

# CITY OF BERLIN, WISCONSIN

## 2020 STREET AND UTILITY IMPROVEMENTS

### UTILITIES

#### STREET AND STORM SEWER

CITY OF BERLIN  
P.O. BOX 272  
BERLIN, WI 54923  
920-361-5425  
CONTACT: SCOTT ZABEL  
EMAIL: SZABEL@CITYOFBERLIN.NET

#### WATER & SANITARY SEWER

CITY OF BERLIN  
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EMAIL: BMALNORY@CITYOFBERLIN.NET

#### TELEPHONE

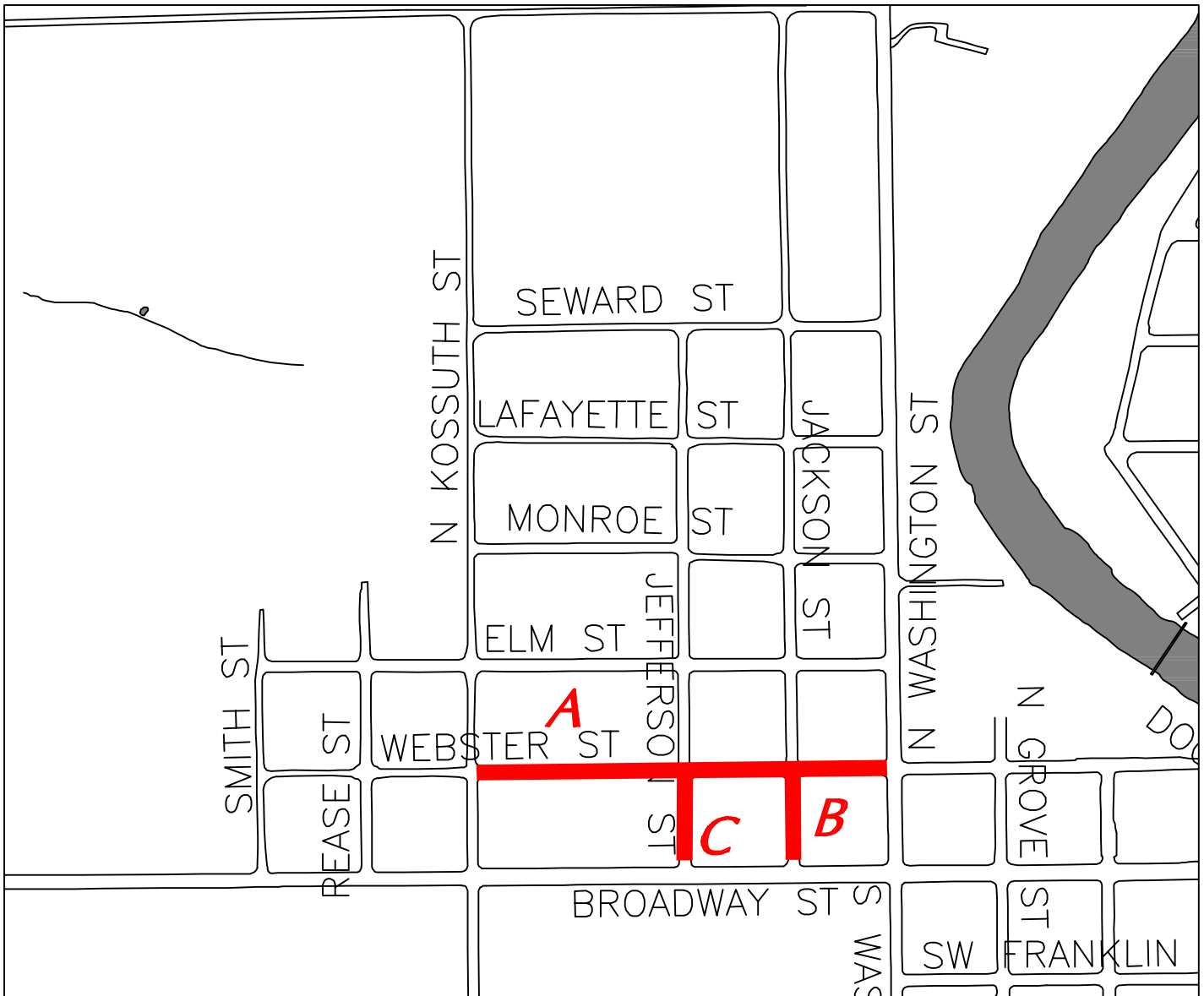
CENTURYLINK  
P.O. BOX 98  
RANDOLPH, WI 53956  
920-748-8491  
CONTACT: TIM KROEZE

#### ELECTRIC & NATURAL GAS

ALLIANT ENERGY  
880 N. WISCONSIN ST.  
BERLIN, WI 54923  
920-361-5629  
CONTACT: AARON MASTERS  
EMAIL: AARONMASTERS@ALLIANTENERGY.COM

#### CABLE TELEVISION

CHARTER COMMUNICATIONS  
W7185 STH 49, SUITE 1  
WAUPUN, WI 53963  
920-263-0062 OFFICE  
920-304-6797 CELL  
CONTACT: NICK FRASE  
EMAIL: NICK.FRASE@CHARTER.COM



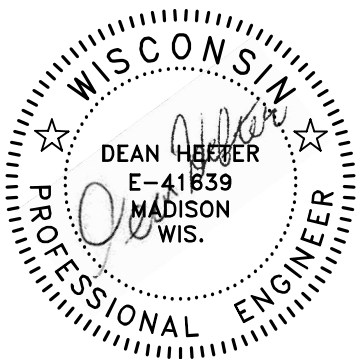
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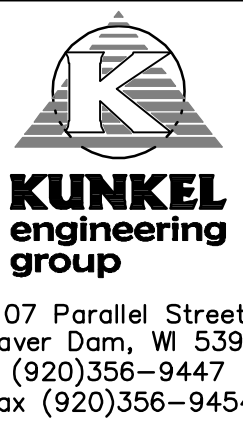
### STREETS

- A WEBSTER ST FROM KOSSUTH TO N WASHINGTON STREET  
B JACKSON ST FROM WEBSTER TO BROADWAY STREET  
C JEFFERSON ST FROM WEBSTER TO BROADWAY STREET  
D S STATE ST FROM E HURON ST TO RIPON ROAD  
E S SWETTING ST FROM E HURON ST TO RIPON ROAD



2/3/2020

PROJECT #  
KU19.1068



SHEET 1 OF 27

STANDARD SYMBOLS

BCAM	BLOCK CORNER MONUMENT	MH	MANHOLE
IP	IRON PIPE	WV	WATER VALVE
RB	REBAR	AV	AUXILIARY VALVE
CP	CONTROL POINT	UP	POWER POLE/UTILITY POLE
R/W	RIGHT OF WAY	LP	LIGHT POLE
PL	PROPERTY LINE	STM	STORM SEWER
		INL	STORM INLET
EX	EXISTING	SAN	SANITARY SEWER
TBR	TO BE REMOVED	CS	CURB STOP
TBA	TO BE ABANDONED	STA	STATION
		CL	CENTERLINE
CSW	CONCRETE SIDEWALK	T/C	TOP OF CURB
DRWY	DRIVEWAY	B/W	BACK OF WALK
CONC	CONCRETE	ER	END OF RADIUS
ASPH	ASPHALT	PC	POINT OF CURVATURE
GRAV	GRAVEL	PI	POINT OF INTERSECTION
PAVT	PAVEMENT	PT	POINT OF TANGENCY
NTS	NOT TO SCALE		

GENERAL NOTES

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY. SEE PROFILES FOR CURBED GRADES.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE BACK OF CURB, UNLESS OTHERWISE NOTED. ALL OTHER RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

CURB AND GUTTER PLAN GRADES ARE TO THE TOP OF CURB LINE UNLESS OTHERWISE NOTED.

EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER OR AT LOCATIONS SHOWN ON THE PLAN. CONSTRUCT INSIDE EDGE OF SIDEWALK 1/2 INCH HIGHER THAN TOP OF CURB WHEN THEY ARE ADJACENT TO EACH OTHER.

SAWCUTS, AS SHOWN ON PLANS, ARE AT SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

THE CLEAR ZONE IS 2 FEET BEHIND THE FACE OF THE CURB.  
SIGN LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND THE EXACT LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

EXISTING DRAINAGE FACILITIES WILL REMAIN FUNCTIONAL DURING EXCAVATION OPERATIONS.

THE EXACT LOCATION AND LIMITS OF PRIVATE AND COMMERCIAL ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. ALL EXISTING DRIVEWAYS ARE TO BE REPLACED IN KIND, UNLESS OTHERWISE NOTED.

ASPHALTIC COMMERCIAL AND PRIVATE ENTRANCES SHALL BE SAWCUT AS REQUIRED TO PROVIDE A CLEAN BUTT JOINT TO NEW WORK.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE. ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 120 LB/SY/IN.

WHEREVER ASPHALTIC CONCRETE PAVEMENT ABUTS OR OVERLAPS ONTO PORTLAND CEMENT CONCRETE, THE EXISTING PAVEMENT SHALL RECEIVE A TACK COAT OF RS-1 OR RS-2 EMULSIFIED ASPHALT.APPLICATION RATE FOR TACK COAT SHALL BE 0.05 GALLONS PER SQUARE YARD.
















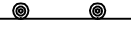
















CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

THE EROSION CONTROL DEVICES AS SHOWN ON THE PAVING PLAN SHEETS ARE AT SUGGESTED LOCATIONS. THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER.

THE CONTRACTOR WILL COORDINATE WITH LOCAL BUSINESSES WHEN ACCESS TO THE BUSINESS WILL BE CLOSED OFF FOR SIDEWALK INSTALLATION AND ANY OTHER WORK THAT MAY IMPACT THE PEDESTRIAN ACCESS AS LAID OUT IN THE 'TRAFFIC CONTROL – PEDESTRIAN ACCESS' SECTION OF THE PLAN.

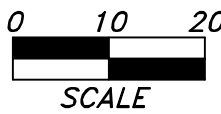
REMOVAL OF EROSION CONTROL DEVICES SHALL BE INCIDENTAL TO RESPECTIVE BID ITEMS.

STANDARD SYMBOLS

	BLOCK CORNER MONUMENT		LIGHT POLE		UTILITY CROSS		INLET PROTECTION
	PROPERTY CORNER MONUMENT		UTILITY POLE		UTILITY TEE		TRACKING PAD
	CONTROL POINT		PEDESTAL		FLOW DIRECTION		DITCH CHECK
	BUSH		GUY WIRE		WATER UTILITY		SILT FENCE
	DECIDUOUS TREE (TRUNK DIAMETER INDICATED)		STORM INLET		WATER SERVICE		
	CONIFEROUS TREE (TRUNK DIAMETER INDICATED)		YARD INLET		GAS UTILITY		
	DRAINAGE FLOW DIRECTION		MANHOLE (STORM, SANITARY OR WATER)		GAS SERVICE		
	TREE/BUSH TO BE REMOVED		FIRE HYDRANT		UNDERGROUND TELEPHONE/CABLE UTILITY		
			WATER VALVE		UNDERGROUND ELECTRIC UTILITY		
			CURB STOP		UNDERGROUND FIBER OPTIC UTILITY		

PROJECT SUMMARY

- A. WEBSTER STREET FROM KOSSUTH ST TO WASHINGTON ST:  
STREET & UTILITY IMPROVEMENT RECONSTRUCTION PROJECT.
- REPAIR SIDEWALK AS NEEDED AND DIRECTED BY THE OWNER/ENGINEER
  - NEW SIDEWALK APPROACHES, DRIVEWAY APPROACHES, ASPHALT PAVEMENT, BASE AGGREGATE TO BE INSTALLED.
  - NEW WATERMAIN, SANITARY SEWER, AND STORM SEWER TO BE INSTALLED.
  - NEW WATER SERVICES AND SANITARY LATERALS TO BE INSTALLED.
- B. JACKSON ST FROM WEBSTER ST TO BROADWAY ST:  
STREET & UTILITY IMPROVEMENT RECONSTRUCTION PROJECT.
- EXISTING ASPHALT TO BE MILLED AND REPAVED FULL WIDTH OF THE STREET.
  - NEW WATERMAIN, SANITARY SEWER, AND STORM SEWER TO BE INSTALLED.
  - NEW WATER SERVICES AND SANITARY LATERALS TO BE INSTALLED.
  - SPOT CURB AND GUTTER REPAIRS AS DIRECTED BY THE OWNER/ENGINEER.
  - EXISTING ROAD BASE TO BE PROOF ROLLED PRIOR TO NEW ASPHALT PLACEMENT.
- C. JEFFERSON ST FROM WEBSTER ST TO BROADWAY ST:  
EXISTING ASPHALT MILLED AND REPAVED FULL WIDTH OF THE STREET.
- SPOT CURB AND GUTTER REPAIRS AS DIRECTED BY THE OWNER/ENGINEER.
  - EXISTING ROAD BASE TO BE PROOF ROLLED PRIOR TO NEW ASPHALT PLACEMENT.
- D. S STATE ST FROM E HURON ST TO RIPON RD:  
STREET & UTILITY IMPROVEMENT RECONSTRUCTION PROJECT.
- PROVIDE NEW DRIVEWAY APPROACHES, ASPHALT PAVEMENT, AND BASE AGGREGATES.
  - NEW WATERMAIN, SANITARY SEWER, AND STORM SEWER TO BE INSTALLED.
  - NEW WATER SERVICES AND SANITARY LATERALS TO BE INSTALLED.
  - REPAIR SIDEWALKS AS NEEDED AN DIRECTED BY THE OWNER/ENGINEER.
- E. S SWETTING ST FROM E HURON TO RIPON ROAD:  
MILL EXISTING ASPHALT PAVEMENT FULL DEPTH/
- SPOT CURB AND GUTTER REPAIRS AS DIRECTED BY THE OWNER/ENGINEER.
  - NEW WATER SERVICES AND SANITARY LATERALS TO BE INSTALLED.
  - PROOF ROLL EXISTING ROAD BASE. EBS AS NECESSARY.
  - PROVIDE NEW 4" OF HMA PAVEMENT (2 LAYERS)



NOT REVISED

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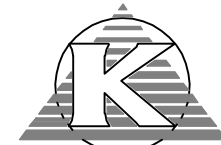
PROJECT : # KU19.1068

DATE : 1/27/2020

DRAWN BY : DRH

APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN  
2020 STREET AND UTILITY IMPROVEMENTS  
GENERAL NOTES

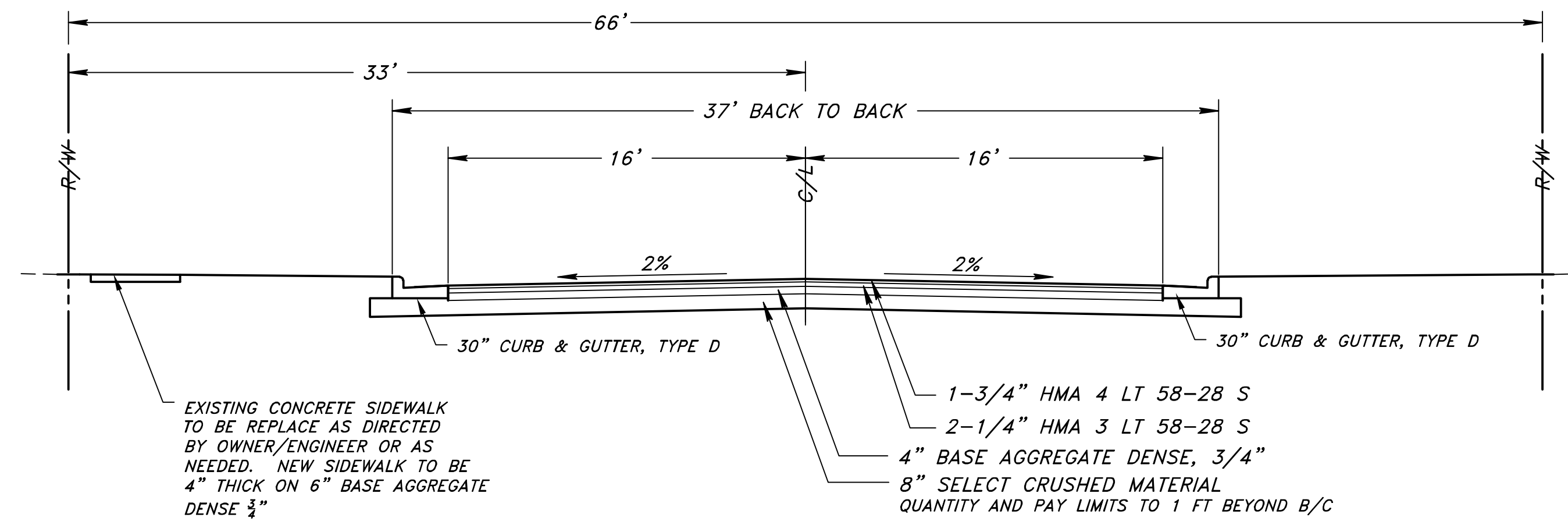


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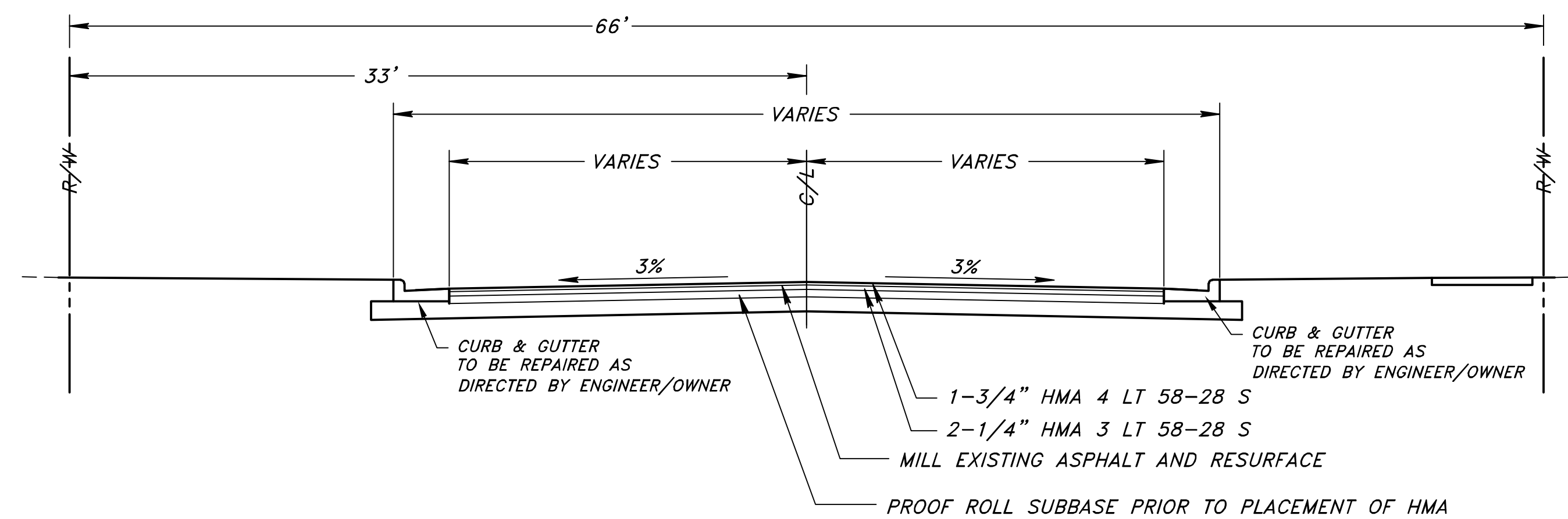
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SHEET 2 OF 27

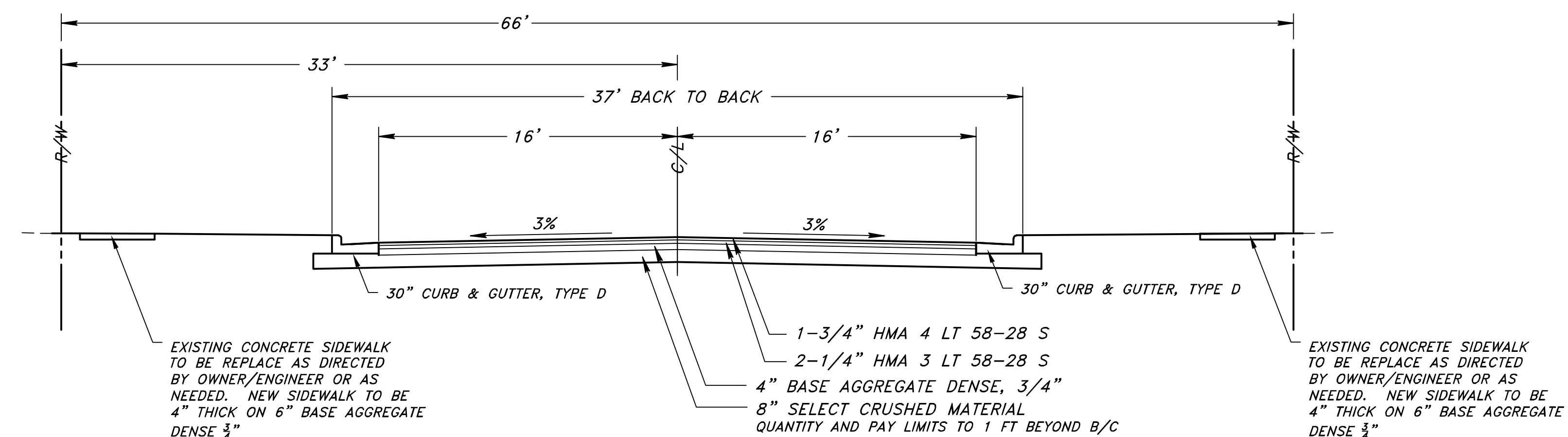
STANDARD SYMBOLS AND ABBREVIATIONS



**WEBSTER STREET**  
TYPICAL CROSS SECTION



**JACKSON STREET**  
TYPICAL CROSS SECTION  
**JEFFERSON STREET**  
TYPICAL CROSS SECTION



**S STATE STREET**  
TYPICAL CROSS SECTION

**CITY OF BERLIN - 2020 STREET & UTILITY IMPROVEMENTS - TYPICAL CROSS SECTIONS**

NOT REVISED

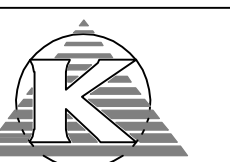
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PROJECT : # KU19.1068

DATE : 1/27/2020

DRAWN BY : DRH  
APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN  
2020 STREET AND UTILITY  
IMPROVEMENTS  
TYPICAL CROSS SECTIONS

