

KEY TO COUNTIES

CITY OF MUSKEGON

PLANS FOR

BEACH STREET PARKING AND PEDESTRIAN FACILITY IMPROVEMENTS

| SHEET INDEX | |
|-------------|---|
| SHEET | DESCRIPTION |
| CS | Cover Sheet |
| G-001 | Legend & Project Notes |
| V-101 | Existing Conditions - South Section |
| V-102 | Existing Conditions - North Section |
| D-103 | Removal Plan - South Section |
| D-104 | Removal Plan - North Section |
| C-105 | Construction Plan - South Section |
| C-106 | Construction Plan - North Section |
| C-107 | Grading Plan - South Section |
| C-108 | Grading Plan - North Section |
| C-109 | Pavement Marking Plan - North & South Section |
| SD-001 | Standard Details |
| SD-002 | Standard Cross Sections |
| MOT-001 | Traffic Control Plan |

GENERAL NOTES

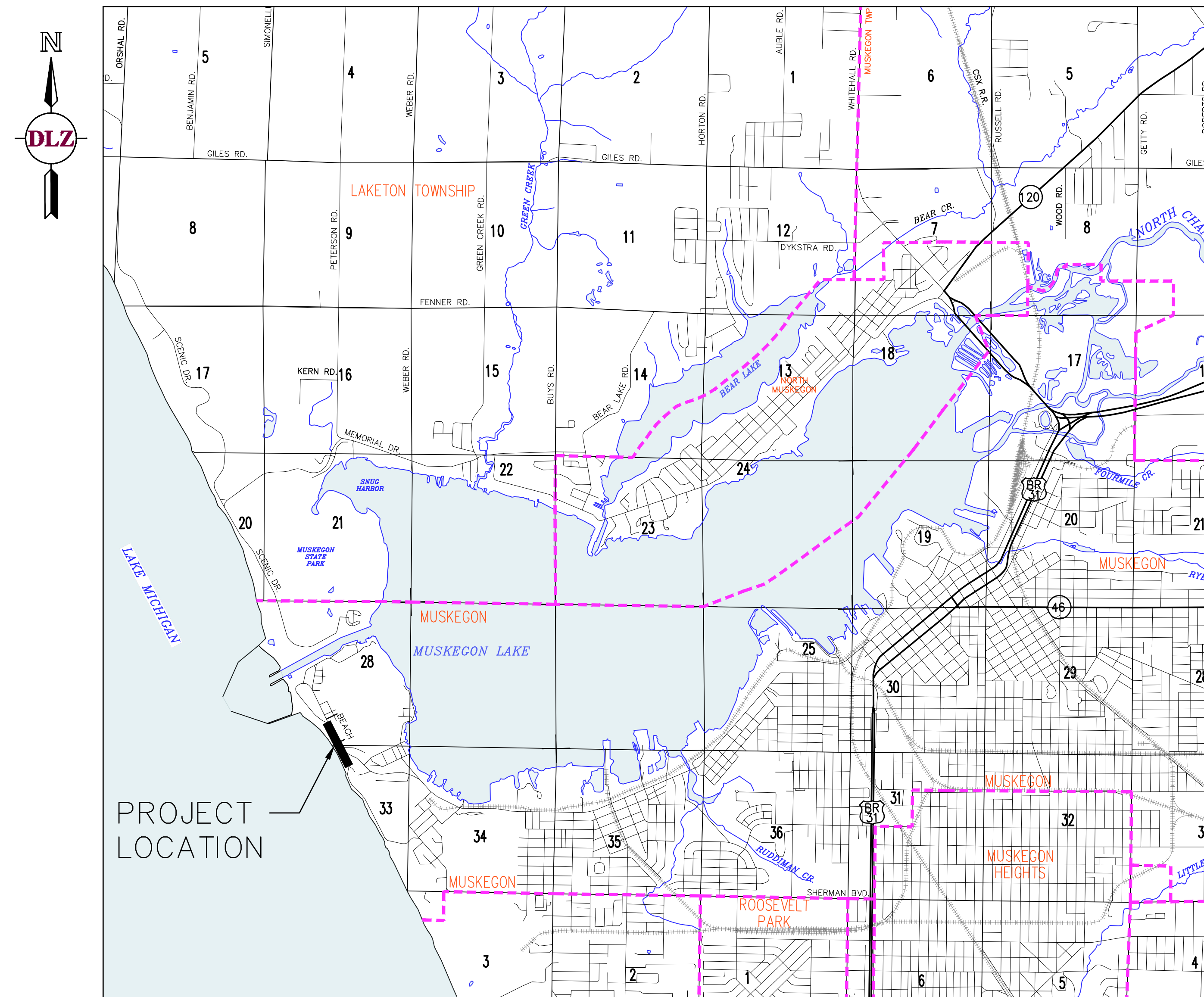
THE CONTRACTOR SHALL CALL "MISS DIG" (1-800-482-7171) THREE WORKING DAYS, EXCEPT SATURDAY, SUNDAY, AND HOLIDAYS PRIOR TO COMMENCEMENT OF ANY WORK.

