PROPOSED SITE IMPROVEMENTS FOR

Sunset Grove at South Haven

SOUTH HAVEN CHARTER TOWNSHIP, VAN BUREN COUNTY, MICHIGAN

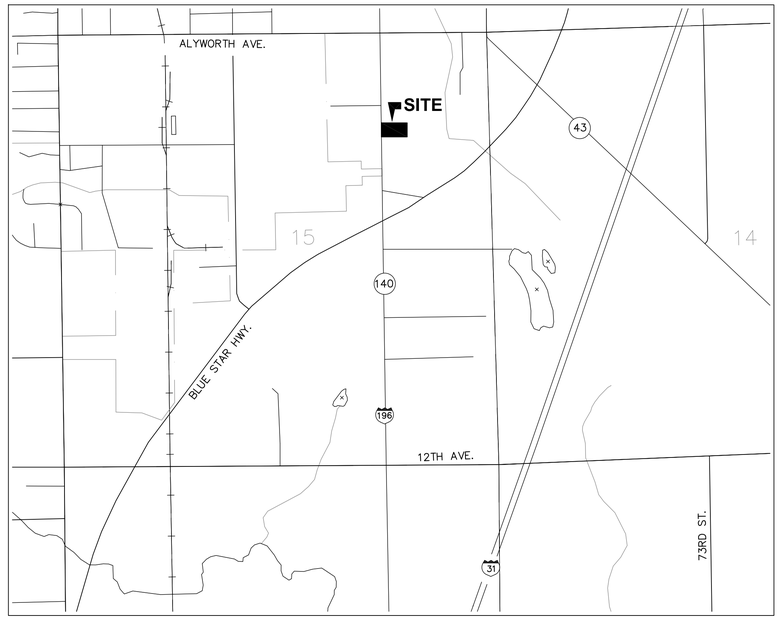
LEGAL DESCRIPTION

(PER WARRANTY DEED LIBER 1758, PAGE 368)

Beginning at a point found by commencing at the Northeast corner of Section 15, Town 1 South, Range 17 West; thence North 89 degrees 21 minutes 13 seconds West on the North section line, 1316.14 feet to the West line of the West 1/2 of the Northeast 1/4 of the Northeast 1/4; thence South 00 degrees 00 minutes 21 seconds East on same, 909.06 feet to the place of beginning of this description; thence South 89 degrees 21 minutes 13 seconds East 342.08 feet; thence South 00 degrees 00 minutes 21 seconds East 200.01 feet; thence North 89 degrees 21 minutes 13 seconds West 342.08 feet to the West line of the West 1/2 of the Northeast 1/4 of the Northeast 1/4; thence North 00 degrees 00 minutes 21 seconds West on same, 200.01 feet to the place of beginning.

PARCEL NUMBER:

80-53-272-002-00



N **LOCATION MAP**
NOT TO SCALE

SHEET INDEX

PROPERTY OWNER

Samaritas Affordable Living Sunset Grove LDHA LP
8131 East Jefferson Ave.
Detroit, MI 48214

SITE LOCATION

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

NOT FOR CONSTRUCTION

Proposed Site Improvements For:

Sunset Grove at South Haven

8729 M-140 HWY
SOUTH HAVEN TOWNSHIP, VAN BUREN COUNTY, MICHIGAN

For: Pinnacle Construction Group
1000 Front Ave. NW
Grand Rapids, MI 49504
Ph. 616.451.0500

NO.	REVISIONS	DATE
1	For SLU and Site Plan Approval	01/31/25

VENTURE ENGINEERING, PLLC
8515 Ridgebluff Dr. SW
Byron Center, MI 49315
616-490-0329
ventureciv.com

Drawn By:	Date:	Chk'd By:	DATE
JAC	12/2024	JMB	12/2024

Project No. 24132

Sheet: **C0**

COVER SHEET

REMOVE & REPLACE EXIST. HMA FOR PROPOSED DRIVE CONSTRUCTION (SEE SHEET C1). 8 EXIST. SPACES TO BE REMOVED.

BITUMINOUS PARKING

EXIST. BLDG (APPROX)

EXIST. BLDG (APPROX)

ELEC (AERIAL)

12" W/TR±

BILLBOARD

RELOCATE EXIST. BILLBOARD

M=S89°21'13"E 50.00

R&M=S89°21'13"E 342.08'

M=S89°21'13"E 292.08'

REMOVE EXIST. P.P.

ELEC (AERIAL)

12" STM

12" STM

REMOVE EXIST. C.B.

REMOVE EXIST. CONC. POSTS & BASES (TYP)

12" CONC. CULVERT

15" STM

15" CONC. CULVERT

1-STORY BLOCK BUILDING

REMOVE EXIST. BLDG

REMOVE EXISTING CONC. AND PAVEMENT FROM WITHIN CONSTRUCTION LIMITS (TYP)

40' WIDE INGRESS & EGRESS AND UTILITY EASEMENT PER LIBER 1758, PAGE 371

CONCRETE BASE (TYP.)

12" CONC. CULVERT

M-140 (I-196)

R&M=N00°00'21"W 200.01'

M=N00°00'21"W 200.01'

12" W/TR±

BROWN/OVERGROWN BITUMINOUS

ELEC (AERIAL)

R&M=S00°00'21"E 200.01'

PARCEL NO. 80-17-015-029-50 SH WAREHOUSE LLC

EXIST. BLDG (APPROX)

BRUSH/OVERGROWN

GAS VENT PIPE

M=N89°21'13"W 50.00

M=N89°21'13"W 292.08'

R&M=N89°21'13"W 342.08'

12" CONC. CULVERT

40' WIDE INGRESS & EGRESS AND UTILITY EASEMENT AREA TO BE TERMINATED PER LIBER 1758, PAGE 371

BITUMINOUS

1-STORY FRAME BUILDING

PARCEL NO. 80-17-015-003-00 KUHN JOHN & LINDA

10" SAN

8"

10" SAN

10" SAN

REMOVAL LEGEND

PAVEMENT REMOVAL –

UTILITY REMOVAL – × × × × ×

REMOVAL NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS NOTED FOR REMOVAL.
2. ALL CONCRETE SIDEWALK & CURB REMOVALS SHALL BE TO THE NEAREST JOINT.
3. BITUMINOUS PAVEMENT REMOVAL LIMITS SHALL BE BY SAW CUT.
4. ALL UTILITY SERVICE REMOVALS SHALL BE TO THE MAIN LINE UNLESS OTHERWISE INDICATED BY THE SERVICE PROVIDER OR IF THEY WILL BE UTILIZED TO SERVE PROPOSED BUILDING.
5. CONTRACTOR SHALL COORDINATE ALL UTILITY SHUT-OFFS AND REMOVALS WITH THE APPROPRIATE UTILITY PROVIDERS.
6. EXISTING UTILITIES SHOWN ARE FROM RECORD PLANS AND EVIDENCE IN THE FIELD. NO GUARANTEE IS MADE FOR ACCURACY OR THAT THE UTILITIES SHOWN ARE THE ONLY IN THE AREA.
7. CONTRACTOR SHALL OBTAIN NECESSARY PERMITS & MAINTAIN PROPER TRAFFIC CONTROL MEASURES FOR ALL WORK WITHIN THE PUBLIC R/W.

N

0 20 40

SCALE: 1" = 20'

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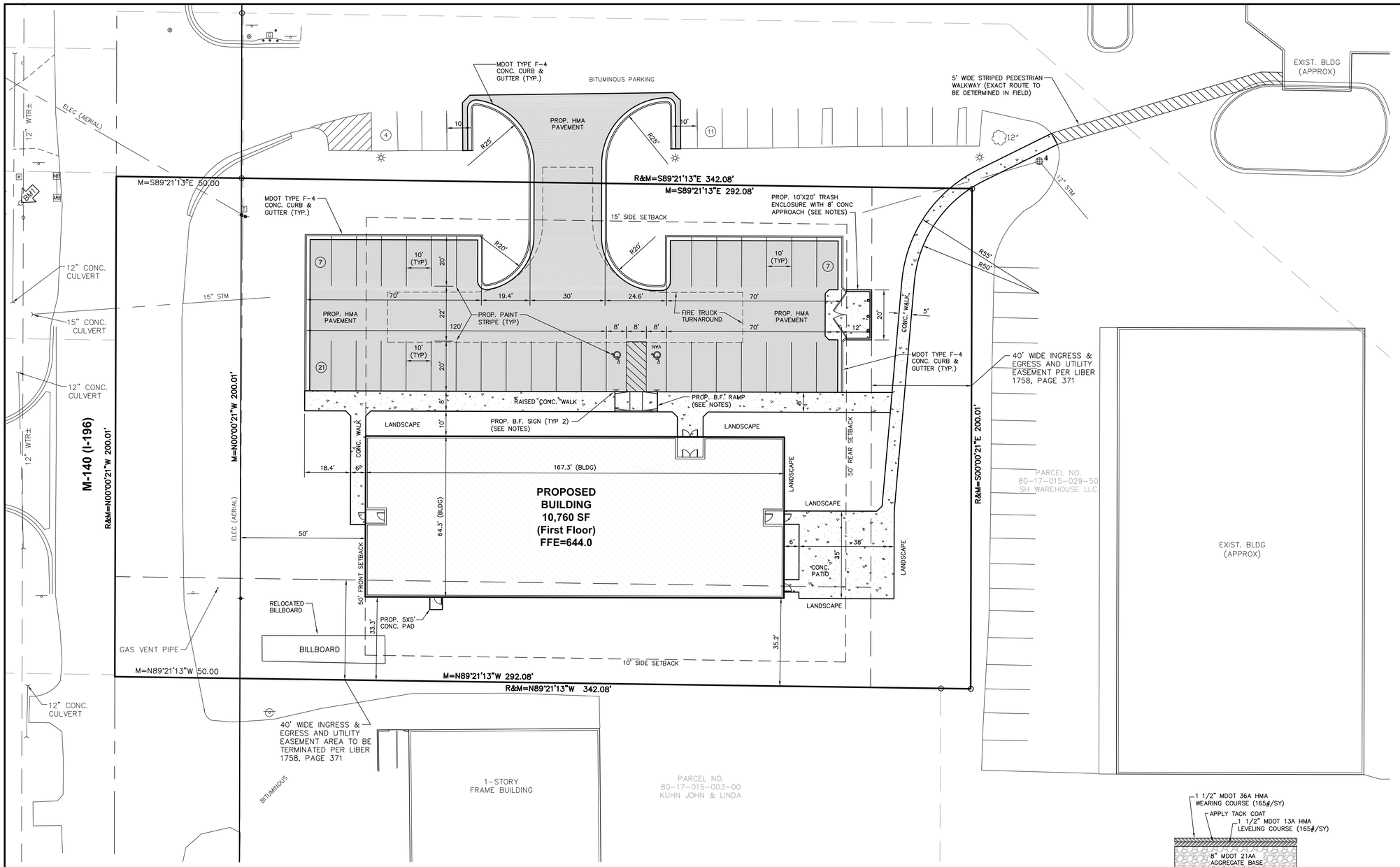
Sheet: C0

EXISTING CONDITIONS / REMOVAL SHEET



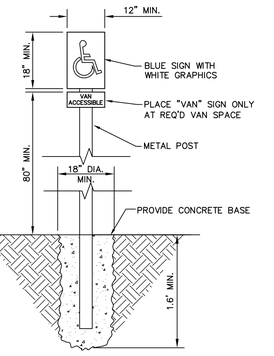
SITE NOTES

1. SITE AREA: 58,414 SF (1.34 ACRES)(EXCL. R/W)
2. CURRENT ZONING: COMMUNITY SERVICE COMMERCIAL (CSC)
3. SETBACKS REQUIRED: 50' FRONT, 10' SIDE (25' TOTAL SIDE), 50' REAR
4. MAX BUILDING HEIGHT: 35'
5. PARKING REQUIREMENTS:

   DWELLINGS – MULTIPLE FAMILY: TWO (2) PARKING SPACES PER DWELLING UNIT, PLUS ONE (1) ADDITIONAL SPACE FOR EACH FOUR (4) DWELLING UNITS AND ONE (1) SPACE FOR EACH EMPLOYEE WORKING DURING MAXIMUM EMPLOYMENT HOURS.