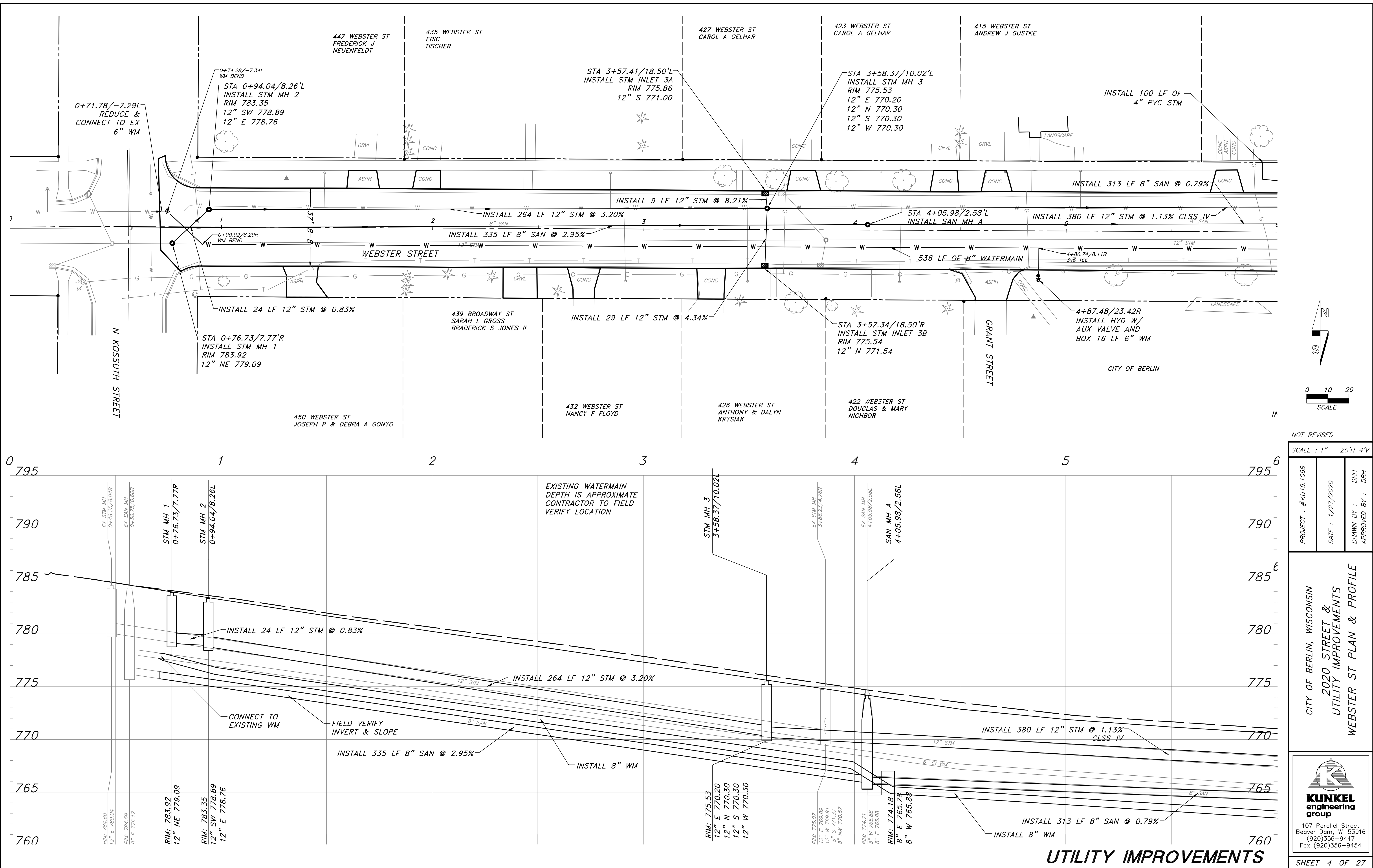


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SHEET 3 OF 27





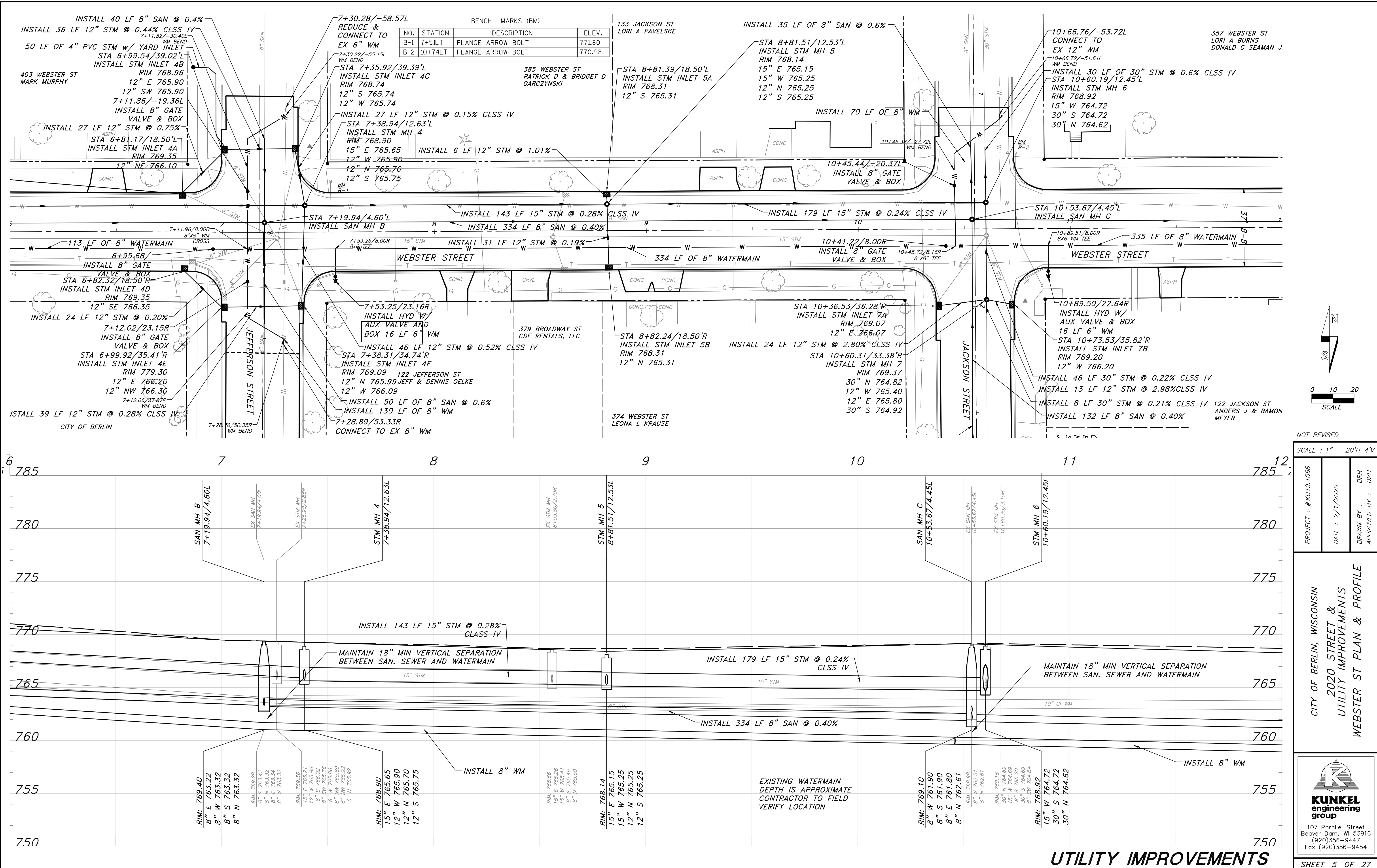
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PROJECT : # KU19.1068	DATE : 1/27/2020	DRAWN BY : DRH
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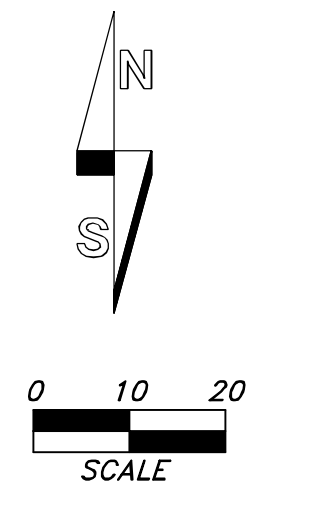
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2020 STREET &  
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WEBSTER ST PLAN & PROFILE

  
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BENCH MARKS (BM)

NO.	STATION	DESCRIPTION	ELEV.
B-1	7+51LT	FLANGE ARROW BOLT	771.80
B-2	10+74LT	FLANGE ARROW BOLT	770.98



NOT REVISED

SCALE : 1" = 20'H 4"V

PROJECT : #KU19.1068	DATE : 2/1/2020	DRH
DRAWN BY :		DRH
APPROVED BY :		DRH

CITY OF BERLIN, WISCONSIN

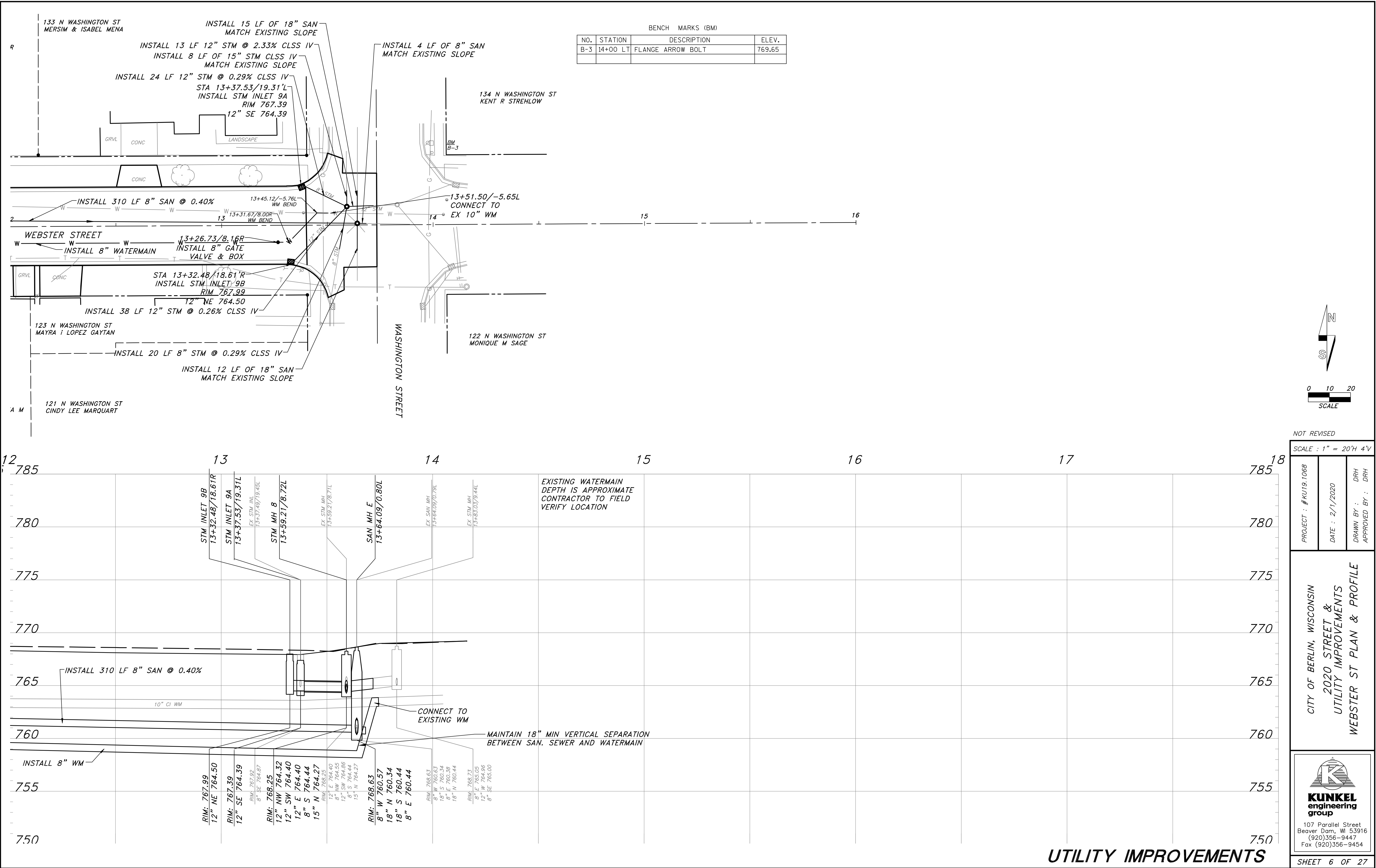
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WEBSTER ST PLAN & PROFILE

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SHEET 5 OF 27



BENCH MARKS (BM)			
NO.	STATION	DESCRIPTION	ELEV.
B-3	14+00 LT	FLANGE ARROW BOLT	769.65

NOT REVISED

SCALE : 1" = 20'H 4"V

PROJECT : #KU19.1068

DATE : 2/1/2020


DRAWN BY : DRH

APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN

2020 STREET & UTILITY IMPROVEMENTS

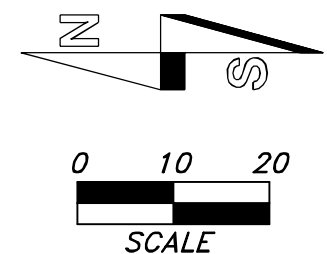
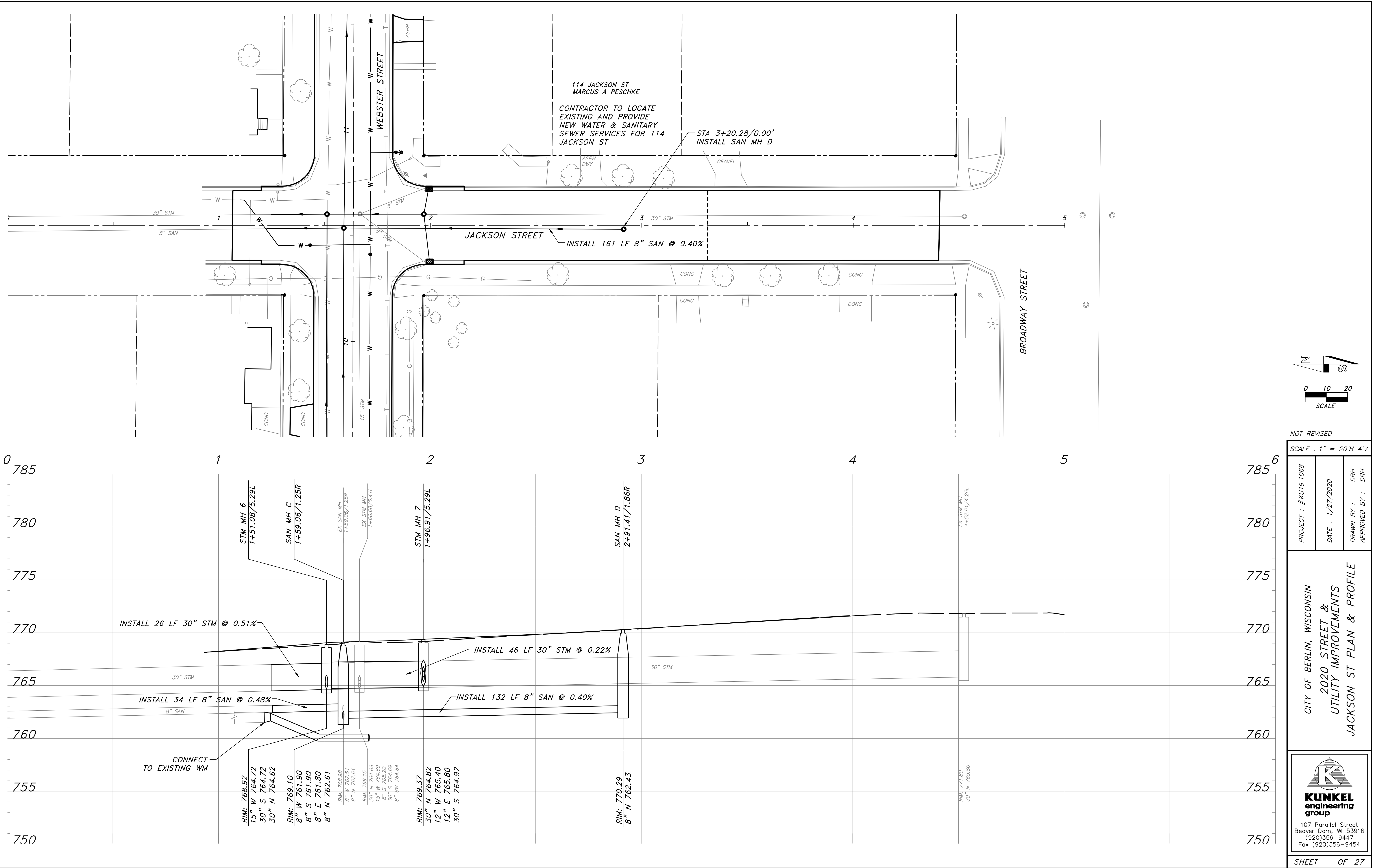
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SHEET 6 OF 27

UTILITY IMPROVEMENTS



NOT REVISED

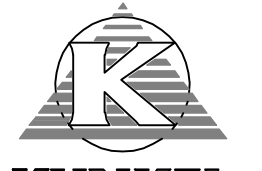
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PROJECT : #KU19.1068	DATE : 1/27/2020	DRAWN BY : DRH
		APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN

2020 STREET &  
UTILITY IMPROVEMENTS

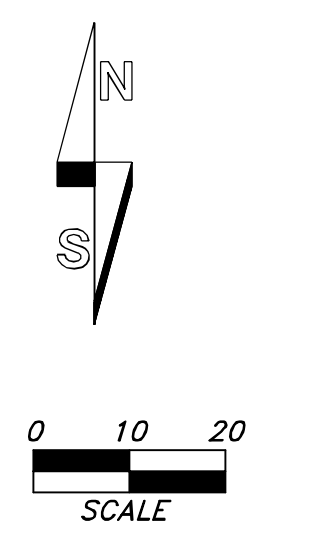
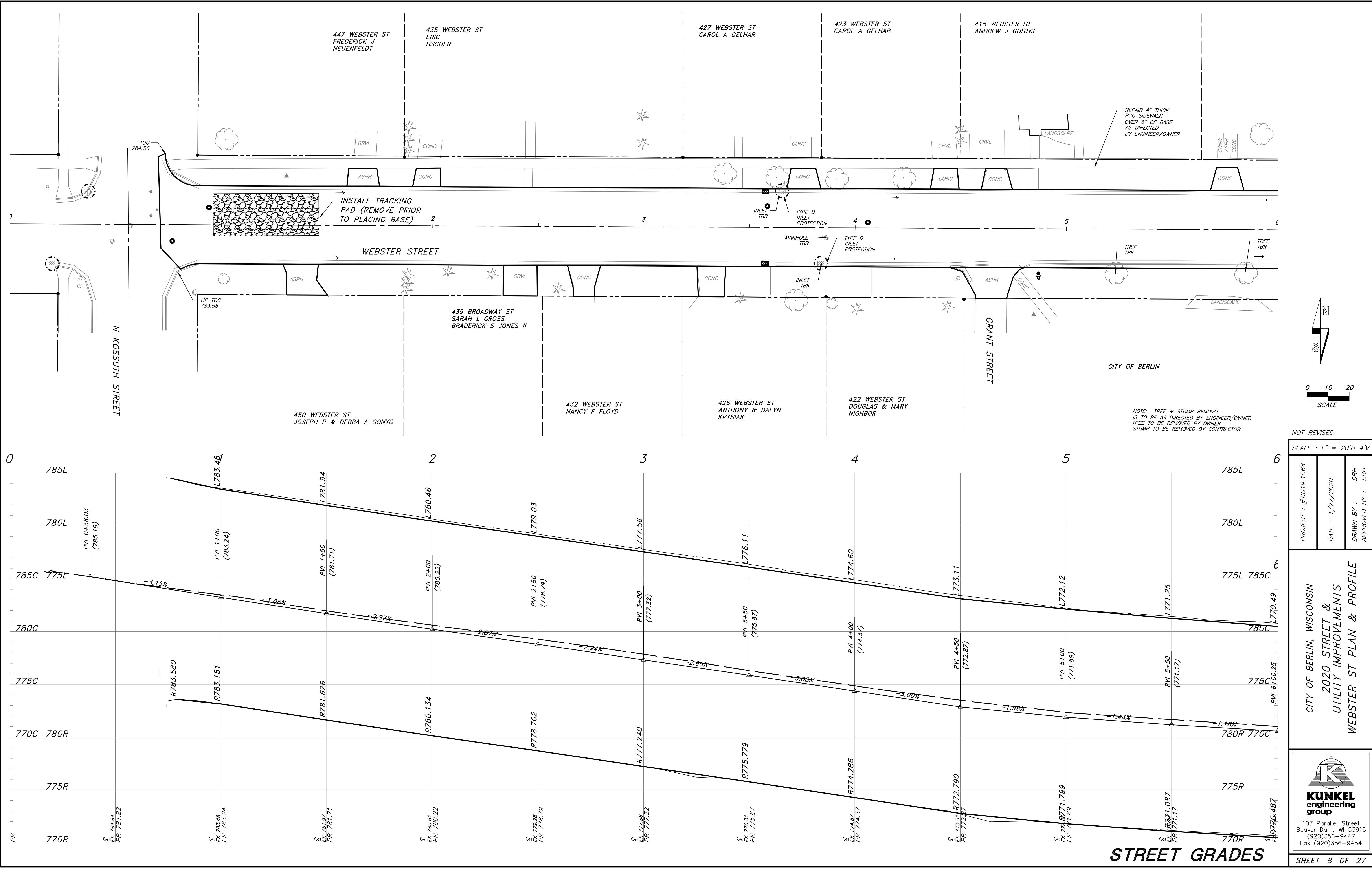
JACKSON ST PLAN & PROFILE

  
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SHEET OF 27





NOT REVISED

SCALE : 1" = 20'H 4'V

PROJECT : #KU19.1068	DATE : 1/27/2020	DRAWN BY : DRH	APPROVED BY : DRH
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WEBSTER ST PLAN & PROFILE

