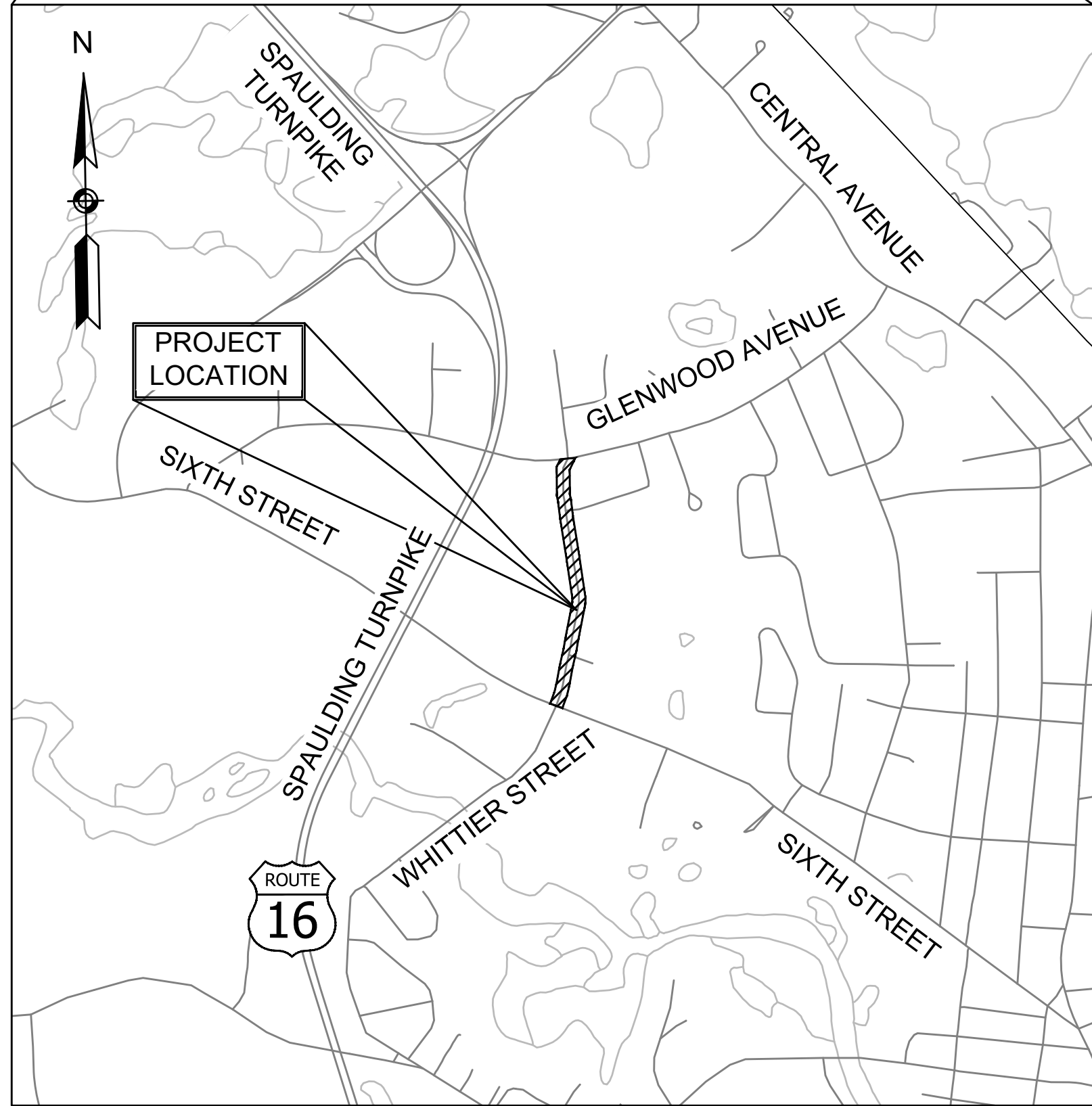
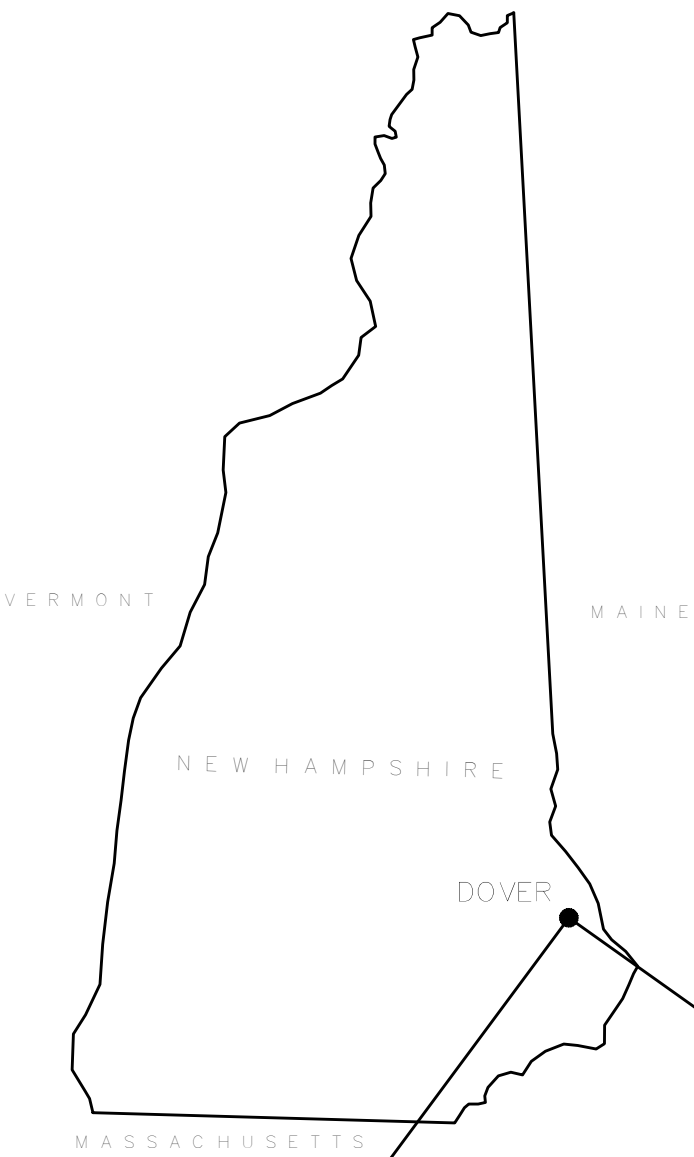


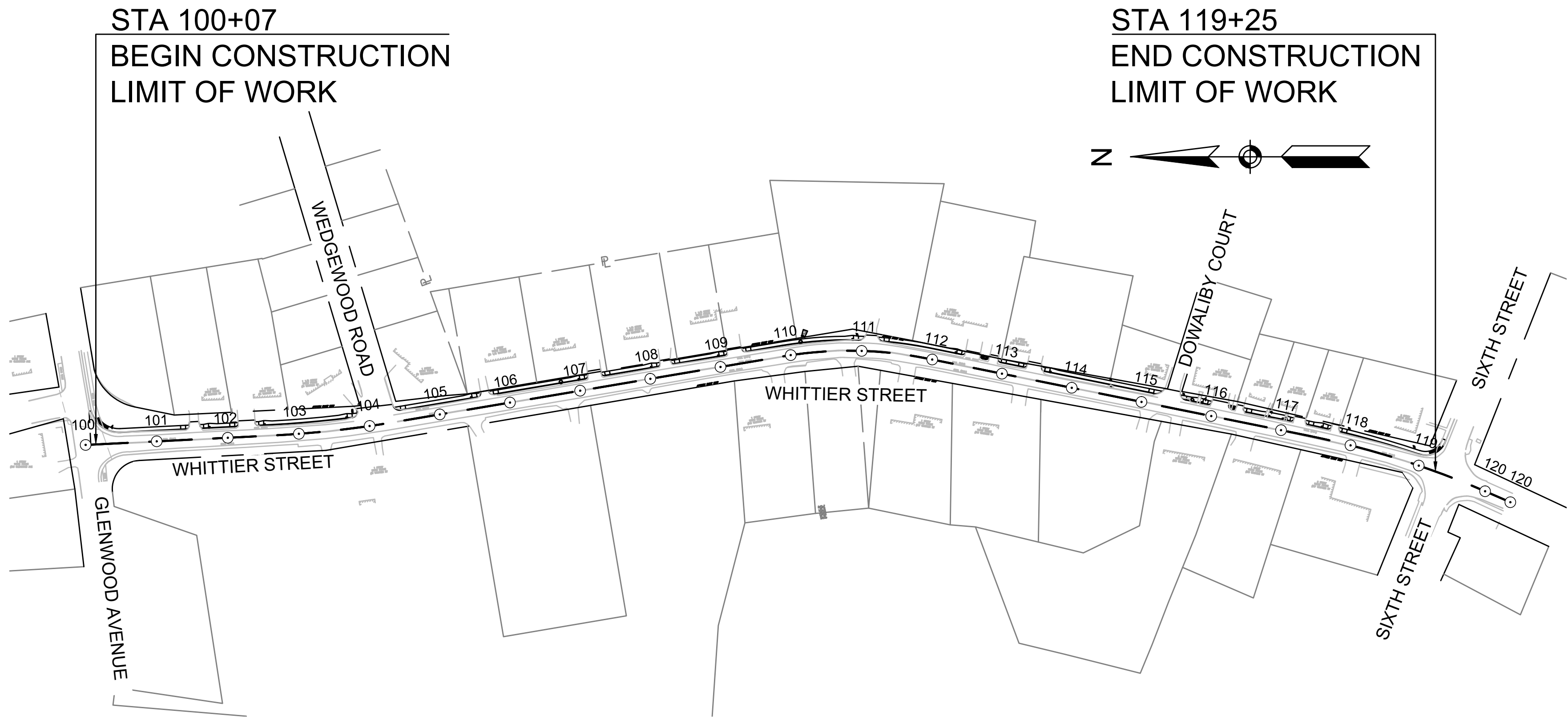
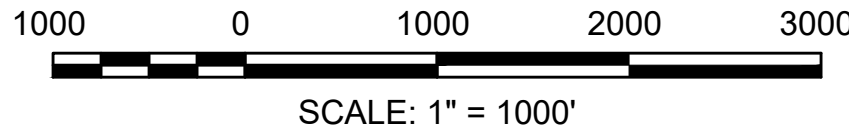
STATE OF NEW HAMPSHIRE
CITY OF DOVER
COUNTY OF STRAFFORD

CONSTRUCTION PLANS

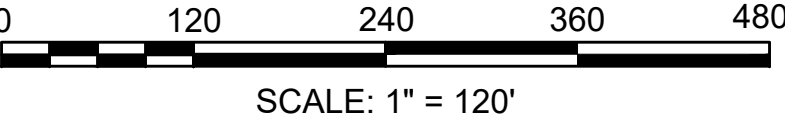
WHITTIER STREET SIDEWALK IMPROVEMENTS



LOCATION PLAN



VICINITY MAP



INDEX	
SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX
2	GENERAL NOTES, LEGEND & ABBREVIATIONS
3	TYPICAL SECTIONS
4 - 8	CONSTRUCTION DETAILS
9 - 12	GENERAL PLANS & PROFILE
13 - 14	CURB TIE PLANS



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DATE	MAY 16, 2019
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PREPARED FOR
City of Dover
Public Works
271 Mast Road
Dover, NH 03820

REVISIONS

ISSUED FOR
Construction

PROJECT TITLE
**Whittier Street
Sidewalk Improvements**

PROJECT LOCATION
**Whittier Street
Dover, NH**

DRAWING TITLE
**Title Sheet &
Index**

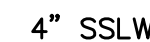
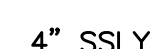
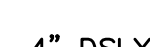
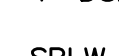
6/6/19

PROJECT NO. N0788
TEC CAD FILE N0788_01_TITLE.dwg
DRAWING NO. **1**
SHEET 1 OF 14

GENERAL NOTES

1. FOR STANDARD PLANS SEE STANDARD "STANDARD FOR ROAD AND BRIDGE CONSTRUCTION DATE 2001 (A BOUND BOOK)
2. CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) AND THE LOCAL MUNICIPAL WATER & SEWER DEPT. AT LEAST 72 HOURS BEFORE EXCAVATING.
3. HANDICAP ACCESSIBLE ROUTES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT/ARCHITECTURAL ACCESS BOARD (AAB), AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALK, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
5. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) (2009 OR LATER).
6. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
7. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
8. CATCH BASIN FRAMES AND GRATES SHALL BE IN CONFORMANCE WITH CITY OF DOVER AND NHDOT STANDARDS.
9. PROPOSED LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF 1.0% (MINIMUM) UNLESS OTHERWISE NOTED. ALL DRAIN PIPES SHALL BE INSTALLED 0.1' (MINIMUM) ABOVE EXISTING INVERT OUT.
10. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
11. ALL DISTURBED AREAS OUTSIDE THE CURBLINE SHALL BE STABILIZED WITH 4" LOAM AND SEED, UNLESS OTHERWISE NOTED.
12. THE TERM "MEET EXIST" MEANS TO MEET BOTH THE EXISTING ALIGNMENT AND ELEVATION.
13. SILTATION CONTROL MEASURES SHALL BE TAKEN AT ALL CATCH BASINS WITHIN THE PROJECT AREA TO PREVENT SILTATION OF THE CITY'S AND NHDOT'S EXISTING AND PROPOSED STORM DRAINAGE SYSTEM.
14. CONTRACTOR SHALL BE AWARE OF OVERHEAD UTILITIES AND MAKE THE NECESSARY ARRANGEMENTS TO PERFORM ANY WORK NEAR THE OVERHEAD UTILITIES, PRIOR TO THE START OF CONSTRUCTION.
15. EXISTING UTILITY POLES IN CLOSE PROXIMITY TO CONSTRUCTION MAY REQUIRE TEMPORARY SUPPORT BY THE UTILITY COMPANY. CONTRACTOR SHALL COORDINATE WITH APPROPRIATE UTILITY COMPANY.
16. TAKE ALL NECESSARY MEASURES AND PROVIDE ALL NECESSARY CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH, TO PREVENT ACCESS TO ALL OPEN EXCAVATIONS AT THE COMPLETION OF EACH DAY'S WORK.
17. PROVIDE TO THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS WHEN WORKING IN THE ROAD. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN OWNER, CONTRACTOR, AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD.

PAVEMENT MARKINGS AND SIGNING SYMBOLS

EXISTING	PROPOSED	
		CROSSWALK, 12" WHITE LINE (WIDTH NOTED)
		STOP LINE, 12" WHITE LINE 4' BEHIND CW (TYP.)
		SINGLE SOLID LINE WHITE- 4"
		SINGLE SOLID LINE YELLOW- 4"
		DOUBLE SOLID LINE YELLOW- 2-4"
		SOLID BROKEN LINE WHITE- 4"
		RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS

GENERAL NOTES

21. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UNDERGROUND UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATION, SIZES, AND ELEVATION OF EXISTING UTILITIES.
22. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT. FAILURE TO PROVIDE OR PERFORM THE ABOVE PRIOR TO PERFORMING ANY WORK SHALL NOT BE GROUNDS FOR EXTRA PAYMENTS TO THE CONTRACTOR.
23. AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS, AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES, AND JOINTS.
24. ALL PRIVATELY OWNED UTILITY STRUCTURES (GAS GATES, ELECTRIC/TELEPHONE MANHOLES, ETC.) SHALL BE ADJUSTED TO FINISHED GRADE BY THE PRIVATE UTILITY COMPANY, UNLESS DIRECTED OTHERWISE. THE CONTRACTOR SHALL COORDINATE PAYMENT FROM PRIVATE UTILITY COMPANIES FOR ADJUSTMENT OF PRIVATE UTILITY STRUCTURES DONE BY THE CONTRACTOR.
25. THE CITY OF DOVER SHALL INSTALL PROPOSED WATER SERVICE SHUT OFF/CURB STOPS PRIOR TO ROAD WIDENING AND SIDEWALK CONSTRUCTION. THE CONSTRUCTION PLANS SHOW THE WATER SHUT OFF'S APPROXIMATE EXISTING LOCATIONS AND NEW LOCATIONS. CONTRACTOR SHALL COORDINATE WITH THE CITY'S WATER DEPARTMENT.
26. ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED.
27. THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL BARRIERS AFTER REVEGETATION OF DISTURBED AREAS AND AFTER APPROVAL BY THE LOCAL APPROVING AUTHORITY.
28. STOCKPILED TOPSOIL SHALL BE PLACED NEATLY IN AN AREA APPROVED BY THE OWNER/REPRESENTATIVE.
29. THE CONTRACTOR SHALL SCHEDULE THEIR WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING.