   (43 UNITS / 2 = 22) + (43 UNITS / 4 = 11) + 10 (EMPLOYEES) = 43 SPACES REQUIRED

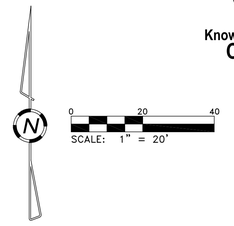
   35 SPACES PROVIDED (INCLUDING 2 B.F.)
6. CONTRACTOR SHALL CONTACT "MISS DIG" 1-800-482-7171 (72) HOURS PRIOR TO CONSTRUCTION TO ALLOW FOR ACCURATE LOCATION OF ALL UNDERGROUND UTILITIES.
7. EXISTING UTILITIES SHOWN ARE FROM RECORD PLANS AND EVIDENCE IN THE FIELD. NO GUARANTEE IS MADE FOR ACCURACY OR THAT THE UTILITIES SHOWN ARE THE ONLY IN THE AREA. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL CONSTRUCTION METHODS & MATERIALS SHALL COMPLY WITH CURRENT SOUTH HAVEN TOWNSHIP, VAN BUREN COUNTY & MDOT STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION. NO CONSTRUCTION SHALL COMMENCE UNTIL ALL REQUIRED PERMITS HAVE BEEN ISSUED.
9. THE PROPOSED DEVELOPMENT WILL UTILIZE EXISTING AVAILABLE INFRASTRUCTURE INCLUDING ROADS, SEWAGE DISPOSAL, WATER SUPPLY AND STORM WATER MANAGEMENT. NO UNANTICIPATED DEMAND WILL BE PLACED ON TOWNSHIP SERVICES.
10. SITE LIGHTING WILL CONSIST OF DOWNWARD DIRECTED, CUTOFF STYLE FIXTURES AND SHALL COMPLY WITH REQUIRED ILLUMINATION LEVELS.
11. TRASH ENCLOSURE SHALL HAVE 6' HIGH OPAQUE WALLS AND GATES. IT SHALL BE CONSTRUCTED OF MATERIALS THAT ARE SIMILAR TO THE PROPOSED BUILDING.
12. SITE SIGNAGE SHALL CONFORM TO SOUTH HAVEN REQUIREMENTS.
13. BARRIER-FREE RAMPS SHALL BE 6 FT LONG WITH A MAXIMUM SLOPE OF 1:12 AND SHALL HAVE A NON-SLIP SURFACE.
14. BARRIER-FREE SIGNAGE SHALL BE 6'-8" TO BOTTOM OF SIGN. 1 SHALL BE A "VAN" SIGN.
15. COORDINATE ALL UTILITY CONNECTIONS WITH THE APPROPRIATE UTILITY PROVIDERS PRIOR TO CONSTRUCTION.



BARRIER FREE SIGN DETAIL
NOT TO SCALE

STANDARD PAVEMENT SECTION
NOT TO SCALE

ALL MATERIAL DESIGNATIONS REFER TO MDOT, STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 EDITION AND SUPPLEMENTAL SPECIFICATIONS



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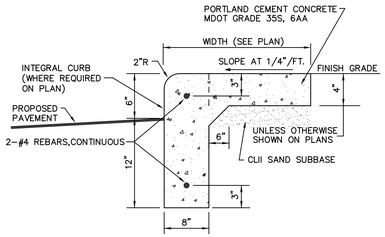
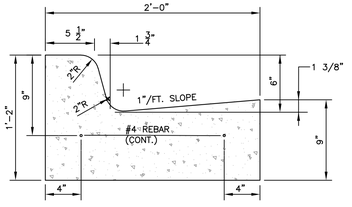
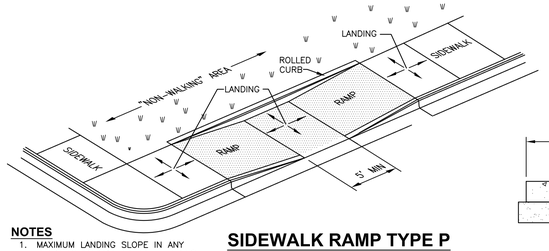
NOT FOR CONSTRUCTION



RAISED SIDEWALK DETAIL
NOT TO SCALE

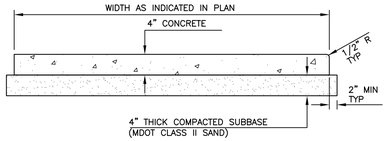


M.D.O.T. F-4 CURB & GUTTER
NOT TO SCALE



NOTES
1. MAXIMUM LANDING SLOPE IN ANY DIRECTION IS 2%. MINIMUM LANDING DIMENSION IS 5'x5'.
2. MAXIMUM CROSS SLOPE ON RAMP IS THE SAME AS THAT FOR SIDEWALK (2%). RUNNING SLOPE 5%-7% (8.3% MAX)
3. REFER TO MDOT STANDARD DETAIL R-28 SERIES FOR MORE INFORMATION.

SIDEWALK RAMP TYPE P
(PARALLEL RAMP)
NO SCALE



TOOL CONTRACTION JOINT AT INTERVAL EQUAL TO WIDTH. PLACE 1" EXPANSION JOINT AT 50' INTERVAL.

STANDARD SIDEWALK
NOT TO SCALE

SITE LAYOUT PLAN

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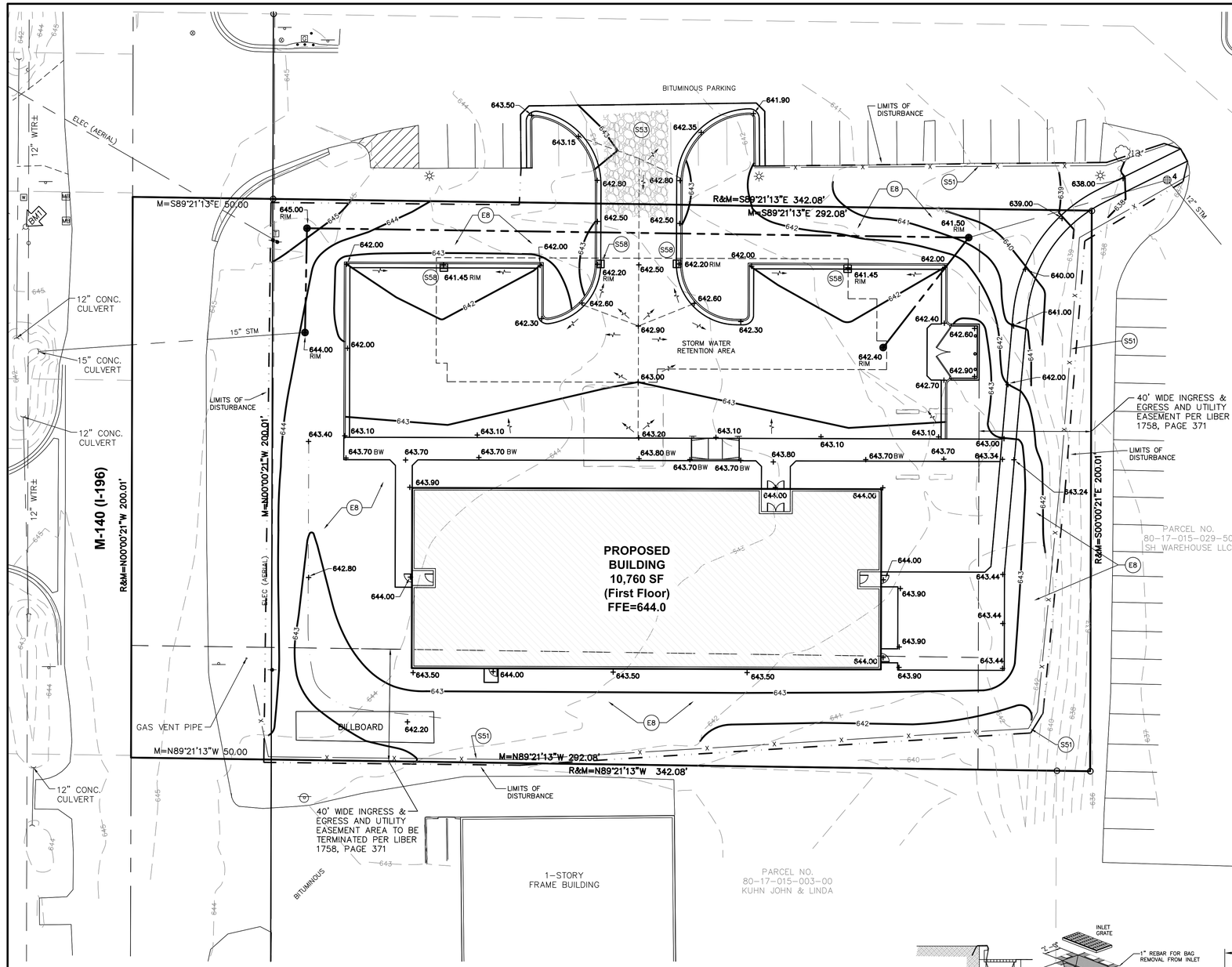
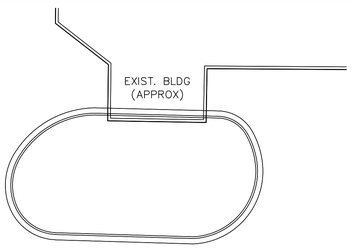
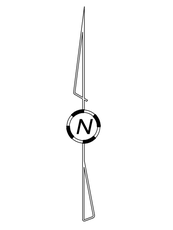
JAC	12/2024	JMB	12/2024	C1

Project No. 24132

Jan 31, 2025 - 2:26pm C:\Users\JJahn\OneDrive\Documents\Venture Projects\2024 Projects\24132 SHL, South Haven Twp\Venture C1.dwg, PREFix: (0) [1] [Venture TBLK (Corner)







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ELEVATION DATUM

All Elevations are based on NAVD 88 Datum.

Contours are illustrated at 1.0' intervals.

