABLE PAVEMENT REFLECTORS WHICH CONFLICT WITH THE PROPOSED TRAFFIC CONTROL PLAN ARE TO BE COVERED, REMOVED, OR RELOCATED AS DIRECTED BY THE RE.
  - CONFLICTING OR NON-OPERATING SIGNAL INDICATIONS ON EITHER THE EXISTING, TEMPORARY, OR PROPOSED TRAFFIC SIGNAL SYSTEMS ARE TO BE BAGGED OR COVERED.
  - MAINTENANCE AND PROTECTION OF TRAFFIC TO BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES - PART VI "STANDARDS AND GUIDES FOR TRAFFIC CONTROL FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND INCIDENT MANAGEMENT OPERATIONS", UNLESS OTHERWISE NOTED IN THE PLANS AND SPECIFICATIONS.
  - CONSTRUCTION SIGN W99-2 (GIVE US A BRAKE) TO BE LOCATED 200 FEET IN ADVANCE OF PROJECT LIMITS.
  - A W1-6 (ARROW) SIGN MOUNTED ON A BREAKAWAY BARRICADE AND CENTERED ON THE CLOSED WIDTH TO BE LOCATED 100 FEET BEYOND EACH INTERSECTION OR MAIN ACCESS POINT WITHIN THE AREA OF A LANE OR SHOULDER CLOSURE.
  - CONSTRUCTION SIGNS R11-4 (ROAD CLOSED TO THRU TRAFFIC) TO BE PLACED AT THE INTERSECTING STREETS WHICH ARE CLOSED TO TRAFFIC BECAUSE OF CONSTRUCTION.
  - CONSTRUCTION SIGNS W8-11 (UNEVEN LANES) AND W8-15 (GROOVED PAVEMENT) TO BE USED WHEN SUCH PAVEMENT CONDITIONS EXIST.
  - MOVING WORK AREAS IN A LANE CLOSURE REQUIRE A TRAILER MOUNTED ILLUMINATED FLASHING ARROW TO REMAIN AT THE END OF THE TAPER, THE TRAFFIC CONTROL TRUCK WITH MOUNTED CRASH CUSHION THAT IS TO MOVE WITH THE WORK AREAS TO KEEP A 70 FEET MIN. AND 150 FEET MAX. BUFFER IN ADVANCE OF EACH WORK AREA.
  - THE CONTRACTOR TO SUBMIT A PLAN FOR THE SAFE ACCESS OF CONSTRUCTION VEHICLES THROUGHOUT THE WORK SITE WHERE SPACE CONSTRAINTS PREVENT THE USE OF LANE CLOSURES. THE PLAN TO BE SUBMITTED TO THE RE AS SPECIFIED IN THE SPECIFICATIONS.
  - BACKFILL ALL EXCAVATED AREAS WITHIN OR ADJACENT TO THE ROADWAY AND PLACE ON AT LEAST 6H:1V SLOPE BEFORE THE END OF EACH WORK DAY. OTHER EXCAVATED AREA WITHIN THE CLEAR ZONE ARE TO BE BACKFILLED.
  - WHERE REQUIRED, THE CONTRACTOR IS TO MAKE PROVISIONS FOR MAINTAINING PEDESTRIAN CROSSING LOCATIONS AND TYPE AS DIRECTED BY THE RE.
  - BITUMINOUS CONCRETE PLACED DURING THE VARIOUS CONSTRUCTION STAGES TO BE TRANSITIONED ON A MINIMUM 20H:1V SLOPE TO MEET THE ADJACENT EXISTING GRADE AT THE LONGITUDINAL AND TRANSVERSE LIMITS OF THE STAGE CONSTRUCTION AREAS UNLESS OTHERWISE NOTED ON THE STAGE CONSTRUCTION PLANS.
  - THE PLACEMENT AND / OR RELOCATION OF CONSTRUCTION BARRIER CURB TO BE DONE DURING ALLOWABLE LANE CLOSURE HOURS.
  - CONSTRUCTION ZONE SPEED LIMIT WILL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.
  - THE SPEED LIMIT, R2-1 (BLACK ON WHITE) WITH ADDED WORK ZONE PLATE (BLACK ON ORANGE) SIGNS TO BE LOCATED THROUGH WORK AREAS AS DIRECTED BY THE RESIDENT ENGINEER.
  - THE REDUCED SPEED AHEAD SIGN, W3-5(S) (BLACK ON ORANGE) TO BE LOCATED IN ADVANCE OF SPEED LIMIT R2-1 SIGNS WHICH REDUCE THE NORMAL POSTED SPEED LIMIT THROUGH THE CONSTRUCTION ZONE.
  - TRAFFIC FINES DOUBLED IN WORK AREA R(NJ)5-17(S), 4 FEET BY 2.5 FEET SIGN TO BE LOCATED 500 FEET AFTER THE FIRST ADVANCE WARNING SIGN, (W20 SERIES) AT EACH WORK AREA LOCATED WITHIN URBAN AREAS. THIS SIGN TO ALSO BE USED ON PROJECTS REQUIRING MOVING OPERATIONS IN WHICH CASE THE SIGN IS TO BE MOUNTED ON A SLOW MOVING CONSTRUCTION VEHICLE.
  - DO NOT CONSTRUCT THE FINAL HMA SURFACE PAVEMENT UNTIL THE FINAL STAGE OF THE PROJECT UNLESS OTHERWISE DIRECTED BY THE RE OR INDICATED ON THE PLANS. SET MANHOLES AND INLETS TO FINISHED GRADE AND CONSTRUCT TEMPORARY PAVEMENT RAMPS AROUND THEM WITH A MINIMUM 20H:1V SLOPE IN ALL DIRECTIONS USING HOT MIX ASPHALT PAVEMENT. THIS TEMPORARY MATERIAL WILL BE REMOVED IMMEDIATELY PRIOR TO PLACING THE SURFACE COURSE.
  - PLACE TRAFFIC CONTROL DEVICES FOR LANE CLOSURES INCLUDING SIGNS, CONES, BARRICADES, ETC. AS SHOWN ON PLANS. NO SIGNS ARE TO BE PLACED WITHOUT ACTUAL LANE CLOSURES AND REMOVE IMMEDIATELY UPON REMOVAL OF THE CLOSURES.
  - CONES MAY BE SUBSTITUTED FOR DRUMS AND INSTALLED UPON THE APPROVAL OF THE RE.
  - TRAFFIC IMPACT NOTICES AND CHANGES
    - TERMS:  
WHEN THE FOLLOWING TERMS ARE USED, THE INTENT AND MEANING IS AS FOLLOWS:
      - IMPACTS TO NORMAL TRAFFIC FLOW - WORK THAT REQUIRES A PORTION OF THE PAVED ROADWAY BEING BLOCKED OR CLOSED WITH SAFETY DEVICES OR VEHICLES, INCLUDING, BUT NOT LIMITED TO, FULL OR PARTIAL LANE CLOSURES, FULL OR PARTIAL RAMP CLOSURES, SHOULDER CLOSURES, MOVING OPERATIONS SUCH AS TRAFFIC STRIPING OR SWEEPING, LANE SHIFTS, OR ALTERNATING TRAFFIC. THIS APPLIES EVEN WHEN DETOURS ARE PROVIDED.
      - TEMPORARY LANE CLOSURES - WORK DESCRIBED UNDER "IMPACTS TO NORMAL TRAFFIC FLOW" WHICH IS ROUTINELY SET UP AND REMOVED ON A DAILY BASIS.
      - PERMANENT LANE CLOSURES - WORK DESCRIBED UNDER "IMPACTS TO NORMAL TRAFFIC FLOW" WHICH REMAINS IN PLACE CONTINUOUSLY FOR 24 HOURS OR MORE.
    - ADVANCE NOTICES  
FOR THE INITIAL START OF WORK THAT REQUIRES "IMPACTS TO NORMAL TRAFFIC FLOW", THE CONTRACTOR IS TO NOTIFY THE RE IN WRITING, ON THE ADVANCE FORM TO-103 PROVIDED BY THE RESIDENT ENGINEER, OF THE PROPOSED DATE, THE NOTICE IS TO BE SUBMITTED AT LEAST TWENTY-EIGHT CALENDAR DAYS, BUT NOT MORE THAN SIXTY CALENDAR DAYS, BEFORE THE PROPOSED DATE. START OF WORK THAT IMPACTS NORMAL TRAFFIC FLOW WILL NOT BE PERMITTED PRIOR TO THE DATE STATED IN THE NOTICE. THE CONTRACTOR IS TO CONFIRM, IN WRITING TO THE RE, THE PROPOSED DATE SEVEN (AND/OR FOURTEEN) CALENDAR DAYS BEFORE STARTING THE ESTABLISHMENT OF THE TRAFFIC CONTROL MEASURES FOR THE TRAFFIC IMPACT. THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE RE IF THE PROPOSED ESTABLISHMENT CANNOT BE COMPLETED ON THE PROPOSED DATE.  
  
FOR A "PERMANENT LANE CLOSURE", THE CONTRACTOR IS TO NOTIFY IN WRITING, ON ADVANCE FORM TO-103, OF THE PROPOSED DATE A NEW TRAFFIC PATTERN WILL BE ESTABLISHED. THE NOTICE IS TO BE SUBMITTED AT LEAST TWENTY-EIGHT CALENDAR DAYS, BUT NOT MORE THAN SIXTY CALENDAR DAYS, IN ADVANCE OF THE PROPOSED DATE. START OF A NEW TRAFFIC PATTERN WILL NOT BE PERMITTED PRIOR TO THE DATE STATED IN THE NOTICE. THE CONTRACTOR IS TO CONFIRM, IN WRITING TO THE RE, THE PROPOSED DATE OF THE NEW TRAFFIC PATTERN SEVEN (AND/OR FOURTEEN) DAYS BEFORE STARTING TRAFFIC CONTROL MEASURES FOR THE ESTABLISHMENT OF THE NEW PATTERN. THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE RE IF THE PROPOSED ESTABLISHMENT CANNOT BE COMPLETED ON THE PROPOSED DATE.  
  
STARTING THE ESTABLISHMENT OF A NEW PERMANENT TRAFFIC PATTERN IS TO BEGIN NO EARLIER THAN 11:00 PM FRIDAY AND BE COMPLETED AND READY FOR OPERATIONS BY 6:00 PM THE FOLLOWING SUNDAY. THE ESTABLISHMENT IS TO BE COMPLETED IN ACCORDANCE WITH THE LANE CLOSURE HOURS SPECIFIED IN THE CONTRACT OR AS DIRECTED BY THE RESIDENT ENGINEER.  
  
ADVANCE NOTICES SENT PRIOR TO THE PRE-CONSTRUCTION MEETING ARE TO BE ADDRESSED TO THE CONTACT PERSON AS SPECIFIED IN SUBSECTION 101.04 OF THE SPECIAL PROVISIONS.
  - PROGRESS NOTICES  
ALL "IMPACTS TO NORMAL TRAFFIC FLOW" SCHEDULED FOR THE SEVEN DAY PERIOD STARTING ON THE FOLLOWING MONDAY ARE TO BE SUBMITTED TO THE RE BY 9:00 AM OF EACH FRIDAY ON WEEKLY FORM TO-100 PROVIDED BY THE RESIDENT ENGINEER.  
  
EACH DAY OF "TEMPORARY LANE CLOSURES" ARE TO BE SUBMITTED TO THE RE BY 9:00 AM THE DAY IN ADVANCE OF THE START OF THOSE OPERATIONS ON DAILY FORM TO-101 PROVIDED BY THE RESIDENT ENGINEER.  
  
