KWIK TRIP STORE #527

ENGINEERING PLANS

CITY OF WAUKESHA
WAUKESHA COUNTY, WISCONSIN

CITY OF WAUKESHA NOTE:

ALL SITE IMPROVEMENTS AND CONSTRUCTION SHOWN ON THE PLANS SHALL CONFORM TO THE CITY OF WAUKESHA DEVELOPMENT HANDBOOK & INFRASTRUCTURE SPECIFICATIONS, WHERE THE PLANS DO NOT COMPLY, IT SHALL BE THE SOLE RESPONSIBILITY AND EXPENSE OF THE DEVELOPER TO MAKE REVISION TO THE PLANS AN/OR CONSTRUCTED INFRASTRUCTURE TO COMPLY.

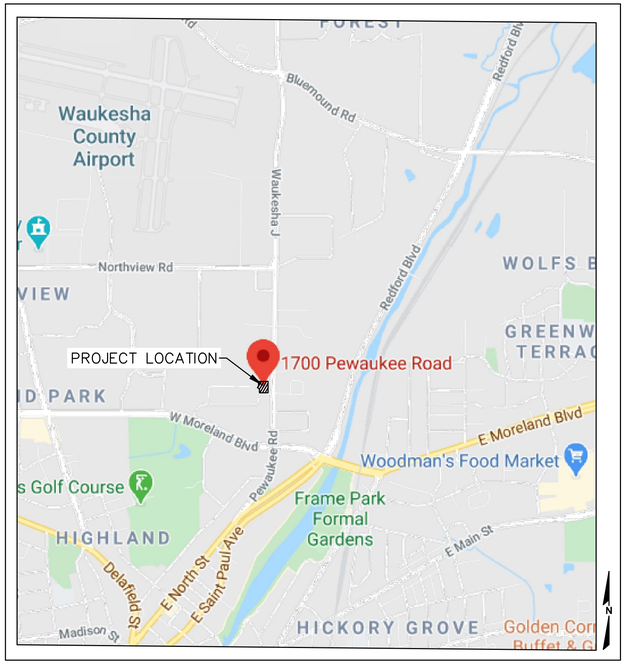
OWNER
KWIK TRIP, INC.
BRADFORD FRY, P.E.
1626 OAK STREET
LA CROSSE, WI 54602
PHONE: 608-793-6414
EMAIL: BFry@kwiktrip.com

CIVIL/SITE ENGINEER
raSmith
PM: ROBERT J. HARLEY, P.E.
EMAIL: Robert.Harley@rasmith.com

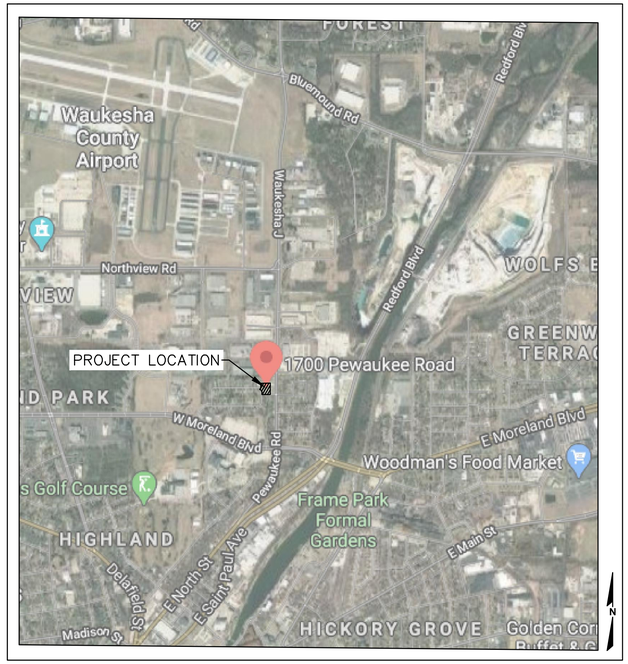
PE: CHRISTOPHER B. WHITE, P.E.
EMAIL: Christopher.White@rasmith.com

16745 W. BLUEMOUND RD.
BROOKFIELD, WI 53005-5938
PHONE: 262-781-1000

SURVEYOR
raSmith
JOHN P. CASUCCI, PLS
16745 W. BLUEMOUND RD.
BROOKFIELD, WI 53005-5938
PHONE: 262-781-1000



SITE LOCATION MAP



AERIAL LOCATION MAP

SHEET INDEX

LEGAL DESCRIPTION:

A DIVISION OF PARCEL 1 AND PART OF PARCEL 2 IN CERTIFIED SURVEY MAP NO. 4080, ALL BEING A PART OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 34, TOWNSHIP 7 NORTH, RANGE 19 EAST, IN THE CITY OF WAUKESHA, WAUKESHA COUNTY, WISCONSIN.

DATUM AND BENCHMARK NOTES:

Basis of Bearings
Bearings are based on the North line of Gascoigne Road, which is assumed to bear North 90°00'00" West.

Elevations
Elevations refer to City of Waukesha Datum.
Starting benchmark: Southeast corner of Northeast 1/4 of Section 34, Township 7 North, Range 19 East, Found concrete monument with brass cap, Elevation = 113.787'

KWIK TRIP
KWIK STAR

KWIK TRIP, Inc.
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1626 OAK STREET
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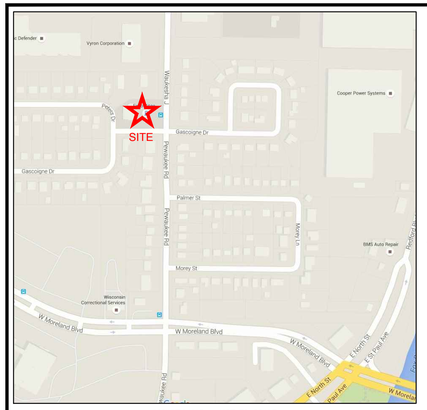
COVER SHEET
CONVENIENCE STORE #527
1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

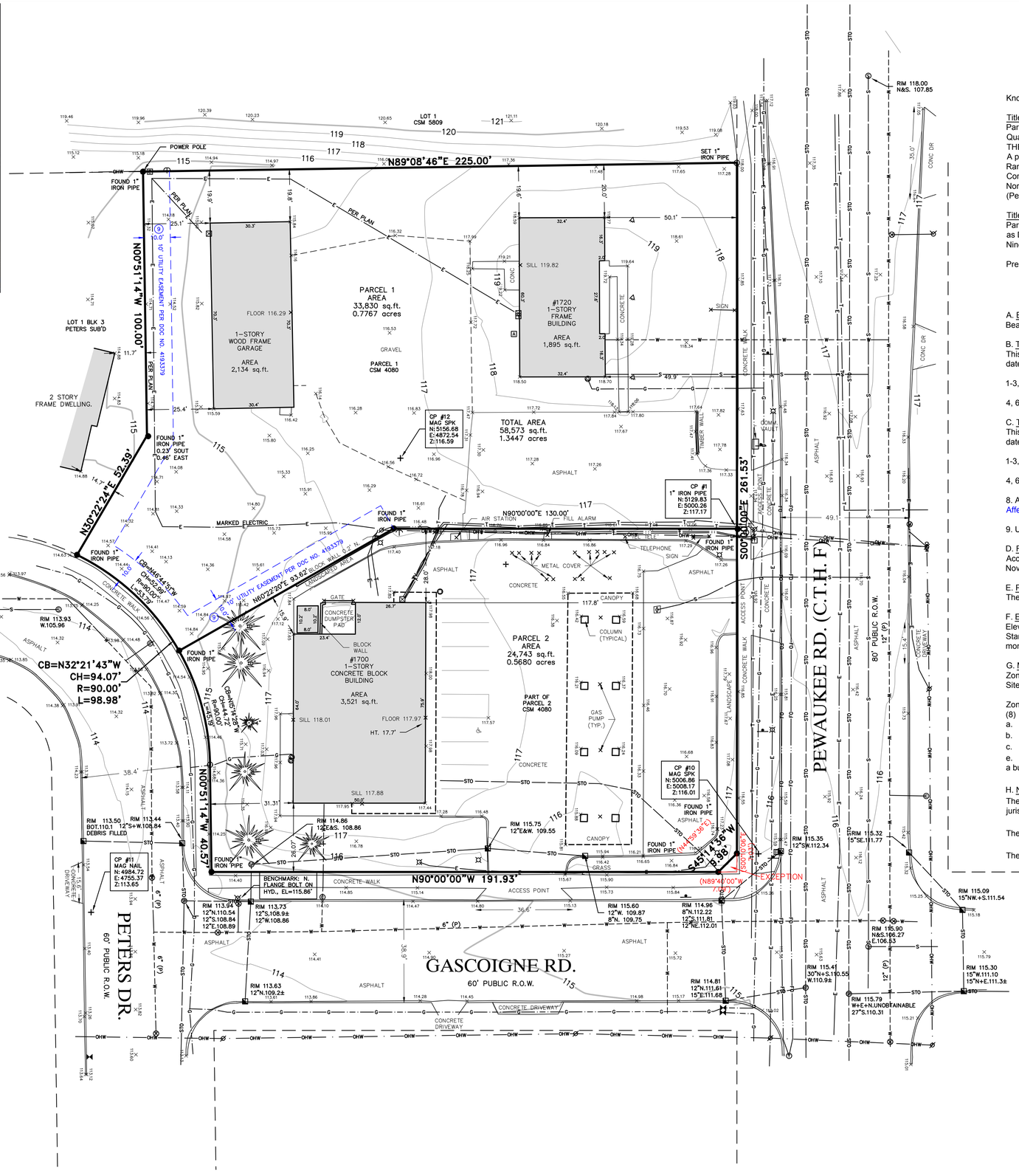
DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	T1

STORE NO. 527

ALTA/NSPS LAND TITLE SURVEY



VICINITY MAP – NOT TO SCALE



GRAPHIC SCALE

10 0 10 20 40

(IN FEET)

LEGEND

- BOLLARD
- SOIL BORING/MONITORING WELL
- FLAGPOLE
- MAILBOX
- SIGN
- AIR CONDITIONER
- CONTROL BOX
- TRAFFIC SIGNAL
- RAILROAD CROSSING SIGNAL
- CABLE PEDESTAL
- POWER POLE
- GUY POLE
- GUY WIRE
- LIGHT POLE
- SPOT/YARD/PEDESTAL LIGHT
- HANDICAPPED PARKING
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- ELECTRIC TRANSFORMER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- UTILITY VAULT
- GAS VALVE
- GAS METER
- GAS WARNING SIGN
- STORM MANHOLE
- ROUND INLET
- SQUARE INLET
- STORM SEWER END SECTION
- SANITARY MANHOLE
- SANITARY CLEANOUT OR SEPTIC VENT
- SANITARY INTERCEPTOR MANHOLE
- MISCELLANEOUS MANHOLE
- WATER VALVE
- HYDRANT
- WATER SERVICE CURB STOP
- WATER MANHOLE
- WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- CONIFEROUS TREE
- DECIDUOUS TREE
- SHRUB
- –EDGE OF TREES
- S –SANITARY SEWER
- STO–STORM SEWER
- W –WATERMAIN
- G –MARKED GAS MAIN
- E –MARKED ELECTRIC
- OHW–OVERHEAD WIRES
- B –BUREAU ELEC. SERV.
- T –MARKED TELEPHONE
- TV–MARKED CABLE TV LINE
- FO–MARKED FIBER OPTIC
- 780 INDICATES EXISTING CONTOUR ELEVATION
- × 780.55 INDICATES EXISTING SPOT ELEVATION

DIGGERS HOTLINE

THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

(P) INDICATES PIPE SIZES PER RECORD PLANS. OTHER PIPE SIZES ARE ESTIMATED. NO PIPE SIZES SHOULD BE RELIED UPON WITHOUT FURTHER VERIFICATION.

Known as 1700 & 1720 Pewaukee Road, in the City of Waukesha, Waukesha County, Wisconsin.

Title Commitment No. 18402092W
Parcel 2 of Certified Survey Map. No. 4080, recorded in Volume 32, Pages 101-104, as Document No. 1167731, being part of the Northeast Quarter of Section 34, Township 7, North, Range 19 East, in the City of Waukesha, Waukesha County, Wisconsin EXCEPTING THEREFROM:
A parcel of land being part of Parcel 2 of Certified Survey Map No. 4080, located in the Northeast Quarter of Section 34, Township 7 North, Range 19 East, in the City of Waukesha, Waukesha County, Wisconsin, more particularly described as follows:
Commencing at the Southeast corner of Lot 2 of Certified Survey Map No. 4080, said point being the point of beginning; thence along the North line of Gascoigne Drive South 89°40'00" West 7.09 feet; thence North 44°59'36" East 9.99 feet to a point on the West line of C.T.H. J (Pewaukee Road); thence along said West line South 00°10'06" East 7.03 feet to the point of beginning.

Title Commitment No. 18402086W
Parcel One (1) of Certified Survey Map No. 4080, recorded September 22, 1981 in Volume 32 of Certified Survey Maps on Pages 101-104 as Document No. 1167731, being a part of the Northeast One-quarter (1/4) of Section Thirty-four (34), Township Seven (7) No11h, Range Nineteen (19) East, City of Waukesha, Waukesha County, Wisconsin.

Prepared for: Kwik Trip, Inc. Survey No. 166850-RMK

A. Basis of Bearings
Bearings are based on the North line of Gascoigne Road, which is assumed to bear North 90°00'00" West.

B. Title Commitment No. 18402092W
This survey was prepared based on First American Title Insurance Company title commitment number 18402092W, dated August 8, 2018, which lists the following easements and/or restrictions from schedule B-II:

1-3, 5. Visible evidence shown, if any.

4, 6-7. Not survey related.

C. Title Commitment No. 18402086W
This survey was prepared based on First American Title Insurance Company title commitment number 18402086W, dated August 8, 2018, which lists the following easements and/or restrictions from schedule B-II:

1-3, 5. Visible evidence shown, if any.

4, 6-7. Not survey related.

8. Agreement for Permission for a Temporary Waste-Water Collection and Holding Tank recorded as Document No. 1286622. Affects site by location - general in nature, cannot be plotted.

9. Utility Easement granted by an instrument recorded as Document No. 4193379. Affects site by location - shown.

D. Flood Note
According to flood insurance rate map of the City of Waukesha, community panel number 55133C0213G, effective date of November 5, 2014, this site falls in zone X (areas determined to be outside the 0.2% annual chance floodplain)

E. Parking Spaces
There are 7 regular and 1 handicapped parking spaces marked on this site.

F. Elevations
Elevations refer to City of Waukesha Datum.
Starting benchmark: Southeast corner of Northeast 1/4 of Section 34, Township 7 North, Range 19 East, Found concrete monument with brass cap, Elevation = 113.787'

G. Municipal Zoning
Zoning data provided in a Zoning Letter from the City of Waukesha dated 9-7-18.
Site is zoned M-3, Limited Business District

Zoning setbacks from on-line zoning code for the City of Waukesha:
(8) SETBACK AND YARDS.
a. There shall be a minimum street yard setback of forty (40) feet from the right-of-way of all streets.
b. There shall be a side yard on each side of all buildings of not less than ten (10) feet.
c. There shall be a rear yard of not less than twenty-five (25) feet.
e. No building in the M-3 district shall be located closer than one hundred (100) feet from a residential district boundary unless a buffering plan has been prepared by the developer and approved by the Plan Commission.

H. Notes
There is no proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction observed in the process of conducting the fieldwork.

There is no evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork.

There is no evidence of wetland flags on the site observed in the process of conducting the fieldwork.

To: Kwik Trip, Inc., a Wisconsin Corporation,
Land Title Services, Inc.
First American Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS and includes items 1, 2, 3, 4, 5, 6(a), 6(b), 7(a), 8, 9, 11, 14, 17, 18, 19 and 21 of Table A thereof. The fieldwork was completed on September 12, 2018.

Date of Plat or Map: September 17, 2018

John P. Casucci
Professional Land Surveyor
Registration Number 2055
john.casucci@rasmith.com

WISCONSIN JOHN P. CASUCCI S-2055 OCONOMOWOC WI LAND SURVEYOR

raSmith
CREATIVITY BEYOND ENGINEERING
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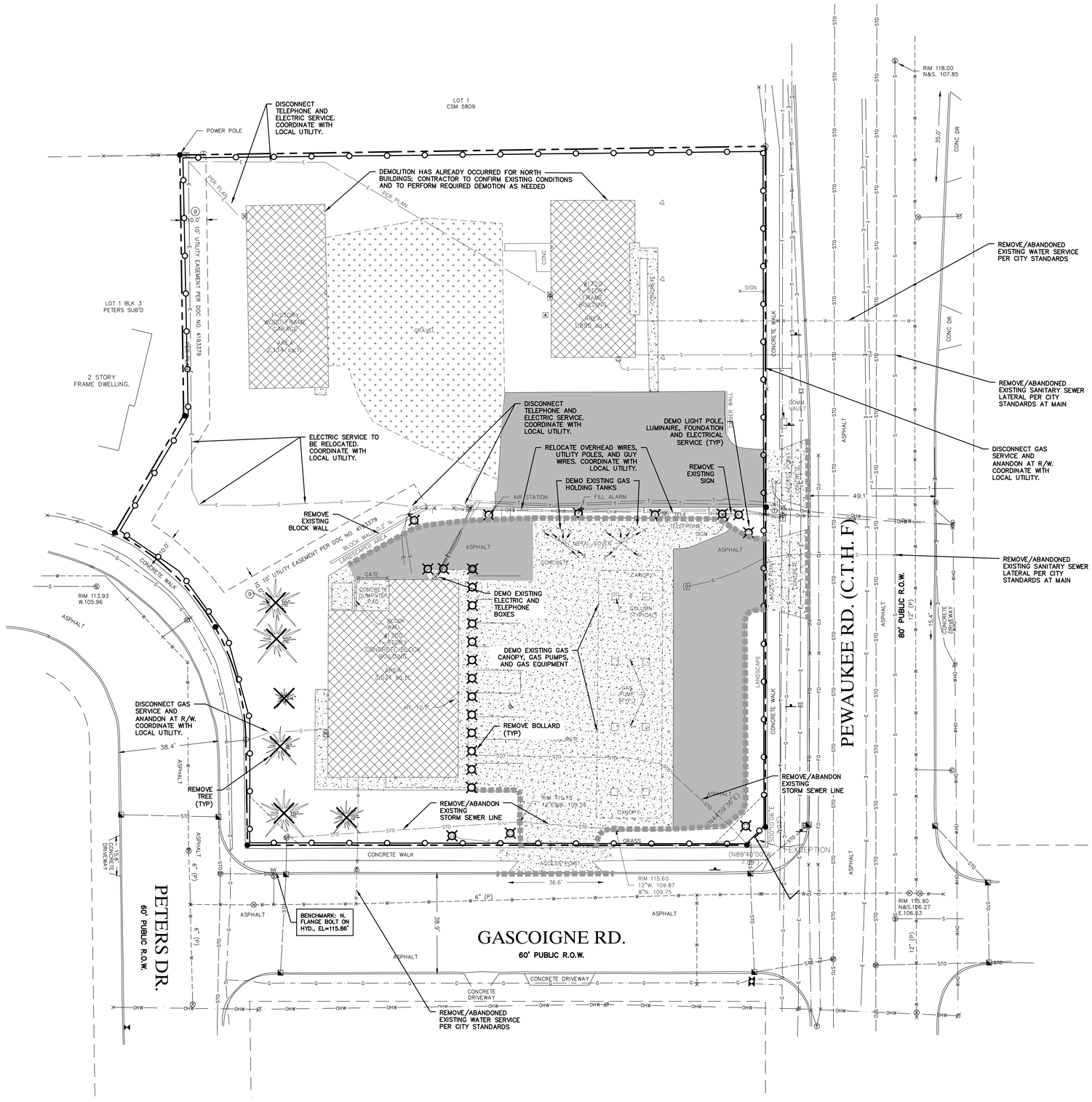
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

SHEET 1 OF 1

S:\5166850\dwg\AS201D20.dwg, 1700 & 1720 PEWAUKEE ROAD, 9/19/2018 8:38:44 AM, jpc

S:\5166850\dwg\ AS201D20.dwg \ 1700 & 1720 PEWAUKEE ROAD



LEGEND

- PROPERTY LINE/ RIGHT OF WAY
- DEMO CURB & GUTTER
- SAWCUT PAVEMENT
- TEMPORARY CONSTRUCTION FENCE
- EXISTING LIGHT POLE AND BASE, BOLLARD, FOUNDATION AND/OR SIGN TO BE REMOVED
- EXISTING GRAVEL TO BE REMOVED
- EXISTING CONCRETE PAVEMENT TO BE REMOVED
- EXISTING ASPHALT PAVEMENT TO BE REMOVED
- EXISTING BUILDING/STRUCTURE, FOUNDATION AND SLAB TO BE REMOVED

- INITIAL EROSION CONTROL MEASURES (SILT FENCE, ROCK CONSTRUCTION ENTRANCE, INLET PROTECTION) SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY WITHIN PROJECT LIMITS.
- STABILIZE ALL DISTURBED AREAS AS SOON AS GRADING IS COMPLETE IN AN AREA. ENSURE SEEDING MEASURES, EROSION CONTROL MATTING AND MISCELLANEOUS EROSION CONTROL DEVICES ARE INSTALLLED AS INDICATED ON THE EROSION CONTROL PLANS. PERMANENT SEEDING AND TEMPORARY SEEDING SHALL BE INSTALLED PER THE GENERAL SOIL STABILIZATION SPECIFICATIONS LISTED ON SWPPP SHEET SWP2.
- UPON FOLLOWNG SPRING SEASON OF CONSTRUCTION, CHECK THE VEGETATIVE COVER IN AREAS WHERE SEEDING WAS PLACED DURING THE FALL OF THE PREVIOUS YEAR. RESEED AREAS WHERE VEGETATION IS NO LONGER ESTABLISHED OR HAS DIED. INSPECT ALL EROSION CONTROL DEVICES AND REPAIR AS NECESSARY. RESUME CONSTRUCTION ACTIVITY: CONTINUE BUILDING CONSTRUCTION, UTILITY INSTALLATION, AND PAVING.

DEMOLITION NOTES TO CONTRACTOR

1. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL SITE AND DEMOLITION PERMITS.
2. THE DEMOLITION CONTRACTOR SHALL PREPARE AND MAINTAIN A PROJECT SAFETY PLAN. ALL SITE SAFETY EQUIPMENT AND MEASURES, INCLUDING FENCING, FIRE PROTECTION, AND THE LIKE ARE THE SOLE RESPONSIBILITY OF THE DEMOLITION CONTRACTOR.
3. THE DEMOLITION CONTRACTOR SHALL DEVELOP, OBTAIN NECESSARY APPROVALS/PERMITS AND MAINTAIN TRAFFIC AND PEDESTRIAN CONTROL PLANS THROUGHOUT ALL PHASES OF DEMOLITION.

