

# MEMPHIS DOWNTOWN PARKING FACILITIES 2024 RESTORATION



## Owner :

Downtown Mobility Commission  
114 N. Main St.  
Memphis, TN 38103  
T: (901) 575-0555  
Contact: Ms. Lauren Bermudez, Transportation Manager

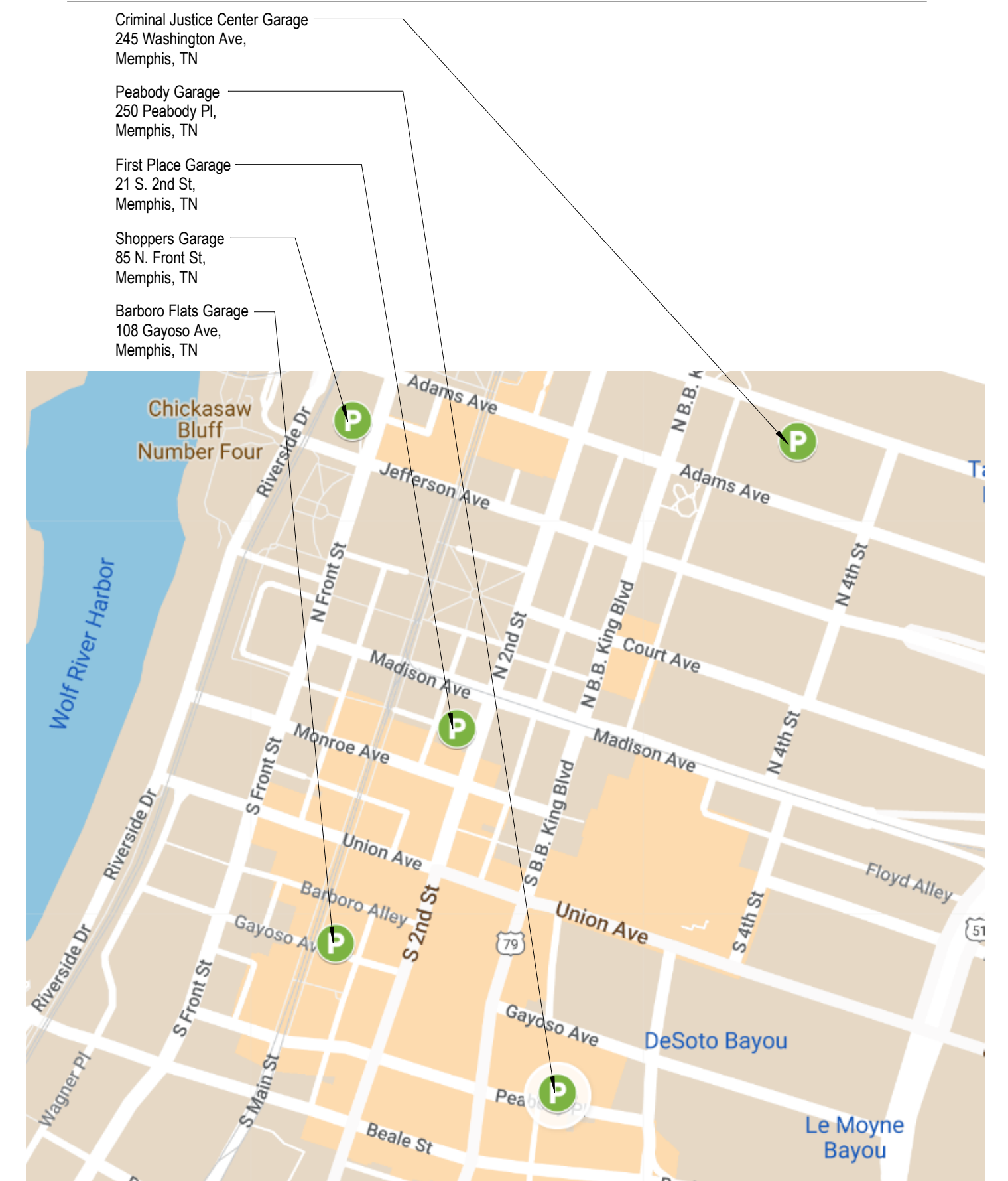
## Structural Restoration Engineers

THA Consulting, Inc.  
470 Norristown Road, Suite 200  
Blue Bell, PA 19422  
T: (484) 342-0200  
Project Manager: Mr. Ryan Klass, E.I.T.  
Contact: (908) 936-1779  
Principal In Charge: Mr. Kevin Carrigan, P.E.  
Contact: (484) 686-3993

## Mech/Elec/Plumb/FP Engineers

Chad Stewart & Associates, Inc.  
9720 Village Circle  
Lakeland, TN 38002  
T: (901) 260-7850  
Contact: Mr. Chad Stewart, PE LEED AP

## Location Map



DRAWING LIST		
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ISSUED FOR BID  
05/03/2024



**SCOPE OF WORK AND BIDDING QUANTITIES**

THE FOLLOWING INFORMATION SHALL BE USED BY THE BIDDER FOR ASSISTANCE IN PREPARING THE BID. THE ITEMS NOTED AS UNIT PRICE WORK SHALL BE BID IN ACCORDANCE WITH THE QUANTITIES SHOWN FOR THE BASE BID. THE CONTRACT PRICE WILL BE ADJUSTED TO REFLECT THE ACTUAL QUANTITY OF WORK PERFORMED. THE UNIT PRICES WILL BE USED TO INCREASE OR DECREASE THE CONTRACT SUM.

THE REPAIR AREAS INDICATED ON THE DRAWINGS ARE A GENERAL INDICATION OF WHERE THE ENGINEER'S SURVEYS HAVE NOTED POSSIBLE REPAIR LOCATIONS. THE CONTRACTOR SHALL NOT MAKE ANY ASSUMPTIONS OF REPAIR LOCATIONS, SIZES, OR OVERALL QUANTITIES BASED UPON THE INFORMATION ON PLANS. THE PROCEDURE FOR DETERMINING THE REPAIR LOCATIONS ARE EXPLAINED IN THE GENERAL NOTES AND SPECIFICATIONS. ALL WORK SHALL BE PERFORMED BASED ON THE GENERAL CONDITIONS SET FORTH IN THE PROJECT SPECIFICATIONS.

(\*) THE CONTINGENT REPAIR QUANTITIES ARE INCLUDED IN THE TOTAL BASE BID QUANTITY. THE EXACT LOCATION AND QUANTITIES OF REPAIRS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. CONTRACTOR SHALL ONLY ORDER 25% OF REQUIRED MATERIALS AT BEGINNING OF PROJECT ONCE SUBMITTAL HAS BEEN APPROVED BY ENGINEER. CONTRACTOR SHALL ORDER ADDITIONAL MATERIALS AFTER THEIR USE AND NECESSITY HAS BEEN IDENTIFIED DURING THE EARLY STAGES OF THE REPAIR WORK. CONTRACTOR TO INFORM THE ENGINEER/OWNER IF A LONG LEAD TIME IS EXPECTED ON THE MATERIAL ORDERS.

BID QUANTITY TABLE								
REPAIR ITEM TYPE	REPAIR ITEM	UNIT OF MEASURE	CJC BASE BID QUANTITIES	PEABODY BASE BID QUANTITIES	FIRST PLACE BASE BID QUANTITIES	TOTALS	REPAIR REFERENCE	UNIT PRICE NUMBER
PFR	PARTIAL DEPTH FLOOR REPAIR	SF	832	243	0	1075	1/R4.1	1
FFR	FULL DEPTH FLOOR REPAIR	SF	0	0	0	0	2/R4.1	2
OSR	OVERHEAD SURFACE REPAIR	SF	85	100	0	185	3/R4.1	3
OBR	OVERHEAD BEAM REPAIR	SF	18	0	1	19	4/R4.1	4
VR	VERTICAL REPAIR	SF	16	46	1	63	6/R4.1	5
CR	COLUMN REPAIR	SF	2	0	0	2	5/R4.1	6
HRG	HAUNCH REPAIR AT GIRDER	EA	2	0	0	2	3/R4.2	7
GBPR	GIRDER BEARING PAD REPLACEMENT	EA	1	0	0	1	4/R4.2	8
TSR1	TEE STEM REPAIR - NON-DAPPED END	EA	0	1	0	1	5/R4.2	9
PTR	P/T TENDON SPLICE REPAIR	EA	39	0	2	41	1/R4.2	10
EJ	EXPANSION JOINT REPLACEMENT	LF	0	482	0	482	1/R4.3	11
EJN	EXPANSION JOINT NOSING REPAIR	LF	0	0	0	0	1/R4.3	12
EJB1	EXPANSION JOINT BLOCKOUT REPAIR	LF	0	0	0	0	2/R4.3	13
EJB2	EXPANSION JOINT BLOCKOUT REPAIR	LF	0	0	0	0	2/R4.3	14
BCR	BARRIER CABLE REPAIR	EA	0	0	39	39	8/R4.1	15
PBI	PIPE BOLLARD INSTALLATION	EA	0	0	406	406	7/R4.1	16
GA	GALVANIC ANODES (*)	EA	200	30	0	230	4/R0.1	17
PCR	P/C PANEL CONNECTION REPAIR	EA	9	0	0	9	8/R4.2	18
FCS	STATIC FLOOR CRACK REPAIR	LF	0	2923	0	2923	9/R4.2	19
TCAU	TRAFFIC DECK COATING APPLICATION - URETHANE	SF	0	964	0	964	4/R4.3	20
COR	CONCRETE OVERLAY REPAIR	SF	0	200	0	200	10/R4.3	21
SFD	SUPPLEMENTAL FLOOR DRAIN	EA	0	3	0	3	9/R4.3	22
STA	SHEAR TRANSFER ANGLE	EA	0	80	0	80	7/R4.2	23
TTC5	TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (*)	EA	0	100	0	100	6/R4.2	24
SR	SEALANT REPLACEMENT	LF	0	18216	0	18216	8/R4.3	25
VSR	VERTICAL SEALANT REPLACEMENT	LF	0	2908	0	2908	8/R4.3	26
RGI	RAILING/GAURDRAIL INSTALLATION	LF	0	20	0	20	10/R4.2	27
LS	LINE STRIPING AT SPOT REPAIRS	EA	1	0	0	1	M.1/R0.1	28

- NOTES:
- FOR BID PURPOSES ONLY. THE CONTRACTOR SHALL PROVIDE UNIT PRICES FOR ZERO (0) QUANTITY REPAIR ITEMS.
  - MEP & FP ALLOWANCE TO BE \$10,000.00.
  - THE QUANTITY OF ITEMS (\*) IS A CONTINGENCY. THE ACTUAL LOCATION SHALL BE DETERMINED PER FIELD CONDITION BY THE CONTRACTOR AND SHALL BE VERIFIED BY THE ENGINEER.

LEGEND	
<b>FLOOR REPAIR</b>	<b>FLOOR REPAIR</b>
REPAIR TYPE OF REFERENCE XX-X (#) QUANTITY	PFR PARTIAL DEPTH FLOOR REPAIR
	PTR P/T TENDON SPLICE REPAIR
	EJ EXPANSION JOINT REPLACEMENT
	PBI PIPE BOLLARD INSTALLATION
	FCS STATIC FLOOR CRACK REPAIR
	TCAU TRAFFIC DECK COATING APPLICATION - URETHANE
	COR CONCRETE OVERLAY REPAIR
	SFD SUPPLEMENTAL FLOOR DRAIN
	TTC5 TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (*)
	SR SEALANT REPLACEMENT
<b>OVERHEAD REPAIR</b>	<b>OVERHEAD REPAIR</b>
REPAIR TYPE OF REFERENCE XX-X (#) QUANTITY	OSR OVERHEAD SURFACE REPAIR
	OBR OVERHEAD BEAM REPAIR
	GBPR GIRDER BEARING PAD REPLACEMENT
	TSR1 TEE STEM REPAIR - NON-DAPPED END
	STA SHEAR TRANSFER ANGLE
<b>VERTICAL REPAIR</b>	<b>VERTICAL REPAIR</b>
REPAIR TYPE OF REFERENCE XX-X (#) QUANTITY	VR VERTICAL REPAIR
	CR COLUMN REPAIR
	HRG HAUNCH REPAIR AT GIRDER
	BCR BARRIER CABLE REPAIR
	PCR P/C PANEL CONNECTION REPAIR
	VSR VERTICAL SEALANT REPLACEMENT
	RGI RAILING/GAURDRAIL INSTALLATION
REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:	
PLAN OVERHEAD VERTICAL FLOOR	
▨ PARTIAL DEPTH FLOOR REPAIR	▨ PIPE BOLLARD INSTALLATION
▨ OVERHEAD SURFACE OR BEAM REPAIR	▨ P/C PANEL CONNECTION REPAIR
▨ TEE STEM REPAIR	▨ SHEAR TRANSFER ANGLE
□ P/T TENDON SPLICE REPAIR	▨ TRAFFIC DECK COATING APPLICATION
- - - EXPANSION JOINT REPLACEMENT	— RAILING/GAURDRAIL INSTALLATION
— BARRIER CABLE REPAIR	
— STATIC FLOOR CRACK REPAIR	
■ SUPPLEMENTAL FLOOR DRAIN	
▨ CONCRETE OVERLAY REPAIR	



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PROFESSIONAL SEAL

CONSULTANT

PROJECT NO.  
ATL23110.01  
PROJECT

**MEMPHIS  
DOWNTOWN  
PARKING  
FACILITIES**

2024 RESTORATION

SUBMISSIONS / REVISIONS  
05/03/2024  
ISSUED FOR BID

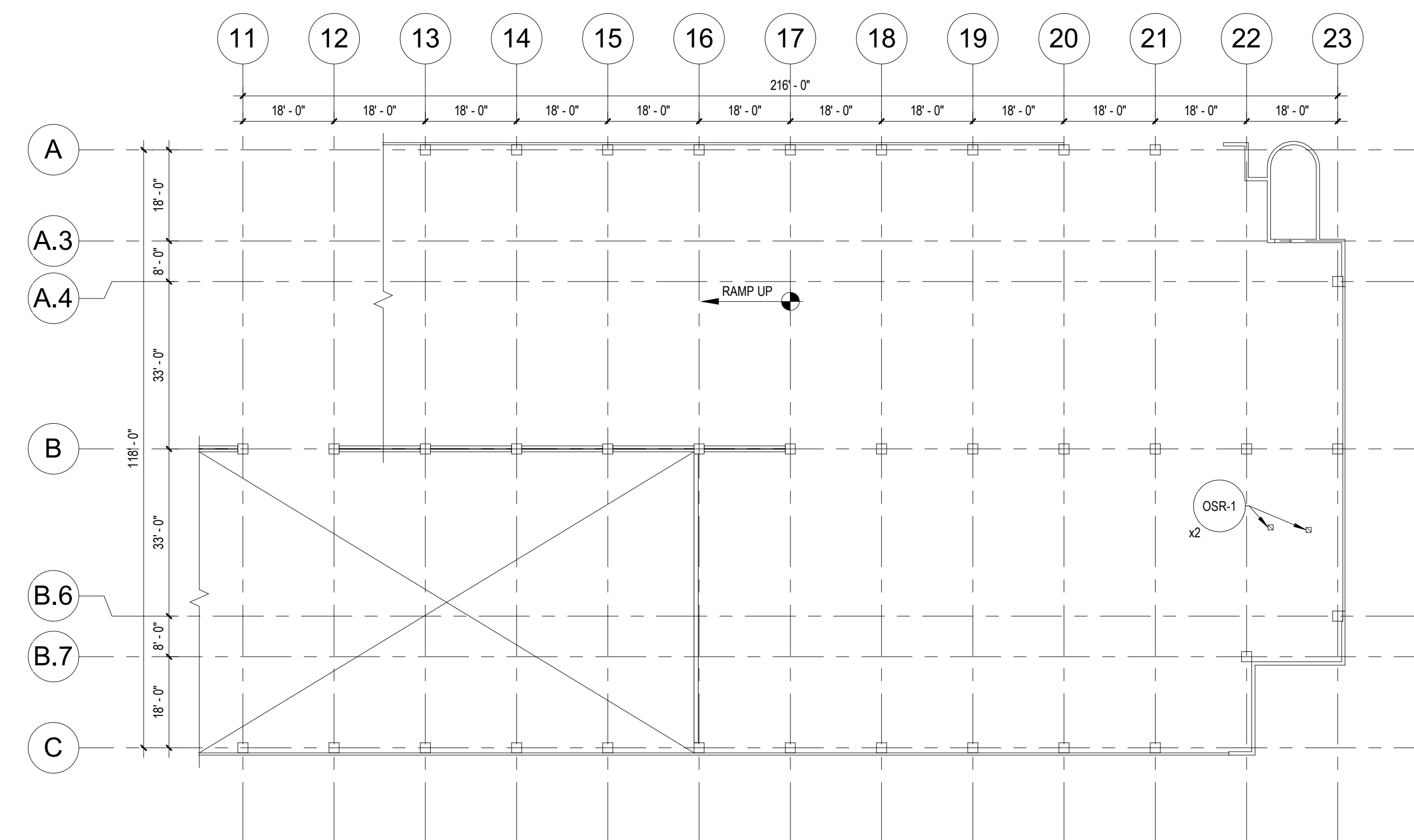
NO.	DESCRIPTION	DATE
3	Addendum #03	04/11/2024

DRAWN: DJB  
REVIEWED: SHH  
DATE: 03/08/2024

SHEET TITLE:  
SCOPE OF WORK & BID  
QUANTITY TABLE

SHEET NO.