"TEMPORARY LANE CLOSURES" FOR WEEKENDS ARE TO BE SUBMITTED TO THE RE BY 9:00 AM ON THE IMMEDIATELY PRECEDING FRIDAY ON THE DAILY FORM TO-101 PROVIDED BY THE RESIDENT ENGINEER.
  - CHANGES TO THE SCHEDULED CLOSURES  
REQUEST FOR A CHANGE TO THE TRAFFIC CONTROL REQUIREMENTS IN THE CONTRACT DOCUMENTS ARE TO BE SUBMITTED IN WRITING TO THE RE AS FOLLOWS:  
  
CHANGES TO THE SCHEDULED HOURS FOR "TEMPORARY LANE CLOSURES" ARE TO BE SUBMITTED TO THE RE AT LEAST EIGHT CALENDAR DAYS IN ADVANCE OF WHEN THE CHANGE IS PROPOSED TO START.  
  
OTHER PROPOSED CHANGES TO "TEMPORARY LANE CLOSURES" AND ALL CHANGES TO "PERMANENT LANE CLOSURES" ARE TO BE SUBMITTED TO THE RE AS SPECIFIED IN THE SPECIFICATIONS.
- WHERE FINAL HMA PAVING IS PERFORMED AND THE LANE IS TO BE RE-OPENED TO TRAFFIC AND THE ITEM TRAFFIC STRIPES IS UNABLE TO BE APPLIED, APPLY THE ITEM TRAFFIC STRIPES, LATEX. ENSURE THAT THE ITEM TRAFFIC STRIPES IS APPLIED WITHIN 14 DAYS.

N.T.S.

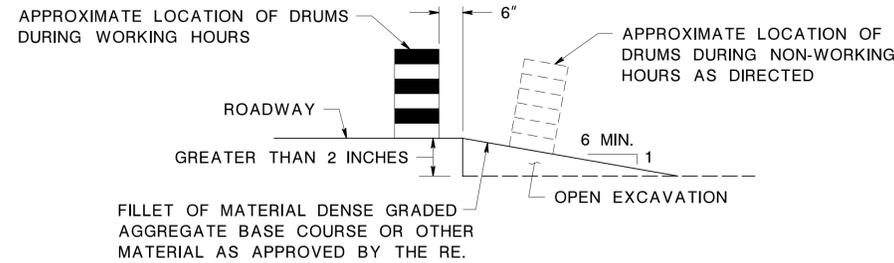
TC-1  
TC-7

TOWNSHIP OF HAMILTON - NEW JERSEY

# TRAFFIC CONTROL AND STAGING PLANS

## KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL

ARORA and ASSOCIATES, P.C.  
 PROFESSIONAL ASSOCIATION  
 DAVID HUTCHINSON, P.E.  
 NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800



**NOTE:**  
ESCAPE RAMPS MUST BE CONSTRUCTED AND MAINTAINED DURING NON-WORKING HOURS WHERE A VERTICAL DROP GREATER THAN 2 INCHES EXISTS ADJACENT TO TRAVELED LANE.

**ESCAPE RAMP DETAIL**

REGULATORY APPROACH SPEED OF TRAFFIC MILE/HOUR	RECOMMENDED SIGHT DISTANCE TO BEGINNING OF CHANNELIZING TAPERS		
	DESIRABLE		MINIMUM
	RURAL FEET	URBAN FEET	RURAL AND URBAN FEET
25	375	525	150
30	450	625	200
35	525	725	250
40	600	825	325
45	675	925	400
50	750	1025	475
55	875	1150	550
60	1000	1275	650
65	1050		725

REGULATORY APPROACH SPEED OF TRAFFIC MILES / HOUR	RECOMMENDED TAPER LENGTH AND SPACING FOR CHANNELIZING TAPERS				RECOMMENDED SPACING ALONG TANGENTS	
	MINIMUM TAPER RATIO IN LENGTH PER FOOT OF WIDTH	MINIMUM TAPER LENGTH L - FOR LANE WIDTHS				MAXIMUM DEVICE (B) SPACING ALONG TAPERS IN FEET
		10'	11'	12'		
25	10.5:1	105	115	125	25	50
30	15:1	150	165	180	30	60
35	20.5:1	205	225	245	35	70
40	27:1	270	300	325	40	80
45	45:1	450	495	540	45	90
50	50:1	500	550	600	50	100
55	55:1	550	605	660	55	110
60	60:1	600	660	720	60	120
65	65:1	650	715	780	65	130

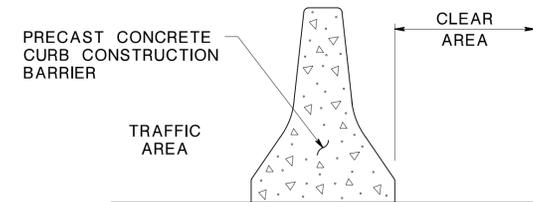
**NOTE:**  
THE MAXIMUM DEVICE SPACING ALONG CURVES IS DEFINED FOR TAPERS (B) IN THE ABOVE TABLE.

CONSTRUCTION SIGN TABLE					
SIGN DESIGNATION	MESSAGE	SIZE (IN x IN)	AREA (IN S.F.)	REQUIRED QUANTITY (IN NUMBER)	TOTAL AREA (IN S.F.)
G20-2A	END ROAD WORK	48 x 24	8.0		
R(NJ)5-17 (S)	TRAFFIC FINES DOUBLED IN WORK AREA	60 x 36	15.0		
R9-8	PEDESTRIAN CROSSWALK	36 x 18	4.5		
R9-9	SIDEWALK CLOSED	24 x 12	2.0		
R9-10L	SIDEWALK CLOSED USE OTHER SIDE LEFT	24 x 12	2.0		
R9-10R	SIDEWALK CLOSED USE OTHER SIDE RIGHT	24 x 12	2.0		
R9-11aL	SIDEWALK CLOSED CROSS HERE LEFT	24 x 12	2.0		
R9-11aR	SIDEWALK CLOSED CROSS HERE RIGHT	24 x 12	2.0		
R9-11L	SIDEWALK CLOSED AHEAD CROSS HERE LEFT	24 x 18	3.0		
R9-11R	SIDEWALK CLOSED AHEAD CROSS HERE RIGHT	24 x 18	3.0		
W1-4aL (S)	REVERSE CURVE (LEFT)	48 x 48	16.0		
W1-4aR (S)	REVERSE CURVE (RIGHT)	48 x 48	16.0		
W1-6L	LARGE SINGLE ARROW (LEFT)	48 x 24	8.0		
W1-6R	LARGE SINGLE ARROW (RIGHT)	48 x 24	8.0		
W3-2 (S)	YIELD AHEAD	48 x 48	16.0		
W5-1 (S)	ROAD NARROWS	48 x 48	16.0		
W8-11	UNEVEN LANES	48 x 48	16.0		
W8-15F	GROOVED PAVEMENT AHEAD	48 x 48	16.0		
W11-2	PEDESTRIAN	48 x 48	16.0		
W13-1 (S)	ADVISORY SPEED PLAQUE (30 MPH)	24 x 24	4.0		
W16-2P	500 FEET PLAQUE	24 x 18	3.0		
W16-7PL	DOWNWARD DIAGONAL ARROW PLAQUE, LEFT	24 x 12	2.0		
W16-9P	AHEAD PLAQUE	24 x 12	2.0		
W20-1A	ROAD WORK 1500 FT	48 x 48	16.0		
W20-1D	ROAD WORK 1/2 MILE	48 x 48	16.0		
W20-1F	ROAD WORK AHEAD	48 x 48	16.0		
W20-4B	ONE LANE ROAD 1000 FT	48 x 48	16.0		
W20-5AL	LEFT LANE CLOSED 1500 FT	48 x 48	16.0		
W20-5AR	RIGHT LANE CLOSED 1500 FT	48 x 48	16.0		
W20-5BL	LEFT LANE CLOSED 1000 FT	48 x 48	16.0		
W20-5BR	RIGHT LANE CLOSED 1000 FT	48 x 48	16.0		
W20-7a	FLAGGER SYMBOL	48 x 48	16.0		
W20-7b	BE PREPARED TO STOP	48 x 48	16.0		
W23-2A	NEW TRAFFIC PATTERN 1500 FT	48 x 48	16.0		
W23-2B	NEW TRAFFIC PATTERN 1000 FT	48 x 48	16.0		
W99-2	GIVE US A BRAKE	48 x 48	16.0		

**CONSTRUCTION SIGN TOTAL (S.F.)=**

**NOTES:**

1. AVOIDANCE MANEUVER IS FOR A SPEED, PATH, AND / OR DIRECTION CHANGE PRIOR TO THE BEGINNING OF CHANNELIZING TAPERS.
2. RECOMMENDED DISTANCES BETWEEN TWO SEPARATE LANE CLOSURES ARE DOUBLE THE VALUES SHOWN ABOVE.
3. RURAL AND URBAN ROAD DESIGNATIONS ARE AS DEFINED IN THE NJDOT STATE HIGHWAY STRAIGHT LINE DIAGRAMS.
4. PROVIDE DESIRABLE VALUES WHEREVER POSSIBLE. IF IT IS NOT FEASIBLE OR PRACTICAL TO PROVIDE DESIRABLE VALUES BECAUSE OF HORIZONTAL OR VERTICAL CURVATURE OR IF RELOCATION OF THE TAPER IS NOT POSSIBLE, THEN MINIMUM VALUES CAN BE APPLIED. WHEN MINIMUM VALUES ARE USED, PAY SPECIAL ATTENTION TO THE USE OF SUITABLE TRAFFIC CONTROL DEVICES WHEN PROVIDING ADVANCED WARNING OF THE CONDITIONS THAT ARE LIKELY TO BE ENCOUNTERED.
5. LOCATE TAPERS TO MAXIMIZE THE VISIBILITY OF THEIR TOTAL LENGTH.



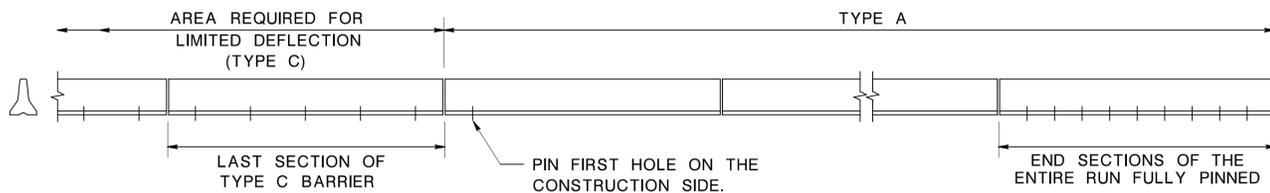
JOINT CLASS	CLEAR AREA
A	39 INCHES
B	33 INCHES
C	12 INCHES
D	0 INCHES

**NOTES:**

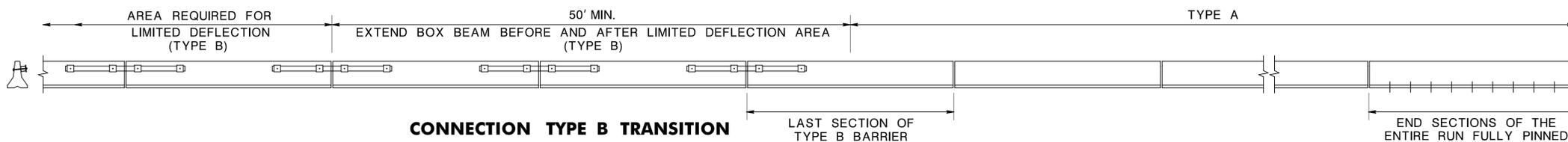
1. CHANGES TO THE PROPOSED CONNECTION TYPE AT ANY LOCATION MUST BE APPROVED BY THE DEPARTMENT.
2. NO ROADWAY DROP OFFS, OBSTRUCTIONS, STORAGE OF MATERIALS OR WORK WILL BE PERMITTED IN THE CLEAR AREA UNLESS APPROVED BY THE RE.

