GENERAL NOTES:

1. THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF ROCHESTER HILLS STANDARD DETAILS, SPECIFICATIONS, AND CODE OF ORDINANCE, THE CURRENT MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION (ENGLISH), OAKLAND COUNTY, MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, AND THE 1994 MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE LOCATION OF ALL UTILITIES SHOWN ON THESE PLANS IS TAKEN FROM THE BEST AVAILABLE DATA. NOWAK AND FRAUS WILL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATIONS FROM THE LOCATIONS SHOWN OR IN THE CASE OF UNFORESEEN EVENTS. AS A CONDITION OF THIS CONTRACT, NOTICE SHALL BE GIVEN TO MISS DIG FOR ANY UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. THE CONTRACTOR SHALL NOTIFY MISS DIG AT 1-800-482-7171 A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY EXCAVATION OR GRADING. THE CONTRACTOR SHALL VERIFY THE LOCATION & DEPTHS OF ALL UTILITIES PRIOR TO CONSTRUCTION
3. PUBLIC RIGHT OF WAYS SHALL NOT BE CLOSED WITHOUT THE WRITTEN APPROVAL OF THE CITY OR STATE. PERMITS MUST BE OBTAINED FROM THE CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MDOT AND MDEQ PRIOR TO THE COMMENCEMENT OF WORK. PROPER TEMPORARY SIGNING AND BARRICADING MUST BE ERECTED AND MAINTAINED TO INSURE SAFE TRAFFIC CONDITIONS ADJACENT TO WORK WITHIN PUBLIC RIGHTS OF WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMITS, FILING ADVANCE NOTICE(S) AND MEETING ALL OTHER APPLICABLE PERMIT REQUIREMENTS.
4. DUST CONTROL SHALL BE PROVIDED BY THE CONTRACTOR AT SUCH TIMES AS THE CITY/COUNTY/STATE INSPECTORS SHALL DIRECT. WATER AND/OR CHLORIDE USED AS A DUST CONTROL PALLIATIVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED TO BE INCLUDED IN THE WORK OF THE ENTIRE PROJECT.
5. THE CONTRACTOR SHALL VERIFY WITH THE CITY OR APPROPRIATE OWNER(S)/OWNER'S REPRESENTATIVE, ALL SALVAGED OR REMOVED MATERIAL, DEBRIS OR ITEMS ORIGINATING FROM PRIVATE PROPERTY OR PUBLIC RIGHT OF WAYS, NOT TO BE REUSED AS PART OF THIS PROJECT AND NOT TO BE CLAIMED BY THE APPROPRIATE OWNER(S). SAID ITEMS SHALL INCLUDE BUT ARE NOT LIMITED TO DRAINAGE STRUCTURE COVERS, SIGNS, SIGN POLES, DIRT, ETC., SHALL BECOME THE PROPERTY OF THE CONTRACTOR, SHALL BE IMMEDIATELY HAULED OFFSITE AND LEGALLY DISPOSED OF AND SHALL NOT BE STORED WITHIN MUNICIPAL RIGHT OF WAYS.
6. IN CONJUNCTION WITH THE PROPOSED SITE WORK, THE UTILITY COMPANIES AND/OR PUBLIC AGENCIES MAY BE RELOCATING OR REPLACING FACILITIES WHICH MAY OR MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE HIS OPERATION WITH THESE AND/OR OTHER UTILITIES, IF NECESSARY, TO NOT INCUR FURTHER COSTS TO THE OWNER.
7. THE CONTRACTOR AND/OR SUBCONTRACTOR IS REQUIRED TO COOPERATE AND COORDINATE THEIR WORK WITH ALL WORK, IF ANY, BEING PERFORMED BY OTHERS.
8. SAWCUTTING IS REQUIRED FOR THE REMOVAL OF PAVEMENT, SIDEWALK, CURB AND GUTTER, DRIVE APPROACHES, ETC. THE FIELD ENGINEER SHALL DETERMINE AND MARK IN THE FIELD THE APPROPRIATE REMOVAL OR SAWCUT LIMITS PRIOR TO CONSTRUCTION.
9. IT IS THE INTENT THAT ALL GOVERNMENT CORNERS BE PRESERVED AND THAT, WHERE NECESSARY, MONUMENT BOXES BE SURVEYED AND WITNESSED, WHETHER SHOWN OR NOT, PRIOR TO REMOVAL OF SAID MONUMENTS. APPROPRIATELY RESET ALL MONUMENT CORNERS AND RESPECTIVE BOXES IN CONJUNCTION WITH CONSTRUCTION OPERATIONS.
10. IN THE SPIRIT OF PROVIDING QUALITY PROJECT ASSURANCE, ALL RECOMMENDATIONS AND SUGGESTIONS POSED BY OTHER PROFESSIONAL DESIGN AND TESTING FIRMS INVOLVED WITH THIS PROJECT AND NOT TO BE FOUND IN THESE PLANS SHALL BE CONSIDERED AND DECIDED UPON BY THE OWNER AND CONTRACTOR.
11. ADJUSTING EXISTING STORM DRAIN, SANITARY SEWER AND GATE VALVE STRUCTURE COVERS AS INDICATED IN THE PLANS SHALL INCLUDE REMOVING AND REPLACING THE CASTING/COVER, BLOCK, BRICK AND IF NEEDED, PRECAST SECTIONS TO OBTAIN THE DESIRED PROPOSED RIM ELEVATIONS. SET ALL RIM ELEVATIONS TO THE PROPOSED FINISHED GRADES AS INDICATED IN THE PLANS.

GENERAL PAVING NOTES:

1. PROPOSED ASPHALT PAVEMENT LIFT THICKNESSES SHOWN ARE MINIMUM, AND SHALL BE CONFIRMED WITH ON-SITE GEOTECHNICAL ENGINEER. REQUIRED ASPHALT PAVEMENT LIFT THICKNESS PLACEMENT MAY INCREASE FROM MINIMUM THICKNESS SHOWN BASED ON FIELD CONDITIONS.
2. PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

   CONCRETE:
   CONCRETE PAVEMENT SHALL MEET P1 MODIFIED MATERIAL SPECIFICATIONS. PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1 1/2 TO 3 INCHES. CONCRETE WALKS & CURB AND GUTTER SHALL MEET M.D.O.T. P1 MATERIAL SPECIFICATIONS.
   7-SACK HIGH-EARLY **NOT ALLOWED UNLESS APPROVED BY OWNER**.

   ALL CONCRETE PAVEMENT AND FLATWORK MIXES USED ON THIS PROJECT SHALL COMPLY WITH A MINIMUM GROUND GRANULATED BLAST-FURNACE SLAG (GGBFS) SUBSTITUTION OF THIRTY-FIVE (35) PERCENT SUBJECT TO SEASONAL LIMITATIONS PER THE MICHIGAN DEPARTMENT OF TRANSPORTATION (M.D.O.T.) STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2012 EDITION.

   ASPHALT: **ALL BITUMINOUS MIXES SHALL BE DESIGNED FOR 3 PERCENT AIR VOIDS.**
   LEVELING COURSE- M.D.O.T. 4E3;
   SURFACE COURSE - M.D.O.T. 5E3;
   ASPHALT BOND COAT SHALL MEET SS-1H AND/OR AN APPROVED EQUIVALENT APPLIED UNIFORMLY OVER THE SURFACE AT A RATE OF 0.10 GALLONS/SQ. YARD.
   ASPHALT BINDER - PG 64-22 (ALL BIT. MIXES)
   COMPACT ALL ASPHALT COURSES TO A DENSITY OF 94% TO 97% OF THE MAXIMUM DENSITY AS DETERMINED BY THE RICE METHOD.

3. AGGREGATE BASE COURSE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT, UNLESS OTHERWISE INDICATED. SAND SUB-BASE SHALL MEET M.D.O.T. CLASS II SPECIFICATIONS, AND SHALL BE COMPACTED TO 95% MAX. DENSITY.
4. NO RAP ALLOWED IN TOP COURSES. RAP IN LEVELING & BASE COURSES SHALL BE LIMITED TO 30%, AND OTHERWISE SHALL MEET M.D.O.T. STANDARDS.
5. ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION. DO NOT ALLOW TRAFFIC UNTIL PCC REACHES 75 PERCENT DESIGN FLEXURAL STRENGTH.
6. ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-S164.
7. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CONTRACT.
8. ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.
9. ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973 AND ICC/ANSI A117.1-1998, SECTION 406, SHALL BE INSTALLED AS INDICATED ON THE PLANS.
10. FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL INSPECTION.
11. EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS, INCLUDING COMPLETE REMOVAL OF TREE ROOTS.
12. EXPANSION & CONTRACTION JOINTS SHALL BE PLACED IN ACCORDANCE WITH INDUSTRY QUALITY STANDARDS.
13. ALL PAVEMENT SUBGRADE AREAS SHALL BE PROOF-ROLLED (MAX. DEFLECTION 1/4") UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.
14. FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.
15. ALL STRUCTURES (MANHOLES, GATEWELLS, HYDRANTS, ETC.) WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO THE FINISH GRADE.
16. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE ALL FOUNDATION ELEVATIONS WITH THE ARCHITECTURAL PLANS TO ENSURE PROPER CONSTRUCTION OF ALL WALKS, PAVEMENTS, CURBS, WALLS, ETC. TO ACHIEVE PROPOSED FINISHED GRADES.
17. THE CONTRACTOR SHALL REQUEST WRITTEN CLARIFICATION FROM THE ENGINEER WELL IN ADVANCE OF CONSTRUCTION, SHOULD THERE BE ANY QUESTIONS.
18. UNDER NO CIRCUMSTANCES SHOULD A SIDEWALK, WALKPATH, OR OTHER PAVED ROUTE BE CONSTRUCTED BENEATH AN ANGLED UTILITY POLE GUY ANCHOR CABLE. THE CONTRACTOR MUST COORDINATE RELOCATION OF GUY ANCHORS WITH THE UTILITY COMPANY OWNER PRIOR TO CONSTRUCTION.
19. EXISTING ASPHALT TO BE OVERLAID MUST BE PREPARED ACCORDING TO THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING REPORTS AND FIELD TESTING ENGINEER PRIOR TO PAVING OVERLAYS AND WEDGE COURSES, INCLUDING CLEANING, SWEEPING, MILLING, CRACK FILLING, GRINDING, ETC.
20. CONSTRUCTION TRAFFIC SHALL BE MINIMIZED ON EXPOSED SUBGRADES, AGGREGATE BASE COURSES, AND NEW PAVEMENTS. CONSULT WITH THE ON-SITE SOILS ENGINEER FOR REMEDIES CONCERNS TRAFFIC LOADING AND PREPARATIONS TO MINIMIZE DAMAGE TO THE PREPARED SURFACE AND SUBSURFACE.
21. ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED AND IS FREE OF FROZEN SOIL, ORGANICS OR OTHER DELETERIOUS MATERIALS. CONSULT WITH THE ON-SITE SOILS ENGINEER PRIOR TO USE OF MATERIALS AS DICTATED BY SITE CONDITIONS.
22. REPAIR DISTRESSED PAVEMENT LEVELING AREAS PER THE RECOMMENDATIONS OF THE ON-SITE SOILS ENGINEER, PRIOR TO PLACING TOP COURSE.

STORM DRAIN, SANITARY SEWER, AND WATER MAIN NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ROCHESTER HILLS AND OAKLAND COUNTY, AS APPLICABLE. THE CITY OF ROCHESTER HILLS NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THESE PLANS.
2. ALL PIPE TRENCHES UNDER OR WITHIN A FIVE (5) FOOT INFLUENCE OF EXISTING OR PROPOSED BUILDING AND PAVEMENTS SHALL BE BACK FILLED WITH ENGINEERED FILL CONSISTING OF MDOT CLASS II SAND AND BE MACHINE COMPACTED IN 8" TO 9" LIFTS TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY UTILIZING ASTM 1557-T180 MODIFIED PROCTOR OR AS RECOMMENDED BY THE SOILS ENGINEER. PAVEMENTS SHALL INCLUDE PARKING LOTS, DRIVE APPROACHES, CURB & GUTTER AND ADJACENT WALKS.
3. ALL STORM DRAIN AND SEWER PIPE SHALL BE INSTALLED ON CLASS "B" BEDDING OR BETTER. ALL STORM, SANITARY, AND WATER MAIN PIPE TRENCHES SHALL BE AS AS SHOWN ON STANDARD DETAIL SHEETS.
4. STORM DRAIN AND SEWER SHALL BE OF THE TYPE, SIZE AND CLASS DESIGNATION AS INDICATED ON THE PLANS AND LIKEWISE BE INSTALLED AT THE PROPOSED LINE AND GRADE.
5. ALL STORM DRAIN PIPE SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM SPECIFICATION C-76 CL IV, UNLESS OTHERWISE INDICATED.
6. AND WATER MAIN PIPE SHALL BE AS SHOWN AND IN ACCORDANCE WITH THE MUNICIPALITY STANDARDS.
7. ALL MANHOLE, CATCH BASIN, AND GATE WELL COVERS/CASTINGS SHALL BE AS INDICATED IN THE PLANS IN ACCORDANCE WITH MUNICIPALITY STANDARDS.
8. THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
9. EXACT GRADES AND INVERTS OF PROPOSED STORM DRAIN AND SEWER ARE TO BE CHECKED WITH THE FIELD ENGINEER PRIOR AND DURING INSTALLATION. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY PLAN INCONSISTENCY AND/OR UTILITY CONFLICTS.
10. ALL STORM DRAIN PIPE JOINTS SHALL BE "PREMIUM JOINT" MODIFIED GROOVED TONGUE (MGT) WITH SYNTHETIC RUBBER GASKETS CONFORMING TO ASTM SPECIFICATION C-443 AND C-361 UNLESS OTHERWISE INDICATED ON THE PLANS.
11. FACILITY MANUFACTURED PRECAST TEE SECTIONS SHALL BE FOR ROOF DRAINS AND/OR SUMP PUMP LEADS AND LATERALS WHERE INDICATED ON THE PLANS. BLIND TAP CONNECTIONS INTO STORM SEWER WILL NOT BE PERMITTED BY BREAKING PIPEWALL.
12. THE UNDERGROUND SITE CONTRACTOR SHALL INSTALL ALL STORM DRAIN AND SEWER BUILDING LEADS (IF REQUIRED) TO WITHIN FIVE (5) FEET OF PROPOSED BUILDING.
13. UTILIZE FLOWABLE FILL IN AREAS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
14. ASSURE PROPER COMPACTION AROUND ALL STORM DRAIN, SEWER, AND WATER MAIN PIPE, INCLUDING CROSSINGS WITH OTHER UTILITIES.
15. ALL STORM DRAIN PIPE SIDEWALL TAPS SHALL BE DONE VERTICALLY CENTER TO CENTER OF PIPES, AND HORIZONTALLY IN THE MIDDLE OF A PIPE SECTION (TYPICAL CONCRETE PIPE SECTION IS 8' LONG). MAKE TAPS IN THE PRESENCE OF THE MUNICIPALITY'S INSPECTOR.
16. INSTALL CONCRETE THRUST BLOCKS AT ALL BENDS AND HYDRANT TEES PER OAKLAND COUNTY STANDARD DETAILS.

UTILITIES

AT LEAST 72 HOURS (3 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY MISS DIG AND THE LOCAL COMMUNITY (WHERE APPLICABLE) TO STAKE LOCATIONS OF EXISTING UTILITIES.

THE CONTRACTOR SHALL EXPOSE AND VERIFY EXISTING UTILITIES FOR LOCATION, SIZE, DEPTH, MATERIAL AND CONFIGURATION PRIOR TO CONSTRUCTION. COSTS FOR EXPLORATORY EXCAVATION IS AN INCIDENTAL COST AND SHALL NOT BE CONSIDERED AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING UTILITIES WHICH DO NOT MATCH THE PLANS AND SPECIFICATIONS PRIOR TO COMMENCING WORK. ANY FIELD CHANGES OF THE PROPOSED UTILITIES SHALL BE APPROVED BY THE OWNER AND ENGINEER BEFORE THE WORK IS DONE.

THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE. ANY SERVICE OR UTILITY DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR, IN CONFORMANCE WITH THE REQUIREMENTS OF THE UTILITY COMPANY PROVIDER.

DAMAGE TO PRIVATE PROPERTY

ALL SIDEWALKS, DRIVEWAYS, LAWNS, FENCING, TREES, SHRUBS, SPRINKLERS, LANDSCAPING, ETC., THAT ARE DAMAGED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED, IN KIND OR BETTER, BY THE CONTRACTOR. ALL STREET SIGNS, MAIL BOXES, ETC., REMOVED SHALL BE REPLACED IN KIND OR BETTER, BY THE CONTRACTOR. ALL THE REPAIRS OR REPLACEMENTS DUE TO THE CONTRACTOR'S WORK ARE TO BE INCLUDED IN THE CONTRACT PRICE(S) AND SHALL NOT BE AN EXTRA TO THE CONTRACT.

THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM ADJACENT PROPERTY OWNERS PRIOR TO ENTERING UPON ANY ADJOINING PROPERTIES, UNLESS OFFSITE PERMITS HAVE ALREADY BEEN OBTAINED BY THE OWNER AND ARE PART OF THE CONTRACT DOCUMENTS.

DEWATERING OF TRENCH AND EXCAVATIONS

IF NOT SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION DESIGN DOCUMENTS, THE DESIGN OR QUALITATIVE ANALYSIS OF GROUND WATER DEWATERING SYSTEMS IS BEYOND THE SCOPE OF DESIGN FOR THESE DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND PROVIDING APPROPRIATE EXCAVATION DEWATERING SYSTEMS FOR USE DURING CONSTRUCTION.

THE DEWATERING METHOD SELECTED BY THE CONTRACTOR WILL NOT ADVERSELY AFFECT ADJACENT PAVEMENTS OR STRUCTURES PRIOR TO BEGINNING DEWATERING CONDITIONS. MEANS AND METHODS OF DEWATERING ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF DEWATERING WILL BE CONSIDERED INCLUDED IN THE WORK OF CONSTRUCTING THE UNDERGROUND UTILITIES UNLESS SPECIFICALLY INDICATED OTHERWISE.

BY-PASS PUMPING

FROM TIME TO TIME IT MAY BE NECESSARY FOR THE CONTRACTOR TO BY-PASS PUMP TO COMPLETE THE WORK INDICATED ON THE PLANS. THE COST OF BY-PASS PUMPING, THE METHODS, EQUIPMENT AND MEANS OF PROVIDING THAT WORK ARE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONSIDERED PART OF THE WORK WHETHER SPECIFICALLY CALLED OUT ON THE PLANS OR NOT.

MEANS AND METHODS FOR PIPE CONSTRUCTION

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MEANS AND METHODS FOR CONSTRUCTING THE UNDERGROUND PIPE SYSTEMS PROPOSED ON THE PLANS, INCLUDING BUT NOT LIMITED TO THE NEED FOR SHORING/BRACING OF TRENCHES, DEWATERING OF TRENCHES, SCHEDULING THE WORK AT OFF PEAK HOURS, AND/OR MAINTAINING EXISTING FLOWS THAT MAY BE ENCOUNTERED VIA PUMPING, BY-PASS PIPING OR OTHER MEANS. THE CONTRACTOR SHALL NOT BE PAID ANY ADDITIONAL COMPENSATION TO IMPLEMENT ANY MEANS AND METHODS TO SATISFACTORILY COMPLETE THE CONSTRUCTION.

PAVEMENT REMOVAL

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE THICKNESS OF THE PAVEMENT REMOVAL. PAVEMENT CORE SAMPLES ARE FOR INFORMATIONAL PURPOSES ONLY AS TO THE THICKNESS OF THE PAVEMENT AT THE LOCATION OF THE SAMPLE. THE OWNER AND ENGINEER MAKE NO REPRESENTATION, WARRANTY OR GUARANTY THAT THE SAMPLES ACCURATELY REFLECT THE PAVEMENT THICKNESS ON THE PROJECT.

MAINTENANCE OF TRAFFIC

DURING THE PROGRESS OF THE WORK THE CONTRACTOR SHALL ACCOMMODATE BOTH VEHICULAR AND PEDESTRIAN TRAFFIC IN THE ROAD RIGHTS OF WAY. THE CONTRACTOR'S EQUIPMENT AND OPERATIONS ON PUBLIC STREETS SHALL BE GOVERNED BY ALL APPLICABLE LOCAL, COUNTY AND STATE ORDINANCES, REGULATIONS AND LAWS. THE CONTRACTOR SHALL OBTAIN AND SATISFY ANY AND ALL PERMIT REQUIREMENTS BY THE LOCAL, COUNTY AND STATE GOVERNMENTAL AGENCIES.

IN ADDITION, WHERE THE WORK REQUIRES THE CLOSURE OF ONE OR MORE LANES OR IS WITHIN THE INFLUENCE OF THE ROAD OR PEDESTRIAN RIGHT OF WAY, THE CONTRACTOR SHALL PROVIDE ALL SIGNS, BARRICADES, FLAG PERSONS AND OTHER TRAFFIC CONTROL MEASURES AS REQUIRED BY MDOT, THE COUNTY, OR THE COMMUNITY HAVING JURISDICTION OF THE ROAD AND IN CONFORMANCE WITH THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

COMPENSATION FOR TRAFFIC CONTROL SHALL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC TRAFFIC CONTROL ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

IRRIGATION

THE CONTRACTOR SHALL MAINTAIN OR REPAIR ANY EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT AREA UNLESS THE DRAWINGS CALL FOR THE IRRIGATION SYSTEM TO BE REMOVED. THE OWNER AND NFE MAKE NO REPRESENTATIONS, WARRANTY OR GUARANTY AS TO THE LOCATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT THE IRRIGATION SYSTEM DURING CONSTRUCTION ACTIVITIES. COMPENSATION FOR MAINTAINING OR REPAIRING EXISTING IRRIGATIONS SYSTEMS SHALL BE CONSIDERED INCLUDED IN THE CONTRACT PRICE(S) UNLESS SPECIFIC IRRIGATION SYSTEM REPAIR ITEMS ARE INCLUDED IN THE ACCEPTED BID PROPOSAL.

SUB-SOIL CONDITIONS

ANY SOIL BORING PROVIDED BY THE OWNER AND/OR ENGINEER IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THIS INFORMATION IS NOT OFFERED AS EVIDENCE OF GROUND CONDITIONS THROUGHOUT THE PROJECT AND ONLY REFLECT THE GROUND CONDITIONS AT THE LOCATION OF THE BORING ON THE DATE THEY WERE TAKEN.

THE ACCURACY AND RELIABILITY OF THE SOIL LOGS AND REPORT ARE NOT WARRANTED OR GUARANTEED IN ANY WAY BY THE OWNER OR ENGINEER AS TO THE SUB-SOIL CONDITIONS FOUND ON THE SITE. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION AND SUB-SOIL INVESTIGATION AND SECURE OTHER SUCH INFORMATION AS THE CONTRACTOR CONSIDERS NECESSARY TO DO THE WORK PROPOSED AND IN PREPARATION OF THEIR BID.

SUBGRADE UNDERCUTTING AND PREPARTION

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY AND ALL SOILS WHICH DO NOT CONFORM TO THE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A SUBGRADE IN CONFORMANCE WITH THE PROJECT PLANS OR SPECIFICATIONS. THE MEANS AND METHODS USED TO ACHIEVE THE REQUIRED RESULT SHALL REST SOLELY WITH THE CONTRACTOR.

ANY AREAS OF UNDERCUTTING THAT RESULT IN ADDITIONAL OR EXTRA WORK BECAUSE THEY COULD NOT BE IDENTIFIED BY THE CONTRACTOR'S PRE-BID SITE OBSERVATION OR ARE NOT SET FORTH IN THE PLANS AND SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE ANY EXTRA WORK IS PERFORMED. THE CONTRACTOR SHALL MAKE A REQUEST FOR ANY ADDITIONAL COMPENSATION FOR THE UNDERCUTTING IN WRITING AND THE REQUEST SHALL CONFORM TO THE CONTRACT'S CHANGE ORDER PROVISIONS.

STRUCTURE BACKFILL

STRUCTURAL BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PROJECT PLANS, SPECIFICATIONS OR AS REQUIRED BY THE COMMUNITY, GOVERNMENT AGENCY OR UTILITY THAT HAS JURISDICTION OVER THE WORK.

TRENCH BACKFILL

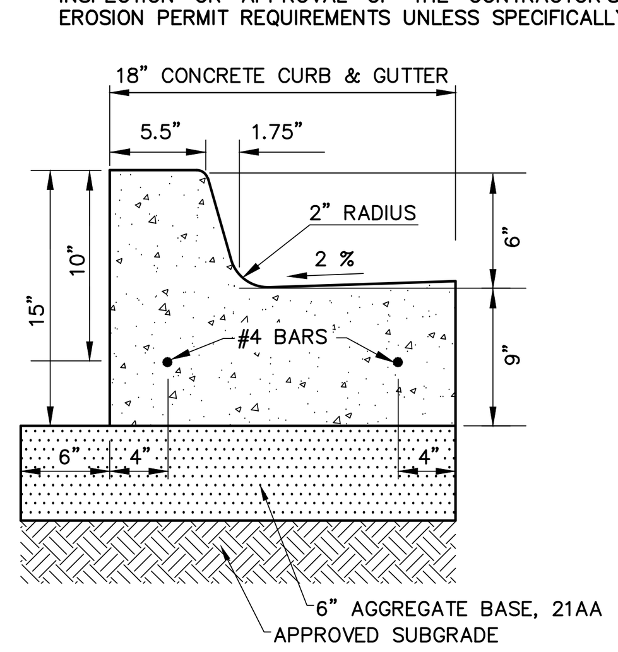
TRENCH BACKFILL SHALL BE PLACED IN CONFORMANCE WITH THE PLANS AND/OR SPECIFICATIONS. TRENCH BACKFILL SHALL ALSO BE INSTALLED IN CONFORMANCE WITH THE COMMUNITY REQUIREMENTS OR AGENCY/UTILITY GOVERNING SAID TRENCH CONSTRUCTION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT SHALL APPLY.

EARTH BALANCE / GRADING

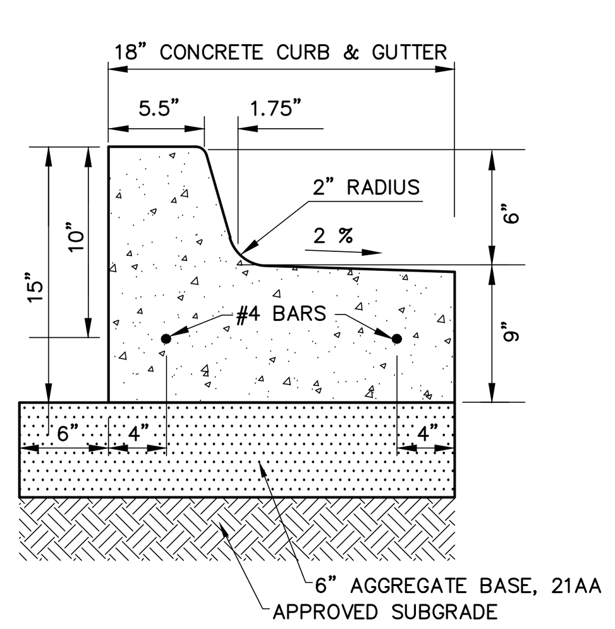
IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHETHER THE SITE EARTHWORK BALANCES OR NOT. ANY EXCESS CUT MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR. IN A LIKE MANNER, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT APPROVED FILL MATERIAL AND PLACE IT AS REQUIRED TO ATTAIN THE SITE GRADE AND COMPACTION REQUIREMENTS PER THE ENGINEER'S PLAN AND ALL APPLICABLE GOVERNMENTAL STANDARDS. THE ENGINEER AND OWNER MAKE NO REPRESENTATION AS TO THE QUANTITIES THAT MAY BE NEEDED TO CREATE A BALANCED EARTHWORK CONDITION OR THAT THE SITE EARTHWORK IS BALANCED.

SOIL EROSION / SEDIMENTATION CONTROL

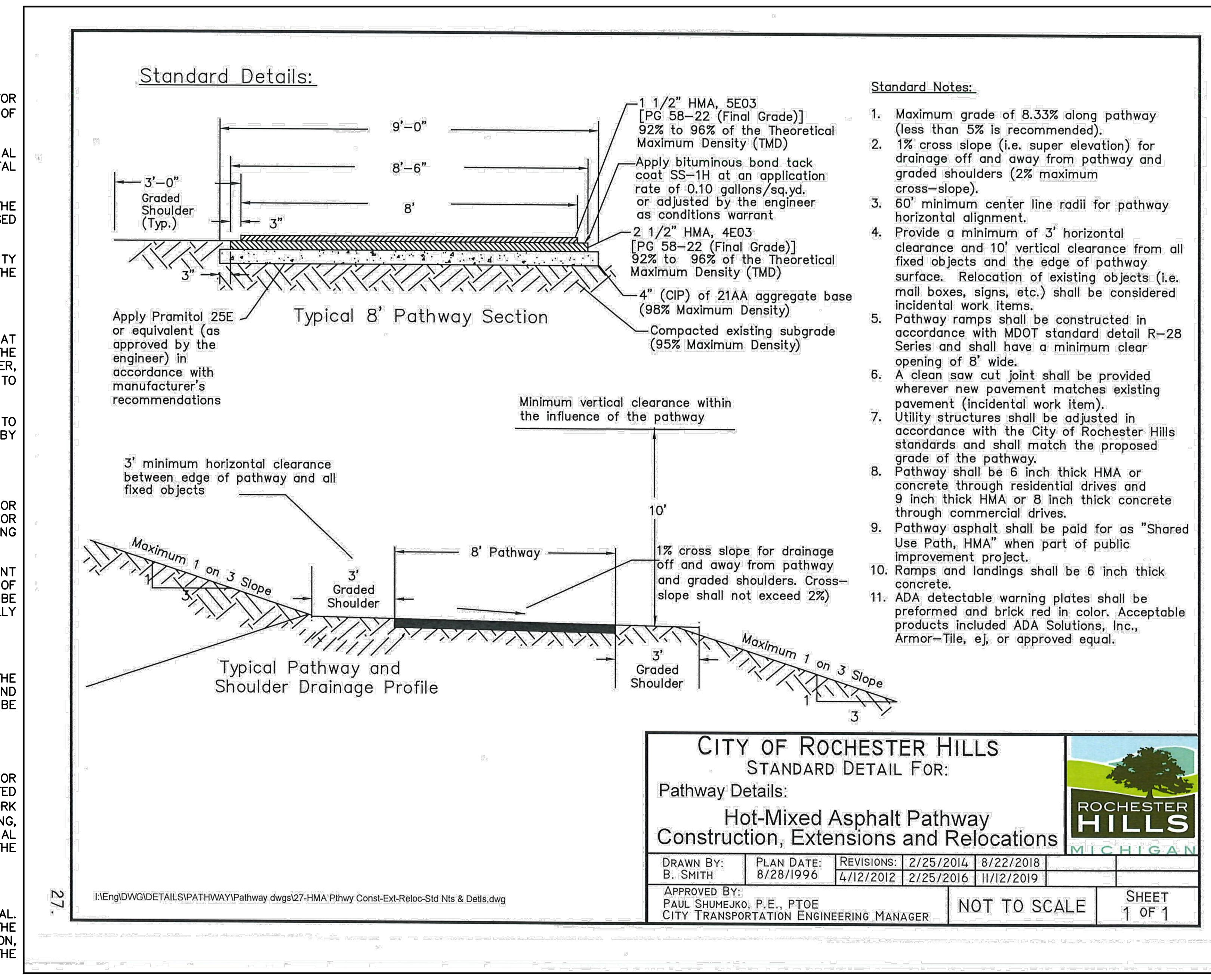
THE CONTRACTOR SHALL OBTAIN THE REQUIRED SOIL EROSION PERMIT AND SATISFY ALL REGULATORY REQUIREMENTS FOR CONTROLLING SOIL EROSION AND SEDIMENT TRANSPORT. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR INSPECTION OR APPROVAL OF THE CONTRACTOR'S WORK IN CONNECTION WITH SATISFYING THE SOIL EROSION PERMIT REQUIREMENTS UNLESS SPECIFICALLY STATED IN THE CONTRACT DOCUMENTS.

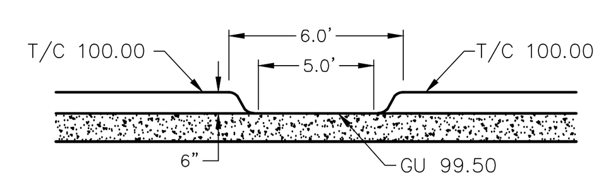


CONCRETE CURB DETAIL 'A'
N.T.S.

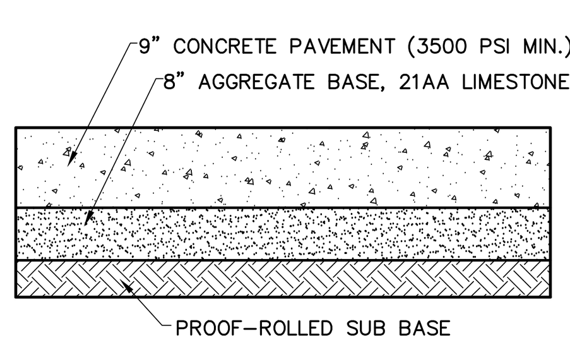


CONCRETE CURB DETAIL 'B'
N.T.S.