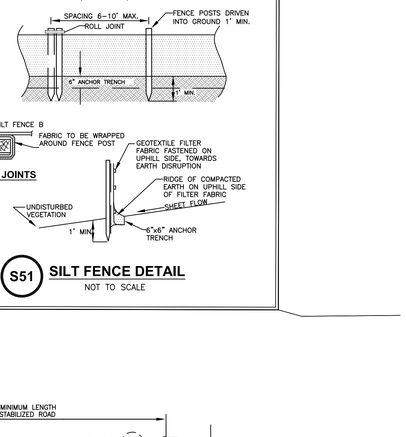
Bm#1)
Elevation: 647.18'
Description: Top bolt of hydrant, west side of M-140 (196)

LEGEND

- PROPOSED CONTOURS
- EXISTING CONTOURS
- DRAINAGE STRUCTURES
- PROPOSED STORM SEWER
- SILT FENCE
- PROPOSED SPOT ELEVATION
- DIRECTION OF DRAINAGE FLOW
- SWALES
- DRAINAGE HIGH POINTS

EROSION CONTROL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AND PERMIT AGENCY REQUIREMENTS.
2. GRADING WILL BE LIMITED TO WITHIN PROPERTY LINES AND/OR GRADING LIMITS.
3. THE PROPERTY IS NOT IMPACTED BY A FLOODPLAIN.
4. NO SOIL WILL BE ALLOWED TO ACCUMULATE OFF SITE, ANY SOIL TRACKED OFF SITE IS SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR.
5. ALL TRAFFIC ENTERING OR LEAVING PROPERTY SHALL USE STABILIZED CONSTRUCTION ACCESS.
6. WHERE POSSIBLE SILT FENCE IS TO PLACED 10' FROM TOE OF SLOPE TO ALLOW FOR MAINTENANCE.
7. DUST CONTROL MEASURES SHALL BE APPLIED AT ALL TIMES WITHIN THE PROJECT BY THE CONTRACTOR.
8. ALL DISTURBED AREAS SHALL BE SEEDED WITHIN 5 CALENDAR DAYS OF ACHIEVING FINAL GRADE WITH PERMANENT SEED MIXTURE.
9. ALL DISTURBED AREAS THAT WILL NOT ACHIEVE FINAL GRADE WITHIN 30 CALENDAR DAYS SHALL BE SEEDED PER TEMPORARY SEEDING SPECIFICATIONS. ALL SLOPES 1 VERTICAL: 5 HORIZONTAL OR STEEPER SHALL BE TRACK WALKED PERPENDICULAR TO SLOPE PRIOR TO TEMPORARY SEEDING.
10. ALL SLOPES GREATER THAN 1:4 SHALL BE STABILIZED WITH NORTH AMERICAN GREEN DS-75 EROSION CONTROL BLANKET OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. ALL STORMWATER CHANNELS AND DITCHES SHALL BE STABILIZED WITH NORTH AMERICAN GREEN SC-250 PERMANENT EROSION CONTROL BLANKET OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. BLANKETS SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
11. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED DAILY AND ANY PROBLEMS REMEDIED IMMEDIATELY.
12. PERMANENT EROSION CONTROL MEASURES SHALL BE MAINTAINED BY PROPERTY OWNER. MAINTENANCE INCLUDES REGULAR INSPECTION AND CLEANING OF ALL STORM WATER FACILITIES AND ENSURING VEGETATION IS ADEQUATE ON ALL SLOPES.
13. STOCKPILE EXCESS TOPSOIL ON SITE AS INDICATED ON PLANS OR DIRECTED BY ENGINEER AND INSTALL SILT FENCE AROUND THE PERIMETER OF THE STOCKPILE. PLACE TEMPORARY SEEDING ON STOCKPILE ONCE THE SITE HAS BEEN CLEARED AND ALL TOPSOIL HAS BEEN STOCKPILED.
14. EXISTING SOILS ONSITE ARE TYPICALLY SAND.
15. TOTAL AREA OF DISTURBANCE = 1.26 ACRES±
16. ALL PROJECTS DISTURBING 1 OR MORE ACRES OR ARE WITHIN 500 FT. OF A LAKE OR STREAM REQUIRE A SOIL EROSION CONTROL PERMIT FROM THE DESIGNATED AUTHORIZED PUBLIC AGENCY.



S51 SILT FENCE DETAIL
NOT TO SCALE

EXIST. STRUCTURE INVENTORY

CBR 1
RIM: 642.67'
638.33 15" CPP S85°W
638.33 12" CPP N70°E

(#2 INTENTIONALLY OMITTED)

SMH 3
RIM: 643.75'
640.45 8" PVC SOUTH
641.35 2" PVC NORTH
640.75 2" PVC NORTHEAST

CBB 4
RIM: 636.39'
632.79 12" CPP S75°W
632.44 12" CPP S40°E

SMH 5
RIM: 643.75'
640.45 10" TILE NORTH
641.35 10" TILE SOUTH
640.75 8" PVC EAST

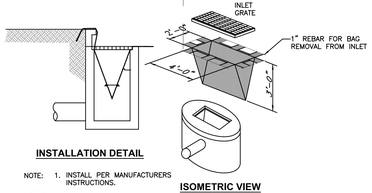
SMH 6
RIM: 637.31'
625.76 10" TILE SOUTH
625.71 10" TILE NORTH

SESC SCHEDULE

1. INSTALL SILT FENCE & INLET PROTECTION AS SHOWN. MAINTAIN SILT FENCE BY REMOVING SEDIMENT WHEN IT HAS REACHED 1/3 TO 1/2 OF THE HEIGHT OF THE FENCE.
2. CLEAR & GRUB SITE AS NECESSARY AND REMOVE EXISTING PAVEMENT AS SHOWN ON PLANS. STOCKPILE EXCESS MATERIALS AS REQUIRED. THE CONTRACTOR IS DIRECTED TO INSTALL SILT FENCE AT THE TOE OF THE SLOPE AROUND PERIMETER OF TEMPORARY STOCKPILES.
3. CONSTRUCT STORM SYSTEM.
4. PLACE INLET PROTECTION IN ALL PROPOSED CATCH BASINS IMMEDIATELY FOLLOWING INSTALLATION.
5. PERMANENT CONTROL MEASURES MUST BE COMPLETED 5 CALENDAR DAYS AFTER THE FINAL EARTH CHANGE IS COMPLETED FOR EACH AREA DISTURBED. THIS INCLUDES BLANKETS, SEEDING, MULCHING & HYDROMULCHING, AS INDICATED IN THESE PLANS.
6. FOR ALL AREAS TO BE SEEDED, THE MULCH MUST BE APPLIED IMMEDIATELY AFTER SEED APPLICATION.
7. CLEAN STORM SEWER, INLETS, AND PIPES OF ALL CONSTRUCTION SEDIMENT IMMEDIATELY FOLLOWING PROJECT COMPLETION.
8. REMOVE TEMPORARY CONTROLS SUCH AS SILT FENCE, INLET PROTECTION AND NETTING ONCE VEGETATION IS ESTABLISHED AND THE SITE HAS BEEN STABILIZED.

MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET S-E-S-C KEYING SYSTEM

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
EROSION / SEDIMENT CONTROLS			
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.



NOTE: 1. INSTALL PER MANUFACTURERS INSTRUCTIONS.

S58 INLET PROTECTION - FABRIC DROP

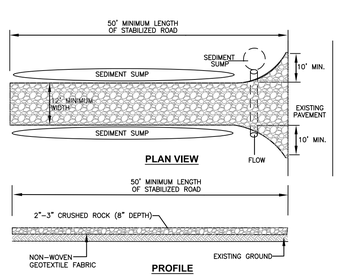
E8 PERMANENT SEEDING NOTE

ALL PROPOSED LAWN AREAS AND ALL AREAS DISTURBED BY CONSTRUCTION SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL AND LAWN SEED MIX AS INDICATED ON PLANS AND AS FOLLOWS:

PROPORTION	CLASS "A" SEED TYPE
10%	CANNON KENTUCKY BLUEGRASS
10%	GOLDRUSH KENTUCKY BLUEGRASS
20%	RONDE KENTUCKY BLUEGRASS
20%	SR5100 CHEWINGS FESCUE
20%	SR5200 CREEPING RED FESCUE
10%	SR4400 PERENNIAL RYEGRASS
10%	SR4500 PERENNIAL RYEGRASS

SEEDING RATE SHALL BE 4 TO 6 lbs. PER 1000 SQ. FEET.

ALL AREAS DESIGNATED FOR PERMANANT SEEDING SHALL BE HYDRO-SPRAYED.



NOTES:
1. ESTABLISH STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INITIATION OF SITE CONSTRUCTION ACTIVITIES.
2. CARE SHOULD BE TAKEN TO PREVENT MATERIAL MOVEMENT INTO ADJACENT WETLANDS/WATERBODIES.
3. CARE SHOULD BE TAKEN TO MAINTAIN EXISTING ROADSIDE DRAINAGE VIA CULVERT INSTALLATION, WITH SEDIMENT SUMP PLACED DOWNFLOW OF CULVERT.