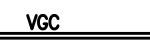
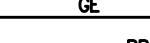
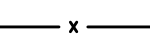
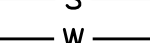
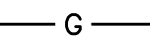
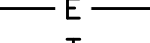
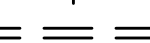
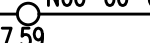
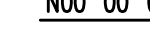
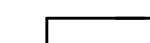
SURVEY NOTES

1. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE THE DIRECT RESULT OF AN INSTRUMENT SURVEY PERFORMED ON THE GROUND BY TEC IN JUNE 2018.
2. BEARINGS ARE BASED UPON NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM (NAD 83 (NA2011) EPOCH 2010.000) ESTABLISHED WITH NETWORK RTK GPS MEASUREMENTS FROM THE LEICA SMARTNET NA NETWORK.
3. CONTOURS AND ELEVATIONS SHOWN ARE BASED UPON N.G.V.D. 1929 ESTABLISHED FROM NHDOT GEODETIC CONTROL DISK 125-0800.

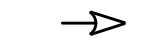
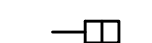
ABBREVIATIONS

GENERAL		UTILITIES	
ABAN	ABANDON	ACCMP	ASPHALT COATED CORRUGATED
AC	ACRES		METAL PIPE
ADJ	ADJUST	BC	BOTTOM OF CHANNEL
APPROX	APPROXIMATE	CB	CATCH BASIN
BIT.	BITUMINOUS	CAP	CORRUGATED ALUMINUM PIPE
BLDG	BUILDING	CIP	CAST IRON PIPE
BO	BY OTHERS	CIT	CHANGE IN TYPE
BOC	BOTTOM OF CURB	CLDI	CEMENT LINED DUCTILE IRON
BOS	BOTTOM OF SLOPE	COND	CONDUIT
CC	CONCRETE CURB	DCB	DOUBLE CATCH BASIN
CEM	CEMENT	DIP	DUCTILE IRON PIPE
CLF	CHAIN LINK FENCE	DMH	DRAINAGE MANHOLE
CONC	CONCRETE	ETC	ELECTRIC, TELEPHONE, & CABLE
DIA	DIAMETER	F&G	FRAME AND GRATE
ELEV	ELEVATION	F&C	FRAME AND COVER
EXIST	EXISTING	GV	GAS VALVE
F&C	FRAME & COVER	HDPE	HIGH DENSITY POLYETHYLENE PIPE
F&G	FRAME & GRATE	HYD	HYDRANT
FDN	FOUNDATION	INV	INVERT ELEVATION
GC	GRANITE CURB	PVC	POLYVINYL CHLORIDE PIPE
GE	GRANITE EDGING	PWW	PAVED WATER WAY
HBP	HOT BITUMINOUS PAVEMENT	RCP	REINFORCED CONCRETE PIPE (CLASS III)
HMA	HOT MIX ASPHALT	SMH	SEWER MANHOLE
LA	LANDSCAPE AREA	TSV	TAPPING SLEEVE AND VALVE
LF	LINEAR FEET	UP	UTILITY POLE
MAX	MAXIMUM	VCP	VITRIFIED CLAY PIPE
MCC	MONOLITHIC CONCRETE CURB	WV	WATER VALVE
MIN	MINIMUM		
NTS	NOT TO SCALE		
PCC	PRECAST CONCRETE CURB		
PROP	PROPOSED		
PVMT	PAVEMENT		
R	RADIUS	CC	CENTER OF CURVE
REM	REMOVE	PC	POINT OF CURVE
REMOD	REMODEL	PCC	POINT OF COMPOUND CURVE
RET	RETAIN	PI	POINT OF INTERSECTION
R&R	REMOVE AND RESET	PNT	POINT
R&S	REMOVE AND SALVAGE	PRC	POINT OF REVERSE CURVE
SGC	SLOPED GRANITE CURB	PT	POINT OF TANGENT
STC	STORMCEPTOR INLET		
SW	SIDEWALK		
TOC	TOP OF CURB		
TOS	TOP OF SLOPE		
TS	TRAFFIC SIGNAL		
TYP	TYPICAL		
UON	UNLESS OTHERWISE NOTED		
VGC	VERTICAL GRANITE CURB		
WCR	WHEELCHAIR RAMP		

GENERAL SYMBOLS

EXISTING	PROPOSED	
		CATCH BASIN
		DRAIN MANHOLE
		SEWER MANHOLE
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE
		MANHOLE
		HANDHOLE
		BOLLARD
		WATER GATE
		FIRE HYDRANT
		GAS GATE
		STREET SIGN
		LIGHT POLE
		WALL MOUNTED LIGHT
		UTILITY POLE
		GUY POLE
		GUY WIRE
		MONITORING WELL
		TEST PIT (W/ I.D.)
		EDGE OF PAVEMENT
		MONOLITHIC CONCRETE CURB
		GRANITE CURB (TYPE VB)
		GRANITE EDGING
		BITUMINOUS BERM
		GUARD RAIL
		CHAINLINK FENCE
		DRAINAGE LINE
		SEWER LINE
		WATER LINE
		GAS LINE
		UNDERGROUND ELECTRIC LINE
		UNDERGROUND TELEPHONE LINE
		ELEC., TELE., CATV, CONDUIT
		OVERHEAD WIRE
		STONE WALL
		TREE LINE
		BASELINE
		TOWN LAYOUT
		PROPERTY LINE
		HIGHWAY/PROPERTY BOUND (TYPE NOTED)
		WHEELCHAIR RAMP
		TREE (SIZE AND TYPE NOTED)

TRAFFIC SIGNAL SYMBOLS

EXISTING	PROPOSED	
		CONTROLLER CABINET, FOUNDATION
		CONTROLLER CABINET, FOUNDATION, CONC. PAD
		MAST ARM (IN LENGTH NOTED)
		EMERGENCY PREEMPTION CONFIRMATION STROBE LIGHT
		VEHICULAR SIGNAL HEAD
		PEDESTRIAN SIGNAL HEAD
		MAST ARM OR TS POLE MOUNTED SIGN
		EMERGENCY PRE-EMPTION RECEIVER
		EMERGENCY PRE-EMPTION CONFIRMATION STROBE
		PEDESTRIAN PUSH BUTTON
		INTERCONNECT ANTENNA
		TRAFFIC SIGN (1 POST)
		TRAFFIC SIGN (2 POST)
		PULL BOX 12"x14" (OR AS NOTED)
		ELECTRIC HANDHOLE 12"x24" (OR AS NOTED)



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DESIGNED BY	ADC
DRAWN BY	DGR
CHECKED BY	JAC
DATE	MAY 16, 2019
SCALE	AS SHOWN

PREPARED FOR

City of Dover
Public Works
271 Mast Road
Dover, NH 03820

REVISIONS

ISSUED FOR

Construction

PROJECT TITLE

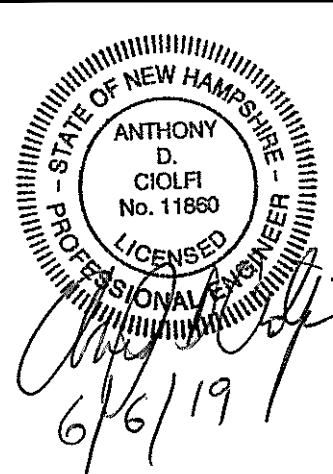
Whittier Street
Sidewalk Improvements

PROJECT LOCATION

Whittier Street
Dover, NH

DRAWING TITLE

General Notes,
Legend, &
Abbreviations



PROJECT NO.
N0788

TEC CAD FILE
N0788_02_LEGEND.dwg

DRAWING NO.
2

SHEET 2 OF 14



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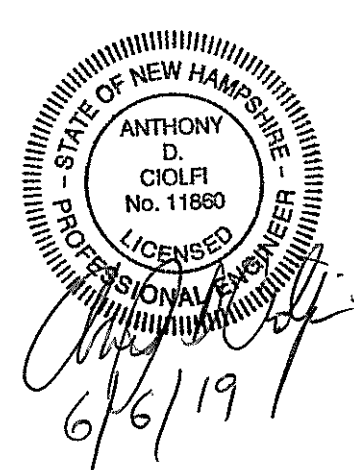
Whittier Street
Sidewalk Improvements

PROJECT LOCATION

Whittier Street
Dover, NH

DRAWING TITLE

Typical Sections



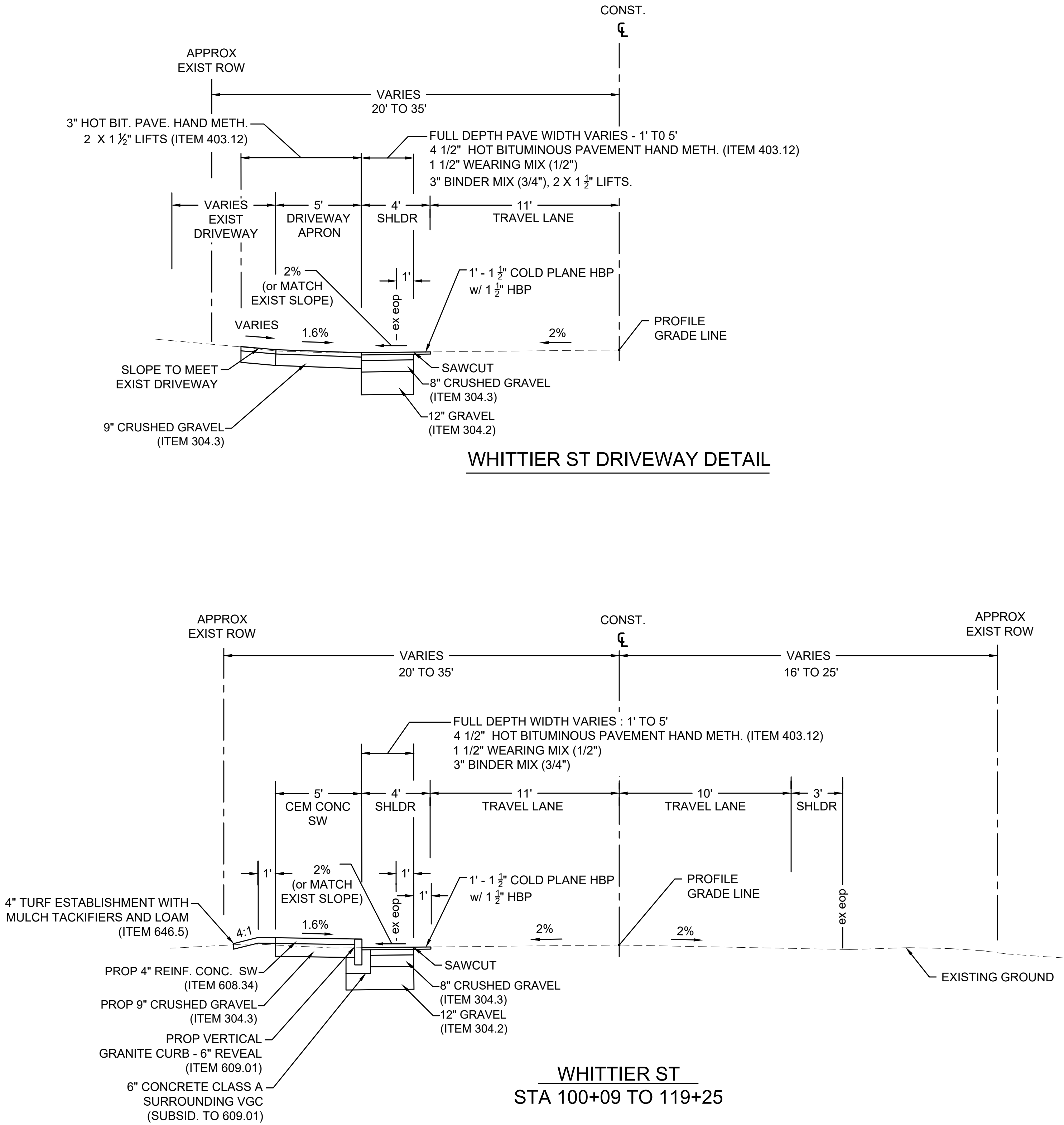
PROJECT NO.
N0788

TEC CAD FILE
N0788_TYP SEC.dwg

DRAWING NO.

3

SHEET 3 OF 14



CURB SUMMARY TABLE			
ITEM NO.	-	-	609.01
DESCRIPTION	MARK NO.	RADIUS	STRAIGHT GRANITE CURB
UNIT		FT	LF
LOCATION			
WHITTIER ST			
	G1	40.0	20.1
	G2	40.0	4.4
	G3	40.0	5.1
	G4	40.0	6.7
	G5	40.0	19.1
	G6		85.2
	G7		7
	G8		7
	G9		29.8
	G10		7
	G11		7
	G12		8.5
	G13	1485.0	109.6
	G14	1485.0	7
	G15		7
	G16		94.7
	G17		7
	G18		7
	G19		115.9
	G20		7
	G21		7
	G22		59.8
	G23		7
	G24		7
	G25		56.2
	G26		7
	G27		7
	G28		44.5
	G29	565.0	100.3
	G30	609.6	7
	G31	609.6	7
	G32	565.0	57.3
	G33		39
	G34		7
	G35		7
	G36		17.9
	G37		7
	G38		7
	G39		142.2
	G40		7
	G41		7
	G42		16.8
	G43		7
	G44		7
	G45		50.2
	G46		5.3
	G47		7
	G48	1265.0	13.5
	G49	1265.0	7
	G50	1265.0	7
	G51	1265.0	106
	G52	30.2	15.9
	G53	30.2	7
	G54	30.2	5.1
	G55	30.2	7
	G56	30.2	13.2
SUB TOTAL =			1445.3
ESTIMATED RESET AMOUNT =			0
TOTALS			1445



GENERAL NOTES:

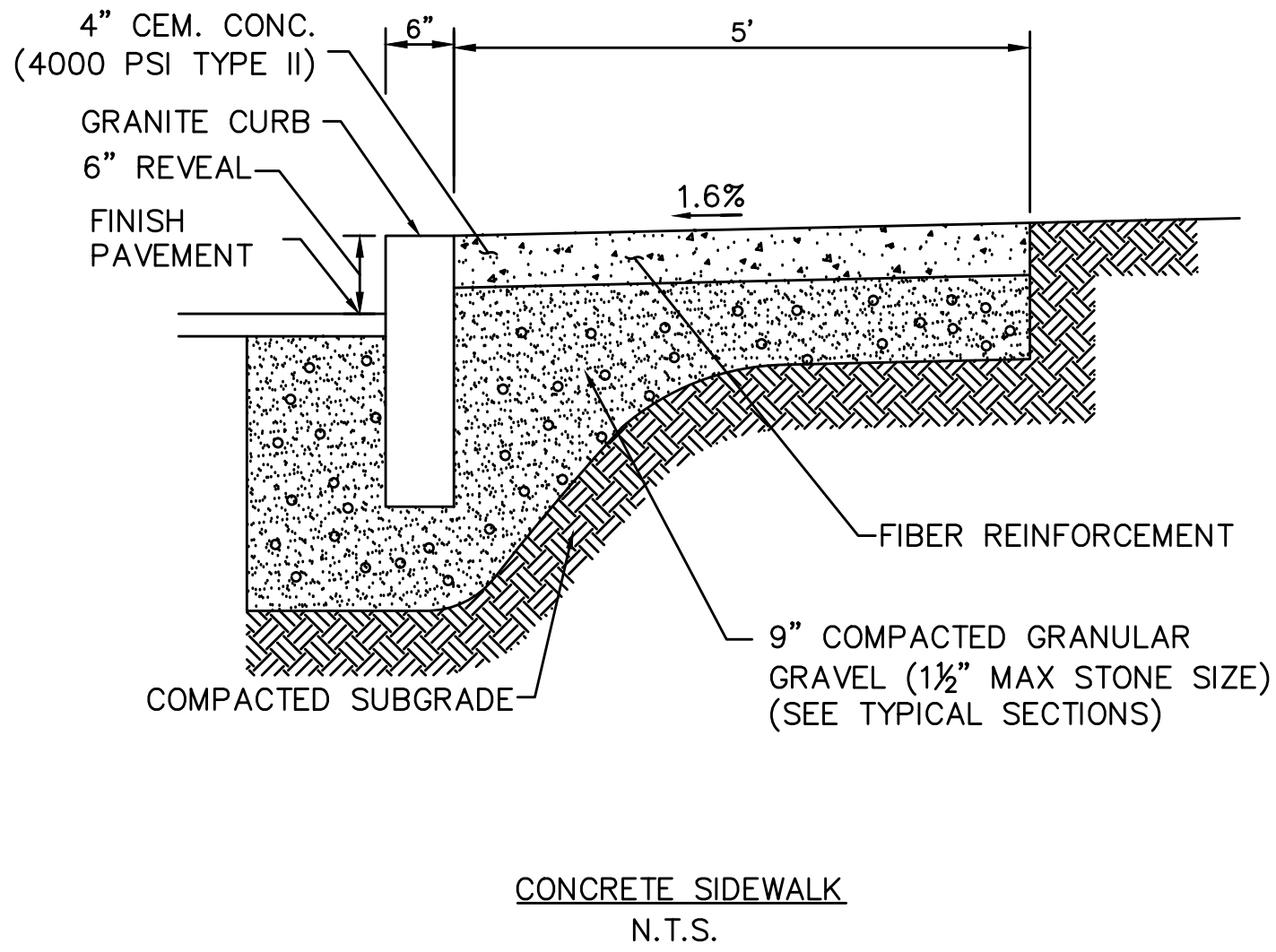
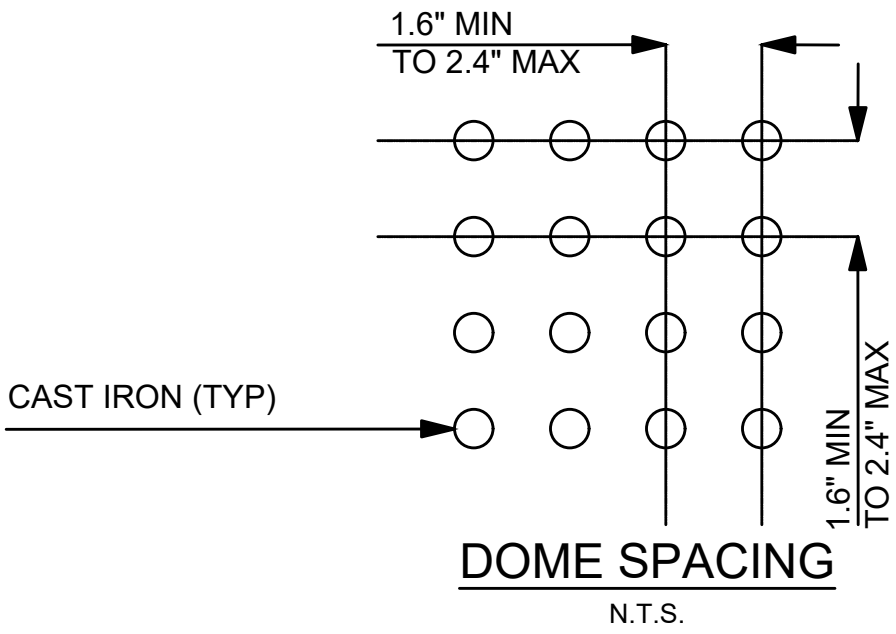
1. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 12:1. THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.

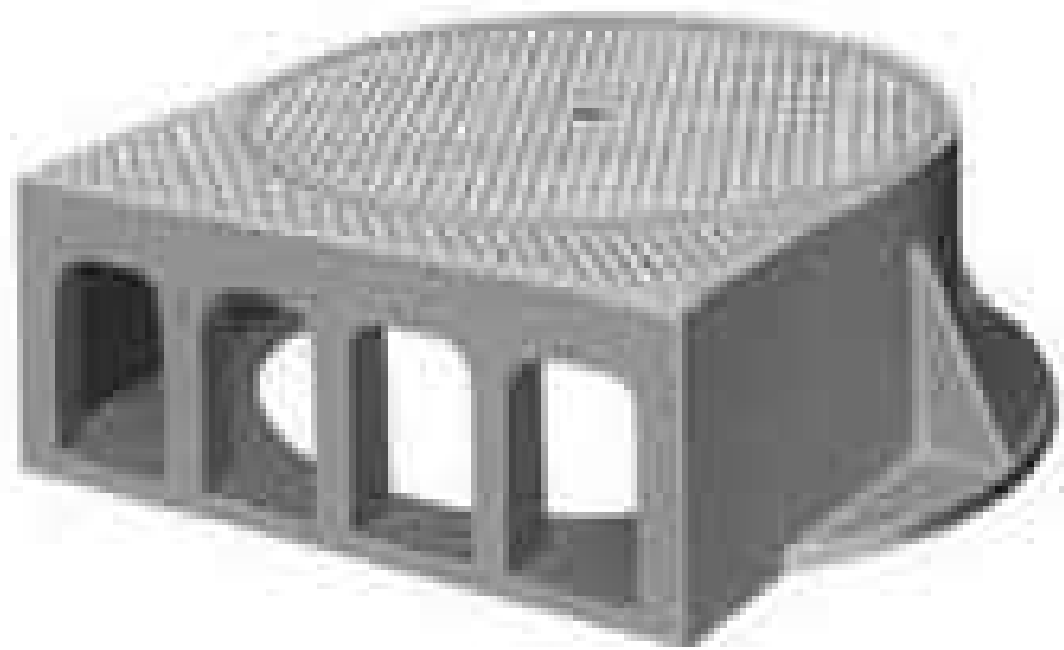
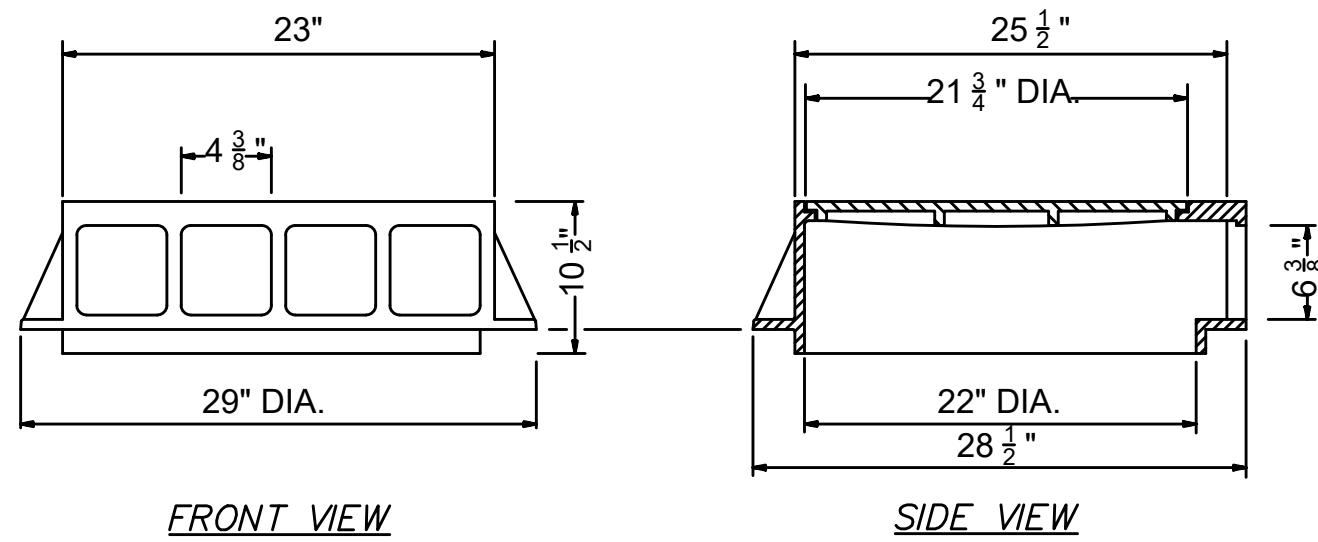
RAMP RUNNING SLOPE EXCEPTION: A GREATER THAN 8.33% RAMP RUNNING GRADE IS ALLOWED WHERE THE ROADWAY AND THE SIDEWALK(S) ARE PARALLEL AND VERY CLOSE TOGETHER, WITH THE SAME GRADE, AND USING A GRADE OF 8.33% WOULD RESULT IN A RAMP LENGTH LONGER THAN 15'. IN THOSE CIRCUMSTANCES, USE A MAXIMUM RAMP LENGTH OF 15' AND THE ALLOWABLE RUNNING SLOPE OF THE RAMP(S) IS GREATER THAN 8.33%.
2. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2' FROM THE ROADWAY CURBLINE.
3. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF SIDEWALK CURB RAMPS OR LANDINGS. CATCH BASINS, MANHOLES, ETC. SHALL NOT BE LOCATED IN, OR AT THE BASE OF, SIDEWALK CURB RAMPS OR LANDINGS.
4. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS.
5. THE SURFACE OF A PERPENDICULAR SIDEWALK CURB RAMP OR THE LANDING OF A PARALLEL SIDEWALK CURB RAMP SHALL CONTRAST VISUALLY WITH THE ADJOINING SIDEWALK SURFACE, EITHER ASPHALT/LIGHT-COLORED CONCRETE OR LIGHT-COLORED CONCRETE/DARK-STAINED CONCRETE. THE CONCRETE SURFACE SHALL BE SLIP RESISTANT.
6. DETECTABLE WARNING PANELS, MADE OF CAST IRON, SHALL BE THE FULL WIDTH OF THE LANDING, BLENDED TRANSITION, OR CURB RAMP THEY ARE A PART OF AND SHALL BE A MINIMUM OF 2' IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION, OR LANDING AND THE STREET.
7. ALL TEMPORARY TRAFFIC CONTROL SHALL CONFORM TO NHDOT MAINTENANCE OF TRAFFIC STANDARDS AS OUTLINED IN SECTION 692 - MOBILIZATION OF THE 2010 NHDOT STANDARD SPECIFICATIONS.

BLENDING TRANSITIONS HAVE A RUNNING SLOPE GREATER THAN 2% BUT LESS THAN 5%. CURB RAMPS HAVE A RUNNING SLOPE OF 5% MINIMUM TO 8.33% MAXIMUM. SIDEWALK, BLENDING TRANSITIONS, AND CURB RAMPS HAVE A MAXIMUM CROSS SLOPE OF 2%.

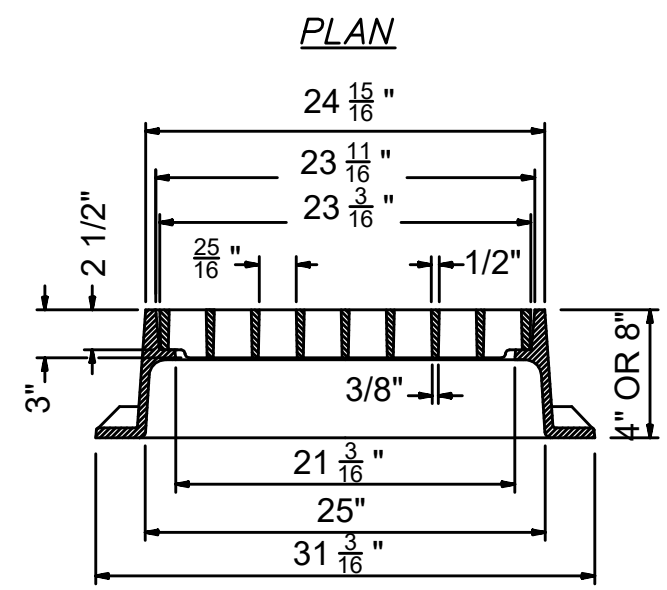
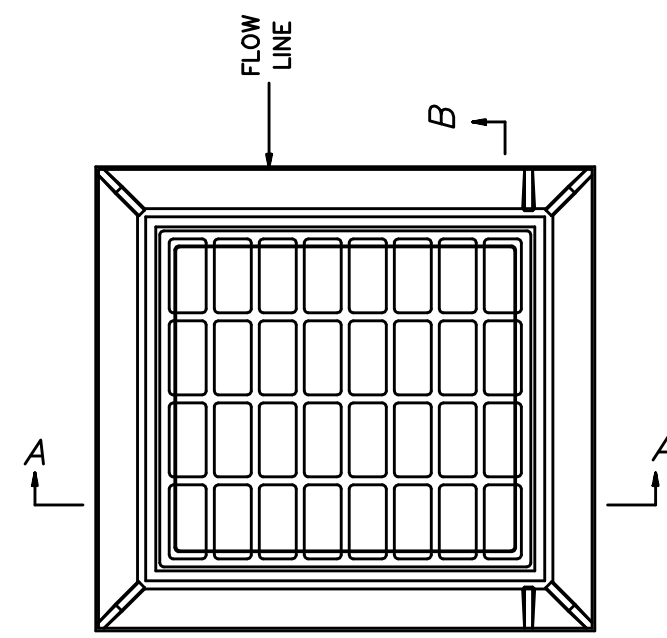
PROVIDE DETECTABLE WARNING SURFACES ANYTIME THAT A CURB RAMP, BLENDED TRANSITION, OR LANDING CONNECTS TO A STREET. PLACEMENT FOR DETECTABLE WARNING SURFACES ARE AS FOLLOWS:

LOCATE THE DETECTABLE WARNING SURFACES AT THE BACK OF THE CURB.



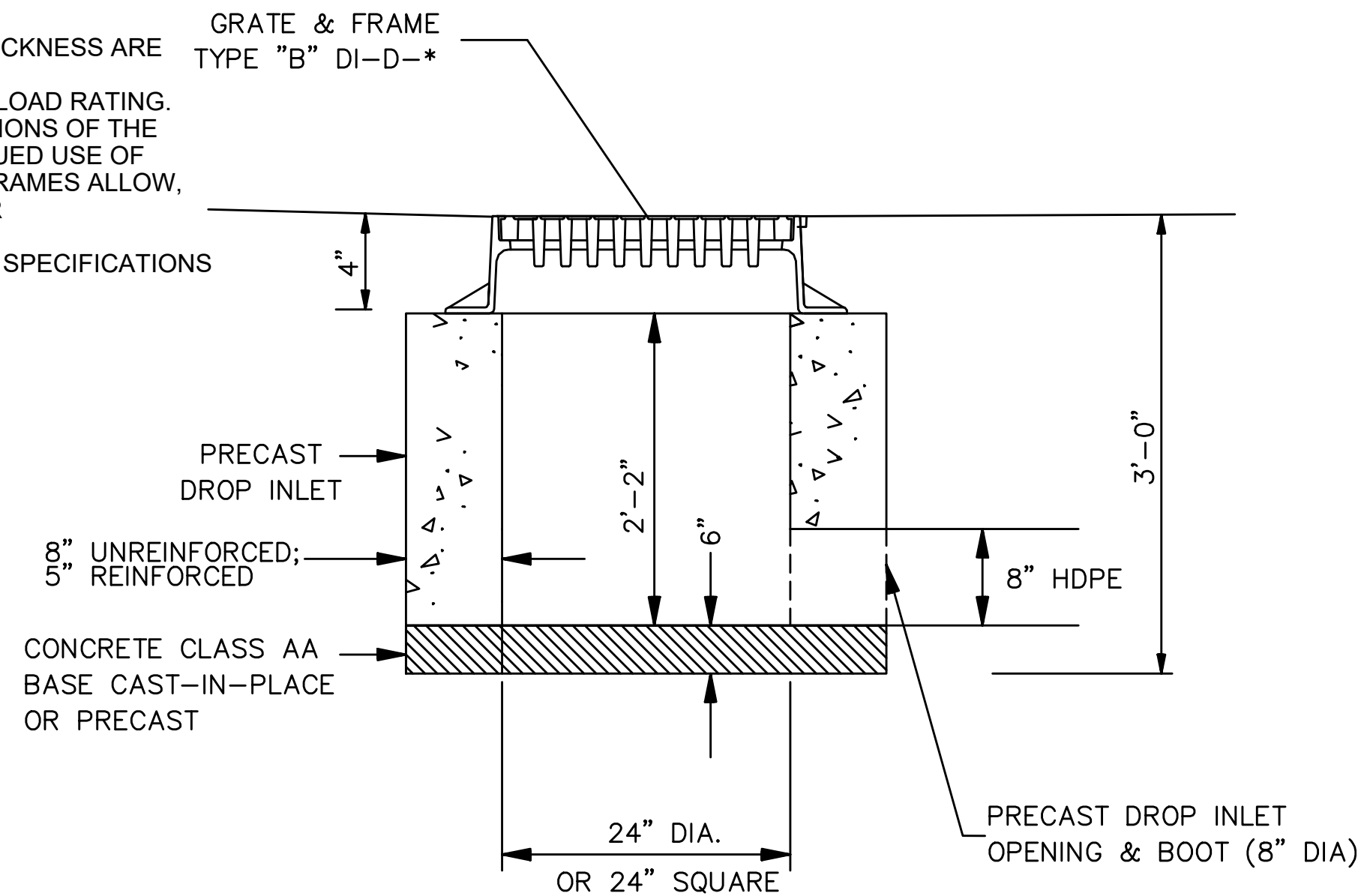
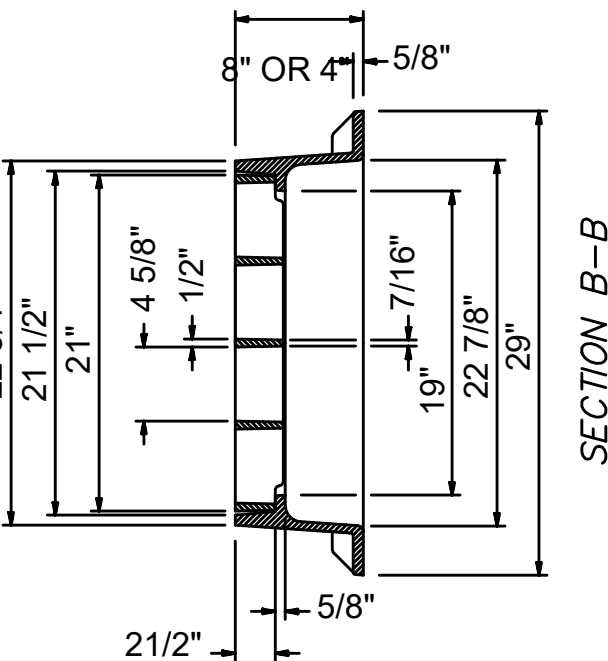


