12" INV. NE.=621.46

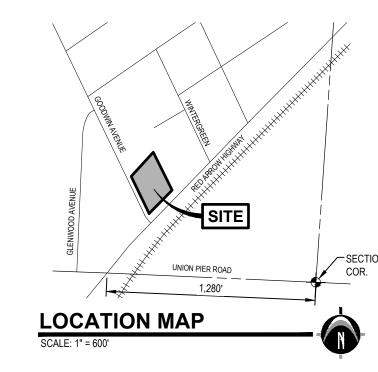
12" INV. SW.=621.65

24" INV. NW.=618.03

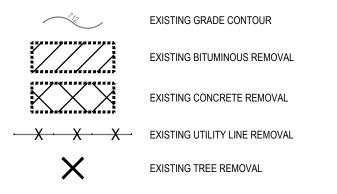
- EX. STM. CB

36" INV. SE.=618.0

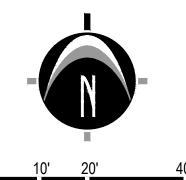
Experience . . . the Difference



LEGEND



 $-- \times --- \times ---$ Fence



REMOVAL / DEMOLITION NOTES

- 1) THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AT LEAST THREE WEEKS PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS. THERE ARE EXISTING UNDERGROUND UTILITIES WHICH CROSS THE PROPOSED REPLACEMENT WORK AREAS. ALTHOUGH THEIR EXACT LOCATION CANNOT BE DETERMINED, IT IS KNOWN THESE UTILITIES ARE LOCATED WHERE DIGGING IS REQUIRED. THE CONTRACTOR SHALL CONDUCT THE REQUIRED EXCAVATION IN THESE AREAS WITH EXTREME CAUTION.
- 2) ALL EXISTING UTILITY INFORMATION SHOWN IS TAKEN FROM EXISTING RECORDS, AND FIELD VERIFIED WHERE ACCESSIBLE ONLY. INFORMATION OBTAINED FROM EXISTING RECORDS MAY NOT BE COMPLETE OR ACCURATE. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR SHALL FIELD VERIFY FOR ACCURACY, LOCATION AND CONDITION.
- 3) BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY AND BY THE OWNER, REPRESENTATIVES OF THE CITY, THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING UTILITIES AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS AND EXISTING VIDEO TAPES. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE CONTRACTOR.
- 4) THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION WORK. 5) ALL EXISTING UTILITIES, SEWERS AND WATER LINES ARE TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT
- AND COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES, MUNICIPALITIES AND AGENCIES BEFORE COMMENCING ANY WORK. 6) THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING POLES, OVERHEAD WIRES, UNDERGROUND UTILITIES, GUY WIRES, GAS LINES, ETC. ALL ADJUSTMENT OR RECONSTRUCTION WORK, EXCEPT FOR THOSE STRUCTURES OTHERWISE NOTED ON THE PLANS, SHALL BE PERFORMED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES AND VALVES BOX SHALL NOT BE DISTURBED BY THE CONTRACTOR DURING
- 7) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
- 8) ALL DEBRIS SHALL BE REMOVED FROM THE SITE, AND NO STOCKPILING ON SITE SHALL BE ALLOWED UNLESS APPROVED BY THE OWNER OR THEIR
- 9) THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE REQUIRED OR AS SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO ANYONE ELSE, INCLUDING THE CITY OR OWNER.
- 10) ASPHALT AREAS SHOWN TO BE SAWCUT AND REMOVED FULL DEPTH ARE ACTUAL FACE OF PROPOSED CURBS. IT WILL BE NECESSARY TO MAKE OFF-SET SAWCUTS TO PROVIDE CLEARANCE FOR PROPOSED CURBS: THE CONTRACTOR SHALL DETERMINE THE AMOUNT OF OFF-SET NECESSARY TO CONSTRUCT THE PROPOSED CURBS. ADDITIONAL CUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE EXISTING PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT FOR ADDITIONAL CUTS. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE REMAINING PAVEMENT. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL FULL DEPTH SAWCUTS AND REMOVE THE DAMAGE AREAS AS NECESSARY.
- 11) ALL PAVEMENT REMOVAL AREAS SHALL BE FULL PAVEMENT CROSS-SECTION REMOVAL DOWN TO NATIVE SOIL LAYER IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED MONTH/DAY/YEAR.
- 12) ALL TREES WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.

TITLE INFORMATION

The Title Description and Schedule B items hereon are from First American Title, Commitment No. 920120, dated February 3, 2021.

TITLE DESCRIPTION

Land in the Township of Chikaming, Berrien County, MI, described as follows:

Part of the Southeast Quarter of Section 25, Town 7 South, Range 21 West, described as follows: Commencing at the South Quarter post of said Section 25; thence East, on the South Section line, 1347.60 feet; thence North, at right angles, 575.00 feet; thence North 34 degrees 15 minutes 00 seconds East 157.10 feet to a point on the Northeasterly line of Goodwin Road; thence South 28 degrees 13 minutes 19 seconds East, along the Northeasterly line of Goodwin Road, 124.52 feet to the place of beginning of this description; thence South 28 degrees 13 minutes 19 seconds East, along said Northeasterly line, 243.35 feet to Red Arrow Highway; thence North 42 degrees 15 minutes 56 seconds East, along said highway, 199.09 feet; thence North 29 degrees 15 minutes 10 seconds West 249.40 feet; thence South 40 degrees 10 minutes 54 seconds West 197.00 feet to the place of beginning.

SCHEDULE B - SECTION II NOTES

Release of Right of Way in favor of the people of the State of Michigan and the Covenants, Conditions, and Restrictions contained in instrument recorded in Liber 33 of Misc., page 196. **The easement described in this document is shown on this survey.**

SURVEYOR'S NOTES

- 1) ALTA TABLE "A" ITEM NO. 3 Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 260258, Panel Number 0330C, with an Effective Date of 04/17/2006, shows this parcel to be located in Zone X. No field surveying was performed to determine this zone.
- 2) ALTA TABLE "A" ITEM NO. 4 Gross Land Area: 45833 Square Feet / 1.05 Acres
- 3) ALTA TABLE "A" ITEM NO. 9 Parking Information
- 0 standard parking spaces
- 0 handicap parking spaces
- 0 total parking spaces