811 Know what's **below.** **Call** before you dig.

R.A.SMITH ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH

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THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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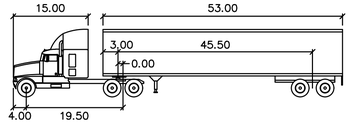
DEMOLITION PLAN

CONVENIENCE STORE #527

1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	DP1



WB-67

feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		

LEGEND

PROPERTY LINE

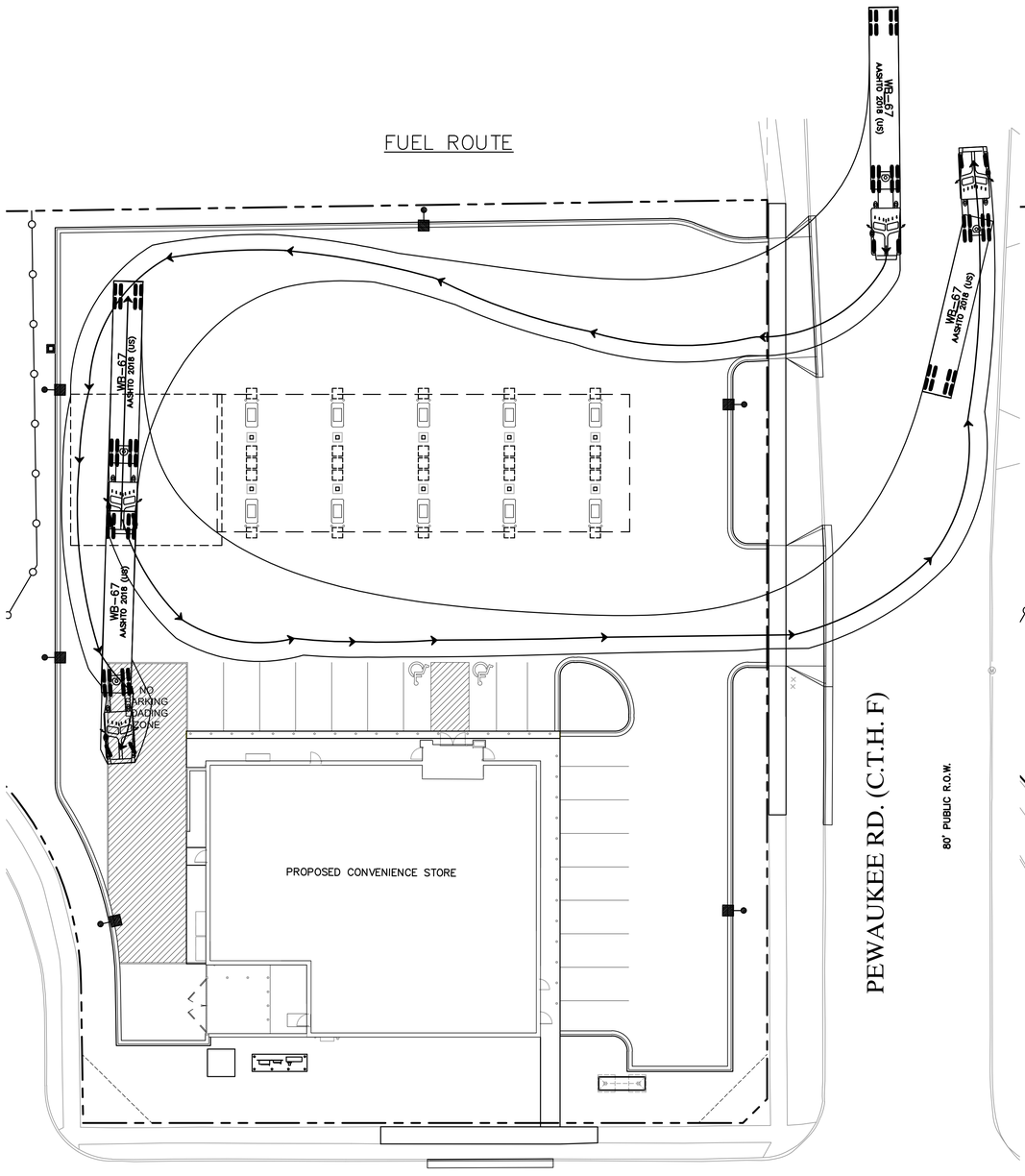
PROPOSED LIGHT POLE (SEE PHOTOMETRIC PLAN)

PROPOSED SIGN

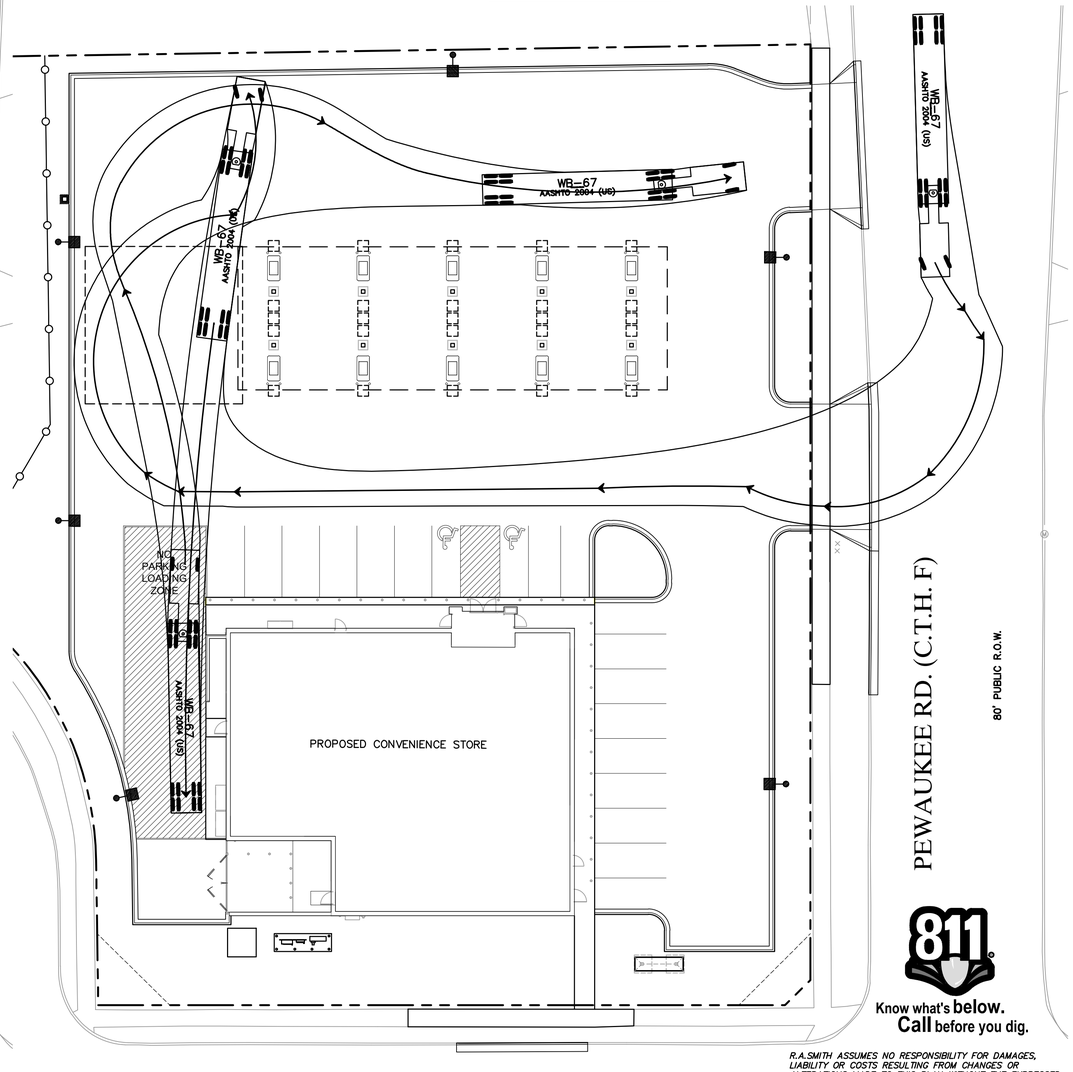
SCALE: 1" = 20'

20 10 5 0 20 40

FUEL ROUTE



GROCERY ROUTE



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THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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rasmith.com

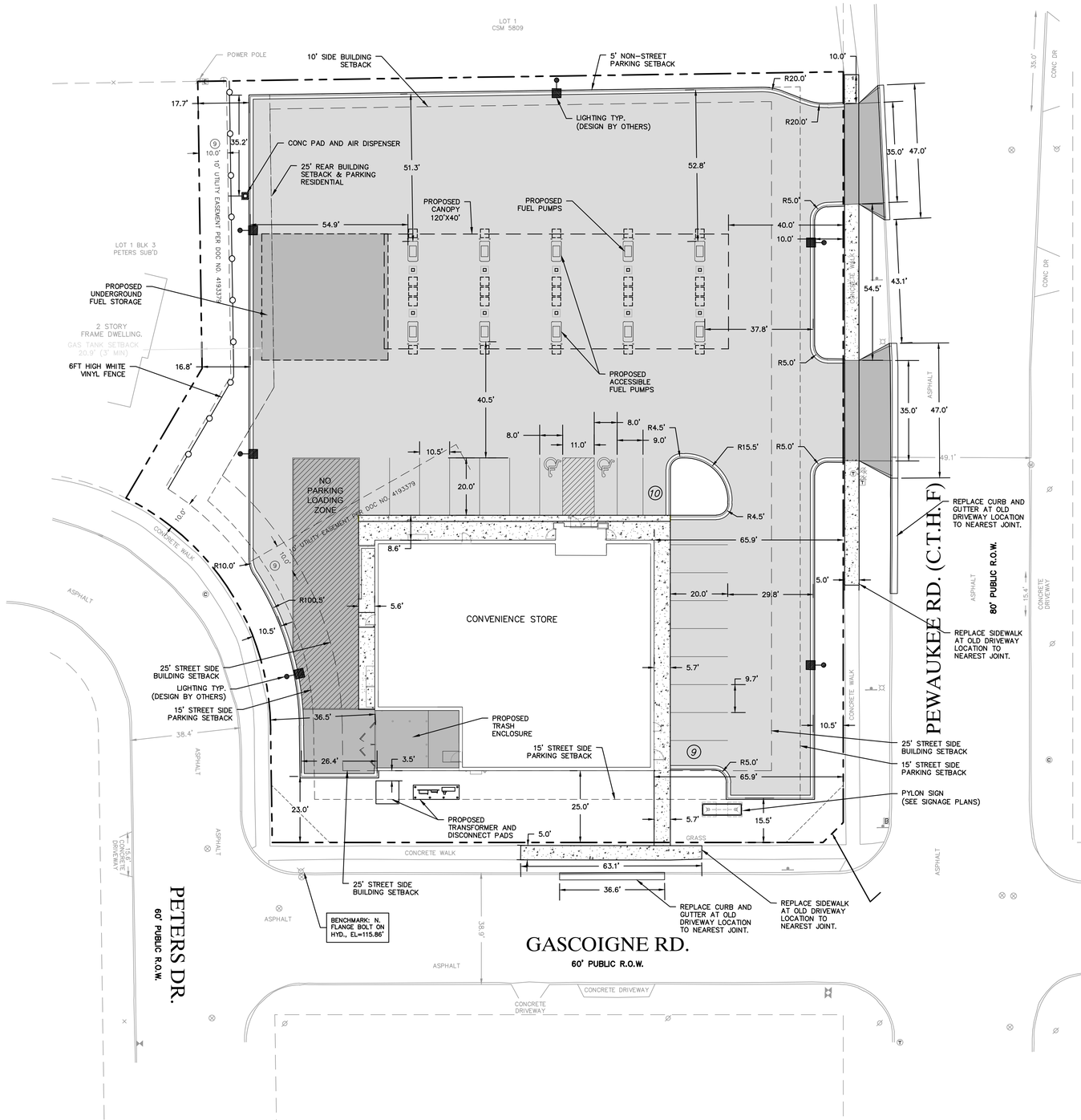
SITE CIRCULATION PLAN

CONVENIENCE STORE #527

1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	SP0



LEGEND

- PROPERTY LINE
- PROPOSED CONCRETE PAVEMENT – 6 INCH
- PROPOSED CONCRETE PAVEMENT – 8 INCH
- PROPOSED CONCRETE SIDEWALK – 4– AND 6 INCH SEE SP1.1 FOR LOCATION
- (16) PROPOSED PARKING SPACES
- (A) STOP SIGN W/STOP BAR
- PROPOSED LIGHT POLE (SEE PHOTOMETRIC PLAN)
- PROPOSED SIGN

SCALE: 1" = 20'

20 0 10 20 40

CONSTRUCTION NOTE:

CONSTRUCTION FENCING TO BE INSTALLED AROUND ENTIRE CONSTRUCTION SITE. COORDINATE WITH OWNER FOR FENCING AND GATE LOCATIONS AND APPROPRIATE SIGNAGE INSTALLATION.

LAYOUT NOTES:

1. PLAN PREPARED FROM raSmith ALTA/NSPS LAND TITLE SURVEY, DATED SEPTEMBER 17, 2018.
2. CURBS ARE DIMENSIONED TO FACE OF CURB.
3. CONVENIENCE STORE AND ISLAND COMPLEXES ARE ALIGNED PARALLEL TO THE SOUTH AND EAST PROPERTY LINES, UNLESS OTHERWISE INDICATED ON THIS PLAN.
4. UNLESS SHOWN OTHERWISE ON THIS DRAWING, CONTRACTOR SHALL PROVIDE CONTROL JOINTS, CONSTRUCTION JOINTS, AND EXPANSION JOINTS IN SLAB ON GRADE, SIDEWALKS AND DRIVES. CONTROL JOINT MAXIMUM DISTANCE: WALKS– 8' O.C., ALL OTHERS– 10' O.C. SAW CUT CONTROL JOINTS MINIMUM ONE–QUARTER CONCRETE THICKNESS. EXPANSION JOINT MAXIMUM DISTANCE: WALKS– 24' O.C., ALL OTHERS– 40' O.C. DOWEL ALL EXPANSION JOINTS– MAXIMUM 24" O.C.
5. CONCRETE IN ISLAND COMPLEX AND UNDER CANOPY TO BE ROUGH BROOM FINISHED. SIDEWALKS ADJACENT TO BUILDING SHALL BE SMOOTH BROOM FINISHED.
6. EXTERIOR CONCRETE SURFACES TO BE SEALED. CONCRETE SEALER:
   APR 15– OCT 31 USE: TK–26UV
   NOV 1– DEC 31 USE: TK–290
7. EXPANSION JOINTS SHALL BE DECK–O–FOAMED AND CAULKED WITH SL1

STREET AND SIDEWALK RESTORATION:

LIMITS OF FINAL CITY STREET PAVEMENT AND CURB & GUTTER REMOVAL AND REPLACEMENT TO BE MARKED BY CITY ENGINEERING STAFF IN THE FIELD.

SITE STATISTICS

	SQFT	AC	COVERAGE
PARCEL AREA	58,575	1.34	
PROPOSED BUILDING AREA	7,200	0.17	12.3%
PROPOSED PERVIOUS	11,927	0.27	20.4%
PROPOSED IMPERVIOUS	46,648	1.07	79.6%

KWIK TRIP PARKING STATISTICS

STANDARD PARKING STALLS	17
ACCESSIBLE STALLS	2
FUELING STALLS	18
ACCESSIBLE FUELING STALLS	2
TOTAL STANDARD PARKING SPACES	39

ZONING INFORMATION

PROPOSED ZONING	B–1
BUILDING SETBACK	
STREET	25'
SIDE	10'
REAR	25'
PARKING SETBACK	
STREET	15'
(CAN BE REDUCED TO 10' IF LANDSCAPED)	
NON–STREET	5'
PARKING ADJACENT TO RESIDENTIAL	25'
GAS PUMPS	
STREET	35'
SIDE & REAR	45'

SOIL MANAGEMENT

ALL PETROLEUM IMPACTED OR OTHER UNSUITABLE SOILS TO BE HANDLED BY APPROPRIATELY LICENSED AND CERTIFIED CONTRACTORS. COORDINATE WITH OWNER'S ENVIRONMENTAL CONSULTANT.

FOR MORE INFORMATION, SEE PHASE II ENVIRONMENTAL ASSESSMENT REPORTS FOR THE PROPERTY COMPLETED BY PIONEER ENVIRONMENTAL GROUP OF WISCONSIN, INC.

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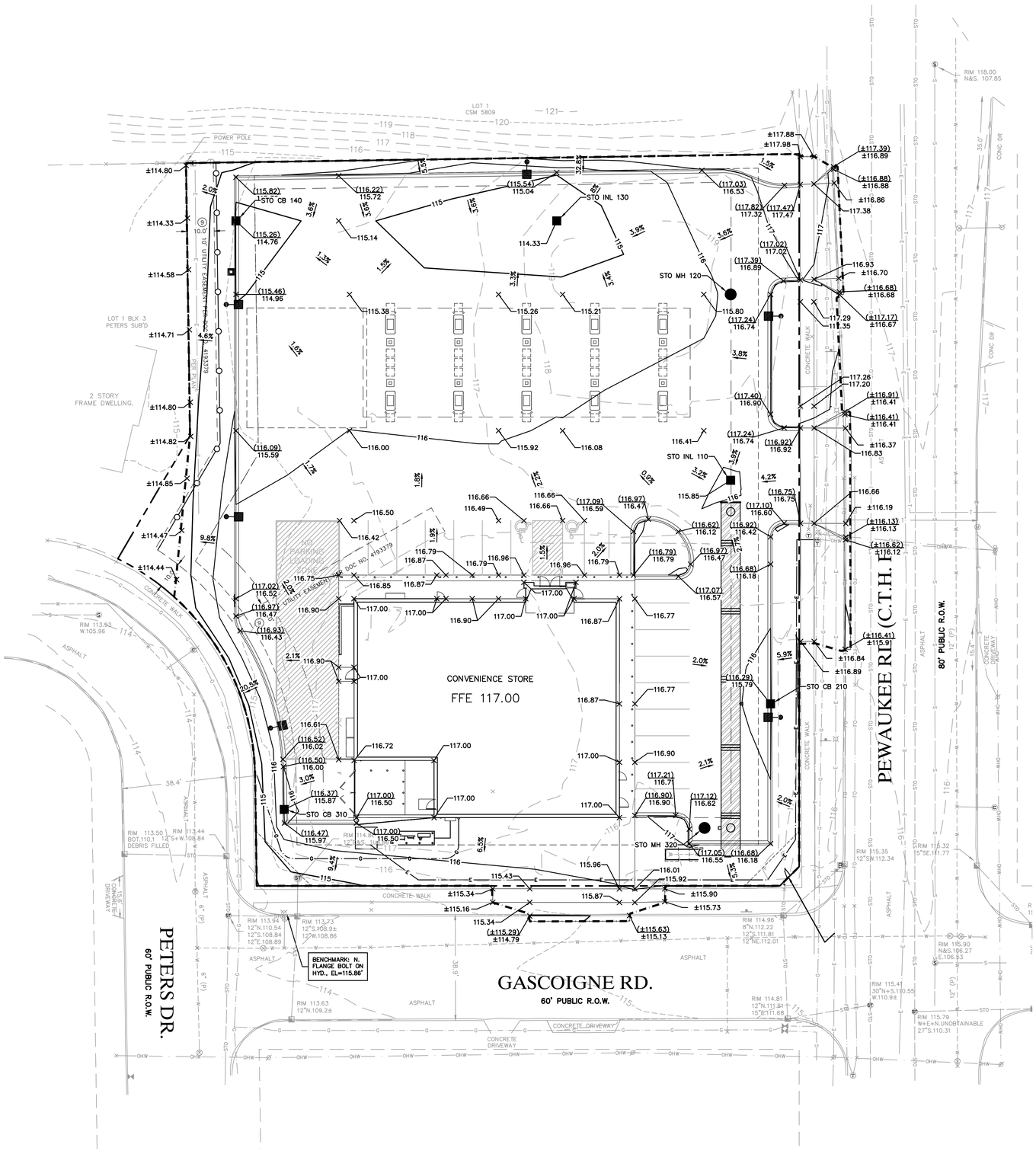
SITE PLAN

CONVENIENCE STORE #527
1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	SP1



LEGEND

- PROPERTY LINE
- 840.00 × — EXISTING SPOT ELEVATION
- 840 — EXISTING CONTOURS
- 840 — PROPOSED CONTOURS
- 840.00 × — PROPOSED SPOT GRADES
- (840.00) × — PROPOSED TOP OF CURB GRADE
- T/I 840.00 × — PROPOSED TOP OF ISLAND GRADE
- ■ ● — PROPOSED STORM INLETS / MANHOLES
- LIMITS OF DISTURBANCE = 1.41 ACRES

SCALE: 1" = 20'

NOTE:

CONTRACTOR TO OBTAIN RIGHT-OF-WAY EXCAVATION PERMIT PRIOR TO BEGINNING SITE WORK.

CONSTRUCTION NOTE:

CONSTRUCTION FENCING TO BE INSTALLED AROUND ENTIRE CONSTRUCTION SITE. COORDINATE WITH OWNER FOR FENCING AND GATE LOCATIONS AND APPROPRIATE SIGNAGE INSTALLATION.

NOTE:

- REFER TO OTHER PROJECT PLANS AND INFORMATION RELATED TO THIS PROJECT PRIOR TO BEGINNING ANY GRADING WORK.
- PLAN PREPARED FROM raSmith ALTA/NSPS LAND TITLE SURVEY, DATED SEPTEMBER 17, 2018.
- CONTRACTOR SHALL LOCATE ALL UTILITIES WHICH MAY AFFECT THIS WORK PRIOR TO CONSTRUCTION AND NOTIFY OWNER OF ANY CONFLICTS.
- CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED ELEVATIONS PRIOR TO START OF CONSTRUCTION. VERIFY CRITICAL ELEVATIONS TO ENSURE CONFORMANCE WITH GRADING PLAN, PARTICULARLY WITH WALK AND/ OR PAVEMENTS TO REMAIN. MEET EXISTING GRADES ALONG STREETS, PROPERTY LINES AND DRIVEWAY ENTRANCES. RESTORE ALL EXISTING PAVEMENTS THAT REMAIN TO THEIR ORIGINAL, IF NOT BETTER CONDITION. NOTIFY OWNER OF ANY CONFLICTS.
- AREAS NOT PAVED AND TO BE LANDSCAPED SHALL RECEIVE MINIMUM OF 4" DEPTH COMPACTED TOPSOIL.
- CONTRACTOR SHALL COORDINATE GRADING AND INSTALLATION OF DRIVES IN R.O.W. WITH APPROPRIATE GOVERNMENT AGENCIES. OBTAIN APPROPRIATE PERMITS FOR GRADING AND DRAINAGE IN ALL R.O.W.
- REFER TO OWNER'S SPECIFICATIONS FOR CURB, APPROACH, BITUMINOUS, AND CONCRETE PROFILES, AS WELL AS ADDITIONAL SITE STANDARDS RELATED TO THIS PROJECT.

FINISHED FLOOR ELEV.
PROPOSED KWIK TRIP CONVENIENCE STORE = FINISHED FLOOR ELEVATION = 117.00 FEET

NOTE GRADING CONTRACTOR:

ANY PROPERTY IRONS THAT ARE DISTURBED IN THE GRADING PROCESS SHALL BE RESET BY A LICENSED LAND SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.