CATCH BASIN/DROP INLET - CURB INLET FRAME & COVER
N.T.S.

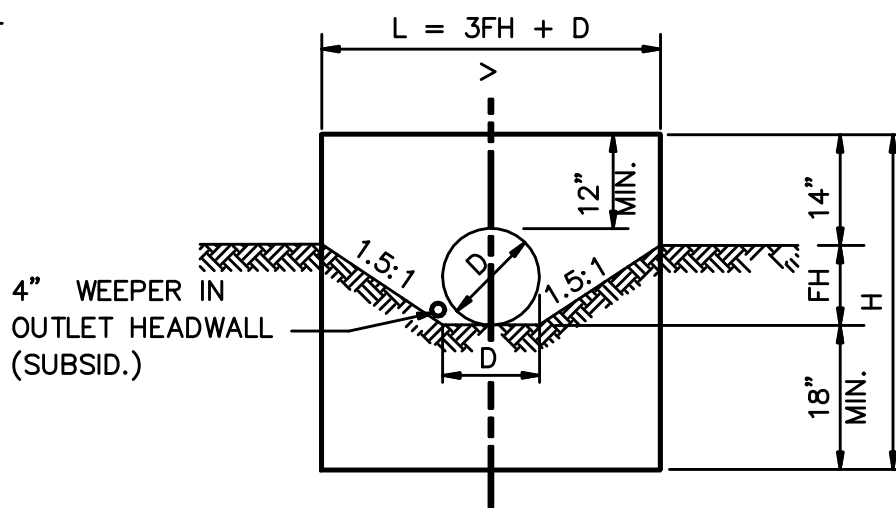
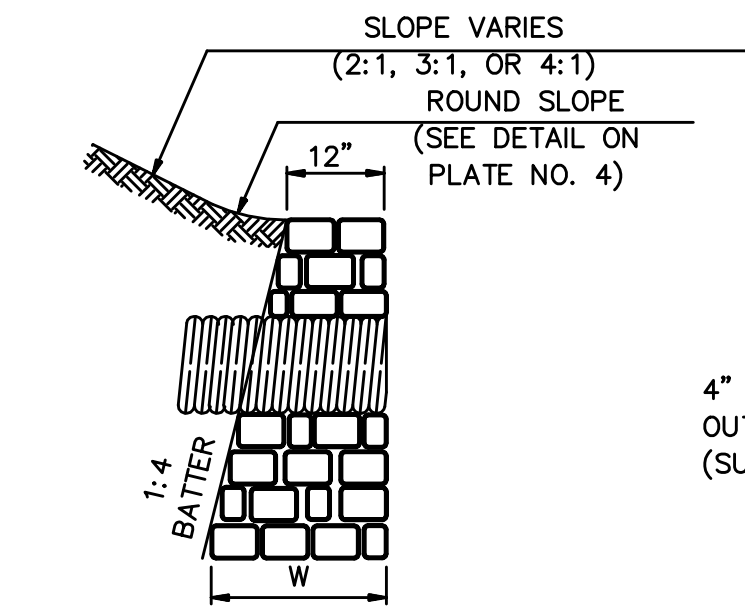


CATCH BASIN FRAME & GRATE - TYPE B
N.T.S.

- GENERAL NOTES**
- ALL DIMENSIONS ARE NOMINAL.
 - FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
 - THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
 - THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
 - ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
 - FRAME AVAILABLE IN 4" OR 8" HEIGHTS.
 - FREE OPEN AREA = 2.55 S.F.
 - USE 3-FLANGE FRAME IF INSTALLED ADJACENT TO GRANITE CURB.



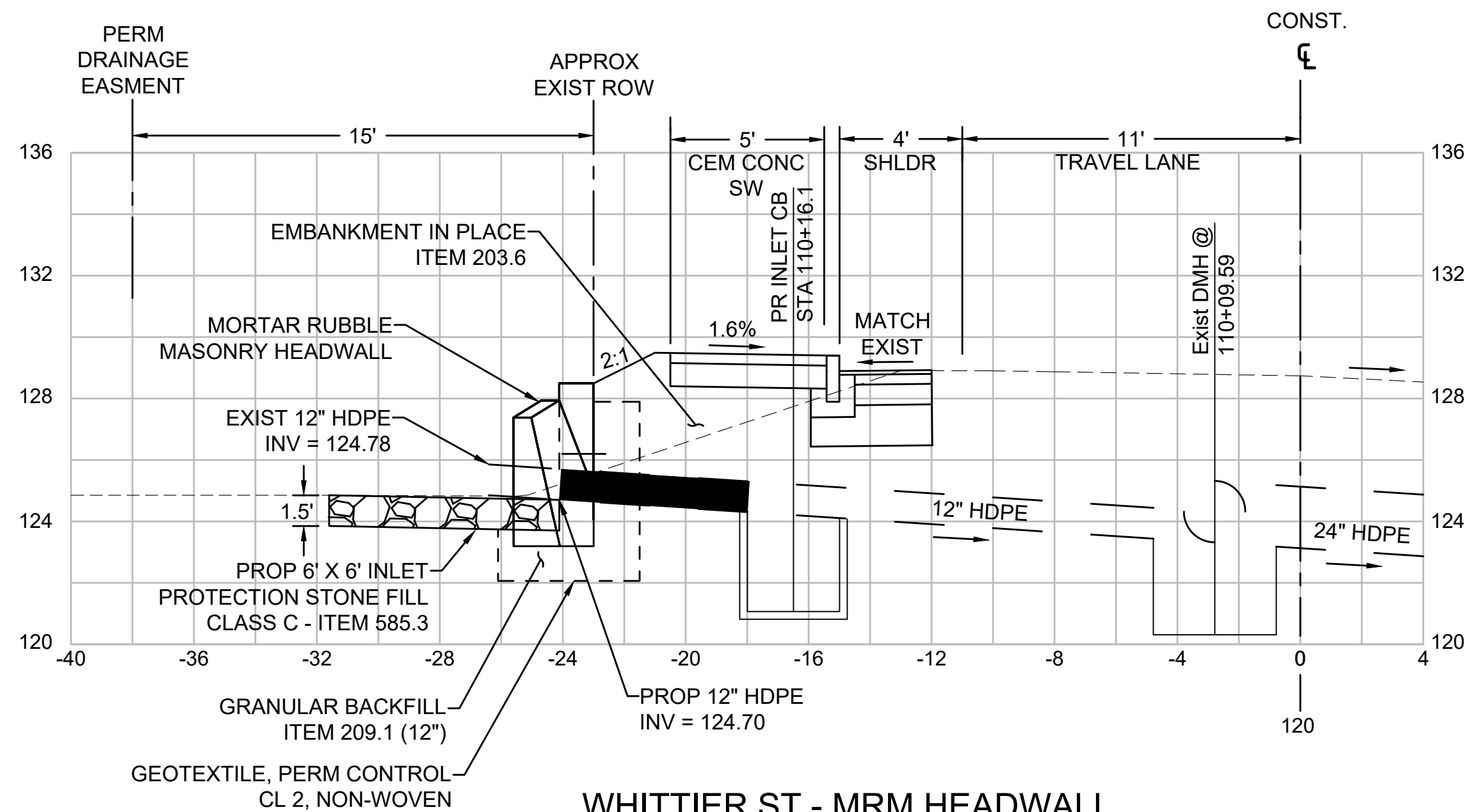
* FRAME & GRATE TYPE B & CURB INLET FRAME & COVER WHERE SHOWN ON PLANS



NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

DIAMETER D INCHES	MASONRY PER FOOT OF WALL CU. YD	MASONRY PER STANDARD HEADER CU. YD.	STEEL PER STANDARD HEADER LB.	LENGTH OF BARS	EXC. FOR 1' DEPTH CU. YD.	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FH	WIDTH AT BOTTOM OF HEADER W	MASONRY IN CORNER FRUSTUM CU. YD.	EXC. FOR 1' DEPTH CU. YD.
12	0.186	0.61	9	3'-2"	0.789	3'-6"	3'-6"	0'-10"	0'-10 1/2"	0.28	1.057
15	0.202	0.85	11	3'-10"	0.947	4'-6"	3'-9"	1'-1"	1'-11 1/4"	0.31	1.232
18	0.222	1.13	14	5'-2"	1.111	5'-6"	4'-0"	1'-4"	2'-0"	0.35	1.406
24	0.260	1.78	20	7'-2"	1.451	7'-6"	4'-6"	1'-10"	2'-11 1/2"	0.42	1.776
30	0.301	2.58	25	9'-2"	1.810	9'-6"	5'-0"	2'-4"	2'-3"	0.51	2.164
36	0.344	3.53	31	11'-2"	2.187	11'-6"	5'-6"	2'-10"	2'-4 1/2"	0.61	2.572
42	0.389	4.65	36	13'-2"	2.581	13'-6"	6'-0"	3'-4"	2'-6"	0.72	3.000
48	0.436	5.95	42	15'-2"	3.000	15'-6"	6'-6"	3'-10"	2'-7 1/2"	0.84	3.447
54	0.486	7.44	47	17'-2"	3.432	17'-6"	7'-0"	4'-4"	2'-9"	0.98	3.914
60	0.538	9.13	52	19'-2"	3.882	19'-6"	7'-6"	4'-10"	2'-10 1/2"	1.12	4.401
66	0.593	11.04	58	21'-2"	4.350	21'-6"	8'-0"	5'-4"	3'-0"	1.28	4.907
72	0.649	13.17	63	23'-2"	4.638	23'-6"	8'-6"	5'-10"	3'-11 1/2"	1.46	5.433

ITEM 570.4 - MRM HEADWALL DETAIL
N.T.S.



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DESIGNED BY ADC
DRAWN BY DGR
CHECKED BY JAC
DATE MAY 16, 2019
SCALE NTS

PREPARED FOR

City of Dover
Public Works
271 Mast Road
Dover, NH 03820

REVISIONS

ISSUED FOR

Construction

PROJECT TITLE

Whittier Street
Sidewalk Improvements

PROJECT LOCATION

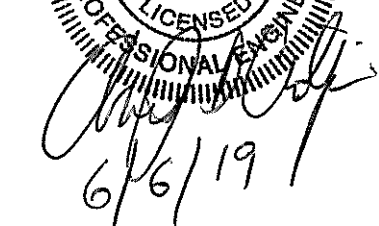
Whittier Street
Dover, NH

DRAWING TITLE

Construction Details

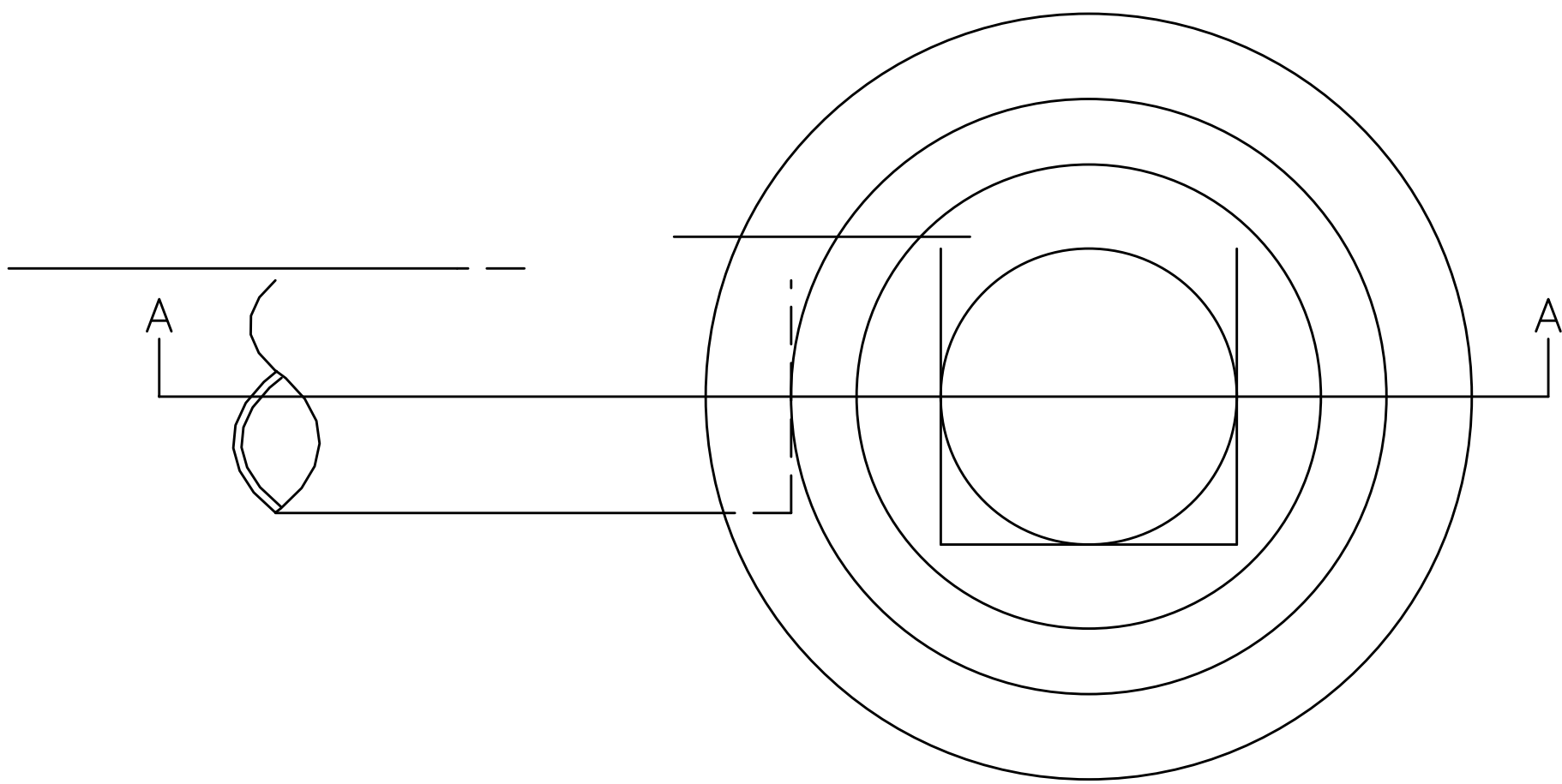
PROJECT NO. N0788

TEC CAD FILE
N0788_DETAILS.dwg
DRAWING NO.