**CONSTRUCTION BARRIER CURB ATTACHMENT TYPE AND CLEAR AREA**

N.T.S.



**CONNECTION TYPE C TRANSITION**

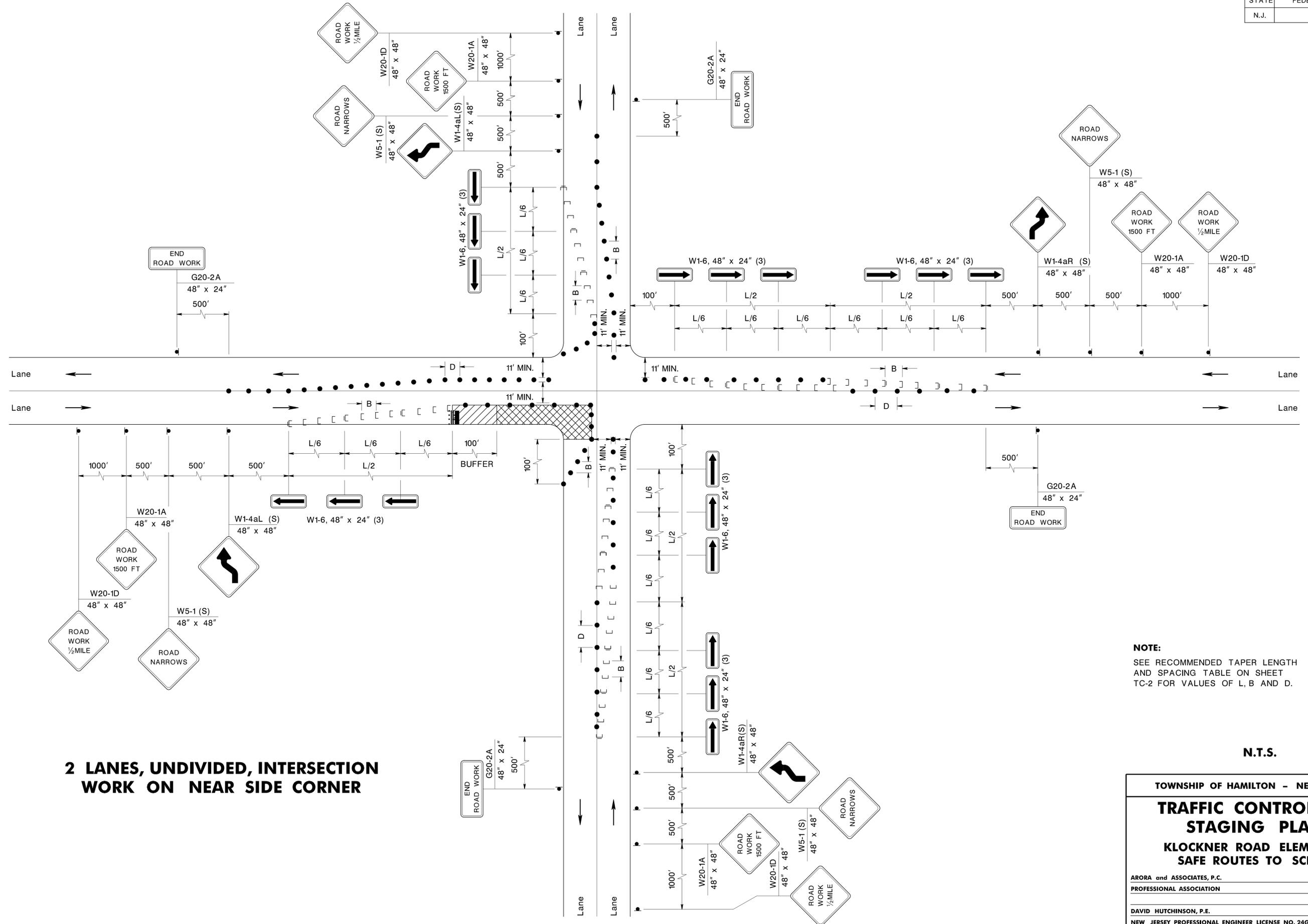


**CONNECTION TYPE B TRANSITION**

TOWNSHIP OF HAMILTON - NEW JERSEY

**TRAFFIC CONTROL AND STAGING PLANS  
KLOCKNER ROAD ELEMENTARY  
SAFE ROUTES TO SCHOOL**

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION  
DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800



**2 LANES, UNDIVIDED, INTERSECTION  
WORK ON NEAR SIDE CORNER**

**NOTE:**  
SEE RECOMMENDED TAPER LENGTH  
AND SPACING TABLE ON SHEET  
TC-2 FOR VALUES OF L, B AND D.

N.T.S.

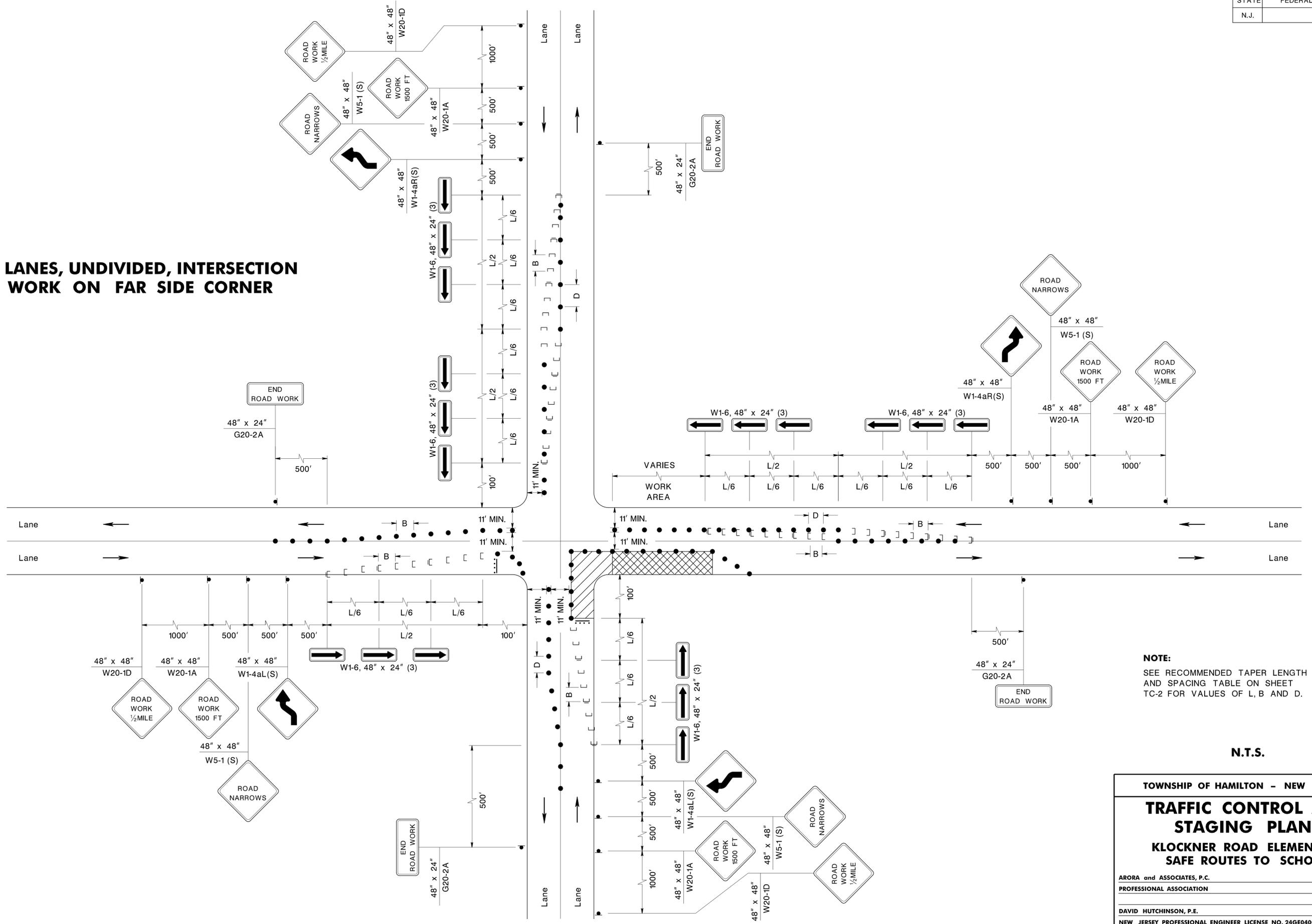
TOWNSHIP OF HAMILTON - NEW JERSEY	
<b>TRAFFIC CONTROL AND STAGING PLANS</b>	
<b>KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL</b>	
ARORA and ASSOCIATES, P.C.	
PROFESSIONAL ASSOCIATION	
DAVID HUTCHINSON, P.E.	
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800	

TC-3  
TC-7

NO.	DATE	DESCRIPTION

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## 2 LANES, UNDIVIDED, INTERSECTION WORK ON FAR SIDE CORNER



**NOTE:**  
SEE RECOMMENDED TAPER LENGTH AND SPACING TABLE ON SHEET TC-2 FOR VALUES OF L, B AND D.

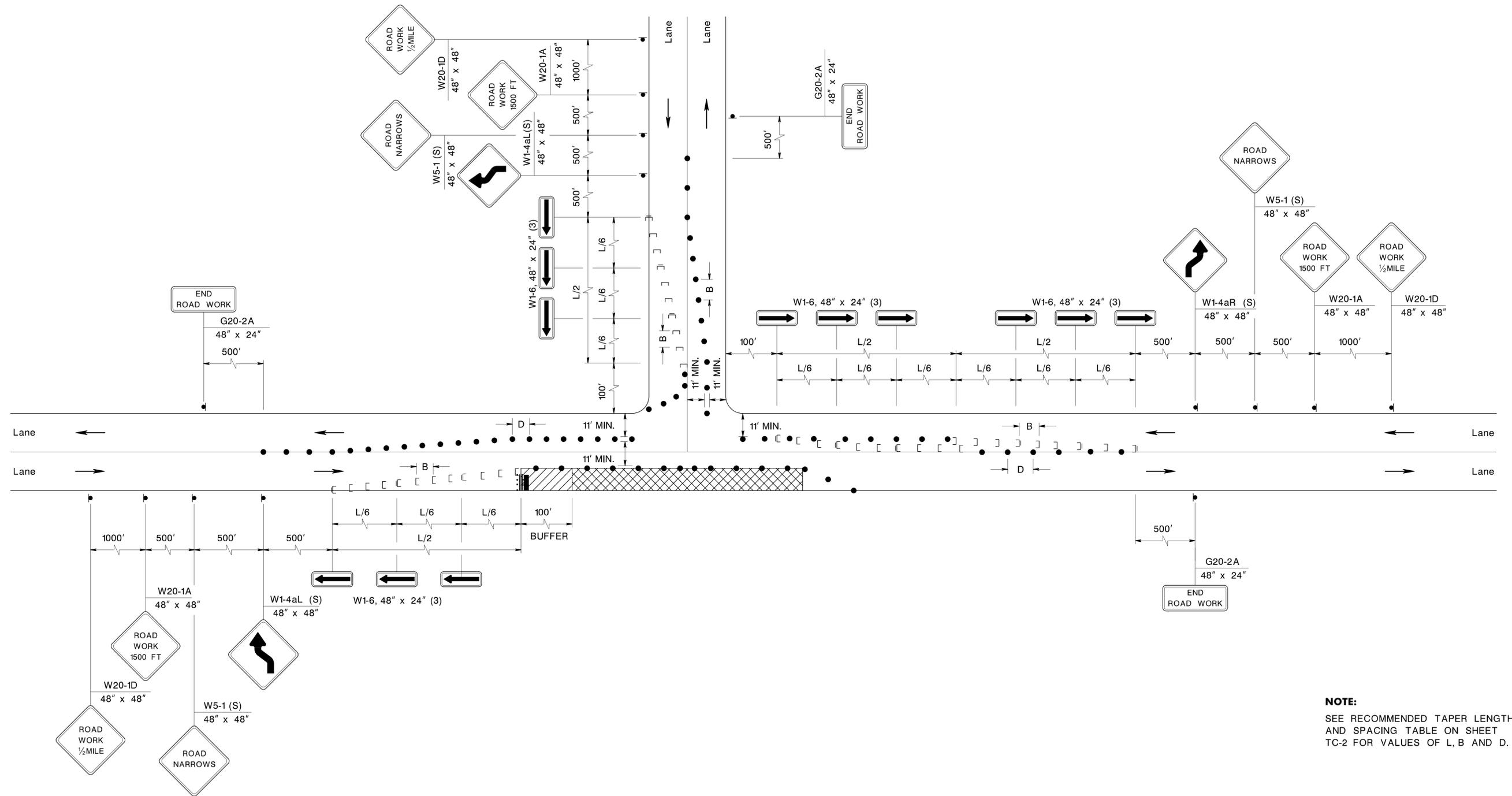
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TOWNSHIP OF HAMILTON - NEW JERSEY	
<b>TRAFFIC CONTROL AND STAGING PLANS</b>	
<b>KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL</b>	
ARORA and ASSOCIATES, P.C.	
PROFESSIONAL ASSOCIATION	
DAVID HUTCHINSON, P.E.	
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800	