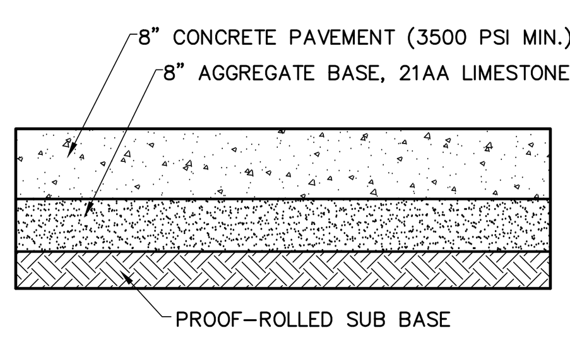




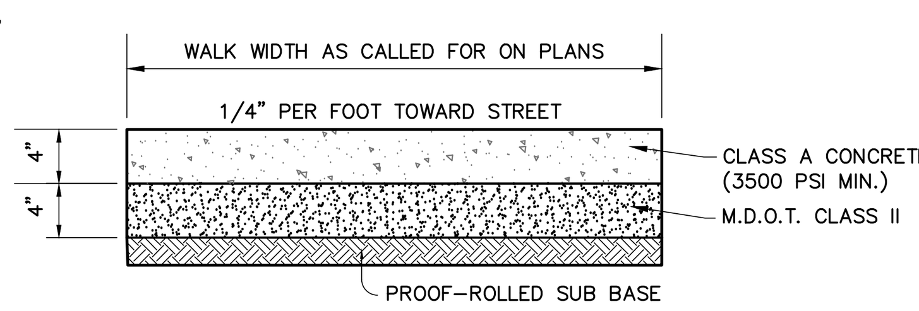
CURB DROP DETAIL
FOR DRAINAGE & MAINTENANCE ACCESS
N.T.S.



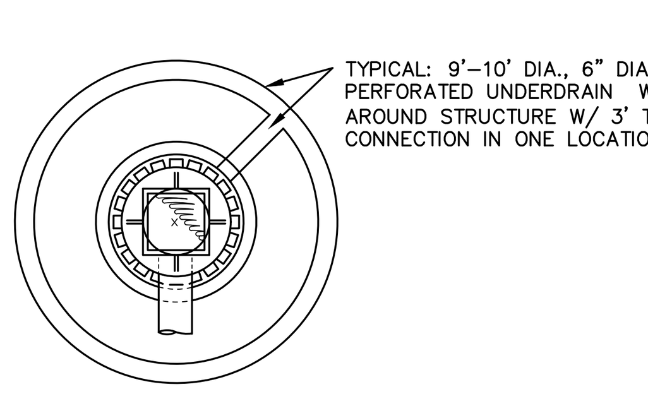
9" CONCRETE PAVEMENT SECTION
DRIVE APPROACH.
N.T.S.



8" CONCRETE PAVEMENT SECTION
EQUIPMENT SUPPORT PADS
N.T.S.

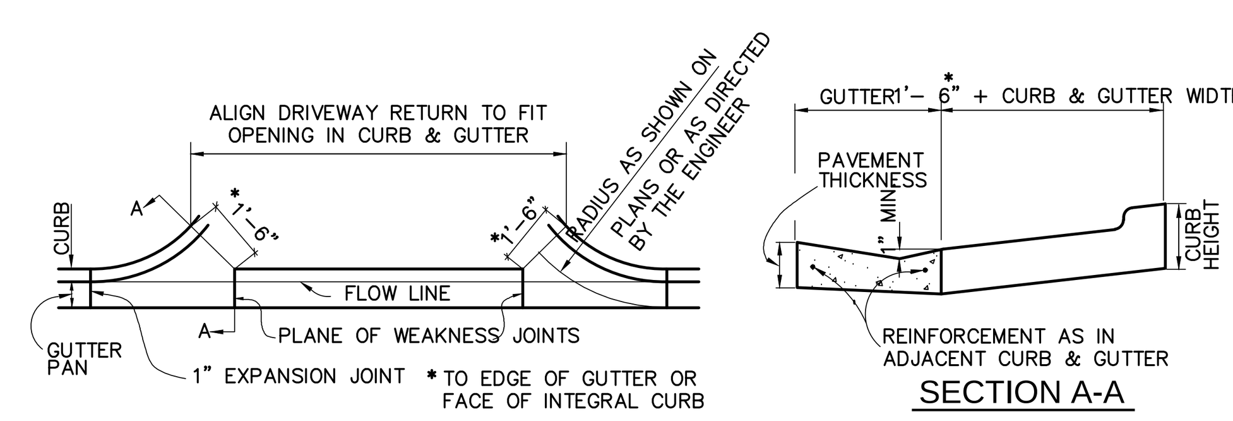


4" CONCRETE SIDEWALK SECTION
N.T.S.



NOTE:
TYPICAL: 6" PERFORATED UNDERDRAIN, SET INVERT 2.5 FT. (MINIMUM) BELOW RIM ELEVATION.
BASE QUANTITY EQUALS 30-40 L.F. PER STRUCTURE.

UNDERDRAIN DETAIL
N.T.S.



MDOT DRIVEWAY OPENING DETAIL 'M'
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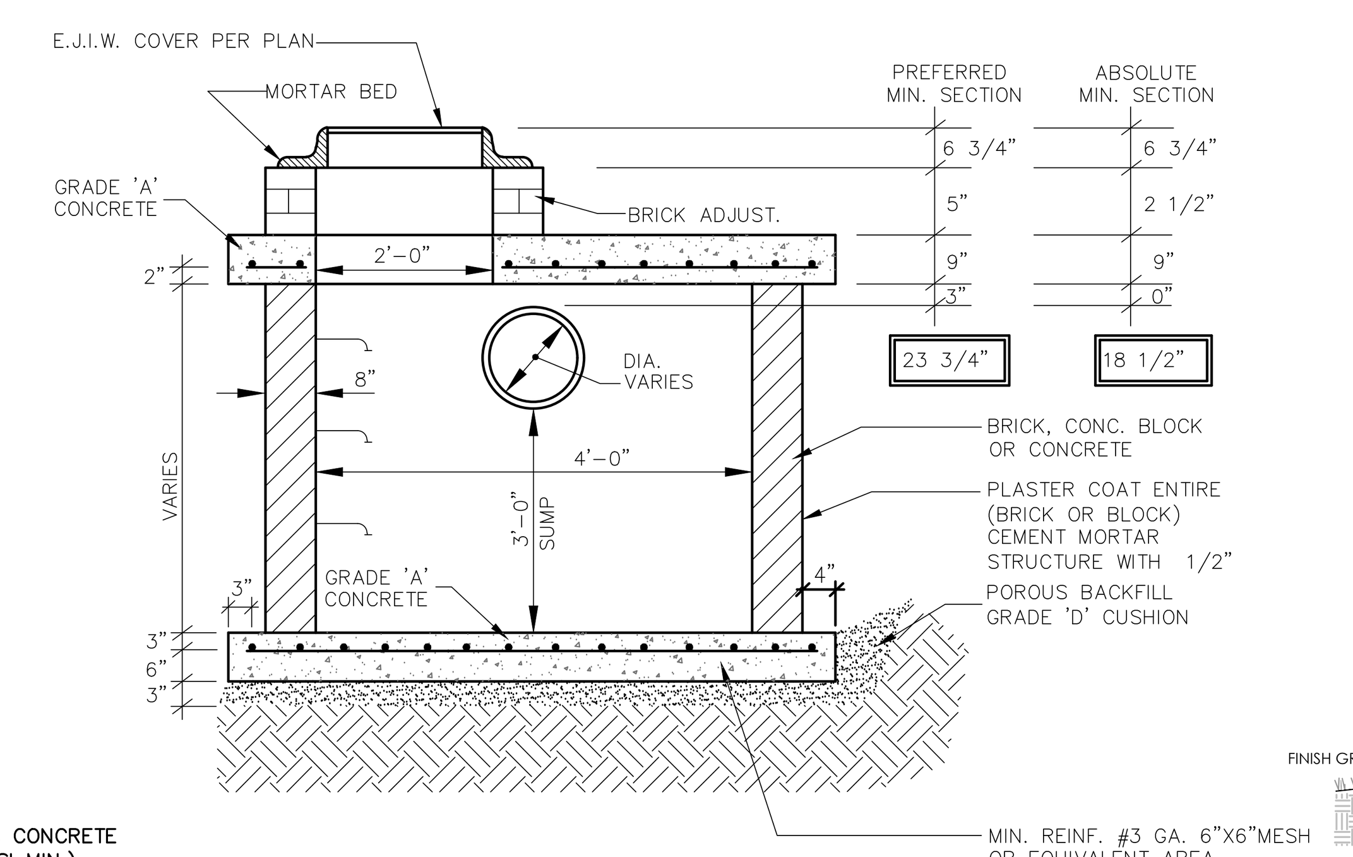

SPECIAL SHALLOW CATCH BASIN DETAIL
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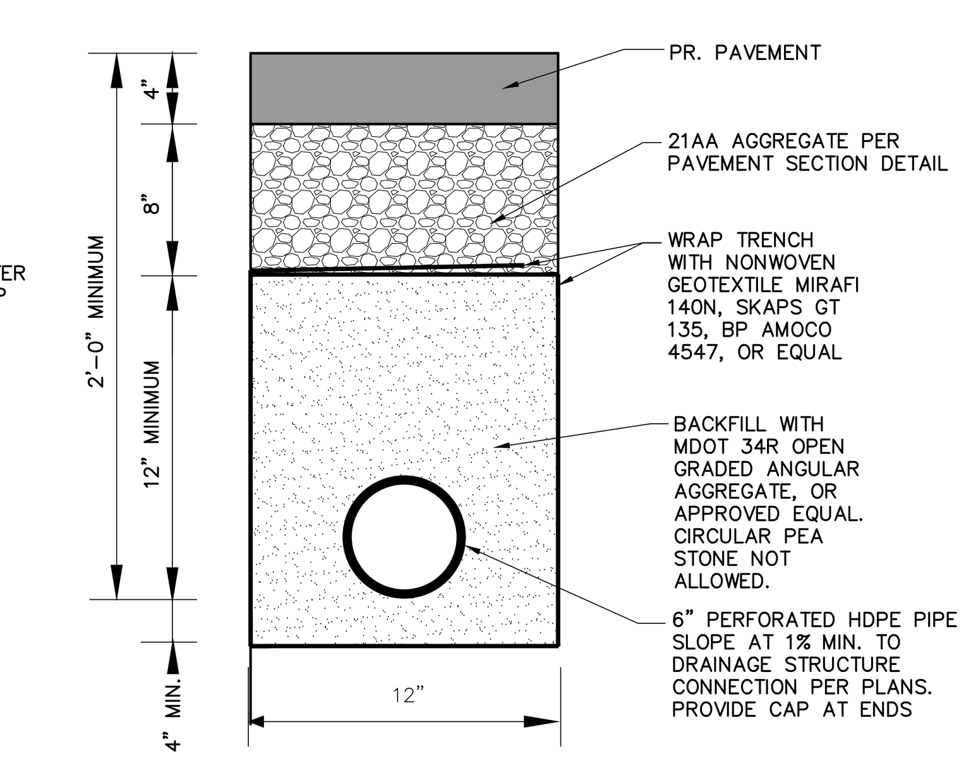
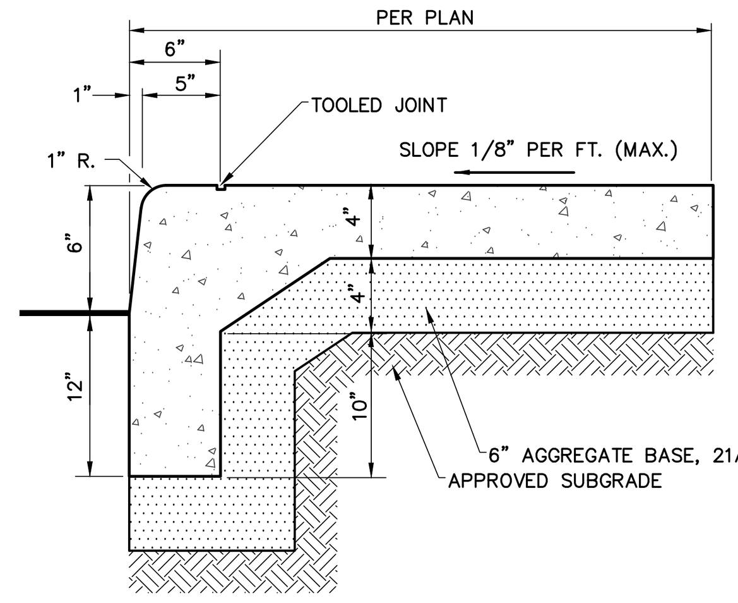
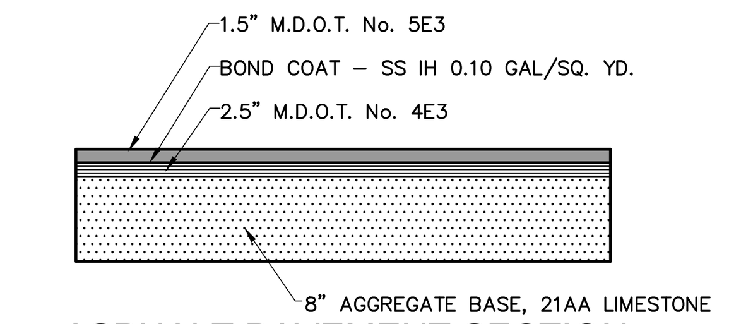


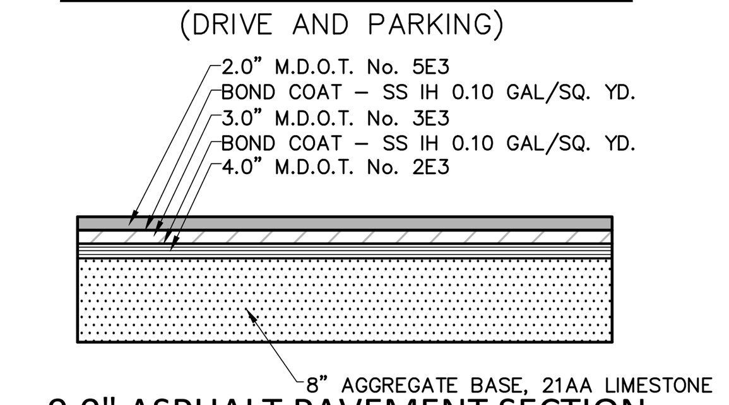
PERFORATED UNDERDRAIN TRENCH DETAIL
N.T.S.



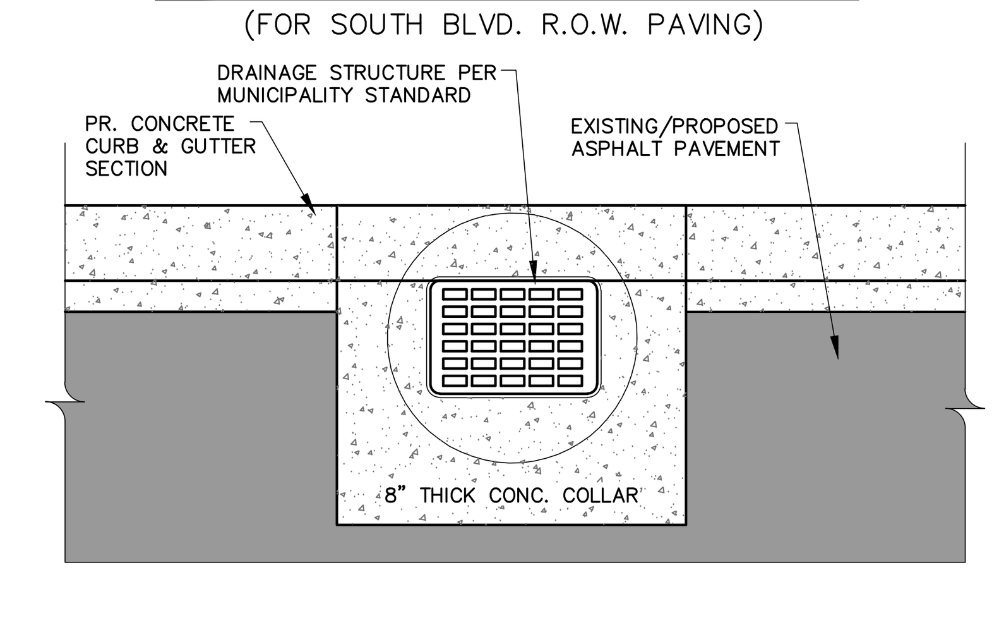
6" MONOLITHIC CURB AND WALK
N.T.S.