ALL UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS AND AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE THE EXACT LOCATION NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THE AREA.

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF MUSKEGON STANDARD SPECIFICATIONS FOR CONSTRUCTION.

UTILITIES

| | |
|--|---|
| Gas DTE Energy/Michcon 2359 Olthoff Street Muskegon, MI 49444 Vince Duca (231) 777-4034 vincent.duca@dteenergy.com | Cable Television Comcast Communications 25626 Telegraph Southfield, Michigan 48034 Craig Pudas (248) 809-2715 craig_pudas@cable.comcast.com |
| Telephone Frontier Communications 860 Terrace Street Muskegon, Michigan 49440 Cindy Whiteman (231) 727-1134 cindy.whiteman@ftr.com | Road/ Sewer/Water City of Muskegon DPW 1350 Keating Avenue Muskegon, Michigan 49442 (231) 724-4100 dan.vanderheide@shorelinecity.com |
| Electric Consumers Energy 700 E. Sternburg Road Muskegon, MI 49441 Joel Brown (231) 332-2682 joel.m.brown@cmsenergy.com | Water Filtration Plant City of Muskegon 1900 Beach Street Muskegon, MI 49441 (231) 724-4106 josh.parker@shorelinecity.com |



LOCATION MAP

SCALE: 1" = 3000'



CITY OF MUSKEGON
933 TERRACE ST., MUSKEGON, MI 49440-1397

Ken Johnson, Mayor
 Rebecca St. Clair, Vice Mayor/Commissioner
 Rachel Gorman, Commissioner
 Jay Kilgo Commissioner
 Willie German Jr., Commissioner
 Destinee Keener, Commissioner
 Katrina Kochin, Commissioner
 Jonathan Seyferth, City Manager

CONTRACT FOR: PARKING AND PEDESTRIAN FACILITY IMPROVEMENTS ALONG BEACH STREET NEAR PERE MARQUETTE BEACH. STREET RECONSTRUCTION, HMA PAVING, PAVEMENT MARKINGS, SIGNING AND RESTORATION IN THE CITY OF MUSKEGON, MICHIGAN

PREPARED UNDER THE SUPERVISION OF

LEIGH C. MERRILL, P.E. 6201061025
 REGISTERED PROFESSIONAL ENGINEER REGISTRATION NO.