REMOVE EXISTING WALL

5 REMOVE EXISTING WELL

(8) REMOVE EXISTING FENCE

9 REMOVE EXISTING POST

4 REMOVE EXISTING OVERHEAD UTILITY LINE

7 REMOVE EXISTING ELECTRIC & GAS METERS

\$\leq 10 \rightarrow SAWCUT / REMOVE EXISTING BITUMINOUS

6 REMOVE EXISTING CONCRETE WALL

- 4) ALTA TABLE "A" ITEM NO. 16 Evidence of recent earth moving work, building construction or building additions observed in the process of conducting the fieldwork. None observed at time of survey.
- 5) Basis of Bearing: N90°00'00"E along the South line of Section 25, Town 7 South, Range 21 West
- 6) Note to the client, insurer, and lender With regard to Table A, item 11, source information from plans and markings will be combined with observed evidence of utilities pursuant to Section 5.E.iv. to develop a view of the underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary.
- 7) NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.

www.nederveld.com 800.222.1868 **GRAND RAPIDS** 217 Grandville Ave., Suite 302 Grand Rapids, MI 49503 Phone: 616.575.5190 **ANN ARBOR** CHICAGO

PREPARED FOR:

Union Pier Development LLC Att: Brad Rottshafer

HOLLAND **INDIANAPOLIS**

ST. LOUIS

2050 Celadon Drive NE, Suite B Grand Rapids, MI 49525 (616) 235-0711

REVISIONS:

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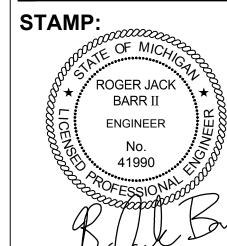
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Drawn: Brad M. Checked: Jack B. Date: 08.02.2022

Δ.



PROJECT NO: 21200264

SHEET NO:

BENCHMARKS

BENCHMARK A ELEV. = 627.71 (NAVD88)

BENCHMARK B ELEV. = 627.93 (NAVD88)

Railroad spike in Northeast side of a power pole, ±28' Southwest of the centerline of Goodwin Road, said power

Railroad spike in the Northwest side of a power pole, ±38' Northeast of the centerline of Red Arrow Highway, said

pole being the second power pole on the South side of Goodwin Road, North of Red Arrow Highway.

power pole being the first power pole on the South side of Red Arrow Highway, North of Goodwin Road.



800.222.1868 **GRAND RAPIDS**

217 Grandville Ave., Suite 302 Grand Rapids, MI 49503 Phone: 616.575.5190

ANN ARBOR CHICAGO COLUMBUS HOLLAND

INDIANAPOLIS ST. LOUIS

PREPARED FOR:

Union Pier Development LLC Att: Brad Rottshafer

2050 Celadon Drive NE, Suite B Grand Rapids, MI 49525 (616) 235-0711

REVISIONS:

EXISTING BITUMINOUS

EXISTING CONCRETE

PROPOSED BITUMINOUS

PROPOSED CONCRETE

PROPOSED BOLLARD

PROPOSED POLE LIGHT

PROPOSED AC UNIT

-D PROPOSED WOOD FENCE

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Title: Client Revisions Drawn: Brad M. Checked: Jack B. Date: 08.02.2022

ZONING OF PROPERTY: 11-07-0125-0026-03-3

1) C-U (UNION PIER MIXED USE) ZONING REQUIREMENTS

A) MINIMUM LOT AREA = 2,500 SQ.FT.

C) MAXIMUM BUILDING HEIGHT = 40 FT OR 3 STORIES D) MAXIMUM LOT COVERAGE = 100%

A) FRONT YARD = MIN. NONE, MAX: 15 FT.

C) REAR YARD = SUFFICIENT FOR SITE ELEMENTS.

A) TOTAL ACREAGE = 1.05 ACRES (45,839 SQ.FT.) B) AREA OF PROPOSED BUILDINGS = 15,600 SQ.FT.

D) PAVEMENT AREA = APPROX. 12,996 SQ.FT.

E) NUMBER OF RESIDENTIAL UNITS = 18 TOWN HOUSES = 13

F) PROPOSED DENSITY = 18 UNITS / 1.05 ACRES = 17.1 UNITS / ACRE G) OPEN SPACE PROVIDED = 13,946 SQ.FT. (30.4%)

A) MINIMUM REQUIRED SPACE PER TOWNSHIP = 9'x18.5' (24' AISLE)

B) TYPICAL PARKING SPACE PROVIDED = 9'x18.5' (24' AISLE) C) NUMBER OF SPACES REQUIRED = 39 (BASED ON TOWNSHIP REQUIREMENTS OF

2/DWELLING UNIT + 1/300 SF RETAIL AREA IN LIVE-WORK = 36 +3) D) NUMBER OF SPACES PROVIDED = 43 TOTAL (31 GARAGE, 11 + 1 DELIVERY VEHICLE 4) THIS PROJECT IS NOT LOCATED IN THE 100 YEAR FLOOD PLAIN, BASED ON THE NATIONAL

5) BEST MANAGEMENT PRACTICES WILL BE UTILIZED DURING AND AFTER CONSTRUCTION OF THE PROJECT. MEASURES WILL INCLUDE THE USE OF SEEDING AND MULCHING, SEDIMENT INLET FILTERS, COMPACTION AND PAVING. THE OWNER OF THE SUBJECT

6) UTILITIES SHOWN ARE APPROXIMATE LOCATIONS DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN

7) CONTRACTOR TO FIELD VERIFY ALL INVERTS.

8) THE PERMANENT PARCEL NUMBER FOR THE SITE IS 11-07-0125-0026-03-3

9) THE ADDRESS OF THE PROPERTY IS 16024 RED ARROW HIGHWAY. 10) THERE IS CURRENTLY A VACANT HOUSE ON THE PARCEL.

THE EXISTING HOUSE WILL BE DEMOLISHED AS PART OF THIS PROJECT.

12) SITE SOILS ARE THETFORD LOAMY SAND PER USDA WEB SOIL SURVEY DATA.

13) THE PROJECT WILL NOT REQUIRE DEEP EXCAVATION OR DEWATERING SO NO IMPACT TO

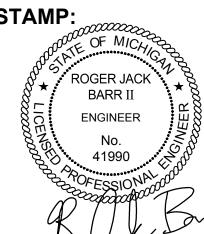
14) ALL PROPOSED FRANCHISE UTILITIES (GAS, ELECTRIC, TELEPHONE & CABLE) WILL BE LOCATED UNDER GROUND. FINAL LOCATIONS TO BE DETERMINED BY THE UTILITY

15) THE CONDOMINIUM ASSOCIATION WILL BE RESPONSIBLE FOR ALL POOL & COMMON

16) THE BUILDING CONTRACTOR WILL BE RESPONSIBLE FOR DAILY SITE CLEANUP AND HOUSEKEEPING IN ACCORDANCE WITH TOWNSHIP ORDINANCE SECTION 7.10 (B) (d).