NO.	DATE	DESCRIPTION

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TC-4  
TC-7



**NOTE:**  
SEE RECOMMENDED TAPER LENGTH  
AND SPACING TABLE ON SHEET  
TC-2 FOR VALUES OF L, B AND D.

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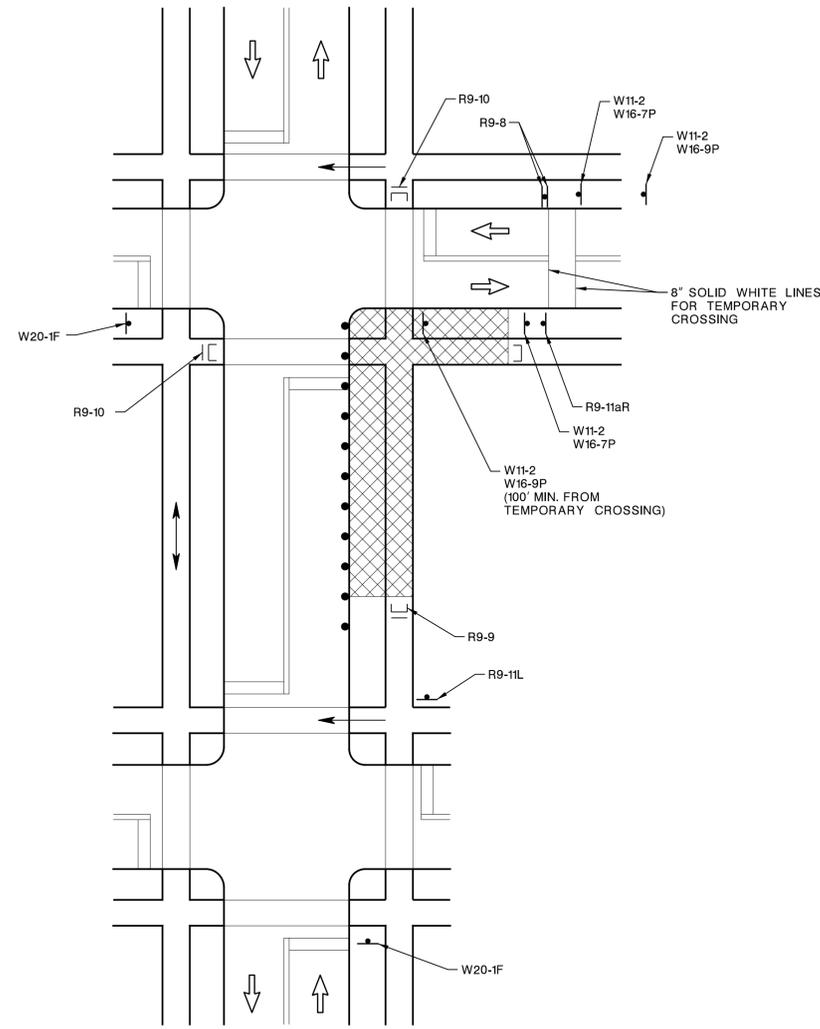
**2 LANES, UNDIVIDED, T-INTERSECTION  
WORK ON TOP OF T**

TOWNSHIP OF HAMILTON - NEW JERSEY	
<b>TRAFFIC CONTROL AND STAGING PLANS</b>	
<b>KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL</b>	
ARORA and ASSOCIATES, P.C.	
PROFESSIONAL ASSOCIATION	
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NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800	

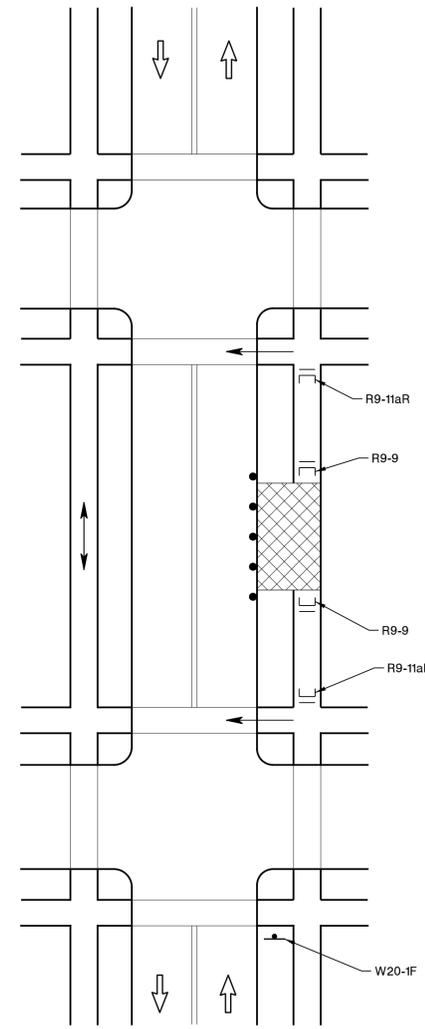
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TC-7

NO.	DATE	DESCRIPTION

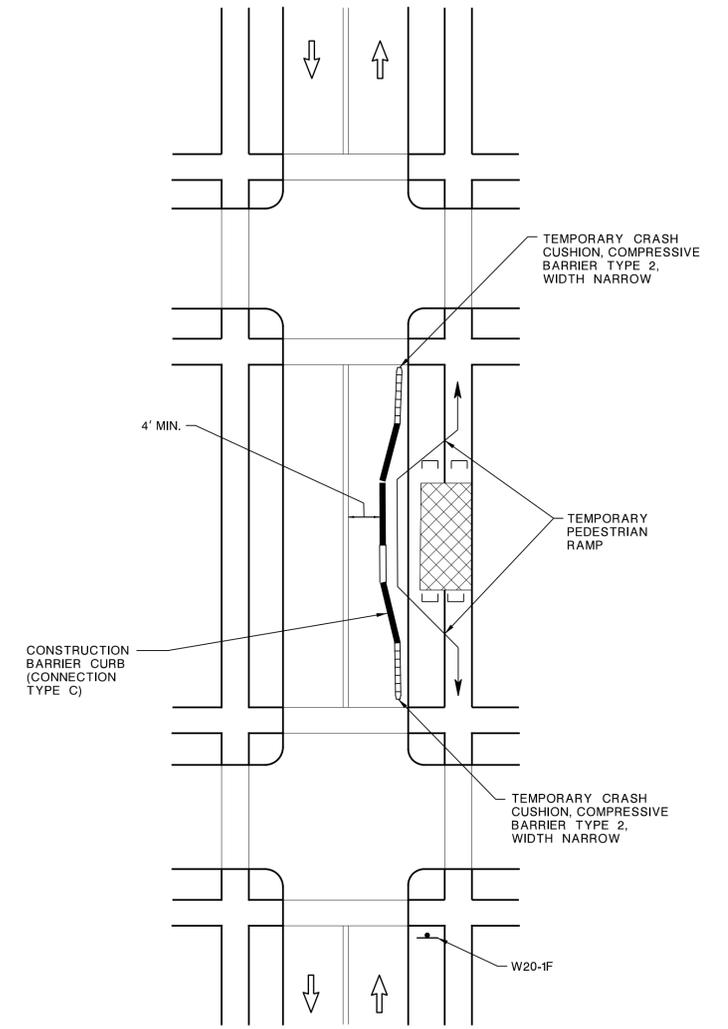
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**CROSSWALK CLOSURE AND  
PEDESTRIAN DETOUR  
(TYPICAL DETAIL)**



**SIDEWALK DETOUR  
(TYPICAL DETAIL)**



**SIDEWALK DIVERSION**

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TC-6  
TC-7

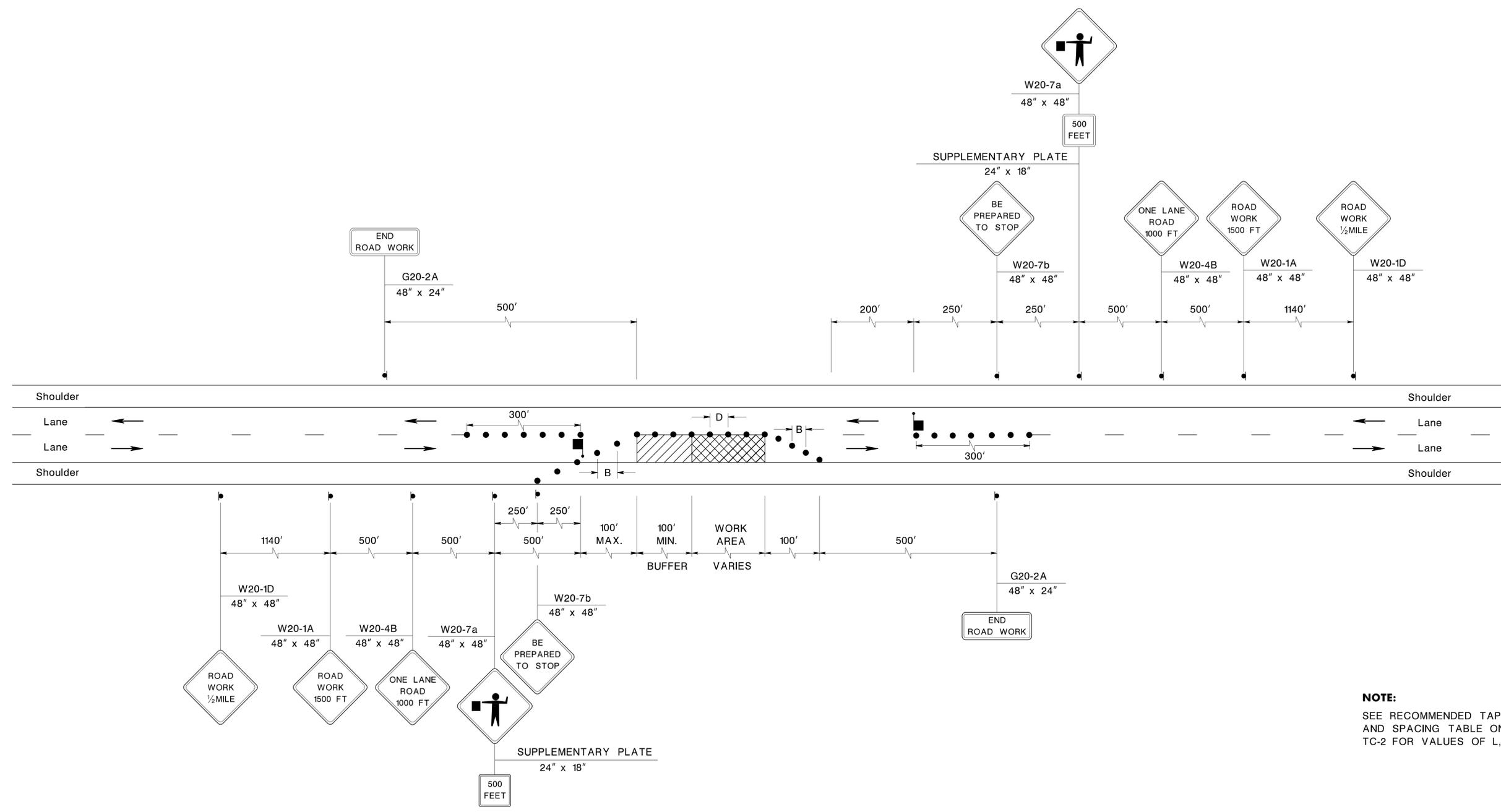
TOWNSHIP OF HAMILTON - NEW JERSEY

**TRAFFIC CONTROL AND STAGING PLANS**

**KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL**

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800



**NOTE:**  
SEE RECOMMENDED TAPER LENGTH AND SPACING TABLE ON SHEET TC-2 FOR VALUES OF L, B, AND D.

**2 LANES, UNDIVIDED, LANE AND SHOULDER CLOSING WITH FLAGGING**

N.T.S.