DLZ MICHIGAN, INC.
 ORGANIZATION



L Merrill

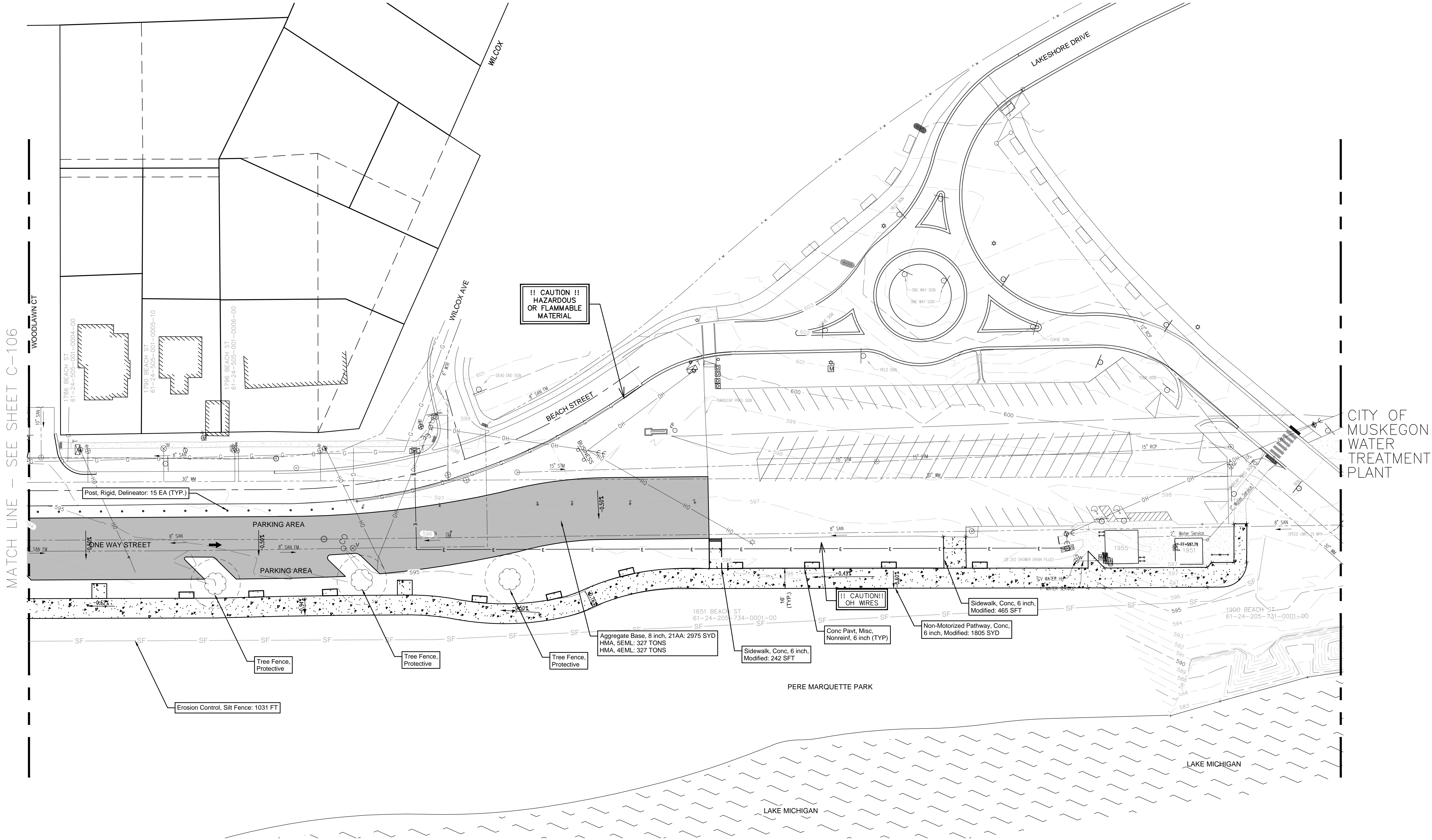


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 EXCEPTIONAL DESIGN
 UNMATCHED CLIENT SERVICE

JOB NO: 2247-7456-00
 COVER SHEET - CS

PLOT DATE: 11/03/2025 3:00:50 PM
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MATCH LINE - SEE SHEET C-106

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WARNING:
 UTILITY LOCATIONS ARE SHOWN WHERE KNOWN FROM UTILITY OWNERS OR PLANS. DURING FULL CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES THAT MIGHT BE ENCOUNTERED DURING CONSTRUCTION.