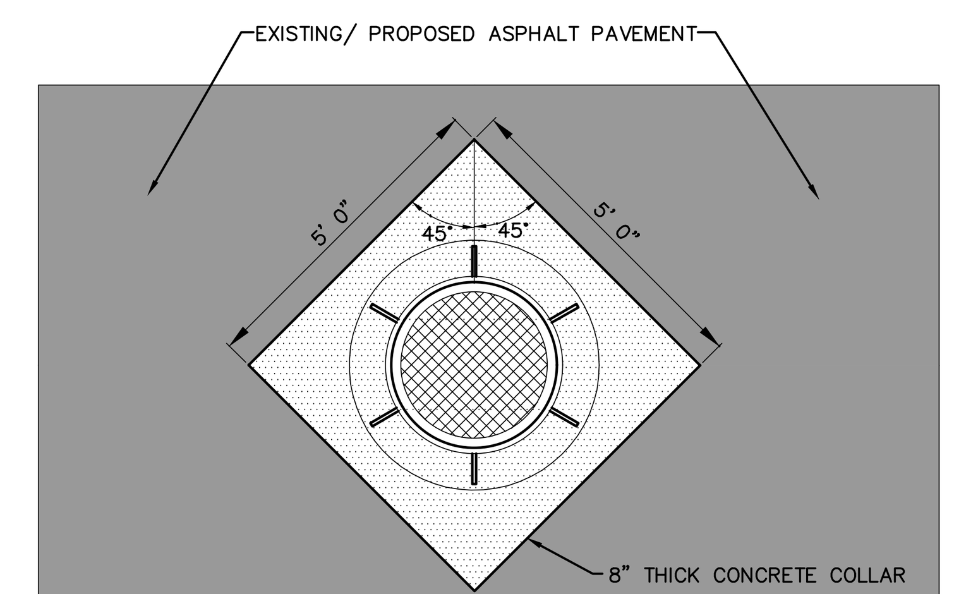
ASPHALT PAVEMENT SECTION
(DRIVE AND PARKING)



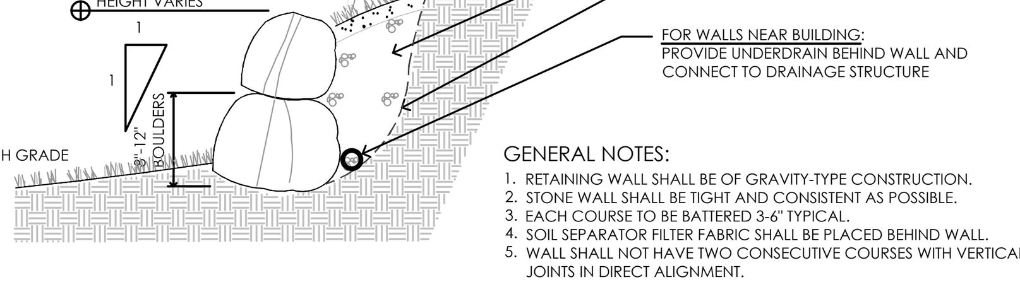
9.0" ASPHALT PAVEMENT SECTION
(FOR SOUTH BLVD. R.O.W. PAVING)



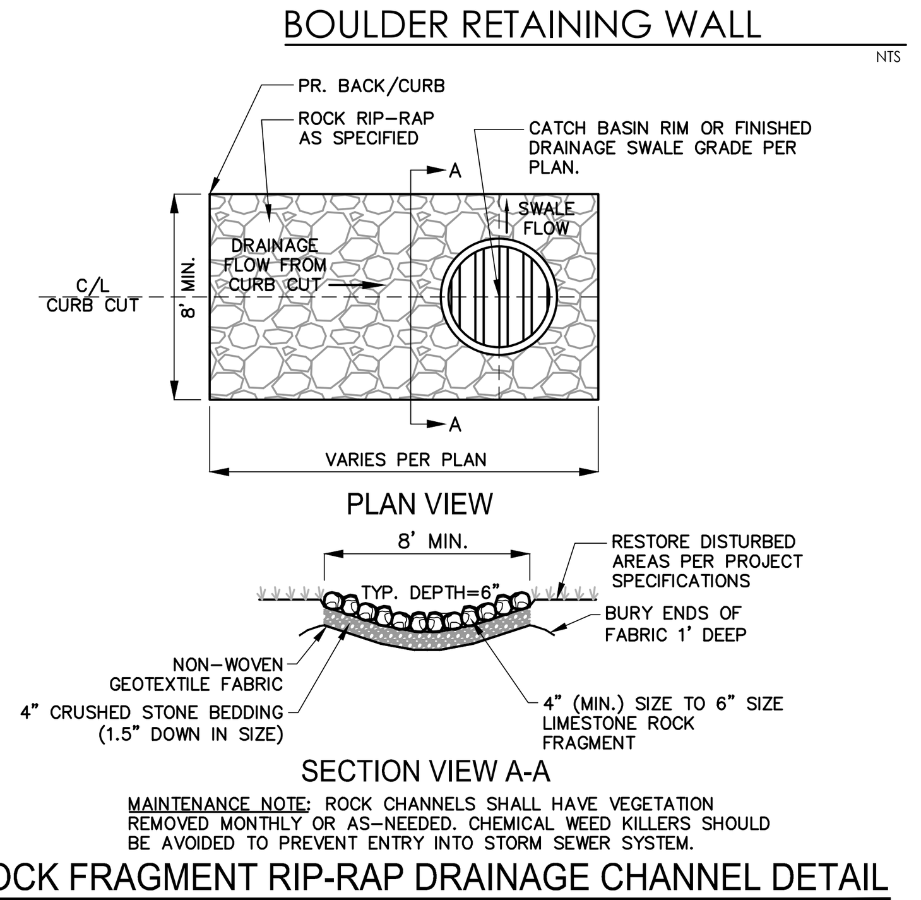
DRAINAGE STRUCTURE BOXOUT DETAIL I
N.T.S.



DRAINAGE STRUCTURE BOXOUT DETAIL II
N.T.S.



BOULDER RETAINING WALL
NTS



MAINTENANCE NOTE: ROCK CHANNELS SHALL HAVE VEGETATION REMOVED MONTHLY OR AS-NEEDED. CHEMICAL WEED KILLERS SHOULD BE AVOIDED TO PREVENT ENTRY INTO STORM SEWER SYSTEM.

ROCK FRAGMENT RIP-RAP DRAINAGE CHANNEL DETAIL
N.T.S.

CITY OF ROCHESTER HILLS
PROJECT #20-009, SEC. 36

NOWAK & FRAUS ENGINEERS
1969 - 2019

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL NOT FOR CONSTRUCTION
STATE OF MICHIGAN
PAUL TULIKANGAS
ENGINEER NO. 057929
LICENSED PROFESSIONAL ENGINEER

PROJECT
Rochester Hills Surgery Center

CLIENT
The Alan Group
1800 Brinston Dr.
City of Troy, MI 48083

Contact: Jim Harding
Ph. (248) 284-1512
Fax (248) 840-1100
Email
jharding@thealangroup.com

PROJECT LOCATION
Part of the S.W. 1/4
of Section 36
T.3N. , R.11E.
City of Rochester Hills,
Oakland County, Michigan

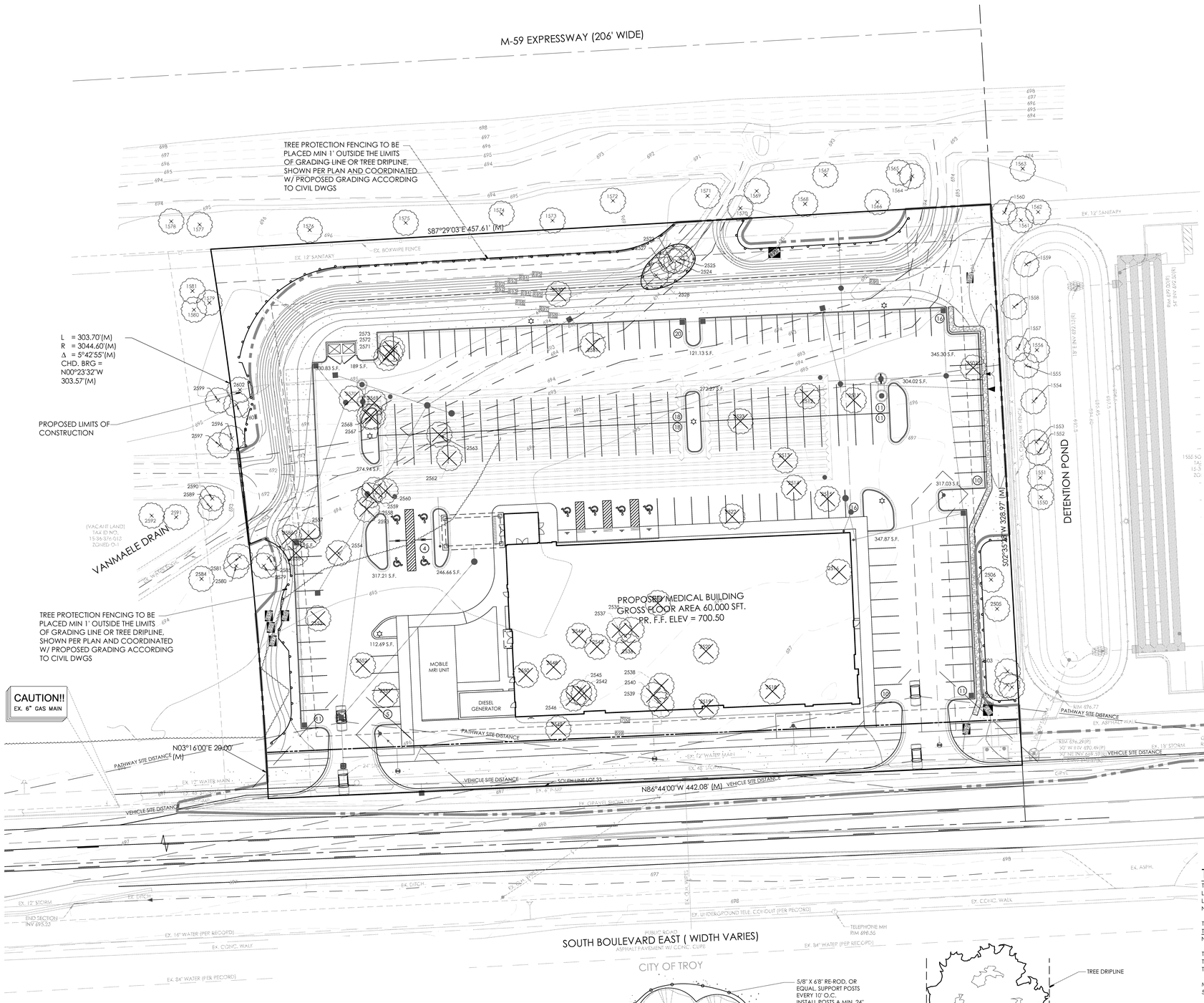
SHEET
Notes and Details

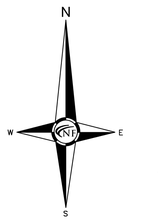
811
Know what's **below**
Call before you dig.

DATE	ISSUED/REVISED
12-17-19	ISSUED FOR PRELIMINARY REVIEW
1-7-20	SURVEY UPDATE
03-24-20	OWNERS REVIEW
04-15-20	SITE PLAN SUBMITTAL
06-15-20	SITE PLAN SUBMITTAL
07-20-20	SITE PLAN SUBMITTAL
08-14-20	ENGINEERING REVIEW
10-16-20	SITE PLAN SUBMITTAL

DRAWN BY:
G. Viju
DESIGNED BY:
P. Tulikangas
APPROVED BY:
B. Buchholz
DATE:
December 17, 2019
SCALE: N.T.S.

NFE JOB NO. L289
SHEET NO. C7





LOCATION MAP
N.T.S.

PROTECTIVE FENCING NOTE:

TREE PROTECTION AND SILT FENCING, AS REVIEWED AND APPROVED BY CITY STAFF, SHALL BE INSTALLED PRIOR TO THE ISSUANCE OF THE LAND IMPROVEMENT PERMIT.

GENERAL TREE PROTECTION NOTES

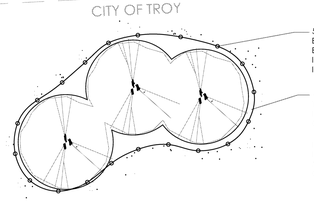
1. APPROVED TREE PROTECTION SHALL BE ERECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
2. ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
3. NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE.
4. WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE.
5. DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE, SCHEDULED TO REMAIN.
6. ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING.
7. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
8. TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
9. ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
10. THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
11. THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
12. ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REAMIN.
13. THE GRUBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MINIMALLY WITH A HYDRO-AXE.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES, FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
15. TREES TO BE REMOVED SHALL BE FIELD VERIFIED, EVALUATED AND FLAGGED FOR REMOVAL, BY THE LANDSCAPE ARCHITECT OR FORESTER, ONLY AS DIRECTED BY THE OWNER OR OWNERS REPRESENTATIVE.

TREE PRESERVATION SUMMARY:

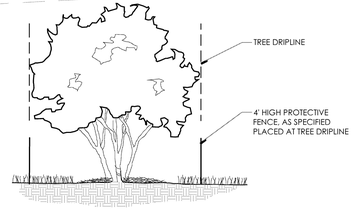
TOTAL NUMBER OF TREES SURVEYED:	105
LESS TREES OFF-SITE AND IN R.O.W.:	42
LESS TREES EXEMPT FROM REPLACEMENT (DEAD, ASH, DISEASED ELM):	10
NET TREES ON-SITE:	53
TOTAL TREES TO REMAIN:	14
TOTAL TREES TO BE REMOVED:	49
NET TREES TO BE REMOVED AND REPLACED:	39
TOTAL SPECIMEN TREES ON-SITE:	27
TOTAL SPECIMEN TREES TO BE REMOVED:	23 (602")
TOTAL SPECIMEN CREDITS:	4
MINIMUM PRESERVATION REQUIREMENT	
53 TREES - 18 TREES IN BUILDING ENVELOPE = 35 X 40% =	14 TREES NEED TO BE PRESERVED
	14 TREES ARE PROPOSED TO BE PRESERVED
TREE REPLACEMENT	
TOTAL REGULATED TREES REQUIRED:	16 TREES
TOTAL SPECIMEN REPLACEMENTS REQUIRED (602" X 50% = 301"/2"):	151 TREES
LESS SPECIMEN TREE CREDITS:	-4 TREES
TOTAL REPLACEMENT TREES REQUIRED:	163 TREES
TOTAL REPLACEMENT TREES PROVIDED:	19 TREES
($304 X 144 = $43,776 TO BE PAID INTO CITY TREE FUND)	

LEGEND:

- TREES TO BE REMOVED
- 950 — TREES TO REMAIN
- TREE PROTECTION FENCING



TREE PROTECTION DETAIL-PLAN
NTS



TREE PROTECTION DETAIL-SECTION
NTS

CITY FILE NO. 20-009, SECTION 36

NOWAK & FRAUS ENGINEERS

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL

PROJECT
Medical Office Building

CLIENT
The Alan Group
1800 Brinston Dr.
City of Troy, MI 48083

Contact: Alan Harding
Ph. (248) 284-1512
Fax (248) 840-1100
Email
jharding@thealangroup.com

PROJECT LOCATION
Part of the S.W. ¼
of Section 36
T.3N. , R.11E.
City of Rochester Hills,
Oakland County, Michigan