NO.	DATE	DESCRIPTION

TC-7  
TC-7

TOWNSHIP OF HAMILTON - NEW JERSEY

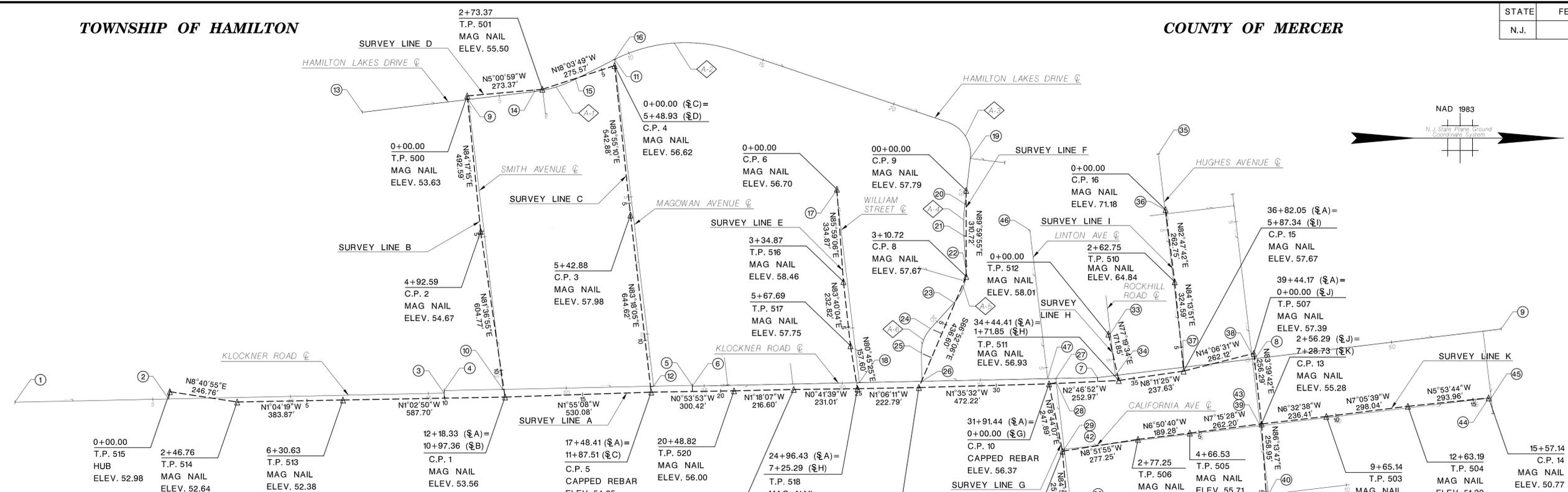
**TRAFFIC CONTROL AND STAGING PLANS**

**KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL**

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

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ALIGNMENT DATA

Table with columns: No., STATION, OFFSET, CENTERLINE, COORDINATES (NORTH COORD., EAST COORD.), REMARKS. Lists alignment data for Survey Lines A through K.

EXISTING TRAVERSE ALIGNMENT DATA

Table with columns: POINT, NORTH COORD., EAST COORD., ELEV., REMARKS. Lists existing traverse data points from 1 to 520.

CURVE DATA

Table with columns: NO., Δ, R, L, T, P.C./P.C.C./P.R.C., P.T./P.C.C./P.R.C., CENTER POINT (NORTH COORD., EAST COORD.), CHORD LENGTH, CHORD BEARING. Lists curve data for points A-1 through A-6.

HORIZONTAL DATUM

NORTH AMERICAN DATUM OF 1983 (NAD 83) (NSRS 2011) N.J. GEODETIC MONUMENTS - HAMBONE, 11Y2, 11W2, 11D2

VERTICAL DATUM

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) N.J. GEODETIC MONUMENTS HAMBONE, 11Y2, 11D2

NOTE:

THIS PLAN IS IN LOCAL PROJECT GROUND COORDINATES. THE COMBINED SCALE FACTOR FOR THIS PROJECT WAS CALCULATED AT CONTROL STATION 7. THE GEOD18 MODEL WAS USED TO COMPUTE ORTHOMETRIC HEIGHTS. CONTROL STATION 7 WAS HELD AS THE BASE POINT. THE COMBINED SCALE FACTOR (CSF) IS 0.999906359535. SHIFT NORTH -48.0538. SHIFT EAST -40.5939.

LEGEND

- Legend symbols and descriptions: CURVE DATA, TIE AND ALIGNMENT DATA, EXISTING TRAVERSE DATA, TIE LINE TO SURVEY, PROPOSED, EXISTING, SURVEY, EXISTING N.J.D.O.T. MON.

HORIZONTAL DATUM

NEW JERSEY STATE PLANE AND COORDINATE SYSTEM NORTH AMERICAN DATUM OF 1983 (NAD83)

VERTICAL DATUM

NATIONAL GEODETIC VERTICAL DATUM OF NAVD 88

PHILIP R. DEMBER, N.J.P.L.S. LIC. NO. 24GS04330700 DATE ARORA and ASSOCIATES, P.C., Lawrenceville, NJ

TOWNSHIP OF HAMILTON - NEW JERSEY

TIES

KLOCKNER ROAD ELEMENTARY SAFE ROUTES TO SCHOOL

ARORA and ASSOCIATES, P.C. PROFESSIONAL ASSOCIATION

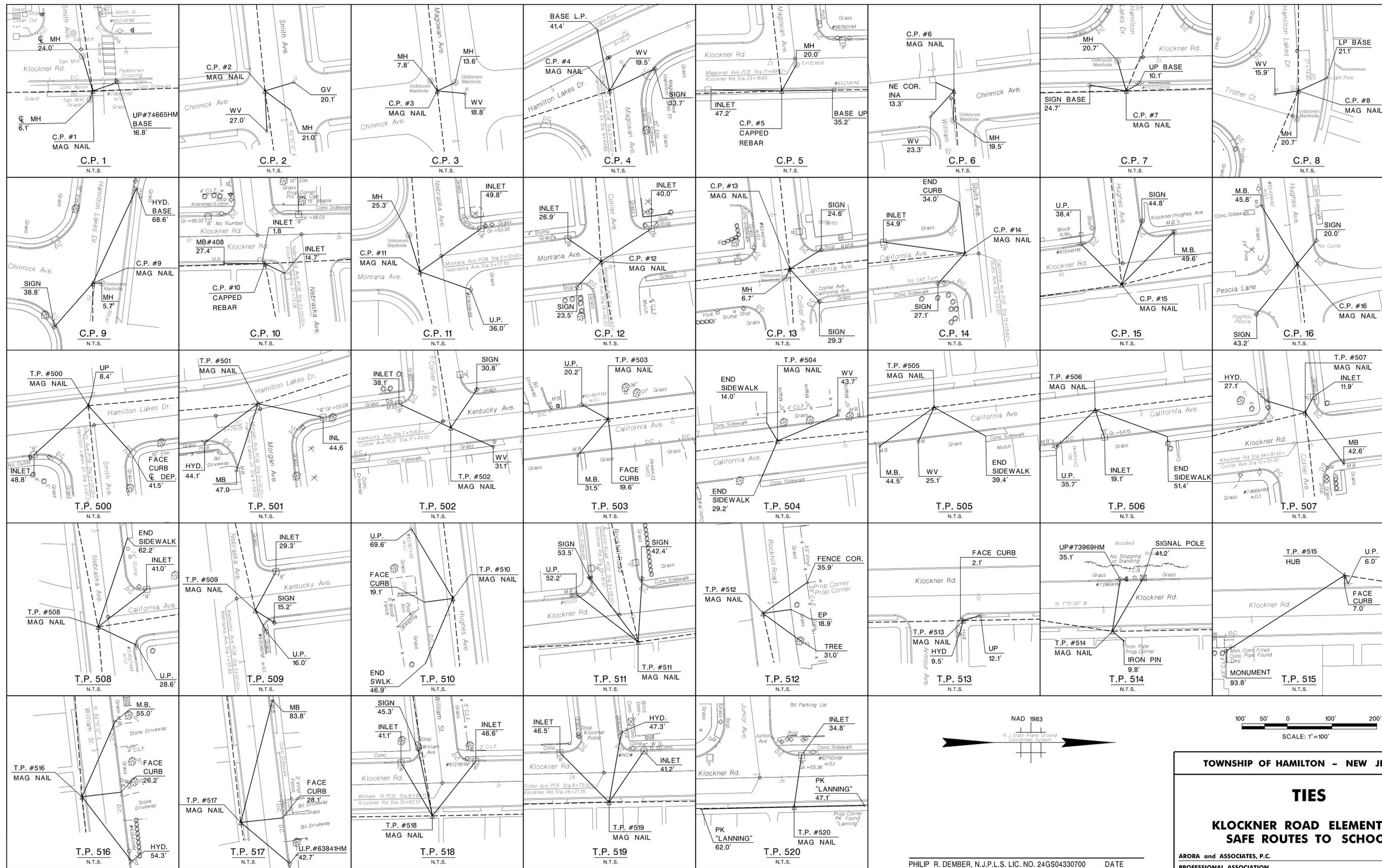
DAVID HUTCHINSON, P.E.

NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

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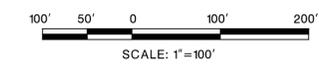
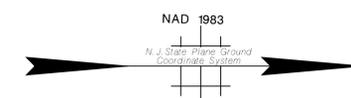
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Table with columns: NO., DATE, DESCRIPTION.