**R0.2**



1 CRIMINAL JUSTICE GROUND TIER RESTORATION PLAN (OVERHEAD)  
R1.1 1" = 20'-0"

FLOOR REPAIR		OVERHEAD REPAIR		VERTICAL REPAIR	
REPAIR TYPE OF REFERENCE	XX-X (#)	# OF LOCATIONS PER REFERENCE	QUANTITY	REPAIR TYPE OF REFERENCE	XX-X (#)
REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:					
	PARTIAL DEPTH FLOOR REPAIR		OVERHEAD SURFACE OR BEAM REPAIR		TEE STEM REPAIR
	P/T TENDON SPLICE REPAIR		EXPANSION JOINT REPLACEMENT		BARRIER CABLE REPAIR
	STATIC FLOOR CRACK REPAIR		SUPPLEMENTAL FLOOR DRAIN		CONCRETE OVERLAY REPAIR

FLOOR REPAIR		OVERHEAD REPAIR		VERTICAL REPAIR	
PFR	PARTIAL DEPTH FLOOR REPAIR	OSR	OVERHEAD SURFACE REPAIR	VR	VERTICAL REPAIR
Ptr	P/T TENDON SPLICE REPAIR	OBR	OVERHEAD BEAM REPAIR	CR	COLUMN REPAIR
EJ	EXPANSION JOINT REPLACEMENT	GBR	GIRDER BEARING PAD REPLACEMENT	HRG	HALNCH REPAIR AT GIRDER
PBI	PIPE BOLLARD INSTALLATION	BCR	BARRIER CABLE REPAIR	BCR	BARRIER CABLE REPAIR
FCS	STATIC FLOOR CRACK REPAIR	PCR	P/C PANEL CONNECTION REPAIR	PCR	P/C PANEL CONNECTION REPAIR
TCR	TRAFFIC DECK COATING APPLICATION - URETHANE	VSR	VERTICAL SEALANT REPLACEMENT	VSR	VERTICAL SEALANT REPLACEMENT
COR	CONCRETE OVERLAY REPAIR	RGI	RAILING/GAURDRAIL INSTALLATION	RGI	RAILING/GAURDRAIL INSTALLATION
SFD	SUPPLEMENTAL FLOOR DRAIN				
TTCS	TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (*)				
SR	SEALANT REPLACEMENT				

NOTES:  
1. ASSUME 2 SF OF PARTIAL DEPTH FLOOR REPAIR (PFR) AT EACH P/T TENDON SPLICE REPAIR (PTR), U.N.O.

PROJECT NO.  
ATL23110.01  
PROJECT

**MEMPHIS DOWNTOWN PARKING FACILITIES**

2024 RESTORATION

CJC PARKING GARAGE

SUBMISSIONS / REVISIONS  
05/03/2024  
ISSUED FOR BID

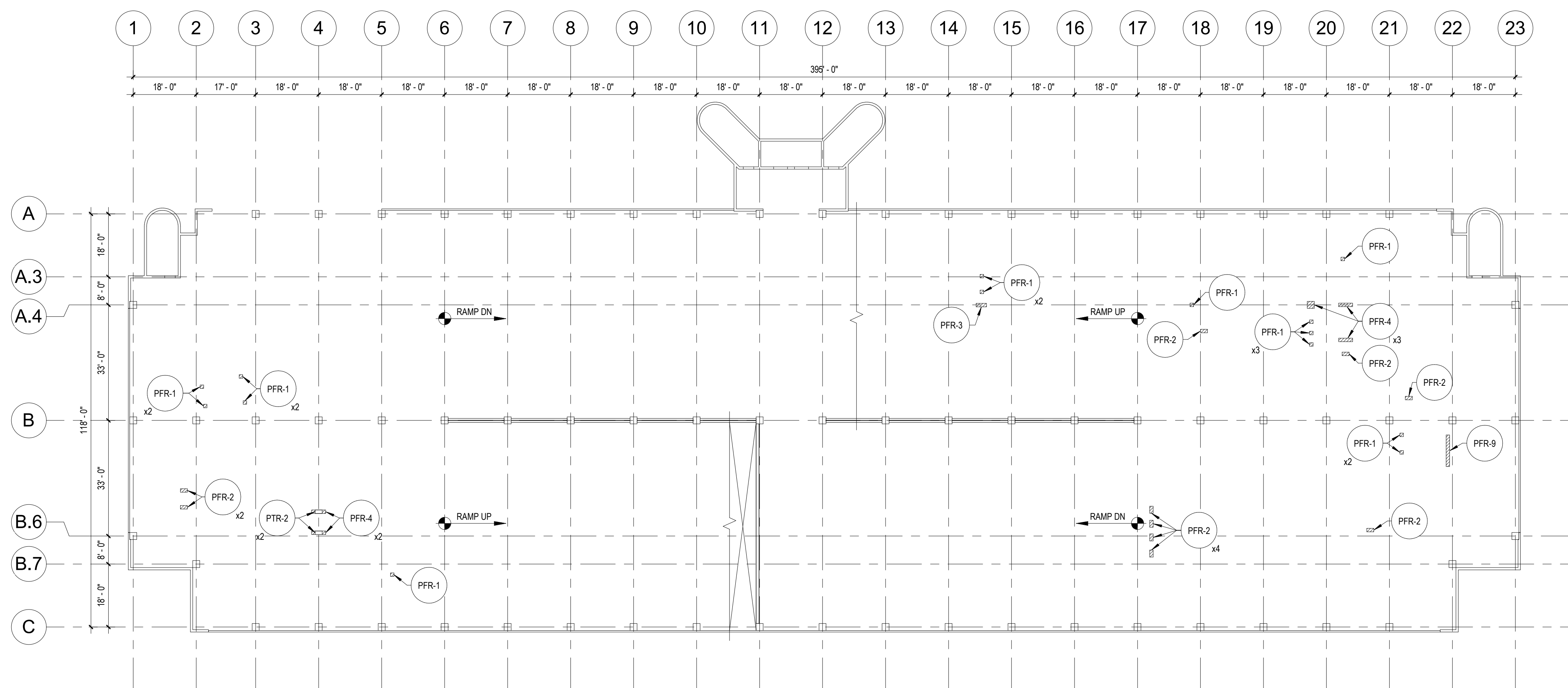
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DATE: 03/08/2024  
SHEET TITLE:

CRIMINAL JUSTICE CENTER (CJC) GROUND & SECOND TIER RESTORATION PLAN

SHEET NO.

**R1.1**



2 CRIMINAL JUSTICE SECOND TIER RESTORATION PLAN (FLOOR & OVERHEAD)  
R1.1 1" = 20'-0"



# MEMPHIS DOWNTOWN PARKING FACILITIES

2024 RESTORATION

CJC PARKING  
GARAGE

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NO.	DESCRIPTION	DATE

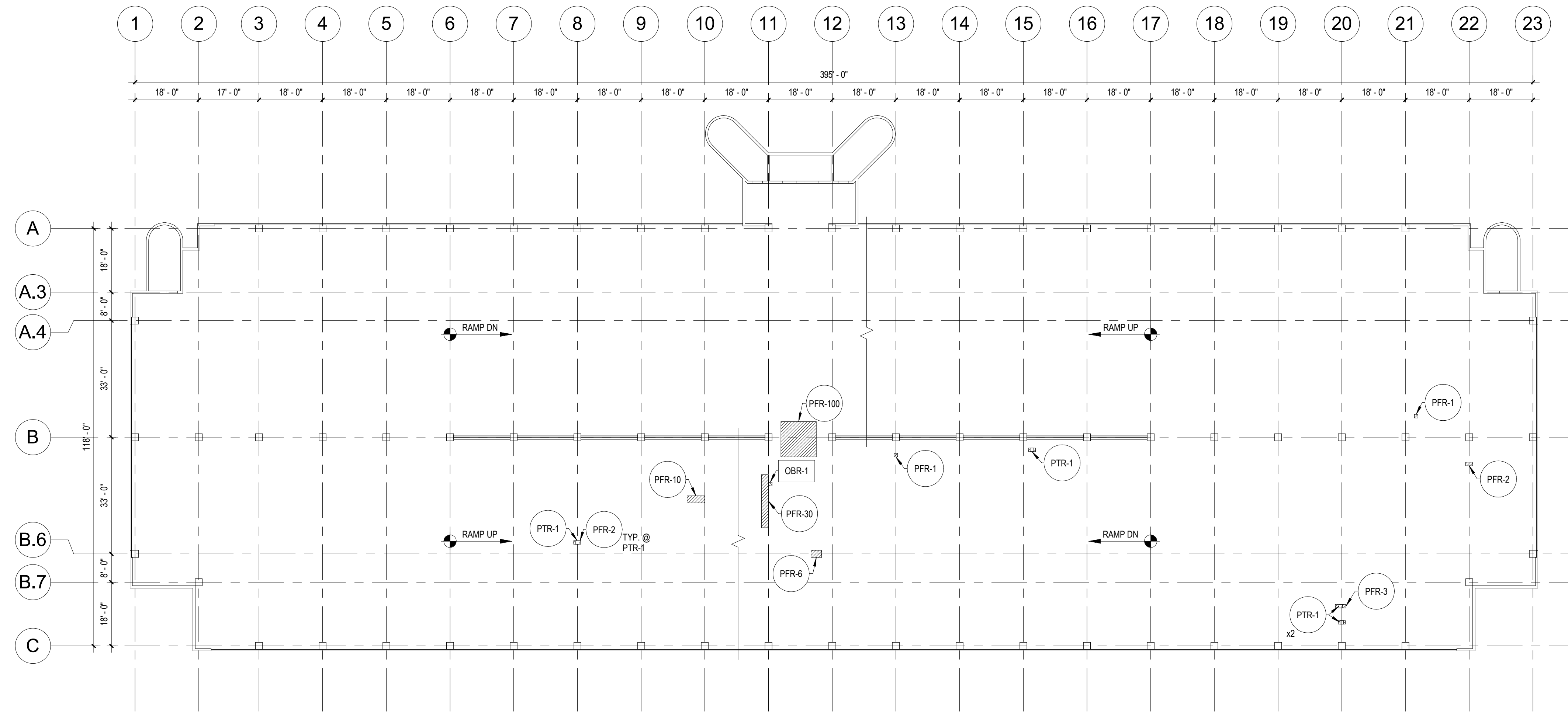
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DATE: 03/08/2024

SHEET TITLE:  
CRIMINAL JUSTICE CENTER (CJC)  
FIFTH & SIXTH TIER  
RESTORATION PLAN  
SHEET NO.

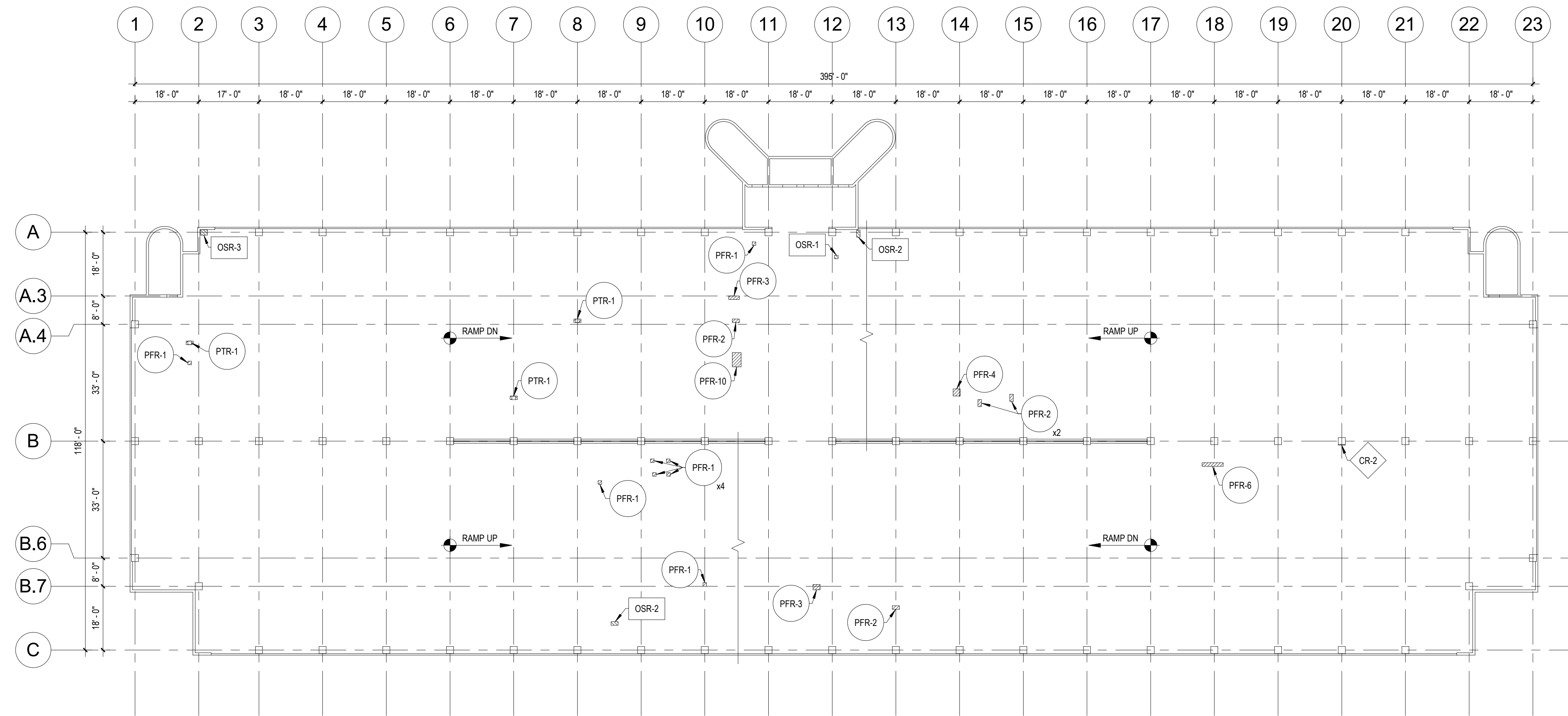
## R1.3

LEGEND		
<b>FLOOR REPAIR</b>		
REPAIR TYPE OF REFERENCE	XX-X (#)	# OF LOCATIONS PER REFERENCE QUANTITY
<b>OVERHEAD REPAIR</b>		
REPAIR TYPE OF REFERENCE	XX-X (#)	# OF LOCATIONS PER REFERENCE QUANTITY
<b>VERTICAL REPAIR</b>		
REPAIR TYPE OF REFERENCE	XX-X (#)	# OF LOCATIONS PER REFERENCE QUANTITY
REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:		
	OVERHEAD VERTICAL FLOOR	
	PARTIAL DEPTH FLOOR REPAIR	
	OVERHEAD SURFACE OR BEAM REPAIR	
	TEE STEM REPAIR	
	PIT TENDON SPLICE REPAIR	
	EXPANSION JOINT REPLACEMENT	
	BARRIER CABLE REPAIR	
	STATIC FLOOR CRACK REPAIR	
	SUPPLEMENTAL FLOOR DRAIN	
	CONCRETE OVERLAY REPAIR	
<b>FLOOR REPAIR</b>		
PFR	PARTIAL DEPTH FLOOR REPAIR	
PTR	PIT TENDON SPLICE REPAIR	
EJ	EXPANSION JOINT REPLACEMENT	
PBI	PIPE BOLLARD INSTALLATION	
FCS	STATIC FLOOR CRACK REPAIR	
TCAU	TRAFFIC DECK COATING APPLICATION - URETHANE	
COR	CONCRETE OVERLAY REPAIR	
SFD	SUPPLEMENTAL FLOOR DRAIN	
TTC5	TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (*)	
SR	SEALANT REPLACEMENT	
<b>OVERHEAD REPAIR</b>		
OSR	OVERHEAD SURFACE REPAIR	
OBR	OVERHEAD BEAM REPAIR	
GBPR	GIRDER BEARING PAD REPLACEMENT	
TSR1	TEE STEM REPAIR - NON-DAPPED END	
STA	SHEAR TRANSFER ANGLE	
<b>VERTICAL REPAIR</b>		
VR	VERTICAL REPAIR	
CR	COLUMN REPAIR	
HRG	HALNCH REPAIR AT GIRDER	
BCR	BARRIER CABLE REPAIR	
PCR	PIC PANEL CONNECTION REPAIR	
VSR	VERTICAL SEALANT REPLACEMENT	
RGI	RAILING/GAURDRAIL INSTALLATION	
	PIPE BOLLARD INSTALLATION	
	PIC PANEL CONNECTION REPAIR	
	SHEAR TRANSFER ANGLE	
	TRAFFIC DECK COATING APPLICATION	
	RAILING/GAURDRAIL INSTALLATION	

NOTES:  
1. ASSUME 2 SF OF PARTIAL DEPTH FLOOR REPAIR (PFR) AT EACH PIT TENDON SPLICE REPAIR (PTR). U.N.O.



1 CRIMINAL JUSTICE FIFTH TIER RESTORATION PLAN (FLOOR & OVERHEAD)  
R1.3 1" = 20'-0"



2 CRIMINAL JUSTICE SIXTH TIER RESTORATION PLAN (FLOOR & OVERHEAD)  
R1.3 1" = 20'-0"

**MEMPHIS  
DOWNTOWN  
PARKING  
FACILITIES**

2024 RESTORATION

CJC PARKING  
GARAGE

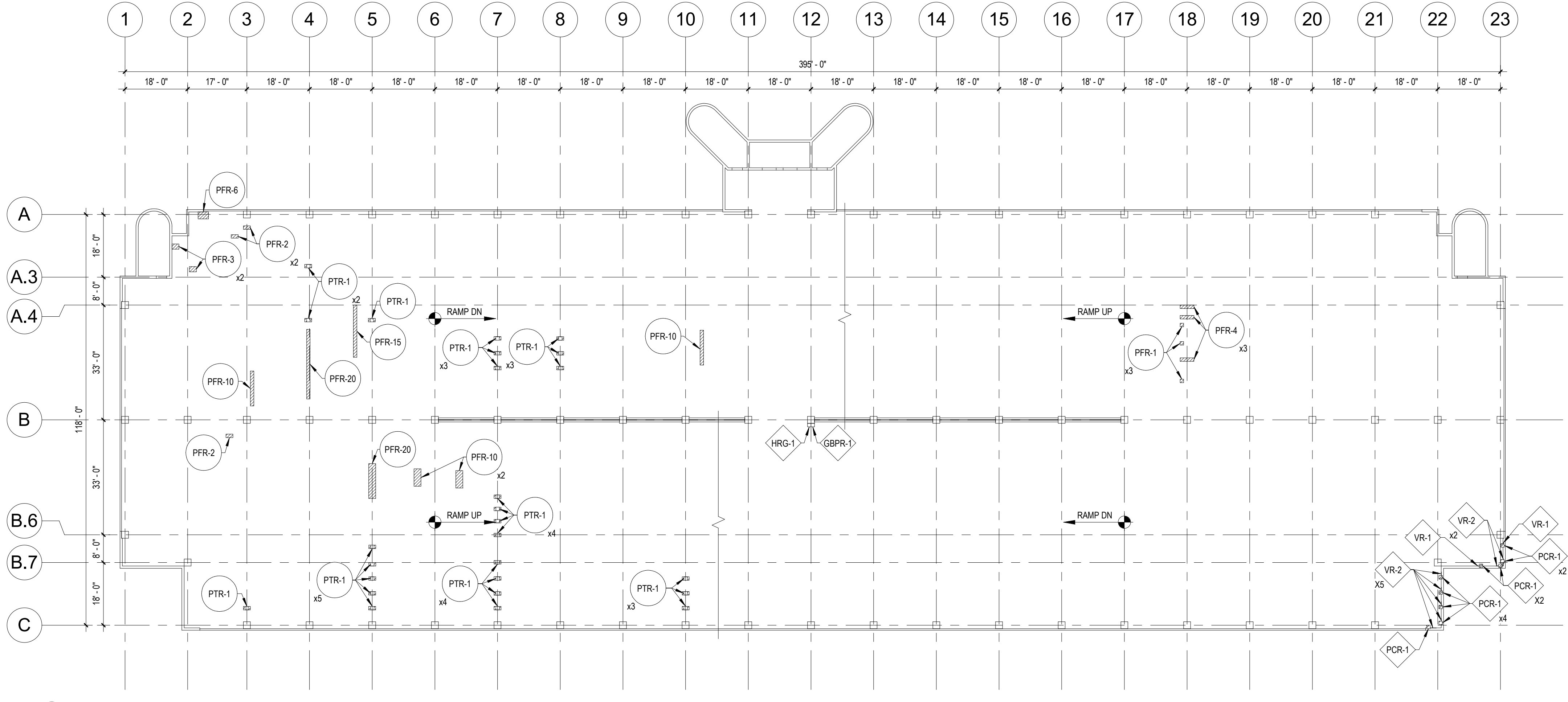
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05/03/2024  
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NO.	DESCRIPTION	DATE

DRAWN: DJB  
REVIEWED: SHH  
DATE: 03/08/2024

SHEET TITLE:  
**CRIMINAL JUSTICE CENTER (CJC)  
SEVENTH & PARTIAL EIGHTH  
TIER RESTORATION PLAN**

SHEET NO.



