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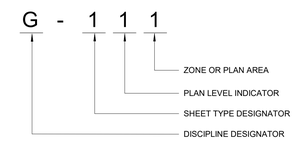
DRAWING NAMING CONVENTION



DISCIPLINE DESIGNATORS

PREFIX	DISCIPLINE
G	GENERAL
LS	LIFE SAFETY
C	CIVIL
L	LANDSCAPE
S	STRUCTURAL
A	ARCHITECTURAL
M	MECHANICAL
E	ELECTRICAL

Oakland County Parking Decks - North Deck

WATER ST PONTIAC, MI 48342

Design Development

September 8, 2025

ALL PARTIES ARE ADVISED THAT CONSTRUCTION BIDS SECURED AS A RESULT OF CONTENTS OF DOCUMENTS WHICH ARE INCOMPLETE MUST CARRY ADEQUATE AMOUNT FOR FINANCIAL AND TIME CONTINGENCY TO COVER COMPLETION OF DESIGN AND CONSTRUCTION, INCLUDING ITEMS THAT ARE CUSTOMARILY REQUIRED BUT ARE NOT SHOWN.

CLIENT:

Oakland County

ARCHITECT:

Framework E
Architects Leaders Community Builders

Framework E, LLC
155 W Congress St, Detroit, MI 48226
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www.framework-e.com

Project Number: 2025011

CONSULTANTS:

Survey:	Nowak and Fraus Engineers
Civil:	Nowak and Fraus Engineers
Landscape:	Nowak and Fraus Engineers
Structural:	TYLin Group
Fire Protection:	MA Engineering
Mechanical:	MA Engineering
Electrical:	MA Engineering
Parking:	Rich & Associates

LOCATION MAP
Not to Scale

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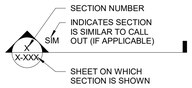
DRAWING SYMBOL LEGEND

SECTION IDENTIFICATION



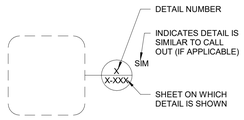
ROOM NAME & NUMBER



DOOR NUMBER



DETAIL IDENTIFICATION



KEYNOTE INDICATOR



PARTITION TYPE INDICATOR



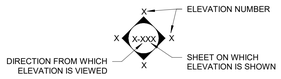
EXTERIOR ELEVATION IDENTIFICATION



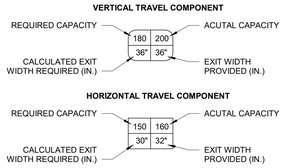
LEVEL INDICATOR



INTERIOR ELEVATION IDENTIFICATION



EGRESS TAG



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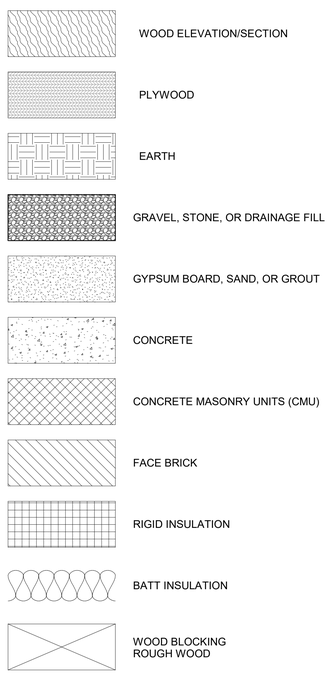


ABBREVIATIONS

ABOVE FINISH FLOOR	AFF
ACCESS PANEL	AP
ACRE	AC
ADJACENT	ADJ
ALTERNATE	ALT
ALUMINUM	ALUM
ANCHOR BOLT	AB
AND	&
ANGLE	L
APPROXIMATE	APPROX
ARCHITECT OF RECORD	AOR
ARCHITECT(URAL)	ARCH
AT	@
BACK TO BACK	B TO B
BEAM	BM
BEARING	BRG
BITUMINOUS	BIT
BLOCKING	BLKG
BOTTOM	BOT
BOTTOM OF	BO
BOTTOM OF STEEL	BOS
BRICK	BRK
BUILDING	BLDG
BUILT-UP ROOF	BUR
CABINET HEATER	CH
CARD READER	CR
CAST IRON	CI
CEILING	CLG
CEMENTITIOUS WOOD FIBER	CWF
CENTER LINE	CL
CENTER TO CENTER	C TO C
CLEANOUT	CO
CLEAR	CLR
COLD-FORMED FRAMING	CFF
COLD WATER	CW
COLUMN	COL
COMPACTED/COMPACTOR	COMP
CONCRETE	CONC
CONCRETE MASONRY UNIT	CMU
CONSTRUCTION	CONSTR
CONTINUOUS/CONTINUE	CONT
CONTRACTOR	CONTR
CONTROL JOINT	CJ
DEAD LOAD	DL
DEGREE	°
DEPARTMENT	DEPT
DETAIL	DET
DEPTH/DEEP	D
DIAMETER	DIA/Ø
DIMENSION	DIM
DISHWASHER	DW
DIVISION	DIV
DOWN	DN
DOWNSPOUT	DS
DRAWING	DWG
EACH	EA
EACH FACE	EF
EACH WAY	EW
EAST	E
EDGE OF SLAB	EOS
ELECTRICAL	ELEC
ELECTRICAL PANEL BOARD	EP
ELEVATION/ELEVATOR	ELEV
ENGINEER	ENGR
ENGINEER OF RECORD	EOR
EQUAL	EQ
EQUIPMENT	EQUIP
EXHAUST	EXH
EXISTING	EXIST
EXPANSION	EXP
EXPANSION JOINT	EJ
EXTENSION	EXTN
EXTERIOR	EXT
EXTERIOR INSULATION FINISH SYSTEM	EIFS
FIBER REINFORCED PLASTIC	FRP
FIRE DEPARTMENT CONNECTION	FDC
FIRE EXTINGUISHER AND WALL BRACKET	FE
FIRE EXTINGUISHER BRACKET	FEB
FIRE EXTINGUISHER CABINET	FEC
FIRE RETARDANT TREATED	FRT
FIRE VALVE CONNECTION	FVC
FINISH	FIN
FINISH FLOOR	FF/FIN FL
FLOOR	FLR
FLOOR CLEANOUT	FCO
FLOOR DRAIN	FD
FOOT/FEET	FT
FOOTING	FTG
FOUNDATION	FDN
GALVANIZED	GALV
GARBAGE DISPOSAL	GD
GAUGE	GA
GLASS	GL
GROUND FACE CONCRETE MASONRY UNIT	GFCMU
GYPSUM BOARD	GYP BRD
HARDWARE	HDWR
HEATING	HTG
HEATING, VENTILATION AND AIR CONDITIONING	HVAC
HEIGHT	HT
HIGH	H
HIGH POINT	HP
HOLLOW METAL	HM
HORIZONTAL	HORIZ
HOSE BIB	HB
HOT WATER	HW
HOUR	HR
INCH	IN
INCLUDE(D), (ING)	INCL
INFORMATION	INFO
INSIDE DIAMETER/IDENTIFICATION	ID
INSULATION	INSUL
INTERIOR	INT
INVERT	INV
JOINT	JT
KNOCK DOWN	KD
LAMINATED	LAM
LAVATORY	LAV
LENGTH	L
LIVE LOAD	LL
LONG LEG HORIZONTAL	LLH
LONG LEG VERTICAL	LLV
LONG WAY	LW
LOUVER	LVR
MANUFACTURER	MFR
MASONRY	MAS
MASONRY OPENING	MO
MATERIAL	MATL
MAXIMUM	MAX
MECHANICAL	MECH
METAL	MTL
MICROWAVE	MICRO
MINIMUM	MIN
MISCELLANEOUS	MISC
MODIFIED	MOD
NOMINAL	NOM
NORTH	N
NOT IN CONTRACT	NIC
NOT TO SCALE	NTS
NUMBER	NO/#
ON CENTER	OC
OPEN TO BELOW	OTB
OPENING	OPNG
OPPOSITE	OPP
OPPOSITE HAND	OH
OUT TO OUT	O TO O
OUTSIDE DIAMETER	OD
OVERHEAD COILING DOOR	OCD
OVERHEAD COILING GRILLE	OCG
PAINT	PT
PANEL	PNL
PANEL JOINT	PJ
PLUMBING	PLUMB
PLYWOOD	PLYWD
POINT OF CONNECTION	POC
POUND	LB/#
POUNDS PER SQUARE FOOT	PSF
POUNDS PER SQUARE INCH	PSI
POWDER ACTUATED FASTENER	PAF
PREFABRICATED	PREFAB
PROPERTY LINE	PL
RADIUS	RAD/R
REFERENCE	REF
REFRIGERATOR	REFRIG
REINFORCING	REINF
REQUIRED	REQD
RETURN AIR	RA
REVISION(S)	REV
RISER	R
ROOF DRAIN	RD
ROOM	RM
ROUGH OPENING	RO
SANITARY	SAN
SCUPPER BOX	SB
SCHEDULE	SCH
SECTION	SECT
SHEET	SHT
SIMILAR	SIM
SOUTH	S
SPACE	SP
SPECIFICATION(S)	SPEC(S)
SQUARE	SQ
SQUARE FOOT/FEET	SF
SQUARE INCH(ES)	SI
SQUARE YARD(S)	SY
STAINLESS STEEL	SS
STANDARD	STD
STEEL	STL
STORM DRAIN	SD
STRUCTURE/STRUCTURAL	STRUCT
SUPPLY AIR	SA
SYMMETRY(ICAL)	SYMM
TELEVISION	TV
THICK/THICKNESS	THK
TREAD	T
TOILET	TLT
TOP AND BOTTOM	T&B
TOP OF	TO
TOP OF CONCRETE	TOC
TOP OF CURB	TC
TOP OF FOOTING	TOF
TOP OF MASONRY	TOM
TOP OF STEEL	TOS
TWO-WAY COMMUNICATION	TWC
TYPICAL	TYP
UNIT VENTILATOR	UV
UNLESS NOTED OTHERWISE	UNO
VAPOR RETARDER	VR
VENT STACK	VS
VERIFY IN FIELD	VIF
VERTICAL	VERT
VOLUME	VOL
WALL CLEANOUT	WCO
WEATHER RESISTANT BARRIER	WRB
WELDED WIRE FABRIC	WWF
WEST/WIDE/WIDTH	W
WITH	W/
WITHOUT	WO
WOOD	WD

GENERAL CONDITION NOTES

1. SEE SPECIFICATIONS FOR QUALITY OF CONSTRUCTION REQUIRED, QUALITY OF WORK, MANUFACTURING AND INDUSTRY STANDARDS, PHYSICAL PROPERTIES OF MATERIALS, CONFORMANCE TO CODES AND REGULATIONS GUARANTEE AND WARRANTY REQUIREMENTS.
2. SEE ARCHITECTURAL, HVAC, PLUMBING, ELEVATOR, FIRE PROTECTION & ELECTRICAL DRAWINGS FOR OTHER PERTINENT INFORMATION RELATED TO STRUCTURAL WORK AND COORDINATE AS REQUIRED. CONTRACTOR SHALL COORDINATE STRUCTURAL DRAWINGS WITH ALL OTHER DRAWINGS WITHIN THE CONTRACT DOCUMENTS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS RELATED TO EXISTING CONSTRUCTION, EXISTING SERVICES, AND THE SITE BEFORE BEGINNING WORK.
4. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE FOLLOWING ITEMS THAT WILL NOT BE REVIEWED BY THE OWNER, ARCHITECT OR ENGINEER.
   a. DEVIATIONS FROM CONTRACT DOCUMENTS
   b. DIMENSIONS, ELEVATIONS AND CONDITIONS TO BE CONFIRMED AND CORRELATED AT THE SITE
   c. FABRICATION PROCESS INFORMATION
   d. MEANS, METHODS, TECHNIQUES, PROCEDURES OF CONSTRUCTION AND CONSTRUCTION SAFETY
   e. COORDINATION OF THE WORK OF ALL TRADES
   f. QUALITY ASSURANCE SUBMITTALS

GENERAL PROJECT NOTES

1. GENERAL PROJECT NOTES ARE APPLICABLE TO ALL PROJECT AREAS.
2. THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC AUTHORITY BEARING ON THE WORK. IF THE CONTRACTOR OBSERVES THE CONTRACT DOCUMENTS ARE AT VARIANCE WITH SUCH IN ANY RESPECT; PROMPTLY NOTIFY THE OWNER IN WRITING, SUCH THAT ALL NECESSARY CHANGES CAN BE MADE. IF CONTRACTOR KNOWINGLY PERFORMS ANY WORK CONTRARY TO SUCH WITHOUT NOTICE TO THE OWNER, THEY SHALL ASSUME FULL RESPONSIBILITY THEREFORE AND SHALL BEAR COST ATTRIBUTED THERETO.
3. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A NEAT AND ORDERLY MANNER. MATERIALS SHALL BE NEW; SECONDHAND OR DAMAGED MATERIALS SHALL NOT BE USED. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY AND CONDITION OF THE EQUIPMENT, MATERIALS AND SYSTEMS UNTIL FINAL ACCEPTANCE OF THE SYSTEM.
4. THE CONTRACTOR IS TO APPROPRIATE STEPS TO PROTECT ALL EXISTING FLOORING AND WALLS FROM DIRT AND DAMAGE. THE CONTRACTOR IS TO MAINTAIN A CLEAN WORK AREA THROUGHOUT ALL ADJACENT SPACES DURING CONSTRUCTION, AND BE RESPONSIBLE FOR CLEANING ALL AREAS AT THE END OF EACH WORK DAY.
5. THE CONTRACTOR IS TO TAKE APPROPRIATE CARE IN REMOVAL OF ITEMS; INCLUDING BUT NOT LIMITED TO LOCKERS, FIXTURES, AND APPLIANCES. MAINTAIN PROPER CONDITION AND RETURN TO OWNER FOR STORAGE. CONTRACTOR TO COORDINATE WITH OWNER FOR THE RETURN OF ALL SALVAGEABLE ITEMS. THE OWNER RESERVES THE RIGHT OF FIRST REFUSAL OF ALL BUILDING MATERIALS BEING REMOVED. IF DECLINED, THE CONTRACTOR SHALL DISPOSE OF MATERIAL IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
6. WHEN REFERRING TO SCOPE OF WORK; THE WORDS "PROVIDE", "INSTALL", AND "REPLACE" INDIVIDUALLY SHALL BE ASSUMED TO MEAN THAT THE CONTRACTOR IS TO REMOVE ANY EXISTING ITEMS, PROVIDE NEW ITEMS, AND INSTALL NEW ITEMS - UNLESS EXPRESSLY INDICATED OTHERWISE.
7. FILL AND PATCH ALL OPENINGS RESULTING FROM DEMOLITION AND CONSTRUCTION TO WALLS, FLOORS, AND CEILINGS. PATCH TO MATCH EXISTING FINISHES. CONTRACTOR TO MAINTAIN ALL FIRE RATINGS REQUIRED BY GOVERNING BUILDING CODE REGARDLESS OF EXISTING CONDITIONS. TYPICAL ENTIRE PROJECT AREA.
8. ALL EXISTING STRUCTURE TO REMAIN. CONTRACTOR SHALL TAKE APPROPRIATE CARE NOT TO DAMAGE EXISTING STRUCTURE.
9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CLEARANCES AND ALL EXISTING FIELD CONDITIONS BEFORE STARTING CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS. SHOULD DIFFERENT CONDITIONS BE ENCOUNTERED, CONTACT THE ARCHITECT BEFORE PROCEEDING WITH WORK.
10. ALL DIMENSIONS ARE TO FINISH FACE OF WALL, UNLESS SPECIFICALLY NOTED OTHERWISE.
11. DO NO SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM HE ARCHITECT BEFORE CONTINUING WITH WORK.
12. WHEN MODIFYING ANY PART OF AN EXISTING WALL OR ANY ITEM ATTACHED TO A WALL, THE ENTIRE SURFACE IS TO BE PAINTED FROM CORNER TO CORNER, U.N.O.
13. PROVIDE AND INSTALL NEW DOORS AND HARDWARE AS INDICATED ON DRAWINGS.
14. REFER TO PLANS, INTERIOR ELEVATIONS AND WALL TYPE DETAILS FOR NEW WALLS, FLOORS AND CEILING FINISHES AND CONSTRUCTION.
15. UPON COMPLETION, CONTRACTOR IS RESPONSIBLE TO THOROUGHLY CLEAN ENTIRE PROJECT AREA, IN ORDER TO PREPARE IT FOR IMMEDIATE USE.
16. IN AREAS WHERE NEW FLOORING AND BASE IS BEING PROVIDED AND INSTALLED (BOTH NEW AND PATCHED AREAS); THE CONTRACTOR IS TO PREPARE SUBSTRATE TO RECEIVE NEW MATERIALS AS RECOMMENDED BY THE MANUFACTURER.

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

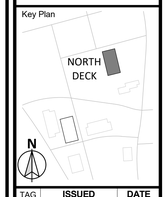
Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

Consultants

Seal

Key Plan



TAG	ISSUED	DATE
1	50% DD	08/15/25
2	Design Development	09/08/25

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DRAWN BY **Author**
CHECKED BY **Checker**
CLIENT PROJ NO

Framework E PROJ NO **2025011**

GENERAL INFORMATION

DRAWING NO

G-020

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CODE SUMMARY

SUMMARY: CODE DATA

Use Groups: **S-2 OPEN PARKING GARAGE**
Allowable Height: 8 tiers
Allowable Area: 78,000 SF
Fire Protection: Sprinklered
Construction Type: **IIB**
Mixed Uses: None

PROJECT SCOPE

Insert project scope here. Limit description to 5-8 sentances.

USE AND OCCUPANCY CLASSIFICATION

Building Classification:

____Group A-1	____Group F-1	____Group I-1	____Group R-3
____Group A-2	____Group F-2	____Group I-2	____Group R-4
____Group A-3	____Group H-1	____Group I-3	____Group S-1
____Group A-4	____Group H-2	____Group I-4	_x_ **Group S-2**
____Group A-5	____Group H-3	____Group M	____Group U
____Group B	____Group H-4	____Group R-1	
____Group E	____Group H-5	____Group R-2	

Type of Construction:

Type I:	____A	____B
Type II:	____A	_**x**_ **B**
Type III:	____A	____B
Type IV:	____HT	
Type V	____A	____B

Building Details:
____High-Rise Building
____Atrium
_x_ **Open Parking Garage**
____Group I-2:
-Smoke Compartments
-Refuge Area
____Hazardous Materials
-Control Areas
____Mezzanine
____Equipment Platform

BUILDING HEIGHTS AND AREAS

____Unlimited Area Allowed
____Unlimited Height Allowed

____Unlimited Area Building
____Nonsprinklered, One-Story,
____Sprinklered, One-Story above grade plane
____Sprinklered, Two-Stories above grade plane

____Automatic Sprinkler system increase used for alloweable height modification

_x_ No Allowable height or area modifications used

____Allowable area modifications used per the allowable area calcuations
____Building area modifications
____Frontage increase

Building Height and Number of Stories:
Allowable Building Height in Feet Above Grade Plane: Not Applicable
Actual Building Height: 63-feet
Allowable Number of Stories Above Grade Plane: 8 Tiers

Building Area:

1ST Floor Building Area =	29,000 SF
2ND Floor Building Area =	29,000 SF
3RD Floor Building Area =	29,000 SF
4TH Floor Building Area =	29,000 SF
5TH Floor Building Area =	29,000 SF
Total Building Area =	145,000 SF

LIFE SAFETY SYSTEMS

Automatic Sprinkler System Provided:	_x_ Yes	____No
Alternative Automatic Fire-Extinguisher System Provided:	____Yes	_x_ No
Standpipe System Provided:	_x_ Yes	____No
Portable Fire Extinguishers Provided:	_x_ Yes	____No
Fire Alarm System Provided:	____Yes	_x_ No

MEANS OF EGRESS

Doors
The minimum clear width and height of a door shall not be less than 32 inches and 80 inches respectively. Doors shalls swing in the direction of egress travel, where serving an occupant load of 50 or more persons or a group H occupancy.

Common Path of Egress
Occupancy Type _S_
Sprinklered _x_ Yes ____No
Max. Distance 100 Feet

Exit Access Travel Distance
Occupancy Type _S-2_
Sprinklered _x_ Yes ____No
Max. Distance 400 Feet

Dead Ends
Occupancy Type _S_
Sprinklered _x_ Yes ____No
Max. Distance 50 Feet

Min. Number of Exists for Occupant Load

Occupancy Load:	1-500	501-1,000	<1,000
Min. Number of Exits per Story:	2	3	4

EXIST CAPACITY FACTORS

Minimum required Egress width
Stairways 0.3 if not sprinkled ; **0.2 if sprinkled**
Other Egress Components 0.2 if not sprinkled ; **0.15 if sprinkled**

MINIMUM FIRE-RESISTANCE REQUIREMENTS

TABLE 601
FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENT (HOURS) (REFER TO SECTION 202)

	TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
	A	B	A	**B**	A	B	HT	A	B
PRIMARY STRUCTURAL FRAME	3[a,b]	2[a,b]	1[b]	**0**	1[b]	0	HT	1[b]	0
BEARING WALLS									
EXTERIOR[e,f]	3	2	1	**0**	2	2	2	1	0
INTERIOR	3[a]	2[a]	1	**0**	1	0	1/HT	1	0
NONBEARING WALLS & PARTITIONS EXTERIOR	SEE TABLE 602								
NONBEARING WALLS & PARTITIONS INTERIOR[d]	0	0	0	**0**	0	0	SEE SECTION 2304.11.2	0	0
FLOOR CONSTRUCTION & ASSOCIATED SECONDARY MEMEBERS	2	2	1	**0**	1	0	HT	1	0
ROOF CONSTRUCTION & ASSOCIATED SECONDARY MEMEBERS	1½[b]	1[b,c]	1[b,c]	**0**[c]	1[b,c]	0	HT	1[b,c]	0

a. ROOF SUPPORTS: FIRE-RESISTANCE RATING OF PRIMARY STRUCTURAL FRAME AND BEARING WALLS ARE PERMITTED TO BE REDUCED BY 1 HOUR WHERE SUPPORTING A ROOF ONLY.
b. EXCEPT IN GROUP F-1, H, M AND S-1 OCCUPANCIES, FIRE PROTECTION OF STRUCTURAL MEMBERS IN ROOF CONSTRUCTION SHALL NOT BE REQUIRED, INCLUDING PROTECTION OF PRIMARY STRUCTURAL FRAME MEMBERS, ROOF FRAMING AND DECKING WHERE EVERY PART OF THE ROOF CONSTRUCTION IS 20 FEET OR MORE ABOVE ANY FLOOR IMMEDIATELY BELOW. FIRE-RETARDANT-TREATED WOOD MEMBERS SHALL BE ALLOWED TO BE USED FOR SUCH UNPROTECTED MEMBERS.
c. IN ALL OCCUPANCIES, HEAVY TIMBER COMPLYING WITH SECTION 2304.11 SHALL BE ALLOWED WHERE A 1-HOUR OR LESS FIRE-RESISTANCE RATING IS REQUIRED.
d. NOT LESS THAN THE FIRE-RESISTANCE RATING REQUIRED BY OTHER SECTIONS OF THIS CODE.
e. NOT LESS THAN THE FIRE-RESISTANCE RATING BASED ON FIRE SEPARATION DISTANCE (SEE TABLE 602).
f. NOT LESS THAN THE FIRE-RESISTANCE RATING AS REFERENCED IN SECTION 704.10.

FIRE SEPARATION DISTANCE

TABLE 602
WALLS BASED ON FIRE SEPARATIONS DISTANCE [a, d, g]

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP: H[e]	OCCUPANCY GROUPS: F-1, M, S-1[F]	OCCUPANCY GROUPS: A, B, E, F-2, I, R1, S-2, U[h]
X < 5[b]	ALL	3	2	1
5 ≤ X < 10	IA OTHERS	3 2	2 1	1 1
10 ≤ X < 30	IA, IB IIB, VB OTHERS	2 1 1	1 0 1	1[C] 0 1[C]
X ≥ 30	**ALL**	0	0	**0**

a. LOAD-BEARING EXTERIOR WALLS SHALL ALSO COMPLY WITH THE FIRE-RESISTANCE RATING REQUIREMENTS OF TABLE 601.
b. SEE SECTION 706.1.1 FOR PARTY WALLS.
c. OPEN PARKING PARKING GARAGES COMPLYING WITH SECTION 406 SHALL NOT BE REQUIRED TO HAVE A FIRE-RESISTANCE RATING.
d. THE FIRE-RESISTANCE RATING OF AN EXTERIOR WALL IS DETERMINED BASED UPON THE FIRE SEPARATION DISTANCE OF THE EXTERIOR WALL AND THE STORY IN WHICH THE WALL IS LOCATED.
e. FOR SPECIAL REQUIREMENT FOR GROUP H OCCUPANCIES, SEE SECTION 415.6.
f. FOR SPECIAL REQUIREMENT FOR GROUP S AIRCRAFT HANGARS, SEE SECTION 412.3.1.
g. WHERE TABLE 705.8 PERMITS NONBEARING EXTERIOR WALLS WITH UNLIMITED AREA OF UNPROTECTED OPENINGS, THE REQUIRED FIRE-RESISTANCE RATING FOR THE EXTERIOR WALL IS 0 HOURS.
h. FOR A BUILDING CONTAINING ONLY A GROUP U OCCUPANCY PRIVATE GARAGE OR CARPORT, THE EXTERIOR WALL SHALL NOT BE REQUIRED TO HAVE A FIRE-RESISTANCE RATING WHERE THE FIRE SEPARATION DISTANCE IS 5 FEET OR GREATER.
i. FOR A GROUP R-3 BUILDING OF TYPE II-B OR TYPE V-B CONSTRUCTION, THE EXTERIOR WALL SHALL NOT BE REQUIRED TO HAVE A FIRE-RESISTANCE RATING WHERE THE FIRE SEPARATION DISTANCE IS 5 FEET OR GREATER.

CODE REFERENCES

BUILDING CODE:	2021 MICHIGAN BUILDING CODE
PLUMBING CODE:	2021 MICHIGAN PLUMBING CODE
MECHANICAL CODE:	2021 MICHIGAN MECHANICAL CODE
ELECTRICAL CODE:	2023 MICHIGAN ELECTRICAL CODE
ENERGY CODE:	2021 MICHIGAN ENERGY CODE 2019 ASHRAE 90.1
ELEVATOR:	2016 ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS ELEVATOR SAFETY BOARD GENERAL RULES
ACCESSIBILITY:	2017 ICC / ANSI 117.1 AS REFERENCED BY MBC 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

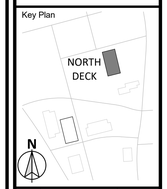
Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

Seal

Key Plan



TAG	ISSUED	DATE
1	Schematic Design	07/16/25
2	50% DD	08/15/25
3	Design Development	09/08/25

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CODE SUMMARY

DRAWING NO

LS-001-N

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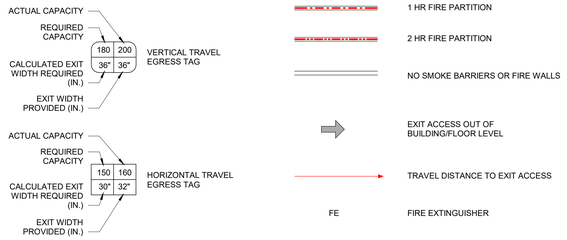
OCCUPANCY LOAD

OCCUPANCY LOAD1			
Occupancy Type	Area	Occupancy Load Factor	Occupant Load
	29,000 SF	200	145

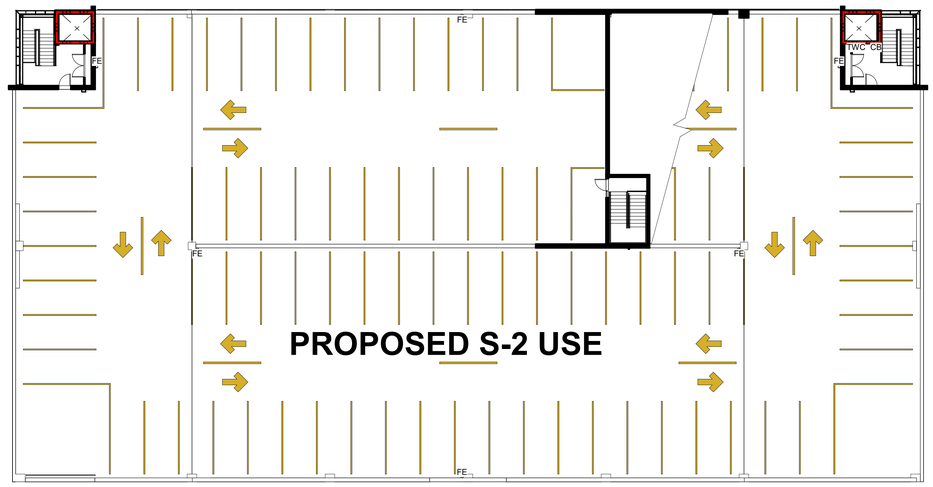
TOTAL OCCUPANT LOAD FOR FIRST FLOOR	145.0	Occ
TOTAL OCCUPANT LOAD FOR SECOND FLOOR	145.0	Occ
TOTAL OCCUPANT LOAD FOR THIRD FLOOR	145.0	Occ
TOTAL OCCUPANT LOAD FOR FOURTH FLOOR	145.0	Occ
TOTAL OCCUPANT LOAD FOR FIFTH FLOOR	145.0	Occ
TOTAL OCCUPANT LOAD FOR BUILDING	**725.0**	**Occ**

LIFE SAFETY PLAN LEGEND

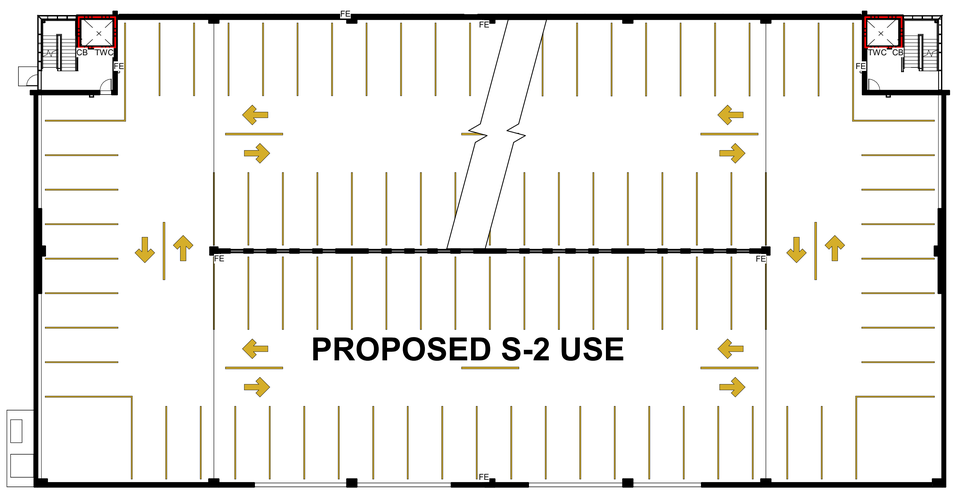


LIFE SAFETY PLAN NOTES

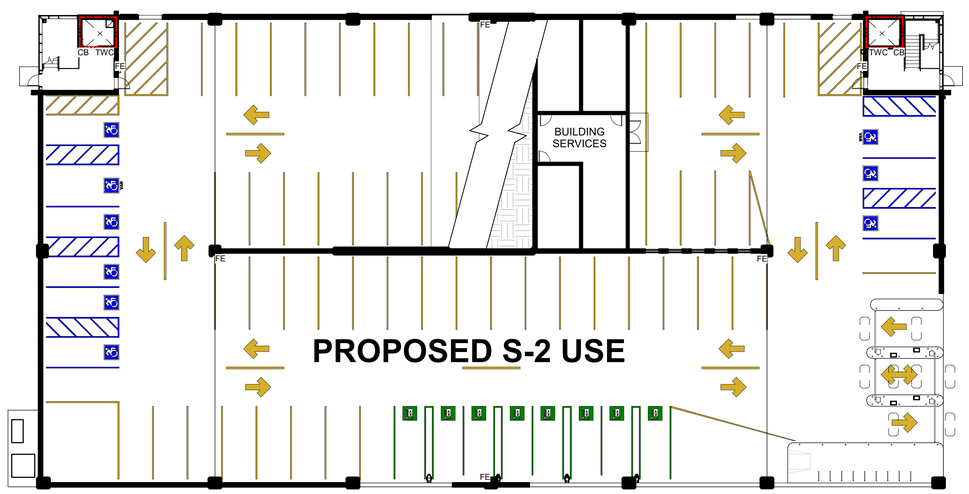
1. REFER TO ELECTRICAL FOR EXIT SIGN LOCATIONS



3 USE GROUP FIFTH FLOOR PLAN
SCALE: 1/16" = 1'-0"



2 USE GROUP SECOND, THIRD & FOURTH FLOOR PLAN
SCALE: 1/16" = 1'-0"



1 USE GROUP FIRST FLOOR PLAN
SCALE: 1/16" = 1'-0"

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

Framework E
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155 W Congress Street, Suite 602, Detroit, MI 48226
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LIFE SAFETY FLOOR PLANS

DRAWING NO

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LIFE SAFETY ELEVATION NOTES

AREA OF OPENINGS COMPLIANCE

TIER 1
TIER 1 - AREA OF OPENINGS:

TIER 1 - TOTAL AREA OF OPENINGS:

TIER 1 - AREA OF PERIMETER WALL:

TIER 1 - TOTAL AREA OF OPENINGS / TOTAL AREA OF PERIMETER WALL = SF / SF = __._%

TIER 2
TIER 2 - AREA OF OPENINGS:

TIER 2 - TOTAL AREA OF OPENINGS:

TIER 2 - AREA OF PERIMETER WALL:

TIER 2- TOTAL AREA OF OPENINGS / TOTAL AREA OF PERIMETER WALL = SF / SF = __._%

TIER 3
TIER 3 - AREA OF OPENINGS:

TIER 3 - TOTAL AREA OF OPENINGS:

TIER 3 - AREA OF PERIMETER WALL:

TIER 3- TOTAL AREA OF OPENINGS / TOTAL AREA OF PERIMETER WALL = SF / SF = __._%

TYPICAL FLOOR CALCS

TIER 4
TIER 4 - AREA OF OPENINGS:.....NORTH ELEVATION: 362.78 SF
WEST ELEVATION: 878.66 / 2 = 439.33 SF
SOUTH ELEVATION: 0 SF
EAST ELEVATION: 969.64 SF
TIER 4 - TOTAL AREA OF OPENINGS:..... 1771.75

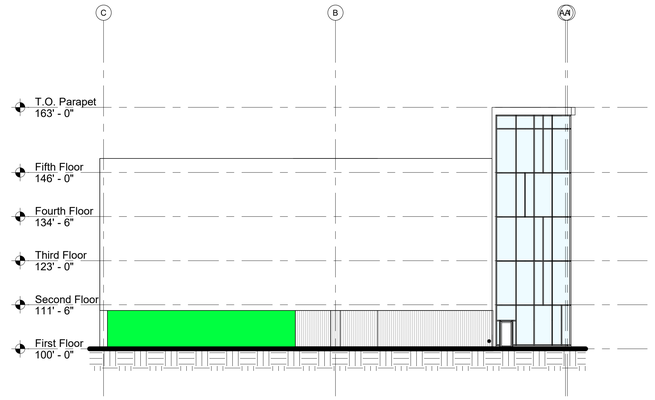
TIER 4 - AREA OF PERIMETER WALL:.....NORTH ELEVATION: 1414.50 SF
WEST ELEVATION: 2713.87
SOUTH ELEVATION: 1414.50 SF
EAST ELEVATION: 2733.19 SF
TIER 4 - TOTAL AREA OF PERIMETER WALL:..... 8276.06

TIER 4- TOTAL AREA OF OPENINGS / TOTAL AREA OF PERIMETER WALL = SF / 8276.06 SF = 21.4%

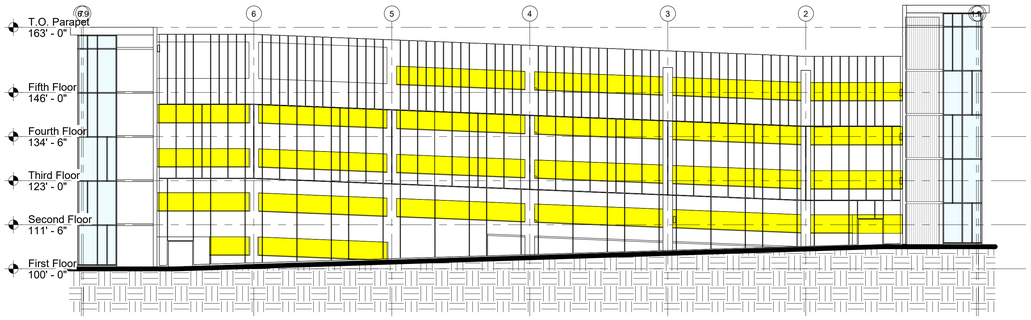
LIFE SAFETY ELEVATION LEGEND

AREA OF 100% OPENING

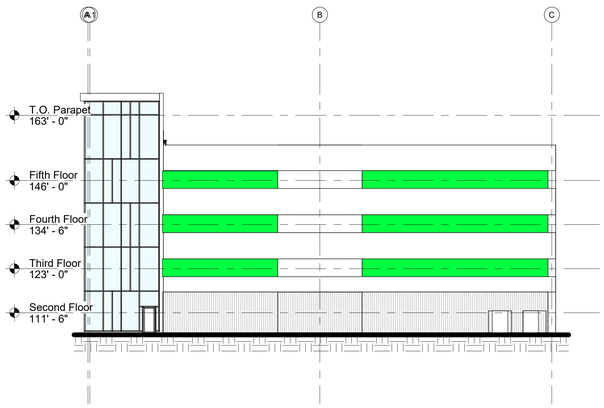
AREA OF 50% OPENING



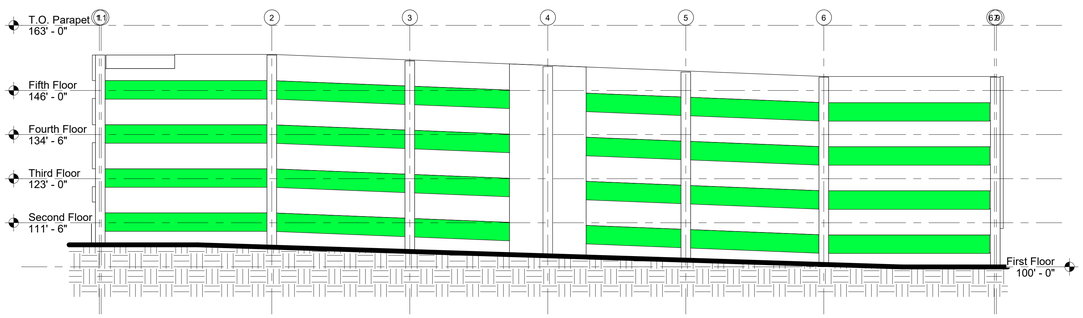
3 OPENING PERCENT ELEVATION - NORTH
SCALE: 1/16" = 1'-0"



2 OPENING PERCENT ELEVATION - WEST
SCALE: 1/16" = 1'-0"



4 OPENING PERCENT ELEVATION - SOUTH
SCALE: 1/16" = 1'-0"



1 OPENING PERCENT ELEVATION - EAST
SCALE: 1/16" = 1'-0"

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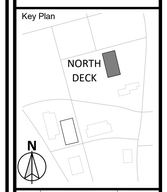

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LIFE SAFETY ELEVATIONS

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GENERAL NOTES

THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION EXCEPT AS HEREIN NOTED ON THE PLANS AND IN THE PROPOSAL BOOK.

THE CONTRACTOR SHALL BE REQUIRED TO NOTIFY THE LOCAL FIRE AND SHERIFF DEPARTMENTS 72 HOURS IN ADVANCE OF PROPOSED LANE AND ROAD CLOSURES.

THREE DAYS PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR OR THEIR SUBCONTRACTOR SHALL NOTIFY MISS DIG (1800-482-7171 OR 811), THE CITY OF PONTIAC PUBLIC WORKS DEPARTMENT, OAKLAND COUNTY SHERIFFS DEPARTMENT, WATERFORD REGIONAL FIRE DEPARTMENT, AND AUBURN HILLS POLICE AND FIRE DEPARTMENTS (FOR LANE CLOSURES ON OPDYKE ROAD).

CONTRACTOR TO PROTECT EXISTING ABOVE AND BELOW GROUND FACILITIES INCLUDING, BUT NOT LIMITED TO: UTILITIES, POLES, TREES, SHRUBS, AND VEGETATION UNLESS NOTED FOR REMOVAL ON THE PLANS; AND SHALL REPAIR OR REPLACE DAMAGED FACILITIES AT NO COST TO THE OWNER. TREES SHALL BE NEATLY TRIMMED.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND MAINTAIN EXISTING UTILITY SERVICES TO EXISTING HOMES AND BUSINESSES, INCLUDING SANITARY, WATER, GAS, CABLE, AND TELECOMMUNICATIONS.

CONTRACTOR SHALL PROTECT ALL OTHER SITE FEATURES SUCH AS, BUT NOT LIMITED TO: PLANTERS, MAIL BOXES, FENCES, LANDSCAPING, WALLS, WALKS, PORCHES, ETC., AND RESTORE TO ORIGINAL CONDITION IF DAMAGED AT NO COST TO THE OWNER.

ALL CONSTRUCTION STAGING AREAS SHALL BE APPROVED BY THE PROJECT ENGINEER, THE CITY OF PONTIAC, AND LAND OWNERS PRIOR TO THE START OF CONSTRUCTION. ANY AREAS OUTSIDE THE RIGHT-OF-WAY SECURED BY THE CONTRACTOR FOR USE AS A CONSTRUCTION PHASING AREA SHALL BE DONE AT THEIR OWN EXPENSE. THE RESTORATION OF ALL STAGING AREAS SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE OF WORK.

SALVAGEABLE ITEMS SUCH AS DRAINAGE STRUCTURE COVERS, LAMPS, LIGHT POLES, SIGNALS, SIGNS, WIRE, ETC. SHALL REMAIN THE PROPERTY OF THE CITY OF PONTIAC AND SHALL BE STOCKPILED BY THE CONTRACTOR ON THE PROJECT FOR PICKUP BY CITY PERSONNEL. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR THIS WORK.

DUST CONTROL SHALL BE PROVIDED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. WATER AND OR CHLORIDE USED AS A DUST CONTROL PALLIATIVE WILL NOT BE PAID FOR SEPARATELY.

ANY DRAINAGE STRUCTURES, INCLUDING SANITARY MANHOLES AND GATE WELLS, LOCATED IN THE LIMITS OF THE PROJECT SHALL BE REPLACED WITH THE FOLLOWING COVERS:
STORM MANHOLE: TYPE B WITH CITY OF PONTIAC STORM LOGO
CURB INLET: TYPE D, TYPE K, OR TYPE R
SANITARY MANHOLE: SOLID COVER WITH CITY OF PONTIAC SANITARY LOGO
GATE WELL: SOLID COVER WITH CITY OF PONTIAC WATER LOGO
SANITARY AND WATER STRUCTURES SHALL BE INSPECTED BY OAKLAND COUNTY W.R.C. PRIOR TO COMMENCEMENT OF PAVING OPERATIONS.

CONSTRUCTION NOTES

WHEN EXCAVATING FOR CONSTRUCTION THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES.

FINAL ADJUSTMENTS TO DRAINAGE STRUCTURES SHALL BE DONE PRIOR TO THE PLACING OF CONCRETE PAVEMENT.

THE CONTRACTOR SHALL NOT PERFORM ANY SIDE WORK CONTRACTED PRIVATELY WITHIN THE CONSTRUCTION AREA.

PLAN DIMENSIONS AND MEASUREMENTS WHERE SHOWN ARE FOR INFORMATION PURPOSES ONLY, ACCURACY IS NOT GUARANTEED.

THROUGHOUT THE PROJECT, NO UNDERCUTS SHALL BE LEFT OVERNIGHT NEXT TO THE EDGE OF THE TRAVELED ROADWAY.

SAWING FOR PAVEMENT REMOVALS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER, SHALL BE DONE TO THE DEPTH REQUIRED FOR CLEAN REMOVAL OF PAVEMENTS OR CURBS, AND SHALL BE PAID FOR AS A PART OF THE ITEMS "SIDEWALK, REM", "PVMT REMVL, REM", AND "CURB AND GUTTER, REM". SAWING DEPTH SHALL BE ADEQUATE TO PREVENT SPALLING, CHIPPING, OR DAMAGE TO EXISTING PAVEMENT EDGES LEFT IN PLACE.

CONSTRUCTION ACCESS NOTE

GARBAGE COLLECTION FOR RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE DURATION OF CONSTRUCTION.

WHEN REMOVING SIDEWALK, THE CONTRACTOR SHALL MAINTAIN GRADE TO PROVIDE ACCESS TO BUILDINGS AND PEDESTRIAN ACCESS.

CONSTRUCTION SIGNING NOTE

ALL TRAFFIC CONTROL DEVICES INCLUDING SIGNS, BARRICADES, VERTICAL PANELS, DRUMS, WARNING LIGHTS, ARROW BOARDS, AND CHANGEABLE MESSAGE BOARDS SHALL MEET THE "ACCEPTABLE" REQUIREMENTS OF AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) "QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES – CURRENT EDITION". COPIES OF THIS PUBLICATION ARE AVAILABLE DIRECTLY FROM THE ATSSA.

SIGN LOCATIONS AND DISTANCES BETWEEN SIGNS WILL BE FIELD REVIEWED BY THE ENGINEER BEFORE INSTALLATION TO ASSURE APPROPRIATE PLACEMENT. THE LOCATION OF THE CONSTRUCTION SIGNING SHALL BE CLEARLY MARKED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF ONE WEEK IN ADVANCE OF THE NEED FOR REVIEW. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PROJECT.

ALL TRAFFIC CONTROL DEVICES SHALL BE IN COMPLIANCE WITH THE 2011 MMUTCD. ALL CONSTRUCTION SIGNING SHALL BE BLACK LETTERS ON FLUORESCENT ORANGE BACKGROUND UNLESS SPECIFIED OTHERWISE.

ALL TRAFFIC CONTROL SIGNS WITHIN THE PROJECT WILL BE RELOCATED BY THE CONTRACTOR FOR EACH STAGE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL TRAFFIC CONTROL DEVICES WITHIN THE PROJECT LIMITS ANY TRAFFIC CONTROL DEVICES DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL BE CHARGED FOR ANY DAMAGED TRAFFIC CONTROL DEVICES DAMAGED BY CONTRACTOR'S OPERATIONS WHICH ARE REPAIRED OR REPLACED BY THE CITY OF PONTIAC.

AS DIRECTED BY THE TRAFFIC OPERATIONS ENGINEER THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ANY ADDITIONAL SIGNS, BARRICADES, AND LIGHTS WITHIN THE PROJECT TO PROTECT THE WORK AREA AND THE PUBLIC.

THE CONTRACTOR SHALL PLACE A MINIMUM OF EIGHT (8) SANDBAGS ON CONTRACTOR FURNISHED TYPE III BARRICADES TO PREVENT MOVEMENT. ALL TYPE III BARRICADES SHALL BE DOUBLE SIDED.

CONSTRUCTION SIGNING MOUNTED ON PORTABLE UPPORTS SHOULD NOT BE USED FOR A DURATION OF MORE THAN FOURTEEN (14) DAYS. OTHERWISE SIGNS SHALL BE GROUND MOUNTED ON 3 LB U-CHANNEL POSTS WHEN POSSIBLE. THE FOLLOWING SIGNS MAY BE PLACED ON TEMPORARY SUPPORTS: SIGNS PLACED IN CONJUNCTION WITH THE TYPE III BARRICADES, SIGNS PLACED FOR SIDEWALK CLOSURES, AND SIGNS WITHIN THE CLOSED PORTION OF ROADWAY ITSELF. THE CONTRACTOR SHALL INSTALL ONE FLASHER ON ANY CONSTRUCTION SIGN THAT IS INSTALLED ON TEMPORARY SUPPORTS.

ALL SIGNS PLACED IN CONJUNCTION WITH A TYPE III BARRICADE SHALL BE PLACED ON SEPARATE SUPPORTS IMMEDIATELY BEHIND AND ABOVE THE TYPE III BARRICADE. THESE SIGNS SHALL BE INSTALLED ON TEMPORARY SUPPORTS. CONTRACTOR SHALL PLACE A MINIMUM OF EIGHT (8) SANDBAGS ON THESE SIGN SUPPORTS TO PREVENT MOVEMENT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COVERING AND UNCOVERING ALL CONSTRUCTION SIGNS AS NEEDED FOR THE PROPER MAINTENANCE OF TRAFFIC THROUGHOUT THE CONSTRUCTION AREA.

TRAFFIC CONTROL SIGNS AND STREET NAMED SIGNS SHALL BE REMOVED, SALVAGED, RELOCATED, MAINTAINED, AND REINSTALLED AS REQUIRED DURING THE PROJECT TO ACCOMMODATE CONSTRUCTION OPERATIONS. THIS WORK SHALL BE PAID FOR WITH THE APPROPRIATE PAY ITEMS.

ANY OTHER SIGNS WHICH THE CONTRACTOR MAY BE REQUIRED TO FURNISH SHALL CONFORM TO THE 2011 MMUTCD.

TRAFFIC CHANNELIZING DEVICES (BARRELS / GRABBER CONES) FURNISHED BY THE CONTRACTOR FOR WORK ZONE PROTECTION SHALL BE COATED WITH REFLECTORIZED MATERIAL AND AT A SPACING BASED ON POSTED SPEED LIMIT AND PER THE 2011 MMUTCD.

MAINTAINING TRAFFIC NOTES

TRAFFIC SHALL BE MAINTAINED AS SHOWN ON THE PLANS AND AS DETAILED IN THE "MAINTENANCE OF TRAFFIC" SPECIFICATION.

ALL EXCAVATED AREAS SHALL BE DELINEATED BY PLASTIC DRUMS OR CHANNELIZING DEVICES AT THE CLOSE OF EACH DAY ALONG THE ENTIRE LENGTH OF ANY EXCAVATION. PLASTIC DRUMS OR CHANNELIZING DEVICES TO BE PLACED OVER ALL EXPOSED CASTINGS IN ROADWAY AT CLOSE OF EACH DAY.

UTILITIES NOTE

THE EXISTING UTILITIES SHOWN ON THESE PLANS REPRESENT THE BEST AVAILABLE INFORMATION AVAILABLE FROM UTILITY RECORD MAPS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO NOTIFY THE PROPER UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE LOCATIONS OF ALL UTILITIES AS A PART OF THE CONSTRUCTION OF THIS PROJECT. PURSUANT TO ACT 174 OF P.A. OF 2013, AND AS A CONDITION OF THIS CONTRACT, NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO COMMENCEMENT OF WORK.

UTILITY COORDINATION: THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES WITHIN THE PROJECT LIMITS:

DTE – DISTRIBUTION
1530 TROMBLY ST.
DETROIT, MI 48211
CONTACT: LAURA TOPOROWSKI
(630) 336-2020

AT&T
54 N. MILL STREET
PONTIAC, MI 48342
CONTACT: MATT SILWA
(248) 877-0762

CONSUMERS ENERGY
4600 COOLIDGE HIGHWAY
ROYAL OAK, MI 48073
CONTACT: ERNIE MARTYNIUK
(248) 433-5868

COMCAST
25626 TELEGRAPH RD
SOUTHFIELD, MI 48033
CONTACT: MICHAEL MARLOW
248-809-2765

DTE – COMMUNITY LIGHTING
15600 19 MILE RD.
CLINTON TWP, MI 48038-3502
CONTACT: REGGIE BROWN
(586) 412-3207

ITC
27175 ENERGY WAY
NOVI, MI 48377
CONTACT:STEVE COOPER
586-707-5773

OAKLAND COUNTY W.R.C. – SEWER
ONE PUBLIC WORKS DRIVE, BUILDING 95W
WATERFORD, MI 48328-1907
CONTACT: RICK A. DeVISCH
(248) 858-4939

OAKLAND COUNTY W.R.C. – WATER
ONE PUBLIC WORKS DRIVE, BUILDING 95W
WATERFORD, MI 48328-1907
CONTACT: AMY PLOOF
(248) 452-2271

CITY OF PONTIAC – STORM DRAIN AND STREET LIGHTS
DEPARTMENT OF PUBLIC WORKS
47450 WOODWARD AVE.
PONTIAC, MI 48342
CONTACT: CITY ENGINEERING DEPARTMENT
(248) 758-3600

THE CONTRACTOR SHALL BEFORE EACH DAYS WORK OR WHEN MOVING TO A NEW AREA OF WORK EVALUATE THE LOCATION OF ALL UNDERGROUND FACILITIES IN THE AREA. IF LOCATION FLAGGING OR MARKINGS HAVE BEEN REMOVED OR DO NOT APPEAR CORRECT THE CONTRACTOR SHALL NOT EXCAVATE UNTIL ALL UTILITIES HAVE HAD THE OPPORTUNITY TO RELOCATE THEIR FACILITIES. ANY DELAYS INCURRED DUE TO LOCATION OF UTILITIES SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.

FOR PROTECTION OF UNDERGROUND UTILITIES THE CONTRACTOR SHALL CALL MISS DIG AT 1-800-482-7171, OR 811, A MINIMUM OF THREE WORKING DAYS PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL MISS DIG PARTICIPATING MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE PART OF THE MISS DIG ALERT SYSTEM.

MISCELLANEOUS NOTES

WHEN THE FOLLOWING ITEMS OF WORK ARE SPECIFIED ON THE PLANS OR REQUIRED BY THE ENGINEER DURING CONSTRUCTION THE ITEM WILL NOT BE PAID FOR SEPARATELY UNLESS A PAY ITEM FOR THESE ITEMS IS APPROVED.

1. RELOCATING DECORATIVE ROCKS AND BOULDERS TO RIGHT-OF-WAY LINE
2. SWEEPING PAVEMENT
3. SAWCUTTING, FOR PAVEMENT AND CURB REMOVAL
4. CONCRETE ADMIXTURES
5. REMOVING UNDERDRAIN, DRAIN TILE, OR FRENCH DRAINS
6. PROJECT CLEANUP

GENERAL PAVING NOTES

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: 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.

ASPHALT: BASE COURSE – MDOT BITUMINOUS MIXTURE HMA, 4E ML;
SURFACE COURSE – MDOT BITUMINOUS MIXTURE HMA, 5E ML;
BOND COAT – MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD;

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-S164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPAUTY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

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.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 98% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.

DEMOLITION NOTES

DEMOLITION OF SITE IMPROVEMENTS SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE PUBLIC AGENCY HAVING JURISDICTION OVER SAID DEMOLITION.

FOR ANY DEMOLITION WITHIN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR, AND SECURE, ALL NECESSARY PERMITS AND LIKEWISE SHALL ARRANGE FOR ALL SITE INSPECTIONS.

SITE DEMOLITION INCLUDES THE COMPLETE REMOVAL OF SITE IMPROVEMENTS AND OFF-SITE DISPOSAL. DEBRIS SHALL BE TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY THAT IS LICENSED FOR THAT TYPE OF DEBRIS.

THE CONTRACTOR SHALL COORDINATE TRUCK ROUTES WITH THE MUNICIPALITY PRIOR TO COMMENCEMENT OF SITE DEMOLITION. ALL TRUCKS SHALL BE TARPED OR PROPERLY SECURED TO CONTAIN DEMOLITION DEBRIS PRIOR TO LEAVING SITE.

EXISTING ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICES HAVE BEEN INDICATED BASED UPON THE BEST AVAILABLE UTILITY RECORDS AND/OR ON-SITE INSPECTION. NO GUARANTEE IS MADE BY THE DESIGN ENGINEER, AS TO THE COMPLETENESS OR ACCURACY OF UTILITY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY INFORMATION (THE DESIGN ENGINEER MAKES NO GUARANTEE NOR ASSUMES ANY LIABILITY AS TO THE COMPLETENESS AND/OR ACCURACY OF UTILITY DATA).

PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EXISTING UNDERGROUND UTILITY OR BUILDING SERVICE LINES CALLED FOR IN THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE/ACTIVE THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO SITE DEMOLITION.

* THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF THE SITE DEMOLITION.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH UTILITY COMPANY. REMOVAL OF UTILITY COMPANY ELECTRICAL SERVICES, GAS SERVICES, COMMUNICATION SERVICES, AND CABLE SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF PRIVATE UTILITY COMPANIES AND COORDINATE UTILITY SERVICE SHUT OFF/DISCONNECT, PRIOR TO DEMOLITION OF EXISTING STRUCTURES OR PROPERTIES.

ALL UTILITY METERS SHALL BE REMOVED BY THE APPROPRIATE UTILITY COMPANY.

ANY ON-SITE STORM SEWER FACILITIES LOCATED DURING DEMOLITION SHALL BE REMOVED AND BULK HEADED AT THE PROPERTY LINE IF INDICATED FOR REMOVAL ON THE PLANS.

PRIOR TO BUILDING DEMOLITION, ALL HAZARDOUS MATERIAL SHALL BE REMOVED BY OTHERS. THE DEMOLITION CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD ANY SUSPICIOUS MATERIAL BE FOUND.

WATER SERVICES AND/OR STOP-BOX SHALL BE PRESERVED AND BULK HEADED AT THE PROPERTY LINE OR AS DIRECTED BY THE OWNER'S REPRESENTATION.

WHERE EXISTING BUILDINGS PLANNED FOR DEMOLITION FALL WITHIN PROPOSED BUILDING FOOT PRINTS, BASEMENT FLOOR SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH MDOT CLASS II GRANULAR MATERIAL AND BE MACHINE COMPACTED TO A MINIMUM OF 98% OF MATERIALS MAXIMUM DENSITY.

SOIL EROSION CONTROL

CUTTING, FILLING AND GRADING SHALL BE MINIMIZED AND THE NATURAL TOPOGRAPHY OF THE SITE SHALL BE PRESERVED TO THE MAXIMUM POSSIBLE EXTENT, EXCEPT WHERE SPECIFIC FINDINGS DEMONSTRATE THAT MAJOR ALTERATIONS WILL STILL MEET THE PURPOSES AND REQUIREMENTS OF THIS ORDINANCE.

DEVELOPMENT SHALL BE STAGED TO KEEP THE EXPOSED AREAS OF SOIL AS SMALL AS PRACTICABLE.

SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BETWEEN THE DISTURBED AREA AND ANY WATERCOURSES, INCLUDING RIVERS, STREAMS, CREEKS, LAKES, PONDS AND OTHER WATERCOURSES; WETLANDS; OR ROADWAYS ON OR NEAR THE SITE.

SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVES FROM RUNOFF WATER BEFORE THAT WATER LEAVES THE SITE.

TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR AWAY FROM THE SITE SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.

TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED. ALL SITES SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES.

IF LAKES, PONDS, CREEKS, STREAMS, OR WETLANDS ARE LOCATED ON OR NEAR THE SITE, EROSION CONTROL MEASURES WHICH DIVERT RUNOFF AND TRAP SEDIMENT MUST BE PROVIDED AT STRATEGIC LOCATIONS. STRAW BALE BERMS MAY BE USED AS TEMPORARY STORMWATER DIVERSION STRUCTURES, BUT WILL NOT BE CONSIDERED SUFFICIENT FOR TRAPPING SEDIMENT. THE USE OF SEDIMENT BASINS, FILTER FABRIC, VEGETATED BUFFER STRIPS, AND ROCK FILTERS IN LIEU OF STRAW BALE BERMS SHALL BE STRONGLY ENCOURAGED. OTHER MEASURES MAY BE REQUIRED IF REASONABLY DETERMINED TO BE NECESSARY TO PROTECT A WATERCOURSE OR WETLAND.

WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED.

PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 (FIFTEEN) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

VEGETATED BUFFER STRIPS SHALL BE CREATED OR RETAINED ALONG THE EDGES OF ALL LAKES, PONDS, CREEKS, STREAMS, OTHER WATERCOURSES, OR WETLANDS.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR MAINTENANCE TO ASSURE PROPER FUNCTIONING.

ALL GRADING PLANS AND SPECIFICATIONS, INCLUDING EXTENSIONS OF PREVIOUSLY APPROVED PLANS, SHALL INCLUDE PROVISIONS FOR EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE STANDARDS CONTAINED IN THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PUBLISHED BY THE OAKLAND SOIL CONSERVATION DISTRICT.

STORM SEWER NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY. THE MUNICIPALITY STANDARD NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THEIR PLANS.

ALL STORM SEWER TRENCHES UNDER OR WITHIN THREE (3) FEET OF EXISTING OR PROPOSED PAVEMENT SHOULD BE BACKFILLED WITH MDOT CLASS II MATERIAL (SAND) AND BE MACHINE COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S MAXIMUM DENSITY. PAVEMENT SHALL INCLUDE PARKING LOTS, DRIVE APPROACHES, CURB & GUTTER AND ADJACENT WALLS.

ALL STORM SEWER PIPE SHALL BE INSTALLED ON CLASS "B" BEDDING OR BETTER UNLESS OTHERWISE INDICATED ON THE PLANS.

STORM SEWER SHALL BE OF THE TYPE, SIZE & CLASS DESIGNATION INDICATED ON THE PLANS AND SHALL BE INSTALLED AT THE PROPOSED LINE AND GRADE INDICATED.

ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM SPECIFICATION C-76, CL IV.

ALL MANHOLE, CATCH BASIN, INLET, REAR YARD DRAIN FRAMES AND COVERS SHALL BE AS INDICATED ON THE PLANS IN ACCORDANCE WITH MUNICIPALITY STANDARDS.

THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

EXACT GRADES AND INVERTS OF PROPOSED STORM 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 AN/OR UTILITY CONFLICTS.

ALL STORM SEWER PIPE JOINTS SHALL BE "PREMIUM JOINT" MODIFIED GROOVED TONGUE, (M.G.T.) WITH SYNTHETIC RUBBER GASKETS CONFORMING TO ASTM SPECIFICATION C-443 & C-361 UNLESS OTHERWISE INDICATED ON THE PLANS. ALTERNATE JOINT CONNECTION MAYBE STANDARD GROOVED TONGUE WITH COLD MASTIC (DEWITT #10 JOINT COMPOUND OR EQUAL).

FACTORY MANUFACTURED PRECAST TEE SECTIONS SHALL BE USED FOR ROOF DRAINS AND/OR SUMP PUMP LEADS AND LATERALS WHERE INDICATED ON THE PLANS. BLIND TEE CONNECTIONS INTO STORM SEWER WILL NOT BE PERMITTED BY BREAKING PIPE WALL.

THE UNDERGROUND SITE CONTRACTOR SHALL INSTALL ALL STORM SEWER BUILDING LEADS TO WITHIN FIVE (5) FEET OF PROPOSED BUILDING.

GROUTED RIP RAP SHALL BE INSTALLED AT THE ENDS OF ALL CULVERTS AND END SECTIONS. GROUTED RIP RAP SHALL LIKEWISE BE INSTALLED AT OUTLET POINTS IN DETENTION AND SEDIMENTATION FACILITY. THE MINIMUM WIDTH OF THE RIP RAP SHALL BE TWICE THE OUTSIDE DIAMETER OF THE PIPE. THE RIP RAP SHALL EXTEND FROM THE BOTTOM OF THE SLOPE TO THE PIPE INVERT.

THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL SITE INSPECTION.

SANITARY SEWER NOTES

THE CONTRACTOR SHALL NOTIFY THE INSPECTION SECTION OF THE MUNICIPALITY WATER AND SEWERAGE DEPT. AT LEAST 48 HOURS PRIOR TO THE START OF ANY SANITARY SEWER CONSTRUCTION.

ALL SEWERS TO BE PLACED ON CLASS "B" BEDDING OR BETTER.

WYES, RISERS AND HOUSE LEADS ARE TO BE PLACED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ALL WYES ARE INCIDENTAL.

EACH WYE OR HOUSE LEAD SHALL HAVE A PLUG OF THE SAME TYPE OF JOINT AS THE HOUSE LEAD.

HOUSE LEADS SHALL BE A MINIMUM OF 9 FEET DEEP AT THE PROPERTY LINE.

WHENEVER EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, HOLES ARE TO BE DRILLED AT 4 INCH CENTER TO CENTER SPACINGS AROUND THE PERIPHERY OF THE PROPOSED OPENING TO CREATE A PLANE OF WEAKNESS JOINT – A 12 INCH THICK CONCRETE COLLAR IS TO ENCASE THE NEW PIPE AND OPENING.

MAXIMUM INFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS. FOR PURPOSES OF TESTING INFILTRATION, A BULKHEAD WITH A ONE INCH DIAMETER PIPE SHALL BE PROVIDED AT THE DOWNSTREAM MANHOLE.

THE INSIDE JOINTS FOR ALL SANITARY SEWERS 30" AND LARGER SHALL BE CEMENT POINTED.

ALL SANITARY SEWER MANHOLES SHALL BE PROVIDED WITH WATER TIGHT BOLT DOWN COVERS.

ALL CONCRETE SANITARY SEWER, MANHOLE AND PIPE JOINT SHALL BE MODIFIED GROOVED TONGUE WITH RUBBER GASKETS AS REQUIRED UNDER THE CURRENT ADOPTED A.S.T.M. C-443.

CONTACT THE OFFICE OF THE COUNTY PUBLIC WORKS COMMISSIONER, 48 HOURS BEFORE CONSTRUCTION.

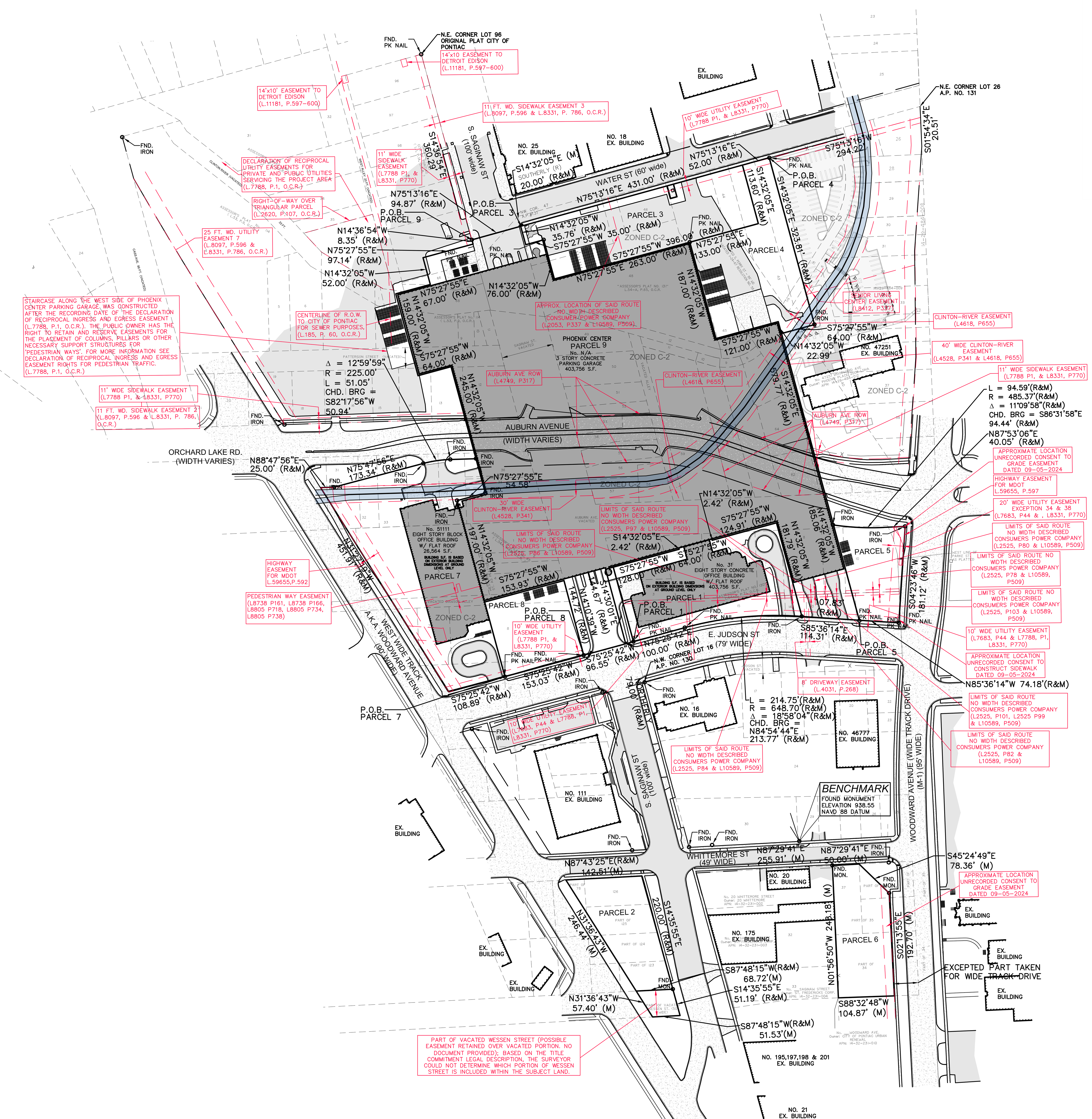
NO GROUND WATER, STORM WATER, CONSTRUCTION WATER, DOWNSPOUT OR WEEP TILE DRAINAGE SHALL BE ALLOWED TO ENTER ANY SANITARY SEWER SYSTEM.

ALL SANITARY SEWER LEADS SHALL BE INSTALLED TO A POINT 5 FEET FROM THE PROPOSED BUILDING.

WATER MAIN NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY. THE MUNICIPALITY STANDARD NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THESE PLANS.

WATER



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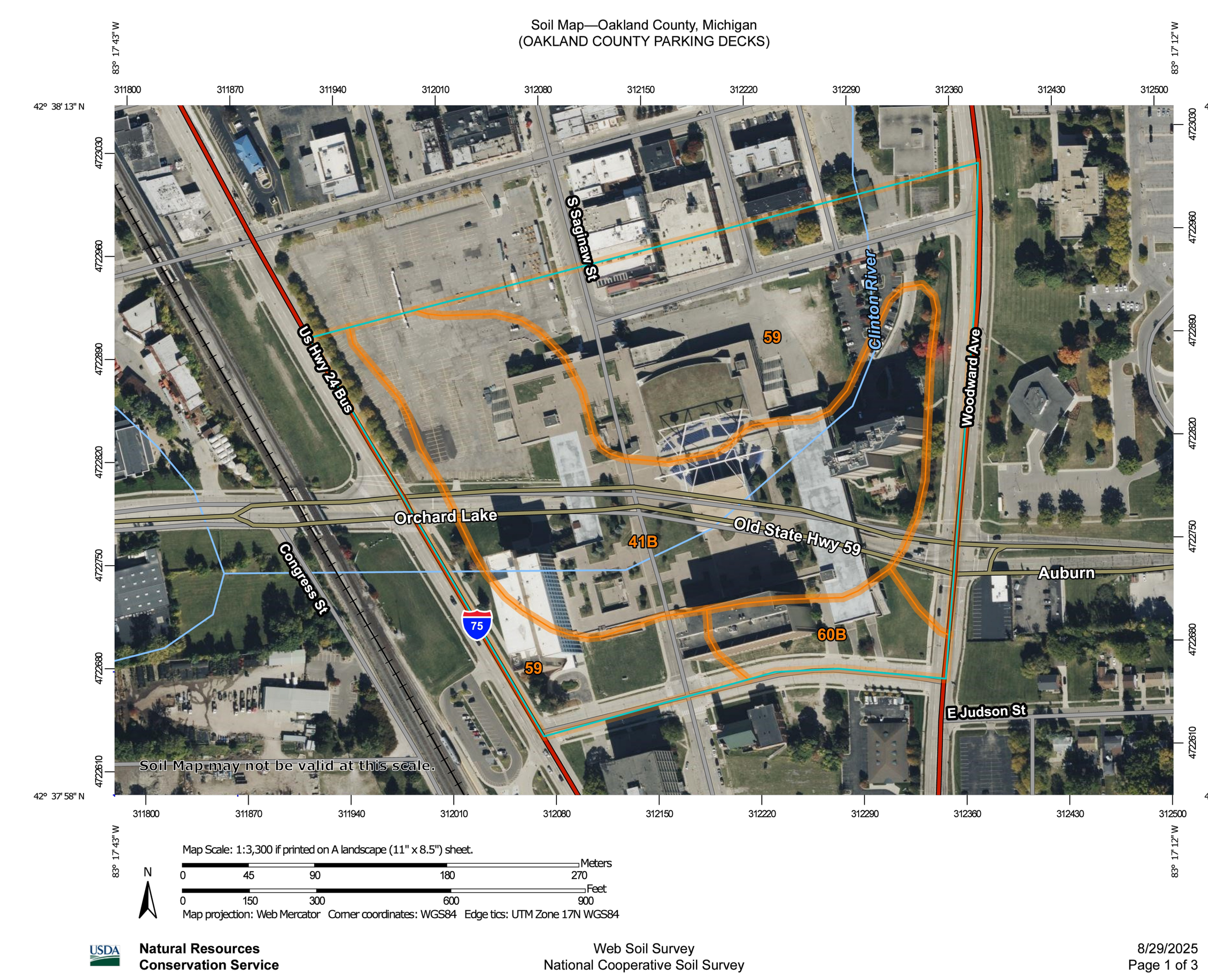
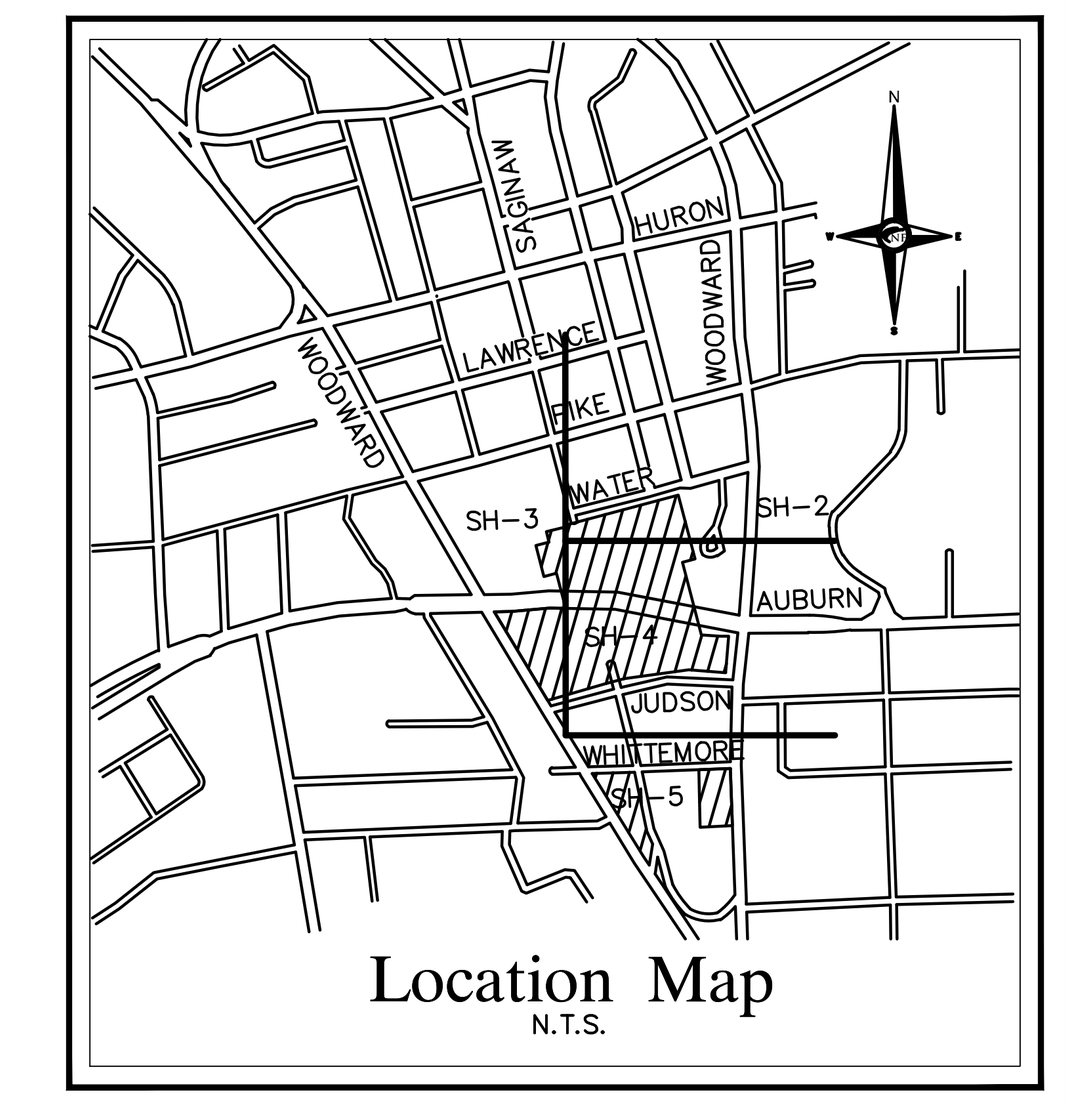




OVERALL LAND AREA

GROSS LAND AREA:

PARCEL 1=	48,720.07 S.F. OR 1.12 Acres
PARCEL 2=	25,206.62 S.F. or 0.57 Acres.
PARCEL 3=	45,905.00 S.F. OR 1.05 ACRES
PARCEL 4=	41,979.77 S.F. OR 0.96 ACRES
PARCEL 5=	18,318.58 S.F. OR 0.42 ACRES
PARCEL 6=	24,431.17 S.F. OR 0.56 Acres
PARCEL 7=	77,981.84 S.F. OR 1.79 ACRES
PARCEL 8=	22,218.13 S.F. OR 0.51 ACRES
PARCEL 9=	393,478.70 S.F. OR 9.03 ACRES
COMBINED=	698,237.88 S.F. OR 16.02 ACRES

SURVEY NOTE

REFER TO SHEETS C-220 & C-221 FOR LEGAL DESCRIPTIONS AND TITLE NOTES.

ACCESS NOTE

THE SUBJECT LAND HAS DIRECT VEHICLE AND PEDESTRIAN ACCESS TO WATER STREET, ORCHARD LAKE ROAD, AUBURN AVENUE, E. JUDSON STREET, S. SAGINAW STREET, WHITTEMORE STREET AND WOODWARD AVENUE ALL BEING PUBLICLY DEDICATED RIGHT OF WAY.

UTILITY NOTE

ALL UTILITIES ARE UNDERGROUND UNLESS OTHERWISE NOTED.

THE UTILITIES SHOWN ON THIS SURVEY WERE DETERMINED BY FIELD OBSERVATION. ALL LOCATIONS ARE APPROXIMATE. THE LOCATION OF ANY OTHER UNDERGROUND SERVICES WHICH MAY EXIST CAN ONLY BE DEPICTED IF A UTILITY PLAN IS FURNISHED TO THE SURVEYOR.

NOTE: DTE HAS NEW REGULATIONS THAT MAY IMPACT DEVELOPMENT OUTSIDE THEIR EASEMENT OR THE PUBLIC RIGHT OF WAY. CLIENT SHALL CONTACT DTE TO DETERMINE THE "NEW STRUCTURES AND POWER LINE" REQUIREMENTS AS THEY MAY APPLY TO ANY FUTURE BUILDING OR RENOVATION OF A STRUCTURE. DTE ENERGY CAN BE CONTACTED AT 800-477-4747

BASIS OF BEARING NOTE

THE BASIS OF BEARING FOR THIS SURVEY WAS ESTABLISHED BY THE RECORD DESCRIPTION AS SHOWN IN THE TITLE DESCRIPTION.

FLOOD HAZARD NOTE

THIS PROPERTY IS NOT LOCATED WITHIN THE FLOOD HAZARD AREA INDICATED BY FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 26125C0368F DATED: 09-29-2006

TOPOGRAPHIC SURVEY NOTES

ALL ELEVATIONS ARE EXISTING ELEVATIONS, UNLESS OTHERWISE NOTED.

UTILITY LOCATIONS WERE OBTAINED FROM MUNICIPAL OFFICIALS AND RECORDS OF UTILITY COMPANIES, AND NO GUARANTEE CAN BE MADE TO THE COMPLETENESS, OR EXACTNESS OF LOCATION.

THIS SURVEY MAY NOT SHOW ALL EASEMENTS OF RECORD UNLESS AN UPDATED TITLE POLICY IS FURNISHED TO THE SURVEYOR BY THE OWNER.