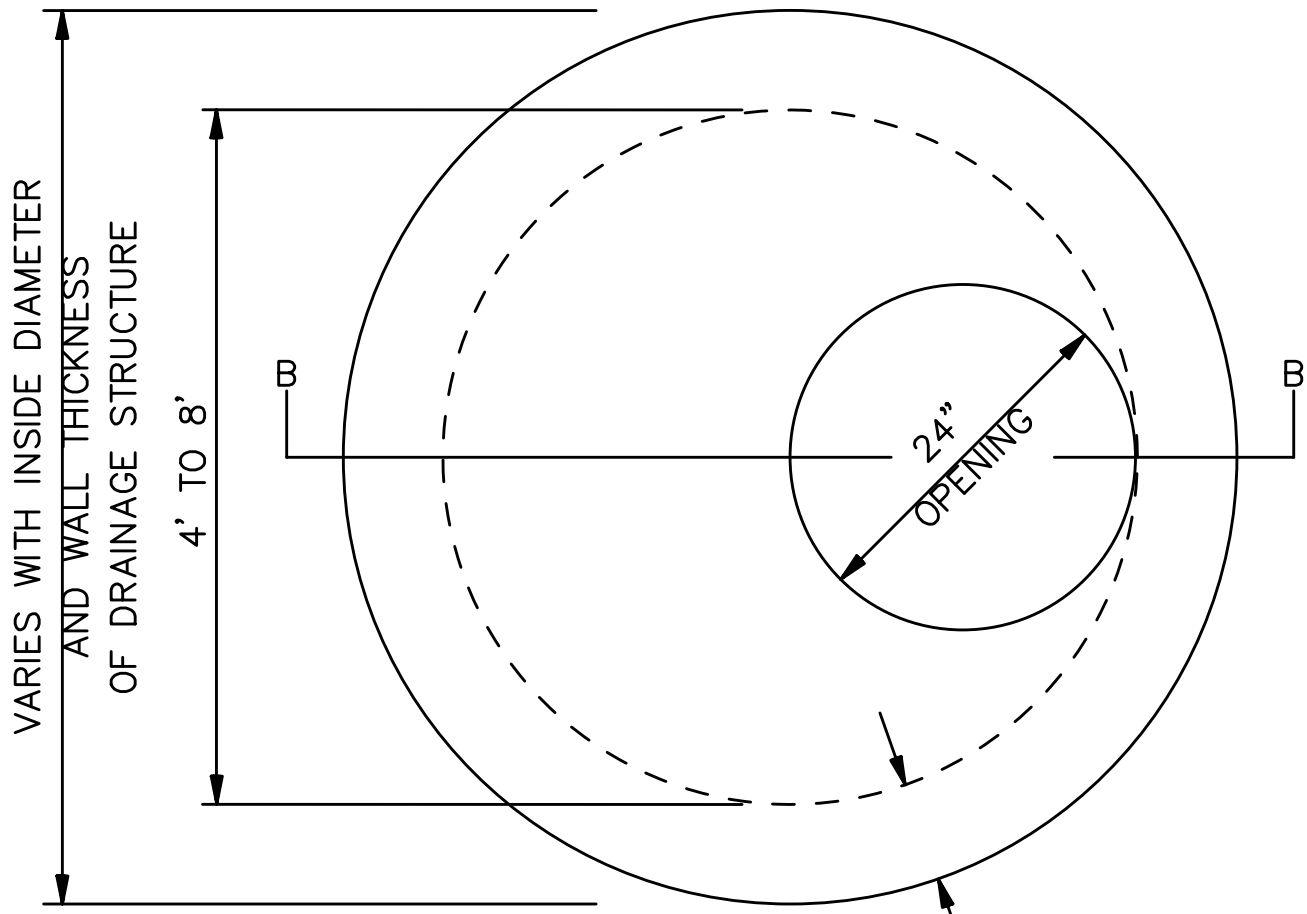


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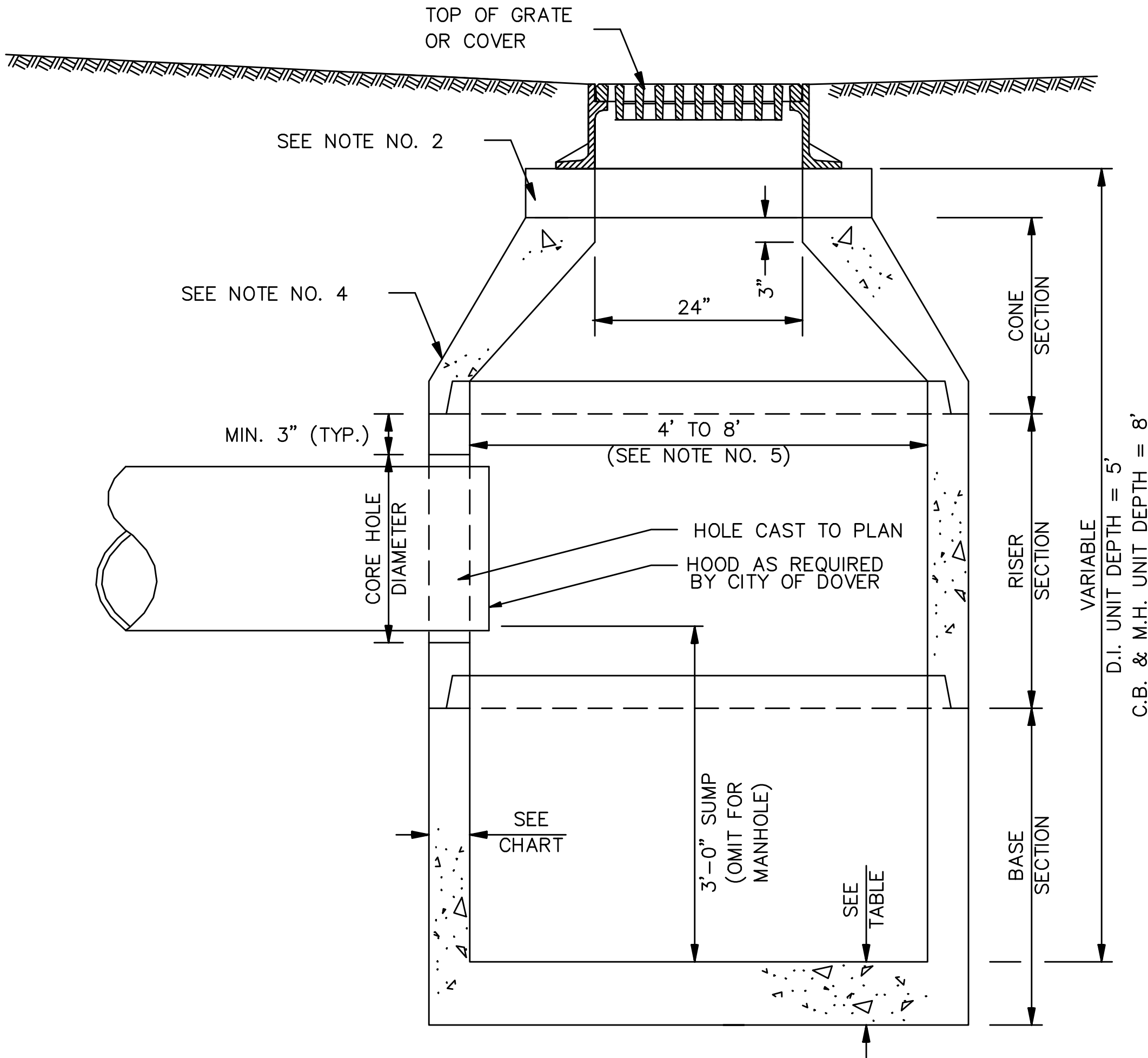
SHEET 5 OF 14



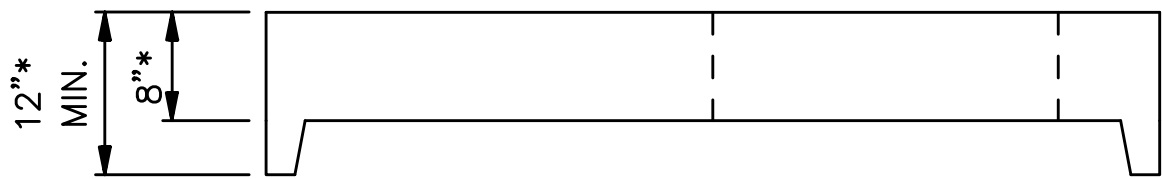
PLAN



PLAN



SECTION A-A



* FOR 6' DIA STRUCTURES
USE 16" & 12" DIMENSIONS

SECTION B-B

FLAT SLAB TOP

DIAMETER	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)
4'	5"	6"
5'	6"	8"
6'	7"	8"
8'	9"	10"

PRECAST REINFORCED CONCRETE CB, DI, & MH
N.T.S.

CORE HOLE SIZE

PIPE SIZE	RCP CORE HOLE DIA.		PLASTIC CORE HOLE DIA.	
	INCHES	FEET	INCHES	FEET
6			7	0.6
12	18	1.5	18	1.5
15	22	1.8	20	1.7
18	26	2.2	24	2.0
24	34	2.8	32	2.7
30	42	3.5	42	3.5
36	48	4.0	48	4.0
42	54	4.5	54	4.5
48	64	5.3	64	5.3
54	72	6.0		
60	78	6.5		

GENERAL NOTES

- ITEM NUMBERS: C.B.= 604.1XXX, D.I.= 604.2XXX, M.H.= 604.32XX
- FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
- CB & DI GRATES IN PAVED AREAS SHALL BE SET ACCORDING TO THE PAVEMENT DEPRESSION DETAIL SHOWN ON PLATE 4 OF STANDARD NO. DR-2.
- CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
- FOR STRUCTURES WITH DIAMETERS GREATER THAN 4', THE DIAMETER MAY BE CONSTANT FROM TOP TO BOTTOM WITH A FLAT SLAB TOP, OR A RISER SECTION THAT TRANSITIONS FROM A STANDARD 4' CONE SECTION TO THE LARGER DIAMETER RISER OR BASE SECTION MAY BE USED.
- PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
- OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
- PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
- ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS-SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.



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DESIGNED BY ADC
DRAWN BY DGR
CHECKED BY JAC
DATE MAY 16, 2019
SCALE NTS

PREPARED FOR

City of Dover
Public Works
271 Mast Road
Dover, NH 03820

REVISIONS

ISSUED FOR

Construction

PROJECT TITLE

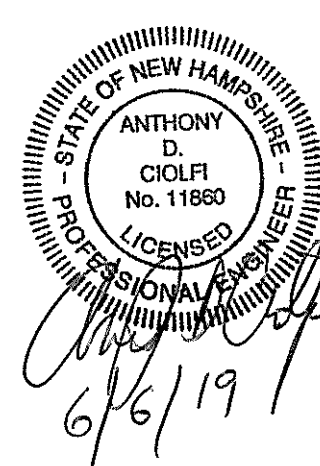
Whittier Street
Sidewalk Improvements

PROJECT LOCATION

Whittier Street
Dover, NH

DRAWING TITLE

Construction Details



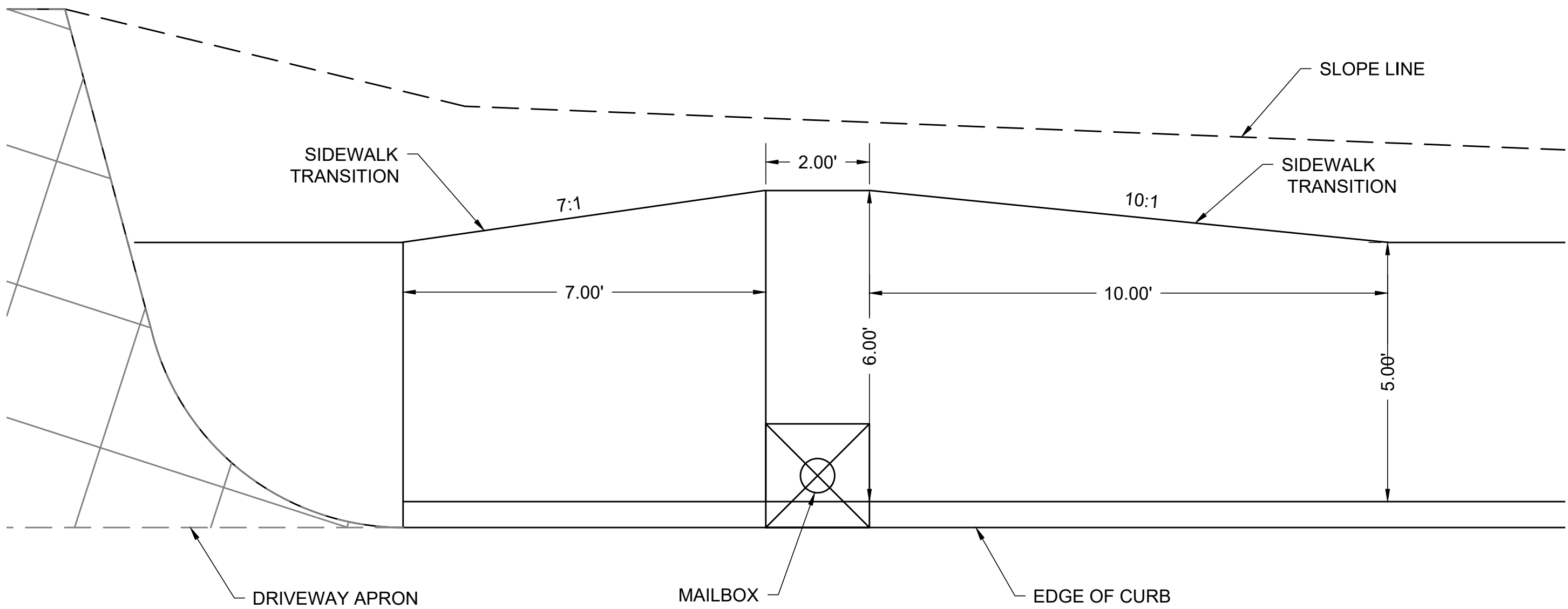
PROJECT NO.
N0788

TEC CAD FILE
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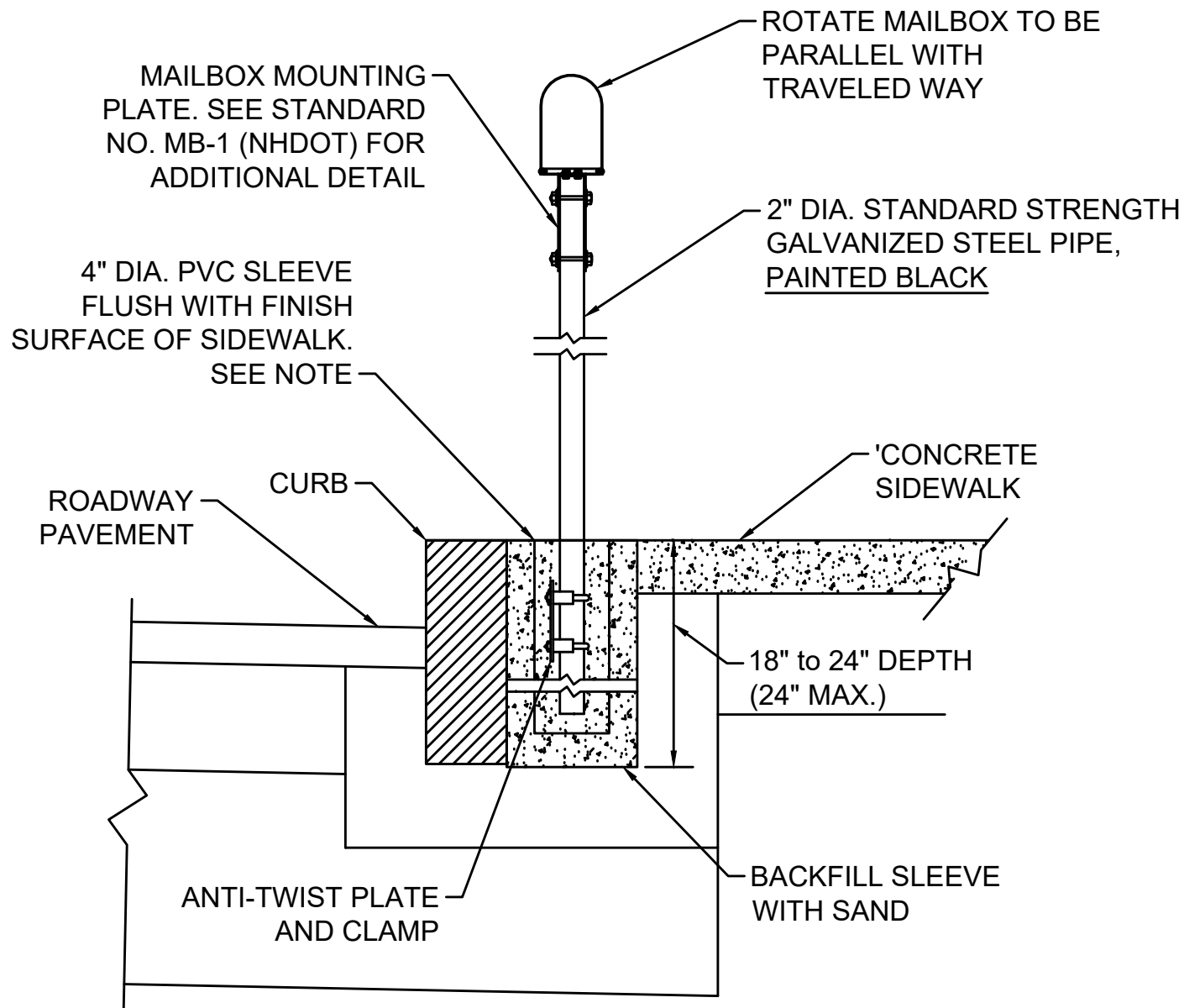
DRAWING NO.