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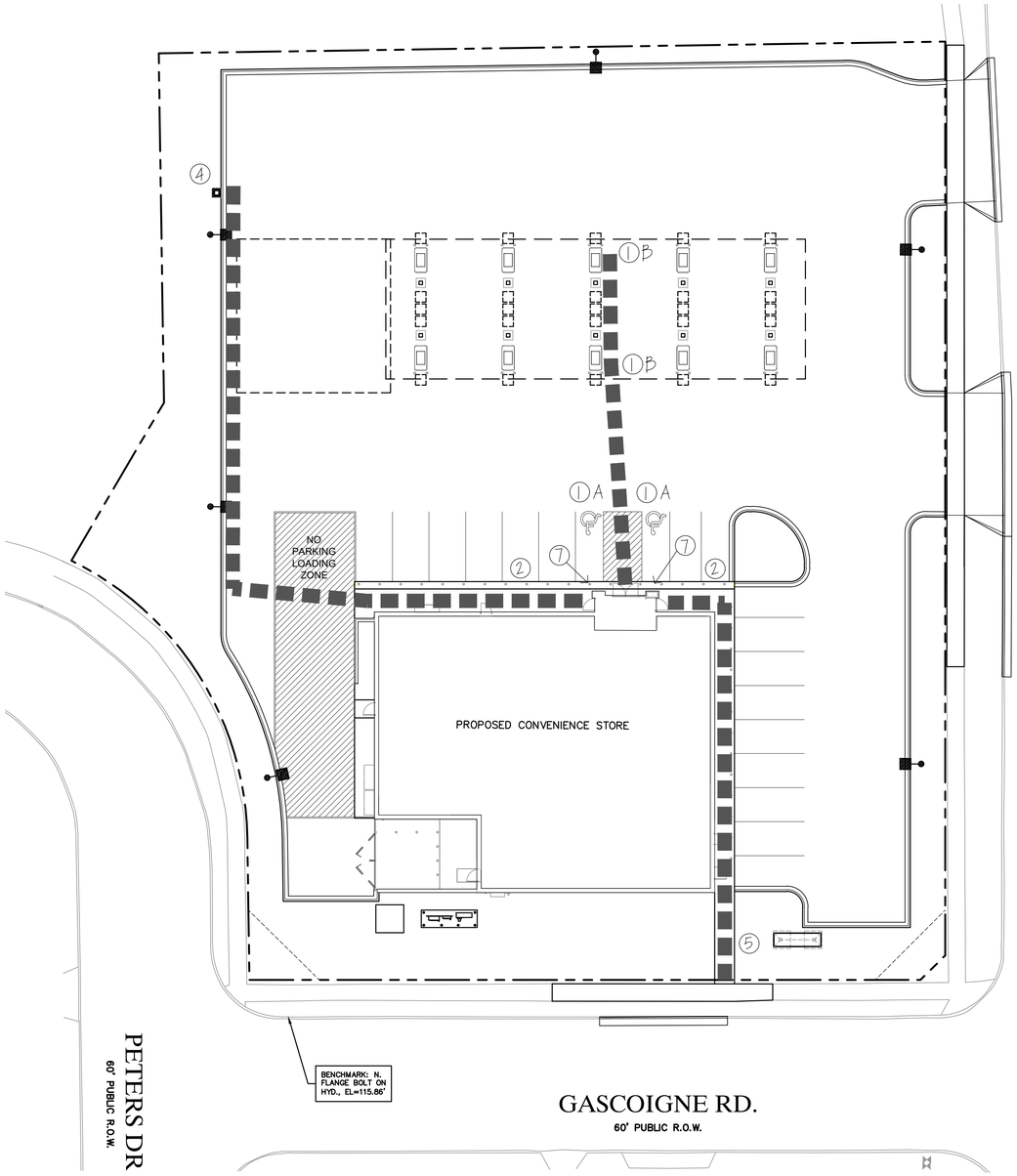
GRADE PLAN

CONVENIENCE STORE #527

1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	SP2



PLAN KEYNOTES

1. ACCESSIBLE STALLS
   A. STRIPING – 4" WIDE STALL LINES, USE HIGH VISIBILITY BLUE PAINT.
   SPACES PROVIDED
   (2) 8'–0"x 20'–0" MIN. ACCESSIBLE PARKING WITH
   (1) 8'–0"x 20'–0" MIN. LOADING ZONE
   B. ACCESSIBLE FUELING POINT AND DISPENSER AND VALET. VALET AND KEY PAD ON PUMP SHALL CONFORM TO ADA REACH DIMENSIONS AS SHOWN IN DETAIL. SEE NOTES FOR CONVENIENCE STORE ACCESSIBILITY.
2. PAVEMENTS FLUSH FOR ACCESSIBILITY.
3. PICNIC TABLE W/ ACCESSIBLE PLACEMENT, PROVIDE TRASH CONTAINER
4. ACCESSIBLE AIR INSTALLED WITH APPROPRIATED HEIGHTS. PARKING AREA SHALL MEET A.D.A DIMENSIONS FOR ACCESS AND SURFACE FOR WHEEL CHAIR ACCESS SHALL NOT EXCEED 1:48 SLOPE IN ALL DIRECTIONS. . SEE NOTES FOR CONVENIENCE STORE ACCESSIBILITY.
5. ACCESSIBLE ROUTE TO STORE
6. CURB RAMP
7. ADA BOLLARD SIGNAGE

NOTES FOR CONVENIENCE STORE ACCESSIBLITY

AT LEAST 1 MPD(MULTI PRODUCT DISPENSER) COVERING ALL GRADES OF FUEL MUST BE ACCESSIBLE IN A 30"X48" CLEAR LEVEL FLOOR AREA(CLF).

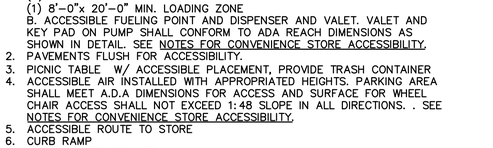
ALL PUMP CONTROLS SHALL BE < 48"(2010 STANDARD). WINDOW WASHER, PAPER TOWEL DISPENSER, LITERATURE, FIRE EXTINGUISHER, EMERGENCY FUEL STOPS, ETC. BE ACCESSIBLE 30"X48" CLF SPACE AND WITHIN A FORWARD OR SIDE APPROACH REACH RANGE.

PROVIDE ISA(INDUSTRY STANDARD ARCHITECTURE) AT EACH ACCESSIBLE FUEL POSITION ON FACE OF PUMP.

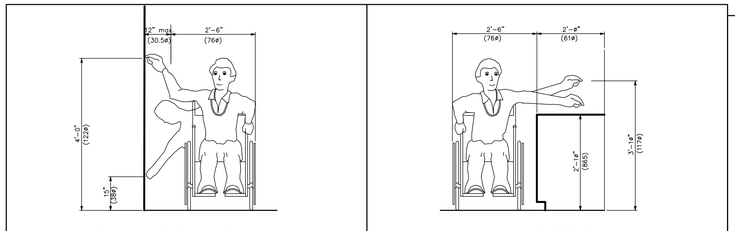
PROVIDE ISA AT EACH ACCESSIBLE FUELING POSITION VISIBLE TO APPROACHING VEHICLES.

PROVIDE A SIGN AT EACH ACCESSIBLE FUELING POSITION WITH STORE TELEPHONE NUMBER, ADVISING AVAILABLE FUELING ASSISTANCE.

ANY PAY FUNCTION– i.e. AIR/VACUUM etc. ARE REQUIRED TO HAVE AN ACCESSIBLE ROUTE TO STORE ENTRANCE. CONTROLS SHALL BE ACCESSIBLE 30"X48" CLF SPACE AND WITHIN A FORWARD OR SIDE APPROACH REACH RANGE.



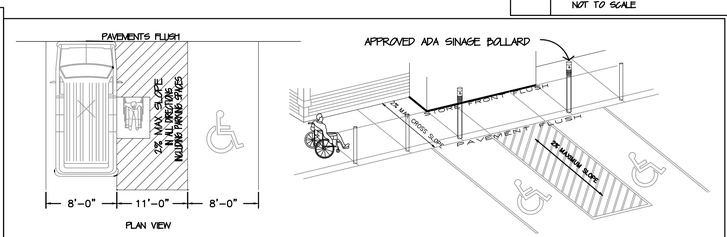
ADA BOLLARD SIGNAGE
NOT TO SCALE



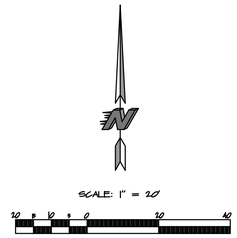
HIGH AND LOW – SIDE REACH LIMITS

MAXIMUM SIDE REACH OVER OBSTRUCTION

ACCESSIBLE REACH DIMENSIONS
NOT TO SCALE



VAN ACCESSIBLE PARKING
NOT TO SCALE



PAINTED SYMBOL
FOR ALL ACCESSIBLE AND VAN ACCESSIBLE SPACES

ADA PAINTED SYMBOL DETAIL
NOT TO SCALE

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NOTES:

–REFER TO THE DOCUMENT FROM THE DEPARTMENT OF JUSTICE ON "2010 ADA STANDARDS FOR ACCESSIBLE DESIGN". CONTRACTOR SHALL REFERENCE CURRENT A.D.A. GUIDELINES AND LOCAL REGULATIONS FOR SITE ACCESSIBILITY. IN ALL CASES THE MINIMUM REQUIREMENTS SHALL BE PROVIDED ON SITE TO ENSURE COMPLIANCE TO ALL REGULATIONS.

– KWIK TRIP STANDARD ENTRANCE DOOR IS AUTOMATIC SLIDING DOOR SYSTEM DESIGNED TO COMPLY WITH ALL ACCESS CODES AND LAWS. ENTRANCE DOORS FOR ACCESSIBLE ROUTES WILL HAVE A MINIMUM CLEAR OPENING OF 32"

–STORE FRONTS WILL PROVIDE FLUSH PAVEMENTS ALONG ACCESSIBLE ROUTES WITH PROTECTIVE SECURITY BOLLARDS INDICATED AND SPACED BETWEEN PARKING SURFACES AND BUILDING WALK PER PLAN.

–NO OBJECTS OR DISPLAYS SHOULD PROTRUDE INTO THE MINIMUM CLEAR SPACE OF THE ACCESSIBLE ROUTES TO THE STORE ENTRANCE. THIS WILL INCLUDE SEASONAL DISPLAY VENDING AREAS AS WELL AS OTHER OUTDOOR STORAGE UNITS FOR PROPANE AND ICE, ETC.

–PER A.D.A GUIDELINES– CLEAR WIDTH OF ACCESSIBLE ROUTES SHALL BE 36" AND PERMITTED TO BE REDUCED TO 32" FOR A LENGTH OF 24".

– ACCESS ISLES SERVING WHEEL CHAIR LIFTS OR CHAIR ACCESS FROM VEHICLES ARE REQUIRED TO BE NEARLY LEVEL IN ALL DIRECTIONS TO PROVIDE SAFE TRANSFER OF WHEELCHAIRS TO AND FROM VEHICLES. THE EXCEPTION WOULD BE FOR DRAINAGE. MAXIMUM SLOPE FOR THE ACCESS ISLE IS 1:48. NO CURB RAMPS SHALL BE A PART OF THE ACCESS ISLE.

–IDENTIFICATION SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY WITH THE DESIGNATION OF 1 "VAN ACCESSIBLE" IN EVERY 8 ACCESSIBLE SPACES ON SITE.

SCALE: 1" = 20'

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ACCESSIBLE PLAN

CONVENIENCE STORE #527

1700 PEWAUKEE RD
WAUKESHA, WI

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DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
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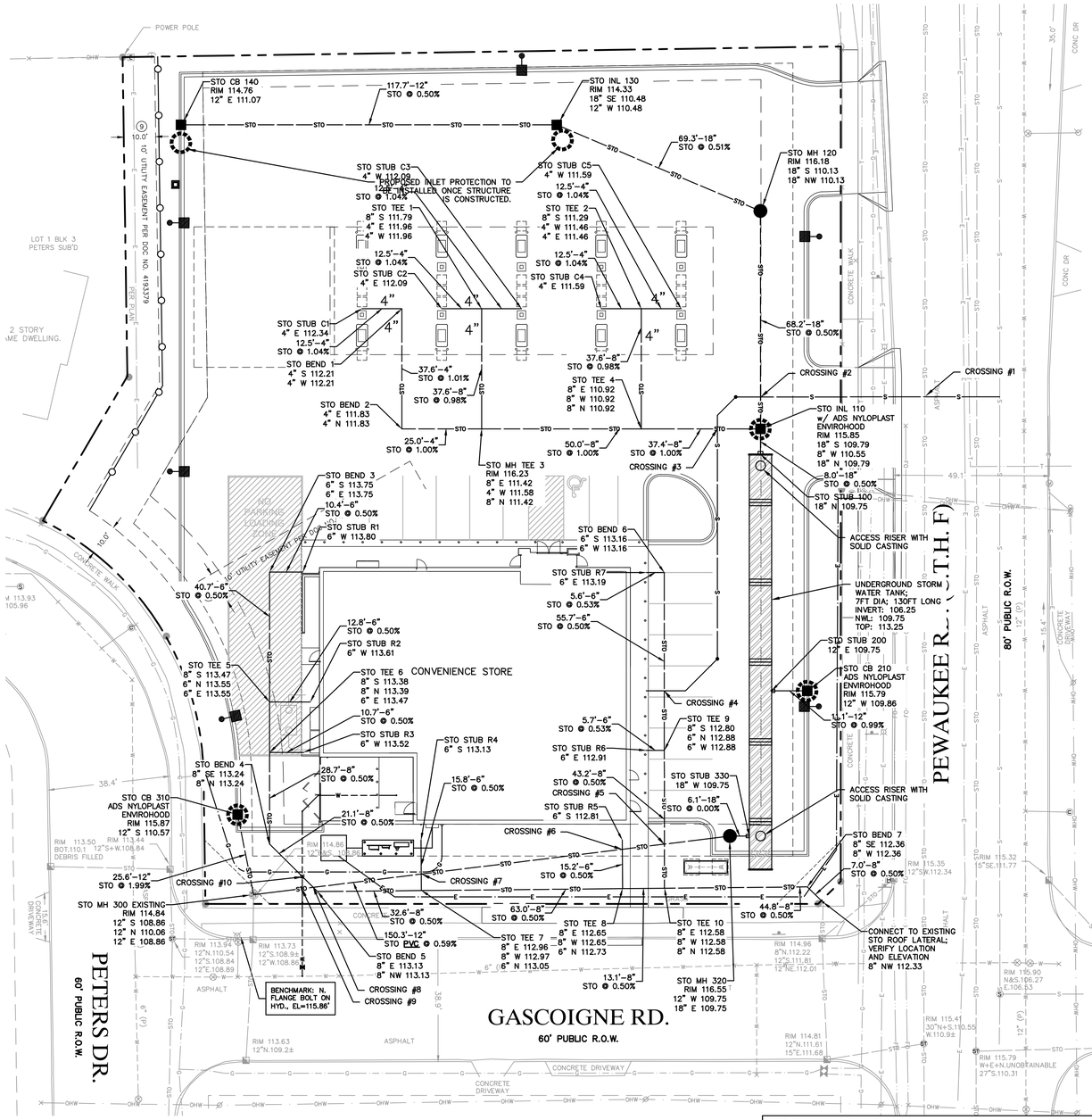
SHEET	SP2.3



LEGEND

- PROPERTY LINE
- EXISTING CURB
- PROPOSED 18" CURB & GUTTER
- PROPOSED STORM SEWER LINE
- PROPOSED STORM INLET/ MANHOLE
- EXISTING STORM SEWER MANHOLE
- EXISTING STORM SEWER INLETS
- PROPOSED LIGHT POLE (SEE PHOTOMETRIC PLAN)
- PROPOSED TRANSFORMER
- STORM DRAIN INLET PROTECTION

SCALE: 1" = 20'

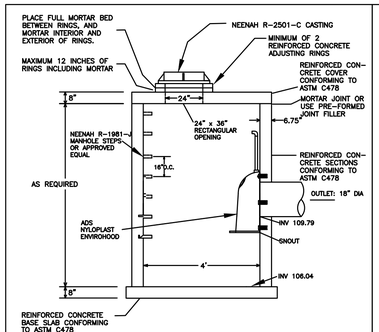
20 5 10 5 0 20 40

STORM DRAINAGE:

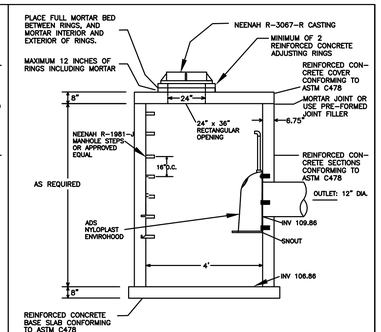
1. UNLESS OTHERWISE INDICATED, USE REINFORCED, PRECAST, CONCRETE MAINTENANCE HOLES AND CATCH BASINS CONFORMING TO ASTM C478, FURNISHED WITH WATER STOP RUBBER GASKETS AND PRECAST BASES. JOINTS FOR ALL PRECAST MAINTENANCE HOLE SECTIONS SHALL HAVE CONFINED, RUBBER "O"-RING GASKETS IN ACCORDANCE WITH ASTM C923. THE INSIDE BARREL DIAMETER SHALL NOT BE LESS THAN 48 INCHES.
2. ALL JOINTS AND CONNECTIONS TO CATCH BASINS OR MANHOLES SHALL BE WATERTIGHT. USE RESILIENT RUBBER SEALS, WATERSTOP GASKETS, OR APPROVED EQUAL. CEMENT MORTAR JOINTS ARE NOT ALLOWED.
3. INSTALL CATCH BASIN CASTINGS WITH SPECIFIED TOP ELEVATION AT THE FLOW LINE.

4. TESTING: TEST ALL PORTIONS OF STORM SEWER THAT ARE WITHIN 10 FEET OF BUILDINGS, WITHIN 10 FEET OF BURIED WATER, LINES, WITHIN 50 FEET OF WATER WELLS, OR THAT PASS THROUGH SOIL OR WATER IDENTIFIED AS BEING CONTAMINATED. TEST ALL FLEXIBLE STORM SEWER LINES FOR DEFLECTION AFTER THE SEWER LINE HAS BEEN INSTALLED AND BACKFILL HAS BEEN IN PLACE FOR AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE TEST FAILS, MAKE NECESSARY REPAIRS AND RETEST.
5. PVC PIPE: USE SOLID-CORE, SDR-35, ASTM D3034 POLYVINYL CHLORIDE (PVC) PIPE FOR DESIGNATED PVC STORM SEWER SERVICES 4 TO 15-INCHES IN DIAMETER. USE SOLID-CORE, SDR-35, ASTM F679 POLYVINYL CHLORIDE (PVC) PIPE FOR DESIGNATED PVC STORM SEWER SERVICES 18 TO 27-INCHES IN DIAMETER. JOINTS FOR ALL STORM SEWER SHALL HAVE PUSH-ON JOINTS WITH ELASTOMERIC GASKETS. LAY ALL PVC PIPE ON A CONTINUOUS GRANULAR BED. INSTALLATION MUST COMPLY WITH ASTM D2321.
6. RCP: REINFORCED CONCRETE PIPE (RCP) AND FITTINGS SHALL CONFORM TO ASTM C76, DESIGN C, WITH CIRCULAR REINFORCING FOR THE CLASS OF PIPE SPECIFIED. USE CLASS IV RCP FOR PIPES 21" AND LARGER. USE CLASS V RCP FOR PIPES 18" AND SMALLER. JOINTS SHALL BE BUREAU OF RECLAMATION TYPE R-4, WITH CONFINED RUBBER "O"-RING GASKETS IN ACCORDANCE WITH ASTM C361.
7. USE NEENAH R-3067-R CASTING WITH CURB BOX, OR APPROVED EQUAL, ON CB. USE NEENAH R-2501-C CASTING OR APPROVED EQUAL, ON INL. USE NEENAH FOUNDRY CO. R-1642 CASTING WITH SELF-SEALING, SOLID, TYPE B LID, OR APPROVED EQUAL, ON ALL STORM SEWER MAINTENANCE HOLES AND MANHOLES. COVERS SHALL BEAR THE "STORM SEWER" LABEL.
8. INSTALL DETECTABLE UNDERGROUND MARKING TAPE DIRECTLY ABOVE ALL PVC, POLYETHYLENE, AND OTHER NONCONDUCTIVE UNDERGROUND UTILITIES AT A DEPTH OF 457 MM (18 INCHES) BELOW FINISHED GRADE, UNLESS OTHERWISE INDICATED. BRING THE TAPE TO THE SURFACE AT VARIOUS LOCATIONS IN ORDER TO PROVIDE CONNECTION POINTS FOR LOCATING UNDERGROUND UTILITIES. INSTALL BLUE RHINO TRIVIEW FLEX TEST STATIONS, OR APPROVED EQUAL, WITH BLACK CAPS AT EACH SURFACE LOCATION.
9. TRACER WIRE: LOCATING REQUIREMENTS – A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NON METALLIC SEWERS/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORD WITH THE PROVISIONS OF THESE CODE SECTIONS AS PER 182.0715(2R) OF THE STATUTES.
10. CLEANOUTS: INSTALL CLEANOUTS ON ALL ROOF DRAINS. CLEANOUTS SHALL BE INSTALLED AT EVERY T CONNECTION AND BEND. THE DISTANCE BETWEEN CLEANOUTS IN HORIZONTAL PIPING SHALL NOT EXCEED 100 FEET FOR PIPES 10-INCHES AND UNDER IN SIZE. CLEANOUT SHALL BE OF THE SAME NOMINAL SIZE AS THE PIPES THEY SERVE. INSTALL A METER BOX FRAME AND SOLID LID (NEENAH R-1914-A, OR APPROVED EQUAL) OVER ALL CLEANOUTS.
11. THE MINIMUM DEPTH OF COVER FOR BUILDING AND CANOPY ROOF DRAIN LEADERS WITHOUT INSULATION IS 5 FEET. INSULATE ROOF DRAIN LEADERS AT LOCATIONS WHERE THE DEPTH OF COVER IS LESS THAN 5 FEET. PROVIDE A MINIMUM INSULATION THICKNESS OF 2 INCHES. THE INSULATION MUST BE AT LEAST 4 FEET WIDE AND CENTERED ON THE PIPE. INSTALL THE INSULATION BOARDS 6 INCHES ABOVE THE TOPS OF THE PIPES ON MECHANICALLY COMPACTED AND LEVELED PIPE BEDDING MATERIAL. USE HIGH DENSITY, CLOSED CELL, RIGID BOARD MATERIAL EQUIVALENT TO DOW STYROFOAM HI-40 PLASTIC FOAM INSULATION.
12. INSTALL ALL PIPE WITH THE ASTM IDENTIFICATION NUMBERS ON THE TOP FOR INSPECTION. COMMENCE PIPE LAYING AT THE LOWEST PINT IN THE PROPOSED SEWER LINE. LAY THE PIPE WITH THE BELL AND OR RECEIVING GROOVE END OF THE PIPE POINTING UPGRADE. WHEN CONNECTING TO AN EXISTING PIPE, UNCOVER THE EXISTING PIPE IN ORDER TO ALLOW ANY ADJUSTMENTS IN THE PROPOSED LINE AND GRADE BEFORE LAYING ANY PIPE. DO NOT LAY PIPES IN WATER OR WHEN THE TRENCH CONDITIONS ARE UNSUITABLE FOR SUCH WORK.
13. TRENCH SECTION SHALL BE CLASS "C" FOR CONCRETE AND CLASS "B" FOR ALL OTHER MATERIALS.