SHEET
Tree Preservation Plan

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

REVISIONS
04/15/2020 SPA SUBMITTAL
06/15/2020 SPA SUBMITTAL
07/20/2020 SPA SUBMITTAL
10/16/2020 SPA SUBMITTAL

DRAWN BY:
G. Ostrowski

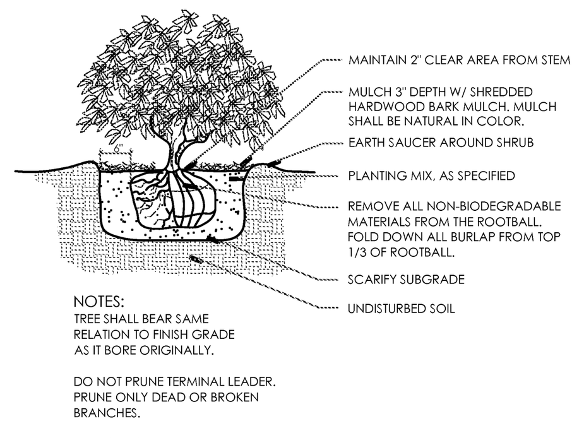
DESIGNED BY:
G. Ostrowski

APPROVED BY:
G. Ostrowski

DATE:
03-18-2020

SCALE: 1" = 30'
30 15 0 15 30 45

NFE JOB NO. L289
SHEET NO. L1

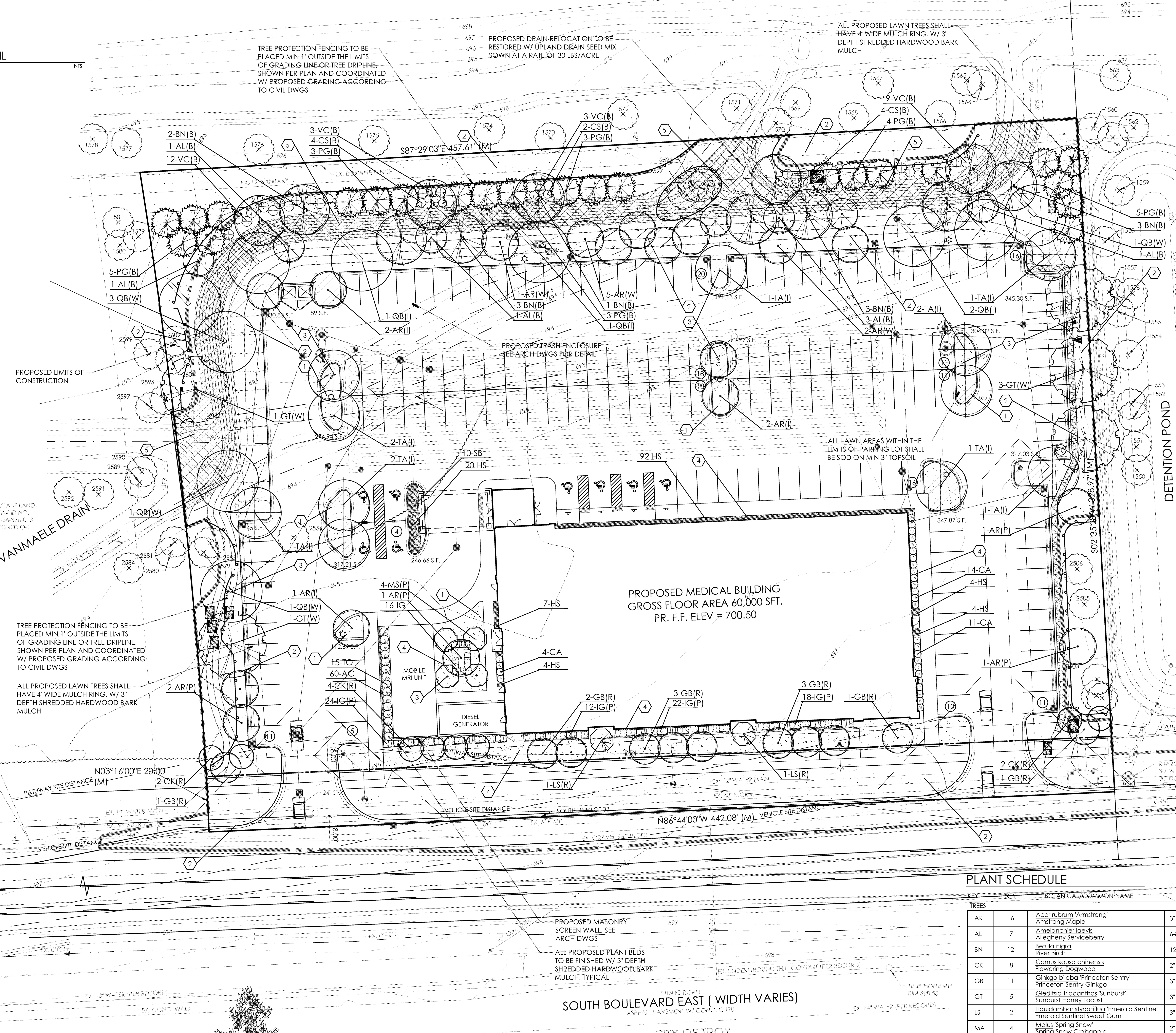


SHRUB PLANTING DETAIL

DECIDUOUS SHRUB NTS

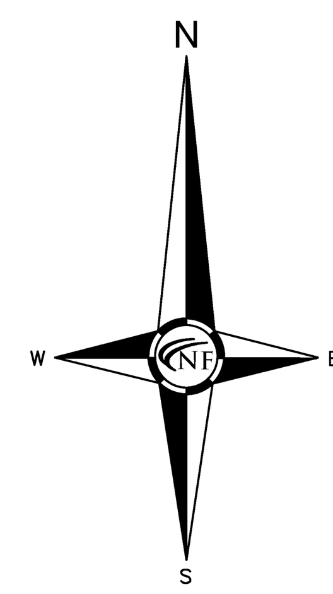
GROUNDCOVER KEY

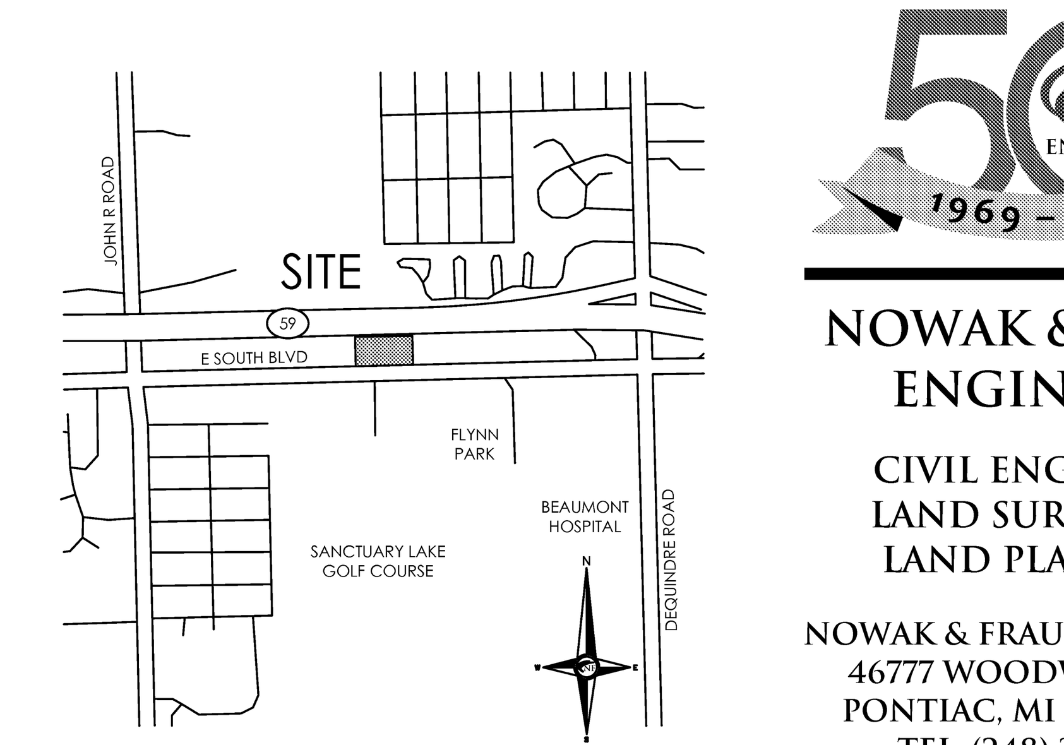
1. TYPICAL SOD LAWN AREAS, SOWN ON 3" TOPSOIL
2. RESTORE EXISTING LAWN AREAS W/ HYDROSEED AND MULCH
3. 4" DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH
4. 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH
5. VAN MAELE DRAIN SEED MIX PER PLAN SOWN AT 30 LBS/ACRE



IRRIGATION NOTE:

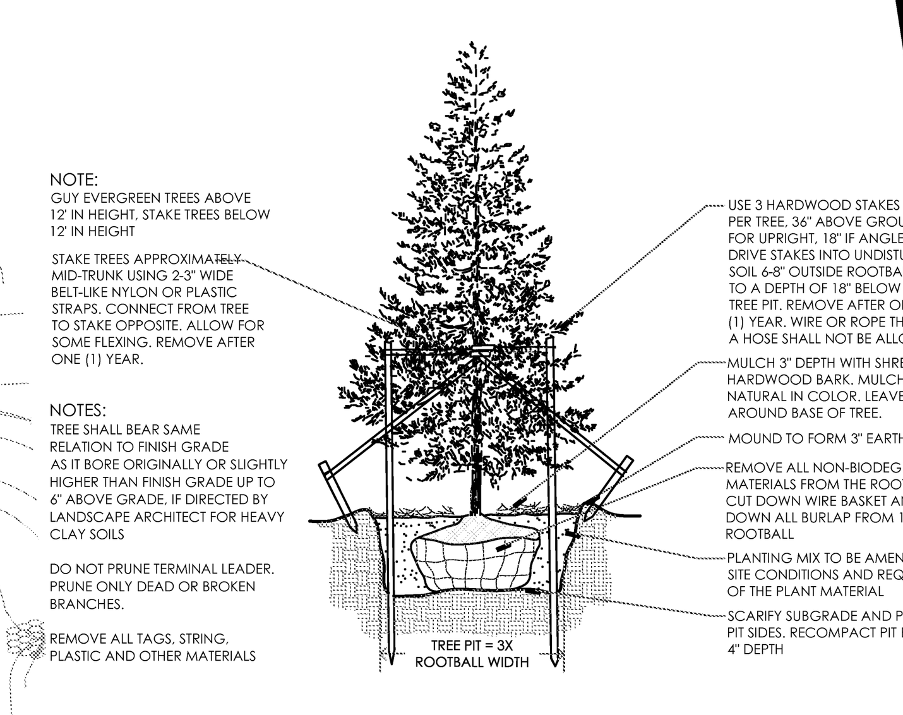
ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. WATERING SHALL OCCUR ONLY BETWEEN THE HOURS OF 12 AM AND 5AM. OVERSPRAY ONTO CITY PATHWAYS IS NOT PERMITTED.





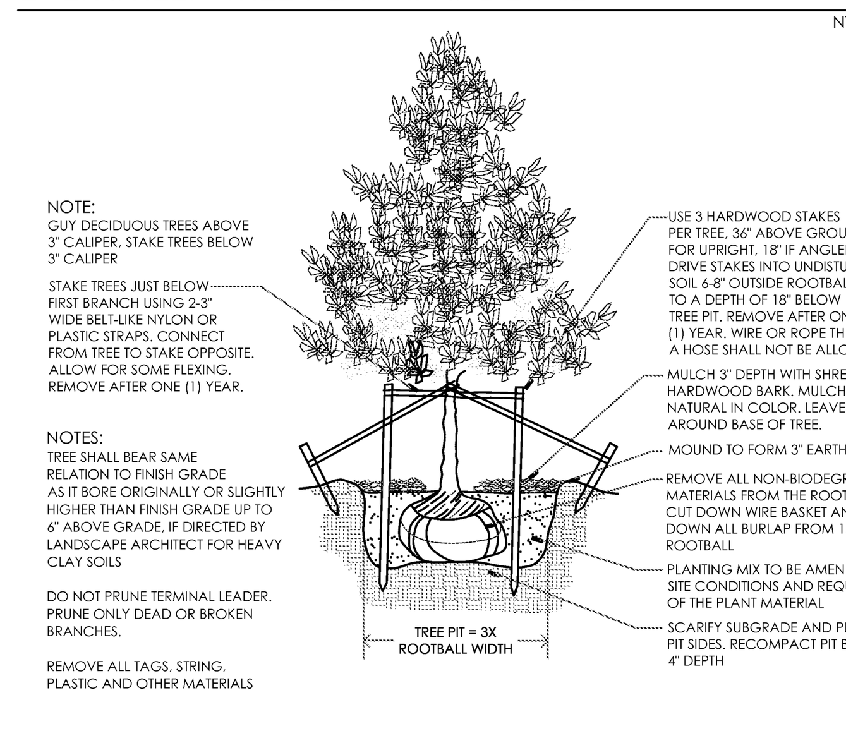
LOCATION MAP

N.T.S.



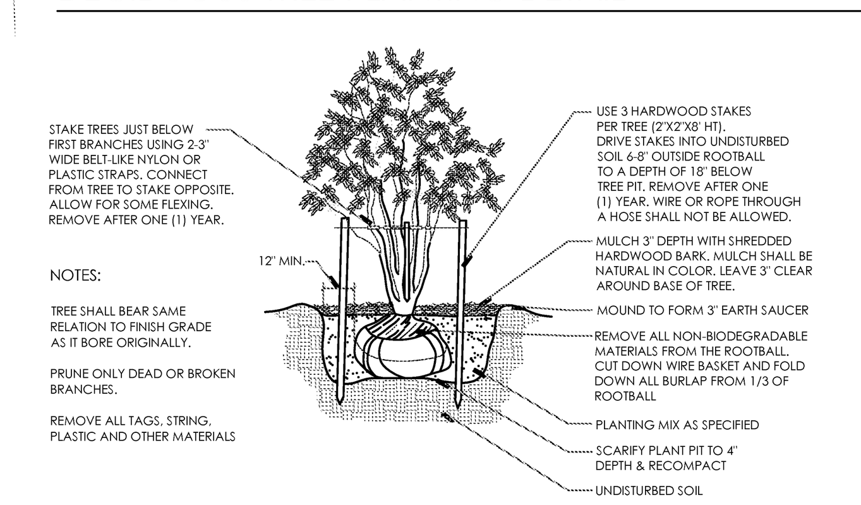
EVERGREEN TREE PLANTING DETAIL

NTS



DECIDUOUS TREE PLANTING DETAIL

NTS



MULTI-STEM TREE PLANTING DETAIL

NTS

LANDSCAPE REQUIREMENTS

EXISTING SITE AREA: 145,695.75 S.F. OR 3.34 ACRES

BUFFER REQUIREMENT (B)
TYPE 'D' NORTH PROPERTY LINE: 457.61 L.F.
2.5 DECIDUOUS TREES, 1.5 ORNAMENTAL TREES,
5 EVERGREEN TREES AND 8 SHRUBS PER 100 L.F.
REQUIRED: 12 DECIDUOUS TREES, 7 ORNAMENTAL TREES, 23 EVERGREENS AND 37 SHRUBS
PROVIDED: 12 DECIDUOUS TREES, 23 EVERGREEN TREES, 7 ORNAMENTAL, AND 37 SHRUBS

R.O.W. LANDSCAPE REQUIREMENTS (R)
1 DECIDUOUS PER 35 L.F. + ORNAMENTAL PER 60 L.F.
SOUTH BOULEVARD: 442.08 L.F.
442 L.F. / 35 L.F. = 12.6 OR 13 CANOPY TREES
442 L.F. / 60 L.F. = 7.4 OR 8 ORNAMENTAL TREES
PROVIDED: 13 CANOPY TREES AND 8 ORNAMENTAL TREES

PARKING INTERIOR LANDSCAPE (I)
REQUIRED: 5% OF THE PARKING LOT SHALL BE LANDSCAPED WITH 1 TREE PER 150 S.F.
REQUIRED AREA: 58,849 S.F. X 5% = 2,942.45 OR 2,943 S.F.
2,943 S.F. / 150 S.F. = 19.62 OR 20 TREES REQUIRED
PROVIDED: 20 TREES, 3,121.27 S.F.

PARKING LOT PERIMETER LANDSCAPE (P)
REQUIRED: 1 CANOPY TREE/25 L.F., 1 ORNAMENTAL/35 L.F., SHRUBS 30" OC
SOUTH BLVD: 124 L.F.
124 L.F. / 25 = 4.96 OR 5 CANOPY TREES
124 L.F. / 35 L.F. = 3.5 OR 4 ORNAMENTAL REES
124 L.F. / 2.5 = 49.6 OR 50 SHRUBS
PROVIDED:
5 CANOPY TREES, 4 ORNAMENTAL TREES AND 52 SHRUBS

TREE REPLACEMENTS (W)
REQUIRED: 163 REPLACEMENTS
PROVIDED: 19 TREES, MONIES FOR 144 TO BE PAID INTO TREE FUND

CITY MAINTENANCE NOTES:

1. LANDSCAPING SHALL BE KEPT IN A NEAT, ORDERLY AND HEALTHY GROWING CONDITION, FREE FROM DEBRIS AND REFUSE.
2. PRUNING SHALL BE MINIMAL AT THE TIME OF INSTALLATION, ONLY TO REMOVE DEAD AND DISEASED BRANCHES. SUBSEQUENT PRUNING SHALL ASSUME PROPER MATURATION OF PLANTS TO ACHIEVE THEIR APPROVED PURPOSE.
3. ALL DEAD, DISEASED PLANT MATERIAL SHALL BE REMOVED IMMEDIATELY AND REPLACED WITHIN SIX (6) MONTHS AFTER IT DIES, OR IN THE NEXT PLANTING SEASON, WHICHEVER OCCURS FIRST. FOR PURPOSES OF THIS SECTION, THE PLANTING SEASON FOR DECIDUOUS PLANTS SHALL BE BETWEEN MARCH 1 AND JUNE 1. PLANT MATERIAL INSTALLED TO REPLACE DEAD OR DISEASED MATERIAL SHALL BE AS CLOSE AS PRACTICAL TO THE SIZE OF THE MATERIAL IT IS INTENDED TO REPLACE. THE CITY MAY NOTIFY PROPERTY OWNERS OF THE NEED TO REPLACE DEAD, DAMAGED, OR DISEASED MATERIAL.
4. THE APPROVED LANDSCAPE PLAN SHALL BE CONSIDERED A PERMANENT RECORD AND INTEGRAL PART OF THE SITE PLAN APPROVAL. UNLESS OTHERWISE APPROVED IN ACCORDANCE WITH THE AFOREMENTIONED PROCEDURES, ANY REVISIONS TO, OR REMOVAL OF PLANT MATERIALS, NON-COMPLIANCE WITH THE MAINTENANCE REQUIREMENTS OF THIS SECTION 138-12.109 WILL PLACE THE PARCEL IN NON-CONFORMITY WITH THE APPROVED LANDSCAPE PLAN AND BE A VIOLATION OF THIS ORDINANCE.
5. IF PROTECTED TREES ARE DAMAGED, A FINE SHALL BE ISSUED ON AN INCH-BY-INCH BASIS AT A MONETARY RATE AS DEFINED BY THE FORESTRY DEPARTMENT.