6

SHEET 6 OF 14



SIDEWALK TRANSITION AT MAILBOX
N.T.S.



GENERAL NOTES:

1. THIS DETAIL WAS DEVELOPED WITH INPUT FROM THE CITY OF DOVER PUBLIC WORKS DEPARTMENT AND REFLECTS AN APPROACH TO MAILBOX INSTALLATION THAT HAS BEEN SUCCESSFUL ON OTHER STREETS WITHIN THE CITY. REFER TO NHDOT STANDARD DETAIL MB-1 FOR ADDITIONAL DETAILS.
2. THE MAILBOX SUPPORT ASSEMBLY SHOWN ON THIS SHEET IS AN EXAMPLE OF AN ACCEPTABLE NON-PROPRIETARY DESIGN.
3. NO MORE THAN TWO MAILBOXES MAY BE MOUNTED ON A SUPPORT STRUCTURE UNLESS THE SUPPORT STRUCTURE AND MAILBOX ARRANGEMENT HAVE BEEN SHOWN TO BE SAFE BY CRASH TESTING. HOWEVER, LIGHTWEIGHT NEWSPAPER BOXES MAY BE MOUNTED BELOW THE MAILBOX ON THE SIDE OF THE MAILBOX SUPPORT.
4. MAILBOX SUPPORTS SHALL NOT BE SET IN CONCRETE UNLESS THE SUPPORT DESIGN HAS BEEN SHOWN TO BE SAFE BY CRASH TESTS WHEN SO INSTALLED.
5. A SINGLE METAL POST WITH A 2" DIAMETER STANDARD STRENGTH STEEL PIPE AND EMBEDDED NO MORE THAN 24" INTO THE GROUND WILL BE ACCEPTABLE AS A MAILBOX SUPPORT. THE METAL POST SHALL HAVE AN ANTI-TWIST DEVICE THAT EXTENDS NO MORE THAN 10" BELOW THE GROUND SURFACE.
6. CONTRACTOR SHALL PROVIDE 4" DIAMETER PVC SLEEVE (AS SHOWN ABOVE) AT ALL PROPOSED MAILBOX LOCATIONS ON THE CONCRETE SIDEWALK SIDE OF THE RECONSTRUCTED ROADWAY AND INSTALL NEW MAILBOXES. CONTRACTOR SHALL ALSO PROVIDE ADDITIONAL 4" DIA. PVC SLEEVES AT AN APPROXIMATE 50-FT INTERVAL ALONG THE SIDEWALK FOR FUTURE USE. THESE ADDITIONAL SLEEVES SHALL BE BACKFILLED WITH SAND TO PROVIDE A FINISHED SURFACE THAT IS FLUSH WITH THE SIDEWALK SURFACE.

MAILBOX DETAIL ON SIDEWALK
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DESIGNED BY	ADC
DRAWN BY	DGR
CHECKED BY	JAC
DATE	MAY 16, 2019
SCALE	NTS

PREPARED FOR
City of Dover
Public Works
271 Mast Road
Dover, NH 03820

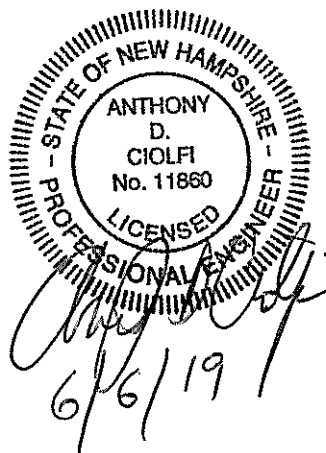
REVISIONS

ISSUED FOR
Construction

PROJECT TITLE
Whittier Street
Sidewalk Improvements

PROJECT LOCATION
Whittier Street
Dover, NH

DRAWING TITLE
Construction Detail



PROJECT NO.
N0788
TEC CAD FILE
N0788_DETAILS.dwg
DRAWING NO.
7
SHEET 7 OF 14

DESIGNED BY	ADC
DRAWN BY	DGR
CHECKED BY	JAC
DATE	MAY 16, 2019
SCALE	1" = 40'

PREPARED FOR

City of Dover
Public Works
271 Mast Road
Dover, NH 03820

REVISIONS

ISSUED FOR

Construction

PROJECT TITLE

Whittier Street
Sidewalk Improvements

PROJECT LOCATION

Whittier Street
Dover, NH

DRAWING TITLE

Construction Detail

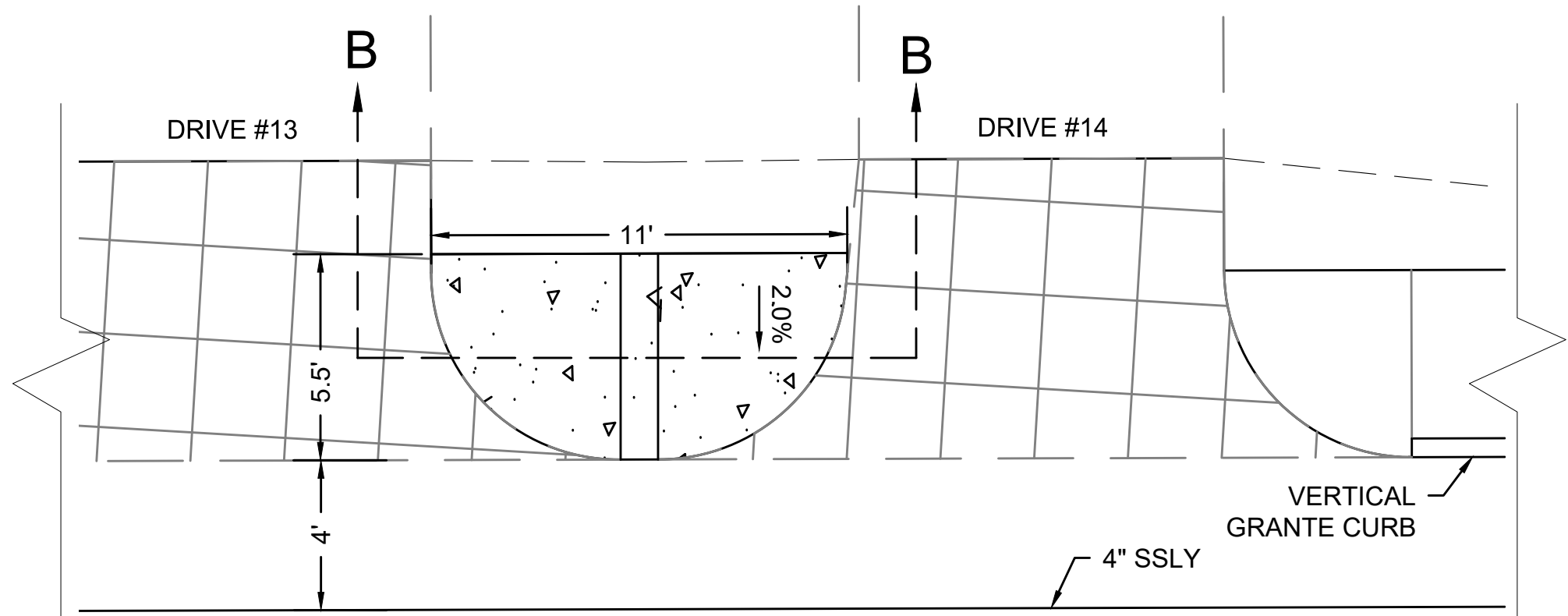
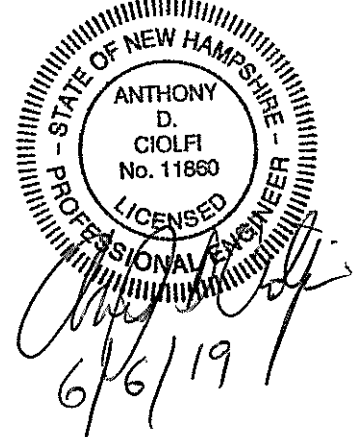
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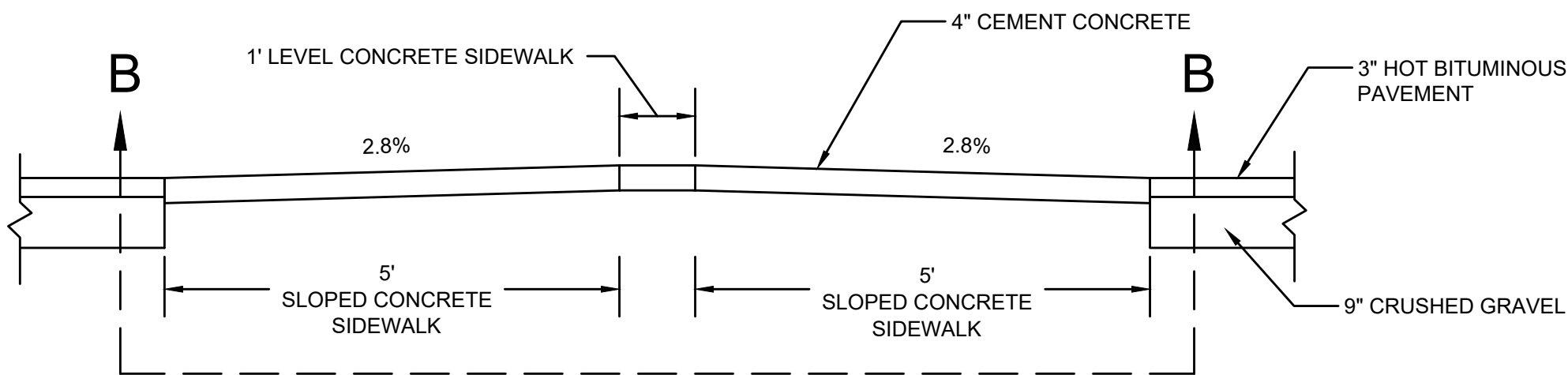
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SHEET 8 OF 14

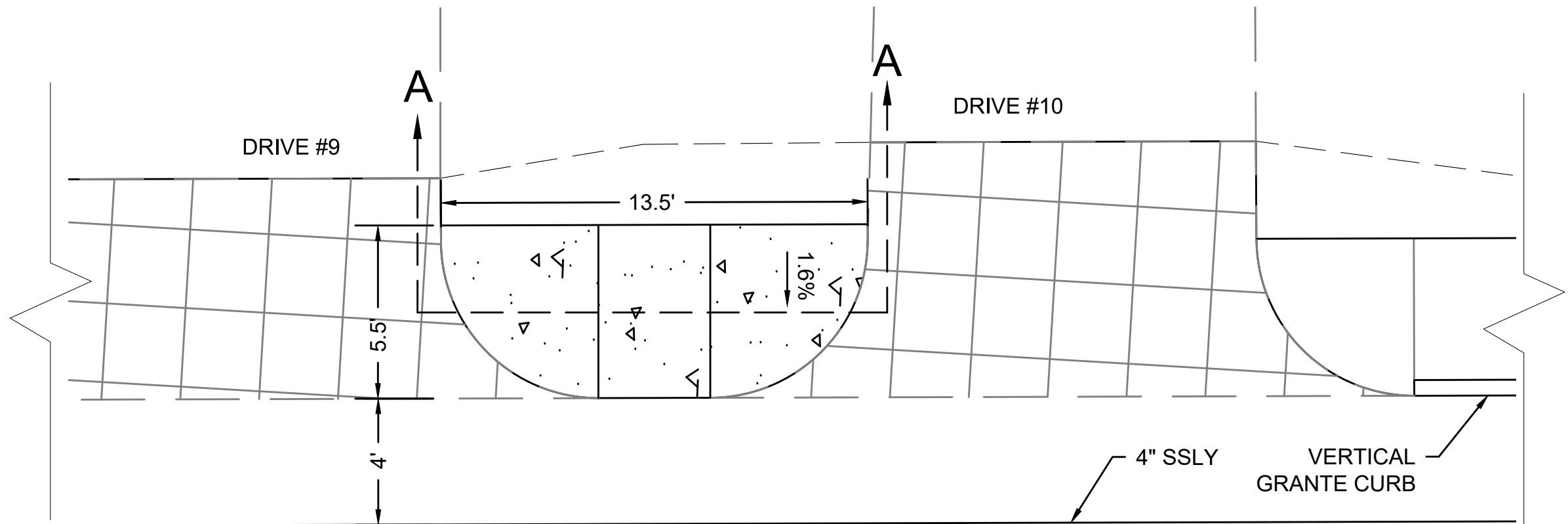


PLAN VIEW
1" = 4'

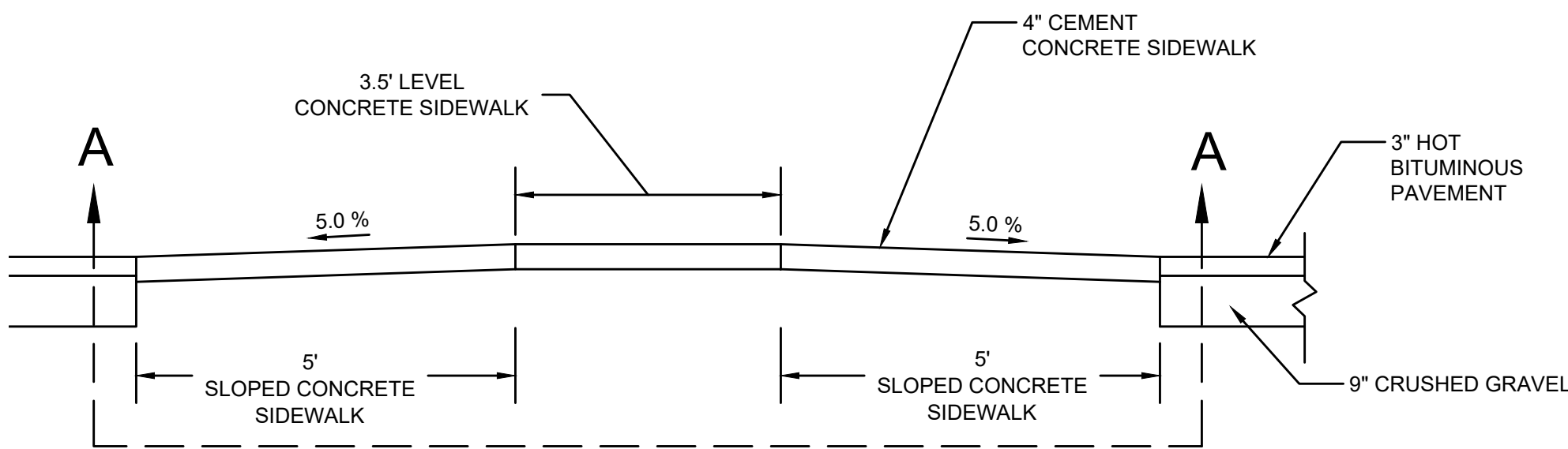


SECTION B - B
1" = 2'

