

**CONDITION APPRAISAL
(FY 2020)**

**UNDER AIR RIGHTS GARAGE SURFACE PARKING LOT
NEW HAVEN, CONNECTICUT**



**NEW HAVEN
PARKING
AUTHORITY**

PREPARED FOR:

NEW HAVEN PARKING AUTHORITY

232 GEORGE STREET

NEW HAVEN CONNECTICUT 06510

PREPARED BY:

DESMAN
Design Management

175 CAPITAL BOULEVARD, SUITE 402

ROCKY HILL, CONNECTICUT 06067

NHPA PROJECT No. 20-001

DESMAN PROJECT No. 20-19171.00-2

APRIL 2020



CONDITION APPRAISAL

UNDER AIR RIGHTS GARAGE SURFACE PARKING LOT

NEW HAVEN PARKING AUTHORITY FACILITIES NEW HAVEN, CONNECTICUT

APRIL 2020

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1. INTRODUCTION

The Condition Appraisal of the Under Air Rights Garage Surface Parking Lot (UARG) space was performed by DESMAN in accordance with the executed agreement by and between the New Haven Parking Authority and DESMAN (NHPA Project No. 20-001).

The primary objectives of this appraisal are as follows:

- A. Perform a detailed, on-site inspection and observation of the UARG space with technical support from DESMAN's applicable sub-consultants.
- B. Compare the results of the inspection with those addressed in the 2019 Condition Appraisal Report prepared previously by DESMAN.
- C. Prepare a report detailing the findings of the survey including, but not limited to, an update of the estimated construction costs, along with priorities for the various repairs, and recommended capital reserves (future repair and maintenance), to allow the New Haven Parking Authority flexibility in the implementation of structural repairs, mechanical and electrical modifications, and architectural improvements.



2. EXECUTIVE SUMMARY

Below the Air Rights Garage is a surface parking lot, comprised of bituminous concrete (asphalt) pavement, known as the Under Air Rights Garage Surface Parking Lot (UARG). This lot, opened on October 3, 1988 and consisting of 182 parking spaces, is shared in use for access to a truck loading dock at the west end serving Yale-New Haven Hospital/Smilow Cancer Hospital and 55 Park Street. This 32 year old surface lot is generally in good condition.

Currently there are three (3) projects in design or construction which represent a combined project cost of approximately \$311,000 (including contingencies and design/management fees). Between 2021 and 2025, an additional expenditure of approximately **\$100,050.00** can be expected to properly maintain this portion of the Under Air Rights Garage Surface Parking Lot over the next five (5) years.

Access stairs to the Air Rights Garage's boiler room and electrical room on the south side of the facility had previously been installed, so new stairs were recently installed this past year to the mechanical/electrical rooms on the north side of the facility. Limited areas of bituminous concrete pavement and curbing had been repaired, as part of the construction project completed in FY 2010, and nominal additional repairs are anticipated to be addressed this coming year as well, as part of PNH Project #18-011A.

New lighting and related miscellaneous electrical repairs are also being addressed shortly, with a project currently in design.

For the purposes of this facility's assessment "Common Elements" shall mean those elements of the Under Air Rights Garage (UARG) space for which NHPA and YNHH shall each pay their respective Pro Rata Share for the maintenance expenses, operating expenses, and capital expenses. The common elements are depicted on the Map as "YNHH and NHPA to Jointly Maintain" and also include the exit roadway from the gate machines to the Roundabout and the stairways from UARG to the South Frontage



Road and the cross-over stairways over the centerline axis of the UARG space (*Reference Appendix "A": Tighe & Bond, Under Air Rights Garage Land Use Plan, Figure 01, December 2015*). This report addresses anticipated maintenance and capital expenses; operating expenses are not part of the scope of this report.

It is important to note that the evaluation of the UARG space does not include the evaluation of the ramps that provide direct access and egress for the upper level parking to the service roads (former Route 34 Connector) as the evaluation of these ramps will be included in the evaluation of the Air Rights Garage. The evaluation of the under-space is also not inclusive of the space at the west end of the garage's under-space, beyond the chain-link security fence enclosure, and which are part of the 55 Park Street Building and loading dock service area (**Photos #1 & #2**).

In all instances where repair costs are to be shared between the New Haven Parking Authority (NHPA) and Yale New Haven Hospital (YNHH), we have distributed costs appropriately and proportionally as instructed by the New Haven Parking Authority, pursuant to a NHPA/YNHH agreement.

As with the balance of the New Haven Parking Authority's other parking facilities, DESMAN suggests that a prioritized restoration program, similar to that which is outlined in the table at the end of this section and itemized in more detail in Section 5 of this report, be followed. These recommendations, while prioritized into a five (5) year repair program, could be performed in one single and more comprehensive construction project; possibly resulting in some cost savings.

Per agreement with Connecticut Mental Health Center, NHPA will provide four electric vehicle charging stations in UARG.



Photo #1



Photo #2



The Capital Projects currently in progress consist of the following:

PROJECT NUMBER	PROJECT TITLE	OPINION OF COST*	STATUS
18-003	Lighting & Electrical Repairs and Improvements	\$160,000	In Design
18-011A	Drainage & Pavement Repairs	\$86,000	In process of being awarded
20-035	Electric Vehicle Charging Stations	\$65,000	Planning/ Pre-design