VANMAELE DRAIN SEED MIX (BOTTOM):

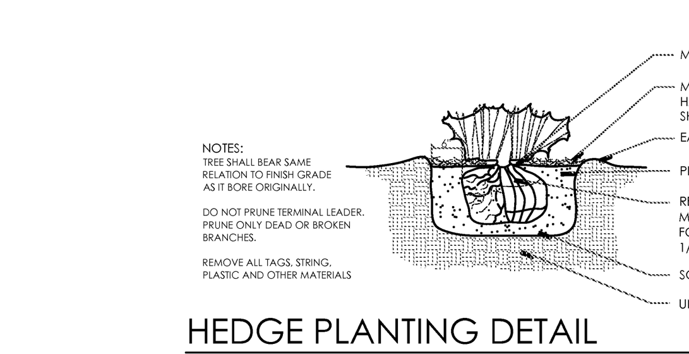
SPECIES	COMMON NAME	RATE (OZ./AC.)
Grasses and Grass-Like		
Carex bebbii	Bebb's oval sedge	1.75
Carex vulpinoidea	Fox Sedge	2.00
Eleocharis palustris	Great Spike Rush	1.00
Elymus virginicus	Virginia Wild Rye	16.00
Juncus effusus	Soft Rush	0.50
Juncus tenuis	Path Rush	0.50
Juncus torreyi	Torrey's Rush	0.25
Panicum virgatum	Switchgrass	8.00
Scirpus pungens	Three square Rush	1.00
Scirpus validus	Soft-stem Bulrush	1.00
Sorghastrum nutans	Indian Grass	8.00
	Total PLS Oz per Acre	40.00
Forbs		
Alisma subcordatum	Common Water Plantain	1.00
Asclepias incarnata	Swamp Milkweed	1.50
Aster novae-angliae	New England Aster	0.50
Aster umbellatus	Flat-topped Aster	0.50
Bidens cernua	Nodding Bur Marigold	1.00
Echinacea purpurea	Purple Coneflower	2.50
Helenium autumnale	Sneezeweed	1.00
Liatris spicata Marsh	Blazingstar	1.00
Lycopus americanus	Water Horehound	0.50
Mimulus ringens	Monkey Flower	0.25
Monarda fistulosa	Wild Bergamot	0.60
Oenothera biennis	Common Evening Primrose	2.20
Penthorum sedoides	Ditch Stonecrop	0.40
Physostegia virginiana	Obedient Plant	0.50
Polygonum pennsylvanicum	Pennsylvania Smartweed	1.25
Rudbeckia hirta	Black-eyed Susan	2.50
Verbena hastata	Blue Vervain	2.80
Zizia aurea	Golden Alexander	4.00
	Total PLS Oz per Acre	24.00
Cover Crop		
Avena sativa	Seed Oats	480.0
Lolium multiflorum	Annual Rye	96.0

NOTES:
1. Seed mix to be broadcast over bottom of stream corridor.
2. Seed mix to be covered with NA Green SC150BN or equivalent erosion control blanket.
3. This is Native Connections' Stormwater Seed Mix. Phone: (269) 273-1367

DRAIN SLOPE SEED MIX (SLOPES):

SPECIES	COMMON NAME	RATE (PLS LBS./AC.)
Andropogon gerardii	Big Blue Stem	1.0
Andropogon scoparius	Little Blue Stem	2.5
Elymus canadensis	Canada Wild-Rye	5.0
Panicum virgatum	Prairie Switch Grass	5.0
Lolium multiflorum	Annual Rye	20.0
	TOTAL	33.5

NOTES:
1. Seed mix to be broadcast over side slopes of drain corridor.
2. Seed mix to be covered with North American Green S75bn erosion control blanket or equivalent.



HEDGE PLANTING DETAIL

NTS

PLANT SCHEDULE

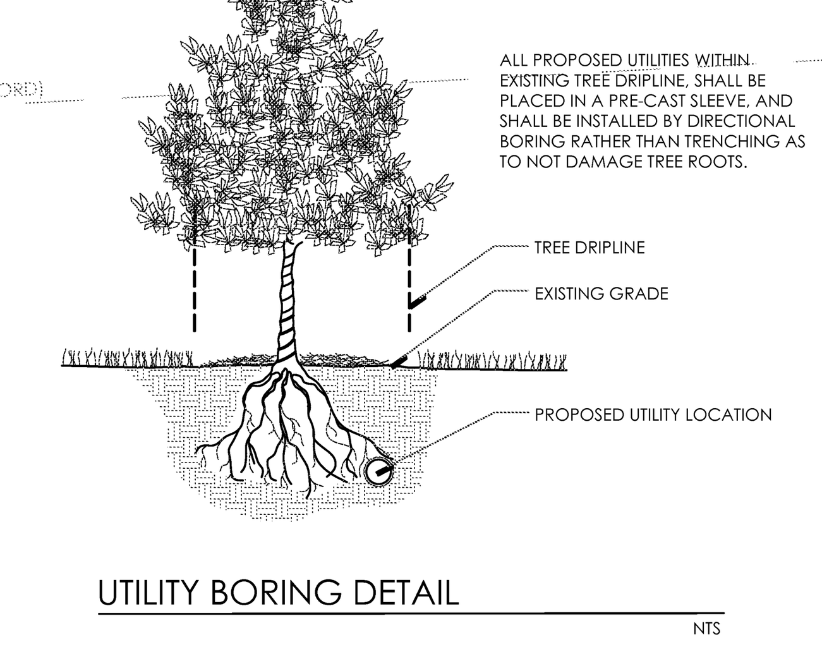
KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT	UNIT /TOTAL COST
TREES							
AR	16	Acer rubrum 'Armstrong' Amstrong Maple	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$325/$5,200
AL	7	Amelanchier laevis Allegheny Serviceberry	6-8' HT	SEE PLAN	B&B	CLUMP FORM, 3 CANES	$275/$1,925
BN	12	Betula nigra River Birch	12-14' HT	SEE PLAN	B&B	CLUMP FORM, 3 CANES	$325/$3,900
CK	8	Cornus kousa chinensis Flowering Dogwood	2" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$275/$2,200
GB	11	Ginkgo biloba 'Princeton Sentry' Princeton Sentry Ginkgo	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$325/$3,575
GT	5	Gleditsia triacanthos 'Sunburst' Sunburst Honey Locust	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$325/$1,625
LS	2	Liquidambar styraciflua 'Emerald Sentinel' Emerald Sentinel Sweet Gum	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$325/$650
MA	4	Malus 'Spring Snow' Spring Snow Crabapple	2" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$275/$1,100
PG	23	Picea glauca 'Densata' Black Hills Spruce	8' HT	SEE PLAN	B&B	BRANCHED TO GROUND	$350/$8,050
QB	10	Quercus bicolor Swamp White Oak	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$325/$3,250
TA	11	Tilia americana 'McKSentry' American Sentry Linden	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	$325/$3,575
SHRUBS							
CS	10	Cornus sericea 'Baileyii' Bailey Red Twig Dogwood	30" HT	48" OC	B&B		$50/$500
IG	68	Ilex glabra 'Gem Box' Gem Box Holly	30" HT	30" OC	CONT		$50/$3,400
SB	10	Spiraea x bumalda 'Anthony Waterer' Anthony Waterer Spiraea	30" HT	30" OC	B&B		$50/$500
TO	15	Thuja occidentalis 'Techny' Mission Arborvitae	5' HT	4' OC	B&B		$75/$1,125
VC	27	Viburnum carlesii Koreanspice Viburnum	36" HT	5' OC	B&B		$50/$1,350
GROUNDCOVERS/PERENNIALS							
AC	60	Acorus calamus 'Variegatus' Variegated Sweet Flag	1 GAL	12" OC	CONT		$15/$900
CA	29	Calamagrostis a. 'Karl Foerster' Karl Foerster Feather Reed Grass	3 GAL	30" OC	CONT		$30/$870
HS	131	Hemmerocallis 'Happy Returns' Happy Returns Daylily	2 GAL	18" OC	CONT		$15/$1,965
IRR	1 LS	COMPLETE IRRIGATION SYSTEM, INSTALLED					$15,000

NOTE:

PRIOR APPROVAL IS REQUIRED TO PLANT ANY TREE OR SHRUB ON THE PUBLIC RIGHT-OF-WAY. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC ROAD. (TREES MUST BE PLANTED AT LEAST 15' AWAY FROM CURB OR ROAD EDGE WHERE THE SPEED IS MORE THAN 35 MPH.) SHADE TREES AND SHRUBS MUST BE PLANTED AT LEAST 5' FROM THE EDGE OF THE PUBLIC WALKWAY. EVERGREEN AND ORNAMENTAL TREES MUST BE PLANTED AT LEAST 10' FROM THE EDGE OF THE PUBLIC WALKWAY. NO TREES OR SHRUBS MAY BE PLANTED WITHIN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY STREET RIGHT-OF-WAY LINES AT A DISTANCE ALONG EACH LINE OF 25' FROM THEIR POINT OF INTERSECTION. NO TREES OR SHRUBS MAY BE PLANTED IN THE TRIANGULAR AREA FORMED AT THE INTERSECTION OF ANY DRIVEWAY WITH A PUBLIC WALKWAY AT A DISTANCE ALONG EACH LINE OF 15' FROM THEIR POINT OF INTERSECTION. ALL TREES AND SHRUBS MUST BE PLANTED AT LEAST 10' FROM ANY FIRE HYDRANT. SHADE AND EVERGREEN TREES MUST BE AT LEAST 15' AWAY FROM THE NEAREST OVERHEAD WIRE. TREES MUST BE PLANTED A MINIMUM OF 5' FROM AN UNDERGROUND UTILITY, UNLESS THE CITY'S LANDSCAPE ARCHITECT REQUIRES A GREATER DISTANCE.

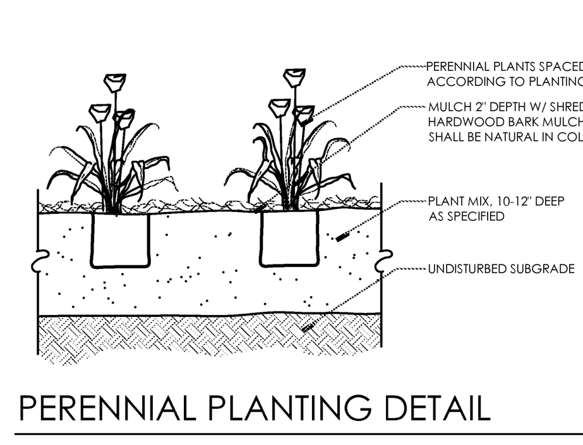
PRIOR TO THE RELEASE OF THE PERFORMANCE BOND, THE CITY OF ROCHESTER HILLS FORESTRY DIVISION NEEDS TO INSPECT ALL TREES, EXISTING OR PLANTED, TO IDENTIFY ANY THAT POSE A HAZARD TO THE SAFE USE OF THE PUBLIC RIGHT-OF-WAY. FORESTRY MAY REQUIRE THE DEVELOPER TO REMOVE, AND POSSIBLY REPLACE, ANY SUCH TREES.

THESE REQUIREMENTS ARE INCORPORATED INTO THE PLAN.



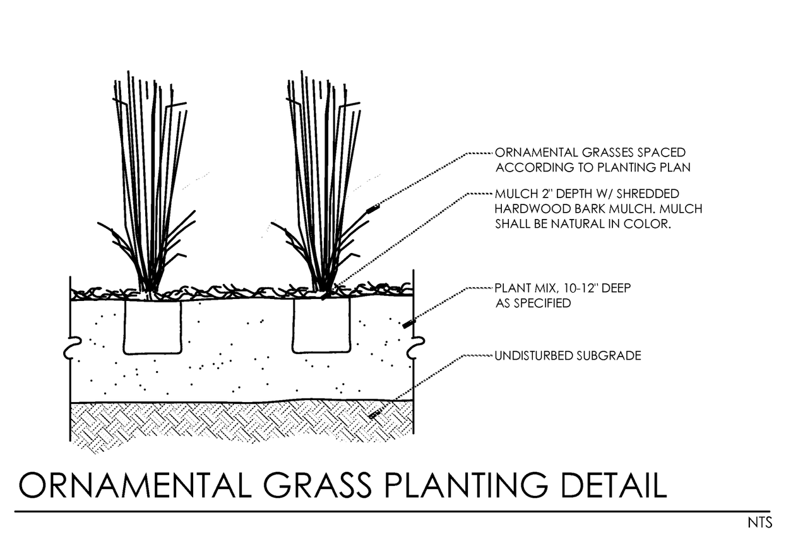
UTILITY BORING DETAIL

NTS



PERENNIAL PLANTING DETAIL

NTS



ORNAMENTAL GRASS PLANTING DETAIL

NTS

CITY FILE NO. 20-009, SECTION 36

NOWAK & FRAUS ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL

STATE OF MICHIGAN · GEORGE A. OSTROWSKI · REGISTERED LANDSCAPE ARCHITECT · NO. 1310

PROJECT
Medical Office Building

CLIENT
The Alan Group
1800 Brinston Dr.
City of Troy, MI 48083

Contact: Alan Harding
Ph. (248) 284-1512
Fax (248) 840-1100
Email
jharding@thealangroup.com

PROJECT LOCATION
Part of the S.W. ¼ of Section 36
T.3N. , R.11E.
City of Rochester Hills,
Oakland County, Michigan

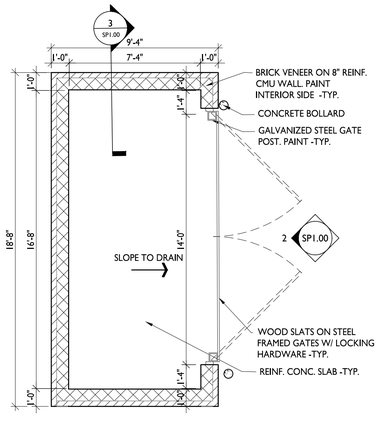
SHEET
Landscape Plan

Know what's below Call before you dig.

