PROJECT ID:

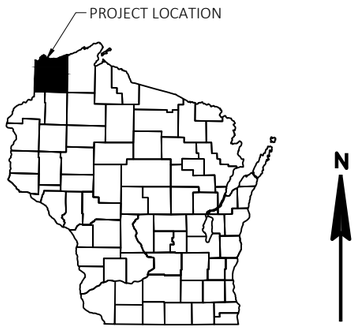
WITH:

COUNTY: DOUGLAS

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS =



DESIGN DESIGNATION

A.A.D.T.	2023	=	5740
A.A.D.T.	2043	=	10,370
D.H.V.		=	861
D.D.		=	50/50
T.		=	2.0%
DESIGN SPEED		=	30 MPH
ESALS		=	299,300

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

CITY OF SUPERIOR

PUBLIC WORKS

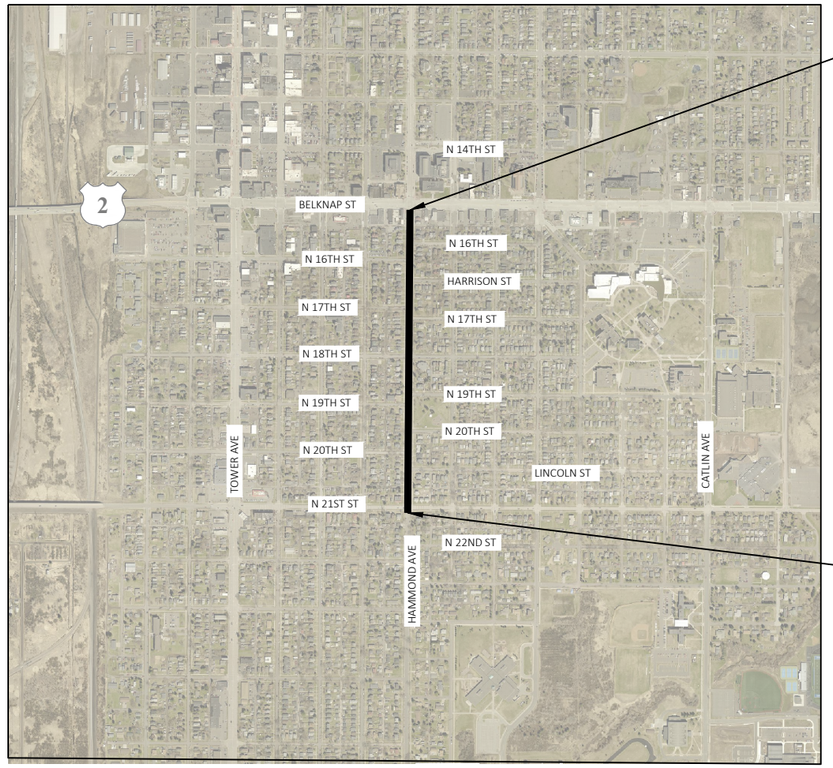
PLAN OF PROPOSED IMPROVEMENT

CITY OF SUPERIOR, HAMMOND AVENUE

N 21ST STREET - BELKNAP STREET

HAMMOND AVENUE

DOUGLAS COUNTY



END CONSTRUCTION
STA 152+43.79'NB'
MATCH EXISTING
SAWCUT REQ'D

BEGIN CONSTRUCTION
STA 125+50.00'NB'
Y = 302704.553
X = 148522.010
MATCH EXISTING
SAWCUT REQ'D

LAYOUT

SCALE 0 0.25 MI

TOTAL NET LENGTH OF CENTERLINE = 0.466 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DOUGLAS COUNTY, NAD83 (YEAR), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (YEAR). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ACCEPTED FOR
DOUGLAS COUNTY
CITY OF SUPERIOR

Date _____ _____
(Signature and Title of Official)

WISCONSIN
JARROD S. STARREN
38465
EAU CLAIRE, WI
PROFESSIONAL ENGINEER

01/16/2024

WISCONSIN
DANIEL R. HINZMANN
E-42750
DULUTH, MN
PROFESSIONAL ENGINEER

01/16/2024

FOR SANITARY/WATERMAIN PLAN SHEETS

Plans Prepared by

SEH
Building a Better World for All of Us
Short Elliott Hendrickson Inc.
10 North Bridge Street
Chippewa Falls, WI 54729
715.720.6200 | Main
www.sehinc.com

E

STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
AECPCS	APRON ENDWALL FOR CULVERT PIPE CORRUGATED STEEL
ASPH	ASPHALTIC
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BF	BACK FACE
BM	BENCH MARK
BR	BRIDGE
CE	COMMERCIAL ENTRANCE
C/L	CENTER LINE
Δ	CENTRAL ANGLE OR DELTA
COB	CENTER OF BARRIER
CONC	CONCRETE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CR	CREEK
CY	CUBIC YARD
C&G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DISCH	DISCHARGE
DG	DITCH GRADE
DWY	DRIVEWAY
X	EAST GRID COORDINATE
EAT	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
EOR	END POINT OF RADIUS
EL	ELEVATION
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FC	FACE OF CURB
FF	FACE TO FACE
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FO	FIBER OPTIC
CWT	HUNDREDWEIGHT
HYD	HYDRANT
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE ON PIN
LHF	LEFT-HAND FORWARD
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LS	LUMP SUM
MH	MANHOLE
MOR	MID POINT OF RADIUS
NC	NORMAL CROWN
NO	NUMBER
OBLIT	OBLITERATE
PAVT	PAVEMENT
PE	PRIVATE ENTRANCE
PVRC	POINT OF VERTICAL REVERSE CURVE
QOR	QUARTER POINT OF RADIUS
R	RADIUS
REQ'D	REQUIRED
RES	RESIDENCE OR RESIDENTIAL
RHF	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
R	RIVER
RDWY	ROADWAY
R/L	REFERENCE LINE
SALV	SALVAGED
SAN	SANITARY SEWER
SF	SQUARE FEET
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SE	SUPERELEVATION RATE
TC	TOP OF CURB
T OR TN	TOWN
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
VAR	VARIABLE
VC	VERTICAL CURVE
Y	NORTH GRID COORDINATE
YD	YARD

ORDER OF SHEETS - SECTION 2:

DESIGN CONTACT:

SEH
10 NORTH BRIDGE STREET
CHIPPEWA FALLS WI 54729
TELEPHONE: 715.720.6261
ATTENTION: JARROD STARREN
EMAIL: JSTARREN@SEHINC.COM

DNR CONTACT:

STATE OF WISCONSIN
NORTHWEST DISTRICT
2501 GOLF COURSE ROAD
ASHLAND, WI 54806
TELEPHONE: 715.928.0485
ATTENTION: MATHEW JACOBSON
EMAIL: MATTHEW.JACOBSON@WISCONSIN.GOV

UTILITY CONTACT LIST:

ASTREA F/K/A PACKERLAND BROADBAND - COMMUNICATION LINE
105 KENT STREET
PO BOX 190
IRON MOUNTAIN MI 49801
TELEPHONE: 906.282.6434
ATTENTION: RUSSELL KENNY
EMAIL: RUSSELL.KENNY@ASTREACONNECT.COM

ASTREA F/K/A PACKERLAND - FIBER OPTIC
105 KENT STREET
PO BOX 190
IRON MOUNTAIN MI 49801
TELEPHONE: 906.776.2609
ATTENTION: ANDY HEIGL
EMAIL: ANDY.HEIGL@ASTREACONNECT.COM

LUMEN (AKA-CENTURYLINK)
2426 75TH. AVE
OSCEOLA, WI 54020
TELEPHONE: 715.392.0048
ATTENTION: MICHAEL VANDEN BOS
EMAIL: MIKE.VANDENBOS@LUMEN.COM

SPECTRUM F/K/A CHARTER COMMUNICATIONS - COMMUNICATION LINE
640 GARFIELD AVENUE
DULUTH MN 55802
TELEPHONE: 218.529.8042
TELEPHONE SECONDARY: 218.260.6984
ATTENTION: CHAD LAWRENCE
EMAIL: CHAD.LAWRENCE@CHARTER.COM

SUPERIOR WATER, LIGHT & POWER CO.
2915 HILL AVENUE
P.O. BOX 519
SUPERIOR WISCONSIN 54880
TELEPHONE: 715.395.6315

GAS/PETROLEUM & ELECTRIC & WATER & GAS
TELEPHONE: 715.395.6288
218.393.6391
ATTENTION: JAMISON MEHLE
EMAIL: JMEHLE@SWLP.COM

DESIGN CONTACT:

CITY OF SUPERIOR PUBLIC WORKS
1316 N 14TH STREET
SUPERIOR WISCONSIN 54880
TELEPHONE: 715.395.7334
ATTENTION: TODD JANIGO
EMAIL: JANIGOT@CI.SUPERIOR.WI.US

CITY OF SUPERIOR PUBLIC WORKS
1316 N 14TH STREET
SUPERIOR WISCONSIN 54880
TELEPHONE: 715.395.7334
ATTENTION: TODD JANIGO
EMAIL: JANIGOT@CI.SUPERIOR.WI.US

CITY OF SUPERIOR PUBLIC WORKS - CAN NETWORK FIBER OPTIC
1316 N 14TH STREET
SUPERIOR WISCONSIN 54880
TELEPHONE: 715.395.7232
ATTENTION: DAN SHEA
EMAIL: SHEAD@CI.SUPERIOR.WI.US

CITY OF SUPERIOR PUBLIC WORKS - SANITARY SEWER
51 EAST FIRST STREET
SUPERIOR WISCONSIN 54880
TELEPHONE: 715.394.0392 EXT 1015
ATTENTION: ERIN ABRAMSON
EMAIL: ABRASONE@CI.SUPERIOR.WI.US

ENTRUST SOLUTIONS GROUP - FIBER OPTIC
SHAWN MORRIS
999 18th/ Street | Suite 3000
DENVER, CO 80202
TELEPHONE: 785 317 5887
EMAIL: SMORRIS@ENTRUSTSOL.COM

NORVADO - FIBER OPTIC
43705 US HIGHWAY 63
CABLE, WI 54821
TELEPHONE: 715.798.7123
ATTENTION: GUY FOLSOM
EMAIL: GFOLSOM@NORVADO.COM

MERIT NETWORK INC - COMMUNICATION LINE
880 TECHNOLOGY DRIVE - SUITE B
ANN ARBOR MI 48108
TELEPHONE: 734.527.5698
TELEPHONE SECONDARY: 734.216.2769
ATTENTION: JAMIE LAROCCA
EMAIL: J.LAROCCA@MERIT.EDU

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

NOTE: WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

GENERAL NOTES:

1. NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
3. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
4. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLANS WITH THE ENGINEER.
5. CONCRETE COLLAR REQUIRED AT JOINTS BETWEEN EXISTING AND NEW STORM SEWER PIPE.
6. INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.
7. WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.
8. BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP.
9. CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 4-INCH TYPICAL DEPTH.
10. TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
11. REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.
12. THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
13. ASPHALTIC AND CONCRETE SURFACES SHALL BE SAWCUT AT THE MATCH LINE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
14. DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED AND SEEDED.
15. A CONVERSION FACTOR OF 2.0 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE.

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = **6.84** ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = **7.19** ACRES

2

BEGIN PROJECT
STA 125+50.00'NB'
Y = 302704.553
X = 148522.010
MATCH EXISTING
SAWCUT REQ'D

N 21ST STREET
279+00
280+00
281+00

125'SB'
125'NB'

130'SB'
130'NB'

N 20TH STREET
298+00
299+00

135'SB'
135'NB'

N 19TH STREET
308+00
309+00

N 18TH STREET
318+00
319+00
320+00

140
140

MATCH LINE 140+00

N

BEGIN HMA PAVEMENT
RECONSTRUCTION
STA 125+75.00'NB'
Y = 302729.552
X = 148522.184
MATCH EXISTING
SAWCUT REQ'D

STA BACK = 126+74.92'SB'
STA AHEAD = 126+74.87'SB'

HAMMOND AVENUE

LINCOLN STREET
291+00

N 20TH STREET
301+00

N 19TH STREET
311+00
312+00

321+00

MATCH LINE 140+00

328+00
329+00
N 17TH STREET

348+00
349+00
N 16TH STREET

'SB'
NB'

145'SB'
145'NB'

150'SB'
150'NB'

151'SB'

N

END HMA PAVEMENT
RECONSTRUCTION
STA 150+36.74'NB'
Y = 305191.236
X = 148539.274
MATCH EXISTING
SAWCUT REQ'D

HAMMOND AVENUE

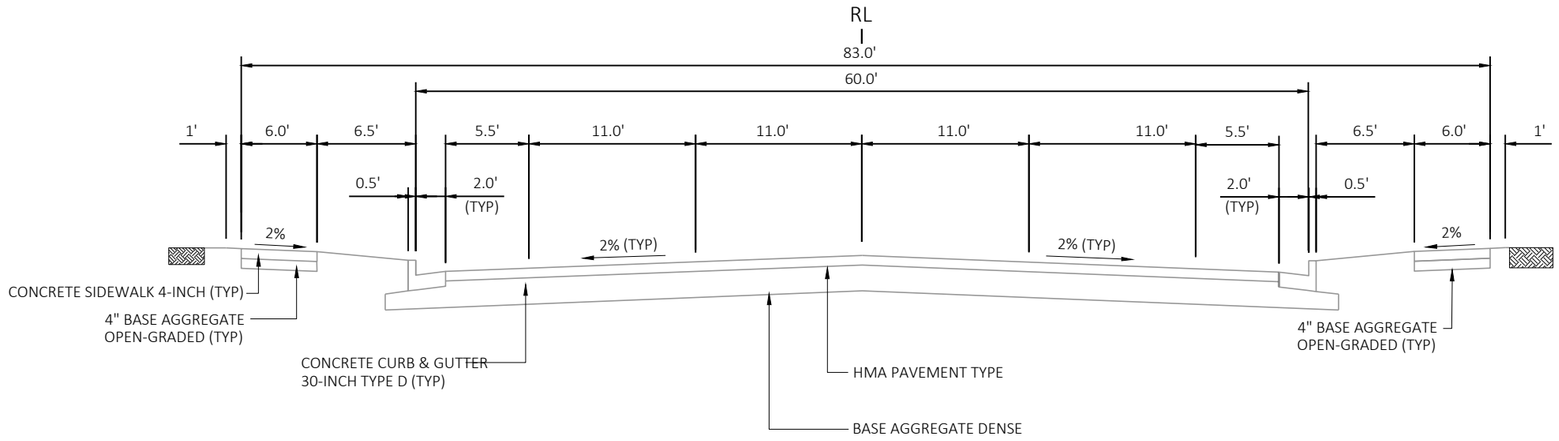
N 17TH STREET
331+00

HARRISON STREET
341+00

N 16TH STREET
351+00
352+00

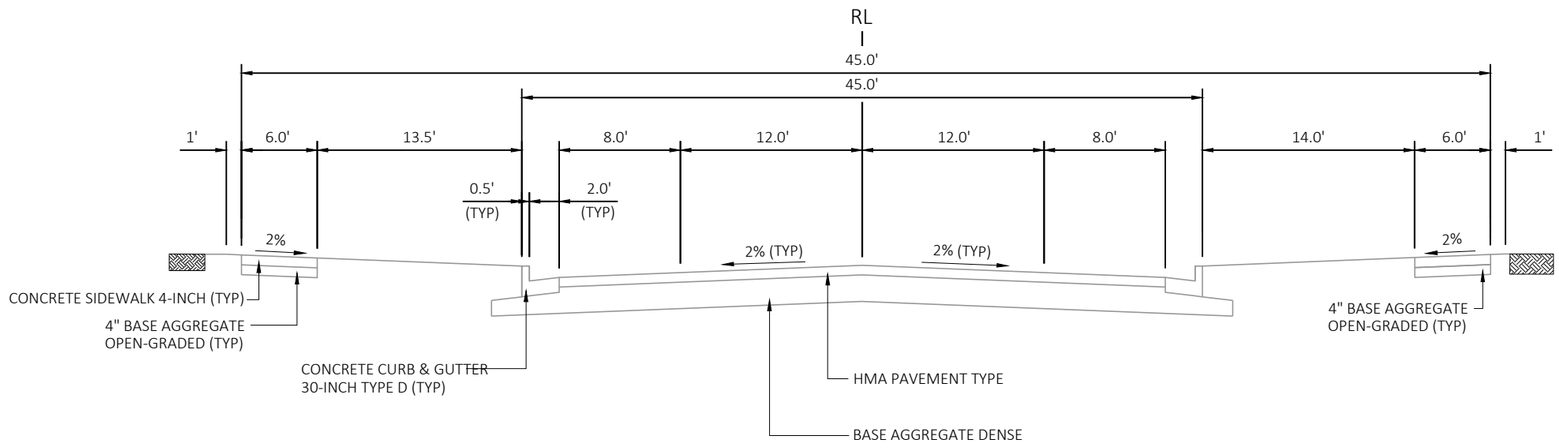
END PROJECT
STA 152+43.79'NB'
Y = 305398.205
X = 148543.704
MATCH EXISTING
SAWCUT REQ'D

PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PROJECT OVERVIEW	SHEET Page 3 of 207	E



EXISTING TYPICAL SECTION

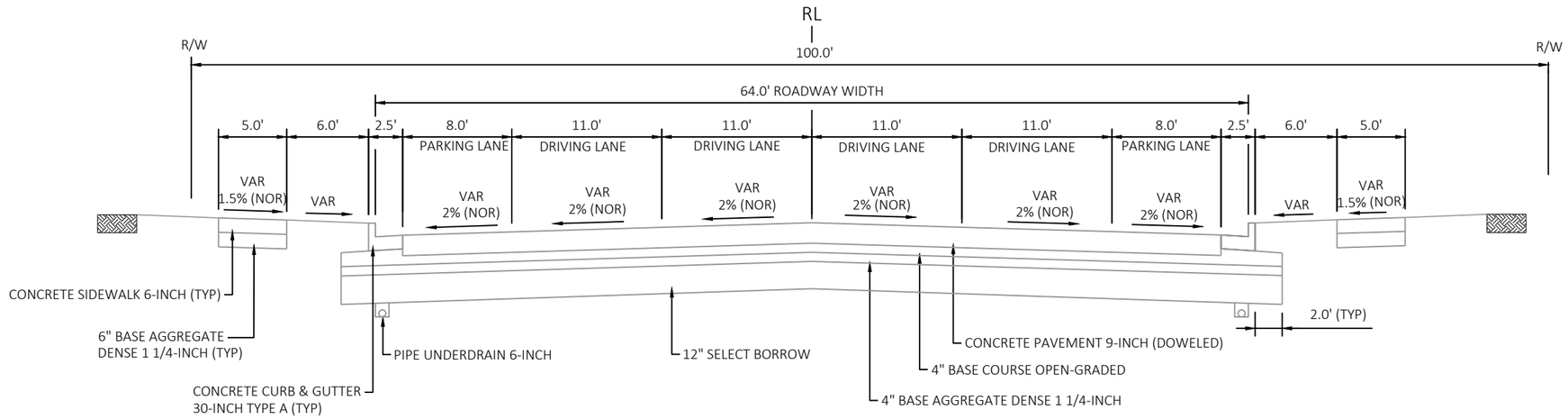
HAMMOND AVENUE
N 21ST STREET - BELKNAP STREET
126+25.80 - 150+36.74

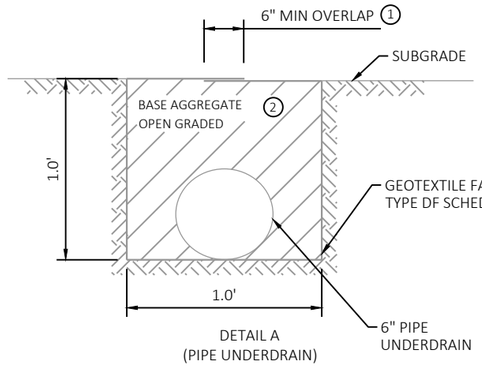


EXISTING TYPICAL SECTION

HAMMOND AVENUE
N 22ND STREET - N 21ST STREET
125+50.00 - 126+25.80

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	TYPICAL SECTION	SHEET Page 4 of 207	E





DETAIL A
(PIPE UNDERDRAIN)

NOTES:

① FABRIC SHALL OVERLAP AT THE TOP OF SUBGRADE, 6-INCH MINIMUM OVERLAP.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

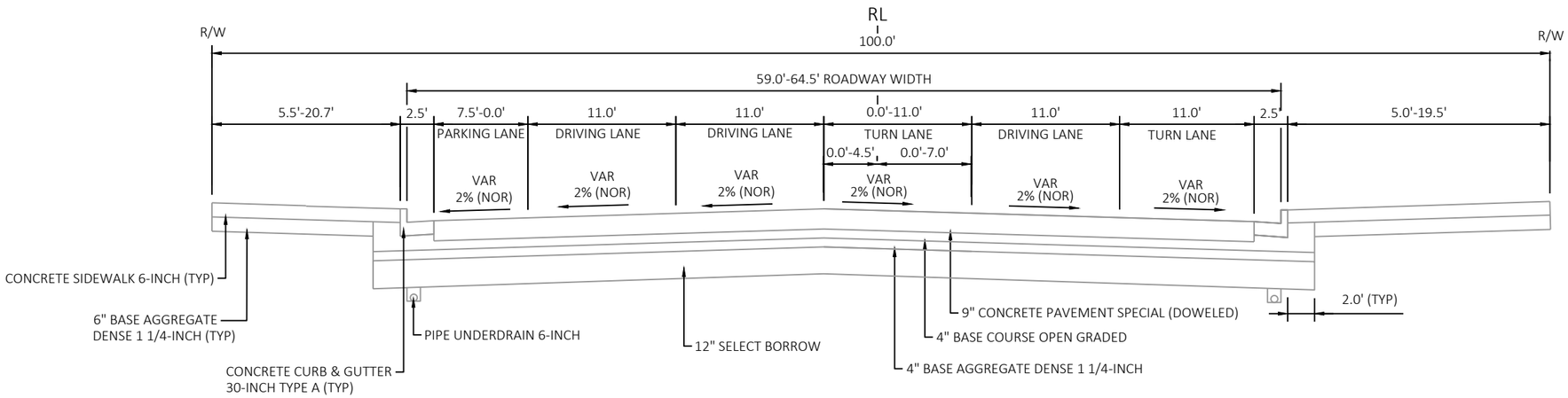
IF THERE IS A CONFLICT WITH THE STORM SEWER THE PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE STORM SEWER TOWARDS THE CENTER OF THE ROAD.

② PLACE UNDERDRAIN AFTER EXCAVATION OF SUBGRADE AND PRIOR TO THE PLACEMENT OF SELECT BORROW.

TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED, OR IN LIEU OF USE WELL GRADED COURSE AGGREGATE SIZE NO 1 OR 2 AS PER SUBSECTION 501.2.5.4.4 OF THE STANDARD SPECIFICATIONS.

EXISTING TYPICAL SECTION

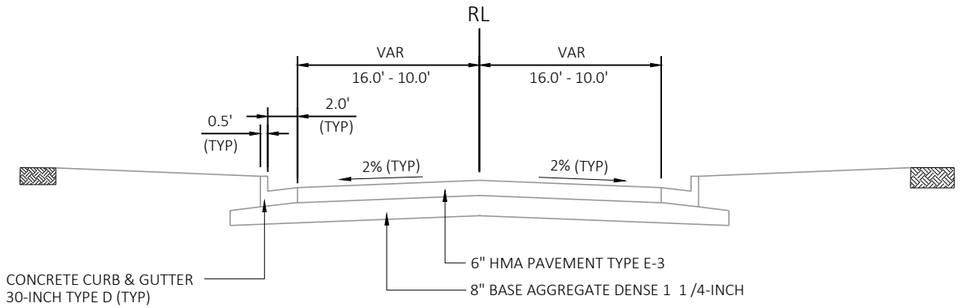
HAMMOND AVENUE
N 16TH STREET - ALLEY
STA 150+36.74 - 150+50.00



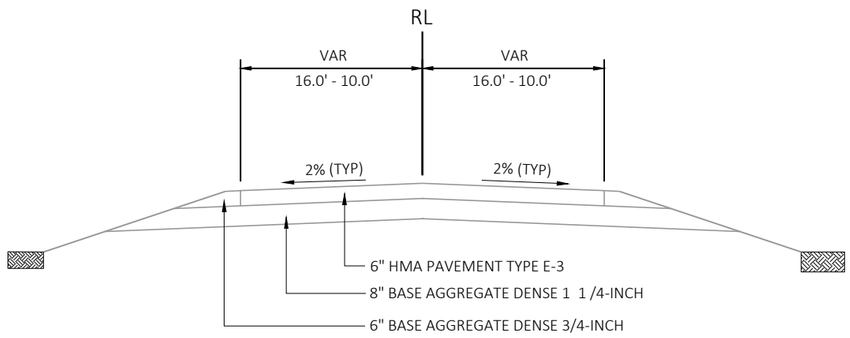
EXISTING TYPICAL SECTION

HAMMOND AVENUE
N 16TH STREET - BELKNAP STREET
STA 150+36.74 - 152+43.79

2

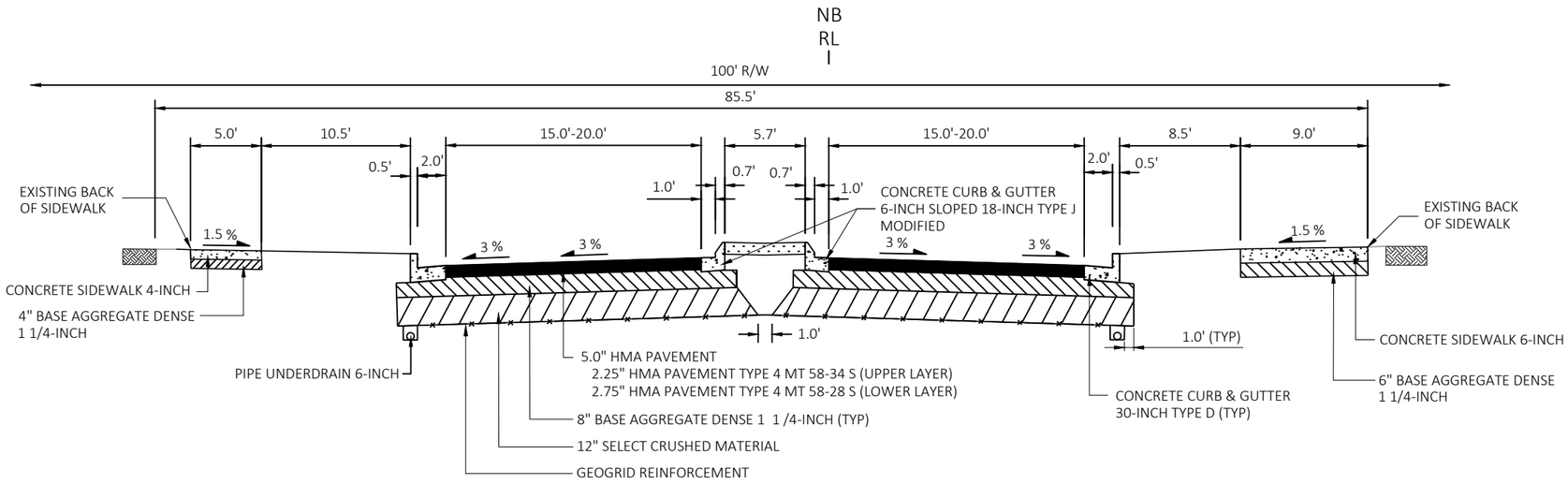


EXISTING TYPICAL SECTION
SIDE ROADS



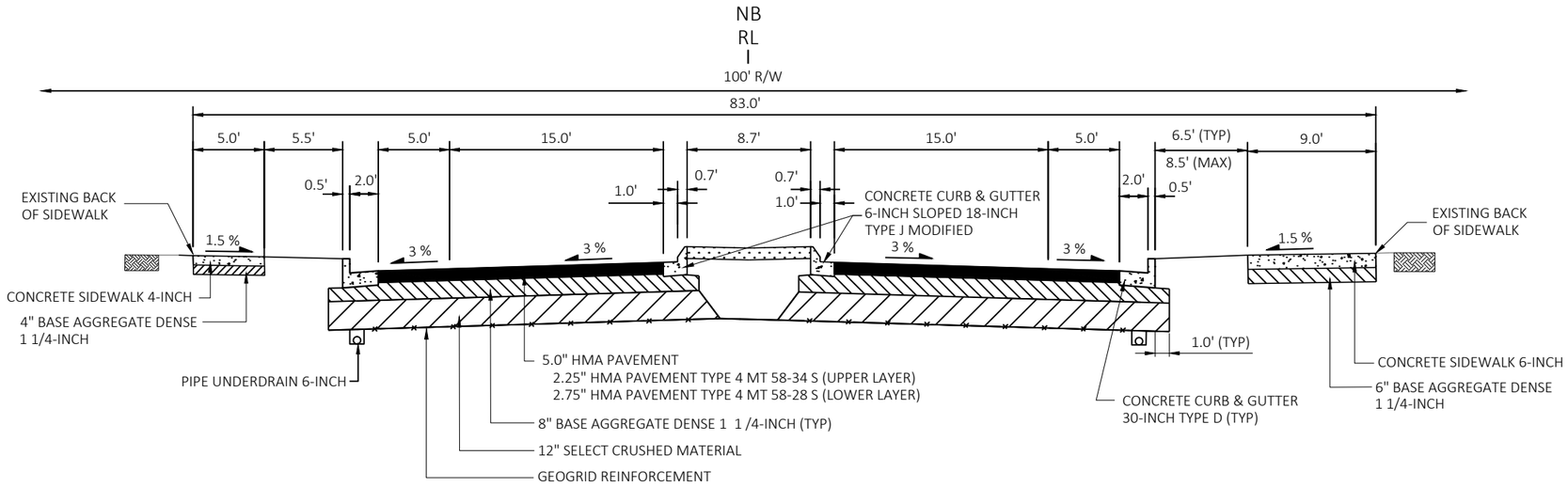
EXISTING TYPICAL SECTION
SIDE ROADS

2



FINISHED TYPICAL SECTION

HAMMOND AVENUE
N 22ND STREET - N 21ST STREET
STA 125+50.00 - 126+25.80

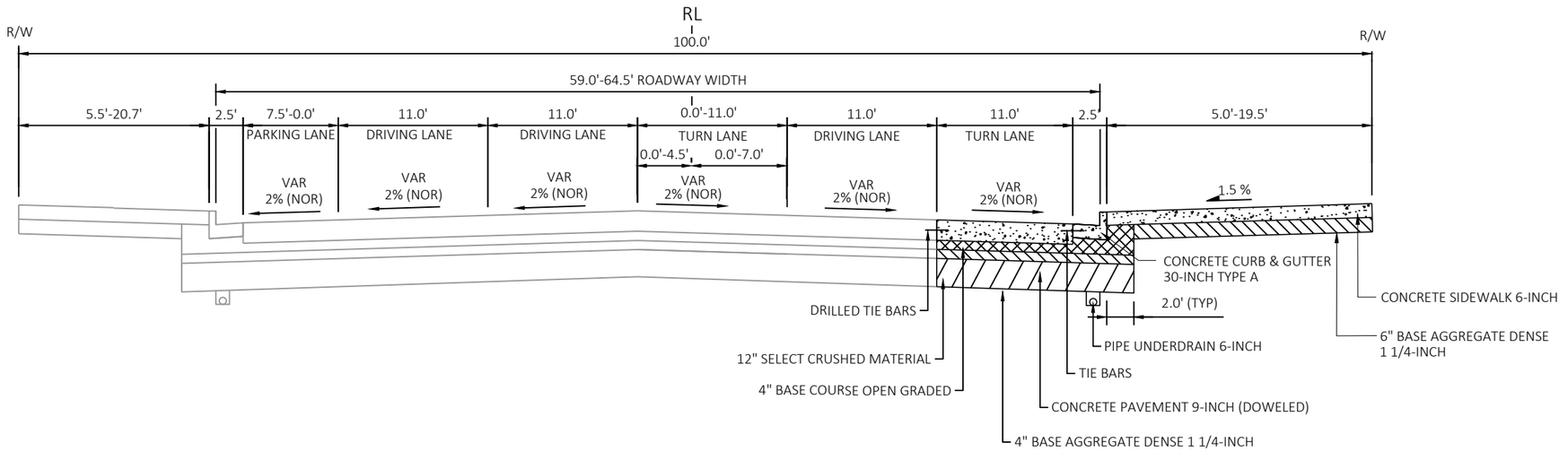


FINISHED TYPICAL SECTION

HAMMOND AVENUE
N 21 ST STREET - BELKNAP STREET
STA126+25.80- 150+36.74

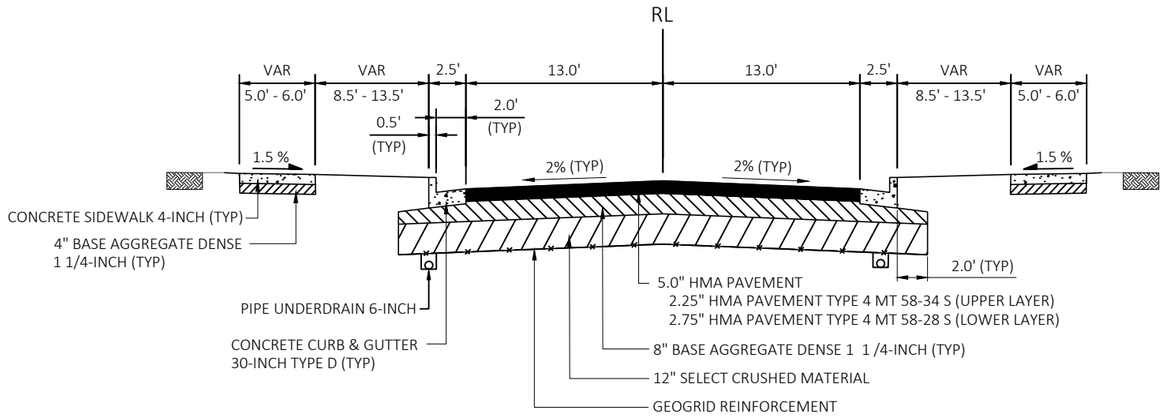
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	TYPICAL SECTION	SHEET Page 7 of 207	E

2



FINISHED TYPICAL SECTION

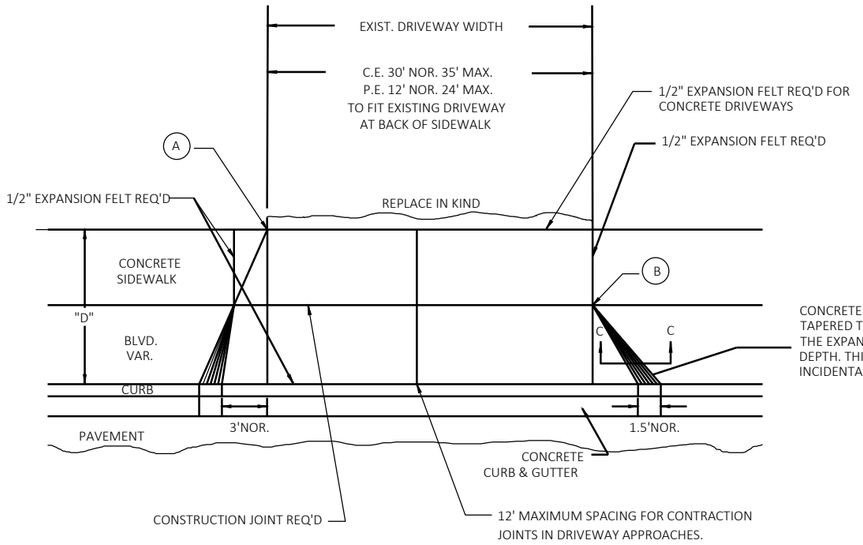
HAMMOND AVENUE
N 16TH STREET - BELKNAP STREET
STA150+36.74 - 152+43.79



FINISHED TYPICAL SECTION

N 21ST STREET
LINCOLN STREET
N 20TH STREET
N19TH STREET
N 18TH STREET
N 17TH STREET
HARRISON STREET
N 16TH STREET

2

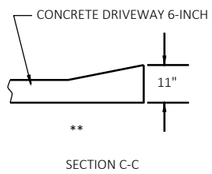


CONCRETE IN THE 1.5' TAPER AREA SHALL BE TAPERED TO A DEPTH OF 11-INCHES AND THE EXPANSION FELT SHALL MATCH THIS DEPTH. THIS WORK AND MATERIAL WILL BE INCIDENTAL TO THE BID ITEM.

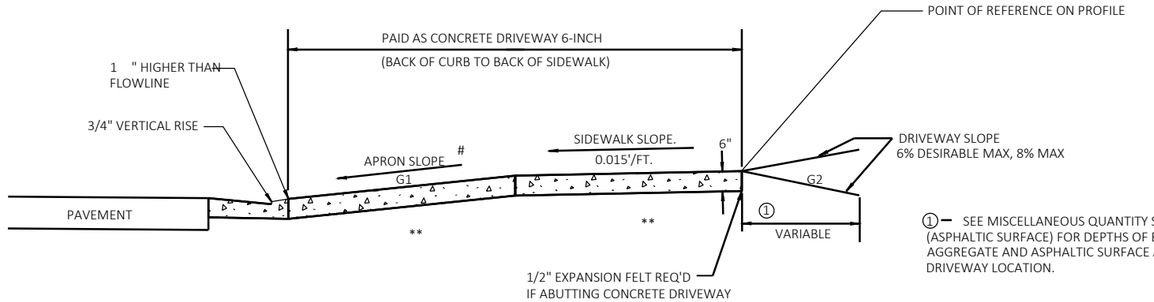
PLAN VIEW

(A) WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

(B) WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK



SECTION C-C



(1) – SEE MISCELLANEOUS QUANTITY SHEET (ASPHALTIC SURFACE) FOR DEPTHS OF BASE AGGREGATE AND ASPHALTIC SURFACE AT EACH DRIVEWAY LOCATION.

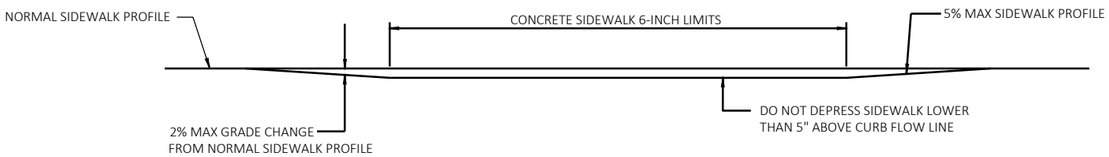
TYPICAL SIDEWALK SECTION

\#

TERRACE WIDTH	APRON SLOPE (G1) MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

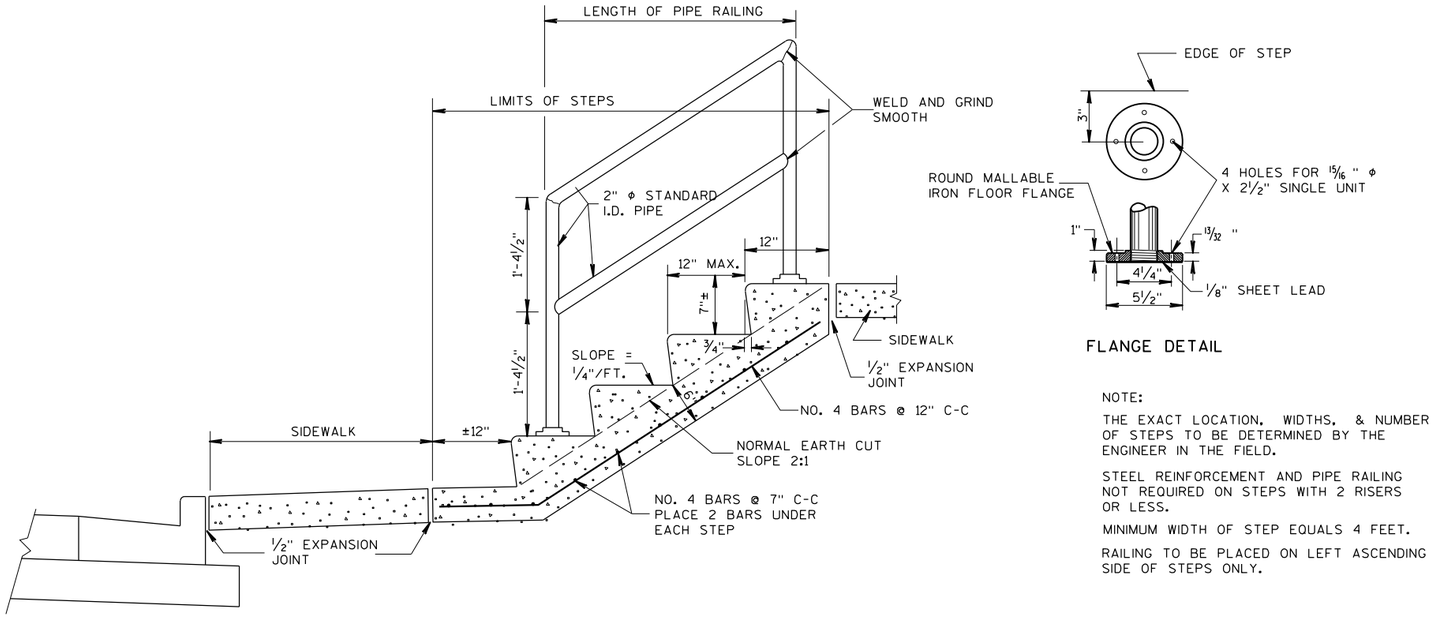
NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE



DEPRESSED SIDEWALK PROFILE DETAIL

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER



CONCRETE STEPS DETAIL

FLANGE DETAIL

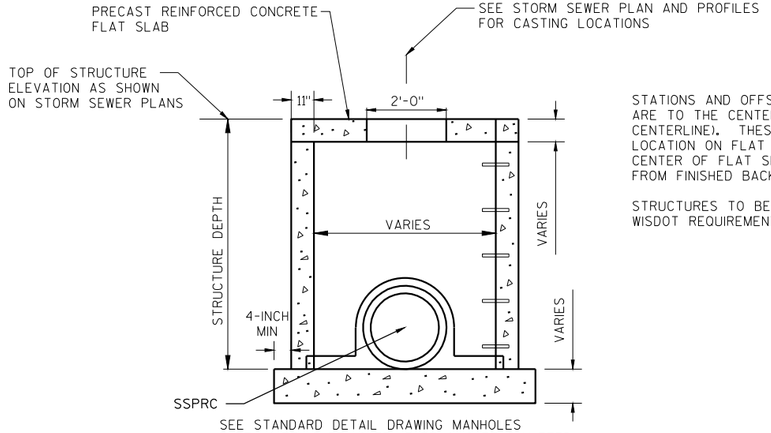
NOTE:

THE EXACT LOCATION, WIDTHS, & NUMBER OF STEPS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

STEEL REINFORCEMENT AND PIPE RAILING NOT REQUIRED ON STEPS WITH 2 RISERS OR LESS.

MINIMUM WIDTH OF STEP EQUALS 4 FEET.

RAILING TO BE PLACED ON LEFT ASCENDING SIDE OF STEPS ONLY.



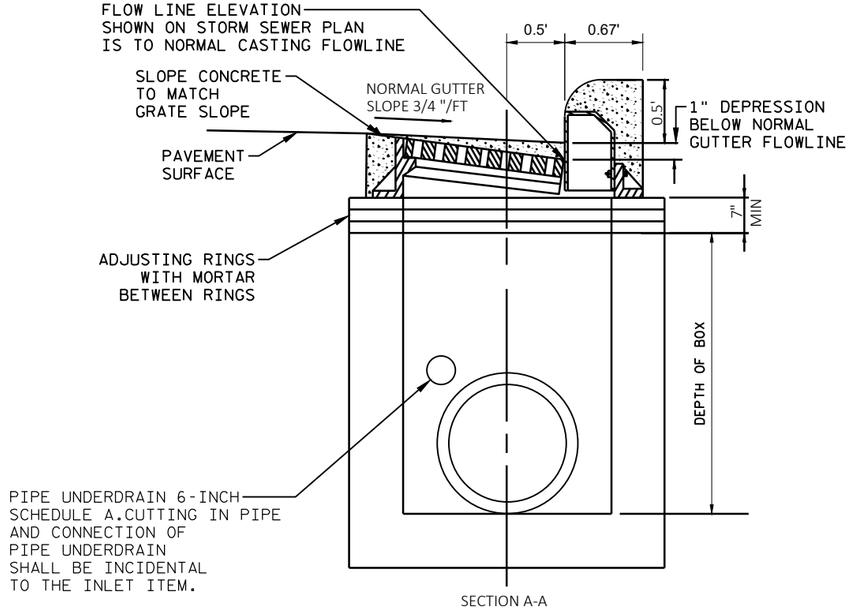
SEE STANDARD DETAIL DRAWING MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT & 8-FT DIAMETER AND MANHOLES 10-FT DIAMETER DETAIL ABOVE FOR ADDITIONAL STUCTURE INFORMATION. STRUCTURES TO BE BUILT AS MANHOLES OF THE SAME DIAMETER WITH A 2'x3' OPENING AS SHOWN ON THE STANDARD DETAIL DRAWING FOR INLETS 4-FT DIAMETER.

SEE STORM SEWER TRENCH DETAIL.

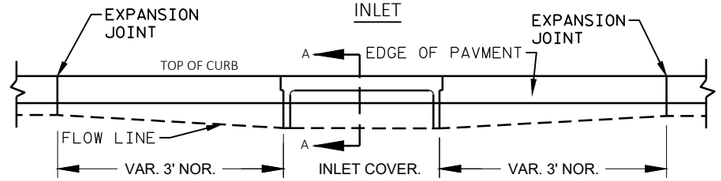
INLETS 5, 6, 7, 8, & 10-FT DIAMETER

STATIONS AND OFFSETS ARE SHOWN IN STORM SEWER PLANS ARE TO THE CENTER OF STRUCTURE, 1.0' FROM BACK OF CURB (TOWARDS CENTERLINE). THESE OFFSETS COULD CHANGE TO DEPENDING ON OPENING LOCATION ON FLAT SLAB COVER. ADJUST STRUCTURE LOCATION TO ENSURE CENTER OF FLAT SLAB COVER OPENING IS 1.0' TOWARDS THE STREET FROM FINISHED BACK OF CURB.

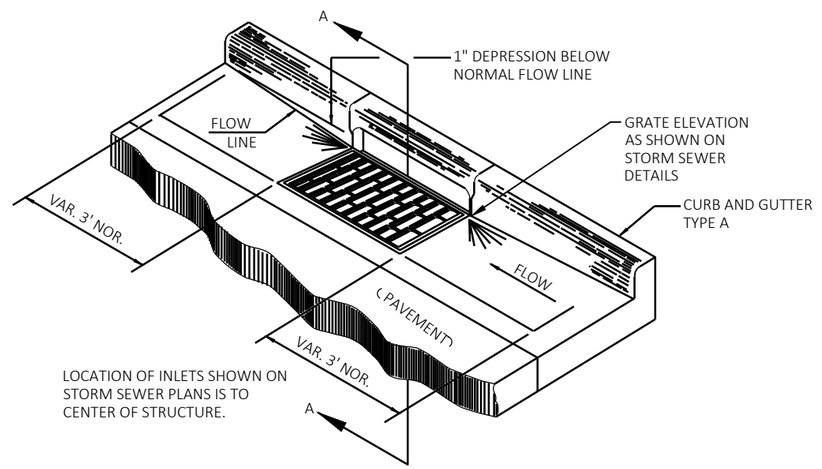
STRUCTURES TO BE DESIGNED TO MEET ALL APPLICABLE ASTM AND WISDOT REQUIREMENTS.



SECTION A-A
INLET

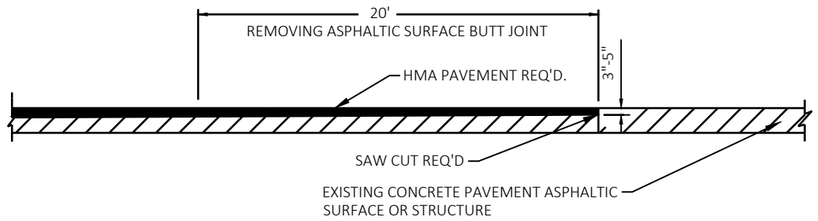


ELEVATION



LOCATION OF INLETS SHOWN ON STORM SEWER PLANS IS TO CENTER OF STRUCTURE.

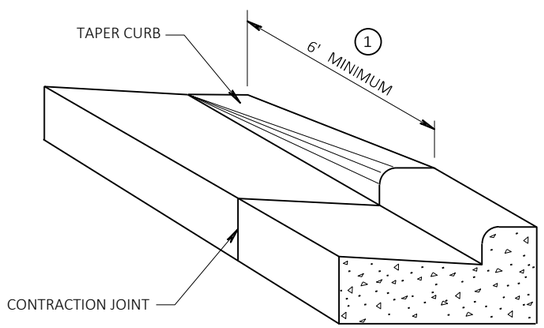
DETAIL OF CURB AND GUTTER AT INLETS



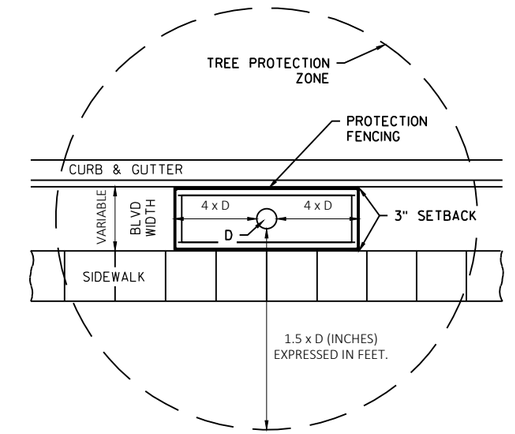
DETAIL OF BUTTED JOINT

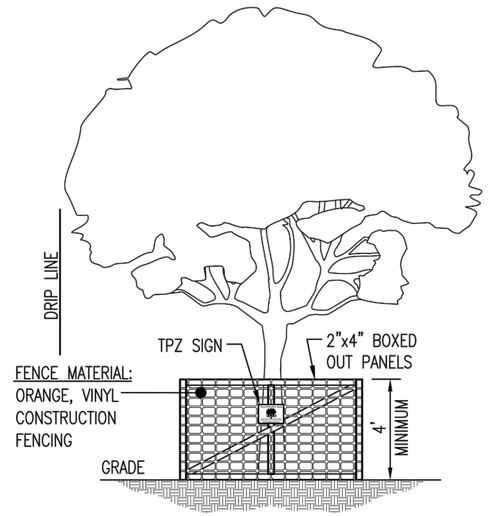
* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD.

(1) PROVIDE TAPERED CURB HEAD AT APPROACH ENDS. INCIDENTAL TO CONCRETE CURB & GUTTER ITEMS TO WITH IT APPLIES.



DETAIL OF CURB & GUTTER TERMINI



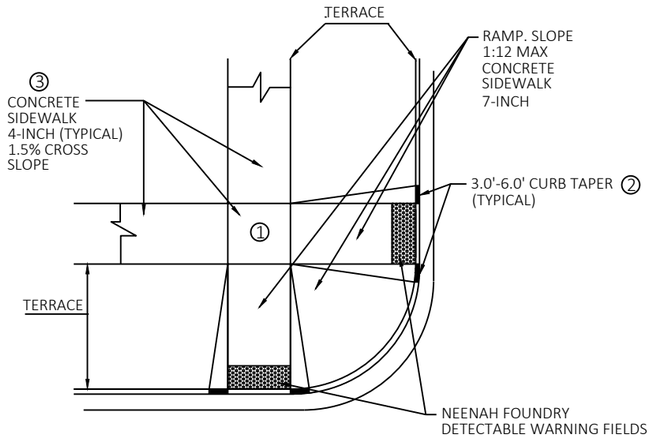


CONTRACTOR IS TO AVOID EQUIPMENT, MATERIAL STORAGE AND SOIL COMPACTION IN THE TREE PROTECTION ZONE.

PROTECTION BEHIND SIDEWALK - FENCING AND PROTECTION WORK TO BE COMPLETED WITHIN THE EXISTING R/W ONLY.

TREE PROTECTION ZONE TYPE 1

(NO SCALE)



NOTES:

① PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION. MINIMUM LANDING SIZE 5'x5', CONCRETE DEPTH SHALL BE 4 INCHES.

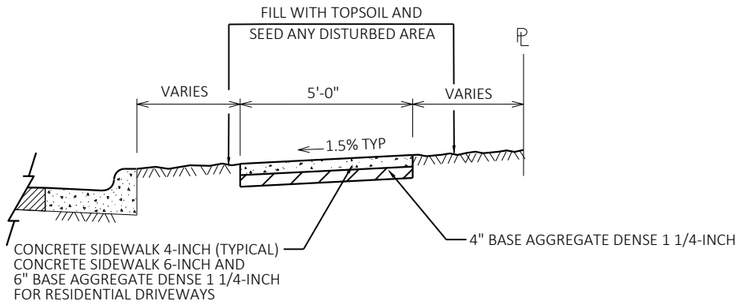
② PROVIDE 3.0' TAPER (6:1 MAX) ADJACENT TO NON-TRAVERSABLE SURFACES AND 6.0' TAPER (10:1 MAX) ADJACENT TO TRAVERSABLE SURFACES.

③ SEE INTERSECTION DETAIL SHEETS FOR SIDEWALK WIDTHS.

PEDESTRIAN RAMP REPLACEMENT NOTES:

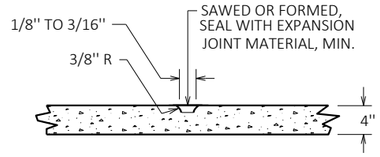
ALL PEDESTRIAN RAMPS ON PROJECT WILL BE REPLACED TO BRING THEM TO ADA SPECIFICATIONS.

PED-RAMP OVERHEAD DETAIL
(NO SCALE)

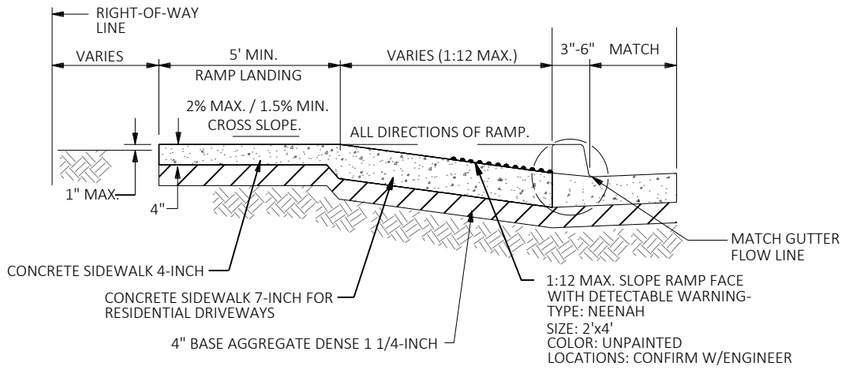


TYPICAL CONCRETE SIDEWALK SECTION

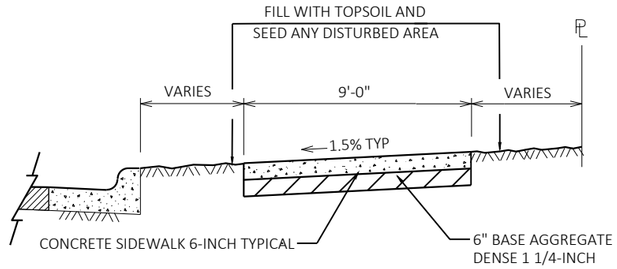
* SIDEWALK PROFILE MAY BE ADJUSTED BY THE ENGINEER TO A MAX. 1:12 SLOPE TO AVOID TREE ROOTS AND MAY BE NARROWED TO MIN. 4' WIDTH, MAINTAINING A MIN. 1.5% CROSS SLOPE.



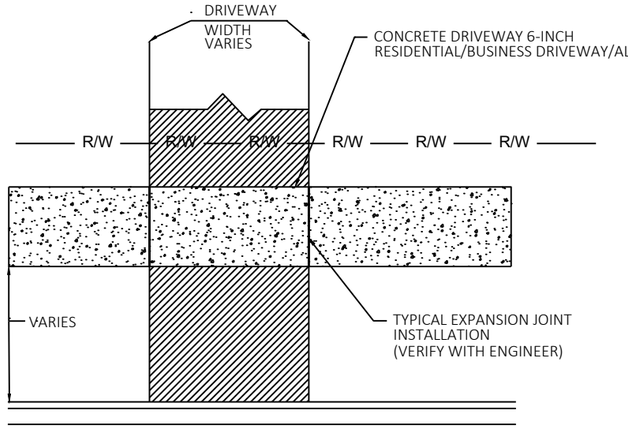
SIDEWALK CONTRACTION JOINT
(NO SCALE)



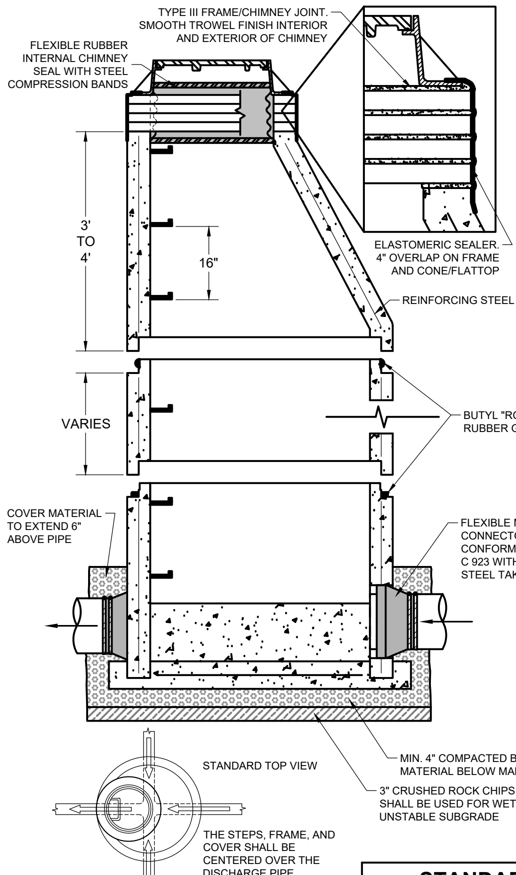
PED-RAMP CROSS-SECTION
(NO SCALE)



TYPICAL CONCRETE SIDEWALK/TRAIL SECTION



SIDEWALK THROUGH DRIVEWAY OR ALLEY
(NO SCALE)



TYPE III FRAME/CHIMNEY JOINT REQUIRED ON ALL SANITARY MANHOLES UNLESS OTHERWISE SPECIFIED. ELASTOMERIC WATERPROOFING SEALER SHALL BE APPLIED TO EXTERIOR OF CHIMNEY, OVERLAPPING FRAME FLANGE AND PRECAST SECTION OR FLATTOP.

FLAT TOP SLAB MAY ONLY BE USED FOR 5'-0" AND 6'-0" DIA. MANHOLES AND WITH PERMISSION OF THE ENVIRONMENTAL SERVICES DIVISION OF PUBLIC WORKS OR WHERE SHOWN ON THE PLANS. FLAT TOP SLAB MUST HAVE A MINIMUM 6" ADJUSTING RING (1 FULL RING) INSTALLED.

ADJUST FRAME TO GRADE WITH CONCRETE RINGS OF VARIABLE THICKNESS, MAXIMUM RING HEIGHT = 6", MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP. THE CHIMNEY SHALL BE CONSTRUCTED SO THAT AS FEW ADJUSTING RINGS AS POSSIBLE SHALL BE USED TO BRING MANHOLE TO GRADE.

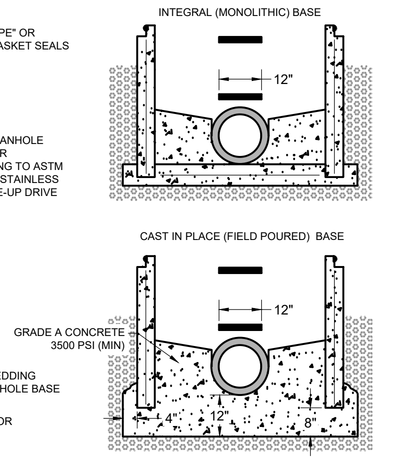
CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS.

4" MIN. 3/4" DENSE GRADED BASE UNDER CONCRETE BASE.

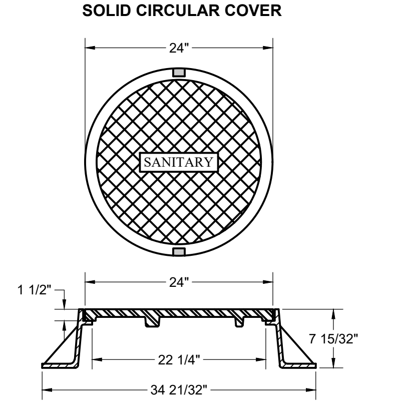
PRECAST BASE RISER SECTION WITH A SEPARATE PRECAST BASE SLAB SHALL NOT BE CONSIDERED GENERALLY ACCEPTABLE UNDER THIS SPECIFICATION.

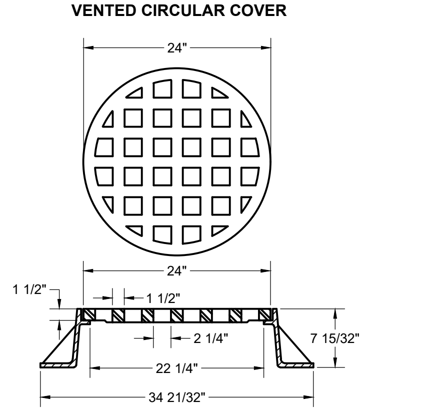
ALL JOINTS SHALL BE WATERTIGHT AND SEALED USING BUTYL RUBBER, RUBBER GASKETS CONFORMING TO ASTM-C443, OR OTHER MATERIAL APPROVED BY ENGINEER. ALL SEALS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE RECOMMENDATION. VARIATIONS IN DIAMETER, DEFECTIVE OR DAMAGED ENDS, OR OTHER CONDITIONS WHICH, IN THE OPINION OF THE PROJECT ENGINEER, PREVENT MAKING A SATISFACTORY JOINT SHALL BE CONSIDERED CAUSE FOR REJECTION.

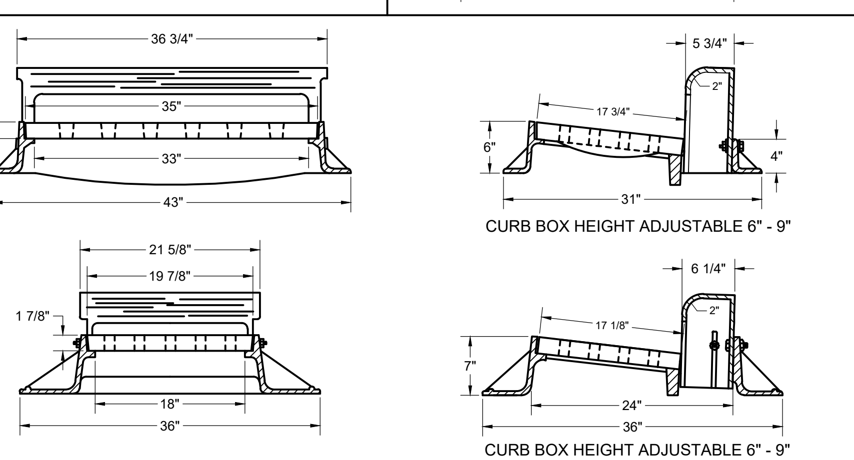
AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ INCH PER LINEAL FOOT.



STANDARD PRECAST CONCRETE MANHOLE



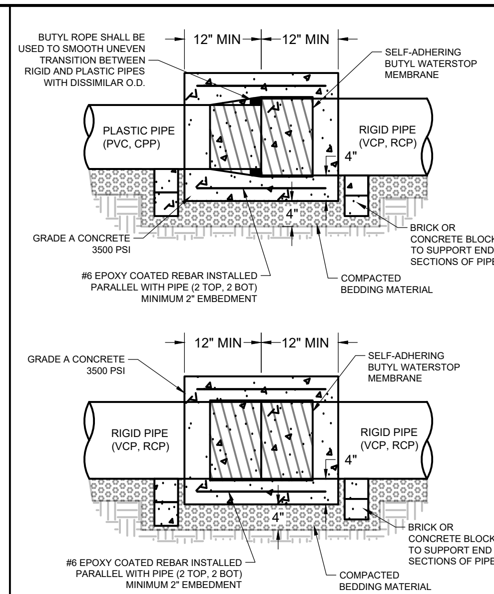




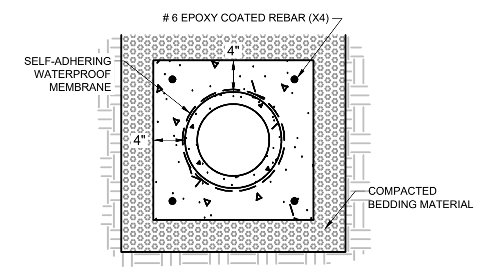
ALL MANHOLE CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-48, CLASS NO. 30-B AND SHALL BE FREE FROM CRACKS, HOLES, SWELLS, AND COLD SHUTS.

NON-VENTED COVERS SHALL BE "SELF-SEALING", "T-SEAL" OR "GASKET SEALED" COVERS. COVERS SHALL HAVE "SANITARY" OR "STORM" LABELS AS APPLICABLE, OR OTHER LABELS APPROVED AS EQUAL BY THE ENVIRONMENTAL SERVICES DIVISION.

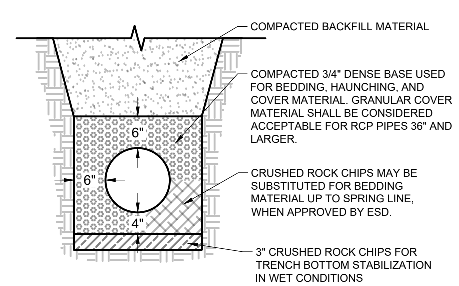
STANDARD STORM AND SANITARY FRAME DETAILS



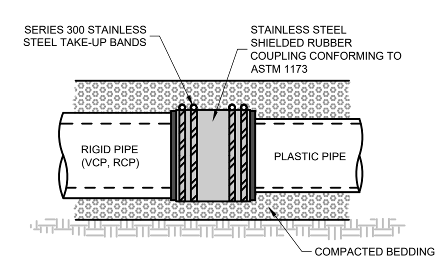
CONCRETE COLLAR DETAIL



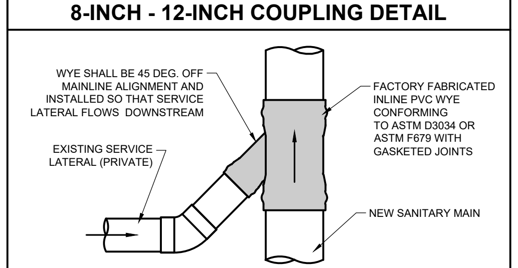
CONCRETE COLLAR SECTION DETAIL



PIPE TRENCH DETAIL



8-INCH - 12-INCH COUPLING DETAIL



FACTORY FABRICATED PVC WYE - LATERAL

GENERAL
THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING. IN CASE OF CONFLICT, THE FIRST LISTED STANDARD SHALL TAKE PRECEDENCE.
1. COMPLY WITH ALL APPLICABLE SECTIONS OF "STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN, SIXTH EDITION WITH ADDENDUM NO.1 AND NO.2". REQUESTS FOR COPIES OF THE "STANDARD SPECIFICATIONS" SHOULD BE FORWARDED TO: PUBLIC WORKS INDUSTRY IMPROVEMENT PROGRAM, 2835 NORTH MAYFAIR ROAD, MILWAUKEE, WISCONSIN 53222 OR REQUESTED BY TELEPHONE AT (414) 778-1050.
2. COMPLY WITH ALL APPLICABLE SECTIONS OF "STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION".
3. COMPLY WITH ALL APPLICABLE SECTIONS OF WISCONSIN ADMINISTRATIVE CODE.
4. COMPLY WITH ALL APPLICABLE SECTIONS OF CITY OF SUPERIOR ADMINISTRATIVE CODE.

SEWER DIAMETER
SEWERS SHALL BE SIZED SUFFICIENT FOR FUTURE EXTENSION IN ACCORDANCE WITH CITY OF SUPERIOR SEWER SERVICE AREA PLANNING AND SHALL NOT BE LESS THAN 8 INCHES IN DIAMETER.

MANHOLE DIAMETER
THE MINIMUM DIAMETER OF MANHOLES SHALL BE 48 INCHES. LARGER DIAMETER MANHOLES SHALL BE USED AS INDICATED ON THE PLAN AND PROFILE DRAWINGS.

DEPTH
SEWERS SHALL BE LAID AT A DEPTH SUFFICIENT FOR FUTURE EXTENSION IN ACCORDANCE WITH CITY OF SUPERIOR SEWER SERVICE AREA PLANNING. SEWERS SHALL BE LAID AT A DEPTH TO PREVENT FREEZING AND TO PROVIDE GRAVITY BASEMENT DRAINAGE FOR SANITARY WASTE.

SLOPE
SEWERS SHALL BE LAID WITH UNIFORM SLOPE BETWEEN MANHOLES. ALL SEWERS SHALL BE DESIGNED AND CONSTRUCTED TO GIVE AVERAGE VELOCITIES OF NOT LESS THAN 2 FEET PER SECOND. MINIMUM DESIGN SLOPE SHALL BE AS SHOWN BELOW. SEWERS ON SLOPES OF 20% OR GREATER SHALL BE APPROVED ON A CASE BY CASE BASIS BY THE ENVIRONMENTAL SERVICES DIVISION OF PUBLIC WORKS (ESD) AND SHALL BE ANCHORED SECURELY WITH CONCRETE ANCHORS.

SEWER SIZE	MINIMUM SLOPE %
8"	0.45
10"	0.32
12"	0.25
15"	0.17
18"	0.14
21"	0.11
24"	0.09

LINE AND GRADE
LINE AND GRADE SHALL BE CONTROLLED AND MAINTAINED BY USE OF A LASER BEAM. GRADE BOARDS AND BANJO STRINGS ARE NOT ACCEPTABLE UNDER THIS SPECIFICATION.

SANITARY PIPE AND JOINT MATERIALS
MATERIALS USED IN OPEN TRENCH CONSTRUCTION OF NONPRESSURE SANITARY SEWERS SHALL BE RESTRICTED TO THE FOLLOWING: REINFORCED CONCRETE PIPE (RCP), DUCTILE IRON PIPE (DI), AND POLYVINYL CHLORIDE PIPE (PVC). ALL MATERIAL USED FOR SANITARY SEWER CONSTRUCTION SHALL BE FREE FROM DEFECTS THAT IMPAIR SERVICE. EACH LENGTH OF PIPE AND FITTING USED IN A SANITARY SEWER SHALL BE STAMPED OR INDELIBLY MARKED WITH THE MANUFACTURER'S NAME OR MARK. THE SUBSTITUTION OF ANY OTHER TYPE OF PIPE, OR MONOLITHIC SECTION, MAY ONLY BE USED WITH THE APPROVAL OF THE ESD.

STORM PIPE AND JOINT MATERIALS
MATERIALS USED IN OPEN TRENCH CONSTRUCTION OF STORM SEWERS SHALL BE RESTRICTED TO THE FOLLOWING: RCP, POLYETHYLENE PIPE WITH A SMOOTH LINER AND CORRUGATED EXTERIOR (PE). ALL MATERIAL USED FOR STORM SEWER CONSTRUCTION SHALL BE FREE FROM DEFECTS THAT IMPAIR SERVICE. EACH LENGTH OF PIPE AND FITTING USED IN A STORM SEWER SHALL BE STAMPED OR INDELIBLY MARKED WITH THE MANUFACTURER'S NAME OR MARK. THE SUBSTITUTION OF ANY OTHER TYPE OF PIPE, OR MONOLITHIC SECTION, MAY ONLY BE USED WITH THE APPROVAL OF THE ESD.

FITTINGS FOR ALL BUILDING SEWER (LATERAL) CONNECTIONS
FITTINGS FOR ALL BUILDING SEWERS SHALL BE FACTORY-FABRICATED WYES, UNLESS OTHERWISE SPECIFIED ON THE PLANS. THESE FITTINGS SHALL BE PLACED AT AN ANGLE OF 45 DEGREES ABOVE THE HORIZONTAL UNLESS OTHERWISE SPECIFIED. ON SEWERS 12 INCHES OR LARGER IN DIAMETER, TEES MAY BE SUBSTITUTED FOR WYES. THE WYE OR TEE SHALL HAVE A DIAMETER OF 6 INCHES UNLESS OTHERWISE SPECIFIED. FITTINGS ON THE MAIN SEWER FOR THE CONSTRUCTION OF RISERS SHALL BE IN-LINE, FACTORY FABRICATED TEES PLACED WITH THE BRANCH VERTICAL. THE CONTRACTOR SHALL NOT CONNECT ANY BUILDING SEWERS OR DRAINS TO NEW SEWERS OR MANHOLES PRIOR TO THEIR ACCEPTANCE BY THE ESD, EXCEPT IN RELAY WORK.

PIPE & FITTING MATERIALS
THE FOLLOWING ARE MINIMUM STANDARDS FOR NONPRESSURE PIPE:
3. POLYVINYL CHLORIDE (PVC) BELL AND SPIGOT SEWER PIPE SHALL MEET THE REQUIREMENTS OF ASTM D3034 (1981). PVC SHALL BE TYPE PSM SDR-35 UNLESS OTHERWISE SPECIFIED. JOINTS SHALL BE RUBBER GASKET BELL AND SPIGOT JOINTS UNLESS OTHERWISE SPECIFIED.
4. REINFORCED CONCRETE PIPE (RCP) BELL AND SPIGOT SEWER PIPE SHALL MEET THE REQUIREMENTS OF C76 (1982). RCP SHALL BE CLASS III UNLESS OTHERWISE SPECIFIED. JOINTS SHALL BE RUBBER GASKET BELL AND SPIGOT JOINTS CONFORMING TO ASTM C443 (1979) UNLESS OTHERWISE SPECIFIED.
5. STEEL PIPE SHALL BE WELDED FROM STEEL PLATE OR SPIRAL WELDED FROM STEEL COIL. THE MINIMUM YIELD STRENGTH SHALL BE 36,000 PSI. FOR CASING PIPE THE MINIMUM WALL THICKNESS SHALL BE 0.625 INCHES. THE MINIMUM INSIDE DIAMETER OF THE STEEL CASING SHALL BE NOT LESS THAN 8 INCHES GREATER THAN THE MAXIMUM OUTSIDE DIAMETER OF THE CARRIER PIPE. THE STEEL CASING PIPE SHALL BE EPOXY COATED ON INSIDE AND OUTSIDE SURFACES.
6. DUCTILE IRON (DI) BELL AND SPIGOT SEWER PIPE, FITTINGS, AND JOINTS SHALL MEET THE REQUIREMENTS OF AWWA C100 (1977).
7. CORRUGATED POLYETHYLENE PIPE (PE) WITH A SMOOTH LINER SHALL CONFORM TO ASTM F894 OR AASHTO M294, TYPE S. PE PIPE CONFORMING TO ASTM F894 SHALL BE NOT LESS THAN CLASS 100 (RING STIFFNESS CONSTANT = 100) AND CARRIER PIPE SHALL BE NOT LESS THAN CLASS 160. JOINTS SHALL BE WATERTIGHT, BELL AND SPIGOT TYPE WITH RUBBER GASKETS CONFORMING TO ASTM F477. SOIL-TIGHT JOINTS WHICH ARE NOT WATERTIGHT ARE NOT ADEQUATE UNDER THESE SPECIFICATIONS. PIPEFITTINGS SHALL CONFORM TO AASHTO M294 OR ASTM F894. FITTINGS SHALL BE SUITABLE FOR SPECIFIED PIPE JOINTS. PE PIPE SHALL CONFORM TO ASTM F894 (E.G. SPIROLITE AS MANUFACTURED BY CHEVRON) OR AASHTO M294, TYPE S (E.G. HANCOR BLUE SEAL AS MANUFACTURED BY HANCOR CORPORATION).
8. CORRUGATED STEEL CULVERT PIPE (CSCP) SHALL BE INDUSTRY STANDARD GALVANIZED CORRUGATED STEEL CULVERT PIPE. CORRUGATIONS SHALL BE 2 2/3 INCHES BY 1/2-INCH. STEEL THICKNESS SHALL BE 0.052-INCH FOR 8-INCH DIAMETER PIPE AND 0.064-INCH FOR DIAMETERS FROM 10 TO 48 INCHES. JOINTS SHALL BE INDUSTRY STANDARD CONNECTING BANDS SUBJECT TO THE APPROVAL OF THE ESD.

JOINT ASSEMBLY OF POLYETHYLENE AND POLYVINYL CHLORIDE PIPING
LUBRICATED SPIGOT END SHALL BE INSERTED INTO RECEIVING PIPE BELL UNTIL MARKED LINE IS EVEN WITH EDGE OF BELL. ASSEMBLY RESULTING IN OVER-INSERTION, ROLLED GASKETS, SPLIT BELLS, FAILURE TO PASS ACCEPTANCE TESTING OR DAMAGE TO PREVIOUSLY ASSEMBLED JOINTS WILL BE CONSIDERED SUFFICIENT CAUSE FOR REJECTION OF THE WORK.

ALIGNMENT
ALL PIPES SHALL BE LAID UNIFORMLY TO LINE AND GRADE SO THAT THE FINISHED SEWER WILL PRESENT A UNIFORM BORE. NOTICEABLE VARIATIONS FROM TRUE ALIGNMENT AND GRADE WILL BE CONSIDERED SUFFICIENT CAUSE FOR REJECTION OF THE WORK.

PHASING & CONSTRUCTION SCHEDULE
A PHASING & CONSTRUCTION SCHEDULE SHALL BE SUBMITTED TO THE ESD UPON REQUEST. THE PHASING & CONSTRUCTION SCHEDULE SHALL INDICATE THE CONTRACTOR'S PLAN FOR PROGRESSION OF THE WORK.

REJECTION OF PIPE MATERIALS
PIPE SHALL BE SUBJECT TO REJECTION FOR FAILURE TO CONFORM TO ANY REQUIREMENT OF THE SPECIFICATIONS OR FOR ANY OF THE FOLLOWING REASONS:
1. FRACTURES OR CRACKS PASSING THROUGH THE PIPE WALL OR SOCKET, EXCEPT THAT A SINGLE CRACK NOT EXCEEDING 2 INCHES IN LENGTH AT EITHER END OF THE PIPE OR A SINGLE FRACTURE IN THE SOCKET NOT EXCEEDING 3 INCHES IN WIDTH NOR 2 INCHES IN LENGTH SHALL NOT BE CONSIDERED CAUSE FOR REJECTION UNLESS THESE DEFECTS EXIST IN MORE THAN 5% OF THE ENTIRE SHIPMENT OR DELIVERY.
2. CHIPS OR FRACTURES ON THE INTERIOR OF THE PIPE EXCEEDING 2 INCHES IN LENGTH, 1 INCH IN WIDTH, OR A DEPTH MORE THAN 1/4 THE BARREL THICKNESS.
3. CRACKS SUFFICIENT TO IMPAIR THE STRENGTH, DURABILITY, OR SERVICEABILITY OF THE PIPE.
4. DEFECTS THAT INDICATE IMPERFECT PROPORTIONING, MIXING, AND MOLDING.
5. VARIATIONS OF MORE THAN 1/8 INCH PER LINEAR FOOT IN ALIGNMENT OF A PIPE INTENDED TO BE STRAIGHT.
6. INSECURE ATTACHMENT OF SPURS.
7. DAMAGED ENDS, WHERE SUCH DAMAGE WOULD PREVENT MAKING A SATISFACTORY JOINT.
8. CRACKS, SPLITS, OR DAMAGE OF ANY KIND WHICH MAY IMPAIR THE WATERTIGHT INTEGRITY OF PLASTIC PIPE.

COUPLINGS
WHERE PIPE COUPLINGS ARE REQUIRED TO JOIN PIPES OF DISSIMILAR MATERIAL, THEY SHALL BE FULLY STAINLESS STEEL SHIELDED RUBBER COUPLINGS INTENDED FOR UNDERGROUND USE. COUPLINGS SHALL BE RUBBER UNDERGROUND SEWER COUPLING WITH RUBBER CONFORMING TO ASTM C 425, ASTM C 1173 AND 316 SERIES STAINLESS STEEL CLAMPS WITH NUT AND BOLT OR WORM DRIVE TAKE-UP.

BEDDING MATERIAL
BEDDING MATERIAL SHALL CONSIST OF DURABLE PARTICLES RANGING IN SIZE FROM FINE TO COURSE IN SUBSTANTIALLY UNIFORM COMBINATION. WISDOT 3/4 INCH DENSE GRADED BASE COURSE SUBSECTION 305.2.2.1 IS GENERALLY ACCEPTABLE UNDER THIS SPECIFICATION. SAND DOES NOT MEET THE GRADATION REQUIREMENTS UNDER THIS SPECIFICATION.

SIEVE	PERCENT PASSING
1-INCH	100
3/4-INCH	95-100
3/8-INCH	50-90
NO. 4	35-70
NO. 10	15-55
NO. 40	10-35
NO. 200	5-15

LIFT THICKNESS FOR BEDDING MATERIALS SHALL NOT EXCEED 12 INCHES. BEDDING SHALL BE COMPACTED BY HAND, OR MECHANICALLY COMPACTED BY EQUALLY CAREFUL MEANS, TO A MINIMUM OF 90% OF STANDARD PROCTOR DENSITY. PIPE BEDDING SHALL BE AS FOLLOWS:
1. PLASTIC PIPE PLASTIC PIPE, INCLUDING BUT NOT LIMITED TO PVC AND PE, SHALL BE LAID WITH BEDDING MATERIAL OF ¾" DENSE GRADED BASE PLACED BELOW AND AROUND THE PIPE UP TO THE SPRING LINE IN SUCH A MANNER AS TO PROVIDE ADEQUATE SIDE SUPPORT AND TO PREVENT LATERAL MOVEMENT OF THE PIPE. A LAYER OF ¾" DENSE GRADED BASE SHALL BE SPREAD OVER THE BOTTOM OF THE TRENCH SO THAT AFTER THE PIPE HAS BEEN PLACED THEREON, EMBEDDED TO GRADE, AND ALIGNED, THERE REMAINS A 4 INCH MINIMUM DEPTH OF ¾" DENSE GRADED BASE BELOW THE PIPE BARREL AND A MINIMUM OF 3 INCHES BELOW THE BELL FOR PIPE 36 INCHES IN DIAMETER OR SMALLER AND A MINIMUM OF 6 INCHES BELOW THE PIPE FOR DIAMETERS 36 INCHES OR LARGER. IF EXCAVATION HAS BEEN CARRIED DEEPER THAN 6 INCHES BELOW THE PIPE BARREL, THE EXCESS DEPTH SHALL BE FILLED WITH AGGREGATE. CARE SHALL BE TAKEN TO INSURE THAT THE PIPE DOES NOT REST DIRECTLY ON THE BELL BUT IS UNIFORMLY SUPPORTED THROUGH ITS ENTIRE LENGTH. WOOD FOOT BLOCKS OF 2-INCH MINIMUM THICKNESS MAY BE USED AT JOINTS OF PIPE 36 INCHES IN DIAMETER AND LARGER PROVIDED THAT THE BEDDING MATERIAL IS MECHANICALLY COMPACTED UNDER THE LOWER 90 DEGREE QUADRANT OF THE PIPE. SUPPORTING BLOCKS ARE NOT PERMITTED UNDER PIPE LESS THAN 36 INCHES IN DIAMETER.
2. RCP RCP PIPE SHALL BE BEDDED ACCORDING TO THE SPECIFICATIONS FOR PLASTIC PIPE.
3. DI DI SEWER PIPE SHALL BE BEDDED ACCORDING TO THE SPECIFICATIONS FOR PLASTIC PIPE, EXCEPT THAT BEDDING MATERIAL MAY BE ¾" DENSE GRADED BASE OR COVER MATERIAL.
4. CSCP CSCP SHALL BE BEDDED ACCORDING TO THE SPECIFICATIONS FOR PLASTIC PIPE.

COVER MATERIAL
COVER MATERIAL SHALL CONSIST OF DURABLE PARTICLES RANGING IN SIZE FROM FINE TO COURSE IN SUBSTANTIALLY UNIFORM COMBINATION. WISDOT 3/4 INCH DENSE GRADED BASE COURSE SUBSECTION 305.2.2.1 IS GENERALLY ACCEPTABLE UNDER THIS SPECIFICATION. SAND DOES NOT MEET THE GRADATION REQUIREMENTS UNDER THIS SPECIFICATION.

SIEVE	PERCENT PASSING
1-INCH	100
3/4-INCH	95-100
3/8-INCH	50-90
NO. 4	35-70
NO. 10	15-55
NO. 40	10-35
NO. 200	5-15

LIFT THICKNESS FOR PIPE COVER SHALL NOT EXCEED 12 INCHES. COVER SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 90% OF STANDARD PROCTOR DENSITY.
1. PLASTIC PIPE PLASTIC PIPE, INCLUDING BUT NOT LIMITED TO PVC AND PE, SHALL BE LAID WITH COVER MATERIAL OR ¾" DENSE GRADED BASE PLACED IN NOT LESS THAN TWO STAGES, ONE TO THE TOP OF THE PIPE AND THE OTHER TO A LEVEL AT LEAST 6 INCHES ABOVE THE PIPE FOR SIZES 36 INCHES IN DIAMETER OR SMALLER AND TO A LEVEL AT LEAST 12 INCHES ABOVE THE PIPE WHERE THE PIPE IS LARGER THAN 36 INCHES IN DIAMETER. MATERIAL SHALL BE PLACED BY HAND OR EQUALLY CAREFUL MEANS. IN ORDER TO PROVIDE LATERAL SUPPORT FOR THE PIPE, EACH STAGE OF COVER SHALL BE COMPACTED BY HAND OR MECHANICAL TAMPING TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY. IF THE REMAINING BACKFILL MATERIAL CONTAINS LARGE ROCKS OR BOULDERS, THE SECOND STAGE OF COVER SHALL BE INCREASED TO A LEVEL 12 INCHES ABOVE THE PIPE.
2. RCP RCP SHALL BE COVERED ACCORDING TO THE SPECIFICATIONS FOR PLASTIC PIPE, EXCEPT WHERE PIPE 36 INCHES IN DIAMETER OR LARGER IS INSTALLED, GRANULAR BACKFILL MAY BE USED AS COVER.
3. DI DI SEWER PIPE SHALL BE COVERED ACCORDING TO THE SPECIFICATIONS FOR PLASTIC PIPE, EXCEPT THAT THE COVER MATERIAL SHALL THE SAME MATERIAL USED FOR BEDDING MATERIAL.
4. CSCP CSCP SHALL BE COVERED ACCORDING TO THE SPECIFICATIONS FOR PLASTIC PIPE.

PREPARATION OF SUBGRADE
ALL UNDESIRABLE MATERIAL SUCH AS ORGANIC SOILS, ETC., WHICH CANNOT ADEQUATELY SUPPORT THE MANHOLE SHALL BE REMOVED BELOW THE NORMAL MANHOLE BOTTOM AND REPLACED WITH CRUSHED STONE.WHERE DISTANCE TO STABLE GROUND IS EXCESSIVE, THE ESD RESERVES THE RIGHT TO ORDER OTHER TYPES OF FOUNDATION SUCH AS AN ADDITIONAL POURED BASE AS DEEMED NECESSARY.

MANHOLE BASES
CONCRETE MANHOLE BASES SHALL BE AS FOLLOWS:
1. PRECAST MANHOLE WITH INTEGRAL BASE THE EXCAVATION SHALL BE MADE DEEP ENOUGH SO THAT AFTER THE BOTTOM MANHOLE BARREL SECTION WITH THE INTEGRAL BASE HAS BEEN PLACED THEREON, SET TO GRADE, AND PLUMBED, THERE REMAINS A MINIMUM DEPTH OF BEDDING MATERIAL BELOW THE BOTTOM OF THE BASE EQUAL TO THE DEPTH OF BEDDING MATERIAL OF THE ADJACENT SEWERS. THE ANNULAR SPACE BETWEEN THE MANHOLE EXCAVATION AND THE OUTSIDE MANHOLE WALL SHALL BE BACKFILLED WITH BEDDING MATERIAL UP TO THE SPRING LINE OF THE INCOMING PIPE.
2. FIELD POURED BASE FOR PRECAST MANHOLE THE PRECAST MANHOLE BOTTOM BARREL SHALL BE SET ON CONCRETE BRICK OR SOLID BLOCK SO THAT THE BOTTOM OF THIS SECTION IS BELOW THE SPRING LINE OF THE OUTLET PIPE, SET FOR PROPER LOCATION AND PLUMBED. THE CONCRETE BASE OF CLASS D CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 12 INCHES BELOW THE INVERT OF THE OUTLET SEWER. THE MANHOLE BASE SHALL SUBSTANTIALLY CONFORM TO THE REQUIRED SHAPE AND DIMENSIONS; THE EXCAVATION SHALL BE BACK FORMED, IF NECESSARY, TO ACHIEVE THIS END. IF EXCAVATION IN STABLE SOIL HAS BEEN CARRIED BELOW THE REQUIRED DEPTH, SUCH EXCESS DEPTH SHALL BE FILLED WITH CONCRETE. EXCESS CONCRETE SHALL NOT BE DEPOSITED AROUND THE MANHOLE IN SUCH A MANNER THAT WILL INTERFERE WITH POSSIBLE FUTURE CONNECTIONS. THE PIPE SHALL BE SUPPORTED ON BRICK OR SOLID CONCRETE BLOCKS FOR THE POURING OF THE CONCRETE BASE. THE CONCRETE SUPPORT FOR RIGID PIPE SHALL END IN A VERTICAL PLANE FLUSH WITH THE FACE OF THE PIPE BELL.
3. SEPARATE CONCRETE BASE SLAB SEPARATE CONCRETE BASE SLABS SHALL NOT GENERALLY BE ACCEPTABLE UNDER THESE SPECIFICATIONS.

FLOW CHANNEL
THE FLOW CHANNEL THROUGH MANHOLES SHALL BE MADE TO CONFORM TO THE SHAPE OF THE CONNECTING SEWERS AND SHALL EXTEND VERTICALLY FROM THE SPRINGLINE TO THE CROWN OF THE DISCHARGE PIPE. A MINIMUM UNIFORM DROP OF 0.10 FEET SHALL BE PROVIDED IN THE FLOW CHANNEL BETWEEN THE ENTERING SEWER AND THE DISCHARGE SEWER. THE THROUGH MANHOLE FLOW CHANNEL SHALL BE THE SAME DIAMETER AS THE LARGER OF THE ADJOINING SEWERS.

DROP PIPE
AN OUTSIDE DROP PIPE SHALL BE PROVIDED FOR A SEWER ENTERING A MANHOLE WHERE THE INVERT ELEVATION OF THE ENTERING SEWER IS 2 FEET OR MORE ABOVE THE SPRINGLINE OF THE OUTGOING SEWER. THE ENTIRE DROP PIPE CONNECTION SHALL BE ENCASED IN CONCRETE. THE DROP PIPE SHALL BE THE SAME DIAMETER AS THE INCOMING SEWER UNLESS OTHERWISE SPECIFIED. AN INSIDE DROP PIPE SHALL NOT BE USED WITHOUT THE APPROVAL OF THE ESD.

PIPE TO MANHOLE CONNECTION
CONNECTION SHALL BE WATER TIGHT IN ALL MANHOLES. PENETRATIONS IN MANHOLES SHALL BE CORED OR PREFORMED.

THE MANHOLE CONNECTION OF PIPE SEWERS SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING:
1. NONFLEXIBLE CONNECTIONS OF RIGID PIPE WHEN RIGID PIPE IS CONNECTED TO A CONCRETE BRICK, BLOCK, OR PRECAST MANHOLE WITHIN THE MANHOLE BASE, IT SHALL BE SUPPORTED ON BRICK OR SOLID CONCRETE BLOCKS FOR THE POURING OF THE CONCRETE BASE. THE CONCRETE OF THE BASE SHALL BE EXTENDED UNDER THE PIPE AND END IN A VERTICAL PLANE FLUSH WITH THE FACE OF THE PIPE BELL. WHERE PIPE ENTERS THE MANHOLE ABOVE THE MANHOLE BASE, IT SHALL BE SUPPORTED FROM THE WALL OF THE MANHOLE TO THE FACE OF THE FIRST PIPE JOINT BELL WITH A WALL OF BACKFILL, CONCRETE, BRICK, OR SOLID CONCRETE BLOCK COLUMNS. CONNECTIONS SHALL BE AS FOLLOWS:
   a. SANITARY WHEN CONNECTING RIGID PIPE TO A PRECAST MANHOLE THE CONNECTION SHALL BE BY MEANS OF AN APPROVED FLEXIBLE WATERTIGHT PIPE TO MANHOLE SEAL FOR PIPE DIAMETERS UP TO 24 INCHES IN 48-INCH MANHOLES. THIS SEAL SHALL MEET THE PHYSICAL REQUIREMENTS OF ASTM C923. LARGER DIAMETER PIPE CONNECTIONS SHALL BE AS SHOWN ON THE CONTRACT DRAWINGS.
   CONNECTIONS OF RIGID PIPE TO BRICK OR BLOCK MANHOLES SHALL BE BY MEANS OF BRICK AND MORTAR. A MINIMUM OF WATER SHALL BE ADDED TO THE MORTAR TO PRODUCE A LUMPY TEXTURE. MORTAR SHALL BE PACKED IN AND TROWELED OFF.
   b. STORM WHEN CONNECTING RIGID PIPE TO STORM MANHOLES, THE CONNECTION SHALL BE BY MEANS OF BRICK AND MORTAR.
2. FLEXIBLE CONNECTION OF PIPE ALL PLASTIC PIPE SHALL BE CONNECTED TO PRECAST MANHOLES BY MEANS OF AN APPROVED FLEXIBLE WATERTIGHT PIPE TO MANHOLE SEAL. THIS SEAL SHALL MEET THE PHYSICAL REQUIREMENTS OF ASTM C-443 AND THE PERFORMANCE REQUIREMENTS OF ASTM C-425 AND C-433. PIPE ENTERING A MANHOLE THROUGH THIS SEAL SHALL BE LAID IN ACCORDANCE WITH THE BEDDING SECTION REQUIREMENTS AND SHALL NOT BE RIGIDLY SUPPORTED AS REQUIRED FOR NONFLEXIBLE CONNECTIONS. TO MAINTAIN THE SEAL FLEXIBILITY THAT PORTION OF THE ANNULAR SPACE BETWEEN THE PIPE AND THE MANHOLE WALL BELOW THE SPRINGLINE OF THE PIPE SHALL BE PLUGGED WITH BUTYL RUBBER GASKET MATERIAL PRIOR TO THE PLACING OF CONCRETE IN THE MANHOLE (FOR FIELD POURED BASE OR INVERTS).

BULKHEAD
UNLESS OTHERWISE SPECIFIED, BULKHEADS SHALL BE CONSTRUCTED TO FORM A WATERTIGHT 8-INCH THICK WALL OF MORTAR AND OF EITHER CLAY BRICK OR CONCRETE BRICK.

REJECTION MANHOLE RISERS AND TOPS
PRECAST MANHOLE RISERS AND TOPS SHALL BE SUBJECT TO REJECTION FOR FAILURE TO CONFORM TO ANY OF THE SPECIFICATION REQUIREMENTS. IN ADDITION, INDIVIDUAL SECTIONS OF MANHOLE RISERS AND TOPS MAY BE REJECTED BECAUSE OF ANY OF THE FOLLOWING REASONS:
1. FRACTURE OR CRACKS PASSING THROUGH THE WALL, EXCEPT FOR A SINGLE END CRACK THAT DOES NOT EXCEED THE DEPTH OF THE JOINT.
2. DEFECTS THAT INDICATE IMPERFECT PROPORTIONING, MIXING, AND MOLDING.
3. SURFACE DEFECTS INDICATING HONEYCOMBED OR OPEN TEXTURE.
4. DEFECTIVE OR DAMAGED ENDS, WHERE SUCH DEFECT OR DAMAGE WOULD PREVENT MAKING A SATISFACTORY JOINT.
5. MANHOLE STEPS OUT OF LINE OR NOT PROPERLY SPACED.
6. DEFECTS ALLOWING INFILTRATION.
7. THE INTERNAL DIAMETER OF THE MANHOLE SECTION SHALL NOT VARY MORE THAN ONE PERCENT FROM THE NOMINAL DIAMETER. ANY VARIATION IN DIAMETER WHICH WOULD PREVENT MAKING A SATISFACTORY JOINT SHALL BE CONSIDERED CAUSE FOR REJECTION.
8. ANY CONTINUOUS CRACK HAVING SURFACE WIDTH OF 0.01-INCH OR MORE AND EXTENDING FOR A LENGTH OF 12 INCHES OR MORE REGARDLESS OF POSITION IN THE SECTION WALL.

MANHOLE STEP ALIGNMENT, SPACING, AND PROJECTION
MANHOLE STEPS SHALL BE INSTALLED IN ALL MANHOLES AND STRUCTURES IN EXCESS OF 4 FEET DEEP, AND BE ALIGNED SO AS TO FORM A CONTINUOUS LADDER WITH THE MANHOLE STEPS EQUALLY SPACED VERTICALLY IN THE COMPLETED MANHOLE AT A DESIGN DISTANCE OF 16 INCHES ON CENTER AND SHALL BE CENTERED OVER THE DISCHARGE PIPE.
THE STEPS SHALL PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL OF THE RISER OR CONE SECTION MEASURED FROM THE POINT OF EMBEDMENT.

MANHOLE STEPS
STEPS SHALL BE STEEL REINFORCED PLASTIC MANHOLE STEPS OR GRAY CAST IRON MANHOLE STEPS.
1. STEEL REINFORCED PLASTIC MANHOLE STEPS SHALL BE MADE WITH AN APPROVED PLASTIC SUCH AS COPOLYMER POLYPROPYLENE REINFORCED WITH A 1/2-INCH DIAMETER DEFORMED REINFORCING BAR.
2. GRAY CAST IRON MANHOLE STEPS SHALL BE MADE OF GRAY CAST IRON AND SHALL HAVE MINIMUM CROSS SECTIONAL DIMENSION (DIAMETER) OF 1 INCH IN ANY DIRECTION.

GRADES FOR SETTING MANHOLE FRAMES
THE MANHOLE FRAME SHALL BE SET AT THE ELEVATION GIVEN ON THE PLAN OR, WHEN NO SUCH ELEVATION IS GIVEN, THEY SHALL BE SET AS FOLLOWS:
1. WITHIN A TRAVELED ROADWAY WITHIN A TRAVELED ROADWAY OR IN THE SHOULDERS OF A HIGHWAY, THE TOP OF THE MANHOLE FRAME SHALL BE SET 3/8-INCH BELOW THE SHOULDER OR PAVEMENT SURFACE.
2. IN OTHER LOCATIONS IN OTHER LOCATIONS, THE TOP OF THE FRAME SHALL BE SET AT THE PROPOSED OR ESTABLISHED GRADE, WHICHEVER IS HIGHER.

CHIMNEY
A CHIMNEY HAVING A MINIMUM HEIGHT OF 6 INCHES AND A MAXIMUM HEIGHT OF 16 INCHES, CONSTRUCTED OF PRECAST CONCRETE ADJUSTING RINGS SHALL BE BUILT ON TOP OF THE CORBEL SECTION OR FLAT SLAB UP TO THE ELEVATION AT WHICH THE FRAME IS SET. THE CHIMNEY SHALL BE CONSTRUCTED SO THAT AS FEW ADJUSTING RINGS AS POSSIBLE SHALL BE USED TO BRING THE MANHOLE TO GRADE.

ADJUSTING RINGS
CONCRETE ADJUSTING RINGS SHALL SUBSTANTIALLY CONFORM TO THE DIAMETER DIMENSIONS OF THE RESPECTIVE MANHOLE CORBEL AND SHALL HAVE HEIGHT OF 2 TO 6 INCHES. CONCRETE ADJUSTING RINGS SHALL BE REINFORCED WITH NO. 2 REINFORCING ROD CENTERED WITHIN THE RING. CRACKS, EXPOSED BAR, OR OTHER DAMAGE OR DEFECT; SHALL BE CONSIDERED CAUSE FOR REJECTION OF ADJUSTING RINGS. THE CONTRACTOR SHALL WIRE BRUSH AND WIPE CLEAN ADJUSTING RINGS TO REMOVE SURFACE CONTAMINANTS PRIOR TO PLACEMENT AND SHALL MOISTEN THE ADJUSTING RINGS TO RECEIVE MORTAR.

CASTINGS
CONFORM TO REQUIREMENTS OF ASTM A48, CLASS 30-B, AND BE FREE FROM CRACKS, HOLES, SWELLS, AND COLD SHUTS.
THE MANHOLE CASTING SHALL CONFORM TO CHAPTER 3.5.4(E) OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, SIXTH EDITION WITH ADDENDUM NO. 1 AND NO. 2
ASSEMBLY, DIMENSIONS, DETAILS, WEIGHT, AND CLASS: AS INDICATED IN THE PLAN DETAIL DRAWINGS.
THE CASTING COVER TO FRAME SURFACES SHALL BE MACHINE MILLED TO PROVIDE TRUE BEARING AROUND THE ENTIRE CIRCUMFERENCE. THE CASTING SHALL BE "SELF-SEALING," STAMPED "SANITARY SEWER" WITH TWO (2) INCH LETTERS, CONTAIN TWO (2) CONCEALED PICK HOLES, AND BE NON-ROCKING.

FRAME / CHIMNEY JOINTS
ALL FRAME/CHIMNEY JOINTS FOR STORM SEWER STRUCTURES SHALL BE A TYPE III FRAME/CHIMNEY JOINT. ALL FRAME/CHIMNEY JOINTS FOR SANITARY SEWER MANHOLES SHALL BE TYPE III FRAME/CHIMNEY JOINT WITH AN APPROVED MANUFACTURED INTERNAL CHIMNEY SEAL.
1. TYPE III THE FRAME SHALL BE SET IN A BED OF FRESH MORTAR COVERING FULL WIDTH AND CIRCUMFERENCE OF THE CHIMNEY MATING SURFACE. MORTAR SHALL BE IN CONFORMANCE AS DETAILED ON THIS PAGE. AN ELASTOMERIC WATERPROOF SEAL SHALL BE APPLIED TO THE EXTERIOR OF THE CHIMNEY.

INTERNAL CHIMNEY SEAL
CHIMNEY SEALS SHALL BE MANUFACTURED SEALS INSTALLED ON NEW OR EXISTING SANITARY MANHOLES. THE FLEXIBLE PORTION OF THE SEAL SHALL BE NATURAL OR SYNTHETIC RUBBER CONFORMING TO APPLICABLE REQUIREMENTS OF ASTM C-923. ALL METAL PARTS SHALL BE TYPE 304 STAINLESS STEEL. THE SEAL SHALL PREVENT LEAKAGE OF WATER INTO THE MANHOLE AT THE AREA OF THE JOINT BETWEEN THE MANHOLE FRAME, CHIMNEY, AND CORBEL CONTINUOUSLY THROUGHOUT A 20-YEAR DESIGN LIFE. THE SEAL SHALL REMAIN FLEXIBLE WHILE ALLOWING REPEATED VERTICAL MOVEMENTS OF THE FRAME OF UP TO TWO INCHES OCCURRING AT RATES NOT LESS THAN 0.10 INCHES PER MINUTE.

ELASTOMERIC WATERPROOFING SEAL
ALL MASONRY WORK SHALL BE CURED A MINIMUM OF 24 HOURS PRIOR TO APPLYING AN ELASTOMERIC WATERPROOFING SEAL. ALL SURFACES SHALL BE CLEANED AND PRIMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. ELASTOMERIC WATERPROOFING SEALER SHALL BE APPLIED SO THAT IT FORMS A CONTINUOUS MEMBRANE, 100-MIL THICK, EXTENDING FROM A POINT 4 INCHES BELOW THE CHIMNEY TO A POINT 2 INCHES ABOVE THE FRAME FLANGE. THE ESD RESERVES THE RIGHT TO REQUIRE BOND BREAKER (DUCT TAPE) BE PLACED COMPLETELY AROUND THE MANHOLE CIRCUMFERENCE AND CENTERED OVER THE MORTAR JOINT BETWEEN THE FRAME AND CHIMNEY OR CONE. ADJACENT BACKFILL SHALL NOT BE PLACED WITHIN 24 HOURS OF APPLYING THE SEALER.

MORTAR
MORTAR SHALL BE "TYPE S" OR MORTAR DESIGNED FOR BELOW GRADE UTILITY OR SEWER APPLICATIONS. TO BE USED IN CONNECTION OF RIGID PIPE TO MANHOLES NOT IN ACTIVE SERVICE, FOR CONSTRUCTION OF CHIMNEY JOINTS, AND FOR BACK PLASTERING. MORTAR SHALL BE TWO (2) PARTS SAND AND ONE PART OF EITHER A MIXTURE OF 50 PERCENT PORTLAND CEMENT/ 50 PERCENT MASONRY CEMENT OR A MIXTURE OF 75 PERCENT PORTLAND CEMENT/ 25 PERCENT HYDRATED LIME AND SHALL BE CAREFULLY PROPORTIONED BY VOLUME. PREPACKAGED COMPLETELY BLENDED MORTAR MEETING ASTM C-270 PROPERTY TYPE M MAY BE SUBSTITUTED FOR SITE MIXED COMPONENT MORTAR. MORTAR SHALL BE MACHINE MIXED FOR THREE (3) TO FIVE (5) MINUTES, EXCEPT THAT MANUFACTURERS MIXING INSTRUCTIONS SHALL SUPERCEDE THIS SPECIFICATION. ABOVE GRADE MASONRY MORTAR SHALL NOT BE CONSIDERED GENERALLY ACCEPTABLE UNDER THIS DEFINITION.

SPEED CRETE BLUE LINE, OR APPROVED EQUAL "WATERSTOP" OR HYDRAULIC CEMENT MATERIAL INTENDED FOR UNDERWATER USE, SHALL BE USED FOR NON-FLEXIBLE CONNECTION OF RIGID PIPE TO MANHOLES IN SERVICE. ALL MORTAR SHALL BE SMOOTH TROWEL FINISHED.