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NO.	DATE	DESCRIPTION



**TOWNSHIP OF HAMILTON - NEW JERSEY**

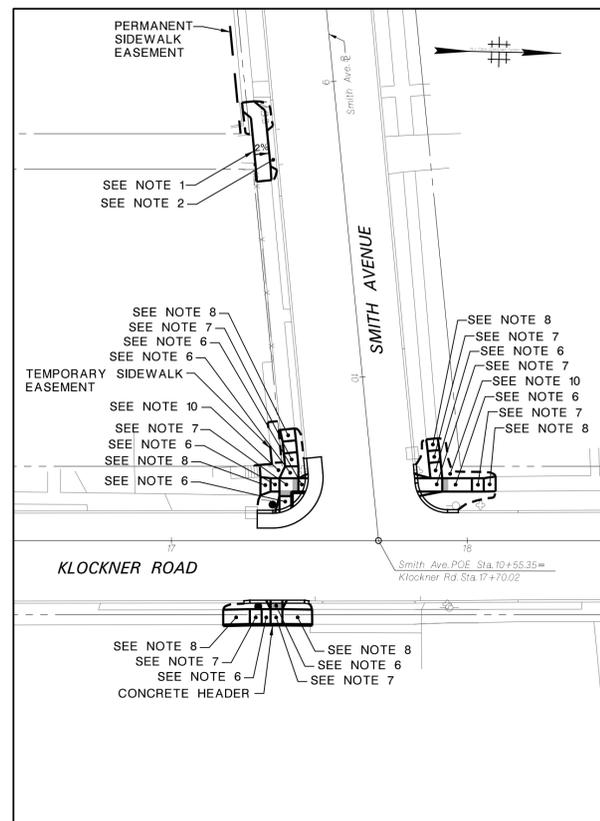
**TIES**

**KLOCKNER ROAD ELEMENTARY  
SAFE ROUTES TO SCHOOL**

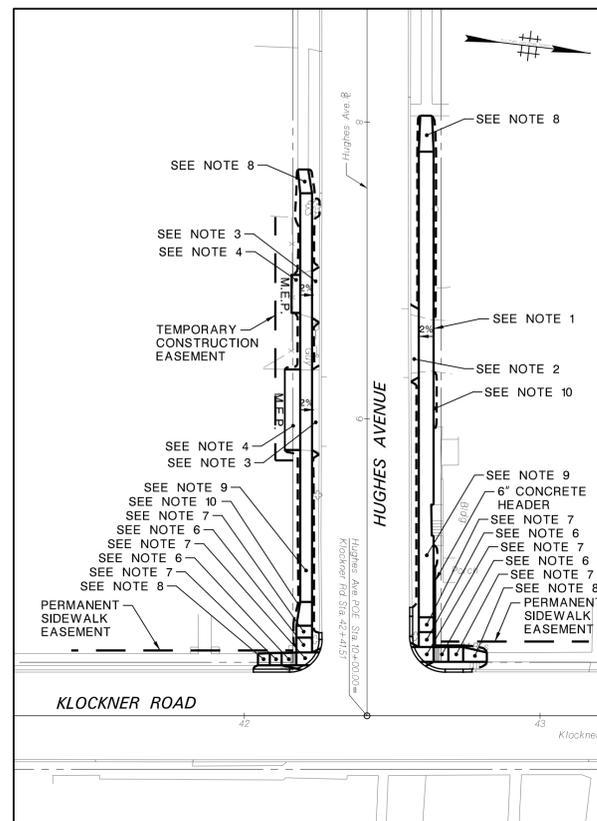
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PROFESSIONAL ASSOCIATION

DAVID HUTCHINSON, P.E.  
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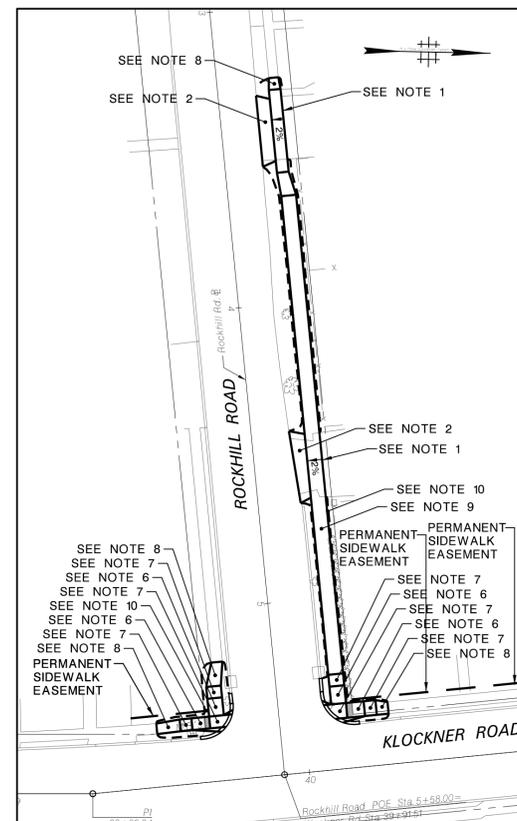
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ARORA and ASSOCIATES, P.C., Lawrenceville, NJ



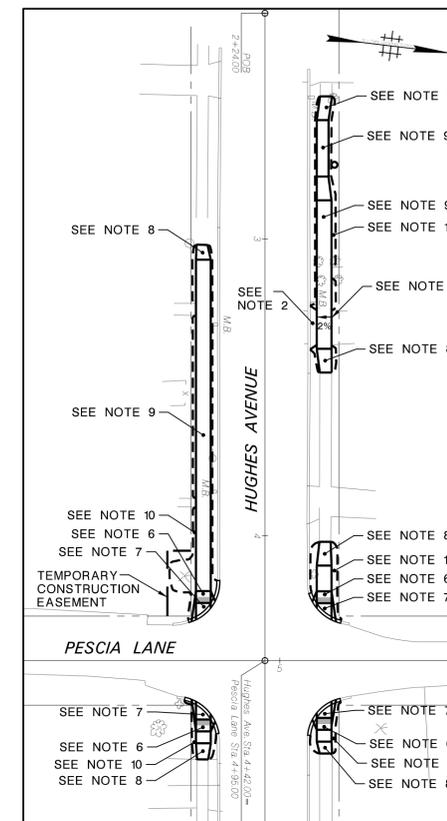
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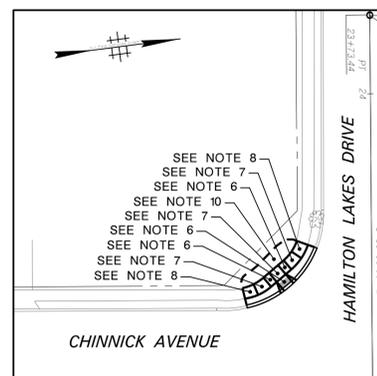
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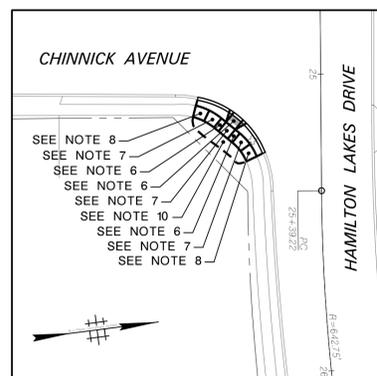
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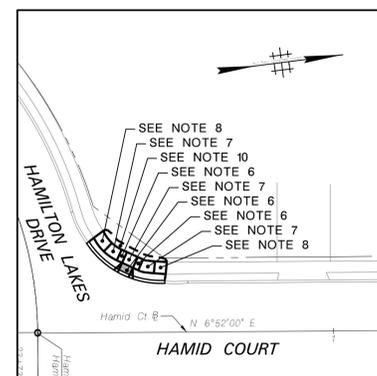
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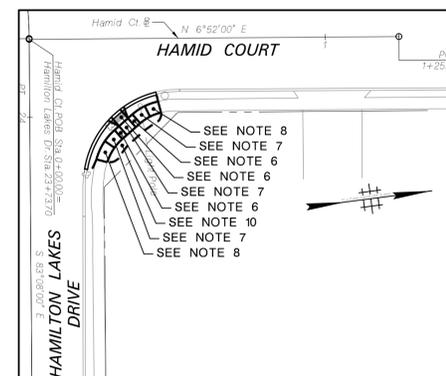
DETAIL 5



DETAIL 6



DETAIL 7



DETAIL 8

NOTES

- CONSTRUCT BACK EDGE OF SIDEWALK AT EXISTING DRIVEWAY ELEVATION.
- CONSTRUCT APRON AT VARIABLE SLOPE BETWEEN FRONT EDGE OF SIDEWALK OR EDGE OF ROADWAY PAVEMENT AND TOP BACK EDGE OF EXISTING CURB. MAXIMUM APRON SLOPE IS 15%.
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TOWNSHIP OF HAMILTON - NEW JERSEY

GRADES

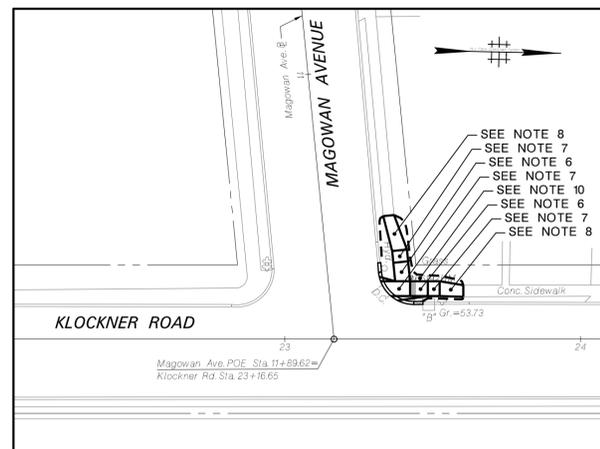
KLOCKNER ROAD ELEMENTARY  
SAFE ROUTES TO SCHOOL

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION  
DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