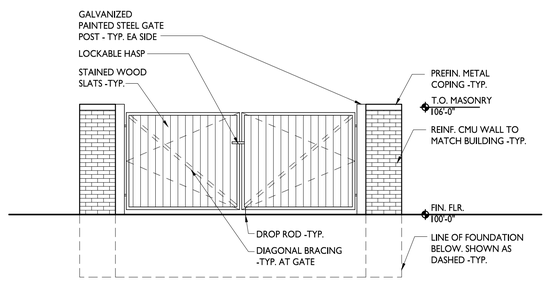
REVISIONS
04/15/2020 SPA SUBMITTAL
06/15/2020 SPA SUBMITTAL
07/20/2020 SPA SUBMITTAL
10/16/2020 SPA SUBMITTAL

DRAWN BY: G. Ostrowski
DESIGNED BY: G. Ostrowski
APPROVED BY: G. Ostrowski
DATE: 03-18-2020
SCALE: 1" = 30'
30 15 0 15 30 45

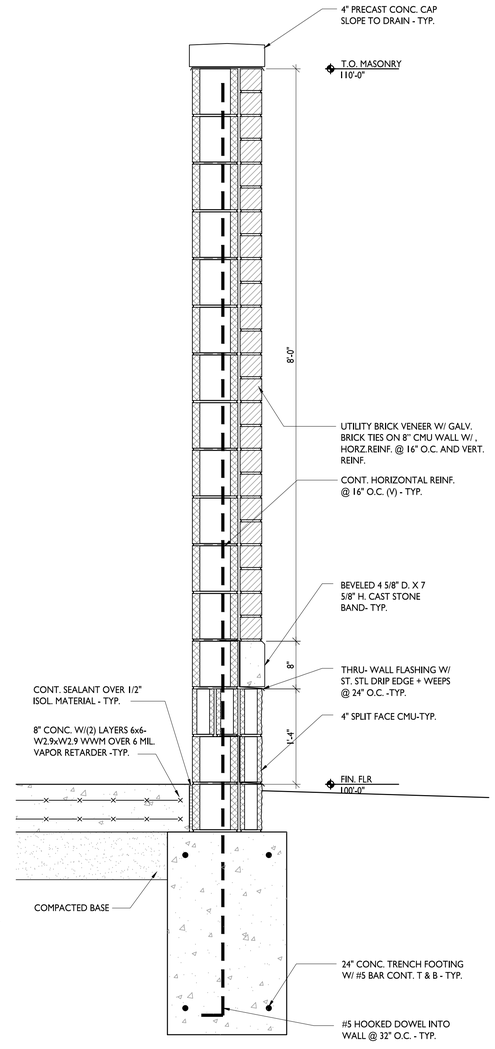
NFE JOB NO. L289
SHEET NO. L2



1 DUMPSTER PLAN
SP1.00 SP1.00 SCALE: 1/4" = 1'-0"



2 DUMPSTER ELEVATION
SP1.00 SP1.00 SCALE: 1/4" = 1'-0"



3 DUMPSTER SECTION
SP1.00 SP1.00 SCALE: 1" = 1'-0"

BUILDING CODE REVIEW

APPLICABLE BUILDING CODE: Michigan Building Code/2015 NFPA 101

BUILDING CODE	SECTION		REQUIRED/ALLOWED		PROVIDED/ACTUAL
Jurisdiction					Rochester Hills, Michigan
Building Location	-				East South Boulevard
Building Description	-				Outpatient Surgical Center
Building Use Group	302			B	Building Use Group: Business: Ambulatory
Min. Constr. Type	T-503		Construction Type from T-503	2B	
Fire Suppression	903.3.1.1		NFPA-13 (SM)	x	Floor 1-3
GENERAL BUILDING HEIGHTS AND AREAS					
ALLOWABLE HEIGHT BASED ON USE AND CONSTRUCTION TYPE					
Actual Bldg. Hgt.	T-504.3	75	enter allowable building height in feet	42	Feet Actual
Allowable Bldg. Stories	T-504.4	4	enter allowable building height in stories	3	Stories Actual (S_a)
ALLOWABLE AREA BASED ON USE AND CONSTRUCTION TYPE: T-506.2					
Allow. Floor Area/Use 1	**B (S-1)**	A_{t1}	Allowable area (SM)	69,000	s.f.
			(NS)	23,000	
Frontage Increase	506.3		F: open perimeter (feet)	2,000	
			P: entire perimeter (feet)	2,000	
			W: minimum width of public way (feet)	30	
	frontage	I_f	(F/P - .25)*(W/30)	0.75	
SINGLE OCCUPANCY/MULTI STORY					
Max. Allow. Area	506.2.3	120,750	A_a (Allowable Total s.f. of All Flrs) = (A_t + (NS * I_f)) * S_a	**59,457**	s.f. Actual Total of All Floors
SPECIAL REQUIREMENTS BASED ON USE AND OCCUPANCY					
Atriums	404.2		Atrium Use		
	404.3		Automatic Sprinkler System		provided
	404.4		Fire alarm system per 907.2.14	N/R	provided per ambulatory care
	404.5		Smoke Control	N/R	for atriums connecting 2 stories
	404.6		Enclosure of Atrium		1 hr fire barrier
	404.7		Standby power	N/R	no smoke control required
	404.8		Interior Finish		not less than Class B (at walls + ceiling)
	404.9	300'	Travel distance		for fully sprinkled per NFPA 13
	404.1		Interior Exit Stairway	N/A	
FIRE PROTECTION	602	**2B**	Construction classification		
	T-601	**0**	Structural Frame		
	T-601	**0**	Bearing Walls-Exterior		
	T-601	**0**	Bearing Walls-Interior		
	T-601	**0**	Nonbearing walls and partitions: Exterior (see T-602)		
	T-601	**0**	Nonbearing walls and partitions: Interior		
	T-601	**0**	Floor Construction		
	T-601	**0**	Roof construction (supporting beams and joists)		
Type I and II Comb Matl	603.1		Allowable Material		
FIRE RESIST. RATING + TESTS	703.2, 703.4		Ratings/Combustibility		
	703.3, 718, 720, 721		Alternative methods		
EXTERIOR WALLS	T-601, T-602,		North	>30'	191'
	704.10, 705.5,		East	>30'	29'
	706.5.1, 707.4,		South	>30'	
	708.6, 709.5		West	>30'	
	T-705.8		Opening Protection		no limit for sprinkled/ unprotected
	705.8.5		Vertical Separation of Openings	N/A	fully sprinkled
FIRE BARRIERS	707.3.1		Shaft Enclosures	**1**	hr
	707.3.2		Interior Exit Stairway	**1**	hr
	707.3.3		Exit Access Stairway	**1**	hr
	707.3.4		Exit passageway	**1**	hr (N/A)
	707.3.5		Horizontal exits	**1**	hr (N/A)
	707.3.6		Atriums	**1**	hr
	707.3.7		Incidental use areas	**1**	hr
FLR/ROOF ASSEMBLY	711.2		Horizontal Assemblies	1 hr	for smoke compartments
	711.2.3		Horizontal Assemblies Supporting Construction	per 709.4	supporting steel not required for 2B
	711.2.4		Fire Resistance Rating		
VERTICAL OPENINGS	712.1.1		Shaft Enclosures	**1**	hr
	712.1.9		Two Story Openings	**1**	hr
SHAFTS	713.4		Fire Resistance Rating	**1**	hr
	713.14		Elevator, dumbwaiter, and other hoist ways	**1**	hr
	713.14.1		Fire partitions: Elevator Lobby	N/R	3 stories or less
FIRE PROTECTION	Fire Suppression				
	903.2.2		Group B ambulatory health care facilities		Fire Suippression Required
	903.2.11.3		Buildings over 30 feet high		Required
	T-903.2.11.6		Additional required systems		
	IFC 903.2.15		**International Fire Code**		
	903.3.1.1		**NFPA 13 System**		
	903.4		Sprinkler System Monitoring and alarms		
STANDPIPE SYSTEMS	905.2		Installation standards		
	905.3.1		Building height	N/R	highest fr @ 28' (<30)
PORTABLE FIRE EXT.	906		Portable Fire Extinguisher		locations per fire marshal/per NFPA10
	IFC-906.1		Required locations - IFC		
FIRE ALARM + DETECTION SYSTEMS	907.1.1		Construction documents		
	907.2.2		Business		Required with ambul. Care
	907.2.14		Atriums connecting more than 2 stories		N/R is only connects 2 story
	907.3-7		Activation/Presignal/Notification/Installation/Tests		
EMER. ALARM SYSTEMS	908.1-908.6		Detection system applicable		
SMOKE CONTROL SYSTEMS			Where required (402.10, 403.4.6, 403.5.4, 404.5, 405.5,		not required for 2 story atrium
OCCUPANT NEEDS	T-1004.1.2		Accessory storage areas, Mechanical equip.room (s.f.)		
		300	gross s.f. per occupant	0	occupants
			Business areas (s.f.)		
		100	gross s.f. per occupant	0	occupants
		20000	Institutional: Outpatient areas		
		100	gross s.f. per occupant	200	occupants
			SUBTOTAL OCCUPANT LOAD	**200**	**occupants per flr**
Egress Width per Occ.	Stairs	0.3	All other occupancies (inch/occ.) (0.2 w/sprink + voice)		
1005.3, 1005.5		30	inches per stair for 50% req'd capacity for individual flr.	48	inches Provided
	Corridors	0.2	All other occupancies (0.15 w/ fire supp. + emerg. voice)		
		20	inches per corridor for 50% required capacity	72	inches Provided
	Doors	0.2	All other occupancies (0.15 w/ fire supp. + emerg. voice)		
		40	inches total	144	inches Provided
Min. Corridor Width	T-1020.2		See Chart	**72**	inches for stretchers
				96"	req'd per MI Health Care Design Standard
Minimum Door Width	1010.1.1		Min. 32" clear opng. Max. 48" door leaf	36"	Provded
MEANS OF EGRESS	1003.2	Min. 7'-6"	Ceiling Height		
	1003.3	80" min.	Headroom		
	1003.5		Elevation Change		
OCCUPANT LOAD	1004.3		Posting of Occupant Load	Req'd	for assembly uses at main exit.
EGRESS SIZING	1005.4		Continuity		
	1005.5		Distribution of Egress Capacity	50%	occ. req'd for remaining exits if 1 exit lost
	1005.6		Egress Convergence		
	1005.7.1		Door and hardware encroachment	7"	max. fully open. Max. 1/2 redux req'd width
	1005.7.2	1 1/2" max.	Other Projections		
EXIT NUMBER/CONFIG	1006.2		Number of Exits	3	exits Provded
	T-1006.2.1		Spaces with One Exit and Common Path of Travel		100' max common path
	T-1006.3.1		Exits from Stories Required, 2 exits	2	exits Provded
EXIT CONFIGURATION	1007.1.1		Door Arrangement		
EGRESS ILLUMIN.	1008.2	1 fc	Illumination Level		
	1008.3	1 fc ave.	Emergency Power Illumination Level (min. 0.1 fc)		
	1008.3.4		Duration	90	minutes duration min.
ACCESS. MEANS OF EGRESS	1009.1	2	min. accessible means of egress => 2 egress req'd	3	provided
	1009.2.1		Elevator required => 5 stories	N/R	3 stories
	1009.3	48"	Stairways Min. Clear Between Handrails w/o Fire Supp.	N/R	fully sprinkled (NFPA 13)
EXIT SIGNS	1013.1		Exit Sign: 100' Max Spacing (illuminated 5 f.c.)		
	1013.3		Illumination	Req'd	externally or internally
	1013.4		Raised Character and Braille	Req'd	at Area of Refuge and exit doors
HANDRAILS	1014.2		Handrails: 34" aff < height < 38" aff		
	1014.4		Continuity		
	1014.6		Handrail Extensions	12"	horiz at top + (1) tread at bottom
	1014.7		Clearance	1 1/2"	min. clearance from wall
	1014.8		Projections	1 1/2"	min. clearance from wall
	1014.9	30" max.	Intermediate Handrails		
GUARDS	1015.2	Req'd	30" hgt diff within 36" horiz to edge of open side		
	1015.3	42" min.	Height		
	1015.4	4" max.	Opening Limitations		
EXIT ACCESS	1016.2		Egress Through Intervening Spaces		
EXIT TRAVEL DIST.	T-1017.2	300'	Exit access travel distance	172'	Actual
AISLES	1018		Aisles		
EXIT ACCESS STAIRS	1019.1		Exit Access Stairways and Ramps		
CORRIDORS	T-1020.1	0 hr	Corridor fire -resistance rating (by use group)	0	hr Provided
	T-1020.2		Width and Capacity	72"	for corridors with stretcher use
				96"	req'd per MI Health Care Design Standard
	1020.4		Dead end corridors, B use with sprinkler : 50' max		
EXIT	1022.2		Exterior Exit Doors		
INT. EXT STAIR/RAMP	1023.2		Vertical Exit Enclosures: 1 hr, if > 4 stories => 2 hr	1	hr Provided

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WWW.BOWERSINC.COM

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PROJECT + INFORMATION

SURGERY CENTER

ROCHESTER HILLS, MICHIGAN

PROJECT + NUMBER

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ISSUE + DATE

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16 OCT 2020 RESUB

STATE OF MICHIGAN
SCOTT M BOWERS
ARCHITECT
1301032575
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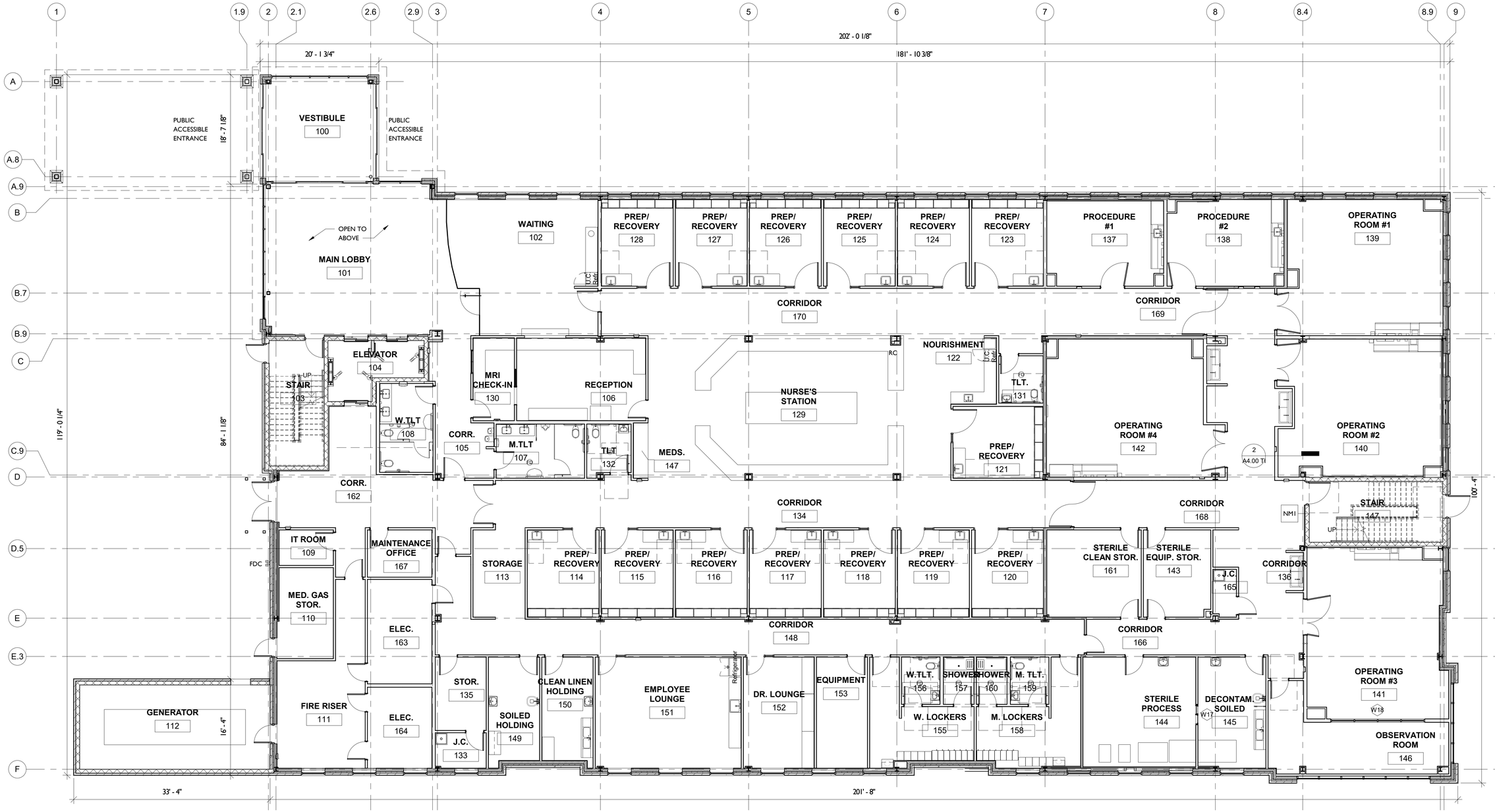
CODE REVIEW AND DUMPSTER ENCLOSURE DETAILS

19407SP.dwg

SHEET + NUMBER

SP1.00



FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

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OUTPATIENT SURGICAL CENTER

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ROCHESTER HILLS, MI. 48307

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STATE OF MICHIGAN
SCOTT M. BOWERS
ARCHITECT
NO. 42575
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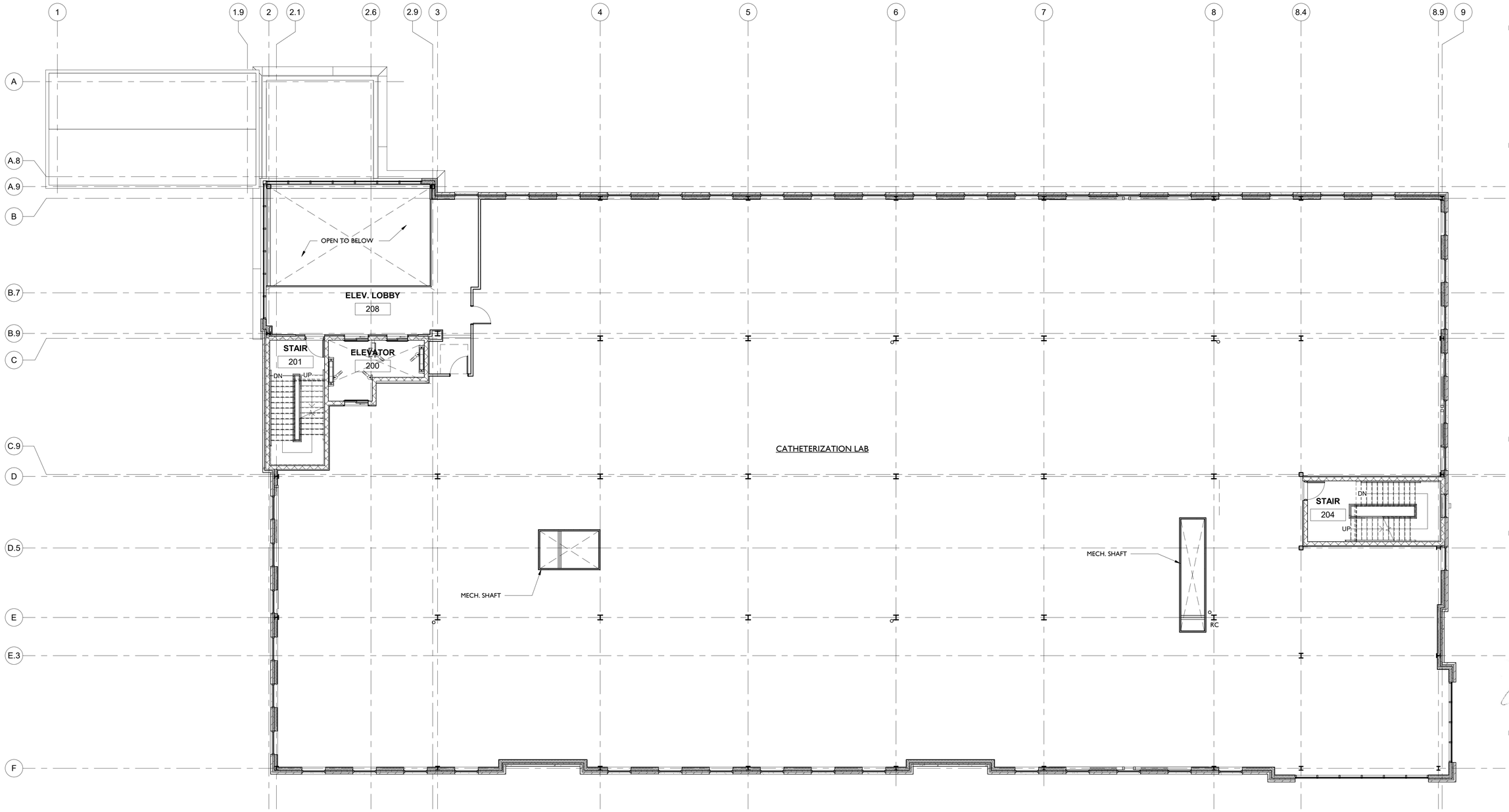
FIRST FLOOR PLAN