CONCRETE
PORTLAND CEMENT CONCRETE SHALL BE COMPOSED OF A MIXTURE OF PORTLAND CEMENT, FINE AND COURSE AGGREGATES, AND WATER. THE AIR CONTENT SHALL BE BETWEEN 4.5% AND 7.5%. AGGREGATE GRADATIONS SHALL MEET ASTM C-33 SIZE 67 OR SIZE 467.
1. GRADE A CONCRETE GRADE A CONCRETE SHALL CONTAIN A MINIMUM OF 7.0 BAGS OF CEMENT PER CUBIC YARD. SLUMP SHALL BE 3"-4". MINIMUM OF 3 CYLINDERS SHALL BE MADE BY THE CONTRACTOR IN ACCORDANCE WITH ASTM C-31 FOR EACH POUR. NOT LESS THAN 2 CYLINDERS SHALL BE TESTED FOR 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH ASTM C-39 FOR EACH POUR. GRADE A CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.

CONSTRUCTION QUALITY TESTING
PROJECT ACCEPTANCE SHALL NOT OCCUR UNTIL ALL OF THE CONSTRUCTION QUALITY TESTING REPORTS HAVE BEEN DELIVERED AND APPROVED BY THE ESD. PERSONNEL CERTIFIED FOR THE APPLICABLE CLASS OF TESTING SHALL PERFORM CONSTRUCTION QUALITY TESTING. ALL CONSTRUCTION QUALITY TESTING MUST BE PERFORMED UNDER THE OBSERVATION OF THE ESD (THIS REQUIREMENT DOES NOT APPLY TO MATERIALS TESTING SUCH AS GRADATION TESTING, CONCRETE COMPRESSIVE STRENGTH TESTING, AND OTHER LABORATORY TESTING) AND WRITTEN NOTICE MUST BE PROVIDED TO THE ESD 3 BUSINESS DAYS PRIOR TO TESTING. ALL CONSTRUCTION QUALITY TESTING REPORTS SHALL INCLUDE TESTING METHODS AND RESULTS OF THE TESTING. THE REPORTS SHALL CLEARLY INDICATE ANY DEFICIENCIES OBSERVED.

1. DEFLECTION TESTING DEFLECTION TESTS SHALL BE PERFORMED FOR FLEXIBLE PIPE INSTALLATIONS. THE DEFLECTION TEST SHALL BE PERFORMED USING A RIGID BALL OR A MANDREL AND SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. IF DEFLECTION TESTING OCCURS WITHIN 30 DAYS OF PLACEMENT OF THE FINAL BACKFILL, DEFLECTION MAY NOT EXCEED 5%. MAXIMUM DEFLECTION MAY NOT EXCEED 7.5% WHEN TESTING OCCURS MORE THAN 30 DAYS AFTER PLACEMENT OF THE FINAL BACKFILL.
2. TELEVISING TELEVISING INSPECTION SHALL BE PERFORMED FOR ALL SEWER INSTALLATIONS. DIGITAL VIDEO AND A TELEVISING REPORT SHALL BE SUBMITTED FOR EACH INSPECTION. ANALOG VIDEO IS GENERALLY NOT ACCEPTABLE UNDER THIS SPECIFICATION. THE VIDEO SHALL BE PRODUCED SUCH THAT THE DISPLAY INDICATES THE DATE OF TELEVISING, LINE NUMBER, DIRECTION OF TRAVEL, AND RELATIVE POSITION (FOOTAGE COUNT) OF THE CAMERA FOR THE DURATION OF TELEVISING. THE VIDEO SHALL BE PRODUCED WITH A "CRAWLER" OR "TRACTOR" TYPE CAMERA, OR OTHER DEVICE APPROVED BY THE ESD, SO THAT THE CAMERA RETAINS A GENERALLY VERTICAL ALIGNMENT. THE DEVICE SHALL MAINTAIN THE CAMERA NEAR THE CENTER OF THE PIPE BEING INSPECTED. THE RESOLUTION, LIGHTING, AND CONTRAST SHALL BE ADEQUATE TO CAPTURE DETAILS WITHIN THE PIPE. THE USE OF "PAN AND TILT" IS REQUIRED FOR ALL INSPECTIONS. BLACK AND WHITE VIDEO DOES NOT MEET THE REQUIREMENTS OF THIS SPECIFICATION.
3. LEAKAGE TESTING GROUNDWATER INFILTRATION INTO GRAVITY SEWER SYSTEMS SHALL BE MINIMIZED. ALL SANITARY SEWERS, EXCEPT RELAYS WITH ACTIVE CONNECTED BUILDING SEWERS, SHALL BE LEAKAGE TESTED IN ACCORDANCE WITH CHAPTER 3.7.0 OF THE MOST CURRENT EDITION OF STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN.

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (2)	125+82.53	57.00 LT	279+42.80	43.00 RT	302737.482	148465.237	30.0'
POINT - (3)	125+83.03	50.00 RT	280+49.80	43.00 RT	302737.231	148572.238	30.0'
POINT - (4)	126+68.51	62.00 LT	279+38.20	43.00 LT	302823.493	148460.834	30.0'
POINT - (5)	126+69.03	50.00 RT	280+50.20	43.00 LT	302823.229	148572.835	30.0'
POINT - (6)	127+22.94	2.00 LT	279+98.45	97.16 LT	302877.507	148521.211	2.0'

= CLEARING AND GRUBBING

BEGIN CONSTRUCTION
STA 278+80.00
MATCH EXISTING
SAWCUT REQ'D

N

279+00

6.0' 9.0' 13.0' 13.0' 8.5' 6.0'

N 21ST STREET

S89°51'54"E

CONCRETE CURB & GUTTER 30-INCH TYPE D (TYP)

PEDESTRIAN CURB

STA 125'NB'+94.18
-65.20' LT

STA 125'NB'+93.18
-50.17' LT

STA 125'NB'+77.85
-46.51' LT

STA 125'NB'+73.71
-40.00' LT

STA 126+25.80 HAMMOND AVE =
STA 280+00.00 N 21ST ST

SWL & P

EXIST R/W

645.36
645.41
645.46
645.52
645.61
645.41
645.38
645.34
645.30
645.26

PI: 125+75.28 SB'

PI: 126+74.87 SB'

STA 126'NB'+75.61
-40.00' LT

14.7'

125'SB'
N0°23'52"E
125'NB'

126'SB' N1°20'11"W
126'NB' N0°23'52"E

127'SB' N0°23'52"W
127'NB'

STA 127'NB'+70.74
-12.00' LT

STA 127'NB'+20.94
-3.69' LT

9.0'
16.8'

HAMMOND AVENUE

645.60
645.45
645.41
645.37
645.34

STA 125'NB'+69.04
32.00' RT

645.27
645.31
645.34
645.38
645.32

STA 126'NB'+80.93
29.00' RT

CAUTION

EXIST R/W

SLOPE INTERCEPT (TYP)

CAN (COMMUNITY AREA NETWORK)

NORVADO

6.0' 10.4' 13.0' 13.0' 8.0' 6.0'

CONCRETE CURB & GUTTER 6-INCH SLOPED 18-INCH TYPE J MODIFIED (TYP)

END CONSTRUCTION
STA 280+65.00
MATCH EXISTING
SAWCUT REQ'D

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 21ST STREET	SHEET Page 14 of 207	E

2

N

SLOPE INTERCEPT (TYP)

STA 129+56.69 HAMMOND AVE =
STA 290+00.00 LINCOLN ST

CONCRETE CURB & GUTTER 30-INCH
TYPE D (TYP)

SWL & P

EXIST R/W

6.58 HAMMOND AVE =
0.00 N 20TH ST

STA 127'NB'+70.74
-12.00' L

128'SB'

129'SB'

N0°23'52"E

130'SB'

10.0'

128'NB'

129'NB'

130'NB'

N0°23'52"E

HAMMOND AVENUE

HAMMOND AVENUE

644.01

644.46

644.38

644.41

644.35

644.32

644.22

644.25

644.28

644.31

644.26

CAUTION

7

8

6.0'

9.5'

13.0'

13.0'

8.0'

6.0'

LINCOLN STREET

S89°44'49"E

EXIST R/W

CAN (COMMUNITY AREA NETWORK)

= CLEARING AND GRUBBING

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

END CONSTRUCTION
STA 290+70.00
MATCH EXISTING
SAWCUT REQ'D

291+00

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (7)	129+18.67	45.00 RT	290+45.01	38.00 RT	303072.906	148569.568	25.0'
POINT - (8)	129+94.67	45.00 RT	290+44.99	38.00 LT	303148.904	148570.096	25.0'
POINT - (9)	129+76.18	8.33 LT	0+00.00	0.00	303130.782	148516.636	2.0'
POINT - (10)	129+76.18	3.67 LT	0+00.00	0.00	303130.750	148521.302	2.0'
POINT - (11)	129+90.18	8.33 LT	0+00.00	0.00	303144.782	148516.733	2.0'
POINT - (12)	129+90.18	3.67 LT	0+00.00	0.00	303144.750	148521.399	2.0'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - LINCOLN STREET	SHEET Page 15 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 02
PLOT DATE : 11/17/2023 7:39 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (13)	130+61.62	57.00 LT	299+43.02	35.00 RT	303216.558	148468.563	25.0'
POINT - (14)	131+31.62	57.00 LT	299+42.98	35.00 LT	303286.556	148469.049	25.0'
POINT - (15)	131+18.09	8.33 LT	299+91.65	21.50 LT	303272.687	148517.621	2.0'
POINT - (16)	131+18.09	3.67 LT	299+96.32	21.50 LT	303272.652	148522.287	2.0'
POINT - (17)	131+32.09	8.33 LT	299+91.64	35.50 LT	303286.687	148517.718	2.0'
POINT - (18)	131+32.09	3.67 LT	299+96.31	35.50 LT	303286.651	148522.385	2.0'

N

SLOPE INTERCEPT (TYP)

EXIST R/W

N 20TH STREET

298+00

299+00

S89°33'54"E

N0°23'52"E

131'SB' N0°23'52"E

5.0'

13.5'

10.0'

12.5'

5.0'

10.0'

643.78

643.81

643.84

643.87

643.83

643.83

643.86

643.89

643.93

644.01

14

13

17 18

15 16

SWL & P

UNK

3/4" UNK

CAUTION

15"X23" BRICK SAN

10" VCP SAN

6" PVC SAN

BEGIN CONSTRUCTION
STA 297+65.00
MATCH EXISTING
SAWCUT REQ'D

CONCRETE CURB & GUTTER 30-INCH
TYPE D (TYP)

STA 130+96.58 HAMMOND AVE =
STA 300+00.00 N 20TH ST

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

CAN (COMMUNITY AREA NETWORK)

HAMMOND AVENUE

5.0' 5.5' 20.0' 12.0' 20.0' 6.5' 9.0'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 20TH STREET	SHEET Page 16 of 207 E

2

N

SLOPE INTERCEPT (TYP)

SWL & P

EXIST R/W

STA 132+86.96 HAMMOND AVE =
STA 300+00.00 N 20TH ST

14

643.81

643.78

5.0'

6.0'

20.0'

12.0'

20.0'

6.5'

9.0'

10.0'

N0°23'52"E

132'SB'

133'SB'

134'SB'

132'NB'

133'NB'

134'NB'

17

18

21

22

23

24

HAMMOND AVENUE

643.40

643.31

643.27

643.23

643.19

643.16

643.19

643.22

643.22

643.19

CAUTION

19

20

EXIST R/W

CAN (COMMUNITY AREA NETWORK)

N 20TH STREET

S89°35'19"E

6.0'

9.5'

13.0'

13.0'

9.0'

6.0'

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

CONCRETE CURB & GUTTER 30-INCH
TYPE D (TYP)

END CONSTRUCTION
STA 300+75.00
MATCH EXISTING
SAWCUT REQ'D

301+00

= CLEARING AND GRUBBING

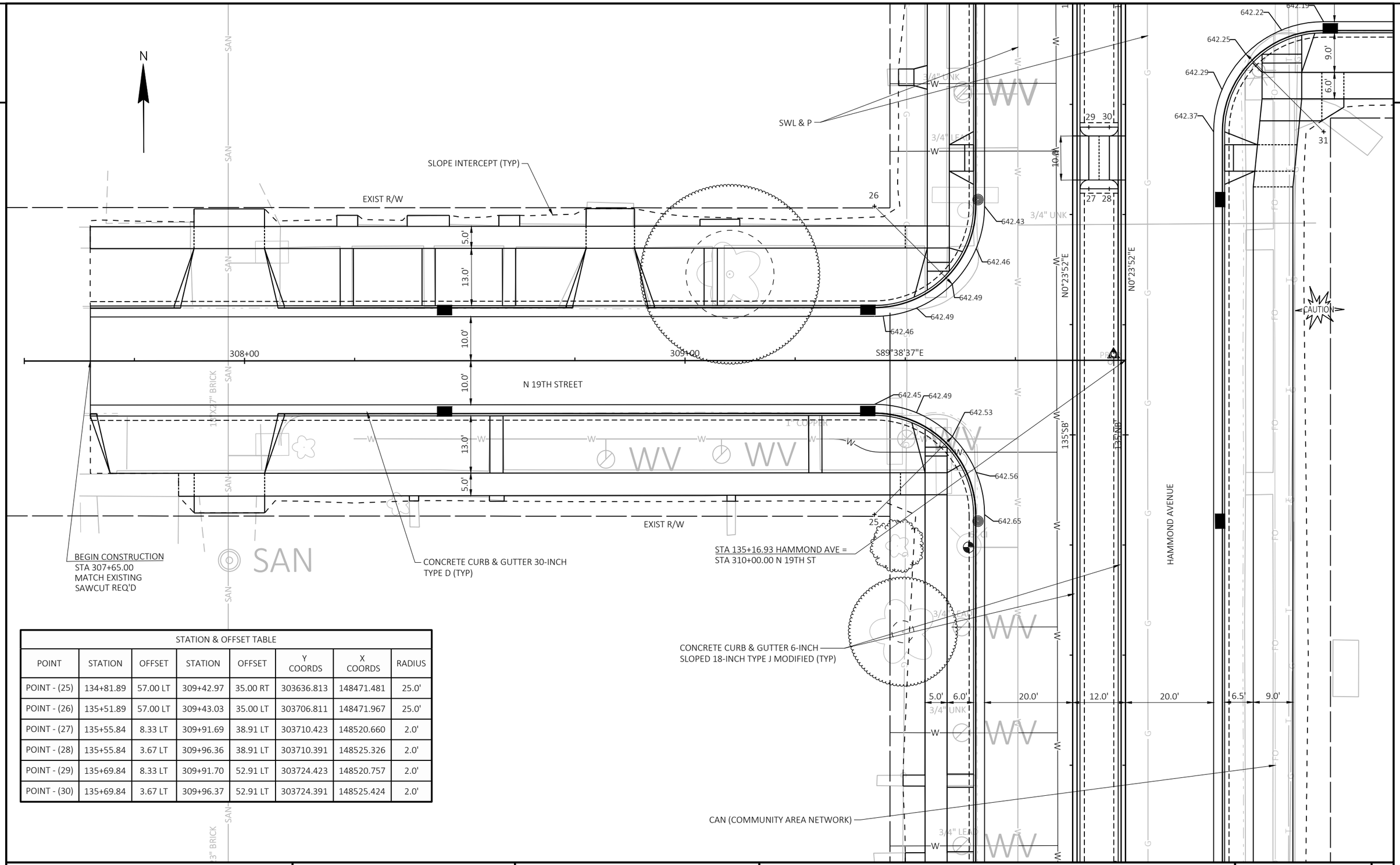
STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (19)	132+48.95	45.00 RT	300+45.01	38.00 RT	303403.171	148571.861	25.0'
POINT - (20)	133+24.95	45.00 RT	300+44.99	38.00 LT	303479.169	148572.389	25.0'
POINT - (21)	133+07.46	8.33 LT	0+00.00	0.00	303462.052	148518.935	2.0'
POINT - (22)	133+07.46	3.67 LT	0+00.00	0.00	303462.019	148523.602	2.0'
POINT - (23)	133+21.46	8.33 LT	0+00.00	0.00	303476.052	148519.033	2.0'
POINT - (24)	133+21.46	3.67 LT	0+00.00	0.00	303476.019	148523.699	2.0'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 20TH STREET	SHEET Page 17 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 04

PLOT DATE : 11/17/2023 7:40 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42



STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (25)	134+81.89	57.00 LT	309+42.97	35.00 RT	303636.813	148471.481	25.0'
POINT - (26)	135+51.89	57.00 LT	309+43.03	35.00 LT	303706.811	148471.967	25.0'
POINT - (27)	135+55.84	8.33 LT	309+91.69	38.91 LT	303710.423	148520.660	2.0'
POINT - (28)	135+55.84	3.67 LT	309+96.36	38.91 LT	303710.391	148525.326	2.0'
POINT - (29)	135+69.84	8.33 LT	309+91.70	52.91 LT	303724.423	148520.757	2.0'
POINT - (30)	135+69.84	3.67 LT	309+96.37	52.91 LT	303724.391	148525.424	2.0'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 19TH STREET	SHEET		E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 05
PLOT DATE : 11/17/2023 7:40 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

2

N

5.0' 5.5' 20.0' 12.0' 20.0' 6.5' 9.0'

SWL & P

137'SB'

137'NB

HAMMOND AVENUE

CAN (COMMUNITY AREA NETWORK)

3/4" UNK

SLOPE INTERCEPT (TYP)

CONCRETE CURB & GUTTER 30-INCH
TYPE D (TYP)

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

642.13

32

EXIST R/W

642.16

5.0'

10.2'

642.19

642.22

642.19

13.0'

STA 136+06.76 HAMMOND AVE =
STA 310+00.00 N 19TH ST

S89°37'26"E

311+00

N 19TH STREET

136'SB'

136'NB

642.22

642.19

13.0'

642.25

9.0'

642.29

6.0'

642.37

31

EXIST R/W

END CONSTRUCTION
STA 310+75.00
MATCH EXISTING
SAWCUT REQ'D

29 30

10.0'

27 28

CAUTION

26

642.43

642.46

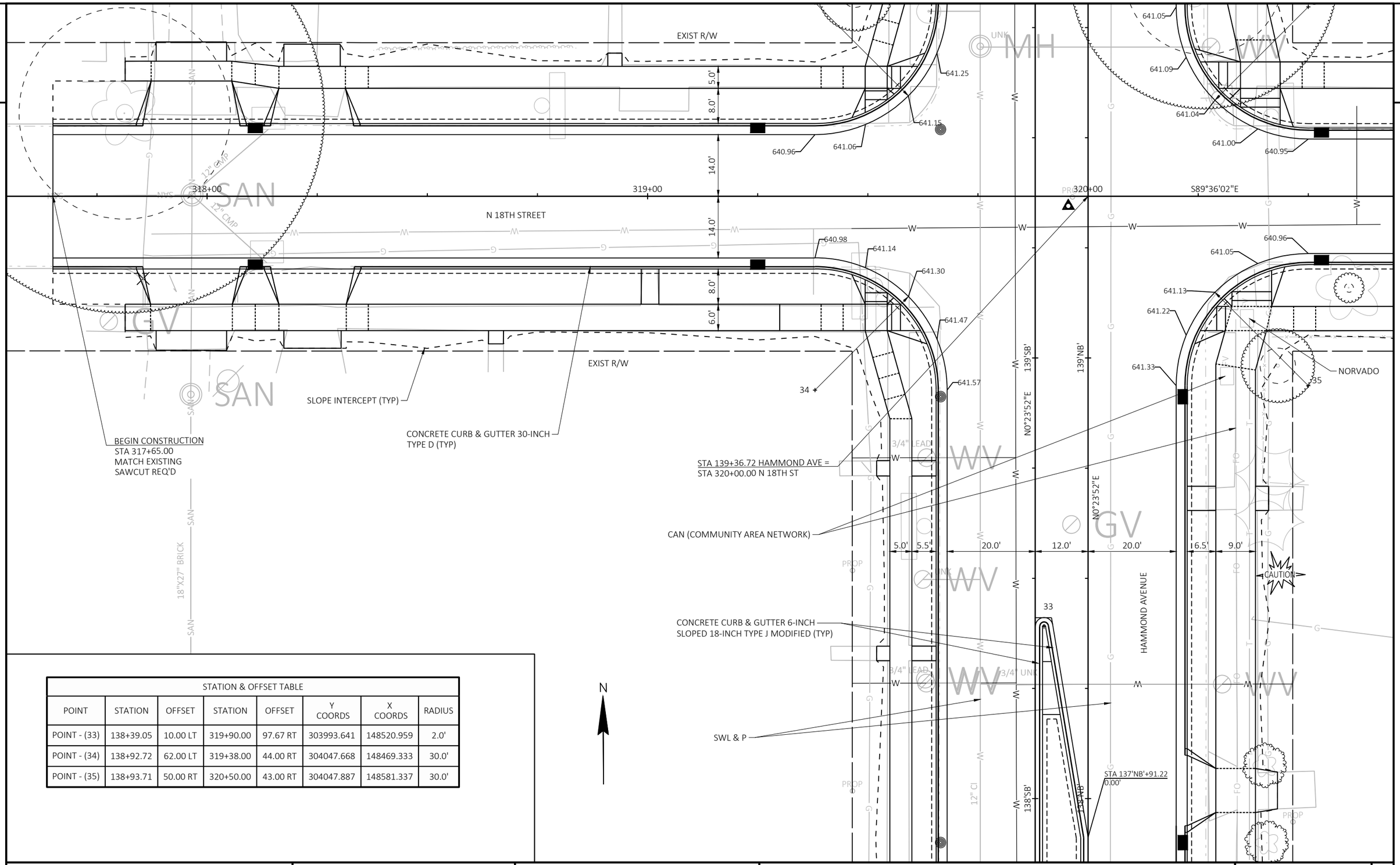
642.49

N0°23'52"E

N0°23'52"E

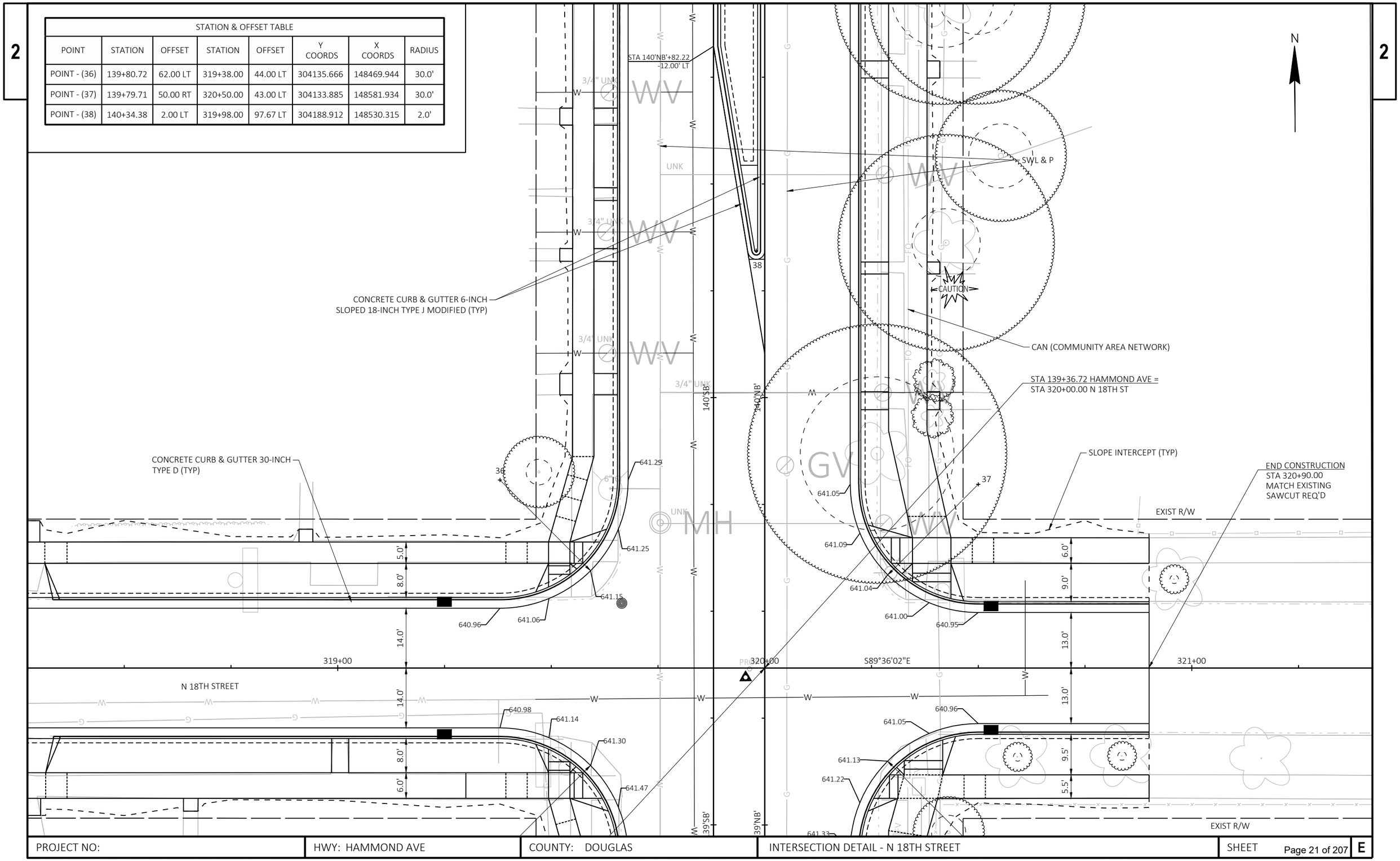
STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (31)	135+68.78	45.00 RT	310+44.99	38.00 RT	303722.998	148574.082	25.0'
POINT - (32)	136+44.78	45.00 RT	310+45.01	38.00 LT	303798.996	148574.609	25.0'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 19TH STREET	SHEET	Page 19 of 207	E



STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (33)	138+39.05	10.00 LT	319+90.00	97.67 RT	303993.641	148520.959	2.0'
POINT - (34)	138+92.72	62.00 LT	319+38.00	44.00 RT	304047.668	148469.333	30.0'
POINT - (35)	138+93.71	50.00 RT	320+50.00	43.00 RT	304047.887	148581.337	30.0'

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (36)	139+80.72	62.00 LT	319+38.00	44.00 LT	304135.666	148469.944	30.0'
POINT - (37)	139+79.71	50.00 RT	320+50.00	43.00 LT	304133.885	148581.934	30.0'
POINT - (38)	140+34.38	2.00 LT	319+98.00	97.67 LT	304188.912	148530.315	2.0'



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 18TH STREET	SHEET Page 21 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 06a

PLOT DATE : 11/17/2023 7:40 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (39)	142+28.70	45.00 RT	330+45.02	38.00 RT	304382.904	148578.663	25.0'
POINT - (40)	143+04.70	45.00 RT	330+44.98	38.00 LT	304458.902	148579.191	25.0'

2

N

CONCRETE CURB & GUTTER 30-INCH
TYPE D (TYP)

SWL & P

STA 142+66.72 HAMMOND AVE =
STA 330+00.00 N 17TH ST

STA 143+57.16 HAMMOND AVE =
STA 330+00.00 N 17TH ST

EXIST R/W

PROP

3/4" UNK

12" CI

141'SB'

142'SB'

143'SB'

141'NB'

142'NB'

143'NB'

10.0'

41

42

43

44

45

46

639.56

639.66

639.76

639.80

639.85

329+00

S89°41'12"E

639.54

639.59

639.64

639.69

639.72

5.0'

13.0'

10.0'

10.0'

12.5'

5.0'

N0°23'52"E

HAMMOND AVENUE

640.25

640.16

640.05

639.93

639.81

640.01

639.97

639.90

639.83

639.76

39

40

6.0'

9.0'

13.0'

13.0'

10.0'

5.0'

CAUTION

EXIST R/W

SLOPE INTERCEPT (TYP)

CAN (COMMUNITY AREA NETWORK)

step to do-su y needed

CONCRETE CURB PEDESTRIAN

END CONSTRUCTION
STA 330+85.00
MATCH EXISTING
SAWCUT REQ'D

N 17TH STREET

S89°34'41"E

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 17TH STREET	SHEET	Page 22 of 207	E

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (41)	143+05.53	8.33 LT	329+91.59	51.62 RT	304460.096	148525.864	2.0'
POINT - (42)	143+05.52	3.67 LT	329+96.26	51.63 RT	304460.060	148530.531	2.0'
POINT - (43)	143+19.53	8.33 LT	329+91.61	37.62 RT	304474.096	148525.962	2.0'
POINT - (44)	143+19.52	3.67 LT	329+96.28	37.63 RT	304474.059	148530.628	2.0'
POINT - (45)	143+22.08	57.00 LT	329+42.95	35.00 RT	304476.984	148477.314	25.0'
POINT - (46)	143+92.08	57.00 LT	329+43.05	35.00 LT	304546.982	148477.800	25.0'

N

CONCRETE CURB & GUTTER 30-INCH TYPE D (TYP)

EXIST R/W

46

639.72

639.69

639.64

639.59

639.54

5.0'

12.5'

10.0'

328+00

329+00

S89°41'12"E

N 17TH STREET

10.0'

639.56

639.66

639.76

13.0'

639.86

639.95

5.0'

EXIST R/W

45

BEGIN CONSTRUCTION
STA 327+50.00
MATCH EXISTING
SAWCUT REQ'D

SLOPE INTERCEPT (TYP)

STA 143+57.16 HAMMOND AVE =
STA 330+00.00 N 17TH ST

CAN (COMMUNITY AREA NETWORK)

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

SWL & P

STA 144'NB'+07.12
-40.00' LT

STA 143'NB'+87.10
-41.09' LT

5.0' 5.5' 20.0' 12.0' 20.0' 6.5' 9.0'

144'SB'

144'NB'

143'SB'

143'NB'

N0°23'52"E

N0°23'52"E

HAMMOND AVENUE

43 44

41 42

10.0'

12" CI

640.01

639.97

639.90

639.83

639.

CAUTION

3/4" UNK

3/4" LEAD

PROP

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 17TH STREET	SHEET Page 23 of 207	E

2

STA 145+96.83 HAMMOND AVE =
STA 340+00.00 HARRISON ST

SWL & P

EXIST R/W

N

638.61

145'SB' N0°23'52"E 146'SB' 147'SB'

145'NB' N0°23'52"E 146'NB' 147'NB'

10.0' 10.0'

48 49 50 51 55 54

5.0' 5.5' 20.0' 12.0' 20.0' 6.5' 9.0'

HAMMOND AVENUE

639.19 639.10 639.06 639.02 638.98

638.94 638.98 639.01 638.96 638.92

47 52

CAUTION

STA 340+49.97
30.00' RT

STA 340+49.97
-30.50' LT

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

= CLEARING AND GRUBBING

S89°33'13"E

5.0' 9.5' 13.0' 13.0' 9.0' 6.0'

EXIST R/W

SLOPE INTERCEPT (TYP)

CAN (COMMUNITY AREA NETWORK)

CONCRETE CURB & GUTTER 30-INCH
TYPE D (TYP)

END CONSTRUCTION
STA 340+80.00
MATCH EXISTING
SAWCUT REQ'D

HARRISON STREET

341+00

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (47)	145+58.79	45.00 RT	340+45.03	38.00 RT	304712.982	148580.955	25.0'
POINT - (48)	145+62.33	8.33 LT	0+00.00	0.00	304716.897	148527.647	2.0'
POINT - (49)	145+62.33	3.67 LT	0+00.00	0.00	304716.861	148532.314	2.0'
POINT - (50)	145+76.33	8.33 LT	0+00.00	0.00	304730.897	148527.744	2.0'
POINT - (51)	145+76.33	3.67 LT	0+00.00	0.00	304730.860	148532.411	2.0'
POINT - (52)	146+34.79	45.00 RT	340+44.97	38.00 LT	304788.978	148581.482	25.0'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - HARRISON STREET	SHEET Page 24 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 08
PLOT DATE : 11/17/2023 7:41 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (53)	0+00.00	0.00	0+00.00	0.00	304893.855	148480.208	25.0'
POINT - (54)	0+00.00	0.00	0+00.00	0.00	304896.535	148528.894	2.0'
POINT - (55)	0+00.00	0.00	0+00.00	0.00	304896.504	148533.561	2.0'
POINT - (56)	0+00.00	0.00	0+00.00	0.00	304910.535	148528.992	2.0'
POINT - (57)	0+00.00	0.00	0+00.00	0.00	304910.504	148533.658	2.0'
POINT - (58)	0+00.00	0.00	0+00.00	0.00	304969.853	148480.736	25.0'

N

5.0' 6.0' 20.0' 12.0' 20.0' 6.5' 9.0'

SWL & P

CONCRETE CURB & GUTTER 30-INCH TYPE D (TYP)

EXIST R/W

58

638.36

638.40

638.40

638.33

638.36

6.0'

9.0'

13.0'

348+00

S89°37'26"E

349+00

N 16TH STREET

13.0'

9.5'

6.0'

638.36

638.41

638.47

638.52

638.61

53

EXIST R/W

BEGIN CONSTRUCTION
STA 347+50.00
MATCH EXISTING
SAWCUT REQ'D

SLOPE INTERCEPT (TYP)

STA 147+76.98 HAMMOND AVE =
STA 350+00.00 N 16TH ST

CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)

CAN (COMMUNITY AREA NETWORK)

= CLEARING AND GRUBBING

3/4" LEAD

3/4" UNK

3/4" UNK

3/4" UNK

3/4" UNK

3/4" CU

148'SB'

N0°23'52"E

HAMMOND AVENUE

147'SB'

147'NB'

N0°23'52"E

56 57

10.0'

54 55

CAUTION

PROP

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 16TH STREET	SHEET Page 25 of 207 E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 09

PLOT DATE : 11/17/2023 7:41 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

638.33
638.36
638.36
638.40
638.40
638.36
638.41
638.47
638.52
638.61
638.16
638.07
637.95
637.83
637.71
637.88
637.91
637.80
637.73
637.66
SWL & P
EXIST R/W
STA 149+16.74 HAMMOND AVE =
STA 350+00.00 N 16TH ST
N
5.0'
6.0'
20.0'
12.0'
20.0'
6.5'
9.0'
10.0'
10.0'
148'SB'
N0°23'52"E
149'SB'
150'SB'
N4°29'16"
N2°14'1
140'NB'
140'NB'
150'NB'
N0°23'52"E
N0°23'52"E
HAMMOND AVENUE
CAUTION
59
60
61
62
63
64
65
56
57
STA 150'NB'+36.74
-33.88' LT
PI: 150+40.78 SB
STA 150'NB'+31
0.00'
STA 149'NB'+74.72
20.00' RT
STA 150'NB'+38.54
25.14' RT
PI: 150+41.30
STA 350+50.40
29.50' RT
STA 350+50.41
-29.98' LT
EXIST R/W
SLOPE INTERCEPT (TYP)
CAN (COMMUNITY AREA NETWORK)
CONCRETE CURB & GUTTER 30-INCH
TYPE D (TYP)
CONCRETE CURB & GUTTER 6-INCH
SLOPED 18-INCH TYPE J MODIFIED (TYP)
N 16TH STREET
S89°34'54"E
351+00
5.5'
8.5'
13.0'
13.0'
9.5'
5.0'
END CONSTRUCTION
STA 351+10.00
MATCH EXISTING
SAWCUT REQ'D

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (59)	148+78.72	45.00 RT	350+45.01	38.00 RT	305032.909	148583.176	25.0'
POINT - (60)	149+54.72	45.00 RT	350+44.99	38.00 LT	305108.907	148583.703	25.0'
POINT - (61)	149+37.24	8.33 LT	0+00.00	0.00	305091.797	148530.250	2.0'
POINT - (62)	149+37.24	3.67 LT	0+00.00	0.00	305091.763	148534.916	2.0'
POINT - (63)	149+51.24	8.33 LT	0+00.00	0.00	305105.797	148530.347	2.0'
POINT - (64)	149+51.24	3.67 LT	0+00.00	0.00	305105.763	148535.014	2.0'
POINT - (65)	150+25.00	6.00 LT	0+00.00	0.00	305179.539	148533.192	5.0'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - N 16TH STREET	SHEET Page 26 of 207	E

2

CONCRETE CURB & GUTTER 30-INCH TYPE D

EXIST R/W

SWL & P

PI: 150+40.78 'SB'

3/4" LEAD

12" RCP

12" PE

151'SB'

N4°29'16"W

EP: 151+34.15 'SB'

151'SB'

PI: 151+34.88 'SB'

CONCRETE CURB & GUTTER 30-INCH TYPE A

N2°14'16"E

+82.0

N2°14'16"E

151'NB'

152'NB'

N0°23'30"E

EP: 152+61.79

BELKNAP STREET

+66.0

638.35

638.49

638.69

638.88

10.0'

639.04

639.14

639.14

STA 152'NB'+43.79
10.91' RT

PI: 150+41.30

STA 150'NB'+38.54
25.14' RT

HAMMOND AVENUE

11.0'

638.92

638.97

CONCRETE CURB PEDESTRIAN

6.0'

STA 152'NB'+43.83
37.34' RT

639.02

639.00

CAUTION

SAWING CONCRETE
AT NEAREST JOINT (TYP)

EXIST R/W

STA 151+76.79
END CONCRETE PAVEMENT 9-INCH
BEGIN CONCRETE PAVEMENT 10-INCH

STA 152'NB'+29.77
37.33' RT

66

67

638.99

STA 150+36.74
END HMA PAVEMENT RECONSTRUCTION
BEGIN CONCRETE PAVEMENT 9-INCH
Y = 305191.236
X = 148539.274
MATCH EXISTING
SAWCUT REQ'D

SLOPE INTERCEPT (TYP)

SAWING ASPHALT

BRUSH PATTERN AND
COLORING OF CONCRETE
(MATCH PATTERN OF
ADJACENT CORNER)

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
POINT - (66)	152+02.92	47.15 RT	0+00.00	0.00	305357.020	148590.578	25.0'
POINT - (67)	151+81.13	53.39 RT	0+00.00	0.00	305335.184	148596.662	48.0'

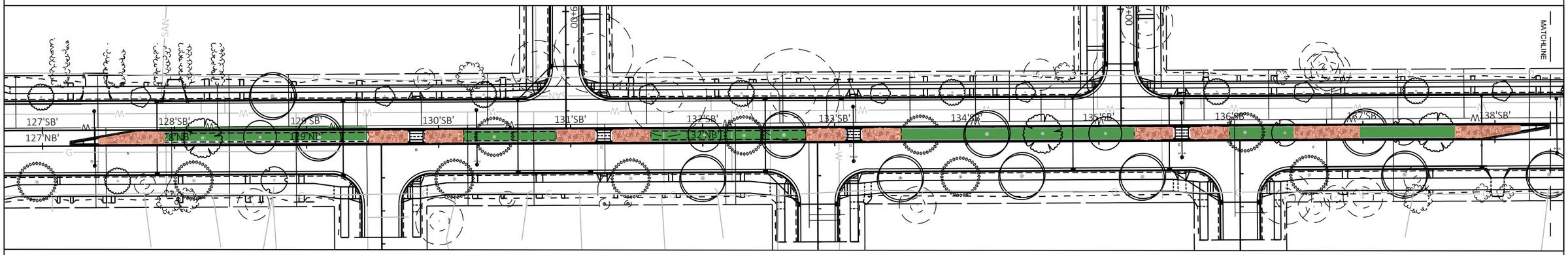
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	INTERSECTION DETAIL - BELKNAP AVENUE	SHEET Page 27 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 11

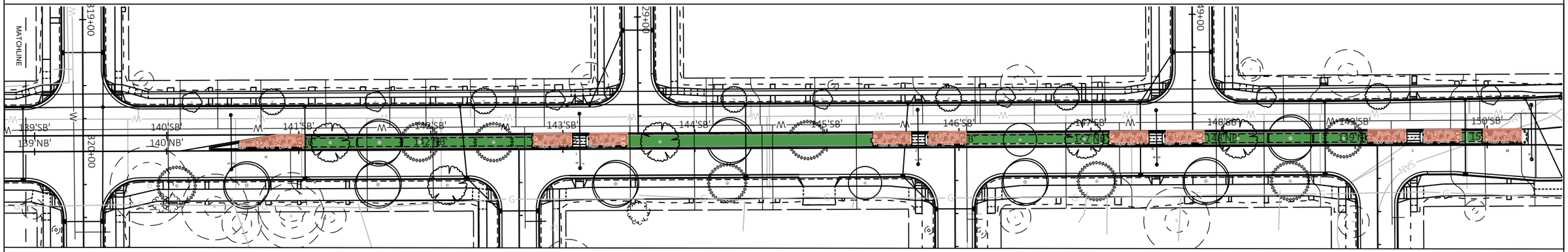
PLOT DATE : 11/17/2023 7:41 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



OVERVIEW: HAMMOND AVENUE - SOUTH



OVERVIEW: HAMMOND AVENUE - NORTH

N

0 75 150 Feet

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET	Page 28 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - OVERVIEW

PLOT DATE : 1/18/2024 10:57 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

N

0 10 20 feet

(1) MA

(1) GK

N 21ST STREET

HAMMOND AVENUE

MATCHLINE

126'SB'

126'NB'

127'SB'

127'NB'

128'SB'

128'NB'

280+00

A
SEE PERENNIAL ENLARGEMENT SHEET L2.01

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 29 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.01

PLOT DATE : 1/18/2024 10:57 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

0 10 20 Feet

(1) OV

(1) TA

(1) UM

(1) OV

(1) QR

BEE LAWN

(1) UM

A
SEE PERENNIAL ENLARGEMENT SHEET L2.01

B
SEE PERENNIAL ENLARGEMENT SHEET L2.01

MATCHLINE 0

MATCHLINE 1

MATCHLINE 2

(1) GK

(1) MA

(1) GK

(1) CC

LINCOLN STREET

128'SB'

129'SB'

130'SB'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 30 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.02

PLOT DATE : 1/18/2024 10:57 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

2

N

0 10 20 Feet

N 20TH STREET

6" PVC

(1) MA

(1) OV

(1) QR

(1) MA

MATCHLINE

131'SB'

132'SB'

133'SB'

C

SEE PERENNIAL ENLARGEMENT SHEET L2.02

BEE LAWN

(1) GK

(1) UM

BEE LAWN

(1) GK

(1) UM

MATCHLINE

D

SEE PERENNIAL ENLARGEMENT SHEET L2.02

N 20TH STREET

(1) GK

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 31 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.03

PLOT DATE : 1/18/2024 10:57 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

0 10 20 Feet

19TH STREET

(1) OV
(1) MA
(1) UM
(1) OV
(1) UM
(1) GK
(1) GK
BEE LAWN
(1) TA
(1) QR
(1) UM

133'SB'
134'SB'
135'SB'
136'SB'

MATCHLINE
MATCHLINE

D
SEE PERENNIAL ENLARGEMENT SHEET L2.02

E
SEE PERENNIAL ENLARGEMENT SHEET L2.03

2" COPPER

N 19TH STREET

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 32 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.04
PLOT DATE : 1/18/2024 10:57 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

0 10 20 Feet

(1) MA
BEE LAWN
(1) OV
(1) CC
(1) MA
(1) OV
(1) CC
(1) GK
(1) GK
(1) UM
(1) UM
(1) TA
(1) UM
HAMMOND AVENUE
N 19TH STREET
MATCHLINE
MATCHLINE
136'SB'
137'SB'
138'SB'
138'NB'
E
SEE PERENNIAL ENLARGEMENT SHEET L2.03
F
SEE PERENNIAL ENLARGEMENT SHEET L2.03
G
SEE PERENNIAL ENLARGEMENT SHEET L2.04
3/4" UNK
3/4" LEAD
12" CI

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 33 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.05
PLOT DATE : 1/18/2024 10:57 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

2

N

0 10 20 Feet

N 18TH STREET

12" CI

3/4" LEAD

3/4" UNK

UNK

MATCHLINE

(1) MA

(1) OV

138'SB'

138'NB'

139'SB'

139'NB'

140'SB'

140'NB'

320+00

G

SEE PERENNIAL ENLARGEMENT SHEET L2.04

H

SEE PERENNIAL ENLARGEMENT SHEET L2.04

HAMMOND AVENUE

(1) UM

(1) GK

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 34 of 207	E

2

N

0 10 20 Feet

N 17TH STREET

(1) MA

(1) OV

(1) MA

(1) OV

MATCHLINE

141'SB'

142'SB'

143'SB'

MATCHLINE

H

SEE PERENNIAL ENLARGEMENT SHEET L2.04

SEE PERENNIAL ENLARGEMENT SHEET L2.05

(1) UM

(1) TA

(1) UM

(1) UM

(1) GK

(1) TA

BEE LAWN

HAMMOND AVENUE

(1) G

N 17TH STREET

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 35 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.07

PLOT DATE : 1/18/2024 10:58 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

2

N

0 10 20 Feet

N 17TH STREET

HAMMOND AVENUE

HARRISON STREET

(1) MA

(1) OV

(1) UM

(1) TA

(1) GK

(1) UM

(1) GK

(1) QR

BEE LAWN

143'SB'

144'SB'

145'SB'

146'S

MATCHLINE

MATCHLINE

I

SEE PERENNIAL ENLARGEMENT SHEET L2.05

J

SEE PERENNIAL ENLARGEMENT SHEET L2.05

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 36 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.08

PLOT DATE : 1/18/2024 10:58 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

0 10 20 Feet

N 16TH STREET

HAMMOND AVENUE

HARRISON STREET

HAMMOND A

MATCHLINE

MATCHLINE

J

SEE PERENNIAL ENLARGEMENT SHEET L2.05

K

SEE PERENNIAL ENLARGEMENT SHEET L2.06

7 8

8 9

(1) MA

(1) OV

(1) MA

BEE LAWN

(1) QR

(1) TA

(1) UM

(1) GK

146'SB'

147'SB'

148'SB'

146'NB'

147'NB'

148'NB'

3/4" UNK

3/4" LEAD

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 37 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L1.09

PLOT DATE : 1/18/2024 10:58 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

0 10 20 Feet

N 16TH STREET

HAMMOND AVENUE

MATCHLINE

MATCHLINE

(1) T

(1) OV

(1) UM

(1) MA

(1) OV

148'SB'

149'SB'

150'SB'

BEE LAWN

(1) GK

(1) UM

(1) GK

(147 sf) BL

K

SEE PERENNIAL ENLARGEMENT SHEET L2.06

L

SEE PERENNIAL ENLARGEMENT SHEET L2.06

M

SEE PERENNIAL ENLARGEMENT SHEET L2.07

8 6

6

12" CI

3/4" UNK

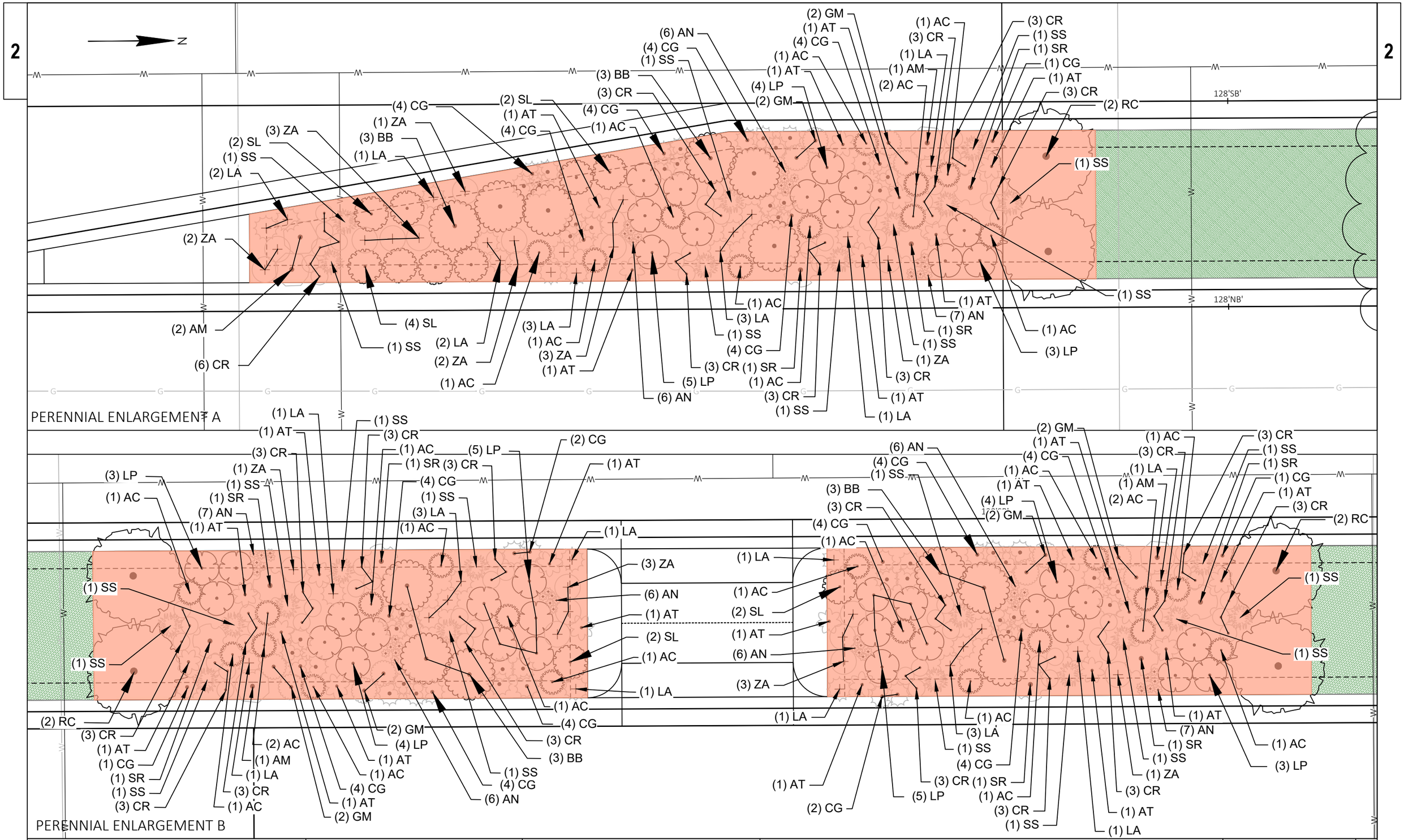
SAN

SSS

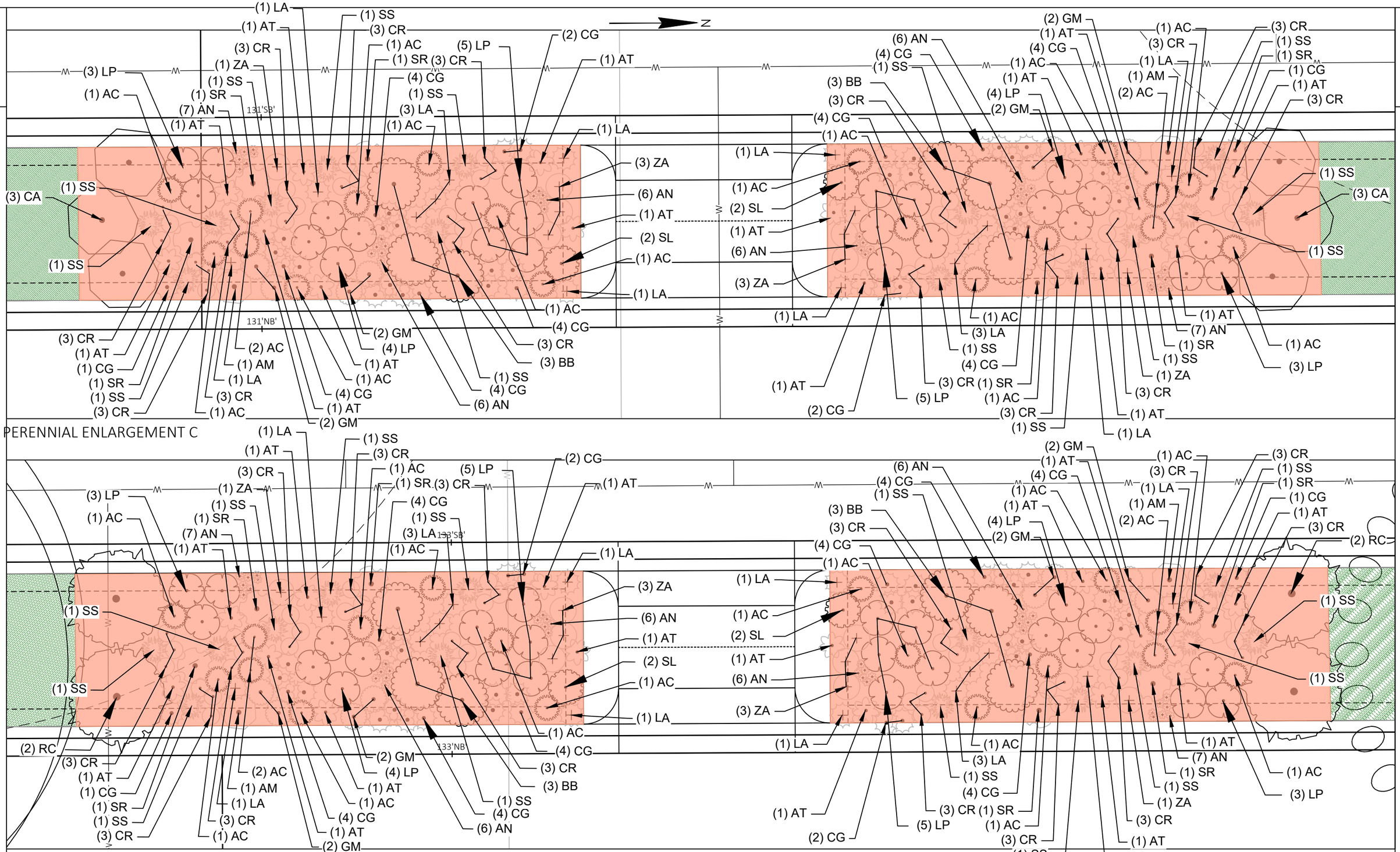
G

W

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 38 of 207	E



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 39 of 207	E



PERENNIAL ENLARGEMENT C

PERENNIAL ENLARGEMENT D

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 40 of 207	E

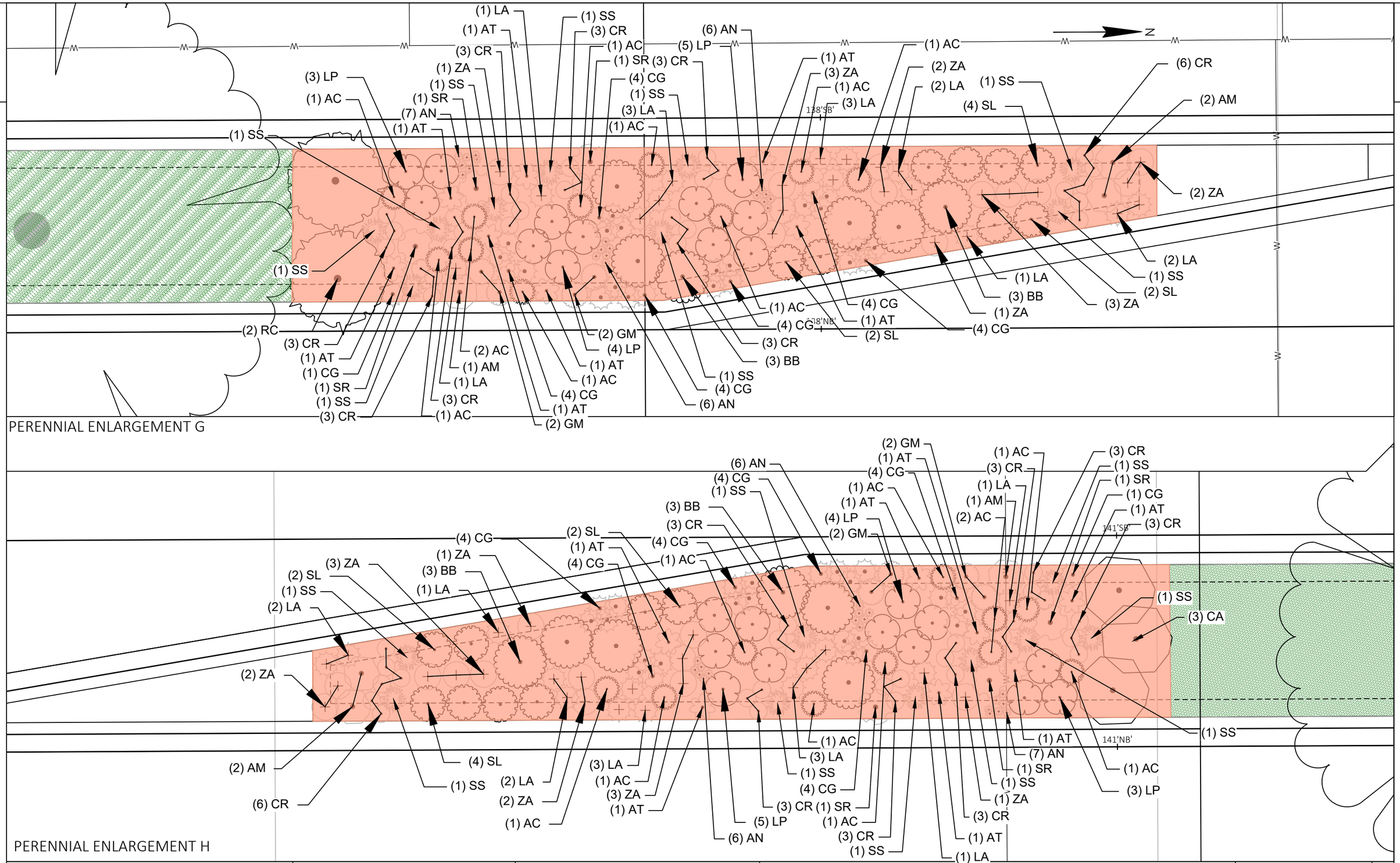
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L2.02
PLOT DATE : 1/18/2024 10:58 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

PERENNIAL ENLARGEMENT E

PERENNIAL ENLARGEMENT F

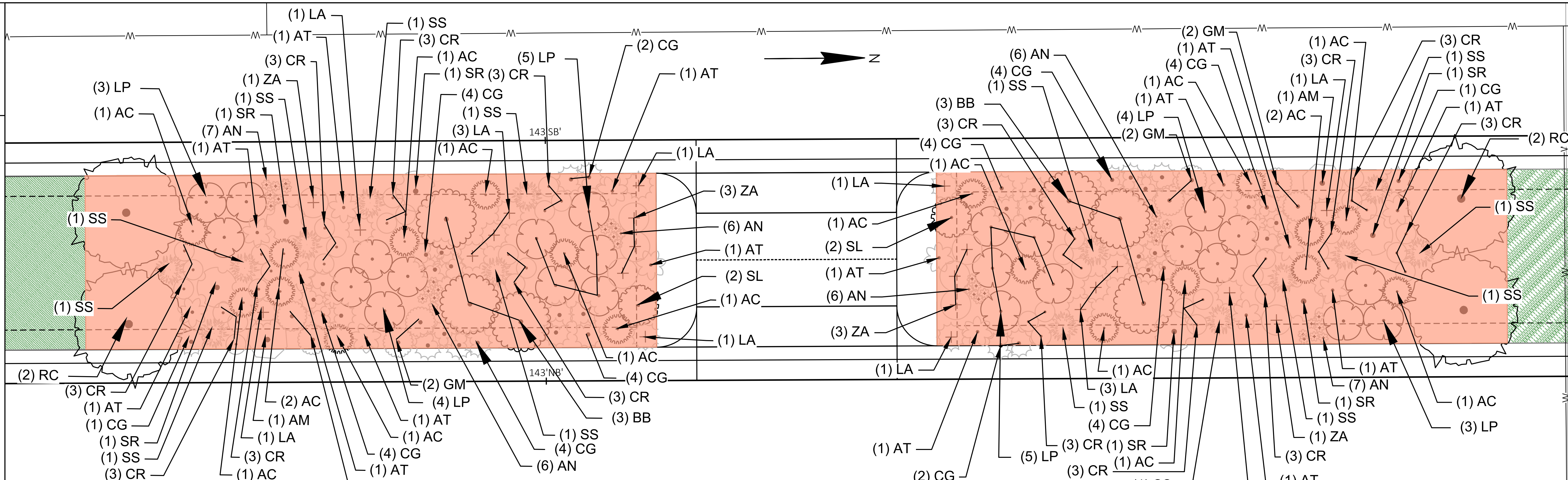
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET	Page 41 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\021101_LS_01-11-2024.DWG
LAYOUT NAME - L2.03
PLOT DATE : 1/18/2024 10:58 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

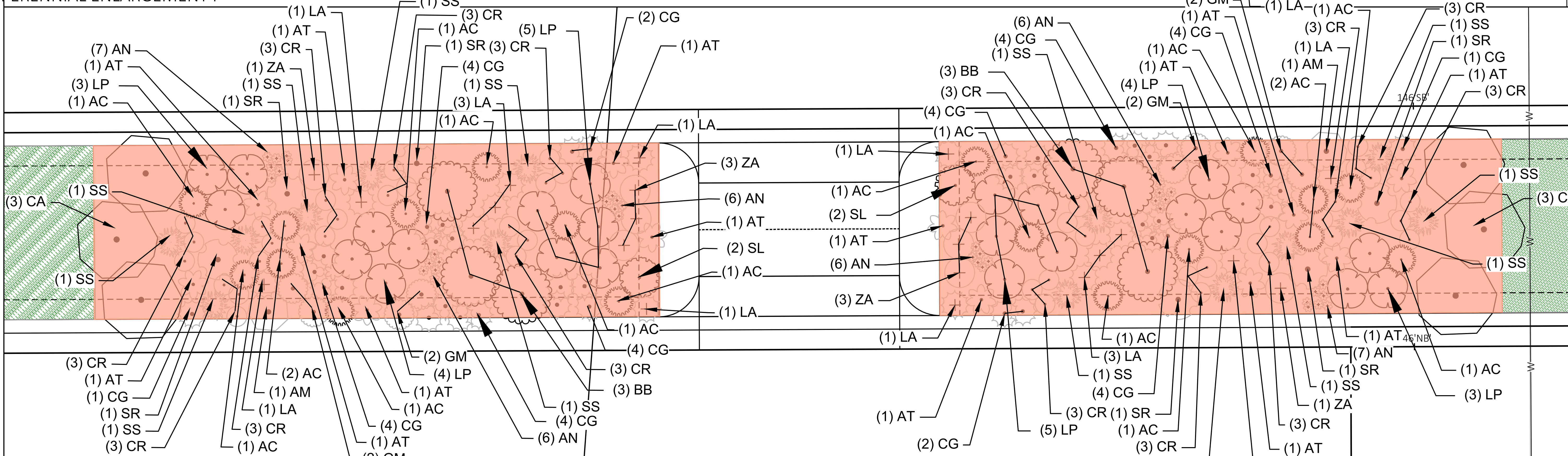


PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 42 of 207	E

2

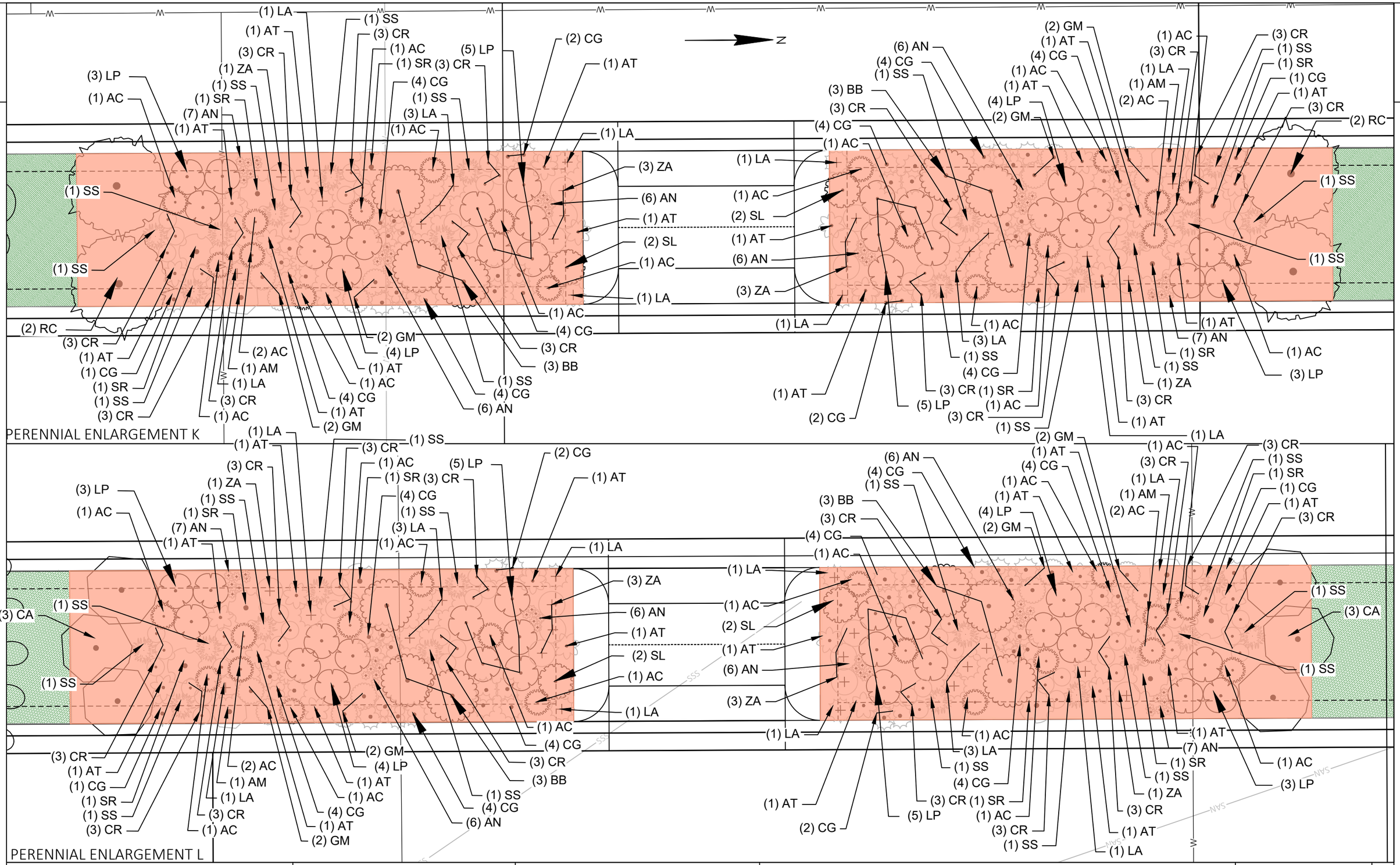


PERENNIAL ENLARGEMENT I



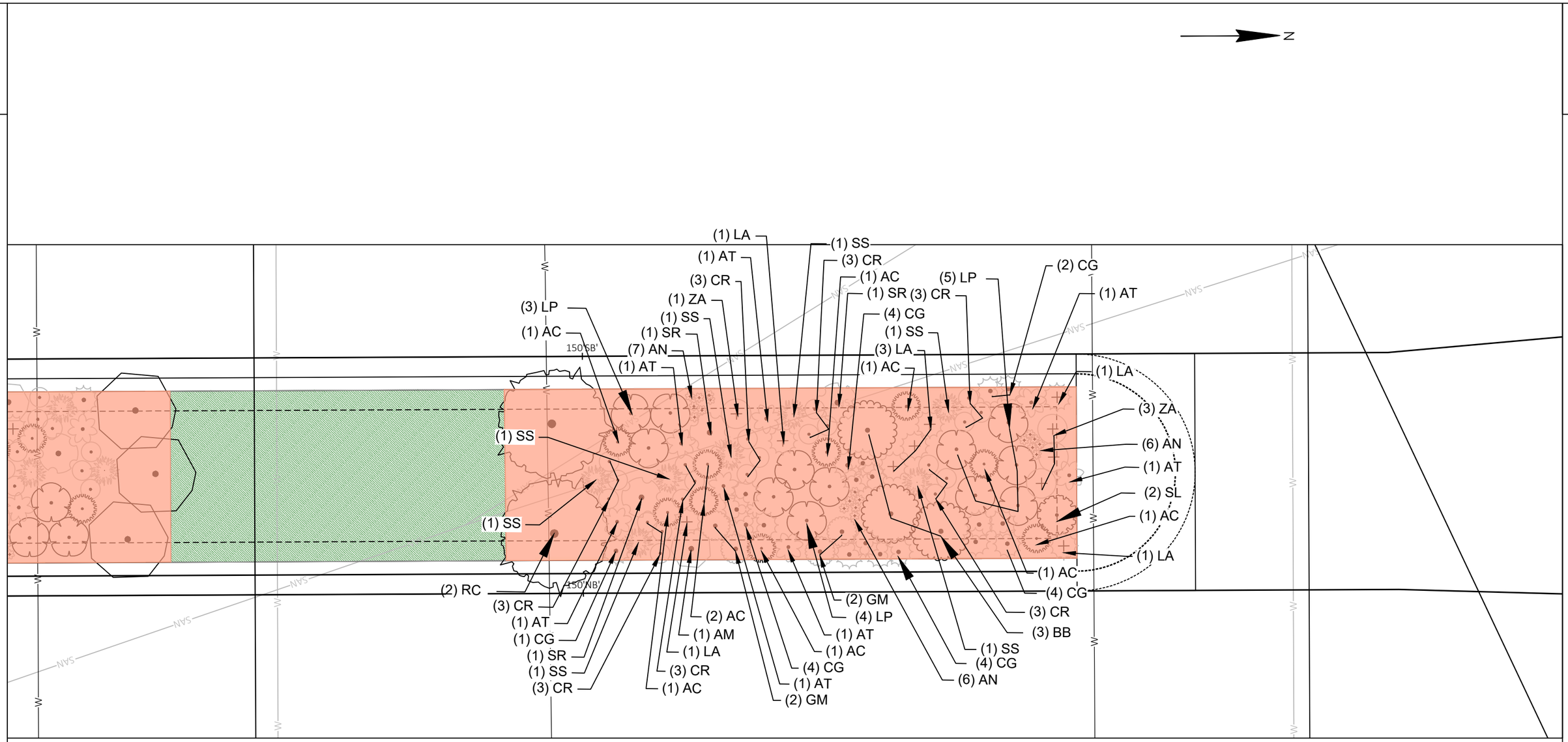
PERENNIAL ENLARGEMENT J

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET	Page 43 of 207	E



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 44 of 207	E

2



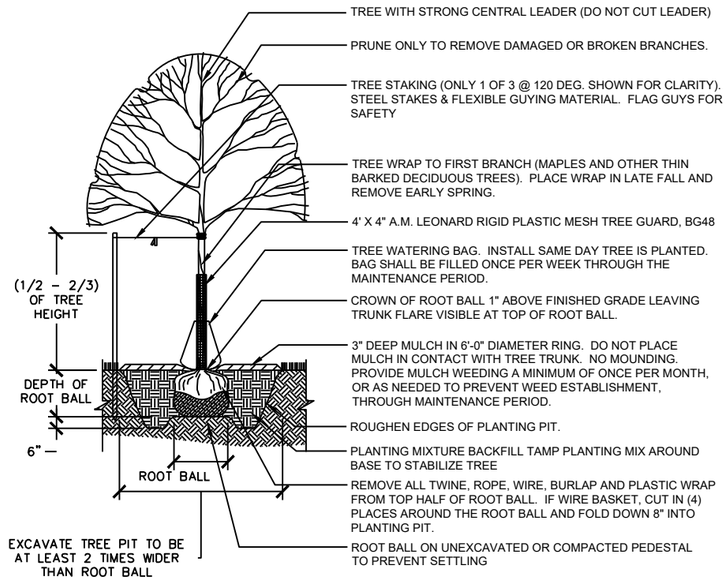
PERENNIAL ENLARGEMENT M

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	LANDSCAPING PLAN	SHEET Page 45 of 207	E

2

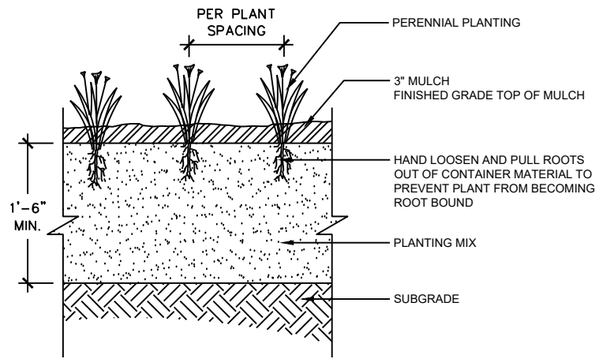
PLANTING NOTES

1. EXISTING TREES FOUND ON SITE SHALL BE PROTECTED AND SAVED UNLESS NOTED TO BE REMOVED OR ARE LOCATED IN AN AREA TO BE GRADED. QUESTIONS REGARDING EXISTING PLANT MATERIAL SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT AND ENGINEER PRIOR TO REMOVAL. REFER TO SPECIAL PROVISION ITEM SPV.0060.06 'TREE PLANTING, RESERVATION, AND PROTECTION' FOR FURTHER GUIDANCE.
2. LANDSCAPE WORK TO COMPLY WITH WISCONSIN DOT STANDARD SPECIFICATION SECTIONS:
   - 625 - TOPSOIL AND SALVAGED TOPSOIL
   - 627 - MULCHING
   - 629 - FERTILIZER AND AGRICULUTRAL LIMESTONE
   - 630 - SEEDING
   - 632 - FURNISHING AND PLANTING PLANT MATERIALS.
3. THE LAYOUT OF ALL PLANTING BEDS AND INDIVIDUAL TREES SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. THE LANDSCAPE ARCHITECT WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY.
4. THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
5. SALVAGE TOPSOIL FROM THE EARTHWORK AREAS AS APPROPRIATE AND/OR AS DIRECTED BY LANDSCAPE ARCHITECT AND STOCKPILE FOR REUSE IN LOCATION APPROVED BY OWNER.
6. AREAS UNDER PLANTING BEDS SHALL NOT CONTAIN COMPACTED AGGREGATE TO ALLOW FOR PROPER DRAINAGE AND GROWTH OF PLANT MATERIAL. REMOVE AGGREGATE AND PERFORM SUB-SOILING AS NECESSARY TO OBTAIN LOOSE, FREE DRAINING SUB-GRADE BELOW PLANTING BEDS. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS.
7. CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS.
8. ALL SEED AREAS SHALL RECEIVE A MINIMUM OF 6" DEPTH OF TOPSOIL.
9. ALL PLANTING BEDS SHALL RECEIVE 18" DEPTH OF PREPARED SOIL.
10. SEED AND/OR PLUG PLANTING SHALL OCCUR IN DESIGNATED PLANTING WINDOWS, SEE SPECIFICATIONS.
11. PAINT OR STAKE LIMITS OF SEEDING FOR REVIEW BY LANDSCAPE ARCHITECT & OWNER PRIOR TO SEEDING.
12. NEW SEEDED AREAS TO BE TREATED WITH HERBICIDE TO KILL ALL EXISTING GROUNDCOVER. THERE SHALL BE A MINIMUM OF TWO (2) APPLICATIONS SEPARATED BY 10 DAYS. IF ALL EXISTING GROUNDCOVER VEGETATION IS NOT KILLED WITHIN 10 DAYS OF 2ND APPLICATION, A 3RD APPLICATION IS REQUIRED.
13. ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
14. ALL PLANTING BEDS AND PLANTED TREES SHALL BE MULCHED WITH 3" DEEP SHREDDED HARDWOOD MULCH PER PLANTING DETAILS. MULCH SHALL BE CONSIDERED INCIDENTAL TO PLANT MATERIALS.
15. NO PLANT MATERIAL SUBSTITUTIONS WILL BE ACCEPTED UNLESS APPROVAL BY THE LANDSCAPE ARCHITECT. ALL PLANT MATERIAL AND SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION.
16. CONTRACTOR IS RESPONSIBLE FOR ON-GOING MAINTENANCE OF ALL NEWLY INSTALLED MATERIALS FOR A PERIOD OF TWO-YEARS FROM SUBSTANTIAL COMPLETION. SEE WIS DOT STANDARD SPECIFICATION 632 - 'FURNISHING AND PLANTING PLANT MATERIALS' FOR FURTHER GUIDANCE
17. IF CARE SPECIALIST FAILS TO PERFORM ANY OF THE REQUIRED CARE CYCLES AS SPECIFIED IN WIS DOT SECTION 632.3.19.1, THE CITY WILL ASSESS DAILY DAMAGES IN AMOUNT INDICATED IN 'LANDSCAPE PLANTING SURVEILLANCE AND CARE CYLES' CONTRACT SPECIAL PROVISION. DAMAGES WILL BE ASSESSED FOR EACH DAY THE REQUIREMENT OF THE CARE CYCLE REMAINS INCOMPLETE.



1 TREE PLANTING

1/4" = 1'-0" 329343-01



2 PERENNIAL PLANTING DETAIL

1" = 1'-0" 3293-01

PLANT_SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
TREES				
	CC	3	Carpinus caroliniana / American Hornbeam	2.5" CAL
	GK	18	Gymnocladus dioica / Kentucky Coffeetree	2.5" CAL
	MA	14	Malus x `Jarmin` / Marilee® Crabapple	2.5" CAL
	OV	14	Ostrya virginiana / American Hophornbeam	2.5" CAL
	QR	5	Quercus robur x bicolor `Long` / Regal Prince® Oak	2.5" CAL
	TA	8	Tilia americana `Boulevard` / Boulevard American Linden	2.5" CAL
	UM	19	Ulmus x 'Morton' / Accolade™ Elm	2.5" CAL
SHRUBS				
	CA	27	Ceanothus americanus / New Jersey Tea	2 gal
	RC	22	Rosa carolina / Carolina Rose	2 gal
GRASSES				
	SS	160	Schizachyrium scoparium / Little Bluestem	1 gal.
PERENNIALS				
	AN	418	Allium cernuum / Nodding Onion	1 gal.
	AM	28	Amorpha canescens / Leadplant	1 gal.
	AC	201	Aquilegia canadensis / Eastern Columbine	1 gal.
	AT	154	Asclepias tuberosa / Butterfly Milkweed	1 gal.
	BB	75	Baptisia bracteata leucophaea / Longbract Wild Indigo	1 gal.
	CR	480	Campanula rotundifolia / Harebell	1 gal.
	CG	436	Coreopsis grandiflora `Double Sunburst` / Double Sunburst Tickseed	1 gal.
	GM	88	Geranium maculatum / Spotted Geranium	1 gal.
	LA	172	Liatris aspera / Rough Blazing Star	1 gal.
	LP	264	Lupinus perennis / Wild Lupine	1 gal.
	SR	66	Solidago rigida / Stiff Goldenrod	1 gal.
	SL	43	Symphyotrichum laeve / Smooth Aster	1 gal.
	ZA	112	Zizia aurea / Golden Alexander	1 gal.

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	TYPE	SPACING
GROUND COVERS					
	BL	1,340	Bee Lawn / Deluxe Seed Mixture	seed, SY	

2

2

BEGIN CONSTRUCTION
STA 278+80.00

N 21ST STREET

279+00

280+00

281+00

291+00

HAMMOND AVENUE

LINCOLN STREET

BEGIN PROJECT
STA 125+50.00'NB'

END CONSTRUCTION
STA 280+65.00

END CONSTRUCTION
STA 290+70.00

MATCH LINE 130+50

REMOVE TREE
CLEARING AND GROUBBING

SHRUBS (8' CAN.)

SHRUBS (10' CAN.)

SHRUBS (6' CAN.)

SHRUBS (3' CAN.)

SHRUBS (3' CAN.)

SHRUB 8' CAN.

SHRUB 6' CAN.

SHRUB 6' CAN.

0.83' DIA.
A=5'
B=8'
11" DIA.

0.92' DIA.
A=5.52'
B=18'
11" DIA.

27" DIA.

2.25' DIA.
A=13.5'
B=30'

DIA.
7' DIA.
A=4.02'
B=9'

0.58' DIA.
A=3.48'
B=8'
7" DIA.

12" DIA.
1' DIA.
A=6'
B=12'

(3) 12" DIA.
1' DIA.
A=7.5'
B=18'

125'SB' 125'NB' 126'SB' 126'NB' 127'SB' 127'NB' 128'SB' 128'NB' 129'SB' 129'NB' 130'SB' 130'NB'

CAUTION

LEGEND

- SLOPE INTERCEPT
- INLET PROTECTION TYPE A, C OR D
- TREE PROTECTION TYPE 1
- EROSION BAIL

PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	EROSION CONTROL	SHEET Page 47 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/11/2024 9:25 AM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

BEGIN CONSTRUCTION
STA 297+65.00

LEGEND

SLOPE INTERCEPT

INLET PROTECTION TYPE A, C OR D

TREE PROTECTION TYPE 1

EROSION BAIL

BEGIN CONSTRUCTION
STA 307+65.00

N

298+00

299+00

300+00

308+00

15"X23" BRICK

15"X27" BRICK

10" VCP

N 20TH STREET

N 19TH STREET

DIA.
=12'
=20'
' DIA.

2.5' DIA.
A=15'
B=30'
30" DIA.

2' DIA
A=12'
B=30'
30" DIA.

EXISTING TREE
TO BE REMOVED
BY CITY BEFORE PROJECT
GRUBBING (STUMP REMOVAL)

LOOKS DEAD
2.83' DIA.
A=17'
B=35'
34" DIA.

5" DIA.
A=2.5'
B=12'
5" DIA.

5' CAN.
SHRUB

1.67'
A=10'
B=20'
20" DIA.

1'
A=6'
B=15'
12" DI

SHRUB

MATCH LINE 130+50

MATCH LINE 136+50

131'SB'
131'NB'
132'SB'
132'NB'
133'SB'
133'NB'
134'SB'
134'NB'
135'SB'
135'NB'
136'SB'
136'NB'

HAMMOND AVENUE

DIA.
8' DIA.
3.48'
6'
EE PICTURE IS
BELED 41+20 RT

PRIVATE TREE
LANDSCAPE ROCK
LANDSCAPE ROCK
PRIVATE TREE

CAUTION

11" DIA.
0.92' DIA.
A=5.52'
B=14'

END CONSTRUCTION
STA 300+75.00

301+00

END CONSTRUCTION
STA 310+75.00

311+00

PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	EROSION CONTROL	SHEET Page 48 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/11/2024 9:25 AM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

BEGIN CONSTRUCTION
STA 317+65.00

LEGEND

- SLOPE INTERCEPT
- INLET PROTECTION TYPE A, C OR D
- TREE PROTECTION TYPE 1
- EROSION BAIL

N

48" DIA.
4' DIA.
A=24'
B=45'

0.5' DIA.
A=3'
B=8'
6" DIA.

1.17'
A=7'
B=15'
14" DIA.

MATCH LINE 136+50

HAMMOND AVENUE

N 18TH STREET

318+00

319+00

320+00

321+00

5" DIA.
A=2.5'

5" DIA.

2" DIA.
A=12'
B=25'
24" DIA.

8" DIA.
0.67' DIA.
A=4.02'
B=9'

12" DIA.
1' DIA.
A=6'
B=12'

16" DIA.
1.33' DIA.
A=8'
B=15'

SHRUB
8' CAN.

SHRUB
4' CAN.

SHRUB
4' CAN.

MULTI-STEM
CANOPY VARIES

MULTI-STEM
CANOPY VARIES

8" DIA.
0.67' DIA.
A=4.02'
B=8'

2" DIA.
0.167' DIA.
A=1'
B=3'

2" DIA.
0.167' DIA.
A=1'
B=3'

SHRUB
4' CAN.

SHRUB
4' CAN.

36" DIA.
3' DIA.
A=18'
B=30'

16" DIA.
1.33' DIA.
A=8'
B=25'

15" DIA.
1.25' DIA.
A=7.5'
B=15'

18" DIA.
1.5' DIA.
A=8'
B=25'

8" DIA.
0.67' DIA.
A=4.02'
B=12'

SHRUBS

CANNOT

step to do-survey needed

REMOVE TREE
CLEARING AND GRUBBING

END CONSTRUCTION
STA 320+90.00

MATCH LINE 142+00

137'SB' 138'SB' 139'SB' 140'SB' 141'SB' 142

137'NB' 138'NB' 139'NB' 140'NB' 141'NB' 142

18"X27" BRICK

PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	EROSION CONTROL	SHEET Page 49 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 03

PLOT DATE : 1/11/2024 9:25 AM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

BEGIN CONSTRUCTION
STA 327+50.00

328+00

329+00

N 17TH STREET

50" DIA.
4.12' DIA.
A=25'
B=30'

1' DIA.
A=6'
B=15'
12" DIA.

0.25' DIA.
A=1.5'
B=4'
3" DIA.

0.92' DIA.
A=5.5'
B=14'
11" DIA.

20"X30" BRICK

26" BRICK

LEGEND

- SLOPE INTERCEPT
- INLET PROTECTION TYPE A, C OR D
- TREE PROTECTION TYPE 1
- EROSION BAIL

N

MATCH LINE 142+00

MATCH LINE 147+00

143'SB'

144'SB'

145'SB'

146'SB'

143'NB'

144'NB'

145'NB'

146'NB'

HAMMOND AVENUE

SHRUBS

SHRUB
6' CAN.

CAUTION

HARRISON STREET

2" DIA.
0.167' DIA.
A=1'
B=3'

12" DIA.
1' DIA.
A=6'
B=12'

1' DIA.
0.25' DIA.
A=1.5'
B=4'

30" DIA
STUMP

EXISTING TREE
TO BE REMOVED
BY CITY BEFORE PROJECT
GRUBBING (STUMP REMOVAL)

END CONSTRUCTION
STA 340+80.00

341+00

SHRUBS

N 17TH STREET

331+00

END CONSTRUCTION
STA 330+85.00

18" DIA.
1.5' DIA.
A=8'
B=20'

PROJECT NO: XXXX-XX-XX	HWY: XXX	COUNTY: XXX	VFG - HAMMOND AVE NB - (01)	SHEET Page 50 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 04

PLOT DATE : 1/11/2024 9:25 AM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

BEGIN CONSTRUCTION
STA 347+50.00

N

LEGEND

- SLOPE INTERCEPT
- INLET PROTECTION TYPE A, C OR D
- TREE PROTECTION TYPE 1
- EROSION BAIL

348+00

349+00

N 16TH STREET

1.17' DIA.
A=7'
B=9'
14" DIA.

1.25' DIA.
A=7.5'
B=18'
15" DIA.

MATCH LINE 147+00

148'SB'

149'SB'

150'SB'

151'SB'

151'SB'

148'NB'

149'NB'

150'NB'

151'NB'

152'NB'

END PROJECT
STA 152+43.79'NB'

HAMMOND AVENUE

SHRUBS

18" DIA.
1.5' DIA.
A=9'
B=25'

14" DIA.
1.17' DIA.
A=7.02'
B=12'

10" DIA.
0.83' DIA.
A=5'
B=15'

N 16TH STREET

351+00

SHRUBS

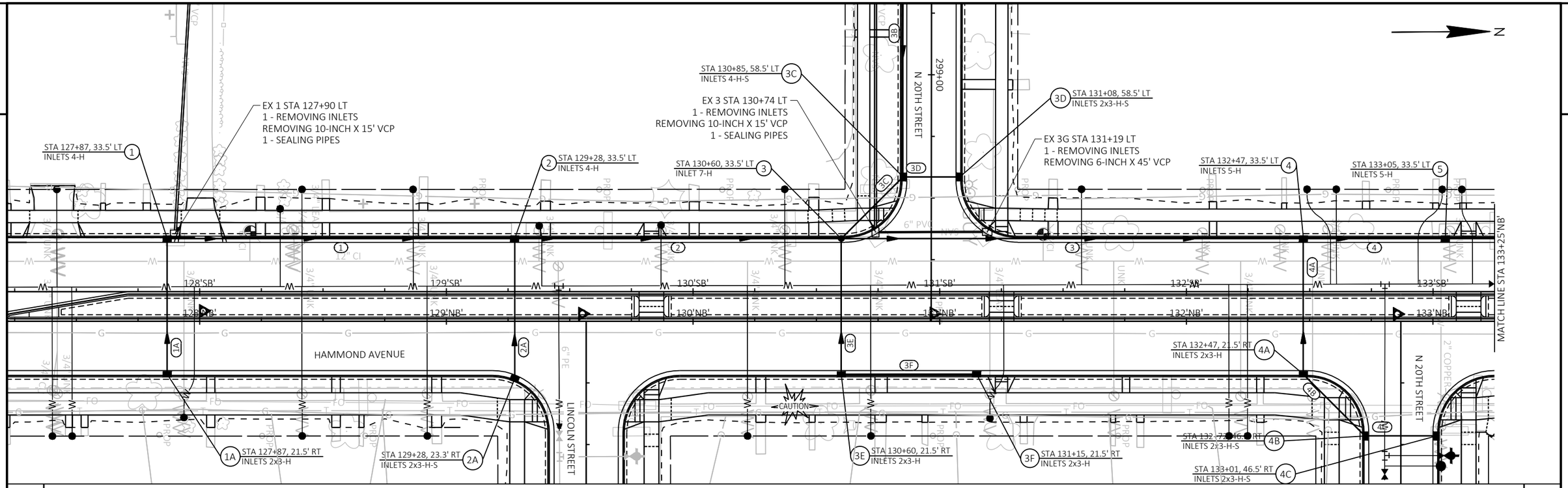
4" DIA.
0.33' DIA.
A=2'
B=8'?

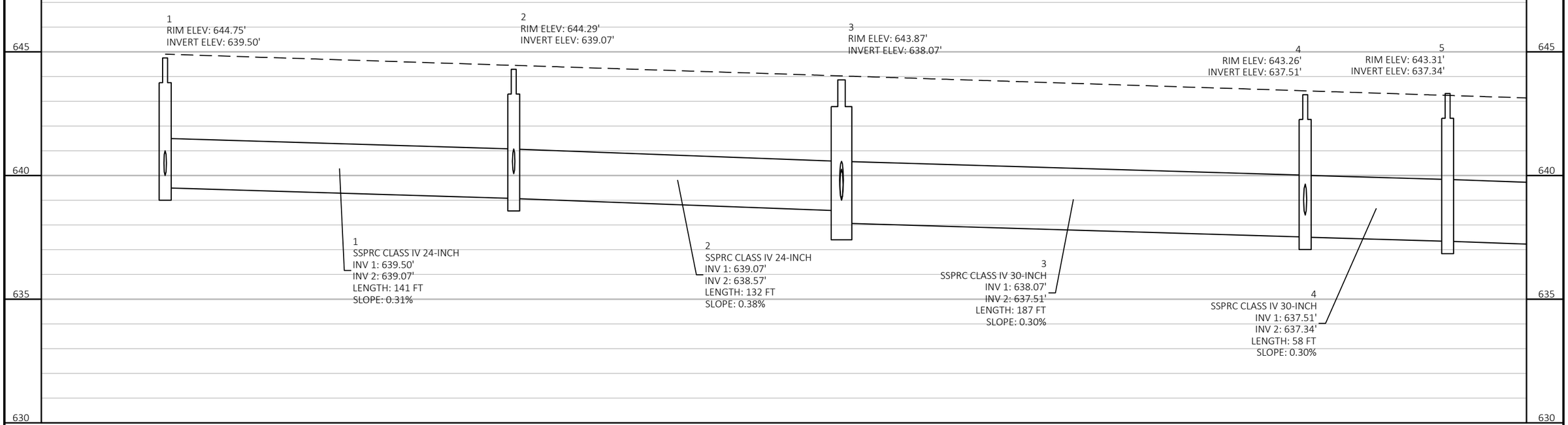
PROJECT NO: XXXX-XX-XX	HWY: XXX	COUNTY: XXX	VFG - HAMMOND AVE NB - (01)	SHEET Page 51 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 05

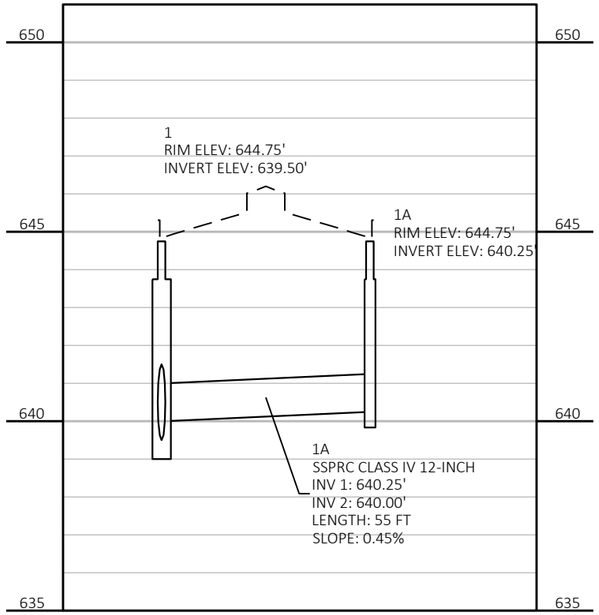
PLOT DATE : 1/11/2024 9:25 AM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:40 FT

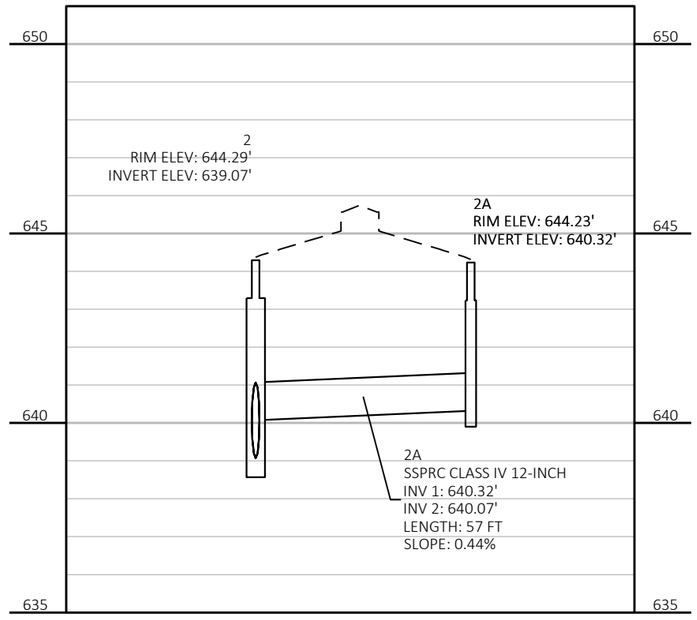
WISDOT/CADDS SHEET 42

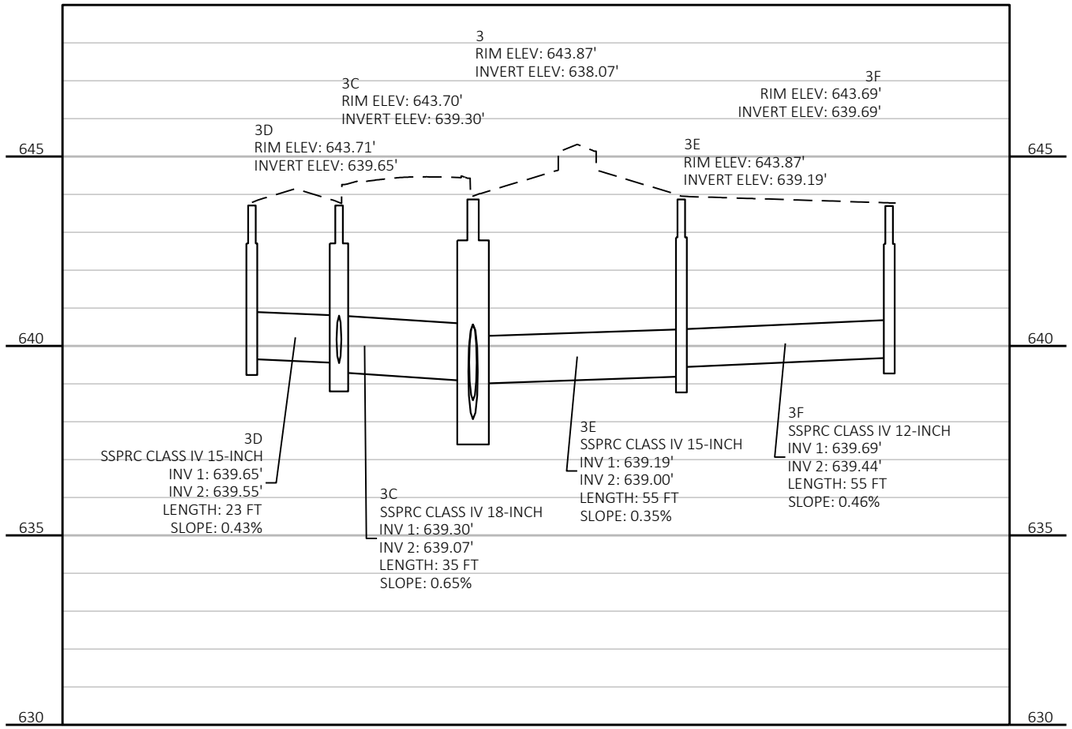


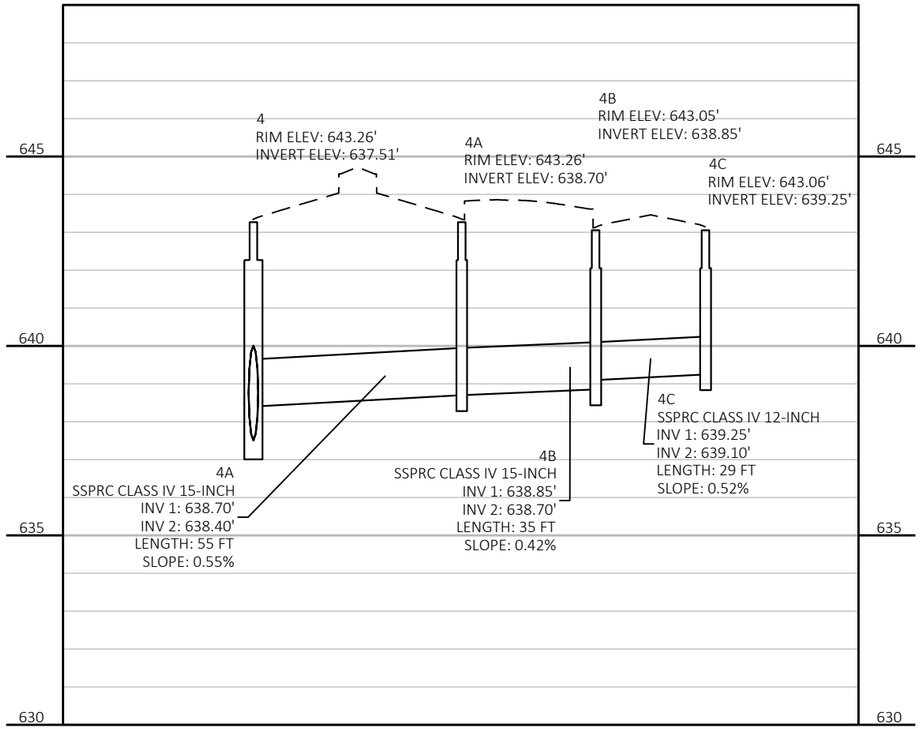


PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 52 of 207	E



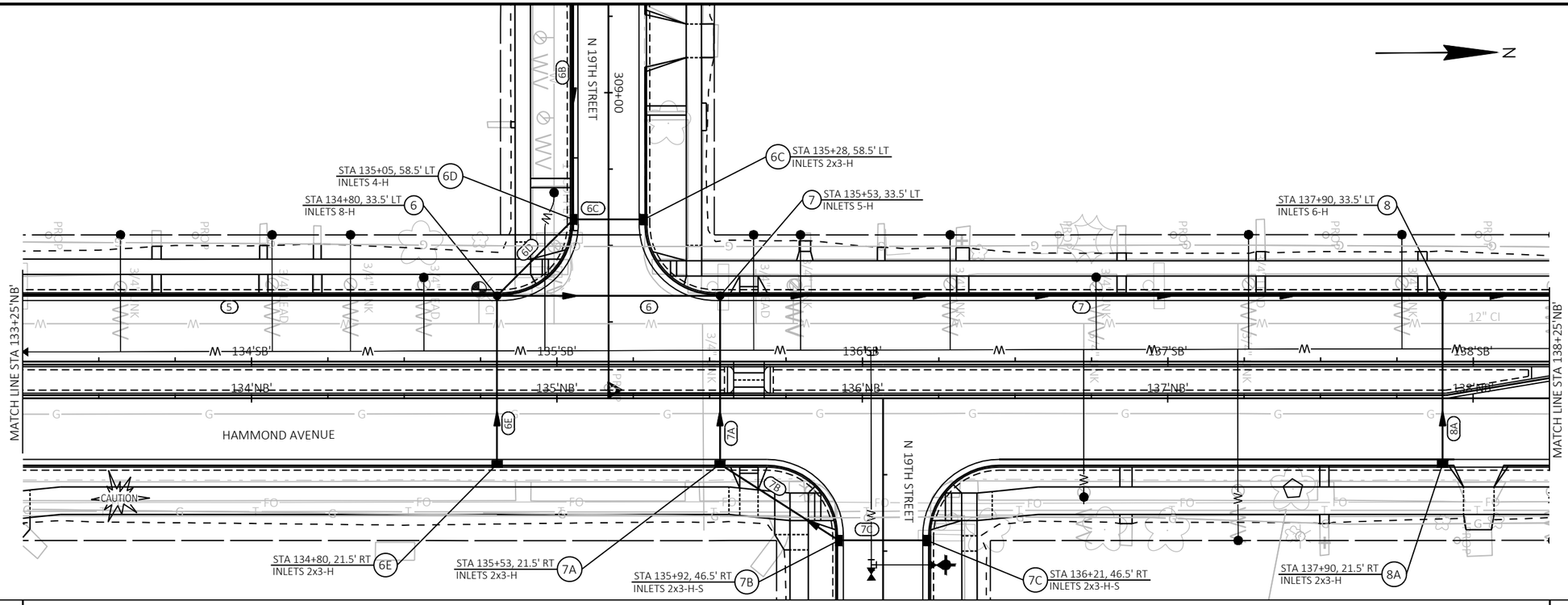


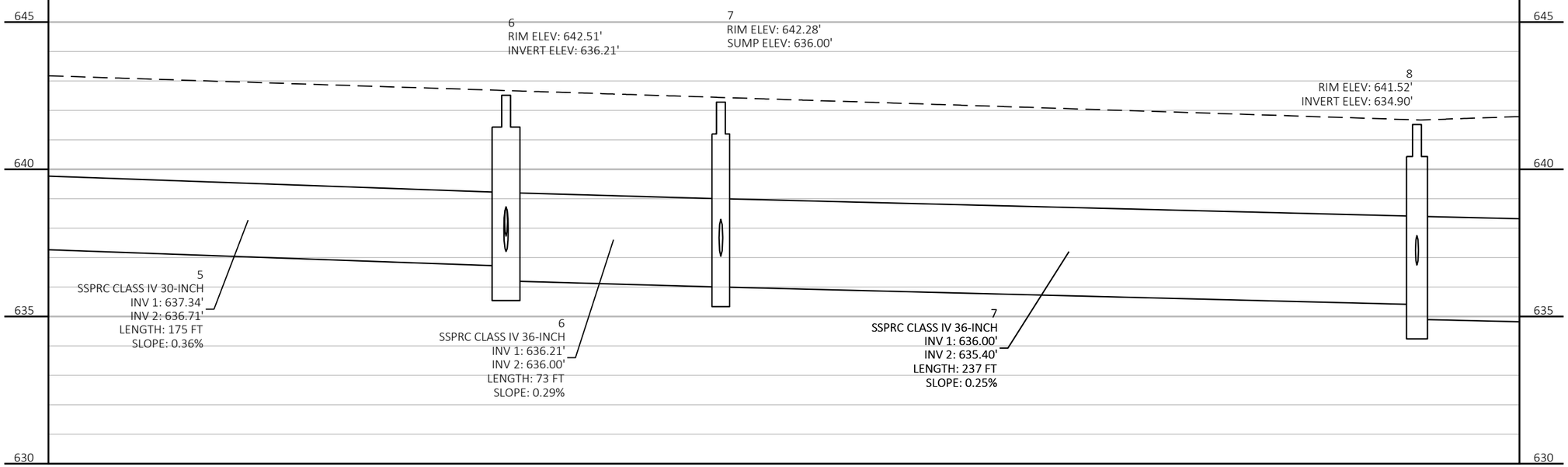




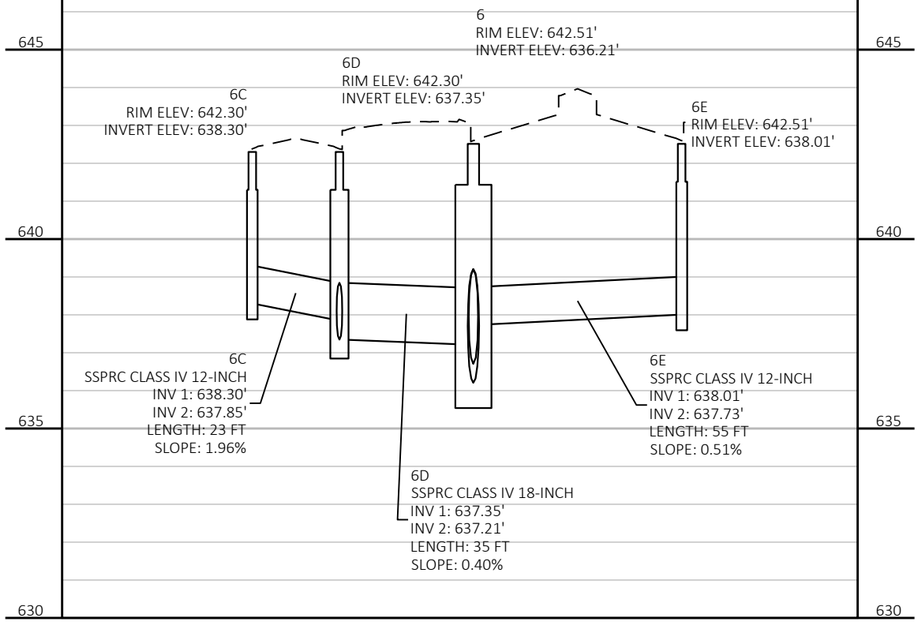
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 53 of 207	E