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SHEET 8 OF 27



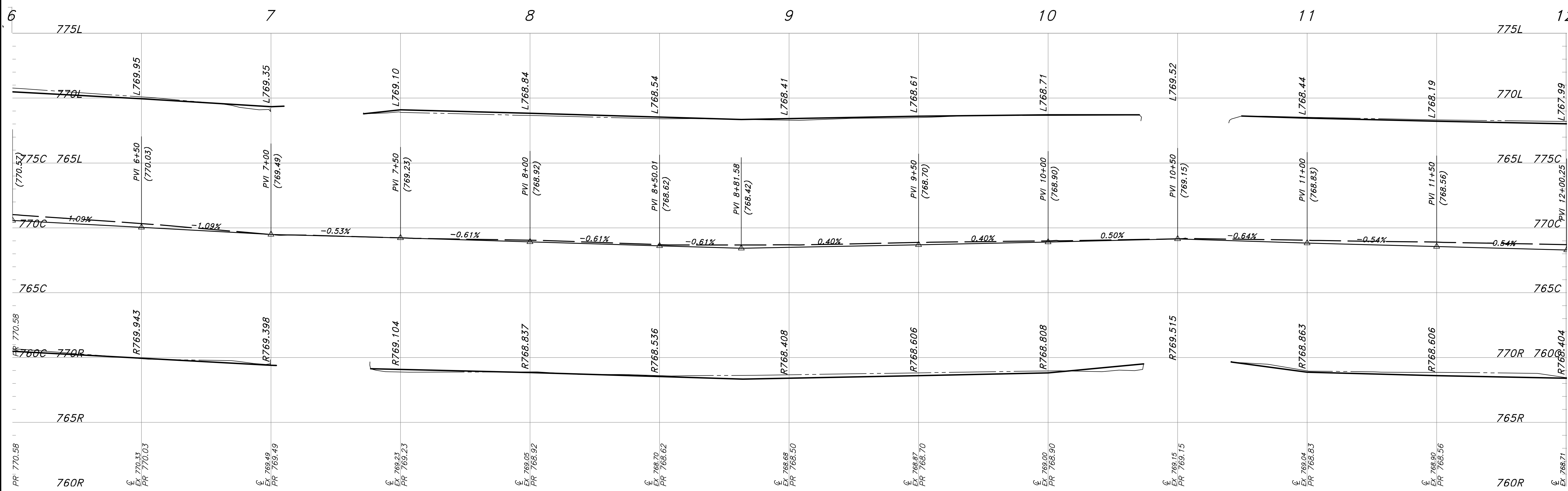
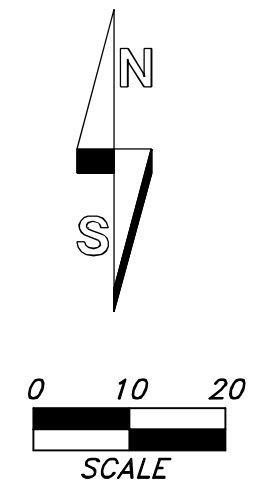
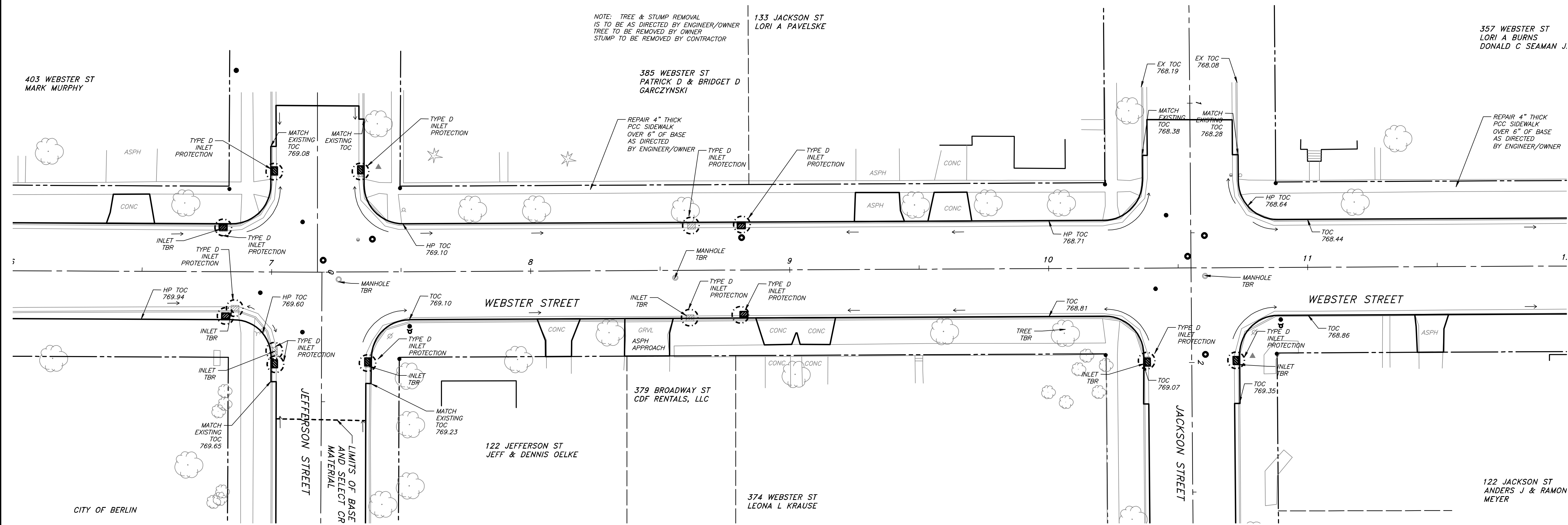
NOTE: TREE & STUMP REMOVAL  
IS TO BE AS DIRECTED BY ENGINEER/OWNER  
TREE TO BE REMOVED BY OWNER  
STUMP TO BE REMOVED BY CONTRACTOR

133 JACKSON ST  
LORI A PAVELSKA

385 WEBSTER ST  
PATRICK D & BRIDGET D  
GARCZYNSKI

357 WEBSTER ST  
LORI A BURNS  
DONALD C SEAMAN J.

403 WEBSTER ST  
MARK MURPHY



NOT REVISED  
SCALE : 1" = 20'H 4"V

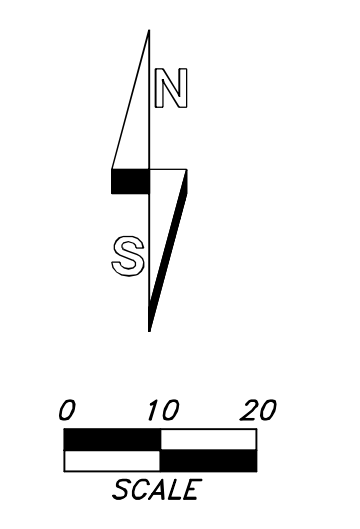
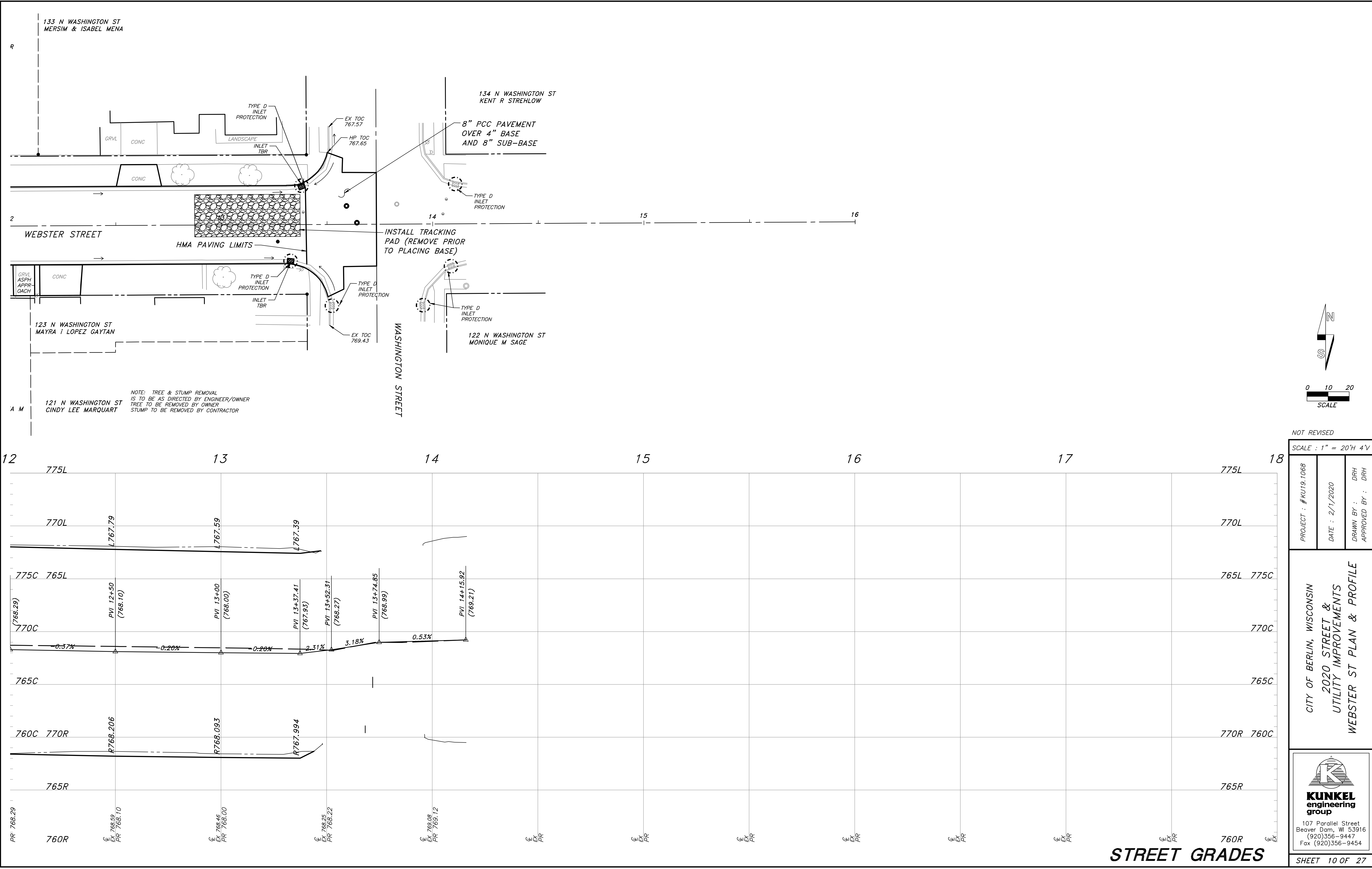
PROJECT : #KU19.1068	DATE : 2/1/2020	DRAWN BY : DRH	APPROVED BY : DRH
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STREET GRADES



NOT REVISED

SCALE : 1" = 20'H 4'V

PROJECT : #KU19.1068	DATE : 2/1/2020	DRAWN BY : DRH	APPROVED BY : DRH
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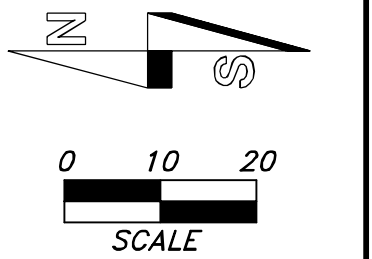
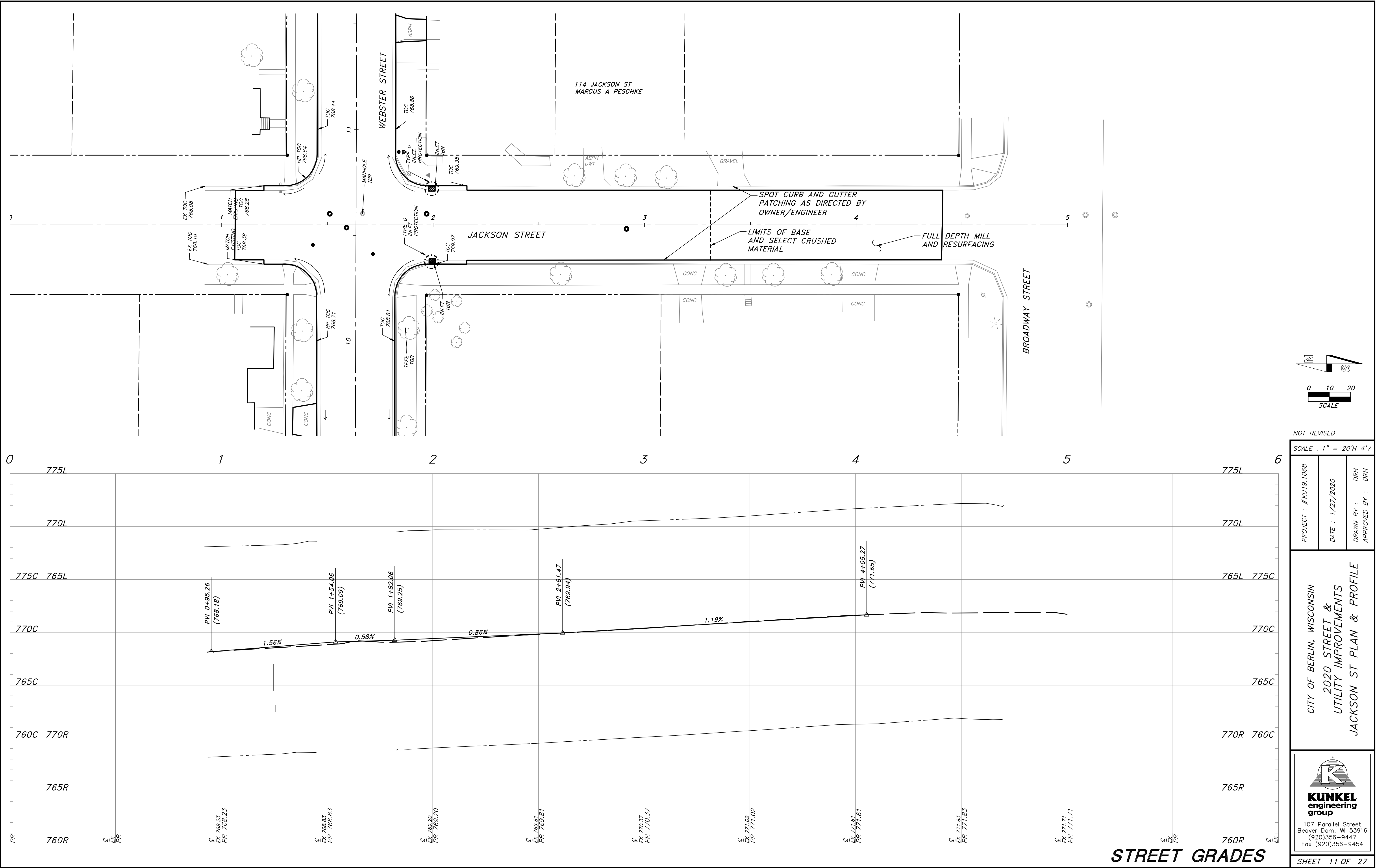
CITY OF BERLIN, WISCONSIN  
2020 STREET & UTILITY IMPROVEMENTS  
WEBSTER ST PLAN & PROFILE

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SHEET 10 OF 27

STREET GRADES

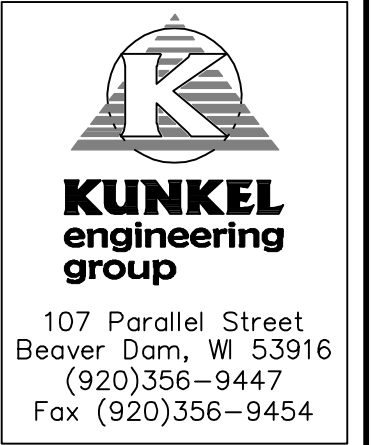


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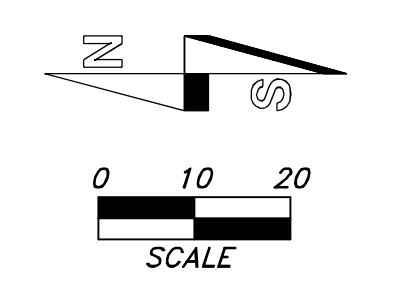
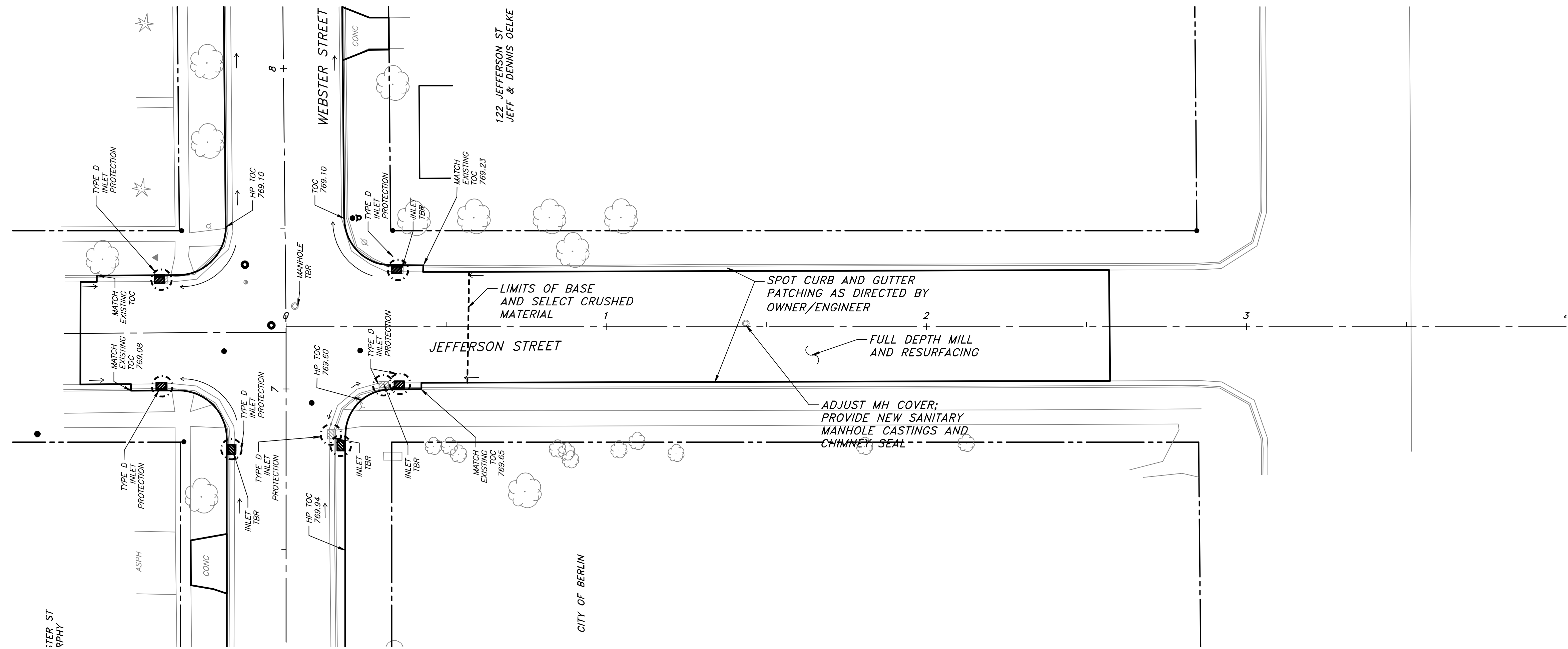
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CITY OF BERLIN, WISCONSIN  
2020 STREET &  
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JACKSON ST PLAN & PROFILE







NOT REVISED

SCALE : 1" = 20'H 4'V

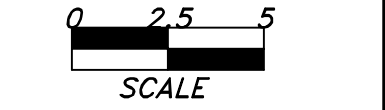
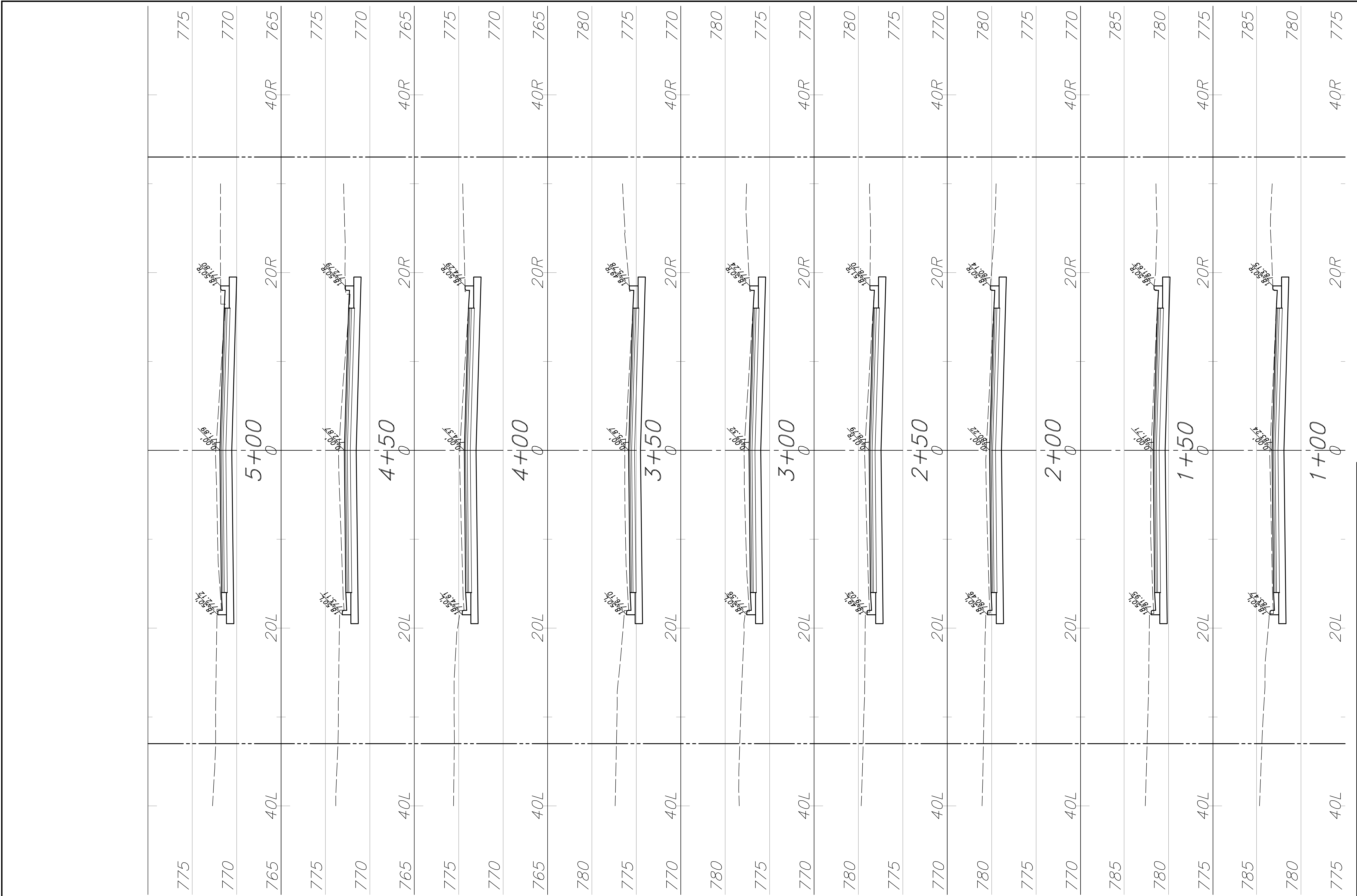
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		APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN  
2020 STREET &  
UTILITY IMPROVEMENTS  
JEFFERSON ST PLAN & PROFILE



**KUNKEL**  
engineering  
group

107 Parallel Street  
Beaver Dam, WI 53916  
(920)356-9447  
Fax (920)356-9454



NOT REVISED  
SCALE : 1" = 5'

PROJECT : #KU19.1068	DRAWN BY : DRH
DATE : 1/27/2020	APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN  
2020 STREET &  
UTILITY IMPROVEMENTS  
WEBSTER CROSS SECTIONS