SOIL DATA

THIS SITE CONSISTS OF

41B –	AQUENTS, SANDY, LOAMY, UNDULATING	(~42%)
59 –	URBAN LAND	(~48%)
60B –	URBAN LAND-MARLETTE COMPLEX	(~10%)

BASED ON DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

N W E S

SCALE: 1" = 100'

100 50 0 50 100 150

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- EXISTING SAN. CLEAN OUT
- HYDRANT, GATE VALVE — EXISTING WATER MAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R.Y. CATCH BASIN
- EXISTING BURIED CABLES
- UTILITY POLE, GUY POLE, GUY WIRE — OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County
JUDSON & WATER STREET
PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

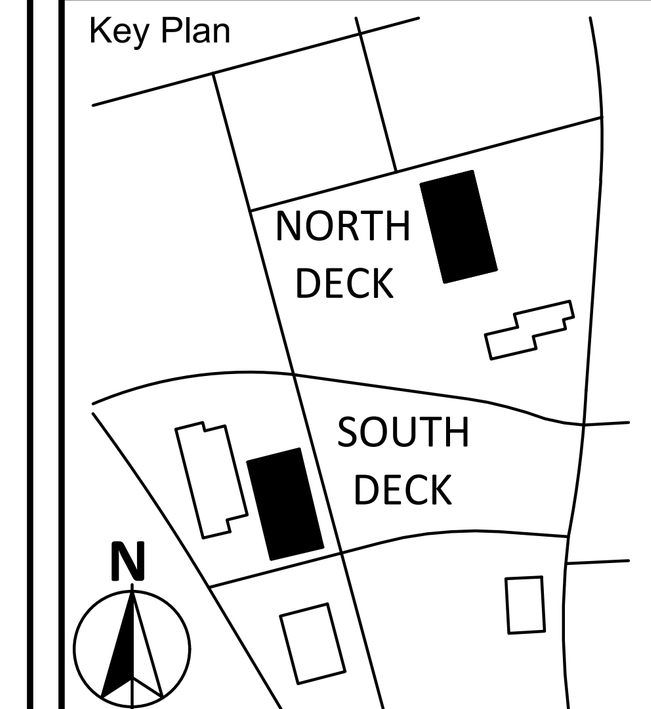
NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NFE-ENGR.COM

811 Know what's below Call before you dig.

Seal

STATE OF MICHIGAN
KEVIN CHRISTOPHER NAVAROLI
License No. 4001053503
LICENSED PROFESSIONAL SURVEYOR

Key Plan



TAG	ISSUED	DATE
1	Draft Deck Project Site Plan	07/11/25
2	Schematic Design	07/16/25
3	Preliminary Site Plan Approval	08/04/25
4	50% Design Development	08/15/25
5	100% Design Development	09/08/25

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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

OVERALL BOUNDARY & TOPO SURVEY

DRAWING NO

C-200

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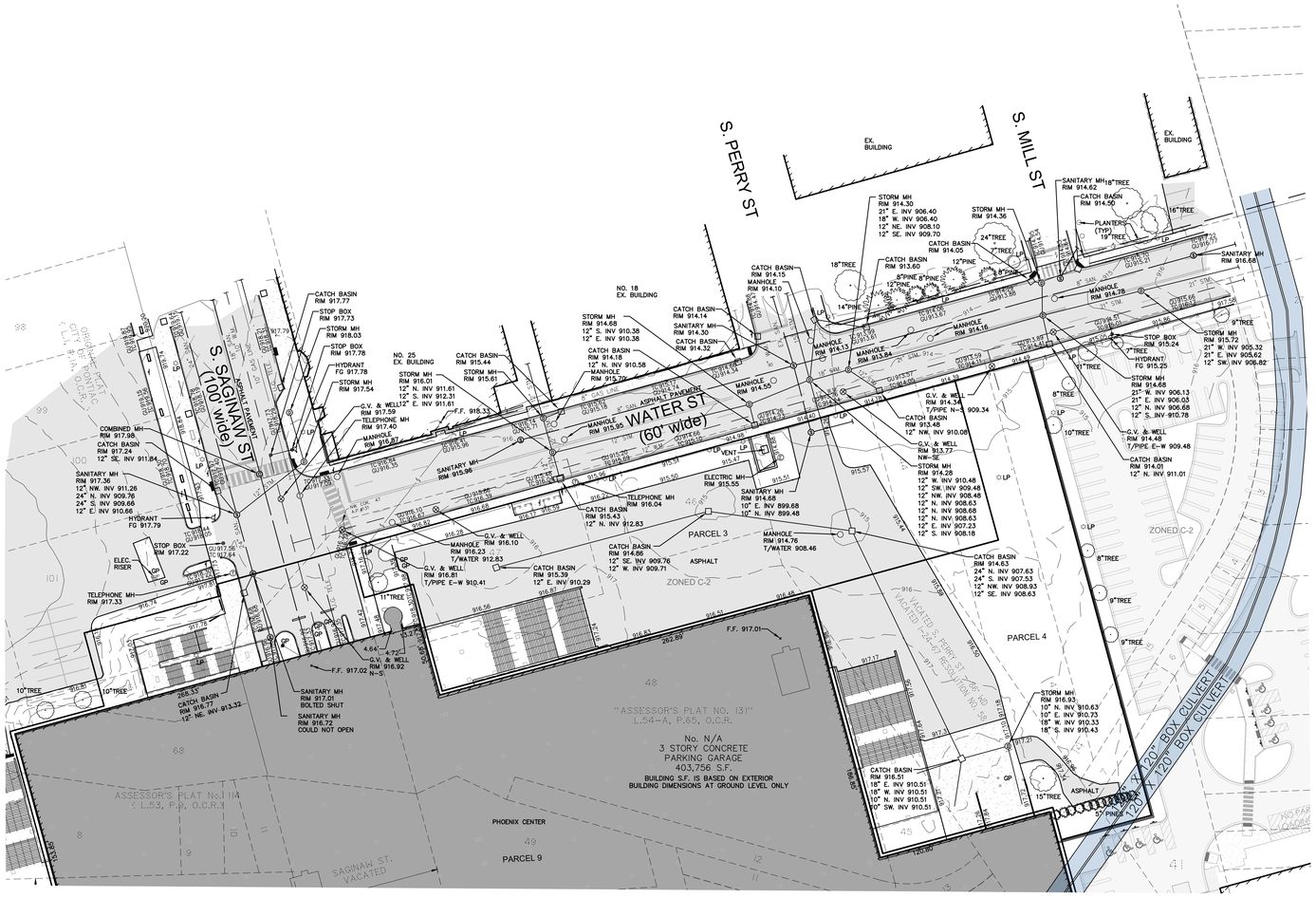

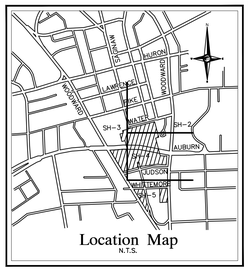

Location Map
N.T.S.

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County
WATER ST PONTIAC, PONTIAC, MI 48342

Architect

Framework E
Architects **Leaders** Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

Consultants

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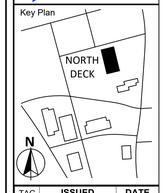
Key Plan



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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

TOPO SURVEY - NORTH

DRAWING NO

C-211-N

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SCALE: 1" = 40'
40 20 0 20 40 60

SOIL DATA (SEE SOIL MAP ON SHEET C-200)

THIS SITE CONSISTS OF

41B – AQUENTS, SANDY, LOAMY, UNDULATING (~42%)
59 – URBAN LAND (~48%)
60B – URBAN LAND–MARLETTE COMPLEX (~10%)

BASED ON DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

LEGEND

- MANHOLE
- HYDRANT
- GATE VALVE
- CATCH BASIN
- UTILITY POLE
- GUY POLE
- GUY WIRE
- EXISTING SANITARY SEWER
- EXISTING SAN. CLEAN OUT
- EXISTING WATER MAIN
- EXISTING STORM SEWER
- EX. R.Y. CATCH BASIN
- EXISTING BURIED CABLES
- OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN

I:\2020-2000 File\2020-FILES\I857-05\Final\Survey\Site Plan_I857-05_Topo Boundary Survey.dwg 9/8/2025 3:23 PM

LEGAL DESCRIPTIONS

PER ATA NATIONAL TITLE GROUP, LLC
FILE NO:63-23877044-SCM
COMMITMENT DATE:MAY 23, 2023

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS: CITY OF PONTIAC, COUNTY OF OAKLAND, STATE OF MICHIGAN

PARCEL 1:
FEE PARCEL:
BEING ALL OR PARTS OF THE FOLLOWING LOTS AND PARCELS IN THE CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, LOT NUMBERS 1, 2, 3, 4, 5, 6, 7, 8, 14 AND 15 AND THAT PART OF VACATED AUBURN AVENUE OF ASSESSOR'S PLAT NO. 130 AS RECORDED IN LIBER 54A, PAGE 71 OF PLATS, OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT LOCATED NORTHERLY 79.00 FEET ALONG THE EASTERLY RIGHT OF WAY LINE OF SAGINAW STREET FROM THE NORTHWEST CORNER OF LOT 16 OF SAID ASSESSOR'S PLAT NO. 130, SAID POINT OF BEGINNING ALSO BEING A POINT ON THE NORTH RIGHT OF WAY LINE OF NEW JUDSON STREET; THENCE NORTH 14 DEGREES 30 MINUTES 01 SECONDS WEST 144.67 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST 128.00 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST, 2.42 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST 64.00 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST 2.42 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST 124.91 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST 181.79 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF JUDSON STREET; THENCE ALONG SAID JUDSON RIGHT OF WAY LINE NORTH 85 DEGREES 36 MINUTES 14 SECONDS (RECORDED AS NORTH 85 DEGREES 36 MINUTES 10 SECONDS) WEST 6.48 FEET TO BEGINNING OF A CURVE; THENCE ALONG A CURVE TO THE LEFT 214.75 FEET, SAID CURVE HAVING A RADIUS OF 648.70 FEET, DELTA OF 18 DEGREES 58 MINUTES 04 SECONDS, CHORD BEARING AND DISTANCE OF SOUTH 84 DEGREES 54 MINUTES 44 SECONDS WEST 213.77 FEET; THENCE SOUTH 75 DEGREES 25 MINUTES 42 SECONDS WEST 100.00 FEET TO POINT OF BEGINNING. TOGETHER WITH THE RIGHT TO THE USE OF THE FOLLOWING LAND IN ACCORDANCE WITH A LICENSE AGREEMENT AS GRANTED BY PONTIAC CITY COMMISSION MEETING DECEMBER 4, 1979, RESOLUTION NO. 738 TO DOWNTOWN PONTIAC DEVELOPMENT COMPANY RECORDED IN LIBER 7788, PAGE 142, AS MORE CLEARLY DESCRIBED, LIMITED AND DEFINED AS: A PARCEL OF LAND BEING PART OF THE SAGINAW STREET RIGHT OF WAY ADJACENT TO LOTS 1, 2, 3 AND 4, ASSESSOR'S PLAT NO. 130, AS RECORDED IN LIBER 54A, PAGE 71 OF PLATS, OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT LOCATED NORTHERLY 79.00 FEET ALONG THE EASTERLY RIGHT OF WAY LINE OF SAGINAW STREET FROM THE NORTHWEST CORNER OF LOT 16, ASSESSOR'S PLAT NO. 130 IN THE NORTHEAST 1/4 OF SECTION 32, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, SAID POINT OF BEGINNING ALSO BEING A POINT ON THE NORTH RIGHT OF WAY LINE OF NEW JUDSON STREET; THENCE NORTH 14 DEGREES 30 MINUTES 01 SECONDS WEST 144.67 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST 15.09 FEET TO A POINT; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST 144.68 FEET TO A POINT; THENCE NORTH 75 DEGREES 25 MINUTES 42 SECONDS EAST 15.00 FEET TO THE POINT OF BEGINNING.

re: 31 E. JUDSON STREET
PARCEL ID NO. 14-32-227-002
EASEMENT PARCEL:
EASEMENTS CREATED LIMITED AND DEFINED BY DECLARATION OF EASEMENTS BY THE CITY OF PONTIAC RECORDED IN LIBER 7788, PAGE 1, AS MODIFIED BY RELEASE OF EASEMENT AS RECORDED IN LIBER 46877, PAGE 480, AND FURTHER MODIFIED BY AMENDMENT TO DECLARATION OF EASEMENTS RECORDED IN LIBER 52433, PAGE 741, OAKLAND COUNTY RECORDS.

PARCEL 2:
A TRIANGULAR PORTION OF LAND (NOW ROAD) FORMERLY DESCRIBED AS ALL OR PART OF LOTS 78 AND LOTS 123, 124, 125 AND 126, EXCEPT THAT PART TAKEN FOR WIDE TRACK DRIVE, ALSO THAT PART OF VACANT WESSEN STREET ADJACENT TO LOT 123, ASSESSOR'S PLAT NO. 116, AS RECORDED IN LIBER 53, PAGE 36 OF PLATS, OAKLAND COUNTY RECORDS.
re: VACANT
PARCEL ID NO. (NONE – ROAD)

PARCEL 3:
BEING ALL OR PARTS OF THE FOLLOWING LOTS AND PARCELS IN THE CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN; LOTS 43, 44, 46, 47, 48 AND THAT PART OF VACATED PERRY STREET, OF ASSESSOR'S PLAT NO. 131, A REPLAT OF ASSESSOR'S PLAT NO. 44 AND LOTS 1 THROUGH 20, INCLUSIVE OF EASTERN ADDITION, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 54A, PAGE 65 OF PLATS, OAKLAND COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT LOCATED SOUTHERLY 20.00 FEET ALONG THE EASTERLY RIGHT OF WAY LINE OF SAGINAW STREET FROM THE NORTHWEST CORNER OF LOT 47 OF SAID PLAT; THENCE NORTH 75 DEGREES 13 MINUTES 16 SECONDS EAST 431.00 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS WEST 113.60 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST 396.00 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST 76.00 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST 35.00 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST 35.76 FEET TO THE POINT OF BEGINNING.
re: 10 WATER STREET
PARCEL ID NO. 14-29-484-003

PARCEL 4:
PART OF LOT 7, ALSO ALL OF LOT 14, ALSO PART OF LOT 15, ALSO PART OF LOTS 41 THROUGH 45, INCLUSIVE, ALSO PART OF VACATED PERRY STREET ADJACENT TO SAME, ASSESSOR'S PLAT NO. 131, ALL BEING DESCRIBED AS BEGINNING AT POINT DISTANT SOUTH 01 DEGREES 54 MINUTES 34 SECONDS EAST 20.51 FEET AND SOUTH 75 DEGREES 13 MINUTES 16 SECONDS WEST 294.22 FEET FROM NORTHEAST CORNER OF LOT 26 OF SAID PLAT; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST 323.81 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST 64 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST 22.99 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST 121 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST 187.00 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST 133 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST 113.60 FEET; THENCE NORTH 75 DEGREES 13 MINUTES 16 SECONDS EAST 52 FEET TO BEGINNING.
re: VACANT
PARCEL ID NO. 14-29-484-010

PARCEL 5:
BEING ALL OR PARTS OF THE FOLLOWING LOTS AND PARCELS IN THE CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN; LOTS 9, 10, 11 AND 12, OF ASSESSOR'S PLAT NO. 130, A REPLAT OF ASSESSOR'S PLAT NO. 64, CRAWFORD'S ADDITION AND SUBDIVISION OF OUTLOT 6, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 54A, PAGE 71, OAKLAND COUNTY RECORDS AND VACATED AUBURN AVENUE AND PARK STREET, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT A POINT LOCATED NORTHERLY 79.00 FEET ALONG THE EASTERLY RIGHT OF WAY LINE OF SAGINAW STREET FROM THE NORTHWEST CORNER OF LOT 16, OF ASSESSOR'S PLAT NO. 130, A REPLAT OF ASSESSOR'S PLAT NO. 64, CRAWFORD'S ADDITION AND SUBDIVISION OF OUTLOT 6 (SAID POINT ALSO BEING ON THE NORTHERLY RIGHT OF WAY LINE OF JUDSON STREET); THENCE ALONG SAID JUDSON STREET RIGHT OF WAY LINE NORTH 75 DEGREES 25 MINUTES 42 SECONDS EAST 100.00 FEET TO A POINT ON A CURVE TO THE RIGHT HAVING AN ARC OF 214.75 FEET; DELTA OF 18 DEGREES 58 MINUTES 04 SECONDS, RADIUS OF 648.70 FEET AND A CHORD BEARING AND DISTANCE OF NORTH 84 DEGREES 54 MINUTES 44 SECONDS EAST 213.77 FEET; THENCE SOUTH 85 DEGREES 36 MINUTES 14 SECONDS EAST 114.31 FEET TO THE POINT OF BEGINNING; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST 185.06 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF AUBURN AVENUE; THENCE ALONG SAID RIGHT OF WAY LINE OF AUBURN AVENUE ALONG A CURVE TO THE LEFT 94.59 FEET, SAID CURVE HAVING A DELTA OF 11 DEGREES 09 MINUTES 58 SECONDS, RADIUS OF 485.37 FEET AND CHORD BEARING AND DISTANCE OF SOUTH 86 DEGREES 31 MINUTES 59 SECONDS EAST 94.44 FEET; THENCE ALONG SAID RIGHT OF WAY LINE NORTH 87 DEGREES 53 MINUTES 06 SECONDS EAST 40.05 FEET TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF EAST WIDE TRACK; THENCE SOUTH 04 DEGREES 23 MINUTES 46 SECONDS WEST 181.12 FEET ALONG SAID WESTERLY RIGHT OF WAY LINE TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF NEW JUDSON STREET; THENCE NORTH 85 DEGREES 36 MINUTES 14 SECONDS WEST 74.18 FEET ALONG NORTHERLY RIGHT OF WAY LINE OF JUDSON STREET TO THE POINT OF BEGINNING.
re: VACANT
PARCEL ID NO. 14-32-227-003

PARCEL 6:
LOTS 34, 35, 36 AND 37, EXCEPT THAT PART TAKEN FOR WIDE TRACK DRIVE, ASSESSOR'S PLAT NO. 130, AS RECORDED IN LIBER 54A, PAGE 71 OF PLATS, OAKLAND COUNTY RECORDS.
re: VACANT
PARCEL ID NO. 14-32-231-009

PARCEL 7:
ALL OR PARTS OF THE FOLLOWING LOTS AND PARCELS IN THE CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN: LOT NUMBERS 5, 6, 7, 8, 10 AND 11, ASSESSOR'S PLAT NO. 65, AS RECORDED IN LIBER 1A, PAGE 65 OF PLATS, OAKLAND COUNTY RECORDS AND LOT NUMBERS 31 THROUGH 39, INCLUSIVE, ASSESSOR'S PLAT NO. 114, AS RECORDED IN LIBER 53, PAGE 9 OF PLATS, OAKLAND COUNTY RECORDS, AND PART OF LOT 7 OF SUBDIVISION OF OUTLOTS 18, 22, AND 23 IN THE SOUTHEAST 1/4 OF SECTION 29, TOWN 3 NORTH, RANGE 10 EAST, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, AS RECORDED IN LIBER 1, PAGE 2 OF PLATS, OAKLAND COUNTY RECORDS, (SHOWN AS DETROIT GRAND HAVEN & MILWAUKEE RAILROAD, EXCEPTED FROM ASSESSOR'S PLAT NO. 114), ALSO VACATED DAWSON ALLEY, ALL THE AFOREMENTIONED BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT LOCATED NORTHERLY 79.00 FEET ALONG THE EASTERLY RIGHT OF WAY LINE OF SAGINAW STREET AND SOUTH 75 DEGREES 25 MINUTES 42 SECONDS WEST 249.58 FEET ALONG THE NORTHERLY RIGHT OF WAY LINE OF PROPOSED JUDSON STREET FROM THE NORTHWEST CORNER OF LOT 16 OF ASSESSOR'S PLAT NO. 130, AS RECORDED IN LIBER 54A OF PLATS, PAGE 71, OAKLAND COUNTY RECORDS; THENCE SOUTH 75 DEGREES 25 MINUTES 42 SECONDS WEST 108.89 FEET ALONG THE NORTHERLY RIGHT OF WAY LINE OF PROPOSED JUDSON STREET; THENCE NORTH 31 DEGREES 27 MINUTES 19 SECONDS WEST 451.91 FEET ALONG THE EASTERLY RIGHT OF WAY LINE OF WEST WIDE TRACK TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF REVISED ORCHARD LAKE AVENUE; THENCE ALONG THE SAID ORCHARD LAKE RIGHT OF WAY LINE NORTH 88 DEGREES 47 MINUTES 56 SECONDS EAST 25.00 FEET AND NORTH 75 DEGREES 47 MINUTES 56 SECONDS EAST 173.34 FEET TO THE BEGINNING OF A CURVE; THENCE ALONG A CURVE TO THE RIGHT 51.05 FEET (DELTA = 13 DEGREES 00 MINUTES 00 SECONDS, RADIUS = 225.00 FEET, CHORD BEARING AND DISTANCE NORTH 82 DEGREES 17 MINUTES 56 SECONDS EAST, 50.94 FEET); THENCE NORTH 88 DEGREES 47 MINUTES 56 SECONDS EAST, 48.06 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST, 66.56 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST, 54.58 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST, 341.81 FEET TO THE POINT OF BEGINNING. ALSO KNOWN AS PARCEL "K". THIS DESCRIPTION BEING PARTS OF URBAN RENEWAL PROJECT AREA R-44 AND URBAN RENEWAL PROJECT AREA R-20. ALSO DESCRIBED AS: ASSESSOR'S PLAT NO. 65, SECTIONS 29 AND 32, TOWN 3 NORTH, RANGE 10 EAST, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, PART OF LOTS 5, 6, 7, AND 8, PART OF LOTS 10 AND 11, ALSO PART OF VACATED SOUTHERN DAWSON ALLEY, ALSO PART OF LOTS 31, 32, 33, 34, 35, 36, 37, 38 AND 39, ASSESSOR'S PLAT, NORTH 114 FEET, ALSO PART OF LOT 7 OF SUBDIVISION OF OUTLOTS 18, 22 AND 23 IN SOUTHEAST 1/4 OF SECTION 29, ALSO PART OF THE NORTHEAST 1/4 OF SECTION 32 ADJACENT TO LOT 5 OF ASSESSOR'S PLAT NO. 65 ALL DESCRIBED AS: BEGINNING AT POINT DISTANT NORTH 14 DEGREES 22 MINUTES 45 SECONDS WEST 79.00 FEET AND SOUTH 75 DEGREES 25 MINUTES 42 SECONDS WEST 249.58 FEET FROM THE NORTHWEST CORNER OF LOT 16 OF ASSESSOR'S PLAT NO. 130; THENCE SOUTH 75 DEGREES 25 MINUTES 42 SECONDS WEST 108.89 FEET; THENCE NORTH 31 DEGREES 27 MINUTES 19 SECONDS WEST 451.91 FEET; THENCE NORTH 88 DEGREES 47 MINUTES 56 SECONDS EAST 25.00 FEET; THENCE NORTH 75 DEGREES 47 MINUTES 56 SECONDS EAST 173.34 FEET; THENCE ALONG CURVE TO RIGHT, RADIUS 225.00 FEET, CHORD BEARING NORTH 82 DEGREES 17 MINUTES 56 SECONDS EAST 50.94 FEET, DISTANCE OF 51.05 FEET; THENCE NORTH 88 DEGREES 47 MINUTES 56 SECONDS EAST 48.06 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST 66.56 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST 54.58 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST 341.81 FEET TO BEGINNING.
re: 51111 WOODWARD AVE.
PARCEL ID NO. 14-32-226-020
EASEMENT PARCEL:
EASEMENTS CREATED LIMITED AND DEFINED BY DECLARATION OF EASEMENTS BY THE CITY OF PONTIAC RECORDED IN LIBER 7788, PAGE 1, AS MODIFIED BY RELEASE OF EASEMENT AS RECORDED IN LIBER 46877, PAGE 480, AND FURTHER MODIFIED BY AMENDMENT TO DECLARATION OF EASEMENTS RECORDED IN LIBER 52433, PAGE 741, OAKLAND COUNTY RECORDS.

PARCEL 8:
PART OF LOT 4 AND PART OF LOTS 8, 9, 10 AND 11, ALSO PART OF VACATED DAWSON ALLEY ALL DESCRIBED AS: BEGINNING AT A POINT OF INTERSECTION OF THE NORTHERLY RIGHT OF WAY LINE OF JUDSON STREET AS ESTABLISHED AND THE WESTERLY RIGHT OF WAY LINE OF VACATED SAGINAW STREET; THENCE WESTERLY ALONG THE NORTHERLY LINE OF JUDSON STREET 153.03 FEET; THENCE NORTHERLY 144.81 FEET; THENCE EASTERLY 153.93 FEET TO A POINT ON THE WESTERLY LINE OF SAID VACATED SAGINAW STREET; THENCE SOUTHERLY ALONG SAID WESTERLY LINE OF VACATED SAGINAW STREET 144.72 FEET TO THE POINT OF BEGINNING, LOCATED IN ASSESSOR'S PLAT NO. 65, AS RECORDED IN LIBER 1, PAGE 65 OF PLATS, OAKLAND COUNTY RECORDS.
re: VACANT
PARCEL ID NO. 14-32-226-021

PARCEL 9:
LEASEHOLD PARCEL:
LOTS 8 THROUGH 13, BOTH INCLUSIVE, PART OF LOTS 45, 47 AND 48, ALL OF LOTS 49 THROUGH 62, BOTH INCLUSIVE, PART OF LOT 64, ALL OF LOT 65, PART OF LOT 66, ALL OF LOT 67, AND PART OF LOT 68, INCLUDING VACATED ALLEY ADJACENT TO LOTS 11 AND 59, AND INCLUDING PART OF VACATED PERRY STREET, OF ASSESSOR'S PLAT NO. 44 AND LOTS 1 THROUGH 20, INCLUSIVE, OF EASTERN ADDITION OF PARTS OF THE SOUTHWEST ¼ OF SECTION 28 AND THE SOUTHEAST ¼ OF SECTION 29, TOWN 3 NORTH, RANGE 10 EAST, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 54A OF PLATS, PAGE 65, OAKLAND COUNTY RECORDS, PART OF LOTS 4 THROUGH 14, BOTH INCLUSIVE, OF ASSESSOR'S PLAT NO. 130, A REPLAT OF ASSESSOR'S PLAT NO. 64, CRAWFORD'S ADDITION, AND SUBDIVISION OF OUTLOT NO. 6 IN THE NORTHEAST ¼ OF SECTION 32, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 54A OF PLATS, PAGE 71, OAKLAND COUNTY RECORDS, INCLUDING VACATED PART OF AUBURN AVENUE LYING NORTH OF SAID ASSESSOR'S PLAT NO. 130 A REPLAT OF ASSESSOR'S PLAT NO. 64, CRAWFORD'S ADDITION, AND SUBDIVISION OF OUTLOT NO. 6 IN THE NORTHEAST ¼ SECTION 32, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, AND INCLUDING THAT PART OF VACATED SAGINAW STREET LYING WITHIN OR ADJACENT TO SAID ASSESSOR'S PLAT NO. 130 A REPLAT OF ASSESSOR'S PLAT NO. 64, CRAWFORD'S ADDITION, AND SUBDIVISION OF OUTLOT NO. 6 IN THE NORTHEAST 1/4 OF SECTION 32, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN AND SAID ASSESSOR'S PLAT NO. 130 A REPLAT OF ASSESSOR'S PLAT NO. 44 AND LOTS 1 THROUGH 20, INCLUSIVE, OF EASTERN ADDITION, OF PARTS OF THE SOUTHWEST ¼ OF SECTION 28 AND THE SOUTHEAST ¼ OF SECTION 29, TOWN 3 NORTH, RANGE 10 EAST, CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN, PART OF LOT 101, OF ORIGINAL PLAT CITY OF PONTIAC, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 1 OF PLATS, PAGE 1, OAKLAND COUNTY RECORDS, ALL OF LOTS 1, 2 AND 3, AND PART OF LOTS 4 AND 5, INCLUDING PART OF VACATED DAWSON ALLEY, OF ASSESSOR'S PLAT NO. 65, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 1 OF ASSESSOR'S PLATS, PAGE 65, OAKLAND COUNTY RECORDS, AND PART OF LOT 8, ALL OF LOTS 9, 10 AND 11, PART OF LOTS 12, 13 AND 14, AND PART OF LOTS 35, 36 AND 39, INCLUDING PART OF VACATED PATTERSON AVENUE, OF ASSESSOR'S PLAT NO. 114, A REPLAT OF SUBDIVISION OF OUTLOTS 18, 22 & 23 IN THE SOUTHEAST ¼ OF SECTION 29, ACCORDING TO THE PLAT THEREOF AS RECORDED IN LIBER 53 OF PLATS, PAGE 9, OAKLAND COUNTY RECORDS, ALL DESCRIBED AS: BEGINNING AT A POINT DISTANT SOUTH 14 DEGREES 36 MINUTES 54 SECONDS EAST, 360.29 FEET FROM THE NORTHEAST CORNER OF LOT 96 OF ORIGINAL PLAT CITY OF PONTIAC; THENCE NORTH 75 DEGREES 13 MINUTES 16 SECONDS EAST, 94.87 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST, 35.76 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST, 35.00 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST, 76.00 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST, 263.00 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST, 187.00 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST, 121.00 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST, 579.77 FEET; THENCE NORTH 85 DEGREES 36 MINUTES 14 SECONDS WEST, 107.83 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST, 181.79 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST, 124.91 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST, 2.42 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST, 64.00 FEET; THENCE SOUTH 14 DEGREES 32 MINUTES 05 SECONDS EAST, 2.42 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST, 128.00 FEET; THENCE SOUTH 14 DEGREES 30 MINUTES 01 SECOND EAST, 144.67 FEET; THENCE SOUTH 75 DEGREES 25 MINUTES 42 SECONDS WEST, 96.55 FEET; THENCE NORTH 14 DEGREES 10 MINUTES 39 SECONDS WEST, 144.72 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS WEST, 153.93 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST, 197.00 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST, 54.58 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST, 245.00 FEET; THENCE SOUTH 75 DEGREES 27 MINUTES 55 SECONDS WEST, 64.00 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST, 159.00 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST, 67.00 FEET; THENCE NORTH 14 DEGREES 32 MINUTES 05 SECONDS WEST, 52.00 FEET; THENCE NORTH 75 DEGREES 27 MINUTES 55 SECONDS EAST, 97.14 FEET; THENCE NORTH 14 DEGREES 36 MINUTES 54 SECONDS WEST, 8.35 FEET TO THE POINT OF BEGINNING.
RE: PHOENIX CENTER PARKING GARAGE
PARCEL ID NO. 14-29-484-006
EASEMENT PARCEL:
EASEMENTS CREATED LIMITED AND DEFINED BY DECLARATION OF EASEMENTS BY THE CITY OF PONTIAC RECORDED IN LIBER 7788, PAGE 1, AS MODIFIED BY RELEASE OF EASEMENT AS RECORDED IN LIBER 46877, PAGE 480, AND FURTHER MODIFIED BY AMENDMENT TO DECLARATION OF EASEMENTS RECORDED IN LIBER 52433, PAGE 741, OAKLAND COUNTY RECORDS.

TITLE NOTES - PARCEL 1

THE LAND REFERRED TO IN THIS COMMITMENT IS DESCRIBED AS FOLLOWS: CITY OF PONTIAC, COUNTY OF OAKLAND, STATE OF MICHIGAN

1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.

2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF OF THE LAND.

3. EASEMENTS, CLAIM OF EASEMENTS OR ENCUMBRANCES THAT ARE NOT SHOWN IN THE PUBLIC RECORDS AND EXISTING WATER, MINERAL, OIL AND EXPLORATION RIGHTS.

8. RIGHTS OF WAY GRANTED TO CONSUMERS POWER COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE B. OF UTILITY LINE FACILITIES RECORDED IN LIBER 2525, PAGE 80; LIBER 2525, PAGE 82; LIBER 2525, PAGE 84; LIBER 2525, PAGE 86; [EASEMENTS ARE WITHIN THE SURVEYED LAND AND ITS LOCATIONS ARE SHOWN; LIBER 2525, PAGE 88; [DOCUMENTS ARE ILLEGIBLE] LIBER 2525, PAGE 97; AND IN LIBER 7683, PAGE 44, [EASEMENT IS WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN] ALL AS CONVEYED TO AND NOW HELD BY THE DETROIT EDISON COMPANY BY CONVEYANCE OF EASEMENTS RIGHTS RECORDED IN LIBER 10589, PAGE 509, OAKLAND COUNTY RECORDS. [DOCUMENT REFERS TO RECORDED EASEMENTS AND DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT]

9. TERMS AND PROVISIONS CONTAINED IN RESOLUTION OF CITY COMMISSION OF CITY OF PONTIAC APPROVING THE DEVELOPMENT PLAN AND THE FEASIBILITY OF RELOCATION OF PERSONS FOR CBD FRINGE NO. 1, URBAN RENEWAL PROJECT, MICH. R-20 RECORDED IN LIBER 4286, PAGE 502, AS AMENDED OR AFFECTED BY AMENDED PROJECT URBAN RENEWAL PLAN CITY OF PONTIAC, MICHIGAN CENTRAL BUSINESS DISTRICT FRINGE NO. 1 URBAN RENEWAL PROJECT MICH. R-20 RECORDED IN LIBER 5594, PAGE 373, OAKLAND COUNTY RECORDS. [DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT].

10. TERMS AND PROVISIONS CONTAINED IN, AND EASEMENTS CREATED BY, DECLARATION OF EASEMENTS 10. BY THE CITY OF PONTIAC RECORDED IN LIBER 7788, PAGE 1; [EASEMENT LIES WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN]. AS MODIFIED BY 1) RELEASE OF EASEMENT AS RECORDED IN LIBER 46877, PAGE 480, II) AMENDMENT TO DECLARATION OF EASEMENTS RECORDED IN LIBER 52433, PAGE 741 [NOT PLOTTABLE, "BLANKET" PARKING EASEMENT IN THE DECK] AND RELEASE AND TERMINATION OF EASEMENT AGREEMENTS RECORDED IN LIBER 55943, PAGE 567 [DECLARES THAT ALL REMAINING PLAZA ACCESS FOR PRIVATE OWNERS, PEDESTRIAN WAYS AND PEDESTRIAN WAY EASEMENTS (AS THOSE TERMS ARE DEFINED WITHIN THE DECLARATION OF EASEMENTS) ARE HEREBY FOREVER SURRENDERED, DISCHARGED AND RELEASED FROM THE DECLARATION OF EASEMENTS. ALL OTHER TERMS AND CONDITIONS CONTAINED IN THE DECLARATION OF EASEMENTS RELATING TO COMMON WALL AND UTILITY EASEMENTS ARE UNAFFECTED BY THIS AGREEMENT AND REMAIN IN FULL FORCE AND EFFECT]. OAKLAND COUNTY RECORDS.

11. TERMS AND PROVISIONS CONTAINED IN LICENSE AGREEMENT RECORDED IN LIBER 7788, PAGE 142, OAKLAND COUNTY RECORDS. [EASEMENT IS WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN].

12. TERMS, CONDITIONS, PROVISIONS AND OTHER MATTERS AS SET FORTH IN QUIT CLAIM DEEDS RECORDED IN LIBER 7788, PAGE 150 AND IN LIBER 7788, PAGE 164, AND IN ASSIGNMENT AND QUIT CLAIM DEED RECORDED IN LIBER 7788, PAGE 261, OAKLAND COUNTY RECORDS. [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT; THE DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

13. TERMS, PROVISIONS, EASEMENTS, COVENANTS AND OTHER MATTERS CONTAINED IN COMPREHENSIVE DEVELOPMENT AGREEMENT EXECUTED BY AND AMONG THE CITY OF PONTIAC, THE PONTIAC DOWNTOWN DEVELOPMENT AUTHORITY, AND THE DOWNTOWN PONTIAC DEVELOPMENT COMPANY RECORDED IN LIBER 7770, PAGE 127, AS AMENDED BY AMENDMENT TO COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 7787, PAGE 866, AS FURTHER AMENDED OR AFFECTED BY ACKNOWLEDGMENT AND CONSENTS RECORDED IN LIBER 8020, PAGE 500 AND LIBER 8020, PAGE 504, AND BY NOTICE OF TERMINATION OF COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 24633, PAGE 37, OAKLAND COUNTY RECORDS [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

14. TERMS AND PROVISIONS CONTAINED IN CONSENT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 7770, PAGE 335, AS AMENDED OR AFFECTED BY AMENDMENT TO LAND TRANSFER AGREEMENT RECORDED IN LIBER 7787, PAGE 895, AND NOTICE OF TERMINATION OF CONTRACT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 24633, PAGE 35, OAKLAND COUNTY RECORDS AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

15. TERMS, PROVISIONS AND STIPULATIONS RECITED IN DECLARATION OF TAKING RECORDED IN LIBER 46880, PAGE 858 AND IN JUDGMENTS RECORDED IN LIBER 47166, PAGE 691; LIBER 47166, PAGE 684; LIBER 47166, PAGE 707; AND IN LIBER 47166, PAGE 731, AND ORDER DISBURSING DECLARATION OF TAKING AND RELEASE OF ESTIMATED JUST COMPENSATION ENTERED SEPTEMBER 6, 2017 IN OAKLAND COUNTY CASE NO. 14–139761–CC AND RECORDED IN LIBER 51052, PAGE 76, OAKLAND COUNTY RECORDS. [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

17. NOTICE OF COMMENCEMENT RECORDED SEPTEMBER 2, 2022 IN LIBER 58081, PAGE 835, OAKLAND COUNTY RECORDS, TOGET

TITLE NOTES - PARCEL 5

1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.

2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF OF THE LAND.

3. EASEMENTS, CLAIM OF EASEMENTS OR ENCUMBRANCES THAT ARE NOT SHOWN IN THE PUBLIC RECORDS AND EXISTING WATER, MINERAL, OIL AND EXPLORATION RIGHTS.

19. TERMS, PROVISIONS, COVENANTS, RESTRICTIONS AND OTHER MATTERS CONTAINED IN URBAN RENEWAL PLAN CITY OF PONTIAC, MICHIGAN CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT MICH. R-44 RECORDED IN LIBER 4592, PAGE 535 [THE SURVEYED LAND IS NOT WITHIN THE PROPERTY DESCRIBED WITHIN SAID DOCUMENT; SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTION], AS MODIFIED BY ORDER NO. S-212 RE: MODIFICATION OF THE CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT PLAN DATED APRIL 17, 1962 RECORDED IN LIBER 45926, PAGE 592, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE SURVEYED LAND IS PART OF THE PROPERTY DESCRIBED WITHIN SAID DOCUMENTS;SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE RESTRICTIONS].

20. TERMS, PROVISIONS, COVENANTS, RESTRICTIONS AND OTHER MATTERS CONTAINED IN URBAN RENEWAL 20. PLAN CITY OF PONTIAC, MICHIGAN CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT MICH. R-44 RECORDED IN LIBER 5594, PAGE 335 [THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT; DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS] AS MODIFIED BY ORDER NO. S-212 RE: MODIFICATION OF THE CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT PLAN DATED APRIL 17, 1962 RECORDED IN LIBER 45926, PAGE 592, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE SURVEYED LAND IS PART OF THE PROPERTY DESCRIBED WITHIN SAID DOCUMENTS;SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

21. TERMS, PROVISIONS, EASEMENTS, COVENANTS AND OTHER MATTERS CONTAINED IN COMPREHENSIVE DEVELOPMENT AGREEMENT EXECUTED BY AND AMONG THE CITY OF PONTIAC, THE PONTIAC DOWNTOWN DEVELOPMENT AUTHORITY, AND THE DOWNTOWN PONTIAC DEVELOPMENT COMPANY RECORDED IN LIBER 7770, PAGE 127, AS AMENDED BY AMENDMENT TO COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 7787, PAGE 866, AS FURTHER AMENDED OR AFFECTED BY ACKNOWLEDGMENT AND CONSENTS RECORDED IN LIBER 8020, PAGE 500 AND LIBER 8020, PAGE 504, AND BY NOTICE OF TERMINATION OF COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 24633, PAGE 37, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE LAND DESCRIBED IN THE RECORDED DOCUMENTS IS THE SURVEYED LAND; SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

22. TERMS AND PROVISIONS CONTAINED IN CONSENT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 7770, PAGE 335, AS AMENDED OR AFFECTED BY AMENDMENT TO LAND TRANSFER AGREEMENT RECORDED IN LIBER 7787, PAGE 895, AND NOTICE OF TERMINATION OF CONTRACT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 24633, PAGE 35, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS]

23. TERMS, PROVISIONS, EASEMENTS, COVENANTS AND OTHER MATTERS CONTAINED IN QUIT CLAIM DEED RECORDED IN LIBER 8097, PAGE 587, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 3, 4 AND 5). [EASEMENTS LIE WITHIN THE SURVEYED LAND AND THEIR LOCATIONS ARE SHOWN]

24. TERMS, PROVISIONS, EASEMENTS, COVENANTS AND OTHER MATTERS CONTAINED IN QUIT CLAIM DEED RECORDED IN LIBER 8331, PAGE 770, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 3, 4 AND 5). [EASEMENTS LIE WITHIN THE SURVEYED LAND AND THEIR LOCATIONS ARE SHOWN]

27. RIGHTS OF THE PUBLIC AND OF ANY GOVERNMENTAL UNIT IN ANY PART OF THE LAND TAKEN, USED OR DEEDED FOR E. AUBURN AVENUE AND/OR ORCHARD LAKE ROAD (AFFECTS PARCELS 3, 4 AND 6).

34. RIGHT OF WAY GRANTED TO CONSUMERS POWER COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF UTILITY LINE FACILITIES RECORDED IN LIBER 2525, PAGE 78 [EASEMENT IS WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN], AS CONVEYED TO AND NOW HELD BY THE DETROIT EDISON COMPANY BY CONVEYANCE OF EASEMENT RIGHTS RECORDED IN LIBER 10589, PAGE 509, OAKLAND COUNTY RECORDS. [DOCUMENT REFERS TO RECORDED EASEMENTS AND DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT]

35. RIGHT OF WAY GRANTED TO CONSUMERS POWER COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF UTILITY LINE FACILITIES RECORDED IN LIBER 2525, PAGE 99 [EASEMENT IS WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN], AS CONVEYED TO AND NOW HELD BY THE DETROIT EDISON COMPANY BY CONVEYANCE OF EASEMENT RIGHTS RECORDED IN LIBER 10589, PAGE 509, OAKLAND COUNTY RECORDS. [DOCUMENT REFERS TO RECORDED EASEMENTS AND DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT]

36. RIGHT OF WAY GRANTED TO CONSUMERS POWER COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF UTILITY LINE FACILITIES RECORDED IN LIBER 2525, PAGE 101 [EASEMENT IS WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN], AS CONVEYED TO AND NOW HELD BY THE DETROIT EDISON COMPANY BY CONVEYANCE OF EASEMENT RIGHTS RECORDED IN LIBER 10589, PAGE 509, OAKLAND COUNTY RECORDS. [DOCUMENT REFERS TO RECORDED EASEMENTS AND DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT]

37. RIGHT OF WAY GRANTED TO CONSUMERS POWER COMPANY FOR CONSTRUCTION, OPERATION AND MAINTENANCE OF UTILITY LINE FACILITIES RECORDED IN LIBER 2525, PAGE 103 [EASEMENT IS WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN], AS CONVEYED TO AND NOW HELD BY THE DETROIT EDISON COMPANY BY CONVEYANCE OF EASEMENT RIGHTS RECORDED IN LIBER 10589, PAGE 509, OAKLAND COUNTY RECORDS. [DOCUMENT REFERS TO RECORDED EASEMENTS AND DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT]

38. TERMS, PROVISIONS, COVENANTS, RESTRICTIONS AND OTHER MATTERS CONTAINED IN DEED RECORDED IN LIBER 4749, PAGE 317, OAKLAND COUNTY RECORDS. [SAID TRACTS PLOTTED HEREON]

ALL EXCEPTIONS SHOWN OR NOTED ON THIS SURVEY WERE OBTAINED FROM TITLE COMMITMENT
NO. 63-23877044-SCM, WITH AN EFFECTIVE DATE OF 07-17-2023, REVISION NO. 1, ISSUED BY ATA NATIONAL TITLE GROUP, LLC

SITE DATA PARCEL 5

GROSS LAND AREA: 18,318.58 SQUARE FEET OR 0.42 ACRES.
TOTAL STRIPED PARKING: 0 STRIPED SPACES INCLUDING 0 BARRIER FREE (HANDICAP) SPACES.

ZONED: C-2 (DOWNTOWN)
BUILDING SETBACKS:
FRONT= 10' (R)
SIDES= 5'
REAR= 10'

R. BUILDINGS ALONG WOODWARD AVENUE. BUILDINGS LOCATED ON SITES WITH FRONTAGE ON WOODWARD AVENUE SHALL HAVE A MINIMUM SETBACK OF 15 FEET.

MAX. BUILDING HEIGHT PERMITTED: (S)

S. HEIGHT LIMITS ADJACENT TO RESIDENTIAL DISTRICTS. THE MAXIMUM BUILDING HEIGHT FOR BUILDINGS ON A LOT ADJACENT TO ANY R-1, R-2, R-3, OR R-5 DISTRICT SHALL BE EQUAL TO THE SETBACK OF THE BUILDING FROM THE RESIDENTIAL PROPERTY BOUNDARY
THE ABOVE ZONING AND ZONING REQUIREMENTS WERE OBTAINED FROM THE CITY OF PONTIAC ONLINE ZONING MAP AND ZONING ORDINANCE.

NOTE: THE SETBACKS & HEIGHT RESTRICTIONS NOTED ABOVE ARE FOR REFERENCE PURPOSES ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION AND SHOULD NOT BE USED TO DETERMINE COMPLIANCE. A SURVEYOR CANNOT MAKE A CERTIFICATION ON THE BASIS OF AN INTERPRETATION OR OPINION OF ANOTHER PARTY. A ZONING ENDORSEMENT LETTER SHOULD BE OBTAINED FROM THE CITY OF PONTIAC TO INSURE CONFORMITY AS WELL AS MAKE A FINAL DETERMINATION OF THE REQUIRED BUILDING SETBACK & HEIGHT REQUIREMENTS.

TITLE NOTES - PARCEL 6

RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.

2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF OF THE LAND.

3. EASEMENTS, CLAIM OF EASEMENTS OR ENCUMBRANCES THAT ARE NOT SHOWN IN THE PUBLIC RECORDS AND EXISTING WATER, MINERAL, OIL AND EXPLORATION RIGHTS.

19. TERMS, PROVISIONS, COVENANTS, RESTRICTIONS AND OTHER MATTERS CONTAINED IN URBAN RENEWAL PLAN CITY OF PONTIAC, MICHIGAN CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT MICH. R-44 RECORDED IN LIBER 4592, PAGE 535 [THE SURVEYED LAND IS NOT WITHIN THE PROPERTY DESCRIBED WITHIN SAID DOCUMENT; SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTION], AS MODIFIED BY ORDER NO. S-212 RE: MODIFICATION OF THE CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT PLAN DATED APRIL 17, 1962 RECORDED IN LIBER 45926, PAGE 592, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE SURVEYED LAND IS PART OF THE PROPERTY DESCRIBED WITHIN SAID DOCUMENTS;SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

20. TERMS, PROVISIONS, COVENANTS, RESTRICTIONS AND OTHER MATTERS CONTAINED IN URBAN RENEWAL 20. PLAN CITY OF PONTIAC, MICHIGAN CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT MICH. R-44 RECORDED IN LIBER 5594, PAGE 335 [THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT; DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS] AS MODIFIED BY ORDER NO. S-212 RE: MODIFICATION OF THE CENTRAL BUSINESS DISTRICT FRINGE NO. 2 URBAN RENEWAL PROJECT PLAN DATED APRIL 17, 1962 RECORDED IN LIBER 45926, PAGE 592, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE SURVEYED LAND IS PART OF THE PROPERTY DESCRIBED WITHIN SAID DOCUMENTS;SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

21. TERMS, PROVISIONS, EASEMENTS, COVENANTS AND OTHER MATTERS CONTAINED IN COMPREHENSIVE DEVELOPMENT AGREEMENT EXECUTED BY AND AMONG THE CITY OF PONTIAC, THE PONTIAC DOWNTOWN DEVELOPMENT AUTHORITY, AND THE DOWNTOWN PONTIAC DEVELOPMENT COMPANY RECORDED IN LIBER 7770, PAGE 127, AS AMENDED BY AMENDMENT TO COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 7787, PAGE 866, AS FURTHER AMENDED OR AFFECTED BY ACKNOWLEDGMENT AND CONSENTS RECORDED IN LIBER 8020, PAGE 500 AND LIBER 8020, PAGE 504, AND BY NOTICE OF TERMINATION OF COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 24633, PAGE 37, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE LAND DESCRIBED IN THE RECORDED DOCUMENTS IS THE SURVEYED LAND; SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

22. TERMS AND PROVISIONS CONTAINED IN CONSENT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 7770, PAGE 335, AS AMENDED OR AFFECTED BY AMENDMENT TO LAND TRANSFER AGREEMENT RECORDED IN LIBER 7787, PAGE 895, AND NOTICE OF TERMINATION OF CONTRACT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 24633, PAGE 35, OAKLAND COUNTY RECORDS AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS]

27. RIGHTS OF THE PUBLIC AND OF ANY GOVERNMENTAL UNIT IN ANY PART OF THE LAND TAKEN, USED OR DEEDED FOR E. AUBURN AVENUE AND/OR ORCHARD LAKE ROAD (AFFECTS PARCELS 3, 4 AND 6).

ALL EXCEPTIONS SHOWN OR NOTED ON THIS SURVEY WERE OBTAINED FROM TITLE COMMITMENT NO. 63-23877044-SCM, WITH AN EFFECTIVE DATE OF 07-17-2023, REVISION NO. 1, ISSUED BY ATA NATIONAL TITLE GROUP, LLC

SITE DATA PARCEL 6

GROSS LAND AREA: 24,431.17 SQUARE FEET OR 0.56 ACRES.
TOTAL STRIPED PARKING: 0 STRIPED SPACES INCLUDING 0 BARRIER FREE (HANDICAP) SPACES.
ZONED: C-2 (DOWNTOWN)
BUILDING SETBACKS:
FRONT= COMMON YARD OR FRONT PARKING 10' MIN.
STOOP, COURTYARD OR STREETFRONT 0' MIN. - 5' MAX.
SIDE (STREET)= COMMON YARD OR FRONT PARKING 5'
STOOP, COURTYARD OR STREETFRONT 0' MIN. - 5' MAX.
SIDE (INTERIOR)= COMMON YARD OR FRONT PARKING 5'
STOOP, COURTYARD OR STREETFRONT 0' MIN.
REAR= 10' MIN.

MAX. BUILDING HEIGHT PERMITTED: NO LIMIT.

THE ABOVE SETBACK & HEIGHT REQUIREMENTS WERE OBTAINED FROM THE CITY OF PONTIAC ONLINE ZONING MAP AND ZONING ORDINANCE.

NOTE: THE SETBACKS & HEIGHT RESTRICTIONS NOTED ABOVE ARE FOR REFERENCE PURPOSES ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION AND SHOULD NOT BE USED TO DETERMINE COMPLIANCE. A SURVEYOR CANNOT MAKE A CERTIFICATION ON THE BASIS OF AN INTERPRETATION OR OPINION OF ANOTHER PARTY. A ZONING ENDORSEMENT LETTER SHOULD BE OBTAINED FROM THE CITY OF PONTIAC TO INSURE CONFORMITY AS WELL AS MAKE A FINAL DETERMINATION OF THE REQUIRED BUILDING SETBACK & HEIGHT REQUIREMENTS.

TITLE NOTES - PARCEL 5

1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.

2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF OF THE LAND.

3. EASEMENTS, CLAIM OF EASEMENTS OR ENCUMBRANCES THAT ARE NOT SHOWN IN THE PUBLIC RECORDS AND EXISTING WATER, MINERAL, OIL AND EXPLORATION RIGHTS.

39. TERMS AND PROVISIONS CONTAINED IN RESOLUTION OF CITY COMMISSION OF CITY OF PONTIAC APPROVING THE DEVELOPMENT PLAN AND THE FEASIBILITY OF RELOCATION OF PERSONS FOR CBD FRINGE NO. 1, URBAN RENEWAL PROJECT, MICH. R-20 RECORDED IN LIBER 4286, PAGE 502, AS AMENDED OR AFFECTED BY MODIFIED URBAN RENEWAL PLAN CITY OF PONTIAC, MICHIGAN CENTRAL BUSINESS DISTRICT FRINGE NO. 1 URBAN RENEWAL PROJECT MICH. R-20 RECORDED IN LIBER 5594, PAGE 373, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 7, 8 AND 9). [DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENTS].

40. TERMS AND PROVISIONS CONTAINED IN CLINTON-RIVER EASEMENT AGREEMENT EXECUTED BY AND BETWEEN THE CITY OF PONTIAC AND THE DRAINAGE BOARD OF THE CITY OF PONTIAC RECORDED IN LIBER 4528, PAGE 341, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 7 AND 9). [EASEMENT LIES WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN]

41. TERMS, PROVISIONS, COVENANTS, RESTRICTIONS AND OTHER MATTERS CONTAINED IN URBAN RENEWAL PLANS RECORDED IN LIBER 4592, PAGE 535 [THE SURVEYED LAND IS NOT WITHIN THE PROPERTY DESCRIBED WITHIN SAID DOCUMENT; SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS], AND IN LIBER 5594, PAGE 335 [THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT; DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS], AS AMENDED BY MODIFIED URBAN RENEWAL PLAN RECORDED IN LIBER 5594, PAGE 373, OAKLAND COUNTY RECORDS (AS TO PARCELS 7 AND 9). [DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS; THE SURVEYED LAND IS WITHIN THE PROPERTY DESCRIBED IN SAID DOCUMENT].

42. TERMS AND PROVISIONS CONTAINED IN URBAN RENEWAL DEVELOPMENT PROJECT MICHIGAN R-20 RECORDED IN LIBER 4283, PAGE 651; LIBER 4286, PAGE 586; AND IN LIBER 4394, PAGE 506, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 7 AND 8). [THE SURVEYED LAND IS WITHIN THE LAND DESCRIBED IN THE RECORDED DOCUMENT; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

43. TERMS AND PROVISIONS CONTAINED IN, AND EASEMENTS CREATED BY, DECLARATION OF EASEMENTS 10. BY THE CITY OF PONTIAC RECORDED IN LIBER 7788, PAGE 1; [EASEMENT LIES WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN]. AS MODIFIED BY (1) RELEASE OF EASEMENTS RECORDED IN LIBER 46877, PAGE 480, (2) AMENDMENT TO DECLARATION OF EASEMENTS RECORDED IN LIBER 52433, PAGE 741 [NOT PLOTTABLE, "BLANKET" PARKING EASEMENT IN THE DECK], AND RELEASE AND TERMINATION OF EASEMENT AGREEMENTS RECORDED IN LIBER 55943, PAGE 567 [DECLARES THAT ALL REMAINING PLAZA ACCESS FOR PRIVATE OWNERS, PEDESTRIAN WAYS AND PEDESTRIAN WAY EASEMENTS (AS THOSE TERMS ARE DEFINED WITHIN THE DECLARATION OF EASEMENTS) ARE HEREBY FOREVER SURRENDERED, DISCHARGED AND RELEASED FROM THE DECLARATION OF EASEMENTS. ALL OTHER TERMS AND CONDITIONS CONTAINED IN THE DECLARATION OF EASEMENTS RELATING TO COMMON WALL AND UTILITY EASEMENTS ARE UNAFFECTED BY THIS AGREEMENT AND REMAIN IN FULL FORCE AND EFFECT], OAKLAND COUNTY RECORDS.

44. TERMS, PROVISIONS, EASEMENTS, COVENANTS AND OTHER MATTERS CONTAINED IN COMPREHENSIVE DEVELOPMENT AGREEMENT EXECUTED BY AND AMONG THE CITY OF PONTIAC, THE PONTIAC DOWNTOWN DEVELOPMENT AUTHORITY, AND THE DOWNTOWN PONTIAC DEVELOPMENT COMPANY RECORDED IN LIBER 7770, PAGE 127, AS AMENDED BY AMENDMENT TO COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 7787, PAGE 866, AS FURTHER AMENDED OR AFFECTED BY ACKNOWLEDGMENT AND CONSENTS RECORDED IN LIBER 8020, PAGE 500 AND LIBER 8020, PAGE 504, AND BY NOTICE OF TERMINATION OF COMPREHENSIVE DEVELOPMENT AGREEMENT RECORDED IN LIBER 24633, PAGE 37, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 2, 3, 4, 5 AND 6). [THE LAND DESCRIBED IN THE RECORDED DOCUMENTS IS THE SURVEYED LAND; SAID DOCUMENTS DO NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

45. TERMS AND PROVISIONS CONTAINED IN CONSENT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 7770, PAGE 335, AS AMENDED OR AFFECTED BY AMENDMENT TO LAND TRANSFER AGREEMENT RECORDED IN LIBER 7787, PAGE 895, AND NOTICE OF TERMINATION OF CONTRACT FOR SALE OF LAND FOR PRIVATE REDEVELOPMENT RECORDED IN LIBER 24633, PAGE 35, OAKLAND COUNTY RECORDS (AFFECTS PARCELS 7, 8 AND 9).[THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

46. EASEMENT(S) PRESERVED WITHIN STIPULATED CONSENT JUDGMENT AND DISMISSAL AS TO DEFENDANT CONSUMERS ENERGY COMPANY, F/K/A CONSUMERS POWER COMPANY, ONLY ENTERED APRIL 22, 2014 IN OAKLAND COUNTY CIRCUIT COURT CASE NO. 14-139761-CC AND RECORDED JUNE 27, 2014 IN LIBER 47166, PAGE 661, OAKLAND COUNTY RECORDS (PARCELS 7, 8 AND 9). [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

47. EASEMENT(S) PRESERVED WITHIN STIPULATED CONSENT JUDGMENT AND DISMISSAL AS TO DEFENDANT MICHIGAN BELL TELEPHONE COMPANY, ONLY ENTERED APRIL 28, 2014 IN OAKLAND COUNTY CIRCUIT COURT CASE NO. 14-139761-CC AND RECORDED JUNE 27, 2014 IN LIBER 47166, PAGE 684, OAKLAND COUNTY RECORDS (PARCELS 7, 8 AND 9). [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

48. EASEMENT(S) PRESERVED WITHIN STIPULATED CONSENT JUDGMENT AND DISMISSAL AS TO DEFENDANT DTE ELECTRIC COMPANY F/K/A THE DETROIT EDISON COMPANY, ONLY ENTERED JUNE 20, 2014 IN OAKLAND COUNTY CIRCUIT COURT CASE NO. 14-139761-CC AND RECORDED JUNE 27, 2014 IN LIBER 47166, PAGE 707, OAKLAND COUNTY RECORDS (AS TO PARCELS 7, 8 AND 9). [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

49. TERMS, PROVISIONS AND STIPULATIONS CONTAINED IN STIPULATED CONSENT JUDGMENT AND DISMISSAL AS TO DEFENDANT PONTIAC-CLINTON RIVER DRAINAGE DISTRICT NO. 1, ONLY ENTERED JUNE 20, 2014 IN OAKLAND COUNTY CIRCUIT COURT CASE NO. 14-139761-CC AND RECORDED JUNE 27, 2014 IN LIBER 47166, PAGE 731, OAKLAND COUNTY RECORDS (AS TO PARCELS 7, 8 AND 9). [THE LAND DESCRIBED IN THE RECORDED DOCUMENT IS THE SURVEYED LAND; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

50. TERMS AND PROVISIONS CONTAINED IN LICENSE AGREEMENT MADE BY AND BETWEEN DOWNTOWN PONTIAC DEVELOPMENT COMPANY AND THE CITY OF PONTIAC GRANTING LICENSEE A LICENSE TO UTILIZE A PORTION OF THE SAGINAW STREET RIGHT OF WAY DURING CONSTRUCTION OF OFFICE BUILDING RECORDED IN LIBER 7788, PAGE 142, OAKLAND COUNTY RECORDS. [EASEMENT IS WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN].

51. EASEMENT FOR PUBLIC UTILITIES AND RESTRICTIONS OVER THAT PORTION OF LAND INCLUDED IN THE VACATED ORCHARD LAKE AVENUE RECORDED IN LIBER 7784, PAGE 602 AND IN LIBER 8337, PAGE 682, OAKLAND COUNTY RECORDS. [EASEMENT LIES WITHIN THE SURVEYED LAND AND ITS LOCATION IS SHOWN].

52. COVENANTS, CONDITIONS AND RESTRICTIONS AND OTHER PROVISIONS BUT OMITTING RESTRICTIONS, IF ANY, BASED ON RACE, COLOR, RELIGION, SEX, HANDICAP, FAMILIAL STATUS OR NATIONAL ORIGIN AS CONTAINED IN INSTRUMENT RECORDED IN LIBER 7788, PAGE 169 AND LIBER 8141, PAGE 632, OAKLAND COUNTY RECORDS. [THE SURVEYED LAND IS WITHIN THE LAND DESCRIBED IN THE RECORDED DOCUMENT; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS].

54. NOTICE OF COMMENCEMENT RECORDED SEPTEMBER 2, 2022 IN LIBER 58081, PAGE 827, OAKLAND COUNTY RECORDS, TOGETHER WITH MECHANICS LIEN RIGHTS PURSUANT TO MICHIGAN CONSTRUCTION LIEN LAW. NOTE: IN THE EVENT OF SATISFACTION OF SCHEDULE B, PART I REQUIREMENT TO SUBMIT SATISFACTORY EVIDENCE OF PAYMENT-IN-FULL OR, ALTERNATIVELY, TERMINATION OF ALL MECHANICS LIEN RIGHTS RELATIVE TO THE CONSTRUCTION PROJECT CONTEMPLATED BY THIS NOTICE OF COMMENCEMENT, THIS ITEM WILL BE DELETED. [THE SURVEYED LAND IS WITHIN THE LAND DESCRIBED IN THE RECORDED DOCUMENT; SAID DOCUMENT DOES NOT DESCRIBE ANY PLOTTABLE EASEMENTS OR PLOTTABLE RESTRICTIONS]

87. RIGHTS OF TENANTS IN POSSESSION OR PURSUANT TO UNRECORDED LEASES.

ALL EXCEPTIONS SHOWN OR NOTED ON THIS SURVEY WERE OBTAINED FROM TITLE COMMITMENT NO. 63-23877044-SCM, WITH AN EFFECTIVE DATE OF 07-17-2023, REVISION NO. 1, ISSUED BY ATA NATIONAL TITLE GROUP, LLC

SITE DATA PARCEL 7

GROSS LAND AREA: 24,431.17 SQUARE FEET OR 0.56 ACRES.GROSS LAND AREA: 77,981.84 SQUARE FEET OR 1.79 ACRES.
TOTAL STRIPED PARKING: 0 STRIPED SPACES INCLUDING 0 BARRIER FREE (HANDICAP) SPACES.

ZONED: C-2 (DOWNTOWN)
BUILDING SETBACKS:
FRONT= 10' (R)
SIDES= 5'
REAR= 10'

R. BUILDINGS ALONG WOODWARD AVENUE. BUILDINGS LOCATED ON SITES WITH FRONTAGE ON WOODWARD AVENUE SHALL HAVE A MINIMUM SETBACK OF 15 FEET.

MAX. BUILDING HEIGHT PERMITTED: (S)

S. HEIGHT LIMITS ADJACENT TO RESIDENTIAL DISTRICTS. THE MAXIMUM BUILDING HEIGHT FOR BUILDINGS ON A LOT ADJACENT TO ANY R-1, R-2, R-3, OR R-5 DISTRICT SHALL BE EQUAL TO THE SETBACK OF THE BUILDING FROM THE RESIDENTIAL PROPERTY BOUNDARY
THE ABOVE ZONING AND ZONING REQUIREMENTS WERE OBTAINED FROM THE CITY OF PONTIAC ONLINE ZONING MAP AND ZONING ORDINANCE.

NOTE: THE SETBACKS & HEIGHT RESTRICTIONS NOTED ABOVE ARE FOR REFERENCE PURPOSES ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION AND SHOULD NOT BE USED TO DETERMINE COMPLIANCE. A SURVEYOR CANNOT MAKE A CERTIFICATION ON THE BASIS OF AN INTERPRETATION OR OPINION OF ANOTHER PARTY. A ZONING ENDORSEMENT LETTER SHOULD BE OBTAINED FROM THE CITY OF PONTIAC TO INSURE CONFORMITY AS WELL AS MAKE A FINAL DETERMINATION OF THE REQUIRED BUILDING SETBACK & HEIGHT REQUIREMENTS.

TITLE NOTES - PARCEL 8

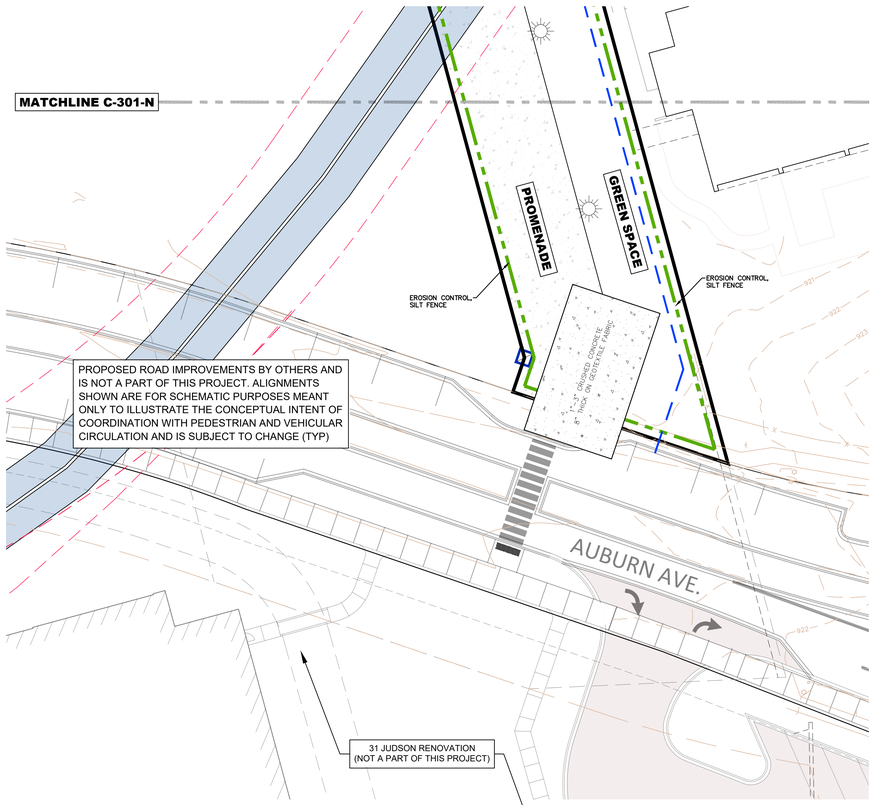
1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.

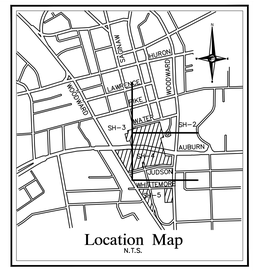
2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF OF THE LAND.

3. EASEMENTS, CLAIM OF EASEMENTS OR ENCUMBRANCES THAT ARE NOT SHOWN IN THE PUBLIC RECORDS AND EXISTING WATER, MINERAL, OIL AND EXPLORATION RIGHTS.

39. TERMS AND PROVISIONS CONTAINED IN RESOLUTION OF CITY COMMISSION OF CITY OF PONTIAC APPROVING THE DEVELOPMENT PLAN AND THE FEASIBILITY OF RELOCATION OF PERSONS FOR CB









SCALE: 1" = 20'

20 10 0 10 20 30

NOTES

REFER TO THE OAKLAND COUNTY SOIL EROSION AND SEDIMENTATION CONTROL DETAIL SHEET FOR ALL ADDITIONAL NOTES & DETAILS (TYP)

A DISTANCE OF 0 FEET TO THE CLINTON RIVER. THE CLINTON RIVER FLOWS BENEATH THE SITE.

THE TOTAL AREA OF EARTH DISRUPTION IS 1.5 ACRES.

THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.

A SOIL EROSION PERMIT IS REQUIRED FROM OAKLAND COUNTY WRC.

SOIL DATA

THIS SITE CONSISTS OF

41B	–	AQUENTS, SANDY, LOAMY, UNDULATING	(~42%)
59	–	URBAN LAND	(~48%)
60B	–	URBAN LAND–MARLETTE COMPLEX	(~10%)

BASED ON DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

ESTIMATED QUANTITIES

SOIL EROSION

DESCRIPTION	QUANTITY	UNITS
SILT FABRIC FENCING	–	L.F.
INLET FILTER	–	EA.
SILT SACK OR EQUAL	–	EA.

CONSTRUCTION SEQUENCE / TIMING SCHEDULE

1.	INSTALL PERIMETER FILTER FABRIC FENCING AND STONE FILTER WHERE REQUIRED.	–
2.	MASS GRADE SITE.	–
3.	COMMENCE UNDERGROUND UTILITY WORK.	–
4.	INSTALL INLET FILTERS ON PROPOSED DRAINAGE STRUCTURES.	–
5.	FILL IN SEDIMENTATION TRAPS AND PAVE SITE.	–
6.	COMPLETE ALL BUILDINGS AND LANDSCAPE ACTIVITY.	–
7.	JET VAC NEW STORM SEWER SYSTEM AS REQUIRED.	–
8.	REMOVE ALL TEMPORARY SOIL EROSION MEASURES.	–

LEGEND

- INDICATES LIMITS OF SILT FABRIC FENCE
- INDICATES LIMITS OF DRAINAGE DISTRICT AREA
- INDICATES LIMITS OF SOIL DISRUPTION
- INDICATES LOW POINT INLET FILTER OR PROPOSED DRAINAGE STRUCTURE
- INDICATES SILT SACK OR EQUAL ON EXISTING DRAINAGE STRUCTURE

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County
WATER ST PONTIAC, PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

Consultants

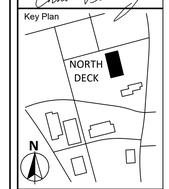
NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS
NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NFE-ENGR.COM

811 Know what's below Call before you dig.

Seal

STATE OF MICHIGAN
CHAD L. FINDLEY
ENGINEER NO. 44360
LICENSED PROFESSIONAL ENGINEER

Key Plan



TAG	ISSUED	DATE
~~1~~	~~Draft Desk Review Site Plan~~	~~07/14/25~~
~~2~~	~~Schematic Design~~	~~07/18/25~~
~~3~~	~~Preliminary Site Plan Approval~~	~~08/04/25~~
4	50% Design Development	08/15/25
5	100% Design Development	09/08/25

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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

S.E.S.C. PLAN - NORTH

DRAWING NO

C-301-N

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SOIL EROSION CONTROL - SEQUENCE OF OPERATION (NEW CONSTRUCTION)

INSTALL CRUSHED CONCRETE ACCESS DRIVE AND TEMPORARY CULVERTS AT THE SITE ENTRANCE AS INDICATED ON THE PLANS.

INSTALL SILT FENCE OR SIMILAR APPROVED SILT BARRIER ALONG PROPERTY LINES AND AROUND SENSITIVE NATURAL FEATURES AS INDICATED ON THE PLANS.

EXCAVATE A SHALLOW SWALE/DITCH AROUND PERIMETER OF SITE. GRADE THE TEMPORARY SWALE TO AN EXISTING DRAINAGE FACILITY. PLACE OUTLET FILTER IN EXISTING UPSTREAM STORM SEWER FACILITIES.

IF INDICATED ON CONSTRUCTION PLANS, SEDIMENTATION BASINS, DETENTION POND, ETC., SHALL BE CONSTRUCTED PRIOR TO THE INSTALLATION OF ANY OTHER WORK.

STRIP EXISTING TOPSOIL, VEGETATION AND ORGANIC MATTER FROM BUILDING PAD AND PARKING AREAS. COMMENCE LAND BALANCE AND MASS GRADING OPERATIONS. MAINTAIN A MINIMUM BUFFER OF 15' OF EXISTING VEGETATION WHEREVER POSSIBLE AROUND SITE PERIMETER. STOCK PILES SHOULD BE LOCATED AWAY FROM EXISTING DRAINAGE FACILITIES.

EXCAVATE AND INSTALL UNDERGROUND UTILITIES. INSTALL PEASTONE INLET FILTERS AROUND ALL NEW STORM SEWER FACILITIES AS INDICATED ON THE PLANS. EXISTING AND PROPOSED STORM SEWER FACILITIES SHALL BE PROTECTED FROM EROSION AND SEDIMENT INFILTRATION AT ALL TIMES.

COMMENCE FINAL GRADING AND TRIMMING OPERATIONS. PREPARE SUBGRADE FOR INSTALLATION OF PROPOSED PAVEMENT.

SEED AND MULCH ALL DISTURBED SITE AREAS AND INSTALLED SITE LANDSCAPING.

REMOVE CONSTRUCTION DEBRIS AND JET VAC NEWLY INSTALLED STORM SEWER SYSTEM AS REQUIRED BY THE MUNICIPALITY.

REMOVE ALL REMAINING TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE PERMANENT MEASURES ARE ESTABLISHED.

WHENEVER POSSIBLE, THE SITE SHALL BE GRADED TO WITHIN SIX INCHES (6") OF THE PROPOSED FINISH GRADE PRIOR TO INSTALLATION OF UNDERGROUND FACILITIES.

STAGING OF PROPOSED WORK SHALL BE COMPLETED BY THE CONTRACTOR AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS.

SOIL EROSION CONTROL

CUTTING, FILLING AND GRADING SHALL BE MINIMIZED AND THE NATURAL TOPOGRAPHY OF THE SITE SHALL BE PRESERVED TO THE MAXIMUM POSSIBLE EXTENT, EXCEPT WHERE SPECIFIC FINDINGS DEMONSTRATE THAT MAJOR ALTERATIONS WILL STILL MEET THE PURPOSES AND REQUIREMENTS OF THIS ORDINANCE.

DEVELOPMENT SHALL BE STAGED TO KEEP THE EXPOSED AREAS OF SOIL AS SMALL AS PRACTICABLE.

SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BETWEEN THE DISTURBED AREA AND ANY WATERCOURSES, INCLUDING RIVERS, STREAMS, CREEKS, LAKES, PONDS AND OTHER WATERCOURSES; WETLANDS; OR ROADWAYS ON OR NEAR THE SITE.

SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVES FROM RUNOFF WATER BEFORE THAT WATER LEAVES THE SITE.

TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR AWAY FROM THE SITE SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.

TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED. ALL SITES SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES.

IF LAKES, PONDS, CREEKS, STREAMS, OR WETLANDS ARE LOCATED ON OR NEAR THE SITE, EROSION CONTROL MEASURES WHICH DIVERT RUNOFF AND TRAP SEDIMENT MUST BE PROVIDED AT STRATEGIC LOCATIONS. STRAW BALE BERMS MAY BE USED AS TEMPORARY STORMWATER DIVERSION STRUCTURES, BUT WILL NOT BE CONSIDERED SUFFICIENT FOR TRAPPING SEDIMENT. THE USE OF SEDIMENT BASINS, FILTER FABRIC, VEGETATED BUFFER STRIPS, AND ROCK FILTERS IN LIEU OF STRAW BALE BERMS SHALL BE STRONGLY ENCOURAGED. OTHER MEASURES MAY BE REQUIRED IF REASONABLY DETERMINED TO BE NECESSARY TO PROTECT A WATERCOURSE OR WETLAND.

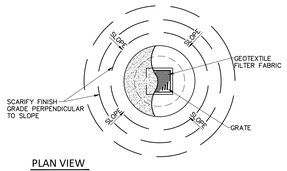
WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED.

PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 (FIFTEEN) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

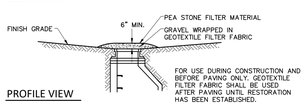
VEGETATED BUFFER STRIPS SHALL BE CREATED OR RETAINED ALONG THE EDGES OF ALL LAKES, PONDS, CREEKS, STREAMS, OTHER WATERCOURSES, OR WETLANDS.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR MAINTENANCE TO ASSURE PROPER FUNCTIONING.

ALL GRADING PLANS AND SPECIFICATIONS, INCLUDING EXTENSIONS OF PREVIOUSLY APPROVED PLANS, SHALL INCLUDE PROVISIONS FOR EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE STANDARDS CONTAINED IN THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PUBLISHED BY THE OAKLAND SOIL CONSERVATION DISTRICT.



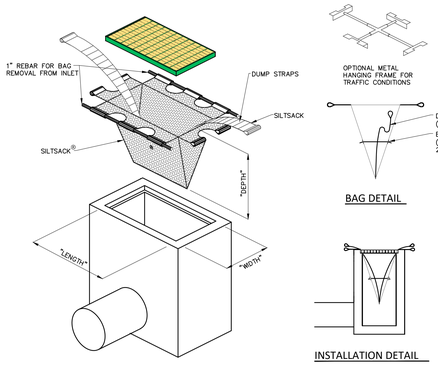
PLAN VIEW



PROFILE VIEW

LOW POINT INLET FILTER

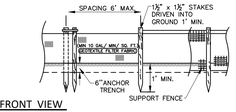
N.T.S.



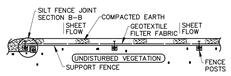
SILT SACK FILTER DETAIL

BAG DETAIL

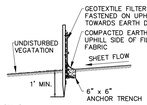
INSTALLATION DETAIL



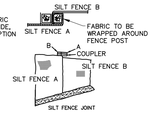
FRONT VIEW



PLAN VIEW



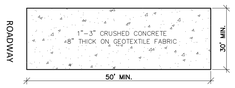
SECTION A-A



SECTION B-B

SILTFENCE DETAIL

NTS



TEMPORARY CRUSHED CONCRETE CONSTRUCTION ACCESS ROAD

Inlet Filter Specifications:

Item #	Dimensions	Pieces per Carton	Pieces Per Pallet
IF1527X30C	1.5' x 27' x 30'	10 pads	120 pads
IF1527X21FTB	1.5' x 27' x 21'	1 roll	12 rolls
IF1527X75FTB	1.5' x 27' x 75'	N/A	3 rolls

Other pad and roll sizes are available upon request.
Cartons sized to ship by UPS.



Inlet Filter Installation Instructions:



1. Remove sediment, debris, ice and snow from the inlet grate surface and surrounding area.

2. Verify fit by placing filter over inlet grate to ensure that Inlet Filter extends at least one inch beyond the front and both curb ends. The overlap slows water flow and starts filtering sediment and debris before water drops into the inlet.



3. Position the mat. Place Inlet Filter on grate with the net side down, flush to the back edge and extending beyond the grate opening on the front and both sides. The zip ties attach Inlet Filter to the inlet grate cover WITHOUT LIFTING THE GRATE COVER.

4. Insert zip ties. Lift Inlet Filter slightly to enable you to see the first grate bar from the edge of the grate cover.

Push the zip tie down through the Inlet Filter and loop under the grate bar. Insert the pointed end of the zip tie about 2" away from the first zip tie penetration and push back up through the filter.

Push the pointed end of the zip tie into the receiving end just enough to hold ends loosely. LEAVE ZIP TIES LOOSE UNTIL ALL TIES ARE LOOPED THROUGH THE MATS AROUND THE GRATES. Repeat Step 4 until all zip ties are installed loosely.



5. Tighten zip ties. After attaching all of the zip ties, re-position Inlet Filter to completely cover and overlap the grate. Pull free end of zip-ties hand tight to anchor Inlet Filter to the grate. Cut off free end of zip ties to leave a 1" tail.

Inlet Filter Maintenance Instructions:



Inlet Filter will collect a lot of sediment. Clean Inlet Filter while mounted on the grate, even if ponded water surrounds the inlet. This unique feature ensures all water entering the grate is filtered. Sweep sides and top of Inlet Filter to remove sediment and debris after each rain event.



1. Remove sediment from the sides of the filter by sweeping away from Inlet Filter.



2. Remove sediment from the top of the filter by sweeping off of Inlet Filter.



Inlet Filter is prepared for the next rain event.

Blocksom & Co.
P.O. Box 2007 Michigan City, IN 46361-8007
Toll free: (800) 745-1408 Fax: (219) 874-3752

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County
JUDSON & WATER STREET
PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

Consultants

NF ENGINEERS
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LAND SURVEYORS
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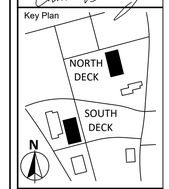
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NFE-ENGR.COM

811 Know what's below Call before you dig.

Seal

STATE OF MICHIGAN
CHAD L. FINDLEY
ENGINEER NO. 44360
LICENSED PROFESSIONAL ENGINEER

Key Plan



TAG	ISSUED	DATE
~~1~~	~~Draft Base Project Site Plan~~	~~07/14/25~~
~~2~~	~~Schematic Design~~	~~07/18/25~~
~~3~~	~~Preliminary City Plan Approval~~	~~08/04/25~~
4	50% Design Development	08/15/25
5	100% Design Development	09/08/25

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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

S.E.S.C. NOTES & DETAILS

DRAWING NO

C-303

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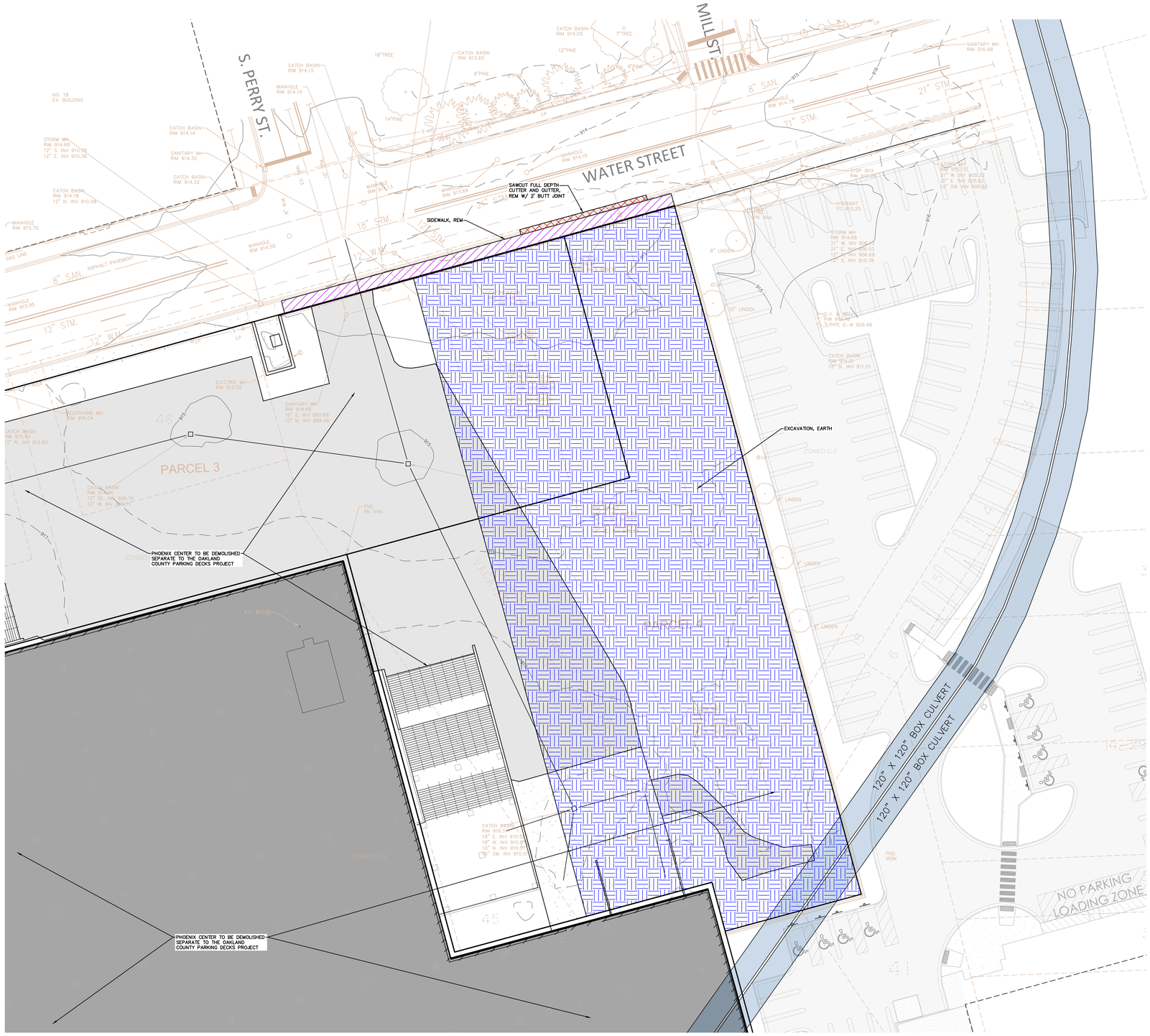

DEMOLITION NOTES

DEMOLITION OF SITE IMPROVEMENTS SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE PUBLIC AGENCY HAVING JURISDICTION OVER SAID DEMOLITION.