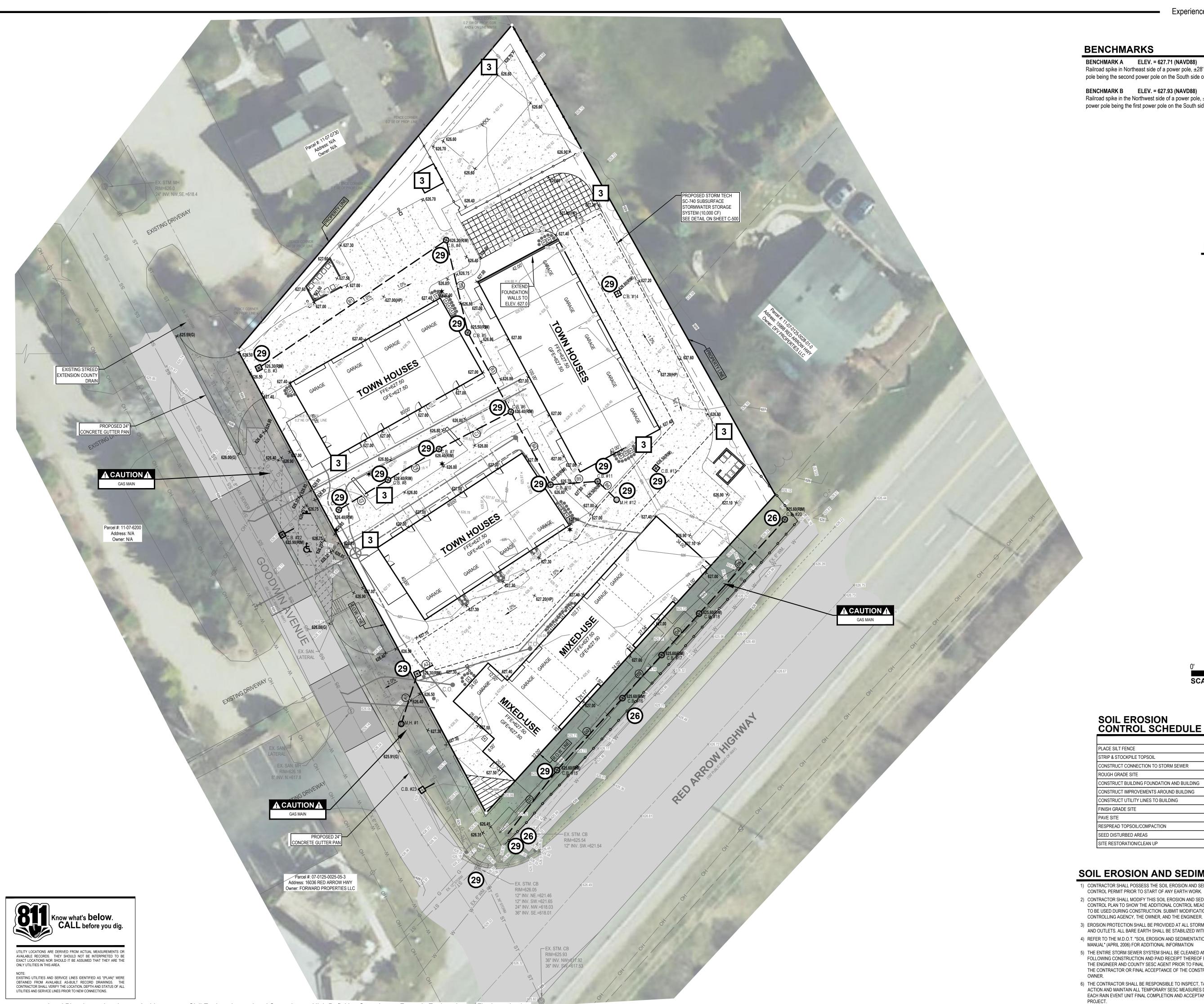
18) THE CONDOMINIUM ASSOCIATION WILL CONTRACT WITH A WASTE PICKUP AND REMOVAL COMPANY AND WILL BE RESPONSIBLE TO MAINTAIN & FOR HOUSEKEEPING OF THE

19) ALL DRIVEWAYS, ACCESS AISLES AND PARKING SPACES WILL BE MAINTAINED BY THE



PROJECT NO: 21200264

SHEET NO:



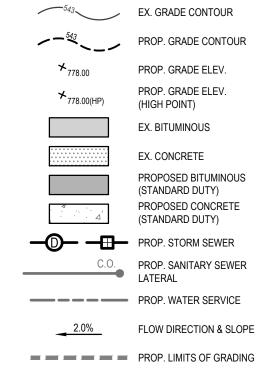
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Railroad spike in the Northwest side of a power pole, ±38' Northeast of the centerline of Red Arrow Highway, said power pole being the first power pole on the South side of Red Arrow Highway, North of Goodwin Road.

LEGEND



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SOIL EROSION
CONTROL SCHEDULE

2023

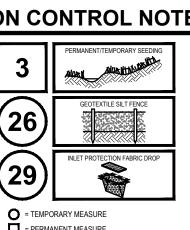
CONTROL SCHEDULE											_	U	_	J								
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PLACE SILT FENCE																			T	T	Τ	T
STRIP & STOCKPILE TOPSOIL		Γ	Г	Г	П				\top	T	T	7	7	7	1	1	7		Т	T	Т	T
CONSTRUCT CONNECTION TO STORM SEWER		Г	Γ	Г	П				T	T	T	7	7	T	T	1	7		Т	T	Т	Ī
ROUGH GRADE SITE		Γ	Γ	Г		\Box				T	T	7	7	7	1	1	7		Т	T	Т	T
CONSTRUCT BUILDING FOUNDATION AND BUILDING																			T	I	T	Ī
CONSTRUCT IMPROVEMENTS AROUND BUILDING							T	\Box	П	Τ	Τ	П	T	П		П			Т	T	T	T
CONSTRUCT UTILITY LINES TO BUILDING	П	Γ	Γ	Γ			T	\Box	П	Т	Т	П	Т	П	П	Π	П		П	I	T	Γ
FINISH GRADE SITE																						T
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SEED DISTURBED AREAS							T	\Box	Т	T	T	П		$ \top $	$ \top $		П		П	I		T
SITE RESTORATION/CLEAN UP		Γ	Γ	Γ			Т		T	T	T	T	T	T	T	T	Т	T		I		Γ

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1) CONTRACTOR SHALL POSSESS THE SOIL EROSION AND SEDIMENTATION

CONTROL PERMIT PRIOR TO START OF ANY EARTH WORK. 2) CONTRACTOR SHALL MODIFY THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN TO SHOW THE ADDITIONAL CONTROL MEASURES INTENDED TO BE USED DURING CONSTRUCTION. SUBMIT MODIFICATIONS TO THE