CITY OF
MUSKEGON
 City of Muskegon DPW
 1350 E. Keating Avenue
 Muskegon, Michigan 49442

CONSTRUCTION PLAN - South Section
Beach Street Parking and Pedestrian Facility Improvements

0 40' 80'
 SCALE

| MARK | ISSUED FOR | DATE |
|------|--------------------|---------|
| | PRELIMINARY REVIEW | 10/3/25 |
| | FOR PERMITS | 11/3/25 |
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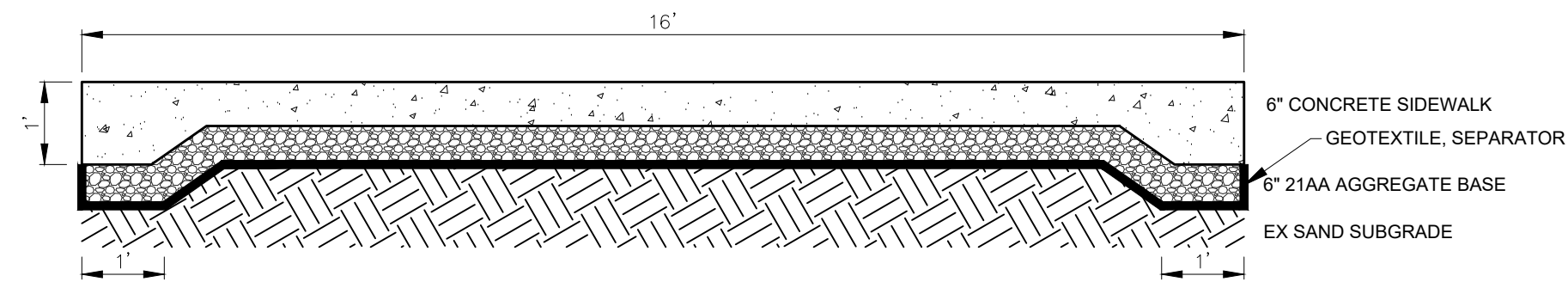
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SHEET NO. **C-105**

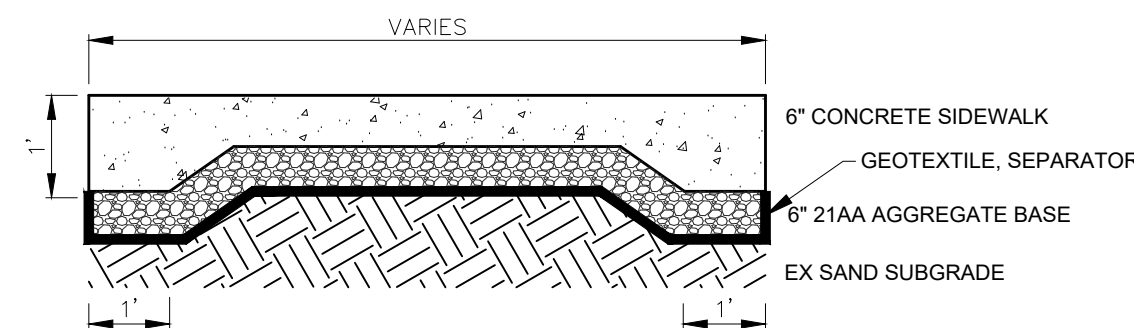
| ESTIMATED QUANTITIES THIS SHEET | |
|---|----------|
| DESCRIPTION | QUANTITY |
| Non-Motorized Pathway, Conc. 6 inch, Modified | 1805 SYD |
| Aggregate Base, 8 inch, 21AA | 1884 SYD |
| Aggregate Base, 8 inch, 21AA | 2975 SYD |
| Geotextile, Separator | 2001 SYD |
| HMA, 5EML | 322 TONS |
| HMA, 4EML | 322 TONS |
| Conc Pavt, Misc, Nonreinf, 6 inch | 99 SYD |
| Sidewalk, Conc, 6 inch, Modified | 707 SFT |
| Detectable Warning Surface | 10 FT |
| Post, Rigid, Delineator | 15 EA |
| Tree Fence, Protective | 90 FT |
| Erosion Control, Silt Fence | 1031 FT |
| Dr Structure Cover, Adj, Case 1 | 4 EA |

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 PLOT DATE: 11/3/2025 5:02:56 PM