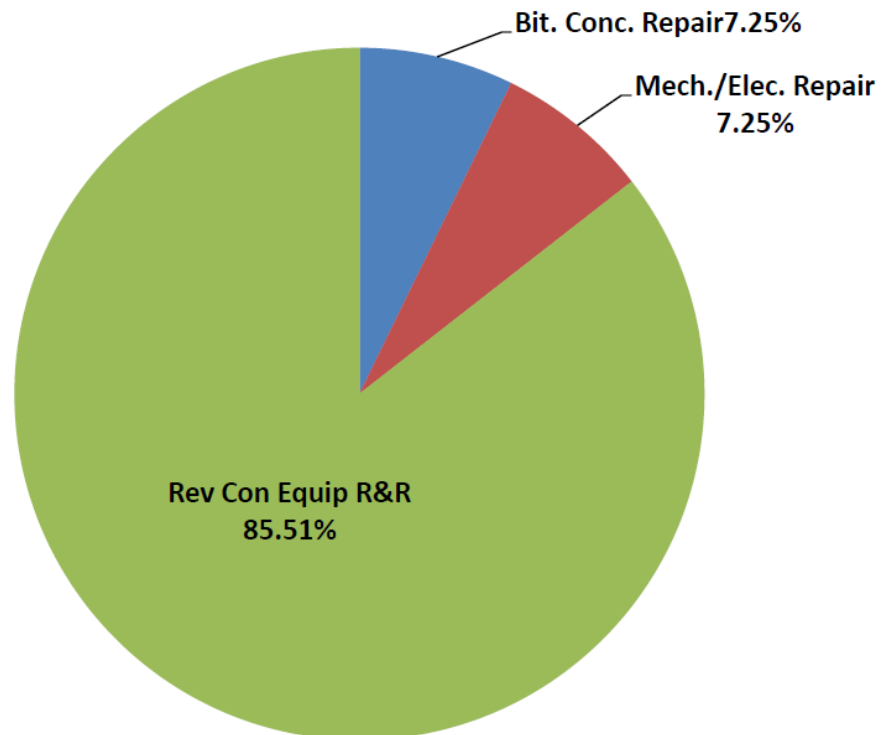
* Rounded, Inclusive of Contingencies, Engineering and Program Management costs.

The repairs recommended to be performed over the next five years have been prioritized into three courses of action: Prioritized Repairs (FY 2021), Early Repairs (FY 2022), Programmed Repairs (FY 2023), and Long-Term repairs (FY 2024 – FY 2025). The table below is a summary of Desman's opinion of construction cost for each category of work.

RECOMMENDED REPAIR PROGRAM	OPINION OF CONSTRUCTION COST
Prioritized Repairs (FY 2021)	\$0.00
Early Repairs (FY 2022)	\$0.00
Programmed Repairs (FY 2023)	\$0.00
Long-Term Repairs (FY 2024 – 2025)	\$100,050.00
TOTAL OPINION OF COST	\$100,050.00

To further summarize, the projected costs may be split into the following discipline categories, in accordance with the associated percentages, as represented by the following pie chart:

Bituminous Concrete Repair:	7.25%
Mechanical/Electrical Repair:	7.25%
<u>Revenue Control Equipment R&R:</u>	<u>85.51%</u>
	100.00%



Recommended Repairs & Improvements split into Disciplines



3. DESCRIPTION OF THE STRUCTURE



Photo #3



Photo #4

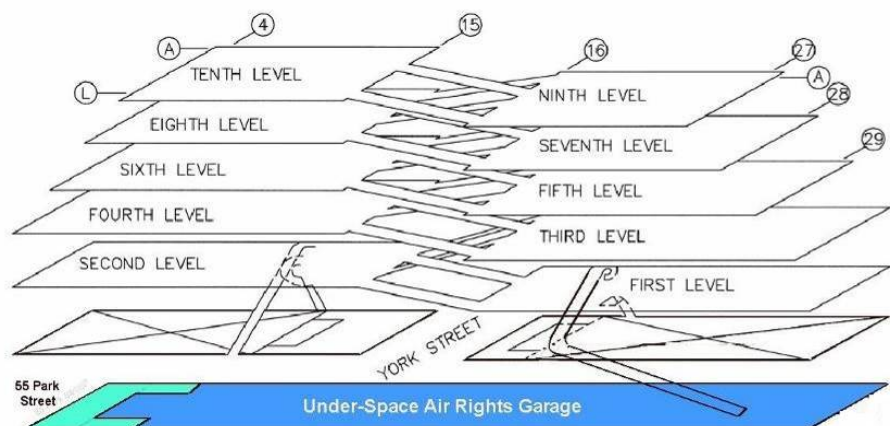


Photo #5



Photo #6

The Under Air Rights Garage (UARG) space is a parking area for approximately 180 cars located directly below Air Rights Parking Garage, and encompasses a section of now abandoned roadway right-of-way which was originally intended as an extension of Route 34 Connector. The total parking capacity of the area was reduced by approximately 40% due to the construction of 55 Park Street Building and its loading dock area (**Photo #3**), as well as the construction of new entrance and exit ramps from Air Rights Garage providing direct access and egress to the service roads at highway level and points east (**Photo #4**). The exit ramp has allowed the elimination of direct exit egress from the Garage to South Frontage Road, although the older exit driveway can still be utilized in emergencies if the Route 34 Connector or the new exit is ever temporarily closed. A garage entry ramp from Highway Level was also constructed as part of the City's Downtown Crossing project.



Vehicular access is provided directly from and to service roads at highway level, which has been constructed as part of the Downtown Crossing and 100 College Street development projects (**Photos #5, #6 & #7**).



Photo #7

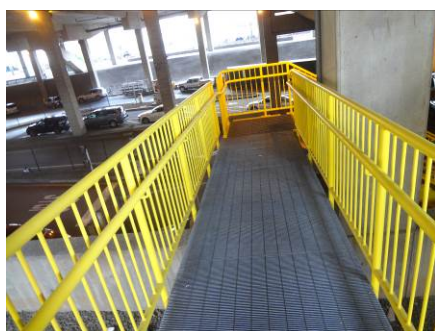


Photo #8

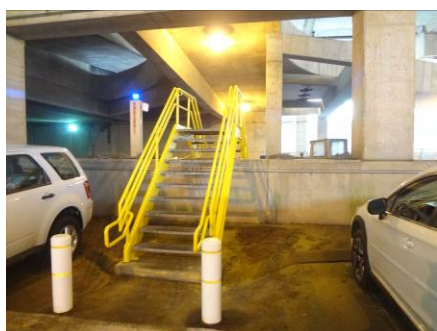


Photo #9

Pedestrian access to the UARG space is provided via two galvanized and painted open grate steel access stairs to South Frontage Road; one located to either side of York Street, east and west. No handicap access is currently provided to this lower level parking, though there has been some discussion of the possibility of providing some form of elevator access from the street to the lower level parking. The cost of such a modification is beyond the scope of this report.