FOR ANY DEMOLITION WITHIN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR, AND SECURE, ALL NECESSARY PERMITS AND LIKEWISE SHALL ARRANGE FOR ALL SITE INSPECTIONS.

SITE DEMOLITION INCLUDES THE COMPLETE REMOVAL OF SITE IMPROVEMENTS AND OFF-SITE DISPOSAL. DEBRIS SHALL BE TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY THAT IS LICENSED FOR THAT TYPE OF DEBRIS.

THE CONTRACTOR SHALL COORDINATE TRUCK ROUTES WITH THE MUNICIPALITY PRIOR TO COMMENCEMENT OF SITE DEMOLITION. ALL TRUCKS SHALL BE TARPED OR PROPERLY SECURED TO CONTAIN DEMOLITION DEBRIS PRIOR TO LEAVING SITE.

EXISTING ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICES HAVE BEEN INDICATED BASED UPON THE BEST AVAILABLE UTILITY RECORDS AND/OR ON-SITE INSPECTION. NO GUARANTEE IS MADE BY THE DESIGN ENGINEER, AS TO THE COMPLETENESS OR ACCURACY OF UTILITY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY INFORMATION (THE DESIGN ENGINEER MAKES NO GUARANTEE NOR ASSUMES ANY LIABILITY AS TO THE COMPLETENESS AND/OR ACCURACY OF UTILITY DATA).

PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EXISTING UNDERGROUND UTILITY OR BUILDING SERVICE LINES CALLED FOR IN THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE/ACTIVE THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO SITE DEMOLITION.

* THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF THE SITE DEMOLITION.

THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH UTILITY COMPANY. REMOVAL OF UTILITY COMPANY ELECTRICAL SERVICES, GAS SERVICES, COMMUNICATION SERVICES, AND CABLE SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF PRIVATE UTILITY COMPANIES AND COORDINATE UTILITY SERVICE SHUT OFF/DISCONNECT, PRIOR TO DEMOLITION OF EXISTING STRUCTURES OR PROPERTIES.

ALL UTILITY METERS SHALL BE REMOVED BY THE APPROPRIATE UTILITY COMPANY.

ANY ON-SITE STORM SEWER FACILITIES LOCATED DURING DEMOLITION SHALL BE REMOVED AND BULK HEADED AT THE PROPERTY LINE IF INDICATED FOR REMOVAL ON THE PLANS.

PRIOR TO BUILDING DEMOLITION, ALL HAZARDOUS MATERIAL SHALL BE REMOVED BY OTHERS. THE DEMOLITION CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD ANY SUSPICIOUS MATERIAL BE FOUND.

WATER SERVICES AND/OR STOP-BOX SHALL BE PRESERVED AND BULK HEADED AT THE PROPERTY LINE OR AS DIRECTED BY THE OWNER'S REPRESENTATION.

WHERE EXISTING BUILDINGS PLANNED FOR DEMOLITION FALL WITHIN PROPOSED BUILDING FOOT PRINTS, BASEMENT FLOOR SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH MDOT CLASS II GRANULAR MATERIAL AND BE MACHINE COMPACTED TO A MINIMUM OF 98% OF MATERIALS MAXIMUM DENSITY.

N
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S

SCALE: 1" = 20'
20 10 0 10 20 30

REMOVAL LEGEND

- INDICATES EXISTING BUILDING TO BE DEMOLISHED
- INDICATES AREAS OF ASPHALT PAVEMENT TO BE REMOVED
- INDICATES AREAS OF CONCRETE PAVEMENT/ SIDEWALK TO BE REMOVED
- INDICATES AREAS OF MASS GRADING AND EARTH EXCAVATION

LEGEND

- MANHOLE
- HYDRANT
- GATE VALVE
- MANHOLE CATCH BASIN
- UTILITY POLE
- GUY POLE
- GUY WIRE
- 12" MAPLE
- EXISTING SANITARY SEWER
- EXISTING SAN. CLEAN OUT
- EXISTING WATER MAIN
- EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- EXISTING BURIED CABLES
- OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- EXISTING UTILITY TO BE REMOVED
- EXISTING UTILITY TO BE ABANDONED
- CONSTRUCTION/TREE PROTECTION FENCING
- INDICATES EXISTING TREE TO BE REMOVED

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Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - South Deck

Oakland County
JUDSON STREET
PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

Consultants

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
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46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
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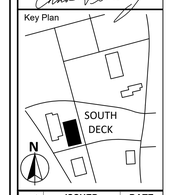
811 Know what's below Call before you dig.

Seal

STATE OF MICHIGAN
CHAD L. FINDLEY
ENGINEER NO. 44360
LICENSED PROFESSIONAL ENGINEER

Key Plan



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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

DEMOLITION PLAN - NORTH

DRAWING NO
C-311-N

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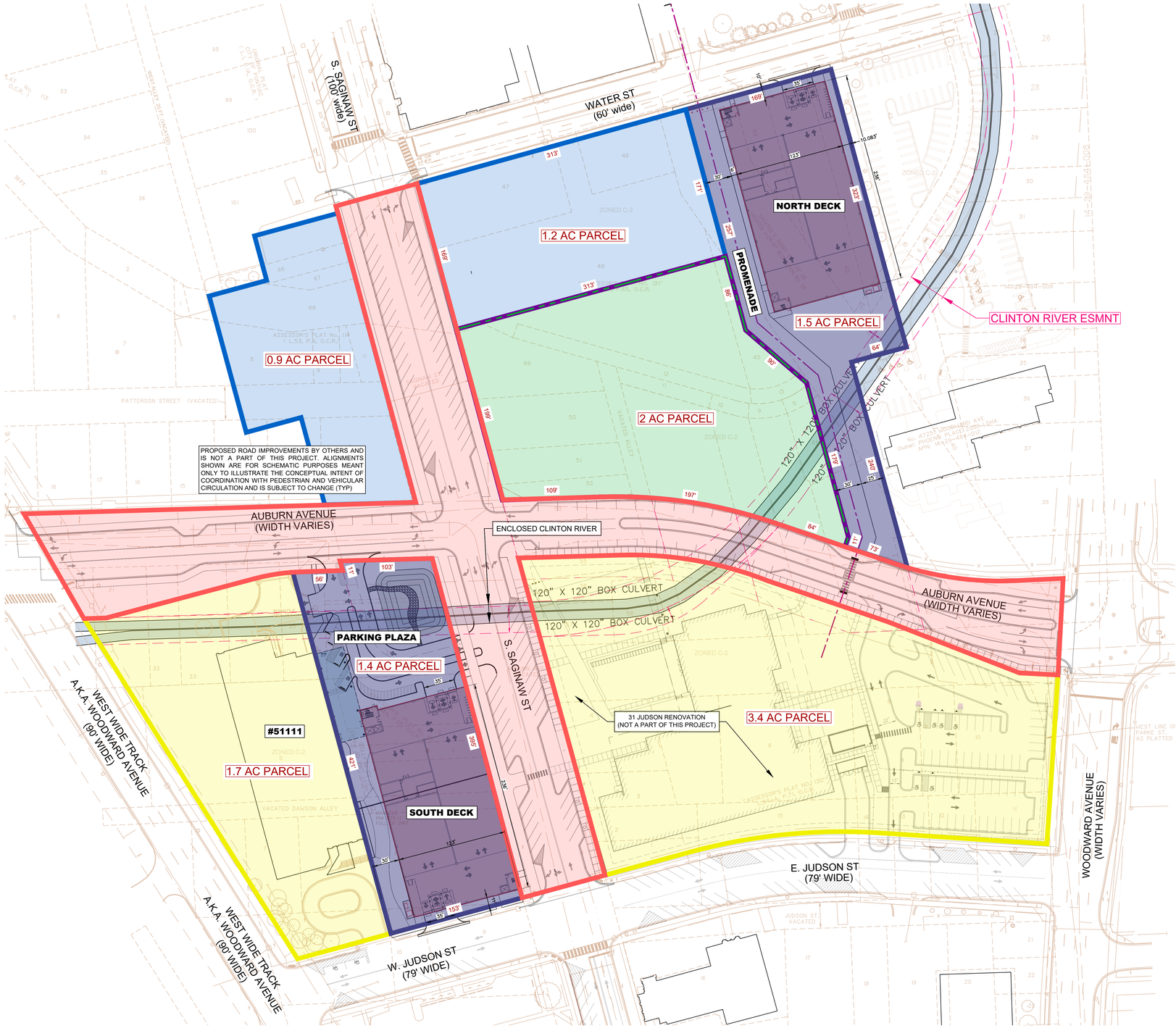

PROPERTY LINES & ADJACENT ROADWAY DESIGN INTENT

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PART OF THE PROJECT WILL INCLUDE CONNECTING SAGINAW STREET BETWEEN WATER STREET AND JUDSON STREET, AND RECONSTRUCTING AUBURN ROAD BETWEEN THE WOODWARD LOOP SECTIONS TO THE EAST AND WEST. WHILE A DOWNTOWN STREETSCAPE IS DESIRED FOR THESE ROADWAYS, THE FINAL ALIGNMENT AND CROSS SECTIONS, INCLUDING STREET PARKING AND SIDEWALK ALLOCATIONS, WILL BE DETERMINED BASED ON A DETAILED TRAFFIC STUDY OF THE AREA THAT TAKES INTO ACCOUNT THE FULL REDEVELOPMENT AND THE MODIFICATIONS TO THE WOODWARD LOOP. THE STUDY AND FINAL LAYOUT DETERMINATION ARE EXPECTED TO TAKE SEVERAL MONTHS TO COMPLETE. IN ORDER TO MOVE FORWARD WITH THE OAKLAND COUNTY PARKING DECK SITE PLAN, IT IS NECESSARY TO START WITH A PRELIMINARY LAYOUT ON THE ROADWAYS. THE ROAD ALIGNMENTS AND CROSS SECTIONS SHOWN ON THIS PLAN REPRESENT THE INITIAL DESIGN INTENT AND ARE SUBJECT TO MODIFICATION AS PLANS PROGRESS. SIDEWALK CONFIGURATION AND PEDESTRIAN CIRCULATION HAS BEEN ESTABLISHED TO ALIGN WITH LONG TERM PLANNING GOALS FOR DOWNTOWN PONTIAC. IF CHANGES OCCUR THAT AFFECT THE ASSUMED PROPERTY LINES ASSOCIATED WITH THESE TWO DECKS, THEN IT WILL BE NECESSARY TO SUBMIT A SITE PLAN MODIFICATION.

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BECAUSE THE FINAL LOT SPLITS HAVE NOT BEEN COMPLETED, AT THIS TIME A MEETS AND BOUNDS DESCRIPTION IS NOT AVAILABLE FOR EACH DECK LOT, HOWEVER, THESE LOTS CAN BE TENTATIVELY DESCRIBED NOW AS SHOWN BELOW. ONCE THE LOT SPLITS AND COMBINATIONS ARE COMPLETED, NEW MEETS AND BOUNDS DESCRIPTIONS WILL BE MADE AVAILABLE AND A SITE PLAN MODIFICATION WILL BE APPLIED FOR.

NORTH DECK
PART OF PARCELS 3, 4 AND 9 AS SHOWN AND DESCRIBED ON ATTACHED BOUNDARY SURVEY
(PID #'S 14-29-484-003, -006, -010)

SOUTH DECK
ALL OF PARCEL 8 AND PART OF PARCELS 7 AND 9 AS SHOWN AND DESCRIBED ON ATTACHED BOUNDARY SURVEY (PID#'S 14-32-226-020, -021, & 14-29-484-008)

PARKING NARATIVE

OAKLAND COUNTY WILL CONTINUE TO USE THEIR HYBRID WORKPLACE MODEL AND DOES NOT EXPECT MORE THAN 500 EMPLOYEES TO BE IN THE RENOVATED 31 JUDSON BUILDING AT ANY GIVEN TIME. THE OFFICE BUILDING REDEVELOPMENT PROJECT IS PART OF A LARGER DEVELOPMENT PLAN FOR THE AREA WHERE THE PHOENIX CENTER PARKING GARAGE IS LOCATED AND IS CURRENTLY BEING DEMOLISHED. THIS PROJECT PROPOSES THE DEVELOPMENT AND CONSTRUCTION OF NEW PARKING DECKS TO SERVE THE JUDSON BUILDING PROJECT AND THE OTHER PARTS OF THE DEVELOPMENT (FULL DETAILS OF THE DEVELOPMENT BEYOND THE 31 JUDSON BUILDING AND PARKING DECKS ARE STILL TO BE DETERMINED). WHILE THE DOWNTOWN DISTRICT DOES NOT HAVE A SPECIFIC PARKING REQUIREMENT FOR DOWNTOWN BUILDINGS, IT IS UNDERSTOOD THAT A PROJECT OF THIS SIZE WILL HAVE A SIGNIFICANT IMPACT ON DOWNTOWN PARKING. THE TENTATIVE DEVELOPER AGREEMENT INCLUDES THE CONSTRUCTION OF TWO PARKING STRUCTURES AS PROPOSED HEREIN AND AS LISTED BELOW:

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USE STATEMENT

THE INTENDED USE OF THIS BUILDING IS AN OPEN PARKING GARAGE. THERE ARE NO MECHANICAL OR INDUSTRIAL PROCESSES THAT WILL OCCUR AT THIS FACILITY

OWNER

MATT MCDOUGALL, PROJECT MANAGER
OAKLAND COUNTY FACILITIES MANAGEMENT
CAPITAL PLANNING AND DESIGN
1 PBLIC WORKS DRIVE
WATERFORD, MI 48328
PHONE: 248-736-8109

SCALE: 1" = 50'

50 25 0 25 50 75

PAVING LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

LEGEND

- MANHOLE
- HYDRANT
- GATE VALVE
- MANHOLE CATCH BASIN
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- C.O. MANHOLE
- HYDRANT GATE VALVE
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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

OVERALL SITE PLAN
LOT SPLIT

DRAWING NO
C-500

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Project Title

OAKLAND COUNTY MICHIGAN

Oakland County
Parking Decks

Oakland County
JUDSON & WATER STREET
PONTIAC, MI 48342

Architect

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Seal

STATE OF MICHIGAN
CHAD L. FINDLEY
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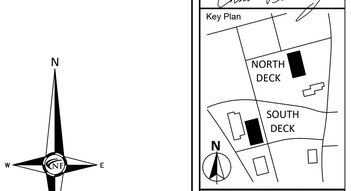
LICENSED PROFESSIONAL ENGINEER

Key Plan



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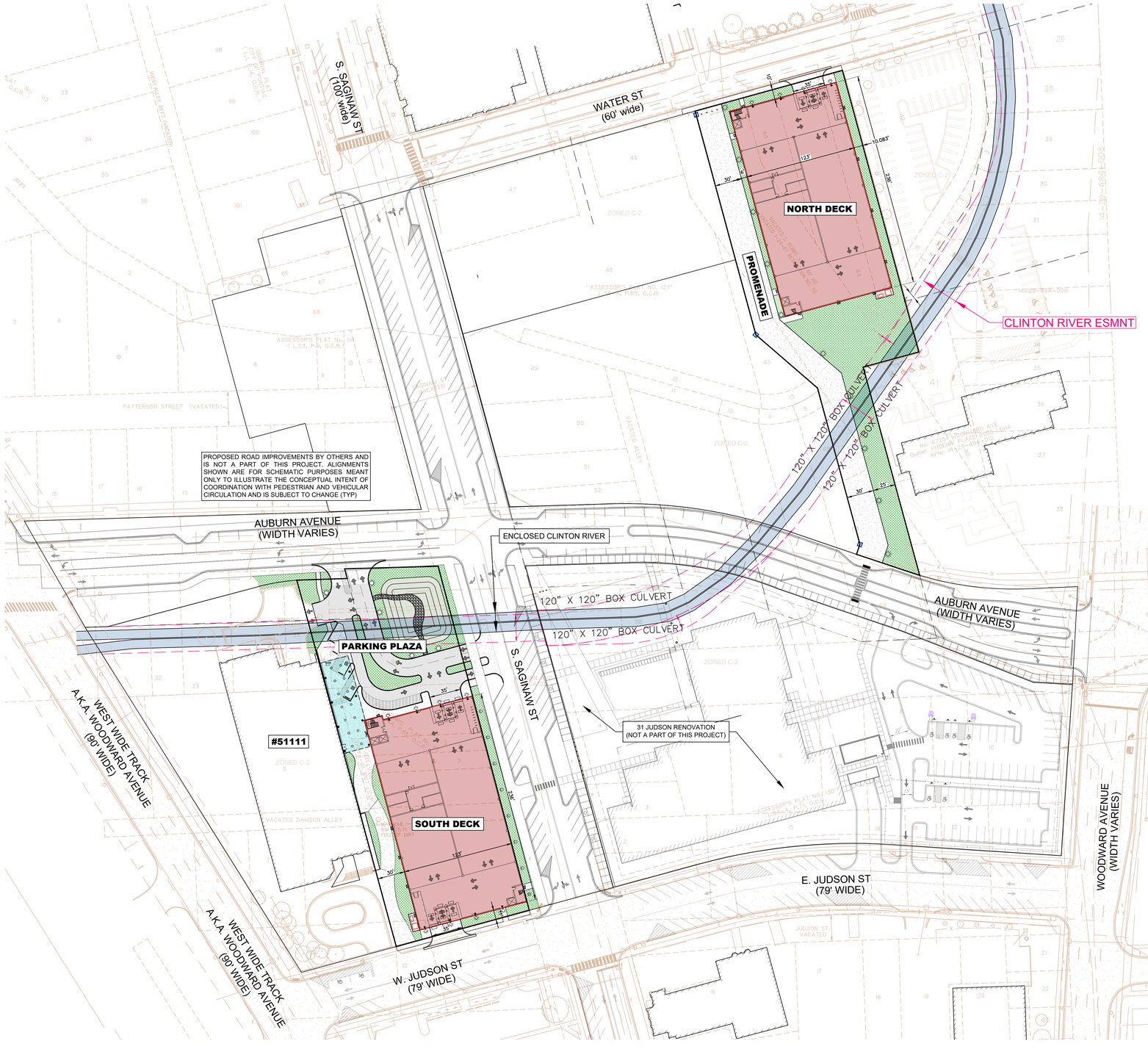

PROPERTY LINES & ADJACENT ROADWAY DESIGN INTENT

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(PID #'S 14-29-484-003, -006, -010)

SOUTH DECK
ALL OF PARCEL 8 AND PART OF PARCELS 7 AND 9 AS SHOWN AND DESCRIBED ON ATTACHED BOUNDARY SURVEY (PID#'S 14-32-226-020, -021, & 14-29-484-006)

PARKING NARATIVE

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SITE DATA

W. JUDSON & WATER STREET PARKING DECKS
CITY OF PONTIAC, OAKLAND COUNTY, MICHIGAN
NORTH DECK: PARCEL ID: 14-29-484-010
SOUTH DECK: PARCEL ID: 14-32-226-021

EXISTING ZONING: C-2 (DOWNTOWN)
PROPOSED ZONING: NO CHANGE
SURROUNDING ZONING:
NORTH: C-2 (DOWNTOWN)
SOUTH: C-2 (DOWNTOWN)
EAST: C-2 (DOWNTOWN)
WEST: C-2 (DOWNTOWN)

SITE ACREAGE
NORTH DECK: 1.5 AC
SOUTH DECK: 1.4 AC

BUILDING INFORMATION
NORTH DECK: 145,160 S.F.
SOUTH DECK: 203,861 S.F.

BUILDING SETBACKS
FRONT: 0'
SIDE: 0'
REAR: 10'

PARKING REQUIREMENTS
- 90° PARKING STALLS
  LENGTH = 20' (OR 18' WITH 2' OVERHANG ALLOWED)
  WIDTH = 9' (10.5' FOR SPACES ABUTTING LANDSCAPE AREA
  MANEUVERING LANE = 12' ONE-WAY / 20' TWO-WAY
- 45° PARKING STALLS
  LENGTH = 20'
  WIDTH = 9'
  MANEUVERING LANE = 12' ONE-WAY

PARKING DECK COUNT
NORTH DECK: 429 (INCLUDING 8 BARRIER FREE SPACES)
SOUTH DECK: 610 (INCLUDING 12 BARRIER FREE SPACES)

SOIL DATA

THIS SITE CONSISTS OF

41B	AQUENTS, SANDY, LOAMY, UNDULATING	(~42%)
59	URBAN LAND	(~48%)
60B	URBAN LAND-MARLETTE COMPLEX	(~10%)

BASED ON DATA PROVIDED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

SCALE: 1" = 50'
50 25 0 25 50 75

PAVING LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- HYDRANT, GATE VALVE — SAN. CLEAN OUT
- MANHOLE, CATCH BASIN — EXISTING WATERMAIN
- EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE, GUY POLE — EXISTING BURIED CABLES
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OWNER

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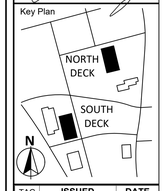
CHAD L. FINDLEY
ENGINEER NO. 44360
LICENSED PROFESSIONAL ENGINEER

Key Plan



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PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

OVERALL SITE PLAN

DRAWING NO
C-510

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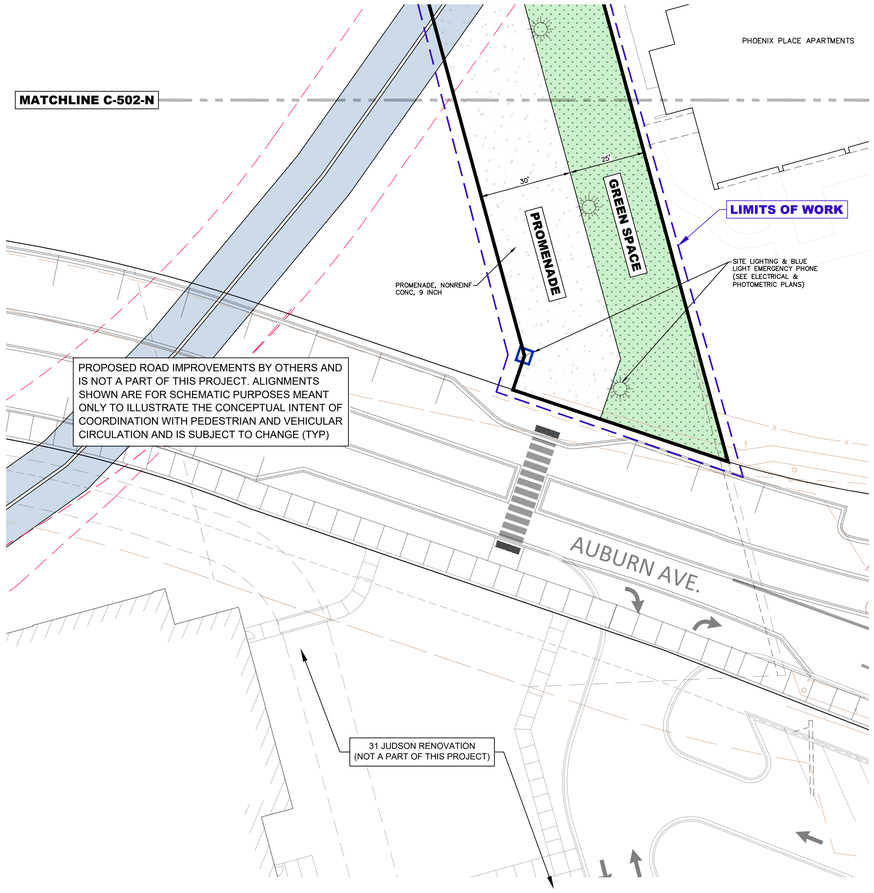



SCALE: 1" = 20'

20 10 0 10 20 30

PAVING LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- HYDRANT, GATE VALVE — SAN. CLEAN OUT
- EXISTING WATERMAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE, GUY POLE — EXISTING BURIED CABLES
- GUY WIRE — OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- C.O., MANHOLE — PR. SANITARY SEWER
- HYDRANT, GATE VALVE — PR. WATER MAIN
- INLET, C.B., MANHOLE — PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE
- PROPOSED ROOF LIGHT POLE
- PROPOSED BLUE LIGHT BOX
- PROPOSED WALL LIGHT PACK

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County
WATER ST PONTIAC, PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

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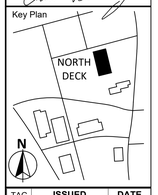
STATE OF MICHIGAN
CHAD L. FINDLEY
ENGINEER NO. 44360
LICENSED PROFESSIONAL ENGINEER

Key Plan



TAG	ISSUED	DATE
1	Draft Deck Project Site Plan	07/11/25
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APPROVED BY: C. Findley

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DIMENSIONAL SITE PLAN - NORTH

DRAWING NO

C-511-N

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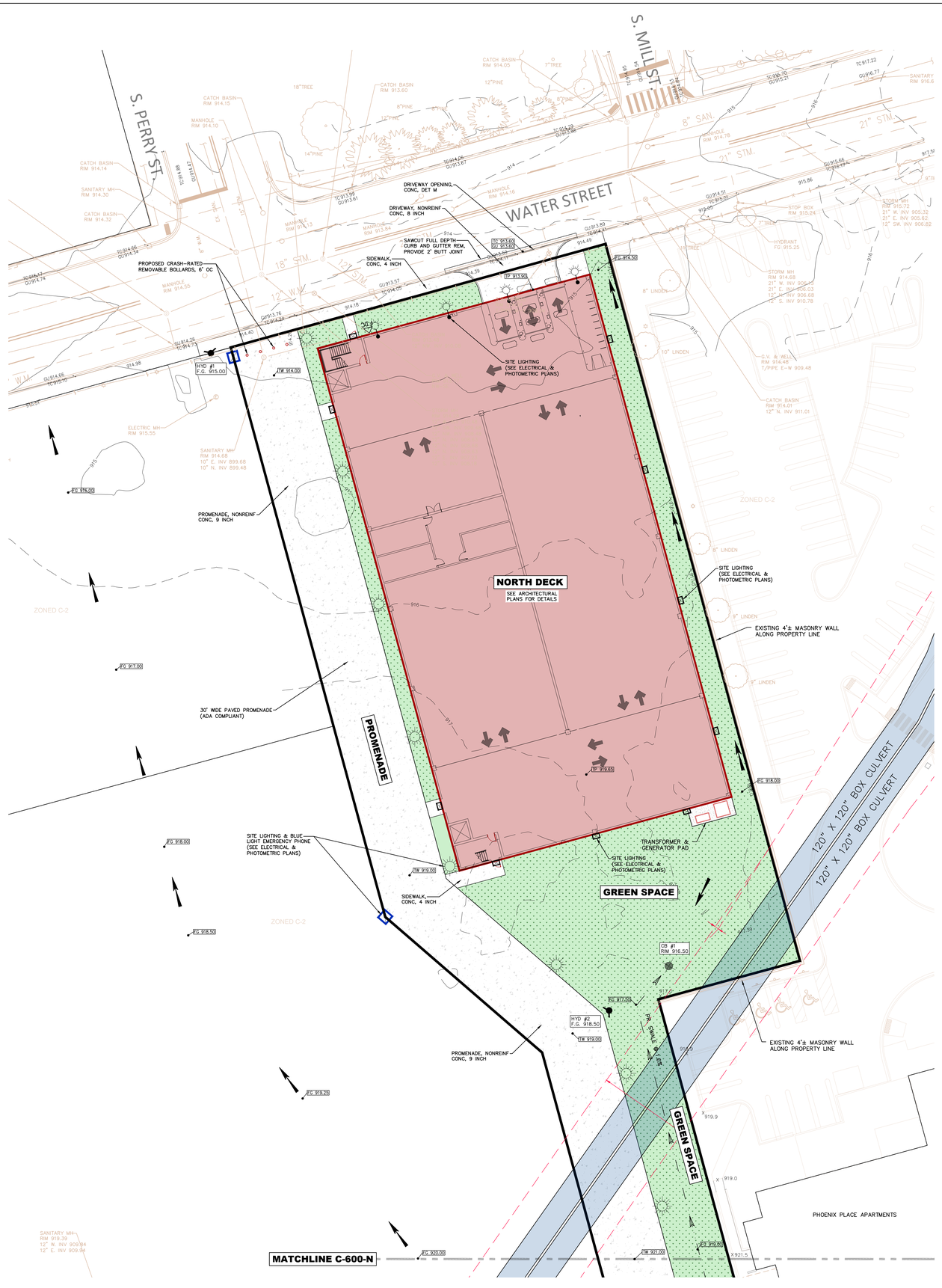

PAVING LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

GENERAL PAVING NOTES

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: 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.

ASPHALT: BASE COURSE – MDOT BITUMINOUS MIXTURE HMA, 4E ML; SURFACE COURSE – MDOT BITUMINOUS MIXTURE HMA, 5E ML; BOND COAT – MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD;

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-S164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

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.

EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

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.

LEGEND

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- HYDRANT, GATE VALVE — EXISTING WATERMAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE, GUY POLE, GUY WIRE — EXISTING BURIED CABLES / OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- C.O. MANHOLE — PR. SANITARY SEWER
- HYDRANT, GATE VALVE — PR. WATER MAIN
- INLET, C.B., MANHOLE — PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE
- PROPOSED ROOF LIGHT POLE
- PROPOSED BLUE LIGHT BOX
- PROPOSED WALL LIGHT PACK
- TC 600.00 — PR. TOP OF CURB ELEVATION
- GU 600.00 — PR. GUTTER ELEVATION
- TW 600.00 — PR. TOP OF WALK ELEVATION
- TP 600.00 — PR. TOP OF PVMT. ELEVATION
- FG 600.00 — FINISH GRADE ELEVATION
- WT 600.00 / WB 600.00 — WALL TOP/BOTTOM ELEVATION

Project Title

Oakland County Parking Decks - North Deck

Oakland County
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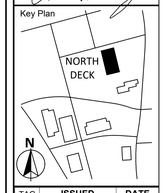
Key Plan



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PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

PAVING, GRADING & SITE IMPROVEMENTS PLAN - NORTH

DRAWING NO

C-601-N

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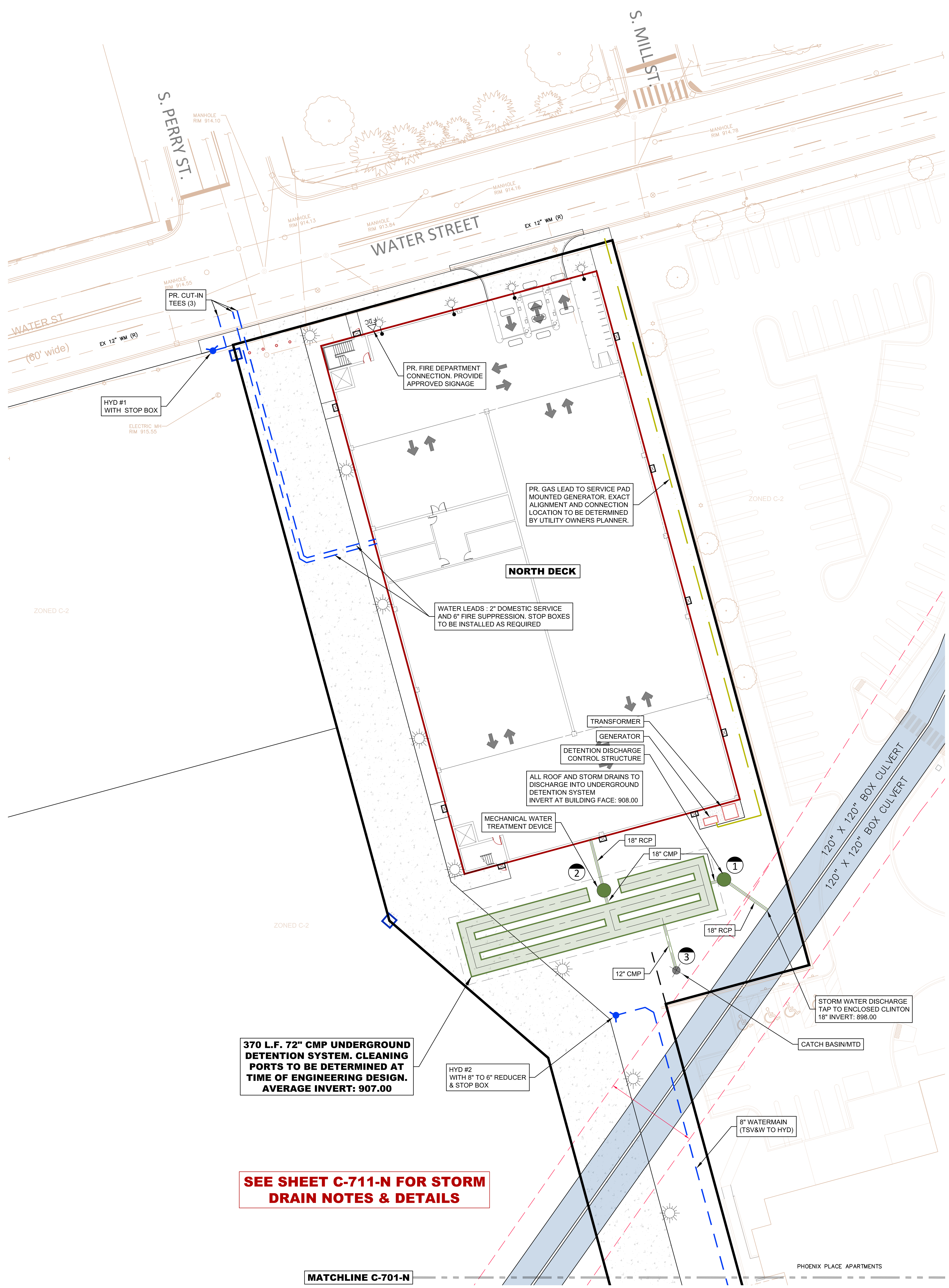

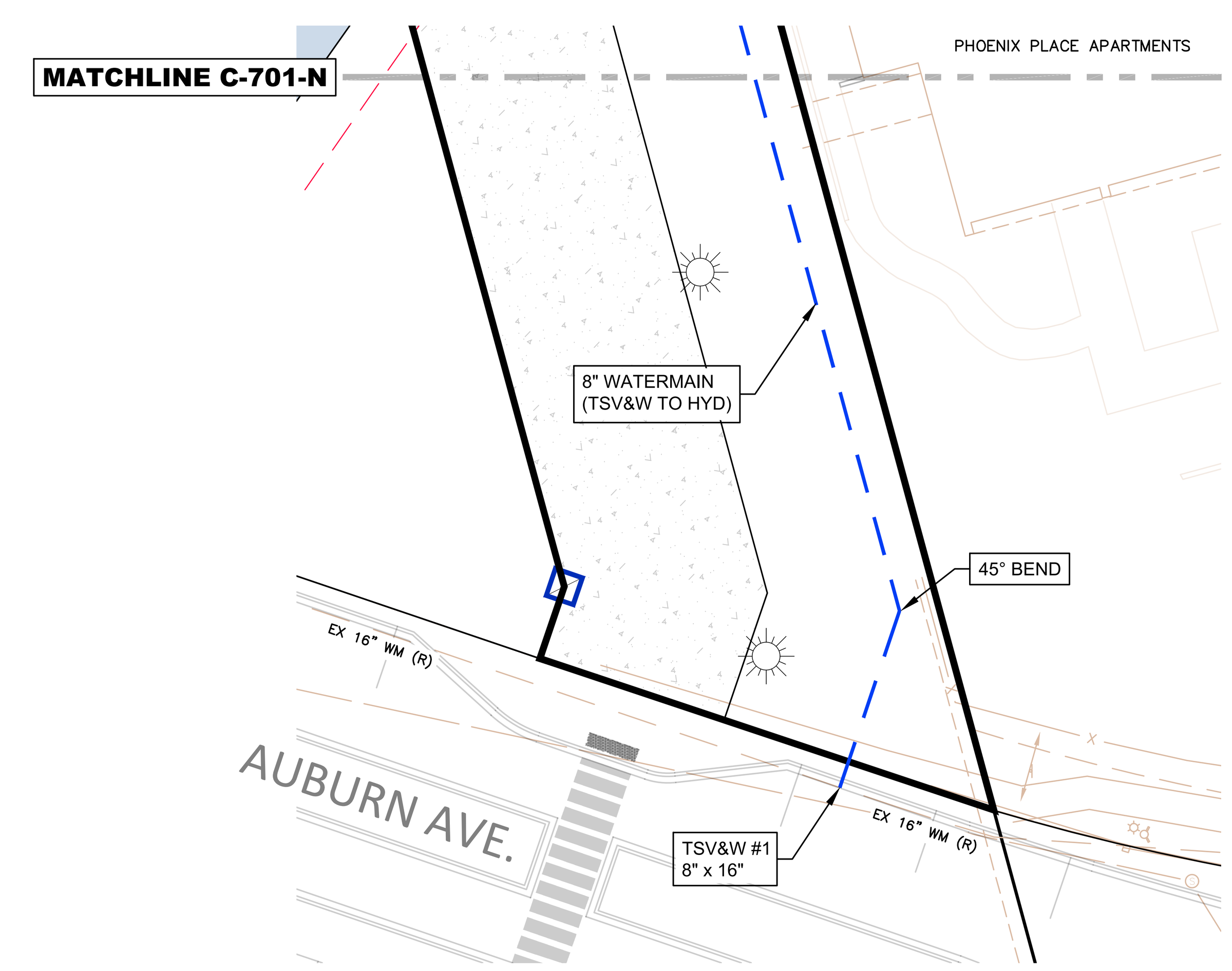

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STORMWATER DETENTION NOTE

SHOP DRAWINGS OF PROPOSED 72" DIA. CMP STORMWATER DETENTION SYSTEM SHALL BE SUBMITTED FOLLOWING APPROVAL OF LAYOUT. NO INSTALLATION OF STORMWATER DETENTION SHALL BE ALLOWED BEFORE APPROVAL OF SHOP DRAWINGS BY ENGINEER, OAKLAND COUNTY WRC AND THE CITY OF PONTIAC.

STORM SEWER NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY. THE MUNICIPALITY STANDARD NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THEIR PLANS.

ALL STORM SEWER TRENCHES UNDER OR WITHIN THREE (3) FEET OF EXISTING OR PROPOSED PAVEMENT SHOULD BE BACKFILLED WITH MDOT CLASS II MATERIAL (SAND) AND BE MACHINE COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S MAXIMUM DENSITY. PAVEMENT SHALL INCLUDE PARKING LOTS, DRIVE APPROACHES, CURB & GUTTER AND ADJACENT WALLS.

ALL STORM SEWER PIPE SHALL BE INSTALLED ON CLASS "B" BEDDING OR BETTER UNLESS OTHERWISE INDICATED ON THE PLANS.

STORM SEWER SHALL BE OF THE TYPE, SIZE & CLASS DESIGNATION INDICATED ON THE PLANS AND SHALL BE INSTALLED AT THE PROPOSED LINE AND GRADE INDICATED.

ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM SPECIFICATION C-76, CL IV.

ALL MANHOLE, CATCH BASIN, INLET, REAR YARD DRAIN FRAMES AND COVERS SHALL BE AS INDICATED ON THE PLANS IN ACCORDANCE WITH MUNICIPALITY STANDARDS.

THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

EXACT GRADES AND INVERTS OF PROPOSED STORM 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 AN/OR UTILITY CONFLICTS.

ALL STORM SEWER PIPE JOINTS SHALL BE "PREMIUM JOINT" MODIFIED GROOVED TONGUE, (M.G.T.) WITH SYNTHETIC RUBBER GASKETS CONFORMING TO ASTM SPECIFICATION C-443 & C-361 UNLESS OTHERWISE INDICATED ON THE PLANS. ALTERNATE JOINT CONNECTION MAYBE STANDARD GROOVED TONGUE WITH COLD MASTIC (DEWITT #10 JOINT COMPOUND OR EQUAL).

FACTORY MANUFACTURED PRECAST TEE SECTIONS SHALL BE USED FOR ROOF DRAINS AND/OR SUMP PUMP LEADS AND LATERALS WHERE INDICATED ON THE PLANS. BLIND TOP CONNECTIONS INTO STORM SEWER WILL NOT BE PERMITTED BY BREAKING PIPE WALL.

THE UNDERGROUND SITE CONTRACTOR SHALL INSTALL ALL STORM SEWER BUILDING LEADS TO WITHIN FIVE (5) FEET OF PROPOSED BUILDING.

GROUTED RIP RAP SHALL BE INSTALLED AT THE ENDS OF ALL CULVERTS AND END SECTIONS. GROUTED RIP RAP SHALL LIKEWISE BE INSTALLED AT OUTLET POINTS IN DETENTION AND SEDIMENTATION FACILITY. THE MINIMUM WIDTH OF THE RIP RAP SHALL BE TWICE THE OUTSIDE DIAMETER OF THE PIPE. THE RIP RAP SHALL EXTEND FROM THE BOTTOM OF THE SLOPE TO THE PIPE INVERT.

THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL SITE INSPECTION.

WATER MAIN NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY. THE MUNICIPALITY STANDARD NOTES, DETAILS AND SPECIFICATIONS SHALL BE INCORPORATED AS PART OF THESE PLANS.

WATER MAIN SHALL BE OF THE TYPE, SIZE & CLASS DESIGNATION INDICATED ON THE PLANS.

THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

THE UNDERGROUND SITE CONTRACTOR SHALL INSTALL ALL WATER MAIN BUILDING SERVICE TO WITHIN FIVE (5) FEET OF PROPOSED BUILDING.

THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL SITE INSPECTIONS.

PROPOSED WATER MAIN SHALL BE CONFORMING TO A.N.S.I./A.W.W.A. SPECIFICATION C151/A21.51, CLASS 54. DUCTILE IRON FITTINGS SHALL CONFORM TO A.N.S.I./A.W.W.A. SPECIFICATION C110/A21.10 FOR STANDARD FITTINGS OR TO A.N.S.I./A.W.W.A. SPECIFICATION C153/A21.53 FOR COMPACT FITTINGS. DUCTILE IRON PIPE AND FITTINGS SHALL HAVE A DOUBLE THICKNESS CEMENT MORTAR LINING CONFORMING TO A.N.S.I. SPECIFICATION A21.4.

JOINTS FOR DUCTILE IRON WATER MAIN SHALL BE U.S. PIPE AND FOUNDRY COMPANY "TYTON JOINT" OR APPROVED EQUAL.

ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM COVER OF SIX (6) FEET BELOW FINISH GRADE. WHEN WATER MAINS MUST DIP TO PASS UNDER A STORM SEWER OR SANITARY SEWER, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE KEPT TO A MINIMUM LENGTH BY THE USE OF VERTICAL ELEVEN AND ONE-QUARTER (11 1/4) DEGREE BENDS, PROPERLY ANCHORED.

ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OF THE FORTY-FIVE (45) DEGREE LINE OF INFLUENCE OF EXISTING OR PROPOSED PAVEMENT, SIDEWALK OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT.

HYDRANTS SHALL BE E.J.I.W. 6 BR TRAFFIC TYPE PER MUNICIPALITY STANDARDS. HYDRANT BURY SHALL BE SIX (6) FEET.

THE CONTRACTOR WILL FILL, FLUSH, DISINFECT AND PRESSURE TEST ALL NEW WATER MAIN CONSTRUCTION, IN THE PRESENCE OF THE GOVERNING MUNICIPALITY WATER DEPARTMENT.

BACTERIOLOGICAL TESTING SHALL BE PERFORMED BY THE GOVERNING MUNICIPALITY WATER DEPARTMENT.

BEFORE ANY WATER MAIN WILL BE ACCEPTED BY THE MUNICIPALITY, IT MUST PASS A PRESSURE TEST COMPLYING WITH THE CURRENT SPECIFICATIONS AND PROCEDURES OF THE MUNICIPALITY.

ALL DUCTILE IRON PIPE SHALL BE ENCASED IN POLYETHYLENE FILM CONFORMING TO A.N.S.I./A.W.W.A. SPECIFICATION A21.5/C-105, WHERE REQUIRED BY THE MUNICIPALITY.

GATE WELL COVERS SHALL BE E.J.I.W. NO. 1040 OR APPROVED EQUAL. WHERE GATE WELLS ARE LOCATED WITHIN PAVEMENT GREATER THAN SEVEN (7) INCHES THICK, THE GATE WELL COVER SHALL BE E.J.I.W. NO. 1050 OR APPROVED EQUAL.

PRELIMINARY OCWRC DETENTION CALCULATIONS

LAND USE SUMMARY TABLE

Characteristic	Existing Conditions	Proposed Conditions
Total Development Area (ac):		1.50
Impervious Area (ac):		1.05
Pervious Area (ac):		0.45
Water/Pond Area (ac):		0.00
Pervious Area Breakdown by Cover Type		
Meadow/fallow/natural areas (non-cultivated) (ac):		0.00
Predominant NRCS Soil Type		
Improved areas (turf grass, landscape, row crops) (ac):		0.45
Predominant NRCS Soil Type		
Wooded Areas (ac):		0.00
Predominant NRCS Soil Type		
Required CPVC Volume (cft):		5,450
Provided CPVC Volume (cft):		**0**
Required Extended Detention Volume (cft):		7,966
Provided Extended Volume Provided (cft):		**7,966**
The professional engineer who signs and seals this site plan certifies that the values in this table reflect the WRC stormwater calculations required for this development and that geotechnical investigations were performed that provide conclusive documentation that demonstrates whether infiltration (i.e., CPVC Volume Control) is practicable.		
Calculated Weighted C Factor:		**0.77**

REQUIRED DETENTION VOLUME CALCULATIONS

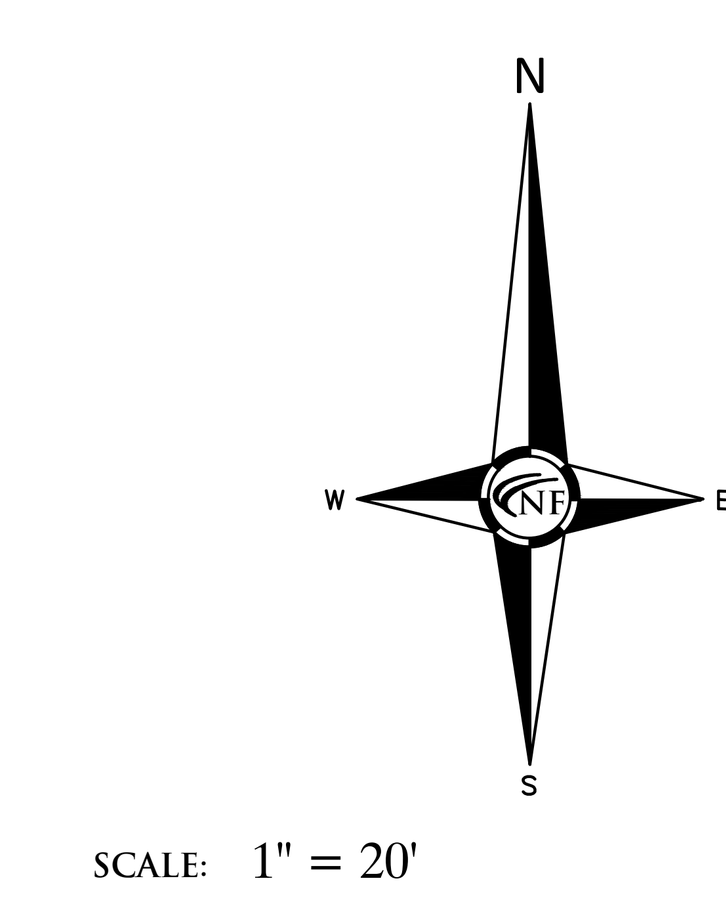
100 Year Post-Development Detention Volume

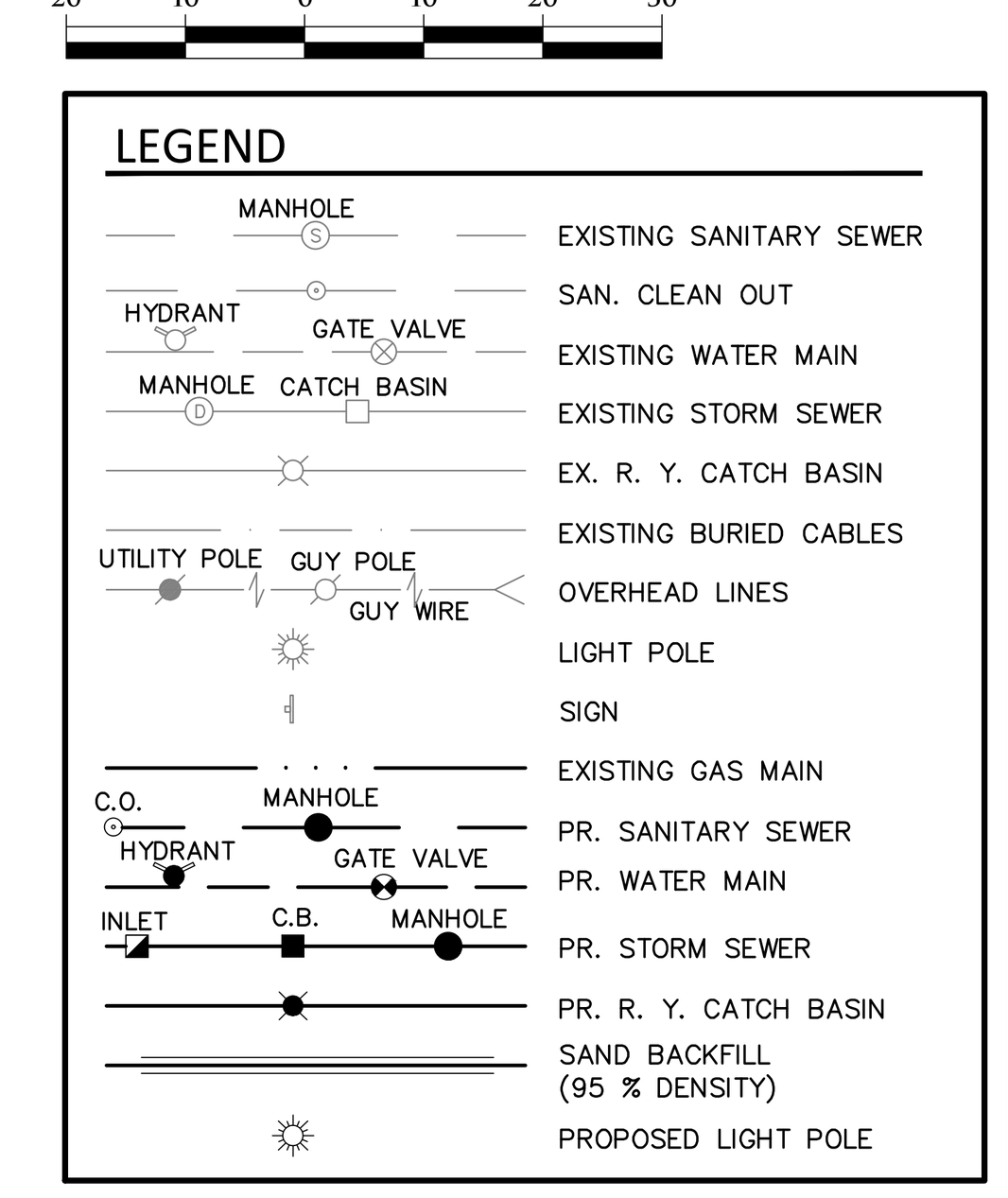
Name of Project:	**Oakland County Parking Decks North**	
Location of Project:	**Pontiac, MI**	
NFE Project No.:	**I857-05**	
Contributing Acreage "A":	1.50	*ac*
Weighted Runoff Coefficient "C":	0.77	
Time of Concentration "Tc":	10.00	*min*
1. Calculate Required Water Quality Volume (Vwq) (1" Rainfall Event)		
Vwq = 3,630(C)(A)	4,193	*cft*
2. Calculate Required Water Quality Rate (Qwq)		
Qwq = (C)(A)30.20/(Tc+9.17)^.81	3.19	*cfs*
3. Calculate Required Channel Protection Volume (Vcpvc) (1.3" Rainfall Event)		
Vcpvc = 4,719(C)(A)	5,450	*cft*
4. Calculate Required Extended Detention Volume (Ved) (1.9" Rainfall Event)		
Ved = 6,897(C)(A)	7,966	*cft*
5. Calculate Extended Detention Outlet Rate (Qed) (48 hour discharge)		
Qed = Ved / [(48 hr)(60 min)(60 sec)] = Ved/172,800	0.05	*cfs*
6. Calculate 100-year Rainfall Intensity (I100)		
I100 = 83.3/(Tc+9.17)^0.81))	7.62	*in/hr*
7. Calculate 100-year Post-Development Peak Inflow Rate (Q100-in)		
Q100-in = (C)(I100)(A)	8.80	*cfs*
8. Calculate the Allowable Release Rate (Qvrr)		
Qvrr =	1.00	*cfs/ac*
Restricted Outlet rate per local municipality	N/A	*cfs/ac*
9. Calculate Allowable 100-year Storm Outlet Rate (Q100P)		
Q100p = (Qvrr)(A)	1.50	*cfs*
10. Calculate Storage Curve Factor (R)		
R = 0.206-(0.15)(LN(Q100P/Q100-in))	0.471	
11. Calculate Required 100-year Storm Volume In (V100R)		
V100R = 18,985(C)(A)	21,928	*cft*
12. Calculate 100-year Storm Detention Storage Volume (V100D)		
V100D = (V100R)(R)	10,335	*cft*
Vcp(credit)	0	*cft*
TOTAL DETENTION VOLUME REQUIRED:	**10,335**	***cft***

PROVIDED DETENTION VOLUME CALCULATIONS

Circular Underground Detention System

PIPE STORAGE VOLUME		
Total Linear Feet of Proposed U.G. Detention Pipe	370	*ft*
Proposed Pipe Diameter	72	*in*
Proposed Pipe Cross-Sectional Area	28.27	*sft*
Total Storage Provided in Pipe	***10,461***	cft
STONE TRENCH STORAGE VOLUME		
Proposed Porous Stone Trench Width	0.00	*ft*
Proposed Porous Stone Trench Height (Above Pipe Invert)	0.00	*ft*
Cross-Sectional Area of Trench	0.00	*sft*
Subtract Pipe Cross-Sectional Area	-28.27	*sft*
Net Cross-Sectional Porous Stone Trench Area	-28.27	*sft*
Minimum Stone Trench Backfill Porosity (%)	30	*%*
Effective Storage Provided in Trench Backfill Cross-Section	-8.48	*sft*
Total Storage Provided in Porous Stone Trench		*cft*
TOTAL U.G. DETENTION VOLUME PROVIDED	**10,461**	***cft***





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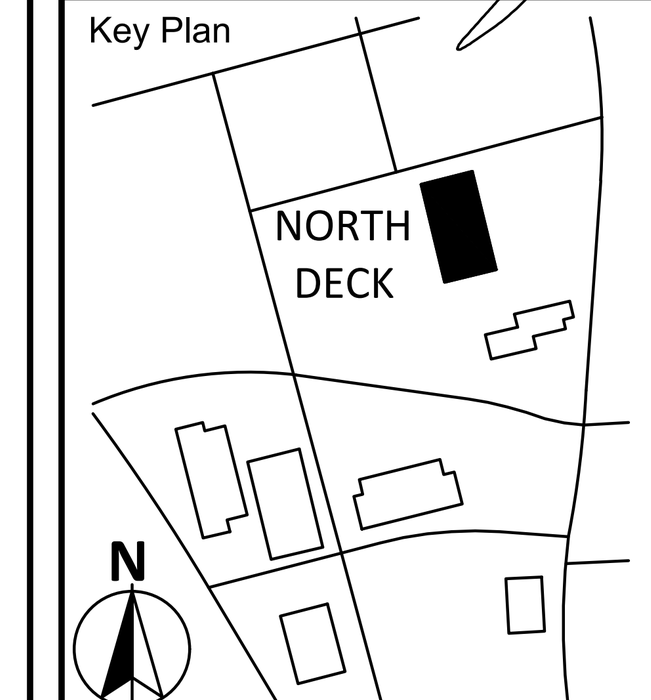
Key Plan



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APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

UTILITY PLAN - NORTH

DRAWING NO
C-701-N

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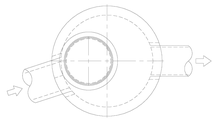
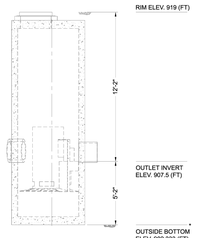
STRUCTURE #2



PLAN VIEW
(INTERNALS NOT SHOWN)
SCALE: 1"=40'



SECTION FOR PIPE ORIENTATION
(TOP SLAB NOT SHOWN)
SCALE: 1"=40'



ELEVATION VIEW
SCALE: 1"=60'

MATERIAL LIST		
COUNT	DESCRIPTION	INSTALLED BY
1	CS-5 CYLINDER INSERT, STD	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	30"Ø3 4" FRAME & COVER, EJ#41600484, OR EQUIV.	CONTRACTOR

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

* OUTSIDE TOP AND BOTTOM OF SYSTEM MAY DIFFER DEPENDING ON MANUFACTURING LOCATION.

CONTECH
DYOHDS
DRAWING

PROJECT SUMMARY

DESIGN PARAMETERS
- TREATMENT METHOD = Cascade Separator
- MODEL = CS-5

MARK	DATE	REVISION DESCRIPTION	BY

Cascade Separator CS-5
OCPD
NORTH DECK
PONTIAC,MI

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
CASCADE separator®

DATE: 09/08/2025
DESIGNED: DYO
DRAWN: DYO
CHECKED: DYO
APPROVED: DYO
PROJECT No.: 58508
DRAWING No.: 85561
SHEET: 1 OF 1

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Cascade Separator Project Details

Description

The Cascade Separator® is the latest innovation in hydrodynamic separation from Contech. The Cascade uses advanced sediment capture technology to provide the highest sediment removal efficiency of any Contech HDS product.

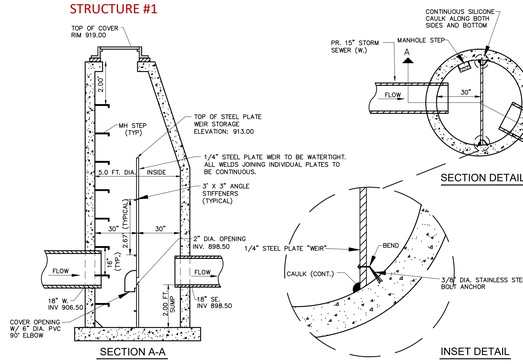
Project Information

Project Name	85561 - North Deck
Location	Pontiac, MI
Date	September 08 2025

Design Parameters	
System Type	Cascade Separator
Particle Size D50	110
System Model	CS-5
Sizing Method	Water Qlty Flow Rate
Treatment Rate	1.8ft³/sec
Peak Conveyance	3.2ft³/sec
100% Trash Capture?	No
Primary Access Casting	Solid Cover
Target Removal %	80%

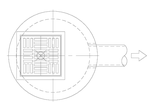
Outlet Pipe Information	
# of Pipes	1
Outlet Diameter	18 inches
Outlet Invert Elev	907.5 ft
Outlet Angle	180°
Outlet Material	CMP
Inlet Pipe Information	
# of Pipes	1
Inlet Diameter	18 inches
Inlet Invert Elev	907.5 ft
Inlet Angle	18°
Inlet Material	RCP

STRUCTURE #1

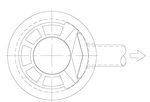


NORTH DECK - 5 FT. DIA. OUTLET CONTROL & OVERFLOW MANHOLE STRUCTURE
N.T.S.

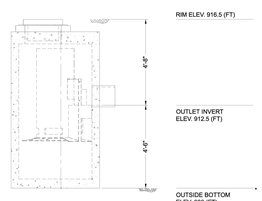
STRUCTURE #3



PLAN VIEW
(INTERNALS NOT SHOWN)
SCALE: 1"=40'



SECTION FOR PIPE ORIENTATION
(TOP SLAB NOT SHOWN)
SCALE: 1"=40'



ELEVATION VIEW
SCALE: 1"=40'

MATERIAL LIST		
COUNT	DESCRIPTION	INSTALLED BY
1	CS-4 CYLINDER INSERT, STD	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	24" x 24" FRAME & GRATE, EJ#4456240500A01, OR EQUIV.	CONTRACTOR
1	24" INLET TRAY	CONTRACTOR

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
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INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
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CONTECH
DYOHDS
DRAWING

PROJECT SUMMARY

DESIGN PARAMETERS
- TREATMENT METHOD = Cascade Separator
- MODEL = CS-4

MARK	DATE	REVISION DESCRIPTION	BY

Cascade Separator CS-4
OCPD
NORTH DECK GREEN BELT
PONTIAC,MI

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
CASCADE separator®

DATE: 09/06/2025
DESIGNED: DYO
DRAWN: DYO
CHECKED: DYO
APPROVED: DYO
PROJECT No.: 58508
DRAWING No.: 85561
SHEET: 1 OF 1

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Cascade Separator Project Details

Description

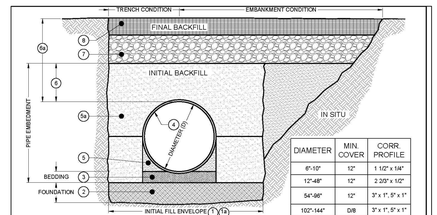
The Cascade Separator® is the latest innovation in hydrodynamic separation from Contech. The Cascade uses advanced sediment capture technology to provide the highest sediment removal efficiency of any Contech HDS product.

Project Information

Project Name	85561 - North Deck Green Belt
Location	Pontiac, MI
Date	September 07 2025

Design Parameters	
System Type	Cascade Separator
Particle Size D50	110
System Model	CS-4
Sizing Method	Water Qlty Flow Rate
Treatment Rate	1ft³/sec
Peak Conveyance	2ft³/sec
100% Trash Capture?	No
Primary Access Casting	Grate Inlet
Target Removal %	80%

Outlet Pipe Information	
# of Pipes	1
Outlet Diameter	12 inches
Outlet Invert Elev	912.5 ft
Outlet Angle	180°
Outlet Material	CMP



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

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

1 MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE.
THE MINIMUM TRENCH WIDTH: (12.8.6.1):
PIPE ≤ 12": D + 16"
PIPE > 12": 1.5D + 12"

1a MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE (12.8.6.2):
PIPE = 24": 3.00
PIPE 24" - 144": D + 4'0"
PIPE > 144": D + 10'0"

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

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

4 CORRUGATED STEEL PIPE (CSP / HEL-COR), CSP GAGE PER AASHTO SECTION 12, MDOT 2003 OR WAYNE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION.

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

5a INITIAL BACKFILL SHALL BE MDOT 2G, 3AG, OR 21AA STONE OR GRAVEL COMPACTED TO A MINIMUM OF 95% (90% MIN. REQUIRED FOR 6A AND 21AA) OF THE BACKFILL MATERIALS MAXIMUM NET WEIGHT AT MOISTURE CONTENT NOT GREATER THAN OPTIMUM (PER WAYNE COUNTY SPECIFICATION PAGE 8-208, 8 OCT 2008). MAXIMUM PARTICLE SIZE NOT TO EXCEED 3" (12.4.1.2). ALL LIFTS PLACED IN A CONTROLLED MANNER. IT IS RECOMMENDED THAT LIFTS NOT EXCEED AN 8" UNCOMPACTED LIFT HEIGHT TO PREVENT UNEVEN LOADING, AND THE LESSER OF 1/3 THE DIAMETER OR 24" AS THE MAXIMUM DIFFERENTIAL SIDE-TO-SIDE (26.5.4). NO CRUSHED CONCRETE.

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

6a TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (12.8.6.3).

7 GRANULAR ROAD BASE (MDOT 21-AA OR EQUAL)

8 RIGID OR FLEXIBLE PAVEMENT.

NOTES:
- GEOTEXTILE SHOULD BE CONSIDERED FOR USE TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT ENGINEER).
- FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE PIPE DIA./2 BUT NO LESS THAN 12", OR 36" FOR PIPE DIAMETERS 72" AND LARGER. CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING (TABLE C12.8.7-1).

TYPICAL BACKFILL DETAIL
NOT TO SCALE

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800.338.1122 513.645.7000 513.645.7993 FAX

CONTECH CMP DETENTION SYSTEMS
PROPOSAL
Attachment

TYPICAL UNDERGROUND DETENTION CROSS-SECTION/BACKFILL DETAIL
N.T.S.

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County
Parking Decks -
South Deck

Oakland County
JUDSON STREET
PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

Consultants

NF 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.NFE-ENGR.COM

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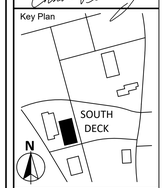
Seal

STATE OF MICHIGAN
CHAD L. FINDLEY
ENGINEER NO. 44360
LICENSED PROFESSIONAL ENGINEER

Key Plan



TAG	ISSUED	DATE
~~4~~	~~Draft Deck Project Site Plan~~	~~07/14/25~~
~~3~~	~~Schematic Design~~	~~07/18/25~~
~~2~~	~~Preliminary Site Plan Approval~~	~~08/04/25~~
~~1~~	~~60% Design Development~~	~~08/15/25~~
5	100% Design Development	09/08/25

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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

STORM DRAIN NOTES & DETAILS - NORTH

DRAWING NO
C-711-N

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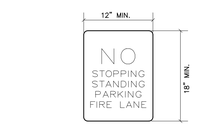
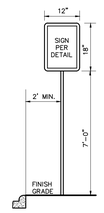


FIRE LANE SIGN DETAIL



NO PARKING SIGN DETAIL

N.T.S.

SPECIFICATIONS

METAL PANELS 0.081 INCH THICK NO. 6061–T6 ALUMINUM

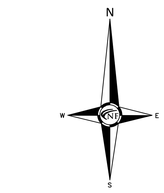
SIGN SHEET REFLECTORIZED FHWA 6.306

POST GALVANIZED SQUARE TUBING WITH CONTINUOUS 7.16 ROUND HOLES ON 1 CENTERS. ALL 4 SIDES ENTIRE LENGTH – UNISTRUT OR APPROVED EQUAL – 1–3/4 SQUARE

SIGN SPACING 100 FEET (MAX.)

FIRE DEPARTMENT NOTES

1) A "KNOX" KEY SYSTEM MAY BE REQUIRED IN A LOCATION APPROVED BY THE FIRE CODE OFFICIAL. ORDERING INFORMATION IS AVAILABLE THROUGH THE KNOWN COMPANY AT WWW.KNOXBOX.COM.
2) FIRE LANES SHALL BE DESIGNATED BY THE FIRE CODE OFFICIAL AND SHALL BE CONSPICUOUSLY POSTED ON BOTH SIDES OF THE FIRE LANE, WITH FIRE LANE SIGNS, SPACED NOT MORE THAN 100 FEET APART. FIRE LANE SIGNS SHALL READ "NO STOPPING, STANDING, PARKING, FIRE LANE" AND SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
3) CONSTRUCTION SITE SHALL BE SAFGUARDED IN ACCORDANCE WITH IFC 2015 CHAPTER 14
4) IFC 2015, SECTION 505.2 STREET OR ROAD SIGNS. STREETS AND ROADS SHALL BE IDENTIFIED WITH APPROVED SIGNS. TEMPORARY SIGNS SHALL BE INSTALLED AT EACH STREET INTERSECTION WHEN CONSTRUCTION OF NEW ROADWAYS ALLOWS PASSAGE BY VEHICLES.
5) IFC 2015, SECTION 505.1 ADDRESS IDENTIFICATION. ALL BUILDINGS UNDER CONSTRUCTION SHALL HAVE A TEMPORARY SIGN WITH THE ADDRESS VISIBLE FROM THE ROADWAY.
6) FINAL DESIGN SHALL ADHERE TO THE REQUIREMENTS OF THE IFC 2015, APPENDIX C, SECTION(s):
   *C105, DISTRIBUTION OF FIRE HYDRANTS,
   *C103.1 HYDRANT SPACING,
   *TABLE C102.1, NUMBER AND DISTRIBUTION OF FIRE HYDRANTS FOR MINIMUM NUMBER OF HYDRANTS TO THE FIRE FLOW REQUIREMENTS AND THE AVERAGE SPACING BETWEEN HYDRANTS (FEET).
   *503, AND APPENDIX D, FIRE APPARATUS ACCESS ROADS.
7) OPEN BURNING IS NOT PERMITTED, INCLUDING THE BURNING OF TRASH, DEBRIS, OR LAND CLEARING MATERIALS.



SCALE: 1" = 20'

20 10 0 10 20 30

PAVING LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- HYDRANT / GATE VALVE — EXISTING WATERMAIN
- MANHOLE / CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE / GUY POLE / GUY WIRE — EXISTING BURIED CABLES
- OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- C.O. / MANHOLE — PR. SANITARY SEWER
- HYDRANT / GATE VALVE — PR. WATER MAIN
- INLET / C.B. / MANHOLE — PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE
- PROPOSED ROOF LIGHT POLE
- PROPOSED BLUE LIGHT BOX
- PROPOSED WALL LIGHT PACK

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

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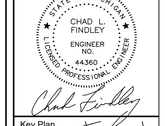
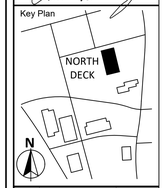


Key Plan



TAG	ISSUED	DATE
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3	Preliminary Site Plan Approval	08/04/25
4	50% Design Development	08/15/25
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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

HYDRANT LOCATION & FIRE TRUCK ACCESS - NORTH

DRAWING NO

C-801-N

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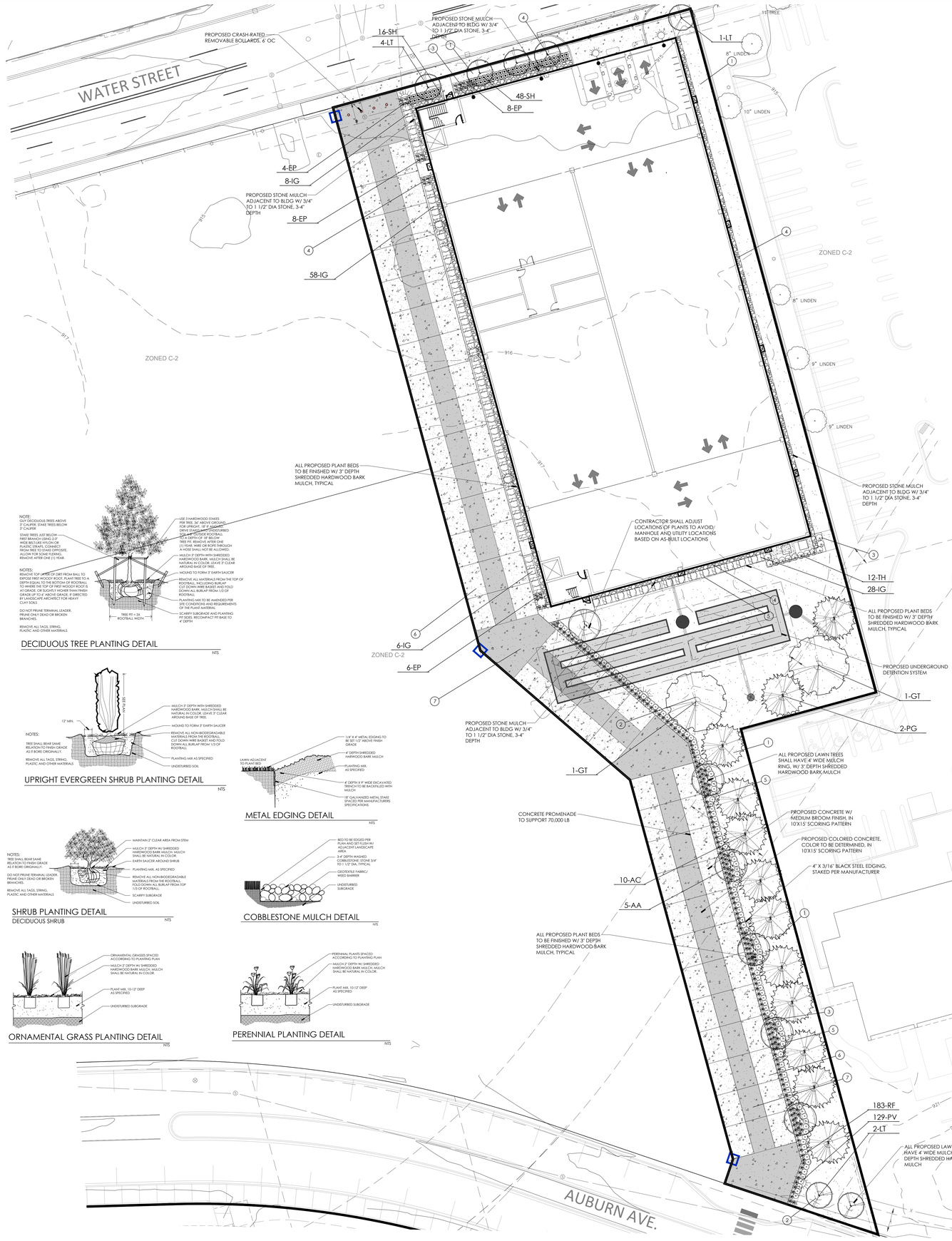


DECIDUOUS TREE PLANTING DETAIL

NTS

UPRIGHT EVERGREEN SHRUB PLANTING DETAIL

NTS

METAL EDGING DETAIL

NTS

SHRUB PLANTING DETAIL

DECIDUOUS SHRUB

NTS

COBBLESTONE MULCH DETAIL

NTS

ORNAMENTAL GRASS PLANTING DETAIL

NTS

PERENNIAL PLANTING DETAIL

NTS

GENERAL SEED NOTE:

ALL LAWN AREAS DESIGNATED TO BE SEEDED, SHALL BE SLIT-SEEDED, OR DROP-SEEDED WITH SPECIFIED BLENDS, AND STABILIZED WITH WOOD CELLULOSE FIBER MULCH (2,000 LBS PER ACRE) . IN AREAS SUBJECT TO EROSION, SEEDED LAWN SHALL BE FURTHER STABILIZED WHERE NECESSARY WITH BIODEGRADABLE EROSION BLANKET AND STAKED UNTIL ESTABLISHED. ALL SEED SHALL BE APPLIED OVER A MINIMUM 3" PREPARED TOPSOIL, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED.
SEEDING INSTALLATION SHALL OCCUR ONLY:
SPRING: APRIL1 TO JUNE1
FALL: AUGUST 15 TO OCTOBER 15

TYPICAL SEEDED LAWN MIX:

ALL LAWN AREAS DESIGNATED TO BE SEEDED, SHALL BE HYDROSEEDED WITH TYPICAL DROUGHT TOLERANT, DURABLE BLENDED SEED MIX, AT A RATE OF 4-6 LBS PER 1,000 S.F.
MIX IS COMPRISED OF
- 40% KENTUCKY BLUEGRASS
- 20% PERENNIAL RYE GRASS
- 20% CREEPING RED FESCUE
- 20% CHEWINGS FESCUE

LANDSCAPE REQUIREMENTS

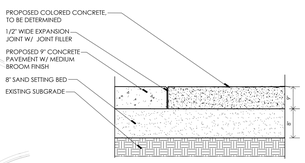
LANDSCAPE ABUTTING A R.O.W.
1 TREE PER 35 L.F. OF FRONTAGE
WATER STREET: 169.58 L.F.
REQUIRED: 169.58 L.F. / 35 L.F. = 4.8 OR 5 TREES REQUIRED
PROVIDED: 5 TREES

AUBURN ROAD: 73.95 L.F.
REQUIRED: 73.95 L.F. / 35 L.F. = 2.11 OR 2 TREES REQUIRED
PROVIDED: 2 TREES

SITE LANDSCAPE AREA
5% OF TOTAL SITE AREA SHALL BE LANDSCAPED
REQUIRED:
5% X 73,551.95 S.F. = 3,677.60 S.F.
PROVIDED: 27,321.02 S.F.

PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT
TREES						
AA	6	Acer rubrum 'Armstrong Gold' Armstrong Gold Maple	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
AC	10	Abies balsamea phanerolepis Canaan Fir	8' HT	SEE PLAN	B&B	FULL TO GROUND
GT	2	Gleditsia triacanthos 'Northern Sentinel' Northern Sentinel Honey Locust	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
LT	7	Liriodendron tulipifera 'Fastigiata' Columnar Tulip Tree	2.5" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS
PG	2	Picea glauca 'Densata' Black Hills Spruce	8' HT	SEE PLAN	B&B	FULL TO GROUND
SHRUBS						
IG	100	Ilex glabra 'Nordic' Nordic Holly	30" HT	30" OC	B&B	WELL-ROOTED
TH	12	Thuja occidentalis 'Thin Man' Full Speed A Hedge Thin Man Arborvitae	4-5' HT	3' OC	B&B	WELL-ROOTED
GROUNDCOVERS/PERENNIALS						
EP	29	Echinacea purpurea 'Cheyenne Spirit' Cheyenne Spirit Coneflower	2 GAL	24" OC	CONT	WELL-ROOTED
PV	129	Panicum virgatum 'Northwind' Northwind Switch Grass	3 GAL	30" OC	CONT	WELL-ROOTED
RF	183	Rudbeckia fulgida 'American Gold Rush' American Gold Rush Orange Coneflower	2 GAL	24" OC	CONT	WELL-ROOTED
SH	64	Sporobolus heterolepis 'Tara' Tara Prairie Dropseed	1 GAL	18" OC	CONT	WELL-ROOTED



COLORED CONCRETE W/ 6" BAND DETAIL

NTS

GROUNDCOVER LEGEND

- SEEDED LAWN
- CONCRETE PAVEMENT
- COLORED CONCRETE PAVEMENT

GENERAL LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED WORK PRIOR TO BIDDING. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN QUANTITIES. CONTACT THE LANDSCAPE ARCHITECT WITH ANY CONCERNS.
2. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON-SITE UTILITIES PRIOR TO CONSTRUCTION ON HIS/HER PHASE OF WORK. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES, AND SHALL REPORT ANY UNACCEPTACBLE SITE CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
4. PLANTS SHALL BE FULL, WELL-BRANCHED, AND IN HEALTHY VIGOROUS CONDITION AT ALL TIMES.
5. PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
6. ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) YEAR FOLLOWING PLANTING.
7. ALL PLANTING SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST CURRENT EDITION OF THE "AMERICAN STANDARDS FOR NURSERY STOCK".
8. CONTRACTOR WILL SUPPLY FINISHED GRADE AND EXCAVATE AS NECESSARY TO SUPPLY PLANT MIX DEPTH IN ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS AND A DEPTH OF 3" IN ALL LAWN AREAS.
9. PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKPILED ON-SITE. SOIL SHALL BE SCREENED AND FREE OF DEBRIS, FOREIGN MATERIAL, AND STONE.
10. FERTILIZER SHALL BE APPLIED AT THE TIME OF PLANTING AND AFTER BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURERS RECOMMENDED RATES.
11. AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF: 1/3 SCREENED TOPSOIL, 1/3 SAND, AND 1/3 COMPOSTED MANURE (DAIRY DOO OR EQUAL), MIXED WELL AND SPREAD TO A DEPTH OF 6" IN ALL PLANTING BEDS.
12. PLANTING BEDS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK, SPREAD TO A DEPTH OF 3" FOR TREES AND SHRUBS, AND 2" ON ANNUALS, PERENNIALS, AND GROUNDCOVER PLANTINGS. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND PIECES ON INCONSISTENT SIZE.
13. NO SUBSTITUTIONS OR CHANGES OF LOCATION, OR PLANT TYPE SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE.
14. THE PLANS SHALL TAKE PRECEDENCE OVER QUANTITIES AND DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.
15. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.
16. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS.
17. THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH OR SOD (AS INDICATED ON PLANS) ALL AREAS DESIGNATED AS SUCH ON THE PLANS, THROUGHOUT THE CONTRACT LIMITS. FURTHER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING AREAS DISTURBED DURING CONSTRUCTION, NOT IN THE CONTRACT LIMITS, TO EQUAL OR GREATER CONDITION.
18. ALL PLANTING BEDS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESSIVE WATER FROM PONDING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
19. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND SYSTEM.

KEY LEGEND

1. TYPICAL SEED LAWN AREAS, SOWN ON 3" TOPSOIL
2. 4" DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH
3. 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH
4. 3/4" - 1 1/2" STONE MULCH, 3-4" DEPTH ON WEED BARRIER
5. 3/16" X 4" BLACK STEEL EDGING STAKED PER MANUFACTURER
6. BROOM FINISHED CONCRETE PAVING
7. COLORED CONCRETE PAVING

GENERAL MAINTENANCE SCHEDULE

TASK	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.	OCT.	NOV.	DEC.
CARE OF PLANTS												
Monitoring												
Pruning (if needed)												
Cut back perennials and grasses												
Deadhead plants as necessary												
Fertilization				perennials							shrubs	
Watering (as needed)												
PLANTING BED CARE												
Leaf removal, bed cleanup												
Edging												
Weeding, as needed												
Mulching												
Soil testing, as necessary												
Inspect irrigation heads, adjust as necessary												
PEST MANAGEMENT												
Monitoring, pesticide application as necessary												
LAWN CARE												
Fertilize												
Overseeding, as necessary												
Monthly inspections of entire irrigation system.												
WINTERIZATION AND CLEAN UP												
Winterize irrigation system												
Administration of snow plowing contract												

SCALE: 1" = 20'

20 10 0 10 20 30

Project Title

Oakland County Parking Decks - North Deck

Oakland County
WATER ST PONTIAC, PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

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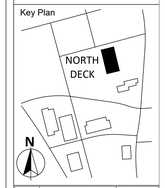
811 Know what's below Call before you dig.