1 CRIMINAL JUSTICE SEVENTH TIER RESTORATION PLAN (FLOOR)  
R1.4 1" = 20'-0"

FLOOR REPAIR		# OF LOCATIONS PER REFERENCE		QUANTITY	
REPAIR TYPE OF REFERENCE	XX-X	(#)	(#)	(#)	(#)
<b>OVERHEAD REPAIR</b>					
REPAIR TYPE OF REFERENCE	XX-X	(#)	(#)	(#)	(#)
<b>VERTICAL REPAIR</b>					
REPAIR TYPE OF REFERENCE	XX-X	(#)	(#)	(#)	(#)

REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:

REPAIR TYPE	DESCRIPTION
[Hatched Box]	PARTIAL DEPTH FLOOR REPAIR
[Dotted Box]	OVERHEAD SURFACE OR BEAM REPAIR
[Cross-hatched Box]	TEE STEM REPAIR
[Square Box]	PIT TENDON SPICE REPAIR
[Dashed Line]	EXPANSION JOINT REPLACEMENT
[Solid Line]	BARRIER CABLE REPAIR
[Wavy Line]	STATIC FLOOR CRACK REPAIR
[Black Box]	SUPPLEMENTAL FLOOR DRAIN
[Stippled Box]	CONCRETE OVERLAY REPAIR

LEGEND

REPAIR TYPE	DESCRIPTION
PFR	PARTIAL DEPTH FLOOR REPAIR
PTR	PIT TENDON SPICE REPAIR
EJ	EXPANSION JOINT REPLACEMENT
PBI	PIPE BOLLARD INSTALLATION
FCS	STATIC FLOOR CRACK REPAIR
TCAU	TRAFFIC DECK COATING APPLICATION - URETHANE
COR	CONCRETE OVERLAY REPAIR
SFD	SUPPLEMENTAL FLOOR DRAIN
TTC5	TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (*)
SR	SEALANT REPLACEMENT

REPAIR TYPE	DESCRIPTION
OSR	OVERHEAD SURFACE REPAIR
OBR	OVERHEAD BEAM REPAIR
GBPR	GIRDER BEARING PAD REPLACEMENT
TSR1	TEE STEM REPAIR - NON-DAPPED END
STA	SHEAR TRANSFER ANGLE

REPAIR TYPE	DESCRIPTION
VR	VERTICAL REPAIR
CR	COLUMN REPAIR
HRG	HALNCH REPAIR AT GIRDER
BCR	BARRIER CABLE REPAIR
PCR	PIC PANEL CONNECTION REPAIR
VSR	VERTICAL SEALANT REPLACEMENT
RGI	RAILING/GAURDRAIL INSTALLATION

NOTES:  
1. ASSUME 2 SF OF PARTIAL DEPTH FLOOR REPAIR (PFR) AT EACH PIT TENDON SPICE REPAIR (PTR). U.N.O.



**MEMPHIS  
DOWNTOWN  
PARKING  
FACILITIES**

2024 RESTORATION

PEABODY PARKING  
GARAGE

SUBMISSIONS / REVISIONS

05/03/2024  
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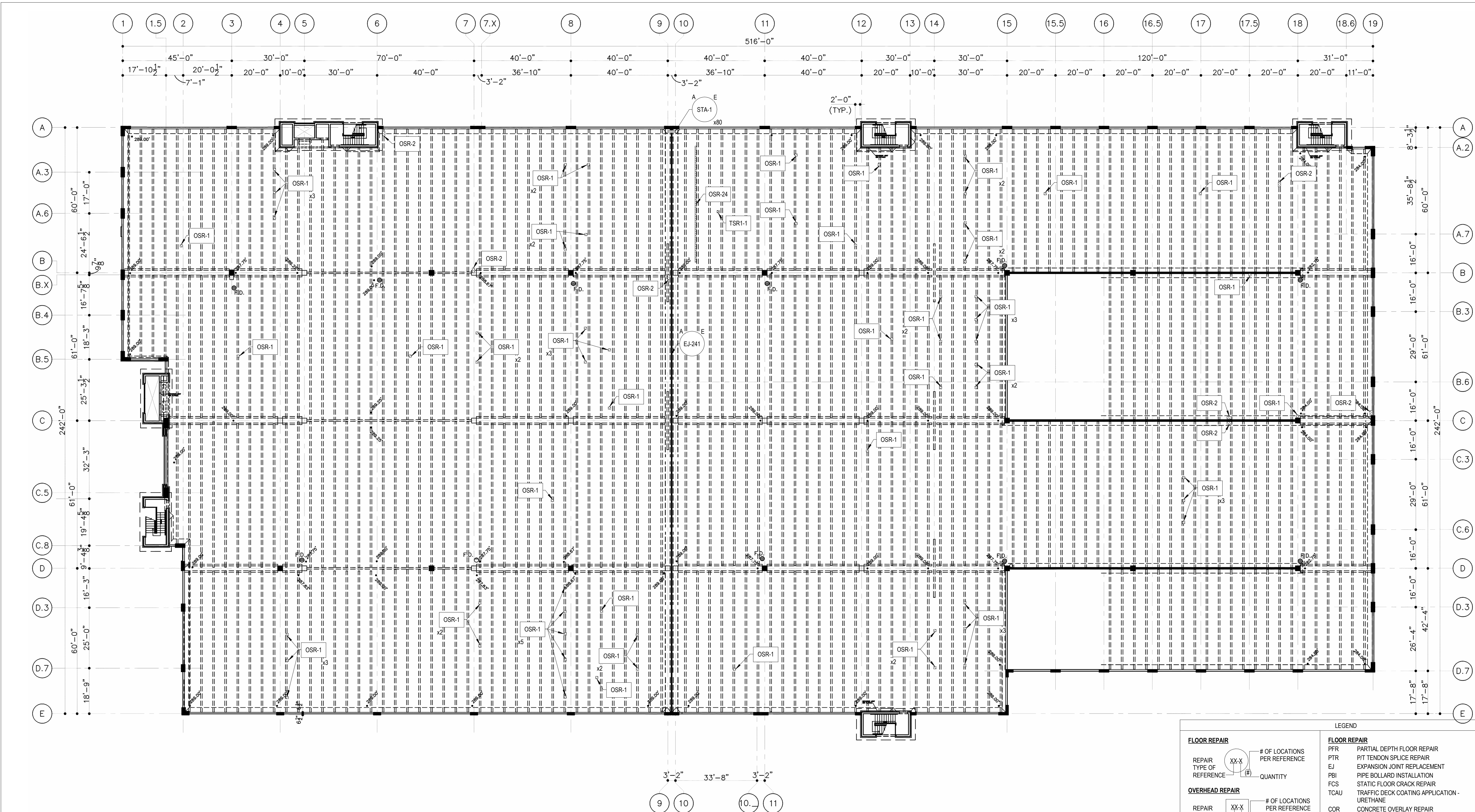
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REVIEWED: SHH  
DATE: 03/08/2024

SHEET TITLE:  
PEABODY FOURTH TIER  
RESTORATION PLAN

SHEET NO.

**R2.1**



1 PEABODY FOURTH TIER RESTORATION PLAN (FLOOR & OVERHEAD)  
R2.1 1" = 20'-0"

**LEGEND**

FLOOR REPAIR		# OF LOCATIONS PER REFERENCE	QUANTITY
REPAIR TYPE OF REFERENCE	XX-X	(#)	

OVERHEAD REPAIR		# OF LOCATIONS PER REFERENCE	QUANTITY
REPAIR TYPE OF REFERENCE	XX-X	(#)	

VERTICAL REPAIR		# OF LOCATIONS PER REFERENCE	QUANTITY
REPAIR TYPE OF REFERENCE	XX-X	(#)	

REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:

- PLAN: OVERHEAD VERTICAL FLOOR
- PARTIAL DEPTH FLOOR REPAIR
- OVERHEAD SURFACE OR BEAM REPAIR
- TEE STEM REPAIR
- PIT TENDON SPlice REPAIR
- EXPANSION JOINT REPLACEMENT
- BARRIER CABLE REPAIR
- STATIC FLOOR CRACK REPAIR
- SUPPLEMENTAL FLOOR DRAIN
- CONCRETE OVERLAY REPAIR

LEGEND	
FLOOR REPAIR	PFR PARTIAL DEPTH FLOOR REPAIR
PTR	PIT TENDON SPlice REPAIR
EJ	EXPANSION JOINT REPLACEMENT
PBI	PIPE BOLLARD INSTALLATION
FCS	STATIC FLOOR CRACK REPAIR
TCAU	TRAFFIC DECK COATING APPLICATION - URETHANE
COR	CONCRETE OVERLAY REPAIR
SFD	SUPPLEMENTAL FLOOR DRAIN
TTCs	TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (°)
SR	SEALANT REPLACEMENT
OVERHEAD REPAIR	
OSR	OVERHEAD SURFACE REPAIR
OBR	OVERHEAD BEAM REPAIR
GBRP	GRIDER BEARING PAD REPLACEMENT
TSR1	TEE STEM REPAIR - NON-DAPPED END
STA	SHEAR TRANSFER ANGLE
VERTICAL REPAIR	
VR	VERTICAL REPAIR
CR	COLUMN REPAIR
HRG	HAUNCH REPAIR AT GIRDER
BCR	BARRIER CABLE REPAIR
PCR	PIC PANEL CONNECTION REPAIR
VSR	VERTICAL SEALANT REPLACEMENT
RGI	RAILING/GAURDRAIL INSTALLATION
PIPE BOLLARD INSTALLATION	
PIC PANEL CONNECTION REPAIR	
SHEAR TRANSFER ANGLE	
TRAFFIC DECK COATING APPLICATION	
RAILING/GAURDRAIL INSTALLATION	



### MEMPHIS DOWNTOWN PARKING FACILITIES

2024 RESTORATION

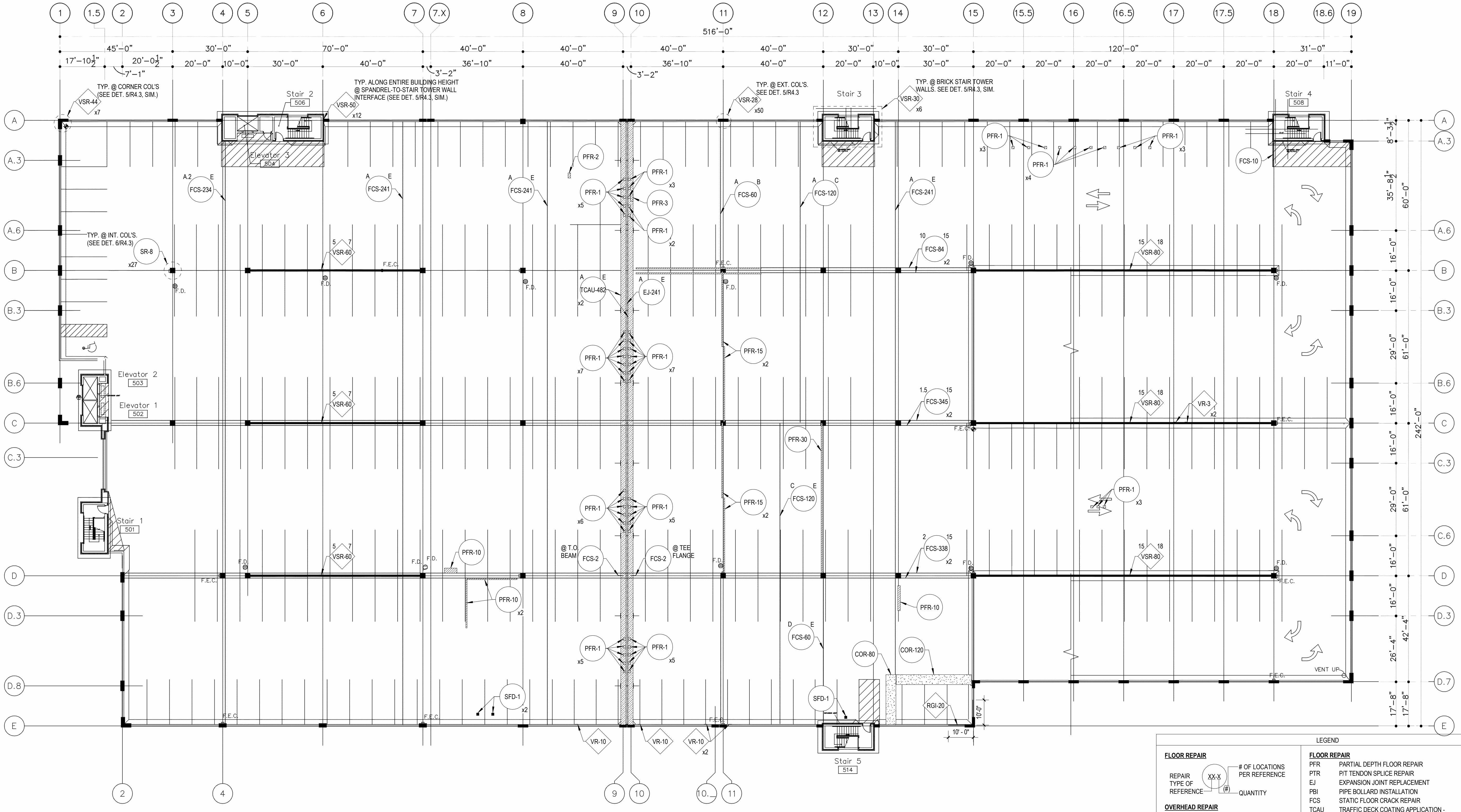
PEABODY PARKING  
GARAGE

SUBMISSIONS / REVISIONS

05/03/2024  
ISSUED FOR BID

NO.	DESCRIPTION	DATE
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DRAWN:	DJB
REVIEWED:	SHH
DATE:	03/08/2024
SHEET TITLE:	
PEABODY TOP TIER RESTORATION PLAN	
SHEET NO.	
<b>R2.2</b>	



**1** PEABODY TOP TIER RESTORATION PLAN (FLOOR & VERTICAL)  
R2.2 1" = 20'-0"

- NOTES:**  
 1. HORIZ. JOINT SEALANT REPLACEMENT NOT SHOWN FOR CLARITY. GLOBALIZED SEALANT REPLACEMENT IS REQ'D AT THIS TIER.  
 2. VERTICAL SEALANT REPLACEMENT QUANTITIES SHOWN AT PERIMETER LOCATIONS APPLY TO BOTH THE INTERIOR AND EXTERIOR OF THE GARAGE. VERTICAL JOINT SEALANT REPLACEMENT IS REQ'D AT THIS TIER. SEE DET. 5/R4.3 FOR ADDITIONAL INFORMATION.  
 3. VERTICAL SEALANT REPLACEMENT AT BRICK STAIR TOWER WALLS TO MATCH COLOR OF EXISTING BRICK.