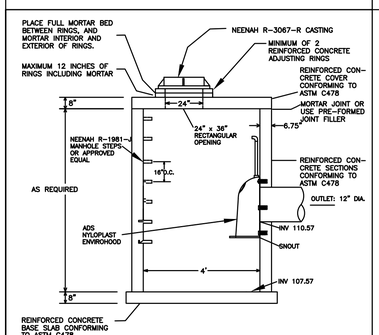
PIPE CROSSING TABLE							
CROSSING I.D.	BOTTOM OF TOP PIPE			TOP OF BOTTOM PIPE			SEPARATION (FT)
1	STO	RCP 30"	111.28	SAN	PVC 6"	107.94	3.34
2	STO	RCP 18"	109.63	SAN	PVC 6"	108.64	0.99
3	STO	PVC 8"	110.66	SAN	PVC 6"	108.85	1.82
4	STO	PVC 6"	112.95	SAN	PVC 6"	109.82	3.13
5	STO	PVC 8"	112.63	STO	PVC 12"	110.66	1.97
6	STO	PVC 6"	112.78	STO	PVC 12"	110.58	2.20
7	STO	PVC 6"	113.06	STO	PVC 12"	110.21	2.86
8	STO	PVC 8"	113.12	STO	PVC 12"	110.00	3.12
9	STO	PVC 12"	108.92	WAT	PVC 6"	107.38	1.54
10	STO	PVC 8"	113.15	WAT	PVC 6"	107.67	5.48



OIL SKIMMER INL 110



OIL SKIMMER CB 210



OIL SKIMMER CB 310

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STORM SEWER PLAN
CONVENIENCE STORE #527
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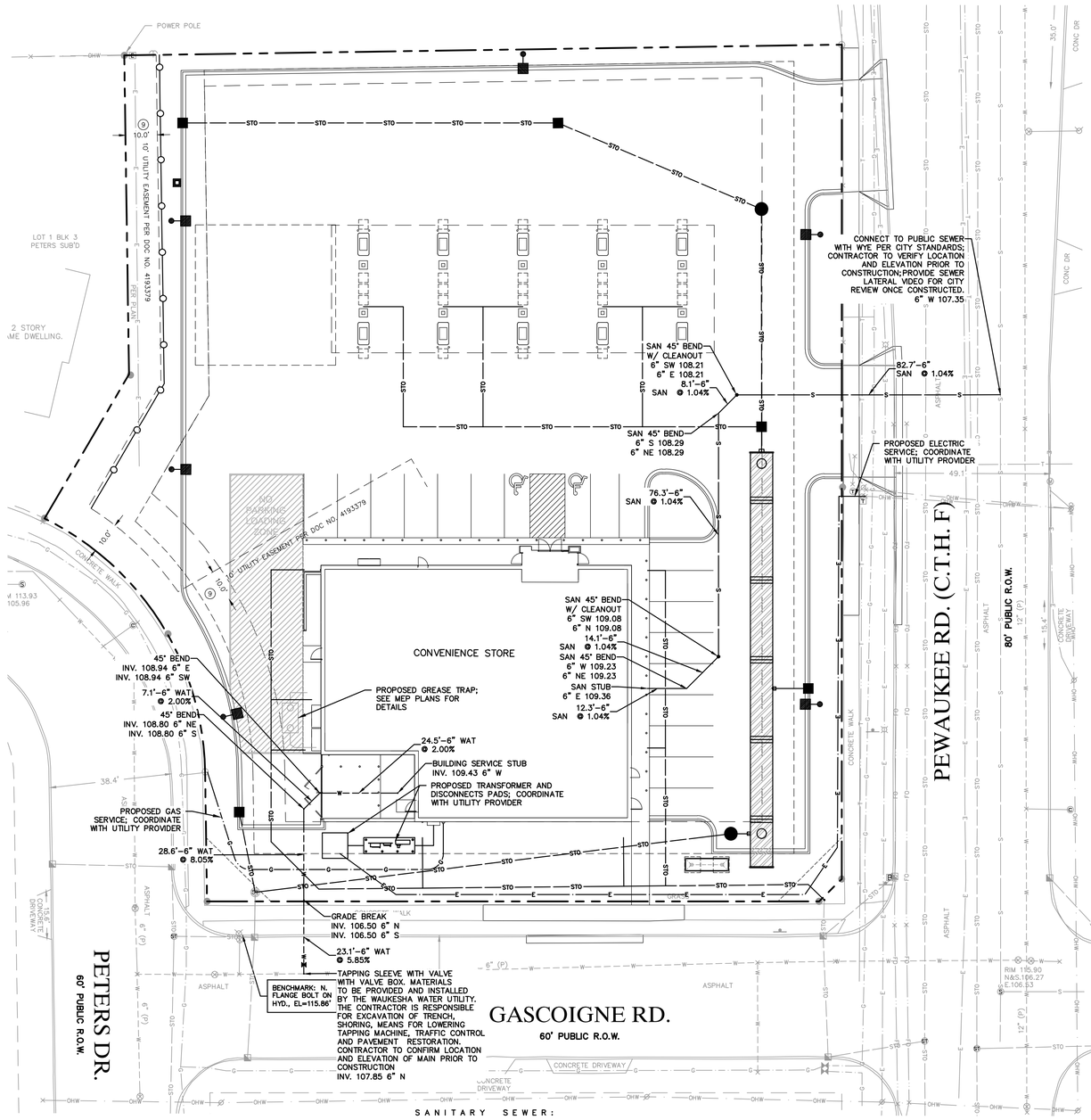

LEGEND

- PROPERTY LINE
- PROPOSED 18" CURB & GUTTER
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM SEWER LINE
- PROPOSED STORM CATCH BASIN/ MANHOLE
- PROPOSED WATER MAIN
- PROPOSED HYDRANT
- PROPOSED VALVE
- PROPOSED TELEPHONE
- PROPOSED GAS LINE
- PROPOSED ELECTRICAL LINE
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATER MAIN
- EXISTING ELECTRICAL LINE
- EXISTING OVERHEAD WIRING
- PROPOSED LIGHT POLE (SEE PHOTOMETRIC PLAN)
- PROPOSED TRANSFORMER
- EXISTING TELEPHONE LINE
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE
- EXISTING HYDRANT
- EXISTING GATE VALVE
- EXISTING STORM SEWER MANHOLE
- EXISTING STORM SEWER INLETS
- EXISTING SANITARY SEWER MANHOLE
- EXISTING LIGHT POLES
- EXISTING ELEC. AND TELE. PEDESTALS
- EXISTING GAS METER AND VALVES

SCALE: 1" = 20'

GENERAL:

1. COMPLY WITH THE WORK SAFETY PRACTICES SPECIFIED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS. OSHA PROHIBITS ENTRY INTO "CONFINED SPACES," SUCH AS MANHOLES AND INLETS (SEE 29 CFR SECTION 1910.146), WITHOUT UNDERTAKING CERTAIN SPECIFIC PRACTICES AND PROCEDURES. CONSTRUCTION SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR, WHO IS ALSO SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCING OF THE CONSTRUCTION OPERATIONS.
2. PERFORM ALL UTILITY WORK IN ACCORDANCE WITH STATE AND CITY REQUIREMENTS.
3. CONNECT TO EXISTING STORM SEWER MH'S BY EITHER SAWCUTTING OR COREDRILLING. USE SAWS OR DRILLS THAT PROVIDE WATER TO THE BLADE. MEET ALL CITY STANDARDS AND SPECIFICATIONS FOR THE THE CONNECTION. RECONSTRUCT INVERTS AFTER INSTALLATION. USE WATER STOP GASKETS IN ORDER TO PROVIDE WATERTIGHT SEALS WHEN PENETRATING A STRUCTURE WALL WITH A PIPE. TAKE MEASUREMENTS BEFORE BEGINNING CONSTRUCTION TO ENSURE THAT SERVICE CONNECTIONS DO NOT CUT INTO MAINTENANCE ACCESS STRUCTURE JOINTS OR PIPE BARREL JOINTS. DO NOT ALLOW THE SLURRY PRODUCED BY THIS PROCESS TO BE TRACKED OUTSIDE OF THE IMMEDIATE WORK AREA OR DISCHARGED INTO THE SEWER SYSTEM.
4. PERFORM TRENCH EXCAVATIONS FOR ALL UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF O.S.H.A. 29 CFR, PART 1926, SUBPART P, "EXCAVATIONS AND TRENCHES." (WWW.OSHA.GOV)
5. COORDINATE BUILDING UTILITY CONNECTION LOCATIONS AT 5 FT. OUT FROM THE PROPOSED BUILDING WITH THE WITH THE INTERIOR PLUMBING CONTRACTOR PRIOR TO CONSTRUCTION. VERIFY WATER AND SEWER SERVICE LOCATIONS AND ELEVATIONS WITH THE MECHANICAL ENGINEER PRIOR TO CONSTRUCTION.
6. THE SUBSURFACE UTILITY INFORMATION SHOWN ON THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."
7. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN ARE FROM RECORD INFORMATION. THE ENGINEER DOES NOT GUARANTEE THAT ALL EXISTING UTILITIES ARE SHOWN OR, IF SHOWN, EXIST IN THE LOCATIONS INDICATED ON THE PLAN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THE FINAL VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UTILITIES (INCLUDING WATER AND SEWER LINES AND APPURTENANCES). NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
8. CONTACT UTILITY COMPANIES FOR LOCATIONS OF ALL PUBLIC AND PRIVATE UTILITIES WITHIN THE WORK AREA PRIOR TO BEGINNING CONSTRUCTION. CONTACT DIGGER'S HOTLINE AT (414) 259-1181 IN THE MILWAUKEE METRO AREA, OR 1-800-242-8511 ELSEWHERE IN WISCONSIN FOR EXACT LOCATIONS OF EXISTING UTILITIES AT LEAST 72 HOURS (NOT INCLUDING WEEKENDS AND HOLIDAYS) BEFORE BEGINNING ANY CONSTRUCTION. OBTAIN TICKET NUMBER AND MEET WITH REPRESENTATIVES OF THE VARIOUS UTILITIES AT THE SITE. PROVIDE THE OWNER WITH THE TICKET NUMBER INFORMATION. DIGGER'S HOTLINE IS A FREE SERVICE THAT LOCATES MUNICIPAL AND UTILITY COMPANY LINES, BUT DOES NOT LOCATE PRIVATE UTILITY LINES. USE AN INDEPENDENT LOCATOR SERVICE OR OTHER MEANS IN ORDER TO OBTAIN LOCATIONS OF PRIVATE UTILITY LINES INCLUDING, BUT NOT LIMITED TO, UNDERGROUND ELECTRIC CABLES, TELEPHONE, TV, AND LAWN SPRINKLER LINES.
9. POTHOLE TO VERIFY THE POSITIONS OF EXISTING UNDERGROUND FACILITIES AT A SUFFICIENT NUMBER OF LOCATIONS IN ORDER TO ASSURE THAT NO CONFLICT WITH THE PROPOSED WORK EXISTS AND THAT SUFFICIENT CLEARANCE IS AVAILABLE.
10. WHERE EXISTING GAS, ELECTRIC, CABLE, OR TELEPHONE UTILITIES CONFLICT WITH THE WORK, COORDINATE THE ABANDONMENT, RELOCATION, OFFSET, OR SUPPORT OF THE EXISTING UTILITIES WITH THE APPROPRIATE LOCAL UTILITY COMPANIES. COORDINATE NEW GAS METER AND GAS LINE INSTALLATION, ELECTRIC METER AND ELECTRIC SERVICE INSTALLATION, CABLE SERVICE, AND TELEPHONE SERVICE INSTALLATION WITH THE LOCAL UTILITY COMPANIES.
11. ARRANGE FOR AND SECURE SUITABLE DISPOSAL AREAS OFF-SITE. DISPOSE OF ALL EXCESS SOIL, WASTE MATERIAL, DEBRIS, AND ALL MATERIALS NOT DESIGNATED FOR SALVAGE. WASTE MATERIAL AND DEBRIS INCLUDES TREES, STUMPS, PIPE, CONCRETE, ASPHALTIC CONCRETE, CANS, OR OTHER WASTE MATERIAL FROM THE CONSTRUCTION OPERATIONS. OBTAIN THE RIGHTS TO ANY WASTE AREA FOR DISPOSAL OF UNSUITABLE OR SURPLUS MATERIAL EITHER SHOWN OR NOT SHOWN ON THE PLANS. ALL WORK IN DISPOSING OF SUCH MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THE WORK. ALL DISPOSAL MUST CONFORM TO APPLICABLE SOLID WASTE DISPOSAL PERMIT REGULATIONS. OBTAIN ALL NECESSARY PERMITS AT NO COST TO THE OWNER.
12. STRAIGHT LINE SAW-CUT EXISTING BITUMINOUS OR CONCRETE SURFACING AT THE PERIMETER OF PAVEMENT REMOVAL AREAS. USE SAWS THAT PROVIDE WATER TO THE BLADE. TACK, AND MATCH ALL CONNECTIONS TO EXISTING BITUMINOUS PAVEMENT.
13. RELOCATE OVERHEAD POWER, TELEPHONE, AND CABLE LINES AS REQUIRED.
14. ALL MATERIALS REQUIRED FOR THIS WORK SHALL BE NEW MATERIAL CONFORMING TO THE REQUIREMENTS FOR CLASS, KIND, GRADE, SIZE, QUALITY, AND OTHER DETAILS SPECIFIED HEREIN OR AS SHOWN ON THE PLANS. DO NOT USE RECYCLED OR SALVAGED AGGREGATE, ASPHALTIC PAVEMENT, CRUSHED CONCRETE, OR SCRAP SHINGLES. UNLESS OTHERWISE INDICATED, THE CONTRACTOR SHALL FURNISH ALL REQUIRED MATERIALS.
15. RESTORE THE PUBLIC RIGHT-OF-WAY. REPLACE ANY CONCRETE CURB AND GUTTER, BITUMINOUS PAVEMENT, SIDEWALK, OR VEGETATIVE COVER DAMAGED BY THE CONSTRUCTION ACTIVITY. RESTORE DAMAGED TURF WITH SOD WITHIN THE PUBLIC RIGHT-OF-WAY. THE WORK AREA SHOWN IS GENERAL AND MAY NEED TO BE ADJUSTED IN THE FIELD.
16. ADJUST ALL CURB STOPS, VALVE BOXES, MAINTENANCE HOLE CASTINGS, CATCHBASIN CASTINGS, CLEANOUT COVERS, AND SIMILAR ITEMS TO FINISHED GRADE.
17. INSTALL ALL PIPE WITH THE ASTM IDENTIFICATION NUMBERS ON THE TOP FOR INSPECTION. COMMENCE PIPE LAYING AT THE LOWEST POINT IN THE PROPOSED SEWER LINE. LAY THE PIPE WITH THE BELL END OR RECEIVING GROOVE END OF THE PIPE POINTING UPGRADE. WHEN CONNECTING TO AN EXISTING PIPE, UNCOVER THE EXISTING PIPE IN ORDER TO ALLOW ANY ADJUSTMENTS IN THE PROPOSED LINE AND GRADE BEFORE LAYING ANY PIPE. DO NOT LAY PIPES IN WATER OR WHEN THE TRENCH CONDITIONS ARE UNSUITABLE FOR SUCH WORK.
18. OBTAIN AND PAY FOR ALL PERMITS, TESTS, INSPECTIONS, ETC. REQUIRED BY AGENCIES THAT HAVE JURISDICTION OVER THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR ALL BONDS, LETTERS OF CREDIT, OR CASH SURETIES RELATED TO THE WORK. EXECUTE AND INSPECT WORK IN ACCORDANCE WITH ALL LOCAL AND STATE CODES, RULES, ORDINANCES, OR REGULATIONS PERTAINING TO THE PARTICULAR TYPE OF WORK INVOLVED.
19. OBTAIN PERMITS FROM THE CITY FOR WORK IN THE PUBLIC RIGHT-OF-WAY.
20. CONSTRUCT SANITARY SEWER, WATERMAIN, AND STORM SEWER UTILITIES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, SIXTH EDITION, THE LATEST REVISED EDITION, OR CITY OF DELAFIELD SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY.
21. COORDINATE ALL EXISTING UTILITY ABANDONMENT WITH THE CITY OF WAUKESHA. PERFORM ALL WORK IN ACCORDANCE WITH ALL CITY REQUIREMENTS.
22. ALL PROPOSED ON SITE UTILITIES ARE PRIVATE AND WILL BE MAINTAINED ACCORDINGLY.

WATER DISTRIBUTION SYSTEM:

1. BRING ALL SITE UTILITIES TO 5' OUTSIDE OF THE BUILDING LINE WITH THE EXCEPTION OF THE WATER SERVICE. EXTEND WATER SERVICE INTO THE BUILDING AND UP TO THE FLANGE FOR THE WATER METER.
2. SEPARATION OF WATER AND SEWER: PROVIDE A MINIMUM HORIZONTAL SEPARATION OF 8 FEET BETWEEN ALL WATER AND SANITARY SEWER LINES. PROVIDE A MINIMUM SEPARATION OF 18 INCHES AT ALL WATER LINE AND SANITARY SEWER LINE CROSSINGS.
3. WATERMAIN DEPTH: MAINTAIN 6.0 FEET OF COVER OVER THE TOP OF THE WATER LINES TO THE FINISHED GRADE. VERIFY ELEVATION OF PROPOSED AND EXISTING WATER LINES AT ALL UTILITY CROSSINGS. INSTALL THE WATER LINES AT GREATER DEPTHS IN ORDER TO CLEAR STORM SEWERS, SANITARY SEWERS, OR OTHER UTILITIES AS REQUIRED. INCLUDE COSTS TO LOWER WATER LINES IN THE BASE BID.
4. DISINFECTION: DISINFECT ALL COMPLETED WATERMAINS IN ACCORDANCE WITH AWWA STANDARD C651. IF THE TABLET OR CONTINUOUS FEED METHODS ARE USED, DISINFECT USING WITH WATER THAT CONTAINS AT LEAST 50 PPM OF AVAILABLE CHLORINE. RETAIN THE TREATED WATER IN THE PIPELINE FOR AT LEAST 24 HOURS. MEASURE THE CHLORINE RESIDUAL AT THE END OF THE 24 HOUR PERIOD. THE FREE CHLORINE RESIDUAL MUST BE AT LEAST 10 MG/L MEASURED AT ANY POINT IN THE LINE. MEASUREMENT OF THE CHLORINE CONCENTRATION AT REGULAR INTERVALS SHALL BE IN ACCORDANCE WITH STANDARD METHODS, AWWA M-12, OR USING APPROPRIATE CHLORINE TEST KITS.
5. TESTING: PRESSURE TEST AND PERFORM BACTERIOLOGICAL TESTS ON ALL WATER LINES UNDER THE SUPERVISION OF THE CITY PUBLIC WORKS DEPARTMENT. NOTIFY THE CITY AT LEAST 24 WORKING HOURS PRIOR TO ANY TESTING. PRESSURIZE THE WATERLINE TO 1034-KPA (150-PSI) GAUGE PRESSURE (MEASURED AT THE POINT OF LOWEST ELEVATION) BY MEANS OF A PUMP CONNECTED TO THE PIPE IN A SATISFACTORY MANNER. MAINTAIN THE TEST PRESSURE FOR A MINIMUM OF 2 HOURS. DO NOT ADD WATER TO THE WATERMAIN IN ORDER TO MAINTAIN THE REQUIRED PRESSURE DURING THE WATER MAIN PRESSURE TESTING. THE TEST SECTION OF PIPE IS ACCEPTABLE WITH A PRESSURE DROP OF 14 KPA (2 PSI) OR LESS.
6. USE MECHANICAL JOINT RESTRAINT DEVICES FOR JOINT RESTRAINT ON ALL WATERMAIN BENDS HAVING A VERTICAL OR HORIZONTAL DEFLECTION OF 22-1/2 DEGREES OR GREATER, ALL VALVES, STUBS, EXTENSIONS, TEES, CROSSES, PLUGS, ALL HYDRANT VALVES, AND ALL HYDRANTS IN ACCORDANCE WITH CITY REQUIREMENTS. USE "SERIES 1100 MEGALUG" MANUFACTURED BY EBAA IRON INC., EASTLAND, TEXAS, OR APPROVED EQUAL, INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR RESTRAINT ON DUCTILE IRON PIPE.
7. AT ALL VALVE LOCATIONS WHICH REQUIRE A 12" OR SMALLER VALVE, INSTALL GATE VALVES WHICH ARE OF THE COMPRESSION RESILIENT SEATED (ORS) TYPE. USE AMERICAN FLOW CONTROL'S SERIES 2500 DUCTILE IRON RESILIENT WEDGE GATE VALVE, OR APPROVED EQUAL. GATE VALVES SHALL CONFORM TO AWWA C509. INSTALL CAST IRON VALVE BOXES CONFORMING TO ASTM A48 AT EACH VALVE LOCATION. VALVE BOXES SHALL BE THE THREE-PIECE TYPE WITH 5-1/4" SHAFTS. USE TYLER 6860-G WITH NO. 6 BASE, OR EQUIVALENT. VALVE BOXES SHALL HAVE AT LEAST 6" OF ADJUSTMENT ABOVE AND BELOW FINISHED GRADE. DROP COVERS ON VALVE BOXES SHALL BE ROUND AND BEAR THE WORD "WATER" CAST ON THE TOP. USE TYLER 6860-G "STAYPUT" COVERS WITH EXTENDED SKIRT, OR EQUIVALENT.
8. USE MUELLER H 10300 OR FORD EM 2 7057, OR APPROVED EQUAL, AT ALL CURB STOP LOCATIONS. STATIONARY ROD IS REQUIRED ON ALL CURB STOPS.
9. POLYVINYL CHLORIDE (PVC) BUILDING WATER SERVICES: ASTM D2241 OR ASTM D1785; PRESSURE RATED FOR WATER.
10. POLYVINYL CHLORIDE (PVC) WATERMAIN: USE AWWA C900 FOR ALL PVC WATERMAIN FURNISHED WITH INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS; MINIMUM PRESSURE CLASS 150; DIMENSION RATIO OF 18 OR GREATER THAN 18; LAYING LENGTH 20 FEET. USE EBAA IRON, INC., SERIES 2000 PV MEGALUG, OR APPROVED EQUAL FOR RESTRAINT ON C900 PVC WATERMAIN. LAY TRACE WIRE WITH ALL C900 PVC WATERMAIN.
11. TRACER WIRE: LOCATING REQUIREMENTS – A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NON METALLIC SEWERS/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORD WITH THE PROVISIONS OF THE WISCONSIN STATUTES 182.0175(2R) AND THE WISCONSIN DSPS 382.30(11)(H).
12. TRENCH SECTION SHALL CONFORM TO SECTION 4.3.C, FILE NO. 38 OF THE STANDARD SPECIFICATIONS. SAND OR STONE CHIP BEDDING MATERIAL IS REQUIRED.

SANITARY SEWER:

1. PIPE: USE SOLID-CORE, SDR-35, ASTM D3034 (OR APPROVED EQUAL) POLYVINYL CHLORIDE (PVC) PLASTIC PIPE FOR ALL DESIGNATED PVC SANITARY SEWER SERVICES. JOINTS FOR ALL SANITARY SEWER SHALL HAVE PUSH-ON JOINTS WITH ELASTOMERIC GASKETS. USE OF SOLVENT CEMENT JOINTS IS ALLOWED FOR BUILDING SERVICES. SOLVENT CEMENT JOINTS IN PVC PIPE MUST INCLUDE USE OF A PRIMER WHICH IS OF CONTRASTING COLOR TO THE PIPE AND CEMENT. PIPE WITH SOLVENT CEMENT JOINTS SHALL BE JOINED WITH PVC CEMENT CONFORMING TO ASTM D2564. LAY ALL PVC PIPE ON A CONTINUOUS GRANULAR BED. INSTALLATION MUST COMPLY WITH ASTM D2321.
2. CLEANOUTS: INSTALL CLEANOUTS ON ALL SANITARY SEWER SERVICES. THE DISTANCE BETWEEN CLEANOUTS IN HORIZONTAL PIPING SHALL NOT EXCEED 100 FEET FOR PIPES 4-INCH AND OVER IN SIZE. CLEANOUTS SHALL BE OF THE SAME NOMINAL SIZE AS THE PIPES THEY SERVE. INCLUDE FROST SLEEVES AND CONCRETE FRAME AND PIPE SUPPORT. INSTALL A METER BOX FRAME AND SOLID LID (NEENAH R-1914-A, OR APPROVED EQUAL) OVER ALL CLEANOUTS.
3. TESTING: PRESSURE TEST ALL SANITARY SEWER LINES. TEST ALL FLEXIBLE SANITARY SEWER LINES FOR DEFLECTION AFTER THE SEWER LINE HAS BEEN INSTALLED AND BACKFILL HAS BEEN IN PLACE FOR AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE TEST FAILS, MAKE NECESSARY REPAIRS AND RETEST.
4. UNLESS OTHERWISE INDICATED, USE REINFORCED, PRECAST, CONCRETE MAINTENANCE HOLES CONFORMING TO ASTM C478, FURNISHED WITH PRECAST BASES. SANITARY SEWER MAINTENANCE HOLES SHALL BE SUPPLIED WITH PRE-FORMED INVERTS AND FLEXIBLE NEOPRENE SLEEVE CONNECTIONS FOR ALL LATERAL LINES 375 MM (15 INCHES) IN DIAMETER OR LESS, UNLESS OTHERWISE INDICATED. JOINTS FOR ALL PRECAST MAINTENANCE HOLE SECTIONS SHALL HAVE CONFINED, RUBBER "O"-RING GASKETS IN ACCORDANCE WITH ASTM C923. THE INSIDE BARREL DIAMETER SHALL NOT BE LESS THAN 48 INCHES.
5. INSTALL FLEXIBLE WATERTIGHT FRAME/CHIMNEY SEALS ON ALL SANITARY SEWER MAINTENANCE HOLES. USE EITHER MANUFACTURED MAINTENANCE HOLE FRAME/CHIMNEY SEALS OR ELASTOMERIC WATERPROOFING FRAME/CHIMNEY SEALS.
6. USE NEENAH FOUNDRY CO. R-1642 CASTING WITH SELF-SEALING, SOLID, TYPE B LID, OR APPROVED EQUAL, ON ALL SANITARY SEWER MAINTENANCE HOLES. COVERS SHALL BEAR THE "SANITARY SEWER" LABEL.
7. TRACER WIRE: LOCATING REQUIREMENTS – A MEANS TO LOCATE BURIED UNDERGROUND EXTERIOR NON METALLIC SEWERS/MAINS MUST BE PROVIDED WITH TRACER WIRE OR OTHER METHODS IN ORDER TO BE LOCATED IN ACCORD WITH THE PROVISIONS OF THE WISCONSIN STATUTES 182.0175(2R) AND THE WISCONSIN DSPS 382.30(11)(H).
8. TRENCH SECTION SHALL BE CLASS "B" BEDDING. CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. PREFABRICATED WYE CONNECTIONS ARE REQUIRED FOR SANITARY LATERALS

CITY OF WAUKESHA SANITARY SEWER COMMENTS :

1. ALL SANITARY SEWER TO BE INSTALLED IN ACCORDANCE WITH CITY OF WAUKESHA STANDARDS
2. ALL APPLICATIONS AND FEE FOR SANITARY SEWER MUST BE COMPLETED AND PAID PRIOR TO CONNECTION TO SEWER SYSTEMS.
3. ANY UTILITY WORK IN THE ROW AND ALL SANITARY SEWER CONNECTIONS TO BE INSPECTED BY CITY. NOTIFY CITY 72 HOURS IN ADVANCE OF CONNECTION TO SEWER.
4. FOLLOW CITY OF WAUKESHA SPECIFICATIONS IF MORE STRINGENT THAN KWIK TRIP STANDARDS
5. A RECORD DRAWING OF THE SANITARY/STORM SEWER FACILITIES SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED LAND SURVEYOR SHALL BE SUBMITTED TO THE ENGINEERING DIVISION.