Seal

Key Plan



TAG	ISSUED	DATE
~~1~~	~~Draft Deck Project Site Plan~~	~~07/14/25~~
~~2~~	~~Schematic Design~~	~~07/16/25~~
3	Preliminary Site Plan Approval	08/04/25
4	50% Design Development	08/15/25
5	100% Design Development	09/08/25

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DRAWN BY: J. Kujawa/ DKM
PROJECT MNGR: J. Klinkenberger
APPROVED BY: C. Findley

NFE PROJECT NO: I857-05

LANDSCAPE PLAN
PLAN - NORTH

DRAWING NO

L-101-N

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GENERAL NOTES

1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2021 MICHIGAN BUILDING CODE BUILDING CODE.
   THE FOLLOWING STANDARDS WERE USED AS SPECIFIED IN THE GOVERNING BUILDING CODE:
   a. ASCE 7-16 MINIMUM DESIGN LOADS (AND ASSOCIATED CRITERIA) FOR BUILDINGS AND OTHER STRUCTURES
   b. ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   c. TMS 402/602-16 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES
   d. AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
3. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER OF RECORD FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
4. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL. CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF ANY CONFLICTS FOR GUIDANCE.

SHALLOW FOUNDATIONS

1. THE GEOTECHNICAL INVESTIGATION IS CURRENTLY ONGOING AND A FINAL REPORT HAS NOT BEEN PRODUCED AS OF THE ISSUANCE OF THESE DRAWINGS. THE SHALLOW FOUNDATIONS SHOWN IN THESE DOCUMENTS ARE DESIGNED BASED ON AN ASSUMED BEARING CAPACITY OF 2,000 PSF WHICH IS BASED ON THE TESTING ENGINEERS & CONSULTANTS, INC. (TEC) EMAIL FORWARDED TO TYLIN BY Framework E ON JULY 28, 2025.
2. DO NOT PLACE BACKFILL AGAINST BASEMENT WALLS UNTIL ALL FLOORS BRACING THESE WALLS ARE IN PLACE AND HAVE ATTAINED THEIR 28 DAY STRENGTH.
3. ALL EXTERIOR FOOTINGS SHALL BE PLACED A MINIMUM OF 3'-6" BELOW FINAL GRADE.
4. CONCRETE SHALL BE POURED IN DRY EXCAVATIONS. CONTRACTOR SHALL NOTE SOIL AND WATER CONDITIONS AS SHOWN BY BORINGS INCLUDED IN THE REFERENCED GEOTECHNICAL SUBSURFACE INVESTIGATION REPORT(S) AND DEPTHS OF FOOTING AS SHOWN ON FOUNDATION PLANS.

DEEP FOUNDATIONS

1. BOTH PARKING DECKS ARE TO BE SUPPORTED ON DRILLED STRAIGHT SHAFT PIERS BASED ON THE RECOMMENDATION OF TEC REPORT 65092 "PROPOSED SOUTH PARKING DECK STRUCTURE PHOENIX CENTER REPLACEMENT" DATED AUGUST 25, 2025.
   A. NORTH DECK: THE GEOTECHNICAL INVESTIGATION IS CURRENTLY ONGOING AND A FINAL REPORT HAS NOT BEEN PRODUCED AS OF THE ISSUANCE OF THESE DRAWINGS. HOWEVER PRELIMINARY RESULTS INDICATE THAT THE CONDITIONS ARE SIMILAR TO THAT FOUND AT THE SOUTH DECK.
   B. SOUTH DECK: THE PIERS SHOWN IN THESE DOCUMENTS SHALL BEAR DIRECTLY ON THE HARDPAN LAYER AND HAVE AN END BEARING CAPACITY OF AT LEAST 60,000 PSF. IT IS ANTICIPATED THAT THE ADEQUATE BEARING STRATUM IS THE HARDPAN LAYER APPROXIMATELY 25 FT BELOW THE FIRST FLOOR ELEVATION
2. DO NOT PLACE BACKFILL AGAINST FOUNDATION WALLS UNTIL ALL FLOORS BRACING THESE ARE IN PLACE AND HAVE ATTAINED THEIR 28-DAY STRENGTH.
3. CONCRETE SHALL BE POURED IN DRY EXCAVATIONS. CONTRACTOR SHALL NOTE SOIL AND WATER CONDITIONS AS SHOWN BY BORINGS INCLUDED IN THE REFERENCED GEOTECHNICAL SUBSURFACE INVESTIGATION REPORT(S) AND DEPTHS OF FOOTING AS SHOWN ON FOUNDATION PLANS.
4. CONTRACTOR SHALL REFERENCE DEEP FOUNDATION SPECS PROVIDED BY GEOTECHNICAL ENGINEER FOR ALL CONTRACT OBLIGATIONS RELATED TO PILE PROCUREMENT, DESIGN AND INSTALLATION.
5. CONTRACTOR SHALL EXAMINE THE SITE AND BORING LOGS AS WELL AS ALL AVAILABLE SUBSURFACE INFORMATION. THE CONTRACTOR SHALL, ON HIS/HER OWN JUDGMENT, ORDER THE APPROPRIATE LENGTH OF PILE TO OBTAIN THE REQUIRED MINIMUM LENGTH AND CAPACITY AS OUTLINED IN THE GEOTECHNICAL REPORT.
6. A PILE IDENTIFICATION PLAN WITH ALL PILES NUMBERED CHRONOLOGICALLY SHALL BE PREPARED BY THE CONTRACTOR AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
7. PILES SHALL BE INSTALLED TO OBTAIN THE DESIGN PILE CAPACITIES SET FORTH IN THE CONTRACT DOCUMENTS, AND IN ACCORDANCE WITH CRITERIA ESTABLISHED BY APPROVED LOAD TEST(S) AS DOCUMENTED AND FILED WITH THE BUILDING DEPARTMENT. THE LOAD TEST(S) SHALL BE DIRECTED BY A LICENSED PROFESSIONAL ENGINEER WHO SHALL CERTIFY THE PILES AND INSTALLATION PROCEDURE AND TESTING.
8. NO PILE SHALL BE MORE THAN 3" FROM ITS DESIGN LOCATION. THE ABOVE TOLERANCE SHALL BE APPLIED AT PILE CUT-OFF ELEVATION.
9. AN AS-BUILT SURVEY AND DRAWING SHALL BE PREPARED OF THE LOCATION OF EACH PILE AS INSTALLED, AND TOGETHER WITH THE PILE LOG SHALL BE SUBMITTED TO THE ENGINEER FOR DETERMINATION OF CORRECTIVE MEASURES OR FOR APPROVAL. CUT-OFF ELEVATION SHALL ALSO BE INDICATED FOR EACH PILE. THE DRAWING SHALL BE SIGNED AND SEALED BY A LICENSED SURVEYOR HIRED BY THE CONTRACTOR. ADDITIONAL FOUNDATION STRUCTURES MAY BE REQUIRED AS A CORRECTIVE MEASURE WHERE PILES ARE INSTALLED WITH DEVIATION MORE THAT 3" FROM ITS DESIGN LOCATION, OR ANY OTHER DEVIATION EXCEEDING THE PILE SPECIFICATION.
10. CONTRACTOR SHALL REFERENCE SOE DRAWINGS PROVIDED BY GEOTECHNICAL ENGINEER FOR ALL REQUIRED SUPPORT OF EXCAVATION WORK. COORDINATE PILE INSTALLATION PROCESS (MEANS & METHODS, RIG CLEARANCES, ACCESS, ETC.) AND PILE LOCATIONS WITH SOE AND NOTIFY ENGINEER OF RECORD OF ANY CONFLICTS.

CONCRETE

1. CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   A. AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR CONCRETE" (ACI 318)
   B. ACI COLLECTION, LATEST EDITION
   C. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE"
2. ALL OTHER CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL SUBMIT A PROJECT-SPECIFIC SIGNED AND SEALED CONCRETE MIX DESIGN FOR EACH CONCRETE TYPE SPECIFIED IN THE CONTRACT DOCUMENTS. WHERE 033000 SPECIFICATIONS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS, REFER TO THAT SPECIFICATION SECTION FOR BALANCE OF MIX DESIGN REQUIREMENTS (AGGREGATES, ADMIXTURES, W/C RATIO, AIR CONTENT, ETC.)
4. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60, EPOXY COATED WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT" (ACI 315).
5. REINFORCING STEEL TO BE WELDED TO CONFORM TO ASTM A706 GRADE 60.
6. WELDED WIRE REINFORCEMENT (W.W.R.) SHALL CONFORM TO ASTM A1064, WITH A MINIMUM YIELD STRENGTH OF 65,000 PSI.
7. COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND PIPE SLEEVES WITH ALL OTHER DISCIPLINES. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6".
8. GENERAL CONTRACTOR SHALL PROVIDE COORDINATED MEP TRADE SUBMITTALS FOR DESIGN TEAM REVIEW OF PENETRATIONS. ALL TRADES SHALL BE OVERLAID INTO ONE SUBMITTAL TO CAPTURE AND EVALUATE ALL PENETRATIONS THROUGH SLABS AND WALLS TOGETHER.
9. ALL GROUT SHALL BE NONSHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI.
10. MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE NON-PRESTRESSED MEMBERS SHALL BE AS FOLLOWS:
    A. ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 3"
    B. ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
       a. 2" (#6 THROUGH #18 BARS)
       b. 1-1/2" (#5 BAR, W31 OR D31 WIRE, AND SMALLER)
11. SHOP DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO CONCRETE WORK SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
12. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE PRIOR TO PLACEMENT.
13. SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, INSERTS, AND EMBED ITEMS.
14. REINFORCING DOWELS, WATER STOPS, AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED PRIOR TO CONCRETE PLACEMENT. "WET-SETTING" OF EMBEDDED ITEMS IS NOT PERMITTED.
15. WELDED WIRE REINFORCEMENT IN COMPOSITE CONSTRUCTION SHALL HAVE TENSION SPLICES AND BE ANCHORED AT DISCONTINUOUS EDGES, AND SHALL NOT BE SUBSTITUTED WITH ALTERNATIVE MATERIALS INCLUDING BUT NOT LIMITED TO FIBERS.
16. WHERE REBAR CONGESTION DICTATES, LAP SPLICES SHALL BE STAGGERED IN ACCORDANCE WITH ACI REINFORCEMENT DETAILING REQUIREMENTS. ALTERNATIVELY, MECHANICAL SPLICES MAY BE EMPLOYED, AT THE CONTRACTOR'S OPTION AND EXPENSE, PROVIDED THEY ARE STAGGERED TO MAINTAIN MINIMUM SPACING AND COVER PER ACI REINFORCEMENT DETAILING REQUIREMENTS.

CONCRETE BLOCK

1. ALL CONCRETE BLOCK WORK SHALL CONFORM TO THE "NATIONAL CONCRETE MASONRY ASSOCIATION TEK MANUAL FOR THE DESIGN AND CONSTRUCTION OF CONCRETE MASONRY", LATEST EDITION, AND "ACI 530-BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".
2. CONCRETE BLOCK SHALL BE OF LIGHTWEIGHT AGGREGATE AND CONFORM TO THE FOLLOWING STANDARDS: HOLLOW BLOCK: ASTM C90.

NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNIT (PSI)	NET AREA COMPRESSIVE STRENGTH OF MASONRY ASSEMBLY, F'm (PSI) USING TYPE S MORTAR
2000	2000
3250	2500
3900	2750
4500	3000

   UNLESS OTHERWISE NOTED ON PLANS AND/OR ELEVATIONS, CONCRETE BLOCK UNIT STRENGTH SHALL BE 2000 PSI MIN. (NOTE: CONCRETE BLOCK WITH UNIT STRENGTH HIGHER THAN 2000 PSI GENERALLY REQUIRES LONGER DELIVERY LEAD TIMES.)
3. ALL MORTAR SHALL BE ASTM C270, TYPE S.
4. ALL GROUT FOR FILLING CELLS SHALL BE ASTM C 476 WITH MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI BUT NOT LESS THAN THE COMPRESSIVE STRENGTH OF THE MASONRY ASSEMBLY, F'm. WHERE GROUT CELLS DO NOT EXCEED 4" IN DIAMETER FINE GROUT SHALL BE USED.
5. ALL BLOCK DIMENSIONS INDICATED ON STRUCTURAL PLANS ARE NOMINAL DIMENSIONS. DESIGN OF WALL REINFORCING ASSUMES CONCRETE MASONRY UNITS THAT ARE 16" LONG AND HAVE TWO CORES/CELLS, RESULTING IN A NOMINAL BAR SPACING OF 8" ON CENTER.
6. ALL CONCRETE BLOCK BELOW GRADE SHALL BE FILLED SOLID WITH GROUT.
7. CONCRETE BLOCK BELOW BEAM OR TRUSS BEARING POINTS SHALL BE FILLED SOLID FOR A MINIMUM OF TWO COURSES IN DEPTH AND A MINIMUM OF 32" IN WIDTH, UNLESS NOTED OTHERWISE.
8. INSTALL STANDARD WEIGHT LADDER-TYPE JOINT REINFORCEMENT AT 16" ON CENTER (SPACED VERTICALLY).
9. UNLESS NOTED OTHERWISE ALL MASONRY WALLS SHALL BE REINFORCED WITH #4@48" ON CENTER VERTICAL. GROUT ALL REINFORCED CELLS SOLID. PROVIDE DOWELS TO MATCH VERTICAL REINFORCING AT FOUNDATION.
10. PROVIDE CONTINUOUS BOND BEAM WITH 2-#5 CONTINUOUS MINIMUM AT TOPMOST COURSE OF EACH FLOOR LEVEL AND AT ALL TOP OF PARAPET CONDITIONS, TYPICAL THROUGHOUT.
11. ALL CMU WALLS (STRUCTURAL AND NON-STRUCTURAL) SHALL BE PERMANENTLY BRACED TO FLOOR SLABS OR SPANDREL BEAMS AT EACH FLOOR LEVEL. SEE TYPICAL DETAILS FOR BALANCE OF INFORMATION. IF BRACING DETAILS NOT SHOWN, CONTRACTOR TO PROVIDE PREFERRED DETAIL FOR EOR REVIEW.
12. WHERE CMU IS SUPPORTED ON STRUCTURAL STEEL MEMBERS, PROVIDE WELDABLE REBAR COUPLERS CONNECTED TO TOP FLANGE OF STEEL BEAM. DOWELS TO MATCH SIZE AND SPACING OF CMU REINFORCEMENT. DOWELS MUST PROVIDE FULL TENSION LAP SPLICE WITH CMU REINFORCEMENT.
13. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL LOAD BEARING CMU INCLUDING REINFORCING STEEL LAYOUT. WORK ON LOAD BEARING CMU SHALL NOT COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
14. CONTRACTOR SHALL PROVIDE SUBMITTALS FOR MATERIAL PROPERTIES, MORTAR AND GROUT MIX DESIGNS, HORIZONTAL REINFORCEMENT PRODUCT, AND MASONRY ACCESSORIES.

PRECAST CONCRETE PLANK

1. ALL PRECAST CONCRETE PLANK WORK SHALL CONFORM TO THE "PCI DESIGN HANDBOOK".
2. PRECAST CONCRETE PLANK MANUFACTURER SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION WHO SHALL CERTIFY TO THE ARCHITECT AND ENGINEER AND ASSUME RESPONSIBILITY AS FOLLOWS:
   A. THE DESIGN OF THE PLANKS IS SAFE FOR THE LOADS SPECIFIED IN THE LOADING SCHEDULE.
   B. THE STRENGTH OF THE CONCRETE IS AS CALLED FOR IN THE DESIGN SUBMITTED.
   C. THE PLANK WAS FABRICATED IN ACCORDANCE WITH THE DESIGN PRACTICE.
   D. THE PLANK WAS ERECTED IN ACCORDANCE WITH THE DESIGN AS WELL AS ACCEPTABLE STANDARDS OF CONCRETE AND ENGINEERING PRACTICE.
3. PRECAST CONCRETE PLANK MANUFACTURER SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS AND CALCULATIONS TO MAINTAIN BUILDING ALIGNMENT AND TO SUSTAIN LOCAL CONSTRUCTION LOADS WITHOUT DISTORTION OR SEPARATION, MAXIMUM SPACING SHALL BE 3'-0" BETWEEN SUPPORT BEAMS. END LAPS OF SHEETS SHALL BE A MINIMUM OF 2 INCHES.
4. ALL OPENINGS IN THE PLANK MUST BE SHOP DETAILED FIRST. PLANK PARALLEL AND ADJACENT TO THE OUTSIDE WALL SHALL BE FULL WIDTH.
5. GROUTING OF PLANK KEYS AND UNDER BEARING WALLS ABOVE SHALL BE NON SHRINK, NONMETALLIC GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS. GROUT BEFORE BEARING WALLS ABOVE ARE STARTED.
6. THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE USED FOR PRECAST CONCRETE PLANK SHALL BE 5,000 PSI AT 28 DAYS AND MADE AND TESTED AS PER ASTM C31 AND C39. INSPECTION AND CONCRETE REPORTS SHALL BE FILED WITH THE LOCAL DEPARTMENT OF BUILDINGS.
7. TESTING AND PRODUCT VERIFICATION SHALL BE AVAILABLE FOR DISTRIBUTION.
8. OPENINGS AND INSERTS IN PLANK REQUIRED BY FIELD CONDITIONS SHALL BE APPROVED BY PLANK MANUFACTURER.
9. ALL BEARING PADS TO BE KOROLATH. MASONITE BEARING PADS SHALL NOT BE USED.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   A. AISC 360 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS".
   B. AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
   C. AMERICAN WELDING SOCIETY (AWS D1.1) "STRUCTURAL WELDING CODE - STEEL".
   D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
   A. WIDE FLANGE BEAMS, COLUMNS, AND STRUCTURAL TEES: ASTM A992.
   B. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C.
   C. STRUCTURAL PIPE SECTIONS: ASTM A53, GRADE B.
   D. CHANNELS, ANGLES, AND PLATES: ASTM A36 UNLESS OTHERWISE NOTED.
   E. BOLTED CONNECTIONS SHALL BE PER ASTM F3125, GRADES ARE TO BE SELECTED AS FOLLOWS:
      a. STANDARD BEAM TO BEAM/GIRDER: ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN SNUG-TIGHTENED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
      b. BEAM/GIRDER TO COLUMN CONNECTIONS, COLUMN SPLICES AND BOLTS EXPERIENCING TENSION LOADS (UNLESS OVERSIZED OR SLOTTED HOLES ARE USED, IN WHICH CASE SLIP-CRITICAL JOINTS SHALL BE USED): ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN PRETENSIONED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
      c. MOMENT CONNECTIONS AND BRACED FRAME CONNECTIONS: ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN SLIP CRITICAL JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS). FAYING SURFACES SHALL BE CLASS A UNLESS OTHERWISE NOTED.
   F. ANCHOR RODS: ASTM F1554, GRADE 36.
   G. STRUCTURAL STEEL NOTED TO BE STAINLESS STEEL SHALL BE ASTM A276 STAINLESS STEEL TYPE 316L [304L], UNLESS NOTED OTHERWISE.
   H. ALL STAINLESS STEEL BOLTS SHALL CONFORM TO ASTM F593 GRADE B8/B8M FOR TYPE 304/316, RESPECTIVELY, TO MATCH MATERIAL JOINED.
   I. ALL STAINLESS STEEL NUTS SHALL CONFORM TO ASTM F594 GRADE 8/8M FOR TYPE 304/316, RESPECTIVELY, TO MATCH BOLT MATERIAL.
3. STEEL CONNECTIONS SHALL BE STANDARD AISC FRAMED BEAM CONNECTIONS, AND SHALL BE DESIGNED BY LICENSED ENGINEER WORKING FOR THE FABRICATOR, WHO SHALL PROVIDE CALCULATIONS, UTILIZING LRFD LOADS AND PROCEDURES.
   A. WHERE CONNECTIONS HAVE BEEN DESIGNED BY A LICENSED ENGINEER, STEEL CONTRACTOR IS RESPONSIBLE FOR INTEGRATING RESULTS OF ALL CALCULATIONS INTO THE SHOP DRAWINGS.
   B. UNLESS OTHERWISE NOTED ON PLAN, PROVIDE CONNECTIONS BASED ON MINIMUM SHEAR CAPACITY REQUIREMENTS IN THE FOLLOWING TABLE WHICH ARE BASED ON AISC SINGLE SHEAR TAB CONNECTIONS.

MINIMUM SHEAR CAPACITY REQUIREMENTS

BEAM DEPTH (NOMINAL)	MIN. SHEAR CAPACITY ASD (Kips)	MIN. SHEAR CAPACITY LRFD (Kips)	MIN. NUMBER OF BOLT ROWS
8", 10"	16	24	2
12", 14"	28	42	3
16"	40	62	3
18"	52	78	4
21"	58	88	4
24"	60	90	5
27"	72	108	6
30"	84	126	7
33"	94	142	7
36"	102	155	8
40"+	110	165	9

   B. REINFORCING IS TO BE PROVIDED AT CONNECTIONS WHERE CUTS REDUCE THE SHEAR OR MOMENT CAPACITY BELOW THAT REQUIRED TO SUSTAIN THE REACTION. FLANGES AND WEBS ARE TO BE REINFORCED WHERE THE LOCAL CAPACITY TO SUSTAIN CONNECTION LOADS ARE INADEQUATE. CUTS OR COPES MAY PREVENT MINIMUM NUMBER OF BOLT ROWS SHOWN ABOVE FROM BEING ACHIEVED, WHICH IS ACCEPTABLE PENDING WRITTEN APPROVAL AND CONFIRMATION THAT MINIMUM SHEAR CAPACITY HAS BEEN MET.
   C. CONNECTIONS SHALL BE DESIGNED FOR SHEAR AND ECCENTRICITY, CONSIDERING THAT THE CONNECTIONS ARE AN EXTENSION OF THE BEAMS AND GIRDERS.
4. MINIMUM WELD SIZE IS 1/4" FILLET UNLESS NOTED OTHERWISE.
5. ALL BEAMS EXCEPT CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED WITH NATURAL CAMBER UP. CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED SO THAT NATURAL CAMBER RAISES CANTILEVER END.
6. FIELD CUTTING OR BURNING OF STEEL IS PROHIBITED EXCEPT WITH THE EXPRESS WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD (IN WHICH CASE ALL BURNING OF STEEL MUST CONFORM TO THE THERMAL CUTTING REQUIREMENTS OF AISC AND AWS).
7. WELDING SHALL BE PERFORMED BY CERTIFIED, AWS-QUALIFIED WELDERS. WELDING ELECTRODES FOR CARBON STEEL SHALL BE AWS 5.1, CLASS E70XX. FOR ASTM A572 GRADE 50 KSI PLATE USE ELECTRODE E7018 OR APPROVED EQUAL. WELDING ELECTRODES FOR ASTM A276 STAINLESS STEEL, TYPE 304, SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E308; OR AWS A5.9 FOR GAS METAL ARC WELDING, ELECTRODE CLASS ER308. WELDING ELECTRODES FOR ASTM A276 TYPE 316L STAINLESS STEEL SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E316; OR AWS A5.9 FOR GAS METAL ARC WELDING, ELECTRODE CLASS ER316. WELDING ELECTRODES FOR JOINING STAINLESS STEEL TO CARBON STEEL SHALL CONFORM TO ELECTRODE CLASS E309/ER309.
8. SHOP PAINT EXPOSED STEEL MEMBERS, STEEL MEMBERS NOT ENCASED IN CONCRETE OR SPRAY FIREPROOFED, AND ALL STEEL MEMBERS AT THE EXTERIOR WALL WITH TNEMEC V10-99 OR APPROVED EQUAL EXCEPT FOR MEMBERS TO BE HOT DIPPED GALVANIZED.
9. ALL EXTERIOR EXPOSED STEEL AND STEEL SUPPORTING EXTERIOR SHALL BE HOT DIPPED GALVANIZED. HOT DIP GALVANIZING SHALL CONFORM TO ASTM A123, REPAIR SCRATCHES OR ABRADED GALVANIZED SURFACE WITH ZINC RICH PAINT.
10. LINTELS SHALL BE INSTALLED OVER ALL OPENINGS IN MASONRY WALLS AS FOLLOWS:

MASONRY OPENING	LINTEL
4' - 0" OR LESS	L4x3-1/2x5/16 LLV
4' - 1" TO 7' - 0"	L6x3-1/2x5/16 LLV

    A. 3-1/2" LEGS ARE HORIZONTAL.
    B. PROVIDE ONE ANGLE FOR EACH 4" OF WALL THICKNESS.
    C. PROVIDE L5x5x5/16 ANGLES FOR 6" THICK WALLS AND PARTITIONS WITH OPENINGS UP TO 6' - 0".
    D. PROVIDE MINIMUM 6" BEARING AT EACH END.
    E. LINTELS OVER 6' - 4" SHALL BE FIREPROOFED.
12. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
13. SHOP DRAWING SUBMITTALS SHALL FOLLOW THE FOLLOWING SEQUENCE (WITH EACH NOT BEING SUBMITTED UNTIL THE PREVIOUS ONE IS APPROVED):
    A. JOB STANDARDS (BASIS OF DESIGN AND REPRESENTATIVE CALCULATIONS FOR VARIOUS CONNECTION TYPES)
    B. ERECTION PLANS
    C. PIECE DETAILS AND PIECE-SPECIFIC CONNECTION CALCULATIONS
14. PROVIDE MECHANICALLY GALVANIZED BOLTS FOR EXTERIOR APPLICATIONS.
15. ALL STEEL COLUMN SPLICES AND STEEL CONNECTIONS MUST MEET THE REQUIREMENTS OF SECTION 1615/1616 OF IBC 2015/2018.

STEEL DECK

1. STEEL DECKING WORK SHALL CONFORM TO THE AISI NORTH AMERICAN "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."
2. STEEL DECKING UNITS AND ACCESSORY ITEMS SHALL BE FORMED FROM STEEL SHEETS CONFORMING TO ASTM A1008 OR A653 WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI (33,000 PSI FOR STEEL ROOF DECKING UNITS). SEE DECK SCHEDULE FOR MORE INFORMATION. BEFORE FORMING, THE STEEL SHEET SHALL RECEIVE A HOT DIP GALVANIZED COATING CONFORMING TO ASTM A653, GRADE 90.
3. STEEL DECKING SHALL BE SHORED AS REQUIRED BY PLANS OR BY SPAN AND LOAD CONDITIONS TO SUPPORT WET WEIGHT OF CONCRETE AND ALL CONSTRUCTION LOADS.
4. THE SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BY APPROVED METHOD (TO BE SHOWN ON SHOP DRAWINGS) BETWEEN SUPPORTS, AT INTERVALS TO PROVIDE SUFFICIENT DIAPHRAGM STRENGTH TO MAINTAIN BUILDING ALIGNMENT AND TO SUSTAIN LOCAL CONSTRUCTION LOADS WITHOUT DISTORTION OR SEPARATION, MAXIMUM SPACING SHALL BE 3'-0" BETWEEN SUPPORT BEAMS. END LAPS OF SHEETS SHALL BE A MINIMUM OF 2 INCHES.
5. EXCEPT AS OTHERWISE NOTED, DECK SHALL BE ATTACHED TO STRUCTURAL STEEL BY 3/4"Ø FUSION WELDS @ 12" ON CENTER AT END AND INTERIOR SUPPORTS PERPENDICULAR TO THE DECK SPAN AND AT EDGE AND INTERIOR SUPPORTS PARALLEL TO THE DECK SPAN. WELDS MAY BE OMITTED IN RIBS IN WHICH SHEAR CONNECTORS ARE TO BE APPLIED, AS LONG AS MAXIMUM SPACING BETWEEN ATTACHMENTS DOES NOT EXCEED 18" ON CENTER, AND SUCH THAT EACH DECK SECTION SHALL HAVE SUFFICIENT WELDS TO ADEQUATELY SECURE THE DECK, BRING THE DECK INTO DIRECT CONTACT WITH THE SUPPORTING STEEL AND TO PROVIDE SUFFICIENT DIAPHRAGM STRENGTH TO MAINTAIN BUILDING ALIGNMENT.
6. AS AN ALTERNATE TO PUDDLE WELDS FOR STEEL DECK ATTACHMENT TO STRUCTURAL STEEL, HILTI X-HSN-24 OR X-ENP-19 POWDER ACTUATED FASTENERS, OR AN APPROVED EQUAL, WITH EQUIVALENT OR GREATER CAPACITY TO THE SPECIFIED ATTACHMENT MAY BE USED. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT ALTERNATE FASTENING PATTERN TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. SUBMITTAL SHALL INCLUDE PROPOSED ALTERNATE PATTERN AND ANY CALCULATIONS OR SUPPORTING MANUFACTURER DATA NEEDED TO DEMONSTRATE THAT THE PATTERN MEETS OR EXCEEDS THE CAPACITY OF THE SPECIFIED ATTACHMENT.
7. POWDER ACTUATED FASTENERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE CERTIFIED AND TRAINED BY THE MANUFACTURER'S REPRESENTATIVE ON PROPER USE PRIOR TO INSTALLATION.
8. PRIOR TO FABRICATION, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE STEEL DECKING SHOWING DECK GAUGE, SIZE, AND LAYOUT AS WELL AS CLOSURE CONDITIONS, WELDS TO SUPPORTS AND SIDE LAP DETAILS.
9. ALL REINFORCED OPENINGS IN STEEL DECK SHALL BE INSTALLED BY STEEL DECK SUBCONTRACTOR. STEEL DECK SUBCONTRACTOR TO PROVIDE REINFORCING AS PER TYPICAL DETAILS.
10. AT STEEL DECK WITHOUT CONCRETE FILL THE FOLLOWING MAY BE ATTACHED WITHOUT SPECIFIC APPROVAL OF THE STRUCTURAL ENGINEER: ACOUSTICAL TILE AND GYPSUM BOARD CEILING ONLY; NO PIPING, DUCTING OR CONDUIT. MAXIMUM CEILING WEIGHT = 3.5 PSF. MAXIMUM WIRE HANGER LOAD = 60 LBS.
11. WHERE SUSPENSION OF HANGER WIRES ARE REQUIRED BY OTHERS, VERIFY AND COORDINATE LOCATIONS, PATTERNS, SPACING, ETC. WITH THE APPROPRIATE TRADE. DRILL OR PUNCH HOLES AT BOTTOM OF DECK FLUTES OF SUFFICIENT SIZE TO PASS SUPPORT WIRES. WIRE SUPPORTS SHALL BE LOOPED AND SECURED WITH A MINIMUM OF THREE (3) TIGHT TURNS AROUND A MINIMUM 1-1/2" x 1/2" LONG FURRING CHANNEL OR NO. 3x12" LONG REINFORCING BAR CENTERED ABOVE THE HOLE AND LAID IN THE DECK FLUTES.

SPECIAL INSPECTIONS (IBC)

A. INSPECTIONS REQUIRED BY THE LOCAL JURISDICTION SHALL BE PERFORMED BY A TESTING AGENCY PROVIDED BY THE OWNER FOR THE FOLLOWING ITEMS:
   A. INSPECTION OF FABRICATORS (IBC 1704.2.5)
   B. STEEL CONSTRUCTION (IBC 1705.2)
      a. STRUCTURAL STEEL (IBC 1705.2.1)
         1. STRUCTURAL STEEL WELDING (AISC 360, AWS D1.1

LEGEND

	CONCRETE FOOTING, GRADE BEAM, OR PILE CAP
	WALL OR CONCRETE BEAM BELOW
	CONCRETE PILE BELOW
	CONCRETE MASONRY (CMU)
	CONCRETE WALL
	CONCRETE PIER
	STEEL COLUMN
	COLUMN ABOVE / BELOW
	STEEL BEAM
	SHEAR CONNECTION
	MOMENT CONNECTION
	LEDGER ANGLE (SEE DETAIL)
R-##	METAL DECK (SEE SCHEDULE), OPEN ARROW INDICATES SPAN DIRECTION
S.O.G.	5" SLAB ON GRADE (SEE SCHEDULE)
	RAMP/SLOPED FLOOR (TAIL INDICATES HIGH END)
	STEP IN SLAB
	SLAB SLOPE TRANSITION
##' - ##"	TOP OF SLAB ELEVATION
##' - ##"	SPOT ELEVATION
	OPENING IN SLAB
# / S___	FRAMING ELEVATION / WALL ELEVATION
0	COLUMN LINE
#	KEYNOTE
1	REVISION
P.L.	PROPERTY LINE
[##' - ##"]	BOTTOM OF FOOTING ELEVATION RELATIVE TO DATUM
<##' - ##">	TOP OF FRAMING ELEVATION RELATIVE TO DATUM
{##' - ##"}	TOP OF PIER ELEVATION RELATIVE TO DATUM
(##' - ##")	BOTTOM OF BASE PLATE ELEVATION RELATIVE TO DATUM
BP__	STEEL BEAM BEARING PLATE, SEE SCHEDULE & DETAILS
CBP__	STEEL COLUMN BASE PLATE, SEE SCHEDULE & DETAILS
F__	CONCRETE SPREAD FOOTING, SEE SCHEDULE & DETAILS
GB__	CONCRETE GRADE BEAM, SEE SCHEDULE & DETAILS
M__	CONCRETE MAT FOUNDATION, SEE SCHEDULE & DETAILS
C__	CONCRETE CAISSON FOUNDATION, SEE SCHEDULE & DETAILS
MW__	MASONRY WALL, SEE SCHEDULE & DETAILS
P__	CONCRETE OR MASONRY PIER, SEE SCHEDULE & DETAILS
PC__	CONCRETE PILE CAP, SEE SCHEDULE & DETAILS
RW__	RETAINING WALL, SEE SCHEDULE & DETAILS
RWF__	RETAINING WALL FOOTING, SEE SCHEDULE & DETAILS
S__	CONCRETE SLAB OR CONCRETE SLAB ON METAL DECK, SEE SCHEDULE & DETAILS
W__	CONCRETE WALL, SEE SCHEDULE & DETAILS
WF__	WALL FOOTING, SEE SCHEDULE & DETAILS

STANDARD ABBREVIATIONS

ADD'L	ADDITIONAL
ADJ.	ADJACENT
A/E	DESIGN TEAM OF RECORD
ALT.	ALTERNATE
ANCH.	ANCHOR
APPROX.	APPROXIMATE/APPROXIMATELY
ARCH.	ARCHITECT/ARCHITECTURAL
BLDG.	BUILDING
BM.	BEAM
B.O.	BOTTOM OF
BOT.	BOTTOM
BRG.	BEARING
BSMT.	BASEMENT
CANT.	CANTILEVER
CFS	COLD FORMED STEEL
C.I.P.	CAST IN PLACE
C.J.	CONTRACTION JOINT
CLG.	CEILING
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
COMP.	COMPOSITE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
COORD.	COORDINATE/COORDINATION
CONTR.	CONTRACTOR
COTR	CONTRACT OFFICER'S TECHNICAL REPRESENTATIVE
CTR.	CENTER
DBL.	DOUBLE
DEMO	DEMOLITION/DEMOLISH
DIA.	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
D.L.	DEAD LOAD
DN.	DOWN
DTL.	DETAIL
DWG(S)	DRAWING(S)
DWL.	DOWEL
EA.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
E.O.	EDGE OF
ENGR.	ENGINEER
E.O.R.	ENGINEER OF RECORD
EQ.	EQUAL
E.S.	EACH SIDE
E.W.	EACH WAY
EXP.	EXPANSION
EXT.	EXTERIOR
FDN.	FOUNDATION
FIN.	FINISH
FLR.	FLOOR
FRMG.	FRAMING
F.S.	FAR SIDE
FT.	FEET
FTG.	FOOTING
GA.	GAGE
GALV.	GALVANIZED
G.B.	GRADE BEAM
HDR.	HEADER
HGR.	HANGER
HORIZ.	HORIZONTAL
H.P.	HIGH POINT
HT.	HEIGHT
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
I.D.	INSIDE DIAMETER
I.F.	INSIDE FACE
I.J.	ISOLATION JOINT
INFO	INFORMATION
INT.	INTERIOR
JT.	JOINT
K	KIP
LB.	POUND
L.L.	LIVE LOAD
LLBB	LONG LEGS BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
L.P.	LOW POINT
L.W.	LIGHTWEIGHT
L.W.	LONG WAY
MAS.	MASONRY
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECH., ELECT., PLUMBING, & FIRE PROTECTION
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
MPII	MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
N.F.	NEAR FACE
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
N.W.	NORMAL WEIGHT
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
OPNG.	OPENING
OPP.	OPPOSITE
P.C.	PIECE
P/C	PRECAST
PED.	PEDESTAL
PERP.	PERPENDICULAR
PL.	PLATE
PLF	POUNDS PER LINEAR FOOT
PREFAB.	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P-T	POST-TENSIONED
REINF.	REINFORCE(D)/REINFORCEMENT
REQ'D	REQUIRED
REV.	REVISION
SCHED.	SCHEDULE
SECT.	SECTION
S.I.F.	STEP IN FOOTING
SLBB	SHORT LEGS BACK-TO-BACK
SIM.	SIMILAR
S.O.G.	SLAB ON GRADE
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STIFF.	STIFFENER
STL.	STEEL
S.W.	SHORT WAY
SYM.	SYMMETRIC
T & B	TOP & BOTTOM
TEMP.	TEMPORARY/TEMPERATURE
THK.	THICK(NESS)
T.O.	TOP OF
TR.	TRANSFER
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W/	WITH
W.P	WORK POINT
W.W.R.	WELDED WIRE REINFORCEMENT
#	NUMBER/SIZE
Ø	DIAMETER

LOADING SCHEDULE

LOADS	PSF	TYPICAL PARKING LEVELS	PARKING DECK ROOF (PARKING)	PARKING DECK ELEVATOR LOBBY / STAIRS	PARKING DECK UNOCCUPIED ROOF	CANOPY UNOCCUPIED ROOF
STRUCTURE SELF WEIGHT						
PRECAST PRE-STRESSED, PRE-TOPPED DOUBLE TEES (4" THICK SLABS, 28" TOTAL DEPTH)	76	76	76			
PRECAST CONCRETE SLAB	125			125	125	
UNFILLED ROOF DECK	5					5
STEEL BEAMS	10					10
SUPERIMPOSED DEAD LOAD						
CEILING / MEP / MISC.	10	10	10	10		
ROOFING	15				15	15
CEILING / MEP	5				5	5
LIVE LOADS						
PARKING GARAGE	40	40	40			
ELEVATOR LOBBY / STAIRS	100			100		
UNOCCUPIED ROOF	20				20	20
SNOW						
FLAT ROOF	25				25	25
TOTAL DEAD LOAD		**86**	**86**	**135**	**145**	**35**
SUPERIMPOSED DEAD LOAD		10	10	10	20	20
LIVE/SNOW LOAD		**40**	**40**	**100**	**25**	**25**
TOTAL LOAD		**126**	**126**	**235**	**170**	**60**

NOTES:

DESIGN PARAMETER TABLE

GOVERNING CODE:		2021 Michigan Building Code
RISK CATEGORY:		II
SNOW LOAD:		
20 PSF	Pg	GROUND SNOW LOAD
17 PSF	Pf	FLAT-ROOF SNOW LOAD
1	Ce	SNOW EXPOSURE FACTOR
1	Is	SNOW LOAD IMPORTANCE FACTOR
1.2	Ct	THERMAL FACTOR
N/A	Cs	SLOPE FACTOR
22 PSF	Pd	DRIFT SURCHARGE LOAD
8 FT	w	WIDTH OF SNOW DRIFT
WIND LOAD:		
108 MPH	Vult	ULTIMATE DESIGN WIND SPEED
84 MPH	Vasd	NOMINAL DESIGN WIND SPEED
C		WIND EXPOSURE CATEGORY
+/- 0.55	GCPi	INTERNAL PRESSURE COEFFICIENT
		C&C VELOCITY PRESSURE AT MEAN ROOF HEIGHT
673 KIPS	V	DESIGN BASE SHEAR
SEISMIC DESIGN:		
1	I	SEISMIC IMPORTANCE FACTOR
0.09	Ss	SHORT PERIOD SPECTRAL RESPONSE ACCELERATION
0.044	S1	1-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION
		SITE CLASS
0.096	S(ds)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT SHORT PERIODS
0.07	S(d1)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT 1-SECOND PERIODS
B		SEISMIC DESIGN CATEGORY
Ordinary Precast Shear Walls		BASIC SEISMIC FORCE RESISTING SYSTEM
645 KIPS	V	DESIGN BASE SHEAR
0.024	Cs	SEISMIC RESPONSE COEFFICIENT
4	R	RESPONSE MODIFICATION FACTOR
Equivalent Lateral Force		ANALYSIS PROCEDURE

SEISMIC STORY FORCES	
FLOOR	STORY SHEAR
BULKHEAD 1	7.2 KIPS
BULKHEAD 2	7.2 KIPS
7TH	181.4 KIPS
6TH	150.7 KIPS
5TH	120.1 KIPS
4TH	89.6 KIPS
3RD	59.3 KIPS
2ND	29.3 KIPS
BASE SHEAR	644.7 KIPS

NOTES:
1. FLOOR AREA USED FOR CALCULATION IS BASED ON FLOOR AREA SHOWN ON EACH ARCHITECTURAL SHEET FOR THE RESPECTIVE FLOOR.
2. PRECAST DESIGNER IS RESPONSIBLE FOR VERIFYING LOAD IS APPROPRIATE BASED ON DIAPHRAGM DESIGN AND DIAPHRAGM IS CAPABLE OF SPANNING FROM THE AREA OF LOAD TO THE LATERAL SYSTEM.
3. FLOOR ELEVATION USE FOR CALCULATION IS THE AVERAGE OF THE TWO LEVEL PORTIONS OF SLAB OF EACH RESPECTIVE FLOOR AS SHOWN ON THE ARCHITECTURE SET.
4. WEIGHT OF STRUCUTRE IS BASED ON IPS'S PRELIMINARY SIZING OF MEMBERS PROVIDED TO TYLIN BY FRAMEWORK E ON 8/7/2025, CHANGES TO THOSE SIZES AFFECT SEISMIC MASS AND THEREFORE STORY SHEARS.

Project Title

Oakland County Parking Decks

Oakland County

W JUDSON ST PONTIAC, MI 48342

Architect

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Architects Landscape Community Builders
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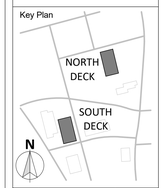
Seal

Key Plan



TAG	ISSUED	DATE
	50% DD	08/15/25
	Design Development	09/08/25

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CLIENT PROJ NO **3010.0103211**

Framework E PROJ NO **2025011**

LEGEND, ABBREVIATIONS AND DESIGNED TABLES

DRAWING NO

S-002

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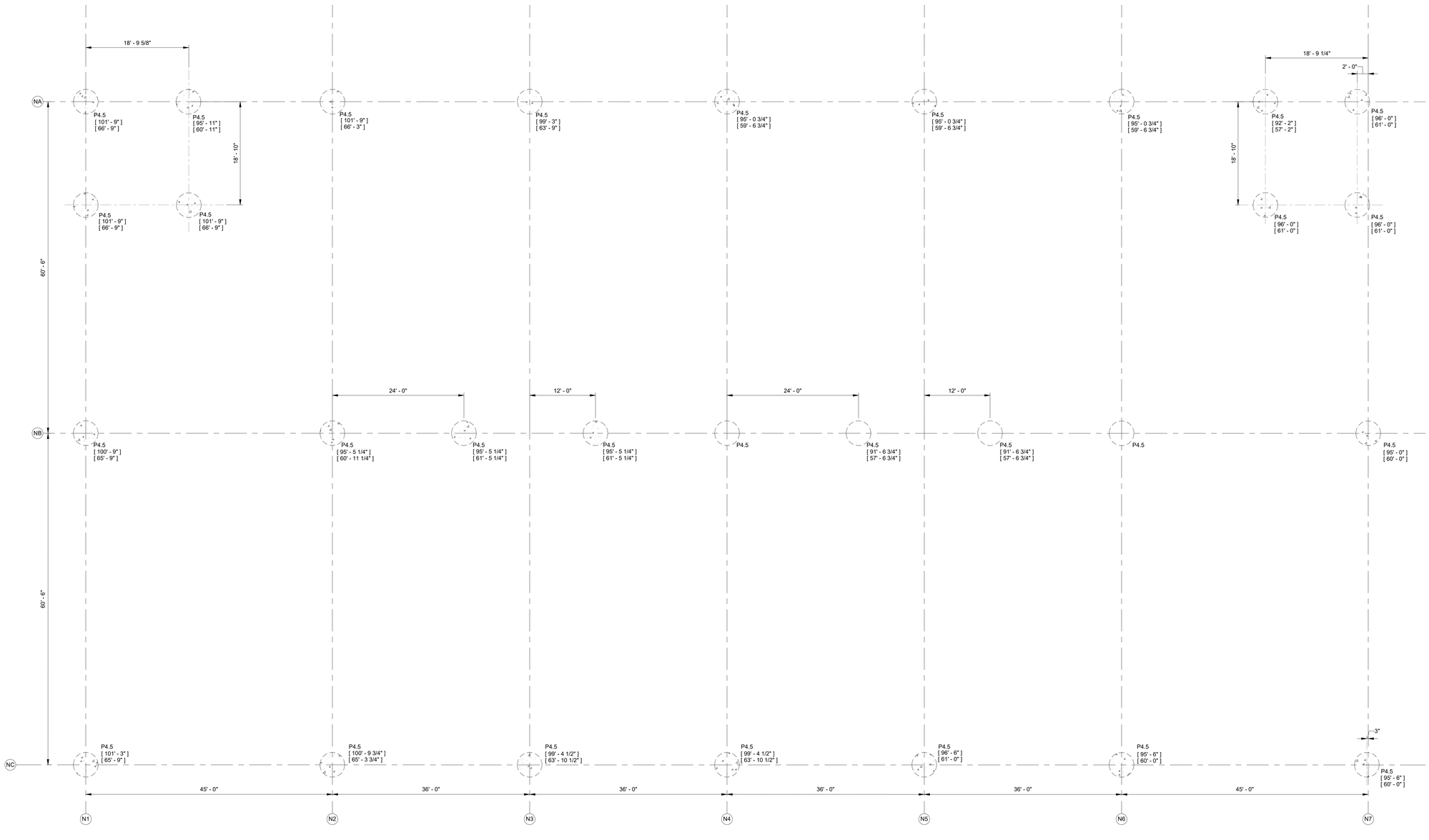
NOTES

1. NORTH DECK ELEVATION 100'-0" = 913.90' NAVD.
2. GEOTECHNICAL REPORT REFERENCED IN FOUNDATION NOTES SHALL BE PART OF THE CONTRACT DOCUMENTS. CONTRACTOR SHALL REVIEW GEOTECH REPORT FOR ALL RECOMMENDATIONS AND INCLUDE CONTENT IN BIDS.
3. PILE INFORMATION SHOWN
   C#.# ◄ PILE SIZE (SEE SCHEDULE)
   [##'-##"] ◄ T.O. PILE ELEVATION
   [##'-##"] ◄ APPROX. B.O. PILE ELEVATION
4. B.O. PILE ELEVATIONS SHOWN ARE APPROXIMATE BASED ON LIMITED TEST BORINGS, PILES MUST BEAR ON HARDPAN LAYER REFERENCED IN GEOTECHNICAL REPORT.
5. CONTRACTOR SHALL COORDINATE SUBGRADE SERVICES PRIOR TO INSTALLING PILES. SEE ARCHITECTURAL DRAWINGS, MECHANICAL DRAWINGS AND CIVIL DRAWINGS.
6. ALL EXCAVATIONS SHALL BE PERFORMED SO THAT THE SITE AND THE AREA IMMEDIATELY SURROUNDING THE SITE WHICH AFFECTS CONSTRUCTION OPERATIONS WILL BE CONTINUALLY AND EFFECTIVELY DRAINED. THE CONTRACTOR SHALL PROVIDE DRAINAGE AND DEWATERING AS REQUIRED TO ENSURE THAT ALL FOUNDATION EXCAVATIONS ARE ACCOMPLISHED WITH THE SUBGRADE SOILS REMAINING DRY AND FIRM UNTIL AFTER FOUNDATIONS ARE PLACED AND BACKFILLED. REMOVAL OF SURFACE WATER, GROUNDWATER, AND ANY PERCHED WATER CONDITIONS WHICH MIGHT BE ENCOUNTERED DURING EXCAVATIONS SHALL BE ACCOMPLISHED BY APPROVED MEANS, REFER TO THE GEOTECHNICAL REPORT AND SPECIFICATION SECTION 31 00 00 EARTHWORK FOR ADDITIONAL REQUIREMENTS.
7. NEW FOOTINGS ADJACENT TO EXISTING FOOTINGS SHALL MATCH BOTTOM OF EXISTING FOOTINGS AND SHALL NOT UNDERMINE EXISTING ELEMENTS. TYPICAL. ELEVATIONS OF EXISTING FOOTINGS SHOWN HERE ARE BASED ON ORIGINAL DESIGN DRAWINGS OR LIMITED TEST PITS AND HAVE NOT BEEN FIELD VERIFIED. VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND NOTIFY ENGINEER OF RECORD IF CONDITIONS VARY FROM THOSE SHOWN.
8. ALL COLUMN OR WALL FOOTINGS ARE TO BE CENTERED AT THE COLUMN OR WALL ABOVE, UNLESS OTHERWISE NOTED.



1 PILE PLAN - NORTH
S-101-N 1/8" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

W JUDSON ST PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders

155 W Congress Street, Suite 602, Detroit, MI 48226
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Consultants

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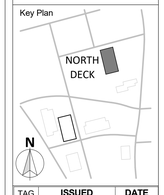
Key Plan



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	Design Development	09/08/25

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Framework E PROJ NO	**2025011**

PILE PLAN

DRAWING NO

S-101-N

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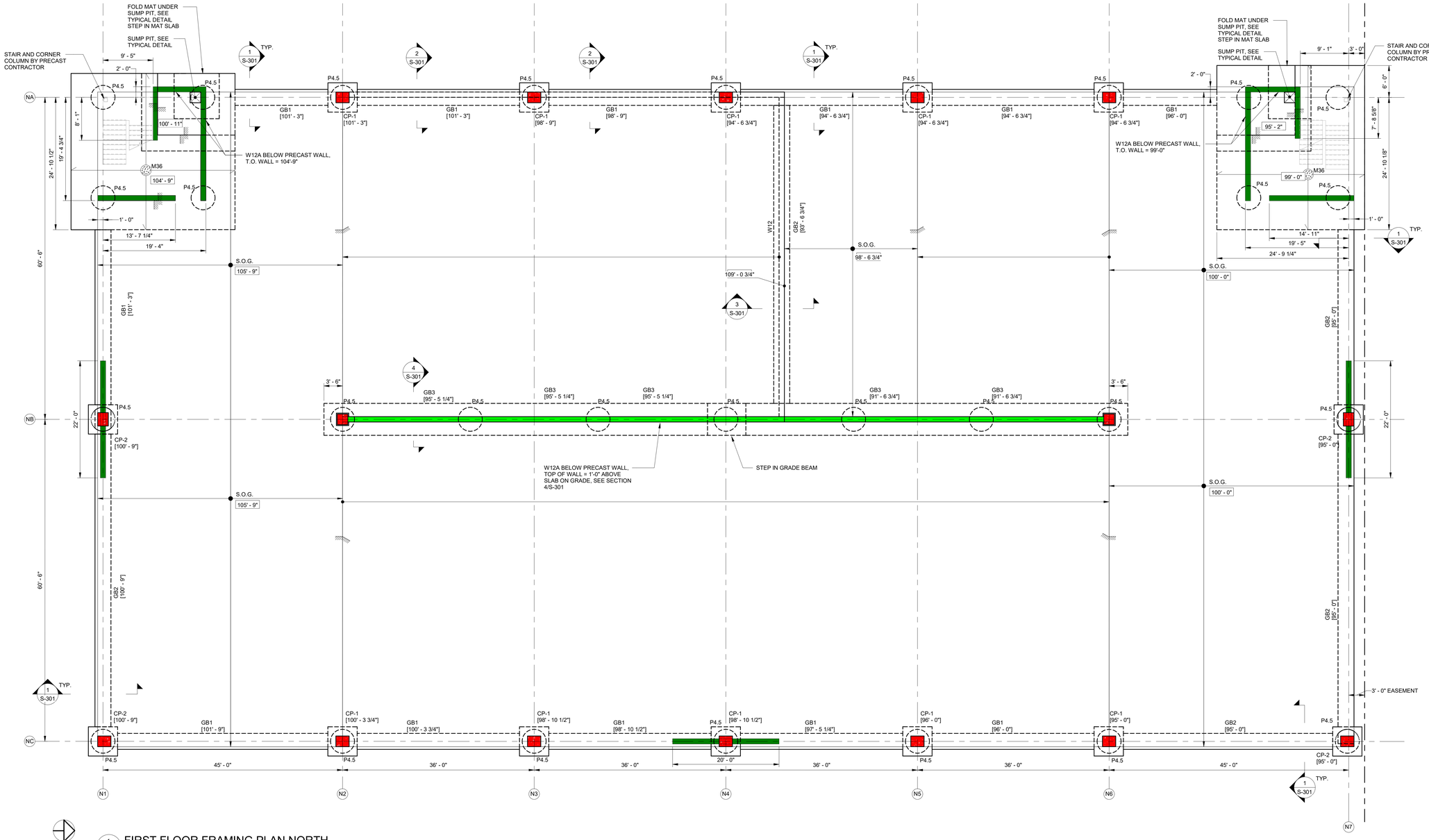
NOTES:

1. NORTH DECK ELEVATION 100'-0" = 913.90' NAVD
2. CONTRACTOR SHALL COORDINATE SUBGRADE SERVICES PRIOR TO POURING SLAB ON GRADE. SEE ARCHITECTURAL DRAWINGS, MECHANICAL DRAWINGS AND CIVIL DRAWINGS AND COORDINATE WITH SLAB REINFORCING.
3. ALL EXCAVATIONS SHALL BE PERFORMED SO THAT THE SITE AND THE AREA IMMEDIATELY SURROUNDING THE SITE WHICH AFFECTS CONSTRUCTION OPERATIONS WILL BE CONTINUALLY AND EFFECTIVELY DRAINED. THE CONTRACTOR SHALL PROVIDE DRAINAGE AND DEWATERING AS REQUIRED TO ENSURE THAT ALL FOUNDATION EXCAVATIONS ARE ACCOMPLISHED WITH THE SUBGRADE SOILS REMAINING DRY AND FIRM UNTIL AFTER FOUNDATIONS ARE PLACED AND BACKFILLED. REMOVAL OF SURFACE WATER, GROUNDWATER, AND ANY PERCHED WATER CONDITIONS WHICH MIGHT BE ENCOUNTERED DURING EXCAVATIONS SHALL BE ACCOMPLISHED BY APPROVED MEANS, REFER TO THE GEOTECHNICAL REPORT AND SPECIFICATION SECTION 31 00 00 EARTHWORK FOR ADDITIONAL REQUIREMENTS.
4. GEOTECHNICAL REPORT REFERENCED IN FOUNDATION NOTES SHALL BE PART OF THE CONTRACT DOCUMENTS. CONTRACTOR SHALL REVIEW GEOTECH REPORT FOR ALL RECOMMENDATIONS AND INCLUDE CONTENT IN BIDS.
5. NEW FOOTINGS ADJACENT TO EXISTING FOOTINGS SHALL MATCH BOTTOM OF EXISTING FOOTINGS AND SHALL NOT UNDERMINE EXISTING ELEMENTS, TYPICAL. ELEVATIONS OF EXISTING FOOTINGS SHOWN IN THESE DOCUMENTS ARE BASED ON ORIGINAL DESIGN DRAWINGS OR LIMITED TEST PITS AND HAVE NOT BEEN FIELD VERIFIED. VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND NOTIFY ENGINEER OF RECORD IF CONDITIONS VARY FROM THOSE SHOWN.
6. ALL COLUMN OR WALL FOOTINGS ARE TO BE CENTERED AT THE COLUMN OR WALL ABOVE, UNLESS OTHERWISE NOTED.
7. PROVIDE CONTINUOUS THICKENED SLAB UNDERNEATH ALL NON-LOAD BEARING MASONRY PARTITION WALLS PER TYPICAL DETAIL; COORDINATE LOCATION AND EXTENTS OF WALLS WITH ARCHITECTURAL DRAWINGS.

LEGEND:

- PRECAST CONCRETE COLUMN
- PRECAST CONCRETE SHEAR WALL
- PRECAST CONCRETE LITE WALL (BY OTHERS, ASSUMED TO BE PART OF LATERAL SYSTEM)



1 S-111-N FIRST FLOOR FRAMING PLAN NORTH
1/8" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

W JUDSON ST PONTIAC, MI 48342

Architect

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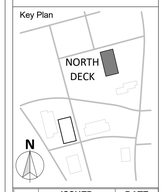

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FIRST FLOOR FRAMING PLAN

DRAWING NO

S-111-N

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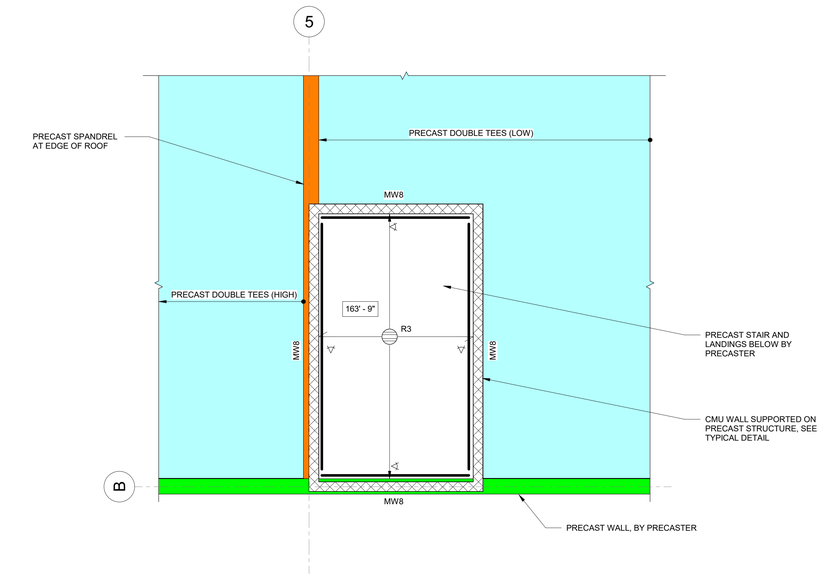

1 S-113-N STAIR A ROOF PART PLAN

1/4" = 1'-0"

Project Title

Oakland County Parking Decks

Oakland County

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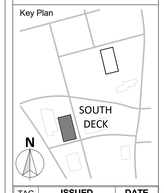

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	Design Development	09/08/25

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STRUCTURAL FRAMING PART PLANS

DRAWING NO

S-113-N

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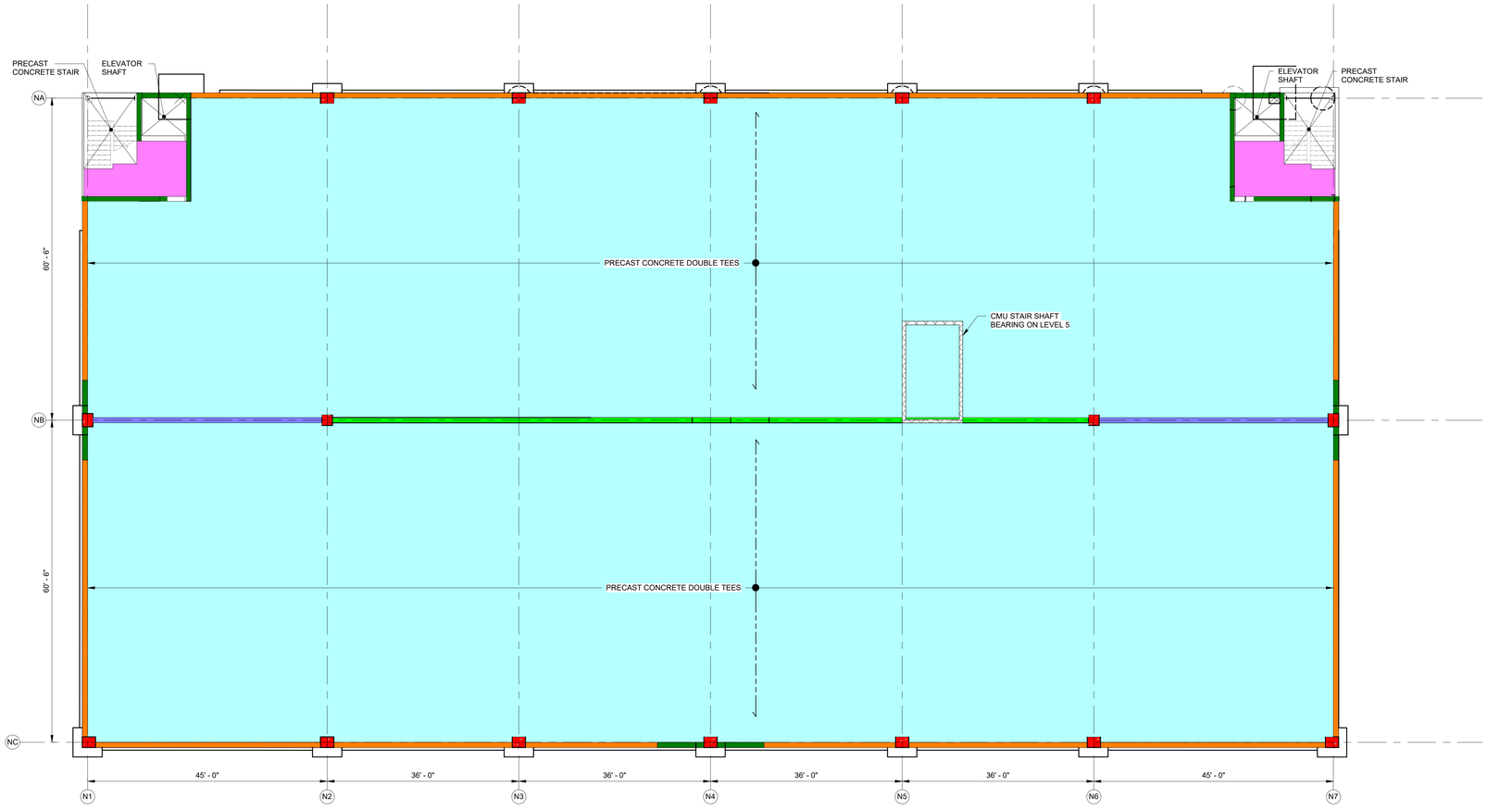

1 S-121-N TYPICAL SUPERSTRUCTURE FLOOR FRAMING PLAN NORTH

3/32" = 1'-0"

NOTES:

1. THE BUILDING SUPERSTRUCTURE IS TO BE DESIGNED BY THE PRECAST SUPPLIER AND IS SHOWN SCHEMATICALLY ON THESE DRAWINGS ONLY,
2. THE DESIGN OF ALL PRECAST ELEMENTS AND THEIR CONNECTIONS, INCLUDING THEIR CONNECTIONS TO TYLIN-DESIGNED FOUNDATION ELEMENTS, SHALL BE BY THE PRECAST SUPPLIER WHO SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION TO PROVIDE COMPLETE DESIGN OVER THE SUPERSTRUCTURE AND SUBMIT SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS FOR REVIEW AND APPROVAL.
3. THE LOCATION OF LOAD TRANSFER ELEMENTS (BEAMS, BEARING WALLS, SHEAR WALLS, ETC.) ARE SHOWN SCHEMATICALLY AND ARE BASED ON PRELIMINARY CONCEPTS AND DISCUSSIONS WITH PRECASTERS.
   a. WHERE SELECTED PRECAST CONTRACTOR LAYOUTS, LOAD PATHS AND LOADS IMPOSED DO NOT EXCEED AND/OR CONNECTION CONDITIONS DO NOT DIFFER FROM WHAT IS INDICATED IN THE STRUCTURAL DRAWINGS, SUBMIT FOR RECORD A LETTER SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED STATING THE FOLLOWING:
      "THE CONTRACTOR DESIGNED SYSTEM HAS BEEN DESIGNED TO IMPOSE LOADS ON THE BASE FOUNDATIONS PROVIDED IN THESE DRAWINGS THAT ARE WITHIN THE LOAD LIMITS AND AT THE LOCATIONS INDICATED ON THE STRUCTURAL DRAWINGS."
   b. WHERE CONTRACTOR LAYOUTS, LOAD PATHS AND LOADS IMPOSED EXCEED AND/OR CONNECTION CONDITIONS DIFFER FROM WHAT IS SHOWN IN THE STRUCTURAL DRAWINGS, SUBMIT FOR APPROVAL TO SEOR THE LOADS AND THEIR LOCATIONS IMPOSED ON THE BASE FOUNDATIONS DUE TO THE DEAD, LIVE, AND WIND/SEISMIC LOADS INDICATED ON THE STRUCTURAL CONTRACT DOCUMENTS. SUBMITTAL SHALL LIST THE DESIGN LOADS USED AND BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE IN WHICH THE PROJECT IS LOCATED. SUBMITTAL SHALL INCLUDE LOCATION, MAGNITUDE AND DIRECTION OF UNFACTORED IMPOSED LOADS, GRAPHICALLY REPRESENTED IN THEIR APPROPRIATE LOCATIONS ON A COPY OF THE CONTRACT DOCUMENT STRUCTURAL FRAMING PLANS OR ELEVATIONS AS APPROPRIATE. DETAIL REFERENCES IN THE CONNECTIONS APPLICABLE AT EACH LOCATION SHALL BE NOTED ON THE SUBMITTAL DRAWINGS.
   c. FOR EXTERIOR WALL ASSEMBLIES, THE LOADS IMPOSED SUBMITTAL SHALL BE COMPREHENSIVE INDICATING THE LOAD IMPOSED ON THE BASE FOUNDATIONS AND SHALL BE THE REACTION BASED ON THE ACTUAL LOADS OF THE ENTIRE ASSEMBLY, INCLUDING BUT NOT LIMITED TO GLAZING, CLADDING, METAL STUD BACKUP AND MULLIONS,
   d. A SUBSTITUTION REQUEST ON THE PART OF THE SEOR MAY BE REQUIRED WHERE CONTRACTOR LOADS IMPOSED EXCEED, LOAD PATHS DIFFER AND/OR CONNECTION CONDITIONS DIFFER FROM THAT SHOWN ON THESE DRAWINGS.

LEGEND:

- STEEL POST (BY OTHERS)
- STEEL BEAM (BY OTHERS)
- 24"x24" PRECAST CONCRETE COLUMN (BY OTHERS)
- 12" THICK PRECAST CONCRETE SHEAR WALL (BY OTHERS)
- 12" PRECAST CONCRETE LITE WALL (BY OTHERS, ASSUMED TO BE PART OF LATERAL SYSTEM)
- 24"x36" PRECAST CONCRETE BEAM (BY OTHERS)
- 10"x82"PRECAST CONCRETE SPANDREL (BY OTHERS)
- PRECAST CONCRETE DOUBLE TEES (BY OTHERS)
- 8" PRECAST CONCRETE SLAB (BY OTHERS)

Project Title

Oakland County Parking Decks

Oakland County

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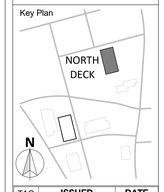

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Framework E PROJ NO **2025011**

TYPICAL SUPERSTRUCTURE FLOOR FRAMING PLAN

DRAWING NO

S-121-N

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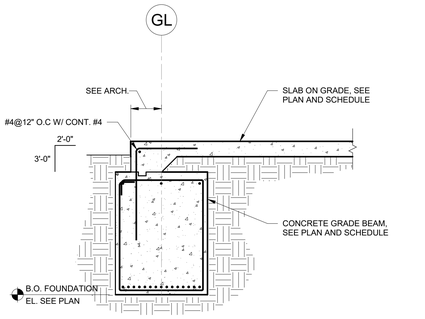
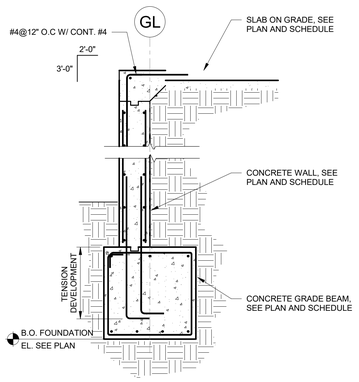
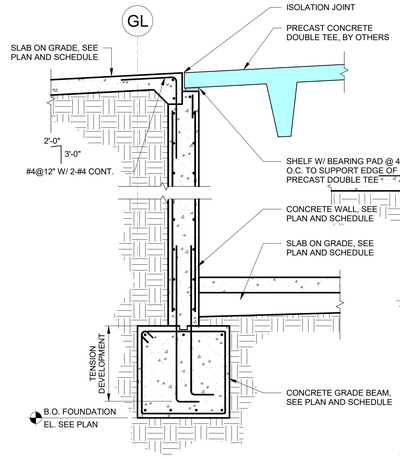


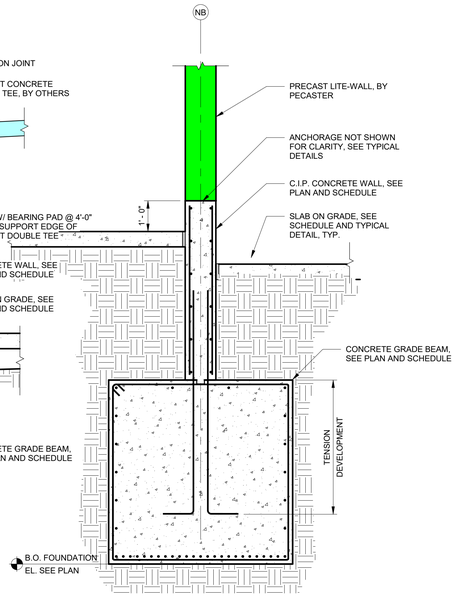
1 S-301 SECTION 1/2" = 1'-0"



2 S-301 SECTION 1/2" = 1'-0"



3 S-301 SECTION 1/2" = 1'-0"



4 S-301 SECTION 1/2" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

W JUDSON ST PONTIAC, MI 48342

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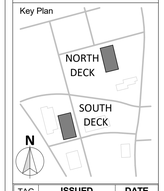

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FOUNDATION SECTIONS

DRAWING NO

S-301

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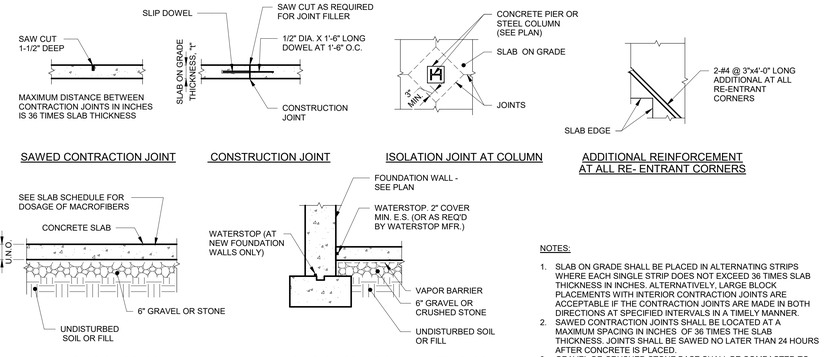
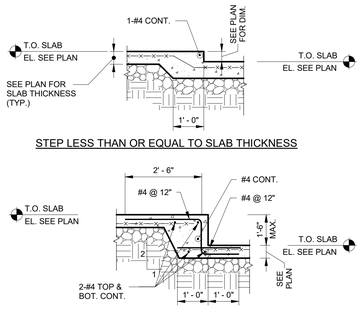


NOTES:

1. SLAB ON GRADE SHALL BE PLACED IN ALTERNATING STRIPS WHERE EACH SINGLE STRIP DOES NOT EXCEED 36 TIMES SLAB THICKNESS IN INCHES. ALTERNATIVELY, LARGE BLOCK PLACEMENTS WITH INTERIOR CONTRACTION JOINTS ARE ACCEPTABLE IF THE CONTRACTION JOINTS ARE MADE IN BOTH DIRECTIONS AT SPECIFIED INTERVALS IN A TIMELY MANNER.
2. SAWED CONTRACTION JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING IN INCHES OF 36 TIMES THE SLAB THICKNESS. JOINTS SHALL BE SAWED NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED.
3. GRAVEL OR CRUSHED STONE BASE SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

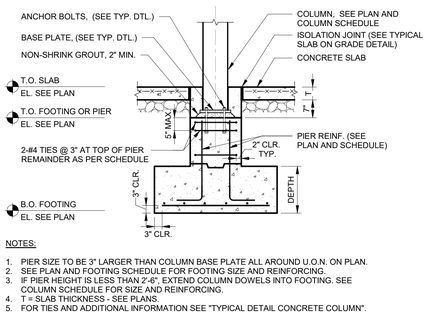
TYPICAL SLAB ON GRADE

N.T.S.



TYPICAL STEP IN SLAB ON GRADE

N.T.S.

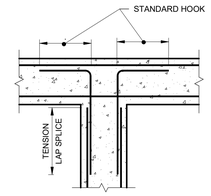


NOTES:

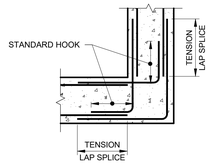
1. PIER SIZE TO BE 3" LARGER THAN COLUMN BASE PLATE ALL AROUND U.O.N. ON PLAN.
2. SEE PLAN AND FOOTING SCHEDULE FOR FOOTING SIZE AND REINFORCING.
3. IF PIER HEIGHT IS LESS THAN 2'-6", EXTEND COLUMN DOWELS INTO FOOTING. SEE COLUMN SCHEDULE FOR SIZE AND REINFORCING.
4. T = SLAB THICKNESS - SEE PLANS.
5. FOR TIES AND ADDITIONAL INFORMATION SEE "TYPICAL DETAIL CONCRETE COLUMN".

TYPICAL PIER & FOOTING AT STEEL COLUMN

1/2" = 1'-0"



TEE-INTERSECTION

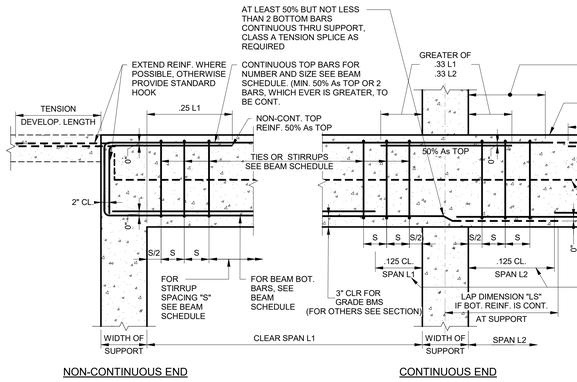


CORNER

NOTE: FOR TENSION LAP SPLICE LENGTH AND DEVELOPMENT LENGTH SEE TABLE.

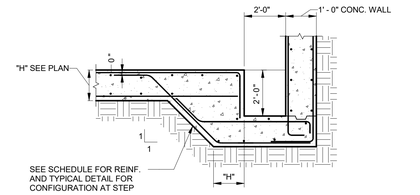
TYPICAL HORIZONTAL REINFORCEMENT AT CORNERS & JUNCTIONS OF WALLS AND BEAMS1

N.T.S.



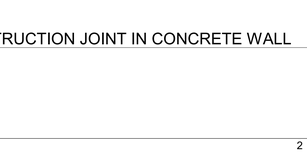
TYPICAL CONCRETE BEAM (NON-SEISMIC & ORDINARY MOMENT FRAME)

N.T.S.



TYPICAL ELEVATOR SUMP PIT

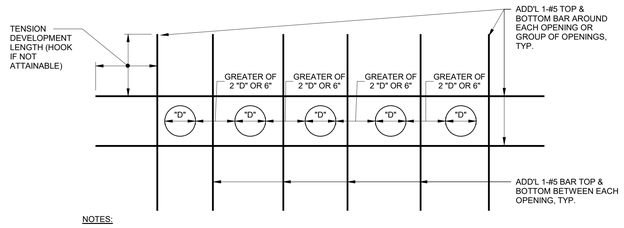
N.T.S.



NOTE: MAXIMUM POUR LENGTHS: FOUNDATION WALL = 80'-0"

TYPICAL CONSTRUCTION JOINT IN CONCRETE WALL

N.T.S.

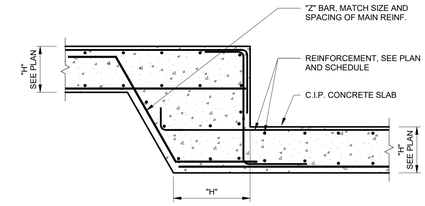


NOTES:

1. LIMIT 5 PENETRATIONS IN A ROW IN ANY DIRECTION.
2. COORDINATE WITH TYPICAL DETAIL FOR FORMED CONCRETE SLAB PIPE SLEEVE.
3. SHOULD PENETRATIONS BE CUT AFTER CONCRETE IS POURED, CONTRACTOR TO SUBMIT PLAN SHOWING ALL PROPOSED CORE DRILLING LOCATIONS TO E.O.R. FOR APPROVAL. CONTRACTOR TO USE NDE METHODS TO LOCATE REBAR PRIOR TO CUTTING SLAB.
4. FOR ANY GROUPS OF PENETRATIONS THAT EXCEED THE SPACING OR QUANTITY LIMITS IN THIS DETAIL, GROUP OF PENETRATIONS SHALL BE TREATED AS A SLAB OPENING. SEE "TYPICAL ADDITIONAL REINFORCEMENT AT OPENING IN FRAMED SLAB DETAIL" IN S-500 SERIES.
5. GENERAL CONTRACTOR SHALL PROVIDE COORDINATED MEPS TRADE SUBMITTALS FOR DESIGN TEAM REVIEW OF PENETRATIONS. ALL TRADES SHALL BE OVERLAYED INTO ONE SUBMITTAL TO CAPTURE AND EVALUATE ALL PENETRATIONS THROUGH SLABS TOGETHER.

TYPICAL SLAB PENETRATION WITH SLEEVE DIAMETER LESS THAN 6"

N.T.S.



TYPICAL REINFORCEMENT AT SLAB STEP

3/4" = 1'-0"

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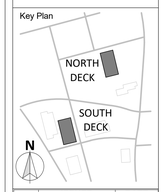

TAG	ISSUED	DATE
	50% DD	08/15/25
	Design Development	09/08/25

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TYPICAL DETAILS

DRAWING NO

S-501

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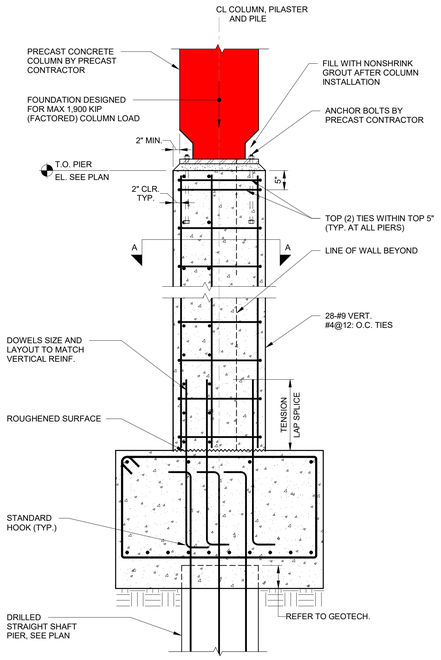
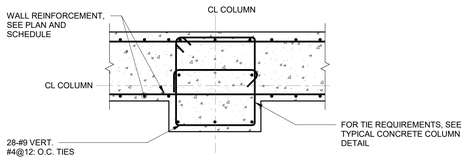


NOTES:
1. FOR ANCHOR BOLTS, SEE PRECAST DESIGNER DRAWINGS
2. PIER SHALL BE 2" LARGER THAN PRECAST COLUMN ON ALL SIDES, SEE PLAN AND PIER SCHEDULE.
3. SLAB NOT SHOWN FOR CLARITY.

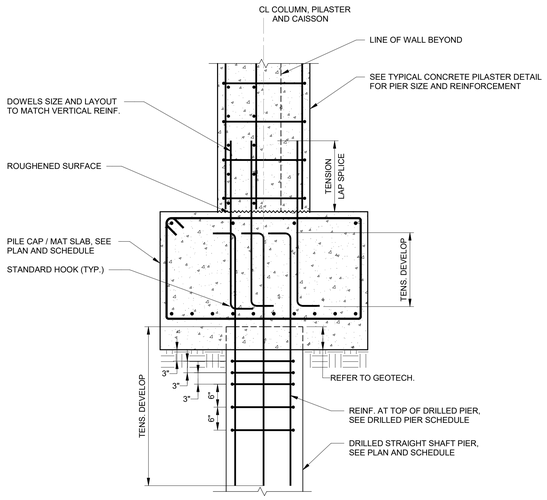


NOTE: BASE PLATE AND ANCHOR BOLTS NOT SHOWN FOR CLARITY.

SECTION A-A

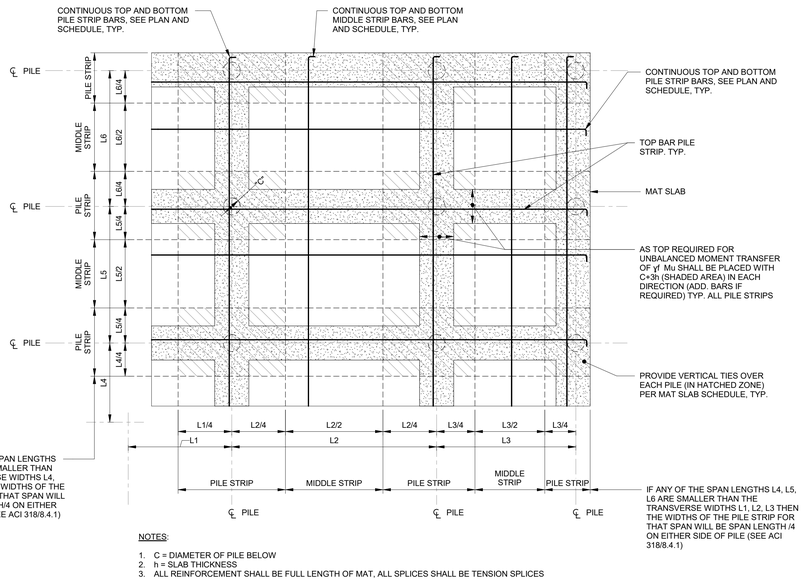
TYPICAL CONCRETE PILASTER AT PRECAST COLUMN

N.T.S.



TYPICAL DETAIL AT TOP OF CAISSON

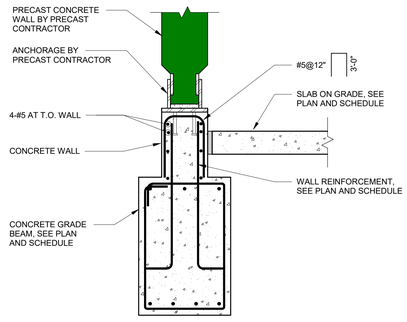
N.T.S.