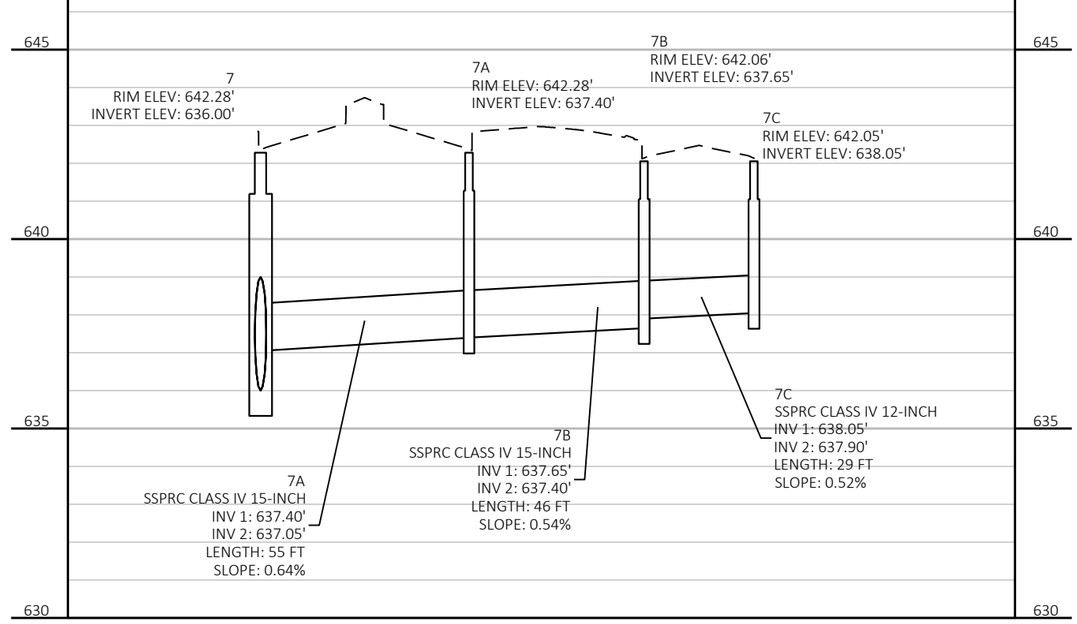
2

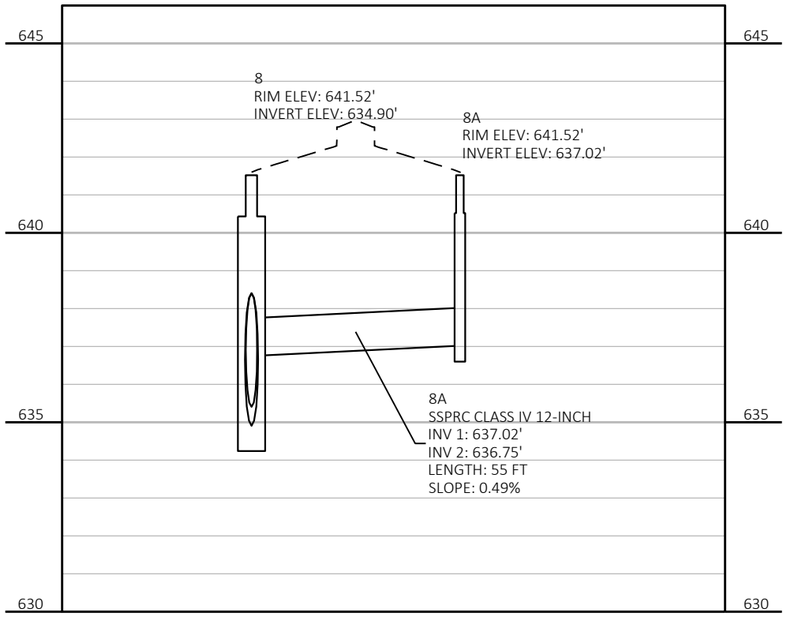




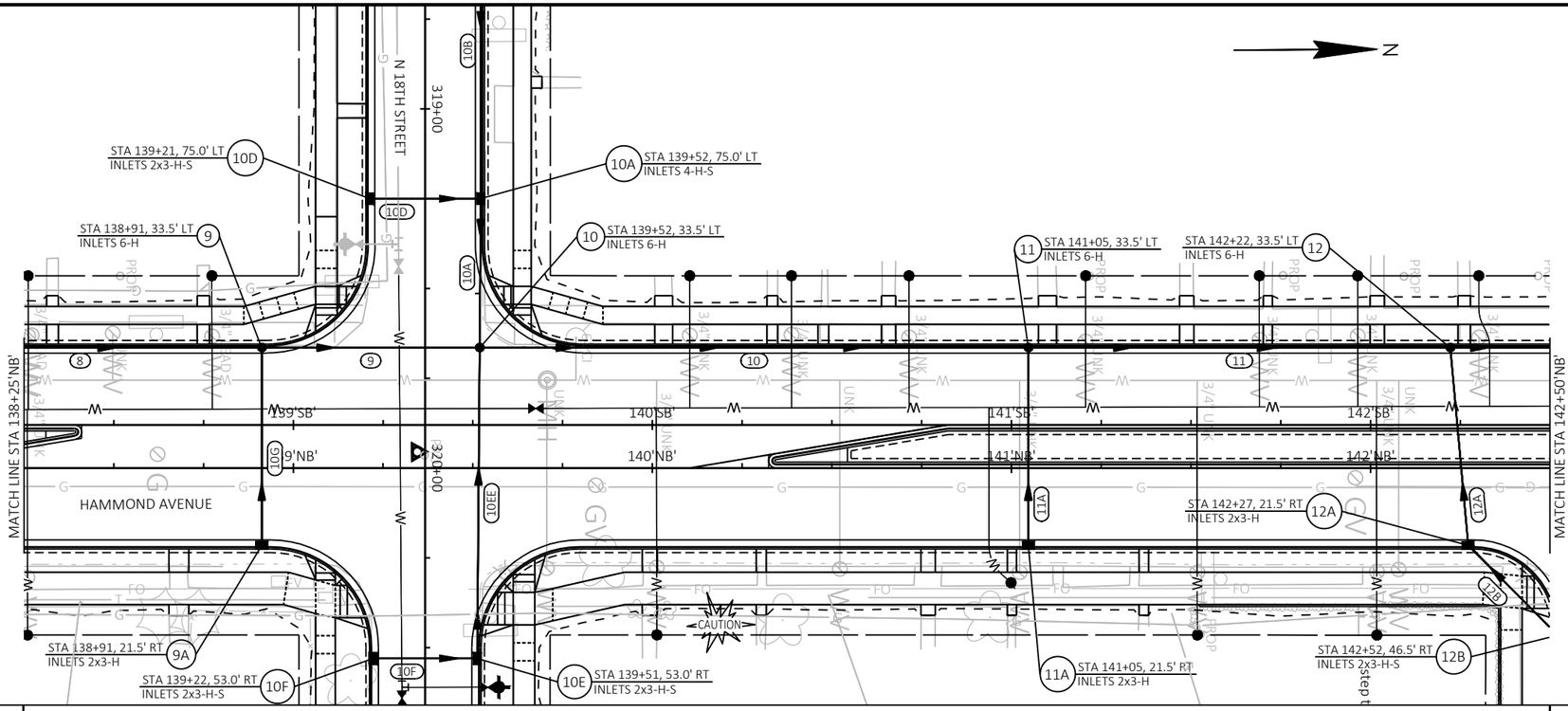
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 54 of 207	E

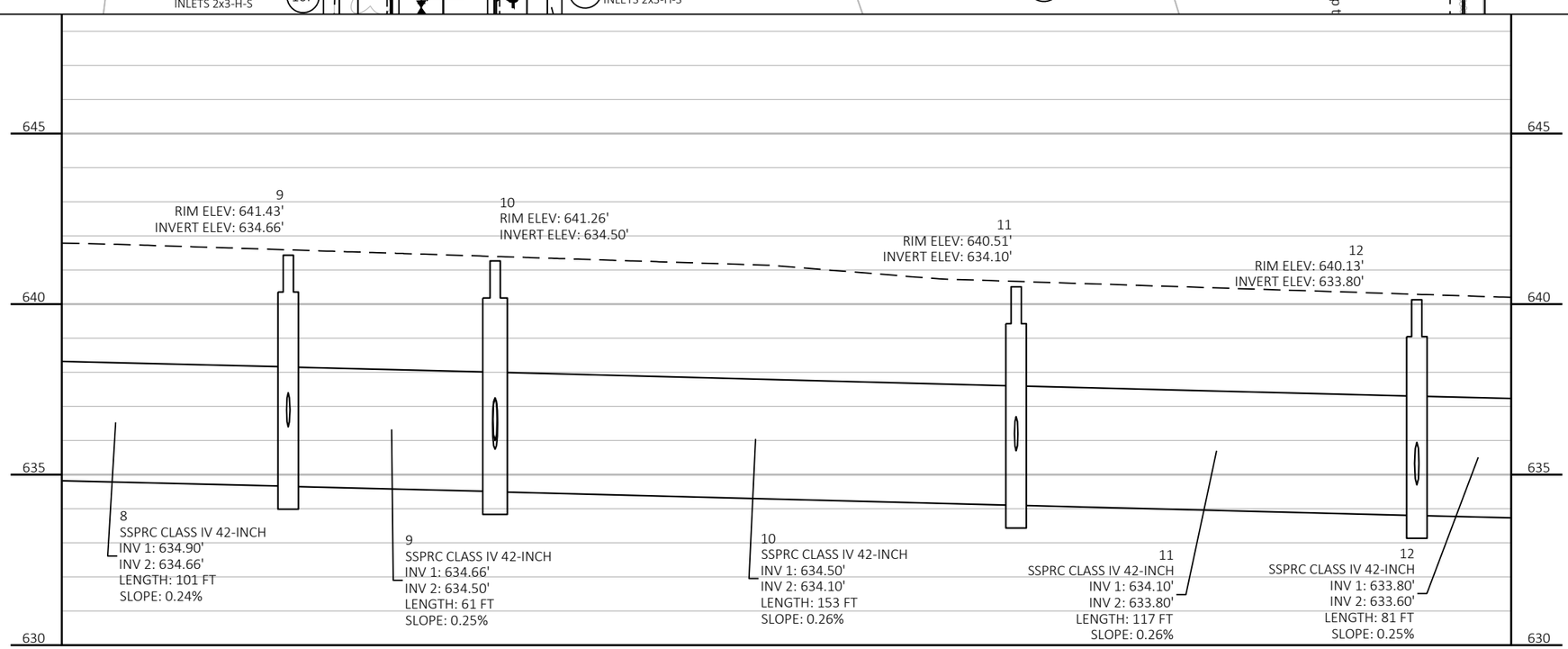

645
640
635
630
6
RIM ELEV: 642.51'
INVERT ELEV: 636.21'
6D
RIM ELEV: 642.30'
INVERT ELEV: 637.35'
6C
RIM ELEV: 642.30'
INVERT ELEV: 638.30'
6E
RIM ELEV: 642.51'
INVERT ELEV: 638.01'
6C
SSPRC CLASS IV 12-INCH
INV 1: 638.30'
INV 2: 637.85'
LENGTH: 23 FT
SLOPE: 1.96%
6D
SSPRC CLASS IV 18-INCH
INV 1: 637.35'
INV 2: 637.21'
LENGTH: 35 FT
SLOPE: 0.40%
6E
SSPRC CLASS IV 12-INCH
INV 1: 638.01'
INV 2: 637.73'
LENGTH: 55 FT
SLOPE: 0.51%


645
640
635
630
7
RIM ELEV: 642.28'
INVERT ELEV: 636.00'
7A
RIM ELEV: 642.28'
INVERT ELEV: 637.40'
7B
RIM ELEV: 642.06'
INVERT ELEV: 637.65'
7C
RIM ELEV: 642.05'
INVERT ELEV: 638.05'
7A
SSPRC CLASS IV 15-INCH
INV 1: 637.40'
INV 2: 637.05'
LENGTH: 55 FT
SLOPE: 0.64%
7B
SSPRC CLASS IV 15-INCH
INV 1: 637.65'
INV 2: 637.40'
LENGTH: 46 FT
SLOPE: 0.54%
7C
SSPRC CLASS IV 12-INCH
INV 1: 638.05'
INV 2: 637.90'
LENGTH: 29 FT
SLOPE: 0.52%

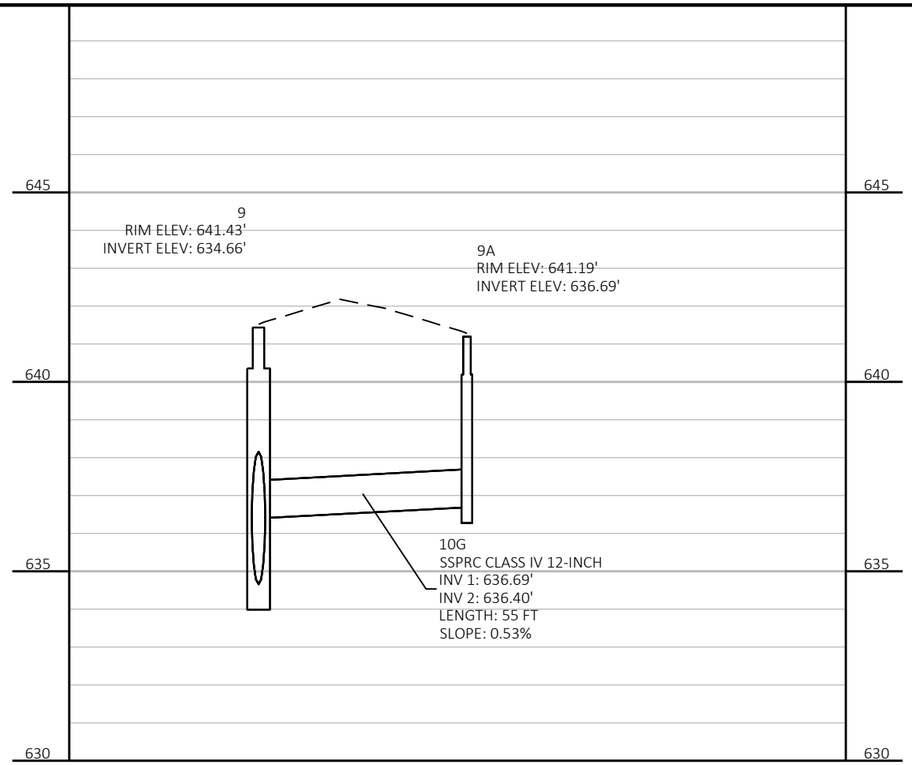

645
640
635
630
8
RIM ELEV: 641.52'
INVERT ELEV: 634.90'
8A
RIM ELEV: 641.52'
INVERT ELEV: 637.02'
8A
SSPRC CLASS IV 12-INCH
INV 1: 637.02'
INV 2: 636.75'
LENGTH: 55 FT
SLOPE: 0.49%

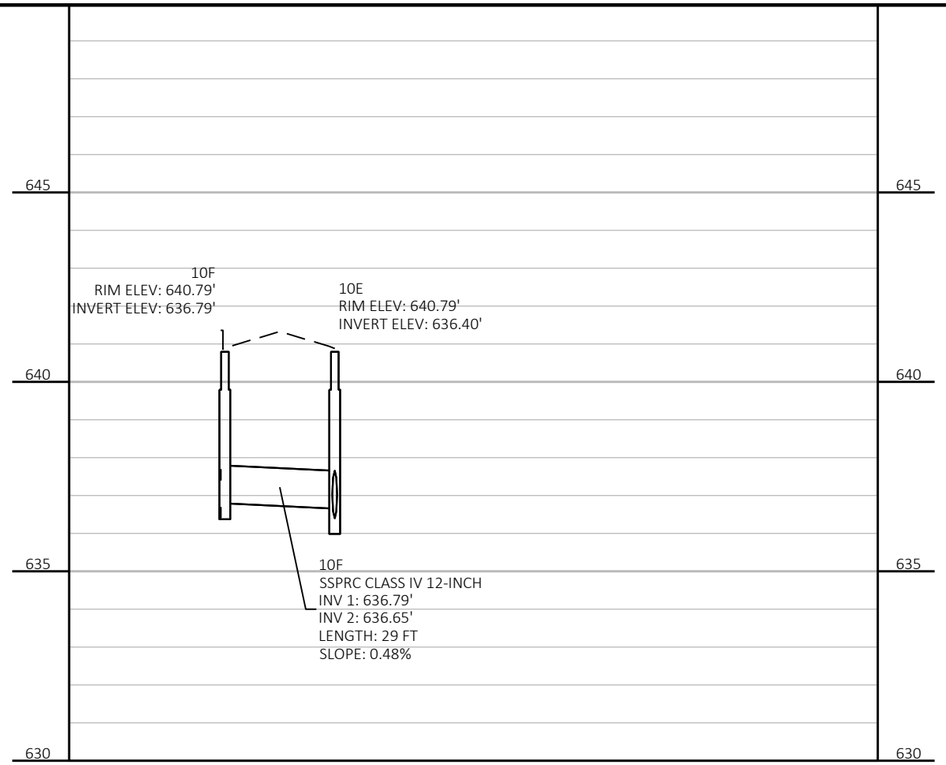
2

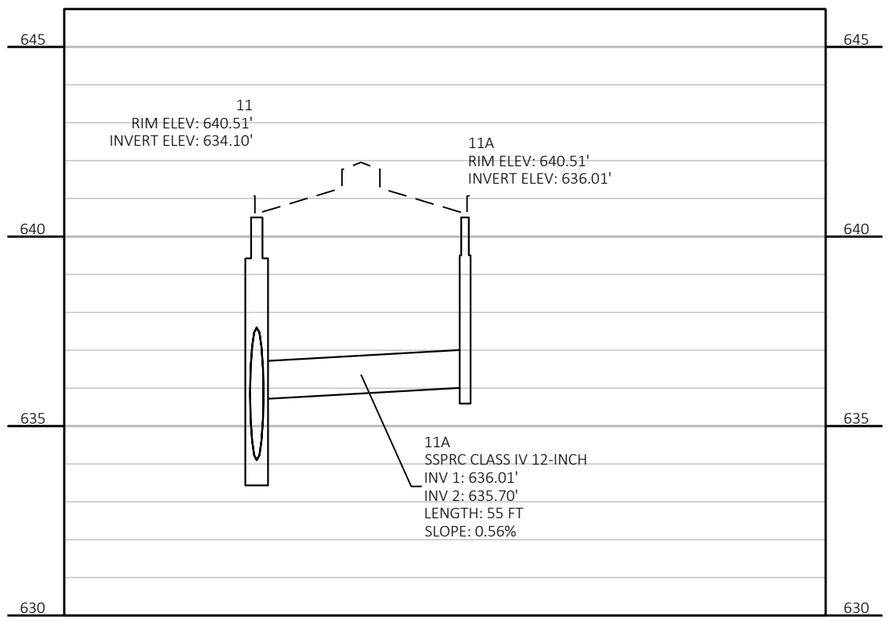


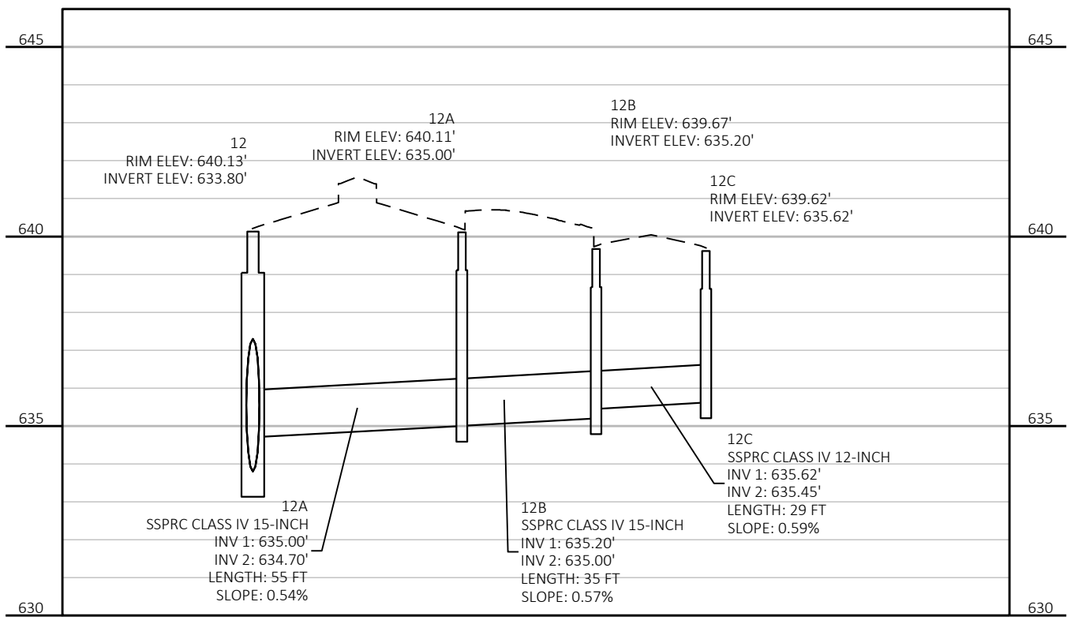


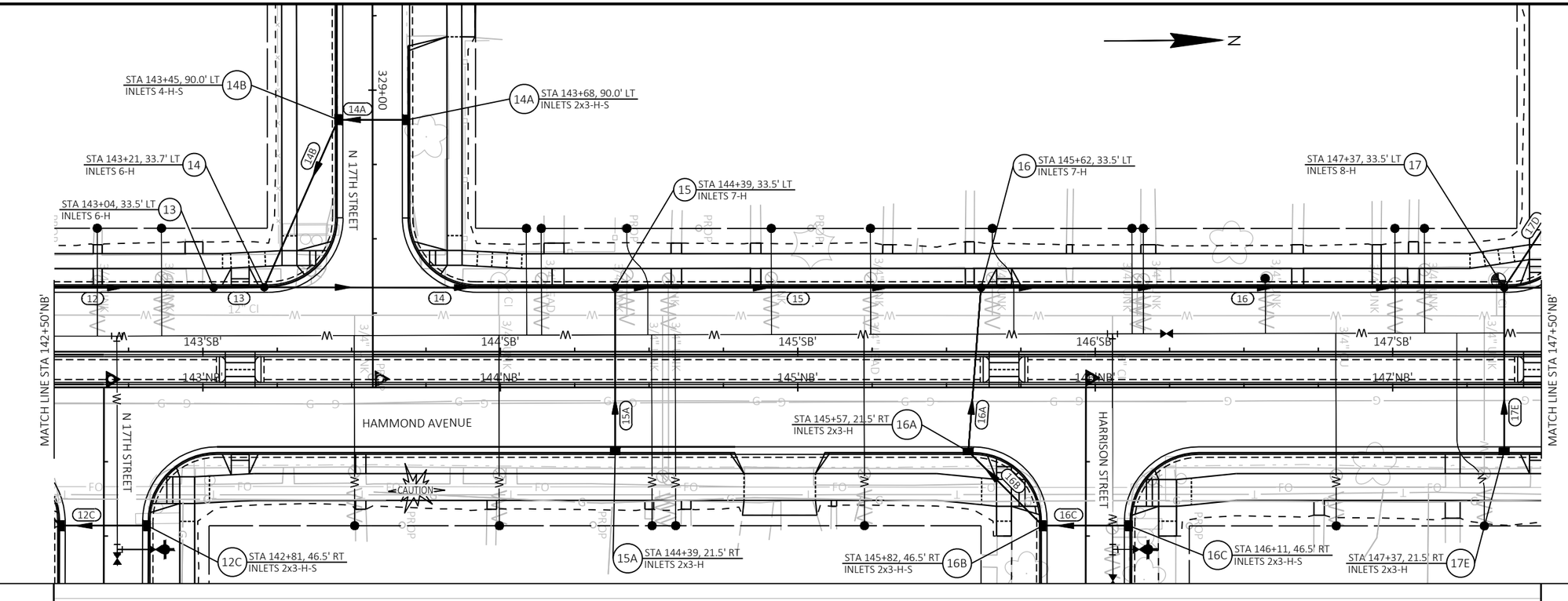
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 56 of 207	E

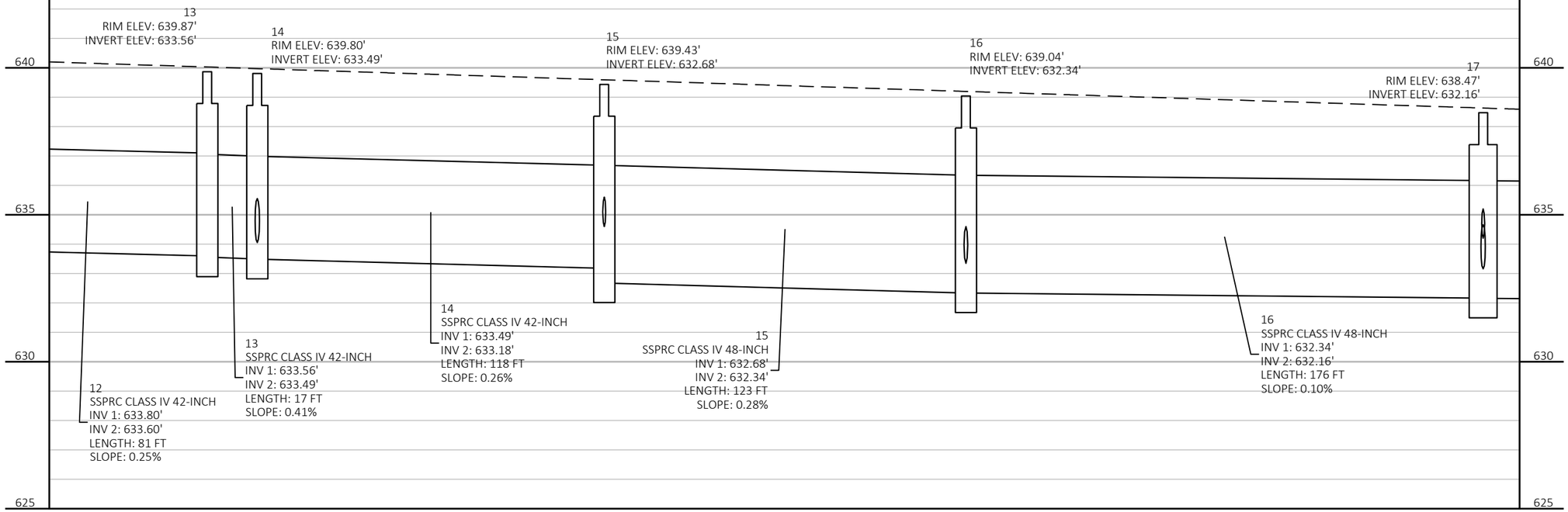

645
640
635
630
9
RIM ELEV: 641.43'
INVERT ELEV: 634.66'
9A
RIM ELEV: 641.19'
INVERT ELEV: 636.69'
10G
SSPRC CLASS IV 12-INCH
INV 1: 636.69'
INV 2: 636.40'
LENGTH: 55 FT
SLOPE: 0.53%


645
640
635
630
10F
RIM ELEV: 640.79'
INVERT ELEV: 636.79'
10E
RIM ELEV: 640.79'
INVERT ELEV: 636.40'
10F
SSPRC CLASS IV 12-INCH
INV 1: 636.79'
INV 2: 636.65'
LENGTH: 29 FT
SLOPE: 0.48%

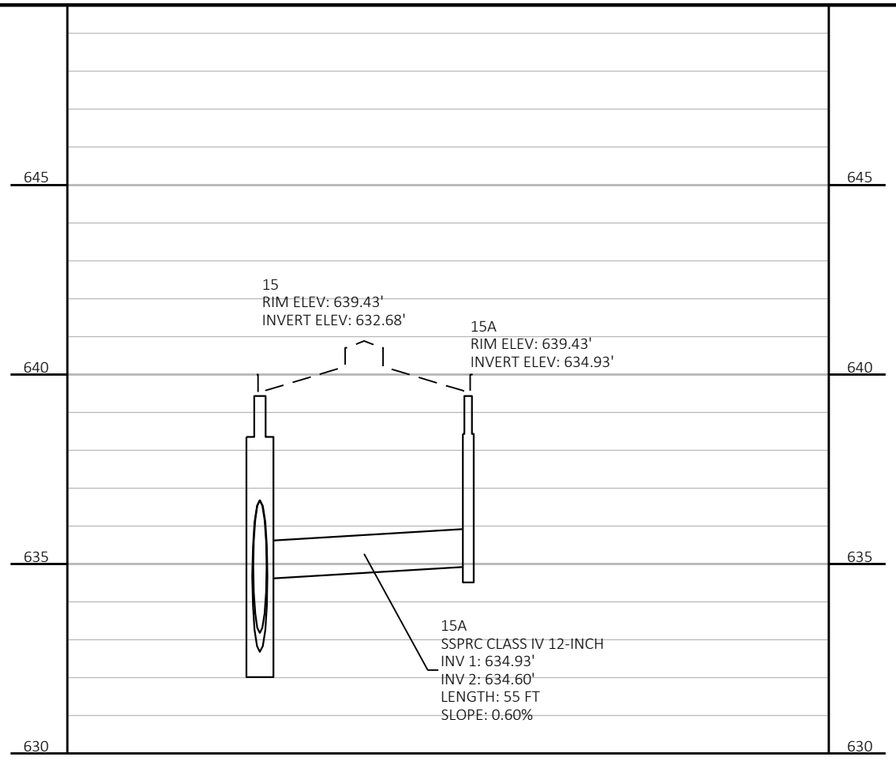

645
640
635
630
11
RIM ELEV: 640.51'
INVERT ELEV: 634.10'
11A
RIM ELEV: 640.51'
INVERT ELEV: 636.01'
11A
SSPRC CLASS IV 12-INCH
INV 1: 636.01'
INV 2: 635.70'
LENGTH: 55 FT
SLOPE: 0.56%

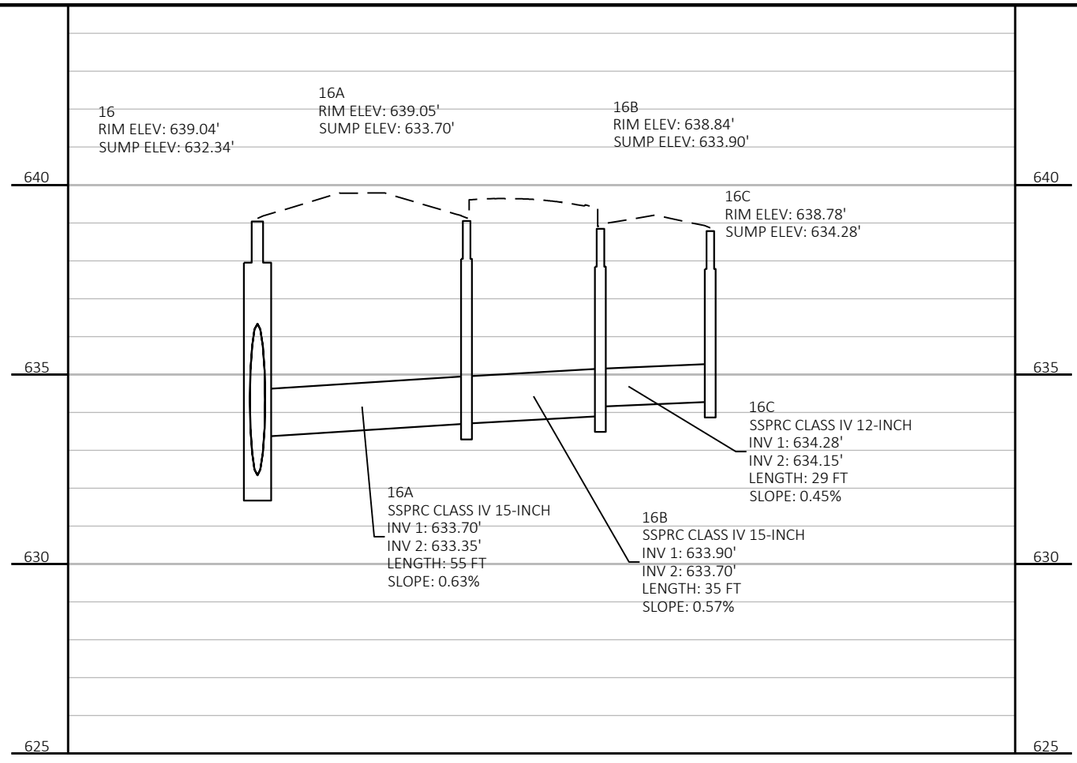

645
640
635
630
12
RIM ELEV: 640.13'
INVERT ELEV: 633.80'
12A
RIM ELEV: 640.11'
INVERT ELEV: 635.00'
12B
RIM ELEV: 639.67'
INVERT ELEV: 635.20'
12C
RIM ELEV: 639.62'
INVERT ELEV: 635.62'
12A
SSPRC CLASS IV 15-INCH
INV 1: 635.00'
INV 2: 634.70'
LENGTH: 55 FT
SLOPE: 0.54%
12B
SSPRC CLASS IV 15-INCH
INV 1: 635.20'
INV 2: 635.00'
LENGTH: 35 FT
SLOPE: 0.57%
12C
SSPRC CLASS IV 12-INCH
INV 1: 635.62'
INV 2: 635.45'
LENGTH: 29 FT
SLOPE: 0.59%

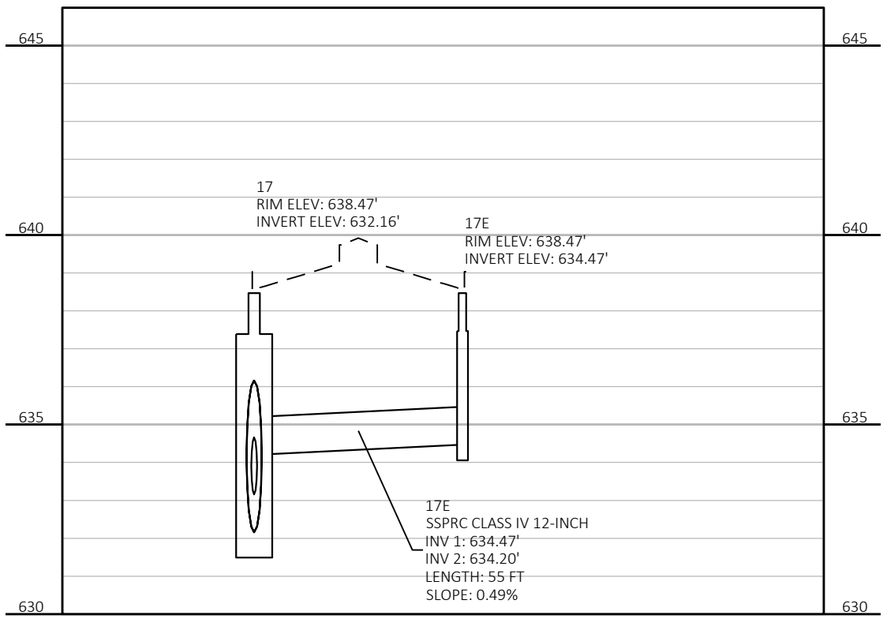




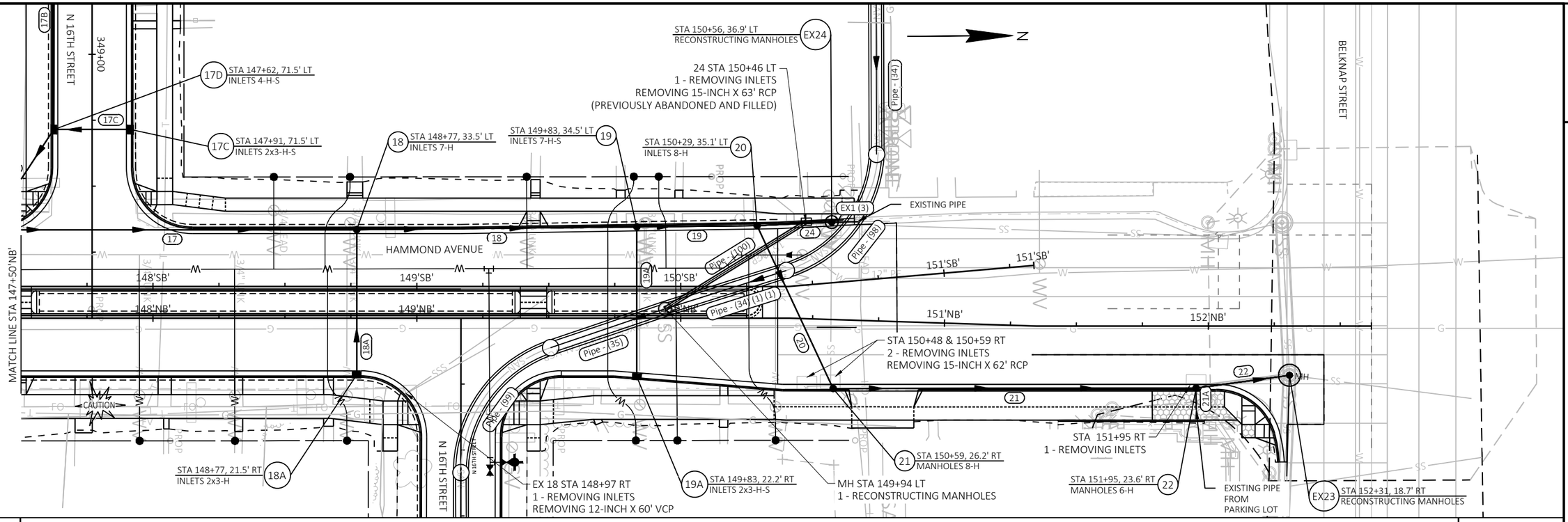
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 58 of 207	E

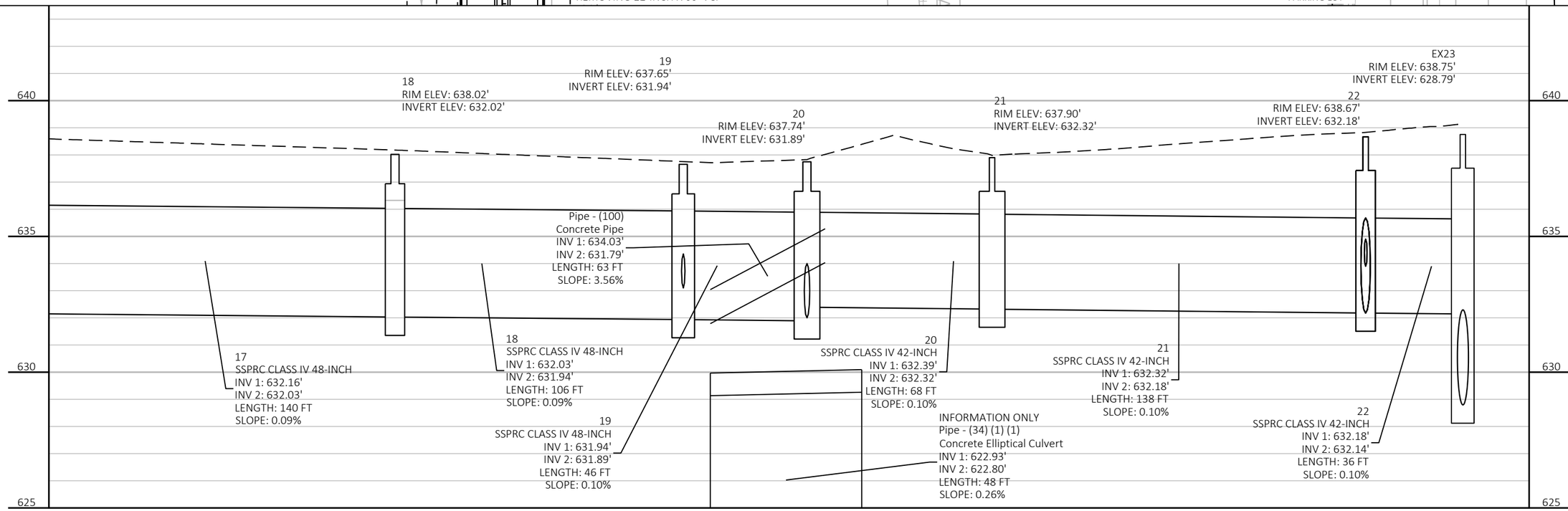

645
640
635
630
15
RIM ELEV: 639.43'
INVERT ELEV: 632.68'
15A
RIM ELEV: 639.43'
INVERT ELEV: 634.93'
15A
SSPRC CLASS IV 12-INCH
INV 1: 634.93'
INV 2: 634.60'
LENGTH: 55 FT
SLOPE: 0.60%


640
635
630
625
16
RIM ELEV: 639.04'
SUMP ELEV: 632.34'
16A
RIM ELEV: 639.05'
SUMP ELEV: 633.70'
16B
RIM ELEV: 638.84'
SUMP ELEV: 633.90'
16C
RIM ELEV: 638.78'
SUMP ELEV: 634.28'
16A
SSPRC CLASS IV 15-INCH
INV 1: 633.70'
INV 2: 633.35'
LENGTH: 55 FT
SLOPE: 0.63%
16B
SSPRC CLASS IV 15-INCH
INV 1: 633.90'
INV 2: 633.70'
LENGTH: 35 FT
SLOPE: 0.57%
16C
SSPRC CLASS IV 12-INCH
INV 1: 634.28'
INV 2: 634.15'
LENGTH: 29 FT
SLOPE: 0.45%


645
640
635
630
17
RIM ELEV: 638.47'
INVERT ELEV: 632.16'
17E
RIM ELEV: 638.47'
INVERT ELEV: 634.47'
17E
SSPRC CLASS IV 12-INCH
INV 1: 634.47'
INV 2: 634.20'
LENGTH: 55 FT
SLOPE: 0.49%

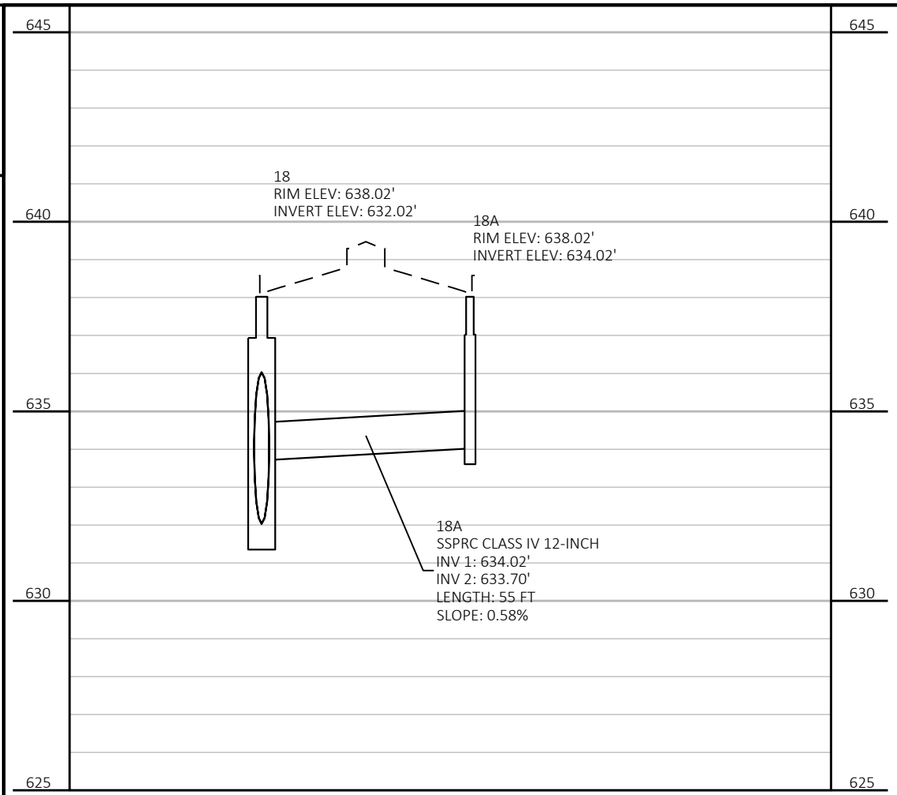
2

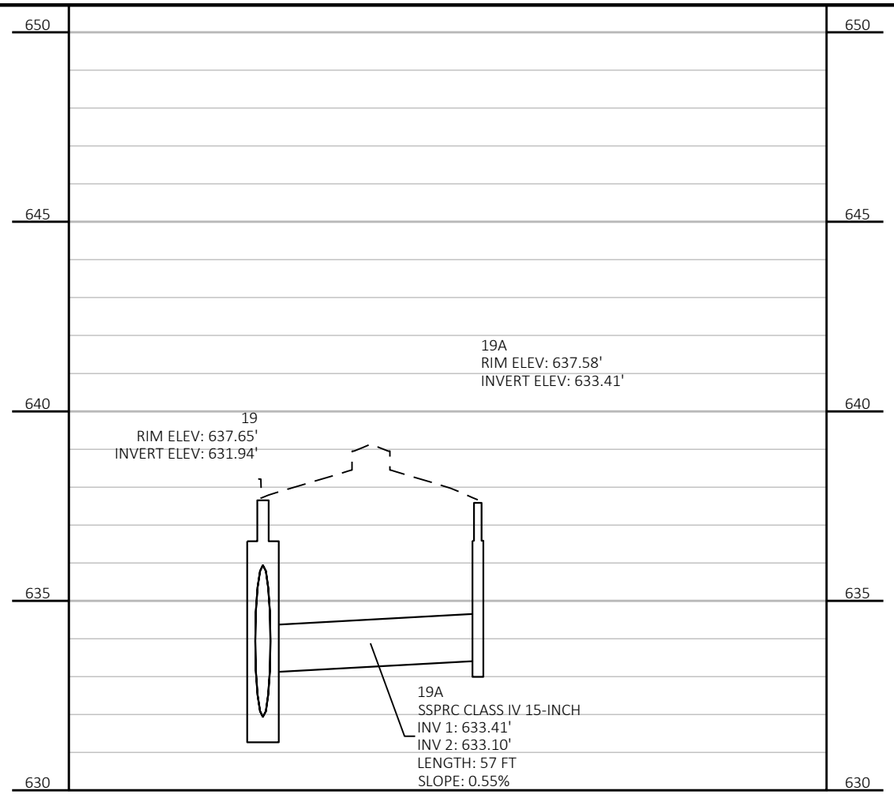


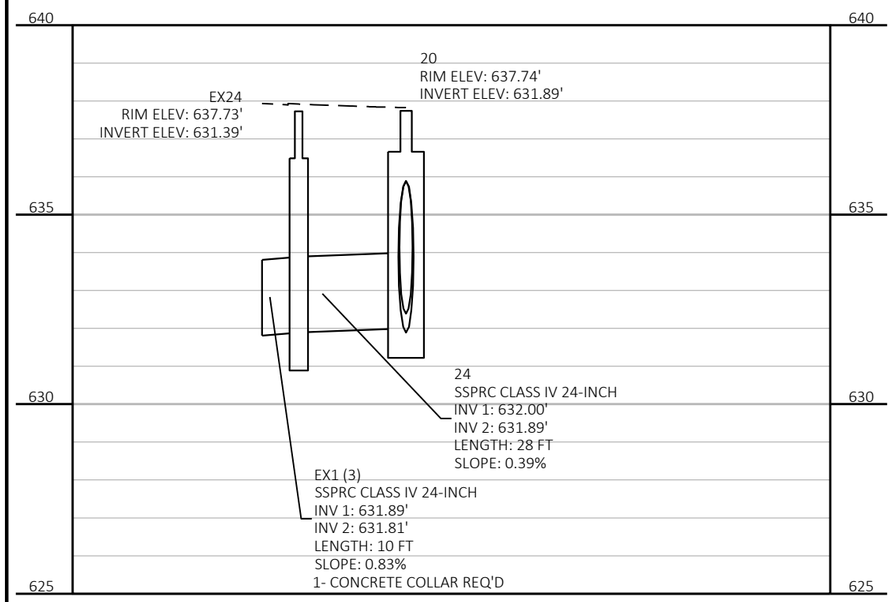


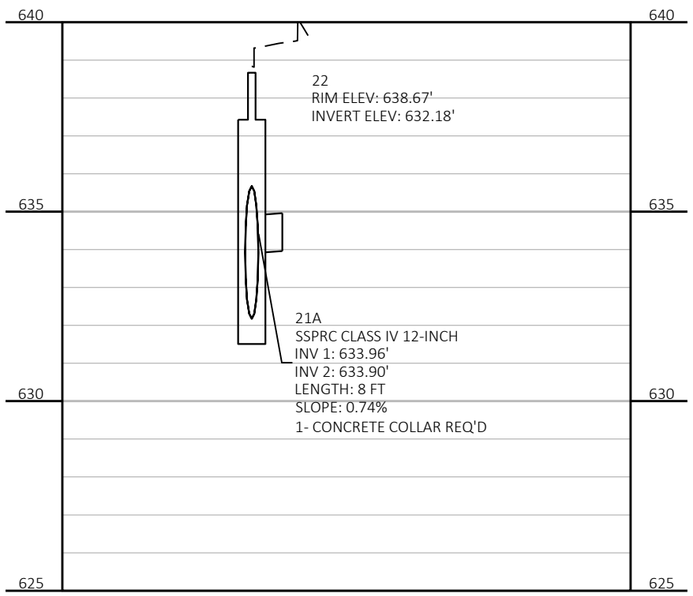
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 60 of 207	E

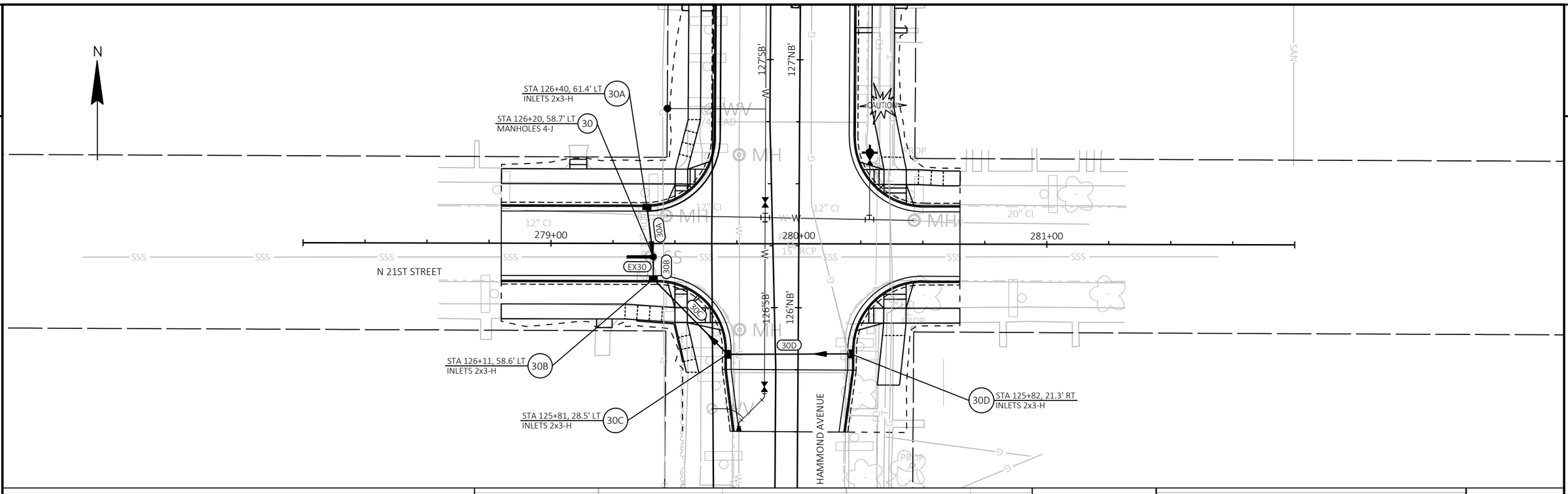
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022501_SS.DWG
LAYOUT NAME - 05
PLOT DATE : 1/24/2024 4:53 PM
PLOT BY : NICK ENGH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

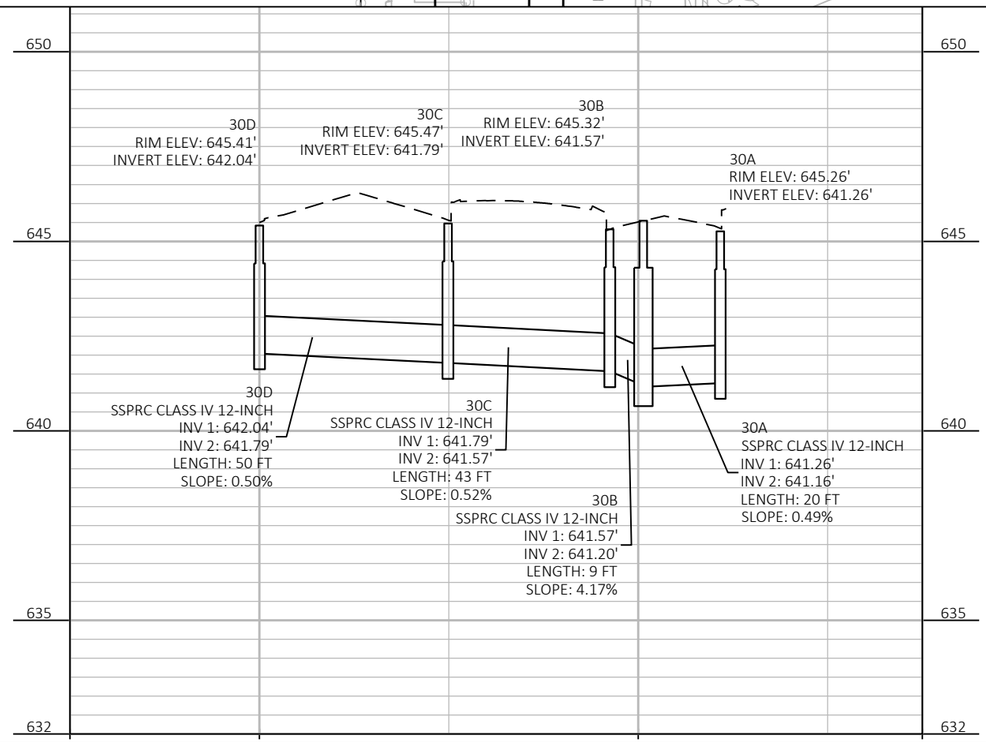

645
640
635
630
625
18
RIM ELEV: 638.02'
INVERT ELEV: 632.02'
18A
RIM ELEV: 638.02'
INVERT ELEV: 634.02'
18A
SSPRC CLASS IV 12-INCH
INV 1: 634.02'
INV 2: 633.70'
LENGTH: 55 FT
SLOPE: 0.58%

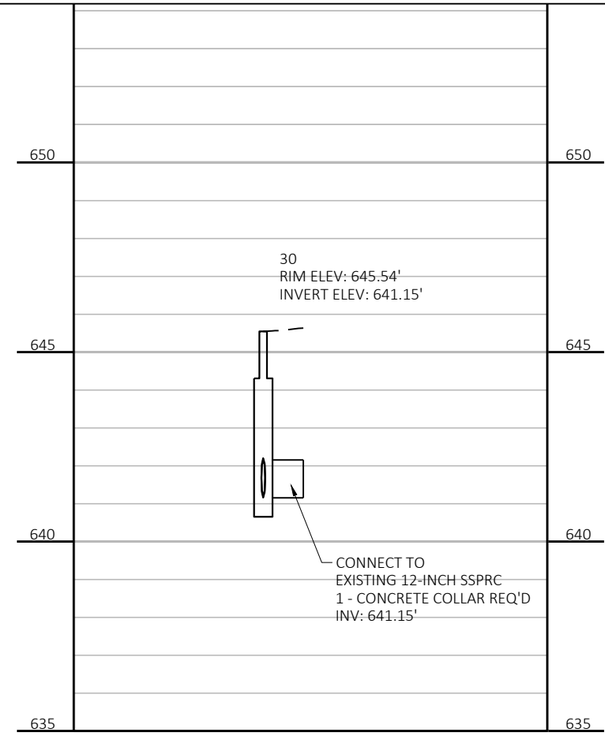

650
645
640
635
630
19A
RIM ELEV: 637.58'
INVERT ELEV: 633.41'
19
RIM ELEV: 637.65'
INVERT ELEV: 631.94'
19A
SSPRC CLASS IV 15-INCH
INV 1: 633.41'
INV 2: 633.10'
LENGTH: 57 FT
SLOPE: 0.55%


640
635
630
625
20
RIM ELEV: 637.74'
INVERT ELEV: 631.89'
EX24
RIM ELEV: 637.73'
INVERT ELEV: 631.39'
24
SSPRC CLASS IV 24-INCH
INV 1: 632.00'
INV 2: 631.89'
LENGTH: 28 FT
SLOPE: 0.39%
EX1 (3)
SSPRC CLASS IV 24-INCH
INV 1: 631.89'
INV 2: 631.81'
LENGTH: 10 FT
SLOPE: 0.83%
1- CONCRETE COLLAR REQ'D


640
635
630
625
22
RIM ELEV: 638.67'
INVERT ELEV: 632.18'
21A
SSPRC CLASS IV 12-INCH
INV 1: 633.96'
INV 2: 633.90'
LENGTH: 8 FT
SLOPE: 0.74%
1- CONCRETE COLLAR REQ'D



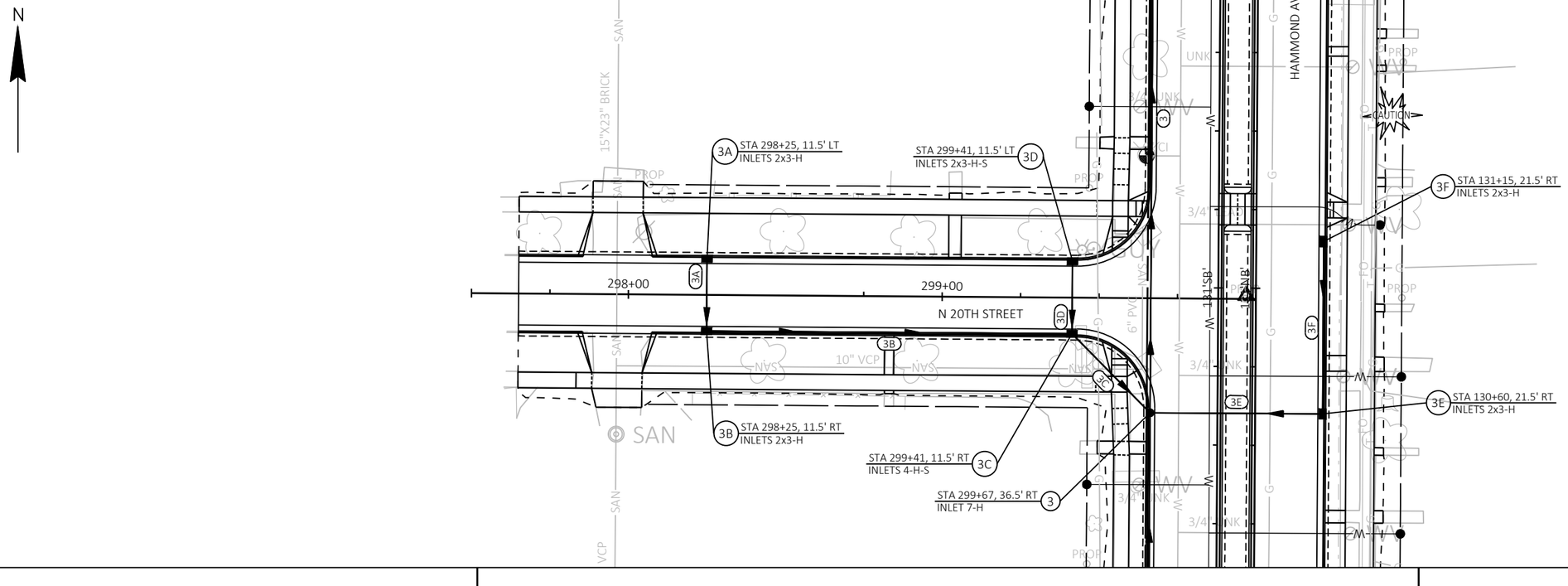


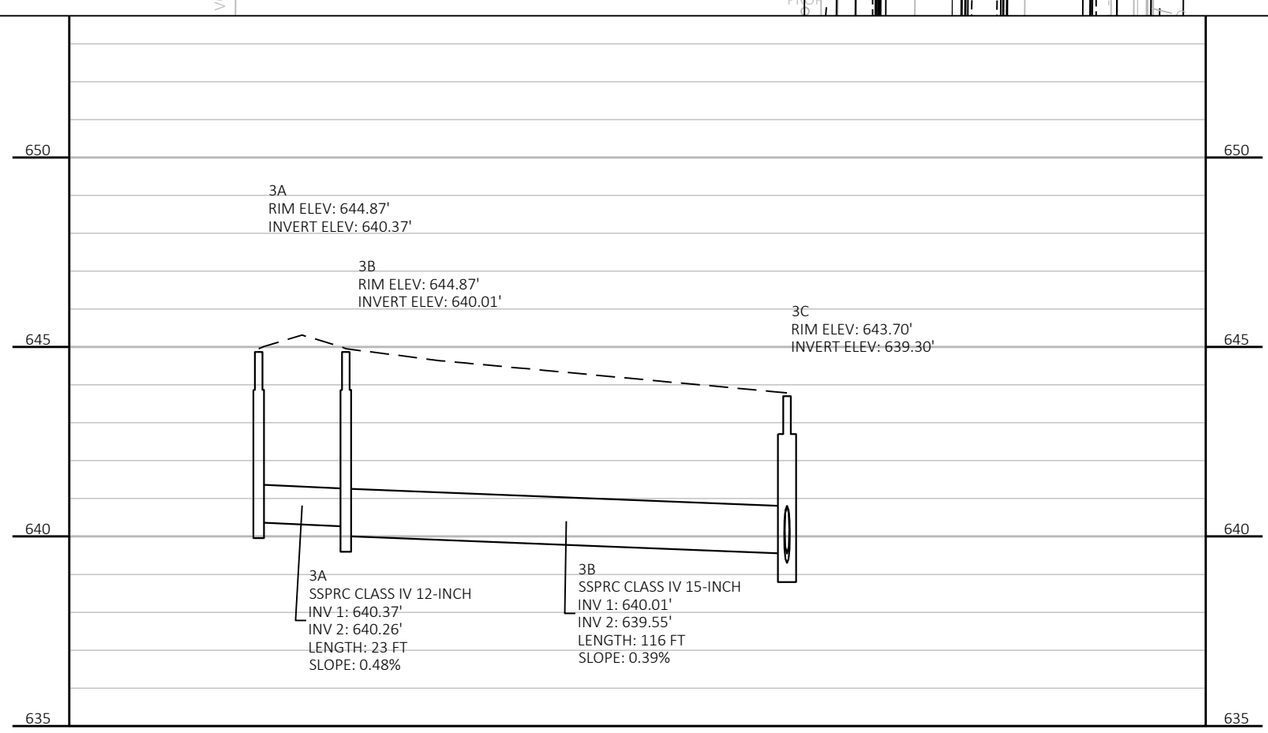


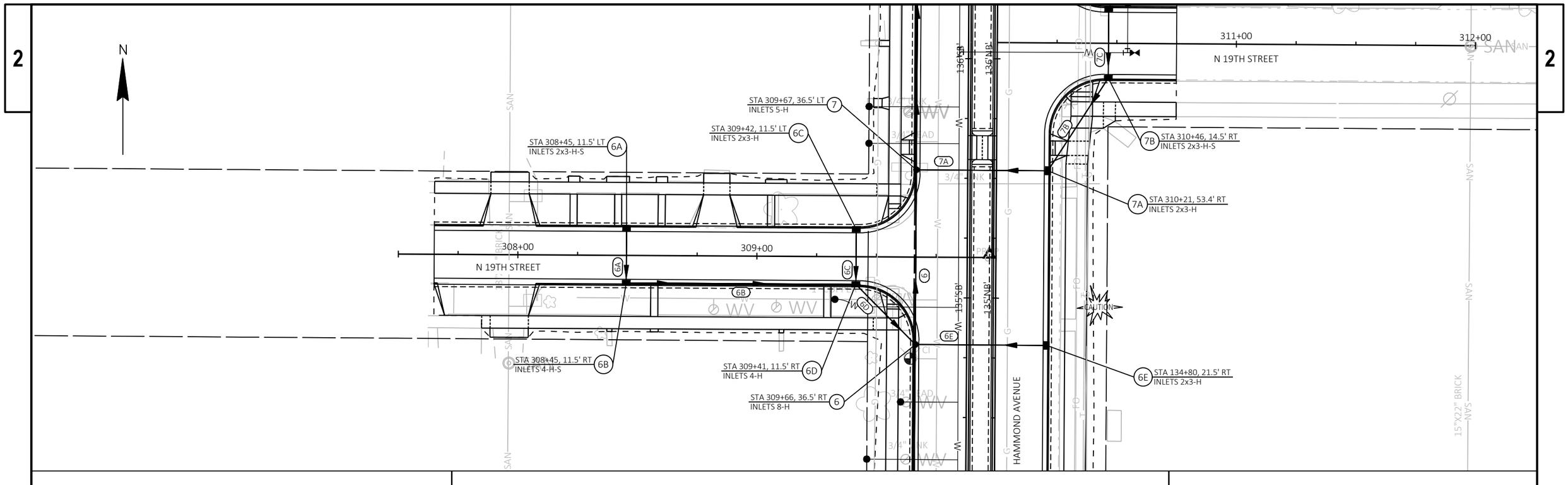
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 62 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022502_SS.DWG
LAYOUT NAME - 06

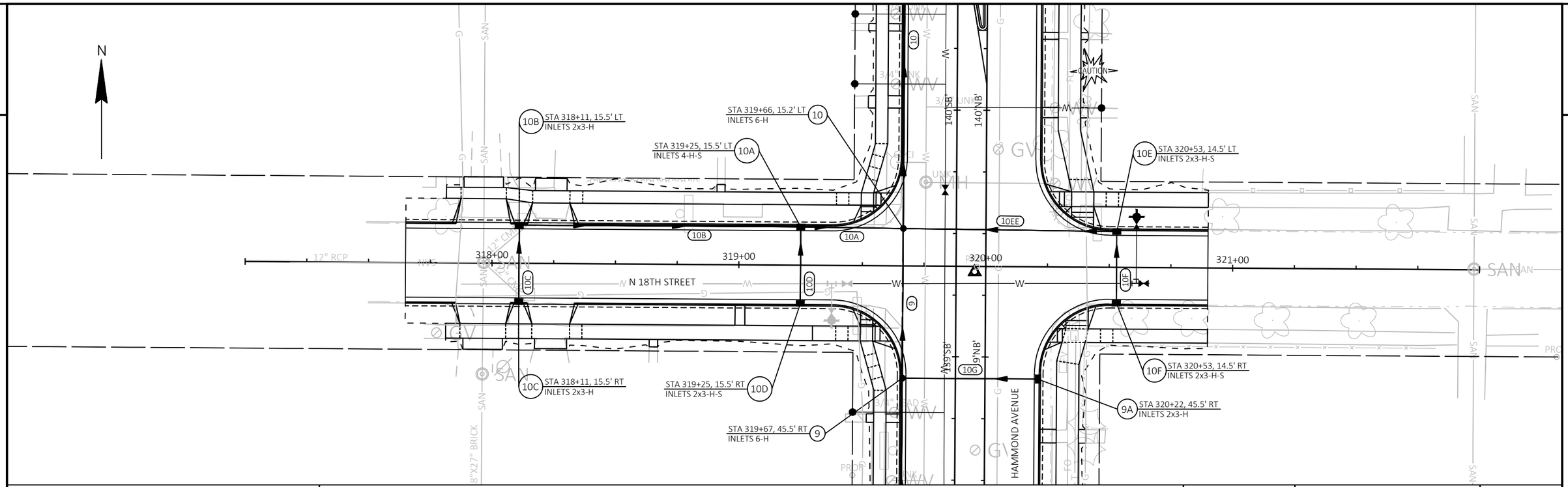
PLOT DATE : 11/17/2023 8:35 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:40 FT

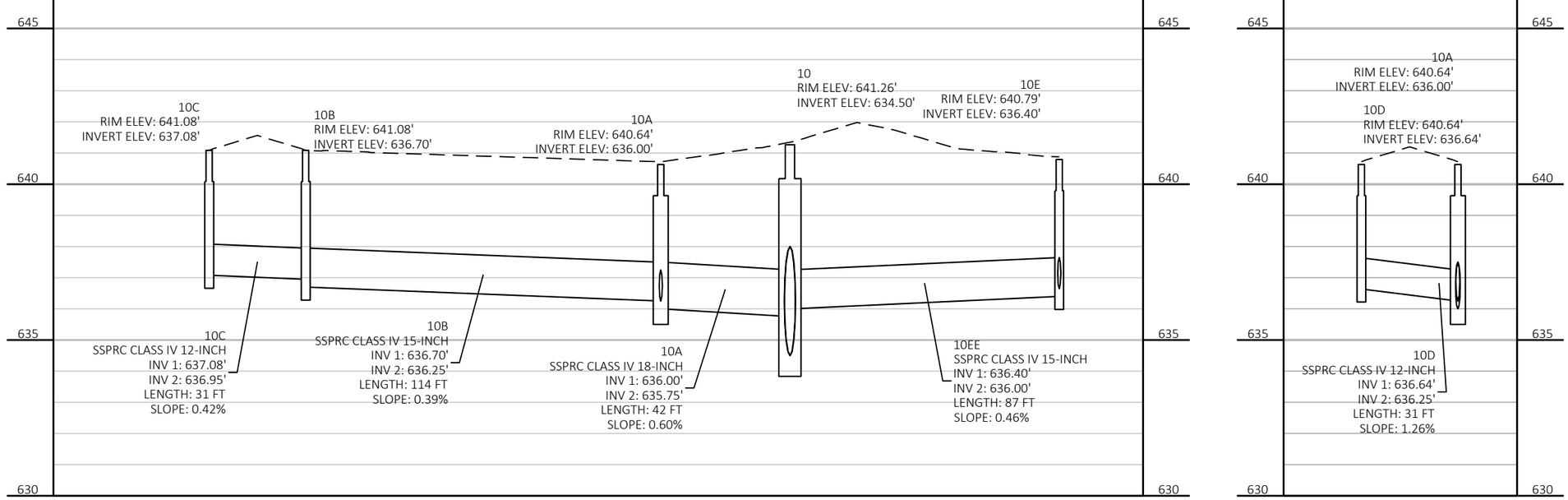

N
HAMMOND AVENUE
N 20TH STREET
298+00
299+00
15"X23" BRICK
10" VCP
15" VCP
6" PVC
CAUTION
3A STA 298+25, 11.5' LT
INLETS 2x3-H
3B STA 298+25, 11.5' RT
INLETS 2x3-H
3C STA 299+41, 11.5' RT
INLETS 4-H-S
3D STA 299+41, 11.5' LT
INLETS 2x3-H-S
3 STA 299+67, 36.5' RT
INLET 7-H
3E STA 130+60, 21.5' RT
INLETS 2x3-H
3F STA 131+15, 21.5' RT
INLETS 2x3-H


650
645
640
635
3A
RIM ELEV: 644.87'
INVERT ELEV: 640.37'
3B
RIM ELEV: 644.87'
INVERT ELEV: 640.01'
3C
RIM ELEV: 643.70'
INVERT ELEV: 639.30'
3A
SSPRC CLASS IV 12-INCH
INV 1: 640.37'
INV 2: 640.26'
LENGTH: 23 FT
SLOPE: 0.48%
3B
SSPRC CLASS IV 15-INCH
INV 1: 640.01'
INV 2: 639.55'
LENGTH: 116 FT
SLOPE: 0.39%



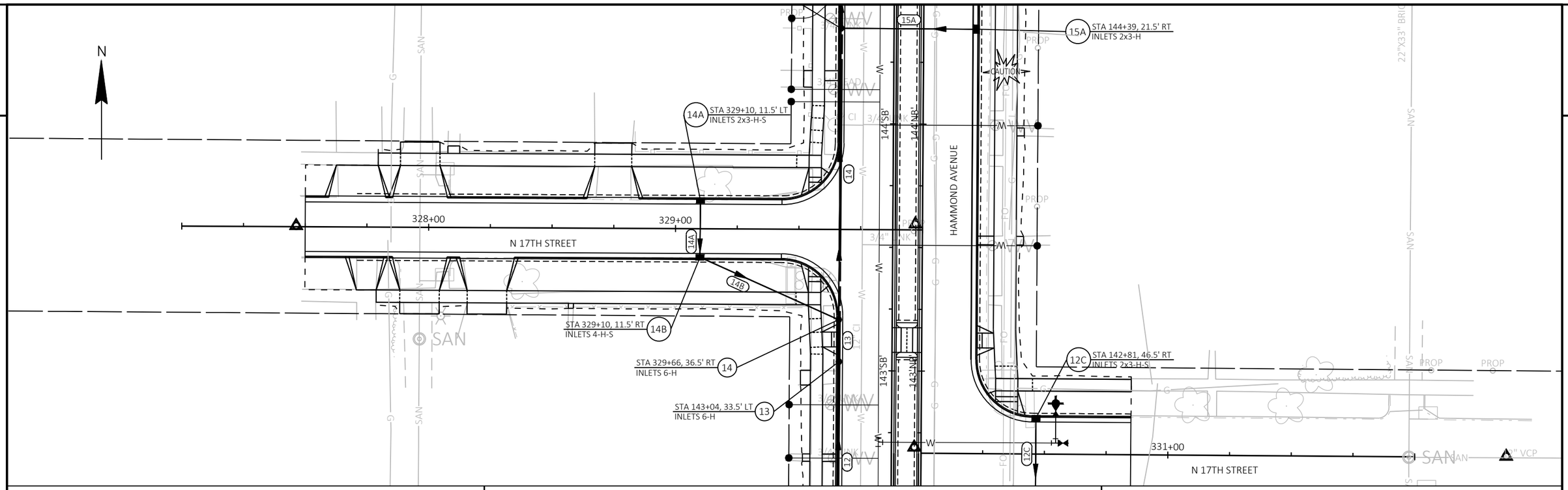
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 64 of 207	E

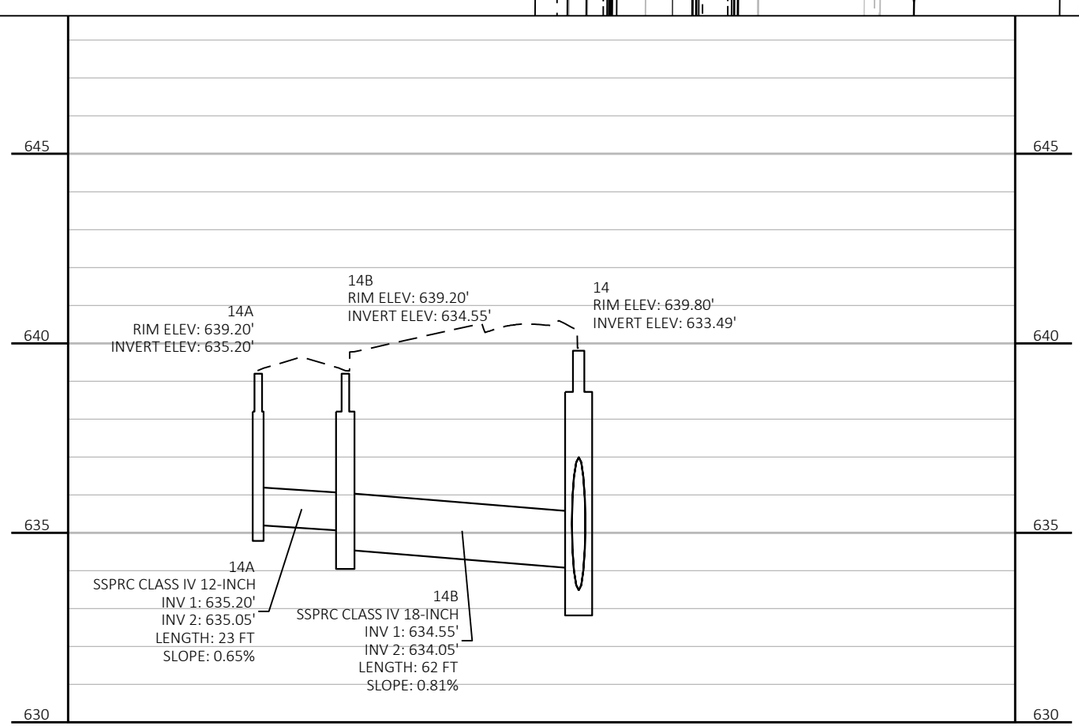




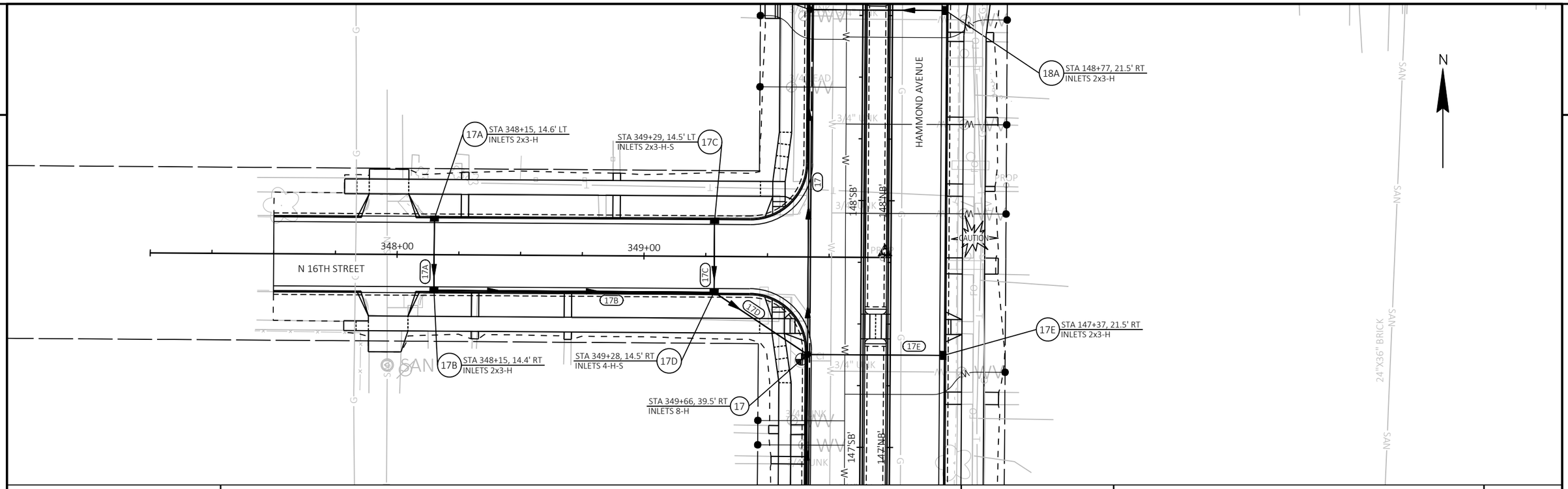
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 65 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\022502_SS.DWG
LAYOUT NAME - 09
PLOT DATE : 11/17/2023 8:36 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

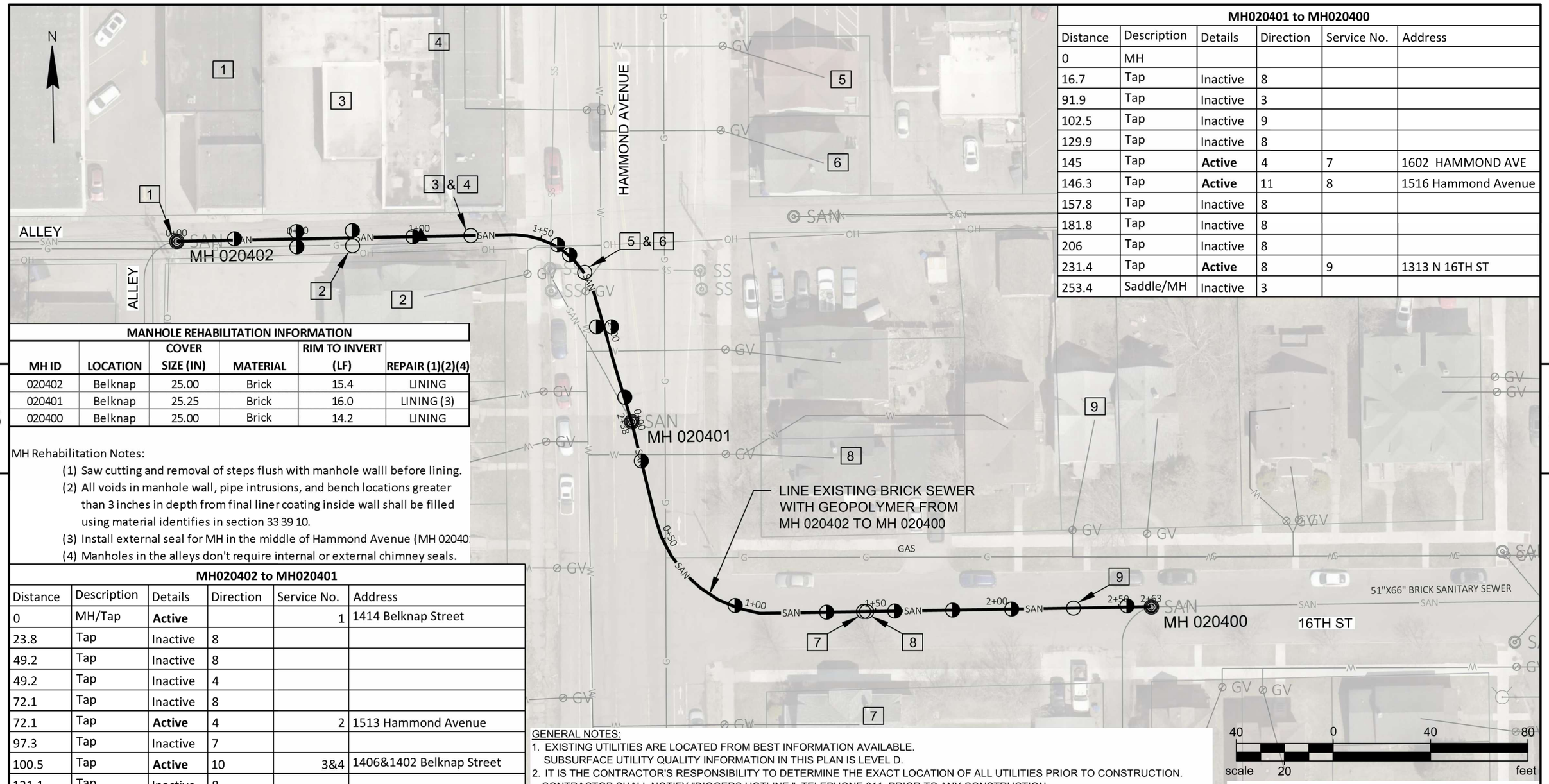




PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 66 of 207	E



PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	STORM SEWER	SHEET Page 67 of 207	E



MANHOLE REHABILITATION INFORMATION

MH ID	LOCATION	COVER SIZE (IN)	MATERIAL	RIM TO INVERT (LF)	REPAIR (1)(2)(4)
020402	Belknap	25.00	Brick	15.4	LINING
020401	Belknap	25.25	Brick	16.0	LINING (3)
020400	Belknap	25.00	Brick	14.2	LINING

MH Rehabilitation Notes:

(1) Saw cutting and removal of steps flush with manhole walll before lining.
(2) All voids in manhole wall, pipe intrusions, and bench locations greater than 3 inches in depth from final liner coating inside wall shall be filled using material identifies in section 33 39 10.
(3) Install external seal for MH in the middle of Hammond Avenue (MH 02040
(4) Manholes in the alleys don't require internal or external chimney seals.

MH020402 to MH020401

Distance	Description	Details	Direction	Service No.	Address
0	MH/Tap	**Active**		1	1414 Belknap Street
23.8	Tap	Inactive	8		
49.2	Tap	Inactive	8		
49.2	Tap	Inactive	4		
72.1	Tap	Inactive	8		
72.1	Tap	**Active**	4	2	1513 Hammond Avenue
97.3	Tap	Inactive	7		
100.5	Tap	**Active**	10	3&4	1406&1402 Belknap Street
121.1	Tap	Inactive	8		
157.6	Tap	Inactive	10		
163.7	Tap	**Active**	10	5&6	1506&1508 Hammond Avenue
173.2	Tap	Inactive	9		
197	Tap	Inactive	4		
197.4	Tap	Inactive	7		
227.9	Tap	Inactive	12		
228	MH				

MH020401 to MH020400

Distance	Description	Details	Direction	Service No.	Address
0	MH				
16.7	Tap	Inactive	8		
91.9	Tap	Inactive	3		
102.5	Tap	Inactive	9		
129.9	Tap	Inactive	8		
145	Tap	**Active**	4	7	1602 HAMMOND AVE
146.3	Tap	**Active**	11	8	1516 Hammond Avenue
157.8	Tap	Inactive	8		
181.8	Tap	Inactive	8		
206	Tap	Inactive	8		
231.4	Tap	**Active**	8	9	1313 N 16TH ST
253.4	Saddle/MH	Inactive	3		

GENERAL NOTES:

1. EXISTING UTILITIES ARE LOCATED FROM BEST INFORMATION AVAILABLE. SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS LEVEL D.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY "DIGGERS HOTLINE ", TELEPHONE 811, PRIOR TO ANY CONSTRUCTION.
3. PROVIDE FOR CONTINUITY OF SANITARY SEWER SERVICE TO EACH FACILITY CONNECTED TO THE AFFECTED SECTIONS AND ENSURE NO SEWAGE BACKUP TO PRIVATE PROPERTY.
4. SEWER SERVICE LINES TO INDIVIDUAL USERS MAY BE DISCONNECTED FOR A PERIOD NOT TO EXCEED 8 HOURS IN ANY 1 DAY.
5. NOTICE TO RESIDENTIAL PROPERTIES MUST BE GIVEN A MINIMUM OF 1 DAY IN ADVANCE. NOTICE TO COMMERCIAL OR INDUSTRIAL PROPERTIES MUST BE GIVEN A MINIMUM OF 2 DAYS IN ADVANCE. ADDITIONAL NOTICE SHALL BE GIVEN TO PROPERTIES AT THE DISCRETION OF THE ENGINEER. THE CONTRACTOR SHALL ATTEMPT TO CONTACT EACH PROPERTY OWNER; A DOOR HANGER SHALL BE GIVEN TO ALL RESIDENTS.
6. SEE SECTION 33 3 10 FOR INFORMATION REQUIRED TO BE PRESENT ON THE DOOR HANGER FOR NOTIFICATION TO PROPERTIES FOR INTERRUPTION OF SERVICE.
7. CONTRACTOR SHALL REINSTATE ALL ACTIVE SERVICE CONNECTIONS AND ABANDON THE INACTIVE SERVICE CONNECTIONS BY PLUGGING THEM WITH GROUT.
8. LINER THICKNESS TO BE DESIGNED BY CONTRACTOR. MINIMUM LINER THICKNESS SHALL BE 1.5 INCHES IN THICKNESS.

Legend

- Manhole
- Rehab Manhole
- XX Service Number
- Active Service
- Inactive Service
- Roots

PROJECT NO: 163728		SANITARY SEWER LINING	EXISTING SANITARY SEWER CONDITIONS EXHIBIT - 16TH ST SEWER	SHEET 56	E

FILE NAME : \\SEHINC.COM\PANZURA\PZPROJECTS\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SANITARY LINING\SU163728PL01.DWG
LAYOUT NAME - 16th
PLOT DATE : 9/27/2023 1:30 PM PLOT BY : ADAM ORLESKIE PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 44

MH3B0040 to MH3B0038

Distance	Description	Details	Direction	Service No.	Address
0	MH				
5	Tap	Inactive	9		
22	Tap	**Active**	9	10	1410 N 21ST ST
59.6	Tap	**Active**	11	11	1408 N 21ST ST
75	Tap	Inactive	9		
90.7	Tap	**Active**	2	12	2113 HAMMOND AVE
97	Tap	Inactive	2		
100	Tap	Inactive	9		
128	Tap	**Active**	9	13	1402 N 21ST ST
136	Tap	Inactive	9		
166	Tap	Inactive	9		
225	Tap	Inactive	9		
238	Tap	Inactive	3		
238	Tap	Inactive	9		
254	Tap	Inactive	3		
254	Tap	Inactive	9		
280	Tap	Inactive	3		
280	Tap	Inactive	9		
288	MH				

KEY NOTES:

1. EXISTING MANHOLE IS UNDER PRIVATE PROPERTY. CONTRACTOR SHALL REHABILITATE MANHOLE AS PART OF THE PIPE REHABILITATION. CONTRACTOR TO ACCESS THE MANHOLE FROM INSIDE THE PIPE ONLY.
2. CONTRACTOR SHALL REMOVE AND DISPOSE OF DEBRIS FROM THE BOTTOM OF THE PIPE ON THE DOWNSTREAM SIDE OF EXISTING MANHOLE
3. CONTRACTOR TO REMOVE CONDUIT AND SEAL THE HOLES ON THE PIPE WALL.

MANHOLE REHABILITATION INFORMATION

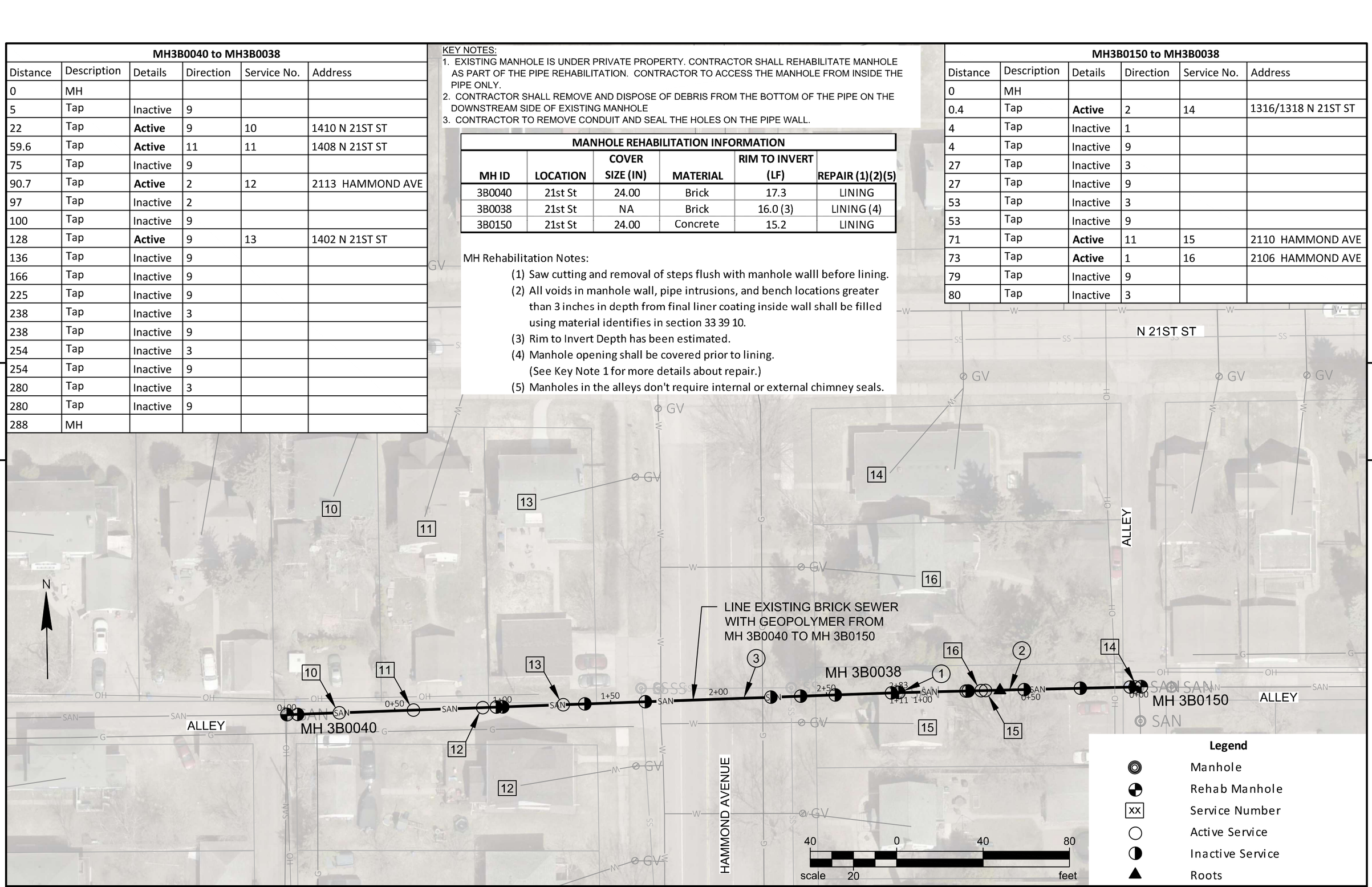
MH ID	LOCATION	COVER SIZE (IN)	MATERIAL	RIM TO INVERT (LF)	REPAIR (1)(2)(5)
3B0040	21st St	24.00	Brick	17.3	LINING
3B0038	21st St	NA	Brick	16.0 (3)	LINING (4)
3B0150	21st St	24.00	Concrete	15.2	LINING

MH Rehabilitation Notes:

(1) Saw cutting and removal of steps flush with manhole walll before lining.
(2) All voids in manhole wall, pipe intrusions, and bench locations greater than 3 inches in depth from final liner coating inside wall shall be filled using material identifies in section 33 39 10.
(3) Rim to Invert Depth has been estimated.
(4) Manhole opening shall be covered prior to lining. (See Key Note 1 for more details about repair.)
(5) Manholes in the alleys don't require internal or external chimney seals.

MH3B0150 to MH3B0038

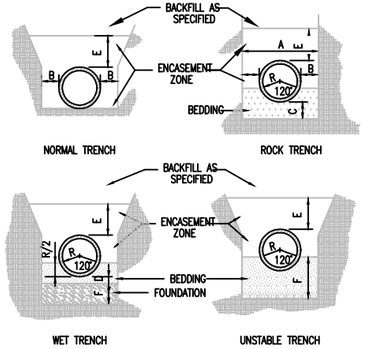
Distance	Description	Details	Direction	Service No.	Address
0	MH				
0.4	Tap	**Active**	2	14	1316/1318 N 21ST ST
4	Tap	Inactive	1		
4	Tap	Inactive	9		
27	Tap	Inactive	3		
27	Tap	Inactive	9		
53	Tap	Inactive	3		
53	Tap	Inactive	9		
71	Tap	**Active**	11	15	2110 HAMMOND AVE
73	Tap	**Active**	1	16	2106 HAMMOND AVE
79	Tap	Inactive	9		
80	Tap	Inactive	3		



PROJECT NO: 163728		SANITARY SEWER LINING	EXISTING SANITARY SEWER CONDITIONS EXHIBIT - 21ST ST SEWER	SHEET 57	E

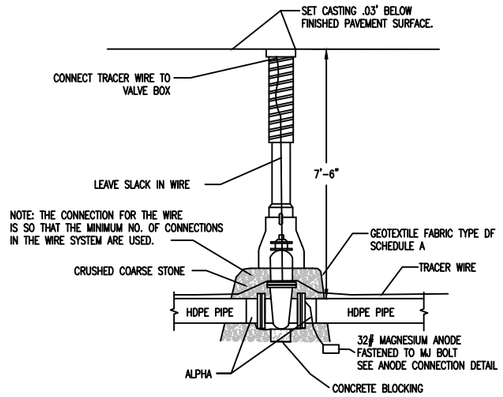
FILE NAME : \\SEHINC.COM\PANZURA\PZPROJECTS\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SANITARY LINING\SU163728PL01.DWG
LAYOUT NAME - 21st
PLOT DATE : 9/27/2023 1:28 PM
PLOT BY : ADAM ORLESKIE
PLOT NAME :

WISDOT/CADDS SHEET 44



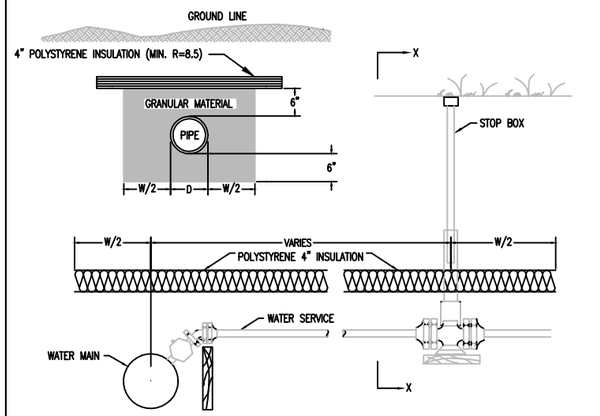
1. DIMENSIONS: A. MAXIMUM PAY WIDTH – O.D. PIPE +24"
   B. MINIMUM – 6"
   C. 6" BELOW BARREL
   D. 3" BELOW BARREL
   E. MINIMUM 12"
   F. DETERMINED BY THE ENGINEER
2. ENCASEMENT ZONE SHALL BE EXCAVATED MATERIALS THAT ARE CLASSIFIED SUITABLE, OR GRANULAR BACKFILL MATERIAL.
3. FOUNDATION MATERIAL – 3" CRUSHED STONE FOR WET OR UNSTABLE TRENCH BOTTOM.
4. BEDDING MATERIAL – CRUSHED STONE CHIPS

TRENCH SECTION FOR WATER MAIN
NTS



NOTES:
1. VALVES SHALL BE CONNECTED DIRECTLY TO HDPE WITH ALPHA.
2. USE EPOXY COATING ON EXTERIOR OF VALVES.
3. ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL WITH 6 OUNCE WITH 6 OUNCE ZINC ANODE CAPS CONFORMING TO ASTM B-418 FOR ALL MECHANICAL FITTINGS.
4. FOR OPEN CUT PIPE INSTALLATIONS, ELECTROFUSION COUPLINGS ARE NOT ALLOWED FOR CONNECTION OF HDPE TO MJ ADAPTERS. FOR DIRECTIONAL DRILLED INSTALLATIONS, ONE ELECTROFUSION COUPLING MAY BE USED PER VALVE.

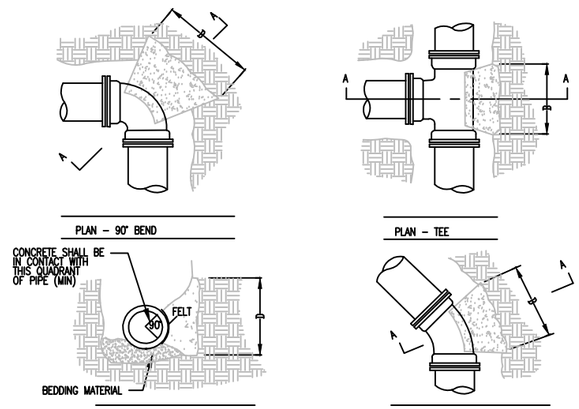
WATER MAIN VALVE DETAIL
NTS



DEPTH (D)	WIDTH (W)
7.5' OR MORE	NONE
5.2' TO 7.4'	4 FEET
4.3' TO 5.1'	6 FEET
3.0' TO 4.2'	8 FEET

NOTES:
1. LAYERING OF 1", 1 1/2", 2" TO ARRIVE AT 4" IS PERMITTED. OFFSET JOINTS.
2. POLYSTYRENE SHALL BE HI DENSITY DOW HI 40 OR CERTIFOAM 40

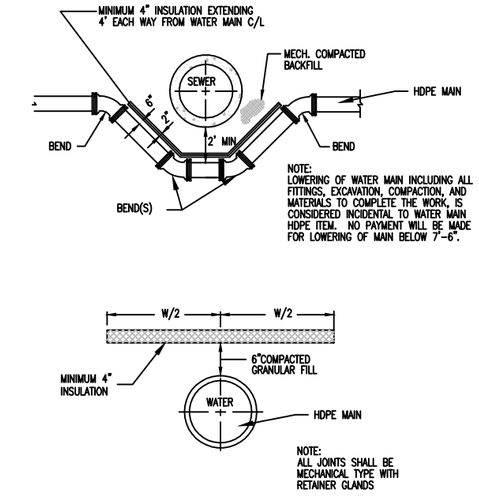
WATER MAIN & SERVICE INSULATION DETAIL
NTS



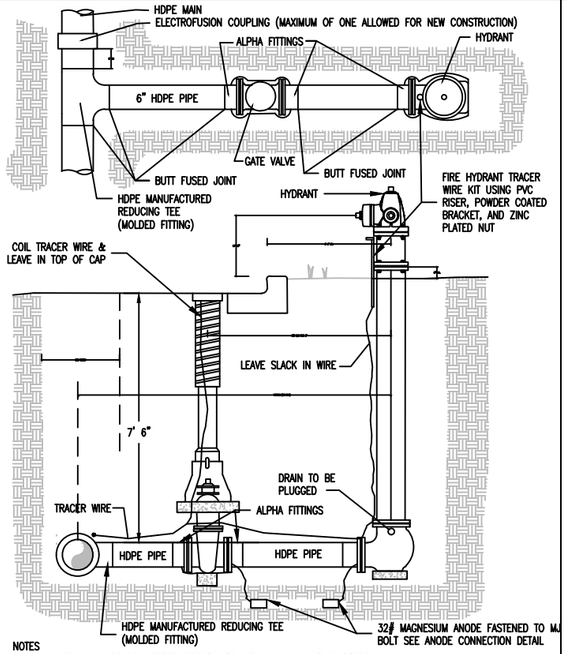
BEND OR BRANCH SIZE	BLOCKING DIMENSIONS 22 1/2° BENDS B	22 1/2° BENDS D	45° BENDS B	45° BENDS D	90° BENDS B	90° BENDS D	TEES B	TEES D
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"	1'-3"	1'-0"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"	1'-6"	1'-4"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"	2'-3"	2'-0"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"	3'-2"	2'-4"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"	4'-0"	3'-0"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"	5'-3"	3'-4"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"	6'-3"	4'-3"

NOTES
1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND AN EARTH RESISTANCE OF 2 TONS PER SQ. FOOT
2. BLOCKING TO BE SET AGAINST UNDISTURBED SOIL.
3. CONCRETE SHALL BE CLASS "1F". CONCRETE SHALL NOT INTERFERE WITH MECHANICAL JOINTS.

THRUST BLOCKING FOR WATER MAIN
NTS

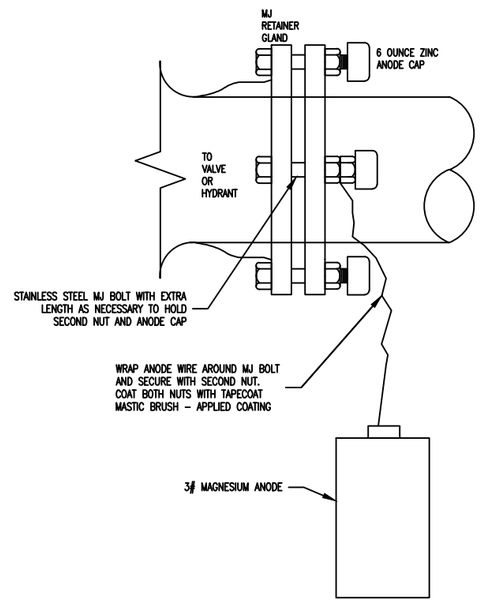


LOWER WATER MAIN W/INSULATION
NTS

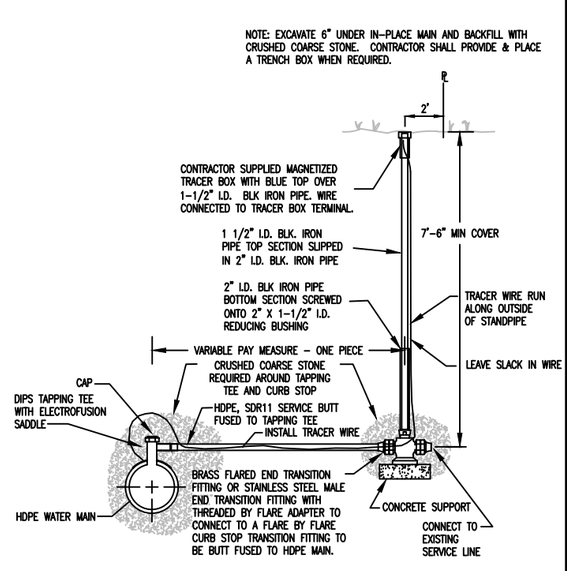


NOTES
1. VALVES SHALL BE CONNECTED DIRECTLY TO MECHANICAL JOINT ADAPTORS.
2. USE EPOXY COATING ON VALVE AND HYDRANT BASE
3. ALL BOLTS AND NUTS SHALL BE STAINLESS STEEL WITH 6 OUNCE ZINC ANODE CAPS CONFORMING TO ASTM B-418 FOR ALL MECHANICAL FITTINGS.