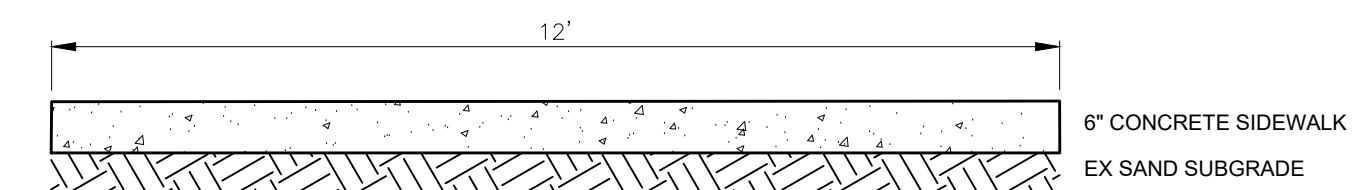
NON-MOTORIZED PATHWAY, CONC, 6 INCH, MODIFIED

NTS



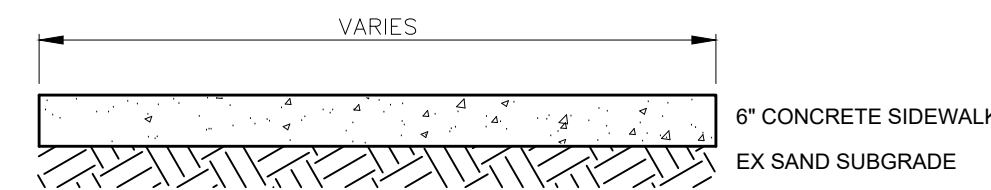
SIDEWALK, CONC, 6 INCH MODIFIED

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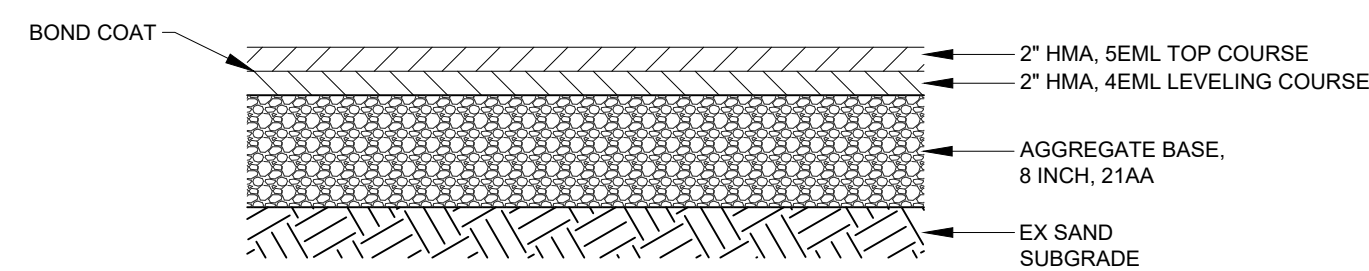
CONC PAVT, MISC, NONREINF, 6 INCH
BENCH AND PICNIC TABLE PAD