NOTES:
1. C = DIAMETER OF PILE BELOW
2. h = SLAB THICKNESS
3. ALL REINFORCEMENT SHALL BE FULL LENGTH OF MAT, ALL SPLICES SHALL BE TENSION SPLICES

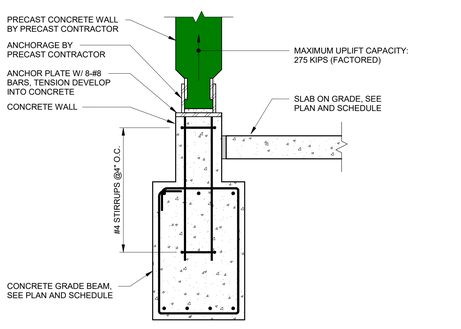
TYPICAL MAT SLAB STRIP DEFINITIONS

N.T.S.



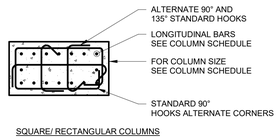
TYPICAL DETAIL AT BASE OF PRECAST WALL

N.T.S.



TYPICAL DETAIL AT ENDS OF PRACST SHEAR WALLS

3/4" = 1'-0"



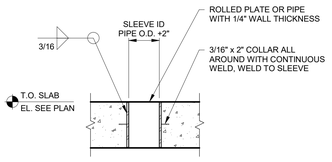
SQUARE/ RECTANGULAR COLUMNS

NOTES:

1. TIE SIZE: #3 TIES FOR LONGITUDINAL BARS UP TO #9 AND #4 TIES FOR LONGITUDINAL BARS #10, #11, #14 & #18.
2. TIE SPACING NO GREATER THAN:
   A. 16x DIAMETER OF LONGITUDINAL BARS
   B. 48x DIAMETER OF TIES
   C. MINIMUM DIMENSION OF COLUMN
3. FOR RECTANGULAR/SQUARE COLUMNS, EVERY CORNER AND ALTERNATE LONGITUDINAL BAR SHALL HAVE LATERAL SUPPORT PROVIDED BY CORNER OF A TIE HAVING AN INCLUDED ANGLE OF NOT MORE THAN 135 DEGREES. NO BAR SHALL BE MORE THAN 6" CLEAR FROM SUCH A LATERALLY SUPPORTED BAR ON EITHER SIDE.

TYPICAL CROSS-SECTION OF CONCRETE PIER

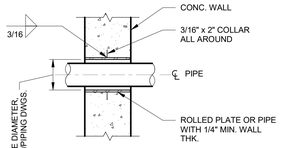
N.T.S.



NOTE: PROVIDE CLEAR SPACE BETWEEN PIPE AND/ OR OPENINGS A MINIMUM 6" OR PIPE SLEEVE DIAMETER APART (WHICHEVER IS GREATER.)

TYPICAL PIPE SLEEVE IN CONCRETE SLAB

N.T.S.



NOTE:
SPACE ADJACENT PIPE SLEEVES AS FOLLOWS:

PIPE DIAMETER (OUTSIDE DIA.)	CLEAR DISTANCE BETWEEN EDGES OF PIPE OPENINGS
DIA. ≤ 6"	CLEAR DIST. = PIPE DIA.
6" < DIA. ≤ 12"	CLEAR DIST. = 6"
12"<DIA. ≤ 24"	CLEAR DIST. = WALL THICKNESS

TYPICAL PIPE SLEEVE IN CONCRETE WALL

N.T.S.

DEFORMED BAR TENSION DEVELOPMENT LENGTH (Ld)												
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS												
BAR SIZE	4000 PSI CONCRETE				5000 PSI CONCRETE				6000 PSI CONCRETE			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	20	29	15	22	17	26	13	20	16	23	12	18
#4	25	38	19	29	22	34	17	26	21	31	16	24
#5	31	47	24	36	29	42	22	32	26	39	20	30
#6	38	56	29	43	34	51	26	39	31	46	24	35
#7	55	82	42	63	49	73	38	56	44	66	34	51
#8	62	94	48	72	56	83	43	64	51	77	39	59
#9	70	105	54	81	62	94	48	72	57	86	44	66
#10	79	118	61	91	70	105	54	81	65	96	50	74
#11	87	131	67	101	78	117	60	90	72	107	55	82

DEFORMED TENSION BAR NOTES:

1. TABULATED TENSION DEVELOPMENT LENGTHS AND TENSION LAP SPLICE LENGTHS ARE GIVEN IN INCHES AND ARE CALCULATED FOR REINFORCEMENT CONFORMING TO ASTM A615 GRADE 60.
2. TOP BARS ARE DEFINED AS HORIZONTAL REINFORCEMENT WITH 12 INCHES OR MORE OF FRESH CONCRETE CAST BELOW IT.
3. FOR REINFORCEMENT IN LIGHTWEIGHT CONCRETE, TENSION DEVELOPMENT LENGTH/TENSION LAP LENGTH SHALL BE 1.3x THE VALUES GIVEN.
4. FOR EPOXY-COATED BARS:
   A. WHERE CONCRETE COVER IS LESS THAN 3x BAR DIAMETER, OR CLEAR SPACING IS LESS THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.5x THE VALUES GIVEN.
   B. WHERE CONCRETE COVER IS EQUAL TO OR GREATER THAN 3x BAR DIAMETER AND CLEAR SPACING IS GREATER THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.2x THE VALUES GIVEN.
5. CASE I APPLIES WHEN EITHER OF THE FOLLOWING SETS OF CONDITIONS ARE MET:
   A. ALL THREE OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN DB AND
      b. CLEAR COVER IS NOT LESS THAN DB AND
      c. STIRRUPS OR TIES ARE PROVIDED THROUGHOUT THE DEVELOPMENT LENGTH AND THE QUANTITY IS NOT LESS THAN THE CODE MINIMUM.
   B. OR BOTH OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN 2DB AND
      b. CLEAR COVER IS NOT LESS THAN DB.

   CASE II APPLIES TO ALL OTHER CONDITIONS NOT DESCRIBED IN CASE I

DEFORMED BAR TENSION LAP SPLICE - CLASS B (LTS)												
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS												
BAR SIZE	4000 PSI CONCRETE				5000 PSI CONCRETE				6000 PSI CONCRETE			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	25	37	20	29	22	34	17	26	20	30	16	23
#4	32	49	25	38	29	44	22	34	27	41	21	31
#5	41	61	31	47	37	54	29	42	34	51	26	39
#6	49	73	38	56	44	66	34	51	41	59	31	46
#7	71	106	55	82	64	95	49	73	57	86	44	66
#8	81	122	62	94	73	108	56	83	66	100	51	77
#9	91	137	70	105	81	122	62	94	74	112	57	86
#10	103	154	79	118	91	137	70	105	85	125	65	96
#11	113	171	87	131	101	152	78	117	93	139	72	107

DEFORMED BAR COMPRESSION DEVELOPMENT LENGTH (Ldc)			
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS			
BAR SIZE	4000 PSI CONCRETE	5000 PSI CONCRETE	6000 PSI CONCRETE
#3	8	8	8
#4	10	9	9
#5	12	12	12
#6	15	14	14
#7	17	16	16
#8	19	18	18
#9	22	21	21
#10	25	23	23
#11	27	26	26

DEFORMED COMPRESSION BAR NOTES
1. TABULATED COMPRESSION DEVELOPMENT LENGTHS AND COMPRESSION LAP SPLICE LENGTHS ARE GIVEN IN INCHES AND ARE CALCULATED FOR REINFORCEMENT CONFORMING TO ASTM A615 GRADE 60

DEFORMED BAR COMPRESSION LAP SPLICE			
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS			
BAR SIZE	4000 PSI CONCRETE	5000 PSI CONCRETE	6000 PSI CONCRETE
#3	12	12	12
#4	15	15	15
#5	19	19	19
#6	23	23	23
#7	27	27	27
#8	30	30	30
#9	34	34	34
#10	39	39	39
#11	43	43	43

STANDARD HOOK TENSION DEVELOPMENT LENGTH (Ldh)			
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS			
BAR SIZE	4000 PSI CONCRETE	5000 PSI CONCRETE	6000 PSI CONCRETE
#3	8	7	6
#4	10	9	8
#5	12	11	10
#6	15	13	12
#7	17	15	14
#8	19	17	16
#9	22	20	18
#10	25	22	20
#11	27	24	22

STANDARD HOOK TENSION DEVELOPMENT NOTES
1. TABULATED STANDARD HOOK TENSION DEVELOPMENT LENGTHS ARE GIVEN IN INCHES AND ARE CALCULATED FOR REINFORCEMENT CONFORMING TO ASTM 615 GRADE 60.

Project Title

Oakland County Parking Decks

Oakland County

W JUDSON ST PONTIAC, MI 48342

Architect

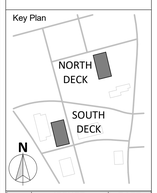
Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

TYLin
206 S. 5th Ave.
Suite 550
Ann Arbor, MI 48104, United States

Seal

Key Plan



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TYPICAL DETAILS

DRAWING NO

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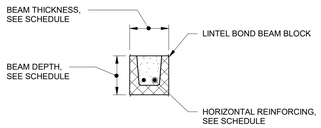


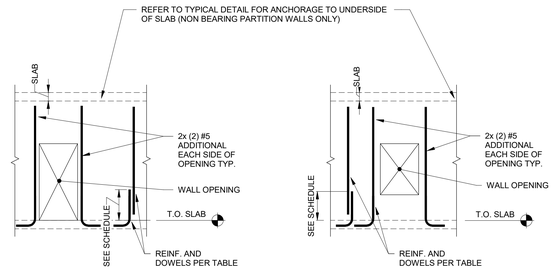
CMU BOND BEAM SCHEDULE				
LENGTH	BEAM THICKNESS	BEAM DEPTH	HORIZONTAL REINF.	SHEAR REINF.
0'-0" - 4'-0"	7 5/8"	7 5/8" (1 COURSE HIGH)	2-#5	

NOTES:

1. ALL CMU BOND BEAM BEAMS TO BE GROUTED SOLID FOR FULL LENGTH OF BEAM.
2. ALL CMU BOND BEAM TO HAVE MIN. 7 5/8" BEARING ON EACH END.
3. ALL BOND BEAMS (SPANNING) WITH NO MASONRY ABOVE TO BE SINGLE COURSE WITH 2-#5 HORIZONTAL REINFORCING.
4. ALL OTHER (NON-SPANNING) BOND BEAMS TO BE SINGLE COURSE WITH 2-#4 HORIZONTAL REINFORCING.
5. VERTICAL PLACEMENT OF HORIZONTAL REINFORCEMENT IN ALL BOND BEAMS SHALL BE 3" FROM THE BOTTOM OF THE BEAM TO CENTER OF BAR, U.N.O. LINTEL REINFORCEMENT SHALL BE SUPPORTED BY WIRE CHAIRS.
6. CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL NOT BE LESS THAN THE NOMINAL DIAMETER OF THE BARS OR 1", WHICHEVER IS GREATER.

TYPICAL CMU BOND BEAM LINTEL

N.T.S.



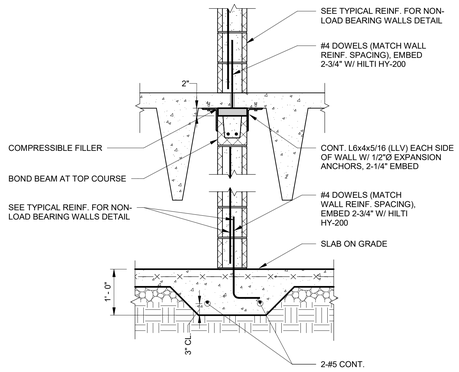
NOTE: PROVIDE LINTELS AS REQUIRED OVER WALL OPENINGS.

INTERIOR WALLS				
NOMINAL CMU THICKNESS	VERTICAL REBAR	HORIZONTAL REBAR	MAXIMUM HEIGHT (FT)	DOWELS
8"	#4 @ 48"	9 GAGE LADDER REINFORCING @ 16" O.C.	27'-7"	SAME AS VERTICAL BARS

EXTERIOR WALLS				
NOMINAL CMU THICKNESS	VERTICAL REBAR	HORIZONTAL REBAR	MAXIMUM HEIGHT (FT)	DOWELS
8"	#4 @ 16"	9 GAGE LADDER REINFORCING @ 16" O.C.	12'-0"	SAME AS VERTICAL BARS

TYPICAL REINFORCING FOR MASONRY WALLS (ELEVATION)

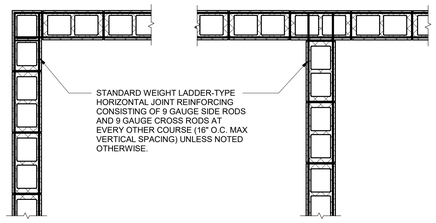
N.T.S.



NOTE:
WHERE CMU WALL IS PERPENDICULAR TO DOUBLE TEE, NOTCH BLOCK AROUND STEMS AND PROVIDE DEFLECTION GAP. SEE ARCH FOR FIRE STOP REQUIREMENTS, COORDINATE DEFLECTION GAP WITH PRECAST ENGINEER.

TYPICAL SUPPORT FOR MASONRY WALLS

N.T.S.



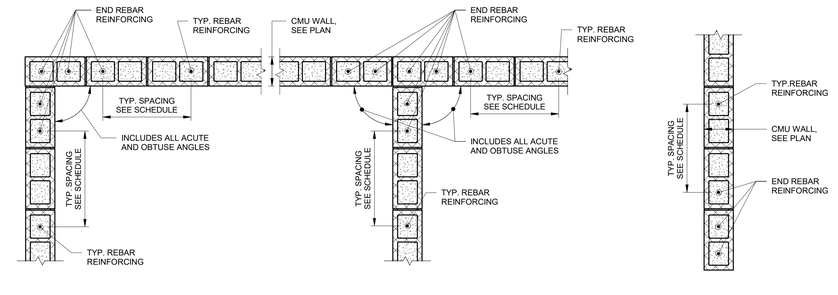
NOTES:

CORNERS AND INTERSECTIONS
UNLESS OTHERWISE NOTED OR SPECIFIED, AT POINTS WHERE CONCRETE MASONRY WALLS MEET OR INTERSECT, PLACE UNITS IN RUNNING BOND WITH ALTERNATE UNITS BEARING NOT LESS THAN 8 INCHES ON THE UNIT BELOW.

DOWELS
UNLESS OTHERWISE NOTED OR SPECIFIED, PROVIDE DOWELS FROM CONCRETE FOOTINGS OR WALLS BELOW, WITH SAME SIZE AND SPACING AS VERTICAL WALL REINFORCING. LAP DOWELS WITH VERTICAL REINFORCING 48 BAR DIAMETERS MINIMUM U.N.O. (SEE ALSO LAP SPLICE SCHEDULE) GROUT SOLID CELLS WITH VERTICAL REINFORCING, FULL HEIGHT.

TYPICAL REINFORCING DETAILS FOR MASONRY WALL CONSTRUCTION

N.T.S.



CORNER DETAIL | INTERSECTION DETAIL | STRAIGHT DETAIL

NOTE: DESIGN OF WALL REINF'G ASSUMES CONCRETE MASONRY UNITS THAT ARE 15 5/8" LONG AND HAVE TWO CORES/CELLS, RESULTING IN A NOMINAL BAR SPACING OF 8" O.C.

TYPICAL DETAIL SHEAR WALL REINFORCING

N.T.S.

DEFORMED BAR TENSION/COMPRESSION DEVELOPMENT LENGTH (L_d) AND LAP SPLICE LENGTH FOR 60 KSI UNCOATED BARS					
BAR SIZE	f'm=1500 PSI	f'm=2000 PSI	f'm=2500 PSI	f'm=2750 PSI	f'm=3000 PSI
#3	12"	12"	12"	12"	12"
#4	15"	13"	12"	12"	12"
#5	23"	20"	18"	17"	16"
#6	43"	38"	34"	32"	31"
#7	60"	52"	47"	44"	42"
#8	92"	79"	71"	68"	65"
#9	119"	103"	92"	88"	84"

NOTES:
1. FOR EPOXY-COATED BARS, THE DEVELOPMENT LENGTH/LAP SPLICE LENGTH SHALL BE 1.5X THE VALUE GIVEN ABOVE.

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Oakland County Parking Decks

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W JUDSON ST PONTIAC, MI 48342

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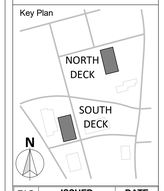
Key Plan



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TYPICAL DETAILS

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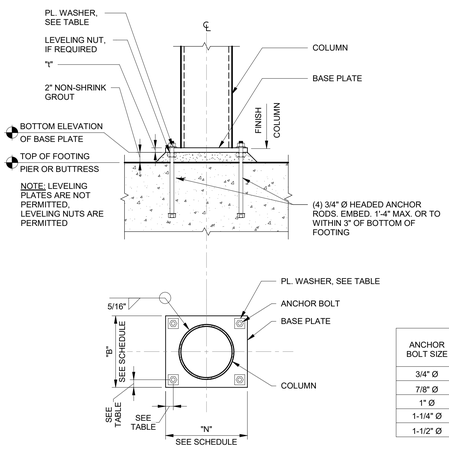
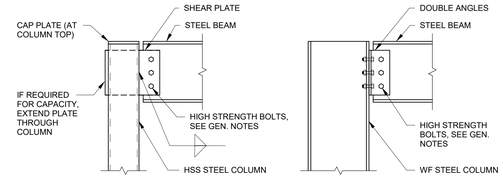


ANCHOR BOLT SIZE	HOLE Ø IN BASE PL	EDGE DISTANCE FROM CENTER LINE OF BOLT HOLE	PL. WASHER DIM.	PL. WASHER MIN. THICKNESS
3/4" Ø	1-5/16" Ø	2"	2"	1/4"
7/8" Ø	1-9/16" Ø	2"	2-1/2"	5/16"
1" Ø	1-7/8" Ø	2"	3"	3/8"
1-1/4" Ø	2-1/8" Ø	2-1/2"	3"	1/2"
1-1/2" Ø	2-3/8" Ø	2-1/2"	3-1/2"	1/2"

TYPICAL COLUMN BASE PLATE AT PIPE OR TUBE COLUMN

N.T.S.



BEAM TO HSS COLUMN

BEAM TO WF COLUMN FLANGE

BEAM TO WF COLUMN WEB

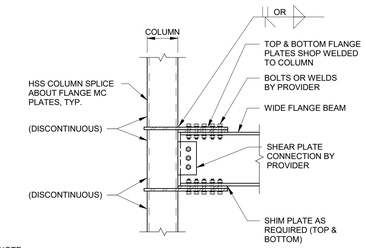
WF BEAM TO WF BEAM

NOTES:

1. CONNECTION DETAILS SHOWN ABOVE ARE SCHEMATIC ONLY. THE CONTRACTOR MAY SUBMIT ALTERNATE DETAILS FROM THOSE SHOWN ABOVE; BUT IN ANY CASE THE CONTRACTOR IS RESPONSIBLE FOR PRODUCING STEEL SHOP DRAWINGS IN ACCORDANCE WITH THE PROJECT GENERAL NOTES AND AISC GUIDELINES. CALCULATIONS SHALL BE SUBMITTED AS REQUIRED IN THE GENERAL NOTES AND ELSEWHERE IN THE CONTRACT DOCUMENTS.
2. THE CONTRACTOR SHALL DETAIL THE PROJECT CONNECTIONS FOR THE LOADS AS INDICATED IN THE CONTRACT DOCUMENTS, PER AISC GUIDELINES. THE SCHEMATIC DETAILS ABOVE ARE NOT SUGGESTIVE OF SPECIFIC CAPACITIES. THE NUMBER AND SIZE OF BOLTS, SIZE AND LENGTH OF WELDS, AND SIZE OF STEEL PIECES MUST BE DETERMINED PER AISC GUIDELINES AND THE CONTRACT DOCUMENTS.
3. PROVIDE FULL DEPTH CONNECTIONS AT ALL PERIMETER BEAM CONNECTIONS AND AT BEAM CONNECTIONS TO PERIMETER BEAMS, UNLESS OTHERWISE NOTED.

TYPICAL SUGGESTED SHEAR CONNECTIONS AT GRAVITY LOADS ONLY

N.T.S.

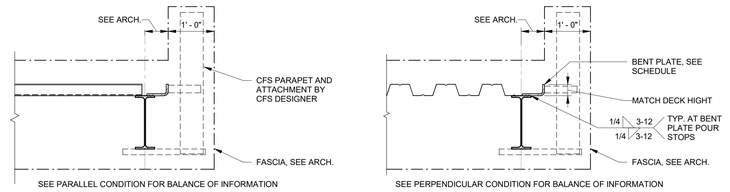


NOTE:

1. CONNECTION DETAILS SHOWN ABOVE ARE SCHEMATIC DETAILS ONLY. CONTRACTOR SHALL DETAIL MOMENT CONNECTIONS BASED ON NOTE 4, IN ACCORDANCE WITH CODES AND SHALL PROVIDE SIGNED AND SEALED CALCULATIONS FOR FULL CONNECTIONS PRIOR TO SUBMITTAL OF SHOP DRAWINGS.
2. ALL BOLTS TO BE HIGH-STRENGTH, SLIP CRITICAL.
3. PROVIDE BOLTED CONNECTION IN WEB FOR BEAM REACTION PER GENERAL NOTES.
4. PROVIDE PRETENSIONED BOLTS FOR STRUCTURES OVER 125' IN HEIGHT.
5. DESIGN MOMENT CONNECTION FOR FULL PLASTIC CAPACITY OF BEAM.

TYPICAL HSS COLUMN MOMENT CONNECTION (THRU PLATE)

N.T.S.



BENT PLATE SCHEDULE	
SLAB CANTILEVER	BENT PLATE THICKNESS
LESS THAN 11"	POUR STOP BY DECK MANUFACTURER
1'-0" - 1'-6"	5/16"
1'-7" - 1'-11"	3/8"
2'-0" - 2'-6"	1/2"

NOTES:
1. SEE ARCHITECTURAL SLAB EDGE DRAWINGS FOR TYPICAL CANTILEVER DIMENSIONS.
2. CONFIRM SLAB CANTILEVERS LARGER THAN 2'-6" WITH E.O.R.
3. SLAB EDGE IS NOT DESIGNED TO SUPPORT ONE STORY OF FACADE LOADING.

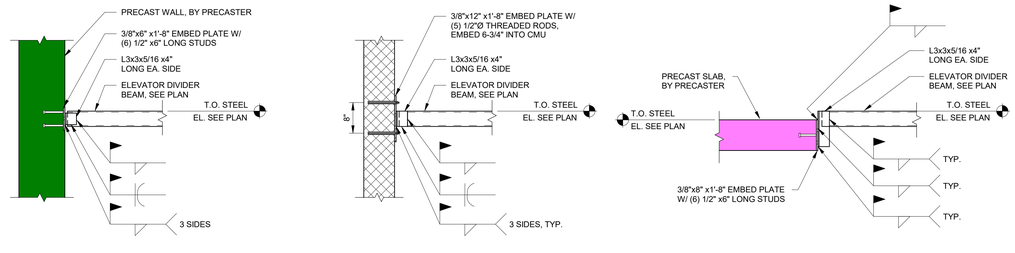
TYPICAL CONCRETE SLAB ON METAL DECK SLAB EDGE CONDITION1

N.T.S.



TYPICAL SHELF ANGLE AT LOAD BEARING WALL FOR ROOF DECK SUPPORT

N.T.S.



TYPICAL ELEVATOR DIVIDER CONNECTION DETAILS

N.T.S.

Project Title

Oakland County Parking Decks

Oakland County

W JUDSON ST PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
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Consultants

TYLin
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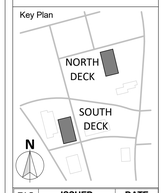
Seal

Key Plan



TAG	ISSUED	DATE
	50% DD	08/15/25
	Design Development	09/08/25

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TYPICAL DETAILS

DRAWING NO

S-504

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DEEP FOUNDATION SCHEDULE

MARK	SHAFT DIAMETER	REINFORCEMENT		REMARKS
		VERTICAL	TIES	
P4.5	4' - 6"	18-#9	#4	
P5.0	5' - 0"	30-#9	#4	

CONCRETE CAP SCHEDULE

MARK	SIZE			REINFORCEMENT				REMARKS
				BOTTOM		TOP		
	LENGTH	WIDTH	THICKNESS	LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	
CP-1	5' - 6"	5' - 6"	3' - 0"	SEE GRADE BEAM SCHEDULE	6-#9	SEE GRADE BEAM SCHEDULE	12-#9	LONG WAY PARALLEL TO GRADE BEAM
CP-2	5' - 6"	5' - 6"	4' - 0"	SEE GRADE BEAM SCHEDULE	6-#9	SEE GRADE BEAM SCHEDULE	12-#9	LONG WAY PARALLEL TO GRADE BEAM
CP-3	6' - 6"	6' - 6"	4' - 0"	SEE GRADE BEAM SCHEDULE	6-#9	SEE GRADE BEAM SCHEDULE	25-#9	LONG WAY PARALLEL TO GRADE BEAM

MAT FOUNDATION SCHEDULE

MARK	THICKNESS	REINFORCEMENT								REMARKS
		PILE STRIP				MIDDLE STRIP				
		BOTTOM		TOP		BOTTOM		TOP		
		LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	
M36	36"	#10@6"	#10@6"	#10@6"	#10@6"	#10@8"	#10@8"	#10@8"	#10@8"	#5 VERTICAL TIES @6" O.C. BOTH DIRECTIONS OVER PILES

GRADE BEAM SCHEDULE

MARK	SIZE		REINFORCEMENT						REMARKS
			CONT. BOTTOM	TOP			SIDE (E.A. FACE)	STIRRUPS	
	WIDTH	DEPTH		LEFT END	CONT.	RIGHT END			
GB1	36"	36"	6-#9	-	3-#9	-	2-#6		
GB2	36"	48"	6-#9	-	3-#9	-	3-#6	#4@12"	4 VERTICAL LEGS
GB3	72"	72"	25-#9	-	6-#9	-	7-#9	#5@4"	4 VERTICAL LEGS

FOOTING SCHEDULE

MARK	SIZE			REINFORCEMENT				REMARKS
				BOTTOM		TOP		
	LENGTH	WIDTH	THICKNESS	LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	
F4	4' - 0"	4' - 0"	1' - 6"	5-#5	5-#5	5-#5	5-#5	

PIER SCHEDULE

MARK	SIZE		REINFORCEMENT		REMARKS
	WIDTH	LENGTH	VERTICAL BARS	CLOSED TIES	
P1	24"	24"	12-#6	#4@12"	
P2	28"	28"	12-#6	#4@12"	

CONCRETE WALL SCHEDULE

MARK	WIDTH	REINFORCEMENT		REMARKS
		VERTICAL	HORIZONTAL	
W12	12"	#6@12"	#4@12"	REINF. EACH FACE
W12A	12"	#8@12"	#4@9"	REINF. EACH FACE

BASE PLATE TYPE SCHEDULE

MARK	SIZE		THICKNESS	GRADE	BOLTS	REMARKS
	WIDTH	LENGTH				
BP1	15"	15"	1"	36 KSI	(4) 3/4"	

SLAB/DECK SCHEDULE

MARK	TOTAL DEPTH	COMPOSITION/REINFORCEMENT
R3	3"	20 GA. GALV. TYPE NL ROOF DECK BY VULCRAFT OR APPROVED EQUAL
S.O.G.	6"	6" SLAB ON GRADE W/ 4.5 LBS/C.Y. OF FIBER REINFORCEMENT

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

W JUDSON ST PONTIAC, MI 48342

Architect

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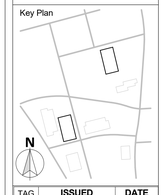

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	50% DD	08/15/25
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SCHEDULES

DRAWING NO

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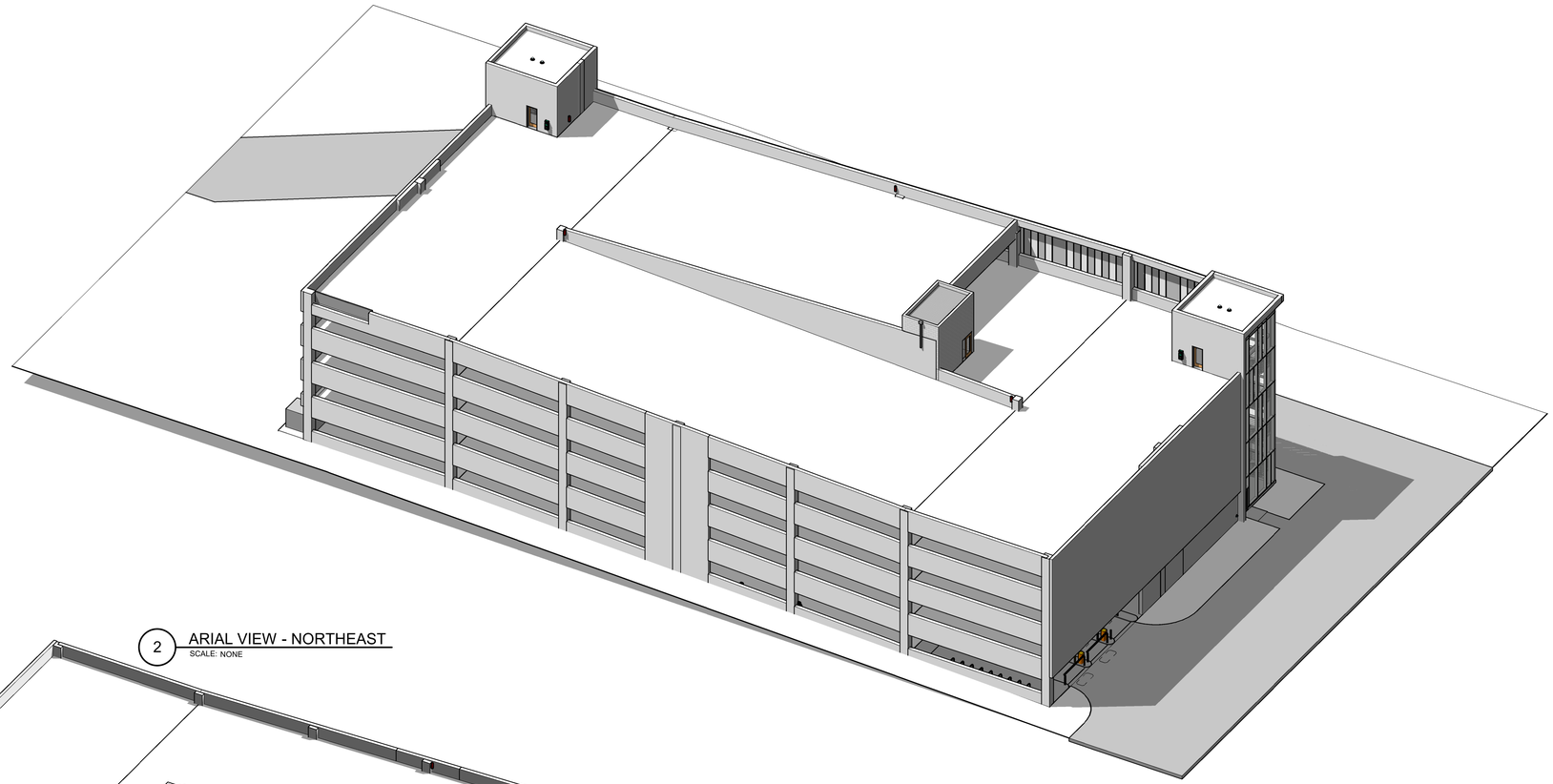
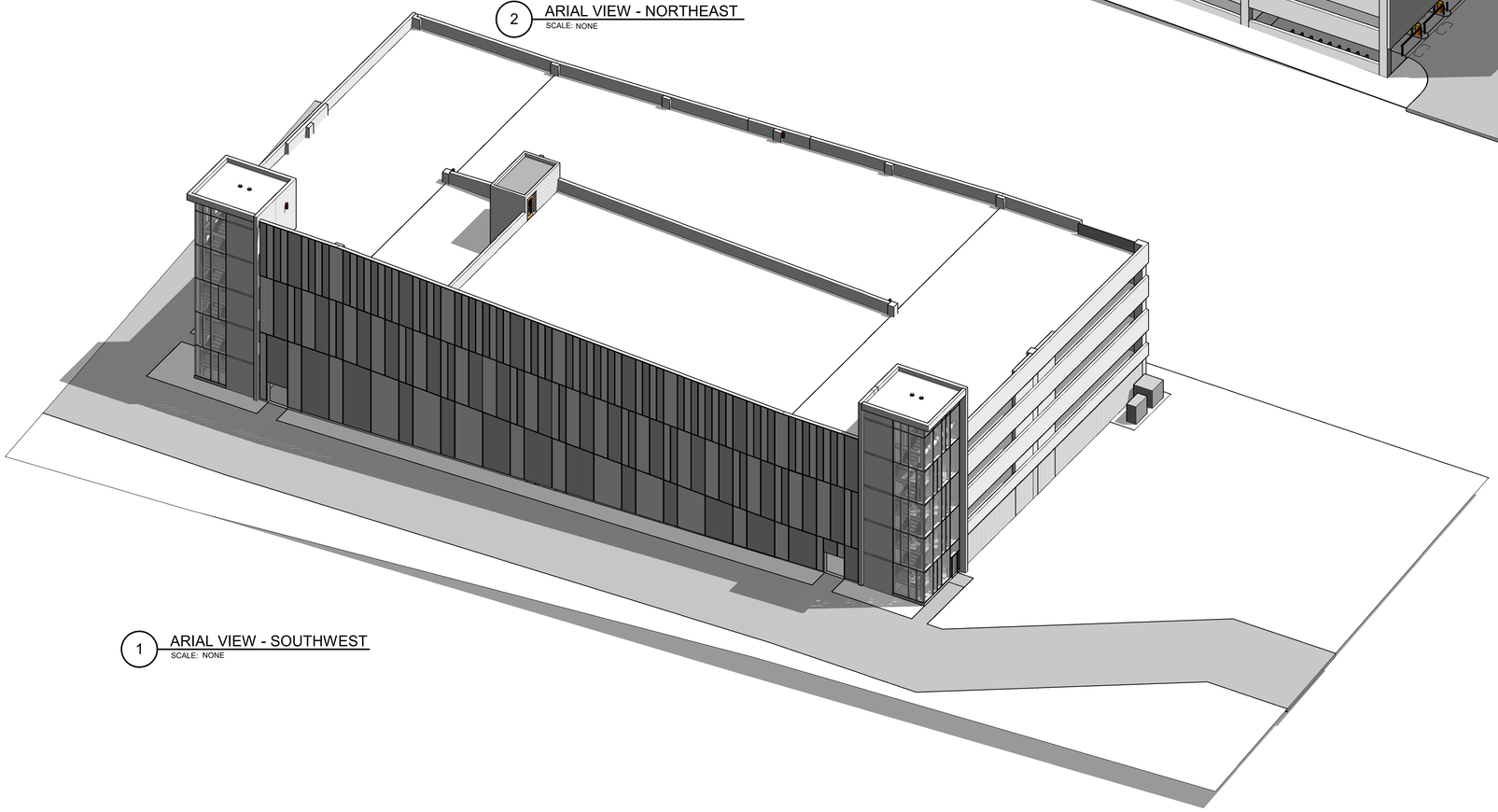


2 ARIAL VIEW - NORTHEAST
SCALE: NONE



1 ARIAL VIEW - SOUTHWEST
SCALE: NONE

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

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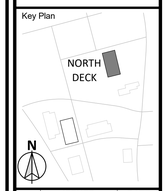

TAG	ISSUED	DATE
1	Schematic Design	07/16/25
2	50% DD	08/15/25
3	Design Development	09/08/25

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ARIAL VIEWS

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A-001-N

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FLOOR PLAN NOTES

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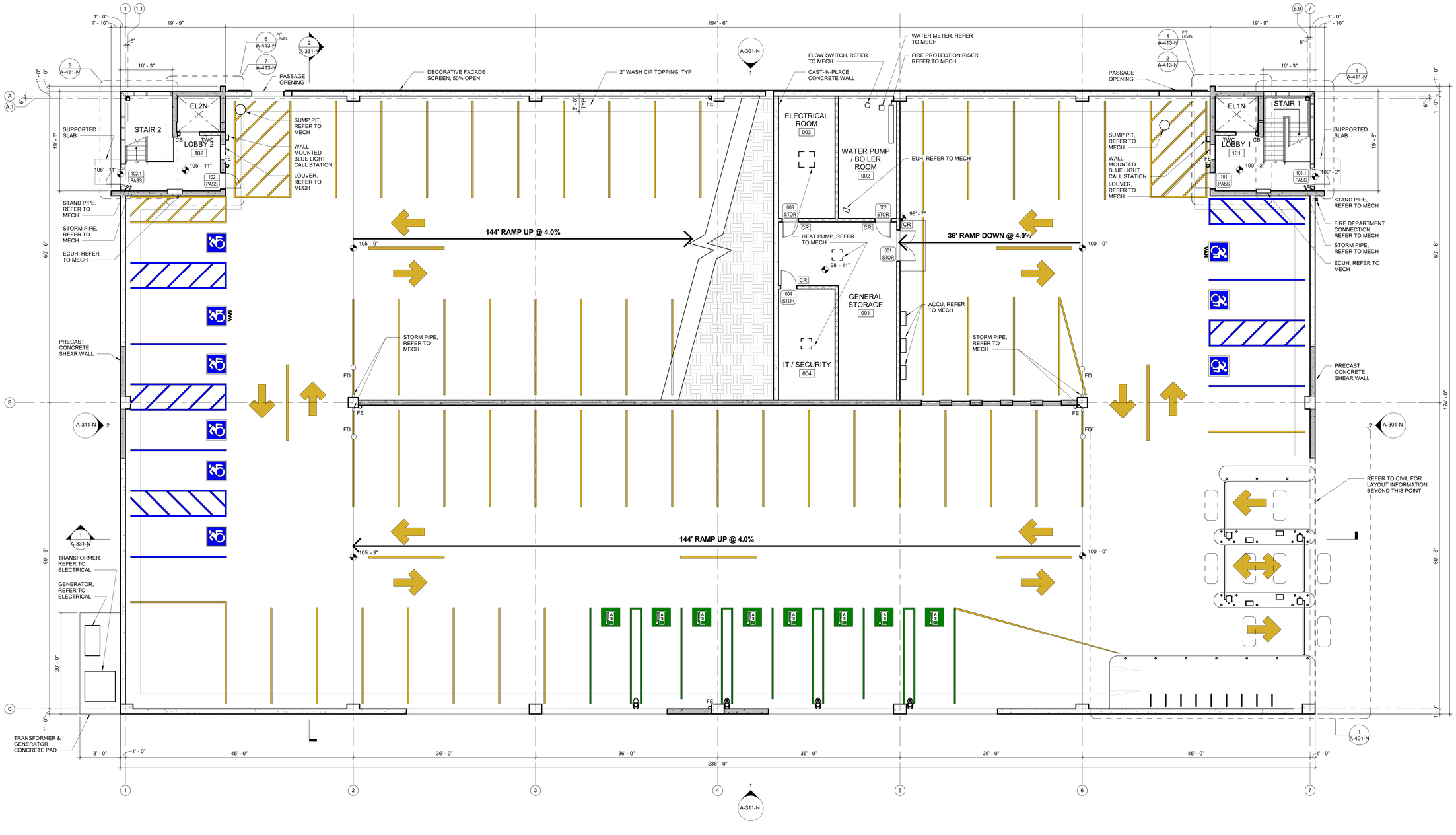
7. PROVIDE CROSS SLOPES FOR DRAINAGE AT 2%, UNO.
8. REFER TO SHEET **A-111-N** FOR TYPICAL DIMENSIONS
9. REFER TO SHEET **A-900 SERIES** FOR STRIPING DIMENSIONS

FLOOR PLAN LEGEND

- XXX — PARTITION (REFER TO PARTITION TYPES) AND DOOR (REFER TO DOOR TYPES AND SCHEDULE)
- XXX — PARTITION TYPE, REFER TO PARTITION TYPES. ALIGN NEW PARTITION FLUSH AND SMOOTH WITH ADJACENT EXISTING PARTITION WHERE IT OCCURS, U.N.O. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISH.
- PRECAST CONCRETE SHEAR WALL, REFER TO STRUCTURAL
- FE — FIRE EXTINGUISHER HOOK
- CJ — CONTROL JOINT
- A — ALIGN FLUSH
- FD — FLOOR DRAIN, REFER TO MECH
- CR — SECURITY CARD READER



TRUE NORTH / PLAN NORTH

1 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

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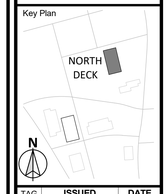

TAG	ISSUED	DATE
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4	Design Development	09/08/25

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FIRST FLOOR PLAN

DRAWING NO

A-111-N

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FLOOR PLAN LEGEND

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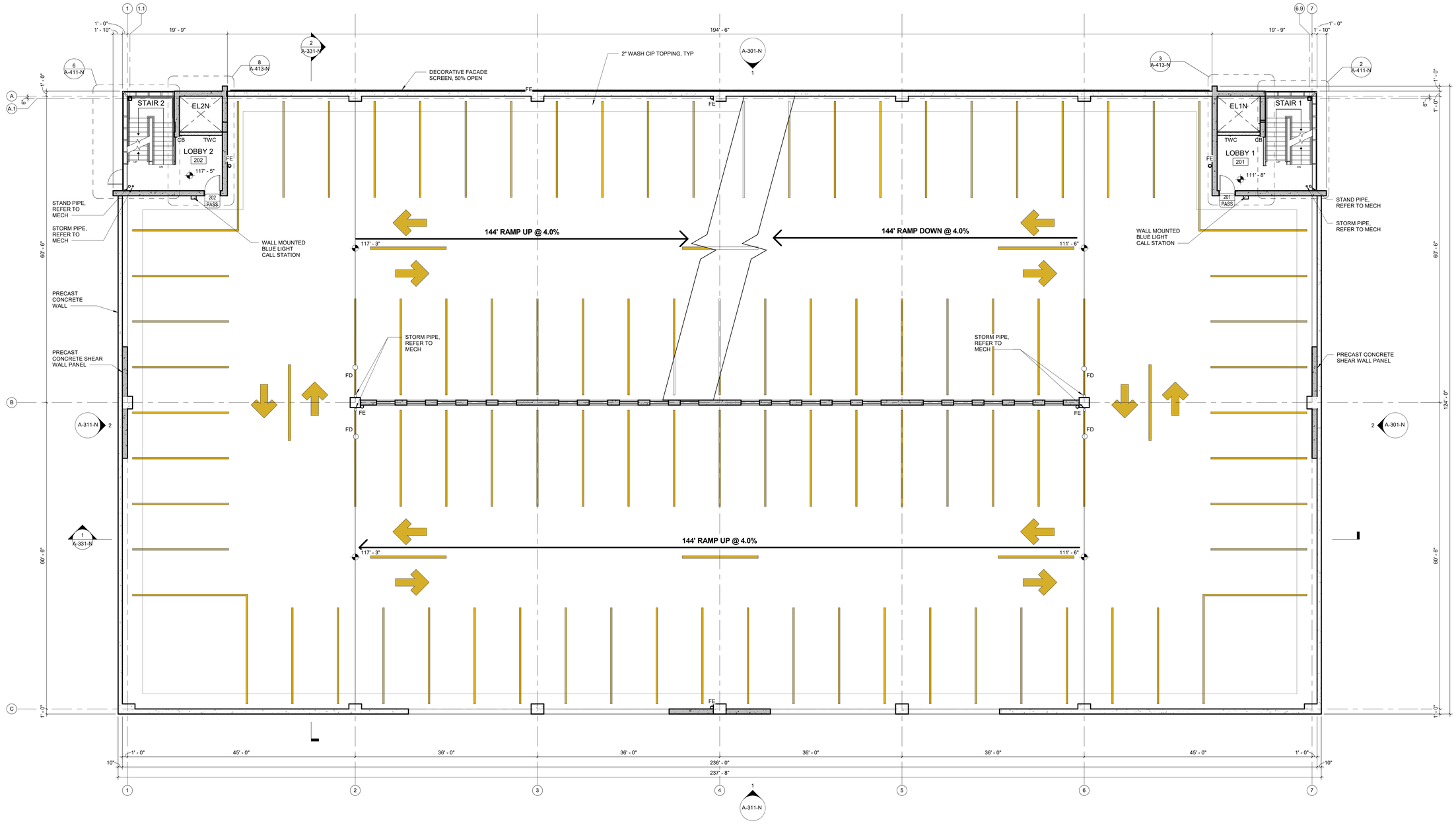

TRUE NORTH / PLAN NORTH

1 SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

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Consultants

Seal

Key Plan

NORTH DECK

TAG	ISSUED	DATE
1	Draft Deck Project Site Plan	07/11/25
2	Schematic Design	07/16/25
3	50% DD	08/15/25
4	Design Development	09/08/25

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SECOND FLOOR PLAN

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FLOOR PLAN NOTES

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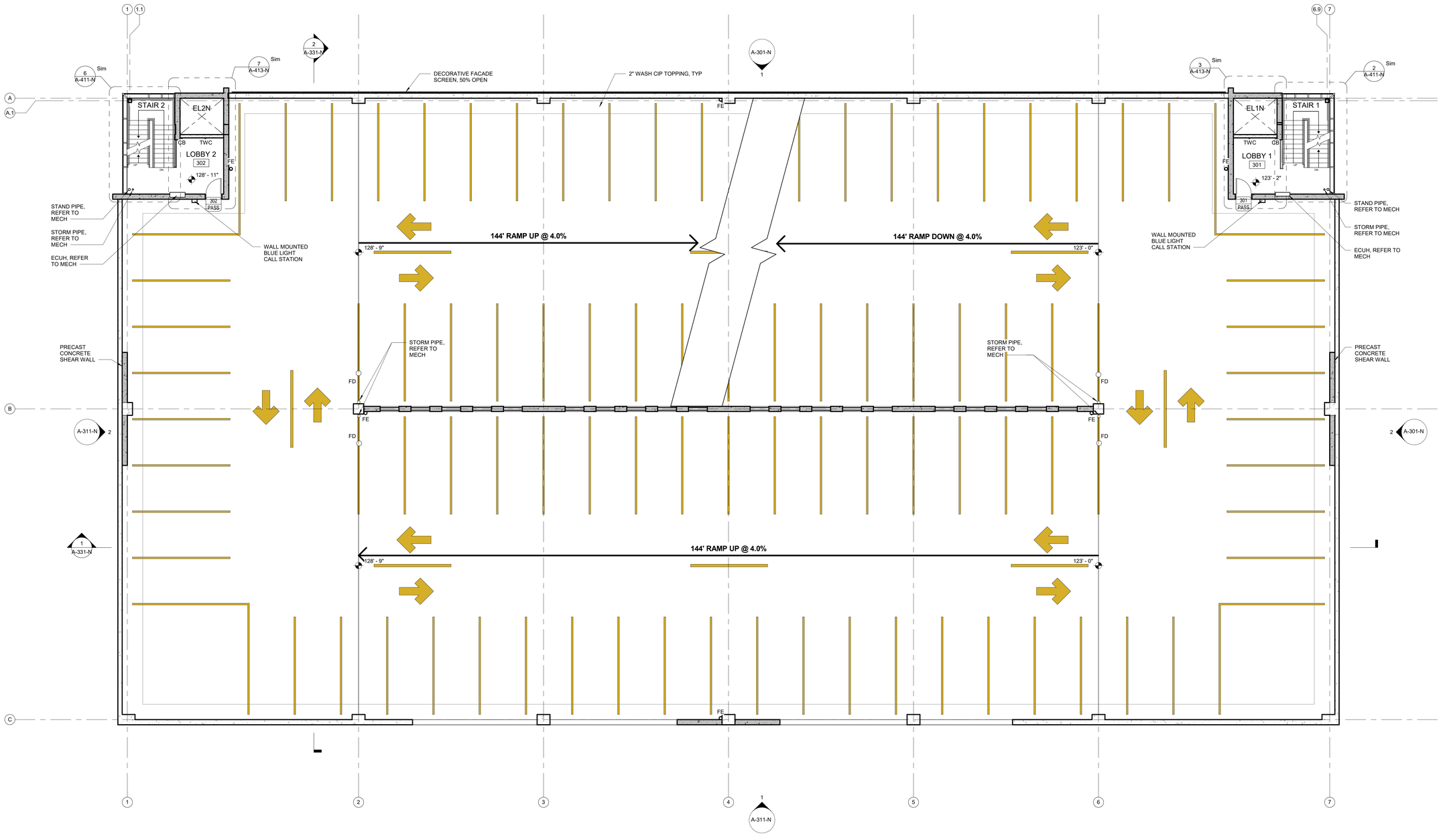

TRUE NORTH PLAN NORTH

1 THIRD FLOOR PLAN
SCALE: 1/8" = 1'-0"

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

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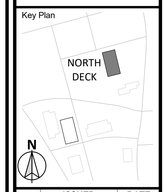

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THIRD FLOOR PLAN

DRAWING NO

A-131-N

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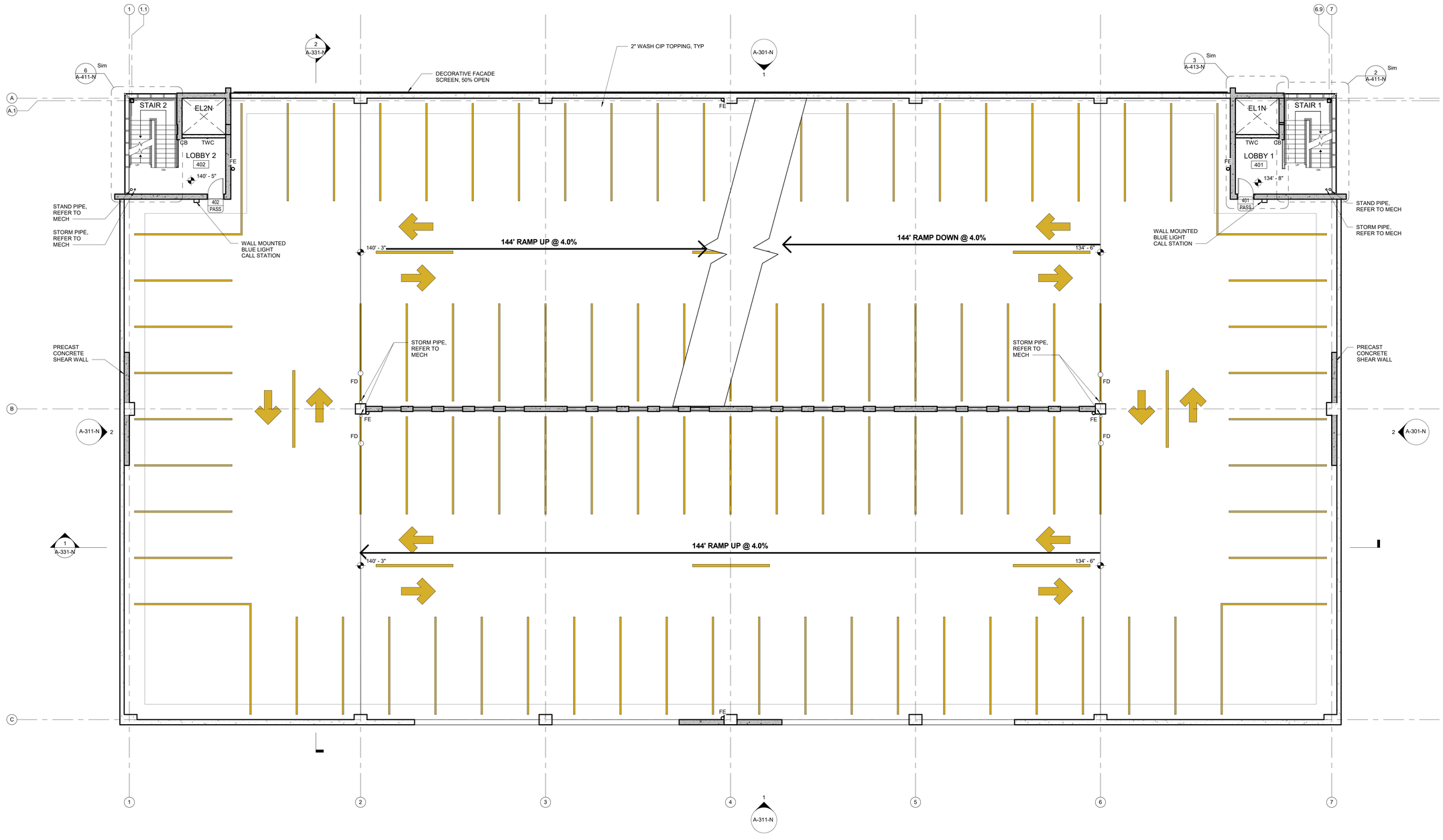

TRUE NORTH PLAN NORTH

1 FOURTH FLOOR PLAN
SCALE: 1/8" = 1'-0"

Project Title

Oakland County Parking Decks - North Deck

Oakland County

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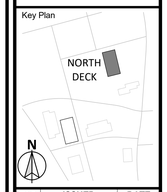

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FOURTH FLOOR PLAN

DRAWING NO

A-141-N

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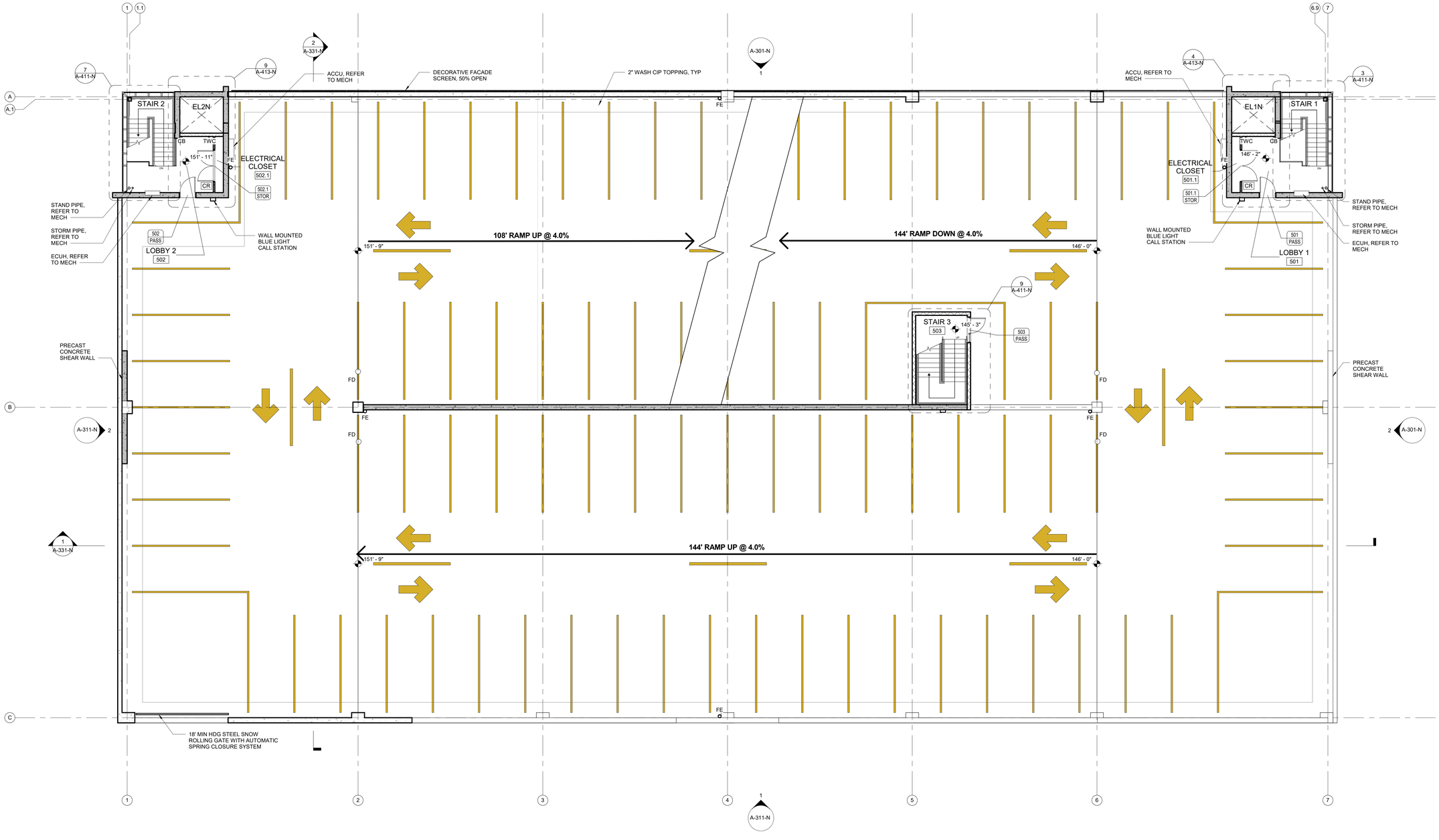
3. CONTRACTOR TO COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
4. REFER TO SHEET **A-601-N** FOR WALL PARTITION TYPES. ALL PARTITIONS ARE TYPE **0M8**, UNLESS NOTED OTHERWISE.
5. REFER TO SHEET **A-601-N** FOR DOOR SCHEDULE.
6. ALL INTERIOR DIMENSIONS ARE NOMINAL AND TO FACE OF PARTITION ASSEMBLY OR COLUMN CENTERLINE. INTERIOR FINISHES ARE NOT SHOWN.
7. PROVIDE CROSS SLOPES FOR DRAINAGE AT 2%, UNO.
8. REFER TO SHEET **A-111-N** FOR TYPICAL DIMENSIONS
9. REFER TO SHEET **A-900 SERIES** FOR STRIPING DIMENSIONS

FLOOR PLAN LEGEND

XXX	PARTITION (REFER TO PARTITION TYPES) AND DOOR (REFER TO DOOR TYPES AND SCHEDULE)	FE	FIRE EXTINGUISHER HOOK
		CJ	CONTROL JOINT
XXX	PARTITION TYPE, REFER TO PARTITION TYPES. ALIGN NEW PARTITION FLUSH AND SMOOTH WITH ADJACENT EXISTING PARTITION WHERE IT OCCURS, U.N.O. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISH.	A	ALIGN FLUSH
		FD	FLOOR DRAIN, REFER TO MECH
	PRECAST CONCRETE SHEAR WALL, REFER TO STRUCTURAL	CR	SECURITY CARD READER



TRUE NORTH PLAN NORTH

1 FIFTH FLOOR PLAN

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

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

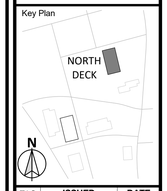
Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

Seal

Key Plan



TAG	ISSUED	DATE
1	Draft Deck Project Site Plan	07/11/25
2	Schematic Design	07/16/25
3	50% DD	08/15/25
4	Design Development	09/08/25

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FIFTH FLOOR PLAN

DRAWING NO

A-151-N

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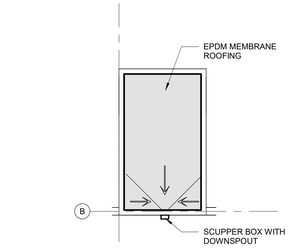
ROOF PLAN NOTES

1. CONTRACTOR TO COORDINATE THE INTERFACING OF ALL TRADES WITH RESPECT TO DELIVERY AND INSTALLATION OF ALL FURNITURE, FIXTURES AND EQUIPMENT.
2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS BEFORE INSTALLATION. CONSULT ARCHITECT WHEN ACTUAL FIELD CONDITIONS VARY FROM THOSE SHOWN ON CONSTRUCTION DOCUMENTS.
3. CONTRACTOR TO COORDINATE LOCATIONS OF ALL REQUIRED UTILITIES WITH THE TRADE PROVIDING THE SAME. REFER TO MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS FOR ADDITIONAL INFORMATION.
4. REFER TO SHEET **A-390** FOR ROOF DETAILS.
5. PROVIDE CRICKETS AT ALL MECHANICAL CURBS AND ROOF PENETRATIONS. MAINTAIN MINIMUM 1/8" PER 12" OF POSITIVE DRAINAGE SLOPE AT ALL CRICKETS AND VALLEYS.
6. ROOFING WORK MUST BE PERFORMED SO AS TO PROVIDE COMPLETED, FUNCTIONING AND WATER TIGHT ROOF SYSTEMS AT ALL LOCATIONS WHERE ROOFING WORK IS PERFORMED UNDER THIS PROJECT.

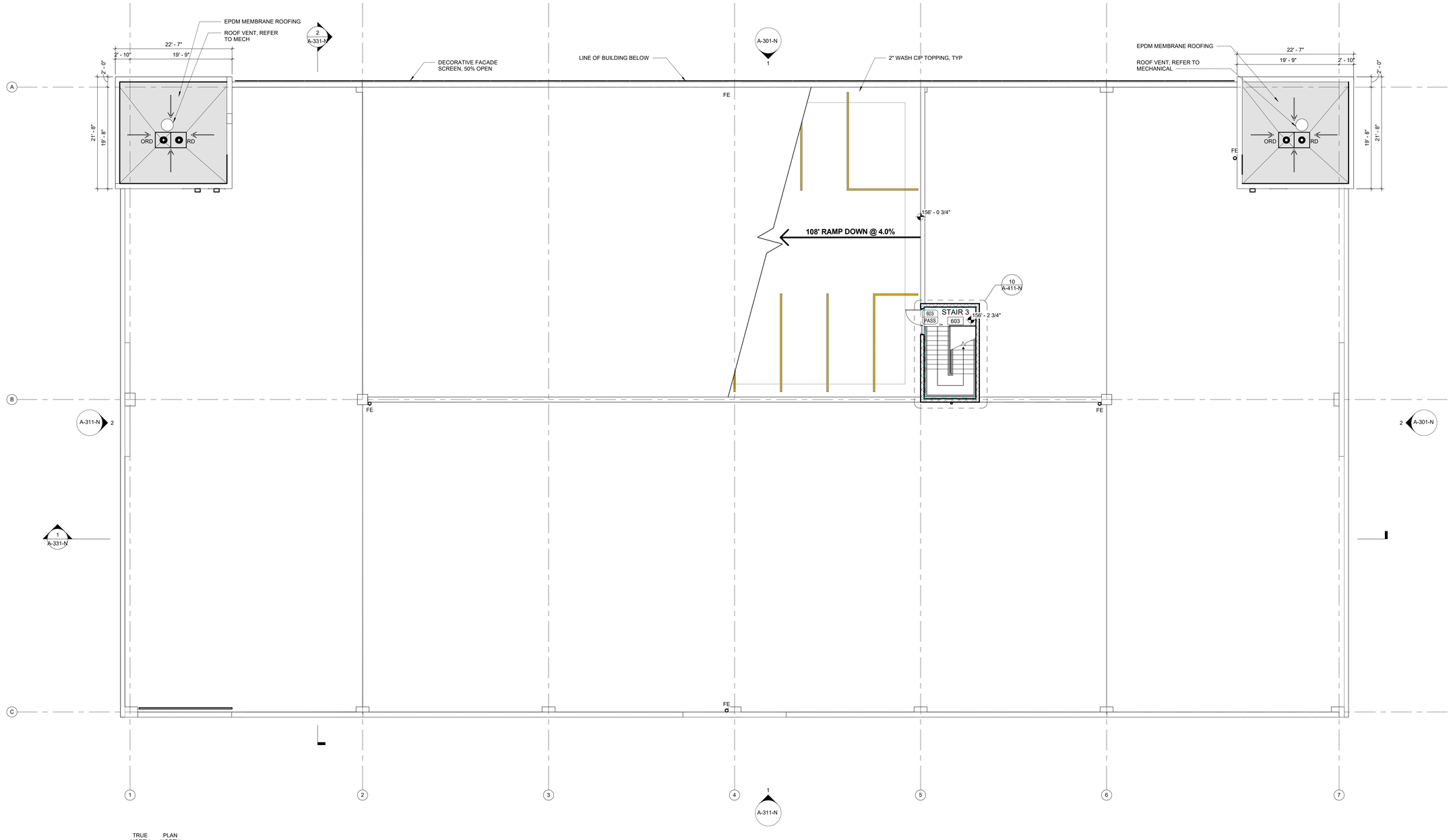
ROOF PLAN LEGEND

- EPDM BUILT-UP ROOF SYSTEM
- TAPERED INSULATION
- ORD — OVERFLOW ROOF DRAIN
- RD — ROOF DRAIN
- DN — DISCHARGE NOZZLE
- ROOF SAFETY ANCHOR SYSTEM
- 1/4" MIN PER FOOT SLOPE



TRUE NORTH PLAN NORTH 5

2 ROOF PLAN - EGRESS STAIR
SCALE: 1/8" = 1'-0"



TRUE NORTH PLAN NORTH 1

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

Project Title

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Oakland County

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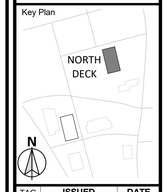

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ROOF PLAN

DRAWING NO

A-161-N

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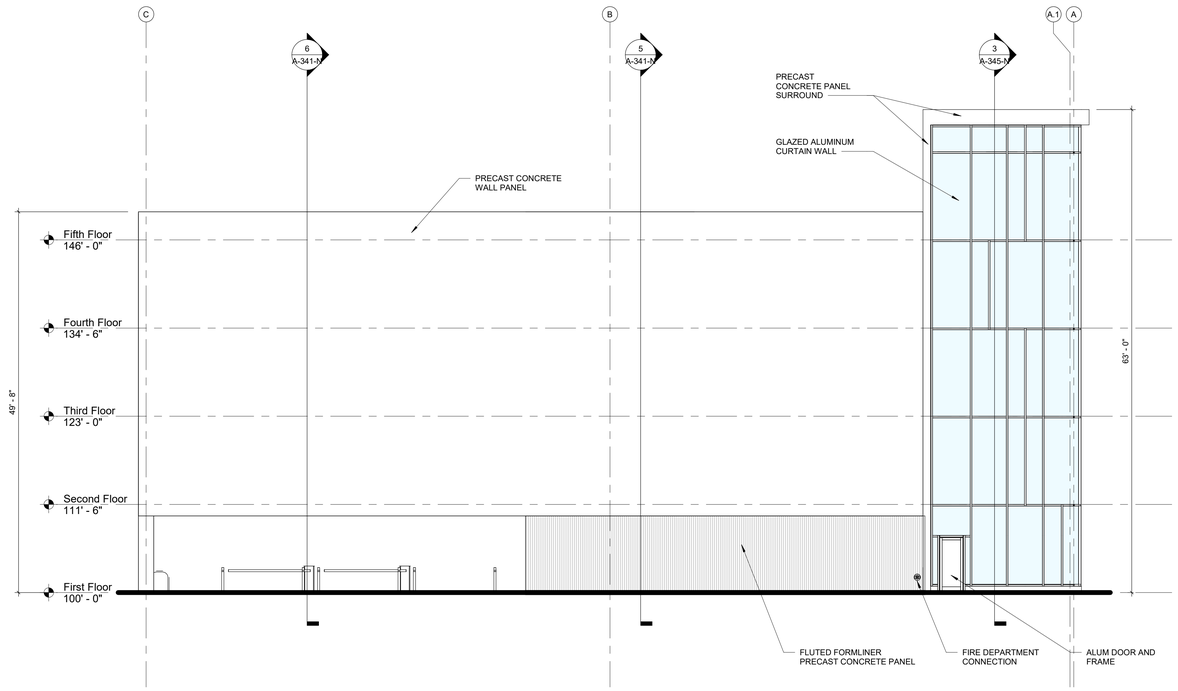
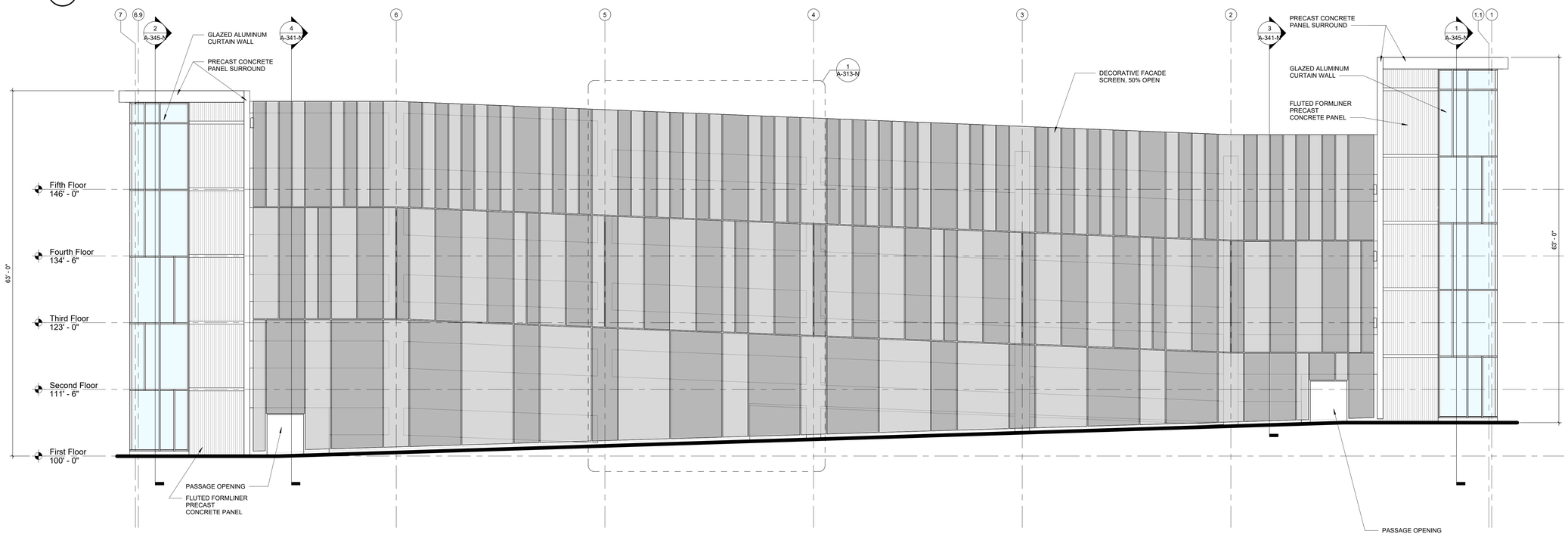


2 A-111-N **EXTERIOR ELEVATION - NORTH**
SCALE: 1/8" = 1'-0"



1 A-111-N **EXTERIOR ELEVATION - WEST**
SCALE: 1/8" = 1'-0"

EXTERIOR ELEVATION NOTES

1. FIXTURES AND EQUIPMENT ATTACHED TO METAL PANEL SURFACE SHALL BE SUPPORTED BY AND EXTEND TO THE STRUCTURAL SUBSTRATE. METAL PANELS SHALL NOT BE USED TO SUPPORTS SURFACE MOUNTED ITEMS, UNLESS ACCEPTED AND APPROVED BY THE MANUFACTURER.
2. METALS PANEL COPING JOINTS SHALL ALIGN WITH METAL PANEL WALL JOINTS, UNO.
3. ALL METAL PANEL CORNERS SHALL BE BENT METAL PANEL SYSTEM. MITERED CORNERS ARE NOT ACCEPTABLE.
4. METAL PANEL SIZES SHALL BE AS SHOWN ON DRAWINGS. ANY CHANGE IN SIZE OR LOCATION OF JOINTS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
5. METAL PANEL SYSTEM SHALL BE BASED ON A RAIN SCREEN OPEN JOINT SYSTEM WITH AN AVERAGE 1/2" JOINT WIDTH.
6. CURTAIN WALL SYSTEMS TO BE DESIGNED BY CURTAIN WALL MANUFACTURER.
7. CURTAIN WALL MANUFACTURER TO INCLUDE ENGINEERING OF ALL CONNECTIONS TO THE BUILDING STRUCTURAL SYSTEMS. PROVIDE STRUCTURAL LOADS TO STEEL MANUFACTURER AND STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL.