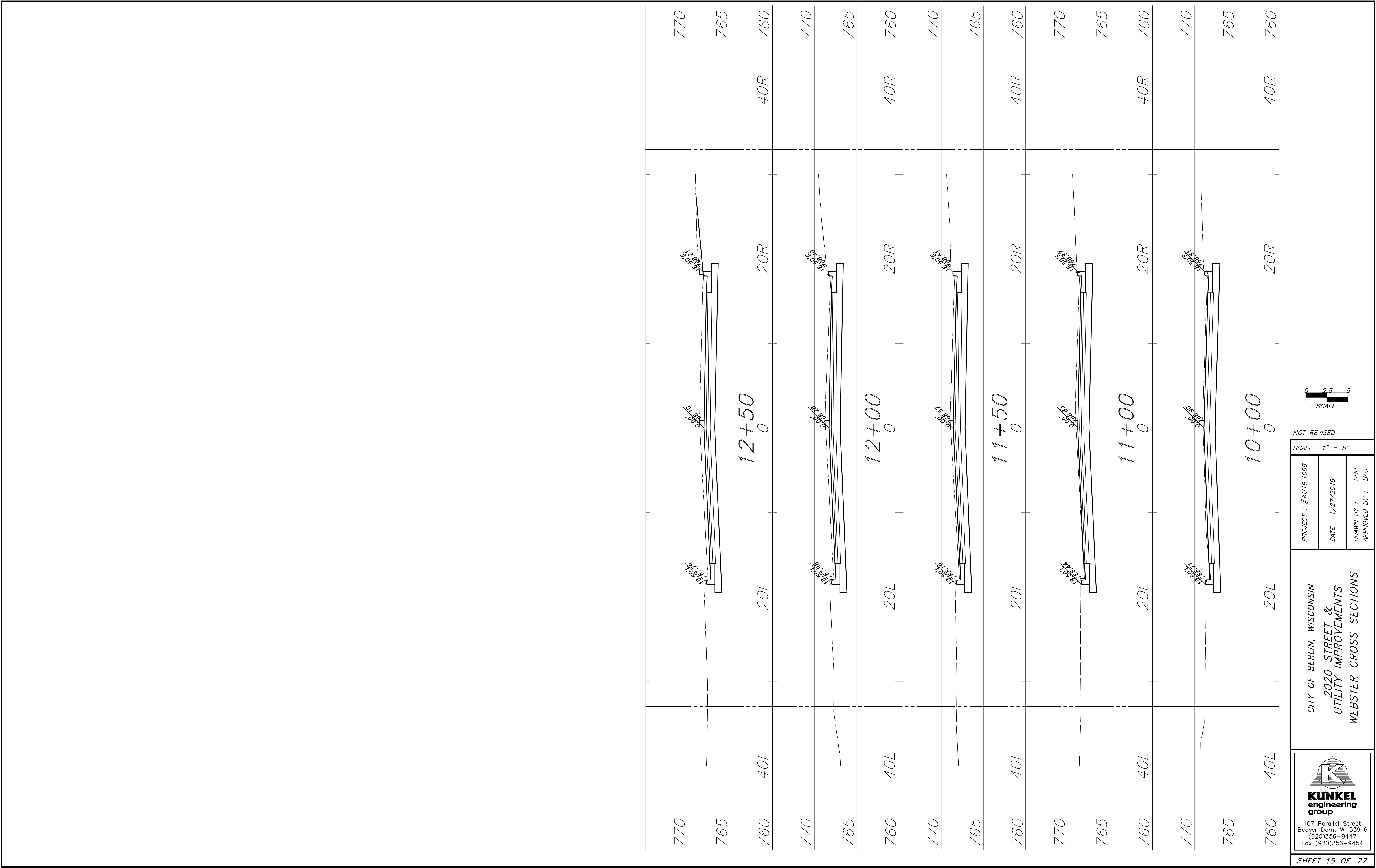


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NOT REVISED

SCALE : 1" = 5'

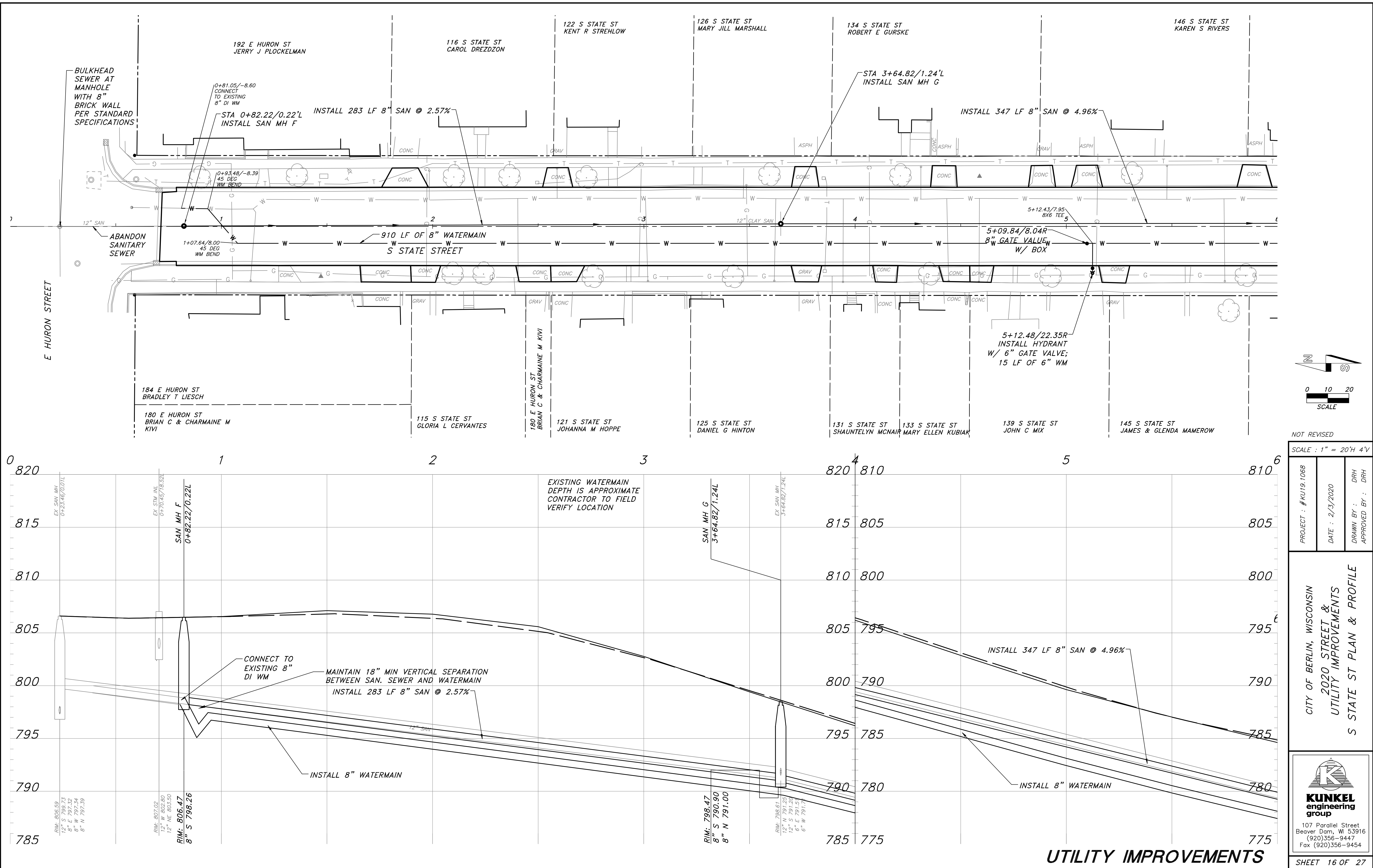
PROJECT : #KU19.1068

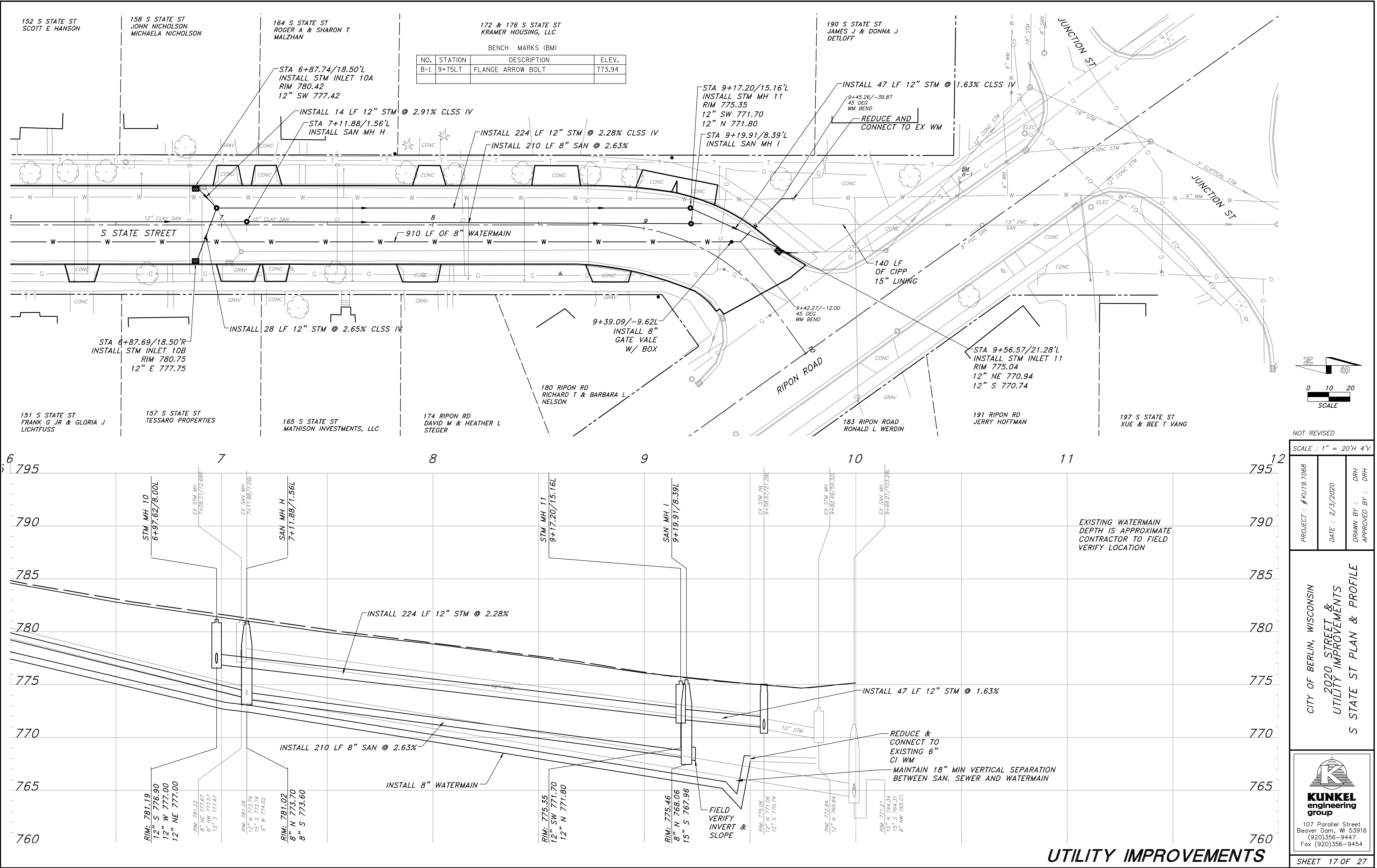
DATE : 1/27/2019

DRAWN BY : DRH  
APPROVED BY : BAO

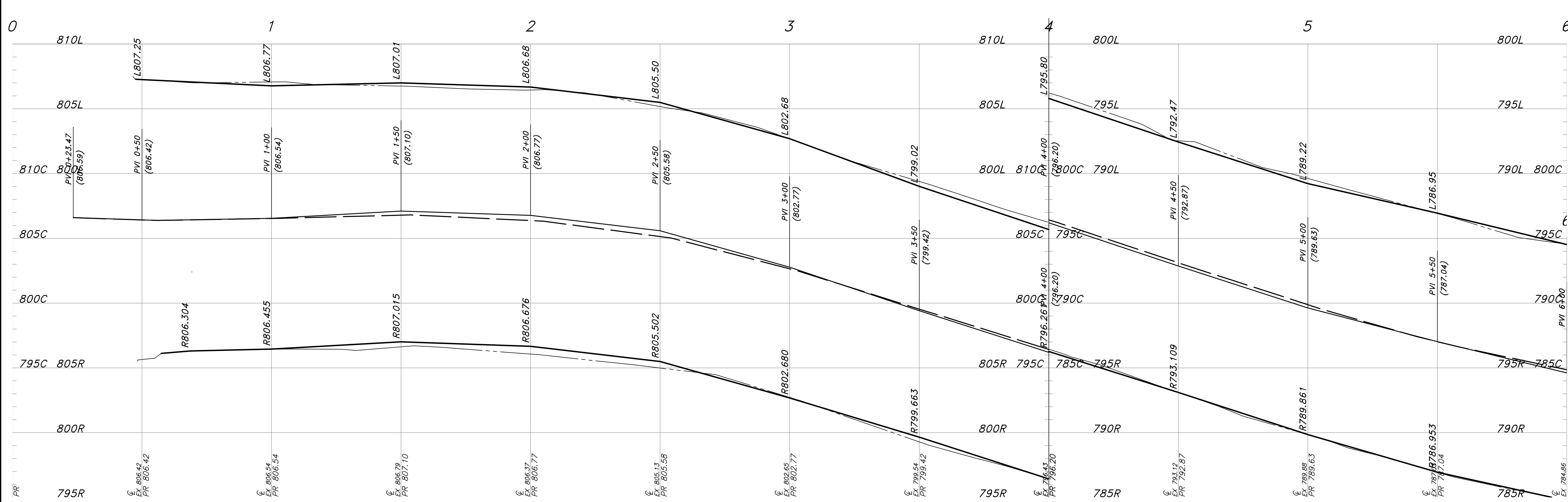
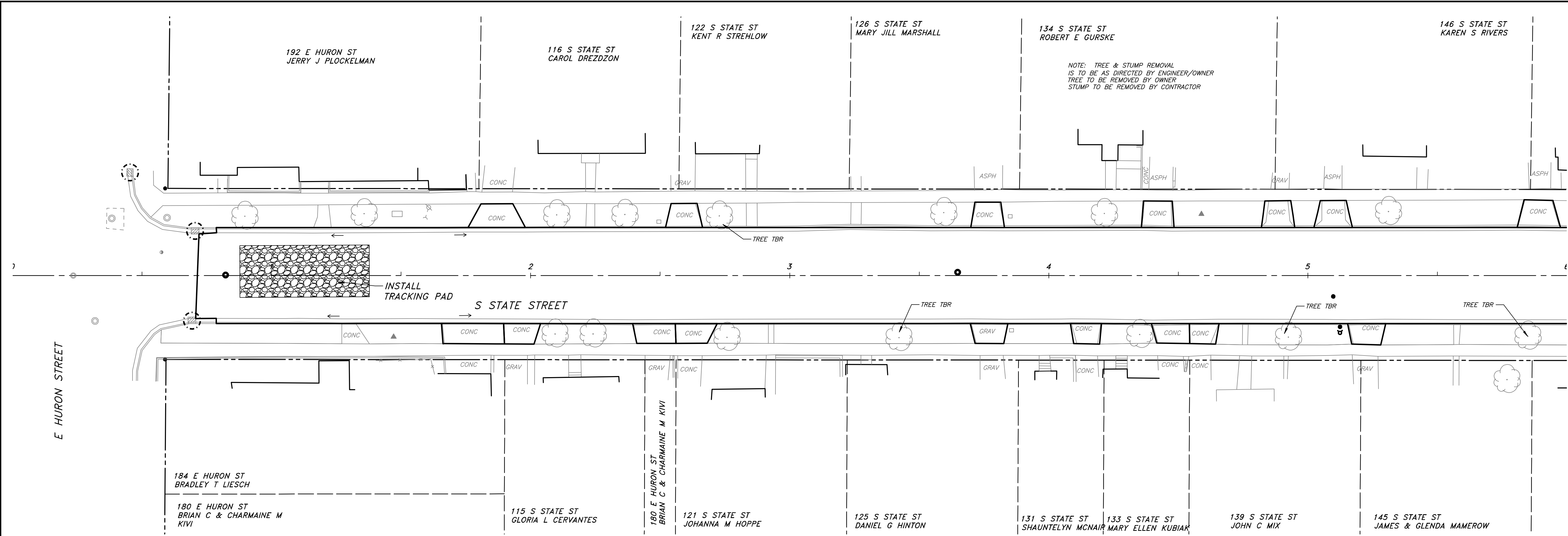
CITY OF BERLIN, WISCONSIN  
2020 STREET &  
UTILITY IMPROVEMENTS  
WEBSTER CROSS SECTIONS

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NOT REVISIONED

SCALE : 1" = 20'H 4"V

PROJECT : #KU19.1068	DATE : 2/3/2020	DRAWN BY : DRH	APPROVED BY : DRH
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CITY OF BERLIN, WISCONSIN

2020 STREET & UTILITY IMPROVEMENTS

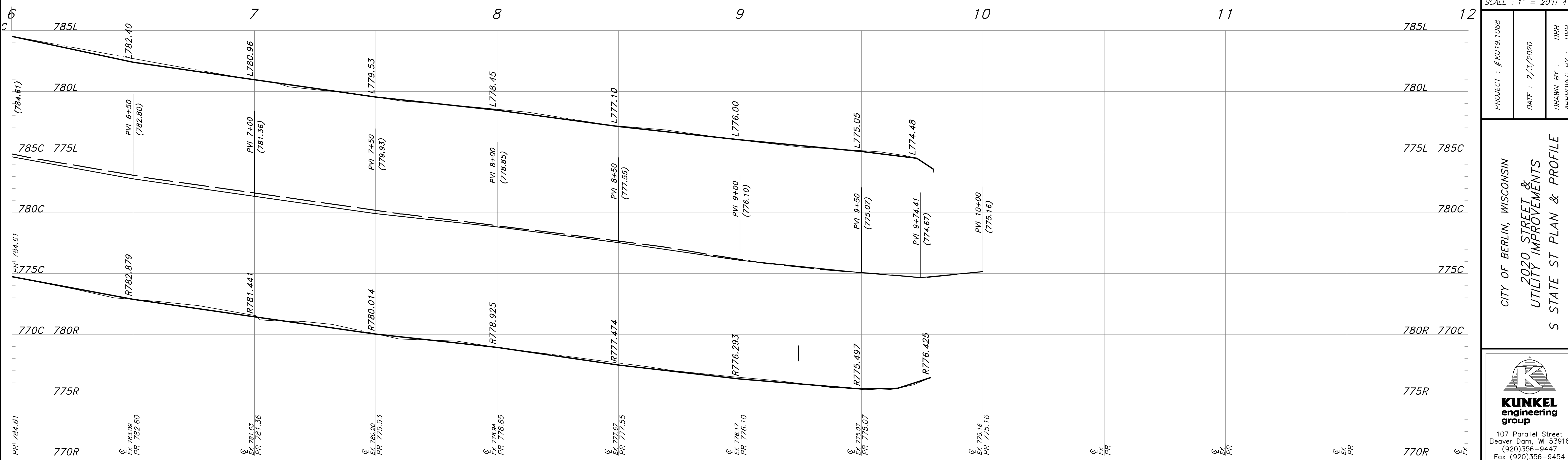
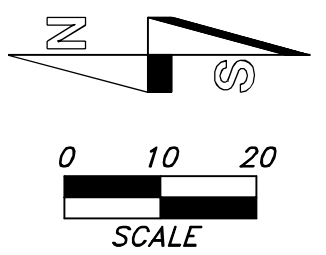
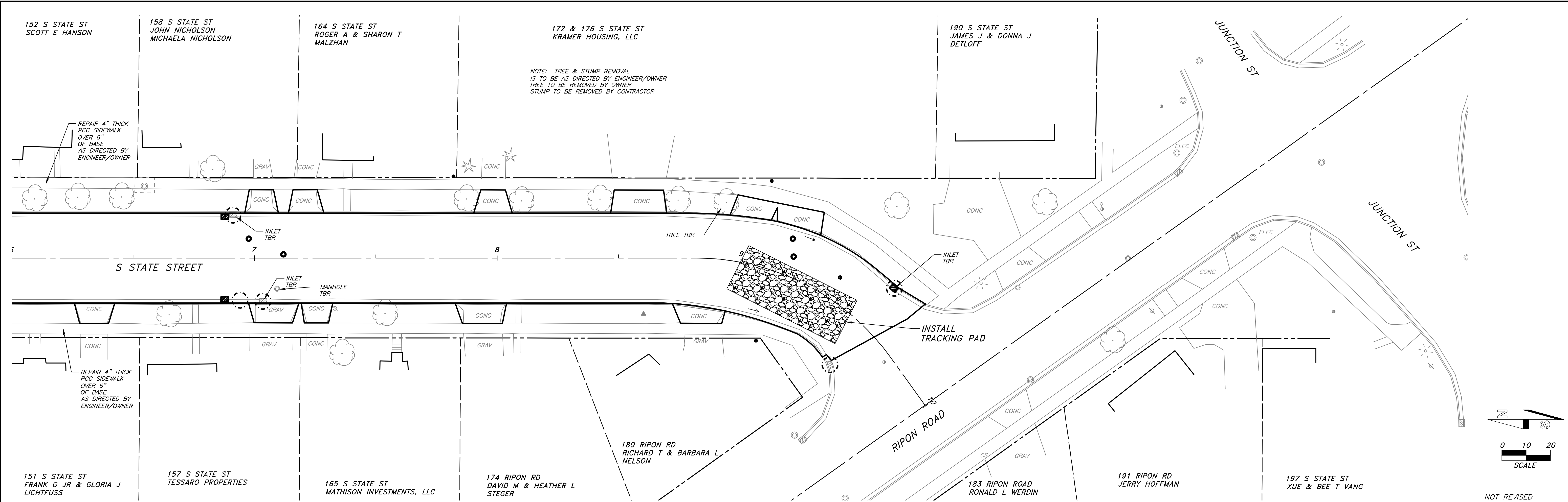
S STATE ST PLAN & PROFILE

