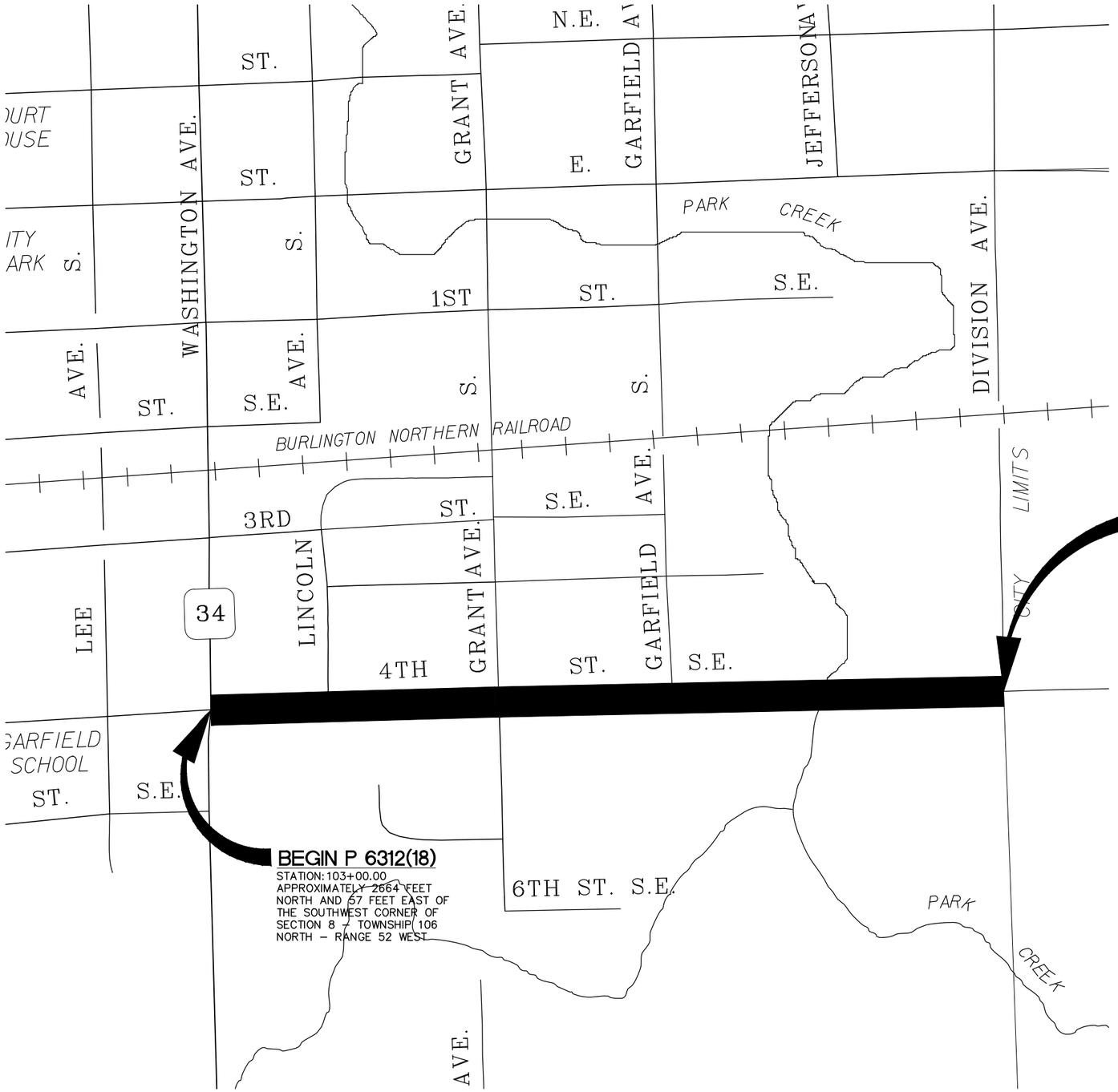
Section F: Surfacing Plans

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 6312(18)	F1	F6

Index of Sheets



END P 6312(18)
STATION: 128+68.00
APPROXIMATELY 2664 FEET NORTH AND 2609 FEET EAST OF THE SOUTHWEST CORNER OF SECTION 8 – TOWNSHIP 106 NORTH – RANGE 52 WEST

BEGIN P 6312(18)
STATION: 103+00.00
APPROXIMATELY 2664 FEET NORTH AND 67 FEET EAST OF THE SOUTHWEST CORNER OF SECTION 8 – TOWNSHIP 106 NORTH – RANGE 52 WEST

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 9089
MICHAEL R. KUNO
SOUTH DAKOTA
10/7/14

PLANS PREPARED BY:
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SECTION F ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	90.0	Mgal
260E1010	Base Course	7,500.0	Ton
320E1200	Asphalt Concrete Composite	2,231.0	Ton
320E3000	Compaction Sample	3.0	Each

SAWING IN EXISTING SURFACING

Where new Portland Cement Concrete Pavement (PCCP) or new asphalt concrete is placed adjacent to existing asphalt concrete or PCCP, the existing pavement shall be sawed full depth to a true line with a vertical face. No separate payment shall be made for sawing.