- 3) EROSION PROTECTION SHALL BE PROVIDED AT ALL STORM SEWER INLETS AND OUTLETS. ALL BARE EARTH SHALL BE STABILIZED WITH SEEDING.
- 4) REFER TO THE M.D.O.T. "SOIL EROSION AND SEDIMENTATION CONTROL MANUAL" (APRIL 2006) FOR ADDITIONAL INFORMATION
- 5) THE ENTIRE STORM SEWER SYSTEM SHALL BE CLEANED AND FLUSHED FOLLOWING CONSTRUCTION AND PAID RECEIPT THEREOF PROVIDED TO THE ENGINEER AND COUNTY SESC AGENT PRIOR TO FINAL PAYMENT TO THE CONTRACTOR OR FINAL ACCEPTANCE OF THE CONSTRUCTION BY THE
- 6) THE CONTRACTOR SHALL BE RESPONSIBLE TO INSPECT, TAKE CORRECTIVE ACTION AND MAINTAIN ALL TEMPORARY SESC MEASURES DAILY AND AFTER EACH RAIN EVENT UNIT FINAL COMPLETION AND ACCEPTANCE OF THE



= PERMANENT MEASURE REFER TO MDOT STANDARD PLAN R-96-D

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ST. LOUIS

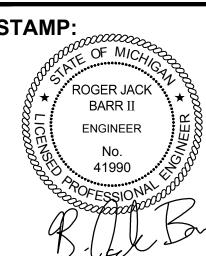
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PROJECT'NO: 21200264

SHEET NO:

INVERTS

12" N. INV.=618.83

24" N. INV.=618.20

12" NW. INV.=623.00

12" SW. INV.=622.74

626.40 18" SE. INV.=622.27

625.44 12" NE. INV.=623.07 12" SW. INV.=623.07

625.03 18" W. INV.=621.98 18" SE. INV.=621.98

324.61 8" SW. INV.=622.58

8" NE. INV.=622.58

STORM SEWER DRAINAGE PIPES

LENGTH DIA. SLOPE MATERIAL

0.30%

0.00%

0.30%

0.30%

12" 0.30%

18" 0.50%

18" 0.50%

18" 0.50%

12" 0.50%

12" 0.50%

8" 0.90%

8" 0.90% 8" 0.90%

8" 0.90%

8" 0.90%

0.50%

18" NW. INV.=621.92

EJ 1040 TYPE B

EJ 5105

EJ 5105

EJ 1040 TYPE N

EJ 6121 N

EJ 6121 N

EJ 6121 N

EJ 6121 N

EJ 1040 TYPE N

EJ 1040 TYPE N

EJ 1040 TYPE B

EJ 5105

EJ 5105

NYLOPLAST W/ 1299 CGD

NYLOPLAST W/ 1299 CGD

NYLOPLAST W/ 1299 CGD

NYLOPLAST W/ 1299 CGD

NYLOPLAST W/ 1299 CGI

EJ 7065

EJ 7065

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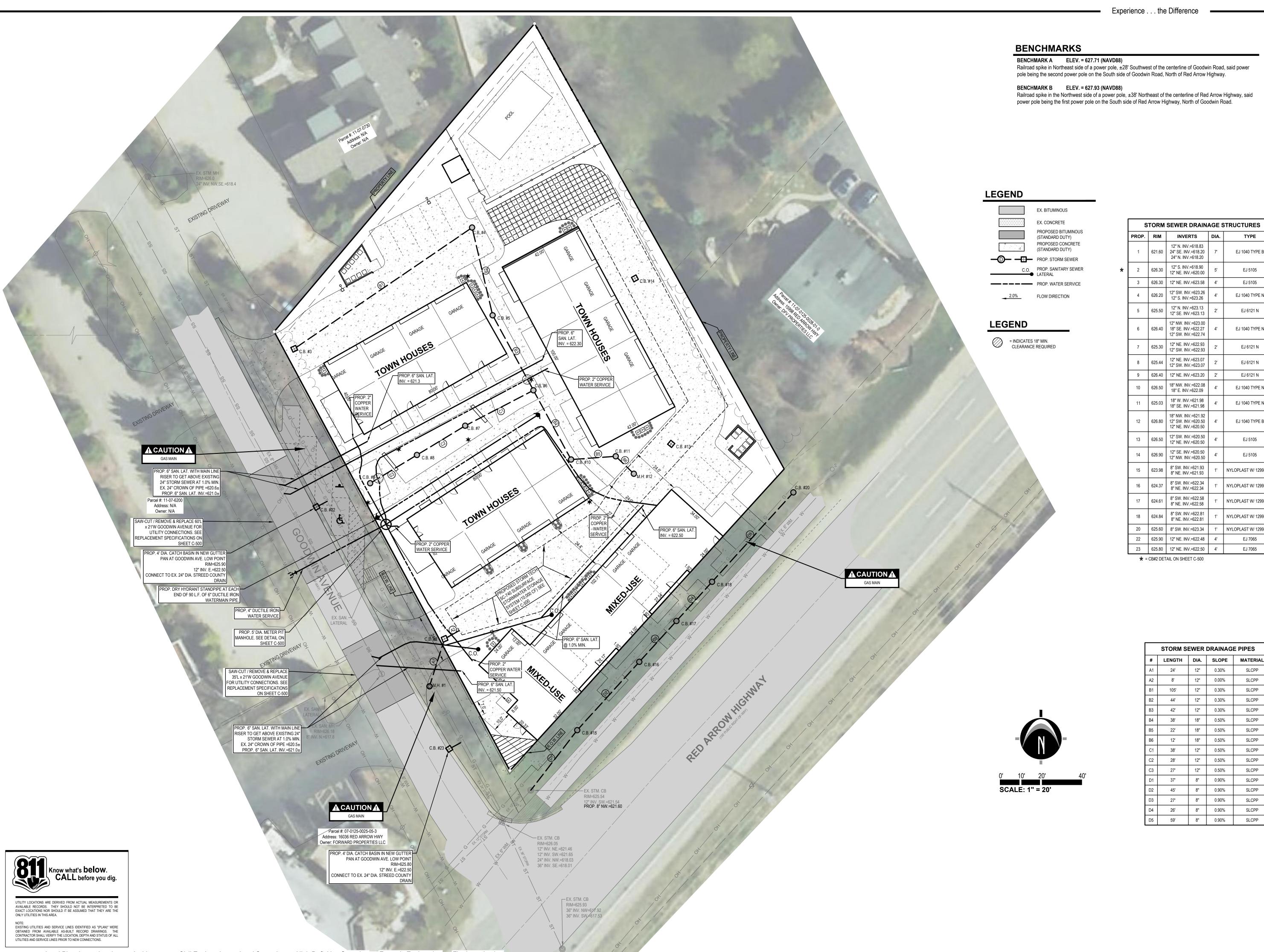
SLCPP