EXTERIOR ELEVATION SYMBOLS

CJ	CONTROL JOINT
EJ	EXPANSION JOINT
PJ	PANEL JOINT

EXTERIOR GLASS TYPES

NOTE: ALL GLASS TYPES TO BE SAFETY GLASS, UNO

IGU-1	1" CLEAR INSULATING GLASS UNIT
IGU-2	1" SPANDREL INSULATING GLASS UNIT

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

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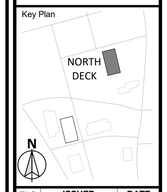

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Framework E PROJ NO **2025011**

EXTERIOR ELEVATIONS

DRAWING NO

A-301-N

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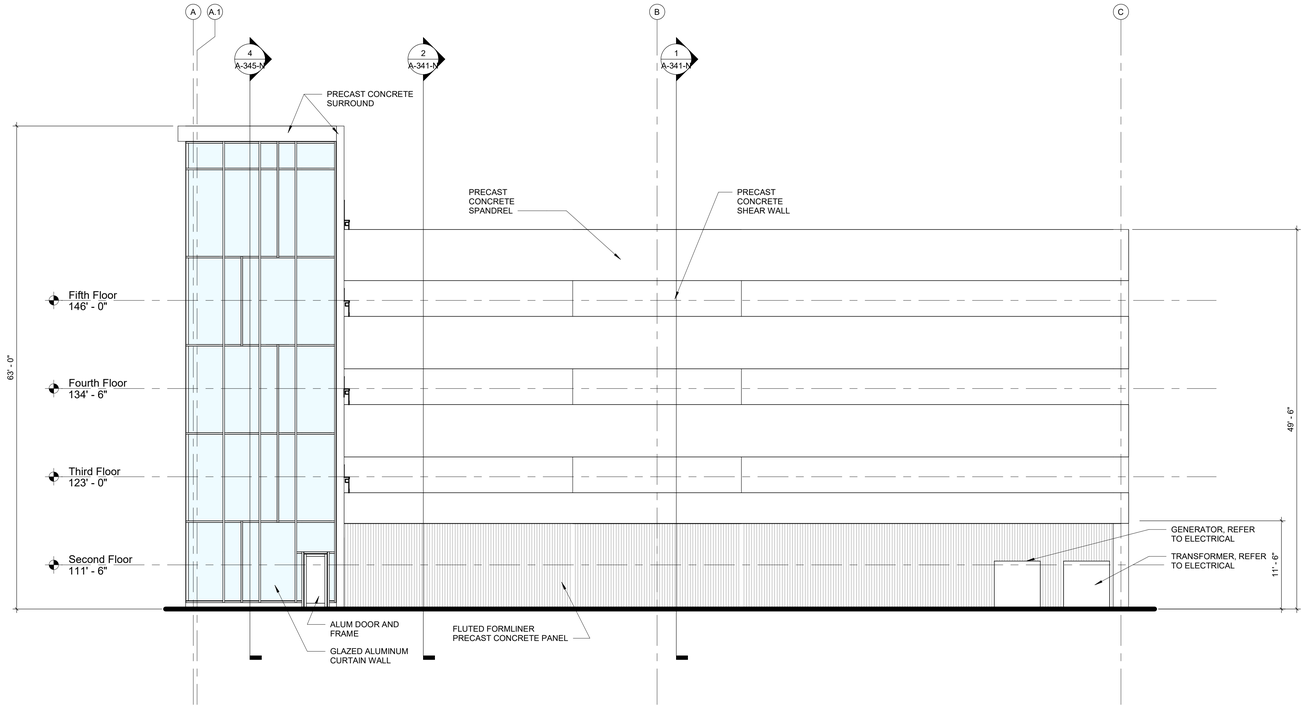
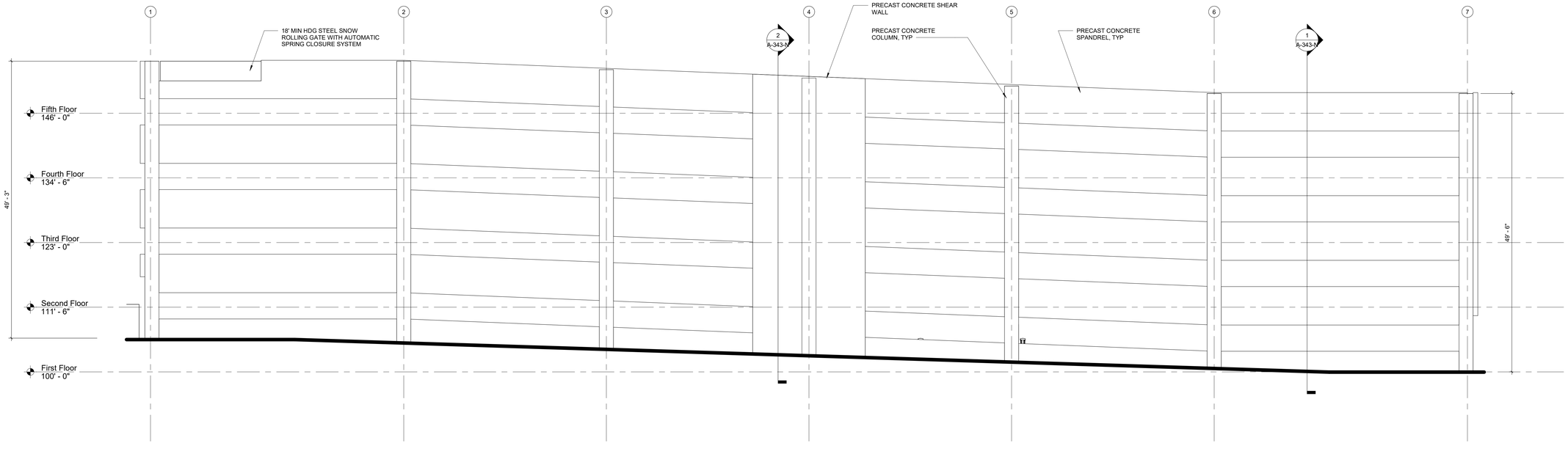


2 A-111-N **EXTERIOR ELEVATION - SOUTH**

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



1 A-111-N **EXTERIOR ELEVATION - EAST**

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

EXTERIOR ELEVATION NOTES

1. FIXTURES AND EQUIPMENT ATTACHED TO METAL PANEL SURFACE SHALL BE SUPPORTED BY AND EXTEND TO THE STRUCTURAL SUBSTRATE. METAL PANELS SHALL NOT BE USED TO SUPPORTS SURFACE MOUNTED ITEMS, UNLESS ACCEPTED AND APPROVED BY THE MANUFACTURER.
2. METALS PANEL COPING JOINTS SHALL ALIGN WITH METAL PANEL WALL JOINTS, UNO.
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EXTERIOR ELEVATION SYMBOLS

CJ	CONTROL JOINT
EJ	EXPANSION JOINT
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EXTERIOR GLASS TYPES

NOTE: ALL GLASS TYPES TO BE SAFETY GLASS, UNO

IGU-1	1" CLEAR INSULATING GLASS UNIT
IGU-2	1" SPANDREL INSULATING GLASS UNIT

Project Title

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Oakland County

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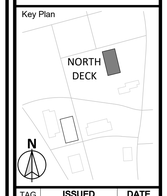

TAG	ISSUED	DATE
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EXTERIOR ELEVATIONS

DRAWING NO

A-311-N

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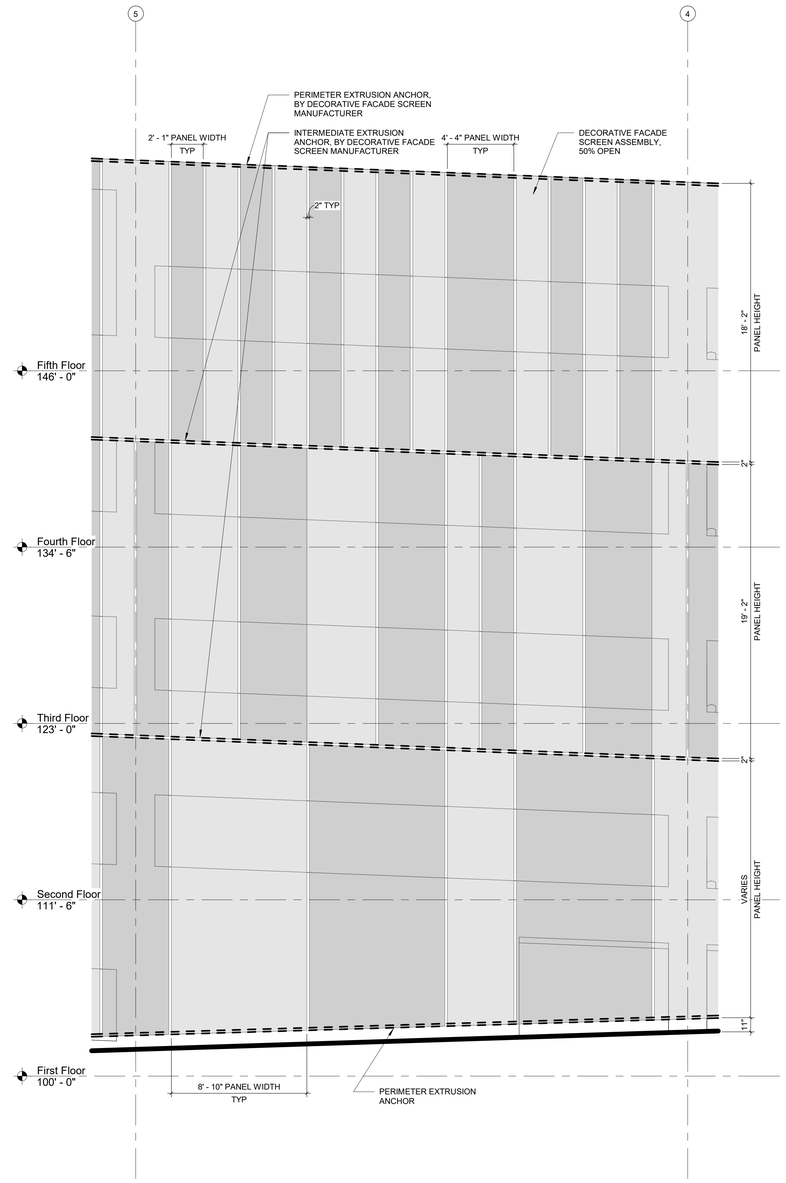

1 A-301-N ENLARGED EXTERIOR ELEVATION

SCALE: 1/4" = 1'-0"

EXTERIOR ELEVATION NOTES

1. FIXTURES AND EQUIPMENT ATTACHED TO METAL PANEL SURFACE SHALL BE SUPPORTED BY AND EXTEND TO THE STRUCTURAL SUBSTRATE. METAL PANELS SHALL NOT BE USED TO SUPPORTS SURFACE MOUNTED ITEMS, UNLESS ACCEPTED AND APPROVED BY THE MANUFACTURER.
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EXTERIOR ELEVATION SYMBOLS

CJ	CONTROL JOINT
EJ	EXPANSION JOINT
PJ	PANEL JOINT

EXTERIOR GLASS TYPES

NOTE: ALL GLASS TYPES TO BE SAFETY GLASS, UNO

IGU-1	1" CLEAR INSULATING GLASS UNIT
IGU-2	1" SPANDREL INSULATING GLASS UNIT

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

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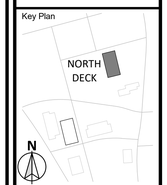

TAG	ISSUED	DATE
1	Design Development	09/08/25

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ENLARGED EXTERIOR ELEVATIONS

DRAWING NO

A-313-N

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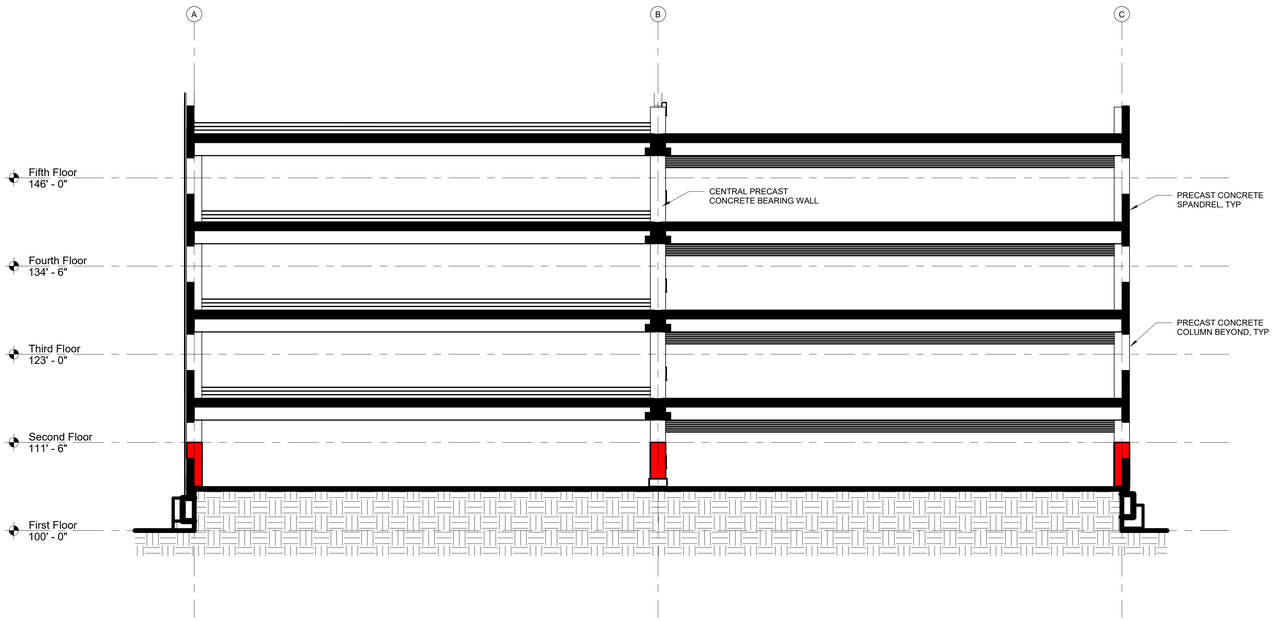
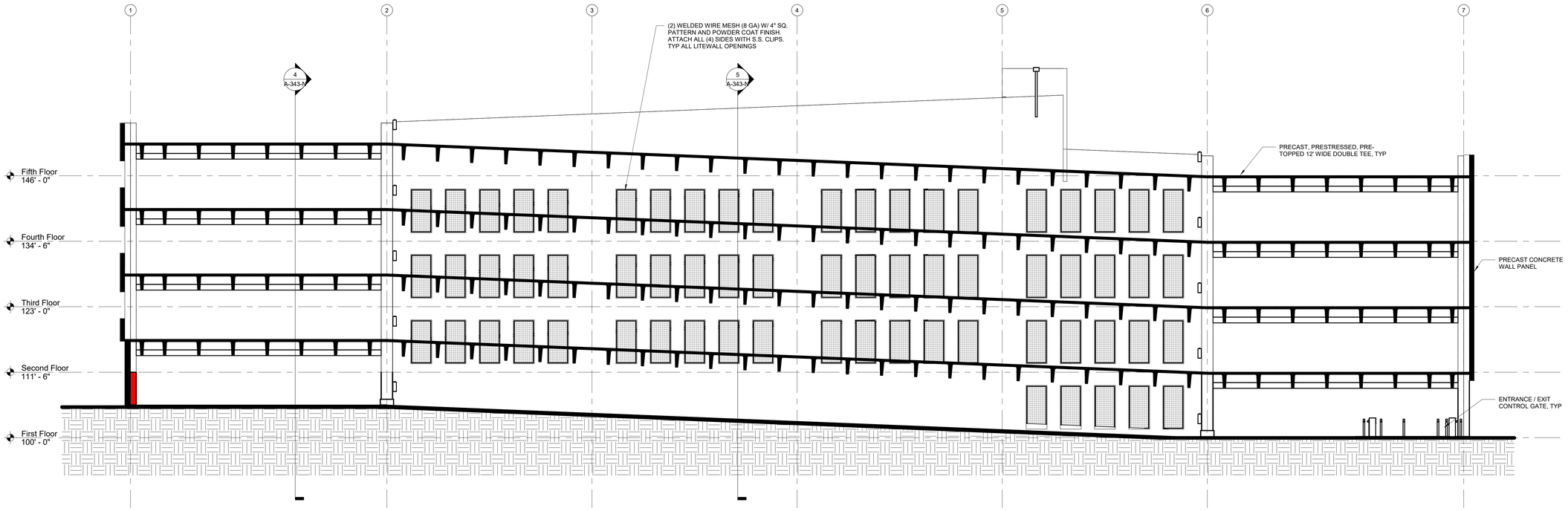


2 A-111-N BUILDING SECTION - LOOKING PLAN NORTH

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



1 A-111-N BUILDING SECTION - LOOKING PLAN WEST

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

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

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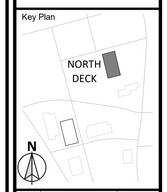

TAG	ISSUED	DATE
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BUILDING SECTIONS

DRAWING NO

A-331-N

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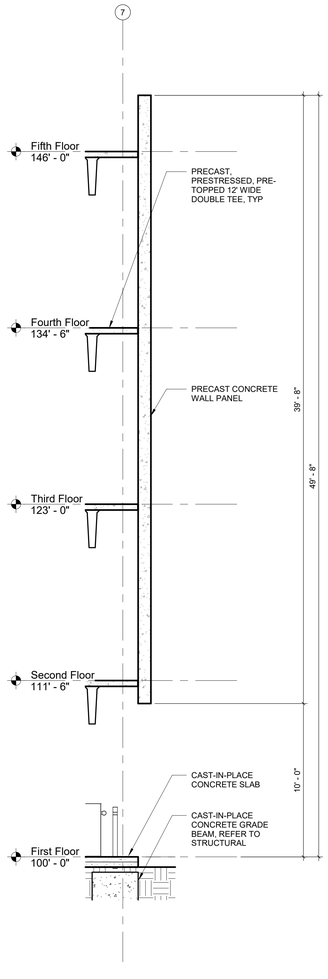
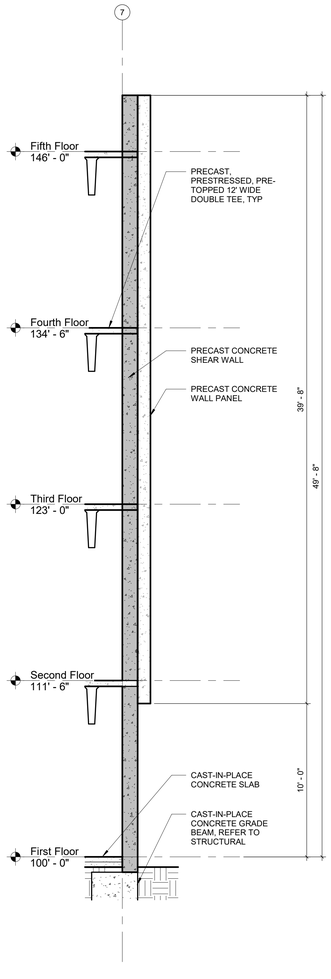
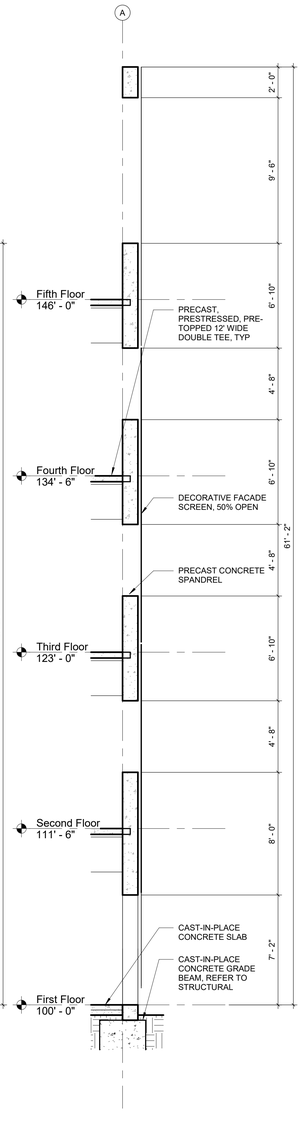


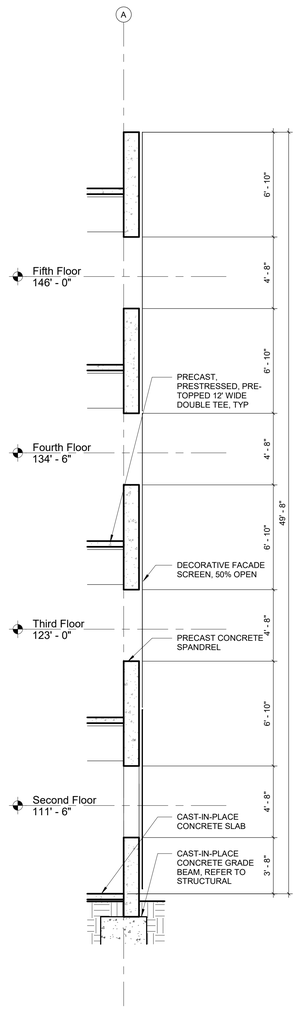
6 A-301-N WALL SECTION
SCALE: 1/4" = 1'-0"



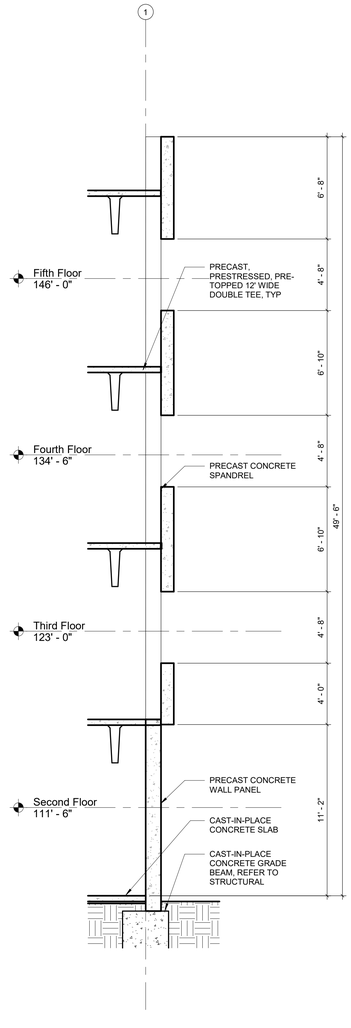
5 A-301-N WALL SECTION
SCALE: 1/4" = 1'-0"



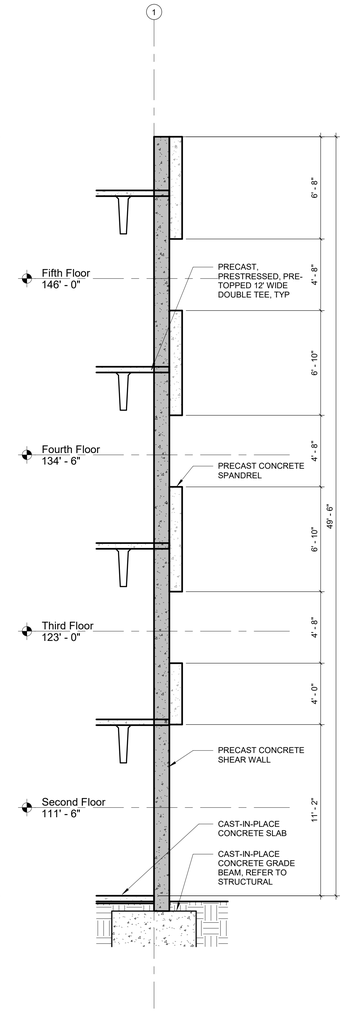
4 A-301-N WALL SECTION
SCALE: 1/4" = 1'-0"



3 A-301-N WALL SECTION
SCALE: 1/4" = 1'-0"



2 A-301-N WALL SECTION
SCALE: 1/4" = 1'-0"



1 A-311-N WALL SECTION
SCALE: 1/4" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

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Oakland County

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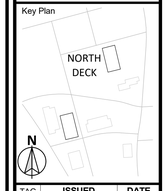

TAG	ISSUED	DATE
1	50% DD	08/15/25
2	Design Development	09/08/25

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WALL SECTIONS

DRAWING NO

A-341-N

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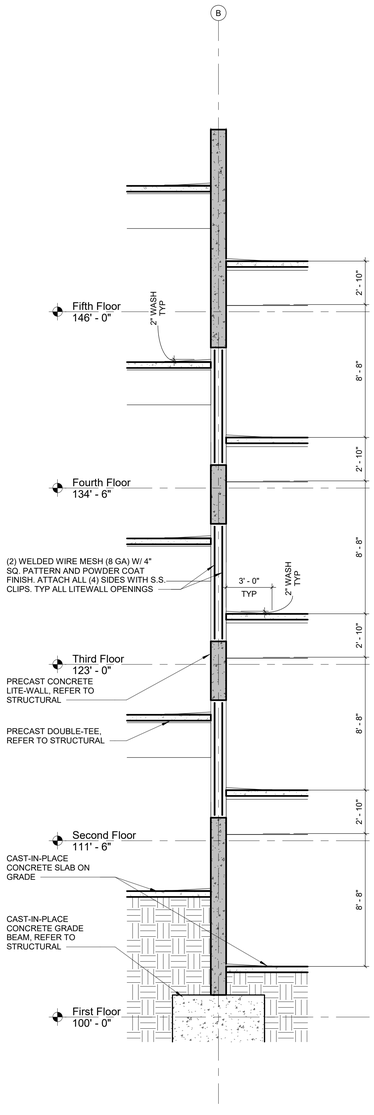
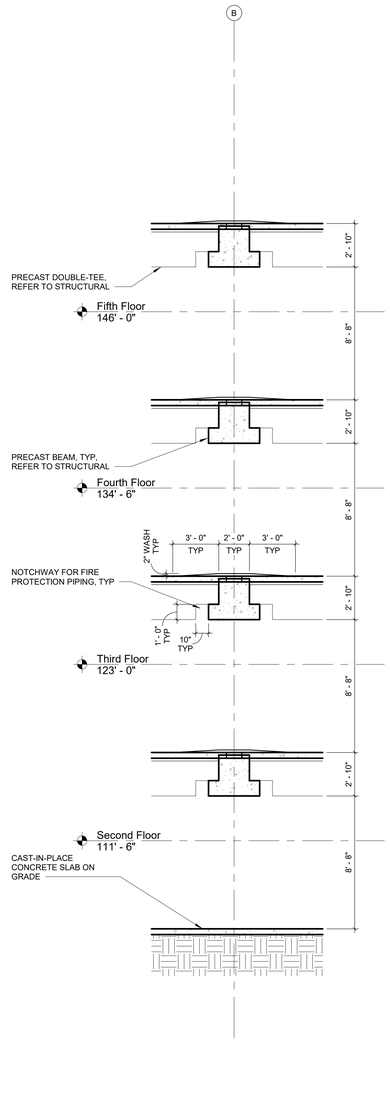
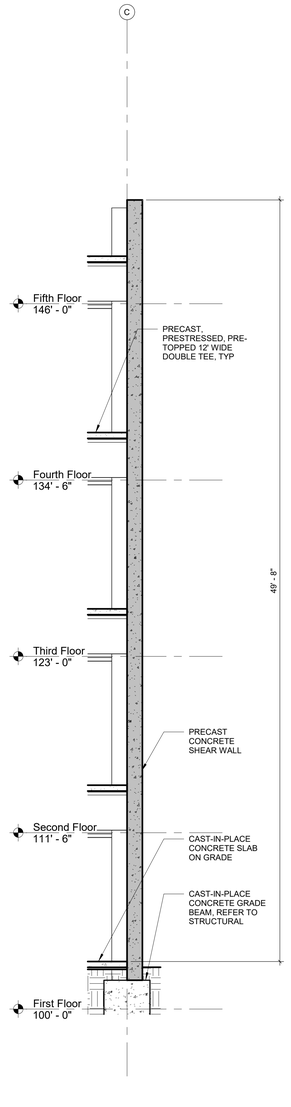


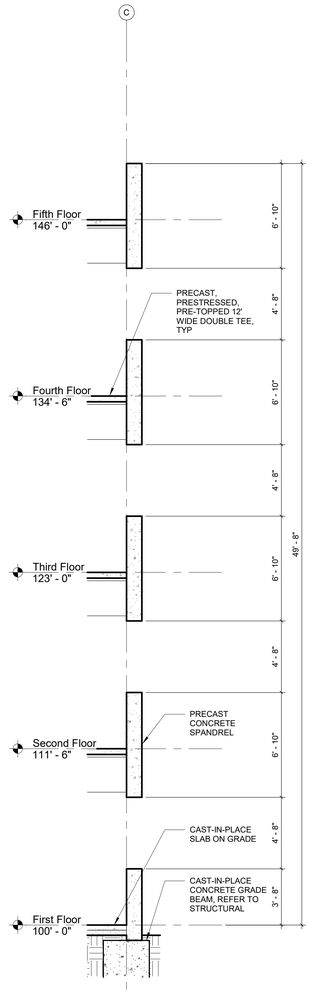
5 A-331-N WALL SECTION
SCALE: 1/4" = 1'-0"



4 A-331-N WALL SECTION
SCALE: 1/4" = 1'-0"



2 A-311-N WALL SECTION
SCALE: 1/4" = 1'-0"



1 A-311-N WALL SECTION
SCALE: 1/4" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

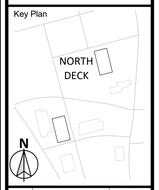
Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

Seal

Key Plan



TAG	ISSUED	DATE
1	50% DD	08/15/25
2	Design Development	09/08/25

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WALL SECTIONS

DRAWING NO

A-343-N

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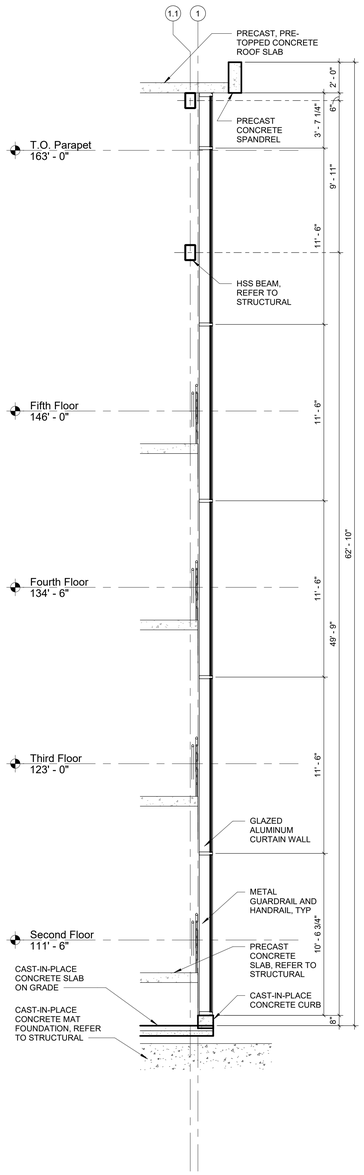
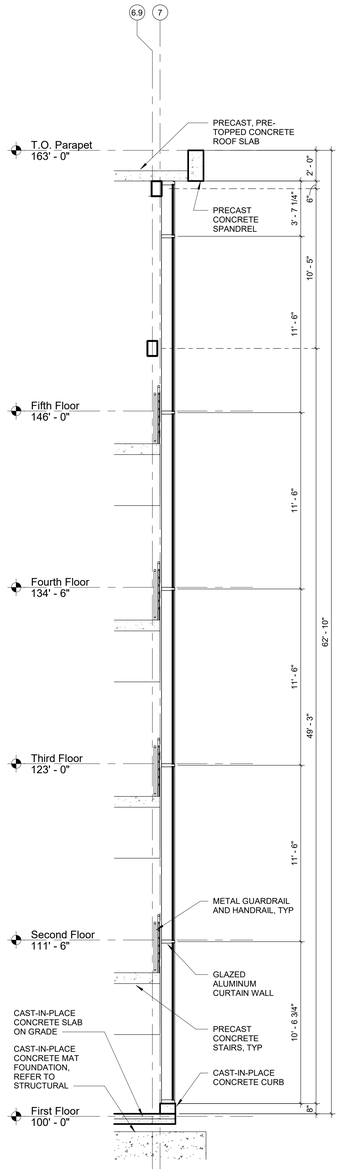
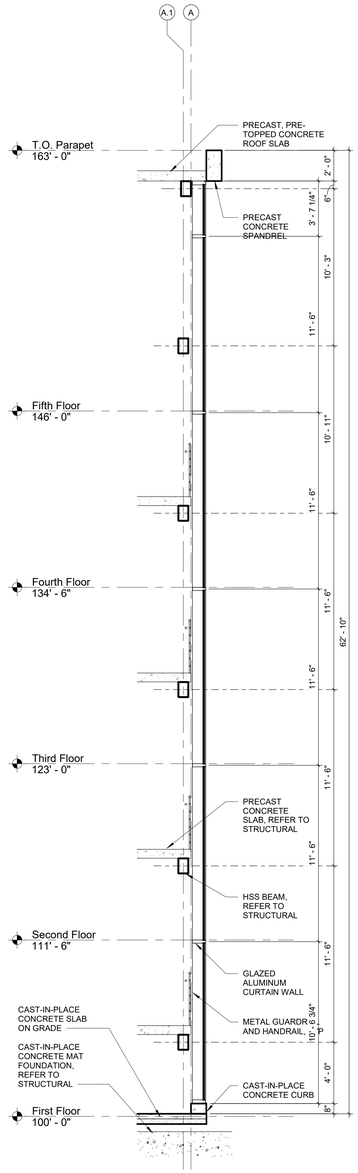


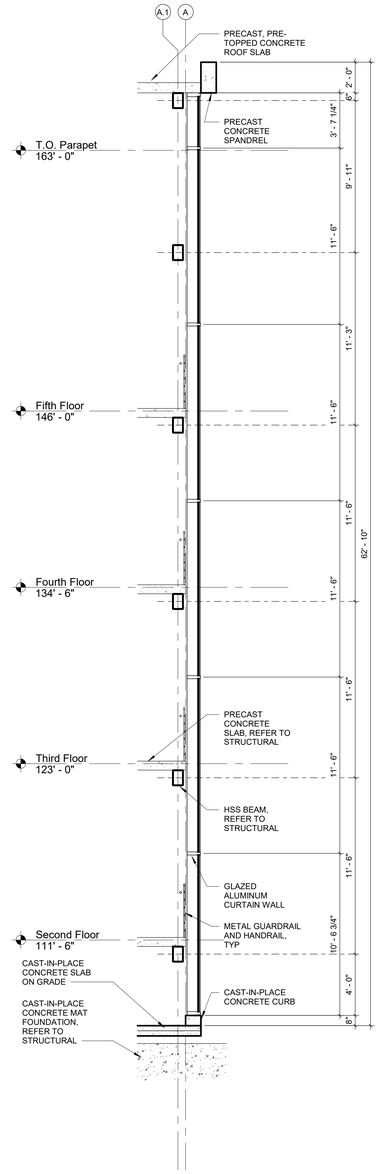
4 WALL SECTION
SCALE: 1/4" = 1'-0"



3 WALL SECTION
SCALE: 1/4" = 1'-0"



2 WALL SECTION
SCALE: 1/4" = 1'-0"



1 WALL SECTION
SCALE: 1/4" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

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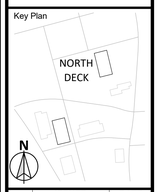
www.framework-e.com

Consultants

Seal

Key Plan



TAG	ISSUED	DATE
1	Design Development	09/08/25

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WALL SECTIONS

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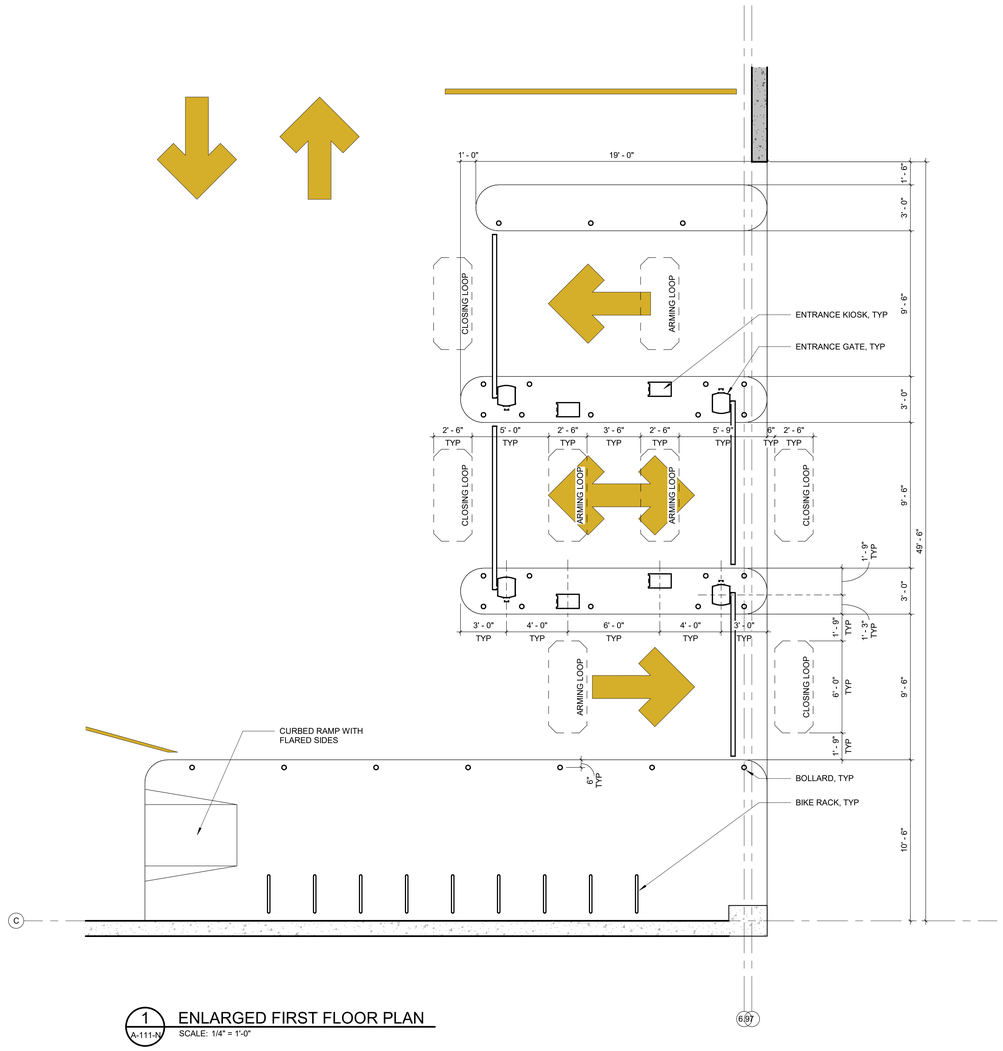

1 A-111-N ENLARGED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

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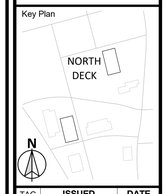

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ENLARGED FLOOR PLAN - ENTRANCE

DRAWING NO

A-401-N

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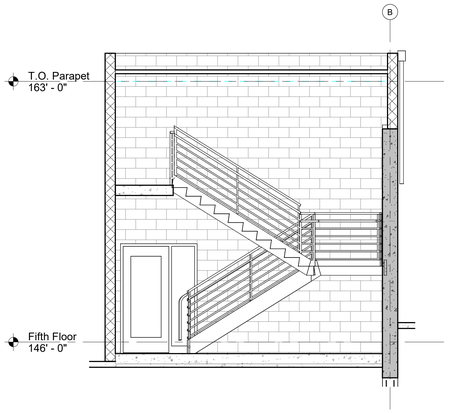
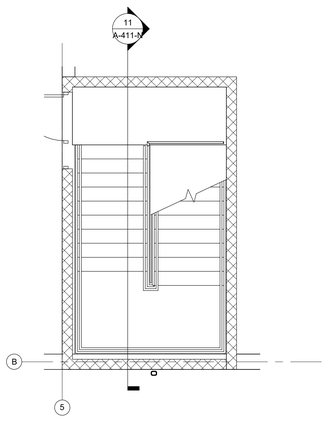
FLOOR PLAN LEGEND

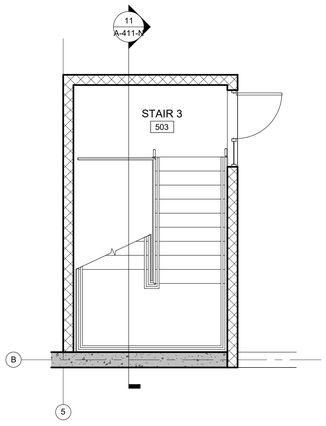
PRECAST CONCRETE SHEAR WALL, REFER TO STRUCTURAL



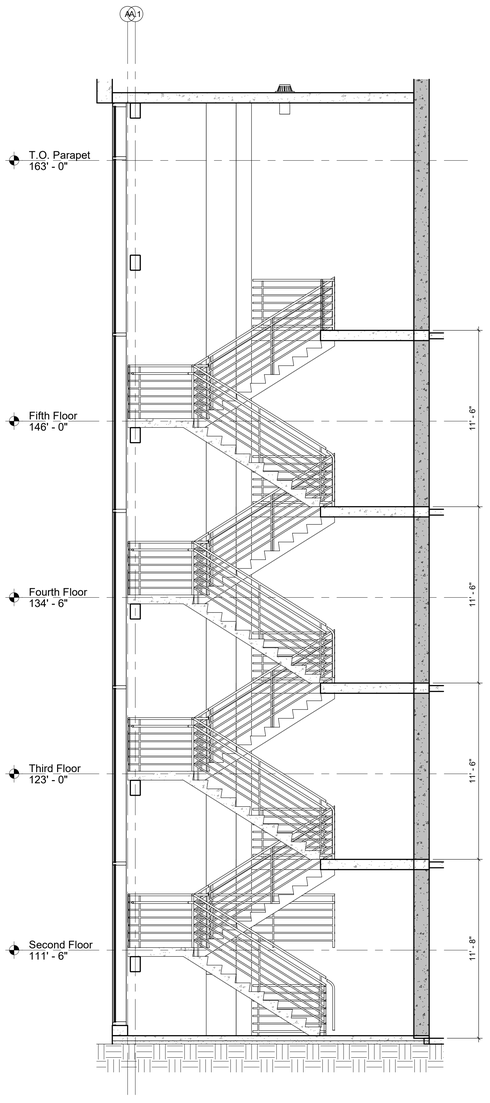
11 STAIRWELL SECTION
A-411-N — SCALE: 1/4" = 1'-0"



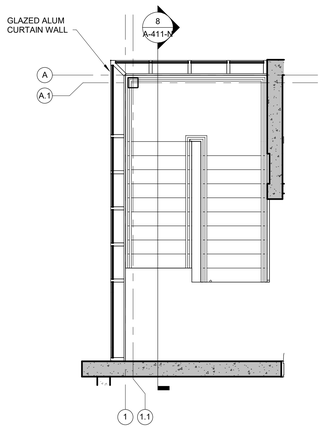
10 ENLARGED ROOF FLOOR PLAN
A-161-N — SCALE: 1/4" = 1'-0"



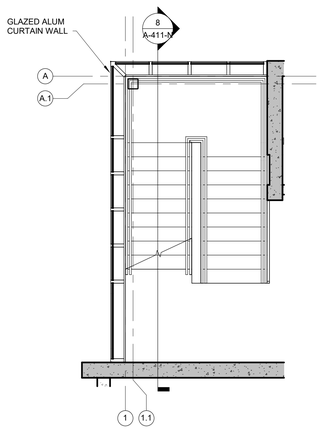
9 ENLARGED FIRST FLOOR PLAN
A-151-N — SCALE: 1/4" = 1'-0"



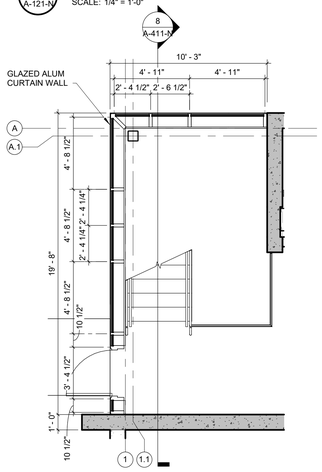
8 STAIRWELL SECTION
A-411-N — SCALE: 1/4" = 1'-0"



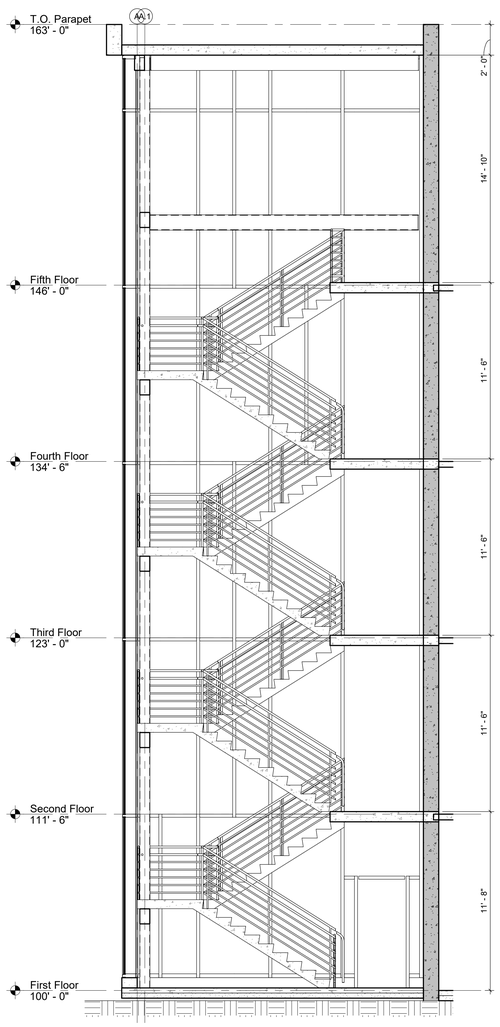
7 ENLARGED FIFTH FLOOR PLAN
A-151-N — SCALE: 1/4" = 1'-0"



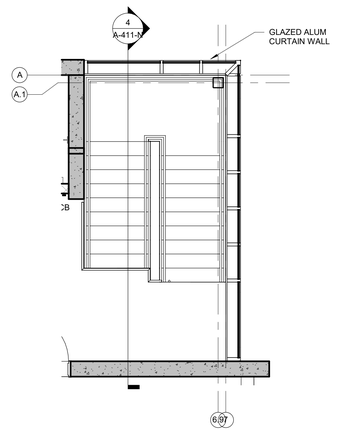
6 ENLARGED TYP FLOOR PLAN
A-121-N — SCALE: 1/4" = 1'-0"



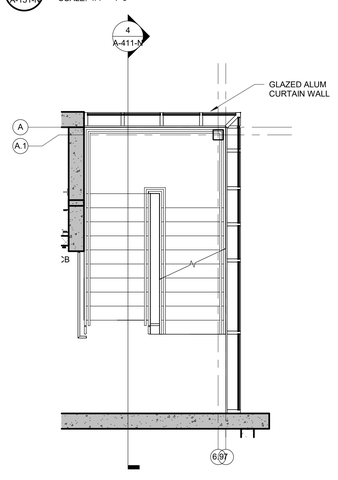
5 ENLARGED FIRST FLOOR PLAN
A-111-N — SCALE: 1/4" = 1'-0"



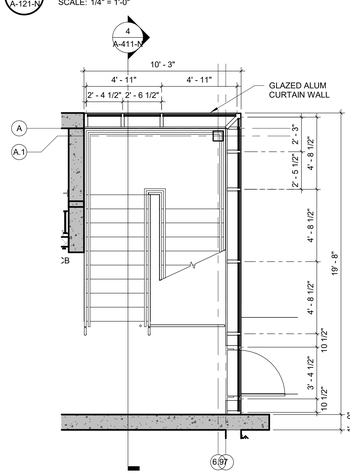
4 STAIRWELL SECTION
A-411-N — SCALE: 1/4" = 1'-0"



3 ENLARGED FIFTH FLOOR PLAN
A-151-N — SCALE: 1/4" = 1'-0"



2 ENLARGED TYP FLOOR PLAN
A-121-N — SCALE: 1/4" = 1'-0"



1 ENLARGED FIRST FLOOR PLAN
A-111-N — SCALE: 1/4" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

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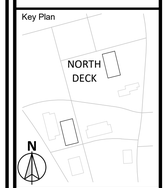

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ENLARGED FLOOR PLANS AND SECTIONS - STAIRS

DRAWING NO

A-411-N

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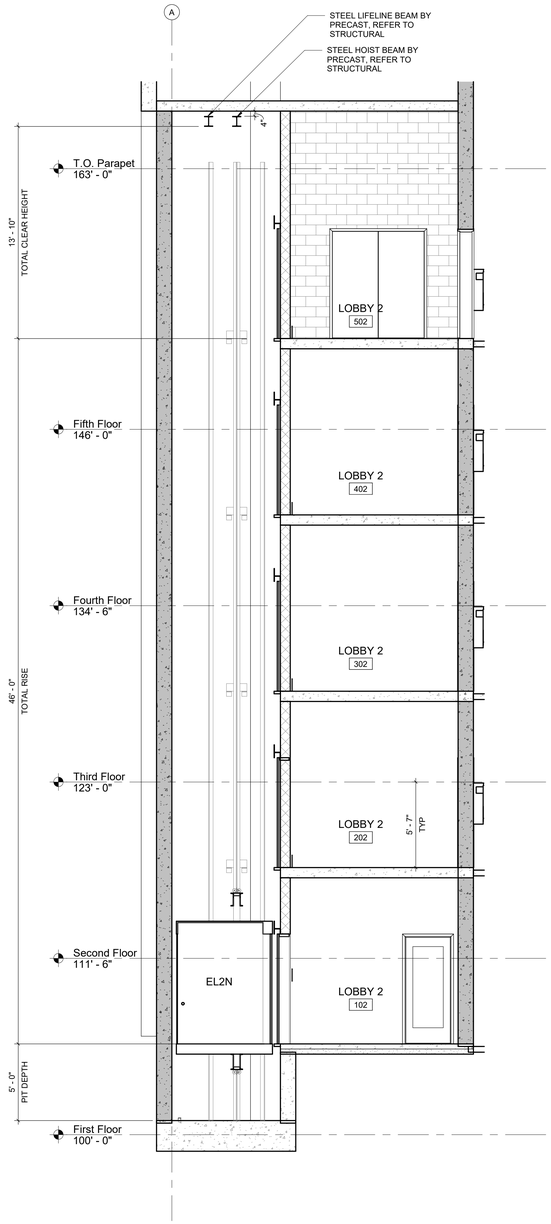
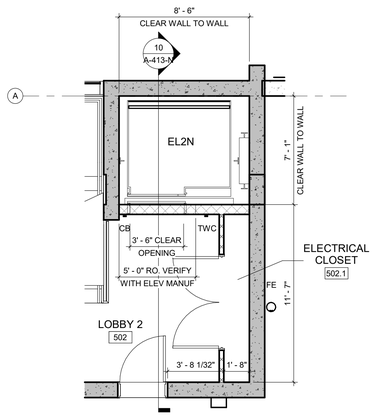


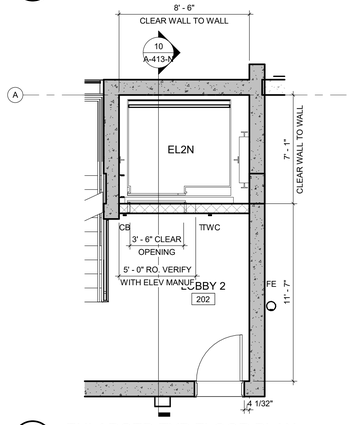
10 A-413-N ELEVATOR SHAFT SECTION

SCALE: 1/4" = 1'-0"



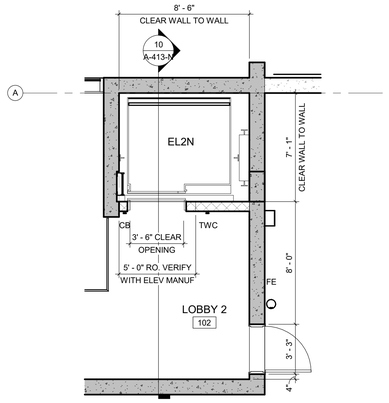
9 A-151-N ENLARGED FIFTH FLOOR PLAN

SCALE: 1/4" = 1'-0"



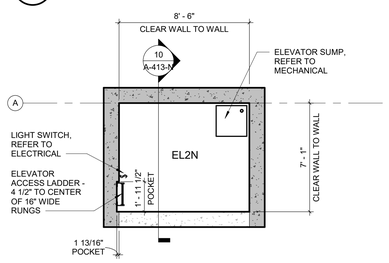
8 A-121-N ENLARGED TYP FLOOR PLAN

SCALE: 1/4" = 1'-0"



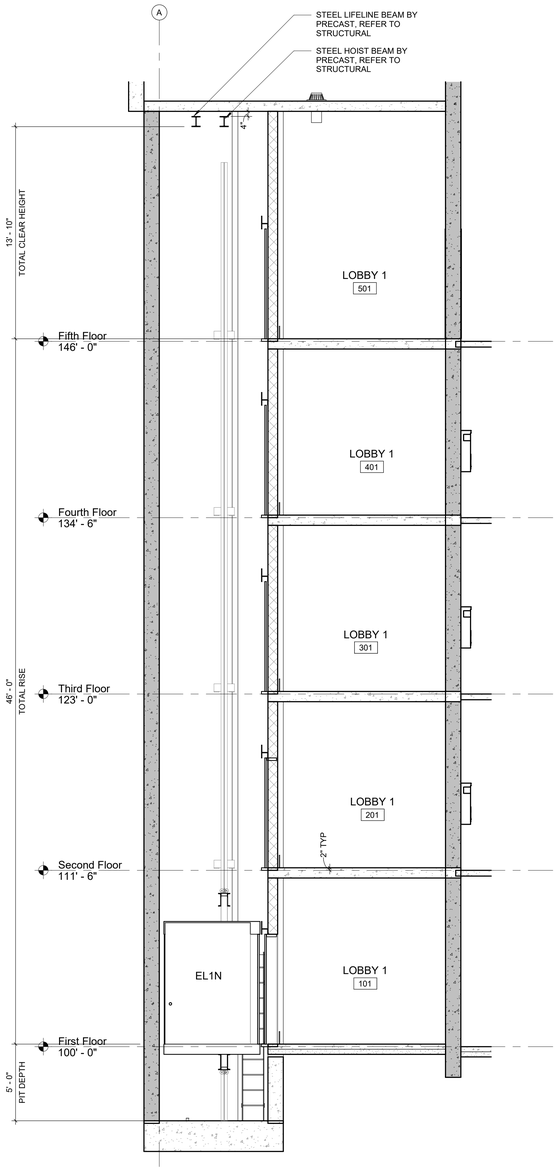
7 A-111-N ENLARGED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



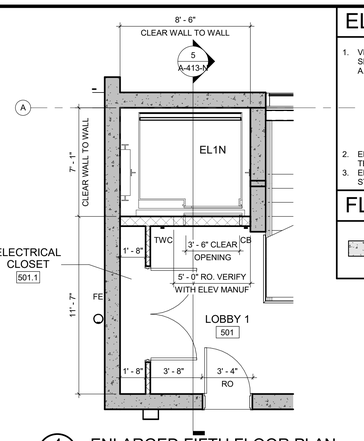
6 A-111-N ENLARGED PIT LEVEL FLOOR PLAN

SCALE: 1/4" = 1'-0"



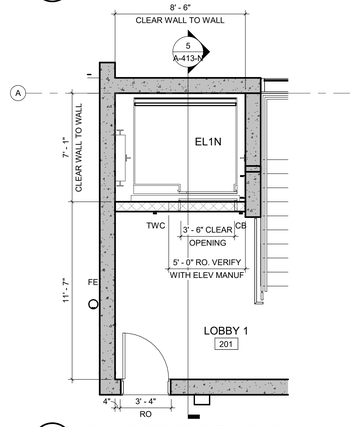
5 A-413-N ELEVATOR SHAFT SECTION

SCALE: 1/4" = 1'-0"



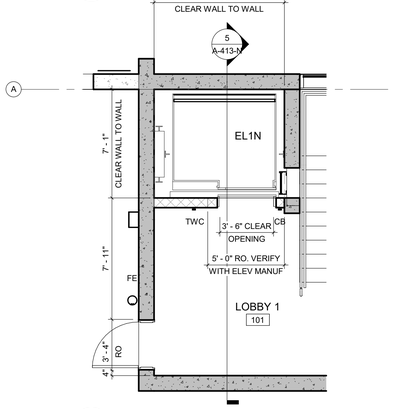
4 A-151-N ENLARGED FIFTH FLOOR PLAN

SCALE: 1/4" = 1'-0"



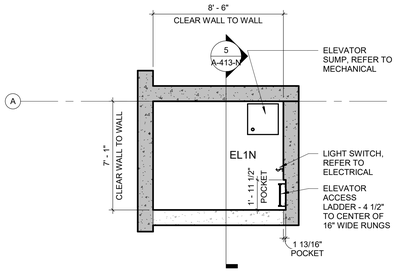
3 A-121-N ENLARGED TYP FLOOR PLAN

SCALE: 1/4" = 1'-0"



2 A-111-N ENLARGED FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



1 A-111-N ENLARGED PIT LEVEL PLAN

SCALE: 1/4" = 1'-0"

ELEVATOR NOTES

1. VERIFY ALL DIMENSIONS WITH APPROVED ELEVATOR SHOP DRAWINGS.
   A. EL1N AND EL2N:
      a. TYPE: ELECTRIC TRACTION MRL, PASSENGER
      b. CAPACITY: 3500 LBS
      c. SPEED: 200 FT / MIN
      d. STOPS: 5
      e. CAB HEIGHT: 7'-9"
      f. DOOR OPENING FRONT ONLY: 3'-6" WIDE X 7'-0" HIGH, SIDE OPENING
      g. STRETCHER CAPACITY: YES
2. ELEVATOR CAB FLOOR FINISH: RESILIENT FLOORING TBD
3. ELEVATOR CAB WALL FINISH: BRUSHED STAINLESS STEEL

FLOOR PLAN LEGEND

PRECAST CONCRETE SHEAR WALL, REFER TO STRUCTURAL

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

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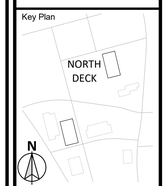

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Framework E PROJ NO **2025011**

ENLARGED FLOOR PLANS AND SECTIONS - ELEVATORS

DRAWING NO

A-413-N

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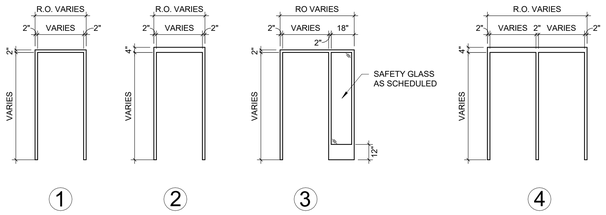
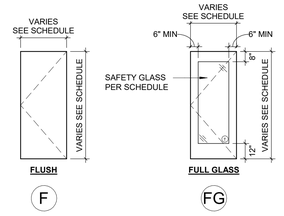
DOOR SCHEDULE

DOOR NO.	DOOR TYPE	DOOR SIZE			DOOR MAT'L	FRAME TYPE	FRAME MAT'L	DETAILS			LOUVER		FIRE RATING	GLAZING	Door Hardware Set	Door Hardware Type	COMMENTS
		WIDTH	HEIGHT	THICK				HEAD	JAMB	SILL	WIDTH	HEIGHT					
001	F, 2 LEAF	6' - 0"	7' - 0"	0' - 1 3/4"	HM	2	HM						-		3.0	STOR	CR, GALV AND PRE-PAINTED FINISH
002	F	3' - 0"	7' - 0"	0' - 1 3/4"	HM	2	HM						-		4.0	STOR	CR, GALV AND PRE-PAINTED FINISH
003	F	3' - 0"	7' - 0"	0' - 1 3/4"	HM	2	HM						-		2.0	STOR	CR, GALV AND PRE-PAINTED FINISH
004	F	3' - 0"	7' - 0"	0' - 1 3/4"	HM	2	HM						-		4.0	STOR	CR, GALV AND PRE-PAINTED FINISH
101	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
101.1	FG	3' - 0"	7' - 0"	0' - 2"	ALUM	REFER TO ELEV	ALUM						-		1.0	PASS	
102	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
102.1	FG	3' - 0"	7' - 0"	0' - 2"	ALUM	REFER TO ELEV	ALUM						-		1.0	PASS	
201	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
202	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
301	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
302	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
401	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
402	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
501	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
501.1	F, 2 LEAF	6' - 0"	7' - 0"	0' - 1 3/4"	HM	2	HM						-		3.0	STOR	CR, GALV AND PRE-PAINTED FINISH
502	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	1	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
502.1	F, 2 LEAF	6' - 0"	7' - 0"	0' - 1 3/4"	HM	2	HM						-		3.0	STOR	CR, GALV AND PRE-PAINTED FINISH
503	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	3	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH
603	FG	3' - 0"	7' - 0"	0' - 1 3/4"	HM	3	HM						-		5.0	PASS	GALV AND PRE-PAINTED FINISH



DOOR FRAME TYPES

SCALE: 1/4" = 1'-0"



DOOR TYPES

SCALE: 1/4" = 1'-0"

0M6	**PARTITION - NON-FRR - 6" CMU**
0M8	**PARTITION - NON-FRR - 8" CMU**
0M4	**PARTITION - NON-FRR - 4" CMU**
0M10	**PARTITION - NON-FRR - 10" CMU**
0M12	**PARTITION - NON-FRR - 12" CMU**

1 Partition Type 0M

SCALE: 1 1/2" = 1'-0"

DOOR NOTES

1. FRAME FOR ALUMINUM STOREFRONT DOORS PROVIDED BY STOREFRONT/CURTAIN WALL/GLAZING MANUFACTURER. DOOR SIZE TO ALIGN WITH STOREFRONT/CURTAIN WALL SYSTEM. DOOR AND HARDWARE FINISH TO MATCH ADJACENT STOREFRONT/CURTAIN WALL SYSTEM.
2. ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
3. LATCHES HANDLES, PANIC BARS, AND ALL DOOR HARDWARE WILL COMPLY WITH SECTION 7.2 OF NFPA 101 PER THE SPECIFICATIONS.
4. MAXIMUM EFFORT TO OPERATE EXTERIOR OR INTERIOR DOORS WITH CLOSERS SHALL NOT EXCEED 5 POUNDS. THIS MAY BE INCRESED TO 15 POUNDS FOR FIRE RATED DOORS.
5. THE BOTTOM 10 INCHES OF ALL DOORS SHALL HAVE A SMOOTH, UNITERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION.
6. CONTRACTOR TO VERIFY WALL THICKNESS PRIOR TO ORDERING DOOR FRAMES.
7. HEAD, SILL AND JAMB DETAILS LOCATED ON SHEET **A-630.**
8. PROVIDE LINTELS AT ALL NEW MASONRY OPENINGS. REFER TO STRUCTURAL FOR LINTEL SIZES AND REQUIREMENTS.
9. PROVIDE CONTINUOUS SEALANT AT ALL FRAMES FOR THE ENTIRE PERIMETER TO ADJACENT WALLS, BOTH SIDES.
10. PROVIDE CONTINUOUS SEALANT AT ENTRANCE THRESHOLD SILLS TO THE FINISH FLOOR.
11. REFER TO STRUCTURAL FOR LINTEL SIZES AND REQUIREMENTS.

MATERIAL SYMBOLS

ALUM	ALUMINUM
ETR	EXISTING TO REMAIN
GL	GLASS
HM	HOLLOW METAL

INTERIOR GLASS TYPES

NOTE: ALL GLASS TYPES TO BE SAFETY GLASS, UNO

IGU-1	1" INSULATING GLASS UNIT

DOOR TAG LEGEND

DOOR TAG TYPES

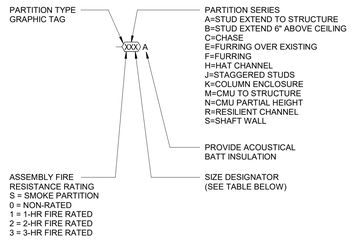
101	DOOR NUMBER
101 / EN	DOOR NUMBER HARDWARE FUNCTION
101 / EN / PANIC	DOOR NUMBER HARDWARE FUNCTION ADDITIONAL FUNCTION

HARDWARE FUNCTION TYPES

ST	STOREROOM (ALWAYS UNLOCKED FROM INSIDE. ALWAYS NEED KEY FROM OUTSIDE)
CL	CLASSROOM (LOCKED FROM OUTSIDE. KEY CAN ALLOW DOOR TO REMAIN UNLOCKED)
PR IND	PRIVACY INDICATOR (SINGLE TOILET ROOMS)
OFF	OFFICE (LOCKED FROM OUTSIDE. THUMB TURN/BUTTON CAN ALLOW DOOR TO REMAIN UNLOCKED. KEY CAN UNLOCK DOOR)
EN	ENTRY (LOCKED FROM OUTSIDE. CAN ALLOW DOOR TO REMAIN UNLOCKED FROM INSIDE. ENTRY KEY CAN ALLOW ACCESS BUT WILL NOT UNLOCK)
EO	EXISTING OPENING (HARDWARE TO REMAIN)
NL	NIGHT LATCH (FINGER PULL HANDLE WITH DEADBOLT. NEED KEY TO UNLOCK.)
CR	CARD READER
P/P	PUSH/PULL (PUSH PLATE / PULL BAR, NO LATCH, NO LOCK)
PASS	PASSAGE (LATCH, NO LOCK)
PANIC	INDICATES PANIC HARDWARE IS REQUIRED

INTERIOR PARTITION NOTES

1. REFER TO THE GENERAL INFORMATION FOR ABBREVIATIONS, SYMBOLS, AND MATERIAL LEGEND.
2. REFER TO THE LIFE SAFETY PLANS FOR PARTITION FIRE RESISTANCE RATINGS.
3. REFER TO ROOM FINISH SCHEDULE FOR WALL FINISHES AND WALL BASE.
4. PARTITION TYPES ARE INDICATED ON THE FLOOR PLANS BY THE FOLLOWING SYMBOL:



MATERIAL	DESIGNATION SIZE	ACTUAL SIZE	SPACING
CONCRETE MASONRY UNITS	4 6 8 10 12	3 5/8" 5 5/8" 7 5/8" 9 5/8" 11 5/8"	N/A
METAL STUDS	1 2 3 4 6 8	1 5/8" 2 1/2" 3 5/8" 4" 6" 8"	16" OC
HAT-SHAPED CHANNEL	0 1	7/8" 1 1/2"	16" OC
SHAFT WALL C-H STUDS	2 4	2 1/2" 4"	24" OC
SHAFT WALL E STUDS	2 4 6	2 1/2" 4" 6"	24" OC

5. SUBSTITUTE 5/8" THICK TYPE X MOISTURE RESISTANT GYPSUM BOARD AT LOCATIONS TO RECEIVE A TILE WALL FINISH; WITHIN 2 FEET HORIZONTALLY AND 4 FEET VERTICALLYOF JANITORS SINKS. AT ALL OTHER LOCATIONS AS INDICATED BY THE ROOM FINISH SCHEDULE, SUBSTITUTE CEMENTITIOUS BACKER UNITS (AND ADD OVER GYPSUM BOARD FACE LAYER AT FIRE RATED PARTITIONS) AT ALL SHOWER, BATHTUB AND POOL LOCATIONS.
6. ALL NON-LOAD BEARING METAL WALL FRAMING SHALL BE BASED ON TOTAL STUD HEIGHT. REFER TO SPECIFICATION SECTIONS 05 4000 - COLD-FORMED METAL FRAMING, 09 2116 - GYPSUM BOARD SHAFT WALL ASSEMBLIES AND 09 2216 - NON-STRUCTURAL METAL FRAMING FOR ADDITIONAL REQUIREMENTS.
7. WHERE ROOMS WITH DIFFERENT PARTITION REQUIREMENTS ARE ADJACENT, THE PARTITION WITH THE GREATER FIRE-RATING AND/OR STC SHALL BE USED BETWEEN THEM.
8. AT INTERSECTIONS OF DIS-SIMILAR PARTITON TYPES, THE HIGHEST FIRE RATED PARTITION IS TO RUN THROUGH THE INTERSECTION TO MAINTAIN ENCLOSURE. MAINTAIN RATING OF FIRE RATED PARTITION AT INTERSECTION WITH COLUMN ENCLOSURES BY EXTENDING FIRE RATED CLOSURE AS REQUIRED.
9. FIRE-RATED PARTITIONS SHALL BE CONSTRUCTED ACCORDING TO THE FIRE TEST INDICATED. NO SUBSTITUTIONS OF MATERIALS OR DEVIATIONS FROM CONSTRUCTION ARE ALLOWED. ADDITIONAL LAYERS MAY BE REQUIRED FOR ACOUSTICAL OR OTHER REASONS AND MUST BE EXECUTED AS SHOWN.
10. STC RATINGS ARE MINIMUM ACOUSTICAL PERFORMANCE REQUIREMENT. SPECIFIC ACOUSTICAL TESTS ARE GIVEN FOR REFERENCE ONLY. SOUND ATTENUATION BLANKET THICKNESS SHALL BE AS FOLLOWS:
    A. 1 1/2 " FOR PARTITIONS WITH 1 5/8 " AND 2 1/2 " STUDS (INCLUDING SHAFTWALLS).
    B. 3" FOR PARTITIONS WITH 3 5/8 ", 4" OR 6" STUDS.
    C. 3" FOR SHAFTWALLS WITH 4" OR 6" STUDS UNO.
    D. AS REQUIRED FOR FIRE RATING.
11. DETAILS ARE DIAGRAMMATIC - PRECISE REQUIREMENTS OF TESTS ASSEMBLIES SHALL GOVERN.
12. PARTITIONS AND FURRING ARE DIMENSIONED TO THE FACE OF PARTITION ASSEMBLY (NOT TO THE FACE OF APPLIED FINISH OR FACE OF STUD), UNLESS NOTED OTHERWISE.
13. PARTITION TYPE INDICATIONS ARE IDEPENDENT OF APPLIED FINISHES. REFER TO ROOM FINISH SCHEDULE AN/OR THE DESIGNATIONS ON THE PLANS FOR ADDITIONAL INFORMATION REGARDING APPLIED FINISHES.
14. WHERE PARTITION TYPE DESIGNATION ON FLOOR PLANS IS INTERRUPTED BY DOOR OPENING, GLAZED PARTIONS, ETC., CONSTRUCTION ABOVE INTERRUPTION (AND WHERE APPLICABLE BELOW) IS TO BE THE SAME AS THAT DESIGNATED FOR THE PARITION IN WHICH THE INTERRUPTION OCCURED.
15. THE MINIMUM REQUIPMENT FOR CONSTURTION OF EACH PARITION TYPE AS EXPRESSED BY THE INDICATED FIRE RATING REFERENCE ARE INCORPORATED BY REFERENCE AND ARE APPLICABLE OT THE WORK OF THIS PROJECT. HOWEVER, ADDITIONAL AND/OR MORE RESTRICTIVE REQUIREMENTS MAYBE INDICATED BY THE SPECIFICATIONS AND DRAWINGS. SUCH REQUIREMENTS ALSO APPLY AND SHALL GOVERN. SUCH REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO:
    A. USE 5/8" THICH TYPE X GYMPSUM BAORD THROUGHOUT.
    B. USE 16" OC MAX STUD SPACING UNO. THE SPACING STATE BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MAX SPACING.
    C. USE STUDS OF GUAGE AND DEPTH INDICATED ONT HE DRAWINGS OR IN THE SPECFICIATIONS. THE GUAGE AND/OR DEPTH STATED BY THE REFERENCE APPROVAL OR TEST REPORT IS THE MINIMUM GUAGE AND/OR DEPTH.
16. ALL NON-LOAD BEARING METAL WALL FRAMING SHALL BE 25 GUAGE MINIMUM UNO. REFER TO SPECIFICATION SECTIONS 092116 GYPSUM BOARD SHAFT WALL ASSEMBLIES AND 092216 NON-STRUCTURAL METAL FRAMING.
17. PROVIDE 20 GUAGE METAL WALL FRAMING IN LIEU OF 25 GUAGE METAL FRAMED WALLS WITH ONE LAYER OF 5/8" GYPSUM WALL BOARD ON EACH SIDE THAT EXCEED THE HEIGHT LIMITS AS LISTED BELOW:
    A. 2-1/2" METAL STUDS: 10'-9"
    B. 3-5/8" METAL STUDS: 14'-0"
    C. 4" METAL STUDS: 15'-0"
    D. 6" METAL STUDS: 20'-0"
18. ADDITIONALY, PROVIDE 20 GUAGE METAL WALL FRAMING AT THE FOLLOWING LOCATIONS:
    A. DOUBLE STUD JAMB ASSEMBLIES AT OPENINGS.
    B. FIRST STUD IN THE PARITION BEYOND THE DOUBLE STUD JAMB ASSEMBLY. LOCATE STUD 6" FROM DOUBLE STUD ASSEMBLY.
    C. STUDS TO WHICH CEMENTITOUS BACKER UNITS ARE INSTALLED FRO WET AREAS.
    D. STUDS TO WHICH REINFORCING GYPSUM WALL PANELS ARE ATTACHED.
    E. STUDS TO WHICH WALL MOUNTED EQUIPMENT, INCLUDING OWNER FURNISHED EQUIPMENT, IS FASTENED TO.
    F. STUD INFILL AND SILL TRACK BELOW IWNDOW OPENINGS.
    G. STUDS INSTALLED FOR OPENING HEADS BETWEEN DOUBLE STUD JAMB ASSEMBLIES.
19. PROVIDE 16 GUAGE METAL WALL FRAMING IN LIEU OF 20 GUAGE METAL FRAMED WALLS WITH ONE LAYER OF 5/8" GYPSUM WALL BOARD ON EACH SIDE THAT EXCEED THE HEIGHT LIMITS AS LISTED BELOW:
    A. 2-1/2" METAL STUDS: 12'-0"
    B. 3-5/8" METAL STUDS: 15'-7"
    C. 4" METAL STUDS: 16'-10"
    D. 6" METAL STUDS: 22'-10"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

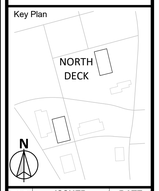
Framework E
Architects Leaders Community Builders

155 W Congress Street, Suite 602, Detroit, MI 48226
www.frameworke.com

Consultants

Seal

Key Plan



TAG	ISSUED	DATE
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CLIENT PROJ NO

Framework E PROJ NO **2025011**

PARTITION TYPES, DOOR SCHEDULE TYPES AND DETAILS

DRAWING NO

A-601-N

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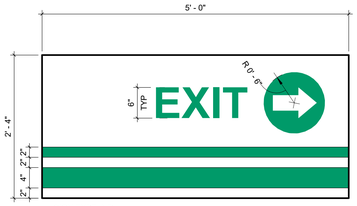
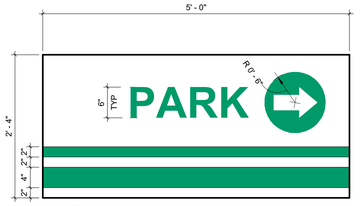


SIGN TYPE A-R



SIGN TYPE B-R



SIGN TYPE A-S

1"x1" ALUMINUM SQUARE TUBE W/ .125 THICK ALUMINUM SIGN PANEL ADHERED TO FRAME WITH URETHANE STRUCTURAL ADHESIVE

EXPOSED SIGN FRAME SURFACES TO BE PAINTED SATIN WHITE

ATTACH WITH TAMPERPROOF HARDWARE REFER TO DETAIL 3/A8.02-S

DIRECTIONAL ARROWS AS INDICATED ON PLANS

BACKGROUND, LETTERING, AND GRAPHICS TO BE REFLECTIVE VINYL FILM

WHITE
3M 680CR-10 (BACKGROUND)

RED
3M-680CR-72 (LETTERING, GRAPHICS)
ARIAL BOLD FONT TYPE



SIGN TYPE B-S



SIGN TYPE A-L



SIGN TYPE B-L



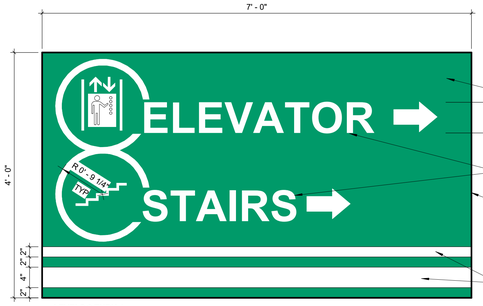
SIGN TYPE A1



SIGN TYPE B-LR

4 DIRECTIONAL VEHICULAR WAYFINDING EXIT - SIGN TYPE A /A1
SCALE: 1" = 1'-0"

3 DIRECTIONAL VEHICULAR WAYFINDING EXIT - SIGN TYPE B
SCALE: 1" = 1'-0"



GREEN SATIN PAINT FINISHED .125 THICK ALUMINUM SIGN PANEL W/ VINYL GRAPHICS

WHITE ARIAL BOLD FONT TYPE

SIGN TYPE TO BE MOUNTED TO WALL SURFACES WITH COUNTERSUKSIGN TYPE TO BE MOUNTED TO WALL SURFACES WITH COUNTERSUNK TAMPERPROOF HARDWARE MINIMUM (6) PER SIGN. PAINTED TO MATCH SIGN FINISH APPLY SILICONE ADHESIVE AROUND ENTIRE SIGN PERIMETER

WHITE VINYL

LEVELS 2 THRU 4

LEVEL 1



LEVEL 5

GREEN SATIN PAINT FINISHED .125 THICK ALUMINUM SIGN PANEL W/ VINYL GRAPHICS

WHITE ARIAL BOLD FONT TYPE

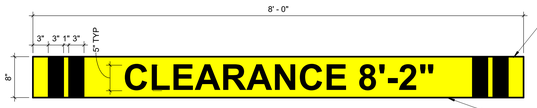
SIGN TYPE TO BE MOUNTED TO WALL SURFACES WITH COUNTERSUKSIGN TYPE TO BE MOUNTED TO WALL SURFACES WITH COUNTERSUNK TAMPERPROOF HARDWARE MINIMUM (6) PER SIGN. PAINTED TO MATCH SIGN FINISH APPLY SILICONE ADHESIVE AROUND ENTIRE SIGN PERIMETER

WHITE VINYL

LEVELS 2 THRU 4

6 PEDESTRIAN WAYFINDING - SIGN TYPE C
SCALE: 1" = 1'-0"

2 PEDESTRIAN WAYFINDING - SIGN TYPE D
SCALE: 1" = 1'-0"



8" O.D. SCHEDULE 40 PVC TUBE W/ FLUSH ENDCAPS

BACKGROUND, LETTERING, AND GRAPHICS TO BE REFLECTIVE VINYL FILM

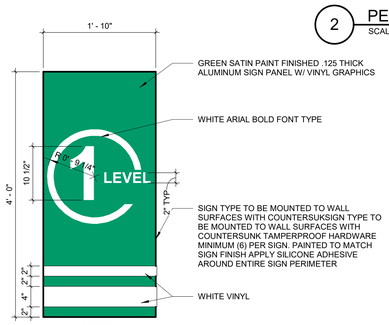
YELLOW
3M 680CR-81 (BACKGROUND)

BLACK
3M-680CR-85 (LETTERING, GRAPHICS)
ARIAL BOLD FONT TYPE

SIGN TO BE SUSPENDED FROM OVERHEAD STRUCTURE. SUSPENSION TO BE VIA STAINLESS STEEL CABLE W/ STAINLESS STEEL ATTACHMENT HARDWARE IN THICKNESS SUITABLE FOR STATIC AND WIND LOADING

ANCHORAGE INTO CONCRETE STRUCTURE TO BE W/ HILTI STAINLESS STEEL UNDERCUT ANCHORING HARDWARE OF SIZE SUITABLE FOR STATIC AND WIND LOADING

5 VEHICLE CLEARANCE BAR DETAIL
SCALE: 1" = 1'-0"



GREEN SATIN PAINT FINISHED .125 THICK ALUMINUM SIGN PANEL W/ VINYL GRAPHICS

WHITE ARIAL BOLD FONT TYPE

SIGN TYPE TO BE MOUNTED TO WALL SURFACES WITH COUNTERSUKSIGN TYPE TO BE MOUNTED TO WALL SURFACES WITH COUNTERSUNK TAMPERPROOF HARDWARE MINIMUM (6) PER SIGN. PAINTED TO MATCH SIGN FINISH APPLY SILICONE ADHESIVE AROUND ENTIRE SIGN PERIMETER

WHITE VINYL

LEVELS 2 THRU 4



1 PEDESTRIAN WAYFINDING - SIGN TYPE E
SCALE: 1" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

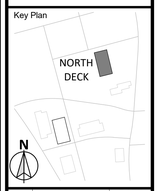
Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

Seal

Key Plan



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SIGNAGE TYPES AND DETAILS

DRAWING NO
A-900

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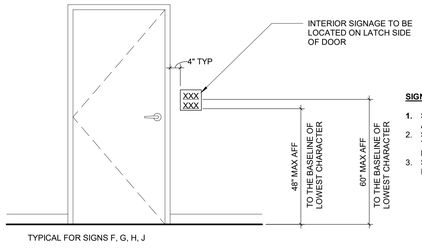


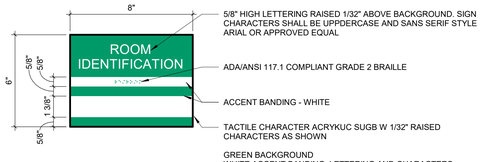
TYPICAL FOR SIGNS F, G, H, J

SIGNAGE MOUNTING HEIGHTS

1. SIGNAGE TYPES A AND BY TO BE MOUNTED UNIFORMLY AS SHOWN IN DETAILS 2 AND 3 ON SHEET **A-900-S.**
2. SIGNAGE TYPES C, D, E AND N TO BE MOUNTED AT 72" AFF TO CENTERLINE OF SIGN IN LOCATION INDICATED ON PLANS, UNO.
3. SIGNAGE TYPES F, G, H AND J TO BE MOUNTED AS SHOWN IN TYPICAL DETAIL, UNLESS NOTED OTHERWISE.

SIGNAGE MOUNTING HEIGHT

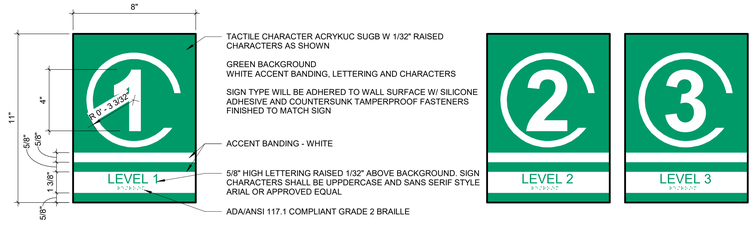
SCALE: 1/2" = 1'-0"



ROOM #	ROOM IDENTIFICATION
100	STORAGE ROOM
101	ELECTRICAL ROOM
102	WATER PUMP ROOM
103	IT / SECURITY ROOM
703	ELECTRICAL ROOM
704	ELECTRICAL ROOM

4 ROOM IDENTIFICATION SMALL - SIGN TYPE J

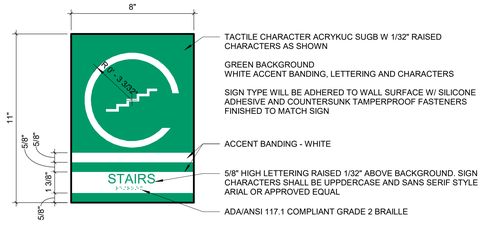
SCALE: 3" = 1'-0"





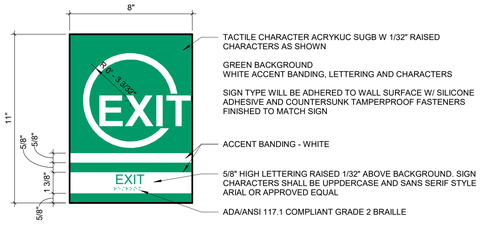
1 PEDESTRIAN WAYFINDING SMALL- SIGN TYPE F

SCALE: 3" = 1'-0"



3 PEDESTRIAN EXIT SMALL - SIGN TYPE H

SCALE: 3" = 1'-0"



2 PEDESTRIAN EXIT SMALL - SIGN TYPE G

SCALE: 3" = 1'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

Seal

Key Plan



TAG	ISSUED	DATE
1	50% DD	08/15/25
2	Design Development	09/08/25

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Framework E PROJ NO **2025011**

SIGNAGE TYPES AND DETAILS

DRAWING NO

A-901

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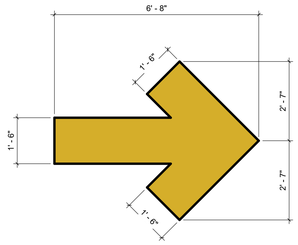


2 TYPICAL PAINTED DIRECTIONAL ARROWS
SCALE: 1/2" = 1'-0"

SIGNAGE NOTES

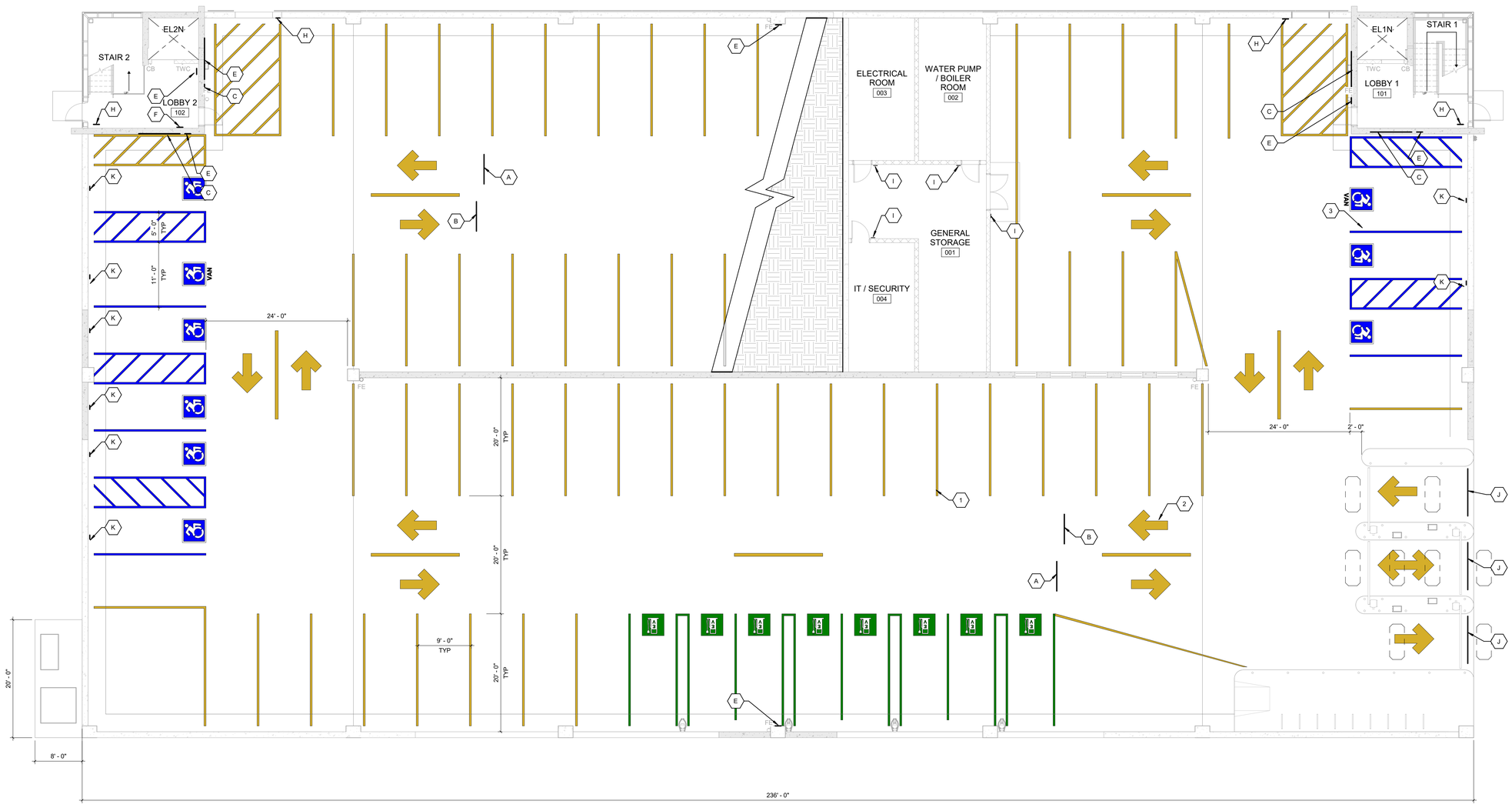
1. REFER TO SHEETS A-900 AND A-901 FOR SIGNAGE DETAILS.