FLOOR REPAIR		OVERHEAD REPAIR		VERTICAL REPAIR	
REPAIR TYPE OF REFERENCE	# OF LOCATIONS PER REFERENCE QUANTITY	REPAIR TYPE OF REFERENCE	# OF LOCATIONS PER REFERENCE QUANTITY	REPAIR TYPE OF REFERENCE	# OF LOCATIONS PER REFERENCE QUANTITY
PFR	XX-X	OSR	XX-X	VR	XX-X
PTSR		OSB		CR	
EJ		GBRP		HRG	
PBI		TSR1		BCR	
FCS		STA		PCR	
TCAU				VSR	
COR				RGI	
SFD					
TCFS					
SR					

LEGEND	
	PARTIAL DEPTH FLOOR REPAIR
	OVERHEAD SURFACE OR BEAM REPAIR
	TEE STEM REPAIR
	P/T TENDON SPLICE REPAIR
	EXPANSION JOINT REPLACEMENT
	BARRIER CABLE REPAIR
	STATIC FLOOR CRACK REPAIR
	SUPPLEMENTAL FLOOR DRAIN
	CONCRETE OVERLAY REPAIR
	VERTICAL REPAIR
	COLUMN REPAIR
	HAUNCH REPAIR AT GIRDER
	BARRIER CABLE REPAIR
	P/C PANEL CONNECTION REPAIR
	VERTICAL SEALANT REPLACEMENT
	RAILING/GAURDRAIL INSTALLATION
	PIPE BOLLARD INSTALLATION
	P/C PANEL CONNECTION REPAIR
	SHEAR TRANSFER ANGLE
	TRAFFIC DECK COATING APPLICATION
	RAILING/GAURDRAIL INSTALLATION





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PROFESSIONAL SEAL

CONSULTANT

PROJECT NO.  
ATL23110.01  
PROJECT

**MEMPHIS  
DOWNTOWN  
PARKING  
FACILITIES**

2024 RESTORATION

FIRST PLACE  
PARKING GARAGE

SUBMISSIONS / REVISIONS  
05/03/2024  
ISSUED FOR BID

NO.	DESCRIPTION	DATE

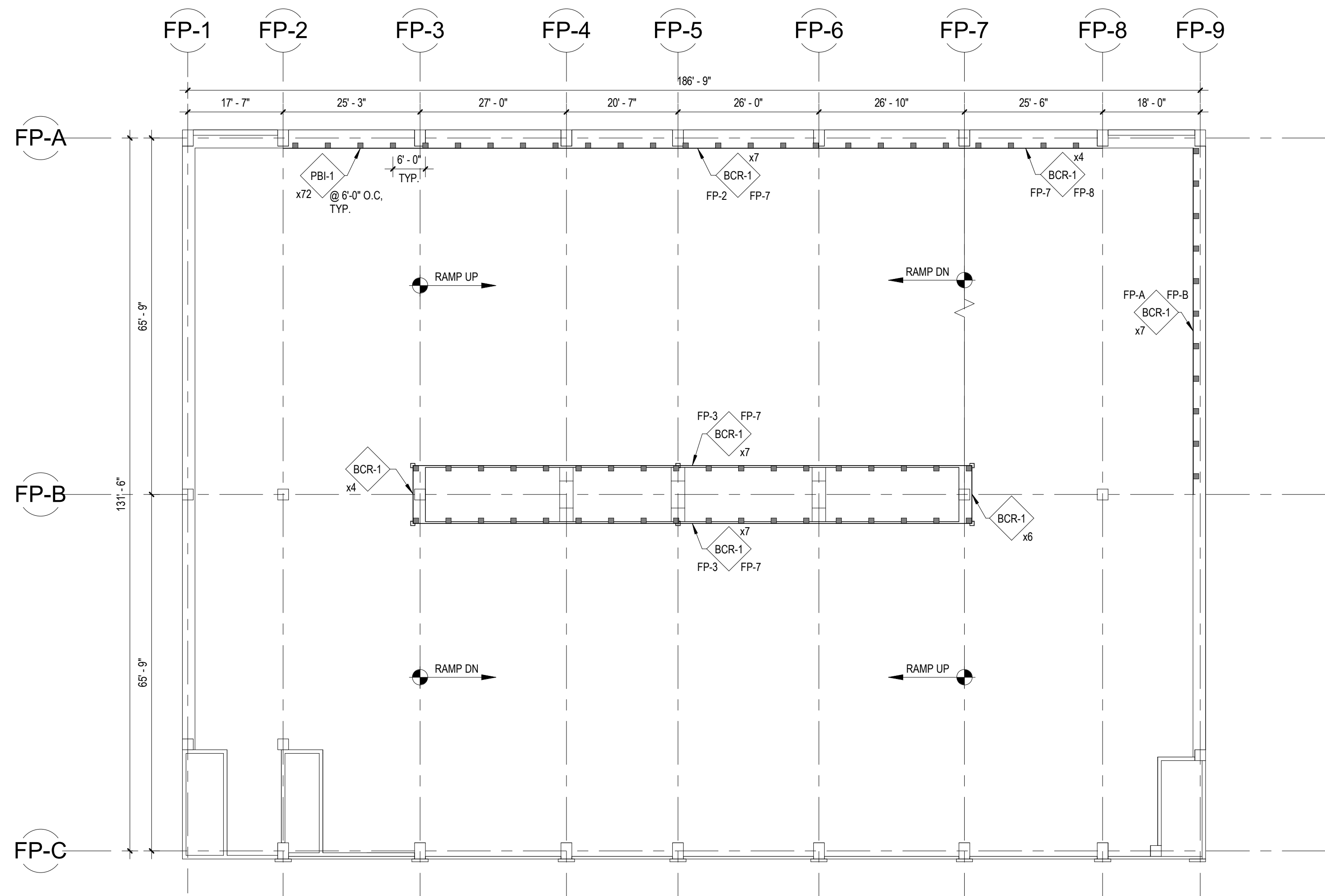
DRAWN: DJB  
REVIEWED: SHH  
DATE: 03/08/2024

SHEET TITLE:  
FIRST PLACE THIRD & FOURTH  
TIER RESTORATION PLAN

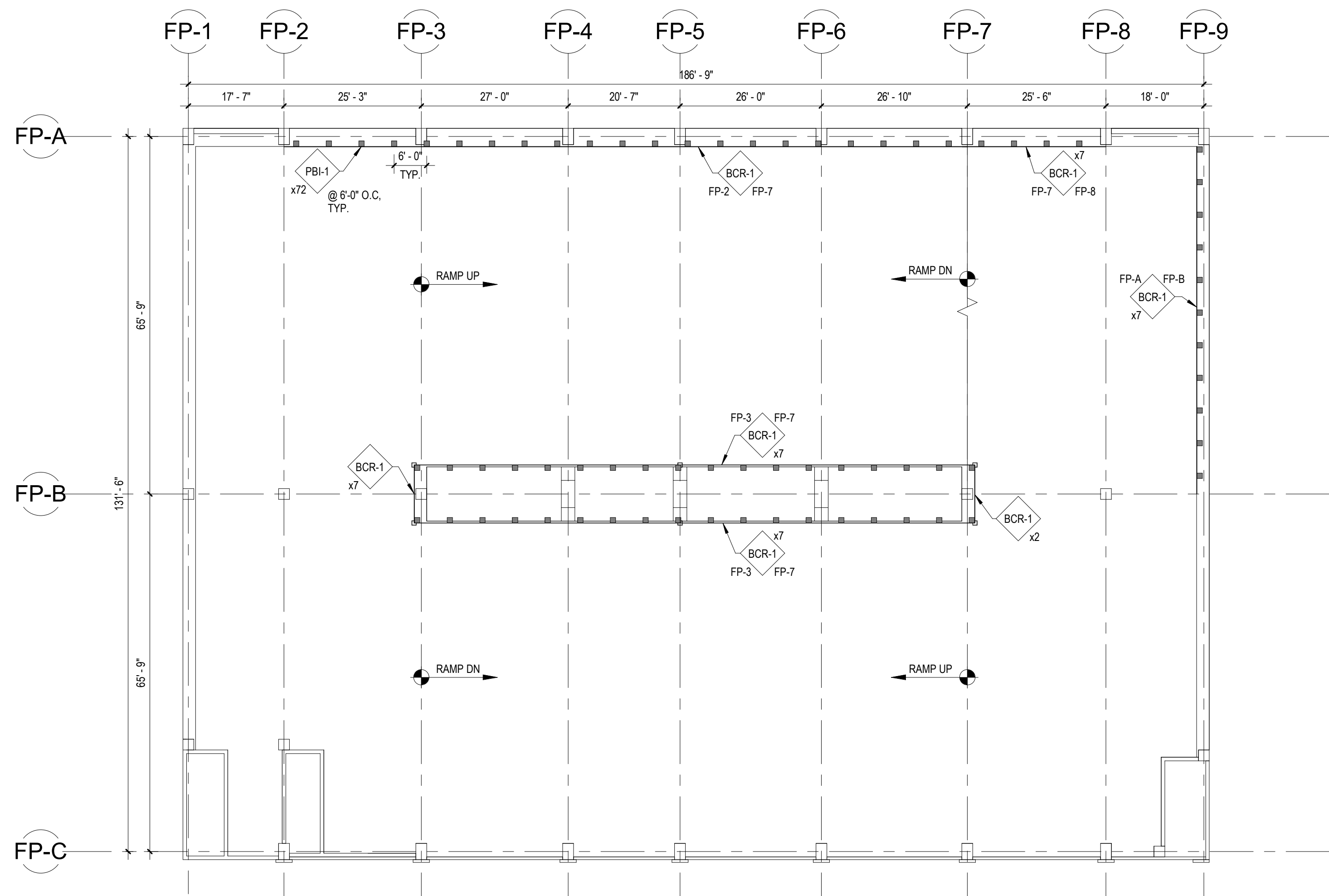
SHEET NO.

**R3.2**

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**1** FIRST PLACE 3RD TIER  
R3.2 1/16" = 1'-0"



**2** FIRST PLACE 4TH TIER  
R3.2 1/16" = 1'-0"

FLOOR REPAIR		# OF LOCATIONS PER REFERENCE		QUANTITY	
REPAIR TYPE OF REFERENCE	XX-X		(#)		

OVERHEAD REPAIR		# OF LOCATIONS PER REFERENCE		QUANTITY	
REPAIR TYPE OF REFERENCE	XX-X		(#)		

VERTICAL REPAIR		# OF LOCATIONS PER REFERENCE		QUANTITY	
REPAIR TYPE OF REFERENCE	XX-X		(#)		

REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:

- OVERHEAD VERTICAL FLOOR
- PLAN

[Pattern]	PARTIAL DEPTH FLOOR REPAIR
[Pattern]	OVERHEAD SURFACE OR BEAM REPAIR
[Pattern]	TEE STEM REPAIR
[Pattern]	PIT TENDON SPlice REPAIR
[Pattern]	EXPANSION JOINT REPLACEMENT
[Pattern]	BARRIER CABLE REPAIR
[Pattern]	STATIC FLOOR CRACK REPAIR
[Pattern]	SUPPLEMENTAL FLOOR DRAIN
[Pattern]	CONCRETE OVERLAY REPAIR

FLOOR REPAIR	
PFR	PARTIAL DEPTH FLOOR REPAIR
PTR	PIT TENDON SPlice REPAIR
EJ	EXPANSION JOINT REPLACEMENT
PBI	PIPE BOLLARD INSTALLATION
FCS	STATIC FLOOR CRACK REPAIR
TCAU	TRAFFIC DECK COATING APPLICATION - URETHANE
COR	CONCRETE OVERLAY REPAIR
SFD	SUPPLEMENTAL FLOOR DRAIN
TTC5	TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (1)
SR	SEALANT REPLACEMENT

OVERHEAD REPAIR	
OSR	OVERHEAD SURFACE REPAIR
OBR	OVERHEAD BEAM REPAIR
GBPR	GIRDER BEARING PAD REPLACEMENT
TSR1	TEE STEM REPAIR - NON-DAPPED END
STA	SHEAR TRANSFER ANGLE

VERTICAL REPAIR	
VR	VERTICAL REPAIR
CR	COLUMN REPAIR
HRG	HALNCH REPAIR AT GIRDER
BCR	BARRIER CABLE REPAIR
PCR	PIC PANEL CONNECTION REPAIR
VSR	VERTICAL SEALANT REPLACEMENT
RGI	RAILING/GAURDRAIL INSTALLATION

[Pattern]	PIPE BOLLARD INSTALLATION
[Pattern]	PIC PANEL CONNECTION REPAIR
[Pattern]	SHEAR TRANSFER ANGLE
[Pattern]	TRAFFIC DECK COATING APPLICATION
[Pattern]	RAILING/GAURDRAIL INSTALLATION



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FACILITIES**

2024 RESTORATION

FIRST PLACE  
PARKING GARAGE

SUBMISSIONS / REVISIONS  
05/03/2024  
ISSUED FOR BID

NO.	DESCRIPTION	DATE

DRAWN: **DJB**  
REVIEWED: **SHH**  
DATE: **03/08/2024**  
SHEET TITLE:

FIRST PLACE FIFTH & SIXTH TIER  
RESTORATION PLAN

SHEET NO.

**R3.3**

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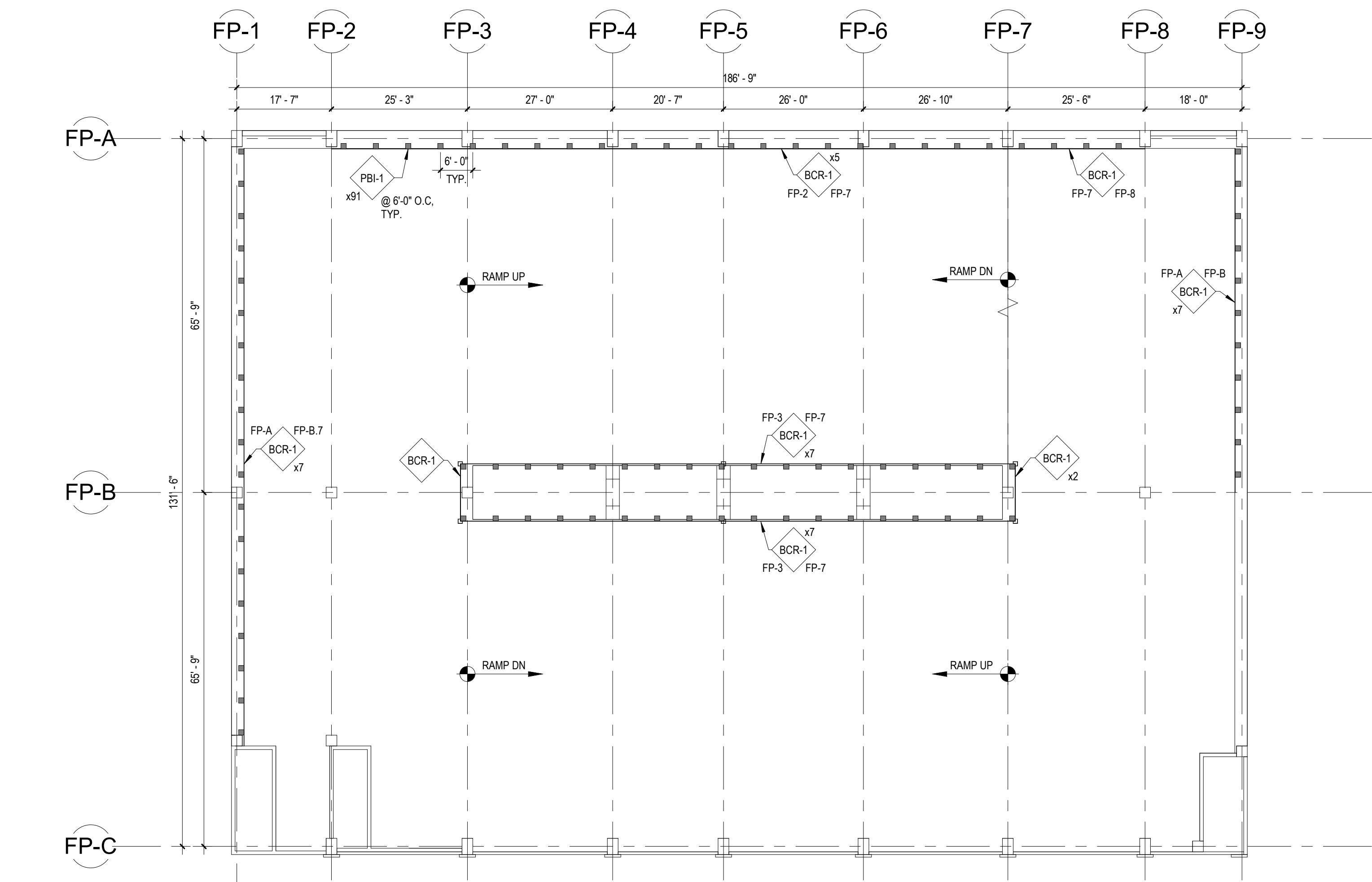
FLOOR REPAIR		# OF LOCATIONS PER REFERENCE	
REPAIR TYPE OF REFERENCE	XX-X	(#)	QUANTITY
<b>OVERHEAD REPAIR</b>			
REPAIR TYPE OF REFERENCE	XX-X	(#)	QUANTITY
<b>VERTICAL REPAIR</b>			
REPAIR TYPE OF REFERENCE	XX-X	(#)	QUANTITY
REPAIR AREAS ON PLAN ARE DEPICTED ON THE FOLLOWING SURFACES:			
	OVERHEAD	VERTICAL	FLOOR
	PARTIAL DEPTH FLOOR REPAIR		
	OVERHEAD SURFACE OR BEAM REPAIR		
	TEE STEM REPAIR		
	P/T TENDON SPLICE REPAIR		
	EXPANSION JOINT REPLACEMENT		
	BARRIER CABLE REPAIR		
	STATIC FLOOR CRACK REPAIR		
	SUPPLEMENTAL FLOOR DRAIN		
	CONCRETE OVERLAY REPAIR		

FLOOR REPAIR	
PFR	PARTIAL DEPTH FLOOR REPAIR
PTR	P/T TENDON SPLICE REPAIR
EJ	EXPANSION JOINT REPLACEMENT
PBI	PIPE BOLLARD INSTALLATION
FCS	STATIC FLOOR CRACK REPAIR
TCAU	TRAFFIC DECK COATING APPLICATION - URETHANE
COR	CONCRETE OVERLAY REPAIR
SFD	SUPPLEMENTAL FLOOR DRAIN
TTC5	TEE-TO-TEE CONNECTION REPAIR (ANGLE CONNECTION) (1)
SR	SEALANT REPLACEMENT

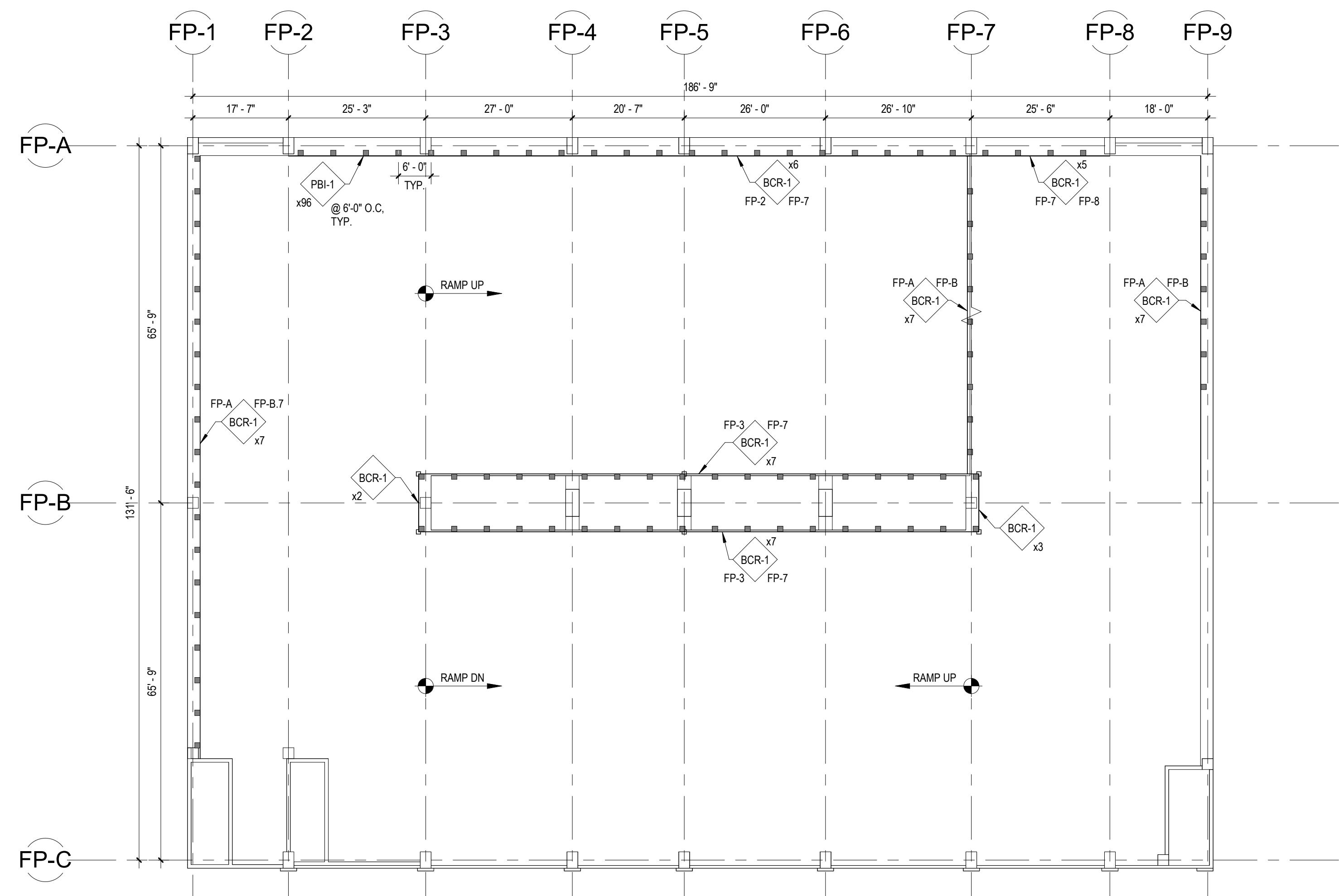
OVERHEAD REPAIR	
OSR	OVERHEAD SURFACE REPAIR
OBR	OVERHEAD BEAM REPAIR
GBPR	GIRDER BEARING PAD REPLACEMENT
TSR1	TEE STEM REPAIR - NON-DAPPED END
STA	SHEAR TRANSFER ANGLE