The lower level parking is separated into two parking bays by the center column line and what was originally intended to be a divider between the originally intended east and west traffic lanes of the Route 34 Connector. For pedestrian egress across the divider, there are two galvanized and painted open grate steel access stairs; similarly these stairs are located on the east and west portions of the lower parking area (**Photo #8 & #9**).

There is an agreement by and between the New Haven Parking Authority (NHPA) and Yale-New Haven Hospital, Inc. (YNHH) which stipulates or otherwise defines areas to be maintained by NHPA and those which are defined as “Common Elements”, or those elements of the UARG space for which NHPA and YNHH shall each pay their respective Pro Rata Share for the maintenance expenses, operating expenses and capital expenses.

The common elements are depicted on the Map as “YNHH and NHPA to Jointly Maintain” and also include the entry and exit driveway segments from the gate machines to the east property line and the stairways from UARG to the South Frontage Road and the cross-over stairways over the centerline axis of the UARG. (*Reference Appendix “A”: Tighe & Bond, Under Air Rights Garage Land Use Plan, Figure 01, December 2015*).

Floor plans, displaying the basic architectural layout of the under garage are included in Appendix B – Schematic Floor Plans.

“Capital Expenses” shall mean costs and expenses attributable to major/capital, unusual or unanticipated items of renewal, replacement, and/or repair and which are properly treated as capital expenditures pursuant to generally accepted accounting principles.

“Maintenance Expenses” shall mean the following UARG costs and expenses reasonably incurred in maintaining and performing, as the case may be, the pavement; pavement markings; painting; signage; drain and drain lines; pressure washing; the lighting system (e.g., light fixtures, bulbs, conduits and wiring); and asphalt.

“Operating Expenses” shall mean the following operating costs and expenses reasonably incurred in operating the UARG space: electric utilities costs; snow and ice control; sweeping; the costs associated with procuring the Annual Conditions Survey; administrative; maintenance; personnel costs; uniforms; and janitorial items [An evaluation of operating costs is not included as part of this study].

“NHPA Elements” shall mean the elements of the UARG space for which NHPA shall be solely responsible for paying all Maintenance Expenses, Operating Expenses, and Capital Expenses attributable thereto. The NHPA Elements are depicted on the Map as “NHPA to Maintain.”

“YNHH Elements” shall mean the elements of the UARG space for which YNHH shall be solely responsible for paying all Maintenance Expenses, Operating Expenses, and Capital Expenses attributable thereto. The YNHH Elements are depicted on the Map as “YNHH/Others to Maintain” and specifically include, without limitation, the YNHH Traffic Control System and the area depicted on the Survey as the emergency generator and the security cable conduit.

“YNHH Traffic Control System” shall mean the lanes, gates, machines, conduits, wiring, communications, and security cameras associated with YNHH’s separate and exclusive traffic access control system within the UARG space.



NHPA shall exercise exclusive control over the “NHPA Elements” and the “Common Elements”. YNHH and the Developer of 55 Park Street shall exercise exclusive control, as they may agree, over the “YNHH Elements”.

Each party shall keep and maintain the area or areas under its exclusive control in a good, clean and safe condition; shall make all necessary repairs and replacements; and shall maintain sufficient lighting and security.





Site Plan

4. VISUAL OBSERVATIONS & REPAIR RECOMMENDATIONS

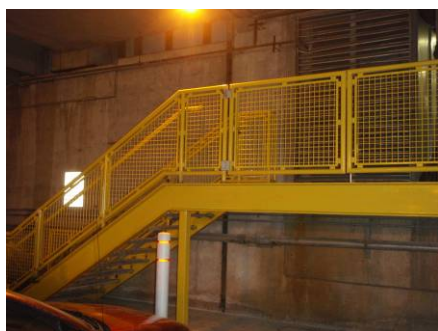


Photo #11

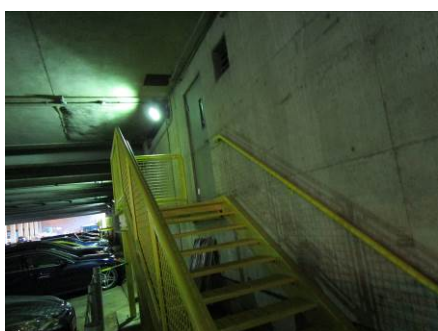


Photo #12

The Under Air Rights Garage Surface Parking Lot (UARG) space should be considered in generally good condition. All of the repair work implemented historically continues to perform well, though some items have been identified as needing attention or improvement as outlined later in this section.

A visual reconnaissance of the UARG space was performed this Fall, late 2018. Since DESMAN's last inspection, there have been only minor changes in the condition of the under-space which might dictate a change in recommended repairs to be implemented over the next five (5) years, and adjustment has been made to accommodate certain work currently in design.

Included as part of DESMAN's recent reconnaissance of the UARG space, DESMAN reviewed previously identified repair work to determine if anything had progressed to the point where adjustments needed to be made to the repair recommendations and associated implementation costs developed historically.

A. MISCELLANEOUS REPAIR & IMPROVEMENT:

1. Installation of New Galvanized Steel Access Stairs:

Mechanical/Electrical Rooms (North Side): In the interest of enhancing safety and for better access, new galvanized, open-grate steel access stairs with extended upper landing were installed outside the boiler room and electrical room (**Photos #10 & #11**), as part of the FY2010 repair program; the new stairs prevent individuals from potentially falling from the current doorway to the parking area below, and provides needed safe access into the boiler room area from the UARG space when needed. Similar on the North Side at the Mechanical/Electrical Rooms, DESMAN had recommended that new galvanized open-grate steel access stairs be installed to provide access as well. This work was originally programmed as part of NHPA Project No. 18-010, but was then incorporated into NHPA Project No. 12-002 recently completed (**Photo #12**).