Know what's below. Call before you dig.

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CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE CITY OF WAUKESHA EROSION CONTROL ORDINANCE, THE WISCONSIN DNR STORMWATER CONSTRUCTION AND POST CONSTRUCTION TECHNICAL STANDARDS, WDNR PERMIT CONDITIONS, AND THESE DOCUMENTS; THE MOST STRINGENT TO APPLY.

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

KWIK TRIP

KWIK STAR

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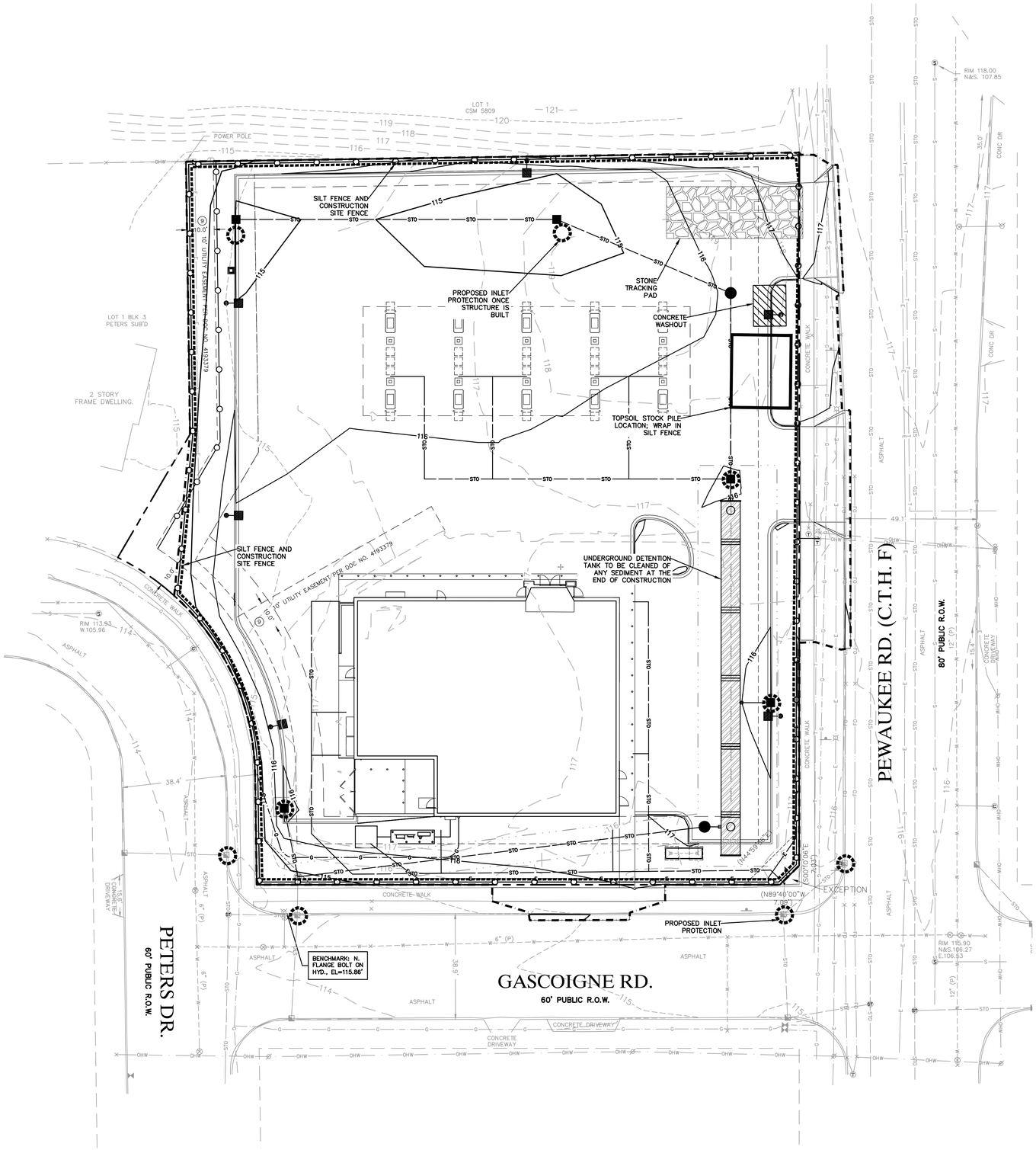
UTILITY PLAN

CONVENIENCE STORE #527

1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	SP4



LEGEND

- LAND DISTURBANCE LIMITS: 1.41 ACRES
- PROPOSED SILT FENCE
- PROPOSED CONSTRUCTION FENCE
- STORM DRAIN INLET PROTECTION
- STONE TRACKING PAD

SCALE: 1" = 20'

20 10 0 20 40

CONSTRUCTION SEQUENCE

1. INSTALL SILT FENCE.
2. INSTALL CONSTRUCTION ENTRANCE. THIS IS THE ONLY EXIT TO BE USED FOR ALL CONSTRUCTION ACTIVITIES. CONTRACTOR MAY ADJUST LOCATIONS TO FACILITATE CONSTRUCTION PHASING
3. INSTALL STORM DRAIN INLET PROTECTION ON EXISTING INDICATED STORM INLETS.
4. BEGIN DEMOLITION OF EXISTING SITE IMPROVEMENTS
5. STRIP TOPSOIL AND GRADE SITE IN INCREMENTS APPROPRIATE TO WORK WHILE MAINTAINING SEDIMENTATION AND EROSION CONTROL PRACTICES IN CONFORMANCE WITH LOCAL AND STATE GUIDELINES. TEMPORARY DIVERSION SWALES MAY BE NEEDED TO PROMOTE DRAINAGE TOWARDS TEMPORARY SEDIMENT BASINS.
6. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL BMPs WHEN SITE WORK AND GRADING ALLOWS.
7. CONSTRUCT UTILITIES AND INSTALL ADDITIONAL STORM DRAIN INLET PROTECTION TO INLETS AS SOON AS THEY ARE CONSTRUCTED.
8. PREPARE PARKING LOT SUBGRADE. INSTALL CURB AND GUTTER AND PAVE SITE.
9. APPLY SEED FERTILIZER AND MULCH TO LANDSCAPE LAWN AREAS AS SOON AS POSSIBLE.
10. FLUSH STORM SEWER AND REMOVE ANY SEDIMENT IN THE UNDERGROUND DETENTION TANK ACCUMULATED DURING CONSTRUCTION
11. CONTRACTOR SHALL REMOVE ALL REMAINING TEMPORARY EROSION CONTROL BMPs WHEN DISTURBED AREAS ARE STABILIZED AND NO LONGER SUSCEPTIBLE TO EROSION

ESTIMATED EROSION CONTROL QUANTITIES
(ACTUAL QUANTITIES SUBJECT TO CHANGE)

ITEM	QUANTITY
CONSTRUCTION ENTRANCE	1
STORM DRAIN INLET PROTECTION	9
SILT FENCE	1,025 L.F.
STRAW WATTLE	AS NEEDED

NOTE: FOR MAINTENANCE PURPOSES, CONTRACTOR SHALL MAINTAIN EROSION CONTROL PER DNR REQUIREMENTS THROUGHOUT ALL PHASES OF THE PROJECTS CONSTRUCTION. COST FOR MAINTENANCE SHALL BE INCLUDED AND CONSIDERED INCIDENTAL TO BID PRICE

PROJECT DATA

LAND DISTURBANCE TIME: APPROXIMATELY 7 MONTHS

-ALL SILT FENCE MUST BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY THE CITY PRIOR TO ANY SITE WORK.

-SITE EROSION CONTROL MEASURES MUST BE IN PLACE AT ALL TIMES. SHOULD DEVICES BE REMOVED FOR WORK ACCESS, THEY SHALL BE REINSTALLED AT THE END OF EACH WORK DAY UNTIL PAVEMENTS HAVE BEEN INSTALLED AND ALL LANDSCAPE AREAS HAVE BEEN MULCHED AND SODDED. SEEDED AREAS MUST EXHIBIT MINIMUM OF 70% SOIL COVERAGE.

-REFER TO THE SWPPP PLAN NOTES AND DETAIL SHEETS SWPP 2-4 FOR MORE INFORMATION.

-THIS SITE IS WITHIN THE PEWAUKEE RIVER-FOX RIVER BASIN.

-THE SITE IS ALMOST ENTIRELY CLASSIFIED BY USGS WEB SOIL SURVEY AS SILT LOAM SOILS (HYDRAULIC SOIL GROUP D)

CONTACT BRADFORD FRY, P.E.
KWIK TRIP, INC.
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LACROSSE, WI 54602
608-793-6414

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EROSION CONTROL PLAN

CONVENIENCE STORE #527

1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	SWP1

GENERAL STORMWATER POLLUTION PREVENTION:

APPLY FOR AND OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION ACTIVITY.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP): THE SWPPP INCLUDES THIS NARRATIVE, PLAN SHEETS SP1–SP4, SWP1–SWP4 AND THE STORMWATER MANAGEMENT CALCULATIONS. KEEP A COPY OF THE SWPPP, ALL CHANGES TO IT, AND INSPECTIONS AND MAINTENANCE RECORDS AT THE SITE DURING THE CONSTRUCTION. DURING THE CONSTRUCTION PROCESS THE SWPP WILL HAVE TO BE AMENDED FOR ALL CHANGES PERFORMED BY THE CONTRACTOR. THE OWNER SHALL BE AWARE OF THE AMENDMENTS PRIOR TO CHANGES MADE TO THE SWPP PLAN. ALL NOTES, PHOTOGRAPHS, RECORDED DATES, SKETCHES, REFERENCES, AND DIAGRAMS WILL HAVE TO BE RECORDED AND MADE AVAILABLE AS PART OF THE SWPP PERMIT.

INDIVIDUAL(S) PREPARING THE SWPPP FOR THE PROJECT, OVERSEEING IMPLEMENTATION OF THE SWPPP, REVISING AND AMENDING THE SWPPP, AND AT LEAST ONE INDIVIDUAL ON THE PROJECT PERFORMING INSTALLATION, INSPECTION, MAINTENANCE, AND REPAIRS OF BMP'S MUST BE TRAINED. THE TRAINING MUST BE DONE BY A LOCAL, STATE, FEDERAL AGENCIES; PROFESSIONAL ORGANIZATION; OR OTHER ENTITITES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, OR PERMANENT STORMWATER MANAGEMENT.

RESPONSIBLE PARTIES: THE CONTRACTOR MUST DESIGNATE A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS WHO WILL OVERSEE THE IMPLEMENTATION OF THE SWPPP, AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE AND DURING CONSTRUCTION.

THE OWNER IS RESPONSIBLE FOR IDENTIFYING WHO WILL HAVE RESPONSIBILITY FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEMS.

OWNER CONTACT:

NAME: BRADFORD FRY, P.E.
COMPANY: KWIK TRIP INC.
ADDRESS: KWIK TRIP, INC. – STORE ENGINEERING
1626 OAK STREET, P.O. BOX 2107
LA CROSSE, WI 54601–2107
TELEPHONE: (608) 793–6414

SITE INVESTIGATION, INSTALLATION, IMPLEMENTATION :

1. PRIOR TO ANY WORK, CONTRACTOR SHALL VISIT THE SITE, DOCUMENT EXISTING CONDITIONS AS NECESSARY(PHOTOS, NOTES, ETC) AND NOTE EXISTING DRAINAGE PATTERNS ON AND OFF SITE THAT ARE RELATED TO THE PROJECT. THESE NOTES SHALL BE PART OF THE SWPP.

2. INSTALL ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES INCLUDING SILT FENCE, ROCK CONSTRUCTION ENTRANCE(S), EROSION CONTROL BERMS, ROCK FILTERS, SILT SACKS, ROCK /EARTH BERMS, AND SEDIMENTATION BASINS. PROTECT ALL RECEIVING WATERS, CATCH BASINS, DITCHES, INLETS ETC. IN AND AROUND THE SITE. ALL PROTECTIVE AND PREVENTATIVE MEASURES MUST BE IN PLACE AND INSPECTED PRIOR TO BEGINNING SITE CLEARING, GRADING, OR OTHER LAND–DISTURBING ACTIVITY.

3. PRIOR TO BEGINNING SITE CLEARING AND GRADING, PROTECT ALL STORM SEWER INLETS THAT RECEIVE RUNOFF FROM DISTURBED AREAS. IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE AND ENTERING THE DOWNSTREAM STORM SEWER SYSTEM, SEAL ALL STORM SEWER INLETS THAT ARE NOT NEEDED FOR SITE DRAINAGE DURING CONSTRUCTION. PROTECT ALL OTHER STORM SEWER INLETS BY INSTALLING SEDIMENT CONTROL DEVICES, SUCH AS SILT SACKS, OR ROCKED FILTRATION LOGS/WIERS. STRAW BALES OR FABRIC UNDER THE GRATES ARE NOT ACCEPTABLE FORMS OF INLET PROTECTION. PROTECT NEW STORM SEWER INLETS AS THEY ARE COMPLETED. MAINTAIN STORM SEWER INLET PROTECTION IN PLACE UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLETS ARE STABILIZED.

4. BEFORE BEGINNING CONSTRUCTION, INSTALL A TEMPORARY ROCK CONSTRUCTION ENTRANCE AT EACH POINT WHERE VEHICLES EXIT THE CONSTRUCTION SITE WHEN AT ALL POSSIBLE CONTRACTOR SHALL DESIGNATE ONLY ONE ACCESS POINT FOR VEHICLES ENTERING AND EXITING THE SITE. THE ROCK ON THE ENTRANCE WILL HAVE TO BE INSPECTED DAILY AND REPLACED OR ROCK SUPPLEMENTED BY THE CONTRACTOR WHEN OVER 50% OF THE VOIDS IN THE ROCK ARE FILLED. A CLEANING STATION SHOULD BE MADE AVAILABLE TO DRIVERS AND VISIBLY SIGNED AS SUCH. PROVIDE SHOVELS, BROOMS AND/OR HOSE WITH A WASH OUT AREA SO SOILS CAN BE REMOVED FROM VEHICLES ON SITE.

5. AVOID ENTIRE REMOVAL OF TREES AND SURFACE VEGETATION ALL AT ONCE WHENEVER POSSIBLE AS THIS LIMITS THE AMOUNT OF SITE SUSCEPTIBLE TO EROSION. SCHEDULE CONSTRUCTION ZONES AND NOTE THIS ON THE SWPP PLAN IN ORDER TO EXPOSE THE SMALLEST PRACTICAL AREA OF SOIL AT ANY GIVEN TIME. UTILIZE VEGETATION REMOVED BY ON SITE GRINDING AND MULCHING AND USING THIS MATERIAL TO PROTECT THE SOIL FROM EROSION.

6. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, COMPLETE PERMANENT OR TEMPORARY STABILIZATION AGAINST EROSION DUE TO RAIN, WIND, AND RUNNING WATER WITHIN 14 CALENDAR DAYS ON ALL DISTURBED OR GRADED AREAS. THIS REQUIREMENT DOES NOT APPLY TO THOSE AREAS THAT ARE CURRENTLY BEING USED FOR MATERIAL STORAGE ON A DAILY BASIS OR FOR THOSE AREAS ON WHICH GRADING, SITE BUILDING, OR OTHER CONSTRUCTION ACTIVITIES ARE ACTIVELY UNDERWAY. PROVIDE TEMPORARY COVER ON ALL STACKED TOPSOIL PILES, AND OTHER AREAS OF STOCKPILED EXCAVATED MATERIAL IN ORDER TO PREVENT SOIL EROSION AND RAPID RUNOFF DURING THE CONSTRUCTION PERIOD. STOCKPILES CAN BE MULCHED,COVERED WITH POLY OR FABRIC, AND OR SEEDED DURING PROLONGED EXPOSURE. PROLONGED PERIODS OF OPEN, BARE EARTH WITHOUT GRASS COVER WILL NOT BE PERMITTED. STABILIZE ALL DISTURBED GREENSPACE AREAS WITH A MINIMUM OF 4" TOPSOIL IMMEDIATELY AFTER FINAL SUBGRADE COMPLETION. SEED AND MULCH, OR SOD AND PROTECT THESE AREAS WITHIN 48 HOURS AFTER COMPLETION OF FINAL GRADING WORK (WEATHER PERMITTING). STABILIZE ALL DISTURBED AREAS TO BE PAVED USING EARLY APPLICATION OF GRAVEL BASE. STABILIZE THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT CONVEYS WATER FROM THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE CONSTRUCTION SITE, WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR WITHIN 200 FEET FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZE TEMPORARY OR PERMANENT DRAINAGE DITCHES WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. PROTECT OUTFALLS MINIMUM OF 200FEET DOWN STREAM AND TO THE SIDE OF THE DISCHARGE POINT. ADDITIONAL SETTLING "POTS" ACHIEVED BY FILTER LOGS OR FILTERED STICK BALES STAKED IN THE CHANNEL WILL DISSIPATE THE WATER ENERGY. PROVIDE PIPE OUTLETS WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

7. RECEIVING WATERS – IT IS THE CONTRACTORS RESPONSIBILITY TO INSPECT THE SITE DISCHARGE POINT AS WELL AS DOWNSTREAM TO THE RECEIVING BODY OF WATER(POND, LAKE, STREAM, ETC.) ON A REGULAR BASIS INCLUDING AFTER EACH STORM EVENT AND DOCUMENT IF ANY DIFFERENCES OR CHANGES IN NORMAL IN DISCHARGE AND IF MATERIAL IS LEAVING THE CONSTRUCTION SITE. IF SO IT SHALL BE DOCUMENTED AND REMOVED IMMEDIATELY.

NOTE: ALL EROSION AND SEDIMENT CONTROL DEVICES WILL BE CHECKED BY THE CONTRACTOR AFTER EACH STORM EVENT AND BE MAINTAINED, OR IMPROVED UPON AFTER EVERY STORM EVENT TO ENSURE ADEQUATE PERFORMANCE.

POLLUTION CONTROL:

1. DESIGNATE A CONCRETE WASH–OUT AND TRUCK WASH AREA:
MAKE IT VISIBLE IN THE FIELD TO VEHICLE OPERATORS AND NOTE THIS ON THE SWPP PLAN.

A. WHEN WASHOUTS OCCUR ON THE SITE, CONCRETE WASHOUT WATER MUST BE CONTAINED IN A LEAK–PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER. LIQUID AND SOLID WASTES MAY NOT TOUCH THE GROUND AND THERE MUST NOT BE RUNOFF FROM THE CONCRETE WASHOUT OPERATIONS OR AREAS.

B. ON SITES WHERE CONCRETE WASHOUT AREAS ARE NOT FEASIBLE AS SHOWN ON THE DETAIL SHEET, ABOVE GROUND METHODS AND/OR OFF–SITE METHODS CAN BE UTILIZED AS APPROVED BY OWNER.

C. CONCRETE WASHOUT MAY BE PROVIDED OFF–SITE BY CONCRETE CONTRACTOR OR CONCRETE SUPPLIER, AT AN APPROVED WASHOUT DISPOSAL AREA. CONCRETE SUPPLIER MAY PROVIDE CONCRETE WASHOUT AREAS ON–BOARD THEIR TRANSPORTS FOR DISPOSAL OFF–SITE. CONCRETE CONTRACTOR SHALL VERIFY WITH SUPPLIER IN REGARDS TO PROVIDED CONCRETE WASHOUT AREAS ON AND OFF–SITE, AS NECESSARY.

D. LIMIT EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES TO A DEFINED AREA PREFERABLY BEFORE THE CONSTRUCTION ACCESS/EXIT POINT. WASH VEHICLES ONLY ON AN AREA STABILIZED WITH STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. CONTAIN RUNOFF AND PROPERLY DISPOSE OF WASTE. ENGINE DEGREASING IS PROHIBITED.

2. SOLID WASTE: PROPERLY DISPOSE OF COLLECTED SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS, AND OTHER WASTES IN COMPLIANCE WITH STATE REQUIREMENTS.

3. HAZARDOUS MATERIALS: PROPERLY DISPOSE OF ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE DEBRIS, CLEANING WASTES, OIL, GASOLINE, PAINT, WASTEWATER, TOXIC MATERIALS, AND HAZARDOUS MATERIALS) OFF–SITE. DO NOT ALLOW WASTE AND UNUSED BUILDING MATERIALS TO BE CARRIED BY RUNOFF INTO A RECEIVING CHANNEL OR STORM SEWER SYSTEM. PROPERLY STORE OIL, GASOLINE, PAINT, AND OTHER HAZARDOUS MATERIALS IN ORDER TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE. INCLUDE SECONDARY CONTAINMENT. RESTRICT ACCESS TO STORAGE AREAS IN ORDER TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH REGULATIONS.

4. MACHINERY: AND MECHANICALIZED EQUIPMENT THAT LEAKS WASTE SHALL HAVE A PROTECTIVE BARRIER OR CONTAINMENT UNDER THE DEVICE ADEQUATE TO CONTAIN THE WASTE. PROPERLY DISPOSE OF THE WASTE.

5. EMERGENCY SPILL STATION: CONTRACTOR SHALL LOCATE AND SIGN AN EMERGENCY SPILL STATION THAT HAS NECESSARY CONTAINMENT OR CLEANUP DEVICES FOR ALL WORKERS TO ACCESS.

EROSION CONTROL :

APPLY NECESSARY MOISTURE TO THE CONSTRUCTION AREA AND HAUL ROADS TO PREVENT THE SPREAD OF DUST.

CONTRACTOR SHALL UTILIZE COARSELY GROUND WOOD AND TREE MULCHES TO COVER EXPOSED SOILS. MULCHES SHALL BE SPORED ON SITE TO SUPPLEMENT AND USE IN PROBLEM AREAS DURING ALL PHASES OF THE CONSTRUCTION PROJECT.

CONTRACTOR SHALL USES STAR TACK OR OTHER ORGANIC SUBSTANCES IN SITUATIONS TO PREVENT SOIL FROM ERODING AWAY BY WIND OR RAIN.

WHENEVER POSSIBLE CONTRACTOR SHALL GRADE AREAS OF SOIL TO LIMIT POTENTIAL OF EROSION, TO INCLUDE TRACKING PERPENDICULAR TO FALL LINE OF GRADES AS WELL AS DIVERTING WATER FLOWS FROM PROBLEMATIC AREAS ON THE SITE.