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SHEET 18 OF 27

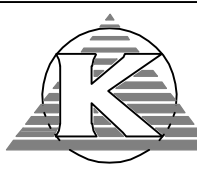
STREET GRADES



NOT REVISED  
SCALE : 1" = 20'H 4'V

PROJECT : #KU19.1068	DATE : 2/3/2020	DRAWN BY : DRH	APPROVED BY : DRH
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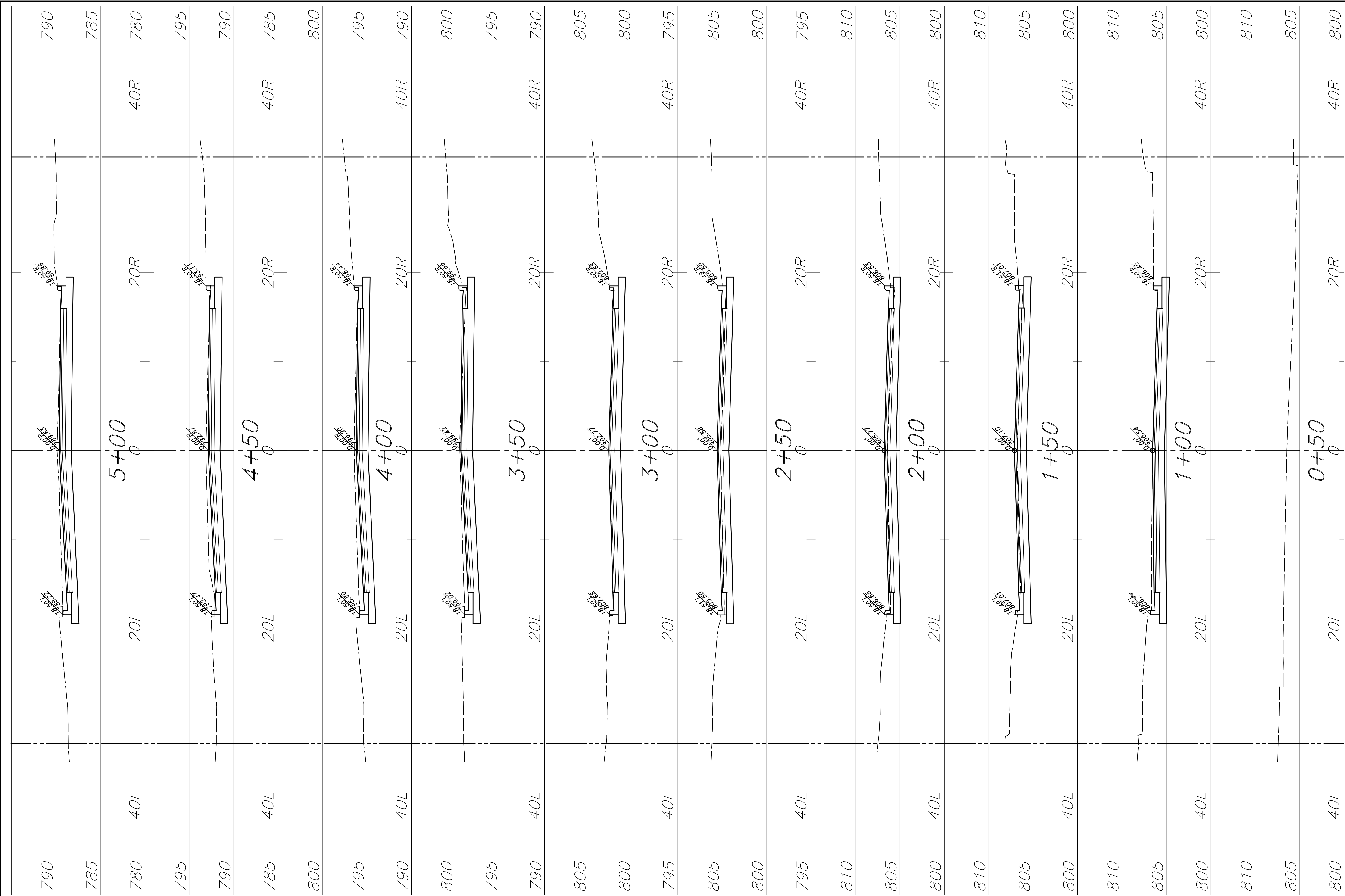
CITY OF BERLIN, WISCONSIN  
2020 STREET & UTILITY IMPROVEMENTS  
S STATE ST PLAN & PROFILE



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**STREET GRADES**



NOT REVISED

SCALE : 1" = 5'

PROJECT : #KU19.1068

DATE : 2/3/2020

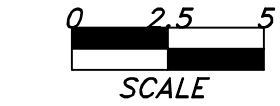
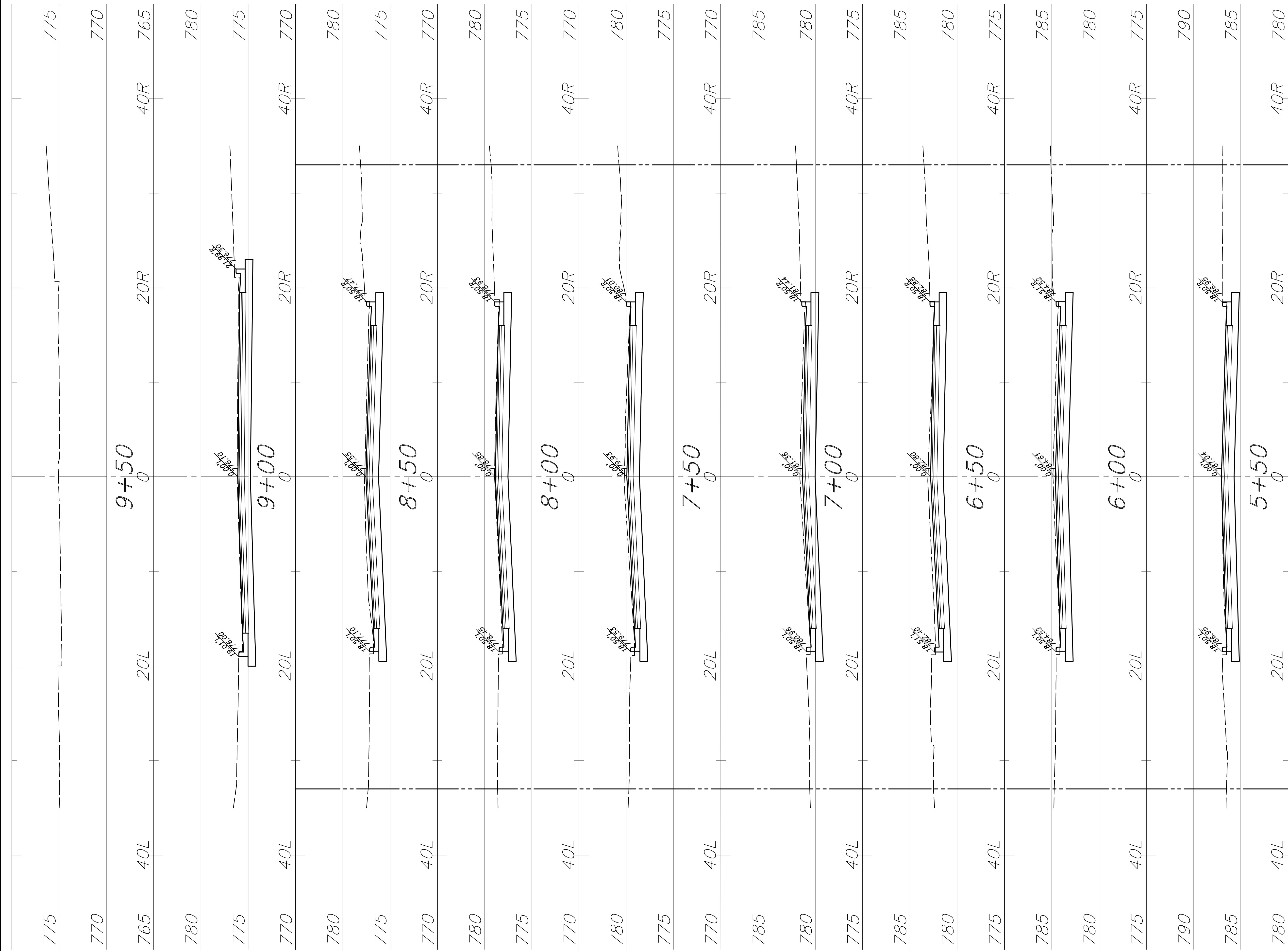
DRAWN BY : DRH

APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN  
2020 STREET &  
UTILITY IMPROVEMENTS  
S STATE ST CROSS SECTIONS

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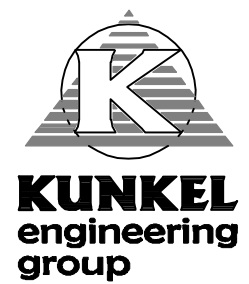
PROJECT : #KU19.1068

DATE : 2/3/2020

DRAWN BY : DRH

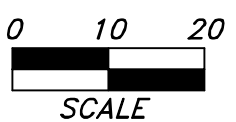
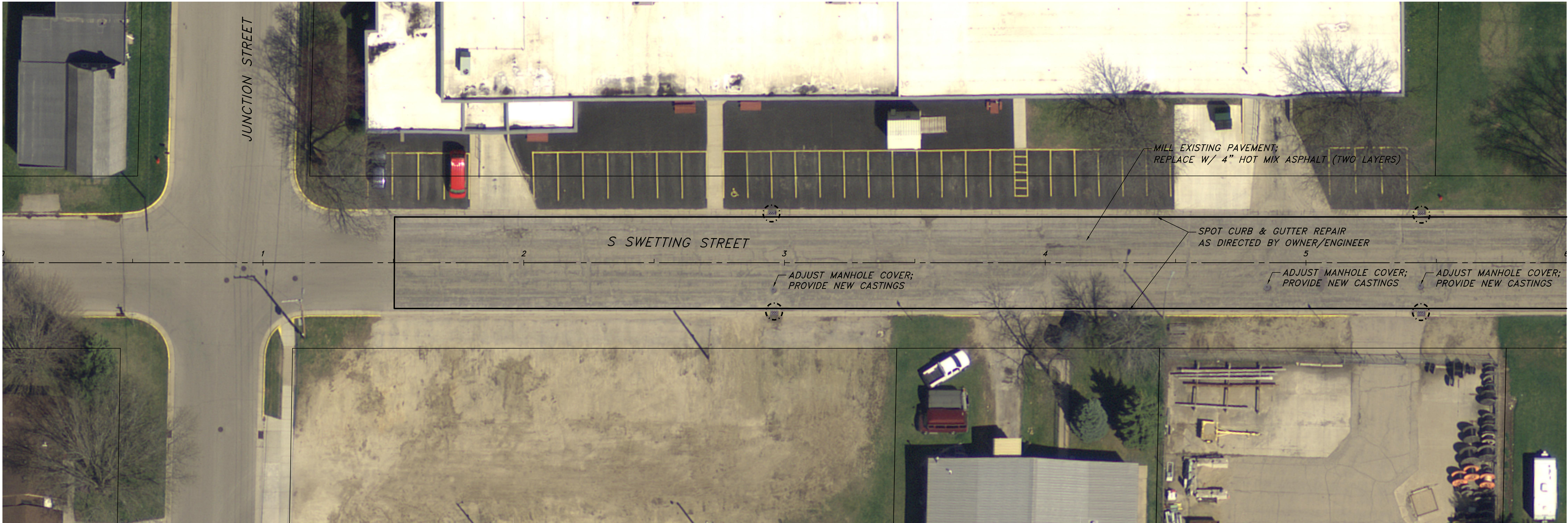
APPROVED BY :

CITY OF BERLIN, WISCONSIN  
2020 STREET &  
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S STATE ST CROSS SECTIONS



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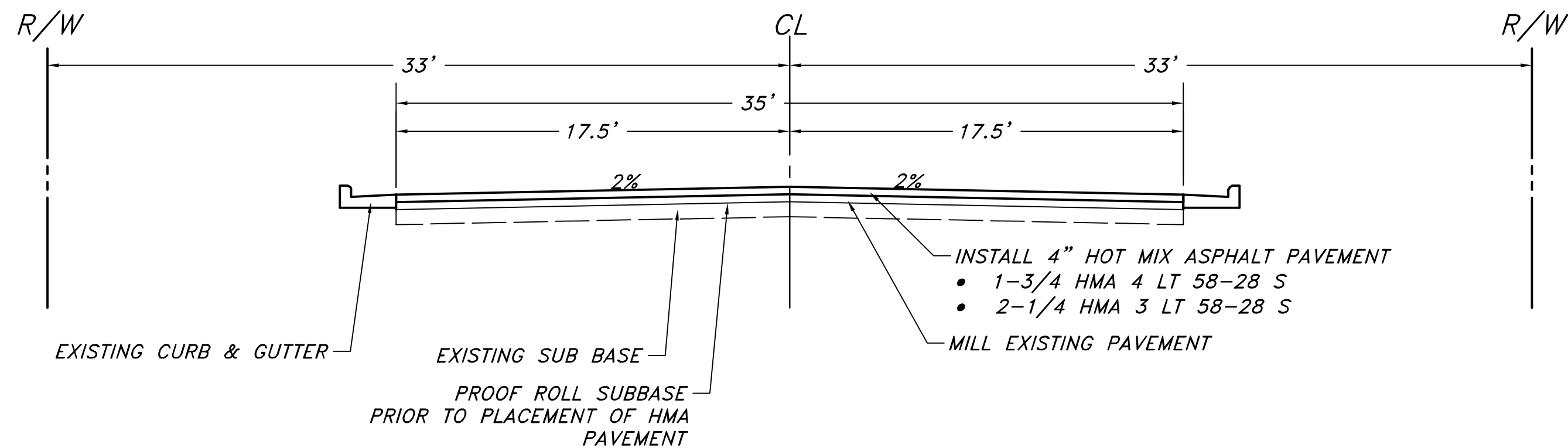
NOT REVISED

SCALE : 1" = 20'H 4"V

PROJECT : #KU19.1068

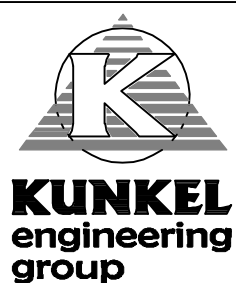
DATE : 1/27/2020

DRAWN BY : DRH  
APPROVED BY : DRH



S SWETTING STREET  
TYPICAL CROSS SECTION  
1"=5'

CITY OF BERLIN, WISCONSIN  
2020 STREET &  
UTILITY IMPROVEMENTS  
SWETTING STREET

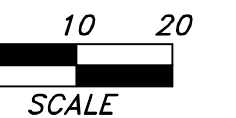
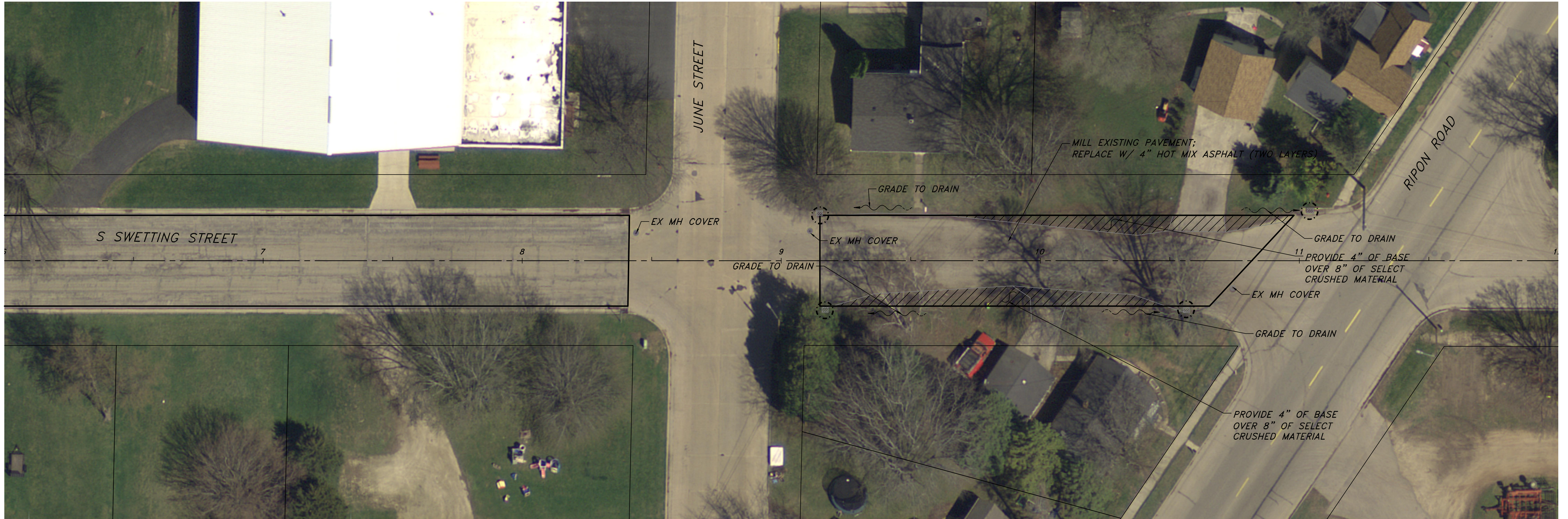


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PAVING PLAN

SHEET 22 OF 27

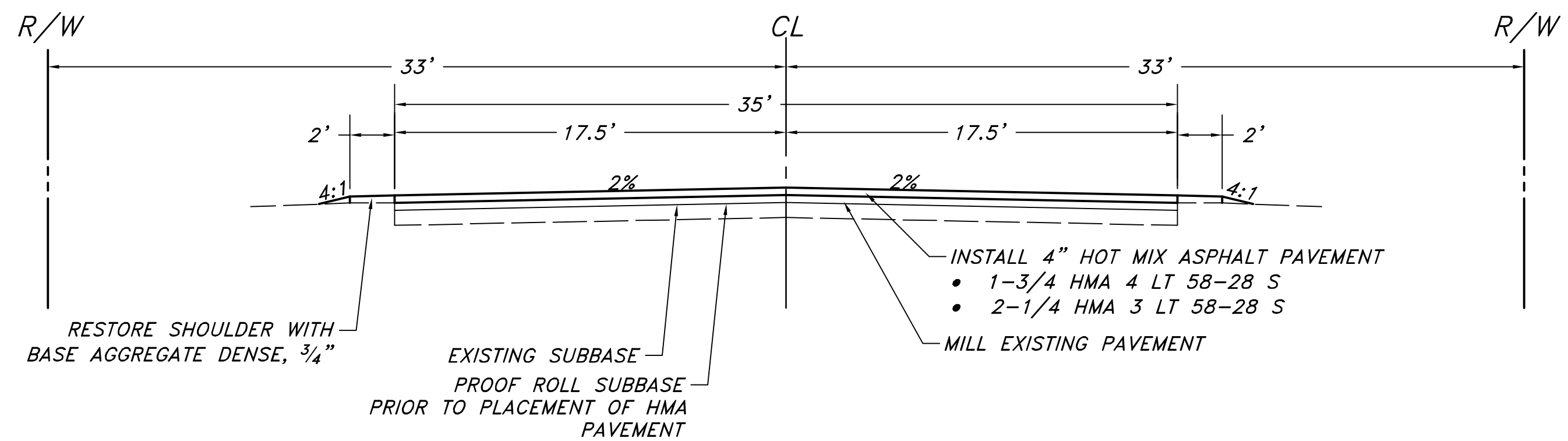




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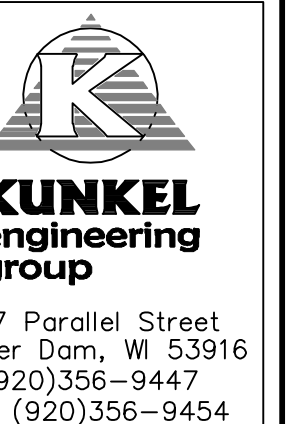
SCALE : 1" = 20'H 4'V

PROJECT : #KU19.1068	DATE : 1/27/2020	DRAWN BY : DRH	APPROVED BY : DRH
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S SWETTING STREET  
TYPICAL CROSS SECTION  
1"=5'