Photo #13



Photo #14



Photo #15

B. Bituminous Concrete Repair:

1. Bituminous Concrete Pavement Repair

(Photos #13 & #14):

a. Drive Lanes – Travel-Ways (**Common Element**):

Although miscellaneous patching was completed as part of the FY2010 repair program, DESMAN recommends that NHPA budget for the implementation of a limited amount of pavement repair within the drive lanes, over the next 5 years. Considering the increased usage of the UARG by larger-sized trucks and other vehicles accessing the new loading dock area at the 55 Park Street Building, increased wear and tear of the pavement may be observed. This item of work should be reviewed each year as part of the condition assessment program to determine how well the pavement continues to perform and the repair quantities adjusted accordingly. If it becomes appropriate, a more comprehensive pavement replacement project may be programmed accordingly.

b. Parking Areas: Although miscellaneous patching was completed as part of the FY2010 repair program, DESMAN recommends that NHPA budget for the implementation of a limited amount of pavement repair within the parking areas, over the next 5 years. This item of work should be reviewed each year as part of the condition assessment program to determine how well the pavement continues to perform and the repair quantities adjusted accordingly.



Photo #16

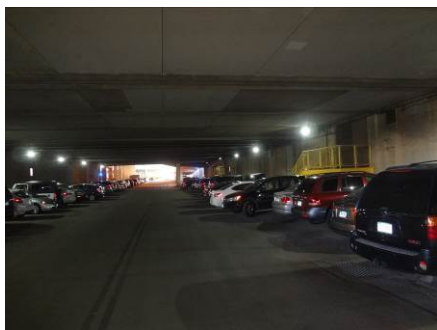


Photo #17

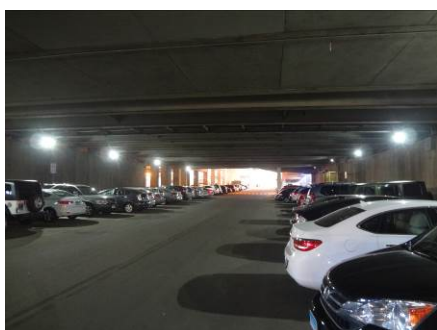


Photo #18

- c. Bituminous Concrete Curbing Repair: Although miscellaneous patching was completed as part of the FY2010 repair program, DESMAN recommends that NHPA budget for the implementation of a limited amount of curbing repair throughout over the next 5 years (**Photo #15**). This item of work should be reviewed each year as part of the condition assessment program to determine how well the curbing continues to perform and the repair quantities adjusted accordingly.

Specifically, a short section of discontinued curb was brought to DESMAN's attention by PNH's Operations, adjacent to the 100 College Street property (**Photo #16**). Due to the lacking curb, the landscaping stone used in this area has a tendency to become displaced, causing a need to continually clean it up. DESMAN had recommended that the curbing be continued to properly contain the stone. This work is included in Project #18-011A, currently entering construction.

- d. Comprehensive Removal and Replacement: Considering the increased usage of the UARG by larger-sized trucks and other vehicles accessing the new loading dock area at the 55 Park Street Building, increased wear and tear of the pavement may be occur to the point of total deterioration, where it may be more cost-effective to remove and replace the pavement in its entirety. This item of work should be reviewed each year as part of the condition assessment program to determine how well the pavement continues to perform, at which point the exact year of implementation of this work may be adjusted accordingly.



While this work is now programmed as part of NHPA Project No. 18-011 A, currently entering construction, DESMAN recommends that NHPA continue to budget for the implementation of a limited amount of pavement repair within the parking areas, over the next 5 years, to be adjusted as required.

C. Electrical and Drainage Repairs:

1. Replace Existing Light Fixtures (under York Street) with New Fixtures (Common Element): NHPA has requested that consideration be had for improving the lighting levels of the fixtures directly below York Street. The soffit of York Street, however, is much lower in this area, providing a challenge to install a fixture that won't be subject to damage by trucks, subsequently prompting NHPA to limit its fixture installation, in the past, to the column-lines **(Photos #17 & #18)**. To improve the light levels, as well as the uniformity, a shallow fixture would need to be considered that would strictly adhere to the clearance requirements to avoid the low spots of the soffit.
2. Replace Existing High Pressure Sodium (HPS) Lighting Fixtures w/ Fixtures having White Lighting Source **(Common Element)**: With the planned removal and replacement of the Air Rights Garage lighting fixtures with LED fixtures soon to be bid, NHPA has requested that the cost of replacing the current HPS fixtures within the UARG space with similar lighting with a white light source be incorporated into the recommended repair program **(Photo #19)**.



Photo #19



Photo #20



Photo #21



Photo #22

This work is now programmed as part of NHPA Project No. 18-003, currently in design, with an opinion of project cost of approximately \$160,950 (DESMAN notes that this cost is the proportion solely allocated to UARG; a separate proportion of cost is also allocated to the Air Rights Parking Garage), including contingencies and design/management fees.

3. Exit Signage: New exit signs were recently installed as part of Project No. 13-013 (**Photo #20**). These signs should be monitored for maintenance and replaced as may be required.
4. Miscellaneous Electrical Repairs (**Common Element**) can be expected over time due to normal wear and tear, such as corroded conduit (**Photo #21**), miscellaneous damaged or failed light fixtures, etc., and these conditions should be monitored. While this work is now programmed as part of NHPA Project No. 18-003, currently in design, with an opinion of project cost of approximately \$160,950 (DESMAN notes that this cost is the proportion solely allocated to UARG; a separate proportion of cost is also allocated to the Air Rights Parking Garage), including contingencies and design/management fees, DESMAN recommends that NHPA continue to budget for the implementation of a limited amount of electrical repair, over the next 5 years, to be adjusted as required.
5. Miscellaneous Drainage Repair (**Common Element**): While miscellaneous drainage repairs are being addressed as part of NHPA Project No. 18-011 A, currently entering construction, DESMAN recommends that NHPA continue to budget for the implementation of a limited amount of drainage repair, over the next 5 years, to be adjusted as required (**Photo #22**).
6. On several occasions during high intensity rain storms, the City storm water drainage system and WPCA sanitary sewer system (including combined overflow system) have overflowed and caused resultant flooding of the Route 34 Connector and the UARG area. The primary drainage lines