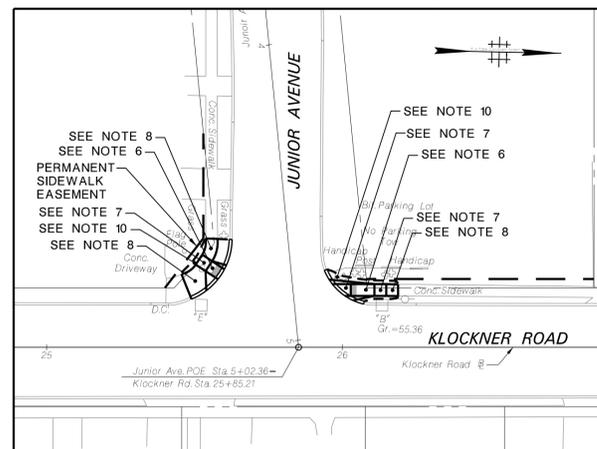
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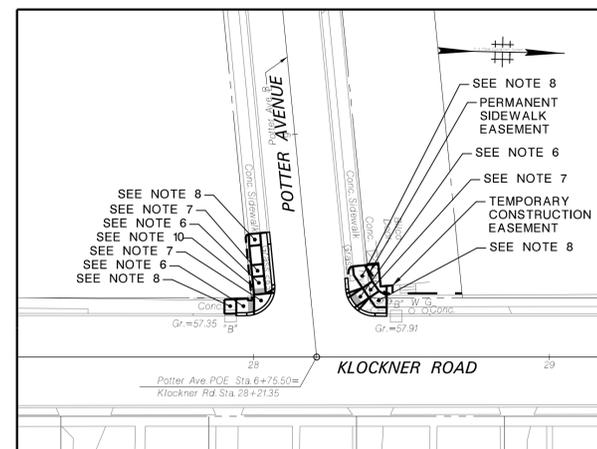
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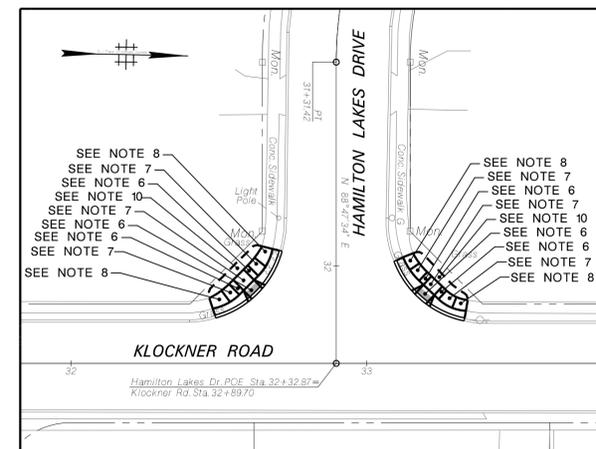
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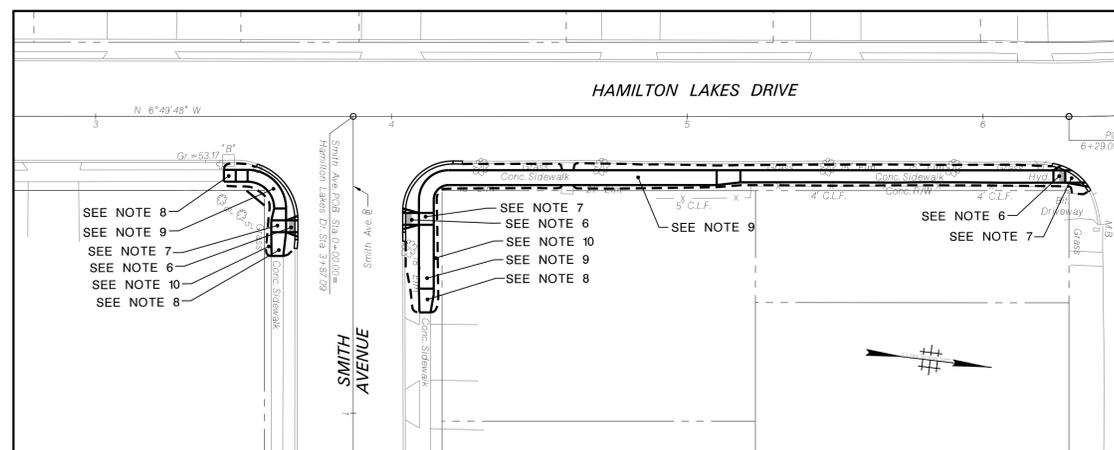
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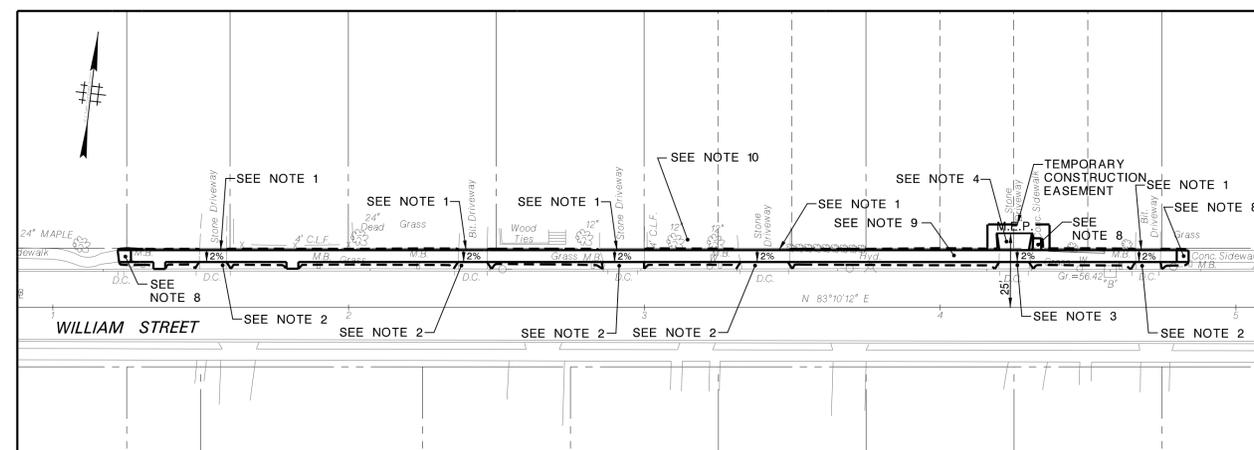
DETAIL 3



DETAIL 4



DETAIL 5



DETAIL 6

NOTES

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NO.	DATE	DESCRIPTION

TOWNSHIP OF HAMILTON - NEW JERSEY

## GRADES

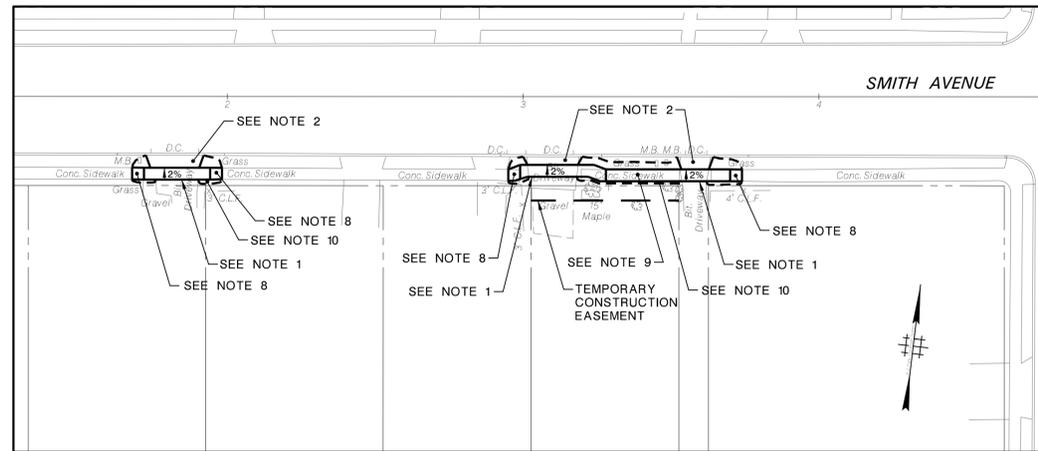
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PROFESSIONAL ASSOCIATION

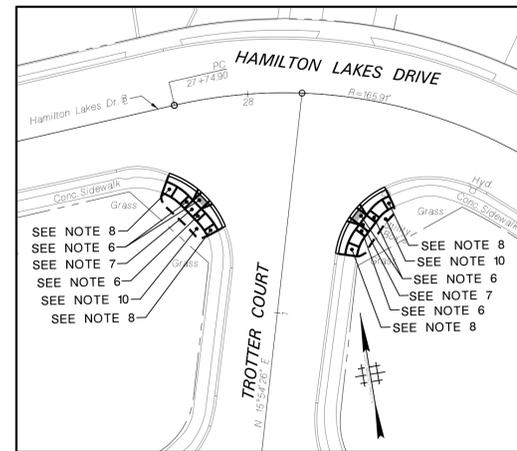
DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

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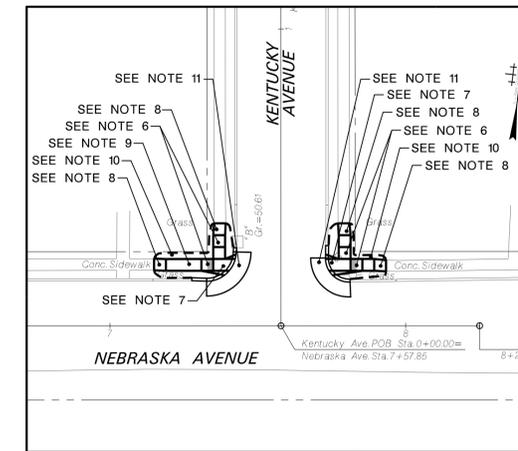
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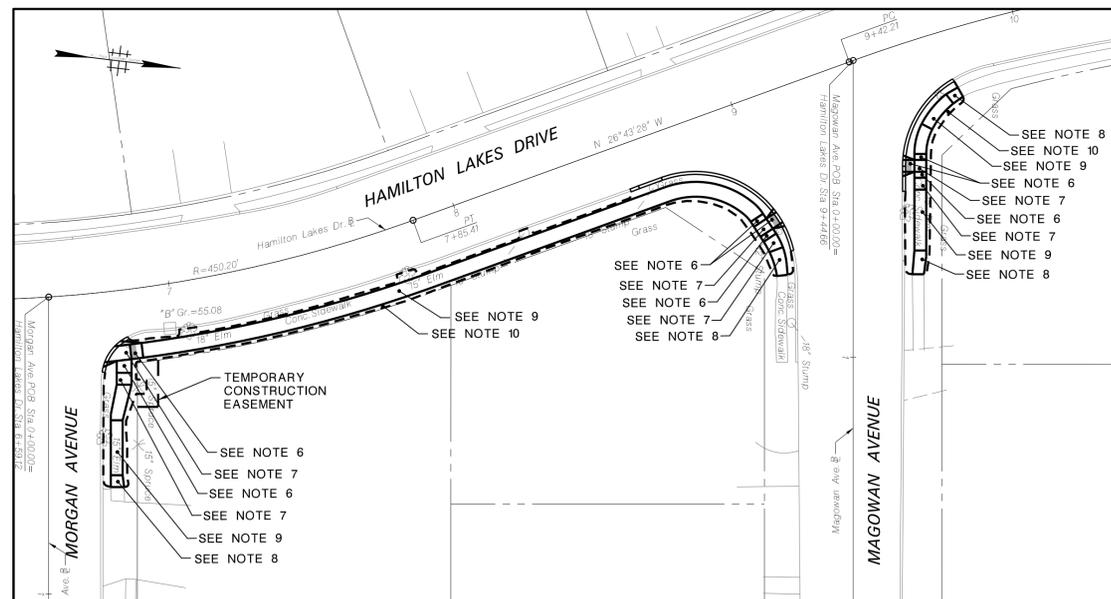
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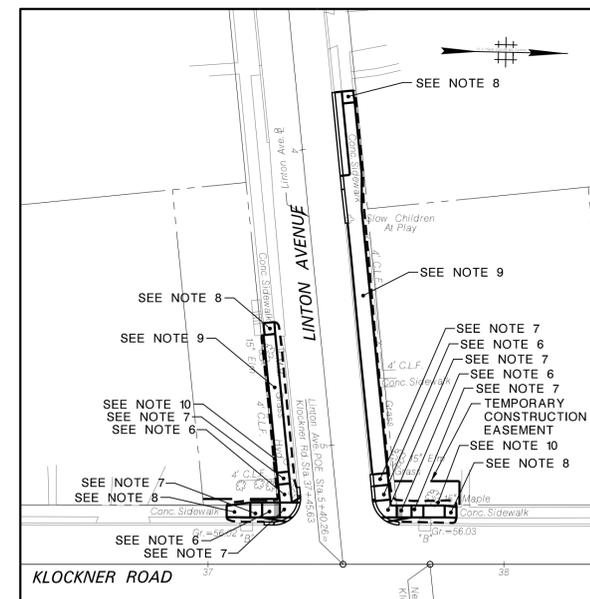
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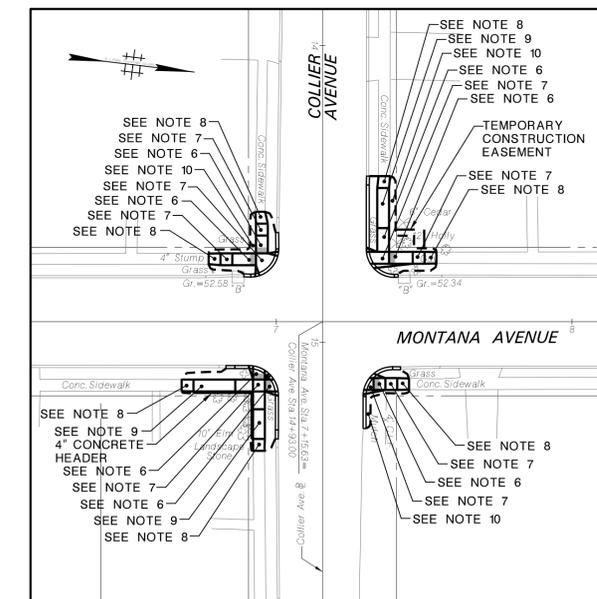
DETAIL 3