BASE COURSE

Water for compaction is estimated at 12 gallons per ton and shall be paid for at the contract unit price per MGAL for bid item “Water for Granular Material”.

Payment shall be made on a per ton basis for furnishing, spreading, and compacting the aggregate base course material.. Any aggregate base course delivered to the site without a scale ticket will not be measured for payment.

TABLE OF BASE COURSE

Pavement Type	Base Course Quantity (Ton)
Asphalt Concrete Composite	6,650.0
Curb and Gutter	551.0
6” PCC Fillet	87.0
6” PCC Approach Pavement	121.0
8” PCC Approach Pavement	9.0
6” Concrete Valley Gutter	82.0
	7,500.0

CHECKER

The contractor shall be responsible for checking the Base Course spread rates and taking the weigh delivery tickets as the surfacing material arrives on the project and is placed onto the roadway.

The contractor shall compute the required spread rates for each typical surfacing section and create a spread chart prior to the start of material delivery and placement. The Engineer will review and check the contractor’s calculations and spread charts. The station to station spread shall be written on each ticket as the surfacing material is delivered to the roadway.

At the end of each day’s shift, the Contractor shall verify the following:

- All tickets are present and accounted for,
- The quantity summary for each item is calculated,
- The amount of material wasted if any,
- Each day’s tickets summary is marked with the corresponding ‘computed by’,
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and the summary by item shall be given to the Engineer no later than the following morning.

If the checker is not properly and accurately performing the required duties, the Contractor shall correct the problem or replace the checker with an individual capable of performing the duties to the satisfaction of the Engineer. Failure to do so will result in suspension of work.

The Department will perform depth checks. The Contractor shall be responsible for placement of material to the correct depth unless otherwise directed by the Engineer. If the placed material is not within a tolerance of +1/2 inch of the plan shown depth, the Contractor shall correct the problem at no additional cost to the Department. Excess material above the tolerance will not be paid for. Achieving the correct depth may require picking up and moving material or other action as required by the Engineer.

All costs for providing the Contractor furnished checker and performing all related duties shall be incidental to the contract lump sum price for the “Checker.” No allowances will be made to the contract lump sum price for “Checker” due to authorized quantity variations unless the quantities for the material being checked vary above or below the estimated quantities by more than 25 percent. Payment for “Checker” shall then be increased or decreased by the same proportion as the placed material quantity bears to the estimated material quantity.

ASPHALT CONCRETE COMPOSITE

The asphalt concrete composite shall be placed in 2” lifts.

Mineral aggregate for the asphalt concrete composite shall conform to the requirements for Class E, Type 1.

The asphalt binder used in the mixture shall be PG 64-22 or PG 64-28.

The Asphalt Concrete Composite shall be placed with a paver feeder as set forth in Section 320.3 F during placement of the top lift of asphalt concrete.

The Asphalt Concrete Composite placed within the roadway surface shall be compacted by the Specified Density Method. The minimum density requirement shall be 92 percent of the maximum specific gravity of the test specimens prepared in the field in accordance with SD 312. The compacted density of asphalt concrete shall be determined according to SD 311.

Intermediate and/or top lifts shall not be placed until the underlying layer has cooled to 175 degrees Fahrenheit or below. Also, if the contractor’s paving operation is damaging the underlying asphalt, paving shall be suspended until the asphalt can withstand the paving operation or an alternate paving operation which does not cause damage is determined.

All other requirements in the Specifications for Asphalt Concrete Composite shall apply.