SEEDING, FIBER BLANKETS, POLY/TARPS OR COVER MULCHES, DISKED MULCHES AND COMPOST CAN BE USED TO COVER TEMPORARILY EXPOSED AREAS FROM WIND AND RAIN. OTHER METHODS BY THE CONTRACTOR SHALL BE DOCUMENTED IN THE SWPP.

SEDIMENT CONTROL:

INLET SEDIMENT CONTROL PROTECTION DEVICES:
THE FOLLOWING ARE APPROVED INLET SEDIMENT CONTROL DEVICES:

A. ROAD DRAIN TOP SLAB MODEL RD 23 (FITS ROUGH OPENING FOR 2'X3' INLET), ROAD DRAIN TOP SLAB MODEL RD 27 (FITS ROUGH OPENING FOR 27" INLET), OR ROAD DRAIN TOP SLAB MODEL CG 3067 (FITS NEENAH CASTING WITH 35–1/4"X17–3/4" DIMENSIONS) MANUFACTURED BY WIMCO, 799 THEIS DRIVE, SHAKOPEE, MN, 55379, PHONE (952) 233–3055. OR APPROVED EQUAL

B. SILT SACK MANUFACTURED BY ACF ENVIRONMENTAL, 2831 CARDWELL ROAD, RICHMOND, VA, 23234, PHONE (800) 448–3636. OR APPROVED EQUAL

C. INFRASAFE SEDIMENT CONTROL BARRIER. INSTALL GEOTEXTILE SOCK ON THE OUTSIDE OF THE BARRIER IN ORDER TO TRAP ADDITIONAL FINES. STANDARD FRAMES ARE AVAILABLE TO FIT 24" TO 30" DIAMETER AND 2'X3' OPENINGS. DISTRIBUTED BY ROYAL ENTERPRISES AMERICA, 30622 FOREST BOULEVARD, STACY, MN, 55079, PHONE (651) 462–2130. OR APPROVED EQUAL

D. RIDGE BAG ROCK LOG. USE ROCK LOGS ONLY FOR CURB INLETS AFTER PAVEMENT IS IN PLACE. MANUFACTURED BY RED BARN RIDGE, 3135 COUNTY ROAD 136, SAINT CLOUD, MN, 35301, PHONE (320) 253–3744. OR APPROVED EQUAL

E. INFLATABLE DRAIN PLUGS BY INTERSTATE PRODUCTS WWW.INTERSTATEPRODUCTS.COM OR APPROVED EQUAL

RIPRAP:
PLACE A 450 MM (18 INCH) THICK LAYER OF RIPRAP ONTO A 225 MM (9 INCH) THICK LAYER OF GRANULAR FILTER MATERIAL AT LOCATIONS INDICATED ON THE PLAN IN ACCORDANCE WITH WIDOT SPECIFICATION 606. INSTALL TWO LAYERS OF MEDIUM DUTY GEOTEXTILE FABRIC (WIDOT HR, SECTION 645.3.7) BENEATH THE GRANULAR FILTER MATERIAL. AT PIPE OUTFALLS CONFIGURE THE INSTALLATION AS SHOWN ON DETAIL SHEET FOR THE SIZE OF PIPE INDICATED AND EXTEND THE GEOTEXTILE FABRIC UNDER THE CULVERT APRON A MINIMUM OF 3 FEET. FOR PIPE SIZES SMALLER THAN 300 MM (12 INCH) DIAMETER, THE MINIMUM QUANTITY OF RIPRAP AND FILTER BLANKET SHALL BE NO LESS THAN THAT REQUIRED FOR 300 MM (12 INCH) DIAMETER PIPES.

SILT FENCE:
INSTALL AND MAINTAIN PER WIDNR CONSERVATION PRACTICE STANDARD 1056.

TRACKING PAD / CONSTRUCTION ENTRANCE:
INSTALL AND MAINTAIN PER WIDNR CONSERVATION PRACTICE STANDARD 1057. USE BROCK WHITE FODS TRACKOUT CONTROL MAT OR EQUAL PRODUCT. INSTALL AND MAINTAIN PER THE MANUFACTURER'S RECOMMENDATIONS AS TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED ROADWAYS. CLOSE ENTRANCES NOT PROTECTED BY TEMPORARY ROCK CONSTRUCTION ENTRANCES TO ALL CONSTRUCTION TRAFFIC.

TEMPORARY SEDIMENT BASINS
IN THE CONSTRUCTION PROCESS OR IF NOTED ON THE PLAN THE CONTRACTOR SHALL CONSTRUCT TEMPORARY SEDIMENT BASIN(S). AS PER GENERAL RULE THE SEDIMENT BASIN SHALL BE SIZED APPROPRIATELY TO A CAPACITY RELEGATED TO THE DRAINAGE AREA ON A RATIO OF 3,600 CUBIC FEET PER ACRE OF DRAINAGE ZONE ENTERING THE BASIN. BASINS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT, MATERIAL REMOVED AND STABILIZED. IF CHANGES TO THE BASIN ARE MADE, DOCUMENT AND AMEND THE SWPP PLAN.

DEWATERING:

IF DEWATERING IS REQUIRED AND SUMP PUMPS ARE USED, ALL PUMPED WATER MUST BE DISCHARGED THROUGH AN EROSION CONTROL FACILITY (TEMPORARY SEDIMENTATION BASIN, GRIT CHAMBER, SAND FILTER, UPFLOW CHAMBER, HYDRO–CYCLONE, SWIRL CONCENTRATOR, DEWATERING BAG OR OTHER APPROPRIATE FACILITY) PRIOR TO LEAVING THE CONSTRUCTION SITE. PROPER ENERGY DISSIPATION MUST BE PROVIDED AT THE OUTLET OF THE PUMP SYSTEM. DISCHARGE CLEAR WATER ONLY. TO ACHIEVE BETTER SEPARATION OF THE MATERIAL SUSPENDED IN THE WATER A BIODEGRADABLE NOT TOXIC FLOCCULENT AGENT MAY BE REQUIRED. FOR MORE INFORMATION AND MATERIALS GO TO BY INTERSTATE PRODUCTS WWW.INTERSTATEPRODUCTS.COM

GEOTEXTILE DEWATERING BAGS SHALL MEET REQUIREMENTS OF DNR TECHNICAL STANDARD 1061. THE FOOTPRINT OF GEOTEXTILE BAGS SHALL BE NO SMALLER THAN 100 SQUARE FEET, AND SHALL BE SECURELY ATTACHED TO THE DISCHARGE PIPE. POLYMERS CAN BE USED TO ENHANCE THE EFFICIENCY OF GEOTEXTILE BAGS. IF USED, POLYMERS SHALL MEET THE CRITERIA WITHIN DNR TECHNICAL STANDARD 1051.

Table 1 – Prescriptive Compliance Area Soil Stabilization

Prescriptive Compliance Areas	Bare Soil	Slope & Channel Management	Periods of Inactivity	Final Grade
Soil stockpiles that will exist for more than 7 days **Utility trench backfills** **Temporary ditches/swales that will exist for more than 7 days** **Permanent ditches/swales** **Small areas – Less than 1 acre and less than 1% of site** **Discrete areas – Less than 1 acre** **Storm water practice side slopes** **Slopes steeper than 20%**	Areas that Do Not Drain to Sediment Basins or Traps Limit the duration of soil exposure to no more than 30 days. Areas that Drain to Sediment Basins or Traps Limit the duration of soil exposure to no more than 90 days. However, use the duration from the soil loss and sediment discharge calculations for the other areas of the site if less than 90 days.	General Design and implement approved soil stabilization practices per DNR technical standards. Refer to WisDOT Slope & Channel Matrices for appropriate slope and slope length conditions. Slopes Steeper than 20% Provide stable diversion of off-site runoff around the slope. Provide slope interruption devices in accordance with Manufactured Perimeter Control & Slope Interruption Products Technical Standard 1071 or equivalent methods to reduce uninterrupted slope length.	Planned Inactivity Stabilize immediately if area will be left inactive for more than 14 days. Unplanned Inactivity Stabilize area immediately if period of inactivity reaches 14 days.	Permanent Features Stabilize area immediately after reaching final grade. Temporary Features Stabilize area immediately after establishment of temporary feature or reaching specified temporary grade.

PCH_SOIL STABILIZATION
WDNR September 2017

INSPECTIONS–MAINTENANCE–DAILY RECORD–AMEND THE SWPP PLAN

1. CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES, STABILIZED AREAS, AND INFILTRATION AREAS ON A DAILY BASIS UNTIL LAND–DISTURBING ACTIVITY HAS CEASED. THEREAFTER, INSPECT AT LEAST ON A WEEKLY BASIS UNTIL VEGETATIVE COVER IS ESTABLISHED. INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES, STABILIZED AREAS, AND INFILTRATION AREAS WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. REMOVE ACCUMULATED SEDIMENT DEPOSITS FROM BEHIND EROSION AND SEDIMENT CONTROL DEVICES AS NEEDED. DO NOT ALLOW SEDIMENT TO ACCUMULATE TO A DEPTH OF MORE THAN ONE–THIRD OF THE HEIGHT OF THE EROSION AND SEDIMENT CONTROL DEVICES. IMMEDIATELY REPLACE DETERIORATED, DAMAGED, ROTTED, OR MISSING EROSION CONTROL DEVICES. DOCUMENT INSPECTIONS AND DATES OF RAINFALL EVENTS. MAINTAIN A WRITTEN LOG OF ALL INSPECTION, MAINTENANCE, AND REPAIR ACTIVITIES RELATED TO EROSION AND SEDIMENT CONTROL FACILITIES. ALL NONFUNCTIONAL BMPS MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

2. ALL INSPECTIONS AND MAINTENANCE ACTIVITIES MUST BE RECORDED IN WRITING DAILY IN A DETAILED RECORD(NOTES, PHOTOGRAPHS, SKETCHES, ETC, AND KEPT WITH THE SWPPP BY THE CONTRACTOR.

3. CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENTS TRACKED OR OTHERWISE DEPOSITED ONTO ADJACENT PROPERTY, PAVEMENT AREAS, SIDEWALKS, STREETS, AND ALLEYS. REMOVAL SHALL BE ON A DAILY BASIS THROUGHOUT THE DURATION OF THE CONSTRUCTION AND/OR AS DIRECTED BY THE CITY. CLEAN PAVED ROADWAYS BY SHOVELING OR WET–SWEEPING. DO NOT DRY SWEEP. IF NECESSARY, SCRAPE PAVED SURFACES IN ORDER TO LOOSEN COMPACTED SEDIMENT MATERIAL PRIOR TO SWEEPING. HAUL SEDIMENT MATERIAL TO A SUITABLE DISPOSAL AREA. STREET WASHING IS ALLOWED ONLY AFTER SEDIMENT HAS BEEN REMOVED BY SHOVELING OR SWEEPING.

4. ALL SOIL HAULED FROM THE SITE SHALL BE ACCOUNTED FOR AND DOCUMENTED IN THE SWPP BY THE CONTRACTOR. ITS FINAL DESTINATION AND HOW THE SOIL HAS BEEN STORED AND STABILIZED.

5. CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED (HARD–SURFACED AREAS PAVED AND VEGETATION ESTABLISHED IN GREEN SPACE). REPAIR ANY RILLING, GULLY FORMATION, OR WASHOUTS. AFTER FINAL ESTABLISHMENT OF PERMANENT STABILIZATION, REMOVE ALL TEMPORARY SYNTHETIC, STRUCTURAL, AND NONBIODEGRADABLE EROSION AND SEDIMENT CONTROL DEVICES AND ANY ACCUMULATED SEDIMENTS. DISPOSE–OF OFF SITE. RESTORE PERMANENT SEDIMENTATION BASINS TO THEIR DESIGN CONDITION IMMEDIATELY FOLLOWING STABILIZATION OF THE SITE.

6. CONTRACTOR SHALL CLEAN SEDIMENTATION BASINS, STORM SEWER CATCH BASINS, DITCHES, AND OTHER DRAINAGE FACILITIES AS REQUIRED IN ORDER TO MAINTAIN THEIR EFFECTIVENESS. TEMPORARY AND PERMANENT SEDIMENTATION BASINS MUST BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 OF THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

7. CONTRACTOR SHALL INSPECT INFILTRATION AREAS TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITIES IS ACCUMULATING. REMOVE SEDIMENT IMMEDIATELY ENSURING SUBSOILS ARE NOT COMPACTED BY MACHINERY.

8. EVERY VEHICLE SHALL NOT TRACK MATERIAL OFF–SITE. CLEAN THE WHEELS OF CONSTRUCTION VEHICLES IN ORDER TO REMOVE SOILS BEFORE THE VEHICLES LEAVE THE CONSTRUCTION SITE. WASH VEHICLES ONLY ON AN AREA STABILIZED WITH STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

9. CONTRACTOR SHALL REINFORCE EROSION CONTROL FACILITIES IN AREAS WHERE CONCENTRATED FLOWS OCCUR (SUCH AS SWALES, DITCHES, AND AREAS IN FRONT OF CULVERTS AND CATCH BASINS) BY BACKING THEM WITH SNOW FENCE, WIRE MESH, OR STIFF PLASTIC MESH REINFORCEMENT UNTIL PAVING AND TURF ESTABLISHMENT OPERATIONS HAVE BEEN COMPLETED. POSTS FOR THE REINFORCING FENCE SHALL BE 100 MM (4 INCH) DIAMETER WOOD POSTS, OR STANDARD STEEL FENCE POSTS WEIGHING NOT LESS THAN 0.59 KG (1.3 LBS) PER LINEAL FOOT, WITH A MINIMUM LENGTH OF 762 MM (30 INCHES) PLUS BURIAL DEPTH. SPACE POSTS FOR THE REINFORCING FENCE AT INTERVALS OF 3 M (10 FEET) OR LESS. DRIVE POSTS FOR THE REINFORCING FENCE AT LEAST 0.6 M (2 FEET) INTO THE GROUND.

GENERAL SOIL STABILIZATION:
(SEE LANDSCAPE PLAN FOR MORE INFORMATION)

ESTABLISHMENT OF LAWN, PRAIRIE/WILDFLOWER AND/OR PLANT BED AREAS WILL BE NOTED ON THE LANDSCAPE PLAN

TO ENSURE STABILIZATION OF SOILS, RESTAKING OF SOD WHERE APPLICABLE, PROPER WATERING AND MULCH MAINTENANCE WILL BE REQUIRED. INSPECT SEEDED OR SODDED AREAS ON A TIMELY DAY–TO–DAY BASIS. IN THE EVENT OF A SEEDING FAILURE, RESEED AND REMULCH THE AREAS WHERE THE ORIGINAL SEED HAS FAILED TO GROW AND PERFORM ADDITIONAL WATERING AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER. SPECIAL MAINTENANCE PROVISIONS FOR WILD AND PRAIRIE GRASS SEEDED AREAS AS NOTED IN THE LANDSCAPE PLAN. PROMPTLY REPLACE ALL SOD THAT DRIES OUT TO THE POINT WHERE IT IS PRESUMED DEAD AND ALL SOD THAT HAS BEEN DAMAGED, DISPLACED, WEAKENED, OR HEAVILY INFESTED WITH WEEDS AT NO ADDITIONAL COST TO THE OWNER. .

IN AREAS TO BE TEMPORARILY SEEDED, USE INTRODUCED SEED MIXTURE EQUIVALENT TO WIDOT #10 OR #20. APPLY SEED MIXTURE PER WIDOT 630.3.3.5. INCORPORATE A FERTILIZER (SLOW RELEASE TYPE WITH 10 WEEK RESIDUAL) CONSISTING OF 23–0–30 (%N–P–K) INTO THE SOIL AT AN APPLICATION RATE OF 224 KG PER HECTARE (200 LBS PER ACRE) BY DISKING PRIOR TO SEEDING. IN PROBLEMATIC AREAS IT MAY BE NECESSARY TO USE A LOW PHOSPHORUS ORGANIC FERTILIZER IN CASES WHERE SEEDS MAY NOT GERMINATE. IF THIS IS THE CASE, SEED AND FERTILIZER SHALL BE DISKED INTO THE SURFACE AND MULCHED PROPERLY TO ENSURE GERMINATION AND UPTAKE OF THE PHOSPHORUS BY THE SEED.

TO ENSURE ADEQUATE GERMINATION OF THE SEED THE WORK WILL BE PERFORMED AS FOLLOWS:
SPRING– FROM APRIL 1 THROUGH MAY 15.
FALL– FROM AUGUST 15 TO SEPTEMBER 20.
AFTER SEPTEMBER 20, WAIT UNTIL OCTOBER 30 TO PERFORM DORMANT SEEDING. DORMANT SEEDING WILL ONLY BE ALLOWED IF THE MAXIMUM SOIL TEMPERATURE AT A DEPTH OF 25 MM (1 INCH) DOES NOT EXCEED 4.44 DEGREES C (40 DEGREES F) IN ORDER TO PREVENT GERMINATION.

IN SEEDED AREAS WITH SLOPES STEEPER THAN 3:1 AND LENGTHS LESS THAN 15 METERS (50 FEET), INSTALL BIODEGRADABLE EROSION CONTROL BLANKETS UNIFORMLY OVER THE SOIL SURFACE BY HAND WITHIN 24 HOURS AFTER SEEDING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. USE WIDOT URBAN TYPE B OR OWNER APPROVED EQUAL.

IN AREAS WHERE IRRIGATION IS TO BE INSTALLED, CONTRACTOR SHALL WORK IN ZONES TO FINISH GRADE AND INSTALL THE SYSTEM IN ZONES. NOTE– EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL SOILS HAVE BEEN STABILIZED WITH SOD OR SEEDED AREAS THAT EXHIBIT MINIMUM OF 70% LAWN VEGETATIVE COVERAGE. IF SILT FENCE HAS TO BE REMOVED TO INSTALL THE IRRIGATION SYSTEM, IT SHALL BE REINSTALLED AT THE END OF EACH WORK DAY OR USE BIO ROLLS TO PROVIDE PROTECTION DURING THE INSTALLATION PROCESS UNTIL LAWN AREAS HAVE SOD AND/OR PLANT BEDS ARE MULCHED.

IN AREAS TO BE SODDED, SILT FENCE CAN BE REMOVED SHORT TERM FOR WORKING, BUT EXPOSED SOIL AREAS SHALL BE SODDED OR EROSION CONTROL MEASURES SHALL BE REINSTALLED AT THE END OF EACH WORK DAY.

NOTE: THE PROJECT'S LANDSCAPE PLAN IS PART OF THE SWPP FOR SOIL STABILIZATION. REFERENCES SHALL BE MADE TO THE APPROVED LANDSCAPE PLAN. AMENDMENTS TO THE LANDSCAPE PLAN SHALL BE APPROVED BY THE OWNER AND DOCUMENTED AS PART OF THE SWPP

KWIK TRIP

KWIK STAR

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STORMWATER POLLUTION PREVENTION PLAN

CONVENIENCE STORE #970

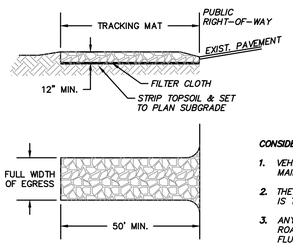
2106 S. WEST AVENUE
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190495
DATE	2020-05-04
SHEET	SWP2

ALL EROSION CONTROL MEASURES TO BE INSTALLED AND MAINTAINED PER WDNR STANDARDS

http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm



CONSIDERATIONS:

1. VEHICLES TRAVELING ACROSS THE TRACKING PAD SHOULD MAINTAIN A SLOW CONSTANT SPEED.
2. THE BEST APPROACH TO PREVENTING OFF-SITE TRACKING IS TO RESTRICT VEHICLES TO STABILIZED AREAS.
3. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING, NOT FLUSHING, BEFORE THE END OF EACH WORKING DAY.

NOTES:

A. TRACKING PAD:

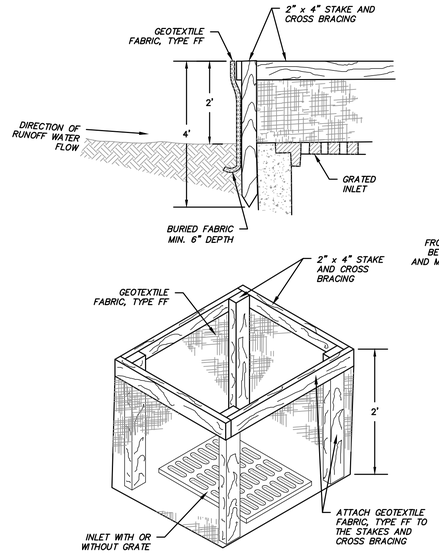
1. TRACKING PAD TO CONFORM TO WDNR CONSERVATION PRACTICE STANDARD 1057.
2. THE TRACKING PAD SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE.
3. THE AGGREGATE FOR THE TRACKING PAD SHALL BE HARD, DURABLE, ANGULAR STONE OR RECYCLED CONCRETE MEETING THE GRADATION OF TABLE 1 OF THE WISCONSIN DNR TECHNICAL STANDARD 1057. WHERE THIS GRADATION IS NOT AVAILABLE, MEET THE GRADATION IN WISCONSIN DEPARTMENT OF TRANSPORTATION (DOT) 2018 STANDARD SPECIFICATION, SECTION 312, SELECT CRUSHED MATERIAL.
4. THE AGGREGATE SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. ON SITES WITH A HIGH WATER TABLE, OR WHERE SATURATED CONDITIONS ARE EXPECTED DURING THE LIFE OF THE PRACTICE, STONE TRACKING PADS SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC TO PREVENT MIGRATION OF UNDERLYING SOIL INTO THE STONE.
5. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT. THE TRACKING PAD SHALL BE A MINIMUM OF 50 FEET LONG.
6. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY FROM TRACKING PADS OR CONVEYED UNDER AND AROUND THEM BY USING A VARIETY OF PRACTICES, SUCH AS CULVERTS, WATER BARS, OR OTHER SIMILAR PRACTICES.

B. MAINTENANCE

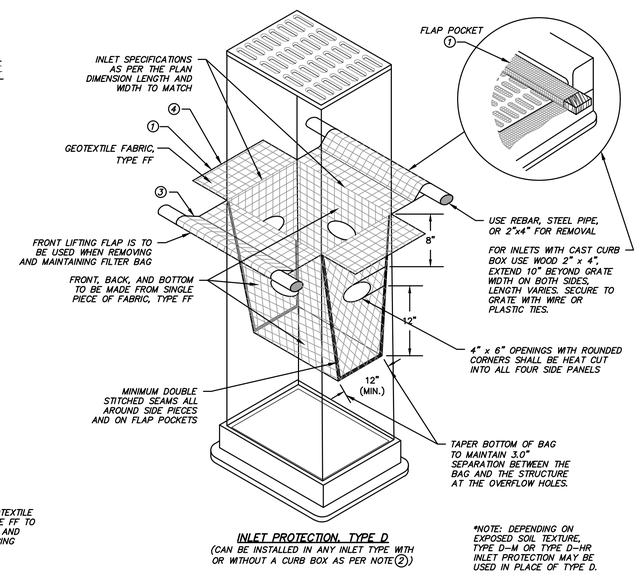
1. ROCKS LODGED BETWEEN THE TIRES IF DUAL WHEEL VEHICLES SHALL BE REMOVED PRIOR TO LEAVING THE CONSTRUCTION SITE.
2. TRACKING PADS AND TIRE WASHING STATIONS SHALL, AT AT MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
3. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP-DRESSING WITH ADDITIONAL AGGREGATE.
4. A MINIMUM 12-INCH THICK PAD SHALL BE MAINTAINED.

STONE TRACKING PAD DETAIL

(NOT TO SCALE)



INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE (2))

*NOTE: DEPENDING ON EXPOSED SOIL TEXTURE, TYPE D-M OR TYPE D-HR INLET PROTECTION MAY BE USED IN PLACE OF TYPE D.