FLUSH CONCRETE - AREA 2

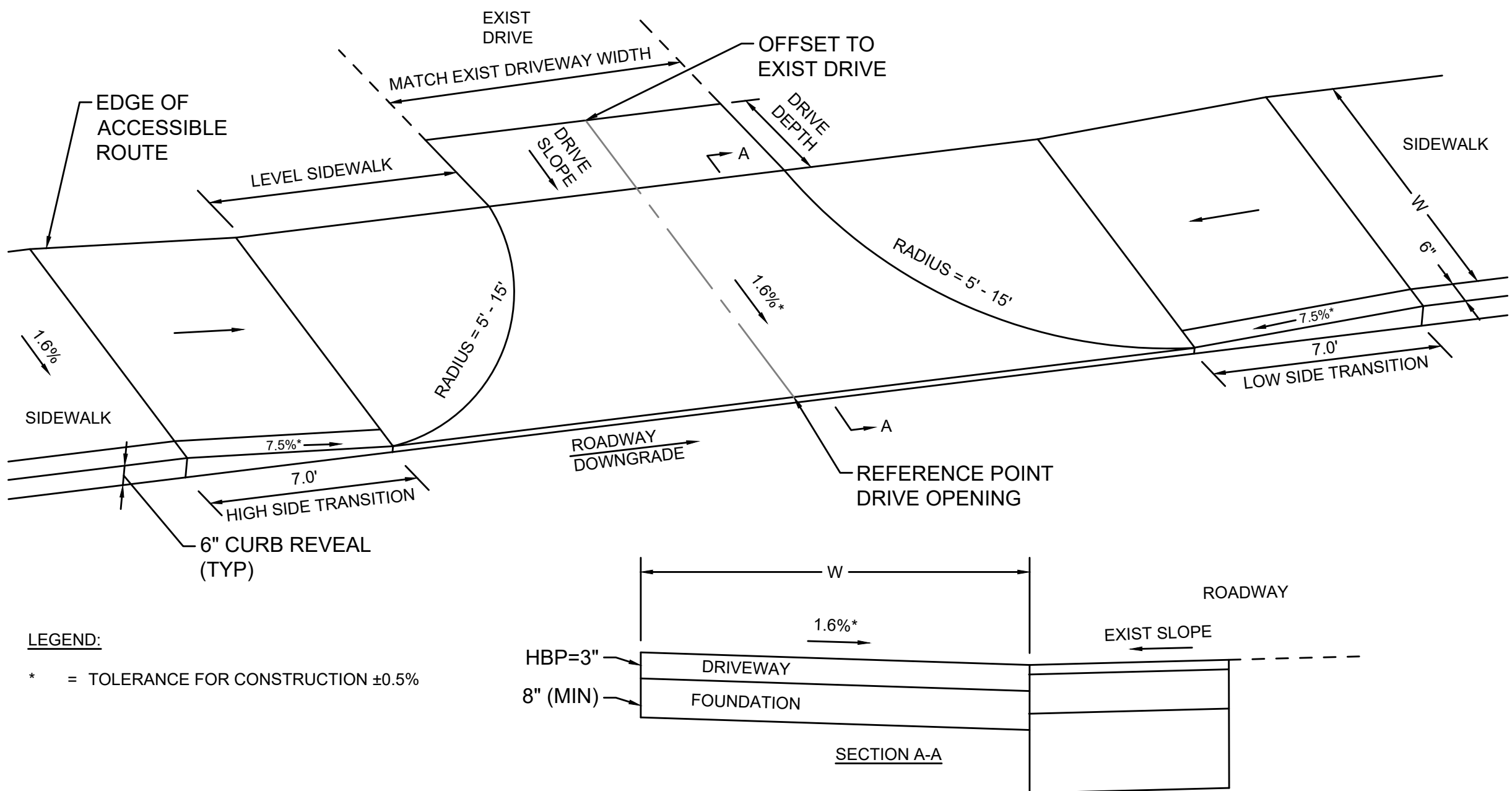


PLAN VIEW
1" = 4'



SECTION A - A
1" = 2'

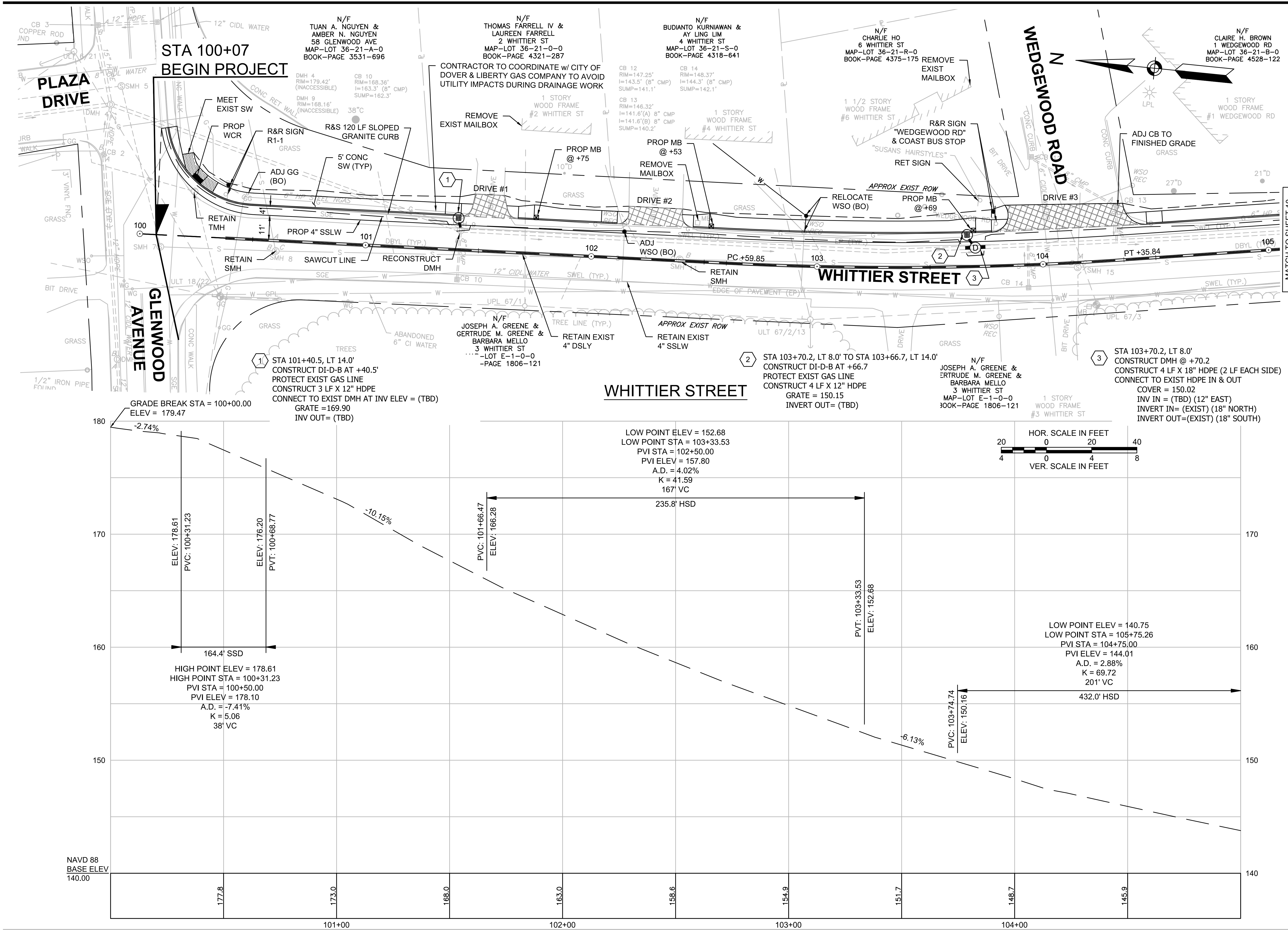
FLUSH CONCRETE - AREA 1



DRIVEWAY RECONSTRUCTION DATA										
DRIVE #	BASELINE REFERENCE	STATION	OFFSET TO EXIST DRIVE (FT)		LEFT SIDE TRANSITION		RIGHT SIDE TRANSITION		DRIVE DEPTH	DRIVE SLOPE
					LEVEL SIDEWALK LENGTH	RADIUS	LEVEL SIDEWALK LENGTH	RADIUS		
1	WHITTIER	101+53.9	25	LT	5'-0"	5'-0"	5'-2"	5'-0"	5'-0"	10.0%
2	WHITTIER	102+27.4	23.0	LT	5'-0"	5'-0"	5'-0"	5'-0"	3'-0"	5.0%
3	WHITTIER	104+10.5	26.1	LT	7'-0"	7'-6"	8'-8"	10'-0"	6'-0"	6.7%
4	WHITTIER	105+67.5	21.8	LT	5'-10"	5'-0"	5'-11"	5'-0"	1'-10"	5.0%
5	WHITTIER	107+23.9	25.1	LT	5'-0"	5'-0"	5'-0"	5'-0"	5'-1"	-15.0%
6	WHITTIER	108+24.7	23.2	LT	5'-0"	5'-0"	5'-0"	5'-0"	3'-2"	-15.0%
7	WHITTIER	109+24.3	23.3	LT	5'-0"	5'-0"	5'-0"	5'-0"	3'-4"	-11.6%
8	WHITTIER	111+12.7	22.6	LT	8'-8"	10'-0"	8'-7"	10'-0"	2'-7"	-4.0%
9	WHITTIER	112+53.6	22.0	LT	5'-0"	5'-0"	-	5'-0"	2'-0"	-10.0%
10	WHITTIER	112+84.5	23.1	LT	-	5'-0"	5'-0"	5'-0"	3'-1"	-2.0%
11	WHITTIER	113+42.1	24.5	LT	5'-0"	5'-0"	5'-2"	5'-0"	4'-6"	-15.0%
12	WHITTIER	115+39.5	25.0	LT	11'-1"	15'-0"	8'-8"	10'-0"	5'-0"	7.0%
13	WHITTIER	116+09.0	23.0	LT	5'-1"	5'-0"	-	5'-0"	3'-0"	3.0%
14	WHITTIER	116+36.9	23.0	LT	-	5'-0"	5'-0"	5'-0"	3'-0"	5.5%
15	WHITTIER	117+22.6	23	LT	5'-0"	5'-0"	5'-0"	5'-0"	3'-0"	-1.6%
16	WHITTIER	117+73.5	23.6	LT	5'-0"	5'-0"	5'-0"	5'-0"	3'-7"	-1.6%

SIDEWALK THROUGH DRIVEWAY

N.T.S.



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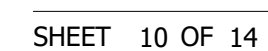
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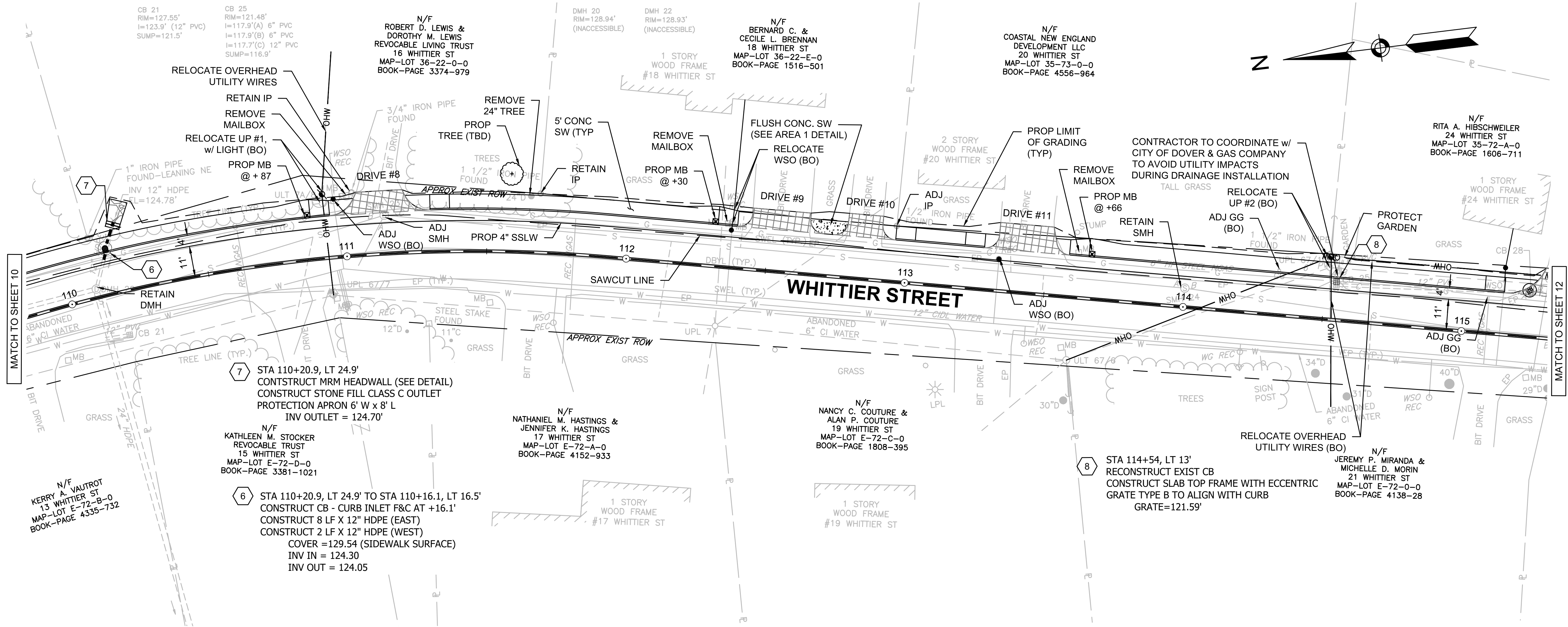
DESIGNED BY	ADC
DRAWN BY	DGR
CHECKED BY	JAC
DATE	MAY 16, 2019
SCALE	1" = 40'

PREPARED FOR

City of Dover
Public Works
271 Mast Road
Dover, NH 03820

REVISIONS	
ISSUED FOR	
Construction	
PROJECT TITLE	
Whittier Street Sidewalk Improvements	
PROJECT LOCATION	
Whittier Street Dover, NH	
DRAWING TITLE	
General Plan & Profile	
	PROJECT NO. N0788
	TEC CAD FILE N0788_GEN_PLAN.dwg
	DRAWING NO.
	9
	SHEET 9 OF 14





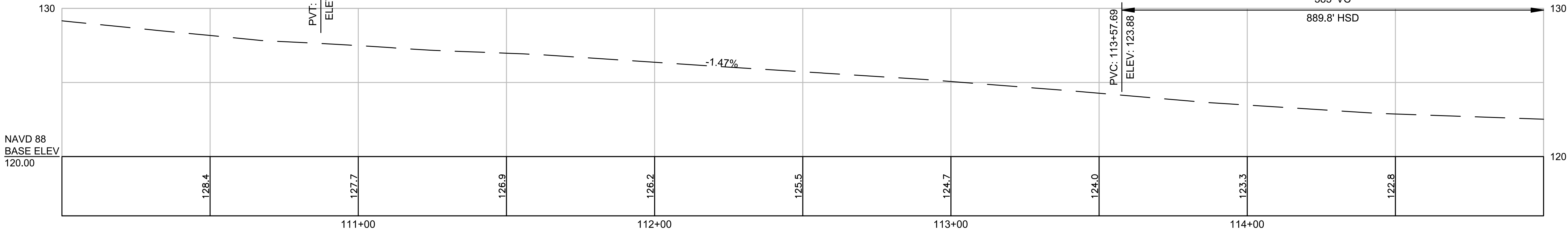
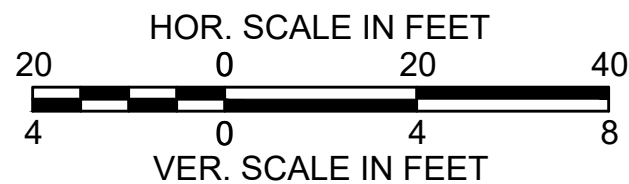
LOW POINT ELEV = 127.86
LOW POINT STA = 110+87.37
PVI STA = 108+75.00
PVI ELEV = 130.99
A.D. = 1.78%
K = 238.29
425' VC