STRIPING KEYNOTES

1. PAINT STRIPING, TYP.
2. PAINT DIRECTIONAL ARROW, TYP.
3. PAINT ACCESSIBLE PARKING SYMBOL, TYP. WHERE SHOWN INCLUDE VAN IDENTIFICATION

SIGNAGE KEYNOTES

- A DIRECTIONAL VEHICULAR WAYFINDING - EXIT (DETAIL **3/A-900**)
- B DIRECTIONAL VEHICULAR WAYFINDING - PARK (DETAIL **3/A-900**)
- C PEDESTRIAN WAYFINDING (DETAIL **3/A-900**)
- D PEDESTRIAN WAYFINDING (DETAIL **3/A-900**)
- E LEVEL IDENTIFICATION - LARGE (DETAIL **3/A-900**)
- F LEVEL IDENTIFICATION - SMALL (DETAIL **3/A-900**)
- G PEDESTRIAN EXIT - SMALL (DETAIL **3/A-900**)
- H STAIR IDENTIFICATION - SMALL (DETAIL **3/A-900**)
- I ROOM IDENTIFICATION - SMALL (DETAIL **3/A-900**)
- J VEHICLE CLEARANCE BAR (DETAIL **3/A-900**)
- K ACCESSIBLE PARKING SIGNAGE. PROVIDE VAN ACCESSABLE SIGNAGE AT VAN PARKING SPACES (DETAIL **3/A-900**)



1 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

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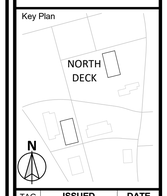
Key Plan



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SIGNAGE FIRST FLOOR PLAN

DRAWING NO
A-911-N

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SIGNAGE NOTES

1. REFER TO SHEETS A-900 AND A-901 FOR SIGNAGE DETAILS.

STRIPING KEYNOTES

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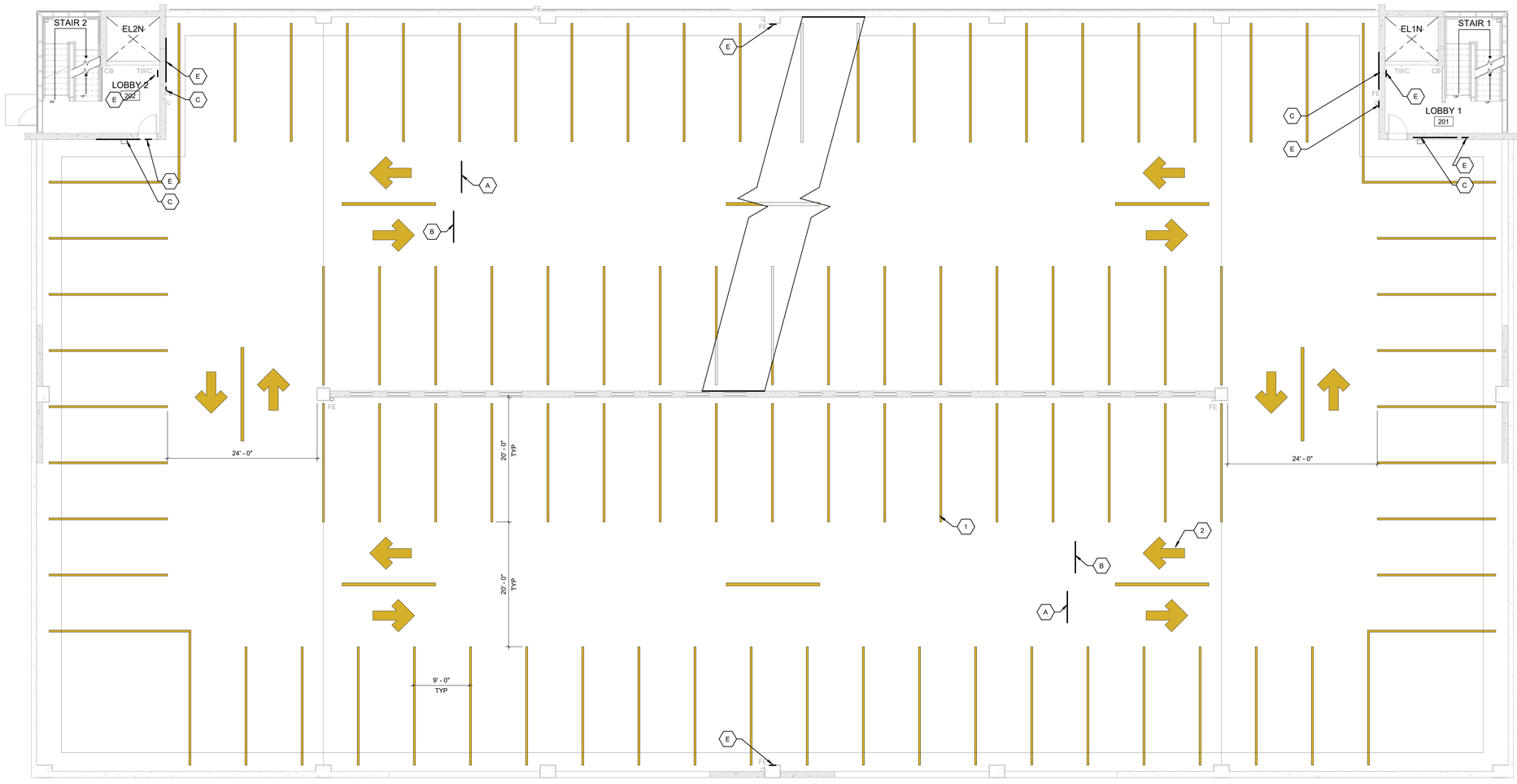
2. PAINT DIRECTIONAL ARROW, TYP.
3. PAINT ACCESSIBLE PARKING SYMBOL, TYP. WHERE SHOWN INCLUDE VAN IDENTIFICATION

SIGNAGE KEYNOTES

A. DIRECTIONAL VEHICULAR WAYFINDING - EXIT (DETAIL **3/A-900**)
B. DIRECTIONAL VEHICULAR WAYFINDING - PARK (DETAIL **3/A-900**)
C. PEDESTRIAN WAYFINDING (DETAIL **3/A-900**)
D. PEDESTRIAN WAYFINDING (DETAIL **3/A-900**)
E. LEVEL IDENTIFICATION - LARGE (DETAIL **3/A-900**)
F. LEVEL IDENTIFICATION - SMALL (DETAIL **3/A-900**)
G. PEDESTRIAN EXIT - SMALL (DETAIL **3/A-900**)
H. STAIR IDENTIFICATION - SMALL (DETAIL **3/A-900**)
I. ROOM IDENTIFICATION - SMALL (DETAIL **3/A-900**)
J. VEHICLE CLEARANCE BAR (DETAIL **3/A-900**)
K. ACCESSIBLE PARKING SIGNAGE. PROVIDE VAN ACCESSABLE SIGNAGE AT VAN PARKING SPACES (DETAIL **3/A-900**)



1 SECOND THROUGH FOURTH FLOOR SIGNAGE PLAN
SCALE: 1/8" = 1'-0"

Project Title

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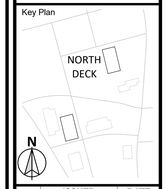

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SIGNAGE SECOND THROUGH FOURTH FLOOR PLAN

DRAWING NO

A-921-N

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SIGNAGE NOTES

1. REFER TO SHEETS A-900 AND A-901 FOR SIGNAGE DETAILS.

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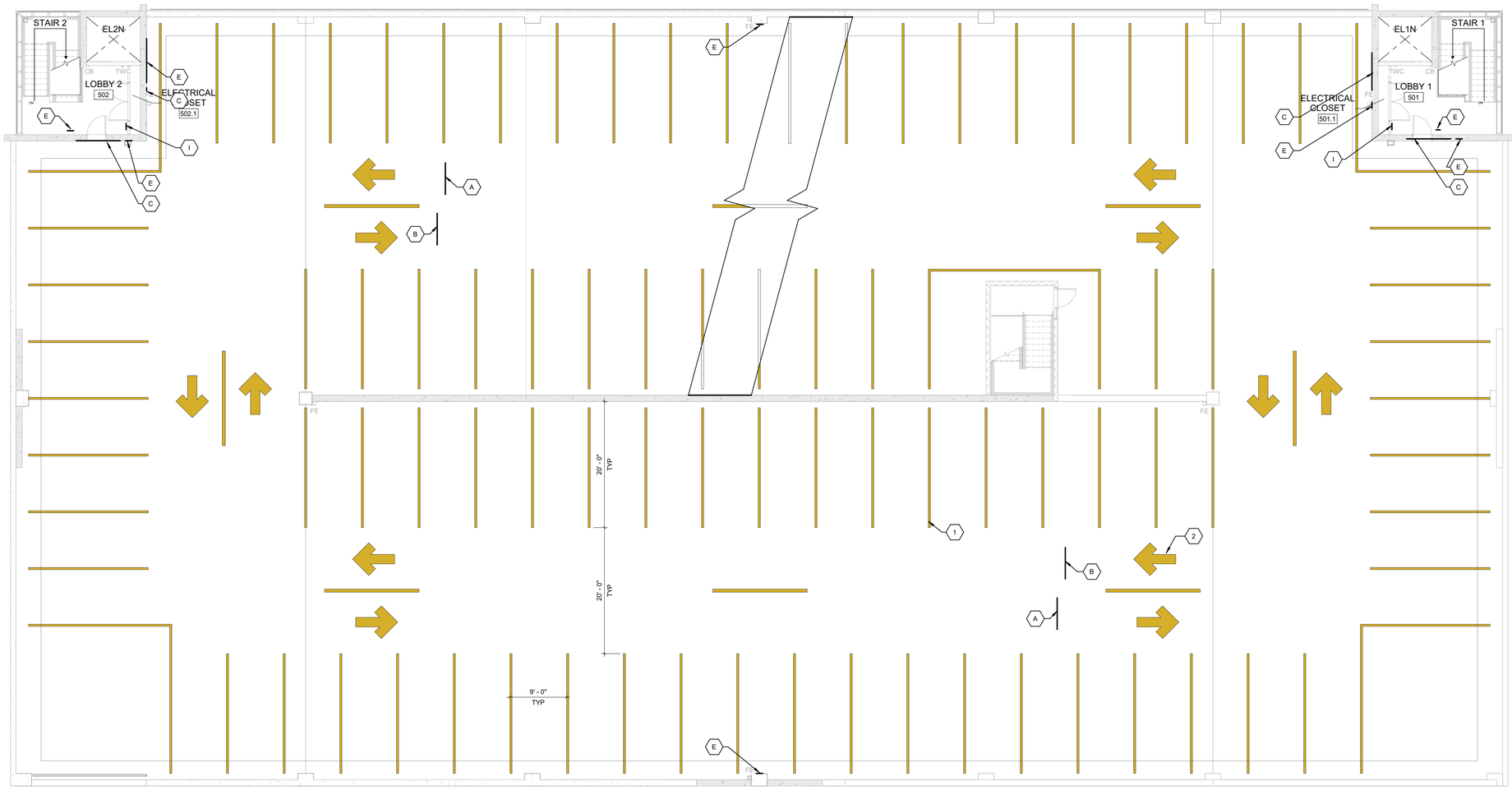

1 FIFTH FLOOR PLAN
SCALE: 1/8" = 1'-0"

Project Title

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Oakland County

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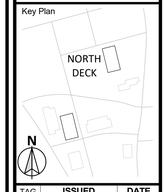

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SIGNAGE FIFTH FLOOR PLAN

DRAWING NO

A-951-N

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ABBREVIATIONS

ACCU	AIR CONDITIONING CONDENSING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ASR	AUTOMATIC SPRINKLER RISER
BTU	BRITISH THERMAL UNIT
CC	COOLING COIL
CF	CENTRIFUGAL FAN
CFM	CUBIC FEET PER MINUTE
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
CI	CAST IRON
CO	CLEAN OUT
COND	CONDENSATE
CONT.	CONTINUATION
CUH	CABINET UNIT HEATER
CW	COLD WATER
Db	DRY BULB TEMPERATURE, °F
dB	DECIBELS
DDC	DIRECT DIGITAL CONTROL
DET	DETAIL
DIA	DIAMETER
DN.	DOWN
DS	DOWNSPOUT
DWG.	DRAWING
EA	EXHAUST AIR
ECUH	ELECTRIC CABINET UNIT HEATER
EF	EXHAUST FAN
ELEV.	ELEVATION
ESP	EXTERNAL STATIC PRESSURE
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
EX.	EXISTING
EXH	EXHAUST
EXIST	EXISTING
F	FAHRENHEIT
FEC	FIRE EXTINGUISHER CABINET
FD	FLOOR DRAIN
FLR.	FLOOR
FPM	FEET PER MINUTE
FR	FIRE RISER
FSW	FLOW SWITCH
FT.	FEET
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HO	HUB OUTLET
HP	HORSEPOWER
HP-XX	HEAT PUMP
HW	HOT WATER (POTABLE)
HWR	HOT WATER RETURN (POTABLE)
IN	INCHES
INL	INLET
INV	INVERT
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LWT	LEAVING WATER TEMPERATURE
MAX.	MAXIMUM
MBH	1000 BTU/HR
MECH	MECHANICAL
MIN.	MINIMUM
MISC	MISCELLANEOUS
NC	NORMALLY CLOSED
NFHB	NON-FREEZE HOSE BIBB
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM.	NOMINAL
N2O	NITROUS OXIDE
OA	OUTSIDE AIR
OF	OVERFLOW
O2 / OX	OVERFLOW DRAIN
P	PUMP
PD	PRESSURE DROP (FEET OF WATER)
PSI	POUNDS PER SQUARE INCH
PRV	PRESSURE REDUCING VALVE
RA	RETURN AIR
RD/SP	ROOF DRAIN/STAND PIPE
BAL.	BALANCE
RET	RETURN
RF	RETURN FAN
RH	REHEAT COIL
Rh	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
RC	RAIN CONDUCTOR
SA	SUPPLY AIR
SAN	SANITARY WASTE
SD	SMOKE DETECTOR
SF	SUPPLY FAN
SG	SPECIFIC GRAVITY
SP	STATIC PRESSURE (INCHES OF WATER)
SP	STAND PIPE
SPR	SPRINKLER
SPR/STP	SPRINKLER STANDPIPE
SPS	STATIC PRESSURE SENSOR
STK	STACK
ST	STORM
TP	TOTAL PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VALVE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VE	VOLUME EXTRATOR
VTR	VENT THRU ROOF
W	WASTE
WG	WATER GAUGE
WH	WALL HYDRANT
WAGD	WASTE ANESTHETIC GAS DISPOSAL

PLUMBING, PIPING & FIRE PROTECTION

- ITEM TO BE REMOVED
- EXISTING WORK
- NEW WORK
- ISOLATION VALVE
- CHECK VALVE
- WATER FLOW SWITCH
- VALVE IN RISER
- STRAINER
- PIPE ANCHOR
- EXPANSION JOINT – SLIDING
- ALIGNMENT GUIDE
- UNION
- SPRINKLER HEAD (PENDANT)
- SPRINKLER HEAD (UPRIGHT)
- CO — CLEANOUT
- FCO — CLEANOUT FLOOR
- WCO — CLEANOUT WALL
- GCO — CLEANOUT GRADE
- FLOOR DRAIN (FD)
- REDUCER – CONCENTRIC
- PRESSURE GAUGE WITH COCK
- THERMOMETER
- CAP OR PLUG
- ELBOW – TURNED DOWN
- ELBOW – TURNED UP
- TEE OUTLET – DOWN
- TEE OUTLET – UP
- DIRECTION OF FLOW
- REDUCED PRESSURE BACKFLOW PREVENTOR
- PRESSURE REDUCING VALVE
- RELIEF VALVE
- BALANCING VALVE
- TWO-WAY MODULATING CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESSURE/TEMPERATURE)
- NEW CONNECTION
- SAN — SANITARY LINE (ABOVE GROUND)
- SAN — SANITARY LINE (UNDERGROUND)
- V — VENT PIPING
- CW — COLD WATER PIPING
- HW — HOT WATER PIPING (TEMPERATURE)
- HWR — HOT WATER RETURN PIPING
- NPCW — NON POTABLE COLD WATER
- G — GAS PIPING
- ST — STORM LINE
- HHWS — HEATING HOT WATER SUPPLY
- HHWR — HEATING HOT WATER RETURN
- OF — STORM OVERFLOW LINE
- COND — CONDESATE
- FP — FIRE SPRINKLER PIPE (FS)
- IRW — IRRIGATION WATER

MECHANICAL SHEET INDEX

Sheet Number	Sheet Name
M-001-N	MECHANICAL ABBREVIATION, SYMBOLS, LEGEND & NOTES
M-111-N	MECHANICAL FIRST FLOOR PLAN - NORTH
M-121-N	MECHANICAL SECOND FLOOR PLAN - NORTH
M-131-N	MECHANICAL THIRD FLOOR PLAN - NORTH
M-141-N	MECHANICAL FOURTH FLOOR PLAN - NORTH
M-151-N	MECHANICAL FIFTH FLOOR PLAN - NORTH
M-161-N	MECHANICAL ROOF PLAN - NORTH
M-201-N	MECHANICAL SCHEDULES & DETAILS

GENERAL HVAC NOTES:

THE FOLLOWING NOTES APPLY TO ALL HVAC DRAWINGS, EXCEPT WHERE OTHERWISE INDICATED.

1. WHEREVER VOLUME DAMPERS OCCUR ABOVE CEILINGS WITHOUT REMOVABLE TILE AND AN ACCESS PANEL IS NOT FURNISHED, PROVIDE AN EXPOSED DAMPER REGULATOR TO ALLOW DAMPER ADJUSTMENT FROM BELOW CEILING. UNIT TO BE EQUAL TO VENTLOCK NO. 666 IN 1/2"X3/8" SIZE.
2. ALL DIMENSIONS SHOWN FOR DUCTWORK ARE NET INSIDE DIMENSIONS.
3. DIFFUSER AND REGISTER LOCATIONS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN.
4. THOUGH SOME OFFSETS & TRANSITIONS ARE SHOWN IN PIPING AND SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING AND SHEET METAL OFFSET & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
5. DUCT PRESSURE CONSTRUCTION CLASSIFICATION SHALL BE AS SPECIFIED.
6. ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE SAME NOMINAL SIZE AS INDICATED ON THE DRAWINGS.
7. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASE OR SUSPENDED CEILING.
8. ACCESS PANELS AND DOORS ARE REQUIRED THROUGH BUILDING CONSTRUCTION ASSEMBLIES SUCH AS WALLS, CEILING, PARTITIONS AND FLOORS TO SERVICE AND MAINTAIN DAMPERS, CONTROL MOTORS, REGULATORS, VALVES, FLEXIBLE DUCT CONNECTIONS AND OTHER ITEMS OR DEVICES INCORPORATED IN MECHANICAL WORK. SUCH PANELS AND DOORS SHALL BE PROVIDED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE LOCATION OF ACCESS DOORS AND PANELS AND VERIFY THE EXACT QUANTITY, SIZE, FIRE-RATING AND LOCATION AFTER THE SYSTEMS AND EQUIPMENT REQUIRING ACCESS HAVE BEEN INSTALLED AND PRIOR TO THE CLOSURE OF THE AFFECTED CEILING AND BUILDING ASSEMBLIES. MINIMUM ACCESS PANEL AND DOOR SIZE SHALL BE 24 INCHES BY 24 INCHES UNLESS OTHERWISE NOTED.
9. ALL EXHAUST GRILLES SHALL BE HARD DUCT CONNECTION.
10. ALL DUCTWORK PENETRATING FIRE-RATED WALLS AND FLOORS SHALL BE PROVIDED WITH FIRE DAMPERS AND ACCESS DOOR.

PLUMBING/PIPING GENERAL NOTES:

1. FOR PIPE SIZES TO INDIVIDUAL PLUMBING FIXTURES AND VARIOUS PIECES OF EQUIPMENT REFER TO SPECIFICATIONS.
2. IN ALL SANITARY DRAINAGE PIPING THE CONTRACTOR SHALL FURNISH AND INSTALL CLEANOUTS (IN ADDITION TO THE CLEANOUTS INDICATED ON DRAWINGS AS REQUIRED BY THE GOVERNING PLUMBING CODE).
3. REFER TO HVAC GENERAL NOTE-4
4. FOR ADDITIONAL NOTES COMMON TO PLUMBING REFER TO HVAC NOTES.
5. ALL NEW STEAM AND CONDENSATE PIPING THRU FLOOR SHALL BE SLEEVED AND FIRESTOPPED TO MAINTAIN A MINIMUM 1-HOUR FIRE RATED CONSTRUCTION.

HVAC LEGEND & SYMBOLS

- 18x6 — INDICATES RECTANGULAR DUCT WITH DUCT SIZE 18 INCHES WIDE (IN PLANE OF DRAWING) AND 6 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.
- 22x14ø — INDICATES FLAT OVAL DUCT WITH DUCT SIZE 22 INCHES WIDE (IN PLANE OF DRAWING) AND 14 INCHES DEEP. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.
- 6"ø — INDICATES ROUND DUCT WITH DUCT SIZE OF 6 INCHES IN DIAMETER. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT (FROM DUCT ORIGIN AT TAP TO END OF DUCT) UNLESS OTHERWISE NOTED.
- VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- RISE — INCLINED RISE IN RESPECT TO AIR FLOW
- DN. — INCLINED DROP IN RESPECT TO AIR FLOW
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES)
- VANED ELBOW (SHORT RADIUS)
- INDICATES FLEXIBLE DUCT (RUNOUT) OF SIZE AS SCHEDULED OR SHOWN, LENGTH SHALL NOT EXCEED 5 FT.
- DUCT TURNING UP
- DUCT TURNING DOWN
- VERTICAL FIRE DAMPER
- HORIZONTAL FIRE DAMPER
- MD — VOLUME CONTROL DAMPER (MANUAL)
- FLEXIBLE CONNECTION OR FLEXIBLE DUCT CONNECTOR
- M — MOTORIZED DAMPER
- POINT OF NEW CONNECTION
- SD — DUCT SMOKE DETECTOR
- C — COMBINATION FIRE / SMOKE DAMPER

Project Title

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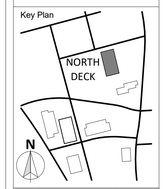

TAG	ISSUED	DATE
1	SCHEMATIC	07/16/25
2	50% DD	08/15/25
3	DESIGN DEVELOPMENT	09/08/25

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MECHANICAL ABBREVIATION, SYMBOLS, LEGEND & NOTES

DRAWING NO

M-001-N

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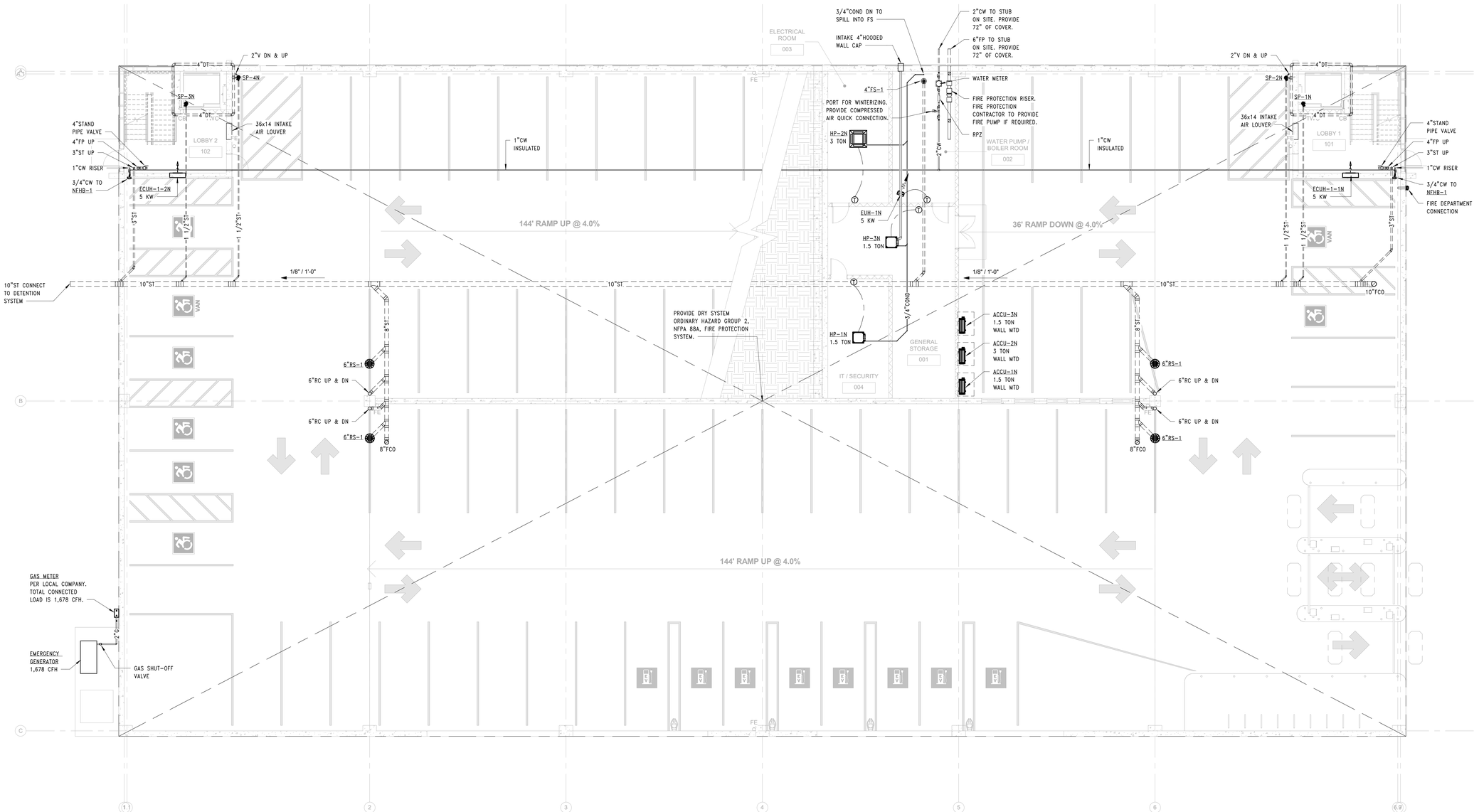

TRUE NORTH / PLAN NORTH

1 MECHANICAL FIRST FLOOR PLAN - NORTH

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

Autodesk Docs://Oakland County Parking Decks/87770-OCPD_North_Mech_V23.rvt

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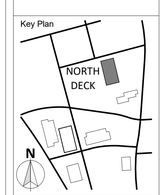

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MECHANICAL FIRST FLOOR PLAN - NORTH

DRAWING NO

M-111-N

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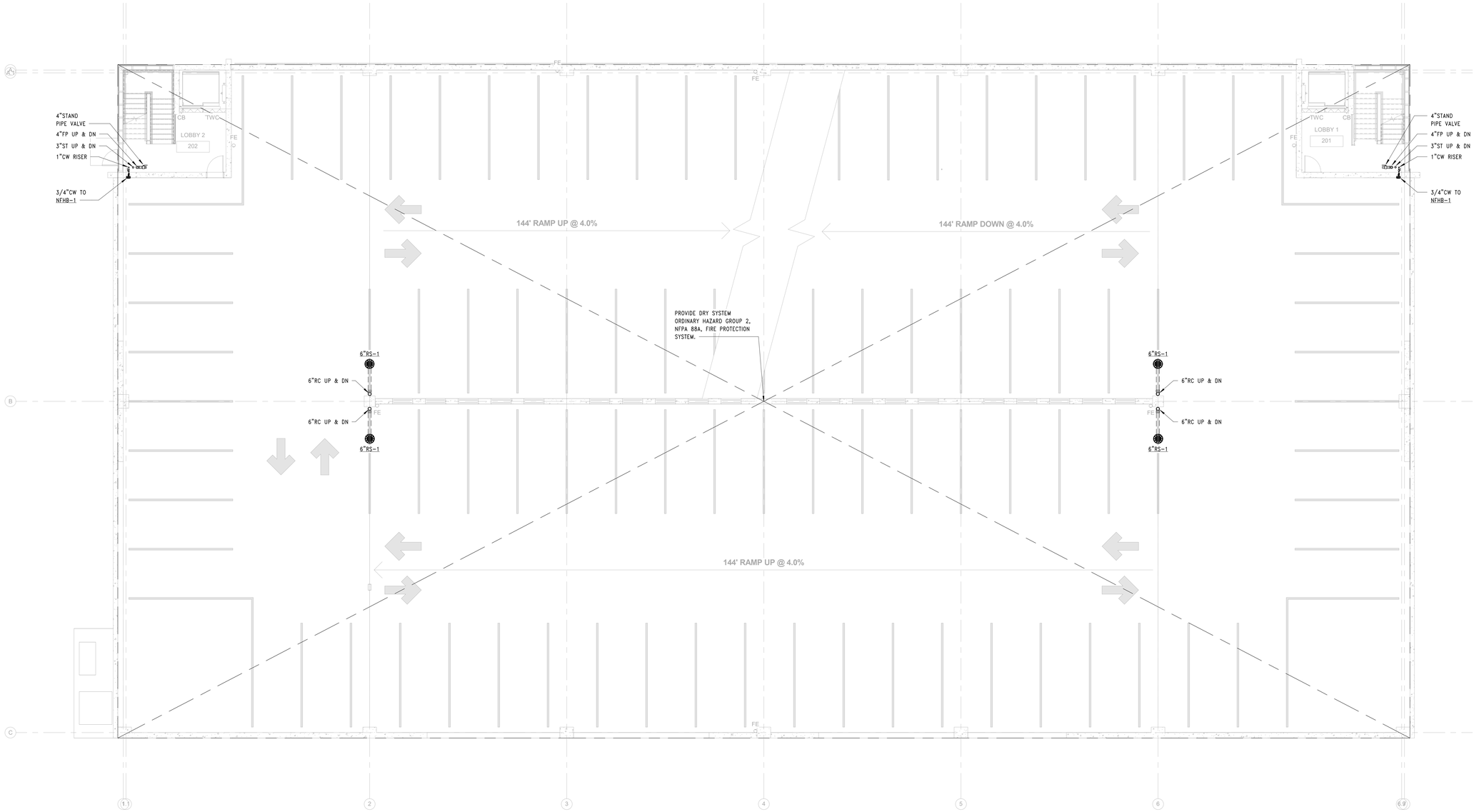

TRUE NORTH PLAN NORTH

1 MECHANICAL SECOND FLOOR PLAN - NORTH

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

Autodesk Docs://Oakland County Parking Decks/87770-OCPD_North_Mech_V23.rvt

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
www.framework-e.com

Consultants

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road
Bloomfield Hills, Michigan 48304
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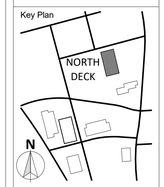
Seal

Key Plan



TAG	ISSUED	DATE
1	SCHEMATIC	07/16/25
2	50% DD	08/15/25
3	DESIGN DEVELOPMENT	09/08/25

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CLIENT PROJ NO

Framework E PROJ NO **2025011**

MECHANICAL SECOND FLOOR PLAN - NORTH

DRAWING NO

M-121-N

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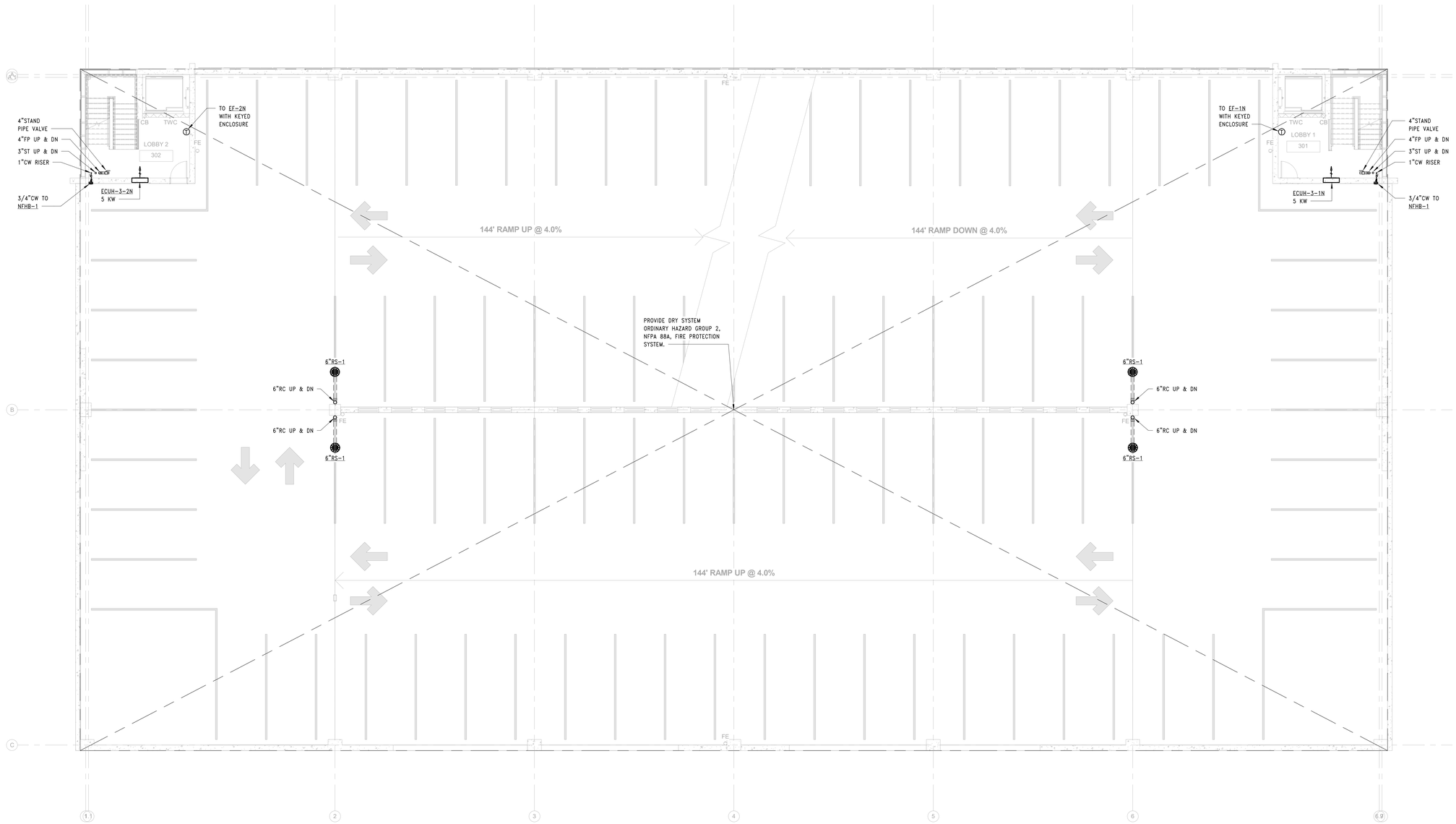

TRUE NORTH PLAN NORTH

1 MECHANICAL THIRD FLOOR PLAN - NORTH

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

Autodesk Docs://Oakland County Parking Decks/87770-OCPD_North_Mech_V23.rvt

Project Title

Oakland County Parking Decks - North Deck

Oakland County

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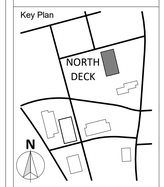

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MECHANICAL THIRD FLOOR PLAN - NORTH

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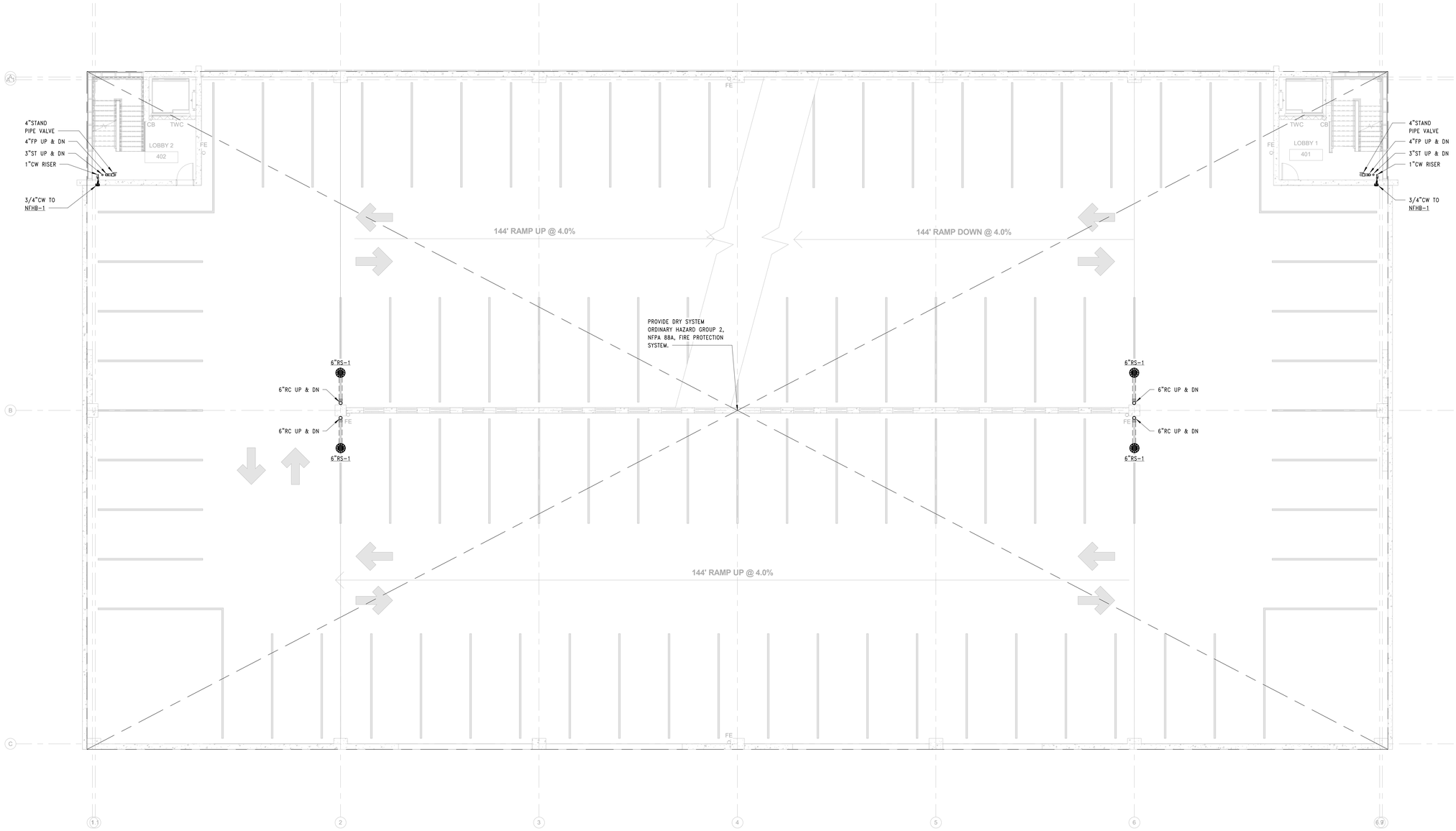

TRUE NORTH PLAN NORTH

1 MECHANICAL FOURTH FLOOR PLAN - NORTH

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

Autodesk Docs://Oakland County Parking Decks/87770-OCPD_North_Mech_V23.rvt

Project Title

Oakland County Parking Decks - North Deck

Oakland County

WATER ST PONTIAC, MI 48342

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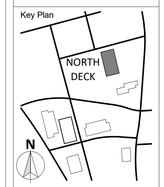

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MECHANICAL FOURTH FLOOR PLAN - NORTH

DRAWING NO

M-141-N

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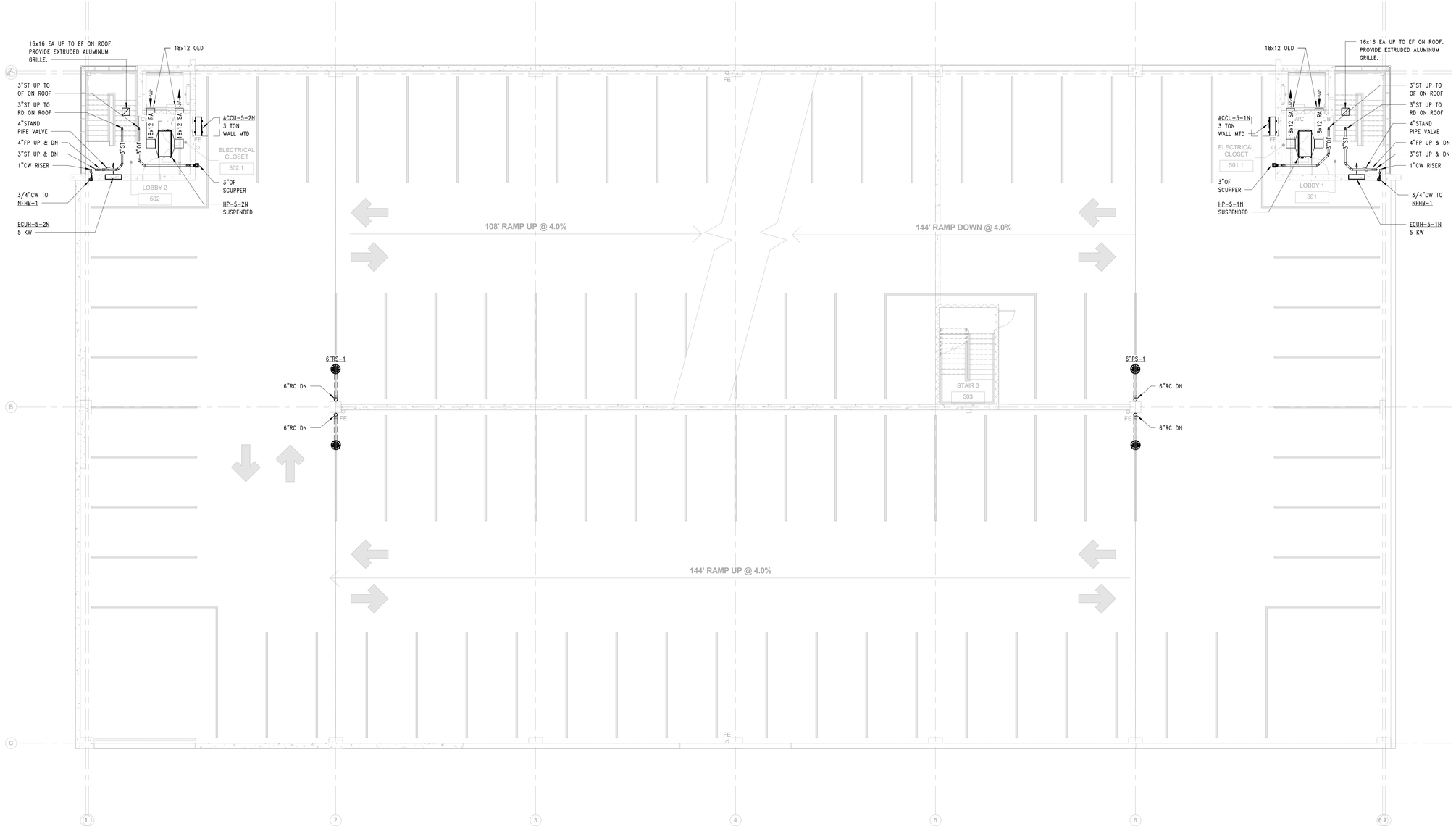

TRUE NORTH PLAN NORTH

1 MECHANICAL FIFTH FLOOR PLAN - NORTH

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

Autodesk Docs://Oakland County Parking Decks/87770-OCPD_North_Mech_V23.rvt

Project Title

Oakland County Parking Decks - North Deck

Oakland County

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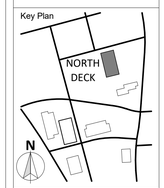

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MECHANICAL FIFTH FLOOR PLAN - NORTH

DRAWING NO

M-151-N

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TRUE NORTH PLAN NORTH

1 MECHANICAL ROOF PLAN - NORTH

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

Autodesk Docs://Oakland County Parking Decks/87770-OCPD_North_Mech_V23.rvt

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

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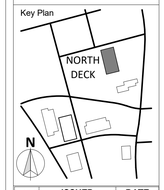

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MECHANICAL ROOF PLAN - NORTH

DRAWING NO

M-161-N

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PLUMBING CONNECTION SCHEDULE

ITEM #	DESCRIPTION	MANUFACTURER & MODEL NO.	WASTE	TRAP	VENT	COLD WATER	HOT WATER	FURNISHED BY	INSTALLED BY	FINAL CONNECTION	NOTES/ACCESSORIES
FD-1	FLOOR DRAIN	ZURN Z415B	4"	--	--	--	--	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	TRAP SHIELD, BRONZE FINISH, ADJUSTABLE
RS-1	HEAVY DUTY PARKING DECK DRAIN WITH SUPPORT FLANGE	ZURN Z534	6"	--	--	--	--	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	HEEL PROOF GRATE, VANDAL PROOF SECURED TOP. PROVIDE ALL REQUIRED ACCESSORIES TO INSTALL INTO CONCRETE.
FS-1	CAST IRON ROUND FLOOR SINK AND ANCHOR FLANGE, 12"DIA x 8"DEEP, FULL GRATE ENAMEL COATED CAST IRON	SIOUX CHIEF 861 SERIES	4"	--	--	--	--	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	PROVIDE TRAP PRIMER ADAPTOR, 1/2"FIP THREAD SIDE INLET. 1/2"AUTOMATIC TRAP PRIMER VALVE BY SIOUX CHIEF 695-01.
NFHB-1	EXTERIOR FINISH BOX & DOOR WITH KEY	WOODFORD B65	--	--	--	3/4"	--	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	PLUMBING CONTRACTOR	

REDUCED PRESSURE BACKFLOW PREVENTERS:

PROVIDE "REDUCED PRESSURE" BACKFLOW PREVENTERS WHERE INDICATED AND AS REQUIRED BY LOCAL CODES COMPLETE WITH TWO SPRING LOADED CHECK VALVES, SPRING LOADED DIAPHRAGM ACTUATED DIFFERENTIAL PRESSURE RELIEF VALVES, TWO GATE VALVES, FOUR TEST COCKS, TWO UNIONS AND INTERCONNECTING PIPING AT 175 PSI MAXIMUM WORKING PRESSURE. RELIEFS SHALL BE UNIT SIZED PIPED TO SAFE WASTE.

SMALL DEVICES SUCH AS COFFEE MAKERS AND ICE MACHINES SERVED BY DOMESTIC WATER MAKE-UP TUBING SHALL BE FITTED WITH APOLLO MODEL 4C-100 SERIES BACKFLOW PREVENTER W/ATMOSPHERIC VENT SUITABLE FOR 150 PSI WORKING PRESSURE.
DESIGN SHALL CONFORM TO ASSE 1022. INSTALL PER MANUFACTURER RECOMMENDATION.
UNITS SHALL BE APPROVED BY STATE AND LOCAL CODES.
APPROVED MANUFACTURERS: ZURN, WATTS.

PACKAGED AIR CONDITIONER UNIT SCHEDULE

INDOOR TAG	INDOOR MODEL NO.	WEIGHT (LBS)	OUTDOOR TAG	OUTDOOR MODEL NO.	WEIGHT (LBS)	SUPPLY FAN (CFM)	REFRIGERANT	COOLING TOTAL (MBH)	HEATING @ 5°F (MBH)	INDOOR ELECTRICAL VOLTS/PHASE	INDOOR ELECTRICAL MCA	OUTDOOR ELECTRICAL VOLTS/PHASE	OUTDOOR ELECTRICAL MCA	OUTDOOR ELECTRICAL MOCP	NOTES/ACCESSORIES
HP-1N	MITSUBISHI-TRANE NTXCKS18A112BA	31	ACCU-1N	MITSUBISHI-TRANE NTXSKH18A112AA	131	420	R-410A	16.8	18.8	208/1	1.0	208/1	17.0	31	A B C D E F G
HP-2N	MITSUBISHI-TRANE TPLA0A0361EA80A	89	ACCU-2N	MITSUBISHI-TRANE TRUZA0361KA70NA	214	1200	R-410A	36.0	21.6	208/1	2.0	208/1	25.0	31	A B C D E F G
HP-3N	MITSUBISHI-TRANE NTXCKS18A112BA	31	ACCU-3N	MITSUBISHI-TRANE NTXSKH18A112AA	131	420	R-410A	16.8	18.8	208/1	1.0	208/1	17.0	31	A B C D E F G
HP-5-1N	MITSUBISHI-TRANE PEAD-A36AA9	95	ACCU-5-1N	MITSUBISHI-TRANE PUZ-HA36NKA	285	1200	R-410A	36.0	38.0	208/1	3.5	208/1	26.0	42	A B C D E F G
HP-5-2N	MITSUBISHI-TRANE PEAD-A36AA9	95	ACCU-5-2N	MITSUBISHI-TRANE PUZ-HA36NKA	285	1200	R-410A	36.0	38.0	208/1	3.5	208/1	26.0	42	A B C D E F G

NOTES AND ACCESSORIES DESIGNATION

A	ACR REFRIGERANT LINE SET.	E	PROVIDE CONDENSATE PUMP AND DRAIN TO OPEN SITE DRAIN/FLOOR DRAIN.
B	PROVIDE ELECTRICAL DISCONNECT FOR INDOOR AND OUTDOOR	F	LOW AMBIENT CONTROL, WIND BAFFLES
C	INSULATE ALL PIPING.	G	INDOOR IS INDEPENDED FROM THE OUTDOOR.
D	PROVIDE ALL NECESSARY CONTROLS AND ACCESSORIES FOR PROPER OPERATION.		

EXHAUST FAN SCHEDULE

TAG	MANUFACTURER & MODEL NO.	WEIGHT (LBS)	AREA SERVED	LOCATION	CFM	ESP (IN OF WATER)	FAN RPM	DRIVE TYPE	FAN TYPE	ELECTRICAL MOTOR RPM	ELECTRICAL HP OR WATTS	ELECTRICAL VOLTS/PHASE	NOTES/ACCESSORIES
EF-1N	GREENHECK G-140-VG	73	STAIR # 1	ROOF	1,750	0.25	1069	DIRECT	CENTRIFUGAL	--	1/2 HP	120/1	A B C D E F
EF-2N	GREENHECK G-140-VG	73	STAIR # 2	ROOF	1,750	0.25	1069	DIRECT	CENTRIFUGAL	--	1/2 HP	120/1	A B C D E F

NOTES AND ACCESSORIES DESIGNATION

A	ROOF CURB	E	BIRDSCREEN
B	DISCONNECT SWITCH.	F	PROVIDE EXHAUST AIR GRILLE
C	PROVIDE AND CONTROL WITH THERMOSTAT.		
D	PROVIDE STARTER.		

BUILDING NATURAL GAS LOAD SCHEDULE

EQUIPMENT	TOTAL INPUT CFH
EMERGENCY GENERATOR	1,678
TOTAL	1,678 CFH

PIPE DESIGN BASED ON 7"W.C. @ 500 LINEAR FT. AND 0.3"W.C. ALLOWABLE PRESSURE DROP.

ELECTRIC CABINET UNIT HEATER SCHEDULE

TAG	MANUFACTURER & MODEL No.	AREA SERVED	MOUNTING	LENGTH	CFM	BTU/HR	ELECTRICAL DATA WATTS	ELECTRICAL DATA VOLT	ELECTRICAL DATA AMPS	NOTES/ACCESSORIES
ECUH-1-1N	MARKEL 6300 SERIES	STAIR #1 1ST FLR	WR	33"	250	17065	5,000	277/1	17.3	A B C
ECUH-1-2N	MARKEL 6300 SERIES	STAIR #2 1ST FLR	WR	33"	250	17065	5,000	277/1	17.3	A B C
ECUH-3-1N	MARKEL 6300 SERIES	STAIR #1 3RD FLR	WR	33"	250	17065	5,000	277/1	17.3	A B C
ECUH-3-2N	MARKEL 6300 SERIES	STAIR #2 3RD FLR	WR	33"	250	17065	5,000	277/1	17.3	A B C
ECUH-5-1N	MARKEL 6300 SERIES	STAIR #1 5TH FLR	WR	33"	250	17065	5,000	277/1	17.3	A B C
ECUH-5-2N	MARKEL 6300 SERIES	STAIR #2 5TH FLR	WR	33"	250	17065	5,000	277/1	17.3	A B C

MOUNTING KEY
PD – PEDISTAL RC – FULLY RECESSED CEILING WL – WALL
FL – FLOOR WR – WALL RECESS

NOTES AND ACCESSORIES DESIGNATION

A	INTERGRAL THERMOSTAT	C	FRONT TOP DISCHARGE, FRONT BOTTOM RETURN
B	UNIT MOUNTED DISCONNECT SWITCH		

ELECTRIC UNIT HEATER SCHEDULE

TAG	MANUFACTURER & MODEL No.	AREA SERVED	MOUNTING	CFM	BTU/HR	ELECTRICAL DATA WATTS	ELECTRICAL DATA VOLT	ELECTRICAL DATA AMPS	NOTES/ACCESSORIES
EUH-1N	MARKEL 5100 SERIES	WATER PUMP RM 002	SUSPENDED	400	17100	5,000	277/1	12.3	A B C

NOTES AND ACCESSORIES DESIGNATION

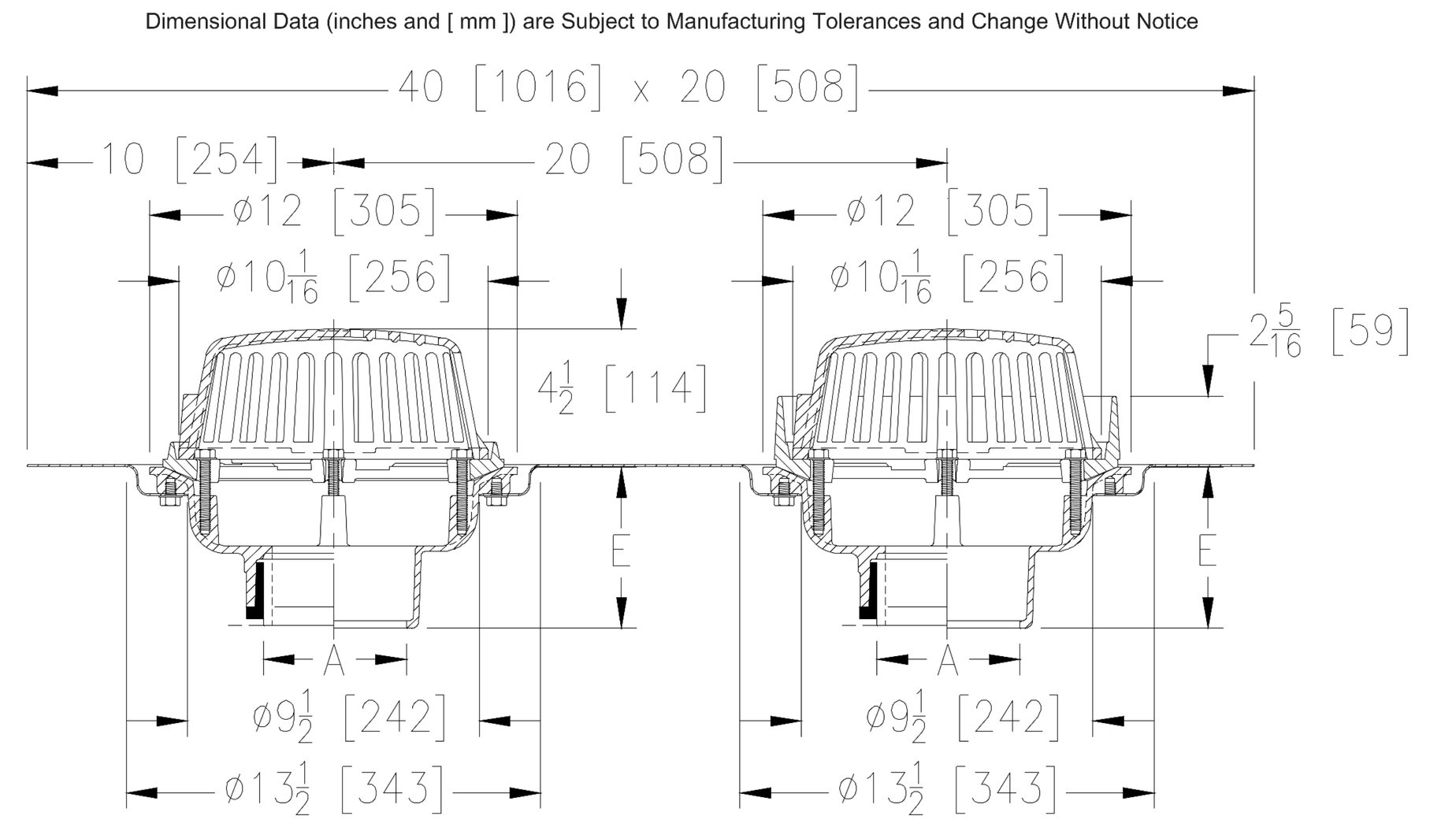
A	REMOTE THERMOSTAT	C	WALL MOUNTING BRACKET
B	UNIT MOUNTED DISCONNECT SWITCH		

ZURN

Z164
12 [305] DIAMETER COMBINATION MAIN ROOF AND OVERFLOW DRAIN WITH LOW SILHOUETTE DOMES AND DOUBLE TOP-SET® DECK PLATE

SPECIFICATION SHEET
TAG RD-1/OF-1

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



A Pipe Size In.[mm]	Approx. Wt. Lbs. [kg]	Dome Open Area Sq. In. [cm²]
2, 3, 4, 6 [51, 76, 102, 152]	66 [30]	78 [503]

ENGINEERING SPECIFICATION: ZURN Z164
12" [305mm] Diameter roof drain and overflow drain, Dura-Coated cast iron bodies with combination membrane flashing clamp/gravel guards, double Top-Set® deck plate, and low silhouette cast iron domes.

OPTIONS (Check/specify appropriate options)

PIPE SIZE	(Specify size/type)	OUTLET		E BODY HT. DIM.
2, 3, 4, 6 [51, 76,102, 152]	_____	IC	Inside Caulk	5-1/4 [133]
2, 3, 4, 6 [51, 76,102, 152]	_____	IP	Threaded	3-3/4 [95]
2, 3, 4, 6 [51, 76,102, 152]	_____	NH	No-Hub	5-1/4 [133]
2, 3, 4 [51, 76,102]	_____	NL	Neo-Loc	4-5/8 [117]

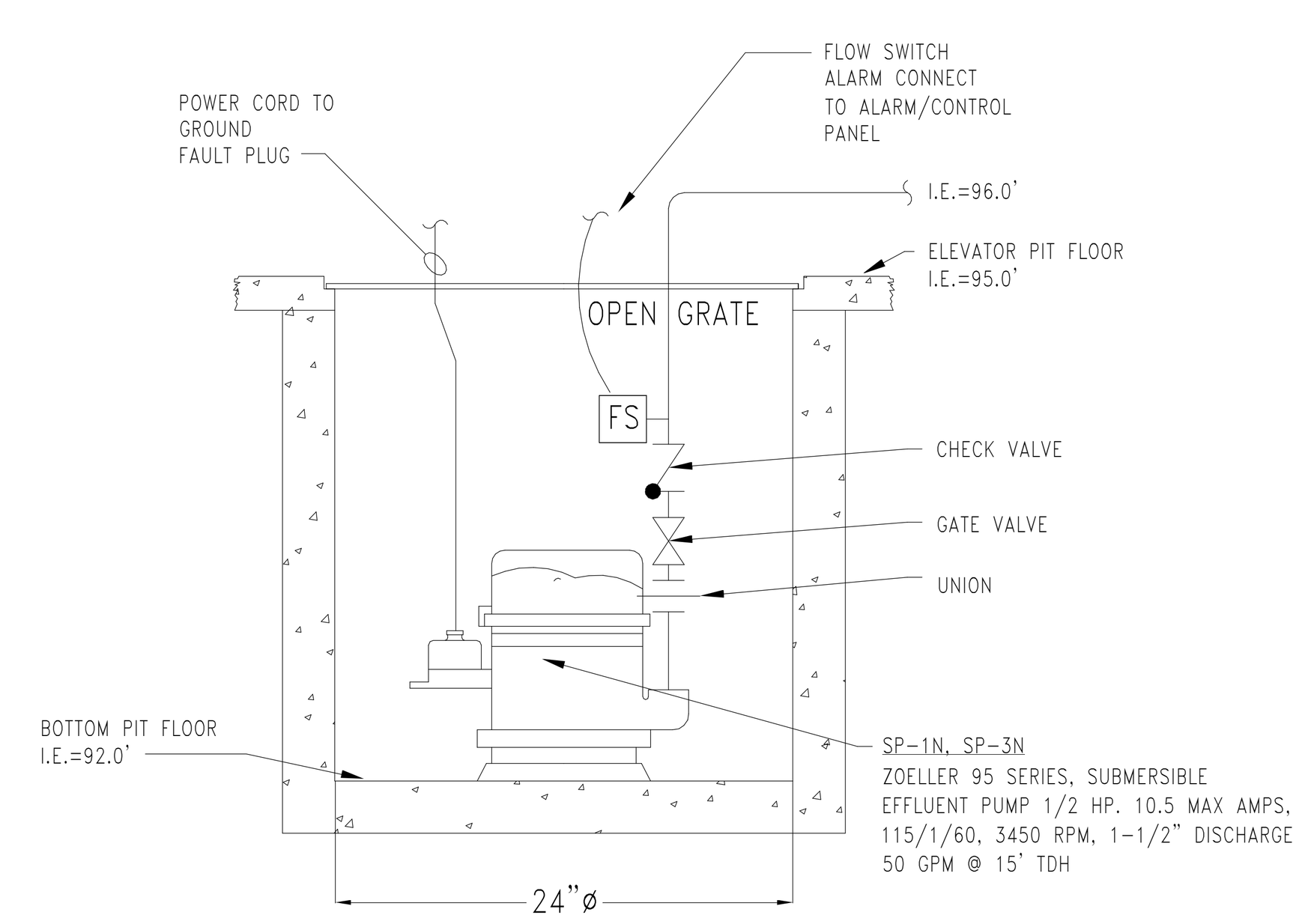
PREFIXES
___ Z D.C.C.I. Body with Dome (4-1/4 [108] Dome Height)*
___ ZA D.C.C.I. Body with Aluminum Dome (6-9/16 [167] Dome Height)

SUFFIXES
___ -AR Acid Resistant Epoxy Coated Finish
___ -E Static Extension 1 thru 4 [25 thru 102] (Specify Ht.)
___ -G Galvanized Cast Iron
___ -SC Secondary Clamping Collar
___ -SS Stainless Steel Mesh Screen Over Dome
___ -TC Neo-Loc Test Cap Gasket (2, 3, 4 [51, 76, 102] NL Bottom Outlet Only)
___ -VP Vandal-Proof Secured Top
___ -XJ Vertical Expansion Joint
___ -84 Stainless Steel Perforated Gravel Guard
___ -85 Stainless Steel Perforated Extension

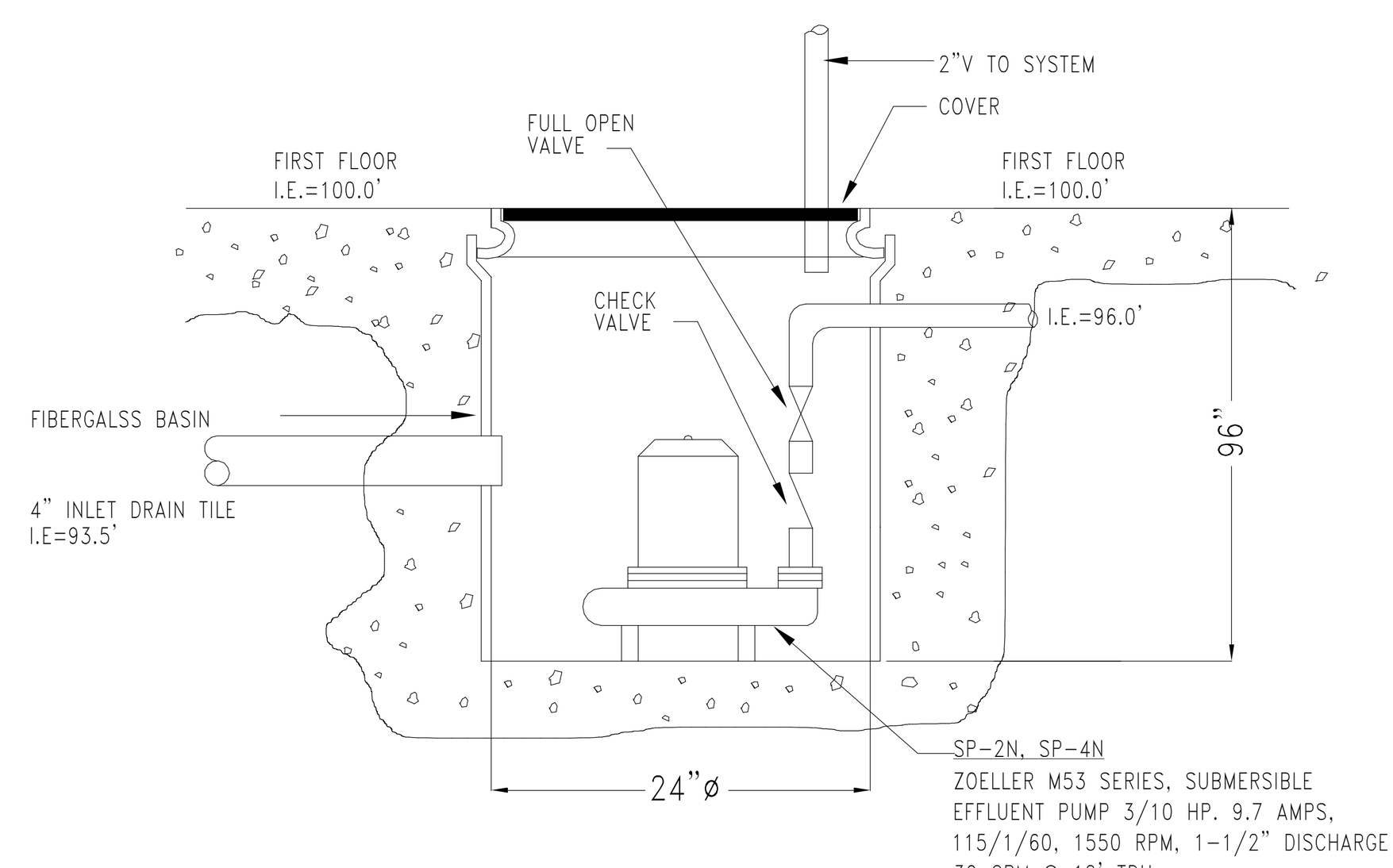
* Regularly furnished unless otherwise specified.

Zurn Industries, LLC | Specification Drainage Operation
1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 · Ph. 855-663-9876, Fax 814-454-7929
In Canada | Zurn Industries Limited
3544 Nashua Drive, Mississauga, Ontario L4V 1L2 · Ph. 905-405-8272, Fax 905-405-1292
www.zurn.com

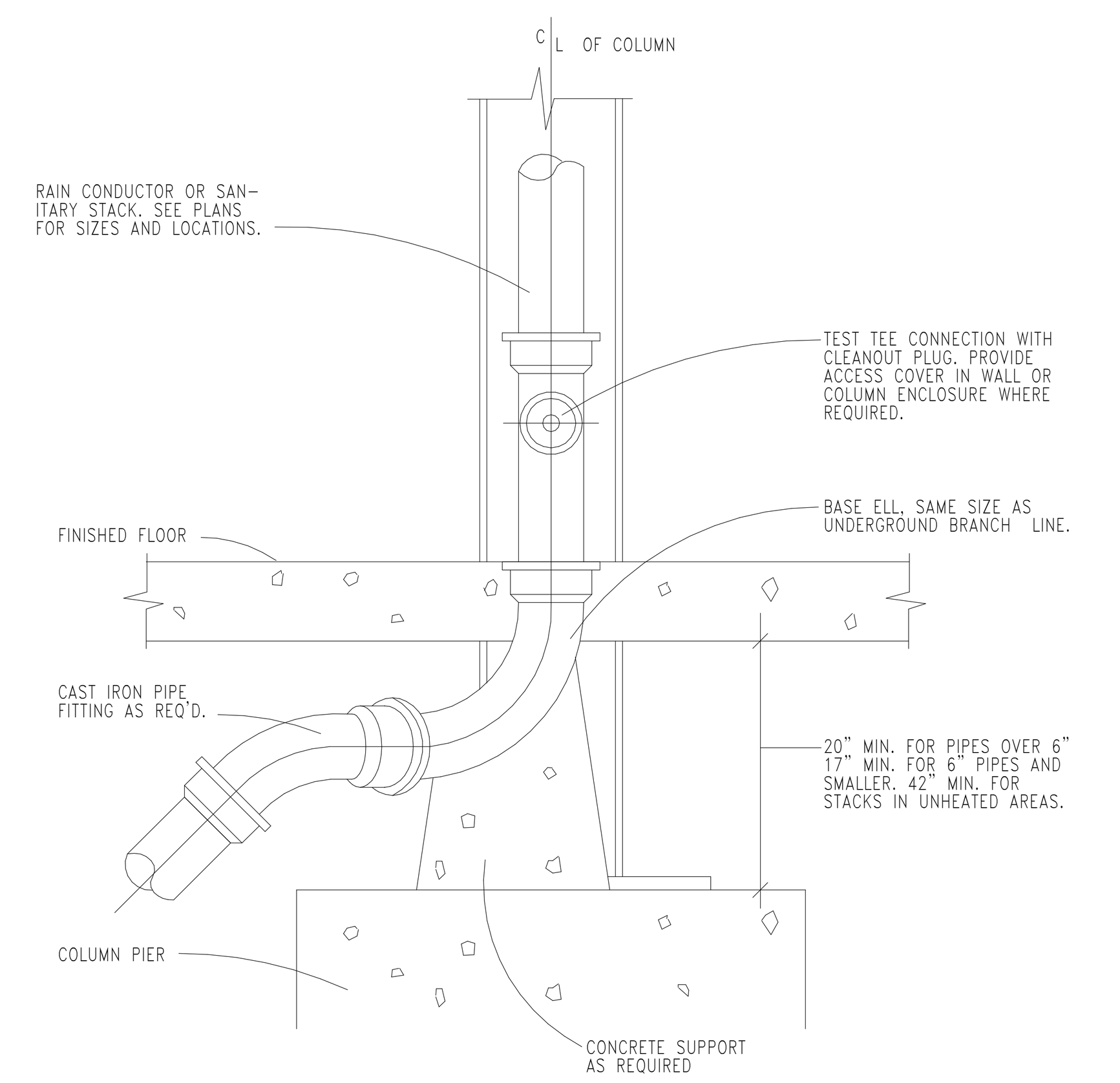
Rev. F
Date: 09/25/2017
C.N. No. 137811
Prod. | Dwg. No. Z164



3 M-201-N ELEVATOR SUMP PUMP DETAIL (TYPICAL)
SCALE: NONE



2 M-201-N DRAIN TILE SUMP PUMP DETAIL (TYPICAL)
SCALE: NONE



1 M-201-N TYPICAL BASE CONNECTION FOR RAIN CONDUCTOR AND SANITARY STACKS
SCALE: NONE

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks - North Deck

Oakland County

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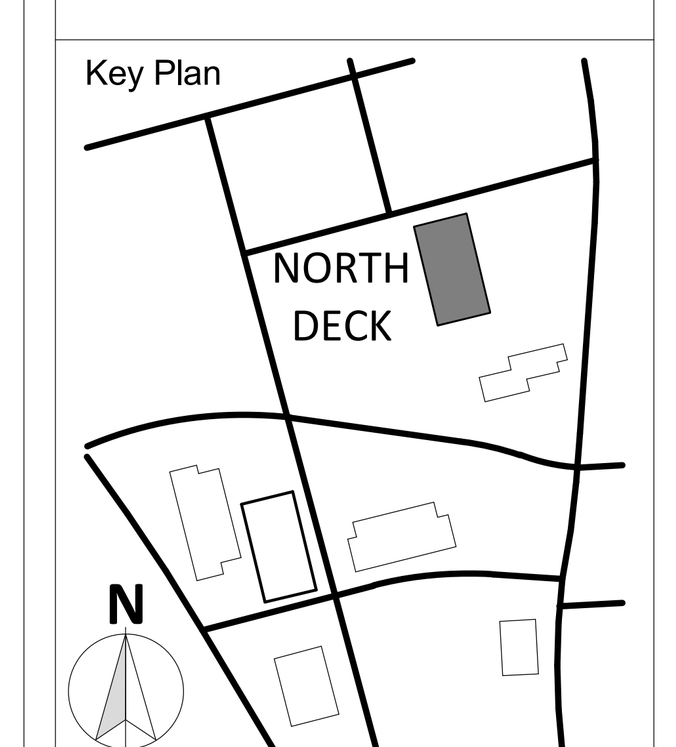

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MECHANICAL SCHEDULES & DETAILS

DRAWING NO
M-201-N

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LIGHTING FIXTURES SCHEDULE *:

* LIGHTING FIXTURES DESIGNATED WITH (EM) AND HALF SHADED SHALL BE USED FOR EMERGENCY EGRESS AND WIRED TO EMERGENCY POWER PANEL LP-EMN1, ALL OTHER LIGHT FIXTURES SHALL BE WIRED TO NORMAL POWER PANEL LP-N1.

"A" LED EDGE-LIT SURFACE MOUNT, EXCURSION PARKING GARAGE LIGHT FIXTURE, BLACK FINISH, WIDE DISTRIBUTION, UNIVERSAL VOLTAGE, 4000K COLOR, 80CRI, 44W, 10KV SURGE.
LSI LIGHTING #EXN-D-EGLED-_____-TSW-UNV-40-80CRI-BLK-SP1. OR APPROVED EQUA.

"B" LED 4' LINEAR STAIRWELL LIGHT FIXTURE, DUST AND INSECT TIGHT, 6000 LUMENS, UNIVERSAL VOLTAGE, 80CRI, 4000K COLOR, 44W, INTEGRAL MOTION SENSOR, BI-LEVEL DIMMING (OFF/10%/25%/50%).
LSI LIGHTING #SW-4-60L-840-UNV. OR APPROVED EQUAL.

"C" LED 4' INDOOR INDUSTRIAL STRIP LIGHT, FROSTED LENS, 3000 LUMENS, UNIVERSAL VOLTAGE, 0-10V DIMMING, 4000K COLOR, 80CRI, 23W.
LSI LIGHTING #SDL4-LED-30L-FL-UNV-DIM1-40-80CRI. OR APPROVED EQUAL.

"D" WALL MOUNTED LED FIXTURE, MVOLT, COLD TEMP WITH 0-10V DRIVER, FORWARD THROW WIDE DISTRIBUTION, BUILT-IN PHOTOELECTRIC CELL, DARK BRONZE FINISH, U.L. LISTED FOR WET LOCATIONS. 4000K, 4200 LUMENS, 47 WATTS
LITHONIA #WDGE2-LED-P4-40K-T4M-MVOLT-PE-DDBXD, OR APPROVED EQUAL.

"F" POLE MOUNTED TWIN LED FIXTURES ON 180°, 12'-6" SQUARE STRAIGHT POLE AND A 2'-6" HIGH CONCRETE BASE; LUMINAIRES SHALL BE; RECTANGULAR LOW PROFILE DIE-CAST ALUMINUM HOUSING MVOLT DRIVER; TYPE 4 FORWARD THROW DISTRIBUTION, DARK BRONZE FINISH, PROVIDE ANCHOR BOLTS AND BASE COVER, U.L. LISTED FOR WET LOCATIONS, 4000K, 16000 LUMENS, 124 WATTS
LITHONIA: #DSX1 LED-P4-40K-TFTM-MVOLT-SPA-PIR-DDBXD OR APPROVED EQUAL.

"X" LED WET LOCATION VANDAL RESISTANCE EXIT SIGN, RED LETTERS, SINGLE FACE, AC UNIVERSAL VOLTAGE, NO BATTERY, BLACK FINISH.
LSI LIGHTING #EWV-R-1F-LB-BK. OR APPROVED EQUAL.

ELECTRICAL LEGEND ✱

"A"	FIXTURE TYPE
	1x4 LIGHT FIXTURE
	POLE MOUNTED LIGHTING FIXTURE
	STRIP LIGHTING FIXTURE
	2'X2' OR 2'X4' LIGHTING FIXTURE
	FULL SHADED LIGHTING FIXTURES ARE WIRED UNSWITCHED NIGHT LIGHTS
	HALF SHADED FIXTURES ARE FIXTURES PROVIDED WITH BUILT-IN EMERGENCY BATTERY PACK FOR EGRESS LIGHTING
	RECESSED DOWN LIGHT
	WALL MOUNTED LIGHTING FIXTURE
	TRACK LIGHTING FIXTURE
	EXIT LIGHTING FIXTURE - SHADING INDICATES ILLUMINATED FACE (S) CHEVRONS AS INDICATED
	EMERGENCY LIGHTING UNIT
	COMBINATION OF EXIT AND EMERGENCY LIGHTING UNIT
S	SINGLE POLE LIGHT SWITCH
S_3	THREE WAY LIGHT SWITCH
S_4	FOUR WAY LIGHT SWITCH
S_K	KEY OPERATED SWITCH
S_P	LIGHT SWITCH WITH PILOT LIGHT
S_{P3}	THREE WAY LIGHT SWITCH WITH PILOT LIGHT
S_D	DIMMER SWITCH, COMPATIBLE WITH LIGHTS CONTROLLED
S_{WD}	DIMMER SWITCH WITH WALL OCCUPANCY SENSOR (SINGLE POLE)
S_{D3}	THREE WAY LIGHT SWITCH WITH DIMMER
S_T [TS]	TIMER SWITCH
S_{LV}	LOW VOLTAGE CONTROL STATION WITH DIMMING CAPABILITIES, NUMBER OF BUTTONS AS INDICATED TO PROVIDE PRESET SCENES, RISER, LOWER, ON, OFF CONTROL FOR ZONES INDICATED, COORDINATE WITH LIGHT DIMMING CONTRACTOR FOR DEVICE MODEL NUMBERS, QUANTITIES, LOCATIONS, AND ADDITIONAL REQUIREMENTS.
[RPD]	RELAY PACK WITH 0-10V DIMMING OUTPUT
[OS]	CEILING MOUNTED OCCUPANCY SENSOR. DUAL TECHNOLOGY (PASSIVE INFRARED AND MICROPHONIC/ULTRASONIC), WITH AUXILIARY RELAY FOR HVAC CONTROL. PROVIDE QUANTITY OF 20A, 120V/277V RATED POWER PACKS AND RELAY PACKS AS REQUIRED TO CONTROL SWITCH LEGS INDICATED. ALL FIXTURES IN ROOM/SPACE ARE TO BE CONTROLLED BY THE SENSORS.
S_W	WALL MOUNTED VACANCY SENSOR, SINGLE POLE. DUAL TECHNOLOGY (PASSIVE INFRARED AND MICROPHONICS/ULTRASONIC), 120/277V. SWITCH IS RATED 800W AT 120V AND 1200W AT 277V, 1/4 HP. IVORY WITH STAINLESS STEEL COVERPLATE. FACTORY COLOR-MATCHED PLATE IS NOT ACCEPTABLE.
S_{W2}	SAME AS Sw EXCEPT WITH DUAL POLE
	SINGLE RECEPTACLE
	DUPLEX RECEPTACLE
	QUADRUPLEX RECEPTACLE
	DUPLEX RECEPTACLE WITH GROUND FAULT (GFCI)
GFP	FACELESS GROUND FAULT CIRCUIT INTERRUPTER
$_C$	SAME AS DUPLEX RECEPTACLE EXCEPT CEILING MOUNTED
$_C$	SAME AS QUADRUPLEX RECEPTACLE EXCEPT CEILING MOUNTED
$_S$	SAME AS DUPLEX RECEPTACLE EXCEPT SHOW WINDOW TO BE MOUNTED 6" ABOVE WINDOW, COORDINATE WITH OWNER/ ARCHITECT PRIOR TO INSTALLATION
	COMBINATION DUPLEX POWER RECEPTACLE AND TWO USB PORTS
$_H$	SAME AS DUPLEX RECEPTACLE EXCEPT HORIZONTALLY MOUNTED
	SPLIT RECEPTACLES
	FLOOR RECEPTACLE
$_R$	COMMERCIAL GRADE CORD REEL WITH GFCI MOUNTED TO STEEL STRUCTURE
	SAME AS CORRESPONDENCE RECEPTACLE EXCEPT WITH SURFACE MOUNT
	SPECIAL PURPOSE RECEPTACLE - NEMA TYPE
$_R$	SPECIAL PURPOSE RECEPTACLE - NEMA TYPE ON A CORD REEL MOUNTED TO STEEL STRUCTURE
	DUPLEX RECEPTACLE FLOOR MOUNTED
J	CEILING JUNCTION BOX
J	WALL JUNCTION
	PUSH BUTTON STATION (1, 2, OR 3 BUTTON)
PP	DOOR ACTIVATOR PUSH PLATE
	ELECTRIC CLOCK OUTLET
	COMBINATION DATA AND TELEPHONE OUTLET — UNLESS OTHERWISE NOTED PROVIDE DOUBLE GANG BOX WITH SINGLE MUD RING AND 3/4"C UP TO CEILING SPACE
	PHONE OUTLET SAME AS COMBINATION VOICE/DATA (W: WALL MOUNTED AT +48")
	DATA OUTLET
	SAME AS DATA OUTLET EXCEPT WITH SURFACE MOUNT
TV	TELEVISION OUTLET, DOUBLE GANG BOX WITH SINGLE MUD RING AND 1"C TO CEILING SPACE
AV	AUDIO/VIDEO OUTLET, DOUBLE GANG BACK BOX WITH 1 1/4"C TO ABOVE ACCESSIBLE CEILING, TERMINATE CONDUIT WITH INSULATING BUSHING, PROVIDE PULL STRING
AV	FLOOR MOUNTED THREE GANG (3G) FLUSH BOX, DUPLEX RECEPTACLE, A/V & DATA/PHONE COMPARTMENTS
	DUPLEX RECEPTACLE & DATA/PHONE FLUSH FLOOR MOUNTED TWO GANG (2G) COMPLETE WITH FLANGE AND COVER
C	CEILING MOUNTED TWO GANG (2G) FLUSH BOX, DUPLEX RECEPTACLE & DATA/PHONE COMPARTMENTS
$_{F1}$	MULTI-SERVICE STAMPED STEEL FLUSH FLOOR BOX - TYPE F1 - WITH (2)-20A DUPLEX RECEPTACLES & (2) DATA COMPARTMENT, WIREMOLD #RFB4 SERIES OR APPROVED EQUAL BY HUBBELL
$_{F2}$	MULTI-SERVICE STAMPED STEEL FLUSH FLOOR POKE-THROUGH BOX - TYPE F2 - WITH (2)-20A DUPLEX RECEPTACLES & (2) DATA COMPARTMENT, WIREMOLD OR APPROVED EQUAL BY HUBBELL.
	FLOOR MOUNTED TWO GANG (2G) FLUSH BOX WITH SEPARATE POWER AND DATA COMPARTMENTS FOR FURNITURE CONNECTION PROVISION

J	FLOOR MOUNTED ONE GANG FLUSH POWER BOX FOR FURNITURE CONNECTION PROVISION
FPX6	FIRE RATED FLUSH FLOOR POKE THRU WITH SEPARATE POWER AND DATA COMPARTMENTS FOR FURNITURE CONNECTION SIMILAR TO LEGRAND 4FFATC.
DUPX DUPV	FIRE RATED FLUSH FLOOR POKE THRU WITH DUPLEX OR QUAD RECEPTACLE & LOW VOLTAGE COMPARTMENTS SIMILAR TO LEGRAND RC7 OR RC4.
DUPX 6	FIRE RATED RECESSED DEEP FLOOR POKE THRU WITH DUPLEX OR QUAD RECEPTACLE & LOW VOLTAGE COMPARTMENTS SIMILAR TO LEGRAND EVOLUTION 6 SERIES.
P D J 4S	JUNCTION BOX FOR FLEXIBLE CONNECTION TO SYSTEMS (P: POWER, D: DATA). FURNITURE WHIP PROVIDED BY FURNITURE SUPPLIER. FOR NEW WORK PROVIDE 1"C OR 1 1/4"C FOR DATA TO ABOVE ACCESSIBLE CEILING. UNLESS OTHERWISE NOTED. COORDINATE LOCATION WITH FURNITURE SYSTEM SUPPLIER. PROVIDE FINAL CONNECTION AND COVERPLATE SUITABLE FOR WHIP CONNECTION.
	DISTRIBUTION PANEL
	SURFACE MOUNTED LIGHTING AND/OR RECEPTACLE PANEL
	RECESSED MOUNTED LIGHTING AND/OR RECEPTACLE PANEL
CB	MOLDED CASE CIRCUIT BREAKER - SURFACE MOUNTED IN NEMA ENCLOSURE
CB	MOLDED CASE CIRCUIT BREAKER - FLUSH MOUNTED IN NEMA ENCLOSURE
	MOTOR - SINGLE PHASE
	MOTOR - THREE PHASE
	MANUAL SINGLE PHASE MOTOR STARTER WITH PILOT LIGHT, LOCKABLE OFF, FOR MOTOR APPLICATIONS. MANUAL SINGLE PHASE MOTOR SWITCH WITH PILOT LIGHT, LOCKABLE OFF AND WITHOUT OVERLOADS FOR DISCONNECT APPLICATIONS TO EQUIPMENT NOT REQUIRING OVERLOADS AND FOR APPLICATIONS WHERE OVERLOADS ARE INTEGRAL TO MOTOR-BASED LOADS. FLUSH MOUNT STARTERS / SWITCHES IN FINISHED SPACES. SURFACE MOUNT IN UNFINISHED SPACES.
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	THREE PHASE COMBINATION MAGNETIC FUSIBLE MOTOR STARTER
	BUS PLUG FUSIBLE DISCONNECT SWITCH
T	TRANSFORMER
C	CONTACTOR
	METER
	GROUND
	HOMERUN TO LIGHTING PANEL
CT	CABLE TRAY
PS	PLUG-IN STRIP

EF	EXHAUST FAN	EWC	ELECTRIC WATER COOLER
EDH	ELECT. DUCT HTR.	AFF	ABOVE FINISHED FLOOR
A	ABOVE COUNTER	WP	WEATHERPROOF
A/E	ARCHITECT / ENGINEER	RT	RAINTIGHT
CM	COFFEE MAKER	UFD	UNDER FLOOR DUCT
MW	MICROWAVE	FPB	FAN POWER BOX
HOA	HAND-OFF-AUTOMATIC	DW	DISHWASHER
PC	PHOTOCELL	GD	GARBAGE DISPOSAL
HG	HOSPITAL GRADE	REF	REFRIGERATOR
UH	UNIT HEATER	(E)	EXISTING TO REMAIN
UON	UNLESS OTHERWISE NOTED	(RE)	RELOCATED EXISTING
EG	EQUIPMENT GROUND	IG	ISOLATED GROUND
H	HORIZONTALLY MOUNT 6" ABOVE COUNTER BACK SPLASH		
GFI or GFR	GROUND FAULT CIRCUIT INTERRUPTER		

	POWER POLE VOICE/DATA/POWER
	AUDIO/VISUAL HEAD END EQUIPMENT
DR	DRIVER FOR 24V UNDER CABINET LED LIGHT
CR	CARD READER
IC	INTERCOM OUTLET
PC	PHOTOELECTRIC CONTROLLER
WPS	COMBINE PARTITION SENSOR
WAP	WIRELESS ACCESS PANEL
CP	CONTROL PANEL, PROVIDE AS PART OF THE EQUIPMENT THEY CONTROL
TS	TIME SWITCH
B B	BELL
RB	RADIO ALERT SYSTEM BELL
DS	DOOR SWITCH
IC	INTERCOM STATION
EPO	EMERGENCY POWER OFF PUSHBUTTON
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL
NACP	NOTIFICATION APPLIANCE CONTROL PANEL
MC	MICROPHONE
S	CEILING MOUNTED SPEAKER
V V	VOLUME CONTROL DIAL
SD	SMOKE DETECTOR
HD	HEAT DETECTOR
TS	TAMPER SWITCH
FS	FLOW SWITCH
A/V	OUTDOOR FIRE DEPARTMENT CONNECTION - AUDIO VISUAL DEVICE
DH	MAGNETIC DOOR HOLDER
DS	DUCT SMOKE DETECTOR
SCD	COMBINATION SMOKE/CO DETECTOR
F	MANUAL FIRE ALARM STATION
F	FIRE ALARM STROBE
F	FIRE ALARM HORN/STROBE
F	FIRE ALARM HORN/STROBE - CEILING MOUNTED
F S	FIRE ALARM STROBE - CEILING MOUNTED

✱ THIS IS STANDARD SYMBOL LIST - SOME OF THESE SYMBOL MAY NOT APPEAR ON DRAWINGS.