FIRE HYDRANT SETTING DETAIL
NTS



ANODE CONNECTION DETAIL
NTS



NOTE: SERVICE TO BE AIR TESTED PRIOR TO TAPPING MAIN

THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT OR COMPRESSION TYPE CONNECTORS. WIRE NUTS OR CLIP TYPE CONNECTOR SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

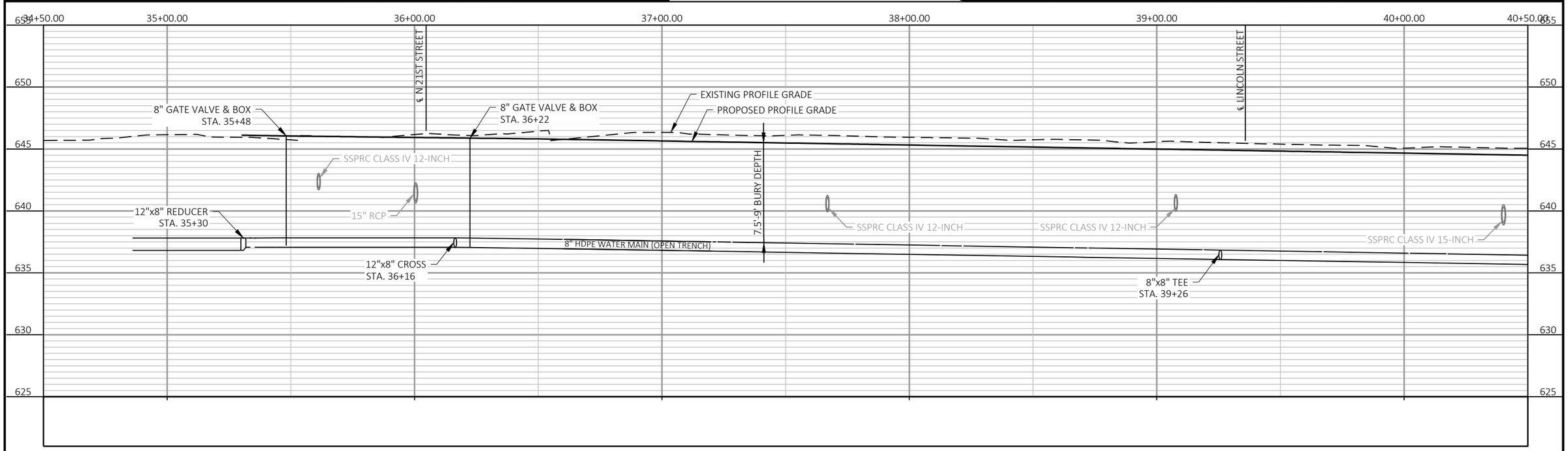
TYPICAL HDPE WATER SERVICE – 1", 1-1/4", 1-1/2", AND 2"
NTS

2

(2) EA. 12" CI CAPS
REMOVE VALVE VAULT
8" HDPE GATE VALVE & BOX
REPLACE SERVICE. PROVIDE ADEQUATE SLACK IN LINE FOR PHASE 2 REPLACEMENT.
12"X8" REDUCER
REMOVE VALVE VAULT. CONNECT TO EXISTING 12" GATE VALVE.
1" HDPE WATER SERVICE. CONNECT TO EXISTING SERVICE (TYP.)
REMOVE HYDRANT
REMOVE OR ABANDON EXISTING 12" CI WATER MAIN
REMOVE WATER VALVE AND BOX
8"x8" TEE
11" DIA.
SHRUB
24" DIA.
#1402
#1401
SHRUBS (8' CAN.)
#2021
SHRUBS (10' CAN.)
SHRUBS (6' CA
SHRUBS (3' CAN.)
#2019
SHRUBS (3' CAN.)
#2017
#2013
#2009
#2005
#2001
35+00
36+00
37+00
38+00
39+00
40+00
12"x 8" CROSS
8" HDPE GATE VALVE & BOX
REMOVE VALVE VAULT
HAMMOND AVENUE
MATCHLINE STA 40+50
11" DIA.
27" DIA.
7" DIA.
12" DIA.
7" DIA.
HYDRANT ASSEMBLY (TYP.) SEE DETAIL
SHRUB (TYP.)
SHRUB
SHRUB
#2030
#2028
#2026
#2024
#2022
#2020
ASSUMED TREE CANOPY (TYP.)
REMOVE EXISTING 6" PE WATER MAIN
REMOVE EXISTING 12" STEEL GAS MAIN
(3) 12" DIA.
12"X6" TEE
REMOVE VALVE VAULT. CONNECT TO EXISTING 12" GATE VALVE.
21ST STREET
LINCOLN STREET
CONNECT TO EXISTING 6" GATE VALVE USING 8"x6" REDUCER AND 6" TO PE TRANSITION COUPLING.

NOTES:
1. FIELD VERIFY ALL SERVICE LOCATIONS.
2. EXACT ALIGNMENT OF ALL WATER SERVICES TO BE COORDINATED BY CONTRACTOR.
3. REMOVE ALL EXISTING WATER MAIN AND APPURTENANCES WHILE NEW IS INSTALLED.
4. ALL BEND LOCATIONS ARE APPROXIMATE. FIELD VERIFY LOCATION AND IF BENDS ARE REQUIRED.
5. DEFLECTIONS OF PIPE IS PREFERRED TO BENDS.

NOTE: SWLP HAS AN ABANDONED GAS SYSTEM IN THE PROJECT AREA WHICH MAY BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS AND IS NOT SHOWN ON THE PLAN SHEETS. SEE SPECIAL PROVISIONS FOR AVAILABLE DATA ON SIZE AND LOCATION. REMOVAL OF PORTIONS OF THIS SYSTEM SHALL BE PAID AS "REMOVE STEEL GAS MAIN".



PROJECT NO:	HWY: HAMMOND AVE.	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVE. WATERMAIN	SHEET Page 71 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\WATER\PHASE 1\DWG\SU163728U01.DWG
LAYOUT NAME - 7 PLAN & PROFILE
PLOT DATE : 1/13/2024 10:37 AM PLOT BY : KRISTI GLENDENNING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

NOTE: SWLP HAS AN ABANDONED GAS SYSTEM IN THE PROJECT AREA WHICH MAY BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS AND IS NOT SHOWN ON THE PLAN SHEETS. SEE SPECIAL PROVISIONS FOR AVAILABLE DATA ON SIZE AND LOCATION. REMOVAL OF PORTIONS OF THIS SYSTEM SHALL BE PAID AS "REMOVE STEEL GAS MAIN".

N

MATCHLINE STA 40+50

MATCHLINE STA 46+50

N 20TH STREET

N 19TH STREET

HAMMOND AVENUE

1" HDPE WATER SERVICE. CONNECT TO EXISTING SERVICE (TYP.)

REMOVE HYDRANT

REMOVE OR ABANDON EXISTING 12" CI WATER MAIN

8"x8" TEE

30" DIA

30" DIA.

34" DIA.

20" DIA.

12" DIA.

SHRUB (TYP.)

REMOVE HYDRANT 5" DIA.

SHRUB

#1925 #1921 #1917 #1915 #1913 #1909 #1907 #1905 #1408 #1402 #1409 #1403 #1821

41+00 42+00 43+00 44+00 45+00 46+00

8" GATE VALVE AND BOX

8"x8" TEE

REMOVE EXISTING 2" CU WATER MAIN

#2016 #2012 #2010 #2006 #2002

REMOVE CURB STOP AND BOX

11" DIA.

ASSUMED TREE CANOPY (TYP.)

8"x6" TEE

HYDRANT ASSEMBLY (TYP.) SEE DETAIL

REMOVE EXISTING 12" STEEL GAS MAIN

8" GATE VALVE AND BOX. PLUG VALVE TO EAST (INCIDENTAL).

2" CURB STOP & BOX. CONNECT TO EXISTING 2" CU WATER MAIN.

8"x6" TEE

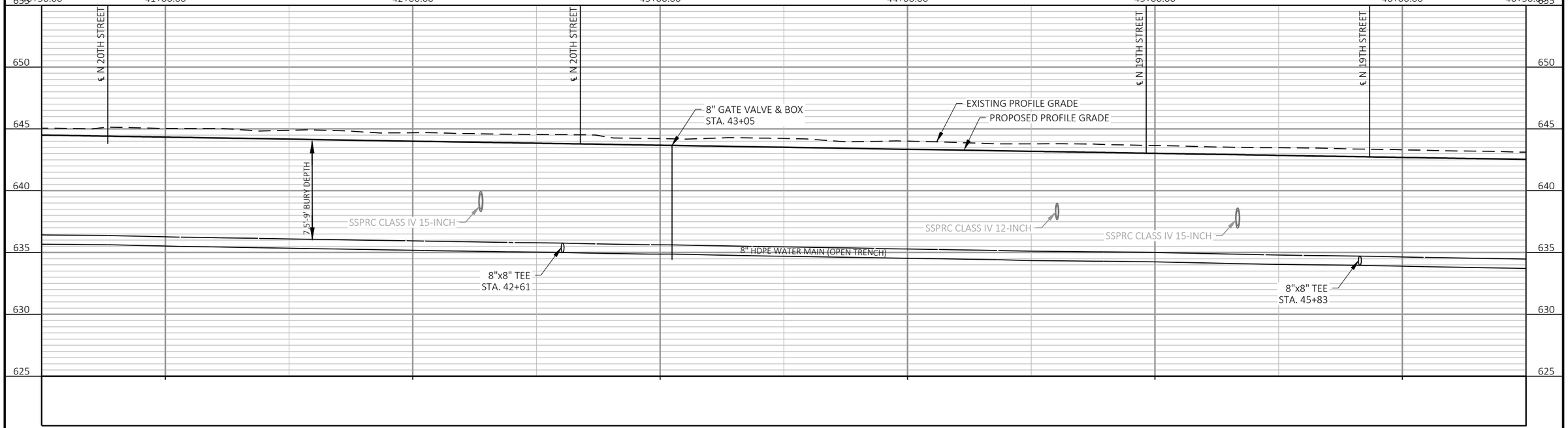
8" GATE VALVE AND BOX. PLUG VALVE TO EAST (INCIDENTAL).

15" DIA.

12"

HYDRANT ASSEMBLY (TYP.) SEE DETAIL

NOTES:
1. FIELD VERIFY ALL SERVICE LOCATIONS.
2. EXACT ALIGNMENT OF ALL WATER SERVICES TO BE COORDINATED BY CONTRACTOR.
3. REMOVE ALL EXISTING WATER MAIN AND APPURTENANCES WHILE NEW IS INSTALLED.
4. ALL BEND LOCATIONS ARE APPROXIMATE. FIELD VERIFY LOCATION AND IF BENDS ARE REQUIRED.
5. DEFLECTIONS OF PIPE IS PREFERRED TO BENDS.



PROJECT NO:	HWY: HAMMOND AVE.	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVE. WATERMAIN	SHEET Page 72 of 207	E

2

NOTE: SWLP HAS AN ABANDONED GAS SYSTEM IN THE PROJECT AREA WHICH MAY BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS AND IS NOT SHOWN ON THE PLAN SHEETS. SEE SPECIAL PROVISIONS FOR AVAILABLE DATA ON SIZE AND LOCATION. REMOVAL OF PORTIONS OF THIS SYSTEM SHALL BE PAID AS "REMOVE STEEL GAS MAIN".

N

MATCHLINE STA 46+50

MATCHLINE STA 52+00

1" HDPE WATER SERVICE. CONNECT TO EXISTING SERVICE (TYP.)

CONNECT TO EXISTING 8" GATE VALVE

N 18TH ST

REMOVE HYDRANT

6" DIA.

REMOVE OR ABANDON EXISTING 12" CI WATER MAIN

14" DIA.

12" CI

#1817 #1813 #1811 #1805 #1801 #1727 #1723 #1721 #1719 #1715 #1711

47+00 48+00 49+00 50+00 51+00 52+

8"x8" CROSS

REMOVE VALVE VAULT

8" GATE VALVE AND BOX

HAMMOND AVENUE

5" DIA.

24" DIA.

SHRUB SHRUB SHRUB SHRUB (TYP.) SHRUB SHRUBS SHR

#1820 #1814 #1802 #1718 #1712 #1708 #1704

8" DIA. 16" DIA. 2" DIA. 8" DIA. 36" DIA. 16" DIA. 15" DIA. 8" DIA.

PLACE CURB STOP OUT OF PROPOSED PATH. REPLACE SERVICE LINE 1' PAST EXISTING CURB STOP.

REMOVE EXISTING 12" STEEL GAS MAIN

8"x6" TEE

HYDRANT ASSEMBLY (TYP.) SEE DETAIL

8" GATE VALVE AND BOX. PLUG VALVE TO EAST (INCIDENTAL).

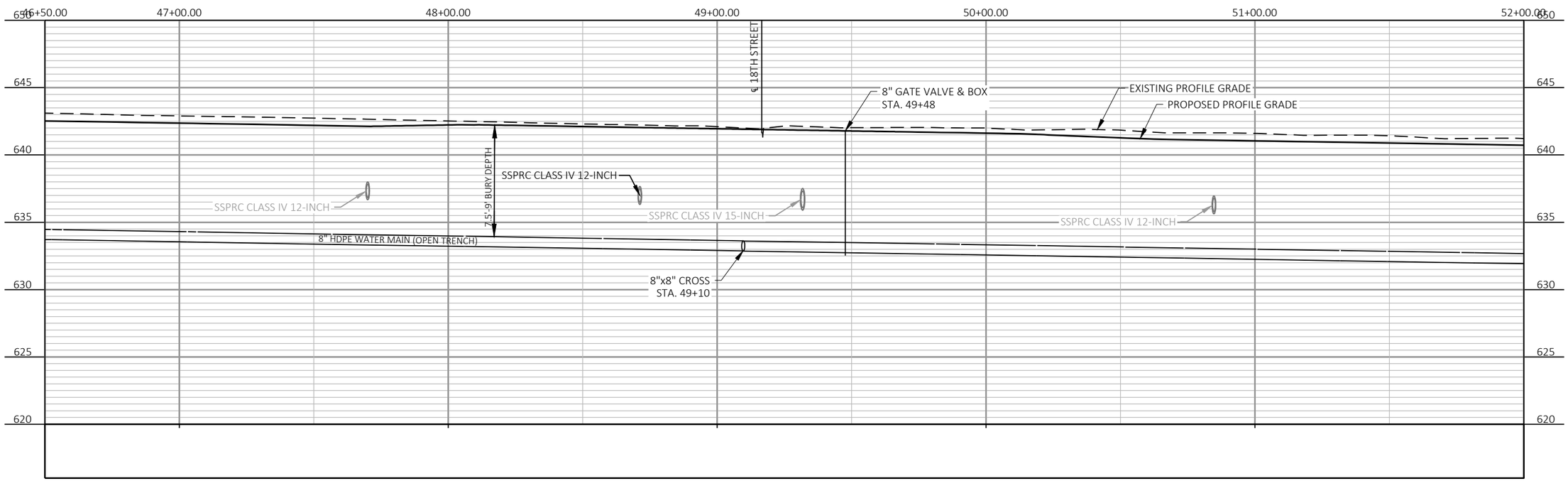
2" DIA. 2" DIA.

18" DIA.

ASSUMED TREE CANOPY (TYP.)

PLACE CURB STOP OUT OF PROPOSED PATH. REPLACE SERVICE LINE 1' PAST EXISTING CURB STOP.

NOTES:
1. FIELD VERIFY ALL SERVICE LOCATIONS.
2. EXACT ALIGNMENT OF ALL WATER SERVICES TO BE COORDINATED BY CONTRACTOR.
3. REMOVE ALL EXISTING WATER MAIN AND APPURTENANCES WHILE NEW IS INSTALLED.
4. ALL BEND LOCATIONS ARE APPROXIMATE. FIELD VERIFY LOCATION AND IF BENDS ARE REQUIRED.
5. DEFLECTIONS OF PIPE IS PREFERRED TO BENDS.



PROJECT NO:	HWY: HAMMOND AVE.	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVE. WATERMAIN	SHEET Page 73 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\WATER\PHASE 1\DWG\SU163728U01.DWG
LAYOUT NAME - 9 PLAN & PROFILE

PLOT DATE : 1/13/2024 10:36 AM PLOT BY : KRISTI GLENDENNING PLOT NAME : PLOT SCALE : 1 IN:40 FT

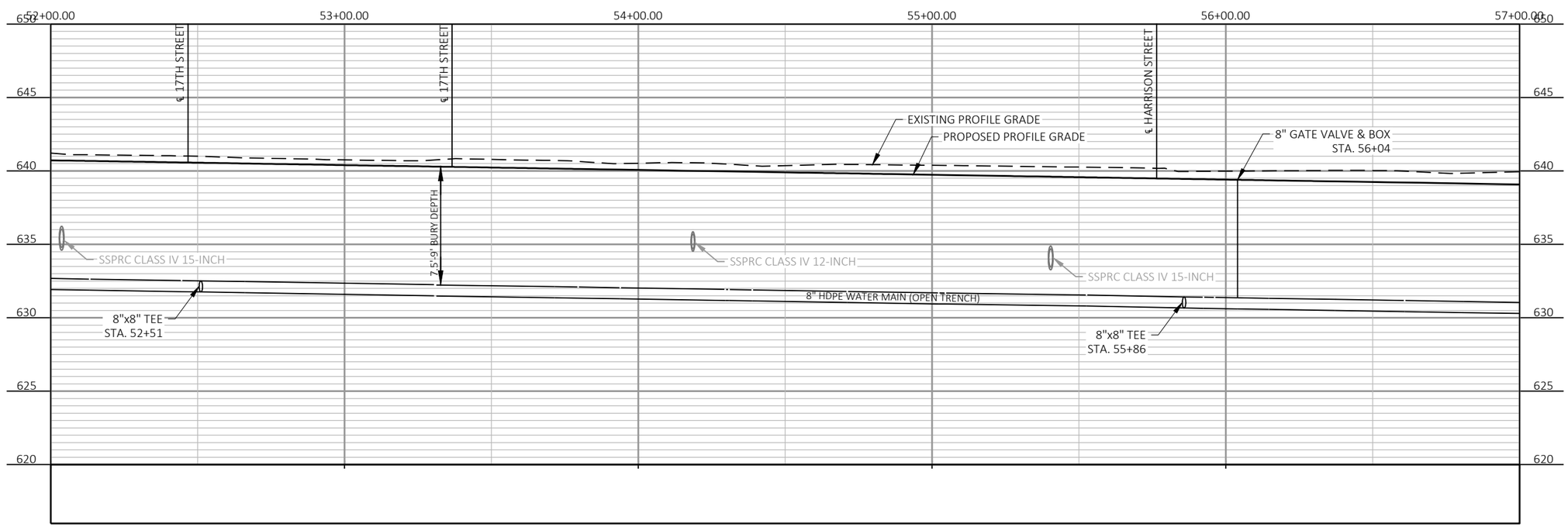
WISDOT/CADDS SHEET 44

NOTE: SWLP HAS AN ABANDONED GAS SYSTEM IN THE PROJECT AREA WHICH MAY BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS AND IS NOT SHOWN ON THE PLAN SHEETS. SEE SPECIAL PROVISIONS FOR AVAILABLE DATA ON SIZE AND LOCATION. REMOVAL OF PORTIONS OF THIS SYSTEM SHALL BE PAID AS "REMOVE STEEL GAS MAIN".

N

ASSUMED TREE CANOPY (TYP.)
1" HDPE WATER SERVICE (TYP.)
12" DIA.
N 17TH STREET
REMOVE HYDRANT
REMOVE OR ABANDON EXISTING 12" CI WATER MAIN
3" DIA.
8"x8" TEE
11" DIA.
#17
#1705
#1701
#1627
#1623
#1621
#1617
#1615
#1611
#1609
#1607
#1412
#1603
12" CI
53+00
54+00
55+00
56+00
57+00
MATCHLINE STA 52+00
MATCHLINE STA 57+00
8"x8" TEE
HAMMOND AVENUE
8" GATE VALVE AND BOX
30" DIA. STUMP
8"x6" TEE
SHRUB
SHRUB (TYP.)
#1638
#1634
#1630
#1628
#1324
#1618
HYDRANT ASSEMBLY (TYP.) SEE DETAIL
8" GATE VALVE AND BOX. PLUG VALVE TO EAST (INCIDENTAL).
1" HDPE WATER SERVICE. CONNECT TO EXISTING SERVICE (TYP.)
REMOVE EXISTING 12" STEEL GAS MAIN
2" DIA.
8"x6" TEE
8" GATE VALVE AND BOX
REMOVE HYDRANT
12" DIA.
HYDRANT ASSEMBLY (TYP.) SEE DETAIL
3" DIA.
CONNECT TO EXISTING 6" CI WATER MAIN USING 8"x6" REDUCER AND 6" TO CI TRANSITION COUPLING.
2" DIA.
SHRUBS
N 17TH STREET
HARRISON STREET

NOTES:
1. FIELD VERIFY ALL SERVICE LOCATIONS.
2. EXACT ALIGNMENT OF ALL WATER SERVICES TO BE COORDINATED BY CONTRACTOR.
3. REMOVE ALL EXISTING WATER MAIN AND APPURTENANCES WHILE NEW IS INSTALLED.
4. ALL BEND LOCATIONS ARE APPROXIMATE. FIELD VERIFY LOCATION AND IF BENDS ARE REQUIRED.
5. DEFLECTIONS OF PIPE IS PREFERRED TO BENDS.



PROJECT NO:	HWY: HAMMOND AVE.	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVE. WATERMAIN	SHEET Page 74 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\WATER\PHASE 1\DWG\SU163728U01.DWG
LAYOUT NAME - 10 PLAN & PROFILE
PLOT DATE : 1/13/2024 10:36 AM PLOT BY : KRISTI GLENDENNING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

NOTES:
1. FIELD VERIFY ALL SERVICE LOCATIONS.
2. EXACT ALIGNMENT OF ALL WATER SERVICES TO BE COORDINATED BY CONTRACTOR.
3. REMOVE ALL EXISTING WATER MAIN AND APPURTENANCES WHILE NEW IS INSTALLED.
4. ALL BEND LOCATIONS ARE APPROXIMATE. FIELD VERIFY LOCATION AND IF BENDS ARE REQUIRED.
5. DEFLECTIONS OF PIPE IS PREFERRED TO BENDS.

N

N 16TH STREET

REMOVE HYDRANT

ASSUMED TREE CANOPY (TYP.)

14" DIA.

REMOVE OR ABANDON EXISTING 12" CI WATER MAIN

15" DIA.

CONNECT TO EXISTING 12" CI GATE VALVE WITH 12"x8" REDUCER

#1411 #1527 #1521 #1519 #1517

8"x8" TEE

57+00 58+00 59+00 60+00

HAMMOND AVE

HAMMOND AVENUE

SHRUBS

#1614 #1610 #1606 #1602 #1516 #1514

18" DIA. 14" DIA. 4" DIA.

REMOVE EXISTING 12" STEEL GAS MAIN

1" HDPE WATER SERVICE. CONNECT TO EXISTING SERVICE (TYP.)

1" HDPE WATER SERVICE (TYP.)

10" DIA.

N 16TH STREET

#1317 N. 16TH ST.

HYDRANT ASSEMBLY (TYP.) SEE DETAIL

8"x6" TEE

8" GATE VALVE AND BOX. PLUG VALVE TO EAST (INCIDENTAL).

NOTE: SWLP HAS AN ABANDONED GAS SYSTEM IN THE PROJECT AREA WHICH MAY BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS AND IS NOT SHOWN ON THE PLAN SHEETS. SEE SPECIAL PROVISIONS FOR AVAILABLE DATA ON SIZE AND LOCATION. REMOVAL OF PORTIONS OF THIS SYSTEM SHALL BE PAID AS "REMOVE STEEL GAS MAIN".

MATCHLINE STA 57+00

57+00.00 58+00.00 59+00.00 60+00.00 60+50.00

650 645 640 635 630 625 620

℄ 16TH STREET ℄ 16TH STREET

EXISTING PROFILE GRADE

PROPOSED PROFILE GRADE

7.5'-9' BURY DEPTH

47"x66" ELLIPTICAL VCP

SSPRC CLASS IV 12-INCH

SSPRC CLASS IV 12-INCH

SSPRC CLASS IV 15-INCH

12"x8" REDUCER STA. 60+22

15" RCP

8" HDPE WATER MAIN (OPEN TRENCH)

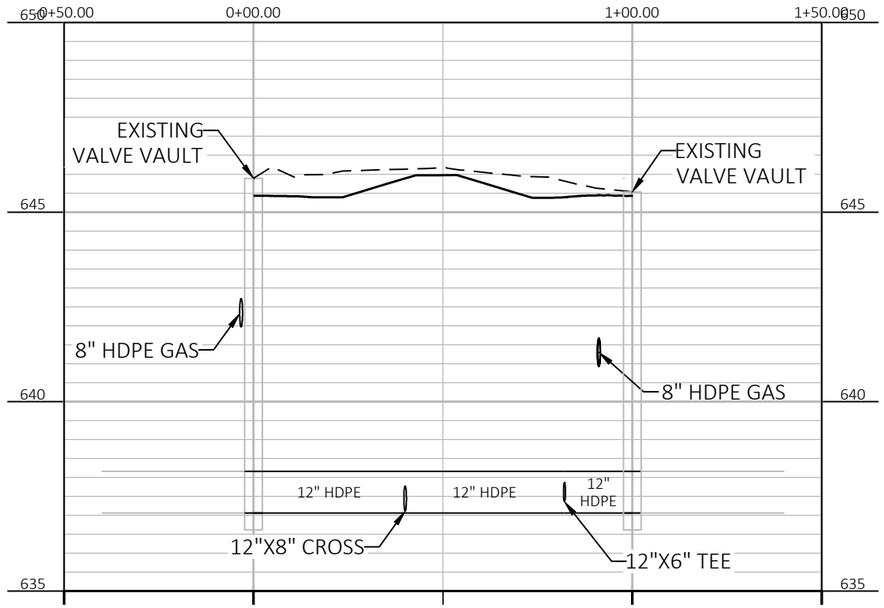
8"x8" TEE STA. 59+07

INSULATION BOARD POLYSTYRENE, 4-INCH

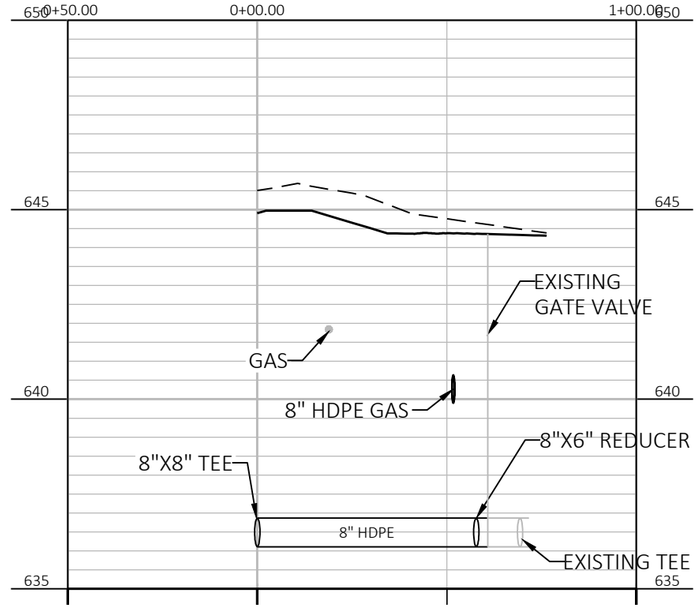
PROJECT NO:	HWY: HAMMOND AVE.	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVE. WATERMAIN	SHEET Page 75 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\WATER\PHASE 1\DWG\SU163728U01.DWG
LAYOUT NAME - 11 PLAN & PROFILE
PLOT DATE : 1/13/2024 10:35 AM PLOT BY : KRISTI GLENDENNING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

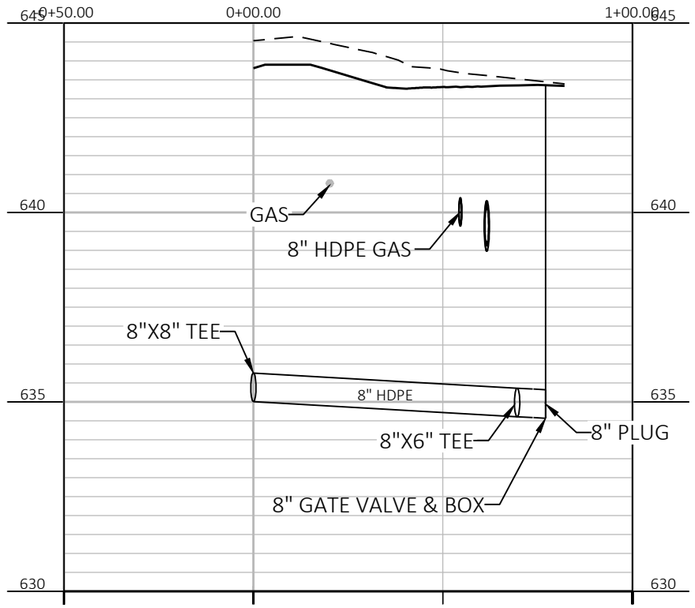
N 21ST STREET



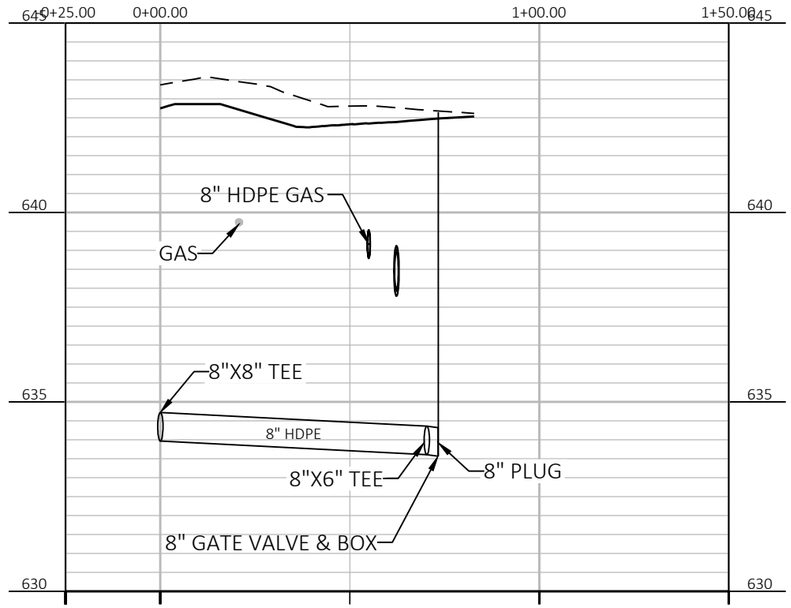
LINCOLN STREET



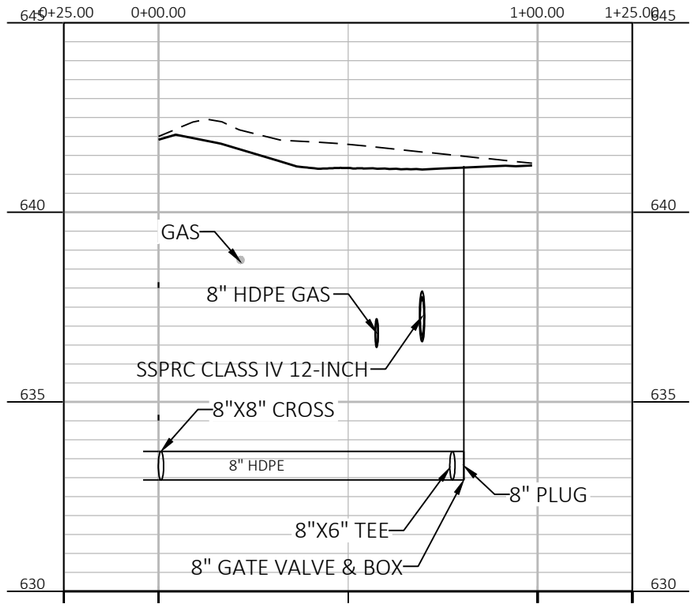
N 20TH ST (EAST)



N 19TH ST (EAST)

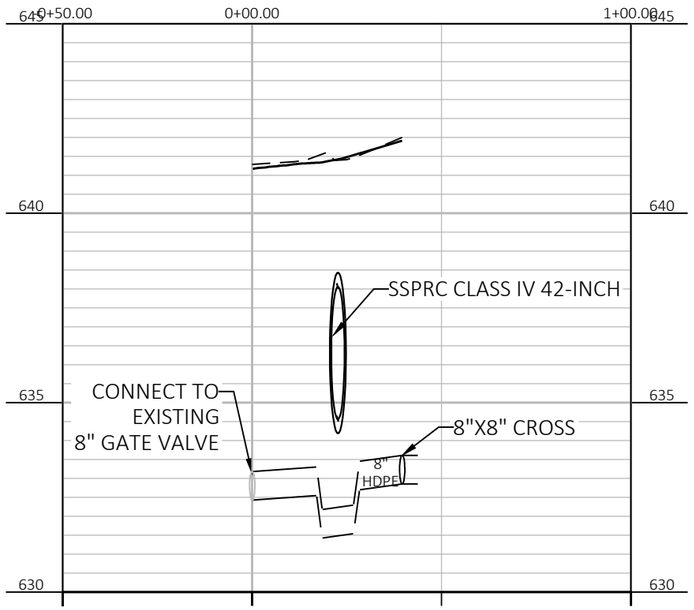


N 18TH ST (EAST)

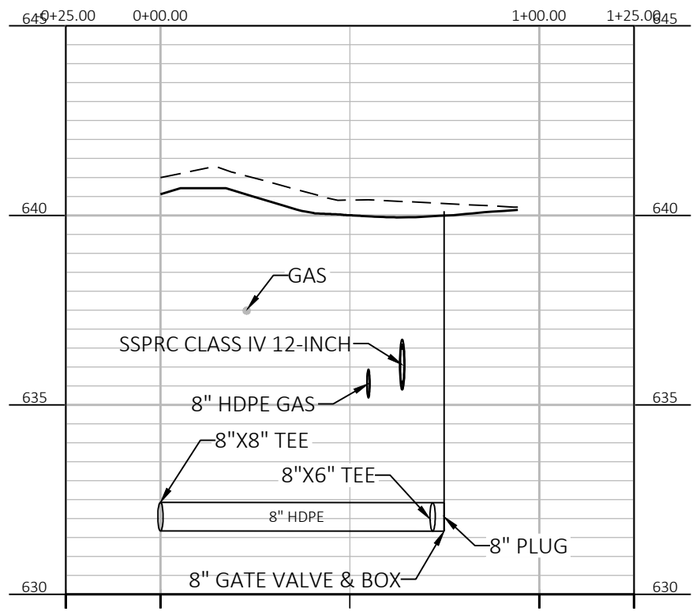


2

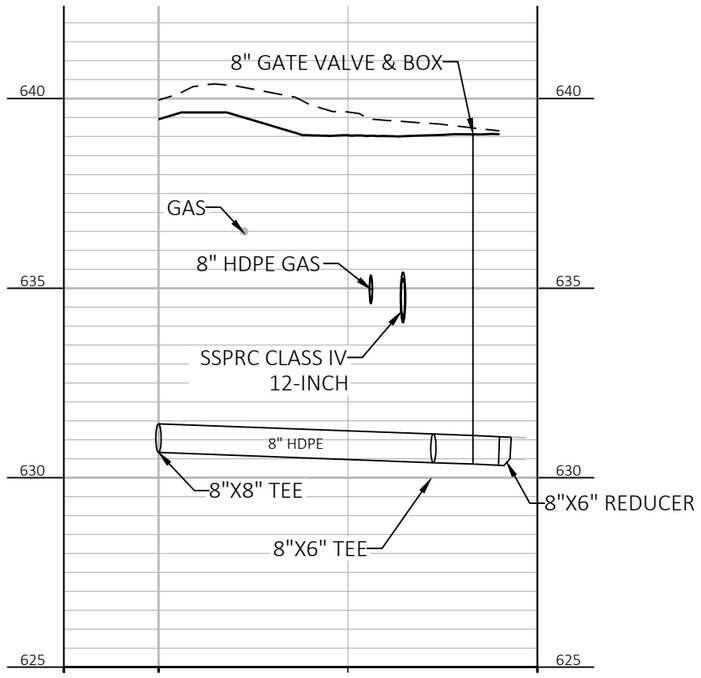
N 18TH ST (WEST)



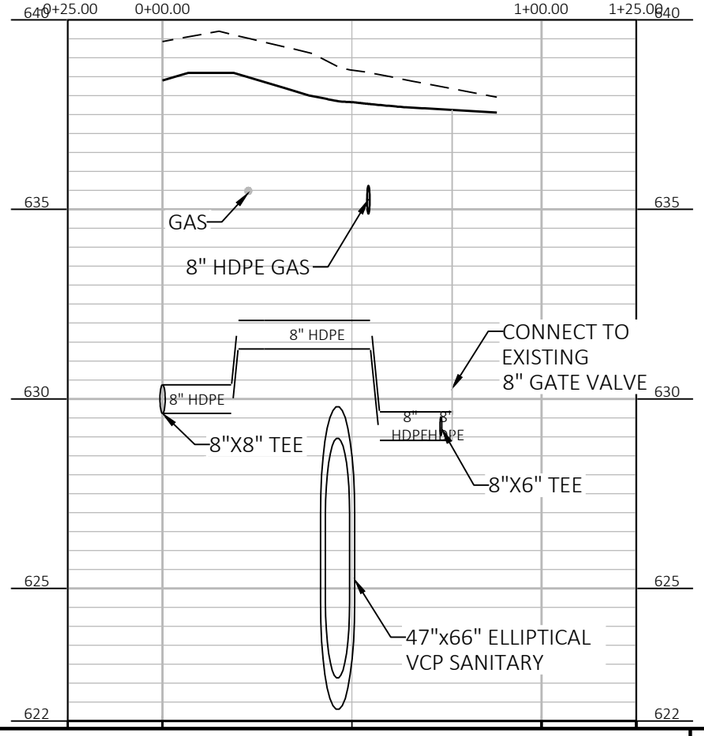
N 17TH ST (EAST)



HARRISON ST

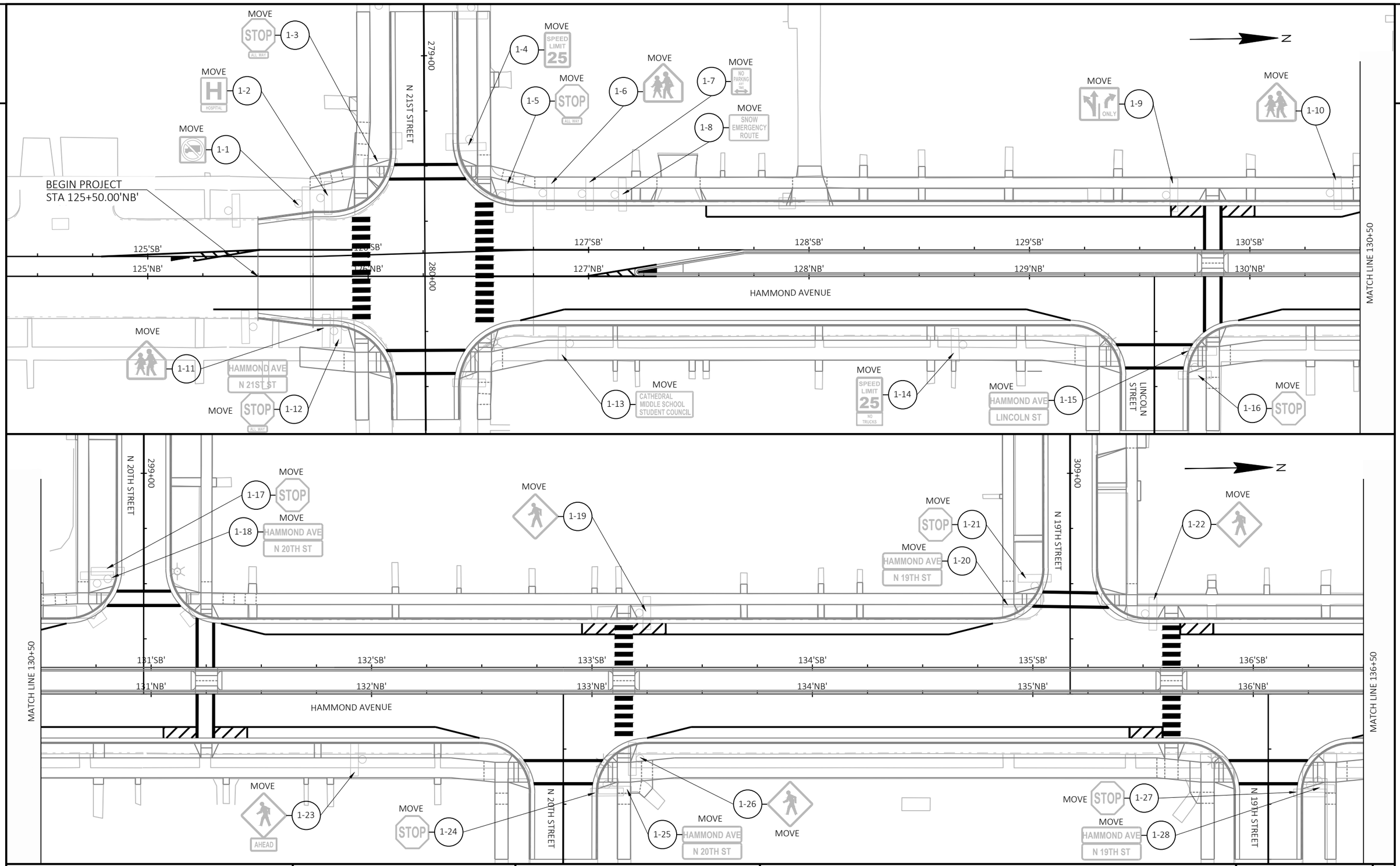


N 16TH ST (EAST)

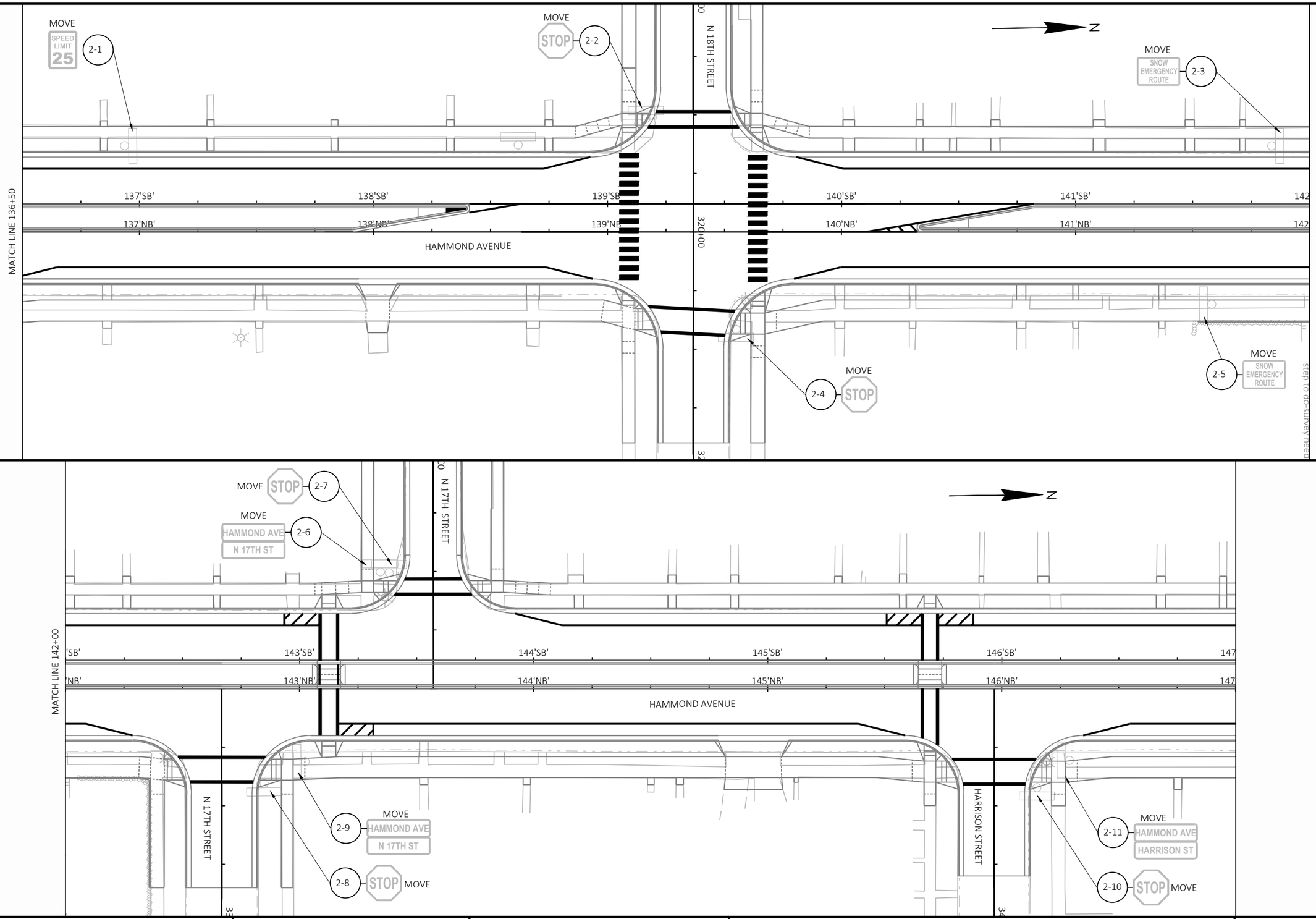


PROJECT NO:	HWY: HAMMOND AVE.	COUNTY: DOUGLAS	SIDE STREET PROFILES	SHEET Page 77 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\WATER\PHASE 1\DWG\SU163728P01.DWG
LAYOUT NAME - 13 Side Street Profiles
PLOT DATE : 1/13/2024 10:32 AM PLOT BY : KRISTI GLENDENNING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PERMANENT SIGNING	SHEET Page 78 of 207	E



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PERMANENT SIGNING	SHEET Page 79 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\023201_PS.DWG
LAYOUT NAME - 02
PLOT DATE : 1/17/2024 6:14 PM
PLOT BY : JARROD STARREN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

N

348+00

N 16TH STREET

349+00

MOVE
STOP
3-2

MOVE
HAMMOND AVE
N 16TH ST
3-1

MOVE
SPEED LIMIT 25
3-3

MOVE
NO PARKING
NO PARKING
3-4

'SB'
148'SB'
149'SB'
150'SB'
151'SB'
151'SB'

NB'
148'NB'
149'NB'
150'NB'
151'NB'
152'NB'

HAMMOND AVENUE

MOVE
UNITED METHODIST CHURCH
3-5

MOVE
INTERSTATE 35
3-6

MOVE
3-7

MOVE
HAMMOND AVE
N 16TH ST
3-8

N 16TH STREET

351+00

MOVE
3-9
STOP

END PROJECT
STA 152+43.79'NB'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PERMANENT SIGNING	SHEET Page 80 of 207	E

2

N

15" DIA.

EXIST R/W

12" CI

149'SB'

150'SB'

149'NB'

150'NB'

151'SB'

151'SB'

151'NB'

152'NB'

180' TO STOP LINE

HAMMOND AVENUE

SHRUBS

4" DIA.

EXIST R/W

SLOPE INTERCEPT (TYP)

N 16TH STREET

SHRUBS

BELKNAP STREET

CONSTRUCTION NOTES

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. IF THE CONDUIT RUN OR PULL BOXES ON THE SOUTH SIDE OF THE INTERSECTION ARE IMPACTED, PULL BACK ALL EXISTING IMPACTED CABLES (SIGNAL CABLE, VIDEO DETECTION CABLE, EMERGENCY VEHICLE PREEMPTION (EVP) CABLE, AND GROUNDING CABLE AND COIL AND STORE IN A SAFE LOCATION. UPON COMPLETION OF THE PROJECT RESTORE THE EXISTING CABLE TO THE EXISTING CONNECTIONS. THE FOLLOWING ITEMS WILL NEED NEW RE-ROUTED CABLE IF IMPACTS ARE ENCOUNTERED.

   INSTALL NEW 15-14 AWG SIGNAL CABLE TO SB1, SB2, SB3, AND SB4 AND CONNECT TO EXISTING POLE WIRING.

   INSTALL NEW 10 AWG GROUNDING CABLE FROM SB1 TO CB1 IN ORDER TO HAVE A COMPLETED GROUNDING LOOP.

   INSTALL NEW VIDEO DETECTION CABLE TO SB3 (V1) AND SB1 (V3) COORDINATE CABLE TYPE WITH TRAFFIC CONTROL CORPORATION.

   INSTALL NEW EMERGENCY VEHICLE PREEMPTION CABLE TO SB1 (HEAD C) AND SB 3 (HEAD A).

LEGEND

- CONTROL CABINET
- NC2 — NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- Y YIELD SIGN
- S STOP SIGN

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
HAMMOND AVE
CITY OF SUPERIOR
DOUGLASCOUNTY

SIGNAL NO.

REGION CONTACT: T. JANIGO
DESIGNED BY: SEH
REVISED BY: REVISED BY

PAGE 1 OF 1

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	TRAFFIC SIGNAL PLAN	SHEET Page 81 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\024000_SP.DWG
LAYOUT NAME - 01

PLOT DATE : 11/13/2023 10:12 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

LEGEND

- (A) MARKING LINE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE EPOXY 6-INCH (YELLOW)
- (C) MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
- (D) MARKING LINE EPOXY 10-INCH (WHITE)
- (E) MARKING DIAGONAL EPOXY 6-INCH
- (F) MARKING DIAGONAL EPOXY 12-INCH
- (G) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
- (H) MARKING ISLAND NOSE EPOXY
- (I) MARKING CROSSWALK EPOXY LADDER PATTERN 24-INCH

N

BEGIN CONSTRUCTION
STA 278+80.00

279+00

N 21ST STREET

280+00

125'SB' 125'NB' 126'SB' 126'NB' 127'SB' 127'NB' 128'SB' 128'NB' 129'SB' 129'NB' 130'SB' 130'NB'

HAMMOND AVENUE

MATCH LINE 130+50

BEGIN PROJECT
STA 125+50.00'NB'

END CONSTRUCTION
STA 280+65.00

LINCOLN STREET

END CONSTRUCTION
STA 290+70.00

2

N

299+00

N 20TH STREET

BEGIN CONSTRUCTION
STA 297+65.00

BEGIN CONSTRUCTION
STA 307+65.00

306+00

N 19TH STREET

MATCH LINE 130+50

131'SB' 131'NB' 132'SB' 132'NB' 133'SB' 133'NB' 134'SB' 134'NB' 135'SB' 135'NB' 136'SB' 136'NB'

HAMMOND AVENUE

MATCH LINE 136+50

N 20TH STREET

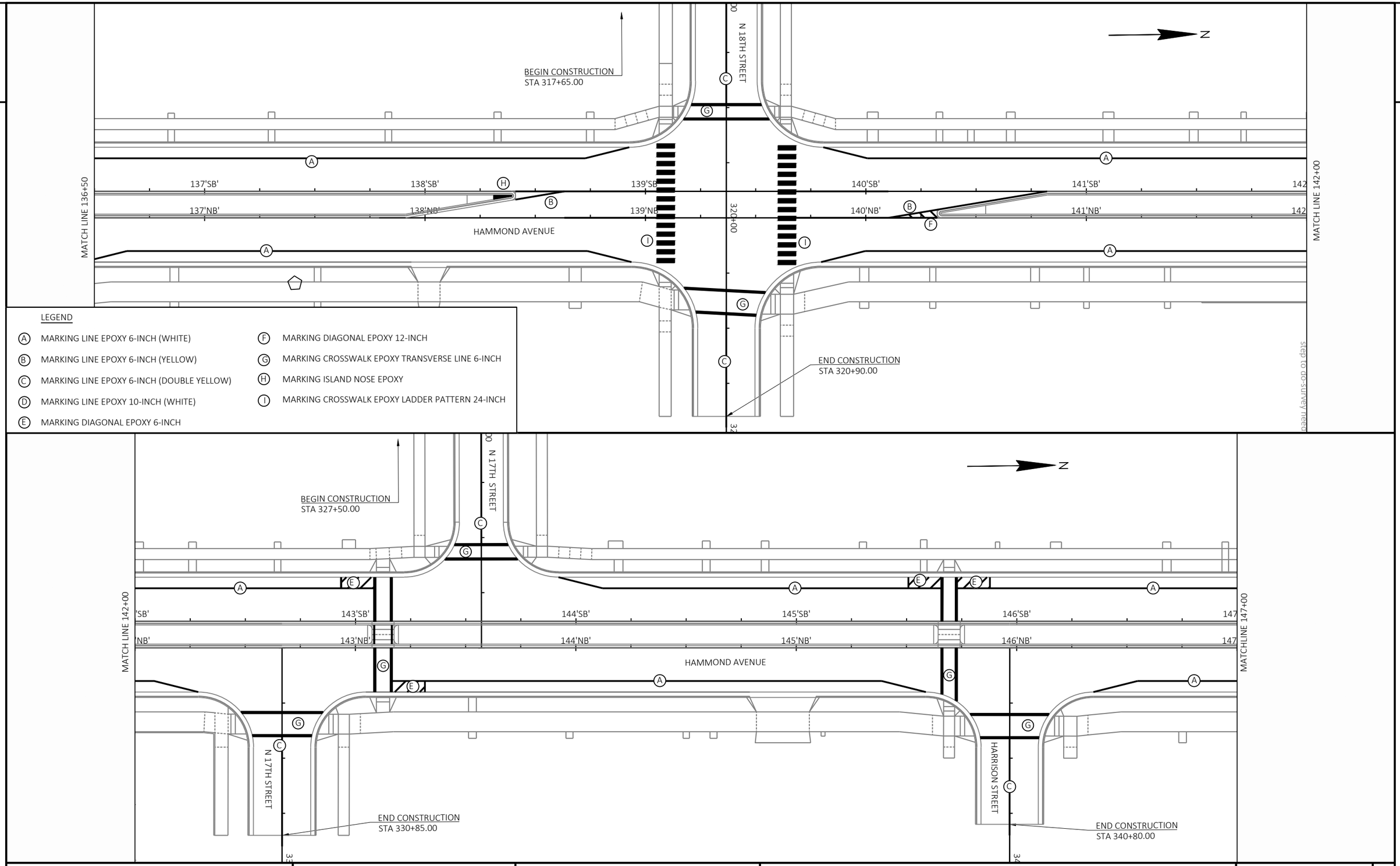
END CONSTRUCTION
STA 300+75.00

N 19TH STREET

END CONSTRUCTION
STA 310+75.00

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PAVEMENT MARKING	SHEET	Page 82 of 207	E

2



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PAVEMENT MARKING	SHEET Page 83 of 207	E

2

2

LEGEND

- (A) MARKING LINE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE EPOXY 6-INCH (YELLOW)
- (C) MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
- (D) MARKING LINE EPOXY 10-INCH (WHITE)
- (E) MARKING DIAGONAL EPOXY 6-INCH
- (F) MARKING DIAGONAL EPOXY 12-INCH
- (G) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
- (H) MARKING ISLAND NOSE EPOXY
- (I) MARKING CROSSWALK EPOXY LADDER PATTERN 24-INCH

N

BEGIN CONSTRUCTION
STA 347+50.00

348+00

N 16TH STREET

349+00

MATCHLINE 147+00

'SB'

NB'

148'SB'

148'NB'

149'SB'

149'NB'

150'SB'

150'NB'

151'SB'

151'SB'

151'NB'

152'NB'

HAMMOND AVENUE

N 16TH STREET

351+00

END CONSTRUCTION
STA 351+10.00

END PROJECT
STA 152+43.79'NB'

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PAVEMENT MARKING	SHEET Page 84 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 03
PLOT DATE : 11/13/2023 10:15 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

SEE SDD'S: "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAILS B AND D AND "TRAFFIC CONTROL SIDEWALK CLOSURE" FOR REQUIRED SIGNS AND TRAFFIC CONTROL ITEMS

N 21ST STREET
279+00
280+00
281+00
125'SB'
125'NB'
BEGIN PROJECT
STA 125+50.00'NB'
130'SB'
130'NB'
N 20TH STREET
288+00
289+00
LINCOLN STREET
291+00
HAMMOND AVENUE
N 20TH STREET
301+00
N 19TH STREET
308+00
309+00
135'SB'
135'NB'
N 19TH STREET
311+00
312+00
N 18TH STREET
318+00
319+00
320+00
321+00
140
140
MATCH LINE 140+00

N

LEGEND

WORK ZONE

1 SEE SDD'S: "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 1 AND "TRAFFIC CONTROL SIDEWALK CLOSURE" FOR REQUIRED SIGNS AND TRAFFIC CONTROL ITEMS.

N

SEE SDD'S: "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAILS B AND D AND "TRAFFIC CONTROL SIDEWALK CLOSURE" FOR REQUIRED SIGNS AND TRAFFIC CONTROL ITEMS

MATCH LINE 140+00
'SB'
NB'
N 17TH STREET
338+00
339+00
145'SB'
145'NB'
N 16TH STREET
348+00
349+00
150'SB'
150'NB'
151'SB'
HAMMOND AVENUE
N 17TH STREET
331+00
HARRISON STREET
341+00
N 16TH STREET
351+00
352+00
END PROJECT
STA 152+43.79'NB'

PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	TRAFFIC CONTROL	SHEET Page 85 of 207	E

2

2

N

SEE SDD'S: "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAILS B AND D AND "TRAFFIC CONTROL SIDEWALK CLOSURE" FOR REQUIRED SIGNS AND TRAFFIC CONTROL ITEMS

151'SB'

PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	TRAFFIC CONTROL	SHEET Page 86 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\0251001_TC.DWG
LAYOUT NAME - 02

PLOT DATE : 11/17/2023 3:24 PM PLOT BY : NICK ENGH PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

N

BEGIN PROJECT
STA 125+50.00'NB'
Y = 302704.553
X = 148522.010

STA 126+25.80 HAMMOND AVE =
STA 280+00.00 N 21ST ST
Y=302780.348
X=148522.536

PI: 125+75.78

BP: 278+00.00
Y=302780.818
X=148322.537

S89°51'54"E
279+00
N 21ST STREET
PI: 126+74.87

S89°51'54"E
281+00

STA BACK = 126+74.92
STA AHEAD = 126+74.87
N0°23'52"E

EP: 282+00.00
Y=302779.877
X=148722.536

STA 129+56.69 HAMMOND AVE =
STA 290+00.00 LINCOLN ST
Y=303111.235
X=148524.833

S89°34'49"E
291+00
LINCOLN STREET

EP: 292+00.00
Y=303109.770
X=148724.823

BP: 297+50.00
Y=303253.023
X=148275.812

S89°33'54"E
298+00
N 20TH STREET
299+00

STA 130+96.58 HAMMOND AVE =
STA 300+00.00 N 20TH ST
Y=303251.124
X=148525.805

STA 132+86.96 HAMMOND AVE =
STA 300+00.00 N 20TH ST
Y=303441.493
X=148527.126

HAMMOND AVENUE

S89°35'58"E
301+00
N 20TH STREET

EP: 302+00.00
Y=303440.058
X=148727.116

STA 135+16.93 HAMMOND AVE =
STA 310+00.00 N 19TH ST
Y=303671.458
X=148528.723

BP: 307+50.00
Y=303673.012
X=148278.723

S89°38'37"E
308+00
N 19TH STREET
309+00

STA 136+06.76 HAMMOND AVE =
STA 310+00.00 N 19TH ST
Y=303761.292
X=148529.346

S89°37'26"E
311+00
N 19TH STREET

EP: 312+00.00
Y=303759.979
X=148729.337

MATCHLINE STA 138+00'NB'

124'SB' 124'NB' | 125'SB' 125'NB' | 126'SB' 126'NB' | 127'SB' 127'NB' | 128'SB' 128'NB' | 129'SB' 129'NB' | 130'SB' 130'NB' | 131'SB' 131'NB' | 132'SB' 132'NB' | 133'SB' 133'NB' | 134'SB' 134'NB' | 135'SB' 135'NB' | 136'SB' 136'NB' | 137'SB' 137'NB' | 138

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	ALIGNMENT	SHEET Page 87 of 207 E

2

N

BP: 317+00.00

S89°36'20"E

318+00

319+00

320+00

Y=304092.629
X=148331.637

N 18TH STREET

STA 142+66.72 HAMMOND AVE =
STA 330+00.00 N 17TH ST
Y=304421.234
X=148533.928

BP: 327+00.00
Y=304513.312
X=148234.559

S89°41'12"E

328+00

329+00

N 17TH STREET

STA 145+96.83 HAMMOND AVE =
STA 340+00.00 HARRISON ST
Y=304751.331
X=148536.227

BP: 347+00.00

S89°37'26"E

348+00

349+00

Y=304932.792
X=148337.470

N 16TH STREET

STA 149+16.74 HAMMOND AVE =
STA 350+00.00 N 16TH ST
Y=305071.237
X=148538.441

Y=305195.361
X=148527.302
PI: 150+40.78

Y=305288.441
X=148519.996
EP: 151+34.15

Y=305416.212
X=148543.827
EP: 152+61.79

BELKNAP STREET

MATCHLINE STA 138+00'NB'

138'SB'
138'NB'
139'SB'
139'NB'
140'SB'
140'NB'
141'SB'
141'NB'
142'SB'
142'NB'
143'SB'
143'NB'
144'SB'
144'NB'
145'SB'
145'NB'
146'SB'
146'NB'
147'SB'
147'NB'
148'SB'
148'NB'
149'SB'
149'NB'
150'SB'
150'NB'
151'SB'
151'NB'
152'NB'

N0°23'52"E

HAMMOND AVENUE

N4°29'16"W

N2°14'16"E

N0°23'30"E

STA 139+36.72 HAMMOND AVE =
STA 320+00.00 N 18TH ST
Y=304091.235
X=148531.637

STA 143+57.16 HAMMOND AVE =
STA 330+00.00 N 17TH ST
Y=304511.671
X=148534.556

STA 147+76.98 HAMMOND AVE =
STA 350+00.00 N 16TH ST
Y=304931.480
X=148537.470

Y=305195.790
X=148539.305
PI: 150+41.30

Y=305289.305
X=148542.959
PI: 151+34.88

END PROJECT
STA 152+43.79

S89°36'20"E

321+00

.EP: 322+00.00
Y=304089.841
X=148731.627

S89°43'41"E

331+00

N 17TH STREET

.EP: 332+00.00
Y=304419.762
X=148733.918

S89°38'13"E

341+00

HARRISON STREET

.EP: 342+00.00
Y=304749.774
X=148736.209

S89°34'54"E

351+00

352+00

353+00

354+00

N 16TH STREET

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	ALIGNMENT	SHEET Page 88 of 207	E

3

CLEARING AND GRUBBING

CATEGORY	STATION	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID	REMARKS
0010	127+77	RT	7	7	
0010	132+69	LT		30	STUMP
0011	137+45	RT	5	5	
0010	146+94	RT		30	STUMP
		TOTAL 0010	12	72	

* NO TREES TO BE REMOVED WITHIN THE PROJECT LIMITS WITHOUT THE APPORVAL OF THE ENGINEER.

REMOVING CONCRETE PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	REMARKS
0010	125+74	-	126+75	LT & RT	1,112	INCLUDES N 21ST ST
0010	127+40	-		LT	29	
0010	308+82	-		LT	23	N 19TH STREET
0010	150+36	-	152+43	LT & RT	530	
				TOTAL 0010	1,694	

NOTE: CONCRETE CURB & GUTTER INCLUDED IN REMOVING CONCRETE PAVEMENT AT N 21ST STREET AND BELKNAP STREET

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	REMARKS
0010	128+00	LT	5	
0010	297+98	LT & RT	84	N 20TH STREET
0010	300+41	LT	6	N 20TH STREET
0010	307+97	LT & RT	107	N 19TH STREET
0010	310+41	RT	5	N 19TH STREET
0010	328+75	LT	28	N 17TH STREET
0010	347+95	LT & RT	18	N 16TH STREET
		TOTAL 0010	253	

REMOVING CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF	REMARKS
0010	126+75	-	129+35	RT	257	
0010	126+75	-	130+75	LT	400	
0010	129+81	-	132+60	RT	280	
0010	131+19	-	134+97	LT	378	
0010	135+40	-	139+06	LT	367	
0010	133+12	-	135+80	RT	268	
0010	136+32	-	139+06	RT	275	
0010	139+61	-	143+31	LT	370	
0010	139+62	-	142+44	RT	283	
0010	142+91	-	145+72	RT	281	
0010	143+83	-	147+55	LT	372	
0010	146+22	-	148+95	RT	273	
0010	148+01	-	149+98	LT	197	
0010	149+41	-	149+98	RT	57	
0010	290+27	-	290+70	LT & RT	100	LINCOLN STREET
0010	297+65	-	299+66	LT & RT	410	N 20TH STREET
0010	300+27	-	300+75	LT & RT	110	N 20TH STREET
0010	307+65	-	309+66	LT & RT	412	N 19TH STREET
0010	310+26	-	310+75	LT & RT	110	N 19TH STREET
0010	317+65	-	319+66	LT & RT	416	N 18TH STREET
0010	320+26	-	320+90	LT & RT	145	N 18TH STREET
0010	330+27	-	330+85	LT & RT	124	N 17TH STREET
0010	327+50	-	329+67	LT & RT	402	N 17TH STREET
0010	340+26	-	340+80	LT & RT	118	HARRISON STREET
0010	347+50	-	349+67	LT & RT	420	N 16TH STREET
0010	350+26	-	351+10	LT & RT	175	N 16TH STREET
				TOTAL 0010	7,000	

3

REMOVING STORM SEWER

CATEGORY	STATION	STRUCTURE	LOCATION	204.0280 SEALING PIPES EACH	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (SIZE) (6-INCH RCP) LF	204.0245.02 REMOVING STORM SEWER (SIZE) (10-INCH RCP) LF	204.0245.03 REMOVING STORM SEWER (SIZE) (12-INCH RCP) LF	204.0245.04 REMOVING STORM SEWER (SIZE) (15-INCH RCP) LF	REMARKS
0020	126+11.22	30B	58.63' LT			1			10		12" RCP
0020	126+40.21	30A	61.37' LT			1			20		12" RCP
0020	126+20.10	30	58.67' LT		1						
0020	127+90.00	EX1	35.50' LT			1		15			10"' VCP
0020	130+74.00	EX3	35.8'0 LT					15			10" VCP
0020	131+19.00	EX3G	36.20' LT			1	45				6" VCP
0020	148+97.00	EX18	29.40' RT			1			60		12" VCP
0020	150+46.50	24	36.0' LT		1					63	15" RCP PIPE 100 - ABANDONED/FILLED
0020	150+48.00	EX	26.0' RT			1					
0020	150+59.00	EX	26.0' RT			1				62	15" RCP
0020	151+95.00	EX	23.0' RT			1					
	UNDISTRIBUTED			2							
			TOTAL 0020	2	2	8	45	30	90	125	

ABANDONING SEWER

CATEGORY	STATION	LOCATION	204.0291.S ABANDONING SEWER CY	REMARKS
0020	127+90	LT	13	INL - SAN ALLEY
0020	130+74	LT	13	INL - SAN ALLEY
		TOTAL 0010	26	

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY	REMARKS
0010	125+75	-	125+94	LT & RT	24	
0010	126+56	-	129+26	RT	198	
0010	126+58	-	130+66	LT	271	
0010	129+86	-	132+56	RT	168	
0010	131+27	-	134+86	LT	226	
0010	133+18	-	135+76	RT	148	
0010	135+48	-	139+06	LT	223	
0010	136+38	-	139+06	RT	171	
0010	139+67	-	142+37	RT	186	
0010	139+67	-	143+26	LT	230	
0010	142+97	-	145+67	RT	205	
0010	143+87	-	147+46	LT	224	
0010	146+27	-	148+87	RT	175	
0010	148+08	-	150+65	LT	176	
0010	149+47	-	152+25	RT	278	
0010	278+80	-	279+72	LT & RT	130	N 21TH STREET
0010	280+20	-	280+65	LT & RT	62	N 21TH STREET
0010	290+27	-	290+70	LT & RT	69	LINCOLN STREET
0010	297+65	-	299+66	LT & RT	257	N 20TH STREET
0010	300+27	-	300+75	LT & RT	69	N 20TH STREET
0010	307+65	-	309+66	LT & RT	264	N 19TH STREET
0010	310+26	-	310+75	LT & RT	68	N 19TH STREET
0010	317+65	-	319+66	LT & RT	291	N 18TH STREET
0010	320+26	-	320+90	LT & RT	88	N 18TH STREET
0010	330+27	-	330+85	LT & RT	79	N 17TH STREET
0010	327+50	-	329+67	LT & RT	234	N 17TH STREET
0010	340+26	-	340+80	LT & RT	72	HARRISON STREET
0010	347+50	-	349+67	LT & RT	263	N 16TH STREET
0010	350+26	-	351+10	LT & RT	101	N 16TH STREET
				TOTAL 0010	4,950	

EXCAVATION COMMON

CATEGORY	STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	EXPANDED FILL CY	REMARKS
0010	125+50	-	152+44	N21st - ALLEY SOUTH OF BELKNAP ST	20,800	100.00	INCLUDEDS SIDE STREETS MAINELINE SIDEWALK AREA NORTH OF ALLEY
				TOTAL 0010	20,800		

3

FINISHING ROADWAY

CATEGORY	STATION	TO	STATION	LOCATION	213.0100.01 FINISHING ROADWAY (PROJECT) (01. TBD) EACH	REMARKS
0010	125+75	-	150+36.74	LT & RT	1	
				TOTAL 0010	1	

BASE AGGREGATE OPEN-GRADED

CATEGORY	STATION	TO	STATION	LOCATION	310.0110 BASE AGGREGATE OPEN-GRADED TON	REMARKS
0010	150+37	-	152+44	LT & RT	150	
				TOTAL 0010	150	

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	REMARKS
0010	125+75	-	129+56	LT & RT	1,210	1,561	
0010	129+56	-	130+96	LT & RT	386	551	
0010	130+96	-	132+86	LT & RT	524	747	
0010	132+86	-	135+16	LT & RT	631	899	
0010	135+16	-	136+06	LT & RT	250	357	
0010	136+06	-	139+36	LT & RT	939	1,343	
0010	139+36	-	142+66	LT & RT	942	1,343	
0010	142+66	-	143+57	LT & RT	251	359	
0010	143+57	-	145+96	LT & RT	658	938	
0010	145+96	-	147+76	LT & RT	496	707	
0010	147+76	-	149+16	LT & RT	379	542	
0010	149+16	-	150+36	LT & RT	601	868	
0010	278+80	-	279+65	LT & RT	172	224	N 21TH STREET
0010	280+24	-	280+65	LT & RT	90	124	N 21TH STREET
0010	290+24	-	290+70	LT & RT	95	129	LINCOLN STREET
0010	297+65	-	299+65	LT & RT	326	414	N 20TH STREET
0010	300+24	-	300+75	LT & RT	105	141	N 20TH STREET
0010	307+65	-	309+65	LT & RT	329	414	N 19TH STREET
0010	310+24	-	310+75	LT & RT	105	141	N 19TH STREET
0010	317+65	-	319+65	LT & RT	407	540	N 18TH STREET
0010	320+24	-	320+90	LT & RT	138	185	N 18TH STREET
0010	330+24	-	330+85	LT & RT	124	166	N 17TH STREET
0010	327+50	-	329+65	LT & RT	340	444	N 17TH STREET
0010	340+24	-	340+50	LT & RT	105	153	HARRISON STREET
0010	347+50	-	349+65	LT & RT	415	540	N 16TH STREET
0010	350+24	-	350+50	LT & RT	154	230	N 16TH STREET
0010	127+40	-	-	LT	11	-	DRIVEWAY
0010	128+00	-	-	LT	8	-	DRIVEWAY
0010	138+01	-	-	RT	6	-	DRIVEWAY
0010	144+93	-	-	RT	12	-	DRIVEWAY
0010	150+78	-	-	RT	6	-	DRIVEWAY
0010	297+96	-	-	LT	14	-	ALLEY
0010	297+96	-	-	RT	13	-	ALLEY
0010	307+96	-	-	LT	13	-	ALLEY
0010	307+96	-	-	RT	22	-	ALLEY
0010	308+83	-	-	LT	10	-	DRIVEWAY
0010	317+96	-	-	LT	11	-	ALLEY
0010	317+96	-	-	RT	10	-	ALLEY
0010	318+23	-	-	LT	8	-	DRIVEWAY
0010	318+23	-	-	RT	8	-	DRIVEWAY
0010	327+73	-	-	LT	10	-	DRIVEWAY
0010	327+74	-	-	RT	6	-	DRIVEWAY
0010	327+96	-	-	LT	13	-	ALLEY
0010	327+96	-	-	RT	13	-	ALLEY
0010	328+23	-	-	RT	13	-	DRIVEWAY
0010	328+74	-	-	LT	12	-	DRIVEWAY
0010	347+96	-	-	LT	10	-	ALLEY
0010	347+96	-	-	RT	12	-	ALLEY
				TOTAL 0010	10,413	14,060	

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CONCRETE PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.0100 CONCRETE PAVEMENT 10-INCH SY	REMARKS
0010	150+36	-	151+77	LT & RT	420		
0010	151+77	-	152+44	RT		130	
				TOTAL 0010	420	130	

DRILLED TIE AND DOWEL BARS

CATEGORY	STATION	TO	STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
0010	150+40	-	152+43	LT	100	80
				TOTAL 0010	100	80

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CONCRETE DRIVEWAY 6-INCH

CATEGORY	STATION	LOCATION	602.0810 CONCRETE DRIVEWAY 6-INCH SY	REMARKS
0010	127+40	LT	25	DRIVEWAY
0010	128+00	LT	24	DRIVEWAY
0010	138+01	RT	20	DRIVEWAY
0010	144+93	RT	45	DRIVEWAY
0010	150+78	RT	31	DRIVEWAY
0010	297+96	LT	39	ALLEY
0010	297+96	RT	37	ALLEY
0010	307+96	LT	38	ALLEY
0010	307+96	RT	68	ALLEY
0010	308+83	LT	28	DRIVEWAY
0010	317+96	LT	32	ALLEY
0010	317+96	RT	32	ALLEY
0010	318+23	LT	25	DRIVEWAY
0010	318+23	RT	27	DRIVEWAY
0010	327+73	LT	30	DRIVEWAY
0010	327+74	RT	18	DRIVEWAY
0010	327+96	LT	37	ALLEY
0010	327+96	RT	39	ALLEY
0010	328+23	RT	38	DRIVEWAY
0010	328+74	LT	35	DRIVEWAY
0010	347+96	LT	31	ALLEY
0010	347+96	RT	31	ALLEY
		TOTAL 0010	730	

HMA ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.6244 HMA PAVEMENT 4 MT 58-34 S TON	REMARKS
0010	125+75	-	129+56	LT & RT	114	293	240	
0010	129+56	-	130+96	LT & RT	37	96	78	
0010	130+96	-	132+86	LT & RT	51	130	107	
0010	132+86	-	135+16	LT & RT	61	157	129	
0010	135+16	-	136+06	LT & RT	24	61	50	
0010	136+06	-	139+36	LT & RT	97	249	204	
0010	139+36	-	142+66	LT & RT	97	249	204	
0010	142+66	-	143+57	LT & RT	24	62	51	
0010	143+57	-	145+96	LT & RT	64	164	134	
0010	145+96	-	147+76	LT & RT	48	123	101	
0010	147+76	-	149+16	LT & RT	37	96	78	
0010	149+16	-	152+44	LT & RT	62	158	130	
0010	278+80	-	279+68	LT & RT	17	44	36	N 21TH STREET
0010	280+20	-	280+65	LT & RT	10	27	22	N 21TH STREET
0010	290+20	-	290+70	LT & RT	10	27	22	LINCOLN STREET
0010	297+65	-	299+68	LT & RT	29	74	61	N 20TH STREET
0010	300+20	-	300+75	LT & RT	11	29	24	N 20TH STREET
0010	307+65	-	309+68	LT & RT	29	74	61	N 19TH STREET
0010	310+20	-	310+75	LT & RT	11	29	24	N 19TH STREET
0010	317+65	-	319+65	LT & RT	40	104	85	N 18TH STREET
0010	320+20	-	320+90	LT & RT	15	38	31	N 18TH STREET
0010	330+20	-	330+85	LT & RT	13	34	27	N 17TH STREET
0010	327+50	-	329+68	LT & RT	31	79	65	N 17TH STREET
0010	340+20	-	340+80	LT & RT	12	31	26	HARRISON STREET
0010	347+50	-	349+68	LT & RT	40	102	83	N 16TH STREET
0010	350+20	-	351+10	LT & RT	17	45	37	N 16TH STREET
				TOTAL 0010	1,003	2,574	2,106	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
0010	127+40	LT	4	DRIVEWAY
0010	128+00	LT	2	DRIVEWAY
0010	138+01	RT	1	DRIVEWAY
0010	144+93	RT	3	DRIVEWAY
0010	297+96	LT	2	ALLEY
0010	297+96	RT	2	ALLEY
0010	307+96	LT	2	ALLEY
0010	307+96	RT	2	ALLEY
0010	308+83	LT	2	DRIVEWAY
0010	317+96	LT	2	ALLEY
0010	317+96	RT	2	ALLEY
0010	318+23	LT	2	DRIVEWAY
0010	318+23	RT	1	DRIVEWAY
0010	327+96	LT	2	ALLEY
0010	327+96	RT	2	ALLEY
0010	328+23	RT	2	DRIVEWAY
0010	328+74	LT	2	DRIVEWAY
0010	347+96	LT	2	ALLEY
0010	347+96	RT	3	ALLEY
		TOTAL 0010	40	

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0090.01 CONCRETE CURB & GUTTER 6-INCH SLOPED 18-INCH TYPE J MODIFIED LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	SPV.0090.02 CURE AND SEAL TREATEMENT, CONCRETE CURB AND GUTTER LF	REMARKS
0010	125+75	-	129+56	LT & RT	472		553		1025	1025	
0010	129+56	-	130+96	LT & RT	280		207		487	487	
0010	130+96	-	132+86	LT & RT	382		307		689	689	
0010	132+86	-	135+16	LT & RT	460		387		847	847	
0010	135+16	-	136+06	LT & RT	180		106		286	286	
0010	136+06	-	139+36	LT & RT	468		535		1003	1003	
0010	139+36	-	142+66	LT & RT	470		535	83	1088	1088	
0010	142+66	-	143+57	LT & RT	182		108		290	290	
0010	143+57	-	145+96	LT & RT	479		406		885	885	
0010	145+96	-	147+76	LT & RT	360		285		645	645	
0010	147+76	-	149+16	LT & RT	280		203		483	483	
0010	149+16	-	152+44	LT & RT	232	180	235		647	647	
0010	278+80	-	279+68	LT & RT			209	31	240	240	N 21TH STREET
0010	280+20	-	280+65	LT & RT			118		118	118	N 21TH STREET
0010	290+20	-	290+70	LT & RT			122		122	122	LINCOLN STREET
0010	297+65	-	299+68	LT & RT			428		428	428	N 20TH STREET
0010	300+20	-	300+75	LT & RT			133		133	133	N 20TH STREET
0010	307+65	-	309+68	LT & RT			428		428	428	N 19TH STREET
0010	310+20	-	310+75	LT & RT			132		132	132	N 19TH STREET
0010	317+65	-	319+65	LT & RT			434		434	434	N 18TH STREET
0010	320+20	-	320+90	LT & RT			168		168	168	N 18TH STREET
0010	330+20	-	330+85	LT & RT			152	46	198	198	N 17TH STREET
0010	327+50	-	329+68	LT & RT			458		458	458	N 17TH STREET
0010	340+20	-	340+80	LT & RT			143		143	143	HARRISON STREET
0010	347+50	-	349+68	LT & RT			458		458	458	N 16TH STREET
0010	350+20	-	351+10	LT & RT			202		202	202	N 16TH STREET
				TOTAL 0010	4,245	180	7,452	160	12,037	12,037	

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CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0165.03 BRUSH PATTERN & COLORING OF CONCRETE SIDEWALK 6-INCH SF	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0420 CONCRETE SIDEWALK 7-INCH SF	650.9500 CONSTRUCTION STAKING SIDEWALK (PROJECT) EACH	SPV.0165.01 CURE AND SEAL TREATMENT, CONCRETE SIDEWALK SF	REMARKS
0010	125+75	-	129+56	LT & RT		1670	3337	262	1	5269	
0010	129+56	-	130+96	LT & RT		655	1269	232		2156	
0010	130+96	-	132+86	LT & RT		903	1695	232		2830	
0010	132+86	-	135+16	LT & RT		1127	2036	238		3401	
0010	135+16	-	136+06	LT & RT		354	726	230		1310	
0010	136+06	-	139+36	LT & RT		1706	2747	78		4531	
0010	139+36	-	142+66	LT & RT		1830	2897	70		4797	
0010	142+66	-	143+57	LT & RT		350	767	239		1356	
0010	143+57	-	145+96	LT & RT		1219	1870	228		3317	
0010	145+96	-	147+76	LT & RT		883	1699	221		2803	
0010	147+76	-	149+16	LT & RT		611	1222	46		1879	
0010	149+16	-	150+36	LT & RT	340	824	2806	165		4135	
0010	278+80	-	279+50	LT & RT		892				892	N 21TH STREET
0010	280+43	-	280+65	LT & RT		260				260	N 21TH STREET
0010	290+41	-	290+70	LT & RT		351				351	LINCOLN STREET
0010	297+65	-	299+54	LT & RT		1837				1837	N 20TH STREET
0010	300+40	-	300+75	LT & RT		420				420	N 20TH STREET
0010	307+65	-	309+54	LT & RT		1883				1883	N 19TH STREET
0010	310+40	-	310+75	LT & RT		427				427	N 19TH STREET
0010	317+65	-	319+49	LT & RT		1523				1523	N 18TH STREET
0010	320+42	-	320+90	LT & RT		547				547	N 18TH STREET
0010	330+39	-	330+85	LT & RT		507				507	N 17TH STREET
0010	327+50	-	329+54	LT & RT		1452				1452	N 17TH STREET
0010	340+40	-	340+50	LT & RT		110				110	HARRISON STREET
0010	347+50	-	349+52	LT & RT		2016				2016	N 16TH STREET
0010	350+40	-	350+50	LT & RT		105				105	N 16TH STREET
	UNDISTRUBUTED			LT & RT		550				550	SIDEWALK UNDER WATERMAIN
				TOTAL 0010	340	25,012	23,071	2,241	1	50,664	

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CURB RAMP

CATEGORY	STATION	TO	STATION	LOCATION	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	REMARKS
0010	125+75	-	129+56	LT & RT	48	4	
0010	129+56	-	130+96	LT & RT	64	4	
0010	130+96	-	132+86	LT & RT	60	4	
0010	132+86	-	135+16	LT & RT	64	4	
0010	135+16	-	136+06	LT & RT	64	4	
0010	136+06	-	139+36	LT & RT	23	2	
0010	139+36	-	142+66	LT & RT	22	2	
0010	142+66	-	143+57	LT & RT	64	4	
0010	143+57	-	145+96	LT & RT	60	4	
0010	145+96	-	147+76	LT & RT	64	4	
0010	149+16	-	152+44	LT & RT	60	4	
0010	278+80	-	279+68	LT & RT	20	2	N 21TH STREET
0010	280+20	-	280+65	LT & RT	36	2	N 21TH STREET
0010	290+20	-	290+70	LT & RT	36	2	LINCOLN STREET
0010	297+65	-	299+68	LT & RT	20	2	N 20TH STREET
0010	300+20	-	300+75	LT & RT	36	2	N 20TH STREET
0010	307+65	-	309+68	LT & RT	20	2	N 19TH STREET
0010	310+20	-	310+75	LT & RT	36	2	N 19TH STREET
0010	317+65	-	319+65	LT & RT	20	2	N 18TH STREET
0010	320+20	-	320+90	LT & RT	36	2	N 18TH STREET
0010	330+20	-	330+85	LT & RT	36	2	N 17TH STREET
0010	327+50	-	329+68	LT & RT	20	2	N 17TH STREET
0010	340+20	-	340+80	LT & RT	36	2	HARRISON STREET
0010	347+50	-	349+68	LT & RT	20	2	N 16TH STREET
0010	350+20	-	351+10	LT & RT	36	2	N 16TH STREET
				TOTAL 0010	1,001	68	

CONCRETE STEPS

CATEGORY	STATION	LOCATION	602.1500 CONCRETE STEPS SF
0010	148+77	LT	12
0010	149+45	LT	7
		TOTAL 0010	19

PIPE UNDERDRAIN 6-INCH

CATEGORY	STATION	TO	STATION	LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	REMARKS
0010	125+75	-	129+56	LT & RT	553	
0010	129+56	-	130+96	LT & RT	207	
0010	130+96	-	132+86	LT & RT	307	
0010	132+86	-	135+16	LT & RT	387	
0010	135+16	-	136+06	LT & RT	106	
0010	136+06	-	139+36	LT & RT	535	
0010	139+36	-	142+66	LT & RT	535	
0010	142+66	-	143+57	LT & RT	108	
0010	143+57	-	145+96	LT & RT	406	
0010	145+96	-	147+76	LT & RT	285	
0010	147+76	-	149+16	LT & RT	203	
0010	149+16	-	152+44	LT & RT	415	
0010	278+80	-	279+68	LT & RT	209	N 21TH STREET
0010	280+20	-	280+65	LT & RT	118	N 21TH STREET
0010	290+20	-	290+70	LT & RT	122	LINCOLN STREET
0010	297+65	-	299+68	LT & RT	428	N 20TH STREET
0010	300+20	-	300+75	LT & RT	133	N 20TH STREET
0010	307+65	-	309+68	LT & RT	428	N 19TH STREET
0010	310+20	-	310+75	LT & RT	132	N 19TH STREET
0010	317+65	-	319+65	LT & RT	434	N 18TH STREET
0010	320+20	-	320+90	LT & RT	168	N 18TH STREET
0010	330+20	-	330+85	LT & RT	152	N 17TH STREET
0010	327+50	-	329+68	LT & RT	458	N 17TH STREET
0010	340+20	-	340+80	LT & RT	143	HARRISON STREET
0010	347+50	-	349+68	LT & RT	458	N 16TH STREET
0010	350+20	-	351+10	LT & RT	202	N 16TH STREET
				TOTAL 0010	7,632	

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STORM SEWER PIPES

FROM	-	TO	FROM ALIGNMENT	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0412 12-INCH LF	608.0415 15-INCH LF	608.0418 18-INCH LF	608.0424 24-INCH LF	608.0430 30-INCH LF	608.0436 36-INCH LF	608.0442 42-INCH LF	608.0448 48-INCH LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
					STORM SEWER PIPE REINFORCED CONCRETE CLASS IV											
1	-	2	HAMMOND AVE NB					141						639.50	639.07	0.0031
1A	-	1	HAMMOND AVE NB		55									640.25	640.00	0.0045
2	-	3	HAMMOND AVE NB					132						639.07	638.57	0.0038
2A	-	2	HAMMOND AVE NB		57									640.32	640.07	0.0044
3	-	4	HAMMOND AVE NB						187					638.07	637.51	0.0030
3A	-	3B	HAMMOND AVE NB		23									640.37	640.26	0.0048
3B	-	3C	HAMMOND AVE NB			116								640.01	639.55	0.0039
3C	-	3	HAMMOND AVE NB				35							639.30	639.07	0.0065
3E	-	3	HAMMOND AVE NB			55								639.19	639.00	0.0035
3F	-	3E	HAMMOND AVE NB		55									639.69	639.44	0.0046
4	-	5	HAMMOND AVE NB						58					637.51	637.34	0.0030
4A	-	4	HAMMOND AVE NB			55								638.70	638.40	0.0055
4B	-	4A	HAMMOND AVE NB			35								638.85	638.70	0.0042
4C	-	4B	HAMMOND AVE NB		29									639.25	639.10	0.0052
5	-	6	HAMMOND AVE NB						175					637.34	636.71	0.0036
6	-	7	HAMMOND AVE NB							73				636.21	636.00	0.0029
6A	-	6B	HAMMOND AVE NB		23									638.20	638.09	0.0048
6B	-	6D	HAMMOND AVE NB				96							637.59	637.35	0.0025
6C	-	6D	HAMMOND AVE NB		23									638.30	637.85	0.0196
6D	-	6	HAMMOND AVE NB				35							637.35	637.21	0.0040
6E	-	6	HAMMOND AVE NB		55									638.01	637.73	0.0051
7	-	8	HAMMOND AVE NB							237				636.00	635.40	0.0025
7A	-	7	HAMMOND AVE NB			55								637.40	637.05	0.0064
7B	-	7A	HAMMOND AVE NB			46								637.65	637.40	0.0054
7C	-	7B	HAMMOND AVE NB		29									638.05	637.90	0.0052
8	-	9	HAMMOND AVE NB						101					634.90	634.66	0.0024
8A	-	8	HAMMOND AVE NB		55									637.02	636.75	0.0049
9	-	10	HAMMOND AVE NB						61					634.66	634.50	0.0025
9A	-	9	HAMMOND AVE NB		55									636.69	636.40	0.0053
10	-	11	HAMMOND AVE NB						153					634.50	634.10	0.0026
10A	-	10	HAMMOND AVE NB				42							636.00	635.75	0.0060
10B	-	10A	HAMMOND AVE NB			114								636.70	636.25	0.0039
10C	-	10B	HAMMOND AVE NB		31									637.08	636.95	0.0042
10D	-	10A	HAMMOND AVE NB		31									636.64	636.25	0.0126
10E	-	10	HAMMOND AVE NB			87								636.40	636.00	0.0046
10F	-	10E	HAMMOND AVE NB		29									636.79	636.65	0.0048
11	-	12	HAMMOND AVE NB						117					634.10	633.80	0.0026
11A	-	11	HAMMOND AVE NB		55									636.01	635.70	0.0056
12	-	13	HAMMOND AVE NB						81					633.80	633.60	0.0025
12A	-	12	HAMMOND AVE NB			55								635.00	634.70	0.0054
12B	-	12A	HAMMOND AVE NB			35								635.20	635.00	0.0057
12C	-	12B	HAMMOND AVE NB		29									635.62	635.45	0.0059
13	-	14	HAMMOND AVE NB						17					633.56	633.49	0.0041
14	-	15	HAMMOND AVE NB						118					633.49	633.18	0.0026
14A	-	14B	HAMMOND AVE NB		23									635.20	635.05	0.0065

*NON-BID ITEM: FOR INFORMATION ONLY

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STORM SEWER PIPES (CONT'D)

FROM	-	TO	FROM ALIGNMENT	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0412 12-INCH LF	608.0415 15-INCH LF	608.0418 18-INCH LF	608.0424 24-INCH LF	608.0430 30-INCH LF	608.0436 36-INCH LF	608.0442 42-INCH LF	608.0448 48-INCH LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
					STORM SEWER PIPE REINFORCED CONCRETE CLASS IV											
14B	-	14	HAMMOND AVE NB				62							634.55	634.05	0.0081
15	-	16	HAMMOND AVE NB									123		632.68	632.34	0.0028
15A	-	15	HAMMOND AVE NB		55									634.93	634.60	0.0060
16	-	17	HAMMOND AVE NB									176		632.34	632.16	0.0010
16A	-	16	HAMMOND AVE NB			55								633.70	633.35	0.0063
16B	-	16A	HAMMOND AVE NB			35								633.90	633.70	0.0057
16C	-	16B	HAMMOND AVE NB		29									634.28	634.15	0.0045
17	-	18	HAMMOND AVE NB									140		632.16	632.03	0.0009
17A	-	17B	HAMMOND AVE NB		29									634.53	634.40	0.0045
17B	-	17D	HAMMOND AVE NB			114								634.15	633.60	0.0048
17C	-	17D	HAMMOND AVE NB		29									634.15	633.85	0.0103
17D	-	17	HAMMOND AVE NB				45							633.35	633.16	0.0042
17E	-	17	HAMMOND AVE NB		55									634.47	634.20	0.0049
18	-	19	HAMMOND AVE NB									106		632.03	631.93	0.0009
18A	-	18	HAMMOND AVE NB		55									634.02	633.70	0.0058
19	-	20	HAMMOND AVE NB									46		631.93	631.89	0.0010
19A	-	19	HAMMOND AVE NB			57								633.41	633.10	0.0055
20	-	21	HAMMOND AVE NB								68			632.39	632.32	0.0010
21	-	22	HAMMOND AVE NB								138			632.32	632.18	0.0010
22	-	23	HAMMOND AVE NB								36			632.18	632.14	0.0010
EX	-	22	HAMMOND AVE NB	1	8									633.96	633.90	0.0078
30B	-	30	HAMMOND AVE NB		9									641.57	641.20	0.0411
30A	-	30	HAMMOND AVE NB		20									641.26	641.16	0.0050
30C	-	30B	HAMMOND AVE NB		43									641.79	641.57	0.0051
30D	-	30C	HAMMOND AVE NB		50									642.04	641.79	0.0050
3D	-	3C	HAMMOND AVE NB			23								639.65	639.55	0.0043
30	-		HAMMOND AVE NB	1	8									641.15	641.14	0.0013
EX24	-	20	HAMMOND AVE NB					28						632.00	631.89	0.0039
EX1 (3)	-	EX24	HAMMOND AVE NB	1				10						631.89	631.81	0.0083
			TOTALS	3	1047	937	315	311	420	310	890	591				

*NON-BID ITEM: FOR INFORMATION ONLY

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	FROM ALIGNMENT	SPV.0060.09 MANHOLE COVERS TYPE J SPECIAL EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	SPV.0060.01 INLETS 5-FT DIAMETER EACH	SPV.0060.02 INLETS 6-FT DIAMETER EACH	SPV.0060.03 INLETS 7-FT DIAMETER EACH	SPV.0060.04 INLETS 8-FT DIAMETER EACH	611.0420 RECONSTRUCTING MANHOLES EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT
1	127+86.85	33.50' LT	HAMMOND AVE NB		1			1							1	644.75	639.50	4.50
1A	127+86.85	21.50' RT	HAMMOND AVE NB		1				1						1	644.75	640.25	3.66
2	129+27.67	33.50' LT	HAMMOND AVE NB		1			1							1	644.29	639.07	4.47
2A	129+27.67	23.29' RT	HAMMOND AVE NB			1			1						1	644.23	640.32	3.08
3	130+60.12	33.50' LT	HAMMOND AVE NB		1							1			1	643.87	638.07	5.01
3A	131+08.20	174.99' LT	HAMMOND AVE NB		1				1						1	644.87	640.37	3.67
3B	130+85.20	175.01' LT	HAMMOND AVE NB		1				1						1	644.87	640.01	4.05
3C	130+85.12	58.53' LT	HAMMOND AVE NB			1		1							1	643.70	639.30	3.61
3D	131+08.12	58.52' LT	HAMMOND AVE NB			1			1						1	643.71	640.71	2.00
3E	130+60.12	21.50' RT	HAMMOND AVE NB		1				1						1	643.87	639.19	3.86
3F	131+15.00	21.48' RT	HAMMOND AVE NB		1				1						1	643.69	639.69	3.17
4	132+47.45	33.50' LT	HAMMOND AVE NB		1					1					1	643.26	637.51	5.05
4A	132+47.45	21.50' RT	HAMMOND AVE NB		1				1						1	643.26	638.70	3.75
4B	132+72.45	46.51' RT	HAMMOND AVE NB			1			1						1	643.05	638.85	3.39
4C	133+01.45	46.49' RT	HAMMOND AVE NB			1			1						1	643.06	639.25	2.97
5	133+05.00	33.50' LT	HAMMOND AVE NB		1					1					1	643.31	637.34	5.26
6	134+80.39	33.50' LT	HAMMOND AVE NB		1								1		1	642.51	636.21	5.55
6A	135+28.32	154.59' LT	HAMMOND AVE NB			1			1						1	641.99	638.20	2.95
6B	135+05.32	154.57' LT	HAMMOND AVE NB			1		1							1	642.39	637.59	4.01
6C	135+28.39	58.48' LT	HAMMOND AVE NB		1				1						1	642.30	638.30	3.17
6D	135+05.39	58.52' LT	HAMMOND AVE NB		1			1							1	642.30	637.35	4.16
6E	134+80.39	21.50' RT	HAMMOND AVE NB		1				1						1	642.51	638.01	3.67
7	135+53.39	33.50' LT	HAMMOND AVE NB		1					1					1	642.28	636.00	5.53
7A	135+53.39	21.50' RT	HAMMOND AVE NB		1				1						1	642.28	637.40	4.07
7B	135+92.28	46.49' RT	HAMMOND AVE NB			1			1						1	642.06	637.65	3.59
7C	136+21.28	46.51' RT	HAMMOND AVE NB			1			1						1	642.05	638.05	3.17
8	137+90.00	33.50' LT	HAMMOND AVE NB		1						1				1	641.52	634.91	5.91
8A	137+90.00	21.50' RT	HAMMOND AVE NB		1				1						1	641.52	637.02	3.67
9	138+91.22	33.50' LT	HAMMOND AVE NB		1						1				1	641.43	634.66	6.07
9A	138+91.21	21.50' RT	HAMMOND AVE NB		1				1						1	641.19	636.69	3.67
10	139+51.88	33.50' LT	HAMMOND AVE NB		1						1				1	641.26	634.50	6.06
10A	139+52.22	75.00' LT	HAMMOND AVE NB			1		1							1	640.64	636.00	3.84
10B	139+52.22	189.05' LT	HAMMOND AVE NB		1				1						1	641.08	636.70	3.57
10C	139+21.22	189.05' LT	HAMMOND AVE NB		1				1						1	641.08	637.08	3.19
10D	139+21.22	75.00' LT	HAMMOND AVE NB			1			1						1	640.64	636.64	3.16
10E	139+51.21	53.00' RT	HAMMOND AVE NB			1			1						1	640.79	636.40	3.58
10F	139+22.21	53.00' RT	HAMMOND AVE NB			1			1						1	640.79	636.79	3.17
11	141+04.71	33.50' LT	HAMMOND AVE NB		1						1				1	640.51	634.10	5.70
11A	141+04.71	21.50' RT	HAMMOND AVE NB		1				1						1	640.51	636.01	3.66
12	142+22.20	33.50' LT	HAMMOND AVE NB		1						1				1	640.13	633.80	5.62
12A	142+27.20	21.50' RT	HAMMOND AVE NB		1				1						1	640.11	635.00	4.30
12B	142+52.21	46.51' RT	HAMMOND AVE NB			1			1						1	639.67	635.20	3.65
12C	142+81.21	46.49' RT	HAMMOND AVE NB			1			1						1	639.62	635.62	3.16
13	143+03.58	33.50' LT	HAMMOND AVE NB		1						1				1	639.87	633.56	5.60
14	143+20.58	33.70' LT	HAMMOND AVE NB		1						1				1	639.80	633.49	5.61
14A	143+68.48	89.97' LT	HAMMOND AVE NB			1			1						1	639.20	635.20	3.17
14B	143+45.48	90.03' LT	HAMMOND AVE NB			1		1							1	639.20	634.55	3.86
15	144+38.58	33.50' LT	HAMMOND AVE NB		1							1			1	639.43	632.68	6.09
15A	144+38.58	21.50' RT	HAMMOND AVE NB		1				1						1	639.43	634.93	3.67
16	145+61.58	33.50' LT	HAMMOND AVE NB		1							1			1	639.04	632.34	6.03

REMARKS:

*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

STORM SEWER STRUCTURES (CONT'D)

STRUCTURE	STATION	OFFSET*	FROM ALIGNMENT	SPV.0060.09 MANHOLE COVERS TYPE J SPECIAL EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	SPV.0060.01 INLETS 5-FT DIAMETER EACH	SPV.0060.02 INLETS 6-FT DIAMETER EACH	SPV.0060.03 INLETS 7-FT DIAMETER EACH	SPV.0060.04 INLETS 8-FT DIAMETER EACH	611.0420 RECONSTRUCTING MANHOLES EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT
16A	145+57.29	21.52' RT	HAMMOND AVE NB		1				1						1	639.05	633.70	4.54
16B	145+82.29	46.50' RT	HAMMOND AVE NB			1			1						1	638.84	633.90	4.13
16C	146+11.29	46.50' RT	HAMMOND AVE NB			1			1						1	638.78	634.28	3.67
17	147+37.46	33.50' LT	HAMMOND AVE NB		1								1		1	638.47	632.16	5.64
17A	147+91.52	184.99' LT	HAMMOND AVE NB		1				1						1	638.53	634.53	3.17
17B	147+62.52	185.01' LT	HAMMOND AVE NB		1				1						1	638.62	634.15	3.66
17C	147+91.45	71.49' LT	HAMMOND AVE NB			1			1						1	638.15	634.15	3.16
17D	147+62.45	71.51' LT	HAMMOND AVE NB			1		1							1	638.15	633.35	4.01
17E	147+37.46	21.50' RT	HAMMOND AVE NB		1				1						1	638.47	634.47	3.17
18	148+77.21	33.50' LT	HAMMOND AVE NB		1							1			1	638.02	632.03	5.33
18A	148+77.23	21.50' RT	HAMMOND AVE NB		1				1						1	638.02	634.02	3.17
19	149+83.38	34.54' LT	HAMMOND AVE NB			1						1			1	637.65	631.94	5.13
19A	149+83.38	22.20' RT	HAMMOND AVE NB			1			1						1	637.66	633.41	3.44
EX MH	149+94.00	3.4'0' LT	HAMMOND AVE NB											1				
20	150+28.92	35.05' LT	HAMMOND AVE NB										1		1	637.74	631.89	5.19
21	150+58.57	26.17' RT	HAMMOND AVE NB		1								1		1	637.91	632.32	4.72
22	151+95.31	23.56' RT	HAMMOND AVE NB		1						1				1	638.67	632.18	5.63
EX23	152+30.74	18.70' RT	HAMMOND AVE NB											1		638.75	628.79	
30	126+20.10	58.67' LT	HAMMOND AVE NB	1			1								1	645.54	641.15	3.19
30A	126+40.21	61.37' LT	HAMMOND AVE NB		1				1						1	645.26	641.26	3.17
30B	126+11.22	58.63' LT	HAMMOND AVE NB		1				1						1	645.32	641.57	2.92
30C	125+81.03	28.50' LT	HAMMOND AVE NB	`	1				1						1	645.47	641.79	2.85
30D	125+81.51	19.26' RT	HAMMOND AVE NB		1				1						1	645.41	642.04	2.54
EX24	150+56.00	36.90' LT	HAMMOND AVE NB											1		637.73	631.39	
			TOTALS	1	46	23	1	8	42	3	8	5	4	3	71			

REMARKS:
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**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION
***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

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MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	STATION	TO	STATION	LOCATION	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. TBD) EACH	REMARKS
0010	125+75	-	150+36.74	LT & RT	1	
				TOTAL 0010	1	

MOBILIZATION

CATEGORY	STATION	TO	STATION	LOCATION	619.1000 MOBILIZATION EACH	REMARKS
0010	125+75	-	150+36.74	LT & RT	1	
				TOTAL 0010	1	

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STATION	LOCATION	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0165.02 CURE AND SEAL TREATMENT, CONCRETE MEDIAN SLOPED NOSE SF	REMARKS
0010	127+21	R/L	21	21	
0010	138+41	LT	21	21	
0010	140+32	R/L	21	21	
0010	150+31	R/L	72	72	
		TOTAL 0010	135	135	

WATER

CATEGORY	STATION	TO	STATION	LOCATION	624.0100 WATER MGAL	REMARKS
0010	125+75	-	129+56	LT & RT	21	
0010	129+56	-	130+96	LT & RT	7	
0010	130+96	-	132+86	LT & RT	10	
0010	132+86	-	135+16	LT & RT	12	
0010	135+16	-	136+06	LT & RT	5	
0010	136+06	-	139+36	LT & RT	18	
0010	139+36	-	142+66	LT & RT	18	
0010	142+66		143+57	LT & RT	5	
0010	143+57	-	145+96	LT & RT	13	
0010	145+96	-	147+76	LT & RT	10	
0010	147+76	-	149+16	LT & RT	7	
0010	149+16	-	150+36	LT & RT	11	
0010	278+80	-	279+65	LT & RT	3	N 21TH STREET
0010	280+24	-	280+65	LT & RT	2	N 21TH STREET
0010	290+24	-	290+70	LT & RT	2	LINCOLN STREET
0010	297+65	-	299+65	LT & RT	6	N 20TH STREET
0010	300+24	-	300+75	LT & RT	2	N 20TH STREET
0010	307+65	-	309+65	LT & RT	6	N 19TH STREET
0010	310+24	-	310+75	LT & RT	2	N 19TH STREET
0010	317+65	-	319+65	LT & RT	7	N 18TH STREET
0010	320+24	-	320+90	LT & RT	2	N 18TH STREET
0010	330+24	-	330+85	LT & RT	2	N 17TH STREET
0010	327+50	-	329+65	LT & RT	6	N 17TH STREET
0010	340+24	-	340+80	LT & RT	2	HARRISON STREET
0010	347+50	-	349+65	LT & RT	7	N 16TH STREET
0010	350+24	-	351+10	LT & RT	3	N 16TH STREET
				TOTAL 0010	188	

THIS ITEM IS FOR DUST CONTROL

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TOPSOIL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	REMARKS
0010	125+75	-	129+56	LT & RT	550	550	0.35	10	15	4	
0010	129+56	-	130+96	LT & RT	195	195	0.12	4	5	1	
0010	130+96	-	132+86	LT & RT	312	312	0.20	6	8	2	
0010	132+86	-	135+16	LT & RT	402	402	0.25	7	11	3	
0010	135+16	-	136+06	LT & RT	127	127	0.08	2	3	1	
0010	136+06	-	139+36	LT & RT	495	495	0.31	9	13	4	
0010	139+36	-	142+66	LT & RT	456	456	0.29	8	12	3	
0010	142+66	-	143+57	LT & RT	106	106	0.07	2	3	1	
0010	143+57	-	145+96	LT & RT	369	369	0.23	7	10	3	
0010	145+96	-	147+76	LT & RT	321	321	0.20	6	9	2	
0010	147+76	-	149+16	LT & RT	283	283	0.18	5	8	2	
0010	149+16	-	152+44	LT & RT	180	180	0.11	3	5	1	
0010	278+80	-	279+68	LT & RT	169	169	0.11	3	5	1	N 21TH STREET
0010	280+20	-	280+65	LT & RT	48	48	0.03	1	1	0	N 21TH STREET
0010	290+20	-	290+70	LT & RT	61	61	0.04	1	2	0	LINCOLN STREET
0010	297+65	-	299+68	LT & RT	539	539	0.34	10	15	4	N 20TH STREET
0010	300+20	-	300+75	LT & RT	76	76	0.05	1	2	1	N 20TH STREET
0010	307+65	-	309+68	LT & RT	461	461	0.29	8	12	3	N 19TH STREET
0010	310+20	-	310+75	LT & RT	86	86	0.05	2	2	1	N 19TH STREET
0010	317+65	-	319+65	LT & RT	315	315	0.20	6	8	2	N 18TH STREET
0010	320+20	-	320+90	LT & RT	115	115	0.07	2	3	1	N 18TH STREET
0010	330+20	-	330+85	LT & RT	99	99	0.06	2	3	1	N 17TH STREET
0010	327+50	-	329+68	LT & RT	472	472	0.30	9	13	3	N 17TH STREET
0010	340+20	-	340+80	LT & RT	90	90	0.06	2	2	1	HARRISON STREET
0010	347+50	-	349+68	LT & RT	450	450	0.28	8	12	3	N 16TH STREET
0010	350+20	-	351+10	LT & RT	185	185	0.12	3	5	1	N 16TH STREET
UNDISTRIBUTED					256	256	0.16	5	7	2	WATER SERVICE REPLACEMENT
				TOTAL 0010	7,218	7,218	4.55	130	195	52	