NTS



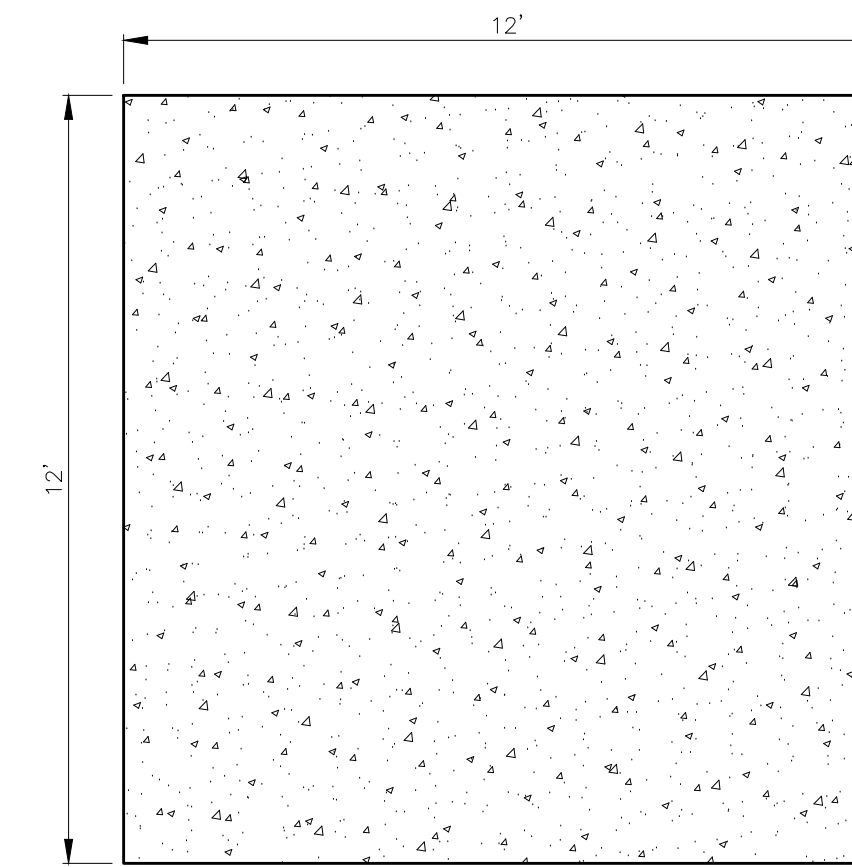
SIDEWALK, CONC, 6 INCH

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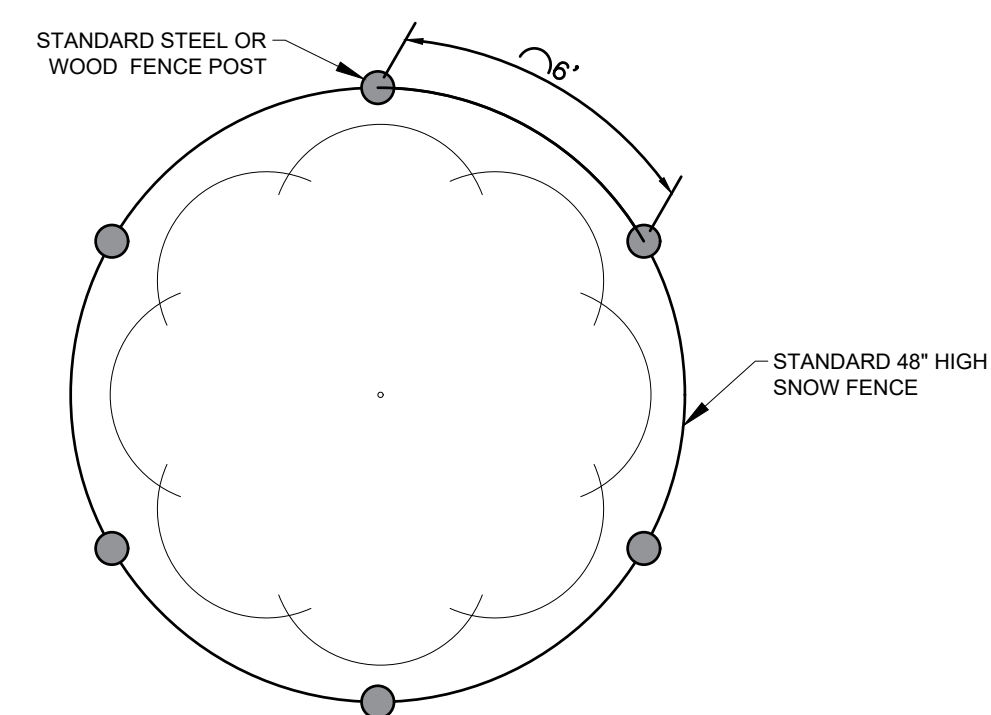
PARKING LOT PAVING SECTION