(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. THE REBAR, STEEL PIPE, OR WOOD SHALL BE INSTALLED IN THE REAR FLAP AND SHALL NOT BLOCK THE TOP HALF OF THE CURB FACE OPENING.
(4) SIDE FLAPS SHALL BE A MAXIMUM OF 2" LONG. FOLD THE FABRIC OVER AND REINFORCE WITH MULTIPLE STITCHES.

GENERAL NOTES:

INLET PROTECTION DEVICES SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD 1060 AND BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE WISDOT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED IF ALLOWED BY ENGINEER.

TYPE A IS TO BE USED PRIOR TO PAVING AND INSTALLATION OF CURB AND GUTTER, AND TYPES B, C, AND D ARE TO BE USED AFTER PAVING IS PLACED.

TYPE A SHALL BE USED AROUND INLETS AND UNPAVED AREAS UNTIL PERMANENT STABILIZATION METHODS HAVE BEEN ESTABLISHED.

TYPE D SHALL BE USED IN AREAS WHERE OTHER TYPES OF INLET PROTECTION ARE INCOMPATIBLE WITH ROADWAY AND TRAFFIC CONDITIONS (I.E. POSSIBLE SAFETY HAZARD IF PONDING OCCURS), OR WHERE MORE EFFECTIVE INLET FILTERING IS NEEDED.

TAPER BOTTOM OF BAG TO MAINTAIN 3" OF CLEARANCE BETWEEN THE BAG AND THE STRUCTURE, MEASURED FROM THE BOTTOM OF THE OVERFLOW OPENINGS TO THE STRUCTURE WALL.

GEOTEXTILE FABRIC TYPE FF FOR FLAPS, TOP AND BOTTOM OF OUTSIDE OF FILTER BAG. FRONT, BACK, AND BOTTOM OF FILTER BAG BEING ONE PIECE.

INSTALLATION NOTES:

TYPE D:
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.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" 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.

MAINTENANCE:

REMOVE INLET PROTECTION DEVICES ONCE THE CONTRIBUTING DRAINAGE AREA IS STABILIZED WITH APPROPRIATE VEGETATION OR IMPERVIOUS SURFACE.

INLET PROTECTION SHALL BE, AT A MINIMUM, INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.

FOR TYPE A INLET PROTECTION, SEDIMENT DEPOSITS SHALL BE REMOVED AND THE INLET PROTECTION DEVICE RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED BETWEEN 1/3 TO 1/2 THE DESIGN DEPTH OF THE DEVICE, OR WHEN THE DEVICE IS NO LONGER FUNCTIONING AS DESIGNED.

FOR TYPE D INLET PROTECTION (INCLUDING D-M AND D-HR), REMOVE SEDIMENT WHEN SEDIMENT ACCUMULATES TO WITHIN 6" OF THE BOTTOM OF THE OVERFLOW HOLES, OR WHEN STANDING WATER REMAINS WITHIN 6" OF THE BOTTOM OF THE OVERFLOW HOLES 24 HOURS AFTER A RUNOFF EVENT. HOLES IN THE TYPE FF FABRIC MAY BE REPAIRED BY STITCHING IF LESS THAN 2" IN LENGTH, BUT THE FABRIC SHOULD BE REPLACED IF THE HOLES ARE GREATER THAN 2" IN LENGTH IN THE TYPE FF FABRIC OR IF THERE ARE ANY HOLES IN THE TYPE HR FABRIC. THE FILTER MUST ALSO BE REPLACED IF THE FLAP POCKETS SUSTAIN DAMAGE THAT COMPROMISES FILTER INTEGRITY OR THE ABILITY TO PERFORM MAINTENANCE.

REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND STABILIZED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, DUE CARE SHALL BE TAKEN TO ENSURE SEDIMENT DOES NOT FALL INTO THE INLET AND IMPEDE THE INTENDED FUNCTION OF THE DEVICE. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

STORM DRAIN INLET PROTECTION DETAILS

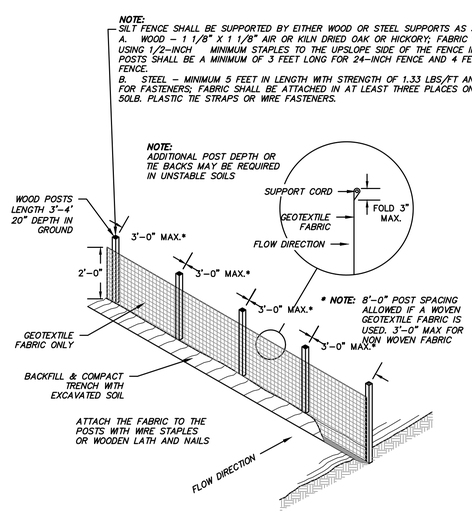
(NOT TO SCALE)

NOTES:

1. SILT FENCE INSTALLATION AND MATERIALS SHALL CONFORM TO WDNR CONSERVATION STANDARD 1056
2. SILT FENCE SHALL BE PLACED ON THE CONTOUR AND NOT PERPENDICULAR TO THE CONTOUR. THE ENDS SHALL BE EXTENDED UPSLOPE TO PREVENT WATER FROM FLOWING AROUND THE ENDS OF THE FENCE.
3. WHEN SILT FENCE IS INSTALLED ON A SLOPE, THE PARALLEL SPACING SHALL NOT EXCEED THE REQUIREMENTS IN THE TABLE BELOW:

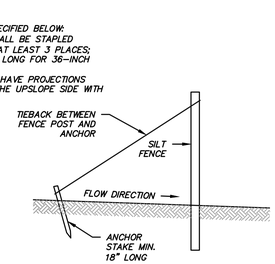
SLOPE	FENCE SPACING
< 2%	100 FEET
2 TO 5%	75 FEET
5 TO 10%	50 FEET
10 TO 33%	25 FEET
> 33%	20 FEET

4. INSTALLED SILT FENCES SHALL BE MINIMUM 14 INCHES HIGH AND A MAXIMUM OF 28 INCHES IN HEIGHT MEASURED FROM THE INSTALLED GROUND ELEVATION.
5. A MINIMUM OF 20 INCHES OF THE POST SHALL EXTEND INTO THE GROUND AFTER INSTALLATION.
6. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8 INCHES OF THE FABRIC IN A 4-INCH TRENCH WIDE BY 6-INCH DEEP TRENCH, OR 6-INCH V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCH SHALL BE BACKFILLED AND COMPACTED. TRENCHES SHALL NOT BE EXCAVATED WIDER THAN NECESSARY FOR PROPER INSTALLATION.
7. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS:
   A) TWIST METHOD--OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES.
   B) HOOK METHOD--HOOK THE END OF EACH SILT FENCE LENGTH.
8. SILT FENCE SHALL AT A MINIMUM BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
9. DAMAGED OR DECOMPOSED FENCES, UNDERCUTTING, OR FLOW CHANNELS AROUND THE END OF BARRIERS SHALL BE REPAIRED OR CORRECTED.
10. SEDIMENT SHALL BE PROPERLY DISPOSED OF ONCE THE DEPOSITS REACH ONE HALF THE HEIGHT OF THE FENCE.
11. SILT FENCES SHALL BE REMOVED ONCE THE DISTURBED AREA IS PERMANENTLY STABILIZED AND IS NO LONGER SUSCEPTIBLE TO EROSION.



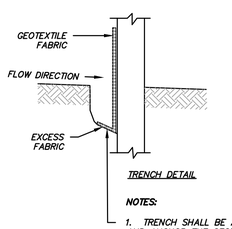
SILT FENCE DETAIL

(NOT TO SCALE)



SILT FENCE TIE BACK

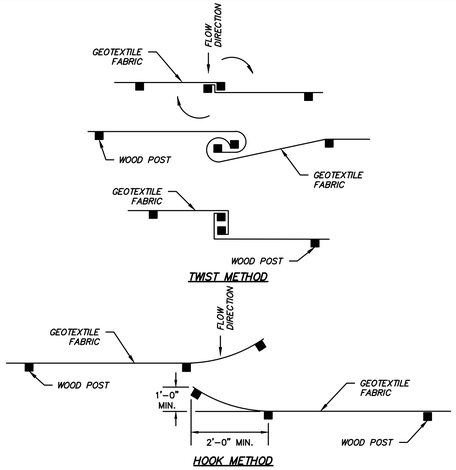
(WHEN ADDITIONAL SUPPORT IS REQUIRED)



TRENCH DETAIL

NOTES:

1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.



JOINING TWO LENGTHS OF SILT FENCE

KWIK TRIP
KWIK STAR

KWIK TRIP, Inc.
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raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

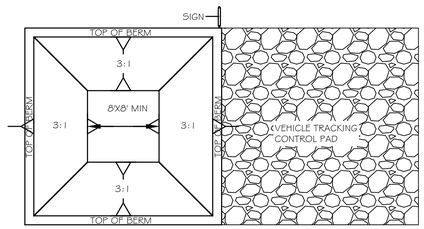
EROSION CONTROL DETAILS
CONVENIENCE STORE #970
2106 S. WEST AVENUE
WAUKESHA, WI

#	DATE	DESCRIPTION

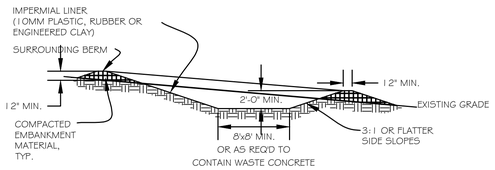
DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190495
DATE	2020-05-04
SHEET	SWP3

ALL EROSION CONTROL MEASURES TO BE INSTALLED AND MAINTAINED PER WDNR STANDARDS

http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm



PLAN
1/8"= 1'-0"



TYPICAL SECTION
1/8"= 1'-0"

CONCRETE WASHOUT AREA INSTALLATION NOTES

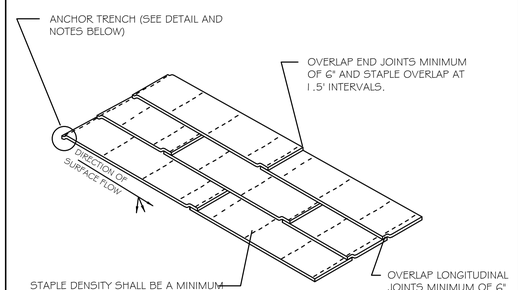
1. SEE EROSION CONTROL PLAN FOR LOCATIONS OF CONCRETE WASHOUT AREA(S). TO BE PLACED A MIN. OF 50' FROM DRAINAGEWAYS, BODIES OF WATER, AND INLETS.)
2. THE CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
3. VEHICLE TRACKING CONTROL PAD IS REQ'D AT THE ACCESS POINT(S).
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA(S), AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREAS TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.

CONCRETE WASHOUT AREA MAINTENANCE NOTES

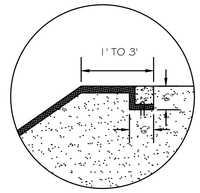
6. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE
7. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
8. WHEN CONCRETE WASHOUT AREA(S) IS REMOVED, THE DISTURBED AREA SHALL BE STABILIZED PER SITE EROSION CONTROL MEASURES.
9. INSPECT WEEKLY AND DURING AND AFTER ALL STORM EVENTS. CLEAN-OUT OR COVER WASHOUT AREA PRIOR TO PREDICTED STORM EVENTS TO PREVENT OVER-FLOW.

CONCRETE WASHOUT AREA

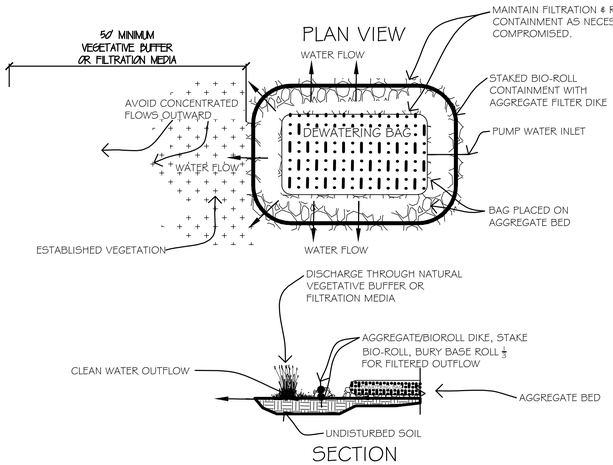
EROSION CONTROL BLANKET(SEEDED AREAS) ON SIDE SLOPES OF 3:1 OR GREATER AND STORM WATER BASINS
BIO-DEGRADABLE, DOUBLE NETTED, LIGHT DUTY(HEAVY DUTY IN DRAINAGE SWALES)
(WisDOT CLASS 1 TYPE B)



ANCHOR TRENCH
1. DIG 6" X 6" TRENCH
2. LAY BLANKET IN TRENCH
3. STAPLE AT 1.5' INTERVALS
4. BACKFILL WITH NATURAL SOIL AND COMPACT
5. BLANKET LENGTH SHALL NOT EXCEED 100' WITHOUT AN ANCHOR TRENCH



EROSION CONTROL BLANKET INSTALLATION



SECTION

NOTES:
MAINTAIN 50' MINIMUM SEPARATION FROM DISCHARGE CONTAINMENT AND WETLANDS, WATER BODIES, OR STORM SEWERS.

THE OWNER OR CONTRACTOR SHALL OBTAIN DEWATERING PERMIT, AS MAY BE REQUIRED, FROM THE STATE PRIOR TO ANY DEWATERING OPERATIONS DISCHARGING FROM THE SITE. ALL DEWATERING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE PERMIT.

DEWATERING BAG INSTALLATION, FOR DISCHARGING ERODED, SUSPENDED PARTICLES IN WATER
NOT TO SCALE

KWIK TRIP

KWIK STAR

KWIK TRIP, Inc.
P.O. BOX 2107
1626 OAK STREET
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EROSION CONTROL DETAILS

CONVENIENCE STORE #970

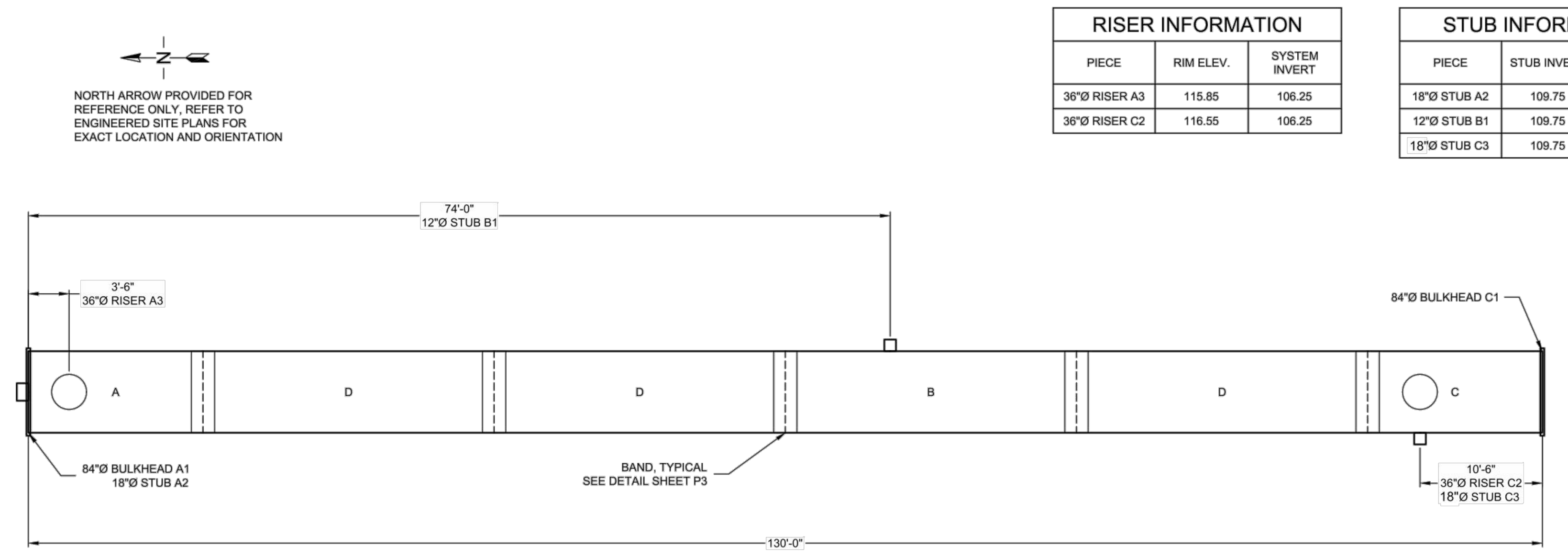
2106 S. WEST AVENUE
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190495
DATE	2020-05-04
SHEET	SWP4

RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
36"Ø RISER A3	115.85	106.25
36"Ø RISER C2	116.55	106.25

STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
18"Ø STUB A2	109.75	106.25
12"Ø STUB B1	109.75	106.25
18"Ø STUB C3	109.75	106.25



THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (4) PAGES INCLUDING THE FOLLOWING:

- **PIPE STORAGE = 5,003 CF**
- **MAINLINE PIPE GAGE = 16**
- **WALL TYPE = SOLID**
- **DIAMETER = 84"**
- **FINISH = ALT2**
- **CORRUGATION = 5x1**

CUSTOMER ____________ DATE ____________

ASSEMBLY
SCALE: 1" = 10'
PIPE STORAGE: 5,003 CF
LOADING: H20
PIPE INV. = 106.25'±

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅔" x ½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ACCESS CASTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SUPPLIED BY CONTECH.

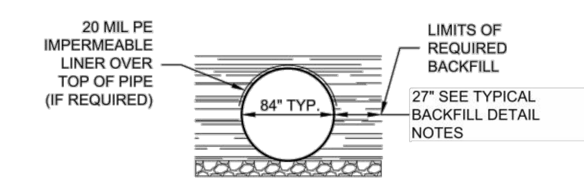
MARK	DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
7037 Ridge Road, Hanover, MD 21076
866-740-3318 410-796-5505 866-376-8511 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH PROPOSAL DRAWING

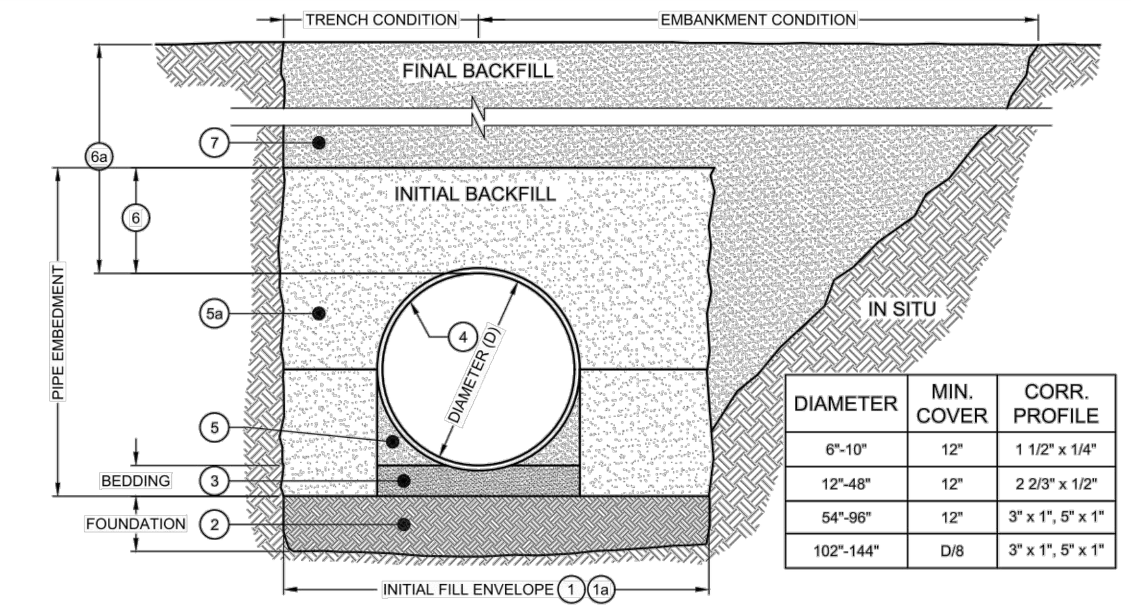
84"Ø UNDERGROUND DETENTION SYSTEM - 641385-010
KWIK TRIP #527
PEWAUKEE, WI
SITE DESIGNATION: UNDERGROUND STORM WATER TANK

PROJECT No.: 641385 | SEQ. No.: 010 | DATE: 2/25/2020
DESIGNED: NDC | DRAWN: NDC
CHECKED: NDC | APPROVED:
SHEET NO.: P1 OF 4



TYPICAL SECTION VIEW
NOT TO SCALE

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.



DIAMETER	MIN. COVER	CORR. PROFILE
6"-10"	12"	1 1/2" x 1/4"
12"-48"	12"	2 2/3" x 1/2"
54"-96"	12"	3" x 1", 5" x 1"
102"-144"	D/8	3" x 1", 5" x 1"

BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF AASHTO LRFD BRIDGE DESIGN (SEC 12) AND CONSTRUCTION (SEC 26)

1 MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE MINIMUM TRENCH WIDTH (12.6.6.1):
PIPE ≤ 12": D + 16"
PIPE > 12": 1.5D + 12"

1a MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE (12.6.6.2):
PIPE < 24": 3.0D
PIPE 24" - 144": D + 4'0"
PIPE > 144": D + 10'0"

2 THE FOUNDATION UNDER THE PIPE AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (26.5.2).

3 ENGINEER TO DETERMINE IF BEDDING IS REQUIRED. BEDDING MATERIAL SHALL BE A RELATIVELY LOOSE MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, AND A MINIMUM OF TWICE THE CORRUGATION DEPTH IN THICKNESS, WITH THE MAXIMUM PARTICLE SIZE OF ONE-HALF OF THE CORRUGATION DEPTH (26.3.8.1, 26.5.3).

4 CORRUGATED STEEL PIPE (CSP / HEL-COR).

5 HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (26.5.4).

5a INITIAL BACKFILL FOR PIPE EMBEDMENT TO MEET AASHTO A-1, A-2 OR A-3 CLASSIFICATION, OR APPROVED EQUAL, COMPACTED TO 90% STANDARD PROCTOR (T 99). MAXIMUM PARTICLE SIZE NOT TO EXCEED 3" (12.4.1.2). ALL LIFTS PLACED IN A CONTROLLED MANNER. IT IS RECOMMENDED THAT LIFTS NOT EXCEED AN 8" UNCOMPACTED LIFT HEIGHT TO PREVENT UNEVEN LOADING, AND THE LESSER OF 1/3 THE DIAMETER OR 24" AS THE MAXIMUM DIFFERENTIAL SIDE-TO-SIDE (26.5.4).

6 INITIAL BACKFILL ABOVE PIPE MAY INCLUDE ROAD BASE MATERIAL (AND RIGID PAVEMENT IF APPLICABLE). SEE TABLE ABOVE.

6a TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (12.6.6.3).

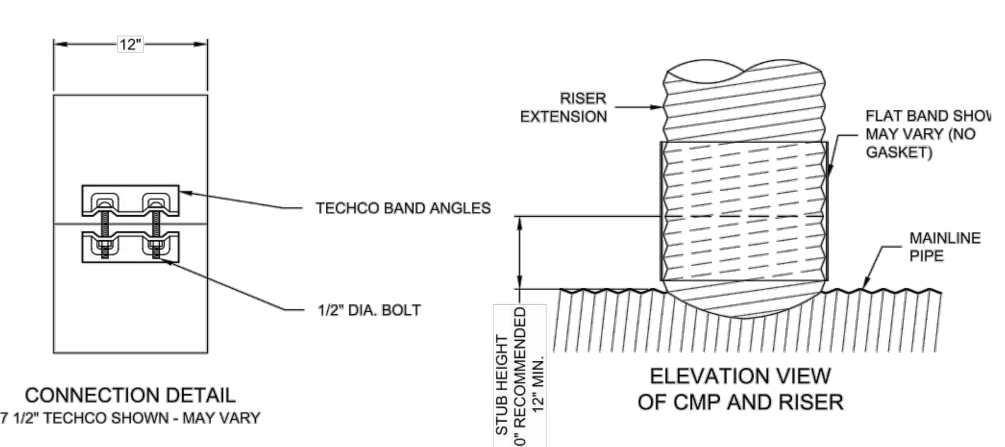
7 FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD (26.5.4.1).