VERTICAL REPAIR	
VR	VERTICAL REPAIR
CR	COLUMN REPAIR
HRG	HALNCH REPAIR AT GIRDER
BCR	BARRIER CABLE REPAIR
PCR	PIC PANEL CONNECTION REPAIR
VSR	VERTICAL SEALANT REPLACEMENT
RGI	RAILING/GAURDRAIL INSTALLATION

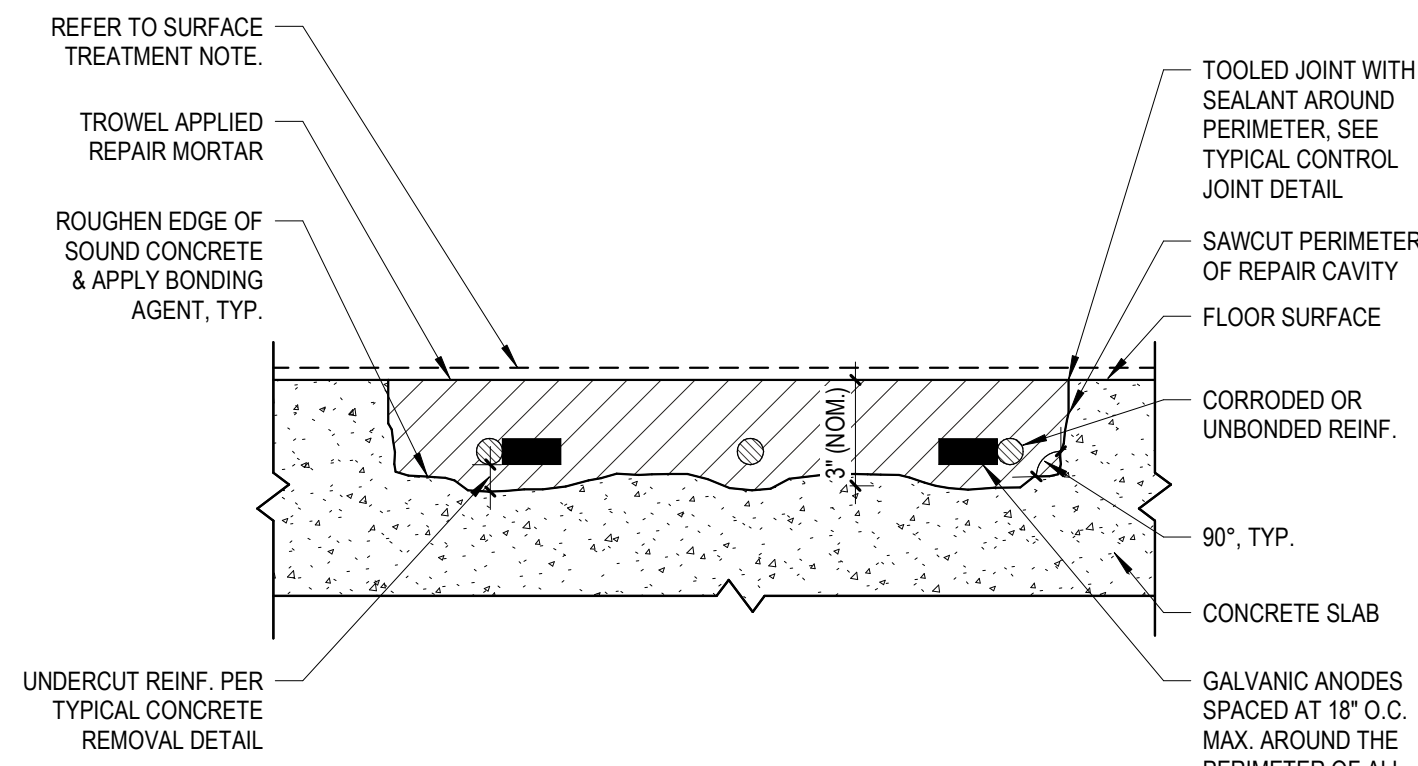
	PIPE BOLLARD INSTALLATION
	PIC PANEL CONNECTION REPAIR
	SHEAR TRANSFER ANGLE
	TRAFFIC DECK COATING APPLICATION
	RAILING/GAURDRAIL INSTALLATION



1 FIRST PLACE 5TH TIER  
R3.3 1/16" = 1'-0"

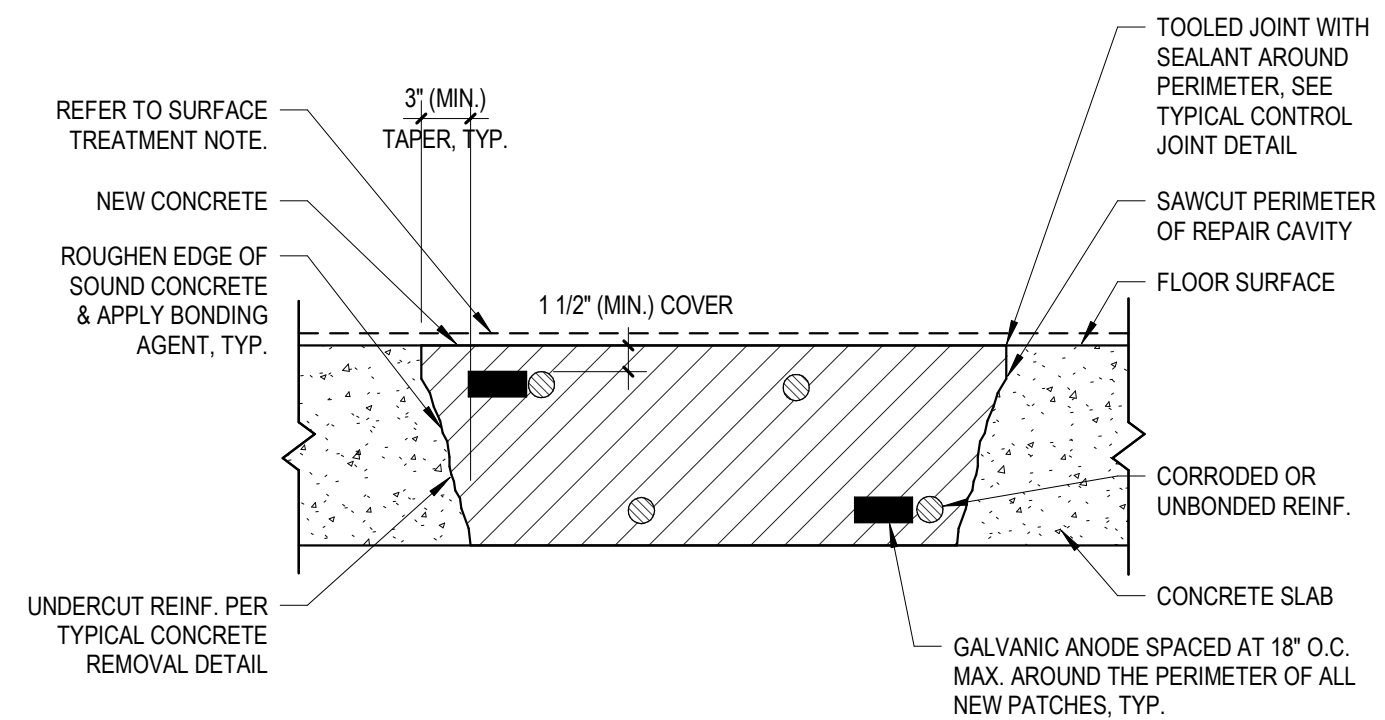


2 FIRST PLACE 6TH TIER  
R3.3 1/16" = 1'-0"



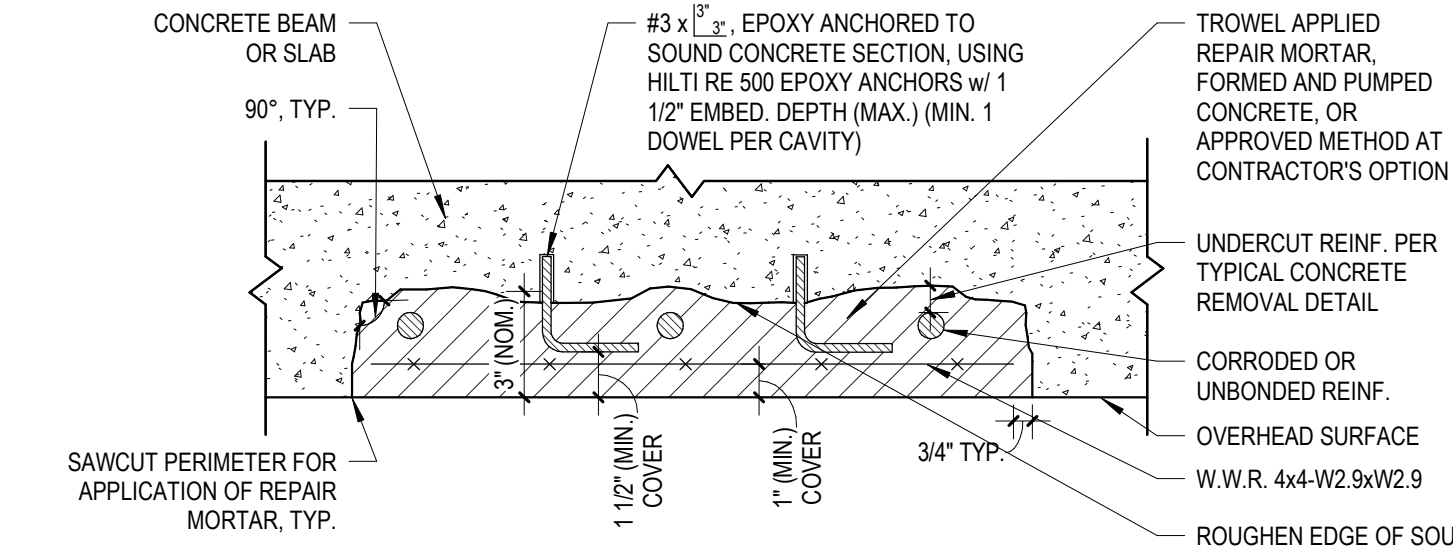
- REPAIR PROCEDURE:**
1. SEE REPAIR DETAIL GENERAL NOTES FOR TYPICAL CONCRETE REPAIR PROCEDURES.
  2. INSTALL GALVANIC ANODES AT THE PERIMETER OF ALL REPAIR PATCHES PER MANUFACTURER'S RECOMMENDATIONS. VERIFY CONTINUITY & PROVIDE ADEQUATE CONCRETE COVER FOR GALVANIC ANODES. ANODES ARE NOT INCLUDED IN THE UNIT PRICE.
  3. SURFACE TREATMENT NOTE: APPLY PENETRATING SEALER, PENETRATING CORROSION INHIBITING TREATMENT, TRAFFIC DECK COATING, AND/OR OTHER SURFACE TREATMENT AS INDICATED ON THE DRAWINGS. IF SURFACE TREATMENT IS NOT INDICATED, APPLY PENETRATING SEALER TO THE REPAIR AND EXTEND 6\"/>

**1 REPAIR TYPE PFR - PARTIAL DEPTH FLOOR REPAIR DETAIL**  
R4.1 NOT TO SCALE



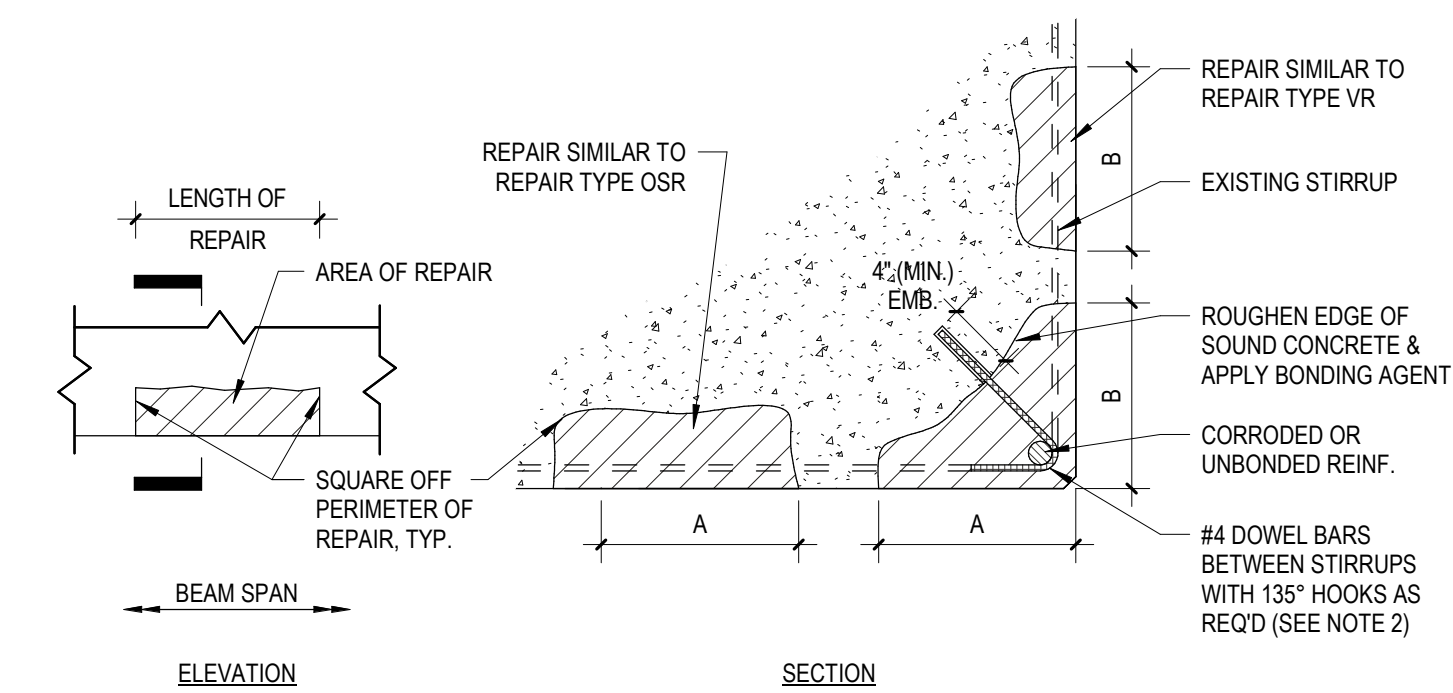
- REPAIR PROCEDURE:**
1. SEE REPAIR DETAIL GENERAL NOTES FOR TYPICAL CONCRETE REPAIR PROCEDURES.
  2. INSTALL GALVANIC ANODES AT THE PERIMETER OF ALL REPAIR PATCHES PER MANUFACTURER'S RECOMMENDATIONS. VERIFY CONTINUITY & PROVIDE ADEQUATE CONCRETE COVER FOR GALVANIC ANODES. ANODES ARE NOT INCLUDED IN THE UNIT PRICE.
  3. TO BE USED IN LIEU OF REPAIR TYPE PFR BASED ON FIELD CONDITIONS.
  4. SURFACE TREATMENT NOTE: APPLY PENETRATING SEALER, PENETRATING CORROSION INHIBITING TREATMENT, TRAFFIC DECK COATING, AND/OR OTHER SURFACE TREATMENT AS INDICATED ON THE DRAWINGS. IF SURFACE TREATMENT IS NOT INDICATED, APPLY PENETRATING SEALER TO THE REPAIR AND EXTEND 6\"/>

**2 REPAIR TYPE FFR - FULL DEPTH FLOOR REPAIR DETAIL (REFERENCE DETAIL)**  
R4.1 NOT TO SCALE



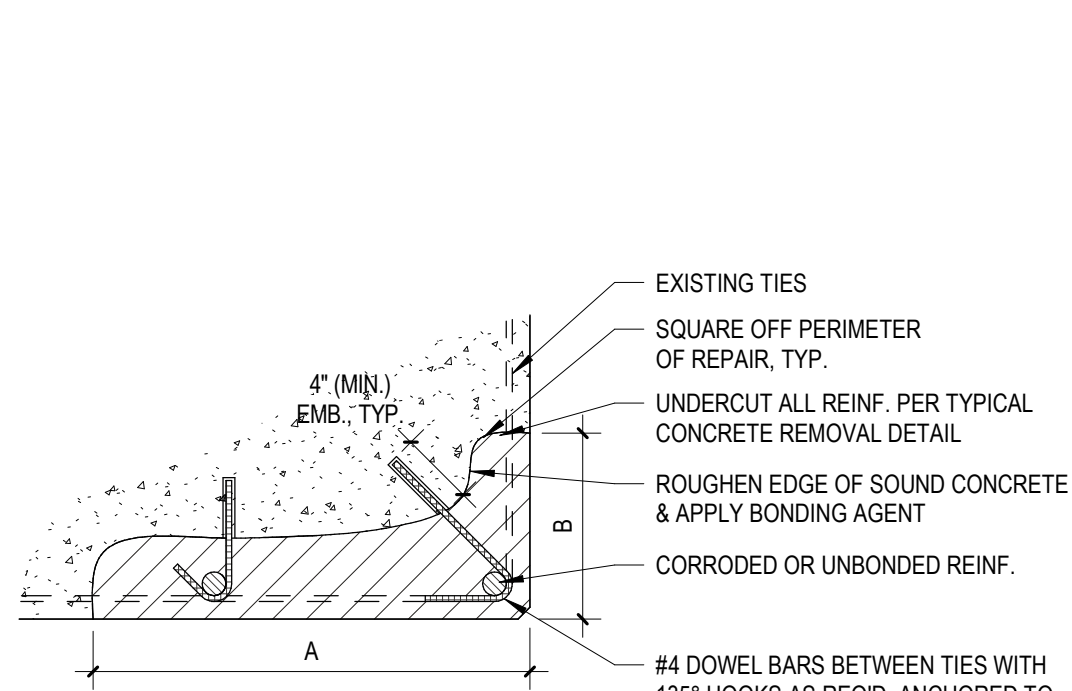
- REPAIR PROCEDURE:**
1. SEE REPAIR DETAIL GENERAL NOTES FOR TYPICAL CONCRETE REPAIR PROCEDURES.
  2. APPLY REPAIR MORTAR APPROVED BY THE ENGINEER AS INDICATED IN THE SHADED AREA WITH FORMED AND PUMPED CONCRETE OR OTHER APPROVED METHOD AT CONTRACTOR'S OPTION. SEE SPECS FOR ADDL. INFO.
  3. DAMAGED PIT TENDONS SHALL BE REPAIRED PER REPAIR TYPES PTS & PTR.
  4. DO NOT UNDERCUT PIT TENDONS WITHOUT ENGINEER'S APPROVAL.