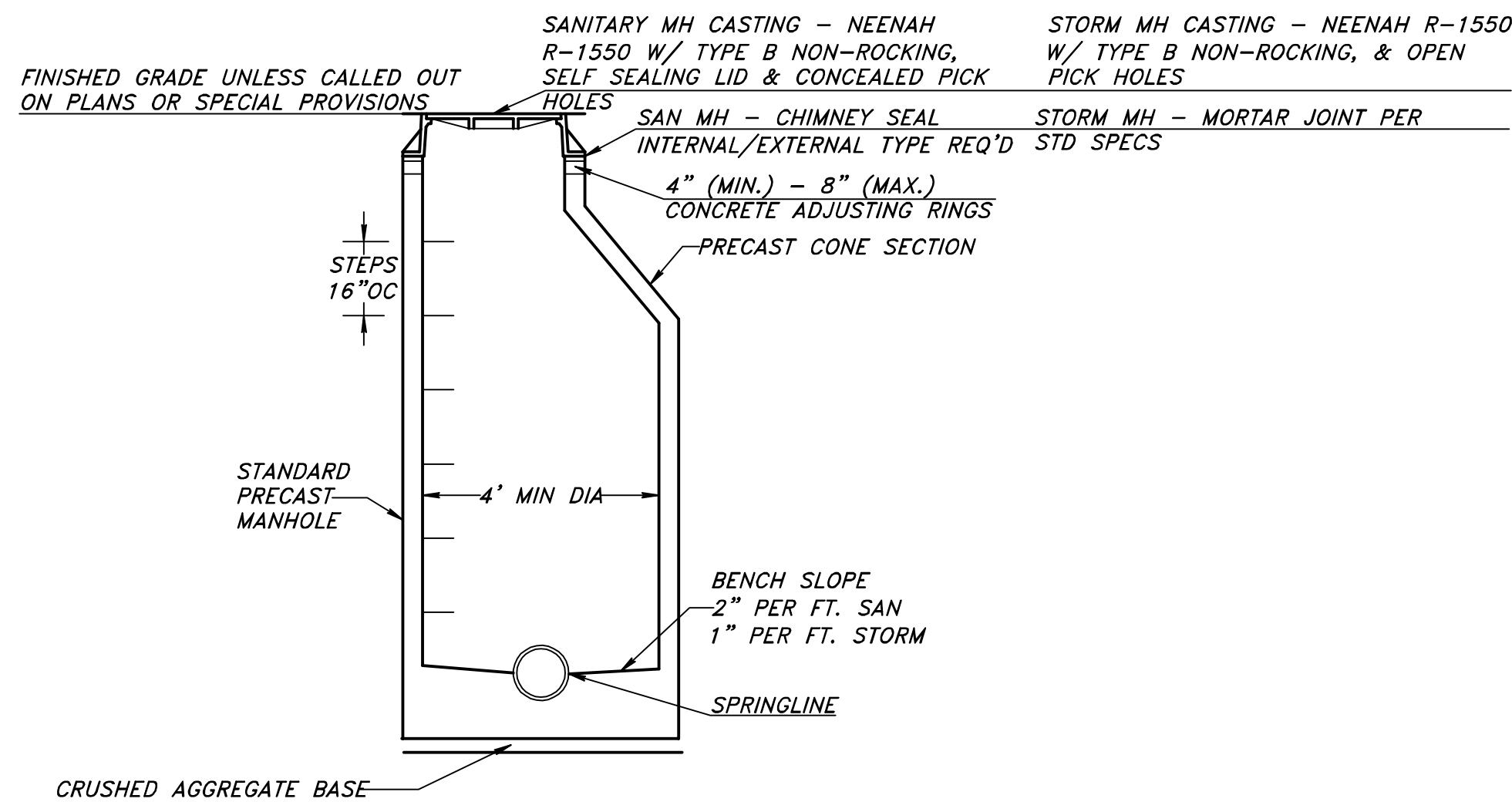
## PAVING PLAN



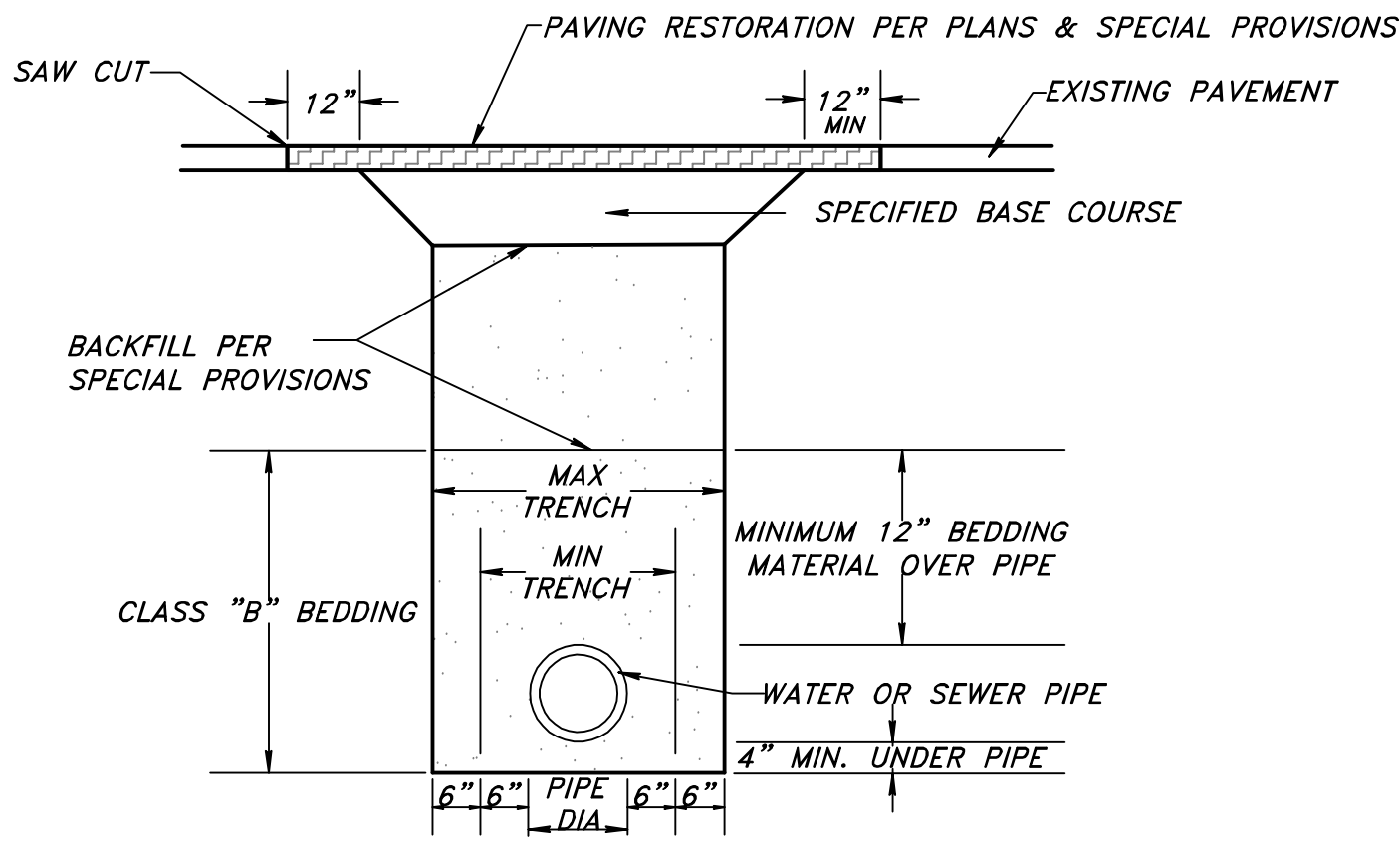
107 Parallel Street  
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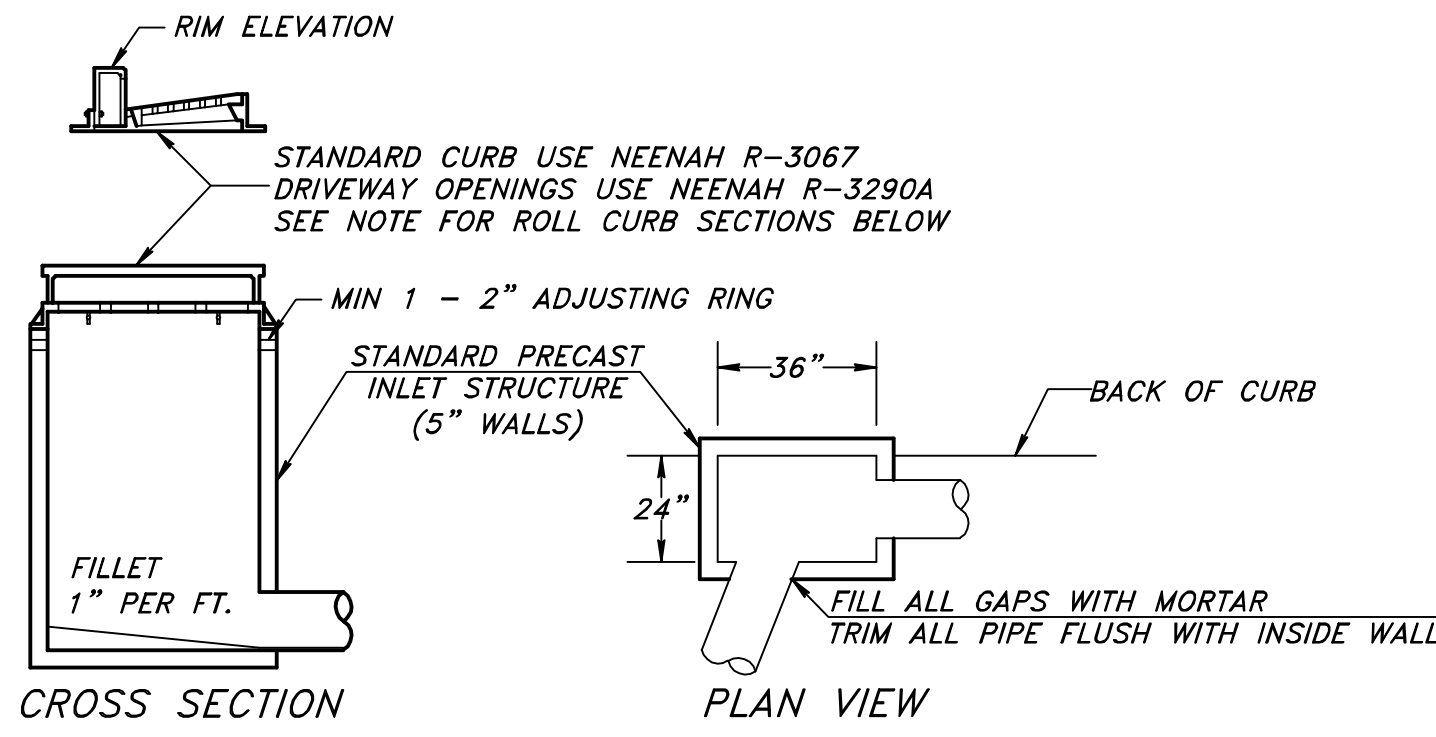
# STANDARD WATERMAIN & SEWER DETAILS



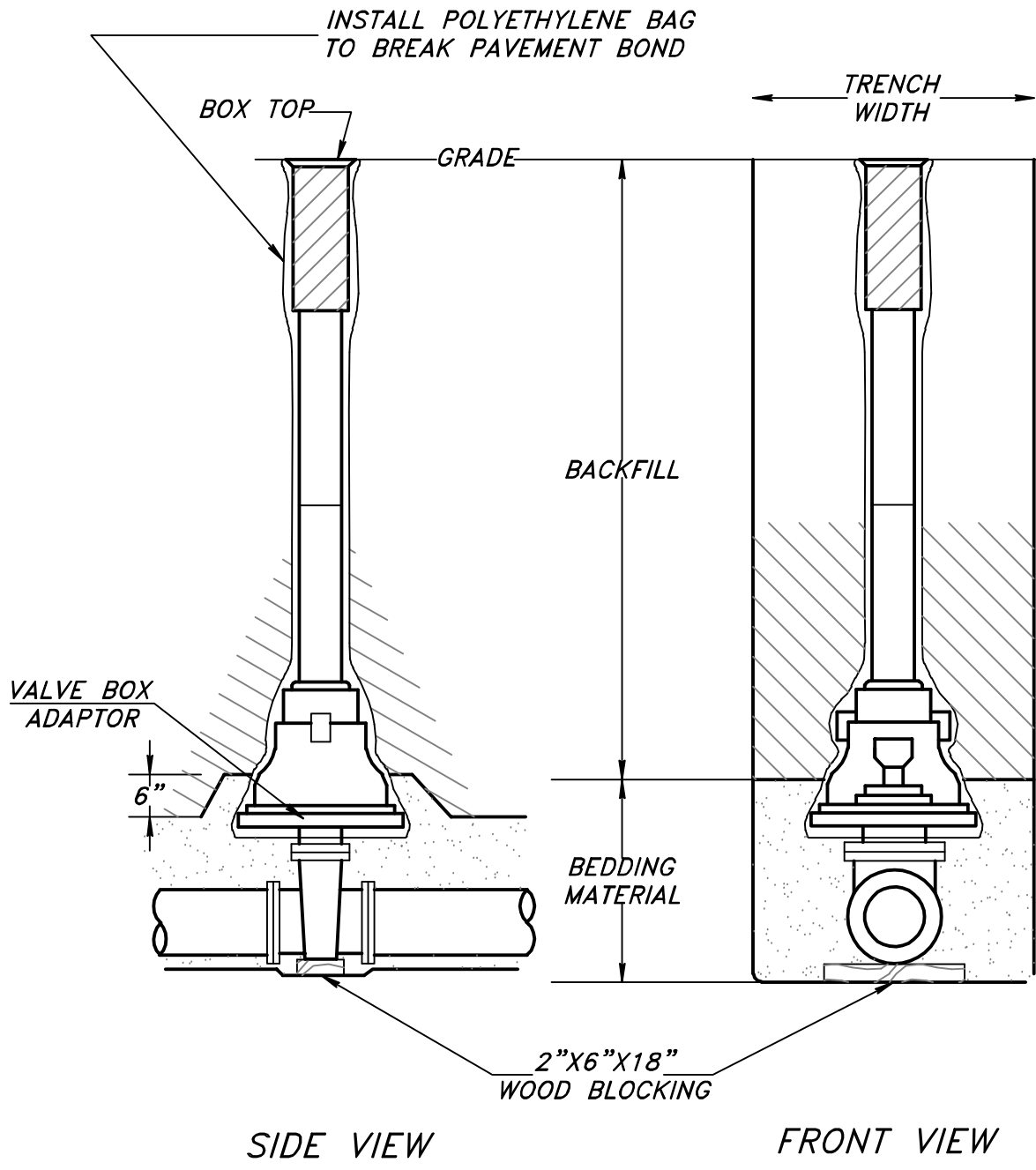
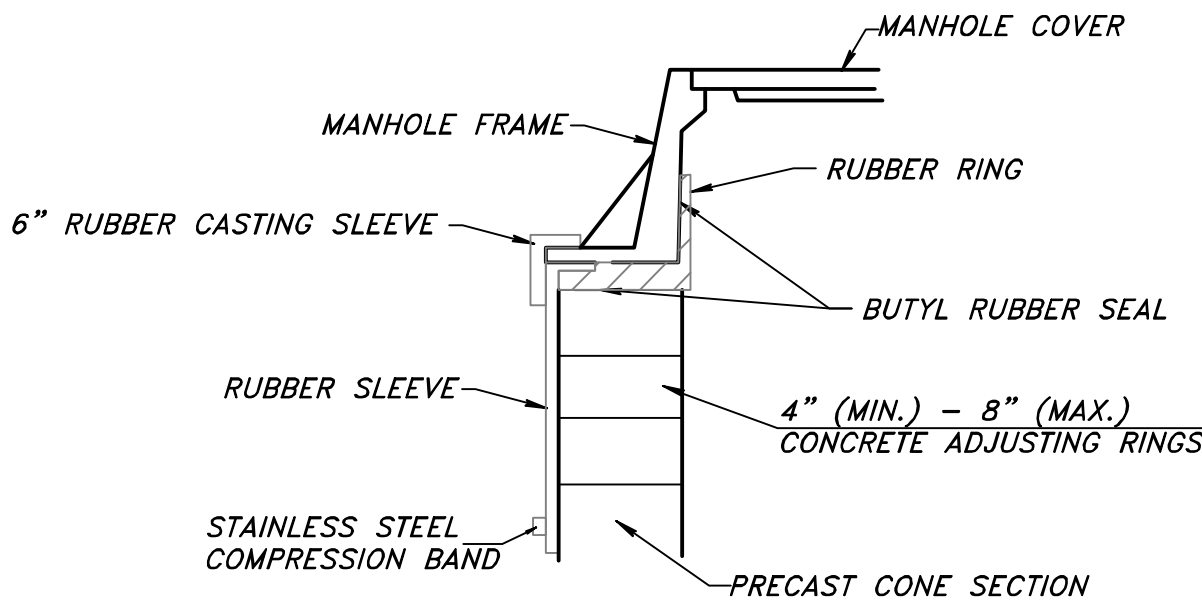
STANDARD MANHOLE DETAIL



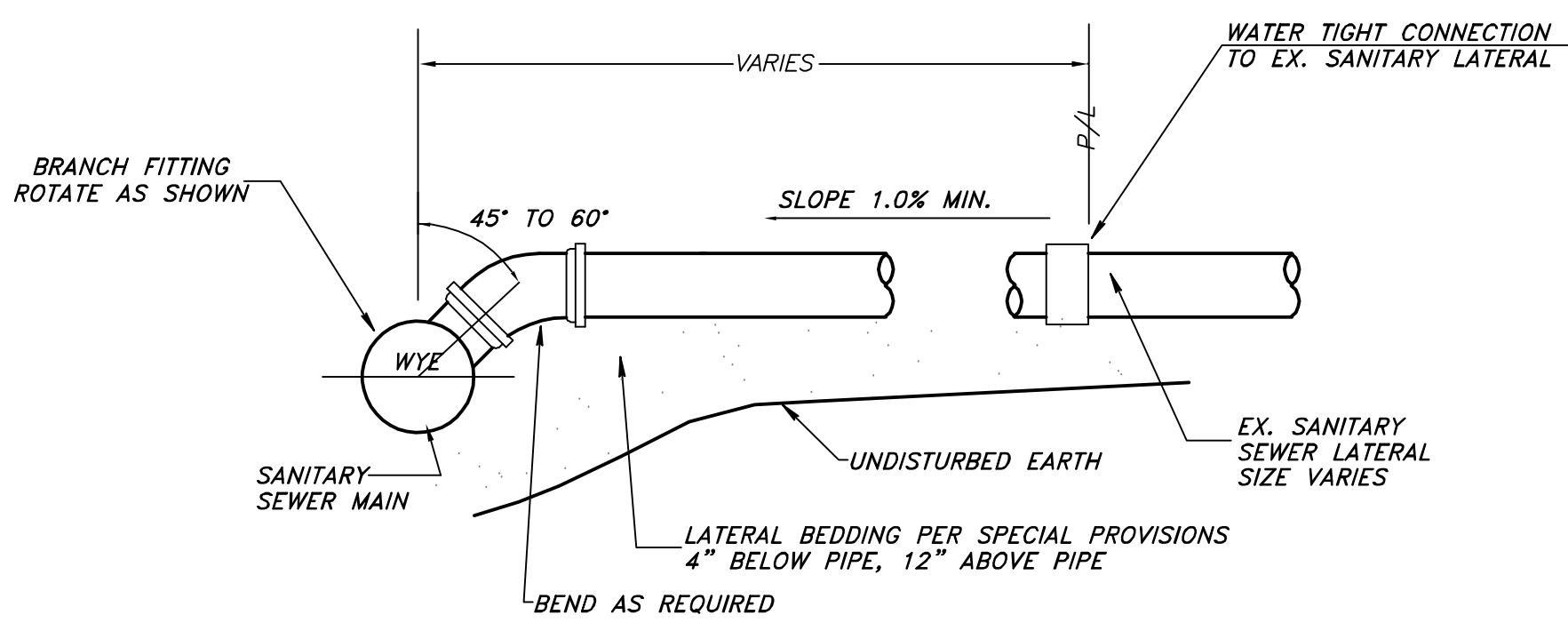
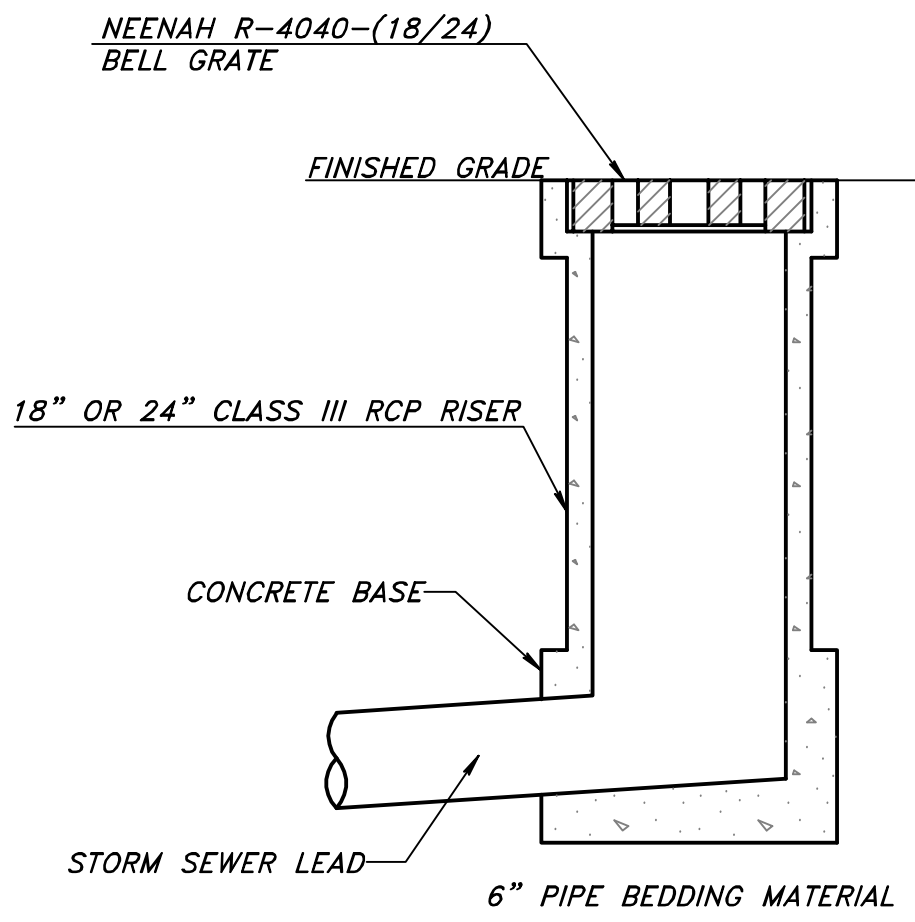
STANDARD TRENCH DETAIL



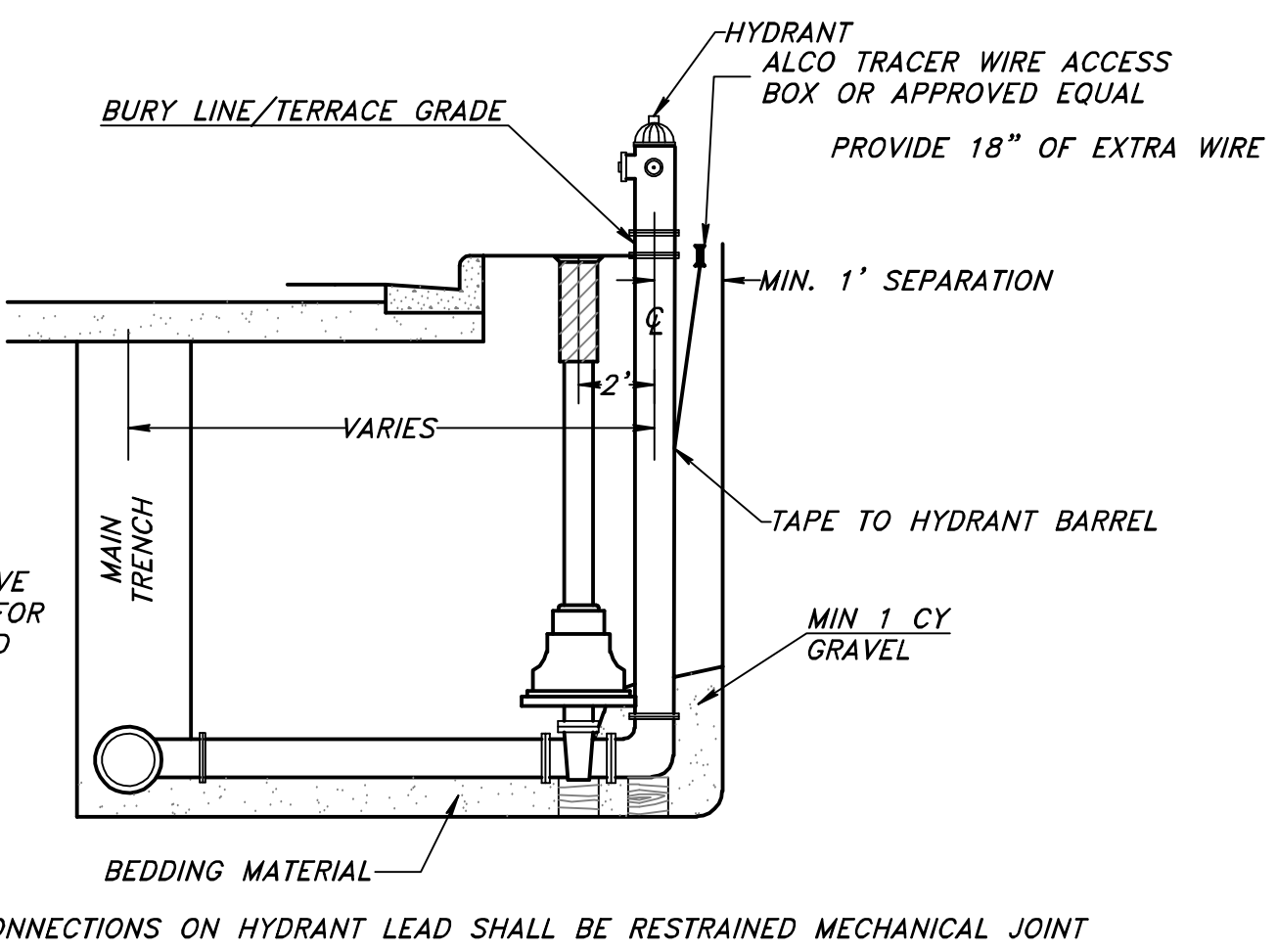
STANDARD INLET DETAIL



GATE VALVE & BOX SETTING DETAIL



- WATER & SEWER NOTES
- Standard Specifications:  
Install all Sewer and Watermain under this contract as per the provisions of the Standard Specifications for Sewer and Water Construction in Wisconsin, Sixth Edition, and per the Project's Special Provisions.
  - Watermain:  
Shall be Pressure Class 150 p.s.i. PVC SDR-18 pipe conforming to A.W.W.A. C-900 (4" to 12") or C-905 (14" to 48"), with integral elastomeric bell and spigot joints per Section 8.20.0 of the Standard Specifications. Fittings shall be mechanical joint ductile iron conforming to AWWA C110 or C153 (compact ductile iron fittings). Buried bolts shall be fluorocarbon coated T-head bolts, per AWWA C111. Structure bolts shall be stainless steel. All PVC watermain is to be installed with 12 ga copper tracing wire taped to pipe twice per length of pipe. All ductile iron fittings are to be wrapped in polyethylene film and must meet requirements per Section 8.21.0 of the Standard Specifications.
  - Gate Valves  
Shall be Kennedy/Clow or approved equal, resilient seat, mechanical joint gate valves or equal, conforming to A.W.W.A. C-509 or equal. Furnish and install Tyler 6860 Series three piece cast iron valve boxes, 5-1/4" shaft screw with non tip cover, clearly marked water. Furnish and install valve box adaptor II by Adaptor Inc or equal. All gate valves are to be wrapped in polyethylene film and must meet requirements per Section 8.21.0 of the Standard Specifications.
  - Hydrants  
Shall be Clow Medallion hydrants, with 4-1/2" pumper nozzle, 2-1/2" hose nozzles, and traffic break-flange. All joints on hydrant leads shall have restrained mechanical joints, Mega-Lug or approved equal.
  - Water service laterals  
Shall be minimum 1-1/4 inch HDPE pipe unless a larger diameter is called out on the plans. 1"x1 1/4" Corporation stops shall be AY McDonald Minneapolis Pattern, or Mueller, screw on type, with 2 stud, all stainless steel single strap service clamp saddle. Curb stop valves shall be AY McDonald Minneapolis Pattern or Mueller H1504-2 screw on type, complete with AY McDonald Minneapolis Pattern or Mueller H10350 cast iron boxes. Shall have extension rods on all curb boxes (rods & pins shall be stainless steel). All HDPE water service laterals to be installed with 12 ga copper tracing wire. Tracing wire shall be connected conductively to the curb stop box.
  - Sanitary Sewer & Lateral Pipe  
Shall be PVC SDR-35 pipe, with rubber gasket joints conforming to Section 8.10.1 - 8.10.6(a) of the Standard W&S Specification.
  - Sanitary Sewer Manholes  
Manholes shall be pre-cast concrete, conforming to section 3.5.0 of the Standard W&S Specifications and ASTM C-478. Furnish manholes of a size to accommodate the intersecting sewer per the Standard W&S Specifications, with a minimum 48" inside diameter. All pipe connections to new manholes are to be made with factory installed flexible boots. Install Type I flexible internal/external chimney seals. External rubber sleeve frame/chimney seals shall be manufactured by Adaptor Inc. Frames and lids shall be Neenah R-1550 frame, Type "B" sealed non-rocking lid with concealed pick holes.
  - Pipe bedding  
Shall be Class B as per sections 3.2.6 & 6.43 of the Wisconsin W&S Specifications. Bedding sand will not be allowed.
  - Pipe Backfill  
Shall be mechanically compacted excavated material, or granular material as per Section 209 of the Standard Specifications.