15631.4' HSD

PVT: 110+87.37
ELEV: 127.86

WHITTIER STREET

LOW POINT ELEV = 122.23
LOW POINT STA = 115+82.99
PVI STA = 115+50.00
PVI ELEV = 121.05
A.D. = 2.51%
K = 153.02
385' VC



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PROJECT TITLE

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Sidewalk Improvements

PROJECT LOCATION

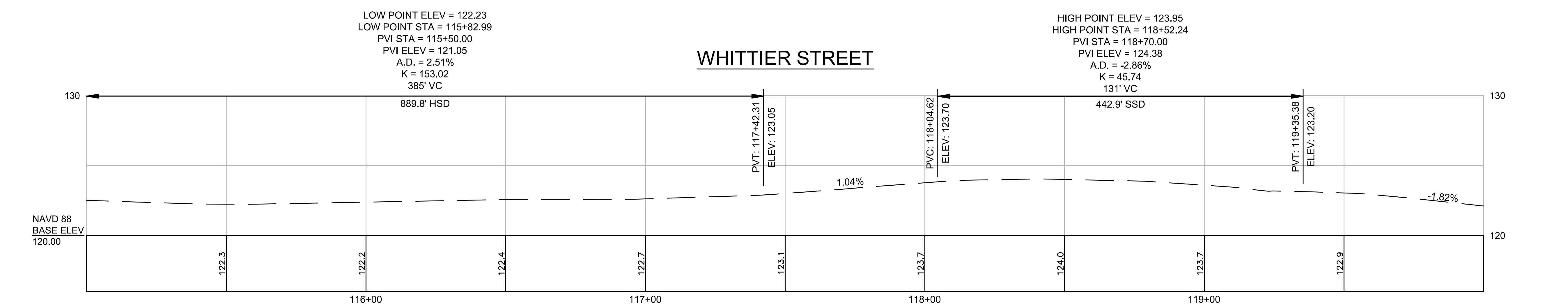
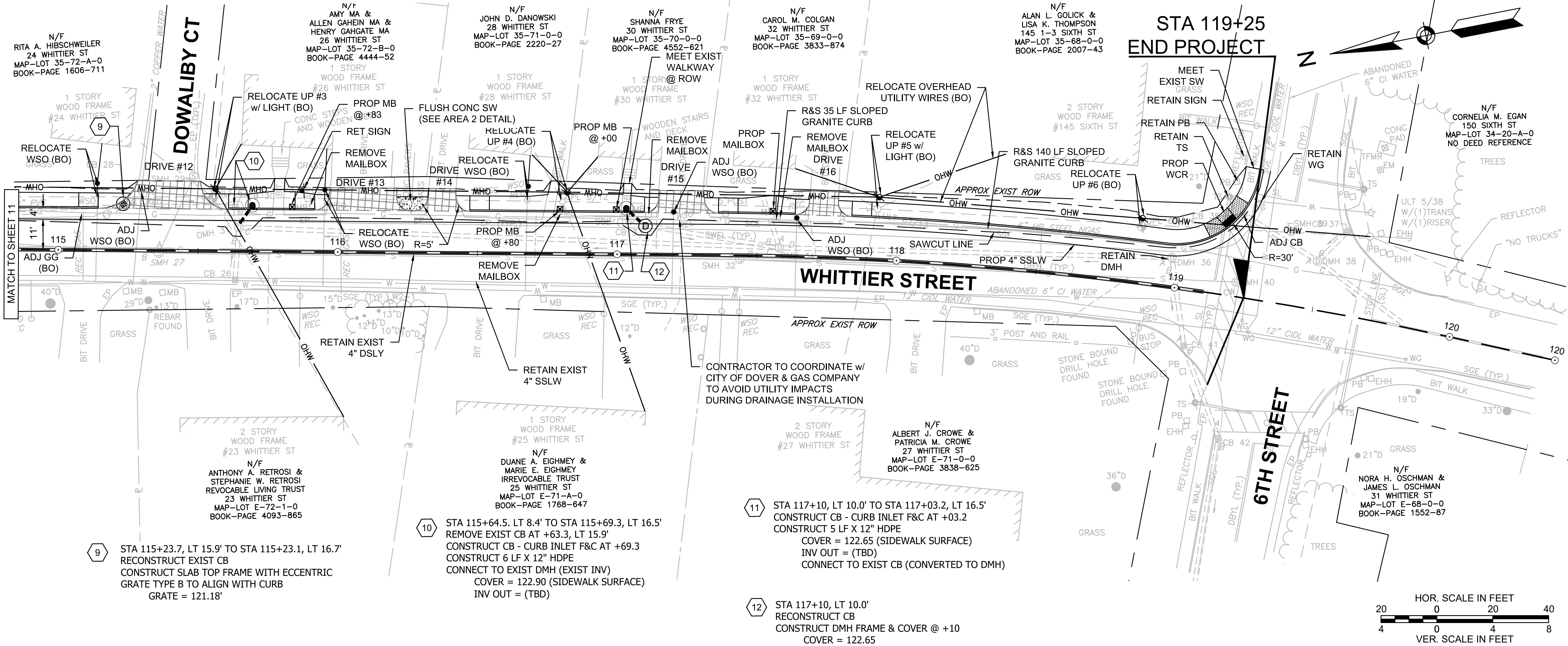
Whittier Street
Dover, NH

DRAWING TITLE

General Plan &
Profile

PROJECT NO. N0788
TEC CAD FILE N0788_GEN_PLAN.dwg
DRAWING NO. 11
SHEET 11 OF 14

ANTHONY D. CIOLETTI
No. 11860
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW HAMPSHIRE
6/6/19



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271 Mast Road
Dover, NH 03820

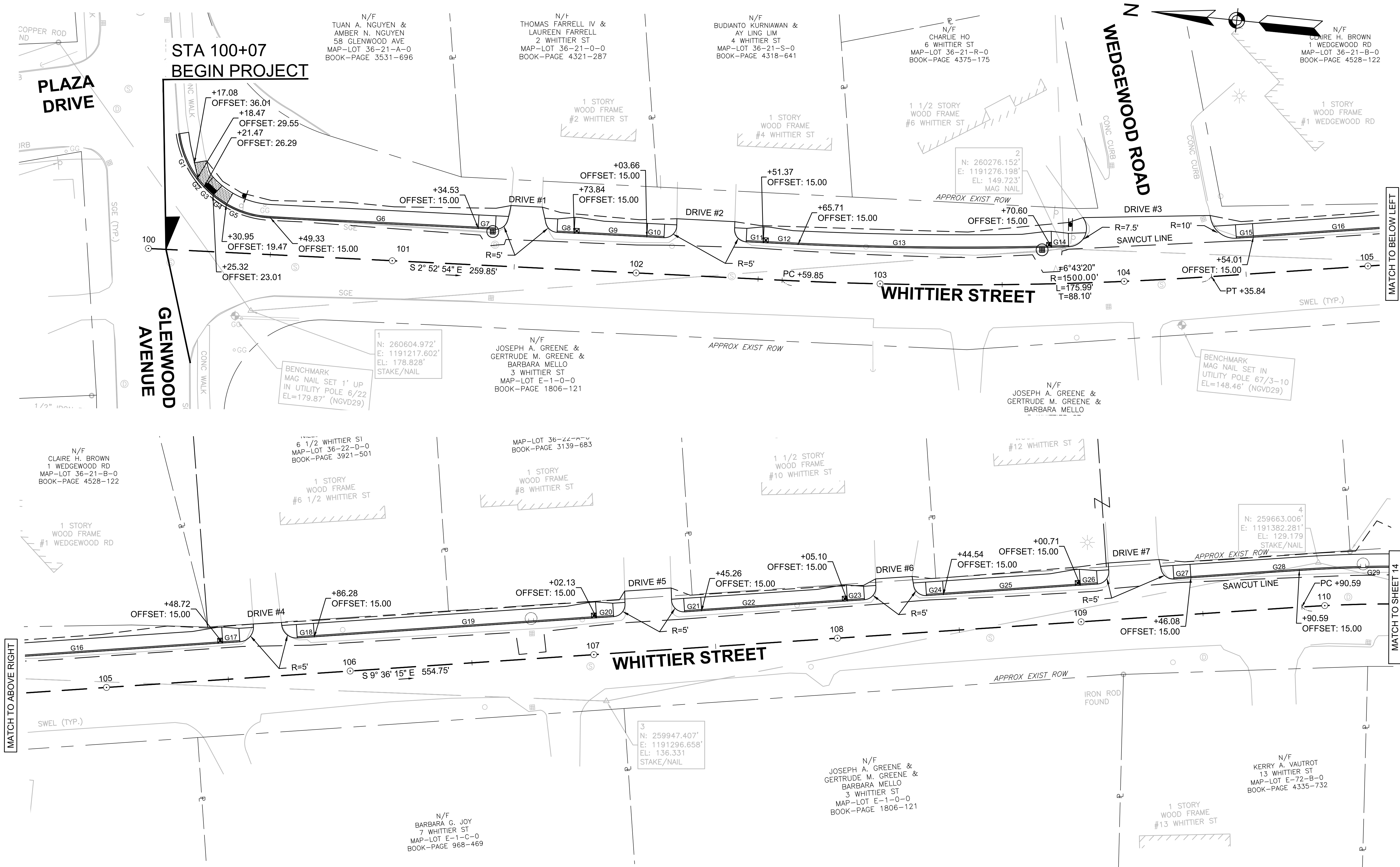
ISSUED FOR
Construction

PROJECT TITLE
Whittier Street
Sidewalk Improvements

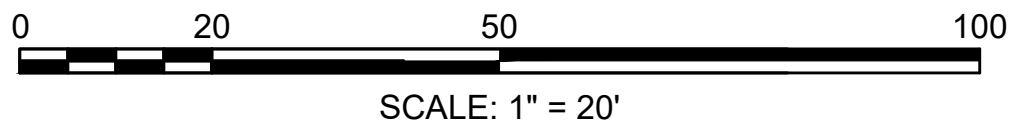
PROJECT LOCATION
Whittier Street
Dover, NH

DRAWING TITLE
General Plan & Profile

PROJECT NO. N0788
TEC CAD FILE N0788_GEN_PLAN.dwg
DRAWING NO. 12
SHEET 12 OF 14



NOTE:
FOR CURB SUMMARY TABLE SEE CONSTRUCTION DETAILS.



TEC, Inc.

146 Dascomb Road
Andover, MA 01810
(978) 794-1792
www.TheEngineeringCorp.com

169 Ocean Boulevard
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Hampton, NH 03842
(603) 601-8154

DESIGNED BY	ADC
DRAWN BY	DGR
CHECKED BY	JAC
DATE	MAY 16, 2019
SCALE	1" = 40'

PREPARED FOR
City of Dover
Public Works
271 Mast Road
Dover, NH 03820

REVISIONS

ISSUED FOR

Construction

PROJECT TITLE
Whittier Street
Sidewalk Improvements

PROJECT LOCATION
Whittier Street
Dover, NH

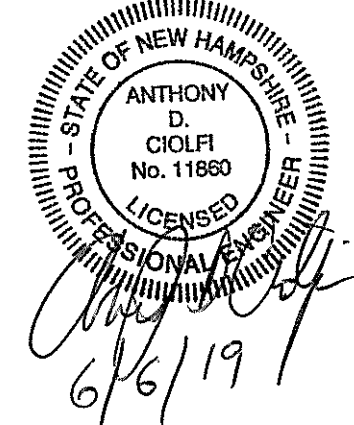
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Curb Tie Plan

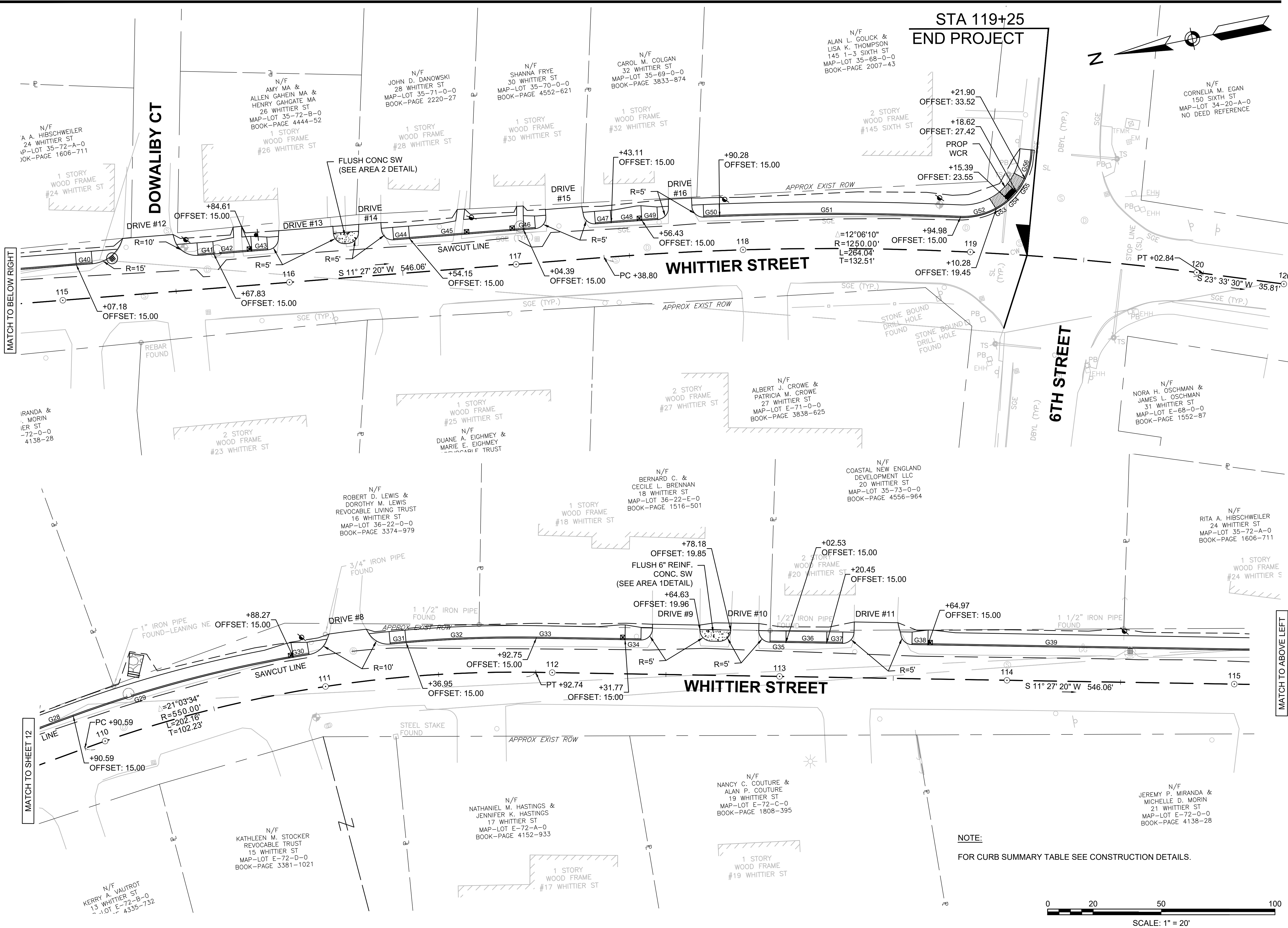
PROJECT NO.
N0788

TEC CAD FILE
N0788_CURB TIE.dwg

DRAWING NO.
13

SHEET 13 OF 14





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Public Works
271 Mast Road
Dover, NH 03820

REVISIONS
ISSUED FOR Construction

PROJECT TITLE
Whittier Street
Sidewalk Improvements

PROJECT LOCATION
Whittier Street
Dover, NH

DRAWING TITLE
Curb Tie Plan

PROJECT NO. N0788

TEC CAD FILE
N0788_CURB TIE.dwg

DRAWING NO. 14

SHEET 14 OF 14

6/6/19