SHEET + NUMBER

A 1.00



SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"

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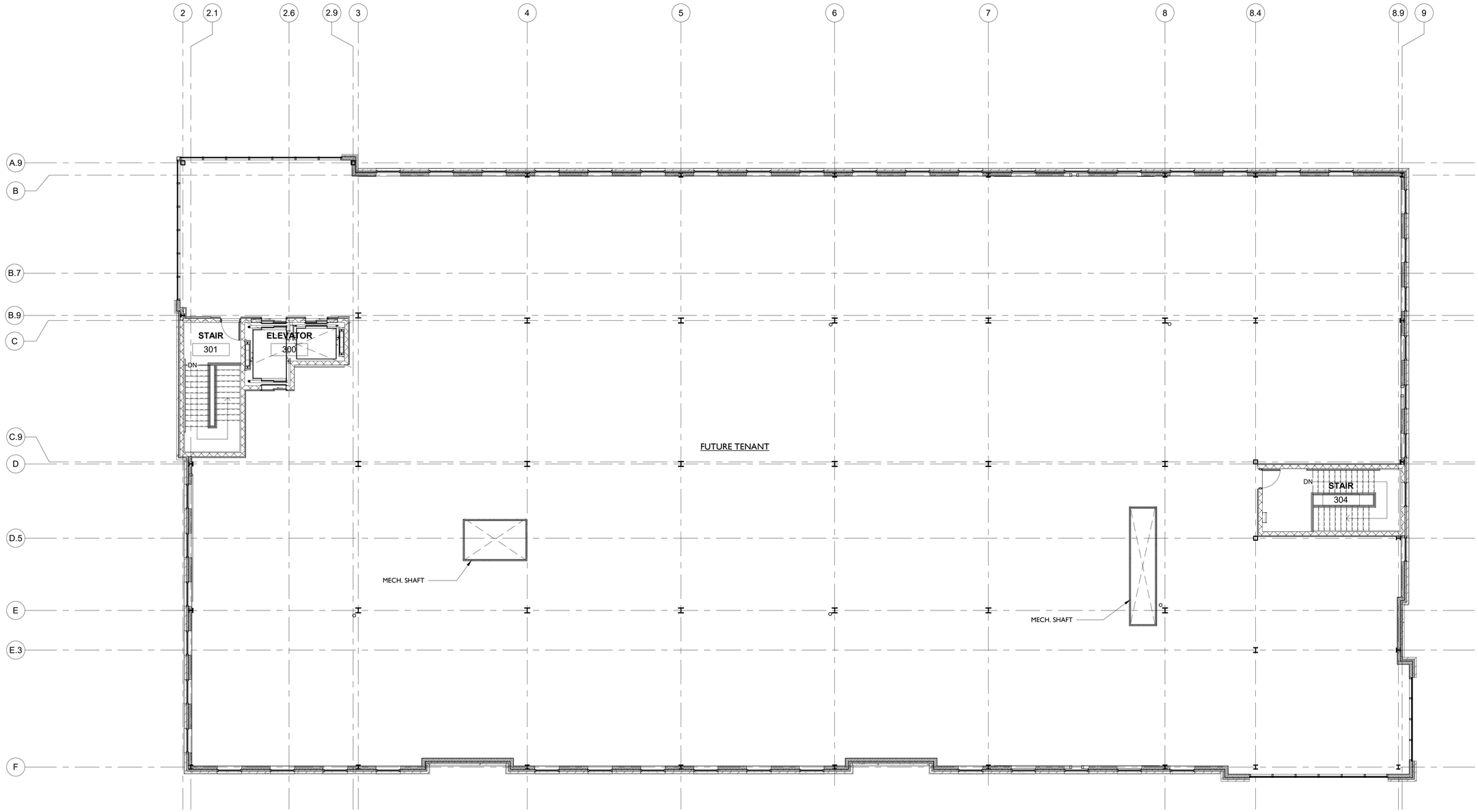
SECOND FLOOR PLAN

SHEET + NUMBER

A 1.01



THIRD FLOOR PLAN

SCALE: 1/8" = 1'-0"

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THIRD FLOOR PLAN

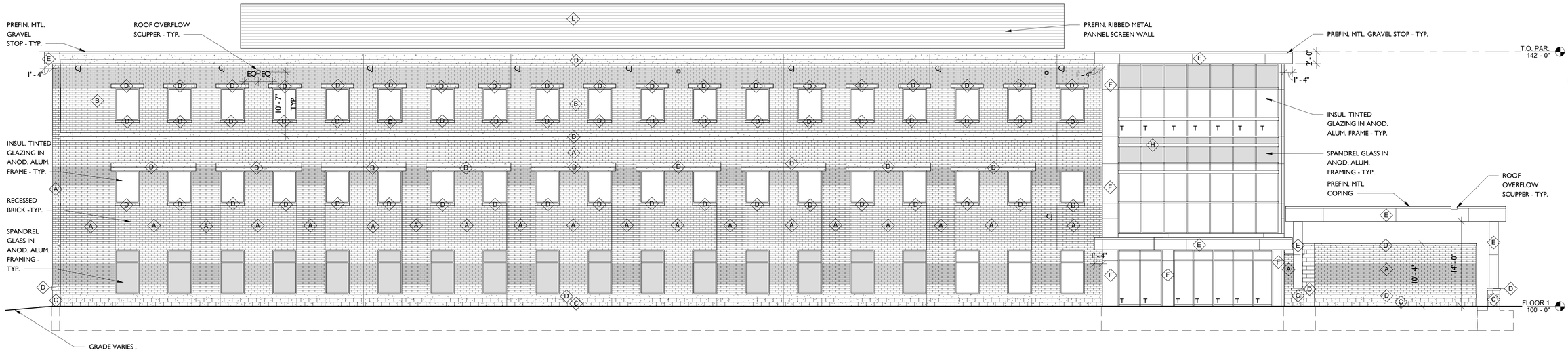
SHEET + NUMBER

A 1.02

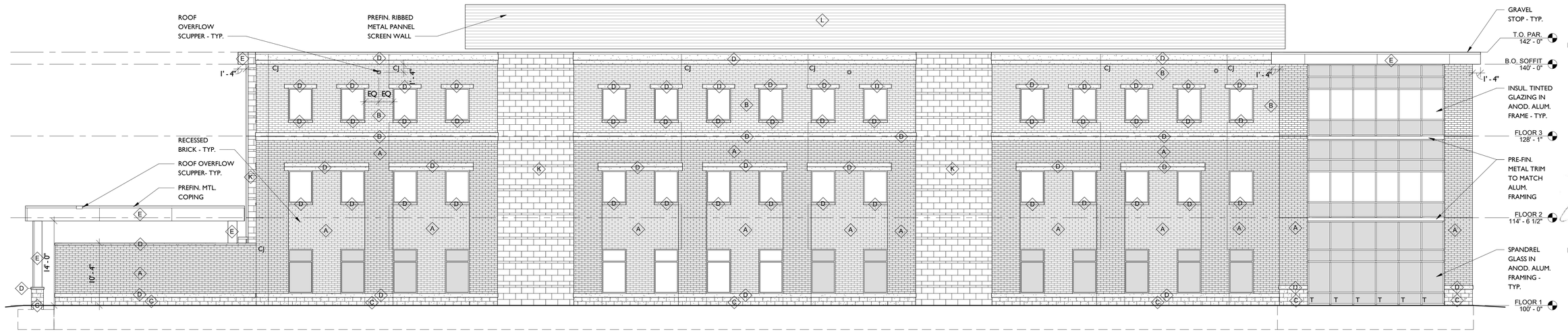
EXTERIOR FINISH LEGEND

TAG	MATERIAL	MANUF/STYLE	COLOR
A	UTILITY BRICK	SOUIX CITY	CRANBERRY COLONIAL IRONSPOT
B	UTILITY BRICK	BELDEN	IVORY BAY
C	SPLIT FACE CMU	GRAND BLANC	NATURAL LIMESTONE
D	CAST STONE BAND	ROCK CAST	CRYSTAL WHITE
E	PRE-FIN. METAL PANEL	ATAS OR SIMILAR	CLEAR ANODIZED
F	PRE-FIN. METAL PANEL	ATAS OR SIMILAR	CLEAR ANODIZED
G	PAINT	TBD	TBD
H	ALUM FRAME	KAWNEER	CLEAR ANODIZED
J	METAL COPING	TBD	MATCH METAL PANEL E
K	CAST STONE MASONRY	ROCK CAST	SMOKE HOUSE
L	PREFIN RIBBED MTL. PANEL	PAC CLAD	TO MATCH METAL PANEL E

GENERAL NOTES:
· ALL SIGNS MUST MEET THE REQUIREMENTS OF CHAPTER 134 OF THE CITY CODE OF ORDINANCES AND BE APPROVED UNDER A SEPARATE PERMIT ISSUED BY THE BUILDING DEPARTMENT
· ALL HEATING, VENTILATION, AND AIR CONDITIONING MECHANICAL EQUIPMENT LOCATED ON THE EXTERIOR OF THE BUILDING SHALL BE SCREENED FROM ADJACENT STREETS AND PROPERTIES



1 A 5.00 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 A 5.00 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

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STATE OF MICHIGAN
SCOTT M. BOWERS, ARCHITECT NO. 32575
LICENSED ARCHITECT

SHEET + TITLE
EXTERIOR ELEVATIONS

SHEET + NUMBER
A 5.00

EXTERIOR FINISH LEGEND			
TAG	MATERIAL	MANUF/STYLE	COLOR
A	UTILITY BRICK	SOUIX CITY	CRANBERRY COLONIAL IRONSPOT
B	UTILITY BRICK	BELDEN	IVORY BAY
C	SPLIT FACE CMU	GRAND BLANC	NATURAL LIMESTONE
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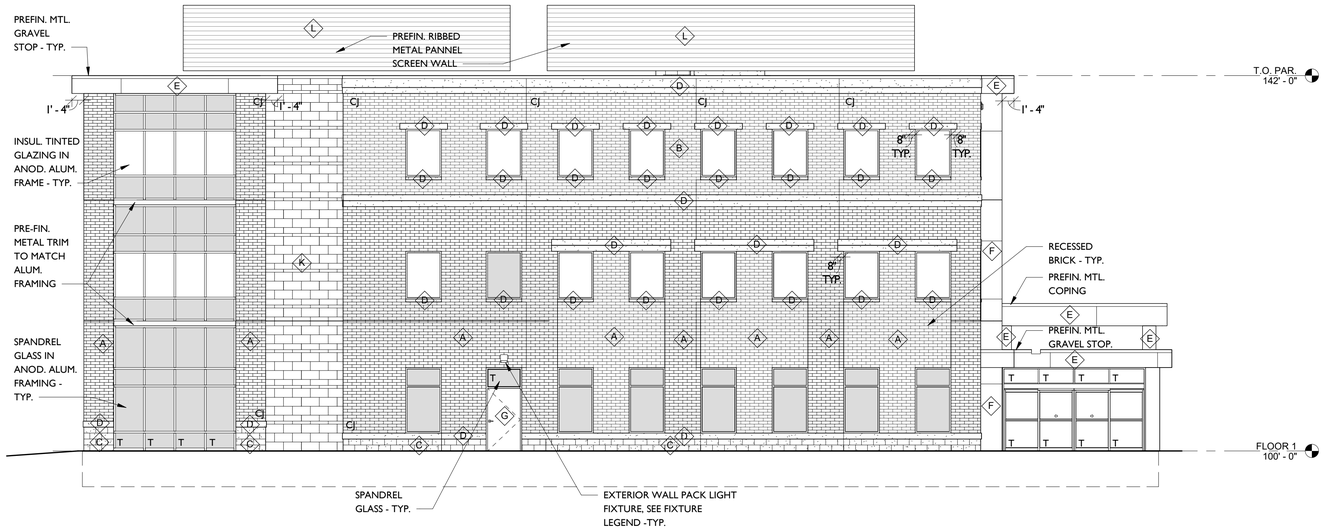
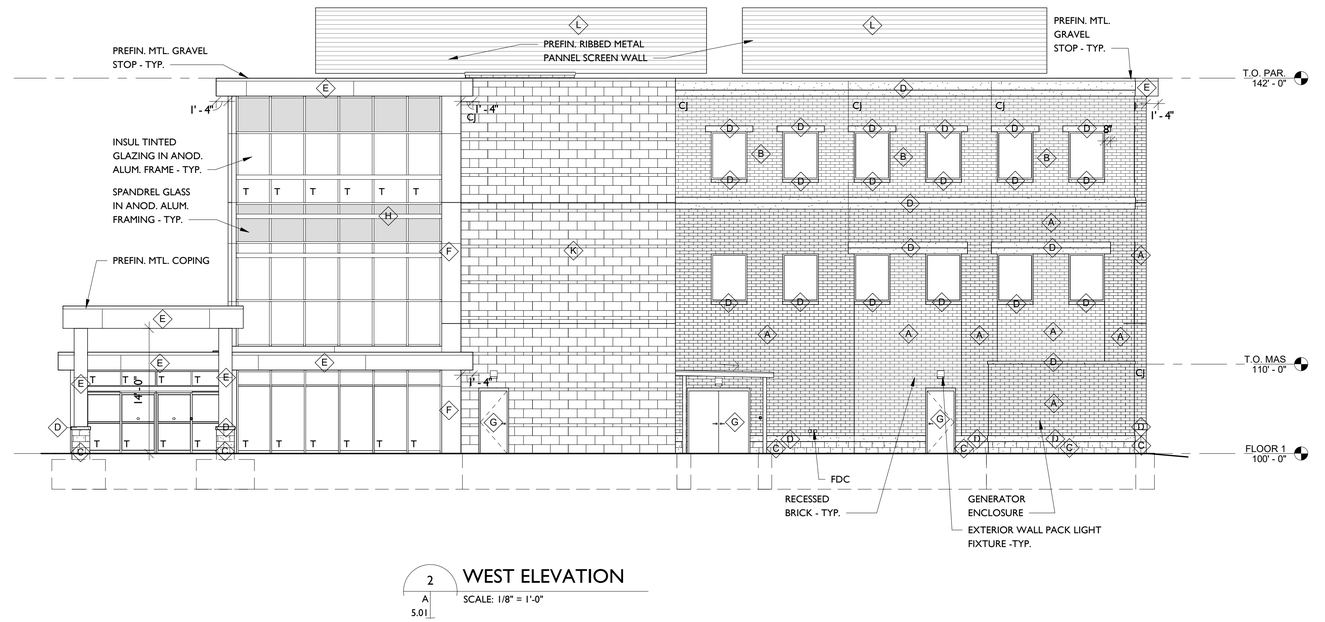


1 A 5.01 EAST ELEVATION
SCALE: 1/8" = 1'-0"



2 A 5.01 WEST ELEVATION
SCALE: 1/8" = 1'-0"

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STATE OF MICHIGAN
SCOTT M. BOWERS
ARCHITECT
NO. 32575
LICENSED ARCHITECT

SHEET + TITLE
EXTERIOR ELEVATIONS

SHEET + NUMBER
A 5.01