HYDRANT SETTING DETAIL WITH AUXILIARY VALVE

REVISED

NOT TO SCALE

PROJECT : # KU19.106B

DATE : 1/27/2020

DRAWN BY : DRH

APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN

2020 STREET AND UTILITY IMPROVEMENTS

SEWER AND WATER DETAILS

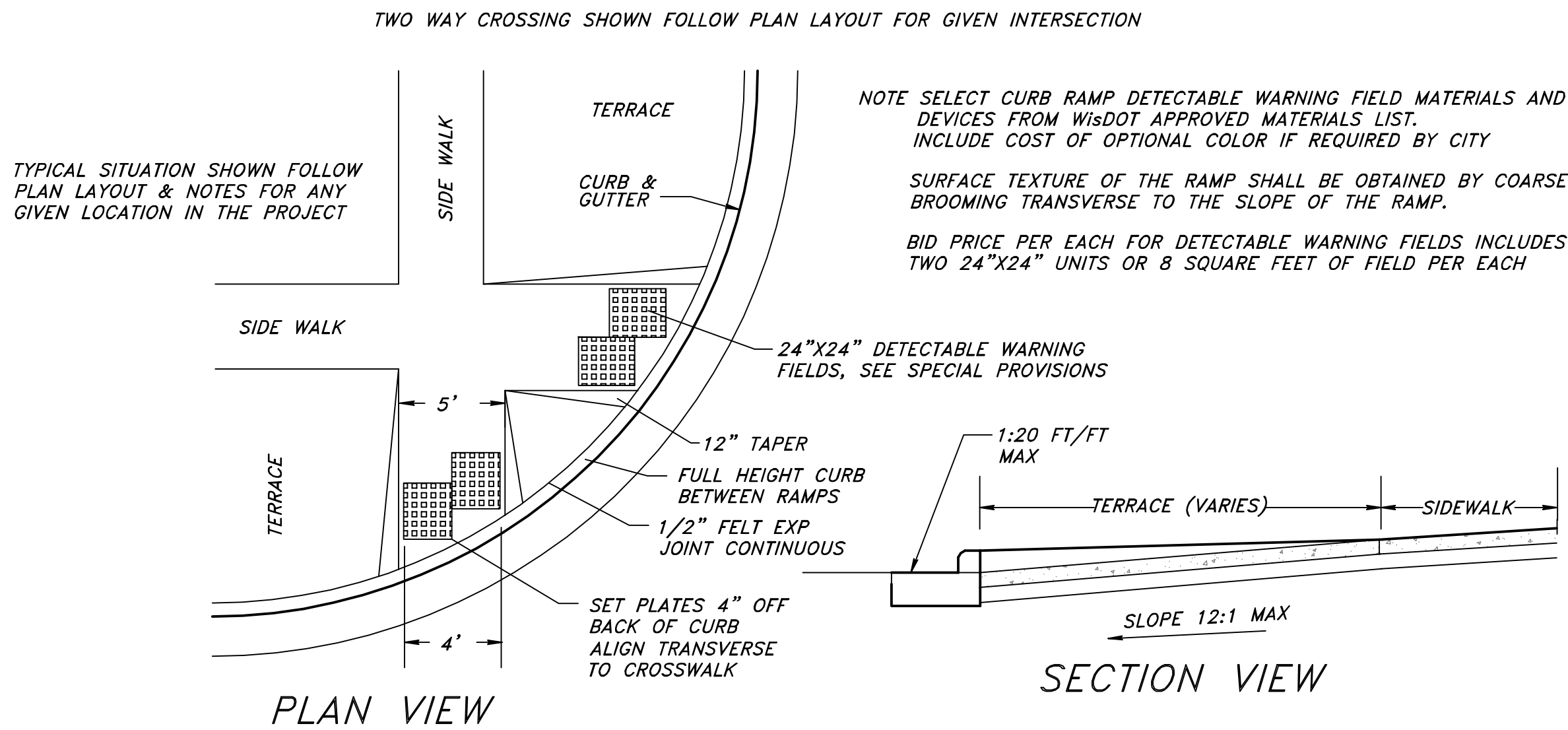
**KUNKEL** engineering group

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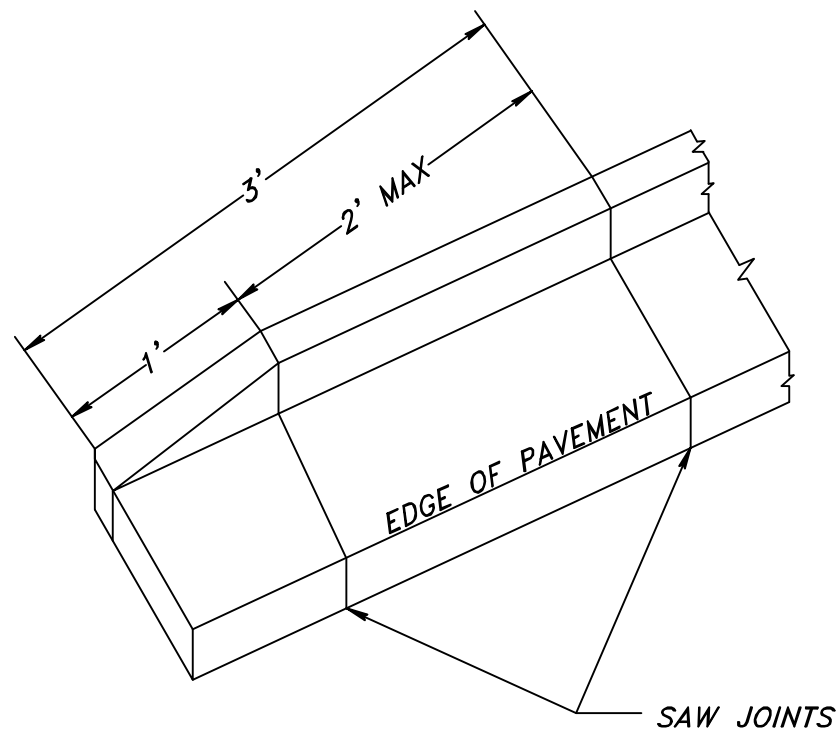
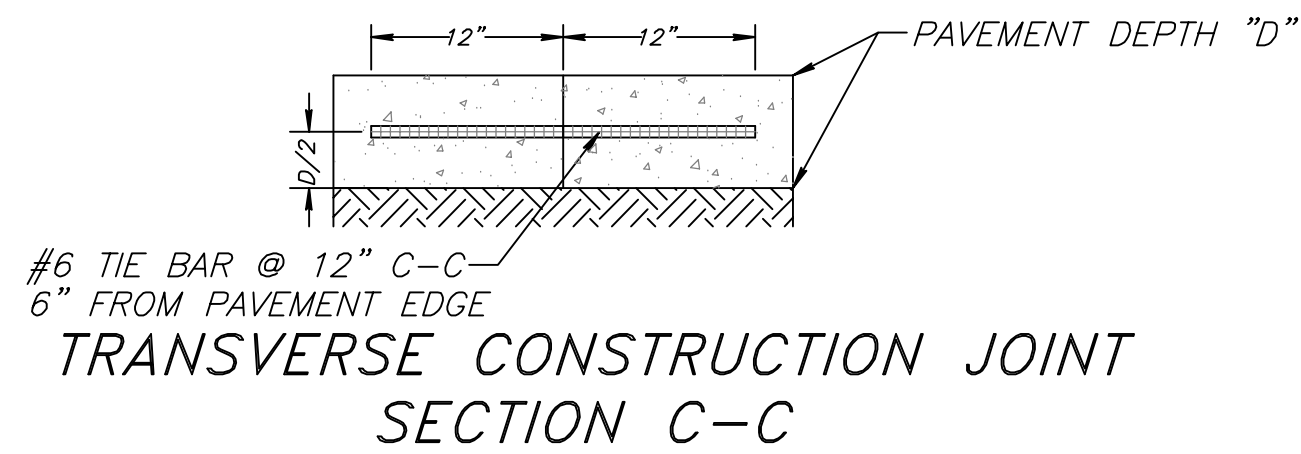
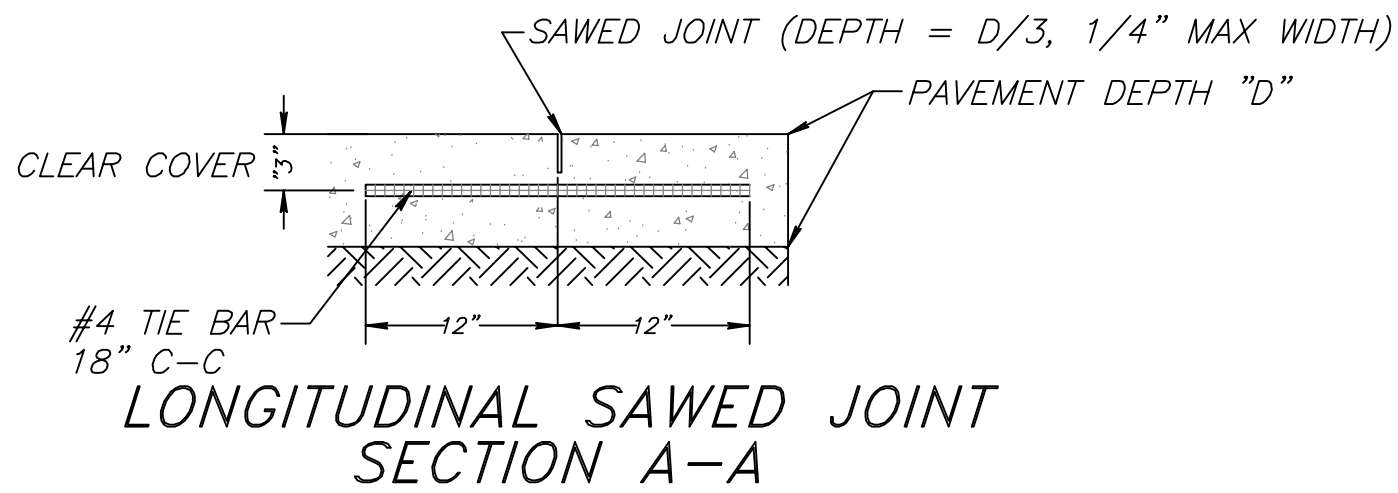
SHEET 24 OF 27



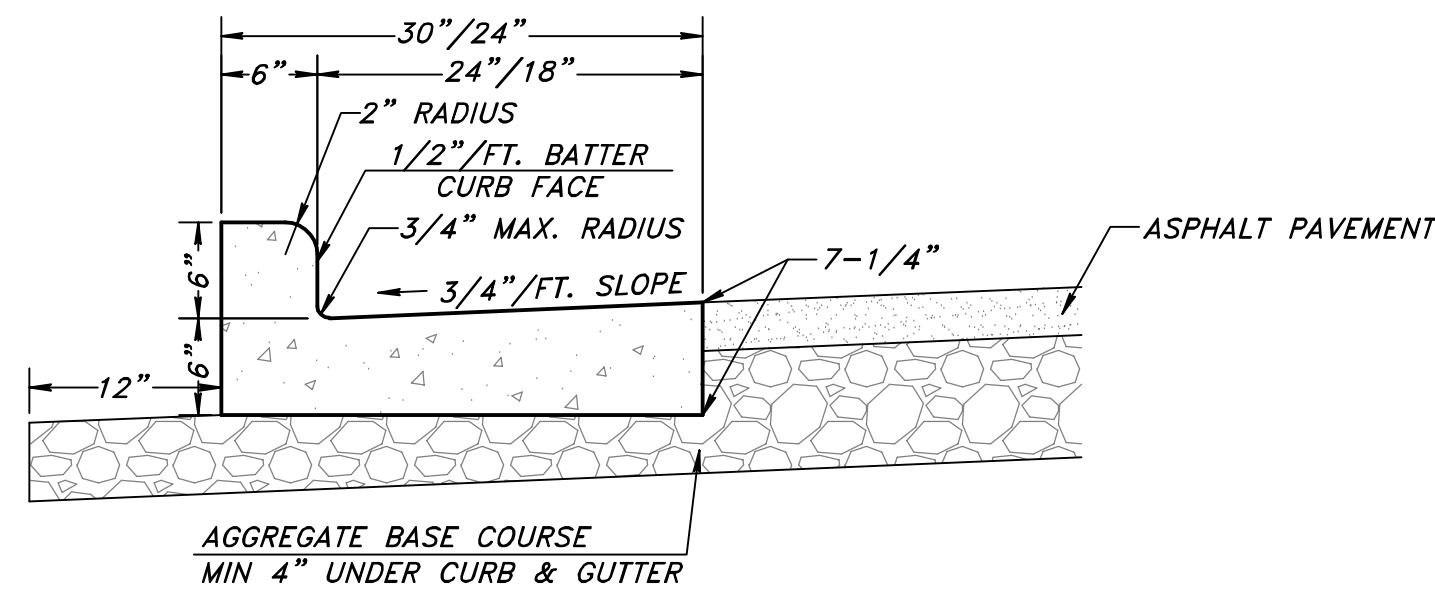
PAVING DETAILS



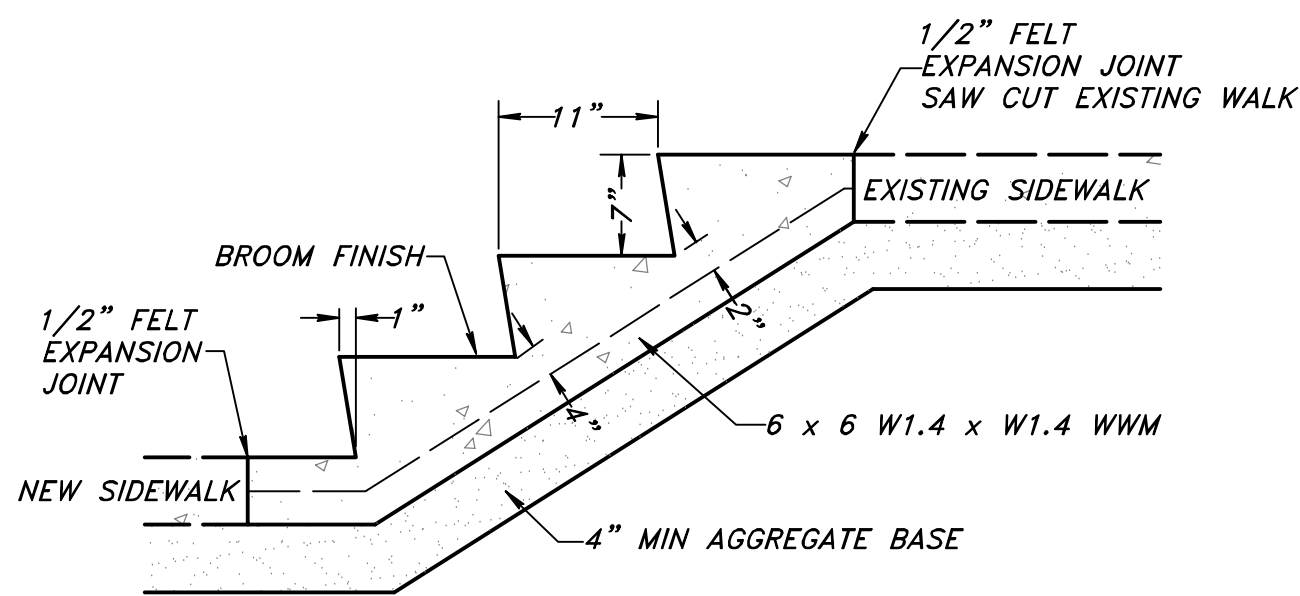
SIDEWALK RAMP DETAILS  
REQUIRED AT ALL INTERSECTIONS AND WHERE CALLED OUT ON PLANS  
NOT TO SCALE



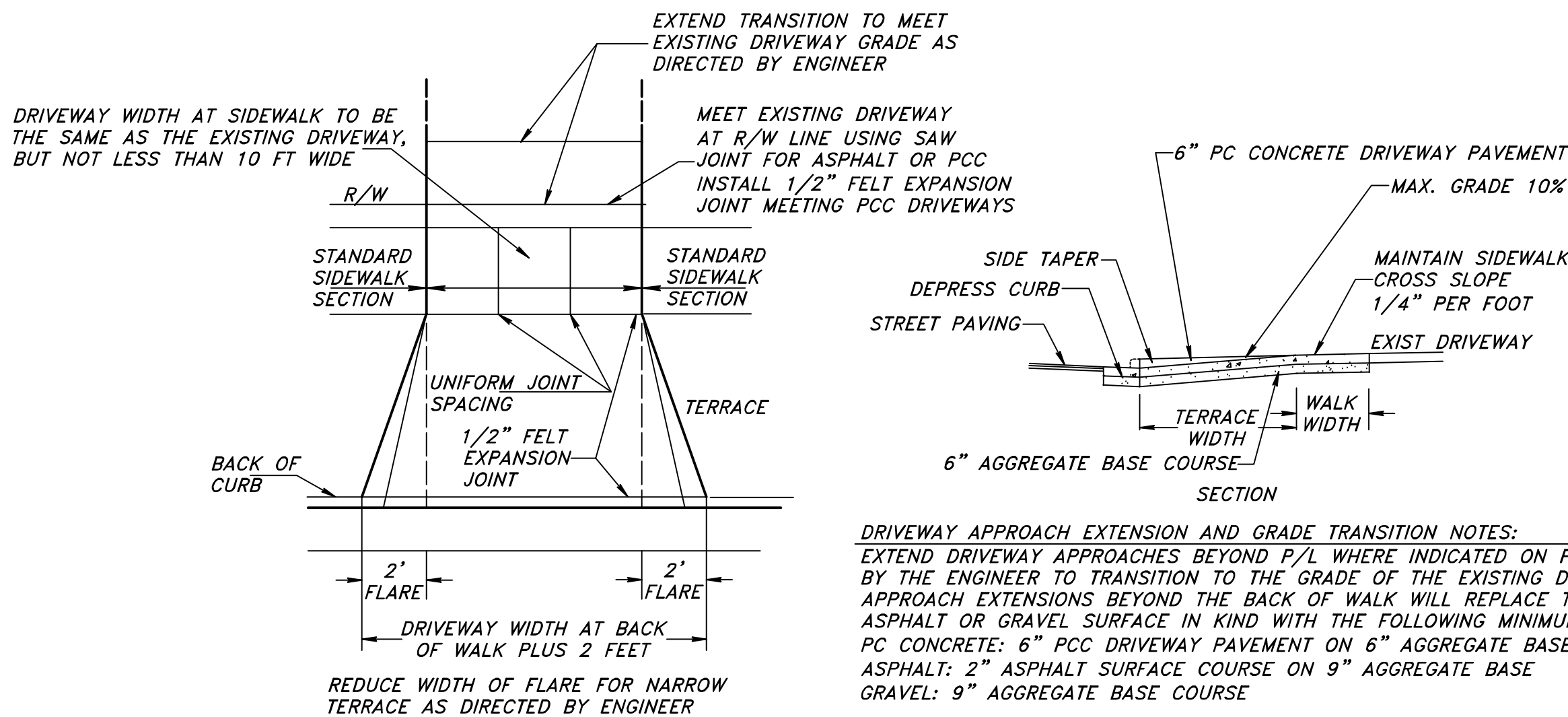
END SECTION OF CURB & GUTTER



STANDARD TYPE D CURB AND GUTTER  
ADJACENT TO ASPHALT PAVEMENT



PC CONCRETE STEP DETAIL  
(CAST-IN-PLACE)



DRIVEWAY PAVEMENT DETAILS

REVISED

NOT TO SCALE

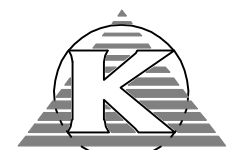
PROJECT : # KU19.106B

DATE : 1/27/2020

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APPROVED BY :

CITY OF BERLIN, WISCONSIN  
2020 STREET AND UTILITY  
IMPROVEMENTS  
PAVING DETAILS



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STANDARD EROSION CONTROL PROVISIONS

General Notes for Construction Erosion Control:

1. Refer to WDNR’s Stormwater web page of technical standards @ [http://dnr.wi.gov/topic/Stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/Stormwater/standards/const_standards.html)
2. Construct and maintain all erosion and sediment control measures in accordance with the WDNR’s Stormwater web page of technical standards @ [http://dnr.wi.gov/topic/Stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/Stormwater/standards/const_standards.html)
3. Install sediment control measures prior to any grading or disturbance of existing surface material. Adjust all sediment control measures to meet field conditions at the time of construction.
4. Provide weekly inspection and maintenance of all sediment control structures to ensure intended purpose is accomplished. Maintain documentation of inspections per the project special provisions, Sediment control measures are to be in working condition at the end of each working day.
5. In addition to weekly inspections, inspect sediment control structures for integrity after any rainfall of 1/2" or greater and correct any damaged structures.
6. Do not remove sediment control measures until the areas served have established vegetative cover.
7. Collect tracked soil from paved roads located near the construction site. All streets shall be swept and cleared of all dirt and debris on a daily basis.
8. When Discharging trench water refer to WDNR Technical Standard 1061 for de-watering in order to properly filter water in a settling basin or filtering device prior to release into a storm sewer or stream.
9. Protect storm sewer section basins from run-off with fabric per WDNR Tech Std 1060.
10. Prevent overland flow from leaving the work site by installing straw bale or fabric filter fencing parallel to the contours located downhill from the work area.
11. Sediment control for pipeline construction.
  - a. Place excavated trench material on the high side of the trench.
  - b. Backfill, compact, and stabilize the trench immediately after pipe installation.
12. Temporary seeding areas which land-disturbing activities will not be performed for a period greater than 30 days and requires vegetative cover for less than one year. Permanent seeding and stabilization should be applied within a week of final grade being established.
13. All land disturbance and stabilization for this project will occur between April 15th and September 15th. Warm season seeding can be used during this time period. Should seeding need to be completed after November 15th, a dormant seed must be used. All seeding constriction shall conform to WDNR Conservation Practice Standard 1059.