ELECTRICAL SHEET INDEX

SHEET	DESCRIPTION
E-001-N	ELECTRICAL LEGEND, SHEET INDEX AND DETAILS - NORTH
E-002	ELECTRICAL SPECIFICATIONS
E-003-N	ELECTRICAL ONE-LINE DIAGRAM - NORTH
E-100	ELECTRICAL OVERALL SITE PLAN
E-101-N	ELECTRICAL SITE PLAN - NORTH
E-211-N	ELECTRICAL FIRST FLOOR PLAN - NORTH
E-221-N	ELECTRICAL SECOND FLOOR PLAN - NORTH
E-231-N	ELECTRICAL THIRD FLOOR PLAN - NORTH
E-241-N	ELECTRICAL FOURTH FLOOR PLAN - NORTH
E-251-N	ELECTRICAL FIFTH FLOOR PLAN - NORTH
E-261-N	ELECTRICAL ROOF PLAN - NORTH

MOUNTING HEIGHTS

EQUIPMENT OR OUTLETS	ELEVATIONS
WALL SWITCHES	4'-0" AFF
RECEPTACLES	1'-6" AFF
TELECOMMUNICATIONS OUTLETS	1'-6" AFF
TELECOMMUNICATIONS OUTLETS - WALL PHONE	4'-6" AFF
CLOCK OUTLETS	7'-6" AFF
TV OUTLETS	1'-6" AFF
FIRE ALARM - PULL STATIONS	4'-0" AFF
FIRE ALARM - SPEAKERS, VISUAL UNITS, HORNS	7'-0" AFF
PUSHBUTTONS	4'-0" AFF
DISCONNECT SWITCHES	5'-6" AFF
MOTOR STARTERS	5'-6" AFF
PANELS & CABINETS	6'-0" TO TOP
VOLUME CONTROLS	4'-0" AFF
NURSE CALL STATIONS	4'-0" AFF
NURSE CALL DOME LIGHTS	7'-6" AFF
DIMMERS	4'-0" AFF
INDIVIDUAL CIRCUIT BREAKERS	5'-6" TO TOP
ACCESS CONTROL DEVICES	4'-0" AFF

MOUNTING HEIGHT NOTES:

1. ALL ELEVATIONS ARE TO CENTER LINE OF DEVICE, UNLESS OTHERWISE NOTED.
2. REFER TO EQUIPMENT ELEVATION DRAWINGS FOR COORDINATION WITH CASEWORK.

120V. SINGLE PHASE CIRCUIT LENGTH TABLE

BREAKER AMPACITY (AMPS)	MAX. CIRCUIT LOAD (AMPS)	MAXIMUM LENGTH IN FEET				
		NO.12	NO.10	NO.8	NO.6	NO.4
20	4	220	349	556	882	-
	8	110	174	278	441	701
	12	73	116	185	294	467
	16	55	87	139	221	350
30	24	-	58	93	147	234
40	32	-	-	70	110	175
50	40	-	-	-	88	140
60	48	-	-	-	-	117

208V. SINGLE PHASE CIRCUIT LENGTH TABLE

BREAKER AMPACITY (AMPS)	MAX. CIRCUIT LOAD (AMPS)	MAXIMUM LENGTH IN FEET				
		NO.12	NO.10	NO.8	NO.6	NO.4
20	4	380	605	964	-	-
	8	190	302	482	765	-
	12	127	202	321	510	810
	16	95	151	241	382	607
30	24	-	101	161	255	405
40	32	-	-	121	191	304
50	40	-	-	-	153	243
60	48	-	-	-	-	202

208V. THREE PHASE CIRCUIT LENGTH TABLE

BREAKER AMPACITY (AMPS)	MAX. CIRCUIT LOAD (AMPS)	MAXIMUM LENGTH IN FEET				
		NO.12	NO.10	NO.8	NO.6	NO.4
20	4	439	698	1113	-	-
	8	220	349	557	883	-
	12	127	233	371	589	935
	16	95	175	278	442	701
30	24	-	116	186	294	468
40	32	-	-	139	221	351
50	40	-	-	-	177	281
60	48	-	-	-	-	234

CIRCUIT MAXIMUM DISTANCE TABLES

1. CIRCUIT MAXIMUM DISTANCE IS BASED ON NEC CHAPTER 9, TABLE 8 CONDUCTOR PROPERTIES FOR COATED COPPER CONDUCTORS AT 75 DEGREES CELSIUS.
2. MAXIMUM CIRCUIT LOAD FOR DISTANCE IS BASED ON NEC 220-10(b).
3. FOR 208V, THREE PHASE MAXIMUM DISTANCE MULTIPLY 480V DISTANCE IN TABLE BY 0.43; AND FOR 240V, THREE PHASE MULTIPLY 480V DISTANCE IN TABLE ABOVE BY 0.5.

Project Title

Oakland County Parking Decks

Oakland County

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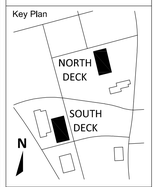
Seal

Key Plan



TAG	ISSUED	DATE
1	DESIGN	09/08/25
	DEVELOPMENT	

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DRAWN BY **SM/GS**
CHECKED BY **WZ**

ELECTRICAL LEGEND, SHEET INDEX AND DETAILS - NORTH

DRAWING NO

E-001-N

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H:\ACAD\FILES\8787770-Oakland County Parking Decks-Pontiac\CAD\ELEC\87770-E-001-N-Legend.dwg Tue, 16 Sep 2025 - 2:41pm

ELECTRICAL SPECIFICATIONS:

ALL WORK SHALL BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, LATEST EDITION, AND ALL LOCAL AND STATE AUTHORITIES HAVING JURISDICTION THEREOF.

ALL EQUIPMENT SHALL BE SPECIFICATION GRADE AND SHALL HAVE U.L. LABEL FOR INTENDED USE.

ELECTRICAL SYSTEMS SHALL BE COMPLETE IN EVERY DETAIL, INCLUDING ALL INCIDENTAL ITEMS FOR A PROPER AND FUNCTIONING INSTALLATION SUBJECT TO FINAL APPROVAL OF ARCHITECT/ENGINEER.

ALL REQUIRED PERMIT AND INSPECTIONS SHALL BE OBTAINED BY CONTRACTOR AND SUCH COSTS SHALL BE INCLUDED IN BID PRICE FOR THIS WORK.

PROVIDE UL LISTED SYSTEM FOR FIRE STOPPING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. PROVIDE SYSTEM WITH EQUAL OR GREATER RATING THAN ASSEMBLY. REFER TO ARCHITECTURAL DOCUMENTS FOR RATINGS AND LOCATIONS OF ASSEMBLIES.

EXAMINATION OF SITE IS MANDATORY. CONTRACTOR IS HEREBY HELD TO HAVE EXAMINED THE SITE AND HAVE INCLUDED IN HIS BID PRICE ALL COSTS DUE TO SITE AND FIELD CONDITIONS.

COMPLETE IDENTIFICATION OF PROJECT ELECTRICAL COMPONENTS IS REQUIRED. IDENTIFY ALL PANELS, DISCONNECTS, CONTROL DEVICES, ETC., WITH THE NOMENCLATURE INDICATED ON THE DOCUMENTS AND WITH POWER SOURCE AND ELECTRICAL RATINGS USING PLASTIC LAMINATE NAMEPLATE. INSTALL TYPEWRITTEN DIRECTORIES OF ALL CIRCUITS ON INSIDE OF PANELS. IDENTIFY WIRING DEVICE COVERPLATES WITH PANELBOARD AND BRANCH CIRCUIT NUMBER SERVING DEVICE, E.G. "A-15". PROVIDE ¾" MACHINE-WRITTEN BLACK LETTERING ON CLEAR PLASTIC ADHESIVE TAPE, LOCATE ON BOTTOM FRONT OF COVERPLATE, CENTERED BELOW WIRING DEVICE(S). SUBMIT SAMPLE OF LABELED TAPE WITH WIRING DEVICE/COVERPLATE SUBMITTAL. SAMPLE MAY BE ADHERED TO PAPERWORK IN SUBMITTAL, RATHER THAN TO A COVERPLATE.

PROVIDE TEMPORARY POWER AND LIGHTING DURING CONSTRUCTION. REMOVE TEMPORARY WIRING UPON COMPLETION OF THE PROJECT. TEMPORARY SERVICES SHALL BE AS REQUIRED, BY N.E.C. AND OSHA. CONTRACTOR IS RESPONSIBLE TO MEET WITH UTILITY TO FOR TEMPORARY POWER PROVISION AND ALL REQUIRED SKID UNITS.

GROUND CONTINUITY SHALL BE MAINTAINED THROUGHOUT THE ELECTRICAL SYSTEM. INSTALL EQUIPMENT GROUNDING CONDUCTOR WITH EVERY CIRCUIT.

COORDINATE SIZE AND LOCATION OF ANY REQUIRED ACCESS PANELS IN WALLS OR FINISHED CEILINGS WITH ARCHITECT PRIOR TO INSTALLATION.

WARRANTY:
UNLESS A LONGER PERIOD IS SPECIFIED IN INDIVIDUAL PARAGRAPHS, PROVIDE A MINIMUM OF ONE YEAR WARRANTY ON ALL ELECTRICAL WORK BEGINNING THE DATE OF FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER.

SUBMITTALS:
SUBMIT SHOP DRAWINGS FOR ALL MAJOR COMPONENTS OR SYSTEMS OF THE PROJECT. SUBMIT ADDITIONAL SHOP DRAWINGS IF REQUESTED BY ENGINEER.

NO APPARATUS OR EQUIPMENT SHALL BE SHIPPED FROM STOCK OR FABRICATED UNTIL ITS SHOP DRAWINGS HAVE BEEN STAMPED "REVIEWED" OR "APPROVED AS NOTED". SUBMIT DATA REQUIRED FOR TRANSFORMERS SUCH AS EFFICIENCY, REGULATION, CORE LOSS AND SOUND LEVELS. (SEE APPLICABLE SECTIONS).

SUBMIT SYSTEM COMPONENTS, PRODUCT DATA AND SHOP DRAWINGS COMPLETE FOR EACH SYSTEM UNDER ONE SUBMITTAL. DO NOT BREAK OUT EQUIPMENT FOR ONE SYSTEM BETWEEN MULTIPLE SUBMITTALS.

ALL SHOP DRAWINGS MUST BE CLEARLY MARKED TO SHOW EQUIPMENT SUBMITTED AND ANY DEVIATIONS FROM SPECIFICATIONS SHALL BE NOTED THEREON. DO NOT INCLUDE ONLY MODEL NUMBERS TO INDICATE SUBMITTED EQUIPMENT. STRIKE OUT ANY INFORMATION ON PRODUCT DATA THAT IS NOT PROJECT SPECIFIC, AND EDIT RELEVANT INFORMATION TO SHOW ACTUAL EQUIPMENT SUBMITTED. ELECTRICAL CONTRACTOR MUST SIGN AND APPROVE ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. UNIQUELY NUMBER EACH PAGE IN SUBMITTAL.

IF DIFFERENT SYSTEMS ARE INCLUDED IN ONE SUBMITTAL, CLEARLY SEPARATE INFORMATION AND PROVIDE DIFFERENT SUB-NUMBERING OF SYSTEMS. SHOP DRAWINGS THAT ARE INCOMPLETE, UNSIGNED AND NOT PLAINLY MARKED WILL NOT BE REVIEWED.

MICHIGAN UNIFORM ENERGY CODE:
THIS IS A PERFORMANCE BASED DESIGN-BUILD SPECIFICATION.

THE INTENT OF THIS SPECIFICATION ITEM IS FOR FULL COMPLIANCE WITH THE REQUIREMENTS OF THE 2015 MICHIGAN UNIFORM ENERGY CODE AND RELATED AMENDMENTS AS THEY APPLY TO THE ASHRAE 90.1-2013 STANDARDS, AUTOMATIC CONTROL APPLIES TO NEW AND TO EXISTING TO REMAIN FIXTURES.

DESIGN AND PROVIDE A COMPLETE LIGHTING CONTROL SYSTEM PER MANUFACTURER'S RECOMMENDATION AND TO COMPLY TO ENERGY CODE AS INDICATED ABOVE, INDICATE ALL COMPONENTS AND EQUIPMENT LAYOUT ON FLOOR PLANS AND SUBMIT FOR REVIEW AND APPROVAL. COORDINATE WITH ARCHITECTURAL TRADES TO PROVIDE CEILING ACCESS PANELS WHERE REQUIRED.

PROVIDE OCCUPANCY SENSOR(S) IN EVERY ROOM OR SPACE (EXCEPT WHERE TIMER CONTROL IS INDICATED) TO AUTOMATICALLY SHUTOFF ALL NON-EMERGENCY LIGHTING WITHIN ITS SPACE WITH ADJUSTABLE TIME DELAY UP TO 20 MINUTES.

OCCUPANCY SENSORS SHALL BE OF ULTRASONIC, INFRARED OR MULTI-TECHNOLOGY TYPE AS RECOMMENDED BY MANUFACTURER FOR EACH SPACE/APPLICATION CEILING MOUNTED.

INCLUDE CONTROL PANEL STARTUP/COMMISSIONING AND TRAINING BY MANUFACTURER'S FACTORY-TRAINED PERSONNEL. IN ADDITION TO OTHER STARTUP REQUIREMENTS, MANUFACTURER'S FACTORY REPRESENTATIVE IS TO OBTAIN OWNER'S DESIRED OPERATIONAL SCHEDULE FOR EACH CIRCUIT, PROGRAM PANEL WITH SITE-SPECIFIC INFORMATION, AND CONTROL LIGHTING FIXTURES PER OWNER'S SCHEDULE IN COMPLIANCE WITH MICHIGAN UNIFORM ENERGY CODE.

PROVIDE OWNER WITH A MINIMUM OF 2 HOURS OF TRAINING AT JOBSITE BY MANUFACTURER'S FACTORY REPRESENTATIVE.

DEMOLITION AND RENOVATION WORK:

DISCONNECT, REMOVE, RELOCATE, REWIRE OR DISPOSE OF ANY EQUIPMENT INTERFERING WITH NEW CONSTRUCTION OR AFFECTED BY RENOVATION WORK.

ANY ELECTRICAL EQUIPMENT OR SYSTEMS WHICH ARE TO REMAIN, AND ARE AFFECTED BY THIS WORK, SHALL BE IMMEDIATELY RESTORED TO FULL OPERATING CONDITION AND AT NO ADDITIONAL COST TO THE CONTRACT.

EQUIPMENT REMOVED SHALL BE DISPOSED OF AS DIRECTED, EITHER TO STORAGE OR OFF THE PREMISES.

WHERE SERVICES OR CIRCUITS ARE DISCONNECTED OR DISCONTINUED, IT IS MANDATORY THAT ANY EXISTING UNUSED WIRING BE REMOVED TO THE SOURCE UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. IT IS THE INTENT OF THIS ARTICLE TO PERMANENTLY DISCONNECT ALL UNUSED CIRCUITS AT THE MAIN SOURCE WHENEVER POSSIBLE. NO ENERGIZED CIRCUIT SHALL BE TAPED AND ABANDONED IN OUTLET BOXES UNLESS SO SPECIFIED ON DRAWINGS.

CIRCUIT TRACE EXISTING TO REMAIN CIRCUITS AS NECESSARY FOR PROPER IDENTIFICATION, AND AS REQUIRED TO PERFORM AND DOCUMENT WORK.

REMODELING WORK INVOLVING EXISTING BRANCH CIRCUIT PANELBOARD SHALL BE SUCH THAT, WHEN ALL WORK IS COMPLETED EXISTING PANELS ARE PROVIDED WITH NEW AND UPDATED ACCURATE DIRECTORIES. ALL VACATED CIRCUITS SHALL BE MARKED SPARE. WHEN NEW BREAKERS ARE REQUIRED, THEY SHALL BE INSTALLED IN EXISTING SPACES AND SHALL MATCH THOSE THAT ARE EXISTING. PROVIDE NEW PANELS IF REQUIRED AND WHERE INDICATED.

CONTRACTOR MAY USE EXISTING CONDUITS AND OUTLET BOXES, PROVIDED THEY ARE IN GOOD ELECTRICAL CONDITION AND THE INSTALLATION IS APPROVED BY THE AHJ. RE-SUPPORT EXISTING TO REMAIN CONDUIT AND BOXES IN RENOVATION AREA IF INADEQUATELY SUPPORTED. PROVIDE SUPPORT AS REQUIRED TO COMPLY WITH NEC AND AHJ REQUIREMENTS.

IT IS THE INTENT OF THE OVERALL DESIGN TO CONCEAL ALL WORK EXCEPT IN UNFINISHED AREAS. CUT AND PATCH EXISTING SURFACES AS REQUIRED FOR A CONCEALED INSTALLATION.

ALL ELECTRICAL OPENINGS THAT ARE ABANDONED IN WALLS, CEILINGS OR FLOOR SHALL BE PROVIDED WITH SUITABLE BLANK COVER PLATES. ABANDONED FLOOR OUTLETS AND PENETRATIONS SHALL BE FILLED TO MATCH EXISTING SURROUNDING CONDITIONS.

CONDUITS AND OTHER PARTS OF ELECTRICAL SYSTEMS THAT BECOME EXPOSED AS A PART OF NEW WORK SHALL BE REMOVED AS REQUIRED TO A POINT WHERE THE ABANDONED PORTION IS TOTALLY CONCEALED.

ALL SURFACES DAMAGED BY THIS CONTRACTOR IN THE COURSE OF PERFORMING WORK SHALL BE RESTORED TO SATISFACTORY CONDITION, AS DIRECTED BY THE ARCHITECT AND ALL COSTS OF REPAIRS SHALL BE PAID FOR BY THE CONTRACTOR

REMOVE SERVICE TO MECHANICAL, ELECTRICAL AND BUILDING EQUIPMENT SPECIFIED AND/OR INDICATED AS REMOVED OR DISCONNECTED. MAINTAIN CIRCUITS TO EXISTING-TO-REMAIN EQUIPMENT. IDENTIFY UNUSED, REMOVED CIRCUITS ON PANEL SCHEDULE AS SPARE. COORDINATE WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR EXISTING TO REMAIN EQUIPMENT AND FOR DEMOLITION WORK.

SERVICE SHUTDOWN AND POWER OUTAGES SHALL BE SCHEDULED WITH THE OWNER PRIOR TO PERFORMING ANY WORK ON EXISTING SERVICE. SCHEDULE SHALL BE PROVIDED IN WRITING 72 HOURS IN ADVANCE AND SHALL SHOW A DETAILED DESCRIPTION OF THE PROPOSED WORK AND THE DURATION OF OUTAGE.

PROVIDE LUMINAIRE DISCONNECTING MEANS PER LIGHTING SPECIFICATIONS.

UTILITY SERVICES (EXISTING BUILDING):
ELECTRIC SERVICE TO THE SITE IS EXISTING AND SHALL BE UTILIZED AS INDICATED ON THE DRAWINGS.

TELEPHONE SERVICE TO THE SITE IS EXISTING AND SHALL BE UTILIZED AS INDICATED ON THE DRAWINGS.

ELECTRICAL EQUIPMENT AND DEVICES:
RECEPTACLES SHALL BE SPECIFICATION GRADE, GROUNDING TYPE, 2-POLE, 3-WIRE, AND POLARIZED. RECEPTACLES IN GENERAL SHALL BE 20A, 125 V., HUBBELL #HBL5362 OR EQUAL MOUNTED 16" AFF IN OFFICES AREAS AND 48" AFF IN SHOP AREAS EXCEPT AT COUNTERS WHERE THEY SHALL BE 6" ABOVE COUNTER AND IN TOILET ROOMS AT 48" AFF. RECEPTACLES ON SINGLE CIRCUIT SHALL BE 20 AMPERES, HUBBELL #HBL5362. HIGH AMPERE RATINGS AND VOLTAGES ARE INDICATED ON DRAWINGS.

RECEPTACLES DESIGNATED "GFR" SHALL BE GROUND FAULT RECEPTACLES, SIMILAR TO HUBBELL #GF-5362. FOR OUTDOOR OR WET LOCATIONS, PROVIDE WEATHERPROOF BOX AND GASKETED COVER PLATE. WIRE "GFR" RECEPTACLES FOR SELF PROTECTION AND NOT DOWNSTREAM PROTECTION OF OTHER WIRING DEVICES.

SWITCHES SHALL BE SINGLE POLE, TWO POLE, OR THREE-WAY, AS INDICATED, TOGGLE TYPE, 20A, 120/277V., QUIET TYPE, HUBBELL #1221/1222/1223 OR APPROVED EQUAL. PILOT TYPE SWITCHES HUBBELL #1251.

PROVIDE DIMMERS RATED FOR LOAD WATTAGE AND VOLTAGE CONTROLLED. CONTRACTOR TO COORDINATE RATING BASED ON APPROVED FIXTURE SUBMITTALS AND ACTUAL FIXTURE QUANTITIES. PROVIDE DIMMERS DESIGNED FOR CONTROLLED LOAD CONSULT LIGHT FIXTURE MANUFACTURER FOR COMPATIBLE DIMMER SWITCHES.

WIRING DEVICE COLORS SHALL BE WHITE OR AS SELECTED BY OWNER/ARCHITECT.

DEVICE COVER PLATES SHALL BE OF TYPE AND NUMBER OF GANGS FOR DEVICES INSTALLED, SMOOTH EDGED 302/304 GRADE BRUSHED STAINLESS STEEL. PROVIDE BRANCH CIRCUIT IDENTIFICATION ON ALL COVERPLATES AS SPECIFIED UNDER "GENERAL REQUIREMENTS".

PROVIDE TELEPHONE/DATA OUTLETS AND STUBS AS INDICATED. TELEPHONE/DATA OUTLETS SHALL CONSIST OF TWO GANG OUTLET BOX WITH PLASTER RING AND NO COVER PLATE. JACK AND COVER PLATE ARE SUPPLIED BY OTHERS. HEIGHT OF OUTLET FOR DESK PHONE IS 16" AFF AND FOR WALL PHONE 48" AFF. TELEPHONE/DATA OUTLETS SHALL CONTAIN OF 3/4" CONDUIT FROM OUTLET TO AN ACCESSIBLE PORTION OF CEILING SPACE. TERMINATE WITH INSULATING BUSHING.

CONDUCTORS:
ALL CONDUCTORS SHALL BE SOFT-DRAWN COPPER OF SIZES INDICATED ON THE DRAWINGS. ALL CONDUCTORS SHALL BE INSULATED FOR 600 VOLTS AND WITH 75 DEGREES (CENTIGRADE) CODE GRADE INSULATION.

CONDUCTORS SIZED #10 AND SMALLER SHALL BE SOLID. ALL CONDUCTORS LARGER THAN #10 SHALL BE MADE UP OF STRANDED SINGLE CONDUCTOR CABLE. CONDUCTORS SHALL HAVE THWN OR THHN INSULATION AS APPLICABLE. CONDUCTORS IN UNDERGROUND CONDUIT AND FOR SERVICE ENTRANCE CONDUCTOR SHALL HAVE XHHW OR THWN INSULATION.

#12 AWG SHALL BE THE MINIMUM WIRE SIZE ALLOWED EXCEPT #14 AWG MAY BE USED FOR CONTROL WIRING.

TYPICAL BRANCH CIRCUITS FROM 20A, 1-POLE BRANCH OVERRCURRENT DEVICES ARE 1/2"C, 2#12 AND 1#12G.

STARTERS, SAFETY SWITCHES, FUSES AND HEATERS:
MANUAL MOTOR STARTERS SHALL BE 600V TOGGLE TYPE WITH THERMAL OVERLOAD ELEMENT FOR MOTOR PROTECTION STAINLESS STEEL COVER PLATE AND PILOT LIGHT; FLUSH IN ALL AREAS EXCEPT IN UNFINISHED SPACES. CONTRACTOR TO COORDINATE AND PROVIDE QUANTITY OF POLES AS REQUIRED FOR BRANCH CIRCUIT AND LOAD SERVED. MANUAL MOTOR SWITCHES SHALL BE THE SAME AS MANUAL STARTERS EXCEPT WITHOUT OVERLOADS AND USED AS DISCONNECTING MEANS.

MAGNETIC MOTOR STARTERS SHALL BE 600 VOLT 3-PHASE WITH 3 THERMAL OVERLOAD ELEMENTS, HOA SWITCH AND RESET BUTTON IN COVER AND GREEN RUNNING PILOT LIGHT, NEMA ENCLOSURE AND SIZE AS INDICATED. COMBINATION STARTERS SHALL HAVE BUILT-IN FUSED DISCONNECT. PROVIDE START-STOP PUSH BUTTONS FOR USE IN HAND (MANUAL) MODE.

PROVIDE THERMAL ALLOY MELTING TYPE HEATER ELEMENTS FOR ALL MOTORS BASED ON MOTOR NAMEPLATE DATA.
SAFETY AND DISCONNECT SWITCHES SHALL BE 250 OR 600 VOLTS AS REQUIRED, HEAVY DUTY, TWO OR THREE POLE, "QUICK-MAKE", "QUICK-BREAK" SWITCH MECHANISM AND COVER INTERLOCK. SWITCHES SHALL BE FUSED OR UNFUSED AS INDICATED AND SHALL HAVE PAD LOCK PROVISIONS, WITH NEMA TYPE ENCLOSURE FOR LOCATION USED. SWITCHES SHALL BE SQUARE "D"CLASS 3110 OR APPROVED EQUAL.

PROVIDE ALL NECESSARY FUSES AND REPLACE ALL THOSE BLOWN DURING CONSTRUCTION. ALL FUSES SHALL BE TIME LAG, DUAL ELEMENT, BUSSMAN "LOW PEAK YELLOW" OR EQUAL.

PANELBOARDS:
LIGHTING PANELS SHALL BE OF VOLTAGE, PHASE, SERVICE AND NUMBER OF WIRES INDICATED ON THE DRAWINGS. BREAKERS SHALL BE THERMAL MAGNETIC, TRIP FREE, SINGLE OR MULTIPOLE, BOLTED DESIGN, MOLDED CASE, MINIMUM 10,000 A.I.C. AT 240 VOLTS. DEVICES SHALL BE AS INDICATED ON THE DRAWINGS OR AS SCHEDULED.

LIGHTING PANELS RATED FOR 120/240V, 3-PHASE, 4-WIRE SERVICE SHALL BE SQUARE D TYPE "NQOD" OR EQUAL. LOAD CENTERS ARE NOT PERMITTED.

CONTRACTOR, MANUFACTURER MAY RE-ARRANGE CIRCUIT ORDER IN PANELS, HOWEVER CIRCUIT NUMBERS FROM PANELBOARD SCHEDULES IN CONTRACT DOCUMENTS MUST BE INDICATED ON ANY SUBMITTED PANELBOARD ELEVATIONS, DRAWINGS, TABLES AND SCHEDULES.

ARC FLASH:
REFER TO AVAILABLE FAULT CURRENTS NOTED ON THE DRAWINGS AND PERFORM CALCULATIONS AS REQUIRED TO APPLY FIELD MARKINGS FOR ARC FLASH INCLUDING RECOMMENDED MARKING REQUIREMENTS, BOUNDARIES AND DESCRIPTIONS. FIELD MARK DISTRIBUTION EQUIPMENT (SWITCHBOARDS, PANELBOARDS, CONTROL PANELS, AND MOTOR CONTROL CENTERS) WITH FLASH PROTECTION INFORMATION PER NATIONAL ELECTRICAL CODE ARTICLE 110.16, FLASH PROTECTION. INCLUDE CALCULATED RATINGS ON MARKINGS. PROVIDE ANY ADDITIONAL MARKINGS ON EQUIPMENT AS REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION. FIELD MARK FLASH PROTECTION BOUNDARIES RESULTING FROM CALCULATIONS PER NFPA 70E.

INSTALLATION AND METHODS OF EXECUTION:
ALL WIRING SHALL BE IN CONDUIT, MINIMUM ½". FLEXIBLE METAL CONDUIT SHALL BE USED FOR SHORT CONNECTION TO MOTORS, FINAL CONNECTION TO RECESSED LIGHTING FIXTURES FROM RIGIDLY MOUNTED OUTLET BOX (NOT BETWEEN FIXTURES), VIBRATING EQUIPMENT, ETC., BUT NEVER LONGER THAN 6 FEET. PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR ALL APPLICATIONS EXPOSED TO WATER OR WEATHER. PROVIDE ANTI-SHORT BUSHINGS FOR ALL FLEXIBLE CONDUIT ARMOR TERMINATIONS. PROVIDE SEPARATE EQUIPMENT GROUND WIRE IN ALL CONDUIT RUNS.

CONDUIT CONCEALED IN CEILING, WALLS OR FURRED SPACES OR EXPOSED IN DRY LOCATIONS SHALL BE EMT, THIN WALL ELECTRIC METALLIC TUBING. CONDUIT EXPOSED TO WEATHER, IN CONTACT WITH CONCRETE, BURIED IN SLAB, OR IN HAZARDOUS AREAS, SHALL BE HEAVY WALL, RIGID. ALL CONDUITS SHALL BE HOT DIPPED GALVANIZED STEEL.

ALL WORK IN HAZARDOUS LOCATIONS SHALL BE DONE IN STRICT CONFORMANCE WITH NEC ARTICLE 500.

PLASTIC CONDUIT, PVC-40, SHALL BE USED ONLY AS INDICATED ON THE DRAWINGS. PLASTIC CONDUIT SHALL BE APPROVED FOR UNDERGROUND USE. PVC BURIAL DEPTH SHALL BE 36" MINIMUM BELOW FINISH GRADE. IN PVC CONDUIT SYSTEMS, RISERS ABOVEGROUND SHALL BE RIGID HEAVY WALL STEEL.

CONDUIT RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC. EXACT ROUTING OF CONDUIT RUNS SHALL SUIT JOB CONDITIONS. EXPOSED CONDUIT SHALL BE RUN ONLY IN UNFINISHED AREAS SUBJECT TO FINAL APPROVAL OF ENGINEER AND SHALL RUN PARALLEL TO BUILDING LINES, NEVER DIAGONALLY.

CONNECTION TO EQUIPMENT SHALL BE DONE IN ACCORDANCE WITH MANUFACTURER'S SHOP AND INSTALLATION DRAWINGS. REQUIREMENTS GENERALLY VARY FROM ONE MANUFACTURER TO ANOTHER AND CONTRACTOR IS BOUND TO COMPLY AND PROVIDE ALL WORK AS REQUIRED ALTHOUGH CERTAIN DISCREPANCIES MAY EXIST REGARDING THE REQUIREMENT FROM ONE MANUFACTURER TO ANOTHER.

PROVIDE POWER WIRING, DISCONNECTS, AND PROTECTION DEVICES TO ALL MECHANICAL EQUIPMENT AND MAKE FINAL CONNECTIONS, INCLUDING TESTING OF MOTORS FOR PROPER ROTATION.

OUTLET BOXES MAY-BE SURFACE MOUNTED ON EXISTING WALLS (CMU, BRICK OR CONCRETE) WITH SMALLEST SURFACE RACEWAY AS REQUIRED FOR WIRING INSTALLED. PROVIDE FLUSH OUTLET BOXES AND CONDUIT AT NEW CONSTRUCTION WALL AND AT EXISTING WALLS WHICH ARE NOT CMU BRICK OR CONCRETE CONSTRUCTION. CUT AND PATCH EXISTING WALLS AS REQUIRED FOR FLUSH INSTALLATION.

PROVIDE 4" TALL CONCRETE HOUSEKEEPING PADS FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT.

ALL WIRING LOCATED ABOVE THE SUSPENDED CEILING MUST BE SUPPORTED INDEPENDENTLY OF THE SUPPORT WIRES FOR THE SUSPENDED CEILING.

OUTLET BOXES ON OPPOSITE SIDES OF FIRE RESISTANT WALLS OR PARTITIONS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF TWENTY FOUR (24) INCHES.

ELECTRICAL OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTANT RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING PER ARTICLE 300.21 2017 NEC.

PROVIDE PROPER WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT AS REQUIRED PER NEC.

LIGHTING SPECIFICATIONS:

LED LIGHTING FIXTURE'S SHALL HAVE 5 YEAR WARRANTY, A COLOR RENDERING INDEX OF 90 OR HIGHER, 3500K COLOR TEMPERATURE UNLESS OTHERWISE INDICATED ON DRAWINGS, LIFETIME: 50,000 HOURS OR GREATER AND MAINTAIN AT LEAST 70% OF INITIAL LUMEN OUTPUT. RATED FOR OUTDOOR USE AND WET LOCATION, IF IN OPEN FIXTURE.

SHALL POSSESS COLOR MANAGEMENT SYSTEM TO MAINTAIN COLOR CONSISTENCY OVER TIME AND TEMPERATURE OF NO GREATER THAN ±100K OVER LIFE.

REFER TO LIGHTING FIXTURE SCHEDULE ON ARCHITECTURAL REFLECTED CEILING PLANS FOR LED FIXTURES WITH DIMMING CONTROLS.

LED DRIVERS TO BE ELECTRONIC, HIGH POWER FACTOR, MIN. 0.9; UNIVERSAL VOLTAGE 120-277V; 5 YEAR WARRANTY, COMPATIBLE WITH THE LED LAMP OR MODULE USED.

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Project Title

Oakland County Parking Decks

Oakland County

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Architect

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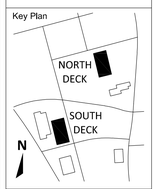
Seal

Key Plan



TAG	ISSUED	DATE
1	DESIGN DEVELOPMENT	09/08/25

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ELECTRICAL SPECIFICATIONS

DRAWING NO
E-003

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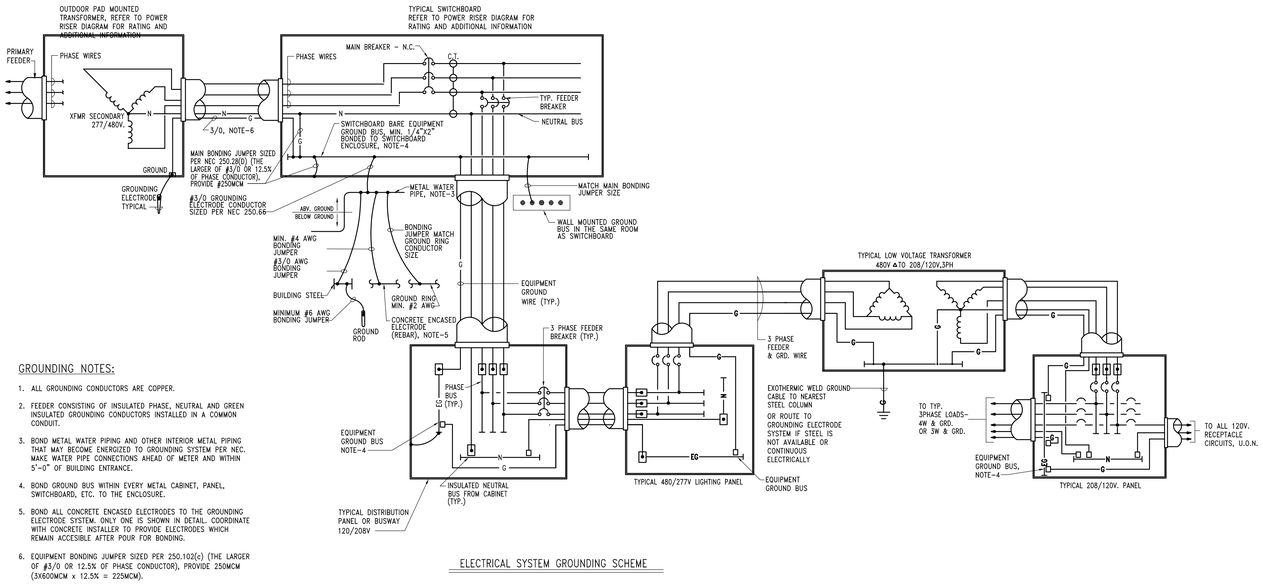
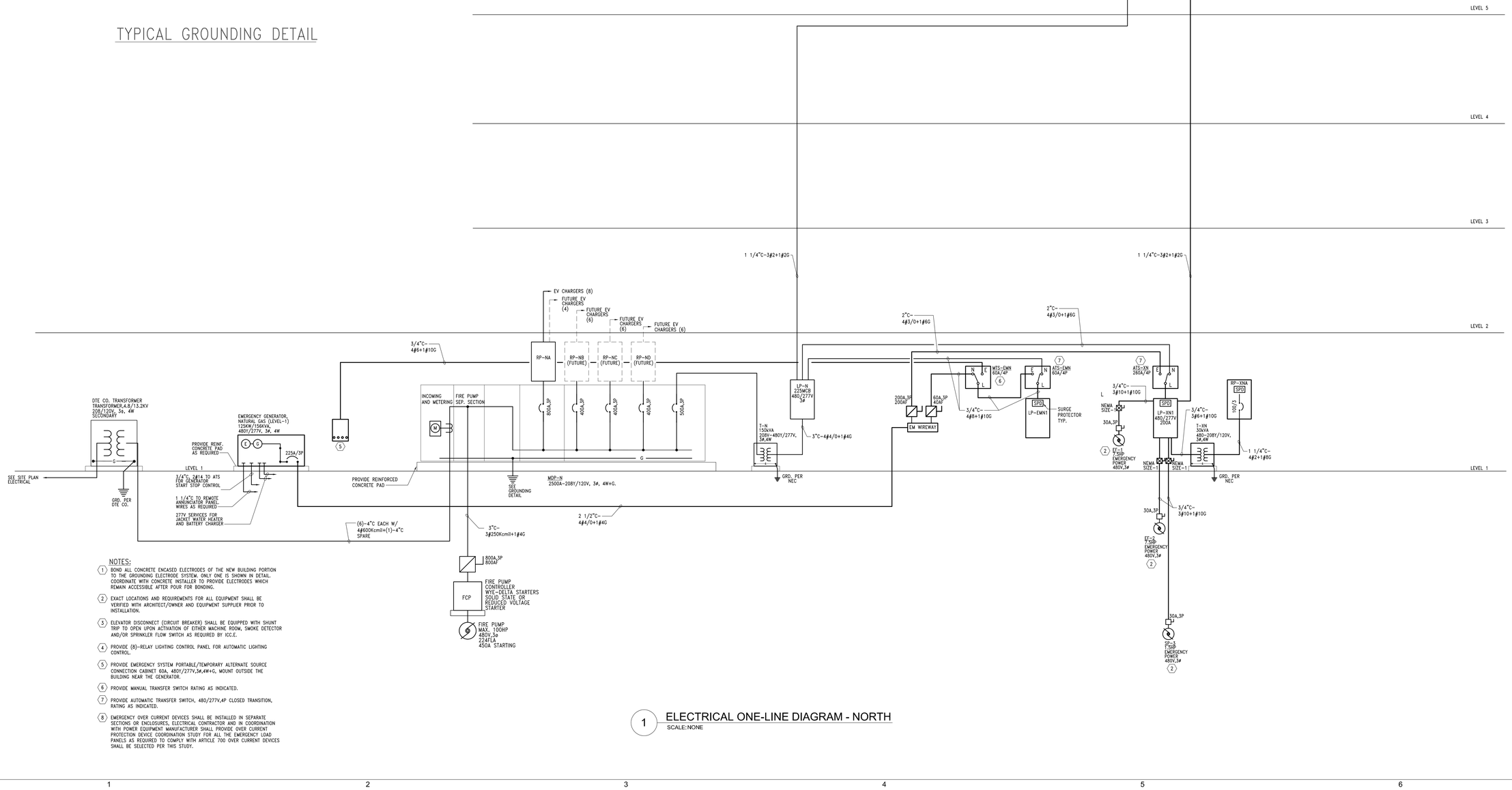


GROUNDING NOTES:

1. ALL GROUNDING CONDUCTORS ARE COPPER.
2. FEEDER CONSISTING OF INSULATED PHASE, NEUTRAL AND GREEN INSULATED GROUNDING CONDUCTORS INSTALLED IN A COMMON CONDUIT.
3. BOND METAL WATER PIPING AND OTHER INTERIOR METAL PIPING THAT MAY BECOME ENERGIZED TO GROUNDING SYSTEM PER NEC. MAKE WATER PIPE CONNECTIONS AHEAD OF METER AND WITHIN 5'-0" OF BUILDING ENTRANCE.
4. BOND GROUND BUS WITHIN EVERY METAL CABINET, PANEL, SWITCHBOARD, ETC. TO THE ENCLOSURE.
5. BOND ALL CONCRETE ENCASED ELECTRODES TO THE GROUNDING ELECTRODE SYSTEM. ONLY ONE IS SHOWN IN DETAIL. COORDINATE WITH CONCRETE INSTALLER TO PROVIDE ELECTRODES WHICH REMAIN ACCESSIBLE AFTER POUR FOR BONDING.
6. EQUIPMENT BONDING JUMPER SIZED PER 250.102(c) (THE LARGER OF #3/0 OR 12.5% OF PHASE CONDUCTOR), PROVIDE 250MCM (3X600MCM x 12.5% = 225MCM).

ELECTRICAL SYSTEM GROUNDING SCHEME

TYPICAL GROUNDING DETAIL



NOTES:

1. BOND ALL CONCRETE ENCASED ELECTRODES OF THE NEW BUILDING PORTION TO THE GROUNDING ELECTRODE SYSTEM. ONLY ONE IS SHOWN IN DETAIL. COORDINATE WITH CONCRETE INSTALLER TO PROVIDE ELECTRODES WHICH REMAIN ACCESSIBLE AFTER POUR FOR BONDING.
2. EXACT LOCATIONS AND REQUIREMENTS FOR ALL EQUIPMENT SHALL BE VERIFIED WITH ARCHITECT/OWNER AND EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
3. ELEVATOR DISCONNECT (CIRCUIT BREAKER) SHALL BE EQUIPPED WITH SHUNT TRIP TO OPEN UPON ACTIVATION OF EITHER MACHINE ROOM, SMOKE DETECTOR AND/OR SPRINKLER FLOW SWITCH AS REQUIRED BY ICC.E.
4. PROVIDE (8)-RELAY LIGHTING CONTROL PANEL FOR AUTOMATIC LIGHTING CONTROL.
5. PROVIDE EMERGENCY SYSTEM PORTABLE/TEMPORARY ALTERNATE SOURCE CONNECTION CABINET 60A, 480Y/277V,3#,4W+G, MOUNT OUTSIDE THE BUILDING NEAR THE GENERATOR.
6. PROVIDE MANUAL TRANSFER SWITCH RATING AS INDICATED.
7. PROVIDE AUTOMATIC TRANSFER SWITCH, 480/277V,4P CLOSED TRANSITION, RATING AS INDICATED.
8. EMERGENCY OVER CURRENT DEVICES SHALL BE INSTALLED IN SEPARATE SECTIONS OR ENCLOSURES, ELECTRICAL CONTRACTOR AND IN COORDINATION WITH POWER EQUIPMENT MANUFACTURER SHALL PROVIDE OVER CURRENT PROTECTION DEVICE COORDINATION STUDY FOR ALL THE EMERGENCY LOAD PANELS AS REQUIRED TO COMPLY WITH ARTICLE 700 OVER CURRENT DEVICES SHALL BE SELECTED PER THIS STUDY.

1 ELECTRICAL ONE-LINE DIAGRAM - NORTH
SCALE: NONE

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Project Title

Oakland County Parking Decks

Oakland County

S SAGINAW ST
PONTIAC, MI 48342

Architect

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155 W Congress Street, Suite 602, Detroit, MI 48226
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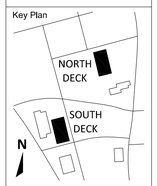
Seal

Key Plan



TAG	ISSUED	DATE
1	DESIGN DEVELOPMENT	09/08/25

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ELECTRICAL ONE-LINE DIAGRAM - NORTH

DRAWING NO

E-011-N

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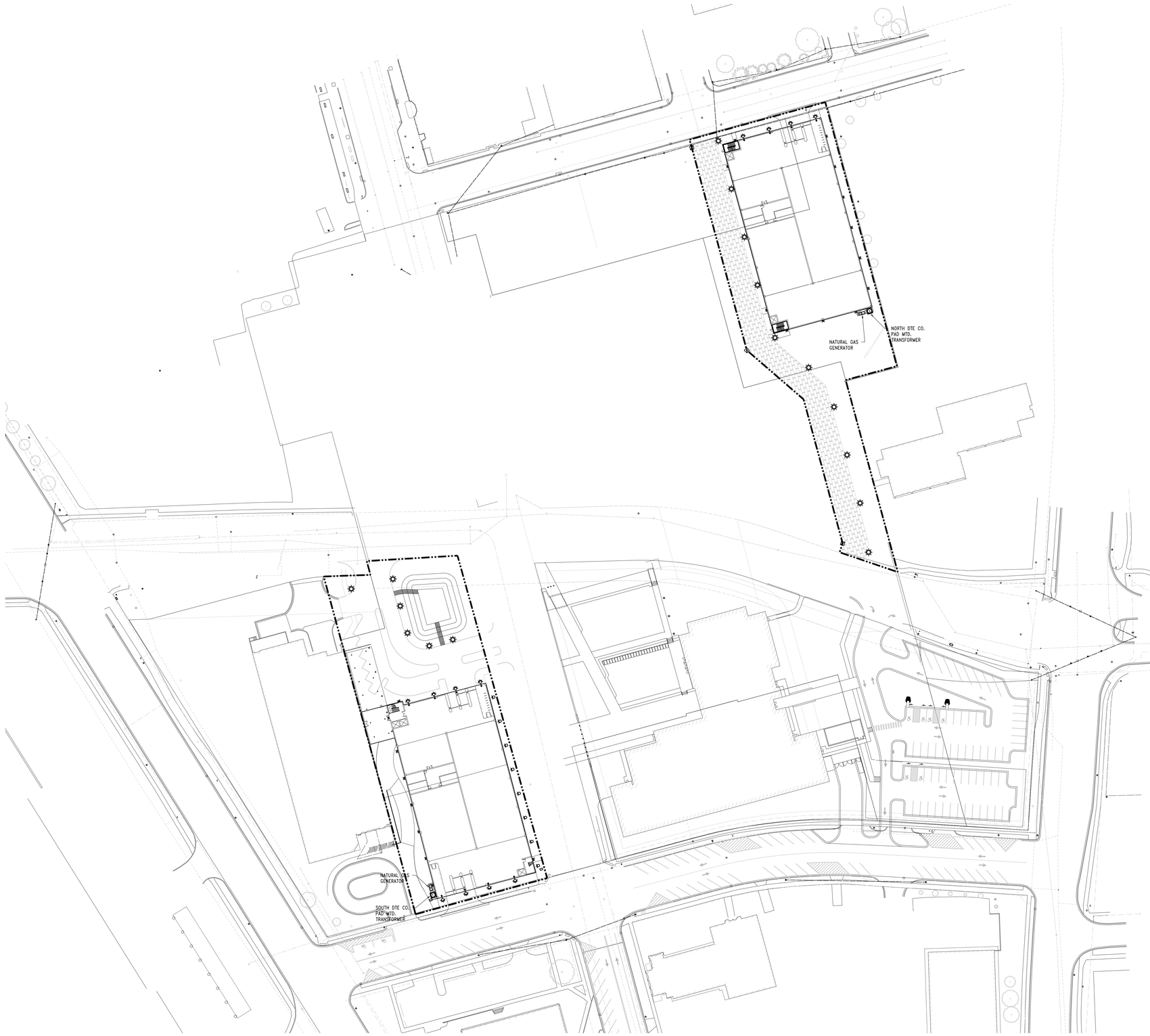

1 ELECTRICAL OVERALL SITE PLAN
SCALE: 1" = 50'-0"

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

S SAGINAW ST
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Architect

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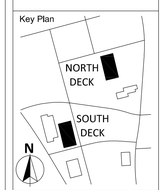

TAG	ISSUED	DATE
1	SCHEMATIC	07/16/25
2	50% DD	08/15/25
3	DESIGN DEVELOPMENT	09/08/25

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ELECTRICAL OVERALL SITE PLAN

DRAWING NO

E-100

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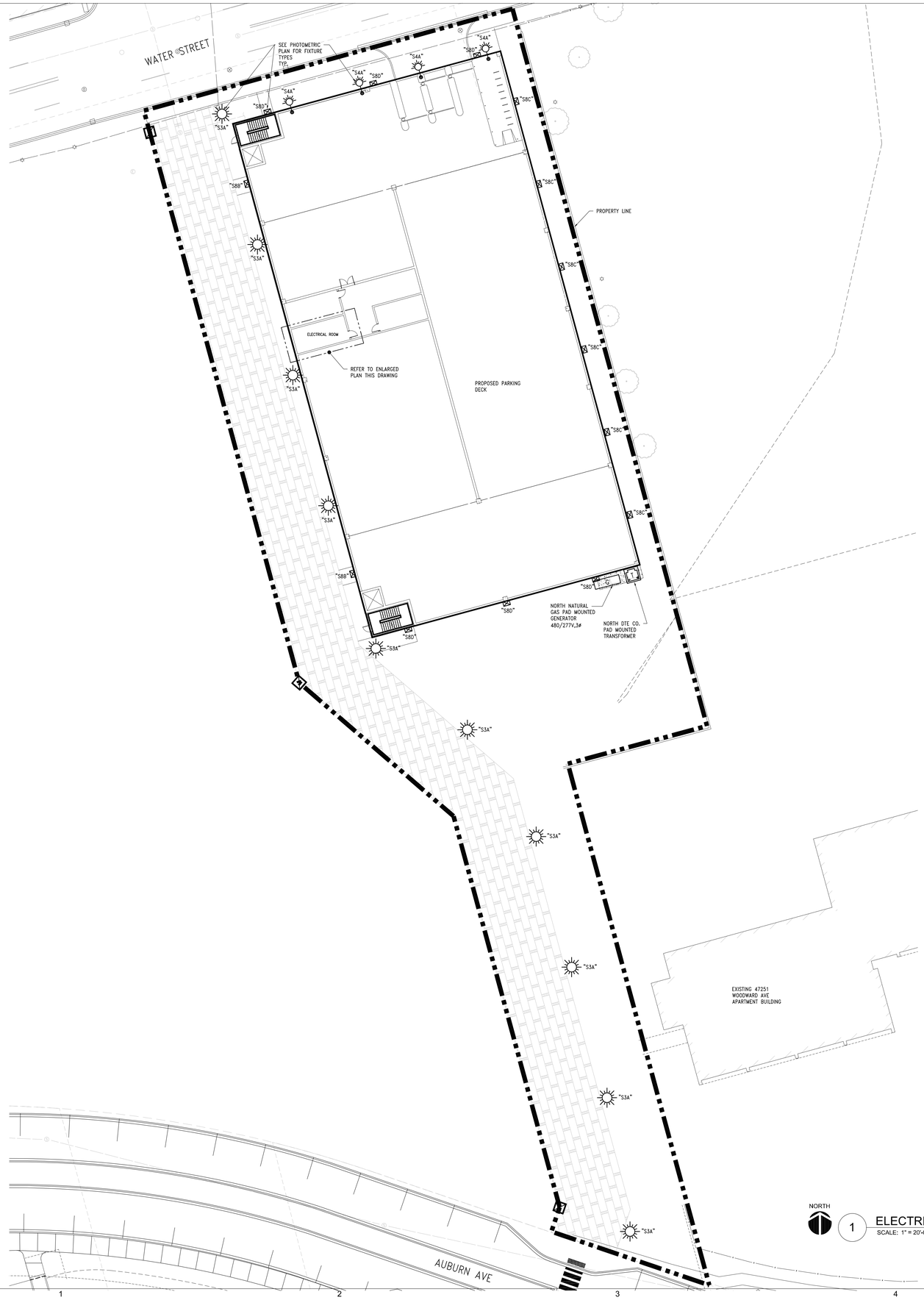
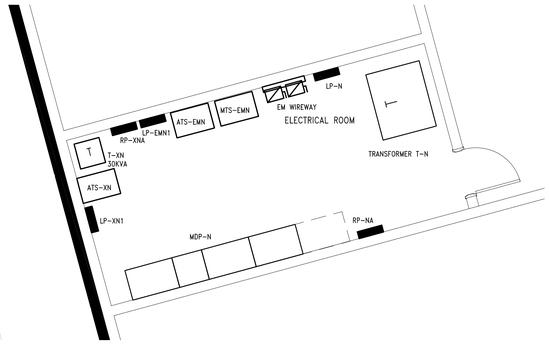


Schedule										
Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Nominal Arrangement Lumens	Lamp Lumens per Lamp	Total Lamp Watts	Wattage
	S4A		7	Phoenix Lighting	SBQ - 60 TF HO 4000K	SBQ - 60 TF HO 4000K 60 LED Area Luminaire, Type 4 Asymmetric Reflector 4000K CRI 70 3ft Pole	7	7200	112	126.17
	S8B		2	Phoenix Lighting	MEDIUS ADO TF HO 4000K T60W NW	MEDIUS ADO TF HO, 4000K(Neutral), 60 LEDs, 7200lm, Type 3 Medium Asymmetric, 120VAC, 150W, TYP 2 WIRING	1	7207	0.8	13.4815
	S8D		4	Phoenix Lighting	MEDIUS ADO TF HO 4000K T60W NW	MEDIUS ADO TF HO, 4000K(Neutral), 60 LEDs, 7200lm, Type 3 Medium Asymmetric, 120VAC, 150W, TYP 2 WIRING	1	7200	0.8	53.926
	S8C		6	Phoenix Lighting	MEDIUS ADO TF HO 4000K T60W NW	MEDIUS ADO TF HO, 4000K(Neutral), 60 LEDs, 7200lm, Type 3 Medium Asymmetric, 120VAC, 150W, TYP 2 WIRING	1	7200	0.8	14.9815
	S3A		13	Hubbellwood	LHAR1-SLH1-MW-FS-T3	LHAR1 45W SQ	1	7140	0.8	76



NORTH

1 ELECTRICAL SITE PLAN - NORTH
SCALE: 1" = 20'-0"

2 ENLARGED ELECTRICAL ROOM - NORTH
SCALE: 1/4" = 1'-0"

Project Title

Oakland County Parking Decks North Deck

Oakland County

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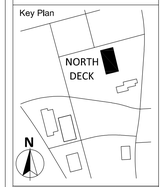
Key Plan



TAG	ISSUED	DATE
1	SCHEMATIC	07/16/25
2	50% DD	08/15/25
3	DESIGN DEVELOPMENT	09/08/25
4	DESIGN DEV. REV1	09/16/25

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ELECTRICAL SITE PLAN - NORTH

DRAWING NO

E-101-N

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GENERAL NOTES :

A. REFER TO SHEET E-001-N FOR ELECTRICAL LEGEND.

B. REFER TO SHEET E-001-N FOR INTERIOR LIGHTING FIXTURE SCHEDULE.

C. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS AND SECTIONS FOR EXACT LOCATION OF ALL CEILING, PENDANT & WALL MOUNTED LIGHTING FIXTURES.

D. ALL WIRING SHALL BE SIZED PROPERLY FOR FULL COMPLIANCE WITH THE NEC REQUIREMENTS FOR AMPACITY AND MAXIMUM VOLTAGE DROP LIMITATIONS, REFER TO SHEET E-001-N FOR CIRCUIT LENGTH TABLES.

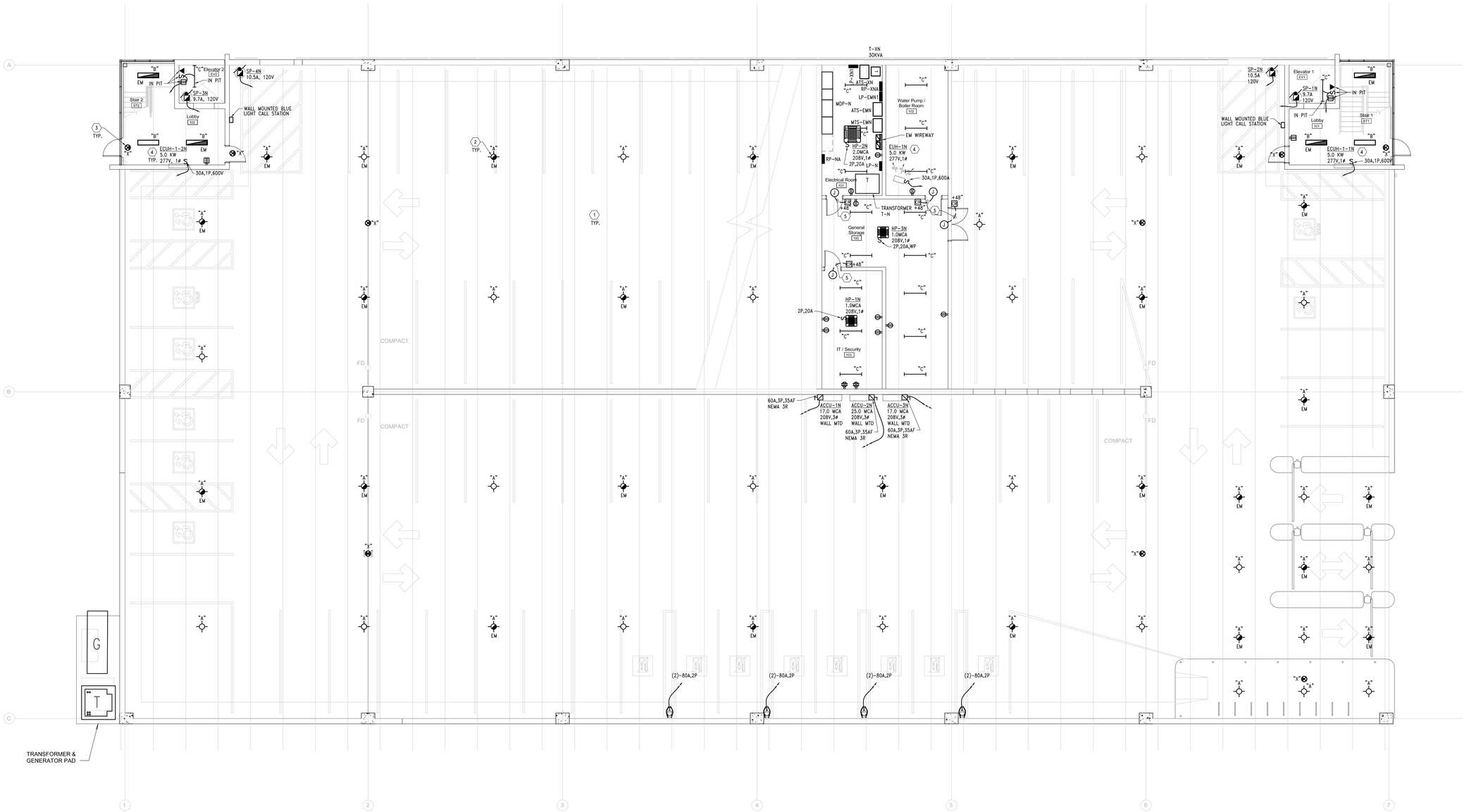
E. COORDINATE LOCATION OF ALL SWITCHES WITH DOOR LOCATIONS SHOWN ON THE ARCHITECTURAL PLANS.

F. FOR ALL ROOMS WITH MECHANICAL EQUIPMENT (MECHANICAL ROOMS AND CLOSETS ETC.) EXACT LOCATIONS FOR LIGHTING FIXTURES TO BE COORDINATED WITH DUCTWORK AND PIPING TO AVOID INTERFERENCES.

G. ALL ELECTRICAL DEVICES SHALL BE LISTED FOR THE INTENDED USE.

KEY NOTES :

1. PROVIDE AUTOMATIC LIGHTING CONTROL TO COMPLY WITH 2021 MICHIGAN ENERGY CODE BASED ON ASHRAE 90.1-2009 FOR PARKING GARAGE.
2. LIGHTING FIXTURES DESIGNATED WITH (EM) AND HALF SHADED SHALL BE USED FOR EMERGENCY EGRESS AND WIRED TO EMERGENCY POWER PANEL LP-EMS1, ALL OTHER LIGHT FIXTURES SHALL BE WIRED TO NORMAL POWER PANEL LP-S1.
3. WIRE EXIT LIGHTS TO EMERGENCY CIRCUIT PANEL LP-EMS1.
4. FOR ANY ECUH/EUH CIRCUIT THAT IS 200' TO PANEL SHALL USE #8 WIRE FOR VOLTAGE DROP.
5. PROVIDE DOUBLE GANG J-BOX WITH SINGLE MUD RING @48" AFF FOR CARD READER, RUN 1/2"C FROM CARD READER TO DOOR STRIKE ACTUATOR FOR LOW VOLTAGE WIRING. PROVIDE 120V POWER IN THE CEILING FOR DOOR STRIKE AS INDICATED.



TRUE NORTH / PLAN NORTH

1 ELECTRICAL FIRST FLOOR PLAN - NORTH

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

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Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

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Architect

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Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
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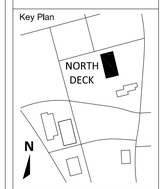
Consultants

MAENGINEERING
MECHANICAL ELECTRICAL
180 High Oak Road
Bloomfield Hills, Michigan
48304
t | 248 | 258 | 7610
f | 248 | 258 | 9538

Seal

Key Plan



TAG	ISSUED	DATE
1	SCHEMATIC	07/16/25
2	50% DD	08/15/25
3	DESIGN DEVELOPMENT	09/08/25
4	DESIGN DEV. REV1	09/16/25

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ELECTRICAL FIRST FLOOR PLAN - NORTH

DRAWING NO

E-211-N

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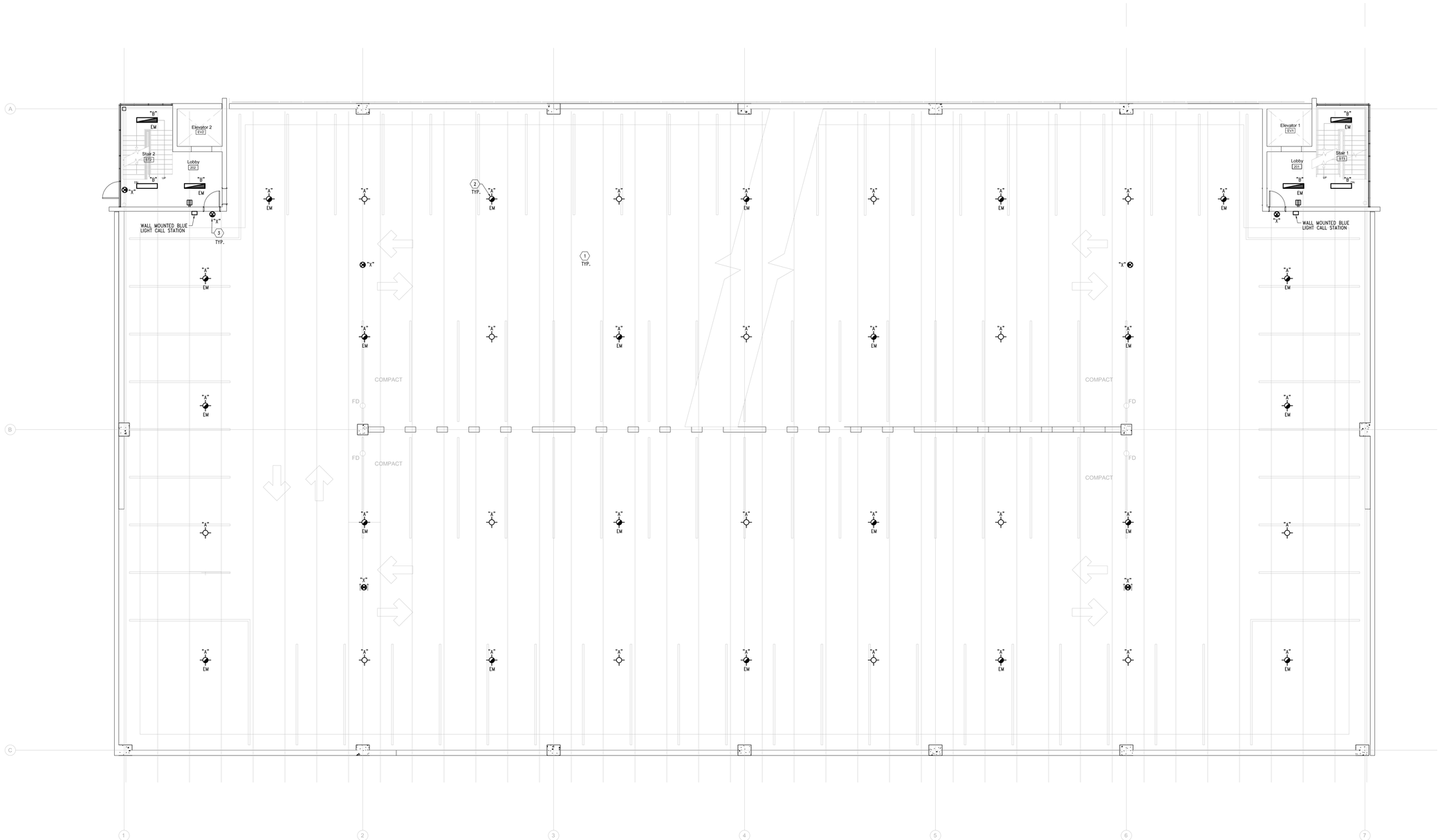
KEY NOTES :

1. PROVIDE AUTOMATIC LIGHTING CONTROL TO COMPLY WITH 2021 MICHIGAN ENERGY CODE BASED ON ASHRAE 90.1-2009 FOR PARKING GARAGE.
2. LIGHTING FIXTURES DESIGNATED WITH (EM) AND HALF SHADED SHALL BE USED FOR EMERGENCY EGRESS AND WIRED TO EMERGENCY POWER PANEL LP-EMS1, ALL OTHER LIGHT FIXTURES SHALL BE WIRED TO NORMAL POWER PANEL LP-S1.
3. WIRE EXIT LIGHTS TO EMERGENCY CIRCUIT PANEL LP-EMS1.
4. FOR ANY ECUH/EUH CIRCUIT THAT IS 200' TO PANEL SHALL USE #8 WIRE FOR VOLTAGE DROP.
5. PROVIDE DOUBLE GANG J-BOX WITH SINGLE MUD RING @48" AFF FOR CARD READER, RUN 1/2"C FROM CARD READER TO DOOR STRIKE ACTUATOR FOR LOW VOLTAGE WIRING. PROVIDE 120V POWER IN THE CEILING FOR DOOR STRIKE AS INDICATED.



TRUE NORTH PLAN NORTH

1 ELECTRICAL SECOND FLOOR PLAN - NORTH

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

H:\ACAD\FILES\87\87770-Oakland County Parking Decks-Pontiac\CAD\ELEC\87770-E-200-North Series-Electrical.dwg Tue, 16 Sep 2025 - 2:41pm

Project Title

Oakland County Parking Decks

Oakland County

S SAGINAW ST
PONTIAC, MI 48342

Architect

Framework E
Architects Leaders Community Builders
155 W Congress Street, Suite 602, Detroit, MI 48226
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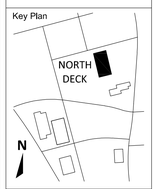

TAG	ISSUED	DATE
1	DESIGN DEVELOPMENT	09/08/25

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ELECTRICAL SECOND FLOOR PLAN - NORTH

DRAWING NO

E-221-N

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KEY NOTES :

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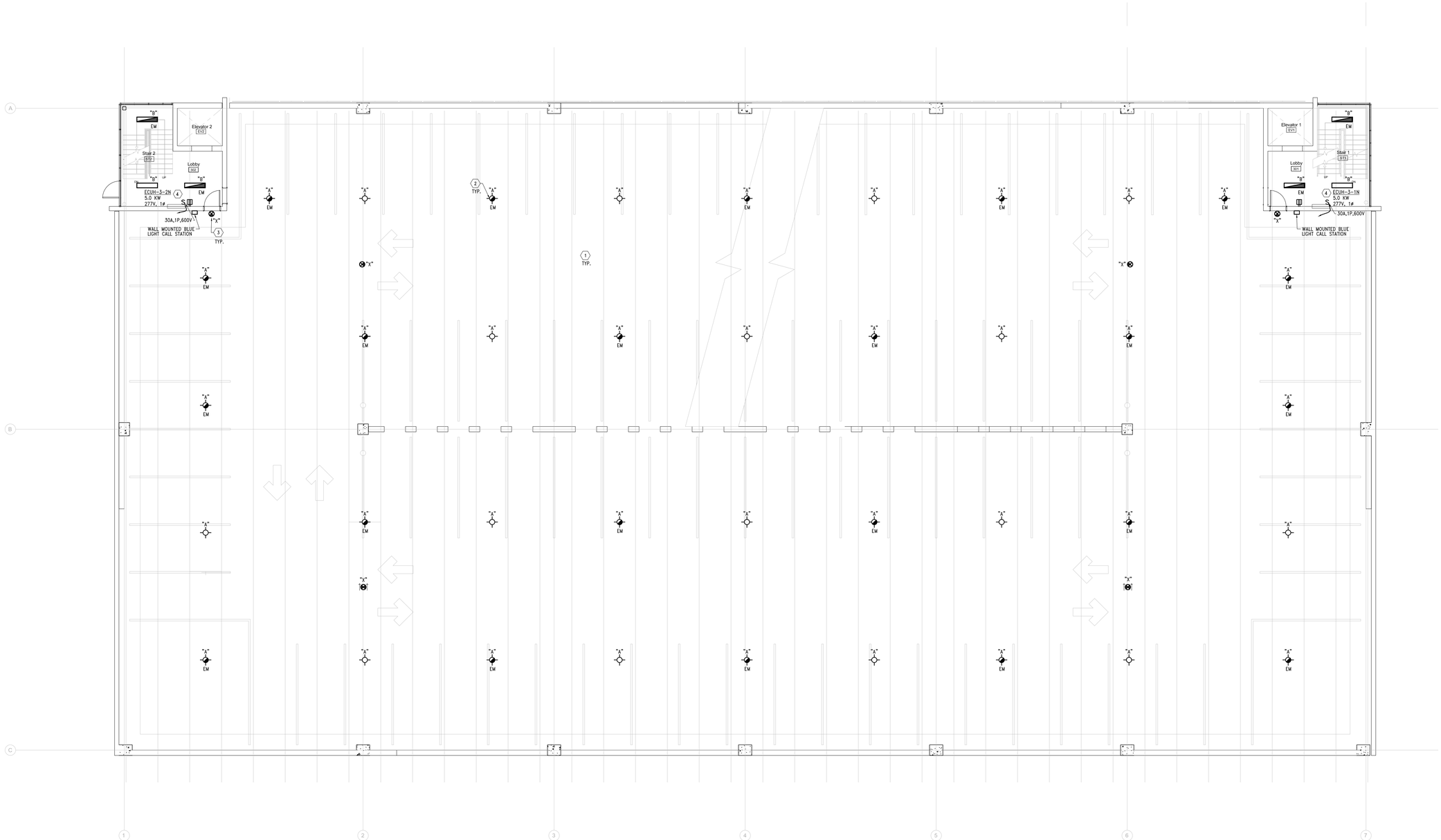

TRUE NORTH PLAN NORTH

1 ELECTRICAL THIRD FLOOR PLAN - NORTH

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

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Project Title

Oakland County Parking Decks

Oakland County

S SAGINAW ST
PONTIAC, MI 48342

Architect

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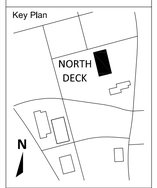

TAG	ISSUED	DATE
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ELECTRICAL THIRD FLOOR PLAN - NORTH

DRAWING NO

E-231-N

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KEY NOTES :

1. PROVIDE AUTOMATIC LIGHTING CONTROL TO COMPLY WITH 2021 MICHIGAN ENERGY CODE BASED ON ASHRAE 90.1-2009 FOR PARKING GARAGE.
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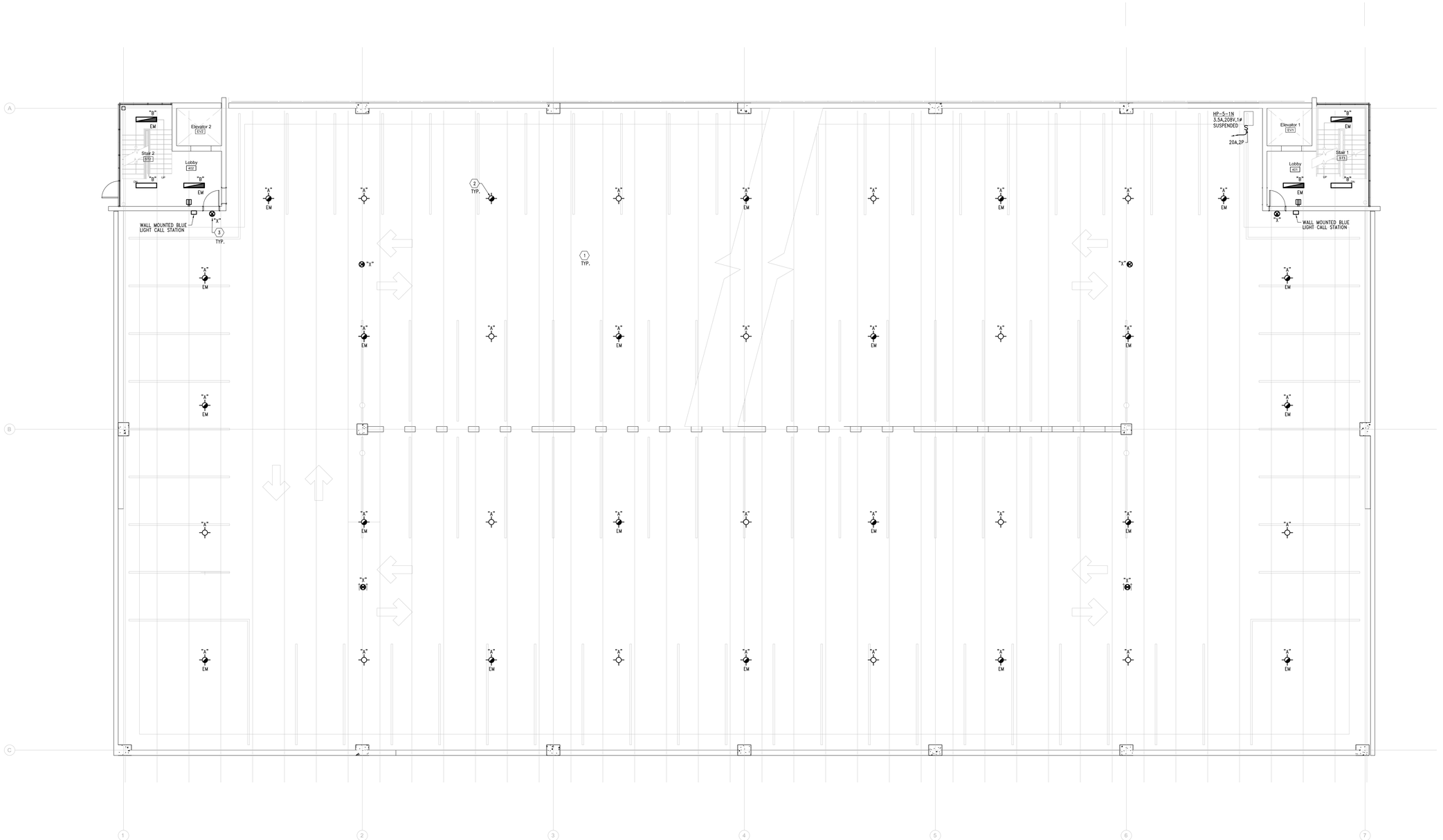

TRUE NORTH PLAN NORTH

1 ELECTRICAL FOURTH FLOOR PLAN - NORTH

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

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

S SAGINAW ST
PONTIAC, MI 48342

Architect

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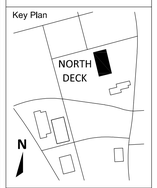
Key Plan



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ELECTRICAL FOURTH FLOOR PLAN - NORTH

DRAWING NO

E-241-N

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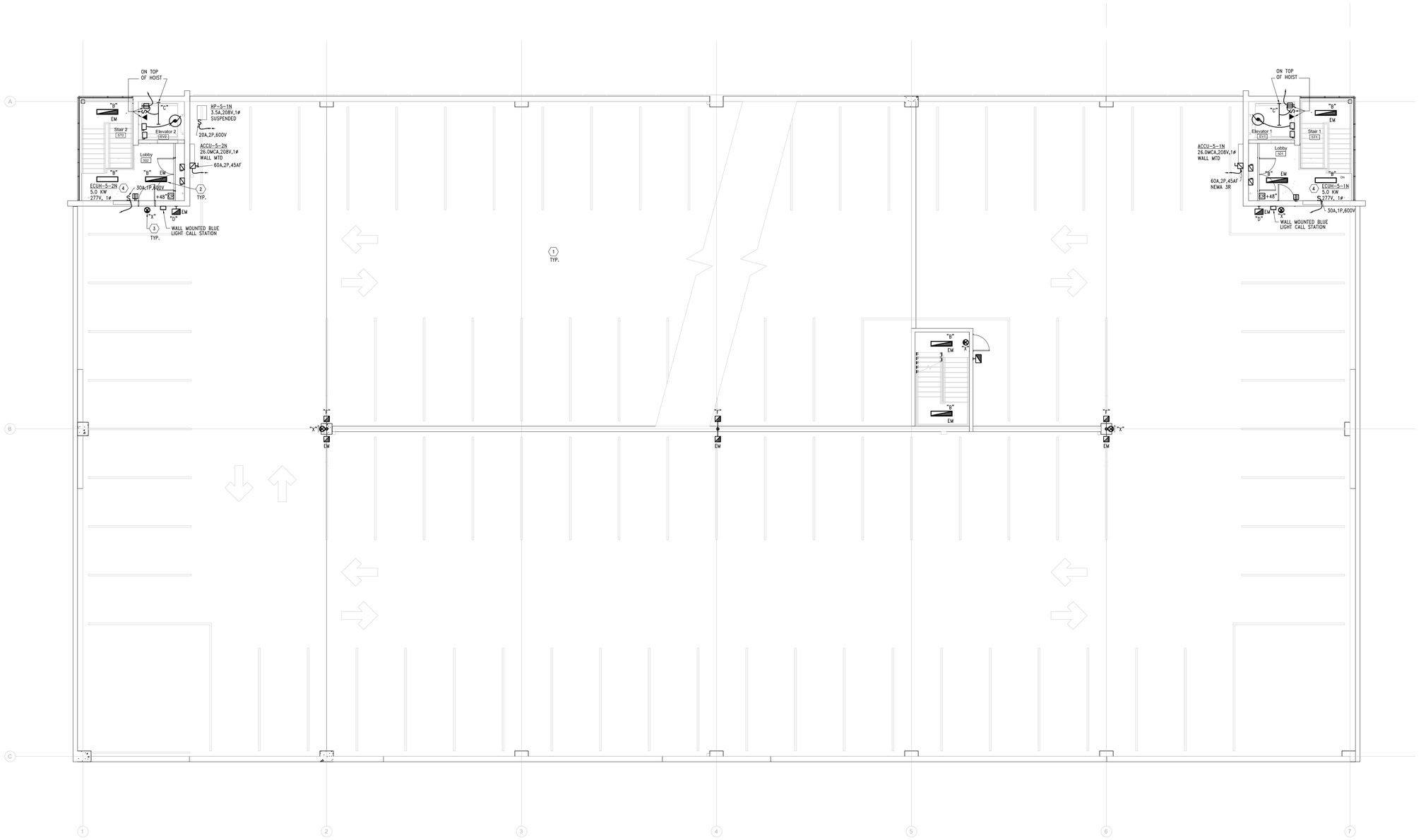

TRUE NORTH / PLAN NORTH

1 ELECTRICAL FIFTH FLOOR PLAN - NORTH

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

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Project Title

Oakland County Parking Decks

Oakland County

S SAGINAW ST
PONTIAC, MI 48342

Architect

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Architects Leaders Community Builders
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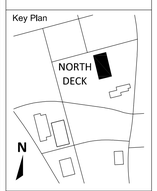
Key Plan



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ELECTRICAL FIFTH FLOOR PLAN - NORTH

DRAWING NO

E-251-N

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TRUE NORTH PLAN NORTH

1 ELECTRICAL ROOF PLAN - NORTH

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

Project Title

OAKLAND COUNTY MICHIGAN

Oakland County Parking Decks

Oakland County

S SAGINAW ST
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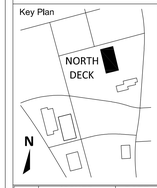

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ELECTRICAL ROOF PLAN - NORTH

DRAWING NO

E-261-N

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