SLCPP

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SLCPP

621.60 24" SE. INV.=618.20



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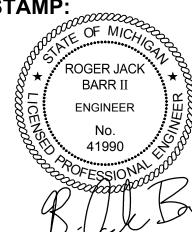
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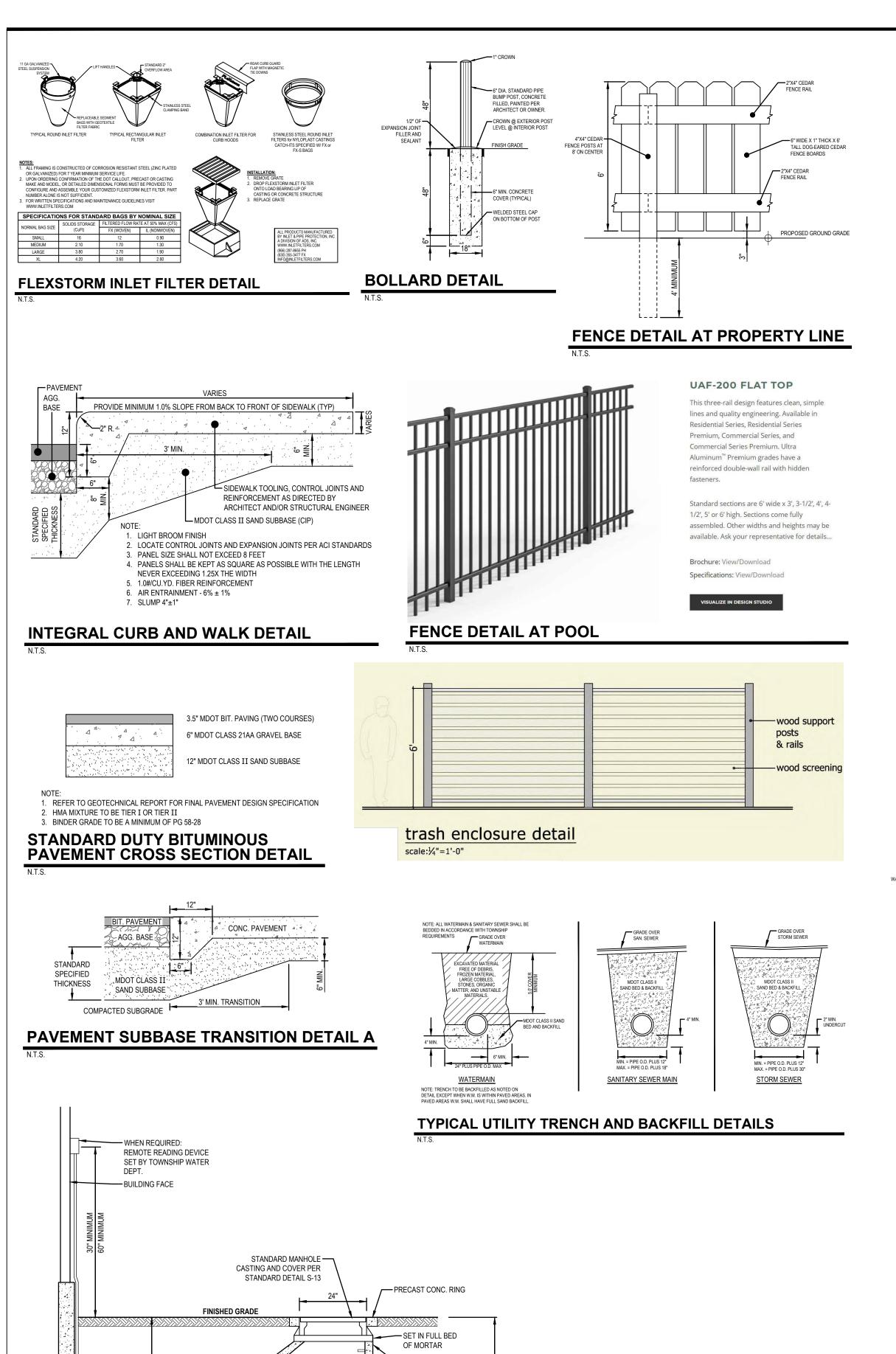
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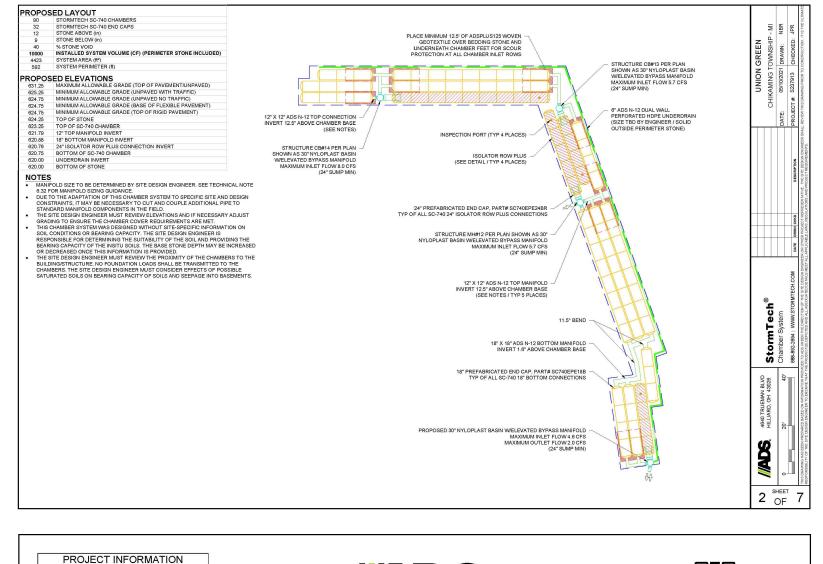
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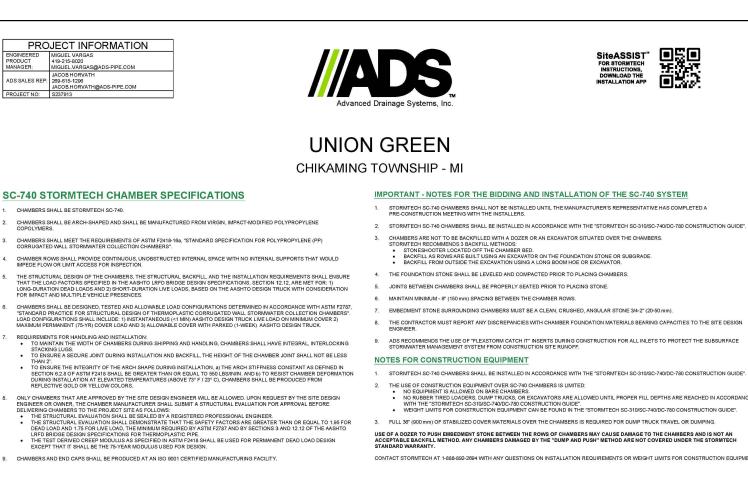