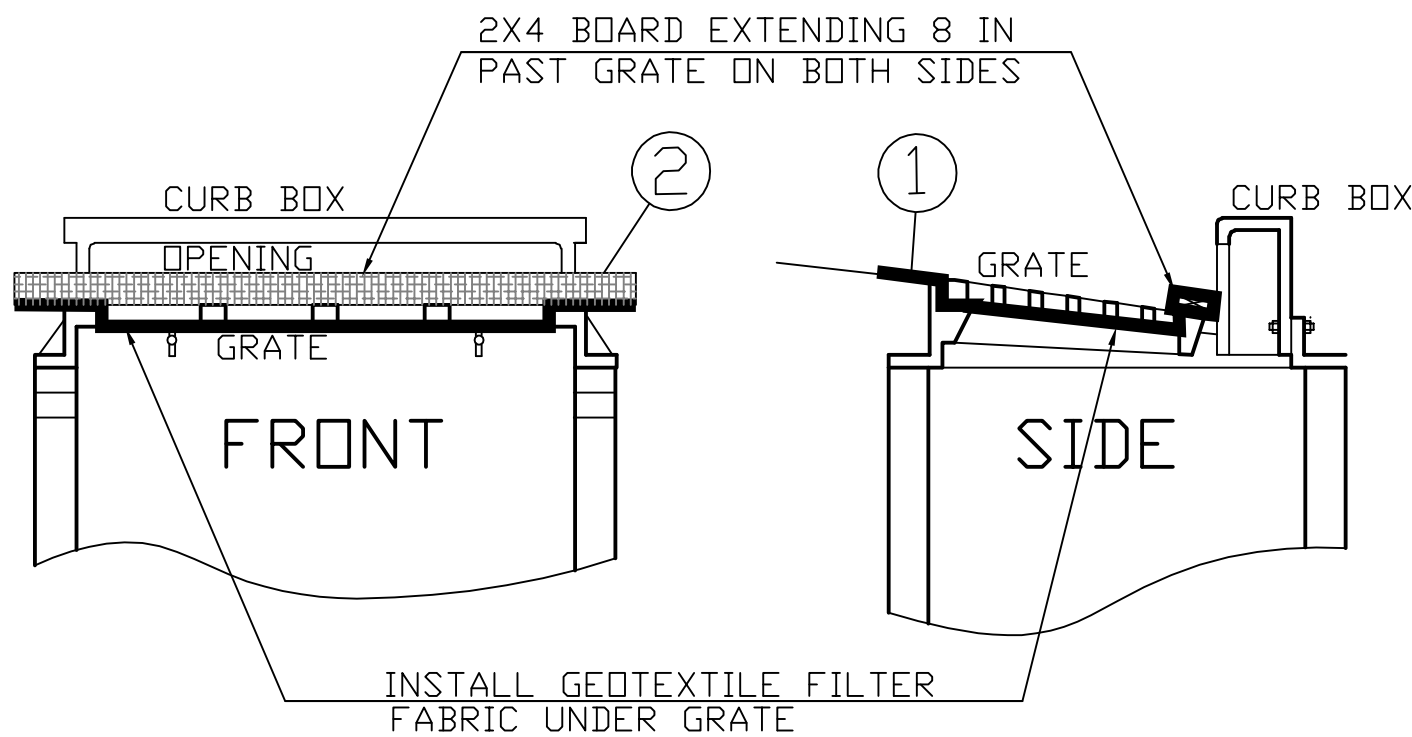
EROSION CONTROL PLAN & DETAILS

PROJECT–SPECIFIC EROSION CONTROL PLAN

City of Berlin – 2020 Street and Utility Improvements

A tracking pad must be installed per erosion control plan details on each site prior to construction, and maintained through final stabilization. The locations of tracking pads are shown on the plans.

Inlet protection must be installed on all existing inlets per the Erosion Control Plan and Details Prior to Construction. Inlet protection shall be installed on all new inlets as they are installed. The locations of existing inlets needing inlet protection are shown on the plans.



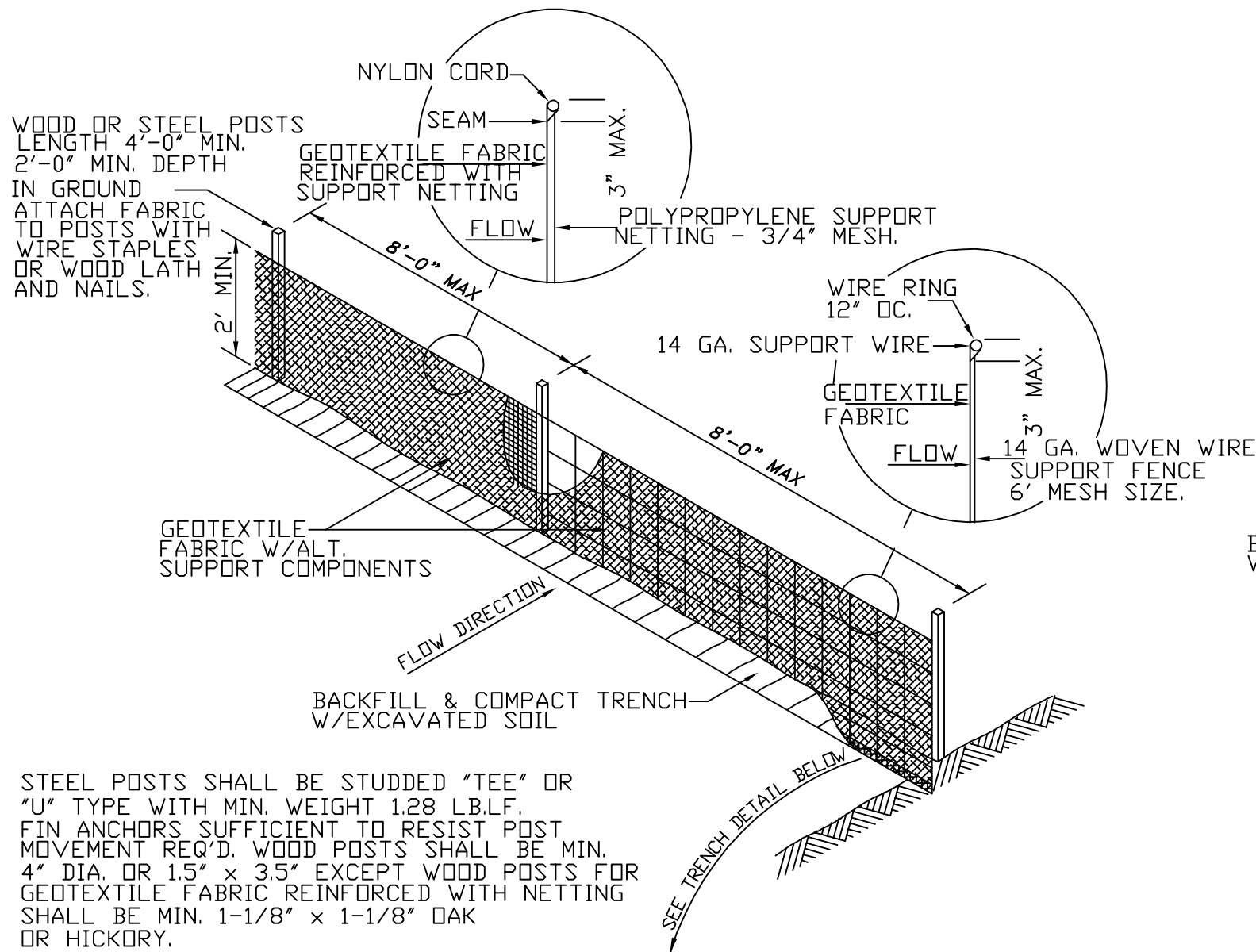
CONSTRUCTION EROSION CONTROL LEGEND

- EXISTING INLET – INSTALL TYPE D INLET PROTECTION
- INDICATES TRACKING PAD TO BE INSTALLED
- INDICATES SILT FENCE TO BE INSTALLED

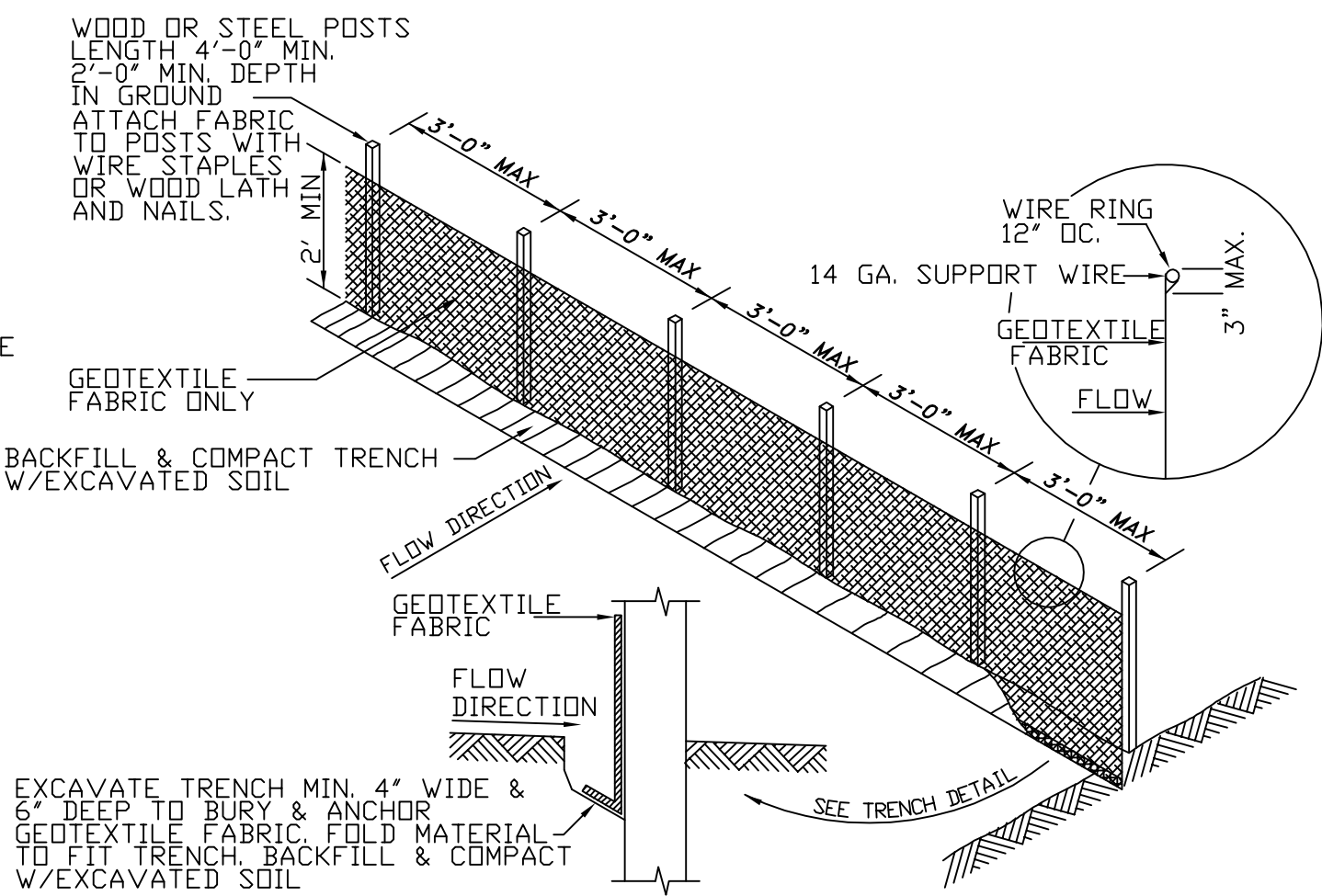
CONTRACT INCLUDES AN UNDISTRIBUTED QUANTITIES OF SILT FENCE TO BE INSTALLED AS DIRECTED BY THE ENG'R OR OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION AS NOTED ON THE PLAN SHEETS. SILT FENCE OR OTHER PERIMETER CONTROL MEASURE IS REQUIRED TO CONTROL RUNOFF FROM ANY AREAS WHERE RUNOFF LEAVES THE PROJECT AREA VIA SURFACE FLOW.

Conform To Applicable WDNR Technical Standards

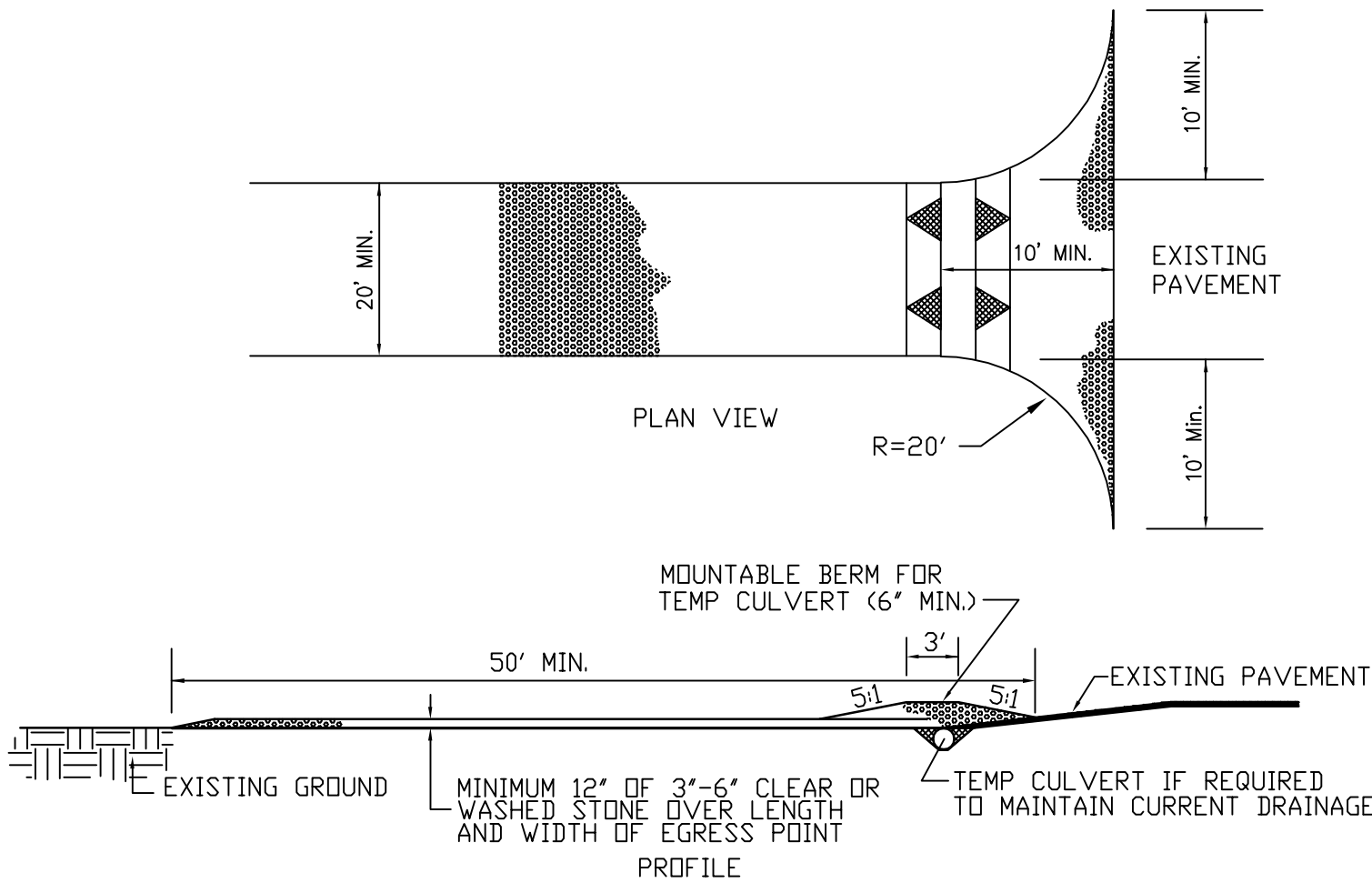
- 1052 Non Channel Erosion Mat
- 1056 Silt Fence
- 1057 Stone Tracking Pad
- 1058 Mulching
- 1059 Seeding
- 1060 Inlet Protection
- 1061 De-Watering
- 1067 Grading Practices for Erosion Control
- 1068 Dust Control



WOVEN SILT FENCE



NON-WOVEN SILT FENCE



- 1) LOCATION – A TRACKING PAD SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.
- 2) SURFACE WATER – ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND MINIMUM OF 6" OF STONE OVER THE PIPE. TO BE SIZED ACCORDING TO THE DRAINAGE. 8" MINIMUM WILL BE REQUIRED.
- 3) MAINTENANCE – TRACKING PAD SHALL BE INSPECTED DAILY AND REPAIRED OR REPLACED IMMEDIATELY.
- 4) REMOVAL – SITE STABILIZED/SEEDED/PAVED AS PER SPECIAL PROVISIONS.

TRACKING PAD / STABILIZED CONSTRUCTION ENTRANCE

REVISED

NOT TO SCALE

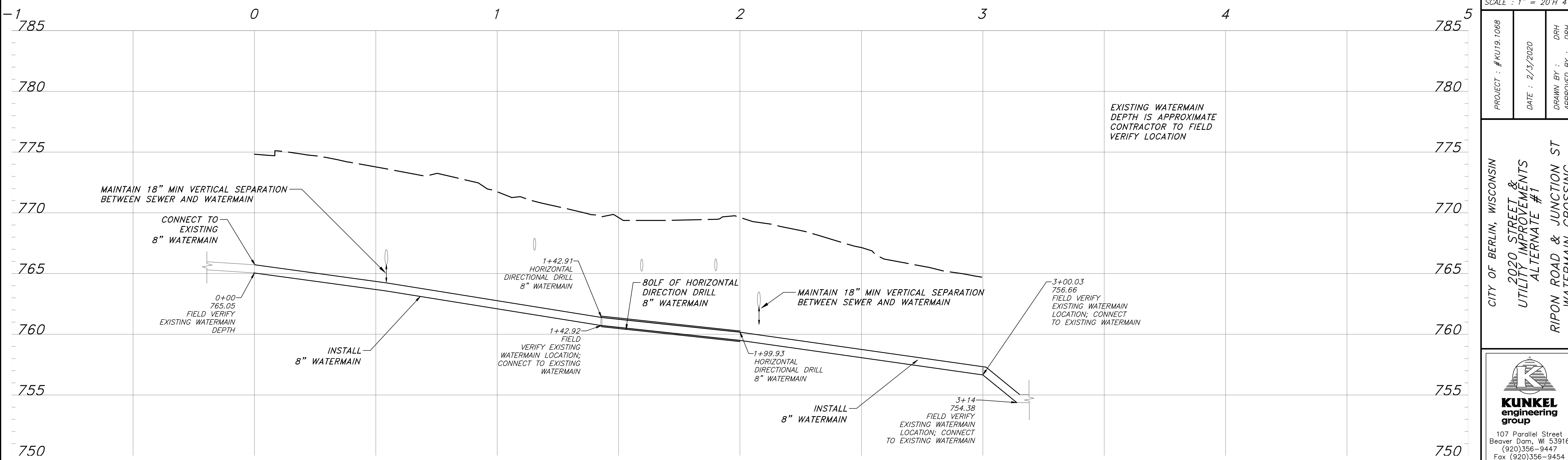
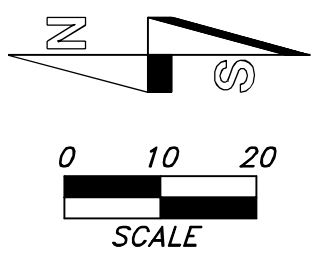
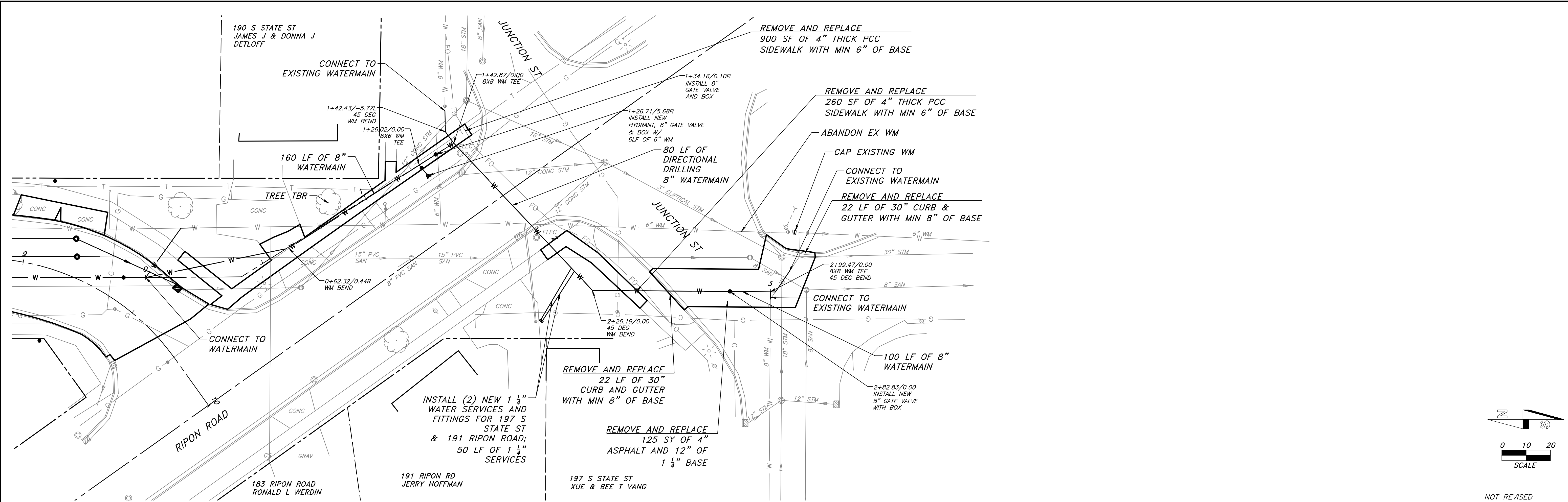
PROJECT : # KU19.106B

DATE : 1/27/2020

DRAWN BY : DRH  
APPROVED BY : DRH

CITY OF BERLIN, WISCONSIN  
2020 STREET AND UTILITY IMPROVEMENTS  
EROSION CONTROL PLAN

  
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UTILITY IMPROVEMENTS

NOT REVISED

SCALE : 1" = 20'H 4'V

PROJECT : #KU19.1068	DATE : 2/3/2020	DRAWN BY : DRH	APPROVED BY : DRH
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CITY OF BERLIN, WISCONSIN  
2020 STREET & UTILITY IMPROVEMENTS  
ALTERNATE #1  
RIPON ROAD & JUNCTION ST  
WATERMAIN CROSSING

**KUNKEL**  
engineering  
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SHEET 27 OF 27