Photo #23

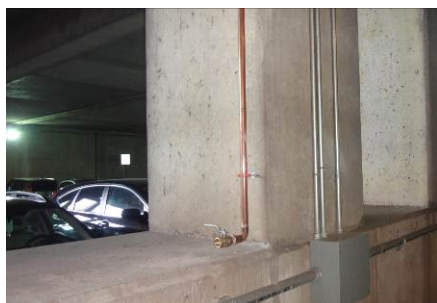


Photo #24

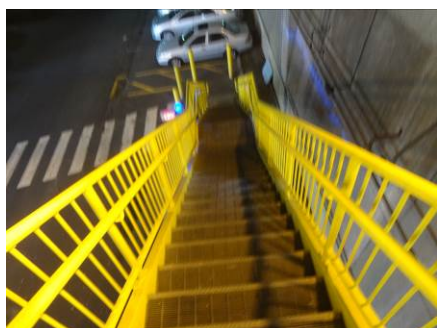


Photo #25

serving the area are in the Route 34 corridor. During major rain storm events, the rain water drainage volume exceeds the capacity of the system causing back-ups and flooding. The flooding is a combination of three factors: an inadequate storm water drainage system serving the area, storm drainage water that enters the sanitary sewer system and overflows into combined pipes, and backups caused in the storm water drainage system due to tidal fluctuations in Long Island Sound, which reduces the capacity of the pipes at the discharge. Some storm water drainage system improvements may have been afforded by the new construction of the 100 College and Downtown Crossing projects. A long term, capital-intensive solution is described in the City-commissioned report entitled “Drainage Study for Route 34 and Union Avenue” prepared by Cardinal Engineering Associates and dated July 11, 2012. Additionally, we understand that the City continues to investigate the drainage in this area.

A short term, low cost solution presently in effect is to monitor weather conditions and relocate affected patrons when a threat of flooding is possible. The long-term solution is for the City and WPCA to implement an enhanced drainage system.

7. NHPA had requested that the washdown system, currently installed to serve the Air Rights Parking Garage above, have its risers extended down into the UARG to provide access for cleaning of the UARG space. Extension of the system has recently been completed as part of Project no. 13-002 (**Photos #23 & #24**). This piping should be monitored for maintenance and repaired as may be required.
8. Surcharge involving the drain lines that pass through the Dunkin Donuts space (on street level) had prompted DESMAN to consider the condition of the outflow storm drain lines beyond the sand/oil separators. DESMAN further noted that construction had been in progress at the adjacent 100 College Street site. DESMAN, therefore, recommended that NHPA monitor the magnitude of dirt and debris and that



Photo #26



Photo #27

may be created and its potential impact on the drainage system, specifically the lower levels to the sand/oil separators and related outflow. With new drain lines having been created and existing ones extended through the construction site by others, as well as ownership responsibilities for maintenance potentially being adjusted, DESMAN had recommended that NHPA prepare a survey to confirm and document existing conditions, as well as a video inspection of the outflow lines beyond the sand/oil separators to verify their condition; the report has now been completed as part of Project No. 16-011. Preliminary recommendations included the following:

- Installation of 10-inch tee on oil & sand separator active outlet pipes.
- Installation of 10-inch Fernco style cap to abandon the two west outlets from the northwest and southwest (#1 & #2) oil & sand separators.
- Repair/replacement of approximately 24-foot section of 10-inch metal outlet pipe from the northwest (#1) oil & sand separator.
- Raising of the existing drainage manhole MH#1 frame and cover to match surrounding grade.
- Replacement of the existing catch basin CB #6 deteriorated frame and grate with a new Type 'CL' catch basin top.
- Performance of a regularly scheduled video inspection of the 15-inch RCP connecting the CB #7 and CB #8 every 5 years.

This work is now programmed as part of NHPA Project No. 18-011 A, currently entering construction.

9. Per agreement with Connecticut Mental Health Center, NHPA will provide for (4) electric vehicle charging stations in UARG. This work is being planned as part of Project No. 20-035 and is currently in the pre-design phase.

D. Miscellaneous Work:

1. Parking Stall & Lane Striping:

- a. Drive Lanes - Travel –Ways (**Common Element**): The condition of the UARG space parking stall and lane striping was identified as being in fair condition. The level of usage will dictate when and if the striping will need to be re-applied in all areas. Currently it is anticipated that striping work will need to be performed approximately every two years. Since the cost for re-application of traffic markings has been considered minor, the work has not been specifically programmed.
- b. Parking Areas: (Reference Item D.1.a) – Since the cost for re-application of traffic markings has been considered minor, the work has not been specifically programmed.

2. Painting Pedestrian Access Stairs (Strip, Prime & Paint):

- a. Stairs to South Frontage Road (**Common Element**): The current condition of the pedestrian access stairs had been unsightly and would have benefitted aesthetically with extending its life from repainting (**Photos #25, #26 & #27**). Pre-existing finishes should be thoroughly removed and galvanized surfaces properly prepared and primed to receive an epoxy based industrial paint coating and polyurethane finish coat with a gloss or semi-gloss finished appearance. Gloss or semi-gloss finishes are typically easier to clean and maintain. Painting of the stairs has recently been completed as part of Project no. 13-002.
- b. Center Stairs (**Common Element**): (Reference Item D.2.a) – Painting of the stairs has recently been completed as part of Project no. 13-002 (**Photo #28**).