DETAIL 4



DETAIL 5



DETAIL 6

NOTES

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NO.	DATE	DESCRIPTION

**TOWNSHIP OF HAMILTON - NEW JERSEY**

## GRADES

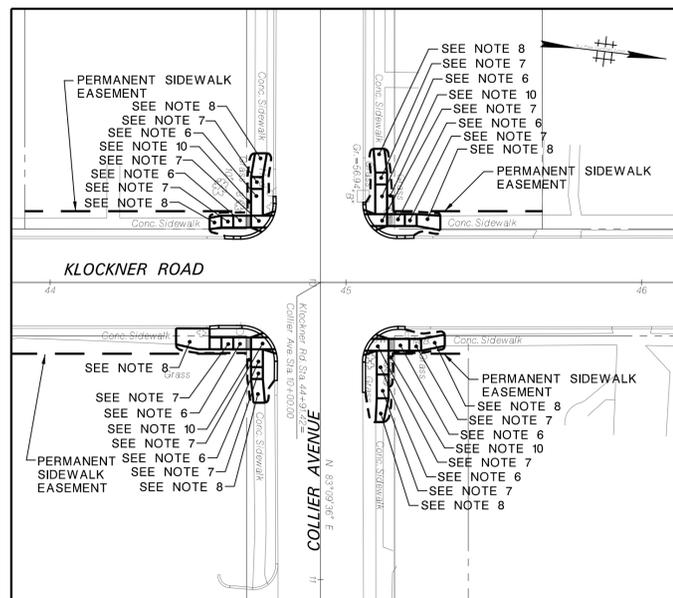
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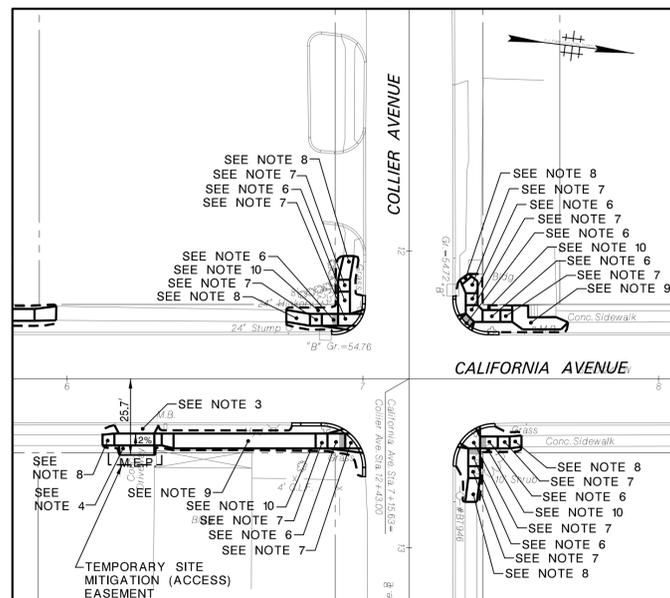
DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800

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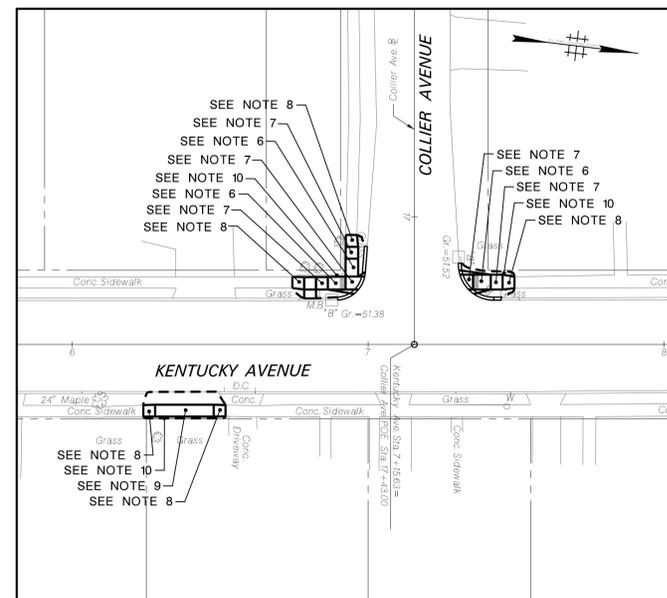
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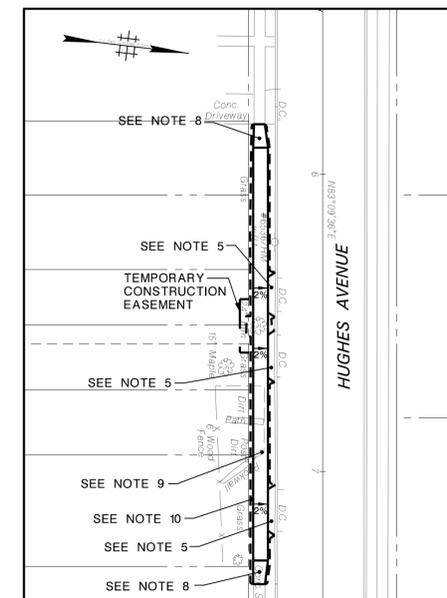
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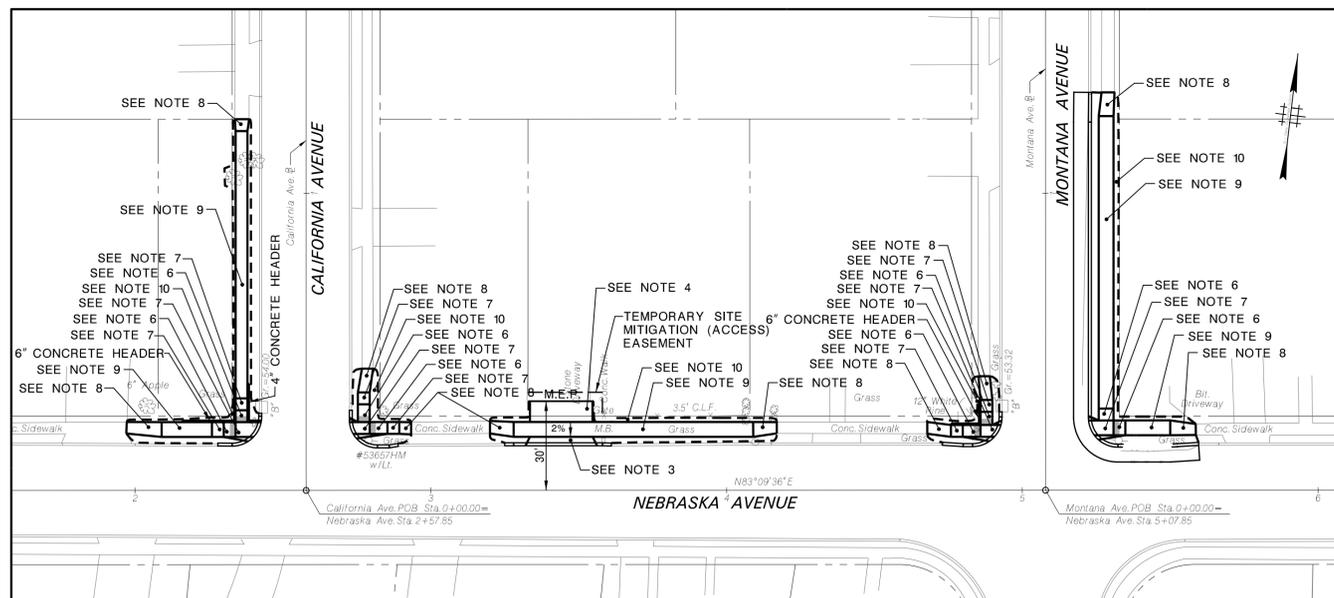
DETAIL 2



DETAIL 3



DETAIL 4



DETAIL 5

NOTES

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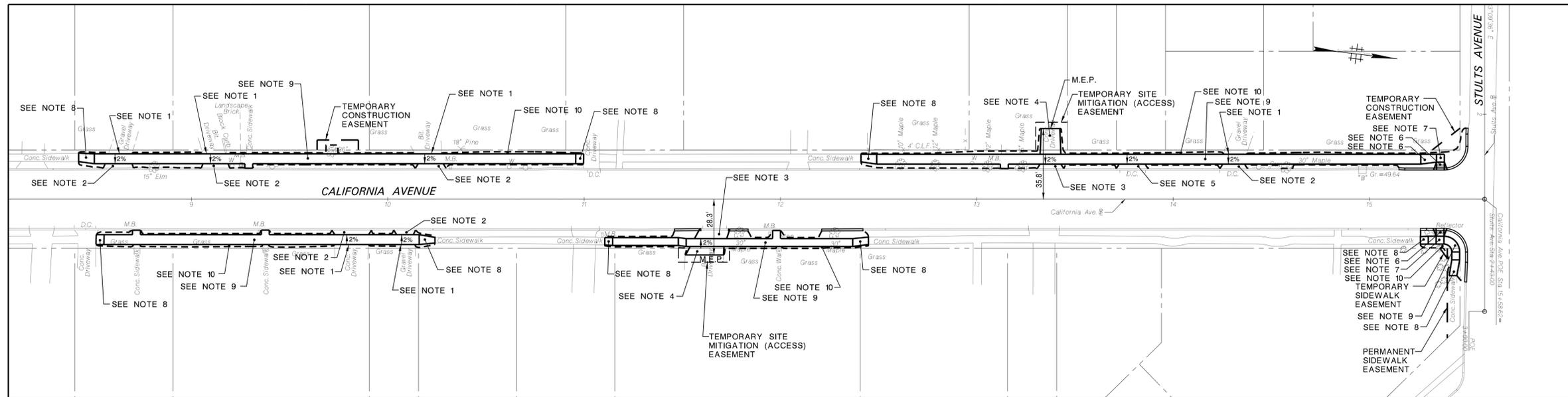
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TOWNSHIP OF HAMILTON - NEW JERSEY

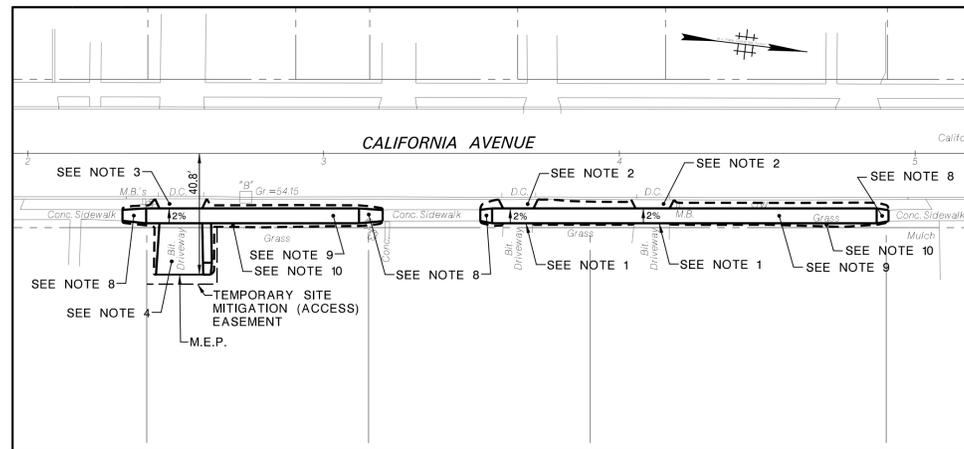
GRADES

KLOCKNER ROAD ELEMENTARY  
SAFE ROUTES TO SCHOOL

ARORA and ASSOCIATES, P.C.  
PROFESSIONAL ASSOCIATION  
DAVID HUTCHINSON, P.E.  
NEW JERSEY PROFESSIONAL ENGINEER LICENSE NO. 24GE04001800



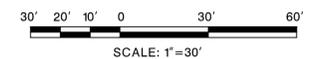
**DETAIL 1**



**DETAIL 2**

**NOTES**

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TOWNSHIP OF HAMILTON - NEW JERSEY

**GRADES**

**KLOCKNER ROAD ELEMENTARY  
SAFE ROUTES TO SCHOOL**

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