S53 STABILIZED CONSTRUCTION ACCESS
NOT TO SCALE

NOT FOR CONSTRUCTION

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Project No. 24132

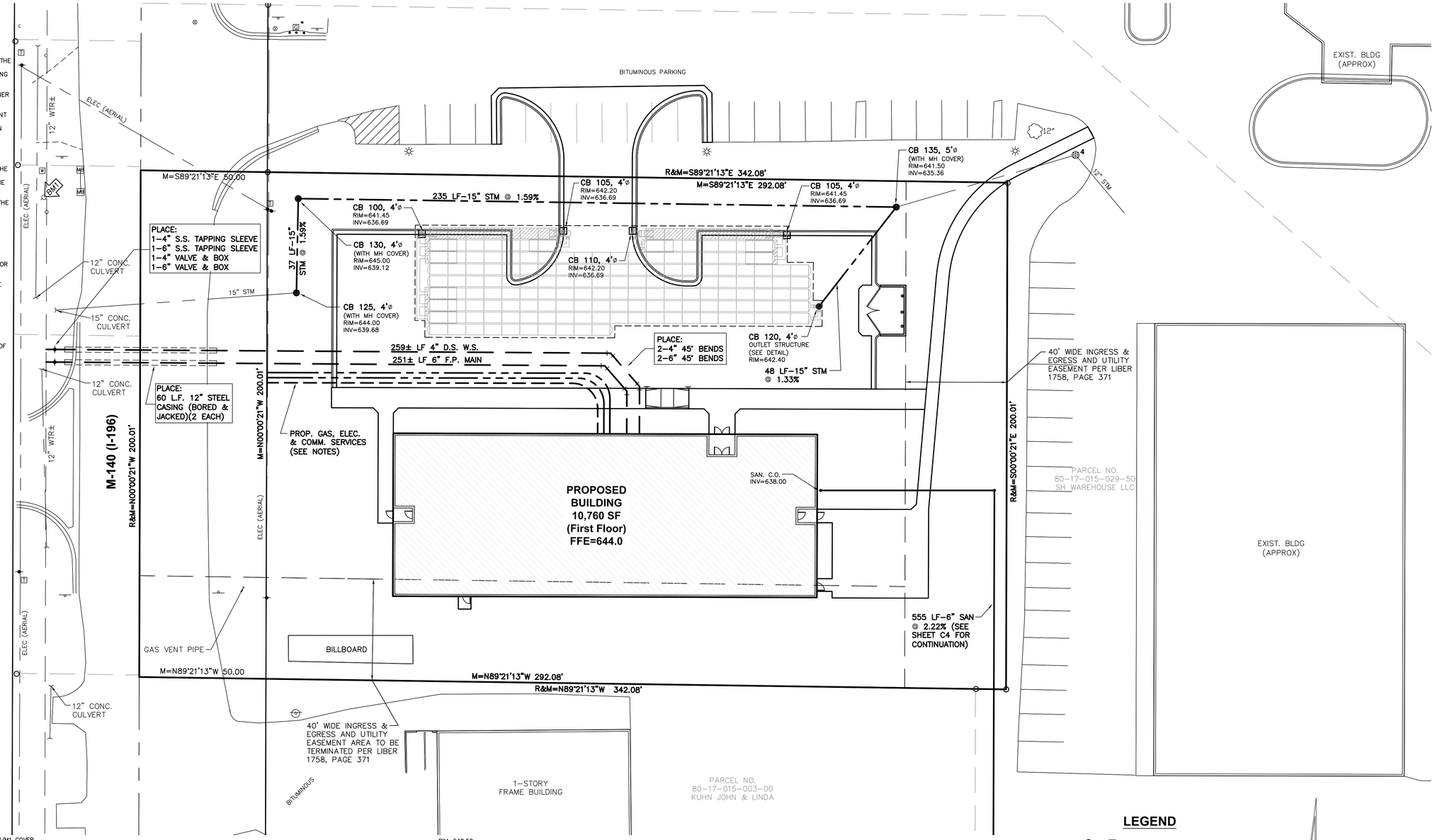
SITE GRADING & SESC PLAN

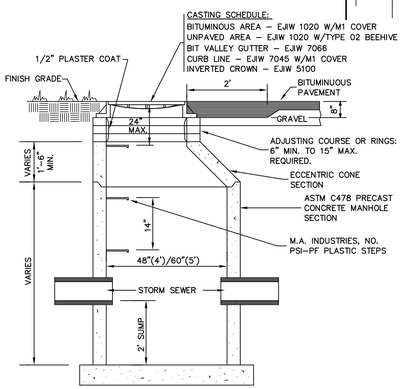
Jan 30, 2025 - 4:34pm C:\Users\JBerh\OneDrive\Documents\Venture Projects\2024 Projects\24132 SAL, South Haven Twp\Venture CD.dwg, XREFs: (0) [1] [2] [Venture TBLK (Corner) By JBerh

GENERAL NOTES:

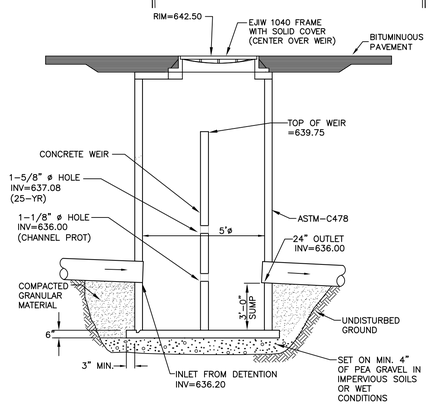
1. EXISTING UTILITIES SHOWN ARE FROM RECORD PLANS AND EVIDENCE IN THE FIELD. NO GUARANTEE IS MADE FOR ACCURACY OR THAT THE UTILITIES SHOWN ARE THE ONLY IN THE AREA. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL PERFORM ALL CONSTRUCTION ACTIVITIES IN A MANNER TO MINIMIZE INCONVENIENCE TO ADJACENT PROPERTIES.
3. ALL CONSTRUCTION METHODS & MATERIALS SHALL COMPLY WITH CURRENT SOUTH HAVEN TOWNSHIP, VAN BUREN COUNTY AND CURRENT MDOT STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION. NO CONSTRUCTION SHALL COMMENCE UNTIL ALL REQUIRED PERMITS HAVE BEEN ISSUED.
4. CONTRACTOR SHALL KEEP ALL FIRE LANES OPEN & ACCESSIBLE DURING CONSTRUCTION AT ALL TIMES.
5. CONSTRUCTION TRAFFIC SHALL BE MINIMIZED ON ANY NEW PAVEMENT. THE CONTRACTOR SHALL REPAIR ANY DAMAGE OR FAILURE CAUSED BY CONSTRUCTION ACTIVITIES, AS WELL AS REPAIRING LOAD DAMAGE ON THE EXISTING PAVEMENT SYSTEM TO THE SATISFACTION OF THE OWNER.
6. ALL CONSTRUCTION ACTIVITIES SHALL BE STAKED AND GRADED UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR.
7. ALL RUNOFF FROM THE ROOF OF THE PROPOSED BUILDING SHALL BE CONNECTED TO THE PROPOSED STORM SYSTEM.
8. STORM SEWER PIPE SHALL BE SLCPP (ADS N-12 OR EQUAL) UNLESS OTHERWISE INDICATED.
9. A QUALIFIED GEOTECHNICAL ENGINEER SHALL BE CONTRACTED TO MONITOR EARTHWORK & PAVING ACTIVITIES.
10. STORM WATER WILL BE COLLECTED IN AN UNDERGROUND DETENTION ARE MEETING VANBUREN COUNTY DRAIN COMMISSIONER STANDARDS AND DISCHARGED TO AN EXISTING STORM SEWER ON SITE.
11. COORDINATE ALL UTILITY CONNECTIONS WITH THE APPROPRIATE UTILITY PROVIDER PRIOR TO CONSTRUCTION. AT MINIMUM, SERVICES SHALL BE PLACED IN 4" PVC CONDUIT UNDER PAVED AREAS.
12. WATER LINES SHALL BE BORED AND JACKED BENEATH M-140. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET MDOT AND CITY OF SOUTH HAVEN REQUIREMENTS.

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





4'/5' DIA. CATCH BASIN DETAIL
NOT TO SCALE



OUTLET STRUCTURE 120
NOT TO SCALE

EXIST. STRUCTURE INVENTORY

CBR 1
RIM: 642.67'
638.33 15" CPP S85°W
638.33 12" CPP N70°E

(#2 INTENTIONALLY OMITTED)

SMH 3
RIM: 643.75'
640.45 8" PVC SOUTH
641.35 2" PVC NORTH
640.75 2" PVC NORTHEAST

CBB 4
RIM: 636.39'
632.79 12" CPP S75°W
632.44 12" CPP S40°E

SMH 5
RIM: 643.75'
640.45 10" TILE NORTH
641.35 10" TILE SOUTH
640.75 8" PVC EAST

SMH 6
RIM: 637.31'
625.76 10" TILE SOUTH
625.71 10" TILE NORTH

ELEVATION DATUM

All Elevations are based on NAVD 88 Datum.

Contours are illustrated at 1.0' intervals.

Bm#1)
Elevation: 647.18'
Description: Top bolt of hydrant, west side of M-140 (196)

LEGEND

- DRAINAGE STRUCTURES
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED GAS SERVICE
- PROPOSED WATER SERVICE
- PROPOSED ELECTRIC SERVICE

N

0 20 40
SCALE: 1" = 20'

NOT FOR CONSTRUCTION

Proposed Site Improvements For:

Samaritas Affordable Living

8729 M-140 HWY
SOUTH HAVEN TOWNSHIP, VAN BUREN COUNTY, MICHIGAN

For: Pinnacle Construction Group
1000 Front Ave. NW
Grand Rapids, MI 49504
Ph. 616.451.0500

NO.	REVISIONS	DATE
1	For SLU and Site Plan Approval	01/31/25

VENTURE ENGINEERING, PLLC
8515 Rldgebluff Dr. SW
Byron Center, MI 49315
616-490-0329
venturecivil.com

Drawn By: JAC | Date: 12/2024 | Chk'd By: JMB | DATE: 12/2024
Project No. 24132

Sheet: C3

SITE UTILITIES PLAN

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

ADS Advanced Drainage Systems, Inc.

ADS SiteAssist® FOR STORMTECH INSTALLATION INSTRUCTIONS VISIT OUR APP

SAL SOUTH HAVEN COPY

SOUTH HAVEN, MI, USA

SC-800 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-800.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE EVALUATION SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTION 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
10. MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER, SEE TECH NOTE 86.32 FOR MANIFOLD SIZING GUIDANCE. DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
11. ADS DOES NOT DESIGN OR PROVIDE MEMBRANE LINER SYSTEMS. TO MINIMIZE THE LEAKAGE POTENTIAL OF LINER SYSTEMS, THE MEMBRANE LINER SYSTEM SHOULD BE DESIGNED BY A KNOWLEDGEABLE GEOTEXTILE PROFESSIONAL AND INSTALLED BY A QUALIFIED CONTRACTOR.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-800 SYSTEM

1. STORMTECH SC-800 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-800 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE: AASHTO M43 #3, 357, 4, 467, 5, 56, OR 57.
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

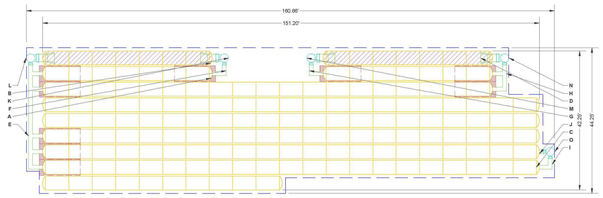
1. STORMTECH SC-800 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-800 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - ONLY CHAMBER-TYPE PROTECTED DUMP TRUCKS, LOADERS, EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/SC-800/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-800-821-6710 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT	PROPOSED ELEVATIONS:		*INVERT ABOVE BASE OF CHAMBER
163 STORMTECH SC-800 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	647.00	
22 STORMTECH SC-800 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	647.00	
6 STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	642.50	
40 STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	640.00	
14653.1 INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED)	TOP OF STONE:	642.50	
	TOP OF SC-800 CHAMBER:	639.00	
	12" x 12" TOP MANIFOLD INVERT:	637.75	
	12" x 12" TOP MANIFOLD INVERT:	637.75	
6443 SYSTEM AREA (SF)	12" x 12" TOP MANIFOLD INVERT:	637.75	
406.8 SYSTEM PERIMETER (ft)	12" x 12" TOP MANIFOLD INVERT:	637.75	
	24" ISOLATOR ROW PLUS INVERT:	636.58	
	24" ISOLATOR ROW PLUS INVERT:	636.58	
	24" ISOLATOR ROW PLUS INVERT:	636.58	
	12" x 12" BOTTOM MANIFOLD INVERT:	636.00	
	12" BOTTOM CONNECTION INVERT:	636.00	
	BOTTOM OF SC-800 CHAMBER:	636.00	
	BOTTOM OF STONE:	636.00	

ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
A	12" TOP PRE-CORED END CAP, PART# SC800EPE12TPC / TYP OF ALL 12" TOP CONNECTIONS	14.42"	
B	24" BOTTOM PRE-CORED END CAP, PART# SC800EPE24BPC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.30"	
C	12" BOTTOM PRE-CORED END CAP, PART# SC800EPE12BPC / TYP OF ALL 12" BOTTOM CONNECTIONS	1.80"	
D	ADS ISOLATOR ROW PLUS 24" ACCESS PIPE / PART#: SC74024AMP (TYP 4 PLACES)		
E	12" x 12" TOP MANIFOLD, ADS N-12	14.40"	
F	12" x 12" TOP MANIFOLD, ADS N-12	14.40"	
G	12" x 12" TOP MANIFOLD, ADS N-12	14.40"	
H	12" x 12" TOP MANIFOLD, ADS N-12	14.40"	
I	12" x 12" BOTTOM MANIFOLD, ADS N-12	1.80"	
J	12" BOTTOM CONNECTION	1.80"	
K	NYLOPLAST (INLET W/ ISO PLUS ROW)		2.3 CFS IN
L	30" DIAMETER (24.00" SUMP MIN)		5.9 CFS IN
M	NYLOPLAST (INLET W/ ISO PLUS ROW)		2.3 CFS IN
N	30" DIAMETER (24.00" SUMP MIN)		4.6 CFS IN
Q	NYLOPLAST (OUTLET) 30" DIAMETER (DESIGN BY ENGINEER)		4.0 CFS OUT



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 12.50' OF ADSPLUS025 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

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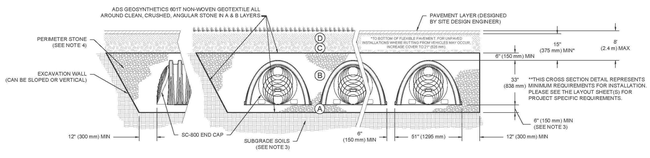
SHEET 2 OF 6

ACCEPTABLE FILL MATERIALS: STORMTECH SC-800 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (375 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145* A-1, A-2-4, A-3 OR AASHTO M43* 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ALL SITE DROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE*	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE*	AASHTO M43* 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[1]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-800 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 8.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/FT/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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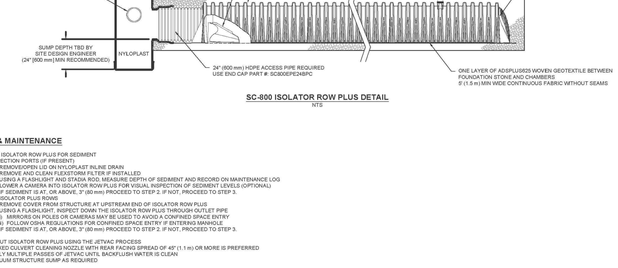
SHEET 3 OF 6



SC-800 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A DIPSTICK MEASURE FROM RIM TO STADIA ROD; MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i). MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii). FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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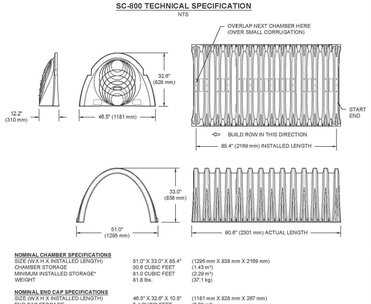
SHEET 4 OF 6

SC-800 TECHNICAL SPECIFICATION

NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W x H x INSTALLED LENGTH)	51.0" X 33.0" X 85.4"	(1295 mm X 838 mm X 2169 mm)
CHAMBER STORAGE	50.5 CUBIC FEET	(1.43 m³)
MINIMUM INSTALLED STORAGE*	81.0 CUBIC FEET	(2.29 m³)
WEIGHT	81.8 lbs.	(37.1 kg)

NOMINAL END CAP SPECIFICATIONS

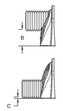
SIZE (W x H x INSTALLED LENGTH)	46.5" X 32.8" X 10.3"	(1181 mm X 828 mm X 267 mm)
END CAP STORAGE	3.4 CUBIC FEET	(0.09 m³)
MINIMUM INSTALLED STORAGE**	15.4 CUBIC FEET	(0.43 m³)
WEIGHT	15.7 lbs.	(7.1 kg)

* ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS
**ASSUMES 6" (152 mm) STONE ABOVE AND BELOW END CAPS, 9" (152 mm) BETWEEN ROWS, 12" (305 mm) BEYOND END CAPS

PRE-CORED HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "BPC"
PRE-CORED HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "TPC"

PART #	STUB	B	C
SC800EPE06TPC	6" (150 mm)	21.4" (544 mm)	0.9" (23 mm)
SC800EPE06BPC		19.2" (488 mm)	
SC800EPE08TPC	8" (200 mm)	—	1.0" (25 mm)
SC800EPE08BPC		17.0" (432 mm)	
SC800EPE10TPC	10" (250 mm)	—	1.2" (30 mm)
SC800EPE10BPC		14.4" (366 mm)	
SC800EPE12TPC	12" (300 mm)	—	1.6" (41 mm)
SC800EPE12BPC		11.3" (287 mm)	
SC800EPE15TPC	15" (375 mm)	—	1.7" (43 mm)
SC800EPE15BPC		8.0" (203 mm)	
SC800EPE18TPC	18" (450 mm)	—	2.0" (51 mm)
SC800EPE18BPC	24" (600 mm)	—	2.3" (58 mm)
SC800EPE	NONE	SOLID END CAP	

NOTE: ALL DIMENSIONS ARE NOMINAL

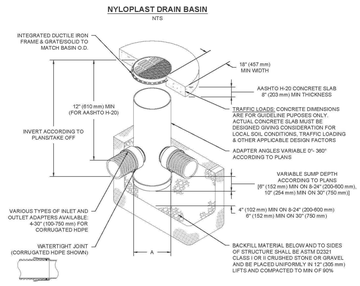


StormTech® Chamber System
1-800-821-6710 | WWW.STORMTECH.COM
ADS TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473
ADS Advanced Drainage Systems, Inc.

SHEET 5 OF 6

NYLOPLAST DRAIN BASIN

NTS



NOTES

1. 10,000 (250 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
6. TO ORDER CALL: **800-9214710**

A	PART #	GRATE/SOLID COVER OPTIONS		
6" (200 mm)	2606AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2610AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2612AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2615AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2618AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2624AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2630AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

Nyloplast®
770.933.0443 | WWW.NYLOPLAST-US.COM
ADS TRUEMAN BLVD HILLIARD, OH 43026 1-800-733-7473
ADS Advanced Drainage Systems, Inc.

SHEET 6 OF 6

NOT FOR CONSTRUCTION

STORM WATER DETENTION DETAILS

Proposed Site Improvements For:

Sunset Grove at South Haven

8729 M-140 HWY
SOUTH HAVEN TOWNSHIP, VAN BUREN COUNTY, MICHIGAN

For: Pinnacle Construction Group
1000 Front Ave. NW
Grand Rapids, MI 49504
Ph. 616.451.0500

NO.	REVISIONS	DATE
1	For SLU and Site Plan Approval	01/31/25

VENTURE ENGINEERING, PLLC
8515 Ridgebluff Dr. SW
Byron Center, MI 49315
616-490-0329
venturecivil.com

Drawn By:	Date:	Chk'd By:	DATE	Sheet:
JAC	12/2024	JMB	12/2024	C4
Project No.	24132			

CONTRACTOR SELECT

LITHONIA LIGHTING

Catalog Number	
Notes	
Type	

Contractor Select™

WPX LED

Wall packs

The WPX LED wall packs are energy-efficient, cost-effective, and aesthetically appealing full-cut off solution for both new construction and HID wall pack replacement/renovation opportunities. Reliable IP66 construction and excellent LED lumen maintenance ensure a long service life.

FEATURES:

- Architectural design at very economical prices
- Energy efficient - payback in less than two years
- Wide range of configuration options available

Note : WPX3 lumen package and all the WPX configuration options are not included in the Contractor Select program. For more information, please visit WPX LED.

Luminaire	CCT	Lumens	Input Watts	PhotocelI	Finish	Voltage	Catalog Number	CI Code	UPC	Pallet qty.	Replaces Up To
WPX0	5WH2 3000K/ 4000K/ 5000K	850 - 1,650	6.4-15W	Switchable On/Off	DARK BRONZE	120-277V	WPX0 LED ALO 5WH2 MVOLT PE DDBXD M2	*2760492	19618251806	280	70W Metal Halide
WPX1	4000K	2,900	24W	N/A	DARK BRONZE	120-277V	WPX1 LED P2 40K MVOLT DDBXD M4	*2612WK	19304882705B9	160	150W Metal Halide
WPX2	4000K	6,000	47W	N/A	DARK BRONZE	120-277V	WPX2 LED 40K MVOLT DDBXD M2	*2615R3	19304882705F6	120	250W Metal Halide
	5000K	6,000	47W	N/A	DARK BRONZE	120-277V	WPX2 LED 50K MVOLT DDBXD M2	*2615S8x	19304882705T0	120	250W Metal Halide

More configurations are available. Click here or visit www.acuitybrands.com and search for WPX LED

MANW-LED-600

Type:	
Job Name:	

Construction:

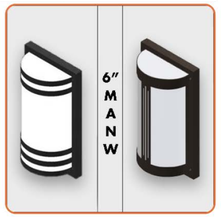
- Steel housing and chassis
- Diffuser UV-stabilized, high impact resistant, DR acrylic

Light Source:

- LED
- Dimming to 10% **Included**

Notes:

- Keyhole slots left and right
- Top and bottom white acrylic lens - standard
- Optional photocell (21) increases fixture depth 1 ½"
- Optional battery backup
- Optional lens cover (NCL) prevents up/down light
- UL and CUL listed **WET** location
  - Replaceable Module
  - CRI > 90
  - Universal 120/277 volt standard
  - 5-Year Warranty on LED Components
- You may also like the MERW or MENW Series



Height - 12" - 16" - 18" - 26" - 38" - 50"
Width - 6.5"
Depth - 3.75"

- *See 900 or 1100 Series for other width options*

ORDERING INFORMATION

Example: MANW-616-LED-D-O1C-3-Z1-WSA

MANW [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Size	LED	Watts	Source Lumens	Dimming	Energy Star
612-LED	F1H	9	1400	0-10v	YES
	F1P	15	1361	TRIAC/ELV	YES
616-LED	O1C	9	1210	0-10v	NO
618-LED	O2A	12	1600	0-10v	NO
626-LED	O2C	18	2420	0-10v	NO
626-LED	F1Y	30	3235	TRIAC/ELV	YES
638-LED	O3C	27	3630	0-10v	NO
650-LED	O4C29	29	3412	0-10v	NO
	O4C	36	4840	0-10v	NO

Kelvin	Cage	Finish	Diffuser	Options
2 3000K	A	**B1** Satin Black	**WSA** White Smooth Acrylic	**DIM** LED dimming driver (0 - 10v)
3 3500K	B	**B2** Text Black		**DIMLD** Line Voltage -/TRIAC/ELV/120v Consult Factory
4 4000K	D	**Z1** Satin Bronze		
	C	**Z3** Text Bronze		**21** Photocell - Specify voltage
	E	**W1** Yok White		01 - 120 volt
	F	**W2** Gloss White		02 - 277 volt
		W3 Text White		**NCL** Lens Cover Top & Bottom
	X	**T4** Shimmer Gray		**ES** Energy Star listed components
		M13 Anod Silver		**42** All Aluminum Construction
		T6 Pewrter		**39** J-Box with knockouts on all sides
		Optional (See Price List)		
		M17 Brass Powder		**Battery Backup Options** *(Available with 0-10v only)*
		P2 Brushed Alum		**BB10** 10 Watts (1170lm) for 90-Minutes
		P9 Brushed Nickel		