TOPSOIL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	SPV.0120 B LAWN SEED WATER MGAL	REMARKS
0050	125+75	-	129+56	C/L	199	199	0.13	1	CENTER MEDIAN
0050	129+56	-	130+96	C/L	121	121	0.08	1	CENTER MEDIAN
0050	130+96	-	132+86	C/L	171	171	0.11	1	CENTER MEDIAN
0050	132+86	-	135+16	C/L	209	209	0.13	2	CENTER MEDIAN
0050	135+16	-	136+06	C/L	73	73	0.05	1	CENTER MEDIAN
0050	136+06	-	139+36	C/L	199	199	0.13	1	CENTER MEDIAN
0050	139+36	-	142+66	C/L	197	197	0.12	1	CENTER MEDIAN
0050	142+66	-	143+57	C/L	74	74	0.05	1	CENTER MEDIAN
0050	143+57	-	145+96	C/L	218	218	0.14	2	CENTER MEDIAN
0050	145+96	-	147+76	C/L	161	161	0.10	1	CENTER MEDIAN
0050	147+76	-	149+16	C/L	134	134	0.08	1	CENTER MEDIAN
0050	149+16	-	152+44	C/L	92	92	0.06	1	CENTER MEDIAN
UNDISTRIBUTED					92	92	1.12	1	
				TOTAL 0050	1,940	1,940	2.30	15	

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INLET PROTECTION

CATEGORY		STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7504 TEMPORARY DITCH CHECK LF	REMARKS
0010		125+75	44.50'LT	1	-	1		
0011		125+76	44.50'RT	1	1	-	25	
0010	1	127+86.85	33.50'LT	1	1	-	-	
0010	1A	127+86.85	21.50'RT	1	1	-	-	
0010	2	129+27.67	33.50'LT	1	-	1	-	
0010	2A	129+27.67	23.29'RT	1	1	-	-	
0010	3	130+60.12	33.50'LT	1	-	1	-	
0010	3A	131+08.20	174.99'LT	1	1	-	-	
0010	3B	130+85.20	175.01'LT	1	1	-	-	
0010	3C	130+85.12	58.53'LT	1	1	-	-	
0010	3D	131+08.12	58.52'LT	1	1	-	-	
0010	3E	130+60.12	21.50'RT	1	1	-	-	
0010	3F	131+15.00	21.48'RT	1	1	-	-	
0010	4	132+47.45	33.50'LT	1	-	1	-	
0010	4A	132+47.45	21.50'RT	1	1	-	-	
0010	4B	132+72.45	46.51'RT	1	1	-	-	
0010	4C	133+01.45	46.49'RT	1	1	-	-	
0010	5	133+05.00	33.50'LT	1	-	1	-	
0010	6	134+80.39	33.50'LT	1	-	1	-	
0010	6A	135+28.32	154.59'LT	1	1	-	-	
0010	6B	135+05.32	154.57'LT	1	1	-	-	
0010	6C	135+28.39	58.48'LT	1	1	-	-	
0010	6D	135+05.39	58.52'LT	1	1	-	-	
0010	6E	134+80.39	21.50'RT	1	1	-	-	
0010	7	135+53.39	33.50'LT	1	-	1	-	
0010	7A	135+53.39	21.50'RT	1	1	-	-	
0010	7B	135+92.28	46.49'RT	1	1	-	25	
0010	7C	136+21.28	46.51'RT	1	1	-	-	
0010	8	137+90.00	33.50'LT	1	-	1	-	
0010	8A	137+90.00	21.50'RT	1	1	-	-	
0010	9	138+91.22	33.50'LT	1	-	1	-	
0010	9A	138+91.21	21.50'RT	1	1	-	-	
0010	10	139+51.88	33.50'LT	1	-	1	-	
0010	10A	139+52.22	75.00'LT	1	1	-	-	
0010	10B	139+52.22	189.05'LT	1	1	-	-	
0010	10C	139+21.22	189.05'LT	1	1	-	-	
0010	10D	139+21.22	75.00'LT	1	1	-	-	
							-	
			TOTAL 0010	37	27	10	50	

INLET PROTECTION (CONT'D)

CATEGORY		STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7504 TEMPORARY DITCH CHECK LF	REMARKS
0010	10E	139+51.21	53.00'RT	1	1	-	-	
0010	10F	139+22.21	53.00'RT	1	1	-	-	
0010	11	141+04.71	33.50'LT	1	-	1	-	
0010	11A	141+04.71	21.50'RT	1	1	-	-	
0010	12	142+22.20	33.50'LT	1	-	1	-	
0010	12A	142+27.20	21.50'RT	1	1	-	-	
0010	12B	142+52.21	46.51'RT	1	1	-	-	
0010	12C	142+81.21	46.49'RT	1	1	-	-	
0010	13	143+03.58	33.50'LT	1	-	1	-	
0010	14	143+20.58	33.70'LT	1	-	1	-	
0010	14A	143+68.48	89.97'LT	1	1	-	-	
0010	14B	143+45.48	90.03'LT	1	1	-	-	
0010	15	144+38.58	33.50'LT	1	-	1	-	
0010	15A	144+38.58	21.50'RT	1	1	-	-	
0010	16	145+61.58	33.50'LT	1	-	1	-	
0010	16A	145+57.29	21.52'RT	1	1	-	-	
0010	16B	145+82.29	46.50'RT	1	1	-	-	
0010	16C	146+11.29	46.50'RT	1	1	-	-	
0010	17	147+37.46	33.50'LT	1	-	1	-	
0010	17A	147+91.52	184.99'LT	1	1	-	-	
0010	17B	147+62.52	185.01'LT	1	1	-	-	
0010	17C	147+91.45	71.49'LT	1	1	-	-	
0010	17D	147+62.45	71.51'LT	1	1	-	-	
0010	17E	147+37.46	21.50'RT	1	1	-	-	
0010	18	148+77.21	33.50'LT	1	-	1	-	
0010	18A	148+77.23	21.50'RT	1	1	-	-	
0010	19	149+83.38	34.54'LT	1	-	1	-	
0010	19A	149+83.38	22.20'RT	1	1	-	-	
0010	EX MH	149+94.00	3.4'0'LT	1	1	-	-	
0010	20	150+28.92	35.05'LT	1	-	1	-	
0010	21	150+58.57	26.17'RT	1	-	1	-	
0010	22	151+95.31	23.56'RT	1	-	1	-	
0010	EX23	152+30.74	18.70'RT	1	1	-	-	
0010	30	126+20.10	58.67'LT	1	-	1	-	
0010	30A	126+40.21	61.37'LT	1	1	-	-	
0010	30B	126+11.22	58.63'LT	1	1	-	-	
0010	30C	125+81.03	28.50'LT	1	1	-	-	
0010	30D	125+81.51	19.26'RT	1	1	-	-	
0010	EX24	150+56.00	36.90'LT	1	1	-	-	
			SUBTOTAL	39	26	13	0	
			TOTAL 0010	76	53	23	50	

TRACKING PAD

CATEGORY	STATION	TO	STATION	LOCATION	628.7560 EACH	REMARKS
0010	125+75	-	150+36.74	LT & RT	6	
TOTAL 0010					6	

MOVING SIGNS TYPE II

CATEGORY	SIGN NO	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II EACH	REMARKS
0010	1-1	NO TRUCK SYMBOL	1	
0010	1-2	H	1	
0010		HOSPITAL	1	
0010	1-3	STOP	1	
0010		ALL WAY	1	
0010	1-4	SPEED LIMIT 25	1	
0010	1-5	STOP	1	
0010		ALL WAY	1	
0010	1-6	SCHOOL CROSSING	1	
0010	1-7	NO PARKING	1	
0010	1-8	SNOW EMERGENCY ROUTE	1	
0010	1-9	TURN ARROWS	1	
0010	1-10	SCHOOL CROSSING	1	
0010	1-11	SCHOOL CROSSING	1	
0010	1-12	HAMMOND AVE	1	
0010		N 21ST ST	1	
0010		STOP	1	
0010		ALL WAY	1	
0010	1-13	CATHEDRAL MIDDLE SCHOOL	1	
0010	1-14	SPEED LIMIT 25	1	
0010		NO TRUCKS	1	
0010	1-15	HAMMOND AVE	1	
0010		LINCOLN ST	1	
0010	1-16	STOP	1	
0010	1-17	STOP	1	
0010	1-18	HAMMOND AVE	1	
0010		N 20TH ST	1	
0010	1-19	PEDESTRIAN SYMBOL	1	
0010	1-20	HAMMOND AVE	1	
0010		N 19TH ST	1	
0010	1-21	STOP	1	
0010	1-22	PEDESTRIAN SYMBOL	1	
0010	1-23	PEDESTRIAN SYMBOL	1	
0010		AHEAD	1	
0010	1-24	STOP	1	
0010	1-25	HAMMOND AVE	1	
0010		N 20TH ST	1	
0010	1-26	PEDESTRIAN SYMBOL	1	
0010	1-27	STOP	1	
0010	1-28	HAMMOND AVE	1	
0010		N 19TH ST	1	
0010	2-1	SPEED LIMIT 25	1	
0010	2-2	STOP	1	
0010	2-3	SNOW EMERGENCY ROUTE	1	
0010	2-4	STOP	1	
		SUB TOTAL 0010	45	

MOVING SIGNS TYPE II (CON'T)

CATEGORY	SIGN NO	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II EACH	REMARKS
0010	2-5	SNOW EMERGENCY ROUTE	1	
0010	2-6	HAMMOND AVE	1	
0010		N 17TH ST	1	
0010	2-7	STOP	1	
0010	2-8	STOP	1	
0010	2-9	HAMMOND AVE	1	
0010		N 17TH ST	1	
0010	2-10	STOP	1	
0010	2-11	HAMMOND AVE	1	
0010		N 17TH ST	1	
0010	3-1	HAMMOND AVE	1	
0010		N 16TH ST	1	
0010	3-2	STOP	1	
0010	3-3	SPEED LIMIT 25	1	
0010	3-4	NO PARKING	1	
0010		NO PARKING	1	
0010	3-5	UNITED METHODIST CHURCH	1	
0010	3-6	HWY 35	1	
0010		ARROW LEFT	1	
0010	3-7	HANDICAP	1	
0010	3-8	HAMMOND AVE	1	
0010		N 16TH ST	1	
0010	3-9	STOP	1	
		SUB TOTAL 0010	23	
		TOTAL 0010	68	

NOTE: MOVING SIGNS TYPE II INCLUDES MOVING SIGN SUPPORTS

3

FIELD OFFICE TYPE B

CATEGORY	STATION	TO	STATION	LOCATION	642.5001 FIELD OFFICE TYPE B EACH	REMARKS
0010	125+75	-	150+36.74	LT & RT	1	
				TOTAL 0010	1	

GEOGRID TYPE SR

CATEGORY	STATION	TO	STATION	LOCATION	645.0220 GEOGRID TYPE SR SY	REMARKS
0010	125+75	-	129+56	LT & RT	2,341	
0010	129+56	-	130+96	LT & RT	825	
0010	130+96	-	132+86	LT & RT	1,119	
0010	132+86	-	135+16	LT & RT	1,348	
0010	135+16	-	136+06	LT & RT	534	
0010	136+06	-	139+36	LT & RT	2,013	
0010	139+36	-	142+66	LT & RT	2,014	
0010	142+66	-	143+57	LT & RT	538	
0010	143+57	-	145+96	LT & RT	1,406	
0010	145+96	-	147+76	LT & RT	1,059	
0010	147+76	-	149+16	LT & RT	813	
0010	149+16	-	150+36	LT & RT	1,301	
0010	278+80	-	279+65	LT & RT	335	N 21TH STREET
0010	280+24	-	280+65	LT & RT	186	N 21TH STREET
0010	290+24	-	290+70	LT & RT	193	LINCOLN STREET
0010	297+65	-	299+65	LT & RT	621	N 20TH STREET
0010	300+24	-	300+75	LT & RT	211	N 20TH STREET
0010	307+65	-	309+65	LT & RT	621	N 19TH STREET
0010	310+24	-	310+75	LT & RT	211	N 19TH STREET
0010	317+65	-	319+65	LT & RT	809	N 18TH STREET
0010	320+24	-	320+90	LT & RT	277	N 18TH STREET
0010	330+24	-	330+85	LT & RT	248	N 17TH STREET
0010	327+50	-	329+65	LT & RT	666	N 17TH STREET
0010	340+24	-	340+50	LT & RT	229	HARRISON STRFET
0010	347+50	-	349+65	LT & RT	809	N 16TH STREET
0010	350+24	-	350+50	LT & RT	339	N 16TH STREET
				TOTAL 0010	21,065	

3

MARKING

STATION	TO	STATION	LOCATION	646.2020 MARKING LINE EPOXY 6-INCH LF	646.4020 MARKING LINE EPOXY 10-INCH LF	646.7020 MARKING DIAGONAL EPOXY 6-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.7520 MARKING CROSSWALK EPOXY LADDER PATTERN 24-INCH LF	646.8220 MARKING ISLAND NOSE EPOXY EACH
125+75	-	129+56	LT & RT	627	43		25		208	2
129+56	-	130+96	LT & RT	210		37		87		
130+96	-	132+86	LT & RT	311		37		83		
132+86	-	135+16	LT & RT	390		37			80	
135+16	-	136+06	LT & RT	92		37			80	
136+06	-	139+36	LT & RT	624						1
139+36	-	142+66	LT & RT	610	42				224	1
142+66	-	143+57	LT & RT	93		36		80		
143+57	-	145+96	LT & RT	410		38		85		
145+96	-	147+76	LT & RT	288		38		85		
147+76	-	149+16	LT & RT	204						
149+16	-	152+44	LT & RT	922		41	151	86		1
278+80	-	279+68	LT & RT	148				64		
280+20	-	280+65	LT & RT	52				63		
290+20	-	290+70	LT & RT	66				61		
297+65	-	299+68	LT & RT	386				58		
300+20	-	300+75	LT & RT	78				63		
307+65	-	309+68	LT & RT	388				60		
310+20	-	310+75	LT & RT	78				63		
317+65	-	319+65	LT & RT	376				71		
320+20	-	320+90	LT & RT	102				65		
330+20	-	330+85	LT & RT	100				64		
327+50	-	329+68	LT & RT	416				57		
340+20	-	340+80	LT & RT	88				63		
347+50	-	349+68	LT & RT	412				65		
350+20	-	351+10	LT & RT	148				62		
			TOTAL 0010	7,619	85	301	176	1,385	592	5

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS	REMARKS
0010	125+75	-	150+36.74	LT & RT	1	
				TOTAL 0010	1	

3

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	125+75	-	129+56	LT & RT	381	381	381	
0010	129+56	-	130+96	LT & RT	140	140	140	
0010	130+96	-	132+86	LT & RT	190	190	190	
0010	132+86	-	135+16	LT & RT	230	230	230	
0010	135+16	-	136+06	LT & RT	90	90	90	
0010	136+06	-	139+36	LT & RT	330	330	330	
0010	139+36	-	142+66	LT & RT	330	330	330	
0010	142+66	-	143+57	LT & RT	91	91	91	
0010	143+57	-	145+96	LT & RT	239	239	239	
0010	145+96	-	147+76	LT & RT	180	180	180	
0010	147+76	-	149+16	LT & RT	140	140	140	
0010	149+16	-	152+44	LT & RT	328	328	328	
0010	278+80	-	280+65	LT & RT	185	185	185	N 21TH STREET
0010	290+00	-	290+70	LT & RT	70	70	70	LINCOLN STREET
0010	297+65	-	300+00	LT & RT	235	235	235	N 20TH STREET
0010	300+00	-	300+75	LT & RT	75	75	75	N 20TH STREET
0010	307+65	-	310+00	LT & RT	235	235	235	N 19TH STREET
0010	310+00	-	310+75	LT & RT	75	75	75	N 19TH STREET
0010	317+65	-	320+90	LT & RT	325	325	325	N 18TH STREET
0010	330+00	-	330+85	LT & RT	85	85	85	N 17TH STREET
0010	327+50	-	330+00	LT & RT	250	250	250	N 17TH STREET
0010	340+00	-	340+80	LT & RT	80	80	80	HARRISON STREET
0010	347+50	-	350+00	LT & RT	250	250	250	N 16TH STREET
0010	350+00	-	351+10	LT & RT	110	110	110	N 16TH STREET
				TOTAL 0010	4,644	4,644	4,644	

TRAFFIC SIGNAL CABLE NO. 14 (BELOW GROUND)

FROM	TO	655.0260 CABLE TRAFFIC SIGNAL 12 - 14 AWG LF
USH 2 & HAMMOND AVENUE		
CB1	SB1	566
CB1	SB2	512
CB1	SB3	421
CB1	SB4	365
	ITEM TOTALS	1864

* ITEMS SHOWN ELSEWHERE IN THE PLANS

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
USH 2 & HAMMOND AVENUE		
CB1	SB1 (HEAD C)	631
CB1	SB3 (HEAD A)	486
INTERSECTION TOTAL		1117

LIGHTING WIRE

FROM	TO	655.0320 CABLE TYPE UF 2 - 10 AWG GROUNDED LF
USH 2 & HAMMOND AVENUE		
CB1	SB1	566
ITEM TOTALS		566

FURNISH AND INSTALL VIDEO DETECTION CABLE

FROM	TO	SPV.0090.03 FURNISH AND INSTALL VIDEO DETECTION CABLE LF
USH 2 & HAMMOND AVENUE		
CB1	SB1	641
CB1	SB2	496
ITEM TOTALS		1137

CONDUIT

FROM	TO	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF
USH 2 & HAMMOND AVENUE		
PB2	PB3	130
ITEM TOTALS		130

ELECTRIC WIRE TRAFFIC SIGNALS

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
USH 2 & HAMMOND AVENUE		
CB1	SB1	566
ITEM TOTALS		566

SAWING

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
0010	125+75	-	129+56	LT & RT	76	52	
0010	129+56	-	130+96	LT & RT		21	
0010	130+96	-	132+86	LT & RT		22	
0010	132+86	-	135+16	LT & RT	6	13	
0010	135+16	-	136+06	LT & RT	6	8	
0010	136+06	-	139+36	LT & RT	8	33	
0010	139+36	-	142+66	LT & RT		50	
0010	142+66	-	143+57	LT & RT		10	
0010	143+57	-	145+96	LT & RT	25	33	
0010	145+96	-	147+76	LT & RT		30	
0010	147+76	-	149+16	LT & RT		15	
0010	149+16	-	152+44	LT & RT	52	294	
0010	278+80	-	279+68	LT & RT	26	25	N 21TH STREET
0010	280+20	-	280+65	LT & RT	26	12	N 21TH STREET
0010	290+20	-	290+70	LT & RT	26	12	LINCOLN STREET
0010	297+65	-	299+68	LT & RT	51	17	N 20TH STREET
0010	300+20	-	300+75	LT & RT	26	12	N 20TH STREET
0010	307+65	-	309+68	LT & RT	63	51	N 19TH STREET
0010	310+20	-	310+75	LT & RT	26	11	N 19TH STREET
0010	317+68	-	319+65	LT & RT	86	17	N 18TH STREET
0010	320+20	-	320+90	LT & RT	26	12	N 18TH STREET
0010	330+20	-	330+85	LT & RT	26	11	N 17TH STREET
0010	327+50	-	329+68	LT & RT	93	17	N 17TH STREET
0010	340+20	-	340+80	LT & RT	26	11	HARRISON STREET
0010	347+50	-	349+68	LT & RT	55	22	N 16TH STREET
0010	350+20	-	351+10	LT & RT	26	11	N 16TH STREET
				TOTAL 0010	755	822	

3

UTILITY LINE OPENING

CATEGORY	STATION	LOCATION	SPV.0060.05 UTILITY LINE OPENING EACH
0010	126+00	LT	1
0010	130+72	LT	1
0010	132+65	RT	1
0010	134+90	LT	1
0010	135+75	RT	1
0010	139+51	RT	1
0010	142+40	RT	1
0010	143+25	LT	1
0010	145+70	RT	1
0010	147+45	LT	1
0010	152+00	RT	1
0010	UNDISTRIBUTED		4
		TOTAL 0010	15

VERIFY WITH THE ENGINEER LOCATIONS REQUIRED.
VERIFY GAS AND FIBER AT NEW SS LOCATION

TREE PLANTING, PRESERVATION AND PROTECTION

CATEGORY	STATION	LOCATION		SPV.0060.06 TREE PLANTING, PRESERVATION AND PROTECTION EACH	REMARKS
0050	125+65	25.19 RT	Hammond Ave NB	1	27"
0050	128+59	44.27 TR	Hammond Ave NB	1	12"
0050	129+89	49.29 LT	Hammond Ave NB	1	11"
0050	130+00	57.48 RT	Hammond Ave NB	1	12"
0050	130+51	42.29 RT	Hammond Ave NB	1	7"
0050	130+75	58.56 LT	Hammond Ave NB	1	24"
0050	131+17	68.34 LT	Hammond Ave NB	1	30"
0050	131+73	35.56 LT	Hammond Ave NB	1	30"
0050	133+62	47.55 RT	Hammond Ave NB	1	11"
0050	134+55	51.91 LT	Hammond Ave NB	1	5"
0050	136+71	52.02 LT	Hammond Ave NB	1	12"
0050	136+76	51.83 LT	Hammond Ave NB	1	14"
0050	136+40	43.63 RT	Hammond Ave NB	1	15"
0050	136+62	50.34 RT	Hammond Ave NB	1	12"
0050	136+79	43.17 RT	Hammond Ave NB	1	8"
0050	136+99	43.54 RT	Hammond Ave NB	1	16"
0050	138+98	43.27 RT	Hammond Ave NB	1	8"
0050	139+86	26.43 RT	Hammond Ave NB	1	30'
0050	140+36	42.59 RT	Hammond Ave NB	1	16"
0050	139+82	52.51 LT	Hammond Ave NB	1	6"
0050	140+93	41.99 RT	Hammond Ave NB	1	18"
0050	141+23	50.75 RT	Hammond Ave NB	1	8"
0050	143+20	50.58 LT	Hammond Ave NB	1	12"
0050	146+45	48.18 LT	Hammond Ave NB	1	11"
0050	147+65	56.14 RT	Hammond Ave NB	1	18"
0050	148+21	58.13 LT	Hammond Ave NB	1	14"
0050	148+94	54.82 LT	Hammond Ave NB	1	15"
0050	298+91	18.92 LT	N 20TH ST	1	30"
0050	298+49	20.61 LT	N 20TH ST	1	30"
0050	298+43	20.82 RT	N 20TH ST	1	10"
0050	298+43	20.82 RT	N 20TH ST	1	30"
0050	298+92	20.47 RT	N 20TH ST	1	30"
0050	297+71	19.18 LT	N 20TH ST	1	10"
0050	330+89	37.32 LT	N 17TH ST	1	18"
0050	328+38	21.55 RT	N 17TH ST	1	50"
0050	329+16	18.07 LT	N 17TH ST	1	4"
0050	340+53	46.11 LT	Harrison ST	1	12'
0050	350+57	18.48 RT	N 16TH ST	1	14"
0050	350+97	17.88 RT	N 16TH ST	1	10"
0050	309+11	19.39 LT	N 19TH ST	1	20"
0050	308+13	19.69 RT	N 19TH ST	1	15"
0050	317+81	18.97 LT	N 18TH ST	1	48"
		UNDISTRIBUTED		5	
			TOTAL 0050	47	

LOCATE AND REPLACE EXISTING CENTERLINE MONUMENTS

SPV.0060.07

CATEGORY	STATION	LOCATION	COORDINATES NORTHING	COORDINATES EASTING	EACH
0010	103+16.71	3.48 LT	300471.338	148503.022	1
0010	109+76.10	3.10 LT	301130.716	148507.983	1
0010	113+07.99	3.13 LT	301462.597	148510.257	1
0010	117+35.16	3.56 LT	301889.758	148512.787	1
0010	121+54.62	3.49 LT	302309.205	148515.769	1
0010	124+50.67	2.91 LT	302605.247	148518.402	1
0010	129+55.16	3.05 LT	303109.722	148521.770	1
0010	132+85.49	2.95 LT	303440.045	148524.164	1
0010	139+34.50	4.49 LT	304089.051	148527.130	1
0010	143+59.50	2.85 LT	304514.026	148531.715	1
0010	147+79.22	2.43 LT	304933.739	148535.047	1
0010	151+73.16	30.54 RT	305327.374	148573.762	1
0010	128+01.43	4.17 LT	302956.008	148519.584	1
0010	130+97.68	3.11 LT	303252.238	148522.694	1
0010	132+87.15	241.66 RT	303440.009	148768.785	1
0010	135+18.24	2.72 LT	303672.785	148526.004	1
0010	142+69.10	2.73 LT	304423.627	148531.206	1
0010	142+67.03	237.05 RT	304419.895	148770.977	1
0010	143+57.16	253.67 LT	304513.435	148280.887	1
0010	145+98.38	3.16 LT	304752.910	148533.069	1
0010	145+96.96	262.44 RT	304749.639	148798.659	1
0010	149+19.21	3.61 LT	305073.730	148534.841	1
0010	149+16.74	377.92 RT	305068.617	148916.359	1
0010	151+13.90	385.07 RT	305253.307	148926.922	1
0010	101+66.39	3.24 LT	300321.024	148502.221	1
			TOTAL 0010		25

LOCATE AND RESET PROPERTY CORNERS

SPV.0060.08

CATEGORY	STATION	LOCATION	COORDINATES NORTHING	COORDINATES EASTING	EACH
0010	125+36.77'NB'	46.33' RT	302691.0010'	148568.2450'	1
0010	125+91.81'NB'	46.39' RT	302746.0360'	148568.6850'	1
0010	126+25.42'NB'	3.41' LT	302779.9930'	148519.1240'	1
0010	126+60.46'NB'	46.51' RT	302814.6830'	148569.2840'	1
0010	127+83.59'NB'	46.13' RT	302937.8150'	148569.7560'	1
0010	128+25.27'NB'	46.53' RT	302979.4980'	148570.4460'	1
0010	128+67.08'NB'	46.44' RT	303021.3020'	148570.6500'	1
0010	129+11.49'NB'	53.39' LT	303066.4060'	148471.1310'	1
0010	129+61.96'NB'	53.40' LT	303116.8720'	148471.4670'	1
0010	130+11.83'NB'	53.35' LT	303166.7400'	148471.8690'	1
0010	130+96.59'NB'	3.52' LT	303251.1540'	148522.2820'	1
0010	130+97.20'NB'	46.47' RT	303251.4150'	148572.2800'	1
0010	131+31.53'NB'	53.39' LT	303286.4350'	148472.6620'	1
0010	131+72.31'NB'	46.41' RT	303326.5280'	148572.7440'	1
0010	132+06.54'NB'	53.28' LT	303361.4420'	148473.2920'	1
0010	132+81.86'NB'	53.29' LT	303436.7650'	148473.8000'	1
0010	133+06.57'NB'	53.34' LT	303461.4750'	148473.9200'	1
0010	133+33.52'NB'	53.31' LT	303488.4220'	148474.1440'	1
0010	133+81.54'NB'	53.27' LT	303536.4440'	148474.5170'	1
0010	135+16.49'NB'	3.45' LT	303671.0400'	148525.2690'	1
0010	136+64.07'NB'	53.45' LT	303818.9720'	148476.2950'	1
0010	137+01.87'NB'	53.38' LT	303856.7640'	148476.6300'	1
0010	137+51.70'NB'	53.37' LT	303906.5940'	148476.9830'	1
0010	137+94.69'NB'	46.52' RT	303948.8870'	148577.1660'	1
0010	138+01.68'NB'	53.51' LT	303956.5770'	148477.1930'	1
0010	138+51.76'NB'	53.49' LT	304006.6520'	148477.5610'	1
0010	139+36.53'NB'	3.57' LT	304091.0710'	148528.0710'	1
0010	141+21.71'NB'	53.43' LT	304276.5960'	148479.4890'	1
0010	141+52.52'NB'	46.39' RT	304306.7170'	148579.5230'	1
0010	141+75.62'NB'	53.59' LT	304330.5020'	148479.7030'	1
0010	142+09.26'NB'	53.34' LT	304364.1420'	148480.1930'	1
0010	142+46.63'NB'	53.49' LT	304401.5090'	148480.2980'	1
0010	143+56.62'NB'	3.49' LT	304511.1540'	148531.0540'	1
0010	143+66.90'NB'	46.31' RT	304521.0900'	148580.9340'	1
0010	144+31.14'NB'	46.26' RT	304585.3250'	148581.3310'	1
0010	144+41.74'NB'	53.51' LT	304596.6160'	148481.6360'	1
0010	144+66.66'NB'	53.51' LT	304621.5340'	148481.8080'	1
0010	145+04.31'NB'	53.56' LT	304659.1840'	148482.0210'	1
0010	146+31.57'NB'	46.58' RT	304785.7510'	148583.0380'	1
0010	147+76.72'NB'	3.46' LT	304931.2390'	148534.0340'	1
0010	148+06.56'NB'	46.52' RT	304960.7320'	148584.1940'	1
0010	149+51.66'NB'	46.51' RT	305105.8340'	148585.1880'	1
0010	150+11.58'NB'	53.61' LT	305166.4420'	148485.4930'	1
0010	150+11.81'NB'	53.65' LT	305166.6760'	148485.4570'	1
0010	150+59.68'NB'	54.36' LT	305216.2780'	148485.7020'	1
0010	150+67.57'NB'	45.60' RT	305220.2610'	148585.8960'	1
				TOTAL 0010	46

STATEMENT OF ESTIMATED QUANTITIES - WATER				
NOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
	SPV.0060.40	REMOVE WATER VALVE AND BOX	EACH	2
	SPV.0060.41	REMOVE CURB STOP AND BOX	EACH	87
	SPV.0060.42	REMOVE HYDRANT	EACH	6
	SPV.0060.43	REMOVE VALVE VAULT	EACH	5
	SPV.0060.44	GATE VALVE AND BOX, 8-INCH	EACH	9
	SPV.0060.45	HYDRANT ASSEMBLY	EACH	7
	SPV.0060.46	CONNECT TO EXISTING WATER MAIN	EACH	9
	SPV.0060.47	CONNECT TO EXISTING WATER SERVICE	EACH	81
	SPV.0060.48	TAPPING TEE WITH ELECTROFUSION SADDLE, 1-INCH	EACH	81
	SPV.0060.49	CURB STOP AND BOX, 1-INCH	EACH	80
	SPV.0060.50	CURB STOP AND BOX, 2-INCH	EACH	1
	SPV.0090.40	REMOVE OR ABANDON WATER MAIN	LIN FT	2565
2	SPV.0090.41	REMOVE STEEL GAS MAIN	LIN FT	2894
1	SPV.0090.42	WATER MAIN AND FITTINGS, 8-INCH HDPE DR-11	LIN FT	3073
1	SPV.0090.43	WATER MAIN AND FITTINGS, 12-INCH HDPE DR-11	LIN FT	100
1	SPV.0090.44	WATER SERVICE, 1-INCH HDPE	LIN FT	3658
	SPV.0090.45	WATER SERVICE, 2-INCH HDPE	LIN FT	23
	SPV.0105.30	TEMPORARY BYPASS SYSTEM	LUMP SUM	1
	612.0902.S	INSULATION BOARD POLYSTYRENE, 4-INCH	SY	486

NOTES:	
1	TRACER WIRE INCIDENTAL.
2	REMOVAL OF ALL GAS PIPING LESS THAN 6" INCIDENTAL.

STATEMENT OF ESTIMATED QUANTITIES - SANITARY			
ITEM NO.	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
SPV.0060.30	POINT REPAIR BY CHEMICAL GROUT	EACH	10
SPV.0060.31	COVER INTERCEPTOR MANHOLE OPENING	EACH	1
SPV.0060.32	INTERCEPTOR MANHOLE LINING	EACH	6
SPV.0090.30	SAPL 46"x60" INTERCEPTOR	LIN FT	280
SPV.0090.31	SALP 47"x66" INTERCEPTOR	LIN FT	521
SPV.0090.32	CLEANING AND TELEVISING SEWER INTERCEPTOR	LIN FT	801
SPV.0105.30	TEMPORARY BYPASS SYSTEM	LUMP SUM	1

NOTES:

EXACT ALIGNMENT OF ALL WATER SERVICES TO BE COORDINATED BY CONTRACTOR WITH EXISTING AND PROPOSED UTILITIES AS WELL AS PROPOSED LANDSCAPING FEATURES.

MINIMUM 18" CLEAR REQUIRED AT ALL STORM AND SANITARY CROSSINGS. PIPE INVERTS SHOWN ARE AT REFERENCE LINE OF ROADWAY AND DO NOT ACCOUNT FOR PIPE THICKNESS.

CONTRACTOR TO VERIFY ALL ANTICIPATED SERVICES CONNECTIONS SHOWN IN PLAN.

REMOVAL OR ABANDONMENT OF ALL PIPES 2-INCH AND SMALLER IS INCIDENTAL.

BENDS SHOWN, PREFERABLE TO DEFLECT HDPE PIPE AT BEND LOCATIONS IF FEASIBLE.
NO PAYMENT SHALL BE MADE FOR METHOD SELECTED.

SWLP TO OPERATE VALVES AND CONDUCT WET TAPS.

A - WATER MAIN								
		SPV.0060.40	SPV.0060.43	SPV.0060.44	SPV.0060.46	SPV.0090.40	SPV.0090.42	SPV.0090.43
STATION TO STATION	LOCATION	REMOVE WATER VALVE AND BOX	REMOVE VALVE VAULT	GATE VALVE AND BOX, 8-INCH	CONNECT TO EXISTING WATER MAIN	REMOVE OR ABANDON WATER MAIN	WATER MAIN AND FITTINGS, 8-INCH HDPE DR-11	WATER MAIN AND FITTING, 12-INCH HDPE DR-11
		EACH	EACH	EACH	EACH	LIN FT	LIN FT	LIN FT
35+30 - 35+34	10.2' LT.				1	4	4	
35+34 - 35+44	10.2' LT. - CL					10	15	
35+44 - 35+48	CL					4	4	
35+48	CL			1				
35+48 - 36+16	CL					68	68	
35+71	10.1' LT.		1		1			
36+15.41	CL - 60.0' RT		1		1			60
36+16.86	40.0' LT. - CL		1		1			40
36+16 - 36+22	CL					6	6	
36+22	CL			1				
36+22 - 39+26	CL					303	303	
36+42	10.6' LT.		1					
39+25	8.1' LT.	1						
39+25	10.0' LT. - 58.8" RT.				1	68	58	
39+25 - 42+61	CL					336	336	
42+60	77.1' RT.			1				
42+61	CL - 77.1' RT.						77	
42+61 - 43+05	CL					44	44	
43+05	CL			1				
43+05 - 45+83	CL					278	278	
45+83	CL - 73.3' RT.			1			73	
45+83 - 49+48	CL					365	365	
49+10	39.6' LT. - CL				1		40	
49+10	CL - 80.5' RT.				1		80	
49+48 - 49+51	CL					4	4	
49+51	7.9' LT.		1					
49+51 - 52+51	CL					300	300	
52+51	CL - 74.8' RT.						75	
52+51	74.8' RT.			1				
52+51 - 55+86	CL					335	335	
55+86	CL - 90.0' RT.	1		1	1		90	
55+86 - 56+04	CL					18	18	
56+04	CL			1				
56+04 - 59+07	CL					303	303	
59+07	76.0' RT.			1			76	
59+07 - 59+96	CL					89	89	
59+96 - 60+03	CL					5	7	
60+03 - 60+28	CL				1	25	25	
PROJECT ITEM TOTALS		**2**	**5**	**9**	**9**	**2565**	**3073**	**100**

B - HYDRANTS			
		SPV.0060.42	SPV.0060.45
STATION	LOCATION	REMOVE HYDRANT	HYDRANT ASSEMBLY
		EACH	EACH
36+42.70	42.1' RT.		1
41+22.30	20.5' LT.	1	
42+87.33	69.6' RT.		1
44+54.90	20.0' LT.	1	
46+07.17	70.4' RT.		1
49+37.08	77.6' RT.		1
49+58.78	19.5' LT.	1	
52+67.08	71.8' RT.		1
53+79.51	18.3' LT.	1	
55+96.82	68.4' RT.	1	
55+97.57	72.5' RT.		1
57+14.98	17.7' LT.	1	
59+17.10	73.4' RT.		1
PROJECT ITEM TOTALS		**6**	**7**

C - WATER SERVICES

STATION	LOCATION	CONNECTION TYPE	LOWER SERVICE UNDER PROPOSED STORM	SPV.0060.41 REMOVE CURB STOP AND BOX EACH	SPV.0060.47 CONNECT TO EXISTING WATER SERVICE EACH	SPV.0060.48 TAPPING TEE WITH ELECTROFUSION SADDLE, 1-INCH EACH	SPV.0060.49 CURB STOP AND BOX, 1-INCH EACH	SPV.0060.50 CURB STOP AND BOX, 2-INCH EACH	SPV.0090.44 WATER SERVICE, 1-INCH HDPE LIN FT	SPV.0090.45 WATER SERVICE, 2-INCH HDPE LIN FT
35+39.16	21.2' LT.	A	NO		1	1			14	
36+60.08	39.7' LT.	A	NO	1	1	1	1		40	
37+20.21	60.4' RT.	A	NO	1	1	1	1		60	
37+22.18	39.6' LT.	A	NO	1	1	1	1		40	
37+28.21	60.4' RT.	A	NO	1	1	1	1		60	
37+73.55	53.0' RT.	A	NO	1	1	1	1		54	
38+12.70	31.5' LT.	A	NO	1	1	1	1		32	
38+21.45	60.6' RT.	A	NO	1	1	1	1		61	
38+21.60	39.4' LT.	A	NO	1	1	1	1		40	
38+66.64	39.3' LT.	A	NO	1	1	1	1		39	
38+72.17	60.7' RT.	A	NO	1	1	1	1		61	
39+17.74	24.4' LT.	A	NO	1	1	1	1		25	
39+67.09	24.6' LT.	A	NO	1	1	1	1		24	
40+02.02	61.0' RT.	A	NO	1	1	1	1		61	
40+17.31	39.0' LT.	A	NO	1	1	1	1		39	
40+52.01	61.1' RT.	A	NO	1	1	1	1		61	
41+00.28	54.1' RT.	A	NO	1	1	1	1		56	
41+37.63	38.7' LT.	B	YES	1	1	1	1		39	
41+50.54	45.1' RT.			1						
41+86.54	20.9' LT.			1						
41+97.22	61.4' RT.	A		1	1	1	1		61	
42+04.75	61.5' RT.	A		1	1	1	1		61	
42+18.01	22.2' LT.			1						
42+29.06	38.5' LT.	B		1	1	1	1		42	
42+31.14	45.7' RT.			1						
42+40.92	38.5' LT.	B	YES	1	1	1	1		38	
42+83.11	73.8' RT.			1	1	1		1		23
42+83.84	38.4' LT.	B		1	1	1	1		42	
42+91.81	38.3' LT.	A		1	1	1	1		39	
43+37.14	38.2' LT.	A	YES	1	1	1	1		38	
43+86.80	38.1' LT.	A	YES	1	1	1	1		38	
44+12.51	38.0' LT.	A	YES	1	1	1	1		38	
44+36.45	24.0' LT.	A	YES	1	1	1	1		24	
44+79.21	51.7' LT.	A	YES	1	1	1	1		52	
45+44.47	37.7' LT.	A	YES	1	1	1	1		38	
45+59.83	37.7' LT.		YES	1	1	1	1		38	
46+08.82	37.6' LT.	A	YES	1	1	1	1		38	
46+52.46	48.2' RT.	A		1	1	1	1		48	
46+56.61	23.6' LT.	A	YES	1	1	1	1		24	
47+02.92	62.6' RT.	A		1	1	1	1		63	
47+06.54	37.4' LT.	A	YES	1	1	1	1		37	
47+56.75	37.4' LT.	A	YES	1	1	1	1		38	
48+05.90	62.8' RT.	A		1	1	1	1		63	
48+06.29	37.2' LT.	A	YES	1	1	1	1		38	
48+29.81	21.2' LT.			1						
48+57.44	37.1' LT.	A	YES	1	1	1	1		37	
49+50.50	44.5' RT.			1						
49+81.12	63.1' RT.	B		1	1	1	1		63	
SHEET SUBTOTALS				**45**	**40**	**40**	**39**	**1**	**1727**	**23**

CONNECTION TYPE A = OPEN TRENCH
CONNECTION TYPE B = DIRECTIONALLY DRILL

C - WATER SERVICES (CONTINUED)

STATION	LOCATION		LOWER SERVICE UNDER PROPOSED STORM	SPV.0060.41 REMOVE CURB STOP AND BOX	SPV.0060.47 CONNECT TO EXISTING WATER SERVICE	SPV.0060.48 TAPPING TEE WITH ELECTROFUSION SADDLE, 1-INCH	SPV.0060.49 CURB STOP AND BOX, 1-INCH	SPV.0060.50 CURB STOP AND BOX, 2-INCH	SPV.0090.44 WATER SERVICE, 1-INCH HDPE	SPV.0090.45 WATER SERVICE, 2-INCH HDPE
				EACH	EACH	EACH	EACH	EACH	LIN FT	LIN FT
49+90.49	36.8' LT.	A	YES	1	1	1	1		37	
50+18.83	36.8' LT.	A	YES	1	1	1	1		37	
50+51.56	36.7' LT.	A	YES	1	1	1	1		37	
50+79.81	48.8' RT.	B		1	1	1	1		53	
51+00.76	36.6' LT.	A	YES	1	1	1	1		37	
51+31.67	63.5' RT.	A		1	1	1	1		64	
51+49.13	36.5' LT.	A	YES	1	1	1	1		37	
51+76.52	36.4' LT.	A	YES	1	1	1	1		36	
51+81.65	63.6' RT.	A		1	1	1	1		64	
51+87.79	45.4' RT.			1						
52+10.26	36.3' LT.	A	YES	1	1	1	1		37	
52+44.57	36.2' LT.	A	YES	1	1	1	1		37	
52+66.17	36.2' LT.	A	YES	1	1	1	1		36	
53+30.90	64.0' RT.	A		1	1	1	1		64	
53+79.54	64.1' RT.	A		1	1	1	1		64	
53+88.88	35.9' LT.			1	1	1	1		36	
53+93.88	35.9' LT.	A	YES	1	1	1	1		36	
54+22.63	35.8' LT.	A	YES	1	1	1	1		38	
54+30.89	64.2' RT.	A		1	1	1	1		64	
54+38.83	64.2' RT.	A		1	1	1	1		64	
54+71.17	35.7' LT.	A	YES	1	1	1	1		36	
55+02.29	64.4' RT.	A		1	1	1	1		64	
55+04.53	35.6' LT.	A	YES	1	1	1	1		36	
55+45.48	35.5' LT.	A	YES	1	1	1	1		38	
55+92.44	35.4' LT.	A	YES	1	1	1	1		35	
55+96.23	35.4' LT.	A	YES	1	1	1	1		35	
56+37.19	18.5' LT.	A	YES	1	1	1	1		19	
56+60.89	64.8' RT.	A		1	1	1	1		65	
56+80.84	35.2' LT.	A	YES	1	1	1	1		35	
56+90.74	35.2' LT.	A	YES	1	1	1	1		35	
57+10.69	64.9' RT.	A		1	1	1	1		68	
57+74.83	65.0' RT.	A		1	1	1	1		65	
58+10.96	65.1' RT.	A		1	1	1	1		65	
58+25.92	34.9' LT.	A	YES	1	1	1	1		35	
58+53.44	65.1' RT.	A		1	1	1	1		67	
58+54.78	34.9' LT.	A	YES	1	1	1	1		38	
59+21.77	34.8' LT.	A	YES	1	1	1	1		35	
59+62.36	34.7' LT.	A	YES	1	1	1	1		39	
59+62.90	65.3' RT.	A		1	1	1	1		69	
59+71.79	34.7' LT.	A	YES	1	1	1	1		35	
59+78.62	65.3' RT.			1	1	1	1		65	
60+17.88	70.3' RT.	A		1	1	1	1		74	
SHEET SUBTOTALS				**42**	**41**	**41**	**41**	**0**	**1931**	**0**
PROJECT ITEM TOTALS				**87**	**81**	**81**	**80**	**1**	**3658**	**23**

CONNECTION TYPE A = OPEN TRENCH
CONNECTION TYPE B = DIRECTIONALLY DRILL

D - INSULATION		
		612.0902.S
STATION TO STATION	LOCATION	INSULATION BOARD POLYSTYRENE, 4-INCH
		SQ YD
41+37.63	18.7' LT.	7
42+38.53	18.5' LT.	7
42+40.92	18.5' LT.	7
42+74.08	18.9' LT.	7
42+96.08	18.3' LT.	7
43+37.14	18.3' LT.	7
43+86.80	18.1' LT.	7
44+12.51	18.1' LT.	7
44+36.45	18.0' LT.	7
44+76.13	17.9' LT.	8
44+76.16	33.6' LT.	4
45+44.44	17.8' LT.	8
45+59.82	17.8' LT.	8
46+08.82	17.6' LT.	8
46+56.61	17.5' LT.	8
47+06.54	17.4' LT.	8
47+56.75	17.3' LT.	8
48+06.29	17.2' LT.	9
48+57.44	17.1' LT.	9
49+09.63	16.9' LT.	10
49+90.49	16.8' LT.	9
50+18.83	16.7' LT.	9
50+51.56	16.6' LT.	9
51+00.76	16.5' LT.	9
51+49.13	16.4' LT.	9
51+76.52	16.4' LT.	9
52+03.72	CL	3
52+13.28	16.3' LT.	9
52+44.57	16.2' LT.	9
52+66.17	16.2' LT.	9
53+93.88	15.9' LT.	9
54+29.66	15.8' LT.	11
54+71.17	15.7' LT.	11
55+04.53	15.6' LT.	11
55+40.41	CL	3
55+52.65	15.5' LT.	11
55+92.44	15.4' LT.	11
55+96.23	15.4' LT.	11
56+37.19	15.3' LT.	11
56+80.84	15.3' LT.	11
56+90.74	15.2' LT.	11
58+25.92	14.9' LT.	11
58+45.47	14.9' LT.	11
59+07.52	46.2' RT.	12
59+21.77	15.3' LT.	11
59+52.35	22.6' RT.	11
59+52.46	15.6' LT.	11
59+74.46	15.8' LT.	11
59+78.25	14.1' RT.	11
60+07.88	CL-RT.	15
60+07.88	10.3' RT	15
60+16.22	CL	20
PROJECT ITEM TOTALS		**486**

E - FITTINGS		
STATION	LOCATION	TYPE
35+31.71	10.2' LT	12"X8" REDUCER
35+33.58	10.2' LT	8" 45° BEND
35+43.81	CL	8" 45° BEND
36+16.40	CL	12"X8" CROSS
39+25.67	CL	8"X8" TEE
39+25.69	55.9' RT	8"X6" REDUCER
42+60.57	CL	8"X8" TEE
45+82.82	CL	8"X8" TEE
49+09+71	CL	8"X8" CROSS
52+51.10	CL	8"X8" TEE
55+85.82	CL	8"X8" TEE
55+85.74	88.0' RT.	8"X6" REDUCER
59+07.35	CL	8"X8" TEE
59+96.49	CL	8" 45° BEND
60+03.42	CL	8" 45° BEND
60+24.18	CL	12"X8" REDUCER

= CLEARING AND GRUBBING

BEGIN CONSTRUCTION
STA 278+80.00
MATCH EXISTING
SAWCUT REQ'D

BEGIN HMA RECONSTRUCTION
STA 125+75.00'NB'
Y = 302729.552
X = 148522.184
MATCH EXISTING
SAWCUT REQ'D

EXIST R/W

BEGIN PROJECT
STA 125+50.00'NB'
Y = 302704.553
X = 148522.0101
MATCH EXISTING
SAWCUT REQ'D

CAN (COMMUNITY AREA NETWORK)

END CONSTRUCTION
STA 280+65.00
MATCH EXISTING
SAWCUT REQ'D

STA 127+21.5 LT
STEPS TO REMAIN

STA 127+40.9 LT
CONSTRUCT ASPH PE
MATCH EXSITNG
SAWCUT REQ'D

STA 128+00.3 LT
CONSTRUCT ASPH PE
MATCH EXSITNG
SAWCUT REQ'D

STA 130+49.0 LT
STEPS TO BE REMOVED

STA 129+56.69 HAMMOND AVE =
STA 290+00.00 LINCOLN ST
(SEE INTERSECTION DETAIL SHEET)

STA 126+25.80 HAMMOND AVE =
STA 280+00.00 N 21ST ST
(SEE INTERSECTION DETAIL SHEET)

STA 128+96.0 RT
STEPS TO BE REMOVED

N 21ST STREET

HAMMOND AVENUE

LINCOLN STREET

MATCH LINE 130+50

SHRUBS (8' CAN.)
SHRUBS (10' CAN.)
SHRUBS (6' CAN.)
SHRUBS (3' CAN.)
SHRUBS (5' CAN.)

11" DIA.
27" DIA.
7" DIA.
12" DIA.
8" DIA.
NORVADO
SHRUB
SWL & P

SLOPE INTERCEPT (TYP)
EXIST R/W
CAUTION

125'SB' N0°23'52"E 126'SB' N1°20'11"W 127'SB' N0°23'52"E 128'SB' 129'SB' 130'SB'
125'NB' N0°23'52"E 126'NB' 127'NB' 128'NB' 129'NB' 130'NB'

S89°51'54"E 279+00 S89°51'54"E 280+00 S89°36'49"E

PI 125+75.78
STA BACK = 126+74.92
STA AHEAD = 126+74.87
PI 126+74.87

VPC STA 125+05.00
VPC EL 646.24
VPI STA 125+30.00
VPI EL 646.32
VPT STA 125+55.00
VPT EL 646.23
HP STA 125+29.93
HP EL 646.27
VCL = 50.00
K = 77.92

EXISTING R/L PROFILE
FINISHED R/L PROFILE

	124	125	126	127	128	129	130	130
EXISTING R/L ELEVATIONS	645.93	646.03	645.98	646.06	646.23	646.15	646.47	646.23
FINISHED R/L ELEVATIONS	646.09	646.22	646.25	646.09	645.93	645.77	645.61	645.45
						646.00	645.85	645.60	645.40	645.28
						645.29	645.12	644.96	644.80	644.64

650 645 640 638

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVENUE	SHEET Page 115 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 01
PLOT DATE : 11/17/2023 9:27 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

BEGIN CONSTRUCTION
STA 297+65.00
MATCH EXISTING
SAWCUT REQ'D

= CLEARING AND GRUBBING

BEGIN CONSTRUCTION
STA 307+65.00
MATCH EXISTING
SAWCUT REQ'D

N 20TH STREET

N 19TH STREET

299+00

S89°33'54"E

S89°38'37"E

STA 131+73 LT
EXISTING TREE
TO REMAIN

STA 132+69 LT
EXISTING TREE
TO BE REMOVED BY CITY
BEFORE PROJECT

STA 132+86.96 HAMMOND AVE =
STA 300+00.00 N 20TH ST
(SEE INTERSECTION DETAIL SHEET)

STA 135+16.93 HAMMOND AVE =
STA 310+00.00 N 19TH ST
(SEE INTERSECTION DETAIL SHEET)

EXIST R/W

30" DIA.

30" DIA.

34" DIA.

5" DIA.

20" DIA.

SHRUB

SHRUB

131'SB'

132'SB'

133'SB'

N0°23'52"E

134'SB'

135'SB'

136'SB'

131'NB'

132'NB'

133'NB'

134'NB'

135'NB'

136'NB'

N0°23'52"E

MATCH LINE 130+50

MATCH LINE 136+50

HAMMOND AVENUE

DIA.

CAN (COMMUNITY AREA NETWORK)

SLOPE INTERCEPT (TYP)

S89°35'19"E

S89°37'26"E

11" DIA

EXIST R/W

CAUTION

SWL & P

STA 130+96.58 HAMMOND AVE =
STA 300+00.00 N 20TH ST
(SEE INTERSECTION DETAIL SHEET)

STA 136+06.76 HAMMOND AVE =
STA 310+00.00 N 19TH ST
(SEE INTERSECTION DETAIL SHEET)

END CONSTRUCTION
STA 300+75.00
MATCH EXISTING
SAWCUT REQ'D

END CONSTRUCTION
STA 310+75.00
MATCH EXISTING
SAWCUT REQ'D

EXISTING R/L PROFILE

FINISHED R/L PROFILE

EXISTING R/L ELEVATIONS

FINISHED R/L ELEVATIONS

650
645
640
638

645.28	644.64		
645.11	644.48		
644.94	644.16		
644.69	644.00		
644.52	643.84		
644.40	643.68		
644.19	643.52		
644.00	643.36		
643.89	643.19		
643.75	643.03		
643.55	642.87		
643.37	642.71		

130 131 132 133 134 135 136 136

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVENUE	SHEET Page 116 of 207 E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 02

PLOT DATE : 11/17/2023 9:27 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

MATCH LINE 136+50

MATCH LINE 142+00

N 18TH STREET

BEGIN CONSTRUCTION
STA 317+65.00
MATCH EXISTING
SAWCUT REQ'D

SWL & P

EXIST R/W

14" DIA.

12" CI

137'SB'

138'SB'

139'SB'

140'SB'

141'SB'

137'NB'

138'NB'

139'NB'

140'NB'

141'NB'

N0°23'52"E

HAMMOND AVENUE

5" DIA.

8" DIA.

16" DIA.

12" DIA.

SHRUB

SLOPE INTERCEPT (TYP)

CAN (COMMUNITY AREA NETWORK)

STA 139+36.72 HAMMOND AVE =
STA 320+00.00 N 18TH ST
(SEE INTERSECTION DETAIL SHEET)

STA 138+01.8 RT
CONSTRUCT ASPH PE
MATCH EXSITNG
SAWCUT REQ'D

NORVADO

2" DIA.

6" DIA.

24" DIA.

36" DIA.

STA 139+87 RT
EXISTING TREE
TO REMAIN

15" DIA.

18" DIA.

SHRUBS

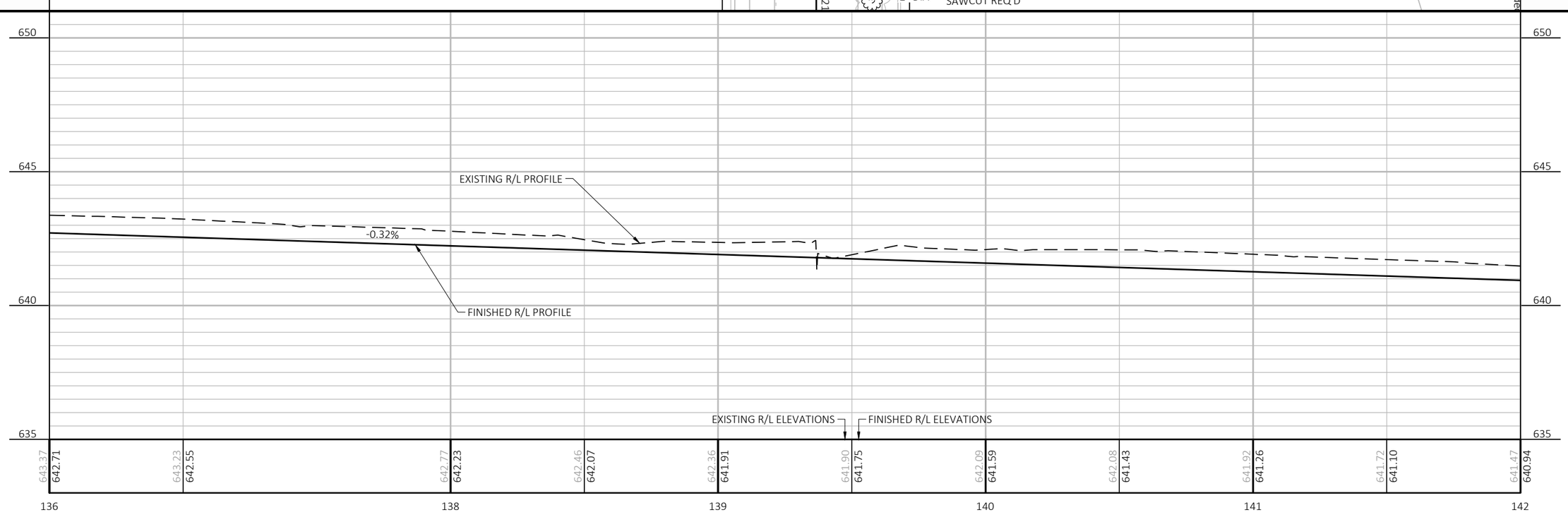
CAUTION

END CONSTRUCTION
STA 320+90.00
MATCH EXISTING
SAWCUT REQ'D

step to be surveyed

320+00

S89°36'02"E



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVENUE	SHEET Page 117 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 03

PLOT DATE : 11/17/2023 9:28 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

BEGIN CONSTRUCTION
STA 327+50.00
MATCH EXISTING
SAWCUT REQ'D

N 17TH STREET

SWL & P

EXIST R/W

12" DIA.

S89°41'12"E

SLOPE INTERCEPT (TYP)

STA 145+96.83 HAMMOND AVE =
STA 340+00.00 HARRISON ST
(SEE INTERSECTION DETAIL SHEET)

3" DIA.

11" DIA.

MATCH LINE 142+00

MATCH LINE 147+00

143'SB'

144'SB'

N0°23'52"E

145'SB'

146'SB'

143'NB'

144'NB'

145'NB'

N0°23'52"E

HAMMOND AVENUE

30" DIA
STUMP

SHRUBS

N 17TH STREET

S89°24'41"E

STA 142+66.72 HAMMOND AVE =
STA 330+00.00 N 17TH ST
(SEE INTERSECTION DETAIL SHEET)

STA 143+57.16 HAMMOND AVE =
STA 330+00.00 N 17TH ST
(SEE INTERSECTION DETAIL SHEET)

CAUTION

EXIST R/W

CAN (COMMUNITY
AREA NETWORK)

STA 144+93.9 RT
CONSTRUCT ASPH PE
MATCH EXSITNG
SAWCUT REQ'D

HARRISON STREET

S89°13'39"E

2" DIA.

12" DIA.

3" DIA.

END CONSTRUCTION
STA 330+85.00
MATCH EXISTING
SAWCUT REQ'D

END CONSTRUCTION
STA 340+80.00
MATCH EXISTING
SAWCUT REQ'D

= CLEARING AND GRUBBING

EXISTING R/L PROFILE

FINISHED R/L PROFILE

EXISTING R/L ELEVATIONS

FINISHED R/L ELEVATIONS

650	645	640	635

142	143	144	145	146	147
641.47 / 640.94	641.26 / 640.78	641.09 / 640.62	640.98 / 640.46	640.84 / 640.30	640.77 / 640.14	640.67 / 639.98	640.52 / 639.82	640.35 / 639.66	640.27 / 639.50	640.19 / 639.33

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVENUE	SHEET Page 118 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 04

PLOT DATE : 11/17/2023 9:28 AM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

5

N

MATCH LINE 147+00

N 16TH STREET

S89°37'26"E

349+00

EXIST R/W

BEGIN CONSTRUCTION
STA 347+50.00
MATCH EXISTING
SAWCUT REQ'D

STA 148+76.5 LT
STEPS TO BE REPLACED

STA 149+45 LT
STEPS TO BE REPLACED

STA 149+16.74 HAMMOND AVE =
STA 350+00.00 N 16TH ST
(SEE INTERSECTION DETAIL SHEET)

14" DIA.

SWL & P

15" DIA.

PI: 150+40.78

EP: 151+34.15

'SB'

148'SB'

N0°23'52"E

149'SB'

150'SB'

151'SB'

N4°29'16"W

151'SB'

'NB'

148'NB'

149'NB'

150'NB'

N0°23'52"E

+82.0

151'NB'

N2°14'16"E

152'NB'

N0°23'30"E

STA 151+76.79
END CONCRETE PAVEMENT 9-INCH
BEGIN CONCRETE PAVEMENT 10-INCH

HAMMOND AVENUE

+66.0

CAUTION

SHRUBS

4" EXIST R/W

PI: 151+41.39

PI: 151+34.88

SHRUBS

18" DIA.

CAN (COMMUNITY
AREA NETWORK)

14" DIA.

SLOPE INTERCEPT (TYP)

SAWING ASPHALT

SAWING CONCRETE
AT NEAREST JOINT (TYP)

STA 147+76.98 HAMMOND AVE =
STA 350+00.00 N 16TH ST
(SEE INTERSECTION DETAIL SHEET)

N 16TH STREET

S89°34'54"E

END CONSTRUCTION
STA 351+10.00
MATCH EXISTING
SAWCUT REQ'D

10" DIA.

351+00

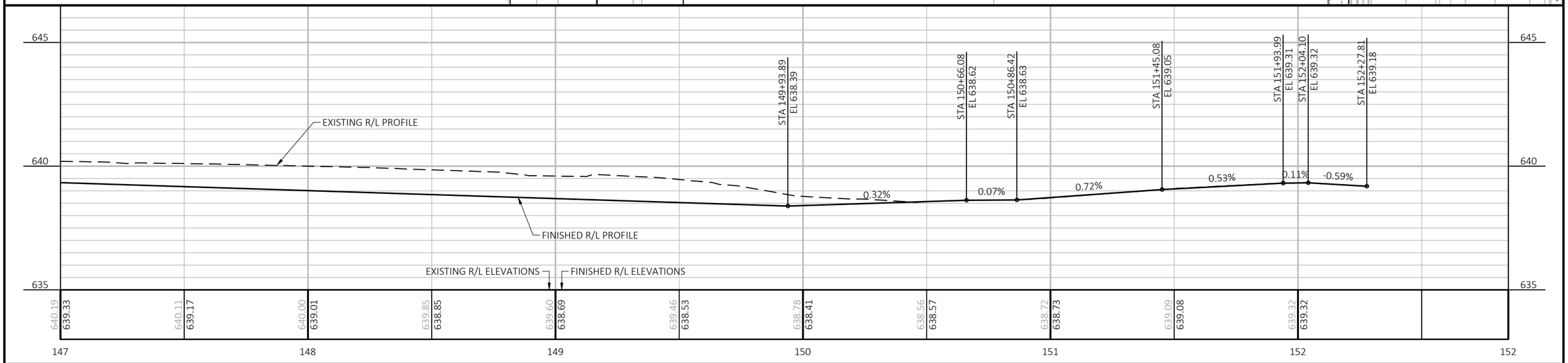
STA 150+36.74
END HMA PAVEMENT RECONSTRUCTION
BEGIN CONCRETE PAVEMENT 9-INCH
Y = 305191.236
X = 148539.274
MATCH EXISTING
SAWCUT REQ'D

BRUSH PATTERN AND
COLORING OF CONCRETE

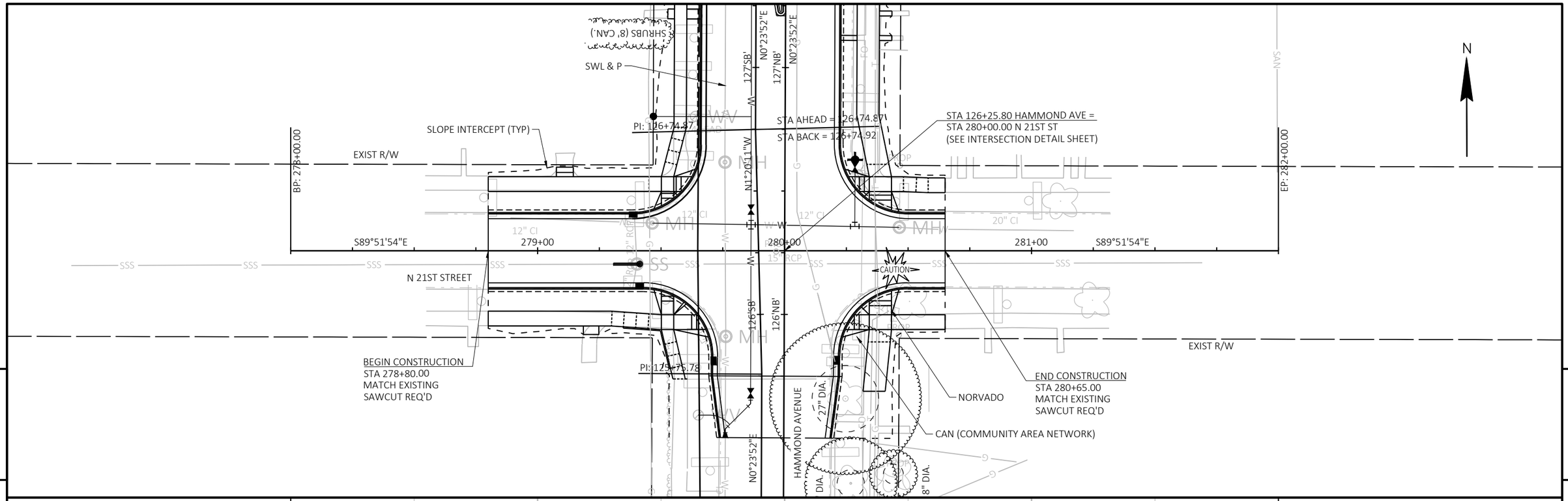
BELKNAP STREET

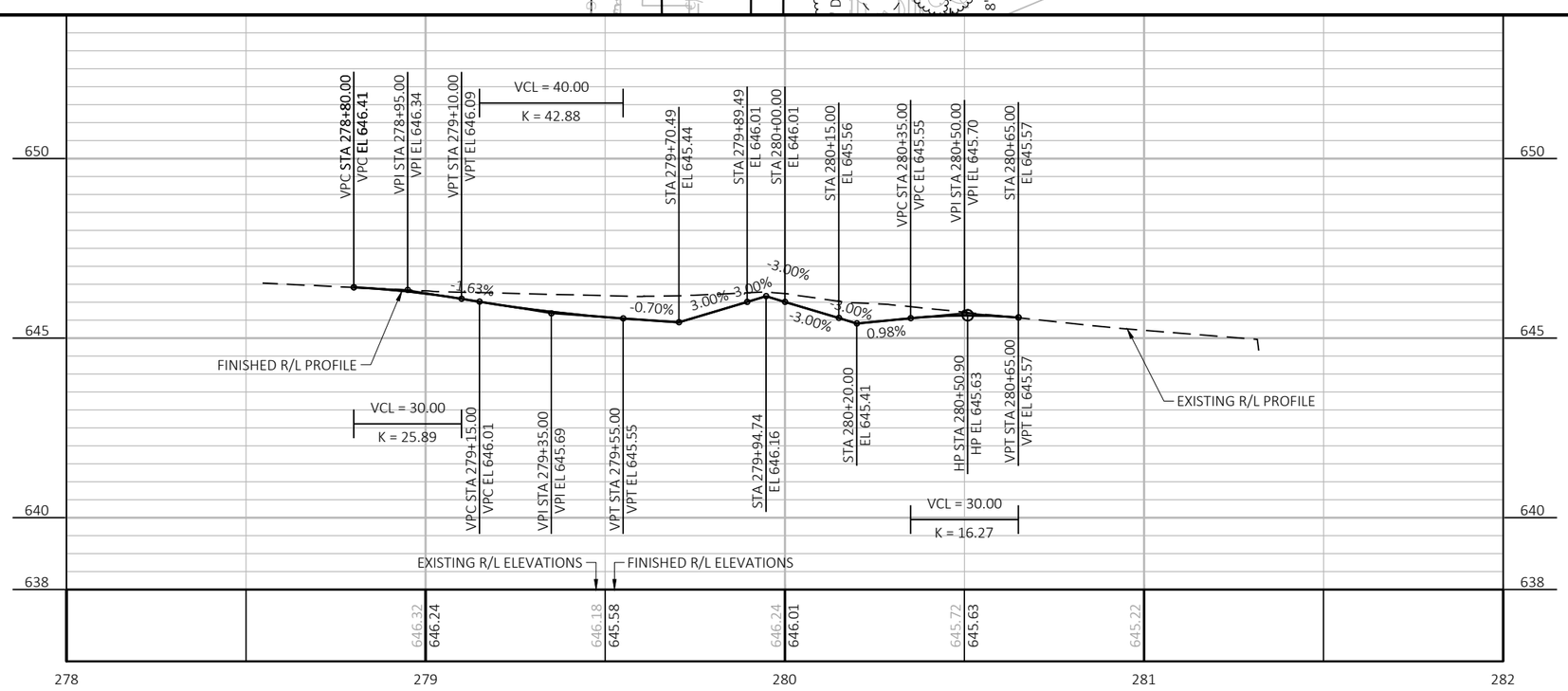
EP: 152+61.79

END PROJECT
STA 152+43.79
MATCH EXISTING
SAWCUT REQ'D

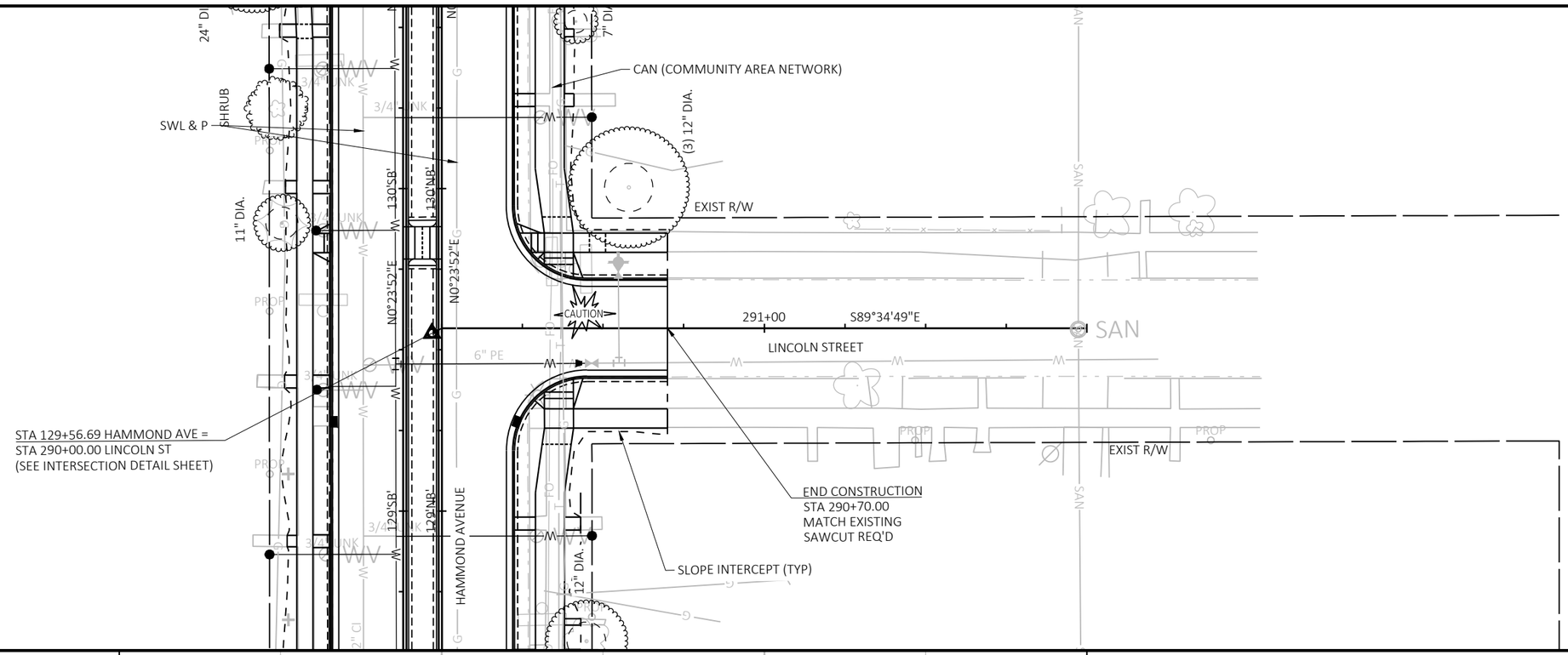


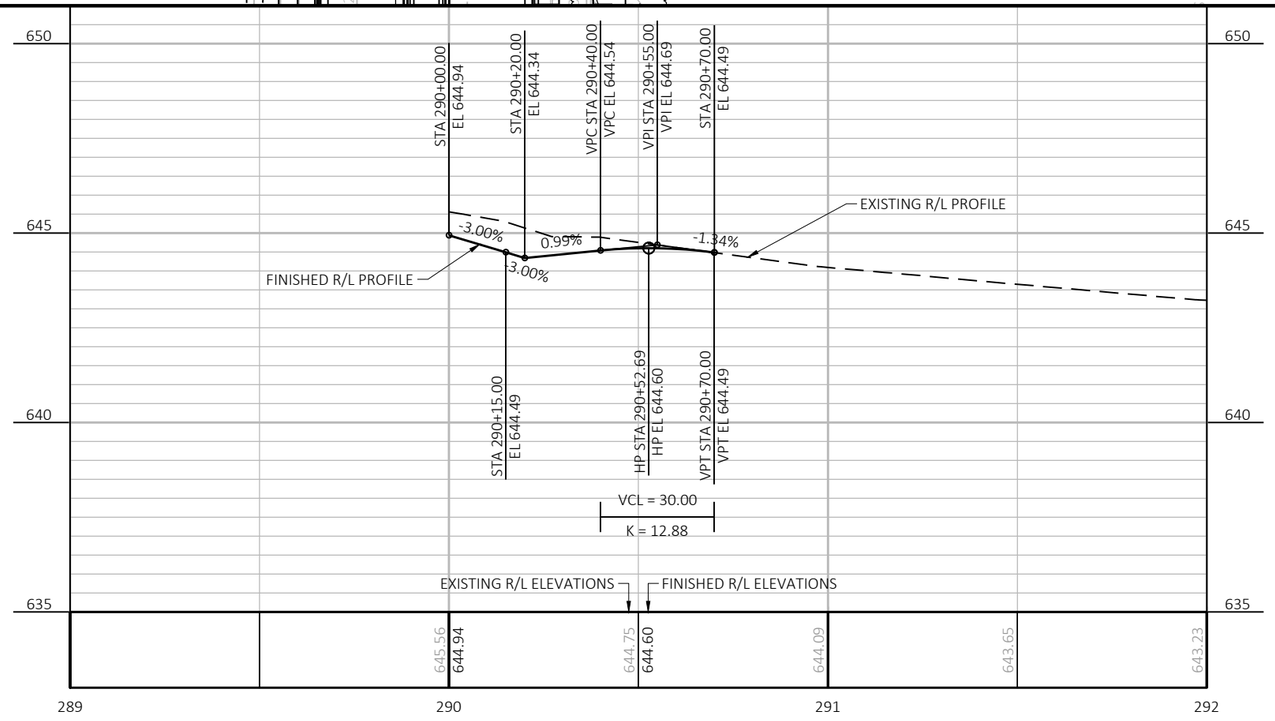
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: HAMMOND AVENUE	SHEET Page 119 of 207	E



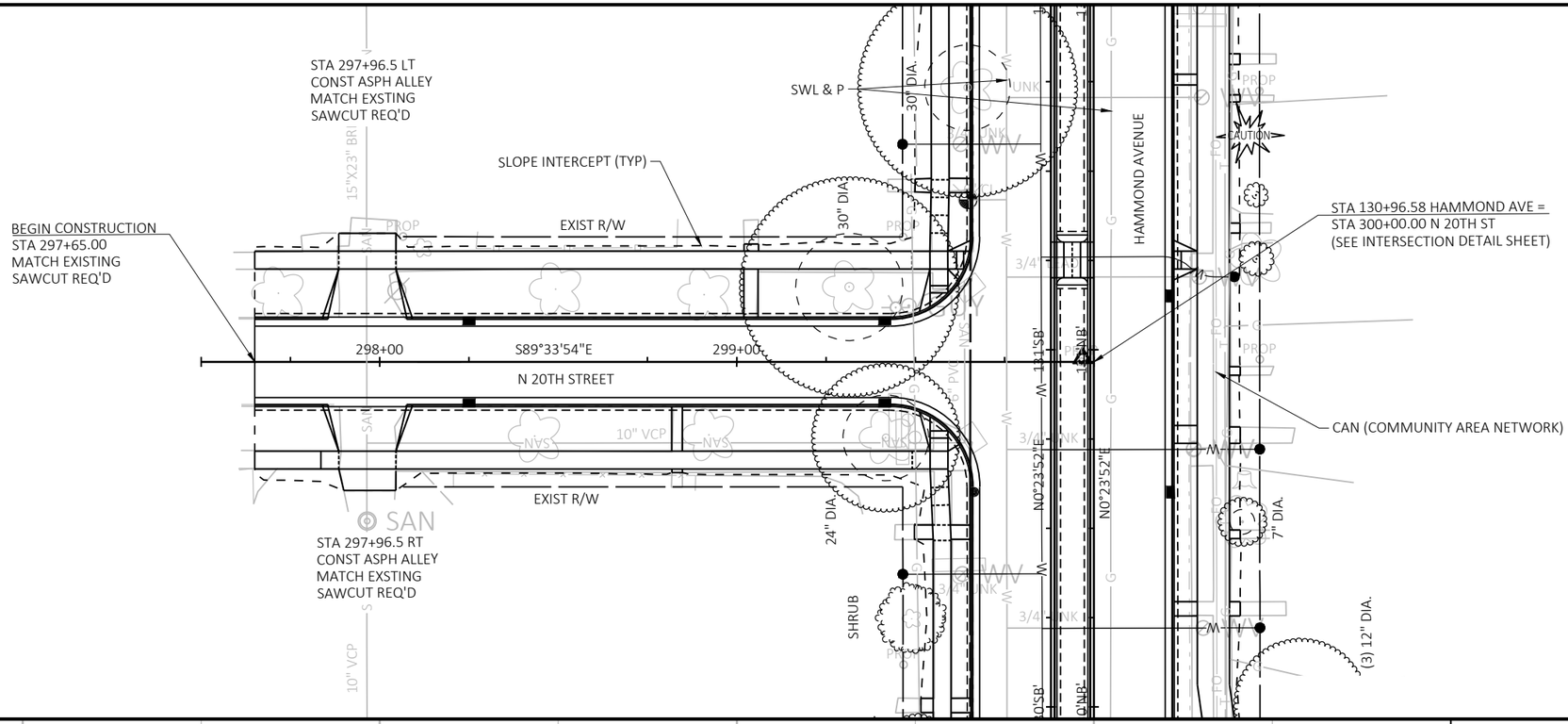


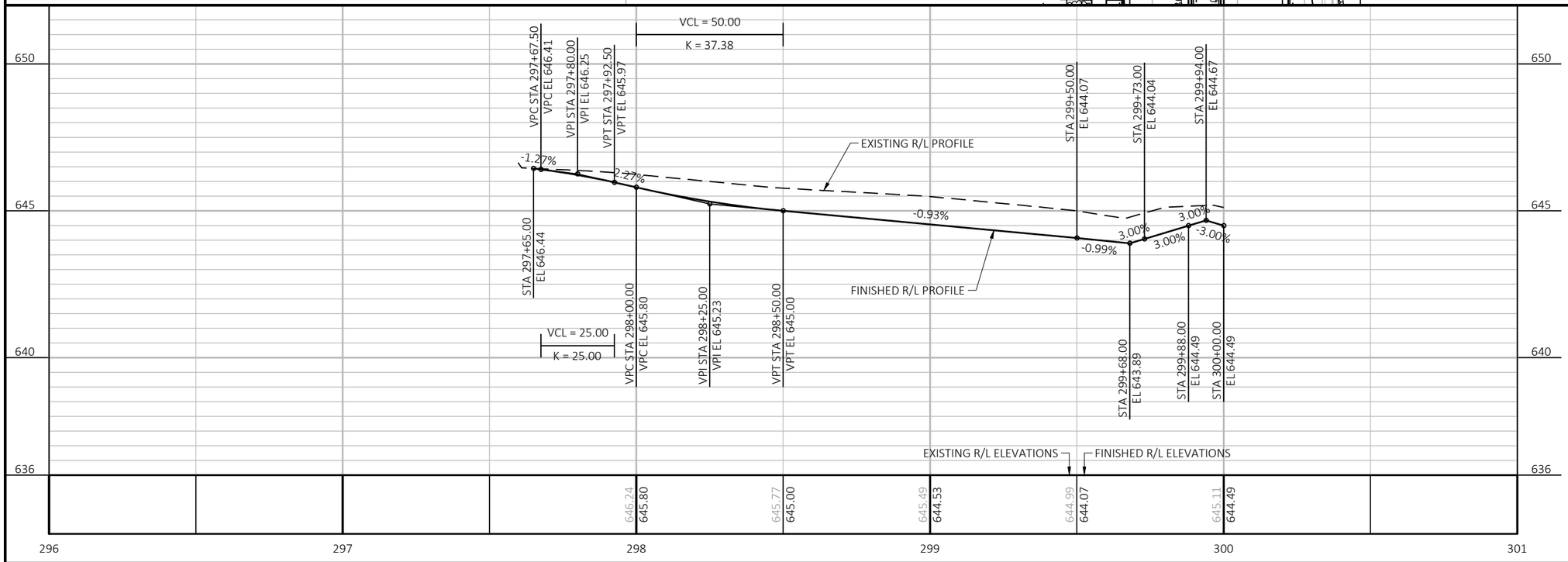
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 21ST STREET	SHEET Page 120 of 207	E



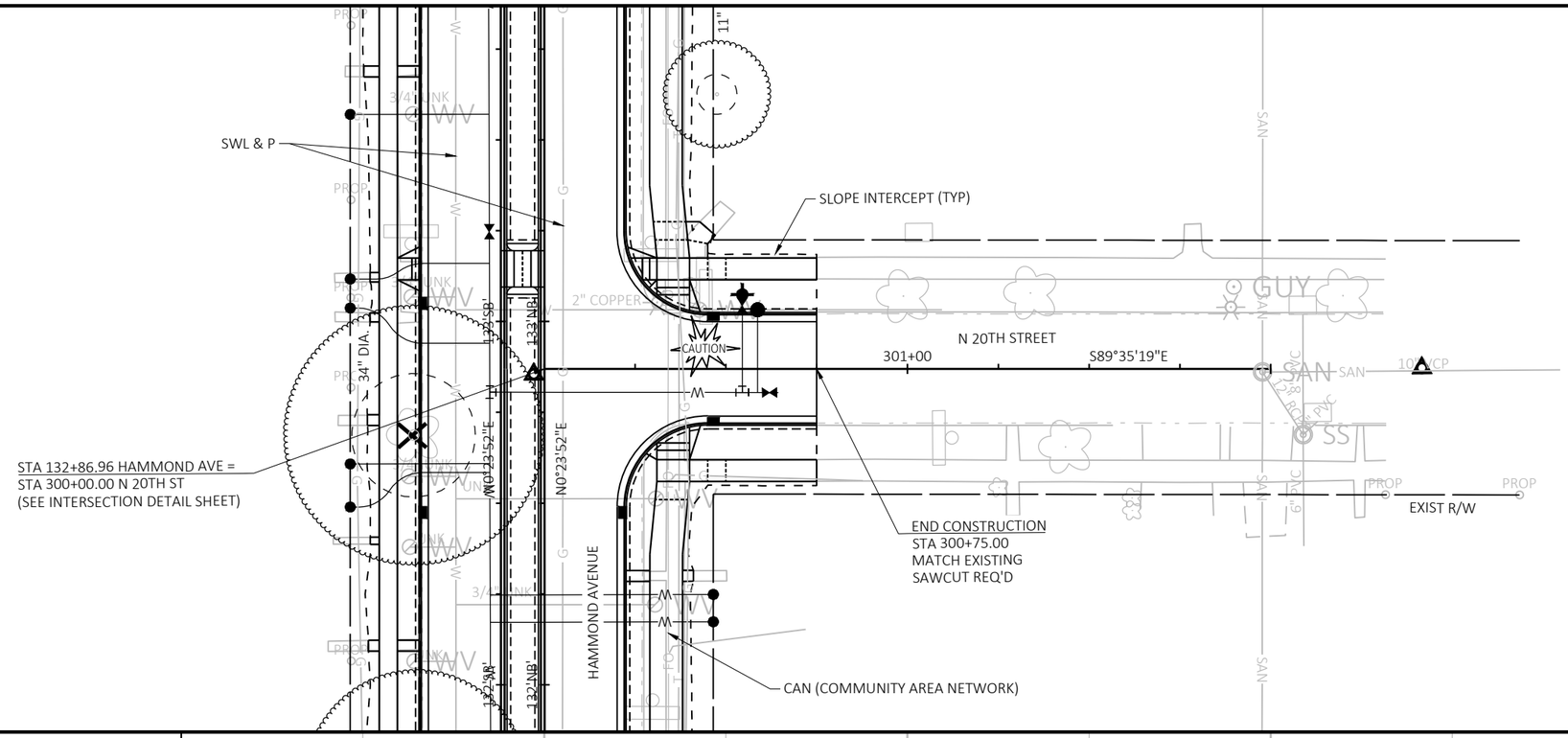


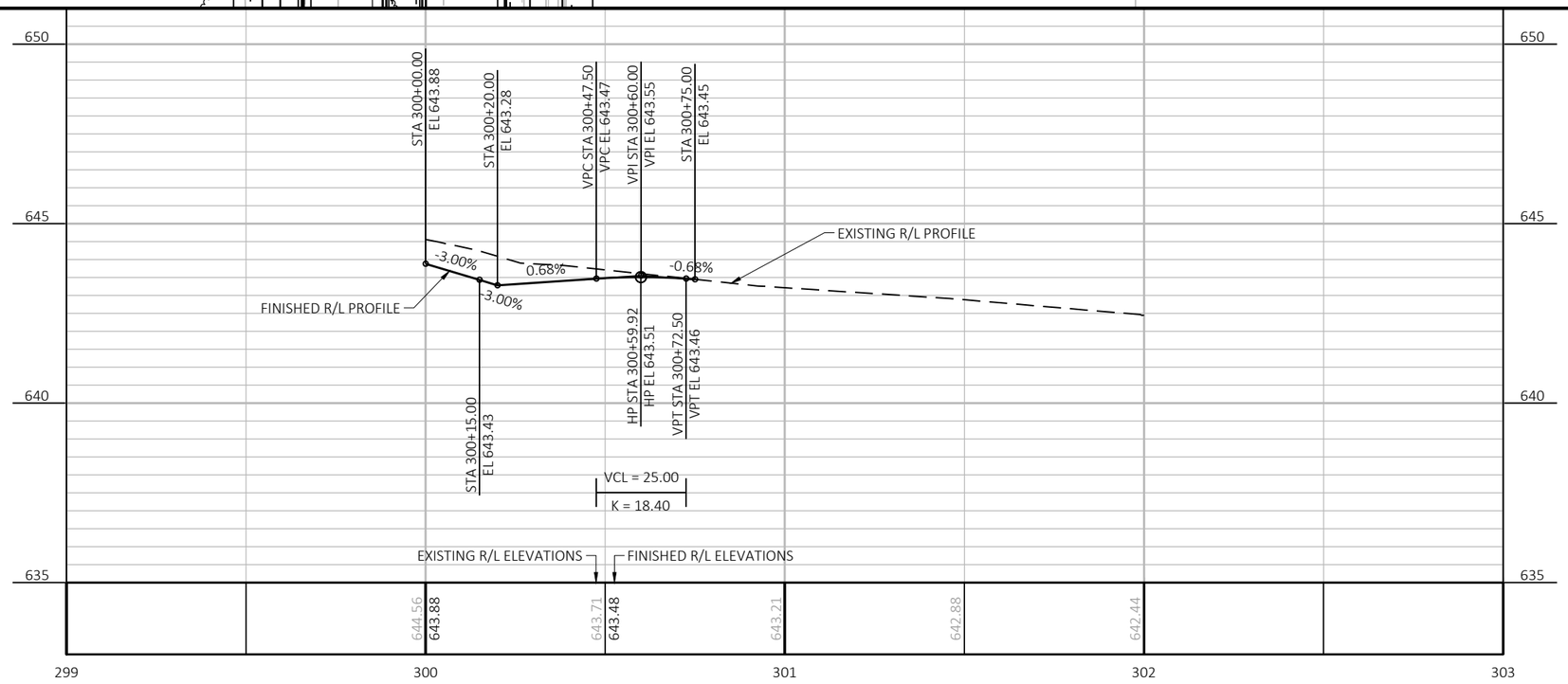
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: LINCOLN STREET	SHEET Page 121 of 207	E



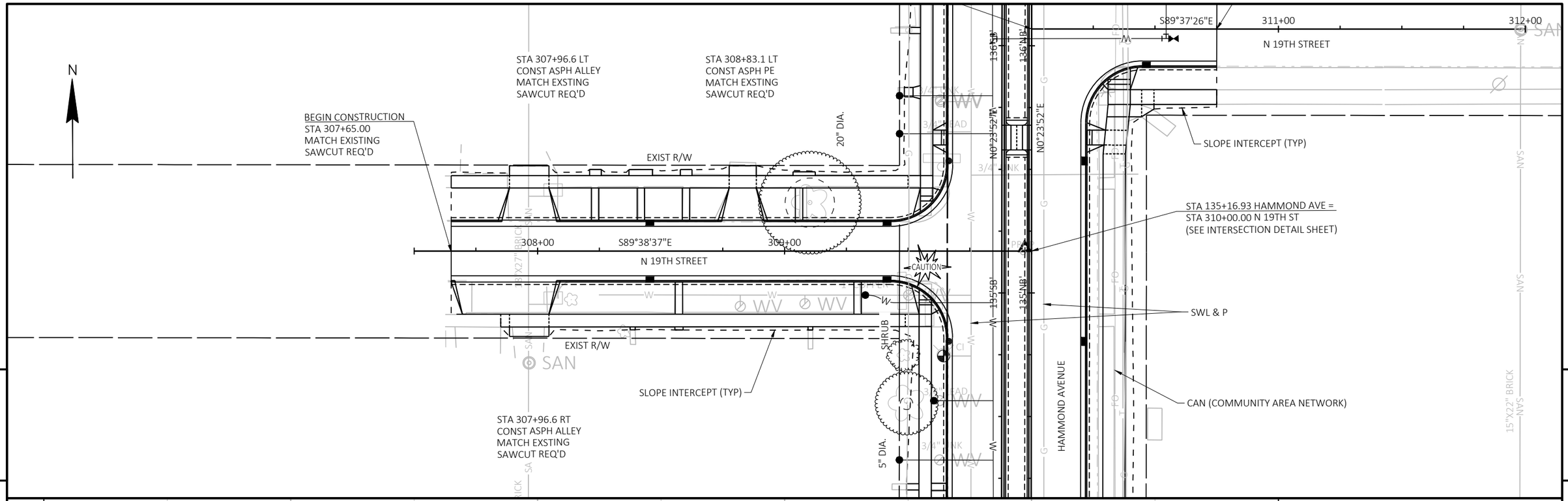


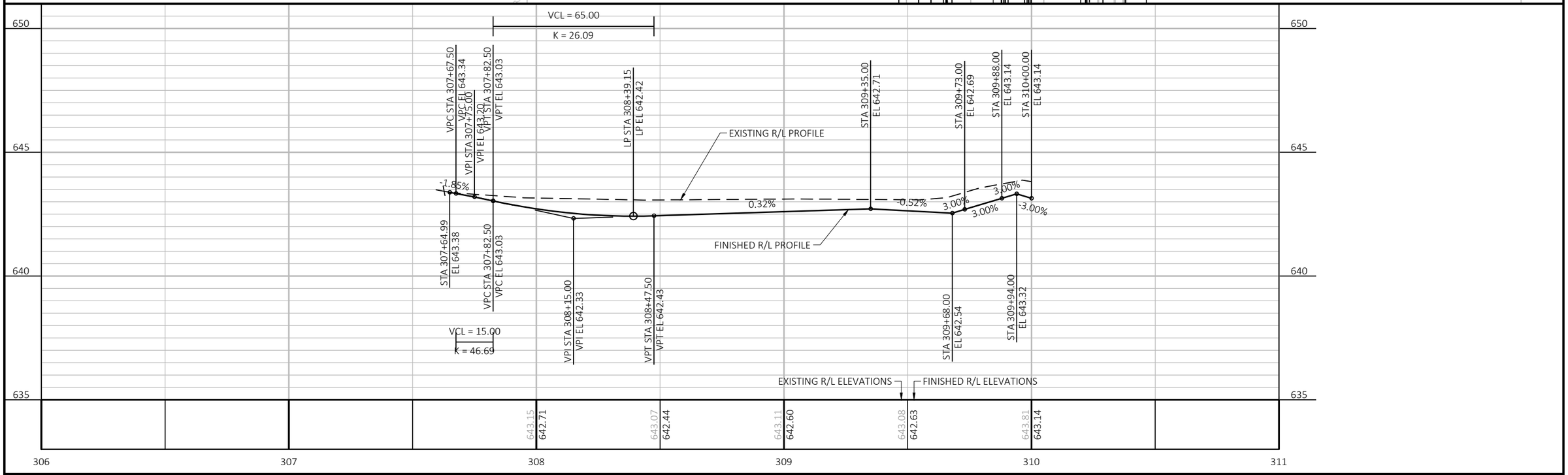
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 20TH STREET	SHEET Page 122 of 207	E



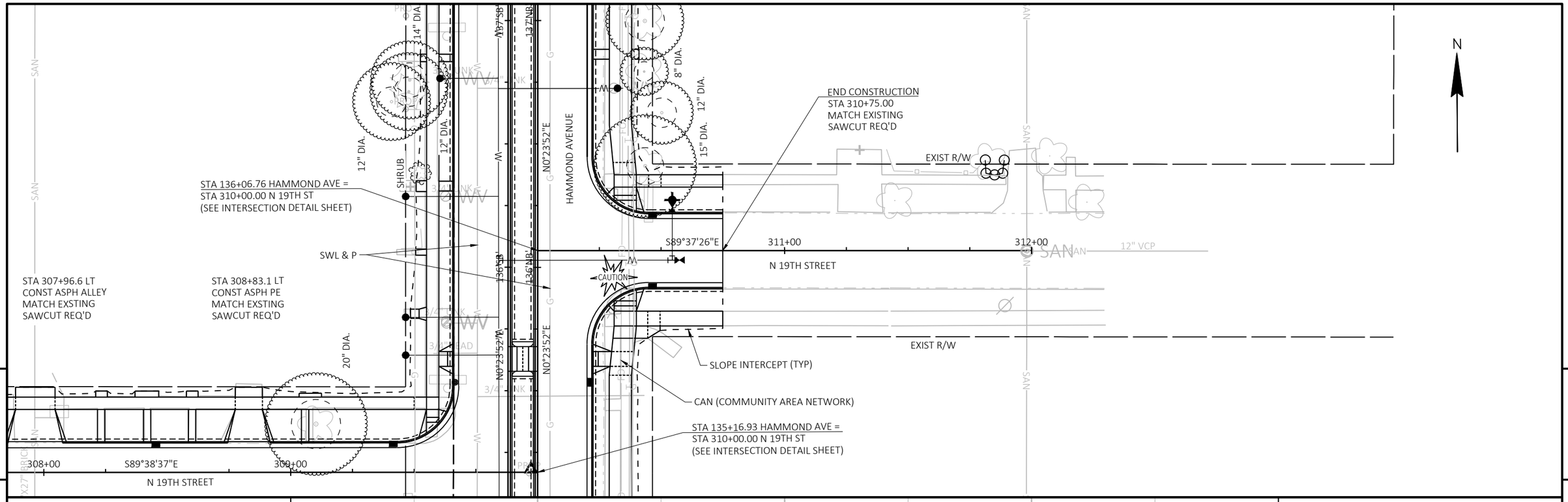


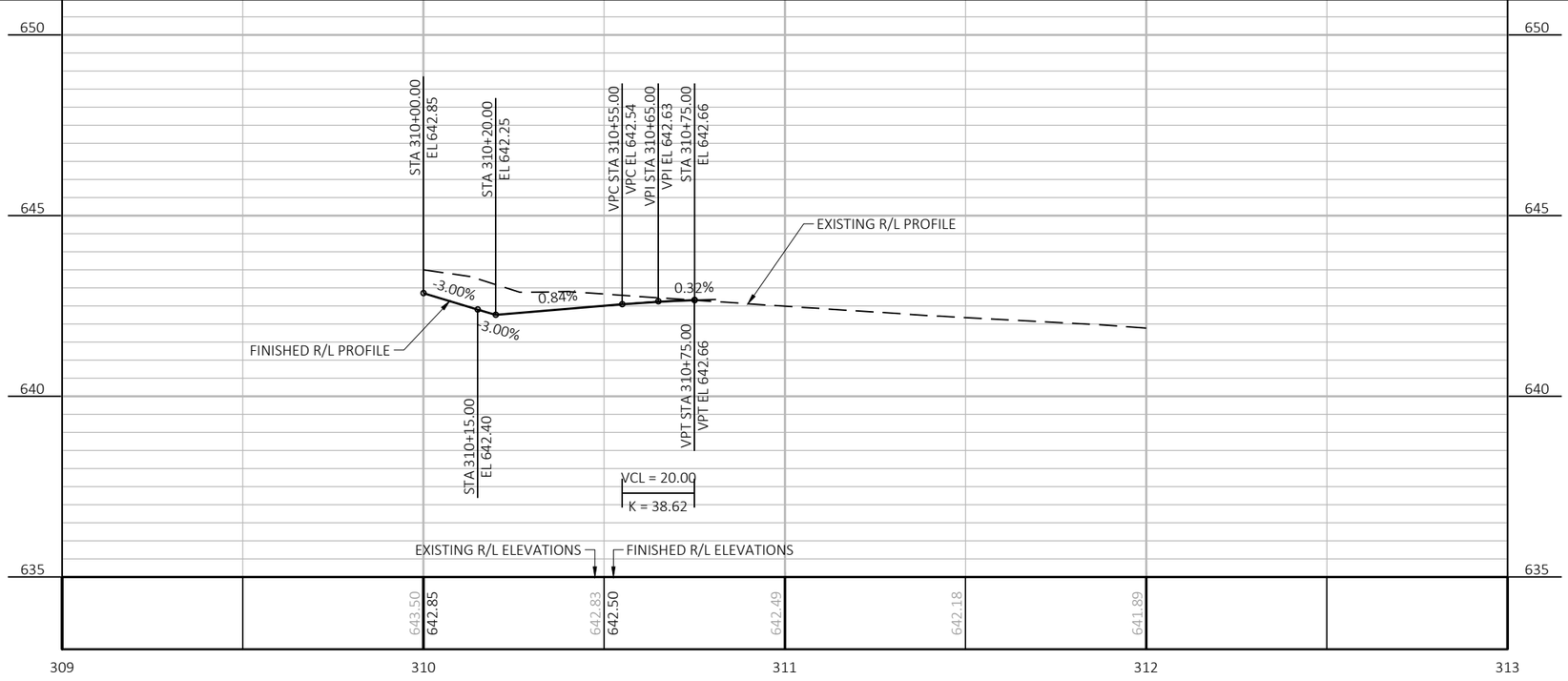
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 20TH STREET	SHEET Page 123 of 207	E



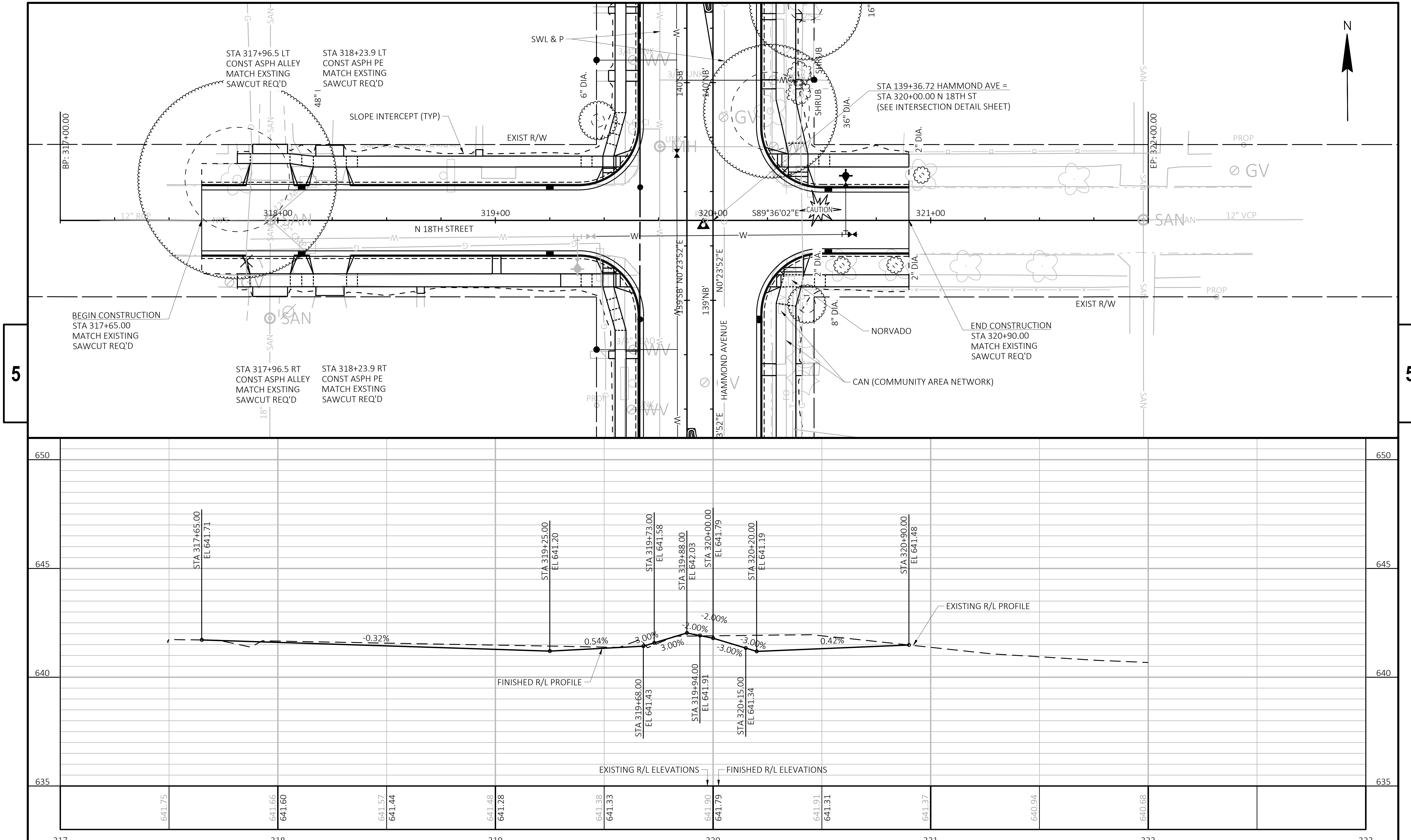


PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 19TH STREET	SHEET Page 124 of 207	E





PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 19TH STREET	SHEET Page 125 of 207	E



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 18TH STREET	SHEET Page 126 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\050102_PP.DWG
LAYOUT NAME - 07
PLOT DATE : 11/17/2023 9:34 AM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

328+00 329+00 S89°41'12"E

N 17TH STREET

50" DIA.

SLOPE INTERCEPT (TYP)

12" DIA.

STA 327+96.4 RT
CONST ASPH ALLEY
MATCH EXSTING
SAWCUT REQ'D

STA 328+23.7 RT
CONST ASPH PE
MATCH EXSTING
SAWCUT REQ'D

SWL & P

STA 142+66.72 HAMMOND AVE =
STA 330+00.00 N 17TH ST
(SEE INTERSECTION DETAIL SHEET)

HAMMOND AVENUE

N0°23'52"E

143'SB'

142'NB'

SHRUB

SLOPE INTERCEPT (TYP)

18" DI

PROP EXIST R/W

S89°34'41"E 331+00

N 17TH STREET

CAUTION

SHRUBS

SHRUBS

SHRUBS

END CONSTRUCTION
STA 330+85.00
MATCH EXISTING
SAWCUT REQ'D

step to do-survey needed

CAN (COMMUNITY AREA NETWORK)

PROP EXIST R/W

" VCP

20"X30" BRICK

N

5

5

VCL = 30.00
K = 19.49

STA 330+00.00
EL 640.73

STA 330+20.00
EL 640.13

LP STA 330+43.58
LP EL 640.04

VPC STA 330+65.00
VPC EL 640.16

VPI STA 330+75.00
VPI EL 640.27

VPT STA 330+85.00
VPT EL 640.30

EXISTING R/L PROFILE

-3.00%

-0.44%

0.32%

-3.00%

FINISHED R/L PROFILE

STA 330+15.00
EL 640.28

VPC STA 330+35.00
VPC EL 640.06

VPI STA 330+50.00
VPI EL 640.00

VPT STA 330+65.00
VPT EL 640.16

VCL = 20.00
K = 25.67

645
640
635
633

EXISTING R/L ELEVATIONS
FINISHED R/L ELEVATIONS

641.22
640.73
640.49
640.05
640.26
640.20
640.10

329 330 331 332 333

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 17TH STREET	SHEET Page 127 of 207	E

N

STA 327+96.4 LT
CONST ASPH ALLEY
MATCH EXSTING
SAWCUT REQ'D

STA 328+74.6 LT
CONST ASPH PE
MATCH EXSTING
SAWCUT REQ'D

SWL & P

HAMMOND AVENUE

CAUTION

STA 143+57.16 HAMMOND AVE =
STA 330+00.00 N 17TH ST
(SEE INTERSECTION DETAIL SHEET)

CAN (COMMUNITY AREA NETWORK)

SHRUB

EXIST R/W

328+00

329+00

S89°41'12"E

N 17TH STREET

144'SB'

144'NB'

N0°23'52"E

143'SB'

143'NB'

SLOPE INTERCEPT (TYP)

18" DI

50" DIA.

12" DIA.