RATES OF MATERIAL

4th Street SE – Station 103+00 to station 128+68

Base Course
Crushed Aggregate 273.00 Tons Per Station
Water for Granular Material 3.30 M. Gallons per Station

Asphalt Concrete Composite – 2 Identical 2” Lifts
Asphalt Concrete Composite at the rate of 40.28 Tons per Station

TABLE OF ASPHALT CONCRETE COMPOSITE

Station	to	Station	L/R	Width (Feet)	Depth (Inches)	Asphalt Concrete Composite (Ton)	Base Course Quantity (Ton)
103+00		128+68	R	31.67	4	2217.5	6,506.2
106+16		106+48	L	14.24	4	12.0	36.1
111+79		112+11	L	14.18	4	12.0	35.9
111+78		112+10	R	14.00	4	12.0	35.5
117+43		117+74	L	14.59	4	12.5	36.3
					Total	2266.0	6,650.0

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Typical Surfacing Sections

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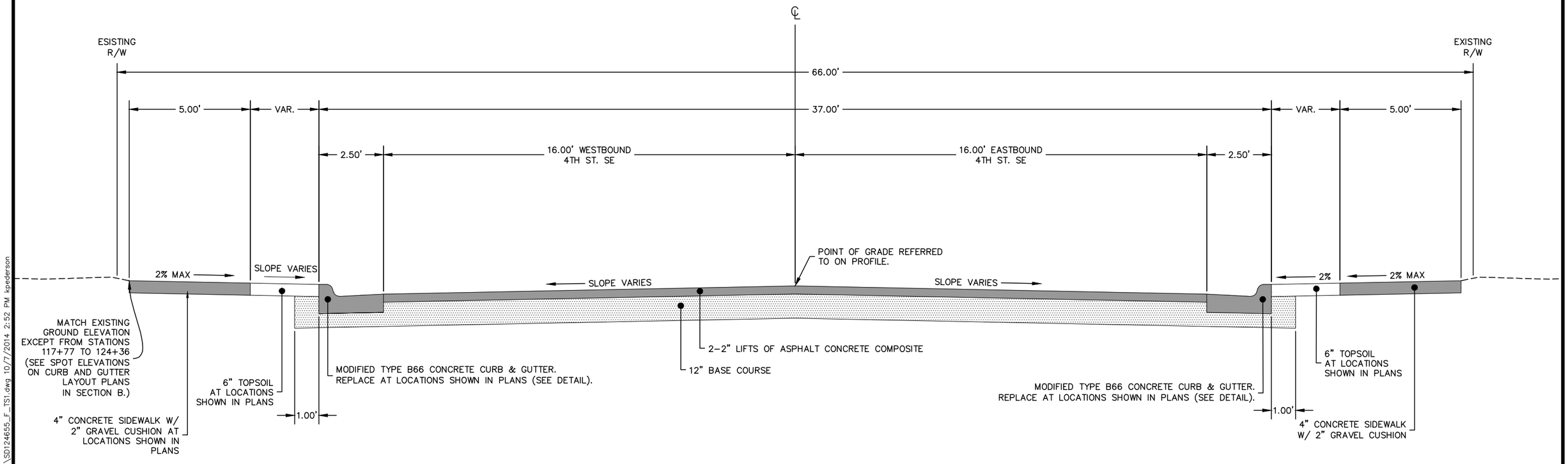
TYPICAL SECTION

STATION 103+00.00 TO STATION 128+68.00



NOTE: SOUTH SIDEWALK DISTANCE FROM BACK OF CURB VARIES FROM STATIONS122+49.42 TO 123+0.57 AND IS 6.0' OTHERWISE.