**3 REPAIR TYPE OSR - OVERHEAD SURFACE REPAIR DETAIL**  
R4.1 1\"/>



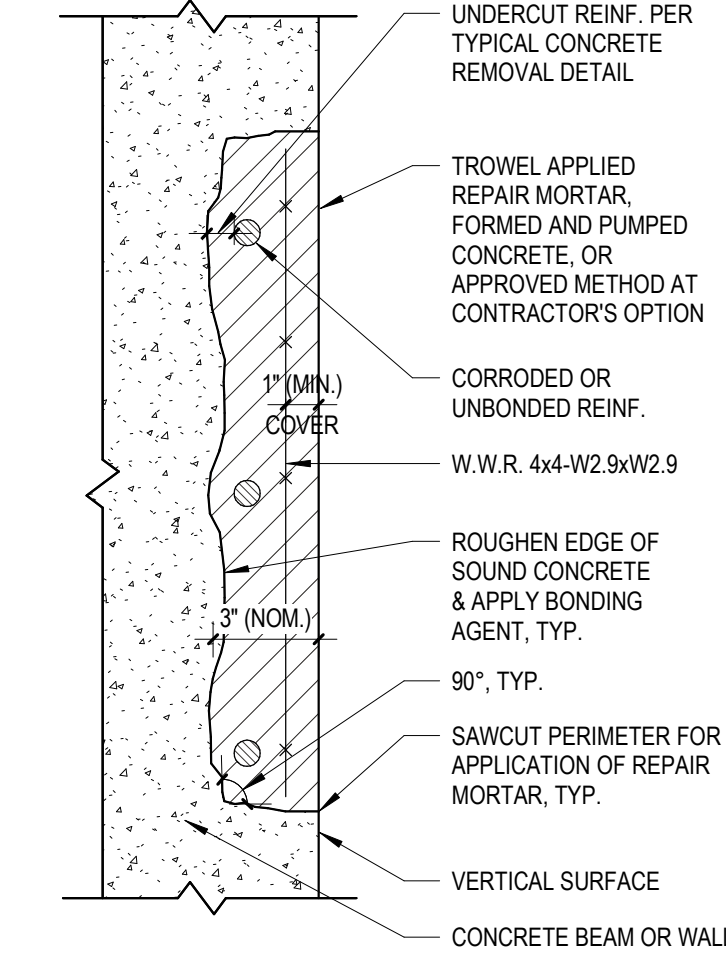
- REPAIR PROCEDURE:**
1. SEE REPAIR DETAIL GENERAL NOTES FOR TYPICAL CONCRETE REPAIR PROCEDURES.
  2. FOR CAVITIES DEEPER THAN 6\", PROVIDE #4 ADHESIVE DOWEL BARS WITH 135° HOOKS IN BETWEEN STIRRUPS AT A MAXIMUM SPACING OF 6\"/>

**4 REPAIR TYPE OBR - OVERHEAD BEAM REPAIR DETAIL**  
R4.1 1\"/>

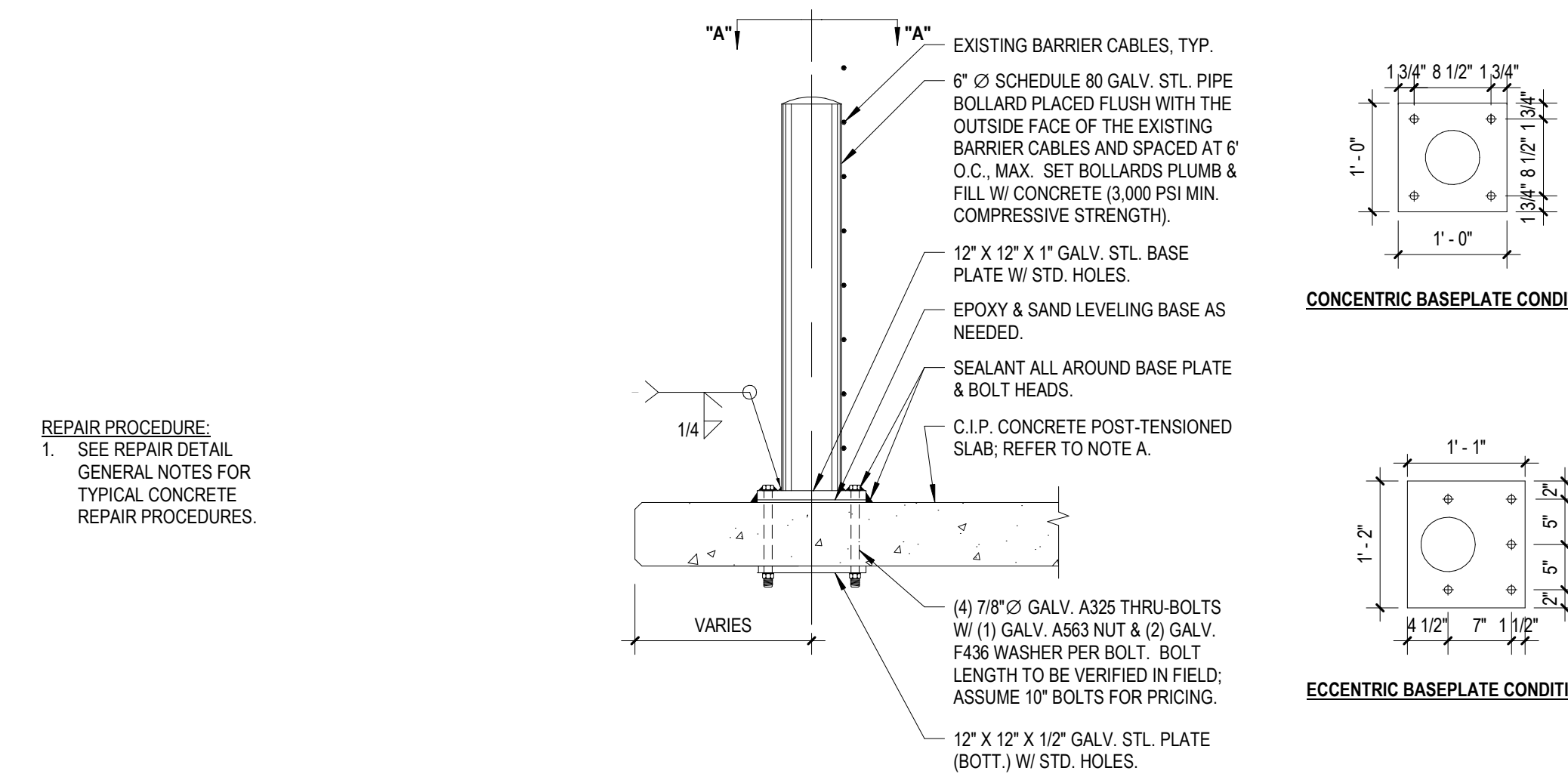


- REPAIR PROCEDURE:**
1. SEE REPAIR DETAIL GENERAL NOTES FOR TYPICAL CONCRETE REPAIR PROCEDURES.
  2. FOR CAVITIES DEEPER THAN 6\", PROVIDE #4 ADHESIVE DOWEL BARS WITH 135° HOOKS IN BETWEEN TIES AT A MAXIMUM SPACING OF 6\"/>

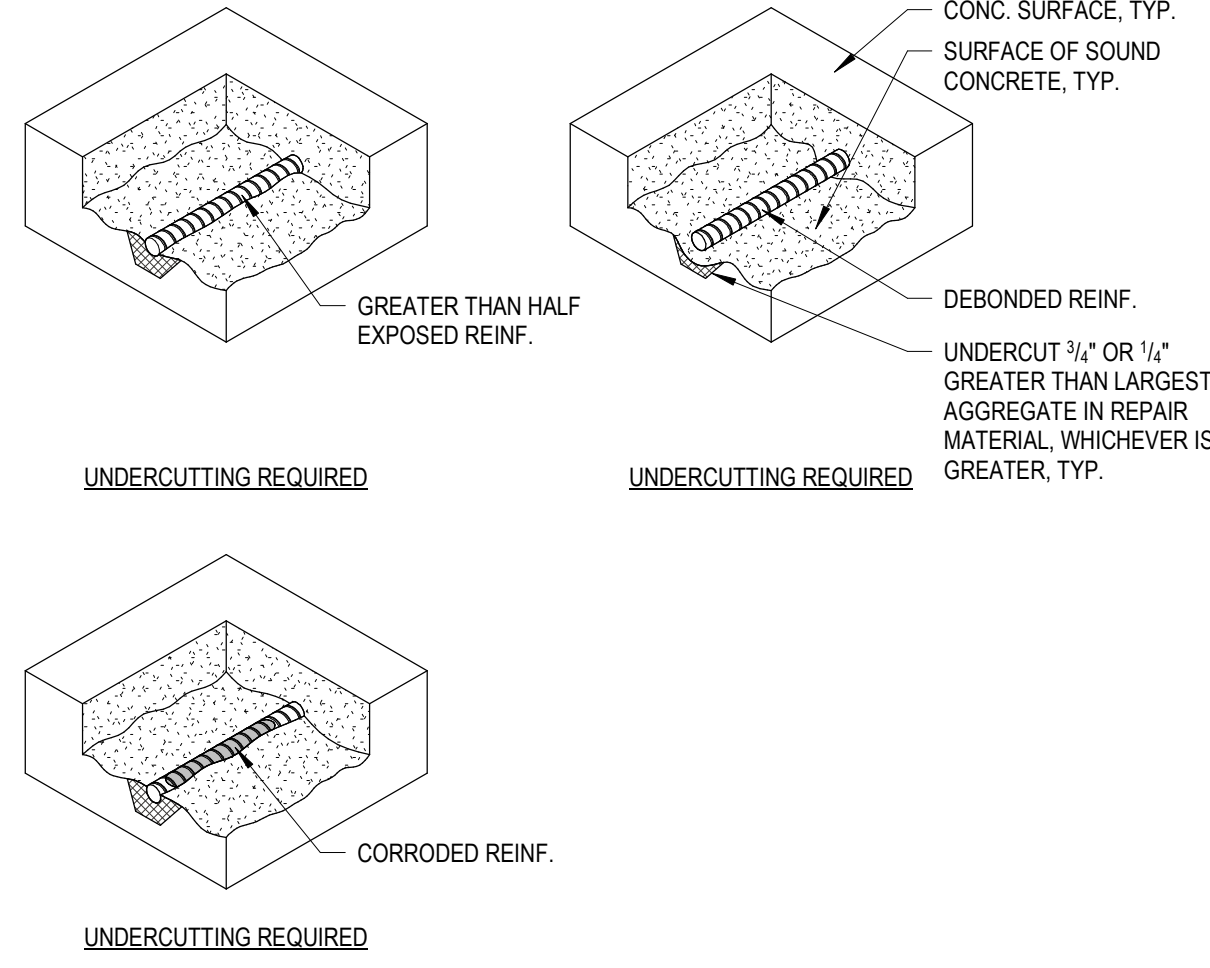
**5 REPAIR TYPE CR - COLUMN REPAIR DETAIL**  
R4.1 1\"/>



**6 REPAIR TYPE VR - VERTICAL REPAIR DETAIL**  
R4.1 1\"/>

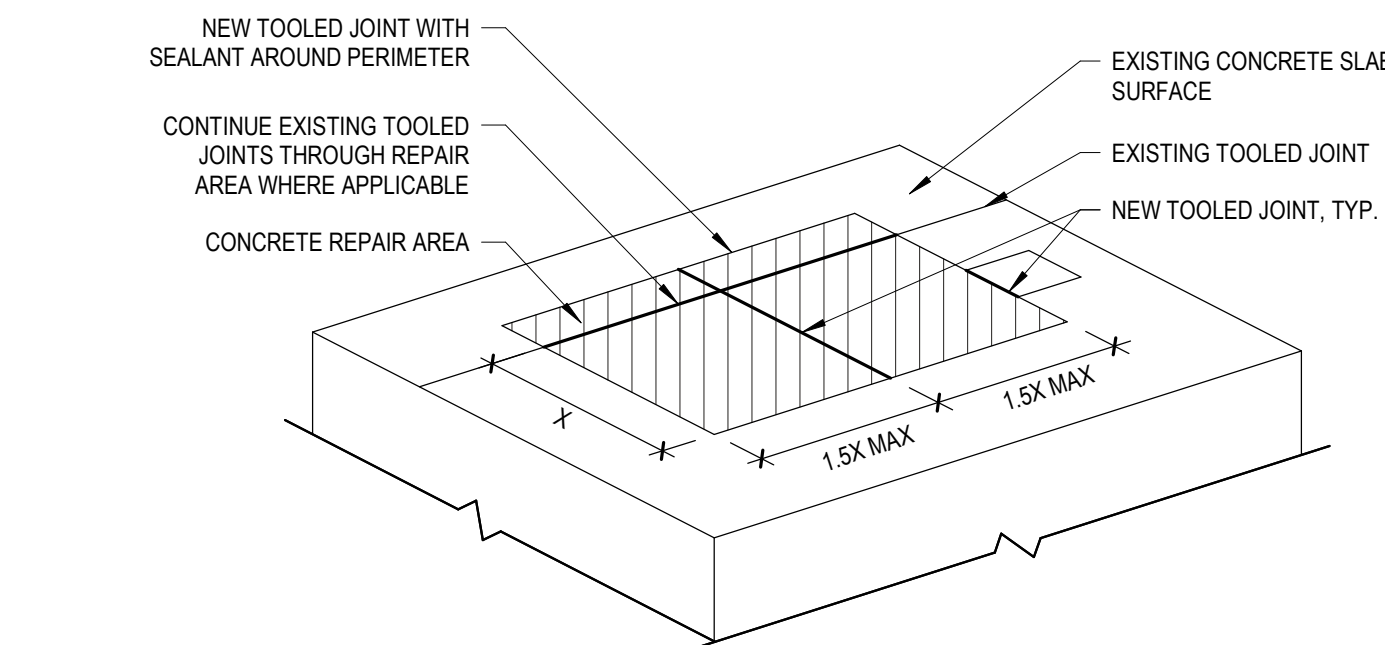


**7 REPAIR TYPE PBI - PIPE BOLLARD INSTALLATION DETAIL**  
R4.1 NOT TO SCALE



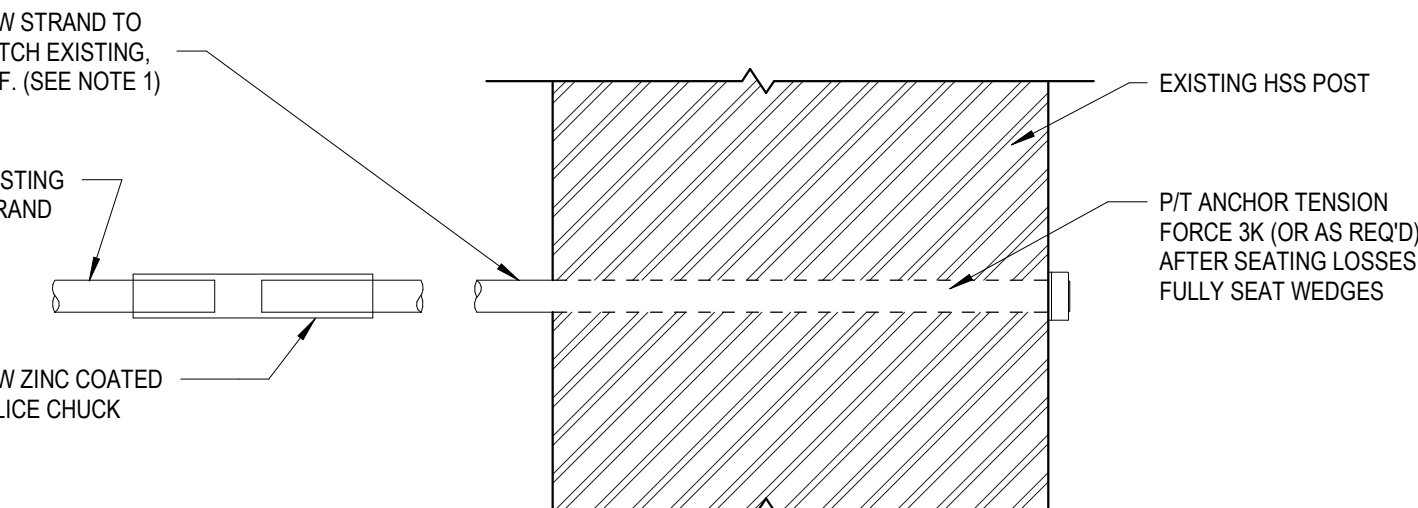
- NOTES:**
1. SEE REPAIR DETAIL GENERAL NOTES FOR ADDITIONAL INFORMATION.
  2. UNDERCUTTING REQUIRED AT ALL VERTICAL AND OVERHEAD SURFACES.
  3. ANY REINFORCEMENT WITH SECTION LOSS GREATER THAN 20% SHALL BE REPLACED.
  4. ALL REBAR SHALL BE SANDBLASTED CLEAN AND TREATED WITH CORROSION INHIBITING COATING MATERIALS PER SPECIFICATIONS.