BEGIN CONSTRUCTION
STA 327+50.00
MATCH EXISTING
SAWCUT REQ'D

STA 327+74.9 RT
CONST ASPH PE
MATCH EXSTING
SAWCUT REQ'D

STA 327+96.4 RT
CONST ASPH ALLEY
MATCH EXSTING
SAWCUT REQ'D

STA 328+23.7 RT
CONST ASPH PE
MATCH EXSTING
SAWCUT REQ'D

S89°34'41"E

331+00

N 17TH STREET

5

5

650

645

640

635

VCL = 40.00
K = 29.31

STA 327+50.00
EL 640.47
INFINITY

VPC STA 327+60.00
VPC EL 640.33

VPI STA 327+55.00
VPI EL 640.41

VPC STA 327+50.00
VPC EL 640.47

VPT STA 327+60.00
VPT EL 640.33

VCL = 10.00
K = 17.10

VPI STA 327+80.00
VPI EL 639.99

VPT STA 328+00.00
VPT EL 639.93

STA 329+00.00
EL 639.61

STA 329+68.00
EL 639.84

STA 329+88.00
EL 640.44

STA 330+00.00
EL 640.44

EXISTING R/L PROFILE

FINISHED R/L PROFILE

-0.32%

0.34%

3.00%

3.00%

3.00%

3.00%

STA 329+73.00
EL 639.99

STA 329+94.00
EL 640.62

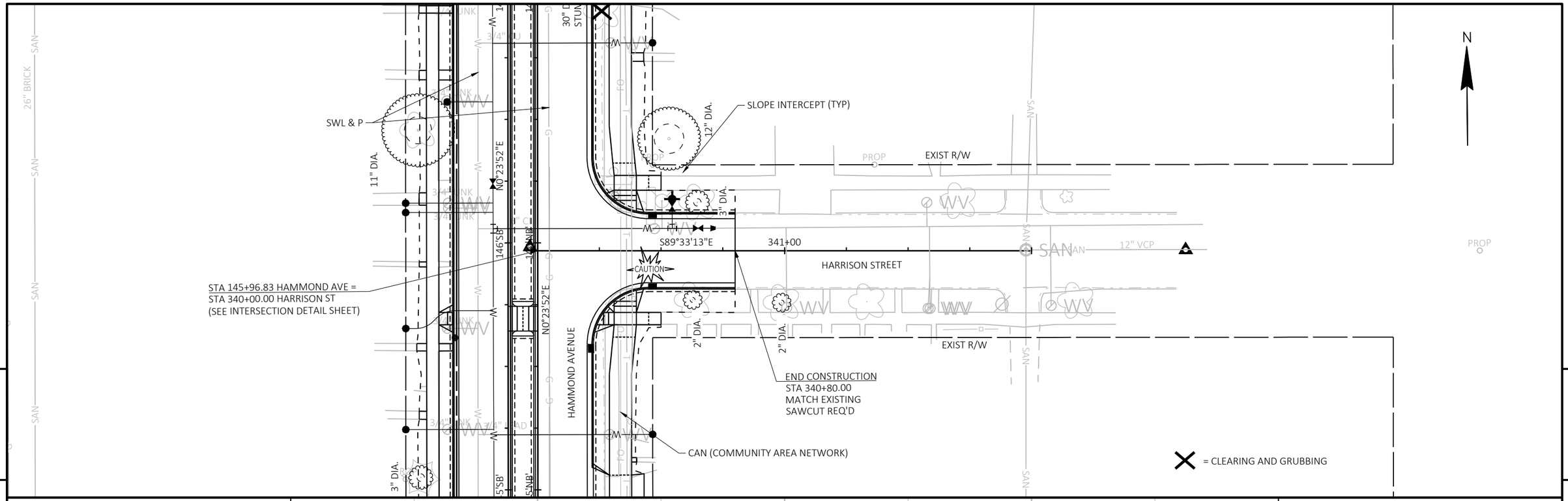
EXISTING R/L ELEVATIONS

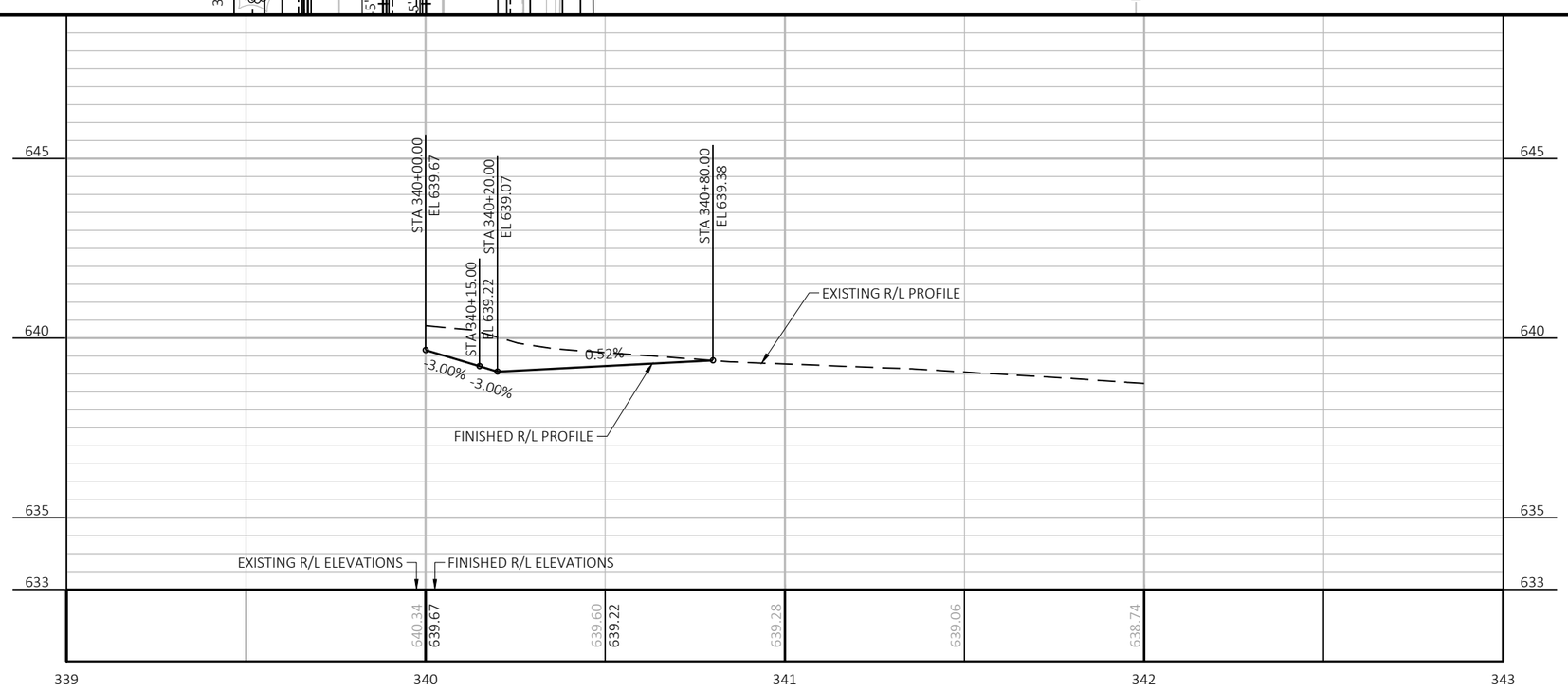
FINISHED R/L ELEVATIONS

640.47 INFINITY | 640.29 639.93 | 640.11 639.77 | 640.08 639.61 | 640.24 639.78 | 640.97 640.44

325 326 327 328 329 330 331

PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 17TH STREET	SHEET	Page 128 of 207	E





PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: HARRISON STREET	SHEET Page 129 of 207	E

STA 347+96.5 LT
CONST ASPH ALLEY
MATCH EXSTING
SAWCUT REQ'D

SWL & P

SLOPE INTERCEPT (TYP)

BEGIN CONSTRUCTION
STA 347+50.00
MATCH EXISTING
SAWCUT REQ'D

EXIST R/W

348+00

349+00

S89°37'26"E

N 16TH STREET

EXIST R/W

STA 347+96.5 RT
CONST ASPH ALLEY
MATCH EXSTING
SAWCUT REQ'D

14" DIA.

HAMMOND AVENUE

SHRUBS

14" DIA.

CAN (COMMUNITY AREA NETWORK)

STA 147+76.98 HAMMOND AVE =
STA 350+00.00 N 16TH ST
(SEE INTERSECTION DETAIL SHEET)

18" DIA.

48'SB'

48'NB'

N0°23'52"E

N0°23'52"E

147'SB'

147'NB'

30" DIA.
STUMP

CAUTION

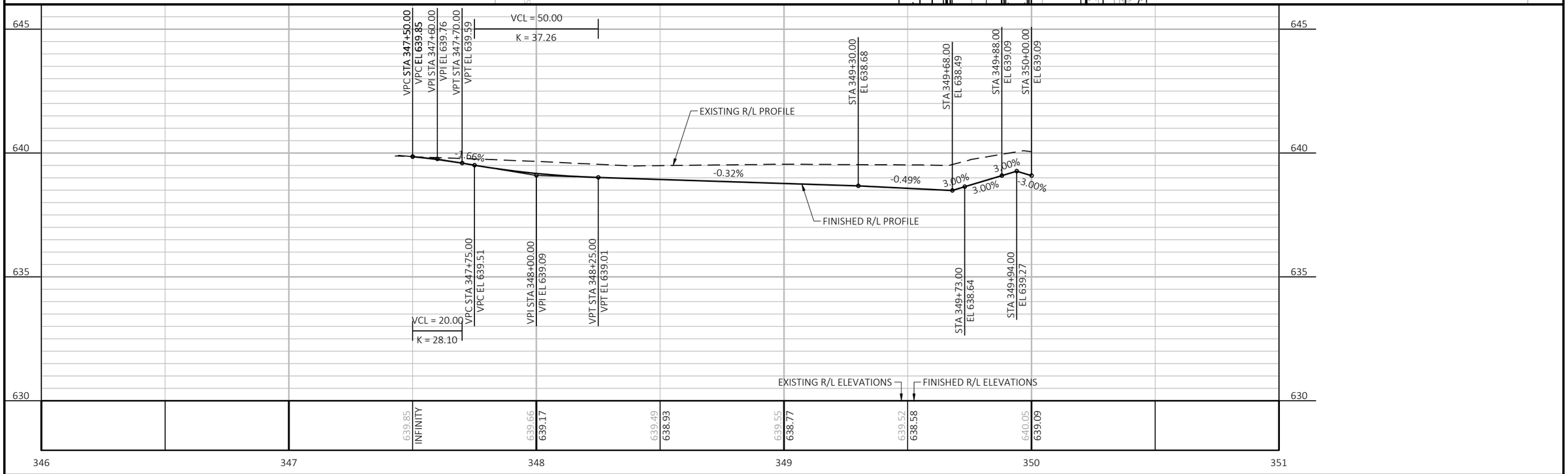
24"X36" BRICK

N

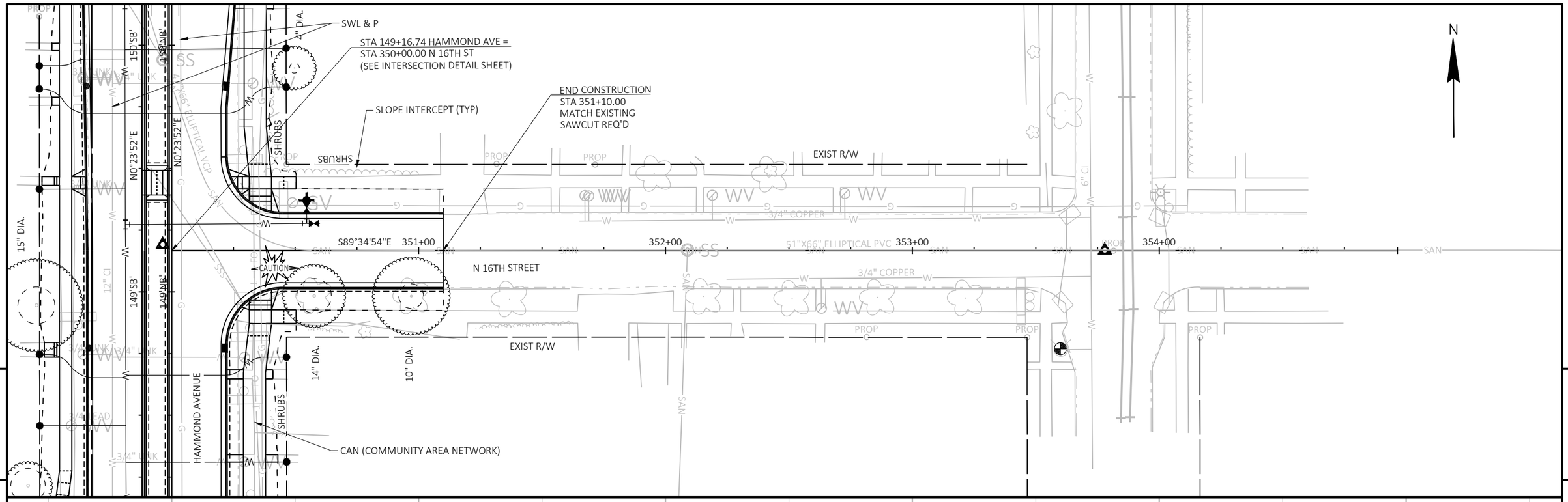
= CLEARING AND GRUBBING

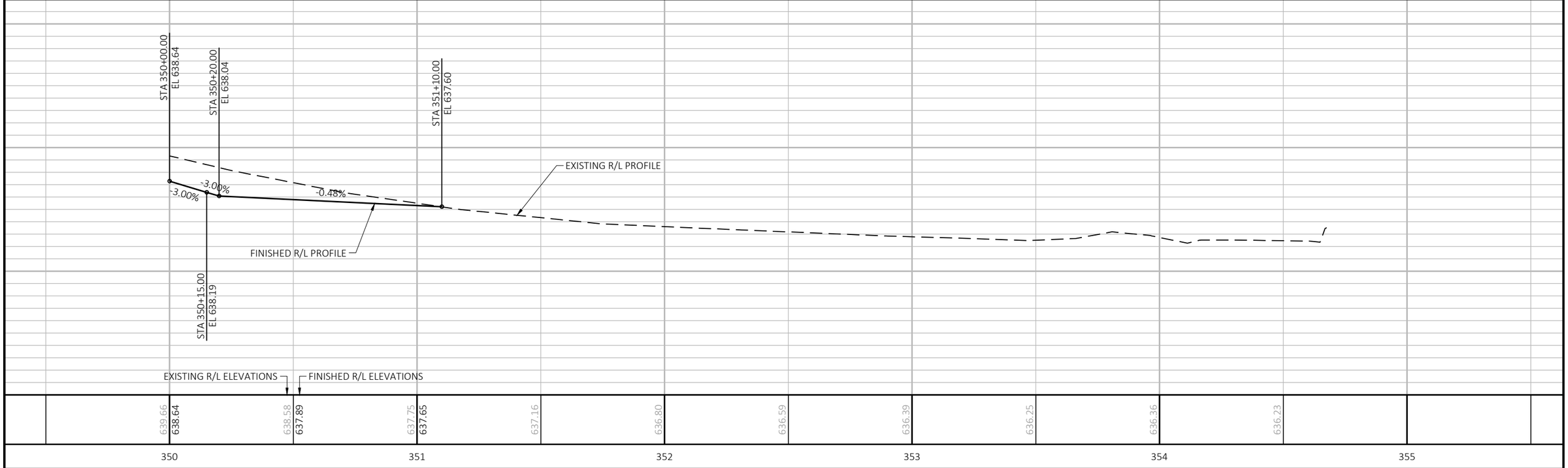
5

5

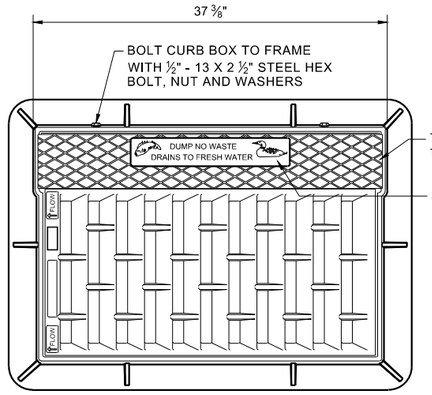


PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 16TH STREET	SHEET Page 130 of 207	E

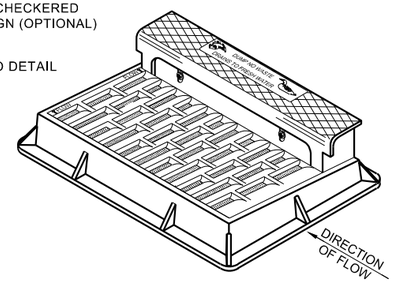




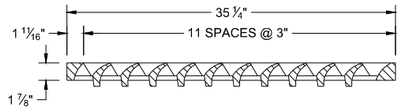
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	PLAN AND PROFILE: N 16TH STREET	SHEET Page 131 of 207	E

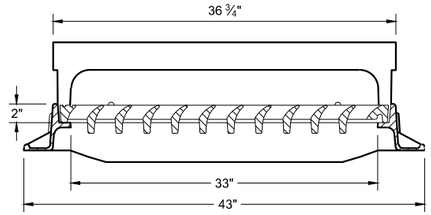


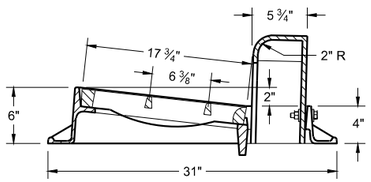
NOTE: EITHER CASTING IS ACCEPTABLE

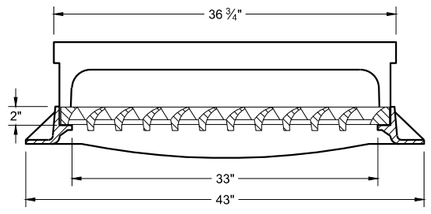


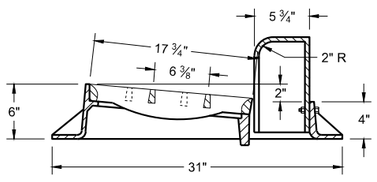
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







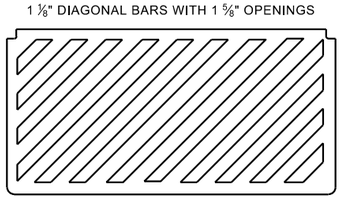




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

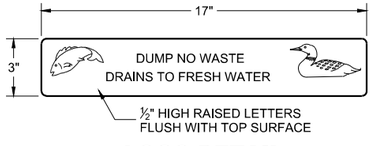
1 ⅛" DIAGONAL BARS WITH 1 ⅝" OPENINGS



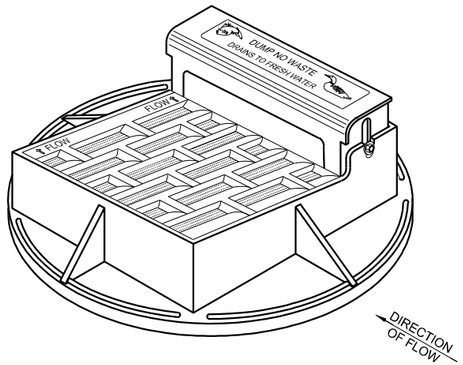
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 ¾" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

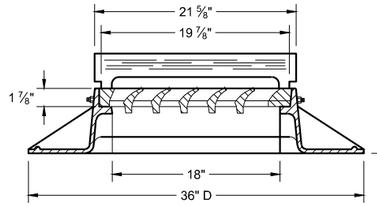


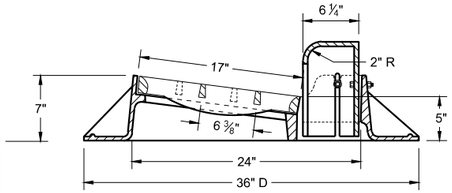
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





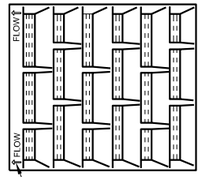
TYPE "A"

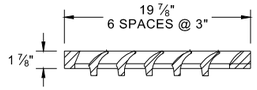
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

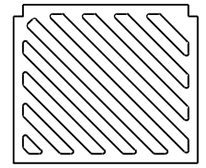
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.





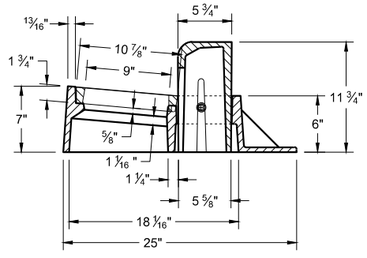
1" DIAGONAL BARS WITH 1 ½" OPENINGS



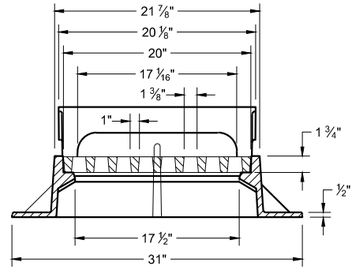
SPECIAL GRATE FOR TYPE "A" COVER

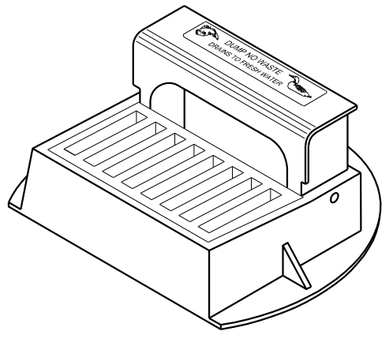
(MEASURES 19 ¾" X 17" X 1 ⅞")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

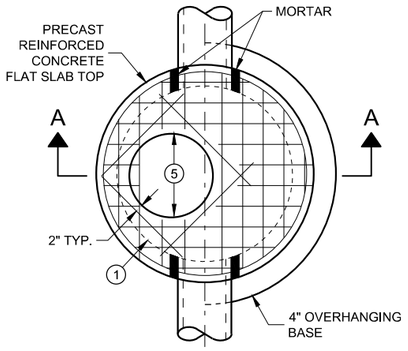
APPROVED
July 2023
DATE

/S/ Rodney Tayler
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

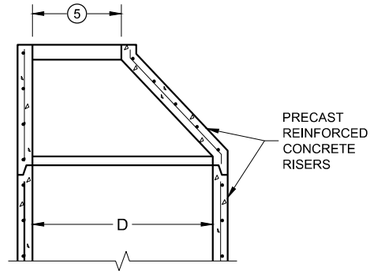
FHWA

6

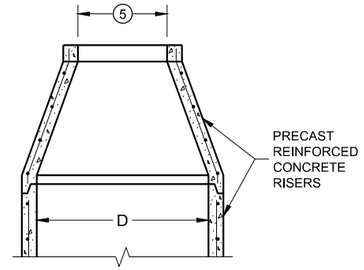
SDD 08A05-20a



PLAN VIEW
CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

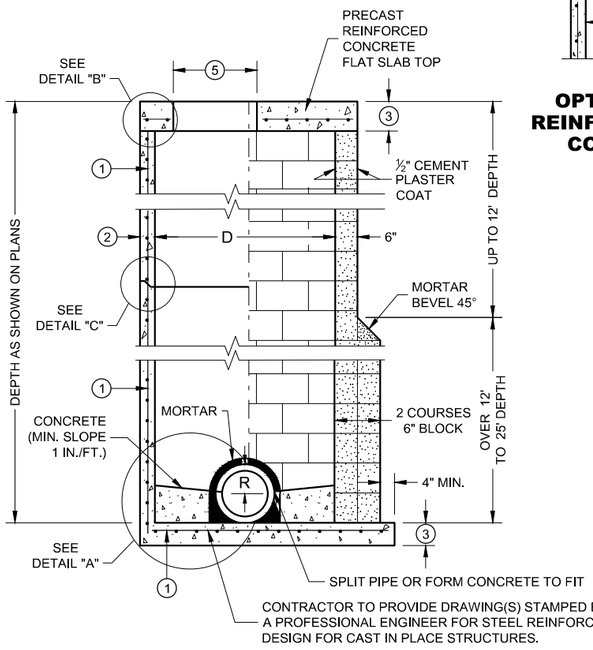
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).

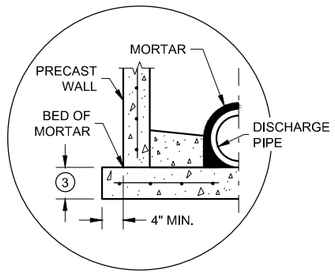
(5) SEE MANHOLE COVER OPENING MATRIX.



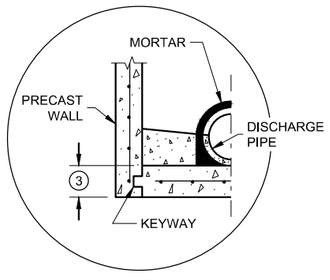
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

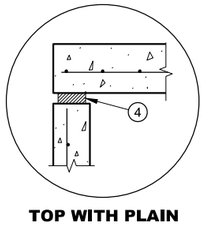


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

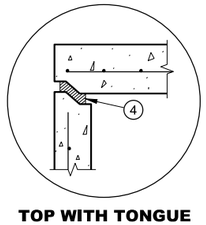


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

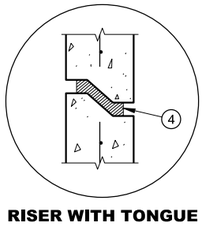


TOP WITH PLAIN END JOINT



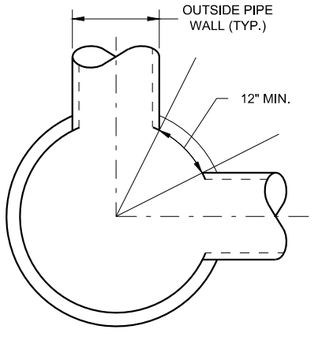
TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"



MINIMUM HORIZONTAL PIPE SEPARATION

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

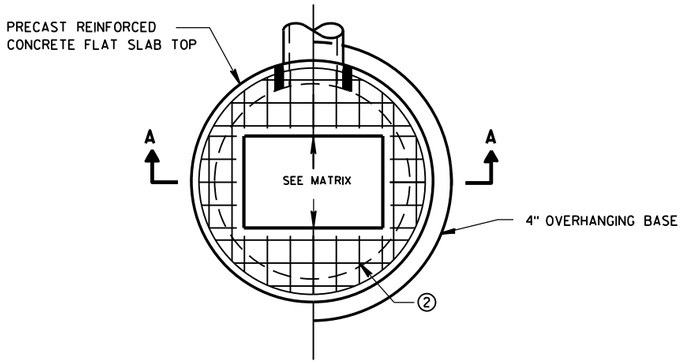
MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

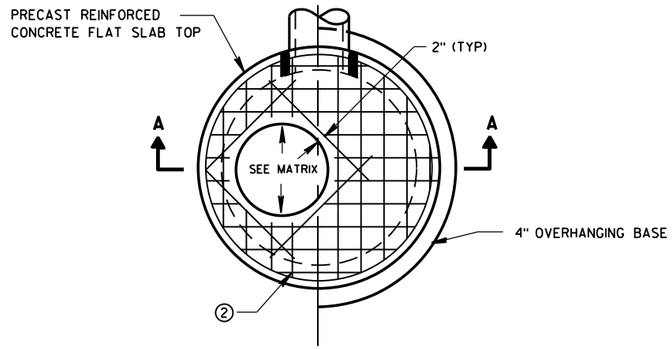
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

SDD 08B09 - 03

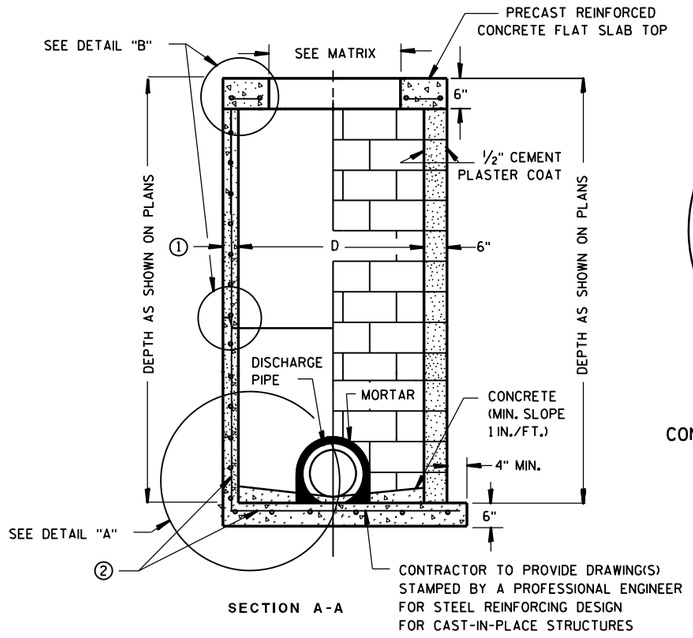
SDD 8C6 Inlets 3-FT and 4-FT Diameter



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

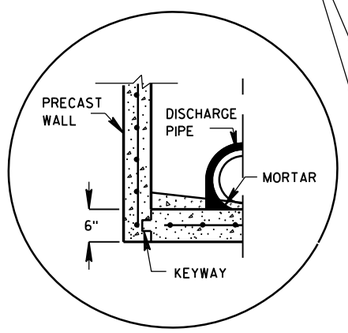


SECTION A-A

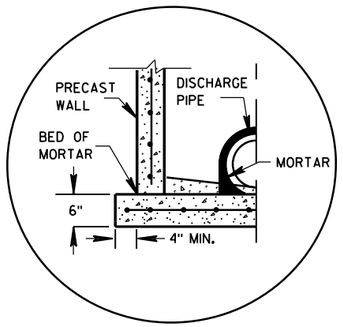
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

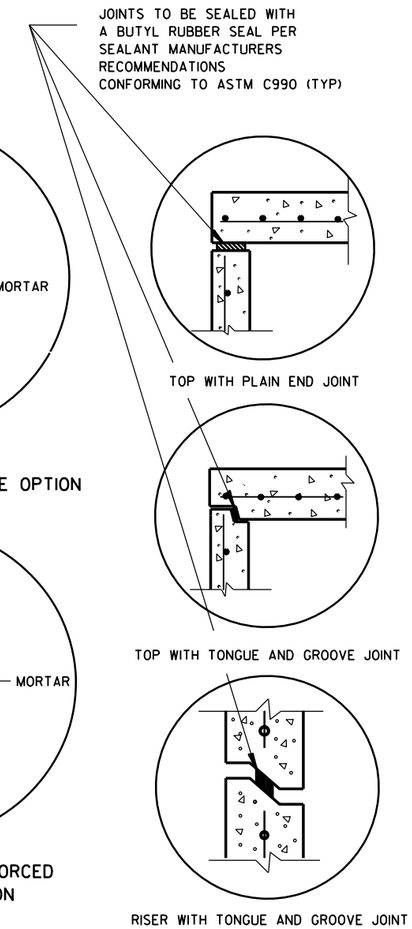


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

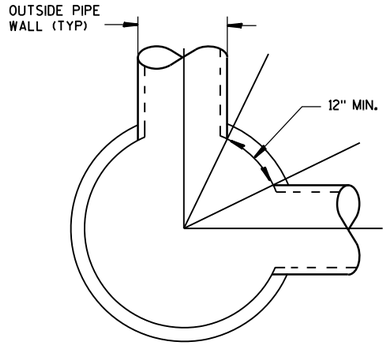
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
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APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
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S.D.D. 8 C 6-2

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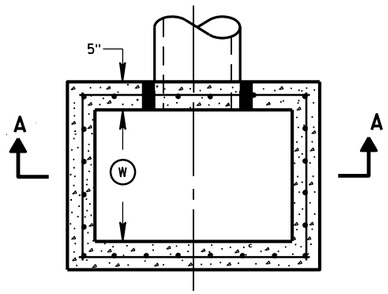
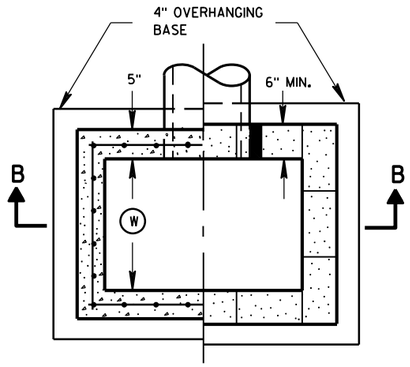
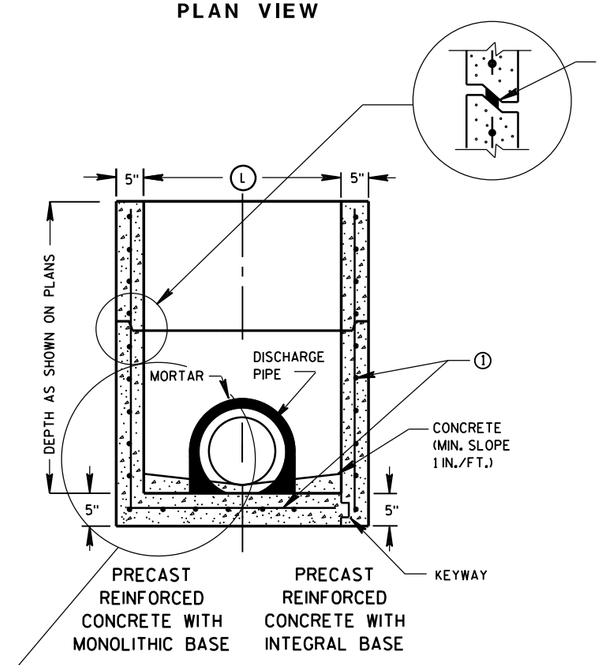
S.D.D. 8 C 6-2



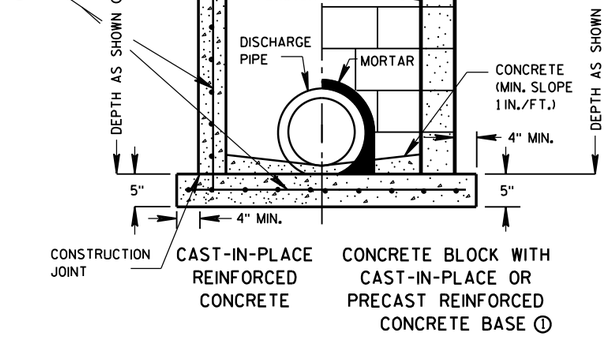
PLAN VIEW



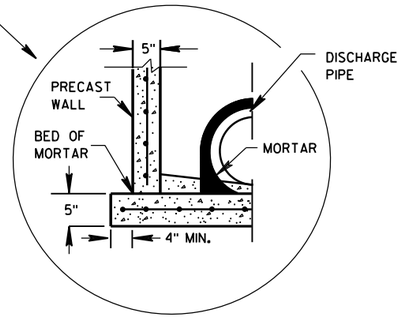
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

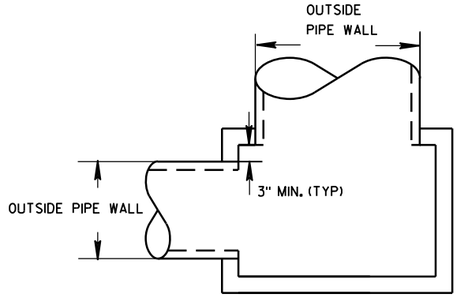
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
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ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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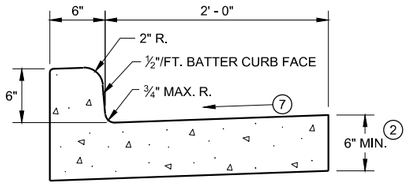
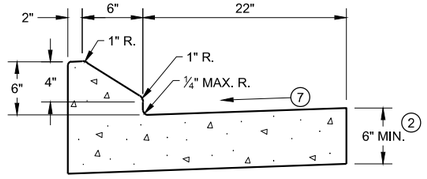
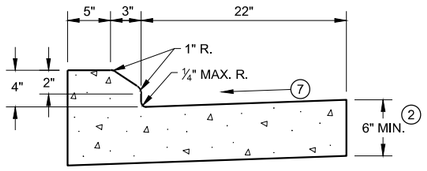


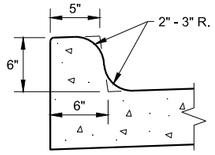
TYPES A (1) & D



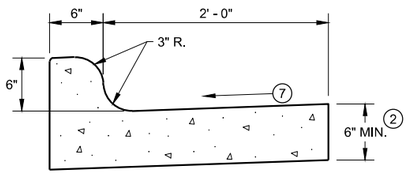
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

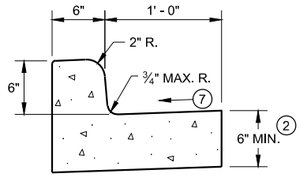


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



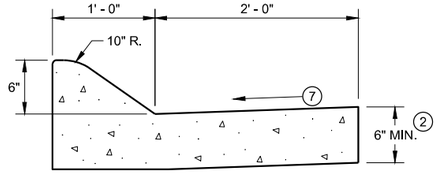
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

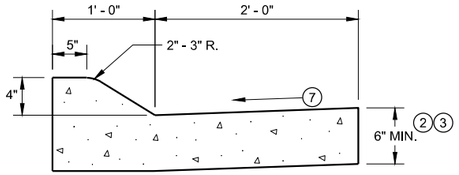


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

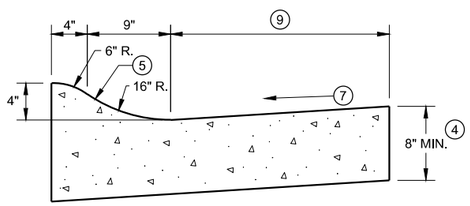


6" SLOPED CURB TYPES A (1) & D



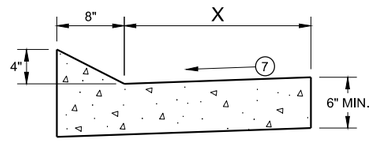
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

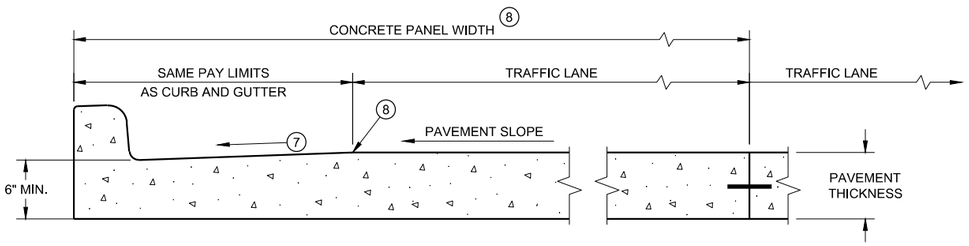


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

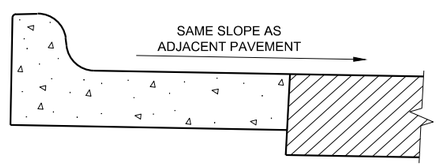
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D01 - 23a

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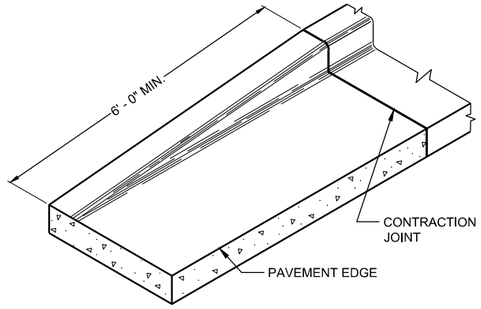
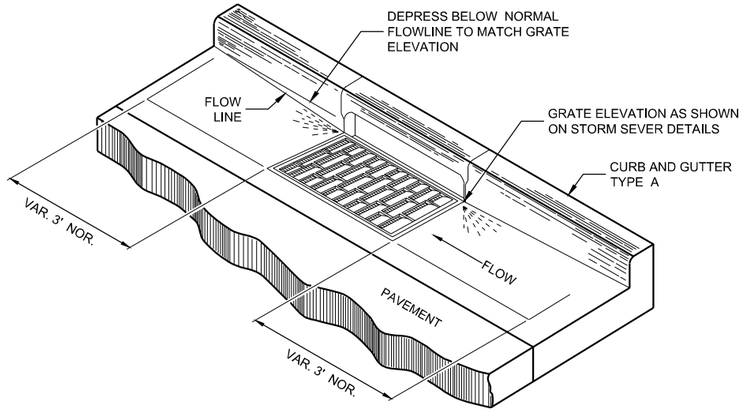
SDD 08D01 - 23a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

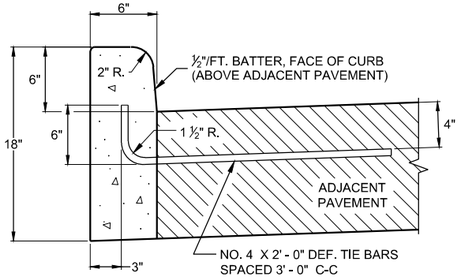
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

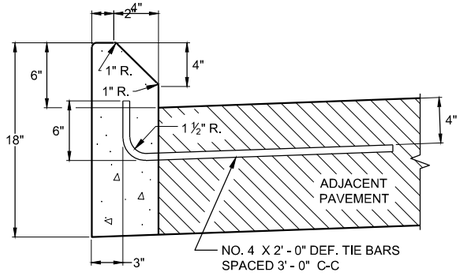
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

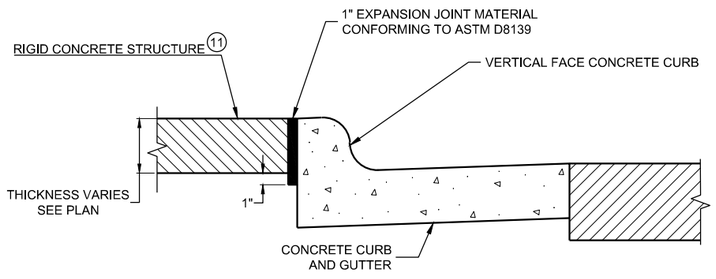


TYPES A (1) & D

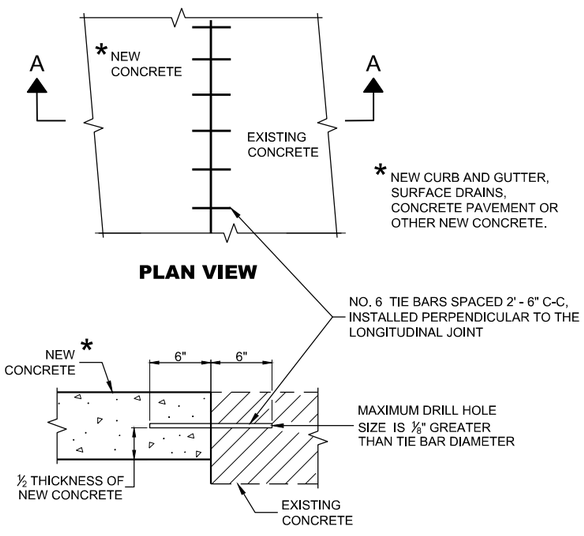


TYPES G (1) & J

CONCRETE CURB



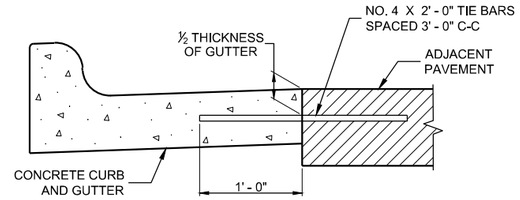
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



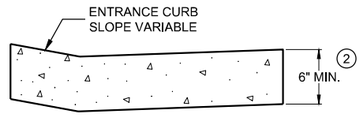
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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SDD08D01 - 23b

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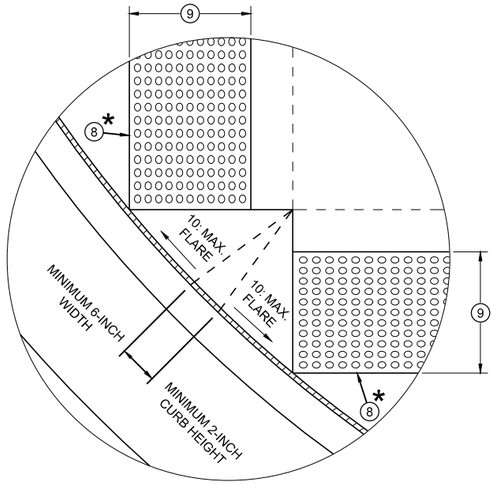
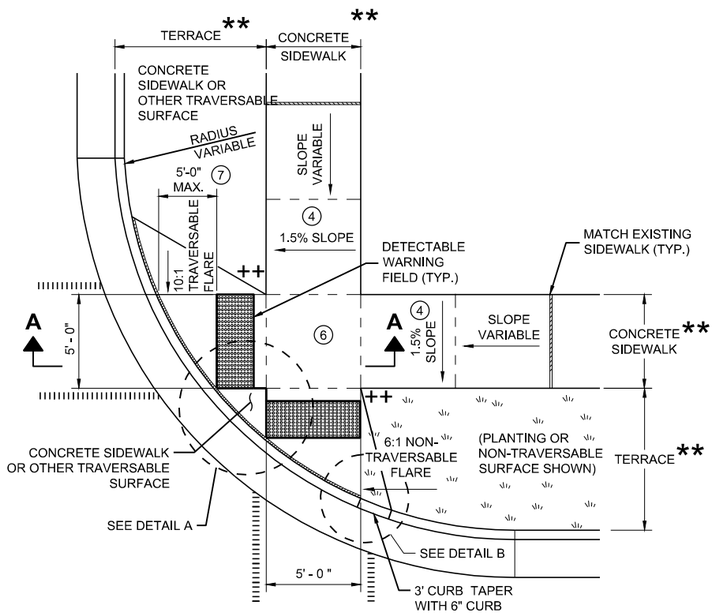
SDD08D01 - 23b



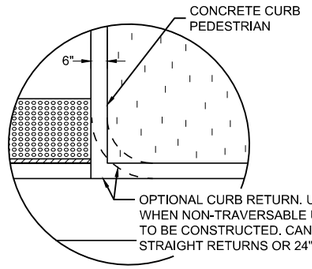
DETAIL A



PLAN VIEW

CURB RAMP TYPE 2

(CENTER OF CORNER RADIUS)



DETAIL B

PLAN VIEW

CURB RAMP TYPE 3

(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

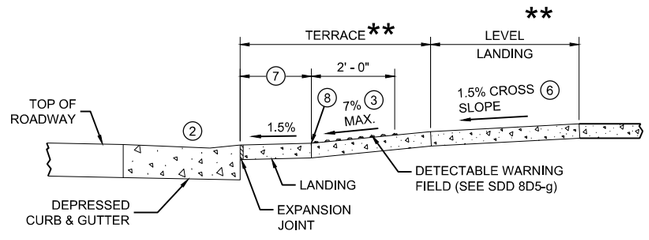
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

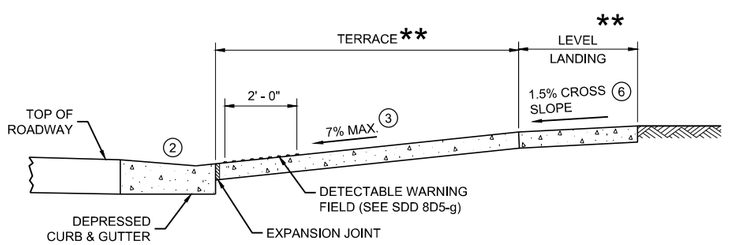


SECTION A - A FOR TYPE 2

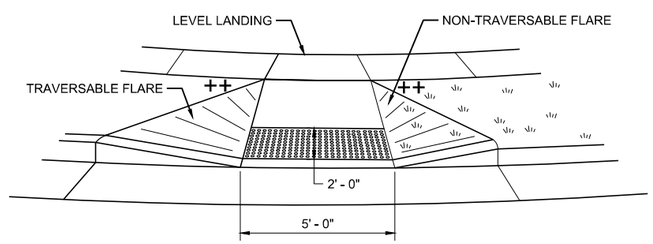
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

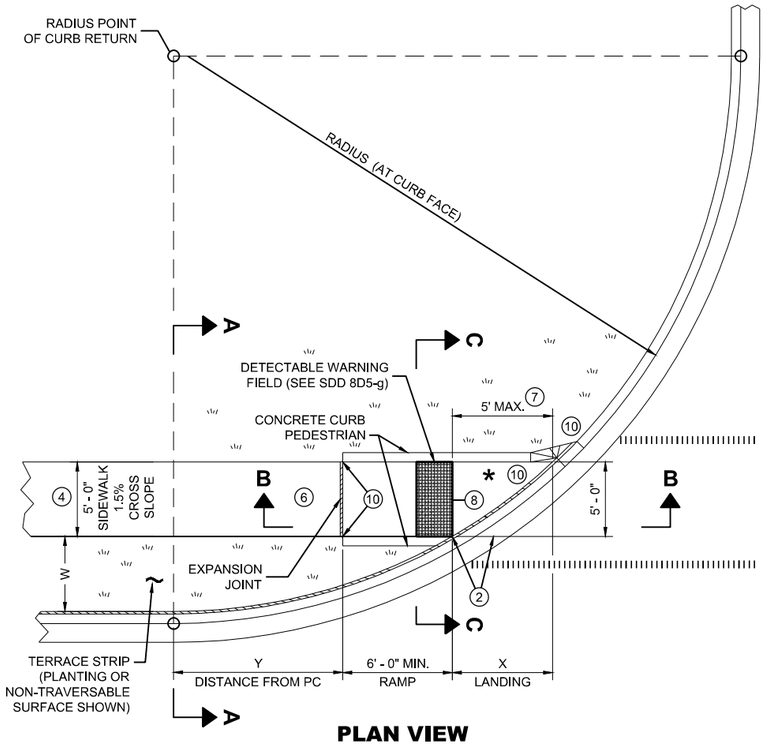
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05-21b



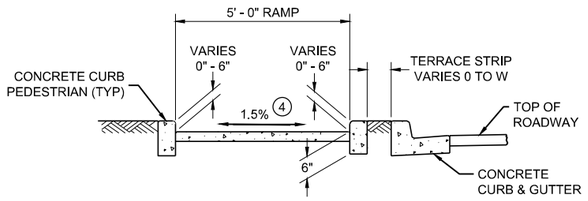
PLAN VIEW
CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/2"
20 FEET			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET															4' - 10 3/4"	19' - 8 1/4"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C - C FOR TYPE 4B

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

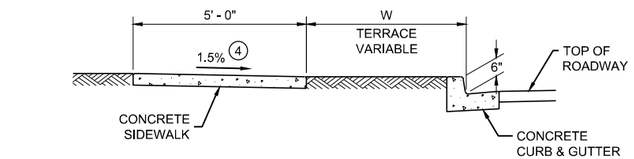
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

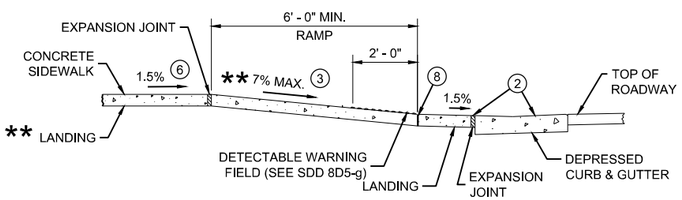
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



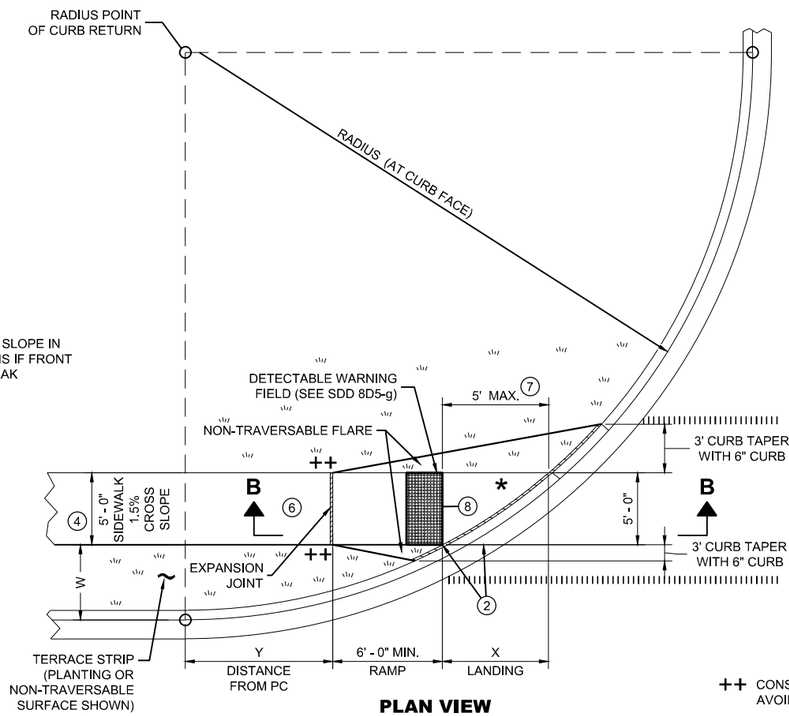
SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

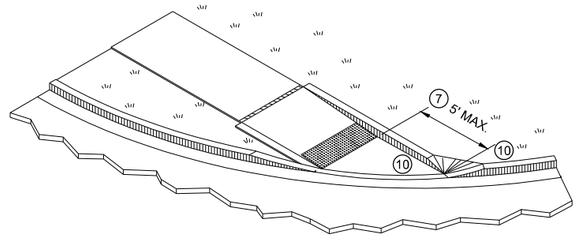
SECTION B - B FOR TYPE 4B AND TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

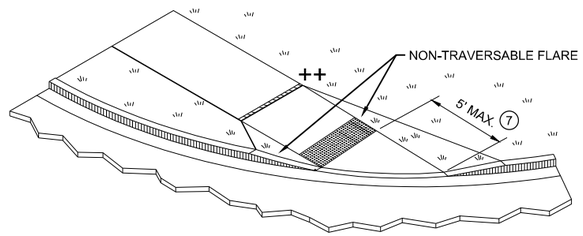


PLAN VIEW
CURB RAMP TYPE 4B1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

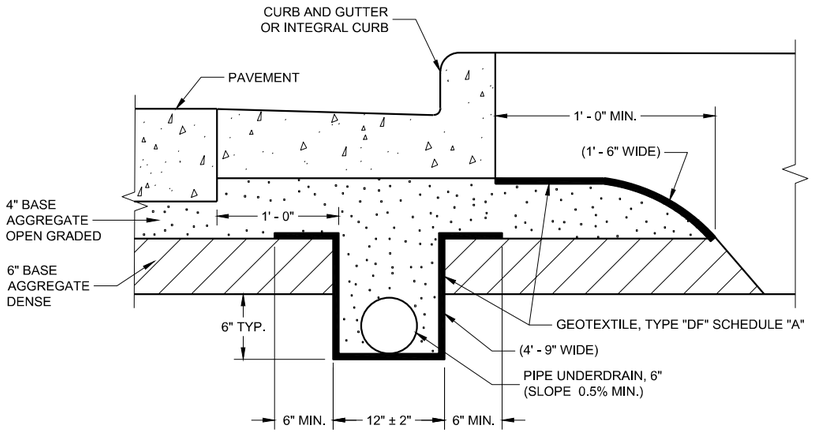
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05-21d

SDD 08D15-b Edgedrain and Base Aggregate Open Graded



EDGEDRAIN IN URBAN ROADWAY

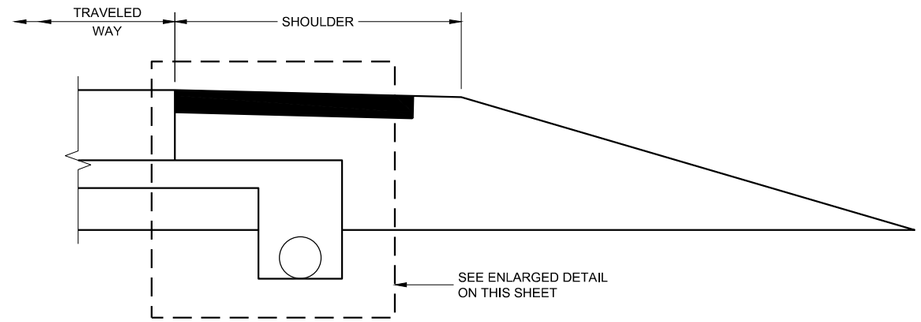
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

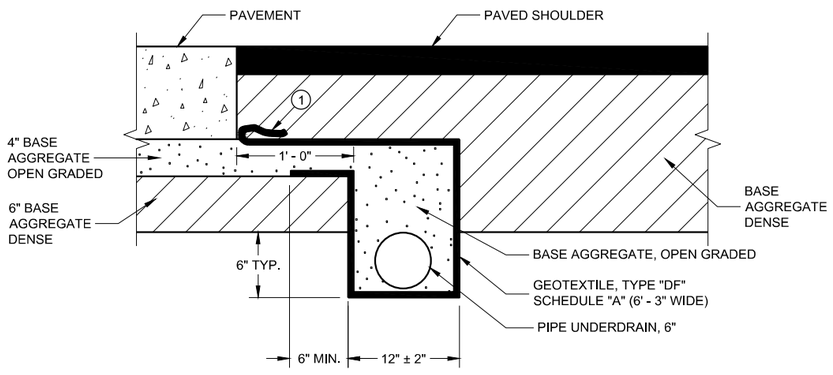
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

(1) FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.

(2) TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.

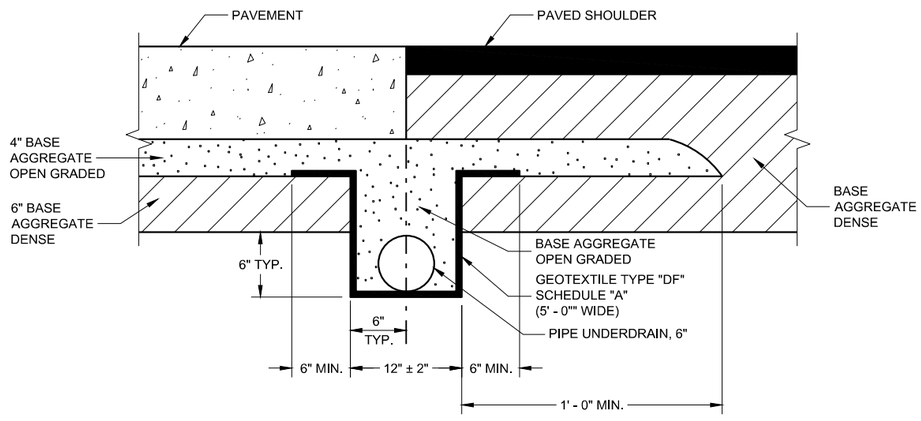


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EGEDRAIN AND BASE AGGREGATE OPEN GRADED

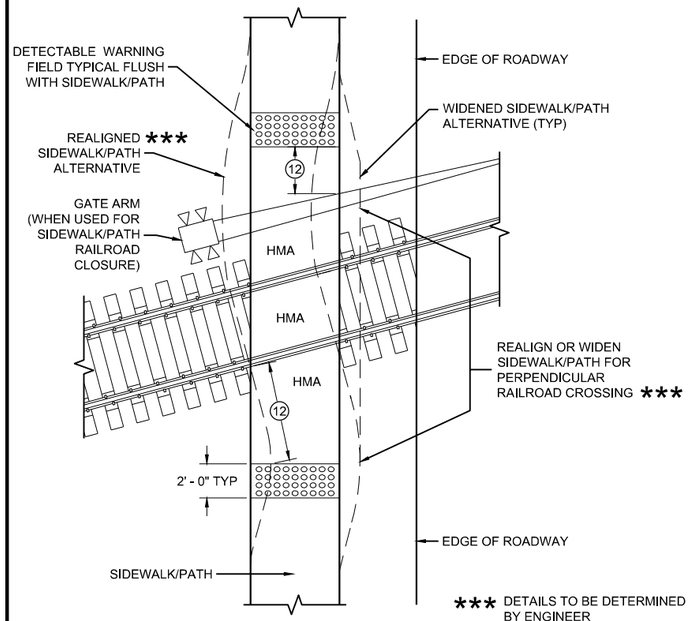
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D15 - 05b

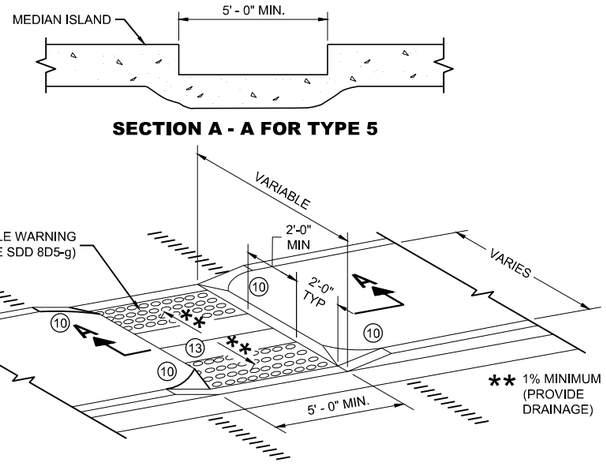
6

SDD 08D15 - 05b



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

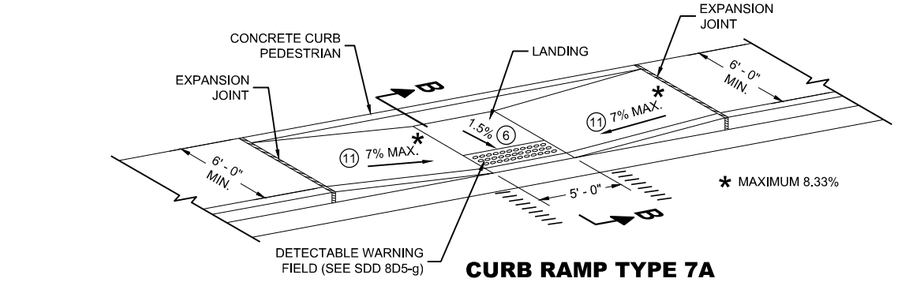
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

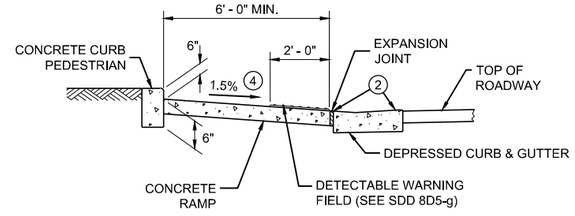
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

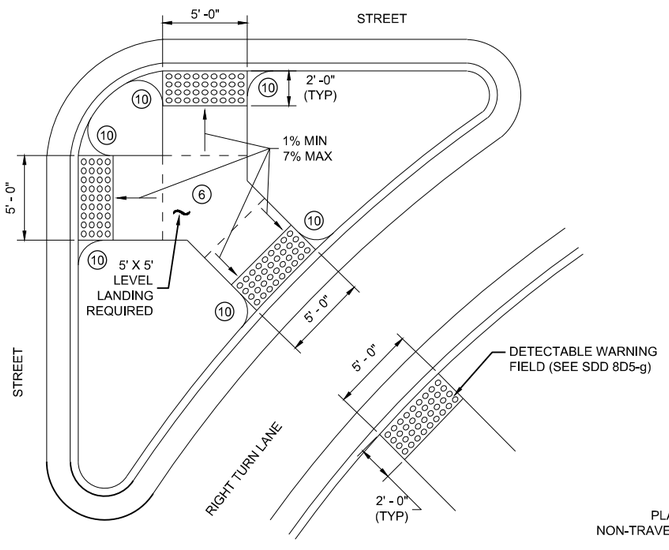


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



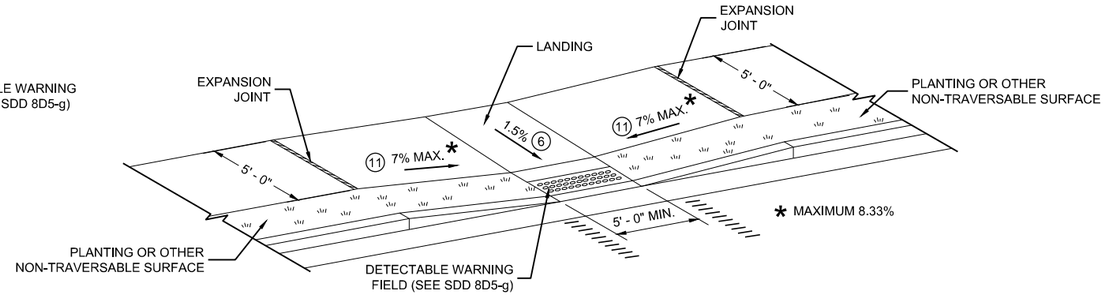
SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

CURB RAMPS TYPE 5, 6, 7A, 7B & 8

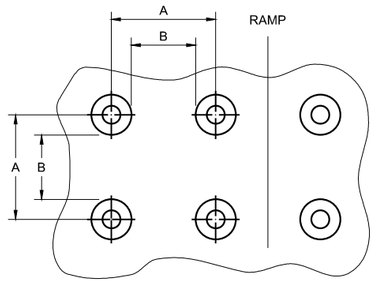
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05-21e

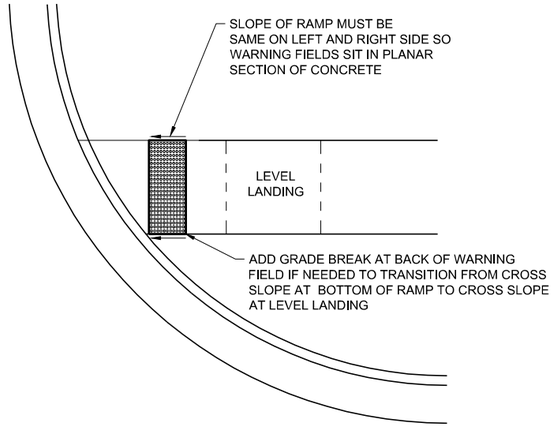
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW

ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

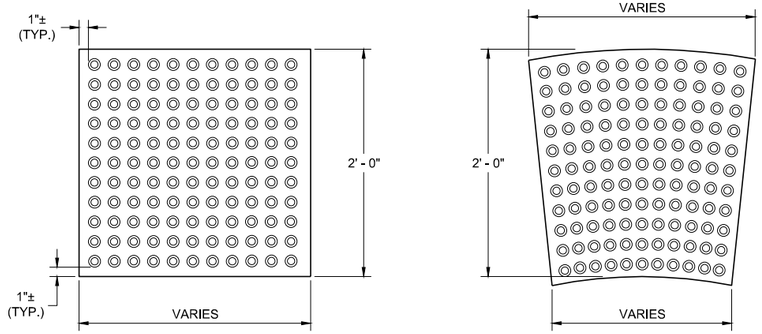
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

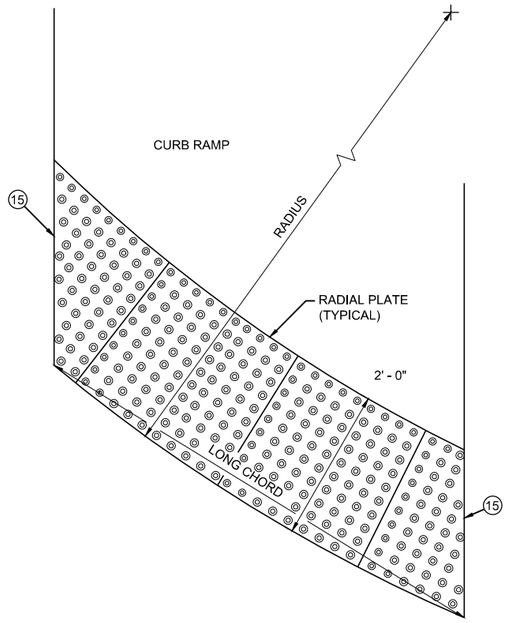
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



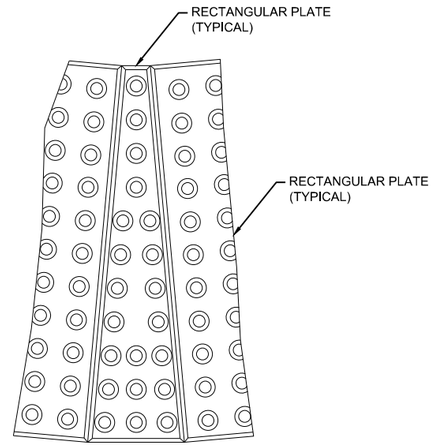
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

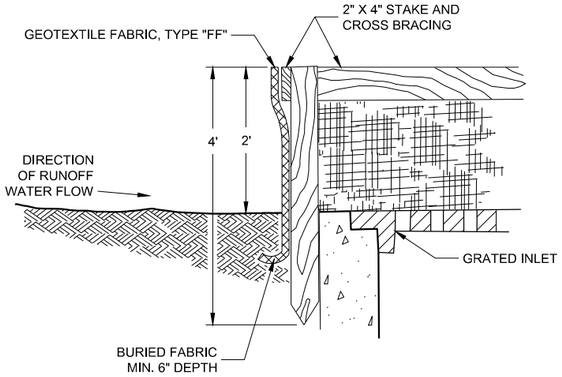
6

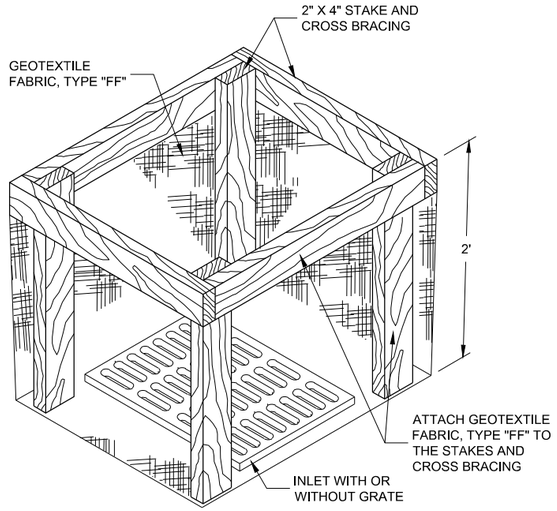
SDD 08D05-21g

6

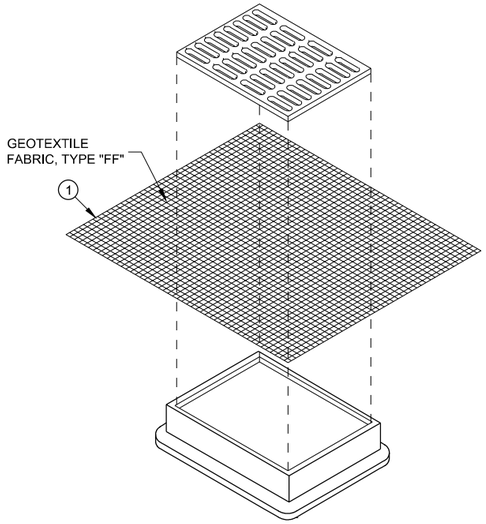
SDD 08D05-21g

SDD 08E10 Inlet Protection, Types A, B, C and D



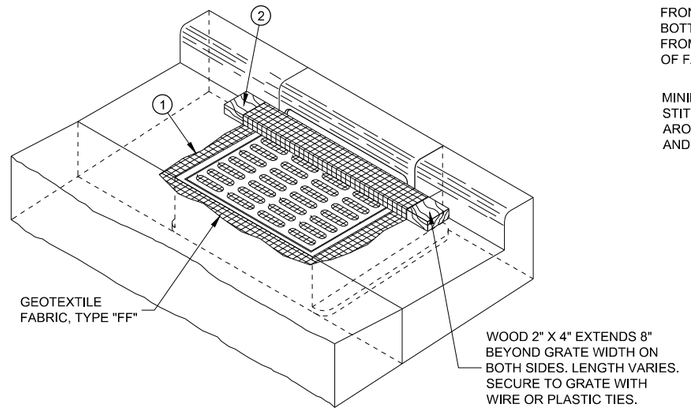


INLET PROTECTION, TYPE "A"

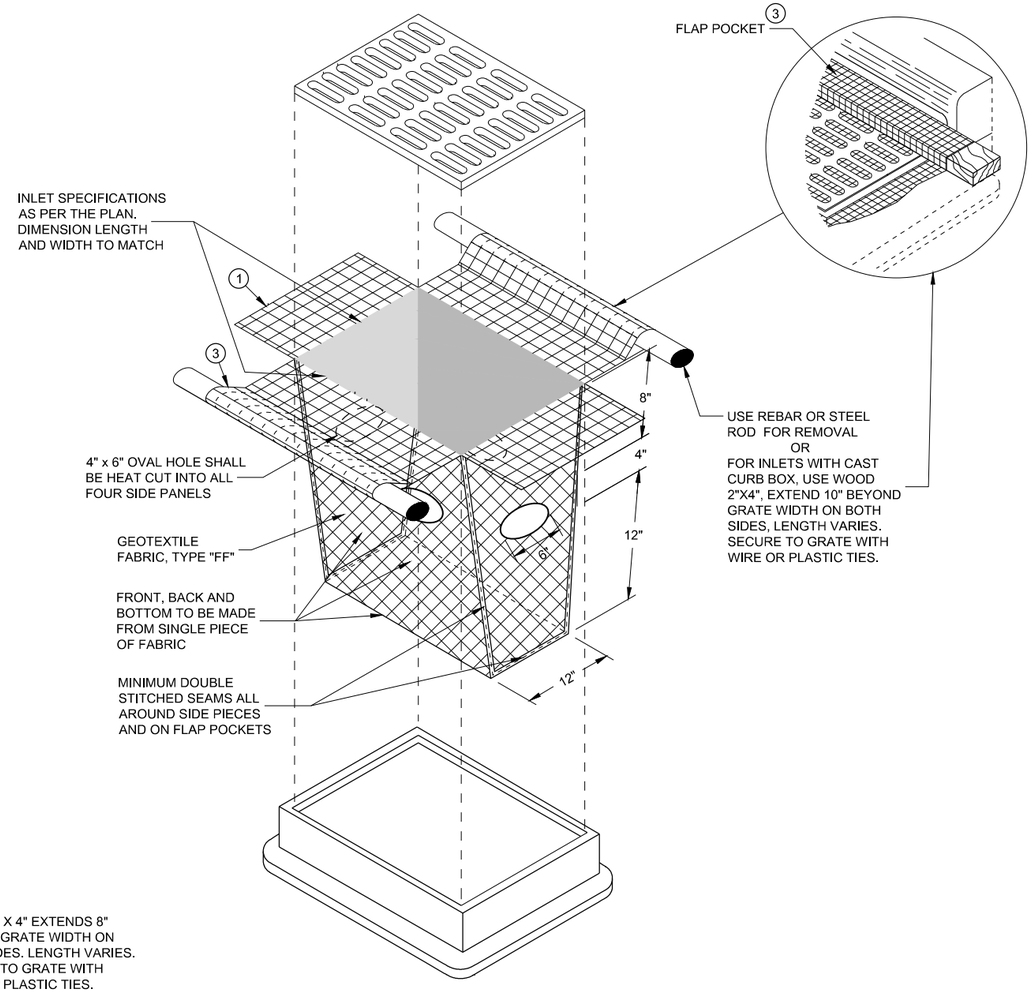


INLET PROTECTION, TYPE "B" (WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE "C" (WITH CURB BOX)



INLET PROTECTION, TYPE "D"

(CAN BE INSTALLED IN ANY INLET WITH OR WITHOUTA CURB BOX AS PER NOTE (2))

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

(1) FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

(2) FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

(3) FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPES B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION TYPES A, B, C AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 — DATE
/S/ Beth Cannestra — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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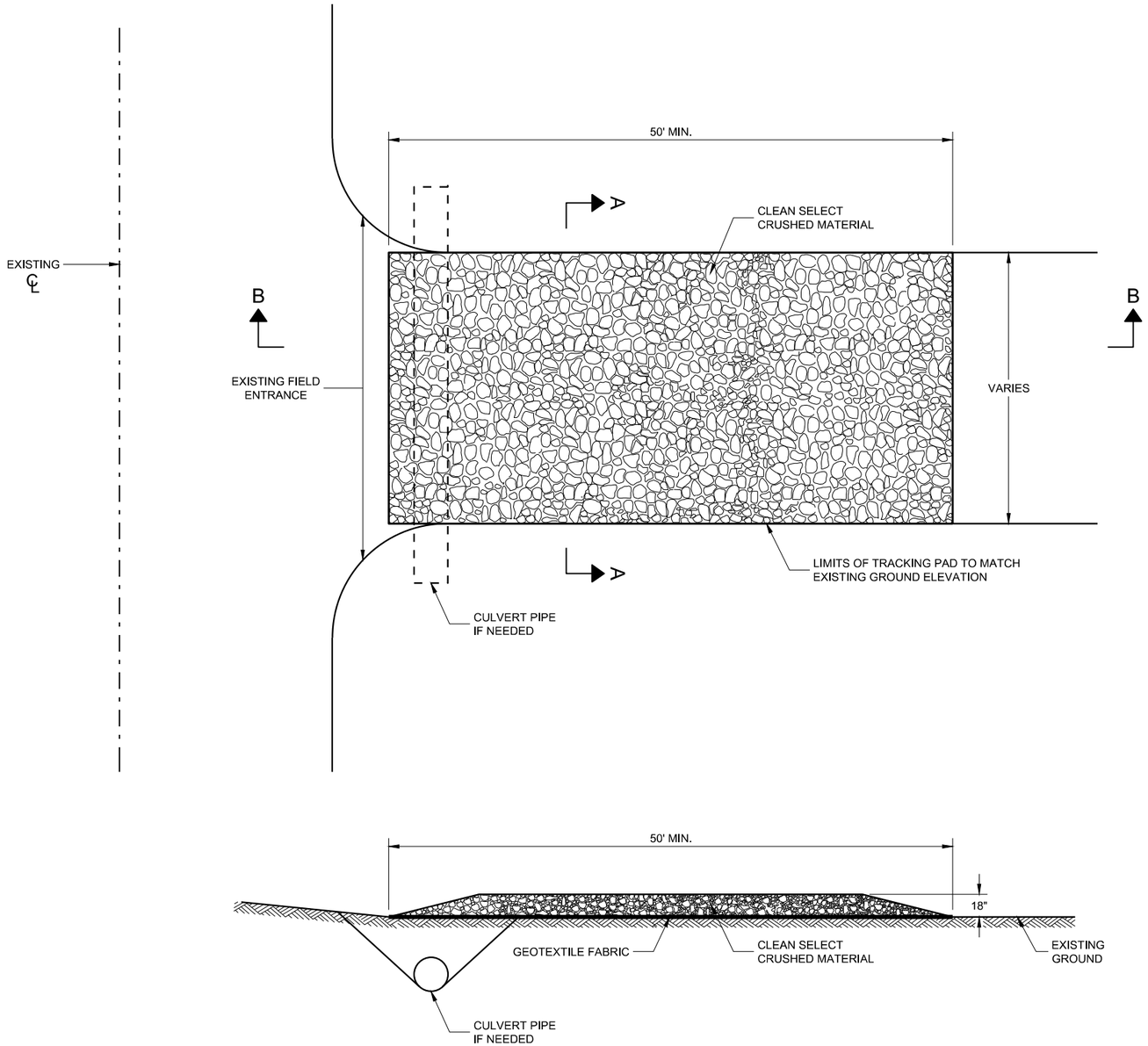
SDD 08E10 - 02



SECTION B - B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

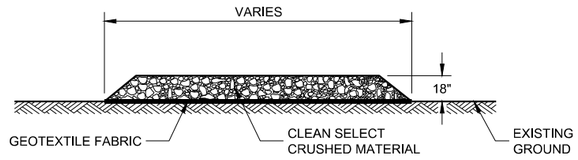
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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SDD 08E14 - 01

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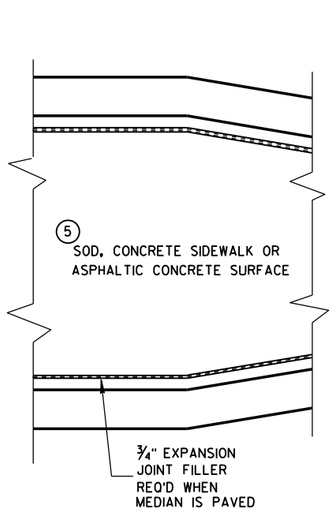
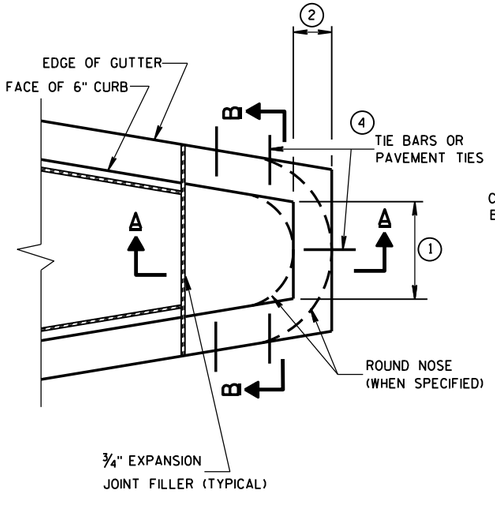
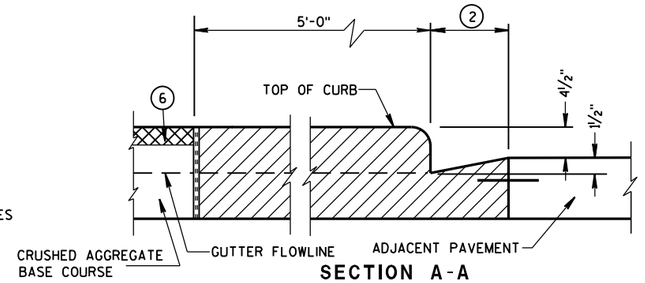
SDD 08E14 - 01

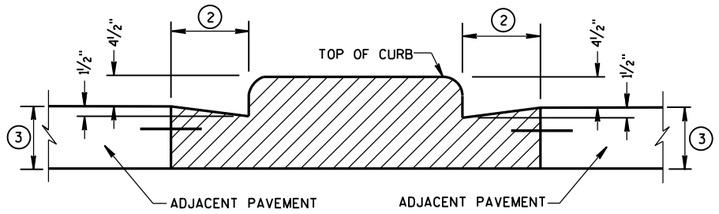
SDD 11B2 Concrete Median Nose







SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

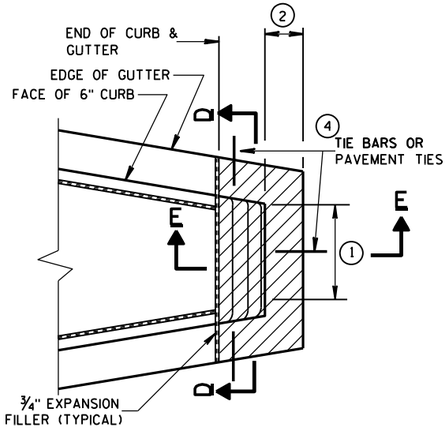
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

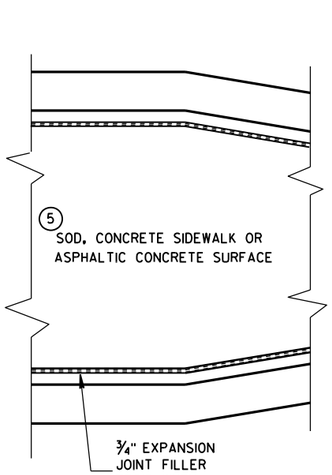
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

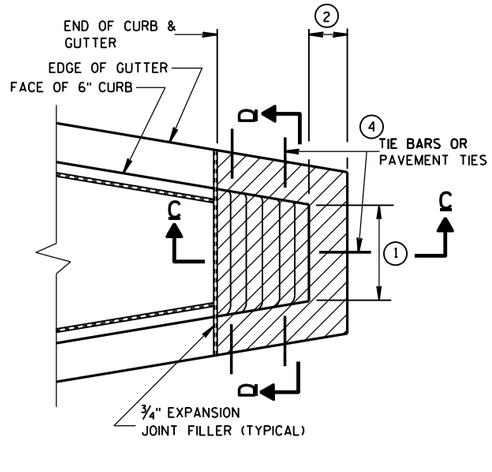
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

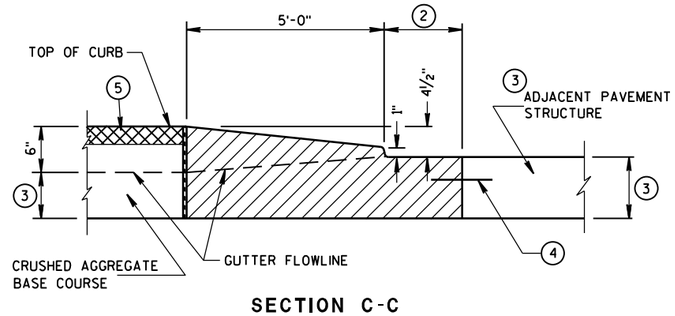
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



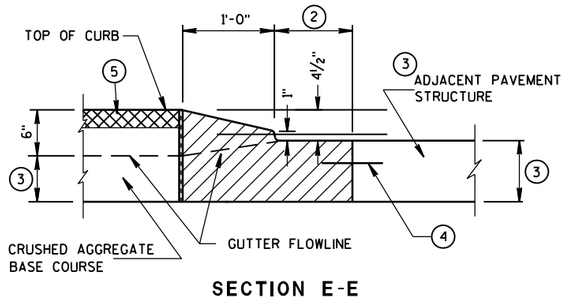




CONCRETE MEDIAN SLOPED NOSE TYPE 1

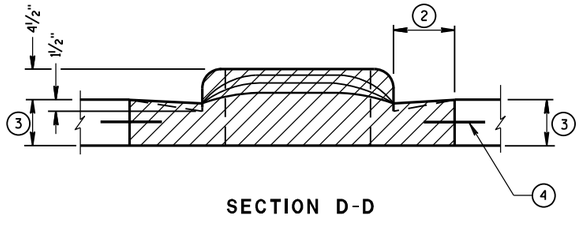


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-8-2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 11 B 2-2

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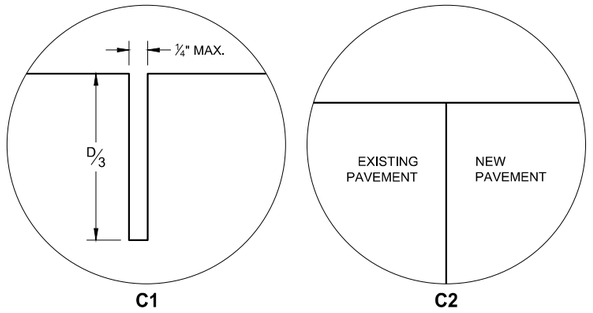
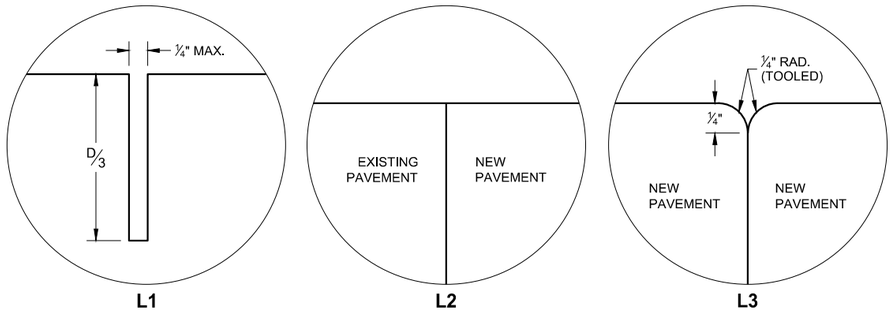
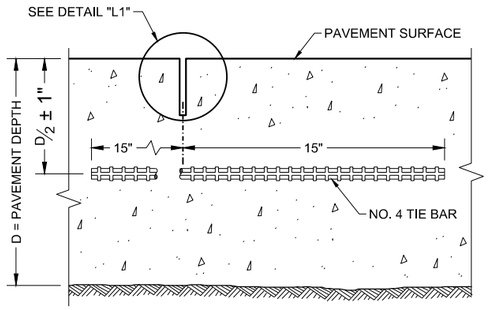
S.D.D. 11 B 2-2



TRANSVERSE JOINTS

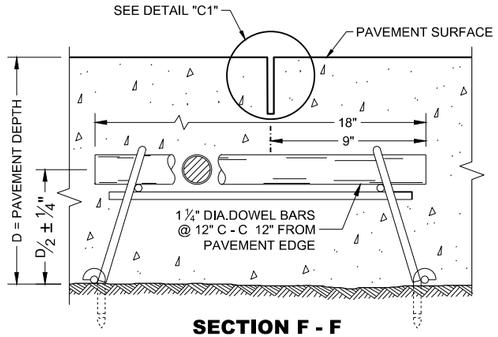


LONGITUDINAL JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

CONTRACTION JOINT

GENERAL NOTES

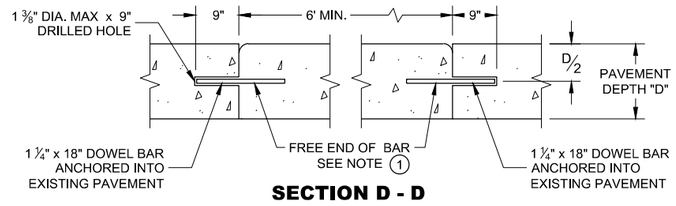
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

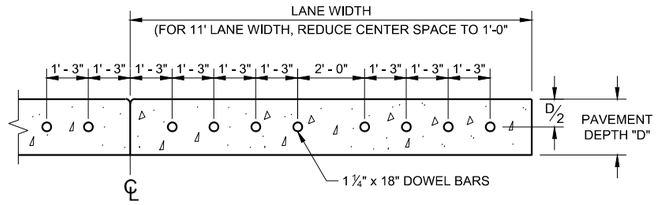
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT O EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

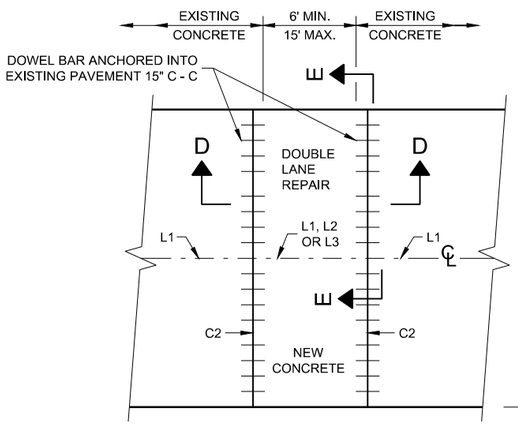


SECTION D - D



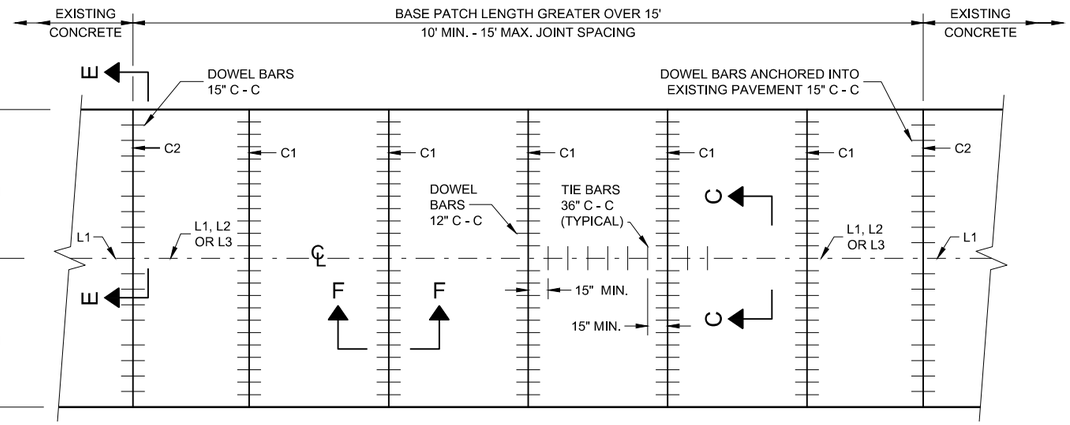
SECTION E - E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

MULTILANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



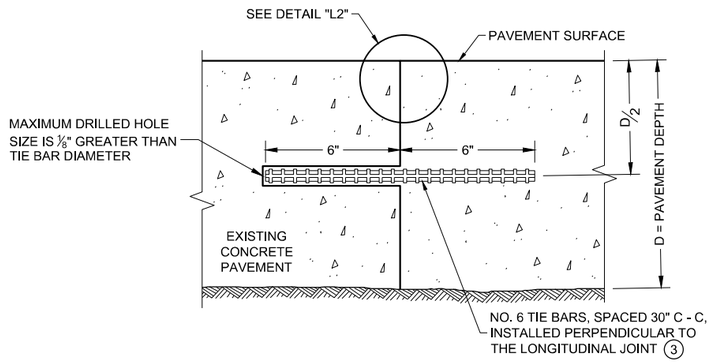
PLAN VIEW

MULTILANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13C14 - 07b

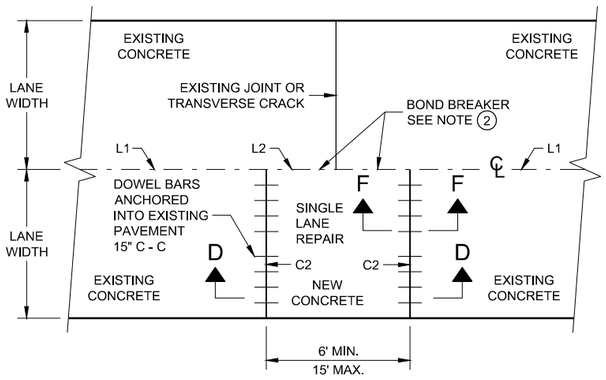


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

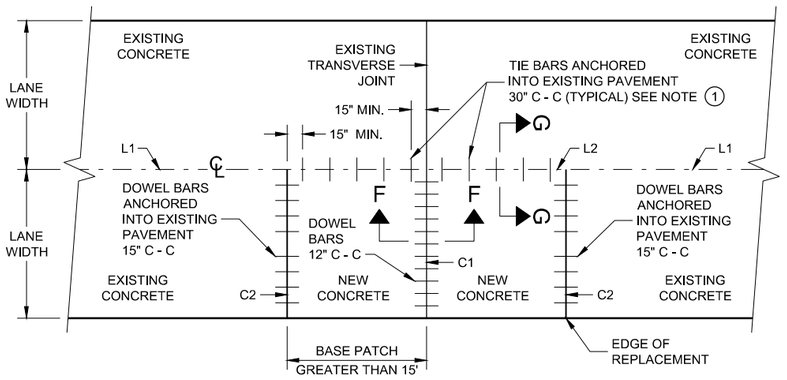
GENERAL NOTES

1. WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
2. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
3. ANCHOR TIE BARS INTO DRILLED HOES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH
GREATER THAN 15' LENGTH

BASE PATCHING CONCRETE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/S/ Peter Kemp P.E. PAVEMENT SUPERVISOR
FHWA	

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SDD 13C14 - 07c

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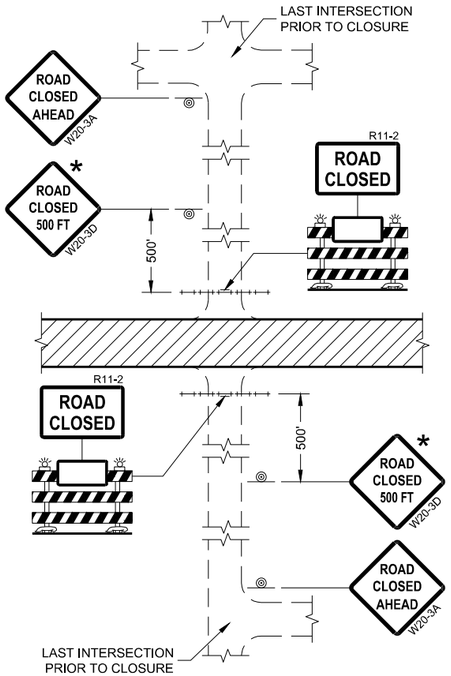
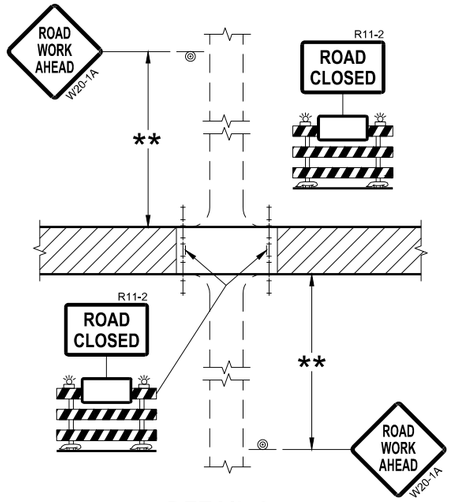
SDD 13C14 - 07c



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

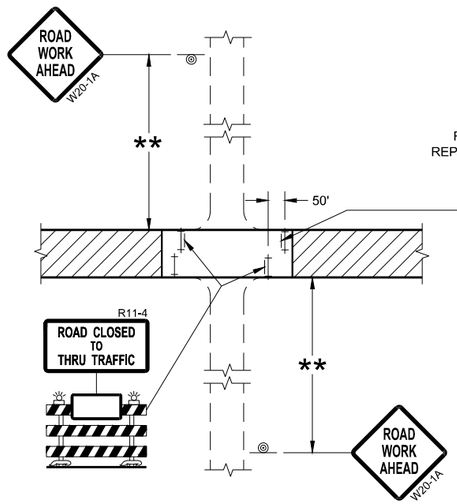
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

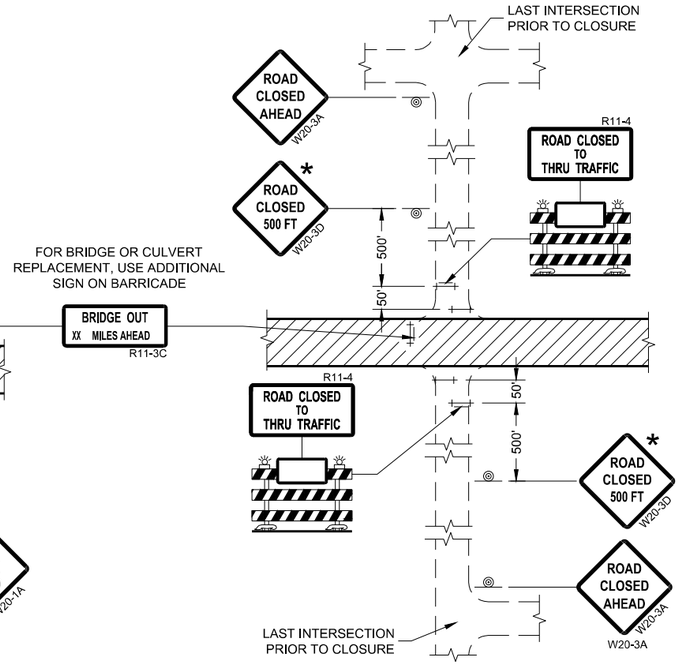
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15C03 - 05

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

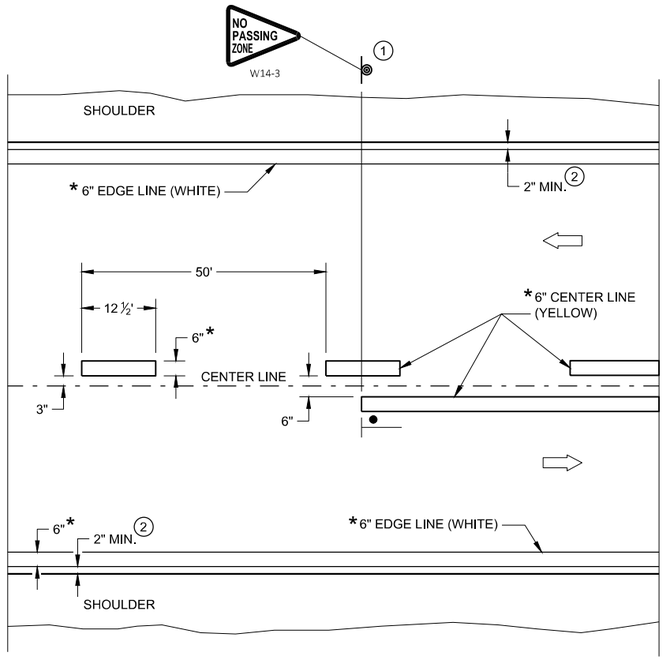
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

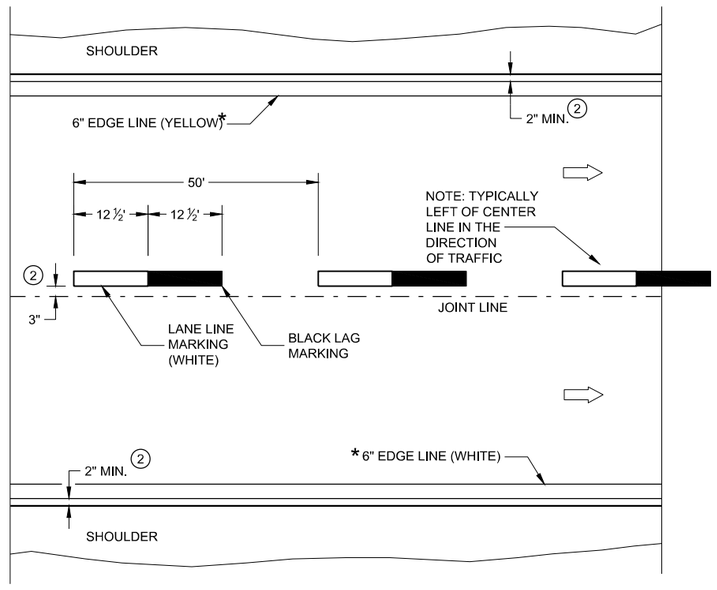
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

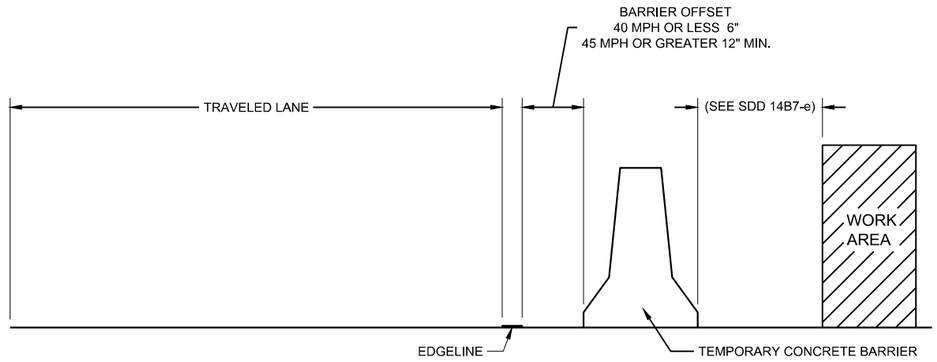
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



TEMPORARY BARRIER OFFSET FROM EDGELINE

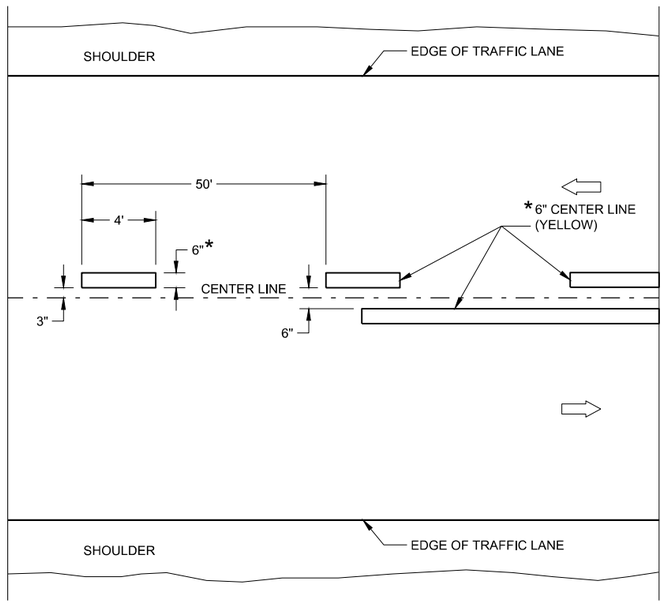
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

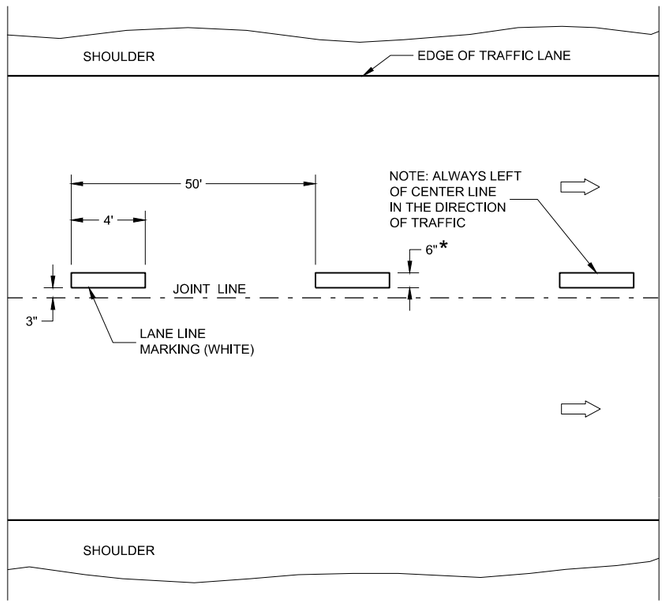
LEGEND

⇨ DIRECTION OF TRAFFIC

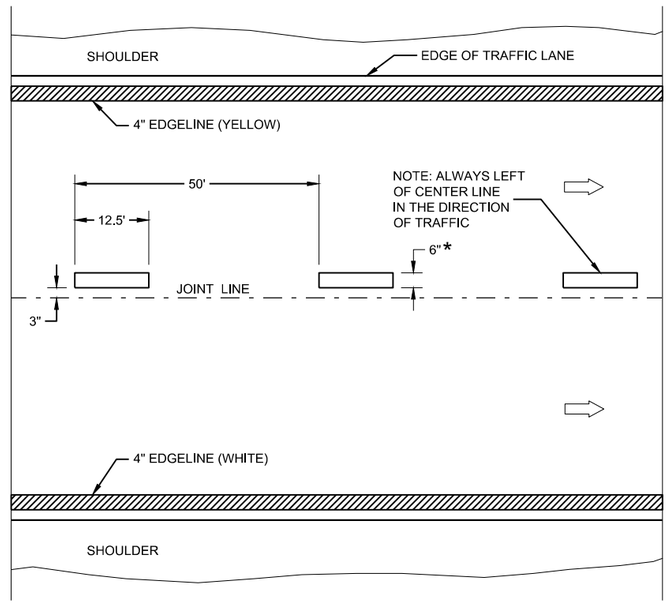
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
May 2023 DATE	/S/ Jeannie Silver STATEWIDE SIGNING AND MARKING ENGINEER
FHWA	