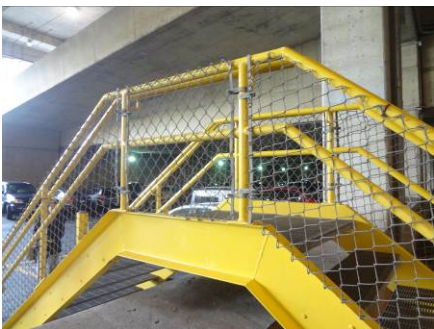


Photo #28



Photo #29

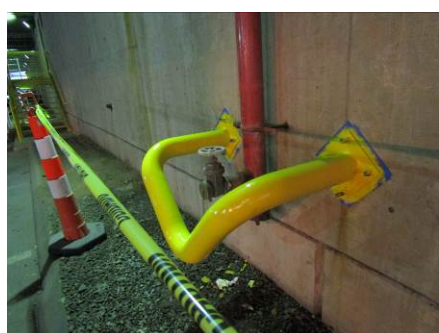
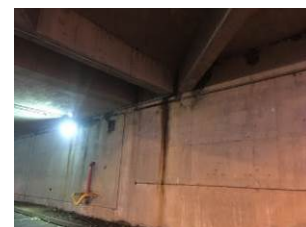
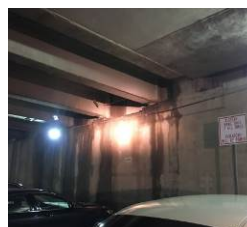
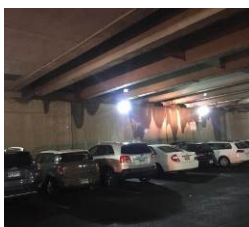


Photo #30

3. Painting of Standpipe Guards: the paint finish on the guards at the fire standpipe connections had been exhibiting wear and tear (**Photo #29**). Painting of the guards has recently been completed as part of Project no. 12-002 (**Photo #30**).
4. Miscellaneous Work Allowance (**Common Element**): The work covered within this item is related to coordination work required in implementing various immediate and/or programmed repairs within the UARG space. The cost of this shared element is based upon on a prorated share of costs of the other shared elements as outlined within the estimated cost for implementation. Below is a brief description of the various items of work envisioned as being included within this line item of work. This work is listed as both an early and programmed repair item.
 - a. Cleaning Floor Drains/Catch-Basins: Accumulations of sand and debris carried into the floor drains/catch-basins can clog drains and associated subsurface piping necessitate periodic cleaning.
 - b. Site coordination and protection of work areas during implementation of repairs.
5. Mobilization/Demobilization (**Common Element**): The work covered within this item is related to a Contractor's mobilization and demobilization onto the work site. The cost of this shared element is based upon on a prorated share of costs of the other shared elements as outlined within the estimated cost for implementation. This work is listed as both an immediate and programmed repair item.

- E. In the process of **DESMAN** performing its annual condition appraisals of the Under Air Rights Garage Surface Lot, we noted the apparent failed condition of the expansion joints through York Street, which passes through the Air Rights Parking Garage and over the Lot; see photos below. These joints were observed allowing water to pass through the joint openings, thus reaching the structure below. This moisture, if left unchecked and managed, will contribute to deterioration of the concrete structure and asphalt below. Since we understand that the maintenance and repair of York Street is the responsibility of the City of New Haven, we recommended that Park New Haven inform the City of the suggested maintenance and repair so as to prevent further deterioration to the Surface Lot. NHPA has notified the City of this condition.



In summary, DESMAN recommends that the above outlined repair and preventative maintenance program be implemented to assure the continued safe usage and long-term performance of the UARG space parking area.

5. PRIORITIZED REPAIR PROGRAMS & ESTIMATED COSTS

A repair and preventive maintenance program has been developed to assure the long-term durability of the Under Air Rights Garage Surface Parking Lot space. The repairs required have been prioritized into three courses of action:

- Prioritized Repairs (FY 2021)
- Early Repairs (FY 2022)
- Programmed Repairs (FY 2023)
- Long-Term Repairs (FY 2024 – FY 2025)

Below is a summary of the opinion of construction cost for each category.

RECOMMENDED REPAIR PROGRAM	OPINION OF CONSTRUCTION COST
Prioritized Repairs (FY 2021)	\$0.00
Early Repairs (FY 2022)	\$0.00
Programmed Repairs (FY 2023)	\$0.00
Long-Term Repairs (FY 2024 – 2025)	\$100,050.00
TOTAL OPINION OF COST	\$100,050.00

A detailed cost estimate is provided in the table on the following page, entitled "Projected Five Year Construction Costs."

The construction costs are based on current prices in the New Haven area for labor, equipment and materials. The estimated construction costs also include a 20% contingency factor to account for uncertainties in the restoration market at the time of bidding, and a preliminary design, construction management fee and program management fee estimated at 25% of total construction cost has been provided for budgeting purpose.



Table 1
Under Air Rights Garage
Projected Five Year Construction Costs
(FY 2020)

Work Description		Prioritized Repairs (FY 2021)	Early Repairs (FY 2022)	Programmed Repairs (FY 2023)	Long-Term Repairs (FY 2024 - FY 2025)
A. Miscellaneous Repair & Improvement:					
1.	Installation of New Galvanized Steel Access Stairs- Mech/Elec Room (North Side)	\$ -	\$ -	\$ -	\$ -
2.	Painting of Standpipe Guards	\$ -	\$ -	\$ -	\$ -
B. Bituminous Concrete Repair:					
1.	Bituminous Concrete Pavement Repair				
a.	Drive Lanes - Travel -Ways	\$ -	\$ -	\$ -	\$ 1,000.00
b.	Parking Areas	\$ -	\$ -	\$ -	\$ 1,000.00
2.	Bituminous Concrete Curbing Repair	\$ -	\$ -	\$ -	\$ 3,000.00
C. Mechanical & Electrical Repair:					
1.	Replace Existing Lighting (below York Street) with New LED Lighting	\$ -	\$ -	\$ -	\$ -
2.	Replace Existing HPS Lighting w/ New LED Lighting	\$ -	\$ -	\$ -	\$ -
3.	Miscellaneous Electrical Repair Allowance	\$ -	\$ -	\$ -	\$ -
4.	Miscellaneous Drainage Repair Allowance	\$ -	\$ -	\$ -	\$ 4,000.00
5.	Misc. Repairs/Improvements to Drainage System (related to 16-011; allocated)	\$ -	\$ -	\$ -	\$ 1,000.00
D. Revenue Control Equipment Renewal & Replacement					
1	Study for the Replacement of the Revenue Control Equipment	\$ -	\$ -	\$ -	\$ 3,000.00
2	Replacement of the Revenue Control Equipment	\$ -	\$ -	\$ -	\$ 56,000.00
Sub-Total		\$0.00	\$0.00	\$0.00	\$69,000.00
20% Contingencies (Except Depicted Otherwise)		\$0.00	\$0.00	\$0.00	\$13,800.00
25% Engr. & Construction Management, incl. Program Management (Unless D		\$0.00	\$0.00	\$0.00	\$17,250.00
Total Phased Construction Costs with contingencies:		\$0.00	\$0.00	\$0.00	\$100,050.00
TOTAL Construction Cost with Contingencies:					\$100,050.00