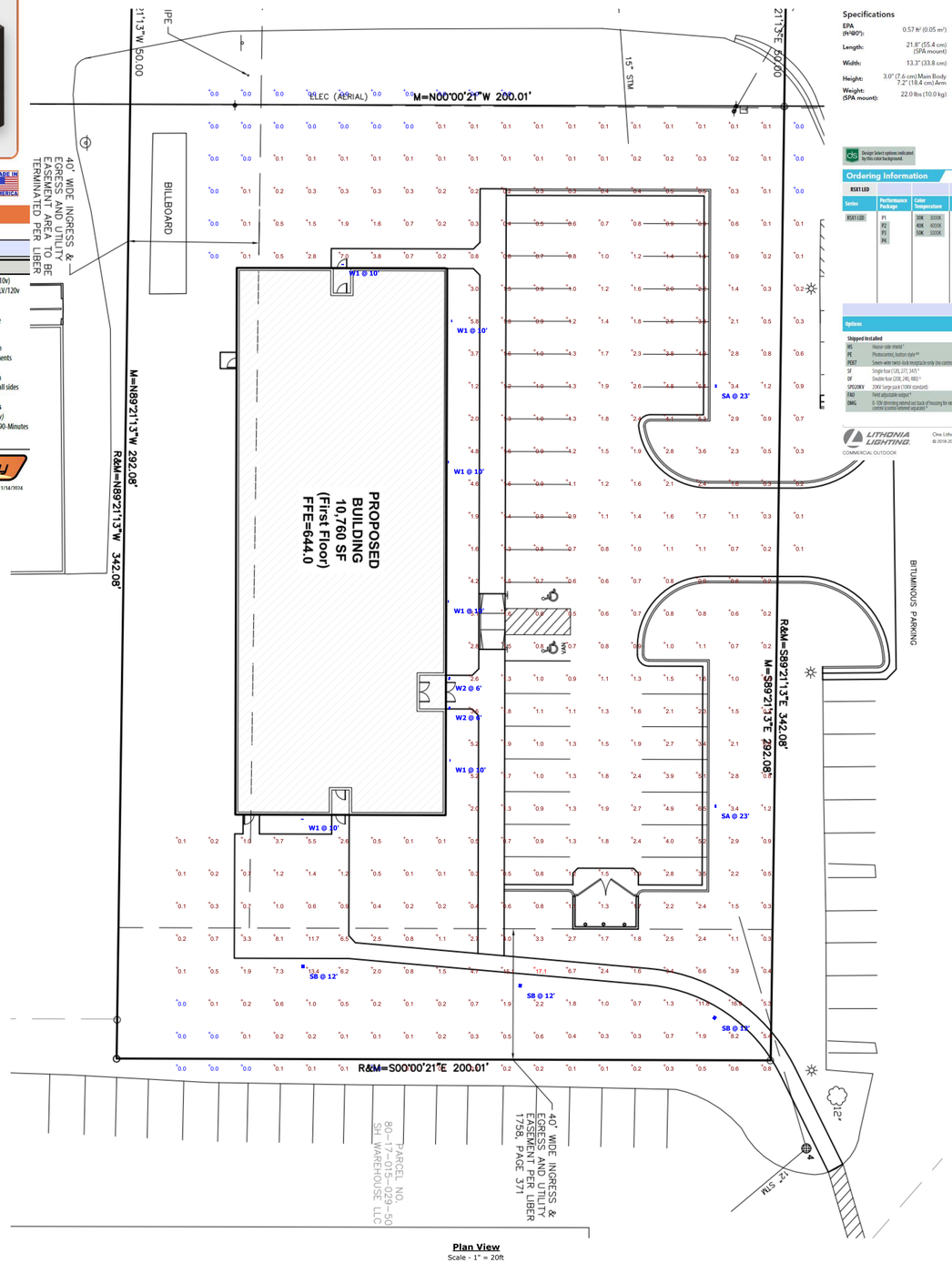
28435 Industry Drive., Valencia, California 91355
800-325-4448 /661-257-0286• fax 800-323-2346 /661-257-0201
www.lightwayind.com • sales@lightwayind.com

Lightway

Revision: 11/14/2024

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.5 fc	17.1 fc	0.0 fc	N/A	N/A

Schedule							
Symbol	Label	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power
	SA	2	Lithonia Lighting	RSX1 LED P4 40K R4	RSX Area Fixture Size 1 P4 Lumen Package 4000K CCT Type R4 Distribution	16573	1	133.14
	SB	3	Lithonia Lighting	RSX1 LED P1 40K R2	RSX Area Luminaire Size 1 P1 Lumen Package 4000K CCT Type R2 Distribution	7121	1	51.3435
	W1	6	Lithonia Lighting	WPX1 LED P2 40K Mvolt	WPX1 LED wallpack 3000lm 4000K color temperature 120-277 Volts	2913	1	24.42
	W2	2	LIGHTWAY INDUSTRIES, INC	MERW-612-LED-U-13W	4-3/8"L. X 6-1/2"W. X 12"H. LED WALL SCONCE DIFFUSED LENS	1108	1	16.95



Plan View
Scale - 1" = 20ft

RSX1 LED
Area Luminaire

Catalog Number	
Notes	
Type	

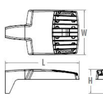
Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

Specifications

EPA (ft²·40°):	0.57 ft² (0.05 m²)
Length:	21.8" (55.4 cm) (SPA mount)
Width:	13.3" (33.8 cm)
Height:	3.0" (7.6 cm) Main Body 7.2" (18.4 cm) Arm
Weight: (SPA mount):	22.0 lbs (10.0 kg)



ds design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

RSX1 LED

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX1 LED	P1	30K 3000K	R2 Type 2 Wide	MVOLT (120V-277V)[1]	SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°)
	P2	40K 4000K	R3 Type 3 Wide	HVOLT (347V-480V)[1]	RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°)
	P3	50K 5000K	R4 Type 4 Wide	XVOLT (277V-480V)[1]	MA Mast arm adapter (fits 2-3/8" OD horizontal tenon)
	P4		R5 Type 5 Wide	(use specific wattage for options as noted)	IS Adjustable slipfitter (fits 2-3/8" OD tenon)[2]
			BLC Type 3 Wide	120[1] 277[1]	WBA Wall bracket[3]
			R2S Type 2 Short[1]	208[1] 347[1]	WBASC Wall bracket with surface conduit box
			AFR Automotive Front Row	240[1] 480[1]	AASP Adjustable tilt arm square pole mounting[4]
			AFR90 Automotive Front Row Right Rotated		AARP Adjustable tilt arm round pole mounting[4]
			AFRL90 Automotive Front Row Left Rotated		AAWB Adjustable tilt arm with wall bracket[4]
					AAWCC Adjustable tilt arm wall bracket and surface conduit box[4]

Options		Finish	
Shipped Installed		DDBXD	Dark Bronze
NS House-side shield[1]		DBLXD	Black
PE Photocontrol, button style[5]		DNAXD	Natural Aluminum
PER7 Seven wire twist-lock receptacle only (no controls)[5,6,7]		DWHXD	White
SF Single fuse (120, 277, 347)[1]		DDBTXD	Textured Dark Bronze
DF Double fuse (208, 240, 480)[1]		DBLBXD	Textured Black
SPD20KV 20KV Surge pack (10KV standard)		DNATXD	Textured Natural Aluminum
TRAD Field adjustable output[8]		DWHGXD	Textured White
DMG 0-10V dimming wired out back of housing for external control (control ordered separate)[9]			
Shipped Installed			
***Standalone and Networked Sensors/Controls (factory default settings, see table page 9)**			
NLTAIR2 PIRHN Night AIR generation 2, with Networked, Bi-Level motion/ambient sensor[6,7,10,11]			
BAA Buy American Act and/or Build America Buy America Qualified			
CCE Coastal Construction[12]			
***Note: NLTAIR2 PIRHN with eight AIR can be used as a standalone or networked solution. Sensor coverage patterns is affected when luminaire is tilted.**			
Shipped Separately (requires some field assembly)			
EGS External glare shield[1]			
EGFV External glare foil visor (360° around light aperture)[1]			
BS Bird spikes[13]			

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.acuitybrands.com

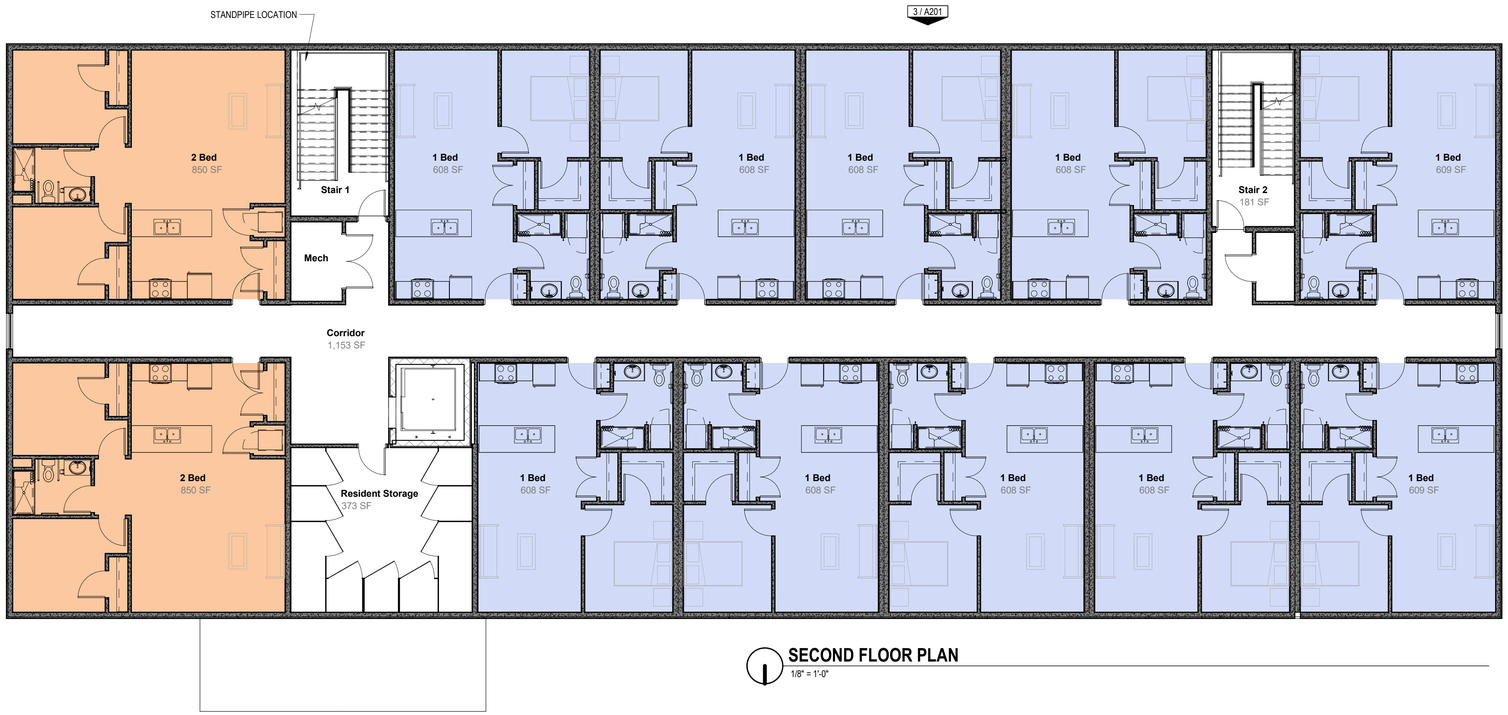
Lithonia RSX1 Area LED
Rev. 01/28/25
Page 1 of 9

VISUAL

Samaritas South Haven Site

Designer
SR
Date
02/01/2025
Scale
Not to Scale
Drawing No.