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SDD 15C08-23b

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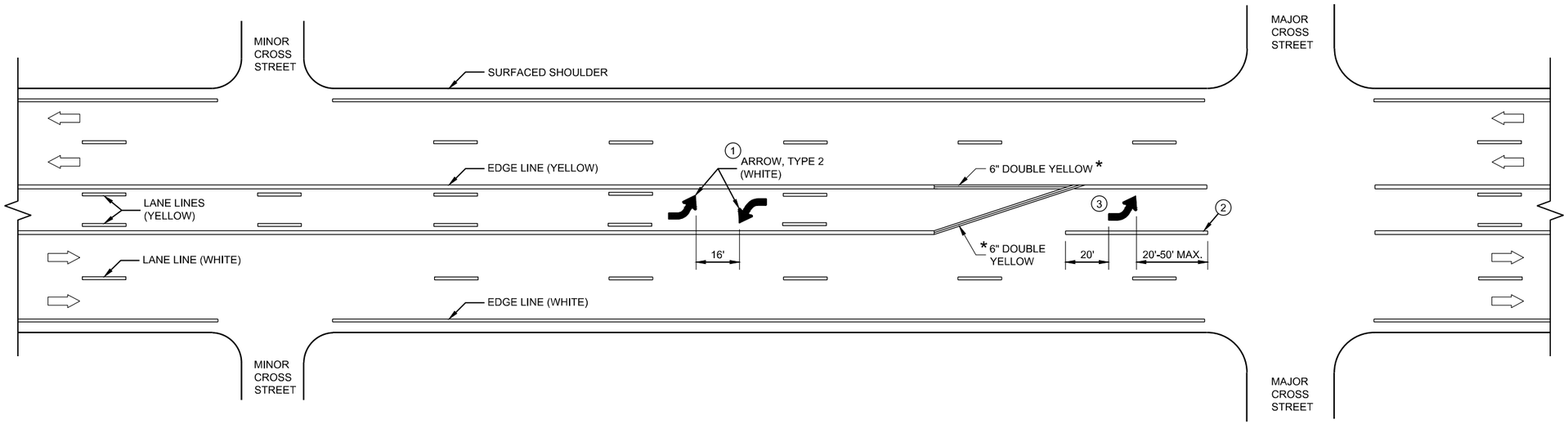
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

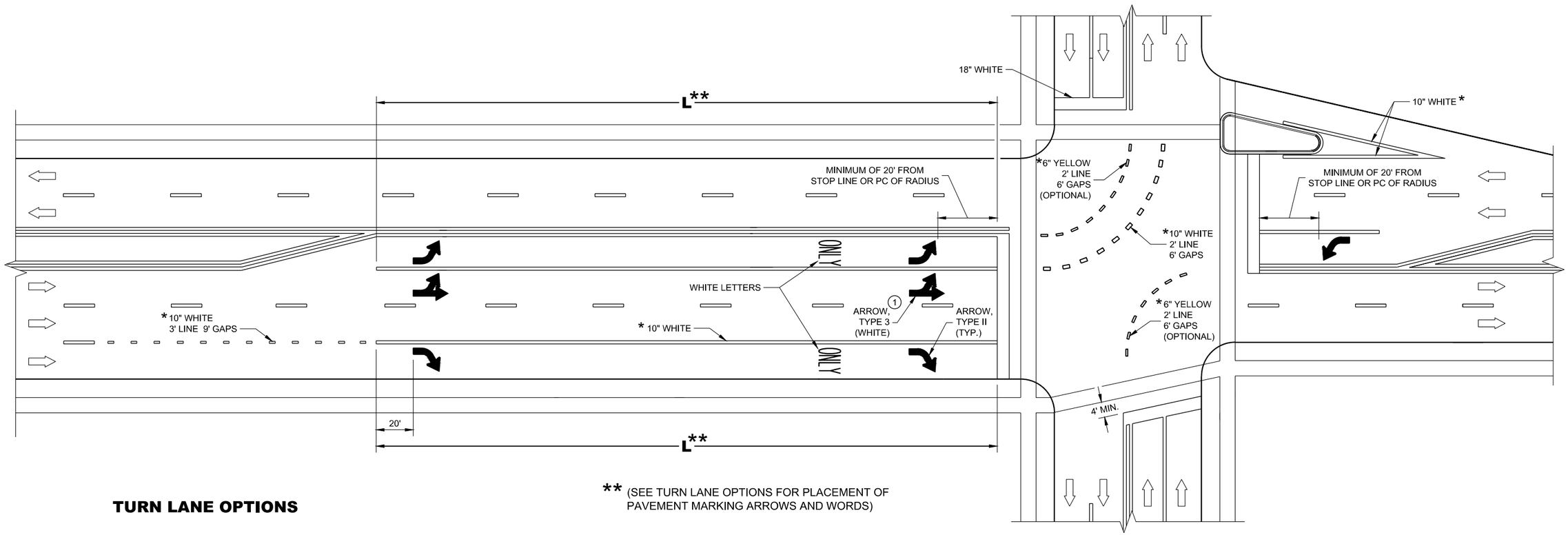


TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

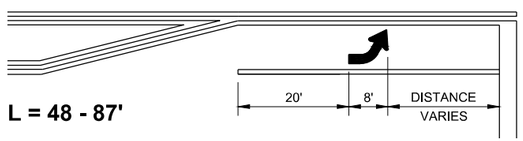
SDD 15C08-23c



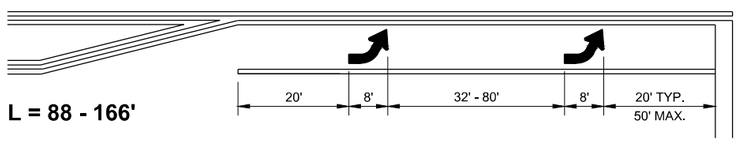
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

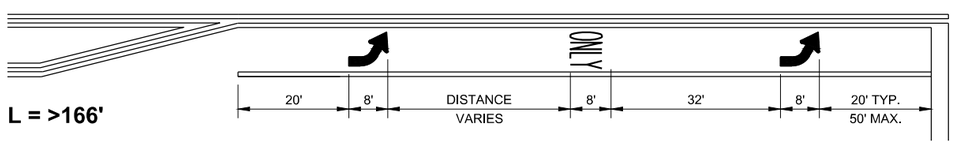
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

(1) QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

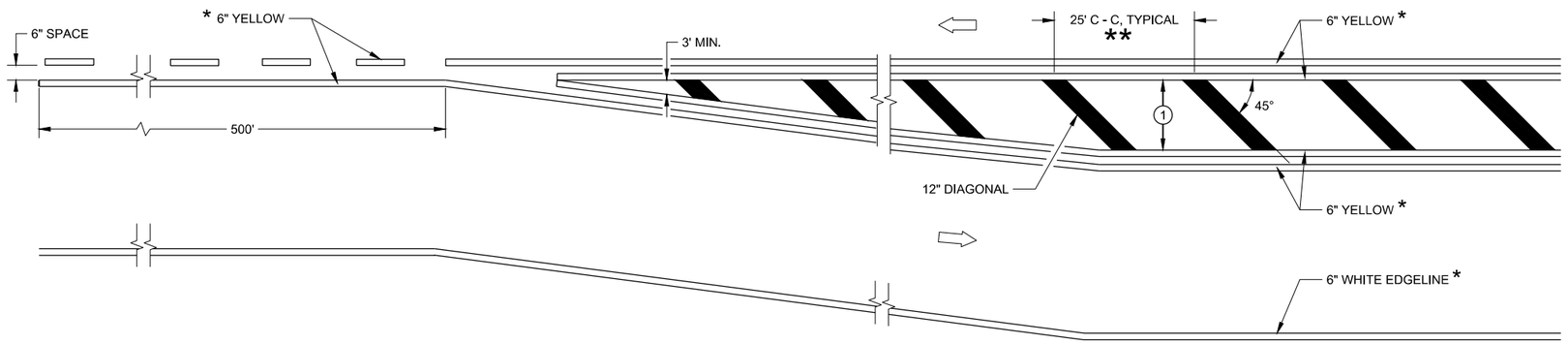
⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



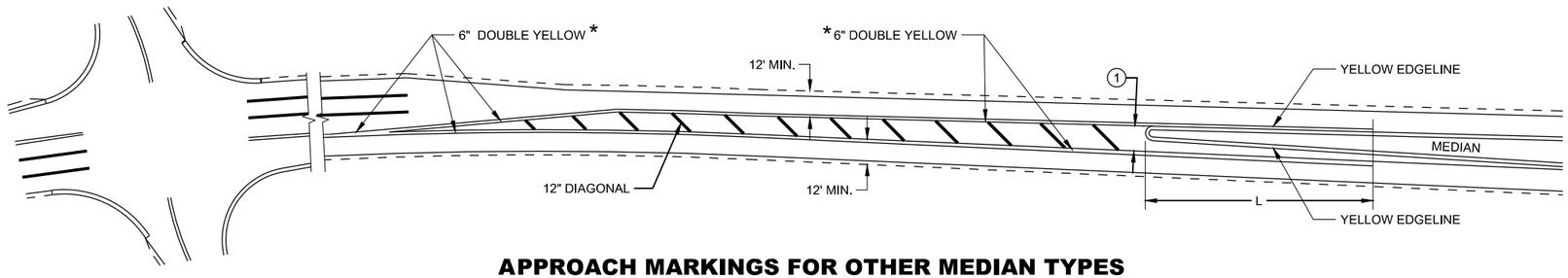
MEDIAN ISLAND DETAIL

GENERAL NOTES

(1) DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

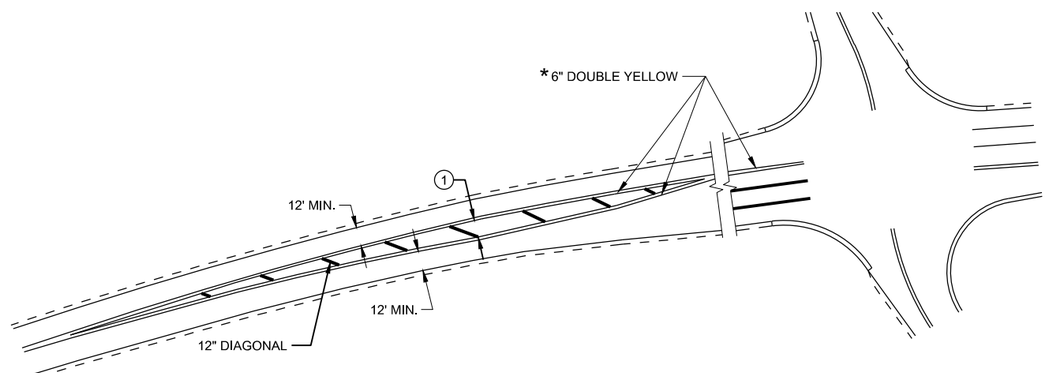
⇨ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'

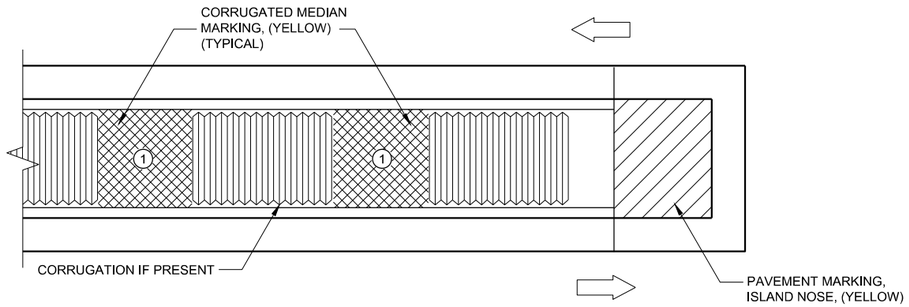


NON-APPROACH MARKINGS

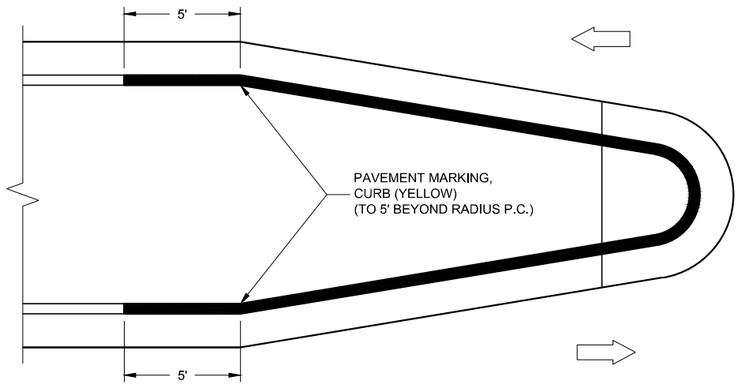
MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

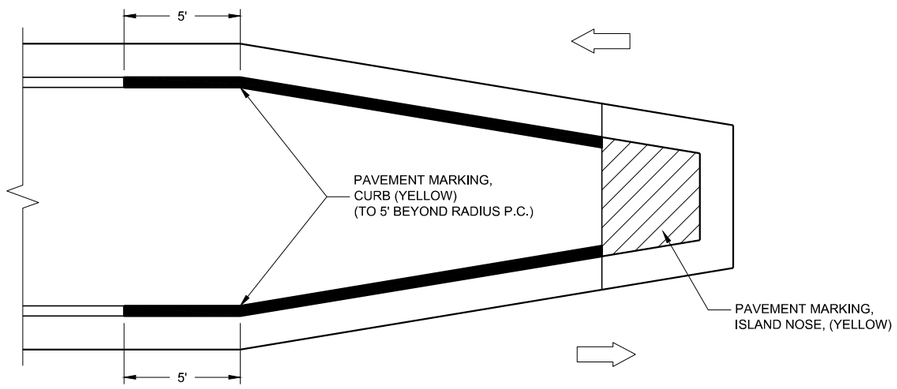
APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATE SIGNING & MARKING ENGINEER
FHWA



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Jeannie Silver
STATE SIGN AND MARKING ENGINEER

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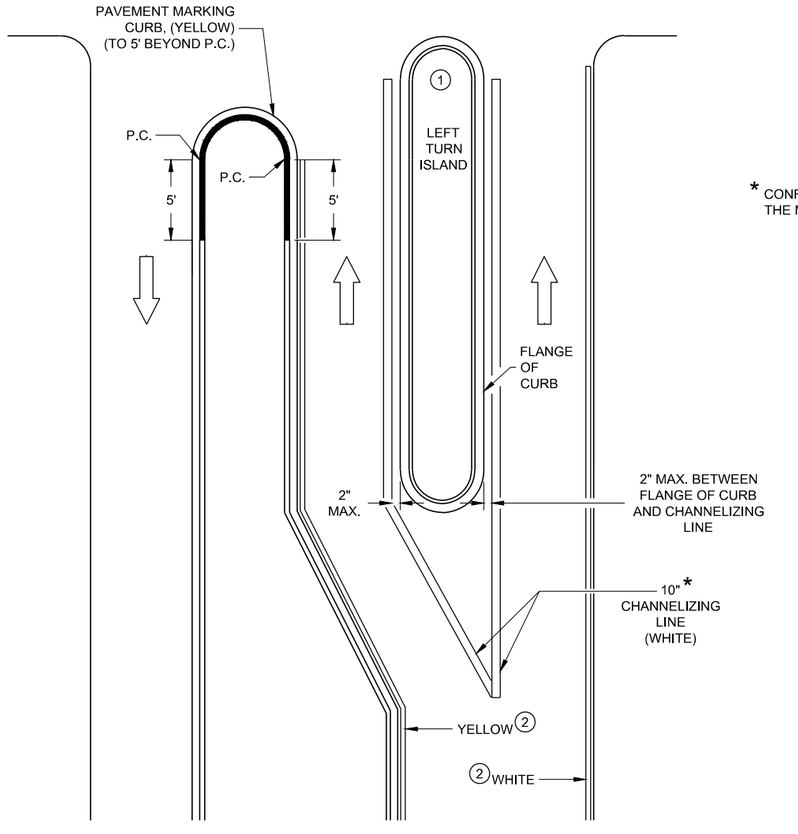
SDD 15C18-08b

SDD 15C18-08b

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEFT TURN & MEDIAN ISLAND

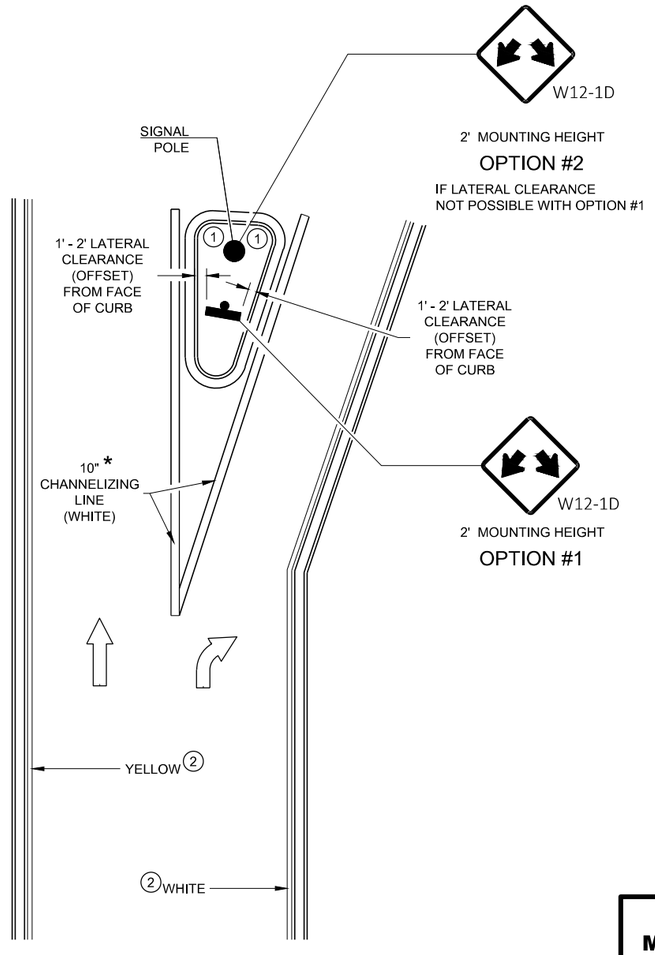
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATE SIGNING & MARKING ENGINEER

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SDD 15C18-08c

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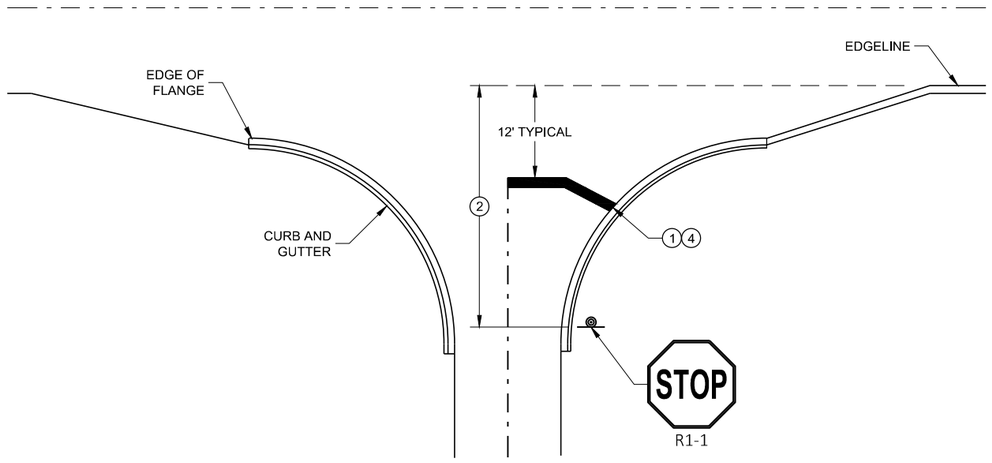
SDD 15C18-08c

SDD 15C33 Stop Line and Crosswalk Pavement Marking

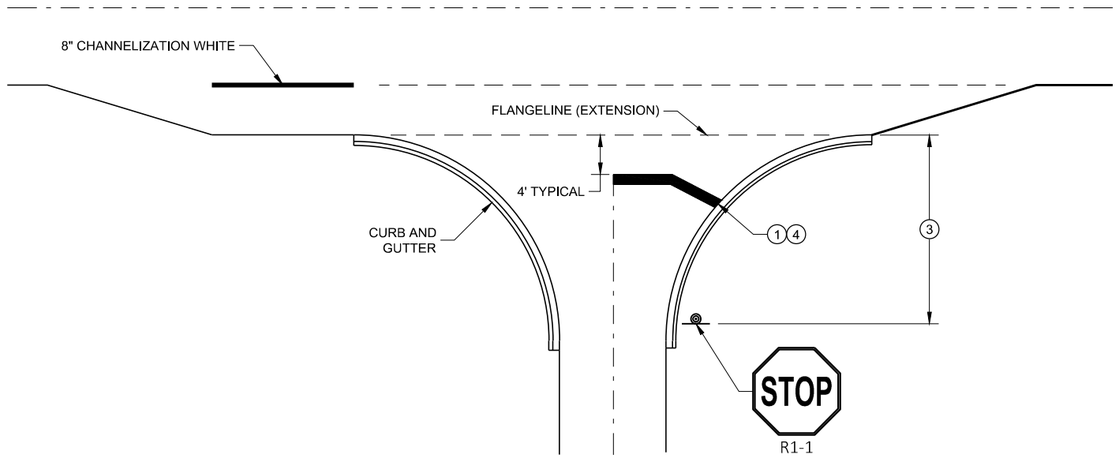
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

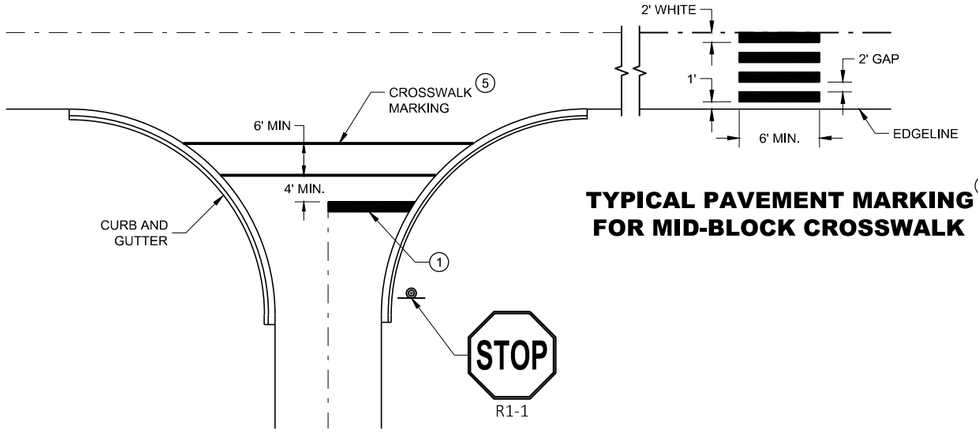
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

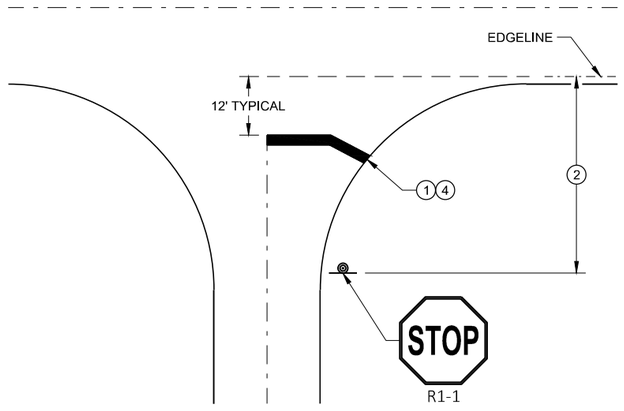


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING 5 FOR MID-BLOCK CROSSWALK

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C33 - 04

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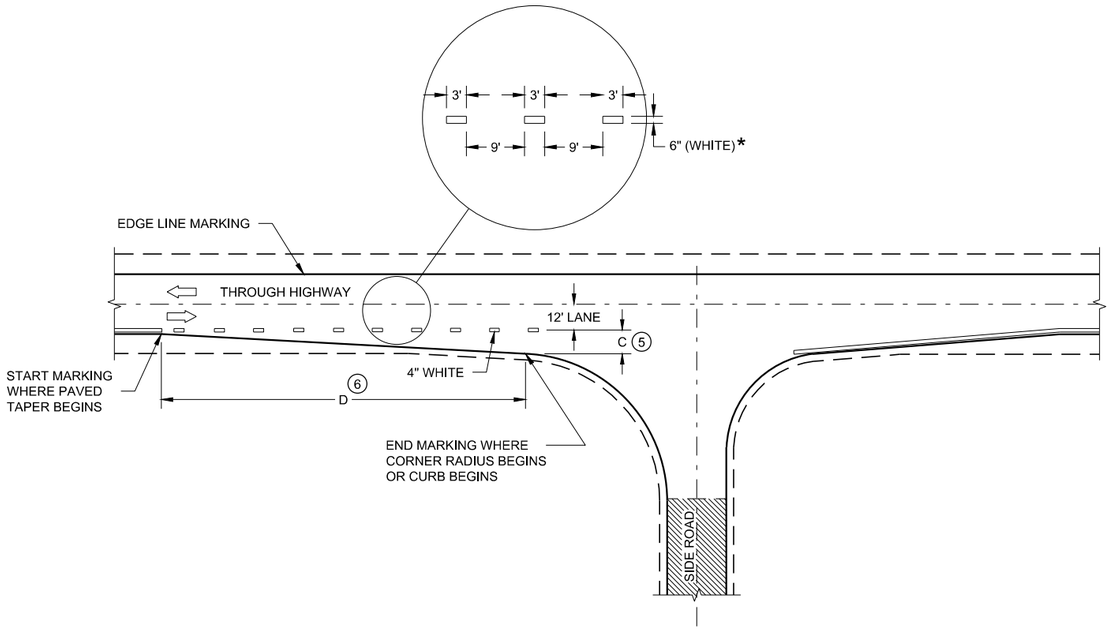
SDD 15C33 - 04



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

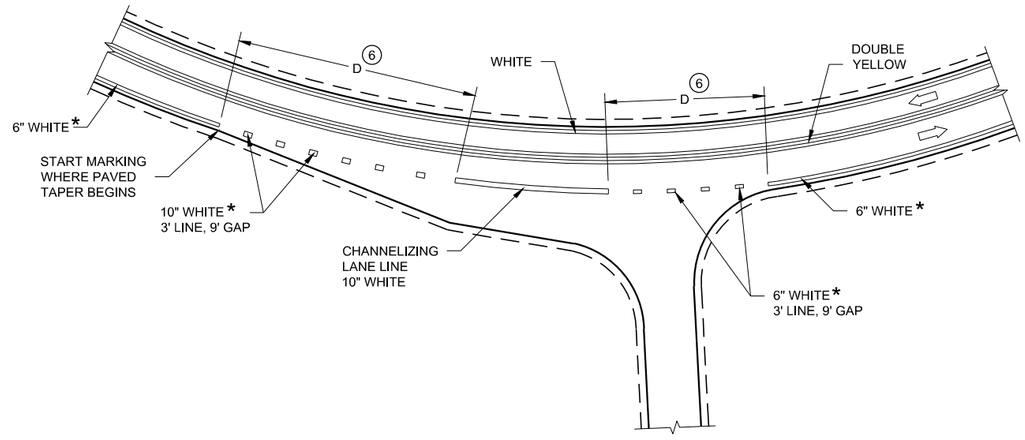
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

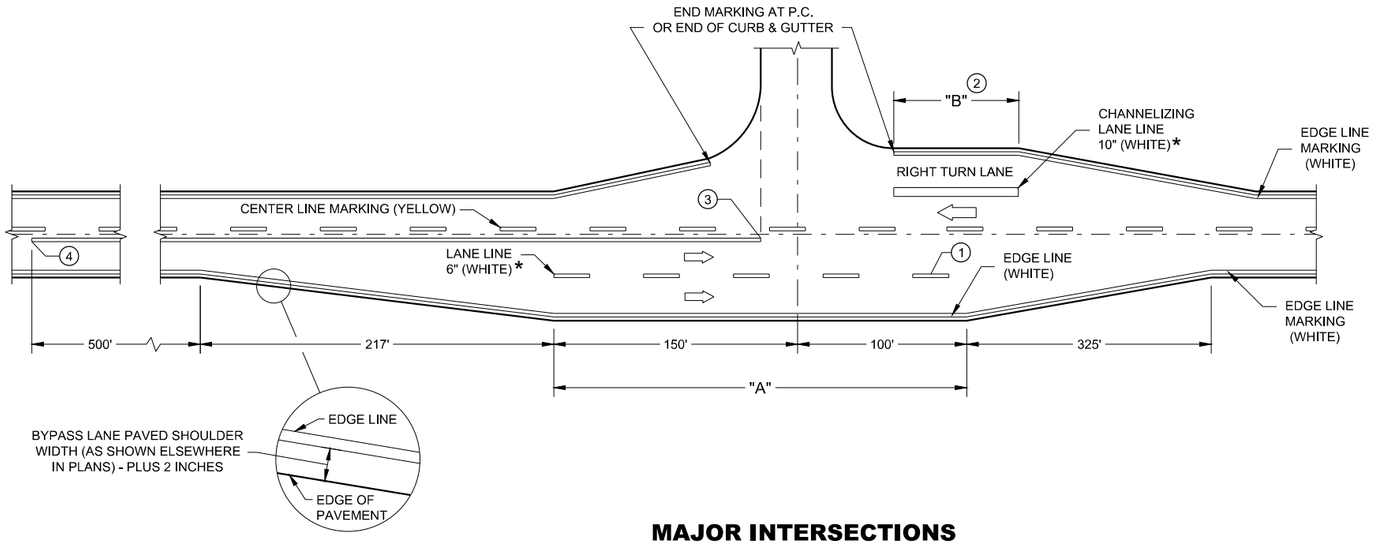
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15C35-06a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

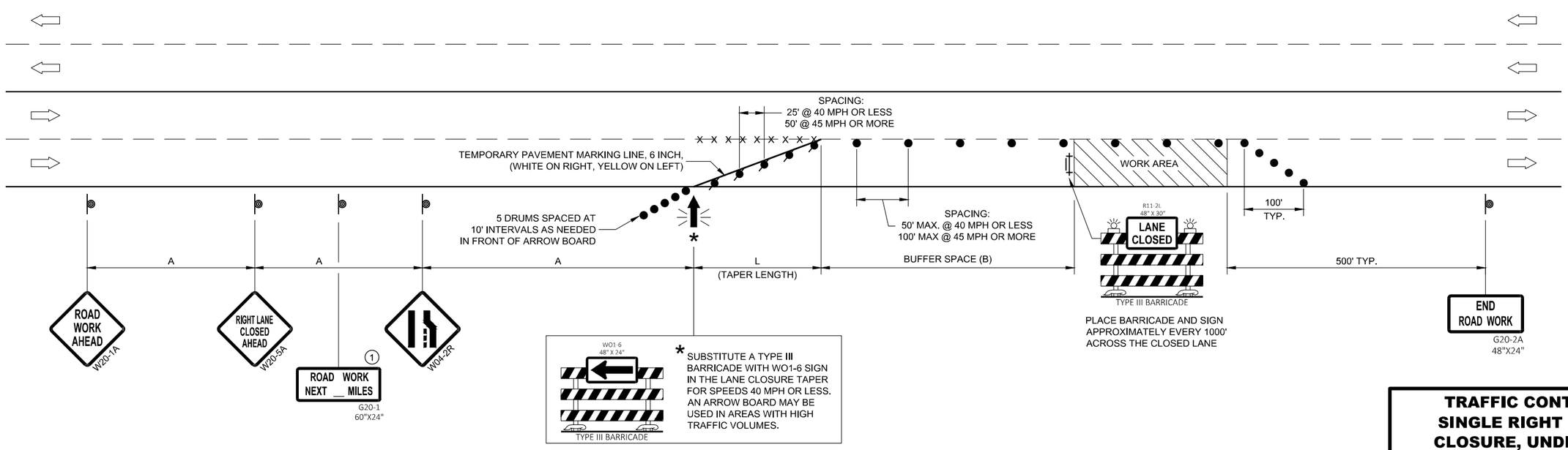
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15D20-07b

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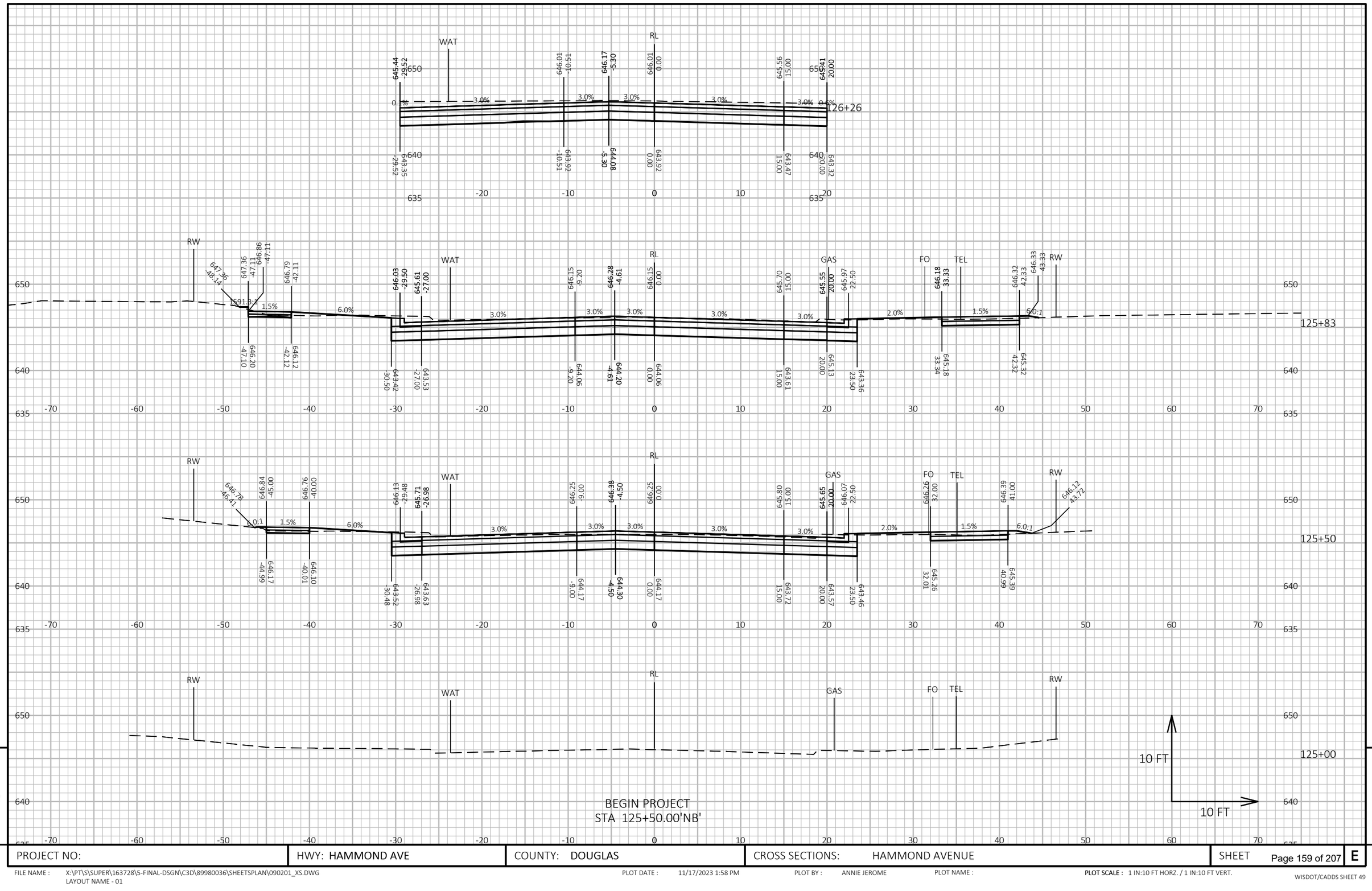
SDD 15D20-07b



PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 159 of 207	E

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PLOT DATE : 11/17/2023 1:58 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

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PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 160 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
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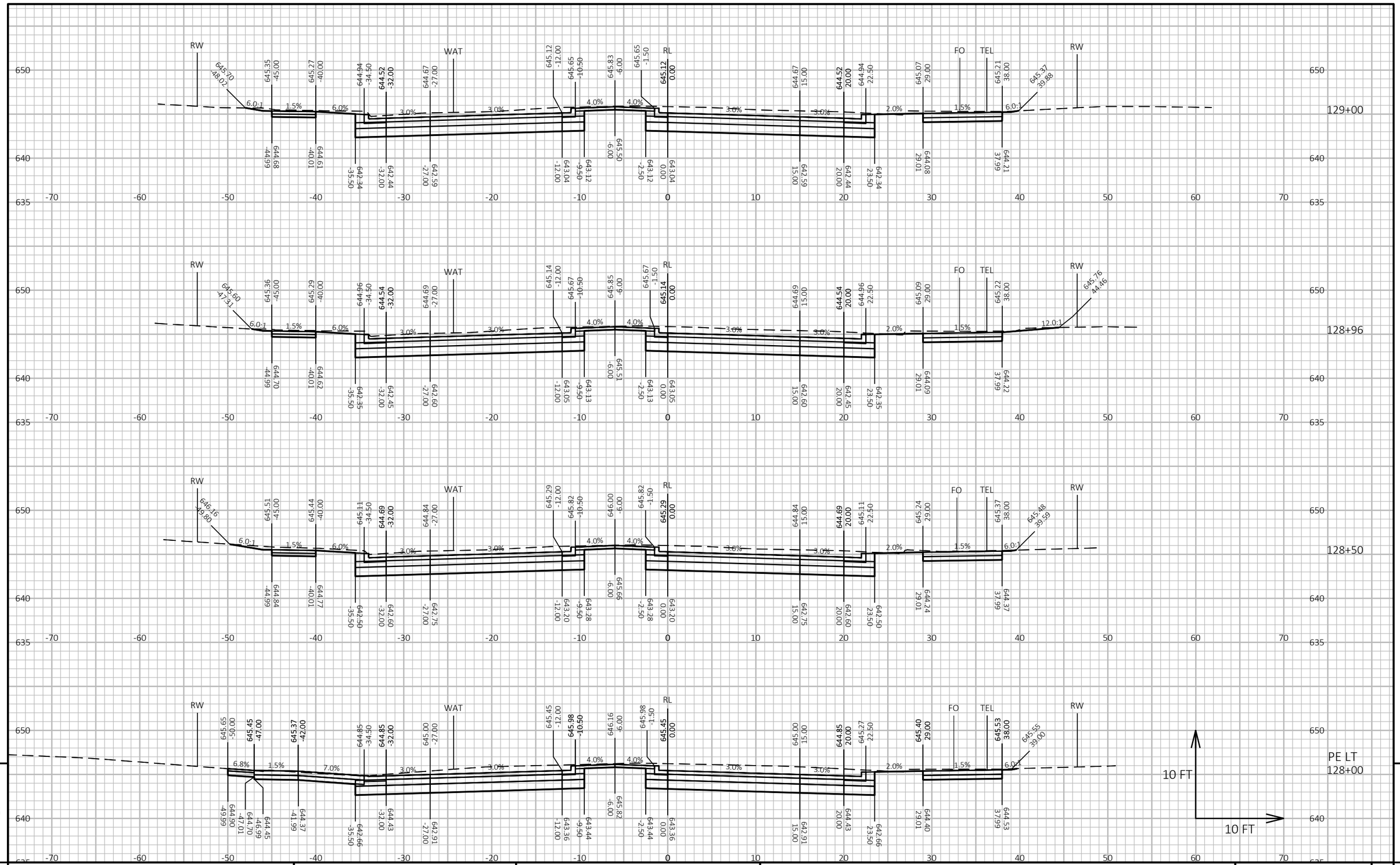
PLOT DATE : 11/17/2023 1:58 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 161 of 207	E

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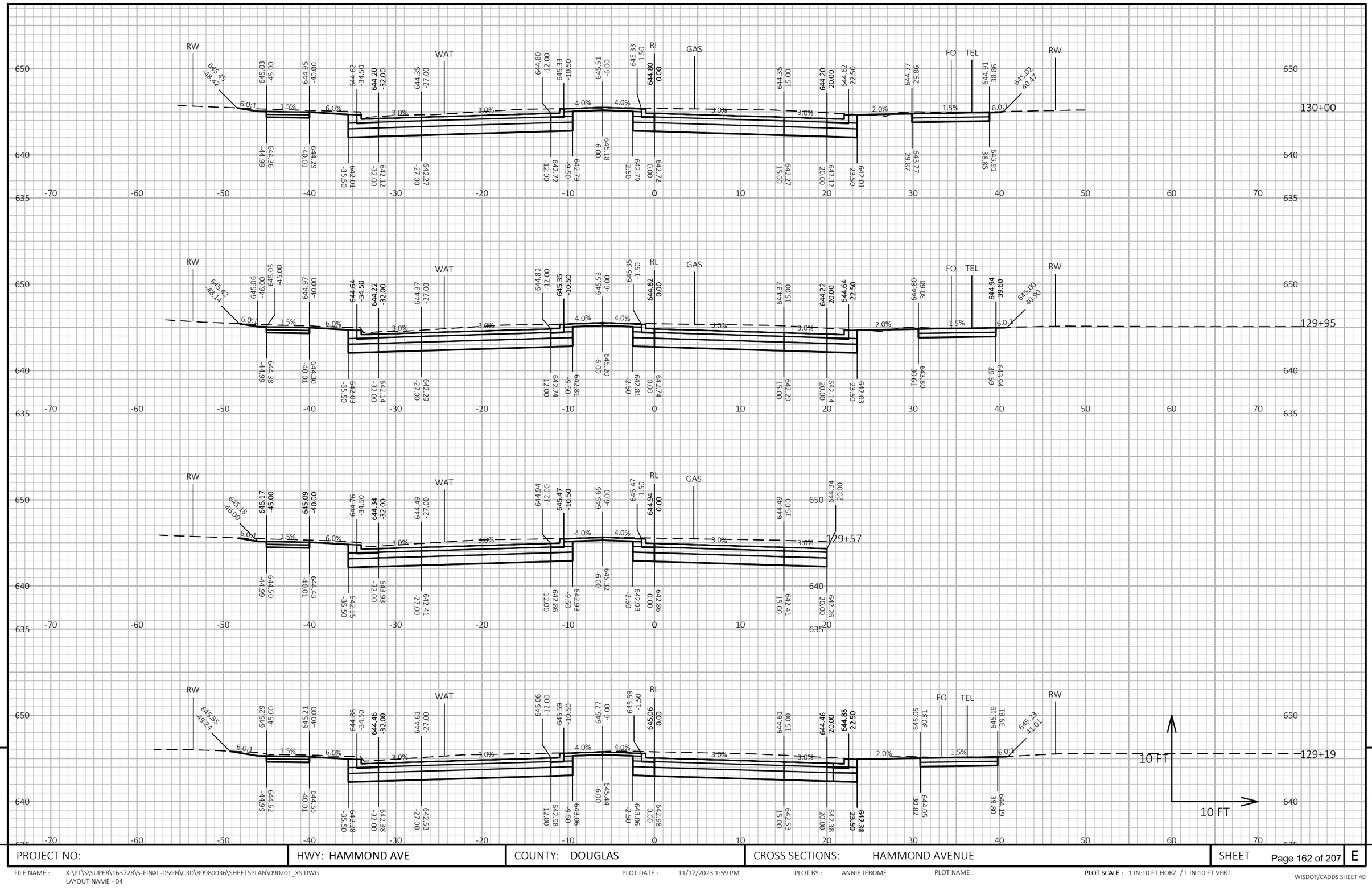
PLOT DATE : 11/17/2023 1:59 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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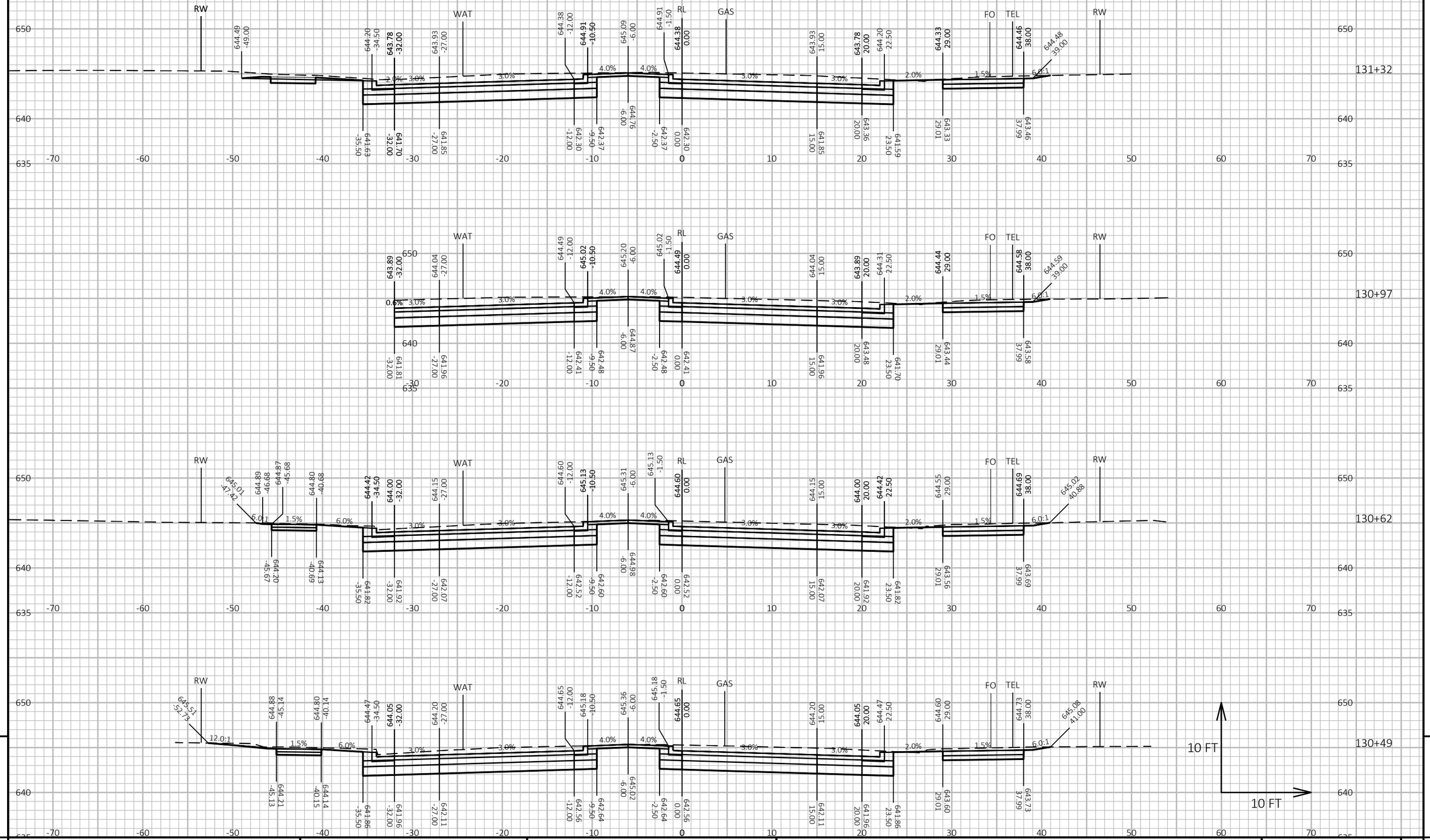
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 162 of 207	E



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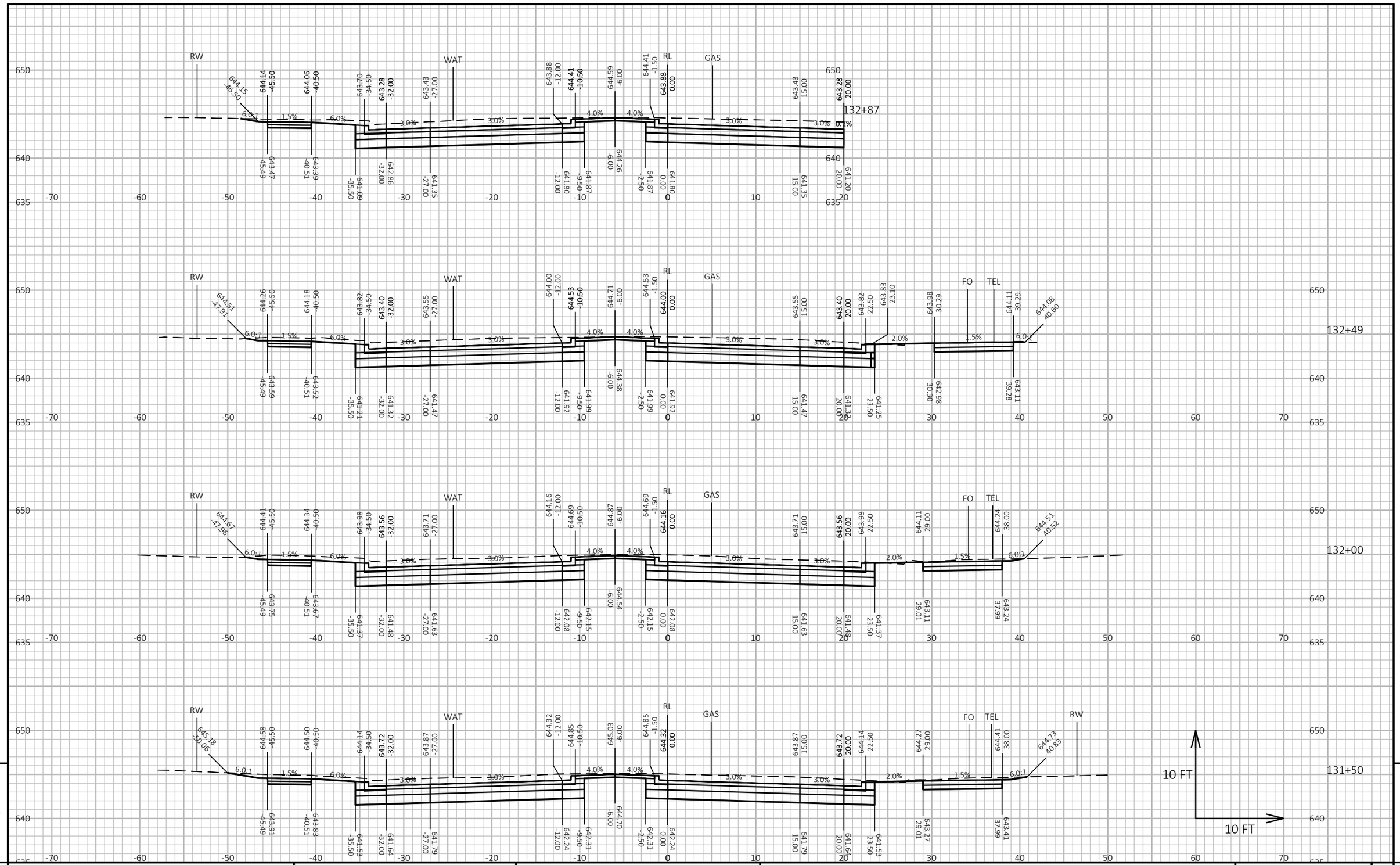
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 163 of 207	E



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PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 164 of 207	E

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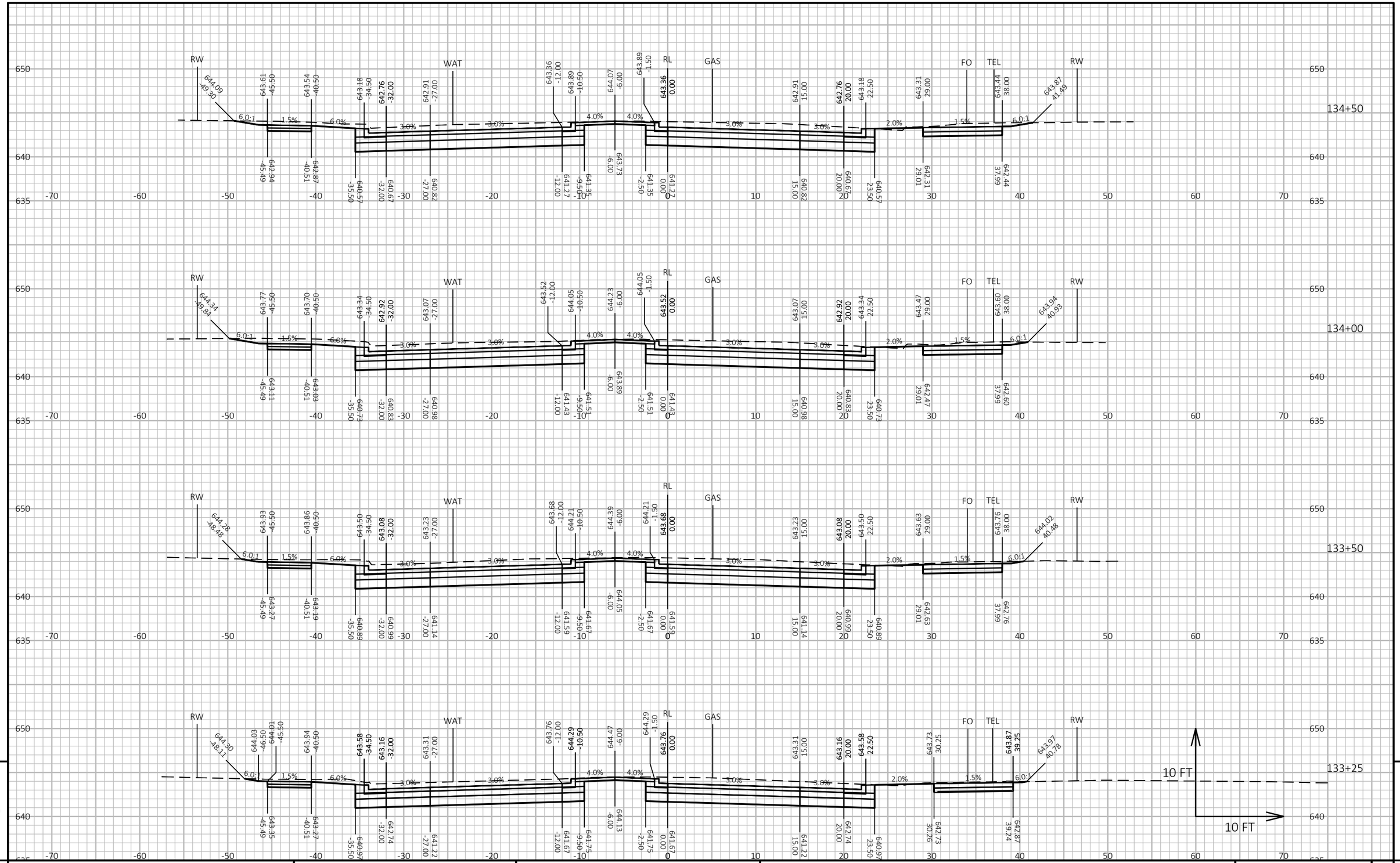
PLOT DATE : 11/17/2023 2:00 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 165 of 207	E

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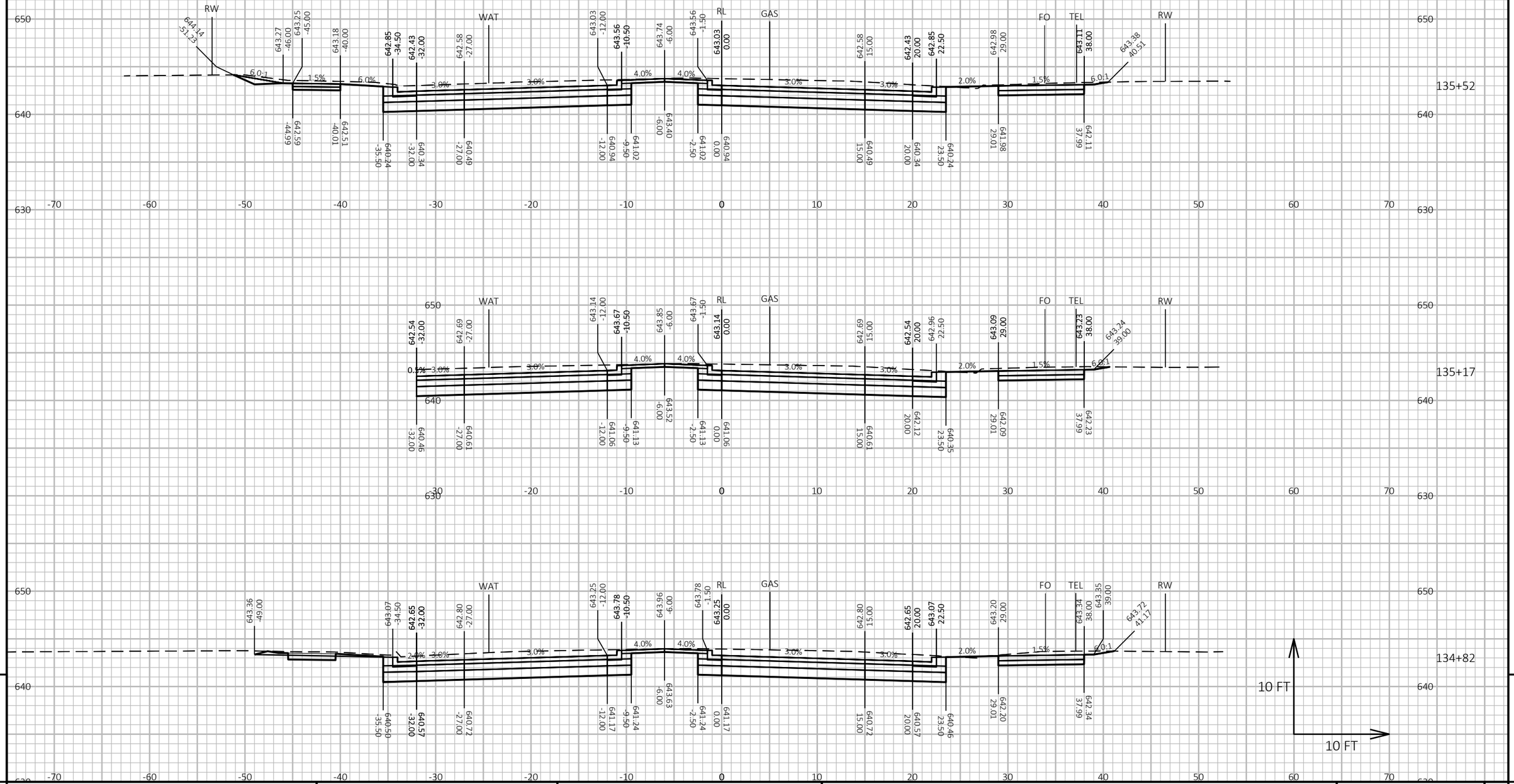
PLOT DATE : 11/17/2023 2:00 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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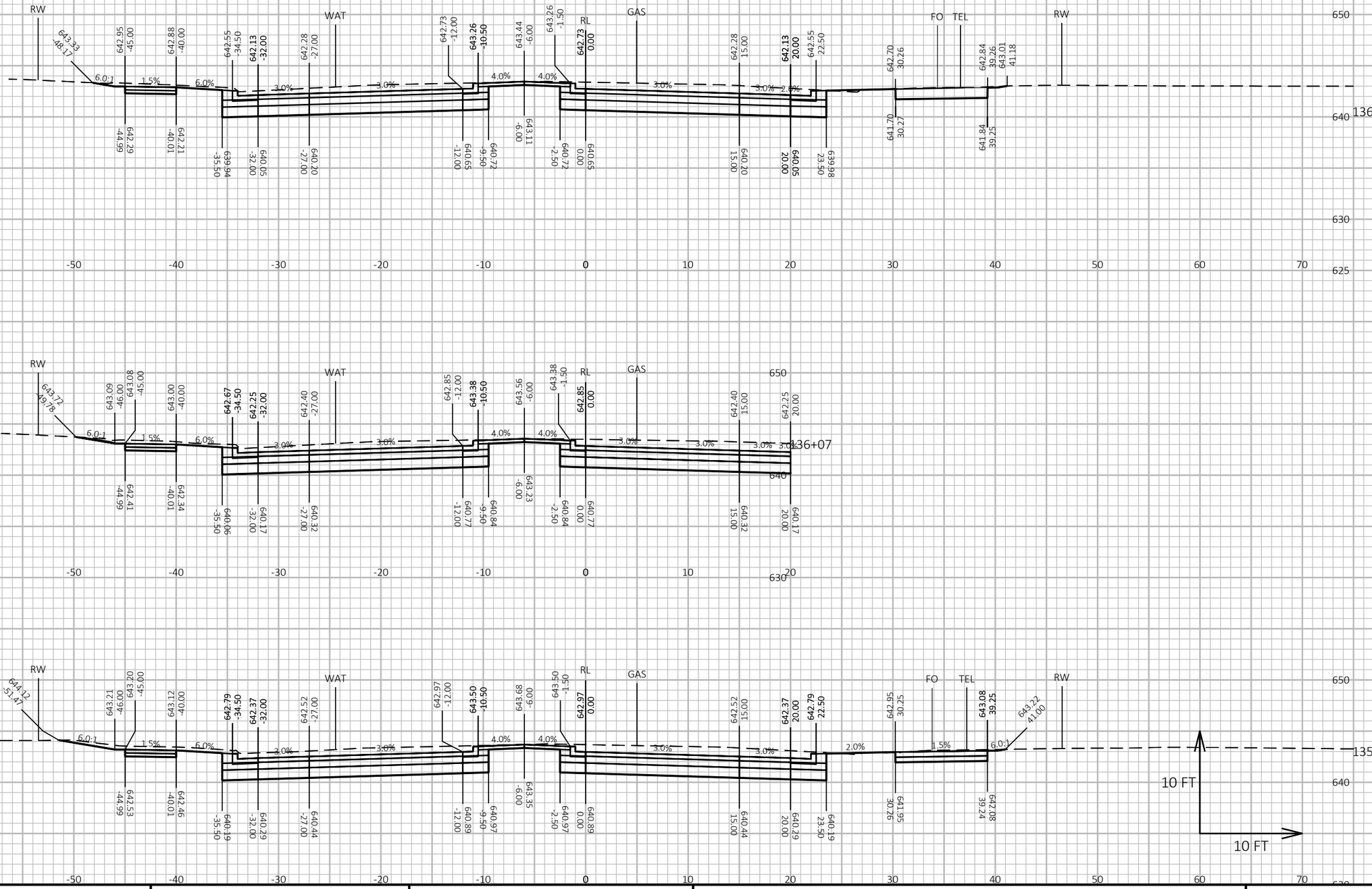
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 166 of 207	E



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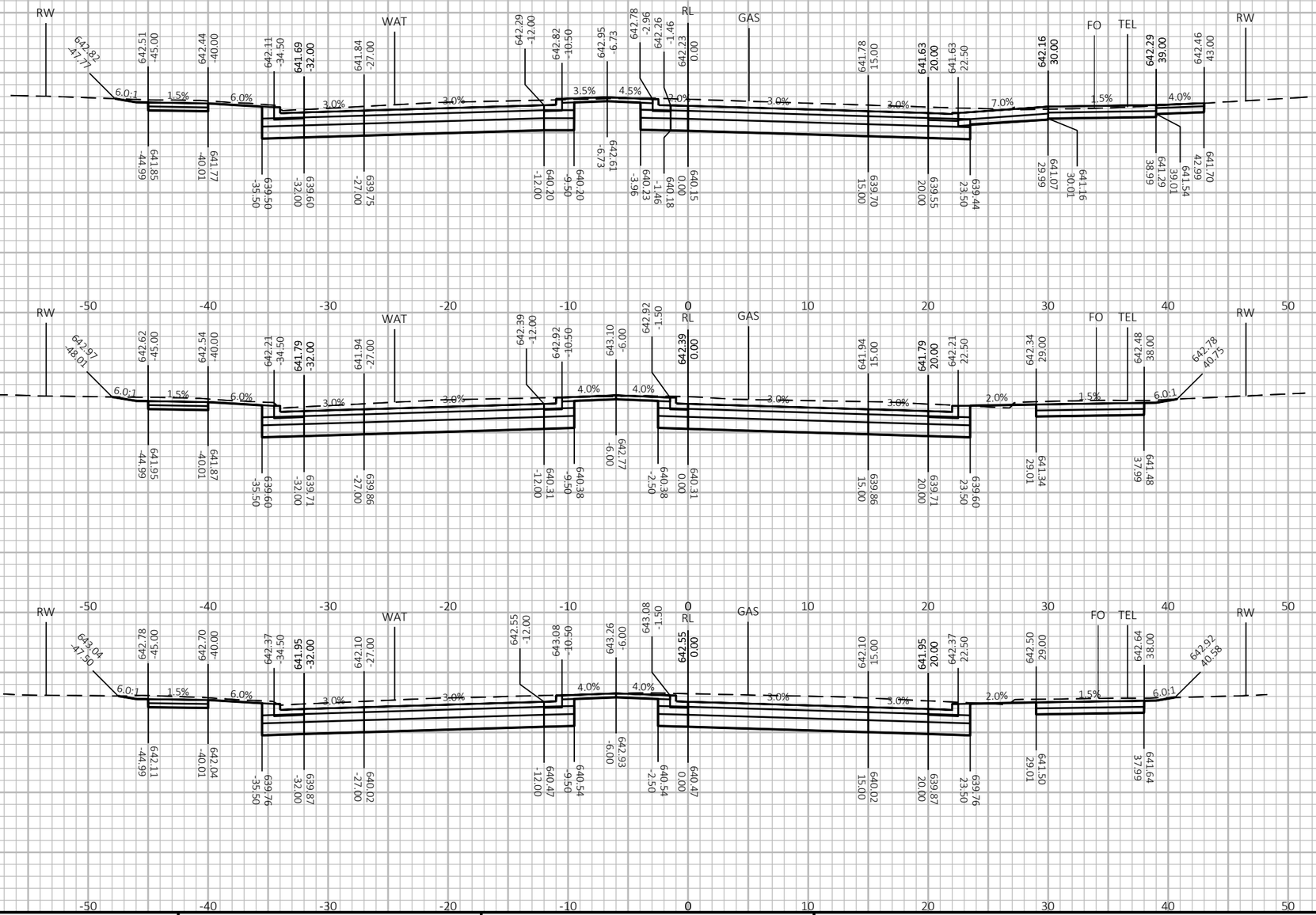
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 167 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 09

PLOT DATE : 11/17/2023 2:00 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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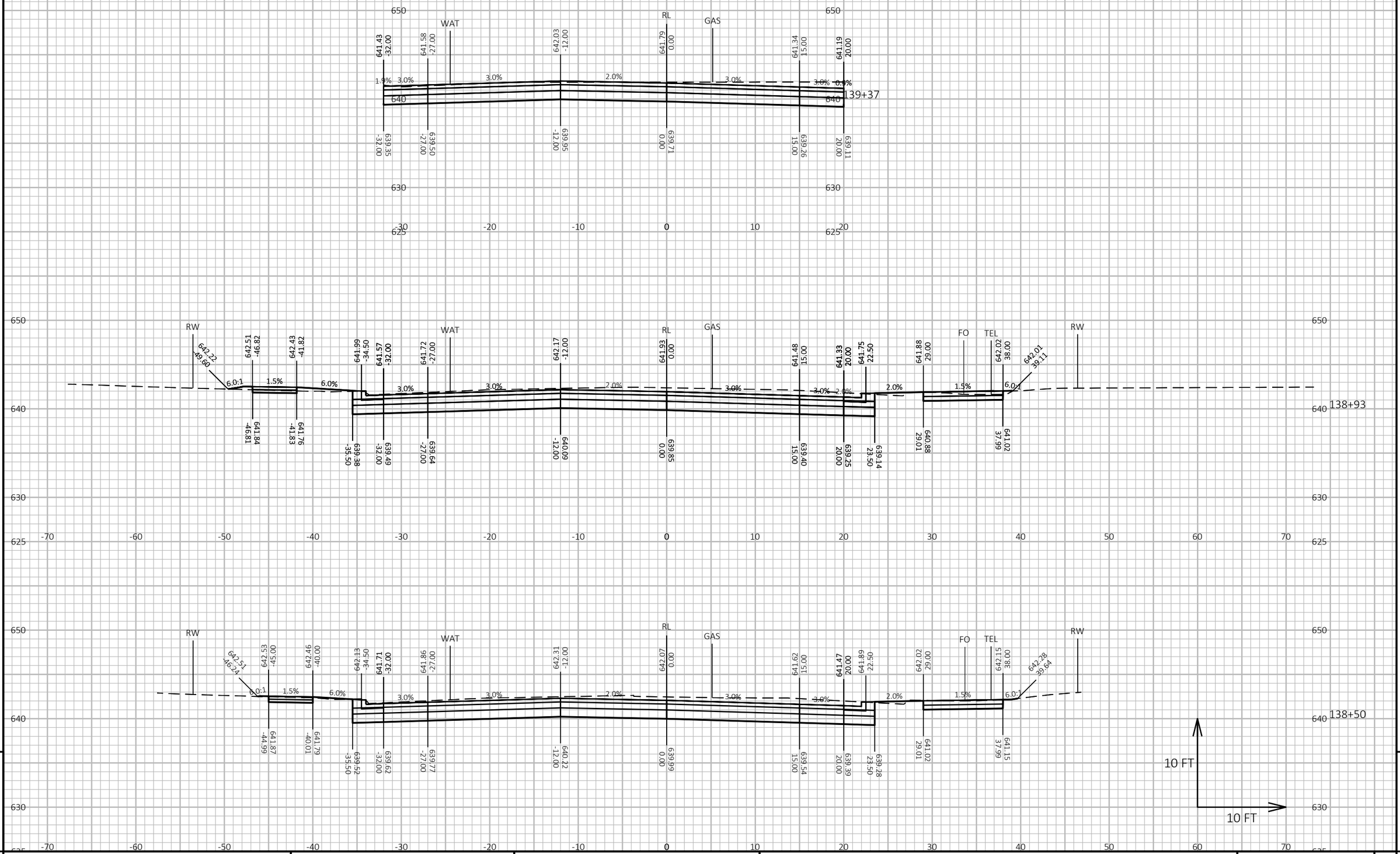
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 168 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 10

PLOT DATE : 11/17/2023 2:01 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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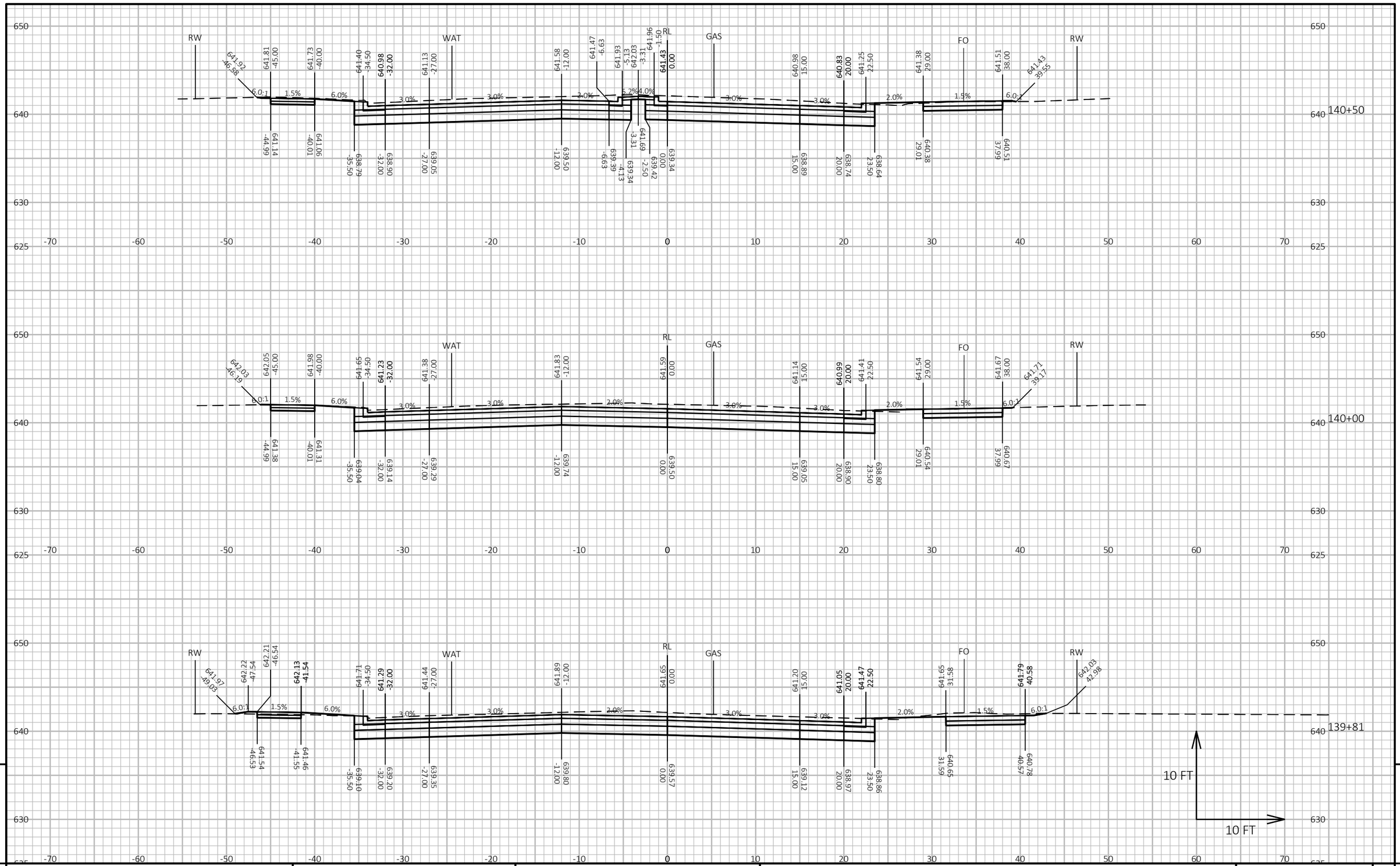
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 169 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 11

PLOT DATE : 11/17/2023 2:01 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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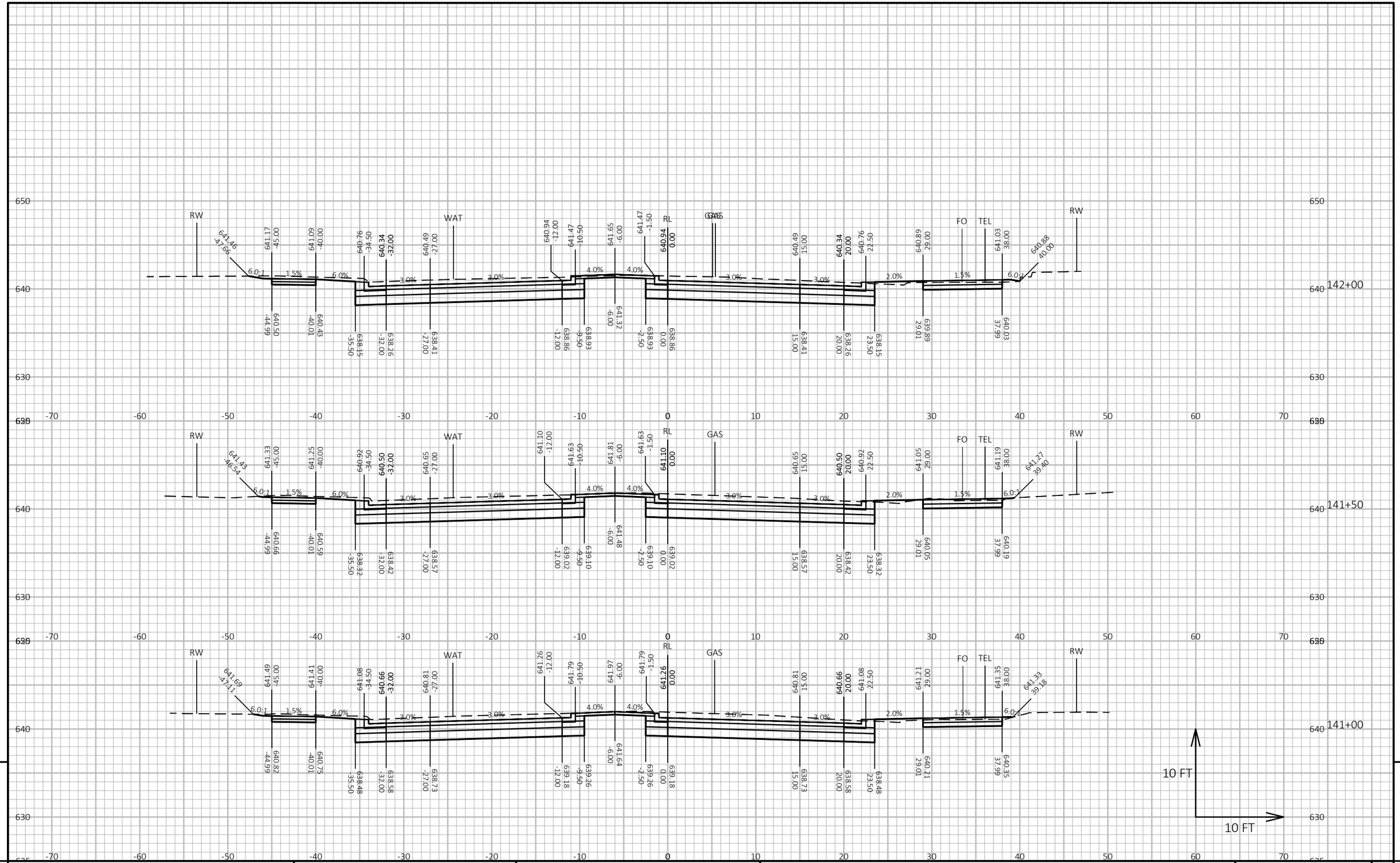
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 170 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 12

PLOT DATE : 11/17/2023 2:01 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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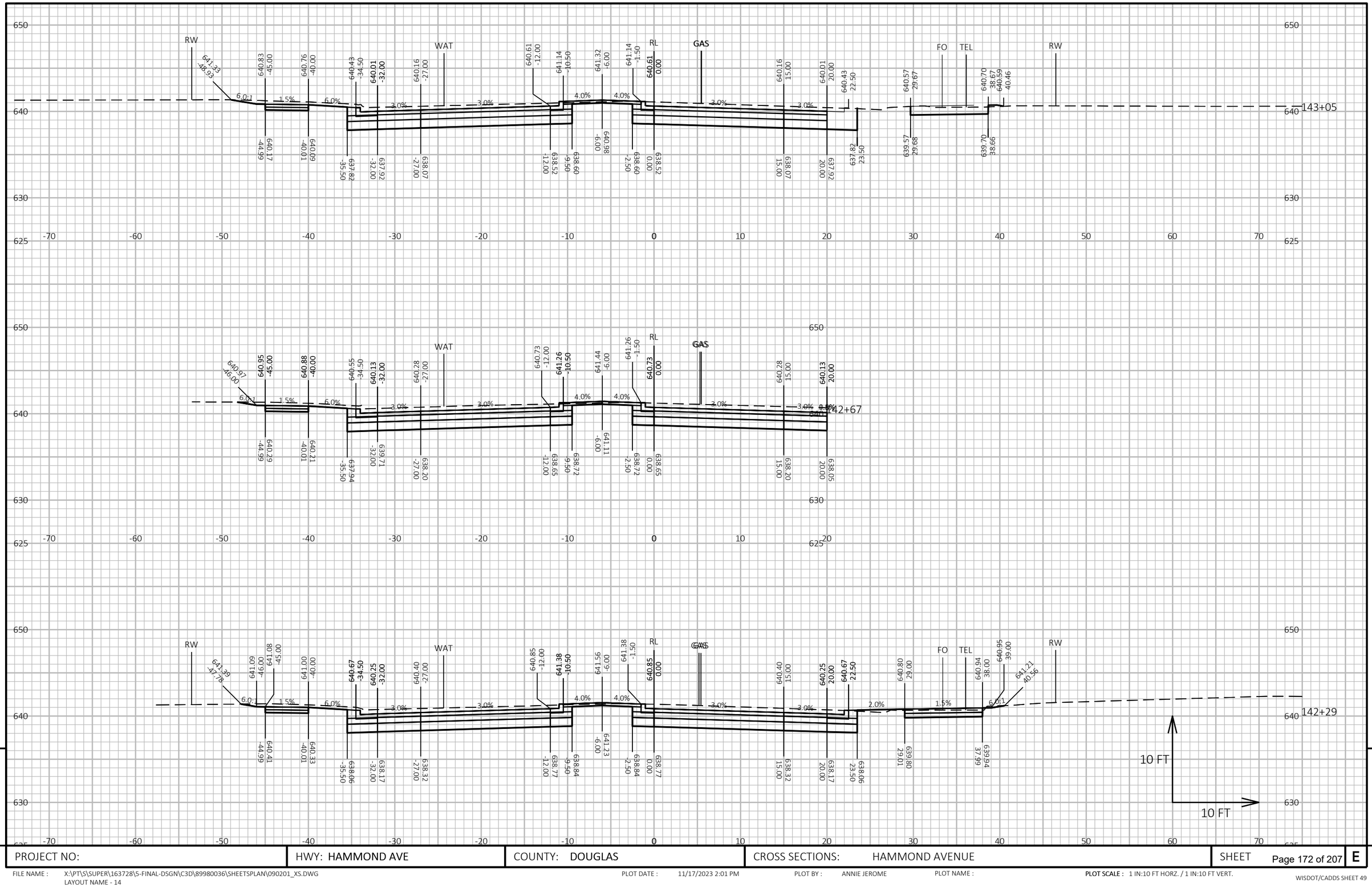
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 171 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 13

PLOT DATE : 11/17/2023 2:01 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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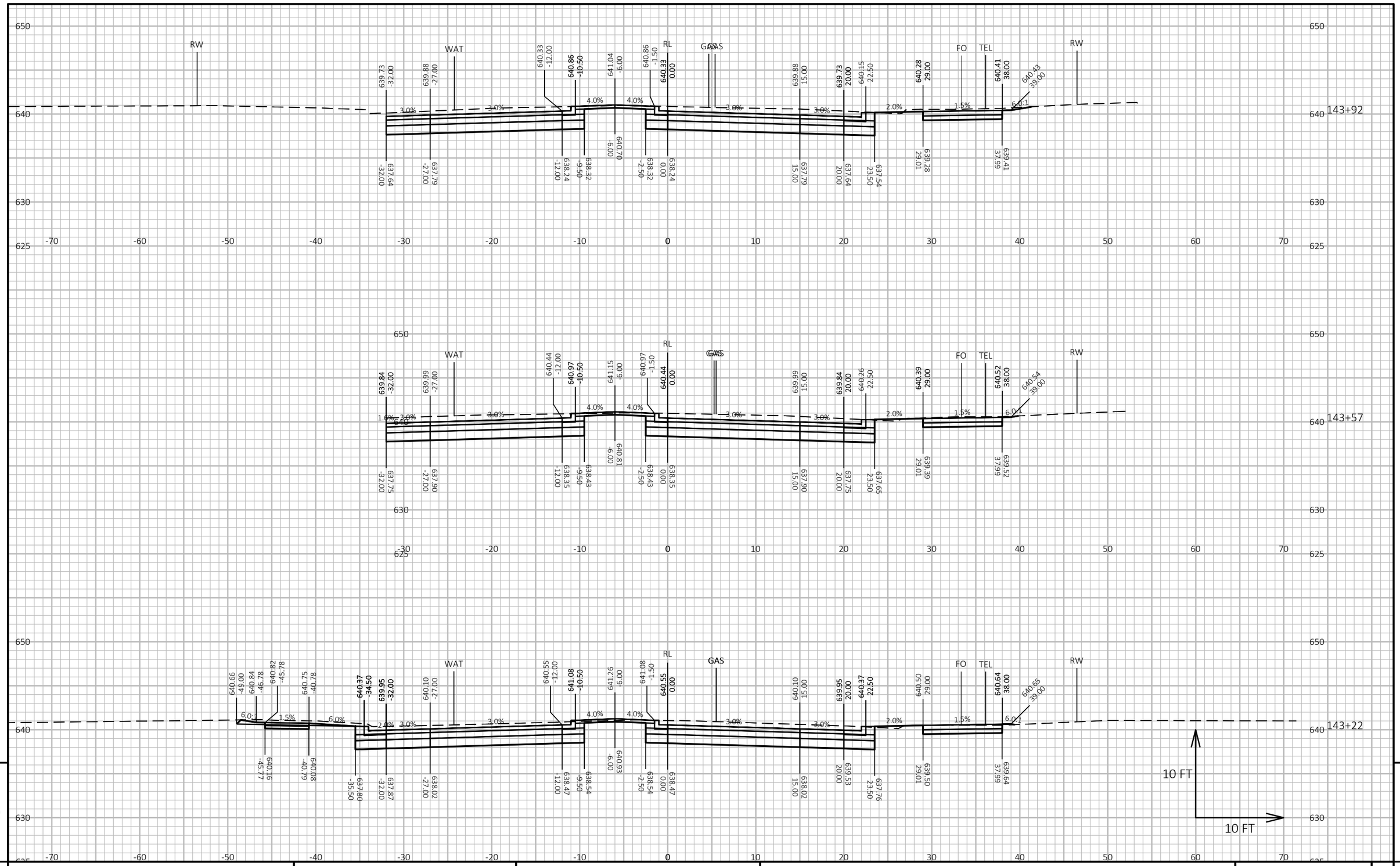
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 172 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 14

PLOT DATE : 11/17/2023 2:01 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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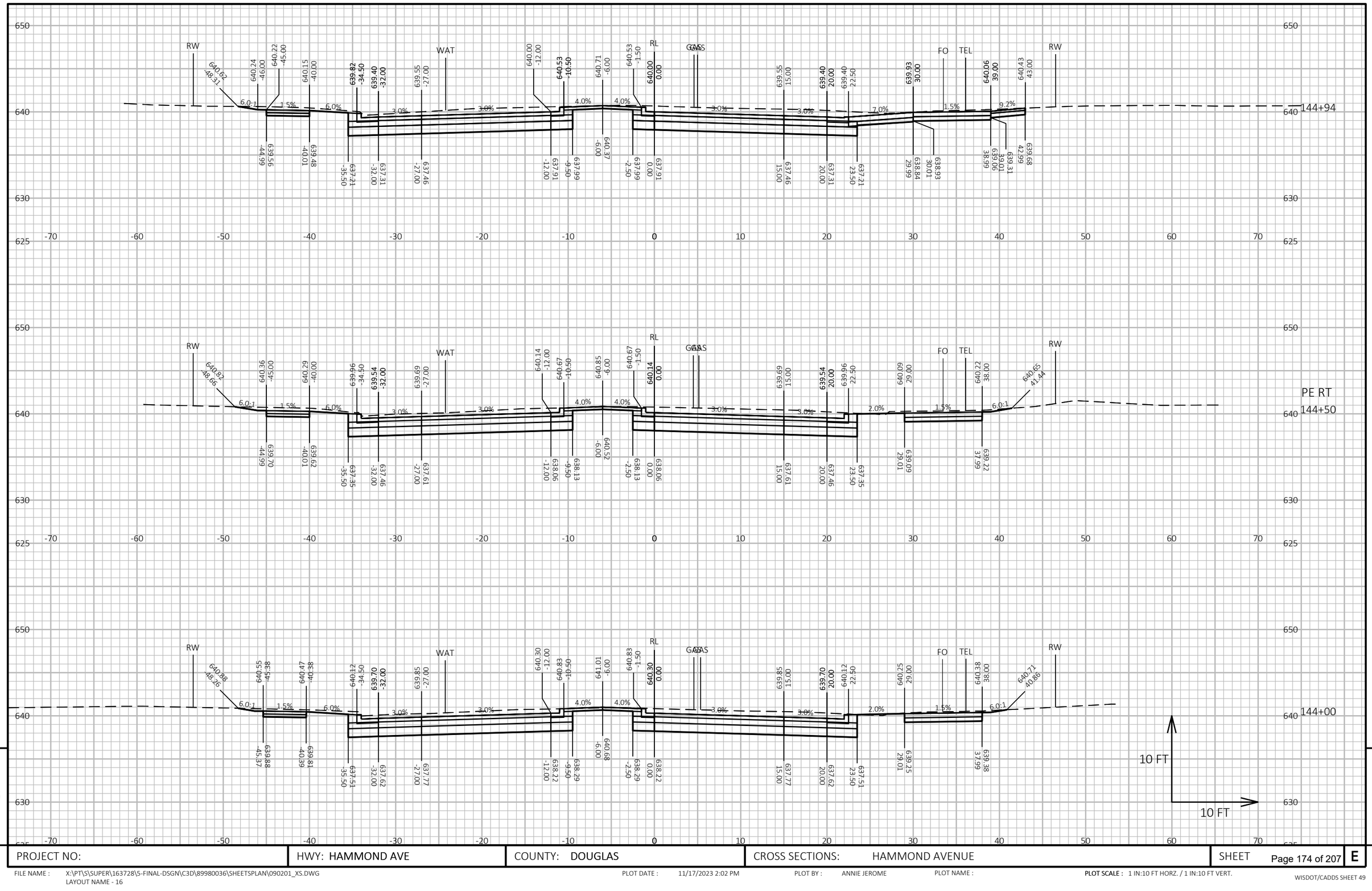
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 173 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 15

PLOT DATE : 11/17/2023 2:02 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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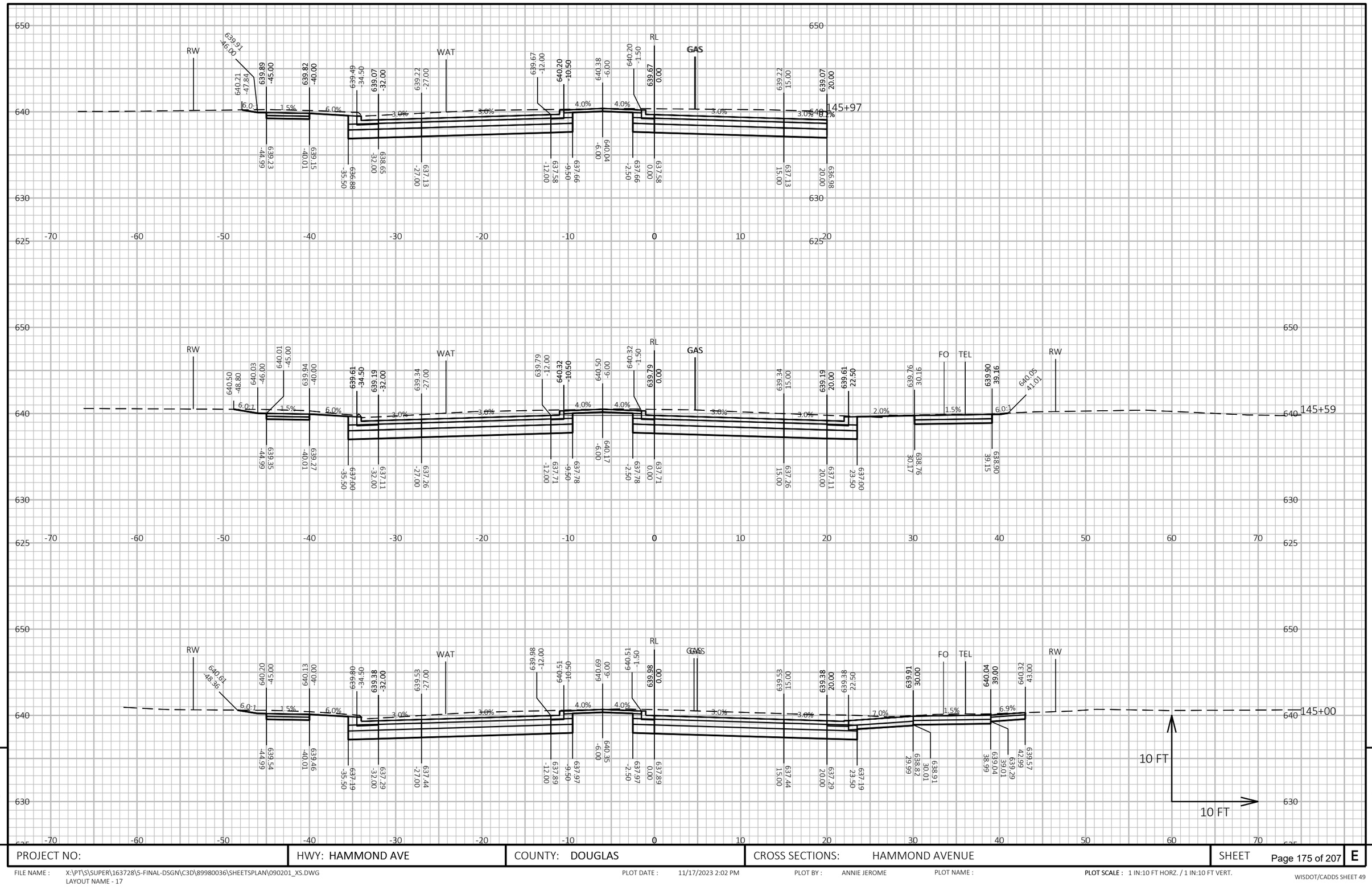
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 174 of 207	E

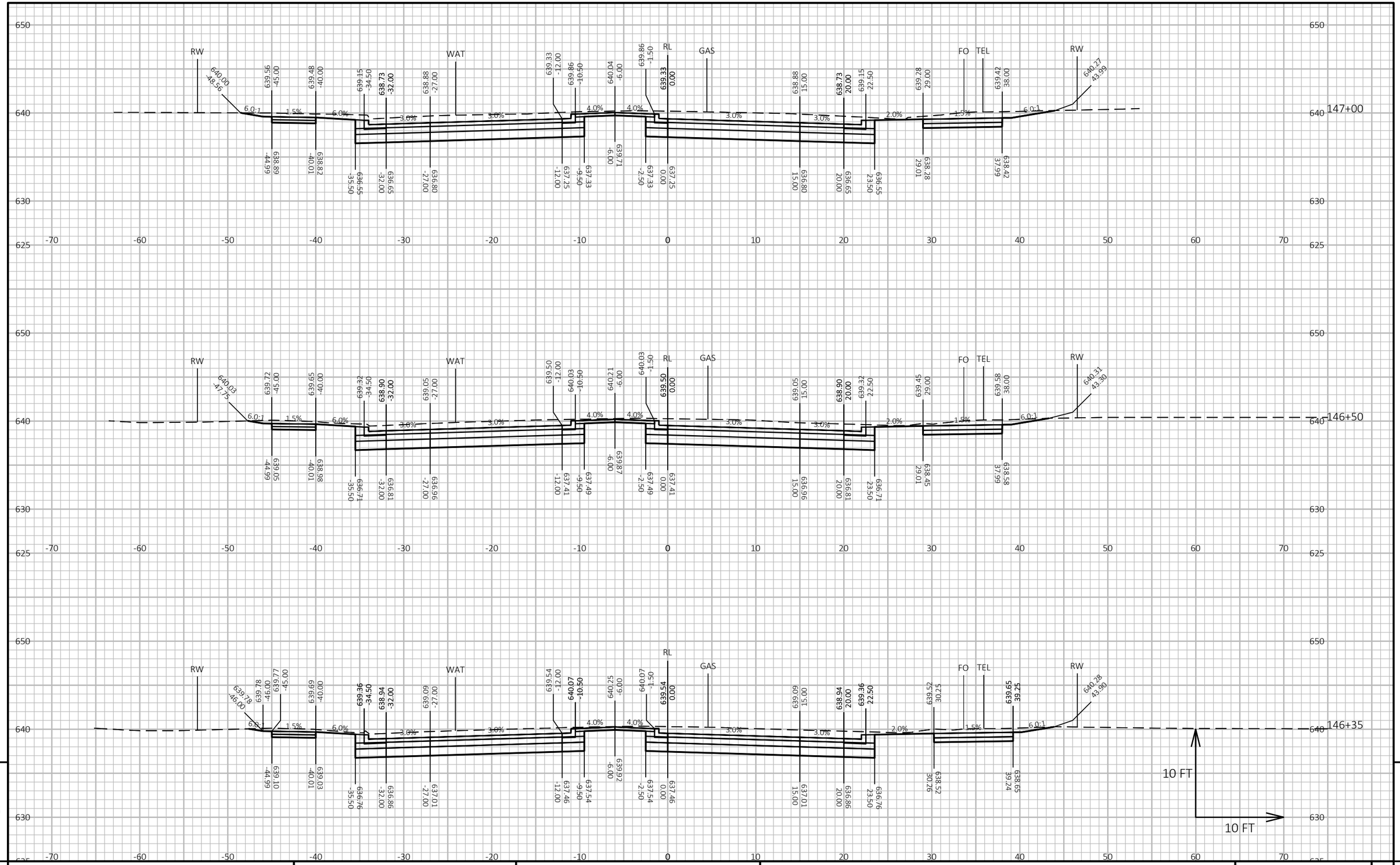


PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 175 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 17

PLOT DATE : 11/17/2023 2:02 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

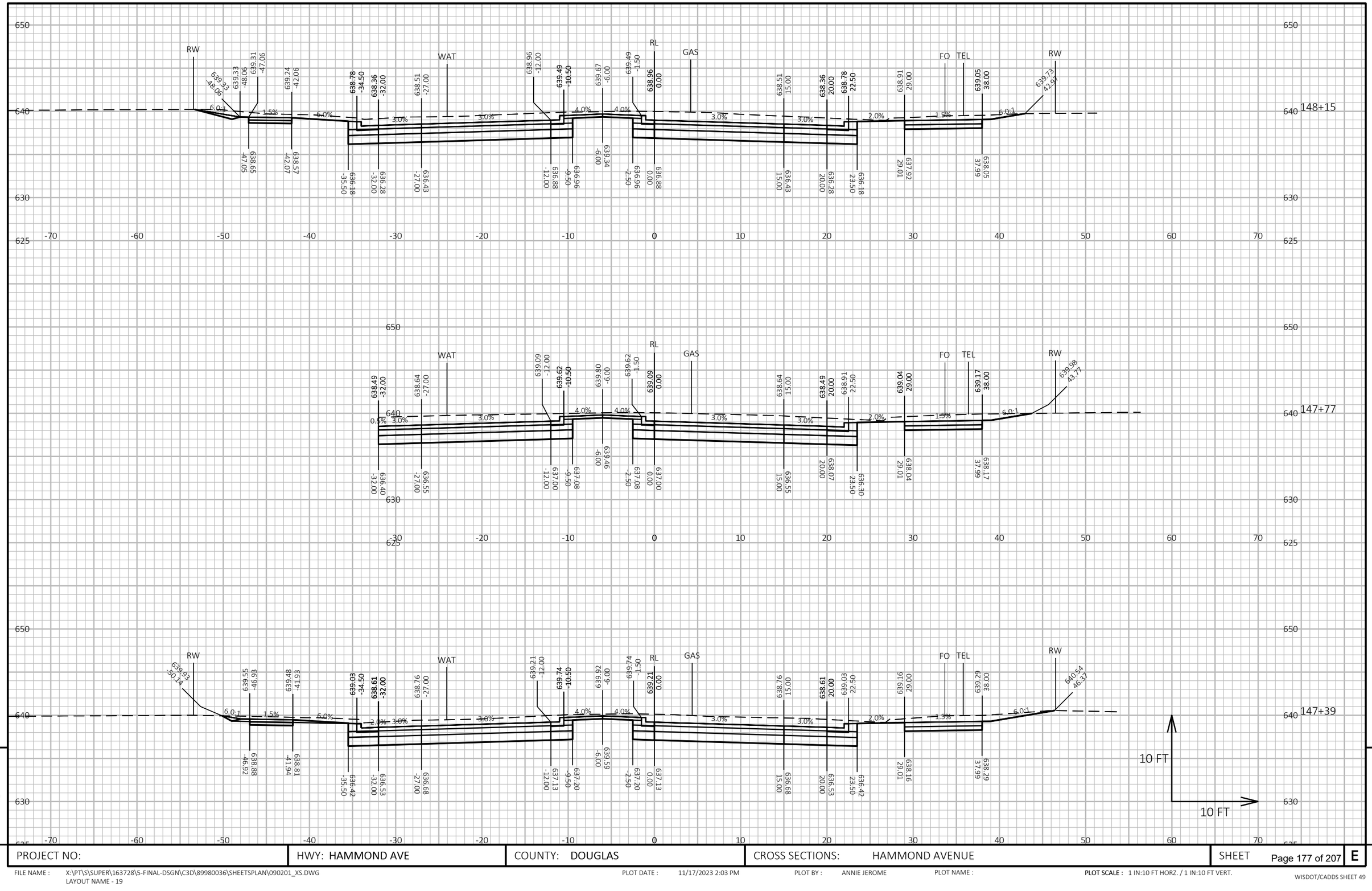


PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 176 of 207 E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 18

PLOT DATE : 11/17/2023 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 177 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 19

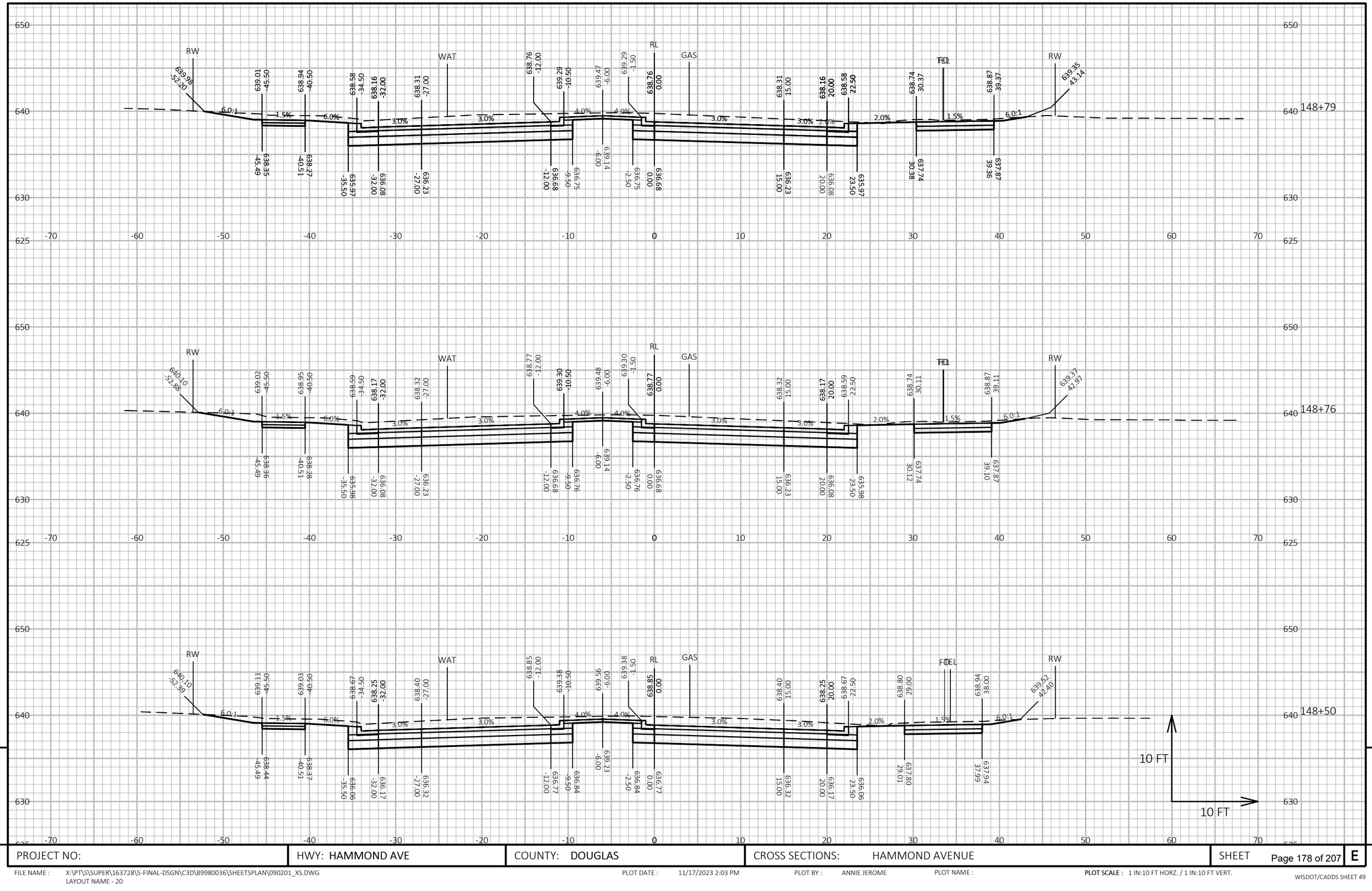
PLOT DATE : 11/17/2023 2:03 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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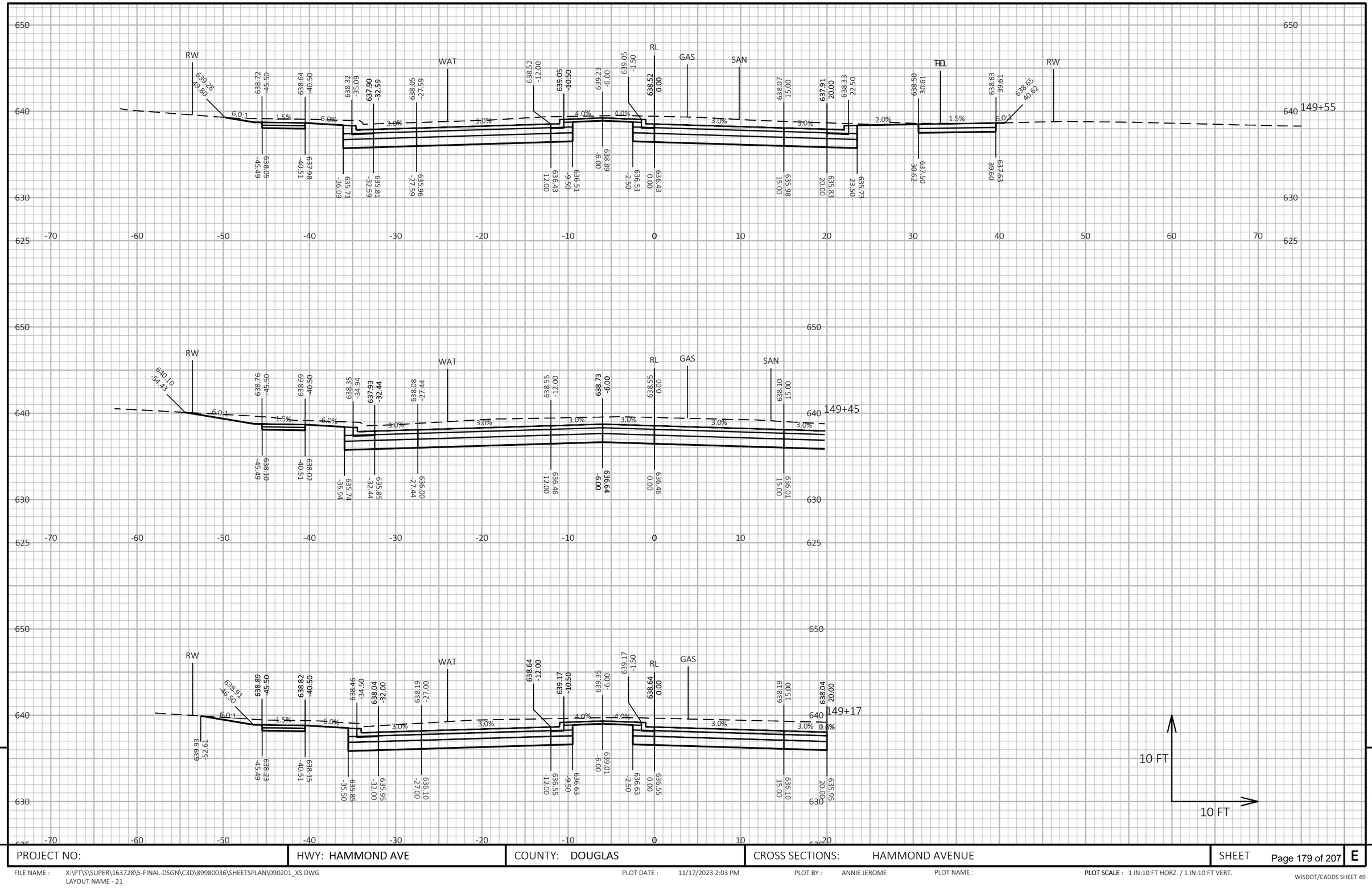
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 178 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 20