Note 1: Costs Presented do not Include Typical Operational & Maintenance Costs Except as Noted

Note 2: Costs include a 15% allowance for General & Special Conditions.

Note 3: Future costs incorporate a cumulative 5% inflation for all costs, to be adjusted annually



Table 2
Under Air Rights Garage
Projected Five Year Construction Costs
(Showing Shared Costs for Repairs to Common Elements)
(FY 2020)

Description		Prioritized Repairs (FY 2021)		Early Repairs (FY 2022)		Programmed Repairs (FY 2023)		Long-Term Repairs (FY 2024-FY2025)	
		NHPA	YNHH	NHPA	YNHH	NHPA	YNHH	NHPA	YNHH
		Common Elements Shared Costs	Common Elements Shared Costs	Common Elements Shared Costs	Common Elements Shared Costs	Common Elements Shared Costs	Common Elements Shared Costs	Common Elements Shared Costs	Common Elements Shared Costs
A. Miscellaneous Repair & Improvement:									
1.	Installation of New Galvanized Steel Access Stairs- Mech/Elec Room (North Side):	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2.	Painting of Standpipe Guards	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
B. Bituminous Concrete Repair:									
1.	Bituminous Concrete Pavement Repair								
	a. Drive Lanes - Travel -Ways	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$500.00	\$500.00
	b. Parking Areas	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00
2.	Bituminous Concrete Curbing Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00
C. Electrical Repair:									
1.	Replace Existing Lighting (below York Street) with New LED Lighting	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2.	Replace Existing HPS Lighting w/ New LED Lighting	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3.	Miscellaneous Electrical Repair Allowance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4.	Miscellaneous Drainage Repair Allowance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,150.00	\$850.00
5.	Misc. Repairs/Improvements to Drainage System (related to 16-011; allocated)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$787.50	\$212.50
D. Revenue Control Equipment Renewal & Replacement									
1	Study for the Replacement of the Revenue Control Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00
2	Replacement of the Revenue Control Equipment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$56,000.00	\$0.00
Sub-Total		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$67,437.50	\$1,562.50
20% Contingencies (Except Depicted Otherwise)		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13,487.50	\$312.50
25% Engr. & Construction Management, incl. Program Management (Unless Depicted Otherwise)		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$16,859.38	\$390.63
Total Repair & Replacement Cost:									
		\$100,050.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$97,784.38	\$2,265.63

Note 1: Costs Presented do not Include Typical Operational & Maintenance Costs Except as Noted

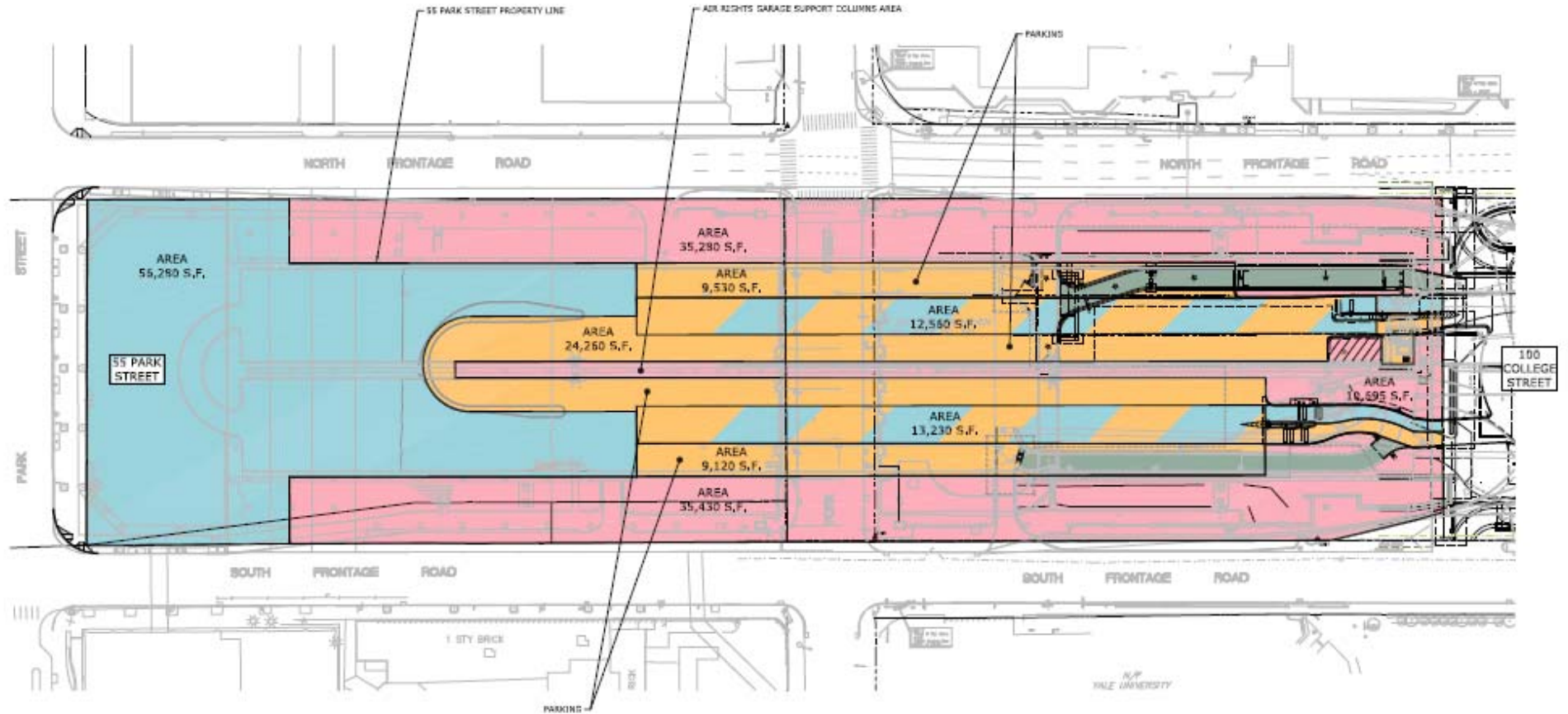
Note 2: Costs include a 15% allowance for General & Special Conditions.