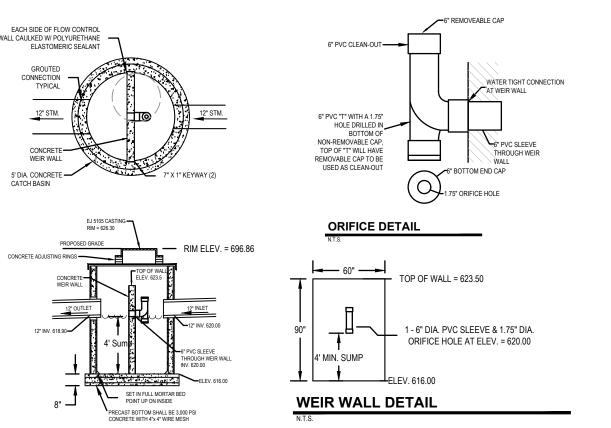
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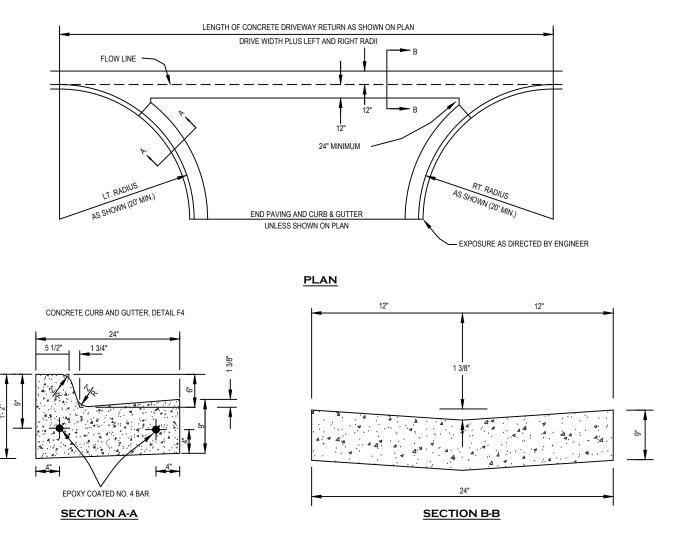