Summary



SECOND FLOOR PLAN

1/8" = 1'-0"

FIRST FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES

1. DO NOT SCALE DRAWINGS.
2. FINISH FLOOR ELEVATION = 100' - 0". REFER TO CIVIL DRAWINGS FOR EQUIVALENT.
3. REFER TO CODE COMPLIANCE DRAWING(S) FOR LOCATIONS OF RATED ASSEMBLIES.
4. ABBREVIATIONS, TYPICAL MOUNTING DIMENSIONS, AND ANNOTATION SYMBOLOGY ARE SHOWN ON GENERAL INFORMATION DRAWINGS.
5. WALL DIMENSIONS ARE TO FACE OF MASONRY, FACE OF CONCRETE, FACE OF STUDS, EXTERIOR WALL SHEATHING, COLUMN CENTERLINE AS SHOWN OR FACE OF EXISTING CONSTRUCTION UNLESS OTHERWISE NOTED.
6. ALL DIMENSIONS ARE PERPENDICULAR AND PARALLEL, UNLESS NOTED OTHERWISE.
7. PROVIDE APPROVED SMOKE/FIRESTOPPING ASSEMBLIES AT ALL MECHANICAL AND ELECTRICAL PENETRATIONS THROUGH FIRE RATED AND SMOKE RESISTANT PARTITIONS IDENTIFIED ON CODE COMPLIANCE DRAWINGS.
8. CONSTRUCT ALL WALLS TIGHT TO DECK ABOVE AND EXTEND INTO DECK FLUTES AND WEBS OF STEEL MEMBERS UNLESS OTHERWISE NOTED.
9. PROVIDE DEFLECTION TRACK AT TOP OF ALL METAL STUD ASSEMBLIES. DO NOT FASTEN GYP BOARD OR ANY OTHER WALL SHEATHING INTO DEFLECTION TRACK. ALTERNATIVE DEFLECTION ASSEMBLIES MAY BE USED AT THE ARCHITECT'S DISCRETION.
10. PROVIDE ACOUSTICAL SEALANT AT ALL WALLS WITH ACOUSTICAL INSULATION.
11. PROVIDE 5/8" WATER RESISTANT GYPSUM WALLBOARD OR CEMENTITIOUS BACKER BOARD AT ALL WALLS OF TOILET ROOMS, WALLS RECEIVING TILE, AND WALLS BEHIND AND ADJACENT TO SINKS.
12. REFER TO STRUCTURAL DRAWINGS FOR MASONRY REINFORCING AND GROUTING.
13. PROVIDE BULLNOSE CONCRETE MASONRY UNITS AT EXPOSED SILLS AND AT ALL INTERIOR EXPOSED VERTICAL CORNERS, INCLUDING WINDOW AND DOOR JAMBS.
14. ALL WOOD EXPOSED TO MOISTURE IS TO BE PRESSURE TREATED
15. ALL SUBCONTRACTORS ARE TO COORDINATE WITH OTHER TRADES TO INSURE COMPATIBILITY OF THEIR RESPECTIVE WORK.
16. PROVIDE WOOD BLOCKING REQUIRED FOR ATTACHMENT OF ALL MISC. HARDWARE AND EQUIPMENT INCLUDING BUT NOT LIMITED TO: TOILET ACCESSORIES, DOOR HARDWARE, ELECTRICAL DEVICES, EQUIPMENT INDICATED, GRAB BARS, HANDRAILS, MILLWORK, ETC. BLOCKING SHALL BE 3/4" PLYWOOD, 16GA GALVANIZED SHEET METAL OR 2X6 SOLID WOOD.
17. TRANSITION LINES OF DIFFERERING FLOORING OCCURRING AT A DOOR SHALL BE LOCATED AT THE CENTER LINE OF THE CLOSED DOOR.
18. UNLESS NOTED OTHERWISE, DOOR HINGES ARE TO BE 4" FROM FINISH FACE OF WALL.
19. PROVIDE CONTROL JOINTS IN GYPSUM WALLBOARD AS RECOMMENDED BY WALLBOARD MANUFACTURER AND COORDINATE LOCATIONS WITH ARCHITECT.
20. THERMAL AND ACOUSTICAL INSULATION, OTHER THAN FOAM PLASTICS, SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPMENT OF NOT MORE THAN 450
21. ALL MATERIAL USED IN THE PROJECT IS TO BE ASBESTOS AND MERCURY FREE.

WALL TAG LEGEND

WALL TYPE
SEE G111

STUD SIZE
0 7/8" METAL TRACK
1 1-5/8" (1-1/2") METAL STUD
2 2-1/2" METAL STUD
3 2X2 WOOD STUD
4 3-5/8" METAL STUD
5 2X4 WOOD STUD
6 6" METAL STUD
7 2X6 WOOD STUD
8 8" METAL STUD
O OTHER: SEE WALL TYPES

CONCRETE/MASONRY THICKNESS
A 4" NOMINAL CMU / 4" CONCRETE
B 6" NOMINAL CMU / 6" CONCRETE
C 8" NOMINAL CMU / 8" CONCRETE
D 10" NOMINAL CMU / 10" CONCRETE
E 12" NOMINAL CMU / 12" CONCRETE
O OTHER: SEE WALL TYPES

A - 4 1/2

WALL INSULATION
A ACOUSTIC INSULATION
T THERMAL INSULATION
- NONE

FIRE RESISTANCE RATING
RATING SHOWN IN HOURS

WALL HEIGHT
E EXTERIOR, SEE SECTIONS
X SHAFT, SEE SECTIONS
L BOTTOM OF HARD LID
D UNDERSIDE OF DECK ABOVE
C EXTEND 6" ABOVE CEILING
TOP OF WALL IN INCHES
O OTHER, SEE WALL TYPES

FURRING SIZE
SAME SYMBOLS AS STUD SIZE

UNIT PLAN LEGEND

1 BEDROOM UNIT
37 UNITS

2 BEDROOM UNIT
6 UNITS

43 TOTAL UNITS

pinnacle construction group

DESIGN/BUILD CONTRACTOR

PINNACLE CONSTRUCTION GROUP
1000 FRONT AVE.
GRAND RAPIDS, MI 49504
616-451-0500

WWW.ASKOURCLIENTS.COM

PROJECT TEAM

JAMES LEWIS
MATT DIXON
BRENT BOWEN

PROJECT NUMBER

24-014

Samaritas South Haven
Multifamily Residential

M-140
Allendale, MI 49401

LICENSING STAMP

NOT FOR CONSTRUCTION

ISSUANCE
SITE PLAN APPROVAL
01/31/2025

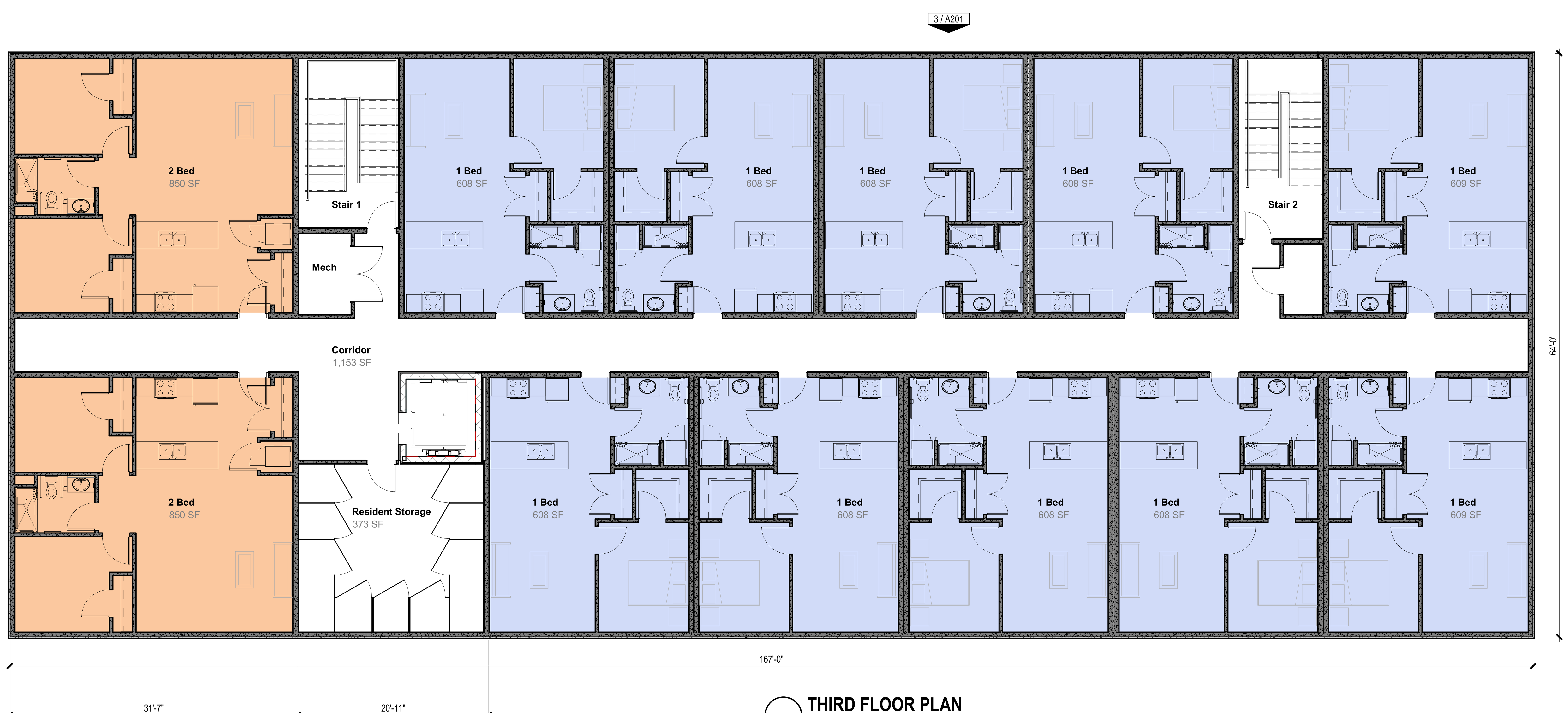
REVISIONS
NO. DATE DESCRIPTION

SHEET NAME
PRESENTATION FLOOR PLANS

SHEET NUMBER
A01

FOURTH FLOOR PLAN

1/8" = 1'-0"