PLOT DATE : 11/17/2023 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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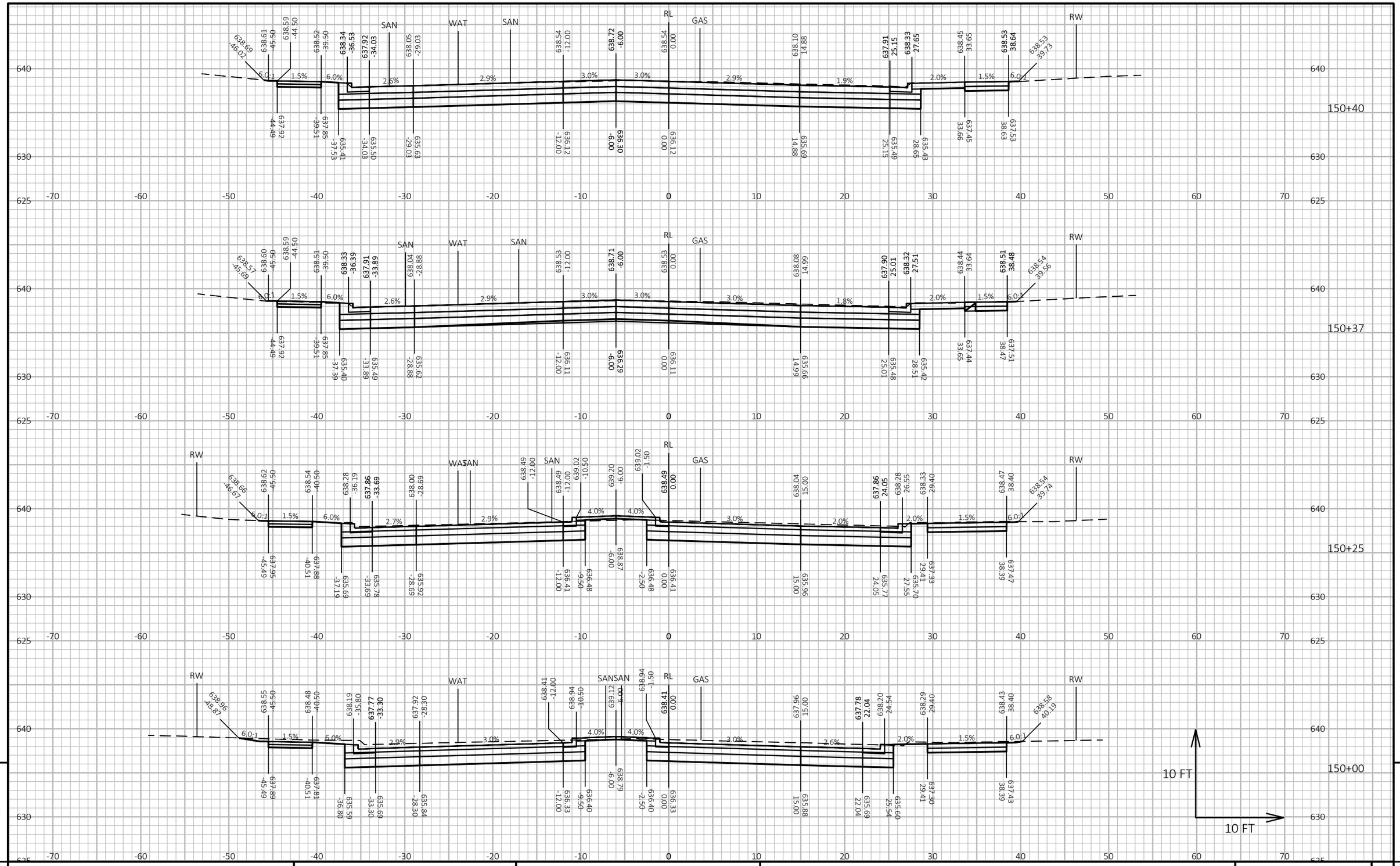
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 179 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 21

PLOT DATE : 11/17/2023 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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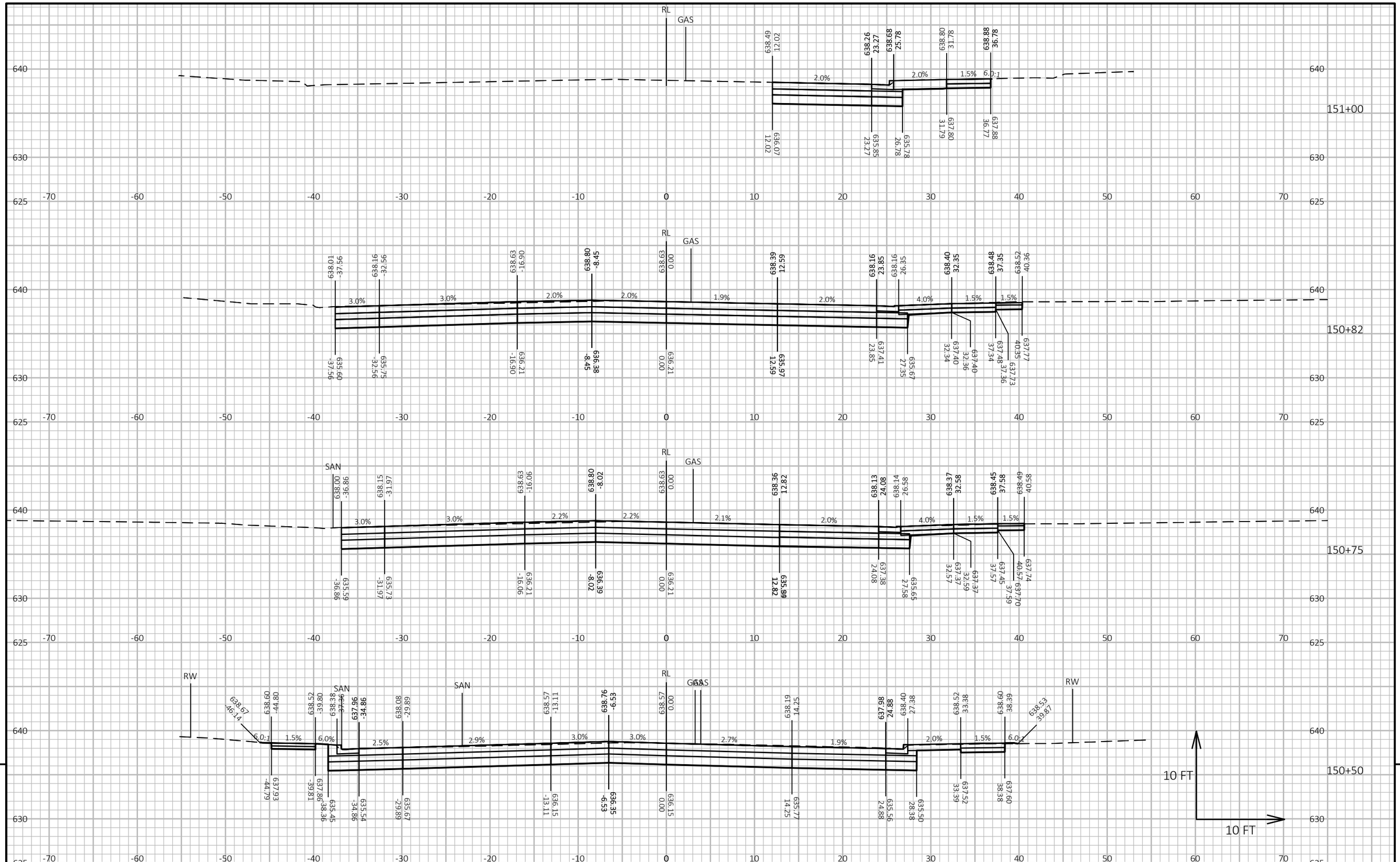
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 180 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 22

PLOT DATE : 11/17/2023 2:04 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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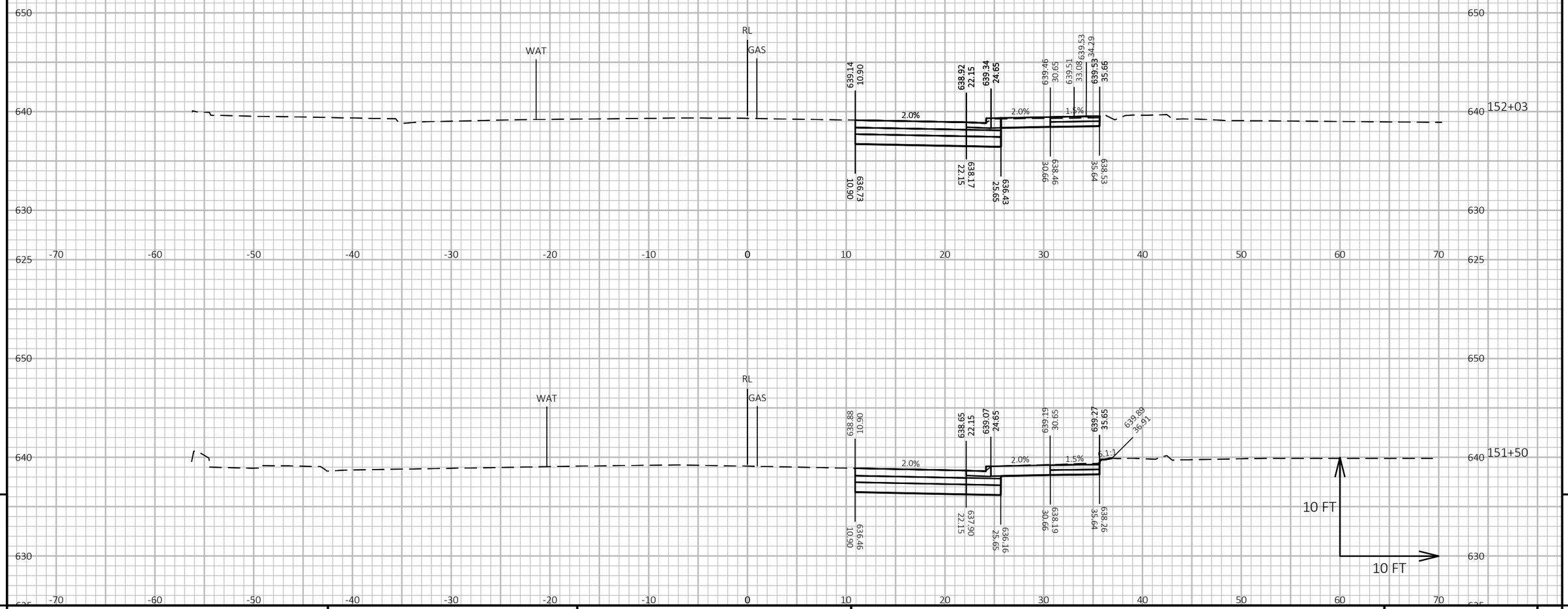
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 181 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 23

PLOT DATE : 11/17/2023 2:04 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END PROJECT
STA 152+43.79'NB'



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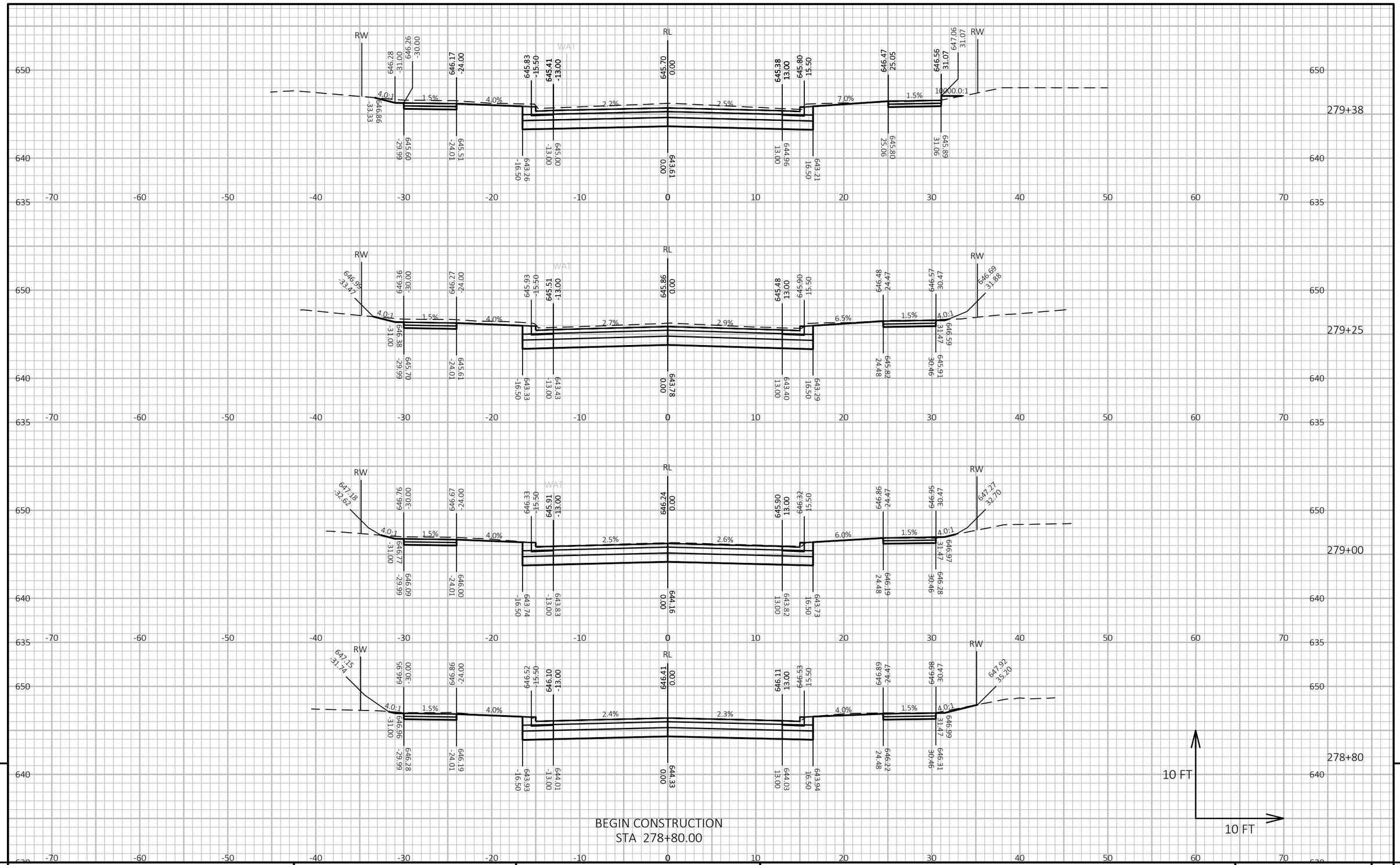
PROJECT NO:	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HAMMOND AVENUE	SHEET Page 182 of 207	E



BEGIN CONSTRUCTION
STA 278+80.00

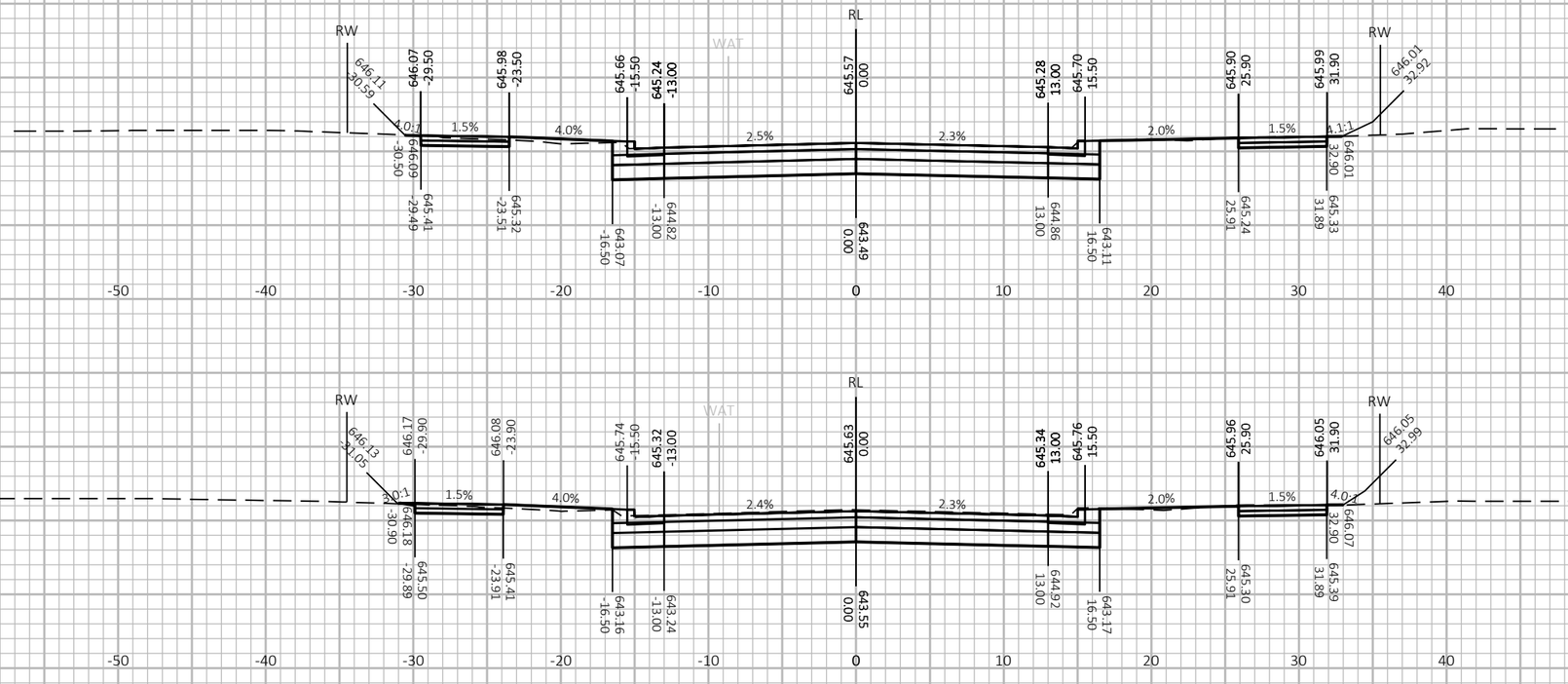
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 21ST STREET	SHEET Page 183 of 207	E

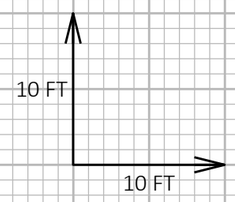
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 1N 21ST STREET

PLOT DATE : 11/17/2023 2:40 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 280+65.00





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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 21ST STREET	SHEET Page 184 of 207	E

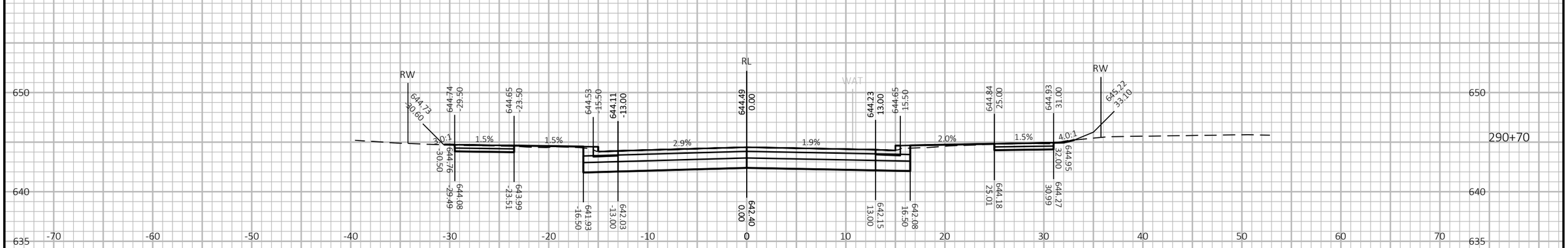
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 2N 21ST STREET

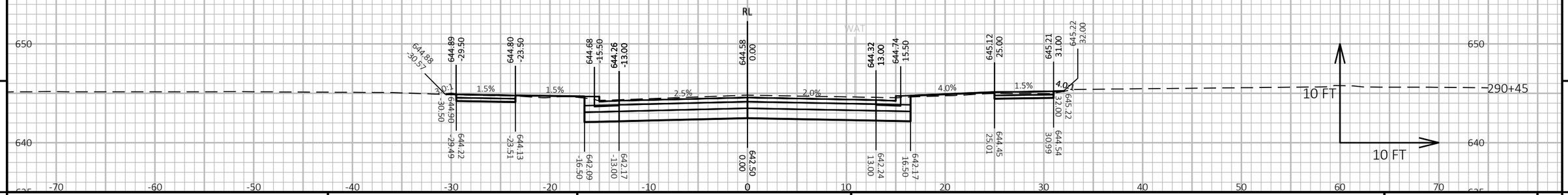
PLOT DATE : 11/17/2023 2:40 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 290+70.00





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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: LINCOLN STREET	SHEET Page 185 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 1LINCOLN STREET

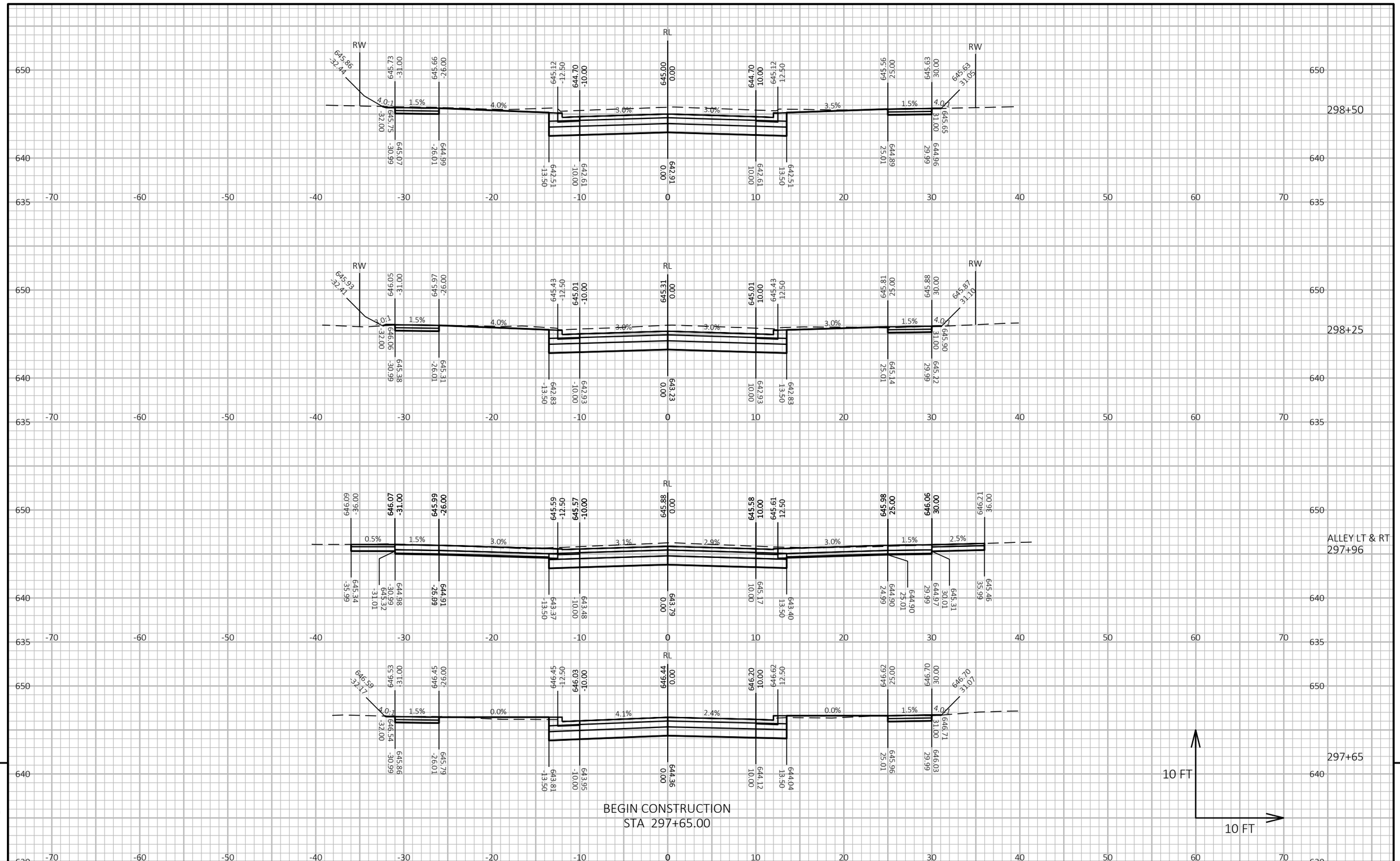
PLOT DATE : 11/17/2023 2:40 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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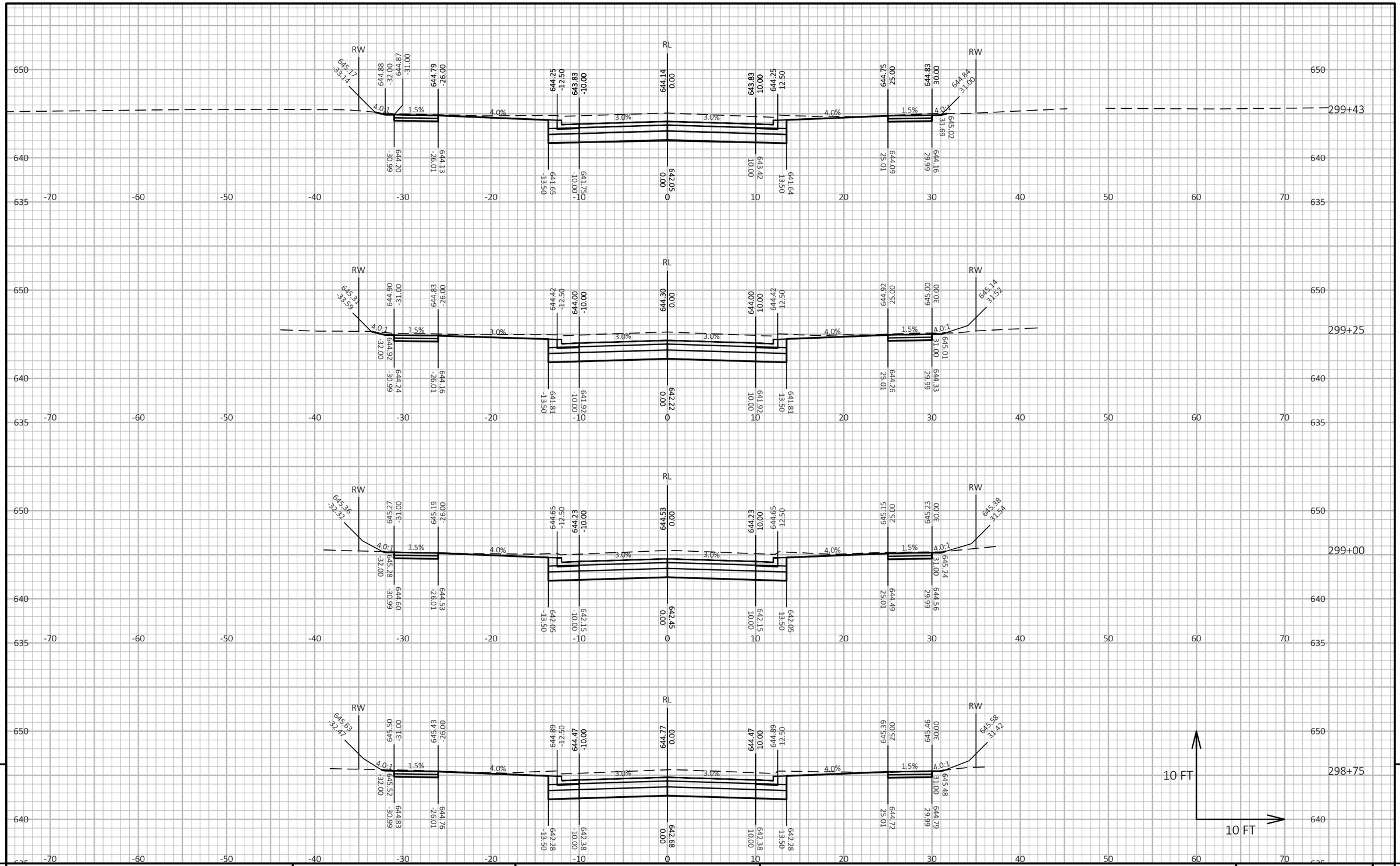
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 20TH STREET	SHEET Page 186 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 1N 20TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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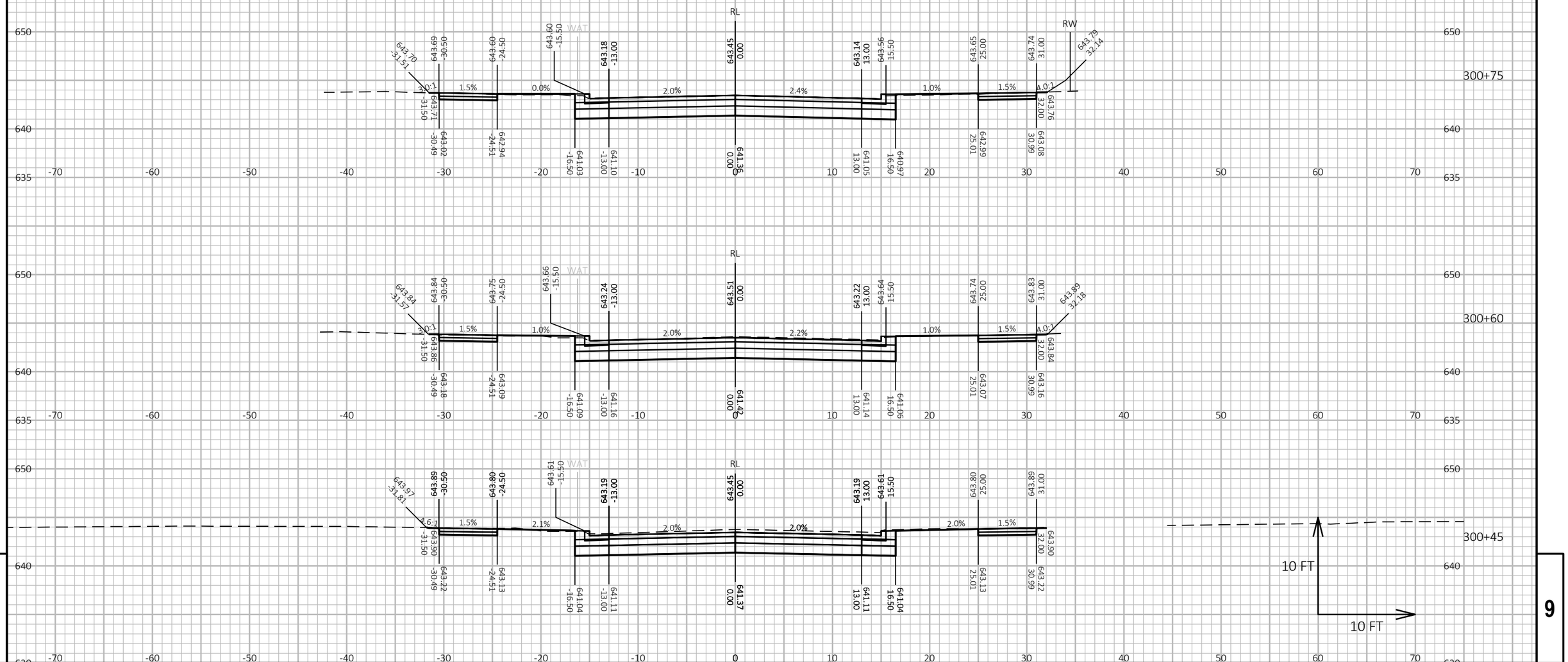
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 20TH STREET	SHEET Page 187 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 2N 20TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 300+75.00

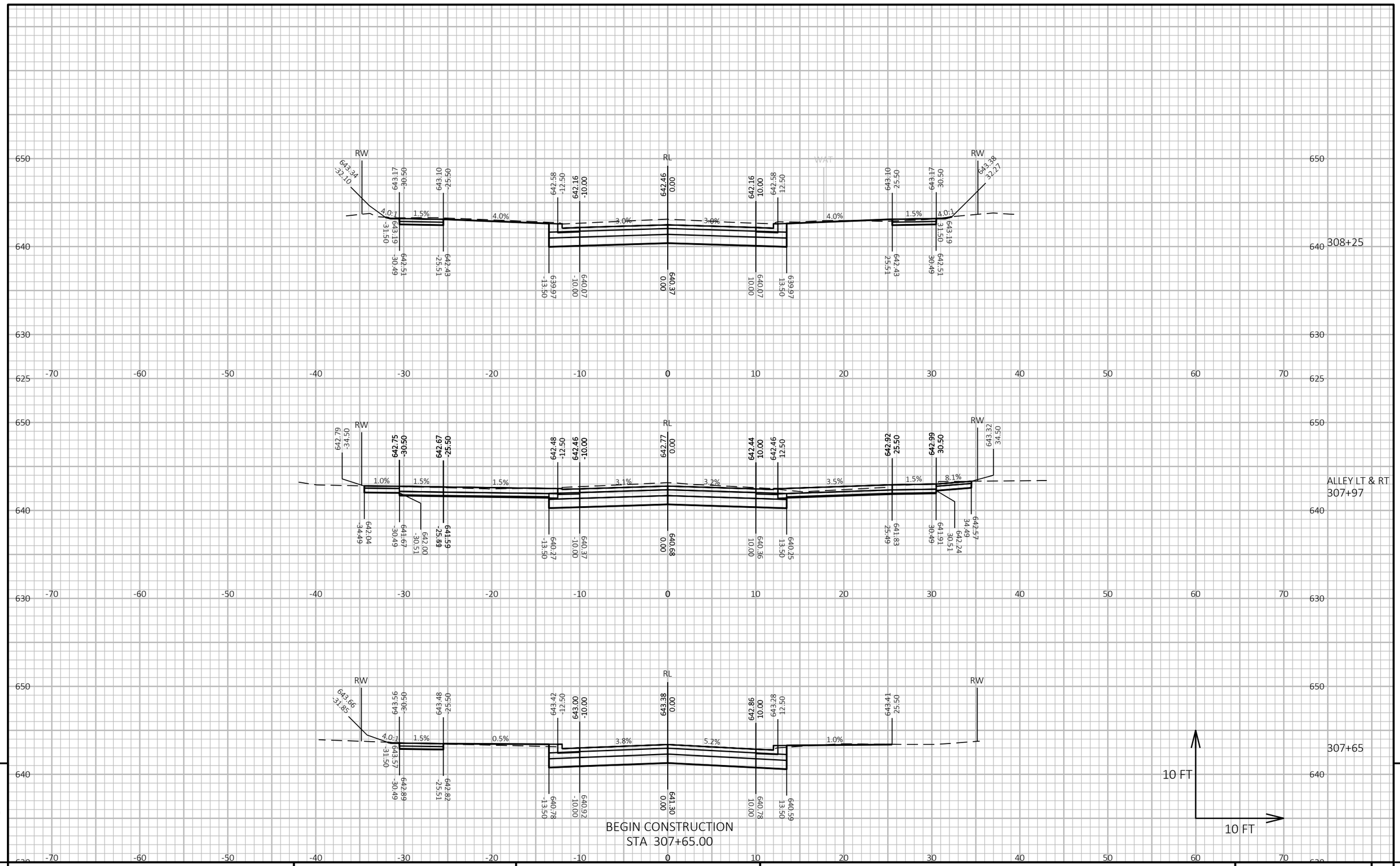


PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 20TH STREET	SHEET Page 188 of 207 E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 3N 20TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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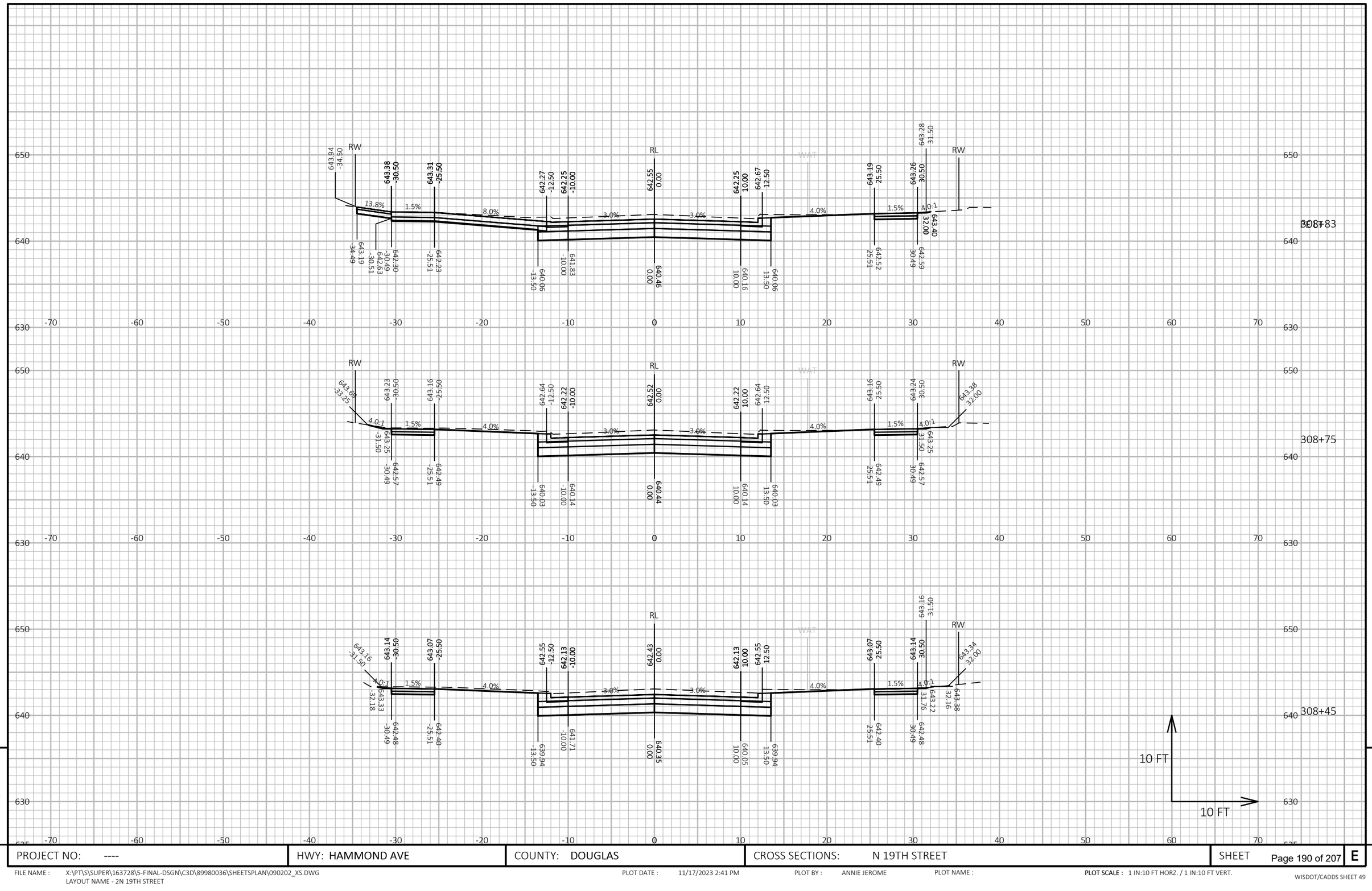
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 19TH STREET	SHEET Page 189 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 1N 19TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 19TH STREET	SHEET Page 190 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 2N 19TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 19TH STREET	SHEET Page 191 of 207	E

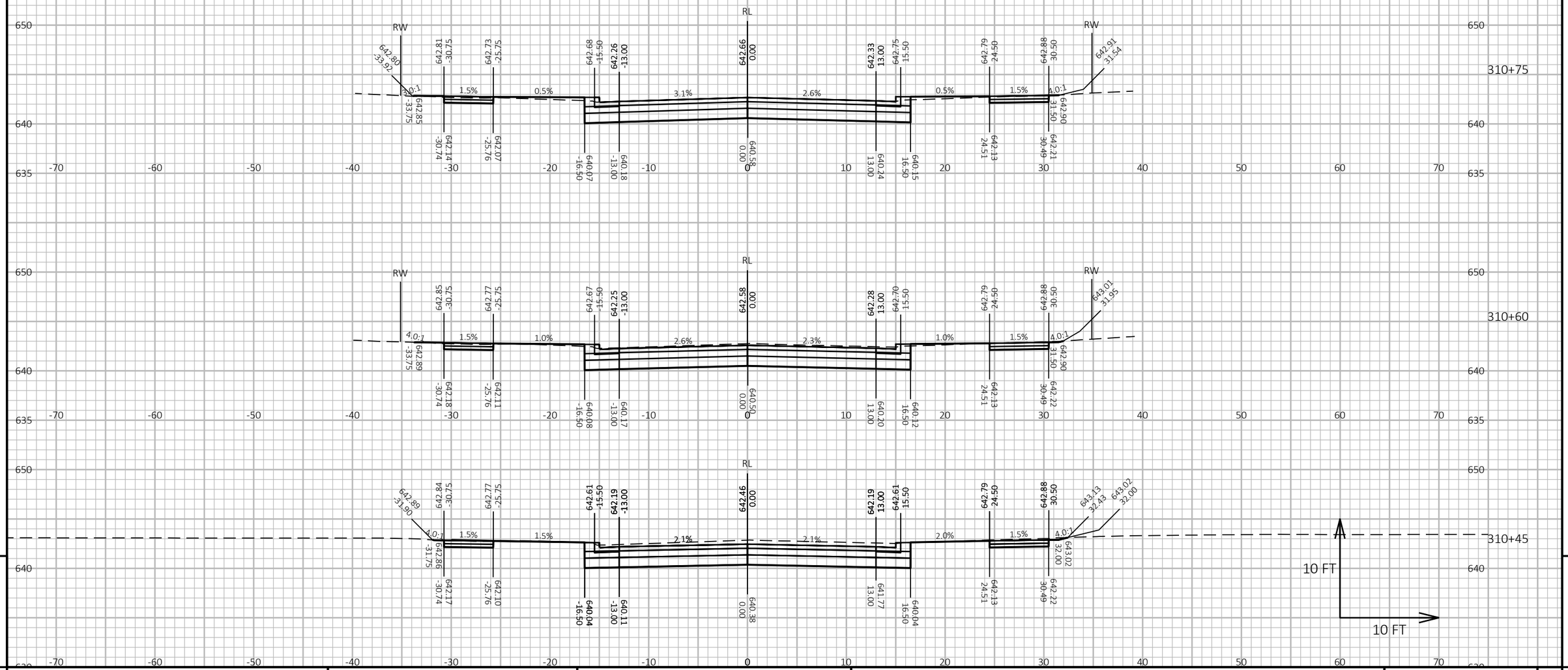
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 3N 19TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 310+75.00



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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 19TH STREET	SHEET Page 192 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 4N 19TH STREET

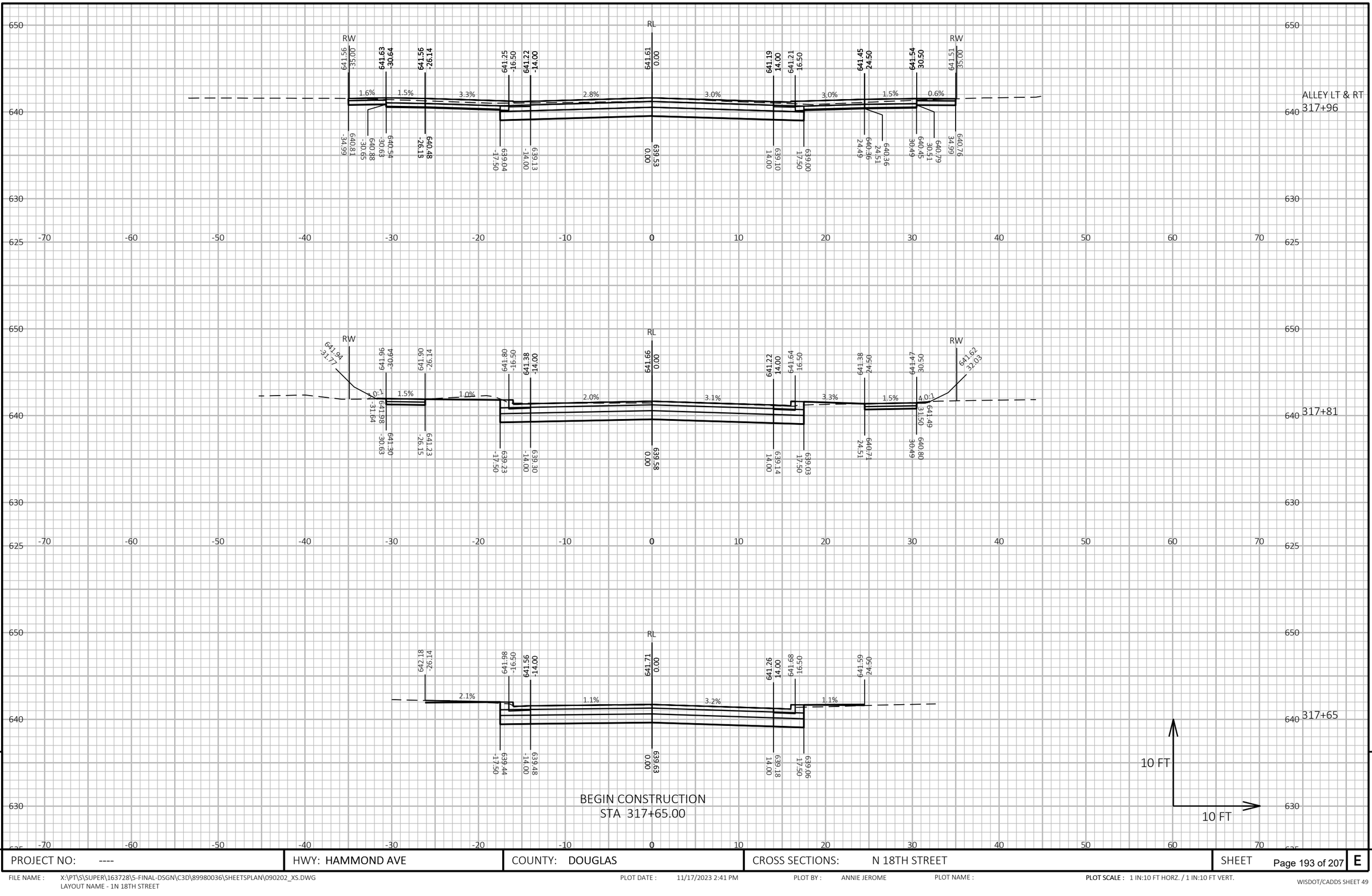
PLOT DATE : 11/17/2023 2:41 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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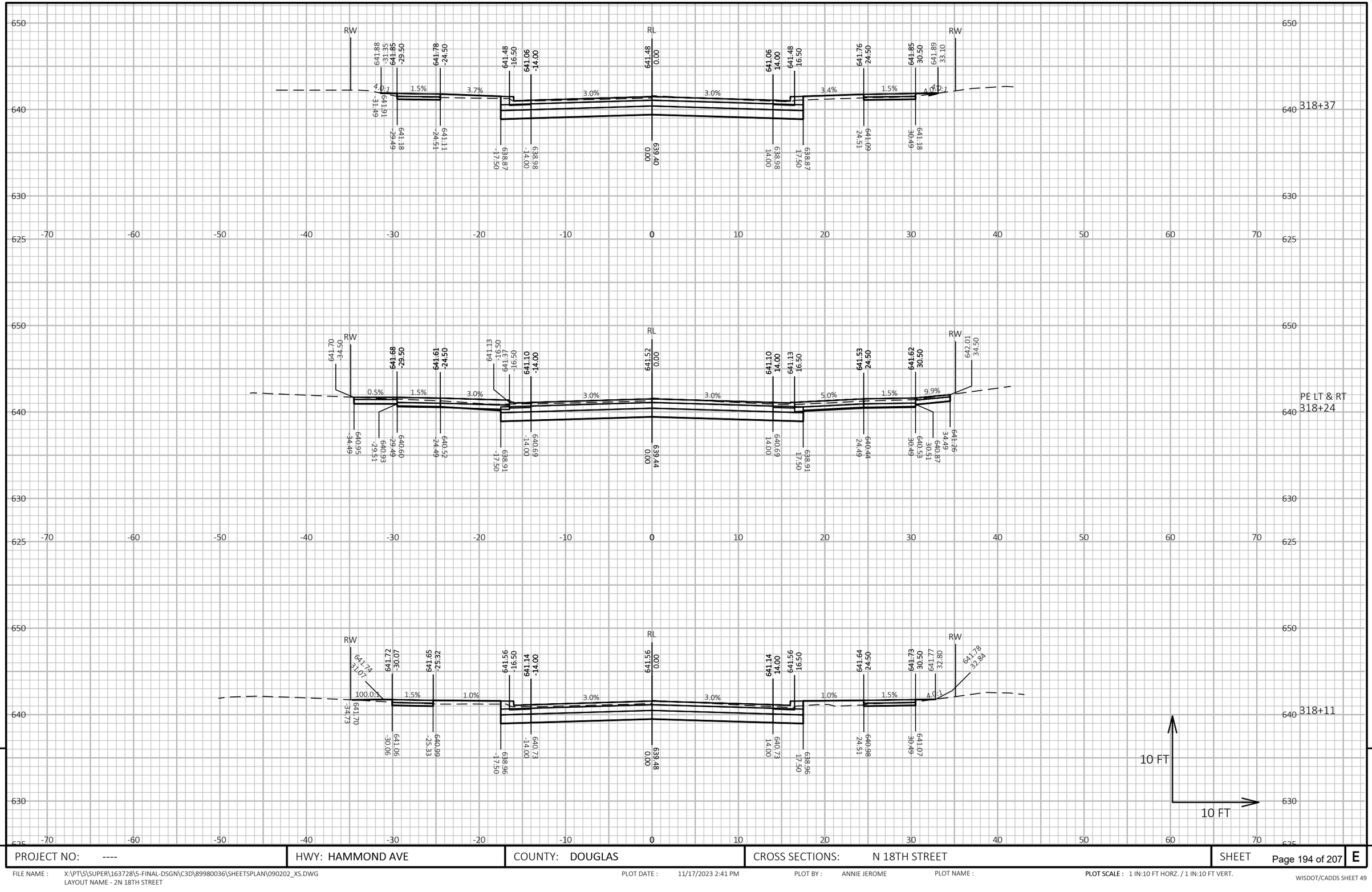
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 18TH STREET	SHEET Page 193 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 1N 18TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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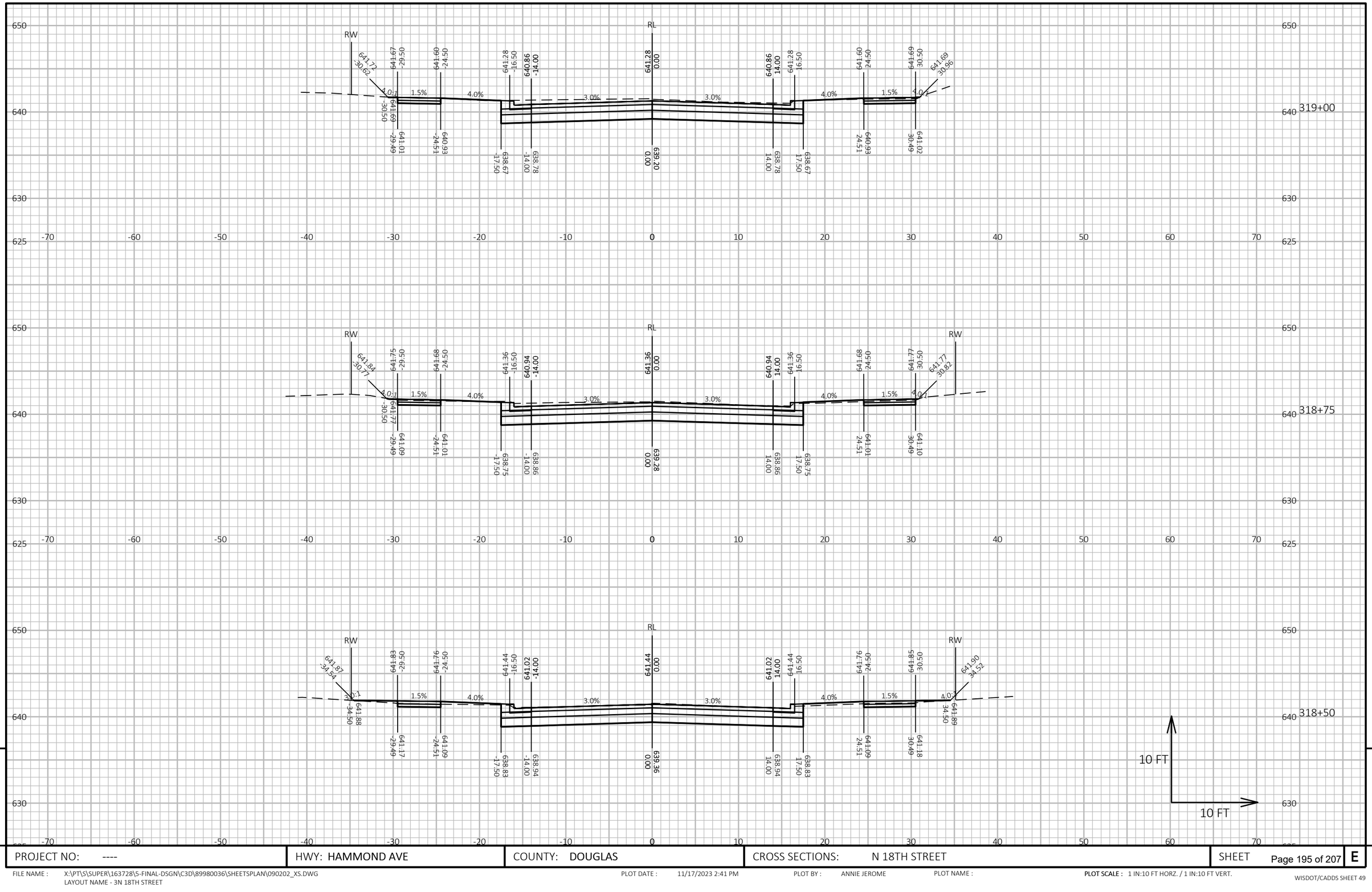
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 18TH STREET	SHEET Page 194 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 2N 18TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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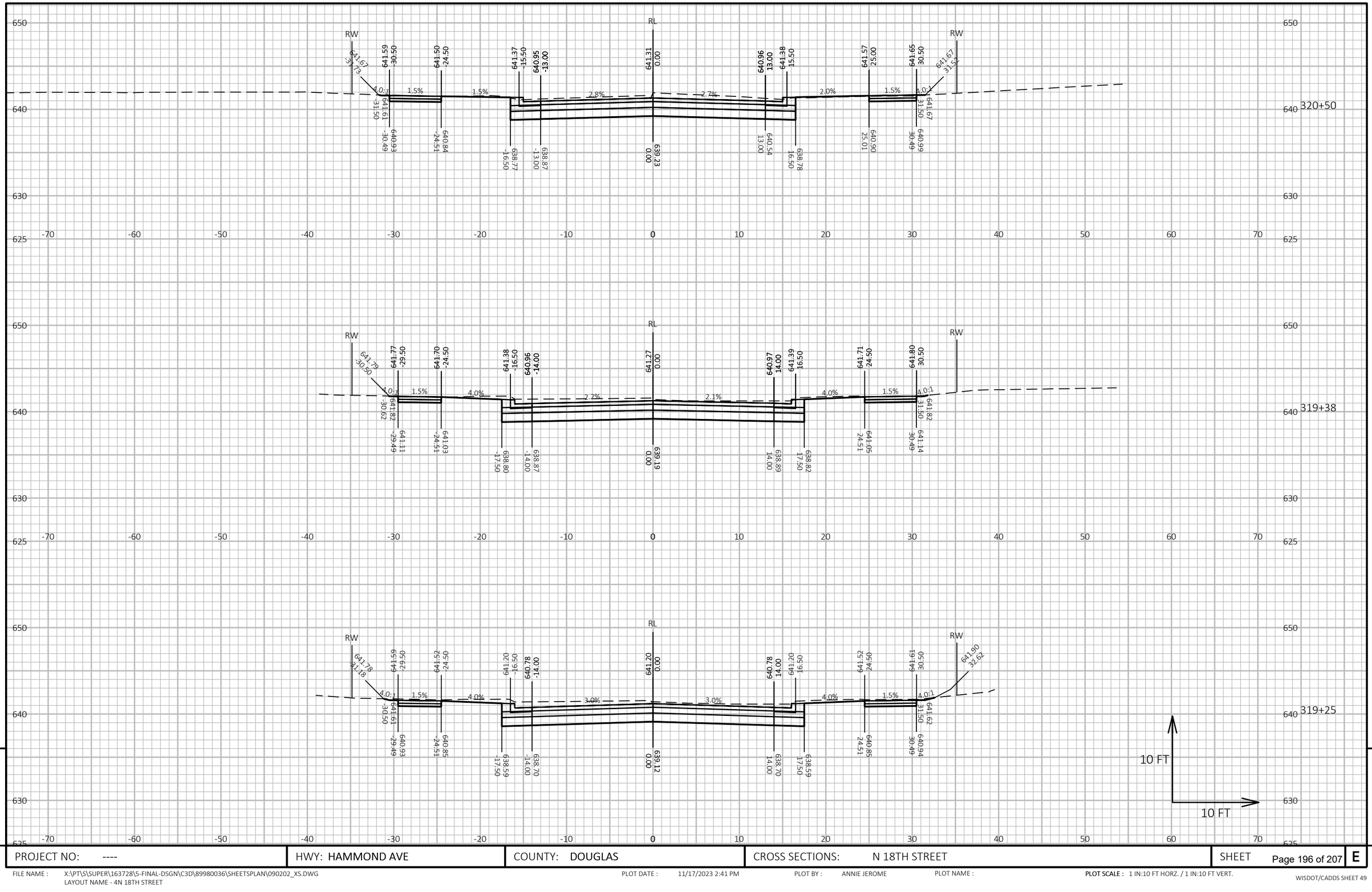
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 18TH STREET	SHEET Page 195 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 3N 18TH STREET

PLOT DATE : 11/17/2023 2:41 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 18TH STREET	SHEET Page 196 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 4N 18TH STREET

PLOT DATE : 11/17/2023 2:41 PM

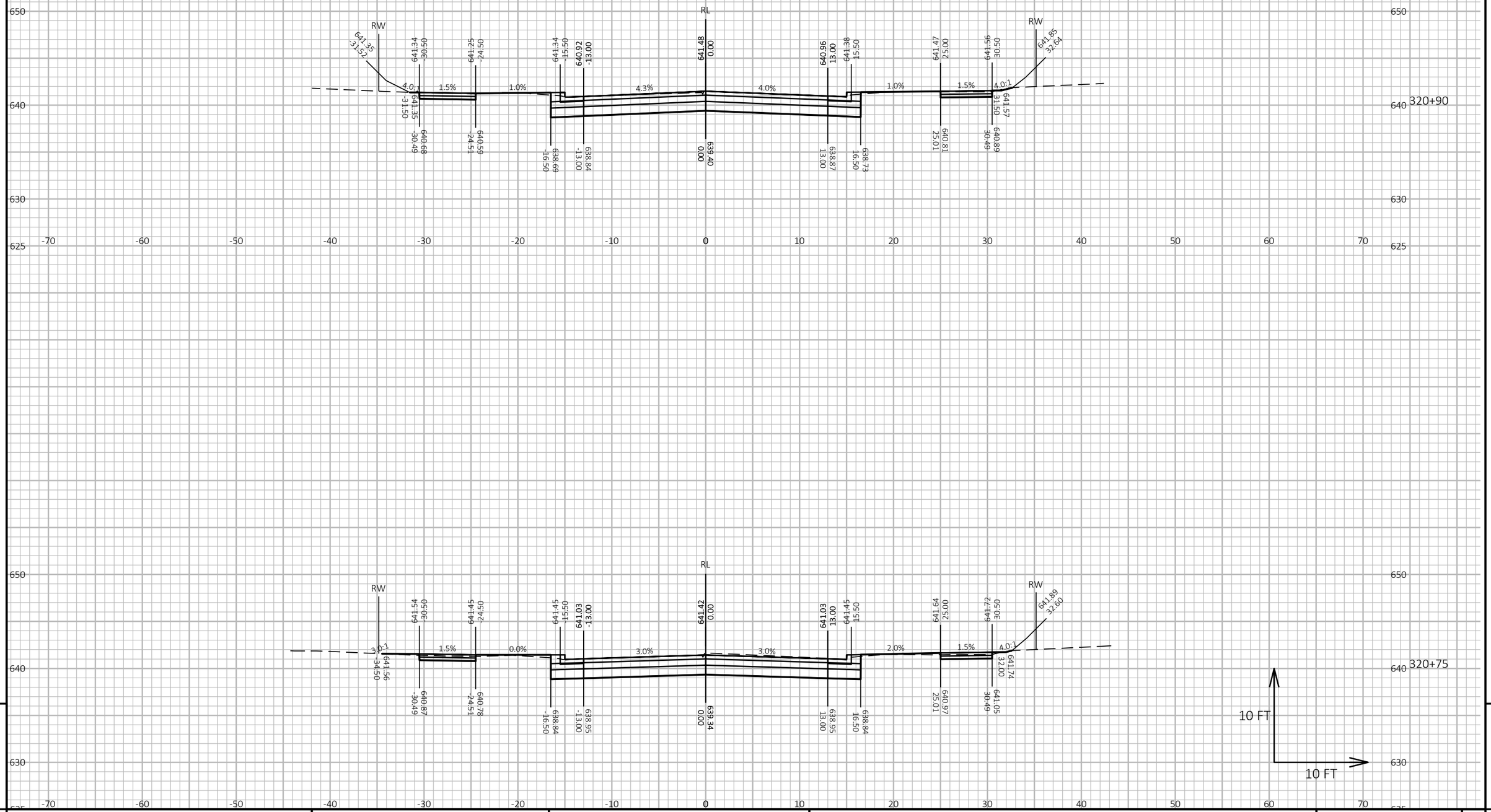
PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 320+90.00



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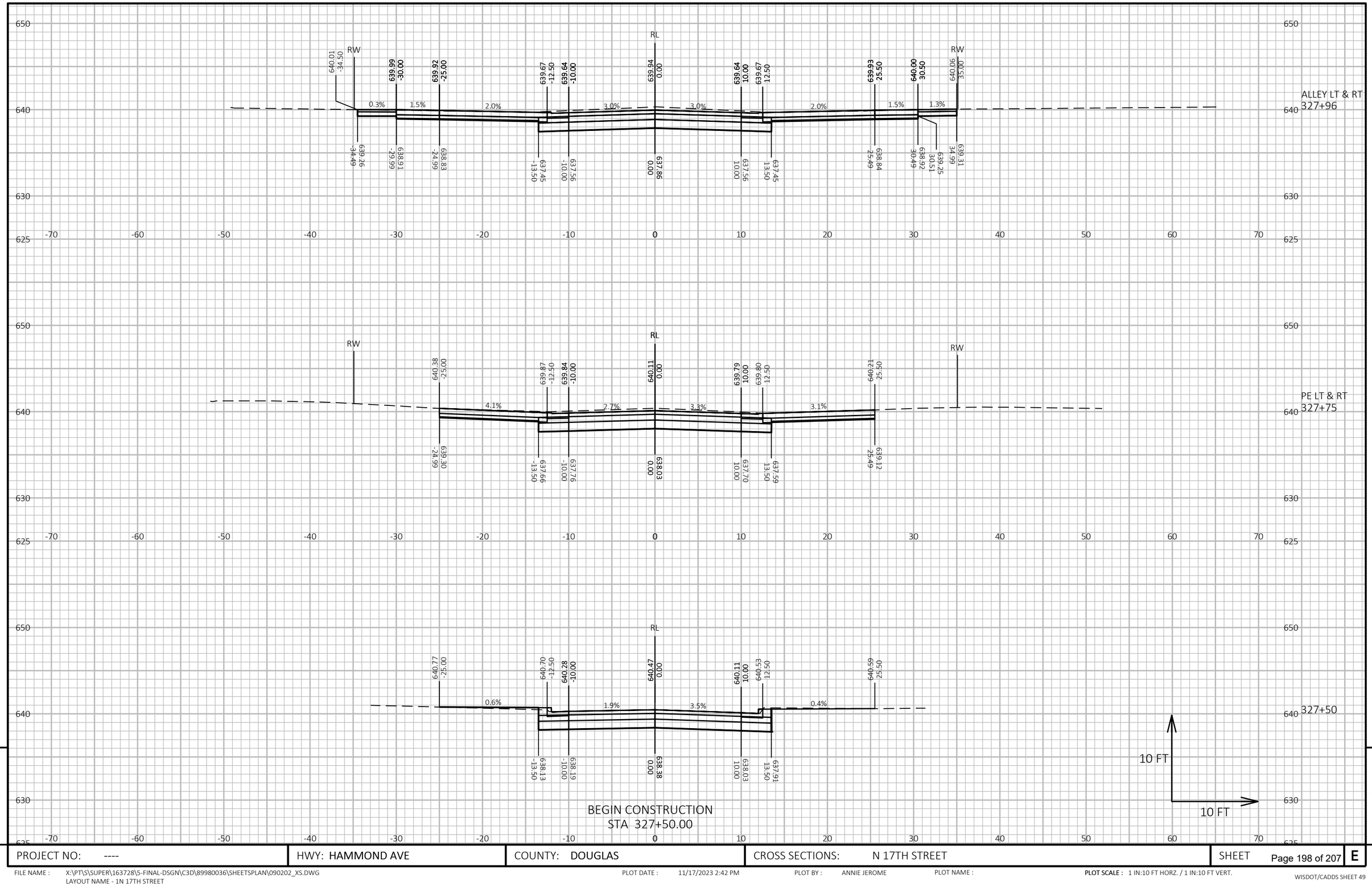
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 18TH STREET	SHEET Page 197 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 5N 18TH STREET

PLOT DATE : 11/17/2023 2:42 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49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RW
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639.99
-30.00
639.92
-25.00
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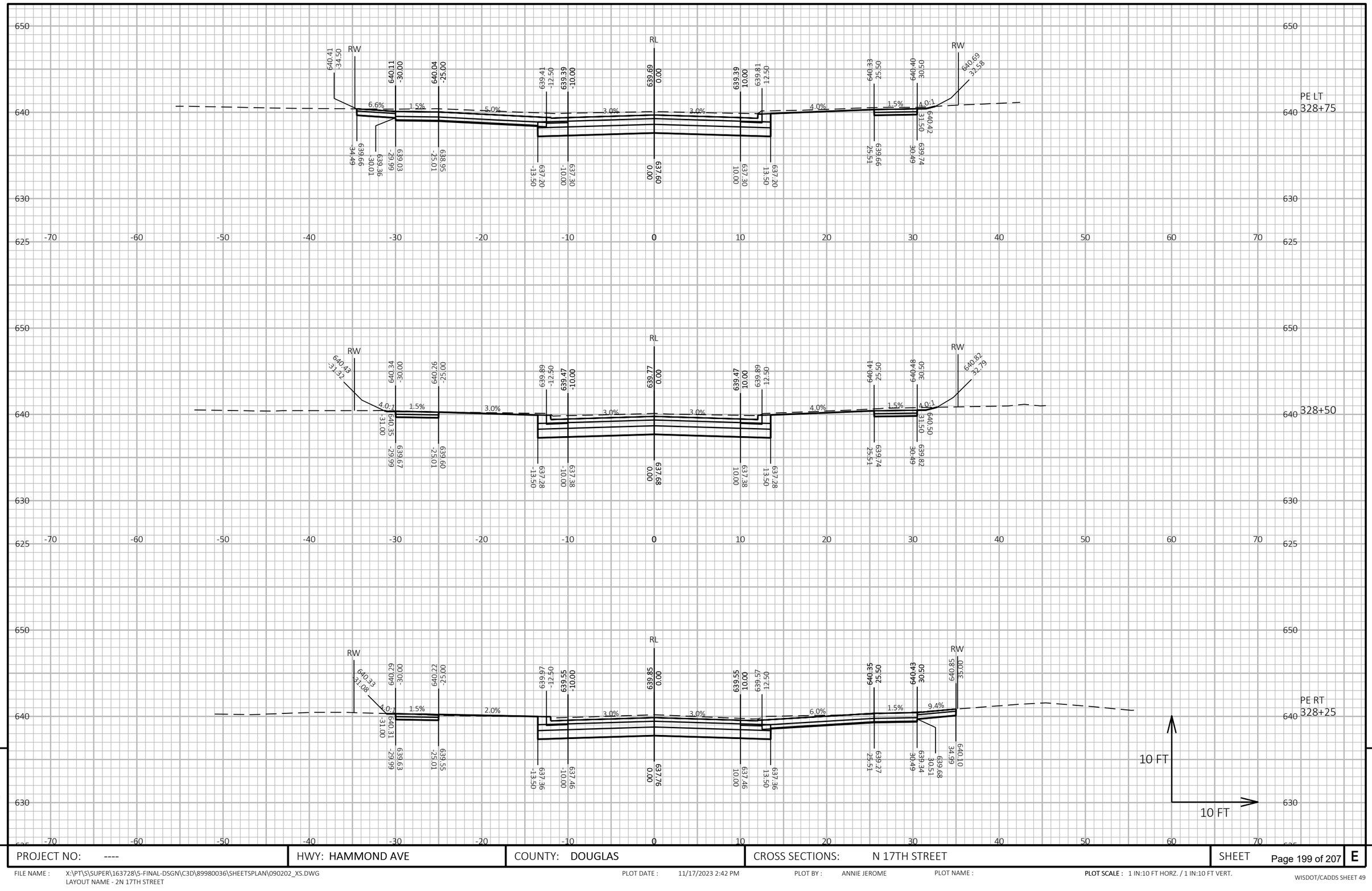
-12.50
639.64
-10.00
639.94
0.00
639.64
10.00
639.67
12.50
639.93
25.50
640.00
30.50
640.49
35.00
0.3%
1.5%
2.0%
3.0%
3.0%
2.0%
1.5%
1.3%
639.26
-34.49
638.91
-29.99
638.83
-24.99
637.45
-13.50
637.56
-10.00
637.86
0.00
637.56
10.00
637.45
13.50
638.84
25.49
638.92
30.49
639.25
30.51
639.31
34.99
ALLEY LT & RT
327+96
RW
RL
RW
640.09
-25.00
639.87
-12.50
639.84
-10.00
640.11
0.00
639.79
10.00
639.80
12.50
640.21
25.50
4.1%
2.7%
3.3%
3.1%
639.30
-24.99
637.66
-13.50
637.76
-10.00
638.03
0.00
637.70
10.00
637.59
13.50
639.12
25.49
PE LT & RT
327+75
RL
640.77
-25.00
640.70
-12.50
640.28
-10.00
640.47
0.00
640.11
10.00
640.35
12.50
640.59
25.50
0.6%
1.9%
3.5%
0.4%
638.13
-13.50
638.19
-10.00
638.38
0.00
638.03
10.00
637.91
13.50
327+50
10 FT
10 FT
BEGIN CONSTRUCTION
STA 327+50.00



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9

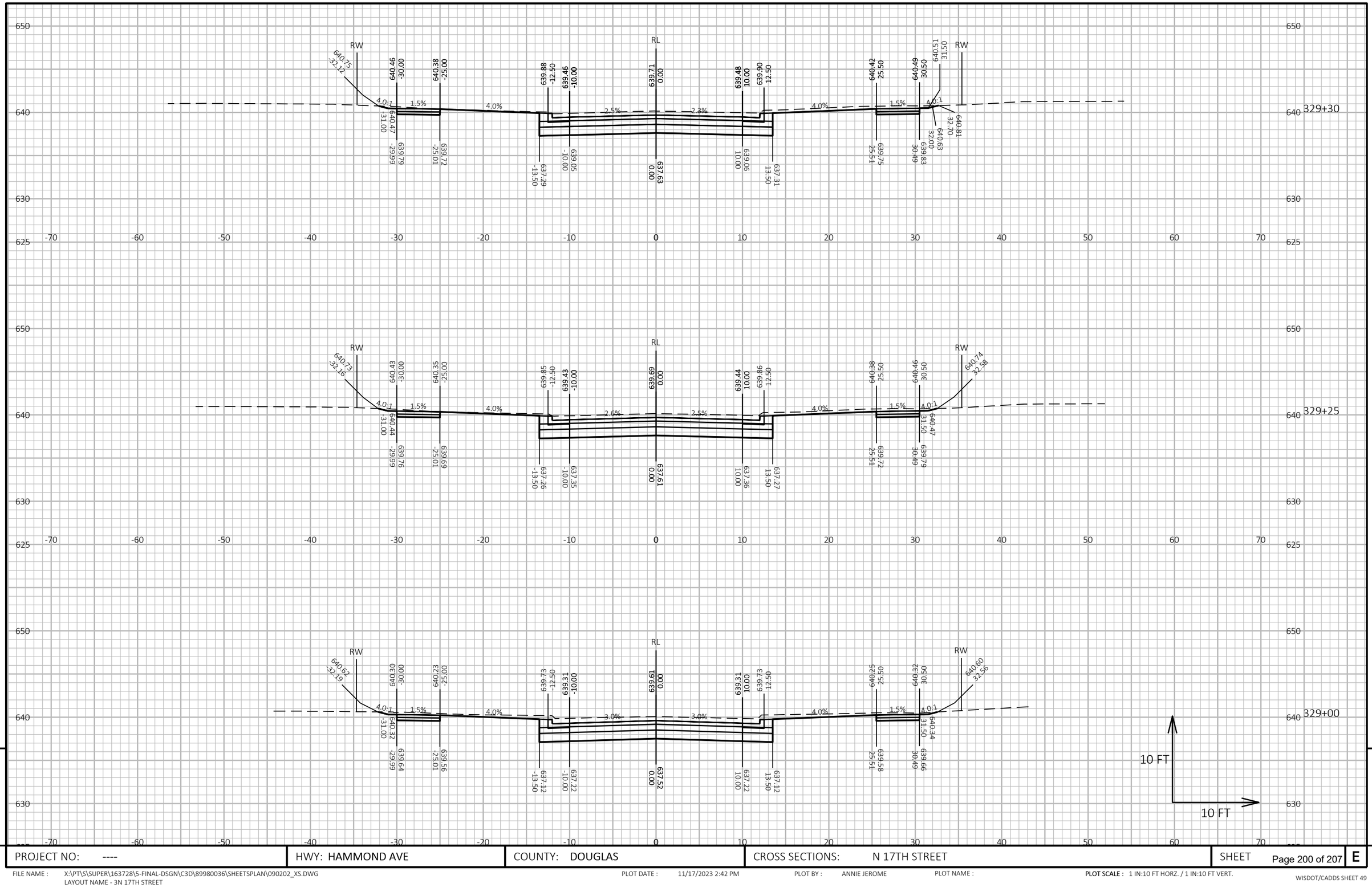
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 17TH STREET	SHEET Page 199 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 2N 17TH STREET

PLOT DATE : 11/17/2023 2:42 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 17TH STREET	SHEET Page 200 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 3N 17TH STREET

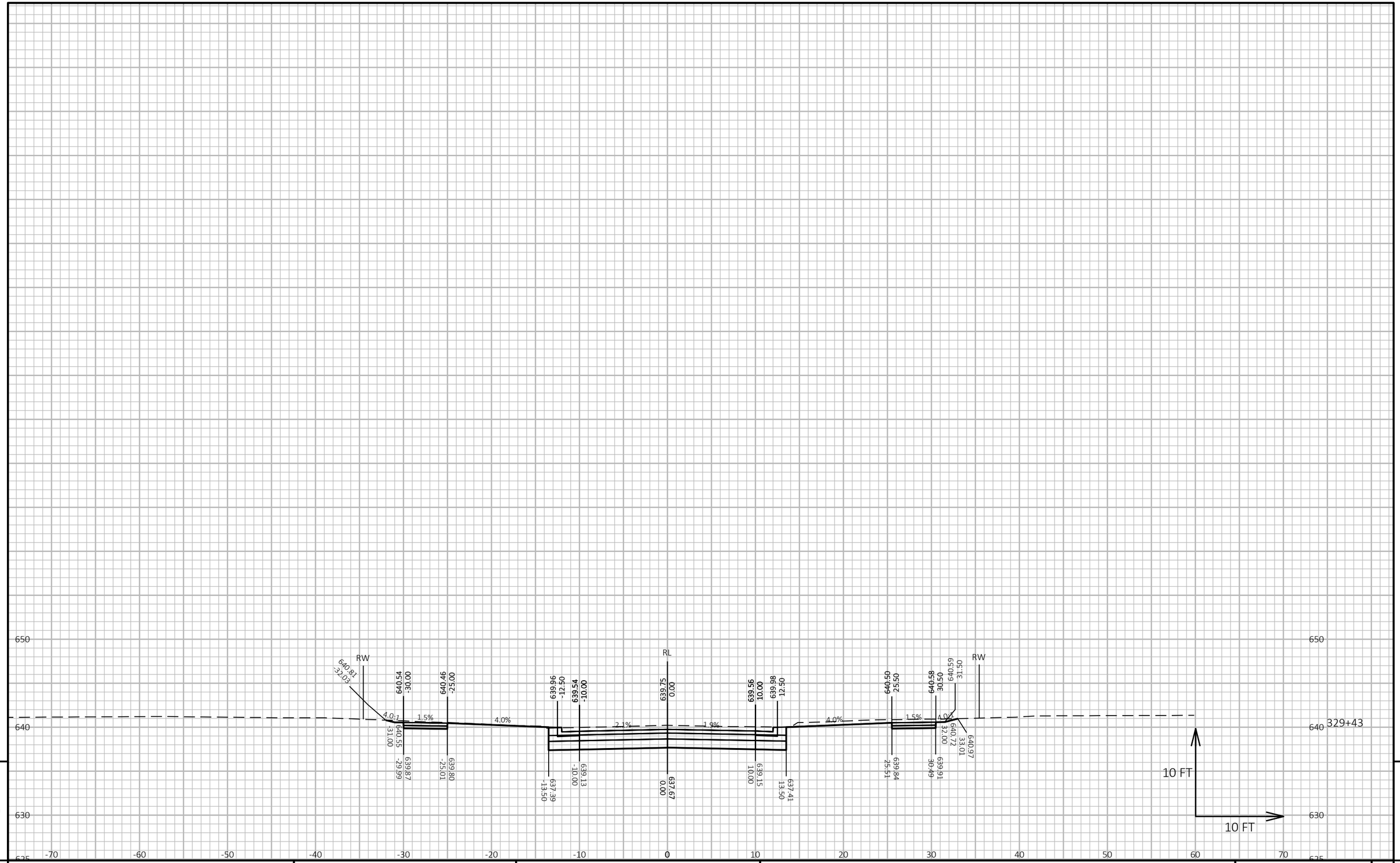
PLOT DATE : 11/17/2023 2:42 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 17TH STREET	SHEET Page 201 of 207	E

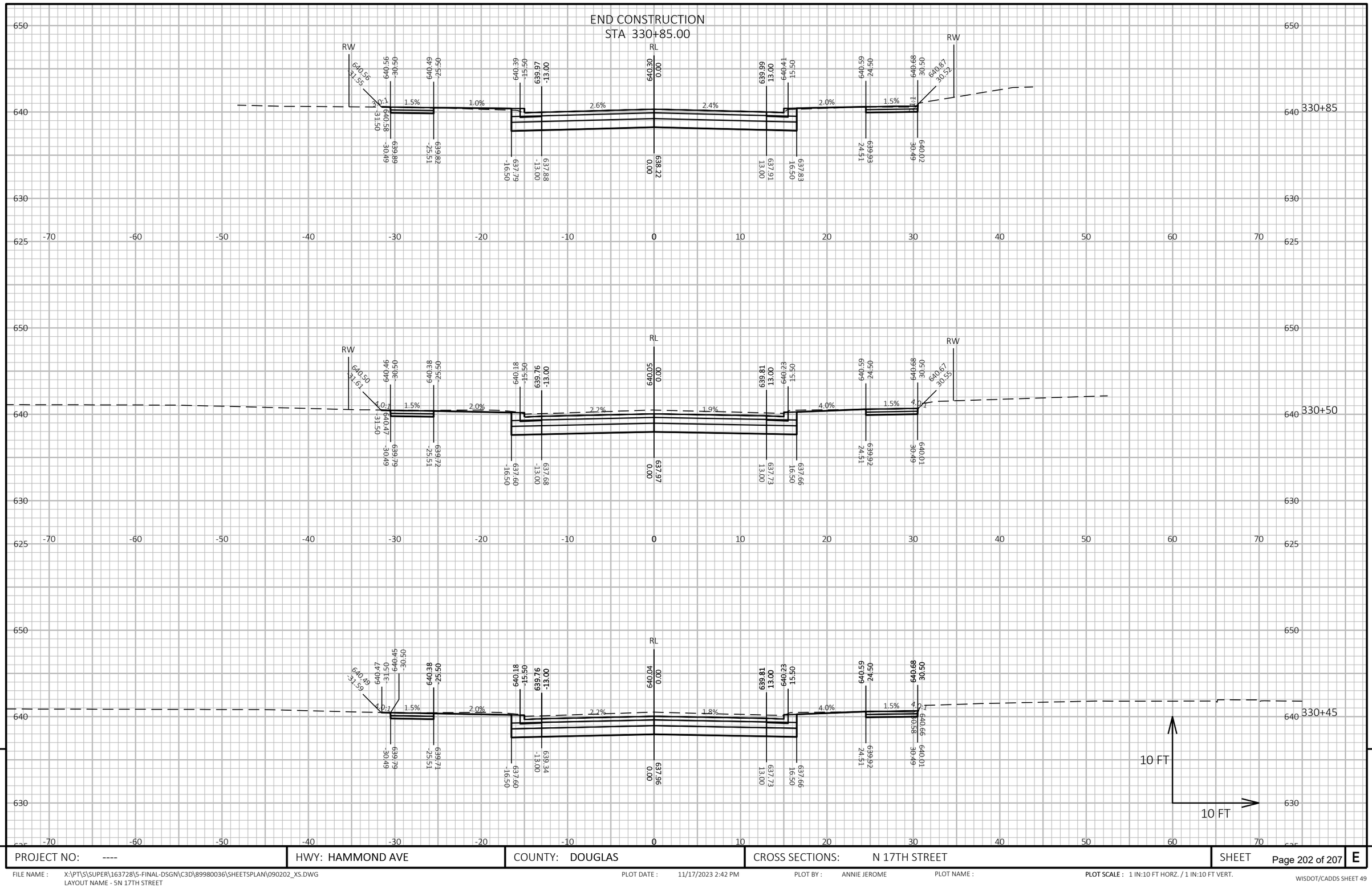
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 4N 17TH STREET

PLOT DATE : 11/17/2023 2:42 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 330+85.00



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PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 17TH STREET	SHEET Page 202 of 207	E

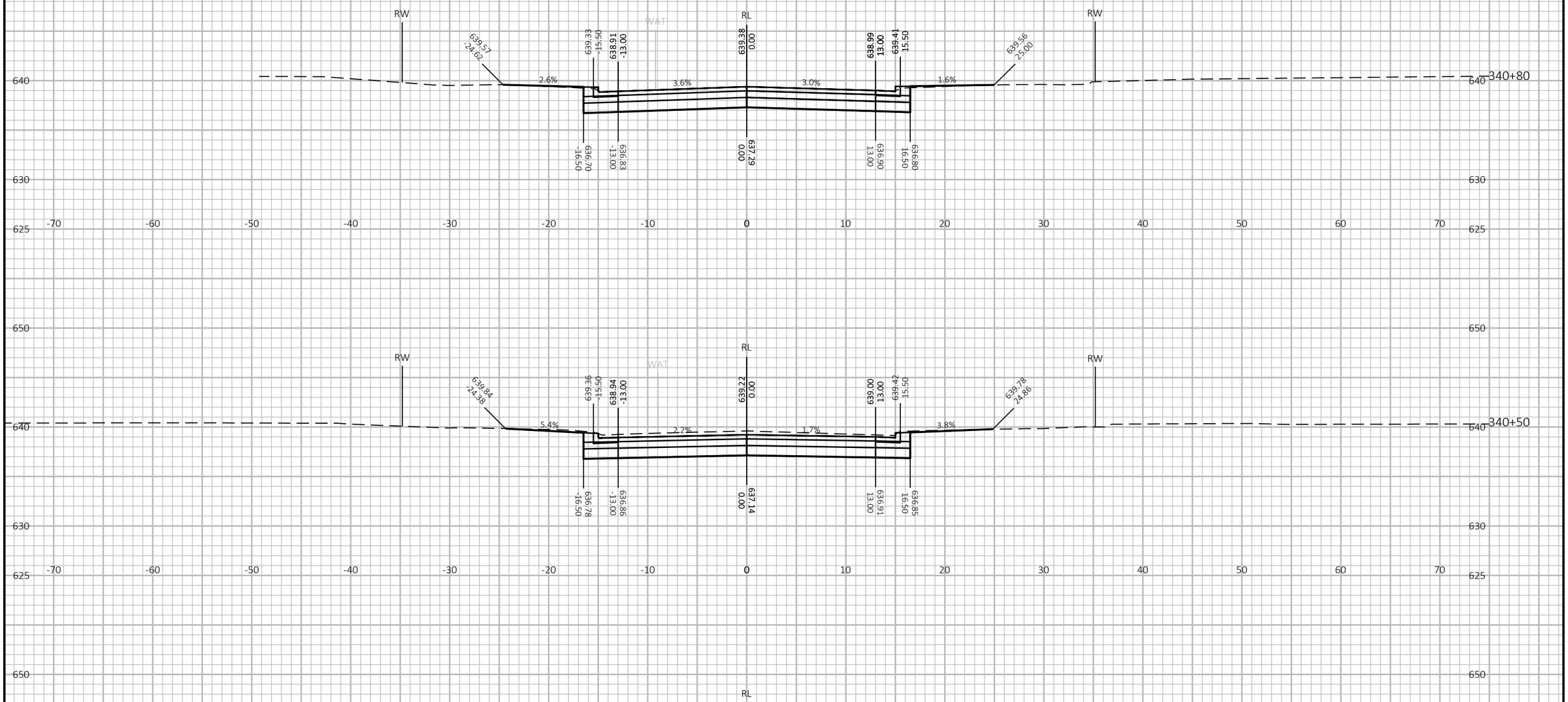
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 5N 17TH STREET

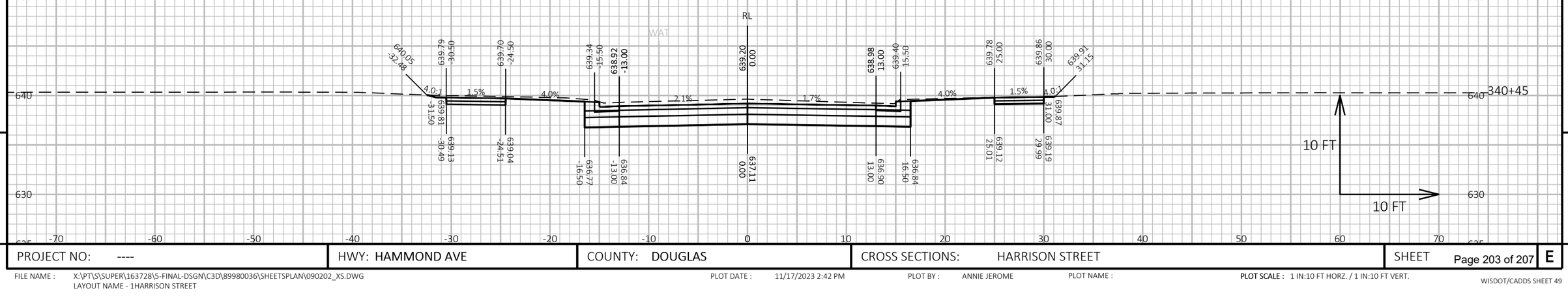
PLOT DATE : 11/17/2023 2:42 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 340+80.00





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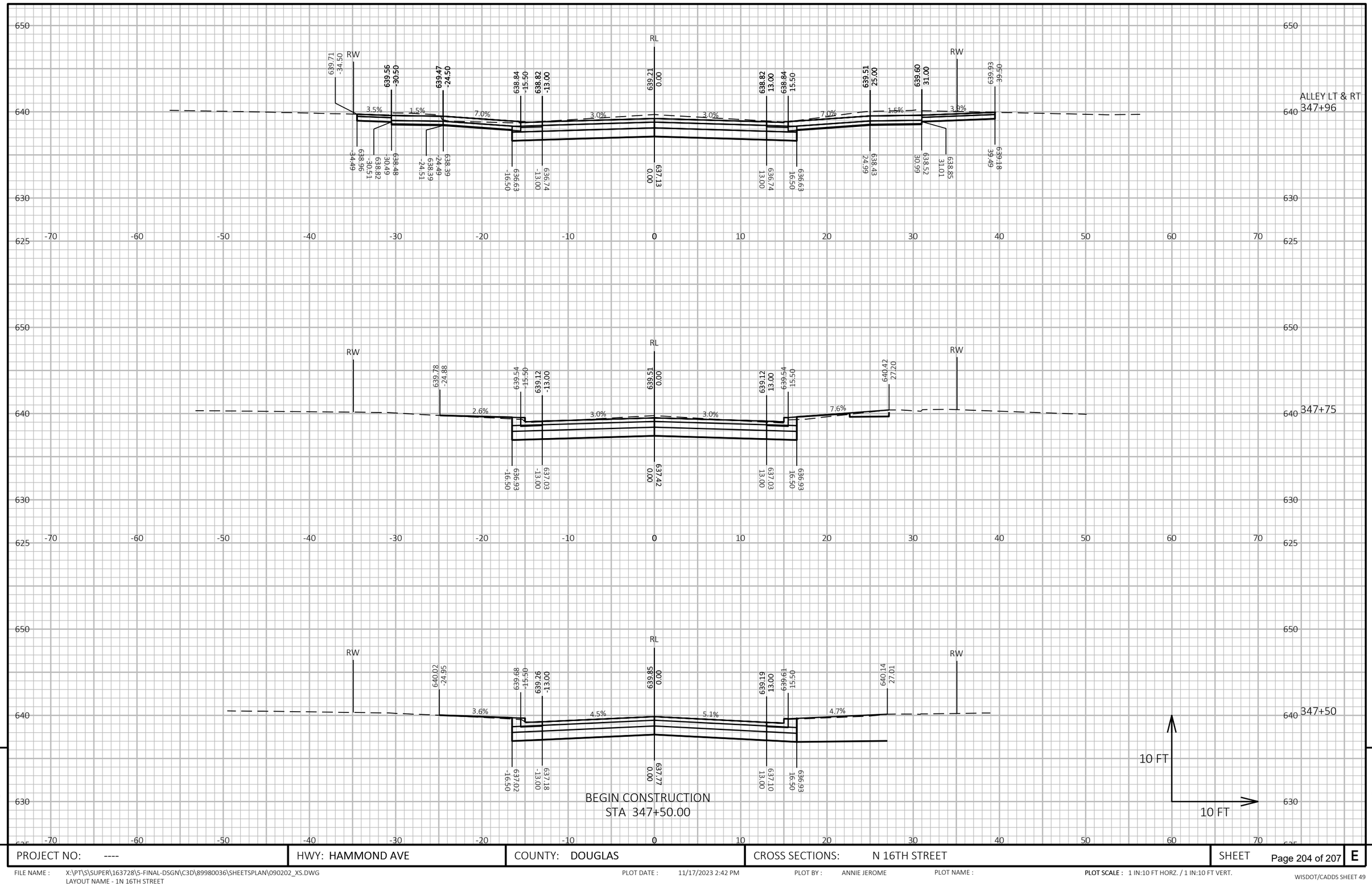
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: HARRISON STREET	SHEET Page 203 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 1HARRISON STREET

PLOT DATE : 11/17/2023 2:42 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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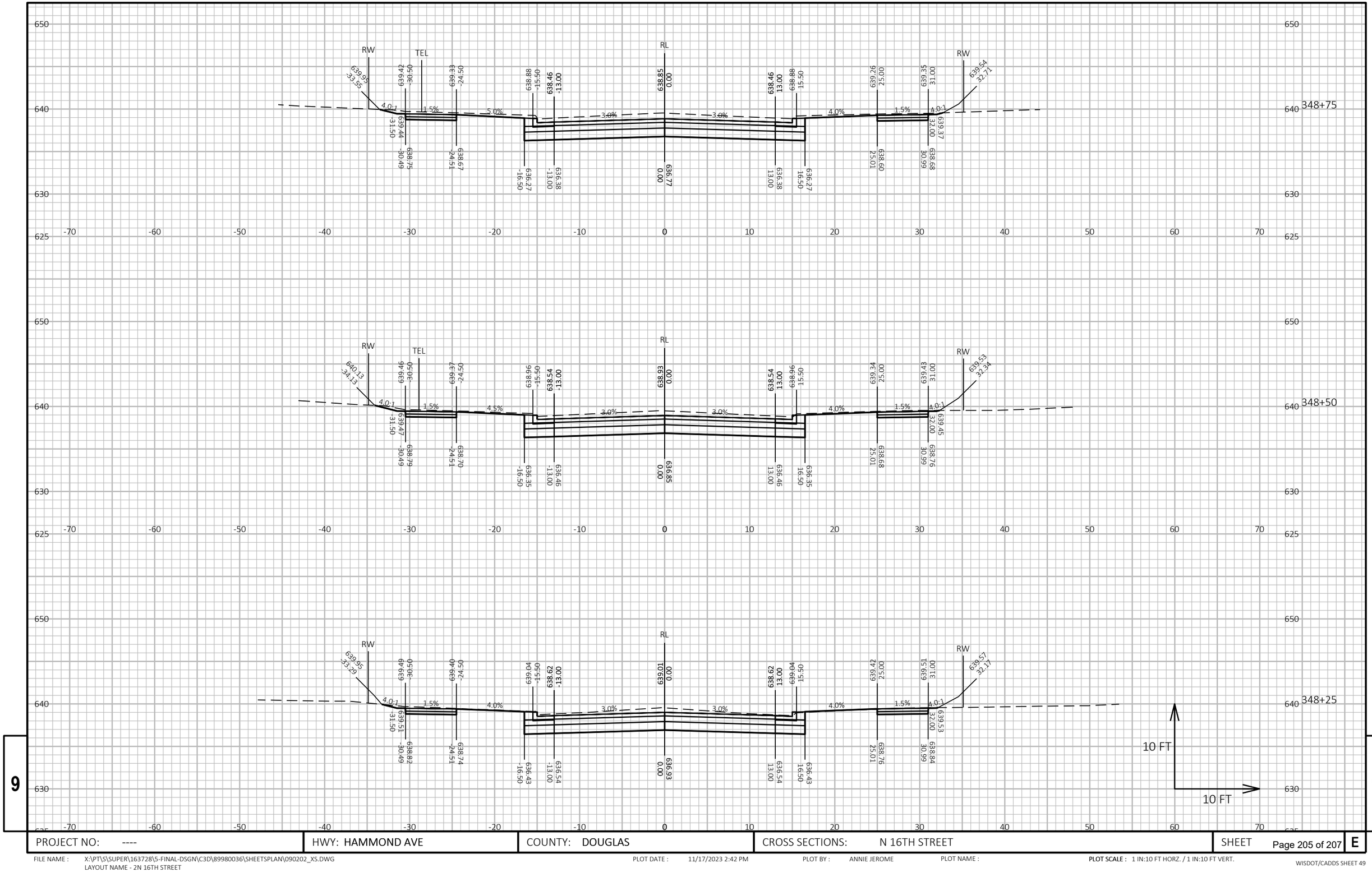
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 16TH STREET	SHEET Page 204 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 1N 16TH STREET

PLOT DATE : 11/17/2023 2:42 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49


650
640
630
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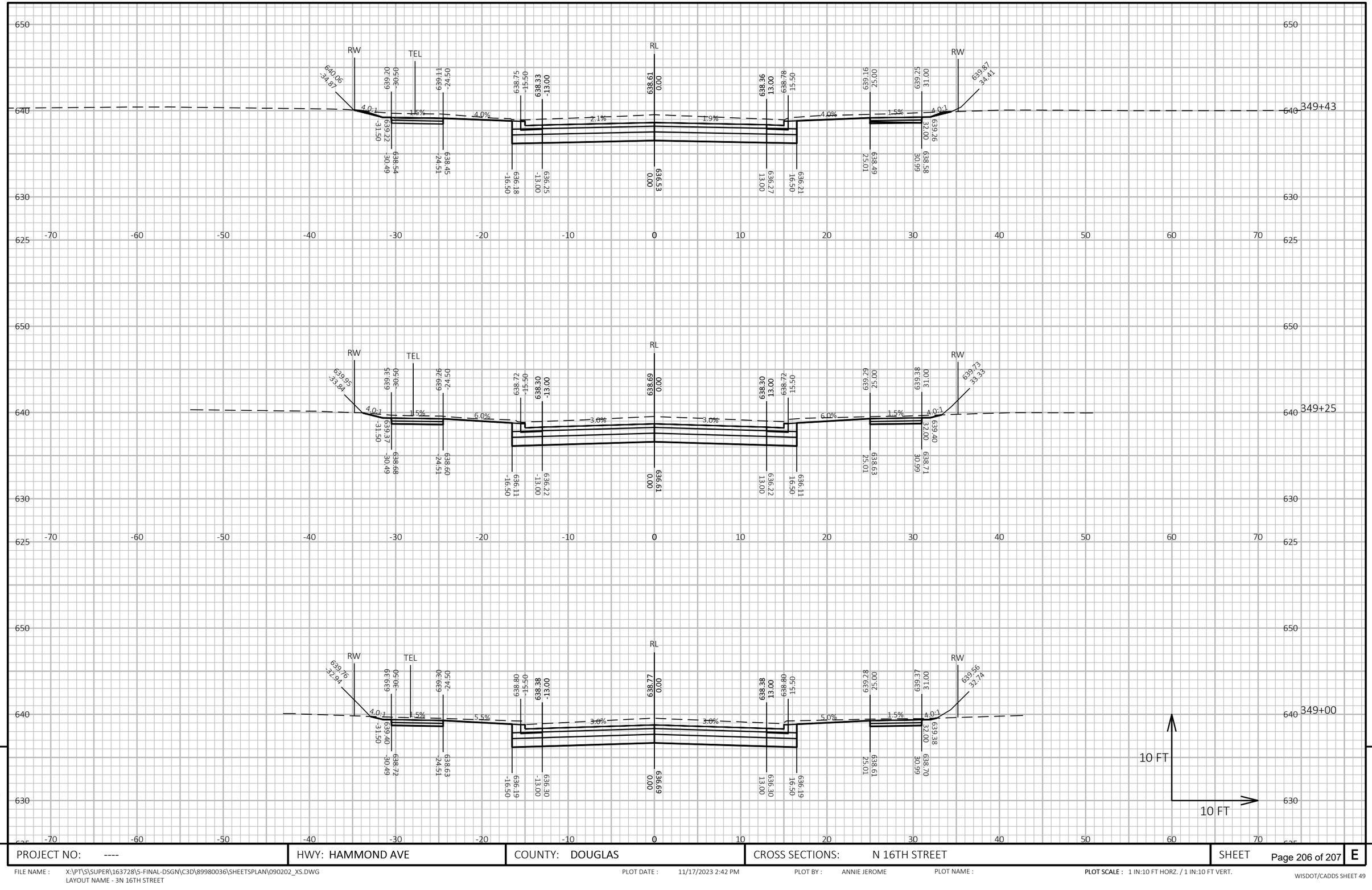
-70
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
70
RW
TEL
RL
639.95
-35.29
639.69
-30.49
639.33
-24.51
638.88
-15.50
638.46
-13.00
638.85
0.00
638.46
13.00
638.88
15.50
639.26
25.00
639.35
31.00
639.54
32.71
639.44
-31.50
638.75
638.67
636.27
-16.50
636.38
639.77
636.38
13.00
636.27
16.50
638.60
25.01
638.68
30.99
639.37
32.00
4.0:1
1.5%
5.0%
3.0%
4.0%
348+75
640.13
-34.13
639.47
638.79
638.70
636.35
636.46
639.45
638.76
639.53
32.34
4.5%
348+50
639.85
-35.29
639.51
638.82
638.74
636.43
636.54
639.57
32.17
348+25
10 FT
9
PROJECT NO: ----
HWY: HAMMOND AVE
COUNTY: DOUGLAS
CROSS SECTIONS: N 16TH STREET
SHEET Page 205 of 207
E
FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 2N 16TH STREET
PLOT DATE : 11/17/2023 2:42 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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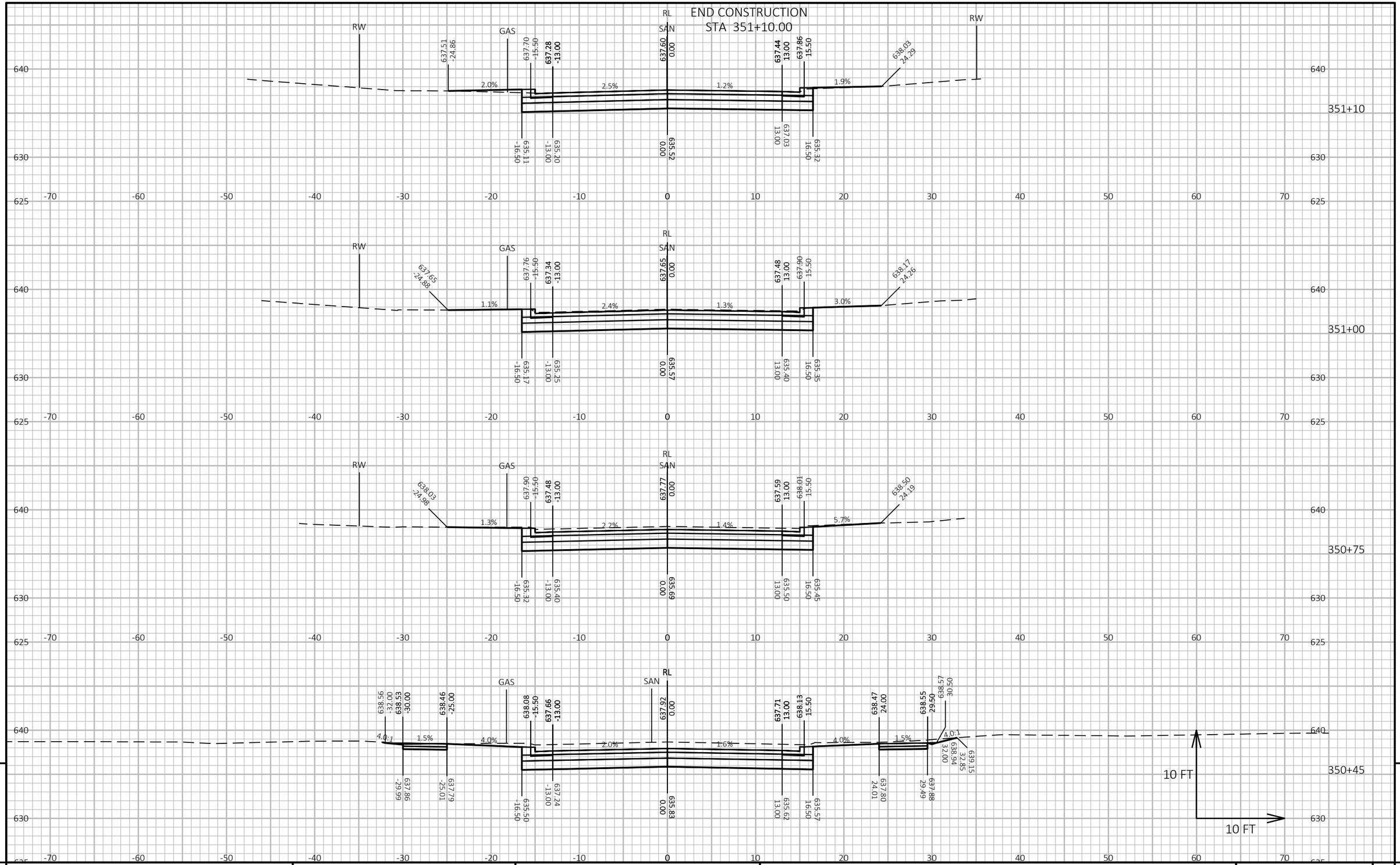
PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 16TH STREET	SHEET Page 206 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 3N 16TH STREET

PLOT DATE : 11/17/2023 2:42 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION
STA 351+10.00



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9

PROJECT NO: ----	HWY: HAMMOND AVE	COUNTY: DOUGLAS	CROSS SECTIONS: N 16TH STREET	SHEET Page 207 of 207	E

FILE NAME : X:\PT\S\SUPER\163728\5-FINAL-DSGN\C3D\89980036\SHEETSPLAN\090202_XS.DWG
LAYOUT NAME - 4N 16TH STREET

PLOT DATE : 11/17/2023 2:42 PM

PLOT BY : ANNIE JEROME

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49