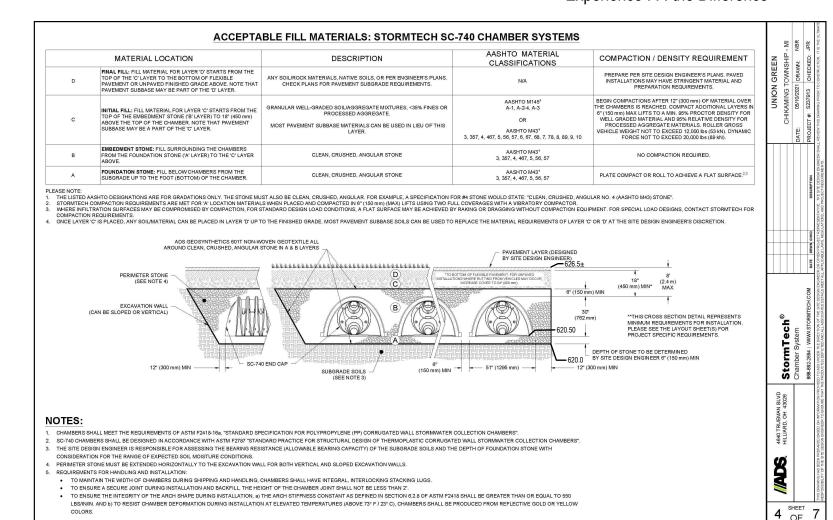


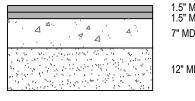


CB#2 / OUTLET CONTROL STRUCTURE DETAIL



DRIVEWAY ENTRANCE DETAIL

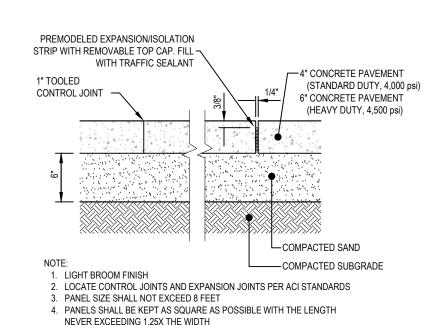




5" MDOT BIT. MIX 4E BASE COURSI 7" MDOT CLASS 21AA GRAVEL BASE

12" MDOT CLASS II SAND SUBBASE

GOODWIN AVENUE REPLACEMENT PAVEMENT CROSS SECTION DETAIL

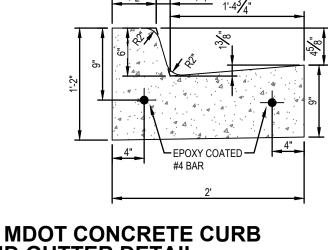


CONCRETE PAVEMENT DETAIL

5. 1.0#/CU.YD. FIBER REINFORCEMENT

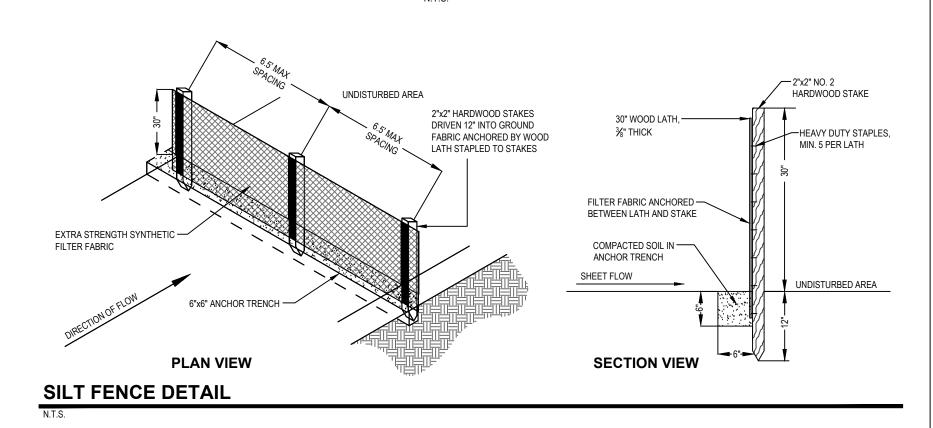
6. AIR ENTRAINMENT - 6% ± 1%

7. SLUMP 4"±1"

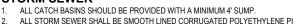


24" CONCRETE GUTTER PAN DETAIL

F4 MDOT CONCRETE CURB AND GUTTER DETAIL



CONSTRUCTION NOTES



- 2. ALL STORM SEWER SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE PIPE (SLCPP). WITH WATERTIGHT JOINTS
- F-477, F-2487, D-3350 AND F-1417. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND ASTM D-2321 OR CONCRETE PIPE MEETING THE REQUIREMENTS OF ASTM C-76-III UNLESS OTHERWISE NOTED
- 6" UNDERDRAIN SHALL BE PERFORATED PIPE WITH SOCK, MEETING THE REQUIREMENTS OF AASHTO M-252 AND THE GEOTEXTILE SHALL MEET AASHTO M-288 REQUIREMENTS ALL CATCH BASINS AND MANHOLES SHALL BE CONCRETE, CONFORMING TO ASTM C-478 WITH BUTYL RUBBER GASKETED
 JOINTS WITH BOOT TYPE PIPE CONNECTIONS CONFORMING TO ASTM C-923 FOR ALL PIPE CONNECTIONS 24" DIAMETER AND
- 5. ALL CATCH BASINS ARE DRAWN AND WILL BE STAKED AT CENTER OF CASTING.

WATERMAIN AND SANITARY SEWER

ALL WATERMAIN AND SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE CHIKAMING TOWNSHIP AND GRSD SEWER AUTHORITY STANDARD CONSTRUCTION SPECIFICATIONS.

- 1. ALL CONSTRUCTION AND MATERIAL SPECIFICATIONS INCLUDED FOR THIS PROJECT SHALL BE IN ACCORDANCE WITH THE MDOT CONSTRUCTION AND MATERIALS SPECIFICATIONS (LATEST EDITION) AND THE ORDINANCES OF THE TOWNSHIP. WHERE CONFLICTS OCCUR IN THE ABOVE, THE TOWNSHIP SHALL BE THE GOVERNING AUTHORITY. 2. SOIL BORINGS HAVE BEEN PERFORMED BY THE OWNER AND SHALL BE PROVIDED TO THE CONTRACTOR. VARIATION IN
- EXISTING SOIL CONDITIONS MAY IMPACT THE EARTHWORK QUANTITIES IF UNUSABLE SOILS ARE ENCOUNTERED DURING
- FROM NON-CONFORMANCE WITH THE APPLICABLE STANDARDS OR THROUGH GENERAL NEGLIGENCE.

 ALL WORK, INCLUDING INSPECTIONS AND TESTING COST REQUIRED FOR REMOVAL, RELOCATION OR NEW CONSTRUCTION
- FOR PRIVATE OR PUBLIC UTILITIES, WILL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR AND INCLUDED IN THE BID PRICE FOR THE VARIOUS WORK ITEMS UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS FROM THE TOWNSHIP AND COUNTY AND ANY OTHER AGENCY FOR
- ALL WORK DONE BY THE CONTRACTOR. ANY DEFECTS IN THE CONSTRUCTION, INCLUDING MATERIALS OR WORKMANSHIP, SHALL BE REPLACED OR CORRECTED BY REMOVAL AND REPLACEMENT OR OTHER APPROVED METHODS PRIOR TO ACCEPTANCE BY THE TOWNSHIP OR OWNER
- 6. ALL LAWN AREAS REMOVED OR DISTURBED SHALL BE REPLACED WITH TOPSOIL AND SOD WHERE NEEDED AND SHALL BE RESEEDED AND MULCHED IF SATISFACTORY RE-ESTABLISHMENT OF LAWN DOES NOT OCCUR.
- ALL PUNCH LIST AND DEFICIENCY WORK SHALL BE COMPLETED WITHIN 1 MONTH OF THE END OF CONSTRUCTION.
 THE CONTRACTOR SHALL OBTAIN A STREET OPENING PERMIT FROM THE TOWNSHIP BEFORE BEGINNING WORK WITHIN ANY PUBLIC STREET RIGHT-OF-WAY.
 THE CONTRACTOR SHALL MAINTAIN A CURRENT SET OF CONSTRUCTION DRAWINGS ON SITE AT ALL TIMES.
- THESE PLANS HAVE BEEN DEVELOPED FOR ELECTRONIC FIELD LAYOUT. DIMENSIONS SHOWN ARE FOR GRAPHIC PRESENTATION ONLY AND SHOULD NOT BE USED FOR LAYOUT. CONTACT THE ENGINEER IF ANY DISCREPANCIES BETWEEN
- 11. THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY LIGHTS, BARRICADES, FLAGMEN, ETC. AS REQUIRED TO PERFORM THE REQUIRED WORK. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS. THE CONTRACTOR SHALL FURNISH ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE SUCH ADDITIONAL TRAFFIC CONTROL DEVICES LOCATED OUTSIDE THE LIMITS OF CONSTRUCTION AS ARE REQUIRED ON THOSE STREETS WHICH ARE USED AS DETOURS, INCLUDING "ROAD

CLOSED" SIGNS AND BARRICADES AT THE POINT WHERE THE ROAD IS CLOSED TO THROUGH TRAFFIC.

NONCONFORMANCE OF PLANS, SPECIFICATIONS AND OTHER APPLICABLE STANDARDS OR REGULATIONS.

PRICES BID PER FOOT FOR ALL PIPES IS COMPACTED IN PLACE REGARDLESS OF SOIL OR ROCK CONDITIONS

- 13. ALL WORK CONTEMPLATED SHALL AT ALL TIMES BE SUBJECT TO THE DIRECT INSPECTION OF THE TOWNSHIP, OWNER AND THEIR REPRESENTATIVES. THE TOWNSHIP AND OWNER RESERVES THE RIGHT TO HALT ALL CONSTRUCTION ACTIVITY FOR
- - 15. CONTRACTOR IS RESPONSIBLE FOR ALL SIGNS, BARRICADES AND SAFETY FENCES TO DETER PEOPLE FROM ENTERING THE WORK AREA AND FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE
 - JOB SITE. TRAFFIC CONTROLS SHALL BE COORDINATED WITH THE POLICE DEPARTMENT AND THE TOWNSHIP.