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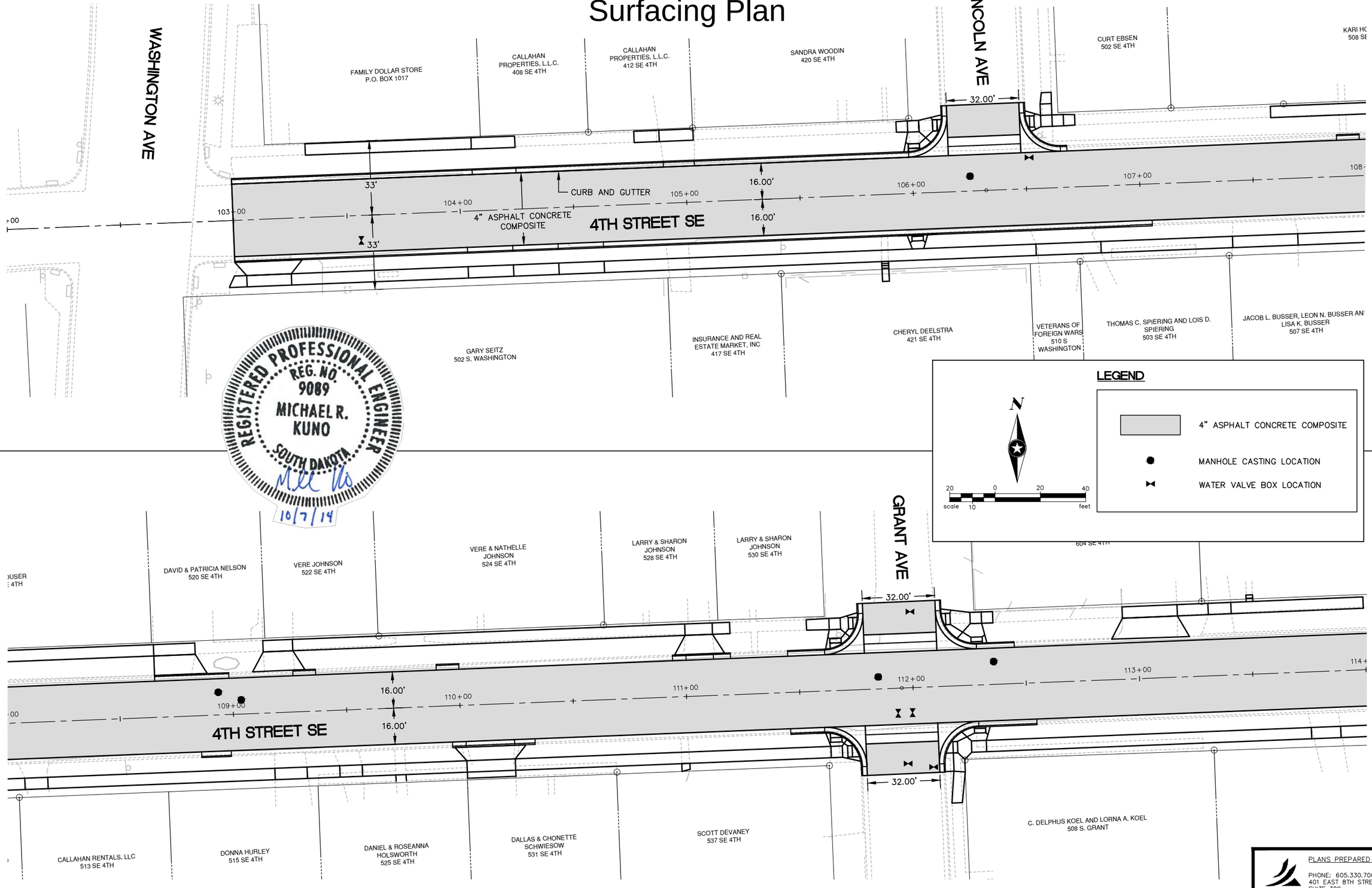
Surfacing Plan



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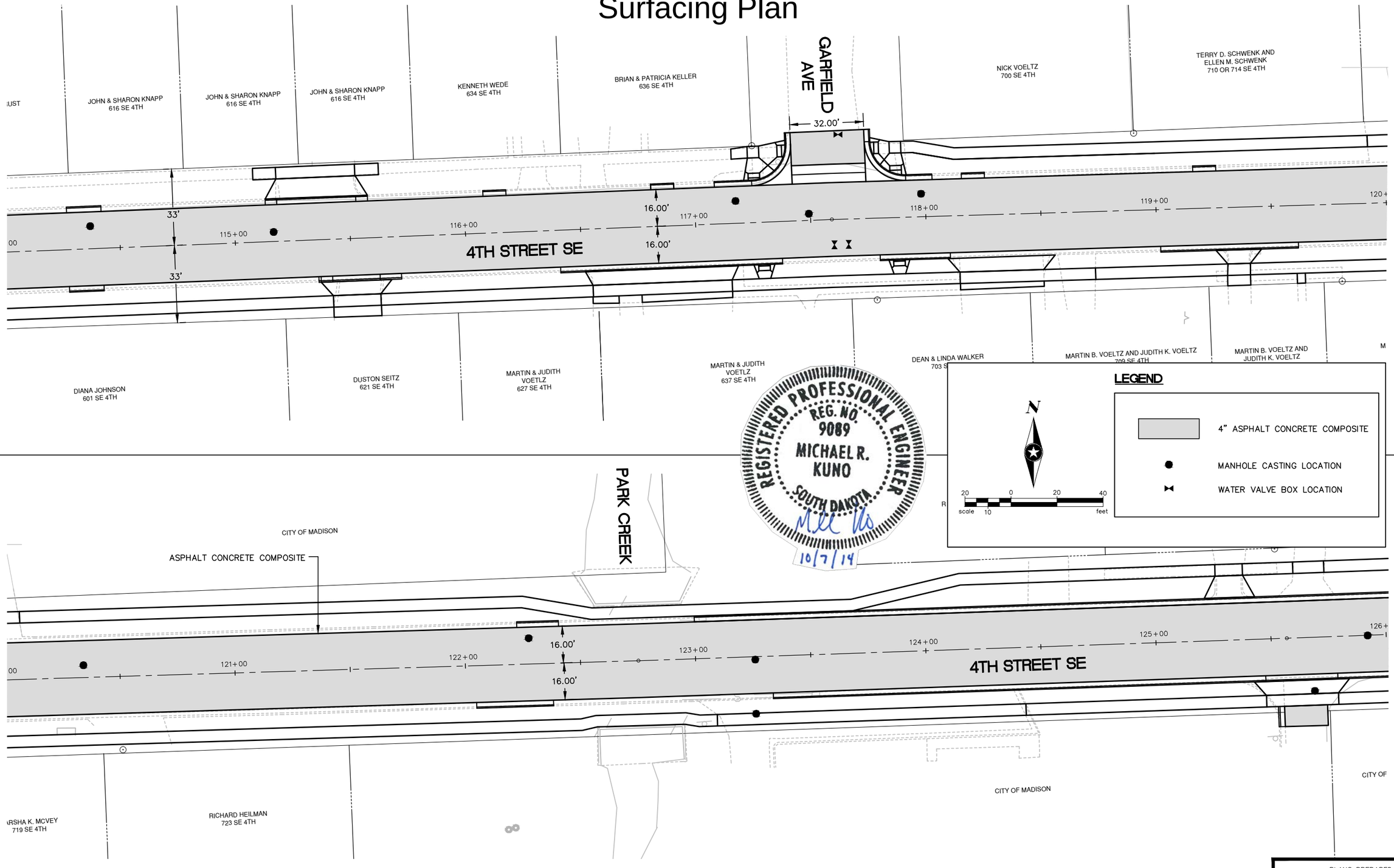