NTS



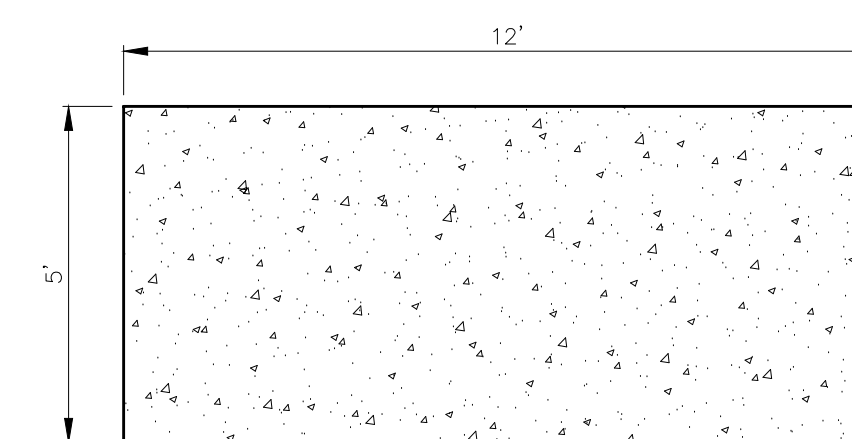
PICNIC TABLE PAD, CONC, 6 INCH

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TREE FENCE, PROTECTIVE

NTS



BENCH PAD, CONC, 6 INCH

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WARNING:
 UTILITY LOCATIONS ARE SHOWN ON THESE PLANS. CONTRACTOR SHALL VERIFY ALL UTILITIES BEFORE BEGINNING WORK. CONTRACTOR SHALL STAKE AND HE SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES THAT MIGHT BE AFFECTED BY THE CONSTRUCTION.



City of Muskegon
 Department of Public Works
 1350 E. Keating Avenue
 Muskegon, Michigan 49442

Standard Details
 Beach Street Parking and Pedestrian
 Facility Improvements

| MARK | ISSUED FOR | DATE |
|------|--------------------|---------|
| | PRELIMINARY REVIEW | 10/3/25 |
| | FOR PERMITS | 11/3/25 |
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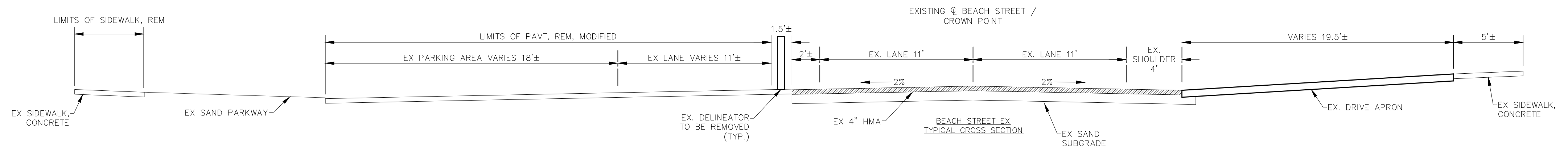
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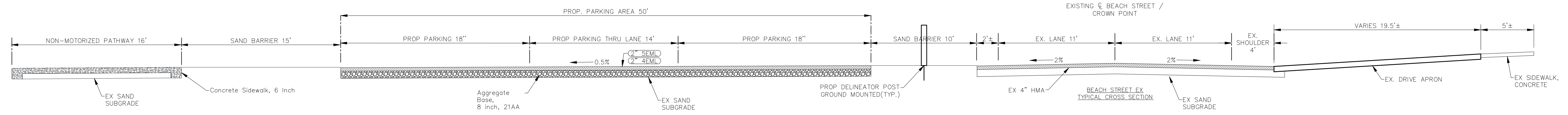
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EXISTING CROSS SECTION

NTS



PROPOSED CROSS SECTION

NTS

| HMA APPLICATION TABLE | | | |
|-----------------------|------------------|-------------------|---------------------------|
| ITEM | APPLICATION RATE | PERFORMANCE GRADE | NOTES |
| HMA, 5EML | 220 #/SYD | 64-28 | TOP COURSE AWI >= 220 MIN |
| HMA, 4EML | 220 #/SYD | 64-28 | LEVELING COURSE |
| HMA, 5EML/4EML | *440 #/SYD | 64-28 | HAND PATCHING |

NOTE:
 1. APPLICATION RATE FOR HAND PATCHING MAY VARY. THE SPECIFIED APPLICATION RATE IS THE MINIMUM RATE TO BE APPLIED. ALL HMA SHALL BE APPLIED WITHIN THE RANGE OF THE MINIMUM AND MAXIMUM APPLICATION RATES FOR EACH MIX.
 2. HMA BOND COAT (MDOT SS-1H) SHALL BE APPLIED AT 0.05-0.15 GAL/SYD BETWEEN HMA LIFTS AND ALONG THE FACE OF THE GUTTER PAN AND STRUCTURES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE HMA ITEM.