 16. PRIOR TO ANY CONSTRUCTION OR GRADING, A PROTECTIVE BARRIER, FENCE, POST AND/OR SIGNS CLEARLY INDICATING
 - LIMITS OF WORK/DISTURBANCE SHALL BE INSTALLED INDICATING NO TREE REMOVAL OR DISTURBANCES OUTSIDE LIMITS,
 - THE TOWNSHIP AND OWNER SHALL BE CONTACTED UPON DETERMINATION OF LIMITS IN THE FIELD. . ALL ROAD SURFACES, EASEMENTS OR RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT
 - ARE TO BE RESTORED COMPLETELY TO THE SATISFACTION OF THE TOWNSHIP AND THE OWNER.

 NO PARKING OF CONTRACTOR OR CONTRACTOR EMPLOYEE'S VEHICLES ON ANY PUBLIC STREETS SHALL BE PERMITTED. 19. ALL DISTURBED SIGNS, GUARDRAILS, MAIL BOXES, AND DRIVEWAYS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE
 - 20. DUST CONTROL: THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY SUCH AS CALCIUM CHLORIDE, WATER OR A MOTORIZED DUST-FREE STREET SWEEPING DEVICE TO MAINTAIN ALL ROADWAYS BEING USED FOR ${\tt ACCESS\ TO\ THE\ CONSTRUCTION\ SITE\ AND\ SHALL\ ADHERE\ TO\ ALL\ ORDINANCES\ OF\ THE\ TOWNSHIP,\ COUNTY,\ MDEQ\ OR\ ANY}$ OTHER GOVERNING AUTHORITY
 - 21. ALL SEWERS, MANHOLES, JUNCTION CHAMBERS AND INLET BASINS MUST BE CLEANED BEFORE ACCEPTANCE BY THE TOWNSHIP AND OWNER. 22. IF MUD, SOIL OR OTHER DEBRIS IS DEPOSITED ON ADJACENT STREETS, ROADS OR OTHER PROPERTY, THE CONTRACTOR
 - SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE WORK
 - 23. ADJUST TO GRADE OR RECONSTRUCT TO GRADE WORK SHALL INCLUDE THE REMOVAL AND REPLACEMENT OF ANY EXISTING CONCRETE BLOCKOUT PAVEMENT. DAMAGED PAVEMENT DOWELS OR OTHER SUCH LOAD TRANSFERS DEVICES SHALL BE
 - REPLACED AS DIRECTED BY THE COUNTY AND THE ENGINEER.

 24. ALL EXISTING CASTINGS FOR STRUCTURES TO BE ADJUSTED OR RECONSTRUCTED TO GRADE SHALL BE FIELD CHECKED AT THE TIME OF CONSTRUCTION AND MARKED SUITABLE FOR SALVAGE AND REUSE OR REPLACED. 25. COMPACTED PREMIUM BACKFILL (MDOT CLASS II SAND) WILL BE REQUIRED AT ALL FILL AREAS OR ANY STREETS WHERE
 - REMOVAL AND REPLACEMENT OF PAVEMENT IS REQUIRED AND FOR ALL UNDERGROUND CONSTRUCTION UNDER ANY DRIVEWAY OR PAVEMENT INCLUDING THE 45 DEGREE ANGLE OF INFLUENCE FROM THE OUTSIDE EDGE OF PAVEMENT OR TOP OF CURB. COMPACTION TESTS SHALL BE REQUIRED EVERY 50 FEET UNDER PAVEMENT. PAVEMENT INCLUDES, BUT NOT LIMITED TO, ROADWAY SURFACES, SIDEWALKS, BIKE WAYS, DRIVEWAYS, SHOULDERS, BUILDINGS, ETC
 - WORK/DISTURBANCE.

 27. STORMWATER POLLUTION PREVENTION ITEMS SHALL BE IN PLACE PRIOR TO COMMENCING CLEARING OPERATIONS

26. NO BUILDING MATERIAL, EQUIPMENT, VEHICLES OR CHEMICALS SHALL BE STORED OR PLACED OUTSIDE LIMITS OF

- EARTHWORK GRADING, OR ANY OTHER TYPE OF CONSTRUCTION ACTIVITY.
 28. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED. 9. CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM DURING NIGHTTIME HOURS AND MUST COMPLY WITH MUNICIPAL CODE
- 30. ALL TREES WITHIN THE GRADING LIMITS SHALL BE REMOVED UNLESS OTHERWISE NOTED. 31. CONTRACTOR TO FIELD VERIFY AND SCOPE EXISTING SANITARY SEWER LATERAL TO CONFIRM ELEVATION. SLOPE. CONDITION AND PHYSICAL CONNECTION TO PUBLIC SANITARY SEWER MAIN PRIOR TO CONNECTION OF NEW LATERAL

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COLUMBUS HOLLAND **INDIANAPOLIS**

ST. LOUIS

PREPARED FOR:

Union Pier Development LLC

2050 Celadon Drive NE, Suite B Grand Rapids, MI 49525 (616) 235-0711

Att: Brad Rottshafer

REVISIONS:

EDGE OF METAL

Title: Township Submittal Drawn: Brad M. Checked: Jack B. Date: 05.05.2021 Title: Road Department Submittal Drawn: Brad M. Checked: Jack B. Date: 05.12.2021 Title: Drain Commissioner Submittal Drawn: Brad M. Checked: Jack B. Date: 05.12.202

Title: Township Re-Submittal Drawn: Brad M. Checked: Jack B. Date: 06.21.202 Title: Township Re-Submittal

Drawn: Brad M. Checked: Jack B. Date: 07.21.2021 Title: Revised Drawn: Brad M. Checked: Jack B. Date: 09.20.2021

Title: Owner / Developer Drawn: Brad M. Checked: Jack B. Date: 01.24.2022 Drawn: GAN Checked: Jack B. Date: 02.11.202

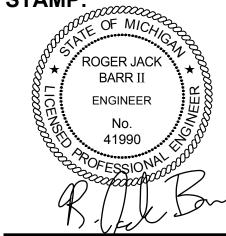
Title: Revised Drawn: Brad M. Checked: Jack B. Date: 04.29.2022 Title: Revised

Drawn: Brad M. Checked: Jack B. Date: 06.09.202 Title: Client Revisions Drawn: Brad M. Checked: Jack B. Date: 08.02.2022

cification

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ROGER JACK



PROJECT NO: 21200264

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PRECAST CONCRETE

PIT: DESIGNED AND

NO ELBOW

SWEEP

1/2" CONDUIT BY —

CONTRACTOR

BASEMENT WALL

1 CU. FT. OF STONE AND SEAL -

WITH MORTAR (TYPICAL)

WHEN REQUIRED

PRECAST METER PIT

SLEEVE

ONLY

REINFORCED FOR DEAD

LOAD, SOIL LOADS AND

HS20 WHEEL LOAD

CONCRETE BASE

6" WALLS & 84" O.D. BASE

METER SET BY

WATER SYSTEM

PRECAST 5' DIA. MANHOLE