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LEGEND

N

scale 20 0 20 40
10 feet

- 4" ASPHALT CONCRETE COMPOSITE
- MANHOLE CASTING LOCATION
- WATER VALVE BOX LOCATION

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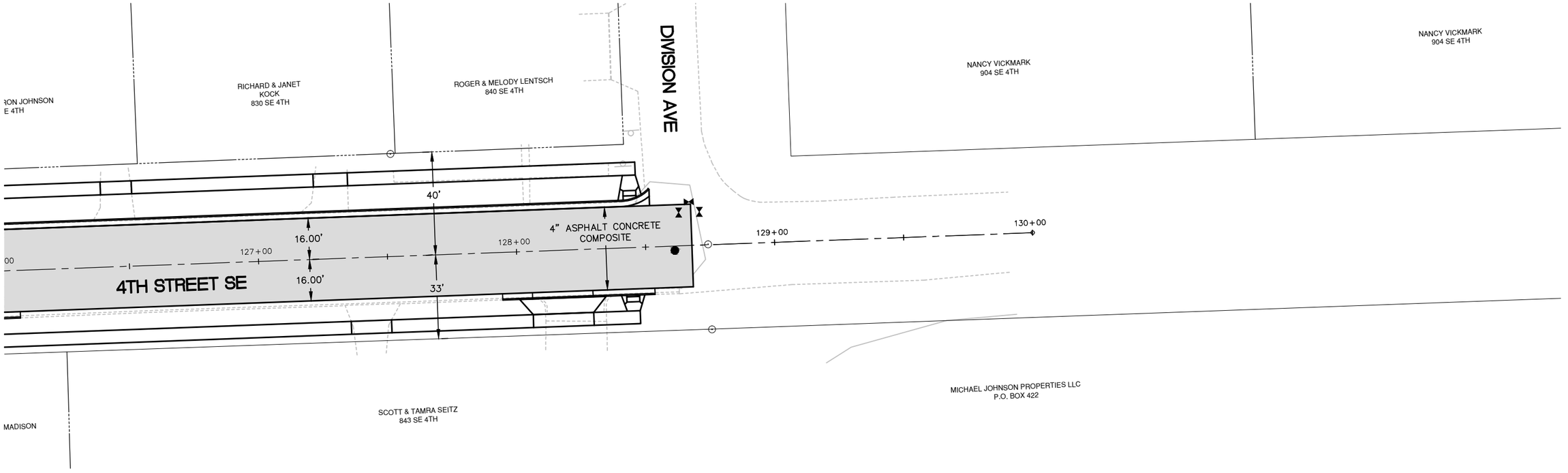

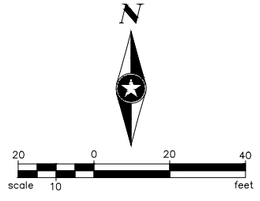

LEGEND

- 4" ASPHALT CONCRETE COMPOSITE
- MANHOLE CASTING LOCATION
- WATER VALVE BOX LOCATION

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