NOTES:
- ENGINEER TO DETERMINE IF GEOTEXTILE SHOULD BE USED TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT ENGINEER).
- FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE PIPE DIA./2 BUT NO LESS THAN 12", OR 36" FOR PIPE DIAMETERS 72" AND LARGER.
- CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING (TABLE C12.6.7-1).

TYPICAL BACKFILL DETAIL
NOT TO SCALE

84"Ø UNDERGROUND DETENTION SYSTEM - 641385-010
KWIK TRIP #527
PEWAUKEE, WI
SITE DESIGNATION: UNDERGROUND STORM WATER TANK

PROJECT No.: 641385 | SEQ. No.: 010 | DATE: 2/25/2020
DESIGNED: NDC | DRAWN: NDC
CHECKED: NDC | APPROVED:
SHEET NO.: P2 OF 4



CONNECTION DETAIL
7 1/2" TECHCO SHOWN - MAY VARY

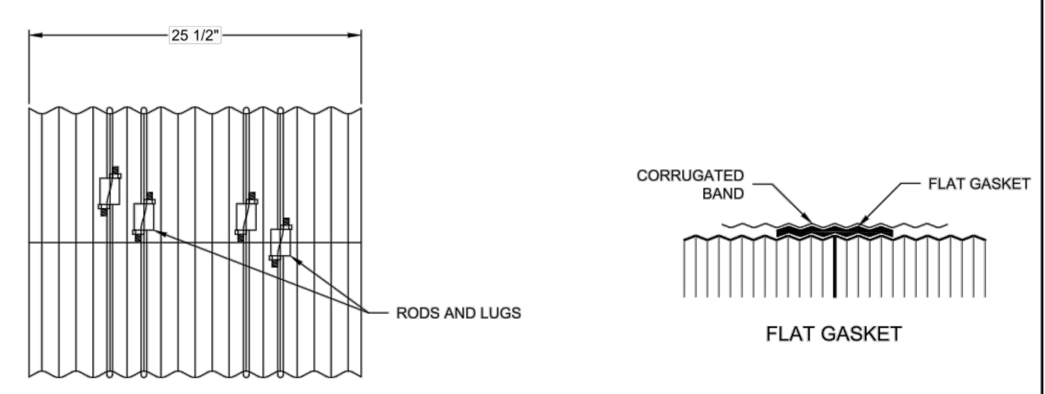
ELEVATION VIEW
OF CMP AND RISER

PLAIN END CMP RISER PIPE

GENERAL NOTES:

1. **DELIVERED BAND STYLE AND FASTENER TYPE MAY VARY BY FABRICATION PLANT.**
2. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
3. BAND MATERIAL AND GAGE TO BE SAME AS RISER MATERIAL.
4. IF RISER HAS A HEIGHT OF COVER OF 10' OR MORE, USE A SLIP JOINT.
5. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" 2-PIECES
6. ALL RISER JOINT COMPONENTS WILL BE FIELD ASSEMBLED.
7. MANHOLE RISERS IN APPLICATIONS WHERE TRAFFIC LOADS ARE IMPOSED REQUIRE SPECIAL DESIGN CONSIDERATIONS.
8. DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.

12" RISER BAND DETAIL
NOT TO SCALE



CONNECTION DETAIL
4 RODS AND LUGS

FLAT GASKET

2 2/3"x1/2" RIVETED PIPE

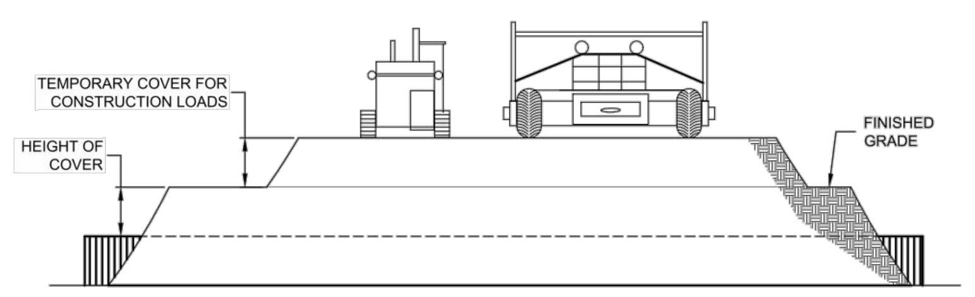
GENERAL NOTES:

1. JOINT IS TO BE ASSEMBLED PER AASHTO BRIDGE CONSTRUCTION SPECIFICATION SEC 26.4.2.4.
2. BAND MATERIALS AND/OR COATING CAN VARY BY LOCATION. CONTACT YOUR CONTECH REPRESENTATIVE FOR AVAILABILITY.
3. BANDS ARE SHAPED TO MATCH THE PIPE-ARCH WHEN APPLICABLE.
4. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" THRU 96" 2-PIECES
   - 102" THRU 144" 3-PIECES
5. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS.
6. ALL CMP IS REROLLED TO HAVE ANNULAR END CORRUGATIONS OF 2 2/3"x1/2"
7. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
8. ORDER SHALL DESIGNATE GASKET OPTION, IF REQUIRED (SEE DETAILS ABOVE).

10-C BAND DETAIL
NOT TO SCALE

84"Ø UNDERGROUND DETENTION SYSTEM - 641385-010
KWIK TRIP #527
PEWAUKEE, WI
SITE DESIGNATION: UNDERGROUND STORM WATER TANK

PROJECT No.: 641385 | SEQ. No.: 010 | DATE: 2/25/2020
DESIGNED: NDC | DRAWN: NDC
CHECKED: NDC | APPROVED:
SHEET NO.: P3 OF 4



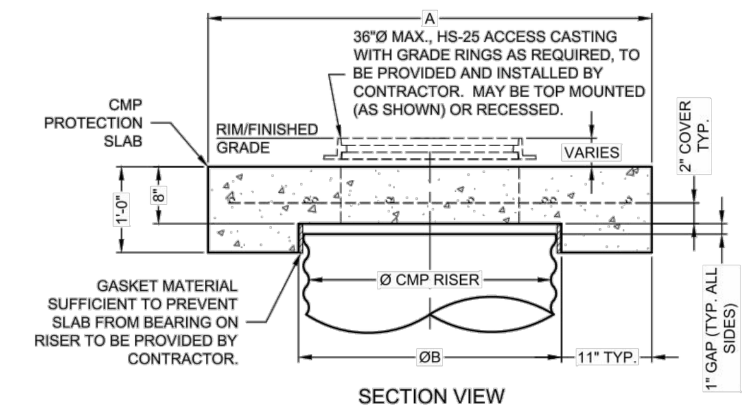
CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
NOT TO SCALE



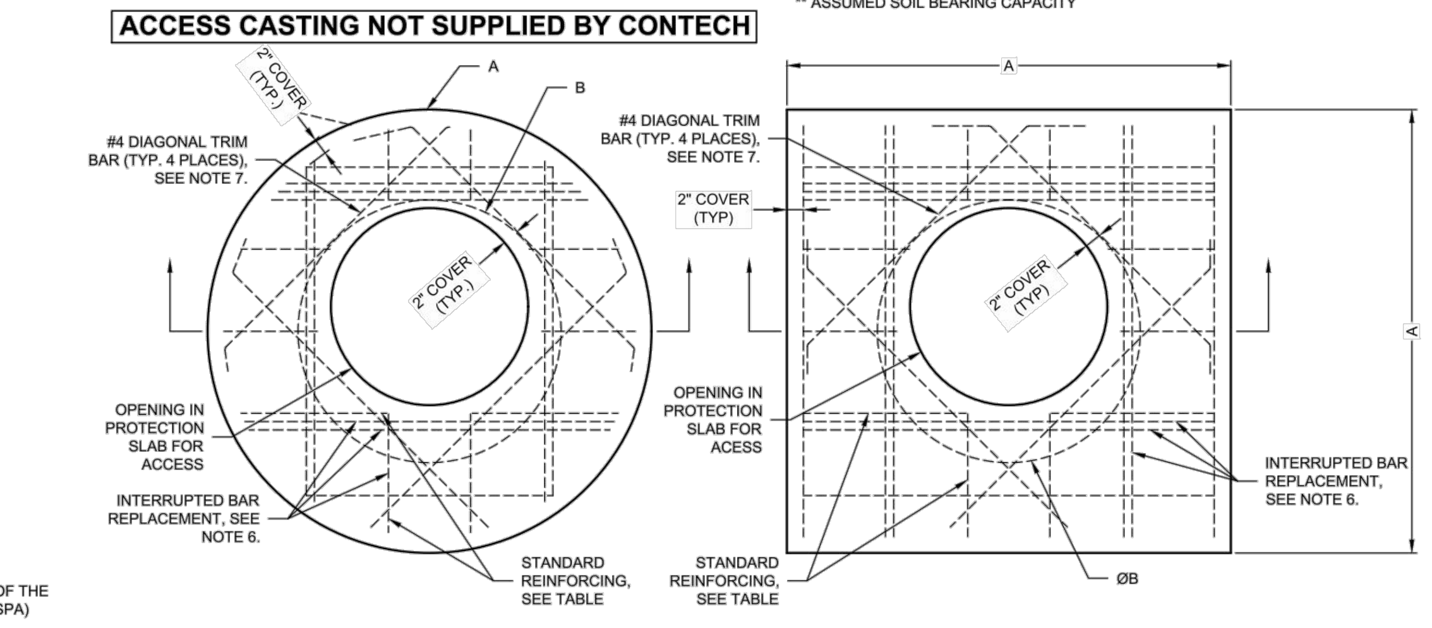
A
36"Ø MAX., HS-25 ACCESS CASTING WITH GRADE RINGS AS REQUIRED, TO BE PROVIDED AND INSTALLED BY CONTRACTOR. MAY BE TOP MOUNTED (AS SHOWN) OR RECESSED.
CMP PROTECTION SLAB
RIM/FINISHED GRADE
VARIES
2" COVER TYP.
1'-0"
8"
Ø CMP RISER
GASKET MATERIAL SUFFICIENT TO PREVENT SLAB FROM BEARING ON RISER TO BE PROVIDED BY CONTRACTOR.
ØB
11" TYP.
1" GAP (TYP. ALL SIDES)

SECTION VIEW

REINFORCING TABLE				
Ø CMP RISER	A	B Ø	REINFORCING	**BEARING PRESSURE (PSF)
24"	4'Ø 4'x4'	26"	#5 @ 10" OCEW #5 @ 10" OCEW	2,540 1,900
30"	4'-6"Ø 4'-6" x 4'-6"	32"	#5 @ 10" OCEW #5 @ 9" OCEW	2,260 1,670
36"	5'Ø 5' x 5'	38"	#5 @ 9" OCEW #5 @ 8" OCEW	2,060 1,500
42"	5'-6"Ø 5'-6" x 5'-6"	44"	#5 @ 8" OCEW #5 @ 8" OCEW	1,490 1,370
48"	6'Ø 6' x 6'	50"	#5 @ 7" OCEW #5 @ 7" OCEW	1,210 1,270

** ASSUMED SOIL BEARING CAPACITY

ACCESS CASTING NOT SUPPLIED BY CONTECH



2" COVER (TYP.)
A
B
#4 DIAGONAL TRIM BAR (TYP. 4 PLACES), SEE NOTE 7.
2" COVER (TYP.)
OPENING IN PROTECTION SLAB FOR ACCESS
INTERRUPTED BAR REPLACEMENT, SEE NOTE 6.
STANDARD REINFORCING, SEE TABLE
#4 DIAGONAL TRIM BAR (TYP. 4 PLACES), SEE NOTE 7.
2" COVER (TYP)
OPENING IN PROTECTION SLAB FOR ACESS
STANDARD REINFORCING, SEE TABLE
ØB
INTERRUPTED BAR REPLACEMENT, SEE NOTE 6.

ROUND OPTION PLAN VIEW

SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND ACI 350.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 4,000 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

MANHOLE CAP DETAIL
NOT TO SCALE

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

PIPE

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY

SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

INSTALLATION

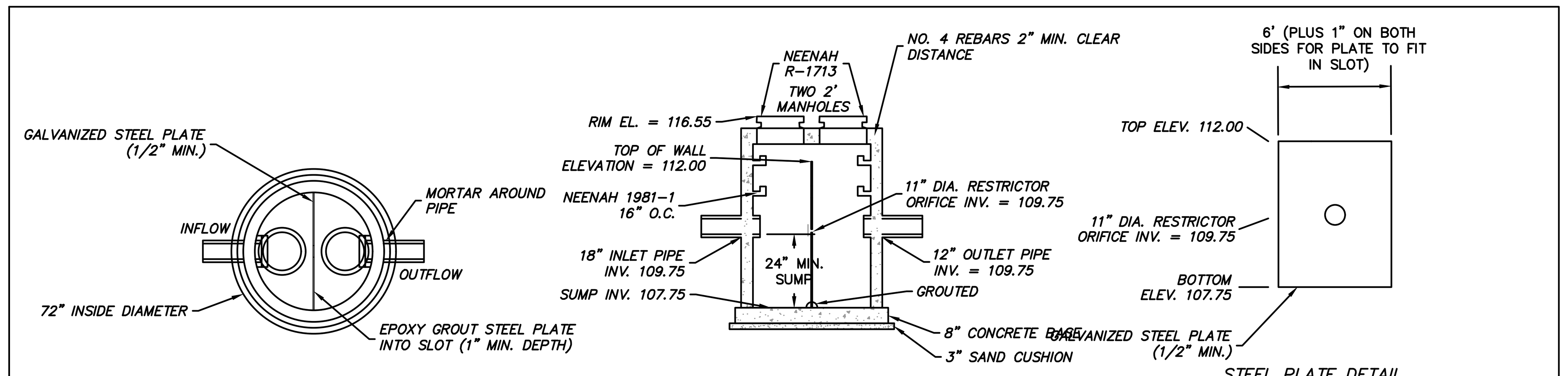
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

MATERIAL SPECIFICATION
NOT TO SCALE

84"Ø UNDERGROUND DETENTION SYSTEM - 641385-010
KWIK TRIP #527
PEWAUKEE, WI
SITE DESIGNATION: UNDERGROUND STORM WATER TANK

PROJECT No.: 641385 | SEQ. No.: 010 | DATE: 2/25/2020
DESIGNED: NDC | DRAWN: NDC
CHECKED: NDC | APPROVED:
SHEET NO.: P4 OF 4



GALVANIZED STEEL PLATE (1/2" MIN.)
MORTAR AROUND PIPE
INFLOW
OUTFLOW
72" INSIDE DIAMETER
EPOXY GROUT STEEL PLATE INTO SLOT (1" MIN. DEPTH)
NEENAH R-1713
TWO 2' MANHOLES
NO. 4 REBARS 2" MIN. CLEAR DISTANCE
RIM EL. = 116.55
TOP OF WALL ELEVATION = 112.00
NEENAH 1981-1 16" O.C.
11" DIA. RESTRICTOR ORIFICE INV. = 109.75
18" INLET PIPE INV. 109.75
12" OUTLET PIPE INV. = 109.75
24" MIN. SUMP
SUMP INV. 107.75
GROUTED
8" CONCRETE BASE
3" SAND CUSHION
6" (PLUS 1" ON BOTH SIDES FOR PLATE TO FIT IN SLOT)
TOP ELEV. 112.00
11" DIA. RESTRICTOR ORIFICE INV. = 109.75
BOTTOM ELEV. 107.75
GALVANIZED STEEL PLATE (1/2" MIN.)

STEEL PLATE DETAIL

NOTES:
1. STRUCTURE SHALL BE CONSTRUCTED CONFORMING TO THE REQUIREMENTS OF ASTM C-478.
2. REINFORCING STEEL NOT SHOWN

OUTLET CONTROL STRUCTURE – MH 320

KWIK TRIP
KWIK STAR

KWIK TRIP, Inc.
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16745 W. Bluemound Road
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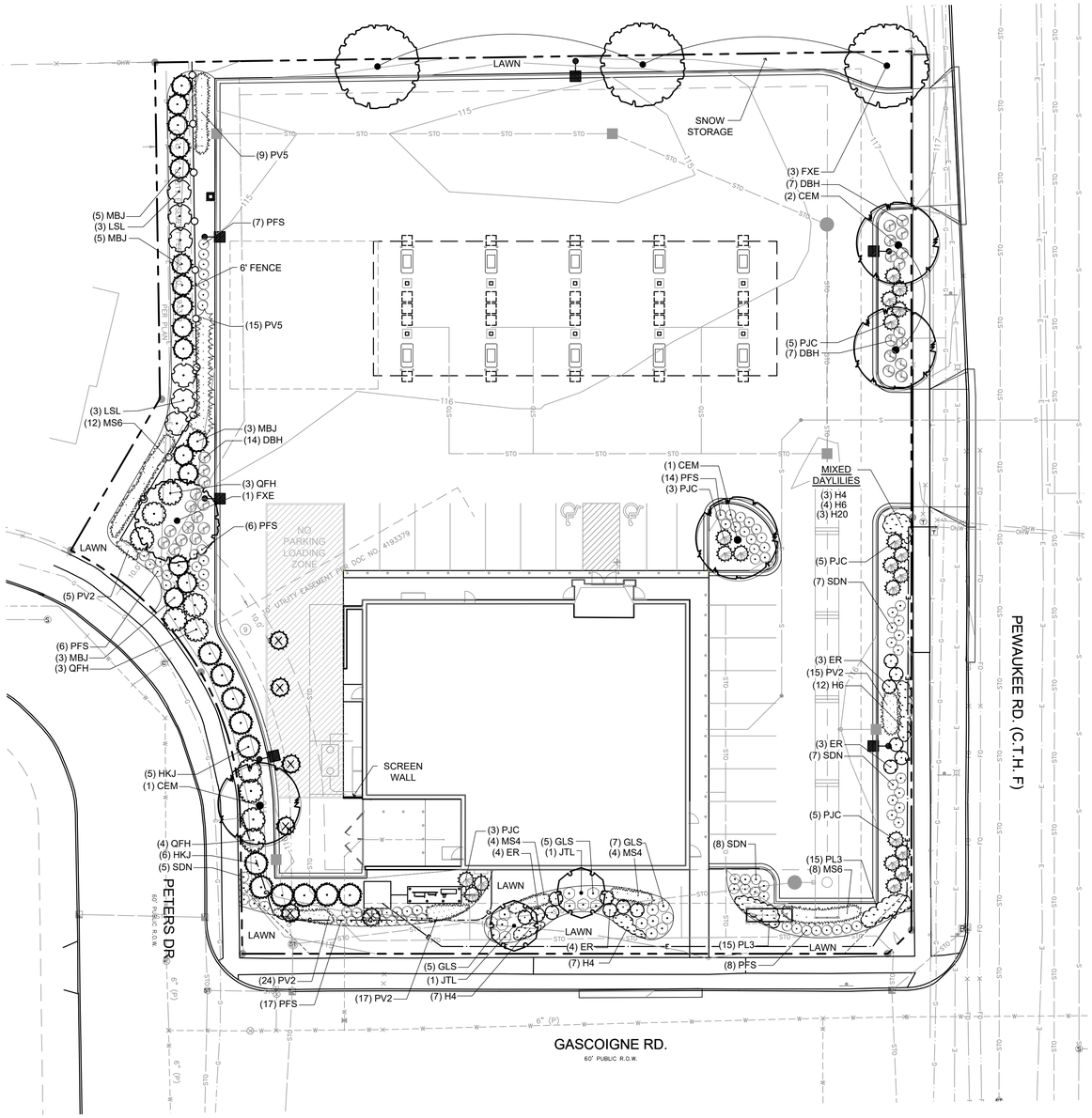
(262) 781-1000
rasmith.com

SW BMP DETAILS
CONVENIENCE STORE #970
2106 S. WEST AVENUE
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190495
DATE	2020-05-04
SHEET	SWP5



SCALE: 1" = 20'

20 10 5 0 20 40

PLANT SCHEDULE SITE

DECIDUOUS TREES	QTY	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
CEM	4	Celebration Maple	Acer freemanii `Celebration`	2 1/2" CAL	B&B	Full, matching heads
JTL	2	Ivory Silk Japanese Tree Lilac	Syringa reticulata `Ivory Silk`	2 1/2" CAL	B&B	Full, matching heads
FXE	4	Frontier Elm	Ulmus x `Frontier`	2 1/2" CAL	B&B	Full, matching heads
EVERGREEN TREES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
HKJ	11	Hooks #6 Juniper	Juniperus chinensis `Hooks #6`	6` HT	B&B	Semi-sheared, fully branched to ground
MBJ	16	`Mountbatten` Juniper	Juniperus chinensis `Mountbatten`	6` HT	B&B	Semi-sheared, fully branched to ground
DECIDUOUS SHRUBS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
SDN	27	Nikko Slender Deutzia	Deutzia gracilis `Nikko`	15" HT	CONT.	
DBH	28	Dwarf Bush Honeysuckle	Diervilla lonicera	15" HT	CONT.	
ER	14	Rudy Haag Burning Bush	Euonymus alatus `Rudy Haag`	36"HT	B&B	
QFH	10	Quick Fire Hydrangea	Hydrangea paniculata `Quick Fire`	24" HT	CONT.	
GLS	17	Gro-Low Fragrant Sumac	Rhus aromatica `Gro-Low`	15" HT	CONT.	
PFS	58	Pink-a-licious Fritsch Spirea	Spiraea fritschiana `J.N. Select A`	15" HT	CONT.	
LSL	6	Ludwig Spaeth Lilac	Syringa vulgaris `Ludwig Spaeth`	3` HT	CONT.	
EVERGREEN SHRUBS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
PJC	21	Kallay Compact Pfitzer Juniper	Juniperus chinensis `Kallays Compact`	18"SPD	CONT.	
ORNAMENTAL GRASSES	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
MS4	8	Maiden Grass	Miscanthus sinensis `Gracillimus`	1 GAL	POT	48" Spacing
MS6	20	Morning Light Silver Grass	Miscanthus sinensis `Morning Light`	1 GAL	POT	36" Spacing
PV2	61	Cheyenne Sky Switch Grass	Panicum virgatum `Cheyenne Sky`	1 GAL	POT	18" Spacing
PV5	24	Shenandoah Switch Grass	Panicum virgatum `Shenendoah`	1 GAL	POT	30" Spacing
PERENNIALS	**QTY**	**COMMON NAME**	**BOTANICAL NAME**	**SIZE**	**ROOT**	**REMARKS**
H4	17	Happy Returns Daylily	Hemerocallis x `Happy Returns`	4 1/2"	POT	18" Spacing
H6	16	Little Business Daylily	Hemerocallis x `Little Business`	4 1/2"	POT	24" Spacing
H20	3	Rosy Returns Daylily	Hemerocallis x `Rosy Returns`	4 1/2"	POT	18" Spacing
PL3	30	Lacey Blue Russian Sage	Perovskia atriplicifolia `Lacey Blue`	4 1/2"	POT	

PLANT SYMBOL KEY

SHADE TREE

ORNAMENTAL TREE

EVERGREEN TREE

LARGE DECIDUOUS SHRUB

SMALL DECIDUOUS SHRUB

EVERGREEN SHRUB

ORNAMENTAL GRASS

PERENNIAL

EVERGREEN TREE TO BE REMOVED

Know what's **below.**
Call before you dig.

R.A.SMITH ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH

CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE CITY OF WAUKESHA EROSION CONTROL ORDINANCE, THE WISCONSIN DNR STORMWATER CONSTRUCTION AND POST CONSTRUCTION TECHNICAL STANDARDS, WDNR PERMIT CONDITIONS, AND THESE DOCUMENTS; THE MOST STRINGENT TO APPLY.

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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LANDSCAPE PLAN
CONVENIENCE STORE #527
1700 PEWAUKEE RD
WAUKESHA, WI

#	DATE	DESCRIPTION

DRAWN BY	RAS
SCALE	GRAPHIC
PROJ. NO.	3190494
DATE	2020-05-18
SHEET	LP1