**9 TYPICAL CONCRETE REMOVAL DETAIL**  
R4.1 NOT TO SCALE



- NOTES:**
1. IF NO EXISTING TOOLED JOINT IS PRESENT, DIMENSION 'X' SHALL REFER TO THE FULL WIDTH OF THE REPAIR.
  2. PROVIDE TOOLED JOINTS SUCH THAT DIMENSION 'X' IS NO GREATER THAN 6 FEET AT ANY REPAIR LOCATION. REFER TO REPAIR TYPE FCS / SR FOR TOOLED JOINT DIMENSIONS AND ADDITIONAL INFORMATION.

**10 TYPICAL CONTROL JOINT DETAIL**  
R4.1 NOT TO SCALE



- NOTES:**
1. REMOVE AND REPLACE BARRIER CABLE PER MANUFACTURER'S REQUIREMENTS.
  2. UNIT OF REPAIR IS EACH AND INCLUDES (2) NEW ANCHORAGE DEVICES AND 5 LF OF ADDITIONAL CABLE.

**8 REPAIR TYPE BCR - BARRIER CABLE REPAIR**  
R4.1 1\"/>

- REPAIR DETAIL GENERAL NOTES:**
1. REFER TO SHEET R0.1 FOR GENERAL NOTES.
  2. REFER TO RESTORATION PLANS FOR APPROXIMATE SIZE AND LOCATIONS OF REPAIR AREAS. NOT ALL REPAIRS APPLY TO ALL GARAGES.
  3. DETAILS SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY. EXACT CONDITIONS VARY (i.e. DIMENSIONS, REBAR, ANODES, ETC.).
  4. TYPICAL CONCRETE REPAIR PROCEDURES ARE AS FOLLOWS, U.N.O.:
    - A. THE DRAWINGS INDICATE THE AREAS THAT HAVE BEEN DETERMINED TO REQUIRE REPAIR PER ENGINEER'S FIELD SURVEY. CONTRACTOR SHALL SOUND SURFACES WITH HAMMER, ROD, CHAIN, OR APPROPRIATE TOOL TO DETECT DELAMINATION EXTENTS. SEE "GENERAL SURFACE PREPARATION" ON SHEET R0.1.
    - B. SAWCUT 1/2\"/>

PROJECT NO.  
ATL23110.01  
PROJECT

**MEMPHIS DOWNTOWN PARKING FACILITIES**

2024 RESTORATION

SUBMISSIONS / REVISIONS  
**05/03/2024**  
ISSUED FOR BID

NO.	DESCRIPTION	DATE

DRAWN: **DJB**  
REVIEWED: **SHH**  
DATE: **03/08/2024**

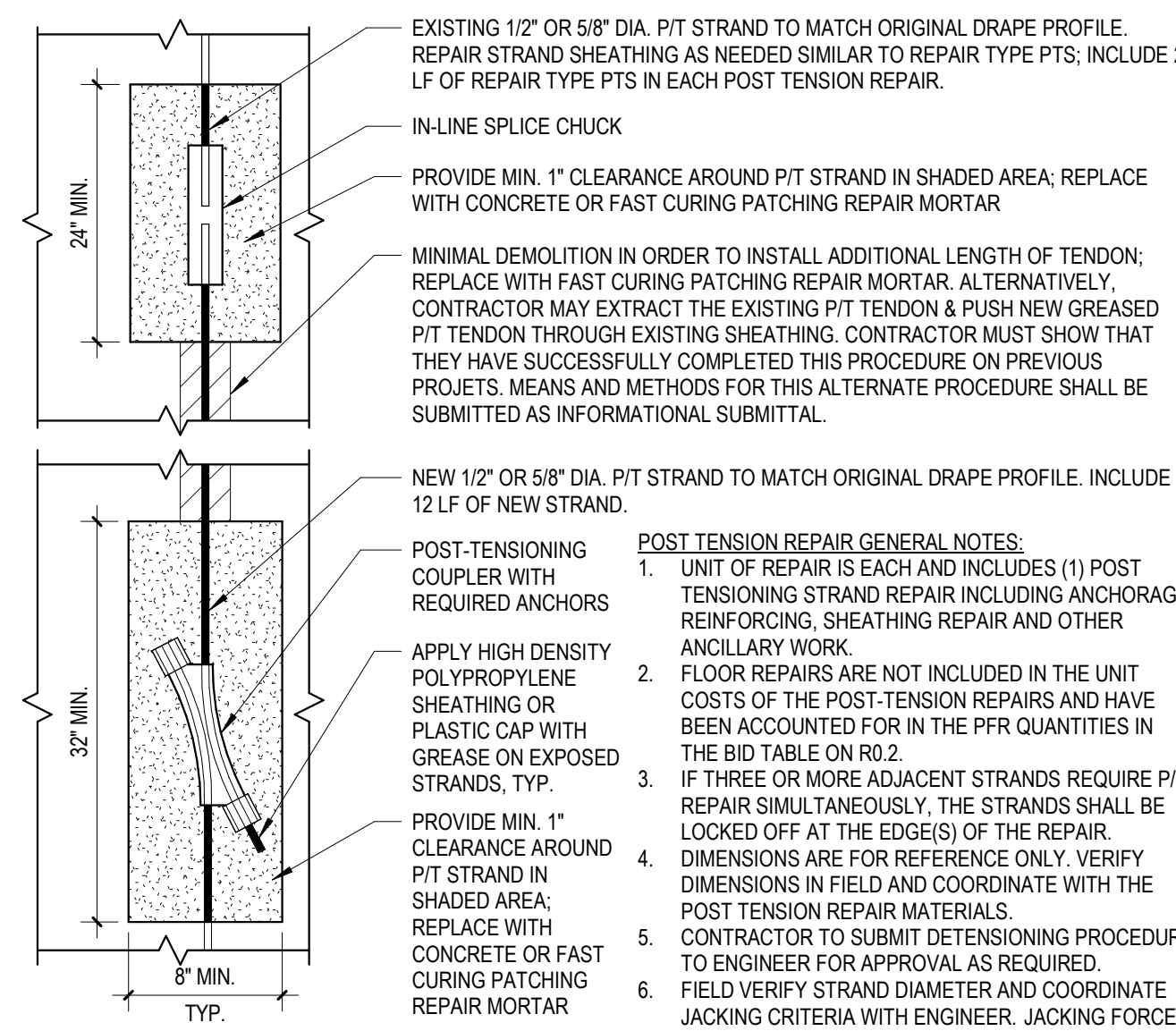
SHEET TITLE:  
**RESTORATION REPAIR DETAILS**

SHEET NO.

**R4.1**

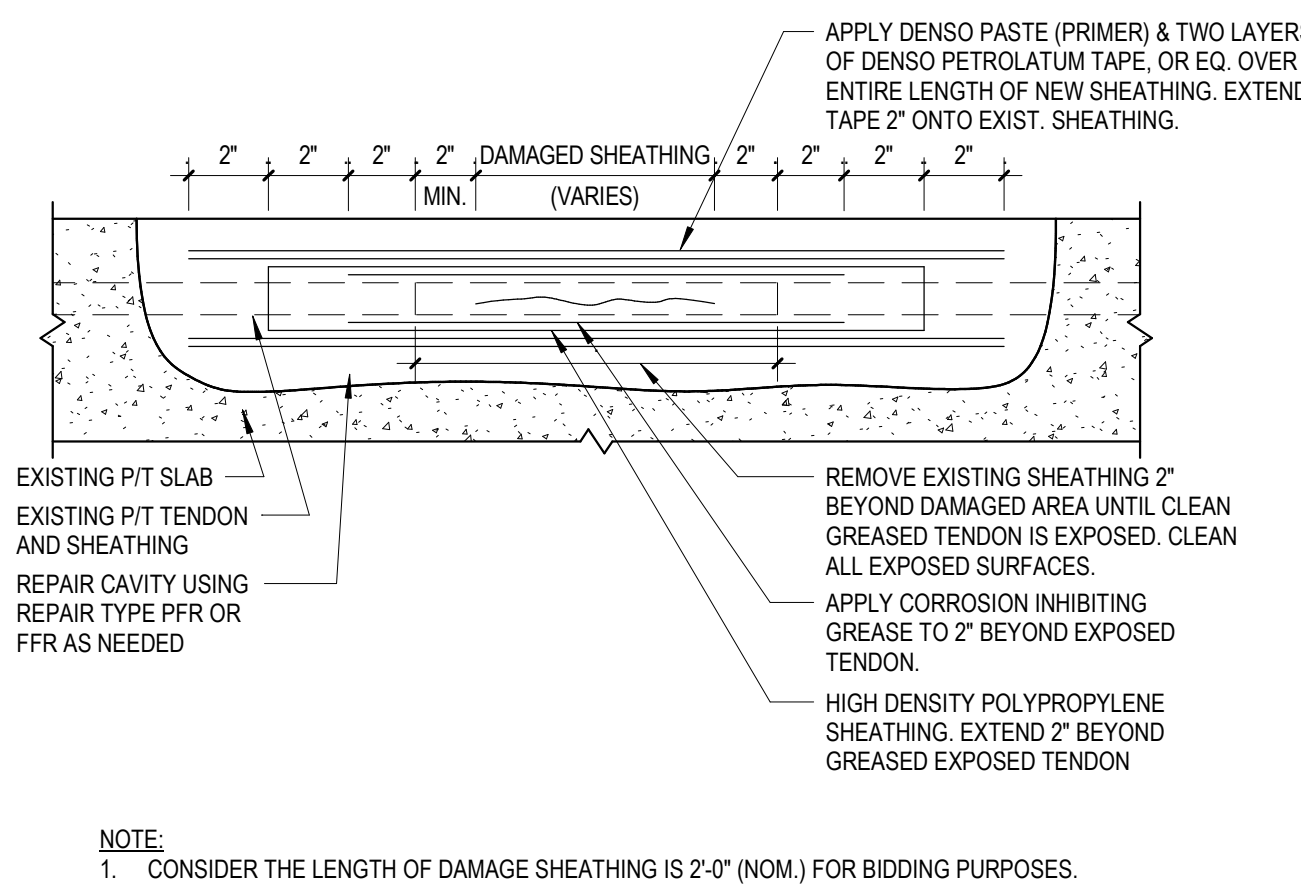
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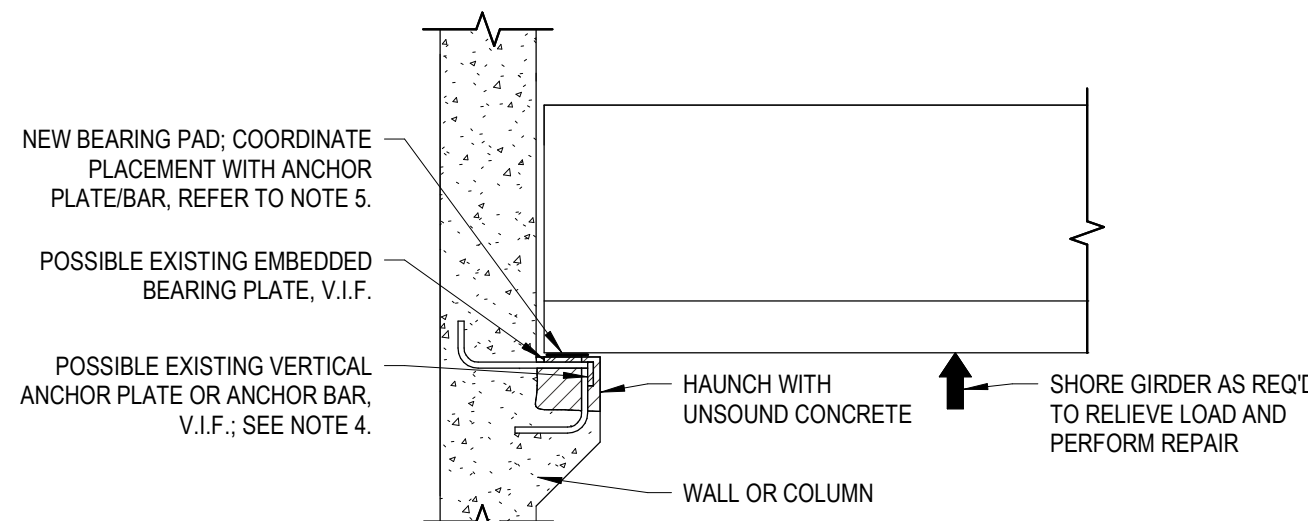
1 REPAIR TYPE PTR - P/T TENDON SPLICE REPAIR DETAIL

1\"/>



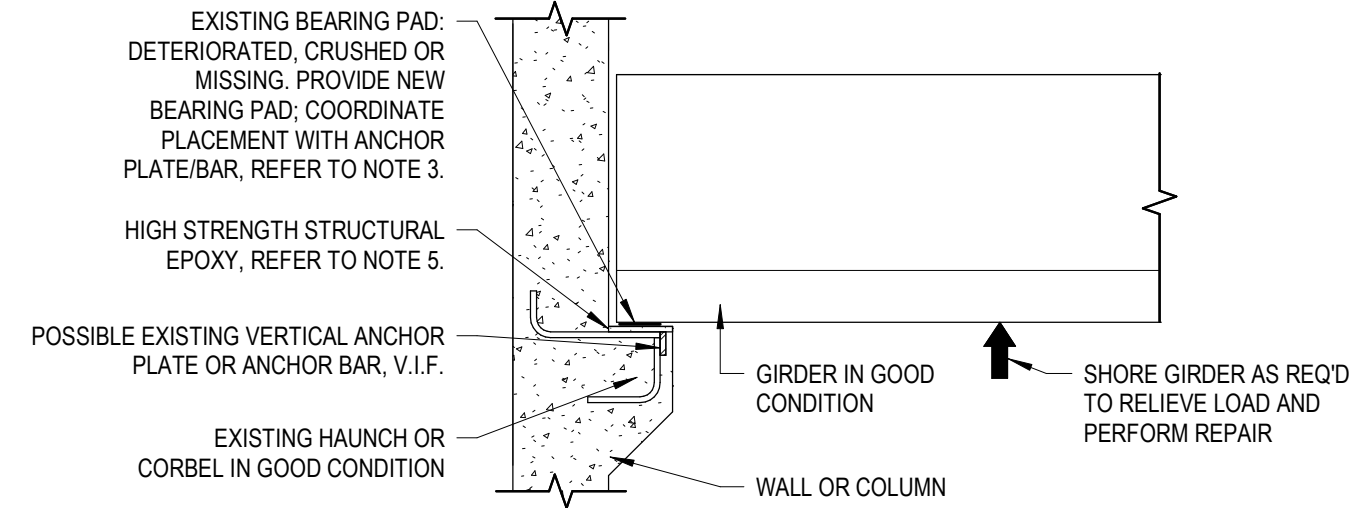
2 REPAIR TYPE PTS - P/T TENDON SHEATHING REPAIR DETAIL

1\"/>



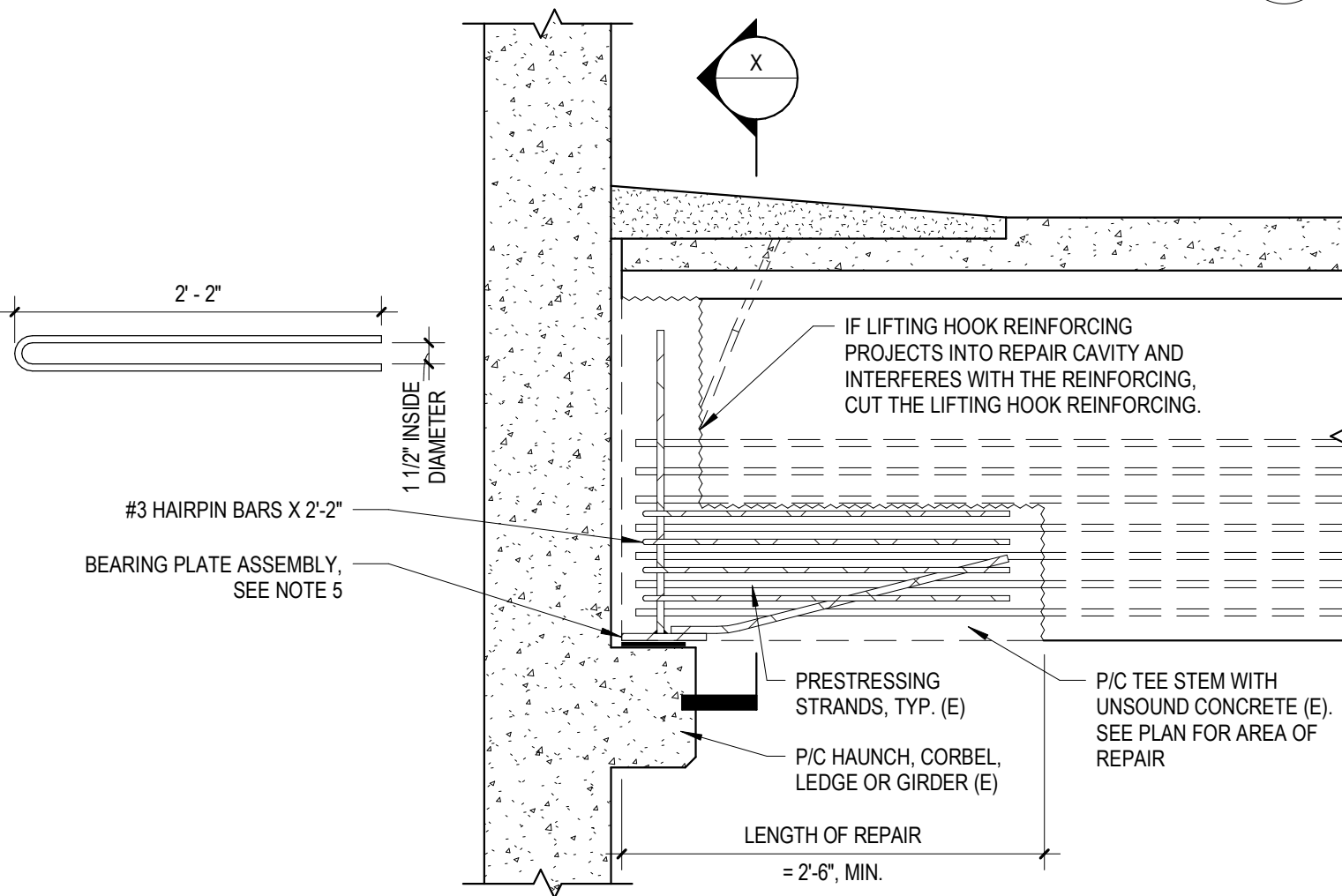
3 REPAIR TYPE HRG - GIRDER HAUNCH REPAIR DETAIL