THIRD FLOOR PLAN

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15. ALL SUBCONTRACTORS ARE TO COORDINATE WITH OTHER TRADES TO INSURE COMPATIBILITY OF THEIR RESPECTIVE WORK.
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WALL TAG LEGEND

WALL TYPE
SEE G111

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7 2X6 WOOD STUD
8 8" METAL STUD
O OTHER: SEE WALL TYPES

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D 10" NOMINAL CMU / 10" CONCRETE
E 12" NOMINAL CMU / 12" CONCRETE
O OTHER: SEE WALL TYPES

A - -
4 - C

WALL INSULATION
A ACOUSTIC INSULATION
T THERMAL INSULATION
\- NONE

FIRE RESISTANCE RATING
RATING SHOWN IN HOURS

WALL HEIGHT
E EXTERIOR, SEE SECTIONS
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L BOTTOM OF HARD LID
D UNDERSIDE OF DECK ABOVE
C EXTEND 6" ABOVE CEILING
TOP OF WALL IN INCHES
O OTHER, SEE WALL TYPES

FURRING SIZE
SAME SYMBOLS AS STUD SIZE

UNIT PLAN LEGEND

1 BEDROOM UNIT
37 UNITS

2 BEDROOM UNIT
6 UNITS

43 TOTAL UNITS

pinnacle construction group

DESIGN/BUILD CONTRACTOR
PINNACLE CONSTRUCTION GROUP
1000 FRONT AVE.
GRAND RAPIDS, MI 49504
616-451-0500
WWW.ASKOURCLIENTS.COM

PROJECT TEAM
JAMES LEWIS
MATT DIXON
BRENT BOWEN

PROJECT NUMBER
24-014

Samaritas South Haven
Multifamily Residential
M-140
Allendale, MI 49401

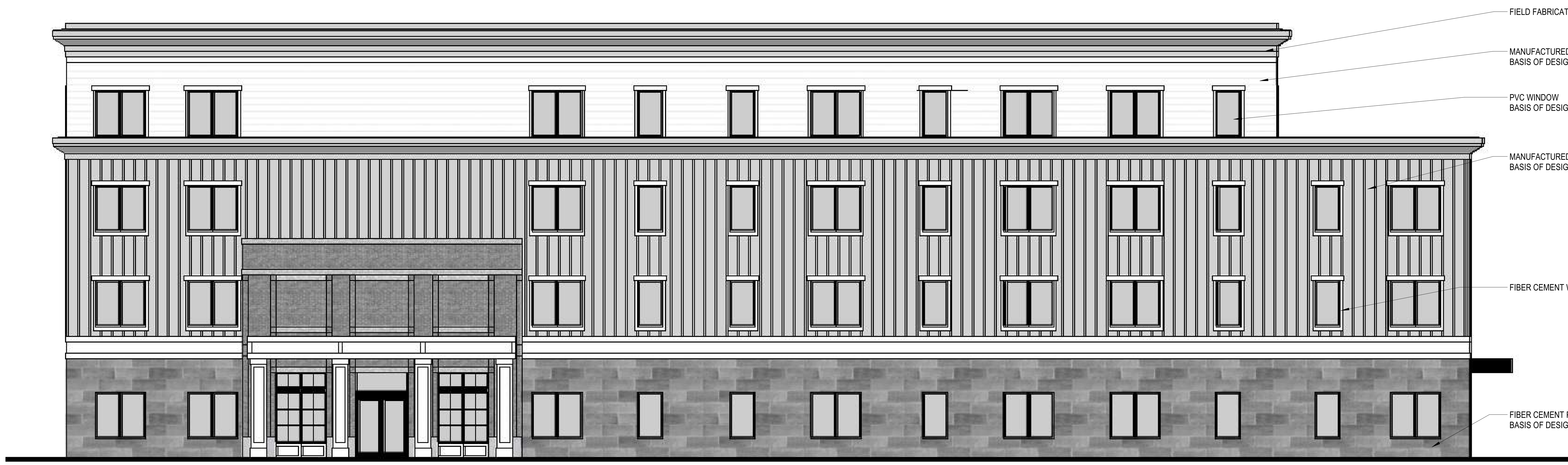
LICENSING STAMP
NOT FOR CONSTRUCTION

ISSUANCE
SITE PLAN APPROVAL
01/31/2025

REVISIONS
NO. DATE DESCRIPTION

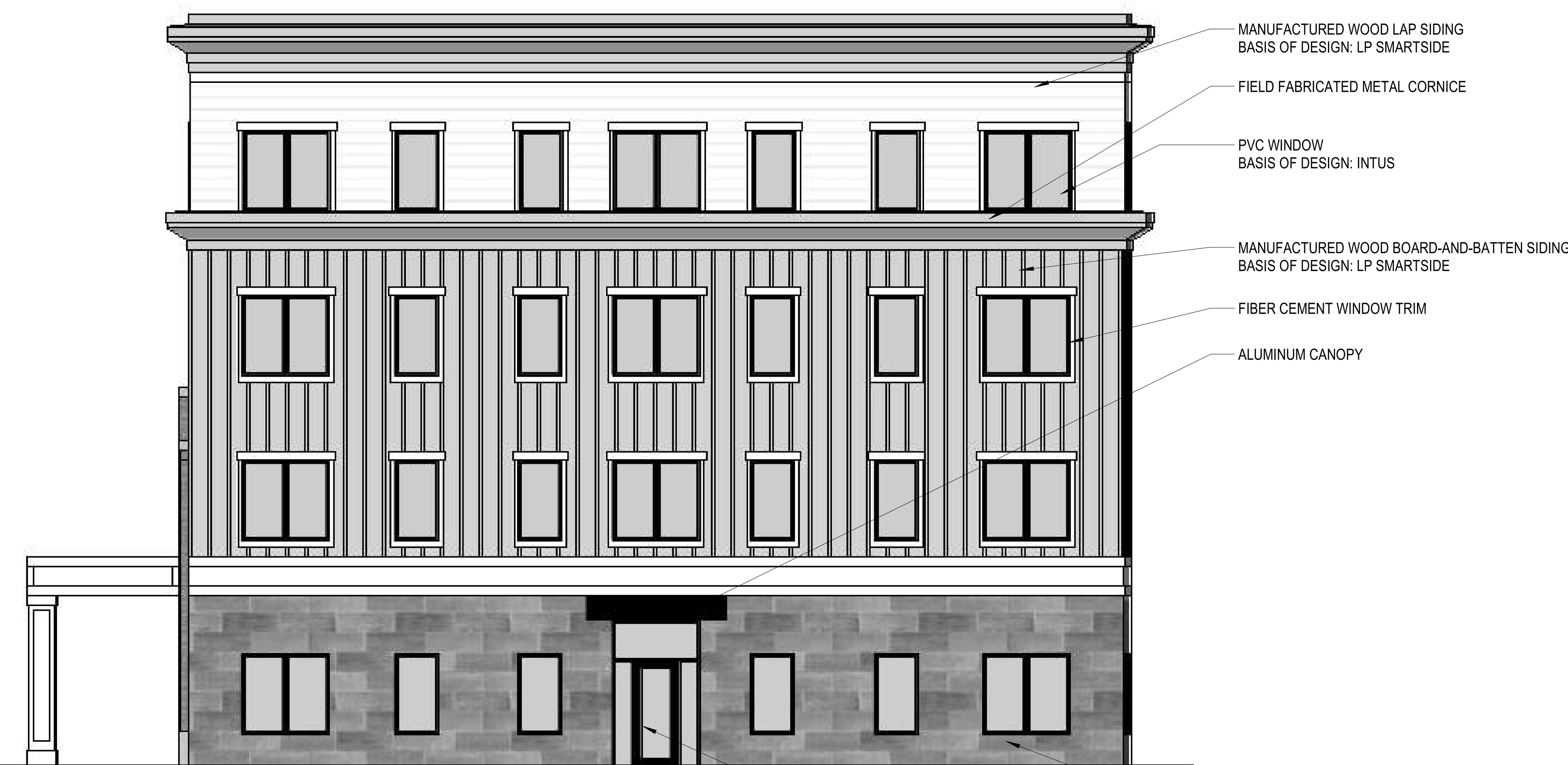
SHEET NAME
PRESENTATION FLOOR PLANS

SHEET NUMBER
A02

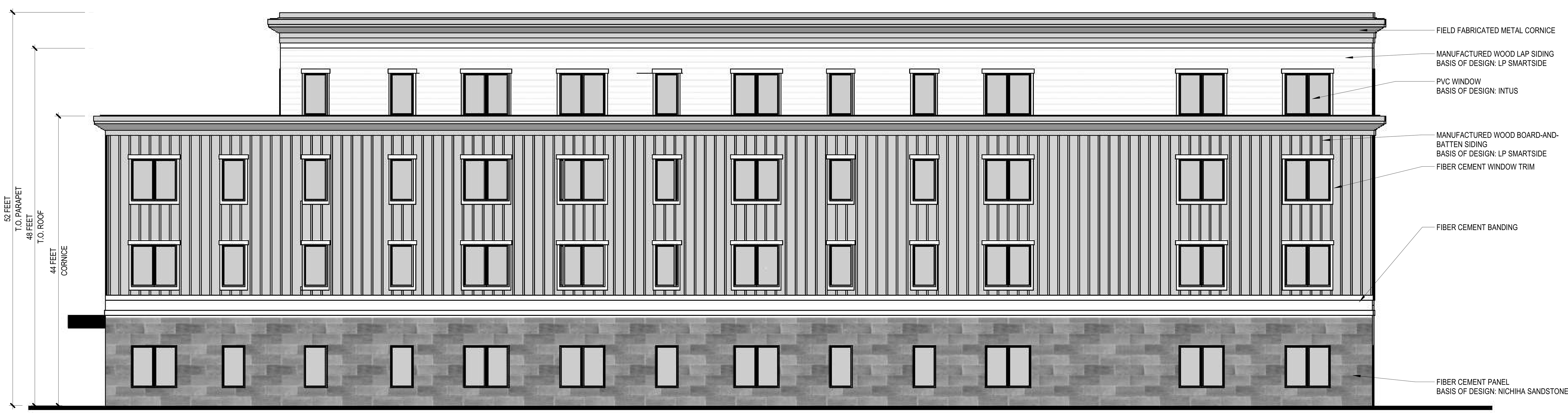


1 **WEST ELEVATION**
1/8" = 1'-0"

2 **NORTH ELEVATION**
1/8" = 1'-0"



3 **SOUTH ELEVATION**
1/8" = 1'-0"



4 **EAST ELEVATION**
1/8" = 1'-0"

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NO.	DATE	DESCRIPTION

SHEET NAME
PRESENTATION ELEVATIONS

SHEET NUMBER
A03

1 **NORTHWEST AERIAL**
NOT TO SCALE

2 **NORTH PERSPECTIVE**
NOT TO SCALE

3 **NORTHEAST PERSPECTIVE**
NOT TO SCALE

4 **ENTRY DETAIL**
NOT TO SCALE

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1000 FRONT AVE.
GRAND RAPIDS, MI 49504
616-451-0500

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M-140
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REVISIONS
NO. DATE DESCRIPTION

SHEET NAME
PRESENTATION RENDERINGS

SHEET NUMBER
A04