Note 3: Future costs incorporate a cumulative 5% inflation for all costs, to be adjusted annually



**6. APPENDIX A – TIGHE & BOND, UNDER AIR RIGHTS GARAGE
LAND USE PLAN, FIGURE 01, DECEMBER 2015**



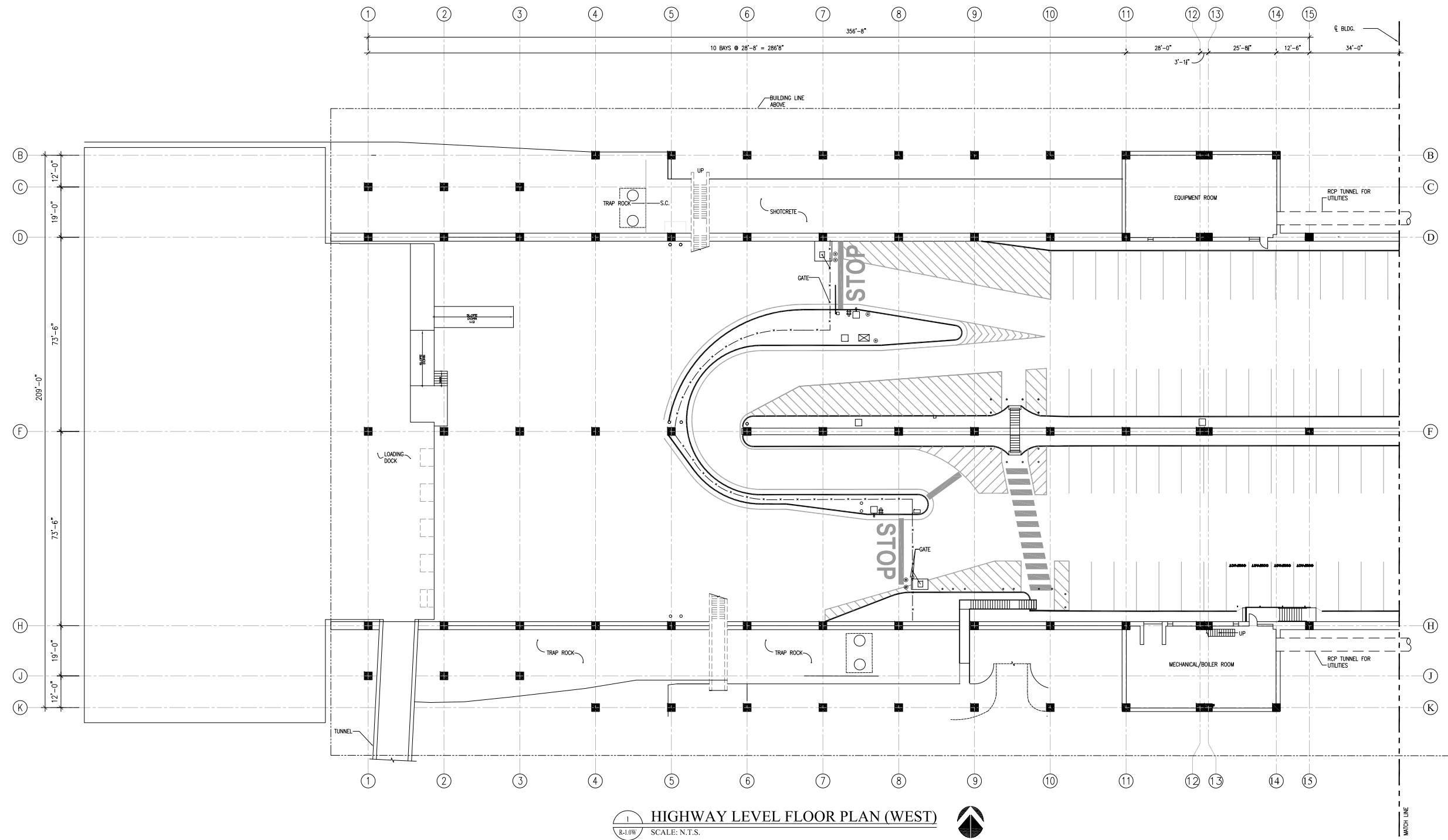


LEGEND

- ARS/Non-Usable UARG Space
- Parking/Access Aisles
- UARG Shared Use Travel Lanes
- 55 Park Street Property

7. APPENDIX B – SCHEMATIC FLOOR PLANS





CONDITION APPRAISAL, YEAR 2020
NHPA PROJECT #20-001

NEW HAVEN

No.	DATE	BY
REVISIONS		
DRAWING TITLE HIGHWAY LEVEL FLOOR PLAN (WEST)		
DRAWING NO. R-1.0W		
SCALE: NTS		
DATE: APRIL 2020		
PROJECT NO. 20-19171.00-2		
NHPA NO. 20-001		
DESIGN KDS	DRAWN KDS	CH'KD. KDS