1\"/>



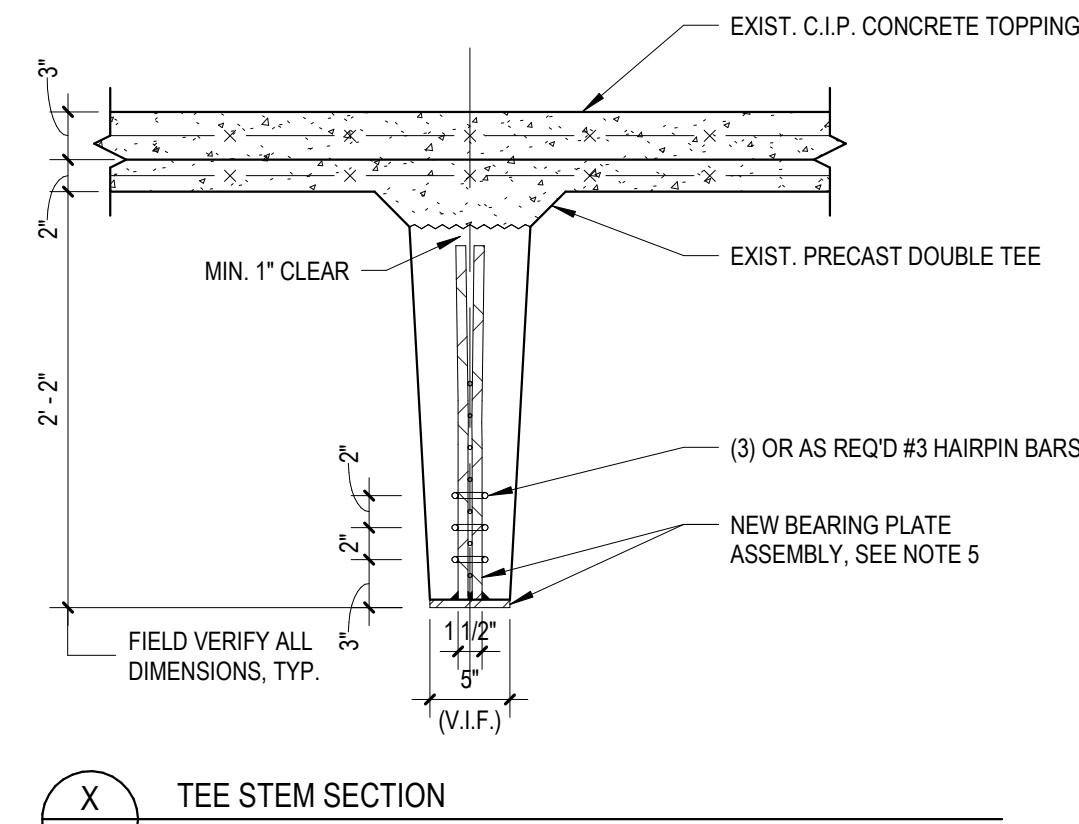
4 REPAIR TYPE GBPR - GIRDER BEARING PAD REPLACEMENT DETAIL

1\"/>



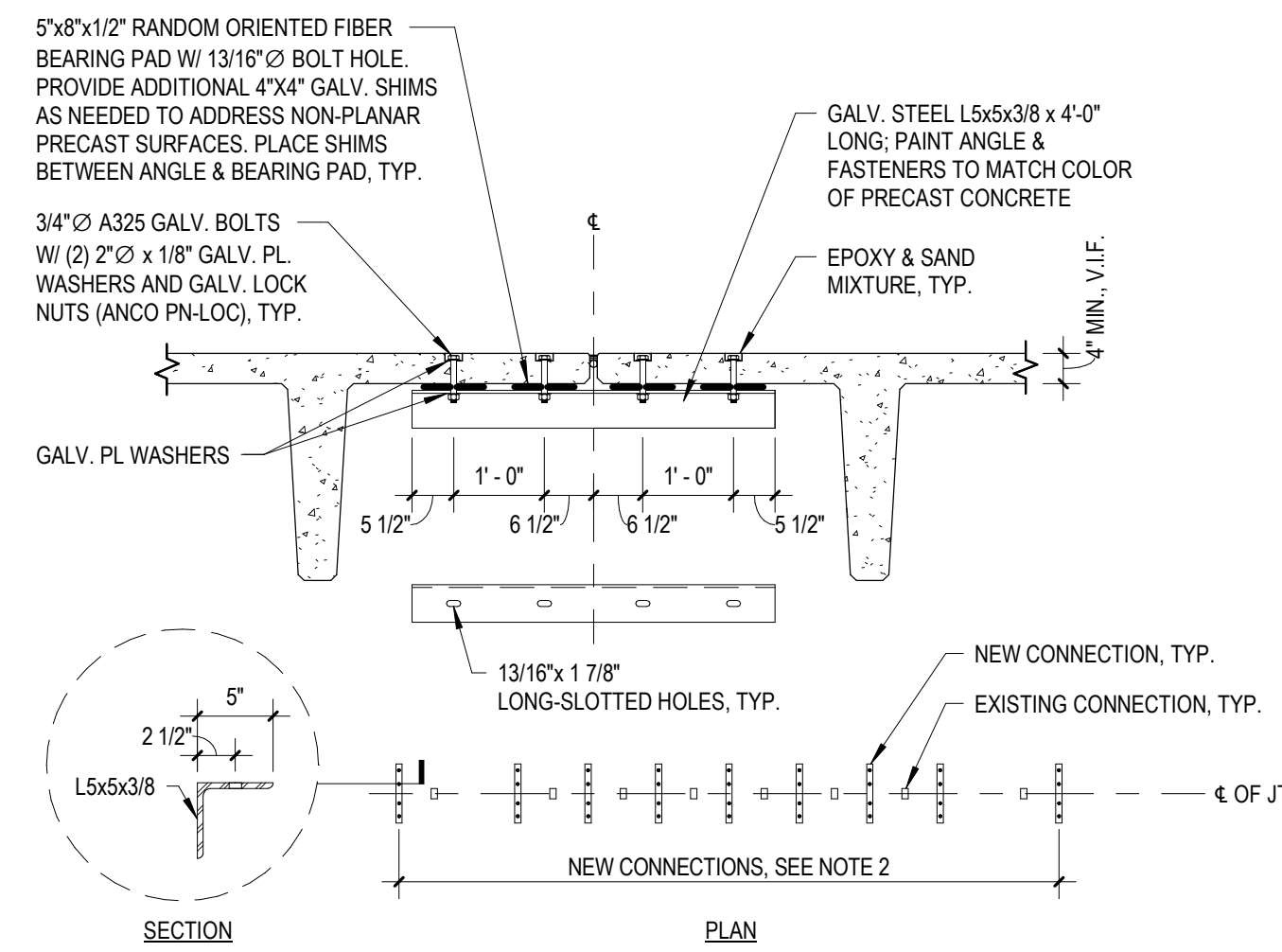
5 REPAIR TYPE TSR1 - TEE STEM SHEAR REPAIR DETAIL - NON-DAPPED END

1\"/>



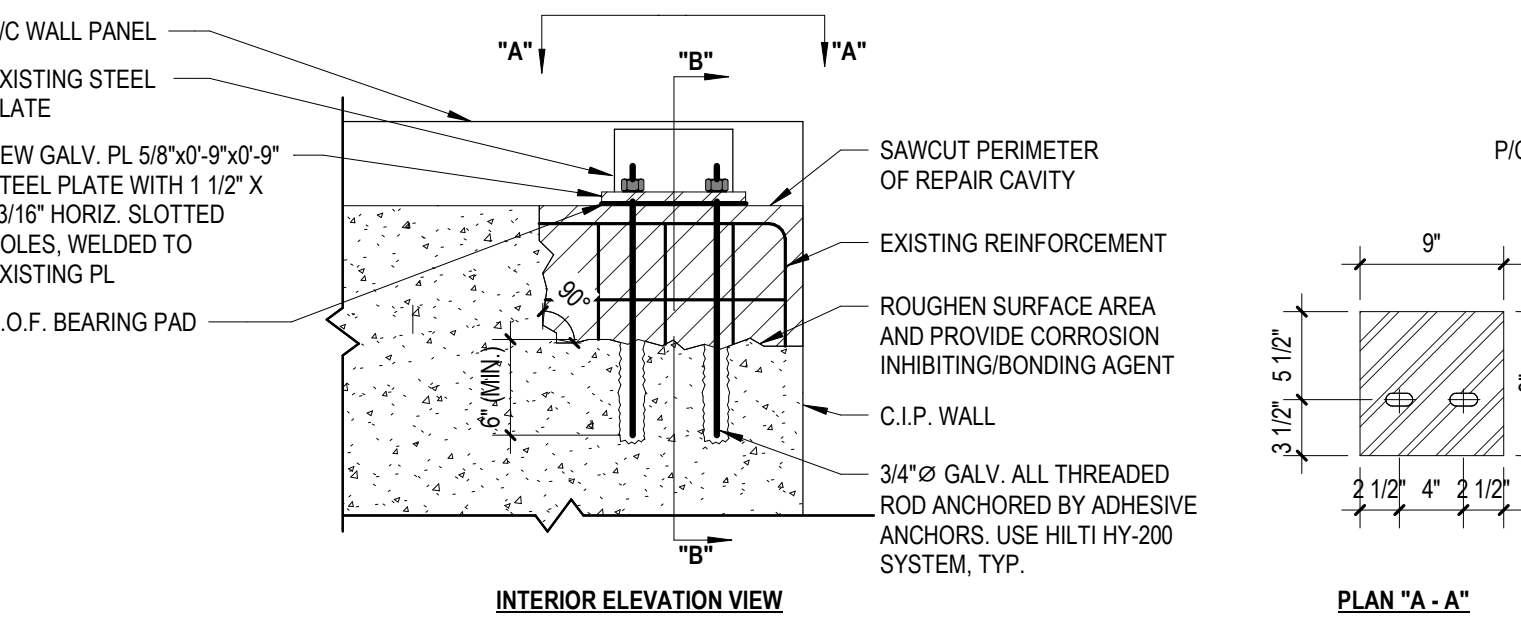
6 REPAIR TYPE TTC5 - TEE-TO-TEE CONNECTION REPAIR DETAIL (ANGLE CONN.)

1\"/>



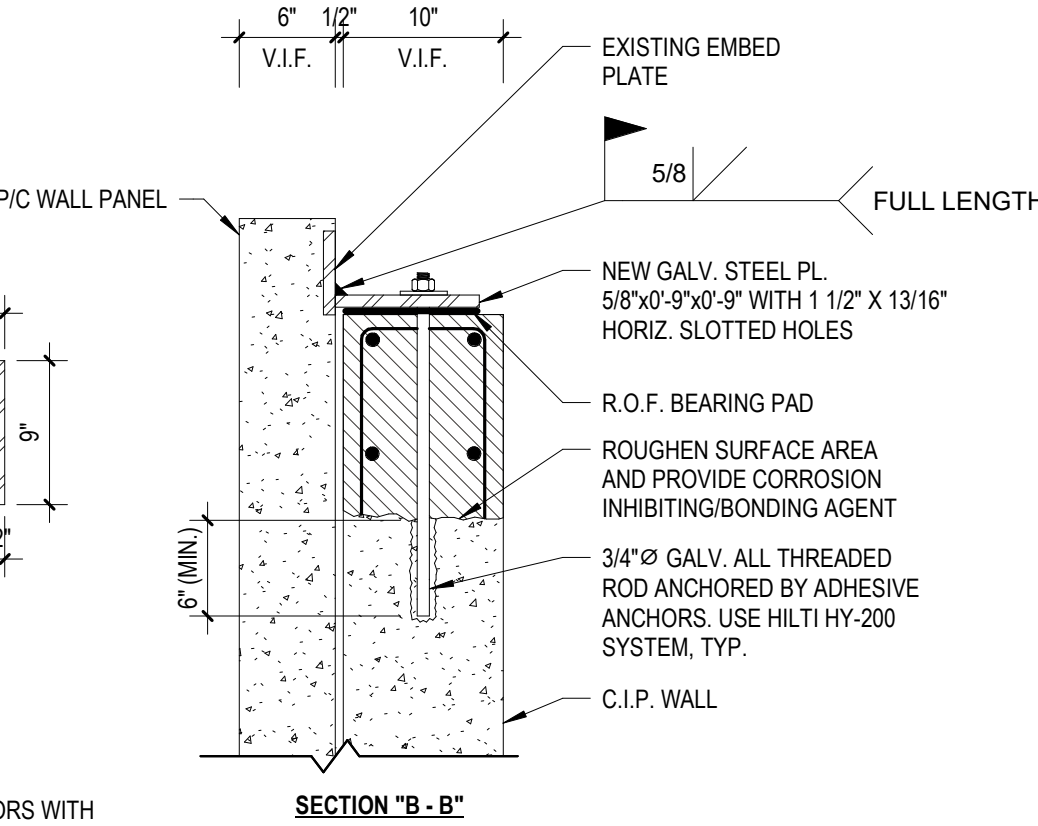
7 REPAIR TYPE STA - STEEL TRANSFER ANGLE REPAIR DETAIL

1\"/>



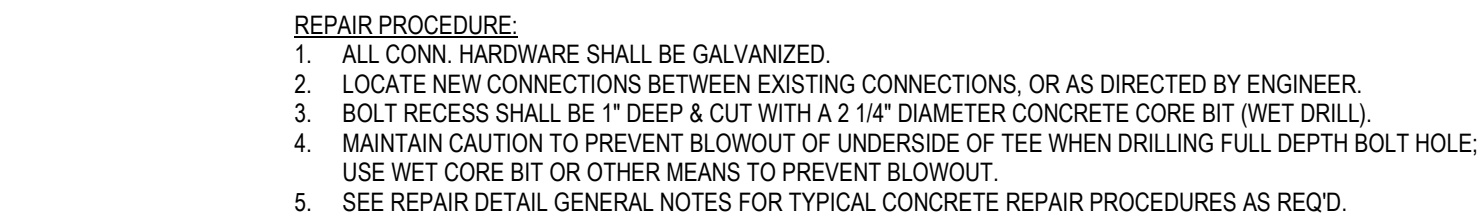
8 REPAIR TYPE PCR - P/C PANEL CONNECTION REPAIR

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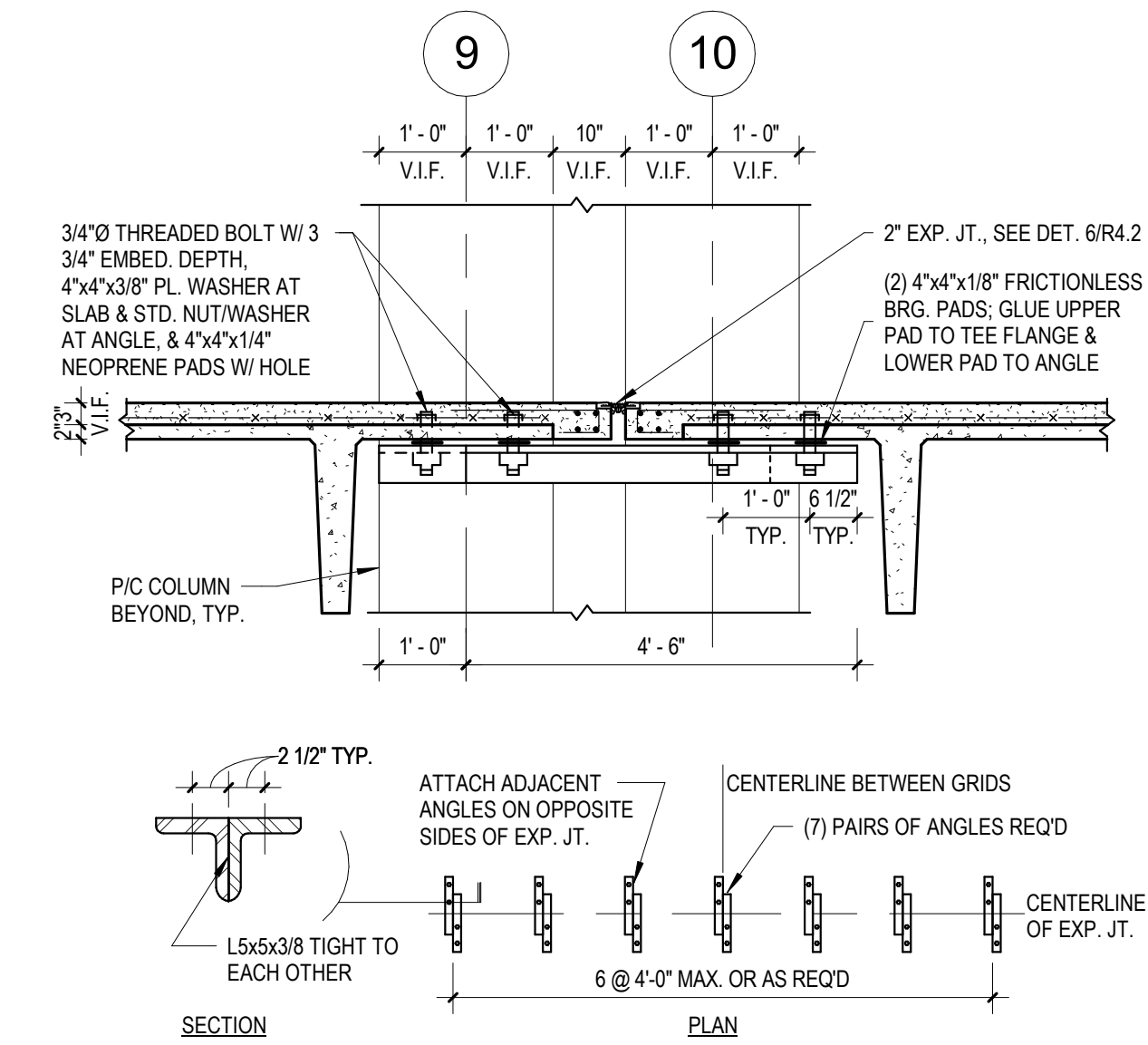
9 REPAIR TYPE FCS - FLOOR CRACK REPAIR DETAIL

1\"/>



10 REPAIR TYPE RGI - RAILING/GAURDRAIL INSTALLATION

1\"/>



NOTES:  
1. ALL CONNECTION HARDWARE SHALL BE GALVANIZED.  
2. ALIGN BOLT HOLES (DRILLED IN P/C TEES) & ANGLES WITH DIRECTION OF MOVEMENT (PERPENDICULAR TO LENGTH OF TEES) TO ALLOW FREE MOVEMENT.

NO.	DESCRIPTION	DATE

DRAWN: DJB  
REVIEWED: SHH  
DATE: 03/08/2024

SHEET TITLE:  
RESTORATION REPAIR DETAILS

SHEET NO.