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City of Muskegon
 Department of Public Works
 1350 E. Keating Avenue
 Muskegon, Michigan 49442

Standard Cross Sections
 Beach Street Parking and Pedestrian Facility Improvements

| MARK | ISSUED FOR | DATE |
|------|--------------------|---------|
| | PRELIMINARY REVIEW | 10/3/25 |
| | FOR PERMITS | 11/3/25 |
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 DATE: 11/3/2025 2:51:43 PM

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 DAVA MARION
 11/13/2025 2:51:43 PM



| MAINTAINING TRAFFIC TYPICALS | |
|------------------------------|---|
| 101-GEN-SPACING-CHARTS | "B", "D" AND "L" TABLES CHANNELIZING DEVICE SPACING SIGN BORDER KEY, AND ROLL-AHEAD SPACING |
| 122-NFW-SHL-(R) | SHOULDER CLOSURE ON A 2-LANE UNDIVIDED ROADWAY |

GENERAL CONSTRUCTION SIGNING NOTES

1. ALL SIGNAGE SHALL BE IN CONFORMANCE WITH THE 2024 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (2009 FEDERAL EDITION).
2. THE TEMPORARY SIGNS, AS SHOWN ON THIS SHEET, SHALL HAVE GROUND DRIVEN SIGN SUPPORTS. DRIVING SIGN SUPPORT IS INCLUDED IN THE PAY ITEM SIGN, TYPE B, TEMP, PRISMATIC, FURN.
3. ALL TEMPORARY SIGN POSTS DRIVEN INTO THE GROUND, AS SHOWN ON THIS PLAN AND ELSEWHERE USED ON THE JOB AS NECESSARY SHALL BE DONE ACCORDING TO THE M.D.O.T. DETAIL WZD-100-A.
4. ALL UNDERGROUND UTILITIES SHALL BE LOCATED PRIOR TO DRIVING POSTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MISS DIG AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES SHALL NOT BE DISTURBED.

| LIST OF SIGNS | | | | |
|---------------|-----------------|-------------------|----------|-------------|
| ITEM | DESCRIPTION | SIZE | QUANTITY | TOTAL (SFT) |
| R9-9 | Sidewalk Closed | 30 inch X 18 inch | 3 | 11.25 |
| R11-2 | Road Closed | 30 inch X 48 inch | 2 | 20 |
| W20-1 | Road Work Ahead | 36 inch X 36 inch | 4 | 36 |

| ESTIMATED QUANTITIES THIS SHEET | | | |
|---------------------------------|--|-------|----------|
| PAY ITEM | DESCRIPTION | UNITS | QUANTITY |
| 8120012 | Barricade, Type III, High Intensity, Double Sided, Lighted, Furn | Ea | 4 |
| 8120013 | Barricade, Type III, High Intensity, Double Sided, Lighted, Oper | Ea | 4 |
| 8120026 | Pedestrian Type II Barricade, Temp | Ea | 3 |
| 8120170 | Minor Traffic Devices | LSUM | 1 |
| 8120350 | Sign, Type B, Temp, Prismatic, Furn | Sft | 67.25 |
| 8120351 | Sign, Type B, Temp, Prismatic, Oper | Sft | 67.25 |
| 8120370 | Traf Regulator Control | LSUM | 1 |

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City of Muskegon
 Department of Public Works
 1350 E. Keating Avenue
 Muskegon, Michigan 49442

Traffic Control Plan
 Beach Street Parking and Pedestrian
 Facility Improvements

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| | PRELIMINARY REVIEW | 10/3/25 |
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